Chapter 4

Above: Entrance to the Johnson-Dagley estates. A common access drive project in Wayne County, Ohio.

(photo: Wayne County Planning Commission)

Above Right: Avenbury Lakes in Avon, Ohio

(photo: Scaletta Development Corp.)

Lots in the conservation subdivisions cost an average of $7,000 less to produce, resulted in a 50% decrease in selling time, and had a value of 12 to 16% more as compared to lots in conventional subdivisions.

(Mohamed 2006)

CONSERVATION DEVELOPMENT

Background

What is Conservation Development?

Conservation Development is a development technique that allows design and layout of an entire development parcel, to conserve resources while allowing development to occur at the same density as the underlying zoning. A special form of Planned Unit Development, conservation development utilizes high standards for open space and design, coupled with design flexibility. Conservation development can be designed to meet a range of goals including conserving open space, conserving natural and cultural resources, creating amenities attractive to buyers, and creating a new neighborhood that is an asset to the community. In many cases, concentrating development on just a portion of a development tract can minimize the cost of providing and maintaining public services and utilities.

A good community comprehensive plan will outline areas for redevelopment and new development, and will also identify areas that are high priority for preservation. Such plans use the wide variety of tools that are available to help offset the impact of unplanned sprawl and ensure the efficient use of land. Conservation development is a technique that applies to the transitional areas, those that we know are going to develop, but where we would like to balance the impact of the development with the protection of water and other resources, including community character.

Conservation development practices reduce construction costs and limit flooding and flood damage downstream. On average, conservation development saves $340 per developed acre in culvert costs alone.

(Johnston and Braden, 2008)

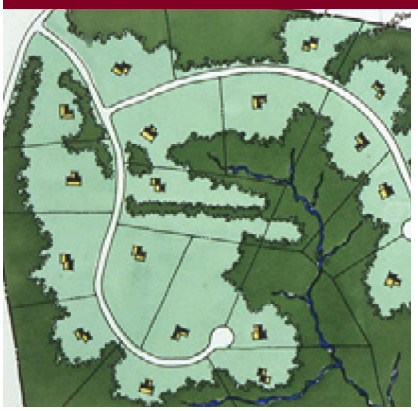
How does Conservation Development relate to Balanced Growth?

Over the last 20 years in Ohio, the impact of new development on community character and environmental quality in rural areas has been a growing concern, and many communities have been exploring options for flexibility to allow more site-sensitive design. Communities appreciate the need for continued growth and expansion, but also are interested in the impact of this new development on the quality of life, rural and community character, and the potential for new approaches that provide for protection of valuable natural resources. Balanced growth addresses these issues, and the concern about the impact of new development on water quality and water quantity. The conventional approach to zoning and designing new development not only results in the potential degradation of natural resources and rural character, but it substantially increases the quantity, and reduces the quality, of water in our waterways, leading to erosion, sedimentation, and nonpoint source pollution. At the same time, developers seek more flexible design approaches that allow them to accommodate natural areas as site amenities, enhancing the value of the lots sold, while in many cases reducing costs for storm water and road infrastructure, grading, and site preparation.

How does Conservation Development work?

Conservation development most often applies to multiple home residential developments, where the number of homes normally permitted on a specific parcel of land at a set density is grouped together on smaller lots, while a sizeable proportion of the property – at least 40% - is set aside as open space. The open space serves as a buffer to protect vegetation, streams, wetlands, and floodplains on the property, and helps to manage storm water effectively on site. In exchange, the developer realizes a premium on the development because the results are high in amenity value, meet an underserved market need, and reduce infrastructure (road and sewer) costs. Conservation development can also apply to commercial and institutional development, primarily to those types that are campus-like in nature, where buildings and parking lots can be rearranged to accommodate natural, agricultural, cultural, or scenic resources. Office parks, graduated living facilities, educational campuses, and the like all work well in a conservation development scheme.

Standard patterns for retail or single parcel commercial development present a related set of problems, however, as any set-aside of open space constitutes a reduction in the development potential of the site, yielding a lower return for the developer under strict multistory or square footage standards. In these cases, open space set-asides are best incorporated when property is changing from residential



Conventional Development
(map: Community Planning Program, CSU)

Conservation Development
(map: Community Planning Program, CSU)

to commercial zoning (the site under commercial zoning, even with open space, most often still has a higher value than under residential zoning) or when the overall value of the property in the neighborhood is significantly enhanced by the overall plan for the area. In some limited cases, significant benefits can be achieved by concentrating the building or parking into multistory structures, permitting open space set-asides without reduction in value. To concentrate structures, often some code variance, community subsidy or other financial involvement is a part of the arrangement in order to offset the restrictions on or cost of construction of multistory structures.

In recent years, some alternative development approaches are being used in addition to conservation development. To meet a variety of needs, including reducing the costs of infrastructure that would arise from new construction in outlying areas, communities are encouraging infill development in denser, urban settings where utility and roadway infrastructure already exists. See the Compact Development section for more information. Compact development provides traditional neighborhoods with a mix of housing and land uses, in developed areas close to services, transportation, commercial areas, and schools. Conservation development, by contrast, usually results in the same overall lower density in a community and dispersed land use pattern, although its impact is reduced through clustering of development on each site, with open space to reduce the site-level impact on site resources.

In minor subdivisions, some counties are permitting a model which allows for common access drives. The incorporation of "Common Access Drives" in these lot splits gives flexibility in the requirements for road frontage by allowing a private road that is shared by the lots through a reciprocal easement agreement. This approach avoids rows of houses along the major roadway that would block the scenic rural vistas, therefore keeping rural community character; and provides for safer access along rural roads. This approach may also facilitate more efficient use of existing large lot (5-15 acre) tracts by providing a format for a rural version of infill development.

It should also be noted that conservation development schemes typically provide for a patchwork of open space and development, especially where several conservation developments are near each other. Such a patchwork of open spaces is well suited to buffer views of development, provide for continuity in linear habitats such as stream corridors, reduce and filter storm water runoff from development, and ensure the long-term survival of wetlands, rural views, and historic features.

However, unconnected patches of open land are generally not

suited to preservation of very large blocks of land, (usually 100 acres or more) as would be desired for a significant natural area or a designated area of farmland preservation. The resulting patchwork creates conflict among residents, workers, and farmers. It also presents access and management problems for the farmer, and increased difficulty in continuing to farm in a developed area. A patchwork of open spaces may also not provide the "critical mass" of farms to support agriculture-related businesses such as banks, supply and equipment stores, and professional advisors. Although individual patches can provide habitat for wildlife, poorly connected patches are not the best arrangement to meet overall wildlife preservation goals.

In summary, conservation development is an approach that should be available in the zoning toolbox of every community that still has large parcels of open and developable land, whether outside or inside of the developed margin. As part of an overall comprehensive approach for each community that includes areas of intensive development (compact development), areas of preservation of blocks of land for natural and agricultural protection (using tools such as TDR and agricultural protection), and areas of partial conservation (conservation development), it plays an important role in balancing conservation and development.

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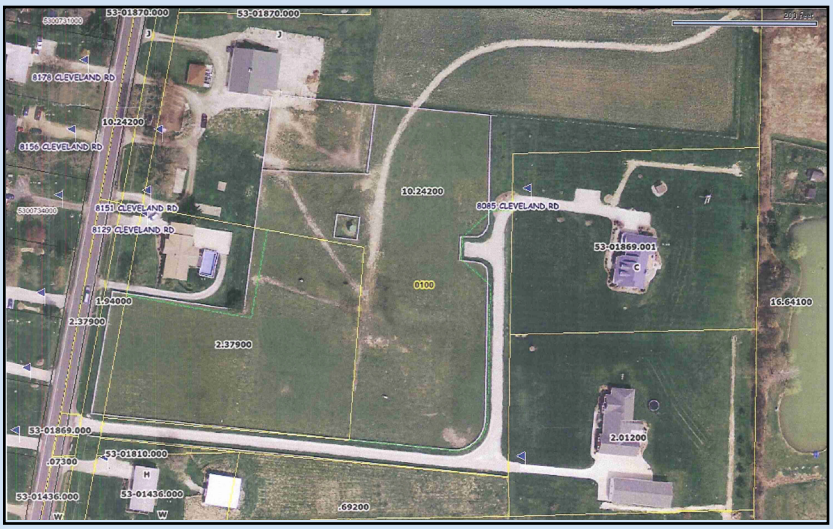
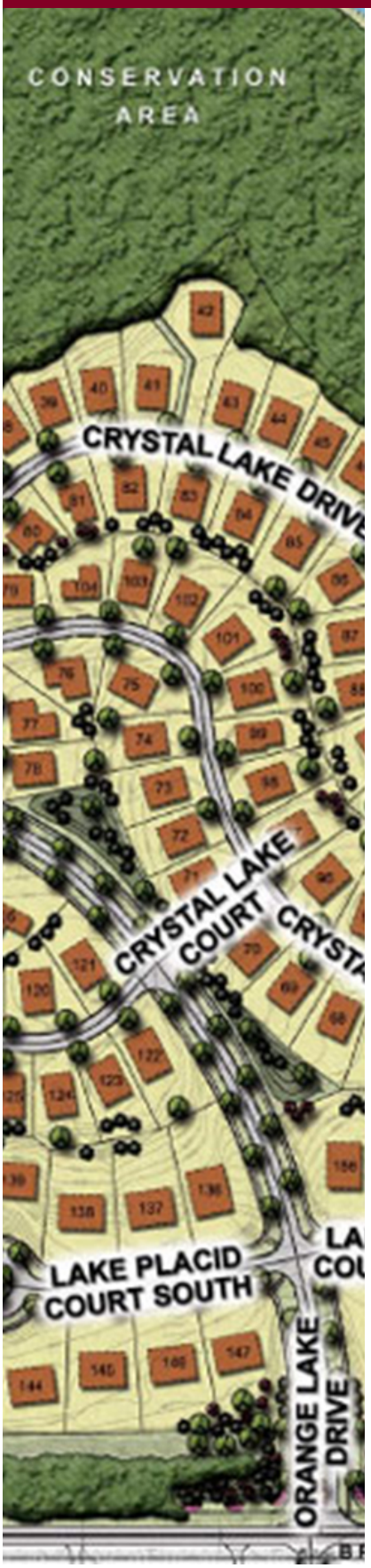


Common Access Drive, Wayne County, Ohio

Common Access Drive, Wayne County, Ohio. Instead of five narrow lots along the frontage, a creative layout was used with a common driveway to provide access to four of the lots with one drive. This reduces the number of entries along the road, increasing safety, and also allows for more open space views along the frontage.

(photos and diagrams, Wayne County Planning Commission.)



(map: The Lakes of Orange, Orange, Ohio by Kertez Enterprises.)

Issues

Communities considering the implementation of conservation development face several important decisions. These decisions are best made as part of a comprehensive planning process conducted before zoning codes are amended.

Residential Conservation Development – Calculating Density

Residential conservation development often is based on the concept of "neutral density," i.e., that no additional units will be provided beyond those which could be built with a conventional zoning approach. Some communities choose to incorporate a modest density bonus (e.g., allowing 10% more units than current zoning allows) as an incentive for innovative design. They need to ask what the suitable level of development intensity is for the district(s) which will be zoned conservation development. How will density be calculated?

- **Yield Plan Calculations**: A yield plan asks the developer to work out a suitable conventional subdivision plan, and then it applies that number of units to a conservation development design. This approach can provide a disincentive to innovate, however, as very often, twice the formal review time is involved for the community to examine first the yield plan, then the development plan.

- **Statistical Density Formulas**: Statistical density merely involves the application of the mathematical lot size to the parcel size. So a 100-acre parcel zoned for 1- acre lots would be permitted 100 units. This incorporates an effective density bonus as lot layout inefficiencies for roads, topography, cul-de-sacs, etc., are not considered. This approach can often lead to unintended consequences, such as an effective increase in density in lands surrounding sensitive areas, and is not recommended. A formula approach allows consideration of specific issues affecting the community, including sensitive areas.

- **Alternative Formulas:** Many communities come up with a formula that approximates neutral density based on typical subdivisions and site conditions in their location.

- **Combination with other tools:** It should be noted that higher density bonuses may be considered in cases when conservation development is used in conjunction with a transfer of development rights, or purchase of development rights, program. See the Transfer of Development Rights section for more information.

If a large piece of a development site will be preserved, then site preparation and infrastructure costs will also be reduced by a significant margin.

(Xiao, 2010)

Commercial Conservation Development – Development Intensity

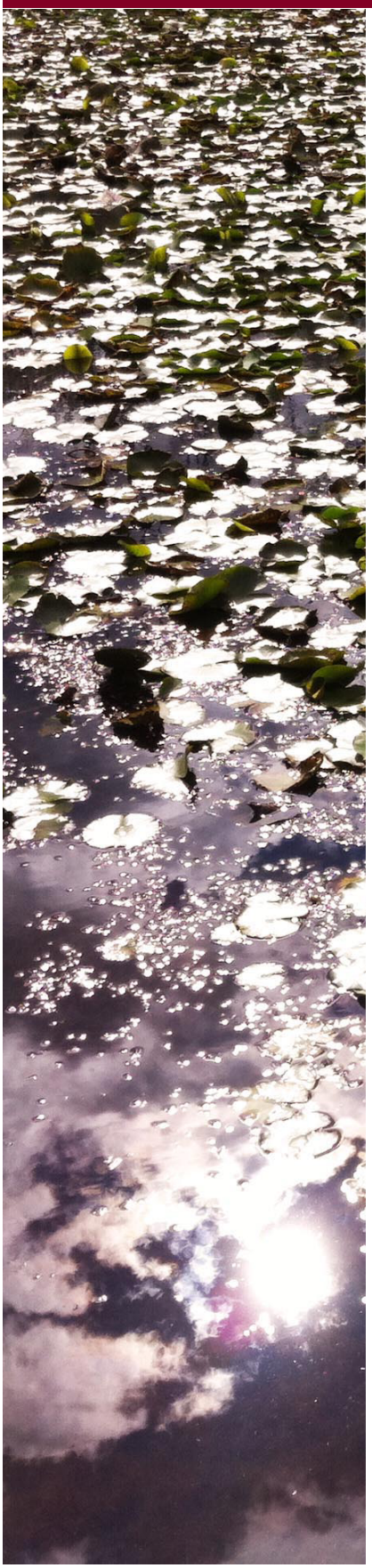
The level of intensity of development is of similar concern, but it is calculated differently. Some communities include maximum floor area ratios (FARs) as a density guide. But typically, commercial regulations only specify the requirements for road access, the amount of parking per square foot of the particular use, and the amount of landscaping or storm water controls needed. The designer works these requirements into an optimum layout covering the entire site that balances parking, landscaping, circulation, and building. As a result, after the amount of open space to be set aside is decided upon, including landscaped and storm water management areas, the amount of parking required can make a big difference in the level of intensity of the final development. It might be desirable to give developers parking reductions in exchange for innovative design, set-aside of open space, etc. It might also be desirable to allow a reduction in the required quantity of open space in exchange for more concentrated, village-like design. (for information on mixed use development, see the Compact Development section).

Both types

- **Regulation Structure:** The structure of the regulation must be decided. Will a Residential Conservation Development or Commercial Conservation Development approach be used? Will the district be a permitted or conditional use? Will the zone be applied on the map to certain districts, or will it "float" until an applicant asks that it be applied to his parcel? The recommended approach, which provides the most streamlined process for the developer and thereby encourages use of conservation development, is to designate a conservation development overlay for a district, and incorporate the zoning map change for the entire district, making conservation development a permitted use. Specific project proposals then can be approved as "by right", if they are determined to be in agreement with community requirements. This approach makes both conservation development and conventional development a permitted use, and the choice remains at the discretion of the property owner.

- **Infrastructure Requirements:** In rural areas in particular, the provisions for wastewater and water supply must be addressed to allow more concentrated development on one part of the parcel in exchange for another.

- **Public and Private Roads:** A decision must be made about whether roads will be public or private. Private roads can provide important additional flexibility for open space and home arrangements, but must meet certain minimum standards, including construction to public road section standards, and reduced design speeds. Their use should



Cleveland Metroparks North Chagrin Reservation Wetlands
(photo: Gregory SJ Soltis)

also be limited to lower classification roads only, such as cul-de-sacs and short streets serving 10 or fewer homes.

- **Linked Open Spaces:** Ideally, the desired linkage of open spaces between parcels will be worked out in a community planning process ahead of time.

- **Resource Protection:** The location and protection of wetlands, floodplains, and desired stream setbacks also need to be addressed in the code. In particular, it is important to identify which resources are a priority for conservation. It is recommended that stream, floodplain and wetland areas be given the highest priority for protection. Other resources, such as agricultural soils, tree and woodland areas, steep slopes, and cultural resources, must be weighed based on community priorities. It is important to remember that a broad statement requiring protection of all resources is not practical, as some areas must be left for location of development on the site. A more specific statement, based on evaluation of local resources, ideally done through a comprehensive planning process, will be more useful to the developer and the reviewing body alike.

- **Open Space Requirements:** The requirements for open space must be weighed. How much open space will be required in each district, how will that open space be laid out and connected, and what will be included in that open space? Will the land required for storm water retention be included? Will land required to be landscaped be included? How much of the open space may include active play areas such as soccer fields and playgrounds? Will land that is unbuildable or inaccessible be included? Will it be acceptable for open space to be concentrated in the back of property, out of view?

- **Perimeter Setbacks:** Perimeter distances are a consideration, since concentrating development on parts of a parcel may result in the placement of structures much closer to the parcel boundary than would result under conventional zoning. It is recommended that the conventional zoning perimeter distances be approximated in the conservation development approach to reduce the concerns of adjacent property owners.

- **Approval Criteria:** What approval criteria will be used for the district? What criteria will be objective standards, and what will be more subjective? What education might be needed on the part of zoning or planning officials to ensure an intelligent review according to the criteria?

- **Review Process:** What will be the structure of the review process? This is especially important in townships where review must be dovetailed with the county subdivision review process. It is also

especially important to ensure that the review process is streamlined and functional, and does not involve greater risk or time on the developer's part than would be provided under conventional zoning. A requirement for an up-front "sketch plan" review can actually save time and money for everyone, by providing opportunities for agency discussion before the applicant has spent time and money on engineering solutions.

- **Incentives and Disincentives:** Finally, it is important at the end of the regulation drafting process to review the entire document from the incentives perspective. Are the requirements of the district encouraging or discouraging conservation development? A developer should not have to significantly increase his cost, risk, or approval time to "do the right thing". This is especially important in townships where a residential development approach is an option. Communities must decide how they can balance incentives with disincentives to achieve a measure of success.

Recommendations

It is recommended that communities implement conservation development, both residential and commercial, as a component of their zoning code. This must be done following a well-discussed planning process. As part of that planning process, recommended types of development, levels of development intensity, and areas for open space linkages and retention must be designated. Ideally, areas where the conservation development districts may apply should be mapped; other areas should be identified for compact development. Areas that are a high priority for preservation, especially agricultural preservation, should be addressed with other tools than conservation development.

All development types

1. Communities should plan for conservation development in their comprehensive plan by recommending appropriate locations, project sizes, and appropriate densities for conservation development districts.

2. Every conservation development project should provide for permanent protection of the open space, including provisions for maintenance and capital improvements.

3. Projects should be designed to minimize fragmentation of open space, and to ensure adequate access to the open space by the residents/users of the site.

4. Early community planning should provide for linkages of open space with other spaces in the community.

Gates Mills, Ohio Home & Wildflowers (photo: D. Iannone)

Lots in conservation developments sell at a premium, are less expensive to build, and sell more quickly than lots in conventional subdivisions. Developed lots in conservation subdivisions carry additional value ranging from 12% to 16% per acre over lots in conventional subdivisions.

(Mohamed, 2006)

5. Requirements should be included in any code for the developer to demonstrate that the highest quality resources on the site were evaluated and are protected via the open space; priority protection should be provided for wetland, stream, and floodplain areas.

6. The code should designate a minimum project size to ensure a viable open space result and the support of a viable homeowner's association.

7. The code should include minimum criteria for homeowners' associations, and for bylaw provisions to support the conservation development concept.

8. The code should include requirements for wastewater and well approval.

9. Perimeter distance requirements around the overall parcel should be included that match the requirements of the underlying zoning for side and rear-yard setbacks.

10. The code should provide for a streamlined approval process, preferably an overlay approach that allows "by-right" approval for the project.

11. Communities should ensure coordination between subdivision review and zoning review in their review/approval process, and provide a sketch plan review phase with input from all involved community and county departments.

12. All codes should include clearly defined review criteria

Residential Conservation Development

1. At least a 40% open space requirement must be included for lot sizes less than one acre, with 50% for lot sizes greater than one acre.

2. Density bonuses should not exceed 10-20%.

3. Maximum access to the open space by private users should be required.

4. Provide flexibility for required road frontage in lot splits and minor subdivisions through the use of Common Access drives to preserve scenic views and rural character.

Commercial Conservation Development – office parks

1. Commercial conservation developments should have at least 40% open space requirement.

Planned Commercial Development

1. For areas already zoned commercial, open space requirement at least 25%.

2. For areas currently zoned residential or being rezoned, open space requirement at least 40%.

Example Regulations

The following example codes are outlined in the Example Regulations Matrix: http://balancedgrowth.ohio.gov/BestLocalLandUsePractices/BestLocalLandUsePracticeChapters.aspx#Matrices *(Under "**Matrices**" choose "**Conservation Development**". Commercial and General examples are available.)*.

Model Code for Conservation Development, developed by the Countryside Program of Northeast Ohio, now the Community Planning Program at Cleveland State University:

For Townships: http://www.balancedgrowth.ohio.gov/LinkClick.aspx?fileticket=UFhHzkZ9NLs%3d&tabid=66

For Counties: http://www.balancedgrowth.ohio.gov/LinkClick.aspx?fileticket=3PREks5_qiM%3d&tabid=66

For Municipalities: http://www.balancedgrowth.ohio.gov/LinkClick.aspx?fileticket=g%2f04jIT8Rag%3d&tabid=66

Chagrin River Watershed Partners Model (contact for hard copy): http://www.crwp.org/index.php/member-services/model-regulations/conservation-development

TMACOG model: http://www.tmacog.org/Environment/TMACOG_Stormwater_Standards_Manual_.pdf

Freilich, White and Murray. *21st Century Land Development Code*. American Planning Association; Chicago, IL, Washington, D.C.; Chapter 2, pg 39-43. Gives standards recommended by the American Planning Association.

Wayne County Subdivision Regulations have regulations for Common Access Drive Subdivisions. http://www.wayneohio.org/agencies-departments/administration-building/planning-department

The Planned Commercial District is based on a code developed by D.B. Hartt, Inc., for Rootstown Township, Portage County, Ohio. http://rootstowntwp.com/330.html/

City of Delaware – Planned Business Overlay District; Chapter 1144, Part 11, Title 7, Chapter 1144. https://www.municode.com

Refer to the Example Regulations Matrices (separate for commercial and residential conservation development) for a comparison of example regulations listed.

Use of the Guidance and Example Regulations

This example guidance and/or regulations **should never be adopted without careful legal review** to assure that they are adapted to fit the authority and needs of the specific governmental body. They may need to be adapted for use by the specific type of local government and must be independently evaluated against potentially applicable federal or state law. **The law director/ solicitor, county prosecutor or other appropriate qualified legal counsel should always be consulted prior to adoption of any enforceable measures** based upon this guidance document to insure compliance and consistency with any applicable state and federal law, and to consider potential legal ramifications and liability in the implementation of the laws or rules to be adopted. Questions about the models and guidance can be directed to the Ohio Balanced Growth Program.

Resources

The Community Planning Program, Cleveland State University, 2121 Euclid Avenue, UR 26B, Cleveland, OH 44115-2214; Tel: 216-687-5477; Web: http://urban.csuohio.edu/cpp/

Rootstown Township – Planned Commercial Developments; Web: http://rootstowntwp.com/330.html

City of Delaware – Planned Business Overlay District; Web: Chapter 1144, Part 11, Title 7, Chapter 1144. https://www.municode.com

For additional references cited, see the Bibliography in the Appendix, http://balancedgrowth.ohio.gov/BestLocalLandUsePractices/BestLocalLandUsePracticeChapters.aspx#Bibliography