



BOARD OF TRUSTEES

Regular Meeting

February 28, 2018

7:00 p.m.

1. CALL MEETING TO ORDER
2. PLEDGE OF ALLEGIANCE
3. ROLL CALL
4. APPROVAL OF AGENDA
5. PRESENTATIONS
 1. Chippewa River District Library (Ruth Helwig & Lynn Laskowsky)
 2. Planning Commission Updates – Bryan Mielke
6. CLOSED SESSION
7. PUBLIC HEARINGS
8. PUBLIC COMMENT: Restricted to three minutes regarding issues on this agenda
9. REPORTS/BOARD COMMENTS
 - A. Current List of Boards and Commissions – Appointments as needed
 1. Board Appointed Representative to the Planning Commission
10. CONSENT AGENDA
 - A. Communications
 - B. Minutes – February 12, 2018- regular meeting
 - C. Accounts Payable
 - D. Payroll
 - E. Meeting Pay
 - F. Fire Reports
 - G. Policy Governance 2.5.10 Cash Flow Ratio
11. NEW BUSINESS
 - A. Discussion/Action: (Gallinat) Adopt 2018 Master Plan by Resolution as approved and recommended by the Planning Commission
 - B. Discussion/ Action: (DePriest) Board Resolution to allow a resident taxpayer to protest his/her property assessment to the Board of Review in writing without a personal appearance by the taxpayer or his agent
 - C. Discussion/Action: (Stuhldreher) Approve 2018 Township Brine Participation Contract with the Isabella County Road Commission (ICRC) and authorize Township Manager to sign said contract
12. EXTENDED PUBLIC COMMENT: Restricted to 5 minutes regarding any issue
13. MANAGER COMMENTS
14. FINAL BOARD MEMBER COMMENT
15. ADJOURNMENT

Board Expiration Dates

Planning Commission Board Members (9 Members) 3 year term			
#	F Name	L Name	Expiration Date
1-BOT Representative			11/20/2020
2-Chair	Phil	Squattrito	2/15/2020
3- Vice Chair	Bryan	Mielke	2/15/2021
4-Secretary	Alex	Fuller	2/15/2020
5	Stan	Shingles	2/15/2021
6	Ryan	Buckley	2/15/2019
7	Denise	Webster	2/15/2020
8	Mike	Darin	2/15/2019
9	Doug	LaBelle II	2/15/2019
Zoning Board of Appeals Members (5 Members, 2 Alternates) 3 year term			
#	F Name	L Name	Expiration Date
1-Chair	Tim	Warner	12/31/2019
2-PC Rep / Vice Chair	Bryan	Mielke	2/18/2018
3-Vice Secretary	Jake	Hunter	12/31/2019
4	Andy	Theisen	12/31/2019
5	Paul	Gross	12/31/2018
Alt. #1	John	Zerbe	12/31/2019
Alt. #2	Taylor	Sheahan-Stahl	2/15/2021
Board of Review (3 Members) 2 year term			
#	F Name	L Name	Expiration Date
1	Doug	LaBelle II	12/31/2018
2	James	Thering	12/31/2018
3	Bryan	Neyer	12/31/2018
Alt #1	Mary Beth	Orr	1/25/2019
Citizens Task Force on Sustainability (4 Members) 2 year term			
#	F Name	L Name	Expiration Date
1	Laura	Coffee	12/31/2018
2	Mike	Lyon	12/31/2018
3	Jay	Kahn	12/31/2018
4	Phil	Mikus	11/20/2020
Construction Board of Appeals (3 Members) 2 year term			
#	F Name	L Name	Expiration Date
1	Colin	Herron	12/31/2019
2	Richard	Klumpp	12/31/2019
3	Andy	Theisen	12/31/2019
Hannah's Bark Park Advisory Board (2 Members from Township) 2 year term			
1	Mark	Stuhldreher	12/31/2018
2	John	Dinse	12/31/2019
Chippewa River District Library Board 4 year term			
1	Ruth	Helwig	12/31/2019
2	Lynn	Laskowsky	12/31/2021



Board Expiration Dates

EDA Board Members (11 Members) 4 year term			
#	F Name	L Name	Expiration Date
1	Thomas	Kequom	4/14/2019
2	James	Zalud	4/14/2019
3	Richard	Barz	2/13/2021
4	Robert	Bacon	1/13/2019
5	Ben	Gunning	11/20/2020
6	Marty	Figg	6/22/2018
7	Sarvjit	Chowdhary	1/20/2022
8	Cheryl	Hunter	6/22/2019
9	Vance	Johnson	2/13/2021
10	Michael	Smith	2/13/2021
11	Mark	Perry	3/26/2018
Mid Michigan Area Cable Consortium (2 Members)			
#	F Name	L Name	Expiration Date
1	Kim	Smith	12/31/2020
2	Vacant		
Cultural and Recreational Commission (1 seat from Township) 3 year term			
#	F Name	L Name	Expiration Date
1	Brian	Smith	12/31/2019
Sidewalks and Pathways Prioritization Committee (2 year term)			
#	F Name	L Name	Expiration Date
1 BOT Representative	Phil	Mikus	7/26/2019
2 PC Representative	Denise	Webster	8/15/2018
3 Township Resident	Sherrie	Teall	8/15/2019
4 Township Resident	Jeremy	MacDonald	10/17/2018
5 Member at large	Barbara	Anderson	8/15/2019

2017 CHARTER TOWNSHIP OF UNION
Board of Trustees
Regular Meeting

A regular meeting of the Charter Township of Union Board of Trustees was held on February 14, 2018 at 7:00 p.m. at Union Township Hall.

Meeting was called to order at 7:00 p.m.

Roll Call

Present: Supervisor Gunning, Clerk Cody, Treasurer Rice, Trustees B. Hauck, Mikus, Lannen and Woerle

Approval of Agenda

Cody moved **Rice** supported to approve the agenda as presented. **Vote: Ayes: 7 Nays: 0.**
Motion carried.

Presentations

Mid Michigan Community College presentation by Dr. Scott Mertes and Dr. Matt Miller
Sheriff Main updates from the Isabella County Sheriff Department

Public Hearings

Public Comment - open 7:21 p.m.

Doug LaBelle II, 955 Meadowbrook – Commented on his nomination to the Planning Commission.

Bill Whitehead, 1474 E. Broomfield - Shared his interest to serve on the Planning Commission.

Reports/Board Comments

Mikus –Sidewalk/Pathway Prioritization Committee updates.

Cody – Mt. Pleasant City Commission no new reports.

Hauck – Reported on updates and safety issues from the Isabella County Road Commission.

Lannen – Isabella County Board of Commissioners updates and Isabella County Road Commission annual meeting update.

Rice – Commented that she would be sending out reminders on any outstanding 2017 taxes that are not paid by the 2/14/18 due date. The Township will collect 2017 taxes until February 28, 2018.

Gunning – Nominations were made for Board Appointments to the Planning Commission, ZBA, and EDA

- **Woerle** moved **Rice** supported Supervisor Gunning's nomination to appoint Bryan Mielke to the Planning commission with term expiring 2/15/21. **Vote: Ayes: 6 Nays: 1.**
Motion carried.
- **Woerle** moved **Cody** supported Supervisor Gunning's nomination to appoint Stan Shingles to the Planning commission with term expiring 2/15/21. **Vote: Ayes: 6 Nays: 1.**
Motion carried.

- **Hauck** moved **Cody** supported Supervisor Gunning's nomination to appoint Mike Darin to the Planning commission with term expiring 2/15/19. **Vote: Ayes: 7 Nays: 0. Motion carried.**
- **Cody** moved **Rice** supported Supervisor Gunning's nomination to appoint Doug LaBelle Jr. to the Planning Commission with term expiring 2/15/19. **Vote: Ayes: 6 Nays: 0. Motion carried. (Recusal by Trustee Hauck due to conflict of Interest).**
- **Woerle** moved **Hauck** supported Supervisor Gunning's nomination to appoint Andy Theisen to the ZBA with term expiring 2/31/19. **Vote: Ayes: 7 Nays: 0. Motion carried.**
- **Woerle** moved **Hauck** supported Supervisor Gunning's nomination to appoint Andy Theisen to the ZBA with term expiring 2/31/19. **Vote: Ayes: 7 Nays: 0. Motion carried.**
- **Hauck** moved **Woerle** supported Supervisor Gunning's nomination to appoint John Zerbe to the ZBA alternate #1 with term expiring 2/31/19. **Vote: Ayes: 7 Nays: 0. Motion carried.**
- **Woerle** moved **Hauck** supported Supervisor Gunning's nomination to appoint Taylor Sheahan-Stahl to the ZBA as alternate #2 with term expiring 2/15/21. **Vote: Ayes: 7 Nays: 0. Motion carried.**
- **Lannen** moved **Cody** supported Supervisor Gunning's nomination to appoint Chowdhary to the EDA with term expiring 1/20/22. **Vote: Ayes: 7 Nays: 0. Motion carried.**

Consent Agenda

- A. Communications
- B. Minutes January 24, 2018 – Regular Meeting
- C. Accounts Payable
- D. Payroll
- E. Meeting Pay
- F. Fire Reports

Rice moved **Cody** supported to approve the consent agenda as presented. **Vote: Ayes: 7 Nays: 0. Motion carried.**

BOARD AGENDA

- A. **Service Agreement with ServiceMaster to perform custodial services in Township facilities for 3(three) years and authorize the Township Manager to execute the requisite documents**

Lannen moved **Woerle** supported the approval of a Service Agreement with ServiceMaster to perform custodial services in Township facilities for 3 (three) years and authorize the Township Manager to execute the requisite documents. **Vote: Ayes: 7 Nays: 0. Motion carried.**

- B. **Introduce Rezoning Ordinance 2018-01(N. Harris / Crawford Rd. PID 14-010-30-003-03) and conduct first reading. Vote to publish public hearing for adoption of Ordinance 2018-01 on 3/13/18 as recommended by the Planning Commission**

Woerle moved **Cody** supported the introduction of rezoning ordinance 2018-01 and first reading and approved to publish a notice of public hearing for adoption of Rezoning Ordinance 2018-01 on 3/13/2018 as recommended by the Planning Commission. **Roll Call Vote: Ayes: Gunning, Rice, Cody, Hauck, Lannen, Mikus, and Woerle. Nays: 0. Motion carried.**

C. Approval of the 2018 Poverty Exemption Application and Guidelines used by the Board of Review when considering property tax exemption requests

Lannen moved **Cody** supported to approve the 2018 Poverty Exemption Application and Guidelines use by the Board of Review when considering property tax exemption requests. **Roll Call Vote: Ayes: Gunning, Rice, Cody, Hauck, Lannen, Mikus, and Woerle. Nays: 0. Motion carried.**

D. Approval of bid from Peerless Midwest for replacement of pitless adapter and 2018 budgeted well maintenance at the Mission Road Well Site – Well #9

Cody moved **Woerle** supported to approve the bid from Peerless Midwest in the amount of \$39,021.68, for replacement of pitless adapter 2018 budgeted well at the Mission Road Well Site – Well #9. **Vote: Ayes: 7 Nays: 0. Motion carried.**

E. Policy Governance 3.1 Cost of Governance

Discussion by the Board.

EXTENDED PUBLIC COMMENT - Open 8:52 p.m.

Roger Hauck, Michigan 99th State Representative – commented that a traffic study by MDOT must be done on Isabella / M20 for the consideration of a left turn signal.

MANAGER COMMENTS

- Water Study (Township/City) updates.
- Assessment notices will be mailed out next week.
- Administration will draft thank you letters acknowledging expired members for their service to Township Boards and Commissions.
- Community Pool meeting held at the Commission on Aging on 2/19/18, 6pm – 8pm.
- Reported that staff will be attending the Policy Governance Boot Camp held April 26-27, 2018.
- Global Ends discussion will be a special meeting prior to a Board Meeting, an email to follow to set date.
- Commented that a court filing has been made by Lux Family Properties, LLC.

FINAL BOARD MEMBER COMMENTS

Woerle – Commented on the goals conversation he missed from the prior meeting, expressing the need for zoning enforcement, installing more sidewalks (Isabella/Bluegrass), and asked about the master plan.

Hauck – Fish fry starts Friday at Sacred Heart for the next seven weeks. Made a comment on deciding who will represent the Board of Trustees on the Planning Commission.

Mikus – Commented on the Board naming a representative to the Planning Commission.

ADJOURNMENT

Rice moved **Woerle** supported to adjourn the meeting at 9:15 p.m. **Vote: Ayes: 7 Nays: 0.**
Motion carried.

APPROVED BY:

Lisa Cody, Clerk

Ben Gunning, Supervisor

(Recorded by Jennifer Loveberry)

Check Date	Bank	Check	Vendor	Vendor Name	Description	Amount
Bank 101 POOLED CHECKING						
02/15/2018	101	19965	00722	CHARTER TOWNSHIP OF UNION	DRAIN ASSESSMENT	3.67
					DRAIN ASSESSMENT	1.26
					DRAIN ASSESSMENT	161.11
						166.04
02/28/2018	101	19966	01358	21ST CENTURY MEDIA-MICHIGAN	BOT - MEETING NOTICES	338.71
					CLASSIFIED AD FOR UTILITY LABORER HELP	337.00
						675.71
02/28/2018	101	19967	00084	B S & A SOFTWARE	ASSESSING .NET TRAINING	850.00
02/28/2018	101	19968	00072	BLOCK ELECTRIC	REPLACE FLAG ROP - TWP HALL	45.00
02/28/2018	101	19969	01240	BRAUN KENDRICK FINKBEINER PLC	GEN LEGAL FEES - JAN 2018	2,100.00
02/28/2018	101	19970	00095	C & C ENTERPRISES, INC.	JANITORIAL SUPPLIES - WWTP	90.50
					CLOTHING ALLOWANCE - LOVEBERRY	100.00
					BATHROOM SUPPLIES-WWTP	121.00
						311.50
02/28/2018	101	19971	01528	CENTRAL MICHIGAN SURVEYING & DEV	M-20 CROSSING/MDOT PERMIT-WATER	690.00
02/28/2018	101	19972	00129	CMS INTERNET, LLC	MANAGED IT, EMAIL & PHONE SERVICE-FEB 20	4,939.75
					INSTALLED NEW UPS @ MERIDIAN WELL SITE	1,815.98
						6,755.73
02/28/2018	101	19973	00155	COYNE OIL CORPORATION	GAS & FUEL	575.44
02/28/2018	101	19974	01186	COYNE PROPANE LLC	PROPANE - WWTP	1,383.05
02/28/2018	101	19975	01242	CULLIGAN WATER	WATER - WWTP JAN 2018	7.50
02/28/2018	101	19976	01171	DBI BUSINESS INTERIORS	TONER - WATER OFFICE	147.98
02/28/2018	101	19977	00176	PATRICIA DEPRIEST	MILEAGE TO MAA & BOR TRAINING/CLASS FEES	117.03
					MAA MEETING-LANSING	31.03
						148.06
02/28/2018	101	19978	00201	ELHORN ENGINEERING COMPANY	BULK CHLORINE	4,354.00
02/28/2018	101	19979	01426	ENVIRONMENTAL RESOURCE ASSOCIATES	WATER SAMPLES/LAB SUPPLIES	313.73
02/28/2018	101	19980	01219	ERC ASSOCIATES, LLC	CATIONIC POLYMER FOR WWTP	6,750.00
02/28/2018	101	19981	00209	ETNA SUPPLY COMPANY	LEXINGTON RIDGE PHASE II WTR METER	1,805.00
					3/4" METER 1,000 GAL	2,080.00
						3,885.00
02/28/2018	101	19982	01353	EVOQUA WATER TECHNOLOGIES LLC	BIOXIDE/ODOR CONTROL	899.70
02/28/2018	101	19983	00257	GOURDIE-FRASER, INC.	M20 BORE & JACK INSPECTIONS	1,680.00
02/28/2018	101	19984	00261	GRAINGER	VACUUM PUMP 3/4HP	888.10
02/28/2018	101	19985	00324	ISABELLA CORPORATION	8" TAP FOR MENARDS FIRE LANE	4,950.00
					WATER SERVICE TO MCGUIRK SHOP	17,500.00
						22,450.00
02/28/2018	101	19986	00337	ISABELLA COUNTY TREASURER	DEC BOARD OF REVIEW TAX REFUNDS	116.02
					2009 WWTP BOND PAYMENT	29,123.75
					2010 WATER GO BOND PAYMENT	30,246.25

02/21/2018 01:39 PM
User: SHERRIE
DB: Union

CHECK REGISTER FOR CHARTER TOWNSHIP OF UNION
CHECK DATE FROM 02/15/2018 - 02/28/2018

Page: 2/2

Check Date	Bank	Check	Vendor	Vendor Name	Description	Amount
						59,486.02
02/28/2018	101	19987	00347	JOHNSON DOOR & CENTRAL VAC SYS, INC	CORD REELS - ISABELLA WELL SITE	500.00
02/28/2018	101	19988	01506	MCKENNA ASSOCIATES	BLDG OFFICIAL & INSP SERV-JAN 2018	10,560.00
02/28/2018	101	19989	01356	MCLAREN CENTRAL MICHIGAN	CONSORTIUM FEE 2ND/3RD Q 2017	255.00
02/28/2018	101	19990	01538	MICHIGAN MUNICIPAL EXECUTIVES	MME DUES-STUHLDTREHER	130.00
02/28/2018	101	19991	00422	MICHIGAN PIPE & VALVE	REPAIR ON SCULLY	57.00
02/28/2018	101	19992	00907	MID MICHIGAN CABLE CONSORTIUM	FRANCHISE FEE 4TH Q 2017	13,283.15
02/28/2018	101	19993	00739	THE MORNING SUN	ANNUAL MORNING SUN SUBSCRIPTION	481.00
02/28/2018	101	19994	00494	NORTH CENTRAL LABORATORIES	THERMISTOR FOR A-56210	408.24
02/28/2018	101	19995	00544	PUMMILL PROMARK	POSTCARDS FOR WTR/SWR BILLS	429.25
02/28/2018	101	19996	00569	ROWE PROFESSIONAL SERVICES COMPANY	CONNECTOR PATHWAY SUPPORT-JAN 2018	287.50
					SIDEWALK COMMITTEE SUPPORT-JAN 2018	402.50
						<u>690.00</u>
02/28/2018	101	19997	01542	SHRED-IT US JV LLC	PAPER SHREDDING 1-17-18	66.60
02/28/2018	101	19998	01480	STATE OF MICHIGAN-DEQ	STORMWATER ANNUAL PERMIT FEE 2018	260.00
02/28/2018	101	19999	01364	SHERRIE TEALL	MCAT TRAINING EXPENSE REIMBURSEMENT	418.67
					MGFOA ACCOUNTING STANDARDS COMMITTEE MEE	137.92
						<u>556.59</u>
02/28/2018	101	20000	01371	TRACKER SOFTWARE CORPORATION INC	PUBWORKS ANNUAL SUPPORT AND MAINT - 2018	2,036.00
02/28/2018	101	20001	01013	USA BLUE BOOK	MATS FOR TWNSHIP HALL FRONT LOBBY	203.90
02/28/2018	101	20002	01257	JOSH WALDRON	CLOTHING ALLOWANCE REIMBURSEMENT	100.00
02/28/2018	101	20003	00703	WASTE MANAGEMENT OF MICHIGAN, INC	DUMPSTER SERVICE - JAMESON PARK	121.15
					DUMPSTER SERVICE - SHOP	47.93
					DUMPSTER SERVICE - ISABELLA	73.60
						<u>242.68</u>
02/28/2018	101	20004	00710	WEBB CHEMICAL SERVICE	FERRIC CHLORIDE	4,945.96
02/28/2018	101	20005	00723	WINN TELECOM	PHONE SERVICE 2/15/18-3/14/18	165.12
						<u><u>165.12</u></u>
101 TOTALS:						
Total of 41 Checks:						149,933.05
Less 0 Void Checks:						0.00
						<u>149,933.05</u>
Total of 41 Disbursements:						

<p align="center">Charter Township of Union</p> <p align="center">Payroll</p>

CHECK DATE: February 8, 2018

PPE: February 3, 2018

NOTE: CHECK TOTAL FOR TRANSFER

Gross Payroll	\$ 47,908.13
Employer Share Med	666.26
Employer Share SS	2,848.72
SUI	1,897.52
Pension-Employer Portion	3,172.06
Workers' Comp	534.17
Life/LTD	449.07
Dental	902.25
Health Care	14,358.06
Health Care Contribution	(1,303.71)
Cobra/Flex Administration	133.40
PCORI Fee	-
Total Transfer to Payroll Checking	\$ 71,565.93

NOTE: PAYROLL TRANSFER NEEDED

General Fund	\$ 25,684.40
EDDA	-
WDDA	-
Sewer Fund	25,027.94
Water Fund	20,853.59
Total To Transfer from Pooled Savings	\$ 71,565.93

<p style="text-align: center;">Charter Township of Union Payroll</p>
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CHECK DATE: February 22, 2018

PPE: February 17, 2018

NOTE: CHECK TOTAL FOR TRANSFER

Gross Payroll	\$ 48,885.56
Employer Share Med	705.87
Employer Share SS	3,018.24
SUI	1,280.62
Pension-Employer Portion	3,269.13
Workers' Comp	558.22
Life/LTD	-
Dental	902.25
Health Care	14,624.10
Health Care Contribution	-
Cobra/Flex Administration	-
PCORI Fee	-
Total Transfer to Payroll Checking	\$ 73,243.99

NOTE: PAYROLL TRANSFER NEEDED

General Fund	\$ 26,065.70
EDDA	
WDDA	
Sewer Fund	24,355.53
Water Fund	22,822.76
Total To Transfer from Pooled Savings	\$ 73,243.99

CHARTER TOWNSHIP OF UNION
MEETING PAY REQUEST FORM
2017 2018

BOARD MEMBER: Tim LANNEN

MONTH: January

Date	Meeting	Time Attended		Total
		1hr or less	More than Hr	
1-2-18	Isabella County Board of Comm	✓		\$50
1-16-18	County Board	✓		\$50

SIGNATURE: Tim Lannen Date: 1-31-18

1. This form is filled out by the board member monthly and turned into the Finance Director. Completed requests will be added to the consent agenda for approval at the next regular board meeting. After board approval, payment will be added to the next regular payroll process.
2. Only list those meetings that you have attended. You are required to list the amount of meeting time you were in attendance. The amount paid is subject to the time you spent during the actual meeting. 1 to 60 minutes is reimbursed at \$50. Anything greater than 60 minutes is reimbursed at \$75.
3. Attendances at all day conferences/sessions are reimbursed as one meeting at \$75.

**CHARTER TOWNSHIP OF UNION
MEETING PAY REQUEST FORM
2017**

BOARD MEMBER: Bill Hawk

MONTH: Jan. 2018

Date	Meeting	Time Attended		Total
		1hr or less	More than Hr	
1-25-18	I.C.R.C.		X	\$75.00

SIGNATURE: Bill Hawk **Date:** 2-13-18

1. This form is filled out by the board member monthly and turned into the Finance Director. Completed requests will be added to the consent agenda for approval at the next regular board meeting. After board approval, payment will be added to the next regular payroll process.
2. Only list those meetings that you have attended. You are required to list the amount of meeting time you were in attendance. The amount paid is subject to the time you spent during the actual meeting. 1 to 60 minutes is reimbursed at \$50. Anything greater than 60 minutes is reimbursed at \$75.
3. Attendances at all day conferences/sessions are reimbursed as one meeting at \$75.

Mount Pleasant Fire Department

Fire Experience Report For Union Township/City of Mt. Pleasant
Period - February 12, 2018 through February 18, 2018


Category	Code	Description	Twp	Resp	City
Fire	100	Fire, Other			
	111	Building Fire			
	112	Fires in Structures other than a Building			
	113	Cooking Fire			
	114	Chimney or Flue Fire			
	116	Fuel Burner/Boiler Malfunction			
	131	Passenger Vehicle Fire			
	132	Road freight or transport vehicle fire			
	136	Self-propelled Motor Home/Recreational			
	137	Camper or Recreational Vehicle (RV) Fire			
	138	Off-road vehicle or heavy equipment fire			
	140	Natural Vegetation Fire			
	143	Grass/Brush fire			
	150	Outside Rubbish Fire, other			
	151	Outside Rubbish Fire, trash or waste fire			
	154	Dumpster Fire			1
	160	Special Outside Fire, Other			
Overpressure Rupture, (No Fire)	251	Excessive heat, scorch burns with no fire			
	231	Chemical reaction rupture of process vessel			
Rescue & EMS Incident	300	Rescue, EMS incident, other			1
	311	Medical Assist to EMS Crew	1	2	4
	321	EMS Call excluding Veh. Accident	1	2	2
	322	Motor Vehicle Acc. W/ Injuries			
	323	Motor Vehicle Acc/Pedestrian			
	324	Motor Vehicle Acc. W/no Injuries	2	12	
	331	Lock-In (If lock out use 551)			
	342	Search for Person in Water			
	352	Extrication of Victim (s) from vehicle			
	353	Remove Victim from Stalled Elevator			
	360	Water & Ice-related Rescue, Other			
	361	Swimming /recreational water area rescue			
	363	Swift Water Rescue			
	3811	Technical rescue standby			
Hazardous Condition (No Fire)	400	Hazard condition other			
	410	Combustible/Flammable Gas Condition			
	411	Gasoline or Other Flammable Spill			
	412	Gas Leak (natural gas or LPG)			
	413	Oil of Combustible Liquid Spill			
	420	Toxic Condition, Other			
	421	Chemical Hazard (No Spill or Leak)			
	422	Chemical Spill or Leak			
	423	Refrigeration Leak			
	424	Carbon Monoxide Incident			1
	440	Electric Wiring/Equipment Problem			

	441	Heat from Short Circuit			
	442	Overheated Motor			
	443	Breakdown of Light Ballast			
	444	Power Line Down			
	445	Arcing, shorted electrical equipment			
	451	Biological hazard, confirmed or suspected			
	461	Building or Structure Weakened or Collapsed			
	462	Aircraft Standby			
	463	Vehicle Accident, general cleanup			
	480	Attempted burning, illegal action, other			
	4441	Utility Line Down			
Service Call	500	Service Call - Other			
	510	Person in Distress			
	511	Lock-out			
	512	Ring or Jewelry removal			
	520	Water Problem, Other			
	521	Water Evacuation			
	522	Water of Steam Leak			
	531	Smoke or Odor Removal			
	542	Animal Rescue			
	552	Police Matter			1
	553	Public Service			1
	561	Unauthorized Burning			
	571	Cover assignment, standby, moveup			
Good Intent Call	600	Good Intent Call, Other			
	611	Dispatched and Cancelled en route			
	622	No Incident Found on Arrival			
	631	Authorized controlled burning			
	650	Steam, gas mistaken for smoke,			
	651	Smoke Scare, Odor of Smoke			
	653	Smoke from Barbecue, Tar Kettle			
	661	EMS call, party already transported			
	671	HazMat Investigation, no HazMat			
False Alarm & False Call	700	False Alarm, Other			
	710	Malicious, mischievous false call, other			
	715	Local Alarm System, Malicious False Alarm			
	721	Bomb Scare - No Bomb			
	730	System Malfunction			
	731	Sprinkler activation due to malfunction			
	732	Extinguishing System Activation - Malfunction			
	733	Smoke Det. Activation - Malfunction			1
	734	Heat Detector Activation - Malfunction			
	735	Alarm system sounded due to malfunction			
	736	CO detector activation due to malfunction			
	740	Unintentional transmission of alarm, other			
	741	Sprinkler activation, no fire			
	743	Smoke Det. Activation - Unintentional			1
	744	Detector activation, no fire			
	745	Alarm System Act. - Unintentional			

	746	Carbon Monoxide Activation, NO CO			
Severe Weather	812	Flood Assessment			
	813	Wind Storm, Tornado/Hurricane Assessment			
Special Incident Type					
	911	Citizen Complaint			
	9002	Civil Infraction Issued			
	9003	Affidavit Issued			
			4	16	13
		Total Response for Union Twp/City			

 Emergency - MPFD

 Emergency - MPFD Secondary to MMR

 Non - Emergency

Policy: 2.5.10 Cash Flow Ratio
Type: Internal
Occurrence: Monthly
Date: February 2018

Policy Wording

He or she shall not fail to maintain an adequate level of cash flow.

Manager Interpretation

Manager interprets this policy to indicate that cash availability for the major funds (not including debt retirement) should not fall below a certain threshold. The threshold amount used for the data and compliance sections of this policy is as follows:

General Fund – 4 months of budgeted expenditures for the current fiscal year

Fire Fund – 3 of the quarterly contract payments due to the City of Mt. Pleasant for fire protection services

East and West DDA Funds – 2 months of normal operational expenditures

Water and Sewer Funds – 2 months of budgeted expenses for the current fiscal year

Justification for reasonability

Cash flow for this report is defined as “liquid cash reserves held by a bank or credit union that can be accessed and utilized on an as needed basis.”

The Township Manager has determined that 4 months of cash reserves is needed for the General Fund because property taxes are collected in December, January, and February, and that accounts for 15% of the revenues for the General Fund. State Revenue Sharing (60% of GF revenues) is received semi monthly thereby giving the township an influx of cash for operations.

For the Fire Fund, 3 quarterly contract payments are required to meet the obligations of the July, October, and January payments prior to the collection of the property tax in the first quarter of each year

For the East and West DDA districts 2 months of cash reserves are needed to meet the normal operations of the East and West Districts. Project costs are not included because they are not reoccurring and will be based on the tax capture amount that will be deposited in the respective funds during the second quarter of each year.

For the Water and Sewer Funds 2 months of cash reserves are needed because 80% of the water and sewer bills are paid in the first two months of each quarter. Bills are sent in January, April, July, and October of each year.

Data used from this report is gathered from the BS&A General Ledger system – report- “Cash Summary by Account for the Charter Township of Union” and is based on the reconciled cash at the end of the previous month.

Policy 2.5.10 continued

Data

<u>Fund</u>	<u>Current cash</u>	<u>Amount required for compliance</u>	<u>Compliant?</u>
GF Total	\$ 3,451,193		
GF Unrestricted	\$ 3,451,193	\$ 601,299	Yes
Fire Fund	\$ 1,233,186		
(Fire Truck Reserve)	\$ (400,000)		
FF Unrestricted	\$ 833,186	\$ 524,250	Yes
EDDA	\$ 1,101,193		
Projects	\$ -0-		
EDDA Unrestricted	\$ 1,101,193	\$ 28,220	Yes
WDDA	\$ 744,493		
Projects	\$ -0-		
WDDA Unrestricted	\$ 744,493	\$ 52,169	Yes
Sewer Fund	\$ 3,217,479		
2011 Bond Reserve	\$ (35,000)		
2011 Bond RRI Reserve	\$ (71,435)		
2013 Bond Reserve	\$ (80,000)		
2013 Bond RRI Reserve	\$ (14,028)		
Sewer Fund Net	\$ 3,017,016	\$ 524,900	Yes
Water Fund	\$ 3,263,014	\$ 270,537	Yes

Compliance

All funds are found to be in compliance.



REQUEST FOR TOWNSHIP BOARD ACTION

TO: Board of Trustees	DATE: 02/21/2018
FROM: Peter Gallinat Township Planner	DATE FOR BOARD CONSIDERATION: February 28, 2018
ACTION REQUESTED: To adopt the 2018 Charter Township of Union Master Plan by resolution as approved and recommended by the Planning Commission.	

Current Action _____

Emergency _____

Funds Budgeted: If Yes _____ Account # _____ No _____ N/A X _____

Finance Approval _____

BACKGROUND INFORMATION

In October 2016, the Board of Trustees approved a service agreement with LSL Planning to consult with the Charter Township of Union Planning Commission on reviewing and updating the Township's Master Plan. The Planning Commission began working with the LSL on the Master Plan in November 2016. Early in the process, a special joint meeting with the consultant present was held in February of 2017. Attendants of this special joint meeting were from the Board of Trustees, Planning Commission, Zoning Board of Appeals, and Economic Development Authority. The purpose of the meeting was to gather input from a diverse group of community leaders on the Master Plan.

In July of 2017, the Planning Commission recommended to the Board of Trustees that a draft Master Plan be distributed for 42 days to allow for public comment and input. In August of 2017, the Board of Trustees voted to distribute the draft Master Plan. At that time, a public hearing was planned for October 24, 2017. Prior to the public hearing, the Planning Commission held an open house, with LSL in attendance, at the Commission on Aging to give the public another opportunity to comment and provide input on the Master Plan. On October 24, 2017 the Planning Commission held the public hearing at the Township Hall as required by law for the adoption of the Master Plan. The Planning Commission held off on adopting the plan during this meeting so they could collect further input from the community on the Master Plan. Overall, during the development of the Master Plan, from November 2016 to January 2018, the Planning Commission dedicated time during eleven (11) meetings which were open to the public for work on the Master Plan.

The Planning Commission approved the Master Plan in January, 2018.

SCOPE OF SERVICES

N/A

JUSTIFICATION

The Master Plan was approved by the Township Planning Commission and recommended to the Board of Trustees for adoption. In November, 2016 the Board of Trustees asserted by resolution that they shall have the right to approve or reject the Master Plan as presented by the Planning Commission.

PROJECT IMPROVEMENTS

The following Board of Trustees goal is addressed with the request.
(From Policy 1.0: Global End)

1. Community well-being and common good
2. Prosperity through economic diversity, cultural diversity, and social diversity
3. Safety
4. Health
5. Natural Environment
6. Commerce

COSTS

N/A

PROJECT TIME TABLE

The Michigan Planning Enabling Act, Act 33 of 2008 states that if approved, a statement recording the legislative body's approval of the Master Plan, signed by the Clerk of the legislative body shall be included on the inside of the front or back cover of the Master Plan.

If the legislative body rejects the proposed Master Plan, the legislative body shall submit to the Planning Commission a statement of its objections to the proposed Master Plan. The Planning Commission shall consider the legislative body's objections and revise the proposed Master Plan so as to address those objections. The procedures provided in the Michigan Planning Enabling Act shall be repeated until the legislative body approves the proposed Master Plan.

Upon final adoption of the Master Plan, the Secretary of the Planning Commission shall submit, in the manner provided in section 39(3) of the Michigan Planning Enabling Act, copies of the adopted Master Plan to the same entities to which copies of the proposed Master Plan were required to be submitted under section 41(2) of the Michigan Planning Enabling Act.

RESOLUTION

Authorization is hereby given to...

Resolved by _____ Seconded by _____

Yes:

No:

Absent:

UNION CHARTER TOWNSHIP

RESOLUTION ADOPTING THE CHARTER TOWNSHIP OF UNION MASTER PLAN

WHEREAS, the Union Charter Township Planning Commission, under the provisions of PA 33 of 2008, as amended, of the State of Michigan may adopt a Master Plan;

and PA 33 of 2008 requires the Planning Commission to review and, if necessary, revise or amend the Plan at least once every five years and the current Union Charter Township Master Plan was adopted in 2011;

and the Union Charter Township Planning Commission recognized the need to revise and update a Master Plan, including establishing and supporting visions, goals, actions, implementation and the Future Land Use Plan as described within the document;

and in connection with the preparation of the Master Plan, the Planning Commission surveyed and studied present conditions, projections of future growth of Union Charter Township, and the relation of Union Charter Township to neighboring areas and jurisdictions;

and the Master Plan has been prepared for the purpose of guiding and accomplishing coordinated, adjusted and harmonious development of Union Charter Township and its environs;

and the Planning Commission forwarded copies of the Draft Master Plan to all adjoining jurisdictions, Isabella County Planning and all utilities and railroads operating within the Township;

and preparation of the Master Plan included eleven (11) public meetings, an open house and a public hearing held by the Planning Commission; and was assisted by LSL Planning and others in the preparation of the Master Plan; and the Planning Commission considered the testimony as presented verbally or in writing as presented at the public hearing, open house and during all Planning Commission meetings held during the process;

and the Planning Commission gave notice of the time and place of the Public Hearing by giving notice in a newspaper of general circulation in the Township and regular mail to surrounding communities and concerned entities; and held the required public hearing of the Master Plan at the Township Hall, 2010 South Lincoln Road, Mt. Pleasant, Michigan.

NOW, THEREFORE, BE IT RESOLVED by the Charter Township of Union, Michigan, that

The Township Board of Trustees adopts the Master Plan, pursuant to PA 33 of 2008, as amended and directs the secretary of the Planning Commission to distribute copies of the approved Master Plan to the same entities to which copies of the proposed Master Plan were required to be submitted to.

This Resolution being put to vote on roll call, the Township Board of Trustees voted as follows:

AYES:

NAYS:

ABSENT:



REQUEST FOR TOWNSHIP BOARD ACTION

To: Mark Stuhldreher - Township Manager	DATE: February 21, 2018
FROM: Patricia DePriest, Assessor	DATE FOR BOARD CONSIDERATION: February 28, 2018
ACTION REQUESTED: A Board resolution to allow a resident taxpayer to protest his/her property assessment to the Board of Review in writing without a personal appearance by the taxpayer or his or her agent.	

Current Action ☒ Emergency ☐

Funds Budgeted: If Yes ☐ Account # ☐ No ☐ N/A ☒

Finance Approval: N/A

BACKGROUND INFORMATION

Each year the Township's Board of Trustees may authorize, by adoption of an ordinance or resolution, a resident taxpayer to file his or her protest to the board of review by letter without an appearance in person or by agent. Please refer to the Michigan Compiled Law 211.30 (8) of the General Property Tax Act, Public Act 206 of 1893 as amended.

The approval of the resolution would allow taxpayers who work out of the area, retirees that may go to a warmer climate for the winter, etc. to protest their property assessment. Also, some taxpayers may own property here but live out of the area. To be fair, all taxpayers should have the right to appeal their assessments by any means available.

SCOPE OF SERVICES

If approved by the Board of Trustees, the Board of Review must consider each petition to the Board of Review with the same unbiased decision whether it is a letter appeal or a personal appearance appeal. If the ordinance or resolution is adopted, the Township staff shall include a statement notifying taxpayers of this option in each assessment notice and on each notice or publication of the meeting of the Board of Review.

JUSTIFICATION

The resolution by the governing body is required by MCL 211.30 (8) of the General Property Tax Act, Public Act 206 of 1893 as amended. Without the approval of the resolution, our taxpayers who are unable to attend the Board of Review in person would not have the ability to protest their assessment. Under those circumstances it would be taxation without representation.

PROJECT IMPROVEMENTS

Board of Trustees goals addressed by this agreement (From Policy 1.0: Global End).

1. Community well-being and common good

COSTS

N/A

PROJECT TIME TABLE

N/A

RESOLUTION

Authorization is hereby given to...

Resolved by

Seconded by

Yes:

No:

Absent:

CHARTER TOWNSHIP OF UNION

Resolution for Adoption to Allow Resident Taxpayers to Appeal his/her Property Assessment by Letter to March Board of Review

WHEREAS, The adoption of this resolution will allow residents to file a protest by letter, without an appearance by the taxpayer or agent, to the March Board of Review.

WHEREAS, The governing body of the Township may authorize, by adoption of an ordinance, or resolution, a resident taxpayer to file his or her protest before the board of review by letter without a personal appearance by the taxpayer or his or her agent; and

WHEREAS, *If* pursuant to PA 206 of 1893, section 211.30 (8) the Charter Township of Union, Isabella County adopts the ordinance or resolution, the township shall include a statement notifying taxpayers of this option in assessment notice under section 24c and on each notice or publication of the meeting of the board of review.

NOW, THEREFORE, BE IT HEREBY RESOLVED, The Board of Review shall act on all letter appeals as though the taxpayer was present. The Board of Review will use the same criteria as is required from taxpayers in person to make their determination of value.

The foregoing resolution offered by Township Board Member _____ and supported by Township Board Member _____.

Upon roll call vote, the following voted:

	Aye	Nay
Gunning	_____	_____
Hauck	_____	_____
Lannen	_____	_____
Mikus	_____	_____
Cody	_____	_____
Rice	_____	_____
Woerle	_____	_____

The Township Clerk declared the resolution _____. Date _____

Lisa Cody, Clerk



REQUEST FOR TOWNSHIP BOARD ACTION

TO: Board of Trustees	DATE: February 15, 2018
FROM: Mark Stuhldreher, Township Manager	DATE FOR BOARD CONSIDERATION: February 28, 2018
ACTION REQUESTED: Consideration to approve the 2018 Township Brine Participation Contract with the Isabella County Road Commission (ICRC) and authorize the Township Manager to sign said contract.	

Current Action X Emergency

Funds Budgeted: If Yes X Account # 101-441-801.000 No N/A

Finance Approval MDS

BACKGROUND INFORMATION

As part of the annual gravel road maintenance program, the ICRC applies brine to approximately 20 miles of gravel roads throughout the Township.

When dust is generated as a result of fast moving traffic a substantial amount of road material is lost in the process. With the use of brine, dust and surface stability is enhanced, reducing the frequency of additional aggregate applications. As a result, over time this program provides better road surface conditions

SCOPE OF SERVICES

This contract provides for three (3) applications during the year.

JUSTIFICATION

The approval of this contract will result in less road dust being generated during the dry months and improved road surface conditions.

PROJECT IMPROVEMENTS

The following Board of Trustees goals are addressed with these appointments (From Policy 1.0: Global End)

- Community well-being and common good
- Prosperity through economic diversity, cultural diversity , and social diversity
- Safety
- Health
- Natural environment

COSTS

The Township portion of this contract is \$17,161.42

PROJECT TIME TABLE

The application of the material will occur at the discretion of the County Road Commission.

RESOLUTION

It is Resolved that the 2018 Township Brine Participation Contract in the amount of \$17,161.42 is approved and the Township Manager is authorized to sign on behalf of the Township.

Moved by _____ Seconded by _____

Yes:

No:

Absent:

TOWNSHIP BRINE PARTICIPATION CONTRACT

This Agreement is made and entered into by and between the Board of County Road Commissioners for the County of Isabella, hereinafter referred to as the “Road Commission” and **Union Township**, hereinafter referred to as the “**Township**”, for the following improvements:

Project No. 497 – 014 - 821416		Total Gravel Miles: 19.99
Three Applications of Michigan Chloride at 2000 gallons per mile		
TOTAL COST		\$ 18,830.58
Less I.C.R.C. Share		<u>-1,669.17</u>
TOWNSHIP SHARE		<u>\$ 17,161.42</u>
Return Contract by March 21, 2018		

The Township agrees to pay the Road Commission for stated services after each application has been completed and an invoice has been furnished by the Road Commission. Payment is due upon receipt of invoice. The Road Commission is hereby authorized to add to the unpaid balance a service charge of one (1%) per month on the unpaid balance of any and all said sums remaining unpaid after thirty (30) days.

The undersigned Township officials, by executing this agreement, certify they are authorized to enter into this agreement on behalf of the Township.

UNION TOWNSHIP

ISABELLA COUNTY ROAD COMMISSION

By: _____
Supervisor

By: _____
Manager

By: _____
Clerk

By: _____
Board Secretary

Board Approval on: _____

Board Approval on: _____



Charter Township of Union

2018 Master Plan

ACKNOWLEDGEMENTS

This plan is the result of collaboration between township staff, officials, planning consultants, and the public.

Planning Commission

Philip Squattrito, Chair
C. Alex Fuller, Secretary
Dwayne Strachan, Member
John Zerbe, Member
Bryan Mielke, Member
Norman Woerle, Member
Erik Robinette, Member
Ryan Buckley, Member
Denise Webster, Member
Brandon LaBelle, former Member
Rick McGuirk, former Member

Zoning and Planning Department

Peter Gallinat, Planner

Planning Consultants - LSL Planning

Kathleen Duffy, AICP, Senior Planner
Josh Penn, AICP, Project Planner I

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Appendices

The following documents are published separately as appendices to this plan:

- *Community Snapshot Existing Conditions Report*
- *Market Analysis*
- *Public Participation Summary*

A. What is the Purpose of a Master Plan?

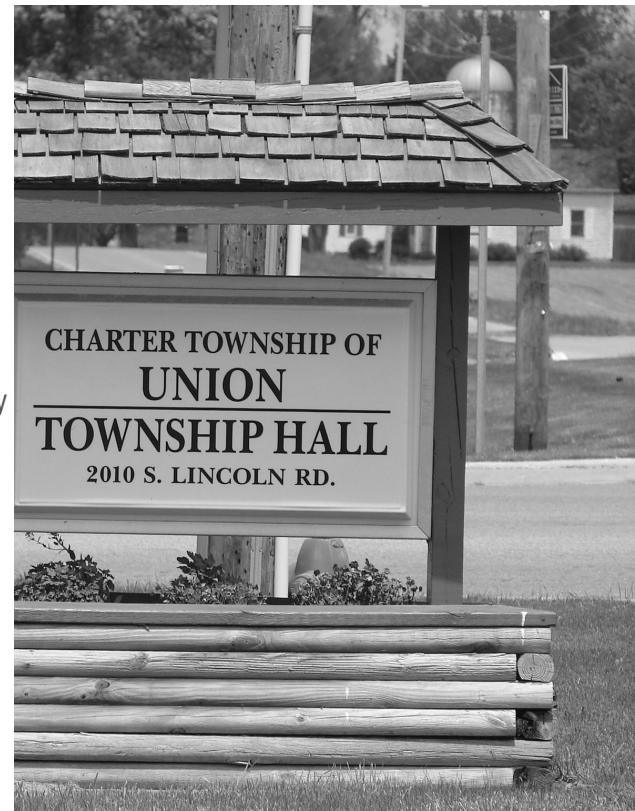
The Master Plan is a policy document created by the Union Township Planning Commission to guide the future growth and development of the township. A sound master plan helps ensure that Union Township remains a highly desirable place to live, work, or visit. This can be accomplished by preserving and enhancing the qualities of the township that the residents, businesses, and property owners consider important. The plan also allows the township to respond to new trends and approaches.

The Master Plan identifies and analyzes the township's physical elements to create a set of goals, objectives, and recommendations to direct decisions regarding future land use, neighborhood and transportation improvements, and special strategies for key areas in the township. Because the plan offers a balance between the interests and rights of private property owners with those of the entire community, it effectively assists township leaders in making substantive, thoughtful decisions for the community while considering long-term implications.

The authority to adopt a new Master Plan or amend an existing Plan is permitted under Michigan law, PA 33 of 2008, as amended. This law authorizes the Planning Commission to prepare and adopt a Master Plan which best promotes health, safety, order, convenience, prosperity and general welfare. The Plan considers efficiency and economy in the process of development; including providing for the following:

- Adequate provisions for traffic
- Healthful and convenient distribution of population
- Good civic design and arrangement
- Wise and efficient expenditure of public funds
- Adequate provisions for public utilities and other public services

Public Act 33 also requires the Planning Commission to review the Plan every five years and determine whether to a) amend the plan, b) adopt a new plan, or c) leave the plan as is. This plan replaces the 2011 plan, updating the goals, strategies, and reorganizing the plan into simpler chapters.



The Differences between a Master Plan and a Zoning Ordinance

The Master Plan provides a general direction for future development, and while it does not change the zoning map or text applying to any property, one way the plan is implemented may be through zoning ordinance and/or map amendments. A Master Plan is flexible in order to respond to changing conditions and it is not a binding legal document. The Master Plan shows how land is to be used in the future; while the Zoning Ordinance regulates the use of land at a particular point in time. The Zoning Plan (required by state law and included in the Implementation chapter) ties the Master Plan to the zoning ordinance by outlining how future land use categories relate to zoning districts.

Some of the differences between the master plan and the zoning ordinance are listed below.

Master Plan	Zoning Ordinance
Provides general policies, a guide	Provides specific regulations, the law
Describes what should happen in the future – recommended land use for the next 20 years, not necessarily the recommended use for today	Describes what is and what is not allowed today, based on existing conditions
Includes recommendations that involve other agencies and groups	Deals only with development-related issues under Township control
Flexible to respond to changing conditions	Fairly rigid, requires formal amendment to change

Process Overview

Content from the previous plan serves as a basis for the current plan, with certain sections added or reorganized for clarity. Many of the 2011 plan's core ideas remain, as do several maps and references to supplementary materials for topics such as non-motorized transportation and access management.

This document includes substantive clarifying updates to the Agricultural Preservation areas in Chapter 2- Growth Management, as well as recommendations from the 2011 Non-Motorized Plan and the 2006 Access Management Plan in Chapter 3. Feedback from the 2016 community-wide survey is also incorporated into the plan.

New in 2018:

- *Reorganized document with concise, forward-thinking plan document and separate appendix of existing conditions*
- *Revised goals, objectives, and recommendations*
- *Key implementation examples in each chapter*
- *Updated Future Land Use map*
- *Recommendations from Access Management / Non-Motorized plans, 2016 township survey*

Check out the Township website for a detailed [report](#) of public involvement from June 2016.

This plan is used by the Township to guide policy related to the following:

- *Zoning Ordinance*
- *Zoning Map*
- *Reviewing development proposals*
- *Capital Improvements Plans*

How to use the Master Plan

- *Evaluate development proposals against the goals and actions of the Master Plan.*
- *Review zoning changes for consistency with the plan's future land use map and goals.*
- *Reference as a basis for zoning ordinance amendments to support plan goals.*
- *Determine how land is to be developed or redeveloped in the future.*
- *Identify physical improvements – streetscape and driveways, sidewalks, parks, and public facilities – proposed to achieve the goals and objectives.*
- *Consider specific design standards for development throughout the Township.*

B. Township Overview

Regional Context

Union Township is a unique place. It is a traditional six by six square mile township with everything from sleepy rural land on unpaved roads to strip commercial development on five lane streets. It also includes Saginaw Chippewa Indian tribal land, a vibrant public university and the City of Mount Pleasant residing in its core. This combination of governments, communities, land and visions spill their impact and influence into the Township, separated only by the municipal boundary line. This mix and proximity demands a careful and innovative approach to the future with broad based input from residents and neighbors.

Historical Perspective

The Charter Township of Union traces its history and its name to the Civil War. On March 9, 1861, a month before the first shots of war rang out at Fort Sumter, the founding Board of Supervisors formally established Union Township, leaving no room for ambiguity about where their civil loyalties lay.

In 2011, the Charter Township of Union celebrated its 150th year of existence. Once a beautiful pine and hardwood forest and the winter home of the Chippewa tribe, the area that became Union Township would become the center of lumbering, commerce and a fledgling oil industry in Michigan that became a state in 1837.

The first white settlers came to Union Township in 1854 when pioneer John Hursh and his family arrived in the area. Various settlements in the 36 square miles of the original township have long disappeared or been absorbed by the City of Mount Pleasant that lies in the center of Union Township. Mount Pleasant was designated the county seat in 1860 just a year after Isabella County was established in 1859. Mount Pleasant became a village in 1875 and later a city in 1889.

The history of the city at its core, and Union Township that surrounds it, has been bound together since they were both founded.

Union Township Today

With 12,927 residents in 2010, Union Township has the largest population of the 16 townships which make up Isabella County. Union also is the only township that experienced a population increase of greater than 1,000 people between 2000 and 2010.

Union’s population trend is more similar to its neighbor, the City of Mount Pleasant, than to other Isabella County townships as well as that of the State of Michigan overall.

As shown in the table at right, the population in both Mount Pleasant and Union Township grew steadily in the past decade. The overall population of the State peaked in 2003 and has been on a steady decline since. Union

Township is in a unique position of population increase, which may be linked to the growth of Central Michigan University, located in the City of Mount Pleasant.

Population Change in Union Township 2000-2010			
	2000	2010	% Change
Union Township	7,615	12,927	69.8%
Isabella County	63,351	70,311	11.0%
State of Michigan	9,938,444	9,883,640	-0.6%

Source: US Census Bureau

C. Local Partners

The following groups, municipalities or entities directly impact the future of Union Charter Township. All of these groups were consulted as part of the 2010 Master Plan process. Continued conversation and partnership with these groups will be vital to successful implementation of the Master Plan.

Saginaw Chippewa Indian Tribe of Michigan

The Saginaw Chippewa Indian Tribe of Michigan is a band of Chippewa Indians (or Ojibwe) located in central Michigan. The tribal government offices are located on the Isabella Indian Reservation, near Union Township. There are 2,767 enrolled members of the Saginaw Chippewa Indian Tribe, many who live on the reservation while others live throughout the country. The tribe owns and operates Soaring Eagle Casino in Chippewa Township, and Saganing Eagles Landing Casino in Standish. They also hold land on the Saganing reservation near Standish, with a community center in addition to the recently completed Eagle's Landing casino on the Saganing reservation.

Besides its gaming enterprises, the tribe owns other businesses and community operations including the Sagamok Shell Station, a tribal museum called the Ziibiwing Center, a substance abuse facility, a community clinic and health facilities. The tribe has recently opened a new Elders' Center. Educational programs include an elementary school, as well as a presence in the local public schools through Native American advocates and tutors. The Saginaw Chippewa Tribe is the largest employer in Isabella County and gives more than \$64 million annually to local and state governmental services.

Central Michigan University

Central Michigan University is located in the City of Mount Pleasant but many of its students, faculty and staff live in Union Township. The campus encompasses 872 acres with 94 major buildings. There are seventeen residence halls housing more than 5,000 students and five apartment complexes providing 536 housing units for married and single students, both graduate and undergraduate. Buildings currently in use on campus range in age from Grawn Hall, constructed in 1915, to the Education and Human Services Building opened in the fall of 2009.

Central Michigan University is governed by an eight-member Board of Trustees appointed for eight year terms by the governor of the state of Michigan with the consent of the state senate. The board is empowered with general supervision of the university, control and direction of all the institution's funds, and such other powers and duties as may be prescribed by law.

City of Mount Pleasant

The City of Mount Pleasant was incorporated over 100 years ago and is located in the center of Union Township. It is the county seat of Isabella County. The population of the City of Mount Pleasant has been on the rise since 2000 and is expected to continue to increase.

The City has a council-manager form of government, in which a City Manager is appointed by the City Commission. The Commission is made up of seven nonpartisan members, each elected at-large. The Mayor is a member of the Commission and is selected on an annual basis by his or her colleagues.



Union Township Economic Development Authority

In 2010, the Township board voted to consolidate the oversight of two Downtown Development Authorities, the East DDA and the West DDA into one authority that also now is charged with overseeing economic development activities for the entire Township, not just the two mostly commercial strips on M-20 on the east and west sides of the community. The new Union Township Economic Development Authority (EDA) is charged with working with the Middle Michigan Development Corporation (MMDC), the regional economic development agency on exploring economic development opportunities. A 2011 economic development plan includes collaborative relationships with the City, County, Saginaw Chippewa Indian Tribe, Central Michigan University and the MMDC.

Mount Pleasant Area Chamber of Commerce

The mission of the Mount Pleasant Area Chamber of Commerce is to enhance a diversified business environment that fosters a progressive and economically viable community. Established in 1909, the Chamber is the unified voice for the business community, and consistently provides valuable programs, products and services to help strengthen the area economy.

Middle Michigan Development Corporation (MMDC)

MMDC is the economic development agency for the region, providing confidential assistance to both existing and new industry. The organization has a broad based 64-member Board of Directors, six primary clients, and 30 corporate sponsors.

Mid Michigan Community College (MMCC)

MMCC has a campus both in Harrison (Clare County) and Mount Pleasant offering Academic Programs, Professional Development Programs, and a Personal Interest Series. All course offerings are designed to serve recent high school graduates, in addition to students going back to school later in life.

Isabella County

Union Township is one of 16 townships located within Isabella County. Established in 1859 by Act No. 118 of the Michigan Legislature, the county seat is located in Mount Pleasant. Isabella County is governed by a Board of Commissioners. There are seven commissioners elected by district to serve two year terms. The Isabella County Road Commission is a separate five member elected board which has jurisdiction over all County roads.



D. Plan Framework and Goals

Each plan chapter contains an overview of existing conditions, applicable Future Land Use descriptions, and specific goals, as well as recommendations and implementation strategies.

Chapter 2 discusses *Growth Management* and the development pressures occurring in the township.

Chapter 3 addresses *Complete Streets* and highlights areas for non-motorized infrastructure, also drawing on recommendations from the 2006 Access Management Plan.

Chapter 4 includes the Future Land Use map and, addresses *future land use*, housing, commerce and employment, respectively.

The concluding implementation chapter ties the preceding chapters together with the Future Land Use plan and implementation action plan. There, actions are categorized by topic, timeframe, and responsibility. This action plan can serve as an annual checklist to ensure the plan's implementation.

The Plan goals and objectives are summarized below, and revisited in greater detail throughout the following chapters.



Throughout the plan, goals and objectives are highlighted in light blue.



Implementation strategies are highlighted in navy. For a complete list of implementation tools, and timeframes, see Chapter 5.

Plan Goals and Objectives

Goal 1: Preserve and protect key natural and agricultural resources.

- 1.1. Protect significant, sensitive natural amenities such as water bodies, wetlands, mature trees and natural ecosystems.
- 1.2. Coordinate utility expansion in a way that encourages development along existing arterial roadways and on vacant or underutilized sites first.
- 1.3. Preserve areas suitable for farming and agriculture-related uses

Goal 2: Create a safe, balanced and coordinated multi-modal transportation system adequate to accommodate the ongoing growth and (re)development of Union Township.

- 2.1. Connect schools, parks and other public facilities with a system of pathways, bikeways and trails
- 2.2. Prioritize sidewalks in areas where there are connectivity gaps first
- 2.3. Work with the Road Commission to incorporate non-motorized facilities into road improvement projects

Goal 3: Maintain a well-organized, balanced and efficient use of land in the Township.

- 3.1. Re-imagine the Bluegrass Road Subarea as a vibrant destination for community business, social and civic activity.
- 3.2. Continue to encourage quality office and commercial development and redevelopment along corridors.
- 3.3. Encourage sensible, sustainable, diverse, high-quality office, commercial and industrial development in designated areas to ensure employment opportunities remain supported by the community's existing and reasonably anticipated future infrastructure.
- 3.4. Encourage a transition between land uses that provides a logical progression towards more intense uses closer to the City.
- 3.5. Expand housing choices to support multiple options for a wide range of age groups and family types.



A. Introduction

As one of the fastest growing townships in Michigan, Union Township seeks to balance development pressures and accompanying utility expansion with agricultural and natural resource preservation. The previous plan established three agricultural areas designed to preserve prime farmland from further “leapfrog” development. These areas were identified based on an analysis of environmental conditions to determine prime agricultural areas, existing land uses and zoning, and municipal water and sanitary sewer services. This plan clarifies the previous plan by creating “Primary” and “Secondary” growth areas designed to concentrate future development closer to Mount Pleasant and preserve natural features and agricultural land, as well as provide a basis for future rezonings and utility expansions in a systematic way.



Goal 1: Preserve and protect key natural and agricultural resources.

- 1.1. Protect significant, sensitive natural amenities such as water bodies, wetlands, mature trees and natural ecosystems.
- 1.2. Coordinate utility expansion in a way that encourages development along existing arterial roadways and on vacant or underutilized sites first.
- 1.3. Preserve areas suitable for farming and agriculture-related uses



B. Natural Resources

The natural environment is a critical element of the physical basis upon which the Township develops. Alteration to natural features should be carefully considered to minimize impacts and insure mitigation where necessary to maintain the natural balance. Not doing so will alter the system and contribute to increased erosion and sedimentation, decreased ground water recharge and increased surface runoff to the Township’s various lakes and streams.

Soils

Construction costs and risks to the environment can be minimized by developing areas with suitable soils. Poor soils present problems such as poor foundation stability and septic limitations. The three major soil characteristics considered in the analysis of soil conditions are drainage, foundation stability and septic suitability.

Drainage: Development on poorly drained soils increases development costs, maintenance costs, and will lead to sanitary problems. Development costs are increased due to additional foundation, road and septic preparation. Maintenance costs and problems will be associated with septic field failures, flooded basements and impact to roads from frost action.

Foundation Stability: Soil areas that do not provide stable foundations may experience shifting building foundations, cracked walls and cracked pavement and roadways. These problems often result in increased development and maintenance costs or, in extreme cases, structural failure.

Septic Suitability: Because there are many areas of Union Township that rely on individual septic systems, the location of septic systems on proper soils is extremely important. Inspection and approval for use of a septic system is under Isabella County's jurisdiction and ultimately their responsibility to maintain high standards of review to prevent system complications or failures. Septic field failures are often the result of poor soil permeability, high water table or excessive slope. Soils such as compacted clays and silts will not allow wastewater to percolate, a high water table prohibits adequate filtering and excessive slope does not provide adequate percolation.

Wetlands

Wetlands serve a variety of important functions which not only benefit the natural environment but also the community. Some of the primary values which wetlands contribute are as follows:

- Mitigate flooding by detaining surface runoff.
- Control soil erosion and sedimentation loading in rivers and lakes.
- Provide links with groundwater.
- Improve water quality which is degraded by chemicals from fertilizers and pesticides used in agriculture and landscaping/lawn care, as well as stormwater runoff from roads and parking lots
- Function as highly productive ecosystems in terms of wildlife habitat and vegetation.
- Serve a variety of aesthetic and recreational functions.

The largest interconnected series of wetlands are located along the Chippewa River corridor that runs through the western and northeastern portions of the Township.

Future development in areas surrounding these wetlands could significantly impact wetland resources. Therefore, developers and Township officials should evaluate alternative designs to minimize any potential for impact. This is best done by initially considering wetland resources as constraints to development. Minimization of impacts to these resources should take into account the cost of avoidance and the property rights of the individual. If impact is unavoidable, then mitigation should include an analysis of retaining or enhancing the wetland areas to be lost.

Wetland areas are valuable as natural buffers between residential and commercial land uses. They contribute significantly to the aesthetic character of the community. By incorporating wetlands as part of the future development, they will continue to maintain open and green space as well as contribute to retaining the rural setting.

Soils Poorly Suited for Development:

- *Areas with little topographic relief, which does not allow proper drainage.*
- *Areas with excessive slopes which are susceptible to erosion.*
- *Mucks or soils with high organic materials.*
- *Silts and clays.*
- *Areas with high water tables.*
- *Generally along lakes, creeks and wetlands.*

Soils Well Suited for Development:

- *Topographic relief that provides for drainage but not excessively steep.*
- *Loamy and sandy soils.*
- *Areas sufficiently above groundwater table.*

Objective 1.1.
Protect significant, sensitive natural amenities such as water bodies, wetlands, mature trees and natural ecosystems.



A complete documentation of existing conditions and natural features maps are included in the Appendix.



The term **leapfrogging** refers to the development of lands in a manner that requires the extension of public facilities.



Objective 1.2.
Coordinate utility expansion in a way that encourages development along existing arterial roadways and on vacant or underutilized sites first.



Drainage

Upland areas drain to the low lying wetlands, lakes and streams that pass through the Township. Soil permeability of most upland areas is moderate to moderately rapid. As these areas become developed, the amount of water infiltrating the surface will decrease and the surface runoff will increase. This will be caused by clearing of natural vegetation, addition of impervious material to the land (buildings and pavement) and installation of storm drains. These will have the cumulative effect of increasing the peak discharge to the area's drains, streams and lakes while reducing the amount of water infiltrating to ground water. Minimization of these impacts may involve protecting native vegetation, on-site stormwater retention and clustered development.

Prime Farmland

The Township has adopted priority development areas to ensure the preservation of active farmland. The Township is a fast growing community, so these proactive measures are designed to prevent further damage caused by sprawl into active farm land. Instead, it is more valuable to establish rules for orderly development that will avoid future leapfrogging and further fragmentation. It is a goal of this plan that any new residential development be placed adjacent to existing residential or commercial development, be served by existing utilities and be located on a paved road.

C. Township Utilities

In order to protect the health and safety of the residents and environment in Union Township, utilities should be carefully planned and financed. In doing so, future development should be linked to the capacity of systems and existing or planned locations of pipes.

The capacity of municipal infrastructure impacts the development potential of different land uses. Industrial development needs high pressure water. Residential dwelling units on less than an acre usually must be serviced by a municipal waste water system, since septic fields require an acre or more of land. Commercial uses tend to locate where municipal services are available either out of necessity or cost.

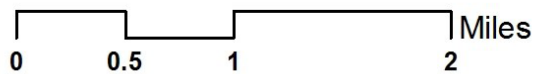
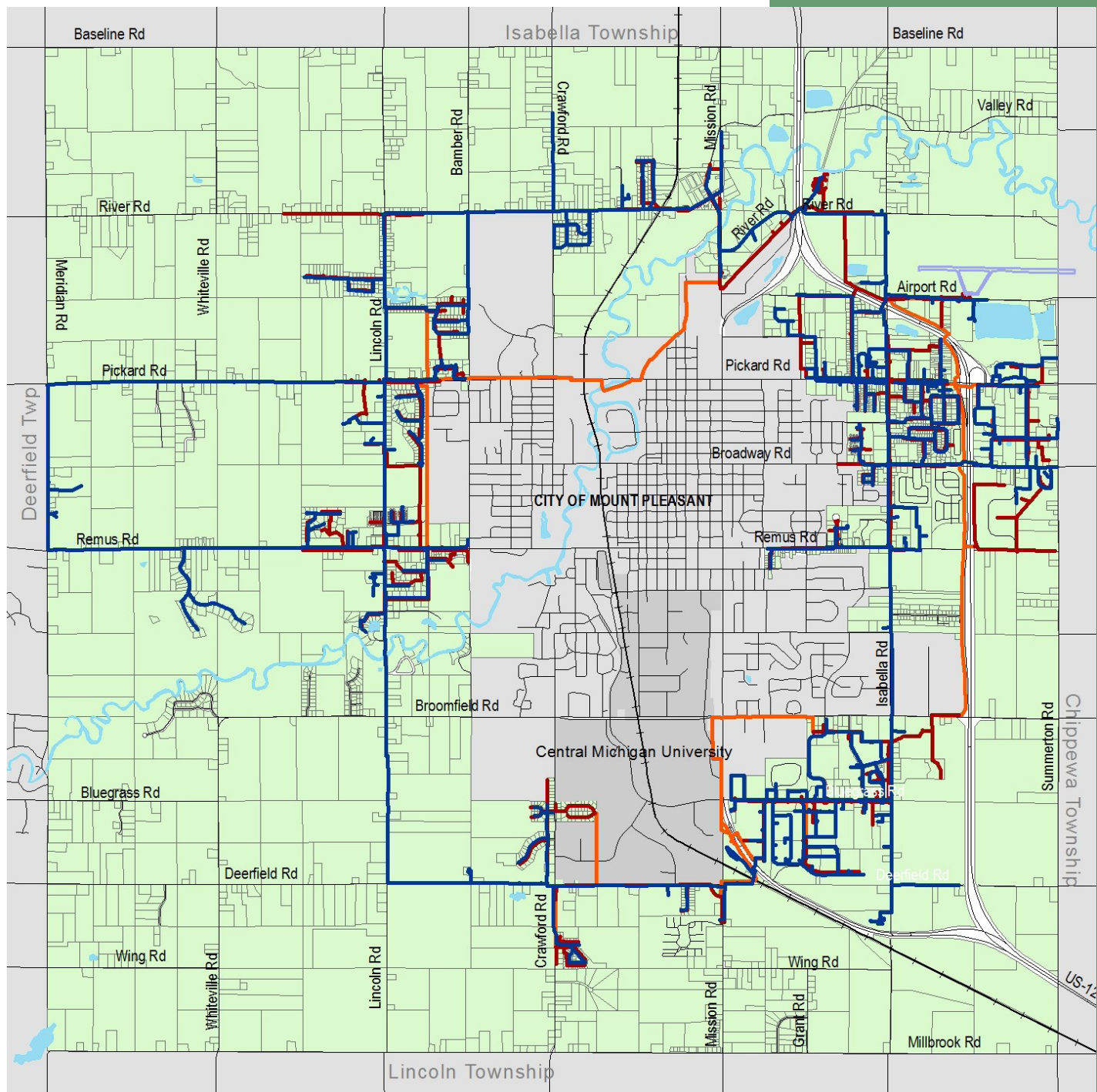
The Township provides water and sewer utilities to significant portions of the Township abutting Mount Pleasant; the Township's wastewater service area essentially rings the city. While some of the Township's sewer force mains travel through the city limits, they do not share any connections with Mount Pleasant's system. In many cases, the pipes run parallel but do not connect.

In 2014, the Township's water service loop was completed, connecting the previously separate north and south side water systems. The water main installed along Broomfield and Lincoln Roads brings the possibility for expanded capacity in that area, but the area is not yet served by sanitary sewer. Future service needs should be evaluated to provide expansion efficiently and equitably across the community.

Future Utility Planning

Based on these circumstances, the opportunities for collaboration between the Township, City and Tribe are many:

- The Township or Tribe could purchase additional capacity from the City instead of expanding or creating new systems
- The Township could expand its water system as planned and sell additional capacity to the Tribe
- Future utility delivery should be a topic for discussion between the Township, City, Tribe and CMU.



Water & Sewer Systems

- Water Mains
- Sewer Gravity Mains
- Sewer Force Mains

Township Utilities Map

*Objective 1.3.
Preserve areas
suitable for farming
and agriculture-related uses*



The previous plan identified agricultural growth areas based on the County's prioritization criteria. This plan builds on these recommendations with updates to Future Land Use to provide a policy framework for future development, rezonings and utility expansions to support it. See the appendix for more information.

Growth Boundary: Primary Growth Area

- Served by municipal utilities
- Located on a paved road

Rural Buffer: Secondary Growth Area

- Future development limited by adjacency to utilities and paved roads
- Intended for development after Primary Growth Area is fully developed

Rural Preservation: Prime Farmland

- No municipal utilities
- Unpaved roads
- Do not permit development
- Only agricultural and large lot, rural residential

D. Growth Management Boundary

The residents of Union Township have consistently said that preserving the natural beauty and agricultural character of the Township and controlling urban sprawl are important priorities for planning the community. The Township also desires to be able to provide efficient infrastructure services to support development. One of the most effective ways to meet both of these goals is with a growth boundary. The growth boundary concept in the plan is designed to encourage the following:

- Compact, efficient land use,
- Protection of farmland and natural areas,
- Efficient provision of utilities, services and infrastructure,
- An efficient transportation system,
- Locations for economic growth, and
- Diverse housing options.

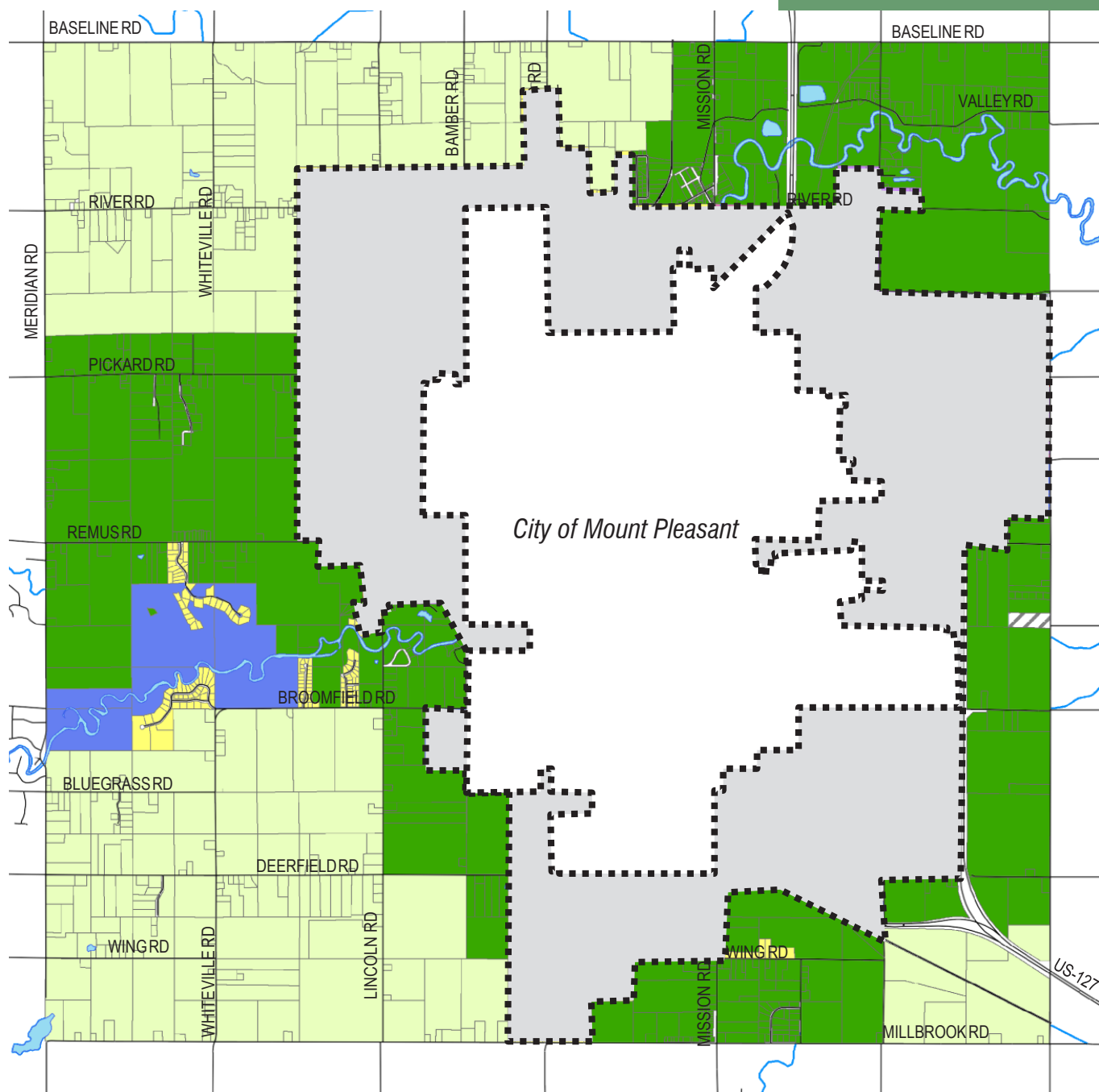
The growth boundary marks the separation between rural and urban areas and defines land that can efficiently support urban services such as sewer, water and roads. Priority growth areas are adjacent to existing development, are served by municipal utilities, and are located along paved roads. These areas are predominantly adjacent to Mount Pleasant.

Development outside the boundary is not prohibited; however, because public utilities are not available in these areas, development needs to be maintained at a relatively low intensity and the character of development needs to not adversely impact natural features and agricultural uses.

There is presently vacant or underutilized land within the growth boundary that can be served by public water and sewer. By focusing new development in these areas first, the Township and the County can more efficiently provide the necessary infrastructure to support new growth.

The growth boundary is not intended to be static, but should be evaluated on a regular basis along with other updates to the Master Plan. With each update, the following criteria should be taken into consideration for amending the growth boundary:

- Amount and capacity of undeveloped or under-developed land currently within the growth boundary, which should be used to satisfy the demand for development prior to expanding the boundary.
- Projected population growth within the Township and demand for future development.
- The ability to extend public water and sewer to serve new land areas outside of the growth boundary.
- The capacity and condition of the road system to support the new growth areas.
- The ability of the Township, County and other public agencies to provide necessary services to the new growth areas and the additional resulting population.
- The impact of higher density development from expanding the growth boundary will have on natural features, agricultural uses and rural character.
- Consistency with the goals and objectives of the Master Plan.



Land outside the growth boundary is separated into two distinct Future Land Use categories:

Rural Preservation

Rural Preservation Areas outside of the growth boundary should be maintained at a low intensity rural character of development that will not adversely impact natural features and agricultural uses. Agriculture should be promoted and future rezoning requests for residential should be prohibited to prevent leapfrog development.

Rural Buffer

Rural Buffer areas do not have sewer and water, but are appropriate for agriculture uses and some infill with low density residential. Typically this buffer is located on the fringe between rural and more urbanized areas. Rezoning requests for more intensive uses should be limited, especially those requiring extended utility service.

Growth Boundary Map



Sources: Union Township, MCGI

 Growth Boundary

See also the Future Land Use Map in Chapter 4

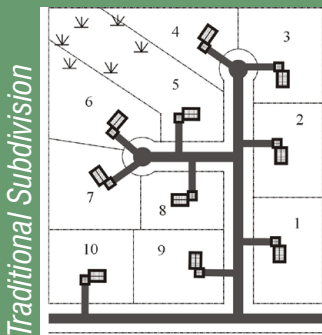
Best “Green Development” Management Practices

- Reduces stormwater runoff volume and improves stormwater quality.
- Protects community character/aesthetics.
- Reduces salt usage and snow removal on paved surfaces.
- Improves urban wildlife and habitat opportunities.
- Provides additional stormwater capacity for nonconforming sites without modern detention facilities.



Roadside stormwater drains reduce the effects of heavy rainfalls and flooding throughout the Township, and should be protected from encroaching agricultural activities.

Conservation Subdivisions



Recreation / Institutional

This category is designated primarily for large-scale recreation, natural features and open space.

Tribal Trust Lands

These areas are under the jurisdiction of the Saginaw Chippewa Indian Tribe.

E. Best Practices

Low Impact Design

A more environmentally responsive strategy used to manage stormwater collection and disposal involving both private development sites and municipal projects is through the use of Low Impact Development (LID) methods. LID is an alternative approach to development aimed at conserving natural resources and protecting the environment by strategically managing rainfall close to its source, minimizing impervious coverage, using native plant species, and conserving and restoring natural areas during site development or redevelopment. Design techniques are focused on the use of applications that are modeled after nature, rather than building costly infrastructure and water quality restoration systems.

While low impact design is encouraged wherever it can be applied, it is specifically warranted in areas where vegetation may be installed in lieu of impervious surfaces (i.e. pavement). It can be applied to open spaces, rooftops, streetscapes, parking lots, sidewalks, and medians. In many cases, these beneficial design alternatives offer a significant long-term cost savings, even when factoring in some additional maintenance costs. Design options to consider include use of rain gardens, native plant species, street trees (i.e. planter boxes, tree pits), bioswales and pervious pavement.



Example: Native species bioswale



Conservation Subdivisions

In order to maximize open space preservation, one technique for new housing subdivisions is to promote cluster development in conservations subdivisions. This form of open space development incorporates smaller lot sizes to minimize total impervious area, reduce total construction costs, conserve natural areas, provide community recreational space, and promote watershed protection.

Conservation subdivisions begin by defining sensitive areas of the property (farmland, ponds, steep slopes, wetlands, wooded areas, etc.) that should be preserved, then clustering building sites on the remaining, more suitable, land. While lot sizes are reduced, the overall permitted density is not increased but the environmentally sensitive areas are protected and preserved. This reduces development costs in two ways: It avoids expensive mitigation and grading of the more challenging features on the site and reduces the length of streets and utilities needed to serve the individual lots. The resulting open space not only

adds to the character and livability of the development, but actually increases property values.

Large Lot Zoning

This zoning tool may be useful in preserving land for agricultural use. It is important to understand that large lot zoning, by itself, does not preserve farming; only the farmer can do that. Rather, this technique is intended to permit larger blocks of land to be set aside for farm use. This technique simply increases the lot size required in residential zoning districts where farming operations exist. Lot sizes are generally greater than 10 acres, depending on the objective (farmland preservation vs. rural character). In areas where farmland preservation is a primary focus, lot sizes of 40 to 160 acres with only one residence is found to be most effective, however this would not be practical in Union Township. Union Township currently has a 1-acre minimum lot size in its Agricultural district. This may be somewhat effective in curtailing non-farm development in these areas and directing growth to the northern portion of the Township, but should be used in combination with density based zoning such as the quarter/quarter zoning described above or PUD to preserve larger tracks of land for farming.

Growth Management Implementation Strategies



- *Ensure coordination between Public Works and Planning Departments so Township utilities are expanded in a logical, efficient manner.*
- *Limit sewer and water extensions to areas not designated for agricultural preservation.*
- *Create a cluster housing option in the Zoning Ordinance to promote smaller single-family lots and shared open space.*
- *Ensure that lot sizes in Agricultural zoning districts are large enough (5 or 10 acres) to prevent fragmentation of identified priority agricultural areas*
- *Revise Ag district to limit future subdivision for single-family homes*
- *Prepare and annually update six-year capital improvements plan that coordinates with the master plan*
- *Support accessibility to local food*
- *Expand recycling facilities to accommodate recycling for businesses and multi-family uses*
- *Update screening requirements to allow rain gardens, bioswales, bioretention areas and filter strips*
- *Revise parking regulations to include allowances for pervious surfaces in parking and loading areas.*
- *Implement parks improvements from the Parks and Recreation Plan*
- *Encourage the use of cluster development, vegetated swales, downspout disconnection and other practices that reduce impervious surfaces and increase storm water infiltration.*
- *Promote Low-Impact Design (LID) to reduce the level of stormwater runoff*
- *Implement community programs that promote best practices for improving*
- *Promote education of proper septic drainfield maintenance to increase lifespans of systems and preserve water quality*
- *Require more frequent septic systems inspections*
- *Require vegetated buffers from all wetlands, streams, lakes and rivers to protect water quality.*

For a complete listing of implementation strategies, tools, and timeframes, see Chapter 5: Implementation

3. TRANSPORTATION

A. Introduction

Changes in land use impact travel patterns and road capacity. Because the quality of the transportation system impacts the development pattern, ideally the land use and transportation systems are planned together. This can be a challenge in Union Township where most roads are under jurisdiction of the Isabella County Road Commission. This plan sets forth goals and actions to encourage a coordinated approach with consideration of various travel needs (auto, freight, pedestrians, bicyclists and transit users).



B. Complete Streets

Planning the township transportation system involves more than just moving vehicles efficiently and safely. A transportation system needs to meet the needs of all types of users – motorists, pedestrians, bicyclists, and transit users. In some cases, this can be accomplished with lower vehicle speeds to be more supportive of bicycles and pedestrians, while in other places, wider vehicle lanes and higher speeds may be needed for vehicle and goods movement. The design of the transportation system also needs to reflect the context of adjacent land uses. Nationally, this approach is often referred to as “complete streets”, harmonizing streets with their surroundings while interlacing transportation networks to meet the mobility needs of all users.

Sidewalks and Pathways

Sidewalks have many benefits. When sidewalks exist, people walk more frequently which contributes to public health and neighborhood cohesion. In addition, sidewalks provide an alternative mode of transportation. Recent studies have also demonstrated that subdivisions with sidewalks tend to better sustain higher property values. Connections between neighborhoods and nearby activity nodes like schools, parks and commercial nodes also contribute to the township’s quality of life. The Non-Motorized Transportation map illustrates the location of existing sidewalks. While many areas of the community have a complete sidewalk network, there are many developed areas that lack a complete sidewalk network or lack sidewalks in general. As new development and redevelopment occurs, opportunities to construct sidewalks should be pursued,

Goal 2: Create a safe, balanced and coordinated multi-modal transportation system adequate to accommodate the ongoing growth and (re)development of Union Township.



- 2.1. Connect schools, parks and other public facilities with a system of pathways, bikeways and trails
- 2.2. Prioritize sidewalks in areas where there are connectivity gaps first
- 2.3. Work with the Road Commission to incorporate non-motorized facilities into road improvement projects

especially in close proximity to schools, parks and activity nodes and along major thoroughfares as indicated on the Non-Motorized Transportation map.

The Township defines pathways (separate from sidewalks) and their use as follows: An off-road shared use, non-motorized path, usually asphalt, separate from the public road (though sometimes in the public right-of-way). All cyclists regardless of age are encouraged to use pathways. The Sidewalks and Pathways Ordinance establishes policies for the installation of sidewalks; the Township also established a Sidewalks and Pathways Planning Committee to establish priorities for sidewalk construction in the Township.

CMU has a system of existing and proposed bike paths that should be considered in any Township non-motorized transportation planning effort. Although these paths are internal to or on the periphery of campus, they are relevant to the Township because students rely on them to get to from the apartment complexes and classes via Broomfield Road.

Crossing Improvements

The design of crosswalks is critical to ensure proper safety for pedestrians and vehicles. Safety hazards exist whenever pedestrians or bicyclists intersect with individual driveways, or where they meet at an intersection.

Several crosswalks have been improved throughout the township but many more need improvements to improve safety for users. Union Township should work with the Road Commission to improve crosswalks considering the following:

- Use pavement markings to clearly indicate where pedestrian activity will occur; vehicles must not be allowed to block these areas. Colored or decorative pavement treatments will bring greater visibility to crossings.
- Maintain clear vision zones at intersections to increase visibility.
- Provide adequate lighting at intersections so pedestrians are safe at all hours.
- Include overhead flashers to indicate non-signalized crossing points. Mid-block crossings can be further enhanced by using pavement markings or texture and signage at the motorists' eye level.
- Consider restricting right turns on red at high volume intersections, as most motorists fail to consider the pedestrian when turning.
- Include medians in the design of intersections, especially where a high volume of pedestrian activity is expected. Medians provide safer crosswalk options and refuges for pedestrians.
- Mid-block crossings should include pedestrian refuge islands.
- Decrease street width at crossing points by installing sidewalk flares and curb extensions, medians or raised islands to create a safe haven for pedestrians and bikers.

Resident Survey Highlights: Complete Streets

- 19.8 percent of residents surveyed in 2016 ranked "Pathways linking residence to parks" as their top suggestion for enhancing Township parks
- One third of those surveyed indicated "more sidewalks" should be a high priority for the township's General Fund
- 65% of residents indicated support for a special assessment for additional sidewalks and pathways in the township

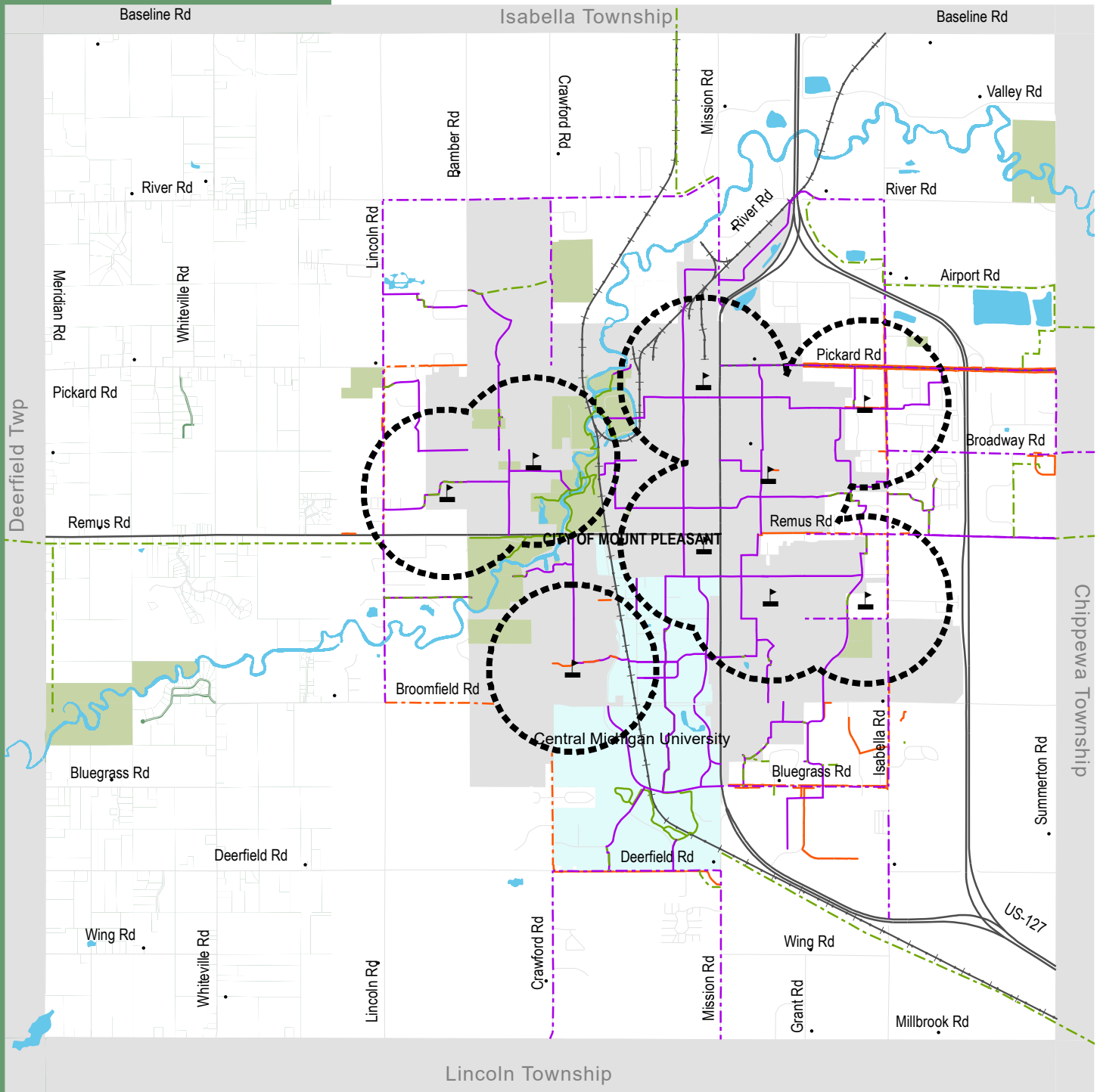
Benefits of Complete Streets:

- Provides connections between homes, schools, parks, public transportation, offices, and retail destinations.
- Improves pedestrian and cyclist safety by reducing potential crashes between motorized and non-motorized users.
- Encourages walking and bicycling that improves health and fitness.
- Provides options to make fewer driving trips, saving money.
- Research demonstrates pedestrian and bike-friendly cities have more economic vitality.

Objective 2.1.
Connect schools,
parks and other public
facilities with a system of
pathways, bikeways and
trails



pavement treatments, signs, and overhead lights can help better delineate pedestrian crossings



Non-Motorized Transportation

0 0.25 0.5
Sources: MCGI, Union Township, The Greenways Collaborative, LSL Planning



	Schools
	Parks
	Safe Routes to School 1/2 mile walk zone
Existing	Proposed
Sidewalks	
Bike Routes	
Trails	

Transit

Public transit is well supported and used in the Township. While it is primarily geared toward the student population, it is recognized as being forward-thinking and willing to adapt to local needs. The Isabella County Transportation Commission (ICTC) provides demand-response transit services to Union Township and the surrounding areas. The ICTC provides dial-a-ride service to the entire county, with additional service to Clare, Remus, and Oil City. They also provide a fixed-route campus shuttle between the CMU campus and the several large apartment complexes and shopping areas in the Township.

*Objective 2.3.
Work with the Road
Commission to
incorporate non-motorized
facilities into road improvement
projects*



Complete Streets Implementation Strategies



- *Adopt a resolution in support of Complete Streets.*
- *Update the inventory of sidewalks and bike lanes from the 2011 nonmotorized plan.*
- *Complete the planned pedestrian sidewalk and pathway system, especially to fill in gaps and connect neighborhoods with destinations like schools, parks, neighborhood shopping and entertainment districts, and cultural institutions.*
- *Support public education that promotes the personal and environmental benefits of active lifestyles.*
- *Work with Isabella County Transportation Commission towards increasing sidewalk connectivity within 1/4 mile of all existing and planned bus stops in the Township.*
- *Use the Site Design Checklist provided in the 2011 Non-Motorized Plan as a model framework during site plan review, and provide copies of the list to developers to use as a reference guide*
- *Encourage the Road Commission to support the creation of “Complete Streets” that consider the needs of vehicles, bicyclists, and pedestrians equally*
- *Re-engage the Pathways Committee; encourage regular meetings to prioritize improvements to the existing sidewalk and pathways network.*
- *Work with organizations and advocacy groups such as bike users, seniors, and schools to develop Safe Routes to School programs and trail organizations to identify priority needs for walking and biking.*
- *Pursue local, state and federal funding to continue implementation of a non-motorized transportation system, both in the right-of-way and off-road trails / pathways*
- *Acquire easements where feasible for non-motorized facilities in areas where right-of-way is insufficient*
- *Require bike racks for certain new, non-single family developments and promote installation of bike racks at key locations.*
- *Require non-motorized connections between sidewalks and business entrances, transit stops, and neighborhoods*
- *Require easements during site plan review where right-of-way is insufficient to provide non-motorized facilities*
- *Amend sidewalk ordinance to remove waivers for sidewalks in commercial districts*

See maps from the 2006 Access Management plan and learn more about these recommendations in the Appendix.

Basic Principles of Access Management

Six basic principles are used to achieve the benefits of access management:

- Limit the number of conflict points,
- Separate conflict points,
- Separate turning volumes from through movements,
- Locate traffic signals to facilitate traffic movement,
- Maintain a hierarchy of roadways by function, and
- Limit direct access on higher speed roads.

Source: MDOT

The 2006 Access Management Plan focused on M-20 and US-127 BR. These recommendations can also be applied to other corridors in Union Township where appropriate.

C. Access Management

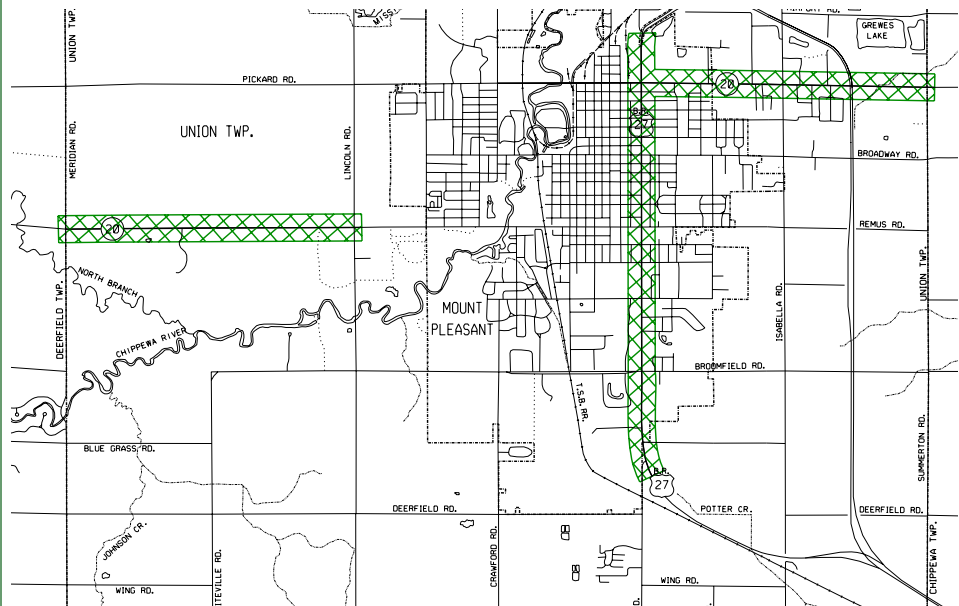
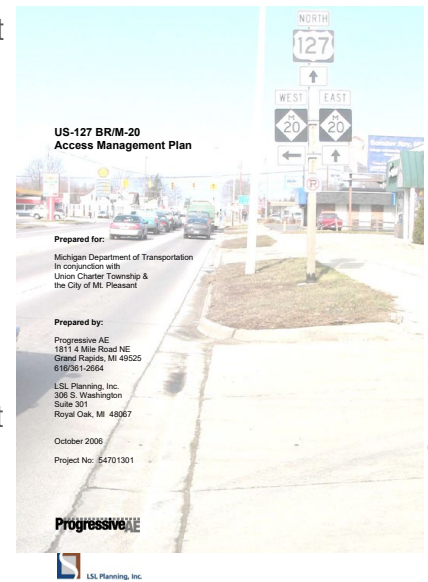
The purpose of the 2006 Access Management Plan for the US-127/ M-20 corridors was to improve traffic operations and reduce crash potential along key corridors in the township, while retaining reasonable access to existing and future developments. This plan outlines recommendations for US 127 BR, M-20/ Pickard Rd., and M-20/Remus Rd. developed in conjunction with MDOT and the City of Mount Pleasant. A draft overlay zoning district was also developed in 2006 to implement the recommendations of this access management plan. This overlay has not yet been adopted, however. The zoning amendments as well as the approval process for development review and MDOT approval recommended in the plan should be adopted to ensure a safe and efficient state trunkline.

In addition, these principles should be applied to other commercial corridors, like Bluegrass and Isabella Roads, to promote safety and efficiency.

Access Management Recommendations

While it may not be possible to retrofit certain corridor sections to meet current spacing guidelines for new driveways, the goal is still to minimize the number of driveways as much as possible.

- Establish future right-of-way needs (widths) for corridors, including:
 - » Allow for variations in road location, based on existing development and natural elements which the Township may wish to preserve
 - » Accommodate drainage needs and topographical changes
 - » Accommodate operational features such as turn lanes at intersections and potential transit facilities, and
 - » Flexibility in road design to allow for bike lanes, sidewalks, buffer strips between the curb and sidewalk, etc.



US-127 BR & M-20 ACCESS MANAGEMENT PLAN
STUDY AREAS

- Increase minimum lot frontage along corridors.
- Adjust front yard setback requirements.
- Adopt access-related recommendations from the plan as amendments to the Zoning Ordinance.

Many of the recommended retrofit improvements in the plan will only become implementable when an owner or developer approaches the township, Mount Pleasant, or MDOT during an approval process. However, alternative funding strategies may increase the feasibility of many projects. For example, funding may be included as part of a street reconstruction project for those who volunteer to have their access modified per the Master Plan. In some cases, entities such as a downtown development authority have offered to pay between half- and full-cost for those who volunteered.

Other creative funding strategies include offering to waive permit fees in exchange for a closed, changed or shared access. Additionally, some communities have offered to provide trees or other right-of-way improvements where access is eliminated.

Pickard Road (retrofit)

The high number of vehicle trips, existing access points and abundant signage along this corridor underscores the critical importance of implementing access management recommendations geared towards retrofit access.

M-20/Remus Road (future access)

The 2006 plan indicates that poor driveway spacing and poor driveway offsets are the primary access-related deficiencies along this corridor. Development pressures along M-20 near Lincoln Road underscore the importance for ongoing collaboration with the Isabella County Road Commission and MDOT.

See page 30 in the commercial section for more on development near this corridor.



Access Management Implementation Strategies

- *Implement recommendations from the 2006 Access Management Plan for Pickard and Remus Roads during site plan review*
- *Require cross access and shared access for driveways in commercial districts.*
- *Require transportation impact studies during development review to ensure walking, biking and transit facilities are as safe, convenient and comfortable as road facilities.*
- *Create specific access management recommendations for Bluegrass Center.*



For a complete listing of implementation strategies, tools, and timeframes, see Chapter 5 Implementation

Priority Application: Bluegrass Center

As one of the prime developing areas of the township, Bluegrass Center will need careful consideration of both access management and improved pedestrian connections between businesses and residences. While not a part of the M-20 Access Management Plan, this area can benefit from similar recommendations in terms of shared access, cross access easements, reducing turn conflicts, and service drives.

Bluegrass Road, envisioned to be a town center, should be retrofitted to minimize the number of driveways, include multi-use pathways on both sides of the street, and ensure safe pedestrian crossings at intersections. Cross access between sites should be required and future plans for a road network should be developed. Careful consideration for access management should also be considered with adjacent Mount Pleasant along Broomfield Road and across developments on either side of the border. (See the Bluegrass Center Concept Plan on page 21).

Worn pathways in the grass and a wheelchair in the center turn lane are clear evidence pathways are needed along Bluegrass Road.

4. LAND USE + CHARACTER

A. Introduction

The Future Land Use Plan for the township is a guide to assist officials in decisions relating to day-to-day planning, zoning, land subdivision, and public improvement issues. From time to time, the Plan should be reviewed and revised as necessary to respond to changing needs of the community.

New land use and community character challenges arise as Union Township continues

to grow: competition for desirable land uses from surrounding communities will increase; redevelopment of aging sites will increase in importance; management of traffic on the existing roadway network will continue to be a priority; and balancing expanding the public infrastructure system while maintaining the current system. As a result, the development strategy has shifted towards focusing on vacant or underutilized property to provide for quality redevelopment first before continuing to expand into greenfield sites.

The Future Land Use Plan is a representation of general physical features and land use activities in the township when fully developed and does not imply that all of the changes will or should occur in the near term. Development and redevelopment will proceed in a manner consistent with policies on the environment, transportation and infrastructure capacity, and other matters which help determine the appropriate timeframe.

Zoning decisions should also produce changes that, over time, gradually establish greater conformity between the Zoning Map and the Future Land Use Plan. The Future Land Use Map should be carefully considered to ensure consistency is maintained when making decisions on planning and development matters; community changes which directly conflict with the Future Land Use Map could undermine the long-term objectives of the township and should be avoided.



Goal 3: Maintain a well-organized, balanced and efficient use of land in the Township.



- 3.1. Encourage a transition between land uses that provides a logical progression towards more intense uses closer to the City.
- 3.2. Expand housing choices to support multiple options for a wide range of age groups and family types.
- 3.3. Re-imagine the Bluegrass Road Subarea as a vibrant destination for community business, social and civic activity.
- 3.4. Encourage sensible, sustainable, diverse, high-quality office, commercial and industrial development in designated areas to ensure employment opportunities remain supported by the community's existing and reasonably anticipated future infrastructure.
- 3.5. Continue to encourage quality office and commercial development and redevelopment along corridors.

B. Factors Considered

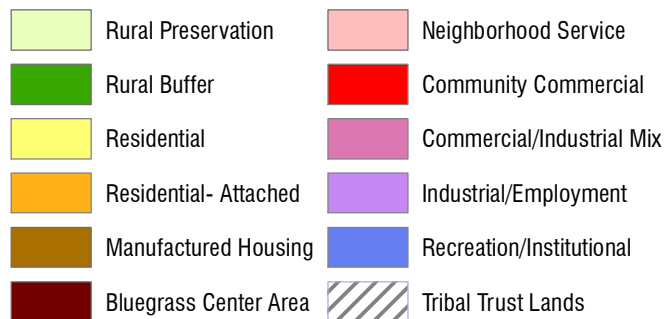
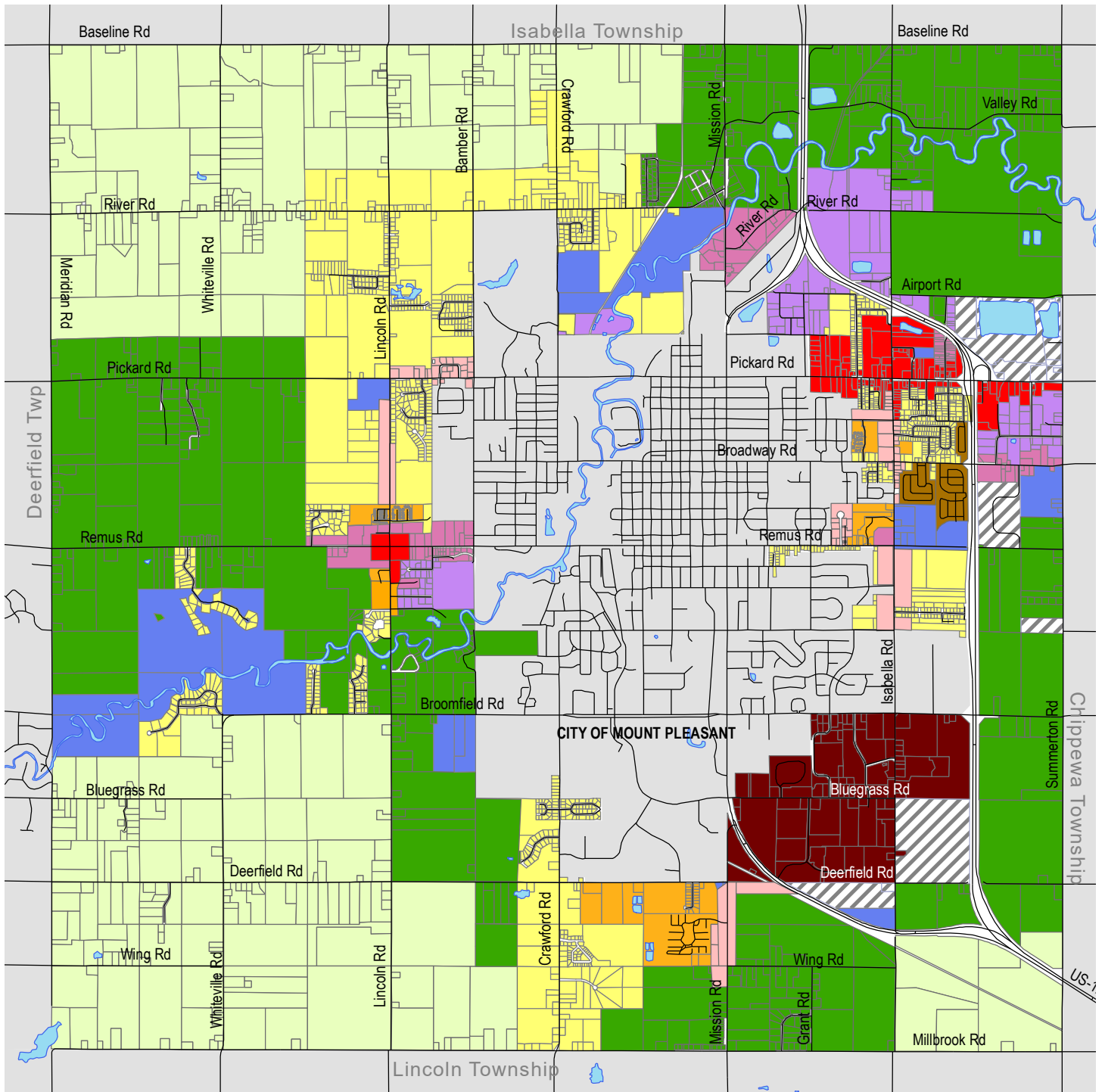
In addition to those challenges listed above, the following factors influenced the proposed future land use pattern in Union Township:

- Existing land use - Wholesale changes to the existing land use pattern would be difficult. The locations of most existing commercial and industrial developments are appropriate, and the community land use patterns have evolved around these existing land uses.
- Relationship of incompatible uses - The future land use plan strives to diminish incompatible land use relationships by providing a transition of land uses, such as offices between retail and single-family residential areas.
- Natural features - The types of development and allowable density shown on the future land use map were determined by the location and extent of natural features. For example, lower overall development densities are proposed for properties containing significant wetland areas to encourage clustering in buildable areas.
- Existing Township Master Plan - The future land use plan contained in the previous plan was re-evaluated based on current trends and conditions for this update.
- Infrastructure - The density of residential uses and the location of land uses such as industrial and commercial are dependent on the availability and the capacity of the infrastructure system. Portions of the Township are currently served, or are planned to be served, by public water and sewer. The capacity of the road network defines the intensity of uses that may be served without adversely impacting traffic operations. The availability of community facilities such as schools, recreational facilities, police and fire protection places bounds on service to land use, particularly residential density. For this reason, this plan includes a growth boundary.
- Township Vision - The land use pattern desired by Township officials and property owners has been expressed with the objective of a diversified tax base, employment opportunities, provision of services for residents and desire for a mixture of uses.

For more info on infrastructure and the growth boundary see Chapter 2: Growth Management, for more on road system, see Chapter 3: Transportation

Future Land Use Planning Principles:

- *Continue to sustain the overall residential and rural character of the township.*
- *Provide an attractive business environment and opportunities for businesses to expand the economic diversity of Union Township and contribute to the overall economic strength.*
- *Ensure the transition from one use or grouping of uses to another is compatible with surrounding uses through screening and buffering.*
- *Foster the revitalization and redevelopment of existing uses or areas which have deteriorated or have become obsolete.*
- *Promote systematic development of residential, commercial, and industrial uses in specific areas and corridors as recommended to take advantage of existing infrastructure and future improvements.*
- *Promote compatibility between existing and future uses along Union Township's boundaries with other communities.*



Future Land Use Categories

The future land use categories described throughout the plan are summarized below:

Rural Preservation. Rural Preservation Areas outside of the growth boundary should be maintained at a low intensity rural character of development that will not adversely impact natural features and agricultural uses. Agriculture should be promoted and future rezoning requests for residential should be prohibited to prevent leapfrog development.

Rural Buffer. Rural Buffer areas do not have sewer and water, but are appropriate for agriculture uses and some infill with low density residential. Typically located on the fringe between rural and more urbanized areas, future rezoning in this district should be limited for more intensive uses, especially those requiring extended utility service.

Residential. After agriculture, this category is the township's predominant land use, and is meant to promote single-family homes on a variety of lot sizes. With new development, subdivision design should protect open space and natural features and limit single driveways onto corridors.

Residential – Attached. This land use category covers a variety of attached dwelling units and includes areas planned for both medium- and high-density residential development including duplexes, attached condominiums, townhomes, and flats.

Manufactured Housing. This category is provided primarily for manufactured housing communities, such as those located on Broadway Road between Isabella Road and US-127. This designation is limited to areas along Major Arterial roads served by utilities.

Neighborhood Service. Located primarily along corridors adjoining lower intensity land uses, the intent of this district is to limit future retail and focus on small-scale personal service and office uses. This district accommodates shallow lots, providing a good buffer and transition to residential uses and limiting heavy commercial and general retail uses so they can be focused on other areas of the township. Rear yards adjoining residential areas should be well-screened to limit impacts of higher intensity uses. These areas should be

accessible and comfortable for the pedestrian and should create a sense of place along the roadway.

Retail/Service. This district is intended for the widest variety of retail and service businesses. They could range from apparel shops, auto service, and restaurants through small commercial strip centers and office buildings. This district is not intended for heavy commercial/light industrial uses like landscaping or contractor yards, heavy auto repair, or similar uses that may require some form of outside storage. Locations for this district are based on arterial road frontage and the need for high traffic volumes with convenient, well-managed access.

Commercial / Light Industrial. This district is intended for a blend of medium intensity commercial and small-scale light industrial uses. Light industrial uses include but are not limited to small-scale manufacturing, laboratories, R&D (research and development) firms, information technology firms, or other businesses that might be found in a technology park.

Industrial / Employment. This category promotes traditional industrial employment. Located near regional nodes with convenient access to interchanges, this district provides an opportunity to diversify the industrial employment base of the township by reserving areas for research, development, technology, and corporate offices or campuses that will have less of an impact than traditional industrial uses. Uses to complement CMU's Smart Zone would include research, design, engineering, testing, laboratories, diagnostics, and experimental product development. Types of industries may include automotive, electronics, alternative energy technologies, computers, communications, information technology, chemical or biomedical engineering.

Recreation / Institutional. This category is designated primarily for indoor/outdoor recreation both private and publicly owned.

Tribal Trust Lands. These areas are under the jurisdiction of the Saginaw Chippewa Indian Tribe.

C. Housing

The success of Union Township neighborhoods still relies in large part on the creation, preservation and rehabilitation of the housing stock, the availability of home ownership, the proximity to community facilities and services, and housing options for all segments of the population.

People looking for a place to live, or deciding whether to stay within a geographic area, typically focus on several factors. These factors include the character of the neighborhood/immediate area, quality of the public school system, distance from the workplace, perceptions of home value appreciation, the diversity of housing available to meet changing needs and income levels, among other issues.

This section serves as a basis for future land use plan strategies regarding housing to support residential land uses that are further detailed later in the chapter.

Residential

After agriculture, this category is the township's predominant land use, and is meant to promote single-family homes on a variety of lot sizes. With new development, subdivision design should protect open space and natural features and limit single driveways onto corridors.

Residential – Attached

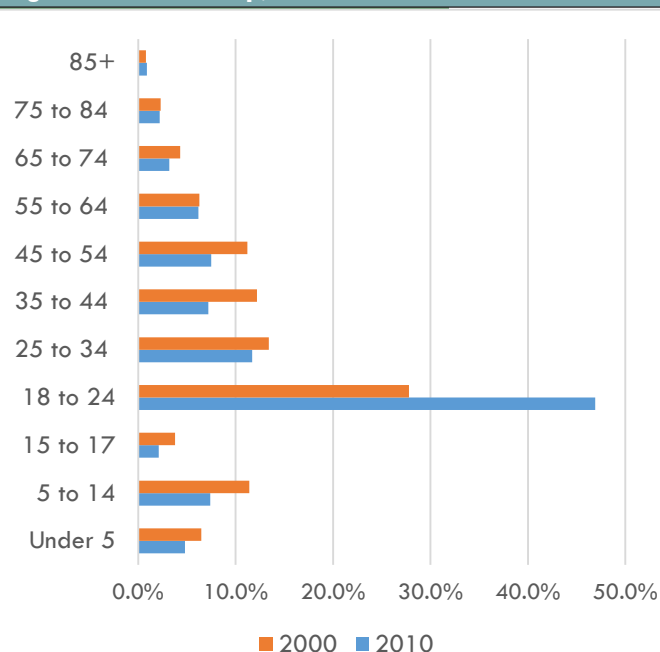
This land use category covers a variety of attached dwelling units and includes areas planned for both medium- and high-density residential development including duplexes, attached condominiums, townhomes, and flats.

Manufactured Housing

This category is provided primarily for manufactured housing communities, such as those located on Broadway Road between Isabella Road and US-127. This designation is limited to areas along Major Arterial roads served by utilities.

Cohorts for Township residents ages 18-24 saw the greatest increase between 2000-2010, at approximately 50%, likely stemming from more university students living in the township

Age in the Township, 2000-2010



Housing Best Practices

Union Township offers a range of housing opportunities including single-family residential, manufactured home communities, multi-family residential (low to high density apartment or condominium developments), and townhouses. This section identifies ways to continue to diversify new housing opportunities for various income and age groups.

Housing Options for Changing Demographics

Demographically two segments of the national and local population are transitioning and present an opportunity for the Township; these include baby boomers and young adult households. A significant segment of the existing Union population has lived there for 15 to 20 years and will soon become or is empty nesters. They have raised their children in the community and have established personal and professional relationships which anchor them. However, these active empty nesters may be inclined to seek a different lifestyle including as its centerpiece, a new potentially smaller condominium home in a highly amenitized environment which might include a golf course, central clubhouse/activity center, trails or even an urban hub with retail and entertainment options.

The housing needs of seniors is an important part of the commitment to provide appropriate housing choices for all of its residents. Viable housing options should include remaining

at home as long as possible and is especially important to residents who want to stay in the neighborhoods they are most familiar with and be near family and friends. Retrofitting existing homes to be accessible for seniors desiring to “age in place” could include ramps, wider doorways, and first floor bedrooms and accessible bathrooms. Where “aging in place” is not feasible, special facilities, such as senior independent living, assisted living and congregate care is another important housing option to be provided within the community.

In order for housing to be affordable for multiple income levels and family types, a balance of owner and renter-occupied units for a variety of incomes should continue to be provided. Smaller families and couples may desire alternatives to single-family detached, owner-occupied housing, such as townhomes, flats, and apartments above storefronts. Other households may choose to rent to maintain mobility. In cases where there may be a trend in renter-occupied single-family homes, the Township should monitor housing quality to ensure neighborhood stability.

Because of the township’s proximity to Central Michigan University, it will continue to see a demand for student housing. The Township seeks to strike a careful balance between serving the market and protecting character of the community. The Bluegrass area remains the best location for new housing catered to students. As other older apartment complexes age, retrofitting them with better architectural and site design will become more important to ensure they match the quality and character desired in the township.

Multiple-Family Design Guidelines

Multiple-family residential dwelling units help to improve the choice of housing

Owner- vs. Renter-Occupied Housing				
Community	Owner-Occupied		Renter-Occupied	
	Number	Percent	Number	Percent
Township	1,838	38%	2,966	62%
County	14,838	60%	9,823	40%
State	2,728,815	71%	1,112,333	29%
Source: 2011-2015 American Community Survey Estimates				

Objective 3.2: Expand housing choices to support multiple options for a wide range of age groups and family types.



In December 2016, a countywide Target Market Analysis indicated that attached housing units such as townhomes, row houses, lofts, and multiplexes accounted for nearly three quarters (74%) of the maximum potential growth for Isabella County, 60% of which was expected to come from the City of Mount Pleasant and surrounding areas.

Renters now account for 62% of households in the Township, whereas County and State trends for renters are estimated at 40% and 29%, respectively.

Current Conditions: Attached Housing



Multiple-family complexes should provide sufficient bicycle parking. Covered parking and screened waste receptacles would be even better to improve the appearance.



These attached units could benefit from sidewalks, more prominent entrances and less prominent garages.



These apartments need sidewalks along the edge of the parking to eliminate pedestrian and vehicular conflicts in the parking lots

Best Practices: Attached Housing



Attached single-family, like this duplex above, can resemble a single-family home.



Townhouse style development is very popular among young adults and empty-nesters.



Modern apartments can have sleek design features and support a more walkable streetscape.

types and to provide housing opportunities. Several areas have been classified for medium- and high-density residential use at strategic locations in the township and provide opportunities for development. Multi-family residential also provides opportunities for an older population (empty nesters, retirees and those in need of care). Multi-family housing types extend beyond the typical multi-family apartment building. Single-family attached condominium units as part of planned development projects have been a fast growing housing choice for empty-nesters and retirees.

Multiple family or attached single-family structures should incorporate architectural design elements that emulate single-family neighborhoods such as pitched roof lines and prominent entries, and minimize appearance of garage doors. Sites should provide pedestrian connections between building entrances, public pathway connections, and parking areas. Important site design features include waste receptacle screening, parking lot landscaping, bike storage.

Housing Preservation and Maintenance

Residents who take pride in their homes, whether rented or owned, can contribute positively to a neighborhood's image and reinvestment opportunities. Therefore, home stewardship should be supported broadly, beyond owner-occupied residences to include rental home and apartment maintenance. Currently, the Township requires rental inspections, which keeps tabs on building safety. This could be broadened to ensure zoning compliance. For more on code enforcement, see page 42.

Expanding outside current Township programs may include efforts to support home stewardship by encouraging partnerships with non-profits, agencies, or local home improvement stores to provide community training in home repair skills, mortgage assistance, and providing needed resources, such as tools and materials for physical renovations.

Housing Implementation Strategies

- Continue vigilant enforcement of housing, rental, and maintenance codes.
- Ensure compliance with property maintenance standards so landlords are accountable.
- Work with senior citizen groups such as ICCA to assess and meet the housing needs of older residents
- Coordinate with CMU Campus Safety to address safety concerns regarding student housing.
- Support agencies that provide low-cost housing
- Conduct a housing market analysis to determine needs and whether zoning currently matches with the market demand.
- Evaluate residential and select business districts to allow a wider variety of attached housing types



D. Mixed-Use Bluegrass Center Area

While currently more auto-centric, this area has the potential to transition into a more walkable, vibrant center. Future uses should be integrated to include multi-story, mixed-use buildings; first floor retail and office uses; public use and spaces; entertainment and restaurant venues; and additional attached housing types such as townhouses. Both vehicular and pedestrian cross connections should be promoted between sites, providing for future connections through easements, and should collectively promote a vibrant, livable center to the neighboring university population.

Key gateways into the center at busy intersections should have clearly delineated, safe pedestrian crossings and gateway landscaping and signage to project the “town center” image and branding for the district. This branding can continue through streetscape improvements such as pedestrian scale lighting, banners, street trees, and street furniture, similar to those provided by the EDA on Pickard Road, to build a cohesive center. Working with the Road Commission, Union Township should prioritize right-of-way easements to capture the pedestrian amenity zone in front of street-fronting development.

Mixed-use development promoting walkability should be prioritized along Bluegrass Road and connections made to nearby apartment complexes and big box retailers. New development visible from Highway 127 should be developed with friendly “back doors” as well to ensure the highest quality image for the township is projected to travelers.

This area could benefit from master planning, a character-based code, or planned unit development to ensure that future development is coordinated with roadway improvements. The concept plan depicted on the following page is meant to be the first schematic step at identifying further, more concrete, recommendations during the development of a more detailed subarea analysis.

See the design guidelines recommended for attached housing and commercial development in other sections of this chapter.

Objective 3.3: Re-imagine the Bluegrass Road Subarea as a vibrant destination for community business, social and civic activity.

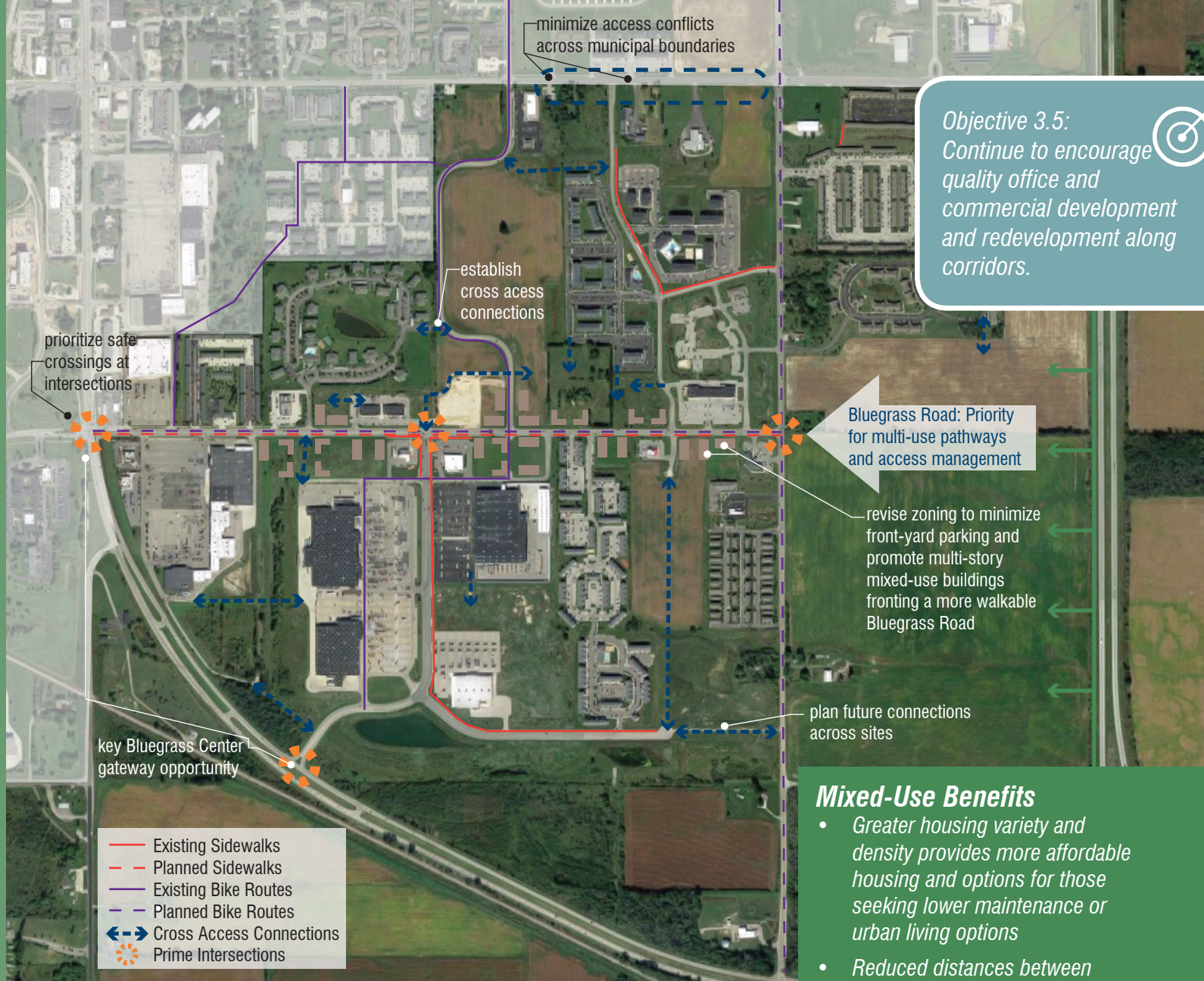


Mixed-Use Example



The Hamptons in Meridian Township near Michigan State University is a good example of suburban mixed-use development. Storefronts line the corridor with apartments above and parking in the rear. This planned unit development integrates well with the existing, more traditional apartment buildings.





Bluegrass Center Concept Plan

Mixed-Use Development

Mixed-use development is a development or building that blends a combination of residential uses, or that combines residential and non-residential uses, and where those functions are physically and functionally integrated. By locating places where people live, work and shop in close proximity to one another, alternatives to driving, such as walking or biking, become more viable. Mixed-use developments can offer a variety of residential opportunities so that younger and older people, singles and families of varying income levels may find places to live. A more diverse and sizable population and commercial base can also better support public transportation.

Mixed-Use Benefits

- Greater housing variety and density provides more affordable housing and options for those seeking lower maintenance or urban living options
- Reduced distances between housing, workplaces, retail businesses, and other amenities and destinations reduces travel time and improves convenience
- More compact development makes more efficient use of public services, utilities and infrastructure
- Stronger neighborhood character and sense of place result when citizens and businesses interact
- Walkable, bikeable neighborhoods increase accessibility, which results in improved travel options, reduced transportation costs and improved community health

E. Commercial and Employment

Commercial

The commercial uses in the Township are generally clustered along major roads or intersections near the boundary of the City of Mount Pleasant, and vary in age, design and site placement. Large vacant commercial parcels are located in the areas near Pickard Road and also along the Bluegrass Road corridor. Since commercial uses tend to change location or update their facilities once every decade or two, the varying ages of buildings and vacant properties within established commercial areas are indications of future change – redevelopment of the commercial area, transition to other uses or gradual abandonment. Abandonment or under-use of commercial property affects the value of adjacent commercial entities. The following land use recommendations for commercial in the township seek to maximize the potential of existing sites, provide alternatives to traditional separation of uses, poise new commercial development to respond to the ever changing economic climate, and ensure the township achieves the highest quality development possible.

Neighborhood Service

Located primarily along corridors adjoining lower intensity land uses, the intent of this district is to limit future retail and focus on small-scale personal service and office uses. This district accommodates shallow lots, providing a good buffer and transition to residential uses and limiting heavy commercial and general retail uses so they can be focused on other areas of the township. Rear yards adjoining residential areas should be well-screened to limit impacts of higher intensity uses. These areas should be accessible and comfortable for the pedestrian and should create a sense of place along the roadway.

Neighborhood Service Design Guidelines

Neighborhood Business areas are located near residential neighborhoods and should be compatible with the residential scale of the surrounding area. In these locations, the nodes can become a focal point, or gathering area for a neighborhood. The following design guidelines should be considered for incorporation into the zoning ordinance.

- Building architecture should possess a timeless character that signifies the presence of the commercial area and reflects pedestrian-oriented design. The use of high-quality building materials is strongly recommended to create a memorable character.
- All buildings should have exterior facades made of brick, glass, wood, and cut or simulated stone.
- All front facades should have windows and distinguishing architectural features commonly associated with the front of a building, such as awnings, cornice work, edge detailing, or other decorative finishes. Similar treatment is also needed on the side and rear depending on visibility from the roadway and surrounding property.
- Buildings are encouraged to be built closer to the street with most or all of the parking located to the side or rear. This will not only strengthen the streetscape but will ensure a district character of active and pedestrian-oriented areas that promote walking.
- Streetscape treatment should be used to signify an entrance and sense of place. This provides a benefit for motorists and pedestrians to more easily identify these areas, and it is better for business owners because the streetscape can be used as a form of business recognition.

At the time of this plan's writing, improvements to Lincoln Road, including a new bridge, were underway. The future land use plan indicates neighborhood service for a portion of the frontage along Lincoln between Pickard and Remus. The Lincoln/Broomfield/Remus corridors should be evaluated in the future as the planned "loop road" around Mount Pleasant becomes more established. Land use decisionmaking for this area should balance road capacity and defining use types that can serve the neighborhood without duplicating or drawing commercial away from East Pickard.

Key Design Concepts

- *Promote high quality, durable building construction and design*
- *Use site design features such as landscaping, lighting, and parking to improve circulation and appearance*
- *Screen undesirable views*
- *Limit the clutter of business signs*
- *Promote pedestrian oriented design*

- The streetscape should include wide sidewalks, street trees, and street lighting. For additional enhancement along the streetscape, storefronts should allow for an area of planted flowers, plants, or benches.
- Parking abutting residential should be screened with a mixture of treatment such as landscaping and a wall or fence. Large canopy trees are also needed in parking lots to create shade, to break up the view of the built environment, and to enhance the overall site.
- Parking should be minimized to the greatest extent because pedestrian-orientation is promoted. The township should employ techniques such as shared parking, banked parking, and setting a maximum amount of parking to ensure the number of spaces is not excessive.
- In areas with less neighborhood appeal, at a minimum shared and connected parking is important to improve traffic flow between sites and avoid additional volumes onto the adjoining main road.
- Care should be taken to locate loading and unloading areas so that they are screened from view. Waste receptacle enclosures should also be sited so they are out of view and constructed of quality materials that are found in the building they serve.

Best Practices: Neighborhood Service



Retail/Service

This district is intended for the widest variety of retail and service businesses. They could range from apparel shops, auto service, and restaurants through small commercial strip centers and office buildings. This district is not intended for heavy commercial/light industrial uses like landscaping or contractor yards, heavy auto repair, or similar uses that may require some form of outside storage. Locations for this district are based on arterial road frontage and the need for high traffic volumes with convenient, well-managed access.

Retail/Service Design Guidelines

The focus of design guidelines for these areas is to ensure durable, high quality building design, place limitations on potential nuisances such as lighting and offer techniques to minimize the visual impacts of large building massing and parking.

- Building materials should be durable and have an appearance of permanence and substance consistent with surrounding buildings. For instance, brick, split-faced block or similar materials are encouraged as the primary building material.
- All visible wall elevations from the street must be designed with design details and treatment consistent with the front elevation of the building.
- Building colors should be subtle and consistent with the businesses along the corridor or within the shopping center.
- New building construction and renovations should be consistent in massing with the desired scale and proportion of the business corridor or area.
- Building massing should be reduced by incorporating vertical and horizontal breaks, varied rooflines, archways and other treatments.
- Entrances to commercial buildings should use windows, canopies and awnings; provide unity of scale, texture, and color to adjacent buildings; and provide a sense of place.
- Building entrances should be prominent and accessible from the roadway when located near the front of the site and otherwise oriented towards parking areas with a high quality façade.
- Rooftop equipment should be completely screened to protect views from the roadway and adjacent uses.
- Newly constructed parking lots should provide a setback and landscape greenbelt.
- Parking lot landscaping is especially important in minimizing large parking lots.
- Loading facilities and overhead doors should be prohibited along any building side facing a public street or residential area.
- Rear elevations visible from the roadway and/or residential areas should have a finished quality consistent with the other elevations of the building.

Industrial and Employment

A goal of Union Township is to promote the region as a destination for industry and tourism. However, the taxable value of occupied industrial areas is just over one percent of the total taxable value for the Township. To contribute to the attractiveness of the region for industry, Union Township should strive to offer more opportunities and incentives for industry to locate here.

Best Practices: Community Commercial



Objective 3.4.

Encourage sensible, sustainable, diverse, high-quality office, commercial and industrial development in designated areas to ensure employment opportunities remain supported by the community's existing and reasonably anticipated future infrastructure.



The Township should also consider opportunities to capitalize on the energy from CMU, and look for ways to accommodate new uses such as Research and Design in industrial districts to promote growth.

Both the university and the hospitality operations cater large number of meals creating the possibility for food processing, storage and packaging facilities for locally grown food.

Industrial Categories Design Guidelines

This section includes design standards for both the Commercial / Industrial and Industrial Employment future land use categories. Since these types have similar characteristics, architecture and building design should generally follow similar guidelines. Zoning regulations dealing with signs, building placement and lighting will help industrial uses to blend with different uses.

Building Design. Buildings should reflect a quality image that is attractive to employers and employees, by addressing the following design elements:

Commercial / Light Industrial

This district is intended for a blend of medium intensity commercial and small-scale light industrial uses. Light industrial uses include but are not limited to small-scale manufacturing, laboratories, R&D (research and development) firms, information technology firms, or other businesses that might be found in a technology park.

Industrial / Employment

This category promotes traditional industrial employment. Located near regional nodes with convenient access to interchanges, this district provides an opportunity to diversify the industrial employment base of the township by reserving areas for research, development, technology, and corporate offices or campuses that will have less of an impact than traditional industrial uses. Uses to complement CMU's Smart Zone would include research, design, engineering, testing, laboratories, diagnostics, and experimental product development. Types of industries may include automotive, electronics, alternative energy technologies, computers, communications, information technology, chemical or biomedical engineering.

Best Practices: Industrial



- The administrative/office segment of the building should utilize quality architecture with variable building lines, rooflines, architectural accents, and brick facades similar to community and regional scale commercial development.
- The administrative/office portion of the building should be located and oriented toward the front of the site and appropriately transition into the warehouse and manufacturing areas.
- The portion of industrial buildings devoted to warehousing and manufacturing should be located at the rear of the building.
- Techniques should be utilized to break up building massing such as vertical and horizontal articulation, windows, varying facades, and landscaping.
- The predominant material utilized on facades visible from a public right-of-way or parking lots should be brick, split face block or other high-quality decorative masonry material.
- Building materials should be durable and have an appearance of permanence and substance.
- Loading areas and overhead doors must be located where they are not visible from the roadway and residential areas and proper screening must be provided in the form of landscaping, and a berm where deep setbacks

are provided. Screening may also be provided in the form of an integrated screen wall extending from the building. If a deep setback is not possible, a wall with plantings should be provided.

Outdoor Storage. Within the township there are a number of industrial uses that rely on outdoor storage for their operations. Because the Township wishes to promote the economic viability of a variety of business types outdoor storage should be allowed, but strictly regulated in industrial areas. These standards should be considered in controlling outdoor storage:

- Outdoor storage areas should only be permitted within the rear yard of any site and meet the side and rear setback standards for a principal structure as a special land use.
- The size of the storage area should be limited by setback requirements and a maximum area should be allowed that is relative to the specific lot size.
- Designated outdoor storage areas should provide suitable containment in the form of opaque screening walls or opaque fences. In cases where it is necessary to use a chain link fence, the fencing shall be black vinyl coated and augmented with landscaping.
- To provide further screening and enhancement, plantings should be required along the outer perimeter of a screening wall or fence.
- Regulations should be flexible as to the types of materials stored outdoors, provided they do not cause hazardous contamination of soils and are contained in a manner that prevents the material from blowing away.
- Materials stored may be stacked or placed at a height that is at or below the level of the screening wall or fence to ensure effective screening and containment.
- Circulation for emergency vehicles must be maintained within the storage area.
- Large outdoor storage operators, such as asphalt/paving companies or compost or recycling businesses, should mitigate views onto the site through increased setbacks and landscaping.

Screening from Residential. The future land use plan attempts to create transitions and separation between industrial development and single-family residential neighborhoods by planning other land uses in those areas such as Residential - Attached, Community Commercial, and Neighborhood Service. In many cases, however, past development decisions and land use policies have created numerous areas in the township where single-family residential abuts industrial operations. Since redevelopment cannot always occur with the desired land use separation, there will be circumstances where industrial development will be adjacent to single-family residential.

In these cases it is the priority of this plan to ensure as they redevelop, are reused, or expand that additional screening is provided to minimize impacts. Screening should be provided by the industrial user in the manner described below when residential abuts the site, or when residential is directly across the street. Since sites are different, flexibility is needed to adjust to site conditions while at the same time maintaining the important priority of protecting residential areas.

- Deep setbacks are needed to physically separate industrial buildings from residential areas and to allow adequate space for proper screening.
- Landscaping is needed to provide a natural, aesthetic screen. Plantings should include both evergreen trees and large canopy trees to provide year

Objective 3.1:
Encourage a transition between land uses that provides a logical progression towards more intense uses closer to the City.



Best Practices: Outdoor Storage and Screening



Site Design Approach

- *Improve attractiveness of buildings and sites.*
- *Make it more comfortable for people to walk along and between businesses.*
- *Strengthen corridor character and branding.*
- *Better delineate parking areas.*
- *Improve visibility of existing businesses.*
- *Promote uses that will be successful to fit the character of the area.*
- *Promote successful uncluttered signs.*

Best Practices: Buffers



round screening and screening at varying heights. Planting spacing must be dense enough to prevent 'openings' in the landscape screen.

- Undulating berms should also be incorporated into the landscape screen to obtain a taller, opaque screen. Since plantings take time to grow and fill in, the berm will contribute to an immediate screening of taller structures. The width of the berm must be adequate to allow a natural slope to the berm that can be maintained and allows for plantings to thrive.
- In cases where a deep setback is not possible, an opaque screening wall is needed in addition to plantings.
- Although the entire length of the property line should be screened where it abuts or is across the street from residential, attention should be directed toward loading areas, outdoor storage areas, or other on-site operations that may be particularly displeasing to residents. Where possible, attempt should be made to orient these activities to the opposite side of the site.

Site Design and Economic Development Implementation Strategies



- *Meet quarterly with members of Chamber of Commerce and EDAs to discuss opportunities for economic development in the Township*
- *Establish a community-wide marketing and economic development strategy.*
- *Explore the possibility of an airport authority to create a long-range vision for economic development initiatives tied to airport improvements*
- *Evaluate the use of a form-based code along Remus, Bluegrass, and Pickard to complement the City of Mount Pleasant's code for continuity of building and site design*
- *Update screening requirements between residential and non-residential uses to more adequately require buffers to reduce impacts of noise, light, and traffic from more intense uses*
- *Revise parking regulations with a maximum number of allowed parking spaces; may be a percentage above the minimum requires PC waiver*
- *Add a zoning inspection to the certificate of occupancy process to ensure sites are built according to the approved site plan*
- *Strengthen consequences for code violations in junkyard ordinance to discourage repeat offenders and reduce blight*
- *Revise sign regulations to be content neutral: by type, location, and size, not by use (political, religious, gas station etc.)*
- *Move site development standards in the zoning ordinance out of the business district sections into a general section that can also apply to multiple-family development (landscape, parking lot design and landscaping, waste receptacles, building design)*
- *Establish maximum setbacks and design guidelines for all districts.*
- *Revise industrial districts to permit retail, R&D and tech-related uses to enhance growth.*

A. Introduction

The Master Plan is intended to serve as a guide for land use and physical development or redevelopment. Goals, objectives and strategies noted throughout the Plan should be carefully considered during decisions on rezonings, zoning text amendments, other regulations, capital investments for improvements to streets, “complete streets” bikeways/walkways, utilities, public facilities, land acquisition, and development proposals. Recommendations in this Plan apply to both public land (parks, sites, and right-of-way) and guidance for development and redevelopment of privately owned property. Some Plan recommendations may involve the need for changes to land use regulations and/or potential new programs. Others may involve partnerships with other municipalities, agencies, organizations, or groups. Since the Plan is a long range guide, refinements or additional studies may also be appropriate in the future to reflect new information, respond to unanticipated factors or to address changes in township policies.

The Master Plan is only valuable if used consistently. This chapter has been prepared to summarize the various recommendations into a checklist to outline actions and responsibilities for implementation. A cumulative listing of implementation recommendations is included in this chapter. Where appropriate, a timetable is suggested for execution of these strategies and actions consistent with available staff and financial resources of Union Township.

Also included in this chapter is a zoning plan that compares consistency between zoning classifications and future land use map designations and development guidelines used to evaluate land use proposals

Evaluation and Monitoring

This plan has been developed with a degree of flexibility, allowing nimble responses to emerging conditions, challenges, and opportunities. To help ensure the plan stays current and useful, periodic reviews are required and amendments may be necessary. This will ensure plan goals, objectives, and recommendations reflect changing community needs, expectations, and financial realities.

The plan should be reviewed at least every five years consistent with state statute. Detailed subarea plans should be adopted as Master Plan amendments. Updates should reflect changing conditions, unanticipated opportunities, and acknowledge the implementation to date. Yearly workplans should be prepared to assess what has been accomplished in the implementation table and what should be achieved in the coming year.

Planning Commission as Facilitators

The Planning Commission is charged with overseeing plan implementation and is empowered to make ongoing land use decisions. As such, it has a great influence on how sustainable Union Township will be. As an example, the Planning Commission is charged with preparing studies, ordinances, and certain programmatic initiatives before they are submitted to the Township Board. In other instances, the Planning Commission plays a strong role as a “Plan Facilitator” overseeing the process and monitoring its progress and results. Together, Township staff and the Planning Commission must be held accountable, ensuring the Township’s Master Plan impacts daily decisions and actions by its many stakeholders.

Roles of the Township Board

The Township Board should be engaged in the process to implement the plan. In this regard, Board should assist with implementation strategies and consider and weigh the funding commitments necessary to realize the township’s vision,

whether involving capital improvements, facility design, municipal services, targeted studies, or changes to development regulations, such as municipal codes, the zoning ordinance and procedures.

B. Implementation Tools

Tools to implement the Master Plan generally fall into five categories and some strategies may include more than one:

1. Land use regulations
2. Capital improvement programs, such as streets, township buildings, or other major purchases
3. Special Funding Programs
4. Programs or additional studies
5. Partnerships, such as working with other organizations on planning, education, funding, or delivery of cost-efficient services.

Each tool has a different purpose toward Plan implementation and may suggest specific immediate changes, long-term policies and others involve ongoing activities.

1. Land Use Regulations

The primary tool for Plan implementation, which includes the Zoning Ordinance and other land use regulations, is summarized below. The township also has a number of other codes and ordinances to ensure that activities remain compatible with the surrounding area, such as noise, blight and nuisance ordinances.

Zoning Regulations

Zoning regulations control the intensity and arrangement of land development through standards on lot size or units per acre, setbacks from property lines, building dimensions and similar minimum requirements. Various site design elements discussed in this Plan are also regulated through site plan review and address landscaping, lighting, driveways, parking and circulation, pedestrian systems and signs. Zoning can also be used to help assure performance in the protection of environmentally sensitive areas such as floodplains, state regulated wetlands, woodlands and wellhead areas.

Zoning Map

Over time, changes to the zoning map should become more consistent with the land use pattern identified on the Future Land Use Map. In some cases, the township may wish to initiate certain rezonings as part of an overall zoning map amendment. Other changes to the zoning map can be made in response to requests by landowners or developers. In those cases, township officials will need to determine if the time is proper for a change. It is important that the future land use plan be understood as a long range blueprint: Implementation is expected, but gradually in response to needs, conditions and availability of infrastructure. The Zoning Plan section of this chapter outlines how the Future Land Use Plan relates to current zoning.

Subdivision, Land Division and Condominium Regulations

Subdivision, land division and condominium regulations control the manner in which property is subdivided in the township and the public improvements required to support the development. The distinctions are not always apparent once a project is built, but the approval procedures are different due to separate state statutes that govern these types of land development approaches in Michigan.

Public Infrastructure Standards

Public infrastructure refers to the basic facilities and services needed for the functioning of the township such as township streets, water, sanitary sewer, storm sewer, among others. Standards to ensure consistency and uniformity have been adopted so that each facility is designed and constructed to support existing and future development.

Most land use regulations are applied when new construction or substantial redevelopment is proposed. Union Township has a comprehensive development review process from development conceptualization to building occupancy. Once proper zoning is in place, a site plan must be approved followed by approval of building and site engineering, construction plans and then permits for construction. Buildings and sites are inspected and then occupancy permits are issued. The subdivision and subsequent development of land is also carefully reviewed. Regulations are administered and enforced through monitoring by township staff and in response to complaints.

2. Capital Improvement Program (CIP)

Except for private roads, the roads in the township are under jurisdiction of the county, with responsibility for a few routes is MDOT. Funding for improvements to those roads is generally based on physical condition, safety issues or traffic operation deficiencies. Improvement projects are generally prioritized by the county or MDOT. The Township may be able to influence the selection of projects through assistance in providing documentation of problems, or participation in improvement funding, such as through the EDA or grant requests. This desired road improvement projects should be listed in the Township's CIP as a first step.

3. Funding Programs

Some of the recommendations may be funded locally, some through outside funds, and many through a combination. The Township monitors new federal and state funding programs that may be available to assist in implementation. In addition, foundations and other organizations may provide contributions. In addition to traditional sources, the township has the ability to raise revenues within a specific geographic area for specific purposes, or to capture the new increment of tax revenues in a specific geographic area for specific purposes. One example is the Economic Development Authority. Another tax-based program is the Brownfield Act that provides funding for reuse of eligible sites. In cooperation with other governmental agencies with taxing authority, the Township has effectively used tax increment finance programs to capture the new increment of tax revenue for a specific area and use those funds for public improvements within that area.

4. Other Programs

A variety of housing, economic development, informational and other programs may be used by the Township to assist with implementation of recommendations in this Plan. Many of these are through state programs as identified in the preceding chapters such as the following:

- Michigan State Housing Development Authority (MSHDA)
- MSHDA MiPlace
- Michigan Economic Development Corporation (MEDC)
- MEDC Redevelopment Ready Communities
- Michigan Department of Transportation (MDOT) and Complete Streets Coalition
- Michigan Department of Natural Resources
- HUD CDBG

By using an Annual Review & to-do list, the Township can ensure recommendations from the Master Plan are implemented consistently and on schedule.

5. Partnerships

While the Township is in a position to coordinate many of the plan’s implementation tasks, responsibility should not solely rest on the government. Instead, the vast array of stakeholders having key roles in either the township or region should all participate. Partnerships with the public and private sector, including the school district, Isabella County, City of Mount Pleasant, Central Michigan University, Saginaw Chippewa Indian Tribe, neighboring townships, major employers, and business will also lead to success implementing the plan’s initiatives. Partnerships may range from sharing information to funding and shared promotions or services. The spirit of cooperation through alliances and partnerships will be sustained to benefit everyone in the region. Township government cannot and should not do it all. Only through public/private collaboration can the plan’s vision be realized.

D. Action Plan

The implementation tools outlined above are available and should be used to achieve the goals and objectives of the Master Plan. Comprehensive actions have been developed to organize and apply these tools. Under each implementation tool, specific actions and a timeframe for implementation are identified. The details of the strategies to implement the Master Plan are specified in the accompanying table.

Abbreviations Used in Implementation Table

TB	Township Board
DPW	Department of Public Works
PC	Planning Commission
Staff	Township Planning Staff
ICRC	Isabella County Road Commission
BD	Building Department
Admin	Township Administration
City	Mount Pleasant
Consultant	Will likely require outside assistance to prepare
Short-term	1-5 years
Long-term	by 2027

Topic	Action	For More...			Priority			Responsible Party
		Growth Mgt.	Transportation	Land Use	Short Term	Long Term	Ongoing	
Capital Improvements								
Capital Improvements Plan	Prepare and annually update six-year capital improvements plan that coordinates with the master plan		✓				✓	PC; TB; Admin
Non-Motorized	Acquire easements where feasible for non-motorized facilities in areas where right-of-way is insufficient		✓				✓	Staff; DPW
Non-Motorized	Pursue local, state and federal funding to continue implementation of a non-motorized transportation system, both in the right-of-way and off-road trails / pathways		✓				✓	TB; PC; DPW
Parks	Implement parks improvements from the Parks and Recreation Plan	✓					✓	Rec Committee
Environmental Sustainability	Expand recycling facilities to accommodate recycling for businesses and multi-family uses	✓			✓			Township; City; County
Coordination								
Non-Motorized	Work with organizations and advocacy groups such as bike users, seniors, and schools to develop Safe Routes to School programs and trail organizations to identify priority needs for walking and biking.		✓				✓	Pathways Committee
Transit	Work with Isabella County Transportation Commission towards increasing sidewalk connectivity within 1/4 mile of all existing and planned bus stops in the Township.		✓				✓	Staff, PC
Non-Motorized	Re-engage the Pathways Committee; encourage regular meetings to prioritize improvements to the existing sidewalk and pathways network.		✓		✓			PC; TB
Non-Motorized	Encourage the Road Commission to support the creation of “Complete Streets” that consider the needs of vehicles, bicyclists, and pedestrians equally		✓			✓		ICRC
Growth Management	Ensure coordination between Public Works and Planning Departments so Township utilities are expanded in a logical, efficient manner.	✓					✓	PC; DPW
Water Quality	Implement community programs that promote best practices for improving water quality	✓					✓	TB; PC
Economic Development	Meet quarterly with members of Chamber of Commerce and EDAs to discuss opportunities for economic development in the Township			✓			✓	Board; MEDC; Chamber
Housing	Work with senior citizen groups such as ICCA to assess and meet the housing needs of older residents			✓			✓	ICCA

Topic	Action	For More...			Priority			Responsible Party
		Growth Mgt.	Transportation	Land Use	Short Term	Long Term	Ongoing	
Housing	Coordinate with CMU Campus Safety to address safety concerns regarding student housing.			✓			✓	CMU Public Safety; DPS
Economic Development	Establish a community-wide marketing and economic development strategy.			✓		✓		Chamber; MEDC; City ED; TB; Tribe
Economic Development	Explore the possibility of an airport authority to create a long-range vision for economic development initiatives tied to airport improvements			✓		✓		Chamber; MEDC; City ED; TB; Tribe
Policy/Program								
Non-Motorized	Use the Site Design Checklist provided in the 2011 Non-Motorized Plan as a model framework during site plan review, and provide copies of the list to developers to use as a reference guide		✓				✓	PC; Staff
Non-Motorized	Complete the planned pedestrian sidewalk and pathway system, especially to fill in gaps and connect neighborhoods with destinations like schools, parks, neighborhood shopping and entertainment districts, and cultural institutions.		✓				✓	Staff, Pathways Committee
Non-Motorized	Support public education that promotes the personal and environmental benefits of active lifestyles.		✓				✓	TB; PC
Non-Motorized	Adopt a resolution in support of Complete Streets.		✓		✓			TB
Non-Motorized	Update the inventory of sidewalks and bike lanes from the 2011 nonmotorized plan.		✓		✓			Staff
Access Management	Create specific access management recommendations for Bluegrass Center.		✓			✓		PC; Consultant
Environmental Sustainability	Support accessibility to local food	✓					✓	TB
Growth Management	Limit sewer and water extensions to areas not designated for agricultural preservation.	✓					✓	TB; DPS; PC
Stormwater Management	Encourage the use of cluster development, vegetated swales, downspout disconnection and other practices that reduce impervious surfaces and increase storm water infiltration.	✓					✓	PC
Stormwater Management	Promote Low-Impact Design (LID) to reduce the level of stormwater runoff	✓					✓	PC; DPW
Water Quality	Promote education of proper septic drainfield maintenance to increase lifespans of systems and preserve water quality	✓			✓			County Board of Health; BD
Water Quality	Require more frequent septic systems inspections	✓			✓			County Board of Health; TB

Topic	Action	For More...			Priority			Responsible Party
		Growth Mgt.	Transportation	Land Use	Short Term	Long Term	Ongoing	
Master Plan	Annually review Master Plan and track progress toward achieving actions						✓	Staff; PC
Training	Provide training for elected and appointed officials and staff and monitor participation						✓	Admin
Code Enforcement	Continue vigilant enforcement of housing, rental, and maintenance codes.			✓			✓	BD
Housing	Support agencies that provide low-cost housing			✓			✓	PC; TB
Code Enforcement	Add a zoning inspection to the certificate of occupancy process to ensure sites are built according to the approved site plan			✓	✓			PC
Code Enforcement	Ensure compliance with property maintenance standards so landlords are accountable.			✓	✓			BD
Housing	Conduct a housing market analysis to determine needs and whether zoning currently matches with the market demand.			✓	✓			Consultant
Regulatory								
Access Management	Implement recommendations from the 2006 Access Management Plan for Pickard and Remus Roads during site plan review		✓		✓			PC
Access Management	Require cross access and shared access for driveways in commercial districts.		✓		✓			PC
Access Management	Require transportation impact studies during development review to ensure walking, biking and transit facilities are as safe, convenient and comfortable as road facilities.		✓		✓			PC
Non-Motorized	Require bike racks for certain new, non-single family developments and promote installation of bike racks at key locations.		✓		✓			PC
Non-Motorized	Require non-motorized connections between sidewalks and business entrances, transit stops, and neighborhoods		✓		✓			PC
Non-Motorized	Require easements during site plan review where right-of-way is insufficient to provide non-motorized facilities		✓		✓			PC
Non-Motorized	Amend sidewalk ordinance to remove waivers for sidewalks in commercial districts		✓		✓			PC; TB
Parking	Revise parking regulations with a maximum number of allowed parking spaces; may be a percentage above the minimum requires PC waiver		✓		✓			PC
Parking	Revise parking regulations to include allowances for paved pervious surfaces in parking and loading areas.		✓		✓			PC
Growth Management	Create a cluster housing option in the Zoning Ordinance to promote smaller single-family lots and shared open space.	✓				✓		PC

Topic	Action	For More...			Priority			Responsible Party
		Growth Mgt.	Transportation	Land Use	Short Term	Long Term	Ongoing	
Growth Management	Ensure that lot sizes in Agricultural zoning districts are large enough (5 or 10 acres) to prevent fragmentation of identified priority agricultural areas	✓			✓			PC
Growth Management	Revise Ag district to limit future subdivision for single-family homes	✓			✓			
Landscape Requirements	Update screening requirements to allow rain gardens, bioswales, bioretention areas and filter strips	✓			✓			PC
Water Quality	Require vegetated buffers from all wetlands, streams, lakes and rivers to protect water quality.	✓			✓			PC
Code Enforcement	Strengthen consequences for code violations, and encourage compliance			✓	✓			PC; BD
Form-Based Code	Evaluate the use of a form-based code along Remus, Bluegrass, and Pickard to complement the City of Mount Pleasant's code for continuity of building and site design			✓	✓			PC; Consultant
Housing	Evaluate residential and select business districts to allow a wider variety of attached housing types			✓	✓			PC
Landscape Requirements	Update screening requirements between residential and non-residential uses to more adequately require buffers to reduce impacts of noise, light, and traffic from more intense uses			✓	✓			PC
Signage	Revise sign regulations to be content neutral: by type, location, and size, not by use (political, religious, gas station etc.)			✓	✓			PC; attorney
Site Design	Move site development standards in the zoning ordinance out of the business district sections into a general section that can also apply to multiple-family development (landscape, parking lot design and landscaping, waste receptacles, building design)			✓	✓			PC
Zoning	Establish maximum setbacks and façade design guidelines for all districts.			✓	✓			PC
Zoning	Reorganize and modernize zoning ordinance to be more user-friendly			✓	✓			PC; Consultant
Industrial	Revise industrial districts to permit retail, R&D and tech-related uses to enhance growth.			✓	✓			PC

E. Zoning Plan

Zoning is a key mechanism for achieving the desired land use pattern and quality of development advocated in the plan. This section provides a useful guide relative to the inconsistencies between current zoning patterns and proposed future land use designations.

Because the Future Land Use Plan is a long range vision of how land uses should evolve over time, it should not be confused with the Township's zoning map, which is a current (short-term) mechanism for regulating development. Therefore not all properties should be immediately rezoned to correspond with the plan. The Future Land Use Plan is intended to serve as a guide for land use decisions over a longer period of time (5+ years).

Review of the Existing Land Use map in comparison to the Future Land Use map reveals a gradual transition to the planned land use pattern. Achievement of this goal will be gradual particularly where established businesses and homes are located in areas intended for other types of uses in the long term.

In addition, the Future Land Use map is generalized. Zoning changes in accordance with the plan should be made gradually so that change can be managed. The Future Land Use map as well as the plan's goals and strategies should be consulted to judge the merits of a rezoning request.

The plan categories correspond to zoning districts, but there is some generalization. The following table provides a zoning plan indicating how the future land use categories in this Master Plan relate to the zoning districts in the zoning ordinance. In certain instances, more than one zoning district may be applicable to a future land use category.

Zoning	Future Land Use	Rural Preservation	Rural Buffer	Residential	Residential - Attached	Manufactured Housing	Bluegrass Center Area	Neighborhood Service	Community Commercial	Commercial/Industrial Mix	Industrial/Employment	Recreation/Institutional
AG, agricultural												
R-1, one-family residential												
R-2A, one and two-family residential												
R-2B, one and two-family residential												
R-3A, apartment and condominiums												
R-3B, medium density apartment and condominiums												
R-4, mobile or modular home												
R-5, single wide mobile home												
OS, office/service												
B-4, general business												
B-5, highway business												
B-6, auto-related highway business												
B-7, retail and service highway business												
New PUD or Mixed-Use district												
I-1, light industrial												
I-2, general industrial												

Some districts will need to be amended to incorporate the recommendations of this plan:

- a new mixed-use, form-based or planned unit development (PUD) option for Bluegrass Center
- incorporate more flexible uses and greater design requirements in the commercial and industrial districts
- consider simplifying residential districts to allow a wider variety of housing types and include greater design requirements for attached units

Union Charter Township 2017 Master Plan Update Appendix

July 17, 2017

This appendix summarizes existing conditions at the time the Union Township Master Plan was adopted in 2011 and updated in 2017. This background information provides a basis for the recommendations listed in the plan.

I. Demographics

Figure 1: Population Change in Union Township
Figure 2: Population Growth in Adjacent Communities
Figure 3: Comparing Age Groups from 2000 to 2010
Figure 4: Educational Attainment
Figure 5: Housing Units in Structure
Figure 6: Owner- Vs. Renter-Occupied Housing
Figure 7: Median Household Income
Figure 8: Employment Industry by Sector
Figure 9: Commute Time

II. Existing Land Use

Map- Existing Land Use

III. Transportation

20xx Non-Motorized Plan
2006 US-127 BR/ Access Management Plan

IV. Natural Features

Map- Prime Farmland by Soil Type
Map- Floodplain and Wetlands Areas
Map- Existing Land Use- Agricultural Areas Highlighted
Map- Prime Farmland with Residential Zoning

V. Utilities

Map- Utilities

VI. 2016 Target Market Analysis – Executive Summary

VII. 2016 Resident Survey

I. Demographics

The purpose of this document is to analyze qualitative and quantitative information regarding the existing conditions in and around Union Township. By compiling this information, which consists of population, housing, economic and employment characteristics, the community may be able to forecast upcoming development trends and land use patterns.

The following text and graphics offer an interpretation of information from a variety of sources, including the 2010 US Census and the 2011-2015 American Community Survey (ACS) General Housing and General Economic Characteristics 5-year estimates.

A. Population Characteristics

Population trends influence the development and circumstances within the community. The number of residents influences planning for streets, utilities and services. The age, income and length of stay of residents within the community all place demands on services and channel growth.

Population characteristics in adjacent communities also influence the development tendencies in Union Township. Residents in the City of Mount Pleasant and throughout Isabella County often find employment outside of their community and utilize a variety of services provided by the Township.

This ultimately forms a dynamic socioeconomic relationship among these numerous cities in the region. In general, jobs and economic development are strongly associated with population growth, showing why analyzing population characteristics of the Township and surrounding communities helps to assess the development opportunities of the future.

Population Change in Union Township 2000-2010

	2000	2010	% Change
Union Township	7,615	12,927	69.8%
Isabella County	63,351	70,311	11.0%
State of Michigan	9,938,444	9,883,640	-0.6%

Figure 1

Source: US Census Bureau

Regional Growth Trends

Union Charter Township, with 12,927 residents in 2010, according to the U.S. Census, has the largest population of the 16 townships which make up Isabella County. Union also is the only township that has experienced a population increase of greater than 1,000 people between 2000 and 2010. The U.S. Census figures show that Union gained 4,981 residents in that time period while the other townships have experienced from slight gains of just a handful of new residents as in Denver and Nottawa Townships.

Union's population trend is more similar to its neighbor, the City of Mt. Pleasant, than to other Isabella County townships as well as that of the State of Michigan overall.

Population Growth in Adjacent Communities

	2000	2010	% Change
Union Township	7,615	12,927	69.8%
Isabella County	63,351	70,311	11.0%
City of Mount Pleasant	25,946	26,016	0.3%
Chippewa Township	4,617	4,654	0.8%
Coe Township	2,993	3,079	2.9%
Deerfield Township	3,081	3,188	3.5%
Denver Township	1,147	1,148	0.1%
Fremont Township	1,358	1,455	7.1%
Isabella Township	2,145	2,253	5.0%
Lincoln Township	1,936	2,115	9.2%
Nottawa Township	2,278	2,282	0.2%
State of Michigan	9,938,444	9,883,640	-0.6%

Figure 2

Source: US Census Bureau

As seen in the table above, the population in both Mt. Pleasant and Union Township grew steadily in the past decade. The overall population of the State peaked in 2003 and has been on a steady decline since. Union

Township is in a unique position of population increase, which may be linked to the growth of Central Michigan University, located in the City of Mt. Pleasant.

In June 2003, all of Isabella County was designated the Mt. Pleasant micropolitan area by the U.S. Census Bureau. A micropolitan designation requires an urban core with a population between 10,000 and 50,000 people, with adjacent suburban communities. The designation opened the door for federal money, particularly for road improvements, prioritized for urban areas.

B. Age

Union Township also differs from statewide trends in terms of the age of the population. Union has seen a shift in its population's age distribution in the past ten years. In 2000 37% of the population was between the ages of 25 and 54. The 2010 Census shows that now only 26% of the population is in that age range. The largest percentage of the population has shifted to the 20 to 24 year age range.

Unlike the State overall, people ages 20 to 24 account for a significant portion of the population, or 41 percent in 2010. Housing data indicates that these young adults of the millennial generation are Central Michigan University students living in rental housing in Union Township. Young adults, especially students, have different demands on a municipality than adults over 25. Fiber optics, wireless systems and access to technology are important to this generation that has grown up with the internet. Many in this segment have access to recreation amenities at the university so the quality and range of recreation offered by the Township is not as important as it is to older residents with children. Finally, university student populations may remain stable or grow in terms of numbers but usually the length of time an individual stays in the same community or even dwelling unit is short. The continual influx of new residents can cause stress on a community, affecting the stability and character of neighborhoods. However, students bring growth, inject income, and can become long-term residents after graduation.

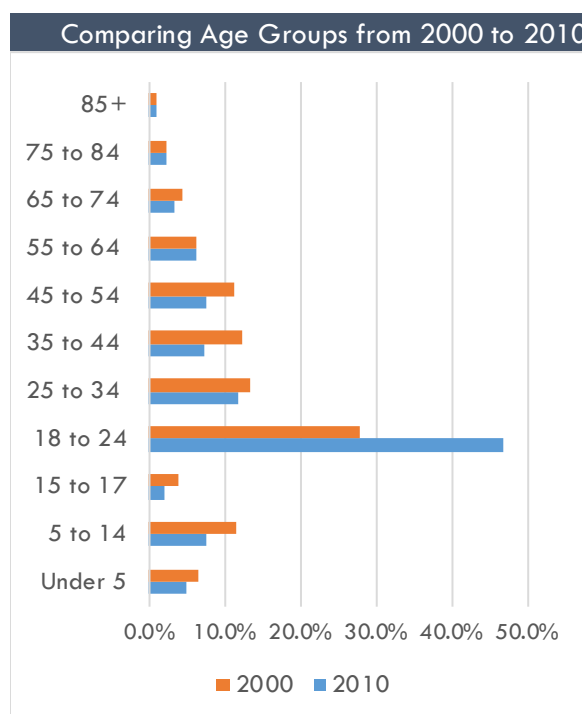


Figure 3

Source: US Census Bureau

Educational Attainment

The Township has a lower percentage of high school and college graduates than the City of Mount Pleasant, but a higher percentage of high school and college graduates than the County overall.

	Educational Attainment	
	% High School Graduate or Higher	% Bachelor's Degree or Higher
Union Township	92.8%	29.5%
City of Mount Pleasant	93.2%	42.9%
Isabella County	91.1%	27.3%

Figure 4

Source: 2011-2015 ACS 5-year Estimates

C. Housing Characteristics

Analyzing housing characteristics gives insight into the residential composition of the community, and consequently allows us to get an idea as to what type of housing is in demand. It is also important to evaluate the variety of housing types and affordability to determine if there are adequate housing options throughout the Township. By

considering these observations, the necessary policies and strategies can be implemented to enhance residential development.

Housing Units in Structure

Accounting for 36.1 percent of all housing, structures with 10 or more units have surpassed single-family units as the Township's dominant housing type (2011-2015 ACS 5 year Estimates). One unit detached structures are the second most common housing type at 34 percent of the Township's overall housing market. Mobile homes and apartment complexes with 5 to 9 units accounted for 8.8 percent and 10.9 percent of the housing units, respectively.

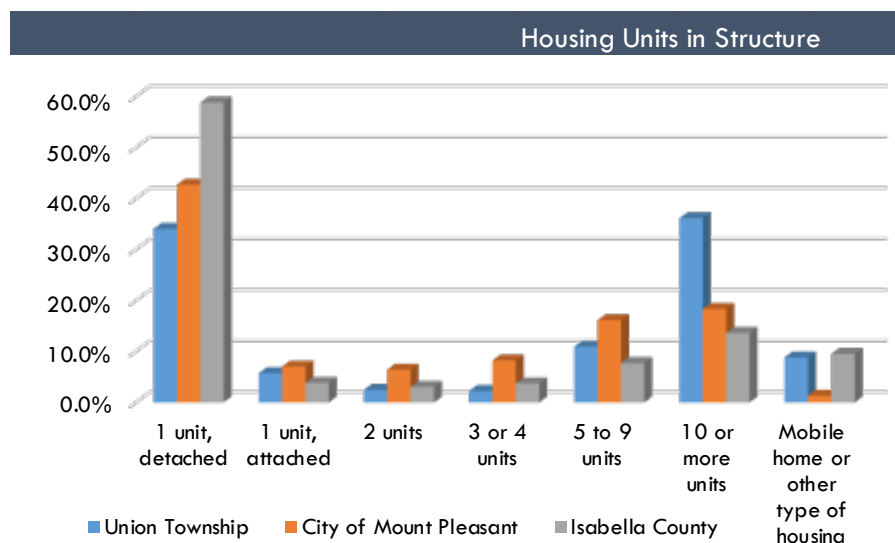


Figure 5

Source: ACS 2011-2015 5-Year Estimates

Housing Tenure

Between 2011-2015, the ratios of owner-occupied and renter-occupied units has shifted as compared with the same interlude between 2000-2005. Whereas owner-occupied housing previously made up the majority at about 60 percent of all occupied units, recent data show they now account for 38 percent of occupied units. Renter-occupied housing now accounts for 62 percent of units in the Township, where before it accounted for 40 percent of units.

	Owner- vs. Renter-Occupied Housing			
	Owner-Occupied		Renter-Occupied	
	Number	Percent	Number	Percent
Township	1,838	38%	2,966	62%
Mount Pleasant	3,014	37%	5,174	63%
County	14,838	60%	9,823	40%
State	2,728,815	71%	1,112,333	29%

Figure 6

Source: 2011-2015 American Community Survey Estima

The data suggest the housing needs of Central Michigan University (CMU) students continue to have significant impacts on the size of the renter population in both Mt. Pleasant and Union Township.

See Section VI: Market Analysis below for a summary analysis of area wide housing trends from the 2016 Residential Target Market Analysis conducted for Isabella County.

D. Employment and Economic Characteristics

Assessing the Township's economic and employment profile provides insight into the success residents are having in the community. Indicators of success include median household income, poverty rate, and employment characteristics. These indicators exemplify the community's skill level and earnings potential while demonstrating the needs citizens may have in the community. It is also important to relate these indicators to previous findings, such as educational attainment, in order to understand how many of the previously mentioned characteristics influence one another.

Median Household Income

Union Township's median household income of \$27,739 is lowest among townships in Isabella County, but is comparable to that of the City of Mount Pleasant which is \$30,833. The next closest adjacent community in terms of income is Isabella Township at \$43,365, which shares the norther border of the Township. Figure 7 summarizes median household incomes for the surrounding communities.

Median Household Income (2015 dollars)	
Chippewa Township	\$ 45,714
Coe Township	\$ 48,750
Deerfield Township	\$ 77,125
Denver Township	\$ 42,381
Fremont Township	\$ 43,894
Isabella Township	\$ 43,365
Lincoln Township	\$ 56,683
Nottawa Township	\$ 53,860

Figure 7 Source: ACS 2011-2015 5-Year Estimates

Poverty Rate

Of the Township's 13,110 residents in 2015, 6,051 fell below the poverty level. This equates to a poverty rate of 46.2%. Compared to Isabella County's poverty rate of 30.2%, the Township has a substantially higher proportion of the population living below the poverty line (2011-2015 ACS 5-year Estimates).

Employment Industry

As shown by Figure 8, services related to the arts and entertainment, education and health care industries make up the largest employment sectors in the township. Accounting for 13 percent of all employment, retail trade is also a major contributor of employment to the Township.

Employment Industry of Union Township	
Arts, entertainment, and recreation, and accommodation and food services:	29.9%
Educational services, and health care and social assistance:	28.4%
Retail trade:	13.0%
Professional, scientific, and management, and administrative and waste management services:	4.6%
Manufacturing:	4.5%
Finance and insurance, and real estate and rental and leasing:	4.4%
Public administration:	3.5%
Other services, except public administration:	3.3%
Construction:	2.7%
Transportation and warehousing, and utilities:	2.6%
Information:	1.2%
Agriculture, forestry, fishing and hunting, and mining:	1.0%
Wholesale trade:	0.8%

Figure 8 Source: ACS 2011-2015 5-Year Estimates

Commute Times in Union Township

Less than 10 Minutes	43.3%
10 to 19 Minutes	40.2%
20 to 29 Minutes	4.1%
30 to 44 Minutes	2.4%
45 to 59 Minutes	2.8%
60 or more Minutes	3.7%

Figure 9 Source: ACS 2011-2015 5-Year Estimates

Commute Time

Over 80 percent of the employed population in Union Township commutes twenty minutes or less to work, and of this population, 43.3% commute ten minutes or less. The mean travel time to work is 14 minutes for commuters living in the Township (2011-2015 ACS 5-year Estimates).

II. Land Use

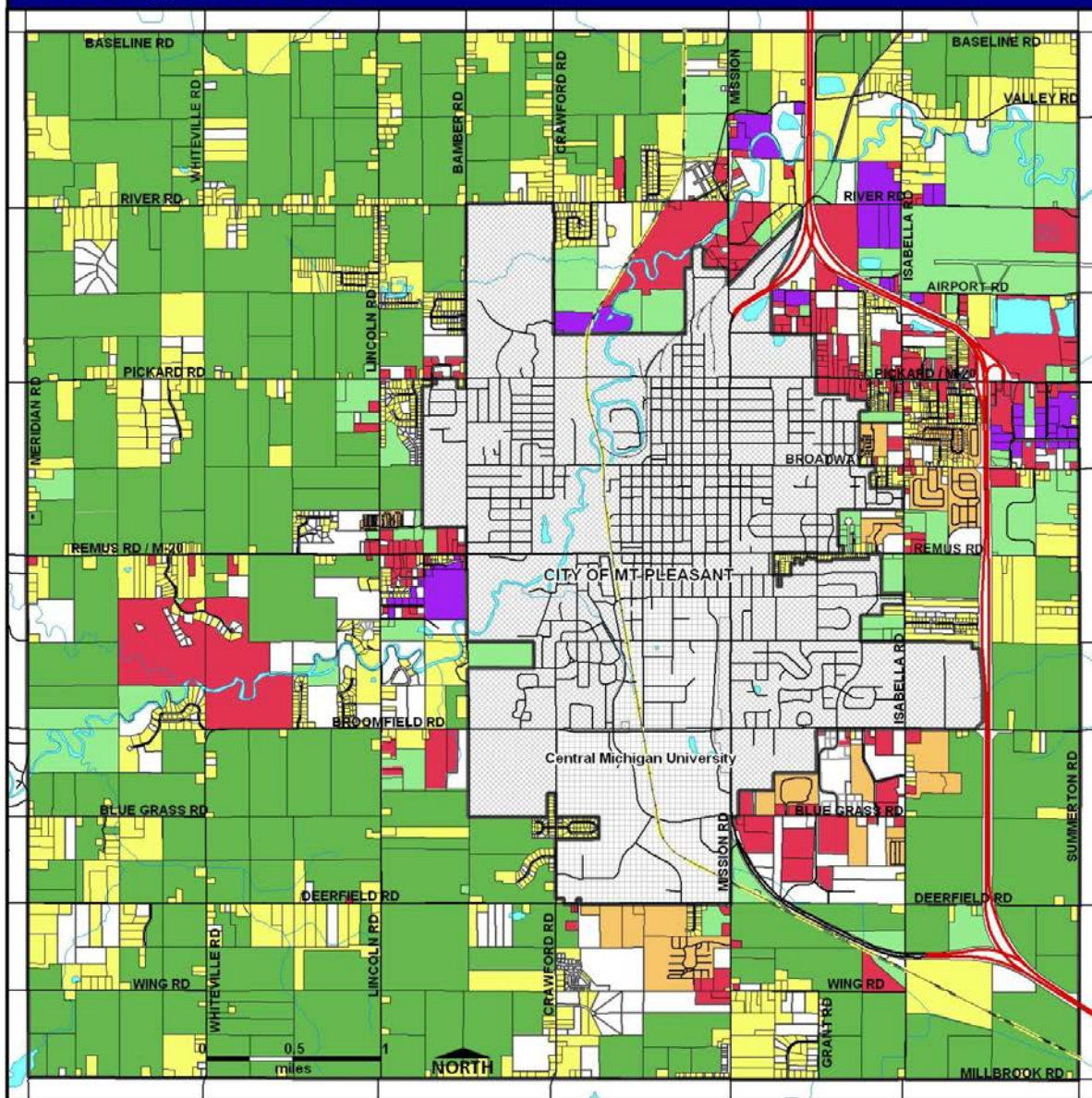
The land pattern in Union Township in February of 2010 is a traditional pattern of higher intensity uses, such as commercial and industrial, ringing the borders of the City of Mt. Pleasant, while residential and agricultural uses dominate the further corners of the Township. Industrial uses are in the northern or eastern part of the Township, near access to the freeway. Commercial also runs in strips near highway interchanges along major roads such as Pickard, Remus, Bluegrass and Mission Roads. Public and civic uses, such as parks, are mostly adjacent to the city and natural features.

Union Township Existing Land Use

Existing Land Use (ELU) Category	Acres of ELU	% of ELU	Acres of Zoned Land Use	Zoning Land Use category	Acres of Zoned Land Use	% of Zoned land
Agriculture	9,038	49.0%	10,431	Agricultural (AG)	10,431	58.0%
Low Density Residential	3,369	19.0%	4,903	Low Density Residential (R1)	2,379	13.0%
				Medium Density Residential (R2A, R2B, R5)	2,524	14.0%
High Density Residential	464	3.0%	561	High Density Residential (R3A, R3B, R4)	561	3.0%
Commercial/Office Service	1,346	8.0%	1,400	Office Service (OS)	62	<1%
				General Business (B4)	323	2.0%
				Highway Business (B5)	779	4.0%
				Auto Highway (B6)	66	<1%
				Retail and Service Business (B7)	170	1.0%
Industrial	302	2.0%	684	Light Industrial (I1)	341	2.0%
				Heavy Industrial (I2)	343	2.0%
Public/Civic/Exempt	1,541	9.0%	-	NA	-	0.0%
Vacant	1,841	10.0%	-	NA	-	0.0%
	-	-	79	Tribal Trust lands	79	<1%
Total	17,901	100.0%	18,058		18,058	100.0%

Source: Union Township

Existing Land Use



Parcels by Land Use Class

 Agricultural	 High-Density Residential
 Commercial / Office Service	 Public / Civic / Exempt
 Industrial	 Vacant
 Residential	

Existing land use information was developed from Union Township property data, land use/land cover data, and aerial imagery. Additional land use data, collected in the field, was provided by Matt Robinson (CMU Geography Department Senior Honors Project).

Compiled by Union Township GIS Department, October 2010.

III. Transportation

Transportation recommendations and implementation strategies for this plan included key points from the following sources:

[2011 Greater Mt. Pleasant Area Non-Motorized Plan](#)

The 2011 Non-Motorized Plan presents a vision of how the greater Mount Pleasant Area may improve their non-motorized connections, links to surrounding communities, and regional trail resources located in Isabella County. The plan is divided into eight parts:

Goals and Objectives. Vision that guides the plan

Inventory & Analysis. Assesses the state of the existing pedestrian and bicycle facilities

Proposed Facilities. Covers the specific infrastructure improvements to the transportation system to establish a non-motorized transportation network

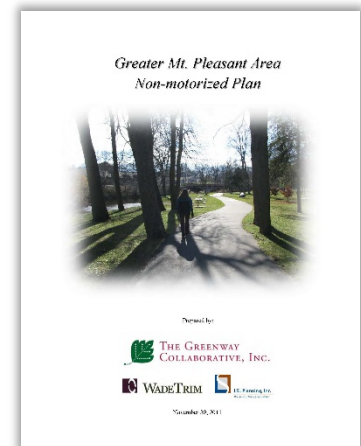
Implementation Plan. Provides the phasing, costs and funding recommendations for near, mid and long term improvements to the non-motorized network

Planning & Zoning Review and Recommendations. Describes how planning and zoning codes can be structured to support a bicycle and pedestrian friendly community

Proposed Policies & Programs. Describes the support system necessary for a successful pedestrian and bicycle network

Education & Marketing. Provides ways to promote non-motorized transportation while providing information on safe bicycling and walking

Design Guidelines. Provides a background on non-motorized transportation issues and defines current best practices for bicycle and pedestrian facility design

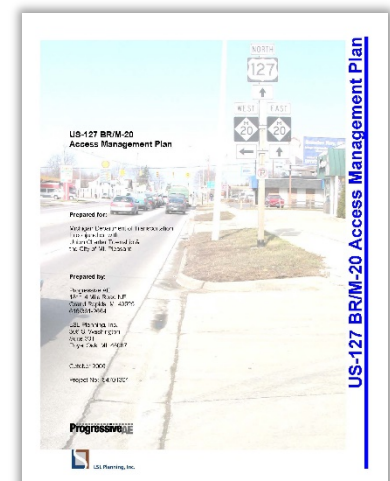


[2005 US-127 BR/M-20 Access Management Plan](#)

The 2005 Access Management Plan recommends access improvements for three distinct road segments, including Mission Street from Bluegrass Road north to Corporate Drive, Pickard Street (M-20) from Mission east to Summerton Road, and M-20 (Remus Road) from Lincoln Road west to Meridian Road.

Both the City of Mt. Pleasant and Union Charter Township recognize that the preparation and implementation of an access management plan will help alleviate a portion of the existing traffic congestion on Mission and Pickard Streets, while allowing for the more effective accommodation of traffic generated by future development on M-20/Remus Road west of Lincoln Road.

The following pages include selected excerpts from the plan.



IV. Natural Features

Natural features contribute to the character of the community and its attractiveness. Preservation of these features can also enhance the community's quality of life. Too often, natural features are viewed as barriers to development. The Township needs to look for creative ways to integrate physical features into the development process.

Land Features

Land features are aspects which affect what type of activities and buildings can happen. The Chippewa River flows across the Township, bringing natural beauty to the community while limiting construction in its floodplains and wetlands. The Township is also rich with soils fertile for farming but has areas, especially along the river, where agriculture would be difficult. The soil and water resources in the Township pose choices for the community.

Prime Agricultural Soils

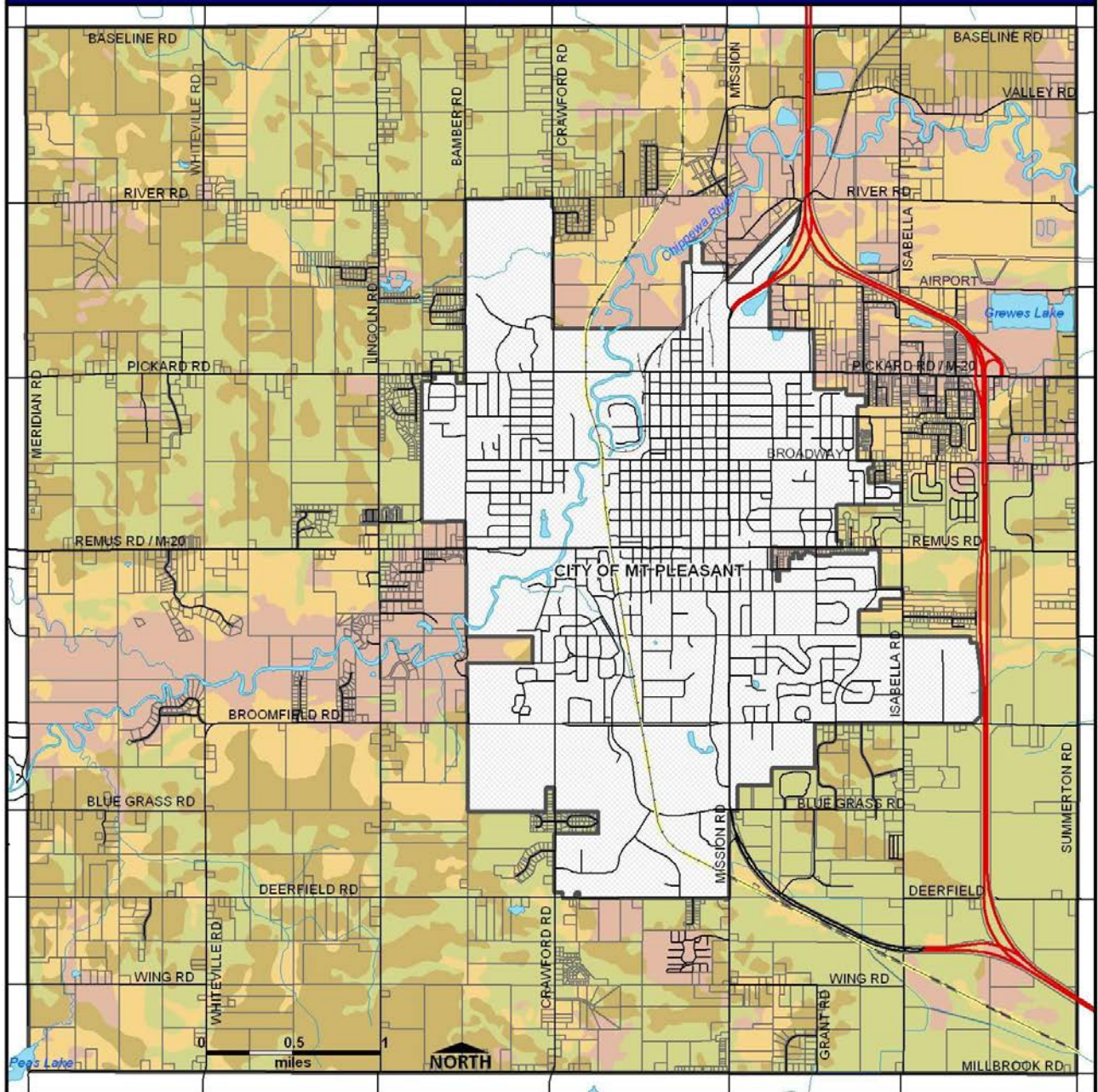
Union Township has prime agricultural soils that are rich with nutrients and the best moisture content to grow crops. The prime farmland in Union Township is shown in shades of brown below, the darker areas requiring drainage. The prime farmlands are located primarily in the northwest portion and the southern half of the Township. Much of the prime farmland adjacent to the City has already been developed as commercial and residential uses.

Prime farm land is designated by soil type and characteristics that are suitable to local growing conditions. These soils are known as soils of local importance, a category higher than the general —prime farmland. The categories shown on the Prime Farmland Map indicate:

- Areas of [prime farmland](#) – as categorized by the US Department of Agriculture (USDA) based on soil type and characteristics.
- Areas of prime farmland if drained – as categorized by the USDA. Current drainage status is not mapped and unknown. Many areas that are completely developed are still classified as prime farmland due to soils conditions. This is relevant in the event that large areas are vacated and to be consistent in the classification of land throughout the Township.
- Not prime farmland. This is land that is in the flood plain or largely wetland, developed or undeveloped.

The following map identifies all the land in the Township with respect to farmland capability.

Prime Farmland by Soil Type



Farmland Classification by Soil Type

- All areas are prime farmland
- Prime farmland if drained
- Farmland of local importance
- Not prime farmland

Source: Soil Survey of Isabella County Michigan, 1985. USDA / NRCS Soil Conservation Service (<http://websoilsurvey.nrcs.usda.gov>). Map produced October 2010.

Water and Wetlands

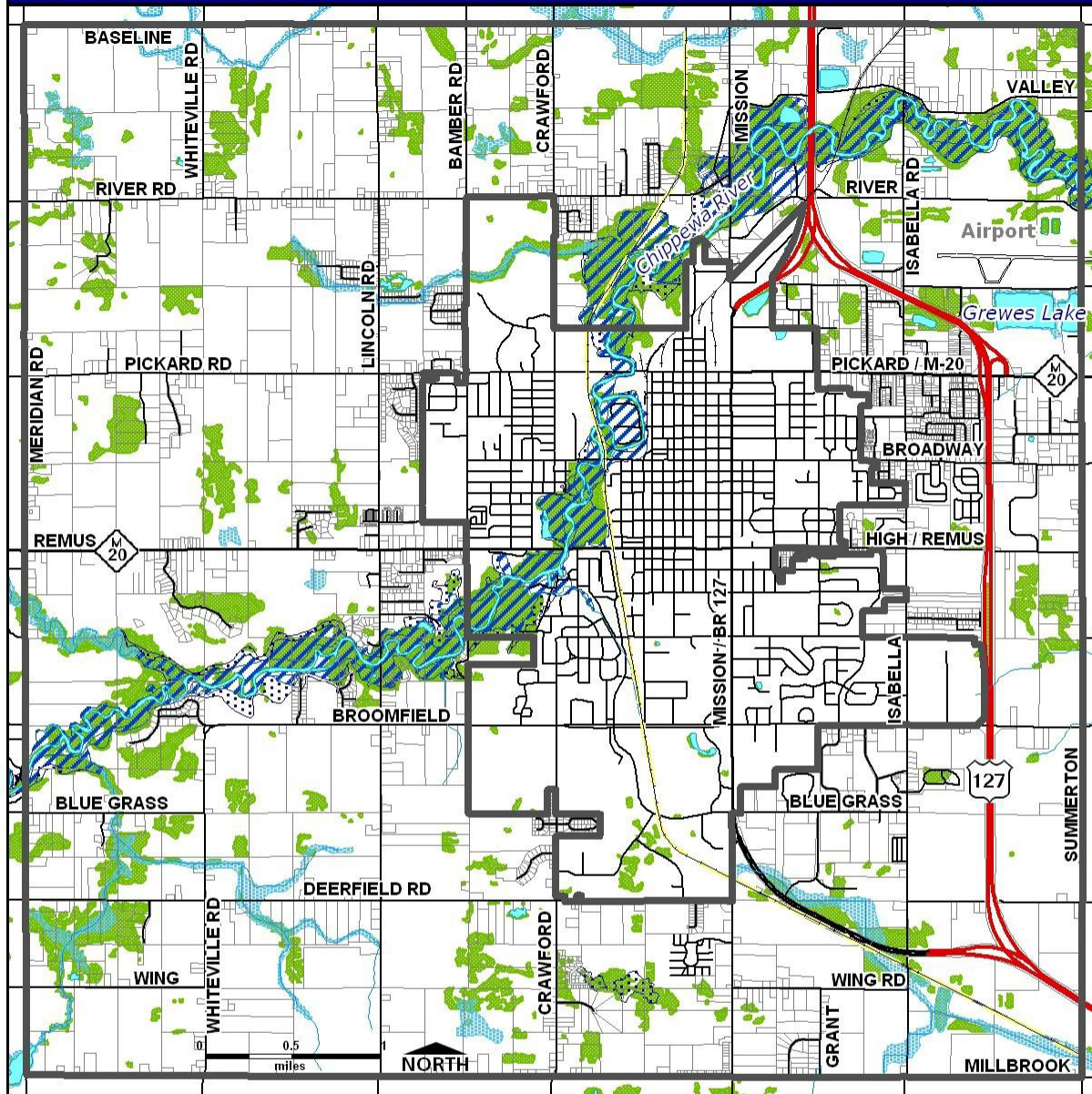
Union Township is rich with water features such as the Chippewa River, creeks and lakes. These waterways and bodies provide scenery and recreation opportunities. Building in the floodplains, the area shaded with slanted lines in the natural features map below, is limited by state and federal laws. Three of the large parks in the Township encompass some of the floodplain. The Chippewa Watershed Conservancy uses conservation easements to protect sensitive natural area along the river. The community will need to plan appropriate uses in these areas that comply with existing regulations and may partner with organizations to protect areas.

Wetlands, low lying areas saturated with moisture for part of the year, are shown in a blue hatch mark in the natural features map below. Union Township is dotted with wetlands, with a chain of large wetlands between US Highway 127 and the eastern township border. Also known as marshes, fens or swamps, wetlands play a key part in the natural cycle of water purification and recharge. The residents of Union Township depend on wells for drinking water so protection of wetlands is a factor for public safety. Wetlands also absorb water during floods, lessening the impact.

The following wetlands map is for very general reference purposes only. Actual delineated wetlands are determined by the Michigan Department of Natural Resources and the Environment. ([MDNRE](#))




Due to instability of wet soil, buildings cannot be constructed safely in wetland areas unless the area is drained or specific construction techniques are used. The US Army Corps of Engineers regulates wetlands associated with navigable waterways such as the Chippewa River. The Michigan Department of Natural Resources and the Environment has authority over construction in wetlands over five acres in size or those associated with a water body. The master plan will need to address appropriate activities in wetland areas, per state and federal law but also for the protection of the wetlands and the groundwater. The most recent floodplain maps are available at the [FEMA website](#).


Floodplain and Wetland Areas



Floodplains by Zone 2010

FEMA Flood Hazard Zones (Base Flood Elevation = BFE)

-  A 100-year 1% annual chance flood w/ no BFEs
-  AE 100-year 1% annual chance flood w/ BFEs
-  X500 500-year 0.2% annual chance flood hazard

 River, Creek, or Drain

 Lake or Pond

 Wetlands

Map Produced in November 2010 by:
Union Township GIS Department

Agriculture and Rural Areas

According to the 2007 U.S. Agricultural Survey conducted by the U.S. Department of Agriculture, farming is growing in Isabella County in terms of sales. Data from the same census at the zip code level show the following trends for the 266 farm operators in the 48858 zip code:

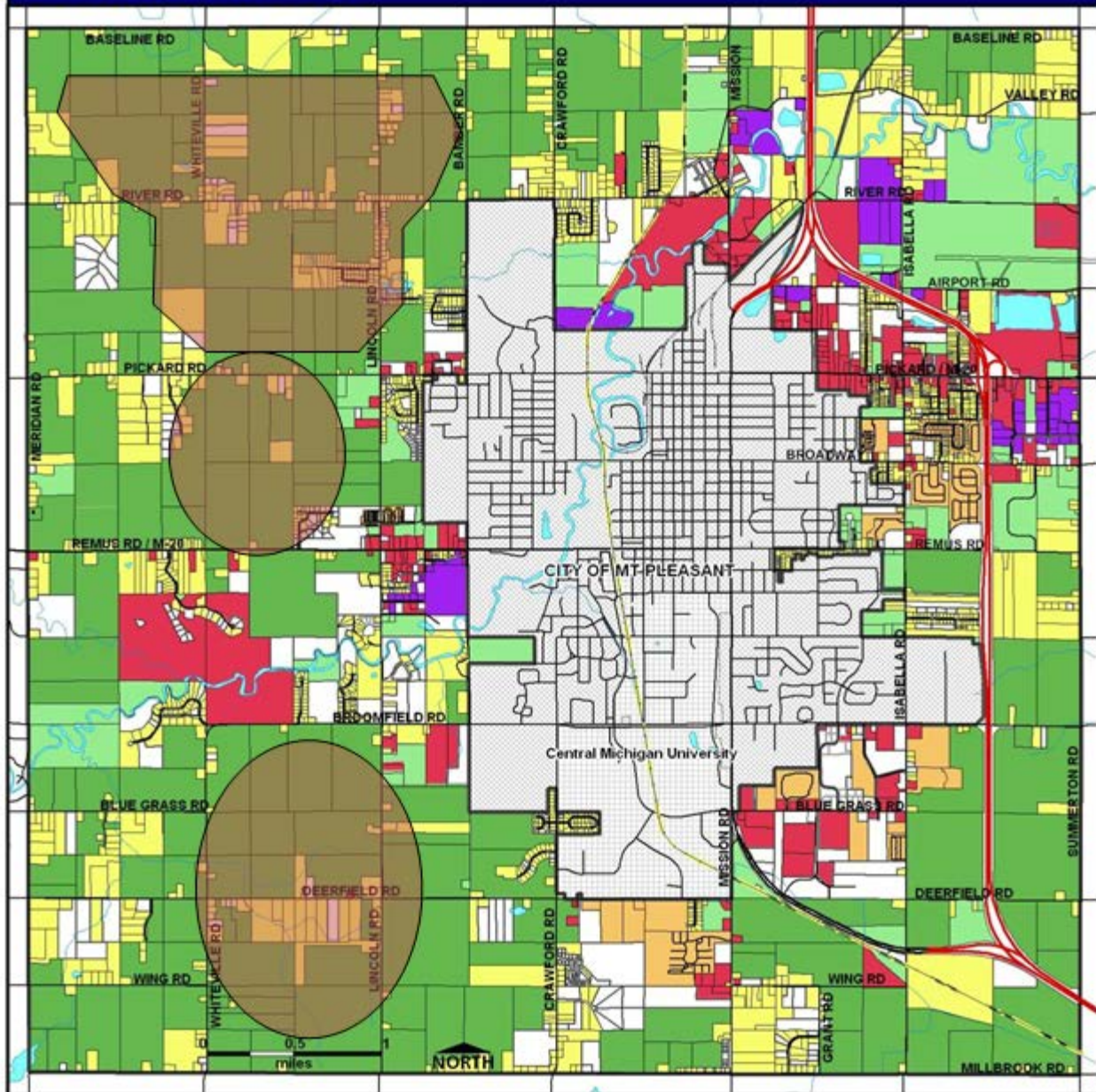
98 farm operations with crops have sales less than \$50,000, 35 had sales between 50K and 250K, while 16 operations had over \$250,000 in sales.

- Farm operations with animals mostly take in less than \$50,000 in sales (90 of the 110 operations with animals). However, 11 operations took in more than a quarter million in sales.
- For almost half of the farm operators, farming is their primary occupation (130 of 266).
- 41 % of the farms have two or more operators.
- Over 82% (220 of 266) of principal farm operators live on their farm.
- Farm operations tend to be medium-sized farms (83 under 50 acres, 171 between 50 to 999 acres, and only 12 with 1,000 acres or more)
- Only 29 farm operations in the zip code sell directly to consumers
- Orchards are small – only 5 operations each with less than 15 acres.
- Only 6 operations grow vegetables with sales – 3 are over 15 acres, 3 are between 15 and 100 acres.
- Most operations grow commodity crops – corn, hay, soybeans, wheat – which are fed to animals or usually sent out of the community to be processed.

The following maps show the location of existing farmland and prime agricultural soils in the Township. The first map shows the areas that are still primarily agricultural in use. The second map is the same prime farmland base map with the residential zoning shown in yellow and orange, drawing attention to the large amount of land that is still in agricultural use and largely prime farm land that is zoned or used for single family residential. Permissive residential zoning and development along with extending water lines across agricultural land area the two primary actions that the agricultural community identified as the cause of the major losses in farmland over the past two decades.

A closer look at the maps indicates that farming is largely comprised of smaller tracts of land, concentrated in commodity crop production. As a percentage of land, active farmland comprises approximately 20% of the Township. It is important to remember that township boundaries are artificially placed lines that do not take into account adjacent land uses outside of the Township. In the case of Union, there is an active and thriving farming community to the south and west that may serve to support the smaller tracts of land that we see in Union Township. Some communities choose to plan outside their borders to avoid conflicting land uses, however in the instance of agricultural land at the borders of the Township this is not an issue.

Existing Land Use -Agricultural Areas Highlighted



Parcels by Land Use Class

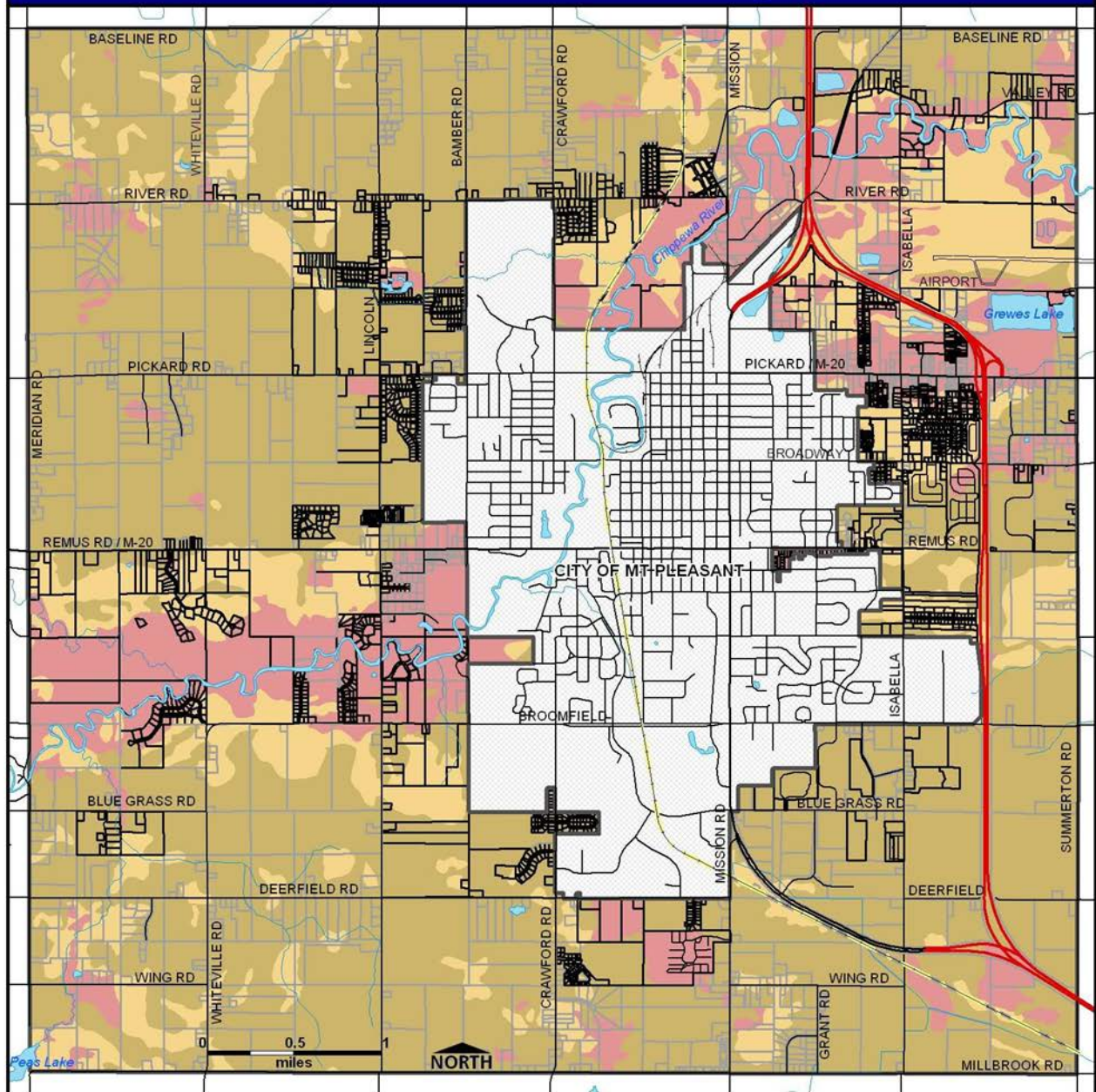
■ Agricultural	■ High-Density Residential
■ Commercial / Office Service	■ Public / Civic / Exempt
■ Industrial	■ Vacant
■ Residential	

Existing land use information was developed from Union Township property data, land use/land cover data, and aerial imagery. Additional land use data, collected in the field, was provided by Matt Robinson (CMU Geography Department Senior Honors Project).

Compiled by Union Township GIS Department, October 2010.

Map 4: "Existing Land Use- Agricultural Areas Highlighted" above shows the areas of the Township that are still primarily agricultural in use.

Prime Farmland with Residential Zoning



Farmland Classification by Soil Type

- Prime farmland or prime farmland if drained
- Farmland of local importance
- Not prime farmland

Residentially Zoned Property

- Not a residentially zoned property
- Property zoned residential

Source: Soil Survey of Isabella County Michigan, 1985. USDA / NRCS Soil Conservation Service (<http://websoilsurvey.nrcs.usda.gov>). Map produced October 2010.

V. Utilities

Municipal water and sanitary sewer services often determine what type of development can occur. Industrial land uses need high pressure water. Residential dwelling units on less than an acre usually must be serviced by a municipal waste water system, since septic fields require an acre or more of land. Commercial uses tend to locate where municipal services are available either out of necessity or cost.

In order to protect the health and safety of the residents and environment in Union Township, utilities should be carefully planned and financed. In doing so, future development should be linked to the capacity of systems and existing or planned locations of pipes.

The map on the following page shows the location of water and waste water in the Township. The City of Mt. Pleasant and the Chippewa Tribe also have water and waste water systems, but none are currently connected to those in Union Township.

VI. 2016 Target Market Analysis

The Executive Summary of the 2016 Residential Target Market Analysis is listed on the following pages. Further detail can be found by viewing a PDF of the document via [EMCOG](#).

VII. 2016 Public Survey

A copy of results from the Union Township resident survey completed in December 2016 is on the following pages.