ZONING, PLATTING & ADVISORY COMMITTEE (ZPAC) August 2, 2022 – Approved Meeting Minutes

PBZ Chairman Scott Gengler called the meeting to order at 9:00 a.m.

Present:

Matt Asselmeier – PBZ Department
Meagan Briganti – GIS Department
Scott Gengler – PBZ Committee Chair
Fran Klaas – Highway Department
Alyse Olson – Soil and Water Conservation District
Aaron Rybski – Health Department

Absent:

Greg Chismark – WBK Engineering, LLC
David Guritz – Forest Preserve
Brian Holdiman – PBZ Department
Commander Jason Langston – Sheriff's Department

Audience:

John Tebrugge and Lydia Ramirez

AGENDA

Mr. Klaas made a motion, seconded by Mr. Rybski, to approve the agenda as presented.

With a voice vote of six (6) ayes, the motion carried.

MINUTES

Mr. Rybski made a motion, seconded by Ms. Briganti, to approve the June 7, 2022, meeting minutes.

With a voice vote of six (6) ayes, the motion carried.

PETITIONS

<u>Petition 22-14 Sunny Simon on Behalf of Boulder Hill Market, LLC and Yonia Ahymee Nyamle on Behalf of the Olgani Wosho Foundation</u>

Mr. Asselmeier summarized the request.

The Olangi Wosho Foundation would like to operate the Christian Spiritual Warfare Ministry at 67 Boulder Hill Pass.

The application materials and site plan were provided.

On February 17, 2015, the Kendall County Board approved Ordinance 2015-02, granting a special use permit for a place of worship to River's Edge Fellowship at 71 Boulder Hill Pass. This ordinance was also provided.

The unit is approximately six thousand eight hundred (6,800) square feet.

The unit is zoned B-3.

The County's Future Land Use Map called for the property to be Suburban Residential (Max 1.00 DU/Acre).

Boulder Hill Pass is a Township maintained local road.

There were no trails planned in the area.

There were no floodplains or wetlands on the property.

The adjacent land uses were commercial related, an apartment complex, train tracks, and a wooded lot.

The adjacent properties were zoned A-1, R-7, B-1, and B-3. One (1) of the adjacent properties was inside the Village of Montgomery.

The County's Land Resource Management Plan called for the area to be Suburban Residential.

EcoCAT Report was submitted on July 8, 2022, and indicated the following protected resources in the vicinity:

Greater Redhorse River Redhorse

The NRI application was submitted on July 6, 2022. The LESA Score was 78 indicating a low level of protection.

Petition information was sent to Oswego Township on July 21, 2022.

Petition information was sent to the Village of Montgomery on July 21, 2022.

Petition information was sent to the Oswego Fire Protection District on July 21, 2022. The occupancy load might require the unit to be sprinklered.

The Kendall County Zoning Ordinance in Section 7:01.D.41 places the following requirements on special use permits for places of worship:

- 1. The height for the towers and steeples shall not exceed seventy-five (75) feet and not more than forty-five (45) feet for the main structure.
- 2. Other related uses, such as school, child day care services, kindergartens, meeting facilities shall be permitted to the extent that the activity is otherwise permitted, and shall be subject to all applicable regulations, including parking.

No changes to the exterior of the building are proposed as part of the special use permit.

According to the information provided, the Olgani Wosho Foundation operates the Christian Spiritual Warfare Ministry. If approved, services would be held on Tuesday mornings, Wednesday afternoons, Wednesday nights, Friday mornings, Friday nights, Saturdays around Noon, Saturday nights, and Sunday afternoons. The times of activities were subject to change. Various community based activities, including food distributions and retreats, would either occur at the property or originate from the property.

67 Boulder Hill Pass is approximately six thousand, eight hundred (6,800) square feet in size. The space has one (1) door facing the parking lot and two (2) doors facing the back side of the building. Two (2) restroom facilities are inside the space.

No information was provided regarding the number of people inside the space.

A change in occupancy would be required.

The property is served by public water and sewer.

No new impervious surface is proposed.

The property fronts Boulder Hill Pass.

The existing parking lot has approximately two hundred thirty-five parking (235) spaces.

Per Section 11:04 of the Kendall County Zoning Ordinance, one (1) parking space per every three (3) seats is required for places of worship.

No exterior lighting was planned.

No signage information was provided. Any signage installed would be required to meet the requirements of the Kendall County Zoning Ordinance.

No information was provided regarding security.

No changes to the existing landscaping was planned.

No information was provided regarding noise control.

No odor causing activities were foreseen at the property.

If approved, this would be the thirteenth (13th) special use permit for a place of worship in the unincorporated area and the second (2nd) such special use permit in the Boulder Hill Market.

The proposed Findings of Fact were as follows:

That the establishment, maintenance, or operation of the special use will not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare. Provided the operators of the use follow applicable building codes, no threats to the public health, safety, morals, comfort, or general welfare are foreseen.

That the special use will not be substantially injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood. The Zoning classification of property within the general area of the property in question shall be considered in determining consistency with this standard. The proposed use shall make adequate provisions for appropriate buffers, landscaping, fencing, lighting, building materials, open space and other improvements necessary to insure that the proposed use does not adversely impact adjacent uses and is compatible with the surrounding area and/or the County as a whole. The subject property is mostly surrounded by business uses with multi-family uses found to the east. Provided a restriction is placed in the special use permit regarding noise, no injury should be caused to neighboring properties. No information has been provided showing that the existing place of worship in Boulder Hill Market has negatively impacted property values or the use and enjoyment of other properties in the immediate vicinity.

That adequate utilities, access roads and points of ingress and egress, drainage, and/or other necessary facilities have been or are being provided. The use will be located inside an existing building with no plans to alter existing points of ingress and egress or drainage. Adequate utilities are onsite.

That the special use shall in all other respects conform to the applicable regulations of the district in which it is located, except as such regulations may in each instance be modified by the County Board pursuant to the recommendation of the Zoning Board of Appeals. This is true; no variances are needed.

That the special use is consistent with the purpose and objectives of the Land Resource Management Plan and other adopted County or municipal plans and policies. True, the Future Land Use Map calls for this property to be Suburban Residential and the property has been zoned for commercial uses since 1956. According to the definition of Suburban Residential found on page 6-45 of the Land Resource Management Plan, "Compatible governmental, educational, religious, and recreational uses also may be permitted in these areas." Governmental, educational, religious, and recreational uses can be found adjacent to the subject property. The proposed use would enhance and complement the existing uses in the area.

Staff recommends approval of the requested special use permit subject to the following conditions and restrictions. The Petitioners had not agreed to these conditions:

- 1. The special use shall be restricted to the unit shown as 67 Boulder Pass in the attached site plan.
- 2. If the Olangi Wosho Foundation vacates the unit, the special use permit shall automatically be revoked.
- 3. The noise regulations are as follows:

Day Hours: No person shall cause or allow the emission of sound during daytime hours (7:00 A.M. to 10:00 P.M.) from any noise source to any receiving residential land which exceeds sixty-five (65) dBA when measured at any point within such receiving residential land, provided; however, that point of measurement shall be on the property line of the complainant.

Night Hours: No person shall cause or allow the emission of sound during nighttime hours (10:00 P.M. to 7:00 A.M.) from any noise source to any receiving residential land which exceeds fifty-five (55) dBA when measured at any point within such receiving residential land provided; however, that point of measurement shall be on the property line of the complainant.

EXEMPTION: Powered Equipment: Powered equipment, such as lawn mowers, small lawn and garden tools, riding tractors, and snow removal equipment which is necessary for the maintenance of property is exempted from the noise regulations between the hours of seven o'clock (7:00) A.M. and ten o'clock (10:00) P.M.

4. The property owner and operator of the use allowed by this special use permit shall follow all applicable Federal, State, and Local laws related to the operation of this type of use, including, but not limited to, the signage regulations contained in the Kendall County Zoning Ordinance.

- 5. Failure to comply with one or more of the above conditions or restrictions could result in the amendment or revocation of the special use permit.
- 6. If one or more of the above conditions is declared invalid by a court of competent jurisdiction, the remaining conditions shall remain valid.

Chairman Gengler asked why the Future Land Use Map called for this area to be residential. Mr. Asselmeier did not know why the Future Land Use Map called for the area to be residential.

The Petitioner was not in attendance.

Discussion occurred about outside events. Mr. Asselmeier noted the times of services. Discussion occurred about adding a condition requiring services to be held indoors after a certain time of day. The consensus was not to add this recommendation until discussion occurs with the Petitioners.

Discussion occurred regarding other uses inside the Boulder Hill Market and previous uses at the unit.

The special use would go away if the subject church moved or closed.

Mr. Klaas made a motion, seconded by Mr. Rybski, to recommend approval of the special use permit with conditions proposed by Staff.

With a voice vote of six (6) ayes, the motion carried.

The proposal goes to the Kendall County Regional Planning Commission on August 24, 2022.

Petition 22-16 Lydia Ramirez

Mr. Asselmeier summarized the request.

In February 2019, the Kendall County Board granted a special use permit for a banquet facility at the subject property located in the 5100 block of Schlapp Road on the east side of Schlapp Road. The property recently sold and the new owner would like to amend the site plan, landscaping plan, and photometric plan for the property.

The application materials, Ordinance 2019-3, proposed site plan, proposed landscaping plan, proposed photometric plan, and proposed engineer plans were provided.

In particular, the following changes were proposed:

- 1. The northern driveway from the parking lot to Schlapp Road was eliminated.
- 2. The total number of parking spaces was reduced from one hundred fifty-one (151), including seven (7) handicapped parking spaces, to one hundred fifty parking (150), including six (6) handicapped parking spaces. The parking lot would also be divided into two (2) phases with ninety-nine (99) parking spaces in the first phase and fifty-one (51) parking spaces in the second phase. The location of the handicapped parking spaces within the parking lot was also adjusted.
- 3. The future building east of the parking lot was increased from one thousand five hundred (1,500) square feet to two thousand five (2,500) square feet.
- 4. One (1) additional asphalt walkway between the parking lot and barn (western walkway) was added. The walkway is approximately twelve feet (12') in width and encompasses one thousand ninety (1,090) square feet.
- 5. The eastern gravel walkway was reduced from twelve feet (12') to eight feet (8') in width.
- 6. The gravel walkway south of the barn was also reduced from twelve feet (12') to eight feet (8') in width.
- 7. The three (3) grain bins, tent area north of the proposed barn, and outdoor concrete pad areas on the east and west side of the barn were removed and replaced with a lean to building and concrete pad areas.

- 8. The proposed barn was increased from a four thousand nine hundred fifty (4,950) square foot structure to a five thousand two hundred eighty (5,280) square foot structure, not including the one thousand two hundred (1,200) square foot lean to building.
- 9. The location and configuration of the septic system was changed.
- 10. The wet bottom detention pond was made approximately two feet (2') deeper and the foot print of the pond shrunk.
- 11. A wild flower and prairie seed mix was added to the bio-swale west of the berm.
- 12. A dry mesic prairie mix was added around the pond.
- 13. The number of understory trees was decreased from ten (10) to five (5).
- 14. The location of some of the deciduous bushes around the proposed barn was adjusted to reflect the new dimensions of the barn.
- 15. The location of lights along the driveway were adjusted to reflect having one (1) entrance/exit. Accordingly, the number of "A2-5" lights was reduced from five (5) to four (4) and the number of "A1-3" lights was increased from two (2) to three (3).
- 16. Eighteen (18) new lights were proposed along the walkways from the parking lot to the proposed barn and walkways around the barn.

The existing conditions contained in Ordinance 2019-3 were as follows:

- A. The site shall be developed substantially in accordance with the attached site plan attached hereto as Exhibit C, the attached landscaping plan attached hereto as Exhibit D, and the attached lighting plan attached hereto as Exhibit E. The previously listed plans may be altered to meet the right-of-way dedication mentioned in condition B. Trees shall be a minimum five feet (5') in height at the time of planting as measured from the top of the root ball to the top of the tree. The trees shall be planted in such location as to provide a complete screening within five (5) years of approval of this ordinance.
- B. Within sixty (60) days of approval of this special use permit ordinance, the property owners shall convey a strip of land along the entire western portion of the property to Oswego Township to be used as Schlapp Road right-ofway. This dedication shall have a depth of fifty feet (50') as measured from the centerline of Schlapp Road.
- C. A maximum of two hundred eighty-five (285) guests in attendance at a banquet center related event may be on the subject property at a given time.
- D. A variance shall be granted to the requirement that the facility shall have direct access to a road designated as an arterial roadway or major collector road as identified in the Land Resource Management Plan as required in Section 7.01.D.10.a of the Kendall County Zoning Ordinance.
- E. The subject parcel must maintain a minimum of five (5) acres.
- F. The use of this property shall be in compliance with all applicable ordinances. The banquet facility shall conform to the regulations of the Kendall County Health Department and the Kendall County Liquor Control Ordinance.
- G. Off-street parking, lighting and landscaping shall be provided in accordance with the provisions of Section 11 of the zoning ordinance except where variances are granted. In particular, lighting will not be allowed to cross property lines. Parking lot lights shall not be illuminated on evenings when no events are held.
- H. All signage shall comply with the provisions of Section 12 of the Kendall County Zoning Ordinance. The signage shall be developed in accordance to the attached site plan. The owners of the business allowed by this special use permit may install two (2) directional signs along Schlapp Road. Any signage provided will not be illuminated.
- I. Retail sales are permitted as long as the retail sales will be ancillary to the main operation.
- J. The noise regulations are as follows:
 - Day Hours: No person shall cause or allow the emission of sound during daytime hours (7:00 A.M. to 10:00 P.M.) from any noise source to any receiving residential land which exceeds sixty five (65) dBA when measured at any

point within such receiving residential land, provided; however, that point of measurement shall be on the property line of the complainant.

Night Hours: No person shall cause or allow the emission of sound during nighttime hours (10:00 P.M. to 7:00 A.M.) from any noise source to any receiving residential land which exceeds fifty five (55) dBA when measured at any point within such receiving residential land provided; however, that point of measurement shall be on the property line of the complainant.

EXEMPTION: Powered Equipment: Powered equipment, such as lawn mowers, small lawn and garden tools, riding tractors, and snow removal equipment which is necessary for the maintenance of property is exempted from the noise regulations between the hours of seven o'clock (7:00) A.M. and ten o'clock (10:00) P.M.

- K. No music shall originate outside of any building. This exemption shall not apply to non-amplified music used or performed as part of a wedding ceremony. All speakers shall be pointed towards the inside of buildings.
- L. The hours of operation shall be between 9:00 a.m. and Midnight on weekends and between 9:00 a.m. and 10:00 p.m. on weekdays. The owners of the business allowed by this special use permit shall be allowed an additional two (2) hours after each event for the purposes of cleanup. Setup for events shall occur during the hours of operation. For the purposes of this special use permit ordinance, the term "weekend" shall mean Fridays, Saturdays, the day prior to any Federal or State holiday, and any Federal or State holiday that falls on a Thursday. The term "weekday" shall mean the other days of the week not included in the definition of "weekend."
- M. A new certificate of occupancy must be issued for all buildings.
- N. The operator(s) of the banquet facility acknowledge and agree to follow Kendall County's Right to Farm Clause.
- O. The special use permit for the residential unit of a stable employee, previously granted by Ordinance 1999-10 and amended by Ordinance 1999-20, shall be repealed.
- P. No patrons, employees, or other individuals associated with events at the banquet facility allowed by this special use permit may park along Schlapp Road.
- Q. Prior to the commencement of business operations, the owners of the banquet facility allowed by this special use permit shall plant a thirty foot (30') strip of wild flowers and prairie grasses along the entire eastern property line.
- R. Prior to the commencement of business operations, the owners of the banquet facility allowed by this special use permit shall erect "No Trespassing" signs near the eastern property line.
- S. The operator(s) of the banquet facility allowed by this special use permit shall follow all applicable Federal, State, and Local laws related to the operation of this type of business.
- T. Failure to comply with one or more of the above conditions or restrictions could result in the amendment or revocation of the special use permit.
- U. If one or more of the above conditions is declared invalid by a court of competent jurisdiction, the remaining conditions shall remain valid.

Condition 1 is the only condition proposed for amendment. The height of trees and timing of screening would remain the same. Planting of vegetation would be completed by June 1, 2023.

The property is approximately nine point seven (9.7) acres in size.

The current land use is Agricultural.

The future land use is Rural Residential (Max 0.60 DU/Acre).

Schlapp Road is a Township maintained minor collector.

There were no trails planned in the area.

There were no floodplains or wetlands on the property.

The adjacent land uses were Agricultural and Farmstead.

The adjacent properties were zoned A-1 and A-1 SU.

The Future Land Use Map called for the area to Rural Residential (Max 0.60 DU/Acre) and Rural Estate Residential (Max 0.45 DU/Acre).

The properties within a half (1/2) mile were zoned A-1, A-1 SU, R-1 and R-3.

The A-1 SU to the north of the subject property is for a residential unit for a stable employee. The A-1 SU to the east of the subject property is a church. One (1) additional A-1 SU is located within one half (1/2) mile of the property to the northeast; this special use permit is for the selling of agricultural products not grown on the premises.

Seven (7) houses, not including the homes in the Douglas Hill Subdivision and Leisure Lea Subdivison, are located within one half (1/2) mile of the existing property lines.

EcoCat submitted on July 13, 2022, consultation was terminated.

NRI application submitted on July 18, 2022. The LESA Score was 198 indicating a low level of protection.

Oswego Township was emailed information on July 21, 2022. The right-of-way dedication required in Ordinance 2019-3 occurred as required.

Oswego Fire Protection District was emailed information on July 21, 2022. The previous property owner explored obtaining a variance to the sprinkling requirements. The new construction will be required to be sprinklered and fire alarmed, including the lean to. The concrete pads must meet IBC/IFC tent regulations. An auto turn exhibit is required to validate the ability of emergency vehicles to navigate the site. The gravel parking lot shall be constructed so that it can be maintained in drivable and accessible condition year-round.

The Village of Oswego was emailed information on July 21, 2022.

The proposed Findings of Fact were as follows:

That the establishment, maintenance, or operation of the special use will not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare. The establishment, maintenance, or operation of the special use will not be detrimental to or endanger the public health, safety, morals, or general welfare, provided that the site is developed in accordance with an approved site plan, landscaping plan, and lighting plan. Proper buffering and noise controls are included in the plan to prevent noise from negatively impacting neighboring properties.

That the special use will not be substantially injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood. The Zoning classification of property within the general area of the property in question shall be considered in determining consistency with this standard. The proposed use shall make adequate provisions for appropriate buffers, landscaping, fencing, lighting, building materials, open space and other improvements necessary to insure that the proposed use does not adversely impact adjacent uses and is compatible with the surrounding area and/or the County as a whole. The proposed use could be injurious to the enjoyment of other property in the immediate vicinity due to noise and light created from the proposed use. Some of the negative impacts of the proposed use on properties in the immediate vicinity could be mitigated by restrictions related to hours of operation, number of events, and buffering within the ordinance granting the special use permit.

That adequate utilities, access roads and points of ingress and egress, drainage, and/or other necessary facilities have been or are being provided. True, the Petitioner plans to work with the Kendall County Health Department, the Kendall County Planning, Building and Zoning Department and Oswego Township to address utilities, drainage, and points of ingress and egress.

That the special use shall in all other respects conform to the applicable regulations of the district in which it is located, except as such regulations may in each instance be modified by the County Board pursuant to the recommendation of the Zoning Board of Appeals. True, no additional variances are requested.

That the special use is consistent with the purpose and objectives of the Land Resource Management Plan and other adopted County or municipal plans and policies. True, the proposed use is consistent with an objective found on Page 3-3 of the Kendall County Land Resource Management Plan which states as an objective "Encourage Agriculture and Agribusiness."

Staff recommended approval of the major amendment to an existing special use permit subject to the following conditions and restrictions. The Petitioner had not agreed to these conditions and restrictions:

- 1. Condition 2.A of Ordinance 2019-3 is deleted and replaced with the following: "The site shall be developed substantially in accordance with the attached site plan, landscaping plan, photometric plan, and engineering plans. Trees shall be a minimum five feet (5') in height at the time of planting as measured from the top of the root ball to the top of the tree. The trees shall be planted in such locations as to provide a complete screening within five (5) years of approval of this amendment. The specific dimensions of the pond shall be governed by the stormwater management permit."
- 2. Installation of the vegetation shown in the landscaping plan shall be completed by June 1, 2023. The Planning, Building and Zoning Committee may extend the deadline to install the vegetation upon request of the property owner or operator of the business allowed by the special use permit.
- 3. The remaining conditions and restrictions contained in Ordinance 2019-3 shall remain valid and effective.
- 4. Failure to comply with one or more of the above conditions or restrictions or the conditions or restrictions contained in Ordinance 2019-3 could result in the amendment or revocation of the special use permit.
- 5. If one or more of the above conditions is declared invalid by a court of competent jurisdiction, the remaining conditions shall remain valid.
- 6. This major amendment to an existing special use permit shall be treated as a covenant running with the land and is binding on the successors, heirs, and assigns as to the same special use conducted on the property.

Mr. Rybski requested that the Petitioner work with the Health Department regarding the septic system design and the requirements for a non-community well.

Chairman Gengler asked when the Petitioner wanted to start operating. The response was by the end of 2023, depending on construction schedule.

Mr. Asselmeier asked if the Petitioner agreed to requirements of the Oswego Fire Protection District. John Tebrugge, Engineer for the Petitioner responded yes.

Mr. Rybski made a motion, seconded by Mr. Klaas, to recommend approval of the special use permit with conditions proposed by Staff.

With a voice vote of six (6) ayes, the motion carried.

The proposal goes to the Kendall County Regional Planning Commission on August 24, 2022.

REVIEW OF PETITIONS THAT WENT TO COUNTY BOARD

Mr. Asselmeier reported that Petitions 21-49, 22-06, and 22-13 were approved by the County Board.

The owners of Lots 12 and 13 in Grove Estates decided not to record the plat of vacation of easements as allowed by Ordinance 2022-12 (formerly Petition 22-08).

The Petition for the proposed landscaping business on Route 52 west of Arbeiter Road (Petition 22-10) was withdrawn prior to County Board action.

OLD BUSINESS/NEW BUSINESS

None

CORRESPONDENCE

None

PUBLIC COMMENT

None

ADJOURNMENT

Ms. Briganti made a motion, seconded by Mr. Rybski, to adjourn.

With a voice vote of six (6) ayes, the motion carried.

The ZPAC, at 9:29 a.m., adjourned.

Respectfully Submitted, Matthew H. Asselmeier, AICP, CFM Senior Planner

Encs.

Matt Asselmeier

From:

Alec Keenum <akeenum@oswegofire.com>

Sent:

Friday, July 22, 2022 7:13 AM

To:

Matt Asselmeier

Cc:

FireChief; Brian Holdiman

Subject:

[External]RE: Kendall County Zoning Petition 22-14

CAUTION - This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Morning Matt,

Only comments here: as per the State of Illinois's Life-Safety Code, this new assembly occupancy may require sprinkler protection depending on the size of the occupancy load determined for the facility (which is something that for starters, their architect should be able to determine).

Regards,

Capt. Alec J Keenum Fire Marshal Oswego Fire Protection District



August 1, 2022

Sunny Simon 67 Boulder Hill Pass Montgomery, IL 60538

Dear Sunny Simon,

The Kendall County Soil & Water Conservation District (SWCD) received a Natural Resources Information Report (NRI) Application for the proposed Boulder Hill Market church special use permit petition filed with Kendall County. The proposed project is located in the southeast corner of Section 5 in Oswego Township (T.37N-R.8E of the 3rd Principal Meridian) in Kendall County, Illinois (Parcel Index Number 03-05-401-003). After reviewing the application, it was determined that a *full NRI Report is not necessary at this time* for the proposed project. The church plans to operate out of an existing building within a commercial shopping center where soils have previously been disturbed. The site plan is not proposing any grading, land disturbance, addition of buildings, or building expansions.

The Kendall County SWCD has reviewed the 7.82-acre project site and would like to note the following in regard to natural resource considerations:

- The site, as submitted for review, is currently a commercial shopping center. The unit being proposed as a place of worship is located at 67 Boulder Hill Pass in Montgomery, IL. The unit is currently vacant.
- The 2008 Soil Survey for Kendall County as maintained by the United States Department of Agriculture Natural Resource Conservation Service (USDA-NRCS) contains soil maps and descriptions for soil types throughout the county. The table below shows the soil map units that are present within the project site.

Soil Map Unit
318D2 Lorenzo loam, 6-12% slopes, eroded
325B Dresden silt loam, 2-4% slopes
802B Orthents, loamy, undulating

- Soil survey interpretations are predictions of soil behavior for specified land uses and specified management practices. These interpretative ratings help engineers, planners, and others to understand how soil properties influence behavior when used for nonagricultural uses such as building site development or construction materials. They are based on the soil properties that directly influence the specified use of the soil. Each soil map unit has limitations for a variety of land uses such as buildings with basements, buildings without basements, small commercial buildings, shallow excavations, onsite sewage disposal, and lawns/landscaping. It is important to remember that soils do not function independently of each other. The behavior of a soil depends upon the physical properties of adjacent soil types, the presence of artificial drainage, soil compaction, and its position in the local landscape.
- The information provided in the table below provides further detail regarding the following:
 - Drainage Class: Refers to the frequency and duration of wet periods under similar conditions to those under which the soil formed.
 - Hydrologic Soil Groups: Soils have been classified into four (A, B, C, D) hydrologic groups based on runoff characteristics due to rainfall. If a soil is assigned to a dual hydrologic group (A/D, B/D or C/D),





- the first letter is for drained areas and the second letter is for undrained areas. Group A soils have a high infiltration rate, low runoff potential and high rate of water transmission. Group B soils have a moderate infiltration rate and rate of water transmission. Group C soils have a slow infiltration rate and rate of water transmission. Group D soils have a very slow infiltration rate, high runoff potential and a very slow rate of water transmission.
- Hydric Soils: A hydric soil is one that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part of the soil profile that supports the growth or regeneration of hydrophytic vegetation. Soils with hydric inclusions have map units dominantly made up of non-hydric soils that may have inclusions of hydric soils in the lower positions on the landscape.

Map Unit	Drainage Class	Hydrologic Group	Hydric Designation
318D2	Well Drained	В	Non-Hydric
325B	Well Drained	В	Non-Hydric
802B	Well Drained	С	Non-Hydric Hydric Inclusions Likely

- This site is located on slopes of approximately 2-12%. The site lies within the Fox River Watershed (Mastodon Lake sub watershed). Topographic maps indicate that the site drains predominantly to the northwest towards the Fox River.
- Based on an in-office review of the Federal Emergency Management Agency's (FEMA) Digital Flood Insurance
 Rate Map (DFIRM) for Kendall County, Community Panel No. 17093C0053G (effective date February 4, 2009), it
 does not appear that this parcel is located within the 100-year floodplain. It is mapped as Zone X, an area of
 minimal flood hazard. Additionally, based upon review of the U.S. Fish & Wildlife Service's National Wetlands
 Inventory Map, wetlands do not appear to be identified on the project site. The Fox River, however, is located
 within 350 feet of the parcel and is identified as a Riverine (R), Lower Perennial (2), Unconsolidated Bottom (UB),
 Permanently Flooded (H) (R2UBH) wetland/waters.
- If construction is to occur onsite in the future, a soil erosion and sediment control plan should be prepared and implemented in accordance with both Kendall County and Illinois EPA requirements. The Illinois Urban Manual can be used as a reference for proper selection and implementation of onsite soil erosion and sediment control practices to ensure that soil is properly maintained onsite from project initiation to completion.
- The Land Evaluation Site Assessment (LESA) system, a land use planning tool, assists decision-makers in Kendall County in determining the suitability of a land use change and/or a zoning request. Specifically, the LESA system is designed to facilitate decision making by providing a rational process for assisting local officials in making farmland conversion decisions through the local land use process. It provides a technical framework to numerically rank land parcels based on local resource evaluation and site considerations. The LESA system was developed by the United States Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS) and takes into consideration local conditions such as physical characteristics of the land, compatibility of surrounding land uses, and urban growth factors. The LESA system is a two-step procedure that includes Land Evaluation (LE) and Site Assessment (SA). The Land Evaluation is based on soils of a given area that are rated and placed in groups ranging from the best to worst suited for a stated agriculture use such as cropland and forestland. The best group is assigned a value of 100 and all other groups are assigned lower values (94, 87, 79, etc.). The Land Evaluation is based on data from the USDA Kendall County Soil Survey. The Site Assessment is numerically evaluated according to important factors that contribute to the quality of the site. Each factor selected is assigned values in accordance with the local needs and objectives. The overall score is based on a 300point rating scale. Selecting the project site with the lowest total points will generally protect the best farmland located in the most viable areas and maintain and promote the agricultural industry in Kendall County.



Land Evaluation Computation

Soil Type	Value Group	Relative Value	Acres	Product (Relative Value x Acres)
318D2	6	69	0.5	34.5
325B	4	79	2.5	197.5
802B	8	0	4.8	0.0
Totals			7.8	232
LE Calculation			(Product	of relative value / Total Acres)
			232 / 7.8 = 29.7	
LE Score				LE = 30

The Land Evaluation score for this site is 30 out of a possible 100 points, indicating that the soils are not well-suited for agricultural uses.

Site Assessment Computation

Α.	Agricultural Land Uses	Points
	1. Percentage of area in agricultural uses within 1.5 miles of site. (20-10-5-0)	0
	2. Current land use adjacent to site. (30-20-15-10-0)	0
	3. Percentage of site in agricultural production in any of the last 5 years. (20-15-10-5-0)	0
	4. Size of site. (30-15-10-0)	0
В.	Compatibility / Impact on Uses	
	1. Distance from city or village limits. (20-10-0)	0
	2. Consistency of proposed use with County Land Resource Management Concept Plan and/or	20
	municipal comprehensive land use plan. (20-10-0)	
	3. Compatibility of agricultural and non-agricultural uses. (15-7-0)	15
C.	Existence of Infrastructure	
	1. Availability of public sewage system. (10-8-6-0)	0
	2. Availability of public water system. (10-8-6-0)	0
	3. Transportation systems. (15-7-0)	7
	4. Distance from fire protection service. (10-8-6-2-0)	6
	Site Assessment Score:	48

The Site Assessment score for this site is 48 out of a possible 200 points. The Land Evaluation value (30) is added to the Site Assessment value (48) to obtain a LESA Score of 78. The table below shows the level of protection for the proposed project site based on the LESA Score.

LESA Score Summary

LESA SCORE	LEVEL OF PROTECTION
<mark>0-200</mark>	<mark>Low</mark>
201-225	Medium
226-250	High
251-300	Very High

The overall LESA Score for this site is 78 indicating a low level of protection for the proposed project site. Note: Selecting the project site with the lowest total points will generally protect the best farmland located in the most viable areas and maintain and promote the agricultural industry in Kendall County.



If you have any questions, please contact our office at (630) 553-5821 extension 3.

Sincerely,



Alyse Olson Resource Conservationist



Matt Asselmeier

From:

Alec Keenum <akeenum@oswegofire.com>

Sent:

Friday, July 22, 2022 8:25 AM

To:

Matt Asselmeier

Cc:

FireChief; Brian Holdiman

Subject:

[External]RE: Kendall County Zoning Petition 22-16 Schlapp Banquet Facility

CAUTION - This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Looks like there is an updated plan in with the Engineering....

So grain bins non longer in the plan. But "Lean to" is new construction – sprinklered and fire alarmed

From: Alec Keenum

Sent: Friday, July 22, 2022 8:06 AM

To: 'Matt Asselmeier' <masselmeier@kendallcountyil.gov>

Cc: FireChief < firechief@oswegofire.com>; Brian Holdiman < BHoldiman@co.kendall.il.us>

Subject: RE: Kendall County Zoning Petition 22-16 Schlapp Banquet Facility

Matt,

Subject Property: 5100 Block Schlapp Rd

Creation of a banquet facility and new construction

Comments:

- New construction required to be sprinkler protected and fire alarmed (proposed barn & proposed storage)
- Further information/details needed on "grain bin" uses (fire alarmed and sprinklered)
- Concrete pads housing of tents require compliance with all IBC/IFC tent regulations (regard to length of time erected, size, exiting, food preparation, securing, etc., etc.)
- Note #1 references the elimination of the north driveway off of Schlapp are Exhibits C &D the new layouts or the old layouts, as they both depict two drives
- Auto turning exhibit required to validate ability for emergency vehicles to navigate the site (44' 7" wall-to-wall turning radii required for calculations)
- Gravel parking lot shall be constructed such that it can be maintained in drivable and accessible condition year round

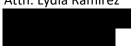
Regards,

Capt. Alec J Keenum Fire Marshal Oswego Fire Protection District



July 22, 2022

New Horizon Drywall Co. Attn: Lydia Ramirez



Dear Ms. Ramirez,

The Kendall County Soil & Water Conservation District (SWCD) received a Natural Resources Information Report (NRI) request for the Heritage Farms Banquet Hall petition filed will Kendall County. The proposed project is located in the northwest corner of Section 34 of Oswego Township (T.37N-R.8E of the 3rd Principal Meridian) in Kendall County, Illinois (Parcel Index Number 03-34-100-027). After reviewing the project, it was determined that a *full NRI Report is not necessary at this time* for the proposed project. During initial planning of the banquet hall, an NRI Report was prepared in January of 2019 based on site conditions at that time (please see NRI Report 1902). A copy of this report is included with the letter.

The Kendall County SWCD has reviewed the 10-acre project site and would like to note the following in regard to natural resource considerations:

- The site, as submitted for review, is currently vegetated non-cropland with a proposed use as a banquet hall. Based on aerial imagery, it appears the land use changed from cropland to vegetated non-cropland between 2019 and 2021.
- The original NRI Report was prepared in 2019. Since then, the Soil Survey for Kendall County has remained the same and the on-site soil map units shown below have not changed.

Soil Map Unit
59A Lisbon silt loam, 0-2% slopes
145B Saybrook silt loam, 2-5% slopes
145B2 Saybrook silt loam, 2-5% slopes, eroded
145C2 Saybrook silt loam, 5-10% slopes, eroded

- Soil survey interpretations are predictions of soil behavior for specified land uses and specified management practices. These interpretative ratings help engineers, planners, and others to understand how soil properties influence behavior when used for nonagricultural uses such as building site development or construction materials. They are based on the soil properties that directly influence the specified use of the soil. Each soil map unit has limitations for a variety of land uses such as buildings with basements, buildings without basements, small commercial buildings, shallow excavations, onsite sewage disposal, and lawns/landscaping. It is important to remember that soils do not function independently of each other. The behavior of a soil depends upon the physical properties of adjacent soil types, the presence of artificial drainage, soil compaction, and its position in the local landscape.
- The limitation categories (slight, moderate, or severe) indicate the potential for difficulty in using that soil unit for the proposed activity and, thus, the degree of need for thorough soil borings and engineering studies. A limitation does not necessarily mean that the proposed activity cannot be done on that soil type. It does mean that the reasons for the limitation need to be thoroughly understood and dealt with to complete the





proposed activity successfully. A severe limitation indicates that the proposed activity will be more difficult and costly to do on that soil type than on a soil type with a moderate or slight rating.

• The table below provides ratings for proposed uses in terms of limitations (please refer to NRI Report 1902 for additional information on soil interpretations and building limitations).

Soil Map	Small Commercial	Onsite Conventional	Shallow	Lawns &
Unit	Buildings	Septic Systems	Excavations	Landscaping
59A	Somewhat Limited	Suitable	Very Limited	Somewhat Limited
145B	Somewhat Limited	Suitable	Somewhat Limited	Somewhat Limited
145B2	Somewhat Limited	Suitable	Very Limited	Somewhat Limited
145C2	Somewhat Limited	Suitable	Somewhat Limited	Somewhat Limited

- The information provided in the table below provides further detail regarding the following:
 - Drainage Class: Refers to the frequency and duration of wet periods under similar conditions to those under which the soil formed.
 - O Hydrologic Soil Groups: Soils have been classified into four (A, B, C, D) hydrologic groups based on runoff characteristics due to rainfall. If a soil is assigned to a dual hydrologic group (A/D, B/D or C/D), the first letter is for drained areas and the second letter is for undrained areas. Group A soils have a high infiltration rate, low runoff potential and high rate of water transmission. Group B soils have a moderate infiltration rate and rate of water transmission. Group C soils have a slow infiltration rate and rate of water transmission. Group D soils have a very slow infiltration rate, high runoff potential and a very slow rate of water transmission.
 - Hydric Soils: A hydric soil is one that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part of the soil profile that supports the growth or regeneration of hydrophytic vegetation. Soils with hydric inclusions have map units dominantly made up of non-hydric soils that may have inclusions of hydric soils in the lower positions on the landscape.
 - Prime Farmland: Land that has the best combination of physical and chemical characteristics for agricultural production. Prime farmland soils are an important resource to Kendall County and some of the most productive soils in the United States occur locally.

Map Unit	Drainage Class	Hydrologic Group	Hydric Designation	Farmland Designation
59A	Camana bat Danulu Dunin ad	C/D	Non-Hydric	Prime Farmland
39A	Somewhat Poorly Drained	newhat Poorly Drained C/D	Hydric Inclusions Likely	Prime Familiand
145B	Moderately Well Drained	С	Non-Hydric	Prime Farmland
145B2	Moderately Well Drained	С	Non-Hydric	Prime Farmland
145C2	Madarataly Wall Drained	6	Non Hudria	Farmland of Statewide
145C2	Moderately Well Drained	C	Non-Hydric	Importance

- To ensure proper consideration of the current site conditions for suitable development including excavation, structures, landscaping, we recommend site specific soil testing to ensure any limitations associated with the current soil material onsite will support associated uses.
- This site is located on slopes of approximately 0-10%. The site lies within both the Illinois River Watershed (Aux Sable Creek sub watershed) and Fox River Watershed (Morgan Creek sub watershed). Topographic maps indicate that drainage to the Fox River Watershed is across the northwest corner of the parcel while the remainder of the parcel drains to the southeast into the Illinois River Watershed.



- Based on an in-office review of the Federal Emergency Management Agency's (FEMA) Digital Flood Insurance
 Rate Map (DFIRM) for Kendall County, Community Panel No. 17093C0065H (effective date January 8, 2014), it
 does not appear that this parcel is located within the 100-year floodplain. It is mapped as Zone X, an area of
 minimal flood hazard. Additionally, based upon review of the U.S. Fish & Wildlife Service's National Wetland
 Inventory Map, wetlands do not appear to be identified on the project site.
- As part of project construction, a soil erosion and sediment control plan should be prepared and implemented
 onsite in accordance with both Kendall County and Illinois EPA requirements. The Illinois Urban Manual can be
 used as a reference for proper selection and implementation of onsite soil erosion and sediment control practices
 to ensure that soil is properly maintained onsite from project initiation to completion.
- The Land Evaluation Site Assessment (LESA) system, a land use planning tool, assists decision-makers in Kendall County in determining the suitability of a land use change and/or a zoning request. Specifically, the LESA system is designed to facilitate decision making by providing a rational process for assisting local officials in making farmland conversion decisions through the local land use process. It provides a technical framework to numerically rank land parcels based on local resource evaluation and site considerations. The LESA system was developed by the United States Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS) and takes into consideration local conditions such as physical characteristics of the land, compatibility of surrounding land uses, and urban growth factors. The LESA system is a two-step procedure that includes Land Evaluation (LE) and Site Assessment (SA). The Land Evaluation is based on soils of a given area that are rated and placed in groups ranging from the best to worst suited for a stated agriculture use such as cropland and forestland. The best group is assigned a value of 100 and all other groups are assigned lower values (94, 87, 79, etc.). The Land Evaluation is based on data from the USDA Kendall County Soil Survey. The Site Assessment is numerically evaluated according to important factors that contribute to the quality of the site. Each factor selected is assigned values in accordance with the local needs and objectives. The overall score is based on a 300point rating scale. Selecting the project site with the lowest total points will generally protect the best farmland located in the most viable areas and maintain and promote the agricultural industry in Kendall County.

Land Evaluation Computation

	- paradion	1		
Soil Type	Value Group	Relative Value	Acres	Product (Relative Value x Acres)
59A	2	94	1.0	94.0
145B	2	94	2.8	263.2
145B2	3	87	4.7	408.9
145C2	5	82	1.5	123.0
Totals			10.0	889.1
LE Calculation			(Produc	t of relative value / Total Acres) 889.1 / 10 = 88.9
LE Score				LE = 89

The Land Evaluation score for this site is 89, indicating that this site is well-suited for agricultural uses.

Site Assessment Computation

Α.	Agricultural Land Uses	Points
	1. Percentage of area in agricultural uses within 1.5 miles of site. (20-10-5-0)	20
	2. Current land use adjacent to site. (30-20-15-10-0)	30
	3. Percentage of site in agricultural production in any of the last 5 years. (20-15-10-5-0)	20
	4. Size of site. (30-15-10-0)	0
В.	Compatibility / Impact on Uses	
	1. Distance from city or village limits. (20-10-0)	10



	2. Consistency of proposed use with County Land Resource Management Concept Plan and/or	0
	municipal comprehensive land use plan. (20-10-0)	
	3. Compatibility of agricultural and non-agricultural uses. (15-7-0)	0
C.	Existence of Infrastructure	
	1. Availability of public sewage system. (10-8-6-0)	8
	2. Availability of public water system. (10-8-6-0)	8
	3. Transportation systems. (15-7-0)	7
	4. Distance from fire protection service. (10-8-6-2-0)	6
	Site Assessment Score:	109

The Site Assessment score for this site is 109. The Land Evaluation value (89) is added to the Site Assessment value (109) to obtain a LESA Score of 198. The table below shows the level of protection for the proposed project site based on the LESA Score.

LESA Score Summary

LESA SCORE	LEVEL OF PROTECTION
<mark>0-200</mark>	Low
201-225	Medium
226-250	High
251-300	Very High

The LESA Score for this site was updated from the NRI Report completed in 2019. The overall LESA Score for this site is 198 indicating a low level of protection for the proposed project site. Note: Selecting the project site with the lowest total points will generally protect the best farmland located in the most viable areas and maintain and promote the agricultural industry in Kendall County.

If you have any questions, please contact our office at (630) 553-5821 extension 3.

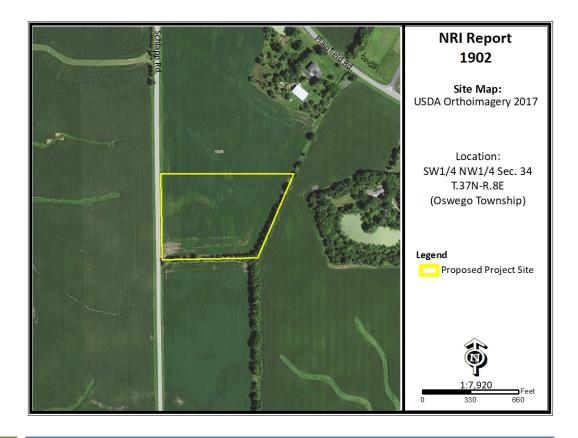
Sincerely,

Alyse Olson Resource Conservationist

Enclosure



NATURAL RESOURCE INFORMATION (NRI) REPORT: 1902



January 2019 Petitioner: Stuart Weihler

Contact: Attorney Daniel J. Kramer

Prepared by:



Kendall County Soil & Water Conservation District

7775A Route 47 • Yorkville, Illinois 60560 Phone: (630)553-5821 x3 • Fax: (630)553-7442

www.kendallswcd.org

1902 Executive Summary January 2019

Petitioner: Stuart Weihler

Contact Person: Attorney Daniel J. Kramer

County or Municipality the petition is filled with: Kendall County

Location of Parcel: SW% NW% Section 34, T.37N.-R.8E. (Oswego Township) of the 3rd Principal Meridian

<u>Project or Subdivision Name:</u> Heritage Homestead – Banquet Center

Existing Zoning & Land Use: A-1 SU; Cropland

Proposed Zoning & Land Use: A-1 SU; Banquet Center

Proposed Water Source: Well

Proposed Type of Sewage Disposal System: Septic (proposed raised bed)

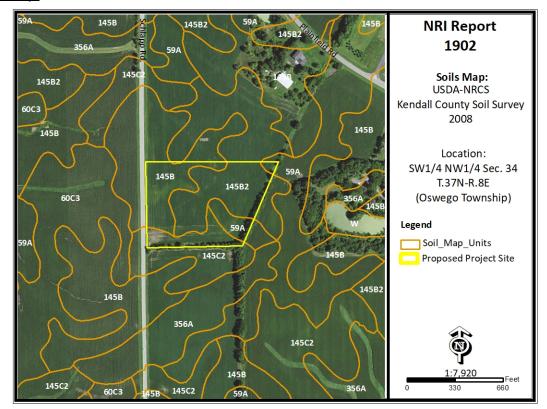
Proposed Type of Storm Water Management: Retention Pond

Size of Site: 10.0 acres

Land Evaluation Site Assessment Score: 212 (Land Evaluation: 89; Site Assessment: 123)

Natural Resource Findings

Soil Map:



SOIL INFORMATION:

Based on information from the United States Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS) 2008 Kendall County Soil Survey, this parcel is shown to contain the following soil types (please note this does not replace the need for or results of onsite soil testing; please refer to onsite soil test results for planning/engineering purposes):

Table 1:

Мар	Soil Name	Drainage Class	Hydrologic	Hydric	Farmland Designation
Unit			Group	Designation	
59A	Lisbon silt loam, 0-2%	Somewhat	C/D	Non-hydric	Prime Farmland
	slopes	poorly drained		Hydric Inclusions	
				Likely	
145B	Saybrook silt loam, 2-5%	Moderately	С	Non-hydric	Prime Farmland
	slopes	well drained			
145B2	Saybrook silt loam, 2-5%	Moderately	С	Non-hydric	Prime Farmland
	slopes, eroded	well drained			
145C2	Saybrook silt loam, 5-	Moderately	С	Non-hydric	Farmland of Statewide
	10% slopes, eroded	well drained			Importance

<u>Hydrologic Soil Groups</u>: Soils have been classified into four (A, B, C, D) hydrologic groups based on runoff characteristics due to rainfall. If a soil is assigned to a dual hydrologic group (A/D, B/D or C/D), the first letter is for drained areas and the second letter is for undrained areas.

- ✓ Hydrologic group A: Soils have a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.
- ✓ Hydrologic group B: Soils have a moderate infiltration rate when thoroughly wet, consist chiefly
 of moderately deep to deep, moderately well drained to well drained soils that have a
 moderately fine to moderately coarse texture. These soils have a moderate rate of water
 transmission.
- ✓ **Hydrologic group C:** Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.
- ✓ Hydrologic group D: Soils having a very slow infiltration rate (high runoff potential) when
 thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that
 have a high water table, have a claypan or clay layer at or near the surface, and soils that are
 shallow over nearly impervious material. These soils have a very slow rate of water transmission.

<u>Hydric Soils</u>: A hydric soil is one that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part of the soil profile that supports the growth or regeneration of hydrophytic vegetation. Soils with hydric inclusions have map units dominately made up of non-hydric soils that may have inclusions of hydric soils in the lower positions on the landscape. Of the soils found onsite, one is classified as having hydric inclusions (soil map unit: 59A Lisbon silt loam).

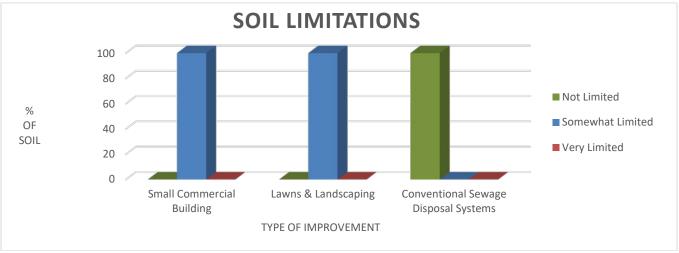
<u>Prime Farmland</u>: Prime farmland is land that has the best combination of physical and chemical characteristics for agricultural production. Prime farmland soils are an important resource to Kendall County and some of the most productive soils in the United States occur locally. Of the soils found onsite, three of the soils found onsite (soil map units: 59A Lisbon silt loam, 145B Saybrook silt loam and 145B2 Saybrook silt loam) are designated as prime farmland. One soil (soil map unit: 145C2 Saybrook silt loam) is classified as farmland of statewide importance.

<u>Soil Limitations</u>: Limitations for dwellings without basements, dwellings with basements and conventional septic systems.

Table 2a:

Soil Small Commercial		Lawns/Landscaping	Conventional Septic Systems
Type	Building		
59A	Somewhat Limited	Somewhat Limited	Suitable
145B	Somewhat Limited	Somewhat Limited	Suitable
145B2	Somewhat Limited	Somewhat Limited	Suitable
145C2	Somewhat Limited	Somewhat Limited	Suitable

Septic Systems: The factors considered for determining suitability are the characteristics and qualities of the soil that affect the limitations for absorbing waste from domestic sewage disposal systems. The major features considered are soil permeability, percolation rate, groundwater level, depth to bedrock, flooding hazards, and slope. Soils are deemed unsuitable per the Kendall County Subdivision Control Ordinance. Installation of an onsite sewage disposal system in soils designated as unsuitable may necessitate the installation of a non-conventional onsite sewage disposal system. For more information please contact the Kendall County Health Department (811 W. John Street, Yorkville, IL; (630)553-9100 ext. 8026).



Kendall County Land Evaluation and Site Assessment (LESA):

Decision-makers in Kendall County use the Land Evaluation and Site Assessment (LESA) system to determine the suitability of a land use change and/or a zoning request as it relates to agricultural land. The LESA system was developed by the United States Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS) and takes into consideration local conditions such as physical characteristics of the land, compatibility of surrounding land-uses, and urban growth factors. The LESA system is a two-step procedure that includes:

- ➤ LAND EVALUATION (LE) The soils of a given area are rated and placed in groups ranging from the best to worst suited for a stated agriculture use, cropland or forestland. The best group is assigned a value of 100 and all other groups are assigned lower values. The Land Evaluation is based on data from the Kendall County Soil Survey. The Kendall County Soil and Water Conservation District is responsible for this portion of the LESA system.
 - ✓ The Land Evaluation score for this site is 89, indicating that this site is **currently well** suited for agricultural uses.
- ➤ SITE ASSESSMENT (SA) The site is numerically evaluated according to important factors that contribute to the quality of the site. Each factor selected is assigned values in accordance with the local needs and objectives. The Kendall County LESA Committee is responsible for this portion of the LESA system.
 - ✓ The Site Assessment score for this site is 123.

The LESA Score for this site is 212 which indicates a high level of protection for the proposed project site. Note: Selecting the project site with the lowest total points will generally protect the best farmland located in the most viable areas and maintain and promote the agricultural industry in Kendall County. It is important to note that since the proposed use of the parcel is to be a (agricultural farmstead in character) banquet center for wedding and reception events, this use can be compatible with agriculture despite the designated medium level of protection.

<u>Wetlands:</u> The U.S. Fish & Wildlife Service's National Wetland Inventory map **does not indicate** the presence of a wetland(s) on the proposed project site. To determine if a wetland is present, a wetland delineation specialist, who is recognized by the U.S. Army Corps of Engineers, should determine the exact boundaries and value of the wetlands.

Floodplain: The parcel is not located within the floodplain.

<u>Sediment and Erosion Control</u>: Development on this site should include an erosion and sediment control plan in accordance with local, state and federal regulations. Soil erosion on construction sites is a resource concern because suspended sediment from areas undergoing development is a primary nonpoint source of water pollution. Please consult the *Illinois Urban Manual* (http://www.aiswcd.org/illinois-urban-manual) for appropriate best management practices.

LAND USE FINDINGS:

The Kendall County Soil and Water Conservation District (SWCD) Board has reviewed the proposed development plans for Petitioner Stuart Weihler for the proposed A-1 SU Heritage Homestead Banquet Center project with Kendall County located in Section 34 of Oswego Township (T.37N-R.8E) of the 3rd Principal Meridian) in Kendall County. Based on the information provided by the petitioner and a review of natural resource related data available to the Kendall County SWCD, the SWCD Board presents the following information

The Kendall County SWCD has always had the opinion that Prime Farmland should be preserved whenever feasible. A land evaluation, which is a part of the Land Evaluation and Site Assessment (LESA) was conducted on this parcel. The soils on this parcel scored an 89 out of a possible 100 points indicating the soils are well suited for agricultural uses. The total LESA Score for this site is 212 which indicates a medium level of protection for the proposed project site. It is important to note that since the proposed use of the parcel is to be a banquet center for wedding and reception events (agricultural farmstead in character), this use can be compatible with agriculture despite the designated medium level of protection. Additionally, of the soils found onsite, 85% are classified as prime farmland.

Soils found on the project site are rated for specific uses and can have potential limitations for development. Soil types with severe limitations do not preclude the ability to develop the site for the proposed use but it is important to note the limitation that may require soil reclamation, special design/engineering, or maintenance to obtain suitable soil conditions to support development with significant limitations. This report indicates that for soils located on the parcel, 57% are very limited for shallow excavations. In addition, 100% are somewhat limited for small commercial building and lawns/landscaping. This information is based on the soil in an undisturbed state. Since the scope of the project includes the use of onsite septic systems, please consult with the Kendall County Health Department.

This site is located within both the Fox River Watershed (Morgan Creek subwatershed) and Illinois River Watershed (Aux Sable Creek subwatershed).

This development should include a soil erosion and sediment control plan to be implemented during construction. Sediment may become a primary non-point source of pollution; eroded soils during the construction phase can create unsafe conditions on roadways, degrade water quality and destroy aquatic ecosystems lower in the watershed.

For intense use it is recommended that the drainage tile survey completed on the parcel to locate the subsurface drainage tile be taken into consideration during the land use planning process. Drainage tile expedites drainage and facilitates farming. It is imperative that these drainage tiles remain undisturbed. Impaired tile may affect a few acres or hundreds of acres of drainage.

The information that is included in this Natural Resources Information Report is to assure the Land Developers take into full consideration the limitations of that land that they wish to develop. Guidelines and recommendations are also a part of this report and should be considered in the planning process. The Natural Resource Information Report is required by the Illinois Soil and Water Conservation District Act (III. Complied Statues, Ch. 70, Par 405/22.02a).



KENDALL CO SOIL AND WATER CONSERVATION DISTRICT NATURAL RESOURCE INFORMATION REPORT (NRI)

NRI Report Number	1902
Date District Board Reviews Application	January 2019
Applicant's Name	Stuart Weihler
Size of Parcel	10.0 acres
Current Zoning & Use	A-1 SU; Agricultural/Cropland
Proposed Zoning & Use	A-1 SU; Banquet Center
Parcel Index Number(s)	03-34-100-024
Contact Person	Attorney Daniel J. Kramer

Copies of this report or notification of the proposed land-use change were provided to:	Yes	No
The Applicant	Х	
The Applicant's Legal Representation	х	
The Local/Township Planning Commission	х	
The Village/City/ County Planning and Zoning Department or Appropriate Agency	Х	
The Kendall County Soil and Water Conservation District Files	х	

Report Prepared By: Megan Andrews Position: Resource Conservationist

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PURPOSE AND INTENT

The purpose of this report is to inform officials of the local governing body and other decision-makers with natural resource information. This information may be useful when undertaking land use decisions concerning variations, amendments or relief of local zoning ordinances, proposed subdivision of vacant or agricultural lands and the subsequent development of these lands. This report is a requirement under Section 22.02a of the Illinois Soil and Water Conservation Districts Act.

The intent of this report is to present the most current natural resource information available in a readily understandable manner. It contains a description of the present site conditions, the present resources, and the potential impacts that the proposed change may have on the site and its resources. The natural resource information was gathered from standardized data, on-site investigations and information furnished by the petitioner. This report must be read in its entirety so that the relationship between the natural resource factors and the proposed land use change can be fully understood.

Due to the limitations of scale encountered with the various resource maps, the property boundaries depicted in the various exhibits in this report provide a generalized representation of the property location and may not precisely reflect the legal description of the PIQ (Parcel in Question).

This report, when used properly, will provide the basis for proper land use change decisions and development while protecting the natural resource base of the county. It should not be used in place of detailed environmental and/or engineering studies that are warranted under most circumstances, but in conjunction with those studies.

The conclusions of this report in no way indicate that a certain land use is not possible, but it should alert the reader to possible problems that may occur if the capabilities of the land are ignored. Any questions on the technical data supplied in this report or if anyone feels that they would like to see more additional specific information to make the report more effective, please contact:

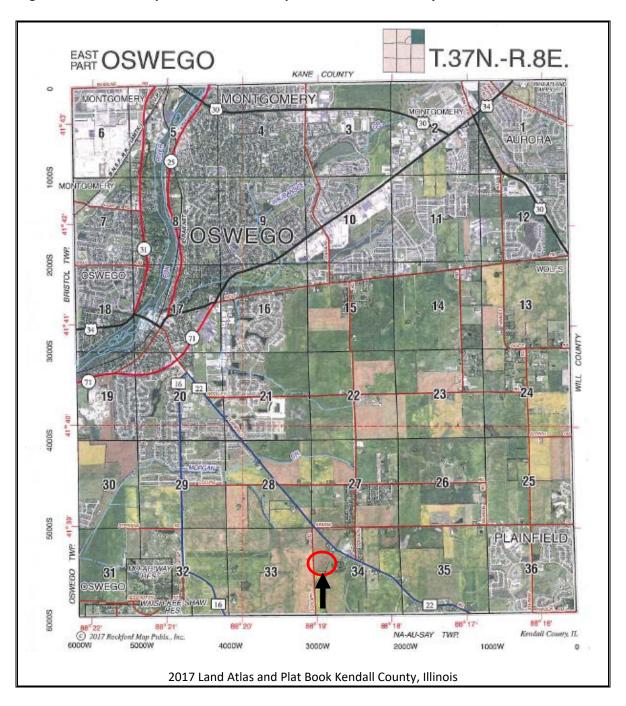
Kendall County Soil and Water Conservation
District
7775A Route 47, Yorkville, IL 60560
Phone: (630) 553-5821 ext. 3
FAX: (630) 553-7442
E-mail: Megan.Andrews@il.nacdnet.net

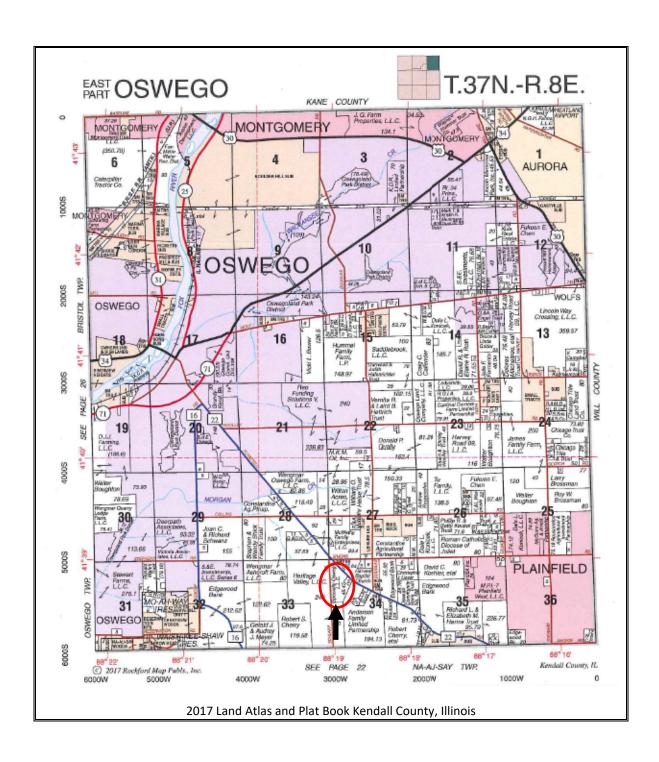
PARCEL LOCATION

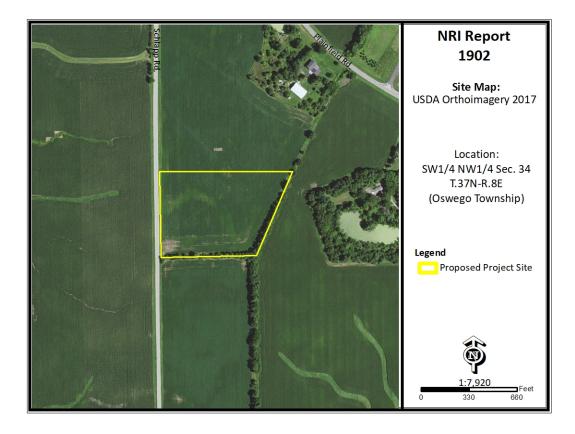
Location Map for Natural Resources Information Report # 1902

SW¼ NW¼ Section 34 of Township 37 North, Range 8 East (Oswego Township) on 10.0 acres. This parcel is located on the east side of Schlapp Road and southeast of the intersection of Plainfield Road and Schlapp Road. The parcel is located in unincorporated Kendall County.

Figure 1: 2017 Plat Map and 2017 Aerial Map with NRI Site Boundary







ARCHAEOLOGIC/CUTURAL RESOURCES

Simply stated, cultural resources are all the past activities and accomplishments of people. They include the following: buildings; objects made or used by people; locations; and less tangible resources, such as stories, dance forms, and holiday traditions. The Soil and Water Conservation District most often encounters cultural resources as historical properties. These may be prehistoric or historical sites, buildings, structures, features, or objects. The most common type of historical property that the Soil and Water Conservation District may encounter is non-structural archaeological sites. These sites often extend below the soil surface, and must be protected against disruption by development or other earth moving activity if possible. Cultural resources are non-renewable because there is no way to "grow" a site to replace a disrupted site.

Landowners with historical properties on their land have ownership of that historical property.

However, the State of Illinois owns all of the following: human remains, grave markers, burial mounds, and artifacts associated with graves and human remains.

Non-grave artifacts from archaeological sites and historical buildings are the property of the landowner. The landowner may choose to disturb a historical property, but may not receive federal or state assistance to do so. If an earth moving activity disturbs human remains, the landowner must contact the county coroner within 48 hours.

The Illinois Historic Preservation Agency has not been notified of the proposed land use change by the Kendall County SWCD. The applicant may need to contact the IHPA according to current Illinois law.

ECOLOGICALLY SENSITIVE AREAS

What is Biological Diversity and Why Should it be Conserved?¹

Biological diversity, or biodiversity, is the range of life on our planet. A more thorough definition is presented by botanist Peter H. Raven: "At the simplest level, biodiversity is the sum total of all the plants, animals, fungi and microorganisms in the world, or in a particular area; all of their individual variation; and all of the interactions between them. It is the set of living organisms that make up the fabric of the planet Earth and allow it to function as it does, by capturing energy from the sun and using it to drive all of life's processes; by forming communities of organisms that have, through the several billion years of life's history on Earth, altered the nature of the atmosphere, the soil and the water of our Planet; and by making possible the sustainability of our planet through their life activities now." (Raven 1994)

It is not known how many species occur on our planet. Presently, about 1.4 million species have been named. It has been estimated that there are perhaps 9 million more that have not been identified. What is known is that they are vanishing at an unprecedented rate. Reliable estimates show extinction occurring at a rate several orders of magnitude above "background" in some ecological systems. (Wilson 1992, Hoose 1981)

The reasons for protecting biological diversity are complex, but they fall into four major categories.

First, loss of diversity generally weakens entire natural systems. Healthy ecosystems tend to have many natural checks and balances. Every species plays a role in maintaining this system. When simplified by the loss of diversity, the system becomes more susceptible to natural and artificial perturbations. The chances of a system-wide collapse increase. In parts of the midwestem United States, for example, it was

Simplified ecosystems are almost always expensive to maintain. For example, when synthetic chemicals are relied upon to control pests, the target species are not the only ones affected. Their predators are almost always killed or driven away, exasperating the pest problem. In the meantime, people are unintentionally breeding pesticide-resistant pests. A process has begun where people become perpetual guardians of the affected area, which requires the expenditure of financial resources and human ingenuity to keep the system going.

A second reason for protecting biological diversity is that it represents one of our greatest untapped resources. Great benefits can be reaped from a single species. About 20 species provide 90% of the world's food. Of these 20, just three, wheat, maize and rice-supply over one half of that food. American wheat farmers need new varieties every five to 15 years to compete with pests and diseases. Wild strains of wheat are critical genetic reservoirs for these new varieties.

Further, every species is a potential source of human medicine. In 1980, a published report identified the market value of prescription drugs from higher plants at over \$3 billion. Organic alkaloids, a class of chemical compounds used in medicines, are found in an estimated 20% of plant species. Yet only 2% of plant species have been screened for these compounds. (Hoose 1981)

The third reason for protecting diversity is that humans benefit from natural areas and depend on healthy ecosystems. The natural world supplies our air, our water, our food and supports human economic activity. Further, humans are creatures that evolved in a diverse natural environment between forest and

only the remnant areas of natural prairies that kept soil intact during the dust bowl years of the 1930s. (Roush 1982)

¹Taken from *The Conservation of Biological Diversity in the Great Lakes Ecosystem: Issues and Opportunities*, prepared by the Nature
Conservancy Great Lakes Program 79W. Monroe
Street, Suite 1309, Chicago, IL 60603, January 1994

grasslands. People need to be reassured that such places remain. When people speak of "going to the country," they generally mean more than getting out of town. For reasons of their own sanity and well being, they need a holistic, organic experience. Prolonged exposure to urban monotony produces neuroses, for which cultural and natural diversity cure.

Historically, the lack of attention to biological diversity, and the ecological processes it supports, has resulted in economic hardships for segments of the basin's human population.

The final reason for protecting biological diversity is that species and natural systems are intrinsically valuable. The above reasons have focused on the benefits of the natural world to humans. All things possess intrinsic value simply because they exist.

Biological Resources Concerning the Subject Parcel

As part of the Natural Resources Information Report, staff checks office maps to determine if any nature preserves are in the general vicinity of the parcel in question. If there is a nature preserve in the area, then that resource will be identified as part of the report. The SWCD recommends that every effort be made to protect that resource. Such efforts should include, but are not limited to erosion control, sediment control, stormwater management, and groundwater monitoring.

Office maps indicate that ecologically sensitive areas, are not located near the parcel in question (PIQ).

SOILS INFORMATION

Importance of Soils Information

Soils information comes from the Natural Resources Conservation Service Soil Maps and Descriptions for Kendall County. This information is important to all parties involved in determining the suitability of the proposed land use change.

Each soil polygon is given a number, which represents its soil type. The letter found after the soil type number indicates the soils slope class.

Each soil map unit has limitations for a variety of land uses such as septic systems, buildings with basements, and buildings without basements. It is important to remember that soils do not function independently of each other. The behavior of a soil depends upon the physical properties of adjacent soil types, the presence of artificial drainage, soil compaction, and its position in the local landscape.

The limitation categories (slight, moderate or severe) indicate the potential for difficulty in using that soil unit for the proposed activity and, thus, the degree of need for thorough soil borings and engineering studies. A limitation

does not necessarily mean that the proposed activity cannot be done on that soil type. It does mean that the reasons for the limitation need to be thoroughly understood and dealt with in order to complete the proposed activity successfully. A severe limitation indicates that the proposed activity will be more difficult and costly to do on that soil type than on a soil type with a moderate or slight rating.

Soil survey interpretations are predictions of soil behavior for specified land uses and specified management practices. They are based on the soil properties that directly influence the specified use of the soil. Soil survey interpretations allow users of soil surveys to plan reasonable alternatives for the use and management of soils.

Soil interpretations do not eliminate the need for on-site study and testing of specific sites for the design and construction for specific uses. They can be used as a guide for planning more detailed investigations and for avoiding undesirable sites for an intended use. The scale of the maps and the range of error limit the use of the soil delineation.

145B 145B2 **NRI Report** 1902 Soils Map: 145B2 USDA-NRCS Kendall County Soil Survey 60C3 2008 145B 145B Location: SW1/4 NW1/4 Sec. 34 T.37N-R.8E 145B2 (Oswego Township) Legend Soil_Map_Units 145C2 Proposed Project Site 145B2 145C2 145B 145C2 60C3 59A

Figure 2: Soil Map

Table 1: Soil Map Unit Descriptions

Symbol	Descriptions	Acres	Percent
59A	Lisbon silt loam, 0-2% slopes	1.0	10%
145B	Saybrook silt loam, 2-5% slopes	2.8	28%
145B2	Saybrook silt loam, 2-5% slopes, eroded	4.7	47%
145C2	Saybrook silt loam, 5-10% slopes, eroded	1.5	15%

^{*}SOURCE: National Cooperative Soil Survey – USDA-NRCS

SOIL INTERPRETATIONS EXPLANATION

Nonagricultural

General

These interpretative ratings help engineers, planners, and others to understand how soil properties influence behavior when used for nonagricultural uses such as building site development or construction materials. This report gives ratings for proposed uses in terms of limitations and restrictive features. The tables list only the most restrictive features. Other features may need treatment to overcome soil limitations for a specific purpose.

Ratings come from the soil's "natural" state, that is, no unusual modification occurs other than that which is considered normal practice for the rated use. Even though soils may have limitations, an engineer may alter soil features or adjust building plans for a structure to compensate for most degrees of limitations. Most of these practices, however, are costly. The final decision in selecting a site for a particular use generally involves weighing the costs for site preparation and maintenance.

Soil properties influence development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. Soil limitation ratings of slight, moderate, and severe are given for the types of proposed improvements that are listed or inferred by the petitioner as entered on the report application and/or zoning petition. The most common types of building limitation that this report gives limitations ratings for is: septic systems. It is understood that engineering practices can overcome most limitations for buildings with and without basements, and small commercial buildings. Limitation ratings for these types of buildings are not commonly provided. Organic soils, when present on the parcel, are referenced in the hydric soils section of the report. This type of soil is considered to be unsuitable for all types of construction.

Limitations Ratings

- Not Limited This soil has favorable properties for the use. The degree of limitation is minor. The people involved can expect good performance and low maintenance.
- 2. **Somewhat Limited** This soil has moderately favorable properties for the use. Special planning, design, or maintenance can overcome this degree of limitation. During some part of the year, the expected performance is less desirable than for soils rated slight.
- 3. **Very Limited** This soil has one or more properties that are unfavorable for the rated use. These may include the following: steep slopes, bedrock near the surface, flooding, high shrinkswell potential, a seasonal high water table, or low strength. This degree of limitation generally requires major soil reclamation, special design, or intensive maintenance, which in most situations is difficult and costly.

BUILDING LIMITATIONS

Building on Poorly Suited or Unsuitable Soils: Can present problems to future property owners such as cracked foundations, wet basements, lowered structural integrity and high maintenance costs associated with these problems. The staff of the Kendall County SWCD strongly urges scrutiny by the plat reviewers when granting parcels with these soils exclusively.

<u>Small Commercial Building -</u> Ratings are for structures that are less than three stories high and do not have basements. The foundation is is assumed to be spread footings of reinforced concrete built on disturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. The ratings are based on soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs.

<u>Shallow Excavations -</u> Trenches or holes dug to a maximum depth of 5 or 6 feet for utility lines, open ditches or other purposes. Ratings are

based on soil properties that influence the ease of digging and the resistance to sloughing.

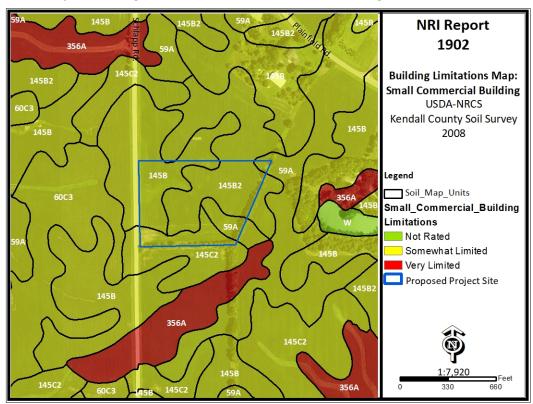
<u>Lawns and Landscaping</u> - Require soils on which turf and ornamental trees and shrubs can be established and maintained (irrigation is not considered in the ratings). The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established.

Onsite Sewage Disposal – The factors considered are the characteristics and qualities of the soil that affect the limitations for absorbing waste from domestic sewage disposal systems. The major features considered are soil permeability, percolation rate, groundwater level, depth to bedrock, flooding hazards, and slope. The table below indicates soils that are deemed unsuitable per the Kendall County Subdivision Control Ordinance. Installation of an on-site sewage disposal system in soils designated as unsuitable may necessitate the installation of a non-conventional onsite sewage disposal system. For more information please contact the Kendall County Health Department - Environmental Health at (630)553-9100 x8026.

Table 2a: Building Limitations

Soil Type	Small Commercial Building	Onsite Conventional Septic Systems	Shallow Excavations	Lawns/Landscaping	Acreage	Percent
59A	Somewhat Limited: Depth to saturated zone; Shrink-swell	Suitable	Very Limited: Depth to saturated zone; Dusty; Unstable excavation walls	Somewhat Limited: Depth to saturated zone; Dusty	1.0	10%
145B	Somewhat Limited: Shrink-swell	Suitable	Somewhat Limited: Depth to saturated zone; Dusty; Unstable excavation walls	Somewhat Limited: Dusty	2.8	28%
145B2	Somewhat Limited: Shrink-swell; Depth to saturated zone; Slope	Suitable	Very Limited: Depth to saturated zone; Dusty; Unstable excavation walls	Somewhat Limited: Dusty; Depth to saturated zone	4.7	47%
145C2	Somewhat Limited: Slope; Shrink-swell	Suitable	Somewhat Limited: Depth to saturated zone; Dusty; Unstable excavation walls	Somewhat Limited: Dusty	1.5	15%
% Very Limited	0%	0%	67%	0%		

Figure 3a: Map of Building Limitations – Small Commercial Building



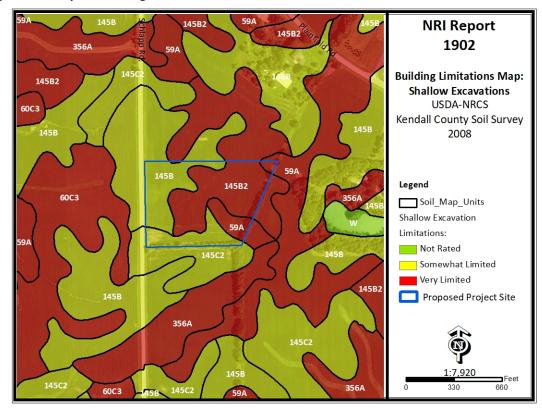
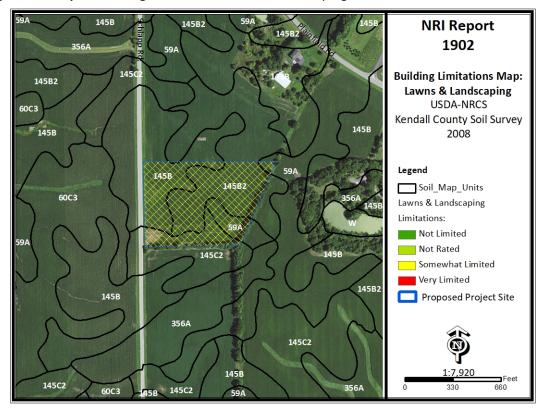


Figure 3b: Map of Building Limitations – Shallow Excavation





SOIL WATER FEATURES

This table gives estimates of various soil water features that should be taken into consideration when reviewing engineering for a land use project.

Hydrologic Soil Groups (HSGs): The groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

Group A: Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B: Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C: Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D: Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

Note: If a soil is assigned to a dual hydrologic group (A/D, B/D or C/D) the first letter is for drained areas and the second is for undrained areas.

Surface Runoff: Refers to the loss of water from an area by flow over the land surface. Surface runoff classes are based upon slope, climate and vegetative cover and indicates relative runoff for very specific conditions (it is assumed that the surface of the soil is bare and that the retention of surface water resulting from irregularities in the ground surface is minimal). The classes are: negligible, very low, low, medium, high and very high.

<u>Months:</u> Indicates the portion of the year in which a water table, ponding, and/or flooding is most likely to be a concern.

<u>Water Table:</u> Refers to a saturated zone in the soil and the data indicates, by month, depth to the top (upper limit) and base (lower limit) of the saturated zone in most years. These estimates are based upon observations of the water table at selected sites and on evidence of a saturated zone (grayish colors or mottles (redoximorphic features)) in the soil. Note: A saturated zone that lasts for less than a month is not considered a water table.

<u>Ponding:</u> Refers to standing water in a closed depression and the data indicates surface water depth, duration and frequency of ponding.

Duration: Expressed as very brief if less than 2 days, brief is 2 to 7 days, long if 7 to 30 days and very long if more than 30 days.

Frequency: Expressed as: none meaning ponding is not possible; rare means unlikely but possible under unusual weather conditions (chance of ponding is 0-5% in any year); occasional means that it occurs, on the average, once or less in 2 years (chance of ponding is 5 to 50% in any year); and frequent means that it occurs, on the average, more than once in 2 years (chance of ponding is more than 50% in any year).

<u>Flooding:</u> The temporary inundation of an area caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

Duration: Expressed as: extremely brief if 0.1 hour to 4 hours; very brief if 4 hours to 2 days; brief if 2 to 7 days; long if 7 to 30 days; and very long if more than 30 days. **Frequency:** Expressed as: none means flooding is not probable; very rare means that it is very unlikely but possible under extremely unusual weather conditions (chance of flooding is less than 1% in any year); rare means that it is unlikely but possible under unusual weather conditions (chance of flooding is 1 to 5% in any year); occasional

means that it occurs infrequently under normal weather conditions (chance of

flooding is 5 to 50% in any year but is less than 50% in all months in any year); and *very frequent* means that it is likely to occur very often under normal weather conditions (chance of flooding is more than 50% in all months of any year).

Note: The information is based on evidence in the soil profile. In addition, consideration is

also given to local information about the extent and levels of flooding and the relation of each soil on the landscape to historic floods. Information on the extent of flooding based on soil data is less specific than that provided by detailed engineering surveys that delineate flood-prone areas at specific flood frequency levels.

Table 3: Water Features

Map Unit	Hydrologic Group	Surface Runoff	Water Table	Ponding	Flooding
59A	C/D	Low	January - May	January - May	January - May
			Upper Limit: 1.0'-2.0'	Surface Water Depth & Duration: -	None
			Lower Limit: 2.0'-4.0'	Frequency: None	
145B	С	Low	February - April	February - April	February - April
			Upper Limit: 2.0'-3.5'	Surface Water Depth & Duration:	None
			Lower Limit: 2.2'-3.8'	Frequency: None	
145B2	С	Low	February - April	February - April	February - April
			Upper Limit: 2.0'-3.5'	Surface Water Depth & Duration:	None
			Lower Limit: 2.2'-3.8'	Frequency: None	
145C2	С	Medium	February - April	February - April	February - April
			Upper Limit: 2.0'-3.5'	Surface Water Depth & Duration:	None
			Lower Limit: 2.2'-3.8'	Frequency: None	

SOIL EROSION & SEDIMENT CONTROL

Erosion is the wearing away of the soil by water, wind, and other forces. Soil erosion threatens the Nation's soil productivity and contributes the most pollutants in our waterways. Water causes about two thirds of erosion on agricultural land. Four properties, mainly, determine a soil's erodibility: texture, slope, structure, organic matter content.

Slope has the most influence on soil erosion potential when the site is under construction. Erosivity and runoff increase as slope grade increases. The runoff then exerts more force on the particles, breaking their bonds more readily and carrying them farther before deposition. The longer water flows along a slope before reaching a major waterway, the greater the potential for erosion.

Soil erosion during and after this proposed construction can be a primary non-point source of water pollution. Eroded soil during the construction phase can create unsafe conditions on roadways, decrease the storage capacity of

lakes, clog streams and drainage channels, cause deterioration of aquatic habitats, and increase water treatment costs. Soil erosion also increases the risk of flooding by choking culverts, ditches and storm sewers, and by reducing the capacity of natural and man-made detention facilities.

The general principles of erosion and sedimentation control measures include:

- reducing or diverting flow from exposed areas, storing flows or limiting runoff from exposed areas,
- staging construction in order to keep disturbed areas to a minimum,
- establishing or maintaining or temporary or permanent groundcover,
- · retaining sediment on site and
- properly installing, inspecting and maintaining control measures.

<u>Erosion control practices are useful controls</u> <u>only if they are properly located, installed,</u> <u>inspected and maintained.</u> The SWCD recommends an erosion and sediment control plan for all building sites, especially if there is a wetland or stream nearby.

Table 4: Soil Erosion Potential

Soil Type	Slope	Rating	Acreage	Percent of Parcel
59A	0-2%	Slight	1.0	10%
145B	2-5%	Slight	2.8	28%
145B2	2-5%	Moderate	4.7	47%
145C2	5-10%	Moderate	1.5	15%

PRIME FARMLAND SOILS

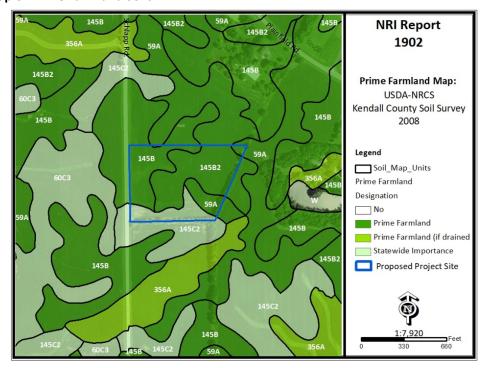
Prime farmland soils are an important resource to Kendall County. Some of the most productive soils in the United States occur locally. Each soil map unit in the United States is assigned a prime or non-prime rating. Prime agricultural land does not need to be in the production of food & fiber.

Section 310 of the NRCS general manual states that urban or built-up land on prime farmland soils is <u>not</u> prime farmland. The percentages of soils map units on the parcel reflect the determination that urban or built up land on prime farmland soils is not prime farmland.

Table 5: Prime Farmland Soils

Soil Types	Prime Designation	Acreage	Percent
59A	Prime Farmland	1.0	10%
145B	Prime Farmland	2.8	28%
145B2	Prime Farmland	4.7	47%
145C2	Farmland of Statewide Importance	1.5	15%
% Prime Farmland	100%		

Figure 4: Map of Prime Farmland Soils



LAND EVALUATION & SITE ASSESSMENT (LESA)

Decision-makers in Kendall County use the Land Evaluation and Site Assessment (LESA) system to determine the suitability of a land use change and/or a zoning request as it relates to agricultural land. The LESA system was developed by the United States Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS) and takes into consideration local conditions such as physical characteristics of the land, compatibility of surrounding land-uses, and urban growth factors. The LESA system is a two-step procedure that includes:

LAND EVALUATION (LE) – The soils of a given area are rated and placed in groups ranging from the best to worst suited for a stated agriculture use, cropland or forestland. The best group is assigned a value of 100 and all other groups are assigned lower values. The Land Evaluation is based on data from the Kendall County Soil Survey. The Kendall County Soil and Water Conservation District is responsible for this portion of the LESA system.

SITE ASSESSMENT (SA) – The site is numerically evaluated according to important factors that contribute to the quality of the site. Each factor selected is assigned values in accordance with the local needs and objectives. The Kendall County LESA Committee is responsible for this portion of the LESA system.

The value group is a predetermined value based upon prime farmland designation. The LE score is calculated by multiplying the relative value of each soil type by the number of acres of that soil. The sum of the products is then divided by the total number of acres; the answer is the Land Evaluation score on this site.

Please Note: A land evaluation (LE) score will be compiled for every project parcel. However, when a parcel is located within municipal planning boundaries, a site assessment score is not compiled as the scoring factors are not applicable. As a result, only the LE score is available and a full LESA score is unavailable for the parcel.

Table 6a: Land Evaluation Computation

Soil Type	Value Group	Relative Value	Acres	Product (Relative Value x Acres)
59A	2	94	1.0	94.0
145B	2	94	2.8	263.2
145B2	3	87	4.7	408.9
145C2	5	82	1.5	123.0
Totals			10.0	889.1
LE Score		LE= 889.1/10.0		LE=88.9 (89)

The Land Evaluation score for this site is 89, indicating that this site is currently designated as prime farmland that is well suited for agricultural uses.

Table 6b: Site Assessment Computation

A.	Agricultural Land Uses	Points
	1. Percentage of area in agricultural uses within 1.5 miles of site. (20-10-5-0)	20
	2. Current land use adjacent to site. (30-20-15-10-0)	30
	3. Percentage of site in agricultural production in any of the last 5 years. (20-15-10-5-0)	20
	4. Size of site. (30-15-10-0)	0
В.	Compatibility / Impact on Uses	
	1. Distance from city or village limits. (20-10-0)	20
	2. Consistency of proposed use with County Land Resource Management Concept Plan and/or	0
	municipal comprehensive land use plan. (20-10-0)	
	3. Compatibility of agricultural and non-agricultural uses. (15-7-0)	0
C.	Existence of Infrastructure	
	1. Availability of public sewage system. (10-8-6-0)	10
	2. Availability of public water system. (10-8-6-0)	10
	3. Transportation systems. (15-7-0)	7

4. Distance from fire protection service. (10-8-6-2-0)	6
Site Assessment Score:	123

Land Evaluation Value: 89 + Site Assessment Value: 123 = LESA Score: 212

LESA SCORE	LEVEL OF PROTECTION		
0-200	Low		
<mark>201-225</mark>	<mark>Medium</mark>		
226-250	High		
251-300	Very High		

The LESA Score for this site is 212 which indicates a medium level of protection for the proposed project site. Note: Selecting the project site with the lowest total points will generally protect the best farmland located in the most viable areas and maintain and promote the agricultural industry in Kendall County. It is important to note that since the proposed use of the parcel is to be a rural homestead (agricultural farmstead in character) banquet center for wedding and reception events, this use can be compatible with agriculture despite the designated medium level of protection.

LAND USE PLANS

Many counties, municipalities, villages and townships have developed land-use plans. These plans are intended to reflect the existing and future land-use needs of a given

community. Please contact the Kendall County Planning, Building & Zoning for information regarding the County's comprehensive land use plan and map.

DRAINAGE, RUNOFF AND FLOOD INFORMATION

U.S.G.S Topographic maps give information on elevations, which are important mostly to determine slopes, drainage directions, and watershed information.

Elevations determine the area of impact of floods of record. Slope information determines steepness and erosion potential. Drainage directions determine where water leaves the PIQ, possibly impacting surrounding natural resources.

Watershed information is given for changing land use to a subdivision type of development on parcels greater than 10 acres.

What is a watershed?

Simply stated, a watershed is the area of land that contributes water to a certain point. The watershed boundary is important because the area of land in the watershed can now be calculated using an irregular shape area calculator such as a dot counter or planimiter.

Using regional storm event information, and site specific soils and land use information, the peak stormwater flow through the point marked "O" for a specified storm event can be calculated.

This value is called a "Q" value (for the given storm event), and is measured in cubic feet per second (CFS).

When construction occurs, the Q value naturally increases because of the increase in impermeable surfaces. This process decreases the ability of soils to accept and temporarily hold water. Therefore, more water runs off and increases the Q value.

Theoretically, if each development, no matter how large or small, maintains their preconstruction Q value after construction by the installation of stormwater management systems, the streams and wetlands and lakes will not suffer damage from excessive urban stormwater.

For this reason, the Kendall County SWCD recommends that the developer for intense uses such as a subdivision calculate the preconstruction Q value for the exit point(s). A stormwater management system should be designed, installed, and maintained to limit the postconstruction Q value to be at or below the preconstruction value.

Importance of Flood Information

A floodplain is defined as land adjoining a watercourse (riverine) or an inland depression (non-riverine) that is subject to periodic inundation by high water. Floodplains are important areas demanding protection since they have water storage and conveyance functions which affect upstream and down stream flows, water quality and quantity, and suitability of the land for human activity. Since floodplains play distinct and vital roles in the hydrologic cycle, development that interferes with their hydrologic and biologic functions should be carefully considered.

Flooding is both dangerous to people and destructive to their properties. The following maps, when combined with wetland and topographic information, can help developers and future homeowners to "sidestep" potential flooding or ponding problems.

FIRM is the acronym for the Flood Insurance Rate Map, produced by the Federal Emergency Management Agency. These maps define flood elevation adjacent to tributaries and major bodies of water, and superimpose that onto a simplified USGS topographic map. The scale of the FIRM maps is generally dependent on the size and density of parcels in that area. (This is to correctly determine the parcel location and flood plain location.) The FIRM map has three (3) zones. A is the zone of 100 year flood, zone B is the 100 to 500 year flood, and zone C is outside the flood plain.

The Hydrologic Atlas (H.A.) Series of the Flood of Record Map is also used for the topographic information. This map is different from the FIRM map mainly because it will show isolated, or pocketed flooded areas. Kendall County uses both these maps in conjunction with each other for flooded area determinations. The Flood of Record maps, show the areas of flood for various years. Both of these maps stress that the recurrence of flooding is merely statistical. That is to say a 100-year flood may occur twice

in one year, or twice in one week, for that matter.

It should be noted that greater floods than those shown on the two maps are possible. The flood boundaries indicated provide a historic record only until the map publication date. Additionally, these flood boundaries are a function of the watershed conditions existing when the maps were produced. Cumulative changes in runoff characteristics caused by urbanization can result in an increase in flood height of future flood episodes.

Floodplains play a vital role in reducing the flood damage potential associated with an urbanizing area and, when left in an undisturbed state, also provide valuable wildlife habitat benefits. If it is the petitioner's intent to conduct floodplain filling or modification activities, the petitioner and the Unit of Government responsible need to consider the potentially adverse effects this type of action could have on adjacent properties. The change or loss of natural floodplain storage often increases the frequency and severity of flooding on adjacent property.

If the available maps indicate the presence of a floodplain on the PIQ, the petitioner should contact the IDOT-DWR and FEMA to delineate a floodplain elevation for the parcel. If a portion of the property is indeed floodplain, applicable state, county and local regulations will need to be reflected in the site plans.

Another indication of flooding potential can be found in the soils information. Hydric soils indicate the presence of drainageways, areas subject to ponding, or a naturally occurring high water table. These need to be considered along with the floodplain information when developing the site plan and the stormwater management plan. If the site does include these hydric soils and development occurs, thus raising the concerns of the loss of water storage in these soils and the potential for increased flooding in the area.

This parcel is located on topography (slopes 0 to 10%) involving high and low areas (elevation is approximately 730' to 740' above sea level). The parcel lies within both the Illinois River Watershed (Aux Sable Creek subwatershed) and Fox River Watershed (Morgan Creek subwatershed). The topographic map indicates that drainage to the Fox River Watershed is across the northwest corner of the parcel while the remainder of the parcel drains to the southeast into the Illinois River Watershed.

Figure 5a: FEMA Floodplain Map

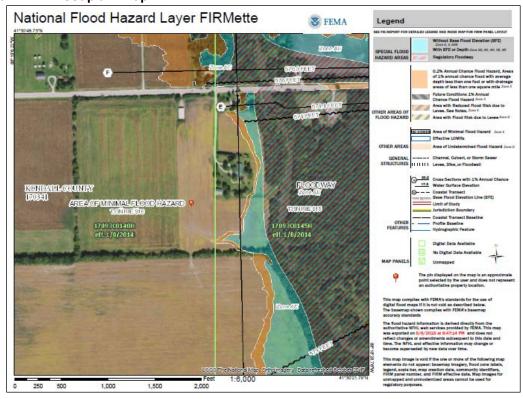
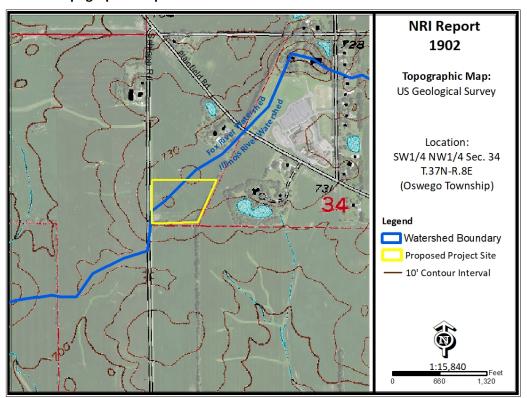


Figure 6: USGS Topographic Map



WATERSHED PLANS

Watershed and Subwatershed Information

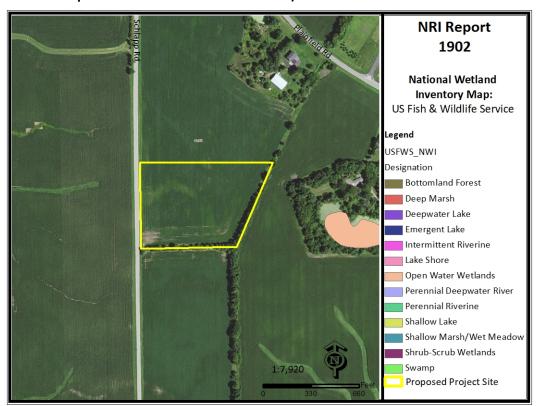
A watershed is the area of land that drains into a specific point including a stream, lake or other body of water. High points on the Earth's surface, such as hills and ridges define watersheds. When rain falls in the watershed, it flows across the ground towards a stream or lake. Rainwater carries any pollutants it comes in contact with such as oils, pesticides, and soil. Everyone lives in a watershed. Their actions can impact natural resources and people living downstream. Residents can minimize this impact by being aware of their environment and implications of their activities, implementing practices recommended in watershed plans and educating others about their watershed. This parcel is located within both the Illinois **River Watershed (Aux Sable Creek** Subwatershed) and Fox River Watershed (Morgan Creek Subwatershed).

The following are recommendations to developers for protection of this watershed:

- -Preserve open space.
- -Maintain wetlands as part of development.
- -Use natural water management.
- -Prevent soil from leaving a construction site.
- -Protect subsurface drainage.
- -Use native vegetation.
- -Retain natural features.
- -Mix housing styles and types.
- -Decrease impervious surfaces.
- -Reduce area disturbed by mass grading.
- -Shrink lot size and create more open space.
- -Maintain historical and cultural resources.
- -Treat water where it falls.
- -Preserve views.
- -Establish and link trails.

WETLAND INFORMATION

Figure 7: Wetland Map - USFWS National Wetland Inventory



Office maps indicate that wetlands are not present on the parcel in question (PIQ).

Importance of Wetland Information

Wetlands function in many ways to provide numerous benefits to society. They control flooding by offering a slow release of excess water downstream or through the soil. They cleanse water by filtering out sediment and some pollutants, and can function as rechargers of our valuable groundwater. They also are essential breeding, rearing, and feeding grounds for many species of wildlife.

These benefits are particularly valuable in urbanizing areas as development activity typically adversely affects water quality, increases the volume of stormwater runoff, and increases the demand for groundwater. In an area where many individual homes rely on shallow groundwater wells for domestic water supplies, activities that threaten potential groundwater recharge areas are contrary to the public good. The conversion of wetlands, with their sediment trapping and nutrient absorbing vegetation, to biologically barren stormwater detention ponds can cause additional degradation of water quality in downstream or adjacent areas.

It has been estimated that over 95% of the wetlands that were historically present in Illinois have been destroyed while only recently has the true environmental significance of wetlands been fully recognized. America is losing 100,000 acres of wetland a year, and has saved 5 million acres total (since 1934). One acre of wetland can filter 7.3 million gallons of

water a year. These are reasons why our wetlands are high quality and important.

This section contains the NRCS (Natural Resources Conservation Service) Wetlands Inventory, which is the most comprehensive inventory to date. The NRCS Wetlands Inventory is reproduced from an aerial photo at a scale of 1" equals 660 feet. The NRCS developed these maps in cooperation with U.S. EPA (Environmental Protection Agency,) and the U.S. Fish and Wildlife Service, using the National Food Security Act Manual, 3rd Edition. The main purpose of these maps is to determine wetland areas on agricultural fields and areas that may be wetlands but are in a nonagriculture setting.

The NRCS Wetlands Inventory in no way gives an exact delineation of the wetlands, but merely an outline, or the determination that there is a wetland within the outline. For the final, most accurate wetland determination of a specific wetland, a wetland delineation must be certified by NRCS staff using the National Food Security Act Manual (on agricultural land.) On urban land, a certified wetland delineator must perform the delineation using the ACOE 1987 Manual. See the glossary section for the definitions of "delineation" and "determination.

Hydric Soils

Soils information gives another indication of flooding potential. The soils map on this page indicates the soil(s) on the parcel that the Natural Resources Conservation Service indicates as hydric. Hydric soils by definition have seasonal high water at or near the soil surface and/or have potential flooding or ponding problems. All hydric soils range from poorly suited to unsuitable for building. One group of the hydric soils, are the organic soils, which formed from dead organic material. Organic soils are unsuitable for building because of not only the high water table, but also their subsidence problems.

It is also important to add the possibility of hydric inclusions in a soil type. An inclusion is a soil polygon that is too small to appear on these maps. While relatively insignificant for agricultural use, hydric soil inclusions become more important to more intense uses such as a residential subdivision.

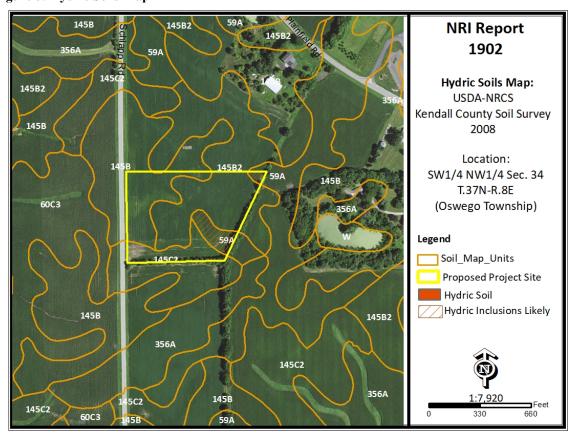
While considering hydric soils and hydric inclusions, it is noteworthy to mention that subsurface agriculture drainage tile occurs in almost all poorly drained and somewhat poorly drained soils. Drainage tile expedites drainage and facilitates farming. It is imperative that these drainage tiles remain undisturbed. A damaged subsurface drainage tile may return original hydrologic conditions to all of the areas that drained through the tile (ranging from less than one acre to many square miles.)

For an intense land use, such as a subdivision, the Kendall County SWCD recommends the following: a topographical survey with 1 foot contour intervals to accurately define the flood area on the parcel, an intensive soil survey to define most accurately the locations of the hydric soils and inclusions and a drainage tile survey on the area to locate the tiles that must be preserved to maintain subsurface drainage.

Table 7: Hydric Soils

Soil Types	Drainage Class	Hydric	Hydric	Acreage	Percent
		Designation	Inclusions Likely		
59A	Somewhat poorly drained	Non-hydric	Yes	1.0	10%
145B	Moderately well drained	Non-hydric	No	2.8	28%
145B2	Moderately well drained	Non-hydric	No	4.7	47%
145C2	Moderately well drained	Non-hydric	No	1.5	15%

Figure 8: Hydric Soils Map



WETLAND AND FLOODPLAIN REGULATIONS

PLEASE READ THE FOLLOWING IF YOU ARE PLANNING TO DO ANY WORK NEAR A STREAM (THIS INCLUDES SMALL UNNAMED STREAMS), LAKE, WETLAND OR FLOODWAY.

The laws of the United States and the State of Illinois assign certain agencies specific and different regulatory roles to protect the waters within the State's boundaries. These roles, when considered together, include protection of navigation channels and harbors, protection against flood way encroachments, maintenance and enhancement of water quality, protection of fish and wildlife habitat and recreational resources, and, in general, the protection of total public interest. Unregulated use of the waters within the State of Illinois could permanently destroy or alter the character of these valuable resources and adversely impact the public. Therefore, please contact the proper regulatory authorities when planning any work associated with Illinois waters so that proper consideration and approval can be obtained.

WHO MUST APPLY

Anyone proposing to dredge, fill, rip rap, or otherwise alter the banks or beds of, or construct, operate, or maintain any dock, pier, wharf, sluice, dam, piling, wall, fence, utility, flood plain or flood way subject to State or Federal regulatory jurisdiction should apply for agency approvals.

REGULATORY AGENCIES:

- Wetlands or U.S. Waters: U.S. Army Corps of Engineers, Rock Island District, Clock Tower Building, Rock Island, IL
- ◆ Flood plains: Illinois Department of Natural Resources \ Office of Water Resources, Natural Resources Way, Springfield, IL 62702-1270.
- Water Quality \ Erosion Control: Illinois Environmental Protection Agency, Springfield, IL

COORDINATION

We recommend early coordination with the regulatory agencies <u>BEFORE</u> finalizing work plans. This allows the agencies to recommend measures to mitigate or compensate for adverse impacts. Also, the agency can make possible environmental enhancement provisions early in the project planning stages. This could reduce time required to process necessary approvals.

CAUTION: Contact with the United States Army Corps of Engineers is strongly advised before commencement of any work in or near a water of the United States. This could save considerable time and expense. Persons responsible for willful and direct violation of Section 10 of the River And Harbor Act of 1899 or Section 404 of the Federal Water Pollution Control Act are subject to fines ranging up to \$27,500 per day of violation and imprisonment for up to one year or both.

GLOSSARY

AGRICULTURAL PROTECTION AREAS (AG AREAS) -

Allowed by P.A. 81-1173. An AG AREA consists of a minimum of 350 acres of farmland, as contiguous and compact as possible. Petitioned by landowners, AG AREAS protect for a period of ten years initially, then reviewed every eight years thereafter. AG AREA establishment exempts landowners from local nuisance ordinances directed at farming operations, and designated land cannot receive special tax assessments on public improvements that do not benefit the land, e.g. water and sewer lines.

AGRICULTURE - The growing, harvesting and storing of crops including legumes, hay, grain, fruit and truck or vegetable including dairying, poultry, swine, sheep, beef cattle, pony and horse production, fur farms, and fish and wildlife farms; farm buildings used for growing, harvesting and preparing crop products for market, or for use on the farm; roadside stands, farm buildings for storing and protecting farm machinery and equipment from the elements, for housing livestock or poultry and for preparing livestock or poultry products for market; farm dwellings occupied by farm owners, operators, tenants or seasonal or year around hired farm workers.

B.G. - Below Grade. Under the surface of the Earth.

BEDROCK - Indicates depth at which bedrock occurs. Also lists hardness as rippable or hard.

FLOODING - Indicates frequency, duration, and period during year when floods are likely to occur.

HIGH LEVEL MANAGEMENT - The application of effective practices adapted to different crops, soils, and climatic conditions. Such practices include providing for adequate soil drainage, protection from flooding, erosion and runoff control, near optimum tillage, and planting the correct kind and amount of high quality seed. Weeds, diseases, and harmful insects are controlled. Favorable soil reaction and near optimum levels of available nitrogen, phosphorus, and potassium for individual crops are maintained. Efficient use is made of available crop residues, barnyard manure, and/or green manure crops. All operations, when combined efficiently and timely, can create favorable growing conditions and reduce harvesting losses -- within limits imposed by weather.

<u>HIGH WATER TABLE</u> - A seasonal high water table is a zone of saturation at the highest average depth during the wettest part of the year. May be apparent, perched, or artesian kinds of water tables.

Water Table, Apparent - A thick zone of free water in the soil. An apparent water table is indicated by the level at which water stands in an uncased borehole after adequate time is allowed for adjustment in the surrounding soil.

Water Table, Artesian - A water table under hydrostatic head, generally beneath an impermeable layer. When this layer is penetrated, the water level rises in an uncased borehole.

Water Table, Perched - A water table standing above an unsaturated zone. In places an upper, or perched, water table is separated from a lower one by a dry zone.

<u>**DELINEATION**</u> - For Wetlands: A series of orange flags placed on the ground by a certified professional that outlines the wetland boundary on a parcel.

<u>**DETERMINATION**</u> - A polygon drawn on a map using map information that gives an outline of a wetland.

<u>HYDRIC SOIL</u> - This type of soil is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part (USDA Natural Resources Conservation Service 1987)

INTENSIVE SOIL MAPPING - Mapping done on a smaller more intensive scale than a modern soil survey to determine soil properties of a specific site, e.g. mapping for septic suitability.

LAND EVALUATION AND SITE ASSESSMENT

(L.E.S.A.) - LESA is a systematic approach for evaluating a parcel of land and to determine a numerical value for the parcel for farmland preservation purposes.

MODERN SOIL SURVEY - A soil survey is a field investigation of the soils of a specific area, supported by information from other sources. The kinds of soil in the survey area are identified and their extent shown on a map, and an accompanying report describes, defines, classifies, and interprets the soils. Interpretations predict the behavior of the soils under different used and the soils' response to management. Predictions are made for areas of soil at specific places. Soils information collected in a soil survey is useful in developing land-use plans and alternatives involving soil management systems and in evaluating and predicting the effects of land use.

<u>PALUSTRINE</u> - Name given to inland fresh water wetlands.

<u>PERMEABILITY</u> - Values listed estimate the range (in rate and time) it takes for downward movement of water in the major soil layers when saturated, but allowed to drain freely. The estimates are based on soil texture, soil structure, available data on

permeability and infiltration tests, and observation of water movement through soils or other geologic materials.

PIQ - Parcel in question

<u>POTENTIAL FROST ACTION</u> - Damage that may occur to structures and roads due to ice lens formation causing upward and lateral soil movement. Based primarily on soil texture and wetness.

PRIME FARMLAND - Prime farmland soils are lands that are best suited to food, feed, forage, fiber and oilseed crops. It may be cropland, pasture, woodland, or other land, but it is not urban and built up land or water areas. It either is used for food or fiber or is available for those uses. The soil qualities, growing season, and moisture supply are those needed for a well managed soil economically to produce a sustained high yield of crops. Prime farmland produces in highest yields with minimum inputs of energy and economic resources, and farming the land results in the least damage to the environment.

Prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation. The temperature and growing season are favorable. The level of acidity or alkalinity is acceptable. Prime farmland has few or no rocks and is permeable to water and air. It is not excessively erodible or saturated with water for long periods and is not frequently flooded during the growing season. The slope ranges mainly from 0 to 5 percent. (Source USDA Natural Resources Conservation Service)

PRODUCTIVITY INDEXES - Productivity indexes for grain crops express the estimated yields of the major grain crops grown in Illinois as a single percentage of the average yields obtained under basic management from several of the more productive soils in the state. This group of soils is composed of the Muscatine, Ipava, Sable, Lisbon, Drummer, Flanagan, Littleton, Elburn and Joy soils. Each of the 425 soils found in Illinois are found in Circular 1156 from the Illinois Cooperative Extension Service.

SEASONAL - When used in reference to wetlands indicates that the area is flooded only during a portion of the year.

<u>SHRINK-SWELL POTENTIAL</u> - Indicates volume changes to be expected for the specific soil material with changes in moisture content.

SOIL MAPPING UNIT - A map unit is a collection of soil areas of miscellaneous areas delineated in mapping. A map unit is generally an aggregate of the delineations of many different bodies of a kind of soil or miscellaneous area but may consist of only one delineated body. Taxonomic class names and accompanying phase terms are used to name soil map units. They are described in terms of ranges of soil properties within the limits defined for taxa and in terms of ranges of taxadjuncts and inclusions.

SOIL SERIES - A group of soils, formed from a particular type of parent material, having horizons that, except for texture of the A or surface horizon, are similar in all profile characteristics and in arrangement in the soil profile. Among these characteristics are color, texture, structure, reaction, consistence, and mineralogical and chemical composition.

<u>SUBSIDENCE</u> - Applies mainly to organic soils after drainage. Soil material subsides due to shrinkage and oxidation.

TERRAIN - The area or surface over which a particular rock or group of rocks is prevalent.

<u>TOPSOIL</u> - That portion of the soil profile where higher concentrations of organic material, fertility, bacterial activity and plant growth take place. Depths of topsoil vary between soil types.

<u>WATERSHED</u> - An area of land that drains to an associated water resource such as a wetland, river or lake. Depending on the size and topography, watersheds can contain numerous tributaries, such as streams and ditches, and ponding areas such as detention structures, natural ponds and wetlands.

WETLAND - An area that has a predominance of hydric soils and that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances does support, a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions.

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