



Carlisle | Wortman
ASSOCIATES, INC.

117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

Date: January 13, 2020

Revised: February 12, 2020

**Preliminary PUD / Rezoning Review
For
Pittsfield Township, Michigan**

File No.:	RZ 20-02
Applicant:	City of Ann Arbor
Project Name:	Swift Run (Wheeler Center) Service Center Solar
Location:	Southwestern, northwestern and northeastern quarter sections of Section 15 (Ellsworth, Stone School, Platt and Morgan Roads)
Plan Date:	December 5, 2019
Revised Date:	February 11, 2020
Current Zoning:	PUD, Planned Unit Development
Proposed Rezoning:	PUD, Planned Unit Development
Property Size:	314.26 acres
Action Requested:	Preliminary PUD / Rezoning Review

PROJECT DESCRIPTION

The applicant is proposing an amendment to the existing PUD site plan to allow for ground mounted solar photovoltaic systems and their associated electrical subsystems to be located at the Swift Run Service Center. The plan demonstrates 65 acres are proposed for solar array installation within the western and central areas of the facility. Additionally, 12.2 acres of floating arrays are

Richard K. Carlisle, *President* Douglas J. Lewan, *Executive Vice President*
John L. Enos, *Principal* David Scurto, *Principal* Benjamin R. Carlisle, *Principal* Sally M. Elmiger, *Principal* Craig Strong, *Principal*
Laura K. Kreps, *Senior Associate* Paul Montagno, *Associate*

proposed on the existing lake in the northwest portion of the facility. The project narrative states the site was chosen due to its high solar potential, minimal disruption to neighbors, and can help the City of Ann Arbor and Pittsfield Township achieve their goals of powering municipal operations with 100% clean and renewable energy. The entire development is projected to cover around 80 acres – this includes space for the photovoltaic panels and supporting equipment.

The PUD ordinance states that a “change to design layout and building orientation” constitutes a major amendment. The applicant is seeking a major amendment of the approved PUD Area Plan to allow 77 acres of land to accommodate the installation of the solar system facility. A more descriptive narrative of the project would be helpful in determining all of the proposed modifications to the site since the installation of solar facilities will remove areas previously planned as active recreation, composting, and agricultural field. In addition, we understand that portions of the site that are within the City of Ann Arbor jurisdiction may also have solar arrays. Please provide an overall plan of the entire site indicating all arrays not just those as part of this PUD amendment.

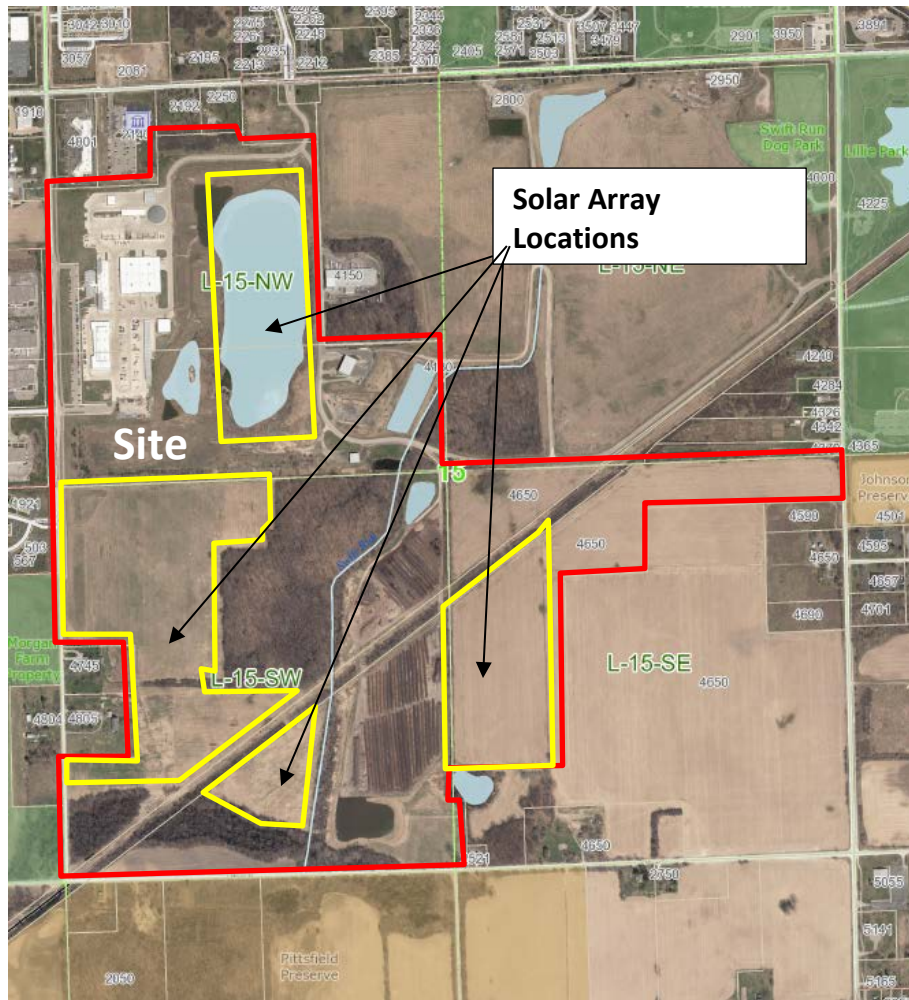
A Planned Unit Development project is viewed as an integrated development concept. As such, a PUD is used to allow flexibility, including the noted lot consolidation deviation above, to provide for improved design, character, and quality of new development.

A PUD is a form of rezoning, where approval rests with the Township Board of Trustees (Board). As such, the Board has the discretion and authority to determine if the standards have been met.

Items to be Addressed: None.

SITE DETAILS

Figure 1. Aerial Photograph



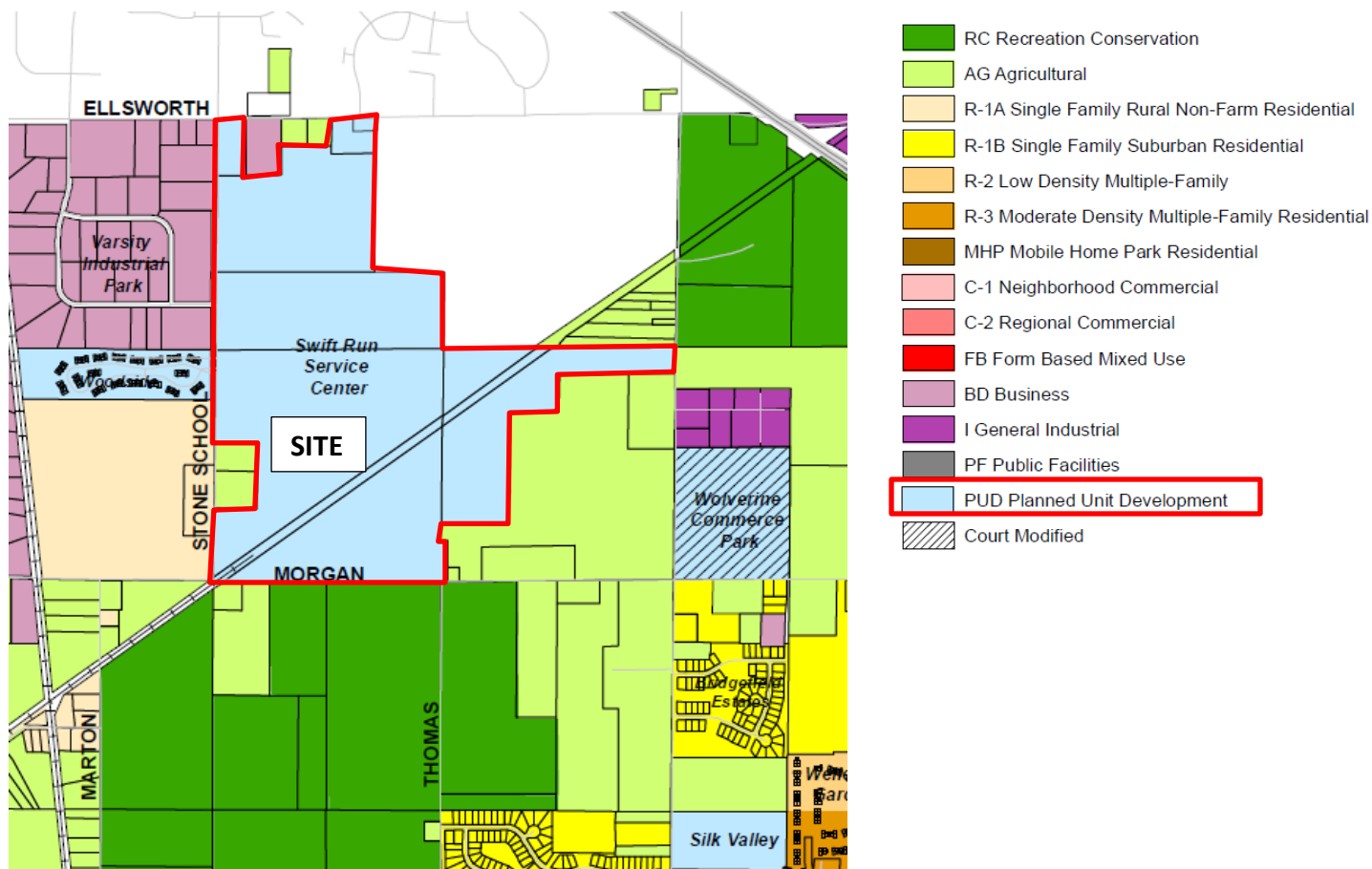
Zoning Classification of Parcel, Adjacent Parcels, and Current Land Use:

The subject site is currently utilized as the City of Ann Arbor Swift Run (Wheeler) Service Center.

Adjacent zoning and land uses are as follows:

Direction	Zoning	Use
North	PUD, Commercial, Residential	Commercial, Residential
South	AG, Agricultural	Vacant
South	RC, Recreation Conservation	Pittsfield Preserve
East	AG, Agricultural	Vacant / farmland
West	PUD, Planned Unit Development	Woodside Meadows Condominiums
West	BD, Business District	Varsity Industrial Park
West	R-1A, Single Family Residential	Morgan Farm Property

Figure 2. Zoning Map



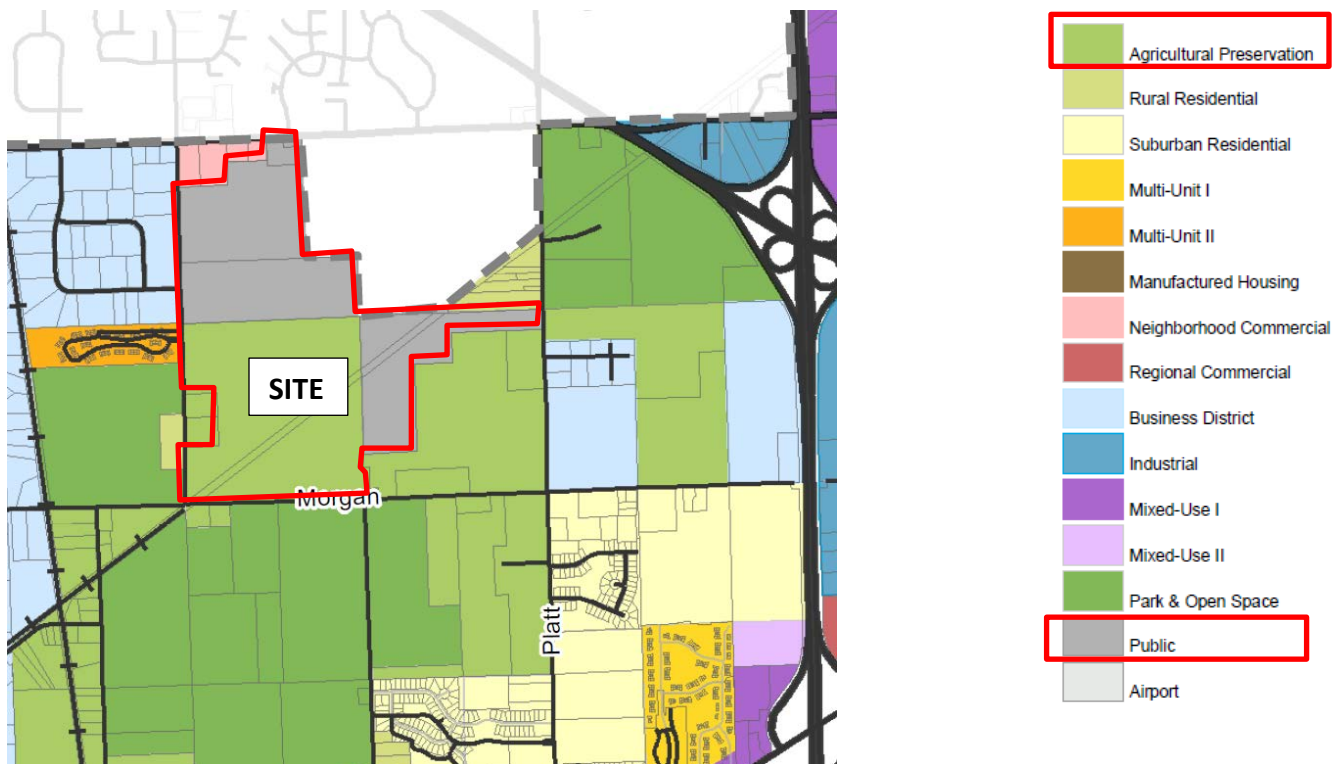
MASTER PLAN

The Future Land Use Plan designates the northern parcel as Public and the southern portion of the site as Agricultural Preservation. The Public future land use classification depicts areas planned to accommodate existing and future government and municipal buildings and services, schools, and other uses. These areas are planned where existing public facilities, government buildings, and schools currently exist.

The Agricultural Preservation future land use classification is intended to protect areas of the Township by promoting agricultural activities and allowing for additional uses that will be consistent with the agricultural character, as well as providing for large lot residential uses that will support residential or niche farming operations.

The Swift Run (Wheeler) Service Center is a public facility owned and operated by the City of Ann Arbor. Pittsfield Township recently passed a Township Preservation Plan, which is an addendum to the Township's 2020 Sustainable Vision Master Plan. The Preservation Plan advances the Township's role in supporting and providing renewable energy options. Powering Township operations with clean and renewable energy is an essential step in reducing dependence on non-renewable energy sources.

The proposed improvement of the site for solar arrays is consistent with the Master Plan.



Items to be Addressed: None.

NATURAL RESOURCES

Section 14.04 C. requires as part of the Preliminary Site Plan Review process the applicant determine if natural features exist on the site, and in proximity to the site. If one (1) natural feature is determined to exist on a site, then the applicant shall submit a Natural Features Impact Statement containing the information required in Section 14.04.C.

Due to the presence of wetlands and floodplains, a Natural Features Impact Statement is required to be provided. The submittal includes a description of the site's natural features. The areas identified for Solar A and Solar B are two (2) maintained grasslands containing 50 acres and 7 acres, respectively. These areas have been maintained as mowed lawn. The area designated as Solar C is a 25-acre agricultural field, and Solar D – the floating array is located within the 19-acre pond.

All areas where solar is proposed have slopes that are less than 5%. It does not appear that any trees will be removed for this project.

There is also a Conservation Easement located in the northwest corner of the site near the area where the “floating arrays” will be located. This area has been labeled in the revised plan set.

Items to be Addressed: *None.*

BUILDING LOCATION AND SITE ARRANGEMENT

The solar arrays are proposed to be located in areas of the site previously cultivated. All areas of the site proposed for solar array installation are central to the property and proposed to be screened via the existing berm, existing on-site facilities, and secured via a fence. The applicant has demonstrated the height of the berm and screening in relation to the proposed array on Sheet 17 of the revised plan set.

Items to be Addressed: *None.*

AREA, WIDTH, HEIGHT, SETBACKS

The Swift Run Service Center PUD was approved under RZ #08-01 in 2008 allowing for a maintenance facility a transfer station building and compost equipment storage, as well as the composting pad.

Areas previously planned for composting and active/passive recreation will be utilized to install the proposed solar facilities. This eliminates 12.4 acres of composting facilities, and 26.6 acres of recreation areas.

All other bulk regulations approved under the original Area Plan RZ #08-01 will remain unchanged (see Bulk Limits and Setback table on the cover sheet of the plan set).

Items to be Addressed: None.

SITE ACCESS AND CIRCULATION

Site access points to the site will remain the same with the addition of a gravel access drive south of the adjacent homes on Morgan Road. Detail of the proposed access drive including proposed width and approval from Washtenaw County Road Commission will be required.

Items to be Addressed: 1) Provide detail of all proposed access roads during final site plan review; and 2) Washtenaw County Road Commission review of the additional access from Stone School Road during final site plan review.

ESSENTIAL FACILITIES AND SERVICES

Additional public facilities and services will not be required as part of the solar project installation. However, we defer review of existing public facilities to the Township Engineer.

Items to be Addressed: Review of essential facilities and services by the Township Engineer.

SOLAR ENERGY COLLECTOR SPECIFIC USE STANDARDS

Section 14.12.F. outlines specific standards related to ground-mounted solar energy collectors. These include:

1. *Ground-Mounted Commercial Solar Energy Systems and Fields are permitted as a conditional use in the PF, Public Facility, AG, Agricultural, and RC, Recreation Conservation Districts Only.*
2. *Ground-mounted solar energy collectors shall be located only as follows:*
 - a. *They may be located in the rear yard and the side yard, but not in the required rear yard setback or in the required side yard setback unless permitted by the Planning Commission in its approval of the conditional land use.*
 - b. *They may be located in the front yard only if permitted by the Planning Commission in its approval of the conditional land use but, in any event, they shall not be located in the required front yard setback.*
3. *Ground-mounted solar energy collectors shall not exceed sixteen (16) feet in height, measured from the ground at the base of such equipment.*
4. *The total area of ground-mounted solar energy collectors shall be included in the calculation of the maximum permitted lot coverage requirement for the parcel of land.*
5. *Solar energy collectors shall be permanently and safely attached to the ground. Proof of the safety and reliability of the means of such attachment shall be submitted with the conditional use application and shall be subject to the Planning Commission's approval.*

6. *Solar energy collectors shall be installed, maintained and used only in accordance with the manufacturer's directions. A copy of such directions shall be submitted with the conditional use application. The conditional use, if granted, may be subject to the Building Official's inspection to determine compliance with the manufacturer's directions.*
7. *The exterior surfaces of solar energy collectors shall be generally neutral in color and substantially non-reflective of light.*
8. *Ground-mounted solar energy collectors, and the installation and use thereof, shall comply with the Township construction code, the electrical code, and other applicable Township construction codes.*
9. *The conditional use may include terms and conditions in addition to those stated in this subsection.*

The proposed solar facility will be located primarily in the central portions of the site with the exception of the western extent near Stone School Road (Solar 'A'). The northern portion of the Solar 'A' installation is demonstrated 285 feet from Stone School Road, whereas the southern portion is depicted 75 feet from Stone School Road. At the neighborhood meeting, it was suggested panels in this area may have limited effectiveness due to the existing wooded area to the south.

Solar panel height is noted as 16 feet (maximum allowed) in the bulk requirements table on the cover sheet of the plan set. Detail of the proposed panel systems and of 8-foot tall chain link fence enclosure are provided on Sheet 4 of 18.

The total area of solar facilities is 55% of the areas designated throughout the site. This is an increase from the Area Plan since the areas were previously proposed as composting and recreation.

Additional information related to the installation of the panels and the manner they are affixed to the ground / water and manufacturer's directions have been provided as part of the revised submittal.

In our initial review, we requested the applicant consider removing the panels south of the residential properties along Stone School Road as mentioned at the neighborhood meeting. The applicant has responded that for the time being they are leaving these panels in the design until greater clarity about the viability of the 40V line. The applicant will be able to finalize this area during final site plan.

Items to be Addressed: *Consider removing panels south of residential properties along Stone School Road as mentioned at neighborhood meeting.*

PUD STANDARDS OF REVIEW

Section 6.02 B. states, *the Planning Commission shall determine, and shall provide evidence of its determinations in its report of the Township Board, that the application meets the following standards. Failure to meet any standard may be grounds for a recommendation of denial.* The standards to be reviewed by the Planning Commission include:

1. *The proposed development shall conform to the adopted Master Plan, or represents land use policy which in the Planning Commission's opinion, is a logical and acceptable change in the adopted Master Plan.*

CWA COMMENTS: Pittsfield Township recently passed a Township Preservation Plan, which is an addendum to the Townships 2020 Sustainable Vision Master Plan. The Preservation Plan advances the Township's role in supporting and providing renewable energy options. Powering Township operations with clean and renewable energy is an essential step in reducing dependence on non-renewable energy sources. The Master Plan encourages sustainability, including renewable energy. The proposed improvement of the site for solar arrays is consistent with the Master Plan.

2. *The proposed development shall conform to the intent and all regulations and standards of a Planned Unit Development district.*

CWA COMMENTS: The proposed amendment to the Planned Unit Development does comply with the specific intentions of the PUD intent provided in Section 6.01.B., specifically:

- Encourages innovation in land use planning, design, and development that responds to changing public needs.
 - Provides flexibility in regulation of land development, resulting in a higher quality of land development that contributes to the social, economic and environmental sustainability of the Township.
 - Promotes the efficient use and conservation of energy.
 - Encourages provision of useful open space and long-term protection and conservation of natural features and resources.
 - Ensures that the increased flexibility of regulations over land development is subject to proper standards and review procedures.
 - Encourages the use, redevelopment, and improvement of existing sites where current ordinances do not provide adequate protection and safeguards for the site or its surrounding areas, or where current ordinances do not provide the flexibility to consider redevelopment, replacement, or adaptive reuse of existing structures and sites.
3. *The proposed development shall be adequately served by public facilities and services such as but not limited to streets, police and fire protection, drainage courses, water and sanitary sewer facilities, refuse disposal, and sidewalks; or that the persons or agencies responsible for the property development shall be able to properly provide such facilities and services.*

CWA COMMENT: The preliminary plan will be reviewed by the Township Engineer and Fire Department to ensure the development will be adequately serviced.

4. *Common open space, other common properties and facilities, individual properties, and all other elements of a Planned Unit Development are so planned that they will achieve a unified open space and recreation area system, with open space and all other elements in appropriate locations, suitably related to each other, the site, and surrounding lands.*

CWA COMMENT: This criterion does not apply.

5. *Public and common areas will be or have been irrevocably committed. Provisions shall be made for financing of improvements shown on the plan for open space and other common areas, and that property maintenance of such improvements is assured.*

CWA COMMENT: The applicant will need to demonstrate all public and common areas will be committed and property maintenance ensured during final site plan review.

6. *The proposed development shall be located and designed in a manner which will minimize the impact of traffic, taking into consideration: pedestrian access and safety; vehicle trip generation (i.e. volumes); types of traffic, access location, and design, circulation, and parking design; street and bridge capacity; and traffic operations at nearby intersections and access points. Efforts shall be made to ensure that multiple transportation modes of access and alleviate vehicular traffic congestion.*

CWA COMMENT: Traffic impacts will be minimal. However, the applicant should provide a maintenance plan indicating the frequency of vehicles that will be accessing the site after installation, and should include a maintenance plan for Stone School Road during construction.

7. *The mix of housing unit types and densities, and the mix of residential and non-residential uses, shall be acceptable in terms of convenience, privacy, compatibility, and similar measures.*

CWA COMMENT: No residential uses are proposed. Therefore this criterion does not apply.

8. *Where applicable, that noise, odor, light, or other external effects which are connected with the proposed uses, will not adversely affect adjacent and neighboring lands and uses.*

CWA COMMENT: Provided that the applicant provides the proper screening and provides ongoing maintenance of Stone School Road during construction, the proposed operation of the facility will not adversely properties in the vicinity and the overall community.

9. *The proposed development shall create a minimum disturbance to natural features and land forms.*

CWA COMMENT: See the Natural Resources portion of this report.

10. *Streets shall follow topography, be properly spaced, and be located and aligned in accordance with the intended function of each street. The property shall have adequate access to public streets. The plan shall provide for logical extensions of public streets and shall provide suitable street connections to adjacent parcels, where applicable.*

CWA COMMENT: We defer review of internal streets the proposed connection to Stone School Road to the Township Engineer and Washtenaw County Road Commission.

11. *Pedestrian circulation shall be provided within the site, and shall interconnect all use areas, where applicable. The pedestrian system shall provide for a logical extension of pedestrian ways outside the site and to the edges of the site, where applicable.*

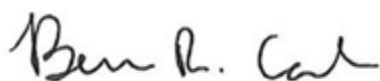
CWA COMMENT: Existing pedestrian connections around the Swift Run Service Center will not be impacted by the installation of the proposed solar facilities.

Items to be Addressed: *Provide maintenance plan for Stone School Road during construction.*

SUMMARY

We recommend that the Planning Commission recommend approval of the Major Amendment and Preliminary Site Plan approval of the Swift Run Center PUD with the following items to be submitted as part of the Final Site Plan:

1. Remove panels south of residential properties along Stone School Road as mentioned at neighborhood meeting.
2. Provide maintenance plan for Stone School Road during construction.
3. Provide detail of all proposed access roads.
4. Provide approvals from Washtenaw County Road Commission regarding the additional access from Stone School Road.



CARLISLE/WORTMAN ASSOC., INC.
Benjamin R. Carlisle, AICP, LEED AP
Principal



CARLISLE/WORTMAN ASSOC., INC.
Laura K. Kreps, AICP
Senior Associate