



**Speedway Solar, LLC – Site  
Selection Study**

February 10, 2021

Prepared for:

Speedway Solar, LLC

Prepared by:

Stantec Consulting Services Inc.  
209 Commerce Parkway  
Cottage Grove, WI 53527



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## **Executive Summary**

Speedway Solar, LLC (“Speedway”) is seeking approvals and authorizations required to construct, install, operate, and maintain a 199 Megawatt (MW) Alternating Current (AC) solar energy generating facility, Speedway Solar (Project).

In addition, Speedway is seeking federal financing from the United States Department of Agriculture Rural Utilities Service (USDA-RUS) for the Project and, at the request of RUS, prepared this Site Selection Study to outline the process by which the Project site was chosen.

The Project is proposed to be located on approximately 1,925 acres of primarily agricultural land in Shelby County, Indiana. The major components of the proposed project include the photovoltaic (PV) panels, power conversion units (PCU), collection lines, a collector substation, and a short 345 kV generator tie line.



# **SPEEDWAY SOLAR, LLC – SITE SELECTION STUDY**

## **INTRODUCTION**

### **1.0 INTRODUCTION**

On November 29, 2018, Speedway Solar, LLC (“Speedway”) filed a Special Exemption application with Shelby County, Indiana to construct the Speedway Solar project (Project), a new solar photovoltaic (PV) electric generation facility, under their Unified Development Ordinance (UDO). Per Shelby County’s Commercial Solar Energy System (CSES) ordinance, the County regulates the permitting of solar energy systems, preserves and protects public health and safety, allows for the orderly development of land, and protects property values.

Speedway filed a petition with the Indiana Utility Regulatory Commission (IURC) for the Project on April 26, 2019, that requested the IURC decline to exercise its jurisdiction pursuant to Ind. Code 8-1-5.5-5. The IURC declined to exercise jurisdiction over the Project in its order dated September 18, 2019. Application materials provided by Speedway to the IURC can be found at <https://iurc.portal.in.gov/docketed-case-details/?id=9161d05e-4f68-e911-826f-1458d04e1b18>.

The proposed Project would be a wholesale merchant plant and would have a generating capacity of up to 199 MW alternating current (AC). The proposed Project would be located on approximately 1,925 acres of primarily agricultural land in Shelby County, Indiana (Figure 1). The major components of the Project include the PV panels, power conversion units (PCU), collection lines, a collector substation, and a short 345 kV generator tie line.

Speedway is seeking federal financing from the United States Department of Agriculture Rural Utilities Service (USDA-RUS) for the Project and, at the request of RUS, prepared this Site Selection Study to outline the process by which the Project site was chosen.

### **1.1 PROFILE OF THE APPLICANT**

Speedway Solar, LLC (Applicant), will be the direct owner of the Project. The Project is being developed by Ranger Power LLC (“Ranger Power”) with investment capital from D. E. Shaw Renewable Investments (“DESRI”).

### **1.2 PURPOSE AND NEED FOR THE PROJECT**

Ranger Power is a developer of large utility-scale solar farms and is responsible for securing land, transmission access, and permitting projects. Ranger Power seeks solar development opportunities throughout the Midwestern states, including Indiana.

Major Indiana utilities, such as Northern Indiana Public Service Company (NIPSCO) and Indianapolis Power and Light have set goals that remove coal from their fuel mix in favor of renewables within the next two decades. NIPSCO, within its 2018 Integrated Resource Plan, proposes that 65% of its capacity will be served by renewables by 2028. These goals are further driven by the proposed coal fired power plant decommissioning that is scheduled in Indiana. Most notable is the Merom Generating Station, a 1,080-MW coal-fired power plant, which is expected to retire by 2023. Solar power is one of the lowest cost forms of new energy generation for the region, with low operating costs and no fuel costs.

The sole purpose of the Applicant’s business model is to replace load demand by local utilities that is being created by ongoing coal-fired power plant decommissioning activities with solar generation.

Wabash Valley Power Alliance signed a Power Purchase Agreement with Speedway Solar, LLC on November 20, 2018 to purchase the full power output generated by the Project.



INTRODUCTION

### 1.3 REQUIRED PERMITS AND APPROVALS

Table 1 summarizes the permits and approval types that are required at the federal, state, and local level for the Project. The necessary permits and approvals will be obtained before commencing construction activities.

**Table 1. Required Permits and Approvals**

Type	Authority or Lead Agency	Regulatory Driver	Permit/ Approval Required
<b>Federal Permits</b>			
Permit	US Army Corps of Engineers (USACE) - Louisville District	Section 404 of Clean Water Act (CWA); Section 10 River and Harbors Act	TBD
Consultation	US Department of Agriculture	Farmland Protection Policy Act (FPPA)	TBD
Consultation	US Fish and Wildlife Service (USFWS)	Due to assumed requirement for CWA Section 404 permit/authorization, Endangered Species Act Section 7 Consultation will be required; Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act (BGEPA) compliance will also be applicable.	Yes
Consultation	Federal Aviation Administration	Title 14 of the Code of Federal Regulations (14 CFR) Part 77	No
<b>State Permits</b>			
Order	Indiana Utilities Regulatory Commission (IURC)	Jurisdiction Determination	Yes - Complete
Permit	Indiana Department of Environmental Management (IDEM)	Section 401 of the CWA, Water Quality Certification and State-Regulated Wetlands (Isolated Wetland Permit)	Yes
Permit	IDEM	National Pollutant Discharge Elimination System (NPDES)/Stormwater Runoff Permit (Rule 5)	Yes
Permit	Indiana Department of Natural Resources (IDNR)	Indiana Flood Control Act (IC 14-28-1)	TBD



## SPEEDWAY SOLAR, LLC – SITE SELECTION STUDY

### INTRODUCTION

Type	Authority or Lead Agency	Regulatory Driver	Permit/ Approval Required
Permit	IDNR - Division of Fish and Wildlife	Indiana Nongame and Endangered Species Conservation Act (IC 14-22-34)	TBD
Consultation	IDNR - Division of Historic Preservation and Archaeology	Cultural Resources (historical and archaeological) under Section 106 of the National Historic Preservation Act	Yes
<b><i>Shelby County, Indiana</i></b>			
Permit	Shelby County Board of Zoning Appeals	Special Exception and Development Standards Variances	Yes - Complete
Permit	Shelby County Land Use	Improvement Location Permit	Yes
Permit	Shelby County Land Use	Sign Permit	Yes
Permit	Shelby County Drainage Board	Proposed Crossing of a Legal Drain and Site and Drainage Plan Review	Yes - Complete

## 1.4 COMMUNITY OUTREACH

This section summarizes the community outreach conducted to date for the Project.

**Local Residents** – Speedway has been meeting with prospective landowners, their tenants, and nearby residents since 2017 to determine local interest in the Project and to lease land.

**Local Units of Government** – Speedway has also met with local County elected officials and staff to advise them of project activities, to gauge interest in a solar facility, as well as to understand permitting requirements and potential concerns:

- Shelby County Commissioners and Drainage Board
- Shelby County Council
- Other Shelby County representatives (County Administration, County Surveyor, Planning and Zoning)
- Shelby Eastern School Board
- Morristown Town Board
- The Mayor of Shelbyville

**State Elected Representatives and Regulatory Agencies** – Speedway met with state elected representatives and with staff from the IURC, Indiana Farm Bureau, Indiana Department of Agriculture, Indiana Department of Natural Resources (IDNR) and State Historic Preservation Office (SHPO) to discuss permitting and related topics.



# **SPEEDWAY SOLAR, LLC – SITE SELECTION STUDY**

## **INTRODUCTION**

**Public** – Speedway has engaged in outreach activities to share information and gather feedback from a broader public audience, including:

- Repeated one-on-one communication with Project neighbors and community leaders
- Door knocking and phone campaign to every residential property abutter
- Presentations at public meetings of local units of government: Shelby County Commissioners, Drainage Board, County Council, and Board of Zoning Appeals
- Meetings with representatives of the Shelby Chamber of Commerce, Shelby County Farm Bureau, Shelby County Economic Development, and the Indiana State Farm Bureau.
- Established a dedicated Website ([www.speedwaysolar.com](http://www.speedwaysolar.com)) that provides information about the Project along with contact information.
- Actively monitors an informational e-mail address.
- Speedway enjoys two resolutions in support of the project from the Town of Morristown (town closest to the project site) and Shelby Eastern Schools (school district where project is located).
- Speedway enjoys 584 letters of support from area residents, collected in support of the Project's local permitting process

## **1.5 FORMAT AND CONTENT OF THIS DOCUMENT**

Section 2.0 describes the technical alternatives presented in the Alternatives Evaluation Study (AES) for the Project.

Section 3.0 describes the phased approach used by Speedway to select the proposed Project site.

Section 4.0 provides a description of the proposed Project site, including Project components.



## **2.0 TECHNOLOGICAL ALTERNATIVES UNDER EVALUATION**

Speedway proposes to develop the Project on approximately 1,925 acres of land in Shelby County, Indiana (Figure 1) to optimize solar and land resources in the area while minimizing environmental impacts to the extent practicable. The Project has been designed to comply with local zoning requirements and has received Special Exception approval from the Shelby County Board of Zoning Appeals on March 12, 2019.

Speedway's proposed generation facility would be a wholesale merchant plant. As such, alternatives presented for generation projects within RD Instruction 1970-O Exhibit B are not considered applicable to the Project Alternatives Evaluation Study (AES) (Stantec 2021). It is the opinion of the Applicant that the Proposed Action and the No Action Alternative are the only valid alternatives for evaluation, and therefore, those two alternatives were presented in the AES for the Project (Stantec 2021).

The Proposed Action, which includes construction of the Project (Stantec 2021), is described in detail in Section 4.0 below.

Under the No Action Alternative, Speedway would not interconnect at the Gwynneville 345kV substation and would not build the Speedway Project (Stantec 2021). It is assumed, for the purposed of impact analysis therefore, that the environmental impacts associated with the construction and operation of the proposed Project would not occur.





## 3.0 SITE SELECTION PROCESS

The site selection process for the Project is summarized below. Figure 2 depicts the locations of all potential sites evaluated as part of Phases 1 and 2 of the site selection process (see Section 3.2 below).

### 3.1 BASIC PROJECT REQUIREMENTS

Speedway initiated a preliminary site review to identify potential locations for development of a solar energy facility. The process that Speedway follows in finding and evaluating potential project sites varies; however, the elements described below are fundamental to the process and were used in Speedway's review of potential locations in the state of Indiana.

The first phase of assessment evaluated electric transmission infrastructure to ensure it is sufficient to connect a project to the power grid. Existing substations and transmission lines are preferred because the cost to connect a project to the grid increases with the distance over which project-specific transmission must be built. Speedway searched for injection points close to major load centers and where the existing electrical infrastructure is robust to minimize the interconnection facility costs and network upgrades required for the new generating facility.

In addition, Speedway prioritized projects where open land was available adjacent to the point of interconnection, to minimize the length of high voltage transmission generation tie lines and the number of structures that support them. Finally, Speedway sought project sites with receptive potential host landowners and values working with communities that welcome solar projects and responsible economic development opportunities.

### 3.2 PHASED APPROACH TO SITE SELECTION

#### 3.2.1 Phase I – Identify Substations as Points of Interconnection

The first phase of the site selection process eliminated areas of poor solar resource or other siting flaws, such as:

- **Transmission and Injection Capacity** – Nearby electric transmission infrastructure is necessary to connect a project to the power grid. A project substation and additional transmission lines are often necessary, however the cost required to connect a project to the grid increases with the distance over which project-specific transmission must be built. Ranger Power looked for points of interconnection that can handle a project typically in the range of 75-200 MWs. Ranger Power also primarily considered points of interconnection that are larger than 100kV which typically are better equipped to fit projects of this size.
- **Land Availability** – Large open areas are necessary for utility-scale solar facilities. Cities, suburbs, and areas of active residential development were eliminated in the first phase of the search for an eventual project site.

Figure 2 depicts a total of 12 substations and transmission lines evaluated during Phase 1 to determine if these sites were feasible interconnection points for a proposed solar development. Eight of these locations were eliminated from further study in Phase 1 (Figure 2) because of land constraints, such as existing residential, commercial, or industrial development or the presence of environmental constraints such as



## SPEEDWAY SOLAR, LLC – SITE SELECTION STUDY

### Site Selection Process

woodlands or challenging topography, that limited the availability of land to host a solar facility. These eight locations include:

- Royalton 138 kV
- Heartland Crossing 138 kV
- Franklin 230 kV
- Obrien 138 kV
- Shawswick 138 kV
- French Lick 138 kV

In addition, the following Phase 1 locations (Figure 2) were eliminated from further study because the substations are below the 100 kV threshold required to develop a proposed solar development the size of the proposed Project:

- 99 kV North Liberty
- 69 kV Brownstown

### 3.2.2 Phase 2 – Constraints Analysis of Feasible Sites

The second phase of the site selection process focused on areas identified as feasible during Phase 1 and included a review of the following constraints at each site. The evaluation that led to the final site selection was a mix of both quantitative and qualitative functions of these resources.

- Land Use – Large tracts of open land must be available to support the responsible siting of solar panels. Agricultural land is ideally suited for solar farms.
- Potential Host Landowners – Prospective landowners are visited to gauge interest in hosting project facilities.
- Environmental Concerns – A site suitability tool was used to screen for environmental factors including, but not limited to, wetlands (National Wetlands Inventory (NWI) data), waterways (U.S. Geological Survey (USGS) hydrography data), trees, critical habitat, endangered species and animals, and hydric soils.
- Cultural and Historic Resources - Archaeological, cultural, and historical resources were considered during the site selection and Project design.
- Community – Speedway values working with communities that welcome solar projects and responsible economic development opportunities.
- Constructability – Topography (elevation and slope), as well as soils and subsurface geology were reviewed at a desktop level. Detailed field analyses were performed later in the development process.
- Road Infrastructure – Highways and roads within the proposed project area were reviewed for compatibility with large construction vehicles and delivery trucks. Main highways feeding into the area from major ports or rails were also considered for delivery of panels and other components.



## **SPEEDWAY SOLAR, LLC – SITE SELECTION STUDY**

### **Site Selection Process**

In general, Ranger Power takes an avoidance approach to siting of solar development. This involves avoiding floodplains, minimizing impacts to wetlands, complying with timing restrictions, and avoiding any cultural or historical features to the extent feasible.

Four sites were evaluated during Phase 2 of the site selection process (Figure 2). Each site, and the results of the Phase 2 analysis are described below. Figure 3 provides NWI data, USGS hydrography data (i.e., streams/waterways), and Federal Emergency Management Agency (FEMA) floodplain data for each of the sites evaluated in Phase 2.

#### **Reynolds 138 kV (White County) (Figure 3)**

This location was eliminated from consideration for the following reasons:

- There was an existing queue position on the substation.
- Landowners were already in discussions with a competitor and/or were not interested in participating in the Project.
- There was a Definitive Planning Phase 1 (DPP) System Impact Study (SIS) available which showed significant upgrades would be required to tap this point of interconnection.

#### **Stilesville 115 kV (Hendricks County) (Figure 3)**

This location was eliminated from consideration for the following reasons:

- Landowners were not interested in participating in the Project.
- Existing infrastructure was outdated, and large upgrades would have been required.
- Load flow also indicated significant upgrades would be required.

#### **Decatur 138 kV (Decatur County) (Figure 3)**

A queue position was initially filed for this location. However, it was withdrawn in 2018 because local landowners were not interested in participating in the Project. Therefore, this location was dismissed from further consideration.

#### **Gwynneville 345 kV (Shelby County) (Figure 3)**

The Phase 2 evaluation of the Gwynneville 345 kV substation in Shelby County identified no fatal flaws, and this site was carried forward for more detailed analysis in Phase 3 (see Section 3.2.3 below).

Specifically, this location was selected for the following reasons:

- No indication of transmission issues
- Adequate acreage of open land suitable for development
- Landowners willing to participate in the Project
- Solar ordinance in Shelby County

### **3.2.3 Phase 3 – Site Selection**

The final phase of the site selection process often overlaps with the tasks outlined in the previous task. In addition, landowner commitments are signed, and resource assessments, feasibility, suitability, and environmental reviews are performed in the field.



## **SPEEDWAY SOLAR, LLC – SITE SELECTION STUDY**

### **Site Selection Process**

The Gwynneville 345 kV location was selected following a rigorous analysis of three key factors: the existing transmission grid, the suitability of available land, and the receptiveness of the community.

The Project will not require any significant network upgrades to the transmission system to inject its power. There is one minor upgrade required by the Project which involves rebuilding a short span of the Duke-owned 69kV Van Buren-Morristown line. The Phase 1 and 2 results of the MISO System Impact Study for the DPP 2017 August Central study cycle were released on December 14<sup>th</sup>, 2018 and March 27<sup>th</sup>, 2019, respectively. The Project substation will be located adjacent to the existing Duke-owned Gwynneville 345kV substation and has executed a Generator Interconnection Agreement with Duke dated April 24, 2020.

Solar farms are best sited on tracts that are relatively flat or have a slight southern incline. In addition, the use of cleared land, such as agricultural fields, minimizes impacts from shading and avoids the need to remove trees. It also significantly reduces the potential for Project effects to sensitive plants or wildlife species. The Gwynneville 345 kV substation location meets these land suitability requirements.

With respect to receptiveness of the community, Ranger Power places great importance on community-supported projects. In order to be a good neighbor, it is important that the Project start out on the right foot by being transparent and being in constant communication with the public. The Ranger Power team engaged local landowners, neighboring landowners, local leaders and elected officials, and state legislators early on in its development process (see Section 1.4). Additionally, in 2018 Shelby County enacted a solar ordinance that provided a permitting framework at the local level. The ordinance contained reasonable regulations governing solar development in the County.



### Project Description

## **4.0 PROJECT DESCRIPTION**

The Proposed Action for the Speedway Solar Project consists of the following components:

### **4.1 SOLAR PANELS**

The Project area is designed for a generating capacity of 199 MW AC. An overall site plan is provided in Appendix A. The PV module selected for the Project will have approximately 72-cells and will be a plate glass module with an aluminum frame with approximate dimensions of one meter by two meters. The PV modules will be connected in series for up to 1500V operation and will be mounted on a tracker system in-line in landscape orientation on racking which tracks east to west to follow the sun throughout the day.

### **4.2 SOLAR PANEL FOUNDATIONS**

The solar panels will be mounted on a steel racking frame that is positioned three to seven feet from the finished ground with a +/- 60-degree range of motion (single axis tracking) driven by electric motors. The single axis tracking system is anticipated to be mounted on support posts driven or screwed into the ground with steel piles or helical piles. The horizontal tracker would be in its highest position during the morning and evening hours when the trackers are tilted at their maximum angle and would be a maximum of 12 feet above the ground surface. The bottom edge of the modules will be a minimum of two foot above grade at maximum tilt, and up to four feet above grade when tilted flat at mid-day.

In summary:

- Approximate height of tracker rotation shaft – 3 to 7 feet.
- Minimum tracker height (module edge to ground at maximum tilt) – 2 to 4 feet.
- Maximum tracker height (module edge to ground at maximum tilt) – 12 feet.
- Range of tracking angle - +/-60 degrees.

The variability in height is due to the panel configuration on the racking system. Some systems are designed with panels in a single portrait configuration with a single row of panels arranged in a portrait configuration relative to a viewer east or west of the row. The long axis of the panels would be perpendicular to the axis of the tracking system. The panels would be approximately four feet above grade when tilted flat at mid-day in this design. A racking system with a two-portrait design may also be selected. This system holds two panels in portrait configuration with an axis that is perpendicular to the tracker. The two-portrait configuration requires taller piles and results in a taller overall system, but also provides for wider aisles. Racking system design will be selected prior to construction.

In the case of extreme weather conditions, Speedway has reviewed the closest weather station's climate history, as verified by the Solar America Board for Codes and Standards. Potential tracking technologies will be assessed in the context of other project attributes, such as resource forecast and expected operating profile. The final selection could assume an operating scenario where equipment can operate in the most extreme heat and cold, or potentially pause tracking operation until these conditions pass.

The complete tracker system will be arranged into rows of individual trackers with an estimated length of 250 feet by seven feet (when panels are horizontal) with gaps placed between sections or groups of sections to allow for maintenance personnel to access the whole site. The piles will run north to south along the row to support each section of the steel structure and will likely include an integrated cable management solution in order to support the insulated copper DC string cabling which interconnects each of the PV modules.



## **SPEEDWAY SOLAR, LLC – SITE SELECTION STUDY**

### **Project Description**

These solar trackers are currently expected to be self-powered, however some tracker systems available require external power to be bought from an auxiliary power source.

### **4.3 ACCESS ROADS**

The Project plans to utilize existing public roadways to access the site. The Project will have a network of internal access roads. Construction matting may be used to a limited extent during construction in areas with soil strength limitations for construction. In these areas, the existing soil surface will remain intact, planted in perennial vegetation, and maintained for operation and maintenance once construction is completed.

If areas are identified as having soil strength limitations to support construction vehicles where vehicle traffic will be more frequent (i.e., site approaches), aggregate materials may be used. In these areas, topsoil will be moved and stored for use during reclamation. Geotextile matting will be installed prior to placement of aggregate to prevent mixing with native subsoil. The aggregate would be maintained for the life of the Project.

### **4.4 UNDERGROUND COLLECTOR CIRCUITS**

The collector circuits are planned as an underground system with direct buried cables or cables installed in direct buried ducts. The collector circuit voltage will be 34.5kV.

The collection system will typically be buried at a depth of 36 inches to the top of the cables. The trench for the cable will be one foot wide. Where multiple cables are installed parallel to each other, the cable separation will be two feet apart, therefore the width of the trench will vary depending on the number of circuits within the trench.

### **4.5 PROJECT COLLECTOR SUBSTATION**

The Project will include a collector substation with a 345/34.5kV main transformer. An estimated footprint of 280 feet by 195 feet has been allocated at this stage and will generally include items below within the substation:

- 34.5kV switchgear or open-air switches;
- 34.5kV bus and supporting structures;
- 34.5kV metering and instrumentation;
- Station service transformer;
- Main power transformer 34.5kV to 345kV, may also be split into two smaller transformers;
- 345kV circuit breaker;
- 345kV bus and supporting structures;
- 345kV metering and instrumentation;
- 345kV dead-end structure and outgoing transmission line to Duke substation;
- Protection and control building;
- Internal access roads;
- Security fence with vehicle gate, service gate, barbed wire. Fence to be grounded per NESC requirements;
- Buried power cables, control cables and bare copper grounding grid;
- Lightning protection masts (as required);
- Yard lighting to be used during maintenance and or during emergency; and
- Any required power factor control equipment such as a STATCOM or capacitor bank.



### **Project Description**

## **4.6 TRANSMISSION INTERCONNECTION**

The Project will be interconnected to the transmission grid through an existing substation owned by Duke. The Duke-owned Gwynneville 345kV substation is located to the south of the proposed Project substation and will require a short 345kV overhead line between the two stations.

## **4.7 PROJECT LIFESPAN**

The design life for the Project is approximately 35 years.

## **4.8 DECOMMISSIONING**

At the end of the Project's useful life, the Project would cease operation. At that time, the facilities would be decommissioned and dismantled, and the site restored to its preconstruction condition or returned to farm production. Decommissioning activities will require approximately 12 months to complete. In general, decommissioning activities will include:

1. Dismantling and removal of all above ground equipment (solar panels, racking, transformers, Project Substation, etc.);
2. Excavation and removal of all above ground cabling;
3. Removal of foundations (piles, piers, and posts);
4. Underground cables will be removed based on agreed upon conditions reached with the landowner and codified in the lease; and
5. Scarification of compacted areas within and contiguous to the solar facility (including but not limited to internal and external access roadways).

For the gen-tie line, telecommunication lines, and collector substation dismantling would proceed according to four general stages: (1) dismantling and demolishing above ground structures; (2) removal of concrete foundations; (3) excavation and removal of soils and broken concrete from the site; and (4) surface contouring to return the disturbed areas to near-original conditions.

If the facility is to be returned to a condition suitable for agricultural production upon the completion of its decommissioning, the land will be tilled to break up the vegetation cover that has been established for the Project. The vegetation layer within the Project area will consist of a mixture of areas where prairie plantings and non-native vegetation covers have been maintained. The use of deeply rooted native prairie vegetation and the "resting" of soil either under this or a non-native cover has been well documented to provide benefits and improvement to soil health.

As part of its Special Exception approval, the Project has signed a Decommissioning Plan Agreement with the Shelby County Board of Zoning Appeals. The agreement details the methods for decommissioning the Project as well as the means of financial assurance to perform decommissioning obligations.

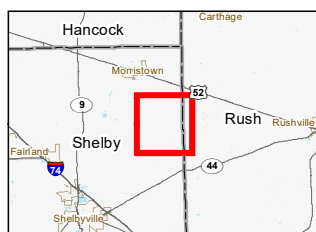
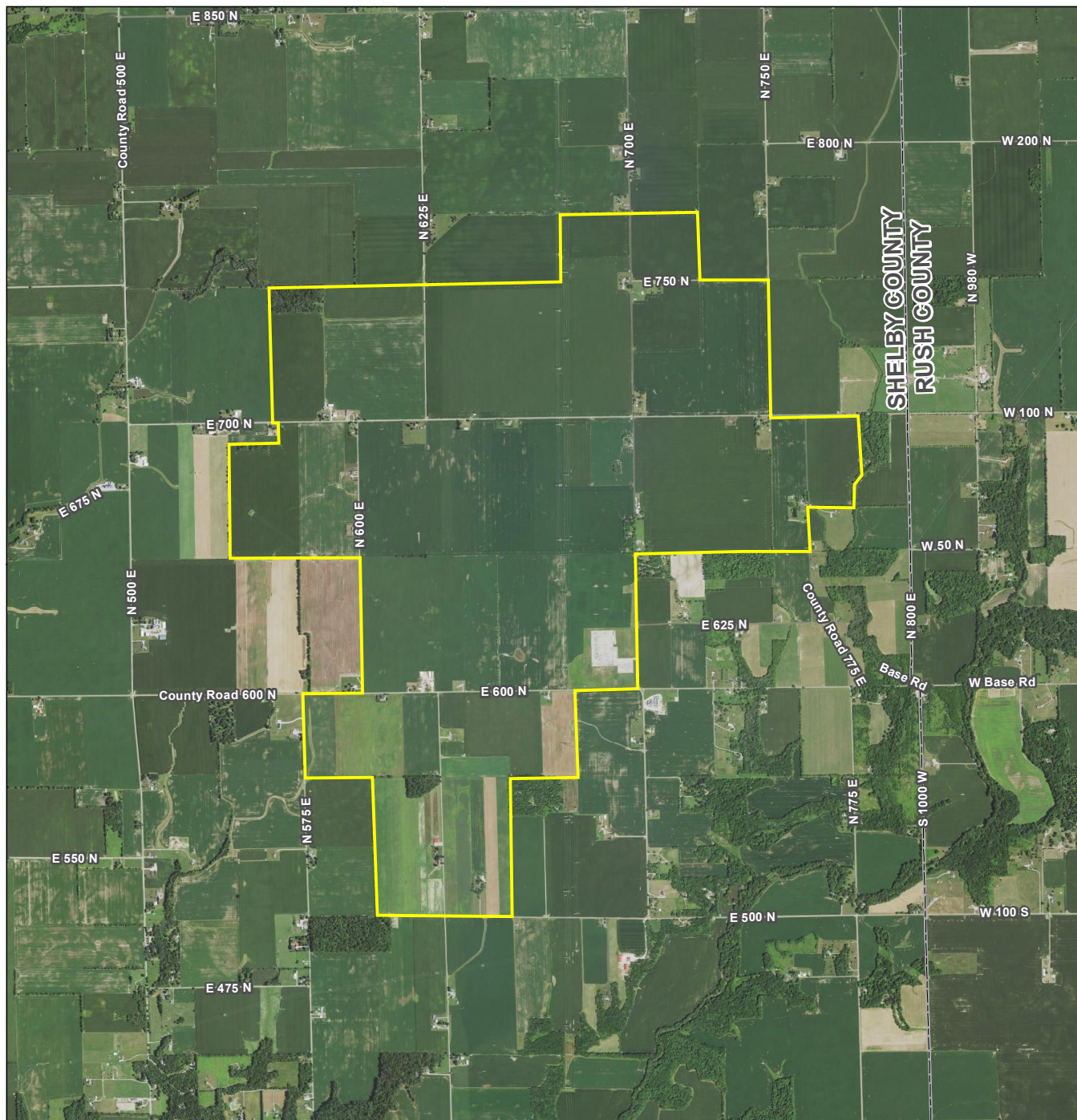


## 5.0 REFERENCES

Stantec Consulting Services (Stantec) 2021. Speedway Solar, LLC - Alternatives Evaluation Study. February 8, 2021.








- Notes**
1. Coordinate System: NAD 1983 UTM Zone 16N
  2. Data Sources: Stantec, Ranger Power, USGS, NADS
  3. Background: NAIP 2019

**Legend**

 Approximate Project Area

0 1,500 3,000 Feet  
(At original document size of 8.5x11)  
1:36,000



Project Location  
Shelby Co.  
Indiana

Prepared by RA on 2021-01-28  
TR by SR on 2021-01-28  
IR by SP on 2021-02-01

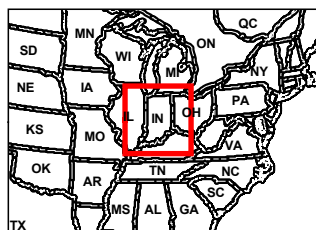
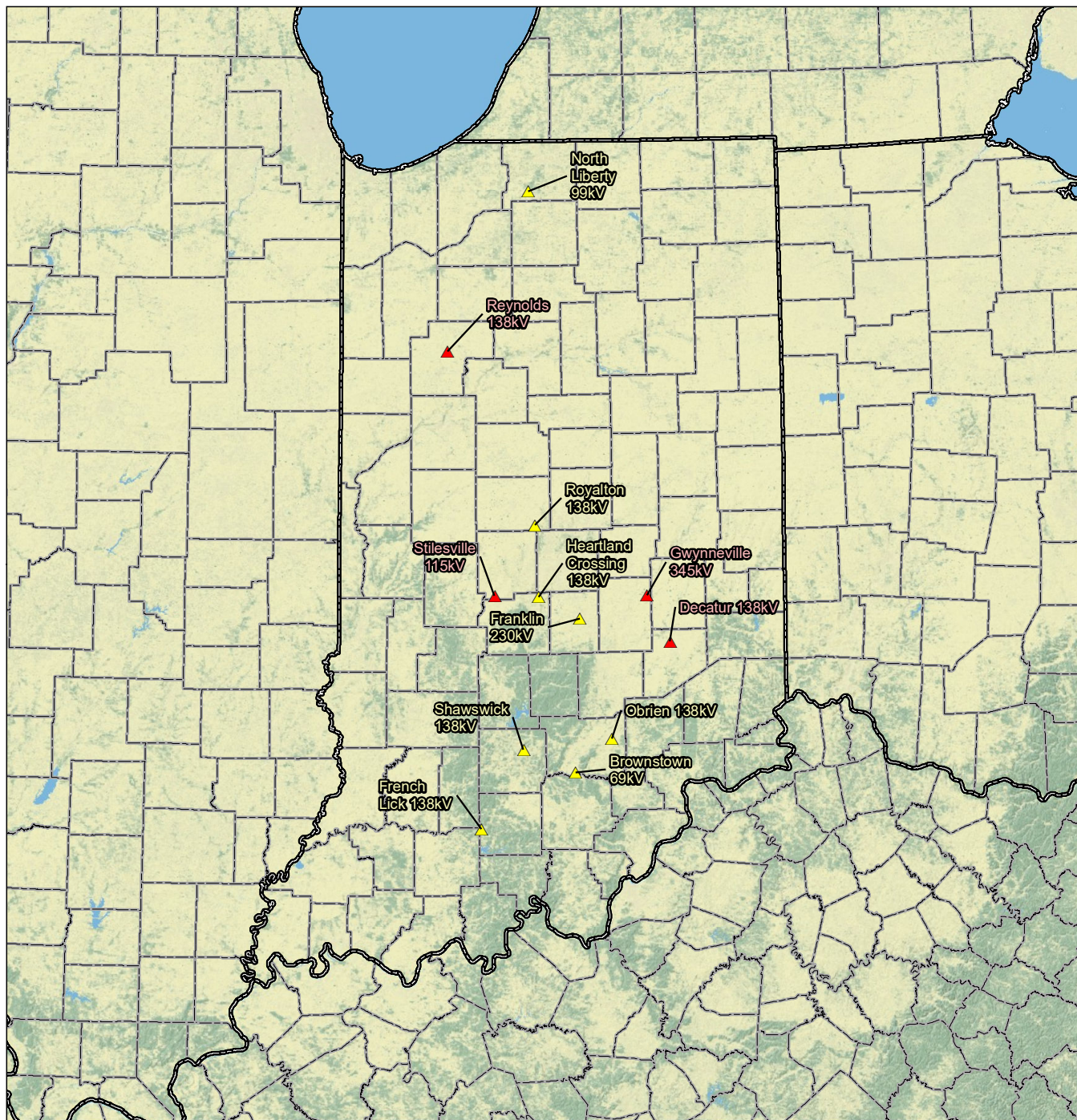
Client/Project  
Speedway Solar, LLC  
Speedway Solar Project

19370xxxx

Figure No.  
**1**

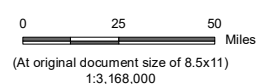
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**Speedway Solar Site**





#### Legend

- ▲ Phase 1 Substation Location
- ▲ Phase 2 Substation Location



Project Location  
Indiana

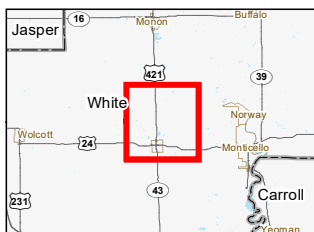
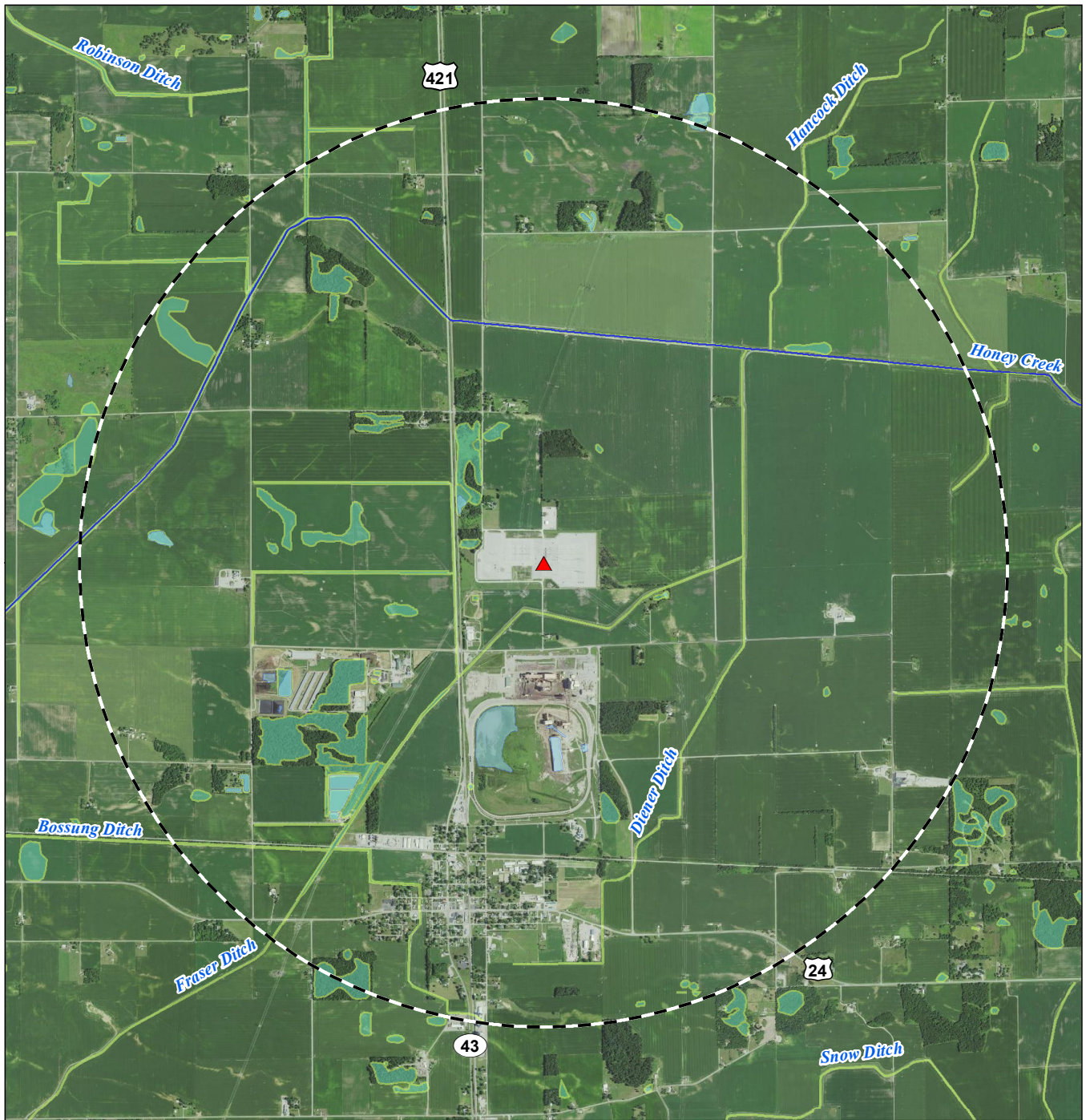
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19370xxxx

Client/Project  
Speedway Solar, LLC  
Speedway Solar Project

Figure No.  
**2**

Title  
**Site Selection Study Overview**





**Notes**  
1. Coordinate System: NAD 1983 UTM Zone 16N  
2. Data Sources: Stantec, Ranger Power, USGS, NADS, USFWS, FEMA  
3. Background: NAIP 2019

- Legend**
- Reynolds 138kV
  - Substation 2 Mile Buffer
  - National Wetlands Inventory Feature
  - FEMA Flood Hazard**
  - 100-year Flood Zone
  - 100-year Floodway
  - 500-year Flood Zone
  - National Hydrography Dataset**
  - Perennial Stream
  - Intermittent Stream\*
  - Waterbody

\*No features within data frame

0 1,750 3,500 Feet  
(At original document size of 8.5x11)  
1:42,000



**Project Location**  
T27N, R4W, S22  
White Co., IN

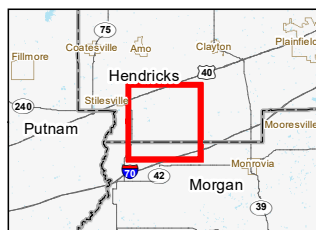
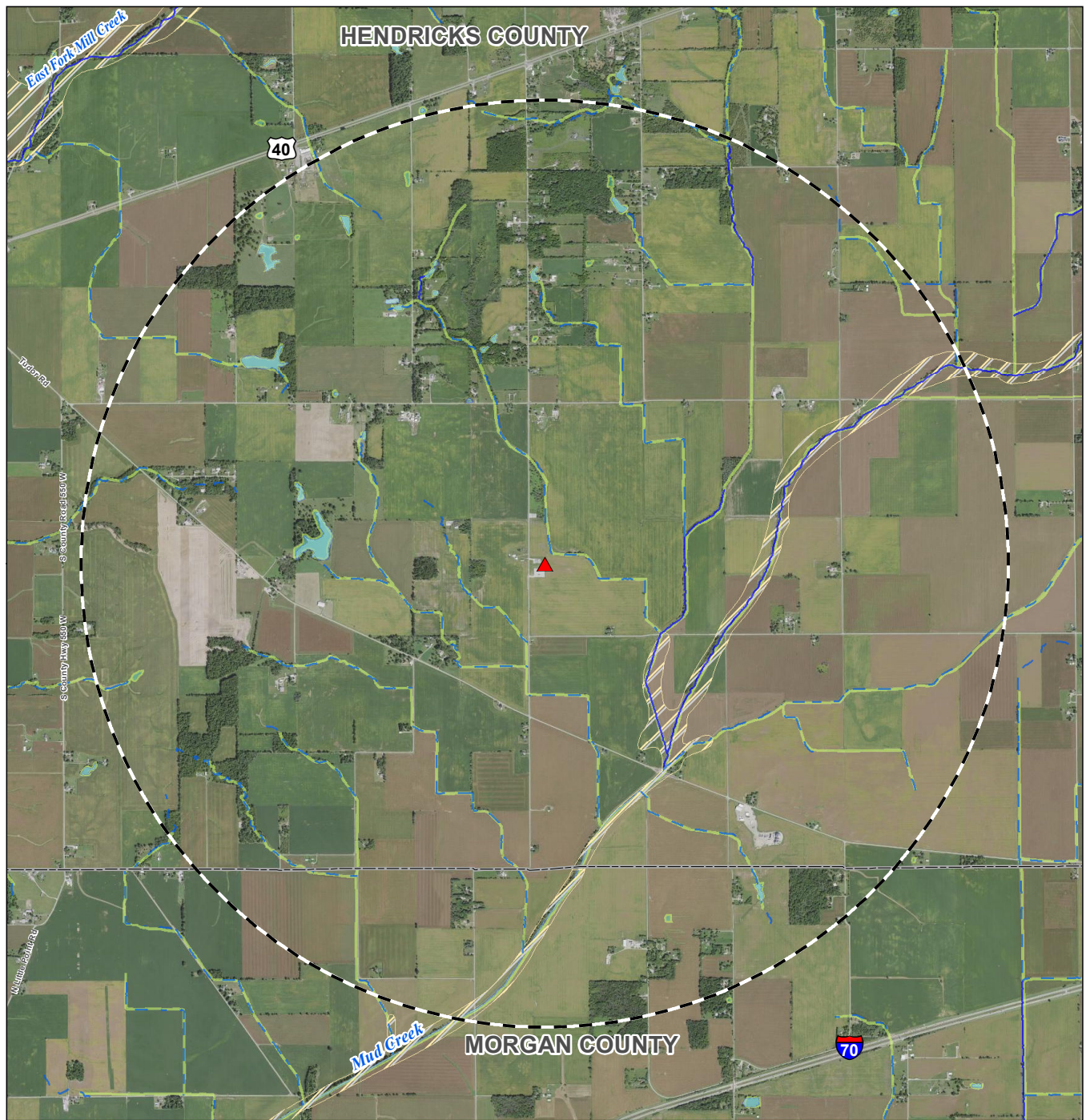
**Prepared by RA on 2021-01-28**  
**TR by SR on 2021-01-28**  
**IR by SP on 2021-02-01**  
19370xxxx

**Client/Project**  
Speedway Solar, LLC  
Speedway Solar Project  
Reynolds 138kV

**Figure No.**  
**3**

**Title**  
**Environmental Constraints**  
**Phase 2 Locations**





**Notes**  
1. Coordinate System: NAD 1983 UTM Zone 16N  
2. Data Sources: Stantec, Ranger Power, USGS, NADS, USFWS, FEMA  
3. Background: NAIP 2019

- Legend**
- ▲ Stilesville 115kV
  - Substation 2 Mile Buffer
  - National Wetlands Inventory Feature
  - FEMA Flood Hazard**
  - 100-year Flood Zone
  - 100-year Floodway\*
  - 500-year Flood Zone\*
  - National Hydrography Dataset**
  - Perennial Stream
  - Intermittent Stream
  - Waterbody
- \*No features within data frame

0 1,750 3,500 Feet  
(At original document size of 8.5x11)  
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**Project Location**  
T14N, R2W, S25  
Hendricks Co., IN

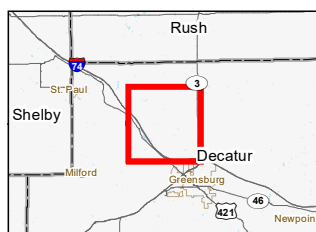
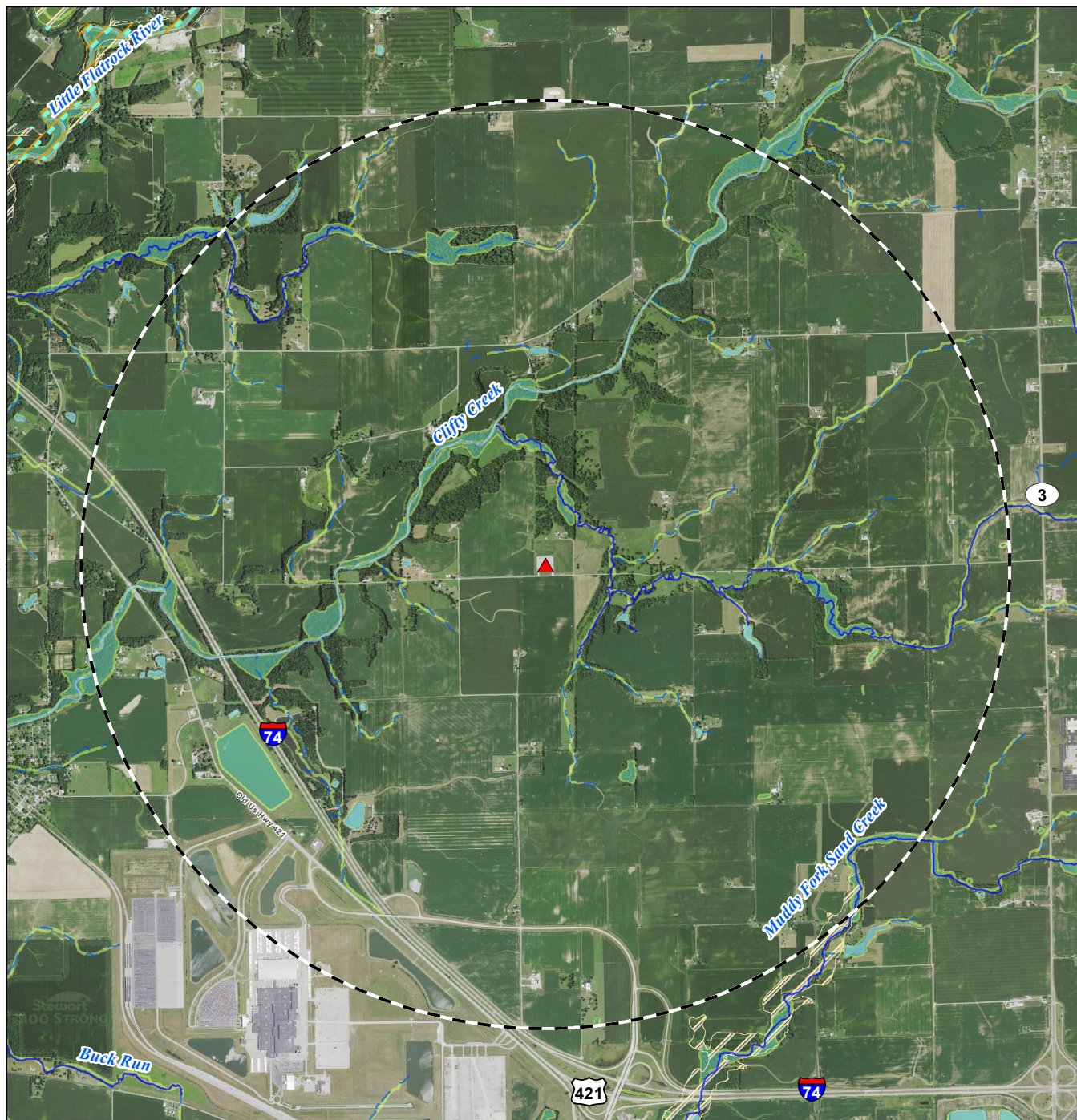
Prepared by RA on 2021-01-28  
TR by SR on 2021-01-28  
IR by SP on 2021-02-01

**Client/Project**  
Speedway Solar, LLC  
Speedway Solar Project  
Stilesville 115kV

**Figure No.**  
3

**Title**  
Environmental Constraints  
Phase 2 Locations





**Notes**  
 1. Coordinate System: NAD 1983 UTM Zone 16N  
 2. Data Sources: Stantec, Ranger Power, USGS, NADS, USFWS, FEMA  
 3. Background: NAIP 2019

**Legend**

- Decatur 138kV
- Substation 2 Mile Buffer
- National Wetlands Inventory Feature
- FEMA Flood Hazard Areas**
  - 100-year Flood Zone
  - 100-year Floodway
  - 500-year Flood Zone
- National Hydrography Dataset**
  - Perennial Stream
  - Intermittent Stream
  - Waterbody

0 1,750 3,500 Feet  
 (At original document size of 8.5x11)  
 1:42,000



**Project Location**  
 T11N, R9E, S16  
 Decatur Co., IN

Prepared by RA on 2021-01-28  
 TR by SR on 2021-01-28  
 IR by SP on 2021-02-01

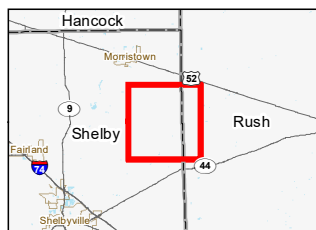
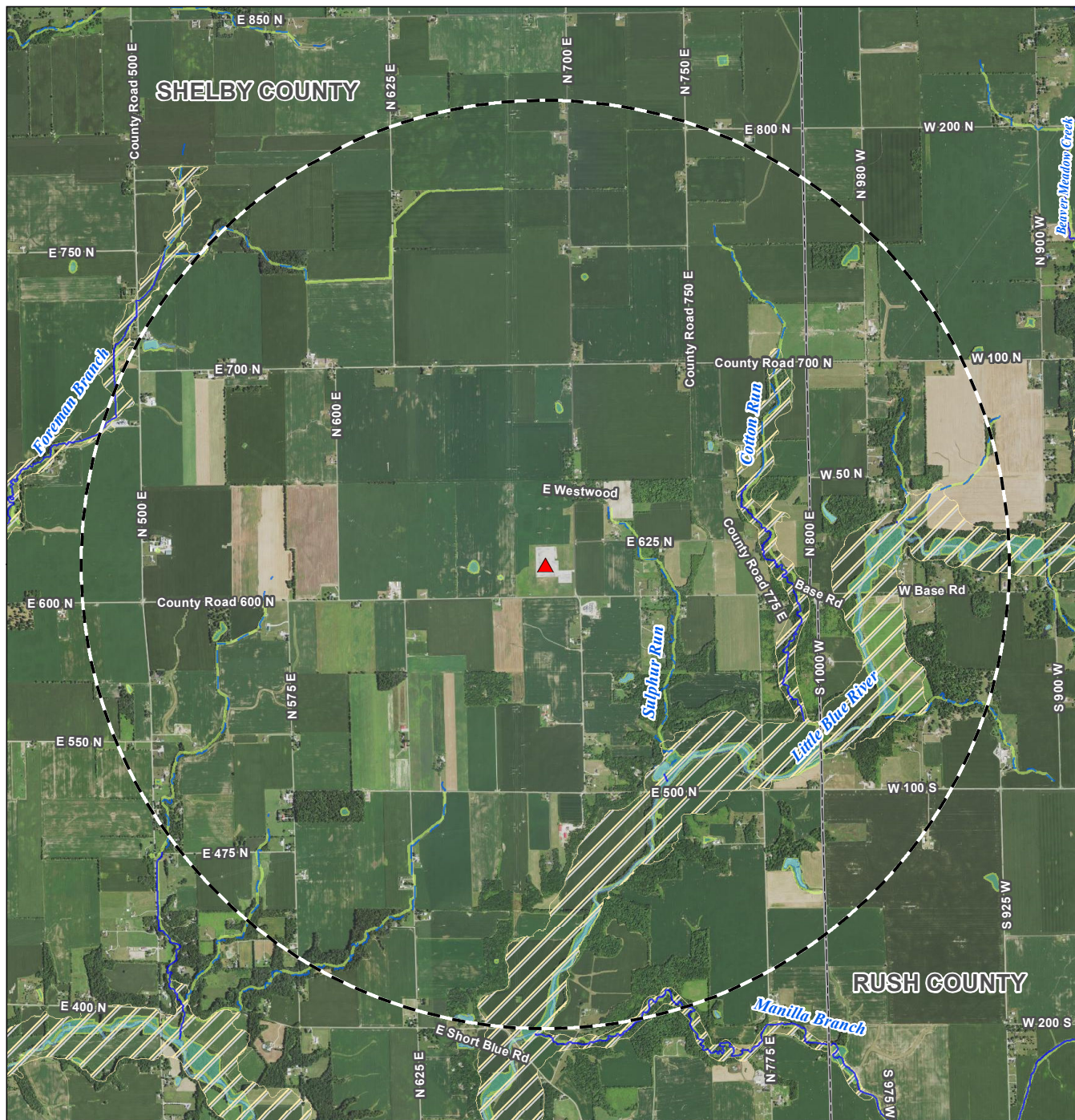
**Client/Project**  
 Speedway Solar, LLC  
 Speedway Solar Project  
 Decatur 138kV

19370xxxx

**Figure No.**  
 3

**Title**  
 Environmental Constraints  
 Phase 2 Locations





#### Notes

1. Coordinate System: NAD 1983 UTM Zone 16N
2. Data Sources: Stantec, Ranger Power, USGS, NADS, USFWS, FEMA
3. Background: NAIP 2019

#### Legend

- Gwynneville 345kV
- Substation 2 Mile Buffer
- National Wetlands Inventory Feature
- FEMA Flood Hazard Areas**
  - 100-year Flood Zone
  - 100-year Floodway\*
  - 500-year Flood Zone\*
- National Hydrography Dataset**
  - Perennial Stream
  - Intermittent Stream
  - Waterbody

\*No features within data frame

0 1,750 3,500 Feet  
(At original document size of 8.5x11)  
1:42,000



Project Location  
T14N, R8S, S32  
Shelby Co., IN

Prepared by RA on 2021-01-28  
TR by SR on 2021-01-28  
IR by SP on 2021-02-01

Client/Project  
Speedway Solar, LLC  
Speedway Solar Project  
Gwynneville 345kV

19370xxxx

Figure No.  
**3**

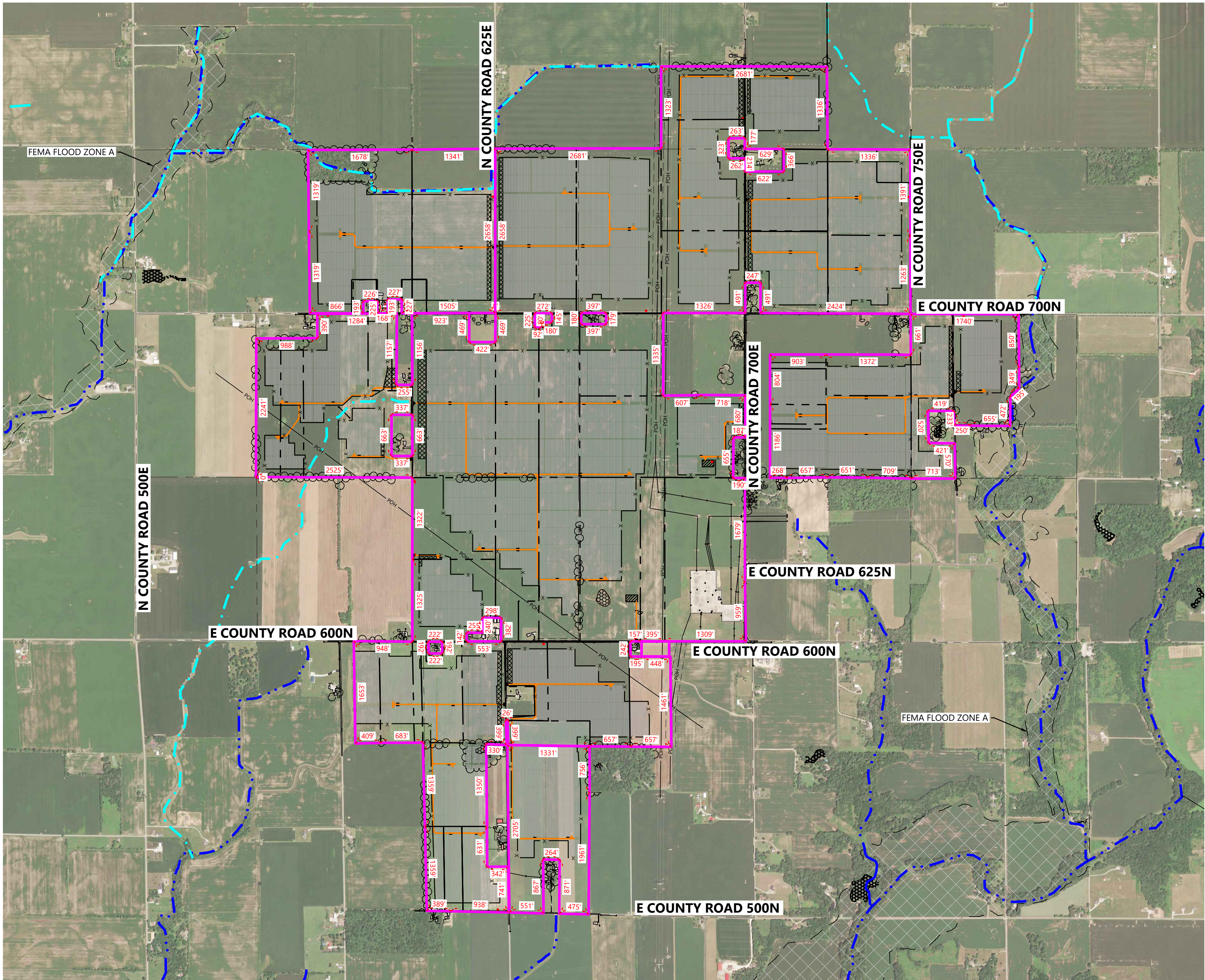
Title  
**Environmental Constraints  
Phase 2 Locations**

# **APPENDIX A**

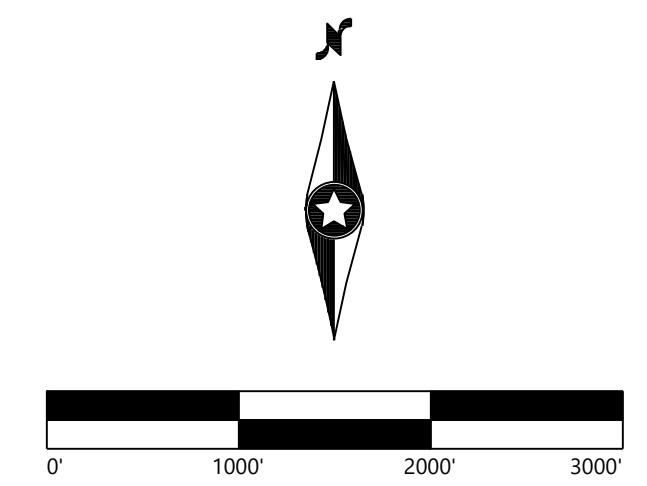
## **OVERALL SITE PLAN**





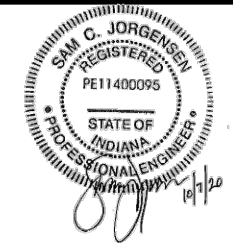


- LEGEND:**
- PROPERTY LINE
  - PARCEL LINES
  - EASEMENT LINES
  - EX. RESIDENCE
  - EX. TREELINE
  - EX. PAVED ROAD
  - EX. GRAVEL ROAD
  - EX. FENCE
  - EX. OVERHEAD POWER
  - FEMA FLOOD ZONE
  - EX. STREAM
  - EX. WETLAND
  - EX. DRAIN
  - PROPOSED SUBSTATION
  - PROPOSED ACCESS ROAD
  - PROPOSED SOLAR ARRAY
  - PROPOSED INVERTERS
  - PROPOSED LAYDOWN YARD
  - PROPOSED HORIZONTAL DIRECTIONAL DRILLING/ DIRECTIONAL BORE
  - PARCEL DIMENSION



**Westwood**  
Phone (952) 937-5150 12701 Whitewater Drive, Suite #300  
Fax (952) 937-5822 Minnetonka, MN 55343  
Toll Free (888) 937-5150 westwoodps.com  
Westwood Professional Services, Inc.

**Speedway Solar**  
Shelby County, IN



PREPARED FOR:  
**Speedway Solar, LLC**  
20 JAY ST #900  
BROOKLYN, NY 11201

**Overall Site Plan**  
DATE: 10/07/2020  
SHEET: C.000