City of Marengo

Southwestern Sub-Area Plan

Adopted February 11, 2013
Amended March 27, 2017

Prepared By:

HRGreen

Southwestern Sub-Area Plan

Introduction

The City of Marengo embarked on this Southwestern Sub-Area Plan (SWSA) plan to maximize the potential opportunities south and southwest of the current City limits, specifically along Route 23 and the future interchange at I-90. This SWSA Plan incorporates ideas and strategies from the planning process and provides a comprehensive vision for the future of this area. This planning assignment was an important opportunity for the City to:

- Continue the planning process formalized in the 2004 Comprehensive Plan.
- Create a clear, documented vision of Marengo's future for this specific area.
- Plan for coordinated growth that incorporates existing physical and natural characteristics, utilities, and transportation strategies with sound land-use planning principles.
- Optimize a short and long-range development framework.
- Attract land uses and development compatible with community goals and the area's needs, infrastructure, and character such as commercial, industrial, office/research, residential and open space.
- Improve Marengo's land-use mix, physical conditions, and overall quality of life.

The need for this more refined planning effort is a function of the increasing development pressure within this southwestern sub-area. Additionally, it is important to understand the potential needs such as utility demands and a highly coordinated road network, as well as the challenges associated with preserving and enhancing the numerous natural features and open spaces. The geographic location of the Route 23/Tollway interchange will be a significant factor and driving force for future development in this area.

In summary, the overall purpose of the SWSA Plan is to carry forward the general policies of the Comprehensive Plan, and to further refine policy statements by translating them into a more specific vision that will be used to guide future development within the Southwestern Sub-Area. This Plan allows the City of Marengo to be forward-thinking by creating a road map that is mutually beneficial for all stakeholders. Overall, the planning process was designed to be sensitive to the multiple needs of the community and responsive to the Study Area's and City's land-use constraints and opportunities.

Study Area

The study area for the SWSA Plan lies generally south and southwest of the existing City limits and is bounded by Route 20 on the north, Meyer Road and Maple Street to the east, Harrelson Road to the south, and to an area just west of Blissdale Road. The area includes lands that lie along the Route 23 corridor to south of the tollway interchange area.

Existing Conditions

Physical and Natural Characteristics

Existing topographic conditions within the southwestern sub-area are relatively flat, especially when compared to the topographic conditions in the Coral Woods area on the southeastern side of Marengo. The area has scattered wetlands and oak woodland areas, but is generally comprised of large, flat open spaces currently used for agricultural purposes. Three different sand and gravel extraction sites exist along the Route 23 corridor on both the east and west sides of the corridor. The Coon Creek/Riley Creek flood plain runs east and west through the southern portion of the subarea. This represents a physical constraint to development, however, it also offers an important environmental element that should be preserved and utilized as a potential recreational asset. Hydric soils are very prevalent throughout the western lands within the sub- area and exist primarily in low-lying areas. While these hydric soil areas are potentially developable, it would be anticipated that these areas may require soil amendments or low density site design if they are to be developed.

Rather than viewing the natural features of the Southwestern Sub-Area as encumbrances to future development, they should be considered assets. New developments can respect and design around these natural features. In the process, the natural features and corridors can be enhanced, and better defined, so as to provide coordinated open spaces and recreational opportunities that all residents of the Marengo community can enjoy.

Existing Zoning-City of Marengo

The majority of the study area is currently used for agriculture and some areas are not annexed or zoned within the City of Marengo. Zoning districts to the north along Route 20 are M-"Manufacturing Planned" and B2-"General Business District". East of Meyer Road, the existing zoning is PD-"Development" and ER-"Estate". Further to the south, along Meyer Road, R1-"District Single-Family" exists.

Existing Zoning-McHenry County

All other areas to the west, south, and southeast of the study area are currently under the McHenry County zoning, primarily Agriculture uses with Agriculture Zoning. Various pockets exist of A1-"Agriculture", A2-"Agriculture", E3-"Estate," and E6-"Estate".

Major Utilities

As stated in the overall 2004 Comprehensive Plan, "the capability of the City of Marengo to grow is limited not only by its environmental system but also by its man-made systems: the water and sewer systems, the transportation system, and community facilities systems." Over the past decade the City has been undertaking a comprehensive water system improvement program to upgrade and improve water service for existing and new residents. The sections below briefly summarize the status of these utilities and potential services specifically to the Southwestern Sub-Area Study Area.

Water

One of the largest shallow water aquifers in McHenry County is present within this sub-area. It is anticipated that this aquifer would provide ample water supply to the area through the use of a shallow well water supply system.

The City's water supply is currently from three wells as shown on the Water Master Plan exhibit attached to this plan. The existing wells are shallow in depth (less than 100 feet in depth) and draw water from the glacial drift of the Kishwaukee River basin. The shallow water aquifer in the northern part of the City is extensive and runs from approximately 4 miles to the west and approximately 9 miles to the north and west. The shallow water aquifer in the Southwestern Sub-Area is centered around Illinois Route 23 roughly north of Harmony Road and south of Pleasant Grove Road. The aquifers have a thickness of approximately 80'. Marengo's available shallow aquifer water source is a unique resource in the county. The City has evaluated the future water well and tower areas and has provided an approximate location for both as shown on the attached Water Master Plan exhibit. Other available water sources could be deep water aquifers but are unlikely to be needed to support the City's water needs in the foreseeable future.

As part of the City's water system improvement program, the water distribution system is being upgraded and expanded to strengthen the capacity of the current system and connect pumping stations to missing links to adequately loop the system. The City completed a ground level storage tank providing a 1.0 MG capacity and a booster pump station with a tank providing a 3.0 MGPD capacity. Above ground storage should equal peak one to two-day demand. These improvements, together with water storage in conjunction with the wells on the system, namely a 300,000-gallon above ground storage tank in the southern part of the City near South Street, satisfy current need.

Wastewater Treatment Plan

Sewage treatment is provided by a 1.8 MGD capacity treatment plant utilizing an activated sludge oxidation ditch and sequencing batch reactors, discharging into the Kishwaukee River. The plant was designed to treat 1.8 MGD average day flow with the ability to treat a peak flow of 5.94 MGD. The design capacity and the IEPA permit for the plant were used to evaluate the available capacity of the plant.

The City's sewer system employs several pumping stations to move the waste from three separate sewer basins to the waste treatment plant. The City's collection system extends in such a manner that most of the vacant land in and adjacent to the City can be served by public sewer.

The City is considering a sewer lining program that will reduce infiltration from groundwater into the system. This could effectively free up capacity at the existing plant.

A sewer master plan was completed by the City to determine the necessary additions to the sewer system to allow future expansion from additional annexation and the approved Interstate 90 interchange. A heirarchy of sanitary sewer systems was developed to be used in the interim during early stages of development near the new I-90 interchange. Sewer system infrastructure would start with onsite septic and progress through lagoons and spray irrigation to lift stations and force mains to the existing and then upgraded WWTP. The attached Sewer Master Plan indicates probable lift station, force main and gravity main locations in the Southwestern Sub-Area Plan area.

Transportation

The existing roadway network in the study area is generally two-lane rural arterials and collectors. US Route 20 (Grant Highway) is the northern limit and is generally classified as rural. Illinois Route 23 is a rural arterial in the project area. The intersection of US Route 20 and IL Route 23 currently experiences heavy truck turning movements and through movements. Harmony Road (a County Road) is a major rural collector providing access to I-90 to the east.

The Interstate 90 corridor represents the single largest transportation opportunity and physical constraint within the sub-area. The future interchange and access at its intersection with Route 23 will be the catalyst for future development and will dramatically affect the way the Southwestern Sub-Area will grow and develop. The remainder of the roadways in the study area including Grange Road, Anthony Road, Pleasant Grove Road, Meyer Road, Blissdale Road, and Johnson Road are currently minor rural collectors.

The SWSA Plan addresses the transportation needs of the area by converting and upgrading the minor collector system to a Major Collector/Minor Arterial System. It is anticipated that Pleasant Grove Road/Johnson will become a de facto bypass of Marengo's central business district, providing access from US Route 20 to IL Route 23 nearer the future interchange.

Grange Road, Blissdale Road, and Meyer Road will become the collector system providing access to the developments planned to occur in the area. It is anticipated that at least nine controlled intersections would be needed in the ultimate conditions all as shown on the attached Master Plan Exhibit for Transportation.

Existing Conditions Map

The locations of existing development, wetlands, tree masses, floodplain, and hydric soils have been identified on the Existing Conditions Map. The development of the Existing Conditions Map represents a land planning approach that first seeks to understand the natural characteristics of the area as a method in determining the capacity of lands to support new development. Once these natural features are determined and mapped, it is possible to identify and coordinate developable lands.

Framework Plan

The Framework Plan sets the foundation for the Development Plan which provides direction on potential land uses and transportation circulation. The general designations on the Framework Plan provide two basic core elements which are "Development Areas" and "Non-Developable Areas". The Framework Plan also identifies possible bike trails, open space corridors, and traffic signals or roundabouts. The following elements are illustrated on the Framework Plan:

Development Areas

The Framework Plan organizes land into three classifications; non-developable areas, unrestricted development areas, and limited development areas. Each of these classifications is described below.

►*Non-Developable Areas*

Areas identified as "non-developable" on the Framework plan are those, which are comprised of sensitive environmental features, such as floodplain, wetlands, and hydric soils. These areas are not suitable to support any form of development other than limited roadway crossings, and should be preserved in their natural state. The Framework Plan attempts to coordinate non-developable areas so as to maximize their connectivity as greenway corridors.

► *Type A Development Areas (Unrestricted)*

Type A Development Areas are those areas which are generally appropriate for development and do not have any particular limitations with respect to the presence of significant environmental features. These areas are typified as farmland with flat topography. The development of these areas, particularly on the northern portion of the SWSA, should be consistent with the traditional neighborhood design concepts presented in the Comprehensive Plan.

► *Type B Development Areas (Limited)*

Type B Development Areas are appropriate for development, but with certain limitations regarding sensitive environmental features. These areas should be developed at moderate to low-densities and should utilize conservation design concepts as described in the Comprehensive Plan. Techniques such as woodland preservation and reinforcement of hydric soils should be utilized in Type B areas to protect the natural environmental features.

Road Network

The road network throughout the study area consists of primarily two lane roads on a one- mile grid pattern. One of the main goals is to establish a hierarchical roadway network that will provide circulation around and within the study area. The Framework Plan begins to identify key roadway upgrades and connections that should be incorporated into future development plans. With consideration of the future Route 23/Interstate 90 Tollway interchange, it is recognized that land uses and land values within the sub-area will intensify and increase. To support this potential growth, a network of collector roads will be critical within the area.

The Framework Plan indicates upgrades to Meyer Road, Pleasant Grove Road, Blissdale Road, and Grange Road to collector status. These roadways will provide direct access to a majority of the land uses within the sub-area and will collect the traffic that leads to destinations within and outside of the City limits. In addition, the Framework Plan considers intersection re-alignments at Meyer Road and Pleasant Grove Road and Blissdale Road and Pleasant Grove Road to improve intersection geometrics and sight lines. A new east-west collector road is shown bisecting the western portion of the sub-area and would connect Meyer Road to Jackson Road at Blissdale Road. This collector would primarily serve local traffic, thereby minimizing high traffic volumes in neighborhood areas.

Upgrades to Pleasant Grove Road and the existing Johnson Road would provide a means for traffic to bypass the downtown Marengo area and the Route 20/Route 23 intersection, thus relieving congestion at that intersection and creating more efficient travel to points south and west of the City.

The Comprehensive Plan calls for limited curb cuts along arterial roadways. This Framework Plan respects that objective by minimizing access on Route 20 and Route 23. Most of the proposed land uses can be accessed directly from the collector road network. Within commercial uses curb cuts should be minimized, especially along the historic Route 20.

The Framework Plan suggests the introduction of traffic signals or roundabouts at key intersections, including:

- Pleasant Grove Road at Route 20
- Pleasant Grove Road at Blissdale Road
- Pleasant Grove Road at Meyer Road
- Meyer Road at Route 20
- Blissdale Road at the new E-W collector/Meyer Road extension
- Blissdale Road at Grange Road
- Grange Road at Route 23
- Harmony/Riley Road at Route 23

The Framework Plan suggests improvements to existing traffic signals at key intersections, including:

- Coral Road/Pleasant Grove Road at Route 23

Bike Trails

Per the 2004 Comprehensive Plan, one of the goals is to develop a highly integrated, community-wide, off-street bike trail network. The Comprehensive Plan provides conceptual routes for illustrative purposes. However, this Southwestern Sub-Area Plan provides a more detailed planning effort in regards to potential trail corridors.

In order to maximize key trail linkages, this Plan proposes an east-west and north-south network system. It is recommended that any new collectors should incorporate a separate paved off-street, parkway bike trail that parallels the collector road as indicated in the Framework Plan. These trails should be no less than eight-feet wide and should be provided within the road right-of-way but separated from the road pavement by a ten-foot parkway.

The Riley Creek and Coon Creek greenways provide an even more unique opportunity for greenway bike trails that can take advantage of the natural settings and create a more remote off-road experience. In addition, the open space buffer areas provide a similar opportunity where green buffers are recommended in hydric soil zones that separate differing land uses. These networks, as illustrated in the Framework Plan, can provide pedestrian and bicycle circuits of varying distances throughout the sub-area and provide inter-connectivity between neighborhoods and park destinations.

Development Concept Plan

The Development Plan does not contemplate layouts for each individual land use, as it is recommended that these remain flexible, with more detailed study and consideration required for each parcel as future development occurs. However, it does demonstrate a breakdown of potential land uses.

Land Use

As the Development Concept Plan illustrates, the southwestern sub-area is comprised of a wide range of potential land uses based on its size and the potential of the future interchange at Route 20 and the Interstate 90 Tollway. The future tollway access provides many opportunities such as:

- Access to large areas of undeveloped or underdeveloped land which provide good development opportunities and positive growth for Marengo.
- Residents and businesses can easily reach airports in Chicago and Rockford via the Tollway.
- More than one-mile of direct frontage on the north side of I-90 (east and west of Route 23) and about four-miles of frontage with prime visibility from the Tollway.
- New development can be balanced and mixed-use to market demands and new neighborhoods can provide more varied housing products.
- Regional economic development and job creation opportunities.
- Access to available land for open space expansion, especially along the major drainage ways and floodplain corridors.
- Readily available water supply through the aquifer provides a unique opportunity to attract and support wet industry.
- An opportunity for the City to “plan ahead” of development and prevent uncoordinated growth.

With this in mind, the Development Plan contemplates significant regional commercial, light industrial, and office/research immediately surrounding the potential interchange and along Harmony Road. A large industrial potential exists between Grange Road and Pleasant Grove Road in the southern portions of the sub-area that would lead to access on Route 23 and the interchange. Neighborhood commercial opportunities are possible along Route 20 at the northern edges of the sub-area and at the Pleasant Grove Road/Meyer Road intersection. Additionally, some secondary locations that are limited in size along Route 23 at Anthony Road and Pleasant Grove Road are good neighborhood commercial opportunities. The remain- ing land uses are less intense and consist of primarily residential land uses that transition from the higher intensity uses to the south to the existing City limits.

It is important to note that the Development Plan shows some Countryside Single-Family Residential, Low Density and Medium Density Single-Family Residential as “flex parcels” west of Meyer Road and Pleasant Grove Road.

The following provides a description of the land use categories illustrated on the Development Concept Plan:

►*Countryside Residential* areas are intended to be limited to single-family detached uses at densities no greater than one dwelling unit per net acre. These areas have been designated as "countryside residential" to preserve their rural character and to protect their natural features. Countryside residential neighborhoods are generally not served by municipal water or sewer. Neighborhood design for these areas should be consistent with the design guidelines for conservation design provided in the Comprehensive Plan. City of Marengo zoning ER – "Estate Residential District" could be located within this land use.

►*Traditional Low Density* areas are intended to be limited to single-family detached uses at densities between 1 –2.5 dwelling units per net acre, with lot sizes between 14,000 square feet and 1 acre. These areas should incorporate development concepts used in both traditional and conservation design neighborhoods, as described in the Comprehensive Plan. City of Marengo zoning districts R-1 "One-Family District" could be located within this land use. City of Marengo zoning districts R-1 "One-Family District" could be located within this land use.

►*Traditional Moderate Density* areas are intended to be limited to single-family detached uses at densities between 2.5 – 4 dwelling units per net acre, with lot sizes between 10,000 - 14,000 square feet. These areas should incorporate traditional neighborhood design concepts, as described in the Comprehensive Plan. City of Marengo zoning R2 "One-Family District" and R3 "One-Family District" could be located within this land use.

►*Multiple/Attached Single-Family* areas are intended to be limited to attached residential uses at densities not to exceed 10 dwelling units per acre. These uses provide a transition between commercial and detached single-family uses, and provide for a variety of housing options. All attached residential development should be designed in conformance with the design guidelines provided in the Comprehensive Plan. City of Marengo zoning R-5 "Multi Family District" could be located within this land use.

►*Neighborhood Level Commercial* areas are intended to serve neighborhoods in the immediate vicinity with a variety of convenience oriented goods and services. This plan calls for a neighborhood level commercial center to be located along Route 20 on either side of the potential north-south collector. This center should serve the emerging neighborhoods to the south, and should be comprised of convenience uses such as a drug store, a dry cleaner, a small sit down restaurant (no drive-thru), video store, etc. A key recommendation of this plan is to provide a backage road behind this particular commercial center. This will not only allow for the elimination of curb cuts along Route 20, it will also allow for rear parking fields, which are screened from view. The unified development of this commercial center is critical to ensuring the types of uses and quality of design envisioned in this plan. Therefore, piecemeal development of this center should be prohibited. City of Marengo zoning B2-"General Business District" could be located within this land use.

►*Regional Level Commercial* areas are intended to serve a market radius of 5 miles or more. These centers typically attract two or more large-scale anchor stores and supporting businesses. Large-scale anchors may include (but are not limited to) discount stores such as Target and Wal- Mart, bookstores such as Borders and Barnes & Noble, or home product stores such as Lowe's and Home Depot. Small supporting businesses have a wide range including small restaurants, home and gardening stores, clothing stores, and private offices (e.g. dentists, optometrists, etc.). As called for in the Comprehensive Plan, this plan identifies a 25-acre regional level commercial site at the northwest corner of Route 20 and Coral Road. Due to the prominent location of this site, excellence in building, landscape, and site design must be achieved in accordance with the Comprehensive Plan's design guidelines. City of Marengo zoning B1-General Business District" and B2-"General Business District" could be located within this land use.

►*Office/Research* includes areas proposed for office, research, warehousing and wholesale trade uses. These areas on the sub-area plan have been designated within short driving distances to the potential Route 23/Interstate 90 interchange and with direct access to Anthony Road and Harmony/Riley Road. City of Marengo zoning BP-Business Park District" could be located within this land use.

►*Industrial* land uses include light manufacturing, warehousing, distribution, and office facilities. With an interchange at Route 23 and Interstate 90, land to the north along Grange Road and in the general area surrounding the existing gravel pits could become primed for industrial development. Coupled with the shallow aquifers located to the west of Marengo, it is anticipated that these lands would support 'wet' industry such as food processing. The intent of this land use category is to require a master plan site approach to the development of large parcels incorporating high quality design standards for buildings, landscaping and signage. City of Marengo zoning M-"Manufacturing Planned" could be located within this land use.

►*Open Space* areas are intended to remain undeveloped. These areas should be protected due to their natural features and environmental sensitivity. This plan attempts to maximize the presence of open space by clustering residential lots, and creating highly integrated greenway corridors. It may be appropriate to enhance open space areas with bike trails, picnic areas, and other recreational opportunities.

►*Parks* are public lands that have been permanently dedicated for public recreational open space uses owned and operated by the Marengo Park District or the City. Private recreational facilities such as those managed and maintained by homeowners associations are also included in this category.

►*Sand and Gravel Extraction* sites are identified on the Existing Condition Map with a symbol. Sand and gravel extraction is an interim land use, and these sites will ultimately be reclaimed for other beneficial purposes consistent with adjacent land uses.

Key Development Concepts

While many of the details provided on the Development Concept Plan are intended for illustrative purposes only, the plan does provide a number of key planning concepts that should be integrated into future development proposals. These key concepts include the following:

Roadways

- ► Minimize intersections with Route 20, Route 23, Pleasant Grove Road, Grange Road and Blissdale Road.
- ► Provide traffic signals or roundabouts at key intersections.
- ► Provide new collectors that links existing collectors/arterials (i.e. Route 20 and Route 23) and which does not provide direct access to individual lots.
- ► Utilize a curvilinear design for collector roads to reduce travel speeds.
- ► Provide significant landscape setbacks on each side of collectors to buffer adjacent lots and to allow for the incorporation of off-street bike trails.
- ► Maximize local roadway connections to existing neighborhoods. In particular, tie new roadways to stubs located in Brookside Meadows.
- ► Create breaks in the street grid of local roads to reduce cut-through traffic and travel speeds.

Neighborhoods

- Where possible, orient lots such that side yards are parallel to collector roads. This will provide a residential presence along collector roads while allowing front doors to face local streets.
- Design neighborhoods around existing natural features and avoid environmentally sensitive areas. Where appropriate cluster lots to maximize open space.
- Maximize connectivity between neighborhoods and open space.
- Utilize unique street layouts and a diversity of lot sizes.
- Provide short blocks in traditional neighborhoods to enhance pedestrian activity.

Open space

- Minimize the disruption of environmentally sensitive areas such as floodplain, wetlands, wooded areas, and steep slopes.
- Maximize the connectivity of open space corridors.
- Incorporate off-street bike trails into open space corridors and along major collectors. Provide trail connection to individual neighborhoods. Work with the McHenry County Conservation District to connect new bike trails to existing paths within the Coral Woods Conservation Area.
- Provide a 10-20 acre public park site located centrally within the northern portion of the SWSA.
- Require a conservation buffer between all private lots and McHenry County Conservation District property. This buffer could take the form of a conservation easement, or a physical barrier such as a fence.

Architecture and Building Design

The Development Concept Plan does not provide specific guidelines for architecture and building design, however the quality of the residential and commercial buildings proposed within the SWSA is of great importance. Developers should carefully review the Comprehensive Plan's Design and Development Guidelines for residential and commercial uses prior to establishing formal development proposals. Conformance with these standards and excellence in design is a requisite for City approval.

Land Use Analysis

The table below provides land uses by area with estimates of potential dwelling units and residents along with an estimate of the number of employees or jobs generated by the non-residential land uses.

Southwestern Sub-Area Plan Acreage Land Use Breakdown

No. 1 : 03/27/2017 HR Green Project No. 86160200 MU10 SUBAREA CLASSIFICATION		Acreage	MAX. F.A.R.	MAX. DU/AC	Building in Acres	Bldg. Area (1000 's of SF)	Maximum Dwelling Units	# of employees @ 4/acre
1	Light Industrial	1,054	0.25		264	11,478		1,054
	Office/Research	261	0.30		78	3,411		313
	Office/Research - Regional Commercial	159	0.30		48	2,078		191
	Office/Research - Light Industrial	841	0.30		252	10,990		1,009
	Regional Commercial/Light Industrial/Office	933	0.30		280	12,192		1,120
	Neighborhood Commercial	229	0.30		69	2,993		275
	Subtotal	3,477			990	43,142		3,962
2	Multi-Family Residential	133		6			798	
	Medium Density Single Family Residential	278		2.5			695	
	Medium Density Residential/Light Industrial	266	0.30		80	3,476		319
	Low Density Single Family Residential	1,241		1			1,241	
	Low Density Single Family Residential/Light Industrial	351	0.30		105	4,587		421
	Countryside Single Family Residential/Light Industrial	905		0.25			226	
	Parks	417	0	0	0		0	
	Open Space Conservation	1,531	0	0	0		0	
	Existing Residential	55	0	0	0		0	
	Subtotal	5,177			185	8,063	2,960	740
	TOTAL	8,654			1,176	51,205	2,960	4,702

Note: Flex parcels of MDR/LI and LDR/LI are shown on the Development Plan. For purposes of these calculations, it is assumed these “flex parcels” will be developed as industrial land use.

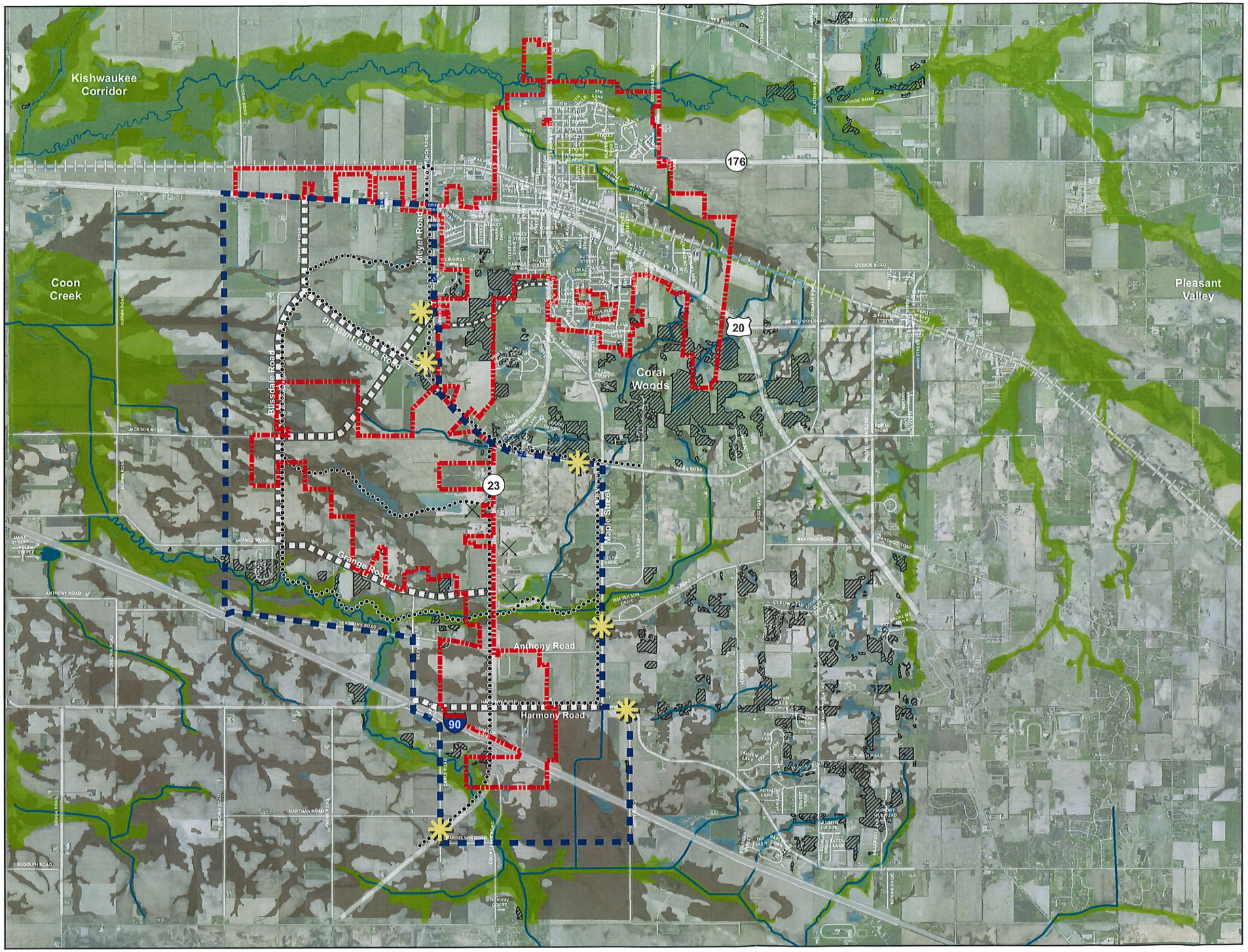
Summary

The Southeast Sub-Area Plan represents the City of Marengo’s vision for the ultimate build-out of this important area. While strict compliance with the details of this plan may not be necessary, conformance with the key concepts illustrated herein is critical to the orderly development of the SWSA. The City and developers should utilize this tool as the basis for negotiation and guideline for acceptable development.

HRGreen.com

Phone **815.385.1778** Fax **815.385.1781**
420 N. Front Street, Suite 100, McHenry, Illinois 60050

City of Marengo
Southwestern Sub-Area Plan
Development Plan



Legend

- Sub Area Boundary
- Topographic High Point
- Potential Bike Trails
- Potential Collector Roads
- Potential Road Connections
- Local Road
- U.S. Interstate HWY
- U.S. Route HWY
- State Route HWY
- County Route HWY
- Railroad Centerlines
- Water Features
- Creeks & Streams

N
W E
S

Feet
0 2,600 5,200

1 in = 5,000 feet

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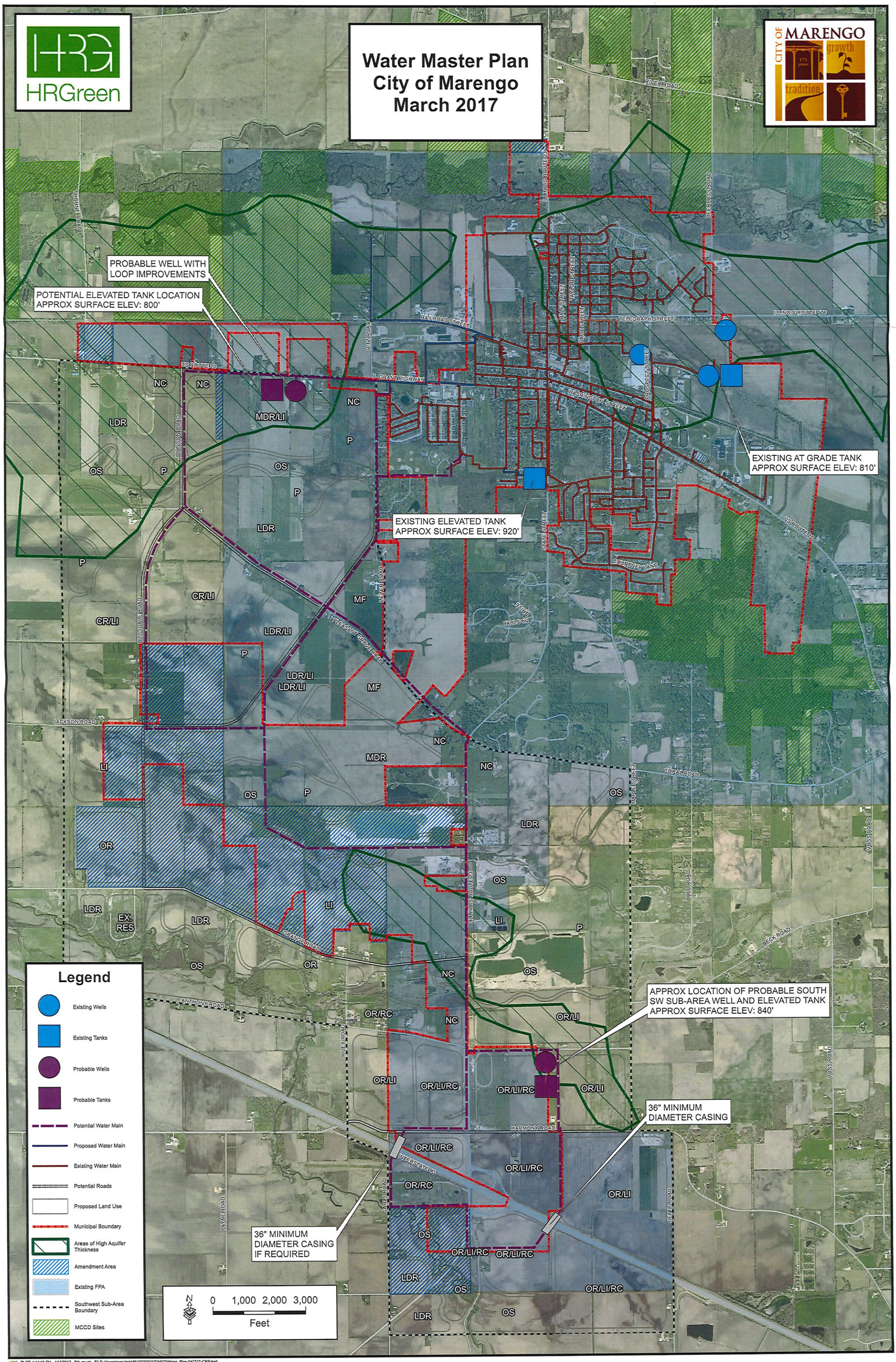
March 2017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Water Master Plan
City of Marengo
March 2017
CITY OF MARENGO
growth
tradition
PROBABLE WELL WITH LOOP IMPROVEMENTS
POTENTIAL ELEVATED TANK LOCATION APPROX SURFACE ELEV: 800'
EXISTING AT GRADE TANK APPROX SURFACE ELEV: 810'
EXISTING ELEVATED TANK APPROX SURFACE ELEV: 920'
APPROX LOCATION OF PROBABLE SOUTH SW SUB-AREA WELL AND ELEVATED TANK APPROX SURFACE ELEV: 840'
36" MINIMUM DIAMETER CASING
36" MINIMUM DIAMETER CASING IF REQUIRED
Legend
Existing Wells
Existing Tanks
Probable Wells
Probable Tanks
Potential Water Main
Proposed Water Main
Existing Water Main
Potential Roads
Proposed Land Use
Municipal Boundary
Areas of High Aquifer Thickness
Amendment Area
Existing FPA
Southwest Sub-Area Boundary
MCCD Sites
0 1,000 2,000 3,000
Feet
RIVER ROAD
ILLINOIS ROUTE 23
DEERPASS ROAD
RAILROAD STREET
MAIN STREET
TAYLOR STREET
PARISH STREET
TELEGRAPH STREET
ILLINOIS ROUTE 176
US ROUTE 20
GRANT HIGHWAY
WASHINGTON STREET
PROSPECT STREET
JOHNSON ROAD
STATE STREET
COURTNEY LANE
US ROUTE 20
LINSDALE ROAD
PLEASANT GROVE ROAD
ELMER PAULSON
JACKSON ROAD
CORAL ROAD
MAPLE RIDGE ROAD
ILLINOIS ROUTE 23
HILL ROAD
V68 ROAD
GRANGE ROAD
BECK ROAD
ANTHONY ROAD
HARMONY ROAD
INTERSTATE 90
PAYNE ROAD
NC
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OR/RC
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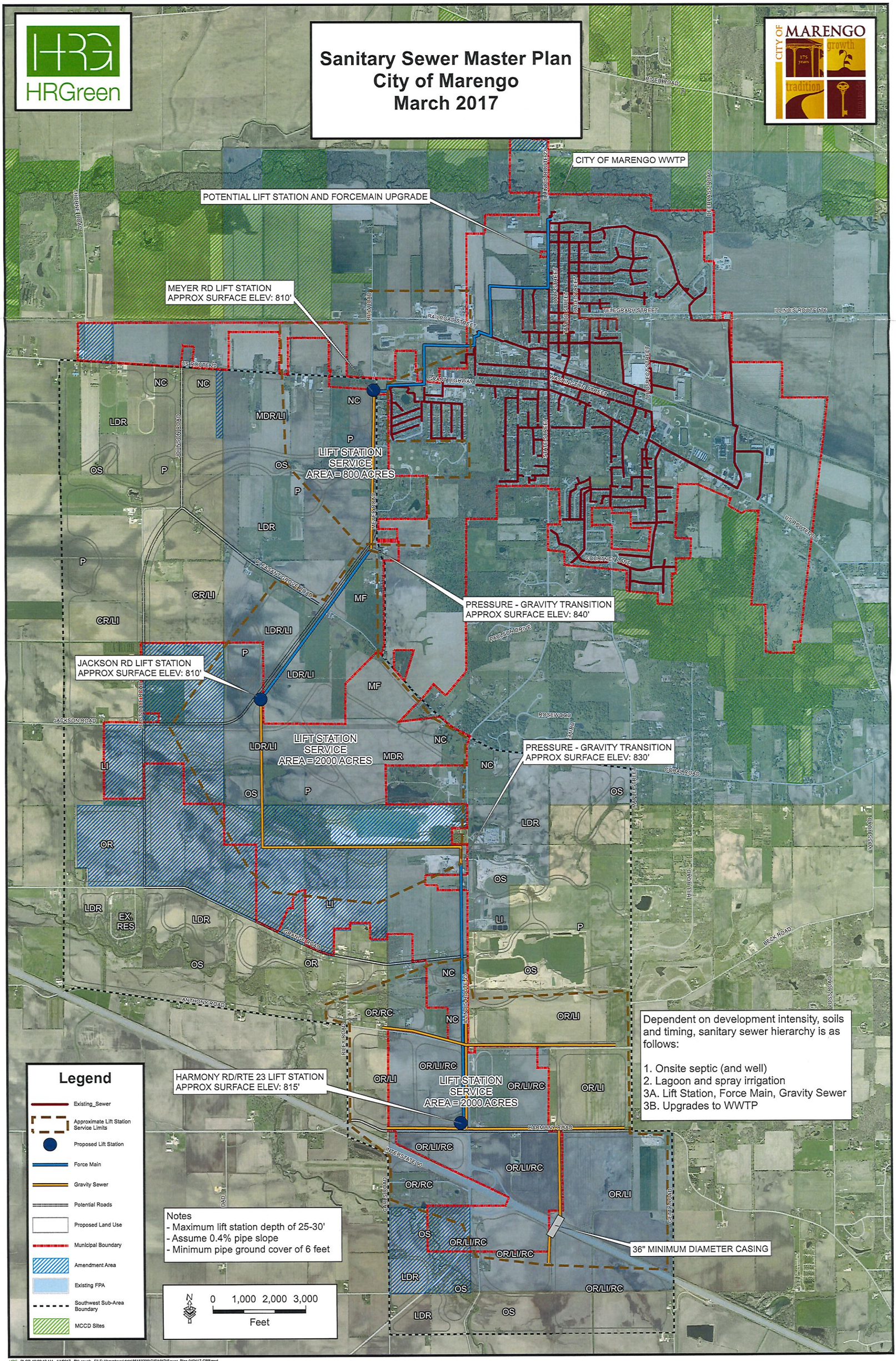
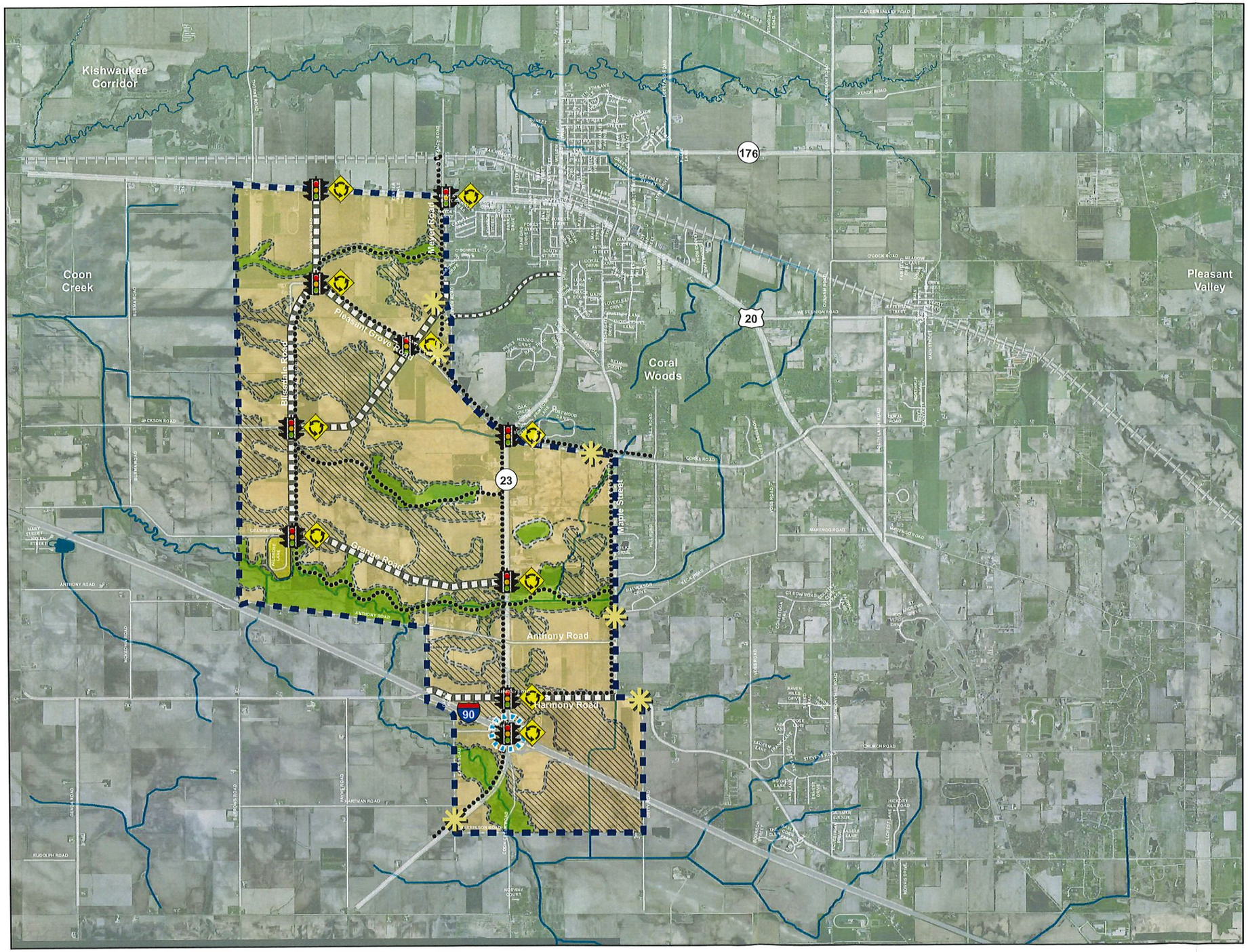

Sanitary Sewer Master Plan
City of Marengo
March 2017
HRGreen
CITY OF MARENGO
CITY OF MARENGO WWTP
POTENTIAL LIFT STATION AND FORCEMAIN UPGRADE
MEYER RD LIFT STATION
APPROX SURFACE ELEV: 810'
LIFT STATION
SERVICE
AREA = 800 ACRES
PRESSURE - GRAVITY TRANSITION
APPROX SURFACE ELEV: 840'
JACKSON RD LIFT STATION
APPROX SURFACE ELEV: 810'
LIFT STATION
SERVICE
AREA = 2000 ACRES
PRESSURE - GRAVITY TRANSITION
APPROX SURFACE ELEV: 830'
HARMONY RD/RTE 23 LIFT STATION
APPROX SURFACE ELEV: 815'
LIFT STATION
SERVICE
AREA = 2000 ACRES
36" MINIMUM DIAMETER CASING
Dependent on development intensity, soils and timing, sanitary sewer hierarchy is as follows:
1. Onsite septic (and well)
2. Lagoon and spray irrigation
3A. Lift Station, Force Main, Gravity Sewer
3B. Upgrades to WWTP
Legend
Existing_Sewer
Approximate Lift Station Service Limits
Proposed Lift Station
Force Main
Gravity Sewer
Potential Roads
Proposed Land Use
Municipal Boundary
Amendment Area
Existing FPA
Southwest Sub-Area Boundary
MCCD Sites
Notes
- Maximum lift station depth of 25-30'
- Assume 0.4% pipe slope
- Minimum pipe ground cover of 6 feet
0 1,000 2,000 3,000
Feet
RIVER ROAD
ILLINOIS ROUTE 23
BYPASS ROAD
TUBBS AVE
MAIN STREET
TAYLOR STREET
PARIS STREET
TELEGRAPH STREET
ILLINOIS ROUTE 176
RAILROAD STREET
HUNTLEY ROAD
US ROUTE 20
GRANT HIGHWAY
WASHINGTON STREET
PROSPECT STREET
STATE STREET
JOHNSON ROAD
MEYER ROAD
PLEASANT GROVE ROAD
COURTNEY LANE
PAULSON DRIVE
ROSEWOOD DRIVE
JACKSON ROAD
CORAL ROAD
HALL ROAD
BEEK ROAD
MOSS ROAD
GERANE ROAD
ANTHON ROAD
HARMONY ROAD
INTERSTATE 90
GERRY ROAD
NC
MDR/LI
LDR
OS
P
MF
CR/LI
LDR/LI
LI
OR
MDR
EX. RES
OR/RC
OR/LI/RC
OR/LI

City of Marengo
Southwestern Sub-Area Plan
Development Plan



Legend

- Sub Area Boundary
- Proposed Interchange
- Topographic High Point
- Potential Traffic Signal or Roundabout
- Potential Bike Trails
- Potential Collector Roads
- Potential Road Connections
- Local Road
- U.S. Interstate HWY
- U.S. Route HWY
- State Route HWY
- County Route HWY
- Railroad Centerlines
- Water Features
- Creeks & Streams
- Existing Residential Uses

Non Developable Areas
Development within areas containing sensitive environmental features such as floodplain, wetlands, and hydric soils should be highly restricted

Type A Developable Areas (unrestricted)
Areas appropriate for development without any limitations regarding environmental features

Type B Developable Areas (limited)
Areas appropriate for development with certain limitations regarding sensitive environmental features; techniques such as the preservation of woodlands, and the reinforcement of hydric soils are encouraged to foster low density estate lots and cluster development

N W E S

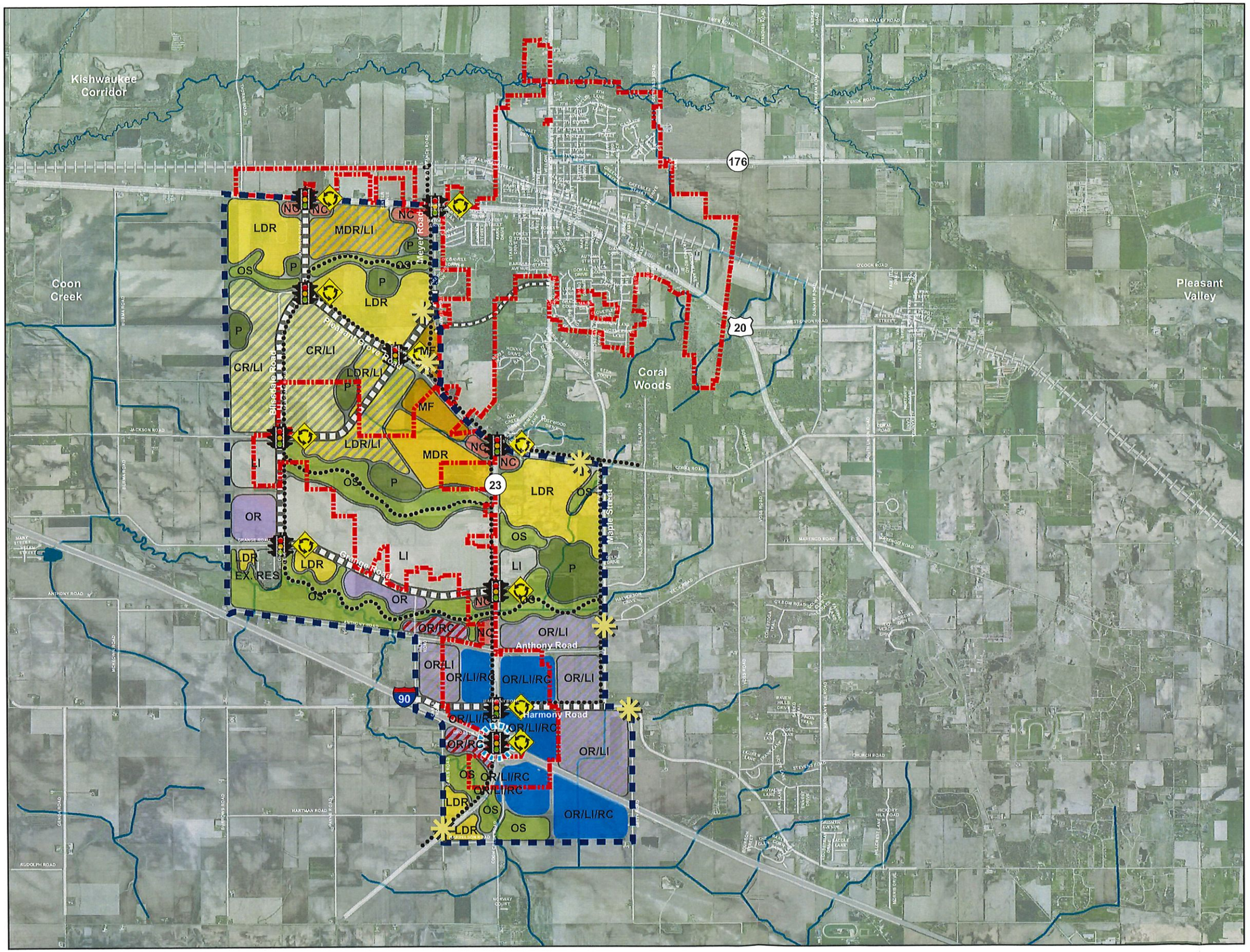
Feet
0 2,600 5,200

1 in = 5,000 feet

HRGreen

March 2017

City of Marengo
Southwestern Sub-Area Plan
Development Plan



Legend

- Sub Area Boundary
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- Potential Traffic Signal or Roundabout
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- Potential Road Connections
- Local Road
- U.S. Interstate HWY
- U.S. Route HWY
- State Route HWY
- County Route HWY
- Railroad Centerlines
- Water Features
- Creeks & Streams
- Light Industrial
- OR/RC
- OR/LI
- OR
- OR/LI/RC
- Regional Commercial
- Neighborhood Commercial
- Multi-Family Residential
- Medium Density SF Residential
- MDR/LI
- Low Density SF Residential
- Low Density SF Residential/Light Industrial
- Countryside SF Residential/Light Industrial
- Parks
- Open Space Conservation
- Existing Residential

N
W E
S

Feet
0 2,600 5,200

1 in = 5,000 feet

HRGreen

March 2017