

SPECIAL EXCEPTION PROCEDURAL GUIDELINE FOR SOLAR FARMS

DEFINITION: Solar Energy System – Commercial (SES-C) is a use that is designated as such in the Zoning Ordinance as being permitted in the zoning district if it meets special conditions.

APPLICATION UNIFORMITY STANDARDS

For the ease of processing applications, we request the following guidelines are followed as closely as it reasonably possible:

- All documents are submitted on standard 8 ½” by 11” paper.
- All notarized documents must have their original submitted. A scanned copy will suffice until the original can be mailed or otherwise delivered.
- **All due dates are final deadlines**, failure to comply may result in an incomplete application and a continuance to the following meeting.

APPLICATION:

- Notarized application **must** be filed at least **thirty (30) days** before Board of Zoning Appeals meeting
- Separate written legal description
- List of adjoining property owners within six hundred sixty (660) feet but no more than two (2) property ownerships in depth
- Sample letter to property owners
- Notice of public hearing
- Copy of deed(s)
- All applications **must** be reviewed by the Planning Department staff for completeness and accuracy prior to acceptance
- If there are several property owners involved in the Special Exception request, an affidavit from the property owner stating they agree with the request must be filed.

FEE

\$150 must be paid when the application is submitted.

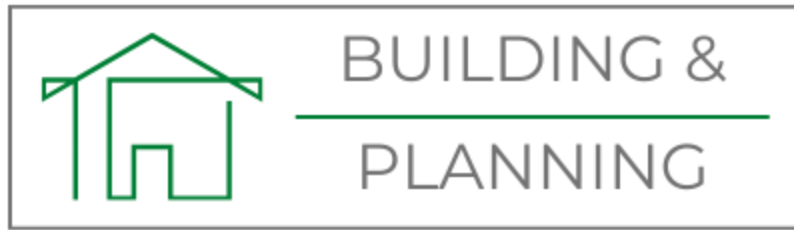
DRAW CONCEPT OR SITE PLAN

A site plan clearly lays out the relevant detail of the subject property. The site plan must include the following to the best of your ability:

- North Arrow
- Boundary lines of property/properties
- Existing streets or other public ways
- Buildings, parking and loading area (if applicable)
- Setbacks measured as a straight line from the nearest outer edge of the solar panel to the nearest edge of the road right-of-way, property line of nonparticipating property, and nearest point on the outer wall of a dwelling located on a nonparticipating property.
- Screening and/or landscape buffer
- Height of panels at full tilt
- Fencing, including type and height
- Access to site(s)
- Ground cover/buffer areas
- Site vegetation plan
- Buildings or other support structures
- Power, communication lines, and other infrastructure
- Drainage
- Lighting (if applicable)
- Noise level any component of the SES-C system
- Signage
- Location of all above ground utility lines
- Location of underground utility lines associated with the project site
- Easements, existing or proposed
- Other relevant details as specified by Staff.

ADDITIONAL DOCUMENTS TO BE SUBMITTED:

- Safety and Security plan
- Aviation Protection (if applicable)
- Agricultural Protection Plan
- Decommission Plan
- Economic Development Plan



NOTE: For site involving the disturbance of one (1) acre or more, a drainage and erosion control plans must be developed, and a Notice of Intent (NOI) may be required to be submitted to the Indiana Department of Environmental Management – See “Requirements Associated with proposed Solar Farms”

WRITE LETTER OF INTENT

The letter of intent is the applicant’s letter to the BZA stating why approval of the petition is necessary. The letter of intent should address the following:

- Applicant seeking the special exception
- The nature of the special exception
- Reason why the special exception is needed
- Will be harmonious with and in accordance with the general objectives, or with a specific objective of the Comprehensive Plan and Zoning Ordinance
- Will be designed, constructed, operated, and maintained to be harmonious and appropriate in appearance with the existing or intended character of the general vicinity and that such use will not change the essential character of the same area
- Will not be hazardous or disturbing to existing or future neighboring uses
- Will be served adequately by essential public facilities and services, or that the persons or agencies responsible for the establishment shall be able to provide adequately any such services.
- Will not create excessive additional requirements, at public cost, for public facilities and services and will not be detrimental to the economic welfare of the community
- Will not involve uses, activities, processes, materials, equipment, and conditions of operation that will be detrimental to any persons, property, or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare, or odors.
- Will have vehicular approaches to the property which shall be so designed as not to create an interference with traffic on surrounding thoroughfares
- Will not result in the destruction, loss, or damage of a natural, scenic, or historic feature of major importance

NOTIFICATION:

- Written Notification: Applicant **must** mail letters to adjacent property owners at least **ten (10) days** before scheduled meeting and file an affidavit with the Planning and Building Department prior to the public hearing. Proof of notification shall be a Certificate of Mailing.
- Legal Notification: Applicant **must** place a legal notice in the Banner Graphic at least **ten (10) days** before scheduled meeting. Proof of publication **must** be submitted to the Planning and Building Department staff prior to the public hearing.

SITE VISITS:

The BZA Staff may conduct onsite inspections of the property, if necessary, prior to Technical Review.

TECHNICAL REVIEW (Optional):

A meeting between the developer's representatives, usually the project engineer and the BZA staff to discuss the project. This meeting will be set as needed based on the project. An email of the date and time will be sent to the applicant and/or applicant's agent. If the county hires a consultant and/or expert to assist the county in reviewing and evaluating an SES-C application, the applicant shall deposit with the County funds sufficient to reimburse the County for all reasonable costs of consultant and expert evaluation and consultation to the County in connection with the review of any application. The initial deposit shall be \$8,500. Determination of whether a county hires a consultant/expert is dependent on the scale of the project. This determination will be made after the application packet has been received and reviewed by County staff, including but not limited to County Attorney, Plan Director, Highway Engineer, County Auditor, and County Commissioner. The applicant will be notified in writing once the decision has been made.



Application No. _____
Fee: _____
Receipt # _____

Putnam County Board of Zoning Appeals

Special Exception Commercial Solar Energy System Special Exception Commercial Wind Conservation System

Name of Applicant _____ Phone No. _____
Address of applicant _____
City, State Zip _____ Email _____

Owner(s) _____ Phone No. _____
Address of Owner _____
City, State Zip _____ Email _____

Agent: _____ Phone No. _____
Address of Agent _____
City, State Zip _____ Email _____

REAL ESTATE EFFECTED: Section _____ Township _____ Range _____
Township _____ Parcel No(s). _____

Location of subject property to nearest county road intersection: _____

Address of Subject Property _____
Town of _____ Lot _____ Block _____ Addition _____
Subdivision _____ Lot _____ Section _____
Lot Size _____ Current Zoning District _____ Sewer _____
Water _____

Applicable Ordinance Section Number(s) _____

Requested Action from the Board of Zoning Appeals:

Name of Registered engineer or surveyor preparing plans _____
Engineer's address _____ Phone No. _____
Fax No. _____
Email: _____

Attorney or Other Agents _____
Agent's address _____ Phone No. _____
Fax No. _____
Email: _____

STATE OF INDIANA)
) SS:
PUTNAM COUNTY)

The undersigned, having been duly sworn upon oath, says that the above information is true and correct as he is informed and believes.

Signature of Applicant Title of Applicant

SUBSCRIBED AND SWORN TO BEFORE ME THIS _____ DAY OF _____ 20_____.

Notary Public

County of: _____ My Commission Expires _____

IF APPLICANT IS NOT THE OWNER OF THE PROPERTY, THE PROPERTY OWNER MUST COMPLETE THE FOLLOWING:

AFFIDAVIT AND CONSENT OF PROPERTY OWNER(S)

I/We _____ after being first duly sworn, deposed and say:

- 1. That I/We are the owner(s) of the above-described real estate
- 2. That I/We have read and examined the Application for Special Exception or Variance of the Putnam County Zoning Ordinance and are familiar with its contents.
- 3. That I/We have no objections to, and consent to such request as set forth in the application.

Signature of Property Owner Signature of Property Owner

State of Indiana)
) SS:
Putnam County)

Subscribed and sworn to before me this _____ day of _____, 20_____.

Notary Public

My Commission Expires: _____ County of Residence: _____



PROPERTY INSPECTION RELEASE FORM

REAL ESTATE AFFECTED: Section _____ Township _____ Range _____

Township _____

Location of Subject Property to Nearest County Road Intersection:

Address of Subject Property: _____

Town of: _____ Lot _____ Block _____ Addition _____

Subdivision _____ Lot _____ Section _____

I/We hereby authorize and grant to the employees of the Putnam County Planning and Building Department, other Putnam County Officials, members of the Board of Zoning Appeals, and members of the Plan Commission the right to come onto the above-described property for the purpose of inspection and evaluating the premises regarding this application. I/We further release said Board members, Commission members, and County employees and officials from all liability during said inspection and related matters.

Applicant(s) _____

Date _____

LETTER OF INTENT

Applicant's Name: _____

1. *The establishment maintenance, or operation of the special exception will not be injurious to the public health, safety, morals, and general welfare of the community, because:*

2. *The special exception will not affect the use and value of other property in the immediate area in a substantially adverse manner, because:*

3. *The establishment of the special exception will be consistent with the character of the district (particularly that area immediately adjacent to the special exception) and the permitted land use, because:*

4. *The proposed special exception is a permitted special exception use as listed in the zoning district.*



AFFIDAVIT OF NOTICE OF PUBLIC HEARING FOR VARIANCE/SPECIAL EXCEPTION

I/We _____ do hereby certify that notice of public hearing of the Putnam County Board of Zoning Appeals was given in accordance with sections A, B, and C listed below.

A. The public hearing will consider the application of _____ for a _____ in _____ Township, Section _____, Township _____, Range _____, Putnam County, Indiana located _____

B. The notices were sent by CERTIFIED, REGISTERED, OR FIRST-CLASS MAIL WITH CERTIFICATES OF MAILING to the current address of the property owners listing below. The address of each property owner was obtained from the Putnam County GIS website.

PROPERTY OWNERS NAME

ADDRESS

- | | |
|-----------|-------|
| 1. _____ | _____ |
| 2. _____ | _____ |
| 3. _____ | _____ |
| 4. _____ | _____ |
| 5. _____ | _____ |
| 6. _____ | _____ |
| 7. _____ | _____ |
| 8. _____ | _____ |
| 9. _____ | _____ |
| 10. _____ | _____ |

C. The notices were mailed on the day of _____, 20____, which is at least ten (10) days prior to _____, 20____, the date of the public hearing at the Putnam County Courthouse 1 West Washington Street Greencastle, Indiana, in the Commissioner’s Meeting room at 7:00 p.m.

Applicant/Agent

Subscribed and sworn to before me, a notary public in and for said county and state this _____ day of _____, 20____.

Notary Public

County of _____

My Commission Expires _____

NOTIFICATION LETTER

DATE

Name

Address

City, State Zip

Dear Property Owner

Please be advised that the undersigned property owner or agent has petitioned the Putnam County Board of Zoning Appeals for a _____, in _____ Township, Section _____, Township _____, Range _____, Putnam County, Indiana on the property known as _____

A copy of this application, legal description and all development plans pertaining thereto are on file and available for examination, prior to the hearing, in the office of the Planning and Building Department at the Putnam County Courthouse, 1 West Washington Street, 4th Floor Room 46, Greencastle, Indiana between the hours of 8:00 a.m. and 4:00 p.m., Monday through Friday. Written comments to a proposal may be filed with the Secretary of the Board of Zoning Appeals (Planning and Building Department) prior to the date set for hearing and such comments will be considered.

A public hearing will be held at the Putnam County Courthouse, 1 West Washington Street, 1st Floor Commissioner's Room on _____ at 7:00 p.m.

Yours Truly,



Nature of Special Exception: _____

Reason Special Exception is needed: _____

The Project will be harmonious with and in accordance with the general objectives, or with a specific objective of the Comprehensive Plan and Zoning Ordinance, Because:

The project will be designed, constructed, operated, and maintained to be harmonious and appropriate in appearance with the existing or intended character of the general vicinity and that such use will not change the essential character of the same area, by:

The project will not be hazardous or disturbing to existing or future neighboring uses, because:

The project will/will not be served adequately by essential public facilities and services, or that the persons or agencies responsible for the establishment shall be able to provide adequately any such services. Why/Why not:

The project will not create excessive additional requirements, at public cost for public facilities and services and will not be detrimental to the economic welfare of the community, because:

The project will not involve uses, activities, processes, materials, equipment, and conditions of operation that will be detrimental to any persons, property, or general welfare by reason of excessive production of traffic, noise, fumes, glare, or odors; because:

The project will have vehicular approaches to the property which shall be designed as not to create an interference with traffic on surrounding thoroughfares; because:

The project will not result in destruction, loss, or damage of natural, scenic, or historic features of major importance; because:

NOTICE OF PULBIC HEARING

TO BE PUBLISHED IN THE NEWSPAPER

Notice is hereby given that the Putnam County Board of Zoning Appeals on the _____ day
of _____ 20____, at 7:00 p.m. in the Putnam County Courthouse, 1 W Washington Street 1st Floor,
Greencastle, IN 46135, will hold a public hearing on a request by _____ for
consideration of _____ on premises located at: _____

Property Owner: _____

Petitioner: _____

Written suggestions or objections to provisions of the said request may be filed with the Planning Department, at or before such meeting and will be heard by the Board at the time and place specified.

Interested persons desiring to present their views upon the said request. Either in writing or verbally, will be given the opportunity to be heard at the above-mentioned time and place. Copies of the petition may be examined at the Putnam County Planning Department 1 W Washington St, 4th Floor Room 46, Greencastle, IN 46135.

Interested persons may call the Plan Commission at (765) 301-9108 on the day of the meeting before 3:30 p.m. to inquire if the meeting has not been cancelled or rescheduled.

Petitioner

Case Number: _____



REQUIREMENTS ASSOCIATED WITH PROPOSED SOLAR FARMS

Solar development has expanded over the last several years as Indiana and other states have invested in this important resource to further greenhouse gas emission reductions. The large amount of impervious surface inherent in the construction of a large-scale solar array entails challenges not encountered in traditional development projects. If not properly managed through appropriate design and mitigation measures, stormwater discharged during and after the construction of solar arrays can be a significant source of pollution resulting from increased runoff, erosion, and sedimentation, which can adversely impact adjoining properties, streams, wetlands, or other natural resources. Solar installations must be properly designed to assure soil stabilization, minimize soil disturbance, and soil compaction, and address ineffective controls to manage the total runoff volume and velocity that can lead to the loss of topsoil, erosion and sediment discharges from disturbed areas and stormwater outlets, and erosion along downstream channels and streambanks. The ability to address such significant environmental problems during construction and post-construction becomes more difficult as site imperviousness increases.

Solar projects that use traditional elevated solar panels are unique because they contain an impervious surface (elevated solar panel) that often has a pervious surface (vegetation) underneath the panel. Stormwater runoff from solar projects is generated primarily from rain that falls on access roads, inverter pads, and solar panels. Water that falls off solar panels runs across the panel to the dripline, and eventually falls to the underlying surface. Some of this water will infiltrate and some will run-off downslope and eventually off site.

One of the most notable impacts that solar sites have on water quality is the potential for erosion and/or scour at the dripline. To minimize the erosion and/or scour at the dripline, the lowest vertical clearance of any solar array shall be no greater than 10 feet. Also, erosion prevention and sediment control Best Management Practices (BMPs) as detailed in Chapter 7 of these Standards must be utilized during construction.

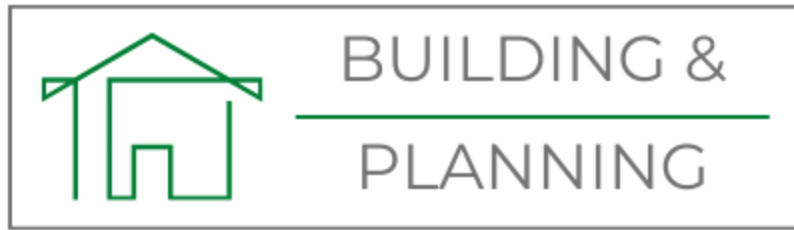
In addition to providing construction BMPs, Solar projects must adhere to the post-construction stormwater management requirements, including providing the required Water Quality Volume (WQv) and Channel Protection Volume (CPv) described in Chapter 8 of these Standards, as well as peak flow control (detention) requirements described in Chapter 6. However, because solar farms—particularly

the panels— have unique characteristics, not like constructing a building or road, they often inherently include stormwater disconnection features that qualifies them for recognition/credit afforded to the Stormwater Disconnection BMP, which similar to typical solar panel farms rely on maintaining sheet flow and infiltration in adequately-sized, vegetative areas receiving runoff. The Stormwater Disconnection BMP is detailed in OCRA Green Infrastructure Curriculum and Training resources web page: [Appendix-C-BMP-Fact-Sheets.pdf \(in.gov\)](#)). Per recommendations from the Center for Watershed Protection, the following Stormwater Disconnection recognitions/credits are established as part of these standards for solar farms that meet the conditions stated in these standards:

- i. WQv: Up to 100% of the required Water Quality Volume, proportionate to the percentage of total disconnected area to total site impervious area, may be subtracted from the required WQv.
- ii. CPv: For determining the Channel Protection Volume (CPv), the post-construction CN for the impervious area treated by the stormwater disconnection BMP may be determined assuming the treated area is “wood in good condition” (for the next less infiltrating hydrologic soil group than the pre-construction hydrologic soil group, since the area underneath panels is assumed disturbed/compacted during construction).
- iii. Qp (2, 10, 100): For determining the peak flow controls (detention), the post-construction CN for the area treated by the stormwater disconnection BMP, needed for determining post-construction peak flows (Qp) for 2, 10, and 100-year storms, may be determined assuming the treated area is “wood in good condition” (for the next less infiltrating hydrologic soil group than the pre-construction hydrologic soil group, since the area underneath panels is assumed disturbed/compacted during construction).

In order for the solar farm developments to be eligible for Stormwater Disconnection BMP recognitions/credits, the following design and construction guidelines must be met (Items d and g are required for all proposed solar farms regardless of whether Stormwater Disconnection recognition/credit is being sought):

- i. Roadways, gravel surfaces, transformer pads, and level spreaders within the solar field are considered effective impervious cover for the purposes of calculating Water Quality Volume (WQv), Channel Protection Volume (CPv), and post-construction peak flows.
- ii. All solar panels in the array should also be considered additional effective impervious cover for the purposes of calculating the WQv, CPv, and post-construction peak flow unless ALL the following conditions are met:
 - a) The vegetated area receiving runoff between rows of solar panels is equal to or greater than the average width of the row of solar panels draining to the vegetated area.
 - b) Overall site conditions and solar panel configuration within the array are designed and constructed such that the runoff remains as sheet flow across the entire site. Design array to ensure a perpendicular layout of drip edge to slope direction or install devices such as a Level Spreader to ensure sheet flow from the



drip edge. Level Spreaders shall be designed in accordance with the Level Spreader fact sheet contained in [Appendix-C-BMP-Fact-Sheets.pdf \(in.gov\)](#).

- c) The following conditions are satisfied regarding the design of the post-construction slope of the site:
- For slopes less than or equal to 5%, appropriate vegetation shall be established as indicated in **Figure 10-6**, below.
 - For slopes greater than 5%, but less than 10%, practices including, but not limited to, the use of level spreaders, infiltration trenches, or similar energy dissipating practices as described in **Figure 10-7**, below, shall be used to ensure long term sheet flow conditions.
 - For slopes equal to or greater than 10% and less than 15%, the Plan includes specific engineered stormwater control measures, such as level spreaders, infiltration trenches, or similar energy dissipating practices, with detailed specifications that are designed to provide permanent stabilization and non-erosive conveyance of runoff to the property line of the site or downgradient from the site.
 - Slopes greater than 15% are not qualified for a stormwater disconnection recognition/credit.
- d) The lowest vertical clearance of the solar panels above the ground should not be greater than ten (10) feet. The panels should, however, be at an adequate height to support vegetative growth and maintenance beneath and between the panels. If the lowest vertical clearance of the solar panels above the ground is greater than ten (10) feet, non-vegetative control measures will be necessary to prevent/control erosion and scour along the drip line or otherwise provide energy dissipation from water running off the panels.
- e) Disconnecting impervious surfaces works best in undisturbed soils. To minimize disturbance and compaction, construction vehicles and equipment should avoid areas used for disconnection during installation of the solar panels. Hydrologic Soil Group D soils or soils that are compacted by construction equipment may need to be tilled to a depth of four to six inches and/or amended to increase permeability.
- f) Groundcover vegetation must be maintained in good condition in those areas receiving disconnected runoff. Areas receiving runoff should be protected (e.g., planting shrubs or trees along the perimeter) from future compaction. Vegetated areas shall not be subject to chemical fertilization or

herbicides/pesticides except for those applications that are necessary to get vegetation established and which follow an approved Erosion and Sediment Pollution Control Plan.

To maximize the potential for infiltration and reduce maintenance, the use of native deep-rooted vegetative cover under the panels and between the panel rows is highly encouraged. To achieve a native deep-rooted vegetative cover, a mixture of perennial grasses and wildflowers is recommended with a diversity of forbs or flowering plants that bloom throughout the growing season. Blooming shrubs may also be used in buffer areas as appropriate for visual screening. Perennial vegetation (grasses and forbs) should be native to Indiana, but where appropriate to the vegetative management plan goals, may also include other naturalized and non-invasive species which provide habitat for pollinators and wildlife and/or other ecosystem services.

- g) A fifty (50) foot buffer should be maintained between any part of the solar array and any “watercourse” or “waterbody” as that term is defined in Appendix A of these standards. The buffer shall consist of undisturbed existing vegetation or native shrub plantings.
- h) Similar to other post-construction BMPs, the vegetated area underneath the panels, the vegetated area receiving runoff, and any buffer areas will need to be mapped, maintained in accordance with the stormwater Management operation and maintenance manual, and covered by the recorded maintenance agreement described in Chapter 8 of these standards.

Depending on the layout and number of panels installed, the stormwater disconnection BMP may address some or all of the stormwater management requirements (WQv) for an individual project. Where the imperviousness is high or there is other infrastructure (e.g., access roads, transformers), additional runoff may need to be treated. Further reduction in the remaining required Water Quality, Channel Protection, and Peak flow control volumes is possible through utilizing the BMPs described as part of the LID track in Chapter 8 of these standards.

A solar panel project should ideally be installed and placed outside of the floodplain or detention facilities. If proposed to be placed within a floodplain or in a dry detention facility, panels (all tilt positions) must be installed at or above the flood protection grade (2 feet above the BFE) or at or above the 100-year emergency overflow of the detention facility plus one foot. This includes all electrical systems associated with the panels. If the solar array project is proposed within floodway portion of the floodplain, the project shall also require a Construction in Floodway Permit from the INDNR.



Figure 10-6

Typical Solar Panel Installation with Slopes $\leq 5\%$

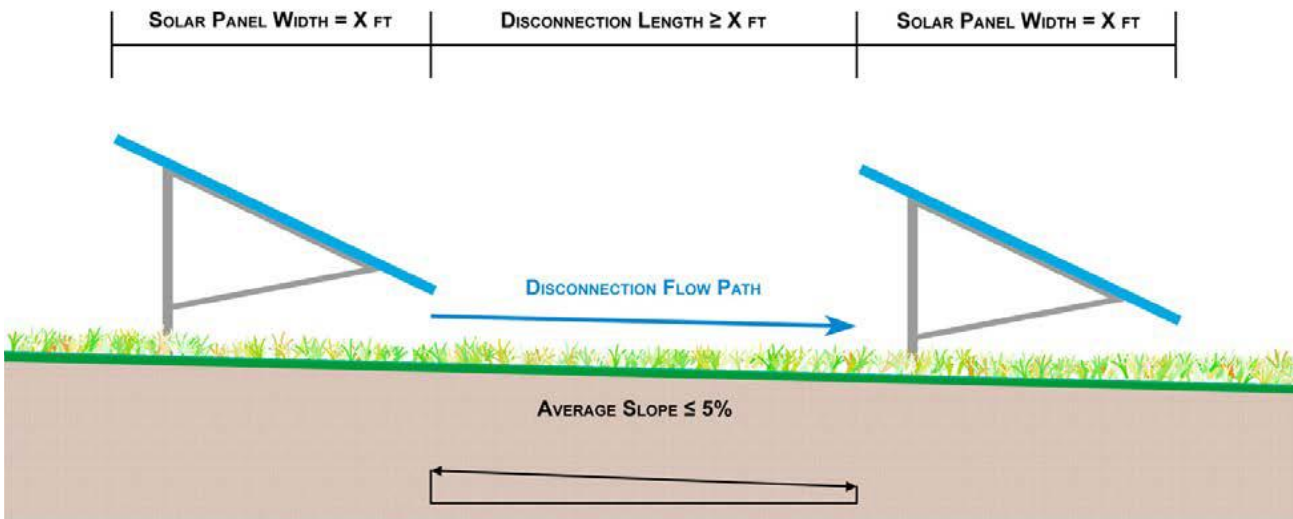
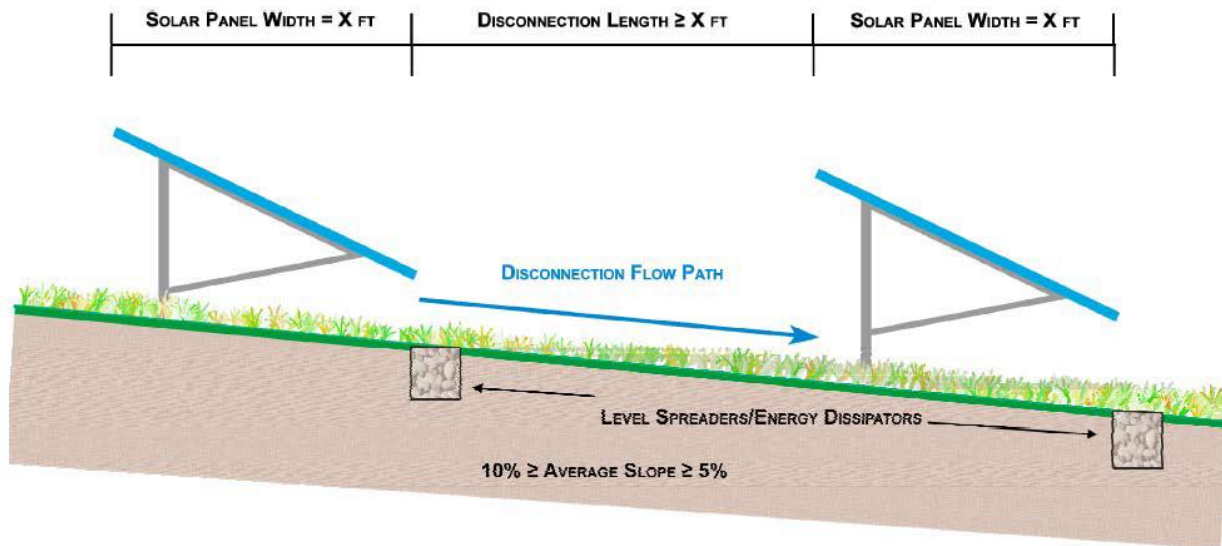


Figure 10-7

Typical Solar Panel Installation with Slopes $> 5\%$ and $\leq 10\%$



Source: Maryland Department of the Environment: Stormwater Design Guidance – Solar Panel Installations



SAMPLE ILLUSTRATION OF WRITTEN NOTIFICATION

The sample illustration of written notification on the following page is designed to help the applicant notify the adjacent property owners of a public hearing as required by Indiana Code 36-7-4-706 and the Putnam County Advisory Plan Commission Rules of Procedure.

The applicant must follow steps 1-3 in order to ensure that the proper written notification is given to the adjacent property owners.

STEPS:

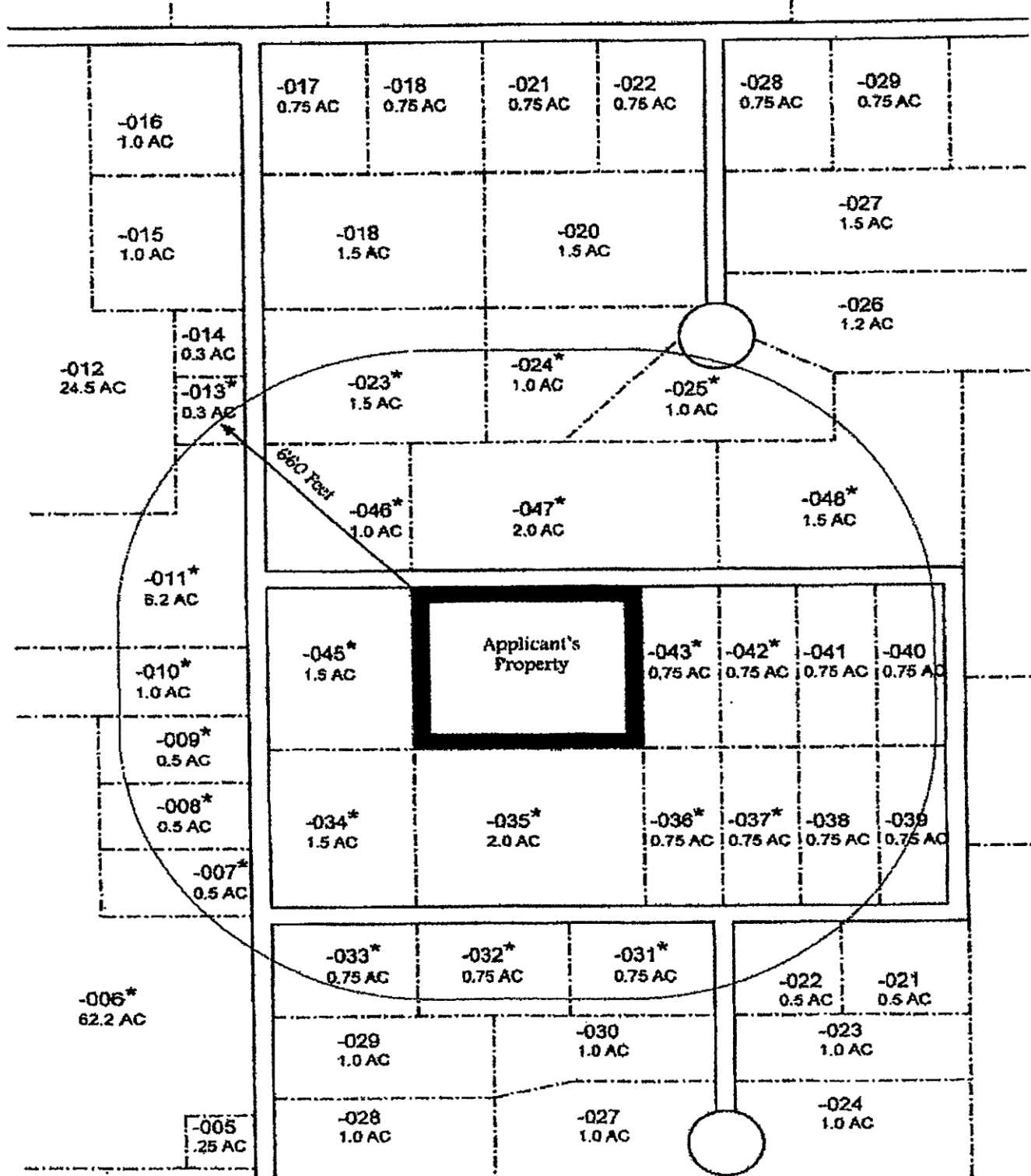
1. Notify all adjacent property owners within six hundred sixty (660) feet of the applicant's property lines or two (2) ownerships deep, whichever comes first. The applicant's property shall include all contiguous parcels that he or she owns. If the applicant's property abuts or includes a county line, the applicant shall follow the above rule of notification into that county.
2. Letters of written notification shall be sent by certified, registered, or first-class mail to the legal property owner. If first-class mail is used, a USPS Certificate of Mailing must be submitted for each letter. The mailing address of legal property owners shall be obtained from the Putnam County Plat Office. For notification into an adjacent county, the applicant shall contact the appropriate county office to secure names and addresses of property owners.
3. The applicant shall submit an Affidavit of Written Notification on the forms available at the Planning & Building Department by the appropriate deadline. Proof of mailing shall be submitted to the Planning & Building Department staff prior to the public meeting.
4. **STATE OR FEDERAL HIGHWAY NOTIFICATION:**
All applications requiring a public hearing by the Advisory Plan Commission or Board of Zoning Appeals must notify the Indiana Department of Transportation as part of the written notification requirements if a state or federal highway is located within six hundred sixty (660) feet.

All applicants should contact INDOT as follows:

ATTENTION: PERMIT DEPARTMENT
Regulatory Department
Indiana Department of Transportation
41 W CR 300 N
Crawfordsville, IN 47933

SAMPLE ILLUSTRATION

* DENOTES ADJACENT PROPERTY OWNERS THAT MUST BE MAILED WRITTEN NOTIFICATION



(This illustration is not drawn to scale)