



City of Vandalia Planning Commission

Regular Meeting Agenda

March 28, 2023

Council Chambers

<https://us02web.zoom.us/j/86721223742>

6:00 p.m.

1. Call to Order
2. Attendance
3. Approval of Planning Commission Minutes:
 - a. February 28, 2023
4. Swearing in of attendees wishing to speak at meeting
5. Old Business
6. New Business
 - a. PC 23-03 – Text Amendment – Various Sections – Solar Energy Systems
7. Communications
8. Adjournment

Please note revised Zoom link and update your bookmarks

Next Scheduled Meeting – **To Be Determined**

Minutes of the City of Vandalia Planning Commission
February 28, 2023

Members Present:	Mr. Ron Atkins, Mr. Kevin Keeley, Ms. Kristin Cox, Mr. Dave Arnold, Ms. Claudia Turrell
Members Absent:	None
Staff Present:	Amber Holloway, Asst. City Manager Michael Hammes, City Planner
Others Present:	Jason Owens, Ismail Idrisov, Ibragim Chakhalidze, George Reinke,

Call to Order

Mr. Atkins called the meeting to order at 6:00 p.m.

Attendance

Mr. Atkins noted that all members were present.

Approval of Minutes of the Planning Commission

Mr. Arnold made motion to approve the February 14th, 2023 minutes. Ms. Turrell seconded the motion. The motion carried 5-0.

Swearing in of Attendees Wishing to Speak at Meeting

The attendees were sworn in.

Old Business

Mr. Atkins noted that there was no Old Business on the agenda.

New Business

PC 23-02 – Conditional Use – 1010 Industrial Park Drive – ISF Express Trucking

Mr. Atkins introduced the item and asked for Mr. Hammes to proceed with his report.

Mr. Hammes presented the application to the Commission. ISF Express Trucking, the applicant, had requested Conditional Use Approval in order to operate a Trucking Facility at 1010 Industrial Park Drive, in the I – Industrial district. Trucking Facility is included in the Industrial district as a conditional use.

Mr. Hammes described the property and its surroundings, noting the presence of several industrial businesses to the north, west, and south, and Amvets Post 99 to the east.

Mr. Hammes described the specific Conditional Use requested by the applicant. As proposed, the Truck Facility use would include truck parking, truck dispatch, and light truck maintenance. Mr. Hammes noted that the applicants were present and would discuss their vision for the site following the staff presentation.

Mr. Hammes described the proposed site plan, and noted that the applicants had submitted a revised site plan addressing some of staff's concerns. Mr. Hammes indicated that the building height and setbacks were compliant with code requirements.

Mr. Hammes described the parking provided for the site. 27 standard parking spaces and 53 truck parking spaces were noted on the site plan. In addition, the building features three overhead truck doors.

Mr. Hammes discussed the proposed floor plan for the building. Offices are proposed for the west end of the building, with maintenance bays and equipment to the east. All three truck doors open onto the maintenance area.

Mr. Hammes discussed access to the site. The proposed gate would have a keypad to allow access afterhours. It would also allow fire department access in the same manner. Mr. Hammes noted that the proposed gate had been moved further onto the site to allow a truck to fully exit Industrial Park Drive before reaching the gate. This would allow a driver to access the electronic keypad to open the gate without blocking traffic on Industrial Park Drive.

Mr. Hammes discussed the photometric plan for the site. Lights proposed for the parking area are properly aimed at the site itself, as shown on the provided plan. Mr. Hammes noted that any lights proposed for the building would need to be designed in the same manner.

Mr. Hammes described the proposed landscaping for the site. New landscaping is proposed to the west, to screen the site from the right of way. Internal landscaping, with trees and islands as indicated, are provided for the parking area. Additional landscaping may be required around the perimeter of the site to screen the vehicular use area, as required by the code.

Mr. Hammes described the conditions proposed for the site, if approved.

1. Applicant shall place the gated entrance to the property further to the east, so as to allow at least one 80' truck to exit the right-of-way before operating the gate.

Mr. Hammes noted that the revised site plan satisfied this condition.

2. Loading docks may not be in any area deemed the front yard.

Mr. Hammes noted that the proposed building layout met this condition.

3. All lights be full cutoff fixtures and downward shining to minimize light pollution. A photometric plan shall be provided showing all proposed fixtures and their light outputs.

Mr. Hammes noted that the proposed photometric plan provided by the applicant met this condition.

4. Screening of services areas, dumpsters, and any rooftop equipment be in accordance with City Code.

Mr. Hammes was unaware of any rooftop equipment proposed for the site, but that any equipment added to the proposal later would need to be properly screened.

5. Landscaping shall comply with the requirements of Chapter 1232 “Landscaping and Screening Standards”, and shall include appropriate landscaping for all vehicular use areas as required by the code.

Mr. Hammes noted that staff would work with the applicant to ensure that the proposed and existing landscaping meets code requirements.

6. Any signage must conform with the requirements of Chapter 1236 “Signs”.

Mr. Hammes was not aware of a proposed sign but presumed that there would be a sign of some sort at some point. Mr. Hammes reiterated that any such signs must be compliant with the code.

7. No fencing shall be erected in the front yard of the site, nor permit issued for same, except with an approved variance as required by the code.

Mr. Hammes stated that the Industrial district, as with most other zoning districts, does not permit front yard fences. In order to build the proposed fence, the applicant would need an approved variance. Mr. Hammes noted that the applicant had submitted an application for that variance and that the variance was assigned case number BZA 23-01.

Mr. Atkins asked when the variance would be heard by the Board of Zoning Appeals. Mr. Hammes stated that the application would be heard in March, with Council Action expected in April. Ms. Holloway confirmed that the BZA application was scheduled for March 22, 2023.

Mr. Hammes gave a staff recommendation of Approval for the application, with the conditions stated.

Public Comment

Mr. Atkins invited the public to step forward and address the application.

Jason Owens, with ANRO Builders LLC, appeared on behalf of the applicant. He distributed handouts to the members of the Commission. Mr. Owens indicated that existing landscaping would be preserved along the perimeter of the site, which would provide the required screening for the parking area.

Mr. Owens indicated that equipment serving the building would be set on the ground and would be properly screened. The dumpster area would also be screened with fencing matching the perimeter fence.

Mr. Owens noted that there would be some lighting on the south and west sides of the building. A revised photometric drawing would be submitted to account for those lights.

Mr. Owens described the proposed operation of the site. Drivers contracted with ISF Express Trucking would park at the site when they took their trucks on the road, and would be able to leave their trucks at the site when not on the road.

Ms. Turrell asked who the site was intended to serve. Ibragim Chakhalidze, manager of ISF Express Trucking, noted that the site would allow their drivers to store their trucks in a secure area when they are not on the road.

Mr. Atkins asked what level of maintenance would be provided at the site. Mr. Chakhalidze indicated that maintenance on the site would be limited to tire changes, oil changes, and similar light maintenance. Nothing heavy-duty would be performed on-site.

Mr. Arnold asked if drivers would be permitted or allowed to stay on the site overnight. Mr. Owens stated that the drivers would be local, and thus would not need to stay overnight. Making the comparison to a nearby truck stop, Mr. Arnold expressed concern about overnight activity becoming a nuisance with various criminal activities. Mr. Arnold proposed conditional language that would prohibit overnight stays.

Mr. Owens reiterated that there were no overnight stays, and that no overnight facilities such as showers were proposed for the site.

Mr. Arnold asked if the trucks stored on the site would be loaded. Mr. Chakhalidze stated that some trucks may remain loaded on-site in the short term, offering the example of a truck that arrives several hours before its scheduled delivery time. In that example, the driver would typically be local and would go home before returning to complete the delivery.

Mr. Arnold noted that the company profile did not mention hazardous materials, but worried that future operators may bring hazardous materials onto the site. Mr. Arnold proposed conditional language that would prohibit loads of hazardous materials on the site. Mr. Chakhalidze reiterated that the company does not transport hazardous materials. Mr. Arnold stated that the proposed conditions are not aimed at the current applicant, but would be aimed at future owners of the site who might transport such materials. Mr. Arnold expressed concern about thefts of catalytic converters.

Ms. Turrell asked a follow-up question about the applicant's control over what loads come to the site. Mr. Chakhalidze stated that the site would not be open to the public as such, and that the company would keep control over who was authorized to use the site.

Mr. Keeley asked if the trucks were owned by the company. Mr. Chakhalidze stated that the drivers would primarily be owner-operators and that ownership of the trucks would rest with the drivers themselves for the most part.

Mr. Keeley asked about the idea of the company transporting hazardous materials, and further asked if the Department of Transportation controlled in this instance. Mr. Hammes stated that the company was obligated to follow Ohio Department of Transportation rules as well as federal rules. Mr. Hammes suggested that a condition requiring the applicant to comply with ODOT, USDOT, and other applicable regulations would be possible, if it be the will of the commission.

Mr. Keeley asked about trailer swapping and cross docking. Mr. Chakhalidze acknowledged that some limited trailer swapping might take place, but that the storage area in the proposed building was not going to store merchandise or loads prepared for transit. Rather, that area would be used for maintenance only.

Ms. Turrell how often the trucks would go out on the road. Mr. Chakhalidze said that the schedule varied. Some trucks would go out for a month before returning, while other drivers may be out for 2 weeks and back for 2 weeks.

Ms. Turrell remarked that another site in the city had had some abandoned trailers and expressed concern about something similar here. Mr. Chakhalidze stated that it would not benefit his company at all to have unused trailers on the site.

Mr. Atkins noted that some drivers of large trucks park on Industrial Park Drive. He then asked the applicant who would be allowed to use this site. Mr. Chakhalidze stated that there would likely be some room for trucks used by their new neighbors and other area drivers, but that most drivers would be contracted with the company.

Mr. Atkins asked about the possible condition for hazardous materials. Mr. Hammes stated that the Commission could rely on state and federal regulations, or it could articulate a condition requiring the same.

Ms. Turrell asked about the impact of state and federal regulations on the proposed operation. Mr. Hammes explained how different types of loads must be handled differently, and that the company would only legally be allowed to handle loads for which they had been certified.

Ms. Cox stated that she would support a condition requiring compliance with state and federal regulations. She noted, however, that she had concerns about implementing overly hinderous zoning codes that impact the business.

Mr. Atkins concurred with the statement from Ms. Cox.

Mr. Atkins remarked that the Fire Division may have some concerns about hazardous materials. Mr. Hammes agreed, and noted that the zoning code had a number of provisions dealing with hazardous materials storage. He stated further that the proposed conditional use did not include any hazardous materials storage on-site, which would preclude the applicant from including them as part of the use at a later date.

Hearing no further comments, Mr. Atkins closed the public portion of the meeting for case PC 23-02.

Review Criteria

Mr. Atkins explained the process for approving the review criteria. He then proceeded to read the Review Criteria into the record.

- (1) The establishment, maintenance, or operation of the conditional use would not be detrimental to or endanger the public health, safety, morals or general welfare;

Staff Comment: Staff feels the proposed trucking facility will not cause a detriment to or endanger the public health, safety, morals or general welfare.

The Planning Commission agreed with the Staff Comment by a vote of 5-0.

- (2) The conditional use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, or will not substantially diminish and impair property value within the neighborhood;

Staff Comment: Staff does not feel the proposed use would be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor does Staff have evidence to suggest that the use – if approved – would diminish or impair the value of neighboring properties.

Ms. Turrell expressed concerns about the impact of truck traffic on Brown School Road, particularly when there are traffic issues on the highway that cause trucks to use Brown School Road to bypass the issue. She asked if a traffic study had been performed related to that issue.

Mr. Hammes stated that the review criteria are narrowly tailored. In this case, Criteria 2 refers specifically to the immediate vicinity of the site, which would refer to adjacent properties. Mr. Hammes stated further that he had not been aware of the traffic issue on Brown School, but that staff could investigate the issue if needed.

Following that discussion, The Planning Commission agreed with the Staff Comment by a vote of 5-0.

- (3) The establishment of the conditional use will not impede the normal and orderly development and improvement of surrounding property for uses permitted in the district;

Staff Comment: Staff does not feel the conditional use would impede the normal and orderly development and improvement of surrounding property for uses permitted in the district.

The Planning Commission agreed with the Staff Comment by a vote of 5-0.

Review Criteria, Cont'd

- (4) Adequate utilities, access roads, drainage and other necessary facilities have been or are being provided;

Staff Comment: Staff feels adequate utilities, access roads, drainage and other necessary facilities have been, or will be, provided. Additional review of utilities would be conducted during the permitting process.

The Planning Commission agreed with the Staff Comment by a vote of 5-0.

- (5) Adequate measures have been or will be taken to provide ingress and egress so designed to minimize traffic congestion in the public streets; and

Staff Comment: Staff feels that the proposed ingress and egress plan will adequately minimize congestion once the site plan has been amended to move the gate to the east.

Mr. Hammes noted for the record that the referenced gate had indeed been moved to the east in the revised site plan.

The Planning Commission agreed with the Staff Comment by a vote of 5-0.

- (6) The conditional use will be located in a district where such use is permitted and that all requirements set forth in this code and applicable to such conditional use will be met.

Staff Comment: Staff feels the conditional use will be located in a district where such use is conditionally permitted, and all requirements set forth in the code applicable to this use have been or will be met.

The Planning Commission agreed with the Staff Comment by a vote of 5-0.

Decision

Mr. Atkins read the staff recommendation into the record, noting that staff recommends approval. Mr. Atkins asked if there were any comments or questions before a motion on Case PC 23-02.

Mr. Arnold expressed support for a condition obligating the applicant to comply with state and federal regulations. Mr. Arnold then asked if a condition prohibiting overnight on-site stays would be appropriate.

Mr. Atkins agreed with Mr. Arnold's concern, but questioned whether the City had the legal authority to add such a condition.

Mr. Hammes stated that a condition could be added stating that the use as approved would not include facilities for overnight accommodation and the like. Mr. Hammes noted that it may not be an issue now, with the proposed local drivers employed by the applicant, but a future owner of the site may not have the same policy. Mr. Hammes stated that the approval granted now sets the tone for the site in perpetuity.

Ms. Cox asked about the impact of potential future changes to the site. Mr. Hammes replied that this specific application applies to this specific proposed use. If the owner wanted to add elements to that use in the future – such as overnight facilities – then they would need to amend the conditional use.

Mr. Keeley disagreed with a blanket prohibition on overnight stays, noting that such a prohibition would prevent a driver from staying in place during inclement weather.

Ms. Turrell questioned where the line should be drawn. Mr. Keeley stated that his point was that the property was gated and secured, and that the drivers using the site would be authorized and credentialed to use the property. Mr. Keeley stated that he saw a difference between this proposed use – which would be a private company – and a publicly available site such as the truck stop referenced by Mr. Arnold.

Mr. Hammes noted that the Commission's sentiments were now in the record, and that the Law Director and Council may identify a condition that would satisfy the Commission's concerns.

Mr. Atkins stated that he did not support an additional condition that would overly burden city staff.

Ms. Cox made a motion to recommend approval of case PC 23-02, with the seven conditions articulated by staff. Mr. Keeley, Ms. Cox, Ms. Turrell, and Mr. Atkins voted in favor. Mr. Arnold voted against. No members abstained from the vote. The motion carried by a vote of 4-1.

Mr. Atkins congratulated the applicants and asked about their timetable. Mr. Chakhalidze stated that they hoped to be in operation by August.

Mr. Hammes stated that the Commission's recommendation would be forward to the March 6th Study Session, and that he would coordinate with the applicant on that presentation.

PC 23-03 – Text Amendment – Solar Panels et al

Mr. Hammes stated that staff had prepared a set of proposed amendments to the zoning code regarding solar panels. With additional input from Council, staff is continuing to refine the proposed amendments, which necessitates a delay in the case. Mr. Hammes requested that Case PC 23-03 be tabled until March 28th, 2023, due to the interplay between the Council and Commission calendars.

Mr. Atkins asked for a motion on staff's recommendation. Ms. Cox made the motion, which was seconded by Mr. Keeley. The vote passed 5-0, and the item was tabled until March 28th.

Communications

Mr. Hammes noted that there had been no applications for the March 14th meeting, apart from the Solar Panel proposal that the commission just tabled. As such, the next meeting would be on March 28th.

Mr. Atkins asked for items from the Commission, and none were presented.

Mr. Hammes discussed the election of the Chair and Vice Chair of the Commission. Mr. Hammes noted that the Commission had not yet held a reorganization in 2023, and that the Commission had some options regarding how to proceed.

Ms. Cox noted that Ms. Turrell was the current Vice Chair.

Ms. Holloway stated that the terms of members typically end at mid-year on June 30th. Mr. Atkins confirmed this, stating that he had renewed in Summer 2022.

Mr. Atkins suggested waiting until mid-year for the reorganizational meeting. Mr. Arnold asked how the Commission would make that decision.

Mr. Hammes stated that the Commission could vote to set the 2023 reorganizational meeting at mid-year, with the current slate of officers continuing until that date.

Ms. Turrell made the motion. Ms. Cox seconded the motion.

Mr. Hammes clarified that the reorganization meeting would be set for the first meeting after June 30, 2023, so that new members (or reappointed members) would be in place. If there is no meeting in July for lack of an agenda, the reorganization would simply move to the next meeting thereafter.

Mr. Atkins held the vote. The motion passed by a vote of 5-0.

Adjournment

Hearing no further questions, Mr. Atkins asked for a motion to Adjourn. Ms. Turrell made the motion. Mr. Arnold seconded. The motion carried 5-0.

Mr. Atkins adjourned the meeting at 7:02 p.m.

Chairman

DRAFT MEMORANDUM

TO: Planning Commission
FROM: Michael J. Hammes, AICP, City Planner
DATE: March 22, 2023
SUBJECT: **PC 23-03** – Code Amendment – Accessory Uses (Solar Panels)

General Information

Applicant: Staff

Proposed Amendment(s): Amend existing standards for Roof Mounted Solar Panels
Amend existing standards for Ground Mounted Solar Panels
Amend Accessory Use Standards for Solar Panels
Amend Definitions consistent with the above

Chapters to be Amended: Chapter 1224.01(b)(9) – General Provisions
Chapter 1224.01(e)(24) – Solar Energy Systems
Table 1224-1: Limits of Certain Accessory Structures
Chapter 1244.02 - Definitions

Previous Cases: January 2019 Major Zoning Code Update
PC 10-07 – Supplemental Regulations (Solar Panel Systems)

Exhibits: 1 - Staff Memorandum

Background

Vandalia City Council has authorized Staff to initiate an application for a text amendment to the City’s Planning & Zoning Code¹. The proposed zoning code amendment is for the purpose of updating the City’s Code regarding Solar Energy Systems. Solar panels are permitted accessory structures in all districts, subject to certain standards.

In 2022, the Board of Zoning Appeals reviewed four (4) variance applications regarding the placement of residential solar panels². All four requests failed at the Council level, primarily due to a lack of hardship on the part of the applicant. In November 2022, City Council requested that Staff review the City’s standards related to solar energy systems.

Accordingly, Staff has reviewed our Solar Panel ordinances, and prepared the following proposed amendments to the code.

¹ Study Session, March 6, 2023

² The relevant cases are BZA 21-05, BZA 21-09, BZA 22-05, BZA 22-10 (Tabled).

Comparative Analysis

In reviewing Vandalia's ordinances, Staff reviewed the zoning codes of the following jurisdictions:³

- City of Brookville
- City of Canton
- City of Centerville
- City of Defiance
- City of Fairborn
- City of Kettering
- City of Mason
- City of Tipp City
- City of Toledo
- City of Trotwood
- City of Troy
- City of Upper Arlington
- Village of Wellington
- City of Youngstown

Comprehensive Plan

The 2020 Comprehensive Plan does not make specific recommendations on the topic of solar panels. The plan does emphasize a commitment to helping residents and property owners improve their properties, however.⁴

Detailed Recommendations

Solar Panel regulations can, for the most part, be divided into three distinct categories.

- Roof-mounted panels, either on the sloped roofs of residential structures or the flat roofs of commercial and industrial structures
- Ground-mounted panels
- Standalone Systems, also known as Solar Farms, where the Solar Panels are the primary use

In reviewing the code, Staff compared Vandalia regulations to the regulations found in the cities listed above. We also spoke with officials in many of those cities to get first-hand accounts of how those regulations worked in real world conditions.

The resulting recommendations are below.

³An additional eleven Ohio cities or villages were found to have no regulations on solar panels as of March 2023.

⁴ Section 5.2 – *“It is important to work with residents and property owners to maintain and improve existing housing.”* 2020 Comprehensive Plan Pg. 124

Roof-Mounted Solar Energy Systems

Vandalia allows rooftop solar panels in all districts. On a sloped roof, as would be typical in a Residential neighborhood, the panel must be flush with the roof or no more than 8” from the roof itself. For a flat roof, the panels must be no more than 5 feet from the roof, and must be screened (as with rooftop equipment, for example). Most importantly, rooftop solar panels cannot be placed in such a way as to face the street.

The height requirements are not unreasonable, and a review of other jurisdictions shows that our height requirements are in line with those codes. The rules for flat roof installations – intended primarily for Commercial/Industrial districts – are also in line with other jurisdictions. Vandalia did have coverage requirements (where panels could only take up so much of the roof)⁵, but the clear majority of codes surveyed lack these requirements – and we deleted our own in the 2019 Zoning Code update.

Council has expressed concern about the aesthetics of rooftop solar panels.⁶ The current code does not address the specific design of solar panels, only their placement. Other jurisdictions have adopted language that requires panels to be mounted with rustproof fixtures, concealed wiring, and other design elements intended to limit the visual footprint for solar panels. The color of the panels themselves can also be adjusted by including language requiring a single color or pattern. This would prevent a hodge-podge of different style panels on a single home.

Recommendation – Roof-Mounted Solar Energy Systems

The code currently requires only that wiring be concealed. Staff recommends additional language to require rustproof mountings and uniform panel design.

Solar Shingles, or panels that are integrated into the structure of the roof itself, are already permitted in the code – but not by name. Staff recommends clarifying that language to explicitly refer to building-integrated systems.

As proposed, the new section would read as follows, with removals indicated with ~~strikethrough~~ and additions in **bold italic**. Section iv. would be replaced in its entirety with the language indicated below.

Section 1224.01(e)(24) E. Roof-Mounted Solar Energy Systems

- i. ~~Roof mounted solar panels that are integrated with the surface layer of the roof structure and which resemble common roofing materials~~ ***Building-Integrated Solar Energy Systems, also known as Solar Shingles***, may be permitted on any roof surface of a principal building or accessory building.

⁵ Former 1276.34 – Solar Panel Systems. Ordinance 10-09, Passed October 4, 2010.

⁶ Study Session, March 6, 2023.

Recommendation – Roof-Mounted Solar Energy Systems (cont'd)

Section 1224.01(e)(24) E. Roof-Mounted Solar Energy Systems

iv. Solar Energy Systems shall be installed with uniform patterns/colors for the panels themselves, and with all hardware and wiring being concealed below the roofline, and with all mountings to be rustproof and in colors matching the roof.

Note that the code allows solar panels on accessory structures. In theory, a homeowner could construct solar panels on the roof of their garage, a shed, or a carport. This would be acceptable under the current code, and we recommend no changes to that language.⁷

Ground-Mounted Solar Energy Systems

Our Code currently allows ground mounted solar panels in the rear yard of a property with a 10' setback from all lot lines. The height limit is 6 feet in Agricultural/Residential Districts (or if the property is adjacent to Residential), and 25' or the height of the building elsewhere. Ground-mounted panels must be screened. The code also limits the number of these structures to a grand total of 1.

Our height limitations are consistent with other jurisdictions. Similarly, our restriction on the placement (rear yard only) doesn't really hurt anything, since the panels themselves can still be oriented south regardless of the orientation of the structure they serve. Screening requirements seem to be in line with other jurisdictions as well.

The one structure limitation could be seen as overly restrictive. Further, it opens the door to numerous questions when it comes to enforcement. Does that mean one panel itself, or one unit with multiple panels? How big can such a unit be before it counts as more than one structure? Would a rack with half a dozen panels mounted in a row be considered one structure? The current code is unclear.

We also don't make a distinction between residential solar and potential commercial/industrial installations. For business uses, a side yard installation might make sense – and size requirements that work for a residence may not be practical with a 100,000 square foot industrial facility. Meanwhile, Council has expressed concerns that ground-mounted panels may not be able to be adequately screened in residential settings. Almost every code we reviewed made distinctions between the two use groups.

⁷ Staff notes, however, that panels mounted on a shed might not generate enough power to justify the cost, unless the homeowner has an unusually large shed. In most circumstances, but not all, solar panels on the home itself will offer the most cost-efficient option.

Recommendation - Ground-Mounted Solar Energy Systems

Staff has identified several changes that would bring our code closer to regulations found in other jurisdictions. We're also proposing that limitations on ground-mounted solar panels be adjusted to allow for more flexibility in commercial and industrial settings. Several businesses have inquired over the past two years about the possibility of installing solar panels, and the current regulations may make it difficult to construct a solar energy system that would produce a reasonable amount of energy.

Given the concerns about the ability to screen these panels from view, staff recommends restricting ground-mounted panels to Commercial/Industrial districts only.⁸

We recommend that the size limitations be made explicit, so that they apply regardless of the number of individual panels or structures. For commercial or industrial applications, the increased area (75% of the primary structure's footprint) would be a game changer. The higher maximum area for Commercial and Industrial districts is intended as an acknowledgement that a number of growing companies – some of whom already do business in Vandalia – are looking at options for renewable energy. Creating a standard that affords these companies the flexibility to build out their solar infrastructure is a powerful economic development tool.

The impervious surface requirement, which limited solar panels to 50% of the impervious area allowed for the site, seems to be irrelevant when combined with the 1 structure limit. Staff proposes the removal of that restriction and the clarification that solar panels are considered impervious for the purposes of stormwater calculations and so forth.

As proposed, the new section would read as follows, with removals indicated with ~~strikethrough~~ and additions in **bold italic**. Subsection v would be moved to vi, and a new subsection v is inserted as shown.

Section 1224.01(e)(24) D. Ground-Mounted Solar Energy Systems

- i. Ground-mounted solar energy systems shall ~~only~~ be permitted in the rear *or side yard in Commercial and Industrial districts only. Ground-mounted solar energy systems* shall be set back a minimum of 10 feet from all lot lines *in all districts*.
- ii. ~~In agricultural and residential zoning districts, no ground-mounted system shall exceed six feet in height as measured from the average grade at the base of the system. In all other districts, no~~ *No* ground-mounted system shall exceed 25 feet in height, or the maximum height of the building, whichever is less.
- iii. If a system is located in a rear *or side* yard that is adjacent to a lot in a residential district, the maximum height shall be six feet.

⁸ Staff is aware of only one ground-mounted solar energy system installed on a residential property in the past 8 years.

Recommendation - Ground-Mounted Solar Energy Systems (cont'd)

Section 1224.01(e)(24) D. Ground-Mounted Solar Energy Systems

- v. ***Ground-mounted solar energy systems shall be limited to a total area no larger than 75% of the footprint of the primary structure served in Commercial and Industrial districts.***
- vi. The combined impervious area, including solar panel systems, ***primary uses, and*** accessory uses and structures, may not exceed ~~fifty percent lot coverage~~ or the maximum allowable impervious surface coverage for the district in which they are located, ~~whichever is more restrictive.~~

Ground Mounted Solar Energy Systems - Structure Limit

As noted above, the current code limits ground-mounted solar energy systems to 1 single structure. With the addition of an area limitation, this structure limit can be deleted.

Recommendation – Structure Limit

Staff recommends the deletion of ground mounted solar energy systems from Table 1224-1, found under Chapter 1224.01(b)(9)F.

TABLE 1224-1: LIMITS OF CERTAIN ACCESSORY STRUCTURES	
Accessory Structure	Maximum Number of Structures
Detached Garages and Carports	1
Detached Storage/Utility Sheds, Barns, Gazebos, and Other Similar Structures	1 if a detached garage and carport is located or proposed for the same lot, otherwise there shall be a maximum of 2
Ground-Mounted Solar Energy Systems	4
Swimming Pools, Hot Tubs, and Spas	1 each
Tennis and Other Recreational Courts	1
Other Accessory Structure similar in nature to the above-mentioned structures, as determined by the Administrative Officer	1

Solar Farms (Standalone Solar Energy Systems)

Solar Farms refer to a standalone large-scale industrial solar operation, likely situated across hundreds of acres. The previous zoning code prohibited Solar Farms as a use, and Council discussed the merits of adding Solar Farms to the new zoning code in August 2018, though ultimately no action was taken.⁹

⁹ Special Council Meeting, August 27, 2018, Presentation by Compass Point Planning.

Solar Farms (Standalone Solar Energy Systems) (cont'd)

In Ohio, solar farms are a growing industry, with a total operational capacity of 450 Megawatts. An additional 5,700 MW are approved and/or under construction, with projects contributing a further 3,000 MW under review.¹⁰ Most approved facilities are between 1,000 and 3,500 acres, though some smaller facilities exist.¹¹

To receive state approval, solar farms must be properly screened and set back from roadways and other access points. They must be properly connected to the grid (which would require utility involvement). Further, all solar farms must receive approval from the Ohio Office of Aviation. For a solar farm near an airport, that would include a “glint and glare” report prepared by the applicant, showing that the proposed site is no risk to aviation.

Several significant amendments to the code would be required to authorize Solar Farms as a standalone use in Vandalia. A zoning district would need to be selected for this use – Industrial Innovation seems like the obvious choice, but others may be a better fit. Standards would need to be developed, either mimicking state requirements or adding restrictions of our own. Finally, would Solar Farms be a conditional use, or a permitted by-right use in a given district? Either option has positive and negative aspects.

Recommendations – Solar Farms

Despite the fact that Solar Farms are seeing tremendous growth in the State of Ohio, the industry remains in its infancy. Significant solar power generation has only really taken off in the past five years, owing to increased cost efficiency in equipment and technology.

Further, we would not be amending existing standards, as we propose with Roof and Ground-Mounted systems. Allowing Solar Farms would require crafting an entirely new standard, likely using state standards as a base, and accommodating our unique geography and location.

Given the above, Staff recommends **no fundamental changes** to the code related to Solar Farms. Staff will continue to monitor the state of large-scale solar power in Ohio and may make recommendations in the future as circumstances merit.

The code’s current prohibition on Solar Farms also restricts solar panels to “personal use only”, which does not work when we allow panels for commercial and industrial applications. Staff recommends clarifying this provision, moving the definition to the definitions section and amending the language here.

¹⁰ Ohio Power Siting Board, as of January 19, 2023. Includes only facilities generating 50MW or greater.

¹¹ Ohio Power Siting Board officials note that the design of the facility is critical to determining its capacity. Spending more up front on equipment, technology, and design can increase the efficiency of a project over the long term. This can result in facilities that have comparable outputs despite size differences of hundreds of acres.

Recommendations – Solar Farms (cont’d)

As proposed, the new section would read as follows, with removals indicated with ~~strikethrough~~ and additions in **bold italic**.

Section 1224.01(e)(24)

C. Solar Energy Systems are permitted as accessory uses only. This section shall apply to solar panel systems on private property for personal use only and shall not be construed to permit a solar energy farm as a ***principal use in any district.*** ~~business. A “solar energy farm” is defined as an energy generation facility or area of land principally used to convert solar energy to electricity.~~

Other Items – Definitions

As noted above, the code does not define Solar Shingles, despite allowing them to be installed as a form of roof-mounted solar panel. Adding a definition would provide much-needed clarity. The definition for Solar Farms would also be a better fit under definitions.

The terms “Solar Energy Systems” and “Solar Panels” are used interchangeably throughout both our code and the codes of other jurisdictions. A third term, “Photovoltaic Cells”, is also found in the Fire Code.

Recommendation – Definitions

For clarity’s sake, Staff recommends amending the relevant definitions under Chapter 1244.02 – Definitions. As proposed, the new sections would read as follows, with removals indicated with ~~strikethrough~~ and additions in **bold italic**.

Chapter 1244.02 – Definitions

Solar Energy Systems

A panel or other solar energy device, the primary purpose of which is to provide for the collection, inversion, storage and distribution of solar energy for electricity generation, space heating, space cooling or water heating. ***For the purposes of this code, the terms “Solar Panel” and “Photovoltaic Cell” shall have the same meaning as Solar Energy Systems, and the terms shall be interchangeable.***

Solar Farms (new)

A standalone energy generation facility or area of land principally composed of arrays of Solar Energy Systems used to convert solar energy to electricity, and for which the Solar Energy System itself is the principal use of the property on which it is located.

Recommendation – Definitions (cont'd)

Chapter 1244.02 – Definitions

Solar Shingles (new)

A type of building-integrated solar panel having the dimensions and overall design of a conventional roof shingle, but with the added capacity to convert solar energy to electricity.

Review Criteria

Recommendations and decisions on planning and zoning code amendment applications shall be based on consideration of the following review criteria¹²:

1. The proposed text amendment is consistent with the comprehensive plan, other adopted City plans, and the stated purposes of this code;

Analysis: Staff feels that the proposed amendments are narrowly tailored to allow solar panels in a wider range of circumstances, improving both value and sustainability. The proposed amendments for roof-mounted solar panels would directly serve the requirements of Section 5.2 of the 2020 Comprehensive Plan, which discusses improving residential properties.

2. The proposed amendment is necessary or desirable because of changing conditions, new planning concepts, or other social or economic conditions; and

Analysis: Staff feels that the proposed amendments are necessary due to changing technologies and designs related to solar energy systems. Staff notes further that the design of modern solar panels makes them much more cost-efficient when compared to older panels, suggesting an economic argument as well.

3. The proposed amendment will promote the public health, safety, and general welfare.

Analysis: Staff feels that the proposed amendments promote the public health, safety, and general welfare. The amendments address relevant safety concerns while allowing home and business owners greater flexibility to take advantage of new technologies – which, in turn, serves the general welfare.

Based on the above, staff recommends that the Commission recommend **Approval** of the proposed text amendments.

¹² Chapter 1214.07(e) – Code Text Amendment Review Criteria