COHOCTAH PLANNING COMMISSION MEETING

October 02, 2025 at 7:00 PM

Township Hall | Fowlerville, Michigan

The Township will provide necessary reasonable auxiliary aids and services to individuals with disabilities at the meeting upon 72 hour advance notice by contacting Barb Fear, Township Clerk, by email: bfearclerk@gmail.com, phone: (517) 546-0655, or mail: 10518 N Antcliff Rd Fowlerville MI 48836.

AGENDA

CALL TO ORDER

PLEDGE OF ALLEGIANCE

ROLL CALL

APPROVAL OF AGENDA

APPROVAL OF MINUTES

1. 09/04/2025 Planning Commission Meeting Minutes
2. 09/15/2025 Special Planning Commision Meeting Minutes

CALL TO THE PUBLIC

MATTERS PERTAINING TO THE GENERAL PUBLIC

3. Master Plan Public Hearing
4. Application for Land Use Permit - K.Hunt , addition to a dwelling
5. Application for Land Use- R Magdowski- Roof Mount Solar

NEW BUSINESS

6. Data Center and Cryptocurrency Data Mining Ordinance
7. Moratorium Ordinance

UNFINISHED BUSINESS

8. Large Item Day Sat, Oct 4th, 8am to Noon
9. CoHo's Name our Eagles Contest

CALL TO THE PUBLIC

ADJOURNMENT

COHOCTAH PLANNING COMMISSION MEETING

September 04, 2025 at 7:00 PM

Township Hall | Fowlerville, Michigan

The Township will provide necessary reasonable auxiliary aids and services to individuals with disabilities at the meeting upon 72 hour advance notice by contacting Barb Fear, Township Clerk, by email: bfearclerk@gmail.com, phone: (517) 546-0655, or mail: 10518 N Antcliff Rd Fowlerville MI 48836.

MINUTES

CALL TO ORDER

Order was called by Chairperson Buttermore at 7pm

PLEDGE OF ALLEGIANCE – *Moment of Silence*

ROLL CALL

Roll call was taken in attendance were

J.Buttermore

P.Charette

M.Cican

K.Engel

S.Newton

C.Beach

K.Carmack

Quarum was met.

Also in attendance were S.Bronsberg Twp Zoning Admin, Attorneys M. Homier and K.Brown of Foster and Swift

APPROVAL OF AGENDA

Motion to approve agenda as presented was made by Engel, and supported by Newton

Motion passed

APPROVAL OF MINUTES

1. 07/29/2025 PC Special Meeting Minutes

   Motion to approve minutes from 07/29/2025 Special Meeting as presented was made by Charette and supported by Cican

   Motion passed

2. 08/07/2025 PC Meeting Minutes

   Motion to approve minutes from 08/07/2025 Regular meeting was made by Engel and supported by Newton

   Motion passed

3. 08/19/2025 PC Special Meeting Minutes

Motion to approve minutes from 08/19/2025 Special meeting was made by Cican and supported by Engel

Motion passed

CALL TO THE PUBLIC

There were no public comments

MATTERS PERTAINING TO THE GENERAL PUBLIC

Discussed bringing the Name Coho's Eagles contest to close at the regular scheduled October meeting

UNFINISHED BUSINESS

4. Master Plan Public Hearing Date discussion

   Motion was made to have the twp Master Plan Hearing date on the October 2 at 7pm during the regularly scheduled planning commission meeting was made by Charette and supported by Beach

   Motion passed

5. Ranger Power / Headland Solar LLC Special Land Use Application discussion (cont.)

   Due to many questions and concerns still remaining unanswered from Ranger Power/Headland Solar LLC regarding their Special Land Use application in a timely manner, the chairperson Buttermore asked Ranger Power/Headland Solar LLC to extend the deadline for the application. Drew Vielbig from Ranger Power/Headland Solar LLC stated they would not be willing to grant an extension

   It was discussed that many questions would be better answered from a DESRI Representative, as DESRI would take over ownership as soon as the permits were attained and would be the company Constructing and Maintaining the Headland Solar.

   It was discussed that we would have a Joint public meeting with Conway Township Planning Commision at the Conway Township Hall on Tuesday September 9th at 7pm to facilitate a meeting with a Representative from DESRI

   an email would go out to the PC members to verify DESRI could attend

NEW BUSINESS

6. Renewal of Hardship Temporary Mobile Home Permits

   Motion was made to approve the renewal of the Baldur Hardship Temporary Mobile Home Permit until the regular scheduled September 2026 planning commission meeting as presented was made by Charette and supported by Carmack

   Motion passed

   Motion was made to approve the renewal of the Simkus Hardship Temporary Mobile Home Permit until the regular scheduled September 2026 planning commission meeting as presented was made by Charette and supported by Carmack

   Motion passed

CALL TO THE PUBLIC

There was a comment by a resident thanking the planning commission members for the compassion towards fellow residents and that it made them glad to see how the commission handled the Hardship Temporary Mobile Home permits

Another resident commented that the Solar panels are made with a fiberglass coating and after 5 years would disintegrate, and neighbors would breathe it in

Another resident commented that they had been to a solar power seminar and stated that panels only last avg 11.7 years and this would not last as a 30 year project

ADJOURNMENT

Motion to adjourn was made by Newton and supported by Engel

Meeting was adjourned at 8:15pm

COHOCTAH PLANNING COMMISSION
MEETING- SPECIAL MEETING
September 15, 2025 at 5:30 PM
Township Hall | Fowlerville, Michigan

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MINUTES

CALL TO ORDER

PLEDGE OF ALLEGIANCE – *Moment of Silence*

ROLL CALL

Commissioners present were

P.Charrette

K.Carmack

M.Ciccan

K. Engel

C.Beach

S.Newton was absent

Also in attendance were S.Bronsburg, Cohoctah Twp Zoning Administrator, M.Homier and K.Brown ,Cohoctah Twp's Lawyers

Quorum was met

APPROVAL OF AGENDA

Motion was made to approve Agenda as presented by Charette and was supported by Carmack

Motion carried

APPROVAL OF MINUTES

CALL TO THE PUBLIC

There were no public comments

MATTERS PERTAINING TO THE GENERAL PUBLIC

UNFINISHED BUSINESS

1. Review and Discussion of Ranger Power/Headland Solar LLC Special Land Use Application

   The commissioners acknowledged that they all had received and read the Spicer Group Report and the Carlisle/Wortman Report for the Special Land Use and site plan review prepared for them.

   It was acknowledged that there were numerous questions still remained unanswered from Ranger Power/Headland Solar LLC and the DESRI, even after their reply after the Joint Twp Pc Meeting.

2. Adoption of Resolution

a resolution regarding the special land use application submitted by Ranger Power/Headland Solar LLC was discussed. Two small corrections were edited before final submission.

A motion to adopt resolution No. 2025-01 as edited was made by K.Carmack and supported by M.Cican

by roll call vote

P.Charette - Yea

K.Carmack - Yea

J.Buttermore - Yea

K.Engel - Yea

C.Beach - Yea

There were None for Nay

The motion passed

RESOLUTION TO APPROVE WITH CONDITIONS THE SPECIAL LAND USE APPLICATION SUBMITTED BY HEADLAND SOLAR, LLC.

RESOLUTION NO. 2025-01

NEW BUSINESS

CALL TO THE PUBLIC

There were no public comments

ADJOURNMENT

Motion to adjourn was made by M.Cican and supported by K.Carmack

Meeting adjourned at 5:42pm

COHOCTAH TOWNSHIP

PLANNING COMMISSION

RESOLUTION TO APPROVE WITH CONDITIONS THE SPECIAL LAND USE APPLICATION SUBMITTED BY HEADLAND SOLAR, LLC.

RESOLUTION NO. 2025-01

At a meeting of the Planning Commission for the Township of Cohoctah, Livingston County, Michigan, held on the 15th day of September, 2025, at 5:30 p.m.

PRESENT: Buttermore, Charette, Carmack, Beach, Cican, Engel

ABSENT: Newton

The following preamble and resolution were offered by Carmack and seconded by Cican.

WHEREAS, Headland Solar, LLC ("Applicant") filed a special land use application and site plan with Cohoctah Township (the "Township") for a special land use permit construct and operate a utility-scale solar energy facility on the following parcels in the Township:

4702-07-100-002	4702-07-100-003	4702-06-100-015
4702-06-100-007	4702-06-100-004	4702-06-300-001
4702-06-100-003	4702-06-400-001	4702-06-300-002
4702-06-300-006	4702-07-200-005	4702-07-200-006
4702-07-400-009	4702-18-100-002	4702-08-100-002
4702-07-300-005	4702-18-100-009	4702-07-400-005

WHEREAS, application materials (the "Application") were received on April 30, 2025; and

WHEREAS, the Application was prepared by Atwell, LLC on behalf of Headland Solar, LLC; and

WHEREAS, the project's developer is Ranger Power LLC, which has its headquarters in Chicago, Illinois; and

WHEREAS, Ranger Power intends to sell Headland Solar to Desri LLC, that has its offices in New York and Colorado; and

WHEREAS, the required escrow was deposited with the Township on May 28, 2025; and

WHEREAS, the Township via letter on May 30, 2025, informed Headland Solar that the Application was incomplete, requested that all missing materials and information be provided by June 30, 2025, and that when the Application was deemed complete, the 120-day review period would begin (**Exhibit A**); and

WHEREAS, Headland Solar responded to the May 30, 2025 letter on June 25, 2025, representing that the 120-day period began on April 30, 2025 (**Exhibit B**); and

WHEREAS, Public Act 233 requires the Township to "approve or deny the application within 120 days after receiving the application[,]" but "[t]he applicant and local unit of government may jointly agree to extend this deadline by up to 120 days; and

WHEREAS, Headland Solar and the Township later agreed to a 21-day extension (**Exhibit C**), making the Township's "deadline" to approve or deny the application September 18, 2025, to mark 120-days after the escrow was paid; and

WHEREAS, in its June 25 letter, Headland Solar advised that many of the "incomplete or missing" items identified in the Township's May 30, 2025 letter are "either not required under the

Zoning Ordinance, or go beyond requirements of PA 233. . ., and thus will not be provided by Headland Solar" (**Exhibit B**); and

WHEREAS, despite the incompleteness of the Application, the Township continued its review of the limited materials in its possession; and

WHEREAS, the Planning Commission held a duly-noticed public hearing on the Application on July 16, 2025, pursuant to the Zoning Ordinance, the Michigan Zoning Enabling Act, Public Act 110 of 2006 (the "MZEA"), MCL 125.3101 *et seq.*, as amended, and Public Act 233 of 2023 ("PA 233"), MCL 460.1221 *et seq.*; and

WHEREAS, the Planning Commission discussed the Application at regular meetings on July 29, August 19 and September 4, 2025, at special meetings on August 19, 2025, and a joint meeting with the Conway Township Planning Commission on September 9, 2025, called for that purpose; and

WHEREAS, the Planning Commission reviewed the Application together with public comment received and input from expert advisors and consultants in accordance with the Zoning Ordinance, the MZEA, and PA 233; and

WHEREAS, the Planning Commission received the Township Planner's report, prepared by Carisle Wortman & Associates, attached as **Exhibit D**; and

WHEREAS, the Planning Commission received a civil engineering report prepared by Spicer Group, Inc., attached as **Exhibit E**; and

WHEREAS, the Planning Commission received a noise impact analysis of the proposed project, prepared by Darren J. Brown, P.E., of K & S Engineers, LLC, attached as **Exhibit F**; and

WHEREAS, the Planning Commission reviewed the research note, "Potential for leaching of heavy metals and metalloids from crystalline silicon photovoltaic systems," by Seth A.

Robinson and George A. Meindl, published May 28, 2019, in the Journal of Natural Resources and Development, attached as **Exhibit G**; and

WHEREAS, the Planning Commission reviewed Ranger Power's application to the Michigan Public Service Commission ("PSC") for the Acceleration Solar project, proposed to be located in Ingham County; and

WHEREAS, Acceleration Solar's application to the PSC is also prepared by Atwell, LLC;

WHEREAS, the Planning Commission found that the Acceleration Solar application is nearly verbatim, minus specific site details, to the application Headland Solar submitted to Conway Township and Cohoctah Township; and

WHEREAS, in a letter dated August 1, 2025, attached as **Exhibit H**, the PSC informed Acceleration Solar that its application did not comply with the requirements of Section 225(1) of PA 233 and was incomplete; and

WHEREAS, to date, Ranger Power, Atwell, and Acceleration Solar have not submitted additional materials to the PSC requested by that agency; and

WHEREAS, on August 27, 2025, the Planning Commission requested additional written information and answers to written questions from Headland Solar; and

WHEREAS, in a September 3, 2025 response attached as **Exhibit I**, Headland Solar provided some but not all requested additional information, answered multiple questions by stating "This exceeds the requirements of PA 233"; and

WHEREAS, Cohoctah and Conway Townships invited Desri to a joint meeting of the Township Planning Commissions on September 9, 2025; and

WHEREAS, a representative from Desri attended that meeting and afterward submitted written answers to questions posed, attached as **Exhibit J**; and

WHEREAS, pursuant to the authority and responsibility vested in the Planning Commission pursuant to the Zoning Ordinance, the MZEA, and PA 233, the Planning Commission must timely approve, deny, or approve with conditions the application for special use permit; and

WHEREAS, the Planning Commission does not believe that 120 days is sufficient to properly review an application for a utility-scale renewable energy facility, but the Applicant refused an additional request for extension under PA 233; and

WHEREAS, the Planning Commission determines that the conditions and safeguards set forth in this Resolution are necessary for the protection of the health, safety, and welfare of Cohoctah Township residents and to ensure that the intent and objectives of the Zoning Ordinance will be observed; and

WHEREAS, pursuant to Section 13.06 of the Zoning Ordinance and PA 233 upon the fulfillment of the conditions provided below, the Planning Commission finds and concludes that the special land use will:

1. be harmonious with, and in accordance with, the general objectives of the Cohoctah Township Zoning Ordinance; and
2. Will be designed, constructed, operated, maintained and managed so as to be harmonious and appropriate in appearance with the existing or intended character of the general vicinity; and
3. Will be served adequately by essential public facilities and services such as highways, roads, police and fire protection, drainage structures, and refuse disposal, or that the persons or agencies responsible for the establishment of the proposed special use shall be able to provide adequately any such service; and
4. Will not be hazardous or disturbing to existing or future neighboring uses; and

5. Will not create excessive additional requirements at public cost for public facilities, utilities and services; and

WHEREAS, the Planning Commission finds that the conditions provided below endeavor to ensure that the site plan conforms to the requirements of the Zoning Ordinance and PA 233 and simultaneously protects the public health, safety, and welfare.

NOW THEREFORE, the Planning Commission **APPROVES THE APPLICATION WITH CONDITIONS** and directs the Zoning Administrator to approve the site plan and issue a special land use permit, provided the site plan complies with the following conditions. All relevant conditions must be met before any construction or operation may begin and a land use permit shall not issue until such conditions are met. All subsequent owners and/or operators of the project must comply with all conditions imposed on the Applicant.

1. The Applicant must submit an amended Exhibit A-1.1 (Planned Facilities/Project Site Plan) that provides the following information:
    a. drawings clearly delineating the limits of clearing and disturbance for construction of the facility and ancillary features on the Site Plans.
    b. clear depictions of the planned locations of the proposed vegetative buffer, including e.g., labeling individual pollinator seed mixes.
    c. plans demonstrating that the proposed vegetation buffer is equivalent to a greenbelt, as defined by the Zoning Ordinance. The species, caliper/height, spacing of the vegetative screening is required. The buffer must have a minimum width of 15 feet. Screening must be provided along all residential edges.

d. whether setbacks for public roads are measured from the edge of the right-of-way; if not, provide the correct setbacks for public roads from the edge of the right-of-way

e. versions of site plan figures and maps showing boundaries of participating and neighboring non-participating parcels

f. the zoning district in which each participating and abutting non-participating property are located.

g. the total number of structures, units, square feet, gross and usable floor area, carports or garages, employees by shift, the total area involved, the percent of area being developed, the percent of area used for structures, the percent of area left undeveloped and the amount and type of recreational and open space.

h. The name of the public school district(s) serving the project area.

i. Plans for site grading, surface drainage, water supply, and sewage disposal.

j. Location and dimensions of all existing and proposed drives, sidewalks, curb-openings, signs, exterior lighting, curbing, parking areas, parking spaces, unloading areas, easements, and open space recreation areas.

k. an exterior lighting plan, including fixture specification and a photometric layout that complies with Township Dark Sky Standards, including without limitation, lighting that is directed downward, is shielded, and does not cross into adjacent nonparticipating properties.

l. existing landscaping of the project area.

m. topography maps, showing 2-foot contours.

n. a study analyzing the long-term effects of project screening on wildlife in the project area.

o. connections to public utilities by the proposed operations and maintenance building.

p. location of existing overhead lines.

q. pavement width and right-of-way widths of all abutting roads, streets, and easements.

r. underground collection line design details, including without limitation, materials, conduit type, burial method, and protective measures. All collection lines must be installed at a minimum depth of four (4) feet below grade, unless otherwise approved by the Livingston County Road Commission or Drain Commissioner.

s. details regarding utility crossings of county roads, county drains, watercourses, and regulated wetlands. These crossings must be completed using trenchless horizontal methods (e.g., horizontal directional drilling, boring), unless otherwise approved by Livingston County Road Commission, Drain Commissioner, or EGLE.

t. percentage of impervious surface within the project area.

u. size of existing surface water drainage features.

v. size of proposed water quality basins or their outlet specifications.

w. a determination of the increase in runoff due to development in the project area and plans for mitigating the effects of the increased runoff.

x. finished floor and grade elevations for the proposed operations and maintenance building.

y. size and height of all existing and proposed structures.

z. locations of temporary and permanent waste receptacles within the project area.

aa. location and design of any parking areas.

bb. soil characteristics of all participating and adjacent non-participating parcels.

cc. a baseline soil test, including Cation Exchange Capacity.

dd. elevations of existing drainage courses.

ee. an acreage count of total woodlands to be removed

ff. maps depicting 2-foot contour lines.

gg. the location of all temporary laydown yards.

hh. Location of existing and proposed fire hydrants or other water sources for fire suppression and all other fire suppression materials.

ii. Street address numbers, or parcel numbers if a street address is not available, for each sound receptor listed in the sound report.

jj. all existing and proposed easements

kk. an individual and legible final site plan detailing all setbacks, property lines, fences, signs, greenbelts, screening, drain tiles, easements, flood plains, bodies of water, proposed access waters, road routes, where the system will be connected to the power grid.

ll. plans demonstrating that the proposed vegetation buffer is equivalent to a greenbelt, as defined by the ZO. The species, caliper/height, and spacing of the

vegetative screening is required. The buffer must have a minimum width of 15 feet. Screening must be provided along all residential edges.

mm. additional visual simulations that provide a comprehensive depiction of the project from all directions around the project area.

2. The Applicant must submit an amended Exhibit A.1-3 (Explanatory Information) that provides the following information:

   a. a description of the socioeconomic and demographic profiles of the project area and the portion of the community where the project will be sited.

   b. description of the major industries in the project area and the portion of the community where the project will be sited.

   c. justification for how the proposed project location, layout, construction methods, planned screening, etc. minimize visual impacts of the project on adjacent landowners and the broader communities containing the project.

   d. plan to provide exceptional pollinator habitat as determined by the Pollinator Habitat Planning Scorecard by achieving a score of 90 or higher by providing the filled-out version of the Scorecard for the project and associated explanation. As part of the description for achieving a score of 90 throughout the lifetime of the proposed facility, provide the maintenance plan for the vegetation and note if it is compatible with the identified seed mix(es) to be installed. If the final score will not meet the criteria for "exceptional" on the scorecard, provide the reasons why an "exceptional" score is not feasible. In the event an "exceptional" score is not feasible, provide a plan to meet or exceed a score of 76.

e. electrical design details describing how metal fences surrounding substations or other energized equipment will be grounded and bonded in compliance with the National Electric Code (e.g., NEC 2023 Article 250.190). This description must be supported by illustrations of typical grounding details (e.g., grounding rods, bonding jumpers, conductor sizes).

f. assurance that no nonparticipating residences will experience TV or radio interference, and that if such interference occurs, Applicant will correct immediately or as soon as practicable.

3. The Applicant must provide an amended Exhibit A-1.4 (Construction Information) that provides the following information:

   a. the project's soil surveying and testing plans, pursuant to the Natural Resources and Environmental Protection Act ("NREPA"). This may include, but is not limited to:

      i. soil surveying and testing required for permitting, such as Soil Erosion and Sedimentation Control permitting under Part 91 of NREPA.

      ii. soil surveying and testing conducted during environmental site assessments to verify compliance with applicable provisions of NREPA, such as a baseline environmental assessment.

      iii. soil surveying and testing used to inform the project's proposed construction and installation methods.

   b. the project's proposed methods for grading and excavation.

   c. a written description of how the Applicant will address dust control during construction. Such plan, at a minimum, must consist of water applications at

least three times per day unless it has rained in the preceding three hours of the planned application, and chloride application as needed, acceptable to the Livingston County Road Commission

d. Written assurances that the improvements will only occur in the approved areas and that natural resources will not be detrimentally affected or destroyed.

e. Land surveys of participating parcels, to prevent encroachment on adjacent non-participating properties.

f. Detailed project timeline that identifies scope of work and all critical milestones with a successful launch.

g. A traffic study, detailing anticipated traffic counts, peak hours of transport, and types of vehicles anticipated.

4. The Application must provide an amended Exhibit A-1.5 (Alternatives) that provides a map and description of each alternative site location, proposed site layout, or other alternative that was considered for the proposed project but was not ultimately selected for development and provide rationale for why each such alternative was not selected.

5. The Applicant must submit an amended Exhibit A-1.6 that provides the following:

   a. a map and description of each potential modification or variation to the proposed site plan being considered at the time of filing and that will be finalized prior to construction. A description may include conditions that would trigger the change and when those conditions would be known, and the ultimate decision made.

6. The Applicant must submit an amended Exhibit A-1.9 (Emergency Response Plan, or "ERP") that provides the following information:

a. the entirety of the ERP. As submitted, multiple required items are contained elsewhere in the application but not within the ERP itself. In particular, provide an ERP which includes the following omitted items:

   i. evidence of consultation, or a good-faith effort to consult with, local first responders and county emergency managers. Evidence of a good-faith effort to consult with local first responders could include a description of the efforts that were made to initiate consultation. Evidence of consultation includes meeting dates, attendees, and any noteworthy outcomes or revisions to the ERP as a result of such consultation.

   ii. a full list of contingencies (excluding fire) that would constitute a safety or security emergency, including but not limited to, the following items which are discussed elsewhere in the application:

      1. specific types of severe weather events.
      2. personnel (or visitor) health emergencies or injuries
      3. cybersecurity emergencies.
      4. any additional specific contingencies currently not within the ERP.

   iii. specific emergency response measures by contingency, which may include a more complete description of "robust emergency response protocols" (as described in the ERP) for each contingency.

   iv. evacuation control measures for each contingency.

   v. community notification procedures for each contingency.

vi. clear identification on a basic map of the primary approach and departure routes for emergency vehicles, entrance locations, and primary access roads for the project. The ERP notes that access roads will be 12-foot wide, while other application materials note 14-foot access roads; this discrepancy should be clarified.

b. Plans for long-term monitoring and continued mitigation efforts following an emergency.

7. The Applicant must submit an amended Exhibit A-1.10- Fire Response Plan that provides the following information:

a. the location of fire hydrants.

b. the normal routes of fire department vehicle access.

c. for the proposed operations and maintenance building,

i. exits.

ii. primary evacuation routes.

iii. secondary evacuation routes.

iv. accessible egress routes.

v. areas of refuge.

vi. exterior areas for assisted rescue.

vii. refuge areas associated with smoke barriers and horizontal exits.

viii. manual fire alarm boxes.

ix. portable fire extinguishers.

x. occupant-use hose stations.

xi. fire alarm annunciators and controls.

d. a list of major fire hazards associated with the normal use and occupancy of the premises, including maintenance and housekeeping procedures.

e. identification and assignment of personnel responsible for maintenance of systems and equipment installed to prevent or control fires.

f. identification and assignment of personnel responsible for maintenance, housekeeping, and controlling fuel hazard sources.

g. written confirmation of Fowlerville and Howell Fire Departments approval of final access road and gate design prior to construction.

h. written confirmation of Fowlerville and Howell Fire Departments approval that Applicant has agreed to supply all necessary equipment, training, and resources, if local capacity is inadequate.

i. to the extent not covered by the items above, detail regarding the on-site equipment and systems to be provided or to prevent or handle fire emergencies. This description should include equipment and systems in the O&M building, and any other equipment or systems that will be utilized in on-site project areas other than the O&M building.

8. The Applicant must submit an amended Exhibit A-1.14 (Unanticipated Discoveries Plan) that provides anticipated impacts and plans to mitigate impacts to the environment and natural resources, including evidence of all environmental impact assessments referred to in other Application exhibits.

9. The Applicant must submit an amended Exhibit A-6.2 (Environmental Compliance Report) that provides:

a. copies of all permits required for the project, including the permits listed below:

   i. Part 301, Inland Lakes and Streams Permit: Department of Environment, Great Lakes and Energy.

   ii. Part 303, Wetlands Protection Permit: Department of Environment, Great Lakes and Energy.

   iii. Field/Temporary Driveway Permit: Livingston County Road Commission.

   iv. Utility Permit: Livingston County Road Commission.

   v. Stormwater Management Plan Approval: Livingston County Drain Commission.

   vi. Drain Crossing Permit: Livingston County Drain Commission.

   vii. Soil Erosion & Sedimentation Control Permit: Livingston County Drain Commission.

   viii. Utility Crossing Agreement: Michigan Bell Telephone Company.

   ix. Utility Crossing Agreement: DTE.

   x. Utility Crossing Agreement: Consumers Energy Company.

b. the following information:

   i. the expected direct impacts of the facility.

   ii. a complete and exhaustive environmental assessment titled "Environmental Compliance Report" to include all expected direct impacts to the environment and natural resources, with comprehensive supporting evidence specific to the proposed project area. To the extent

alternative project areas were also assessed based on expected direct impacts to environmental and natural resources, that information could also be presented in a similar report.

iii. specific avoidance and/or mitigation strategies proposed based on the expected direct impacts of the project. Further, provide reasonable evidence to demonstrate that the proposed facility will comply with all applicable laws prior to commercial operation date. Such evidence may include identifying applicable laws and permits, and providing a plan for required avoidance and/or mitigation strategies.

iv. describe how the proposed project complies with MCL 324.1705(2). This description should address the following items, and may also include identification of environmental impacts that also involve separate permitting decisions under the purview of other regulatory agencies.

    1. the alleged pollution, impairment, or destruction of natural resources or the public trust in these resources, with supporting evidence; and,
    2. feasible and prudent alternatives consistent with the reasonable requirements of the public health, safety, and welfare.

v. the expected direct impacts of the proposed energy facility on wetlands and waterways (including waterbodies and watercourses); a plan describing how these impacts are proposed to be addressed and/or mitigated; and a statement and reasonable evidence that the proposed

facility will not begin commercial operation until it complies with applicable state and federal law. Include detailed maps and reports of wetlands, waterbodies, and watercourse assessments, and delineation methodology utilized for proposed project area and 1000-ft perimeter.

vi. Describe expected direct impacts to the Blanding's Turtle and a plan describing how these impacts are proposed to be addressed and/or mitigated, with reasonable evidence to support compliance with law.

vii. Bald eagles have been identified in or near the project area. Describe expected direct impacts to this species and a plan describing how these impacts are proposed to be addressed and/or mitigated, with reasonable evidence to support compliance with law.

viii. details regarding seasonal clearing restrictions for bat protection in coordination with USFWS.

ix. the expected direct impacts of the proposed energy facility on cultural and historical resources, including sites; a plan describing how these impacts are proposed to be addressed and/or mitigated; and reasonable evidence that the proposed facility will not begin commercial operation until it complies with applicable state and federal law. A description of the expected direct impacts could include a desktop survey of cultural and historical resources within the project area and an appropriate buffer; and the plan to address and mitigate impacts/reasonable evidence for compliance with law may include a description of the applicant's plan and timeline for completing required field surveying.

Each should be conducted in consultation with the State Historic Preservation Office, or provide a justification for any consultation the applicant deemed not necessary.

x. plans for wildlife corridors within the proposed project area and within 1000ft of the project area. For areas identified, indicate the expected direct impacts of the proposed project and impact mitigation strategies.

xi. a wildlife study analyzing the impact on properties within one mile of the project.

xii. a stray voltage study, compiled following a test conducted on all MDARD registered livestock facilities located within one (1) mile of the participating parcels.

xiii. Documentation of the completed Habitat Scorecard.

10. The Applicant must provide an amended Exhibit A-1.16 (Complaint Resolution Process) that provides:

    a. plans for how complaints related to noise, glare, drainage, and maintenance will be resolved.

    b. procedures for regular reporting of each complaint, and how *each* complaint was resolved.

    c. that signage will include operating manager's contact information.

    d. Form of a written report that will be provided to the Planning Commission and Township Board.

11. The Applicant must provide an amended Exhibit A-2 (Project Description) that provides the estimated percentage of land within Conway and Cohoctah Townships

and Livingston County dedicated to energy generation based on publicly-available data and any other data available to the Applicant. Publicly-available data sources may include the PSC GIS hub to find current solar and wind facilities located within each township and within Livingston County.

12. The Applicant must submit an amended Exhibit A-6.4 (Stormwater Mitigation Plan) that contains

    a. the final design plan and subsequent report detailing:

        i. design of basins.

        ii. Outlet structures.

        iii. Pre-construction inventory/map of existing drain tile.

        iv. Documentation of the first post-construction inspection, prior to commencement and operation.

        v. Best management practices to be used within the project.

        vi. Final approval of all requirements of the project made by the Livingston County Drain Commissioner.

    b. The following information:

        i. include agency consultation details, including date and time the consultation took place, who participated in the consultation, and copies of correspondence listing necessary permits, next steps, and associated timeline for each consultation.

        ii. necessary permits, next steps, and associated timeline to complete those steps for each consultation.

13. The Applicant must provide an amended Exhibit A-13.1 through 13.3 (Decommissioning) that:
    a. provides a description of events that would trigger Applicant-initiated decommissioning.
    b. requires decommissioning after six (6) month abandonment.
    c. confirms the requirement of a demolition permit.
    d. confirms that decommissioning will be performed when soil is dry.
    e. provides physical and chemical analysis of the soil which can be used to ensure soil is returned its original and useful condition for agricultural purposes after decommissioning after decommissioning.
    f. provides that the ground must be restored to its original topography within three hundred sixty-five (365) days of abandonment or decommissioning, and that an extension may be granted if a good faith effort has been demonstrated and any delay is not the result of actions or inactions of the owner/operator.
    g. Provides a decommissioning schedule.
    h. provides commitments with property owners to ensure final reclamation.
    i. An agreement with the Township regarding a decommissioning bond.
14. The Applicant must enter into a community host agreement with Cohoctah Township.
15. The Applicant must provide an amended Exhibit A-1.15 (Participating Parcel List) to include
    a. proof of terminated contracts for PA 116 enrolled properties within the project area.

b. proof that participating parcels have withdrawn any agricultural exemptions to the land.

c. copies of all leases and decommissioning agreements with participating property owners.

16. The Applicant must submit a security plan detailing measures to prevent unauthorized trespass and access during construction, operation, removal, maintenance, or repair of the project.

17. The Applicant must submit a complete operations agreement.

18. The Applicant must submit a complete power purchase agreement.

19. The Applicant must provide a FEIN number.

20. Construction is only permitted between the hours of 7:00 a.m. and 5:00 p.m. with no construction on Saturday, Sunday, or any Michigan or federally recognized holiday.

21. Access roads must be maintained year-round, including winter maintenance, to remain accessible for emergency vehicles.

22. Effective upon the date of this approval, the Applicant must give bi-weekly updates on the project's progress to the Township Board, Planning Commissioners, and Zoning Administrator.

23. Inverters must be installed in a manner that allows for generated sound to be oriented away from nonparticipating residences.

24. The Applicant may consider increasing setbacks where panels and/or inverters will be placed on two or more sides of a nonparticipating parcel. If the setbacks are not increased, the Applicant must provide a written explanation as to why an increase is not possible.

25. Following installation but before operation begins, disturbed areas must be restored to preconstruction grade and construction, with stabilization to prevent erosion, consistent with Part 91 requirements.
26. All removed topsoil must remain on site and be reused in restoration, redistributed consistent with topography maps submitted with the final site plan.
27. After installation, the Applicant must provide as-built drawings showing:
    a. location of all panels and invertors
    b. location, depth, and alignment of all underground collection lines for Township records and emergency response use.
    c. all preserved or relocated drain tiles and drainage improvements.
    d. final grading changes.
    e. dimensions of inverters and other above-ground infrastructure relative to property lines.
28. The Applicant must inspect all drain tiles by means of robotic camera at least once every two (2) calendar years, with the first inspection occurring post-construction but before the project is in operation. Proof of the inspection must be timely submitted to the Township. The Applicant must provide to the Township by November 1 a report of any inspection and repairs performed in that calendar year.
29. The Applicant must remedy any flooding issues caused by the project on nonparticipating parcels.
30. The owner/operator must repair any damage or failure of drain tile within 60 days after notification (weather permitting, but not longer than 120 days) and submit proof of the repair to the Township within 90 days of notification.

31. The Township is entitled, but not required, to conduct an independent inspection of the project with 24 hours' notice, and may be present at inspections caused to be performed by the Applicant.
32. The Applicant must provide an annual report showing continuation of operation.
33. At least annually, the Applicant must conduct a fire drill or training session with the Howell and Fowlerville Fire Departments and obtain approval from each fire department that adequate fire response resources exist.
34. The Applicant must notify the Zoning Administrator if the land use ceases.
35. The Applicant must provide annually to the Zoning Administrator and Township Board a report detailing:
    a. the amount of electric generation.
    b. current proof of insurance, with the Township and participating property owners as named insured. The insurance must be property/casualty insurance and general commercial liability insurance in an amount of at $10 million per occurrence.
    c. verification of financial security.
    d. summaries of complaints.
    e. summaries of extraordinary events.
36. The Applicant must annually appear before the Planning Commission to report on the facility and address questions and concerns.
37. The Applicant must provide complaint logs upon request, that detail all complaints received, the status of complaint resolution, and actions taken in response to complaints.

38. The Applicant must provide full manufacturer documentation prior to construction, for all equipment used in development, including owner's manuals.
39. Mowing must occur in the project area at least three times a year, at least during the spring, summer, and fall.
40. The facility must be kept in good repair, free of waste and hazards.
41. Damaged panels must be replaced within seven (7) days.
42. Maintenance logs must be kept and made available to the Township within forty-eight (48) hours upon request.
43. A performance bond equal to one hundred twenty-five (125%) percent of the highest contractor bid for fencing, landscaping, and drainage improvements shall be provided to the Township.
44. The Township must be notified as soon as possible but no later than within eight (8) hours of any failure, fire, hazardous material release, personal injury, or catastrophic event.
45. The special land use permit is transferable to a new owner only if the new owner registers information with the Township thirty (30) days prior to transfer and maintains all financial security without alteration, consistent with Zoning Ordinance requirements.
46. Any changes to the approved site plan must be submitted to Township staff for review.
47. The Applicant must enter into an agreement to indemnify and hold harmless the Township and any officials, employees, or agents from any costs and liabilities associated with the project.

48. All participating parcels must be in the Renewable Energy Overlay District. The Applicant must successfully petition to rezone all participating parcels to the REO District.

49. All documents submitted in fulfillment of the conditions contained herein must be submitted to the Zoning Administrator, unless otherwise specified, and the Zoning Administrator, with assistance from advisors and consultants as reasonably appropriate, is authorized to administratively confirm that the relevant condition is fulfilled without substantial detrimental impact on the subject matter of the condition.

50. The breach of any condition, safeguard, or requirement shall automatically invalidate the granting of the special approval use.

51. This permit shall be recorded against the subject parcels in the Livingston County Register of Deeds.

52. The Township reserves all rights to enforce the permit and its ordinances to the maximum extent permitted by law.

ACCORDINGLY,

1. A copy of this Resolution shall be available for examination at the office of the Township Clerk, and copies may be provided for a reasonable charge.

2. Any resolutions that conflict with this Resolution are repealed to the extent necessary to give this Resolution full force and effect.

A vote on the above Resolution was taken and was as follows:

ADOPTED:

YEAS: 6

NAYS: 0

STATE OF MICHIGAN)
) ss.
COUNTY OF LIVINGSTON)

I, the undersigned, the duly qualified and acting Secretary of the Planning Commission for Township of Cohoctah, Livingston County, Michigan, CERTIFY that the foregoing is a true and complete copy of certain proceedings taken by the Planning Commission of said Township at a meeting held on the 15th day of September, 2025.

Clint Beach, Planning Commission Secretary

STATE OF MICHIGAN)
) ss.
COUNTY OF LIVINGSTON)

Subscribed and sworn to before me this 16 day of September, 2025 by Clint Beach.

BARBARA FEAR
NOTARY PUBLIC, STATE OF MICHIGAN
COUNTY OF LIVINGSTON
My Commission Expires 09-19-2030
Acting in the County of Livingston

Barbara Fear
Notary Public
County of Livingston, Michigan
Acting In Livingston County, Michigan
My Commission Expires: 9-19-2030

Drafted by and when recorded return to:
Michael D. Homier (P60318)
Foster, Swift, Collins & Smith, P.C.
1700 East Beltline, N.E., Suite 200
Grand Rapids, Michigan 49525
(616)726-2204

88436:00003:201958594-2

EXHIBIT A

May 30, 2025

Mr. Drew Vielbig
Headland Solar, LLC
320 N Sangamon St, Suite 1025
Chicago, IL 60607

Re: Initial Preliminary Site Plan and Special Use Permit Review

Per our ordinance after the special use permit application was received, Cohoctah Township has performed an initial review of the preliminary site plan and special use permit application submitted by Headland Solar, LLC. The Township has determined that the application incomplete.

The required items listed below have been identified are incomplete or missing from the application. The Township reserves the right to amend this list as its review continues and we seek reviews by consultants to advise the Planning Commission.

- *Statistical Data*. Site plan does not appear to include the following required information: total number of structures, total number of units, total square feet, total gross and usable floor area, total carports or garages, employees by shift, the percent of area being developed, the percent of area used for structures, the percent of area left undeveloped. Site Plan does not appear to include the name of the public school district serving the site.

- *Location and Height of Existing and Proposed Structures.* Site plan does not appear to include existing landscaping, greenbelts, separation berms, fences, and walls. Site plan does not appear to include long term effect of the screening.

- *Location and Dimensions; Existing and Proposed Drives, Sidewalks, Etc.* Site plan does not appear to include location and dimensions of all existing and proposed drives, sidewalks, curb openings, signs, exterior lighting, curbing, parking areas, parking space, unloading areas, or easements.

- *Location of Proposed Landscaping.* Site plan does not appear to include existing landscaping, greenbelts, separation berms, fences, and walls. Site plan does not appear to include long term effect of the screening.

- *Size and Location of Existing and Proposed Utilities.* Site plan does not appear to include size of existing and proposed utilities or proposed connections to public sewer or water supply system.

- *Drainage Facilities.* Site plan does not appear to include size of all existing and proposed surface water drainage features. Site plan does not appear to include the percent coverage of impervious surfaces and the means to control storm water flow.

- *Contour Intervals.* Site plan does not reflect two-foot intervals, referenced to USGS datum.

- *Registered Designer.* Application does not appear to contain signatures and/or seals for drawings, engineering estimates and special cost estimates.

- *Traffic Impact.* Application does not appear to include a traffic impact assessment or information specifying why one is not required.

- *Parcels*. At least one easement is not included or recorded.

- *Written emergency response plan*. Emergency Response Plan does not appear to include analysis of whether adequate resources exist to respond to fire and other emergencies. Emergency Response Plan does not appear to include plan to provide those resources, if necessary. Emergency Response Plan does not appear to include plans for immediate cleanup, long-term monitoring, and continued mitigation efforts following an emergency.

- *Fire suppression system*. Application reflects that fire extinguishers will be used but does not appear to include description of manufacturer of the extinguishers, their operation, or their capacity to extinguish fires. Further fire suppression systems do not appear to be discussed.

- *Ground and ariel photographs.* Application does not appear to include physical and electronic copies of current ground and aerial photographs.

- *Purchase power agreement.* Application does not appear to include a purchase power agreement or other written agreement showing approval of an interconnection.

- *Maintenance plan.* Application reflects that applicant has requested drain tile mapping from landowners and the Drain Commissioner. Application does not appear to contain a plan for maintaining and inspecting tiles. Application generally discusses stormwater management and states that project will materially alter stormwater flows but contains no specific mitigation or maintenance plans.

- *Decommissioning*. The decommissioning plan and proposed decommissioning agreement do not appear to provide evidence of proposed commitments with property owners.

- *Transportation plan.* Application does not appear to contain the required transportation plan.

- *Indemnification.* Application does not appear to include required attestations of indemnification.

- *Manufacturer's directions or instructional manual.* Application does not appear to include these materials.

- *Ground cover vegetation establishment and management plan.* Application contains only minimal details that discretionary plans will be made after input from property owners. Application generally references ground cover plans but does not include specific plans or management plan.

- *Proof of environmental compliance*. Application appears to lack proof of compliance with Part 91, Part 301, and Part 303.

- *Groundwater analysis.* Application does not appear to contain groundwater analysis.

- *Boundary survey.* Application does not appear to indicate that the site plan was prepared by a surveyor licensed in the State of Michigan.

- *Interconnection.* Application is unclear regarding exact location of interconnection and how connection will be effectuated.

- *Plans for land clearing and grading.* Application generally references that some grading will be needed but does not include specific plans.

- *Wildlife corridor.* Application does not appear to include wildlife corridor plans.

- *Security plan.* Application does not appear to include a formal security plan.

- *Maintenance plan.* Application does not appear to include a maintenance plan that specifies plans for landscaping upkeep, regular checks, maintenance of equipment (including maintenance schedules and types of maintenance to be performed), decommissioning, and removal.

- *Anticipated construction schedule*. Application does not specify hours of construction, schedule, and completion dates.

- *Sound modeling*. Sound modeling study appears to be missing analysis of sound isolines to property lines.

- *Visual Impact Assessment*. Application does not appear to include a visual impact assessment.

- *Environmental Analysis*. Environmental Compliance Report is vague and conclusory. Author has not yet been approved by the Township. Application appears to lack proof of compliance with Part 91, Part 301, and Part 303.

- *Stormwater Study*. Stormwater mitigation plan lacks required details. Author has not yet been approved by the Township. Solar Array Runoff and Water Quality Compliance memos not included in application.

- *Glare Study*. The glare study is not included in the application.

- *Wildlife impact study*. Environmental Compliance Report or application does not reference wildlife corridors and does not consider impact upon existence of eagles and nests.

- *Soil Study*. Soil study does not appear to discuss Cation Exchange Capacity.

Please provide or clarify the missing information discussed above not later than June 30, 2025. The application will be deemed complete once all required information has been verified as received. If you need an extension to provide the missing information, the Township will agree to such an extension pursuant to Public Act 233 of 2023. If the information is not provided by June 30, 2025, the Township will treat that date as the starting date for its review to either approve or deny the application.
.

Sincerely,

_____
Stephen Bronsberg, Zoning Administrator

_____
Mark Fosdick, Supervisor

88436:00003:201537308-1

EXHIBIT B

Headland Solar, LLC
320 N Sangamon St. #1025
Chicago, IL 60607

June 25, 2025

Cohoctah Township
Attn: Supervisor Mark Fosdick & Zoning Administrator Bronsberg
10518 Antcliff Road
Fowlerville, MI 48836

Re: Initial Preliminary Site Plan and Special Use Permit Review

Supervisor Fosdick,

In response to Cohoctah Township's initial review letter dated May 30, 2025 ("Review Letter") of the preliminary site plan and special use permit applications submitted by Headland Solar, LLC, we offer the below response.

As detailed below with citations to the relevant application materials, most items listed in the Review Letter were provided by Headland Solar with our initial application submission on April 30, 2025. The remainder of the claimed "incomplete or missing" items are either not required under the Zoning Ordinance, or go beyond the requirements of PA 233 (further evidence that the Township has not adopted a CREO), and thus will not be provided by Headland Solar. As we have stated before, our application is fully compliant with Section 226(8).

The Township has now had our application materials for eight (8) weeks. With respect to the Township's assertion that it will treat June 30, 2025 as the starting date for its review, this appears to be either a mistake or further intentional disregard for the requirements of PA 233, which state that the Township has 120 days from the date in which the application is received to issue a decision. As previously confirmed, the Township received Headland Solar's application on April 30, 2025, which triggered the 120-day period for the Township to issue a decision.

Sincerely,

Headland Solar, LLC

Township Request	*Traffic Impact. Application does not appear to include a traffic impact assessment or information specifying why one is not required.*
Headland Response	Refer to Exhibit A-1.3(a)(iv) – "Impacts to Traffic". Refer to the Site Plan in Exhibit A-1.1 for the Proposed Haul Route Plan

Township Request	*Parcels. At least one easement is not included or recorded.*
Headland Response	Refer to Exhibit A-1.6 – Change #8

Township Request	Maintenance plan. Application reflects that applicant has requested drain tile mapping from landowners and the Drain Commissioner. Application does not appear to contain a plan for maintaining and inspecting tiles. Application generally discusses stormwater management and states that project will materially alter stormwater flows but contains no specific mitigation or maintenance plans.
Headland Response	Refer to Exhibit A-1.3(a)(vi) – "Impacts to county and intercounty drains and preliminary plans to minimize, mitigate, and repair drainage issues".

Township Request	Groundwater analysis. Application does not appear to contain groundwater analysis.
Headland Response	The Project will not complete a groundwater analysis as this requirement exceeds the requirements as defined by PA 233.

Township Request	Boundary survey. Application does not appear to indicate that the site plan was prepared by a surveyor licensed in the State of Michigan.
Headland Response	A Boundary survey has not yet been finalized as of the time of this application submittal. A Boundary survey will be provided prior to the commencement of construction.

Township Request	Security plan. Application does not appear to include a formal security plan.
Headland Response	The Project will not complete a security plan as this requirement exceeds the requirements as defined by PA 233.

Township Request	Wildlife impact study. Environmental Compliance Report or application does not reference wildlife corridors and does not consider impact upon existence of eagles and nests.
Headland Response	Refer to Exhibit A-6.2 Refer to Exhibit A-1.3.(a)1.i. - Environmental and Natural Resource impacts

Township Request	*Statistical Data.* Site plan does not appear to include the following required information: total number of structures, total number of units, total square feet, total gross and usable floor area, total carports or garages, employees by shift, the percent of area being developed, the percent of area used for structures, the percent of area left undeveloped. Site Plan does not appear to include the name of the public school district serving the site.
Headland Response	The Site Plan submitted to the Township includes all required information and requirements as defined by PA 233.

Township Request	*Location and Height of Existing and Proposed Structures.* Site plan does not appear to include existing landscaping, greenbelts, separation berms, fences, and walls. Site plan does not appear to include long-term effect of the screening.
Headland Response	Aerial backgrounds are included on all sheets of the Site Plan which contain planned facilities. Refer to the Sheets 01 and 03-25 of the Site Plan in Exhibit A-1.1.

Township Request	*Plans for land clearing and grading.* Application generally references that some grading will be needed but does not include specific plans and indicates that additional study is needed.
Headland Response	Refer to Solar Details & Construction Information on Sheet 30 of the Site Plan in Exhibit A-1.1 for additional details on the grading requirements for proposed project infrastructure. For a complete overview of the stormwater mitigation measures and consultation outcomes, the Preliminary Stormwater Management Plan is available for review in Exhibit A-6.4.

Township Request	*Location and Dimensions; Existing and Proposed Drives, Sidewalks, Etc.* Site plan does not appear to include location and dimensions of all existing and proposed drives, sidewalks, curb openings, signs, exterior lighting, curbing, parking areas, parking space, unloading areas, or easements.
Headland Response	Illustrative details are shown for Access Road Details on Sheet 29 of the Site Plan in Exhibit A-1.1

Township Request	*Location of Proposed Landscaping.* Site plan does not appear to include existing landscaping, greenbelts, separation berms, fences, and walls. Site plan does not appear to include long-term effect of the screening.
Headland Response	Refer to the Proposed Landscape Plan included with the Site Plan in Exhibit A-1.1

	Refer to the Fencing details included with the Site Plan in Exhibit A-1.1

Township Request	*Size and Location of Existing and Proposed Utilities.* Site plan does not appear to include size of existing and proposed utilities or proposed connections to public sewer or water supply system.
Headland Response	The Project does not anticipate usage of any public sewer or water supply system. All existing site elements, such as public roads, known utilities, parcel boundaries, and known easements, are represented based on available spatial data, depicting the approximate locations of relevant components within the Project's footprint. Refer to the Site Plan in Exhibit A-1.1 of this application.

Township Request	*Drainage Facilities.* Site plan does not appear to include size of all existing and proposed surface water drainage features. Site plan does not appear to include the percent coverage of impervious surfaces and the means to control storm water flow.
Headland Response	The Project has implemented a Preliminary Stormwater Management Plan which includes water quality basins and water quality swales designed to the requirements of LCDC. Refer to the Site Plan in Exhibit A-1.1 for the locations of proposed measures, and the Preliminary Stormwater Management Plan in Exhibit A-6.4 for the stormwater design guidance and proposed stormwater improvements. Refer to Summary of Agency Consultation in Exhibit A-4.4 for summary of coordination with LCDC.

Township Request	*Contour Intervals.* Site plan does not reflect two-foot intervals, referenced to USGS datum.
Headland Response	A site plan was prepared for the Project using the latest edition of USGS maps, GIS mapping, and preliminary ALTA surveys and includes all required information and requirements as defined by PA 233.

Township Request	*Registered Designs* Application does not appear to contain signatures and/or seals for drawings, engineering estimates and special cost estimates.
Headland Response	The Site Plan submitted to the Township is preliminary, and therefore, not certified. Details on engineering estimates and special cost estimates are outside of the Project's application requirements as defined by PA 233.

Township Request	*Written emergency response plan.* Emergency Response Plan does not appear to include analysis of whether adequate resources exist to respond to fire and other emergencies. Emergency Response Plan does not appear to include plan to provide those resources, if necessary. Emergency Response Plan does not appear to include plans for immediate cleanup, long-term monitoring, and continued mitigation efforts following an emergency.
Headland Response	Additional coordination between the Project and respective local fire departments is anticipated to ensure adequate resources exist to respond to fire and other emergencies. Refer to Fire Response Plan provided in Exhibit A-1.10 and Emergency Response Plan in Exhibit A-1.9

Township Request	*Fire suppression system.* Application reflects that fire extinguishers will be used but does not appear to include description of manufacturer of the extinguishers, their operation, or their capacity to extinguish fires. Further fire suppression systems do not appear to be discussed.
Headland Response	Additional coordination between the Project and respective local fire departments is anticipated to finalize plans regarding the proposed fire suppression systems for the Project. Refer to Fire Response Plan provided in Exhibit A-1.10 and Emergency Response Plan in Exhibit A-1.9

Township Request	*Ground and ariel photographs* Application does not appear to include videos or photographs.
Headland Response	As required by section C.1.i. of the Township's ordinance, this information will be provided prior to construction.

Township Request	*Purchase power agreement.* Application does not appear to include a purchase power agreement or other written agreement showing approval of an interconnection.
Headland Response	As of the time of this filing, the Project does not have a Power Purchase Agreement. An executed generator interconnection agreement is expected in Q3 of 2025

Township Request	*Decommissioning and land reclamation.* The decommissioning plan and proposed decommissioning agreement do not appear to provide evidence of proposed commitments with property owners.

Headland Response	Details regarding proposed commitments with property owners are confidential. The Project's proposed Decommission Plan is provided in Exhibit A-13.1 of the application and sufficiently addressed the decommissioning requirements as defined by PA 233.

Township Request	*Transportation plan.* Application does not appear to contain the required transportation plan.
Headland Response	Refer to the Site Plan in Exhibit A-1.1 for the Proposed Haul Route Plan.

Township Request	*Indemnification.* Application does not appear to include required attestations of indemnification.
Headland Response	This exceeds the requirements as defined by PA 233 and will not be provided.

Township Request	*Manufacturers directions or instructional manual.* Application does not appear to include these materials.
Headland Response	This exceeds the requirements as defined by PA 233 and will not be provided.

Township Request	*Ground cover vegetation establishment and management plan.* Application contains only minimal details that discretionary plans will be made after input from prope1iy owners. Application generally references ground cover plans but does not include specific plans or management plan.
Headland Response	Refer to the Proposed Vegetation Management Plan included with the Site Plan in Exhibit A-1.1.

Township Request	*Proof of environmental compliance.* Application appears to lack proof of compliance with Part 91, Part 301, and Part 303.
Headland Response	In the event that there are proposed impacts to state regulated floodplains and/or EGLE regulated wetlands, Part 303, 301 and/ or 31 permits would likely be required by EGLE for dredge and fill activities within regulated features. The Project will obtain all necessary EGLE permits prior to impacting regulated features requiring a permit.

Township Request	*Interconnection.* Application is unclear regarding exact location of interconnection and how connection will be effectuated.
Headland Response	The proposed location of the Project's point of interconnection is shown in the Site Plan in Exhibit A-1.1.

Township Request	*Anticipated construction schedule.* Application does not specify hours of construction, schedule, and completion dates.
Headland Response	Refer to Exhibit A-3 for details on Project construction Schedule. Construction activities will be conducted primarily during daylight hours, up to seven days per week. Smaller vehicles for personnel arriving on-site may continue through later hours if needed to maintain the Project's construction schedule.

Township Request	*Sound modeling.* Sound modeling study appears to be missing analysis of sound isolines to property lines.
Headland Response	A sound report, in full compliance with all listed regulations, has been prepared and is available in Exhibit A-1.7.

Township Request	*Visual Impact Assessment.* Application does not appear to include a visual impact assessment.
Headland Response	Refer to the Site Plan in Exhibit A-1.1 and Visual Simulations in Exhibit A-1.3.

Township Request	*Environmental Analysis.* Environmental Compliance Report is vague and conclusory. Author has not yet been approved by the Township. Application appears to lack proof of compliance with Part 91, Part 301, and Part 303.
Headland Response	In the event that there are proposed impacts to state regulated floodplains and/or EGLE regulated wetlands, Part 303, 301 and/or 31 permits would likely be required by EGLE for dredge and fill activities within regulated features. The Project will obtain all necessary EGLE permits prior to impacting regulated features requiring a permit. The Project rejects the claim that the Township must approve the author of such reports prepared by the Applicant.

Township Request	*Stormwater Study.* Stormwater mitigation plan lacks required details. Author has not yet been approved by the Township. Solar Array Runoff and Water Quality Compliance memos not included in application.
Headland Response	The Project rejects the claim that the Township must approve the author of such reports prepared by the Applicant. For a complete overview of the stormwater mitigation measures and consultation outcomes, the Preliminary Stormwater Management Plan is available for review in Exhibit A-6.4.

Township Request	*Glare Study.* The glare study is not included in the application.
Headland Response	Refer to the Glare Study in Exhibit A-1.3 for details. The Glare Study includes a detailed analysis that totals 1028 pages. This detailed analysis was not included in the application. However, upon request, Headland Solar can provide an electronic or hard copy of the full Glare Study that includes the full analysis.

Township Request	*Soil Study.* Soil study does not appear to discuss Cation Exchange Capacity.
Headland Response	A Custom Soil Resource Report has been generated for the Project Area and 1000-foot buffer as well as for the entire Livingston County. Refer to the Soil and Economic Survey Report available in Exhibit A-6.1. The Project will not be completing a baseline soil test including Cation Exchange Capacity (CEC) as this requirement exceeds the requirements as defined by PA 233.

Township Request	*Wildlife corridors.* Application does not appear to consider, address, or plan for wildlife corridors.
Headland Response	Wildlife corridors exist throughout the Project area based on the configuration of the Project's fence and the preservation of existing environmentally sensitive features throughout the project area.

EXHIBIT C

From:	Michael Vogt
To:	Homier, Michael
Cc:	Spendlove, Amanda; Brown, Keith; John A. Weiss
Subject:	RE: Headland Solar - Response to Cohoctah Township Extension Request [IMAN-LEGAL.FID1491205]
Date:	Friday, July 18, 2025 4:34:11 PM
Attachments:	image953262.png image823684.png image869936.png

Confirmed that the same extension is granted for Conway Twp.

Michael Vogt
Member
O:248-631-2070
MVogt@dickinsonwright.com

2600 West Big Beaver, Suite 300, Troy, MI 48084

From: Homier, Michael <MHomier@fosterswift.com>
Sent: Friday, July 18, 2025 4:17 PM
To: Michael Vogt <MVogt@dickinson-wright.com>
Cc: Spendlove, Amanda <ASpendlove@fosterswift.com>; Brown, Keith <kbrown@fosterswift.com>
Subject: FW: Headland Solar - Response to Cohoctah Township Extension Request [IMAN-LEGAL.FID1491205]

Mike,
I was copied on the email below and wanted to inquire whether the same extension will be given to Conway Township. Can you please advise. Thanks.

Michael D. Homier
Shareholder
Foster Swift Collins & Smith PC
1700 East Beltline, N.E., Suite 200
Grand Rapids, MI 49525-7044
Phone: 616.726.2230; 517.371.8120
Mobile: 517.285.4251
Fax: 517.367.7120
mhomier@fosterswift.com
www.fosterswift.com

From: Drew Vielbig <dvielbig@rangerpower.com>
Sent: Friday, July 18, 2025 4:14 PM
To: jessicabuttermore@ymail.com; Mark Fosdick <supervisor@cohoctahtownship.gov>
Cc: Homier, Michael <MHomier@fosterswift.com>

Subject: Headland Solar - Response to Cohoctah Township Extension Request

[CAUTION - EXTERNAL EMAIL] DO NOT reply, click links, or open attachments unless you have verified the sender and know the content is safe.

Hello Mr. Fosdick and Ms. Buttermore,

I am writing to provide Headland Solar's response to the Township's request for a 3-week extension of the 120-day period in which the Township must take action on Headland Solar's application under PA 233. Headland Solar agrees to the requested 3-week extension, which moves the Township's deadline for taking action on Headland Solar's application back from August 28th, 2025 to September 16th, 2025.

With respect to the Township's scheduling of four additional meetings to consider Headland Solar's application, Headland Solar plans to attend the next scheduled meeting on July 29th in order to address the Planning Commission's questions. In addition to the July 29th meeting, Headland Solar will also attend the proposed August 26th meeting where the Planning Commission will vote on Headland Solar's application. If, due to the 3-week extension granted by this email, the Township reschedules the August 26th meeting to another date when the Planning Commission will vote on the application, then Headland Solar will plan to attend that meeting. We would respectfully request advanced notice of any proposed rescheduling of the August 26th meeting so we can confirm that the appropriate Headland Solar representatives are available to attend.

Thank you,

Drew

--

Drew Vielbig
Director of Development | Ranger Power LLC
(517) 819-4059 | drew@rangerpower.com
www.rangerpower.com

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EXHIBIT D

Carlisle | Wortman
ASSOCIATES, INC.
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Date: September 10, 2025

Special Land Use and Site Plan Review
For
Cohoctah Township, Michigan

Applicant:	Headland Solar, LLC
Project Name:	Headland Solar
Plan Date:	April 21, 2025
Parcel Number:	Nineteen (19) various parcels, to be listed and shown on map
Location:	Northwestern corner of Cohoctah Township,
Zoning:	AR, Agricultural Residential
	RD, Resource Development
Action Requested:	Special Land Use, Site Plan Approval

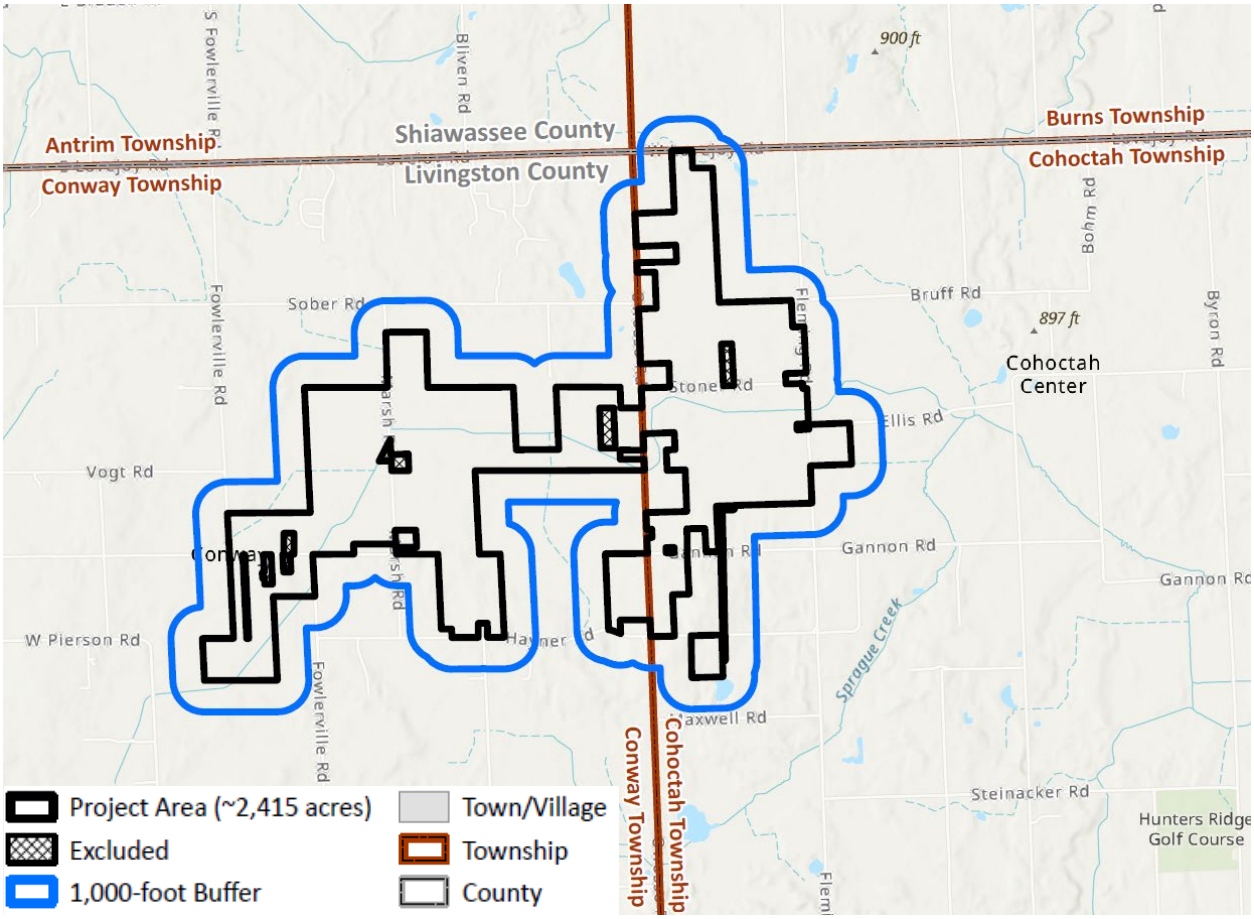
PROJECT AND SITE DESCRIPTION

The Township is in receipt of a site plan and special land use review for a proposed utility scale solar facility in the northwest corner of the Township, spanning over nineteen (19) parcels and encompassing approximately five hundred seventy-two (572) acres of land. The proposed site is zoned between AR, Agricultural Residential and RD, Resource Development. **The current project area is not located within the recently established Solar Overlay District.** Much of the land within the development area consists of farmland, woodland, and open space.

The proposed large solar energy system is described by the applicant as a utility scale solar facility with a capacity of approximately 220 MW of photovoltaic solar panels located within Cohoctah and Conway townships. There are 47 participating parcels owned by 12 private landowners included in the project, totaling approximately 2,415 acres of site area between the two townships with approximately 1,248 acres consisting of fenced in solar panels.

The Project will consist of solar panels and inverters arranged in photovoltaic (PV) arrays. Associated facilities and infrastructure include the Project substation, operations and maintenance building (O&M), gen-tie to point of interconnection (POI), underground electrical cables (collection) to the Project substation, perimeter fencing, landscape screening, water quality basins and swales, county drain improvements, and gravel access roads to each PV array and the Project substation. Construction is expected to begin in 2027, with commercial operation anticipated in 2029.

Figure 1, Project Boundaries



Source: Provided by applicant

LAND USE, ZONING, AND MASTER PLAN DESIGNATIONS

The zoning, land use, and Master Plan designations of the subject site and surrounding properties is provided in Table 1 below:

Zoning, Land Use and Master Plan Designations

Direction	Zoning	Existing Use	Future Land Use
Project Site	• AR, Agri. Residential • RD, Resource Dev.	• Farmland • Open space	• Argi./Residential • River Conservation
North (Burns Twp)	• A-2, Agri. Production/Rural Residential	• Single-family homes • Open space	• Unknown
South	• AR, Agri. Residential	• Single-family homes • Open space	• Argi./Residential
East	• AR, Agri. Residential • RD, Resource Dev.	• Single-family homes • Open space	• Argi./Residential
West (Conway Twp)	• A/R, Agri. Residential • R, Residential	• Single-family homes • Open space	• Argi./Residential

The subject site and the surrounding area are mainly farmland with adjacent rural residential homesteads and occasional woodlands/wetlands. The Future Land Use map classifies the project area as Agricultural/Residential and River Conservation, due to the Cohoctah Union Drain running through a portion of the site. The Agricultural/Residential future land use category is intended to encourage the continuation and further development of agricultural activities while providing opportunities for low-density residential development in areas of significant agricultural resources. The River Conservation future land use category is intended to preserve and protect identified wetlands and waterways from adverse impacts of development.

Items to be Addressed: *Planning Commission to determine project compatibility with surrounding land uses.*

SPECIAL LAND USE REVIEW STANDARDS

Before a site plan can be fully approved by the Township, the project must first gain special land use approval to ensure compatibility with the surrounding area. Section 13.06 lists the review standards all special land uses within the Township must satisfy:

A. Will be harmonious with and in accordance with the general objectives, intent and purposes of this Ordinance.

CWA Comment: *The intent of the AR and RD Districts are as follows:*

AR - "Provide for the compatible arrangement and development of parcels of land for residential building purposes in a pastoral, agricultural, woodland or open land setting, which will remain unserved by public water distribution and wastewater disposal systems in the foreseeable future"

RD - "provide for the arrangement of land uses that are compatible with the conservation and preservation of large tracts of land presently having a most desirable natural environment, which should not be disturbed except minimally, for natural habitat for wildlife, native flora, natural water features, including extensive wetlands and high water table soils, and other extensive land uses which retain the natural character of the area."

The proposed development will remain unserved by public water and sewer, utilizing open farmland with minimal tree removal. The project will also be required to receive any and all outside agency approval regarding compatibility and preserving surrounding natural features.

B. Will be designed, constructed, operated, maintained and managed so as to be harmonious and appropriate in appearance with the existing or intended character of the general vicinity.

CWA Comment: *Preliminary plans indicate minimal tree clearing will take place as part of the project, with the proposed solar arrays being proposed in already open areas/farmland. Landscaped greenbelts are also proposed in areas that are not currently screened near residential properties. Additional details will be required during site plan review.*

C. Will be served adequately by essential public facilities and services such as highways, roads, police and fire protection, drainage structures, and refuse disposal, or that the persons or agencies responsible for the establishment of the proposed special use shall be able to provide adequately any such service.

CWA Comment: *The project will be accessible via Owosso and Fleming Road and will be served by the Fowlerville Area Fire Department and Howell Area Fire Authority. Any solid waste generated by the facility will be handled and disposed of in a manner that complies with applicable environmental regulations as stated by the applicant.*

D. Will not be hazardous or disturbing to existing or future neighboring uses.

CWA Comment: *The proposed solar arrays are shown to be at least three hundred (300) feet and screened from nearby residential uses, with little traffic occurring on site, that of which consists of routine maintenance and inspection by project staff. The applicant should provide an anticipated traffic report regarding impacts to local traffic during construction.*

E. Will not create excessive additional requirements at public cost for public facilities, utilities and services.

CWA Comment: *We are of the opinion that the proposed project will not create excessive public costs for the Township and its residents.*

Items to be Addressed: *Planning Commission to determine project compatibility with special land use criteria.*

SPECIFIC USE STANDARDS

Section 13.27(C)(2), Solar Energy Systems outlines specific standards for utility scale solar energy systems in applying for special land use and site plan approvals. The following information is required in review of the Special Land Use application:

1. The name of the applicant, any parent company, subsidiary of the parent company, along with any "doing business as" of the parent company.

CWA Comment: *The name of the applicant as indicated on the submitted special land use application is Headland Solar, LLC. There is no indication of a parent company, subsidiary, or any "doing business as" names indicated.*

2. Application fee in an amount set by resolution or fee schedule approved by the Township Board.

CWA Comment: *The application fee set by resolution or fee schedule by the Township Board was provided.*

3. A list of all parcel numbers that will be used by the Utility-Scale Solar Energy System including applicable attachments, establishing ownership of each parcel, with all lease agreements, easements, or purchase agreements for the subject parcels. All agreements related to the use of the subject parcels must be recorded with the Livingston County Register of Deeds.

CWA Comment: *Exhibit A-1.15 provides a list of all participating parcels for the project.*

4. An operations agreement setting forth the operations parameters, the name and contact information of the certified operator, the applicant's inspection protocol, emergency procedures, and general safety documentation.

CWA Comment: *An emergency response plan has been included in exhibit A-1.9 which outlines emergency procedures. Contact information for the site operator does not appear to be included. An operations agreement between all affected parties should be provided.*

5. **A written emergency response plan detailing the applicant's plan for responding to emergencies, including fire emergencies, and analyzing whether adequate resources exist to respond to fires and other emergencies. If adequate resources do not exist, the applicant must identify its plan for providing those resources.**

   CWA Comment: *An emergency response plan has been included in exhibit A-1.9. The plan indicates the applicant will provide equipment, resources, and training to ensure adequate resources are available in the event of an emergency. The applicant has also stated, "additional coordination between the Project and respective local fire departments is anticipated to ensure adequate resources exist to respond to fire and other emergencies." Additional information that is needed includes an analysis of whether adequate resources exist to respond to fire and other emergencies, a plan to provide those resources, plans for immediate cleanup, long-term monitoring, and continued mitigation efforts following an emergency.*

6. **A written description of the fire suppression system that will be installed, which must identify the manufacturer of the fire suppression system and generally describe its operations and capacity to extinguish fires.**

   CWA Comment: *Exhibit A-1.10 contains a fire response plan. The plan states, "the operations and management (O&M) building will be equipped with appropriate fire prevention and response systems to address potential fire emergencies. This includes the provision of fire extinguishers and other necessary equipment designed to extinguish small or incipient fires effectively." The manufacturer of the fire suppression system does not appear to be provided. We defer further review of the fire response plan to the Fowlerville Area Fire Department and Howell Area Fire Authority.*

7. **Current ground and aerial photographs of the participating property, in both a physical and electronic copy of the photographs.**

   CWA Comment: *Aerial photographs are overlayed onto the site plan. Physical copies should also be provided.*

8. **A copy of the applicant's power purchase agreement or other written agreement, with any exhibits or attachments thereto, with an electric utility showing approval of an interconnection with the proposed Utility-Scale Solar Energy System.**

   CWA Comment: *A note from the applicant states, "as of the time of this filing, the Project does not have a Power Purchase Agreement. An executed generator interconnection agreement is expected in Q3 of 2025." Proof of such agreement should be presented prior to final site plan approval.*

9. **A written plan for maintaining the subject property, including a plan for maintaining and inspecting drain tiles and addressing stormwater management.**

   CWA Comment: *A dedicated maintenance plan does not appear to be provided. We ask the applicant to provide additional information regarding typical maintenance activities.*

10. **A decommissioning and land reclamation plan describing the actions to be taken following the abandonment or discontinuation of the Utility-Scale Solar Energy System, including evidence of proposed commitments with property owners to ensure proper final reclamation, repairs to roads, and other steps necessary to fully remove the Utility-Scale Solar Energy System and restore the subject parcels.**

    CWA Comment: *A decommissioning plan has been provided in exhibit A-13.1. Proposed commitments to property owners does not appear to be provided.*

11. **Financial security in the manner of an escrow account funded at $25,000.00 with a statement that those funds are to be used pursuant to this Ordinance. The escrow fee must be deposited with the Township in cash. The applicant must replenish the escrow account if it has less than $5,000.00 in it in the amount of estimated outstanding costs. Failure to replenish the escrow account will result in the Township suspending the processing or finalizing of the application.**

    CWA Comment: *An escrow has been provided to the Township.*

12. **A plan for resolving complaints from the public or other property owners concerning the construction and operation of the Utility-Scale Solar Energy System.**

    CWA Comment: *Exhibit A-1.16 provides an overview of the complaint resolution process, which includes filing procedures and a sample complaint form.*

13. **A plan for managing any hazardous waste.**

    CWA Comment: *A dedicated plan does not appear to be provided. The project narrative provides the following information: "Waste and hazardous materials will be collected and stored in proper storage containers at the O&M building on-site prior to disposal. Waste that cannot be recycled will be transported to an approved landfill facility. Recyclables, such as metals, glass, plastics and paper products will be taken to certified recycling facilities. Any materials deemed hazardous will be managed according to applicable environmental regulations, with the involvement of certified hazardous waste disposal companies."*

14. **A transportation plan for construction and operation phases, including any applicable agreements with the Livingston County Road Commission and Michigan Department of Transportation.**

    CWA Comment: *A haul route plan is shown on sheet 26 of the current site plan, however more information anticipated traffic counts, peak hours of transport, and types of vehicles anticipated should be provided. Roads that are shown to be used include but are not limited to Fowlerville, Hayner, Flemming, Owosso, Lovejoy, and Stoner Roads. All roads mentioned fall under the jurisdiction of the Livingston County Road Commission.*

15. **An attestation that the applicant will indemnify and hold the Township, and its elected and appointed officials, harmless from any costs or liability arising from the approval, installation, construction, maintenance, use, repair, or removal of the Solar Energy System. The Township shall be named as an additional insured for such indemnity under C.23.**

    CWA Comment: *Documentation for the above requirement has not been provided.*

16. **A copy of the manufacturer's directions or instruction manual for installing, maintaining, and using the Utility-Scale Solar Energy System.**

    CWA Comment: *Documentation for the above requirement has not been provided.*

17. **A ground cover vegetation establishment and management plan that complies with this ordinance.**

    CWA Comment: *A vegetation plan is provided on sheet 25, which outlines the locations that will be seeded with short pollinator mix.*

18. **Proof of environmental compliance, including compliance with Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act; (MCL 324.3101 et. seq.; Part 91, Soil Erosion and Sedimentation Control (MCL 324.9101 et. seq.) and any corresponding County ordinances; Part 301, Inland Lakes and Streams, (MCL 324.30101 et. seq.); Part 303, Wetlands (MCL 324.30301 et. seq.); Part 365, Endangered Species Protection (MCL324.36501 et. seq.); and any other applicable laws and rules in force at the time the application is considered by the Township.**

    CWA Comment: *The applicant has indicated all applicable permits required by the listed acts above will be obtained. We ask the applicant to provide copies of all obtained permits as they are granted.*

19. **A groundwater analysis of all parcels in the participating property.**

    CWA Comment: *Documentation for the above requirement has not been provided.*

20. **Any additional information or documentation requested by the Planning Commission, Township Board, or other Township representative.**

    CWA Comment: *We encourage the Township Planning Commission, Board, and representatives to work with the applicant to determine if any additional information is needed.*

Items to be Addressed: *Planning Commission to determine if specific special land use standards have been met.*

SITE PLAN REVIEW

AREA, HEIGHT, SETBACKS

Area, height, and setback requirements applicable to the project are outlined below:

	AR Requirement	RD Requirement	Proposed	Meets Requirement
Lot Area (min)	20 Acres	20 Acres	572 Acres	Yes
Lot Width (min)	200 Feet	200 Feet	200+ Feet	Yes
Max. Lot Coverage	20%	20%	Not Provided	No
Building Height	35 Feet	35 Feet	25 Feet	Yes*
Front Setback	50 Feet	50 Feet	50 Feet	Yes
Side Setback	20 Feet	20 Feet	50 Feet	Yes
Rear Setback	50 Feet	50 Feet	50 Feet	Yes

*The project narrative states the maximum height of all proposed arrays and structures will not exceed twenty-five (25) feet.

Items to be Addressed: *Provide lot coverage calculations.*

NATURAL RESOURCES

Topography:	Existing topography is relatively level. The property has been historically used for farming.
Woodlands:	Sparse woodlands are located on site, on the northern and southern portions of the site.
Wetlands:	Two (2) separate wetland areas regulated by EGLE are present on the northern and southern portions of the site. Exhibit A-6.2 indicates the applicant is currently in coordination with EGLE to obtain all necessary permits for construction near the wetland areas.
Soils:	Soils information has been provided as part of the site plan submittal. This information can be found in exhibit A-6.1. The applicant has indicated a SESC permit with Livingston County will be obtained before construction.

Items to be Addressed: *Planning Commission to determine project compatibility with surrounding natural resources.*

BUILDING LOCATION AND SITE ARRANGEMENT

Site arrangement consists of solar arrays and subsequent facilities throughout the project area that meet all bulk setback requirements.

Items to be Addressed: *None.*

ESSENTIAL FACILITIES

Notes on sheet 30 indicate water and sanitary sewer services are not anticipated for the project. A stormwater mitigation plan has been provided in exhibit A-6.4, for which we defer further review to the Township Engineer and Livingston County Drain Commission during final site plan review.

Items to be Addressed: *Review of essential services and stormwater management by Township Engineer.*

PARKING, LOADING

No parking or loading facilities are required as the project area is not open to the public and will only be accessed for maintenance and upkeep purposes.

Items to be Addressed: *None.*

SITE ACCESS AND CIRCULATION

A total of seven (7) access points and gravel service drives will serve the facility and are found along Owosso Road (3) and Fleming Road (4). All access drives shall be subject to Livingston County Road Commission approval as appropriate and shall be planned to minimize the use of land for that purpose.

Multiple notes on sheet 30 indicate compliance with Ingham County Road Commission requirements and will need to be revised to show Livingston County Road Commission.

Items to be Addressed: *1) Obtain LCRC approval of proposed access drives. 2) Change note 18 on sheet 30 to "Livingston County Road Commission.*

LIGHTING

Exhibit A-11 states no exterior lighting is proposed within the solar array areas, and will only include permanent lighting at the project substation and operations and maintenance building. The project narrative also states all proposed lighting will be down shielded. Fixture details of proposed lighting is shown on sheet 27. We ask the applicant to provide the location of all proposed fixtures during site plan review.

Items to be Addressed: *Provide all lighting fixture locations.*

SIGNS

The project narrative indicates signage for the project will be limited to safety and contact information provided at all entry gates and points of access. Project signage will include the manufacturer or installer's identification, appropriate warning signs, emergency contact information, operator contact information, and complaint resolution information.

Items to be Addressed: *Provide all signage locations.*

FLOOR PLAN AND ELEVATIONS

No buildings are proposed as part of the project.

Items to be Addressed: *None.*

STANDARDS FOR SITE PLAN REVIEW

Section 20.09 describes the standards the Planning Commission shall review for each individual site plan and make findings of fact relative to the following criteria:

A. ***Preservation of Natural Environment.*** **Existing conditions of the natural environment shall be preserved in their natural state, insofar as practicable, by minimizing tree and soil removal, and any grade changes shall be in keeping with the general appearance of adjacent and surrounding uses and development.**

CWA Comment: *As listed in exhibit A-6.2, Environmental Compliance Report, the project will implement a Soil Erosion and Sedimentation Control (SESC) Plan and best management practices (BMPs) to minimize adverse effects on soil and water quality during construction and will obtain a SESC permit with Livingston County before construction. Exhibit A-1.3, Minimize, Mitigate, and Repair Plan states existing natural areas will be maintained with limited grading. A grading plan should be submitted to the Township Engineer for additional review.*

B. ***Relations of Proposed*** **Land, *Building and Structural* Uses *to Environment.*** **Proposed uses and structures shall be related harmoniously to the natural environment and to existing uses and structures in the vicinity that have a visual relationship to the proposed development. The achievement of such relationship may include the enclosure of space in conjunction with**

existing uses and structures or other proposed uses and structures and the creation of special arrangements and focal points with respect to functional areas, avenues of approach, terrain features or other structures.

CWA Comment: *The majority of the project site will consist of solar arrays, with supporting inverters and a planned DTE substation and ITC switchyard, with both indicated to be part of separate applications. The planned locations for most solar arrays, substation, and switchyard are currently open farmland. We ask the applicant to provide an acreage count of total woodlands to be removed as part of the project.*

C. ***Drives, Parking and Circulation.*** **Vehicular and pedestrian circulation, including walkways, interior drives and parking, special attention shall be given to location and number of access points, general interior circulation, separation of pedestrian and vehicular traffic, and arrangement of parking areas that are safe and convenient and, insofar as practicable, do not adversely affect the design of proposed land, buildings and structures and adjacent and surrounding development areas.**

CWA Comment: *The solar facility will not be open to the public, as a result no pedestrian circulation is anticipated. A total of seven (7) access points and gravel service drives will serve the facility and are found along Owosso Road (3) and Fleming Road (4). Due to the private nature of the project and minimal traffic generation, we are of the opinion that proposed site circulation is adequate. Proposed site circulation should be reviewed by the Township Engineer, Fowlerville Area Fire Department, and Howell Area Fire Authority to ensure adequate emergency access is provided.*

D. ***Surface Water Drainage.*** **Special attention shall be given to proper site surface drainage so that the flow of surface waters will not adversely affect adjacent and surrounding properties or the public storm drainage system. If practical, stormwater shall be removed from all roofs, canopies and paved areas and carried away in an underground piped drainage system. Surface water in all paved areas shall be collected at intervals so that it will not obstruct the flow of vehicular or pedestrian traffic, and will not create impounded water on the paved areas.**

CWA Comment: *Exhibit A-1.3, Minimize, Mitigate, and Repair Plan states multiple stormwater runoff measures are proposed. These include converting crops to meadows with gravel drives with limited site grading. Increased site setbacks from adjacent properties will also be used for additional runoff capture space and filtration. Multiple drainage basins are also proposed throughout the site.*

E. ***Utility Service.*** **Electric power and telephone distribution lines shall be underground. Any utility installations remaining aboveground shall be located so as to have a harmonious relation to adjacent properties and the site. The proposed method of sanitary sewage disposal from all buildings shall be indicated. All utility installation shall be carried out in accordance with the Standard Rules and Regulations of current adoption of the Michigan Public Service Commission.**

CWA Comment: *No telephone distribution lines are anticipated for this project. The project narrative included in the submittal package indicates an executed generator interconnection agreement is expected to be finalized in Q3 2025. The current site plan indicates overhead transmission lines are proposed between two of the nineteen (2/19) parcels to connect to a proposed International Transmission Company (ITC) switchyard. The transmission lines will need to be buried underground and will be further reviewed in the specific site plan review section of this report.*

F. ***Advertising Features.*** **The size, location and lighting of all permanent signs and outdoor advertising structures or features shall be consistent with the requirements of Article XIX, "Sign Regulations."**

CWA Comment: *No advertising signs are proposed for the project. Per the applicant, "Signage for the Project will be limited to safety and contact information to provide the public with general information related to the facility and will be installed at all gates and other points of ingress and egress. Project signage will include the manufacturer or installer's identification, appropriate warning signs, emergency contact information, operator contact information, and complaint resolution information."*

G. ***Special Features.*** **Exposed storage areas, exposed machinery installations, service areas, truck loading areas, utility buildings and structures, and similar accessory areas and structures shall be subject to such setbacks, screen plantings or other screening methods as shall reasonably be required to prevent their being incongruous with the existing natural and developed environment of adjacent and surrounding properties.**

CWA Comment: *All solar arrays are shown to be at least three hundred (300) feet from any residential structure. The proposed landscaping plan also demonstrates new greenbelt screening will be installed where there is not already existing screening between non-participating parcels. Property line setbacks will be further evaluated in the specific site plan review section of this report.*

H. ***Additional Requirements.*** **All other standards and requirements of this Article must be met by site plans presented for review, including but not limited to:**

1. **That the proposed development conforms to all regulations of the zoning district in which it is located.**

   CWA Comment: *The proposed development meets all zoning district dimensional requirements. We emphasize that while the project meets the bulk requirements of the zoning districts, the districts currently do not allow utility scale solar projects as a permitted or special use.*

2. **That the plan meets the specifications of Cohoctah Township or Livingston County for fire and police protection, water supply, sewage disposal or treatment, storm drainage, and other public facilities and services, and has been approved by all appropriate State and Local authorities or their approval has been assured.**

   CWA Comment: *We defer further review of the topics above to their respective authorities.*

3. **That soils not suited to development will be protected or altered in an approved manner as determined by the Planning Commission.**

   CWA Comment: *Planning Commission to determine if soils on site will be preserved/altered in an effective manner.*

4. **That the proposed development will not cause soil erosion or sedimentation problems.**

   CWA Comment: *We defer further review of these matters to the Livingston County Drain Commission.*

5. **That the proposed development properly respects floodways and/or floodplains on or in the vicinity of the subject property.**

   CWA Comment: *We defer further review of these matters to the Michigan Department of Environment, Great Lakes, and Energy (EGLE).*

6. **That outside lighting will not adversely affect adjacent or neighboring properties or traffic on adjacent streets.**

   CWA Comment: *The applicant has indicated they will avoid over-lighting and unnecessary lighting in areas where it is not required throughout the project. The project will not require exterior lighting within the PV array and will include permanent lighting at the project substation and operations and maintenance (O&M) building. Per section 20.07(B)(5), the location of all exterior lighting fixtures will need to be shown on plans.*

7. **That outdoor storage of garbage and refuse is contained, screened from view, and located so as not to be a nuisance to the subject property or neighboring properties.**

   CWA Comment: *Per the applicant, "Waste and hazardous materials will be collected and stored in proper storage containers at the O&M building on-site prior to disposal. Waste that cannot be recycled will be transported to an approved landfill facility. Recyclables, such as metals, glass, plastics and paper products will be taken to certified recycling facilities. Any materials deemed hazardous will be managed according to applicable environmental regulations, with the involvement of certified hazardous waste disposal companies. The Project will require public solid waste management or municipal waste disposal services at the Project's O&M building. Any waste or debris generated during the construction of the Project will be hauled off-site and deposited in appropriate waste facilities."*

8. **That grading or filling will not destroy the character of the property or the surrounding area and will not adversely affect the adjacent or neighboring properties.**

   CWA Comment: *The applicant has stated minor and localized site grading will occur for the installation of the solar arrays, access roads, and staging areas. As stated previously, a dedicated grading plan will be required for Township Engineer review.*

9. **That the plan meets the standards of other government agencies, where applicable, and that the approval of these agencies has been obtained or is assured.**

   CWA Comment: *Exhibit A-4.4 outlines the various permits needed and the current status of obtaining them. If site plan approval is granted, we ask the applicant to continue providing updates as permits are obtained.*

10. **That the plan provides for proper expansion of existing public streets serving the site, where applicable.**

    CWA Comment: *No public roads will require expansion to serve the site.*

11. **That all phased developments are ordered in a logical sequence so that any individual phase will not depend in any way upon a subsequent phase for adequate access, public utility services, drainage or erosion control.**

    CWA Comment: *The applicant should clarify to the Planning Commission that each stage of construction is planned in order to ensure it is completed in a timely manner. The remaining project schedule is provided below by the applicant.*

Interconnection Agreement Executed	4Q 2025	Expected
Electrical Underground	3Q 2027	Expected
Discretionary Permits Secured	3Q 2026	Expected
Financing Secured	3Q 2027	Expected
EPC Contract Executed	3Q 2027	Expected
Construction Start	3Q 2027	Expected
Delivery & Installation of Main Power Transformer	2Q 2028	Expected
Energization for Interconnection	2Q 2029	Expected
Start Up Testing	2Q 2029	Expected
Commissioning & Regulatory Testing	2Q 2029	Expected
Commercial Operation Date	2Q 2029	Expected

I. ***Landscaping, Screening Requirement.*** **The Planning Commission may further require landscaping, fences and walls in pursuance of these objectives and same shall be provided and maintained in accord with any use to which they are appurtenant.**

CWA Comment: *The applicant has indicated that landscape screening will be installed where it is currently lacking, as well as working with adjacent property owners to install screening measures they are comfortable with. We encourage the Planning Commission to bring forward its desired screening measures for the applicant to implement. At the minimum, all proposed landscaping should meet required greenbelt and screening requirements of the zoning ordinance.*

J. ***Screening Specification for Development.*** **The Planning Commission shall have some latitude in specifying the walls, fences, greenbelts as they apply to a phased development if the particular phase of development and construction work is far enough removed from adjacent properties to afford the screening, etc., as otherwise required.**

CWA Comment: *As mentioned above, we encourage the Planning Commission to work with the applicant to determine the best method of screening to be used throughout the project site.*

K. ***Site Clearing.*** **Adequate assurances are received so that clearing the site of topsoil, trees and other natural features before the commencement of building operations will occur only in those areas approved for the placement of physical improvements.**

CWA Comment: *We ask the applicant to provide any additional information to the Planning Commission regarding the clearing of resources.*

L. ***Retention of Flood and Other Bodies of Water.*** **The development will not substantially reduce the natural retention storage capacity of any watercourse, thereby increasing the magnitude and volume of flood at other locations.**

CWA Comment: *A stormwater mitigation plan has been provided in exhibit A-6.4. We defer further review of flood retention to the Township engineer.*

M. ***Soil and Subsoil Conditions.*** **The soil and subsoil conditions are suitable for excavation, and site preparation and the drainage is designed to prevent erosion and environmentally deleterious surface runoff.**

CWA Comment: *We defer further review of soil suitability, drainage, and additional criteria to EGLE, Livingston County Drain Commission, and any additional outside agencies.*

N. ***Preservation of Natural Features.*** **The development will not detrimentally affect or destroy natural features such as ponds, streams, wetlands, hillsides or wooded areas, but will preserve and incorporate such features into the development's site design.**

CWA Comment: *The majority of the project will occur in currently open farmland. Based on the landscape plan on sheet 24 indicates only a small portion of existing woodlands will be removed. The acreage count of woodlands to be removed should be provided.*

O. ***Location of Natural Features.*** **The location of natural features and the characteristics of site topography have been considered in the designing and siting of all physical improvements.**

CWA Comment: *As mentioned above, the project site has sited the majority of solar panels on open farmland.*

Items to be Addressed: *Planning Commission to determine if all general standards applicable to site plan review have been met.*

SPECIFIC SITE PLAN REVIEW REQUIREMENTS

Section 13.27(C), Utility-Scale Solar Energy Systems outlines the specific site plan requirements for utility scale solar facilities locating within the Township. Our comments related to each item are listed below.

3. Site Plan Application Requirements:

a. ***Contents of Site Plan*****. In addition to the requirements in Article 20, the applicant must provide a boundary survey by surveyor licensed in the State of Michigan of the project and a detailed site plan draft to a scale of 1" = 200 feet with the following:**

1. Location of all existing and proposed dwellings, structures, panels, equipment, electrical tie lines, transmission lines, transformers, inverters, substations, security fencing, and all other components of the Utility-Scale Solar Energy System within the participating

property and all dwellings and/or structures within 1000 feet of the property lines of the participating property.

CWA Comment: *Sheets 6-14 are shown at a scale of 1" = 200 feet depicting the proposed solar arrays and subsequent equipment throughout the site. A boundary survey by a licensed surveyor in the State of Michigan has not been provided and is required. Per section 20.07, Data indicating the total number of structures, total number of units, total square feet, total gross and usable floor area, total carports or garages, employees by shift, the percent of area being developed, the percent of area used for structures, the percent of area left undeveloped, and the name of the public school district serving the site has not been provided.*

2. **Depiction (to scale) of all setbacks, property lines, fences, signs, greenbelts, screening, drain tiles, easements, flood plains, bodies of water, proposed access drives, and road rights of way.**

   CWA Comment: *Setback lines are shown; however, property lines of nearby parcels are not included. Fence locations are shown on sheets 6-14, with greenbelt/screening locations shown on sheet 24. Existing easements, wetlands, access drives, and road rights-of-way are also shown.*

3. **Indication of how and where the system will be connected to the power grid.**

   CWA Comment: *The point of interconnection to the grid is located at the proposed ITC transmission line and substation located near the intersection of Hayner and Owosso Roads as shown on sheet 14. The Project will include an approximately 1.06-mile-long gen-tie line to the proposed ITC substation. The current gen-tie is shown to be above ground, and is required to be buried below ground.*

4. **Plan for any land clearing and grading required for the installation and operation of the system.**

   CWA Comment: *Proposed tree clearing areas are shown on sheets 6-14. A grading plan does not appear to be included in the current plan set and will be required.*

5. **Plan for ground cover establishment and management.**

   CWA Comment: *Sheet 28 includes seeding procedures and specifications for groundcover throughout the site.*

6. **Plan for providing a wildlife corridor that provides access for wildlife to navigate through the development.**

   CWA Comment: *A wildlife corridor plan does not appear to be included in the current plan set. Designated corridors should be marked on plans.*

7. **Description of measures to be taken to support the flow of rainwater and/or stormwater management.**

CWA Comment: *A stormwater mitigation plan has been included in the current application. We defer any further review and comment to the Township Engineer and Livingston County.*

8. **Security plan detailing measures to prevent unauthorized trespass and access during the construction, operation, removal, maintenance, or repair of the Utility-Scale Solar Energy System.**

   CWA Comment: *A formal security plan has not been included in the current plan set and should be provided.*

9. **A maintenance plan, including landscaping upkeep, regular checks, and maintenance for the equipment, and decommissioning and removal. The description shall include maintenance schedules, types of maintenance to be performed, and decommissioning and removal procedures and schedules if the Utility-Scale Solar Energy System is decommissioned. The maintenance plan must include a plan for maintaining all setback areas in the project.**

   CWA Comment: *A dedicated maintenance plan has not been provided and should be required.*

10. **Anticipated construction schedule including timeline to completion and scope of work.**

    CWA Comment: *A project schedule has been included previously in this report. A construction schedule including scope of work does not appear to be included. Exhibit A-3 provides a cover for the project schedule; however, no material appears to be included.*

11. **Sound modeling study including sound isolines extending from the sound sources to the property lines.**

    CWA Comment: *A sound study has been provided which states noise levels at all property lines between the project and nonparticipating parcels do not exceed 55 decibels. Noise level contours are also provided in the report, which show 55 decibel measurements restricted to the immediate areas around the proposed inverters.*

12. **Any additional studies requested by the Planning Commission, including but not limited to the following:**

    a. **Visual Impact Assessment: A technical analysis by a third party qualified professional acceptable to the Township of the visual impacts of the proposed project, including a description of the project, the existing visual landscape, and important scenic resources, plus visual simulations that show what the project will look like (including proposed landscaping and other screening measures), a description of potential project impacts, and mitigation measures that would help to reduce the visual impacts created by the project.**

b. Environmental Analysis:

i. The applicant shall have a third-party qualified professional, acceptable to the Township, conduct an analysis to identify and assess any potential impacts on the natural environment including, but not limited to, wetlands and other fragile ecosystems, historical and cultural sites, and antiquities. The applicant shall take appropriate measures to minimize, eliminate, or mitigate adverse impacts identified in the analysis.

ii. The applicant shall identify and evaluate the significance of any net effects or concerns that will remain after mitigation efforts. The applicant shall comply with applicable parts of the Michigan Natural Resources and Environmental Protection Act (Act 451 of 1994, MCL 324.101 et seq.) including but not limited to Part 31 Water Resources Protection (MCL 324.3101 et seq.), Part 91 Soil Erosion and Sedimentation Control (MCL 324.9101 et seq.), Part 301 Inland Lakes and Streams (MCL 324.30101 et seq.), Part 303 Wetlands (MCL 324.30301 et seq.), Part 323 Shoreland Protection and Management (MCL 324.32301 et seq.), Part 325 Great Lakes Submerged Lands (MCL 324.32501 et seq.), and Part 353 Sand Dunes Protection and Management (MCL 324.35301 et seq.).

c. Stormwater Study: An analysis by a third-party qualified professional acceptable to the Township studying the proposed layout of the Utility-Scale Solar Energy System and how the spacing, row separation, and slope affects stormwater infiltration, including calculations for a 100-year rain event. Percolation tests or site-specific soil information must be provided to demonstrate infiltration on-site without the use of engineered solutions.

d. Glare Study: An analysis by a third-party qualified professional acceptable to the Township to determine if glare from the Utility-Scale Solar Energy System will be visible from nearby residents and roadways. If required, the analysis will consider the changing position of the sun throughout the day and year and its influences on the utility-scale solar energy system.

e. Wildlife Impact: A wildlife impact study, including an analysis of the impact on the properties within one mile of the project.

f. Utility-scale solar energy systems are not permitted on property enrolled in the Farmland and Open Space Preservation Act, being in PA 116, of 1974, now codified in Part 361 of the Natural Resources and Environmental Protection Act, PA 451 of 1974, as amended.

CWA Comment: *We encourage the Planning Commission to request any of the above-mentioned studies in order to make an informed determination on the project. We do note multiple properties within the project area are PA 116 enrolled. As a result, proof of terminated contracts for the parcels in questions should be provided.*

b. *Conceptual Layout Plan.* Applicants may submit an optional conceptual layout plan for review prior to submission of a formal site plan. The conceptual site plan may be reviewed by the Planning Commission to allow for discussion and feedback.

CWA Comment: *We are not aware of a conceptual layout plan having been submitted at this time.*

c. *Approvals from Other Agencies.* Final site plan approval may be granted only after the applicant receives (1) all required federal and state approvals, and (2) approval by the local fire chief, county drain commissioner, county road commission, local airport zoning authority (if applicable), county building department, and any other federal, state or local agency having jurisdiction or authority to grant permits related to the Utility-Scale Solar Energy System.

CWA Comment: *The applicant will need to submit proof that all applicable permits and approvals have been granted.*

4. *Application Items as Substantive Requirements.* The information, plans, documents, and other items identified as application requirements in this ordinance, including the site plan and special land use permit, are substantive requirements for obtaining approval for a Utility-Scale Solar Energy System. The Planning Commission will review the sufficiency of the application materials. If the Planning Commission determines that the substance of any application item is insufficient to protect the public health, safety, and welfare, the Planning Commission may deny approval on that basis.

CWA Comment: *Planning Commission to determine sufficiency of application materials.*

5. System and Location Requirements.

a. Utility-Scale Solar Energy Systems are only permitted within the Solar Energy System Overlay District.

CWA Comment: *Current Plans show the project area outside the Solar Energy System Overlay District. A rezoning of the project area to the Overlay District will be required.*

b. Utility-Scale Solar Energy Systems must be ground mounted.

CWA Comment: *Array elevations provided on sheet 30 are shown to be ground mounted.*

c. The ground mounting of panels must be by screw or a similar system that does not require a footing, concrete, or other permanent mounting, to minimize soil compaction. No pounding of panels posts is permitted.

CWA Comment: *Post details for the proposed array fixtures have not been provided and will need to be provided to ensure no footings or concrete are proposed.*

6. ***Permits.*** **All required county, state, and federal permits must be obtained before final site plan approval and before the Utility-Scale Solar Energy System begins operating.**

   CWA Comment: *The applicant will need to submit proof that all applicable permits and approvals have been granted.*

7. ***Screening.*** **Greenbelt screening is required around any Utility-Scale Solar Energy System and around any equipment associated with the system to obscure, to the greatest extent possible, the Solar Energy System from any adjacent residences, as described below:**

   a. **The screening shall be installed to obscure the Utility Scale Solar Facility and shall contain two rows of staggered evergreen trees planted not more than twelve (12) feet apart trunk to trunk, and the two rows shall be no greater than ten (10) ft apart. The Township may consider an alternative landscape buffer as a part of the special land use approval, provided the alternative provides adequate screening.**

      CWA Comment: *A landscape plan has been provided on sheet 24, which includes areas designated with proposed landscaping, as well as the utilization of existing vegetation. The planting schedule on sheet 28 shows three (3) screening options. The options include deciduous trees twenty (20) feet apart, native shrubs six (6) feet apart, and evergreen trees fifteen (15) feet apart. The evergreen spacing will need to be reduced to twelve (12) feet, and the use of deciduous trees does not meet ordinance requirements. We are of the opinion that a universal screen meeting or exceeding ordinance requirements should be required. Landscape elevations should also be provided on the landscape plan.*

   b. **Plantings shall be least eight (8) feet tall at time of planting and shall reach a height of ten (10) feet within three (3) growing seasons.**

      CWA Comment: *Notes on sheet 28 indicating compliance with the above requirement have not been provided.*

   c. **The trees may be trimmed but must maintain a height of at least eighteen (18) feet.**

      CWA Comment: *A note on plans indicating compliance with the above requirement will need to be provided.*

   d. **Evergreen trees shall be Norway Spruce or such alternative approved by the Township.**

      CWA Comment: *A note on plans indicating compliance with the above requirement will need to be provided.*

   e. **Good husbandry techniques shall be followed with respect to vegetation, including but not limited to, proper pruning, proper fertilizing, and proper mulching, so that the vegetation will reach maturity as soon as practical and will have maximum density in foliage. Dead or diseased vegetation shall be removed and must be replanted in a manner consistent with this Section at the next appropriate planting time.**

CWA Comment: *A note on plans indicating compliance with the above requirement will need to be provided.*

f. Front, side, and rear yard screening is required if the Utility Scale Solar Energy System is adjacent to a non-participating property.

CWA Comment: *The project abuts front, side, and rear yards of non-participating properties and will be required.*

8. *Appearance.* The exterior surface of the Utility-Scale Solar Energy System must be generally neutral in color and substantially non-reflective of light.

CWA Comment: *We are of the opinion that elevations and renderings provided are of neutral colors.*

9. *Agricultural Preservation and Habitat Impact.* Land clearing and clear cutting trees and other vegetation shall be limited to what is minimally necessary for installation and operation of the system and to ensure all-season access to solar resources given the topography of the land. Topsoil distributed during preparation shall be retained on site. In addition, access drives shall be designed to minimize extent of soil disturbance, water run-off, and soil compaction.

CWA Comment: *The applicant should be prepared to explain how the proposed tree clearing area is the minimum necessary for the operation of the system. Notes on sheet 30 of the site plan and project narrative indicate appropriate SESC permits will be obtained prior to construction beginning, however no notes on plans indicate all disturbed soil will remain on site and should be added to sheet 30.*

10. *Lighting.* Lighting of the Utility-Scale Solar Energy System must be down facing and is limited to the minimum light necessary for safe operation. Lighting shall not be more than 4 feet taller than the maximum height of any panel and in no case shall lighting be taller than 20 feet. Illumination from any lighting must not extend beyond the perimeter of the lot(s) used for the Utility-Scale Solar Energy System. The Utility-Scale Solar Energy System must not produce any glare that is visible to neighboring lots or to persons traveling on public or private roads. Flashing, intermittent, and motion lights are prohibited.

CWA Comment: *Based on height requirements of the solar ordinance, the maximum height of proposed lighting can be up to fourteen (14) feet or twenty (20) feet if a deviation is granted for the height of proposed solar arrays. A dark skies plan has been included in the application, which states no exterior lighting will be located within the solar array areas. The only permanent lighting will be located at the proposed substation and O&M building. Fixture details are shown on sheet 27 of the site plan, which shows multiple accessory options including visor shielding. We are of the opinion that visor shielding fixtures should be included as a condition of approval.*

11. *Signage.* Signage is not permitted except as required in this subsection and for purposes of posting information that may be necessary for electrical operations and the safety and welfare of the public. An information sign shall be posted and maintained at the entrance(s) listing the name, address, and phone number of the operator.

CWA Comment: *Signage details are also provided on sheet 27, which includes contact information and high voltage signs. The project narrative indicates these are the only types of signs proposed, and will be posted at all points of ingress and egress.*

12. ***Security Fencing.*** **Security fencing may be required around all electrical equipment related to the Utility-Scale Solar Energy System, including any transformers and transfer stations in the discretion of the Planning Commission and to provide for the movement of wildlife. Appropriate warning signs must be posted at safe intervals at the entrance and around the perimeter of the Utility-Scale Solar Energy System. Required fencing must be at least seven feet tall and be composed of wood post and woven farm wire fencing. The Township may allow or require a fence design to allow for the passage of wildlife upon a finding that adequate access control and visual screening will be preserved.**

    CWA Comment: *Security is shown to be located around all proposed solar arrays, substation, and electrical equipment. A note should be added to plans which indicate warning signage will be placed at regular intervals around the project perimeter fencing along with all signage locations. Fencing details are provided on sheet 27, which meet ordinance requirements.*

13. ***Underground Transmission.*** **All power transmission or other lines, wires, or conduits from a Utility-Scale Solar Energy System to any building or other structure must be located underground at a depth that complies with current National Electrical Code standards, except for power switchyards or the area within a substation.**

    CWA Comment: *Sheets 11, 12, and 14 show a proposed overhead transmission line running from the proposed substation to ITC switchyard, which measures at approximately 1.06 miles long. The transmission line will need to be shown as underground but can be above ground within the boundaries of the switchyard and substation.*

14. ***Drain Tile Inspections.*** **The applicant or operator must inspect all drain tile at least once every three years by means of robotic camera, with the first inspection occurring before construction of any part of the Utility-Scale Solar Energy System occurs. The applicant or operator must submit proof of the inspection to the Township and Livingston County Drain Commission. Any damaged or inoperable tile shall be repaired prior to construction. After the Utility-Scale Solar Energy System is operational, the owner or operator must repair any damage or failure of the drain tile within 30 days after discovery and submit proof of the repair to the Township. The Township is entitled, but not required, to have a representative present at each inspection or to conduct an independent inspection. Documentation of repairs shall be submitted to the property owner, the township, and the Livingston County Drain Commission and must indicate the location, nature, and satisfactory completion of the repairs.**

    CWA Comment: *A note on plans indicating compliance with the above requirement should be included.*

15. ***Groundwater Analysis.*** **The operator of the Utility-Scale Solar Energy System must provide a groundwater analysis for all parcels within the participating properties annually during the life of the project and for five years after abandonment or decommissioning.**

    CWA Comment: *A groundwater analysis does not appear to be provided.*

16. ***Access Routes.*** **Access drives are subject to the approval of the Livingston County Road Commission and the Township Planning Commission. Access drives must be adequately maintained for emergency vehicle use, even in winter.**

    CWA Comment: *We defer further review of proposed access drives to Livingston County Road Commission.*

17. ***Construction.*** **Construction or maintenance of the Utility-Scale Solar Energy System may only occur between 7:00 a.m. and 6:00 p.m. Monday through Friday, excluding federal holidays. Any material damages to a public road located within the Township resulting from the construction, maintenance, or operation of a Utility Scale Solar Energy System shall be repaired at the Applicant's expense.**

    CWA Comment: *There does not appear to be confirmation that project construction will comply with the timing windows above. A note on the site plan cover sheet should be provided.*

18. ***Fire Suppression.*** **The Utility-Scale Solar Energy System must include a fire suppression system that is specifically designed to immediately suppress and extinguish fires in any part of the Solar Energy System, including the panels, electrical equipment, transformers, and transfer stations. The applicant or operator must provide documentation establishing the effectiveness of the fire suppression system and the results of a third-party independent inspection acceptable to the Township of the fire suppression system.**

    CWA Comment: *A fire response plan has been provided in the current application, which incudes providing "fire extinguishers and other suppression tools…" throughout the site. We defer further review of the fire response plan to the Fowlerville Area Fire Department and Howell Area Fire Authority.*

19. ***Ground Cover.*** **The lot on which the Utility-Scale Solar Energy System is located must be covered with vegetation until decommissioning. To meet this requirement, the lot must include one or more of the following:**

    a. **Pollinator Habitat: A site designed to have vegetation that will enhance pollinator populations, including a diversity of flowering plants and wildflowers, and meets a score of 76 or more on the Michigan Pollinator Habitat Planning Scorecard for Solar Sites.**

    b. **Conservation Cover: A site designed with practices to restore native plants, grasses, and prairie with the aim of protecting specific species or providing specific ecosystem services, such as carbon sequestration or soil health. The site must be designed in partnership with a conservation organization or approved by the Livingston Conservation District.**

    c. **Forage/Grazing: Sites that incorporate rotational livestock grazing and forage production as part of a vegetative maintenance plan.**

    d. **Agrivoltaics: Sites that combine raising crops for food, fiber, or fuel, and generating electricity within the project area to maximize land use.**

CWA Comment: *The project narrative indicates the project will plan pollinator plantings to achieve a score of at least 76 o*n the Michigan Pollinator Habitat Planning Scorecard for Solar Sites. *There is no mention of conservation partnerships, grazing, or a combination of raising crops included in the project.*

20. ***Wildlife Corridor.*** **Utility Scale Solar Energy Systems shall have access corridor for wildlife to navigate through the development.**

    CWA Comment: *Exhibit A-1.14 indicates the responses included in the event a wildlife corridor is discovered. However, based on the above ordinance requirement, a dedicated corridor will need to be provided/marked throughout the site to ensure wildlife can navigate the site and should be included on the site plan.*

21. ***Signs.*** **Signs are permitted but must comply with Article 19. The lot must include at least one sign identifying the owner and providing a 24-hour emergency contact telephone number.**

    CWA Comment: *As mentioned previously, Signage details are provided on sheet 27, which includes relevant contact information.*

22. ***Insurance.*** **The applicant or operator will maintain property/casualty insurance and general commercial liability insurance in an amount of at least $10 million per occurrence. All insurance policies shall name the Township as an additional insured and shall include the indemnity provisions of C.2.o.**

    CWA Comment: *We ask the applicant to provide certificates of insurance in the amount listed above.*

23. ***Decommissioning.*** **If a Utility-Scale Solar Energy System is abandoned or otherwise nonoperational for a period of 90 days, the property owner or the operator must notify the Township and must remove the system within six months after the date of abandonment. The site must be filled and covered with topsoil and restored to a state compatible with the surrounding vegetation. Removal requires receipt of a demolition permit from the Building Official and full restoration of the site to the satisfaction of the Zoning Administrator. The requirements of this subsection also apply to a Utility-Scale Solar Energy System that is never fully completed or operational if construction has been halted for a period of one year. Should the Applicant fail to meet its obligations to decommission the site, the Township may utilize the security being held for this purpose to enter the site and decommission in accordance with the last approved plan.**

    a. **The decommissioning plan shall be written to provide financial security to the Township for 125% of the cost to remove and dispose of all panels, wiring, and restoration of the land to its original conditions. The value of decommissioning shall be determined by a third-party financial consultant or engineer selected by the Township and paid for by the developer. The decommissioning financial security shall be paid in cash to the Township. Once value of decommissioning is determined, it shall be updated on a periodic basis of not less than every 2 years and additional financial security may be required on the basis of the average inflation rate of the preceding 2 years.**

    b. **Continuing Obligations: Failure to keep any required financial security in full force and effect at all times while a Utility Scale Solar Energy System exists or is in place shall constitute a material**

and significant violation of the Special Land Use Permit and this Ordinance, and will subject the Utility Scale Solar Energy System Applicant, owner and operator to all remedies available to the Township, including any enforcement action, civil action, request for injunctive relief, and revocation of the Special Land Use Permit.

CWA Comment: *A decommissioning cost estimate has been provided in exhibit A-13.1. We defer further reviews of cost estimates to the Township Engineer.*

24. ***Complaint Resolution Protocol.*** **Applicant shall provide a Complaint Resolution protocol at time of submission of final site plan. The operator of the project or its assigns shall initially respond within 10 business days to complaints from neighboring property owners arising from and related to the operation of the Utility Scale Solar Energy System. Any resolution shall include lawful and reasonable solutions consistent with the Zoning Ordinance, which shall also be provided to the Township Zoning Administrator.**

CWA Comment: *A complaint resolution process is provided in exhibit A-1.16 of the application, indicating a four (4) business day response time, with any solution over 30 days being responded with a detailed timeline and planned actions communicated to the stakeholder.*

25. ***Extraordinary Events.*** **If the Utility-Scale Solar Energy System experiences a failure, fire, leakage of hazardous materials, personal injury, or other extraordinary or catastrophic event, the applicant or operator must notify the Township within 24 hours. Any damaged or inoperable panels must be repaired within 30 days after discovery and the applicant or operator must submit proof of the repair to the Township. Add language to show cause for additional time.**

CWA Comment: *An emergency response plan has been provided in exhibit A-1.9. Clarification language should be added to reflect the 24 hour notification requirement.*

26. ***Annual Report.*** **The applicant or operator must submit a report on or before November 1 of each year that includes all of the following:**

    a. **Amount of electric generation;**
    b. **Current proof of insurance;**
    c. **Verification of financial security; and**
    d. **A summary of all complaints, complaint resolutions, and extraordinary events.**
    e. **Number of panels removed, replaced, repaired, or other improvements.**

    Additionally, a representative of the applicant or operator must appear before the Township Board at least once every three years to report on the Utility-Scale Solar Energy System and address questions or concerns from the Planning Commission.

CWA Comment: *There does not appear any mention of providing an annual report in the current application.*

28. ***Inspections.*** **The Township may inspect a Utility-Scale Solar Energy System at any time by providing 24 hours advance notice to the applicant or operator.**

CWA Comment: *We encourage the applicant to confirm they are aware of this requirement, and to coordinate with the Township regarding site inspections.*

29. ***Transferability.*** **A special use permit for a Utility-Scale Solar Energy System is transferable to a new owner or operator. The new owner or operator must register its name and business address with the Township and must comply with this Ordinance and all approvals and conditions issued by the Township.**

    CWA Comment: *The applicant should be aware of this provision should a transfer of ownership occur.*

30. ***Lease.*** **If the participating property is proposed to be leased, instead of owned, by the owner or applicant of the Utility-Scale Solar Energy Project, all property within the project boundary must be included in a recorded easement(s), lease(s), or consent agreement(s) specifying the applicable uses for the duration of the project. All necessary leases, easements, or other agreements between the utility scale solar energy owners or applicant and the property owners must be in place prior to commencing construction.**

    CWA Comment: *We ask the applicant to clarify which participating parcels have been purchased or leased. Option and easement agreements have been provided in the submitted application.*

31. ***Site Plan Amendments.***

    a. **Site plan amendments may be permitted pursuant to Article XX of the zoning ordinance, except the following shall not be considered a minor amendment by the Planning Commission:**

        1. **Changes of the location of arrays, fencing, buildings, or ancillary equipment by 10 feet or more.**

        2. **Any increase in the height of solar panels.**

    b. **The Planning Commission may consider the following to be minor amendments:**

        1. **Changes of the location of arrays, fencing, buildings, or ancillary equipment by less than 10 feet.**

    CWA Comment: *The current application provides a list of changes in exhibit A-1.6. The applicant should be aware that any changes may constitute the need for Planning Commission review and approval.*

32. ***Remedies.*** **If an applicant or operator fails to comply with this Ordinance, the Township, in addition to any other remedy under this Ordinance, may revoke the special land use permit and site plan approval after giving the applicant or operator notice and an opportunity to be heard. Additionally, the Township may pursue any legal or equitable action to abate a violation and recover any and all costs, including the Township's actual attorney fees and costs.**

    CWA Comment: *The applicant should be aware of the above provision.*

33. *No Battery Storage.* No on-site power storage, battery storage, PV Array, or device storage is permitted.

CWA Comment: *Page 6 of the project narrative states, "The Site Plan also includes ancillary features located on the facility site such as roads, railroads, switchyard, energy generation, storage or regulation facilities, substation, and similar facilities." We ask the applicant to clarify that storage or regulation facilities do not include power, battery, or device storage.*

34. The applicant must certify and guarantee that the utility-scale solar energy system will comply with 47 CFR Part 15, subpart B and not produce any radio frequency interference or electrical magnetic interference at the property line of all non-participating property owners within 1,000 feet of the project.

CWA Comment: *The project narrative states, "The Project has been designed to not interfere with electromagnetic fields or communications signals and therefore no mitigation measures are anticipated." Exhibit A-7, Signal Mitigation Plan does not appear to be provided in the current application.*

D. Utility-Scale Solar Energy Systems under PA 233.

On or after November 29, 2024, once PA 233 of 2023 is in effect, the following provisions apply to Utility-Scale Solar Energy Systems with a nameplate capacity of 50 megawatts or more, which shall only be allowed in the Solar Energy System Overlay District by special use permit. To the extent the following provisions conflict with the provisions in subsection C above ("Utility-Scale Solar Energy Systems"), the provisions below control as to such Utility-Scale Solar Energy Systems with a nameplate capacity of 50 megawatts or more. All provisions in subsection C above that do not conflict with this subsection remain in full force and effect and shall be applicable to all Utility-Scale Solar Energy Systems regardless of nameplate capacity. The following provisions do not apply if PA 233 of 2023 is repealed, enjoined, or otherwise not in effect, and do not apply to Utility-Scale Solar Energy Systems with a nameplate capacity of less than 50 megawatts.

a. *Setbacks.* Utility-Scale Solar Energy Systems must comply with the following minimum setback requirements, with setback distances measured from the nearest edge of the perimeter fencing of the facility:

CWA Comment: *The setback distances outlined below have been provided.*

Setback Description	Setback Distance
Occupied community buildings and dwellings on nonparticipating properties	300 feet from the nearest point on the outer wall
Public road right-of-way	50 feet measured from the nearest edge of a public road right-of-way
Nonparticipating parties	50 feet measured from the nearest shared property line

b. *Fencing.* Fencing for the Utility-Scale Solar Energy System must comply with the latest version of the National Electric Code as November 29, 2024, or as subsequently amended.

CWA Comment: *Page 15 of the provided narrative indicates all fencing will meets the requirements of the National Electric Code.*

c. *Height.* Solar panel components must not exceed a maximum height of 25 feet above ground when the arrays are at full tilt.

CWA Comment: *Solar array details provided on sheet 30 show a maximum height of fifteen (15) feet, meeting requirements.*

d. *Noise.* The Utility-Scale Solar Energy System must not generate a maximum sound in excess of 55 average hourly decibels as modeled at the nearest outer wall of the nearest dwelling located on an adjacent nonparticipating property. Decibel modeling shall use the A-weighted scale as designed by the American National Standards Institute.

CWA Comment: *The sound report provided in the application shows maximum decibel level of 49 dBA to the outer walls of non-participating parcel structures, meeting requirements.*

e. *Lighting.* The Utility-Scale Solar Energy System must implement dark sky-friendly lighting solutions.
CWA Comment: *Exhibit A-11 provides lighting methods that will comply with dark sky-friendly solutions.*

f. *Environmental Regulations.* The Utility-Scale Solar Energy System must comply with applicable state or federal environmental regulations.

CWA Comment: *The applicant has stated throughout the project narrative that all federal and state environmental regulations will be followed.*

g. *Host community agreement.* The applicant shall enter into a host community agreement with the Township. The host community agreement shall require that, upon commencement of any operation, the Utility-Scale Solar Energy System owner must pay the Township $2,000.00 per megawatt of nameplate capacity. The payment shall be used as determined by the Township for police, fire, public safety, or other infrastructure, or for other projects as agreed to by the local unit and the applicant.

CWA Comment: *The applicant has provided draft copies of a host community agreement.*

RECOMMENDATIONS

The applicant has requested the Planning Commission to review the special land use and site plan of the proposed Headland Solar project simultaneously. As you are aware, the review of the site plan is at the risk of the applicant and will only be considered upon approval of the special land use. Below, we have divided our comments on the Headland Solar special land use application and the site plan:

Special Land Use:

The Planning Commission should consider the following in review of the proposed large-scale solar facility:

The proposed large solar energy facility is currently not located withing the newly designated Solar Energy System Overlay District, which was established to provide a suitable location for utility scale solar energy systems while still preserving the rural character and heritage of the Township. As a result, we are recommending **conditional approval** of the requested special land use, subject to the applicant receiving approval for a **rezoning of the subject property to the Solar Energy System Overlay District**, which permits such projects as a special land use, as well as receiving site plan approval.

The Planning Commission must also consider whether the proposed use meets the general standards applying to special land uses as listed in page 4 of this report, and in Article 8 of the Zoning Ordinance.

Site Plan Review:

Summarized below are the outstanding site plan review items mentioned throughout this report, which should be addressed to the satisfaction of the Planning Commission and Township Board. We recommend a decision on the presented site plan be tabled until the outstanding items are addressed and **after special land use approval has been granted**:

1. An operations agreement between all affected parties should be provided.
2. Provide analysis of whether adequate resources exist to respond to fire and other emergencies, a plan to provide those resources, plans for immediate cleanup, long-term monitoring, and continued mitigation efforts following an emergency.
3. Provide manufacturer information of the fire suppression system.
4. Submit proof of power purchase agreement prior to final site plan approval.
5. Provide dedicated maintenance plan.
6. Provide commitments to property owners.
7. Provide traffic study including anticipated traffic counts, peak hours of transport, and types of vehicles anticipated.
8. Provide lot coverage calculations.
9. Planning Commission to determine project compatibility with surrounding natural resources.
10. Review of essential services and stormwater management by Township Engineer.
11. Obtain LCRC approval of proposed access drives.
12. Change note 18 on sheet 30 to “Livingston County Road Commission.”
13. Provide all lighting fixture locations.
14. Provide all signage locations.
15. Grading plan to be submitted to the Township Engineer.
16. provide an acreage count of total woodlands to be removed as part of the project.
17. Site circulation to be reviewed by the Township Engineer, Fowlerville Area Fire Department, and Howell Area Fire Authority.
18. Transmission lines revised to be buried underground.
19. Planning Commission to determine if soils on site will be preserved/altered in an effective manner.
20. Proof of all outside agency permits shall be submitted.
21. All proposed landscaping should meet required greenbelt and screening requirements of the zoning ordinance.

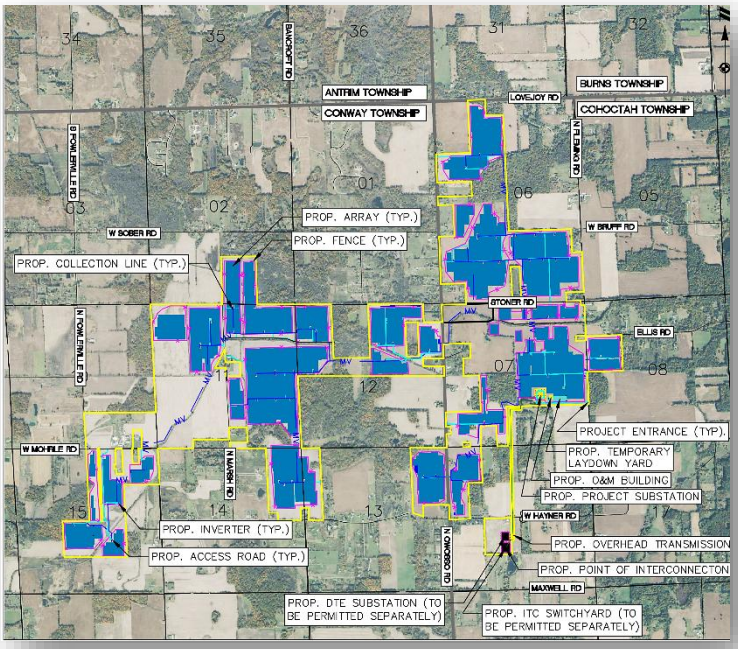
22. Be prepared to provide any additional information regarding the clearing of resources at the request of the Planning Commission.
23. Review of flood retention by the Township engineer.
24. Review of soil suitability, drainage, and additional criteria to EGLE, Livingston County Drain Commission, and any additional outside agencies.
25. Provide acreage count of woodlands to be removed.
26. Provide boundary survey by a licensed surveyor in the State of Michigan.
27. Provide data indicating the total number of structures, total number of units, total square feet, total gross and usable floor area, total carports or garages, employees by shift, the percent of area being developed, the percent of area used for structures, the percent of area left undeveloped, and the name of the public school district serving the site.
28. Provide callout of wildlife corridor on site plan.
29. Review of stormwater mitigation plan by the Township Engineer and Livingston County.
30. Provide security plan.
31. Provide maintenance plan.
32. Provide anticipated site construction schedule.
33. Planning Commission to determine if additional studies are needed.
34. Provide proof of terminated contracts for PA 116 enrolled properties within project boundary.
35. Provide post details for proposed array fixtures.
36. Provide Landscape screen elevations.
37. Provide notes on landscape plan indicating compliance with tree planting height, species, and vegetation planting practices.
38. The applicant should be prepared to explain how the proposed tree clearing area is the minimum necessary for the operation of the system.
39. Provide visor shielding with proposed light fixtures.
40. Planning Commission to consider whether landscaping around inverters should be required.
41. Provide groundwater analysis.
42. Review of proposed access drives by Livingston County Road Commission.
43. Provide note indicating compliance with construction timing requirements.
44. Review of fire response plan by Fowlerville Area Fire Department and Howell Area Fire Authority.
45. Provide certificates of insurance in the amount listed above.
46. Review of cost estimates by the Township Engineer.
47. Confirm annual reporting to the Township.
48. Clarify which participating parcels have been purchased or leased.
49. Clarify that storage or regulation facilities do not include power, battery, or device storage.
50. Exhibit A-7, Signal Mitigation Plan does not appear to be provided in the current application.

CARLISLE/WORTMAN ASSOC., INC.
John L. Enos, AICP
Vice-President

CARLISLE/WORTMAN ASSOC., INC.
Joe Pezzotti
Community Planner

EXHIBIT E

HEADLAND SOLAR PROJECT REVIEW REPORT



Prepared for:
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DATE OF REPORT: AUGUST 6, 2025

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I. INTRODUCTION

The Headland Solar Project is a proposed 220-megawatt (MW) utility-scale solar initiative by Headland Solar, LLC (Headland) developed by Ranger Power LLC. This project is situated on 2,415 acres in Cohoctah and Conway Townships, located in Livingston County, Michigan. Headland has engaged Atwell, LLC (Atwell) to prepare Exhibits A-1.1 through A-16 for the project's application to the Michigan Public Service Commission (MPSC) and to develop exhibits that align with the ordinances of the applicable townships.

Cohoctah Township has contracted Spicer Group, Inc. to evaluate the submitted exhibits and provide a comprehensive review of the following documents:

- Exhibit A-1.1 – Planned Facilities/Project Site Plan
- Exhibit A-1.7 – Sound Report and Monitoring Protocol
- Exhibit A-1.10 – Fire Response Plan
- Exhibit A-6.1 – Soil and Economic Survey Report
- Exhibit A-6.2 – Environmental Compliance
- Exhibit A-6.3 – Permit List and Status
- Exhibit A-6.4 – Stormwater Mitigation Plan

The purpose of this report is to assist the Township in reviewing the project, identifying any elements that do not comply with the Township's ordinances, and providing recommendations to the Planning Commission to request corrections from Atwell and the Ranger Power team. A summary of the review is provided in the conclusions and recommendations section below. Detailed results and conclusions for specific exhibits evaluated by Spicer Group are available in their corresponding sections below.

II. CONCLUSIONS AND RECOMMENDATIONS

It is the opinion of Spicer Group, reviewing on behalf of Cohoctah Township, that the Headland Solar Project has not demonstrated full compliance with the Cohoctah Township Zoning Ordinance (Zoning Ordinance) The exhibits related to the Headland Solar Project, were created to meet the standards set by the Michigan Public Service Commission. Below is a

summary of the key components from the reviewed application and exhibits that have yet to meet the standards outlined by the township's ordinances, as identified above

Exhibit A-1.1 – Planned Facilities/Project Site Plan

Section 20.07 of the Zoning Ordinance requires descriptive and statistical data such as project areas percentage breakdowns, and the exhibit does not show all the required information as described by the preliminary site plan requirements. Due to this, we recommend requesting corrected site plans that address the missing elements listed in Section III – Project Site Plan.

Exhibit A-1.7 – Sound Report and Monitoring Protocol

Amendment No. 2024-02 of the Zoning Ordinance requires the maximum sound produced by the project to be below 55 dBA measured from the nearest outer wall of the nearest dwelling on nonparticipating property. The provided exhibit is in compliance with the applicable Township ordinances.

Exhibit A-1.10 – Fire Response Plan

Section 20.09 of the Zoning Ordinance requires that the plan meet the specifications of Cohoctah Township or Livingston County for fire and police protection. Additionally, the plan must be approved by all appropriate State and Local authorities, or if their approval has been assured in conjunction with Sec. 10-20, where the township has adopted the 2009 edition of the International Fire Code into its code of general ordinances. The submitted information is not in compliance with Section 404.3.2 of the International Fire Code, 2009 Edition. We recommend requesting a corrected exhibit that includes the missing elements listed in Section V – Exhibit A-1.10 Fire Response Plan.

Exhibit A-6.1 – Soil and Economic Survey Report

Section 17.07 of the Zoning Ordinance requires data relating to the physical development and extent of disruption to the site and indicates a number of descriptive items that may be required by the Planning Commission. While it is unclear what additional information may have been requested, the provided exhibit details soil properties, land use and economic

qualities with delineated soil type boundaries for the project area. We recommend verifying if additional information was requested by the Planning Commission, as detailed in the ordinance, has been supplied. If no additional information was requested, the exhibit meets the Township requirements.

Exhibit A-6.2 – Environmental Compliance

Section 17.07 of the Zoning Ordinance requires evidence that the cutting and removal of trees and native vegetation is performed to the classifications and standards of removing only dead or dying trees, cut in a manner to avoid erosion, and selectively cut to remove less than 40 percent of trees on the property without consultation of a state forester. The provided exhibit is not in compliance with the Township's ordinance as it does not contain estimated percentages of removed trees and native vegetation and instead states approval from the United States Fish and Wildlife Service (USFWS) will be obtained prior to the commencement of tree clearing. We recommend requesting a corrected exhibit that indicates the estimated percentage of removed trees and foliage. The detailed evaluation of this requirement is found in Section VII – Exhibit A-6.2 Environmental Compliance Report.

Exhibit A-6.3 – Permit List and Status

Section 13.02 of the Zoning Ordinance requires a special use permit to be issued by the Township Planning Commission after reviewing project safeguards, design, and operational procedures. The provided exhibit outlines the applicant's intent and timeline to obtain all required local and state permits. We recommend requesting revised versions of the incomplete exhibits to ensure a complete submittal to the Township. The detailed evaluation of the outstanding permits is listed in Section VIII – Permit List and Status

Exhibit A-6.4 – Stormwater Mitigation Plan

Section 20.07 of the Zoning Ordinance requires the location and size of all existing and proposed surface water drainage features and changes that affect the drains be shown, as well as identification of any floodplain within the site or adjacent. The data provided should include percentages of pervious and impervious surfaces and the means to control stormwater flow. The provided exhibit does not meet the Township ordinance as

dimensions of structures are not shown or percentages relating to impervious surfaces. Revised exhibits should be requested to address these omissions, along with a supplemental report detailing the design of the basins, outlet structures, and best management practices to be used in the project. This information is necessary to determine whether the proposed measures adequately mitigate the additional stormwater generated by the development.

III. PROJECT SITE PLAN

Zoning Ordinance

- *Sec. 20.05. Site plan approval*
- *Sec. 20.07. Preliminary site plan requirements*
- *Sec. 20.08. Final site plan requirements*
- *Sec. 20.09. Criteria for site plan review*
- *Sec. 21.04 Zoning permit*

Background

The Headland Solar project is proposed to be constructed within Livingston County, Michigan, and is located in Cohoctah and Conway Townships. The project is designed to produce a total capacity of 220 MW of power generated by photovoltaic panels situated on 2,415 acres. The proposed site plan highlights the following major components: solar arrays, inverters, collection lines, proposed haul roads, construction staging areas, proposed site substation, project setback boundaries, proposed fencing, water quality basins, and vegetative screenings. The site plan also includes existing municipal and transportation features, topography and watercourses, and protected wetlands and marshes. The Township boundary between Cohoctah and Conway Townships is depicted as N Owosso Road on the vicinity map. Below is a specific summary detailing the proposed developments within the Cohoctah Township.

The eastern side of the project is located in sections six, seven, and sixteen of Cohoctah Township and will provide site access to the project from North Fleming Road. Proposed work within the Township will include the construction of the solar arrays and proposed DTE substation, ITC switchyard, operation and maintenance building, and connection point to the existing electrical grid. Additionally, 29 inverters are intended to be installed with the

capacity to provide 107 MW of power generated by photovoltaic panels situated on roughly 572 acres, and approximately 27,000 ft of gravel access road are proposed to be constructed. Of the 47 participating parcels, 19 reside in Cohoctah Township with five (5) of the parcels being used for collection and transmission purposes, one parcel for the existing electrical grid tie-in point, and the remaining 13 parcels containing panel arrays.

Atwell was contracted by Ranger Power to create a preliminary site plan for the Headland Solar project. The preliminary site plan was completed by Atwell on April 21, 2025. An initial review of the preliminary site plan was completed by the Cohoctah Township Zoning Administrator on May 30, 2025, and detailed elements that were missing from the submitted site plan. A review of the revised site plan and associated application materials was completed by Spicer Group to assess compliance with the Cohoctah Township Zoning Ordinance. Findings are summarized in Table-1 below:

Table 1: Site Plan Evaluation Summary

Preliminary Site Plan Requirements:	Included in Site Plan?	Notes:
Date, North Arrow and Scale	Yes	None
Statistical Data	Partially	Site plan does not appear to include data relating to percentage of area being developed, for area occupied by structures, and percent undeveloped
Location and Height of Existing and Proposed Structures	Partially	Site plan does not appear to include dimensions for the proposed O&M building, nor for the proposed project substation.
Property Lines	Yes	None
Location and Dimensions; Existing and Proposed Drives, Sidewalks, etc.	Partially	Site plan does not appear to provide dimensions for proposed and existing driveways and sidewalks
Vehicular Traffic and Pedestrian Circulation	Yes	None

Preliminary Site Plan Requirements:	Included in Site Plan?	Notes:
Size and Location of Existing and Proposed Utilities	No	Site plan does not appear to include any connections to public utilities by the proposed O&M building. Overhead electrical lines are missing from the Existing Conditions sheet.
Location Map	Yes	None
Drainage Facilities	Partially	Site plan does not include an impervious surface percentage for the project area. Site plan does not include stormwater management plan with sizes for proposed water quality basins or their outlet specifications. Site plan does not include determination of an increase in runoff due to development on the site and how said runoff will be accounted for.
Contour Intervals	Partially	Site plan does not appear to include two-foot contour intervals referenced to USGS datum
Project Detail and Specific Use	Yes	None
Undisturbed Areas	Yes	None
Registered Designer Required	No	Site plan does not appear to include the stamp or signature of a Professional Engineer licensed in the State of Michigan.
Traffic Impact	No	Site plan does not include a traffic impact assessment or provide a rationale for why traffic impact would not be required for the site.

Conclusions

Based on our review, the following elements of the Cohoctah Township site plan ordinance are not met:

- Incomplete statistical data relating to percentage of area being developed, for area occupied by structures, and percent undeveloped.
- Missing the name of the public school district serving the site.

- Incomplete location and height information for proposed and existing structures.
- Incomplete location and dimension information for proposed and existing driveways, sidewalks, etc.
- Incomplete location information for existing and proposed landscaping.
- Missing size and locations of existing and proposed utilities.
- Incomplete drainage facility information.
- Missing two-foot contour intervals referenced to USGS datum.
- Missing registered designer signature and/or seal.
- Missing traffic impact assessment.

IV. EXHIBIT A-1.7 SOUND REPORT AND MONITORING PROTOCOL

Zoning Ordinance, Amendment No. 2024-02

- *Subsection D Utility-Scale Solar Energy Systems under PA 233. d. Noise*

Background

Hankard Environmental conducted a sound study using SoundPLAN software, version 9.1. The SoundPLAN model was used to predict sound from the operation of the proposed solar park at the property line and at the nearest noise-sensitive areas. The sound study measured the sound level in A-weighted decibels (dBA). An A-weighted scale emphasizes sounds in middle frequencies (where the human ear is most sensitive) and de-emphasizes sounds in the low and high frequencies (where the human ear is less sensitive). The exceedance sound level is the sound level exceeded during "x" percent of the sampling period and is also referred to as a statistical sound level. For instance, the report describes L_{10} as the sound level that is exceeded 10% of the time, L_{50} as the sound level that is exceeded 50% of the time, L_{90} as the sound level that is exceeded 90% of the time, and L_{eq} as the arithmetic average of varying sound for the duration of the measurement period.

Results

The SoundPLAN model accounts for air absorption, terrain, ground absorption, reflections, and shielding for each piece of sound emitting equipment and predicts sound pressure levels. Please see the table below for a summary of the inputs used in the model.

Table 2: Sound Model Summary

Model Input	Parameter Value
Ground Absorption	0.5
Number of Reflections	2
Receptor Height	13 feet above ground level
Temperature	10 °C
Barometric Pressure	1013 mbar
Humidity	70%

The ground absorption was assumed to be 0.5 (0.0 for a hard ground and 1.0 for a porous ground) to yield conservative results. The atmospheric conditions were also assumed to be cold and humid, resulting in a generally lower estimate of atmospheric attenuation. The model assumes that each piece of equipment propagates sound in all directions at all times. Refractions from physical structures and the terrain were also taken into consideration. Terrain immediately surrounding the project is relatively flat, consisting primarily of open fields, farmland, and some wooded areas and were not examined in the model. There are 62 Sungrow 3600UD inverter units for this site. There is one 250 megavolt-ampere primary step-up transformer at the project substation. A single inverter and auxiliary transformer would emit an average sound power level of 96 dBA at 8 feet and 105 dBA at 10 feet from all sides, respectively. One-third octave band sound level data for the inverter units was not available at the time of the report. Since the tonality of the inverters cannot be assessed without one-third octave band data, they were assumed to emit noise with tonal characteristics. Additionally, noise measurement data from transformers have often shown tonal characteristics. As a result, a 5 dBA tonal penalty was added to all sound power levels.

Noise levels were predicted at 271 noise-sensitive receptors located within one-half mile of the site, equivalent to the 269 nonparticipating residences and the two participating residences. With the 6 dBA addition to free-field noise levels to account for pressure

doubling at external facades and the 5 dBA addition to source sound power for tonal sources, the model predicted sound would not exceed 55 dBA for any of the 271 receptors.

Conclusions

The sound report conducted by Hankard Environmental evaluated whether sound levels emitted from the proposed solar park would exceed 55 dBA. Each sound receiver in the model recorded sound levels equal to or less than 55 dBA, and therefore would be in compliance with the Zoning Ordinance.

V. EXHIBIT A-1.10 FIRE RESPONSE PLAN

Zoning Ordinance, Article II – Fire Prevention Code

- *Sec. 10-20 Adoption of International Fire Code*

Zoning Ordinance, Article XX – Site Plan Review Procedures

- *Sec. 20.09 Criteria for Site Plan Review*

International Fire Code, 2009 Edition

- *Sec. 404.3.1 – Fire Safety Plans*

Background

Atwell was contracted by Ranger Power to create a Fire Response Plan for the Headland Solar Project located in Cohoctah and Conway Townships, in Livingston County, Michigan. Cohoctah Township uses the International Fire Code, 2009 Edition, for its township fire ordinance. The 2009 edition of the IFC does not include specific ordinances relating to photovoltaic systems but does have ordinances relating to fire safety plans. The results below are based on section 404.3.2 of the International Fire Code, 2009 Edition.

Table 3: International Fire Code Evaluation

Fire Safety Plan Requirements:	Included?	Notes:
The procedure for reporting a fire or other emergency.	Yes	Emergency reporting procedure is included in the application provided by Atwell.
The life safety strategy and procedures for notifying, relocating, or evacuating occupants, including occupants who need assistance.	No	The project will not act as housing and therefore will not have occupants.
Site plans indicating the following: The occupancy assembly point. The locations of fire hydrants. The normal routes of fire department vehicle access	No	Not included as part of the application provided by Atwell and does not appear to present in the site plan.
Floor plans identifying the locations of the following: Exits. Primary evacuation routes. Secondary evacuation routes. Accessible egress routes. Areas of refuge. Exterior areas for assisted rescue. Manual fire alarm boxes. Portable fire extinguishers. Occupant-use hose stations. Fire alarm annunciators and controls.	No	No floor plans were included as part of the application provided by Atwell.

Fire Safety Plan Requirements:	Included?	Notes:
A list of major fire hazards associated with the normal use and occupancy of the premises, including maintenance and housekeeping procedures.	No	A list of major fire hazards was not included as part of the application provided by Atwell.
Identification and assignment of personnel responsible for maintenance of systems and equipment installed to prevent or control fires.	No	Emergency and non-emergency contact personnel were included in the application provided by Atwell but application is lacking identification of persons responsible for day-to-day management and fire prevention.
Identification and assignment of personnel responsible for maintenance, housekeeping and controlling fuel hazard sources.	No	Risk mitigation techniques such as vegetation management are listed in the application provided by Atwell, but specific persons responsible for such techniques are not listed.

Conclusion

Based on a review of the Fire Response Plan created by Atwell for the Headlands Solar project, the following portions of Section 404.3.1 of the International Fire Code, 2009 Edition, are not met:

- Life Safety Strategy
- Site Plan Requirements
- Floor Plans
- List of Major Fire Hazards
- Identification of Responsible Personnel

VI. EXHIBIT A-6.1 SOIL AND ECONOMIC SURVEY REPORT

Zoning Ordinance, Article XVII – Environmental Conservation Provisions

- *Sec. 17.07 – Environmentally sensitive areas.*

Background

The submitted report, created by Atwell, provides pertinent details related to the soil, land use and economic qualities for the proposed Headland Solar site and Livingston County as a whole. Soil surveys are used to gather specific information on soil types and properties within a delineated area to determine their use and limitations. From there, soils are mapped according to Major Land Resource Areas (MLRAs) and are classified taxonomically based on defined characteristics. These classifications are a key component in the design processes relating to soil structure, structural stress analysis and hydrologic surface runoff flow.

Results

The submitted Exhibit A-6.1- Soil and Economic Survey provides a comprehensive custom soil report detailing the soil class description, typical properties and qualities, and interpretive groups for the project site, which is referenced in the report as Area of Interest (AOI). Depicted below in the summary table is the five most representative soil classes of the project site making up roughly 50% of the area of interest. The remaining 50% of the site is made up of various other soil types in small quantities.

Table 4: Soil and Economic Survey Summary Table

Map Unit Symbol	Map unit Name	Acres in AOI	Percent of AOI
Cr	Colwood fine sandy loam	718.7	14.10%
MwB	Minoa-Thetford complex, 0 to 4 percent slopes	716.8	14.10%
Lc	Lamson fine sandy loam	426.8	8.40%
CvraaB	Conover loam, 0 to 4 percent slopes	326.6	6.40%

Map Unit Symbol	Map unit Name	Acres in AOI	Percent of AOI
MoB	Wawasee loam, 2 to 6 percent slopes	303.6	6.00%

Cr – Colwood fine sandy loam is generally suitable for site development and is classified as prime farmland when properly drained. In general, this soil class offers good workability and moderate drainage, however in this location its minimal slopes and high-water table create frequent ponding and poor natural drainage more suitable for wetlands ecosystems.

MwB – Minoa-Thetford complex is a composite of 60% Minoa soils and 40% Thetford soils with sandy and loamy properties resulting in excellent runoff infiltration until the soil becomes saturated. Generally, these soils are classified as farmland with a somewhat poor drainage rating requiring engineered drainage systems but offer many benefits for site development due to unrestricted profile of this soil type nature.

Lc – Lamson fine sand loam is very similar to the Colwood sandy loam, where its soil properties offer high moisture retention due to being a poorly drained soil and can be classified as prime farmland when properly drained. The hydric nature of this soil and minimal slopes makes this location ideal for wetland ecosystems. The sandy loam soil is favored for site development due to its workability and ease of plant growth; however, the frequent ponding will require drainage infrastructure for the project's construction.

CyraaB – Conover loam is a composite of loam and clay loam is a poorly drained soil that can have moderate surface runoff and is classified as prime farmland when drained. From the soil survey a dense layer between 3 and 7 foot that can restrict root penetration and water movement is present at this location, facilitating the need for drainage improvements and stormwater mitigation if this location is to be implemented for farming or site development.

MoB – Wawasee loam is an ideal soil for agricultural and site development due to its deep-water table, good soil structure and well drained nature. It is comprised of loam and clay loam making it versatile soil and very workable nature offers for a range of uses. While this soil has a medium runoff potential its high drainage properties, moisture retention and steeper slopes eliminate the risk of ponding or flooding, meeting the classification of prime farmland.

Conclusion

The main soil groups located within the project area are generally loamy-type soils with minor variances in drainage and soil structure. While most are classified as prime farmland when drained, many, like Colwood, Lamson, and Conover, have poor natural drainage and frequent ponding, requiring engineered drainage solutions and stormwater mitigation. Minoa-Thetford soils offer good infiltration until soil saturation, while Wawasee loam stands out as well-drained and ideal for development. With proper site preparation and hydrologic design, the current project location appears to be suitable for the proposed Headland Solar project construction.

VII. EXHIBIT A-6.2 ENVIROMENTAL COMPLIANCE REPORT

Zoning Ordinance, Article XVII – Environmental Conservation Provisions

- *Sec. 17.02 – Natural Environment.*
- *Sec. 17.04 – Lakes, Ponds, Rivers, Streams, Watercourses and Drainageways.*
- *Sec. 17.06 – Wetlands.*
- *Sec. 17.07 – Environmentally Sensitive Areas.*

Public Act No. 451 of 1994 (MCL 324), the Natural Resources and Environmental Protection Act

- *Sec. 30101-30113 – Inland Lakes and Streams.*
- *Sec. 30301-30328 – Wetlands Protection.*
- *Sec. 36104e – Solar facility; permitted use; development rights agreement; tax credit; definitions.*
- *Sec. 36501-36507 – Endangered Species Protection.*

Background

Atwell was contracted by Headland to conduct an environmental compliance report of the Headland Solar Project area. The environmental compliance report was conducted through desktop research and field reconnaissance. Evaluations were completed for the site and a 1,000-foot buffer around the site to determine potential impacts on air quality, sound and noise, wildlife, water resources, and cultural resources within the project area.

Data acquisition was conducted through publicly available information from a variety of sources including federal, state, and local agencies; Geographic Information System (GIS) databases; and literature review.

Additional data that was reviewed included Threatened and Endangered Species (TES) and designated critical habitats, cultural resources, geology/soils, wetlands, waterways, flood zones, land uses, and other notable encumbrances. Atwell also reviewed the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) and Michigan Natural Features Inventory database (MNFI) to verify if the Project Area contained habitat suitable for threatened and endangered species.

The Environmental Conservation Provisions of Cohoctah Township ordinance states “It is the general requirement of this Article to conserve and wisely use in the most careful and well-planned manner possible in accordance with the provisions of Public Act No. 451 of 1994 (MCL 324.101 et seq.), the Natural Resources and Environmental Protection Act” (Sec 17.02 – Natural Environment, Cohoctah Township Zoning Ordinance). Therefore, the Environmental Compliance Report for the Headlands Solar project was evaluated based on both Cohoctah Township ordinance and Michigan state law.

It is unclear whether the Project Area has been designated as an environmentally sensitive area by the Township Board, as is required by Sec. 17.07.A of the Zoning Ordinance. For the purposes of this review, it has been assumed that the Project Area is an environmentally sensitive area due to the possible presence of multiple state and federally recognized TES and the possible presence of bald eagles.

Table 5: Environmental Provisions Summary

Cohoctah Township Environmental Conservation Provisions:	**Included Report?**	**Comments:**
The applicant shall provide written evidence that the proposed development of the property will conform to the provisions of such Soil Erosion and Sedimentation Control Ordinance as may be in effect in the County.	Incomplete	The report mentions obtaining a Soil Erosion and Sedimentation Control permit from Livingston County prior to construction but does not specify practices that will be taken to ensure compliance.
The applicant shall provide written evidence that a sewage treatment or disposal system has been approved by the Livingston County Health Department and/or the Michigan Department of Environmental Quality, whichever has jurisdiction, and is in conformance with any additional provisions set forth in this Ordinance pertaining to setbacks from water bodies, height above water level, etc. and any other applicable State or Federal law.	Likely Does Not Apply	The report states that no hazardous waste, liquid or solid, will be produced by the project.

Cohoctah Township Environmental Conservation Provisions:	Included in Report?	Comments:
The applicant shall provide evidence that the cutting and removing of trees and other native vegetation will be performed according to the following standards: Clearcutting of woodlands and the removal of shrubbery and undergrowth shall be restricted to removal of dead, diseased or dying trees. Selective cutting which removes not more than 40 percent of the trees and which leaves a well-distributed stand of tree foliage shall be permitted. More than 40 percent of the tree coverage may be removed only as such action is recommended by a State Forester, or a private forester registered by the State and approved by the Planning Commission. Cutting shall be done in such a manner as to avoid erosion, to preserve rare species of trees or greenery, to preserve scenic qualities, and to preserve desirable screening.	Unclear	It is unclear the exact percentage of trees proposed to be removed from the site.
In all zoning districts no river, stream, watercourse or drainageway, whether partly filled with water or dry in certain seasons, shall be obstructed or altered in any way at any time by any person, except when done in conformance with State and Federal laws, regulations and standards.	Does Not Apply	Based on the current site plan, no alterations to any river, stream, watercourse or drainageway is proposed as part of the project.

Wetlands:
Based on a review of Sec. 324.30305 of MCL 324, solar facilities are not an exempt activity, and a Part 303 permit will be required for the Headland Solar project due to the presence of wetlands within the site and the anticipated impact noted by Atwell in the Environmental Compliance Report. Atwell states that permanent wetland loss as a result of the project will be limited to less than one (1) total acre. Atwell performed desktop reviews of natural features and followed up with on-site wetland delineations on the site in July-August 2022, October 2024, and November 2024. The purpose of the on-site wetland delineation was to confirm the presence of mapped features within the site. Water resources, such as floodplains, wetlands, and watercourses (streams) identified within the 1,000-foot buffer of the Site were collected from public desktop data and have not been field verified by Atwell at the time of their report. A total of 42 wetlands were mapped by Atwell within the Project Area which included freshwater emergent (PEM), scrub-shrub (PSS), forested (PFO) and open water (PUB) wetland communities using the US Fish and Wildlife Service (USFWS) National Wetlands Inventory maps. It is unclear how many of the wetlands are regulated by EGLE.

Inland Lakes and Streams:
Based on a review of Sec. 324.30102 of MCL 324, solar facilities are not listed as an operation prohibited without a permit. The Conway Cohoctah Union Drain runs through the center of the site; however, no alterations or obstructions are proposed as part of the project based on the current site plan. Due to the presence of the Conway Cohoctah Union Drain, as well as other inland lakes and streams within the Project Area, a Part 301 permit will be required for the project. Three (3) waterbodies were mapped within 1,000 feet of the site and sixteen watercourses were mapped within the site. None of the watercourses mapped on site have been mapped as a Michigan trout or salmon regulated stream. Based on desktop drainage review performed by Atwell, two (2) watercourses within the site and the 1,000-foot buffer have upstream drainage areas larger than two (2) square miles, indicating the potential for the site to contain state regulated floodplains under Part 31 of MCL 324. Atwell states that a floodplain evaluation request has been sent to EGLE and at the publishing of their report a response had not been received.

Threatened and Endangered Species:
Atwell utilized the USFWS IPaC system to identify any federally listed Threatened and Endangered Species and critical habitat within the Project Area. Atwell identified four (4) special status species potentially occurring within the Project Area. Atwell also utilized the Michigan Natural Features Inventory (MNFI) tool to identify any state TES. The MNFI identified zero (0) state-listed TES within the Project Area.

Eastern Massasauga Rattlesnake (EMR) (Sistrurus Catenatus)
Status: Federally and state threatened.
Habitat Requirements: Shallow wetlands and surrounding upland areas.
MNFI Summary: No documented occurrences within the Project Area.
Conservation Measures: None.
Atwell Notes: The Project Area does not contain USFWS Tier 1 (areas known to be occupied or highly likely) or Tier 2 (areas with high potential to be occupied) EMR habitat or potentially suitable habitat or preferred microhabitat characteristics for this species.

Eastern Prairie Fringed Orchid (Platanthera Leucophaea)
Status: Federally threatened and state endangered.
Habitat Requirements: Wet prairies and bogs, including degraded wet prairie habitats.
MNFI Summary: No documented occurrences within the Project Area.
Conservation Measures: None.
Atwell Notes: The Project Area does not contain suitable habitat.

Indiana Bat (Myotis Sodalis)
Status: Federally and state endangered.
Habitat Requirements: Forested riparian corridors and woodlots within a few miles of small to medium streams in summer.
MNFI Summary: No documented occurrences within the Project Area, however, the USFWS Bat Habitat Suitability Model indicates that approximately 877 acres of potentially suitable habitat is present within forest areas of the site.
Conservation Measures: In project areas where tree clearing is proposed, the project will follow USFWS recommended best management practices (BMPs).
Atwell Notes: The Project Area has moderate potential to contain suitable habitat. BMPs will be used in the minimal areas where tree clearing is proposed.

Northern Long-Eared Bat (Myotis Septentrionalis)
Status: Federally endangered and state threatened.
Habitat Requirements: Upland forest in summer; caves and mines as hibernacula in winter.
MNFI Summary: No documented occurrences within the Project Area, however, the USFWS Bat Habitat Suitability Model indicates that approximately 877 acres of potentially suitable habitat is present within forest areas of the site.

Conservation Measures: In project areas where tree clearing is proposed, the project will follow USFWS recommended best management practices (BMPs).
Atwell Notes: The Project Area has moderate potential to contain suitable habitat. BMPs will be used in the minimal areas where tree clearing is proposed.

In addition to the above listed species, the Bald Eagle (Haliaeetus Leucocephalus) habitat range overlaps with the Project Area, but an on-site investigation did not reveal any nests within the Project Area. Atwell claims the site and surrounding area lack suitable fishing or nesting habitat for the bald eagle. Atwell states that observing any bald eagle nests before construction will result in a 660-foot buffer as recommended by USFWS. IPaC results noted numerous birds of particular concern because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in the project location. Atwell performed on-site assessments and desktop reviews, and found it is unlikely that any impact to the migratory birds will take place with proper siting of the Project and compliance with USFWS BMPs.

The environmental compliance report prepared by Atwell lacks mention of wildlife corridors.

Conclusion
Based on a review of the Environmental Compliance Report created by Atwell, the following portions of the Cohoctah Township Zoning Ordinance and Public Act 451 of 1994 (MCL 324) are not met:

- Incomplete evidence of compliance with Livingston County Soil Erosion and Sedimentation Control Ordinance.
- Unclear data regarding tree removal percentage.

Based on a review of the Environmental Compliance Report created by Atwell, the following permits will be required under State or Township Ordinance:

- Part 303 Wetland Permit required
- Part 301 Inland Lakes and Streams Permit required

The environmental compliance report does not mention wildlife corridors.

VIII. EXHIBIT A-6.3 PERMIT LIST AND STATUS

Zoning Ordinance, Article XIII – Special Uses

- *Sec. 13.02. Authority to grant permits.*
- *Sec. 13.03. – Application and fees.*
- *Sec. 13.04. – Data, exhibits and information required in applications.*

- *Sec. 13.06. – Required standards and finding for making determinations.*
- *Sec. 13.27. Solar farm.*

Zoning Ordinance, Article XX – Site Plan Review Procedures

- *Sec. 20.07. Preliminary site plan requirements*
- *Sec. 20.08. Final site plan requirements*

Public Act No. 451 of 1994 (MCL 324), the Natural Resources and Environmental Protection Act

- *Sec. 30101-30113 – Inland Lakes and Streams.*
- *Sec. 30301-30328 – Wetlands Protection.*

Background

Atwell has compiled a comprehensive list of the permits required for the Headland Solar project. Utility-scale solar projects in Cohoctah Township are required to receive a special use permit before being approved. The project must also gain permits from the Livingston County Road Commission and Livingston County Drain Commission. Due to the environmental properties of the project area, Michigan Department of Environment, Great Lakes, and Energy permits are required as well. Finally, utility crossing permits are required from DTE, Michigan Bell Telephone Company, and Consumers Energy Company for the proposed collection lines that will run throughout the site.

Table 6: Permits Required

Subject	Responsible Agency	Expected Date of Application Submission	Expected Date of Permit Issuance
Part 301, Inland Lakes and Streams Permit; Part 303, Wetlands Protection Permit	Michigan Department of Environment, Great Lakes, and Energy	October 2026	February 2027
Field/Temporary Driveway Permit; Utility Permit	Livingston County Road Commission	October 2026	January 2027

Subject	Responsible Agency	Expected Date of Application Submission	Expected Date of Permit Issuance
Stormwater Management Plan Submission and Approval; Drain Crossing Permit; Soil Erosion & Sedimentation Control Permit	Livingston County Drain Commission	November 2026 November 2026 June 2027	March 2027 March 2027 August 2027
Special Use Permit and Site Plan Approval	Cohoctah Township	April-May 2025	June-July 2025
Utility Crossing Agreement	Michigan Bell Telephone Company	August 2025	September 2025
Utility Crossing Agreement	DTE	August 2025	December 2025
Utility Crossing Agreement	Consumers Power Company	August 2025	December 2025

Conclusion

Atwell has compiled a comprehensive list of the permits required for the Headland Solar Project. The list includes the subject of the permits, the agency responsible for issuing the permits, the expected date of application submission for the permits, and the expected date of issuance for the permits. As of the time of the application being submitted, no permits have been issued for the project. Based on the predicted timeline, all permits should be received by August 2027.

IX. EXHIBIT A-6.4 STORMWATER MITIGATION PLAN

Zoning Ordinance, Article XX – Site Plan Review Procedures

- *Sec. 20.07.10 – Drainage Facilities*

Background

The Headland Solar project has contracted Atwell to prepare the stormwater mitigation plan for the project location. The plan's current status is in its preliminary phase, which roughly defines measures to address stormwater runoff from the proposed photovoltaic arrays on adjacent parcels and summarizes the necessary improvements detailed from consultations and an in person meeting on March 5, 2025 with the Livingston County Drain Commissioner's (LCDC) Office. The map itself contains the location of county and private drains, drainage districts, and municipal boundaries and tax parcels. The plan does not include stormwater management for the substations and operation and maintenance buildings and states the plan will be provided with the final design submittal.

Results

The stormwater mitigation plan contains 77 numbered impact areas and flow arrows, color-rated by severity and priority. Additionally, LCDC improvement comments dated March 25, 2025, derived from the consultant meeting are marked on the plan set. As indicated on the current plan, there are 31 runoff areas and seven county-established drains with arrows indicating surface flow discharging to the drains, located within Cohoctah Township. It also appears that surface flow will be routed to EGLE-regulated wetlands. Note that there are more indicated privately maintained water courses, tile, and wetlands within the area, but the provided plan set does not currently show flow reaching them. Listed below are comments from the LCDC office and a summary table of runoff table ratings:

1. Areas 1& 2 flow to Shiawassee County – Requires Approval of Intercounty Drain Board.
2. To avoid flow onto parcel 4702-07-300-002, divert flow from Area 27 west to a new inlet on the east side of Owosso Rd. and connect to Livingston #24 Drain West of Owosso Rd. Improve drain Livingston #24 -limits to be defined.
3. Provide water quality basin at the NE corner of Hayner/Owosso Roads to treat runoff from area 31 prior to Discharge under Owosso Road and parcel 4701-13-200-005. Improve Drain Conway #3 (Tile Portion), which receives this runoff.
4. Provide water quality basin for runoff from area 33 prior to discharge to parcel 4701-13-200-003. Divert runoff from area 34 south to tile portion of Conway #3, Noted to be improved in Note #3.
5. Provide water quality basin for runoff from area 35 prior to discharge into existing tile that flows to the Conway-Cohoctah Union (CCU) Drain.
6. Provide intercepting swale and water quality feature to capture and divert runoff from areas 38&40 into a controlled discharge to Drain Branch #3 of CCU. Outlet improvements to Branch #3 of CCU (proposed 36" tile) will be provided east of Owosso Road to the CCU Drain.
7. Improvements to Youngs Drain, enclosed tile to 36" – Limits TBD

8. Improvements to Stoner Drain, enclosed tile to 18" – Limits TBD
9. Improvements to Gleason Drain, enclosed tile to 18" – Limits TBD

Table 7: Stormwater Runoff Areas Summary

Priority By Color	Area Drainage Description	Total Count
A	Non-Participating Parcel W/ Home (Residential Area)	1
B	Non-Participating Parcel W/ Home (Wetland, Wooded or Agricultural Area)	2
C	Non-Participating Parcel or LCDC Road R.O.W (Wetland, Wooded or Agricultural Area)	4
D	Participating Parcel (Wetland, Wooded or Agricultural Area)	5
E	Established Drain (County or Private)	19

Conclusion

Upon reviewing the stormwater mitigation plan, it is evident that it is still in the preliminary phase. Included in the plan, listed as stormwater design guidance, states: the final project design will be required to provide an analysis summarizing a comparison of the existing and proposed runoff from all array areas to identify where runoff would increase. In those areas, a stormwater volume BMP (I.E. basin or other approved methods) will be necessary. In addition, it also requires an analysis to summarize the proposed method to meet water quality goals through standards and guidelines by the respected county and state agencies. These requirements are still yet to be fulfilled in the current report, as well as Township ordinance requirements requiring surface runoff calculations, permanent swale and water quality basins dimensions, contours to verify flow arrows, and identification of pervious and impervious surfaces with percentage indicating the makeup of the project area. We would recommend that the Cohoctah Township Planning Commission request the final design plan and subsequent report that details the design of basins, outlet structures, and best management practices to be used within the project to determine the adequacy of mitigating additional stormwater generated by the project; to ensure the plan conforms to local ordinances and state requirements prior to approval.

EXHIBIT F

EXHIBIT G

JOURNAL OF NATURAL RESOURCES AND DEVELOPMENT

Research note

Potential for leaching of heavy metals and metalloids from crystalline silicon photovoltaic systems

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Article history

Received 28/12/2018
Accepted 07/05/2019
Published 28/05/2019

Keywords

Photovoltaics
Green energy
Crystalline silicon
Selenium

Abstract

Photovoltaics (PV) are a rapidly growing technology as global energy sectors shift towards "greener" solutions. Despite the clean energy benefits of solar power, photovoltaic panels and their structural support systems (e.g., cement) often contain several potentially toxic elements used in their construction. Determining whether these elements have the potential to leach into surrounding environments should be a research priority, as panels are already being implemented on a large scale. In this study, we analyzed soil taken from beneath photovoltaic modules to determine if they are being enriched by metals (lead, cadmium, lithium, strontium, nickel, barium, zinc, and copper) and metalloids (selenium) present in panel systems. The soil samples were collected from directly beneath c-Si photovoltaic modules and adjacent fields. Samples were analyzed by inductively coupled plasma optical emission spectrometry (ICP-OES). Selenium, strontium, lithium, nickel, and barium levels measured in soil samples increased significantly in samples closer to PV systems. There were no significant differences in lead or cadmium levels near vs. far from the PV systems. Despite concentration differences for some elements near vs. far from the panel systems, no elements were, on average, present in concentrations that would pose a risk to nearby ecosystems. PV systems thus remain a cleaner alternative to traditional energy sources, such as coal, especially during the operation of these energy production systems.

1. Introduction

The demand and innovation of renewable energy systems is increasing as global temperature rises and fossil fuel reserves are exhausted (International Renewable Energy Agency, 2016). Current energy sectors are shifting towards renewable energy, with significant amounts of money ($285.9 billion: 2015) being invested in the development of wind, hydro, and photovoltaic systems (REN21, 2016). Photovoltaic (PV) systems are considered by some to be the most promising of renewable technology as they do not suffer from the same aesthetic and "not in my backyard" controversies as wind power (Good, 2006); nor do they have the same ecological impacts as the infrastructure used for hydroelectric production (Chen, Chen, & Fath, 2015). In 2015, the annual market of photovoltaic systems increased tenfold over the previous decade (REN21, 2016). This uptick in use has brought increasingly diverse applications of PV technology, including Tesla's solar roof tiles, solar vehicles such as Solar Impulse, and floating PV panels (Harvey, 2016; Vaughan, 2016). Given the potential scale of application of these systems, considering environmental impacts of PV panel installation is important; whether PV systems present any serious ecological risk to surrounding environments during their use is currently unknown.

Photovoltaic panels contain several components known to present health risks to both wildlife and human populations. Metals and metalloids commonly used in panels include cadmium (Cd) and selenium (Se) semiconductors, copper (Cu) wiring, nickel (Ni) and silver (Ag) contacts, tin (Sn) and lead (Pb) soldering, and strontium (Sr) and barium (Ba) doping used to increase panel efficiency (Silicon Valley Toxics Coalition, 2009). Furthermore, structural support components of the PV system, including cement foundations, may also leach hazardous elements into surrounding environments over time (Lu et al., 2016). Lead and Cd, in particular, are contaminants of concern in the solar panel industry due to both their abundance within panels as well as their highly toxic nature (Aman et al., 2015). For example, exposure to Pb can cause kidney and brain damage as well as mortality in humans (Silicon Valley Toxics Coalition, 2009). Lead is also well documented to reduce reproduction, increase behavior problems, and cause mortality in wildlife (Needleman, 2004; Tranel & Kimmel, 2009). Cadmium is toxic to the kidneys, blood, prostate, and respiratory system (Silicon Valley Toxics Coalition, 2009). Other metals found within PV materials that are also highly toxic include Ni and Cd, which are known carcinogens (Needleman, 2004; Silicon Valley Toxics Coalition, 2009); copper (Cu), which can cause kidney and liver damage; Se, which can cause selenosis, a disease of the respiratory system, as well as hair loss and nail brittleness (Silicon Valley Toxics Coalition, 2009); and Sr, which can have negative effects on bone development if consumed in large quantities (Agency for Toxic Substances and Disease Registry, 2004). Despite the known toxicity of these elements, currently there is little information regarding whether or not PV panel systems can leach metals and metalloids into their environments during normal operation.

Photovoltaic environmental life cycle analyses (LCAs) typically address upstream and downstream processes (Corcelli et al., 2018; Stoppato, 2008). A few studies do, however, discuss leaching of metals and metalloids. For example, Alsema, de Wild-Scholten and Fthenakis (2006) and Bohland and Smigielski (2000) both mention minuscule, non-harmful levels of cadmium leaching from panels. Other studies have broken up or ground PV panels into pieces and exposed them to solutions with a lower pH, mimicking acidic rain or waste water (Okkenhaug, Hauge, & Arp, 2010; Zapf-Gottwick et al., 2015). Specifically, Zapf-Gottwick et al. (2015) found significant amounts of Pb leached from panels, while Okkenhaug, Hauge, and Arp (2010) found only slightly elevated levels of Cd and Se leached in solution. However, in addition to having equivocal results, these lab studies were not done in the field during normal operation; thus, the question remains if panels leach harmful materials under realistic operating conditions.

The goal of this research is to determine if PV installations are capable of leaching their metal and metalloid components, especially Pb and Cd, into the environment at levels that are hazardous to both human and ecological health. To achieve this goal, we collected soil samples from beneath c-Si modules and from adjacent, module-free environments, and then compared bioavailable element concentrations between these samples. Accordingly, we asked the following questions: (1) Do soils near PV systems contain higher bioavailable concentrations of metals and metalloids? (2) Are bioavailable concentrations of metals and metalloids near PV systems of human health and ecological concern?.

2. Methods

Study Site

The PV installation sampled is a 750,000-watt installation at State University of New York at Buffalo. Each module consisted of monocrystalline silicon panels with a length of 1.64 m (64.6 in) and a width of 1.00 m (39.4 in). Panels were arranged in rows of twelve with a height ranging from one panel to eight. The modules were installed in the winter of 2011 through 2012, and became fully operational in April of 2012.

Sample Methods

Soil samples were collected in June of 2017. Starting at 100 ft from the edge of the outside modules, samples of about 500 g were collected every 15 ft following a 250 ft line parallel to a section of the PV modules. Working inwards to minimize possible contamination, samples were taken again at 45 ft and again at one final transect through the middle of the PV modules. Each of the five transects (100 ft, 45 ft, 0 ft) had a total of fifteen samples taken for a total of 45 samples collected.

200 g of each sample was then transferred to brown paper bags and dried for 48 hours at 65 °C. Samples were passed through a 2 mm sieve to remove large particulate matter. Samples were ground for 1 min using an agate mortar and pestle. The ground samples were then passed through a 0.125 mm sieve, with 2.5 mg of each being transferred to a 50 mL polypropylene centrifuge tube.

Metal Extraction

For the extraction process, we followed TCLP Method 1311 set forth by the U.S. Environmental Protection Agency (1992). Following the above protocol, because the pH of our soil solutions was >5, we used TCLP reagent number 2 U.S. Environmental Protection Agency (1992). Following the TCLP reagent number 2, 5.7 mL of Glacial Acetic Acid (CH_3CO_2H) was diluted with 1 L of nanopure water. The final pH of the solution was 2.86. Each 50 mL tube with 2.5 g of soil received 50 mL of the diluted CH_3CO_2H (20x the sample mass). The tubes were then rotated for 18 hours at 30 rpm. Four blank tubes filled with 50 mL of nanopure water accompanied each round of samples and were processed as controls. Acetic acid extraction is often used for determining leachable (i.e., bioavailable) fractions of metals in soil (Dean, 2010), and thus is appropriate for use in studies like ours that are interested in risk assessment to local ecosystems.

Sample Analysis

After rotation, samples sat overnight and then were decanted into 15 mL polypropylene centrifuge tubes using a pipette. They were then analyzed for Pb, Cd, lithium (Li), Sr, Ni, Ba, zinc (Zn), Cu, and Se using inductively coupled plasma optical emission spectrometry (ICP-OES), with results being reported in parts per million (ppm). We used ANOVA (SPSS 24; IBM) to compare element concentrations across our three sample transects.

3. Results

We found no difference in Cd concentrations ($F_{2,27} = 0.20$, $p = 0.82$; **Figure 1**) or Pb concentrations ($F_{2,27} = 2.08$, $p = 0.14$; **Figure 1**) along our distance gradient away from the panels. Selenium levels increased by 97 % from 100 ft to 0 ft in proximity to the PV panels ($F_{2,27} = 9.96$, $p < 0.01$; **Figure 1**), Li increased by 386 % ($F_{2,27} = 4.74$, $p = 0.02$; **Figure 1**), Sr increased by 86 % ($F_{2,27} = 4.89$, $p = 0.02$; **Figure 1**), Ni increased by 37 % ($F_{2,27} = 7.18$, $p < 0.01$; **Figure 1**), and Ba increased by 61 % ($F_{2,27} = 5.25$, $p < 0.01$; **Figure 1**). Zinc and Cu decreased significantly from the 100-foot mark to under the panels. Copper decreased by 1277 % ($F_{2,27} = 18.23$, $p < 0.01$; **Figure 1**) and Zn decreased by 195 % ($F_{2,27} = 21.32$, $p < 0.01$; **Figure 1**).

4. Discussion

In this study, we found that soil enrichment of Pb and Cd did not occur with closer proximity to PV systems. The values recorded for Se, Li, Sr, Ni, and Ba show a significant increase in concentration in soil closer to PV systems, while Zn and Cu increase significantly away from the systems. Below, we compare our results to soil concentration risk thresholds established by the Environmental Protection Agency's (USA) Ecological Soil Screening Level (Eco-SSL) risk assessment (U.S. Environmental Protection Agency, 2018), which is a conservative soil screening process that assumes soil metals are present in bioavailable form. In addition, we discuss the potential for leaching of potentially toxic elements from operational PV systems.

Several elements tested were either not variable across our distance gradient or were present in low concentrations that are not of immediate environmental concern. While studies suggest that Pb and Cd are the most common leachates from PVs (Okkenhaug, Hauge, & Arp, 2010; Zapf-Gottwick et al., 2015), Pb and Cd measured in this study were not elevated in soils near PV systems and were far below levels considered to be an imminent or future danger to environmental health [wildlife risk threshold for Pb: 11 µg - 1 g; for Cd: 0.36 µ - 1 g (U.S. Environmental Protection Agency, 2018)]. For intact PV panels, leaching of these elements is unlikely to occur, thus most of the concern for contamination of Pb and Cd from solar panels relates to panels disposed in landfills that degrade over time, and become exposed to water (Zapf-Gottwick et al., 2015). However, it is possible under operating conditions that PV panels can leach toxic elements if water penetrates into the modules through damaged areas, such as cracks in the module glass or through defective laminations. Thus, it appears that the modules studied here are intact and do not provide a mechanism for the leaching of internal Pb and Cd. Although Li, Ba, Ni, and Sr were recorded as significantly higher in soils beneath PV panels, the amounts recorded for these elements were all well below the soil screening values defined by the EPA and others (Shahzad et al., 2016; U.S. Environmental Protection Agency, 2018; 40 C.F.R. § 261.24, 1996); thus, the c-Si panels do not seem to pose a risk of contamination of these elements during normal operation.

Selenium was observed to be significantly higher in soils closer to our study PV panels. In contrast to the other recorded elements, the levels observed may be of concern. The Eco-SSL risk threshold soil values for Se are 0.52 µg - 1 g for plants, and 0.63 µg - 1 g for mammals (U.S. Environmental Protection Agency, 2018). In our study, the average Se concentration measured directly by the PV systems was 0.48 µg - 1 g , while the highest level of Se observed near the PV systems was 0.57 µg - 1 g. Thus, using the conservative risk thresholds established by the EPA's Eco-SSL, Se concentrations near the PV systems are approaching a level of environmental concern for local plants and other wildlife. However, over time, even low concentrations of certain elements can become problematic due to accumulation in soil and nearby organisms. Bioaccumulation of Se occurs in both aquatic and terrestrial ecosystems (Mann, Vijver, & Peijnenburg, 2011). A study done in association with the US Department of Agriculture (Bañuelos et al., 2002) addressing phytoremediation of Se found that the Se accumulated could be transferred to animals that consumed the plants. Likewise, deleterious effects of predators could occur if they were to consume these animals with elevated Se in their tissue (Mann, Vijver, & Peijnenburg, 2011). Environmental regulators have noted the potential of Se to integrate into trophic systems, and have thus set acceptable levels extremely low when compared to other metals and metalloids (Ministerie van Volkshuisvesting, 2000). Future studies examining leaching of elements from PV systems should consider indirect effects of these elements on ecosystems, including bioaccumulation by plants and animals near PV systems. C-Si panels are not known to contain appreciable amounts of Se, thus the source of Se observed in our study is unclear. In a similar study that examined both copper indium selenide (CIS) panels and cadmium telluride (CdTe) panels, Se in soil near CIS panels on roofs was found to be elevated by 0.3 µg per g when compared to surrounding soil.

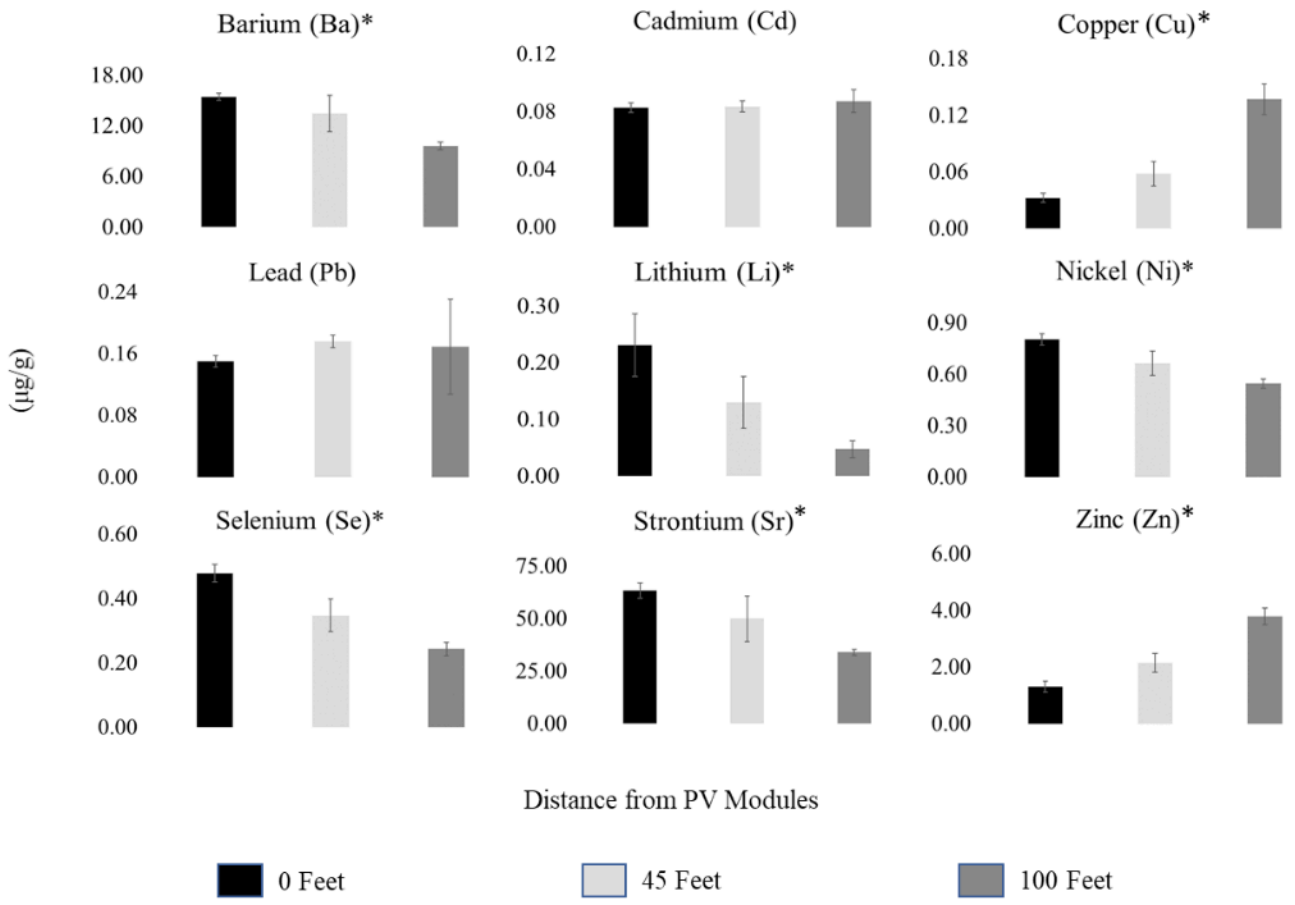

Figure 1: . Soil concentrations of barium (Ba), cadmium (Cd), copper (Cu), lithium (Li), nickel (Ni), lead (Pb), selenium (Se), strontium (Sr), and zinc (Zn) at varying distances from the photovoltaic panels. Asterisks indicate significant differences among groups.

Conversely, Se levels in soil near CdTe were not elevated (Steinberger, 1998). C-Si panels do not have Se concentrations as high as amounts reported in CIGS (Copper Indium Gallium Selenide) panels (Silicon Valley Toxics Coalition, 2009). Likewise, Sr, which is a new material to the PV panel industry, does not have an integral position to the manufacturing of PVs. The most common application currently for Sr in PV cells is to increase the efficiency of perovskite panels (Shai et al., 2017; Wu et al., 2018). However, c-Si panels, like those studied here, generally incorporate perovskite technology without Sr (Ba, Liu, & Shen, 2018).

Therefore, the source of metals and metalloids documented under the PV system in this study may be from system components other than the panels themselves. Terrestrial PV modules are constructed of c-Si panels mounted on aluminum frames, which are secured into the ground using cement. It is quite possible that the elevated levels of Se and other elements studied here are a result of the cement used in construction. An impact assessment study conducted on a quarry and cement plant in California found discharge from the plant contained levels of Se well over 50 mg^{-1} L. The source of this was identified as the limestone mined for use in cement (Nalbandian, 2012). Furthermore, in addition to metals being introduced in raw materials (e.g., Se and Sr in limestone), the production clinker granules within cement are often produced using coal fly ash additives, which can introduce metals such as Ba, Cr, and Ni (Cipurkovic et al., 2014). These metals may later leach from the cement into the environment following exposure to water under realistic environmental conditions (Lu et al., 2016). Thus, our reported increase of bioavailable metals and metalloids beneath the intact panels should prompt further investigation regarding PV system-wide pollution.

Overall, PV systems should still be considered a clean energy relative to traditional sources. In comparison, the amount of Pb in fly ash (product produced from coal combustion) is 7.00 $\mu g^{-1}g$, Cd is 0.093 μg^{-1} g and Se is 2.15 μg^{-1} g (Nalbandian, 2012). Although most of this contaminated fly ash may not affect the immediate vicinity, it is commonly disposed of in landfills and as a soil amendment in agriculture (Haynes, 2009). Despite toxic metal components, the PV panel industry is growing at such a fast pace that innovation should quickly phase out the use of harmful substances.

Examples of this include use of materials other than Pb for soldering as well as using organic materials as semiconductors instead of metals and metalloids (Kippelen, & Brédas, 2009). However, until these advancements occur industry-wide (e.g., organic materials are not yet commercially used as semiconductors due to low efficiency and stability; (Burlingame et al., 2018)), further studies are needed to determine the extent of leaching that occurs using current PV technology. While TLCP analyses of solar panels are common place for waste characterization [e.g., Okkenhaug, Hauge, & Arp, 2010), there is a paucity of studies that assess potential for leaching of toxic elements from PV systems during active operation.

We conclude that while no elements were, on average, above soil screening thresholds established by the EPA's Eco-SSL, further studies are needed to determine the impacts of PV system installation and operation on terrestrial ecosystems. PV systems, however, remain a cleaner alternative to traditional energy sources, such as coal, especially during the operation of these energy production systems.

Acknowledgments and Financial support

This project was funded in part by The Ronald E. McNair Postbaccalaureate Achievement Program at Binghamton University. We thank our colleagues at Binghamton University including Jonathan Schmitkons, John Titus, Joseph Graney, and David Collins. A special thanks to Alona Armstrong of Lancaster University for her role in inspiring this project.

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EXHIBIT H

GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS
PUBLIC SERVICE COMMISSION

MARLON I. BROWN, DPA
DIRECTOR

KATHERINE PERETICK
COMMISSIONER

DAN SCRIPPS
CHAIR

SHAQUILA MYERS
COMMISSIONER

Mr. Brandon Hubbard
Dickinson Wright PLLC
123 W. Allegan St, Ste. 900
Lansing, MI 48933

RE: Case No. U-21932 – In the matter of the application of ACCELERATION SOLAR, LLC for a Renewable Energy or Storage Siting Certificate to construct a solar energy facility.

August 1, 2025

Dear Mr. Hubbard,

On June 18, 2025, Acceleration Solar, LLC (applicant) filed an application with the Michigan Public Service Commission (Commission) for a certificate under Section 222(2) of Public Act 233 of 2023 (PA 233). The proposed project presented in the application is a solar energy facility with a proposed output of approximately 90 MW_{AC} to be located in Leslie, Onondaga, and Vevay Townships, Ingham County.

Under Section 225(2) of PA 233, the Commission is required to determine whether the application is complete within 60 days of submission. A complete application is one which complies with the requirements of Section 225(1) of PA 233, as applied through the Commission's Application Filing Instructions and Procedures (AFIP) and other orders and guidance materials.

Consistent with Section 225(2) of PA 233 and AFIP 4(a)(4), this memorandum serves to notify you that Commission Staff has completed its review of the application and determined that the application is incomplete. A description of application deficiencies and the information necessary to make the application complete is included with this memo.

Additional filings are required if the application is to proceed. The applicant may make changes to its application to correct the deficiencies and resubmit its new application, which Commission Staff will again review for sufficiency and completeness. Along with additional documentation, Staff also requests the applicant file an updated Exhibit A-16, identifying portions of the application where changes or updates were made. Please be aware that application information not identified as incomplete may still require further development and submissions from the applicant in the course of the Commission's review process. Further, information submitted to cure items identified as incomplete will be subject to further review by Staff, and may also require further development and submission from the applicant. This memorandum is intended to

address only the process identified in Section 225(2) of PA 233 and AFIP 4(a)(4) and nothing in this memorandum should be construed as addressing the sufficiency of the applicant's filing under Section 226(7) of PA 233 for issuance of a certificate.

To request further information or with questions, please email LARA-MPSC-Siting@michigan.gov, which will reach the Michigan Public Service Commission's Renewable Energy and Storage Siting Section.

The below list contains items determined to be incomplete in Staff's review. The order of incomplete items aligns with the application as filed. Each item is labeled according to the requirement of the Commission's Application Filing Instructions and Procedures and/or law. Where possible, Staff included descriptions of what may be provided to complete the application as filed.

Exhibits A-1.1 through A-1.16 (Site Plan)

1. (AFIP 7) – Assure all items provided are clear and legible, which in some instances may entail providing the below items on separate layers, separate maps, or by showing some areas on another scale.

Exhibit A-1.1 (Planned Facilities)

2. (AFIP 7; AFIP 7.1(a)(3)) – Provide drawings clearly delineating the limits of clearing and disturbance for construction of the facility and ancillary features on the Site Plans.
3. (AFIP 7.1(a)(5)) – Provide a map showing the full length of the waterbody identified in parcel 33-13-13-01-200-014, or identify where it is provided in the application.
4. (AFIP 7.1(b)) – Provide clear depictions of the planned locations of the vegetative cover that are proposed, including e.g., labeling individual pollinator seed mixes.
5. (AFIP 7; AFIP 7.1(c); AFIP 7.1(a)(7); AFIP 7.1(a)(9); AFIP 6.3.10(a)(1)) – The dimensioned drawings of the project provided, including Appendix 2 Exhibit A-1.1 Sheets 6-9, contain the following items lacking clarity/legibility. Provide dimensioned drawings or maps consistent with the requirements of AFIP 7.1 which resolve these items. Multiple maps may be provided for different features to avoid cluttering.
    a. The measurements within the drawings are inconsistent with the scale provided.
    b. The drawings fail to distinguish between occupied and unoccupied structures, or between participating and non-participating properties.
    c. The drawings, in many instances, do not provide the measurements between features and the project fence.
    d. The drawings do not identify the shared property lines of adjacent non-participating properties.
    e. The drawings fail to distinguish the feature(s) referenced by the "Exist. Road R.O.W" markers.
    f. It is not clear whether setbacks for public roads are measured from the edge of the right-of-way; if not, provide them.
6. (AFIP 7; AFIP 7.1(c); AFIP 7.2(a)(9)) – Provide versions of site plan figures and maps showing boundaries of participating and neighboring non-participating parcels – do so particularly where such boundaries would improve clarity, such as in Appendix 2, Exhibit A-1.1 Sheets 06-09.

Exhibit A-1.2 (Area Land Use Information)

7. (AFIP 7.2(a)(7)) – Clarify whether there are any designated agricultural districts within the proposed facility and within 1000ft of the proposed facility; if so, display them on Exhibit A-1.2 maps.
8. (AFIP 7.2(a)(8)) – Provide a map in Exhibit A-1.2 displaying forest lands within the proposed facility and within 1000ft of the proposed facility.
9. (AFIP 7.2(a)(8)) – Clarify whether there are major communication infrastructure within the proposed facility and within 1000ft of the proposed facility; if so, display them on Exhibit A-1.2 maps.

Exhibit A-1.3 (Explanatory Information)

10. (AFIP 7.3(a)) – Provide a description of the socioeconomic and demographic profiles of the project area and the portion of the community where the project will be sited.
11. (AFIP 7.3(a)) – Provide a description of the major industries in the project area and the portion of the community where the project will be sited.
12. (AFIP 7.3(a)(1)(iii)) – Provide justification for how the proposed project location, layout, construction methods, planned screening, etc. minimize visual impacts of the project on adjacent landowners and the broader communities containing the project. This may include identifying any visual impact or aesthetic requirements in the zoning ordinances of each affected local unit and explaining how the project design meets or exceeds those standards, or justification for not doing so.
13. (AFIP 7.3(a)(5)) – Describe the plan to meet or exceed pollinator standards as established by the Pollinator Habitat Planning Scorecard by achieving a score of 76 or higher, for example by providing the filled-out version of the Scorecard for the project and associated explanation. As part of the description for meeting or exceeding pollinator standards throughout the *lifetime* of the proposed facility, provide the maintenance plan for the vegetation and note if it is compatible with the identified seed mix(es) to be installed.
14. (AFIP 7.3(a)(6)) – Provide electrical design details describing how metal fences surrounding substations or other energized equipment will be grounded and bonded in compliance with the National Electric Code (e.g., NEC 2023 Article 250.190). This description may be supported by illustrations of typical grounding details (e.g., grounding rods, bonding jumpers, conductor sizes).

Exhibit A-1.4 (Construction Information)

15. (AFIP 7.4(a)(1)) – Describe the project's soil surveying and testing plans, pursuant to NREPA. This may include, but is not limited to:
    a. Soil surveying and testing required for permitting, such as Soil Erosion and Sedimentation Control permitting under Part 91 of NREPA;
    b. Soil surveying and testing conducted during environmental site assessments to verify compliance applicable provisions of NREPA, such as a baseline environmental assessment; and,

c. Soil surveying and testing used to inform the project's proposed construction and installation methods.

16. (AFIP 7.4(a)(2)) – Provide the project's proposed methods for grading and excavation.

Exhibit A-1.5 (Alternatives)

17. (AFIP 7.5(a)) – Provide a map and description of each alternative site location, proposed site layout, or other alternative that was considered for the proposed project but was not ultimately selected for development, and provide rationale for why each such alternative was not selected.

Exhibit A-1.6 (Changes)

18. (AFIP 7.6(a)) – The application must include a map and description of each potential modification or variation to the proposed site plan being considered at the time of filing and that will be finalized prior to construction. A description may include conditions that would trigger the change, and when those conditions would be known and the ultimate decision made.

19. (AFIP 7.6(a)) – Provide maps depicting the changes described in Appendix 2, Exhibit A-1.6 Changes #1, 3, 4A, 4C, and 8. For each other change fitting within the categories presented in Appendix 1, Exhibit A-1.6, provide a map and description.

Exhibit A-1.9 (Emergency Response Plan)

20. (AFIP 7.9(a)) – Exhibit A-1.9 should include the entirety of the Emergency Response Plan (ERP). As submitted, multiple required items are contained elsewhere in the application (such as within Appendix 1, Exhibit A-1.9), but not within the ERP itself (Appendix 2, Exhibit A-1.9). Provide an ERP which includes all information required under AFIP 7.9. In particular, provide an ERP which includes the following omitted items:

    a. (AFIP 7.9(a)(1)) – Evidence of consultation, or a good-faith effort to consult with, local first responders and county emergency managers. Evidence of a good-faith effort to consult with local first responders could include a description of the efforts that were made to initiate consultation. Evidence of consultation could include meeting dates, attendees, and any noteworthy outcomes or revisions to the ERP as a result of such consultation.

    b. (AFIP 7.9(a)(2)) – A full list of contingencies (excluding fire) that would constitute a safety or security emergency, including but not limited to, the following items which are discussed elsewhere in the application:

        i. Specific types of severe weather events.

        ii. Personnel (or visitor) health emergencies or injuries.

        iii. Cyber security emergencies.

        iv. Capacity or transmission emergencies.

v. Any additional specific contingencies currently not within the ERP.

c. (AFIP 7.9(a)(3)) – Specific emergency response measures by contingency, which may include a more complete description of "robust emergency response protocols" (as described in the ERP) for each contingency.

d. (AFIP 7.9(a)(4)) – Evacuation control measures for each contingency. If any aspects of evacuation measures will be determined at a later point, provide detail for when and how these measures will be determined.

e. (AFIP 7.9(a)(5)) – Community notification procedures for each contingency.

f. (AFIP 7.9(a)(6)) – Clear identification (for example, on a basic map) of the primary approach and departure routes for emergency vehicles, entrance locations, and primary access roads for the project. The ERP notes that access roads will be 12-foot wide, while other application materials note 14-foot access roads; this discrepancy should be clarified.

Exhibit A-1.10 (Fire Response Plan)

21. (AFIP 7.10(a)) – Exhibit A-1.10 should include the entirety of the Fire Response Plan (FRP). As submitted, multiple required items are contained elsewhere in the application (such as within Appendix 1, Exhibit A-1.10), but not within the FRP itself (Appendix 2, Exhibit A-1.10). Provide an FRP which includes all of the information required under AFIP 7.10. In particular, provide an FRP which includes the following omitted items:

    a. (AFIP 7.10(a)(1)) – Evidence of consultation, or a good faith effort to consult with local fire department representatives, or, in the alternative, the State Fire Marshall or other local emergency manager. Evidence of a good-faith effort to consult with local first responders could include a description of the efforts that were made to initiate consultation. Evidence of consultation could include meeting dates, attendees, and any noteworthy outcomes or revisions to the FRP as a result of such consultation.

    b. (AFIP 7.10(a)(2)) – Detail regarding the on-site equipment and systems to be provided or to prevent or handle fire emergencies. This description should include equipment and systems in the O&M building, and any other equipment or systems that will be utilized in on-site project areas other than the O&M building.

Exhibit A-1.14 (Unanticipated Discoveries Plan)

22. (AFIP 7.14(a)) – Provide anticipated impacts and plans to mitigate impacts to the environment and natural resources, including evidence of all environmental impact assessments referenced on page 2 of Application Appendix 2, Exhibit A-1.14. The applicant may choose to include this additional information in Exhibit A-6.2 and provide reference in Exhibit A-1.14.

Exhibit A-1.16 (Complaint Resolution Process)

23. (AFIP 7.16(a)(5)) – Within the Complaint Resolution Process, provide procedures for regular reporting of each complaint, and how *each* complaint was resolved.

Exhibit A-2 (Project Description)

24. (AFIP 6.3.2(a)(2)(iii)) – Regarding Appendix 2 Exhibit A-2. The AFIP indicates that the applicant is to indicate "The percentage of land within the township, city, or village dedicated to energy generation at the time of the application" and "the percentage of land within the county dedicated to energy generation at the time of the application." The applicant indicates that the land associated with energy production is unknown, however the applicant also indicates the known presence of energy generation, e.g. a solar energy project located on 155 acres in Leslie Township. Provide the estimated percentage of land within the townships and county dedicated to energy generation based on publicly-available data and any other data available to the applicant. The estimate should include the percentage of land dedicated to energy production from the Blue Elk Solar project(s), as well as natural gas and petroleum facilities identified by the applicant in the north part of Ingham County. Publicly-available data sources may include the MPSC GIS hub to find current solar and wind facilities located within each township and within Ingham County.

Exhibit A-4.2 (Local and Community Outreach)

25. (AFIP 6.3.4(a)(2)(i)) – Provide a summary of outreach conducted to community groups, environmental organizations, and labor union representatives. For each interaction, provide at a minimum the date and time the outreach took place, who participated in the consultation, and a summary of findings, which may include any follow-up actions that were identified.

Exhibit A-4.4 (Agency Consultations)

26. (AFIP 6.3.4(a)(4)) – Regarding Application Appendix 2, Exhibit A-4.4, include each item designated by the AFIP for all consultations. Regarding each necessary permit, provide the timeline associated with securing that permit ("associated timeline"), including any permitting requirements and next steps to meet the requirements of the agency and any applicable laws. Required information is not limited to the period prior to construction. Staff was able to identify the following items as missing; if they were not provided, indicate as such.
    a. MDNR (Wildlife Division) – next steps and associated timeline.
    b. EGLE – Time of consultation on February 26, 2025, next steps, and associated timeline.
    c. County Road – Time of consultation on May 12, 2025, and associated timeline.
    d. SHPO – next steps and associated timeline.
    e. MDARD – associated timeline.
    f. County Emergency Management – associated timeline.

g. Consumers Energy – associated timeline.

Exhibit A-6.2 (Environmental Compliance)

27. (PA 233 Sec. 225(1)(f); AFIP 6.3.6(a)(2)) – In Application Appendix 1, Project Narrative on Exhibit A-6.2, the applicant states that it "will conduct comprehensive environmental assessments prior to construction to identify the expected direct impacts" of the facility. However, the application itself must include the "expected direct impacts" of the facility. Provide a complete and exhaustive environmental assessment – titled "Environmental Compliance Report" – which includes all expected direct impacts to the environment and natural resources, with comprehensive supporting evidence specific to the proposed project area. To the extent alternative project areas were also assessed based on expected direct impacts to environmental and natural resources, that information could also be presented in a similar Report.
28. (PA 233 Sec. 225(1)(f) and 225(1)(i); AFIP 6.3.6(a)(2); 6.3.6(a)(3)) – Within the Environmental Compliance Report, provide specific avoidance and/or mitigation strategies proposed based on the expected direct impacts of the project. Further, provide reasonable evidence to demonstrate that the proposed facility will comply with all applicable laws prior to commercial operation date. Such evidence may include identifying applicable laws and permits, and providing a plan for required avoidance and/or mitigation strategies.
29. (PA 233 Sec. 225(1)(i); MCL 324.1705(2); AFIP 6.3.6(a)(2)) – Within the Environmental Compliance Report, describe how the proposed project complies with the Michigan Environmental Protection Act, MCL 324.1705(2). This description should address the following items, and may also include identification of environmental impacts that also involve separate permitting decisions under the purview of other regulatory agencies.
    a. The alleged pollution, impairment, or destruction of natural resources or the public trust in these resources, with supporting evidence; and,
    b. Feasible and prudent alternatives consistent with the reasonable requirements of the public health, safety, and welfare. The results of the "site suitability tool" referenced on p18 of the Application Project Narrative, but not provided in the application, could be a part of such an assessment.
30. (PA 233 Sec. 225(1)(f) and 225(1)(i); AFIP 6.3.6(a)(2)) – In Appendix 2 Exhibit A-1.5 Alternative #3, the applicant states that a parcel was added in Onondaga Township to "ensure the project's viability and optimize power generation", while "requir[ing] minimal additional impacts". Regarding this parcel: provide the expected direct impacts on the environment and natural resources and how the applicant intends to address and mitigate these impacts. Impacts appear to include, but may not be limited to, those resulting from the additional tree clearing and development adjacent to a waterbody.
31. (PA 233 Sec. 225(1)(f) and 225(1)(i) and 226(7)(c); AFIP 6.3.6(a)(2)) – Within the Environmental Compliance Report, provide the expected direct impacts of the proposed energy facility on wetlands and waterways (including waterbodies and watercourses); a

plan describing how these impacts are proposed to be addressed and/or mitigated; and a statement and reasonable evidence that the proposed facility will not begin commercial operation until it complies with applicable state and federal law. Such content may include detailed maps and reports of wetlands, waterbodies, and watercourse assessments, and delineation methodology utilized for proposed project area and 1000-ft perimeter.

32. (PA 233 Sec. 225(1)(f) and 225(1)(i); AFIP 6.3.6(a)(ii)) – Project MNFI results include a record of the Blanding's turtle, which appears under Michigan DNR Fisheries Order 224.25. Describe expected direct impacts to this species and a plan describing how these impacts are proposed to be addressed and/or mitigated, with reasonable evidence to support compliance with law.
33. (PA 233 Sec. 225(1)(f) and 225(1)(i); AFIP 6.3.6(a)(2)(i)) – Application Appendix 2, Exhibit A-6.2 indicates that the formal consultation process with SHPO has not yet been initiated by way of application submission, and that an archaeological assessment and architectural historical survey have not begun or are incomplete. Provide the expected direct impacts of the proposed energy facility on cultural and historical resources, including sites; a plan describing how these impacts are proposed to be addressed and/or mitigated; and reasonable evidence that the proposed facility will not begin commercial operation until it complies with applicable state and federal law. A description of the expected direct impacts could include a desktop survey of cultural and historical resources within the project area and an appropriate buffer; and the plan to address and mitigate impacts / reasonable evidence for compliance with law may include a description of the applicant's plan and timeline for completing required field surveying. Each should be conducted in consultation with SHPO, or provide a justification for any consultation the applicant deemed not necessary.
34. (PA 233 Sec. 225(1)(f); AFIP 6.3.6(a)(2)(i); 7.2(a)(8)) – Provide information regarding the presence of wildlife corridors within the proposed project area and within 1000ft of the project area. For areas identified, indicate the expected direct impacts of the proposed project and impact mitigation strategies.
35. (PA 233 Sec. 225(1)(i); AFIP 6.3.6(a)(2)(ii)) – Regarding materials management and pollution prevention, provide evidence that the proposed facility will comply with Part 5 rules of Part 31 of NREPA (Mich Admin Code R 324.2001, *et seq*.).

Exhibit A-6.4 (Stormwater Mitigation Plan)

36. (AFIP 6.3.6(a)(4)(i)) – Incorporate a plan to minimize, mitigate, and repair (MMR) drainage impacts into the Stormwater Mitigation Plan.
37. (AFIP 6.3.6(a)(4)(ii); AFIP 6.3.4(a)(4)) – Regarding Application Appendix 2, Exhibit A-6.4, submitted materials include itemized guidance from the Ingham County Drain Commissioner (ICDC) issued in a February 3, 2025 meeting and through correspondence on March 25, 2025, as well as referenced guidance from a February 20, 2025 meeting with the ICDC (Application Appendix 2, Exhibit A-4.4). Address all guidance from

consultation with the ICDC in the Stormwater Mitigation Plan, or MMR upon its inclusion into the Stormwater Mitigation Plan. Further, include agency consultation details, including date and time the consultation took place, who participated in the consultation, and copies of correspondence listing necessary permits, next steps, and associated timeline for each consultation. This may be satisfied by reference to Exhibit A-4.4, so long as such information is provided in that exhibit. Upon incorporation, address the following:

a. (AFIP 6.3.4(a)(4); 6.3.6(a)(4)(ii)) Provide a comprehensive documentation of consultation with the ICDC, including all meeting minutes or summaries, guidance from the ICDC, and referenced email attachments. Clearly indicate what correspondence each attachment is associated with. Staff was able to identify the following items as missing:
    i. The referenced attachment in a February 6, 2025 email correspondence from the ICDC. Based on a February 7,2025 response from Atwell, this letter contained review and response of the concept plan and meeting notes.
    ii. The referenced attachment in a February 14, 2025 email from Atwell.
    iii. The referenced attachment in a February 20, 2025 email from PEA Group.
    iv. The guidance received from the ICDC in a February 20, 2025 meeting.
    v. Details of the February 20, 2025 meeting, such as meeting minutes.
    vi. All referenced attachments from a February 28, 2025 email from Atwell.
    vii. The referenced attachment from an April 8,2025 email from Ranger Power or verify if it is the Project Memorandum included in Exhibit A-4.4 with Subject “Panels as impervious surface”.
    viii. The document(s) referenced by the ICDC in a May 12, 2025 email from SFMatta@lan-inc.com.
b. Provide the date and time for all meetings. Staff have identified at least the following as missing:
    i. The time of the February 3, 2025 meeting.
    ii. The date and time of the consultation referenced in the Project Memorandum with Subject “Panels as impervious surface”.
c. Identify the names of the participants for each consultation. Staff has identified at least the February 20, 2025 consultation list as missing.
d. List necessary permits, next steps, and associated timeline to complete those steps for each consultation.

Exhibit A-8.3 (Host Community/Community Benefit Agreements)

38. (AFIP 6.3.8(a)(3)(i)) – Provide signed copies of Host Community Agreements (HCAs) and/or Community Benefits Agreements (CBAs).

    a. In the event that HCAs have been proposed but not signed, provide proof of submittal of the proposed HCA to each Affected Local Unit showing the date and time the proposed HCA was sent to each ALU.

    b. Provide or identify the payment provision within each HCA that specifies the exact monetary amount to be dispensed to each ALU, based upon the nameplate compacity located within that ALU. The nameplate capacity and dollar amount specific to the ALU should be specified within that ALU's (proposed or signed) HCA.

Exhibit A-8.4: (**Local Job Creation**)

39. (AFIP 6.3.8(a)(4); AFIP 6.3.14(a) and Attachment F(20)) – Provide a Project Labor Agreement (PLA), or collective bargaining agreement, for the proposed project, as applicable. Further, provide a proposal for how the applicant will meet Proposed Minimum Condition 20, or provide a justification for why the condition should not be applied to the facility. Meeting that condition requires utilizing a "Project Labor Agreement" as the term is defined under PA 233 Sec. 221(u). If such a proposal is provided, address how the PLA will comply with each term of 221(u).

Exhibit A-9 (Farmland Protection)

40. (AFIP 6.3.9; AFIP 6.3.9(b)(3-5)) – Using publicly-available data, such as https://croplandcros.scinet.usda.gov/ or the most recent National Land Cover Dataset, calculate the total number of acres of farmland within each of Leslie, Onondaga, and Vevay Townships. Using those or other tools, such as the National Resource Conservation Service's Web Soil Survey tool, calculate the total acreage of farmland in each township differentiated by type. Use the resulting values to complete the requirements of AFIP 6.3.9.

Exhibit A-13.1 through 13.3 (Decommissioning)

41. (AFIP 6.3.13(1)(iii)) – In Appendix I, Exhibit A-13.1, the applicant states "Appendix 2, Exhibit A-13.1 …[ ]… includes a facility overview, expected useful life, triggers for decommissioning, and soil analysis to ensure post-decommissioning soil quality." Appendix 2, Exhibit A-13.1 does not include any description of events which would trigger applicant-initiated decommissioning. Provide a description of events which would trigger applicant-initiated decommissioning.

42. (AFIP 6.3.13(1)(iv)) requires that the decommissioning plan contain "[a] physical and chemical analysis of the soil which can be used to ensure soil is returned to a useful condition." In Appendix 2, Exhibit A-13.1, the applicant states "According to the USDA Web Soil Survey, the physical and chemical analysis of soils within the project area indicates predominantly loam and sandy loam textures with pH values ranging from mildly acidic (6.0) to neutral (7.0), conducive to various agricultural and ecological

uses." Explain how the analysis provides sufficient details to "ensure post-decommissioning soil quality", or supplement it as appropriate.

43. (AFIP 6.3.13(2)(i)) – Provide a proposed decommissioning schedule within the applicant's decommissioning plan.

44. (AFIP 6.3.13(5)(i)) – Provide details regarding the type and manner of financial assurance the developer plans to provide within the applicant's decommissioning plan.

Exhibit 14 – (Conditions)

45. (AFIP 6.3.14(a) and Attachment F(2)) - Preconstruction Meeting
The proposed condition does not confirm that the applicant will agree to file the final drawings, plans, and permits received into the case docket prior to the start of construction. Provide a condition which includes this agreement, or explain why this condition should not be applied to the facilities.

46. (AFIP 6.3.14(a) and Attachment F(10)) - Post Construction Sound Report
Confirm that the applicant agrees to file post-construction sound measurements in accordance with MPSC Sound guidance into the case docket or explain why this condition should not be applied to the facilities. Confirm that the post-construction sound measurements will comply with AFIP Attachment D-4.2, and will accordingly be filed to the case docket within 60 days of measurements, or explain why this condition should not be applied to the facilities.

47. (AFIP 6.3.14(a) and Attachment F(16)) - Decommission Agreement
The applicant's narrative discusses the terms of its decommissioning agreement, but regarding Condition 16, does not provide sufficient further information. Provide a proposal to execute a decommissioning agreement approved by the Commission, including a commitment to execute the decommissioning agreement, or explain why this condition should not be applied to the facilities.

EXHIBIT I

Ranger Power, since you were not able to attend the Cohoctah Township Planning Commission meeting of August 7, 2025, where your application was to be reviewed and discussed, and because you have not followed up on numerous items you promised to provide on July 29, 2025, (for example the 1,000 page glare study), the Planning Commission has put in writing questions they had for answer at our September 4, 2025 planning commission meeting, where your application will again be reviewed.

Question 1

Atwell Memo: Solar Array Runoff – Effects from Change in Land Use / Ground Cover

1. Can you provide a document from the LCDC that shows their concerns for the project area?
2. Does the LCDC agree with your proposed stormwater management approach?

Question 2

Atwell Memo: Solar Array Runoff - Water Quality Compliance via Impervious Disconnection

1. "A preliminary plan would summarize the specific criteria to be included in the final design to meet WQ compliance, based on guidelines set forth by one of the referenced state agencies. The preliminary plan will include a project map identifying areas of specific concern to the Drain Office (nearby residences or drains with substandard capacity), and areas where runoff should be analyzed during final design to mitigate potential increases (proposed parking, buildings, substation equipment areas, etc.). "
Do we have this preliminary plan? If so, please direct us to it.
2. Is this memo stating that if we simply "disconnect" long rows of panels the land will not experience a problem with run-off?

Question 3

Glare Study

We are not able to open the link. We still are waiting for 15 flash drives and one paper copy of the glare study for our clerk.

Question 4

Emergency Response Plan. Please provide an amended plan to include all new proposed equipment and detailed response from EMS to Headland Solar's plans, if any exist.

Question 5

Fire Response

1) Is there an evacuation plan? If so, what is the radius?
2) How long does it take to shut off the power if there is a fire? Can we get a detailed timeline?
3) What kind of chemicals will be used? Will they be what the fire department needs to combat the fire?

Question 6

Stray Voltage Assessment: Is there one? If yes, please direct us to it.

Question 7

Noise. Sound mitigation. 271 homes within ½ mile of the project with only 2 participating parcels. Meaning, 269 non-participating parcels are affected. 20 of the 271 houses are within the 52 to 55db. What are the specific plans to be a good neighbor and reduce these sound levels? Will Headland commit to reducing the maximum sound level to 45db?

Question 8

Cultural Significance

Regarding the memorandum to Ms. Martha Macfarlane-Faes, Deputy State Historic Preservation Officer. It states that two cultural resources within or near the project's footprint were identified. Please identify the cultural resources, and locate on prints in regards to distance and proximity to the project proposed footprint or where this is located in your application.

Was there a response from the DSHP Office? Or was there any follow up attempted that's not listed within this application?

Question 9

In section 2: Solar Energy Facility Siting Certification Application, page 21 (of 50), subsection 6, Submit a Pre-construction Sound Monitoring Protocol in accordance with the guidance, it is stated in the summary that: "The nearest invertor to a non-participating residence is approximately 415 feet." Can you please:

1. Identify the property of the non-participating residence at 415 feet from an invertor?
2. Identify said property on the prints included in Exhibit A-1.1 06 through 23
3. Identify said property in Exhibit A-1.7: Sound Report and Modeling Protocol
    a. Locate property and correlating Receptor Number

b. Locate property by receptor number in Appendix B: Predicted Noise Levels in Graphs B-1 through B-8

4. Identify said property by Receptor number in Appendix C: Predicted Noise Levels Contour

a. Including corresponding Print number regarding prints C-1 through C-6

Looking at Exhibit A-1.7: Sound Report and Modeling Protocol, while cross referencing the receptor locations, the predicted Noise Levels of Appendix B and the invertor distancing in Exhibit A-1.1 prints 06 through 23, I am confused at the following:

1. Receptor # 459 is
    a. 1011 feet from an inverter according to Exhibit 1-1.1print #07
    b. 53 dB according to Exhibit A-1.7 Appendix B graph B-6
2. Receptor #260 is
    a. 992' from an inverter according to Exhibit 1-1.1 print # 09
    b. 55 dB according to Exhibit A-1.7 Appendix B graph B-5
3. Receptor # 77 is
    a. 758 feet from an invertor according to Exhibit 1-1.1 print # 08
    b. 55 dB according to Exhibit A 1.7 Appendix B graph B-2

In summary, the distance between receptors # 459 and #260 from an inverter is a difference of 19 feet resulting in a 3 dB difference between receptors # 459 and # 260. The distance between receptor #260 and # 77 from an inverter is a difference of 234 feet resulting in 0 difference of dB, between receptors # 260 and #77, both sitting exactly at 55db, which is the highest allowable dB at an outside wall of any non-participating residence required by Public Act 233.

My questions are:

1. Can you explain the discrepancy between the distancing of receptors from inverters and resulting dB inconsistencies.
2. How can you do a sound analysis without identifying the inverter brand?
3. Will Ranger Power commit to using inverters, similar to what you are doing in your Calhoun project as described by Toby?

Question 10

Removal of all buried cables, conduits, and foundations is required according to your application to restore the land during decommissioning. At Conway Township's meeting you indicated a property owner could agree to leave the cables, conduits, and foundations in the ground below three feet. You indicated to the Cohoctah Planning Commission, this would only occur if we're given leniency. Will you actually remove all cables, conduit, and foundations as stated in your application?

Question 11

Why has Ranger Power not looked at building a solar facility on Brownfields first?

Question 12

You stated at the July 29 special meeting that if this project causes flooding on nonparticipating property, you would take care of it. Where will this be stated in your application?

Question 13

At the July 29 Planning Commission Special Meeting you stated that Ranger Power is not in the business of buying property, to a question whether Ranger Power would by a property at fair market value if it could not be sold. Does Ranger Power, Headland Solar, or any other entity it owns or has a controlling interest in, own any property in the Headland Solar development area or within one-half mile of the development?

Question 14

How can you return the land to its original condition during decommissioning if you have not done a soil analysis before construction? A soil analysis is required to do so.

Question 15

I have a concern regarding the insufficient detail provided in the Headland Solar permit application related to drainage and runoff management within the proposed industrial solar facility.
Reference: Section 30, Exhibit A-6.4, Stormwater Mitigation Plan
Reference: Drawing sheet 1 of 11, storm water run-off areas
Reference: Drawing Sheet 29, Crossings and Access Road Details
Reference: email from Headland Solar dated 08/08/25
Atwell memos

- o Solar Array Runoff - Effects from Change in Use/Ground Cover
- o Water Quality Compliance via Impervious Disconnection.

From the additional information provided by Atwell/Ranger Power, I understand that a correction factor is being applied based on soil composition and the planned pollinator plantings within the facility. However, key details remain unclear and prevent a full assessment of the site's impact on water flow and surrounding land.
To better assess the potential impact, I request clarification on the following:
Solar Panel Coverage
Could you please provide the approximate number of panels planned for the entire facility, and more specifically for the Cohoctah portion of the project?
· Each panel measures 2.55 m^2 (27.5 sq ft)

· I used a baseline of 1,500 panels per acre in preliminary calculations
· The Cohoctah section is referenced as having a capacity of 107 MW

Using those assumptions, I performed a basic calculation of the surface area covered by the proposed solar panel arrays. Based on recent data from WeatherUnderground.com, several one-inch+ rainfall events occurred in 2024:

· June 5 – 1.04”
· June 19 – 1.26”
· June 21 – 1.56”

A 1” rainfall event could potentially channel 4 million gallons or more from the solar panel surfaces alone in Cohoctah Township. Regardless of tilt direction, the panels will shed water similarly to gutters, leading to channelized flow throughout the facility.

In addition, a comparable volume of runoff is expected from the Conway Township portion of the industrial solar facility. This water will enter the shared drainage system and ultimately contribute to the total stormwater runoff affecting Cohoctah, compounding the overall impact.

Access Roads

Using the provided specs:

· 27,123 linear feet x 20 feet wide x 8” depth of compacted 21-AA gravel
· Total surface area: approx. 542,460 sq ft

Even with partial absorption accounted for, my conservative calculations suggest that a 1” rainfall event could add another 300,000 gallons of runoff from these roads alone—due to their impervious nature compared to farmland or planted vegetation.

Formal Request for Documentation

Given these calculations, I find the drainage and water management sections of the current application to be incomplete. I am formally requesting that Ranger Power provide the following:

1. A detailed runoff calculation assessing water volume from 1”, 1.5”, and 2” rainfall events, must include the total water volume estimates for both townships.
2. A site plan or engineering drawing clearly showing the locations and capacities in gallons of retention ponds, drainage infrastructure, or other measures intended to manage stormwater runoff from solar panel arrays and access roads.

Thank you for your attention to these critical issues. I look forward to a prompt and thorough response, including documentation that fully addresses these concerns and clarifies how stormwater will be effectively managed across the project site.

Question 16

I am writing to express concern regarding the incomplete information provided about the potential presence of Blanding's Turtle habitat within the proposed solar array area in Cohoctah Township.

Reference Section 28, Exhibit A-6.2: Environmental Compliance Report

Blanding's Turtles are listed as a Species of Special Concern by the Michigan Department of Natural Resources (MDNR). Although not currently listed as endangered, they are under increasing threat, and their populations continue to decline. In fact, the U.S. Fish and Wildlife Service is expected to make a determination in 2025 on whether to add the Blanding's Turtle to the federal endangered species list.

Livingston County is a significant location for this species, with 27 documented occurrences as of 2024, making it the third highest county in the entire state of Michigan. Notably, the oldest known Blanding's Turtle in Michigan—recorded at 90 years old (3R11L)—was found in Livingston County, Pinckney Area.

Given these facts, I find the information in the Headland Solar permit application to be insufficient in addressing whether the proposed development area includes suitable habitat for the Blanding's Turtle. Furthermore, if such habitat is present—which I believe to be the case—there appears to be no risk mitigation plan included in the application.

I am formally requesting that Ranger Power provide the following:

1. A comprehensive assessment—conducted by a qualified biologist or ecologist—confirming whether or not Blanding's Turtle habitat exists within the proposed project area.
2. If such habitat is confirmed, a clear and detailed risk mitigation plan outlining how potential impacts to the species and its habitat will be avoided or minimized during and after construction.

Thank you for your attention to this matter. I look forward to a response and updated documentation from Ranger Power addressing these concerns.

https://mnfi.anr.msu.edu/species/description/11490

https://mnfi.anr.msu.edu/species/description/11490/Emydoidea-blandingii

https://www.whmi.com/news/article/blandings-turtle-u-of-m-edwin-george-reserve-pinckney

Question 17

Groundwater analysis. Application does not appear to contain groundwater analysis.

Headland Response: The Project will not complete a groundwater analysis as this requirement exceeds the requirements as defined by PA 233.

Question: How does this requirement exceed PA 233, in light of Section 223(3)(a), which states in part that "[a]n affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance"?

Question 18

Security plan. Application does not appear to include a formal security plan.
Headland Response: The Project will not complete a security plan as this requirement exceeds the requirements as defined by PA 233.
Question: How does this requirement exceed PA 233 "[a]n affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance"??

Question 19

Statistical Data. Site plan does not appear to include the following required information: total number of structures, total number of units, total square feet, total gross and usable floor area, total carports or garages, employees by shift, the percent of area being developed, the percent of area used for structures, the percent of area left undeveloped. Site Plan does not appear to include the name of the public school district serving the site. Headland Response: The Site Plan submitted to the Township includes all required information and requirements as defined by PA 233.
Question: This information is still required. "An affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance." Section 223(3)(a).

Question 20

Contour Intervals. Site plan does not reflect two-foot intervals, referenced to USGS datum. Headland Response: A site plan was prepared for the Project using the latest edition of USGS maps, GIS mapping, and preliminary ALTA surveys and includes all required information and requirements as defined by PA 233.
Question: This information is still required. "An affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance." Section 223(3)(a).

Question 21

Registered Designs Application does not appear to contain signatures and/or seals for drawings, engineering estimates and special cost estimates. Headland Response The

Site Plan submitted to the Township is preliminary, and therefore, not certified. Details on engineering estimates and special cost estimates are outside of the Project's application requirements as defined by PA 233.
Question: This information is still required. "An affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance." Section 223(3)(a).

Question 22

Decommissioning and land reclamation. The decommissioning plan and proposed decommissioning agreement do not appear to provide evidence of proposed commitments with property owners. Headland Response Details regarding proposed commitments with property owners are confidential. The Project's proposed Decommission Plan is provided in Exhibit A-13.1 of the application and sufficiently addressed the decommissioning requirements as defined by PA 233.
Question: This information is still required. "An affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance." Section 223(3)(a).

Question 23

Indemnification. Application does not appear to include required attestations of indemnification. Headland Response This exceeds the requirements as defined by PA 233 and will not be provided.
Question: How does this exceed PA 233. This information is still required. "An affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance." Section 223(3)(a).

Question 24

Manufacturer's directions or instructional manual. Application does not appear to include these materials. Headland Response This exceeds the requirements as defined by PA 233 and will not be provided.
Question: How does this requirement exceed PA 233. This information is still required. "An affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance." Section 223(3)(a).

Question 25

Construction hours do not comply with Township Solar Ordinance. Provide documentation for compliance.

Question 26

Provide where in the application the wildlife corridors for every fenced area?

Question 27

What discussions have you had with DTE on siting a connection to the grid? What discussions have you had with MISO on siting a connection to the grid. Are you able to share with us your application and all correspondence?

Question 28

ITC is proposing a switching station in our overlay district on Gannon Road, between Fleming and Antcliff. What would this do you your proposed interconnection location?

Question 29

Does Ranger Power have any information, or been in contact with ITC on the route the new power lines will take to connect to the new switching station? What would this do to your proposed project?

Question 30

How will Headland Solar protect the eagles in the project area?

Question 31

Noise pollution is a major concern, especially for those nonparticipating parcels. Your sound analysis shows 202 parcels with decibel levels of 46 to 55 decibels. We hear often that the industry wants to work with communities. Reducing the decibel levels for nonparticipating parcels and improving the visual impact would go a long way in establishing a good neighbor relationship. Is there any way that Headland Solar could achieve sound mitigation by establishing an open-air sound barrier using acoustic absorbing sound panels around the inverters and power generating equipment? The same for better screening options to reduce the visual impact? As I understand from our Supervisor, Headland Solar has stated they are not willing to do any sort of mitigation because PA 233 says you can. I would hope that you could do better to be a good neighbor in our community.

Question 32

Exhibit A-1.6 Changes. Maps do not clearly show precise locations of proposed changes. Please provide location for each change.

Question 33

Several of the proposed changes contain language like "The Application may consider the option of removing the section of panels, as shown below, for construction feasibility." This depends, as is explained in the change, if the project can achieve its target energy capacity. See changes, 2-7. So, do you know if this change is currently necessary? When would you know? Is this proposed change premature?

Question 34

Change 8 speaks of discussions with various parties, which included representatives from a solar energy project that is proposed in close proximity to Headland Solar. What was the discussion about and with what various parties? We know that DTE is one of these parties. What was the decision made with these discussions? Where will the interconnection point for this application? What project is proposed in close proximity to Headland Solar?

Question 35

Changes 9-12 states that many changes require confirmation of the regulatory status of wetland from EGLE for those wetlands not regulated by EGLE will be minimized to the extent practicable? What exactly are you saying here? Have you taken into account Cohoctah Townships regulations for non-regulated wetlands?

Question 36

Fire Safety: At the Conway Township meeting you indicated that you would be installing at your own cost an 8-inch hydrant along Owosso Rd.

1. Is this correct?
2. How close will this be to your proposed building in the development?
3. Will your proposed project meet or exceed the standards in 855 of the NFPA?
4. Will the fire safety standards provide 24/7 monitoring of the proposed project either on-site or remote?
5. Will the project provide access to both Howell and Fowlerville Fire Departments to allow depowering of the facility or specified sections, to allow fire fighters to fight any fires or other emergencies?

Question 37

As you are aware, sound is a big problem for nonparticipating property owners. Although PA 233 sets a standard of 55 dB at the outer wall of a house, DTE in Iosco

Township is proposing a standard of 45 dB at the fence line. Would Ranger Power, in the interest of being a good neighbor, be willing to provide a sound level of 45 dB at the outer wall of a nonparticipating house? What are you willing to do so that the 202 parcels above 45 dBs are not impacted with health issues?

Question 38

Complaint process: Provide procedures for regular reporting of each complaint, and how each complaint was resolved to either the township or the MPSC?

Question 39

Environmental Questions: Based upon the MPSC response of August 1, 2025 to the Acceleration Solar application being incomplete, # 27-35, please update your application to provide the information listed as missing by the MPSC in writing to the planning commission.

Question 40

No project labor agreements are provided. Please provide.

Question 41

Your application fails to provide soil analysis so that when the land is decommissioned it can be restored. Please provide a current soil analysis.

Question 42

There is no mention on the manner of the financial guarantee for decommissioning. Please provide.

Question 43

Given the lack of information in your application to both townships, see our letters of May 30, 2025 incompleteness of the application, and based on the incompleteness of your Acceleration Solar Application to the MPSC and the missing information in that application, and further, that to submit an application to the MPSC that is different than the application you submitted to us for review, would be patently unfair and unethical, would Ranger Power be willing to withdraw their application and then resubmit when you have the required completed application and information? Are you willing to extend the date for a final decision to December 5, 2025?

Headland Solar, LLC
320 N Sangamon St. #1025
Chicago, IL 60607

September 3, 2025

Cohoctah Township
Attn: Planning Commission Chair Buttermore,
10518 Antcliff Rd.
Fowlerville, MI 48836

Re: List of Requested Questions from Cohoctah TWP Planning Commission

Planning Commission Chair Buttermore,

In response to your letter sent on August 28, 2025 via email, related to the Planning Commission's questions offered during the August 19, 2025, meeting, we offer the response below.

Sincerely,

Headland Solar, LLC

Cohoctah Township Question 1	Solar Array Runoff 1. Can you provide a document from the LCDC that shows their concerns for the project area? 2. Does the LCDC agree with your proposed stormwater management approach?
Headland Response	Refer to Summary of Agency Consultation in **Exhibit A-4.4** for summary of coordination with LCDC.

Cohoctah Township Question 2	Solar Array Runoff 1. Do we have this preliminary plan? If so, please direct us to it. 2. Is this memo stating that if we simply "disconnect" long rows of panels the land will not experience a problem with run-off?
Headland Response	Refer to the Minimize, Mitigate, and Repair Plan in **Exhibit A-1.3** for a summary of measures implemented to minimize / avoid stormwater impacts. Additionally, this plan describes Headland Solar's plan for mitigation in the event of damage during construction

Cohoctah Township Question 3	We are not able to open the link. We still are waiting for 15 flash drives and one paper copy of the glare study for our clerk.
Headland Response	15 flash drives of the glare study have been sent to the Township.

Cohoctah Township Question 4	Emergency Response Plan. Please provide an amended plan to include all new proposed equipment and detailed response from EMS to Headland Solar's plans, if any exist.
Headland Response	All information regarding the Emergency Response Plan required of PA 233 at this time is listed in the application, **Exhibit A-1.9**. Please also refer to the Summary of Agency Consultations in **Exhibit A-4.4.**

Cohoctah Township Question 5	Fire Response 1. Is there an evacuation plan? If so, what is the radius? 2) How long does it take to shut off the power if there is a fire? Can we get a detailed timeline? 3) What kind of chemicals will be used? Will they be what the fire department needs to combat the fire?
Headland Response	All information regarding the Fire Response Plan required of PA 233 at this time is listed in the application, **EXHIBIT A-1.9 – Emergency Response Plan and** Exhibit A-1.10 - Fire Response Plan A detailed timeline regarding power shutoff is not available at this time.

Cohoctah Township Question 6	Stray Voltage Assessment: Is there one? If yes, please direct us to it.
Headland Response	The project will not complete a stray voltage assessment as this requirement exceeds the requirements as defined by PA-233.

Cohoctah Township Question 7	What are the specific plans to be a good neighbor and reduce these sound levels? Will Headland commit to reducing the maximum sound level to 45db?
Headland Response	Headland will not exceed 55 decibels (average hourly) at the nearest wall of nonparticipating properties, in accordance with MCL 460.1226(8)(a)(*iv*) noise limits.

Cohoctah Township Question 8	Please identify the cultural resources, and locate on prints in regards to distance and proximity to the project proposed footprint or where this is located in your application. Was there a response from the DSHP Office? Or was there any follow up attempted that's not listed within this application?
Headland Response	Please clarify what exactly is being requested. The extent of the available correspondence with DSHP Office is included in the application.

Cohoctah Township Question 9	My questions are: 1. Can you explain the discrepancy between the distancing of receptors from inverters and resulting dB inconsistencies. 2. How can you do a sound analysis without identifying the inverter brand? 3. Will Ranger Power commit to using inverters, similar to what you are doing in your Calhoun project as described by Toby?
Headland Response	Please clarify what discrepancies you are referring to. Refer to **Exhibit A-1.7 - Executive Summary** Final inverter selection has not yet been determined.

Cohoctah Township Question 10	Will you actually remove all cables, conduit, and foundations as stated in your application?
Headland Response	The project will comply with all required decommissioning obligations.

Cohoctah Township Question 11	Why has Ranger Power not looked at building a solar facility on Brownfields first?
Headland Response	Please refer to **Exhibit A-1.5 – Alternatives.**

Cohoctah Township Question 12	You stated at the July 29 special meeting that if this project causes flooding on nonparticipating property, you would take care of it. Where will this be stated in your application?
Headland Response	A Complaint Resolution Process for the site has been established and is detailed in **Exhibit A-1.16**

Cohoctah Township Question 13	Does Ranger Power, Headland Solar, or any other entity it owns or has a controlling interest in, own any property in the Headland Solar development area or within one-half mile of the development?
Headland Response	Please clarify what this request pertains to as it related to Headland's application.

Cohoctah Township Question 14	How can you return the land to its original condition during decommissioning if you have not done a soil analysis before construction? A soil analysis is required to do so.
Headland Response	The site restoration section details steps to return the land to a state similar to its pre-construction condition, following PA 116 requirements.

Cohoctah Township Question 15	Could you please provide the approximate number of panels planned for the entire facility, and more specifically for the Cohoctah portion of the project? I am formally requesting that Ranger Power provide the following: 1. A detailed runoff calculation assessing water volume from 1", 1.5", and 2" rainfall events, must include the total water volume estimates for both townships. 2. A site plan or engineering drawing clearly showing the locations and capacities in gallons of retention ponds, drainage infrastructure, or other measures intended to manage stormwater runoff from solar panel arrays and access roads. Thank you for your attention to these critical issues. I look forward to a prompt and thorough response, including documentation that fully addresses these concerns and clarifies how stormwater will be effectively managed across the project site.
Headland Response	There are approximately 500,015 PV modules included in the Project's site plan, of which approximately 230,000 (46%) are in Cohoctah Township. Detailed stormwater calculations have not yet been prepared for the Project, given its preliminary nature.

Cohoctah Township Question 16	I am formally requesting that Ranger Power provide the following: 1. A comprehensive assessment—conducted by a qualified biologist or ecologist—confirming whether or not Blanding's Turtle habitat exists within the proposed project area.

	2. If such habitat is confirmed, a clear and detailed risk mitigation plan outlining how potential impacts to the species and its habitat will be avoided or minimized during and after construction.
Headland Response	Please refer to **Exhibit A-6.2 – Environmental Compliance Report**.

Cohoctah Township Question 17	Groundwater analysis. Question: How does this requirement exceed PA 233, in light of Section 223(3)(a), which states in part that "[a]n affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance"?
Headland Response	A compatible renewable energy ordinance "means an ordinance . . . , the requirements of which are no more restrictive than the provisions included in section 226(8)." MCL 460.1221(f) (defining compatible renewable energy ordinance). Section 226(8)(a) contains limited requirements for setbacks, fencing requirements under the National Electric Code, solar panel height, sound, and dark-sky friendly lighting solutions. MCL 460.1226(8)(a). An ordinance requiring items more restrictive than those contained in Section 226(8) is not a compatible renewable energy ordinance. This request for information is neither helpful nor necessary to determining compliance with the requirements set forth in Section 226(8). The Application is fully compliant with Section 226(8). An energy facility that is compliant with Section 226(8) "does not present an unreasonable threat to public health or safety." MCL 460.1226(7)(g).

Cohoctah Township Question 18	Security Plan. Question: How does this requirement exceed PA 233, in light of Section 223(3)(a), which states in part that "[a]n affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance"?
Headland Response	A compatible renewable energy ordinance "means an ordinance . . . , the requirements of which are no more restrictive than the provisions included in section 226(8)." MCL 460.1221(f) (defining compatible renewable energy ordinance). Section 226(8)(a) contains limited requirements for setbacks, fencing requirements under the National Electric Code, solar panel height, sound, and dark-sky friendly lighting solutions. MCL 460.1226(8)(a). An ordinance requiring items more restrictive than those contained in Section 226(8) is not a compatible renewable energy ordinance. This request for information is neither helpful nor necessary to determining compliance with the requirements set forth in Section 226(8). The Application is fully compliant with Section 226(8). An energy facility that is compliant with Section 226(8) "does not present an unreasonable threat to public health or safety." MCL 460.1226(7)(g).

Cohoctah Township Question 19	Statistical Data. Question: How does this requirement exceed PA 233, in light of Section 223(3)(a), which states in part that "[a]n affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance"?
Headland Response	A compatible renewable energy ordinance "means an ordinance . . . , the requirements of which are no more restrictive than the provisions included in section 226(8)." MCL 460.1221(f) (defining compatible renewable energy ordinance). Section 226(8)(a) contains limited requirements for setbacks, fencing requirements under the National Electric Code, solar panel height, sound, and dark-sky friendly lighting solutions. MCL 460.1226(8)(a). An ordinance requiring items more restrictive than those contained in Section 226(8) is not a compatible renewable energy ordinance. This request for information is neither helpful nor necessary to determining compliance with the requirements set forth in Section 226(8). The Application is fully compliant with Section 226(8). An energy facility that is compliant with Section 226(8) "does not present an unreasonable threat to public health or safety." MCL 460.1226(7)(g).

Cohoctah Township Question 20	Contour Intervals. Question: How does this requirement exceed PA 233, in light of Section 223(3)(a), which states in part that "[a]n affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance"?
Headland Response	A compatible renewable energy ordinance "means an ordinance . . . , the requirements of which are no more restrictive than the provisions included in section 226(8)." MCL 460.1221(f) (defining compatible renewable energy ordinance). Section 226(8)(a) contains limited requirements for setbacks, fencing requirements under the National Electric Code, solar panel height, sound, and dark-sky friendly lighting solutions. MCL 460.1226(8)(a). An ordinance requiring items more restrictive than those contained in Section 226(8) is not a compatible renewable energy ordinance. This request for information is neither helpful nor necessary to determining compliance with the requirements set forth in Section 226(8). The Application is fully compliant with Section 226(8). An energy facility that is compliant with Section 226(8) "does not present an unreasonable threat to public health or safety." MCL 460.1226(7)(g).

Cohoctah Township Question 21	Registered Designs Application. Question: How does this requirement exceed PA 233, in light of Section 223(3)(a), which states in part that "[a]n affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance"?
Headland Response	A compatible renewable energy ordinance "means an ordinance . . . , the requirements of which are no more restrictive than the provisions included in section 226(8)." MCL 460.1221(f) (defining compatible renewable energy ordinance). Section 226(8)(a) contains limited requirements for setbacks, fencing requirements under the National Electric Code, solar panel height, sound, and dark-sky friendly lighting solutions. MCL 460.1226(8)(a). An ordinance requiring items more restrictive than those contained in Section 226(8) is not a compatible renewable energy ordinance. This request for information is neither helpful nor necessary to determining compliance with the requirements set forth in Section 226(8). The Application is fully compliant with Section 226(8). An energy facility that is compliant with Section 226(8) "does not present an unreasonable threat to public health or safety." MCL 460.1226(7)(g).

Cohoctah Township Question 22	Decommissioning and land reclamation. Question: How does this requirement exceed PA 233, in light of Section 223(3)(a), which states in part that "[a]n affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance"?
Headland Response	A compatible renewable energy ordinance "means an ordinance . . . , the requirements of which are no more restrictive than the provisions included in section 226(8)." MCL 460.1221(f) (defining compatible renewable energy ordinance). Section 226(8)(a) contains limited requirements for setbacks, fencing requirements under the National Electric Code, solar panel height, sound, and dark-sky friendly lighting solutions. MCL 460.1226(8)(a). An ordinance requiring items more restrictive than those contained in Section 226(8) is not a compatible renewable energy ordinance. This request for information is neither helpful nor necessary to determining compliance with the requirements set forth in Section 226(8). The Application is fully compliant with Section 226(8). An energy facility that is compliant with Section 226(8) "does not present an unreasonable threat to public health or safety." MCL 460.1226(7)(g).

Cohoctah Township Question 23	Indemnification. Question: How does this requirement exceed PA 233, in light of Section 223(3)(a), which states in part that "[a]n affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance"?
Headland Response	A compatible renewable energy ordinance "means an ordinance . . . , the requirements of which are no more restrictive than the provisions included in section 226(8)." MCL 460.1221(f) (defining compatible renewable energy ordinance). Section 226(8)(a) contains limited requirements for setbacks, fencing requirements under the National Electric Code, solar panel height, sound, and dark-sky friendly lighting solutions. MCL 460.1226(8)(a). An ordinance requiring items more restrictive than those contained in Section 226(8) is not a compatible renewable energy ordinance. This request for information is neither helpful nor necessary to determining compliance with the requirements set forth in Section 226(8). The Application is fully compliant with Section 226(8). An energy facility that is compliant with Section 226(8) "does not present an unreasonable threat to public health or safety." MCL 460.1226(7)(g).

Cohoctah Township Question 24	Manufacturer's Direction or instructional manual. Question: How does this requirement exceed PA 233, in light of Section 223(3)(a), which states in part that "[a]n affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance"?
Headland Response	A compatible renewable energy ordinance "means an ordinance . . . , the requirements of which are no more restrictive than the provisions included in section 226(8)." MCL 460.1221(f) (defining compatible renewable energy ordinance). Section 226(8)(a) contains limited requirements for setbacks, fencing requirements under the National Electric Code, solar panel height, sound, and dark-sky friendly lighting solutions. MCL 460.1226(8)(a). An ordinance requiring items more restrictive than those contained in Section 226(8) is not a compatible renewable energy ordinance. This request for information is neither helpful nor necessary to determining compliance with the requirements set forth in Section 226(8). The Application is fully compliant with Section 226(8). An energy facility that is compliant with Section 226(8) "does not present an unreasonable threat to public health or safety." MCL 460.1226(7)(g).

Cohoctah Township Question 25	Construction hours do not comply with Township Solar Ordinance. Provide documentation for compliance.
Headland Response	This request exceeds the requirements as defined by PA-233.

Cohoctah Township Question 26	Provide where in the application the wildlife corridors for every fenced area?
Headland Response	This request exceeds the requirements as defined by PA-233.

Cohoctah Township Question 27	What discussions have you had with DTE on siting a connection to the grid? What discussions have you had with MISO on siting a connection to the grid. Are you able to share with us your application and all correspondence?
Headland Response	Headland Solar established Queue Position J2139 in the MISO Interconnection Queue in July 2021 and is in the DPP-2021-East-ITC study Cluster. The Project will interconnect to the MISO transmission system at the METC-owned 345 kV Blackfoot-Madrid Line, the Point of Interconnection ("POI").

Cohoctah Township Question 28	ITC is proposing a switching station in our overlay district on Gannon Road, between Fleming and Antcliff. What would this do you your proposed interconnection location?
Headland Response	This request exceeds the requirements as defined by PA-233 and is irrelevant to the Township's evaluation of Headland's application.

Cohoctah Township Question 29	Does Ranger Power have any information, or been in contact with ITC on the route the new power lines will take to connect to the new switching station? What would this do to your proposed project?
Headland Response	This request exceeds the requirements as defined by PA-233 and is irrelevant to the Township's evaluation of Headland's application.

Cohoctah Township Question 30	How will Headland Solar protect the eagles in the project area?
Headland Response	Please refer to **Exhibit A-6.2 – Environmental Compliance Report**.

Cohoctah Township Question 31	Is there any way that Headland Solar could achieve sound mitigation by establishing an open-air sound barrier using acoustic absorbing sound panels around the inverters and power generating equipment? The same for better screening options to reduce the visual impact? As I understand from our Supervisor, Headland Solar has stated they are not willing to do any sort of mitigation because PA 233 says you can.
Headland Response	Headland will not exceed 55 decibels (average hourly) at the nearest wall of nonparticipating properties, in accordance with MCL 460.1226(8)(a)(*iv*) noise limits.

Cohoctah Township Question 32	Exhibit A-1.6 Changes. Maps do not clearly show precise locations of proposed changes. Please provide location for each change.
Headland Response	The map and description of known potential modifications or variations in the proposed Site Plan that are being considered in **EXHIBIT A-1.6** are in compliance with PA-233.

Cohoctah Township Question 33	See changes, 2-7. So, do you know if this change is currently necessary? When would you know? Is this proposed change premature?
Headland Response	Changes will be finalized prior to the commencement of construction.

Cohoctah Township Question 34	What was the discussion about and with what various parties? We know that DTE is one of these parties. What was the decision made with these discussions? Where will the interconnection point for this application? What project is proposed in close proximity to Headland Solar?
Headland Response	Please refer to **Exhibit A-1.6, 8.0** for details regarding potential changes to the Project's point of interconnection.

Cohoctah Township Question 35	Changes 9-12 states that many changes require confirmation of the regulatory status of wetland from EGLE for those wetlands not regulated by EGLE will be minimized to the extent practicable? What exactly are you saying here? Have you taken into account Cohoctah Townships regulations for non-regulated wetlands?
Headland Response	Further coordination with EGLE is required to determine the regulatory status of wetlands throughout the Project area, which may impact the current site plan.

Cohoctah Township Question 36	Fire Safety: At the Conway Township meeting you indicated that you would be installing at your own cost an 8-inch hydrant along Owosso Rd. 1. Is this correct? 2. How close will this be to your proposed building in the development? 3. Will your proposed project meet or exceed the standards in 855 of the NFPA? 4. Will the fire safety standards provide 24/7 monitoring of the proposed project either on-site or remote? 5. Will the project provide access to both Howell and Fowlerville Fire Departments to allow depowering of the facility or specified sections, to allow fire fighters to fight any fires or other emergencies?
Headland Response	1. Yes 2-5. Further details regarding the Project's proposal to install a hydrant have not yet been determined, as this will require additional coordination with each respective fire department prior to the commencement of construction.

Cohoctah Township Question 37	Would Ranger Power, in the interest of being a good neighbor, be willing to provide a sound level of 45 dB at the outer wall of a nonparticipating house? What are you willing to do so that the 202 parcels above 45 dBs are not impacted with health issues?
Headland Response	Headland will not exceed 55 decibels (average hourly) at the nearest wall of nonparticipating properties, in accordance with MCL 460.1226(8)(a)(*iv*) noise limits.

Cohoctah Township Question 38	Complaint process: Provide procedures for regular reporting of each complaint, and how each complaint was resolved to either the township or the MPSC?
Headland Response	Please refer to **Exhibit A-1.16 – Complaint Resolution Process**.

Cohoctah Township Question 39	Environmental Questions: Based upon the MPSC response of August 1, 2025, to the Acceleration Solar application being incomplete, # 27-35, please update your application to provide the information listed as missing by the MPSC in writing to the planning commission.
Headland Response	Please clarify what question or information is being requested.

Cohoctah Township Question 40	No project labor agreements are provided. Please provide.
Headland Response	Headland Solar will enter into a Project Labor Agreement with one or more labor organizations prior to the commencement of construction. Headland Solar will provide a copy of the Project Labor Agreement once it is finalized.

Cohoctah Township Question 41	Your application fails to provide soil analysis so that when the land is decommissioned it can be restored. Please provide a current soil analysis.
Headland Response	Refer to the Soil and Economic Survey Report available in **Exhibit A-6.1**.

Cohoctah Township Question 42	There is no mention on the manner of the financial guarantee for decommissioning. Please provide.
Headland Response	Please refer to **Exhibit A-13.2 through A-13.3**.

Cohoctah Township Question 43	Are you willing to extend the date for a final decision to December 5, 2025?
Headland Response	The mutually agreed-upon final decision date is September 18, 2025. No further extensions will be offered or entertained by Headland.

EXHIBIT J

September 12, 2025

Cohoctah Township & Conway Township
Attn: Chair Buttermore and Chair Curd
10518 Antcliff Road
Fowlerville, MI 48836

via email

RE: Headland Solar Development, Livingston County, Michigan

Chair Buttermore and Chair Curd:

Thank you for inviting DESRI to Conway and Cohoctah's joint planning commission meeting on September 9, 2025. We hope each planning commission found the discussion to be valuable and informative. There are a handful of items discussed during the meeting that we indicated we would follow up on in the coming days. Please find DESRI's responses to these items below.

Sincerely,

Aileen Kenney

Aileen Kenney
Principal, Project Development and Permitting

1. There was an inquiry about the sound requirements of Ranger Power's Acceleration Solar Project, and the extent to which the sound requirements differ from the Headland Solar Project.

   RESPONSE: Acceleration Solar and Headland Solar have both been designed to ensure that sound levels generated by each Project will not exceed fifty-five (55) decibels (dB) (average hourly) at the nearest wall of any non-participating dwelling, as required by PA-233.

2. There was an inquiry about DESRI's experience with 'nuisance deer' and resulting impacts to neighboring farmers on the Assembly Solar Project.

   RESPONSE: DESRI has no knowledge of nuisance deer issues at Assembly Solar that have been raised by neighboring farmers. Deer have been seen traversing across and grazing within Assembly Solar despite the game fence encompassing the site.

3. There was an inquiry about an electrocuted deer at Assembly Solar being brought to a nearby deer processing plant.

   RESPONSE: DESRI's asset manager, who has managed Assembly Solar for nearly two years, confirmed with the operations and maintenance contractor, who has maintained the project for almost a year and a half, that no electrocuted deer have been found within the project fence.

4. A concern was raised regarding Assembly Solar's compliance with Michigan State's Pollinator Scorecard Compliance.

   RESPONSE: Assembly Solar was designed, constructed, and is maintained to be within compliance of Michigan State's Pollinator Scorecard, as it relates to MDARD's PA-116 program.

5. Several inquiries were made regarding an unnamed landowner that has experienced issues contacting representatives of Assembly Solar to discuss concerns related to site drainage.

   RESPONSE: Assembly Solar has been responsive to landowner inquiries throughout development, construction, and operations of the Project. Contact information for a Project representative was made available to local government officials. DESRI remains committed to maintaining open lines of communication with all members of the community.

6. A question was raised regarding the timeframe in which inverters at Assembly generate sound.

   RESPONSE: Assembly's inverters are programmed to operate while the Project is generating electricity in daytime hours. Converting the Direct Current (DC) electricity from the solar array to Alternating Current (AC) within the inverter creates significant amounts of heat. Cooling fans may remain on for up to two hours after generation stops to protect equipment in accordance with Original Equipment Manufacturer specifications.

7. Supervisor Brown noted that Assembly Solar's approved site plan deviates from the Project's final design and inquired about why this was the case.

   RESPONSE: It is typical that Projects receive discretionary land use approval and preliminary site plan concurrently, which was the case for Assembly Solar in Shiawassee County. Based on the special land use process, an Applicant is afforded the ability to make non-substantive modifications and adjustments to the Project's preliminary site plan as the development progresses, and a final site plan is developed and approved, which is what occurred with Assembly Solar.

8. A question was raised if NETA maintenance testing was being conducted at DESRI's Assembly Solar Project.

   RESPONSE: DESRI's contract with its operations and maintenance provider dictates following prudent operating and maintenance standards. NETA testing of specific components, primarily located in a project's substation, routinely take place in accordance with NETA specifications and requirements.

K & S Engineers, LLC
Consultants in Acoustics, Noise and Vibration
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Noise Impact Analysis of the Proposed Headlands Solar Energy Facility

Prepared For:

Michael Brown
Conway Township

Mark Fosdick
Cohoctah Township

Livingston County, MI

Prepared By:

Darren J. Brown, P.E.
INCE Board Certified

Prepared: September 4, 2025
Project No. 2025-029 & 030

EXECUTIVE SUMMARY

Ranger Power is proposing the Headlands Solar Energy Facility in Conway and Cohoctah Townships, Livingston County, Michigan. The primary noise sources will be 62 inverters and a substation transformer. This study was conducted to evaluate potential noise impacts on nearby residents.

Noise criteria were reviewed at the federal, state, and local levels. Michigan Public Act 233 (PA 233) sets a statewide standard of 55 dBA (hourly average, A-weighted) at the nearest nonparticipating dwelling. The U.S. Environmental Protection Agency (EPA) recommends average exposure levels at or below DNL 55 [55 dB(A) daytime / 45 dB(A) nighttime] as generally protective of public health. Both Conway and Cohoctah Townships, however, maintain stricter local ordinances for projects under 50 MW, with property-line limits of 40 dBA daytime and 35 dBA nighttime.

Field measurements documented low existing ambient levels in Conway and Cohoctah, consistent with their rural setting. Measurements revealed average ambient daytime sound levels of 41 to 45 dB(A) which include insect and bird sounds (biogenic sounds). With biogenic sounds filtered out, average ambient daytime sound levels were 37 to 41 dB(A).

Reference measurements at an operating solar facility in Corunna Township confirmed that inverter noise is tonal, distinct, and clearly audible under favorable atmospheric conditions. The measurements showed inverter sound levels of 40 to 42 dB(A) with the inverters at an approximate distance of 1000-feet. Projected inverter sound levels at key residences in Livingston County are expected to be similar to existing average sound levels. Furthermore, the inverter sound levels are expected to exceed the existing persistent background (L_{90}) sound levels by as much as 20 dB, though remain within PA 233 and EPA thresholds.

The analysis concludes that while the Headlands Solar Facility will comply with state noise limits and EPA acceptable criteria and is not expected to create significant health risks, it will exceed Conway and Cohoctah Township's more restrictive ordinance if PA 233 is repealed. While the overall level of the inverters will not be perceived as high, some residents are likely to perceive inverter noise as intrusive, particularly due to its tonal character and having sound levels greater than background ambient conditions. This perceived intrusiveness may diminish over time as people grow accustomed to the change in soundscape.

This analysis is dependent on the use of inverters with sound level outputs comparable to the Sungrow 3600UD units or those measured in Corunna Township. The use of alternate inverters, substation equipment, or other components with higher noise emissions would invalidate these conclusions and be viewed less favorably.

Mitigation measures such as specifying quieter inverters, maintaining setbacks of 1,000 feet or more, orienting equipment away from residences, or incorporating sound barriers and enclosures are recommended to minimize community impacts and improve long-term compatibility.

1. PURPOSE & DESCRIPTION

Ranger Power is proposing to develop the Headlands Solar Energy Facility in Conway and Cohoctah Townships, Livingston County, MI. The primary noise sources from the facility are expected to be 62 Sungrow 3600UD inverters and a substation with a primary step-up transformer. It is expected that these sources will produce audible noise at nearby residential properties.

The purpose of this study is to evaluate the potential noise impacts of the proposed facility on local residents. To complete this evaluation, we conducted the following tasks:

- Reviewed the Headlands Solar Pre-Construction Noise Analysis prepared by Hankard Environmental, Inc. (Verona, Wisconsin)
- Collected baseline sound level measurements in Conway and Cohoctah Townships to document existing environmental sound conditions
- Measured noise from an existing solar energy facility at residential properties in Corunna Township, Shiawassee County, Michigan
- Projected noise levels from the proposed inverters at representative residential properties in Conway and Cohoctah Townships
- Compared the resulting noise projections to applicable criteria and baseline sound levels

2. APPLICABLE NOISE CRITERIA

Michigan Regulations (Public Act 233)

The Clean and Renewable Energy and Energy Waste Reduction Act (Public Act 233) establishes specific noise limits for solar energy facilities in Michigan. The Act requires that:

> "*The solar energy facility does not generate a maximum sound in excess of 55 average hourly decibels as modeled at the nearest outer wall of the nearest dwelling located on an adjacent nonparticipating property. Decibel modeling shall use the A-weighted scale as designed by the American National Standards Institute.*"

In addition, the Michigan Public Service Commission requires that applications under PA233 include a predictive noise study. This study must account for:

- Tonal noise penalty: +5 dB adjustment applied to tonal sources (such as inverters).
- Façade reflection factor: +6 dB adjustment to represent sound pressure doubling at building walls.

Together, these adjustments effectively increase the modeled inverter sound levels by 11 dB. As a result, actual measured sound levels of the installed solar facility would likely result in

sound levels that did not exceed 50 dB(A) at the nearest dwelling outer wall, and 44–47 dB(A) and a similar distance from the noise source away from the dwelling.

Compliance with PA233 is achieved so long as the measured sound level of solar facility related noise remains below 55 dB(A), averaged over a one-hour period, at the nearest nonparticipating residence outer wall.

Conway Township's Noise Ordinance – Solar Energy Systems

The Conway Township Solar Energy System Ordinance establishes two distinct sets of noise regulations depending on project size and the applicability of Michigan Public Act 233 of 2023 (PA 233). This approach establishes a Compatible Renewable Energy Ordinance (CREO) to comply with state law for large-scale projects while maintaining stricter local standards for smaller facilities and preserving a fallback framework if PA 233 is ever repealed.

For utility-scale projects of 50 megawatts (MW) or greater, jurisdiction lies with the Michigan Public Service Commission (MPSC) under PA 233. In these cases, Conway Township incorporates the state standard, which limits noise to 55 dBA, hourly average (A-weighted), measured at the nearest dwelling on a non-participating property. This ensures that the Township's ordinance is compatible with PA 233 and avoids preemption by state authority.

For projects under 50 MW, which remain under local zoning jurisdiction, Conway imposes more restrictive standards. Specifically, noise from a solar energy facility may not exceed the following limits at the property line:

- 40 dBA (Lmax) during daytime hours (7:00 a.m. to 9:00 p.m.)
- 35 dBA (Lmax) during nighttime hours (9:00 p.m. to 7:00 a.m.)

These limits are based on instantaneous maximum levels rather than averaged measurements and apply at property lines rather than dwellings, representing a significantly more stringent threshold than PA 233.

Cohoctah Township Ordinance

The Cohoctah Township Solar Energy System ordinance is substantially similar to the Conway Township Solar Energy System ordinance. The primary ordinance establishes instantaneous property-line limits of 40 dBA Lmax during the day (7:00 a.m.–9:00 p.m.) and 35 dBA Lmax at night (9:00 p.m.–7:00 a.m.), with provisions allowing the Township to require evergreen berms for additional mitigation.

In 2024, Cohoctah Township adopted amendments to align with Michigan Public Act 233 of 2023 (PA 233), creating their CREO. Under the amendment, beginning November 29, 2024, systems with a nameplate capacity of 50 MW or greater must comply with PA 233 standards, including a modeled noise limit of 55 dBA Leq (hourly, A-weighted) at the nearest dwelling on

an adjacent nonparticipating property. The stricter property-line limits remain applicable to systems under 50 MW or if PA 233 is repealed or not in effect.

EPA Noise Levels

To promote the reduction of noise pollution, the U.S. Environmental Protection Agency (EPA) was tasked with studying the effects of environmental noise on public health and welfare. This effort led to the publication of a foundational report titled: *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*, commonly referred to as the "*Levels Document*."

The EPA's research evaluated a range of noise impacts, including: speech interference, activity disruption, annoyance, and community responses to environmental noise.

From these analyses, the EPA concluded that a Day-Night Average Sound Level (DNL) of 55 dB(A) or lower is protective for outdoor speech communication and corresponds to a level at which fewer than 10% of the population report being highly annoyed by environmental noise.

DNL (Day-Night Sound Level) is a 24-hour average sound level metric that applies a 10 dB penalty to nighttime hours (10:00 p.m. to 7:00 a.m.) to reflect increased sensitivity to noise during typical rest periods. Based on this weighting, the EPA's protective levels correspond to:

- An average daytime sound level of 55 dB(A)
- An average nighttime sound level of 45 dB(A)

It is important to note that these levels are not regulatory standards, but rather scientifically derived health-protective benchmarks. The EPA explicitly states that these values:

- Were developed without consideration of economic or technical feasibility
- Are conservative by design, intended to protect sensitive individuals
- Include an additional margin of safety to account for uncertainties in population response

While not legally binding, the *Levels Document* remains a widely accepted reference in setting community noise goals, particularly for land use planning and public health considerations. It should be noted that these levels developed by the U.S EPA were largely based on transportation-related noise sources, such as road traffic, aircraft, rail and industrial.

3. THE COMPLEXITIES OF NOISE IMPACT

At its most basic level, noise impact can be described as a change in sound level that adversely affects those exposed to it. This simple definition, however, overlooks the complexities associated with the perception of noise. While certain acoustic attributes are widely recognized as undesirable, such as high overall levels, distinct tonal elements, or impulsive sounds, noise impact often goes beyond measurable quantities.

Annoyance relates to the subjective interpretation of sound. Two sounds of equal loudness may be perceived very differently depending on multiple factors including: listener sensitivity, the context in which the noise occurs, and personal attitudes toward the source. For example, the low-frequency hum of industrial equipment may be tolerable to some but highly disruptive to others, especially in quiet residential settings.

The complexity is further compounded by non-acoustic factors, including time of day, regional expectations, and the relationship between the receiver and the noise source. A community accustomed to regular train traffic may adapt to its presence, while the same sound introduced to a new environment could generate strong opposition. In this sense, noise impact is a product of both measurable quantities and subjective experience.

From a planning and regulatory standpoint, these complexities underscore the importance of establishing noise limits as a tool for managing community impact and expectations. Absolute silence is not practical as communities rely on infrastructure, industry, and commerce, all of which generate sound to one degree or another. The objective, therefore, is not to eliminate noise but to manage it to levels that are considered reasonable, protective of public health, and compatible with surrounding land uses.

Noise limits serve as a framework for balancing progress with livability. They provide measurable criteria against which proposed developments can be evaluated, ensuring that growth and economic activity can proceed without imposing unacceptable burdens on residents. When applied consistently, noise standards also provide predictability for developers, operators, and communities, reducing conflict and clarifying expectations.

In practice, this means that a new facility or infrastructure project must be assessed not only against existing background conditions but also against the regulatory thresholds established by applicable laws, typically local ordinance. Where noise exceeds the established limits, noise controls can be introduced to achieve compliance. This approach recognizes that noise may be an inevitable product of development, and the effects should be managed to maintain a fair balance between the well-being of residents and economic growth.

By enacting Public Act 233, the State of Michigan established a clear policy in support of renewable energy infrastructure. As part of this legislation, the State determined that a noise limit of 55 dB(A) represents an acceptable threshold to protect the health and well-being of residents. However, this limit was adopted as a uniform standard and does not account for variations in pre-existing ambient sound levels. In rural communities, where background sound levels can be significantly lower than in suburban or urban environments, the introduction of renewable energy systems will likely result in a significant increase in ambient

sound levels. Many residents in Conway and Cohoctah are sensitive to this discrepancy and have voiced concerns that the current standard does not adequately reflect the quiet settings of their communities.

The purpose of this study is to evaluate the potential noise impacts of the proposed Headlands Solar Energy facility within this context. Specifically, our analysis considers not only compliance with the 55 dB(A) limit established under PA 233, but also the change in sound levels relative to existing ambient conditions. By doing so, the study provides a more comprehensive assessment of potential community impacts and the extent to which residents may be affected than has been presented to date.

4.1 AMBIENT SOUND LEVELS IN CONWAY AND COHOCTAH TOWNSHIPS

Environmental sound levels were measured at two locations: one in Conway Township and another in Cohoctah Township. Measurements were conducted in accordance with *ANSI S12.9, Part 2: Quantities and Procedures for Description and Measurement of Environmental Sound - Measurement of Long-Term, Wide-Area Sound,* and *ANSI S12.9, Part 3: Short-Term Measurements with an Observer Present*.

Measurements were performed using a calibrated Brüel & Kjær Model 2270 Environmental Noise Analyzer equipped with a Larson Davis outdoor microphone assembly, including a Model 2541 laboratory-grade, ½-inch free-field precision microphone. System calibration was verified both before and after the measurement period using a Brüel & Kjær Type 4231 Acoustic Calibrator. The measurement system exceeds the performance requirements for Type 1 (precision-grade) instrumentation as specified in *ANSI S1.4*.

The measurement system was positioned at residential properties that are likely to be impacted by noise from the proposed Headlands Solar Project. The purpose of these measurements is to establish ambient sound levels in the absence of a solar energy facility.

The measurement locations are:

- 9788 N Marsh Road, Conway Township
- 10785 Fleming Road, Cohoctah Township

A graphical presentation of these measurement positions is provided in **EXHIBITS 1 & 2**.

Sound monitoring was conducted continuously over a 48-hour period at each measurement position. At the location off N Marsh Road, measurements were conducted from August 1st through August 2nd, 2025. At the location off of Fleming Road, measurements were conducted from August 4th through August 5th, 2025.

In this time period during our measurements, noise from insects, such as crickets, cicadas, and katydids, was prevalent. As these insect sounds are seasonal, and less likely to occur at other times of the year, we analyzed the measurements without, and with a biogenic filter

(removes the influence of insect and some bird sounds). The biogenic filter we used minimizes sounds at 2000 Hz and above. As katydid and some bird sounds occur in broader frequency ranges below 2000 Hz, not all of these sounds were filtered out. The purpose of this filter is to provide a better understanding of what background sound levels are likely to be at other times of the year when insect and bird sounds are less prominent.

The results of the measurements have been presented as time history plots of the measured sound levels over the course of a 24-hour period. The sound level data descriptions provided are:

- 1-minute Leq sound levels (sound Levels averaged over a 1-minute period)
- 1-hour L_{eq} sound levels (sound Levels averaged over a 1-hour period)
- 1-hour L_{10} sound levels (the sound level exceeded 10% of the time in a 1-hour period, representing a statistically high sound level value that is due to transient events)
- 1-hour L_{90} sound levels (the sound level exceeded 90% of the time in a 1-hour period, representing a consistent background sound level in the absence of transient events)

The results of these measurements are provided in **EXHIBITS 3A through 6B**. Note that exhibits designated with an 'A' do not employ the biogenic filter, while those designated with a 'B' do employ the filter.

The atmospheric conditions during these measurements were largely calm with no significant effect to the sound level measurements. There were a few periods of elevated wind: August 1st between 10AM and 1PM, and August 5th between 3PM and 6PM. Details of the atmospheric conditions are presented in APPENDIX A.

4.2 DISCUSSION OF AMBIENT SOUND LEVEL MEASUREMENTS

A summary of the daytime ambient sound levels measured in Conway and Cohoctah townships are presented below in Table 1.

TABLE 1 – AMBIENT SOUND LEVELS IN LIVINGSTON COUNTY

Ambient Sound Levels		Daytime Average Sound Levels (7AM - 10PM)		
Measurement Location	*Dataset*	*Leq*	*L10*	*L90*
N Marsh Rd, Conway Twp	Full	45.1	46.8	36.6
N Marsh Rd, Conway Twp	Filtered*	41.3	43.4	30.1
Fleming Rd, Cohoctah Twp	Full	41.5	43.9	34.9
Fleming Rd, Cohoctah Twp	Filtered*	36.8	38.2	26.3
**Biogenic Filter Eliminating Sound at 2k Hz and Above*				

Generally, the sound levels in Livingston County are low. Given the rural nature of the areas measured, this is not surprising. The typical sources of sound found in our measurements are: birds, insects, local vehicular traffic, small aircraft, and resident related activities. The full (unfiltered) dataset sound levels provided are representative of mid to late summer seasonal conditions. The biogenic filtered dataset sound levels represent estimated sound levels at other times of the year when insect and bird sounds are less prominent. These values are likely a bit higher than actual sound levels at other times of the year due to the broader range of katydid and some bird sounds that were not filtered out.

5.1 SOLAR ENERGY FACILITY SOUND LEVELS

To provide a real-world basis for evaluating the expected noise from the proposed Headlands Solar Energy Facility, we conducted sound level measurements at 3496 N Byron Rd in Corunna Township, Shiawassee County, Michigan. This property is directly adjacent to the operating Assembly Solar energy facility with solar panels and inverters to the north, south and west. This location provides a representative condition that directly documents the types of sound residents in Livingston County are likely to experience in proximity to solar equipment.

It should be noted that the sound produced by inverters can vary based on the capacity, the manufacturer and the model. We are unaware of the manufacturer or the model used for the Assembly Solar Energy facility. Without better information, we are assuming that the Headlands Solar project will use inverters with similar, or lower, sound emissions to the stated Sungrow 3600UD, or those used for the Assembly Solar facility.

The measurements were performed outdoors at a central location on the residential property where sound from the adjacent solar arrays, inverters, and transformers could be heard. Details of the measurement location are provided in **EXHIBIT 7.** The surrounding land use and acoustic environment are similar to conditions expected in Conway and Cohoctah Townships.

Measurements were performed with the same sound measurement system as the ambient sound measurements. Measurements started on August 9th, 2025 at 12PM and continued until August 10th at 6:02 AM, when the measurement system unexpectedly stopped recording. The results of these measurements are provided in **EXHIBITS 8A** (unfiltered) & **8B** (filtered). An additional period of measurements was recorded on August 12, 2025 from 10:27 AM to 11:45 AM. The results of these measurements are provided in **EXHIBITS 9A** (unfiltered) & **9B** (filtered).

At the time of the measurements, atmospheric conditions were predominantly clear, with temperatures ranging from 76 to 87 degrees Fahrenheit, and wind from the south to south-southwest at 6 to 13 MPH. Under these conditions, the solar array should have been operating at a level near full capacity for this location, and sound propagation was favorable from inverters to the south of the measurement location. While our study was limited in the

length of time we studied the Assembly Solar energy facility, sound propagation conditions were favorable such that the sound levels we measured are likely near the highest sound levels expected in that location.

5.2 RESULTS OF SOLAR FACILITY MEASUREMENTS

A summary of the daytime ambient sound levels measured in Corunna Township adjacent to the solar energy facility are presented below in Table 2.

TABLE 2 – AMBIENT SOUND LEVELS NEAR A SOLAR ENERGY FACILITY

Ambient Sound Levels		Daytime Average Sound Levels (7AM - 10PM)		
Measurement Location	*Dataset*	*Leq*	*L10*	*L90*
Byron Rd, Corunna Twp	Full	44.1	47.4	38.4
Byron Rd, Corunna Twp	Filtered*	41.5	42.6	38.0
**Biogenic Filter Eliminating Sound at 2k Hz and Above*				

Audibility and Sound Character

The inverter noise was clearly audible during the measurement period. The sound has a tonal quality, with dominant tones identified in the 630 Hz and 1250 Hz one-third octave frequency bands. This falls into a range where human hearing tends to be most sensitive. The loudness of the inverter noise fluctuates with atmospheric conditions, primarily wind speed and direction. During the measurements, winds were from the south to south-southwest at speeds of 6 to 13 miles per hour. These conditions resulted in noise transmission primarily from the inverter to the south, 940 feet away.

Measurement Data and Exhibits

The presence of insect noise in the 2,500–16,000 Hz range masked portions of the measured inverter sound levels. As a result, the inverter noise is not clearly distinguishable in the unfiltered data shown in **EXHIBIT 8A**.

To address this, a biogenic filter was applied to the measurement data. As shown in **EXHIBIT 8B & 9B**, the filtered results provide a clearer representation of inverter operation. In particular, the data show a distinct reduction in sound level at 10:44 p.m. on August 9th, when the inverters shut down for the night. At that time, the biogenic-filtered sound level dropped from approximately 42 dB(A) to 30 dB(A), confirming the absence of inverter noise and demonstrating the impact potential when insect sounds are less prominent.

EXHIBIT 10A provides the spectral sound level at 3496 N Byron Road, with and without the solar energy facility inverters operating. **EXHIBIT 10B** provides a similar spectral sound comparison, though biogenic (insect) noise has been removed to simulate times of the year

when insect noise is not present. From these spectral plots, we can see that the ambient sound levels near the solar energy facility will dominate ambient sound levels in the absence of transient sound events, and in the absence of insect noise.

6. REVIEW OF THE HEADLANDS SOLAR PRE-CONSTRUCTION NOISE ANALYSIS

A pre-construction noise analysis was conducted for the Headlands Solar Project. This study was conducted by Hankard Environmental. Based on our review of this report, the prediction of the solar energy facility installation was conducted in a manner consistent with current engineering standards for noise prediction, following the standard ISO 9613, and employing the requisite assumptions from the Michigan Public Service Commission application and filing procedures.

The methods used in this prediction are conservative, favoring the protection of residents. The methodology in the environmental noise prediction standard, ISO 9613, assumes favorable sound propagation from the noise source to all receivers. Additionally, the modeling assumes the inverters and transformers are tonal and imposes a +5dB penalty to these noise sources. Sound level predictions at the facades of homes adds 6 dB for pressure doubling at sound reflective surfaces.

Based on our review of this report, and our experience with environmental noise prediction, we find that the results of this noise analysis are correctly determined to the degree presented. Furthermore, actual measured sound levels are likely to be less than those predicted by the study due to the tonal penalty applied.

7 PROJECTED INVERTER NOISE IN LIVINGSTON COUNTY

Although the measurements at the Assembly Solar facility were taken in proximity to six inverters, our observations under south to south-southwest winds (6-13 mph) indicated that the dominant sound source was the inverter located 940 feet to the south. Under these conditions, the northern inverters were completely inaudible, while the inverters to the south-southeast and southwest were only occasionally audible as the wind direction shifted.

From the solar facility sound level measurements, the hourly-averaged sound levels ranged from 37 to 42 dB(A). This range of sound levels reflects variation in the ease of sound propagation as well as the degree of contribution from multiple inverter sources. Assuming an overall average of 40 dB(A) for inverter sound level, with the dominant inverter located 940 feet away, we projected the typical free-field inverter sound levels based on geometric diverging sound propagating properties of point noise sources at various distances provided in Table 3 below.

These “ANTICIPATED TYPICAL” inverter sound levels represent sound levels from a single inverter under generally favorable sound propagating conditions. Actual sound levels may be higher with additional inverters and more favorable propagating conditions.

Based on the ambient sound level measurements conducted in Conway and Cohoctah Townships, average daytime sound levels in the absence of biogenic sounds are between 37 and 41 dB(A). The background (L_{90}) sound levels in the absence of biogenic sounds are between 26 and 30 dB(A). Inverter sounds are expected to be audible against the background sound levels, and in many cases will be similar to existing average sound levels. In some locations, where multiple inverters have influence, and/or more favorable sound propagating conditions exist, inverter sound levels may approach the sound levels predicted by the pre-construction noise analysis, though are not expected to exceed these values and are likely to occur for relatively short periods.

TABLE 3 – ANTICIPATED TYPICAL INVERTER SOUND LEVELS UNDER GENERALLY FAVORABLE PROPAGATION CONDITIONS

Distance from Inverter	*Anticipated Free-field Sound Level*
400 Feet	47 dB(A)
450 Feet	46 dB(A)
500 Feet	45 dB(A)
600 Feet	44 dB(A)
750 Feet	42 dB(A)
940 Feet	40 dB(A)
1200 Feet	38 dB(A)
1500 Feet	36 dB(A)
1900 Feet	34 dB(A)
2400 Feet	32 dB(A)
3000 Feet	30 dB(A)

Receptor 77[1] Noise Prediction

The pre-construction noise analysis identified 8051 W Mohrle Road as one of the locations expected to receive the highest inverter noise levels from the Headlands Solar Project. The predicted free-field sound level near the home is 49 dB(A), with a façade-adjusted ("pressure doubled") level of 55 dB(A). Based on Table 3 projections and the receptor's distance of approximately 400 feet from the nearest inverter, we anticipate typical measured free-field inverter sound levels of 47 dB(A) under favorable sound propagating conditions.

This is expected to exceed average ambient sound levels by 7 to 10 dB, and background sound levels by 17 to 21 dB. This indicates the inverters will be clearly audible under favorable propagating conditions. As the inverter is planned to be located to the southeast, prevailing wind conditions are likely to be predominantly unfavorable for the inverter noise transmission to this residence. Typical sound levels are likely to lower.

[1] Receptors #77 & 260 as identified in the Headlands Solar Pre-Construction Noise Analysis

Receptor 260[1] Noise Prediction

10785 Fleming Road is also predicted to receive some of the highest inverter noise levels. The pre-construction analysis estimated a free-field level of 49 dB(A) and a façade-adjusted level of 55 dB(A). This property is directly comparable to the 3496 N Byron Road site, where Assembly Solar operating measurements were conducted. Both locations are, or will be, surrounded by numerous inverters at similar distances. Based on measured Assembly Solar facility data, we anticipate typical inverter hourly average free-field sound levels between 37 and 42 dB(A) at this residence.

With baseline average daytime ambient sound levels of 37 dB(A) and background sound levels of 26 dB(A), inverter sound levels are likely to exceed average ambient sound levels by 5 dB, and the background sound levels by 16 dB. Under favorable propagating conditions, the inverter noise will be clearly audible. As multiple inverters are planned to be located to the northwest, west, and southwest, prevailing wind will tend to create favorable sound propagating conditions most of the time.

8. CONCLUSION

The measured and projected sound levels from the proposed solar energy facility fall within State of Michigan regulatory thresholds and are consistent with U.S. Environmental Protection Agency (EPA) guidance on community noise exposure. As such, inverter noise is not expected to pose a significant health concern for residents in Livingston County.

However, Conway Township's solar ordinance establishes stricter noise limits than the State or EPA standards. Our analysis indicates that inverter noise levels, particularly under favorable propagation conditions, are likely to exceed those local limits if PA 233 is repealed.

Additionally, the tonal character of inverter noise at 630 Hz and 1250 Hz makes it more distinct than broadband sounds. Our field observations confirm that inverter noise will be clearly audible under favorable propagation conditions, and its presence will be most apparent during evening hours when ambient sound levels decline, and when other biogenic sounds are less prominent.

The analysis of this study is dependent on the use of inverters with sound level outputs comparable to the Sungrow 3600UD units or those measured in Corunna Township. The use of alternate inverters, substation equipment, or other components with higher noise emissions would invalidate these conclusions and be viewed less favorably.

Perception of New Noise Sources

Because of its tonal and intermittent qualities, inverter noise will be distinct and clearly audible and is likely to be perceived as an unwelcome addition to the local soundscape. Residents near proposed inverter locations may experience the noise as intrusive, even at relatively modest sound levels. This perceptual impact poses a concern for community annoyance, though is expected to wane over time as the inverter noise becomes part of the environment.

Potential Mitigation

To help reduce the potential for community annoyance, several mitigation measures can be considered in the project planning. These include:

- Specifying lower sound producing inverters
- Establishing a minimum setback distance of 1,000 feet between inverters and residents
- Orient inverters such that cooling ventilation inlet/outlets are directed away from residences
- Incorporating engineered sound barriers to block direct sound paths
- Employing ducted silencers or acoustic enclosures to reduce tonal noise emissions at the source

Applying one or more of these measures can substantially control the level of inverter noise and the relative impact created in the community. This can improve community acceptance and long-term compatibility of the facility with surrounding residents.

EXHIBIT 1

AERIAL IMAGE OF THE MEASUREMENT LOCATION AT 9788 N MARSH ROAD, CONWAY TOWNSHIP, MI

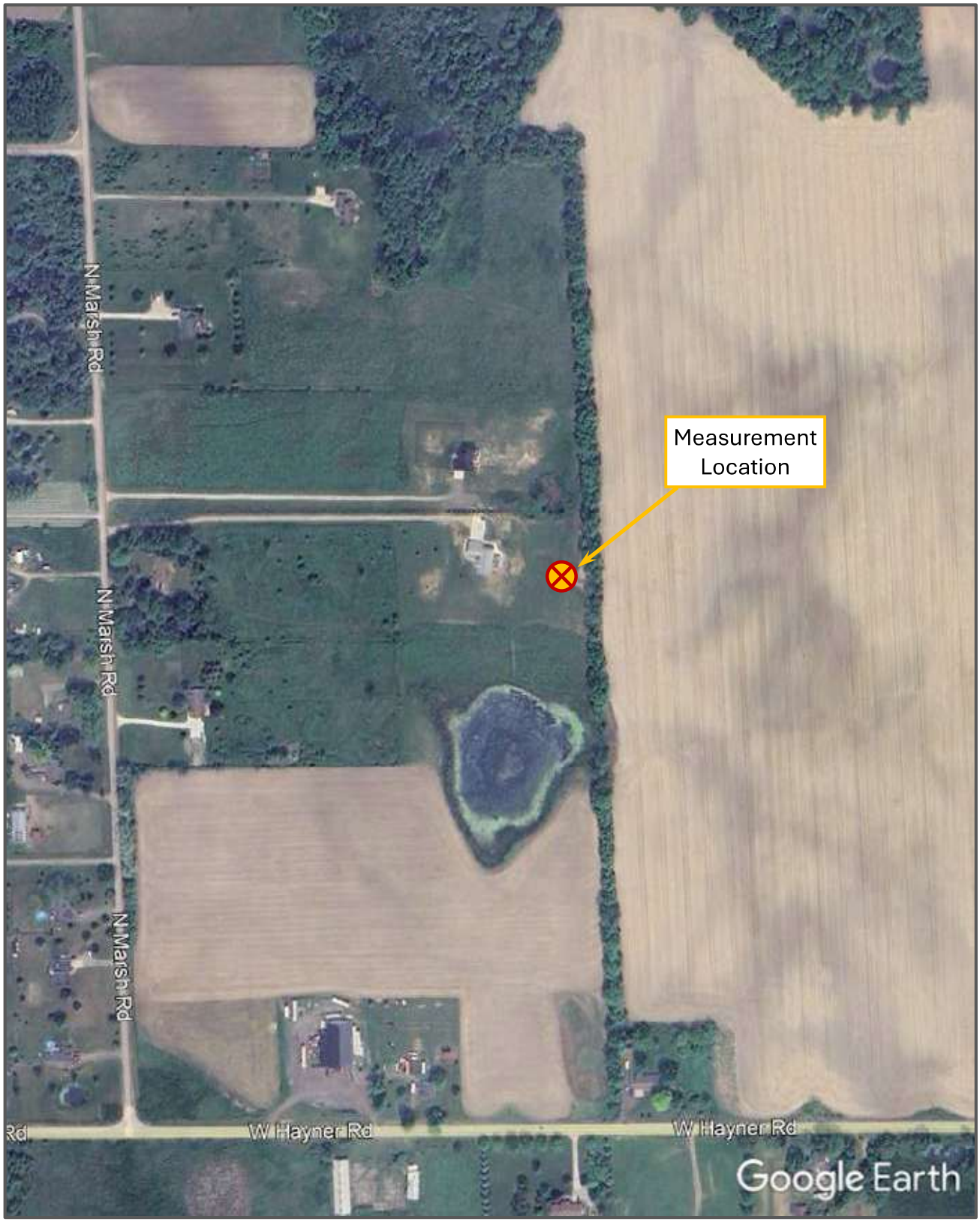


EXHIBIT 2

AERIAL IMAGE OF THE MEASUREMENT LOCATION AT 10785 FLEMING ROAD, COHOCTAH TOWNSHIP, MI

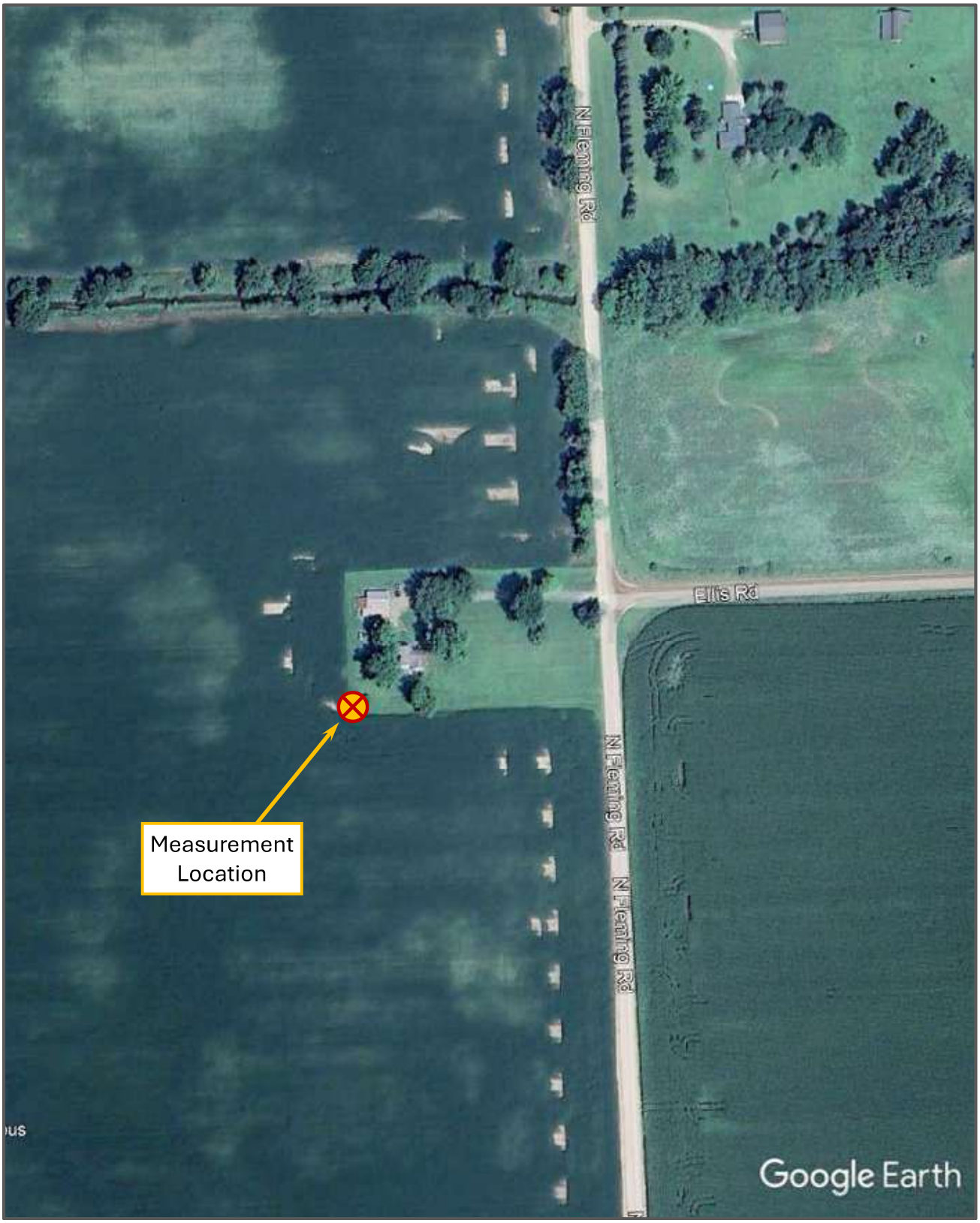
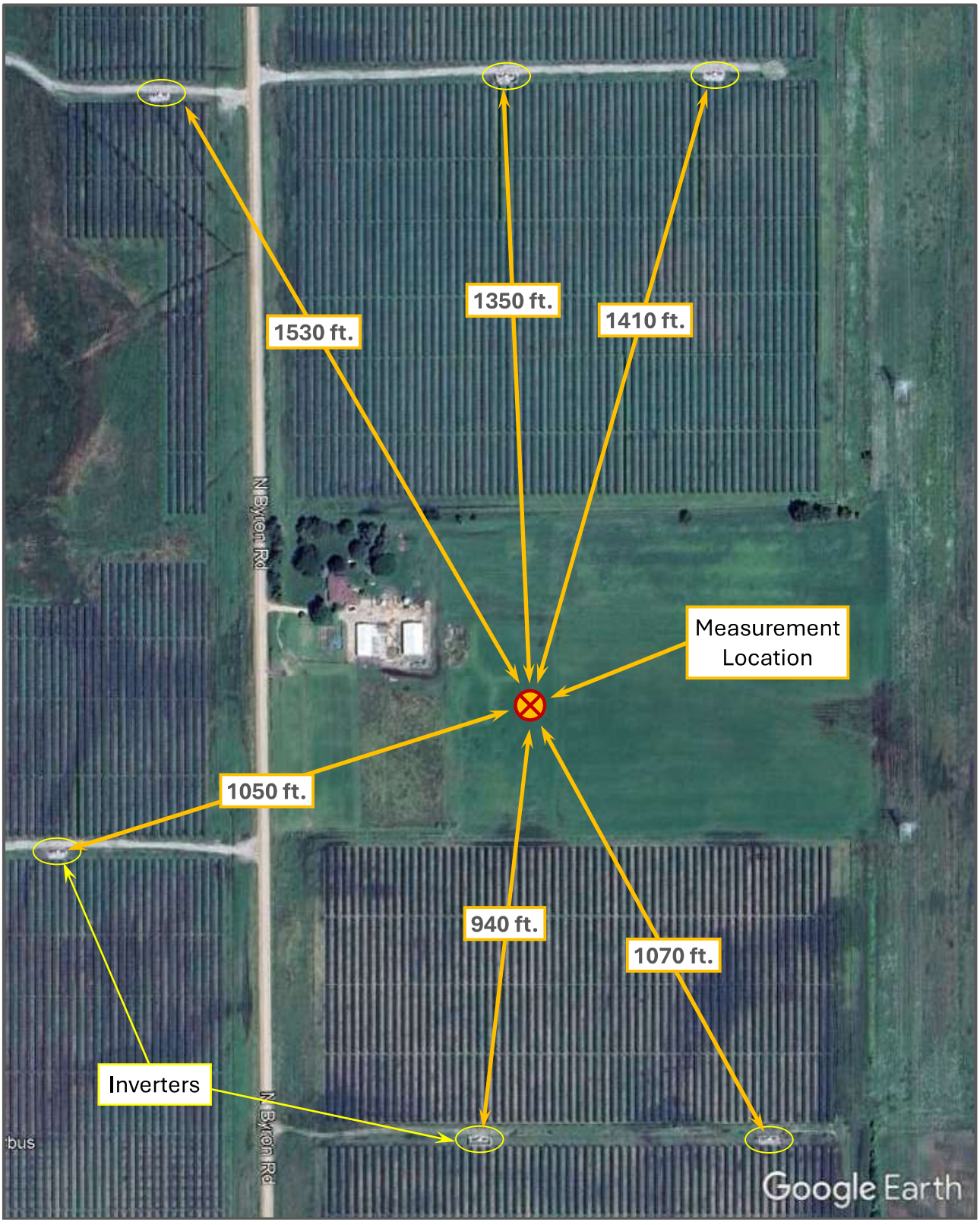


EXHIBIT 7

AERIAL IMAGE OF THE MEASUREMENT LOCATION AT 3496 N BYRON ROAD, CORUNNA, MI – MEASURING INVERTER SOUND LEVELS



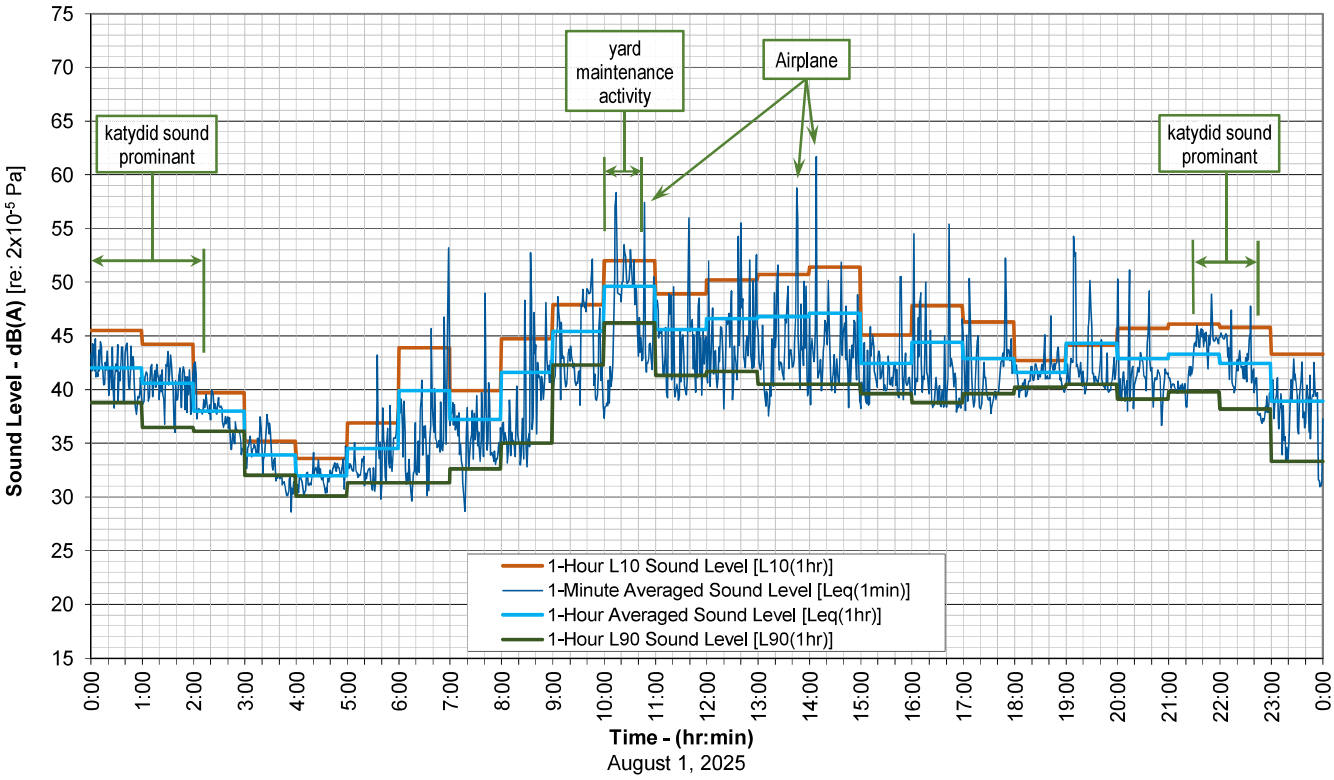
K & S Engineers, LLC
Project No. 2025-029 & 030

EXHIBIT 3A

Ambient Sound Levels at 9788 N Marsh Road

Measured at a Position 1460-ft North of W Hayner Road, and 1240-ft East of N Marsh Road

Study Conducted For: Conway & Cohoctah Townships



August 1, 2025

K & S Engineers, LLC
Project No. 2025-029 & 030

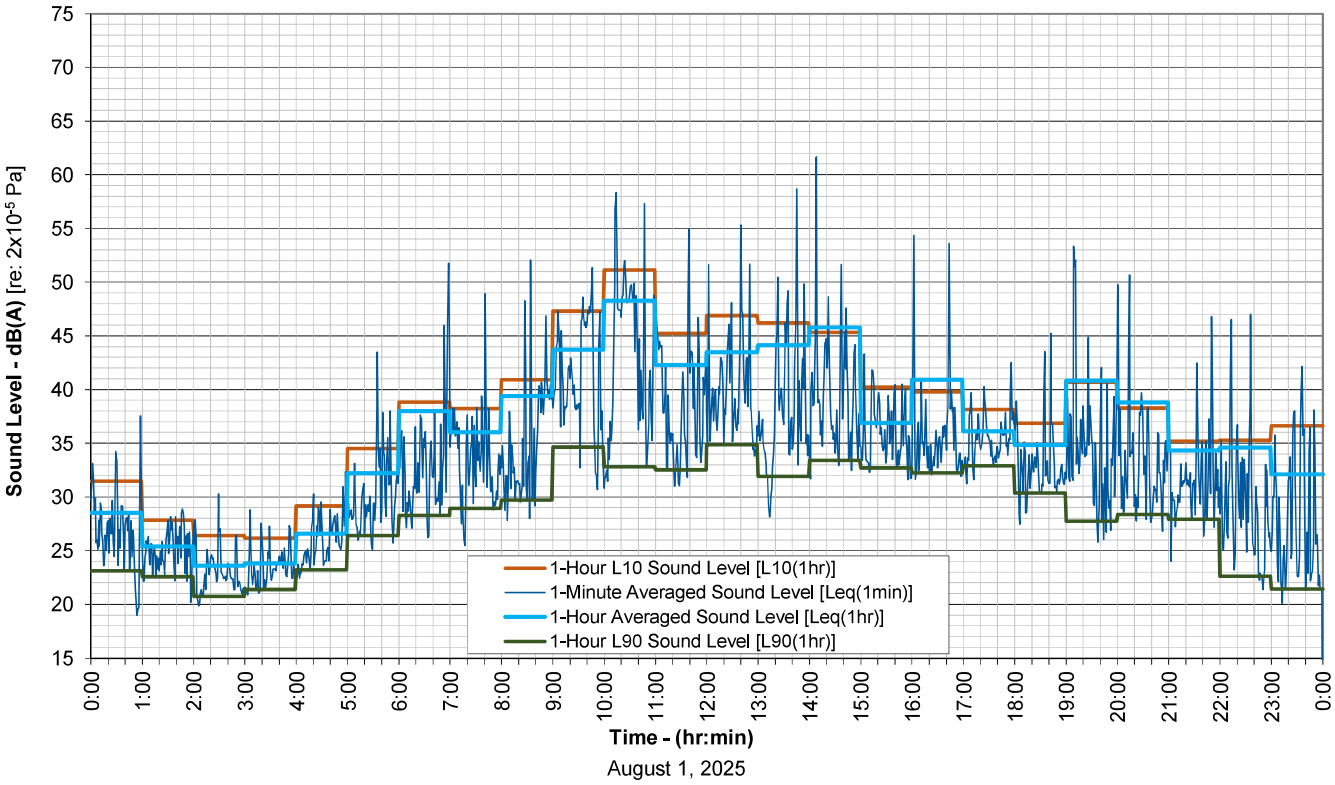
EXHIBIT 3B

Ambient Sound Levels at 9788 N Marsh Road

With Biogenic Filtering (removing sound at 2000 Hz and above)

Measured at a Position 1460-ft North of W Hayner Road, and 1240-ft East of N Marsh Road

Study Conducted For: Conway & Cohoctah Townships



August 1, 2025

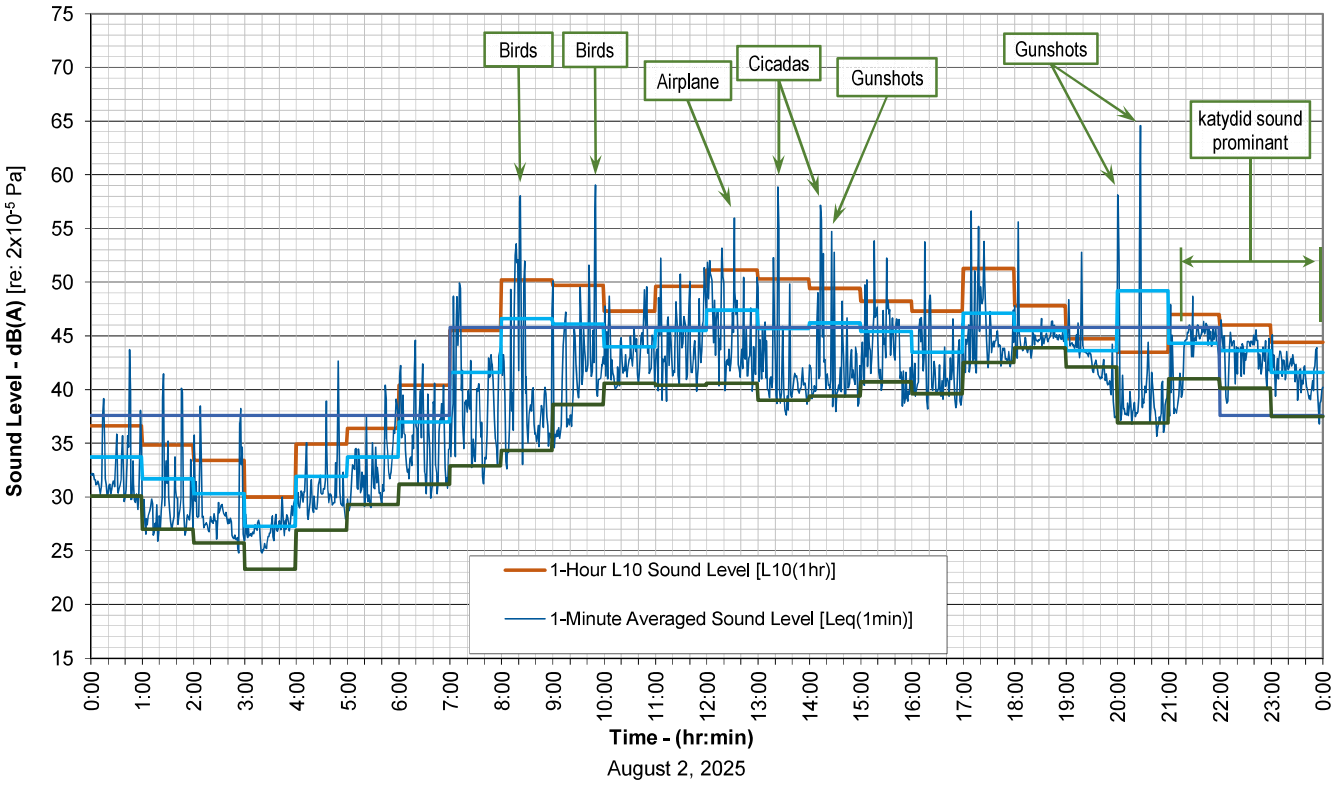
K & S Engineers, LLC
Project No. 2025-029 & 030

EXHIBIT 4A

Ambient Sound Levels at 9788 N Marsh Road

Measured at a Position 1460-ft North of W Hayner Road, and 1240-ft East of N Marsh Road

Study Conducted For: Conway & Cohoctah Townships

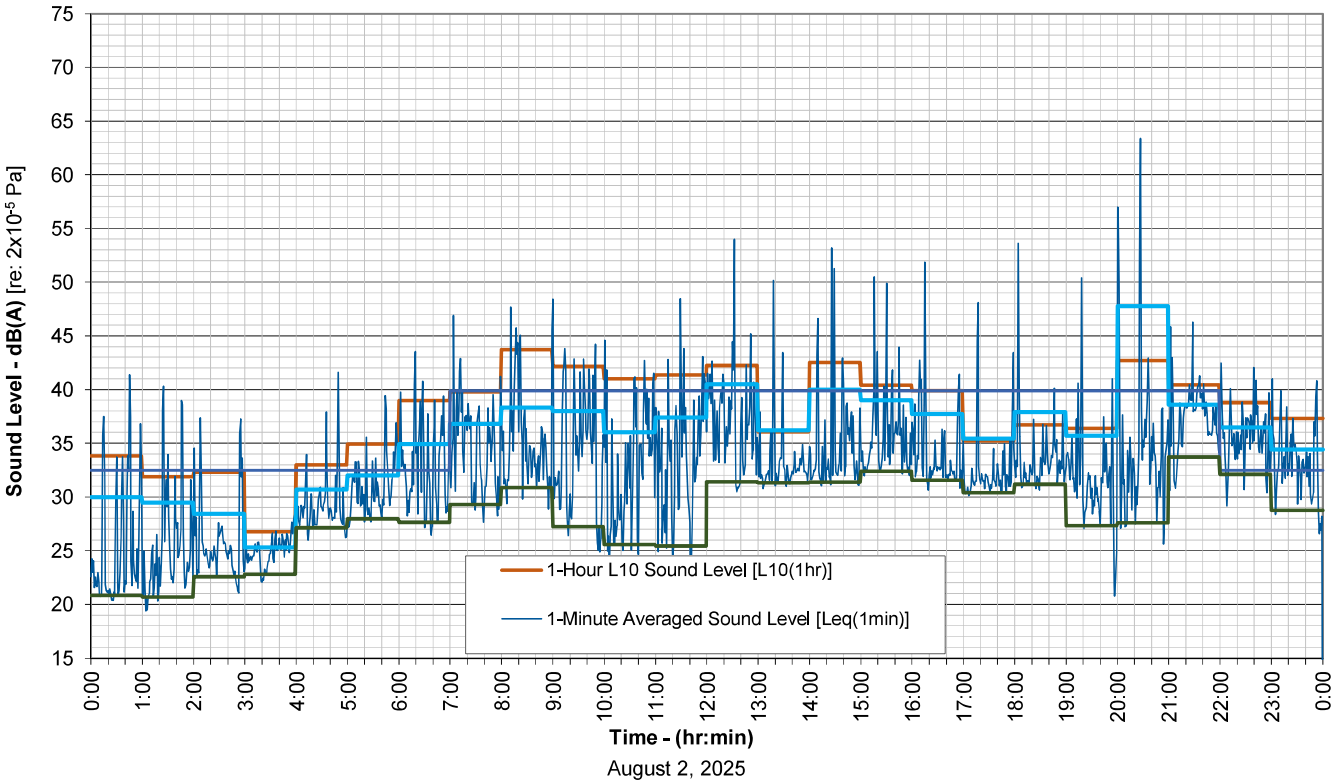


August 2, 2025

K & S Engineers, LLC
Project No. 2025-029 & 030

EXHIBIT 4B

Ambient Sound Levels at 9788 N Marsh Road
With Biogenic Filtering (removing sound at 2000 Hz and above)
Measured at a Position 1460-ft North of W Hayner Road, and 1240-ft East of N Marsh Road
Study Conducted For: Conway & Cohoctah Townships



August 2, 2025

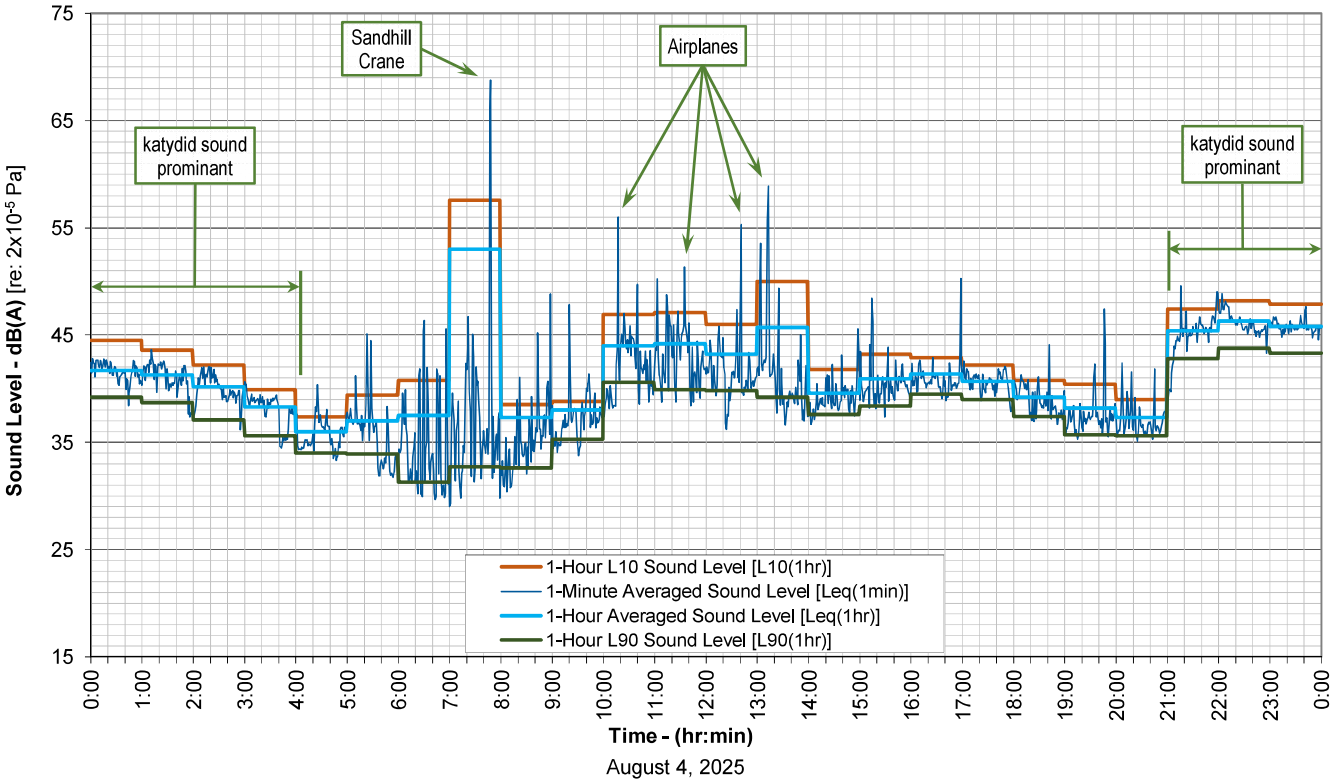
K & S Engineers, LLC
Project No.: 2025-029 & 030

EXHIBIT 5A

Ambient Sound Levels at 10785 Fleming Road

Measured at a Position 1450-ft South of Stoner Road, and 380-ft West of Fleming Road

Study Conducted For: Conway & Cohoctah Townships



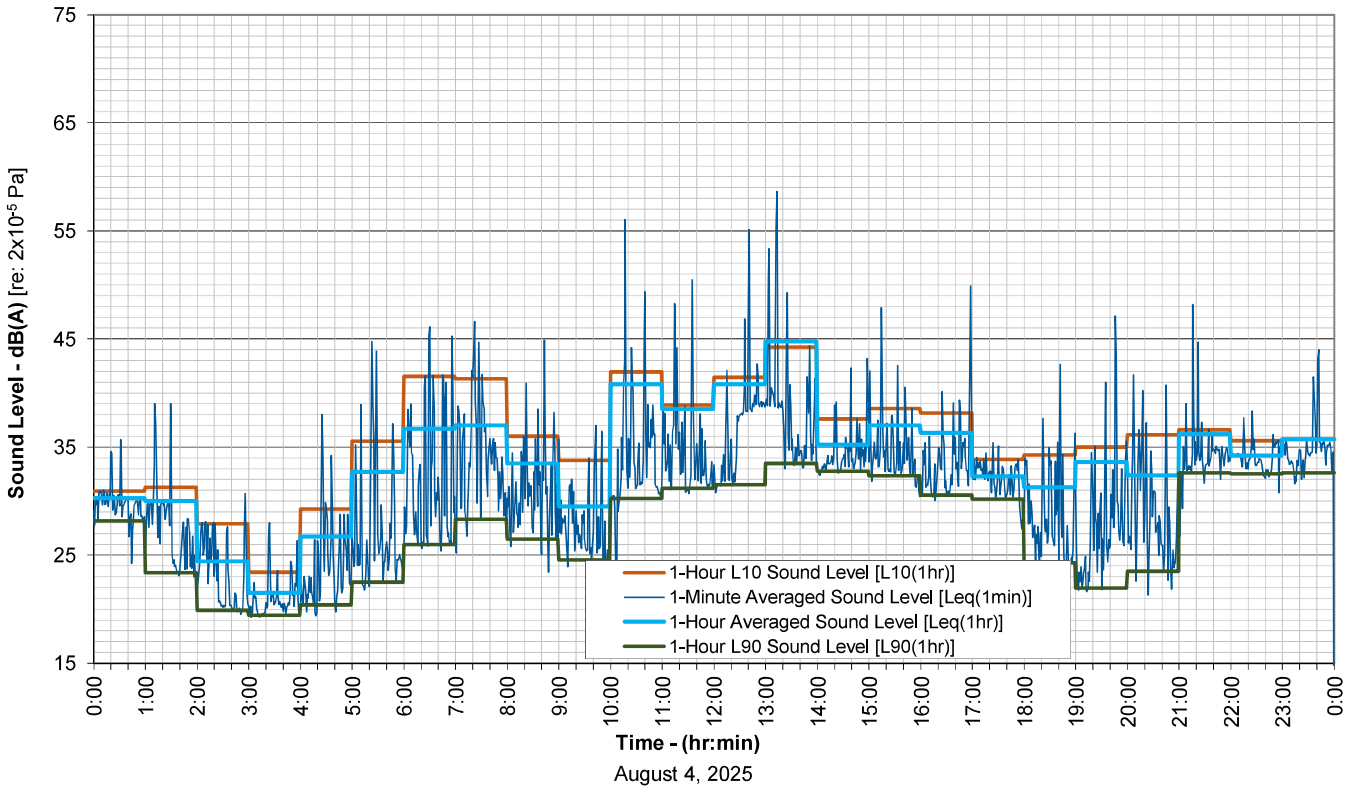
August 4, 2025

Cohoctah - Ambient Meas D1.xlsx

K & S Engineers, LLC
Project No.: 2025-029 & 030

EXHIBIT 5B

Ambient Sound Levels at 10785 Fleming Road
With Biogenic Filtering (removing sound at 2000 Hz and above)
Measured at a Position 1450-ft South of Stoner Road, and 380-ft West of Fleming Road
Study Conducted For: Conway & Cohoctah Townships



August 4, 2025

Cohoctah - Ambient Meas D1.xlsx

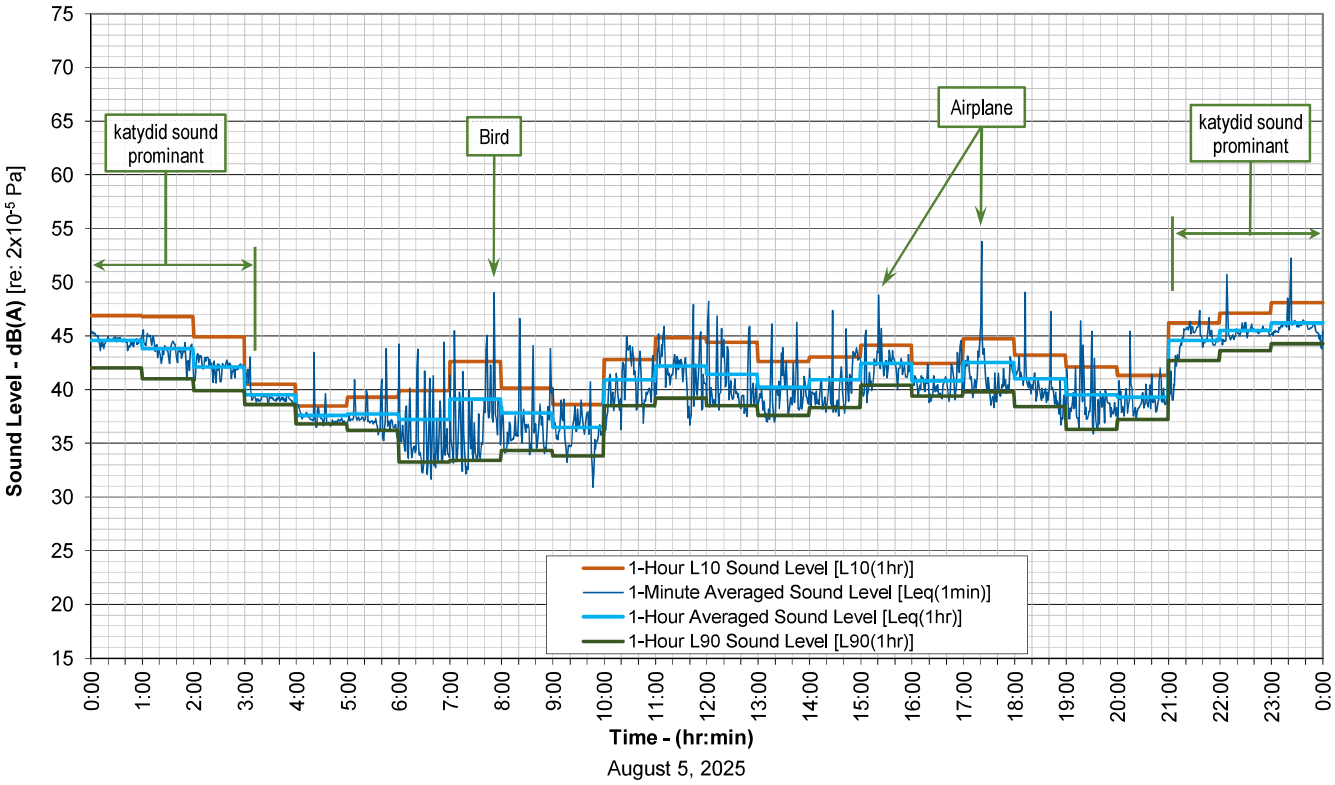
K & S Engineers, LLC
Project No.: 202025-029 & 030

EXHIBIT 6A

Ambient Sound Levels at 10785 Fleming Road

Measured at a Position 1450-ft South of Stoner Road, and 380-ft West of Fleming Road

Study Conducted For: Conway & Cohoctah Townships

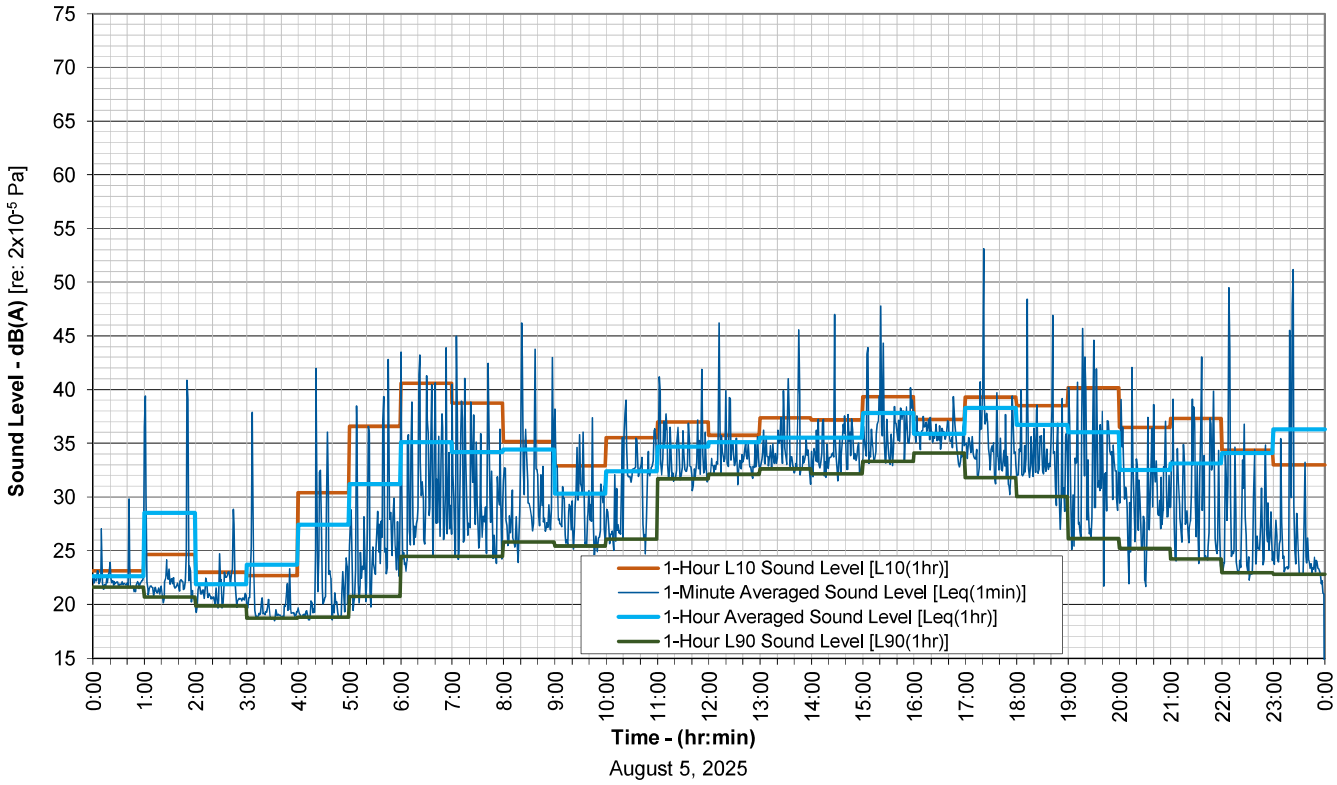


August 5, 2025

K & S Engineers, LLC
Project No.: 202025-029 & 030

EXHIBIT 6B

Ambient Sound Levels at 10785 Fleming Road
With Biogenic Filtering (removing sound at 2000 Hz and above)
Measured at a Position 1450-ft South of Stoner Road, and 380-ft West of Fleming Road
Study Conducted For: Conway & Cohoctah Townships



August 5, 2025

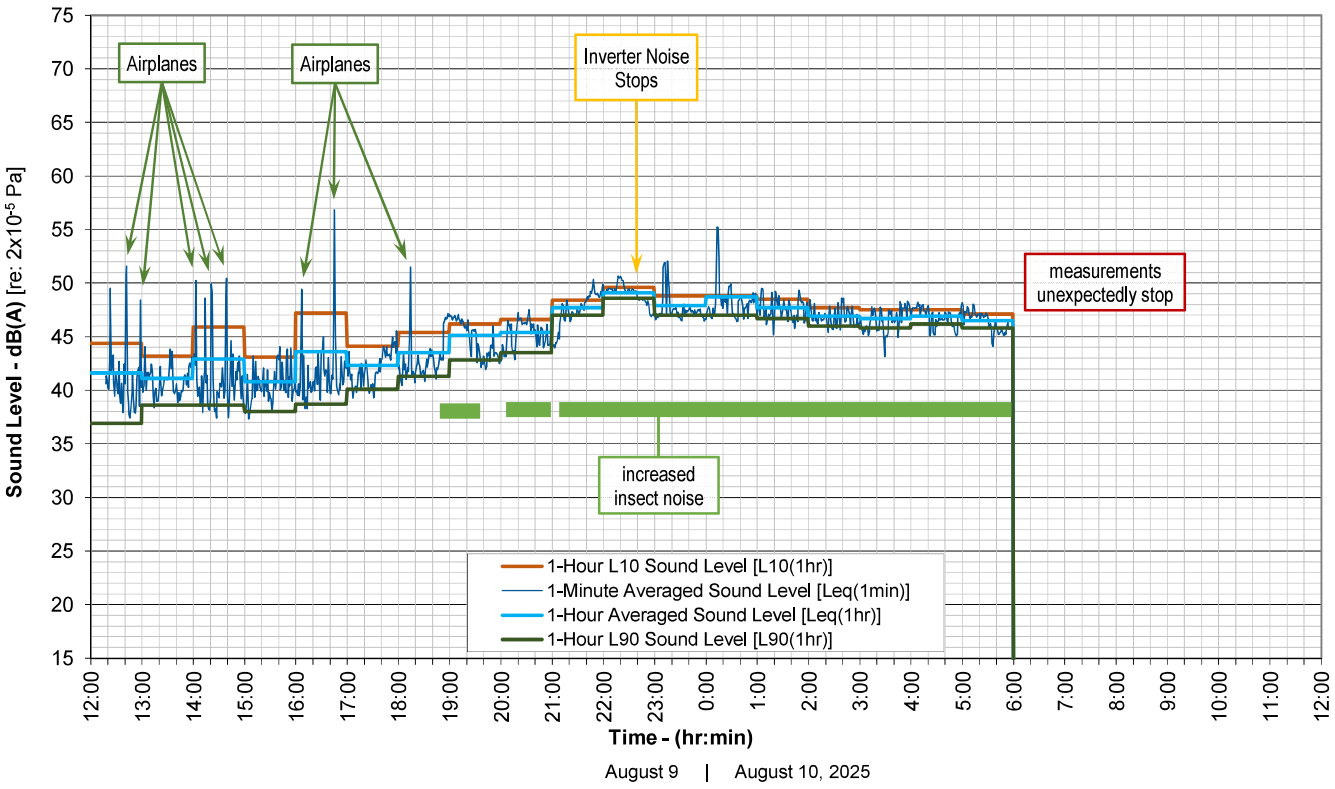
K & S Engineers, LLC
Project No. 2025-029 & 030

EXHIBIT 8A

Ambient Sound Levels at 3496 N Byron Rd

Measured at a Position 3010-ft South of E Juddville Road, and 560-ft East of N Byron Road

Study Conducted For: Conway & Cohoctah Townships

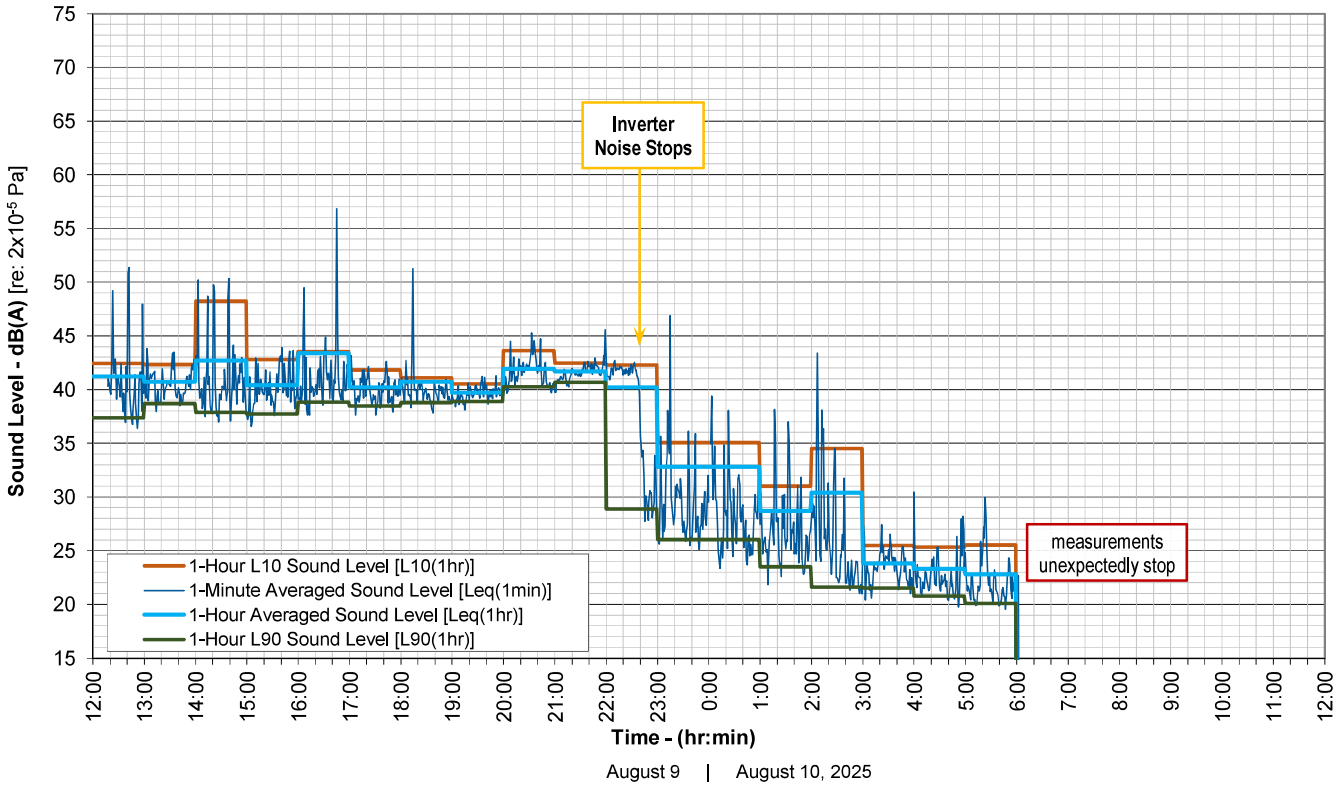


Solar Energy Facility (2) - Meas D1.xlsx

K & S Engineers, LLC
Project No. 2025-029 & 030

EXHIBIT 8B

Ambient Sound Levels at 3496 N Byron Rd
With Biogenic Filtering (removing sound at 2000 Hz and above)
Measured at a Position 3010-ft South of E Juddville Road, and 560-ft East of N Byron Road
Study Conducted For: Conway & Cohoctah Townships



Solar Energy Facility (2) - Meas D1.xlsx

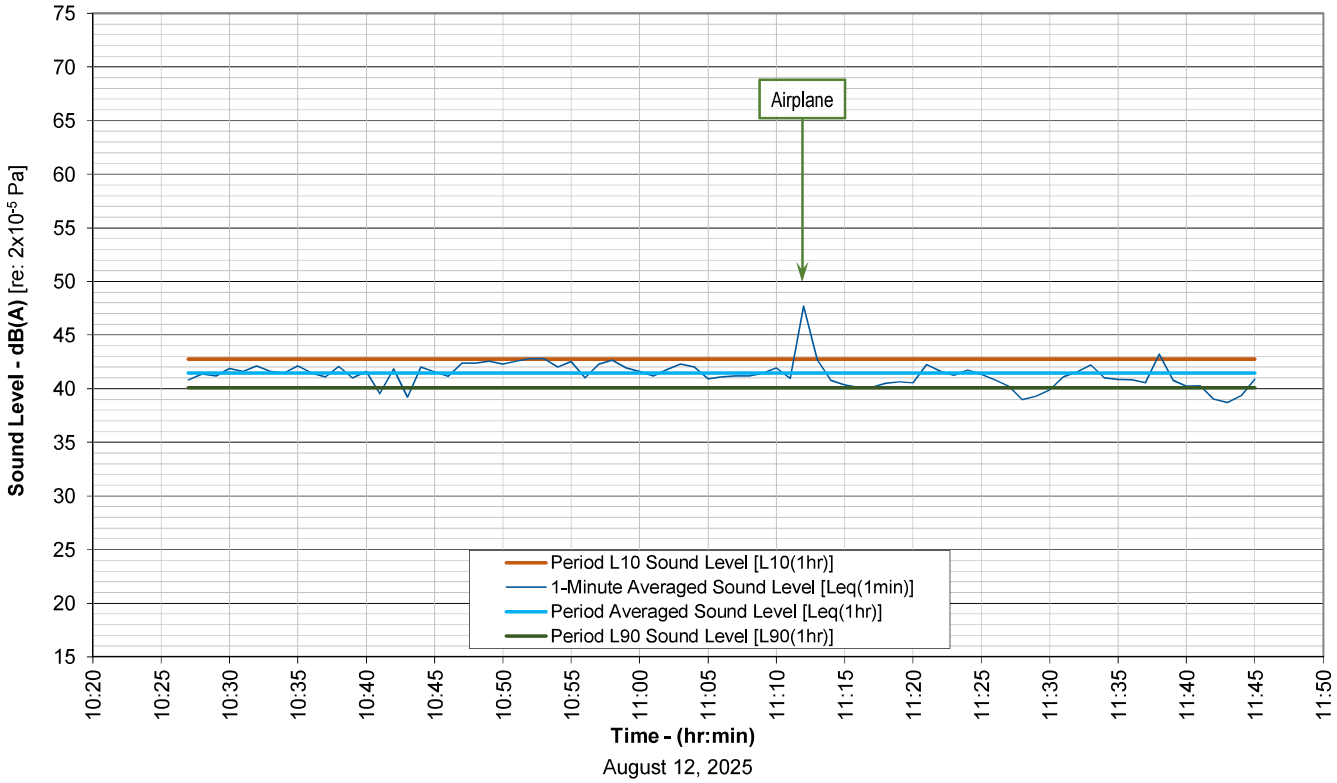
K & S Engineers, LLC
Project No. 2025-029 & 030

EXHIBIT 9A

Ambient Sound Levels at 3496 N Byron Rd

Measured at a Position 3010-ft South of E Juddville Road, and 560-ft East of N Byron Road

Study Conducted For: Conway & Cohoctah Townships



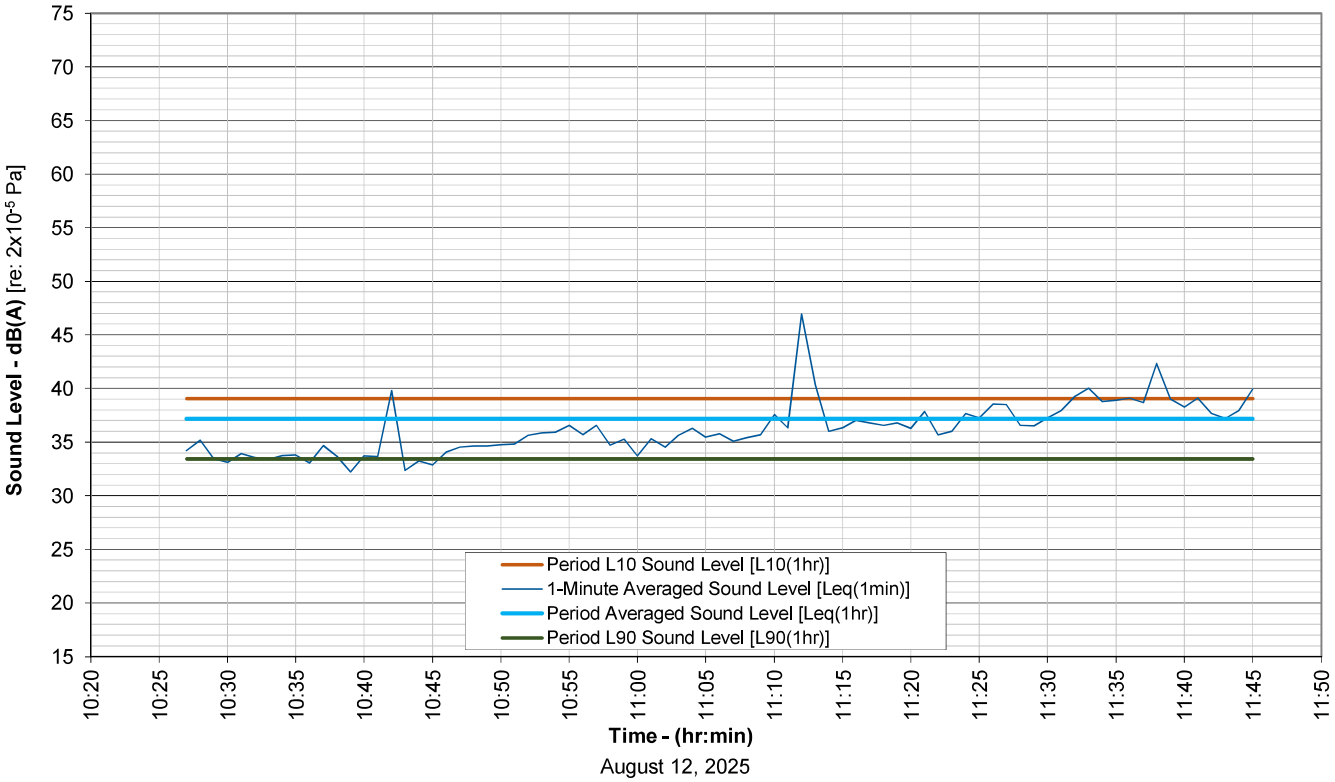
August 12, 2025

K & S Engineers, LLC
Project No. 2025-029 & 030

EXHIBIT 9B

Ambient Sound Levels at 3496 N Byron Rd
With Biogenic Filtering (removing sound at 2000 Hz and above)
Measured at a Position 3010-ft South of E Juddville Road, and 560-ft East of N Byron Road

Study Conducted For: Conway & Cohoctah Townships



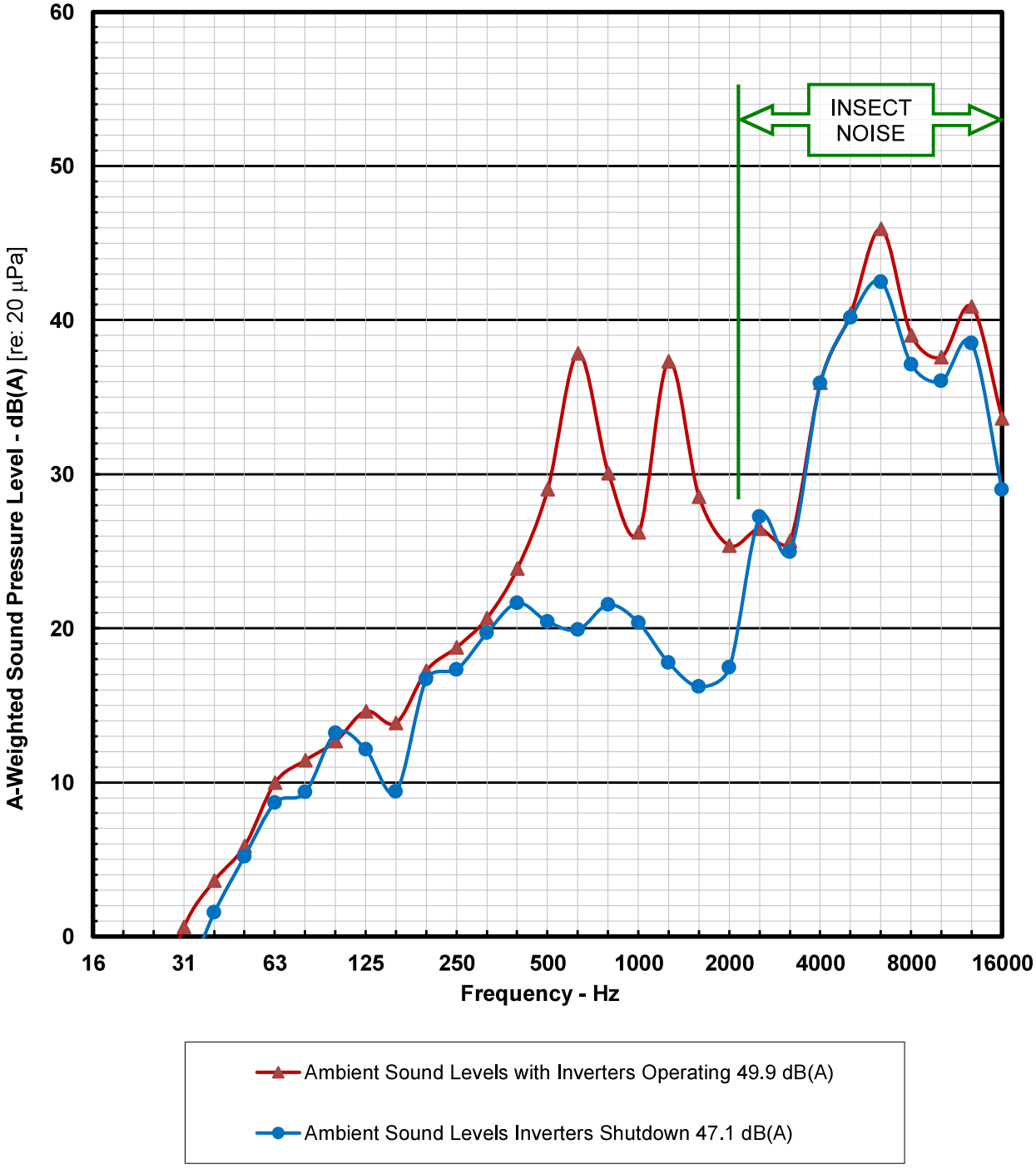
August 12, 2025

K & S ENGINEERS, LLC
Project No. 2025-029 & 030
Test Date: Aug. 9, 2025

EXHIBT 10A

ONE-THIRD OCTAVE BAND SOUND LEVELS OF SOLAR ENERGY FACILITY INVERTER NOISE IMPACT
(ONE-THIRD OCTAVE BANDS)

Study Conducted for: Conway & Cohoctah Townships



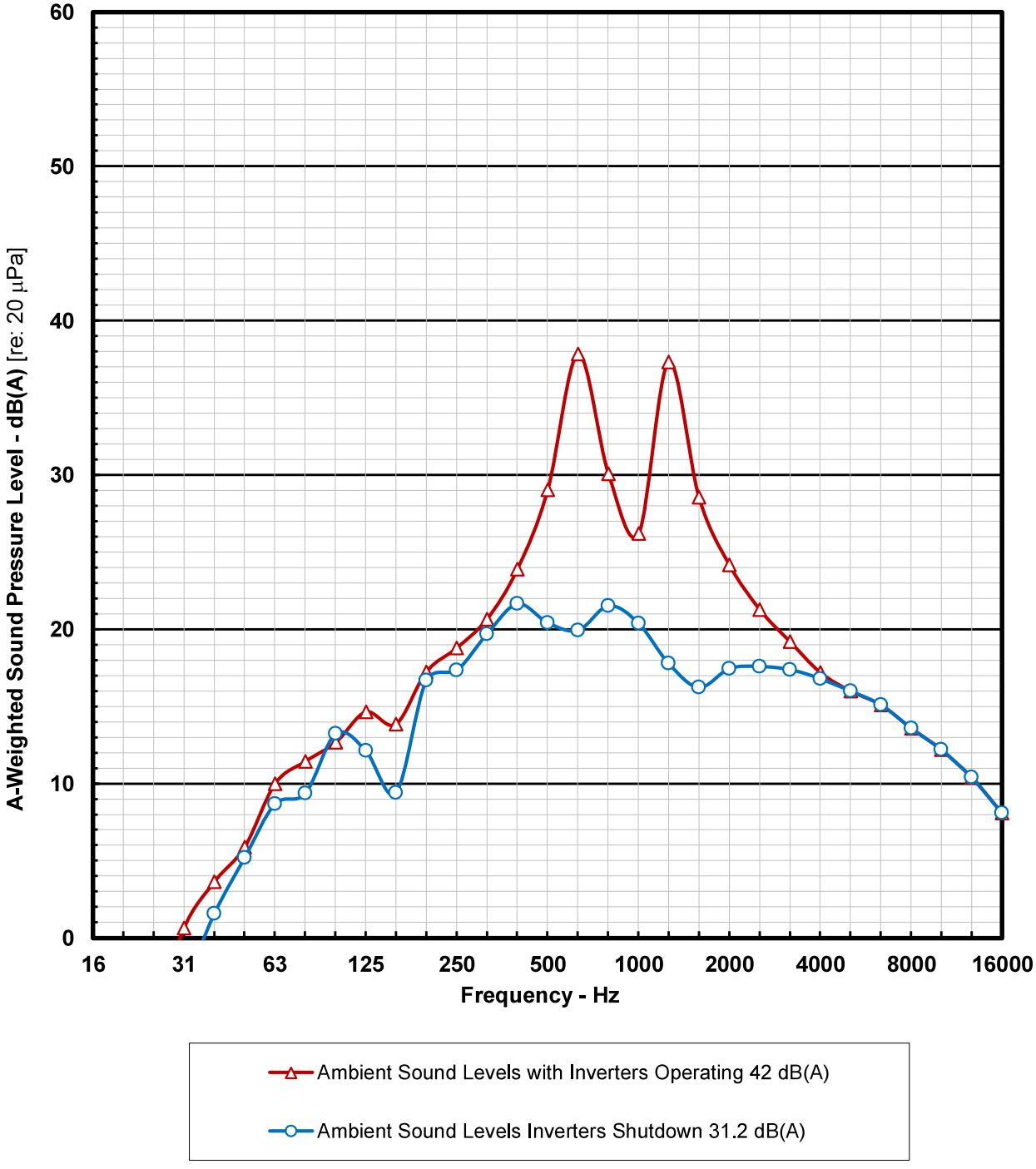
K & S ENGINEERS, LLC
Project No. 2025-029 & 030
Test Date: Aug. 9, 2025

EXHIBT 10B

ONE-THIRD OCTAVE BAND SOUND LEVELS OF SOLAR ENERGY FACILITY INVERTER NOISE IMPACT WITH BIOGENIC SOUNDS REMOVED

(AMBIENT SOUND LEVELS SIMULATED AT 2000 HZ AND ABOVE)

Study Conducted for: Conway & Cohoctah Townships



APPENDIX A.1

K & S Engineers, LLC
Project No. 2025-029 & 030

Atmospheric Conditions at Capital Region Intl. Airport Weather Station
Friday, August 1, 2025

Time	Temp.	Dew Point	Humidity	Wind Dir.	Wind Speed	Wind Gust	Pressure	Precip.	Condition
12:53 AM	63 °F	53 °F	70 %	ENE	6 mph	0 mph	29.36 in	0.0 in	Cloudy
1:53 AM	61 °F	53 °F	75 %	NNE	5 mph	0 mph	29.37 in	0.0 in	Mostly Cloudy
2:53 AM	59 °F	53 °F	81 %	N	5 mph	0 mph	29.36 in	0.0 in	Fair
3:53 AM	58 °F	52 °F	81 %	NNW	3 mph	0 mph	29.37 in	0.0 in	Fair
4:53 AM	56 °F	52 °F	87 %	N	3 mph	0 mph	29.37 in	0.0 in	Fair
5:53 AM	56 °F	52 °F	87 %	CALM	0 mph	0 mph	29.39 in	0.0 in	Fair
6:53 AM	55 °F	52 °F	89 %	CALM	0 mph	0 mph	29.41 in	0.0 in	Fair
7:53 AM	58 °F	53 °F	84 %	N	5 mph	0 mph	29.42 in	0.0 in	Fair
8:53 AM	63 °F	54 °F	72 %	NNE	6 mph	0 mph	29.43 in	0.0 in	Fair
9:53 AM	67 °F	55 °F	66 %	NNE	8 mph	0 mph	29.43 in	0.0 in	Fair
10:53 AM	71 °F	54 °F	55 %	NE	9 mph	0 mph	29.44 in	0.0 in	Fair
11:53 AM	72 °F	51 °F	48 %	ENE	13 mph	18 mph	29.45 in	0.0 in	Fair
12:53 PM	74 °F	49 °F	41 %	NE	12 mph	0 mph	29.45 in	0.0 in	Partly Cloudy
1:53 PM	75 °F	50 °F	41 %	ENE	10 mph	0 mph	29.43 in	0.0 in	Partly Cloudy
2:53 PM	75 °F	52 °F	44 %	NNE	8 mph	0 mph	29.44 in	0.0 in	Fair
3:53 PM	74 °F	52 °F	46 %	N	6 mph	0 mph	29.44 in	0.0 in	Partly Cloudy
4:53 PM	75 °F	53 °F	46 %	N	9 mph	0 mph	29.43 in	0.0 in	Fair
5:53 PM	74 °F	51 °F	45 %	VAR	5 mph	0 mph	29.43 in	0.0 in	Partly Cloudy
6:53 PM	74 °F	51 °F	45 %	NNE	7 mph	0 mph	29.41 in	0.0 in	Partly Cloudy
7:53 PM	71 °F	50 °F	47 %	NNE	5 mph	0 mph	29.41 in	0.0 in	Fair
8:53 PM	68 °F	51 °F	55 %	NNE	3 mph	0 mph	29.42 in	0.0 in	Fair
9:53 PM	62 °F	53 °F	72 %	CALM	0 mph	0 mph	29.43 in	0.0 in	Fair
10:53 PM	60 °F	54 °F	80 %	CALM	0 mph	0 mph	29.44 in	0.0 in	Fair
11:53 PM	57 °F	53 °F	87 %	CALM	0 mph	0 mph	29.44 in	0.0 in	Fair

APPENDIX A.2

Atmospheric Conditions at Bishop Intl. Airport Weather Station

Friday, August 1, 2025

Time	Temp.	Dew Point	Humidity	Wind Dir.	Wind Speed	Wind Gust	Pressure	Precip.	Condition
12:53 AM	63 °F	52 °F	67 %	NNE	7 mph	0 mph	29.44 in	0.0 in	Cloudy
1:53 AM	61 °F	52 °F	72 %	NE	6 mph	0 mph	29.44 in	0.0 in	Partly Cloudy
2:53 AM	59 °F	52 °F	78 %	NNE	6 mph	0 mph	29.44 in	0.0 in	Fair
3:53 AM	58 °F	52 °F	81 %	N	5 mph	0 mph	29.45 in	0.0 in	Fair
4:53 AM	57 °F	52 °F	83 %	N	5 mph	0 mph	29.45 in	0.0 in	Fair
5:53 AM	56 °F	52 °F	87 %	N	3 mph	0 mph	29.47 in	0.0 in	Fair
6:53 AM	55 °F	52 °F	89 %	WNW	5 mph	0 mph	29.48 in	0.0 in	Fair
7:53 AM	60 °F	54 °F	80 %	N	5 mph	0 mph	29.49 in	0.0 in	Fair
8:53 AM	65 °F	55 °F	70 %	N	6 mph	0 mph	29.50 in	0.0 in	Fair
9:53 AM	70 °F	58 °F	65 %	NNE	13 mph	0 mph	29.50 in	0.0 in	Fair
10:53 AM	72 °F	54 °F	53 %	NE	12 mph	0 mph	29.51 in	0.0 in	Fair
11:53 AM	73 °F	53 °F	49 %	NNE	14 mph	21 mph	29.52 in	0.0 in	Mostly Cloudy
12:53 PM	75 °F	52 °F	44 %	ENE	9 mph	0 mph	29.52 in	0.0 in	Fair
1:53 PM	73 °F	50 °F	44 %	NE	7 mph	0 mph	29.51 in	0.0 in	Partly Cloudy
2:53 PM	77 °F	51 °F	40 %		0 mph	0 mph	29.50 in	0.0 in	Fair
3:53 PM	74 °F	51 °F	45 %	ENE	12 mph	0 mph	29.51 in	0.0 in	Mostly Cloudy
4:53 PM	77 °F	52 °F	42 %	VAR	5 mph	0 mph	29.50 in	0.0 in	Partly Cloudy
5:53 PM	76 °F	51 °F	42 %	N	9 mph	0 mph	29.50 in	0.0 in	Fair
6:53 PM	75 °F	51 °F	43 %	ENE	9 mph	0 mph	29.49 in	0.0 in	Mostly Cloudy
7:53 PM	72 °F	51 °F	48 %	NNE	6 mph	0 mph	29.49 in	0.0 in	Fair
8:53 PM	69 °F	50 °F	51 %	NNE	7 mph	0 mph	29.49 in	0.0 in	Fair
9:53 PM	63 °F	51 °F	65 %	E	5 mph	0 mph	29.51 in	0.0 in	Fair
10:53 PM	63 °F	52 °F	67 %	E	3 mph	0 mph	29.52 in	0.0 in	Fair
11:53 PM	60 °F	53 °F	78 %	CALM	0 mph	0 mph	29.52 in	0.0 in	Fair

Atmospheric Conditions at Capital Region Intl. Airport Weather Station

Saturday, August 2, 2025

Time	Temp.	Dew Point	Humidity	Wind Dir.	Wind Speed	Wind Gust	Pressure	Precip.	Condition
12:53 AM	57 °F	53 °F	87 %	CALM	0 mph	0 mph	29.44 in	0.0 in	Fair
1:53 AM	56 °F	53 °F	90 %	CALM	0 mph	0 mph	29.44 in	0.0 in	Fair
2:53 AM	55 °F	52 °F	89 %	CALM	0 mph	0 mph	29.44 in	0.0 in	Fair
3:53 AM	54 °F	52 °F	93 %	CALM	0 mph	0 mph	29.44 in	0.0 in	Fair
4:53 AM	53 °F	51 °F	93 %	CALM	0 mph	0 mph	29.45 in	0.0 in	Fair
5:53 AM	52 °F	51 °F	97 %	CALM	0 mph	0 mph	29.45 in	0.0 in	Fair
6:53 AM	52 °F	50 °F	93 %	CALM	0 mph	0 mph	29.46 in	0.0 in	Fair
7:53 AM	56 °F	53 °F	90 %	CALM	0 mph	0 mph	29.45 in	0.0 in	Fair
8:53 AM	61 °F	54 °F	78 %	CALM	0 mph	0 mph	29.46 in	0.0 in	Fair
9:53 AM	67 °F	54 °F	63 %	CALM	0 mph	0 mph	29.46 in	0.0 in	Fair
10:53 AM	71 °F	52 °F	51 %	NNW	3 mph	0 mph	29.45 in	0.0 in	Fair
11:53 AM	73 °F	50 °F	44 %	VAR	3 mph	0 mph	29.45 in	0.0 in	Fair
12:53 PM	75 °F	49 °F	40 %	N	6 mph	0 mph	29.44 in	0.0 in	Fair
1:53 PM	75 °F	47 °F	37 %	N	6 mph	0 mph	29.42 in	0.0 in	Fair
2:53 PM	76 °F	50 °F	40 %		0 mph	0 mph	29.40 in	0.0 in	Fair
3:53 PM	76 °F	49 °F	38 %	CALM	0 mph	0 mph	29.39 in	0.0 in	Fair
4:53 PM	77 °F	51 °F	40 %	NE	6 mph	0 mph	29.38 in	0.0 in	Fair
5:53 PM	76 °F	51 °F	42 %	NE	7 mph	0 mph	29.36 in	0.0 in	Fair
6:53 PM	75 °F	51 °F	43 %	ENE	6 mph	0 mph	29.34 in	0.0 in	Haze
7:53 PM	73 °F	54 °F	51 %	CALM	0 mph	0 mph	29.34 in	0.0 in	Haze
8:53 PM	68 °F	56 °F	65 %	CALM	0 mph	0 mph	29.34 in	0.0 in	Haze
9:53 PM	65 °F	56 °F	73 %	CALM	0 mph	0 mph	29.34 in	0.0 in	Fair
10:53 PM	63 °F	54 °F	72 %	CALM	0 mph	0 mph	29.33 in	0.0 in	Fair
11:53 PM	60 °F	56 °F	86 %	CALM	0 mph	0 mph	29.33 in	0.0 in	Fair

Atmospheric Conditions at Bishop Intl. Airport Weather Station
Saturday, August 2, 2025

Time	Temp.	Dew Point	Humidity	Wind Dir.	Wind Speed	Wind Gust	Pressure	Precip.	Condition
12:53 AM	57 °F	53 °F	87 %	SSE	3 mph	0 mph	29.52 in	0.0 in	Fair
1:53 AM	56 °F	53 °F	90 %	CALM	0 mph	0 mph	29.52 in	0.0 in	Fair
2:53 AM	54 °F	52 °F	93 %	CALM	0 mph	0 mph	29.51 in	0.0 in	Fair
3:53 AM	52 °F	51 °F	97 %	CALM	0 mph	0 mph	29.52 in	0.0 in	Fair
4:53 AM	53 °F	51 °F	93 %	CALM	0 mph	0 mph	29.53 in	0.0 in	Fair
5:53 AM	52 °F	51 °F	97 %	CALM	0 mph	0 mph	29.53 in	0.0 in	Fair
6:53 AM	50 °F	49 °F	96 %	CALM	0 mph	0 mph	29.53 in	0.0 in	Fair
7:53 AM	55 °F	54 °F	96 %	CALM	0 mph	0 mph	29.53 in	0.0 in	Fair
8:53 AM	60 °F	56 °F	86 %	CALM	0 mph	0 mph	29.53 in	0.0 in	Fair
9:53 AM	66 °F	58 °F	75 %	CALM	0 mph	0 mph	29.53 in	0.0 in	Fair
10:53 AM	72 °F	55 °F	55 %	CALM	0 mph	0 mph	29.53 in	0.0 in	Fair
11:53 AM	75 °F	51 °F	43 %	VAR	5 mph	0 mph	29.52 in	0.0 in	Fair
12:53 PM	76 °F	53 °F	45 %	VAR	3 mph	0 mph	29.51 in	0.0 in	Fair
1:53 PM	76 °F	51 °F	42 %	N	5 mph	0 mph	29.49 in	0.0 in	Fair
2:53 PM	77 °F	54 °F	45 %	VAR	6 mph	0 mph	29.48 in	0.0 in	Fair
3:53 PM	78 °F	54 °F	43 %	N	9 mph	0 mph	29.46 in	0.0 in	Fair
4:53 PM	77 °F	52 °F	42 %	VAR	3 mph	0 mph	29.45 in	0.0 in	Haze
5:53 PM	77 °F	54 °F	45 %	CALM	0 mph	0 mph	29.44 in	0.0 in	Fair
6:53 PM	76 °F	54 °F	46 %	NNW	3 mph	0 mph	29.42 in	0.0 in	Fair
7:53 PM	74 °F	54 °F	50 %	N	3 mph	0 mph	29.42 in	0.0 in	Fair
8:53 PM	69 °F	59 °F	70 %	CALM	0 mph	0 mph	29.42 in	0.0 in	Fair
9:53 PM	64 °F	58 °F	80 %	CALM	0 mph	0 mph	29.42 in	0.0 in	Fair
10:53 PM	61 °F	57 °F	87 %	CALM	0 mph	0 mph	29.42 in	0.0 in	Fair
11:53 PM	61 °F	57 °F	87 %	CALM	0 mph	0 mph	29.41 in	0.0 in	Fair

APPENDIX A.5

K & S Engineers, LLC
Project No. 2025-029 & 030

Atmospheric Conditions at Capital Region Intl. Airport Weather Station
Monday, August 4, 2025

Time	Temp.	Dew Point	Humidity	Wind Dir.	Wind Speed	Wind Gust	Pressure	Precip.	Condition
12:53 AM	62 °F	59 °F	90 %	CALM	0 mph	0 mph	29.25 in	0.0 in	Mostly Cloudy
1:53 AM	61 °F	58 °F	90 %	CALM	0 mph	0 mph	29.25 in	0.0 in	Fair
2:53 AM	60 °F	58 °F	93 %	CALM	0 mph	0 mph	29.25 in	0.0 in	Fair
3:53 AM	58 °F	56 °F	93 %	CALM	0 mph	0 mph	29.25 in	0.0 in	Fair
4:53 AM	58 °F	56 °F	93 %	CALM	0 mph	0 mph	29.26 in	0.0 in	Fair
5:53 AM	57 °F	56 °F	96 %	ENE	3 mph	0 mph	29.27 in	0.0 in	Mist
6:44 AM	56 °F	55 °F	97 %	CALM	0 mph	0 mph	29.27 in	0.0 in	Mist
6:53 AM	57 °F	56 °F	96 %	CALM	0 mph	0 mph	29.27 in	0.0 in	Mist
7:08 AM	57 °F	56 °F	96 %	CALM	0 mph	0 mph	29.27 in	0.0 in	Mist
7:53 AM	59 °F	57 °F	93 %	CALM	0 mph	0 mph	29.27 in	0.0 in	Mist
8:53 AM	66 °F	59 °F	78 %	CALM	0 mph	0 mph	29.29 in	0.0 in	Fair
9:53 AM	72 °F	60 °F	66 %	E	5 mph	0 mph	29.29 in	0.0 in	Haze
10:53 AM	75 °F	57 °F	53 %	NNE	6 mph	0 mph	29.29 in	0.0 in	Haze
11:53 AM	76 °F	57 °F	52 %	ENE	9 mph	0 mph	29.29 in	0.0 in	Haze
12:53 PM	78 °F	53 °F	42 %	VAR	7 mph	0 mph	29.28 in	0.0 in	Fair
1:53 PM	79 °F	54 °F	42 %	SE	6 mph	0 mph	29.28 in	0.0 in	Fair
2:53 PM	79 °F	54 °F	42 %	SE	7 mph	0 mph	29.27 in	0.0 in	Fair
3:53 PM	79 °F	55 °F	44 %	ENE	3 mph	0 mph	29.27 in	0.0 in	Mostly Cloudy
4:53 PM	79 °F	57 °F	47 %	ENE	6 mph	0 mph	29.25 in	0.0 in	Fair
5:53 PM	79 °F	59 °F	50 %	NE	8 mph	0 mph	29.25 in	0.0 in	Fair
6:53 PM	77 °F	60 °F	56 %	NE	3 mph	0 mph	29.25 in	0.0 in	Partly Cloudy
7:53 PM	76 °F	61 °F	60 %	NE	5 mph	0 mph	29.25 in	0.0 in	Partly Cloudy
8:53 PM	73 °F	61 °F	66 %	NE	3 mph	0 mph	29.26 in	0.0 in	Haze
9:53 PM	70 °F	62 °F	76 %	NE	5 mph	0 mph	29.27 in	0.0 in	Partly Cloudy
10:53 PM	69 °F	61 °F	75 %	ENE	6 mph	0 mph	29.28 in	0.0 in	Cloudy
11:53 PM	68 °F	60 °F	76 %	ENE	6 mph	0 mph	29.29 in	0.0 in	Haze

Atmospheric Conditions at Bishop Intl. Airport Weather Station
Monday, August 4, 2025

Time	Temp.	Dew Point	Humidity	Wind Dir.	Wind Speed	Wind Gust	Pressure	Precip.	Condition
12:53 AM	62 °F	59 °F	90 %	CALM	0 mph	0 mph	29.34 in	0.0 in	Fair
1:53 AM	61 °F	58 °F	90 %	CALM	0 mph	0 mph	29.34 in	0.0 in	Fair
2:53 AM	57 °F	56 °F	96 %	CALM	0 mph	0 mph	29.34 in	0.0 in	Haze
3:07 AM	60 °F	59 °F	96 %	CALM	0 mph	0 mph	29.34 in	0.0 in	Haze
3:53 AM	59 °F	58 °F	96 %	CALM	0 mph	0 mph	29.35 in	0.0 in	Haze
4:53 AM	56 °F	55 °F	97 %	CALM	0 mph	0 mph	29.35 in	0.0 in	Haze
5:51 AM	54 °F	54 °F	100 %	CALM	0 mph	0 mph	29.36 in	0.0 in	Haze
6:07 AM	56 °F	56 °F	100 %	S	3 mph	0 mph	29.37 in	0.0 in	Haze
6:20 AM	56 °F	55 °F	97 %	CALM	0 mph	0 mph	29.37 in	0.0 in	Haze
6:43 AM	56 °F	55 °F	97 %	CALM	0 mph	0 mph	29.37 in	0.0 in	Haze
6:49 AM	57 °F	57 °F	100 %	CALM	0 mph	0 mph	29.36 in	0.0 in	Haze
7:53 AM	60 °F	59 °F	96 %	CALM	0 mph	0 mph	29.37 in	0.0 in	Haze
8:53 AM	67 °F	62 °F	84 %	CALM	0 mph	0 mph	29.37 in	0.0 in	Haze
9:53 AM	73 °F	61 °F	66 %	ENE	5 mph	0 mph	29.38 in	0.0 in	Fair
10:53 AM	76 °F	61 °F	60 %	E	5 mph	0 mph	29.39 in	0.0 in	Haze
11:53 AM	77 °F	60 °F	56 %	CALM	0 mph	0 mph	29.39 in	0.0 in	Haze
12:53 PM	79 °F	59 °F	50 %	VAR	3 mph	0 mph	29.38 in	0.0 in	Haze
1:53 PM	80 °F	60 °F	50 %	E	8 mph	0 mph	29.37 in	0.0 in	Haze
2:53 PM	80 °F	61 °F	52 %	E	8 mph	0 mph	29.36 in	0.0 in	Haze
3:53 PM	81 °F	61 °F	50 %	ESE	9 mph	0 mph	29.35 in	0.0 in	Haze
4:53 PM	80 °F	58 °F	47 %	ESE	9 mph	0 mph	29.35 in	0.0 in	Haze
5:53 PM	80 °F	58 °F	47 %	E	7 mph	0 mph	29.35 in	0.0 in	Haze
6:53 PM	78 °F	60 °F	54 %	E	8 mph	0 mph	29.34 in	0.0 in	Fair
7:53 PM	76 °F	62 °F	62 %	ESE	7 mph	0 mph	29.35 in	0.0 in	Smoke
8:53 PM	74 °F	60 °F	62 %	E	7 mph	0 mph	29.36 in	0.0 in	Smoke
9:53 PM	72 °F	61 °F	68 %	ENE	10 mph	0 mph	29.37 in	0.0 in	Smoke
10:53 PM	70 °F	59 °F	68 %	E	9 mph	0 mph	29.39 in	0.0 in	Smoke
11:53 PM	67 °F	59 °F	76 %	E	7 mph	0 mph	29.39 in	0.0 in	Haze

Atmospheric Conditions at Capital Region Intl. Airport Weather Station
Tuesday, August 5, 2025

Time	Temp.	Dew Point	Humidity	Wind Dir.	Wind Speed	Wind Gust	Pressure	Precip.	Condition
12:53 AM	66 °F	60 °F	81 %	ENE	6 mph	0 mph	29.30 in	0.0 in	Haze
1:53 AM	65 °F	60 °F	84 %	CALM	0 mph	0 mph	29.31 in	0.0 in	Cloudy
2:53 AM	63 °F	60 °F	90 %	NNE	3 mph	0 mph	29.31 in	0.0 in	Fair
3:53 AM	62 °F	59 °F	90 %	CALM	0 mph	0 mph	29.31 in	0.0 in	Fair
4:53 AM	60 °F	58 °F	93 %	CALM	0 mph	0 mph	29.31 in	0.0 in	Fair
5:53 AM	60 °F	57 °F	90 %	NNE	3 mph	0 mph	29.32 in	0.0 in	Mostly Cloudy
6:53 AM	61 °F	58 °F	90 %	CALM	0 mph	0 mph	29.34 in	0.0 in	Mist
7:53 AM	61 °F	59 °F	93 %	NNE	3 mph	0 mph	29.35 in	0.0 in	Mist
8:53 AM	65 °F	61 °F	87 %	NNE	3 mph	0 mph	29.37 in	0.0 in	Haze
9:53 AM	69 °F	61 °F	75 %	NE	6 mph	0 mph	29.37 in	0.0 in	Fair
10:53 AM	74 °F	59 °F	59 %	NE	5 mph	0 mph	29.37 in	0.0 in	Haze
11:53 AM	77 °F	59 °F	54 %	NE	9 mph	0 mph	29.37 in	0.0 in	Haze
12:53 PM	80 °F	61 °F	52 %	ENE	9 mph	0 mph	29.36 in	0.0 in	Haze
1:53 PM	82 °F	60 °F	47 %	ENE	7 mph	0 mph	29.35 in	0.0 in	Haze
2:53 PM	81 °F	59 °F	47 %	ENE	13 mph	17 mph	29.34 in	0.0 in	Haze
3:53 PM	83 °F	59 °F	44 %	NNE	8 mph	18 mph	29.33 in	0.0 in	Haze
4:53 PM	80 °F	60 °F	50 %	NNE	8 mph	0 mph	29.32 in	0.0 in	Haze
5:53 PM	81 °F	61 °F	50 %	NE	12 mph	0 mph	29.32 in	0.0 in	Haze
6:53 PM	77 °F	64 °F	64 %	NNE	10 mph	0 mph	29.33 in	0.0 in	Haze
7:53 PM	74 °F	65 °F	73 %	N	6 mph	0 mph	29.33 in	0.0 in	Haze
8:53 PM	72 °F	64 °F	76 %	NNE	5 mph	0 mph	29.34 in	0.0 in	Haze
9:53 PM	72 °F	61 °F	68 %	NE	8 mph	0 mph	29.35 in	0.0 in	Mostly Cloudy
10:53 PM	68 °F	60 °F	76 %	NE	9 mph	0 mph	29.36 in	0.0 in	Fair
11:53 PM	68 °F	62 °F	81 %	ENE	7 mph	0 mph	29.36 in	0.0 in	Cloudy

Atmospheric Conditions at Bishop Intl. Airport Weather Station
Tuesday, August 5, 2025

Time	Temp.	Dew Point	Humidity	Wind Dir.	Wind Speed	Wind Gust	Pressure	Precip.	Condition
12:53 AM	65 °F	59 °F	81 %	E	7 mph	0 mph	29.40 in	0.0 in	Haze
1:53 AM	64 °F	59 °F	84 %	E	3 mph	0 mph	29.40 in	0.0 in	Haze
2:53 AM	63 °F	60 °F	90 %	ENE	6 mph	0 mph	29.40 in	0.0 in	Fair
3:53 AM	62 °F	60 °F	93 %	E	5 mph	0 mph	29.40 in	0.0 in	Fair
4:53 AM	60 °F	59 °F	96 %	E	5 mph	0 mph	29.41 in	0.0 in	Fair
5:53 AM	61 °F	59 °F	93 %	E	6 mph	0 mph	29.41 in	0.0 in	Fair
6:53 AM	62 °F	60 °F	93 %	NNE	5 mph	0 mph	29.43 in	0.0 in	Mist
7:53 AM	65 °F	62 °F	90 %	NNE	5 mph	0 mph	29.43 in	0.0 in	Mist
8:53 AM	69 °F	63 °F	81 %	NE	9 mph	0 mph	29.44 in	0.0 in	Fair
9:53 AM	73 °F	63 °F	71 %		0 mph	0 mph	29.44 in	0.0 in	Haze
10:53 AM	76 °F	63 °F	64 %		0 mph	0 mph	29.45 in	0.0 in	Fair
11:53 AM	78 °F	62 °F	58 %		0 mph	0 mph	29.45 in	0.0 in	Fair
12:53 PM	82 °F	64 °F	54 %		0 mph	0 mph	29.44 in	0.0 in	Fair
1:53 PM	83 °F	63 °F	51 %	NE	9 mph	0 mph	29.43 in	0.0 in	Fair
2:53 PM	83 °F	63 °F	51 %	ENE	12 mph	0 mph	29.43 in	0.0 in	Mostly Cloudy
3:53 PM	81 °F	62 °F	52 %	NE	8 mph	0 mph	29.42 in	0.0 in	Mostly Cloudy
4:53 PM	83 °F	62 °F	49 %	ENE	15 mph	22 mph	29.41 in	0.0 in	Partly Cloudy
5:53 PM	83 °F	61 °F	47 %	E	13 mph	0 mph	29.41 in	0.0 in	Mostly Cloudy
6:53 PM	80 °F	58 °F	47 %	E	10 mph	0 mph	29.41 in	0.0 in	Mostly Cloudy
7:53 PM	77 °F	59 °F	54 %	ESE	6 mph	0 mph	29.43 in	0.0 in	Cloudy
8:53 PM	75 °F	59 °F	57 %	ESE	7 mph	0 mph	29.43 in	0.0 in	Cloudy
9:53 PM	75 °F	60 °F	60 %	ENE	7 mph	0 mph	29.43 in	0.0 in	Cloudy
10:53 PM	72 °F	63 °F	73 %	E	8 mph	0 mph	29.44 in	0.0 in	Partly Cloudy
11:53 PM	67 °F	62 °F	84 %	E	3 mph	0 mph	29.44 in	0.0 in	Fair

Atmospheric Conditions at Bishop Intl. Airport Weather Station
Saturday, August 9, 2025

Time	Temp.	Dew Point	Humidity	Wind Dir.	Wind Speed	Wind Gust	Pressure	Precip.	Condition
12:53 AM	73 °F	68 °F	84 %	SSE	6 mph	0 mph	29.27 in	0.0 in	Fair
1:53 AM	74 °F	69 °F	85 %	S	6 mph	0 mph	29.27 in	0.0 in	Fair
2:53 AM	73 °F	69 °F	87 %	S	7 mph	0 mph	29.27 in	0.0 in	Fair
3:53 AM	73 °F	69 °F	87 %	S	6 mph	0 mph	29.27 in	0.0 in	Fair
4:53 AM	73 °F	69 °F	87 %	S	5 mph	0 mph	29.27 in	0.0 in	Fair
5:53 AM	73 °F	68 °F	84 %	SSW	6 mph	0 mph	29.29 in	0.0 in	Fair
6:53 AM	73 °F	68 °F	84 %	SSW	5 mph	0 mph	29.31 in	0.0 in	Fair
7:53 AM	74 °F	68 °F	82 %	SSW	6 mph	0 mph	29.29 in	0.0 in	Fair
8:53 AM	77 °F	69 °F	76 %	S	8 mph	0 mph	29.29 in	0.0 in	Fair
9:53 AM	81 °F	70 °F	69 %	S	8 mph	0 mph	29.26 in	0.0 in	Fair
10:53 AM	84 °F	71 °F	65 %	SSW	9 mph	18 mph	29.26 in	0.0 in	Fair
11:53 AM	87 °F	71 °F	59 %	SSW	12 mph	0 mph	29.26 in	0.0 in	Fair
12:53 PM	88 °F	70 °F	55 %	SSW	9 mph	0 mph	29.27 in	0.0 in	Partly Cloudy
1:53 PM	90 °F	70 °F	52 %	S	7 mph	0 mph	29.26 in	0.0 in	Fair
2:53 PM	89 °F	69 °F	52 %	SSW	8 mph	0 mph	29.27 in	0.0 in	Partly Cloudy
3:53 PM	89 °F	69 °F	52 %	SSW	13 mph	0 mph	29.26 in	0.0 in	Mostly Cloudy
4:53 PM	88 °F	69 °F	53 %	SSW	10 mph	0 mph	29.24 in	0.0 in	Fair
5:53 PM	89 °F	70 °F	53 %	SSW	8 mph	0 mph	29.23 in	0.0 in	Fair
6:53 PM	88 °F	69 °F	53 %	SSW	8 mph	0 mph	29.22 in	0.0 in	Fair
7:53 PM	85 °F	70 °F	61 %	S	8 mph	0 mph	29.23 in	0.0 in	Fair
8:53 PM	82 °F	70 °F	67 %	SSW	6 mph	0 mph	29.26 in	0.0 in	Fair
9:53 PM	76 °F	69 °F	79 %	S	7 mph	0 mph	29.27 in	0.0 in	Fair
10:53 PM	78 °F	70 °F	76 %	S	8 mph	0 mph	29.25 in	0.0 in	Fair
11:53 PM	77 °F	69 °F	76 %	S	7 mph	0 mph	29.26 in	0.0 in	Fair

Atmospheric Conditions at Bishop Intl. Airport Weather Station
Tuesday, August 12, 2025

Time	Temp.	Dew Point	Humidity	Wind Dir.	Wind Speed	Wind Gust	Pressure	Precip.	Condition
12:53 AM	72 °F	68 °F	87 %	CALM	0 mph	0 mph	29.19 in	0.0 in	Fair
1:53 AM	73 °F	69 °F	87 %	SW	5 mph	0 mph	29.19 in	0.0 in	Fair
2:53 AM	72 °F	67 °F	84 %	SW	3 mph	0 mph	29.19 in	0.0 in	Fair
3:53 AM	73 °F	69 °F	87 %	CALM	0 mph	0 mph	29.20 in	0.0 in	Fair
4:53 AM	71 °F	70 °F	96 %	S	5 mph	0 mph	29.18 in	0.0 in	Fair
5:53 AM	72 °F	70 °F	93 %	SSW	7 mph	0 mph	29.18 in	0.0 in	Fair
6:53 AM	72 °F	69 °F	91 %	WSW	5 mph	0 mph	29.18 in	0.0 in	Fair
7:53 AM	73 °F	70 °F	90 %	WSW	3 mph	0 mph	29.19 in	0.0 in	Fair
8:53 AM	78 °F	71 °F	79 %	S	7 mph	0 mph	29.18 in	0.0 in	Partly Cloudy
9:08 AM	0 °F	0 °F	0 %	SSW	6 mph	0 mph	29.17 in	0.0 in	Fair
9:53 AM	0 °F	0 °F	0 %	SSW	6 mph	0 mph	29.17 in	0.0 in	Fair
10:53 AM	0 °F	0 °F	0 %	WSW	9 mph	0 mph	29.17 in	0.0 in	Fair
11:53 AM	87 °F	71 °F	59 %	WSW	8 mph	18 mph	29.16 in	0.0 in	Mostly Cloudy
12:50 PM	79 °F	68 °F	69 %	NNW	15 mph	26 mph	29.17 in	0.0 in	Cloudy
12:53 PM	78 °F	68 °F	71 %	NNW	13 mph	24 mph	29.17 in	0.0 in	Cloudy
1:34 PM	76 °F	72 °F	87 %	NNE	8 mph	0 mph	29.15 in	0.1 in	Rain
1:53 PM	78 °F	72 °F	81 %	N	7 mph	0 mph	29.14 in	0.1 in	Thunder in the Vicinity
2:10 PM	79 °F	71 °F	77 %	NNW	7 mph	0 mph	29.14 in	0.0 in	Mostly Cloudy
2:53 PM	80 °F	72 °F	76 %	NE	5 mph	0 mph	29.12 in	0.0 in	Fair
3:53 PM	83 °F	70 °F	65 %	CALM	0 mph	0 mph	29.11 in	0.0 in	Fair
4:53 PM	85 °F	70 °F	61 %	CALM	0 mph	0 mph	29.07 in	0.0 in	Fair
5:53 PM	81 °F	68 °F	65 %	S	18 mph	28 mph	29.08 in	0.0 in	Thunder

TOWNSHIP OF COHOCTAH
COUNTY OF LIVINGSTON, MICHIGAN
Resolution No. 2025-02

PLANNING COMMISSION RESOLUTION TO ADOPT (or AMEND) MASTER PLAN

WHEREAS, the Michigan Planning Enabling Act (MPEA) authorizes the Planning Commission to prepare a Master Plan for the use, development and preservation of all lands in the Township; and

WHEREAS, the Planning Commission prepared a proposed new (OR *updated*) Master Plan and submitted the plan to the Township Board for review and comment; and

WHEREAS, on March 13, 2025, the Cohoctah Township Board received and reviewed the proposed Master Plan prepared by the Planning Commission and authorized distribution of the Master Plan to the Notice Group entities identified in the MPEA; and

WHEREAS, notice was provided to the Notice Group entities as provided in the Michigan Planning Enabling Act; and

WHEREAS, the Planning Commission held a public hearing on October 2, 2025 to consider public comment on the proposed new (OR *updated*) Master Plan, and to further review and comment on the proposed new (OR *updated*) Master Plan; and

WHEREAS, the Planning Commission finds that the proposed new (OR *updated*) Master Plan is desirable and proper and furthers the use, preservation, and development goals and strategies of the Township;

THEREFORE BE IT HEREBY RESOLVED AS FOLLOWS:

1. ***Adoption of 2025 Master Plan.*** The Planning Commission hereby approves and adopts the proposed 2025 Master Plan, including all of the chapters, figures, maps and tables contained therein.
2. ***Distribution to Township Board and Notice Group.*** Pursuant to MCL 125.3843 the Township Board has not asserted by resolution its right to approve or reject the proposed Master Plan and therefore the approval granted herein is the final step for adoption of the plan as provided in MCL 125.3843 and therefore the plan is effective as of October 2, 2025. In addition, the Planning Commission approves distribution of the adopted amendments to the Township Board and Notice Group.
3. ***Findings of Fact***. The Planning Commission has made the foregoing determination based on a review of existing land uses in the Township, a review of the existing Master Plan provisions and maps, input received from the Township Board and public hearing, and with the assistance of a professional planning group, and finds that the new (OR *updated*) Master Plan will accurately reflect and implement the Township's goals and strategies for the use, preservation, and development of lands in Cohoctah Township.
4. ***Effective Date.*** The Master Plan shall be effective as of the date of adoption of this resolution.

The foregoing resolution offered by Planning Commissioner _____.
Second offered by Planning Commissioner _____.

Upon roll call vote the following voted:

"Aye":_____

"Nay":_____

The Chair declared the resolution adopted.

_____
Clint Beach , Secretary

RECEIVED
9-10-25
COHOCTAH TOWNSHIP

APPLICATION FOR LAND USE PERMIT
COHOCTAH TOWNSHIP

Land Use No. 51-2025
Fee $150 paid cash

DELIVER/MAIL TO: COHOCTAH TOWNSHIP 10518 ANTCLIFF RD FOWLERVILLE MI 48836

OWNER Kurtis Hunt DATE 09-04-25

ADDRESS 1267 w. Cohoctah Rd TAX CODE NO. 11-200-004

CITY Cohoctah ZIP 48816 PHONE 517-375-6760

****

Contractor (if applicable) Kurtis Hunt Address 1267 W. Cohoctah Rd

City Cohoctah Zip 48816 Phone 517-375-6760

****

Site Address 1267 w. cohoctah Rd Nearest Crossroads Oak Grove

Size of lot: Front 65 Rear 65 Side 150 Side 150 Acres .25

Zoning District II

Type of construction: ***Check if structure is located in a flood plain___**

Principal Structure
____New Single Family ___✓___Addition _____Attached Garage _____Other

Accessory Structure
_____Detached Garage, Shed, or Pole Barn ___Deck ____Fence ____Pool/Hot Tub ____Sign ___✓___Other

Foundation: ____Basement ____Crawlspace ____Slab ___✓___Posts ____Other

Size of structure: Width 13Ft Length 15 Ft Height 13Ft

Square feet: 1st Floor 180 2nd Floor_____ 3rd Floor_____

Structure setback (feet from property line): Front 80Ft Rear 80Ft Side 12Ft Side 40Ft

___✓___Attach a drawing showing the following: dimensions of property, all roads adjacent to property, easements, wetlands, lakes and streams, all structures, existing or proposed wells, septic tanks and fields, dimensions of structures to property lines, dimensions of proposed structure including height.
___✓___Attach two sets of construction plans, plus one site plan.
___✓___Attach document verifying proof of ownership (i.e. tax bill, property transfer affidavit, deed) **NOTICE: Applications in the settlement districts must go before the Planning Commission** (Meets the 1st Thursday of every month)

Rev. 10/27/17

well

Land Use No 51-2025

LAND USE PERMIT FEES (accepted in check or cash only)

Residential.....$50.00

Commercial/Industrial.....$200.00 + $3,000.00 (toward 3% inspection fee)

After obtaining a Land Use Permit, you must contact the Livingston County Building Department (517-546-3240) to pull a building permit. You may be required to obtain permits from the following: Health Department (517-546-9850), Drain Commission (517-546-0040), Road Commission (517-546-4250) and any other applicable permits.

NOTICE: PLEASE READ AND INITIAL EACH

KH **1. Land use Permit shall be null and void if proposed development does not have its first inspection within one (1) year.**

KH **2. Applicant shall notify Zoning Administrator at time of staking out foundation, then after digging but before pouring foundation, and again/or for compliance with Site Plan including driveways, screening, fencing, parking areas, signs, etc. as applicable. *FAILURE TO DO SO WILL AUTOMATICALLY CANCEL YOUR LAND USE PERMIT REQUIRING YOU TO REAPPLY. A CANCELLED LAND USE PERMIT AUTOMATICALLY CANCELS COUNTY BUILDING PERMITS (21.04E5)!**

KH **3. Applicant shall notify Zoning Administrator when construction is ready for final inspection for issuance of CERTIFICATE OF COMPLIANCE. A CERTIFICATE OF COMPLIANCE MUST BE OBTAINED BEFORE THE LIVINGSTON COUNTY BUILDING DEPARTMENT WILLISSUE A CERTIFICATE OF OCCUPANCY ON NEW RESIDENCES, BUILD-OUT ADDITIONS, OR COMMERCIAL.**

KH **4. The Zoning Administrator may suspend or revoke a permit issued in error or on the basis of incorrect information supplied by the applicant or agent or in the event of violation of any of the ordinances orregulations of the Township.**

I hereby certify that all information attached to this application is true and accurate to the best of my knowledge. I certify that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application and agree to conform to all applicable ordinances of Cohoctah Township. I acknowledge that private covenants and restrictions are potentially enforceable by private parties.

Authorized Applicant Signature Kurtis Hunt Printed Name Kurtis Hunt

If not property owner, attach a copy of signed authorization

++

TOWNSHIP USE ONLY

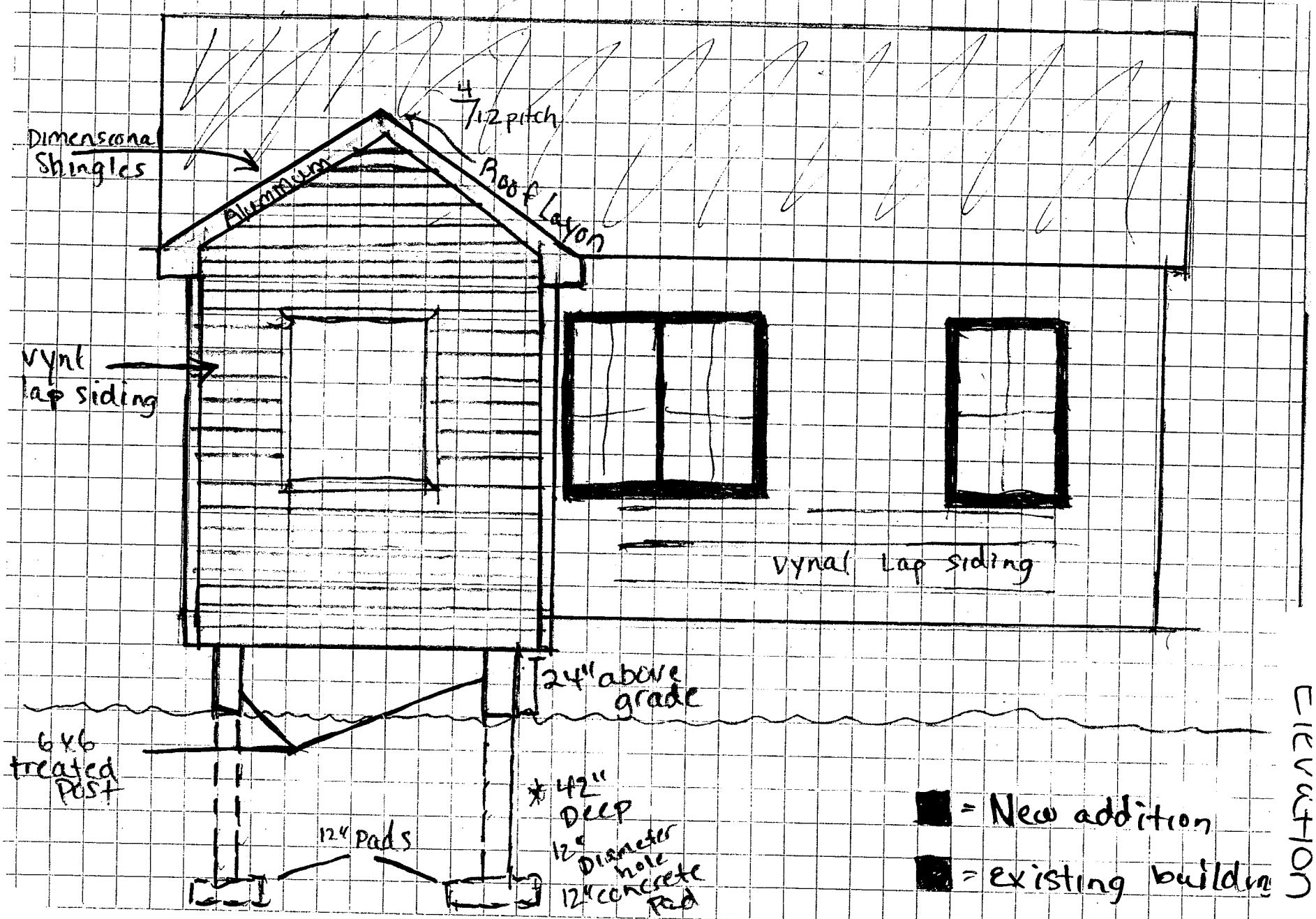
Zoning Administrator_____ **Date**_____

Phone No._____

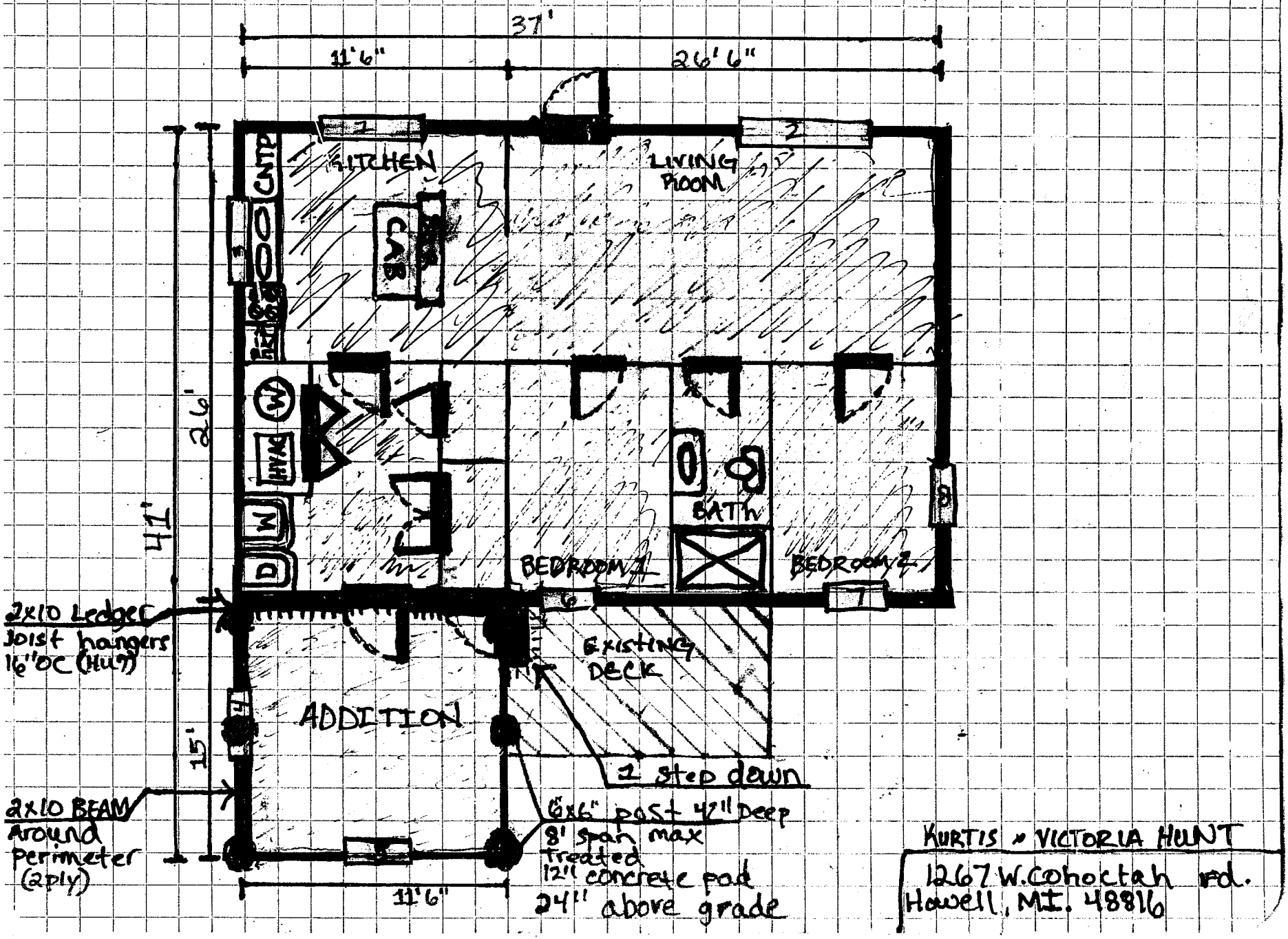
___**Approved** _____**Disapproved Comments**_____

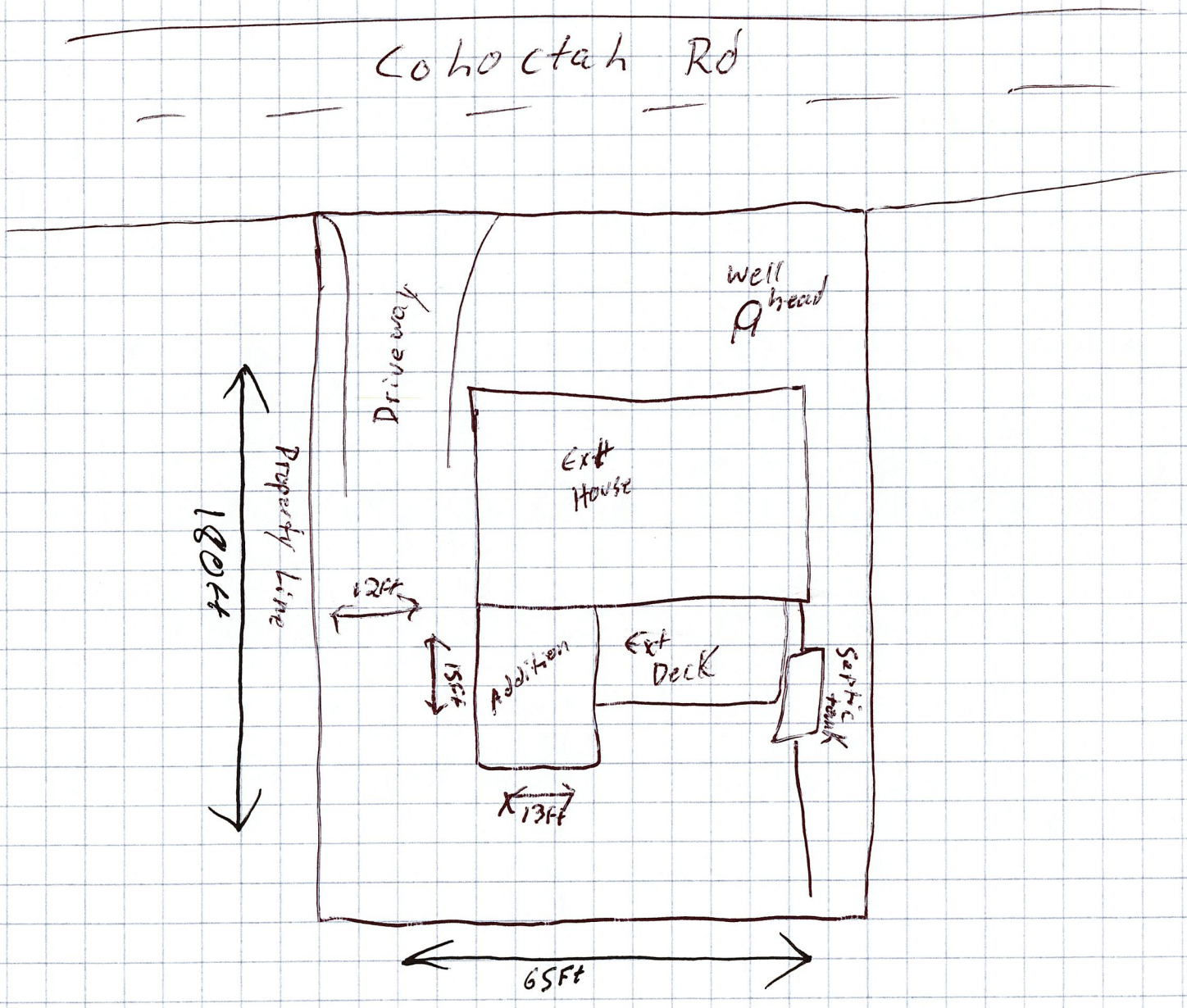
Rev. 10/27/17

Rear Elevation



Elevation


37'
11'6"
26'6"
KITCHEN
LIVING ROOM
CNTR
SINK
REF
RANGE
W
DW
41'
26'
BATH
BEDROOM 1
BEDROOM 2
2x10 Ledger
Joist hangers
16"OC (HU7)
EXISTING DECK
ADDITION
15'
1 step down
2x10 BEAM
Around
perimeter
(2ply)
6"x6" post 42" Deep
8' span max
Treated
12" concrete pad
24" above grade
11'6"
KURTIS + VICTORIA HUNT
1267 W. Cohoctah rd.
Howell, MI. 48816


Cohoctah Rd
Well head
Driveway
Exst House
12Ft
15Ft
Addition
Ext Deck
Septic tank
13Ft
180Ft
Property Line
65Ft

LIVINGSTON COUNTY TREASURER'S CERTIFICATE

I hereby certify that there are no TAX LIENS OR TITLES held by the State or any individual against the within description, and all TAXES on same are paid for five years previous to the date of this instrument or appear on the records in this office, except as stated.

Jul 17, 2024 Jennifer M. Nash, Treasurer By KB 29813
02-11-200-004 AS CML
2024 TAX NOT AVAILABLE FOR EXAMINATION

2024R-012555
RECORDED ON
07/17/2024 02:36:37 PM
BRANDON DENBY
REGISTER OF DEEDS
LIVINGSTON COUNTY, MI 48843
RECORDING: 26.00
REMON: 4.00
PAGES: 2

STATE OF MICHIGAN
LIVINGSTON COUNTY
07/17/2024
2024R-012555

REAL ESTATE TRANSFER TAX
99.00 CO
675.00 ST
TTX # 6425845

Received eRecord 7/17/2024 at 12:33 PM
LivCo, MI ROD by kc

WARRANTY DEED

When recorded return to:
Bell Title Agency of Genesee
7550 S. Saginaw St, Ste 2
Grand Blanc, MI 48439

KNOW ALL MEN BY THESE PRESENTS THAT----------K **PAULA E SOUTCHEK**

Whose address is: **1267 W COHOCTAH RD, COHOCTAH, MI 48816**

Conveys and Warrants to **KURTIS JAMES HUNT AND VICTORIA K HUNT**

Whose address is: **4879 EAST CLYDE ROAD, HOWELL, MICHIGAN 48855**

the following described premises described as follows:

LAND SITUATED IN THE TOWNSHIP OF COHOCTAH, COUNTY OF LIVINGSTON, STATE OF MICHIGAN:

PART OF THE NORTHEAST 1/4 OF SECTION 11, TOWN 4 NORTH, RANGE 4 EAST, COHOCTAH TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN, DESCRIBED AS: THE EAST 55 FEET OF THE WEST 60 FEET OF A PARCEL DESCRIBED AS: BEGINNING AT A POINT IN THE NORTH LINE OF THE NORTHEAST 1/4 OF SECTION 11, TOWN 4 NORTH, RANGE 4 EAST, COHOCTAH TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN, 76 RODS, 15 FEET, AND 4 INCHES EAST OF THE NORTHWEST CORNER OF SAID NORTHEAST 1/4; THENCE EAST 12 RODS; THENCE SOUTH 10 RODS ; THENCE WEST 12 RODS; THENCE NORTH 10 RODS TO THE POINT OF BEGINNING.

Commonly known as: **1267 W COHOCTAH RD, COHOCTAH, MI 48816**
Parcel ID No.: **4702-11-200-004**

for the full consideration of **NINETY THOUSAND AND 00/100 ($90,000.00) subject to the existing building and use restrictions, easements and zoning ordinances of record, if any.**

This property may be located within the vicinity of farmland or a farm operation. Generally accepted agricultural and management practices which may generate noise, dust, odors and other associated conditions may be used and are protected by the Michigan Right to Farm Act.

PAGE TWO OF WARRANTY DEED GRANTOR PAULA E SOUTCHEK AND GRANTEE, KURTIS JAMES HUNT AND VICTORIA K HUNT

The Grantors herein convey to Grantees all rights of division under Section 108 of the Michigan Land Division Act.

Dated: **July 11, 2024**

Signed and Sealed:

Paula E Soutchek

Paula E Soutchek

State of MICHIGAN)

County of Genesee)

The foregoing instrument was acknowledged before me this 07/11/2024, by: **Paula E Soutchek**

PAGI LEGROW
NOTARY PUBLIC - STATE OF MICHIGAN
COUNTY OF GENESEE
My Commission Expires 07/28/2025
Acting in the County of Genesee

Notary Public, Genesee County.
Acting in Genesee County,
My Commission Expires: 7/28/25

Prepared by:
Legal Doc Prep Services, PLLC
Leigh Kraushaar, Esq.
6910 S. Cedar St.
Lansing, MI 48911
File Number: **24238667-GE**

Treasurer's Certificate

RECEIVED
9-17-2025
COHOCTAH TOWNSHIP

APPLICATION FOR LAND USE PERMIT
COHOCTAH TOWNSHIP

Land Use No. 54-2025
Fee _____

DELIVER/MAIL TO: COHOCTAH TOWNSHIP 10518 ANTCLIFF RD FOWLERVILLE MI 48836

OWNER ROBERT MAGDOWSKI DATE 8/6/25

ADDRESS 6907 Sanford Rd Howell, MI 48855 TAX CODE NO. 02-35-200-028

CITY Howell, MI 48855 ZIP Howell, MI 48855 PHONE 5174041275

****

Contractor (if applicable) Ambia Energy LLC Address 335 South 560 West Ste 100

City Lindon, UT Zip 84042 Phone 877-412-7929

****

Site Address 6907 Sanford Rd Howell, MI 4885 Nearest Crossroads _____

Size of lot: Front_____ Rear_____ Side_____ Side_____ Acres_____

Zoning District_____

Type of construction: ***Check if structure is located in a flood plain___**

Principal Structure
____New Single Family ☑ Addition _____Attached Garage _____Other

Accessory Structure
_____Detached Garage, Shed, or Pole Barn ___Deck ____Fence ____Pool/Hot Tub ____Sign ____Other

Foundation: ____Basement ____Crawlspace ____Slab ____Posts ____Other

Size of structure: Width_____Length _____ Height_____

Square feet: 1st Floor_____ 2nd Floor_____ 3rd Floor_____

Structure setback (feet from property line): Front_____ Rear_____ Side_____ Side_____

____Attach a drawing showing the following: dimensions of property, all roads adjacent to property, easements, wetlands, lakes and streams, all structures, existing or proposed wells, septic tanks and fields, dimensions of structures to property lines, dimensions of proposed structure including height.
____Attach two sets of construction plans, plus one site plan.
____Attach document verifying proof of ownership (i.e. tax bill, property transfer affidavit, deed) **NOTICE: Applications in the settlement districts must go before the Planning Commission** (Meets the 1st Thursday of every month)

Rev. 10/27/17

Land Use No_____

LAND USE PERMIT FEES (accepted in check or cash only)

Residential.....$50.00

Commercial/Industrial.....$200.00 + $3,000.00 (toward 3% inspection fee)

After obtaining a Land Use Permit, you must contact the Livingston County Building Department (517-546-3240) to pull a building permit. You may be required to obtain permits from the following: Health Department (517-546-9850), Drain Commission (517-546-0040), Road Commission (517-546-4250) and any other applicable permits.

NOTICE: PLEASE READ AND INITIAL EACH

EA **1. Land use Permit shall be null and void if proposed development does not have its first inspection within one (1) year.**

EA **2. Applicant shall notify Zoning Administrator at time of staking out foundation, then after digging but before pouring foundation, and again/or for compliance with Site Plan including driveways, screening, fencing, parking areas, signs, etc. as applicable. *FAILURE TO DO SO WILL AUTOMATICALLY CANCEL YOUR LAND USE PERMIT REQUIRING YOU TO REAPPLY. A CANCELLED LAND USE PERMIT AUTOMATICALLY CANCELS COUNTY BUILDING PERMITS (21.04E5)!**

EA **3. Applicant shall notify Zoning Administrator when construction is ready for final inspection for issuance of CERTIFICATE OF COMPLIANCE. A CERTIFICATE OF COMPLIANCE MUST BE OBTAINED BEFORE THE LIVINGSTON COUNTY BUILDING DEPARTMENT WILLISSUE A CERTIFICATE OF OCCUPANCY ON NEW RESIDENCES, BUILD-OUT ADDITIONS, OR COMMERCIAL.**

EA **4. The Zoning Administrator may suspend or revoke a permit issued in error or on the basis of incorrect information supplied by the applicant or agent or in the event of violation of any of the ordinances orregulations of the Township.**

I hereby certify that all information attached to this application is true and accurate to the best of my knowledge. I certify that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application and agree to conform to all applicable ordinances of Cohoctah Township. I acknowledge that private covenants and restrictions are potentially enforceable by private parties.

Authorized Applicant Signature *Emmaline Anderson - Permitting Specialist* Printed Name Emmaline Anderson - Permitting Specialist

*****If not property owner, attach a copy of signed authorization*****

++

TOWNSHIP USE ONLY

Zoning Administrator_____**Date**_____

Phone No._____

____**Approved** _____**Disapproved Comments**_____

Rev. 10/27/17

WYSSLING CONSULTING
CORPORATE EXPERIENCE WITH SMALL BUSINESS VALUE

Scott E. Wyssling, PE
Heath J. Harpster, PE, P.Eng
Gregory T. Elvestad, PE

76 North Meadowbrook Drive
Alpine, UT 84004
office (201) 874-3483
swyssling@wysslingconsulting.com

August 6, 2025

Ambia Energy
335 South 560 West, Suite 100
Lindon, Utah 84042

Re: Engineering Services
Magdowski Residence
6907 Sanford Road, Howell MI
8.910 kW System

To Whom It May Concern:

We have received information regarding solar panel installation on the roof of the above referenced structure. Our evaluation of the structure is to verify the existing capacity of the roof system and its ability to support the additional loads imposed by the proposed solar system.

A. Site Assessment Information

1. Site visit documentation identifying attic information including size and spacing of framing for the existing roof structure.
2. Design drawings of the proposed system including a site plan, roof plan and connection details for the solar panels. This information will be utilized for approval and construction of the proposed system.

B. Description of Structure:

Roof Framing: 2x8 dimensional lumber at 24" on center.
Roof Material: Composite Asphalt Shingles
Roof Slope: 30 degrees
Attic Access: Accessible
Foundation: Permanent

C. Loading Criteria Used

- **Dead Load**
  - Existing Roofing and framing = 7 psf
  - New Solar Panels and Racking = 3 psf
  - TOTAL = 10 PSF
- **Live Load** = 20 psf (reducible) – 0 psf at locations of solar panels
- **Ground Snow Load** = 25 psf
- **Wind Load** based on ASCE 7-10
  - Ultimate Wind Speed = 115 mph (based on Risk Category II)
  - Exposure Category C

Analysis performed of the existing roof structure utilizing the above loading criteria is in accordance with the 2015 IRC. This analysis indicates that the existing framing will support the additional panel loading without damage, if installed correctly.

D. Solar Panel Anchorage

1. The solar panels shall be mounted in accordance with the most recent "Sunmodo Installation Manual". If during solar panel installation, the roof framing members appear unstable or deflect non-uniformly, our office should be notified before proceeding with the installation.
2. The system utilizes the Pegasus SkipRail racking system. Please reference the stamped plan set for rail and mounting locations.
3. System will be attached to the metal roofing material utilizing the patented Sunmodo connection. Installation of the connections shall be in accordance with the manufacturer's recommendations.
4. Considering the wind speed, roof slopes, size and spacing of framing members, and condition of the roof, the panel supports shall be placed no greater than 48" on center (see report).

Based on the above evaluation, this office certifies that with the racking and mounting specified, the existing roof system will adequately support the additional loading imposed by the solar system. This evaluation is in conformance with the 2015 IRC, current industry standards, and is based on information supplied to us at the time of this report.

Should you have any questions regarding the above or if you require further information do not hesitate to contact me.

Very truly yours,

Scott E. Wyssling, PE
Michigan License No. 6201068147

Signed 8/06/2025

DC SYSTEM SIZE:	8.91 KW

SCOPE OF WORK:

AMBIA ENERGY TO INSTALL THE PROPOSED GRID-TIED PHOTOVOLTAIC SYSTEM. AMBIA ENERGY WILL BE RESPONSIBLE FOR COLLECTING THE NEEDED SITE INFORMATION TO DESIGN AND INSTALL THE PROPOSED PHOTOVOLTAIC SYSTEM. INSTALL SHALL INCLUDE THE FOLLOWING:

- MODULES, INVERTER(S), MOUNTING, AND RACKING INSTALLATION
- AC/DC DISCONNECTS, AND PV LABELS (THAT ARE APPLICABLE TO PROJECT)
- GROUNDING AND PV GROUNDING ELECTRODE AND BONDING TO EXISTING GEC
- SYSTEM WIRING
- NET METERING (IF NEEDED)

THE PHOTOVOLTAIC SYSTEM INCLUDES:

(22) JA SOLAR - JAM54S31-405/MR (CS-1)
(22) ENPHASE - IQ8PLUS-72-2-US (CS-2)
(1) ENPHASE - X-IQ-AM1-240-5C (CS-3)

THE MODULES SHALL BE FLUSH MOUNTED USING

APPROX. (40) SUNMODO #MRB-S MOUNTS
ON PEGASUS PSR-M84 RAIL

THE PHOTOVOLTAIC SYSTEM SHALL BE INTERCONNECTED BY PERFORMING A RATED BACK FED TAP
INTO THE EXISTING 200 A MAIN SERVICE PANEL

CODE REFERENCES:

PROJECT TO COMPLY WITH THE FOLLOWING GOVERNING CODES

IBC	2015	INTERNATIONAL BUILDING CODE
IRC	2015	INTERNATIONAL RESIDENTIAL CODE
NEC	2023	NATIONAL ELECTRIC CODE

ASCE 7-10 WIND SPEED:	115 MPH, EXPOSURE CATEGORY C
GROUND SNOW LOAD:	25 PSF, EXPOSURE CATEGORY C

STAMPS (IF NEEDED)

STATE OF MICHIGAN
SCOTT E. WISSLING
No. 62[illegible]47
LICENSED PROFESSIONAL ENGINEER

Signed 8/06/2025

SHEET INDEX

C-1	COVER PAGE
PV-1	SITE PLAN
PV-2	ROOF INFO
PV-2.2	RACKING INFO
PV-3	SITE PHOTOS
E-1	3-LINE DIAGRAM
E-2	LABELS
E-3	ELEC CALCS & EQUIP
M-1	MOUNT
M-2	MOUNT CONT.
EQ-1	EQUIPMENT
EQ-2	EQUIP. CONT.
EQ-3	EQUIP. CONT.
EQ-4	EQUIP. CONT.
EQ-5	EQUIP. CONT.
CS-1	MODULE
CS-2	INVERTER
CS-3	OPTIMIZER
PL-1	PLACARD

GENERAL NOTES

1. ALL COMPONENTS SHALL BE UL LISTED, AND CEC CERTIFIED WHERE APPLICABLE.
2. EACH MODULE TO BE GROUNDED USING THE SUPPLIED CONNECTION POINT PER MANUFACTURER'S REQUIREMENTS. ALL SOLAR MODULES, EQUIPMENT, AND METALLIC COMPONENTS ARE TO BE BONDED. IF THE EXISTING GROUNDING ELECTRODE SYSTEM CANNOT BE VERIFIED OR IS ONLY METALLIC WATER PIPING, IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSTALL A SUPPLEMENTAL GROUNDING ELECTRODE.
3. ALL PLAQUES AND SIGNAGE REQUIRED BY THE ADOPTED NATIONAL ELECTRIC CODE SHALL BE METAL OR PLASTIC, ENGRAVED OR MACHINED IN A CONTRASTING COLOR TO THE PLAQUE/LABEL. ALL PLAQUES/LABELS SHALL BE UV & WEATHER RESISTANT (SEE E-2.1).
4. DC CONDUCTORS SHALL BE RUN IN EMT AND/OR MC (METAL CLAD CABLE) AND SHALL BE LABELED A MINIMUM OF EVERY 10' (SEE E2-E2.1)
5. EXPOSED NON-CURRENT CARRYING METAL PARTS OF ELECTRICAL EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH 250.134 OR 250.136(A).
6. CONFIRM LINE SIDE VOLTAGE AT ELECTRIC UTILITY SERVICE PRIOR TO CONNECTING INVERTER. VERIFY SERVICE VOLTAGE IS WITHIN INVERTER VOLTAGE OPERATIONAL RANGE.
7. ALL SIGNAGE MUST BE PERMANENTLY ATTACHED AND BE WEATHER/SUNLIGHT RESISTANT AND CANNOT BE HAND-WRITTEN(SEE E2-E2.1)
8. ELECTRICAL CONTRACTOR TO PROVIDE CONDUIT EXPANSION JOINTS AND ANCHOR CONDUIT RUNS AS REQUIRED PER NEC.
9. ALL WIRING MUST BE PROPERLY SUPPORTED BY DEVICES OR MECHANICAL MEANS DESIGNED AND LISTED FOR SUCH USE, AND FOR ROOF-MOUNTED SYSTEMS, WIRING MUST BE PERMANENTLY AND COMPLETELY HELD OFF OF THE ROOF SURFACE. NEC 110.2 - 110.4 / 300.4
10. ALL PV METERS AND RAPID SHUTDOWNS TO BE WITHIN 5' OF ANOTHER. AC DISCONNECT TO BE WITHIN 10' OF UTILITY METER. PV METER CENTER OF GLASS TO BE AT 5'. ANY PV METERS TO BE INSTALLED CORRECTLY, SUPPLIED FROM TOP JAWS.
11. ALL ROOF PENETRATIONS MUST BE FLASHED. SIMPLY CAULKING WIILL NOT SUFFICE.
12. ALL DC CONDUCTORS RUN INSIDE OF THE STRUCTURE SHALL BE INSTALLED A MINIMUM OF 18" BELOW THE ROOF DECK.
13. EQUIPMENT MAY BE SUBSTITUTED FOR SIMILAR EQUIPMENT BASED ON AVAILABILITY. SUBSTITUTED EQUIPMENT SHALL COMPLY WITH DESIGN CRITERIA

AMBIA

AMBIA ENERGY, LLC
ADDRESS: 335 SOUTH 560 WEST, SUITE 100 | LINDON, UTAH 84042
PHONE: 877.412.7929

CUSTOMER LAST NAME:	ROBERT MAGDOWSKI
ADDRESS:	6907 SANFORD RD
CITY:	HOWELL
STATE:	MI
ZIP:	48855
JURISDICTION:	LIVINGSTON COUNTY
UTILITY COMPANY:	CONSUMERS ENERGY
SYSTEM SIZE: 8.91 KW (E-1)	
(22) JA SOLAR - JAM54S31-405/MR (CS-1)	
(22) ENPHASE - IQ8PLUS-72-2-US (CS-2)	
(1) ENPHASE - X-IQ-AM1-240-5C (CS-3)	
ROOF TYPE: CORRUGATED METAL (PV-2)	
RAFTERS (PV-2)	
INTERCONNECTION METHOD: RATED BACK FED TAP	

DESIGNED BY: SC
DESIGNED ON
8/5/2025
COVER PAGE
C-1

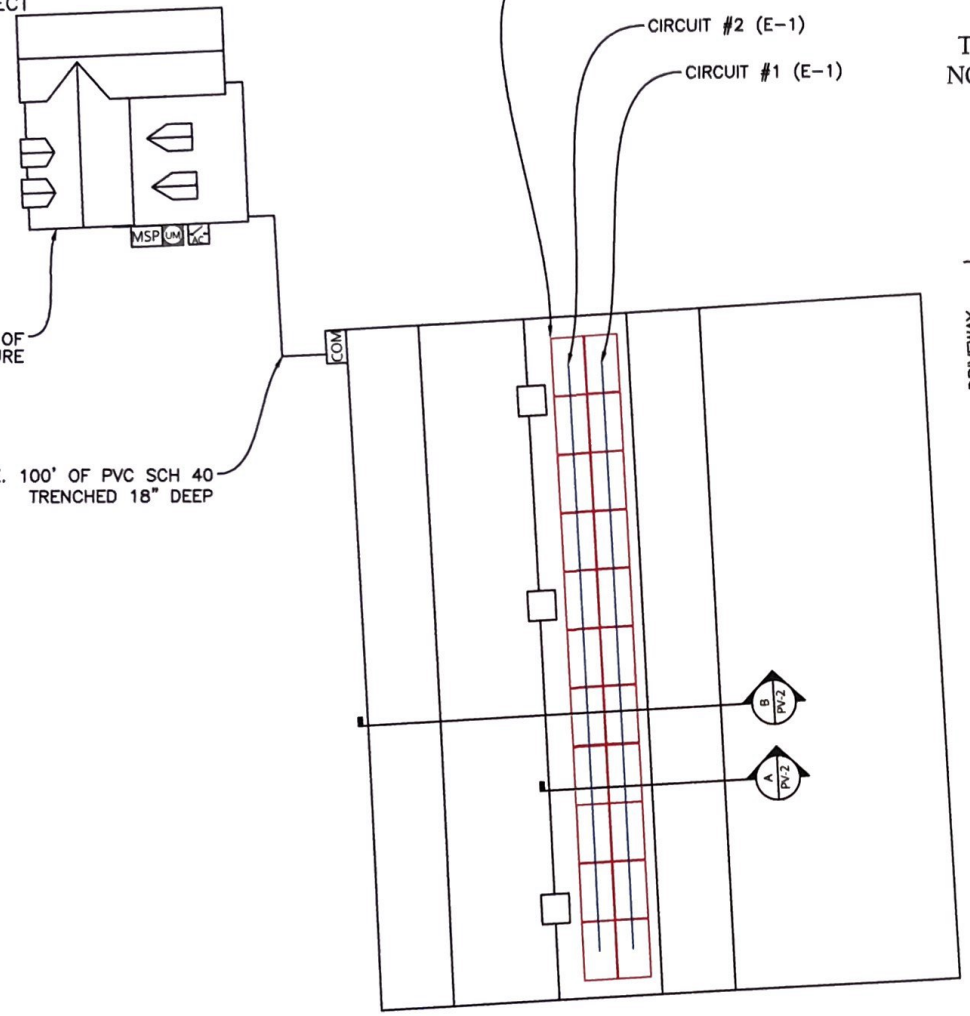
LEGEND:

UM =UTILITY METER

MSP =MAIN SERVICE PANEL

AC =UTILITY PV AC DISCONNECT

COM =COMBINER PANEL



	TILT	AZIMUTH
ROOF SECTION 1	30	87
ROOF SECTION 2	N/A	N/A
ROOF SECTION 3	N/A	N/A
ROOF SECTION 4	N/A	N/A
ROOF SECTION 5	N/A	N/A
ROOF SECTION 6	N/A	N/A

DESIGN ADDENDUMS TO STANDARD TEMPLATE BASED ON CITY, STATE, UTILITY, AHJ, OR PREVIOUS PLAN REVIEWER COMMENTS IF THERE ARE CONFLICTING NOTES, ADDENDUMS TAKE PRECEDENCE OVER STANDARD TEMPLATE NOTES

INSTALLER NOTE: UNIQUE PLACARDS REQUIRED | SEE LAST PAGE

Signed 8/06/2025

HATCHED AREA WILL PROVIDE A FIRECODE PATHWAY TO COMPLY WITH IFC 605.11.3.2.1

SITE PLAN NOTES:

- VERIFY ALL OBSTRUCTIONS AND DIMENSIONS IN THE FIELD.
- PROVIDE RAIL SPLICES AS REQUIRED BY MANUFACTURER'S GUIDELINES.
- NO SIGNIFICANT SHADING WILL RESULT FROM EXISTING ROOF OBSTRUCTIONS.
- PV MODULES CANNOT BE INSTALLED OVER OR BLOCK ATTIC VENTS, PLUMBING VENTS, FURNACE OR WATER HEATER VENTS ETC
- SCALE 3/32"=1'

AMBIA

AMBIA ENERGY, LLC
ADDRESS: 335 SOUTH 560 WEST, SUITE 100 | LINDON, UTAH 84042
PHONE: 877.412.7929

CUSTOMER LAST NAME:	ROBERT MAGDOWSKI
ADDRESS:	6907 SANFORD RD
CITY:	HOWELL
STATE:	MI
ZIP:	48855
JURISDICTION:	LIVINGSTON COUNTY
UTILITY COMPANY:	CONSUMERS ENERGY
SYSTEM SIZE: 8.91 KW (E-1)	
(22) JA SOLAR - JAM54S31-405/MR (CS-1)	
(22) ENPHASE - IQ8PLUS-72-2-US (CS-2)	
(1) ENPHASE - X-IQ-AM1-240-5C (CS-3)	
ROOF TYPE: CORRUGATED METAL (PV-2)	
RAFTERS (PV-2)	
INTERCONNECTION METHOD: RATED BACK FED TAP	

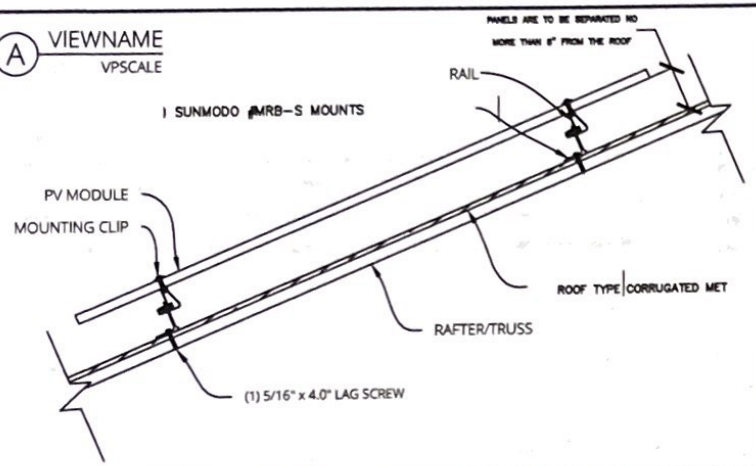
DESIGNED BY: SC

DESIGNED ON 8/5/2025

SITE PLAN

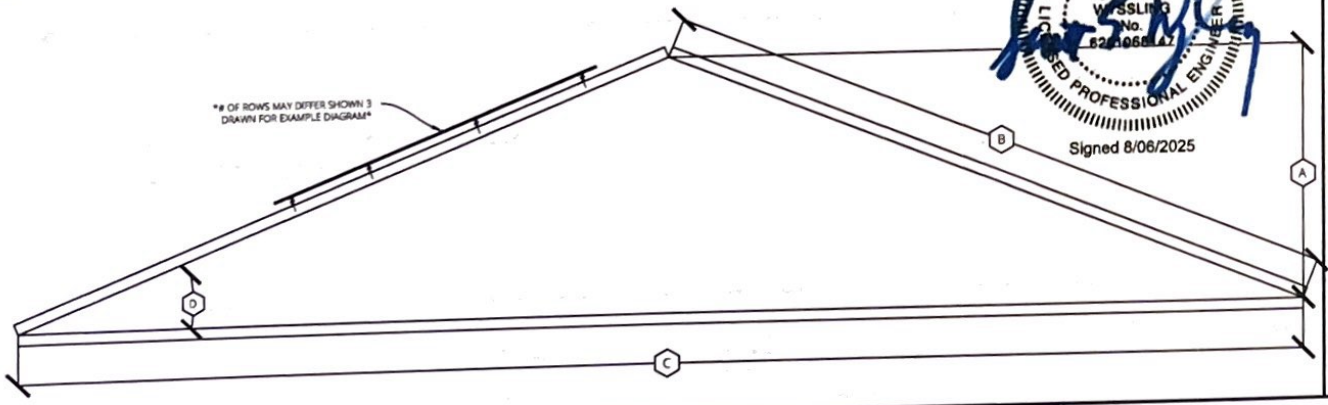
PV-1

A VIEWNAME
VPSCALE



RAFTERS	SIZE:	2X8	SPACING:	24
ROOF INFO IN INCHES & DEGREES				TAG ID
ROOF HEIGHT:		121		A
ROOF FACE SPAN:		242		B
ROOF LENGTH:		420		C
ROOF TILT:		30		D

B ATTIC INFO
NOT TO SCALE



STATE OF MICHIGAN
SCOTT E. WISSLING
No. 62[illegible]
LICENSED PROFESSIONAL ENGINEER
Signed 8/06/2025

PV ARRAY STRUCTURAL INFO			
TOTAL PV MODULE COUNT:	(TOTAL NUMBER OF MODULES BEING INSTALLED)	22	MODULES
APPROX. ATTACHMENT POINTS:	(ROUND UP (TOTAL ROWS WIDTH) / (MOUNT SPACING)) +2	40	MOUNTS
INDIVIDUAL ARRAY AREA:	(MODULE LENGTH) X (MODULE WIDTH)	21.25	FT^2
TOTAL ARRAY AREA:	(INDIVIDUAL ARRAY AREA) X (TOTAL MODULE COUNT) = FT^2	467.50	FT^2
TOTAL ROOF AREA W/ MODULES:	(ROOF AREA TOTAL THAT HAS MODULES) = FT^2	678	FT^2
% ARRAY/ T.R.A.W.M.:	(TOTAL ARRAY AREA)/(TOTAL ROOF AREA W/ MODULES)= %	69.2	%
TOTAL ARRAY WEIGHT:	(TOTAL MODULE COUNT) X (MODULE WEIGHT) = LBS	1045	LBS
TOTAL DISTRIBUTED LOAD ON ROOF:	(TOTAL ARRAY WEIGHT) / (ARRAY AREA) = LBS / FT^2	2.24	LBS / FT^2
LOAD ON EACH MOUNT	(TOTAL ARRAY WEIGHT) / (TOTAL NUMBER OF ATTACHMENTS)	26.13	LBS / ATTACH.
ASCE 7-10 WIND SPEED:	115 MPH, EXPOSURE CATEGORY C		
GROUND SNOW LOAD:	25 PSF, EXPOSURE CATEGORY C		
% OF ROOF AREA USED FOR SOLAR	TOTAL MODULE AREA / ENTIRE ROOF %	20%	

GENERAL STRUCTURAL NOTES:

THE FOLLOWING CALCULATIONS ARE INITIAL CALCULATIONS BASED OFF OF THE SITE SURVEY INFORMATION, AND THE EQUIPMENT CUT SHEETS. REFER TO STRUCTURAL LETTER FOR FINAL CALCULATIONS, SNOW AND WIND SPEEDS

AMBIA
AMBIA ENERGY, LLC
ADDRESS: 335 SOUTH 560 WEST, SUITE 100 | LINDON, UTAH 84042
PHONE: 877.412.7929

SYSTEM SIZE: 8.91 KW (E-1)	
(22) JA SOLAR - JAM54S31-405/MR (CS-1)	
(22) ENPHASE - IQ8PLUS-72-2-US (CS-2)	
(1) ENPHASE - X-IQ-AM1-240-5C (CS-3)	
ROOF TYPE: CORRUGATED METAL (PV-2)	
RAFTERS (PV-2)	
INTERCONNECTION METHOD:	RATED BACK FED TAP
CUSTOMER LAST NAME:	ROBERT MAGDOWSKI
ADDRESS:	6907 SANFORD RD
CITY:	HOWELL
STATE:	MI
ZIP:	48855
JURISDICTION:	LIVINGSTON COUNTY
UTILITY COMPANY:	CONSUMERS ENERGY

DESIGNED BY: SC
DESIGNED ON
8/5/2025

ROOF INFO

PV-2

STAPLE

Array 1

Attachment method: **SkipRail - rib-mount**
Panel size: 67.8" x 44.65" x 30mm

Project dashboard:

Details

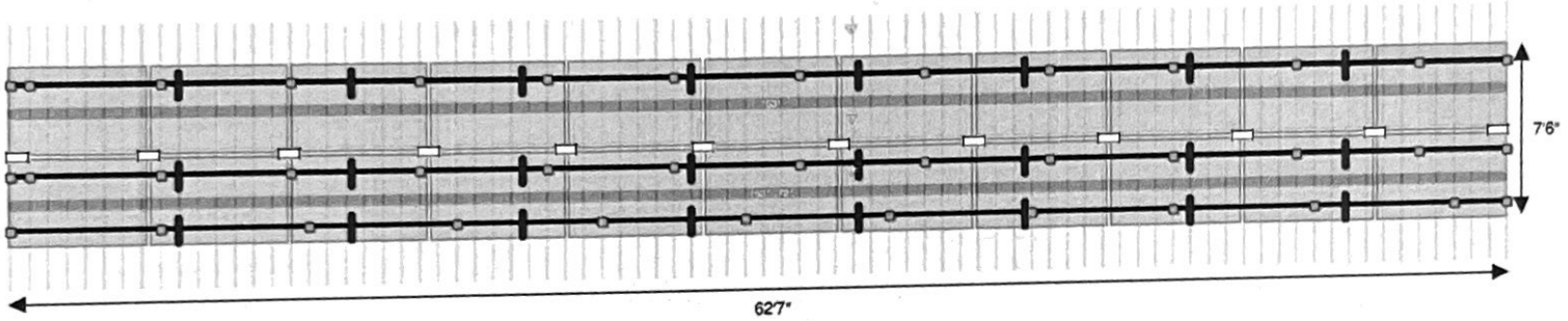
Roof: **30° Gable R-panel**	Attachment: **Other**	Rail: **27 x 7ft**
Rafter spacing: **9.0"**	Staggered attachments: **Yes**	Use scrap rail: **Yes**
SkipRail: **Yes**	Hidden end clamp: **No**	Extend rails across module gaps: **No**

Design notes

System weight: **1153.9 lbs (approx.)**
Weight per attachment: **28.8 lbs**
Total area: **467 sqft**
Distributed load: **2.47 psf**

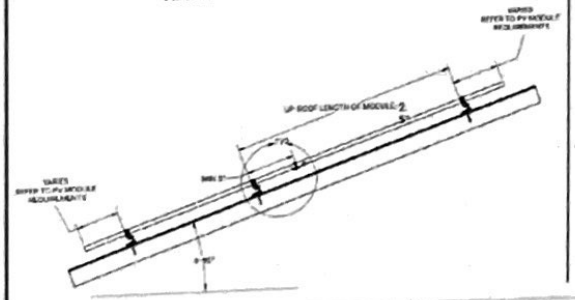
Legend

- Rail splice
- Roof attachment
- Module with rails
- Thermal break
- SkipRail clamp
- SkipRail clamp with kickstand
- 83" | 60" | 54" Spans: rafter | deck-plywood | deck-OSB
- 1 2 3 Zones

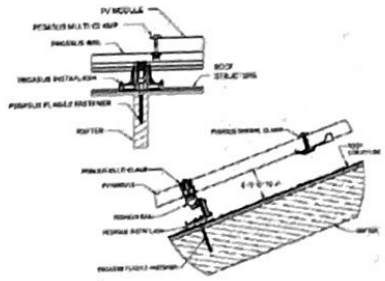


MOUNTS TO BE SPACED
AT 48" O/C MAX

ATTACHMENT SPACING - SIDE VIEW



INSTAFLASH DETAIL



MAXIMUM RAIL CANTILEVER

Attachment span	Max rail cantilever
72"	28"
64"	25"
48"	19"
32"	12"
24"	9"
Other	40% of attachment span

Leave a 1" thermal break every 36ft of continuous Rails sections (marked as ▽ on the array miniature). Thermal break must be offset 1" or more from attachments.

Produced by **Nelson Neves** from Ambia on **08/05/25**

AMBIA
AMBIA ENERGY, LLC
ADDRESS: 338 SOUTH 580 WEST, SUITE 100 | LINDON, UTAH 84042
PHONE: 877.412.7929

SYSTEM SIZE: 8.91 KW (E-1)	
(22) JA SOLAR - JAM54S31-405/MR (CS-1)	
(22) ENPHASE - IQ8PLUS-72-2-US (CS-2)	
(1) ENPHASE - X-IQ-AM1-240-5C (CS-3)	
ROOF TYPE: CORRUGATED METAL (PV-2)	
RAFTERS (PV-2)	
INTERCONNECTION METHOD: RATED BACK FED TAP	
CUSTOMER LAST NAME: ROBERT MAGDOWSKI	
ADDRESS: 6907 SANFORD RD	
CITY: HOWELL	
STATE: MI	
ZIP: 48855	
JURISDICTION: LIVINGSTON COUNTY	
UTILITY COMPANY: CONSUMERS ENERGY	

DESIGNED BY: SC
DESIGNED ON
8/5/2025

RACKING INFO

PV-2.2

AMBIA

AMBIA ENERGY, LLC
ADDRESS: 335 SOUTH 560 WEST,
SUITE 100 | LINDON, UTAH 84042
PHONE: 877.412.7629

SYSTEM SIZE: 8.91 kW (E-1)	CUSTOMER LAST NAME: ROBERT MAGDOWSKI
(22) JA SOLAR - JAM54S31-405/MR (CS-1)	ADDRESS: 6907 SANFORD RD
(22) ENPHASE - IQ8PLUS-72-2-US (CS-2)	CITY: HOWELL
(1) ENPHASE - X-IQ-AM1-240-5C (CS-3)	STATE: MI
ROOF TYPE: CORRUGATED METAL (PV-2)	ZIP: 48855
RAFTERS (PV-2)	JURISDICTION: LIVINGSTON COUNTY
INTERCONNECTION METHOD: RATED BACK FED TAP	UTILITY COMPANY: CONSUMERS ENERGY

DESIGNED BY:	SC
DESIGNED ON	8/5/2025

SITE PHOTOS

PV-3

CONDUCTOR SCHEDULE

TAG ID	CONDUCTORS: WIRES IN CONDUIT	CONDUCTORS: WIRE AWG	CONDUCTORS: TYPE, MATERIAL	CONDUCTORS: WIRE 75°C (167°F) AMPERAGE RATING TABLE 310.15 (B)(16)	GROUND: SIZE	GROUND: RATING TABLE 250.122	GROUND: TYPE, MATERIAL	CONDUIT: EMT
A	5	#10 AWG	Q CABLE	30	#6 AWG	200	BARE, CU	3/4" CONDUIT
B	5	#10 AWG	THWN-2, CU	30	#10 AWG	60	THHW, CU	3/4" CONDUIT
C	4	#8 AWG	THWN-2, CU	50	#10 AWG	60	THHW, CU	3/4" CONDUIT
D	3	#6 AWG	THWN-2, CU	65	#8 AWG	100	THHW, CU	3/4" CONDUIT

* TAG D ONLY IF APPLICABLE *

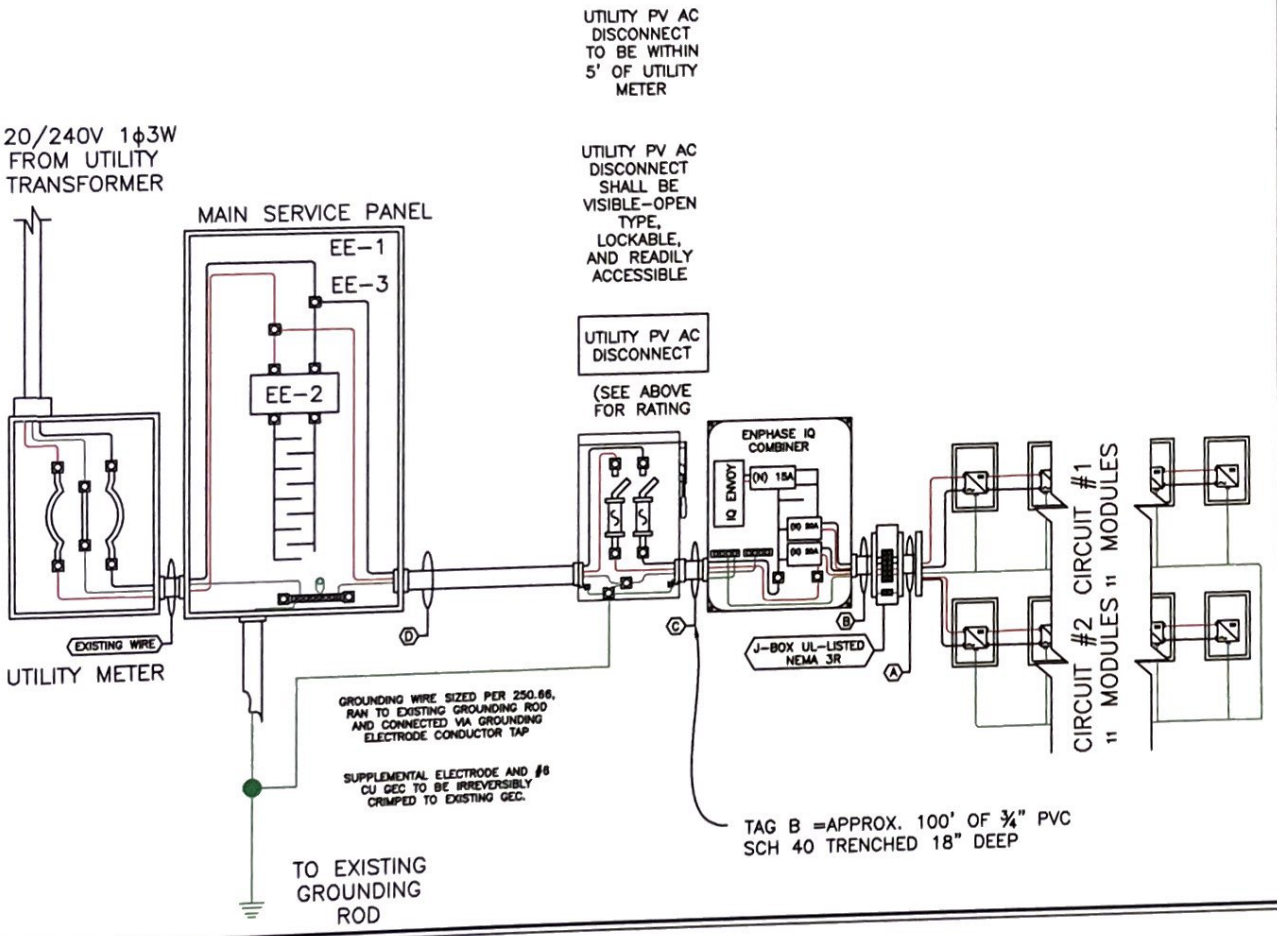
AC DISCONNECT SIZE:	ENCLOSURE TYPE:	SPECIAL NOTES:
60A FUSED	NEMA 3R	40A FUSES

ELECTRICAL EQUIPMENT			
EE-1	EXISTING	200A	BUS BAR RATING
EE-2	EXISTING	200A	MAIN BREAKER RATING
EE-3	NEW	160A	RATED BACK FED TAP
EE-4			
EE-5			

PRODUCTION METER:

NO PM REQUIRED

INSTALLER NOTE: UNIQUE PLACARDS REQUIRED SEE LAST PAGE



DESIGN ADDENDUMS TO STANDARD TEMPLATE BASED ON CITY, STATE, UTILITY, AHJ, OR PREVIOUS PLAN REVIEWER COMMENTS IF THERE ARE CONFLICTING NOTES, ADDENDUMS TAKE PRECEDENCE OVER STANDARD TEMPLATE NOTES

ADDENDUM #54 - : PER 2023 NEC VERIFICATION OR INSTALLATION OF A SURGE PROTECTER SHALL BE DETERMINED AT INSTALL. SITE SURVEY PHOTOS INDICATE A SURGE PROTECTOR BEING ON SITE (2023 NEC 215.18)

ADDENDUM #55 - : 2ND GROUND ROD TO BE INSTALLED NO MORE THAN 6 FEET AWAY IF NOT ALREADY PRESENT (PER 2023 NEC 250.53). NEEDS TO BE CONNECTED TO THE EXISTING GROUND ROD WITH AN IRREVERSIBLE CRIMP

INSTALLATION NOTES:

PERFORM TAP USING INSULATED TAP CONNECTERS ON THE LINE SIDE OF THE SERVICE WIRES

AMBIA

AMBIA ENERGY, LLC
ADDRESS: 338 SOUTH 560 WEST, SUITE 100 | LINDON, UTAH 84042
PHONE: 877.412.7929

CUSTOMER LAST NAME:	ROBERT MAGDOWSKI
ADDRESS:	6907 SANFORD RD
CITY:	HOWELL
STATE:	MI
ZIP:	48855
JURISDICTION:	LIVINGSTON COUNTY
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SYSTEM SIZE: 8.91 KW (E-1)	
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(1) ENPHASE - X-IQ-AM1-240-5C (CS-3)	
ROOF TYPE: CORRUGATED METAL (PV-2)	
RAFTERS (PV-2)	
INTERCONNECTION METHOD: RATED BACK FED TAP	

DESIGNED BY: SC

DESIGNED ON 8/5/2025

3-LINE DIAGRAM

E-1

COHOCTAH TOWNSHIP

ORDINANCE NO. ____

AN ORDINANCE TO REGULATE CRYPTOCURRENCY DATA MINING FACILITIES AND DATA CENTERS

The Township of Cohoctah ordains:

Section 1. Amendment to Section 2.02 of the Zoning Ordinance.

The following definitions are added to Section 2.02 of the Zoning Ordinance and shall be inserted in alphabetical order:

CRYPTOCURRENCY DATA MINING FACILITY. A facility dedicated to operating data processing equipment for commercial cryptocurrency mining and the process by which cryptocurrency transactions are verified and added to digital ledgers.

DATA CENTER. A structure that houses information technology infrastructure and equipment for building, running, and delivering applications, and the storage of digital data. This includes Artificial Intelligence ("AI") Data Centers.

Section 2. New Section 13.30 of the Zoning Ordinance.

A new Section 13.30 entitled "Cryptocurrency Data Mining Facilities and Data Centers" is hereby added to the Township's Zoning Ordinance, to read, in its entirety, as follows:

Sec. 13.30. - Cryptocurrency Data Mining Facilities and Data Centers

A. General Provisions.

1. Cryptocurrency Data Mining Facilities and Data Centers are permitted in the Township only as a special land use with special approval in the _____ Zoning District.

2. The Township may enforce any remedy or enforcement, including but not limited to, the removal of any Cryptocurrency Data Mining Facilities and Data Centers pursuant to the Zoning Ordinance or as otherwise authorized by law if the Cryptocurrency Data Mining Facility or Data Center does not comply with this Section.

B. Special Approval Application Requirements. In addition to the requirements of Article 13, an applicant for special approval of a Cryptocurrency Data Mining Facility or Data Center must provide the Township with all of the following:

1. An application fee in an amount set by resolution of the Township Board.

2. A list of all parcel numbers that the Cryptocurrency Data Mining Facility or Data Center will use; documentation establishing ownership of each parcel; and any lease agreements, easements, or purchase agreements for the subject parcels.

3. An operations agreement setting forth the parameters of the operation, the name and contact information of the operator, the applicant's inspection protocol, emergency procedures, and general safety documentation.

4. Current photographs of the subject property.

5. A site plan that includes all proposed structures and the location of all equipment, as well as all setbacks, the location of property lines, signage, fences, greenbelts and screening, drain tiles, easements, floodplains, bodies of water, proposed access routes, and road right of ways. The site plan must be drawn to scale and must indicate how the Cryptocurrency Data Mining Facility or Data Center will be connected to the power grid.

6. A written plan for maintaining the subject property, including a plan for maintaining and inspecting drain tiles and addressing stormwater management, which is subject to the Township's review and approval.

7. A decommissioning and land reclamation plan describing the actions to be taken following the abandonment or discontinuation of the Cryptocurrency Data Mining Facility or Data Center, including evidence of proposed commitments with property owners to ensure proper final reclamation, repairs to roads, and other steps necessary to fully remove the Cryptocurrency Data Mining Facility or Data Center and restore the subject parcels, which is subject to the Township's review and approval.

8. Financial security in the manner of an escrow account funded at $25,000.00 with a statement that those funds are to be used pursuant to this Ordinance. The escrow fee must be deposited with the Township in cash. The applicant must replenish the escrow account if it has less than $5,000.00 in it in the amount of estimated outstanding costs. Failure to replenish the escrow account will result in the Township suspending the processing or finalizing of the application.

9. A plan for resolving complaints from the public or other property owners concerning the construction and operation of the Cryptocurrency Data Mining Facility or Data Center, which is subject to the Township's review and approval.

10. A plan for managing any hazardous waste, which is subject to the Township's review and approval.

11. A fire protection plan, which identifies the fire risks associated with the Cryptocurrency Data Mining Facility or Data Center; describes the fire suppression system that will be implemented; describes what measures will be used to reduce the risk of fires re-igniting (i.e., implementing a "fire watch"); identifies the water sources that will be available for the local fire department to protect adjacent

properties; identifies a system for continuous monitoring, early detection sensors, and appropriate venting; and explains all other measures that will be implemented to prevent, detect, control, and suppress fires and explosions.

12. A transportation plan for construction and operation phases, including any applicable agreements with the County Road Commission and Michigan Department of Transportation, which is subject to the Township's review and approval.

13. An attestation that the applicant will indemnify and hold the Township harmless from any costs or liability arising from the approval, installation, construction, maintenance, use, repair, or removal of the Cryptocurrency Data Mining Facility or Data Center, which is subject to the Township's review and approval.

14. Proof of environmental compliance, including compliance with Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act; (MCL 324.3101 et. seq.; Part 91, Soil Erosion and Sedimentation Control (MCL 324.9101 et. seq.) and any corresponding County ordinances; Part 301, Inland Lakes and Streams, (MCL 324.30101 et. seq.); Part 303, Wetlands (MCL 324.30301 et. seq.); Part 365, Endangered Species Protection (MCL324.36501 et. seq.); and any other applicable laws and rules in force at the time the Township considers the application.

15. Any additional information or documentation requested by the Planning Commission, Township Board, or other Township representative.

C. System and Location Requirements. In addition to the requirements of Article XX for a site plan, the site plan must include all of the following:

1. Equipment. All equipment used in any Cryptocurrency Data Mining Facility or Data Center must be housed in a metered, electrically grounded, and pre-engineered or prefabricated metal-encased structure with a fire rating designed to resist an internal electrical fire for at least 30 minutes.

2. Structures. All principal and accessory structures used for cryptocurrency mining operations and/or data centers, shall be arranged, designed, and constructed to be harmonious and compatible with the site and with the surrounding properties. If prefabricated, pre-engineered, or modular structures are installed, the following standards are required:

    a. All structures shall have concrete foundations.

    b. All exterior facades shall have muted earth tone colors that will blend the facility into the natural setting and existing environment, and shall not be defective, decayed or corroded.

    c. If intermodal shipping containers are utilized such installation shall comply with current National Electrical Code standards.

3. Lighting. The lighting of the Cryptocurrency Data Mining Facility or Data Center is limited to the minimum light necessary for safe operation. Illumination from any lighting must not extend beyond the perimeter of the lot(s) used for the Cryptocurrency Data Mining Facility or Data Center. The Cryptocurrency Data Mining Facility or Data Center must not produce any glare that is visible to neighboring lots or persons traveling on public or private roads.

4. Security Fencing. Security fencing must be installed around all electrical equipment related to the Cryptocurrency Data Mining Facility or Data Center. Such fencing must be a minimum seven (7) feet tall and must use materials, colors, textures, screening and landscaping, that will blend the facility into the natural setting and existing environment.

5. Noise. The noise generated by the Cryptocurrency Data Mining Facility or Data Center must not exceed 45 dBA Lmax, as measured at the property line of any adjacent parcel.

6. Signage. The Cryptocurrency Data Mining Facility or Data Center shall provide a 24-hour emergency contact signage visible at the access entrance. Signs shall include company name if applicable, owner/representative name, telephone number, and corresponding local power company and telephone number.

7. Underground Transmission. All power transmission or other lines, wires, or conduits from a Cryptocurrency Data Mining Facility or Data Center to any building or other structure must be located underground at a depth that complies with current National Electrical Code standards, except for power switchyards or the area within a substation.

8. Drain Tile Inspections. The Cryptocurrency Data Mining Facility or Data Center must be maintained in working condition at all times while in operation. The applicant or operator must inspect all drain tiles at least once every three years using a robotic camera, with the first inspection occurring before the Cryptocurrency Data Mining Facility or Data Center is in operation. The applicant or operator must submit proof of the inspection to the Township. The owner or operator must repair any damage or failure of the drain tile within sixty (60) days after discovery and submit proof of the repair to the Township. The Township is entitled, but not required, to have a representative present at each inspection or to conduct an independent inspection.

9. Fire Protection.

    a. Before any construction of the Cryptocurrency Data Mining Facility or Data Center begins, the Township's fire department (or the fire department with which the Township contracts for fire service) will review the fire protection plan submitted with the application. The fire chief will determine whether the fire protection plan adequately protects the Township's residents and property and whether there is sufficient

water supply to comply with the fire protection plan and to respond to fire or explosion incidents. If the fire chief determines that the plan is adequate, then the fire chief will notify the Township or his or her designee of that determination. If the fire chief determines that the plan is inadequate, then the fire chief may propose modifications to the plan, which the applicant or operator of the Cryptocurrency Data Mining Facility or Data Center must implement. The fire chief's decision may be appealed to the Township Board, and the Township Board will hear the appeal at an open meeting. The Township Board may affirm, reverse, or modify the fire chief's determination. The Township Board's decision is final, subject to any appellate rights available under applicable law.

b. The applicant or operator may amend the fire protection plan from time-to-time in light of changing technology or other factors. Any proposed amendment must be submitted to the fire department for review and approval under subsection (a).

c. The Cryptocurrency Data Mining Facility or Data Center must comply with the fire protection plan as approved by the fire chief (or as approved by the Township Board in the event of an appeal).

d. The Cryptocurrency Data Mining Facility or Data Center must contain an internal fire suppression system that shall be reviewed and tested once every twelve (12) months by a third-party contractor approved by the fire chief.

10. Applicant must provide all Township Fire Department contractors with the appropriate equipment and training to address fires in the Cryptocurrency Data Mining Facility or Data Center.

11. Insurance. The applicant or operator will maintain property/casualty insurance and general commercial liability insurance in an amount of at least $5 million per occurrence. The Township shall be listed as an additional insured on the policy at all times.

12. Permits. All required county, state, and federal permits must be obtained before the Cryptocurrency Data Mining Facility or Data Center begins operating. A building permit is required for construction of a Cryptocurrency Data Mining Facility or Data Center regardless of whether the applicant or operator is otherwise exempt under state law.

13. Decommissioning. If a Cryptocurrency Data Mining Facility or Data Center is abandoned or otherwise nonoperational for a period of one year, the property owner or the operator must notify the Township and must remove the system within six (6) months after the date of abandonment. Removal requires receipt of a demolition permit from the Building Official and full restoration of the site to the satisfaction of the Zoning Administrator. The site must be filled and covered with top soil and

restored to a state compatible with the surrounding vegetation. The requirements of this subsection also apply to a Cryptocurrency Data Mining Facility or Data Center that is never fully completed or operational if construction has been halted for a period of one (1) year.

14. Financial Security. To ensure proper decommissioning of a Cryptocurrency Data Mining Facility or Data Center upon abandonment, the applicant must post financial security in the form of a security bond or escrow payment in an amount equal to 125% of the total estimated cost of decommissioning, code enforcement, and reclamation, which cost estimate must be approved by the Township. The operator and the Township will review the amount of the financial security every two (2) years to ensure that the amount remains adequate. This financial security must be posted within fifteen (15) business days after approval of the special use application.

15. Extraordinary Events. If the Cryptocurrency Data Mining Facility or Data Center experiences a failure, fire, leakage of hazardous materials, personal injury, or other extraordinary or catastrophic event, the applicant or operator must notify the Township within 24 hours.

16. Annual Report. The applicant or operator must submit a report on or before January 1 of each year that includes all of the following:

    a. Current proof of insurance;

    b. Verification of financial security; and

    c. A summary of all complaints, complaint resolutions, and extraordinary events.

17. Inspections. The Township may inspect a Cryptocurrency Data Mining Facility or Data Center at any time by providing 24-hour advance notice to the applicant or operator.

18. Transferability. A conditional land use permit for a Cryptocurrency Data Mining Facility or Data Center is transferable to a new owner. The new owner must register their name and business address with the Township and must comply with this Ordinance and all approvals and conditions issued by the Township.

19. Remedies. If an applicant or operator fails to comply with this Ordinance, the Township, may pursue any remedy or enforcement, including but not limited to the removal of any Cryptocurrency Data Mining Facility or Data Center pursuant to the Zoning Ordinance or as otherwise authorized by law. Additionally, the Township may pursue any legal or equitable action to abate a violation and recover any and all costs, including the Township's actual attorney fees and costs.

Section 3. Amendment to Section ____.

Section ___ is hereby amended to add Cryptocurrency Data Mining Facilities and Data Centers as a special land use in the _____ zoning district as follows:

__ Cryptocurrency Data Mining Facilities and Data Centers.

Section 4. Validity and Severability.

If any portion of this Ordinance is found invalid for any reason, such holding will not affect the validity of the remaining portions of this Ordinance.

Section 5. Repealer.

All other ordinances inconsistent with the provisions of this Ordinance are hereby repealed to the extent necessary to give this Ordinance full force and effect.

Section 6. Effective Date.

This Ordinance takes effect upon the expiration of 7 days after publication as required by MCL 125.3401(7).

88436:00001:201993312-1

COHOCTAH TOWNSHIP
PLANNING COMMISSION

RESOLUTION NO. ___

RESOLUTION RECOMMENDING APPROVAL OF AN ORDINANCE TO REGULATE CRYPTOCURRENCY DATA MINING FACILITIES AND DATA CENTERS

At a meeting of the Planning Commission for the Township of Cohoctah, Livingston County, Michigan, held on the ____ day of _____, 2025, at __:00 p.m.

PRESENT: _____

ABSENT: _____

The following preamble and resolution were offered by _____ and seconded by _____.

WHEREAS, the Michigan Zoning Enabling Act, Public Act 110 of 2006, MCL 125.3101 *et seq*., as amended, authorizes townships to adopt and amend zoning ordinances to regulate the use of land and structures within their zoning jurisdictions; and

WHEREAS, Cohoctah Township has adopted such a zoning ordinance ("Zoning Ordinance"); and

WHEREAS, the Planning Commission desires to recommend that the Township Board consider an amendment to the Zoning Ordinance to regulate cryptocurrency data mining facilities and data centers; specifically, Ordinance No. ____, An Ordinance to Regulate Cryptocurrency Data Mining Facilities and Data Centers (the "Ordinance"), attached as **Exhibit A** ("Proposed Amendment"); and

WHEREAS, the Planning Commission timely published notice of a public hearing on the Proposed Amendment; and

WHEREAS, on _____, 2025, the Planning Commission held a duly noticed public hearing to consider the Proposed Amendment to the Zoning Ordinance; and

WHEREAS, the Planning Commission finds and concludes that the Proposed Amendment is necessary to protect the health, safety, and welfare of residents of the Township; and

WHEREAS, the Planning Commission desires to recommend that the Township Board adopt the Proposed Amendment; and

NOW, THEREFORE, the Cohoctah Planning Commission resolves as follows:

1. The Proposed Amendment as reflected in Ordinance No. ____, An Ordinance to Regulate Cryptocurrency Data Mining Facilities and Data Centers (the "Ordinance"), attached as **Exhibit A**, is hereby recommended to the Cohoctah Township Board for the adoption.

2. The Secretary is directed to provide the Ordinance to the Livingston County Planning Commission for review and comment, pursuant to MCL 125.3307(3).

3. A copy of the Ordinance shall be available for examination at the office of the Township Clerk, and copies may be obtained for a reasonable charge.

4. Any resolutions that conflict with this Resolution are hereby repealed to the extent necessary to give this Resolution full force and effect.

A vote on the above Resolution was taken and was as follows:

ADOPTED:

YEAS: _____

NAYS: _____

STATE OF MICHIGAN)
) ss.
COUNTY OF LIVINGSTON)

I, the undersigned, the duly qualified and acting Clerk for Cohoctah Township, Livingston County, Michigan, CERTIFY that the foregoing is a true and complete copy of certain proceedings taken by the Township Board of said Township at a meeting held on the ___ day of _____, 2025.

_____
Clint Beach
Planning Commission Secretary

EXHIBIT A

[attach Ordinance]

COHOCTAH TOWNSHIP

ORDINANCE NO._____

AN ORDINANCE TO AMEND THE ZONING ORDINANCE REGARDING SPECIAL LAND USES

The Township of Cohoctah ordains:

Section 1. Addition of New Section 13.29 to the Zoning Ordinance.

A new Section 13.29 is added to Article 13 of the Zoning Ordinance and reads in its entirety as follows:

Sec. 13.29. - Moratoriums

A. **Moratorium by Resolution.** The Township Board, by resolution, may impose a temporary moratorium upon the review or issuance of any and all applications, permits, rezonings, licenses, or approvals for special or other land uses in the Township if the Township Board desires to review, enact, or amend provisions of the master plan or zoning ordinance to regulate existing or emerging land uses that may impact the health, safety or welfare of township residents or property.

B. **Purpose and Findings.** The resolution must state the purpose of the moratorium and include findings of the Township Board in support of the moratorium.

C. **Length of Moratorium.** Any resolution adopted pursuant to this Section must specify the length of the moratorium which may not exceed twelve (12) months. The resolution may provide for one (1) extension of the moratorium, by resolution, for up to six (6) months.

D. **Notice.** Notice of the resolution must be published within seven (7) days of its adoption. The notice must include the following:

1. A summary of the resolution's effect.

2. The length of the moratorium and whether an extension is possible.

3. Where the public may inspect the resolution enacting the moratorium.

Section 2. Validity and Severability.

If any portion of this Ordinance is found invalid for any reason, such holding will not affect the validity of the remaining portions of this Ordinance.

Section 3. Repealer.

Any ordinances or parts of ordinances that conflict with this Ordinance are repealed only to the extent necessary to give this Ordinance full force and effect.

Section 4. Effective Date.

This Ordinance takes effect upon the expiration of seven (7) days after its publication pursuant to MCL 125.3401.

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COHOCTAH TOWNSHIP
PLANNING COMMISSION

RESOLUTION NO. ___

RESOLUTION RECOMMENDING APPROVAL OF AN ORDINANCE TO AMEND THE ZONING ORDINANCE REGARDING SPECIAL LAND USES

At a meeting of the Planning Commission for the Township of Cohoctah, Livingston County, Michigan, held on the ____ day of _____, 2025, at ___:____ p.m.

PRESENT: _____

ABSENT: _____

The following preamble and resolution were offered by _____ and seconded by _____.

WHEREAS, the Michigan Zoning Enabling Act, Public Act 110 of 2006, MCL 125.3101 *et seq*., as amended, authorizes townships to adopt and amend zoning ordinances to regulate the use of land and structures within their zoning jurisdictions; and

WHEREAS, Cohoctah Township has adopted such a zoning ordinance ("Zoning Ordinance"); and

WHEREAS, the Planning Commission desires to recommend that the Township Board consider an amendment to the Zoning Ordinance to regulate special land uses in the Township as reflected in Ordinance No. ____, An Ordinance to Amend the Zoning Ordinance Regarding Special Land Uses (the "Ordinance"), attached as **Exhibit A** ("Proposed Amendment"); and

WHEREAS, the Planning Commission timely published notice of a public hearing on the Proposed Amendment; and

WHEREAS, on _____, 2025, the Planning Commission held a duly noticed public hearing to consider the amendment to the Zoning Ordinance; and

WHEREAS, the Planning Commission finds and concludes that the Proposed Amendment is necessary to protect the health, safety, and welfare of residents of the Township; and

WHEREAS, the Planning Commission desires to recommend that the Township Board adopt the Proposed Amendment; and

NOW, THEREFORE, the Cohoctah Planning Commission resolves as follows:

1. The Proposed Amendment as reflected in Ordinance No. ____, An Ordinance to Amend the Zoning Ordinance Regarding Special Land Uses (the "Ordinance"), attached as **Exhibit A**, is hereby recommended to the Cohoctah Township Board for the adoption.

2. The Secretary is directed to provide the Ordinance to the Livingston County Planning Commission for review and comment, pursuant to MCL 125.3307(3).

3. A copy of the Ordinance shall be available for examination at the office of the Township Clerk, and copies may be obtained for a reasonable charge.

4. Any resolutions that conflict with this Resolution are hereby repealed to the extent necessary to give this Resolution full force and effect.

A vote on the above Resolution was taken and was as follows:

ADOPTED:

YEAS: _____

NAYS: _____

STATE OF MICHIGAN)
) ss.
COUNTY OF LIVINGSTON)

I, the undersigned, the duly qualified and acting Clerk for Cohoctah Township, Livingston County, Michigan, CERTIFY that the foregoing is a true and complete copy of certain proceedings taken by the Township Board of said Township at a meeting held on the ___ day of _____, 2025.

_____

Clint Beach, Planning Commission Secretary

EXHIBIT A

COHOCTAH TOWNSHIP

ORDINANCE NO._____

AN ORDINANCE TO AMEND THE ZONING ORDINANCE REGARDING SPECIAL LAND USES

The Township of Cohoctah ordains:

Section 1. Addition of New Section 13.28 to the Zoning Ordinance.

A new Section 13.28 is added to Article 13 of the Zoning Ordinance and reads in its entirety as follows:

Sec. 13.28. - Moratoriums

A. **Moratorium by Resolution.** The Township Board, by resolution, may impose a temporary moratorium upon the review or issuance of any and all applications, permits, rezonings, licenses, or approvals for special or other land uses in the Township if the Township Board desires to review, enact, or amend provisions of the master plan or zoning ordinance to regulate existing or emerging land uses that may impact the health, safety or welfare of township residents or property.

B. **Purpose and Findings.** The resolution must state the purpose of the moratorium and include findings of the Township Board in support of the moratorium.

C. **Length of Moratorium.** Any resolution adopted pursuant to this Section must specify the length of the moratorium which may not exceed twelve (12) months. The resolution may provide for one (1) extension of the moratorium, by resolution, for up to six (6) months.

D. **Notice.** Notice of the resolution must be published within seven (7) days of its adoption. The notice must include the following:

(a) A summary of the resolution's effect.

(b) The length of the moratorium and whether an extension is possible.

(c) Where the public may inspect the resolution enacting the moratorium.

Section 2. Validity and Severability.

If any portion of this Ordinance is found invalid for any reason, such holding will not affect the validity of the remaining portions of this Ordinance.

Section 3. Repealer.

Any ordinances or parts of ordinances that conflict with this Ordinance are repealed only to the extent necessary to give this Ordinance full force and effect.

Section 4. Effective Date.

This Ordinance takes effect upon the expiration of seven (7) days after its publication pursuant to MCL 125.3401.

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Papa Eagle Names	***Mama Eagle Names***	***Fledgling (BABY) Eagle Names***
Yankee	Liberty Belle	Blaze
Valor	Hope	Firecracker
Freedom	Liberty	Justice
Washington	Glory	Star
Braveheart	Betsy	Rebel
Banner	Sally	Stripe
Walter	Donna	Harie
Trigger	Tiffany	Freedom
Talon	Lillianna	Wonder
Mowy	Coca	Eddie
Tank	Precious	Lilly
Charles	Vivian	Christiana
John Claw	Feirce Beak	Wingian
Brownie	Cupcake	Snowball
Soho	Coho	Baby Moe
Uncle Sam	Betsy Ross	Patrick Henry
Brownie		
Thunder	Lightning	Storm