

KENDALL COUNTY PLANNING, BUILDING & ZONING COMMITTEE
Kendall County Office Building
Rooms 209 & 210
111 W. Fox Street, Yorkville, Illinois
6:30 p.m.
Meeting Minutes of June 11, 2018

CALL TO ORDER

The meeting was called to order by Chairman Bob Davidson at 6:31 p.m.

ROLL CALL

Committee Members Present: Lynn Cullick, Bob Davidson (Chairman), Judy Gilmour, Scott Gryder (Arrived at 6:55 p.m.), and Matt Kellogg (Vice Chairman)

Committee Members Absent: None

Also Present: Matt Asselmeier (Senior Planner), Nancy Harazin, Mary Collins, Stevie DuPont, Mike Venditti, David Lombardo, Tom Bromeland, Mary Bromeland, Andrew Bromeland, Melissa Samaroo, Justin Hardt, Margaret Blum, Jeff Findlay, and Greg Stromberg

APPROVAL OF AGENDA

Motion by Member Cullick, seconded by Member Gilmour, to approve the agenda as presented. With a voice vote of four (4) ayes, the motion carried.

APPROVAL OF MINUTES

Motion by Member Cullick, seconded by Member Gilmour, to approve the minutes of the May, 2018 meeting. Mr. Asselmeier noted that, on page 10, Member Gryder asked about Comed securing their utility boxes. Mr. Asselmeier stated that Kendall County currently does not have any regulations requiring the closure of the utility boxes. With a voice vote of four (4) ayes, the motion carried.

EXPENDITURE REPORT

The Committee reviewed the claims report. Motion by Member Kellogg, seconded by Member Cullick, to forward the claims to the Finance Committee. With a voice vote of four (4) ayes, the motion carried.

Mr. Asselmeier provided an update on the Fox Metro Escrow Account.

Mr. Asselmeier provided a six month update on Planning, Building, and Zoning related budget line items. The legal publication line item is the only line item of concern.

PUBLIC COMMENT

Nancy Harazin, owner of 16400 Newark Road, expressed her support of solar power. She stated that solar energy will reduce pollution and carbon dioxide emissions. She stated little maintenance is required for solar panels. Ms. Harazin said that she enjoyed working with Borrego and she would live across the street from a solar farm.

Mary Collins, Montgomery, expressed her support of using solar energy as a source of power. She stated that solar farms, like the one proposed, will benefit her children and grandchildren because of cleaner air.

Stevie DuPont, Sleezer Road, worked in utilities previously. He stated that Illinois is not a carbon heavy state because of the large amount of electricity from nuclear plants. Little regulations exist for solar projects. He expressed concerns of the loss of vegetation and top soil on the property. Dust could go onto neighboring properties. He expressed concerns regarding the decommissioning of the solar panels and the ability of the land to return to agricultural uses.

Mike Venditti, Oswego, spoke in favor of the solar panel project. He thanked Ms. Harazin for her efforts to improve the community through the solar panel project. No pollution will be created by this project.

Jeff Findlay, Newark, requested an update on the Antos Bridge project. The update will occur later in the meeting.

Tom and Mary Bromeland, Newark Road, expressed their opposition of the solar panel project for the following reasons: the solar array will lose value and cause the loss of value for neighboring properties, hazards to first responders, drainage and erosion concerns, lights, increased traffic and noise during construction, noise from the solar array, permanent damage to the farmland, harm to wildlife, and concerns about negative impacts to the wetlands. Mr. and Mrs. Bromeland stated that they asked Borrego to move the solar panels to the south of the property, but Borrego declined because of the wetlands. Andrew Bromeland, Roods Road, stated that he did economic analysis of property values. The comparables provided were of properties with solar panels further away from the subject properties. Borrego has not talked to the Bromelands.

Member Gryder arrived at this time (6:55 p.m.)

PETITIONS

Petition 18-15-Nancy Harazin on Behalf of Nancy L. Harazin Trust Number 101-Request for a Special Use Permit for a Public or Private Utility-Other (Solar Panels) at 16400 Newark Road, Approximately 0.2 Miles East of Route 71 on the South Side of Newark Road (PIN: 07-05-400-003) in Big Grove Township; Property is Zoned A-1

Mr. Asselmeier summarized the request.

Nancy Harazin, on behalf of Nancy L. Harazin Trust Number 101, submitted a petition for a special use permit to operate a public or private utility system – other on her property at 16400 Newark Road. Specifically, the Petitioner would like to contract with Borrego Solar Systems, Inc. for the installation and operation of a solar energy system. The energy generated from the system will be fed into Ameren’s system and consumed offsite.

The Petitioner would like to lease approximately twenty-three (23) acres to 312 Solar Development, LLC c/o Borrego Solar Systems, Inc. for an initial period of twenty (20) years. The lease could be renewed up to four (4) additional periods of five (5) years. If approved, Borrego Solar Systems, Inc. would install and maintain six thousand, nine hundred twelve (6,912) solar panels on the north side of the subject property. The solar panels would be seven

feet (7') in height at maximum tilt and three to four feet (3'-4') off of the ground. The panels would rotate with the sun. The system would connect to Ameren's system at the northeast corner of the property at Newark Road. The system is planned to generate two mega-watts (2 MW) of energy. If approved, the system would be operational by approximately July 31, 2019.

Other than periodic mowing and maintenance, no personnel will be onsite and no parking is required.

The construction process is estimated to take between four and six (4-6) months.

The solar panels will be located at their closest point approximately one hundred seventy-five feet (175') from Newark Road and approximately one hundred forty-seven feet (147') from the nearest neighboring property line. The solar panels shall not be closer than twenty-five feet (25') from the identified wetlands.

The Landscaping Plan calls for the planting of eighteen (18) Black Chokeberries, eighteen (18) Sea Green Junipers, twenty-nine (29) Spiraea, and thirty (30) Woodward Arborvitae. The shrubs would be thirty inches (30") at the time of planting and would grow between four and six feet (4'-6'). Several existing trees shall remain on the west side of the property.

A lawn seed mix will be planted under and around the solar panels. The growth would require mowing three (3) or four (4) times per year.

According to information provided to the County, the no mow is a blend of bunch-forming and creeping fescues derived from species that are native to the Northern Hemisphere. A combination of six (6) complementary varieties of fine fescues makes the no mow lawn seed mix a versatile and adaptable blend that is an excellent choice for a wide variety of planting situations and applications. The bunch grasses are exceptionally drought resistant, thrive in low nitrogen soils, and have moderate tolerance to heavy foot traffic. The creeping fescues spread gradually by underground rhizomes to help fill in between the bunch grasses to create a weed-resistant sod. The creeping fescues also help to fill in areas that may experience turf damage.

Some of the fine fescue grasses in the no mow lawn mix have been documented to possess allelopathic properties, in which the grasses produce compounds that prevent or retard the growth other plants and weeds. This "natural herbicide" makes the no mow particularly resistant to invasion by other herbaceous plants that often plague other types of turf.

- Hard Fescue (*Festuca brevipila*)
- Sheep Fescue (*Festuca ovina*)
- Chewings Fescue (*Festuca rubra* subs. *fallax*)
- Red Fescue (*Festuca rubra*)
- Creeping Red Fescue (*Festuca rubra* var. *rubra*)

The Kendall County Soil and Water Conservation District expressed no concerns regarding the ability of the proposed mix to handle erosion control provided that the property owner or operator conducted annual inspections.

Vegetation would be planted when the panels are in place.

The proposed solar panels shall be required to meet all applicable building codes.

The supports would be buried approximately twelve to thirteen feet (12'-13') in the ground depending on soil conditions. The supports would not be encased in concrete.

Electric lines will be buried inside the fence. There is a utility pole east of the access drive. The electric lines will go above ground at that point and connect to the Ameren system at the point on connection on the northeast corner of the site.

A fourteen foot (14') wide gravel access from Newark Road will be installed. The property already possesses a field access at this location. The access is across the street from the driveway of 16295 Newark Road.

Per the Site Plan, a seven foot (7') high chained link fence shall surround the solar panels. The fence shall have a sixteen foot (16') wide vehicle access gate on the east side and a four foot (4') wide man gate on the south side. The fence will be installed approximately one (1) week after construction starts.

A light will be installed for security reasons at the electrical equipment area.

Approximately eight (8) signs will be placed around the property along the fence and anywhere required by the NEC. A "Danger High Voltage" sign will be placed around the fence every two hundred feet (200'). A sign will also be placed on the vehicle gate entrance. There will be plaques stating emergency contact information and a site key.

No new odors are foreseen.

The solar panels have life expectancy of thirty (30) years. The anticipated decommissioning costs were provided. Decommission is estimated to take between two and three (2-3) months.

The EcoCat report was submitted and consultation was terminated.

The LESA score was 205 indicating a medium area of protection.

Big Grove Township reviewed the proposal and expressed no concerns.

The Village of Newark expressed the following concerns:

1. They would like the solar panels be set back further to the south.
2. They would like larger landscaping or fencing that better blocks the view of the solar panels from adjoining properties other than a chain link fence.
3. They had concerns regarding the safety of the environment if the solar panels break and their contents spill onto the ground.
4. They had concerns about glare if the tracking system malfunctions.
5. They would like assurances that the equipment is removed in a timely manner at the end of the project or when the lease is terminated.

The Newark Fire Protection District reviewed the proposal and expressed no concerns.

ZPAC reviewed this proposal on May 1, 2018. The representatives from the Petitioner requested that the operator be included on conditions 8, 11, and 13 because the operator will be responsible for decommissioning and insurance. The County Highway Department requested a fifteen foot (15') right-of-way dedication at the north side of the property along Newark Road to address an erosion issue. The existing right-of-way is seventy feet (70'). This request was added as condition 12 and the property owner agreed to this request.

The Kendall County Regional Planning Commission reviewed this proposal on May 23, 2018. Commissioners requested that a condition be added to the special use permit requiring damaged field tiles to be repaired and/or re-routed. The Petitioner's representatives were agreeable with this request. Tom Bromeland, Newark Road, expressed his opposition to the proposal. He was concerned about glare. He does not like the chain-link fence; he would like a buffer that blocked the views of the solar panels from his property. He would like the solar panels moved further south on the property. He expressed concerns about noise. He did not believe that anyone other than the property owner would benefit from this project. Commissioners requested that the Planning, Building and Zoning Committee examine requiring the planting of additional arborvitae and/or taller shrubs along the northern portion of the property near Newark Road. Discussion occurred regarding requiring a Knox box. Commissioners decided against the Knox box requirement. Commissioners voted five (5) in favor and two (2) opposed to the request. Commissioner Wormley voted no because he believed the proposal will negatively impact the property values of the subject property because nothing except farming can occur on the southern forty (40) acres. Chairman Ashton voted no because he thought the plans to farm on the sides of the project area were unrealistic and he echoed the concerns of Mr. Bromeland.

The Kendall County Zoning Board of Appeals held a public hearing on this proposal June 4, 2018. Tom and Mary Bromeland, Newark Road, reiterated their opposition to the proposal and provided the Board with a letter outlining their opposition. Mr. Bromeland started a petition opposing the proposed special use permit. Mr. Bromeland expressed further frustration that he was not contacted by the Petitioner's representatives earlier in the application process. Joan Cardwell, Sleezer Road, noted that none of her neighbors were aware of this proposal. Mr. Asselmeier noted that the Petitioner notified neighbors within seven hundred fifty feet (750'). Ms. Cardwell's property was over three thousand feet (3,000') from the subject property. The notice of the hearing was published in the legal section on May 9th. The letters to neighbors were mailed on May 1st and neighbors received the letters between May 12th and May 18th. Cliff Fox, Village Administrator of Newark, stated the Village previously expressed their opinions on the project and sent their letter to the County. The Village is satisfied as whole; they would prefer that the panels be further south on the property. The suggestion was made that an economic protection condition be placed in the special use permit but the Board decided against this suggestion. The Board added a condition that the Petitioner or operator must pay for training for Newark Fire Protection personnel. The fee schedule was amended to correct the typographical error for systems that produced between 1001 and 2000 KW. The Board amended the first Finding of Fact to reflect that the morals and comfort of neighboring property owners would be negatively impacted by the proposal. The vote was three (3) members in favor and two (2) members opposed. Pursuant to State law, four (4) favorable votes are required to issue a positive recommendation; the official recommendation is negative. Mr. Cherry voted no because he did not feel comfortable with the information provided. Vice-Chairwoman Clementi voted yes because she would live next door to solar panels and she would like to see tasteful prairie plantings. Mr. LeCuyer voted no because of the Bromeland's concerns. He

would like to see the neighbors work out their differences. Mr. Thompson voted yes because he thinks the proposal will benefit the community as whole. Mr. Whitfield voted yes because he believes that the restrictions and conditions address the concerns of neighboring property owners. He would live near a solar panel system.

Staff recommended approval of the proposed special use with the following restrictions and conditions:

1. The site will be developed in accordance with the Site Plan.
2. Lighting will be installed in accordance with the Site Plan.
3. The landscaping shall occur in accordance with the Landscaping Plan.
4. Replacement of dead and/or damaged vegetation shall occur on a timetable agreed to between the property owner and the Kendall County Planning, Building and Zoning Department.
5. Signage shall be installed as described in the Sheet Notes. In addition, at least one (1) sign shall be placed at the vehicle access gate stating emergency contact information.
6. The site shall be decommissioned in accordance with the Decommissioning Plan. In the event the Decommissioning Plan changes, the property owner shall supply the Kendall County Planning, Building and Zoning Department with revised plans as soon as they are available.
7. The Decommissioning Plan shall be initiated if the solar panels are not used for ninety (90) consecutive days. This condition shall not apply if maintenance on the impacted solar panel(s) is occurring.
8. The property owner or operator shall have six (6) months to complete the Decommissioning Plan and remove the solar panels and related equipment from the property (**Amended by ZPAC**).
9. In addition to other applicable fees, the following fees should be paid to the County prior to the installation of the solar panels:
Building Permit Fees
0-10 KW \$150
51-100 \$300
101-500 \$600
501-1000 \$1200
1001-1500 \$2750
1501-2000 \$6000
Over 2000 KW \$200 for Each Additional 0-100 KW
Fees Double if Construction Commences before Obtaining Building Permit (**Typo Amended at ZBA**)
10. The property owner or operator shall maintain current liability policy covering bodily injury and property damage at least Three Million Dollars per occurrence and Five

Million Dollars in aggregate and must have policy for the duration of the special use permit, such insurance may be provided pursuant to a plan of self-insurance by a party with a net worth of Twenty Million Dollars or more and the County shall be named as additional insured to the extent that the County is entitled to indemnification.

11. The property owner or operator shall indemnify, and hold harmless the County and its officials, employees, and agents (collectively and individually, the “Indemnified Parties”) from and against any and all claims, demands, losses, suits, causes of actions, damages, injuries, costs, expenses, and liabilities whatsoever, including reasonable attorney’s fees, except to the extent arising in whole or part out of negligence or intentional acts of such Indemnified Parties (such liabilities together known as “liability”) arising out of Applicant, Owner, or Operators selection, construction, operation, and removal of the solar energy system and affiliated equipment including, without limitation, liability for property damage or personal injury (including death), whether said liability is premised on contract or on tort (including without limitation strict liability or negligence). This general indemnification shall not be construed as limited or qualifying the County’s other indemnification rights available under the law **(Amended by ZPAC)**.
12. Within sixty (60) days of the approval of this special use permit ordinance, the owner shall dedicate a fifteen foot (15’) wide strip along the northern portion of the property in accordance with the Site Plan (See Attachment 7, Pages 2-4) to Kendall County to be used as Newark Road right-of-way **(Added by ZPAC)**.
13. The property owner or operator shall be responsible for ensuring that the operations of the solar panels allowed by this special use permit comply with all applicable Federal, State, and Local laws **(Amended by ZPAC)**.
14. Damaged or non-functioning solar panels shall be replaced or repaired on a timetable agreed to between the property owner and the Kendall County Planning, Building and Zoning Department **(Added after Village of Newark meeting)**.
15. The property owner or operator shall repair and if necessary re-route any drain tile damaged as a result of the installation, decommissioning, maintenance, or operation of the solar panels and related supporting infrastructure on a timeline approved by the Kendall County Planning, Building and Zoning Department. **(Added at KCRPC)**.
16. If requested by the Newark Fire Protection District, the owner and/or operator shall provide at their sole expense training to address any fire related or public health issues caused by the issuance of this special use permit **(Added at ZBA)**.
17. Failure to comply with above conditions or restrictions could result in the amendment or revocation of the special use permit.
18. If one or more of the above conditions is declared invalid by a court of competent jurisdiction, the remaining conditions shall remain valid **(Added after ZPAC)**.

Member Gryder asked why the County was entitled to indemnification. This requirement was in the DeKalb County ordinance. The requirement could be necessary if the County is responsible for cleaning up the property.

Justin Hardt, on behalf of Borrego, and Margaret Blum on behalf of GreenbergFarrow, summarized the proposal and Borrego. Ameren is agreeable to this project. The electricity will be placed in the grid and could be used in Ameren's territory. Customers would have to subscribe to a provider that offers solar energy. The wind shear is approximately one hundred thirty miles per hour (130 MPH). There will be one (1) motion sensor light at the transformer.

Chairman Davidson said that a restriction should be added regarding lighting crossing property lines. Chairman Davidson also suggested Arborvitaes along the northern property line that grow twenty feet (20') in height. Concerns about shading were expressed. Also, the trees would have to be removed per the lease agreement at the end of the lease term. Field tile could be impacted by the planting of trees. Member Kellogg suggested a mixture of trees.

Discussion occurred regarding water detention; Greg Chismark was satisfied with the proposal.

Discussion occurred regarding off-sight debris removal. Borrego has necessary insurance.

Discussion occurred regarding establishing a bond for removing the system. Borrego is contractually obligated to remove the system. The panels are warranted for twenty (20) years.

Member Kellogg asked how the County would know if the solar panels become inoperable. The consensus of the Committee was to add a restriction that the solar panel operator and/or owner provide an annual report of the energy production of the solar panels.

Committee members will send their comments and questions to Mr. Asselmeier and he will communicate those concerns to the Petitioner. The stated points of concern were lighting, landscaping, insurance, yearly report of operating data, and training for the Newark Fire Protection District (i.e. how frequently should this training occur).

Motion by Member Gryder, seconded by Member Gilmour, to continue this petition to the July 9, 2018, Planning, Building and Zoning Committee meeting.

Yeas (5): Cullick, Davidson, Gilmour, Gryder, and Kellogg

Nays (0): None

Abstain (0): None

Absent (0): None

The motion carried. This matter will return to the Committee on July 9th.

NEW BUSINESS

None

OLD BUSINESS

Approval of Amendments to Petition 17-28 Pertaining to Outdoor Target Practice and Shooting Zoning Regulations

At the May meeting, the Committee requested David Lombardo attend this meeting to discuss the difference between “safety area” and “downrange safety area”.

Mr. Lombardo stated that he did not know where “safety area” and “downrange safety area” originated because these terms were not contained in the NRA Handbook. Mr. Lombardo provided information of berm and backstop height. The size of the safety area would be determined by the types of firearms discharged.

Motion by Member Gryder, seconded by Member Kellogg, to send the proposal as presented back to the Planning Commission.

Yeas (5): Cullick, Davidson, Gilmour, Gryder, and Kellogg

Nays (0): None

Abstain (0): None

Absent (0): None

The motion carried. This matter will go to the Planning Commission on June 27th.

Authorize State’s Attorney to Initiate Litigation Against Mark Antos and Any Other Owners for the Removal of the Culvert Crossing of Aux Sable Creek near 13360 McKanna Road, Minooka, Illinois-Committee Could Also Refer the Matter to the Illinois Department of Natural Resources or Grant Mark Antos Additional Time to Complete the Removal

Mr. Asselmeier summarized the issue and read Mr. Antos’ email to Brian Holdiman. The Committee previously allowed Mr. Antos to set the completion date of the project.

Mr. Findlay noted that this issue has been going on for twenty (20) years.

Motion by Member Kellogg, seconded by Member Gryder, to authorize the State’s Attorney to initiate litigation against Mark Antos and any other owners for the removal of the culvert crossing of Aux Sable Creek near 13360 McKanna Road, Minooka, Illinois.

Yeas (5): Cullick, Davidson, Gilmour, Gryder, and Kellogg

Nays (0): None

Abstain (0): None

Absent (0): None

The motion carried. This matter will go to the Committee of the Whole on June 14th.

Staff will contact the Corps of Engineers regarding the low water crossing blocking the stream.

Request from the Kendall County Regional Planning Commission to Amend Petition 18-07 Pertaining to Establishing Procedures for Renewing Special Use Permits

Mr. Asselmeier summarized the request.

Based on the comments received at the May Planning, Building and Zoning Committee meeting, Staff revised the proposal for renewing, amending, and revoking special use permits.

In the proposal, Staff removed the distinction between special use permit holders in violation of the conditions of their special use permit and special use permit holders not in violation of the conditions of their special use permit. Any special use permit requiring renewal would be required to follow the same procedure of renewal, amendment, or revocation. In the proposal, the County Board could initiate amendments to or revocations of special use permits requiring renewal by majority vote of the County Board and for any reason.

For clarification purposes, Staff also proposed changes to Section 13.08.F to address revocation of special use permits that do not have renewal or review procedures stated in their adoption ordinance. Staff proposed removing the establishment and use time requirements currently in the ordinance and allowed the County Board to revoke a special use permit by a majority vote of the County Board for any reason.

Also for clarification purposes, Staff proposed changes to Section 13.08.M to address amendments to special use permits that do not have renewal or review procedures stated in their adoption ordinance. Under the proposal, the County Board could initiate amendments by a majority vote for any reason. The amendment procedure followed the same procedure as amendments to special use permits that possess renewal or review provisions.

The State's Attorney's Office reviewed the question of whether or not the County Board can amend special use permits after adoption.

The Kendall County Regional Planning Commission reviewed previous versions of this proposal. They believed that amendments and revocations should only occur after a special use permit holder has been found guilty in court and by super-majority votes of the County Board. They expressed concerns about the investments that special use permit holders made in their property and business that could be lost if a special use permit was revoked.

The proposal could cause people not to apply for special use permits for fear of revocation decades in the future. Restrictions cannot be placed on rezoning requests.

Motion by Member Gryder, seconded by Member Kellogg, to forward the amended petition back to the Kendall County Regional Planning Commission with the changes proposed by Staff.

Yeas (5): Cullick, Davidson, Gilmour, Gryder, and Kellogg
Nays (0): None
Abstain (0): None
Absent (0): None

The motion carried. This matter will go to the Regional Planning Commission on June 27th.

Update on 45 Cheyenne Court-Committee Could Approve Forwarding Violation to Either State's Attorney's Office or Hearing Officer

Mr. Asselmeier provided updated information on 45 Cheyenne Court. He noted that Mr. Holdiman provided the property owner with the incorrect date for the May meeting.

Greg Stromberg, owner, provided an update on his activities and plans to side his house. He

hopes to have the project completed in two to three (2-3) months. Mr. Stromberg volunteered to provide the Committee updates on his project. The Committee requested Mr. Stromberg to give pictures to Mr. Asselmeier to update the Committee in the next few months.

Update on Petition 18-04-Request from the Kendall County Regional Planning Commission to Amend the Future Land Use Map Pertaining to Properties Adjacent to Route 47 in Lisbon Township

Mr. Asselmeier stated that the Kendall County Regional Planning Commission will hold a public hearing on this proposal on June 27th at 7:00 p.m.

Update on Filling Part-Time Office Assistant (Zoning) Position

Mr. Asselmeier reported that seventy-one (71) people completed applications for the position.

REVIEW VIOLATION REPORT

The Committee reviewed the Violation Report.

REVIEW NON-VIOLATION REPORT

The Committee reviewed the Non-Violation Report.

UPDATE FOR HISTORIC PRESERVATION COMMISSION

Comments on Millbrook Bridge Project

Mr. Asselmeier noted that the Commission received a request for comments on the Millbrook Bridge Project. The Commission requested and the Corps of Engineers agreed to a sixty (60) day extension to submit comments on the proposal. Member Gryder requested that the report from the Corps of Engineers be forwarded to the Committee. Mr. Asselmeier will forward the report as requested.

Booth at PrairieFest in Oswego on June 16th

The Commission will have a booth at PrairieFest in Oswego on June 16th.

REVIEW PERMIT REPORT

The Committee reviewed the permit report.

REVIEW REVENUE REPORT

The Committee reviewed the revenue report. Revenue is up compared to the same period in the previous fiscal year.

CORRESPONDENCE

Correspondence Related to 21 Dawn Avenue

Mr. Asselmeier read the correspondence. Member Gryder commended Brian Holdiman for his correspondence related to this matter.

ONTO 2050 CMAP Public Comment Event-June 26, 2018

Mr. Asselmeier read the flyer.

PUBLIC COMMENT

Mr. Asselmeier stated that the United City of Yorkville will have an open house for their Downtown Overlay District on June 22nd, from 5:00 p.m. until 7:00 p.m., at 217 N. Bridge Street.

Tom, Mary, and Andrew Bromeland discussed Borrego's rating with the Better Business Bureau and questioned local benefits of this project.

Justin Hardt requested the Bromeland's to contact them.

COMMENTS FROM THE PRESS

None

EXECUTIVE SESSION

None

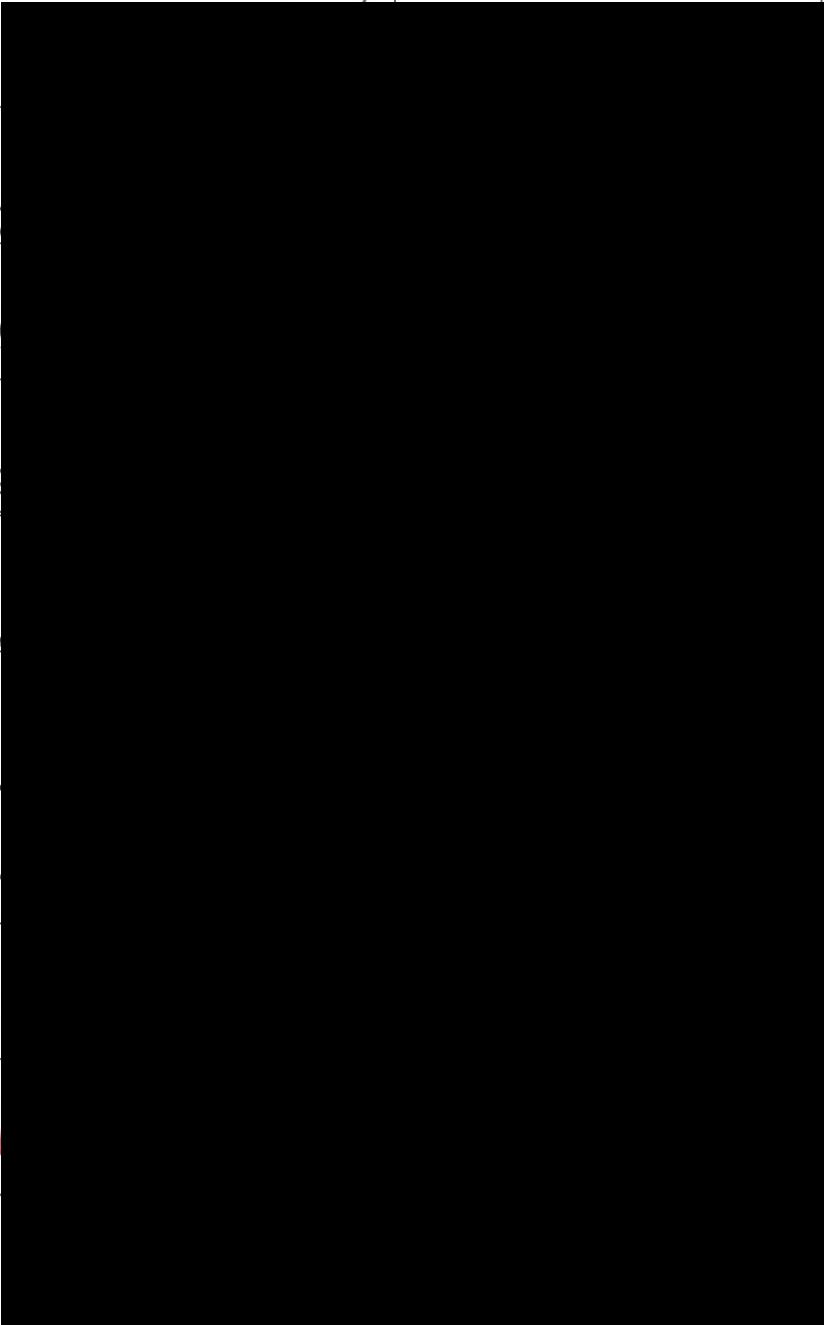
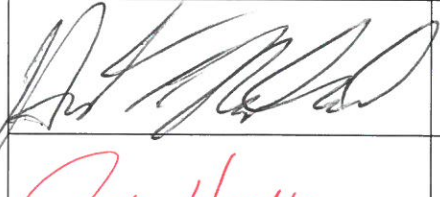
ADJOURNMENT

Member Kellogg motioned to adjourn, seconded by Member Gryder. With a voice vote of five (5) ayes, Chairman Davidson adjourned the meeting at 9:22 p.m.

Minutes prepared by Matthew H. Asselmeier, AICP, Senior Planner

Encs.

**KENDALL COUNTY
PLANNING, BUILDING, & ZONING COMMITTEE
JUNE 11, 2018**

NAME	ADDRESS	EMAIL ADDRESS
Nancy Harzog		
Mary Collins		
Stevie DuPont		
MIKE VENDITTI		
Jeff Findley		
Mary Bromberg		
Tom Bromberg		
		
Justin Hardt		
Mel Squarero		

**KENDALL COUNTY
PLANNING, BUILDING, & ZONING COMMITTEE
JUNE 11, 2018**

NAME	ADDRESS	EMAIL ADDRESS
<i>Margaret Bana Greenbergfarrow</i>		
<i>Guy Strachy</i>		

We are at this board meeting tonight to oppose the building of a solar array at 16400 Newark Road, which is proposed to be directly across from our front yard. I, Tom Bromeland, have been a resident of Kendall County for most of my life; I was born and raised here and then moved to my present location in 1986 with my wife Mary and family. We have been good citizens, paying our taxes to the county, and making a place for ourselves in this community. Our two sons volunteered for the Newark Fire Department and one continues to do so as a firefighter/paramedic today. When we purchased this farm, with the land and buildings, we had no idea that our life would take such a dramatic turn at this stage. So now we ask ourselves, why does such an eye sore have to be built within 200 feet from our house, so that our sole view is going to be chain linked fence, signage, and solar panels.

When we moved to this location, the property surrounding us was all zoned agriculture. We cherished the farm fields that surrounded us and find great beauty in those fields. We do not, however, find beauty in the eye sore of a solar array destroying those cherished fields. After being blindsided by the fact that the solar array was being proposed, I have come to the fourth meeting with various local boards. While at these meetings, I have been trying to work with this company to come up with ideas that would allow for a win/win situation. We have asked if the solar array could be moved to the back of the property, if a privacy fence could be used, or if the solar panels could start where they are not directly in front of my house as we have a natural wind block on the west side of the homestead. All of these requests have been denied by Borrego. I had concerns about this solar array going in and was trying to work with the idea that the "new technology" would be a good thing. However, now I am over trying to work with this company and I just want the whole thing to be rejected by the board. After much thought and research, I have come up with nine main reasons why the solar array should be rejected. This list is not all inclusive, but these I believe are the most important and the most impactful. I reject this proposal because I am not prepared to risk my farm's value, risk my son's safety responding to a possible fire at the solar array, further erosion to my fields, the obnoxious lights, traffic issues, additional noise, permanent damage to the farmland after the solar array is dismantled, harm and damage to the wildlife, and potential harm to friends and family living in Newark from chemical

contamination of the runoff ground water getting into the creek. All of these hazards have become more obvious as I have done more research on the solar array and company that will be building this ridiculous excuse of a renewable energy solution in a region that does not make sense for this source of energy.

The first point, is that the land around the solar array will lose its value. I know there was a study done that would indicate that a lose of value will not occur. However, these statistics like all others are open to bias and manipulation depending on how the sample was pulled, the assumptions applied to the issue, and how the research question was framed. I have reviewed part of the analysis that was done by Borrego. In my opinion, the comparison farms were not applicable. Most of the farms exist in areas where property taxes are significantly lower then Kendall County. In these areas, I believe that buyers would be more willing to accept a solar array as a tradeoff to pay lower taxes on their property. In Kendall County, the taxes are higher, and I highly doubt that the market prices can be sustained in this area with an additional inconvenience of a solar array directly across from the property.

Additionally, I have talked with others in the real estate industry, and they have all said the same thing. They have said they would not want this across, next to, or around them. The best advice that we have gotten so far on this has been to: "sell and get out before anyone finds out its going in". So, as you can see, this would devalue our property. A study is only so good, it does not have the power to predict behavior a 100% of the time. Look at our last election, almost every poll showed a certain victory for Hilary Clinton. However, there was bias in the polls, and the issues were not addressed in the campaign, and we now see the results of that election. My point here is that a study should be taken with a grain of salt, and in this case, I don't believe that our property values won't be affected.

Second, I would not be willing to accept the potential dangers that face our first responders in the community. I know Borrego said they would train our responders if it was requested. However, at this point, I don't think this should even be a consideration, and the hazard should not be allowed because it does not meet the zoning requirements of A-1 in Kendall County. Also, the fact that it would require specialized training should be a good indication that the solar array is not good for Newark and the surrounding area as a whole. This is because there

are a lot of unknown hazards at this time, and we are now just scratching the surface of what those hazards might be to the surrounding area. At a minimum, this project should be delayed until it is clearer what all the hazards are related to the solar array and how it will impact the environment and health of the community.

Third, the impact this solar array will have on me, my family, my property is astronomical in respects to drainage and erosion across the west side of the property. If you were living here, you would see that when there are heavy rains water draining from the proposed site of the solar array goes over Newark Road at times, and even in small storms the water that comes over to our side has eroded a lot of our soil. This only stands to get worse if you are covering 12 acres with non-absorbent glass panels. This is a major issue with other solar projects, so it stands to reason, this could be an issue here too. If there are increased problems with drainage directly caused by the project that does not meet zoning requirements; will Borrego pay for the drainage to be brought up to standard on the surrounding properties? In my opinion they should pay for this because they are the cause, and this is not using the land how it was originally intended to be used when the drainage system was installed. So, they should be responsible for updating all the infrastructure to handle the consequences from their project. This would include replacing the tile to the creek to handle the runoff that would be greater due to the solar array. I still don't agree with the use of the solar array in this area, but if it were to go through, I think this should all be considered and required since the solar array will cause issues here for the surrounding properties.

Fourth, the obnoxious lights will cause a personal issue for my family. The lighting that is being proposed would light up our driveway, front yard, and house. So, my question is why would you want our driveway and front yard lit up like a Christmas tree? I am not sure what the benefits to Borrego are for this, and I would ask that these lights be contained to the property, and not impinge on my property. We don't impinge on the properties around us with our one-yard light at night, and I would expect the same of any other neighbor. Why should a corporation be any different? This is especially irritating because we don't have central air in our old farmhouse, and there are nights in the summer where it is required to have the windows open to sleep. With lights pointing at the front of

our house, this would cause damage to our way of life that is unneeded and could cause additional health issues from the lack of sleep at night. I know this seems minor, but would any of you appreciate bright lights outside your window at night. I am assuming not, and if you would I would highly question your sincerity in this case and would ask that you not represent me anymore as an elected official of Kendall County.

The fifth major concern is the increased traffic and the additional noise from this traffic. This project will cause six months of major traffic right to my driveway. Newark road is already a busy road because it handles much of the traffic from Route 47 to Route 71. The addition of these trucks with the increased weight loads are going to cause more wear and tear on the roads requiring additional repairs for the county.

Our sixth concern is the noise that will be present with the building of the solar array and then the equipment noise once it is in place. We have been told that the majority of the noise will not be heard the 200 feet away that our house is from the solar array. They have estimated it at 35 dBA, but if you do your appropriate research a quiet room or whisper is about 30 dBA, normal conversation is 55 dBA, a television generates about 60 dBA, heavy traffic at 10-m distance is about 80 dBA. So, as you can see my concern is if we can trust the estimate from the company. We have been told at prior meetings by this company that the noise level is equivalent to 35 dBA which is no louder than "ambient noise". I would like to believe this, but how was this estimate determined; I just want to make sure that we are not "guinea pigs" for this solar array.

Seventh, the damage to the farmland would be permanent and irreversible. What if this solar array becomes obsolete and unprofitable? The site will have to be decommissioned, and what will be done with the land and materials on the site. Currently the state of Illinois has no landfills that will take the materials from the solar array. I am willing to bet that is done for environmental reasons because they don't want to be responsible for the damage that solar panels can cause to the environment. So, these materials will need to be trucked to another state. This is all going to add cost, and I don't think if the solar array is not profitable that Borrego will maintain the site and decommission it properly. I believe that

they will behave like any other business and attempt to sell the property to another company that will not know how to handle the site properly. I think there needs to be defined requirements that would put all of the liability surrounding the cleanup on Borrego even in the event of a sale of the site to another company.

Our eighth concern would be harm to wildlife, my family, and citizens of the town of Newark. A potential nightmare situation would be where the town could be harmed from chemical contamination of ground water. So, we are requesting that a detailed list of the toxins used to construct the solar array is presented to this board for their consideration. In doing some research about the solar industry, there is a scorecard that is used by SVTC (Silicon Valley Toxics Coalition) which rates companies on things such as environmental impacts, sustainability, and social justice issues. This coalition's objective is to protect the workers as well as the communities where solar arrays are located. Borrego is not a company that is listed on this scorecard and would lead me to believe there are some issues in this arena with this particular company. So, my assumption is that we should be careful before approving this company to build a site in Kendall County. Just so we don't have another story like Erin Brockovich, we want to make sure that Borrego is not using solar panels that have been developed using chemicals that may be toxic to the environment now or during deconstruction of the solar array. At the last meeting according to SARA (Superfund Amendments and Reauthorization Act), we asked to be provided with information on how these panels are constructed, and what is in them. This has not been done to my knowledge. Also, we would like to see where Borrego ranks on the scorecard used by SVTC. This will give Borrego some credibility and it will allow the people surrounding these solar arrays to know they will be safe if anything unforeseen occurs at these locations.

The final issue is the wetlands. There are wetlands on the front of the property, probably more impacted by the solar array than the back part of the property. However, Borrego had a concern about moving to the back of the property because they would have to build a driveway over the wetlands. According to Borrego at the last meeting, the driveway would impinge on only .01 or 1 % of the buffer surrounding the wetlands. They said they would not do this because they could not build over the wetlands at all, and this is not the case.

Farm wetlands can be mitigated. Also, the way I see it on the materials plan that was sent to me by Borrego, the back part of the property has two buffers that don't even touch the wetlands there. The real issue is additional monies that would be required by this company to move it to the back of the property. In addition, if you look at the plans, you will see that the start of the driveway covers the actual wetlands not just the buffer surrounding the wetlands. This is just another point that would question their credibility as a company because it looks like they have lied in this particular circumstance.

At the last meeting I attended on June 4th, Borrego was asked by another attendee of the meeting, would they build the solar farm if not subsidized by government funding. Their response was "no". This would lead me to believe they are not worried about the power or the grid, they are worried about the money. This solar array will not mean electricity will be cheaper for the residents of Newark or Kendall County, but we should embrace it because it is helping the grid. Where is this power going to? The way I understand it, Ameren is not complaining about the grid, they are just being forced to buy this electricity because it is being built. They seem to have chosen this plot of land which is not ideal in my opinion, because it was quick and easy. I'm sure there are many parcels of land in Kendall County that are more suitable for this use than across from me. I would also go so far to argue that this should not be built in Illinois at all. This is not the region that will benefit from solar power. I could see wind as a renewable source, but to truly get the benefits and efficiency out of solar power, I would think these should get built in the middle of the desert. This is probably a debate for a different day, but that seems to make the most logical sense to me. What has been identified here was a willing landowner that wanted to make money and then decided to make this work, despite wetlands, location, drainage, safety, traffic, noise and so on. I would ask this board to carefully consider this proposal, and please deny the zoning as A-1 special use as it does not meet the current ordinance that is in place in Kendall County.

This Business Is Not BBB Accredited

Borrego Solar Systems

Menu

Business Information

(888) 898-6273

30 years in business

5005 Texas St #400

San Diego, CA 92108-3725

Fax Numbers

- (888) 843-6778

Additional Email Addresses

- sales@borregosolar.com

BBB File Opened: 08/08/2002

Business Started: 11/13/1987

Business Incorporated: 03/27/2002 in CA

Type of Entity

Corporation

Business Management

- Mr. Aaron S Hall, President

*Just FYI -
NOTE the information
according to BBB
Borrego is not
Accredited -
Just another
issue showing
their
discredit!*

Business Category

- Solar Energy Product Services

Alternate Business Names

- Borrego Solar Systems Inc

Licensing, Bonding or Registration

This business is in an industry that may require professional licensing, bonding or registration. BBB encourages you to check with the appropriate agency to be certain any requirements are currently being met.

Overview

This company offers design and installation of solar electric/photovoltaic systems for homes, businesses and the public sector.

BBB Reason for Ratings

BBB rating is based on 13 factors: **[Get the details about the factors considered.](https://www.bbb.org/council/overview-of-bbb-grade)** (<https://www.bbb.org/council/overview-of-bbb-grade>)

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BBB Rating Scorecard

This Business Is Not BBB Accredited

Borrego Solar Systems

A+

[BBB Rating System Overview \(https://www.bbb.org/council/overview-of-bbb-grade\)](https://www.bbb.org/council/overview-of-bbb-grade)

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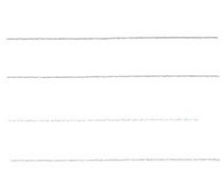
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SOLAR LEASES: PROPERTY OWNERS BEWARE



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Business-Tax (2)

By: Kelly J. Graves

In the last several weeks, we have received and reviewed a flurry of solar leases and solar options to lease for numerous property owners. It appears that multiple solar companies are aggressively scouting and romancing property owners throughout the state with their promises to lease a few dozen acres and up to hundreds of acres of land with high rental rates per acre. The initial reaction is that this is a great opportunity for landowners to utilize their land and receive rental income that is significantly higher than agricultural market value rents particularly if the land is marginal farm land to begin with. However, BEWARE, because it is important to remember that the leasing documents that you are receiving were prepared by an attorney hired by the solar company so the documents tend to be prepared in a manner that is in the best interest of the solar company. The land owner's interests are not necessarily aligned with the solar company's interests!

The following items are typically missing from the solar company leases that we have been asked to review:

1. The exact amount of acreage to be rented by the solar company;
2. Location of easements to access the project if the field is not accessible from a public road;
3. Insurance coverage for the solar company and its agents;
4. Potential property tax increases and *who* absorbs those increases;
5. Potential loss of Agricultural Exemptions and Repayment of the Agriculture Exemption, plus penalties, if property is reclassified;
6. Removal (decommissioning) plan for the project upon expiration of the lease term;
7. Impact on landowners mortgage and future mortgaging of the property;
8. Future use of the property; and

9. Potential disruption of farming activities and tile lines when constructing the solar farm.

It is important to remember that just because the initial proposal might be for a 30 acre parcel, there is no guarantee, the way that the vast majority of these leases are written, that the solar company is going to lease the entire 30 acres. The solar company may only end up leasing a portion of the property and then, as a land owner, you could be left with two small fields with a solar farm in the middle. Depending on field access, one of those smaller fields may no longer be accessible if a solar project is constructed in the middle of the existing "large" field.

Property owners should be cautious and always seek legal advice to review the lease on your behalf when approached by a solar company to sign a lease before signing. Once signed by you, the lease becomes a binding obligation that will likely be difficult, if not nearly impossible (and expensive), to break. Please [contact me](#) or any member of our [Agricultural Services Team](#) if you would like us to review a solar lease that you received.

To view this article in PDF format, please click here [\[Solar Leases – Property Owners Beware\]](#).

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April 11, 2018

Dear Neighbor,

We are contacting you to advise you of our pending applications for a Special Use Permit with the Kendall County Planning, Building & Zoning Department. The Special Use Permit is being requested to allow for development of one ground-mounted solar farm facility to be located at 16400 Newark Road in Big Grove Township. We would like to take this opportunity to provide you with a brief description of our proposed project and the reasoning for our application.

Currently, the property is Zoned AG – Agriculture. Solar projects are permit within AG Zoning Districts with the County's approval of a Special Use Permit.

As such, our desire is to have the project approved for a Special Use Permit which would allow for the installation of new solar arrays. The proposed solar system is very low profile when compared to other forms of renewable energy such as wind turbines. The arrays would be approximately of seven-foot in height and the array field would cover roughly 15 acres of the property on each parcel (see attached map). Additionally, the array field will be setback in excess of the County required 50-foot side yard and 150-foot front yard setback. The ground below the panels would be planted in a low growing plant mix.

Borrego Solar Systems, Inc. is a nationally recognized leader in the industry with over 35 years of experience in the development of solar projects. We are excited about the opportunity to bring clean energy to Illinois, specifically Kendall County.

I have enclosed my business card with my contact information for your reply. If you have any questions or comments, it would be very helpful if you could provide your feedback within the coming week.

Additionally, if you'd like more information about Borrego Solar Systems, please visit our website at: borregosolar.com

Thank you in advance for your feedback. We look forward to serving this great community!

Sincerely,



Justin Hardt, Senior Project Developer
Borrego Solar Systems, Inc
(215) 266 9753
1 N. State Street
STE 1500
Chicago, IL 60602



ARTICLE 3. OUTDOOR RANGES

3.01 General Considerations

3.01.1 Developing an outdoor range involves these critical factors:

3.02 Site Selection

- a. Size - an area large enough to accommodate the appropriate disciplines and projectile containment as modified by existing topographic features, and/or additional range features.
- b. Location - Locate the range as convenient to the user population as possible.
- c. Design - Design criteria should incorporate specific range requirements along with adequate space for current use, yet provide opportunity for future expansion.
- d. Environment - During the planning phase, make every effort to minimize any adverse impact on the surrounding environment. It is recommended that a registered professional engineer (P.E.) be contracted to conduct an environmental assessment. Environmental impact statements (EIS), compared to assessments, are expensive and time consuming. Exercise care during the environmental assessment to address all possible concerns. If the environmental assessment is performed incorrectly or identifies any significant adverse impact on the environment, a complete EIS may be required which may be very expensive.

3.02.1 Projectile Containment

3.02.1.1 Projectile containment will vary in size and design based upon terrain features, range structures, and the chosen shooting activity. Various range enhancements have proven to be significantly effective in limiting bullet containment to the confines of a specific property boundary. Techniques for limiting projectiles to range property include: backstops, sideberms and sidewalls, baffles, target placement, mountains or rolling hills, sloping floor of the range, and utilizing the range for its intended purpose.

3.02.1.2 The distance a bullet will travel varies according to several factors: ballistic coefficient, bullet weight, muzzle velocity, caliber, bullet shape, angle of muzzle elevation, and to a lesser degree, wind speed, wind direction and relative humidity. Muzzle elevation to achieve the maximum range of a given firearm and ammunition combination will vary, but can be calculated by using Ingalls' Ballistic Tables (*Hatcher's Notebook*ⁱ, pages 584-625). The ballistic coefficient and muzzle velocity are the two most important factors in determining the distance a bullet will travel. The following ballistics table has been modified for use in this source book and is used with permission. Additional cartridges and newer projectiles have been added to the chart. The new cartridge data was derived by using Sierra Infinity v6ⁱⁱ. This chart should be used only as a quick reference to check comparative data for various calibers using specific bullet weights and velocities for planning purposes. The 30-06 (boattail) bullet, weight of 172 grains, muzzle velocity of 2,600 feet per second has been added to the chart and is shown to have a range of 5,500 yards or 3.12 miles, and does not mean that you have to own or control 3.12 miles of downrange area. Various factors can affect the maximum distance that a bullet or shot may travel. The tables below are to be considered as guidelines only. This source book does not represent or guarantee that a particular bullet or shot may not travel further than the below state distances. Remember that you will most likely be held

responsible for the damage or injury caused from any bullet or shot that escapes the shooting range, no matter what the distance that the bullet or shot traveled.

Chart A

Pistol

Calculated maximum ranges

Bullet Caliber/Name	Bullet Style	Bullet wt. (grs.)	Assumed MV. (fps)	Calculated max. range (yards)	Calculated max. range (miles)
.22 Long Rifle	RN	40	1150	1922	1.09
.221 Rem. Fireball	PSP	50	2650	2666	1.51
.38 Special	STHP	110	1320	1800	1.02
.357 Magnum	JHP	158	1410	2366	1.34
.357 Sig	JHP	125	1350	1928	1.09
.38 Super	STHP	125	1280	2033	1.26
9 mm Luger	FMJ	124	1140	1900	1.08
.40 S&W	JHP	180	1015	2093	1.89
.44 Rem. Mag.	JSP	240	470	2500	1.42
.45 Auto	FMJ	230	945	1833	1.02
.45 Auto Rim	FMJ	230	810	1633	0.93
.45 Colt	LFN	255	860	1800	1.02

RN-Round Nose, PSP Pointed Soft Point, STHP-Silvertip Hollow Point, JHP-Jacketed Hollow Point, FMJ-Full Metal Jacket, JSP-Jacketed Soft Point, LFN-Lead Flat Nose. Table updated in 2011.

bricks, may be used for the core or interior of the backstop or berm. This technique saves on the amount of clean fill required for surface treatment.

All surface areas where bullets will strike are recommended to be free of large rock.

Contact local agriculture agents for information on low, fast growing grasses common to the area to surface treat earthen backstops or berms. Crown vetch is a good choice in much of the United States, and it will aid in erosion control. Some areas of the country do not have enough available water to support ground cover.

NRA highly recommends that ranges DO NOT use railroad ties, stacked lumber or wood products for backstops. Bullets embedded in the wood can eventually cause lead buildup sufficient in size to cause backsplatter or bounce back of projectiles or particles. Projectiles or particles can travel up to 50 yards straight back to the firing line with sufficient force to cause personal injury or property damage.

CAUTION: Exposed automobile tires may cause bounce-backs where ammunition velocities are below 800 fps. Highly recommend that no automobile or truck tires be used in backstop construction. The exception would be commercial or club built backstops using ground rubber tires or chunk rubber, ¾ to 2 inches in size, is acceptable. Keep in mind that the rubber normally settles on a 30 degree angle from horizontal and is stable. Provide proper drainage for the backstop. When utilized with Geocell materials available today

- b. Configuration: Sides should be sloped as steep as soil conditions will allow. Shallow slopes may call for the installation of either a horizontal bullet catcher and/or a wall on top of the backstop to retain occasional ricochets. Most soils stabilize on about a 1.5-to-1 slope. Geocell materials may be used to aid with soil stabilization.
- c. Height: The recommended height for a backstop is 20 feet high, except where the down range area is backed up by high terrain features, such as a large hill or a mountain, or by sufficient distance, to contain occasional ricochets. Terrain and topographical features should always be considered when designing a range. This is especially true with a 50 foot range, often used by youth shooting sports programs, where 10 feet is commonly recognized as the appropriate height.

Refer to your national counsels for youth activities for range construction and guidance as appropriate.

Remember, where compaction procedures are not used, or do not work because of soil types, the fill material will settle, reducing the overall effective height. To counteract the condition, add additional fill as needed.

3.04.5.2 Intermediate Backstops

- 3.04.5.2.1 In some instances, such as in silhouette competition, intermediate backstops behind each bank of targets are required or desirable. Building these backstops for each specific distance is critical. Make every effort to contain those projectiles which strike the intermediate backstop. Provide an area where bullet strike is visible to the shooter or coach.

are listed in the NRA International and Smallbore Rifle rulebooks and are available from NRA licensed target manufacturers.

3.01.4.5 Backstop

3.01.4.5.1 Minimum backstop heights are determined by the requirements at each site and are measured from the range floor. Some ranges have existed for years without a backstop of any kind; however, remember the down range area in these instances must be uninhabited and inaccessible. In areas where the safety area has been encroached upon, backstops, side berms and baffles may be needed to contain the bullets fired on the general range area. Should the selected site face future encroachment, incorporate these fixtures during the initial design process. The utilization of Geocell materials can aid with the construction of the backstop. (Refer to Section IV Range Products and Services).

3.01.4.5.2 Side Berms

3.01.4.5.2.1 Side berms are necessary where adjacent areas need to be protected and where there is not sufficient unoccupied land to accommodate projectile containment. Side berms can be constructed similar to a backstop, but may be omitted in favor of walls, side baffles or other artificial barriers that require less space. The recommended height for side berms is 8 feet high. The utilization of Geocell materials can aid with the construction of the side berm allowing construction of vertical walls saving needed space between ranges. (Refer to Section IV Range Products and Services).

3.01.4.5.3 Baffles

3.01.4.5.3.1 Overhead and ground baffles may be required on ranges to ensure projectile containment or where sound problems exist. Because of the limited ammunition and distances used on smallbore rifle ranges, baffle designs need not incorporate extraordinary measures to stop high velocity bullets.

3.01.4.5.3.2 Baffles may be built in several designs as shown in drawings A-11, A -12, and A-14 in the Appendix, but the least costly would be the vertical baffle 4 feet high, extending the entire width of the range. The lower edge of the baffle should be located 6 feet to 7 feet above ground to accommodate the standing position and spaced according to drawing A-10.

3.01.4.5.4 Walls

3.01.4.5.4.1 Walls used instead of side berms should be designed to stop .22 caliber rimfire ammunition. (See wall sections, drawing numbers A-17 in the Appendix.)

3.01.4.6 Return Target Carrier Mechanisms

3.01.4.6.1 Return target mechanisms, which are commercially available, can be used on shorter smallbore rifle ranges and are beneficial in reducing the time it takes to conduct training or competitive events.

3.01.5 Projectile Containment

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