City of Columbus – Bartholomew County
Planning Department

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MEMORANDUM

TO: Columbus Plan Commission Members

FROM: Jeff Bergman

DATE: September 5, 2023

RE: Zoning Ordinance Revisions - Solar Energy Generation

Attached is the most recent draft of the proposed zoning ordinance revisions we have been discussing, as well as a resolution suitable for recommending these revisions to the City Council. The September 13 plan commission meeting has been formally noticed as a public hearing on these proposed revisions. Therefore, the plan commission may take action on them at the conclusion of that hearing.

Please note that the draft revisions document includes select minor revisions of content we have previously discussed, which have been highlighted for ease of reference. The draft revisions also include new content with regard to solar energy generation (beginning on page 17).

The proposed solar energy generation content is based on the plan commission's previous expression of the following preferences:

1. that Columbus largely mirror the standards for commercial solar energy systems (CSES) adopted by Bartholomew County for the purposes of consistency and ease-of-use locally;
2. that Columbus' regulations minimize the possibility that CSES could add an additional barrier to long-term city growth, new housing, and new employment opportunities;
3. that the limited supply of developable land be prioritized for homes and job creation, but with opportunities for these new developments to be served by solar energy; and
4. that Columbus be generally welcoming to solar energy and embrace its role in energy diversification and combating climate change.

The proposed solar energy generation provisions therefore:

1. incorporate the adopted standards of Bartholomew County for CSES;
2. provide a 1½ mile minimum setback from Columbus city limits that, like the municipal boundary setbacks in the County ordinance, could be waived on a case-by-case basis by the Columbus City Council for specific project locations or based on changing community priorities;
3. make clear the minimal regulations applicable to solar panels installed on buildings and the ground for use in supplying electricity to that property;
4. enable future neighborhoods and developments that may include a shared solar facility providing electricity to those homes or businesses;
5. include both a CSES and neighborhood-scale solar energy system as a part of the definition of a public airport, enabling a solar facility of either type on airport-associated property.

Also attached are a selection of articles that discuss shared, neighborhood-scale solar installations.

Please feel free to contact me if you have questions or would value a discussion prior to the plan commission meeting.

Proposed Amendments
City of Columbus – Bartholomew County Zoning Ordinance
For the Jurisdiction of the City of Columbus

Prepared By: City of Columbus – Bartholomew County Planning Department
Draft Date: September 5, 2023

Added Text – Red and Underlined
Deleted Text – ~~Strikethrough~~

Mobile & Manufactured Home Standards
(Incorporates 2021 and 2023 Changes to State Law)

Section 3.15(A): Permitted Primary Uses

Permitted Primary Residential Uses

- Mobile ~~home~~ / manufactured home ~~park~~ community

Section 3.15(C): Lot Standards

Minimum Lot Area

- ~~Development~~Community: 5 acres
- Home Site: 4,000 square feet

Minimum Lot Width

- ~~Development~~Community: not applicable
- Home Site: 30 feet

Minimum Lot Frontage

- Community: 50 feet
- Home Site: not applicable

Minimum Front Setback

- Arterial Street or Road: 50 feet
- Collector Street or Road: 35 feet*
- Local Street or Road: 25 feet*

* a 25 foot minimum setback shall be maintained from all internal manufactured home community streets (measured from the edge of pavement)

Minimum Side Setback

- 50 feet from all community perimeter property lines*

* a ~~10~~5 foot minimum setback shall be maintained from each home site boundary and ~~for~~from any common area boundary where such boundaries are interior to the community

Minimum Rear Setback

- 50 feet from all community perimeter property lines*

* a ~~10~~5 foot minimum setback shall be maintained from each home site boundary and ~~for~~from any common area boundary where such boundaries are interior to the community

Minimum Living Area per Dwelling

- ~~720 Square Feet~~ None (per Indiana Code Section 36-7-2-12)

Minimum Ground Floor Living Area

- 100%

Maximum Primary Structures per Lot

- 1*

* Leased lot developments which are not platted and make use of coordinated street and pedestrian systems may have unlimited primary structures on any one lot.

Maximum Height

- Primary Structure: 30 feet
- Accessory Structure: 25 feet

Table 3.1: Zoning Districts Use Matrix

The Use Matrix is amended to replace the use "mobile home / manufactured home park" with "mobile / manufactured home community".

Sections 3.4(C), 3.5(C), 3.6(C), 3.7(C), 3.8(C), 3.9(C), 3.10(C), and 3.11(C): Lot Standards

Minimum Living Area per Dwelling

- 1,000 square feet (see also Section 6.7(A)(2)(a) for Manufactured Homes)

Section 3.13(C): Lot Standards

Minimum Living Area per Dwelling

- Single-family Structure: 1,000 sq. ft.*
- Two-family Structure: 1,000 sq. ft.*
- Multi-family Structure: 500 sq. ft.

* (see also Section 6.7(A)(2)(a) for Manufactured Homes)

Chapter 6.7: Mobile & Manufactured Home Standards

~~Part 1:~~ These General Mobile ~~/~~& Manufactured Home Standards apply to the Agricultural, Single-Family Residential and Multi-Family Residential zoning districts:

~~A. **Schedule of Mobile/Manufactured Home Use:** Mobile and manufactured homes shall be permitted as described by the Permitted Mobile/Manufactured Homes table, consistent with Article 3 of this Ordinance.~~

A. Home Location and **Placement Requirements:** The ~~establishment,~~ location and placement~~, and use~~ of all mobile homes, ~~and~~ manufactured homes, and industrialized residential structures shall meet the installation instructions of the manufacturer~~; all requirements for single family dwellings in the zoning district in which they are located including, but not limited to, setbacks, lot sizes and dimensions, parking requirements; minimum living area (per IC 2636-7-4-1106(b));~~ and ~~the following requirements~~ the additional requirements listed below (consistent with Indiana Code Sections 36-7-4-1106, 36-7-2-12, and 16-41-27-32).

1. Anchoring, Travel Equipment, and Utilities for All Homes: All mobile homes, manufactured homes, and industrialized residential structures shall be anchored to the ground and have utility connections in compliance with the local Building Code. All homes shall have wheels, axles, hitch mechanisms, and all other travel equipment removed.

2. ~~Type I Manufactured Homes: Type I manufactured homes shall:~~ Homes Placed Outside of a Mobile / Manufactured Home Community: Manufactured homes and industrialized residential structures, but not mobile homes, shall be permitted in all zoning districts where a single-family dwelling is allowed by this Ordinance. Mobile homes shall be prohibited in locations outside of mobile / manufactured home communities. Manufactured homes and industrialized residential structures located outside mobile home communities shall be subject to the following requirements:

a. *Living Area:* ~~Have, in a double section or larger multi-section unit, living area no less than the minimum required for the district in which it is to be located;~~ The minimum living area shall be as specified by the applicable zoning district or 950 square feet, whichever is less (per IC 36-7-4-1106(e) and (f)).

b. *Other Development Standards:* With the exception of living area, as indicated above, all other requirements established by this Ordinance for single-family dwellings in the applicable zoning district shall be met including, but not limited to, setbacks, utility requirements, lot sizes and dimensions, and parking requirements.

c. *Foundation:* The home shall be ~~Be~~ placed on a permanent underfloor foundation and an exterior perimeter retaining wall that are consistent with those for, or planned for, other single-family dwellings ~~homes~~ in the area~~, the manufacturer's installation instructions,~~ and all applicable provisions of the local Building Code.

d. *As an Accessory Dwelling Unit:* Manufactured homes and industrialized residential structures shall be permitted as an accessory dwelling, subject to all requirements of Section 6.1(D)(1).

~~c. *Anchoring:* Be anchored to the ground in accordance with the manufactured home's installation requirements and the local Building Code.~~

~~d. *Travel Equipment:* Have wheels, axles, and hitch mechanisms removed.~~

~~e. *Utilities:* Meet utility connection requirements in accordance with the manufactured home's installation requirements and the local Building Code.~~

~~f. *Siding Material:* Have siding material of a type similar to, or otherwise compatible, with that found on other dwellings in, or planned for, the area; and~~

~~g. *Roofing Material:* Have roofing material and pitch of a type similar to, or otherwise compatible, with that found on other dwellings in, or planned for, the area.~~

3. ~~Type II Manufactured Homes & Mobile Homes: Type II manufactured homes and mobile homes shall:~~ Homes Placed Within a Mobile / Manufactured Home Community: Mobile homes, manufactured homes, and industrialized residential structures shall be permitted within mobile / manufactured home communities where such communities are allowed by this Ordinance. These mobile homes, manufactured homes, and industrialized residential structures shall

~~a. *Living Area:* Have more than 720 square feet of living area in a single, double or multi-section unit (including those with pullout or tag-along units);~~

b. ~~*Foundation:*~~ be placed on a permanent underfloor foundation with exterior foundation siding consistent with ~~the manufacturer's installation instructions, and~~ all applicable provisions of the local Building Code.

~~c. *Anchoring:* Be anchored to the ground in accordance with the manufacturer's installation requirements and the local Building Code.~~

~~d. *Travel Equipment:* Have wheels, axles, and hitch mechanisms removed.~~

~~e. *Utilities:* Meet utility connection requirements in accordance with the manufactured home's installation requirements and the local Building Code.~~

B. **Mobile / Manufactured Home Community Requirements:** All mobile / manufactured home communities, including those containing mobile homes, manufactured homes, and/or industrialized residential structures, shall comply with the following requirements:

1. Storage Space: Each home shall be provided with an enclosed, waterproof storage space either as an accessory structure on each home site, behind the home's skirting, or at a central storage facility.

2. Interior Streets: All interior mobile / manufactured home community streets may either be dedicated to the public or be private. All public interior streets shall meet the design and construction requirements for public streets, including intersections, sidewalks, etc. provided by the Subdivision Control Ordinance.

3. Compliance Verification: Prior to the release of an Improvement Location Permit for construction of a new or expanding mobile / manufactured home community, the community operator shall provide a letter or other indication of plan approval from the Indiana State Department of Health.

Table 6.4(3): Permitted Mobile / Manufactured Homes

The Permitted Mobile / Manufactured Homes Table is deleted.

Part 2: These Temporary Mobile / Manufactured Home Type II Use Standards apply to any Agricultural zoning districts:

The temporary use of a type II manufactured home or a mobile home shall be permitted in any Agricultural zoning district under either of the following circumstances:

A. **Temporary Residence During Home Construction:** A type II manufactured home or mobile home may be used as a temporary residence on a lot for which a permit to construct or renovate a single-family dwelling has also been obtained.

1. Permit Required: An improvement location permit for a temporary structure shall be required.
2. Expiration: The temporary residence shall be removed either (a) at the time occupancy is approved for the permanent residence or (b) 2 years from the date the permit for the temporary structure was issued, whichever occurs sooner.
3. Location & Access: The temporary residence shall conform to the setback requirements for the district in which it is located, shall not be located in any front yard, and shall be accessed by the same driveway as the permanent residence.
4. Removal Plan: At the time application is made for the permit for the temporary residence the applicant shall provide a detailed plan for the future removal of the type II manufactured home or mobile home. The removal plan shall include the intended location of disposal or relocation, and an estimated cost.

B. **Temporary Care-Giver / Dependent Relative Residence:** A type II manufactured home or mobile home may be used as a temporary residence for either an individual providing care to a dependent relative or a dependent relative in need of continuous, on-site care.

1. Conditional Use Approval Required: Conditional Use approval for the temporary residence by the Board of Zoning Appeals shall be required.
2. Expiration: The Conditional Use approval shall expire, and the temporary residence shall be removed at the time the dependent relative no longer requires continuous, on-site care.
3. Annual Certification: The property owner shall be required to annually provide the Director with documentation stating (a) the name and medical status of the individual requiring care (as certified by a physician) and (b) the name of the care-giver.
4. Location & Access: The temporary residence shall be located on the same lot as a the permanent residence of the other individual involved in the dependent / care-giver relationship. The temporary residence shall conform to the setback requirements for the district in which it is located, shall not be located in any front yard, and shall be accessed by the same driveway as the permanent residence.
5. Removal Plan: At the time application is made for Conditional Use approval of the temporary residence the applicant shall provide a detailed plan for the future removal of the type II manufactured home or mobile home. The removal plan shall include the intended location of disposal or relocation, and an estimated cost.

Part 3: These Mobile/Manufactured Home Park Standards apply to the Residential: Manufactured Home Park zoning district:

All mobile/manufactured home parks shall comply with the following requirements:

A. **Storage Space:** Each home shall be provided with an enclosed, waterproof storage space either as an accessory structure on each home site, behind the skirting, or at a central storage facility.

B. **Entrances and Interior Roads:** All interior mobile home development streets shall either be dedicated to the public or be private interior drives. All interior streets, whether dedicated to the public or private drives shall meet the design and construction requirements for public streets, including intersections, sidewalks, etc. provided by the Subdivision Control Ordinance. If private streets are used, street easements shall be substituted for the interior street right-of-way.

C. **Compliance Verification:** Prior to the release of an Improvement Location Permit for construction of the park, the following shall be provided to the Planning Director:

1. Access: A letter from the appropriate City or County Engineer of jurisdiction, verifying the approval of the design of access points to public streets.
2. Sanitary Sewer Service: A letter from the appropriate sewer utility, verifying that adequate sanitary sewer service shall be available to the homes.
3. Board of Health: A letter from the Indiana State Board of Health, verifying that all applicable requirements have been met.

Chapter 11.3 Nonconforming Structures

A. **Legal Nonconforming Structures:** Any structure (such as a including primary, accessory, agricultural, and incidental structures, accessory structure, fence, etc.) lawfully established prior to the effective date of this Ordinance, or its subsequent amendments, that no longer meets the development requirements (setbacks, height, etc.) shall be deemed a legal nonconforming structure.

B. **Continuation of Legal Nonconforming Structures:** The continuation and modification of legal nonconforming structures shall be consistent with meet the following requirements.

1. Increases in Nonconformity: No legal nonconforming structure shall be enlarged or altered in a manner that increases its non-conformity without the approval of a variance by the Board of Zoning Appeals. Any structure may be altered to decrease its nonconformity.
2. Intentional Alterations: The extent of the intentional alteration of any legal nonconforming structure that is intentionally altered shall either (a) conform to the regulations of the district in which it is located or (b) decrease the nonconformity. Once intentionally altered, the legal nonconforming features may not be resumed.
3. Moved or Replaced Structures: Any legal nonconforming structure that is moved for any distance or replaced shall conform to the regulations of the district in which it is located, and the discontinued legal nonconforming features may not be resumed.
4. Accidental Alterations: Legal nonconforming structures that are required to be altered or removed due to government action or damage from fire, flood, other natural disaster, or criminal act may be restored to their legal nonconforming condition. Such structures, if rebuilt or restored, shall be identical or of reduced nonconformity in volume, height, setback, scale, and all other aspects to that which was altered or removed.
5. Abandonment: Uses and structures in combination which are abandoned shall comply with the requirements of Section 11.5(B)(8).
6. Change of Use: The change of use of any legal nonconforming structure shall not cause the loss of legal nonconforming status for the structure itself.
7. Mobile and Manufactured Home and Industrialized Residential Structure Exceptions: Legal Nonconforming Mobile Home Parks: The periodic replacement of individual mobile homes located in legal nonconforming mobile home parks shall be permitted. However, the placement of the new mobile home shall not increase any nonconforming setback or other site feature. As provided by Indiana Code Section 36-7-4-1019, any legal nonconforming mobile home, manufactured home, or industrialized residential structure that is damaged, destroyed, or removed for any reason or due to any circumstance shall be permitted to be reconstructed, repaired, renovated, and/or replaced provided that (1) it will continue to be used for its previous residential purpose and (2) the foundation of the reconstructed, repaired, renovated, or replaced structure will not exceed the square footage that existed previously. This includes the permitted periodic replacement of the individual mobile homes, manufactured homes, and/or industrialized residential structures located in legal nonconforming mobile / manufactured home communities. Any such reconstructed, repaired, renovated, and/or replaced residential legal nonconforming structure shall be subject to the applicable Flood Hazard Area Standards provided by Chapter 4.7 of this Ordinance and in no circumstances shall be considered exempt from those requirements.

Chapter 11.5 Nonconforming Uses

A. **Legal Nonconforming Uses:** Any lawful use of structures, land, or structures and land in combination established prior to the effective date of this Ordinance or its subsequent amendments that is no longer a permitted use in the district where it is located shall be deemed a Legal Nonconforming Use. The following shall apply to all legal nonconforming uses:

1. Change of Use (to Another Nonconforming Use): If no structural alterations are made, it is possible to change any nonconforming use to another nonconforming use.
   a. *Similar Uses:* Nonconforming uses may be changed to another similar nonconforming use. For the purpose of this Section similar uses shall be considered those within the same land use categories (such as office uses, retail uses, etc.) as provided by Article 3 of this Ordinance.
   b. *Dissimilar Uses:* Nonconforming uses may only be changed to other dissimilar nonconforming uses with the approval of the Board of Zoning Appeals (as a use variance). For the purpose of this Section, dissimilar uses shall be considered those that are not within the same land use categories (such as office uses, retail uses, etc.) as provided by Article 3 of this Ordinance. Following the change of use, the previous nonconforming use may not be resumed.
2. Change of Use (to a Permitted Use): When a legal nonconforming use is replaced by a permitted use, or a different non-permitted use allowed by conditional use or a use variance, it shall thereafter conform to the regulations of the district in which it is located or the applicable conditional use / use variance approval. The legal nonconforming use may not be resumed.

B. **Continuation of Legal Nonconforming Uses:** In addition to the provisions of Section 11.5(A) above, the continuation and modification of legal non-conforming uses shall meet the following requirements: ~~a legal nonconforming use may continue provided that it remains otherwise lawful, subject to the following:~~

1. Modification of Structures: No existing structure devoted to a legal nonconforming use shall be enlarged, expanded, increased, extended, constructed, reconstructed, or moved except as to change the use of the structure to a use permitted in the district in which it is located.
2. New Structures: No new structure shall be constructed in connection with an existing legal nonconforming use of land.
3. Expansion Within Structures: Any legal nonconforming use may be extended throughout any parts of an existing structure that were plainly arranged or designed for such use at the effective date of this Ordinance or its subsequent, applicable amendments.
4. Expansion on the Property: No legal nonconforming use of land shall be enlarged, increased, extended to occupy a greater area of land, or moved in whole or in part to any other portion of a lot than was occupied at the effective date of this Ordinance or its subsequent, applicable amendments.

~~5. Change of Use (to Another Nonconforming Use): If no structural alterations are made, it is possible to change any nonconforming use to another nonconforming use.~~
   ~~a. Similar Uses: Nonconforming uses may be changed to an-other similar nonconforming use. For the purpose of this Section similar uses shall be considered those within the same land use categories (such as office uses, retail uses, etc.) as provided by Article 3 of this Ordinance.~~
   ~~b. Dissimilar Uses: Nonconforming uses may only be changed to other dissimilar nonconforming uses with the approval of the Board of Zoning Appeals (as a use variance). For the purpose of this Section dissimilar uses shall be considered those that are not within the same land use categories (such as office uses, retail uses, etc.) as provided by Article 3 of this Ordinance. Following the change of use, the previous nonconforming use may not be resumed.~~

~~6. Change of Use (to a Permitted Use): When a legal nonconforming use is replaced by a permitted use, or a different non-permit-ted use allowed by conditional use or a use variance, it shall there-after conform to the regulations of the district in which it is located or the applicable conditional use / use variance approval. The legal nonconforming use may not be resumed.~~

~~7. Change of Use (Agricultural Uses): An agricultural use of land may be changed to another agricultural use without losing its non-conforming status (consistent with IC 36-7-4-616).~~

5. Abandonment: If a legal nonconforming use is intentionally abandoned for 1 year or longer, any subsequent use of such land, structure, or land and structure in combination shall conform to the

provisions of this Ordinance. A legal nonconforming use shall be considered intentionally abandoned if the Planning Director determines that one or more of the following conditions exists:

a. utilities, such as water, gas, and electricity, to the property have been disconnected.
b. the property, buildings, and/or grounds have fallen into obvious disrepair.
c. equipment, fixtures, or facilities that are necessary for the operation of the use have been removed.
d. damaged structures have not been secured from the weather and trespassing or reinforced to prevent further damage.
e. other alterations to the property have occurred that constitute a clear intention on the part of the property owner to abandon the use.

6. Nonconforming Structures and Land in Combination: Where legal nonconforming use status applies to a structure and land in combination, an intentional removal or alteration of the structure, or its use, that establishes conformity shall also eliminate the legal nonconforming status of the land.

C. **Exemptions:** The following legal nonconforming uses shall be exempt from the provisions of this Chapter and may be restored or expanded under the terms and conditions specified for each below.

1. Involuntarily Discontinued Uses*:* Uses that are required to be discontinued due to government action that impedes access to the premises or damage from fire, flood, other natural disaster, or criminal act may be restored. In no instance shall acts of arson by the property owner, government enforcement of unsafe building codes, or other similar circumstances be considered as qualification for this exemption. If replaced by a different use, the previous nonconforming use may not be resumed.
   ~~i. Non-residential~~ These uses, if restored, shall be either identical or of reduced nonconformity in scale, volume, lot coverage, and all other aspects to that which was discontinued.
   ~~ii. Residential uses, for which the structure has been damaged or destroyed shall be permitted the reconstruction, repair, or renovation of that structure and the resumption of the use provided that (1) the structure will continue to be used for residential purposes and (2) the foundation area of the reconstructed, repaired, or renovated structure does not exceed the square footage of the foundation area of the damaged or destroyed structure (per Indiana Code Section 36-7-4-1019). This provision shall not apply to any residential use located in a floodplain.~~

2. Residential Uses: Residential uses that are legal nonconforming due to their presence in any industrial or commercial zoning district shall be permitted to expand on the property and through the modification, addition, or expansion of structures provided any change complies with the development standards (building setbacks, etc.) applicable in that zoning district, or any necessary variances are obtained. Further, the residential legal non-conforming use of a property shall not be affected by the destruction, removal, or other alteration of a mobile home, manufactured home, or industrialized residential structure on that property consistent with Section 11.3(B)(6) of this Ordinance and Indiana Code Section 36-7-4-1019.

3. Farm Uses: As specified by Indiana Code Section 36-7-4-616, farm uses that are legal nonconforming shall be permitted to expand on the property and through the modification, addition, or expansion of structures provided any change complies with the development standards (building setbacks, etc.) applicable in that zoning district, or any necessary variances are obtained. In no instance shall any land previously used as a farm and later set aside or withheld from production for conservation or other purposes be considered abandoned or otherwise denied legal nonconforming status. Further, in no instance shall a legal nonconforming farm be denied changes to its operation or type of production so long as the result continues to meet the definition of a farm provided by this Ordinance.

Section 14.2 - Definitions

Dwelling, Industrialized Residential Structure: A single-family detached dwelling that is the product of an industrialized building system and therefore in whole or in substantial part is fabricated in an off-site manufacturing facility for installation or assembly at a building site, excluding those that are capable of inspection at the building site consistent with Indiana Code Sections 16-41-27-2.1 and 22-12-1-14. This term specifically does not include mobile homes and manufactured homes.

Dwelling, Manufactured Home: A single-family detached dwelling ~~unit~~ that is factory ~~built~~ assembled to the ~~National~~ standards of the federal Manufactured Housing Construction and Safety Standards ~~Act~~ Law of 1974 (42 U.S.C. 5401 et seq.) and specifically meets the definition provided by 42 U.S.C. 5402 ~~in a transportable section or sections. Manufactured homes are divided into category type I and II, as defined by this Ordinance.~~

~~**Dwelling, Manufactured Home Type I:** A dwelling unit built in a factory bearing a seal of compliance with Federal Manufactured Housing Construction and Safety Standards (42 U.S.C.A. 5401 et seq.) which is installed and anchored on a permanent foundation with perimeter wall, according to the Indiana One and Two-Family Dwelling Code, as amended; and its pitched roof and siding are of materials customarily used for site constructed dwellings.~~

~~**Dwelling, Manufactured Home Type II:** A dwelling unit built in a factory bearing a seal of compliance with Federal Manufactured Housing Construction and Safety Standards which has at least three-hundred twenty (320) square feet of occupied space; is installed and anchored on a permanent foundation with perimeter wall, according to the Indiana One and Two Family Dwelling Code, as amended; and its pitched roof and siding are not of materials customarily used for site constructed dwellings.~~

Dwelling, Mobile Home: ~~A transportable dwelling unit that is a minimum of 8 feet in width and is built on a permanent foundation when connected to the required utilities, and includes the plumbing, heating, air conditioning, and electrical system contained therein, and which was manufactured either: Prior to June 15, 1976 and bears a seal attached under Indiana Public Law 135, 1971, certifying that it was built in compliance with the standards established by the Indiana Administrative Building Council, or Subsequent to or on June 15, 1976 and bears a seal, certifying that it was built in compliance with the Federal Mobile Home Construction and Safety Standards~~. A single-family detached dwelling, including the equipment sold as a part of that dwelling, that is factory assembled, is transportable, is intended for year-round occupancy, is designed for transportation on its own chassis, and was manufactured before the effective date of the federal Manufactured Housing Construction and Safety Standards Law of 1974 (42 U.S.C. 5401 et seq.).

Industrialized Residential Structure: see *Dwelling, Industrialized Residential Structure*

Manufactured Home: see *Dwelling, Manufactured Home*

~~**Manufactured Home Type I:** see *Dwelling, Manufactured Home Type I*~~

~~**Manufactured Home Type II:** see *Dwelling, Manufactured Home Type II*~~

Mobile Home: see *Dwelling, Mobile Home*

Mobile / Manufactured Home ~~Park~~ Community: ~~A parcel of land containing 2 or more dwelling sites, with required improvements and utilities, that are leased for long term placement of Mobile Home Dwellings and/or Manufactured Home Dwellings. A Manufactured Home Park does not involve sales of Mobile Home Dwellings or Manufactured Home Dwellings or storage areas in which unoccupied units are parked for inspection or sale.~~ One or more adjacent parcels of land operated together that contain multiple individual lots or areas that are leased or otherwise contracted as sites for mobile homes, manufactured homes, or industrialized residential structures serving as principal residences. The term includes any amenity spaces, such as a laundry, park, or community building designed and intended for the use of community residents.

Mobile / Manufactured Home Sales: The sale and incidental storage of ~~single-family detached housing that includes~~ mobile homes, ~~and~~ manufactured homes, and/or industrialized residential structures ~~type I and II~~ as the primary use of a property. This term does not include the sale, by the owner or operator of a mobile / manufactured home community, of mobile homes, manufactured homes, or industrialized residential structures located within that community (consistent with Indiana Code Section 16-41-27-32(d)).

Mixed Density Neighborhood (MX-OL) Overlay Zoning District
(Recommended by Envision Columbus)

Chapter 4.6, establishing the Mixed Density Neighborhood Zoning District (MX-OL) is deleted in its entirety, including necessary changes to the Official Zoning Map.

~~**4.6 Mixed Density Neighborhood (MX-OL)**~~

~~***Intent***~~
~~*This Chapter is intended to maintain the investment potential of specific neighborhoods in the City of Columbus in a manner consistent with regulations established by the previous zoning ordinance. The Zoning Ordinance adopted on August 30, 1971 included these neighborhoods in zoning districts that permitted single, two, and multi-family residential uses. These are urban neighborhoods with a long history of mixed-density residential uses. These neighborhoods contain primarily single-family homes, but have experienced conversion of many such homes to multi-family apartment houses since the 1940s. These neighborhoods are provided with a full range of urban infrastructure and are presumed to be capable of supporting this mixture of density. The MX-OL district is intended to provide property investors with the continued ability to create two and multi-family apartment homes. This district is further intended to facilitate future discussion of the issues associated with this variety of residential uses, including parking, trash removal, and other side-effects of increased density.*~~

~~A. **Boundaries & Exemptions:** The Mixed Density Neighborhood Overly District shall apply to all properties as identified on the Official Zoning Map.~~

~~B. **Uses:** All land uses shall be permitted, prohibited, or conditional consistent with the provisions of the underlying zoning district, with the following exceptions, which shall be permitted regardless of the underlying zoning:~~
~~a. Dwelling, two-family, and~~
~~b. Dwelling, multi-family.~~

~~C. **Development Standards:** All development within the boundaries of the MX-OL district shall comply with the development standards that apply to the underlying zoning district(s).~~

Accessory Dwellings
(Recommended by Envision Columbus)

Section 6.1(D)(1)): Accessory Dwellings

1. Accessory Dwellings: Single family dwellings constructed and used as accessories to the primary dwelling on the property (otherwise commonly known as “mother-in-law’s quarters” or “granny flats”) shall meet the following requirements:
   a. *Location on the Property:* ~~In residential zoning districts, the accessory dwelling shall be either (i) attached to, and designed and constructed as part of the primary structure or (ii) located above a detached garage. In agricultural zoning districts the~~ The accessory dwelling ~~shall~~ may be (i) attached to, and designed and constructed as part of the primary structure, (ii) attached to or included within a detached garage or other accessory structure, or (iii) a separate and distinct accessory structure on the property.
   b. *Primary Use of the Property:* An accessory dwelling may only be established on a property on which the primary use and structure is a single-family dwelling (or where a single farm dwelling is present). In instances where two or more dwelling units exist on a property and an additional dwelling unit is sought to be established, that additional unit shall be considered as an expansion of a multifamily use, rather than an accessory dwelling, and the provisions of this section shall not apply.
   c. *Living Area:* In residential zoning districts, the living area of any accessory dwelling shall not exceed ~~800~~ 1,000 square feet or an amount equal to 65% of the primary residence on the property, whichever is less. Further, no accessory dwelling shall be less than ~~500~~ 400 square feet in living area. In agricultural zoning districts, the living area of the accessory dwelling shall not exceed an amount equal to 75% of the primary residence on the property. However,

properties in agricultural zoning districts on which an accessory dwelling is created by retaining a historic home (any that is at least 50 years old) shall be exempt from the living area limit.

d. *Maximum Number of Units:* A maximum of 1 accessory dwelling may be permitted on any property.
e. *Driveway Access:* The accessory dwelling shall not require the establishment of an additional driveway.
f. *Parking Requirements:* ~~The accessory dwelling shall be considered a separate dwelling for the purpose of calculating required off-street parking spaces consistent with Article 7 of this Ordinance.~~ In instances where on-street parking is allowed on either side of a street in a block where the subject property has frontage, no off-street parking for the accessory dwelling shall be required. Where the on-street parking described above is not available, one off-street parking space, in addition those required for the primary residence by Chapter 7.1 of this Ordinance, shall be provided for the accessory dwelling. All off-street parking spaces provided shall meet all applicable design and circulation standards for the zoning district in which the property is located as provided by Article 7 of this Ordinance.
g. *Waste Disposal:* Both the primary residence and the accessory dwelling shall either (i) be served by a public sewer system or (ii) be served by one shared or two individual septic systems approved by the Bartholomew County Health Department. The waste disposal method shall also comply with the Utility Requirements established for each zoning district by Article 3 of this Ordinance.
h. *Architectural Design:* The accessory dwelling unit should make use of exterior materials consistent with or complimentary to the primary residence on the property. **Content Change** – Text stating the accessory dwelling should be "designed in a consistent architectural style" as the main home has ben removed.

Table 6.1 - Permitted Accessory Uses

The Permitted Accessory Uses Table is amended to add dwelling, accessory as a conditional use in the RS4 zoning district.

RE (Residential: Established) Zoning District Living Area

(Based on Planning Department Staff Observations)

Section 3.12(C): Lot Standards

Where any standard below is calculated based on context, that calculation shall (1) include only those properties in the RE zoning district and (2) exclude any lot, structure, setback, or other applicable feature that resulted from a development standards variance.

Minimum Lot Area

- equal to the smallest area of any legal lot of record within 300 feet of the subject property, or (where sewer service is not available) as required to provide two viable septic system sites, in the opinion of the Bartholomew County Health Department, whichever is greater.

Minimum Lot Width

- equal to the smallest width of any legal lot of record within 300 feet of the subject property.

Minimum Lot Frontage

- equal to the smallest frontage of any legal lot of record within 300 feet of the subject property.

Maximum Lot Coverage

- equal to the highest percent coverage of any legal lot of record within 300 feet of the subject property or 75%, whichever is greater.

Minimum Front Setback

- equal to the ~~average~~ smallest setback provided by all other primary structures on the same side of the street on legal lots of record within 300 feet of the subject property, however all garage vehicle entrances facing and obtaining access from a public street shall have a minimum front setback of 25 feet on that street.

Minimum Side Setback

- Primary Structure: 5 feet
- Accessory Structure: 3 feet

Minimum Rear Setback

- Primary Structure: ~~10~~5 feet
- Accessory Structure: 3 feet

Minimum Living Area per Dwelling

- ~~equal to the average living area of all dwellings located on legal lots of record within 300 feet of the subject property~~ Single-Family or Two-Family Structure: Either (1) 1,000 square feet, (2) equal to the smallest single-family structure living area within 300 feet of the subject property, or (3) equal to the living area of the structure most recently, legally present on the property which has been demolished or otherwise removed, whichever is less (see also Section 11.3(B)(7)). Where structures originally constructed for single-family use to be used in this calculation have been converted to multiple dwelling units, the total living area of the entire structure shall be used. See also Section 6.7(A)(2)(a) for Manufactured Homes.
- Multi-Family Structure: 500 square feet

Maximum Ground Floor Living Area

- 40%

Maximum Primary Structures per Lot

- 1

Maximum Height

- Primary Structure: 45 feet
- Accessory Structure: 35 feet (or the height of the primary structure on the property, whichever is less)

Single Family Residential Zoning District Maximum Gross Density

(Based on Planning Department Staff Observations)

Sections 3.8(C), 3.9(C), 3.10(C), 3.11(C), and 3.13(C): Maximum Gross Density

~~**Maximum Gross Density**~~

~~2.5, 3.5, 5, 7, and 8 Dwelling Units per Acre~~ *(respectively for each applicable zoning district)*

Residential Zoning District Park / Playground Uses

(Based on Planning Department Staff Observations)

Sections 3.7(A&B), 3.8(A&B), 3.9(A&B), 3.10(A&B), 3.11(A&B), 3.12(A&B), 3.13(A&B), 3.14(A&B), and 3.15(A&B): Permitted and Conditional Primary Uses

Permitted Primary Park Uses

- nature preserve / conservation area
- park / playground

Conditional Primary Park Uses

- amphitheater / outdoor venue
- athletic complex
- golf course
- ~~park / playground~~

RT (Residential: Two-Family) District Intent
(Based on Planning Department Staff Observations)

District Intent

The "RT", Residential, ~~Multi~~Two-Family zoning district is intent to provide areas for moderate density single, two, and multi-family residences…

I3 (Industrial: Heavy) District Conditional Commercial Uses
(Based on Planning Department Staff Observations / Correcting an Inconsistency)

Sections 3.25(B): Conditional Primary Uses

Commercial Uses

- agricultural supply facility
- truck stop / travel center

Accessory Structure Vehicle Access
(Based on Planning Department Staff Observations)

Section 6.1(E)(4): Accessory Structure Vehicle Access

4. Vehicle Access: No garage vehicle entrance from a street ~~or alley~~ shall be setback less than 25 feet from the adjacent right-of-way (to allow for off-street parking). ~~Properties located in the RE, Established Residential zoning district shall be exempt from this requirement in the case of access from alleys, but not where vehicle access is provided by a public street or road.~~

Various Vehicle Parking Provisions
(Replaced in Columbus Municipal Code by Ord. 46, 2019)

Section 7.1(Part 1)(D)(4) and (5): Recreational Vehicle Storage and Vehicle Maintenance

~~4. Recreational Vehicle Storage (Columbus Jurisdiction): The parking of recreational vehicles (including boats, trailers, recreation vehicles, or other similar equipment) within the City of Columbus' jurisdiction shall comply with the requirements listed be-low. No limits are established for the storage of such vehicles in any other jurisdiction to which this Ordinance applies.~~

~~a. *General Requirements:* In no instance shall the wheels of any recreational vehicle or its transporting device be removed except for repairs, nor shall any recreational vehicle be permanently affixed to the ground in a manner that would prevent its prompt removal.~~

~~b. *Location Requirements:* All recreational vehicles shall be stored either behind or alongside the primary structure on the property and no portion of the recreational vehicle shall project beyond the front setback of the primary structure or the minimum side or rear yard setback required on the lot.~~

~~c. *Limitations:* No more than 2 recreational vehicles shall be stored on any residentially used property at any time; however, 1 additional vehicle shall be allowed for temporary visitors on a temporary basis, not exceeding 7 consecutive days or 14 total days in any calendar year.~~

d. *Occupancy Restrictions:* In no instance shall any recreational vehicle be occupied or used for sleeping, living, or housekeeping purposes, with the exception of the temporary use described by Section 7.1(Part 1)(D)(4)(c) above.
e. *Loading & Unloading:* Recreational vehicles may be parked anywhere on a property for a period not to exceed 24 consecutive hours for the purpose of loading and unloading.

5. Vehicle Maintenance: Repairing, restoration and maintenance procedures or projects on vehicles on any residentially zoned or used property, when the work is not conducted entirely within the interior passenger space of the vehicle, shall be subject to the following limitations:
   a. *Maintenance Location:* All vehicles being worked on out-side shall be on an improved driveway surface consistent with the requirements for the zoning district in which it is located.
   b. *Operable Condition:* All vehicles being worked on outside shall be licensed and operable. Procedures exceeding 48hours in duration, or which require the vehicle to be inoperable in excess of 48 hours, shall be conducted entirely within an enclosed building.
   c. *Parts Storage:* Inoperable vehicles and vehicle parts shall be stored inside an enclosed building.

Section 7.2(Part 3): Residential Front Yard Parking

3. Use of Front Yard: No front yard area, other than the paved drive-way and parking area, shall be used for the storage or parking of vehicles. No vehicle shall be considered legally parked unless all wheels are located on the paved area. The temporary parking of vehicles for sale by the occupant of the property shall be exempt from this requirement provided that (1) the vehicle does not encroach into a public right-of-way or sight visibility tri-angle (2) no more than 1 such vehicle is parked on any property at any time and (3) the parking of any such vehicle or combination of vehicles shall not exceed 60 days in any calendar year.

Incidentals

(Based on Planning Department Staff Observations)

Section 6.1(C)(5): Other Incidentals

5. Other Incidentals Structures: Bird baths and houses, swing sets, mailboxes, lamp posts, doghouses, attached & detached decks that are less than 30 inches above finished grade, patios, fences, yard ornaments, athletic courts, shelters, and similar items and structures of less than 120 square feet in lot coverage, shall meet any other applicable standards established by this Ordinance, but shall be exempt from the requirements of this Chapter. Other incidental structures shall include and be subject to the requirements of this Ordinance as follows:
   a. Bird baths and houses, mailboxes, lamp posts, doghouses, yard ornaments, and other similar items shall be exempt from regulation by this Ordinance.
   b. Patios, pool decks, walks, athletic courts, and other similar items installed at finished grade on a property shall be exempt from regulation by this Ordinance. However, any fences associated with these items shall be subject to Chapter 9.3.
   c. Gazebos, arbors, play equipment, sheds, mechanical equipment including ground-mounted solar panels, and other similar items, if less than 120 square feet in area and not on a permanent foundation, shall be exempt from regulation by this Ordinance. Those that exceed 120 square feet individually or are on a permanent foundation shall be subject to the accessory structure provisions of this Ordinance, specifically including the location provisions of Section 6.1(E). Further, any single type of these incidentals (sheds, for example), where 2 or more are present, that total more than 120 square feet on a property shall also be subject to the accessory structure provisions of this Ordinance.

Electric Vehicle Charging
(Based on Planning Department Staff Observations)

Section 7.1(Part 1)(A)(3): General Parking Standards

3. Reserved Spaces: Parking spaces reserved for use by veterans, expectant mothers, employees, or other specific groups; designated for product pick-up; provided for electric vehicle charging; and other similar limited-use spaces shall apply towards the overall parking requirements. The application of Barrier Free spaces to the requirement shall be as specified in Section 7.1(Part 1)(C).

Section 7.1(Part 1)(E): Electric Vehicle Charging Space Requirements

E. **Electric Vehicle Charging Space Requirements:** Electric vehicle charging spaces are those marked parking spaces equipped with an electric vehicle charging station. The provision of electric vehicle charging spaces shall comply with the following requirements:

1. Spaces Required: Electric vehicle charging spaces shall be required in association with newly constructed or expanded multifamily residential uses, hotels, and parking lots / garages (where that lot or garage is a primary use), that provide 25 or more parking spaces, at a minimum ratio of 1 charging space for every 50 total parking spaces provided, rounded up to the nearest whole charging space. The required multifamily residential use charging spaces may be provided with Type I, II, or III chargers, as defined by this Ordinance. The required hotel and parking lot / garage charging spaces shall be provided with either Type II or Type III chargers. A property on which fewer than 25 parking spaces is provided shall be exempt from this electric vehicle charging space requirement. **Content Change** – An exemption was added for parking lots containing fewer than 25 spaces.
2. Posting Required: Each required electric vehicle charging space shall be posted with information indicating the space is for electric vehicle charging purposes. Any such postings that are not internal, and therefore meet the definition of a “sign”, shall be subject to the provisions of Article 10 of this Ordinance. **Content Change** – Sign regulations cross-reference added.
3. Charging Space Standards: Electric vehicle charging spaces, both required and non-required, shall comply with all provisions of this Ordinance applicable to parking spaces in the same zoning district, including but not limited to the Design Standards of Chapter 7.2, Circulation Standards of Chapter 7.3, and Landscaping Requirements of Article 8.
4. Charging Station Standards: Electric vehicle charging stations and related equipment, for both required and non-required spaces, shall meet the following requirements:
    a. *Charging Stations:* Electric vehicle charging stations shall be considered incidental structures consistent with Section 6.1(C)(5)(a). However, charging stations may only encroach by up to 3 feet in any required minimum front yard setback (including into the Parking Lot Public Street Frontage landscape area required by Section 8.1(C)).
    b. *Charging Station Supporting Equipment and Structures:* Charging station associated equipment and structures, including the transformers commonly supporting Type III chargers as well as canopies, shall be considered accessory structures and shall be subject to the accessory structure provisions of this Ordinance, specifically including the location provisions of Section 6.1(E). However, where an electric vehicle fueling station or a parking lot is the primary use on a property, any associated canopies shall be considered primary structures.
        i. Charging station canopies shall further be exempt from any limitations provided by this Ordinance on the number of accessory or primary structures, as applicable, permitted on a single lot.
        ii. All ground-mounted equipment installed in association with the charging station(s), and in addition to the charging station itself, (such as the electric transformers commonly supporting Type III chargers) shall be provided with a 6-foot tall, 100% opaque screening enclosure. The enclosure shall be made of wood, stone, masonry, architectural metal, or other similar construction providing the required opacity. Any access gates shall also be 100% opaque. In no instance shall chain link fence interwoven with plastic strips or other similar fencing be considered as meeting this screening requirement. **Content Change** – Equipment screening requirement added.

c. *Residential-Use Limitations:* Any charging stations installed on residential properties shall be for the use of residents and guests at that property and specifically not for commercial use.

5. Additional Charging Spaces Permitted: In no instance shall this Section be interpreted as limiting or restricting the inclusion of charging spaces or charging stations on any property or those exceeding the minimum number where required, provided that all spaces, stations, and supporting equipment comply with Sections 7.1(Part 1)(E)(3) and (4) above.

Chapter 14.2: Definitions

Auto Oriented Uses, Small Scale: Uses such as gas stations, electric vehicle fueling stations, car washes, and others listed under the heading of Auto-Oriented Uses, Small Scale by the Zoning Districts Use Matrix included in this Ordinance. This does not include any uses listed under the headings of auto-oriented uses large or medium scale.

Electric Vehicle: Any vehicle that operates, either partially or exclusively, on electrical energy from the grid, or an off-board source, that is stored on-board for locomotive purposes.

Electric Vehicle Charging Space: A public or private parking space located together with a battery charging station which permits the transfer of electric energy (by conductive or inductive means) to a battery or other storage device in an electric vehicle.

Electric Vehicle Charging Station: One of the following stations which permit the transfer of electric energy (by conductive or inductive means) to a battery or other storage device in an electric vehicle:

1. **Type I** - A standard outlet connection primarily used at private residences within an enclosed garage, or located in a primary residence driveway. *Note: They are typically considered slow charging (120-volt AC) requiring 8-12 hours to fully recharge a depleted battery.*
2. **Type II** - Free standing or hanging charging station units utilized for recharging of depleted batteries. They are well suited for inside and outside locations, where cars park for several hours at a time. Type II stations require installation of charging equipment and a dedicated 20 to 80-amp circuit for adequate power. *Note: They are typically considered medium charging (208 or 240-volt AC) requiring 4-8 hours to fully recharge a depleted battery.*
3. **Type III** - Free standing units, of often higher profile, typically industrial grade, that enable rapid charging of electric vehicle batteries to 80% capacity in as little as 30 minutes. They are more common in heavy use transit corridors or at public fueling stations. *Note: They are considered fast or rapid charging (480-volt AC).*

Electric Vehicle Fueling Station: Any facility serving as a primary land use providing the retail sale of electricity for the purpose of fueling an electric vehicle. This facility may or may not include a storefront for the sale of accessories and other consumer goods found at traditional convenience stores, areas for driver rest or recreational while their vehicle is charging, and similar amenities. Electric vehicle fueling stations shall not include any vehicle repair services.

Wheel Stop Placement

(Based on Planning Department Staff Observations)

Section 7.2(Part 4)(A)(5)(c): Wheel Stops for Landscaped Areas and Pedestrian Walkways

a. *Landscaped Areas and Pedestrian Walkways:* All required landscaped areas and required pedestrian walkways which are perpendicular to parked vehicles shall be protected with wheel stops located in each space to prevent vehicles from overhanging the landscaped area or walkway, subject to the ~~following~~ exceptions listed below. All wheel stops shall be located two feet from the end of each parking space adjacent to the landscaped area or walkway.
   i. Parking spaces adjoining required pedestrian walkways exceeding 7 feet in width shall be exempt from this requirement if a curb is provided to separate the parking spaces from the walkway. A corresponding reduction in parking space length shall not be permitted.

ii. Parking spaces adjoining required landscaping areas shall be exempt from this requirement if a curb is provided separating the parking spaces from the landscape area and the required plantings are placed 6 feet or greater from the back of that curb.

Bicycle Rack Spacing

(Based on Planning Department Staff Observations)

Section 7.1(Part 2)(C): Bicycle Parking Requirements

C. **Bicycle Parking Requirements:** All commercial and public/semi-public uses shall provide parking facilities for bicycles, consistent with the following requirements:

1. Number of Bicycle Spaces: All commercial and public/semi-public uses shall provide bicycle parking based on the number of vehicle parking spaces provided consistent with the Bicycle Parking Standards Table, below.

Bicycle Parking Standards (Table 7.4)

Total Vehicle Parking Spaces Required	Bicycle Spaces Required	
	CN Zoning District in the City of Columbus Jurisdiction	All Other Zoning Districts
1 - 25	4	0
26 - 250	4	2
over 250	4	4

2. Bicycle Racks: Bicycle racks shall support the bicycle upright by its frame in 2 places above the bicycle's center of gravity, shall enable the frame and one or both wheels to be secured with a lock, and shall not require the lifting of the bicycle to use any of the rack's parking positions.
   a. Examples of appropriate racks include an inverted "U" rack, the "A" rack, and the post and loop rack ~~(also allowed in Columbus jurisdiction are the wave rack and the comb rack)~~.
   b. The toast, wave, and comb ~~rack is~~ racks are prohibited ~~(also prohibited in Bartholomew County are the wave and comb racks)~~.
   c. The use of bicycle lockers is encouraged, but lockers shall not serve as an alternate to the bicycle rack requirements.

3. Location and Placement: Bicycle parking facilities shall be located in a high visibility area that (a) provides convenient and safe pedestrian access to main building entrances or activity areas and (b) provides convenient, paved bicyclist access to the nearest path, street, or sidewalk (without the cyclist being required to dismount or carry their bicycle). Bicycle racks shall be placed on a concrete surface that provides a clear area and extends a minimum of 3 feet in all directions from each rack. No building, walkway, landscaping, parking lot or drive aisle, or other obstruction shall encroach into this bicycle rack clear area. When placed in rows, each rack shall be separated from others by a minimum of 3 feet where bicycles are parked side-by-side and a minimum of 5 feet where bicycles are parked end-to-end.

4. School Exemption: Bicycle racks provided at any school that includes any grades pre-school through 12th grade shall be exempt from the bicycle rack type limitations and location and placement standards provided by Sections 7.1(Part 2)(C)(2)&(3) above. Any bicycle rack type(s) and locations on the property may be used. **Content Change** – School exemption added.

Figure 7.1: Bicycle Rack Examples

The Bicycle Rack Examples Figure is amended to also show the Comb and Wave racks as prohibited.

Parking Lot Public Street Frontage Landscaping
(Based on Planning Department Staff Observations)

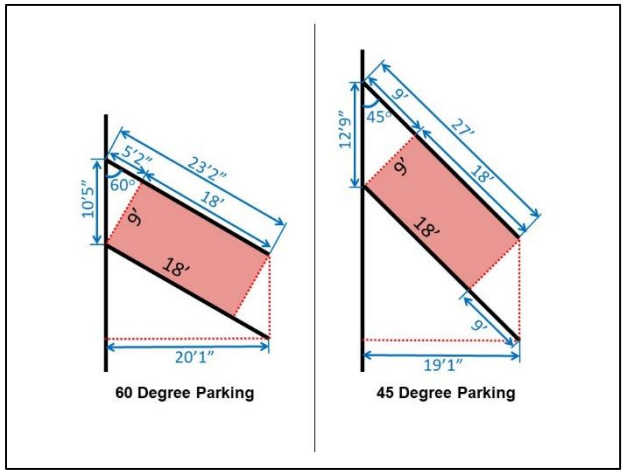
Section 8.1(C)(1): Area #1 – Parking Lot Street Frontage

1. Area #1 – Parking Lot Street/Road Frontage: The ~~required~~ front setback areas for all parking areas, including parking spaces, interior drives, and loading/unloading areas, shall be landscaped. The ~~required~~ front setback area shall be planted with either one or a combination of the following options. Plant material is intended to be distributed across the frontage, but is not required to be installed in 50 foot increments. For the purpose of determining the amount of landscaping required, the frontage shall be rounded to the nearest 50 feet.
   a. *Plantings Only*: For every 50 linear feet of frontage a minimum of 1 large tree or 1.25 medium trees ~~(excluding ornamental trees)~~, plus 7.5 ~~ornamental trees or~~ shrubs shall be provided; or
   b. *Berm & Plantings*: A landscaped berm that is a minimum of 3 feet in height shall be provided. A minimum of 1 large tree or 1.25 medium trees ~~(excluding ornamental trees)~~, plus 2.5 ~~ornamental trees or~~ shrubs shall be provided for every 50 linear feet of berm provided. The ~~ornamental trees and/or~~ shrubs shall be located on the berm.
   c. *Overhead Utility Alternate Trees*: Where overhead utilities are present and required Parking Lot Street/Road Frontage Landscaping must be within 20 feet, horizontally, of the base of those utility poles, small trees with a mature height not exceeding 15 feet may be substituted for the required large or medium trees.

Parking Space Measurement
(Based on Planning Department Staff Observations)

Figure 7.2: Parking Space Measurement Illustration

The Parking Space Measurement Illustration is amended to include the following:



Solar Energy Generation New Content
(As Follow-up to Bartholomew County Adopted Regulations)

Added Text Consistent with Adopted Bartholomew County Provisions – Red and Underlined
Added Text in Addition to Adopted Bartholomew County Provisions – Blue and Underlined
Deleted Text from the Adopted Bartholomew County Provisions – ~~Blue and Strikethrough~~

Sections 3.5(B) and 3.6(B): AP and AG Zoning District Conditional Primary Uses

Commercial Solar Energy System (CSES) is added to the conditional use lists under "Industrial Uses".

Sections 3.5(B), 3.6(B), 3.7(B), 3.8(B), 3.9(B), 3.10(B), 3.11(B), 3.12(B), 3.13(B), 3.14(B), 3.15(B), 3.16(B), 3.17(B), 3.18(B), 3.19(B), 3.20(B), 3.21(B), 3.22(B), 3.23(B), 3.24(B), and 3.25(B): AP, AG, RR, RS1, RS2, RS3, RS4, RE RT, RM, RMH, CD, CDS, CN, CO, CC, CR, P, I1, I2, and I3 Zoning District Conditional Primary Uses

Neighborhood-Scale Solar Energy System is added to the conditional use lists under "Communications / Utility Uses".

Table 3.1: Zoning District Use Matrix

Commercial Solar Energy System (CSES) is added to the use list under "Industrial Uses" and indicated as conditional in the AP and AG zoning districts.

Neighborhood-Scale Solar Energy System is added to the use list under "Communications / Utility Uses" and indicated as conditional in the AP, AG, RR, RS1, RS2, RS3, RS4, RE, RT, RM, RMH, CD, CDS, CN, CO, CC, CR, P, I1, I2, and I3 zoning districts.

Chapter 6.10: ~~Commercial~~ Solar Energy Generation Systems

Intent: The purposes of the ~~commercial~~ solar energy generation system standards ~~is~~ are to (1) provide clear requirements for those systems capturing solar energy for primarily on-site and neighborhood-scale use and (2) establish reasonable requirements for the development, operation, and decommissioning of commercial solar energy systems ~~and to minimize~~ while minimizing conflict between these developments and surrounding land uses.

Part 1: These On-Site and Neighborhood-Scale System Standards apply to all zoning districts.

A. **On-Site Use Systems:** Solar energy systems and equipment capturing solar energy for primarily on-site (on the same property) use, with any excess amounts supplied to the electrical grid, shall be considered (1) mechanical appurtenances when attached to a structure and (2) incidental or accessory structures, as appropriate, when ground-mounted, consistent with the applicable provisions of this Ordinance. Specifically, ground-mounted solar panels shall be regulated consistent with the provisions of Section 6.1(C)(5) regarding incidental uses and structures.

B. **Neighborhood-Scale Systems:** Solar energy systems capturing solar energy for use primarily by those properties within a specific neighborhood or development, with any excess amounts supplied to the electrical grid, shall meet the standards provided below. The system may include building and/or ground-mounted solar panels, as well as battery storage systems, back-up generators, and other accessory components.

1. The solar energy system shall be entirely located within the neighborhood or development served.
2. Any ground-mounted solar arrays and/or battery systems located as a primary use on a property shall:
   a. be subject to all primary structure setbacks for the zoning district in which they are located;
   b. be provided with a Buffer Yard Type A, in addition to the setback indicated in Section 6.10(Part 1)(B)(2)(a) above, where adjoining or visible from any public street or road or a property outside of the neighborhood or development served;
   c. be subject to the maximum height standards for accessory structures in the applicable zoning district); and
   d. for solar arrays, comply with the ground cover provisions of Section 6.10(Part 2)(A)(4), except where the arrays are designed to capture solar energy reflected from below, in which case crushed stone or other material may be used as necessary to provide the reflective ground cover.
3. Any inverters and similar equipment should be located and designed to minimize the extent to which any noise generated is detectable beyond the property on which it is located.

Part 2: These ~~General~~ Commercial Solar Energy System (CSES) Standards apply to the AP (Agriculture: Preferred) and AG (Agriculture: General Rural) zoning districts:

A. **CSES Location and Design Standards:** Commercial Solar Energy Systems (CSESs) shall be located consistent with Article 3 of this (the Zoning) Ordinance. All such energy systems shall meet any and all applicable requirements of the federal, state, and local government in addition to the standards listed below.

1. Setback Distances:
   a. *Minimum Front Yard (Right-of-Way) Setbacks:* All structures, equipment, storage areas, vehicle service drives, CSES electrical substations, and fencing used in association with a CSES shall be setback a minimum of 50 feet from the actual or planned right-of-way, whichever is greater, for all adjacent streets and roads. Access drives that connect the CSES facility to the adjacent public street or road may encroach into the required setback area.
   b. *Minimum Setbacks from Non-Participating Properties:* All structures, equipment, storage areas, vehicle service drives, and fencing used in association with a CSES shall be setback a minimum of 200 feet from the property lines of all non-participating properties and any CSES electrical substation shall be setback a minimum of 500 feet from the property lines of all non-participating properties. For CSES facilities that are separated from non-participating properties by public right-of-way, the measurement shall be taken from the property line of the non-participating property, not from the right-of-way line along the CSES facility. Access drives that connect the CSES facility to an adjacent public street or road may encroach into the required setback area.
   c. *Minimum Setback Distance from Dwellings on Non-Participating Properties:* All structures, equipment, storage areas, vehicle service drives, CSES electrical substations, and fencing used in association with a CSES shall be setback a minimum of 500 feet from dwellings on non-participating properties. Separation shall be measured from the nearest structure, equipment, storage area, vehicle service drive, CSES electrical substation, or fence associated with the CSES to the outer wall of the dwelling.
   d. *Minimum Setback Distance from Municipal Boundaries:* No CSES facility, including all structures, equipment, storage areas, vehicle service drives, CSES electrical substations, and fencing, shall be located closer than 1½ miles to the City of Columbus corporate limits and ½ mile to any other municipal boundary line. Setback shall be measured from the nearest structure, equipment, storage area, vehicle service drive, CSES electrical substation, or fence associated with the CSES to the corporate limits.
   e. *Exemption*: The minimum setback distances described above shall not apply to any cables buried underground or to the cable that connects the Commercial Solar Energy System (CSES) electrical substation to the transmission line (when located either above or below ground).
   f. *Waivers*: Waivers from the required setback distances specified above in Sections A(1)(b), A(1)(c), and A(1)(d) may be granted by the municipality or non-participating property owner from which they are required. All such waivers shall exempt the CSES from providing the otherwise required setback or separation distance in its entirety. Any alternate separation, buffering, and/or other mitigation of the presence of the CSES shall be established as a private agreement between the involved municipality or non-participating property owner and the CSES developer/owner/property owner(s). These private agreements shall not be subject to enforcement by Bartholomew County or any other unit or entity of local government.

2. Vehicular Access: Vehicle access drives serving the CSES facility shall be paved with asphalt or concrete for the first 50 feet from the edge of road or street pavement; the remaining portion of the access drive may be gravel. Any portion of a drive located in a public right-of-way shall meet the applicable requirements of the County Engineer.

3. Equipment Height: CSES solar arrays shall not exceed 18 feet in height when oriented at maximum tilt and shall provide a minimum clearance of one foot between the ground and the solar array, at maximum tilt, for the purpose of vegetative groundcover. All other structures in the CSES shall conform with the maximum height standards for accessory structures in the underlying zoning district.

4. Vegetative Groundcover: For the life of the CSES, perennial vegetated groundcover shall be established and maintained on the ground around and under solar arrays. Vegetative groundcover shall consist only of plants native to Indiana. The use of pollinator specific seed mixes is encouraged but not required. A Groundcover Plan demonstrating compliance with this requirement shall be submitted. For a guide to best management practices, refer to *Technical Guide: Establishment and Maintenance of Pollinator-Friendly Solar Projects (Northern Indiana 2020*) developed by the Michiana Area Council of Governments (MACOG).
    a. Perennial vegetated groundcover shall be based on a diverse seed mix of at least 12 species, selected based on guidance from Purdue Extension – Bartholomew County. No plants included on the Indiana Department of Natural Resources Terrestrial Plant Rule list, which identifies invasive species, shall be included in the seed mix.
    b. The Groundcover Plan shall include planting details for all setback areas. Setback areas must be planted with some form of groundcover, which could include agricultural crops. The Groundcover Plan shall also include the details for site preparation and maintenance practices designed to control invasive species and noxious vegetation. The strategy for site preparation and maintenance practices shall be based on guidance from Purdue Extension – Bartholomew County.
    c. Consistent with Section F, the requirement for vegetative groundcover is not intended to restrict the practice of agrivoltaics, the concurrent use of land for solar power generation and agricultural production.
5. Lighting: Exterior lighting for any CSES shall be limited to that required for safety and operational purposes. All lighting shall be oriented so as not to project onto surrounding properties and shall have shielded 90-degree cut-off fixtures.
6. Cables: All power and communication cables running between solar arrays, inverters, CSES electrical substations, and operation and maintenance buildings shall be buried underground to a depth of at least 36 inches below grade. This requirement shall not be interpreted as prohibiting above ground cables that are integrated with solar arrays, their mounting systems, or other equipment, provided that equipment, including the cabling, does not exceed the maximum height specified by Section A(3). Cables connecting the CSES electrical substation to the transmission line may be under or above ground.

B. **Outdoor Storage:** Outdoor storage areas, used to store materials, supplies, Battery Energy Storage Systems (BESS), and other equipment, that are within 200 feet of an existing right-of-way of a public road shall be screened from view by a Buffer Yard Type A, as described in Chapter 8 of this Ordinance. For the purposes of this screening, only the Opaque Tree Screen option of the Buffer Yard Type A shall be used. The buffer may encroach into the required setbacks described in Sections A(1)(a), A(1)(b), and A(1)(c). The buffer requirement does not apply to areas temporarily used for materials and equipment storage during the construction of a CSES.

C. **Safety and Security Standards:** All Commercial Solar Energy Systems (CSESs) shall meet the following safety and security requirements:

1. Fencing: Any fencing used to enclose the CSES shall not exceed a height of 8 feet and shall be exempt from any other fence height limits provided by this Ordinance, including for fences in front yards. The use of barbed wire is prohibited except around a CSES electrical substation or otherwise as required by the National Electric Code (NEC). Fencing that provides clearance at the bottom, to allow for the passage of wildlife, is encouraged but not required.

2. Posted Warnings and Information: At all driveway entrances to the CSES, a sign containing the emergency contact information for the site operator and the facility's 911 address shall be posted.

D. **Decommissioning and Site Restoration Plan:** Any CSES which has ceased electrical power generation or transmission for twelve (12) consecutive months shall be removed in compliance with a Decommissioning and Site Restoration Plan submitted to the Chief Code Enforcement Officer and approved by the Board of County Commissioners. The following standards apply.

1. Decommissioning and Site Restoration Plan: At a minimum, the Decommissioning and Site Restoration Plan shall include:

a. A description of the decommissioning activities, which shall include but not be limited to:
    i. Removal of all surface and subsurface physical improvements including but not limited to all solar arrays, electric systems and components, buildings, cabling, security barriers, interior drives, gravel areas, foundations, pilings, and fences.
    ii. Restoration of surface grade and soil to pre-construction conditions, documented by pre-construction and post-decommissioning as-built topographic maps.
    iii. Establishment of groundcover for erosion control purposes.
b. Acknowledgement, by the notarized signature, of every participating property owner of the decommissioning requirement as well as their authorization for the County to enter their properties to accomplish decommissioning. Both the acknowledgement and authorization shall run with the land and extend to all successors in ownership.
c. Decommissioning Cost Estimate: The applicant shall submit a cost estimate for the total estimated cost of decommissioning the CSES in accordance with the Decommissioning and Site Restoration Plan.
    i. The decommissioning cost estimate shall be calculated by a third party Indiana licensed engineer selected by the applicant and agreed upon by the County Commissioners.
    ii. The decommissioning cost estimate shall not include any estimates or offsets for the resale or salvage values of the CSES equipment and materials.
d. Financial Guarantee for Decommissioning:
    i. The applicant shall provide a financial guarantee in the form of an irrevocable letter of credit, performance bond, or surety bond for 125% of the total estimated cost of decommissioning, as described in Section D(1)(a), posted with Bartholomew County.
    ii. The letter of credit or bond shall be in place prior to the issuance of an Improvement Location Permit.

2. Updates Required:
    a. The decommissioning cost estimate shall be reevaluated and updated every five years by a third party Indiana licensed engineer selected by the applicant or its successor and agreed upon by the County Commissioners. Each reevaluation and update shall be completed within 5 years of the acceptance, by the County Commissioners, of the preceding estimate.
    b. The applicant or its successor shall submit an updated financial guarantee per Section D(1)(d)(i) to the County as part of each decommissioning cost estimate update.

3. Timeline for Decommissioning: If the applicant or its successor fails to remove all CSES project assets within eighteen (18) months of the start date of decommissioning, a date beginning immediately after the CSES has ceased electrical power generation or transmission for twelve (12) consecutive months or an alternative date agreed upon by the Chief Code Enforcement Officer, the County may engage qualified contractors to enter the site, remove the CSES project assets, sell any assets removed, and remediate the site. The County may also initiate proceedings to recover, from the provided financial guarantee, any costs incurred. If decommissioning is triggered for a portion, but not the entire CSES, then decommissioning shall commence in accordance with the approved Decommissioning and Site Restoration Plan for the applicable portion of the CSES. The remaining portion of the CSES would continue to be subject to the approved Decommissioning and Site Restoration Plan.

4. Waivers: The decommissioning requirement described above in Section D(1)(a)(i) may be waived by individual property owners for only subsurface improvements, such as cabling, and/or vehicle access drives. All such waivers shall exempt the CSES operator and/or owner from removing subsurface improvements and/or vehicle access drives on individual properties during the decommissioning process. A notarized waiver document signed by the individual property owner(s), subject to review and approval by the County Attorney, shall be recorded in the Office of the Bartholomew County Recorder. Waivers may be granted any time prior to the start of CSES decommissioning and shall remain with the property and apply to all subsequent property owners.

5. Enforcement: Complete decommissioning of the CSES is required regardless of the presence of the financial guarantee and including any instance where that financial guarantee is insufficient for complete decommissioning to be carried out by the County. Incomplete decommissioning for any cause and/or circumstances, other than in the case of waivers granted per Section D(4), shall constitute a violation of this ordinance subject to the provisions of Article 13, including the responsibility of the property owner specified by Section 13.1(D).

E. **Road Use and Maintenance Agreement:** The agreement is subject to the requirements and procedures of the Board of County Commissioners and County Engineer and may include, but not be limited to, the following information:

1. Identification of roads to be used for the transport of CSES construction materials.
2. Road closure plans and procedures and temporary road modifications related to CSES construction activity.
3. Roadway time of day use restrictions for CSES construction activity.
4. A pre-construction, existing conditions survey of all roads identified for use in transport of CSES construction materials, to be used in an assessment of road damage caused by CSES construction activity.
5. A compensation agreement and/or financial guarantee for road repairs needed as a result of construction activity related to the CSES.

F. **Agrivoltaics:** This Ordinance does not restrict the practice of agrivoltaics, the concurrent use of land for solar power generation and agricultural production.

G. **Required Documentation for Commercial Solar Energy System (CSES) Facilities:** In addition to the requirements provided in Article 12 for the receipt of conditional use approval and an Improvement Location Permit, applications for new or modified CSESs shall include the following documentation.

1. The following documentation shall be submitted with the conditional use application materials:
   a. *Project Description:* A project description including project developer and operator, approximate number of solar panels, total acreage occupied by solar arrays, generating capacity, means of connecting to the electrical grid, a list and/or map of participating properties and their owners, and a list and map of all property owners within 500 feet of the CSES facility.
   b. *Conceptual Site Plan:* The conceptual site plan including areas of solar arrays, the location of inverters, the CSES electrical substation, the location and route of the connection between the CSES electrical substation and the transmission line, the location of any permanent outdoor storage areas, the location of any battery storage areas, service drive access points to public streets or roads, and the location of all perimeter fencing.
   c. *Preliminary Drainage Plan:* A preliminary drainage plan describing the applicant's overall approach to managing stormwater runoff on the project site, including pre- and post-construction run-off calculations.
   d. *Conceptual Groundcover Plan:* A conceptual groundcover plan, including the location of all proposed perennial vegetated groundcover, preliminary species selection, and the groundcover strategy for all setback and separation areas. The conceptual plan shall also describe the preliminary groundcover maintenance strategy.
   e. *Glare Analysis (if applicable):* For any CSES project proposed within 500 feet or within an approach zone of the Columbus Municipal Airport, a glare analysis must be submitted for review and approval by the Columbus Board of Aviation Commissioners.
   f. *Setback Distance Waiver(s):* For any property and/or municipality from which a waiver of the minimum setback distance required by Sections A(1)(b), A(1)(c), or A(1)(d) is granted:
      i. Municipal Boundary Setback Distance Waiver(s): A written statement of the waiver signed by the Mayor or Town Council President, as applicable.
      ii. Non-Participating Property and/or Dwelling Setback Distance Waiver(s): A written statement of the waiver, specifying the property for which the waiver is to be granted by legal description and parcel number, signed by the property owner(s).
   g. Any other information or documentation requested by the Planning Director, Chief Code Enforcement Officer, City/County Engineer of jurisdiction, or Board of Zoning Appeals to demonstrate compliance with the requirements and review criteria of this Ordinance and to support a thorough review of the project.

2. The following documentation shall be submitted to the Planning Director prior to the issuance of an Improvement Location Permit but shall not be required as part of the conditional use application:
   a. *Site Plan:* The site plan required by Section 12.9(D) shall describe all aspects of the new or modified CSES facility including solar arrays and their configuration, CSES electrical

substations, access and service drives, inverters, battery storage, cabling, storage yards, fencing, and other ground-based equipment.

b. *Drainage Plan:* A detailed drainage plan meeting the requirements of the County Engineer. All existing waterways and/or other drainage ways on the subject property shall be identified on the plan. The drainage plan shall also include the location of existing field tiles on the CSES project site, based on best available information, and a statement signed by the applicant accepting responsibility for the repair and/or relocation of field tiles that are damaged as a result of construction, maintenance, operation, and/or decommissioning of the CSES.

c. *Groundcover Plan:* A Groundcover Plan in accordance with Section A(4) of this Chapter.

d. *Setback Distance Waiver(s):* For any property and/or municipality from which a waiver of the minimum setback distance required by Sections A(1)(b), A(1)(c), or A(1)(d) is granted:

   i. Municipal Boundary Setback Distance Waiver(s): A copy of the waiver document which has been approved as to form and content by the Planning Director, has been approved by resolution of the city or town council, as applicable, and has been recorded in the Office of the Bartholomew County Recorder.

   ii. Non-Participating Property and/or Dwelling Setback Distance Waiver(s): A copy of the waiver document which identifies the property by legal description and parcel number, has been approved as to form and content by the Planning Director, includes the notarized signature(s) of the property owner(s), and has been recorded in the Office of the Bartholomew County Recorder.

e. *Structural Certification:* Certification from a professional engineer licensed in the State of Indiana that the foundation, anchoring, and design of the solar panel racking and support is within accepted professional standards, given local soil and climate conditions.

f. *Decommissioning and Site Restoration Plan:* A copy of the Decommissioning and Site Restoration Plan in accordance with Section D of this Chapter as approved by the Board of County Commissioners and recorded in the Office of the Bartholomew County Recorder, including a copy of the financial guarantee.

g. *Road Use and Maintenance Agreement:* A copy of the fully executed Road Use and Maintenance Agreement as approved by the Board of County Commissioners in accordance with Section E of this Chapter.

Section 12.9(B): Permit Requirements

B. **Permit Requirements:** An Improvement Location Permit shall be obtained for any of the following actions. A single Improvement Location Permit may be issued for a combination of these actions, if they occur together.

1. Zoning Compliance Certificate Required: A Zoning Compliance Certificate (ZCC), issued by the Planning Director, shall be obtained prior to the issuance of any required building permit for the following actions:

   a. *New Construction:* construction, removal, additions to, or placement of any structure, that exceeds 120 square feet in area and/or has a permanent foundation; including structures other than buildings such as towers and antennas, but excluding agricultural structures (other ~~that~~ than those associated with a CFO facility in the Bartholomew County jurisdiction) and single and two-family residential structures~~;~~.

   b. *Temporary Uses:* any temporary use of land or a temporary structure~~;~~.

   c. *Alteration of Required Landscaping:* removal of required trees and plants within buffer yards and landscaping areas required by this Ordinance~~;~~.

   d. *Alteration of Off-Street Parking:* construction and/or re-design of an off-street parking area, excluding agricultural uses and single and two-family residential uses~~;~~.

   e. *Change of Use:* change of use from one category of land use to another (for example, office use to restaurant)~~;~~.

   f. *Increase in Use Intensity:* the increase in the intensity of a use (for example adding seats at a restaurant or converting storage areas to office space)~~;~~.

   g. *Mineral Extraction:* mineral extraction~~;~~.

   h. *Telecommunications Facilities:* new and substantially modified telecommunications facilities as described by Chapter 6.8 of this Ordinance~~;~~.

i. *Park & Recreation Facilities:* construction of new or expanded park and recreation facilities, including athletic fields, parks, performance venues, etc.~~; and~~

j. *Non-residential Outdoor Storage, Display and/or Sales Areas:* the addition, enlargement, relocation, or alteration of any area of outdoor storage, display and/or sales.

k. *Confined Feeding Operation (CFO) Facilities:* the construction, additional to, placement or installation of any CFO Facility structure(s) (including any animal waste storage).

l. ~~*Commercial*~~ *Solar Energy System* ~~*(CSES)*~~ *Facilities:* the construction, additions to, installation, or placement of any CSES or neighborhood-scale solar energy system structure(s), storage area, equipment, or access drives.

Chapter 14.2: Definitions

Airport (Public): Any public facility used primarily for the landing and take-off of aircraft, including all necessary facilities for the housing and maintenance of aircraft; the providing of services to airport users, including restaurants and aircraft fuel stations; and the compatible utilization of airport property, including agricultural crops and Neighborhood-Scale and/or Commercial Solar Energy Systems (CSES).

Commercial Solar Energy System (CSES): A system that captures and converts solar energy into electricity for the primary purpose of wholesale sales of generated electricity and for use in locations other than where it is generated. The term includes, but is not limited to, solar arrays, collection and feeder lines, substations, ancillary buildings, solar monitoring stations, battery storage facilities, outdoor storage areas, and other accessory equipment or structures. It also includes facilities from which solar energy is made available to individual off-site residential, commercial, industrial, or other end users through a subscription or sponsorship system. This definition, however, does not include residential or other uses with solar arrays capturing solar energy for primarily on-site use, with any excess amounts supplied to the electrical grid.

Commercial Solar Energy System (CSES) Electrical Substation: A facility, operated as part of a CSES facility and located on the CSES project site, generally consisting of a main power transformer, breakers, control building, metering and other power conditioning equipment in which electricity produced by the CSES is aggregated at a centralized location and the voltage is transformed from medium voltage to grid voltage for final conveyance to the electrical grid.

Inverter: Regarding a Commercial Solar Energy System (CSES), a device that converts direct current (DC) electricity, which is what solar panels generate, to alternating current (AC) electricity, which the electrical grid uses.

Neighborhood-Scale Solar Energy System: A system that captures and converts solar energy into electricity primarily for use by a specific neighborhood or development of homes, commercial businesses, public facilities, and/or industries. The system is located in the neighborhood or development for which it provides electricity and may include a combination of roof/building mounted and/or ground-mounted solar arrays, as well as a battery storage system, back-up generators, and other accessory components. Any excess, but clearly secondary, amounts of energy generated but not utilized by the neighborhood or development may be supplied to the electrical grid.

Non-Participating Property: A lot or parcel of real property that is not owned, leased, or otherwise controlled or used by a Commercial Solar Energy System (CSES) project owner and with respect to which the CSES project owner does not seek to install or locate one or more CSESs or other facilities related to a CSES project (including power lines, temporary or permanent access roads, or other temporary or permanent infrastructure).

Participating Property: A lot or parcel of real property all or part of which is included in a Commercial Solar Energy System (CSES) project.

Power Generation Facility: A commercial facility that produces usable electricity by harnessing any array of resources including fossil fuels, water, and wind sources. This definition does not include solar sources. See also *Commercial Solar Energy System (CSES).*

Solar Array: Two or more solar panels connected together in a series for the purpose of generating electricity.

Solar Panel: A bank of interconnected solar cells combined into the form of a panel normally contained by a metal or plastic perimeter frame.

Union of Concerned Scientists

CASE STUDY

Designing a Neighborhood Microgrid

Envisioning a Microgrid for the Parker Village Neighborhood in Highland Park, Michigan

Communities across the country are increasingly interested in greater local control over their energy needs. In the fall of 2021, the Union of Concerned Scientists (UCS) and Soulardarity teamed up to release a report, *Let Communities Choose: Clean Energy Sovereignty in Highland Park, Michigan*, showing how solar power, energy efficiency, and other local resources can meet 100 percent of Highland Park's electricity demand (Gignac et al. 2021).

Parker Village, a neighborhood within Highland Park, envisions creating a smart neighborhood development[1] powered by a solar-plus-storage microgrid. As a follow-up to *Let Communities Choose*, UCS partnered with Parker Village developers to explore options for designing such a microgrid and to consider what factors are involved in that effort.

Figure 1. Parker Village Comprehensive Plan

SOURCE: Paul Bierman-Lytle, Sustainable Environment Associates Corporation (SEAS).

Neighborhood microgrids can connect with one another to form a network of clean energy resources having greater resilience and flexibility and assisting communities desiring energy sovereignty and greater local control of their energy needs. Using an energy system model and an estimate of local electricity use, we present this case study as an example for other neighborhoods and communities to consider when exploring their own microgrid options.

Parker Village: A Smart Neighborhood Development

Parker Village is a neighborhood located within Highland Park, a southeastern Michigan city of about 10,000 people. The Parker Village development envisions occupying about eight acres and accommodating more than 100 potential residents. The project includes redeveloping a former elementary school into a community center featuring commercial and office space, renovating some existing residential structures, and building several new homes and other features. The plan also includes the installation of rooftop solar throughout the neighborhood, a centralized battery storage system, several electric vehicle charging stations, an aquaponics garden, and hoop greenhouses. A solar-powered café has already been established on the site.

Microgrids: Power Systems in Miniature

In many communities, power is delivered through a local distribution system connected to the broader electric grid that spans across large regions, all linked with power lines of various sizes. While this system yields many benefits, it also means that the power can go out at people's homes and businesses from distant problems—and stay out until the electric utility can resolve the issues. This centralized system can also make it difficult for some communities to choose how their power is generated, instead holding residents subject to the choices made by utilities and regulators. Enter microgrids.

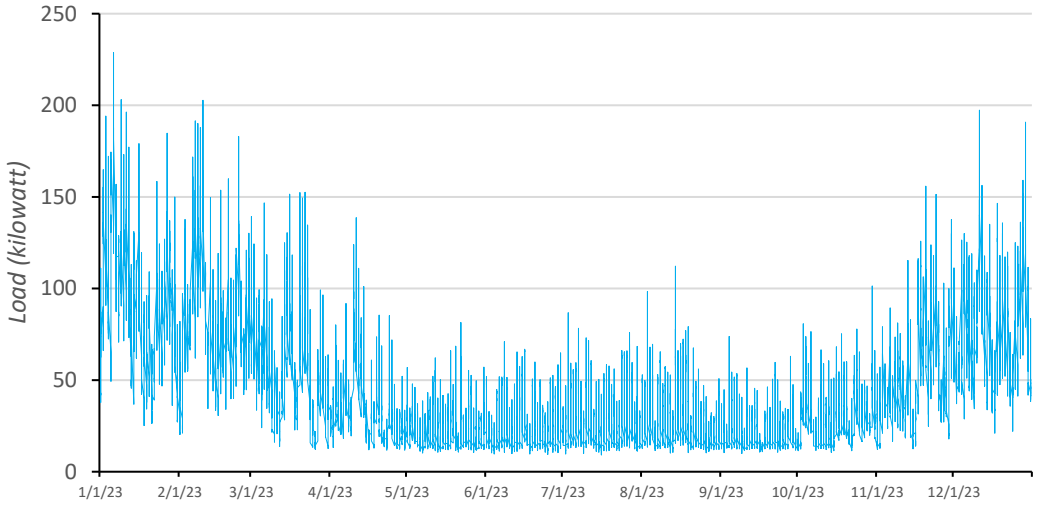
Microgrids are local energy grids either *islanded*—entirely separated—or *islandable*—capable of operating independently—from the larger grid (McNamara 2018). Microgrids can serve single facilities or power larger areas, such as campuses, neighborhoods, and small towns (Department of Energy 2014). Depending on how they are powered, microgrids have the potential to be much cleaner than the current centralized power supply. Also, they can increase resilience by continuing to supply power locally when the larger grid fails.

Exploring the Potential for a Parker Village Microgrid

We used the HOMER Grid model[2] to analyze microgrid possibilities for Parker Village. As a first step, we developed an estimate of the electricity needs the microgrid will serve based on the electric load profiles of residences and other buildings. Because the Parker Village development is not yet built, we used the comprehensive plan (Figure 1) and generic end-use load profiles from the National Renewable Energy Laboratory (NREL) for initial load profile assumptions (NREL 2021).

Specifically, we assumed that all the buildings in the neighborhood would be fully electrified and use electric heat pumps for their heating and cooling. We then selected appropriate building load profiles from the NREL database and assembled a composite annual hourly load profile for the entire neighborhood (Figure 2).

Figure 2. Composite Hourly Load Profile for Parker Village



Electric heating tends to produce winter peak demand for Parker Village. Improved efficiency designs for the neighborhood's buildings can help reduce the overall electricity demand, lower the system costs, and increase the comfort of homes and other structures. Additionally, education and incentive programs for residents can enlist their assistance with lowering peak period needs. SOURCE: UCS estimation based on data from NREL and the Parker Village comprehensive plan.

End-use load profiles are the most important input for modeling the proper amount of distributed energy resources needed to serve a microgrid. As Parker Village develops design and construction plans to make its buildings energy efficient, the initial electricity demand assumptions shown in Figure 2 can and should be adjusted.

In the next step of our microgrid analysis, we further refined the model's characteristics based on responses to several key design questions:

Microgrid Design Questions	Initial Selections for Parker Village Modeling
Will the microgrid be connected to the larger power grid? As discussed previously, microgrids can either be grid-separated (islanded) or grid-connected systems. For islanded microgrids, the system must entirely supply its own power and cannot rely on the larger grid to share electricity.	Parker Village was most interested in exploring a grid-separated microgrid to maximize community independence from the larger system.
What resources will power the microgrid? Any type of power-generating resource can serve a microgrid, considering factors such as the project preferences or goals and available land space.	Focused on clean, non-emitting resources, Parker Village envisioned a microgrid powered primarily by solar photovoltaic (PV) panels and energy storage batteries.

What backup resources can be available? Depending on the design and purpose, a grid-connected microgrid can rely on the larger power grid as its primary supply, using its own resources as backup in case of outages. The reverse occurs in which the microgrid's own resources are the primary power and the larger system is used when those resources are insufficient. However, if the microgrid is islanded, the host entity often needs to include a secondary power source as backup to help minimize outages.	Because Parker Village preferred to analyze an islanded microgrid, we allowed the model to select fossil fuel backup generation when needed; however, for comparison purposes, we also included a grid connection backup option.
What level of outages are tolerable for the microgrid's customers? While the occurrence of no outages is ideal, the willingness to tolerate some level of power interruption can help reduce the amount of resources needed to maintain the microgrid.	We modeled restricted amounts of outage tolerance.[3]

Using these initial selections, HOMER provided several feasible system configurations.[4] Table 1 shows six possible options based on the criteria described.

Table 1. Sample Feasible Configurations for Parker Village Microgrid

Solar PV (MW)	Energy Storage (Tesla Powerpack)[5]		Backup Generator			Initial Investment Cost (2021 million $)	Net Present Cost (2021 million $)
	Units	Total storage capacity	Capacity	Operating hours	Capacity factor		
Fuel type: Natural gas							
1.1	20	4.2 MWh	150 kW	216/year	2.4%	$4.57	$7.99
1.1	30	6.3 MWh	300 kW	72/year	0.8%	$6.30	$11.20
Fuel type: Diesel							
1.1	20	4.2 MWh	100 kW	312/year	3.5%	$4.35	$7.87
1.1	30	6.3 MWh	300 kW	72/year	0.8%	$5.94	$11.00
Grid connection backup							
1.1	10	2.1 MWh	3.4% of annual power supply			$2.85	$4.80
1.1	20	4.2 MWh	1.9% of annual power supply			$4.28	$7.76

Our analysis shows that a grid-separated microgrid powered primarily by solar and energy storage is possible for Parker Village. Yet, there are trade-offs. For example, in four of the configurations, Parker Village achieves its preference to be separate from the larger electric grid and to keep power outages limited. These configurations, however, require a relatively

large amount of solar and battery capacity for the space available in the neighborhood. They also include fossil fuel backup generation to run during winter peak periods when solar and battery storage cannot meet the power demand of the neighborhood.

Additional trade-offs exist with the various types of backup resources. Generating units cause noise and air pollution and require maintenance to ensure they are available when needed. While natural gas is not as polluting as diesel, it requires a connection to the gas distribution system unless another local source of fuel—such as carbon-neutral biogas from a community water and energy resource center (CWERC)—is available.[6] Further, adding more battery capacity or a larger gas or diesel generator significantly lessens the backup units' operating hours per year but increases the costs (see Table 1). Finally, instead of a backup generator, a slightly less costly grid connection requires Parker Village to be dependent on the utility and larger power grid for about 2 percent of its annual power demand, while installing fewer batteries increases the grid reliance but significantly reduces costs.

As Parker Village proceeds with its development planning, it can refine its choices and continue to examine the microgrid options available. For example, building more efficient homes and other structures than we assumed in our initial load profiles would allow for the neighborhood's needs to be served with smaller amounts of solar and batteries and less, or possibly no, fossil fuel generation or grid backup. Additionally, while not modeled in this analysis, natural gas fuel cells are increasingly being used in microgrid applications and could be explored as an alternative backup power source. Fuel cells have lower direct emissions and could in the future be fully carbon free, fueled by hydrogen produced by renewable electricity. Further, there may be the possibility of locating some solar and battery resources nearby—but not within—the planned development, which could allow Parker Village its preference of being grid-separated while keeping outages to a minimum.

In conclusion, this case study illustrates that microgrids offer the possibility for neighborhoods and communities to choose what matters most to them and select their own path that best maximizes their preferred combination of clean energy, resiliency, affordability, and local control.

Microgrids as Part of Local Clean Energy Transitions

In *Let Communities Choose*, UCS and Soulardarity explored what an overall clean energy future could look like for the city of Highland Park. Microgrids in Parker Village and other Highland Park neighborhoods can serve this vision by powering their own areas with clean energy or choosing to interconnect with one another and to the larger electric grid as desired.

Utilities and state and federal policymakers should continue encouraging the development of microgrids in places such as Parker Village and throughout the country through grant programs, technical resources, and policies that promote solar and battery deployment to ensure that projects can be powered by clean resources. Together, we can make microgrids a key part of a new model of supplying and consuming electricity—one that empowers communities and neighborhoods to choose clean energy, generate electricity locally, and increase resiliency.

Youngsun Baek is an energy modeler and **James Gignac** is the senior Midwest energy analyst at the Union of Concerned Scientists. **Juan Shannon** is the founder of Parker Village.

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ENDNOTES

1. Parker Village's "smart neighborhood" development plans for an integrated systems approach in areas including renewable energy, water usage, waste reduction, and food production.
2. For more information on the HOMER Grid model, see our technical appendix available at https://www.ucsusa.org/resources/let-communities-choose-clean-energy.
3. For our reliability assumption, we specified in the model that (1) the total capacity shortage in the system cannot be more than 1 percent of the total annual electric load of the community and (2) the system is allowed to have a capacity shortage of up to 20 hours per year.
4. A larger list of feasible system configurations provided by HOMER is available in Table 7 of the technical appendix.
5. For purposes of this analysis, we modeled Tesla's Powerpack product. The company also offers a Megapack product, designed for utilities and large-scale commercial customers, that has an energy capacity of 3 MWh (Marsh 2021). Two Megapacks provide roughly the same storage capacity as 30 Powerpacks, require less space, and potentially provide cost savings.
6. More information about CWERCs is available in the report *Let Communities Choose* (Gignac et al. 2021).

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Union of Concerned Scientists

FIND THIS DOCUMENT ONLINE:
www.ucsusa.org/resources/let-communities-choose-clean-energy

The Union of Concerned Scientists puts rigorous, independent science to work to solve our planet's most pressing problems. Joining with people across the country, we combine technical analysis and effective advocacy to create innovative, practical solutions for a healthy, safe, and sustainable future.

Your Friendly, Neighborhood Microgrid

Advanced grid tech is cropping up on co-op lines across the state

A "microgrid" is exactly what the name implies: several electric grid components, interconnected at a specific site. They work great at locations that can benefit from increased reliability and resilience. North Carolina's electric cooperatives are deploying microgrids across the state for a variety of applications — even neighborhoods.

Tap an icon below to learn more about each part of the microgrid.

Battery Storage

Energy storage inside homes provides a reliable, clean, quiet and cost-effective source of backup power. Larger batteries, especially tied to community solar, can serve a neighborhood.

Back to map

Solar Generation

Photovoltaic solar panels, both on rooftops and in a shared community installation, can supplement power from the grid and help keep things running in the event of an outage.

Back to map

Backup Generation

Generators, powered by natural gas, propane or diesel fuel (or methane, in some agricultural applications) can serve as additional backup should power from the grid become unavailable.

Back to map

Smart Thermostats

Wi-Fi enabled thermostats help heating and air conditioning units run more efficiently while providing the electric co-op an opportunity to reduce overall costs by trimming energy use.*

Back to map

Advanced Meters

Advanced electric meters allow for two-way communication between electric co-ops and members to help measure energy use, identify outages and enable means of reducing peak demand.

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EV Chargers

Charging electric vehicles at home can often allow co-op members to take advantage of special overnight electric rates, while helping to reduce energy use during hours of peak demand.

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Water Heaters

Even the humble water heater provides an opportunity for electric co-ops to reduce costs for the membership by switching off heating elements during times of high system-wide energy use, leaving plenty of hot water in the meantime.*

** Requires consumer participation in thermostat or water heater demand response programs.*

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Controller and Distribution Automation

Coordination is key with a microgrid, and special hardware and software provide centralized control, allowing electric co-ops to dispatch various microgrid elements when needed. With all individual components working together, electric co-ops can collect, automate, analyze and optimize data to improve the operational efficiency of the microgrid.

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A Brighter Future

Our long-term plans are guided by each electric co-op's local roots and focus on delivering value to cooperative members and their communities. Learn more about the sustainability and efficiency goals of North Carolina's electric cooperatives.

Learn more

The country's first neighborhood microgrid is coming online in Chicago

A network of solar panels, generators, batteries and more will boost resilience for Bronzeville, a historic Black neighborhood.

9 February 2022

Solar panels dot the rooftops of the Dearborn Homes housing complex, part of utility ComEd's Bronzeville community microgrid project in Chicago. (ComEd)

Jeff St. John

Back in 2016, Chicago-area utility Commonwealth Edison unveiled its plan for a "community of the future" in Chicago's Bronzeville neighborhood, the city's center of Black history and culture. The idea was to install backup generators and grid controls that could provide local residents and critical services such as hospitals and nursing homes with always-on power when the grid fails, as well as support the growth of rooftop solar, batteries and electric vehicles.

Six years later, the $25 million initiative is on the cusp of becoming the country's first neighborhood-scale microgrid – and it's a project that could serve as a model for utilities and communities across the country.

Last month, ComEd and the U.S. Department of Energy completed the final tests indicating that the microgrid's natural-gas-fired generators, rooftop solar systems, batteries and advanced grid-control systems can successfully disconnect and reconnect to the larger grid. That's a key proving point for the project's goal of being able to power more than 1,000 residences, businesses and public buildings, including Chicago police and fire department headquarters, during broader grid outages.

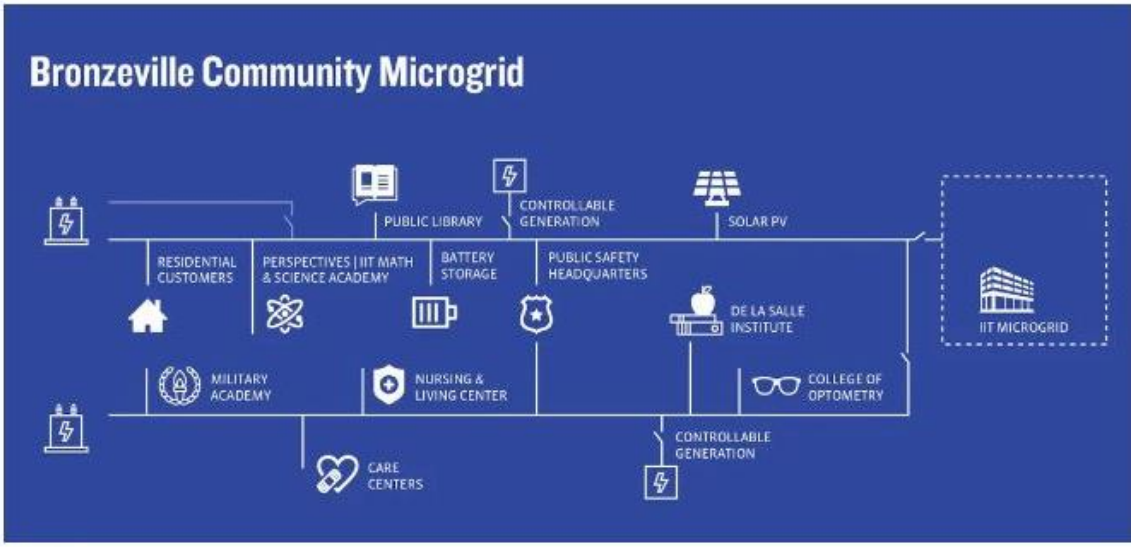
This accomplishment is the result of $5 million in DOE grants and in-kind contributions from corporate partners and the nearby Illinois Institute of Technology, a university with its own campus microgrid connected to the ComEd system. It's a "pretty significant" milestone, according to Aleksi Paaso, ComEd's director of distribution planning, smart grid and innovation.

It's not easy to smoothly disconnect a microgrid from the larger grid during blackouts and then smoothly reconnect when the power is back. "You have these transition modes when you go from grid-connected to islanded or islanded to grid-connected," he said. "Those...are definitely the hardest parts. That view is backed up by experiences and lessons learned from microgrid projects across the country and the world."

It's even harder when the microgrid in question isn't confined to a single location with a single connection to the larger grid, as is the case with the Bronzeville project.

"This is a complex microgrid system, leveraging two feeders from two different substations and an interconnection point with a customer [that has] its own microgrid," Paaso said in an interview. The existing microgrid, on the Illinois Institute of Technology campus, will be integrated into the new, larger Bronzeville microgrid.

A big part of DOE's effort on the project was building an advanced microgrid master controller with the capacity to handle that complexity. "There are a lot of important capabilities related to future grid operations that this project is testing," Paaso said. "That's one of the key areas that the industry, and DOE in particular, [was] looking to understand."



(ComEd)

Now that it's ready, the Bronzeville microgrid can serve as a test bed for how distributed energy resources such as rooftop and community solar, batteries and EV chargers can work together with larger-scale battery and generator installations, Paaso said. ComEd will spend the coming year integrating these types of resources in Bronzeville, including EV chargers to bolster plans to offer EV ride-share services in the neighborhood.

By early 2023, the utility plans to have these assets up and running not just for emergencies but also to balance and optimize the interplay of distributed energy resources with the larger grid, he said.

"It's serving as a laboratory of what the future might look like," said Michelle Blaise, ComEd's senior vice president of technical services.

A central part of ComEd's work on the project is finding ways to share the value of the microgrid with the Bronzeville community, she said.

The microgrid as a community energy resource

The vision – an interconnected web of distributed energy resources that can keep the lights on during emergencies and increase the grid's capacity for solar, batteries and EV chargers while keeping power bills low – is something of a holy grail for utilities and microgrid developers. The Bronzeville project is proving out the technical capabilities to make it possible, said Mohammad Shahidehpour, the professor who leads microgrid research and development at the Illinois Institute of Technology.

IIT's work to integrate its microgrid with ComEd's Bronzeville system shows "how private and public entities can work together to save lives," he said. "In case of an emergency, they can be hooked together and help each other."

"The part that's sort of viewed as a stumbling block is the regulatory issues," Shahidehpour said. "If there are more microgrids around, then there need to be additional rules and regulations around who's doing what and how the costs and revenue are split."

ComEd's Bronzeville project has faced significant regulatory challenges, Shahidehpour pointed out. Illinois has a competitive energy market, so distribution utilities like ComEd and Ameren, the utility serving most of the rest of the state, aren't allowed to own their own power-generation resources. But Illinois lawmakers passed energy legislation in 2016 that relaxed that limitation specifically for the purpose of building community microgrids. Both utilities originally had hoped to build many more microgrids, but so far only ComEd's Bronzeville project has moved forward under the 2016 law.

The Bronzeville plan also faced significant pushback from environmental and community advocates that expressed concerns about its costs and its initial emphasis on fossil-fueled generators over solar, batteries and other low-carbon alternatives. The final plan brought more of those clean alternatives into the mix, with the goal of maximizing the use of solar and batteries to save on fuel costs and reduce carbon emissions.

But generators are a vital piece of a microgrid that must serve a peak load of about 7 megawatts in the Bronzeville neighborhood. Trying to achieve the equivalent level of resilient and long-lasting power from solar-charged batteries would be far more costly and require more solar panels than a dense urban neighborhood can host.

ComEd and other microgrid partners have worked to engage and involve Bronzeville community groups and residents in the project, an effort that has attracted criticism as well as praise.

Billy Davis, general manager at JitneyEV, which is working with ComEd to develop EV ridesharing in the neighborhood, had this to say to Energy News Network:

> "We're trying to demonstrate that, particularly in our community, beneficial electrification comes in many forms, not just the electrification of transportation...so that folks in Black and Brown communities, people who are ratepayers, see the benefits of energy efficiency and beneficial electrification and how it impacts on our health."

From emergency backup power to distributed energy control

One big question that has persisted is how much of a microgrid's infrastructure should be owned by utilities that get to pass the costs of building it onto their customers and how much should be open to competition from outside parties. This dispute has hindered attempts to create microgrid programs in states such as California, where the threat of devastating wildfires has forced utilities to cut power to significant portions of their grids, sometimes for days at a time.

Utilities do play a vital role in balancing the interaction of different types of energy assets on a shared power grid, noted Paaso of ComEd. Part of the utility's work with DOE has been on sensors that can monitor and respond to shifts in solar production, EV charging loads or customer-owned battery operations, he said.

"Overall, this controllability of generation resources has broader applications," he said, not just for ComEd "but for the industry in general."

Utilities across the world are working on "distributed energy resource management systems," or DERMS, that can help them manage the shift from a largely one-way power delivery network to one that includes large numbers of distributed energy assets on the edges of the grid.

The past year's winter storms in Texas, hurricanes along the Gulf Coast and heat waves across the U.S. West have also forced utilities and their state regulators to take a hard look at how distributed energy can make power grids more resilient. Chicago faces the threat of winter blizzards, summer heat waves and wind storms known as derechos, one of which left tens of thousands of Midwestern residents without power for more than a week in 2020.

Microgrids can offer a central control point for balancing local assets in a way that stabilizes how they interact with the utility grid, Shahidehpour said.

"You will never reach a 100 percent distributed system. No matter what we do, we will always need the utility," he opined. "However, to enhance resilience [and] to promote reliability, you need the participation of your customers."

Grid edge | Clean energy | EV charging | Policy & regulation | Utilities

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Jeff St. John is director of news and special projects at Canary Media.

GENERAL RESOLUTION: 2023-08

of the City of Columbus, Indiana Plan Commission

regarding
the revision of the Columbus & Bartholomew County Zoning Ordinance for the jurisdiction of the City of Columbus

WHEREAS, on March 18, 2008 the Columbus Common Council passed Ordinance No. 13, 2008 adopting a replacement zoning ordinance, including zoning maps, for the jurisdiction of the City of Columbus; and

WHEREAS, since that ordinance's effective date of April 3, 2008, its effectiveness has been monitored, reviewed, and evaluated by the Columbus Plan Commission and its professional staff; and

WHEREAS, this on-going review of the zoning ordinance was both an expected and planned component of its long-term maintenance, and periodic revisions to ensure its relevance and appropriateness have been anticipated; and

WHEREAS, the Plan Commission, acting through its professional staff, has prepared a set of revisions of the zoning ordinance that are intended to add additional clarity, comply with changes in Indiana law, reflect contemporary development and land use practices, and best respond to local circumstances and priorities; and

WHERES, following extensive research by the Plan Commission's staff and consideration by the Commission, these revisions include provisions on the added topics of solar energy generation and electric vehicle charging stations with the intent of establishing reasonable requirements for these facilities and minimizing potential conflict between them and surrounding land uses and developments; and

WHEREAS, the proposed zoning ordinance revisions were prepared for the purposes described by Indiana Code Section 36-7-4-601(c) including (1) the securing of adequate light, air, convenience of access, and safety from fire, flood, and other danger; (2) lessening or avoiding congestion in public ways; and (3) promoting the public health, safety, comfort, morals, convenience, and general welfare; and

WHEREAS, the City of Columbus Comprehensive Plan, adopted in a series of elements from 1999 through 2023, provides the policy guidance appropriate for the creation and periodic revision of the zoning ordinance; and

WHEREAS, the Plan Commission did, on September 13, 2023, hold a public hearing consistent with the applicable requirements of Indiana law and the Plan Commission Rules of Procedure; and

WHEREAS, the Plan Commission did pay reasonable regard to the criteria listed by Indiana Code Section 36-7-4- 603; including (1) the Comprehensive Plan, (2) the current conditions in each district, (3) the most desirable use for land in each district, (4) the conservation of property values, and (5) responsible growth and development; and

WHEREAS, the Plan Commission recognizes that this resolution represents a recommendation to the Common Council of the City of Columbus, Indiana, which will be responsible for final action on this matter.

NOW THEREFORE BE IT RESOLVED, by the Plan Commission of the City of Columbus, Indiana, as follows:

1. The proposed revisions to the Columbus & Bartholomew County Zoning Ordinance as documented by the attached Exhibit "A", which is hereby made a part of this resolution, are forwarded to the Common Council with a favorable recommendation.

2. This resolution shall serve as the certification required for the adoption of zoning ordinance revisions (per Indiana Code Section 36-7-4-605).

ADOPTED BY THE COLUMBUS, INDIANA PLAN COMMISSION THIS 13th DAY OF SEPTEMBER, 2023 BY A VOTE OF ____ IN FAVOR AND ____ OPPOSED.

_____
Michael Kinder, President

ATTEST:

_____
Amber Porter, Secretary

Exhibit “A”

Amendments to the City of Columbus - Bartholomew County Zoning Ordinance for the Jurisdiction of the City of Columbus

Mobile & Manufactured Home Standards

Section 3.15(A): Permitted Primary Uses - is revised to include the following:

Residential Uses

- mobile / manufactured home community

Park Uses

- nature preserve / conservation area

Section 3.15(C): Lot Standards - is revised to include the following:

Minimum Lot Area

- Community: 5 acres
- Home Site: 4,000 square feet

Minimum Lot Width

- Community: not applicable
- Home Site: 30 feet

Minimum Lot Frontage

- Community: 50 feet
- Home Site: not applicable

Minimum Front Setback

- Arterial Street or Road: 50 feet
- Collector Street or Road: 35 feet*
- Local Street or Road: 25 feet*

* a 25 foot minimum setback shall be maintained from all internal manufactured home community streets (measured from the edge of pavement)

Minimum Side Setback

- 50 feet from all community perimeter property lines*

* a 5 foot minimum setback shall be maintained from each home site boundary and from any common area boundary where such boundaries are interior to the community

Minimum Rear Setback

- 50 feet from all community perimeter property lines*

* a 5 foot minimum setback shall be maintained from each home site boundary and from any common area boundary where such boundaries are interior to the community

Minimum Living Area per Dwelling

- None (per Indiana Code Section 36-7-2-12)

Minimum Ground Floor Living Area

- 100%

Maximum Primary Structures per Lot

- 1*

* Leased lot developments which are not platted and make use of coordinated street and pedestrian systems may have unlimited primary structures on any one lot.

Maximum Height

- Primary Structure: 30 feet
- Accessory Structure: 25 feet

Table 3.1: Zoning Districts Use Matrix - is amended to replace the use "mobile home / manufactured home park" with "mobile / manufactured home community".

Sections 3.4(C), 3.5(C), 3.6(C), 3.7(C), 3.8(C), 3.9(C), 3.10(C), and 3.11(C): Lot Standards - are revised as follows with regard to Minimum Living Area per Dwelling:

Minimum Living Area per Dwelling

- 1,000 square feet (see also Section 6.7(A)(2)(a) for Manufactured Homes)

Section 3.13(C): Lot Standards – is revised as follows with regard to Minimum Living Area per Dwelling:

Minimum Living Area per Dwelling

- Single-family Structure: 1,000 sq. ft.*
- Two-family Structure: 1,000 sq. ft.*
- Multi-family Structure: 500 sq. ft.

* (see also Section 6.7(A)(2)(a) for Manufactured Homes)

Chapter 6.7: Mobile & Manufactured Home Standards - is revised to read as follows:

These General Mobile & Manufactured Home Standards apply to the Agricultural, Single-Family Residential and Multi-Family Residential zoning districts:

A. **Home Location and Placement Requirements:** The location and placement of all mobile homes, manufactured homes, and industrialized residential structures shall meet the installation instructions of the manufacturer and the additional requirements listed below (consistent with Indiana Code Sections 36-7-4-1106, 36-7-2-12, and 16-41-27-32).

1. Anchoring, Travel Equipment, and Utilities for All Homes: All mobile homes, manufactured homes, and industrialized residential structures shall be anchored to the ground and have utility connections in compliance with the local Building Code. All homes shall have wheels, axles, hitch mechanisms, and all other travel equipment removed.
2. Homes Placed Outside of a Mobile / Manufactured Home Community: Manufactured homes and industrialized residential structures, but not mobile homes, shall be permitted in all zoning districts where a single-family dwelling is allowed by this Ordinance. Mobile homes shall be prohibited in locations outside of mobile / manufactured home communities. Manufactured homes and industrialized residential structures located outside mobile home communities shall be subject to the following requirements:
   a. *Living Area:* The minimum living area shall be as specified by the applicable zoning district or 950 square feet, whichever is less (per IC 36-7-4-1106(e) and (f)).
   b. *Other Development Standards:* With the exception of living area, as indicated above, all other requirements established by this Ordinance for single-family dwellings in the applicable zoning district shall be met including, but not limited to, setbacks, utility requirements, lot sizes and dimensions, and parking requirements.

c. *Foundation:* The home shall be placed on a permanent underfloor foundation and an exterior perimeter retaining wall that are consistent with those for, or planned for, other single-family dwellings in the area and all applicable provisions of the local Building Code.
d. *As an Accessory Dwelling Unit:* Manufactured homes and industrialized residential structures shall be permitted as an accessory dwelling, subject to all requirements of Section 6.1(D)(1).

3. Homes Placed Within a Mobile / Manufactured Home Community: Mobile homes, manufactured homes, and industrialized residential structures shall be permitted within mobile / manufactured home communities where such communities are allowed by this Ordinance. These mobile homes, manufactured homes, and industrialized residential structures shall be placed on a permanent underfloor foundation with exterior foundation siding consistent with all applicable provisions of the local Building Code.

B. **Mobile / Manufactured Home Community Requirements:** All mobile / manufactured home communities, including those containing mobile homes, manufactured homes, and/or industrialized residential structures, shall comply with the following requirements:

1. Storage Space: Each home shall be provided with an enclosed, waterproof storage space either as an accessory structure on each home site, behind the home's skirting, or at a central storage facility.

2. Interior Streets: All interior mobile / manufactured home community streets may either be dedicated to the public or be private. All public interior streets shall meet the design and construction requirements for public streets, including intersections, sidewalks, etc. provided by the Subdivision Control Ordinance.

3. Compliance Verification: Prior to the release of an Improvement Location Permit for construction of a new or expanding mobile / manufactured home community, the community operator shall provide a letter or other indication of plan approval from the Indiana State Department of Health.

Table 6.4(3): Permitted Mobile / Manufactured Homes - is deleted.

Chapter 11.3: Nonconforming Structures - is revised to read as follows:

A. **Legal Nonconforming Structures:** Any structure (including primary, accessory, agricultural, and incidental structures) lawfully established prior to the effective date of this Ordinance, or its subsequent amendments, that no longer meets the development requirements (setbacks, height, etc.) shall be deemed a legal nonconforming structure.

B. **Continuation of Legal Nonconforming Structures:** The continuation and modification of legal nonconforming structures shall meet the following requirements.

1. Increases in Nonconformity: No legal nonconforming structure shall be enlarged or altered in a manner that increases its non-conformity without the approval of a variance by the Board of Zoning Appeals. Any structure may be altered to decrease its nonconformity.

2. Intentional Alterations: The intentional alteration of any legal nonconforming structure shall either (a) conform to the regulations of the district in which it is located or (b) decrease the nonconformity. Once intentionally altered, the legal nonconforming features may not be resumed.

3. Moved or Replaced Structures: Any legal nonconforming structure that is moved for any distance or replaced shall conform to the regulations of the district in which it is located, and the discontinued legal nonconforming features may not be resumed.

4. Accidental Alterations: Legal nonconforming structures that are altered or removed due to government action or damage from fire, flood, other natural disaster, or criminal act may be restored to their legal nonconforming condition. Such structures, if rebuilt or restored, shall be identical or of reduced nonconformity in volume, height, setback, scale, and all other aspects to that which was altered or removed.

5. Abandonment: Uses and structures in combination which are abandoned shall comply with the requirements of Section 11.5(B)(8).

6. Change of Use: The change of use of any legal nonconforming structure shall not cause the loss of legal nonconforming status for the structure itself.

7. Mobile and Manufactured Home and Industrialized Residential Structure Exceptions: As provided by Indiana Code Section 36-7-4-1019, any legal nonconforming mobile home, manufactured home, or industrialized residential structure that is damaged, destroyed, or removed for any reason or due to any circumstance shall be permitted to be reconstructed, repaired, renovated, and/or replaced provided that (1) it will continue to be used for its previous residential purpose and (2) the foundation of the reconstructed, repaired, renovated, or replaced structure will not exceed the square footage that existed previously. This includes the permitted periodic replacement of the individual mobile homes, manufactured homes, and/or industrialized residential structures located in legal nonconforming mobile / manufactured home communities. Any such reconstructed, repaired, renovated, and/or replaced residential legal nonconforming structure shall be subject to the applicable Flood Hazard Area Standards provided by Chapter 4.7 of this Ordinance and in no circumstances shall be considered exempt from those requirements.

Chapter 11.5: Nonconforming Uses - is revised to read as follows:

A. **Legal Nonconforming Uses:** Any lawful use of structures, land, or structures and land in combination established prior to the effective date of this Ordinance or its subsequent amendments that is no longer a permitted use in the district where it is located shall be deemed a Legal Nonconforming Use. The following shall apply to all legal nonconforming uses:

   1. Change of Use (to Another Nonconforming Use): If no structural alterations are made, it is possible to change any nonconforming use to another nonconforming use.
      a. *Similar Uses:* Nonconforming uses may be changed to another similar nonconforming use. For the purpose of this Section similar uses shall be considered those within the same land use categories (such as office uses, retail uses, etc.) as provided by Article 3 of this Ordinance.
      b. *Dissimilar Uses:* Nonconforming uses may only be changed to other dissimilar nonconforming uses with the approval of the Board of Zoning Appeals (as a use variance). For the purpose of this Section, dissimilar uses shall be considered those that are not within the same land use categories (such as office uses, retail uses, etc.) as provided by Article 3 of this Ordinance. Following the change of use, the previous nonconforming use may not be resumed.

   2. Change of Use (to a Permitted Use): When a legal nonconforming use is replaced by a permitted use, or a different non-permitted use allowed by conditional use or a use variance, it shall thereafter conform to the regulations of the district in which it is located or the applicable conditional use / use variance approval. The legal nonconforming use may not be resumed.

B. **Continuation of Legal Nonconforming Uses:** In addition to the provisions of Section 11.5(A) above, the continuation and modification of legal non-conforming uses shall meet the following requirements:

   1. Modification of Structures: No existing structure devoted to a legal nonconforming use shall be enlarged, expanded, increased, extended, constructed, reconstructed, or moved except as to change the use of the structure to a use permitted in the district in which it is located.

   2. New Structures: No new structure shall be constructed in connection with an existing legal nonconforming use of land.

   3. Expansion Within Structures: Any legal nonconforming use may be extended throughout any parts of an existing structure that were plainly arranged or designed for such use at the effective date of this Ordinance or its subsequent, applicable amendments.

   4. Expansion on the Property: No legal nonconforming use of land shall be enlarged, increased, extended to occupy a greater area of land, or moved in whole or in part to any other portion of a lot than was occupied at the effective date of this Ordinance or its subsequent, applicable amendments.

   5. Abandonment: If a legal nonconforming use is intentionally abandoned for 1 year or longer, any subsequent use of such land, structure, or land and structure in combination shall conform to the provisions of this Ordinance. A legal nonconforming use shall be considered intentionally abandoned if the Planning Director determines that one or more of the following conditions exists:
      a. utilities, such as water, gas, and electricity, to the property have been disconnected.

b. the property, buildings, and/or grounds have fallen into obvious disrepair.
c. equipment, fixtures, or facilities that are necessary for the operation of the use have been removed.
d. damaged structures have not been secured from the weather and trespassing or reinforced to prevent further damage.
e. other alterations to the property have occurred that constitute a clear intention on the part of the property owner to abandon the use.

6. Nonconforming Structures and Land in Combination: Where legal nonconforming use status applies to a structure and land in combination, an intentional removal or alteration of the structure, or its use, that establishes conformity shall also eliminate the legal nonconforming status of the land.

C. **Exemptions:** The following legal nonconforming uses shall be exempt from the provisions of this Chapter and may be restored or expanded under the terms and conditions specified for each below.

1. Involuntarily Discontinued Uses*:* Uses that are required to be discontinued due to government action that impedes access to the premises or damage from fire, flood, other natural disaster, or criminal act may be restored. In no instance shall acts of arson by the property owner, government enforcement of unsafe building codes, or other similar circumstances be considered as qualification for this exemption. If replaced by a different use, the previous nonconforming use may not be resumed. These uses, if restored, shall be either identical or of reduced nonconformity in scale, volume, lot coverage, and all other aspects to that which was discontinued.

2. Residential Uses: Residential uses that are legal nonconforming due to their presence in any industrial or commercial zoning district shall be permitted to expand on the property and through the modification, addition, or expansion of structures provided any change complies with the development standards (building setbacks, etc.) applicable in that zoning district, or any necessary variances are obtained. Further, the residential legal non-conforming use of a property shall not be affected by the destruction, removal, or other alteration of a mobile home, manufactured home, or industrialized residential structure on that property consistent with Section 11.3(B)(6) of this Ordinance and Indiana Code Section 36-7-4-1019.

3. Farm Uses: As specified by Indiana Code Section 36-7-4-616, farm uses that are legal nonconforming shall be permitted to expand on the property and through the modification, addition, or expansion of structures provided any change complies with the development standards (building setbacks, etc.) applicable in that zoning district, or any necessary variances are obtained. In no instance shall any land previously used as a farm and later set aside or withheld from production for conservation or other purposes be considered abandoned or otherwise denied legal nonconforming status. Further, in no instance shall a legal nonconforming farm be denied changes to its operation or type of production so long as the result continues to meet the definition of a farm provided by this Ordinance.

Section 14.2: Definitions – the select definitions indicated are added, deleted, or revised to read as follows:

Dwelling, Industrialized Residential Structure: A single-family detached dwelling that is the product of an industrialized building system and therefore in whole or in substantial part is fabricated in an off-site manufacturing facility for installation or assembly at a building site, excluding those that are capable of inspection at the building site consistent with Indiana Code Sections 16-41-27-2.1 and 22-12-1-14. This term specifically does not include mobile homes and manufactured homes.

Dwelling, Manufactured Home: A single-family detached dwelling that is factory assembled to the standards of the federal Manufactured Housing Construction and Safety Standards Law of 1974 (42 U.S.C. 5401 et seq.) and specifically meets the definition provided by 42 U.S.C. 5402.

Dwelling, Manufactured Home Type I: Is deleted

Dwelling, Manufactured Home Type II: Is deleted

Dwelling, Mobile Home: A single-family detached dwelling, including the equipment sold as a part of that dwelling, that is factory assembled, is transportable, is intended for year-round occupancy, is designed for

transportation on its own chassis, and was manufactured before the effective date of the federal Manufactured Housing Construction and Safety Standards Law of 1974 (42 U.S.C. 5401 et seq.).

Industrialized Residential Structure: see *Dwelling, Industrialized Residential Structure*

Manufactured Home: see *Dwelling, Manufactured Home*

Manufactured Home Type I: Is deleted

Manufactured Home Type II: Is deleted

Mobile Home: see *Dwelling, Mobile Home*

Mobile / Manufactured Home Community: One or more adjacent parcels of land operated together that contain multiple individual lots or areas that are leased or otherwise contracted as sites for mobile homes, manufactured homes, or industrialized residential structures serving as principal residences. The term includes any amenity spaces, such as a laundry, park, or community building designed and intended for the use of community residents.

Mobile / Manufactured Home Sales: The sale and incidental storage of mobile homes, manufactured homes, and/or industrialized residential structures as the primary use of a property. This term does not include the sale, by the owner or operator of a mobile / manufactured home community, of mobile homes, manufactured homes, or industrialized residential structures located within that community (consistent with Indiana Code Section 16-41-27-32(d)).

Mixed Density Neighborhood (MX-OL) Overlay Zoning District

Chapter 4.6: Mixed Density Neighborhood Zoning District (MX-OL) - is deleted in its entirety, including necessary changes to the Official Zoning Map.

Accessory Dwellings

Section 6.1(D)(1)): Accessory Dwellings - is revised to read as follows:

1. Accessory Dwellings: Single family dwellings constructed and used as accessories to the primary dwelling on the property (otherwise commonly known as “mother-in-law’s quarters” or “granny flats”) shall meet the following requirements:
   a. *Location on the Property:* The accessory dwelling may be (i) attached to, and designed and constructed as part of the primary structure, (ii) attached to or included within a detached garage or other accessory structure, or (iii) a separate and distinct accessory structure on the property.
   b. *Primary Use of the Property:* An accessory dwelling may only be established on a property on which the primary use and structure is a single-family dwelling (or where a single farm dwelling is present). In instances where two or more dwelling units exist on a property and an additional dwelling unit is sought to be established, that additional unit shall be considered as an expansion of a multifamily use, rather than an accessory dwelling, and the provisions of this section shall not apply.
   c. *Living Area:* In residential zoning districts, the living area of any accessory dwelling shall not exceed 1,000 square feet or an amount equal to 65% of the primary residence on the property, whichever is less. Further, no accessory dwelling shall be less than 400 square feet in living area. In agricultural zoning districts, the living area of the accessory dwelling shall not exceed an amount equal to 75% of the primary residence on the property. However, properties in agricultural zoning districts on which an accessory dwelling is created by retaining a historic home (any that is at least 50 years old) shall be exempt from the living area limit.
   d. *Maximum Number of Units:* A maximum of 1 accessory dwelling may be permitted on any property.

e. *Driveway Access:* The accessory dwelling shall not require the establishment of an additional driveway.
f. *Parking Requirements:* In instances where on-street parking is allowed on either side of a street in a block where the subject property has frontage, no off-street parking for the accessory dwelling shall be required. Where the on-street parking described above is not available, one off-street parking space, in addition those required for the primary residence by Chapter 7.1 of this Ordinance, shall be provided for the accessory dwelling. All off-street parking spaces provided shall meet all applicable design and circulation standards for the zoning district in which the property is located as provided by Article 7 of this Ordinance.
g. *Waste Disposal:* Both the primary residence and the accessory dwelling shall either (i) be served by a public sewer system or (ii) be served by one shared or two individual septic systems approved by the Bartholomew County Health Department. The waste disposal method shall also comply with the Utility Requirements established for each zoning district by Article 3 of this Ordinance.
h. *Architectural Design:* The accessory dwelling unit should make use of exterior materials consistent with or complimentary to the primary residence on the property.

Table 6.1 - Permitted Accessory Uses - is amended to add dwelling, accessory as a conditional use in the RS4 zoning district.

RE (Residential: Established) Zoning District

Section 3.12(C): Lot Standards - is revised to include the following:

Where any standard below is calculated based on context, that calculation shall (1) include only those properties in the RE zoning district and (2) exclude any lot, structure, setback, or other applicable feature that resulted from a development standards variance.

Minimum Lot Area

- equal to the smallest area of any legal lot of record within 300 feet of the subject property, or (where sewer service is not available) as required to provide two viable septic system sites, in the opinion of the Bartholomew County Health Department, whichever is greater.

Minimum Lot Width

- equal to the smallest width of any legal lot of record within 300 feet of the subject property.

Minimum Lot Frontage

- equal to the smallest frontage of any legal lot of record within 300 feet of the subject property.

Maximum Lot Coverage

- equal to the highest percent coverage of any legal lot of record within 300 feet of the subject property or 75%, whichever is greater.

Minimum Front Setback

- equal to the smallest setback provided by all other primary structures on the same side of the street on legal lots of record within 300 feet of the subject property, however all garage vehicle entrances facing and obtaining access from a public street shall have a minimum front setback of 25 feet on that street.

Minimum Side Setback

- Primary Structure: 5 feet
- Accessory Structure: 3 feet

Minimum Rear Setback

- Primary Structure: 5 feet
- Accessory Structure: 3 feet

Minimum Living Area per Dwelling

- Single-Family or Two-Family Structure: Either (1) 1,000 square feet, (2) equal to the smallest single-family structure living area within 300 feet of the subject property, or (3) equal to the living area of the structure most recently, legally present on the property which has been demolished or otherwise removed, whichever is less (see also Section 11.3(B)(7)). Where structures originally constructed for single-family use to be used in this calculation have been converted to multiple dwelling units, the total living area of the entire structure shall be used. See also Section 6.7(A)(2)(a) for Manufactured Homes.
- Multi-Family Structure: 500 square feet

Maximum Ground Floor Living Area

- 40%

Maximum Primary Structures per Lot

- 1

Maximum Height

- Primary Structure: 45 feet
- Accessory Structure: 35 feet (or the height of the primary structure on the property, whichever is less)

Single Family Residential Zoning District Maximum Gross Density

Sections 3.8(C), 3.9(C), 3.10(C), 3.11(C), and 3.13(C): Maximum Gross Density - is deleted.

Residential Zoning District Park / Playground Uses

Sections 3.7(A&B), 3.8(A&B), 3.9(A&B), 3.10(A&B), 3.11(A&B), 3.12(A&B), 3.13(A&B), 3.14(A&B), and 3.15(A&B): Permitted and Conditional Primary Uses - are revised as follows:

Permitted Primary Park Uses

- nature preserve / conservation area
- park / playground

Conditional Primary Park Uses

- amphitheater / outdoor venue
- athletic complex
- golf course

RT (Residential: Two-Family) District Intent

District Intent – is revised to read as follows:

"The "RT", Residential, Two-Family zoning district is intent to provide areas for moderate density single, two, and multi-family residences…"

I3 (Industrial: Heavy) District Conditional Commercial Uses

Sections 3.25(B): Conditional Primary Uses– is revised to read as follows with regard to Commercial Uses:

Commercial Uses

- agricultural supply facility
- truck stop / travel center

Accessory Structure Vehicle Access

Section 6.1(E)(4): Accessory Structure Vehicle Access – is revised to read as follows:

4. Vehicle Access: No garage vehicle entrance from a street shall be setback less than 25 feet from the adjacent right-of-way (to allow for off-street parking).

Various Vehicle Parking Provisions

Section 7.1(Part 1)(D)(4) and (5): Recreational Vehicle Storage and Vehicle Maintenance - is deleted.

Section 7.2(Part 3): Residential Front Yard Parking - is deleted.

Incidentals

Section 6.1(C)(5): Other Incidentals – is revised to read as follows:

5. Other Incidental Structures: Other incidental structures shall include and be subject to the requirements of this Ordinance as follows:
    a. Bird baths and houses, mailboxes, lamp posts, doghouses, yard ornaments, and other similar items shall be exempt from regulation by this Ordinance.
    b. Patios, pool decks, walks, athletic courts, and other similar items installed at finished grade on a property shall be exempt from regulation by this Ordinance. However, any fences associated with these items shall be subject to Chapter 9.3.
    c. Gazebos, arbors, play equipment, sheds, mechanical equipment including ground-mounted solar panels, and other similar items, if less than 120 square feet in area and not on a permanent foundation, shall be exempt from regulation by this Ordinance. Those that exceed 120 square feet individually or are on a permanent foundation shall be subject to the accessory structure provisions of this Ordinance, specifically including the location provisions of Section 6.1(E). Further, any single type of these incidentals (sheds, for example), where 2 or more are present, that total more than 120 square feet on a property shall also be subject to the accessory structure provisions of this Ordinance.

Electric Vehicle Charging

Section 7.1(Part 1)(A)(3): General Parking Standards - is added, to read as follows; subsequent content is re-numbered as appropriate:

3. Reserved Spaces: Parking spaces reserved for use by veterans, expectant mothers, employees, or other specific groups; designated for product pick-up; provided for electric vehicle charging; and other similar limited-use spaces shall apply towards the overall parking requirements. The application of Barrier Free spaces to the requirement shall be as specified in Section 7.1(Part 1)(C).

Section 7.1(Part 1)(E): Electric Vehicle Charging Space Requirements - is added as follows:

E. **Electric Vehicle Charging Space Requirements:** Electric vehicle charging spaces are those marked parking spaces equipped with an electric vehicle charging station. The provision of electric vehicle charging spaces shall comply with the following requirements:

1. Spaces Required: Electric vehicle charging spaces shall be required in association with newly constructed or expanded multifamily residential uses, hotels, and parking lots / garages (where that lot or garage is a primary use), that provide 25 or more parking spaces, at a minimum ratio of 1 charging space for every 50 total parking spaces provided, rounded up to the nearest whole charging space. The required multifamily residential use charging spaces may be provided with Type I, II, or III chargers, as defined by this Ordinance. The required hotel and parking lot / garage charging spaces shall be provided with either Type II or Type III chargers. A property on which fewer than 25 parking spaces is provided shall be exempt from this electric vehicle charging space requirement.

2. Posting Required: Each required electric vehicle charging space shall be posted with information indicating the space is for electric vehicle charging purposes. Any such postings that are not internal, and therefore meet the definition of a "sign", shall be subject to the provisions of Article 10 of this Ordinance.

3. Charging Space Standards: Electric vehicle charging spaces, both required and non-required, shall comply with all provisions of this Ordinance applicable to parking spaces in the same zoning district, including but not limited to the Design Standards of Chapter 7.2, Circulation Standards of Chapter 7.3, and Landscaping Requirements of Article 8.

4. Charging Station Standards: Electric vehicle charging stations and related equipment, for both required and non-required spaces, shall meet the following requirements:
   a. *Charging Stations:* Electric vehicle charging stations shall be considered incidental structures consistent with Section 6.1(C)(5)(a). However, charging stations may only encroach by up to 3 feet in any required minimum front yard setback (including into the Parking Lot Public Street Frontage landscape area required by Section 8.1(C)).
   b. *Charging Station Supporting Equipment and Structures:* Charging station associated equipment and structures, including the transformers commonly supporting Type III chargers as well as canopies, shall be considered accessory structures and shall be subject to the accessory structure provisions of this Ordinance, specifically including the location provisions of Section 6.1(E). However, where an electric vehicle fueling station or a parking lot is the primary use on a property, any associated canopies shall be considered primary structures.
      i. Charging station canopies shall further be exempt from any limitations provided by this Ordinance on the number of accessory or primary structures, as applicable, permitted on a single lot.
      ii. All ground-mounted equipment installed in association with the charging station(s), and in addition to the charging station itself, (such as the electric transformers commonly supporting Type III chargers) shall be provided with a 6-foot tall, 100% opaque screening enclosure. The enclosure shall be made of wood, stone, masonry, architectural metal, or other similar construction providing the required opacity. Any access gates shall also be 100% opaque. In no instance shall chain link fence interwoven with plastic strips or other similar fencing be considered as meeting this screening requirement.
   c. *Residential-Use Limitations:* Any charging stations installed on residential properties shall be for the use of residents and guests at that property and specifically not for commercial use.

5. Additional Charging Spaces Permitted: In no instance shall this Section be interpreted as limiting or restricting the inclusion of charging spaces or charging stations on any property or those exceeding the minimum number where required, provided that all spaces, stations, and supporting equipment comply with Sections 7.1(Part 1)(E)(3) and (4) above.

Chapter 14.2: Definitions - the select definitions indicated are added, deleted, or revised to read as follows:

Auto Oriented Uses, Small Scale: Uses such as gas stations, electric vehicle fueling stations, car washes, and others listed under the heading of Auto-Oriented Uses, Small Scale by the Zoning Districts Use Matrix

included in this Ordinance. This does not include any uses listed under the headings of auto-oriented uses large or medium scale.

Electric Vehicle: Any vehicle that operates, either partially or exclusively, on electrical energy from the grid, or an off-board source, that is stored on-board for locomotive purposes.

Electric Vehicle Charging Space: A public or private parking space located together with a battery charging station which permits the transfer of electric energy (by conductive or inductive means) to a battery or other storage device in an electric vehicle.

Electric Vehicle Charging Station: One of the following stations which permit the transfer of electric energy (by conductive or inductive means) to a battery or other storage device in an electric vehicle:

1. **Type I** - A standard outlet connection primarily used at private residences within an enclosed garage, or located in a primary residence driveway. *Note: They are typically considered slow charging (120-volt AC) requiring 8-12 hours to fully recharge a depleted battery.*
2. **Type II** - Free standing or hanging charging station units utilized for recharging of depleted batteries. They are well suited for inside and outside locations, where cars park for several hours at a time. Type II stations require installation of charging equipment and a dedicated 20 to 80-amp circuit for adequate power. *Note: They are typically considered medium charging (208 or 240-volt AC) requiring 4-8 hours to fully recharge a depleted battery.*
3. **Type III** - Free standing units, of often higher profile, typically industrial grade, that enable rapid charging of electric vehicle batteries to 80% capacity in as little as 30 minutes. They are more common in heavy use transit corridors or at public fueling stations. *Note: They are considered fast or rapid charging (480-volt AC).*

Electric Vehicle Fueling Station: Any facility serving as a primary land use providing the retail sale of electricity for the purpose of fueling an electric vehicle. This facility may or may not include a storefront for the sale of accessories and other consumer goods found at traditional convenience stores, areas for driver rest or recreational while their vehicle is charging, and similar amenities. Electric vehicle fueling stations shall not include any vehicle repair services.

Wheel Stop Placement

Section 7.2(Part 4)(A)(5)(c): Wheel Stops for Landscaped Areas and Pedestrian Walkways – is revised to read as follows:

c. *Landscaped Areas and Pedestrian Walkways:* All required landscaped areas and required pedestrian walkways which are perpendicular to parked vehicles shall be protected with wheel stops located in each space to prevent vehicles from overhanging the landscaped area or walkway, subject to the exceptions listed below. All wheel stops shall be located two feet from the end of each parking space adjacent to the landscaped area or walkway.
   i. Parking spaces adjoining required pedestrian walkways exceeding 7 feet in width shall be exempt from this requirement if a curb is provided to separate the parking spaces from the walkway. A corresponding reduction in parking space length shall not be permitted.
   ii. Parking spaces adjoining required landscaping areas shall be exempt from this requirement if a curb is provided separating the parking spaces from the landscape area and the required plantings are placed 6 feet or greater from the back of that curb.

Bicycle Rack Spacing

Section 7.1(Part 2)(C): Bicycle Parking Requirements – is revised to read as follows:

C. **Bicycle Parking Requirements:** All commercial and public/semi-public uses shall provide parking facilities for bicycles, consistent with the following requirements:

1. Number of Bicycle Spaces: All commercial and public/semi-public uses shall provide bicycle parking based on the number of vehicle parking spaces provided consistent with the Bicycle Parking Standards Table, below.

Bicycle Parking Standards (Table 7.4)

Total Vehicle Parking Spaces Required	Bicycle Spaces Required	
	CN Zoning District in the City of Columbus Jurisdiction	All Other Zoning Districts
1 - 25	4	0
26 - 250	4	2
over 250	4	4

2. Bicycle Racks: Bicycle racks shall support the bicycle upright by its frame in 2 places above the bicycle's center of gravity, shall enable the frame and one or both wheels to be secured with a lock, and shall not require the lifting of the bicycle to use any of the rack's parking positions.
   a. Examples of appropriate racks include an inverted "U" rack, the "A" rack, and the post and loop rack.
   b. The toast, wave, and comb racks are prohibited.
   c. The use of bicycle lockers is encouraged, but lockers shall not serve as an alternate to the bicycle rack requirements.
3. Location and Placement: Bicycle parking facilities shall be located in a high visibility area that (a) provides convenient and safe pedestrian access to main building entrances or activity areas and (b) provides convenient, paved bicyclist access to the nearest path, street, or sidewalk (without the cyclist being required to dismount or carry their bicycle). Bicycle racks shall be placed on a concrete surface that provides a clear area and extends a minimum of 3 feet in all directions from each rack. No building, walkway, landscaping, parking lot or drive aisle, or other obstruction shall encroach into this bicycle rack clear area. When placed in rows, each rack shall be separated from others by a minimum of 3 feet where bicycles are parked side-by-side and a minimum of 5 feet where bicycles are parked end-to-end.
4. School Exemption: Bicycle racks provided at any school that includes any grades pre-school through 12th grade shall be exempt from the bicycle rack type limitations and location and placement standards provided by Sections 7.1(Part 2)(C)(2)&(3) above. Any bicycle rack type(s) and locations on the property may be used.

Figure 7.1: Bicycle Rack Examples

The Bicycle Rack Examples Figure is amended to also show the Comb and Wave racks as prohibited.

Parking Lot Public Street Frontage Landscaping

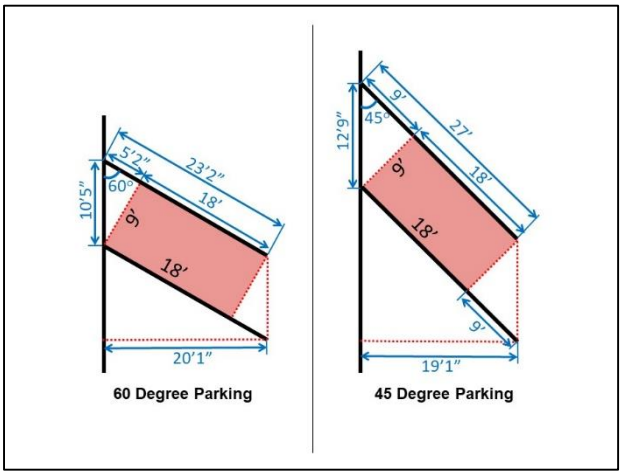
Section 8.1(C)(1): Area #1 - Parking Lot Street Frontage - is revised to read as follows:

1. Area #1 – Parking Lot Street/Road Frontage: The front setback areas for all parking areas, including parking spaces, interior drives, and loading/unloading areas, shall be landscaped. The front setback area shall be planted with either one or a combination of the following options. Plant material is intended to be distributed across the frontage, but is not required to be installed in 50 foot increments. For the purpose of determining the amount of landscaping required, the frontage shall be rounded to the nearest 50 feet.
   a. *Plantings Only*: For every 50 linear feet of frontage a minimum of 1 large tree or 1.25 medium trees, plus 7.5 shrubs shall be provided; or

b. *Berm & Plantings*: A landscaped berm that is a minimum of 3 feet in height shall be provided. A minimum of 1 large tree or 1.25 medium trees, plus 2.5 shrubs shall be provided for every 50 linear feet of berm provided. The shrubs shall be located on the berm.
c. *Overhead Utility Alternate Trees*: Where overhead utilities are present and required Parking Lot Street/Road Frontage Landscaping must be within 20 feet, horizontally, of the base of those utility poles, small trees with a mature height not exceeding 15 feet may be substituted for the required large or medium trees.

Parking Space Measurement

Figure 7.2: Parking Space Measurement Illustration - is amended to include the following:



Solar Energy Generation

Sections 3.5(B) and 3.6(B): AP and AG Zoning District Conditional Primary Uses – are revised to include Commercial Solar Energy System (CSES) under "Industrial Uses".

Sections 3.5(B), 3.6(B), 3.7(B), 3.8(B), 3.9(B), 3.10(B), 3.11(B), 3.12(B), 3.13(B), 3.14(B), 3.15(B), 3.16(B), 3.17(B), 3.18(B), 3.19(B), 3.20(B), 3.21(B), 3.22(B), 3.23(B), 3.24(B), and 3.25(B): AP, AG, RR, RS1, RS2, RS3, RS4, RE RT, RM, RMH, CD, CDS, CN, CO, CC, CR, P, I1, I2, and I3 Zoning District Conditional Primary Uses – are revised to include Neighborhood-Scale Solar Energy System under "Communications / Utility Uses".

Table 3.1: Zoning District Use Matrix - is revised as follows:

Commercial Solar Energy System (CSES) is added to the use list under "Industrial Uses" and indicated as conditional in the AP and AG zoning districts.

Neighborhood-Scale Solar Energy System is added to the use list under "Communications / Utility Uses" and indicated as conditional in the AP, AG, RR, RS1, RS2, RS3, RS4, RE, RT, RM, RMH, CD, CDS, CN, CO, CC, CR, P, I1, I2, and I3 zoning districts.

Chapter 6.10: Solar Energy Generation Systems - is added as follows:

Intent: *The purposes of the solar energy generation system standards are to (1) provide clear requirements for those systems capturing solar energy for primarily on-site and neighborhood-scale use and (2) establish*

reasonable requirements for the development, operation, and decommissioning of commercial solar energy systems while minimizing conflict between these developments and surrounding land uses.

Part 1: These On-Site and Neighborhood-Scale System Standards apply to all zoning districts.

A. **On-Site Use Systems:** Solar energy systems and equipment capturing solar energy for primarily on-site (on the same property) use, with any excess amounts supplied to the electrical grid, shall be considered (1) mechanical appurtenances when attached to a structure and (2) incidental or accessory structures, as appropriate, when ground-mounted, consistent with the applicable provisions of this Ordinance. Specifically, ground-mounted solar panels shall be regulated consistent with the provisions of Section 6.1(C)(5) regarding incidental uses and structures.

B. **Neighborhood-Scale Systems:** Solar energy systems capturing solar energy for use primarily by those properties within a specific neighborhood or development, with any excess amounts supplied to the electrical grid, shall meet the standards provided below. The system may include building and/or ground-mounted solar panels, as well as battery storage systems, back-up generators, and other accessory components.

1. The solar energy system shall be entirely located within the neighborhood or development served.
2. Any ground-mounted solar arrays and/or battery systems located as a primary use on a property shall:
   a. be subject to all primary structure setbacks for the zoning district in which they are located;
   b. be provided with a Buffer Yard Type A, in addition to the setback indicated in Section 6.10(Part 1)(B)(2)(a) above, where adjoining or visible from any public street or road or a property outside of the neighborhood or development served;
   c. be subject to the maximum height standards for accessory structures in the applicable zoning district); and
   d. for solar arrays, comply with the ground cover provisions of Section 6.10(Part 2)(A)(4), except where the arrays are designed to capture solar energy reflected from below, in which case crushed stone or other material may be used as necessary to provide the reflective ground cover.
3. Any inverters and similar equipment should be located and designed to minimize the extent to which any noise generated is detectable beyond the property on which it is located.

Part 2: These Commercial Solar Energy System (CSES) Standards apply to the AP (Agriculture: Preferred) and AG (Agriculture: General Rural) zoning districts:

A. **CSES Location and Design Standards:** Commercial Solar Energy Systems (CSESs) shall be located consistent with Article 3 of this (the Zoning) Ordinance. All such energy systems shall meet any and all applicable requirements of the federal, state, and local government in addition to the standards listed below.

1. <u>Setback Distances:</u>
   a. *Minimum Front Yard (Right-of-Way) Setbacks:* All structures, equipment, storage areas, vehicle service drives, CSES electrical substations, and fencing used in association with a CSES shall be setback a minimum of 50 feet from the actual or planned right-of-way, whichever is greater, for all adjacent streets and roads. Access drives that connect the CSES facility to the adjacent public street or road may encroach into the required setback area.
   b. *Minimum Setbacks from Non-Participating Properties:* All structures, equipment, storage areas, vehicle service drives, and fencing used in association with a CSES shall be setback a minimum of 200 feet from the property lines of all non-participating properties and any CSES electrical substation shall be setback a minimum of 500 feet from the property lines of all non-participating properties. For CSES facilities that are separated from non-participating properties by public right-of-way, the measurement shall be taken from the property line of the non-participating property, not from the right-of-way line along the CSES facility. Access drives that connect the CSES facility to an adjacent public street or road may encroach into the required setback area.

c. *Minimum Setback Distance from Dwellings on Non-Participating Properties:* All structures, equipment, storage areas, vehicle service drives, CSES electrical substations, and fencing used in association with a CSES shall be setback a minimum of 500 feet from dwellings on non-participating properties. Separation shall be measured from the nearest structure, equipment, storage area, vehicle service drive, CSES electrical substation, or fence associated with the CSES to the outer wall of the dwelling.

d. *Minimum Setback Distance from Municipal Boundaries:* No CSES facility, including all structures, equipment, storage areas, vehicle service drives, CSES electrical substations, and fencing, shall be located closer than 1½ miles to the City of Columbus corporate limits and ½ mile to any other municipal boundary line. Setback shall be measured from the nearest structure, equipment, storage area, vehicle service drive, CSES electrical substation, or fence associated with the CSES to the corporate limits.

e. *Exemption*: The minimum setback distances described above shall not apply to any cables buried underground or to the cable that connects the Commercial Solar Energy System (CSES) electrical substation to the transmission line (when located either above or below ground).

f. *Waivers*: Waivers from the required setback distances specified above in Sections A(1)(b), A(1)(c), and A(1)(d) may be granted by the municipality or non-participating property owner from which they are required. All such waivers shall exempt the CSES from providing the otherwise required setback or separation distance in its entirety. Any alternate separation, buffering, and/or other mitigation of the presence of the CSES shall be established as a private agreement between the involved municipality or non-participating property owner and the CSES developer/owner/property owner(s). These private agreements shall not be subject to enforcement by Bartholomew County or any other unit or entity of local government.

2. Vehicular Access: Vehicle access drives serving the CSES facility shall be paved with asphalt or concrete for the first 50 feet from the edge of road or street pavement; the remaining portion of the access drive may be gravel. Any portion of a drive located in a public right-of-way shall meet the applicable requirements of the County Engineer.

3. Equipment Height: CSES solar arrays shall not exceed 18 feet in height when oriented at maximum tilt and shall provide a minimum clearance of one foot between the ground and the solar array, at maximum tilt, for the purpose of vegetative groundcover. All other structures in the CSES shall conform with the maximum height standards for accessory structures in the underlying zoning district.

4. Vegetative Groundcover: For the life of the CSES, perennial vegetated groundcover shall be established and maintained on the ground around and under solar arrays. Vegetative groundcover shall consist only of plants native to Indiana. The use of pollinator specific seed mixes is encouraged but not required. A Groundcover Plan demonstrating compliance with this requirement shall be submitted. For a guide to best management practices, refer to *Technical Guide: Establishment and Maintenance of Pollinator-Friendly Solar Projects (Northern Indiana 2020*) developed by the Michiana Area Council of Governments (MACOG).
   a. Perennial vegetated groundcover shall be based on a diverse seed mix of at least 12 species, selected based on guidance from Purdue Extension – Bartholomew County. No plants included on the Indiana Department of Natural Resources Terrestrial Plant Rule list, which identifies invasive species, shall be included in the seed mix.
   b. The Groundcover Plan shall include planting details for all setback areas. Setback areas must be planted with some form of groundcover, which could include agricultural crops. The Groundcover Plan shall also include the details for site preparation and maintenance practices designed to control invasive species and noxious vegetation. The strategy for site preparation and maintenance practices shall be based on guidance from Purdue Extension – Bartholomew County.
   c. Consistent with Section F, the requirement for vegetative groundcover is not intended to restrict the practice of agrivoltaics, the concurrent use of land for solar power generation and agricultural production.

5. Lighting: Exterior lighting for any CSES shall be limited to that required for safety and operational purposes. All lighting shall be oriented so as not to project onto surrounding properties and shall have shielded 90-degree cut-off fixtures.

6. Cables: All power and communication cables running between solar arrays, inverters, CSES electrical substations, and operation and maintenance buildings shall be buried underground to a depth of at least 36 inches below grade. This requirement shall not be interpreted as prohibiting above ground cables that are integrated with solar arrays, their mounting systems, or other equipment, provided that equipment, including the cabling, does not exceed the maximum height specified by Section A(3). Cables connecting the CSES electrical substation to the transmission line may be under or above ground.

B. **Outdoor Storage:** Outdoor storage areas, used to store materials, supplies, Battery Energy Storage Systems (BESS), and other equipment, that are within 200 feet of an existing right-of-way of a public road shall be screened from view by a Buffer Yard Type A, as described in Chapter 8 of this Ordinance. For the purposes of this screening, only the Opaque Tree Screen option of the Buffer Yard Type A shall be used. The buffer may encroach into the required setbacks described in Sections A(1)(a), A(1)(b), and A(1)(c). The buffer requirement does not apply to areas temporarily used for materials and equipment storage during the construction of a CSES.

C. **Safety and Security Standards:** All Commercial Solar Energy Systems (CSESs) shall meet the following safety and security requirements:

1. Fencing: Any fencing used to enclose the CSES shall not exceed a height of 8 feet and shall be exempt from any other fence height limits provided by this Ordinance, including for fences in front yards. The use of barbed wire is prohibited except around a CSES electrical substation or otherwise as required by the National Electric Code (NEC). Fencing that provides clearance at the bottom, to allow for the passage of wildlife, is encouraged but not required.

2. Posted Warnings and Information: At all driveway entrances to the CSES, a sign containing the emergency contact information for the site operator and the facility's 911 address shall be posted.

D. **Decommissioning and Site Restoration Plan:** Any CSES which has ceased electrical power generation or transmission for twelve (12) consecutive months shall be removed in compliance with a Decommissioning and Site Restoration Plan submitted to the Chief Code Enforcement Officer and approved by the Board of County Commissioners. The following standards apply.

1. Decommissioning and Site Restoration Plan: At a minimum, the Decommissioning and Site Restoration Plan shall include:
   a. A description of the decommissioning activities, which shall include but not be limited to:
      i. Removal of all surface and subsurface physical improvements including but not limited to all solar arrays, electric systems and components, buildings, cabling, security barriers, interior drives, gravel areas, foundations, pilings, and fences.
      ii. Restoration of surface grade and soil to pre-construction conditions, documented by pre-construction and post-decommissioning as-built topographic maps.
      iii. Establishment of groundcover for erosion control purposes.
   b. Acknowledgement, by the notarized signature, of every participating property owner of the decommissioning requirement as well as their authorization for the County to enter their properties to accomplish decommissioning. Both the acknowledgement and authorization shall run with the land and extend to all successors in ownership.
   c. Decommissioning Cost Estimate: The applicant shall submit a cost estimate for the total estimated cost of decommissioning the CSES in accordance with the Decommissioning and Site Restoration Plan.
      i. The decommissioning cost estimate shall be calculated by a third party Indiana licensed engineer selected by the applicant and agreed upon by the County Commissioners.
      ii. The decommissioning cost estimate shall not include any estimates or offsets for the resale or salvage values of the CSES equipment and materials.
   d. Financial Guarantee for Decommissioning*:*
      i. The applicant shall provide a financial guarantee in the form of an irrevocable letter of credit, performance bond, or surety bond for 125% of the total estimated cost of decommissioning, as described in Section D(1)(a), posted with Bartholomew County.
      ii. The letter of credit or bond shall be in place prior to the issuance of an Improvement Location Permit.

2. Updates Required:
    a. The decommissioning cost estimate shall be reevaluated and updated every five years by a third party Indiana licensed engineer selected by the applicant or its successor and agreed upon by the County Commissioners. Each reevaluation and update shall be completed within 5 years of the acceptance, by the County Commissioners, of the preceding estimate.
    b. The applicant or its successor shall submit an updated financial guarantee per Section D(1)(d)(i) to the County as part of each decommissioning cost estimate update.
3. Timeline for Decommissioning: If the applicant or its successor fails to remove all CSES project assets within eighteen (18) months of the start date of decommissioning, a date beginning immediately after the CSES has ceased electrical power generation or transmission for twelve (12) consecutive months or an alternative date agreed upon by the Chief Code Enforcement Officer, the County may engage qualified contractors to enter the site, remove the CSES project assets, sell any assets removed, and remediate the site. The County may also initiate proceedings to recover, from the provided financial guarantee, any costs incurred. If decommissioning is triggered for a portion, but not the entire CSES, then decommissioning shall commence in accordance with the approved Decommissioning and Site Restoration Plan for the applicable portion of the CSES. The remaining portion of the CSES would continue to be subject to the approved Decommissioning and Site Restoration Plan.
4. Waivers: The decommissioning requirement described above in Section D(1)(a)(i) may be waived by individual property owners for only subsurface improvements, such as cabling, and/or vehicle access drives. All such waivers shall exempt the CSES operator and/or owner from removing subsurface improvements and/or vehicle access drives on individual properties during the decommissioning process. A notarized waiver document signed by the individual property owner(s), subject to review and approval by the County Attorney, shall be recorded in the Office of the Bartholomew County Recorder. Waivers may be granted any time prior to the start of CSES decommissioning and shall remain with the property and apply to all subsequent property owners.
5. Enforcement: Complete decommissioning of the CSES is required regardless of the presence of the financial guarantee and including any instance where that financial guarantee is insufficient for complete decommissioning to be carried out by the County. Incomplete decommissioning for any cause and/or circumstances, other than in the case of waivers granted per Section D(4), shall constitute a violation of this ordinance subject to the provisions of Article 13, including the responsibility of the property owner specified by Section 13.1(D).

E. **Road Use and Maintenance Agreement:** The agreement is subject to the requirements and procedures of the Board of County Commissioners and County Engineer and may include, but not be limited to, the following information:

1. Identification of roads to be used for the transport of CSES construction materials.
2. Road closure plans and procedures and temporary road modifications related to CSES construction activity.
3. Roadway time of day use restrictions for CSES construction activity.
4. A pre-construction, existing conditions survey of all roads identified for use in transport of CSES construction materials, to be used in an assessment of road damage caused by CSES construction activity.
5. A compensation agreement and/or financial guarantee for road repairs needed as a result of construction activity related to the CSES.

F. **Agrivoltaics:** This Ordinance does not restrict the practice of agrivoltaics, the concurrent use of land for solar power generation and agricultural production.

G. **Required Documentation for Commercial Solar Energy System (CSES) Facilities:** In addition to the requirements provided in Article 12 for the receipt of conditional use approval and an Improvement Location Permit, applications for new or modified CSESs shall include the following documentation.

1. The following documentation shall be submitted with the conditional use application materials:

a. *Project Description:* A project description including project developer and operator, approximate number of solar panels, total acreage occupied by solar arrays, generating capacity, means of connecting to the electrical grid, a list and/or map of participating properties and their owners, and a list and map of all property owners within 500 feet of the CSES facility.
b. *Conceptual Site Plan:* The conceptual site plan including areas of solar arrays, the location of inverters, the CSES electrical substation, the location and route of the connection between the CSES electrical substation and the transmission line, the location of any permanent outdoor storage areas, the location of any battery storage areas, service drive access points to public streets or roads, and the location of all perimeter fencing.
c. *Preliminary Drainage Plan:* A preliminary drainage plan describing the applicant's overall approach to managing stormwater runoff on the project site, including pre- and post-construction run-off calculations.
d. *Conceptual Groundcover Plan:* A conceptual groundcover plan, including the location of all proposed perennial vegetated groundcover, preliminary species selection, and the groundcover strategy for all setback and separation areas. The conceptual plan shall also describe the preliminary groundcover maintenance strategy.
e. *Glare Analysis (if applicable):* For any CSES project proposed within 500 feet or within an approach zone of the Columbus Municipal Airport, a glare analysis must be submitted for review and approval by the Columbus Board of Aviation Commissioners.
f. *Setback Distance Waiver(s):* For any property and/or municipality from which a waiver of the minimum setback distance required by Sections A(1)(b), A(1)(c), or A(1)(d) is granted:
    i. Municipal Boundary Setback Distance Waiver(s): A written statement of the waiver signed by the Mayor or Town Council President, as applicable.
    ii. Non-Participating Property and/or Dwelling Setback Distance Waiver(s): A written statement of the waiver, specifying the property for which the waiver is to be granted by legal description and parcel number, signed by the property owner(s).
g. Any other information or documentation requested by the Planning Director, Chief Code Enforcement Officer, City/County Engineer of jurisdiction, or Board of Zoning Appeals to demonstrate compliance with the requirements and review criteria of this Ordinance and to support a thorough review of the project.

2. The following documentation shall be submitted to the Planning Director prior to the issuance of an Improvement Location Permit but shall not be required as part of the conditional use application:
    a. *Site Plan:* The site plan required by Section 12.9(D) shall describe all aspects of the new or modified CSES facility including solar arrays and their configuration, CSES electrical substations, access and service drives, inverters, battery storage, cabling, storage yards, fencing, and other ground-based equipment.
    b. *Drainage Plan:* A detailed drainage plan meeting the requirements of the County Engineer. All existing waterways and/or other drainage ways on the subject property shall be identified on the plan. The drainage plan shall also include the location of existing field tiles on the CSES project site, based on best available information, and a statement signed by the applicant accepting responsibility for the repair and/or relocation of field tiles that are damaged as a result of construction, maintenance, operation, and/or decommissioning of the CSES.
    c. *Groundcover Plan:* A Groundcover Plan in accordance with Section A(4) of this Chapter.
    d. *Setback Distance Waiver(s):* For any property and/or municipality from which a waiver of the minimum setback distance required by Sections A(1)(b), A(1)(c), or A(1)(d) is granted:
        i. Municipal Boundary Setback Distance Waiver(s): A copy of the waiver document which has been approved as to form and content by the Planning Director, has been approved by resolution of the city or town council, as applicable, and has been recorded in the Office of the Bartholomew County Recorder.
        ii. Non-Participating Property and/or Dwelling Setback Distance Waiver(s): A copy of the waiver document which identifies the property by legal description and parcel number, has been approved as to form and content by the Planning Director, includes the notarized signature(s) of the property owner(s), and has been recorded in the Office of the Bartholomew County Recorder.
    e. *Structural Certification:* Certification from a professional engineer licensed in the State of Indiana that the foundation, anchoring, and design of the solar panel racking and support is within accepted professional standards, given local soil and climate conditions.

f. *Decommissioning and Site Restoration Plan:* A copy of the Decommissioning and Site Restoration Plan in accordance with Section D of this Chapter as approved by the Board of County Commissioners and recorded in the Office of the Bartholomew County Recorder, including a copy of the financial guarantee.
g. *Road Use and Maintenance Agreement:* A copy of the fully executed Road Use and Maintenance Agreement as approved by the Board of County Commissioners in accordance with Section E of this Chapter.

Section 12.9(B): Permit Requirements – is revised to read as follows:

B. **Permit Requirements:** An Improvement Location Permit shall be obtained for any of the following actions. A single Improvement Location Permit may be issued for a combination of these actions, if they occur together.

1. Zoning Compliance Certificate Required: A Zoning Compliance Certificate (ZCC), issued by the Planning Director, shall be obtained prior to the issuance of any required building permit for the following actions:
   a. *New Construction:* construction, removal, additions to, or placement of any structure, that exceeds 120 square feet in area and/or has a permanent foundation; including structures other than buildings such as towers and antennas, but excluding agricultural structures (other than those associated with a CFO facility in the Bartholomew County jurisdiction) and single and two-family residential structures.
   b. *Temporary Uses:* any temporary use of land or a temporary structure.
   c. *Alteration of Required Landscaping:* removal of required trees and plants within buffer yards and landscaping areas required by this Ordinance.
   d. *Alteration of Off-Street Parking:* construction and/or re-design of an off-street parking area, excluding agricultural uses and single and two-family residential uses.
   e. *Change of Use:* change of use from one category of land use to another (for example, office use to restaurant).
   f. *Increase in Use Intensity:* the increase in the intensity of a use (for example adding seats at a restaurant or converting storage areas to office space).
   g. *Mineral Extraction:* mineral extraction.
   h. *Telecommunications Facilities:* new and substantially modified telecommunications facilities as described by Chapter 6.8 of this Ordinance.
   i. *Park & Recreation Facilities:* construction of new or expanded park and recreation facilities, including athletic fields, parks, performance venues, etc.
   j. *Non-residential Outdoor Storage, Display and/or Sales Areas:* the addition, enlargement, relocation, or alteration of any area of outdoor storage, display and/or sales.
   k. *Confined Feeding Operation (CFO) Facilities:* the construction, additional to, placement or installation of any CFO Facility structure(s) (including any animal waste storage).
   l. *Solar Energy System Facilities:* the construction, additions to, installation, or placement of any CSES or neighborhood-scale solar energy system structure(s), storage area, equipment, or access drives.

Chapter 14.2: Definitions - the select definitions indicated are added, deleted, or revised to read as follows:

Airport (Public): Any public facility used primarily for the landing and take-off of aircraft, including all necessary facilities for the housing and maintenance of aircraft; the providing of services to airport users, including restaurants and aircraft fuel stations; and the compatible utilization of airport property, including agricultural crops and Neighborhood-Scale and/or Commercial Solar Energy Systems (CSES).

Commercial Solar Energy System (CSES): A system that captures and converts solar energy into electricity for the primary purpose of wholesale sales of generated electricity and for use in locations other than where it is generated. The term includes, but is not limited to, solar arrays, collection and feeder lines, substations, ancillary buildings, solar monitoring stations, battery storage facilities, outdoor storage areas, and other accessory equipment or structures. It also includes facilities from which solar energy is made available to individual off-site residential, commercial, industrial, or other end users through a subscription or

sponsorship system. This definition, however, does not include residential or other uses with solar arrays capturing solar energy for primarily on-site use, with any excess amounts supplied to the electrical grid.

Commercial Solar Energy System (CSES) Electrical Substation: A facility, operated as part of a CSES facility and located on the CSES project site, generally consisting of a main power transformer, breakers, control building, metering and other power conditioning equipment in which electricity produced by the CSES is aggregated at a centralized location and the voltage is transformed from medium voltage to grid voltage for final conveyance to the electrical grid.

Inverter: Regarding a Commercial Solar Energy System (CSES), a device that converts direct current (DC) electricity, which is what solar panels generate, to alternating current (AC) electricity, which the electrical grid uses.

Neighborhood-Scale Solar Energy System: A system that captures and converts solar energy into electricity primarily for use by a specific neighborhood or development of homes, commercial businesses, public facilities, and/or industries. The system is located in the neighborhood or development for which it provides electricity and may include a combination of roof/building mounted and/or ground-mounted solar arrays, as well as a battery storage system, back-up generators, and other accessory components. Any excess, but clearly secondary, amounts of energy generated but not utilized by the neighborhood or development may be supplied to the electrical grid.

Non-Participating Property: A lot or parcel of real property that is not owned, leased, or otherwise controlled or used by a Commercial Solar Energy System (CSES) project owner and with respect to which the CSES project owner does not seek to install or locate one or more CSESs or other facilities related to a CSES project (including power lines, temporary or permanent access roads, or other temporary or permanent infrastructure).

Participating Property: A lot or parcel of real property all or part of which is included in a Commercial Solar Energy System (CSES) project.

Power Generation Facility: A commercial facility that produces usable electricity by harnessing any array of resources including fossil fuels, water, and wind sources. This definition does not include solar sources. See also *Commercial Solar Energy System (CSES).*

Solar Array: Two or more solar panels connected together in a series for the purpose of generating electricity.

Solar Panel: A bank of interconnected solar cells combined into the form of a panel normally contained by a metal or plastic perimeter frame.