



Concord Township Comprehensive Plan 2004

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Prepared by

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Delaware, Ohio**

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Executive Summary

According to the U.S. Bureau of Census, Delaware County is the fastest growing county in Ohio by percentage of growth (64.3 % increase from 1990-2000) and the 15th fastest growing county in the USA (2000-01). The highest growth areas were in Orange Township (228.95 %), Genoa Township (178.63 %) and Liberty Township (142.27 %). Those three townships have county sewer service, which permits higher densities and production builders in large subdivisions. Meanwhile, Concord Township, without sanitary sewer service, grew modestly by 725, from a population of 3,363 in 1990 to 4,088 in 2000, an increase of 21.56%.

These numbers do not tell the coming story of Concord Township. From 1990-97 an average of 34 new homes per year were built in Concord Township. In 2001, 355 new homes were built in Concord Township, a ten-fold increase. Concord Township has begun the shift from a large lot, rural community to a blend of rural and suburban, with production-builder neighborhoods that look much like those in Liberty, Orange and Genoa Townships.

Tartan Fields and Scioto Reserve subdivisions were approved in 1997 and 1998. These developments will eventually add 1,857 new homes and 5,000 new residents, more than doubling the population of the township. Since there is no county centralized sanitary sewer service in Concord Township, these two golf course communities use on-site land- application sewage disposal systems to achieve densities that were previously not possible.

0.1 Concord Township 2001: Land Use Facts and Issues

1. The township has lost 1,199 acres by annexation.
2. 707 new home building permits were issued from 1990-2000.
3. The 2000 census reported 1,374 dwelling units in April 2000, but by August 2002, DCRPC counted 2,128 housing units within Concord Township. 2,030 units, (95 %) are single family homes. Two family and multi-family housing units comprise less than 5 % of the housing stock. Multi family condominiums are currently being built in Scioto Reserve.
4. Population is projected to double from 2000 to 2010 (4,088 to 9,343)
5. From January 1993 to January 1997 only 97 new lots were platted, but from January 1997 to January 2001 1,389 new lots were platted.

6. Agricultural acreage in 2001 was still 40% of the township, but the rapid loss of farmland is a concern. 11% of the township (approximately 1,700 acres of farmland) has been developed in the last 11 years. The time may come when the land values for development, loss of agricultural support services and traffic make large-scale farming uneconomical.
7. Traffic is becoming a significant problem on Riverside Drive, Section Line, Bunty Station and Home Roads. U.S. 42 is heavily traveled by interstate trucking. Dump truck quarry traffic is heavy on Section Line, Home, Dublin and Bunty Station Roads.
8. The local farm-to-market roads were not built to sustain their new functional roles as collector and arterial streets. Many township roads need widening, but narrow roads are considered part of the rural character. If densities are kept below 1 unit per acre, many two-lane roads can continue to give acceptable service.
9. Concord Township has significant natural beauty in its Scioto River frontage and ravines, but development pressure can cause damage to these sensitive areas.
10. There is a variety of housing for different income levels. 96% of all housing is new, or in very good condition. The County Commissioners have hired a consultant to prepare a county housing affordability study, because housing is a regional issue. The study will assess low and moderate-income housing needs across the county and recommend strategies.
11. The Lucy Depp subdivision in southern Concord Township contains approximately 700 small, non-conforming lots of record that were platted in the 1920's but have not been fully built because of lack of sanitary sewer. These lots may annex to Shawnee Hills to obtain sewer service. It also might be possible for Delaware County to shift 300 sewer taps promised to Shawnee Hills by contract with Dublin to this neighborhood.
12. Delaware County is in good economic condition. The May 2002 unemployment rate was 3.6%, reflecting some softening from the robust period 1998-2000 when unemployment held steady at 2%. This is the lowest in the region, which for central Ohio reported 4.2% (Business First). Ohio reported 5.8% unemployment, the same as the United States. With mortgage interest rates at 40-year lows, the housing industry has led the local economy. Delaware County's strong economy, and good public schools create demand for new housing. Because of growth pressures, the Concord Township Comprehensive Plan stands a good chance of being realized.

13. U.S. 42 is a busy two-lane federal highway with heavy truck traffic that has not become a commercial frontage road. Access management practices that limit curb cuts can help prevent the deterioration of this important highway as the area develops.
14. There is adequate potable water supplied by the Del Co Water Company, but summertime lawn watering stretches their ability to maintain treatment and pressure. A year-round alternate-day watering ban was instituted in 1999.
15. Delaware County does not currently provide sanitary sewer service to the township, but it does maintain the treatment plants at Scioto Reserve and Tartan Fields subdivisions. The majority of Concord Township will not receive sanitary sewer service in the 2000-2010 scope of this plan.
16. The Olentangy School District serves the eastern-most portion of the township. Olentangy School system is adding approximately 650 new students every year. A levy was recently passed for operations and new construction, but the pace of growth is a strain on the schools. Buckeye Valley Schools, which serves most of the township, has experienced modest growth in its student population, but will see a major increase from Scioto Reserve subdivision. Dublin schools serve the southern portion of the township.
17. The Concord Township Fire Department, staffed by both full time firefighters provides fire protection and part time paid volunteers. Long range plans call for a second fire station within the township.
18. Concord Township has a contract with the county sheriff for one full time police officer. The sheriff is considering the installation of a substation in Liberty Township, near Concord Township's eastern border. Concord Township generated 887 of 15,052 or 5.8% of the Sheriff's complaints in 1998.
19. The township is blessed with significant parks and open space. The township operates its own park with both recreational fields and walking paths at the SW corner of Dublin and Home Roads. The City of Columbus maintains parklands surrounding the O'Shaughnessey Reservoirs, providing passive open space, and boating. With growth there will be a need for more active recreation such as baseball and soccer fields, tennis and basketball courts and perhaps a public swimming pool.

0.2 Vision Statement

Ultimately, we would like Concord Township to be a community that retains large lots, and a low residential density (generally less than one unit per gross acre) in a pastoral setting with significant permanent open space.

The rural character of the township will be maintained by agriculture so long as it is economically viable, by large acreage residential lots, and by conservation subdivisions at an overall low density.

Most roads would retain two lanes, and have a rough edge, with grassed drainage ditches and fencing or landscaping to replace fence/tree rows if they are removed. Sensitive environmental aspects (ravines, floodplains, jurisdictional wetlands, waterways, etc.) should be preserved as the township develops. "Special places" such as forested lands, open meadows and creek-side trails can be preserved within conservation subdivisions.

Historic and/or significant structures that give a sense of our heritage should be preserved as part of new developments.

There should be a variety of housing choices and price ranges to meet different housing needs (i.e., older adults, empty nesters, individuals and families). Adequate infrastructure should serve new development, with developers paying their fair share of project related costs. There should be a balance of commercial, residential and recreational uses; commercial and industry should be developed for a broader tax base, but should be buffered from exclusively residential areas. The Scioto River should be a continuous park and open space corridor.

0.3 Goals and Objectives for Future Development of Concord Township

Natural Resources

Goals

1. To preserve the rural character of Concord Township as expressed in its openness, green areas, farms, natural resources (floodplains, wetlands, slopes > 20%, ravines, creeks and rivers).
2. To retain wildlife cover and corridors where feasible.
3. To preserve the rural "look" along township roads via fencing and landscaping in new planned developments.
4. To retain historic and agricultural structures, where feasible in new planned unit developments.

5. To preserve scenic views, where feasible, as open space within Planned Residential Developments or Conservation Subdivisions.
6. To preserve a high degree of environmental quality.
7. To link Planned Residential Developments (PRD's) and Conservation Subdivisions with common green spaces and paths.
8. To conserve surface and ground water quality around the Scioto River and the O'Shaughnessey Reservoir.

Objectives

1. Obtain the linkage of subdivisions by streets, bike paths, or green way trails so neighborhoods are connected and pedestrian oriented. Create a landscape detail for green way trails.
2. Retain wooded green ways along ravines, waterways and project perimeters.
3. Amend the zoning resolution to reflect the net developable acreage rather than gross density in calculating the number of dwelling units in a PRD.
4. Amend the zoning resolution to identify and protect floodplains, jurisdictional wetlands, and steep slopes.
5. Adopt regulations that permit Conservation Subdivisions in the FR-1 District as a planned unit development permitted without rezoning.
6. Support amendment of county subdivision regulations to protect 100-year floodplains.
7. Set landscape and architectural design standards for PRD subdivisions. Stipulate centralized green space.
8. Create a rural landscape detail for PRD's that front on township roads.
9. Amend the zoning text to require the appropriate landscaping buffer detail between residential and non-residential land uses. Retain natural vegetation and use existing topography as buffers.
10. Promote off-stream storm water detention in developments tributary to the O'Shaughnessey Reservoir.
11. Retain natural ravines and their vegetation as filter strips for surface water.
12. Establish a 120-foot structural and subsurface wastewater disposal systems setback from the normal pool elevation of the Scioto River to preserve surface water quality.

Agriculture

Goals

1. To provide an opportunity for agriculture to continue through flexible/creative zoning.
2. To retain low residential density in agricultural areas.

Objectives

1. Retain the 1.5-acre lot as the minimum in areas not served by centralized sanitary sewer.
2. Permit Conservation Subdivisions in the FR-1 zoning district. .
3. Use the Land Evaluation Site Assessment (LESA) system to evaluate lands worthy of Purchase of Agricultural Conservation Easements (PACE).
4. Identify potential farmlands for PACE.
5. Preserve farmland by voluntary (sale) of development rights from farmland to adjacent farm villages.
6. Apply for available state or federal funding for purchase of agricultural easements if farmers wish to sell them.

Residential Development

Goals

1. To relate land use and density to land suitability, utility availability, existing land use, and the recommendations for each sub area.
2. To consider the carrying capacity of infrastructure (sewer, water, fire protection, roads, etc) in establishing residential densities.
3. To provide for rural residential areas where agriculture is transitioning to residential and where no central sewer is available.
4. To provide for suburban residential housing districts where central water, sewer, fire protection, schools, adequate roads and other suburban services can be economically provided.
5. To retain a primarily single family residential housing mix, but also permit a diversity of housing.
6. To avoid sprawling subdivisions consisting only of lots and streets and no local parks or green space, and where every human need results in an automobile trip, even a trip to a green space area.
7. To protect township real estate values.

Residential Development

Objectives

1. Retain 1.5-acre minimum lot size where no centralized sanitary sewer is provided.
2. Use the width of roads, water and sewer systems, and soil characteristics to establish densities and land uses on the comprehensive plan.
3. Permit Conservation Subdivisions in the FR-1 district at a density of .75 units per acre with centralized sewer.
4. Avoid development of uses or densities that cannot be serviced by currently available or imminently planned infrastructure, unless such development mitigates its unplanned infrastructure impacts.
5. Amend the PRD text to identify non-developable lands (floodplains, water, slopes greater than 20%, jurisdictional wetlands and utility easements) in density calculations.
6. Permit multi-family units in Planned Residential Developments, approved per development plan.
7. Permit age restricted elderly housing in prescribed areas along arterial roads.
8. Maintain the area east of The Scioto River, and south of Home Road as a possible suburban residential heart of the township, subject to provision of centralized water and sewer.
9. Permit single family housing in standard R-2 zoning subdivisions on 20,000 square foot lots with centralized sanitary sewer and water, adequate fire protection and road access.
10. Permit Planned Residential Developments with at a density of 1.25 units per acre. PRDs should have centralized sewer, access to a major collector or arterial street, and should mitigate their traffic impacts on the surrounding roads.
11. Consider a Traditional Neighborhood Development on the platted narrow lots in the Lucy Depp area adjacent to Shawnee Hills if public sewer can be extended.
12. Consider a Traditional Neighborhood Development (country village) adjacent to Bellepoint if public sewer can be extended.

Commercial and Industrial Development

Goals

1. To encourage office, commercial and light industrial development in planned districts in the U.S. 42 corridor to broaden the jobs and tax base.
2. To provide for dense landscape buffering between Commercial/Industrial and residential uses.
3. Work with the village of Shawnee Hills to entice development of a community shopping center (grocery store, drugstore, etc.) in Shawnee Hills to also serve Concord Township, and Dublin.
4. To provide for transitional land uses and dense landscape buffering between incompatible uses.

Objectives

1. Create development guidelines for planned commercial development.
2. Use parallel frontage or backage roads to US 42 to service the commercial uses and to control access point onto the arterial road.

Recreation

Goals

1. To provide passive and active recreational areas as the township grows.
2. To expand the township parks program.
3. To link planned residential neighborhoods with green spaces and walking/biking paths.

Objectives

1. Improve the Home Road Park with more active recreation (playing fields for organized sports).
2. Create a series of mini-parks (less than 1 acre) with ¼ mile spacing within Planned Residential Developments where densities are between 1-2 units per acre. Create a series of neighborhood parks of 15 acres with active recreation within PRD neighborhoods.
3. Where possible, link new parks in PRDs with Columbus parkland along the Scioto River.

Township Services

Goals

1. To recognize and maintain only those services needed for a predominantly rural/low density community.
2. To expand township services at a rate to ensure public health and safety, and to discourage premature development.
3. To acquire suitable land for the township's future needs.

Objectives

1. Acquire new sites for township facilities, including fire, police, road maintenance, etc.
2. Determine the services the township can provide as a rural/suburban community.
3. Work with elected officials to increase services as needed, but not in a way to compete with urban development, so as to retain a rural community.
4. Use the Comprehensive plan as the guideline in zoning.

Planning and Zoning

Goals

1. To determine and implement an appropriate land use mix.
2. To coordinate central sewer extensions to appropriate suburban core areas.
3. To implement and maintain the land use plan.
4. To enforce zoning regulations.

Objectives

1. Revise the zoning text and map in accordance with the comprehensive plan.
2. Develop policies for service provision that relate to the comprehensive plan.
3. Provide for 5 year updates and revisions to the plan.

Transportation

Goals

1. To avoid congestion on local, county and state roads.
2. To retain the narrow township roads where possible as part of the rural character.
3. To improve the road network without destroying the rural character.
4. To seek developer mitigation of their road impacts of their adjacent developments.

Objectives

1. Cooperate with ODOT on removing & preventing unnecessary commercial curb cuts on US 42.
2. Require commercial parallel access roads and connections between planned commercial developments along major arterial roads, especially US 42.
3. Assist appropriate government agencies in the review of corridors for the proposed Alternative 1 to the County Thoroughfare Plan. Seek the corridor that provides the best traffic efficiency and least impact on north Concord Township. Consider portions of Bunty Station Road as a corridor.
4. Restrict left turns across traffic on US 42. Coordinate left turns at traffic signals.
5. Adopt the appropriate ODOT Access Management recommendations; work with ODOT to prevent the deterioration of US 42.
6. Encourage construction of new roads on the Comprehensive Plan as part of new developments.

Citizen Participation

Goals

1. To ensure significant and diverse citizen input into the planning process.

Objectives

1. Use the 24-member steering committee as the primary citizen input to the Zoning Commission in amending the Comprehensive Plan.
2. Advertise open informational meetings to discuss and review the recommendations of the plan prior to public hearings.
3. Publish and mail a synopsis of the plan to every household in Concord Township.
4. Encourage active citizen participation in future comprehensive plan updates.

Recommendations

- Chapter 15 includes detailed Sub Area recommendations that relate to the 2004 Comprehensive Plan Map (please turn to Chapter 15 for those details).

Chapter 1

Introduction

1.1 Why Plan?

“Make no small plans; they have no magic to stir men’s blood and probably will not be realized. Make big plans; aim high in hope and work, remember that a noble logical diagram once recorded will never die, but long after we are gone will be a living thing, asserting itself with ever growing insistency. Remember that our sons and grandsons are going to do things that would stagger us. Let your watchword be order and your beacon beauty.”

Quote: Daniel Hudson Burnham, Father of the American City Planning Movement

City and community planning in the United States is a fairly young child, birthed in the city beautiful movement of the turn of the 20th century. Open space was the deliverance from the stuffy, overcrowded and disease filled tenements of American cities in the late eighteen hundreds. The city beautiful movement used parks and public open spaces as centerpieces of the future city, oases of respite from the hustle and bustle. After the First World War, the movement evolved from its landscape architecture revitalization roots to a legal instrument for planning for orderly future growth.

The intent of the city planning movement was to plan for the future. At first this was done by the creation of zones with separate land use regulations attached to each zone. In some communities, there was a plan, which was the basis for the zoning map and resolution. However, in most communities, zoning itself was seen to be the plan. Zoning was legally tested, and found to be an appropriate legislative power.

1.2 Ohio Enabling Legislation: Township Planning and Zoning (ORC 519)

Township authority to zone comes from Ohio Revised Code Chapter 519, which states: "For the purpose of promoting the public health, safety, and morals, the township trustees *may, in accordance with a comprehensive plan*, regulate the location, height, bulk, number of stories, and size of buildings and other structures, including tents, cabins, and trailer coaches, percentages of lot areas which may be occupied, setback building lines, sizes of yards, courts, and other open spaces, the density of population, the uses of buildings and other structures including tents, cabins, and trailer

coaches, and the uses of land for trade, industry, residence, recreation, or other purposes...and for such purposes may divide all or any part of the ... territory into districts or zones of such number, shape and areas as the board determines.

The Ohio Supreme Court recognized the importance of a plan in *Columbia Oldsmobile Inc v. City of Montgomery* (1990, 56 Ohio St. 3d 60). The Court found that “R.C. 303.02, regulating rural land use in counties and R.C. 519.02 regulating land use in townships *require* [court emphasis] that zoning regulations promulgated by counties and townships be in accordance with a comprehensive plan.”

Current Ohio enabling legislation does not specify the *content* of the Comprehensive plan. Over the course of recent planning history, there has been deliberation as to what the content of a plan should be.

1.3 A General Timeline of Planning (Compiled by Dr. Laurence Gerckens, National Historian, American Institute of Certified Planners, Professor Emeritus, the Ohio State University Graduate School of City and Regional Planning)

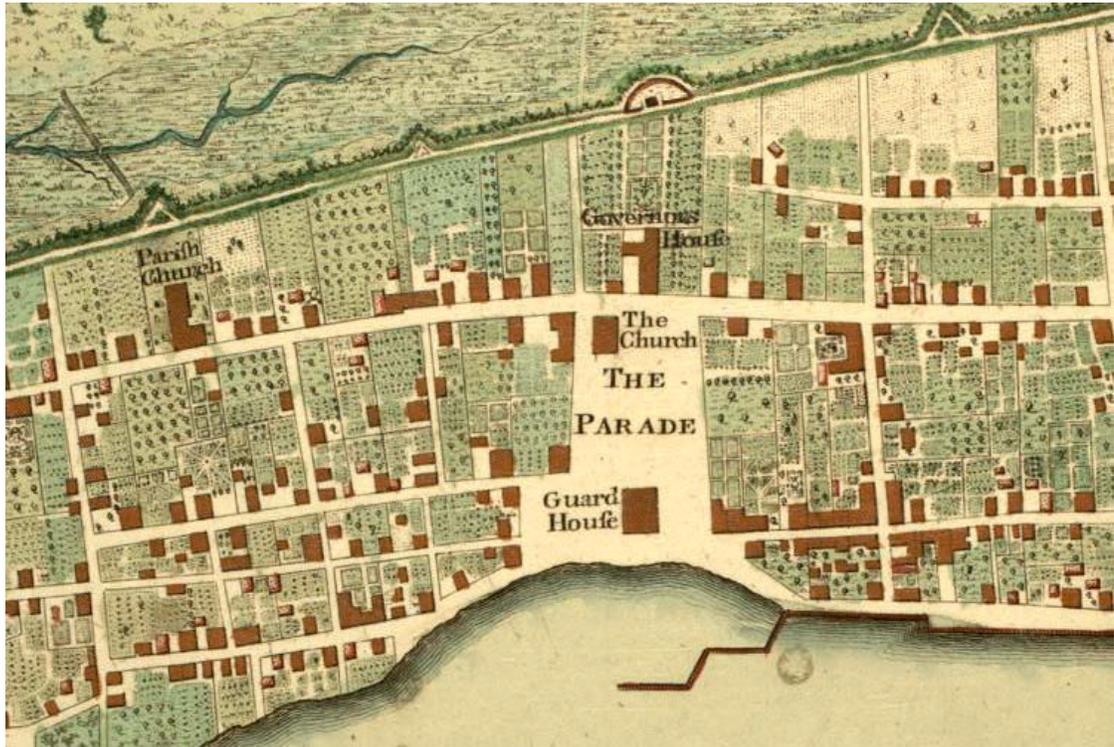
1189 England required stone party walls between attached houses, 1.5 feet thick each side, 16’ tall on houses.

1214 Magna Carta- King John of England prevented the seizure of land without compensation. First land use regulation, restricting forests for hunting.

1297 England- Front yards to be cleared and maintained

1400’s England- all roofs in urban areas to be stone, lead or tile (fire protection)

Figure 1C – St. Augustine, Florida



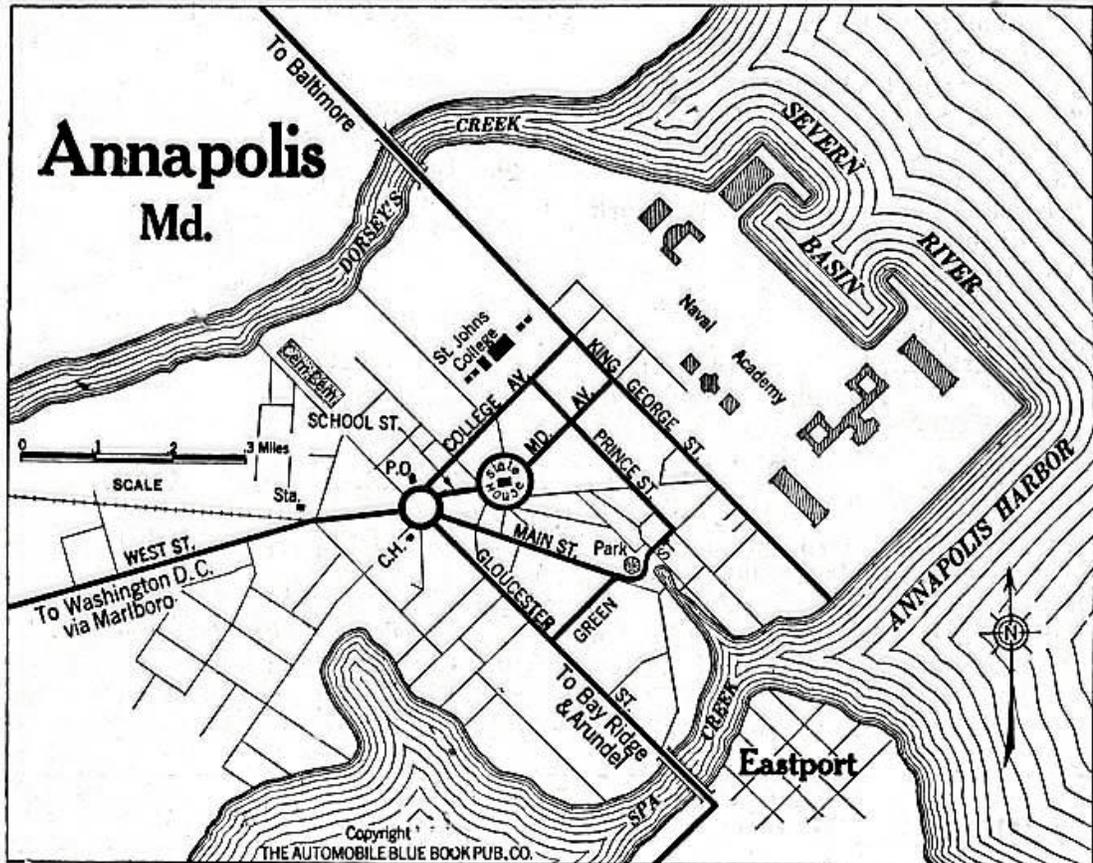
1565 St. Augustine, Florida, first American planned city, Spanish Law of the Indies. Established plat, central green surrounded by public buildings.

Figure 1D – St. Augustine, Florida



1666 Great fire of London, England- An Act for the Rebuilding of the City of London, divided city housing into 4 classes, required uniform roof lines and balconies, established front setbacks, mandated 3 year reconstruction or seizure by the city for the public good.

Figure 1E – Annapolis, Maryland



1690 Annapolis, Maryland, Sir Francis Nicholson, designed it as a new town, with radial spokes as streets.

1692 Philadelphia, first major city built on land speculation, used grid streets. 1st neighborhood park system.

1692 Boston ordinance restricted slaughter, still, curriers and tallow chandler's houses to areas of the city less populous and offensive to the public.

1699 Williamsburg, Virginia, Sir Francis Nicholson, designed grid with green mall, central avenue.

Figure 1F – Savannah, Georgia



1733 Savannah, Georgia, plat by General James Ogelthorpe comprised 24 public (park) squares, 40 families per square, grid pattern. Idealized as one of America’s most beautiful cities, still admired today for its design.

1777 Vermont, 1780 Massachusetts, 1789 North Carolina Constitutions prevent taking of land without compensation. US Constitution, Article V of the Amendments- “no person shall ...be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use without just compensation.”

1785 Land Act - Established survey grid 36 square mile townships, North West territories, (includes Ohio)

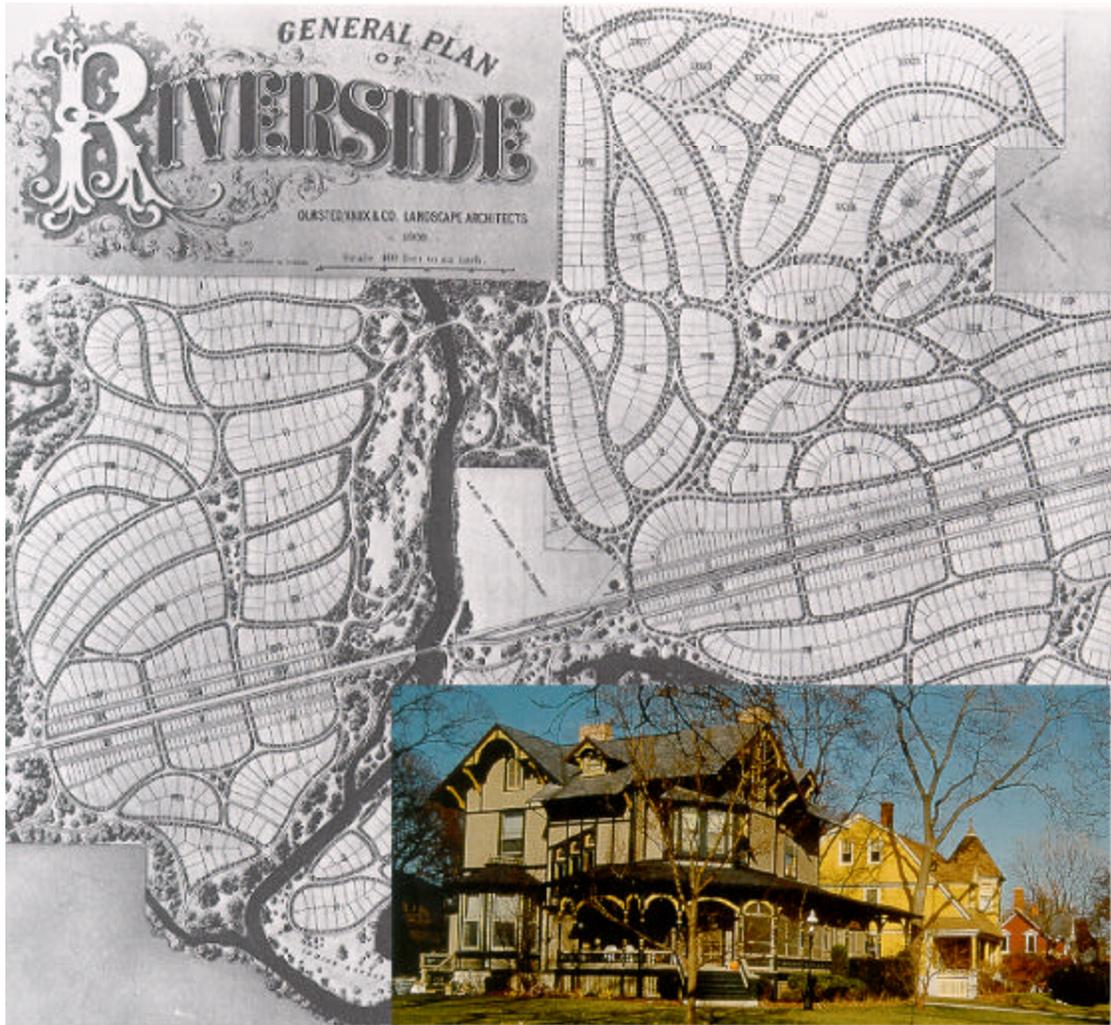
1789 Washington D.C. plan, Pierre Charles L’Enfant combined the radial spokes of Annapolis and the green mall of Williamsburg.

1811 25’ x 100’ standard New York City lot.

1856 Central Park, New York City, public green space, parks movement started by Frederick Law Olmstead, Sr.

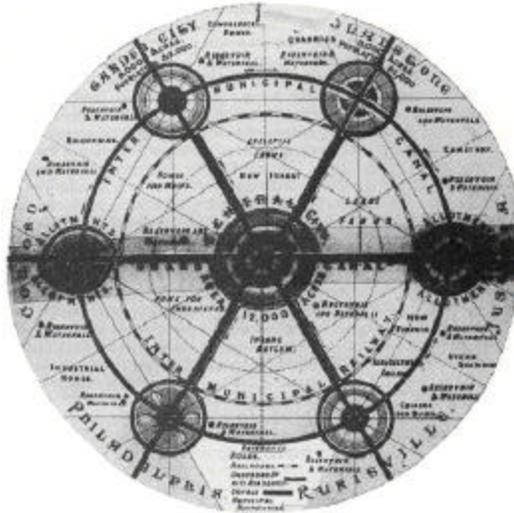
1860’s Public health movement- New York, San Francisco, regulating tenements and slaughterhouses.

Figure 1G – Riverside, Illinois



- 1869** Riverside, Illinois, English garden style city by Frederick Law Olmstead Sr. Used curving, tree-lined streets, deep setbacks, single family detached houses, exclusively residential neighborhoods. Became the standard for FHA in the 1930's, thus copied in virtually every major city and community in the US. Still the standard suburban style of land plan used today.
- 1871** Pumpelly V. Green Bay 80 US 166 (1871)-Established a taking by flooding of private property.
- 1890** Jacob Riss writes *How the Other Half Lives*, photographs depict slum conditions in New York; cities widely seen as dirty and unhealthful.
- 1893** Chicago, Colombian Exposition, "White City", Daniel Hudson Burnham, beginning of City Beautiful movement.

Figure 1H – Ebenezer Howard’s Garden City

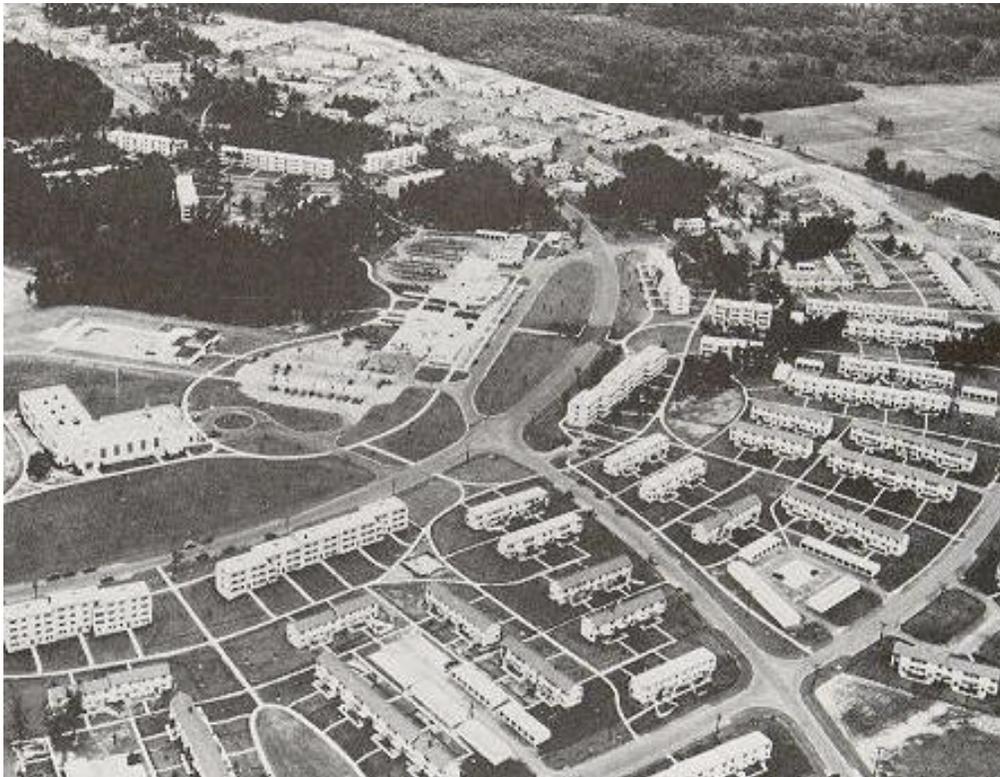


- 1898** Ebenezer Howard writes *Tomorrow, a Peaceful Path to Real Reform*, beginning of Garden City movement.
- 1903** Cleveland Plan, Daniel Burnham, civic center, first master plan for an American city to be realized.
- 1904** San Francisco Plan, Daniel Burnham, based on City Beautiful principles.
- 1909** Chicago, first regional plan in U.S., by Daniel Burnham.
- 1909** Wisconsin passed first state enabling legislation permitting cities to plan
- 1909** Los Angeles, first zoning ordinance
- 1909** Harvard, first course in city planning
- 1915** Hadacheck V. Sebastian- U.S. Supreme Court determined that a local government can prohibit land uses in certain areas it deems inappropriate, even though this significantly reduces land value.
- 1916** New York adopts first comprehensive zoning ordinance, no mention of master plan.
- 1917** American City Planning Institute established, Kansas City
- 1919** Ohio Planning Conference, precursor of American Planning Association established.
- 1920's** City Beautiful gives way to legalistic, "city efficient" emphasis on administration, lawyers, and engineers
- 1922** Standard State Zoning Enabling Act issued by the US Department of Commerce. Mentions a

plan as a separate study, but most communities do not realize its importance. Zoning seen as planning.

- 1922** Pennsylvania Coal v. Mahon, - U.S. Supreme Court rules that if a regulation goes too far, it will be recognized as a taking. The determination whether a taking has occurred rests on the facts of the case.
- 1925** Cincinnati, Ohio, first comprehensive city land use plan in America.
- 1926** First capital budget, Cincinnati, Ohio
- 1927** Village of Euclid (Ohio) V. Ambler Realty U.S Supreme Court upheld zoning as constitutional under the U. S. Constitution police power of the state. If zoning classifications are reasonable, they will be upheld.
- 1928** Standard City Planning Enabling Act issued by the US Department of Commerce. Enter the modern planning age, where a comprehensive plan is the intended basis of zoning, the implementing tool. Act flawed, not largely followed; most major cities already regulating land use under standard zoning act.

Figure 11 – Greenbelt, Maryland



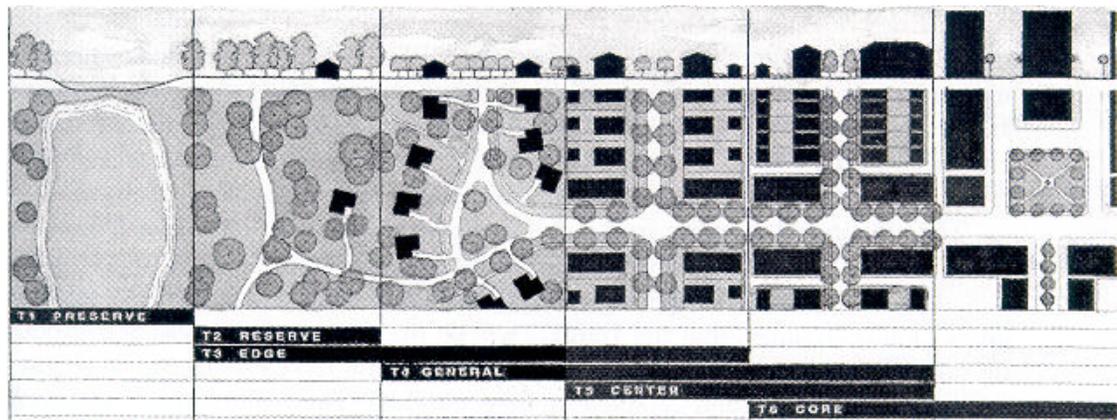
1930's Greenbelt cities, including Greenhills, Ohio, Greenbelt, Maryland, Greendale, Wisconsin.

- 1935** Frank Lloyd Wright's Broadacre City, A New Community Plan, lot size varied with family. Did not consider the broad economic spectrum, elitist.
- 1941** Ladislav Segoe, Cincinnati, Ohio writes Local Planning Administration, (the "Green" book). The Planning "bible" still used and updated today as the basic manual for planners.
- 1961** Jane Jacobs writes The Death and Life of Great American Cities
- 1964** T.J. Kent writes The Urban General Plan. Noted Standard. City Planning Act of 1928 was faulty. Said the plan should be:
- 1.) long range and general
 - 2.) one comprehensive document adopted at one time with all elements integrated
 - 3.) focused on the physical development implications of socio-economic policies
 - 4.) be identified as the city council's (elected official's) plan
- 1969** Design with Nature, Ian McHarg, brings environmental sensitivity to planning movement with overlay of land capability and critical resources.
- 1970's** Citizen participation and advocacy planning movements bring power back to the people from the inception of the plan.
- 1970's-90's** Land use law cases; Appellate and Supreme Court decisions.
- 1972** *Golden v. Planning Board of Ramapo*- Growth management permissible by moratorium, must be a defined time and a reason, such as the lack of basic infrastructure (i.e. water). Must have a plan to remedy the lack of infrastructure, after which the moratorium must be removed. (30 NY 2d 339, 285 N.E. 2d 1972). *Construction Industry Association of Sonoma County (California) v. City of Petaluma*, 522 F.2d 897 (9th Circuit, 1975, cert. Denied 424 US 934 1976).
- 1975** *Southern Burlington County NAACP v. Township of Mount Laurel* -Affordable Housing and fair share analysis counter discrimination in exclusionary zoning. (67 N.J. 151, 336 A. 2d 713, 1975)
- 1978** *Penn Central Transportation Company et al v. City of New York*, 1978. No taking occurred as a result of the Grand Central Station being placed in a Landmark Preservation District. The use of the terminal was unimpeded, and useful governmental purpose (landmark preservation) was vindicated. The fact that the landmark Preservation commission recommended denial of a 53 story tower over Grand Central Station did not in itself assure that the tower would be

denied zoning, nor was it a taking.

- 1987** First English Evangelical Lutheran Church v County of Los Angeles. U.S. Supreme Court rejected as a full remedy the declaration of invalidity of the zoning ordinance. Plaintiff could be compensated for time the use of the land was lost due to zoning. 482 US 304 (1987)
- 1987** Nollan v. California Coastal Commission- U.S. Supreme Court held that development exaction's are valid so long as there is a reasonable relationship between the imposed exaction and the impact on property. The requirement of an easement for public walkway along the beach was not related to the issuance of a building permit on private property. 483 US 825 (1987)
- 1992** Lucas v. South Carolina Coastal Council- Court held that when a regulation denies all economic use of a property, it will be considered a taking. 505 US 1003 112 S. Ct. 2886 (1992)
- 1994** Dolan v. Tigard- City requirement to dedicate land in a floodplain for a bike path as a condition to approval of expansion of an existing hardware store was not reasonable. Must be an essential nexus (connection) between the exaction and the use. The benefit to the landowner must be roughly proportional to the impact of the development. The burden is on the community to show this nexus. 114 S. Ct. 2309, 2315 (1994)
- 1990's** Desktop geographic information systems (GIS) allow for inexpensive sophisticated land capability and land use analysis, court decisions relate to reasonableness of environmental preservation (aquifers, endangered species, floodplains, wetlands).

Figure 1J – New Urbanist Transect



- 1990's** New Urbanist Movement. Return to Traditional Neighborhood Design (TND) grid pattern of cities, with mixed uses, high densities.

- 1996** *Conservation Design for Subdivisions*, by Randall Arendt- How-to conservation subdivision guidebook. Rural character, environmentally sensitive alternative “PRD” and “cluster” subdivisions.
- 2001** *Growing Smarter*, by the American Planning Association is “a collection of planning, regulatory, and development practices that use land resources more efficiently through compact building forms, in-fill development and moderation in street and parking standards.” For APA, one of the purposes of Smart Growth “is to reduce the outward spread of urbanization, protect sensitive lands and in the process create true neighborhoods with a sense of community.” Smart Growth includes a departure from the complete separation of “incompatible uses”. Suggestions for amending state and local legislation to incorporate *Smart Growth* concepts such as Traditional Neighborhood Development with mixed uses, grid streets, and higher densities; transit oriented design to permit higher densities along light rail, bus, bike corridors; farmland preservation; environmental set asides. *Identifies elements of a good comprehensive plan.*

1.4 1996 Concord Township Comprehensive Plan

Concord Township adopted a Comprehensive Plan in 1996 (see map). Since that time, residential growth has increased, changing land use from farming and large-lot single family homes in rural areas to suburban Planned Residential Developments with hundreds of homes built by production builders.

1. Strengths of the 1996 Concord Township Plan

- a.) It existed, and was the underpinning of zoning and road planning for 6 years from 1996-2002.
- b.) It specifically endorsed the Sawmill Parkway and the Southern Delaware Bypass from the 1988 Southern Delaware County Thoroughfare Plan.
- c.) It established functional classifications for all roads.
- d.) Its densities conformed to the lack of central sanitary sewers and soil types.
- e.) It preserved rural character in non-sewer areas by keeping densities low.
- f.) It recommended bike trails and parks along all river corridors.
- g.) It outlined the need for recreational facilities in the future.
- h.) It provided goals for future development and development policies.
- i.) It located potential commercial “nodes” and Planned Residential Developments.

Drawbacks of the 1996 Comprehensive Plan

- a.) The environmental criteria for evaluation of land (i.e. slopes > 20%, 100 year floodplains, wetlands, prime agricultural soils, unsuitable soils for septic systems, topography) were less fully developed than is now possible, and need to be updated.
- b.) The goals could not have anticipated the 1996 OEPA ruling allowing land application zero discharge centralized sewers, and the rapid growth it brought to non-sewer service areas of the township. New policies need to respond to this type of growth.
- c.) There were no objectives to implement goal attainment; therefore it is difficult to evaluate success.
- d.) There are no specific sub-area planning recommendations to interpret the map.
- e.) There are no development policies for lands in transition.
- f.) Without measurements or descriptions of boundaries of land uses, it is difficult to judge the edge of proposed districts.

1.5 2002 Comprehensive Plan Update

By the end of the 20th century, it was clear that much more change was in store. Tremendous development pressure was based on zoning that many residents now saw as overly permissive. With that in mind, the Concord Township Zoning Commission convened on October 1, 2001 for the purpose of updating the 1996 Concord Township Comprehensive Plan.

The Zoning Commission is responsible (Ohio Revised Code 519.05) for the submission of a plan to the Township Trustees to achieve the purposes of land use regulation under zoning powers (ORC 519.02). At-large residents and landowners of the township were encouraged to participate in the planning process.

The 2002 Concord Township Comprehensive Land Use Plan (update) is intended to:

- Review the changes in land use, population, utility services, roads, and boundaries that have occurred from 1996 to 2001.
- Review the changes in economic, legislative, judicial and regulatory conditions that have occurred from 1996 to 2001.
- Review the goals and policies adopted in 1996; judge whether the goals and policies are still representative of the community's values and visions of its future, and if the goals and policies conform to current federal and state land use legislation and court decisions.
- Amend the goals and objectives for the growth in the ensuing five to ten years.

- Recommend amendments to local zoning, and the adoption of development policies to assure that the township will be what it has envisioned when it is all built out.
- The 2002 Comprehensive Land Use Plan is intended to be site-specific, with land use and/or density classification attached to each parcel, and viewed from an environmental standpoint with policies to protect critical resource areas and guide future growth of the township.

1.6 The DCRPC 1993 County Comprehensive Plan

The 1993 DCRPC Regional Comprehensive Plan overlays data to create a land suitability map for new development. It is suggestive, not prescriptive. It is not site-specific, does not recommend use and density, and is a general guide for development. The 2002 Concord Township Comprehensive Plan will be the vision, goals and objectives determined by the Township. If these plans differ, the Township plan takes precedence.

1.7 DALIS – How digital information affects the township’s ability to plan

The Delaware County Auditor developed a Geographic Information System (GIS) for the primary purpose of accurately mapping tax parcels. DALIS stands for Delaware Area Land Information System. It is an accurate computer mapping system that offers both tabular and graphic real estate data about each of 50,000 tax parcels.

This mapping system has a cadastral (property line) layer and topography layer. Topography is available in 2’, 5’, and 10’ contours depending upon which area of the county is viewed. In addition, the Auditor has also created revised soil maps and digital ortho photos with structures.

DALIS mapping is used as the base map for the 2002 Concord Township Comprehensive Plan. The software used is Arc/Info and ArcView, by ESRI. Planners may now view each parcel in a site-specific manner. This allows the Comprehensive Land Use Plan to be site-specific.

Chapter 2

Population

2.0 Population by Census Figures

Concord Township has had steady growth for the past 30 years.

Table 2.1 Census of Population, Concord Township 1960-2000

1960	1970	% growth 1960-70	1980	% growth 1970-80	1990	% growth 1980-90	2000	% growth 1990-2000
1,702	2,304	35.37 %	2,766	20 %	3,363	21.58 %	4,088	21.56 %

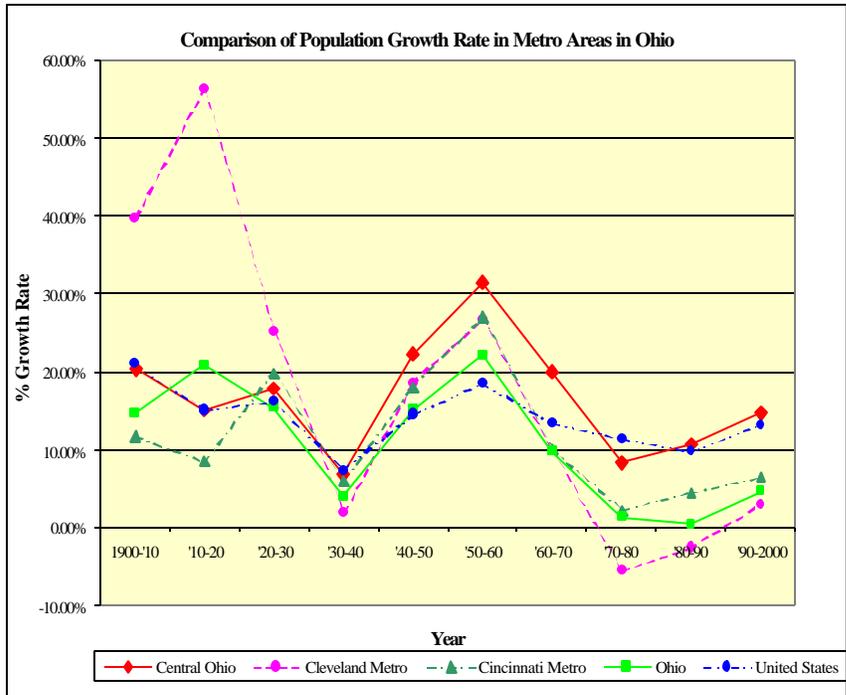
According to the US Bureau of the Census, Delaware County grew by 64.3% from 1990-2000, making it the fastest growing county in Ohio, and the 40th fastest growing county in America. Most of this growth has occurred south of the city of Delaware.

Table 2.2 Ten Fastest Growing Counties in Ohio, by % Growth Rate 1990-2000

(Source, US Bureau of Census, Census 2000; Statistical Information, Washington D.C, (301)-457-2422).

Ohio County	1990 population	2000 population	90-2000 % growth rate	Ohio rank, 1990-2000	USA rank 1990-2000
Delaware	66,929	109,989	64.3 %	1	40
Warren	113,909	158,383	39 %	2	161
Union	31,969	40,909	28 %	3	365
Noble	11,336	14,058	24 %	4	484
Medina	122,354	151,095	23.5 %	5	504
Brown	34,966	42,285	20.9 %	6	607
Fairfield	103,461	122,759	18.7 %	7	720
Holmes	32,849	38,943	18.6 %	8	725
Clermont	150,187	177,977	18.5 %	9	727
Knox	47,473	54,500	14.8 %	10	984

The Delaware County growth rate has continued to increase as people pushed north from Franklin County (Columbus) into the “country” for larger lots or more “rural character”.



Population Information in Central Ohio
(Data source: U.S. Census Bureau)

Area Name	1990 Census	2000 Census	Changed # of Pop.	Total Growth R.	Births 1990-1999	Deaths 1990-1999	Natural G. # of Pop.	Int'l Migration	Domestic Migration
Franklin	961,437	1,068,978	107,541	11.19%	149,925	70,377	79,548	11,089	-21,749
Delaware	66,929	109,989	43,060	64.34%	9,856	4,515	5,341	440	25,347
Fairfield	103,472	122,759	19,287	18.64%	14,070	8,166	5,904	283	17,280
Licking	128,300	145,491	17,191	13.40%	17,230	11,100	6,130	285	8,103
Union	31,969	40,909	8,940	27.96%	4,685	2,498	2,187	75	6,576
Pickaway	48,244	52,727	4,483	9.29%	5,806	3,760	2,046	46	3,240
Madison	37,068	40,213	3,145	8.48%	4,803	2,843	1,960	77	2,349
Central Ohio	1,377,419	1,581,066	203,647	14.78%	206,375	103,259	103,116	12,295	41,146
			<i>14.78%</i>				<i>7.49%</i>	<i>0.89%</i>	<i>2.99%</i>
Ohio	10,847,115	11,353,140	506,025	4.67%	1,454,713	957,171	497,542	52,922.00	-166,200
			<i>4.67%</i>				<i>4.59%</i>	<i>0.49%</i>	<i>-1.53%</i>
United States	248,709,873	281,421,906	32,712,033	13.15%	36,820,132	20,934,303	15,885,829	7,478,078	0
			<i>13.15%</i>				<i>6.39%</i>	<i>3.01%</i>	<i>0.00%</i>

Delaware County is growing largely by domestic in-migration. 25,347 new residents moved into the county from 1990 to 1999. Births minus deaths represented 5,341 new population in this time span. By contrast, Franklin County experienced a net loss of -21,749 via outward migration from 1990-99. Delaware County received 62% of the domestic migration in Central Ohio from 1990-99.

To put Delaware County's rate of growth into national perspective, consider the state and national annual growth rates in Table 2.3.

Table 2.3 Delaware County Growth Rate vs. Ohio vs. USA

(Source, US Bureau of Census, Internet Release Date: April 2001 ; Statistical Information, Washington D.C, (301)-457-2422).

Area	1990 population	2000 population	Growth Rate 1990-2000
USA	248,709,873	281,421,906	13.15 %
Ohio	10,847,115	11,353,140	4.66 %
Central Ohio	1,377,419	1,581,066	14.78 %
Franklin Co.	961,437	1,068,978	11.2 %
Berkshire Twp.	1,713	1,946	13.6 %
Berlin Twp.	1,978	3,315	67.59 %
Brown Twp.	1,164	1,297	11.43 %
Concord Twp.	3,363	4,088	21.56 %
Delaware Twp.	1,607	906	-43.62 %
Genoa Twp.	4,053	11,293	178.63 %
Harlem Twp.	3,391	3,762	10.94 %
Kingston Twp.	1,136	1,603	41.11 %
Liberty Twp.	3,790	9,182	142.27 %
Marlboro Twp.	213	227	6.57 %
Orange Twp.	3,789	12,464	228.95 %
Oxford Twp.	901	854	-5.22 %
Porter Twp.	1,345	1,696	26.10 %
Radnor Twp.	1,156	1,335	15.48 %
Scioto Twp.	1,698	2,122	24.97 %
Thompson Twp.	582	558	-4.12 %
Trenton Twp.	1,906	2,137	12.12 %
Troy Twp.	1,652	2,665	61.32 %
Total Unincorp.	35,437	61,450	73.41 %
Delaware	20,030	25,243	26.03 %
Dublin	3,811	4,283	12.39 %
Galena	361	305	-15.51 %
Sunbury	2,046	2,630	28.54 %
Shawnee Hills	423	419	-0.95 %
Powell	2,154	6,247	190.02 %
Ashley	1,059	1,216	14.83 %
Ostrander	431	405	-6.03 %
Westerville	1,177	5,900	401.27 %
Columbus	0	1,891	
Total Incorp.	31,492	48,539	54.13 %
Total Delaware Co.	66,929	109,989	64.3 %

Table DP-1 (below) is taken from the 2000 US Census. It shows that Delaware County's population is 50% male and 50% female, over 94% White (Caucasian), and 80% residing in their own homes.

Table DP-1. Profile of General Demographic Characteristics: 2000

Geographic Area: Delaware County, Ohio

[For information on confidentiality protection, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
Total population	109,989	100.0	HISPANIC OR LATINO AND RACE		
SEX AND AGE			Total population	109,989	100.0
Male.....	54,435	49.5	Hispanic or Latino (of any race).....	1,109	1.0
Female.....	55,554	50.5	Mexican.....	490	0.4
Under 5 years.....	8,682	7.9	Puerto Rican.....	164	0.1
5 to 9 years.....	9,100	8.3	Cuban.....	38	-
10 to 14 years.....	8,363	7.6	Other Hispanic or Latino.....	417	0.4
15 to 19 years.....	7,777	7.1	Not Hispanic or Latino.....	108,880	99.0
20 to 24 years.....	5,510	5.0	White alone.....	102,943	93.6
25 to 34 years.....	15,004	13.6	RELATIONSHIP		
35 to 44 years.....	20,898	19.0	Total population	109,989	100.0
45 to 54 years.....	16,751	15.2	In households.....	107,262	97.5
55 to 59 years.....	5,170	4.7	Householder.....	39,674	36.1
60 to 64 years.....	3,723	3.4	Spouse.....	26,876	24.4
65 to 74 years.....	5,254	4.8	Child.....	34,684	31.5
75 to 84 years.....	2,865	2.6	Own child under 18 years.....	29,447	26.8
85 years and over.....	892	0.8	Other relatives.....	2,607	2.4
Median age (years).....	35.3	(X)	Under 18 years.....	893	0.8
18 years and over.....	78,928	71.8	Nonrelatives.....	3,421	3.1
Male.....	38,438	34.9	Unmarried partner.....	1,699	1.5
Female.....	40,490	36.8	In group quarters.....	2,727	2.5
21 years and over.....	74,816	68.0	Institutionalized population.....	1,137	1.0
62 years and over.....	11,088	10.1	Noninstitutionalized population.....	1,590	1.4
65 years and over.....	9,011	8.2	HOUSEHOLD BY TYPE		
Male.....	3,863	3.5	Total households	39,674	100.0
Female.....	5,148	4.7	Family households (families).....	30,658	77.3
RACE			With own children under 18 years.....	15,911	40.1
One race.....	108,738	98.9	Married-couple family.....	26,876	67.7
White.....	103,663	94.2	With own children under 18 years.....	13,568	34.2
Black or African American.....	2,774	2.5	Female householder, no husband present.....	2,667	6.7
American Indian and Alaska Native.....	157	0.1	With own children under 18 years.....	1,681	4.2
Asian.....	1,690	1.5	Nonfamily households.....	9,016	22.7
Asian Indian.....	537	0.5	Householder living alone.....	7,177	18.1
Chinese.....	488	0.4	Householder 65 years and over.....	2,109	5.3
Filipino.....	89	0.1	Households with individuals under 18 years.....	16,571	41.8
Japanese.....	117	0.1	Households with individuals 65 years and over.....	6,142	15.5
Korean.....	246	0.2	Average household size.....	2.70	(X)
Vietnamese.....	61	0.1	Average family size.....	3.09	(X)
Other Asian ¹	152	0.1	HOUSING OCCUPANCY		
Native Hawaiian and Other Pacific Islander.....	38	-	Total housing units	42,374	100.0
Native Hawaiian.....	24	-	Occupied housing units.....	39,674	93.6
Guamanian or Chamorro.....	5	-	Vacant housing units.....	2,700	6.4
Samoan.....	3	-	For seasonal, recreational, or occasional use.....	225	0.5
Other Pacific Islander ²	6	-	Homeowner vacancy rate (percent).....	2.3	(X)
Some other race.....	416	0.4	Rental vacancy rate (percent).....	10.2	(X)
Two or more races.....	1,251	1.1	HOUSING TENURE		
Race alone or in combination with one or more other races: ³			Occupied housing units	39,674	100.0
White.....	104,788	95.3	Owner-occupied housing units.....	31,915	80.4
Black or African American.....	3,216	2.9	Renter-occupied housing units.....	7,759	19.6
American Indian and Alaska Native.....	622	0.6	Average household size of owner-occupied units.....	2.83	(X)
Asian.....	2,008	1.8	Average household size of renter-occupied units.....	2.17	(X)
Native Hawaiian and Other Pacific Islander.....	76	0.1			
Some other race.....	606	0.6			

- Represents zero or rounds to zero. (X) Not applicable.

¹ Other Asian alone, or two or more Asian categories.

² Other Pacific Islander alone, or two or more Native Hawaiian and Other Pacific Islander categories.

³ In combination with one or more of the other races listed. The six numbers may add to more than the total population and the six percentages may add to more than 100 percent because individuals may report more than one race.

Source: U.S. Census Bureau. Census 2000.

Population figures indicate that from 1990-2000, Concord Township grew one third as fast as Delaware County as a whole; however, Concord Township began a rapid growth spurt in 1997 with the approval of two golf course subdivisions (Tartan Fields and Scioto Reserve, total 1,857 new homes). Both these subdivisions were made possible by the Ohio Environmental Protection Agency

allowance of on-site land-application sewage treatment systems. Population soared from 3,363 in 1990 to 5,839 (projected) 2002 year-end. Concord's projected growth rate for 2000-2010 is 116%, 6 times its 1990-2000-growth rate.

The numbers tell the story of Concord Township's growth spurt.

- From 1990-97 an average of 34 new homes per year were built in Concord Township.
- In 2001, 355 new homes were built in Concord Township, a ten-fold increase.
- Population is projected to double from 2000 to 2010 (4,088 to 9,343).
- From January 1993 to January 1997 97 new lots were platted.
- From January 1997 to January 2001 1,389 new lots were platted.

2.1 Population Projections

The Delaware County Regional Planning Commission makes population projections based upon a Housing Unit Method. The formula works as follows:

- 1.) Last Census (2000) used as a base year.
- 2.) Number of residents per dwelling unit is calculated based upon the last census information (2.74 for Concord Township).
- 3.) Number and type of new residential building permits is tracked by month for all jurisdictions.
- 4.) A time lag factor anticipates the occupancy date of new housing after building permit issuance.
- 5.) New population is projected for each jurisdiction based on the number of building permits issued times the number of residents per dwelling unit type, after the lag factor.
- 6.) New population added to last census data to create projected population.

Concord Township has begun the shift from a large lot, rural community to a blend of rural and suburban, with production-builder neighborhoods that look much like those in Liberty, Orange and Genoa Townships.

The Population by Housing Unit Method Projections table contains population projections for Delaware County through the year 2020.

Population Projection (II) to 2020

Prepared by DCRPC (Housing Unit Method)

DELAWARE COUNTY REGIONAL PLANNING COMMISSION POPULATION PROJECTION (HOUSING UNIT METHOD) 2000 THROUGH 2020

TOWNSHIPS	1990 CENSUS (APRIL OF 1990)	2000 CENSUS (APRIL OF 2000)	INDEX	VACANCY R.	H. UNITS	END OF 2000	2001	2002	2003	2004	2005	2006	GROWTH RATE(90-2000)	ANNUAL GROWTH R.	2010	2015	2020	GROWTH RATE (2001-2010) (2011-2020)
BEKERSHIRE	1713	1946	2.810	4.5%	1974	2006	2036	2070	2113	2149	2185	2220	13.60%	1.28%	2,678	3,204	3,745	35.64%
BERLIN	1978	3313	2.810	4.7%	3489	3882	4294	4845	4892	5103	5303	5503	67.49%	5.29%	5,810	6,513	7,237	66.55%
BROWN	1164	1290	3.3%	1303	1336	1362	1397	1414	1429	1443	1459	1473	10.82%	1.03%	1,489	1,549	1,611	8.19%
CONCORD	3363	4088	2.740	5.8%	4323	4994	5839	6594	7324	7956	8594	9233	21.56%	1.97%	9,343	10,723	12,145	23.98%
DELAWARE	1807	1559	2.630	7.0%	1580	1660	1777	1897	1982	2056	2133	2213	-2.99%	-0.30%	2,254	2,451	2,654	42.62%
GENOA	4053	11293	2.930	5.0%	12951	13931	15697	17389	18862	20133	21333	22533	178.63%	10.79%	23,130	28,110	33,100	89.81%
HARLEM	3391	3782	2.820	3.1%	3774	3798	3829	3861	3873	3881	3881	3881	10.94%	1.04%	3,951	4,021	4,094	4.89%
KINGSTON	1136	1603	3.020	3.1%	1652	1736	1821	1899	1981	2059	2139	2219	41.11%	3.50%	2,751	3,438	4,146	66.53%
LIBERTY	3790	982	3.000	5.3%	9633	10291	10811	11375	11917	12380	12800	13280	142.27%	9.25%	15,407	18,416	21,515	59.94%
MARLBORO	213	227	2.690	6.7%	227	235	253	259	261	264	264	264	6.57%	0.64%	274	284	295	20.64%
ORAME	3789	12464	2.930	8.4%	13226	14342	15734	17202	18607	19932	21266	22600	228.95%	12.65%	23,304	26,955	30,717	76.19%
OXFORD	901	854	2.870	7.2%	864	886	912	939	959	976	992	1009	-5.22%	-0.53%	999	1021	1045	15.61%
PORTER	1345	1636	2.870	3.0%	1705	1726	1742	1759	1774	1785	1785	1785	26.10%	2.36%	1,799	1,813	1,828	5.53%
RADNOR	1166	1335	2.750	4.3%	1345	1363	1372	1388	1396	1402	1411	1418	15.48%	1.45%	1,421	1,441	1,462	5.69%
SCOTO	1698	2122	2.740	4.7%	2164	2187	2203	2232	2256	2276	2296	2316	24.97%	2.25%	2,323	2,371	2,420	7.85%
THOMPSON	582	558	2.780	8.2%	559	568	586	591	595	598	598	598	-4.12%	-0.42%	616	634	652	10.22%
TRENTON	1906	2137	2.920	3.0%	2143	2159	2184	2223	2263	2296	2330	2364	12.12%	1.15%	2,351	2,406	2,463	9.73%
TROY	1652	2021	2.820	8.5%	2018	2027	2056	2106	2160	2206	2256	2306	22.34%	2.04%	2,242	2,278	2,316	11.2%
TOTAL UNINC.	35,437	61,450	2.810	5.3%	64,194	69,097	74,509	79,815	84,528	88,580	92,632	96,684	73.41%	5.66%	102,142	115,627	129,523	59.21%
INCORPORATED AREAS																		26.81%
DELAWARE	20030	25243	2.630	6.7%	25900	26565	27283	27889	28372	28802	29272	29702	26.03%	2.34%	31,531	34,077	36,605	21.74%
GALENA	361	305	2.610	7.6%	305	305	304	305	304	303	303	303	-16.51%	-1.67%	320	327	334	4.81%
SUNBURY	2046	2630	2.650	3.9%	2692	2812	2975	3114	3218	3311	3391	3471	28.54%	2.54%	3,310	3,503	3,694	22.95%
SHAWNEEHILL	423	419	2.320	9.0%	429	436	448	467	475	483	483	483	-0.95%	-0.09%	480	466	472	7.23%
POWELL	2164	6247	3.180	2.8%	6434	6716	6995	7286	7623	7931	8231	8531	190.02%	11.24%	9,096	10,234	11,363	41.38%
ASHLEY	1059	1216	2.660	6.2%	1284	1278	1272	1259	1254	1254	1254	1254	14.83%	1.39%	1,369	1,371	1,375	6.84%
OSTRANDER	431	405	2.680	5.1%	403	401	399	396	394	392	392	392	-6.03%	-0.62%	427	436	445	5.88%
DUBLIN	3811	4283	3.040	6.9%	4291	4295	4266	4255	4242	4228	4228	4228	12.39%	1.17%	4,516	4,518	4,719	5.25%
WESTERVILLE	1177	6900	2.820	3.7%	6748	7073	7312	7452	7635	7799	7963	8127	401.27%	17.49%	11,238	12,796	14,237	66.53%
COLUMBUS	0	1891	2.480	7.9%	2546	2830	3070	3362	3574	3767	3940	4123			6,940	8,366	10,977	172.88%
TOTAL INC.	31,492	48,539	2.697	5.0%	51,033	52,700	54,325	55,795	57,100	58,274	59,448	60,622	54.13%	4.42%	69,207	76,794	84,221	21.69%
TOTAL	66,929	109,989	2.700	6.4%	115,186	121,797	128,834	135,611	141,628	146,854	151,080	156,306	64.34%	5.09%	171,349	192,421	213,744	48.76%

NOTE: POTENTIAL SHIFTS IN POPULATION BY UNCHARTERED BLENDS MAY OCCUR, FOR EXAMPLE EXTENSIONS OF SEWERS, UNANTICIPATED HIGHER DENSITY REZONINGS, ETC.

1) ANNEXTION
2) SINGLE F. AND/ OR CONDORNIUM BUILDING PERMITS
3) VACANCY RATE
4) 3 MONTHS CONSTRUCTION TIME AFTER GETTING BUILDING PERMIT
5) ANNUAL DEATH RATE FROM THE CENSUS BUREAU (0.8675% (90-95), 0.5585% (96-2000), 0.572% (2000-2011))
6) POPULATION INDEX AND HOUSING UNITS VACANCY RATES FROM CENSUS 2000

2.2 Building Permits and Population Growth

The building permit numbers, more than the census, tell what is happening in Concord Township. Concord Township has begun a growth spurt. From 1980-1997, 434 new housing permits were issued in Concord Township, an average of 24 new homes per year. From 1998-2000, 524 new homes were built in Concord Township, an average of 175 new homes per year. In 2000, 235 new homes were built, a ten-fold increase from the 1980-1996 average. In 2001, 350 new homes were built.

Number of New Residential Building Permits

(1980 to 2001)

DELAWARE COUNTY REGIONAL PLANNING COMMISSION																							
NUMBER OF BUILDING PERMITS																							
1980 THROUGH 2001																							
YEAR	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	Total ('80-'01)
TOWNSHIPS																							
BERKSHIRE	6	3	2	6	6	13	30	28	26	26	30	18	27	26	13	21	22	16	17	34	16	16	402
BERLIN	8	11	4	9	11	19	19	34	32	17	13	22	26	35	39	65	66	54	98	117	128	182	1,009
BROWN	3	2	2	9	5	3	5	10	15	13	8	7	9	12	14	11	17	9	10	8	17	10	199
CONCORD	16	16	4	11	14	26	42	44	51	27	30	22	33	38	42	35	30	43	96	103	235	350	1,308
DELAWARE	3	5	2	2	7	5	6	6	5	6	11	9	5	10	12	3	4	12	25	11	31	49	229
GENOA	9	3	10	21	30	27	66	52	39	40	51	54	114	187	271	243	363	342	622	507	651	667	4,369
HARLEM	13	8	8	19	19	16	32	33	30	19	18	17	32	37	27	25	30	30	23	27	16	18	497
KINGSTON	6	3	2	7	9	11	6	14	15	7	14	12	22	32	20	19	18	19	24	37	30	37	364
LIBERTY	20	18	9	19	35	37	60	59	93	57	73	91	164	153	202	164	202	231	262	322	276	198	2,745
MARLBORO	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	1	1	0	1	1	1	10	18
ORANGE	11	5	5	56	57	43	110	150	139	80	84	103	135	170	180	188	268	352	378	637	410	536	4,097
OXFORD	0	1	2	3	4	1	2	4	3	4	8	8	6	7	7	3	6	6	4	9	10	11	109
PORTER	10	5	7	6	4	6	14	11	17	17	10	21	20	12	25	12	13	16	17	11	12	9	275
RADNOR	7	3	6	4	3	2	1	5	7	8	9	7	11	15	12	13	11	9	13	11	12	5	174
SCIOTO	16	8	8	12	14	21	17	30	21	11	22	15	17	28	26	33	26	20	27	37	21	9	439
THOMPSON	1	0	1	2	1	1	6	4	2	7	1	3	3	0	2	0	3	4	4	4	2	11	62
TRENTON	6	7	3	7	9	4	8	17	15	16	11	12	12	17	9	11	25	17	13	12	10	11	252
TROY	0	6	1	21	4	6	5	18	13	7	15	5	9	13	18	9	15	13	12	6	7	14	217
TOTAL UNINCORP.	135	104	76	214	232	241	430	519	524	362	408	426	646	792	919	856	1,120	1,193	1,646	1,894	1,885	2,143	16,765
INCORPORATED AREAS																							
DELAWARE	132	104	6	54	46	103	86	160	150	322	89	76	87	111	245	305	465	248	355	790	318	368	4,620
GALENA	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	2	0	2	2	1	0	10
SUNBURY	2	0	0	1	8	13	5	4	8	4	3	3	11	10	14	17	40	30	33	19	47	75	347
SHAWNEE HILLS																							
POWELL	9	9	7	7	24	56	105	202	137	129	92	73	89	169	166	103	130	163	217	141	103	105	2,236
ASHLEY											1	1		0	2	3	0	2	0	0	1	0	10
OSTRANDER	2	0	0	0	2	2	6	2	2	0	1	0	0	1	0	9	7	1	0	1	0	0	36
DUBLIN																				4	9	1	14
WESTERVILLE																					140	122	262
COLUMBUS																83	121	546	184	774	146	97	1,951
TOTAL INC.	145	113	13	62	80	174	203	369	297	456	186	153	187	291	430	527	766	992	792	1,731	769	773	9,509
T. INC & UNINC.	280	217	89	276	312	415	633	888	821	818	594	579	833	1,083	1,349	1,383	1,886	2,185	2,438	3,625	2,654	2,916	26,274

NOTE: 1) IN THE CITY OF DELAWARE AND COLUMBUS, THOSE FIGURES ARE INCLUDING MULTI-FAMILY RESIDENTIAL BUILDING PERMITS.

2) FROM 1997, THOSE FIGURES ARE INCLUDING MULTI-FAMILY RESIDENTIAL BUILDING PERMITS IN TOWNSHIPS

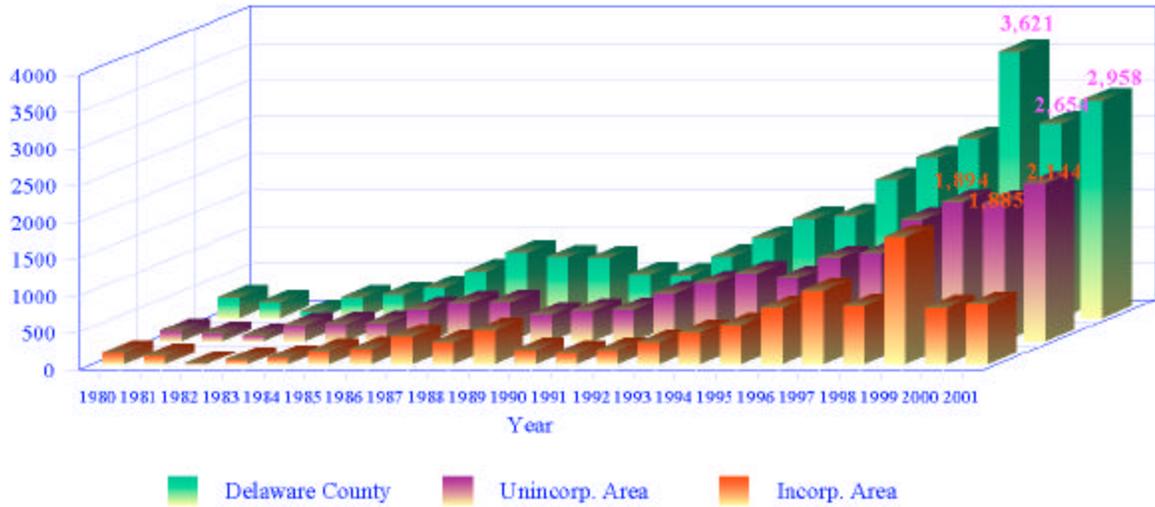
3) PLEASE CHECK DCRPC WEBSITE (WWW.DCRPC.ORG) FOR 2002 INFORMATION.

SOURCE: DELAWARE COUNTY REGIONAL PLANNING COMMISSION.

Building Permit Trends

In Delaware County, Ohio

1980 Through 2001



DELAWARE COUNTY NEW BUILDING PERMIT ISSUES IN 2001															
(UNINCOR. AREAS)															
TOWNSHIP	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	SUB-TOTAL	VOID BP*	TOTAL
BERESHIRE	0	0	1	1	4	2	4	1	3	0	1	0	17	-1	16
BERLIN	11	4	6	11	11	13	23	34	14	9	22	13	156	-4	152
BROWN	0	0	1	1	2	2	1	0	1	1	1	0	10	0	10
CONCORD	32	18	20	20	19	26	31	48	40	31	58	16	339	-4	335
DELAWARE	2	7	5	2	6	7	6	3	1	4	2	4	49	0	49
GENOA	28	40	27	63	79	93	63	54	55	62	37	71	672	-5	667
HARLEM	0	1	1	2	5	3	1	2	0	1	2	0	18	0	18
KINGSTON	2	5	1	3	4	4	3	3	3	4	3	2	37	0	37
LIBERTY	13	14	12	18	26	25	20	12	21	22	8	8	199	-1	198
MARLBORO	0	0	3	1	0	1	0	3	1	0	1	0	10	0	10
ORANGE	39	35	37	35	67	44	20	25	78	40	55	51	536	-4	532
OXFORD	1	0	2	1	2	3	2	0	0	0	0	0	11	0	11
PORTER	0	0	0	0	1	1	2	0	1	1	0	3	9	0	9
RADNOR	0	1	1	0	0	1	0	0	1	1	0	0	5	0	5
SCIOTO	0	0	0	0	1	1	4	0	1	1	1	0	9	0	9
THOMPSON	1	0	1	1	2	3	0	0	0	3	1	0	11	0	11
TRENTON	0	1	0	1	4	1	0	1	0	0	1	2	11	0	11
TROF	1	0	2	0	3	3	1	1	0	1	0	2	14	0	14
TOTAL	130	126	120	160	236	238	201	187	220	180	193	172	2163	-19	2144
TOTAL BY 2000	97	124	170	121	271	281	124	174	178	165	114	138	1895		
TOTAL BY 1999	85	114	213	181	178	270	285	149	146	182	100	151	1874		
TOTAL BY 1998	71	98	132	185	126	153	169	103	121	161	106	136	1616		
TOTAL BY 1997	65	67	86	108	113	119	99	102	99	130	125	80	1193		
TOTAL BY 1996	60	66	78	102	107	73	130	109	96	109	91	97	1120		
MULTIFAMILY															
CONCORD	includes 1 in January, 3 in March, 5 in June, 24 in September, 4 in October, and 14 in November														
GENOA	includes 26 in May, 45 in June, 2 in September, 9 in October, 3 in November, and 21 in December														
LIBERTY	includes 4 in October														
OXFORD	includes 1 in January, 24 in May, and 56 in September														
* Indicates that a Building Permit was issued for a parcel, cancelled and later re-issued as a new permit for the same parcel															

Chapter 3

Development and Change

From January 1993 to December 2000, 1,486 new subdivision lots were platted in Concord Township. During the same time frame, 622 new home permits were issued. There is an advance supply of new lots being created to meet perceived demand. These new subdivision lots are in addition to road frontage 1.5-acre lot splits and five-acre mini-farms.

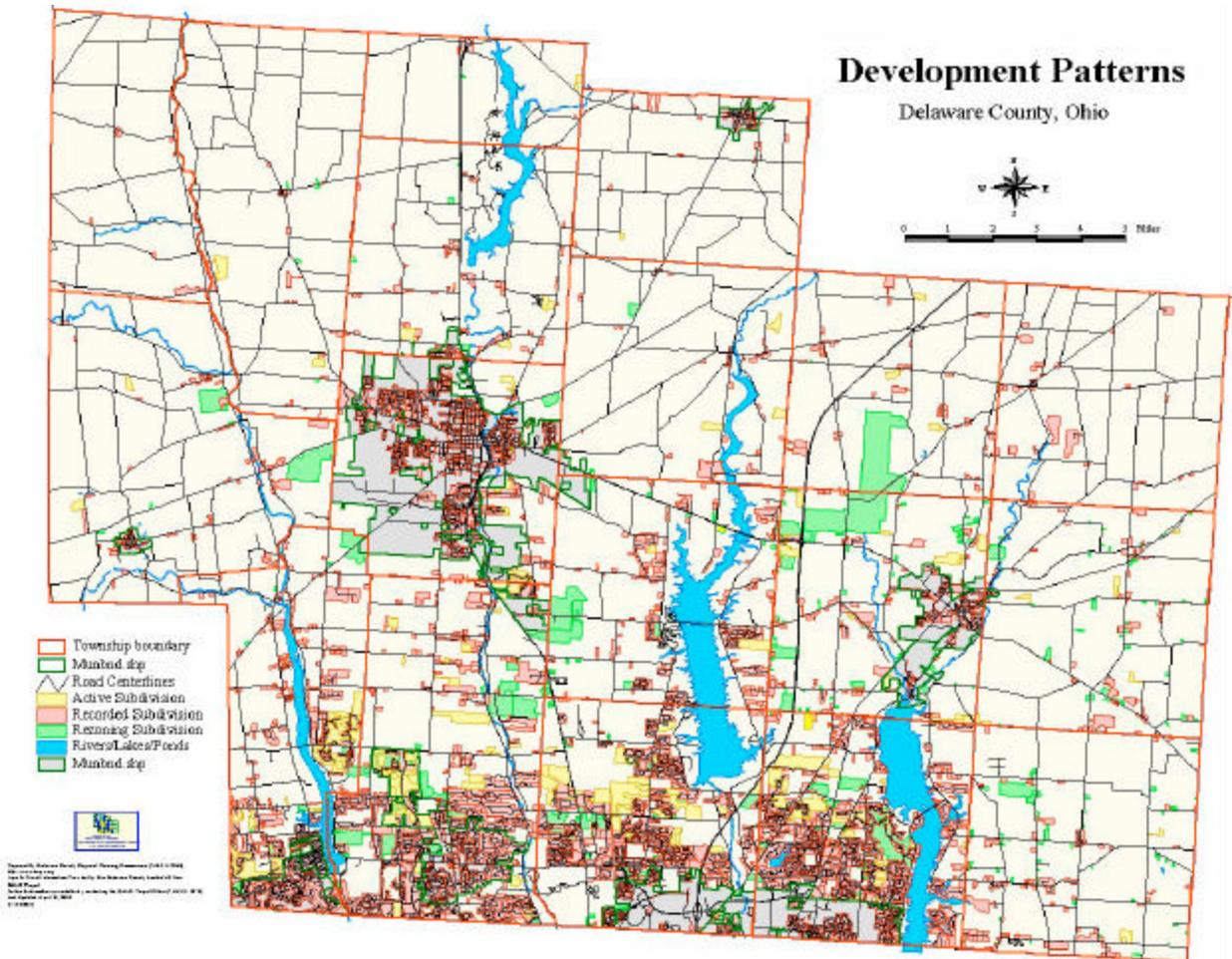
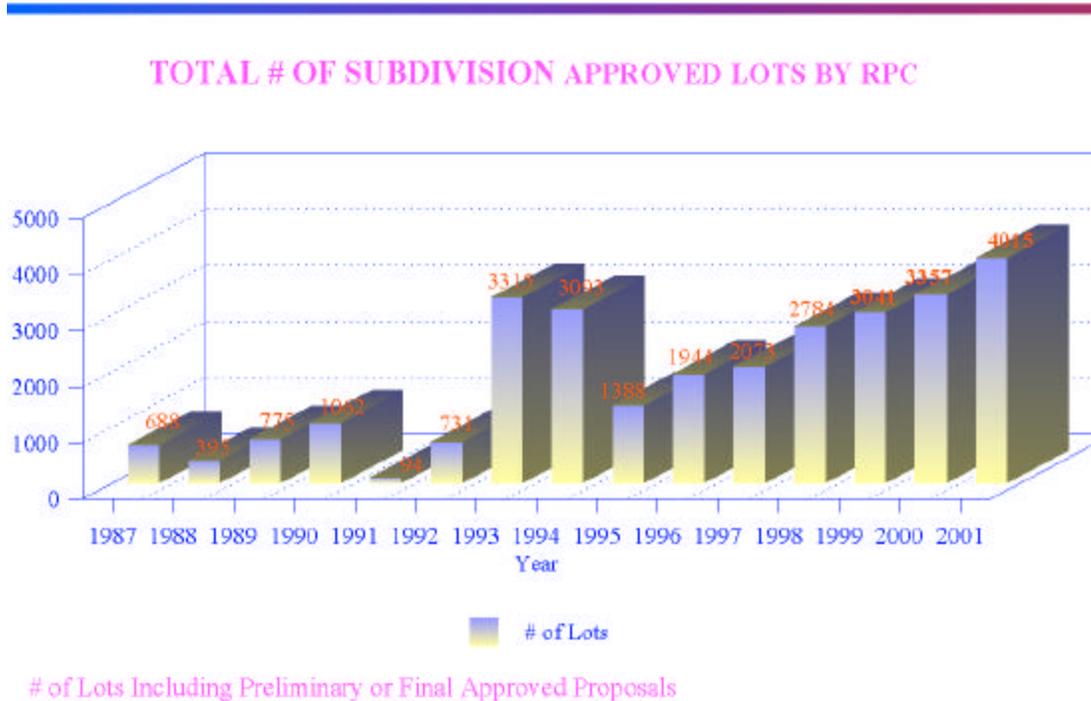


Table 3.1 New Delaware County Subdivisions

Subdivision Proposals



3.1 Summary of Development Indicators in Delaware County and Concord Township

Concord Township has only recently experienced significant residential growth in suburban style subdivisions, and more is coming within Scioto Reserve and Tartan Fields until those platted lots are absorbed. After that occurs, will there be additional large new sewer-served subdivisions with small sizes? Will these two subdivisions be an anomaly, with Concord Township returning to slower growth rates? Will annexation remove land area that might otherwise stay in the township? These issues will be considered in later chapters.

There are some observed trends that merit concern for the townships in Delaware County. Significant zoning and subdivision activity has lead to a buildup of supply in subdivision lots available for development. As of December 31, 2002, there were 14,639 single family lots or multi-family housing

units in the development approval process. This means that all 14,639 lots/units had received at least zoning approval or had begun the subdivision process. These 14,639 housing units represent an eight (8) year supply, using the average number of new housing permits in the townships for the previous 5 years (1752/yr). A three (3) year supply is considered normal. Despite this significant increase in platting and zoning, subdivision activity has remained strong. DCRPC reviewed 4,177 new lots in 2001.

Table 3.15 Available Lots and MF Units in Delaware County Townships , 1/1/2002

	<u>All Delaware County Townships Combined</u>	<u>Concord Township</u>
• Multi family zoning pending	33	0
• Single family zoning pending	1,049	0
• Multi family zoning approved, not platted	894	0
• Single family zoning approved, not platted	1,083	1
• Multi family with subdiv. approval	977	91
• Expired subdivision (can be restored)	2,575	44
• Sketch plan reviewed	143	4
• Tabled	15	2
• Overall preliminary subdivision approved	621	325
• Preliminary approved subdivisions	3,114	343
• Final subdivision approved (not recorded)	527	99
• <u>Unbuilt, recorded lots</u>	<u>3,608</u>	<u>441</u>
Totals	14,639*	1,350*

* Totals are not the sum of all categories, since there can be zonings that are also an expired subdivision.

Perceptions of Growth

A 1998 Delaware Health Department survey asked questions relating to the community’s perception of its environmental health. Trained volunteers surveyed 500 students in five local high schools and 200 county fair attendees. In addition, the survey questions were mailed to 40,000 households.

The top five environmental concerns were:

1. Need for more parks, green space, wildlife habitats (733 responses)
2. County development, zoning, annexation out of control (721)

3. Surface water pollution from sewage systems (686)
4. Surface water pollution from factories, agriculture (685)
5. Environmental Education (660)

The public's perception of Delaware County growth includes negative comments:

- too much traffic,
- unplanned neighborhoods,
- lack of environmental and open space protection,
- inadequate new school construction
- the pace of growth is too rapid

Concord Township has begun the rapid pace of growth seen in Genoa, Orange, and Liberty Townships. More growth is likely in the near future. The comprehensive plan needs to address how this growth can best be managed.

CHAPTER 4

Issues and Opportunities



Concord Township steering committee members

The Comprehensive Planning process is a forum for the development issues (forces) pushing and pulling at the township. The issues are categorized as strengths, opportunities, weaknesses, or threats. The township's response to these issues is a future vision, or strategic plan of action for the township's development.

4.1 Citizen Participation in the Decision Making Process

A. Need for Citizen Participation

The Comprehensive Plan typically looks 5-10 years into the future, with the understanding that unforeseen circumstances may change the vision.

The planning process demands broad representation of the populace to ascertain current issues, and to set goals for the future. Each community may take a slightly different approach to involving the public, but a citizen participation element is the backbone of the process; it provides legitimacy to the resulting plan.

In general, the citizen participation should be:

- Representative of the population and land ownership of the township
- More broad based than just elected and appointed officials
- Long term and open to continuing debate
- Influential in the recommendations made to appointed and elected officials

B. Open Invitation to the Process

The Concord Township Zoning Commission took steps to open the discussion to the community by placing notices along major thoroughfares in the township.

1. A story in the local newspaper outlined the planning process and invited all to attend.
2. Posted legal advertisements for the public meetings to discuss the plan.
3. Requested a core group of citizens to join a Comprehensive Plan Steering Committee, which would work on the plan update and forward the final draft to the Zoning Commission for consideration. A twenty-four (24) member Steering Committee was organized. This core group agreed to meet on a monthly basis until the update of the plan was completed.



Concord Township Steering Committee members

C. Commencement of the Planning Process

A group of approximately 80 Concord Township residents and landowners attended the initial meeting of October 1, 2001, at which time they discussed the following items:

1. Why do we need a Comprehensive Plan for future land use?
2. What do we like about Concord Township?
3. What do we dislike about Concord Township?
4. What do we want the township to look like when it is ultimately developed?
5. What is our Vision for the development of the township for the next 5-10 years?

4.2 Citizens’ Likes and Dislikes- Issues and Opportunities Regarding Development

During a second meeting on November 5, 2001, the members of the steering committee and other concerned citizens (a total of 28 citizens) ranked the Likes and Dislikes issues above in order of importance. The numbers assigned to each represents each item’s average rank. Respondents were free to rank the items using whatever system they preferred (i.e., they could give several items the same rank).

LIKES	Average	DISLIKES	Average
1. Rural character	4.85	1. Truck traffic	7.17
2. Trees and green space	7.78	2. Increasing traffic	8.05
3. Large lots, low density	8.52	3. Greedy over-development without needed infrastructure	8.95
4. Fire department	8.96	4. Lack of speed limit enforcement	9.47
5. Relatively quiet	9.00	5. Annexation threats	9.79
6. Del-Co water	9.81	6. Speed limit too high	10.87
7. Privacy	11.96	7. Insufficient commercial tax base for schools	11.64
8. Road maintenance	12.77	8. Quarries too large	11.71
9. Wildlife	12.78	9. Maximum security prison	12.24
10. Rivers and recreation	12.93	10. Pending temporary closing of Home Road bridge	14.37
Reasonable safety	13.04	Lack of some utilities	14.40
Farms	14.27	Dangerous intersection at US42 and Section Line Road	14.48
Relatively low taxes	14.56	Poorly drained soils	14.50
9-1-1 service	14.74	Narrow roads	14.54
Low traffic	15.19	Noisy off-road vehicles	14.84
Good city country mix	15.23	Lack local community input on development proposals	14.95
Good zoning	15.52	Park continuity	15.04
Friendly people	15.67	Truck noise (brakes)	15.33
No light pollution	15.69	No walkways along roads	15.43

Diligent zoning board	16.42	Lack of law enforcement	16.23
No commercial in residential	16.80	Roads are widened after development	16.80
Township form of government	17.52	Loss of agricultural infrastructure	16.86
Proximity to Columbus	17.65	Alternate 1 on the Thoroughfare Plan	17.12
Good road network	18.27	Lack of community input	17.22
Proximity to shopping	18.38	Light pollution	17.78
Access to hospital	18.59	Junk cars in yards	18.19
No sewers, so density is low	18.80	Development in floodplain	18.47
Concord park track	21.16	Home bridge is too skinny	18.65
Active community	21.23	Too few good restaurants	20.40
Small, rural churches	21.42	Lack of county support	20.44
Columbus Zoo	21.72	Utility boxes on street	20.60
Proximity to restaurants	22.48	No community center	21.00
Buckeye Valley Schools	23.44	Uniform telephone area code	21.76
Township newsletter	24.76	Lack of communication with the township	22.39
Dublin schools	25.38	Inadequate telephone service	22.53
Columbus Park Marina	25.48	Lack of local post office	22.95
Narrow roads	25.48	Need additional communication (e-mail) news from township	23.68
Scioto Reserve development	27.65	Poor right-of-way maintenance	23.84
		Second fire station	24.72
		Lack of leash law enforcement	25.11

The group also identified other general issues related to the future of Concord Township:

1. There is a valid benefit to a community from upscale developments.
2. Will Home Road extend to U.S. 42 in Union County?
3. Will there be moderately priced housing options in the township in the future?
4. What will the new Home Road Bridge look like (pedestrian access)?

Attendees were asked to place items in the same list into categories: Strengths, Weaknesses, Opportunities, and Threats. Within each category, certain themes begin to emerge. These themes have been grouped below.

Strengths

Rural character

- Large lots, low density
- Relatively quiet
- Privacy
- Farms
- No light pollution
- No sewer, so density is low

Natural Resources

- Wildlife
- Rivers and Recreation
- Trees and greenspace

Location

- Proximity to Columbus
- Columbus Zoo
- Columbus Park marina

Services

- Fire Department
- Del-Co
- Road maintenance
- Reasonable safety
- Relatively low taxes
- 9-1-1 service
- Diligent Zoning Board

Other

- Reasonable safety
- Low traffic in some areas
- Friendly people
- Township form of government
- Concord Park track
- Small rural churches

Weaknesses

Services

- Buckeye Valley Schools
- Lack of some utilities
- Inadequate phone service
- Too few good restaurants

Transportation

- Narrow Roads
- Noisy off-road vehicles
- Truck traffic and the noise associate with trucks
- Speed limits are felt to either be too high or not enforced
- The dangerous US42 and Section Line Road intersection
- Lack of walkways along road
- Poor right-of-way maintenance

Government

- Lack of law enforcement
- Lack of county support
- Lack of post office
- Need additional communication (e-mail) within the Township

Development Issues

- Lack of community input on development issues
- Lack of park continuity along reservoir
- Continued development in the floodplain
- Roads are only widened after the development goes in
- Insufficient commercial to support the schools
- Poorly drained soils
- Junk cars on some properties
- No community center

Opportunities

- Lots of land left- still rural
- Need to clarify how to preserve open space and rural character
- Still have time to alter course of development before entire township becomes suburban sprawl.

- Plan for second fire station
- Good zoning in place- time to refine it while there is land left to be developed

Threats

- Increased traffic
- Greedy over-development without needed infrastructure
- Alternate 1 on the Delaware County Proposed Thoroughfare Plan (connector road from US 42 to US 23)
- Quarries too large
- Maximum security prison
- Annexation threats, Dublin, Delaware, Powell?

4.3 Vision Statement for Future Development

The October 1, 2001 large group created a future vision for the community development pattern:

When Concord Township is all built out, we would like it to retain large lots and low density in a pastoral setting with adequate infrastructure; with a balance of commercial, residential and recreational uses; with the river as a focal point; maintaining the character of narrow roads; and a variety of housing types and reasonable community safety.

The mission of the Concord Township steering committee is to analyze the factors that influence future development patterns, consider the strengths, weaknesses, opportunities and threats to attaining the vision, and select a plan that assures the desired result.

CHAPTER 5

Existing Land Use

5.1 Land Use Maps

DCRPC staff has prepared four different land use maps. Each tells a story of how land is being used.

I. Existing Land Use Map- The existing land use map (*see Concord Township Existing Land Use map*) displays single family residential, commercial, agricultural and open space, industrial by color. The land use is determined by the Auditor's tax codes. This acreage is displayed in Table 5.1.

Table 5.1 Concord Township Land Use by Acreage, 1990 and 2001

	1990 (Satellite imagery)	% Land	2001* (Auditor's tax data)	% Land
Residential (SF +MF) **	2824.02	17.79	4,480.46	28.22
Single Family	2824.02		4,371.80	27.53
Multi family	0.00		108.66	.684
Commercial	41.84	.26	63.87	.402
Institutions	188.43	1.18	156.11	.983
Industrial	111.95	.7	212.29	1.337
Agriculture (includes forests)	8046.75	50.68	6,307.69	39.729
Lakes, rivers and public lands***	1160.41	7.31	956.92	6.027
Roads and Utilities****	497.68	3.13	724.68	4.564
Parks/open space	2932.32	18.47	2,373.47	14.949
Recreation	304.99			
Wetlands	2.51			
Undeveloped, forest and shrub	2624.82			
Vacant land rezoned, still undeveloped	0.00	0	601.143	3.786
Vacant land agriculturally zoned, still undeveloped.	73.09	.46	N/A	N/A
Acreage in Township	15,876.49	99.99%	15,876.643	99.9972 %

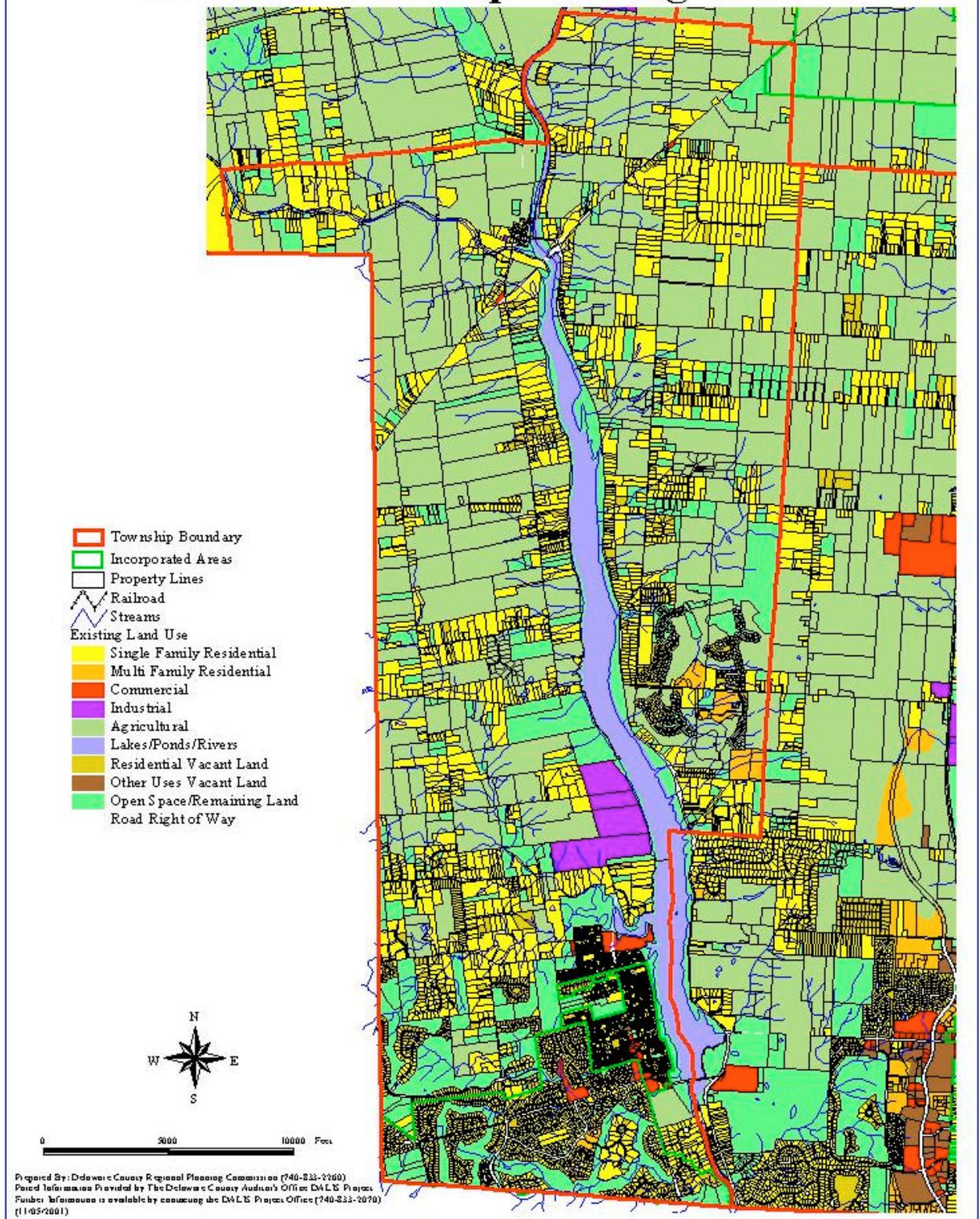
* The 2001 DALIS Geographic Information System acreage vector data.

**2001 residential acreage calculated using DALIS data for entire parcel.

*** Area created as follows: Lakes, ponds and rivers polygons calculated by GIS. Streams (including seasonal swales on the USGS maps) were given a width of 20 feet, and multiplied times the number of lineal feet.

****The ROW area for roads and utilities is 306.31 acres. There are no railroads in Concord Township.

Concord Township Existing Land Use



II. Windshield survey- DCRPC staff recorded land uses on 1997 aerial photos with current lot lines. Structural uses are noted, unlike the existing land use acreage map (*see Table 5.2*).

Table 5.2 Existing Land Use by Windshield Survey, DCRPC staff 10/ 2001

Existing Land Use (unit count) in Concord Township

October 2001

Section	Single-Family	Two-Family		Multi-Family		MH	Housing Conditions*						Commercial**	Institutional
	Units	Units	Res.	Units	Res.		1	2	3	4	5	None		
1 of 10	78	0	0	1	3	0	69	8	1	1	0	0	4	2
2 of 10	179	1	2	0	0	0	156	17	7	0	0	0	4	4
3 of 10	152	1	2	0	0	0	137	13	2	0	1	0	4	1
4 of 10	190	0	0	0	0	1	179	11	1	0	0	0	3	0
5 of 10	163	0	0	0	0	1	160	4	0	0	0	0	4	4
6 of 10	442	1	2	4	12	0	444	1	1	0	1	0	3	1
7 of 10	206	4	8	0	0	0	210	0	0	0	0	0	3	2
8 of 10	95	0	0	0	0	1	87	4	3	1	1	0	2	1
9 of 10	250	0	0	0	0	0	247	3	0	0	0	0	0	0
10 of 10	66	0	0	0	0	0	61	4	1	0	0	0	1	0
Totals	1821	7	14	5	15	3	1750	65	16	2	3	0	28	15

**Commercial count includes three public utility towers (3 cellular tower).

Source- Field Survey completed, checked and compiled by DCRPC.

***Housing Conditions**

- 1.) Sound: no defects, a meticulously maintained structure, or a recently completed new structure.
- 2.) Sound: slight defects- structure in which defects were correctable by normal maintenance.
- 3.) Sound: deteriorated- an intermediate defect, for example, a roof sagging, a wall unit warped, a foundation settled unevenly or a chimney eroding.
- 4.) Dilapidated: critical defects- a structure in a state of disrepair to the extent that the present condition might impose a threat to the health and safety of its occupants but which was still considered inhabitable.
- 5.) Uninhabitable: extensive critical defects- structures in a state of disrepair to the extent that the unit is not suitable for habitation.

% of total D.U. #1 cond.	96.10%
% of total D.U. #2 cond.	3.57%
% of total D.U. #3 cond.	0.88%
% of total D.U. #4 cond.	0.11%
% of total D.U. #5 cond.	0.16%

III. Development Pattern Map- A third type of existing land use map defines the progress of anticipated development. The development pattern map tracks the size and location of zonings and subdivisions. Concord’s Development Pattern Map, December 2001, depicts these various characteristics. Further information, called attribute information, is available from the DCRPC GIS and the County DALIS. Such information includes building permit issuance, developer /landowner, subdivision names, number of homes and density.

(Please see the Concord Township Development Pattern Map, December 2001)

IV. Land in Speculation -A fourth type of potential land use map, based upon land ownership and adjacency to known development sites, is the land in speculation map. Using the DALIS, DCRPC staff can query all landowners for lands that are owned by:

- Known land developers and subdividers
- Known homebuilding companies
- Limited liability corporations (LLC)
- Trusts
- Incorporated entities

For tax and estate planning purposes there may be non-development entities that use one of these types of ownership, so the land in speculation map is a best guess, not a certain picture of how much land may be in speculation.

Lands that are adjacent to current development may also be targets of expansion. They are also identified as possible land in speculation (*see the Land In Speculation Map, Concord Township*).

V. Observations on Existing Land Use, and Current Development Patterns in 2001:

Now that we have studied the various existing land use maps (DALIS Existing Land Use Map, Concord Development Pattern Map, Land in Speculation Map, and the acreage tabulations from the windshield survey), we may draw some observations about emerging land use patterns in Concord Township.

- 1.) The township comprises 15,877 acres, divided east and west by the Scioto River.
- 2.) Lakes and rivers comprise 957 acres or 6% of the land area.
- 3.) Parks and recreational area comprise another 2374 acres or 15 % of the land area.
- 4.) Roads and utility rights of way comprise 725 acres, or 5% of the land area.
- 5.) Of the 11,780 acres remaining after subtraction of lakes/streams, parks/recreation and roads/utilities, 6300 acres are still open agricultural land, or 40% of the total acreage in the township. This makes Agricultural (open fields and forests) use the largest land use in the township.
- 6.) Agriculture is a shrinking land use, and, based on the last 40 years, is probably a temporary land use:
 - 600 acres are being farmed temporarily, but are already zoned for other land uses.
 - Agricultural land decreased by 10% or 1,745 acres in the last decade.
- 7.) Residential land acreage increased by 10.43 %, or 1,656 newly developed acres in the last decade. There were 4,480 acres of developed residential land.
- 8.) Single family residential use now accounts for over 27% of land use.
- 9.) Residential land use is spread throughout the township, but is concentrated in the southern half of the township, south of Home Road. Higher densities are found south of Home Road.

- 10.)The township is no longer a “blank canvas” of open land. There has been enough development that there are definite “neighborhoods”, which share certain common attributes.
- 11.)In the period 1997-2001, residential development has shifted from large lot (1-5 acres), to a mix of large lot and small lot (10,000 square feet) in Planned Residential Developments.
- 12.)Production builders are now purchasing large tracts of land (Tartan Fields, Scioto Reserve) for the purpose of building their product in a more rural area, and are using the PRD as the legal instrument.
- 13.)There were 1,821 single-family homes, 7 duplexes, and 5 multi-family buildings observed in the windshield survey.
- 14.)Tartan Fields is a 445-acre R-2 zoned (minimum lot size 29,000 sq. ft.) single family subdivision that uses an on-site central sewer system with land application to a golf course for 598 homes, with a gross density of 1.34 units/acre.
- 15.)Scioto Reserve is a 695 acre Planned Residential Development (typical lot size 9,500 sq. ft.) that uses an on-site central sewer system with land application to a golf course for a mixture of 1,163 single family homes and 92 multi-family condominiums, with a gross density of 1.8 units per acre.
- 16.)Although there was very little existing multi-family housing (15 individual units), condominium units are now being built in the Scioto Reserve area.
- 17.)The Martin Marietta stone quarry on the west side of the Scioto River and the east side of Dublin Road is the largest single industrial use (121 acres).
- 18.)There were 28 commercial uses by windshield survey, comprising 64 acres, an increase of 22 acres since 1990.
- 19.)There were 15 institutional uses (prison, fire station, churches, school, cemeteries)
- 20.)There appear to be 1,295 acres of land in speculation (47 parcels).
- 21.)There appear to be 102 acres of potential development land adjacent to approved developments (13 parcels).
- 22.)The township has lost 1,199 acres to annexation.

VI. Conclusions

The real estate market seems to validate a strong demand for home sites in Concord Township, especially the smaller (10,000 Sq. ft.) lots in Planned Residential Development subdivisions. Production builders, who have only in the last five years come to the township, have the ability to construct and sell hundreds of homes on smaller lots every year in the township.

Traditional rural 1-5 acre lots have not produced a high growth rate, but PRD subdivisions have. Planned Residential Developments with water and sewer permit smaller suburban size lots that facilitate production builder lot demands. If growth shifts from rural large lot to “conventional” PRD smaller lot subdivisions, it could mark a drastic shift (increase) from the 1990-2000 building of 71 new homes per year. Farmland decreased 10% in the last decade, and would likely decrease proportionately to the number of “conventional” new PRD subdivisions.

If extrapolated into all neighborhoods, “conventional” Planned Residential Development design as seen in much of southern Delaware County would significantly change the “rural character” of Concord Township.

The impact of future land use patterns must be considered. Some of the many influences on land development patterns are:

- \$ The power of money (market demand)
- Regional economic conditions
- Location
- Sanitary sewer service areas, sewer capacity, density of development by sewer design
- Soils and their suitability for on- site sewage disposal systems
- Natural resources (topography, floodplains, wetlands)
- Public/private centralized water service areas and capacity
- Roads and traffic congestion
- Community Facilities (schools, fire, police, etc.)
- Local zoning
- Banking/lending practices for kinds of development

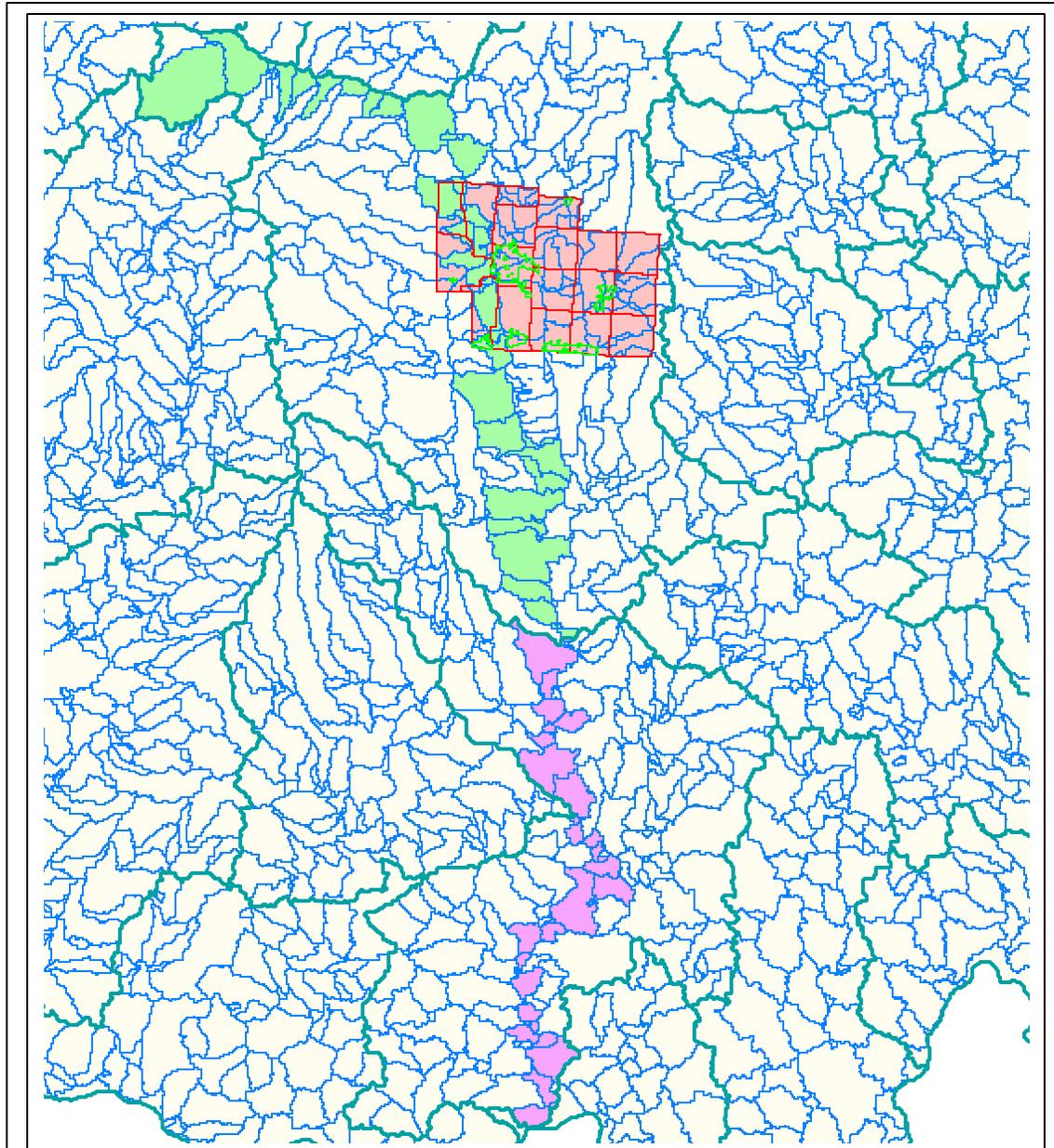
Concord Township has choices. Township zoning controls the type and density of future development. If the township intends to retain its rural character at a time of unprecedented growth, it must imagine itself “all built-out” in alternative scenarios, and pursue the scenario it prefers.

The book Rural by Design, by Randall Arendt (Planners Press, American Planning Association) is one guide to other development patterns that may augment the large lot and conventional development patterns the township has already experienced.

CHAPTER 6

Natural Resources and Conservation

Concord Township lies mostly within the Upper Scioto River Watershed. The Upper Scioto Watershed comprises 323,787 acres, with 46,368 acres of the watershed within Delaware County.



Scioto River Watershed, Ohio

- Hydrologic Unit Boundaries
- Watersheds Boundaries
- Scioto River Watershed in Upper Scioto
- Scioto River Watershed in Lower Scioto
- Incorporated Area in Delaware County
- Delaware County



Prepared By: Delaware County Regional Planning Commission (740-833-2260)
It p://www.dcrpc.org
Source: Watershed Boundaries from ODNR 1996
Hydrologic Units from USGS 2001

The Scioto River rises in Hardin County, flows easterly through Marion County, then south through Delaware, Franklin, Pickaway, Ross, Pike and Scioto Counties to its confluence with the Ohio River at Portsmouth. Within Concord Township, the Scioto River and the O'Shaughnessey Reservoir are the most dominant natural resources, dividing Concord Township into East (5784 acres) and West (7861 acres) Banks (exclusive of Shawnee Hills and Dublin).

Concord Township also has floodplains, wetlands, farmed fertile soils, forests, and abundant wildlife. These natural resources are most frequently cited as the foundation of "rural character" noted in Chapter Four. These resources should be conserved wherever practicable as the township develops.

6.1 Topography- (DALIS contours)

Concord Township's topography consists of a level upper plateau between 930-950 feet above mean sea level, on the East and West banks of the Scioto, folding into the river valley. Highest elevation of 1004 feet above mean sea level is located off Tartan Fields Drive on the West Bank. The low elevation is 854 feet above mean sea level at the Scioto River above the O'Shaughnessey Dam, and 780 feet above mean sea level below the dam. The River Valley is visually different from the upper plateau. Most elevations below 900' mean sea level generally have a view of the water, or physically relate to the valley itself. Elevations above 900 feet mean sea level may relate more to the upper plateaus. These form the basis for two natural neighborhoods.

6.2 Slopes Greater than 20%

The township set a goal to preserve ravines, and slopes greater than 20% for open space when the township develops. The steep slope map indicates slopes over 20%. Generally, roads do not exceed 10% slope. Houses with walkout basements can typically be built on slopes up to 20%. (See Slope Map)

6.3 Floodplains, bodies of water

O'Shaughnessey Reservoir is a significant natural resource area; it is the dominant geographic feature in Concord Township. Its principal function is a drinking water reservoir for the City of Columbus. As development encroaches along the creeks that feed the reservoir, there is a potential for surface and ground water pollution, most notably from failed septic systems in rural areas. For this reason, the Ohio EPA has asked the Delaware County Board of Health to consider a minimum 3 acre lot size in areas without public water and sewer. Since Del Co water is generally available throughout the

township, this 3-acre standard lot size may be reduced. Where lands possess ravines or floodplains that flow directly to the reservoir, and no centralized sewer is available, the township may wish to use even lower densities to preserve water quality, especially in rural areas where some houses still rely on well water.

There are floodplains along Mills Creek and the Scioto River. The National Flood Insurance Program, (which includes Concord Township) discourages development in the 100 year floodplain and prohibits development in the 100 year floodway. These areas are mapped by the Federal Emergency Management Agency (FEMA). The floodplain map gives a general location of the floodplains. For specific information see the FEMA maps at the Delaware County Building Department, 50 Channing Street, Delaware Ohio (740-368-5850). (See Floodplain Map).

According to Protecting Floodplain Resources (FEMA, 1996) undisturbed floodplains perform several critical functions:

Water Resources- Natural flood and erosion control

- flood storage and conveyance; reduce flood velocities; reduce peak flows; reduce sedimentation

Water Quality Maintenance

- Filter nutrients and impurities from runoff; process organic wastes; moderate temperature fluctuations

Groundwater Recharge

- Reduce frequency and duration of low surface flows

Biological Resources

- Rich, alluvial soils promote vegetative growth; maintain bio diversity, integrity of ecosystems

Fish and Wildlife habitats

- Provide breeding and feeding grounds; create and enhance waterfowl habitat; protect habitats for rare and endangered species.

Societal Resources

- Harvest of wild and cultivated products; enhance agricultural lands; provide sites for aqua culture; restore and enhance forest lands

Recreation

- Provide areas for passive and active uses; provide open space; provide aesthetic pleasure

Scientific Study/Outdoor Education

- Contain cultural resources (historic and archeological sites); environmental studies

The Delaware County FEMA floodplain maps were revised in 1999. One hundred (100) year floodplain elevations have risen in some areas. New development is a contributing factor to the rise in floodplains.

With floodplains rising, and with all the natural benefits of floodplains listed previously, it is unwise to permit residential development in the 100-year floodplains of Delaware County. The subsidy for the low-cost, flood insurance sold under National Flood Insurance Program comes from federal taxes. Each land use decision to permit development in the 100 year floodplain not only puts people in harm's way, but also potentially burdens all American taxpayers with the cost of continuing to bail out bad development.

For all these reasons, the 100-year floodplains in Concord Township should be protected. Some counties have flat floodplains that comprise a great deal of the developable area of the county. In an urban county, where such land is precious, it is understandable, but not advisable, that some filling may occur. In Delaware County, the floodplains are narrow and limited. They comprise a very small portion of the land area, and they occur on four rivers or streams that are drinking water and recreational resources (Alum Creek, Big Walnut, Olentangy, and Scioto). It is critically important to protect the floodplains of these four rivers or streams.

6.4 Wetlands

Wetlands are generally defined as soils that support a predominance of wetland (hydrophytic) vegetation, and/or are under water at least two weeks per year. The more specific definition to wetlands under the jurisdiction of the US Army Corps of Engineers is found in the Corps of Engineers Wetlands Delineation manual Technical Report Y-87-1, US Army Engineer Waterways Experiment Station, Vicksburg, Miss. The wetlands map shows the location of potential wetlands from OCAP satellite imaging. These locations are raster data, meaning they have square edges in their computer images. They may indicate the locations of potential jurisdictional wetlands.

Jurisdictional wetlands are regulated by the clean Water Act of 1972, Section 404. They consist of:

- 1.) hydric soils,
- 2.) hydrophytic vegetation,
- 3.) wetland hydrology (this means they support more than 50% wetland vegetation, are poorly drained, and are periodically inundated or saturated).

Wetlands serve many of the same functions as floodplains, and similarly deserve protection. Wetlands are natural storm water detention systems that trap, filter and break down surface runoff. Most Concord Township wetlands are tilled fields. If tilled before 1985, they are exempt from regulation unless they revert to their natural state.

6.5 Prime Agricultural Soils

The Prime Agriculture Soils map shows the location of soils suited to high yields in Concord Township. Agriculture is still an important land use in Concord Township, although the land value for future development may exceed the short-term value for continued agricultural use.

Creative zoning and development techniques may be able to save some agricultural land as open space. There is a methodology to evaluate which farms should be preserved, based upon highest yield soils, proximity to utilities, four-lane highways, and dense settlements. The method is called the Land Evaluation Site Assessment system or LESA and is created by the US Department of Agriculture. When farms are considered for purchase of development rights, those with the highest LESA ranking might be given the most favorable consideration. The DCRPC and the Delaware Soil and Water District can perform the LESA evaluation.

6.6 Soil Suitability for Septic Systems

Since sanitary sewer service is not available to a large portion of the township, it is useful to evaluate the soil capability for septic systems. Centralized sanitary sewer or alternative sewage disposal systems should serve land with very poor suitability for septic systems. The Soil Suitability for Septic Systems Maps displays this information.

6.7 Combined Critical Resources

The combined Critical Resources map displays generalized floodplains, water, wetlands, prime agricultural soils and 100 foot suggested setbacks from major watercourses. Since it is a goal to preserve the natural resources of the township, this map should be used as an evaluation tool when land is developed.

6.8 Development or Harvesting of Natural Resources

Limestone is commercially mined in Concord Township. Prime agricultural soils are an additional natural resource that are harvested every year as agriculture, or could be harvested as topsoil or sod.

The township might consider natural resource extraction policies, either as a specific zoning district, or as a conditional use if certain performance standards are met (noise prevention, dust control, buffering and screening, appropriate access, hours of operation, etc). Mining operations should not be permitted within the 100-year floodway, and should only be permitted within the 100-year floodplain with strict environmental controls to prevent water pollution, flotation of equipment and other related hazards.

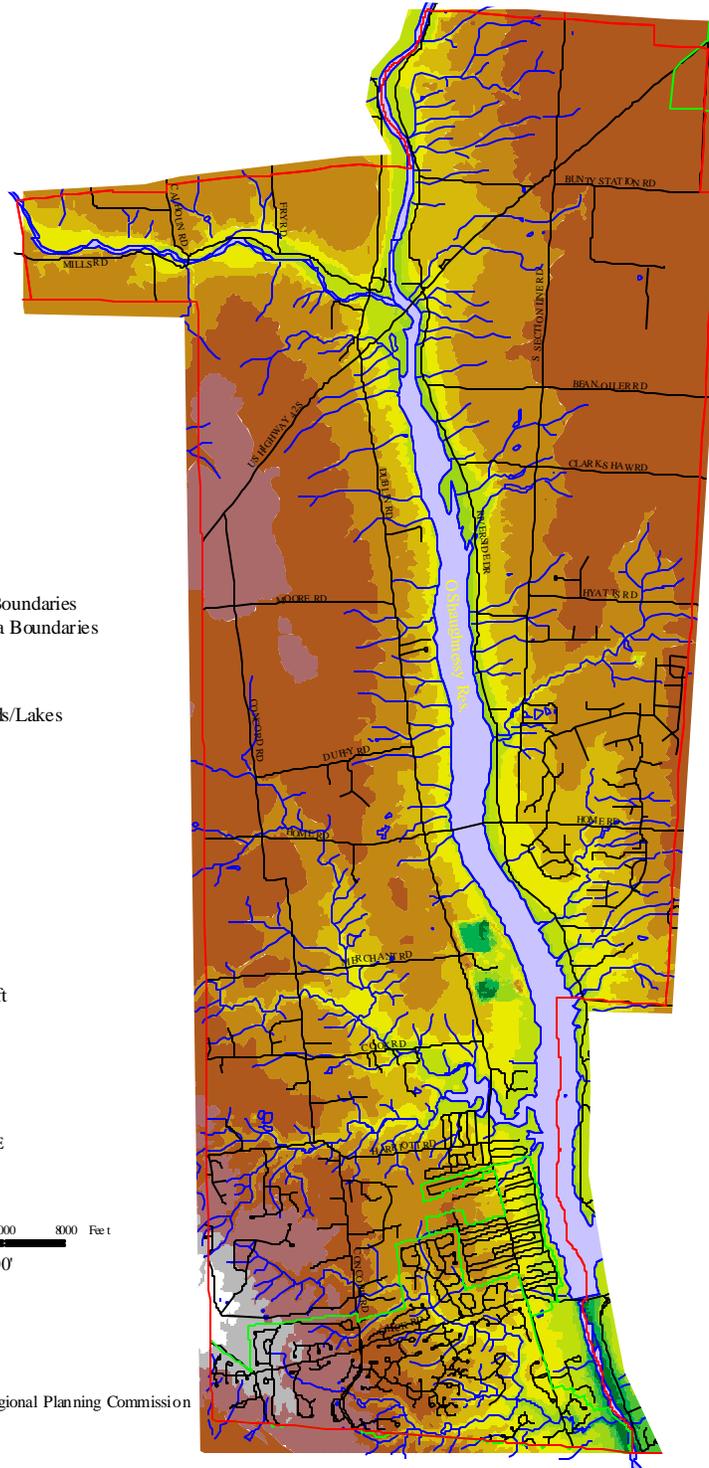
Digital Elevation, Concord Township, Delaware County, Ohio

-  Township Boundaries
-  In corp. Area Boundaries
-  Roads
-  Railroad
-  Streams
-  Rivers/Ponds/Lakes
- Digital Elevation
 -  770 - 790 ft
 -  790 - 810 ft
 -  810 - 830 ft
 -  830 - 850 ft
 -  850 - 870 ft
 -  870 - 890 ft
 -  890 - 910 ft
 -  910 - 930 ft
 -  930 - 950 ft
 -  950 - 970 ft
 -  970 - 990 ft
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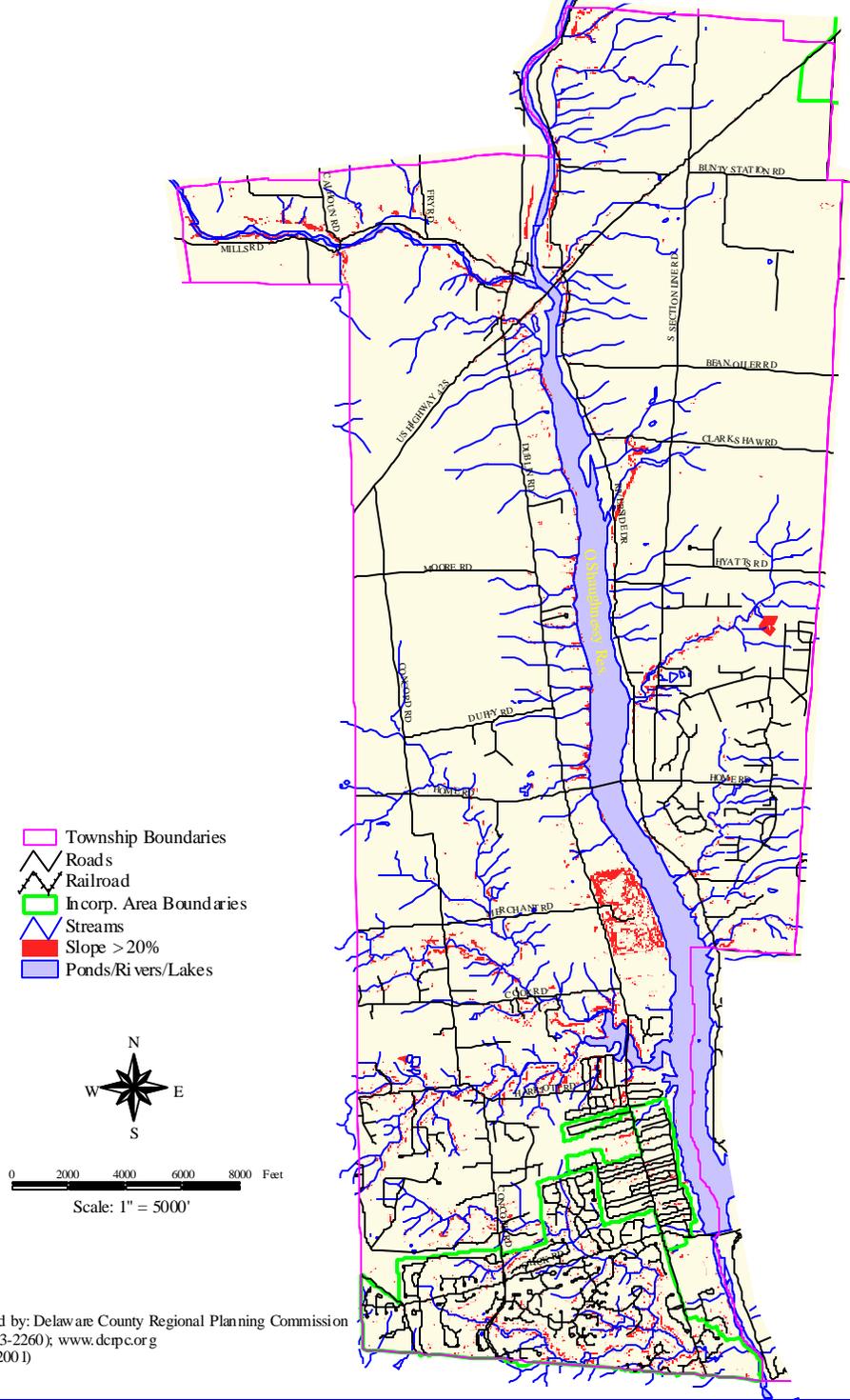


0 200 400 600 800 Feet
 Scale: 1" = 5000'

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 (12/18/2001)

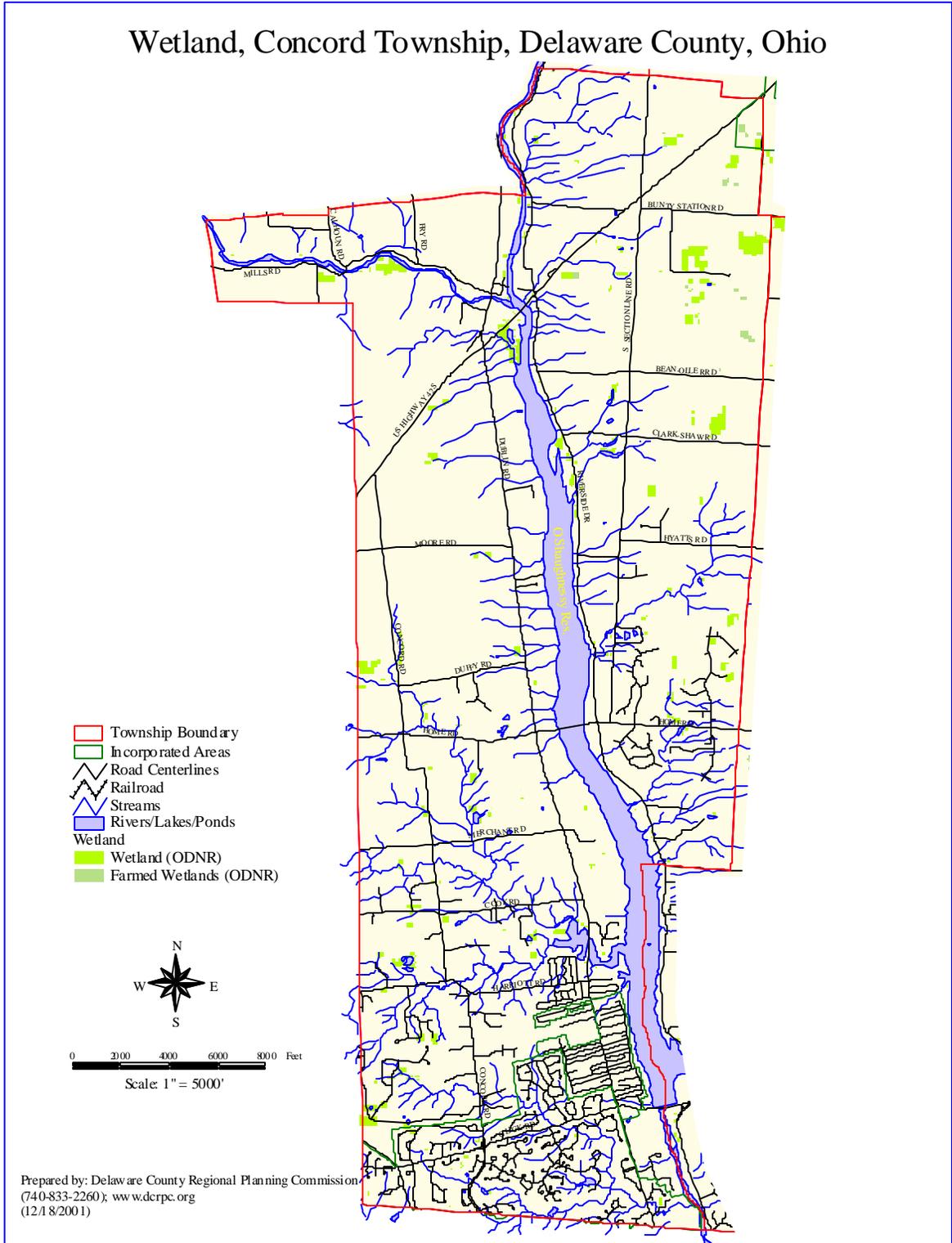


Slope, Concord Township, Delaware County, Ohio

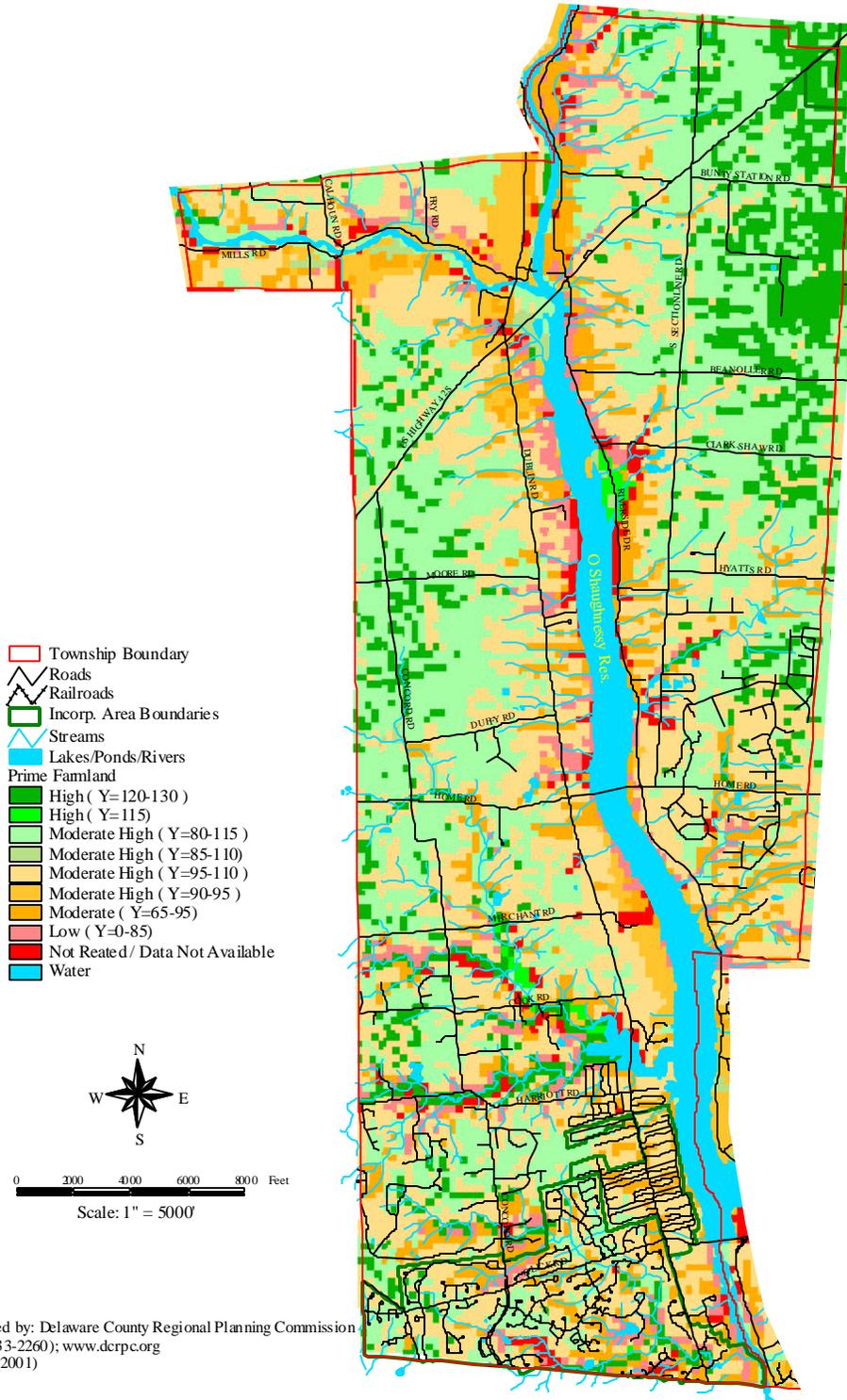


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 (12/18/2001)

Wetland, Concord Township, Delaware County, Ohio

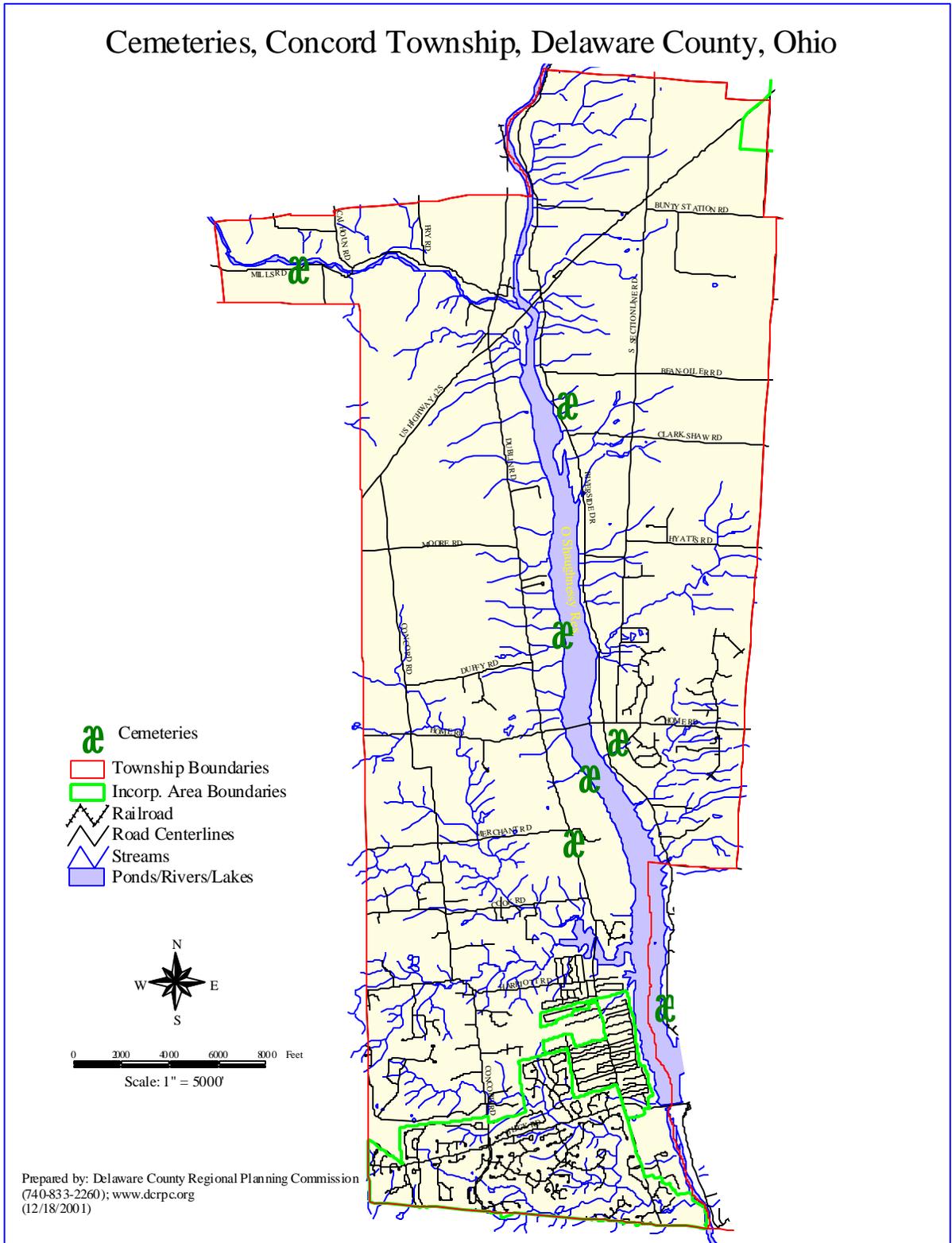


Prime Farmland, Concord Township, Delaware County, Ohio

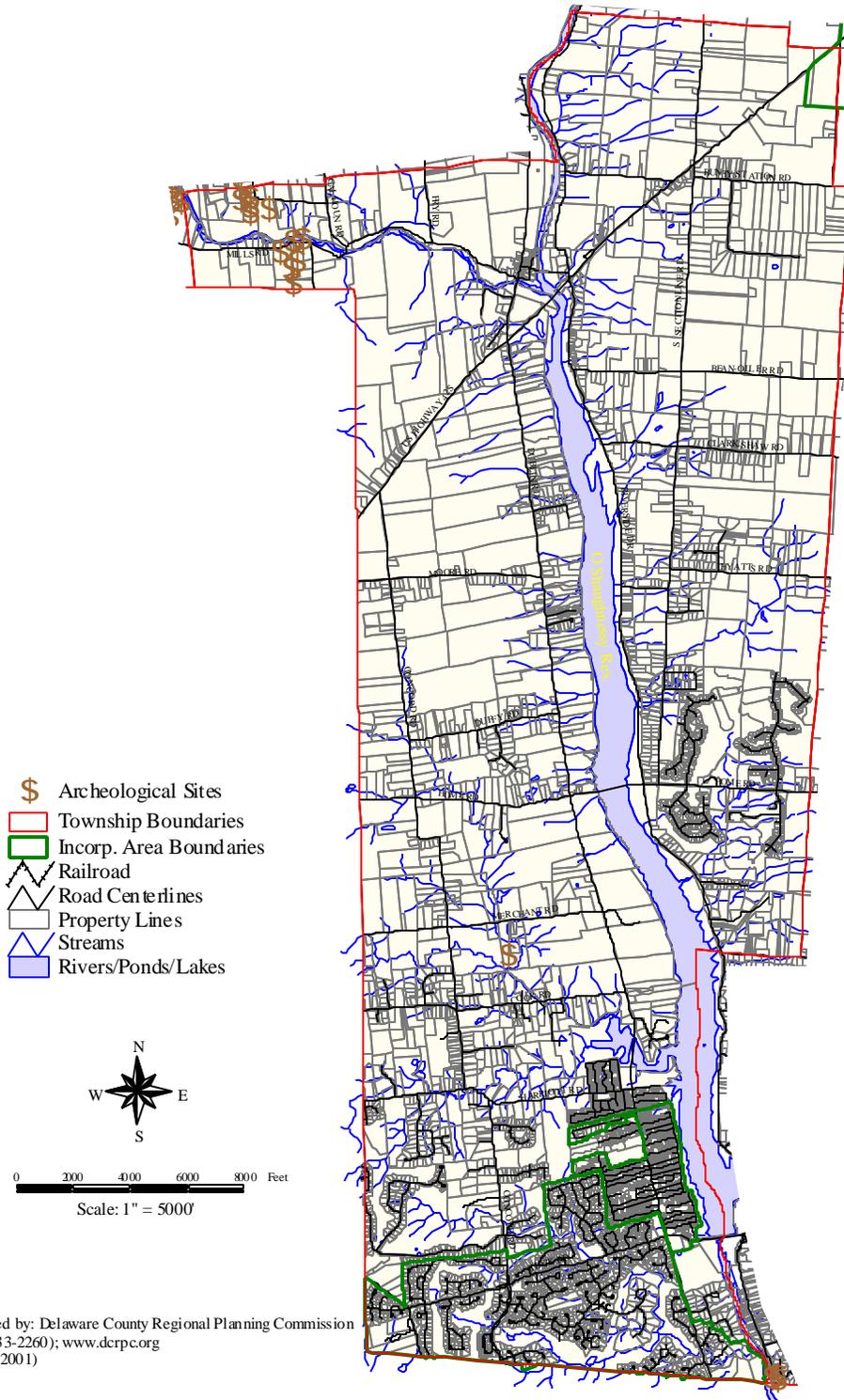


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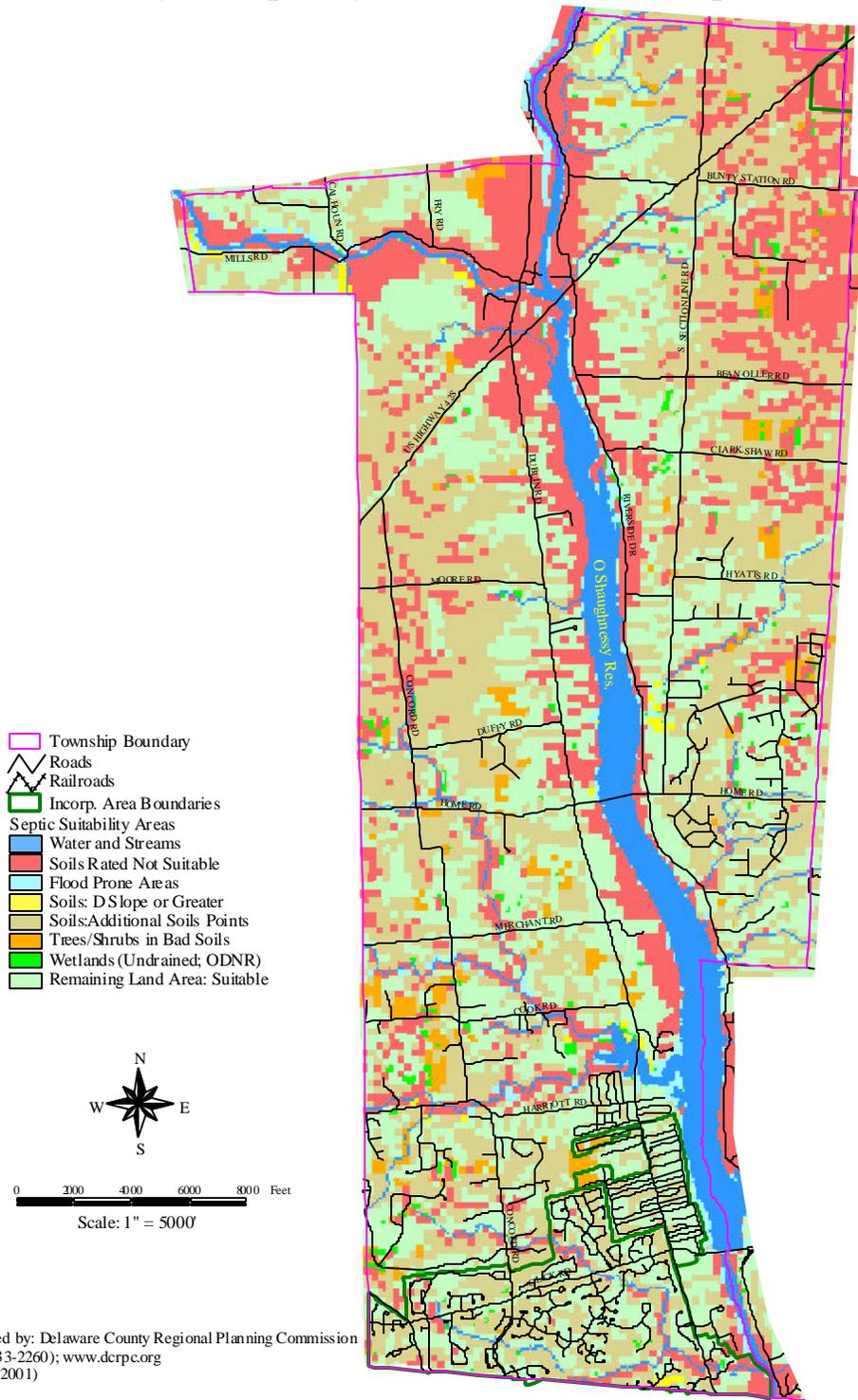
Cemeteries, Concord Township, Delaware County, Ohio



Archeological Sites, Concord Township, Delaware County, Ohio

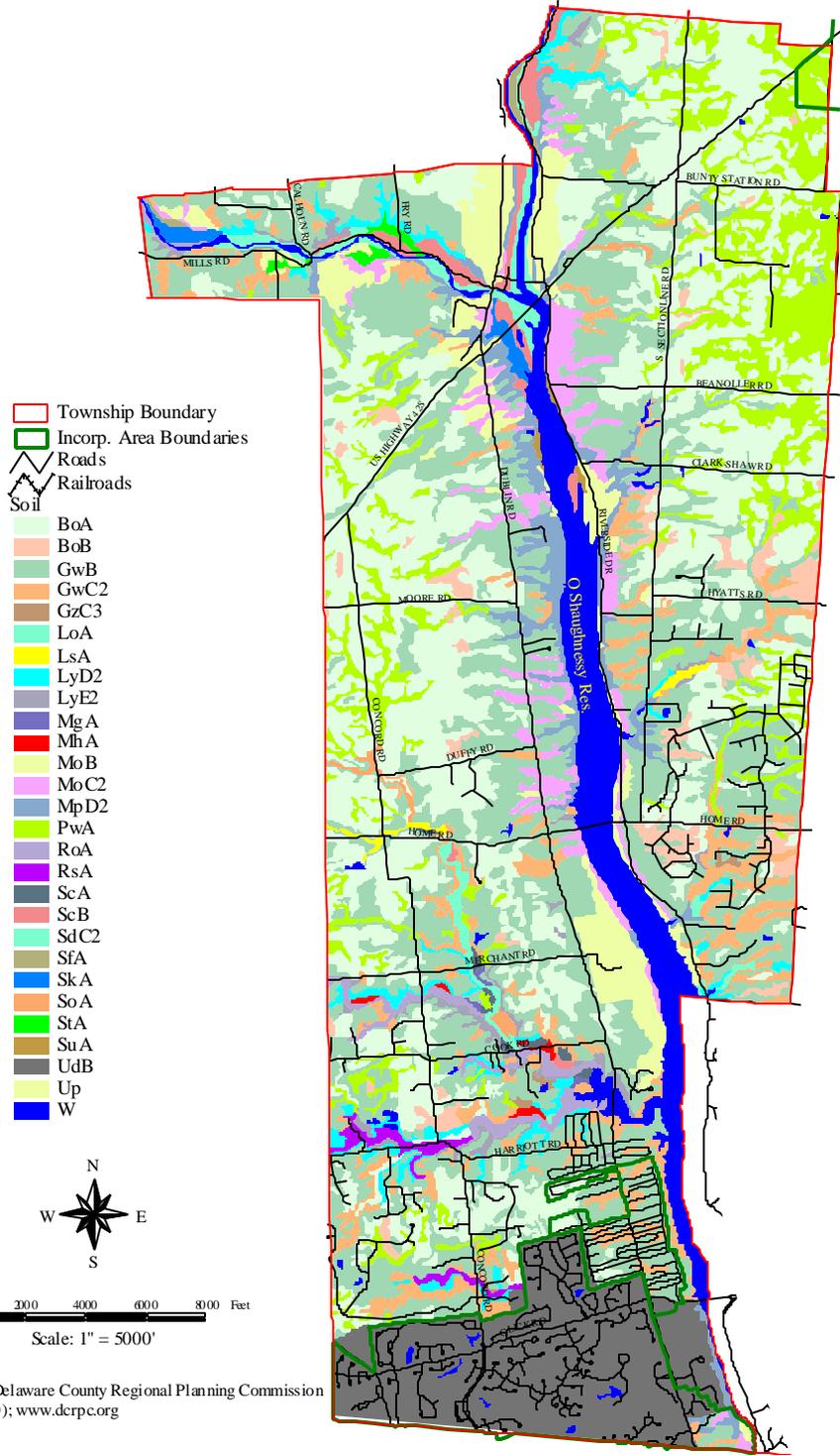


Soil Suitability for Septic System, Concord Township, Delaware County, Ohio

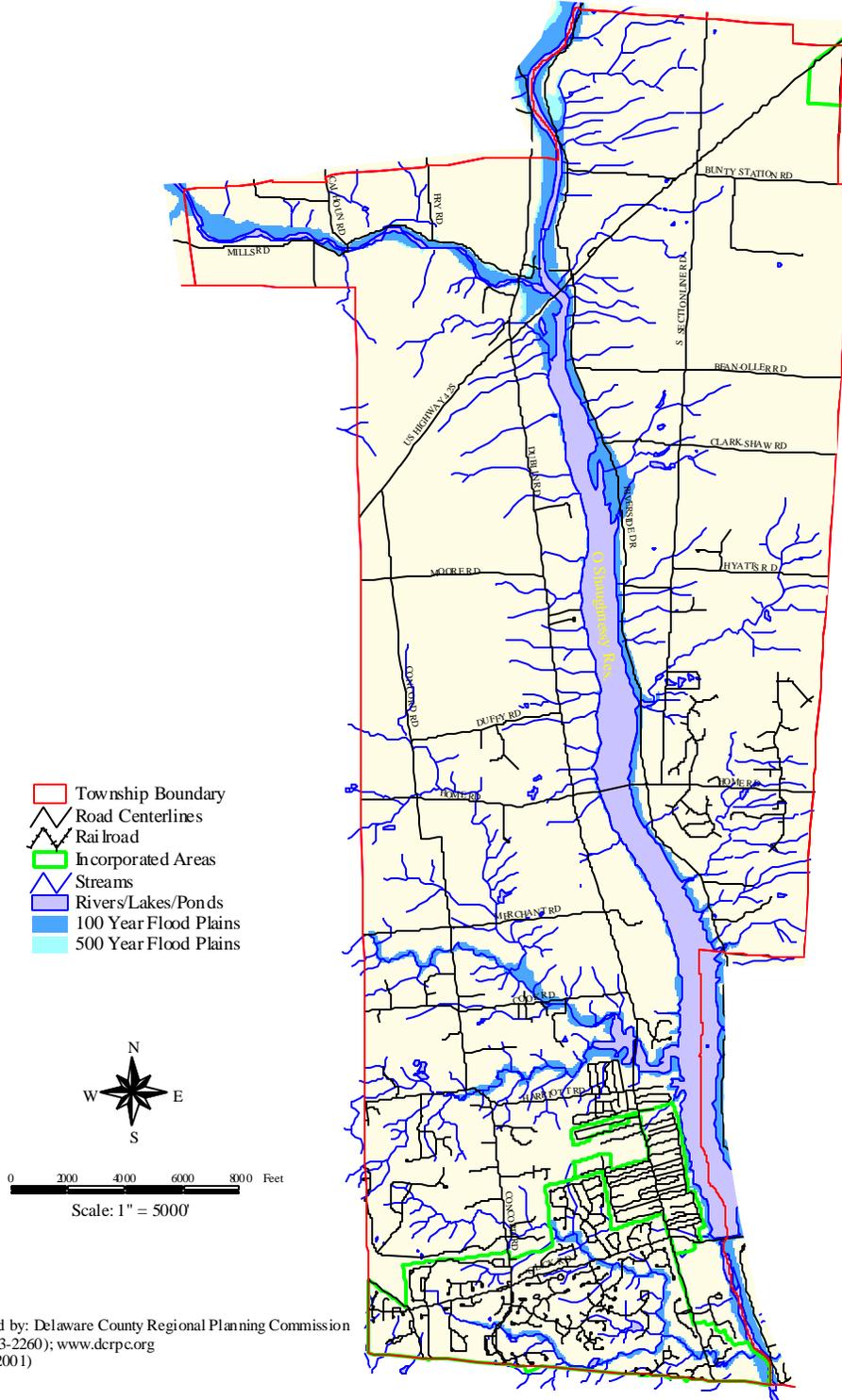


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 (740-833-2260); www.dcrpc.org
 (12/18/2001)

Soil Map, Concord Township, Delaware County, Ohio



Flood Plains, Concord Township, Delaware County, Ohio



CHAPTER 7

Housing



Rural large lot 2-5 acres

Suburban one acre

PRD .2 acre

Housing has been the primary index of growth in Concord Township. The township is changing from a rural community with no central water or sewer, to a suburbanizing community with Del-Co water service throughout.

Planning for a range of housing in a developing community can be complicated. Many factors are involved, such as the availability or lack of public water and centralized sanitary sewer, land values, market demand, proximity to major employment and shopping centers, and transportation network. In addition there is the vision of how the community wants to look. There are also legal considerations related to non-discrimination in housing, and “fair share” provision of the regional housing needs, to the extent necessary services can be provided.

The majority of Concord Township in 2002 is zoned Farm Residential 1 (FR-1), which permits single family residences on a minimum lot size of 1.5 acres with 200 feet of frontage on a public road. Flag lots with 60 feet of frontage may also be permitted in the FR-1 district, or the frontage may be provided on a private shared driveway (Common Access Drive or CAD). Lands within the FR-1 district have traditionally been located in areas not served by centralized sanitary sewer. Minimum square footage for a single family home in FR-1 is 1,000 square feet, a modest requirement.

Landowners served by centralized sanitary sewer may apply for Planned Residential District (PRD) zoning, which permits a variety of housing types, (single family detached, single family attached, modular, cluster manufactured homes, patio homes and common wall homes and multi-family housing). Minimum PRD square footages for single family houses are 1,000 square feet; multi-family

minimum square footages are 800, 950, and 1,000 square feet respectively for 1, 2, or 3 bedroom apartments. Densities for PRD's are generally 1.5 units per gross acre, but may be increased by up to 3 units per gross acre if certain "quality standards" are met.

7.1 Existing housing stock

A house-to-house windshield (exterior view from a moving automobile) survey was conducted in October 2001. An exterior condition of each house was given based upon five criteria. The housing survey results are in Table 7.1.

Table 7.1 Concord Township Housing Survey Results, October 2001, field survey

Housing Type	Total # Units	#Units Sound: no defects	# Units sound: slight defects	# Units sound but deteriorated	# Units dilapidated	# Units uninhabitable
Single Family	1821	1729	58	12	2	3
Two Family	14	6	6	2		
Multi Family	15	15				
Mobile Homes	3		1	2		
Totals	1853	1750	65	16	2	3
% Totals	100%	94.4 %	3.5%	.86 %	0.1%	0.1 %

Based upon the housing survey, several points about housing may be made:

- There is no significant problem with deteriorated housing stock in Concord Township.
 - 1.) 94.4 % of all housing is either new or maintained like new (sound, no defects).
 - 2.) 3.5 % of all housing is in very good condition. (sound, minor defects)
 - 3.) Only .86 % (less than 1 %) of all housing appeared to be somewhat dilapidated.
 - 4.) Less than 1/10 of 1% of housing units appeared dilapidated.
 - 5.) Less than 1/10 of 1% of housing units appeared uninhabitable.
- The township is almost entirely single family residential. This is largely due to the lack of sanitary sewers and other services that multi-family housing demand.
- Concord Township has not adopted a housing code to assure the constant maintenance of its housing stock, to retain property values and stable neighborhoods.

7.2 Housing needs

Concord Township is the 10th largest provider of housing stock in Delaware County, as of April 2000. Concord Township has provided 4.1% of the total new housing in Delaware County in the last 20

years. The top five communities (city of Delaware, Genoa, Orange, Liberty Townships, and Powell) have provided 69.26% of all the housing in Delaware County in the last 20 years. They all have centralized sewer service.

Table 7.2 Housing Providers in Delaware County, by Census & Building Permits

Community	Census 2000 Housing Units	County Rank	Vacancy Rate, 4/ 20000	Building Permits 1980-2000	% total permits 1980-2000
Berkshire Township	712	16	4.5 %	386	1.65 %
Berlin Township	1,239	11	4.7 %	827	3.54 %
Brown Township	479	21	3.3 %	189	.8 %
Concord Township	1,374	10	5.8 %	958	4.1 %
Delaware Township	373	22	7.0 %	180	.77 %
Genoa Township	4,058	3	5.0 %	3,702	15.8 %
Harlem Township	1,382	9	3.1 %	479	2.05 %
Kingston Township	554	18	3.1 %	327	1.39 %
Liberty Township	3,469	4	5.3 %	2,547	10.9 %
Marlboro Township	167	26	6.7 %	8	.034 %
Orange Township	5,055	2	8.4 %	3,561	15.24 %
Oxford Township	318	23	7.2 %	98	.41 %
Porter Township	597	17	3.0 %	266	1.13 %
Radnor Township	511	19	4.3 %	169	.72 %
Scioto Township	864	14	4.7 %	430	1.84 %
Thompson Township	220	24	8.2 %	51	.21 %
Trenton township	769	15	3.0 %	241	1.03 %
Troy Township	1,210	12	8.5 %	203	.86 %
Total Townships	23,273		5.3 %	14,622	62.59 %
Columbus	1,660	7	7.8 %	1,854*	7.93 %
Delaware city	10,208	1	6.7 %	4,252	18.2 %
Galena	132	28	7.6 %	10	.042 %
Sunbury	1,057	13	3.9 %	272	1.16 %
Shawnee Hills	199	25	9.0 %	18	.077 %
Powell	2,032	6	2.8 %	2,131	9.12 %
Ashley	500	20	6.2 %	10	.042 %
Ostrander	156	27	5.1 %	36	.15 %
Dublin	1,501	8	6.9 %	13**	.055%
Westerville	2,311	5	3.7 %	140***	.59 %
Total Incorporated areas	19,756		5.0 %	8,736	37.4 %
Total All Reporting Incorp. & Unincorp. areas in Delaware County	43,029			23,358	100 %

*- Data available from 1995-2000 only

** Data from 1999- 2000 only

*** Data from 2000 only

Table 7.2 also shows vacancy rates, as determined by the US Bureau of Census during the April 2000 count. In general, vacancy rates show a healthy supply of new homes available for sale. Vacancy rates below 2% indicate a tight housing market, while vacancy rates of 5% are normal for a market with reasonable supply for market demand.

7.3 Open Space (“Golf Course”) Developments

The Delaware County townships that have experienced the most growth (Liberty, Orange, and Genoa) have access to county sanitary sewer. In 1996 the Ohio EPA amended their anti-degradation rules, making it more difficult to discharge treated effluents from sewage treatment plants to running streams. In order to facilitate centralized sewer systems that cannot discharge to running streams, the Ohio EPA now allows alternative centralized sewage treatment systems with appropriate design, and maintenance. The most popular alternative in Delaware County (three systems approved) is the standard tertiary treatment plant using the treated effluents to be spray-irrigated onto an acceptable vegetated area, normally a golf course.

The decision to permit such an alternative centralized treatment plant is the jurisdiction of the Delaware County Sanitary Engineer and the Ohio EPA. Since such planned developments normally require rezoning, the zoning decision is left to the township or county.

This change in sewer policy has led to a surge in “golf course” development in townships that previously had no sanitary sewer service. Houses are placed around the golf course, which enhances house lot prices. This form of cluster housing may be appropriate, depending on the gross overall density and other service demands.

These golf course communities, with on site centralized sewer facilities, may shift more housing starts to previously rural, non-sewer service areas. This could redistribute the housing geography in Delaware County.

For example, in 1997 Concord Township had no sanitary sewer service from Delaware County. Annual new home permits in Concord Township on large lots (one acre or larger) with septic systems averaged 30 homes per year from 1980-1997. Tartan Fields subdivision was approved in Concord Township in 1997. Tartan Fields is a Planned Residential Development using cluster single family homes on ¼ acre lots surrounding a golf course that is irrigated by treated effluents from a centralized sanitary sewer system built by the developer and dedicated to the county for ownership and maintenance.

Scioto Reserve subdivision was approved in Concord Township in 1998. It also uses an on-site centralized sanitary sewer with treatment plant and irrigation of a golf course. With Scioto Reserve and Tartan Fields subdivisions under construction, Concord Township issued 350 new home permits in 2001.

In the space of just 3 years, Concord Township may move from the 8th largest number of annual new home permits in the county to 4th largest due to these two new “golf course” developments.



Tartan Fields (left) and Scioto Reserve.

7.4 Land Application Systems- Opportunity or Threat to Planning?

For Ohio Townships, Land Application Systems can be both an opportunity and a threat.

- **Opportunity #1- Additional sewer capacity privately funded.** If cluster developments with Land Application Systems are proposed in areas anticipated to be served by county sewer, the Land Application Systems can augment the county’s sewer capacity. This means additional areas for sewer users may be accommodated without future upgrades to the existing public treatment plant. This may be a benefit.
- **Opportunity # 2- Saving farmland or open space.** Agricultural (non-urban service) areas can use conservation developments (such as the Farm Village Concept adopted by Trenton Township) to transfer development rights from working farmland to adjacent open space developments. The key to success of this concept is low density (.5 unit per acre might be an appropriate minimum gross density). Homes in such areas may be tightly clustered on smaller lots, perhaps 12,000

square feet. A Land Application System can be used as irrigation of agriculture and managed open space. The lower the gross density, the more farmland is preserved.

- **Opportunity # 3- Reduce potable water usage** Land application systems can also augment the water capacity of the potable water supply by reducing the summer lawn watering peak usage. By using a parallel gray water system to irrigate open space, lawns and golf courses, potable water demand could be reduced during droughts.
- **Threat # 1- Sprawl.** Ohio townships should be cautious when using alternative sewer systems to achieve urban densities (greater than one unit per acre) in rural areas. These areas typically have no broad base of community services available to them (i.e. fire and police protection, public transportation, shopping, recreation, entertainment, and cultural activities). Every demand for such services requires trips in cars. Local roads typically cannot support significant trip increases for high density, large-scale development. The cost of upgrading farm-to-market roads to accommodate leapfrog suburban density development may exceed the benefits and adversely alter the “rural character” people sought in the first place (sprawl).
- **Threat # 2 –Farmland loss.** If gross densities of more than one unit per acre are allowed in rural (non urban service) areas, more farms become targets for golf course development, and existing golf courses become targets for effluent irrigation easements. This does not preserve farmland.
- **Threat # 3 – Repayment of Bonds.** Most municipal or county sewage treatment plants are built using general obligation bonds. Sewer tap fees typically make the bond payments. If developments construct their own treatment plant and avoid sewer tap fees, they may compete with a municipal or county sewer system. Property owners may incur increased taxes if a shortfall in tap fees occurs. Note: This does not appear to be a threat in Delaware County because there has historically been strong demand for county sewer, so tap fees should be collected regardless of Land Application System developments.
- **Threat #4– Private plant maintenance .** If a public entity (i.e. city, county, township) does not maintain the Land Application System and treatment plant, it may be prone to failure, and a costly public take-over. Delaware County prefers county ownership of the plant (by dedication) to assure proper design and maintenance. Homeowners associations may be under-financed and ill equipped to maintain or oversee maintenance of a sewage treatment plant.

7.5 Recommendations for “Land Application Systems”

To prepare for potential suburban-density developments using Land Application Systems or other approved “centralized” on-site sewage disposal systems, Ohio townships should:

1. Adopt up-to-date land use plans with recommended densities as the basis for their zoning.
2. Consider Land Application Systems as accommodations to development:
 - When the use and density conform to the comprehensive plan and zoning.
 - When there is (preferably) public dedication (ownership) and maintenance of the system.
3. Avoid gross tract densities greater than one unit per acre in truly rural areas. Even lower gross densities are appropriate in prime agricultural areas to save farmland or open space.
4. Consider land application systems as a tool to permit low density “conservation subdivisions” (see definition in Chapter 13 of this document) in rural areas without sewer service. Conservation subdivisions protect primary conservation areas (unbuildable wetlands, floodplain, river valleys, and steep slopes) and “secondary conservation” areas (unique scenic views, cultural or historic attributes).

Table 7.3

Developments Proposed with Alternative Centralized Sanitary Sewage Disposal

<u>Development</u>	<u>Location</u>	<u>Township</u>	<u>Acres</u>	<u># Units</u> <u>Approved</u>	<u># Units</u> <u>Proposed</u>	<u>Gross</u> <u>Density</u>	<u>Status</u>
Tartan Fields	Concord Rd.	Concord	302	449		1.49/ac	Approved
Dornoch	US 23	Liberty/Delaware	282	393		1.39/ac	Approved
Scioto Reserve	Home Road, Riverside Drive	Concord	695	1250		1.8/ac	Approved
Tanglewood	Cheshire Road	Berlin/Liberty	573		1035	1.8/ac	Withdrawn
North Star	N. Galena Road	Kingston/Berkshire	965		1500	1.55/ac	Pending
West Farm	Robins Road	Harlem	175		540	3.1/ac	Optioned
Woods Farm	SR 605.	Harlem	128		260	2/ac	Optioned
Totals				2092	3335		

7.6 Future Housing Needs

In order to make future housing projections, a community might anticipate what services they can provide then anticipate their share of the future area population and allocate the distribution of housing types.

Few communities attempt such an analysis, leaving the housing mix up to the traditional power of zoning, which is seldom so analytical. In a high-growth area such as Delaware County, it is impossible to anticipate what the county’s share of the state’s population will be, and distribute that amount among the townships, village and cities.

Where the possibility of annexation exists, townships cannot be certain of their future boundaries. For that reason, it is impossible to assess fair share allocations of housing to be provided by the township when a city or village with superior services may annex land and provide housing at a higher density. A more pragmatic approach to housing distribution is for the township to:

- 1.) determine how the community wants to look when it is all built out (vision)
- 2.) determine what services it can and should provide
- 3.) anticipate its fair share of the county’s projected population
- 4.) permit a variety of housing that relates to 1, 2, and 3.

The Delaware County Commissioners hired Poggemeyer Consultants in 2002 to perform an “Affordable Housing Market Study” to assess low and moderate income resident’s housing needs.

“Affordable housing” refers to housing that is constructed for those that cannot afford to live in the average residential unit. These individuals have household incomes that are defined by the U.S. Department of Housing and Urban Development (HUD) as “extremely low,” “very low,” or simply “low” on the American Management Index.

Section 8 Income Guidelines								
Household Size:	1	2	3	4	5	6	7	8
30% of AMI Extremely low	\$13,300	\$15,200	\$17,100	\$19,000	\$20,550	\$22,050	\$23,600	\$25,100
50% of AMI Very low	\$22,200	\$25,350	\$28,550	\$31,700	\$34,250	\$36,750	\$39,300	\$41,850
80% of AMI Low	\$35,500	\$40,600	\$45,650	\$50,000	\$54,800	\$58,850	\$62,900	\$66,950

Source: US Department of Housing & Urban Development (HUD)

Table 1.1 – Source: U.S. Department of Housing and Urban Development
classifications for Affordable Housing qualification.

Table 1.1 shows HUD’s

Affordable housing is diminishing in the county, just as it is in the nation. National trends are showing an increasing population, while the number of all new housing units being built is constantly decreasing. This trend is accompanied by a decreasing household size and an increase in the market price for those units that are being built. HUD seeks to offer assistance to those households that are paying more than 30% of their gross household income toward housing without a choice. The low-skilled job market is not raising salaries to meet the needs of those employees where the cost of living is increasing significantly.

Delaware County is currently experiencing rising property values and an increased cost of living. As high-growth development continues, travel costs will rise and the relative impact on schools, public facilities and infrastructure will be immense as each new house is constructed. As these costs of living increase, many local residents face job markets that can not financially meet their needs. Low-skilled employees are forced in other market areas for housing that may meet their budget. If housing is unavailable, these individuals are forced to relocate. This can cause service sector unemployment to increase locally, thus affecting the entire community.

Within Concord Township many of these trends may not be completely evident. However, they exist locally just as they do nationally. A lack of affordable housing as population increases is unavoidable unless developers are encouraged and/or granted incentives to

Projected Affordable Housing Needs in Delaware County					
	2000	2005	2010	2015	2020
# of Housing Units	71,137	88,808	105,817	123,867	139,908
Affordable Units Needed	10,128	12,600	15,000	17,600	19,900

Table 1.2 – Source: Del. Co. Affordable Housing Market Study

develop more reasonably priced units. The housing market is driven by developer’s profits, which increase with housing market values.

The *Delaware County Affordable Housing Market Study* produced the projections illustrated in Table 1.2 to demonstrate the need for affordable housing through 2020. The study estimated that the City of Delaware has 5,000 homes in the planning and construction stages, while the County has 16,000 homes. In order to reach the projected 19,900 units needed countywide by 2020, Concord Township is responsible for their fair-share along with the remainder of the county. The demand for affordable housing will increase higher in Concord Township than the remainder of the county, due to their future projected population growth. The Delaware County Regional Planning Commission projects that Concord Township will have a higher growth rate than the remainder of the county in the next ten years. (see Chapter 2) Affordable housing is needed in Concord Township to make the local economy

stronger and to house local residents to fill lower-income jobs. Affordable housing should be considered a necessary type of development in Concord's future.

Source: *Delaware County Affordable Housing Market Study: Draft Copy*. Kirkland, Washington: Poggemeyer Design Group, Inc., September 5th, 2002.

7.7 Housing Policies

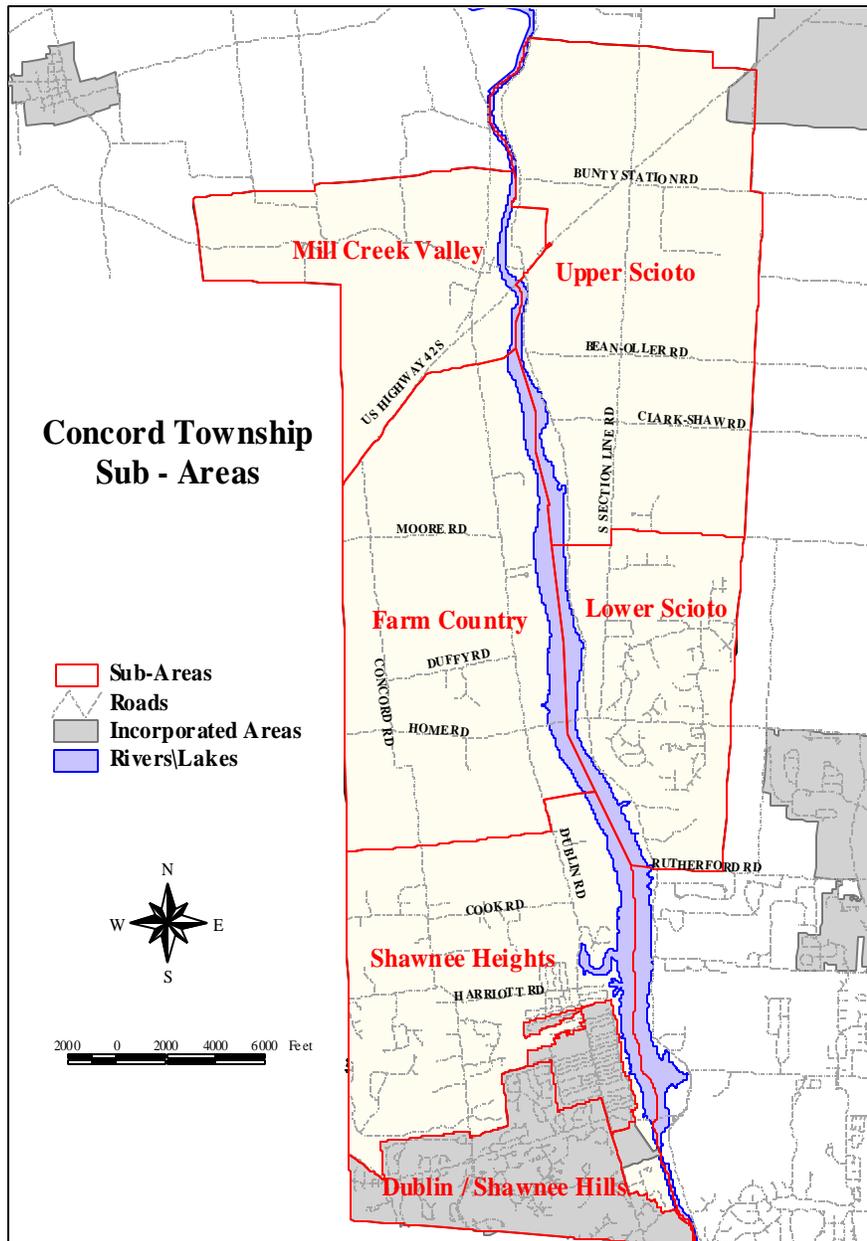
Sewer capacity and the township's desire to maintain a sense of rural character limit Concord Township's density and housing mix. Columbus and Delaware are the primary multi-family providers in the Delaware County housing market. They offer higher densities than the townships. The City of Delaware has recently passed a high-density apartment district that will compete with Columbus.

In areas with access to arterial roads or as part of large planned developments, multi family housing can and will occur in the townships. Concord Township must evaluate its housing mix in light of all state and federal housing laws, and binding court decisions.

7.8 Concord Township Sub-areas

The Concord Township Comprehensive Plan Steering Committee identified five distinct neighborhoods within the township; three on the west bank and two on the east bank of the Scioto River. (see Map 7.1- Upper and Middle Scioto were combined)

Map 7.1 Planning Sub Areas



As the comprehensive plan unfolds, the committee has been asked to constantly reflect what the information in each new chapter means within their own sub-area.

CHAPTER 8

General Economic Conditions

Land development depends on a strong local economy. Within the national economy there are regional economies moving forward or slumping due to local conditions. Delaware is one of Ohio's most affluent counties. The central Ohio economy drives Concord Township's economy.

In March 2001, the United States economy slipped into a national recession. Despite low interest rates and low inflation rates, the long period of expansion from 1991 to 2001 was ended. The effects of the September 11, 2001 terrorist attacks on the United States deepened the downturn. A 12/21/01 report by the U.S. Commerce Department declared the U.S. economy "turned in its weakest performance in a decade in the third quarter, shrinking at an annual rate of 1.3 %" (Columbus Dispatch, 12/22/01).

Signs of economic weakness:

- U.S. unemployment rate jumped from 4% (8/00) to 5.7% (11/01) (Columbus Dispatch).
- Ohio's unemployment rate rose from 4.2% (7/00) to 4.7% (11/01) (Columbus Dispatch).
- Central Ohio unemployment rose from 2.4% (11/00) to 3.2% (11/01) (Business First, 1/11/02)
- Central Ohio Labor Force was at 904,300, a decrease from July 2001 high levels of approximately 918,000, but ahead of the 12 month low of 871,800 in December 2000 (Business First, 1/11/02).
- Central Ohio Labor Force (excluding Union County) showed an average of 41 weekly work hours, compared to 42.7 weekly work hours in October 2000. (Business First, 1/11/02).
- Delaware Co. unemployment rose from 1.9% (August 2000) to 2.7% (November 2001) (Columbus Dispatch), but still remains one of the lowest unemployment rates in Ohio.
- Greater Columbus industrial vacancy rates rose from 7.9% first quarter 1998 to 10.18% fourth quarter 2001 (Columbus Business First Market Report, 1/18/02).
- Greater Columbus area office vacancy rates are expected to reach 10-15% in 2002 (Columbus Business First Market Report, 1/18/02)
- DCRPC platting rates for new subdivisions softened in 2002

Signs of economic strength:

- Delaware County Per Capita Income was \$30,252 in 1997, 11.29% increase from 1994-96, 52nd in the USA, the fastest growing per capita income of any county in Ohio (Ohio Development Department web site).
- While new platting activity in the Delaware County townships slowed in November and December 2001, new construction continued, fed by cheap mortgage rates of 6% - 7.5% for fixed 30-year loans. Final 2001 building permit tallies for the unincorporated Delaware County townships showed 2148 new building permits, the largest number ever in Delaware County. Concord Township moved to number three provider, with 355 new homes, a 51% increase from 2000 (235 permits).
- Kroger announced (Business First, January 25, 2002) they will build a \$69 million, 750,000 square foot food distribution warehouse on US 36 in the city of Delaware, at Glenn Road. The facility will create 276 new full-time jobs, and retain/transfer 387 full time jobs, paying an average \$13.00 per hour. The state of Ohio estimates the new project will generate \$587,221 in additional corporate franchise and individual income taxes in the next 10 years.
- Polaris Fashion Place Mall opened in November 2001, with record-breaking sales tax receipts. The mall is a destination for central Ohio shoppers, bringing new dollars into Delaware County. Polaris Centers of Commerce is the largest office park in central Ohio, with 3.8 million square feet of office space, 28 buildings and 900 of 1200 acres built. Bank One Corporate Office Center (Polaris) is the largest office building in central Ohio (2 million square feet). Affluence is the mark of the Polaris region. Within a 10-mile radius of Polaris are 200,000 households with a median household income of \$54,400. The upscale Easton Mall/office-park, by comparison, counts 300,000 homes with a \$40,600 household median (Business First).

8.1 Other Economic Indicators

The US Census 2000 provides economic information by township.

Demographic Information, Delaware County, Ohio

Social Economic Census 3 (Census 2000)

(Source: U.S. Census Bureau 2000)

Political Jurisdictions	EDUCATION		EMPLOYMENT STATUS						INCOME IN 1999			POVERTY STATUS IN 1999			
	Percent High School Graduate Or Higher	Percent Bachelor's Degree Or Higher	Population 16 Yrs & Over		* Civilian Labor Force Employed		* Civilian Labor Force Unemployed		Median Household Income (dollars)	Median Family Income (Dollars)	Per Capita Income (dollars)	Families Below Poverty Level		Individuals Below Poverty Level	
			Number	Percent	Number	Percent	Number	Percent				Number	Percent	Number	Percent
Delaware County	92.9%	41.0%	82,043	100.0%	58,580	71.4%	2,293	2.8%	67,258	76,453	31,600	883	2.9%	4,118	3.8%
Township:															
Berkshire	93.7%	43.8%	1,488	100.0%	1,097	73.7%	6	0.4%	70,663	71,744	31,496	0	0.0%	12	0.6%
Berlin	91.7%	31.0%	2,342	100.0%	1,735	74.1%	40	1.7%	69,028	77,788	23,765	37	4.1%	182	5.5%
Brown	92.9%	35.1%	955	100.0%	675	70.7%	0	0.0%	63,456	59,922	24,557	9	2.4%	39	3.2%
Concord	94.6%	41.6%	3,006	100.0%	1,969	65.5%	95	3.2%	79,169	83,671	28,851	28	2.6%	83	2.5%
Delaware	86.1%	33.4%	1,272	100.0%	946	74.4%	10	0.8%	60,372	74,844	26,052	15	3.4%	39	2.7%
Genoa	95.9%	49.8%	8,263	100.0%	6,210	75.2%	59	0.7%	94,167	97,113	39,905	18	0.5%	71	0.6%
Harlem	90.1%	23.6%	2,752	100.0%	1,978	71.9%	30	1.1%	55,080	58,375	24,151	35	3.1%	136	3.7%
Kingston	91.4%	22.9%	1,248	100.0%	921	73.8%	0	0.0%	68,750	70,679	22,829	0	0.0%	44	2.6%
Liberty	96.3%	58.6%	6,908	100.0%	4,989	72.2%	27	0.4%	89,787	103,903	46,654	27	1.0%	181	2.0%
Marlboro	81.9%	15.1%	245	100.0%	145	59.2%	0	0.0%	29,514	36,750	16,851	13	18.8%	62	22.8%
Orange	97.2%	54.1%	8,852	100.0%	7,103	80.2%	141	1.6%	74,612	83,996	33,240	184	5.3%	626	5.1%
Oxford	86.9%	17.5%	644	100.0%	392	60.9%	11	1.7%	47,100	52,727	20,247	2	0.8%	4	0.5%
Porter	92.6%	24.9%	1,271	100.0%	942	74.1%	16	1.3%	70,949	71,359	25,301	24	4.9%	76	4.8%
Radnor	94.3%	20.5%	1,029	100.0%	701	68.1%	6	0.6%	55,089	56,607	35,456	8	1.9%	23	1.7%
Scioto	74.4%	24.5%	1,542	100.0%	1,117	72.4%	54	3.5%	54,706	64,196	25,440	20	3.3%	112	5.5%
Thompson	91.4%	28.8%	491	100.0%	356	72.5%	11	2.2%	57,639	61,080	22,985	0	0.0%	24	3.9%
Trenton	90.3%	26.3%	1,633	100.0%	1,191	72.9%	17	1.0%	62,500	68,676	24,792	12	1.9%	57	2.7%
Troy	65.9%	15.1%	1,674	100.0%	1,168	69.8%	16	1.0%	51,951	60,938	23,421	12	1.8%	75	3.6%
Total Township	93.9%	42.4%	45,615	100.0%	33,635	73.7%	539	1.2%				444	2.5%	1,846	3.8%
City & Village:															
Delaware	87.7%	26.8%	19,516	100.0%	12,737	65.3%	1,514	7.8%	46,030	54,463	20,633	304	4.8%	1,704	7.3%
Galena	84.0%	20.4%	236	100.0%	162	68.6%	6	2.5%	46,250	49,500	20,163	4	4.8%	29	9.6%
Sunbury	83.3%	18.2%	2,018	100.0%	1,296	64.2%	19	0.9%	46,477	50,750	18,861	32	4.1%	122	4.7%
Shawnee Hills	87.8%	29.3%	333	100.0%	242	72.7%	4	1.2%	52,222	70,179	25,266	6	5.4%	32	7.8%
Powell	98.8%	68.6%	4,093	100.0%	2,999	73.3%	62	1.5%	115,904	117,801	46,257	8	0.4%	24	0.4%
Ashley	80.2%	8.0%	881	100.0%	598	67.9%	21	2.4%	39,239	42,312	15,513	33	10.2%	155	12.7%
Ostrander	66.1%	11.3%	272	100.0%	223	82.0%	3	1.1%	49,583	49,375	27,751	6	6.3%	21	5.8%
Dublin	96.4%	69.3%	3,251	100.0%	2,121	65.2%	56	1.7%	127,820	135,545	58,462	21	1.6%	81	1.8%
Westerville	93.1%	56.3%	4,170	100.0%	3,070	73.6%	58	1.4%	104,250	108,582	38,280	25	1.5%	104	1.8%
Columbus	89.8%	49.1%	1,658	100.0%	1,497	90.3%	11	0.7%	58,696	71,250	30,964	0	0.0%	0	0.0%
Total Incorporated	91.5%	39.3%	36,428	100.0%	24,945	68.5%	1,754	4.8%				439	3.3%	2,272	3.9%

NOTE: 1. All demographic and social economic statistics are from 2000 U.S. census, adjusted by DCRPC to exclude incorporated statistics from township totals.

2. For detailed Table DP-1 to DP-4 for each jurisdiction, please check DCRPC web site at www.dcrpc.org.

* Civilian labor force consists of all civilians 16 years or older who are either employed, or seeking employment.

Census Facts:

1. Delaware County's poverty rate was 3.3% in 1999.
2. Concord Township's poverty rate was 2.6 %.
3. Delaware County has the highest educational attainment rate of any central Ohio county. 92.9% of the population is a high school graduate. 41% of the population has a Bachelor's or higher college degree.
4. In Concord Township, 94.6 % of adults have a high school degree, and 41.6 % have a Bachelor's degree or higher.
5. The April 2000 unemployment rate in Concord Township was 3.2 %.
6. The median household income in 1999 in Concord Township was \$79,169.
7. The median family income in 1999 in Concord Township was \$83,761.

8. The per capita income in Concord Township in 1999 was \$28,851.
9. Delaware county ranked third in the state of Ohio's 88 counties in the highest per capita property taxes, with 1997 revenues of \$1,063.86 per capita. (Source, Business First).

8.2 Employment by Industry in Delaware County

Delaware County has a broad-based economy, as described by employment sectors in Table 8.1.

Table 8.1 Employment by (covered) Industry in Delaware County, 1998

(Source: Ohio Development Department, OBES/LMI place of work data) *This does not include all employment

Employment Category	2000 Employees	% of total
1. Wholesale and Retail Trade	10,259	29.1 %
2. Services	8,831	25
3. Manufacturing	4,901	13.9
4. Government	4,618	13.1
5. Finance, Insurance Real Estate	3,027	8.6
6. Construction	2,446	6.9
7. Transportation/Utilities	553	1.6
8. Agriculture, forestry, Fishing	543	1.5
9. Mining	120	.3

Table 8.2 Major Employers, Delaware County, 2000 (Source: Delaware Co. Chamber of Commerce)

Employer	Employment Sector	# Employees
Advance Auto Parts	Vehicle parts	304
American Showa	Manufacturing (vehicle suspensions)	375
Bank One	Finance	1,000
Cigna	Insurance	450
Delaware City BD of Education	Government	559
Delaware County	Government	810
General Castings	Manufacturing	425 (1998)
Grady Memorial Hospital	Service (medical)	657
Liebert	Manufacturer, cooling systems	300 (1998)
Mid West Acoust-A-fiber	Manufacturing	160 (1998)
Nippert	Manufacturing (Copper processing)	300 (1998)
Ohio Wesleyan University	Service (Higher Education)	495
Olentangy Schools	Education	672
PPG Industries	Manufacturing (paint)	563
State of Ohio	Government	891 (1998)
Wal Mart # 2725	Retail	465

8.3 Concord Township Economy

Concord Township's economy was historically based on agriculture. Some commercial land uses have been planned, zoned and developed along US 42.

Table 8.3 Businesses in Concord Township, by Windshield Survey, August 1999:

Business Name	Business Type
42 Storage	Mini-storage
Dari Treat	Restaurant
The Dock Stop	Bait and tackle
Dreamland Motel	Motel
Delaware Veterinary Clinic	Animal doctor
Eagle Creek Camp	Retreat
Gardener's Market	Gardening supplies
Home Road Acres Party House	Entertainment
LTI Trucking	Trucking
Marathon	Fuel
Martin Marietta	Stone Quarry
NW Storage	Mini-storage
Propeller Boater's Prop Shop	Boating supplies
Scioto Bait and Tackle	Bait and tackle
Smith Garden Wholesale	Gardening supplies
State of Ohio Prison (s)	Prisons
Studio 42	Hair salon
Visions	Market and restaurant



Martin Marietta Quarry entrance and Riverview Juvenile Correctional Facility

Concord Township has the possibility for additional economic development on or with access to US 42. Access management (limiting left turn movements and combining curb cuts) will be important to safe traffic flow.

Because there is currently no county sanitary sewer service in Concord Township, commercial and industrial development is likely to be limited to those use that do not need sewer.

If lands could be served by a privately constructed OEPA approved centralized sanitary sewer system that is dedicated to the county for ownership and maintenance, then the commercial and industrial tax base could be expanded.



Farm along Mills Road

8.4 Agricultural Component of the Delaware County Economy

Agriculture is still the largest land use (by acreage) in Delaware County. It is also still a significant land use in Concord Township. In 1998 the Delaware County Commissioners appointed an Agricultural Preservation Task Force to study the issue of loss of farmland and to prepare a strategy for agricultural preservation. The Task Force determined that:

“Over a 15 year period, 1982-1997, agriculture in Delaware County has been constant in that it is still a family owned industry and it is still a vibrant economical resource with sales of over \$64 million in

1997. However, there has also been a great amount of change in the industry over those 15 years. The number of farmland acres in Delaware County has continually declined. In 1997, 160,770 farm acres remained in Delaware County. The farmland acres that remain are no longer owned by the farm operators, but are rented from someone outside the farming operation. To compensate for this loss of farmland, farmers have turned to producing higher value crops, added value products and direct marketing. Farm commodity production is becoming polarized with the loss of livestock operations and a move toward crop production. This loss of diversity will increase the chances that a commodity specific issue will dramatically impact the total Delaware County agricultural sector” (page 20, Delaware County Farmland Preservation Plan, June 2000).

Table 8.4 Amount of Agricultural Land in Delaware County

Delaware County- Total Acreage	283,700
Delaware Co. Agricultural Acres (2000-Ohio Dept. Dev.)	175,000
Percent of Delaware County Acres in Agriculture	60%
Ohio Acreage in Agriculture, 2000	14,900,000 acres
Delaware County’s Share of Total Ohio Agricultural Acres	1.2 %

Table 8.5 Census of Agriculture, Loss of Farmland in Delaware County

Source: 1995 Ohio Dept. of Agriculture Annual Report

Period	Land in Farms
1982-92	-10 %
1974-92	-11 %
1964-92	-18 %
1954-92	-31 %
1945-92	-39 %



Agriculture represented 770 farms in 1999 according to the Delaware County Farm Bureau. The 1997 Census of Agriculture reports a much lower number of 627 farms. These employees (most are family farmers) represent an estimated 3% of the total Delaware County labor force (770 farms, @ 2 full time workers/farm = 1440 farm workers; 1440/47,800 total labor force = 3%).

In 1997, the total value of all non-farm sector sales/receipts/shipments in Delaware county was \$3,506,597,000 (Source: Delaware County Economic Development/US Census Bureau County Business Patterns and Economic Conditions). Total 1998 cash receipts for all agricultural production

in Delaware County in 1998 was \$55,195,000. This represented 1.6% of the total sales/receipts for the county.

The US Bureau of Economic Analysis reported in May 1999 that non-farm personal income in Delaware County in 1997 was \$2,625,058,000, and Farm income was \$22,431,000.

Table 8.6 Agricultural Change 1950-97 in Delaware County

Source: 2000 Ohio Department of Agriculture Annual Report

Land Use	% Change
Cropland	-18%
Permanent Pasture	-92%
Woodland	-39%
Other land	-60%
Total land in farms	-38%

Table 8.7 Delaware County Agricultural Comparison: 1994 & 2000

	1994	2000
Number of Farms	710	770
Average Farm Size	254 ac	227
Total Land in Farms	180,000 ac	175,000
Fertilizer Deliveries	10,615 tons	21,534 tons
Commercial Grain Storage Capacity	562,000 bushels	317,000 bushels

Source: 1995 and 1999 Ohio Department of Agriculture Annual Report

Table 8.8 Delaware County Agricultural Production: Comparison, 1994 & 2000

Crop	1994 Acres	1998 Acres	1994 Production	2000 Production
Corn (grain)	43,300	41,000	5,000,600 Bu	6,391,100 Bu
Soybeans	72,200	75,000	2,255,700 Bu	2,967,900 Bu
Wheat	18,800	12,300	969,100 Bu	923,500 Bu
Oats	-	-	-	-
Hay	8,300	8,100	21,100 ton	28,500 ton

Source: 1995 and 1999 Ohio Department of Agriculture Annual Report

Table 8.9 Delaware County Cash Receipts from Marketing of Farm Commodities

Crop	1994	2000
Corn	\$13,921,000	\$10,607,000
Soybeans	21,208,000	14,674,000
Wheat	3,353,000	1,917,000
Oats and Hay	633,000	649,000
Other Crops	14,393,000	13,581,000
Dairy and Milk	2,687,000	1,955,000
Cattle and Calves	1,828,000	1,231,000
Hogs and Pigs	2,808,000	2,787,000
Poultry and other Livestock	953,000	578,000
Total	\$61,784,000	\$47,979,000
Average per farm	\$84,635	\$62,311

Source: 1995 and 2000 Ohio Department of Agriculture Annual Report

Observations about the Agricultural Impact on Delaware County's Economy in 1998:

60% of the land was in agriculture

1.9 % (estimated) of the labor force was in agriculture

1.3 % of the total cash county receipts for production of goods and services was in agriculture

.85 % (less than one percent) of total county personal income was in agriculture

Agriculture is still a large land use, but it is becoming a smaller portion of the local economy.

8.5 Local Housing and Real Estate Market

Delaware County's housing market has been strong for two decades. The townships have primarily provided upscale single family housing, while the cities of Delaware and Columbus have provided more moderate income and middle class housing.



Condominiums under construction at Scioto Reserve, Concord Township

The Mid Year Greater Columbus Blue Chip Economic Forecast (August 16, 2000, Greater Columbus Chamber of Commerce) warned that the declining ability of residents to find affordable housing threatens the Greater Columbus economic expansion. As reported in Business First (8/25/00) “ even with high average incomes and large down payments, the majority of newly built homes in Greater Columbus are economically out of reach for most regional residents. A household making \$40,300, the average income for the region, and placing a 20 percent down payment on a home could afford only 4 percent of the area’s new houses.”

In the townships of Delaware County (see Summary Statistics of Rezoning and Subdivision, Chapter 3) there were 12, 969 lots in the subdivision “pipeline” for approval on 12/31/2001. Based upon a three-year average absorption of 1976 new lots in the unincorporated townships, the 12,969 house-lots represents a 6.5 year supply. If too much high-end housing is offered to the market, and if demand becomes reduced by weakness in the local, state and national economy, the Delaware County real estate economy could suffer. It is too soon and too difficult to predict at this moment (February 2002).

Table 8.10 Summary of Enterprise Zone Data, 2000

	Agreements	Jobs				New Payroll (000's)		Investment (000's)			
		Retained		Created		Committed	Actual	Real Property		Personal Property	
		Committed	Actual	Committed	Actual			Committed	Actual	Committed	Actual
CITY OF DELAWARE	18	329	345	867	534	\$ 21,404.00	\$ 13,525.00	\$ 29,570.00	\$ 40,101.00	\$ 110,062.00	\$ 81,383.00
VILLAGE OF SUNBURY	3	0	25	94	69	\$ 1,931.00	\$ 1,374.00	\$ 3,726.00	\$ 5,749.00	\$ 0.00	\$ 10,956.00
ORANGE TOWNSHIP	9	206	329	1,005	578	\$ 25,404.00	\$ 20,124.00	\$ 26,643.00	\$ 36,280.00	\$ 66,945.00	\$ 108,286.00
CITY OF WESTERVILLE	1	0	104	100	165	\$ 1,700.00	\$ 4,607.00	\$ 3,650.00	\$ 4,609.00	\$ 31,000.00	\$ 16,157.00
County Totals:	31	535	803	2,066	1,346	\$ 50,439.00	\$ 39,629.00	\$ 63,589.00	\$ 86,738.00	\$ 208,007.00	\$ 216,782.00

Source: Delaware Gazette, 4/12/00

Delaware County's established enterprise zone program provides tax abatements in return for guaranteed job creation. The enterprise zone program has been successful in creating 1,392 new jobs at 28 of 30 firms receiving abatements as of 12/31/99 (source, Delaware Gazette, 4/12/00). The four enterprise zones in Delaware County are in Orange Township, city of Delaware, Westerville, and the village of Sunbury.

8.6 Concord Township Future Economic Development

Concord Township could:

- Investigate the possibility of a Joint Economic Development District (JEDD) with the city of Delaware for lands that could be served by Delaware sewer southwest of the city.
- Consider future commercial development served by on-site (i.e. zero discharge, land application sewer systems) at locations not served by county sewer.
- Prevent the oversupply of commercial property before there is an apparent market need by zoning only for planned commercial uses when there is a known end user. Phasing of large projects helps the incremental absorption of the land costs to the developer and avoids oversupply of product.

CHAPTER 9

Roads and Transportation

9.1 General Information

Concord Township's original road network was laid out in the nineteenth century. With the exception of residential subdivisions, such as Scioto Reserve, all development in the township has taken place along these original farm roads. As the area develops from a rural to a suburbanizing community, the function of these original roads is changing from farm-to-market roads to collector or arterial streets. As traffic counts increase, roadway improvements and new roads will be needed.

9.2 Rural versus Urban Roads

Concord township's rural roads generally range from 16'-20' in width within a 50-60' wide right of way, which is adequate for drainage ditches and two lane roads.

The southwest corner of the township was platted in the 1920s. These Lucy Depp area subdivisions had an urban grid network made up of 35-foot wide rights of way that present challenges to construction of drainage ditches, sidewalks and normal road width. (see Section 9.13)



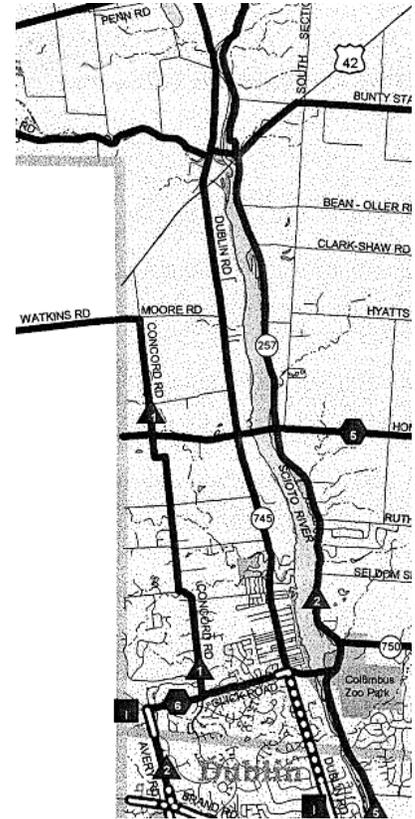
Map 9.1 Concord Township Rural Roads

9.3 Bus Service

Automobiles are the primary means of transportation in Concord Township. The Delaware Area Transportation Authority (DATA) offers an on-call non-scheduled bus service from point-to-point in the county. A Central Ohio Transit Authority linkage from Crosswoods delivers bus riders to any COTA stop in Franklin County. As the county grows, new transportation options will be considered.

9.4 Bikeways- One designated bikeway exists along Avery Road north of Dublin; a second is committed on Dublin Road just south of Glick Road. The Mid Ohio Regional Planning Commission (MORPC) is preparing a regional bikeway plan for Franklin and Delaware Counties, in hopes of obtaining Transportation Equity Act 21 funding. The draft bikeway plan recommends five bikeways along traditional roads in Concord Township:

- *North-South #1*, which follows Concord Road.
- *North-South #4*, which follows Dublin Road.
- *North-South #2*, which follows Riverside Drive.
- *East-West #4*, which follows Mills Road.
- *East-West #5*, which follows Home Road.



Map 9.2 MORPC Regional Bikeway Plan for Concord Twp.

9.5 Road Maintenance

Concord Township roads are maintained by various authorities:

- Federal and state roads are maintained by District 6, Ohio Department of Transportation.
- The Delaware County Engineer maintains county roads.
- The Township maintains township roads.
- Homeowner associations maintain private subdivision roads.
- Common Access Driveways (CADs) are private roads serving 2-5 lots, maintained by the lot owners.



Mills Road and S.R. 257 in Bellepoint

9.6 Federal and State Roads

- a.) **U.S. 42** – 4.45 miles of U.S. 42 pass through Concord Township. U.S. 42 acts as a connector from I-70 in London, Ohio to US 23 and to I-71. This road is heavily traveled with trucks carrying interstate commerce and passenger vehicles.
- b.) **SR 257** – State Route 257 follows Riverside Drive through most of Concord Township as a major north/south route. At U.S. 42, it crosses the Scioto River toward the west and then turns north through Bellepoint. There are 6.49 miles of 257 in the township. It is heavily traveled with commuter traffic.
- c.) **SR 745** – Over 5 miles of State Route 745 follow Dublin Road on the west-side of the Scioto River. Because it serves as access to a major quarry, it is heavily traveled by dump trucks.

9.7 County Roads

The Delaware County Engineer maintains 11 county roads in Concord Township (see Table 9.1).

Table 9.1 County Roads and Conditions in Concord Township, 1998

#	Road Name	Surface Width	Road Width	Surface Type
5	South Section Line	20	26	I
123	Hyatts Road	17	21	G2
124	Home Road	12, 16, 18	12, 22, 26	H2
126	Glick Road	20, 22	26, 28	I
128	Manley Road	16	24	I
129	Concord Road	16	16, 22, 24	H2, G2
131	Harriott	16	22	G2
136	Moore Road	14	18	G2
137	Butts Road	14	20	H1
150	Mills Road	14	18	H2

Road carrying capacity is determined by the paved surface width and number of lanes. Road speed is determined by width, pavement conditions, curve radii, topography, number of driveways and cross traffic movements. Future land development will lower the level of service (LOS) of county roads. Upgrades will be needed to keep pace with the increased traffic counts.

Population density has a direct relationship to trip generation on local roads. Table 9.2 shows the relationship between minimum lot size (units/acre) and population per square mile. Engineers anticipate the size of road needed to serve a calculated density of population. A generalized table for road size versus population density at full build-out is provided in Table 9.3.

Table 9.2 Dwelling Unit Density Per Acre and the Equivalent Population per Square Mile

# Units/acre x	#Persons/unit x	% Developable/ac x	Acres/ Square Mile =	Population/ Square Mile
.2	2.7	95 %	640	328
.5	2.7	90 %	640	778
1	2.7	90 %	640	1555
1.25	2.7	85 %	640	1836
1.5	2.7	85 %	640	2203
2	2.7	85 %	640	2938
3	2.7	80 %	640	4147
4	2.7	80 %	640	5530
5	2.7	80 %	640	6912
6	2.7	80 %	640	8294

Table 9.3 Road Size and Type Needed to Serve Specific Population Density/Square Mile

Density (# Units/ac)	Average Annual Daily Trips/Square Mile	Directional Design Hour Traffic	Level Of Service	Road Class Required	Calculation # lanes each direction	Actual # lanes	Width Needed (feet) *
.2	1,220	139	A	Local	0.24	2	38'
			C		0.11	2	38'
			E		0.08	2	38'
.5	2,880	328	A	Collector	0.56	2	38'
			C		0.27	2	38'
			E		0.19	2	38'
1	5,760	655	A	Arterial	1.12	2	38'
			C		0.54	2	38'
			E		0.38	2	38'
1.25	6,800	774	A	Arterial	1.32	4	62'
			C		0.64	2	38'
			E		0.45	2	38'
1.5	8,160	928	A	Arterial	1.58	4	62'
			C		0.76	2	38'
			E		0.54	2	38'
2	10,880	1,238	A	Arterial	2.11	4	62'
			C		1.02	2	38'
			E		0.72	2	38'
3	15,360	1,747	A	Arterial	2.98	6	86'
			C		1.43	4	62'
			E		1.02	2	38'
4	20,480	2,330	A	Arterial	3.97	8	110'
			C		1.91	4	62'
			E		1.36	4	62'
5	25,600	2,912	A	Arterial	4.96	10	134'
			C		2.39	6	86'
			E		1.70	4	62'
6	30,720	3,494	A	Arterial	5.96	12	158'
			C		2.87	6	86'
			E		2.04	4	62'

*With 12' lanes and 7' shoulder each side [Author: Scott Pike, Chief Deputy Delaware County Engineer]

Assumptions:

- 8% trucks
- Level terrain
- # vehicles per hour per lane = SFL:
 - LOS A 650
 - LOS C 1,350
 - LOS E 1,900

Conclusions from Table 9.3

- When average densities reach 3 dwelling units per acre, 4 lane arterial roads are needed to maintain level of service C.
- When densities reach 1.25 dwelling units per acre, 4 lane arterial roads are needed to maintain level of service A.
- When densities remain less than 1 dwelling unit per acre, 2 lane arterial roads can handle traffic with level of service A.

9.8 Township Roads

The Township currently maintains sixty-one roads, of which thirteen are major or minor collectors. According to the Delaware County Engineer, all township and county local and collector roads should be at least 20 feet of surface width with an additional shoulder of five to seven feet. Many county and township roads do not meet this standard.

County standards permit a Low Volume, Low Density (LVLD) road width of 18' of pavement within a 50 foot right of way provided that there are no more than 15 homes served, and no possibility of future connection.

Concord Township zoning and County subdivision regulations also allow for frontage to be provided on a Common Access Driveway (CAD). The CAD is (current regulations) a 12 foot wide gravel surface driveway within a 60 foot wide easement. The CAD may serve 3 lots, or up to 5 lots if two frontage lots satisfy the full frontage requirement on an adjacent public road, but take access from the CAD. The CAD is intended to be a relief valve for odd shaped or environmentally constrained land where a regular road, or an LVLD would be economically unfeasible.

Table 9.4 Concord Township Roads 1998 Source: ODOT Road Inventory 1998

#	Road Name	Surface Width	Road Width	Surface Type
129	Muirfield Drive	48	85	I
131	Harriott Dr.	14	18	I
132	Cook Road	16, 20	24	H1
133	Merchant Road	16	20	H2
135	Duffy Road	16	20	I
139	Clark-Shaw	12, 18	18, 22	I
140	Bean-Oller Road	17, 18	18, 22	I, H2
141	Bunty Station Road	20	24	I
142	Owen-Fraley, Ford	18, 16	22, 24	I
143	Freshwater Road	16	20	H2
149	Klondike	18	22	H2
151	Dix Road	18	22	I
152	Calhoun Road	18	20	I
161	Russell Road	18	20	I
262	Fry Road	18	22	I
304	Elmgee	20	24	I
305	Sundown Drive	16	22	I
306	Park Ridge	20	26	I

306A	Edgewood	18	28	I
307 308	Lakehill Drive	16	22	E2
309	Frabell Drive	10	14	E2, G2
310	Sterling Road	10	16	I, E2
346	Buechel	16	24	E2
357	Brust Drive	12	24	H1
368	Sec. Est. Maynard Road	20	28	H2
378	Griffiths Lane	18	26	I
379	Rivers End	14	22	H2
420	Concord Bend Drive	20	36	I
445	Badenoch Drive	21	25	I
464	Erin Woods Drive	20	36	I
465	Serenity Drive	20	36	I
466	Sylvian Drive	14, 20	18, 20	I
470	Chancel Gate Drive	20	36	I
471	Canterbury Circle	20	28, 36	I
781	Turfway Bend Drive	20	28	I
782	Whirlaway Circle	20	28	I
796	Highlands Drive	20	28	I
797	Highlands Court	20	28	I
814	Tartan Fields Drive	32, 52	32, 82	I
815	MacKenzie Way	27	27	I
816	Tillingharst Drive	27	27	I
881	Redan Court	27	27	I
1001	Bellepoint	10, 14	20, 22	I
1049	S. Park W.	12	18	I
1051	Myrna Drive	12	18	I
1052	Gwendolyn	12	18	E2
1053	Lakeview	10	16	E2
1054	Springdale	12	18	E2
1055	Frabell	12	18	E2
1056	Elizabeth	12	18	E2
1057	Goode Road	12	18	E2
1058	Logan Road	12	20	I
1067	Bellepoint	12	16	E2
1068	Mohican	14	18	I
1093	Ladona Drive	12	18	E2
1094	Riverview	12	18	E2
1100	Pagett Place	10	14	G2
1101	Depp Place	10	14	G2

1103	Ladona Drive	10	16	E2, I
1104	South Park Place East	10	14	G2
1105	Sunset Drive	12	16	I

- A Primitive Road
- B Unimproved Road
- C Graded and drained earth road
- E2 Gravel or stone road
- F Bituminous surface treated road
- G1 Mixed bituminous combined base with surface under 7"
- G2 Mixed bituminous combined base with surface 7" or more
- H1 Bituminous Penetration combined base under 7"
- H2 Bituminous penetration combined base 7" or over
- I Bituminous concrete sheet asphalt or rock asphalt road
- J Portland Cement Road
- K Brick Road
- L Block Road

9.9 Functional classifications.

The Delaware County Engineer’s 1999 **Design Standards** identify definitions for road functional classifications.

The 2000 Delaware County Thoroughfare Plan identifies arterial and collector streets (see foldout map titled Delaware County and City **Thoroughfare Plan Functional Classification** of Roadways and Alternatives).

From the Design Standards Definitions:

Arterial roads have the primary purpose of carrying through traffic to and from residential, commercial, and industrial areas and the secondary purpose of providing access to abutting property. They are usually a continuous route carrying heavy loads and Average Daily Traffic (ADT) in excess of 3,500 vehicles.

From the Thoroughfare Plan Functional Classification Map:

- Major arterial roads in Concord Township: US 42, SR 745, SR 257, S. Section Line, Home Roads.
- Minor arterial roads in Concord Township: Concord Road, Hyatts Road, Bunty Station Road.

From the Design Standards Definitions:

Collector roads have the primary purpose of intercepting traffic from intersecting local streets and handling this movement to the nearest major collector or arterial street. Average Daily Traffic typically range from 1,500 to 3,500 vehicles, with AM peak hour traffic about 7-8% and PM peak hour of 10%.

From the Thoroughfare Plan Functional Classification Map:

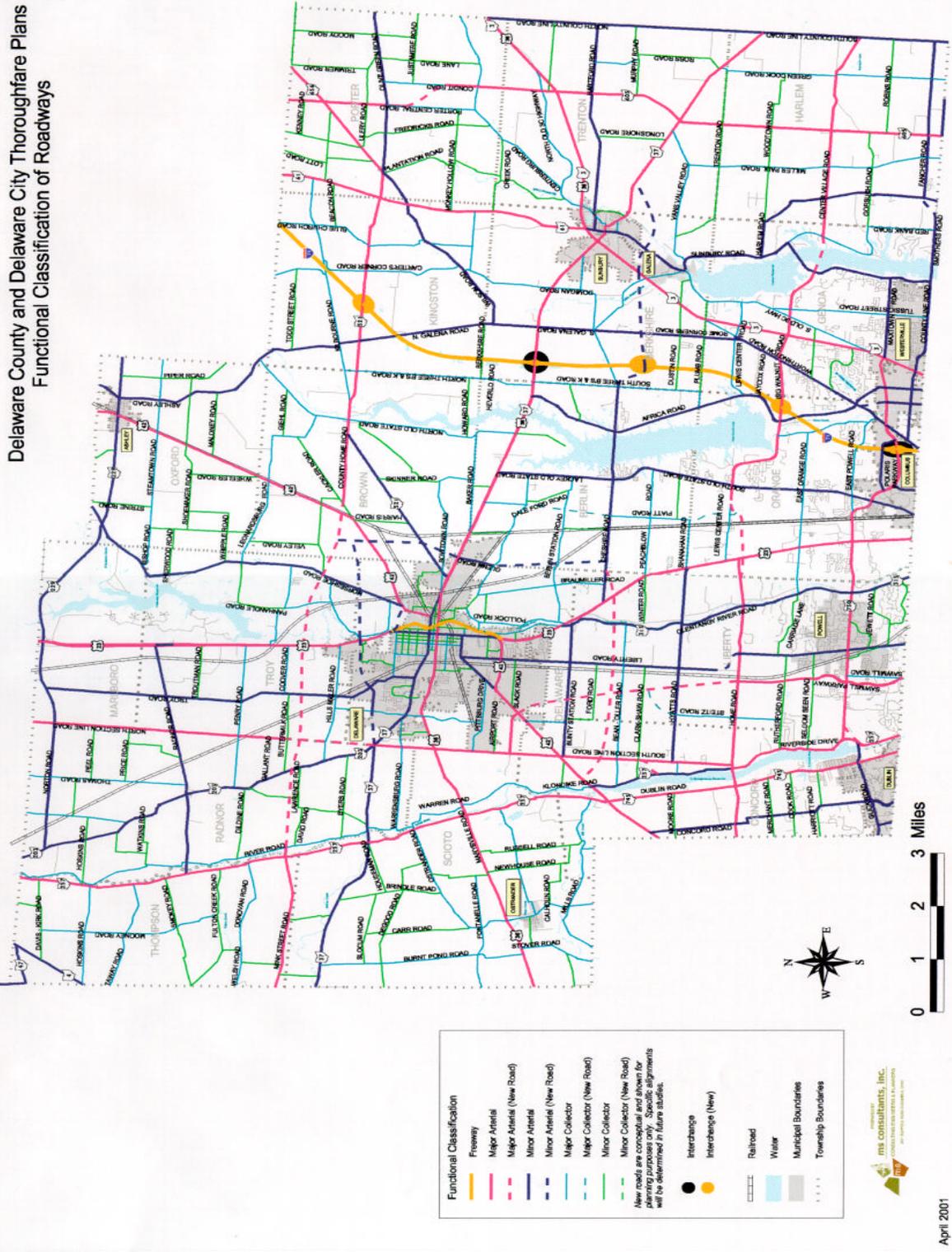
- **Major collector roads in Concord Township are :** Mills, Bean Oller, and Klondike Roads.
- **Minor collector roads in Concord Township** are Harriott Road, Cook Road, Merchant Road, Moore Road, Rutherford Road, Clark-Shaw Road, Ford Road.

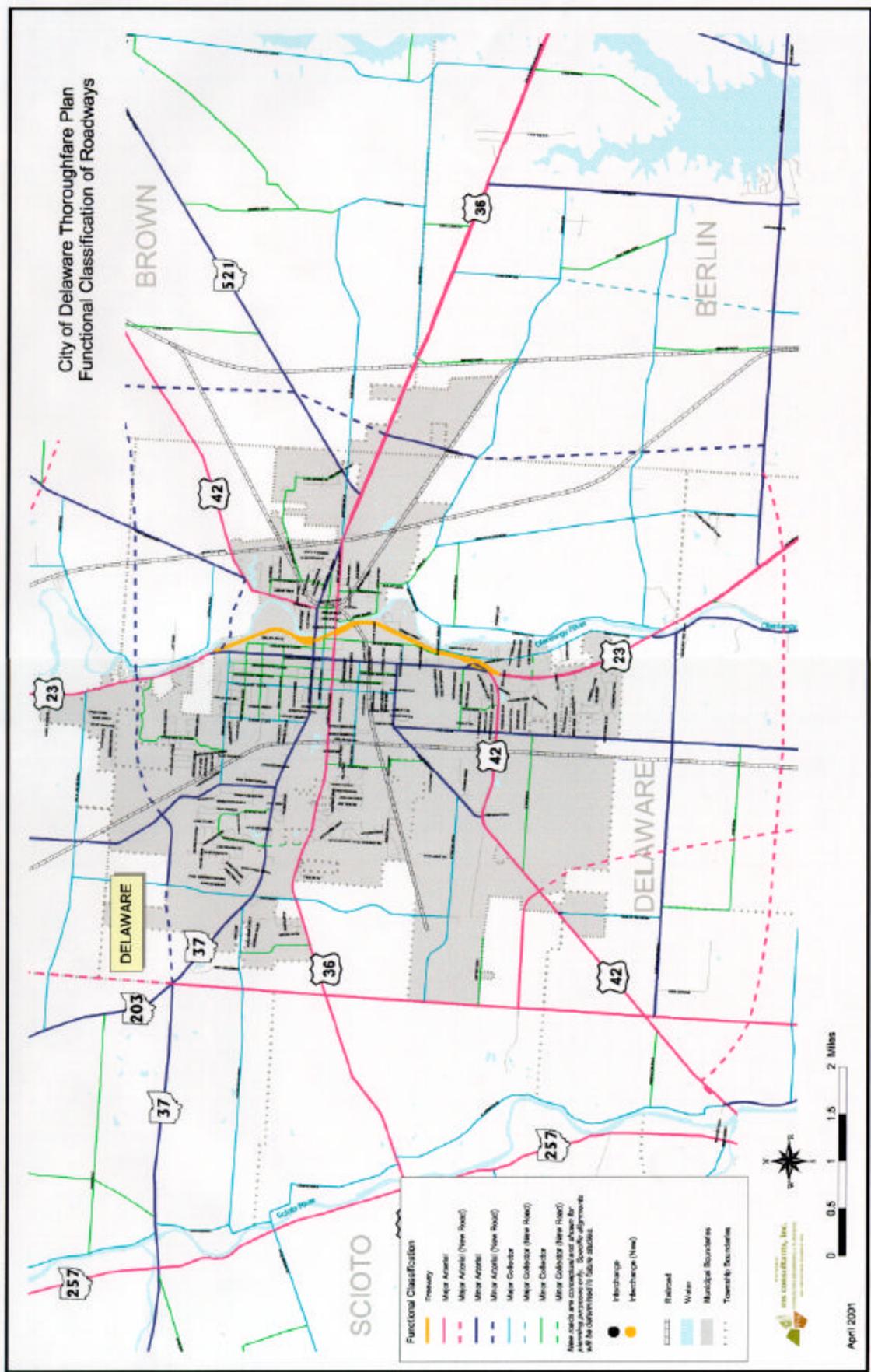
From the Design Standards Definitions:

Local Streets represent the lowest category. Their primary function is to serve abutting land use. Typical ADT's range from 100 to 1,500 vehicles. Local streets are further classified as Loop, Through and Cul-de-sac.

Local street examples: Brust Road, Highlands Drive, Fairfield Lakes Drive, Tartan Fields Drive

Delaware County and Delaware City Thoroughfare Plans Functional Classification of Roadways





9.10 Traffic Counts

Map 9.3 shows traffic counts taken on arterial and collector roads. This map is from the 2001 Thoroughfare Plan.



Map 9.3 Concord Township Traffic Counts

9.11 Access Management

Access management is the practice of limiting curb cuts to major roads to prevent conflicting turning movements and maintain safe traffic flow. The Ohio Department of Transportation (ODOT) has some authority for restricting access to state highways. According to ODOT, poor access management can reduce highway capacity to 20% of its design. Delay is as much as 74% greater on highways without access management. 60% of urban and 40% of rural crashes are driveway and intersection related.

ODOT Access Management Principles:

- Regulate the location, spacing and design of drives.
- Space access points so they do not interact with each other.
- Provide adequate sight distance for driveways.
- Use appropriate curve radius, lane widths, driveway angle.
- Provide turn lanes to separate conflict points for acceleration, deceleration, & storage lanes.

- Prohibit some turns in critical areas; relocate that activity to a less conflicted point.
- Restrict driveways to fewer than 30 per mile (every 350 lineal feet maximum).
- Use feeder roads to relocate critical movements and to handle short trips parallel to the main road.
- Locate driveways away from intersections to reduce conflicts (corner clearance).

- Use right in, right out drives to prevent unwanted left turns across traffic.
 - Use zoning with access management to develop good site plans.
 - Connect parking lots; share driveways.
 - Use frontage roads to connect commercial traffic, and keep it parallel to the main road.
 - Connect frontage roads to collector streets at properly spaced intersections.
 - Use “backage” roads as rear access roads connecting commercial uses.
-
- Avoid individual, closely spaced curb cuts to “bowling alley” lots.
 - Use the 30-curb cuts/mile standard, or maximum of one access each 350 feet.
 - Avoid disconnected street systems.
 - Encourage internal access to out-parcels.
 - Minimize the number of traffic signals. Two per mile is ideal (half mile spaced).
 - Use medians to separate traffic flows.
 - Coordinate access permit review between ODOT, local zoning and building departments

The US 42 corridor offers potential commercial tax base to Concord Township. When new sites are zoned for commercial use, access management is imperative. Access management practices are appropriate for driveway cuts on all arterial roads. The Delaware County Engineer is considering access management standards for new driveway cuts on certain County Roads. Pending HB366 would empower counties to regulate driveways on county roads.



The new Home Road Bridge at Rathbone (construction 2002-2003)

9.12 Future Roads- The Thoroughfare Plan

“Original” farm-to-market county and township roads are often narrower than new subdivision streets, and sometimes built to a lighter load bearing standard. The cost of upgrading “original” county and township roads to collector or arterial standards can be factors in land use decisions, although excess traffic by itself is not considered grounds in Ohio to deny a zoning change.

A plan for the major streets or highways, or “Thoroughfare” plan is a tool for counties and townships. The Thoroughfare Plan is enabled by Ohio Revised Code Section 711.10:

“Whenever a regional planning commission adopts a plan for the major streets or highways of the county or region, then no plat of a subdivision of land within the county or region, other than land within a municipal corporation”...“shall be recorded until it is approved by the regional planning commission.”

The Delaware County Thoroughfare Plan was adopted in December 2002 by the Delaware County Commissioners. The Thoroughfare Plan recommends several improvements in Concord Township.

2001 Delaware County Thoroughfare Plan Recommendations

- Alternative 1 is an East-West connector from US 42 on the west to US 23 on the east, south of the city of Delaware, but north of Bean Oller Road.
- Alternative 16 is a proposed US 42 southern bypass of the city, extending from US 23 to Glenn road. It should reduce traffic on Bunty Station and S. Section Line road.
- Alternative G extends South Section Line Road to connect it with North Section Line Road. It also connects Riverside Drive with South Section Line in Concord Township. This provides a continuous north south route from south of the city through to Marion County. It is projected to reduce volumes on SR 203 and Troy Road.
- Alternative J is an extension of Home Road east of US 23, crossing the railroad tracks connecting to Lewis Center Road east of Lewis Center. Although not in Concord Township, this alternative provides an important east-west link when the new Home Road Bridge is completed.

9.13 Lucy Depp Area Subdivision- Road Issues

The Lucy Depp and Shawnee Hills 1920-era subdivisions totaled over 3,600 lots, each typically 35' wide by 70' deep. In 1942, portions of Shaw Nee Hills Additions 1,2,3, and 4 incorporated to become the Village of Shawnee Hills. There are, however, still over 700 lots platted in unincorporated Concord Township.

Some of the Lucy Depp area subdivision streets remain unbuilt, due to a lack of sanitary sewer, and lot sizes too small to support septic systems without consolidation.. Those streets that are built do not meet modern standards. Some streets are gravel only. Those that are paved are typically 12 feet wide within a 35-foot right of way. A 20- foot wide street within a 60-foot right of way is the county recommended standard. In order to obtain a building permit, a lot must have frontage on an improved public street (i.e. paved, water, sewer, electric, etc.). The potential exists for provision of sanitary sewer to this area, which will create demand for platted street construction (See Section 10.2). The Street Map catalogs which streets have been built, which are paved/gravel, and which have not been built. This necessitates unique street construction policies and design cross sections.

Suggested Policies for Platted Streets in Lucy Depp Area Subdivisions

Unimproved "paper" streets may be constructed to township standards:

- a.) by their contiguous lot owners, jointly, at their expense, dedicating all improvements to the township;
- b.) by the township, at its expense, if the project is a community-wide benefit;
- c.) by the township upon petition from the contiguous lot owners, with a neighborhood assessment to reimburse the township for the cost of street, drainage and utilities extensions.
- d.) A combination of a) and b) or b) and c).

- e.) May be left unconstructed, where established homes are built on back-to-back lots that span two blocks, with intervening paper streets acting as rear lot lines. In such cases, paper streets may never need to be constructed, and may be used for bikeways or left as open space.

Safety Issues Regarding Lucy Depp Area Streets

The narrowness of roads in Lucy Depp is an attribute and a risk. Many residents may like the narrow lanes, and feel they contribute to the sense of intimacy. Conversely, many roads are too narrow for cars to safely pass without moving onto the lawns. Fire fighting vehicles cannot easily navigate many of the narrow roads. Without sidewalks, children have no place to walk or bicycle but in the street. Without defined drainage ditches, flash floods can do significant property damage and overtop local streets.

Lucy Depp area subdivision streets and their rights of way should:

- a.) Provide for safe access to the adjacent lots and local traffic.
- b.) Provide safe access for fire and police emergency response.
- c.) Provide safe ways for pedestrians and cyclists to share the road or right of way with cars.
- d.) Provide for storm water runoff.
- e.) Maintain an established intimacy.
- f.) Provide for limited guest parking
- g.) Provide for anticipated growth while maintaining the quality of life.

Effect of Sewer Construction on Roads

As part of the sewer installation in the adjacent Village of Shawnee Hills, the village expected trenching of a discreet portion of the street and repavement in kind. Trench lines were scored on the pavement.



Pavement scored in preparation for sewer trenching, Shawnee Hills, 2001

Heavy construction equipment crumbled the pavement adjacent to the trenches, requiring reconstruction of the entire street. Since narrow streets are part of the community character, it is suggested that if sanitary sewer is extended into Lucy Depp area subdivisions that streets either be widened to 16 feet or be replaced to a similar standard narrow width but make selected streets one-way to increase safety.

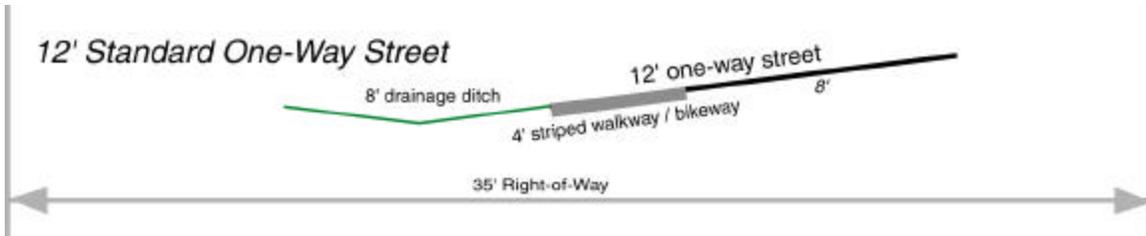
One Way Street Network

Due to unsafe sight distances entering Dublin Road, conflict with oversize emergency vehicles, and unsafe pedestrian/auto conflicts, streets need to be upgraded for safety. Widening all streets would be desirable, but costly and might change the character of the Lucy Depp area. A one-way street network can provide access for local traffic and emergency response, encourage safer pedestrian and bicycle use, provide storm water runoff, maintain the intimate township character, slow traffic and reduce cut-through traffic, and provide limited on street guest parking. The township may evolve the one-way streets as needed by new growth.

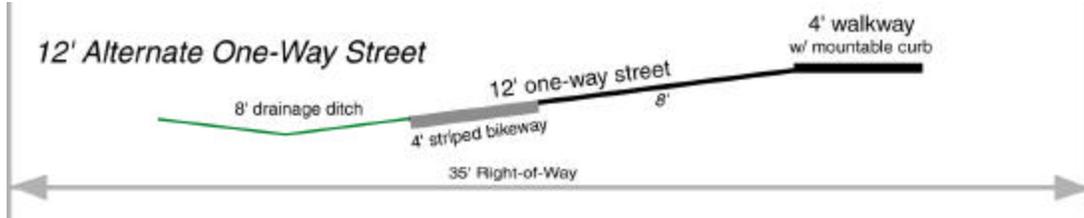
Two standards could be used for local streets: a one-way and a two-way standard

❖ 12 foot Standard, One Way Street

- a.) 12' of asphalt pavement, one-way circulation
- b.) Drainage ditch (grassed) on one (or both) sides of street.
- c.) 4' walk/bikeway striped within the 12' pavement surface.

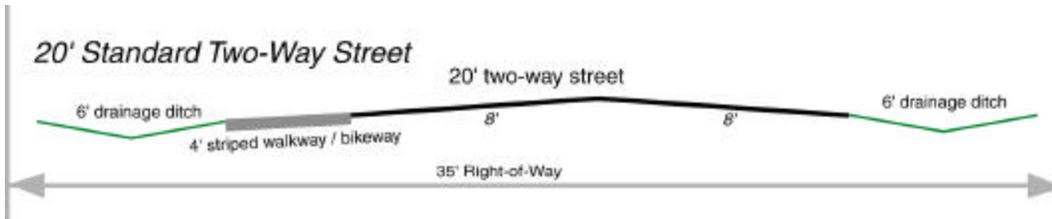


Example 12' Street with 4' bikeway striped – East Seneca Drive, Shawnee Hills



Example 12' Street with 4' bikeway striped and sidewalk with mountable curb – East Seneca Drive

- ❖ **20 foot Standard, two way street-** 20' of asphalt pavement, two-way circulation; drainage ditches both sides, center crown; 4' striped walk/bikeway within the 20' pavement surface.



Example of a 20' Street with 4' bikeway striped – Old Powell Drive

9.14 Other Road related Issues

As Delaware County grows, traffic increases. Traffic generation is one consideration in rezoning requests, but by itself is not a valid reason to deny a zoning.

Traffic considerations to re-zonings:

Patterns of Development -Traffic can be reduced by the design of the development and the mix of land uses. Low density (one acre lots or larger) development generates significant traffic per unit, but the number of units is modest overall. In large developments with densities greater than one unit per acre a mix of local convenience commercial uses and a network of sidewalks, trails and bike paths can reduce auto trips. Consideration should be given to neo traditional development patterns (see Chapter 13) for planned developments with densities greater than one unit per acre. A combination of a grid street core, with curvilinear edges may

allow for the preservation of open space. A typical home in an exclusively residential area generates 10 or more trips per day. A home located in a neighborhood that is designed to be convenient for walking and biking with mixed commercial and service uses can reduce auto trips to as little as 4 trips per home per day.

Traffic Impact- New development proposals should be assessed for their trip generation. An assessment using ITE trip generation rates should be submitted by the developer as part of any planned development. As a general rule, if the trip generation is more than 1000 vehicles per day, a full-fledged traffic study should be performed to determine the impact and mitigation measures needed. Current level of service (LOS) and post development LOS should be compared. Roads should not be degraded below LOS C on a scale of A-F.

Impact Fees-Ohio planning and zoning legislation does not currently empower townships to charge impact fees to offset costs of service expansion (roads, schools, parks, etc.). Generally, road improvements immediately adjacent to the development can be attributable to the project as part of the subdivision and zoning process. If large impact development proposals do not reasonably offer to mitigate their significant off-site impacts, they may impose an undue burden on the township. In such cases the rezoning may be premature.

Air Pollution Standards - Delaware County is one of 32 counties in Ohio where air pollution exceeded the 8-hour US EPA air quality standard for ozone. The 8-hour standard has been appealed to the US Supreme Court. If the 8-hour standard is supported by the Court, then there may be substantial impacts on economic development and transportation. Some of the possible consequences:

- a.) loss of federal funding for state infrastructure (roads and other improvements)
- b.) requirement of potentially more expensive, cleaner burning fuels
- c.) use of vapor controls at fueling stations
- d.) emissions testing (E check) of tailpipes (not currently planned)
- e.) voluntary restrictions on travel with staggered work hours, etc.

Project CLEAR (Community Leadership to Effect Air Emission Reductions) is a community oriented partnership between the Columbus Health Department, The Ohio State University and the Mid Ohio Regional Planning Commission. Project CLEAR will evaluate and recommend strategies to reduce air emissions that contribute to smog and ground level ozone in Central Ohio. Even small details, such as providing tree islands in commercial parking lots, can reduce the incidence of ground level ozone, and should be a consideration in the zoning process when reviewing development plans.

CHAPTER 10

Utilities

10.1 Water

The Del-Co Water Company, a cooperatively owned private water company established in 1973, serves Concord Township with potable water. As the county has grown, Del-Co has expanded its service to provide larger diameter water lines for residential and commercial service as well as fire protection.

A. Supply

Del-Co draws surface water from the Olentangy River and from the Alum Creek reservoir. The water is pumped to up-ground reservoirs on South Old State Road and Olentangy River Road prior to treatment. Wells along the Kokosing River in Knox County provide additional supply.



Del-Co Water Headquarters and Up-Ground Reservoirs on State Route 315, Liberty Township

Del-Co has expanded its water supply to keep pace with growth of the county. For example, in 1998 Del-Co added over 1,800 new customers and installed over 63 miles of new water lines. In 1999, the company again added 2,177 additional customers and installed 67 miles of new water lines. Del-Co has constructed

a new administrative office building, a million-gallon storage tank in Morrow County and a second water treatment plant on S. Old State Road in Orange Township.

The rapid growth of Delaware County has strained water treatment capabilities during summer months. Del-Co has a current daily treatment and pumping capacity of 17 million gallons per day (mgd). In May of 1999, with a minor drought, demand was 13mgd, with approximately 9 mgd attributed to lawn watering. Because of this, Del-Co is currently maintaining a permanent odd/even day/address sprinkling regulation.

Three future supply locations are planned at the Whetstone River, northwest of Ashley, 400 acres on the Scioto River at SR257 and Donovan Road, and South Old State Road in Orange Township

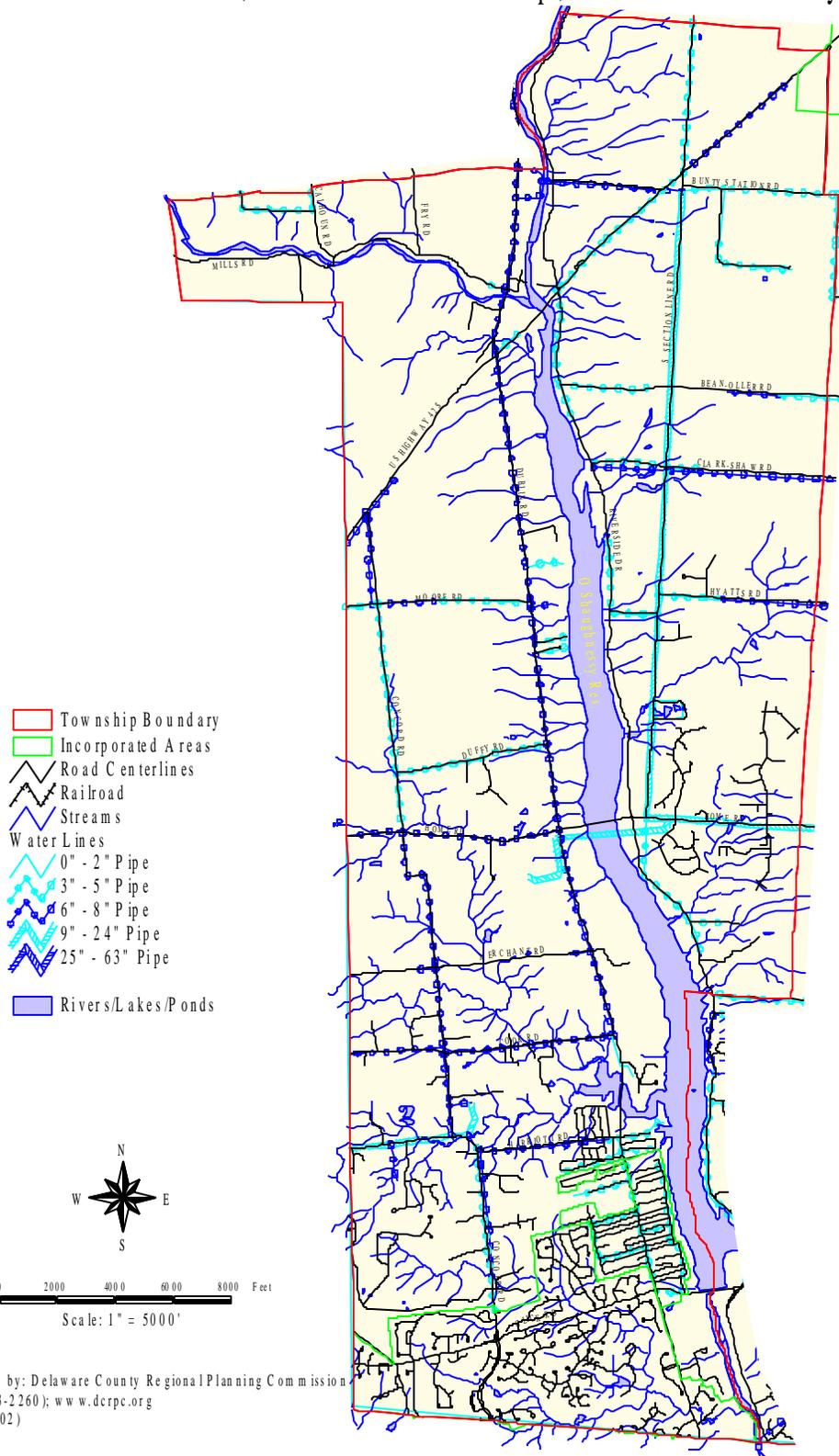
With these new facilities, a total of 38 mgd is Del-Co's long term pumping and treatment capacity. 1998 service population for Del-Co was approximately 50,000. This is expected to double in twenty years. If water demand also doubles, the peak pumping of 26 mgd would be within the realm of Del-Co's supply and treatment plan. Growth beyond a service population of 140,000 in the villages and townships would require additional supply sources and treatment facilities.

B. Water Lines in Concord Township

Map 10.1 shows the location and diameter of water lines in the township. Development densities greater than one unit per acre typically require fire hydrants, which require a minimum 6-inch diameter water line.

Map 10.1 Water Lines, Concord Township

Water Lines, Concord Township, Delaware County, Ohio



Prepared by: Delaware County Regional Planning Commission
 (740-833-2260); www.dcrpc.org
 (2/20/2002)

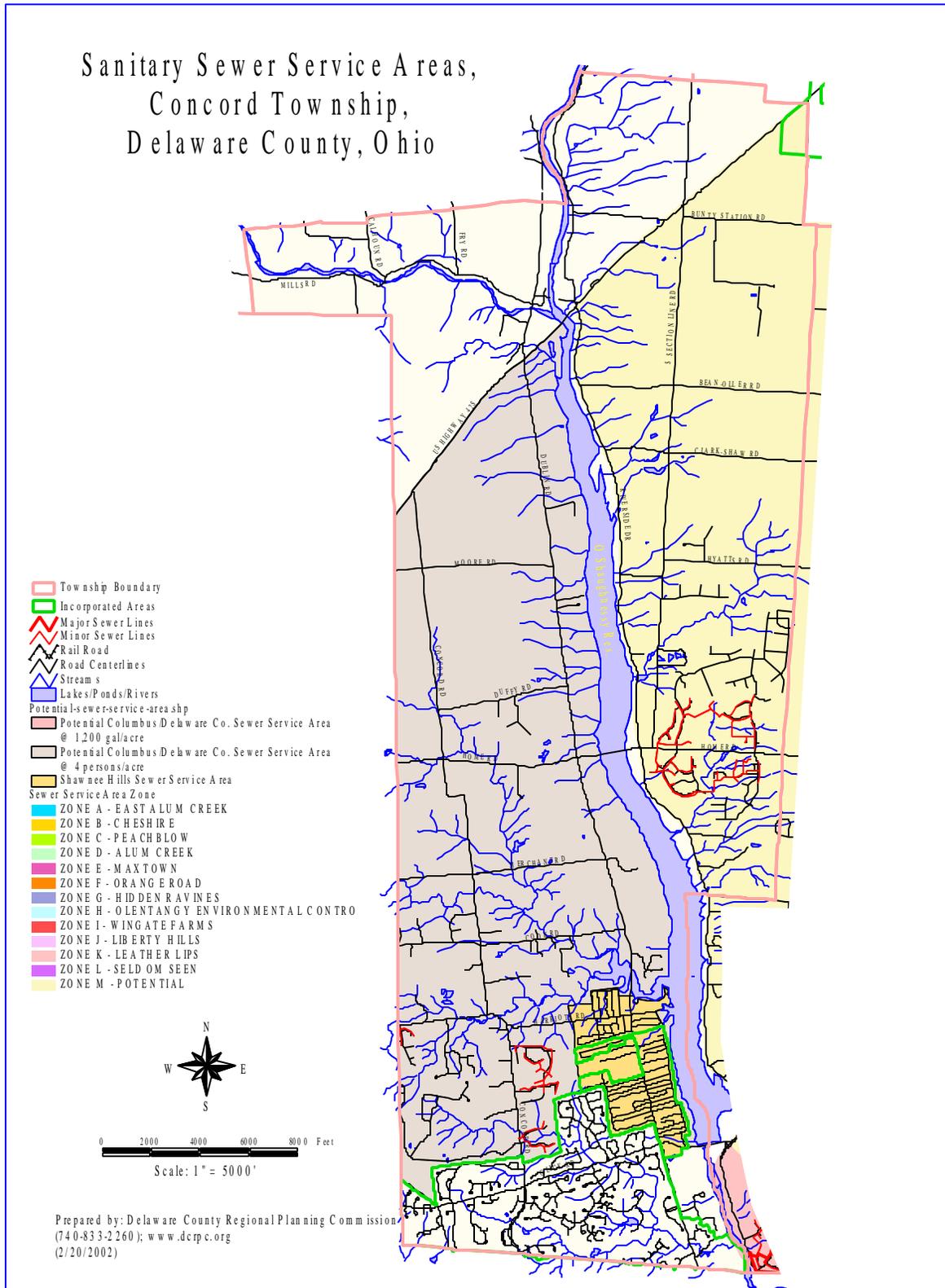
10.2 Sanitary Sewer

Concord Township primarily uses on-site sewage disposal systems. Scioto Reserve and Tartan Fields subdivisions are served by on-site sewage treatment plants with land application systems.

Facts About Sanitary Sewer Service in Concord Township

- The Delaware County Sanitary Sewer Department maintains treatment plants at Scioto Reserve and Tartan Fields, but has no trunk lines in Concord Township. The entire township is within its sewer district.
- Delaware County currently operates a sewage treatment plant (OECC) located on the West Bank of the Olentangy River at the Franklin County Line. The plant's design capacity is 6 million gallons per day (mgd). This plant could serve a tributary area in Concord Township.
- By agreement Delaware County could build collector lines and send sewage from land west of the O'Shaughnessey Reservoir (south of U.S. 42) and discharge into Columbus sewers. The allowable density is 1.25 dwelling units per acre. This area is depicted on Map 10.2.
- Delaware County sewage treatment plant capacities are based on the existing sewer sizes. For the purposes of allocating land use density based upon sewer capacity, the following assumptions were made:
 1. Pump station capacities can be upgraded.
 2. The pipe that discharges the pump station is not expected to be upgraded.
 3. The ultimate capacity limitation is the treatment plant capacity.

Map 10.2 Sewer Service Area prior to 2004 Delaware County Sewer Master Plan



Shawnee Hills and Lucy Depp Sewer Service - By agreement with Columbus, the Village of Shawnee Hills (Concord Township) has constructed sewers to serve the village. The contract stipulates a sewer service area, which includes the Lucy Depp area subdivisions in unincorporated southwest Concord Township. Annexation to the village is a requirement to obtain sewer service. (See Map 10.3).

Map 10.3 Shawnee Hills Sewer Service Area



Based upon a detailed capacity analysis (see Shawnee Hills 2002 Comprehensive Plan, DCRPC), Shawnee Hills has determined that the pipe capacity of their new sewer system is approximately 882 taps. There is not adequate capacity to serve Lucy Depp and related subdivisions with their hundreds of 35' x 70' non-conforming lots of record.

Shawnee Hills had to determine a fair and consistent method to distribute 882 sewer taps among 2199 platted lots of record, most of which did not meet current zoning requirement of 14,700 square feet per building lot. Their objective was to fairly distribute sewer service to each landowner, but not necessarily to each platted lot. Zoning and vesting of lots play a part in this strategy. Even though current zoning requires 14,700 square foot (6 platted lots) minimum lot size, all of the lots in the village were platted prior to zoning, so they are legal non conforming lots; however, not all the lots front on constructed streets. Lots fronting on unbuilt streets may not have full “vested” rights. Legal precedents were considered. *Negin, Appellee v. Board of Building and Zoning Appeals of the city of Mentor et al, Appellants (69 Ohio St 2d 492, 433 N.E. 2d 165; 1982)* and *Schreiner (Schreiner, Trustee, Appellee, v. Russell Township Bd. Of Trustees, Appellant (1990), 60 Ohio App 3d 152, (certification to the Supreme Court of Ohio overruled in 52 Ohio St. 3d 703, 556 N.E. 2d 529)* suggested that some fully vested lots may be entitled to building rights when sewer is constructed. *Clark v. Woodmere, 28 App. 3d 66, 1985*, suggested the village has police power over multiple non-conforming lots (more than 6 contiguous) in common ownership to protect the health safety and welfare and to protect a significant public interest (such as available sewer capacity, narrowness of streets, etc.).

Sewer Policy Implications for Lands in Columbus Sewer Contract Area, but Outside Village

A review was made of the number of lots in the Lucy Depp and the remaining Shaw-Nee Hills Additions that lie outside the village of Shawnee Hills. These lands are governed by Concord Township zoning and require one acre to conform to zoning standards. Lots are typically 35’x 70’. A preliminary “vesting” analysis was done, which determined there might be 247 potential homes using the same lot size criteria as in Shawnee Hills.

Lucy Depp existing homes	80
Lucy Depp potentially “vested” 1, 2, 3, 4, and 5 lot combos	107
<u>Building sites of 14,700 sq.ft. (1 acre currently required in township)</u>	<u>60</u>
Total potential buildable lots 14,700 sq. ft. or less. Lucy Depp area	247

By contract with Dublin (Agreement for Sanitary Sewer Service, August 22, 1994), Delaware County is providing sewer service to 210 acres (Service Area No. 1) north of Summitview

Road and east of Riverside Drive. In return, Dublin will provide sewer service up to 300 taps in Service Area No. 2 (the village of Shawnee Hills). Since Shawnee Hills has now made an agreement with Columbus directly these 300 taps are not needed in the village.

In order to eliminate the existing septic systems in the Lucy Depp area, Concord township might be able to request that the Delaware County Commissioners renegotiate the agreement with Dublin to use the 300 owed taps in the Lucy Depp area. If the same type of vesting analysis were performed, a single lot owner, or owners of 2 contiguous, 3 contiguous, 4 contiguous, or 5 contiguous lots would be entitled to one sewer tap. Owners of 6 or more contiguous lots of record would have to retain them and would receive one tap for each 6 lots. Concord Township would have to create a new zoning district that recognizes the vesting procedure, and zones the Lucy Depp area for a minimum lot size of 14,700 square feet. By so doing the potential 247 buildable lots could become safe, sanitary building lots. A date to establish vesting is suggested. Shawnee Hills used September 1, 2000.

Policy Implications for Land Use- County Sewer

1. The County Commissioners sewer user policy is “first come, first served”. The county sanitary engineer cannot, and does not, police the densities of land uses using the sewer.
2. It is up to the township to determine the density of population by zoning. If the township zones land in sewer service areas for higher densities than the average density based upon residual sewer capacity, there will be “holes” in the sewer service area without sewer capacity.

Land Application Sewage Treatment Systems

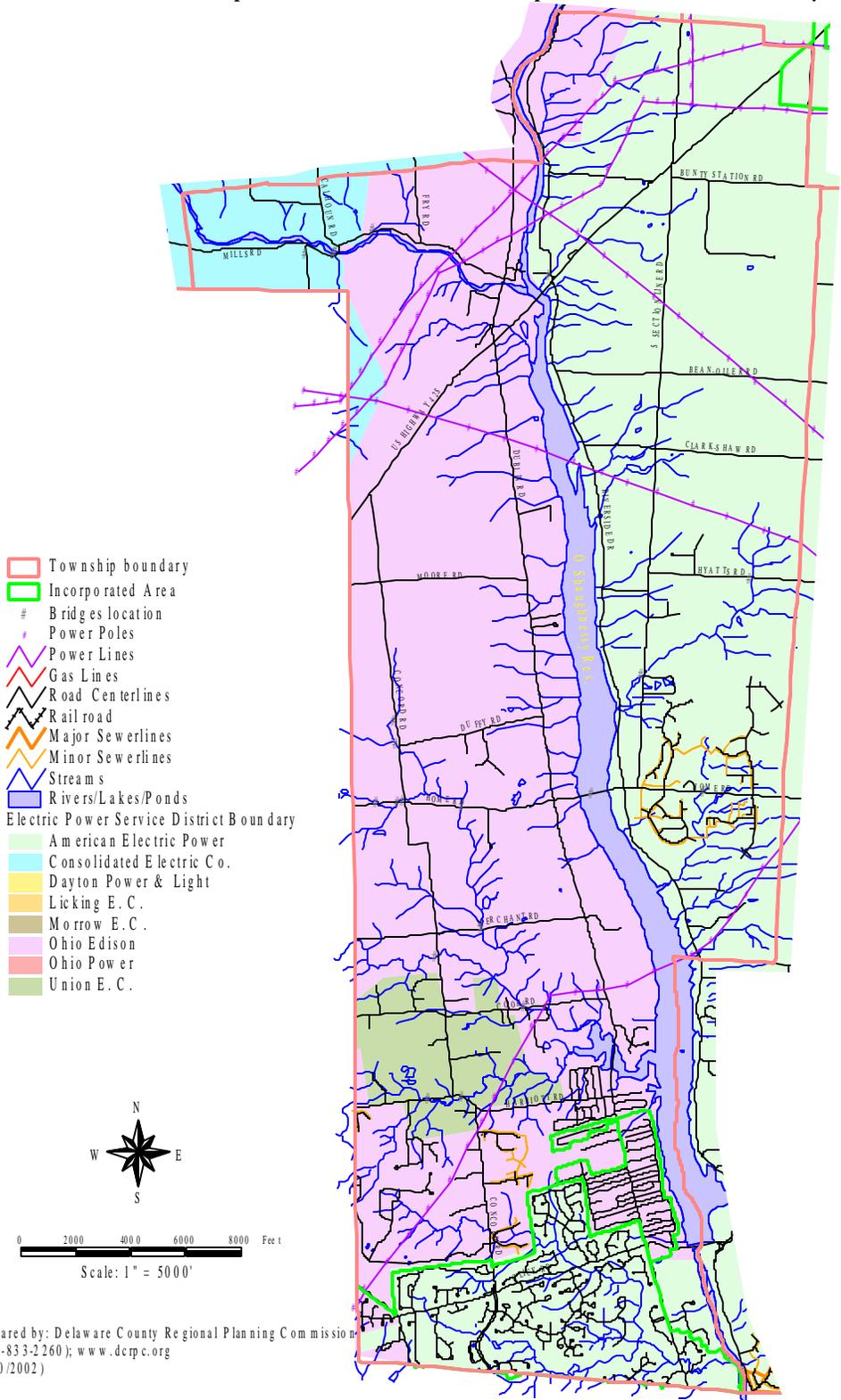
1. Centralized sewer systems traditionally meant placing sewage in a pipe, and sending it to a publicly owned sewage treatment plant that discharged to a running stream. In 1996 the Ohio Environmental Protection Agency changed its anti-degradation requirements for surface discharge from a wastewater treatment plant. This has prompted alternative “zero discharge” centralized sewage disposal systems, such as on-site treatment plants that use the treated effluent to irrigate a golf course. Permits are issued by the OEPA. This action allows an opportunity for cluster development in rural areas with lot sizes smaller than would have been possible without centralized sewers. Tartan Fields subdivision and

Scioto Reserve subdivisions use on site treatment plants dedicated to Delaware County , and land application of treated effluents on golf courses.

Future Sewer Service – The Delaware County Sanitary Engineer is updating the County’s 201 Water Quality Plan with a County wide sewer master plan. Analysis of soils (see Soil Suitability for Septic Systems Map, Chapter 6) indicates less than 3% of the County’s soils are truly viable for long term leach field usage. Additional sewer expansion is necessary for the preservation of surface water quality and the public health since growth will not abate and is expected to push north. Some surface water pollution was found by testing ditch water in older neighborhoods in Concord Township. The Township Trustees have asked the County Sanitary Engineer to use 1.25 units per acre as the maximum density for purposes of calculating cost feasibility of a sewer system in Concord Township. As a result, the Delaware County Sewer Master Plan Preliminary Report published in February 2004 designated Concord Township as being in the future Lower Scioto Sewer Service Area.

Map 10.4 Electric, Gas & Bridges, Concord Township

Utilities Map, Concord Township, Delaware County, Ohio



10.3 Electric

American Electric Power and Ohio Edison largely provide electric service to Concord Township with smaller areas served by Consolidated Electric Power and Union Electric Company. The Utilities Map shows the service area.

Major electric transmission lines also cross Concord Township. No structures are permitted within the rights of way for these transmission lines. The locations of these lines are shown on the Comprehensive Land Use Plan (Chapter 15).

10.4 Gas

Concord Township is served by Columbia Gas and Southeastern Natural Gas Company. The service area is shown on the Utilities map.

10.5 Telecommunications/cellular

Under current state and federal laws, telecommunications towers are permitted in any non-residentially zoned districts. Under Ohio law, townships can regulate (which may include prohibition) telecommunications towers in residential districts if objections are filed by abutting property owners.

10.6 Storm Water Management

Storm water management is reviewed by the Delaware County Engineer’s office for subdivisions, and road construction. The Delaware County Soil and Water District maintains ditches by agreement with the County Engineer’s maintenance program. As of December 31, 1999 there were 70 projects on county ditch maintenance, 46 of which were subdivisions.

Table 10.4 Drainage Structures on Maintenance

Open Ditch	38.26 miles
Tile drains	27.38 miles
Surface Drains	.62 miles
Retention/Defention Basins	44

CHAPTER 11

Community Facilities

11.1 Schools

Concord Township lies within four local school districts. Approximately 67.9% of the Township is located in the Buckeye Valley District. Approximately 26.4% of the Township is in the Dublin City School District. Approximately 5.4% is in the Olentangy School District. Less than 1% of the Township is in the Delaware City School District.

The Ohio Department of Education evaluates each school district in the State of Ohio annually, based on 27 standards and an associated ranking. Table 11.1 illustrates these four districts academic rankings. Dublin City and Olentangy Local School Districts received “Effective” rankings, while Buckeye Valley Local and Delaware City School Districts received “Continuous Improvement” rankings.

Table 11.1 Performance Ratings for Concord Township School Districts

Performance Standards	Min. State Performance	Buckeye Valley Schools	Dublin City Schools	Olentangy Schools	Delaware City Schools
Grade 4 – Prof. Tests					
Citizenship	75%	64.7%	83.3%	81.4%	60.7%
Mathematics	75%	60.3%	78.7%	79.3%	60.6%
Reading	75%	62.2%	77.1%	74.4%	57.9%
Writing	75%	85.1%	93.0%	93.4%	81.2%
Science	75%	58.3%	75.1%	73.0%	58.7%
Grade 6 – Prof. Tests					
Citizenship	75%	74.2%	84.8%	84.9%	64.2%
Mathematics	75%	58.9%	76.1%	78.8%	60.8%
Reading	75%	66.9%	74.6%	73.7%	55.3%
Writing	75%	82.8%	91.4%	91.0%	76.5%
Science	75%	56.4%	71.4%	75.8%	67.2%
Grade 9 – Prof. Tests (8th,9th)					
Citizenship	75%	89.6%	94.4%	92.3%	80.7%
Mathematics	75%	78.0%	90.3%	87.7%	73.6%
Reading	75%	92.8%	96.9%	97.8%	92.7%
Writing	75%	94.0%	97.4%	97.0%	92.1%
Science	75%	88.5%	92.7%	94.1%	78.5%
Grade 9 – Prof. Tests (8th,9th,10th)					
Citizenship	85%	95.1%	97.2%	93.8%	89.9%
Mathematics	85%	92.0%	96.0%	92.7%	81.5%
Reading	85%	97.5%	98.6%	98.6%	96.1%
Writing	85%	99.4%	98.7%	97.8%	94.7%
Science	85%	94.5%	97.4%	95.7%	87.8%
Grade 12 – Prof. Tests					
Citizenship	60%	71.4%	89.5%	85.4%	69.6%
Mathematics	60%	60.0%	85.8%	79.3%	64.8%
Reading	60%	78.4%	88.0%	88.4%	70.5%
Writing	60%	86.8%	95.8%	93.4%	84.1%
Science	60%	69.3%	90.4%	84.7%	62.6%
Student Attendance Rate	93%	94.5%	95.5%	95.4%	93.2%
Graduation Rate	90%	92.9%	94.7%	96.0%	86.4%
Overall State Ranking		Continuous Improvement (19 of 27)	Effective (25 of 27)	Effective (24 of 27)	Continuous Improvement (16 of 27)

(Source: Ohio Department of Education 2002 Report Cards)

The Buckeye Valley School District is situated in the northern half of Concord Township and also includes all of Brown, Marlboro, Oxford and Radnor Townships and parts of Delaware, Kingston, Liberty, Scioto, Thompson and Troy Townships. The Dublin City School District is situated in the southern half and does not extend into any other townships in Delaware County. The Olentangy School District is scattered along the eastern township line and also includes all of Berlin and Orange, most of Liberty, and portions of Genoa, and Delaware Townships. The Delaware City School District is only included in Concord Township through one parcel, located in the northeastern corner.

The city and county boards of education established the Delaware Joint Vocational School in 1974 as a career/technical school, to offer specific career training to Delaware County residents. Delaware JVS, The Area Career Center, now provides career training and academic instruction to over 650 area High School juniors and seniors who desire skilled employment immediately upon high school graduation.

A. Enrollment Growth

Buckeye Valley

Buckeye Valley School District predicts a 44.5% enrollment increase in the next ten years, or 988 new students. The following tables show the current enrollment numbers as well as the trend over the last ten years. Table 11.4 shows the projections performed by Planning Advocates in 2000-01 for enrollment growth to 2010-11.

Table 11.2 2000-01 Buckeye Valley Local School District Enrollments

Grade	East Elementary	North Elementary	West Elementary	Middle School	High School	JVS	Total
P*	23						23
MH**		9					9
K***	64	44	49				157
1-5	332	226	251				809
6-8				516			516
9-12					658	81	739
Total	419	279	300	516	658	81	2253

(Source: Buckeye Valley Local School District, 2001)

* P – Preschool

** MH – Multiple Handicap

*** K- Kindergarten

Table 11.3 Buckeye Valley Enrollment 1991-01

Grade	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01
K* - 5	1053	1017	1023	1023	998	1009	993	973	969	966
6 – 8	474	515	535	578	552	538	553	504	522	516
9 – 12	593	621	648	702	752	785	799	788	744	739
K - 12	2120	2153	2206	2303	2302	2332	2345	2265	2235	2221

(Source: Planning Advocates, 2001) *K- Kindergarten

Enrollment over the last 10 years increased slowly, then dropped slightly, and stabilized in the 2,200's in the last 3 years. Projections done by Planning Advocates in 2001 show that the enrollments will again begin to increase.

Table 11.4 Most Likely Enrollment Projections, Buckeye Valley Local School District

Grade	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
K* - 5	1009	1076	1167	1234	1427	1412	1473	1508	1551	1617
6 - 8	532	554	539	546	522	537	575	670	749	782
9 - 12	708	718	747	753	783	781	770	762	756	810
K - 12	2249	2348	2453	2533	2732	2730	2818	2940	3056	3209

(Source: Enrollment Projections by Planning Advocates, Inc. 2001)

* K- Kindergarten

The enrollment projections for the Buckeye Valley School District calculated in 2001 by Planning Advocates, Inc. show a “most likely” 44% enrollment increase by 2010-11, or 988 new students. This is a drastic change from the slow growth of the last 10 years. The increase is primarily due to major residential developments underway in the District.

The “most likely projection” reflects a growth of approximately 3.7 percent per year on average, higher than the annual population growth rate projections made by the Delaware County Regional Planning Commission (approx. 2% for Buckeye Valley School District). The future trend indicates an overall steady growth with small dips in certain grade groups at different times (see table 11.4).

Dublin City Schools

The following tables show the current enrollment numbers as well as the trend over the last ten years and projections for the next ten years.

Table 11.5 Enrollment for Dublin City Schools that serve the Village of Shawnee Hills

	<i>Elementary</i>	<i>Middle</i>	<i>High</i>	<i>Total</i>
Indian Run Elementary School	648			648
Willard Grizzell Middle School		740		740
Dublin Scioto High School			1,449	1,449
Total 2000-01 Enrollment	648	740	1,449	2,837

(Source: Dublin City School District, February 23rd, 2001)

Table 11.6 Past Enrollment, Dublin City School District (School Year 1991-92 to School Year 2000-01)

<i>Grade Level</i>	<i>1991-92</i>	<i>1992-93</i>	<i>1993-94</i>	<i>1994-95</i>	<i>1995-96</i>	<i>1996-97</i>	<i>1997-98</i>	<i>1998-99</i>	<i>1999-00</i>	<i>2000-01</i>
Elementary	4,504	4,669	4,809	4,954	5,076	5,128	5,214	5,219	5,348	5,614
Middle	1,783	1,975	2,095	2,237	2,368	2,429	2,525	2,632	2,670	2,715
High	1,844	1,919	2,072	2,217	2,417	2,738	2,988	3,130	3,255	3,281
Other	0	0	0	0	0	26	21	15	45	34
Total	8,131	8,563	8,976	9,408	9,861	10,321	10,748	10,996	11,318	11,644

(Source: Dublin City School District, 2001)

Table 11.7 Enrollment Projections, Dublin City School District (Year 2000-01 to Year 2009-10)

Grade Level	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Elementary	5,654	5,730	5,831	5,949	6,031	6,022	6,065	6,104	6,139	6,174
Middle	2,788	2,882	2,966	2,966	2,981	3,113	3,209	3,266	3,226	3,243
High	3,418	3,492	3,526	3,631	3,744	3,815	3,884	3,930	4,050	4,128
JVS	34	34	34	34	34	34	34	34	34	34
Total	11,894	12,138	12,357	12,580	12,790	12,984	13,192	13,334	13,449	13,579

(Source: Dublin City School District, 2001)

The Dublin City School District 1997 Five-year Facilities Plan calls for the development of an eleventh elementary school which is currently under-construction and will open in fall 2002. This facility will hold a maximum of 550 to 600 students and be located on Concord Road in Concord Township, Delaware County. The Plan also calls for the development of a third high school, which is currently being planned for and is expected to open in fall 2004. This facility will hold a maximum of 1,200 students and will be expandable to a capacity of 1,800 students. The Dublin City School District Planning & Development Office is currently working to update this Plan to meet current enrollment needs.

Olentangy

Olentangy School District predicted a 16% enrollment increase in 1999, or 650 new students. This is the equivalent of adding a new elementary school every two years. New elementary schools are designed for 650 students, but are projected to house 817 students in the year 2000. The present middle school, designed for 900 students, is projected to house close to 1500 students by 2001/2002.

Table 11.8 2001-02 Olentangy Local Schools Enrollment (for week ending March 1st, 2002)

Grade	Alum Creek Elementary	Arrowhead Elementary	Oak Creek Elementary	Scioto Ridge Elementary	Tyler Run Elementary	Wyandot Run Elementary	Liberty Middle School	Shanahan Middle School	Olentangy High School	JVS	Total
K*	100	105	124	89	93	103	0	0	0	0	614
1-5	523	534	571	471	467	583	0	0	0	0	3,149
6-8	0	0	0	0	0	0	748	703	0	0	1,451
9-12	0	0	0	0	0	0	0	0	1,550	0	1,550
Total	623	639	695	560	560	686	748	703	1,550	0	6,764

(source: Olentangy Local School District, March 2002)

* K- Kindergarten

Table 11.9 Olentangy Local School Enrollment 1992-02

Grade	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
K* - 5	1,257	1,426	1,566	1,797	1,962	2,180	2,521	2,916	3,261	3,727
6 - 8	564	648	713	799	878	959	1,119	1,200	1,329	1,450
9 - 12	641	690	775	864	992	1,082	1,172	1,288	1,416	1,563
Totals	2,462	2,764	3,054	3,460	3,832	4,221	4,812	5,404	6,006	6,740

(source: DeJong & Associates, Dec. 2001)

*K- Kindergarten

Enrollment over the last 10 years has continued to increase at a fairly accelerated rate. Projections done by DeJong & Associates in 2002 show that the enrollments will continue to increase rapidly throughout the next 10 years.

The school district has been playing catch-up with its unprecedented housing growth. The District has impact models for 500, 600, 700, 800, and 900 new homes per year. The number of students is divided by the number of grades to receive the number of students per grade expected under each growth scenario. These scenarios are used to determine future projected enrollment.

Table 11.10 Projected Enrollment, Olentangy Local Schools (based on 900 Homes Built per Year)

Grade	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
K* - 5	4,079	4,427	4,751	5,078	5,363	5,687	6,011	6,335	6,659	6,983
6 - 8	1,665	1,816	2,057	2,244	2,469	2,631	2,796	2,919	3,081	3,243
9 - 12	1,693	1,883	2,016	2,228	2,501	2,730	3,022	3,305	3,545	3,761
Totals	7,437	8,126	8,824	9,550	10,333	11,048	11,829	12,559	13,285	13,987

(source: Enrollment Projections DeJong & Associates, Inc. Dec. 2001)

* K- Kindergarten

The enrollment for 2001-02 school year was 6,740 students. At the lowest projected increase of 800 homes per year, the school district will more than double its enrollment in ten years to 13,339. If the current development pace continues at around 1,100-homes per year, the school population will increase by 227 % in ten years to 15,300 (DeJong and Associates, Inc., December 2001).

In order to reflect a higher growth rate in the lower grade areas, DeJong and Associates revised the yield/house ratios in December 2001 for all grades, using 2000 and 2001 actual enrollments. In addition, 2001 residential building permits issued within the Olentangy School District were expected to total 1,279, an increase from 1,129 in 2001.

Delaware City Schools

Delaware City Schools have had less growth than Buckeye Valley, Olentangy and Dublin City Schools.

Table 11.11 2001-02 Delaware City Schools Enrollment (for week ending March 15th, 2002)

Grade	Carlisle Elementary	Conger Elementary	Schultz Elementary	Smith Elementary	Woodward Elementary	Willis Middle	Dempsey Middle	Hayes High	Total
PK*	95	87	97	56	68				403
1-4	354	238	289	219	281				1,381
5-6						699			699
7-8							629		629
9-12								1,220	1,220
Total	449	325	386	275	349	699	629	1,220	4,332

(Source: Delaware City School District, March 2002)

* PK- Pre-School & Kindergarten

The following table shows the enrollment growth over the last ten years in the Delaware City School District.

Table 11.12 Delaware City Schools Enrollment 1991-01

Grade	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01
K - 4	1,510	1,536	1,612	1,611	1,694	1,714	1,656	1,660	1,619	1,638
5 - 6	587	596	603	592	587	611	647	678	631	661
7 - 8	563	572	597	576	575	582	612	619	645	678
9 - 12	1,133	1,142	1,127	1,173	1,155	1,194	1,207	1,164	1,210	1,188
K - 12	3,793	3,846	3,939	3,952	4,011	4,101	4,122	4,121	4,105	4,165

(source: Planning Advocates, 2001)

Table 11.13 Delaware City School Most Likely Enrollment Projections

Grade	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
K - 4	1,734	1,765	1,860	1,923	2,026	2,121	2,235	2,355	2,481
5 - 6	603	625	634	643	680	694	732	757	798
7 - 8	668	685	609	632	640	651	687	701	740
9 - 12	1,276	1,227	1,325	1,298	1,244	1,290	1,229	1,265	1,310
K - 12	4,281	4,302	4,428	4,496	4,590	4,756	4,883	5,078	5,329

(source: Planning Advocates, 2001)

Over the last 10 years, enrollment has grown steadily (9.85% overall), with a drop only in 1999-00 of 16 students. Most likely projections for the next 10 years show a more rapid increase from 4165 students in 2000-01 to 5329 students in 2010-11. This increase of 28% (1,164 students) for Delaware City is a higher increase in students than Buckeye Valley but a lower growth rate over the 10 year interval. The average growth rate over the next ten years will be approximately 2.1%, which is very close to the 2% population growth rate projected by the Delaware County Regional Planning Commission.

B. Current Facilities

Buckeye Valley

The Buckeye Valley Local School District has a \$10 million operating budget including 26 voted mills and a 1% income tax.

The following information is from the Buckeye Valley web site - <http://www.buckeyevalley.k12.oh.us/>:

A \$14 million bond was approved by the district community in 1995 to construct:

- a nine million dollar middle school for 750 students southeast of the high school, featuring two computer labs, expanded media center, foreign language, two music studios, and a gymnasium with four locker rooms. This building opened for the 1997-98 school year; and
- 800 seat auditorium in the high school plus a new auxiliary gymnasium, expanded library, a new art classroom with darkroom, two science laboratories, weight and exercise rooms. This addition

opened in the fall of 1997; and

- six new classrooms and an elevator at West Elementary School plus a renovated library media center for the 1997-98 school year; and
- eight new classrooms and an elevator at East Elementary School, including a new library media center and student restrooms for the 1997-98 school year; and
- converted the existing middle school at Radnor into a third elementary school with a new library, playground and an elevator.

Buckeye Valley High School is located at 901 Coover Road. **Buckeye Valley Middle School** is located at 683 Coover Road.

There are three elementary schools in the Buckeye Valley School District:

- **East Elementary** located at 522 E. High St., Ashley.
- **North Elementary** located at 4230 St. Route 203., Radnor.
- **West Elementary** located at 61 North 3rd., Ostrander.

The Buckeye Valley Local School District facility plan from 1989 is now being updated by Planning Advocates, Inc. Many of the recommendations of the 1989 facilities plan have been realized. With the growth over the last ten years, this update is necessary to ensure that the district continues to provide the best educational opportunities for its students.

Dublin City Schools

The Dublin City School District had total revenue of \$98,994,591 for 1999-2000, including program and general revenues. Program revenues include charges for services and operating grants. General revenues include property taxes, grants and entitlements, payment of lieu of taxes and investment earnings.

There are two high schools:

- Dublin Coffman High located at 6780 Coffman Road, Dublin Ohio 43017.
- Dublin Scioto High located at 4000 Hard Road, Dublin Ohio 43016.

There are four middle schools:

- Ann Simpson Davis Middle located at 2400 Sutter Parkway, Dublin Ohio 43016.
- John Sells Middle located at 150 West Bridge Street, Dublin Ohio 43017.
- Willard Grizzell Middle located at 8705 Manley Road, Dublin Ohio 43017.
- Karrer Middle School located at 7245 Tullymore Drive, Dublin Ohio 43017.

There are ten elementary schools:

- Albert Chapman Elementary located at 8450 Sawmill Road, Powell Ohio 43065.
- Daniel Wright Elementary located at 2335 West Case Road, Columbus Ohio 43235.
- Deer Run Elementary located at 8815 Manley Road, Dublin Ohio 43017.
- Griffith Thomas Elementary located at 4671 Tuttle Crossing Blvd., Dublin Ohio 43016.
- Indian Run Elementary located at 80 West Bridge Street, Dublin Ohio 43017.
- Mary Emma Bailey Elementary located at 4900 Brandonway Drive, Dublin Ohio 43017.
- Olde Sawmill Elementary located at 2485 Olde Sawmill Blvd., Dublin Ohio 43016.
- Riverside Elementary located at 3260 Riverside Green Drive, Dublin Ohio 43017.
- Scottish Corners Elementary located at 5950 Sells Mill Drive, Dublin Ohio 43017.
- Wyandot Elementary located at 5620 Dublinshire Drive, Dublin Ohio 43017.

Olentangy

Olentangy High School was completed in June 1990 at 675 Lewis Center Road. A high school addition of 149,000 square feet was completed in early 1997. Its March 1st, 2002 enrollment was 1,550. The new Liberty High School opened on Home Road in August 2003.

There are two middle schools:

- Olentangy Shanahan Middle School (first established as Olentangy Middle School in 1969 and continued under the same name until the end of the 2000-01 school year, when Olentangy Liberty Middle School opened)
- Olentangy Liberty Middle School (opened at the start of the 2001-02 school year and became the district's second middle school.

There are six elementary schools:

- Wyandot Run Elementary School (opened in the 1993-94 school year)
- Alum Creek Elementary School (opened in the 1996-97 school year)

- Arrowhead Elementary School (opened in the 1998-99 school year)
- Scioto Ridge Elementary School (opened in the 1998-99 school year)
- Oak Creek Elementary School (opened in the 2000-01 school year)
- Tyler Run Elementary School (opened in the 2001-02 school year)

Olentangy Local School District - 10 Year Facility Plan

Based on a forecast of 1100 annual housing starts, by the end of the 2009-10 school year, the Development Committee anticipates the need for the following total number of buildings in the District:

- High Schools - 3
- Middle Schools - 4
- Elementary Schools -12 (Shanahan East is the 12th elementary school)

Table 11.14 Olentangy School’s Bond & Building Patterns (based on 1,100 annual building permits).

Year	K-5		6-8		9-12	
2001-02	B7	O6	B3	O2		
2002-03						
2003-04	B8	O7				O2
2004-05	B9		B4	O3	B2+	
2005-06		O8				
2006-07	B10	O9			B3	
2007-08	B11			O4		O2+
2008-09		O10				
2009-10		O11				O3

(Source: Annual Long Range Plan Update- 1999 Olentangy Development Committee, 11/23/99)

B= Year of Bond Issue in spring election

O= year opened

Delaware City Schools

Hayes High School serves students in grades 9 through 12 in the Delaware School District. The school was opened in 1962 at 289 Euclid Avenue and expanded and renovated in 1996.

There are two schools in the Delaware City School District:

- Willis Intermediate School: 74 West William Street (opened in 1890 and renovated in 1933 and 1985)
- Dempsey Middle School – 621 Pennsylvania Avenue (opened in 2000)

There are five elementary schools in the Delaware School District:

- Carlisle Elementary School: 746 West State Route 37 (opened in 1955 and renovated in 1979)
- Conger Elementary School: 10 Channing Street (opened in 1966 and renovated in 1981 and 1995)
- Smith Elementary School: 355 N. Liberty Street (opened in 1994)
- Schultz Elementary School: 499 Applegate Lane (opened in 1950 and renovated in 1982)
- Woodward Elementary School: 200 South Washington Street (opened in 1950 and renovated in 1975 and 1979)

Delaware JVS

The Delaware JVS serves the Delaware area school districts: Big Walnut, Buckeye Valley, Delaware City, Olentangy and open-enrolled students from Westerville and Worthington districts. The Delaware JVS offers two campuses:

- North Campus, 1610 SR 521, Delaware, Ohio 43015 (740)363-1663
- South Campus, 4565 Columbus Pike, Delaware, Ohio 43015 (740)548-0708

C. Funding for Schools

Table 11.15 District Expenditures Per Pupil

	Buckeye Valley	Dublin	Olentangy	Delaware
Instruction	\$3,822	\$4,832	\$3,859	\$4,382
Building Operations	\$1,620	\$1,502	\$1,731	\$1,455
Administration	\$856	\$770	\$840	\$798
Pupil Support	\$795	\$1,305	\$825	\$1,066
Staff Support	\$57	\$102	\$120	\$212
Totals	\$7,150	\$8,511	\$7,375	\$7,913

Source: Ohio Department of Education, 2002 District Report Cards)

Table 11.16 District Revenues Per Pupil

	Buckeye Valley	Dublin	Olentangy	Delaware
Local Funds	\$3,851	\$6,813	\$6,301	\$4,158
State Funds	\$2,633	\$1,395	\$1,008	\$2,607
Federal Funds	\$181	\$92	\$110	\$347
Totals	\$6,665	\$8,300	\$7,419	\$7,112

Source: Ohio Department of Education, 2002 District Report Cards)

D. Effect of Land Use Planning on School Planning

When schools become overcrowded due to rapid growth, there may be call for growth controls, or limitations on residential building permits (moratoriums). A series of 1970's cases regarding growth rate limitations, the most famous of which is *Golden v. Ramapo* (409 US 1003, 93 S. Ct. 440 34 L. Ed. 2d 294 (1972)) suggested that communities could control growth to allow new infrastructure to be built at a reasonable, attainable rate. Where upheld, moratoriums have been temporary, based on a critical shortage of a basic community service. The community must work to provide that service, at which time the moratorium must be removed.

Ohio law does not provide for building moratoriums in townships (see Meck and Pearlman, Ohio Planning and Zoning Law, The West Group, Section 11.27-11.28). Cities and villages in Ohio have home rule authority which "provides the flexibility to experiment with different types of planning programs to respond to the issues of rapid growth" (Meck and Pearlman)

Since townships do not have the authority in Ohio to control their growth by moratoriums, and they do not have the authority to impose impact fees, their only recourse to overly rapid growth is to control the timing of zoning.

Buckeye Valley, Dublin and Olentangy currently do not have funding problems, however Delaware City Schools may require additional monies to maintain the current level of service. Concord Township may wish to use the schools as one additional indicator of critical facilities that need to be monitored in making zoning decisions.

11.2 Historic Sites

There are no sites in Concord Township listed on the National Register of Historic Places.

The Critical Resources Map in Chapter 6 indicates possible archeological sites. These sites are mapped by the State of Ohio OCAP data available from the Ohio Division of Natural Resources. The DCRPC has no information regarding any materials found at any of these sites.

11.3 Libraries

Currently there are no public libraries in Concord Township. However, residents can obtain a library card at any of the following libraries.

The Delaware County District Library has its downtown library at 84 East Winter Street, Delaware, and branch libraries in the Village of Powell at 460 S. Liberty Street, and Ostrander at 75 North 4th Street.

The District Library employs 30 people or 24 full time equivalents. Its annual budget is approximately \$2 million, which is used for staff salaries and materials, maintenance, and operating expenses. 94 % of the budget comes from state income tax and the remaining 6 % is generated by overdue fines.

The District's long range plan is to monitor the growth area and provide service to the expanding population, expand facilities if necessary, and promote home based programs.

Ohio Wesleyan University, Beeghly Library located at 43 University Ave., Delaware extends borrowing privileges to all residents of Delaware County.

Ashley Wornstaff Library is located at 302 E. High St., Ashley.

As the population of Concord Township and Delaware County increases, there may be a need for expanded library service.

11.4 Hospitals

There are no hospitals located within Concord Township. Grady Memorial Hospital is located on Central Avenue in the City of Delaware. Grady Hospital provides 125 beds for general surgery, and orthopedics, urology and ophthalmology, as well as Emergency care. Cardiac surgery and neuro surgery are referred to other hospitals. Grady recently expanded its emergency room and constructed a helicopter pad for incoming life flights.

Grady competes with northern Franklin County Hospitals such as Riverside Methodist Hospital, Olentangy River Road in Columbus, and St. Ann's in Westerville.

Two outpatient facilities serve southern Delaware County. Grady at Wedgewood and Mt. Carmel OutPatient, both on Sawmill Parkway in Liberty Township serve Liberty Township, Powell, and northern Franklin County. Both centers provide medical services that do not require an overnight stay.

11.5 Fire Protection

Fire Protection is provided by Concord Township (740-881-5338). The Fire Station is located at 7943 Dublin Road. According to Chief Robert Varner, the Fire Department provides fire protection with 10 full time and 30 part time paid firefighters. Staff is dispatched on all EMS runs in Concord Township as a first responder with a transporting medic unit. In addition, the department has mutual aid contracts with all neighboring fire departments. All firefighters are CPR and AED trained.



The department owns the following equipment:

- ◆ One 61 foot aerial pumper,
- ◆ One 1,000gpm pumper,
- ◆ One 1,000 gallon pumper tanker,
- ◆ One advanced life support ambulance,
- ◆ One basic life support ambulance,
- ◆ One grass fighter,
- ◆ One rescue boat,

- ◆ One fire prevention unit,
- ◆ One hazardous material response unit, and
- ◆ One command vehicle.

The Concord Township Fire Department plans to upgrade all 4” water mains to a minimum of 6” in order to improve flow for additional fire hydrants. The Department wishes to build a second station in 5 to 7 years in the northern area of the township. They are currently planning on building a substation around the intersections of Klondike Rd., US 42, and South Section Line Rd. The Department’s 2 to 8-minute response times increase as more development occurs in the township and traffic congestion increases on its roads. Chief Varner stated that these response times might be assisted by the future upgrade of the Home Road Bridge.

11.6 Police

Concord Township is policed by the Delaware County Sheriff’s Office, (DCSO) which is headquartered in Delaware on U.S. 42. In 2002 the department was budgeted for 68 full-time deputies and 17 special deputies patrolling in 54 vehicles. Each vehicle is shared between two officers (two shifts) and travels around 100 miles a shift. The township contracts for 40 hours of full time deputy sheriff coverage per week.

Table 11.17 Sheriff’s Complaints

Sheriff’s Complaints for 2001 by Geographic Code			
Orange Township	4,217	Oxford Township	138
Liberty Township	3,229	Thompson Township	67
Genoa Township	2,940	Marlboro Township	57
Concord Township	1,062	Sunbury	890
Berkshire Township	913	Ashley	346
Berlin Township	854	Delaware	197
Harlem Township	750	Alum Creek State Park	155
Troy Township	631	Shawnee Hills	122
Delaware Township	564	Galena	106
Scioto Township	404	Ostrander	71
Trenton Township	349	Other (out of county)	46
Brown Township	278	Columbus	24
Kingston Township	249	Delaware State Park	24
Porter Township	215	Westerville	21
Radnor Township	223	Powell	17
		Dublin	6

Source: Delaware County Sheriff Office web page <http://www.delawarecountysheriff.com/patrol.htm>

Concord Township represented 5.9% of the Sheriff's complaints in 2000, but represented only 3.7% of the county population. It should be noted that Genoa Township, the City of Delaware, Dublin, Columbus, Westerville and the Village of Powell provide their own police protection.

11.7 Churches and Cemeteries

There are currently two churches located within Concord Township.

- **Bellpoint United Methodist Church:** Located at 4771 South State Route 257 .



- **Scioto Valley Christian Union Church:** Located at 5447 Riverside Drive .

Concord Township Trustees maintain only four cemeteries: Eversole, Hill, Old Mill Creek and Oller. They have records from earlier 1800's and will search records on request.

- **Black Cemetery:** 30 feet south of County Road 150 (Miller Road), and 0.3 mile west of Township Road 151 (Dix Road). Moved to Old Mill Creek Cemetery.
- **Carson (Stonewall) Cemetery:** 320 feet east of State Route 257, and 600 feet south of County Road 124 (Home Road).
- **Courtright Cemetery:** At the junction of State Route 745 and Township Road 131 (Harriott Road). Authors can not find this one.

- **Cutler Cemetery:** 900 feet east of State Route 745, and 600 feet south of County Road 136 (Moore Road). Now in a housing development.
- **Depp Cemetery:** 0.1 mile north of Township Road 131 (Harriott Road), 1000 feet east of State Route 745.
- **Eversole (Freshwater) Cemetery:** 0.3 mile south of Township Road 133 (Merchant Road), 390 feet west of County Road 129 (Concord Road).



Entrance to hill cemetery

- **Hill Cemetery:** 0.7 mile north of County Road 124 (Home Road) 1500 feet east of State Route 745. On the bank of the Scioto River.
- **Leasure Cemetery:** 0.5 mile north of Township Road 121 (Seldom Seen Road), 280 feet west of State Route 257. Now in the park area along the river. Mrs. Powell calls this Carson Cemetery.
- **Ohio Home Cemetery:** East of State Route 745, south of County Road 124 (Home Road), on the west bank of the Scioto River on the grounds of Scioto Village (State Correctional Institution for Youth), at Rathbone.
- **Old Mill Creek (Mill Creek) Cemetery:** 2 miles west of Bellpoint on the northside of County Road 150 (Mills Road).
- **Oller Cemetery:** 1 mile south of U.S. Route 42, 40 feet east of State Route 257. Ninety-two graves were moved to another area of existing cemetery because of O'Shaughnessey Dam Project.

- **White Cemetery:** 480 feet south of Township Road 133 (Merchant Road) and 25 feet west of State Route 745.

11.8 Ohio State Correctional Institutions

Scioto Juvenile Correctional Facility is the male reception center for the Ohio Department of Youth Services (DYS) located in Delaware County. Scioto Juvenile Correctional Facility (SJCF) provides one of the most extensive assessment programs in the nation for juvenile offenders. The facility was built in 1994 at 5993 Home Road. The facility has a rated capacity of 192 incarcerated youth. Superintendent Rhonda Richards can be contacted at (740) 881-3250.

Riverview Juvenile Correctional Facility is a maximum security facility of the Ohio Department of Youth Services (DYS) located northwest of Columbus in Delaware, Ohio. Riverview Juvenile Correctional Facility (RJCF) is the only secure facility for juvenile female offenders in the State of Ohio. The facility was built in 1968 at 7990 Dublin Road. The facility has a rated capacity of 144 incarcerated youth. Superintendent M.L. Sutherland can be contacted at (740) 881-3550.

Opportunity Center (OC) is a residential treatment center for juvenile males with either mental retardation/developmental disabilities or chronic medical conditions. This specialized facility provides youth with special education classes, psychological counseling, programming on special health issues and self-care, around the clock nursing care, therapy and community re-integration activities. Those youth that are in need of regular education classes attend school at the Scioto Juvenile Correction Center near the facility. The small treatment setting provides youth with the opportunity to receive individualized, staff-intensive care in a normative culture environment where youth are expected to help others while helping themselves. The facility was built in 1995 at 8091 Dublin Road. The facility has a rated capacity of 42 incarcerated youth. The facility can be contacted at (740) 881-3627.

Freedom Center is a youth residential drug and alcohol treatment center operated by the Department of Youth Services and certified by the Ohio Department of Alcohol and Drug Addiction Services for female offenders. The facility was built in 1956 at 8101 Dublin Road. The facility has a rated capacity of 26 incarcerated youth. Superintendent Shannon Teague can be contacted at (740) 881-3337.

CHAPTER 12

Open Space and Recreation

12.1 Introduction

The Ohio Revised Code acknowledges the importance of open space and recreation in both the zoning and subdivision enabling legislation. RC 519.02 states that the trustees may regulate by [zoning] resolution “sizes of yards, courts, and other open spaces...the uses of land for...recreation.” RC 711 states that “a county or regional planning commission shall adopt general rules [subdivision regulations]... to secure and provide for...adequate and convenient open spaces for...recreation, light, air, and for the avoidance of congestion of population.”

The importance of open space and recreation has long been recognized. In the 1850's the City Beautiful Movement advocated public parks as retreats from the congestion and overcrowding of city life. New York's Central Park (1856, Frederick Law Olmstead, Sr.) is the best known American example. Every desirable community in America has a significant park and recreation system as one of its building blocks.

The Subdivision and Site Design Handbook (David Listokin and Carole Walker, 1989, Rutgers, State University of New Jersey, Center for Urban Policy Research) is considered a planner's bible for many accepted standards in subdivision review. In their chapter on open space and recreation, they relate the following critical functions of open space:

- Preserves ecologically important natural environments
- Provides attractive views and visual relief from developed areas
- Provides sunlight and air
- Buffers other land uses
- Separates areas and controls densities
- Functions as a drainage detention area
- Serves as a wildlife preserve
- Provides opportunities for recreational activities
- Increase project amenity
- Helps create quality developments with lasting value

12.2 Open Space Defined

Listokin and Walker define open space as: “Essentially unimproved land or water, or land that is relatively free of buildings or other physical structures, except for outdoor recreational facilities. In practice, this means that open space does not have streets, drives, parking lots, or pipeline or power easements on it, nor do walkways, schools, clubhouses and indoor recreational facilities count as open space. Private spaces such as rear yards or patios not available for general use are not included in the definition either.”

“Open space is usually classified as either developed or undeveloped. Developed open space is designed for recreational uses, both active and passive, whereas undeveloped open space preserves a site’s natural amenities.”

12.3 Land Area Required

The National Recreation and Park Association (NRPA) has developed a set of standards for local developed open space (See Appendix). Although these standards have been promoted as goals, they are not universally accepted. Recreational needs vary from community to community, and desires for recreation vary also.

Listokin notes that: “Ideally, the [NRPA] national standards should stand the test in communities of all sizes. However, the reality often makes it difficult or inadvisable to apply national standards without question in specific locales. The uniqueness of every community, due to differing geographical, cultural, climatic, and socioeconomic characteristics, makes it imperative that every community develop its own standards for recreation, parks, and open space.”

12.4 Location of Open Space Parcels

Listokin notes what has been the subject of many debates in Concord Township, namely that: “Open space parcels should be easily accessible by development residents. In smaller developments, one large, centrally located parcel may suffice; but a large development may require several parcels, equitably distributed. Linking open space parcels is a good strategy, because it enlarges the area available for recreation. Parcels containing noise generators, such as basketball courts or playgrounds, should be sited to minimize disturbance to residents.”

12.5 Undeveloped Open Space

Listokin suggests that “No general standard can specify the amount of open space that should remain undeveloped: a determination will depend on the particular development site.”

O’Shaughnessey Reservoir is located on the Scioto River, between Concord and Liberty Townships. The Reservoir has boating and fishing access provided through parks located along State Route 257. The availability of this Reservoir may satisfy some of Concord Township’s requirements for passive open space.

Columbus Parks and Recreation Lands – O’Shaughnessey Reservoir

The lake was created by impoundment of the Scioto River by a concrete dam in the early 1920’s to serve as a water supply and recreation lake for the City of Columbus. The 1,750-foot wide O’Shaughnessey Dam began operation in 1925. A 979 square mile watershed feeds the 6.5 mile long reservoir. The spillway for the dam is 75 feet high and 880 feet long. Approximately 4.8 billion gallons of water are held in the reservoir covering 943 acres. While the park serves a regional function, it is also serving as a de facto township park.

Today, the O’Shaughnessey Reservoir serves five purposes:

- Flood control.
- Safe Yield of Water Supply (27 million gallons per day).
- Fish and wildlife enhancement.
- Water Quality.
- Recreation.

Land (including parks)

- 240 acres.
- 21 park areas.
- Boating Education Facility.
- Marina.

Lake

- 943 acres.
- Three Boat Launching Ramps.

- Unlimited horsepower for boats, however boats are limited to 22 feet in length and 40 miles per hour in open zones. (All restrictions are listed in City of Columbus Code 921.18)

12.6 Concord Township Park

Concord Township owns and maintains one park within the Township boundaries. The park is located on the southwestern corner of State Route 745 and Home Road. The park contains a swing set, basketball court, tennis court, three baseball fields, a 1.6-mile walking path and a shelter house with ten picnic tables and two grills.

The park is used everyday for walking, jogging and during the baseball season some approximately 2,000 kids play there. There are 19 teams. Bellpoint Athletic Association and also senior men's baseball team along with all residents use the park. The park requires one man from the park's department to mow throughout the season. The park is open daily from daylight to dusk. And finally, Concord Township owns 26 acres and has completed the purchase of additional acreage this year to be used for one more ball field, parking for soccer fields. Restrooms will be added.

12.7 Future Recreational Needs

As Concord Township grows it may wish to use the NRPA model, "which surveys the service area population to determine demand for different activities. Demand is then converted to facilities needs and then to land requirements." (Listokin and Walker, *ibid.* Appendix A.)

A. Undeveloped Open Space - Regional and Township

Suggestion: The large amounts of undeveloped open space along Dublin Road and the presence of O'Shaughnessey Reservoir should help fulfill the need for undeveloped (passive) open space and a portion of developed (active) open space on a township-wide basis. They do not replace the need for neighborhood parks and township-wide parks with athletic fields for organized sports.

B. Undeveloped Open Space - Neighborhood

Suggestion: The open space requirement for new Planned Residential Developments should be used to provide centrally located undeveloped and developed open space within residential neighborhoods of suburban densities (generally greater than 1 unit/acre). These would be either mini parks of one acre or less within a ¼ mile radius of all portions of such neighborhoods, or 15-acre joint neighborhood parks that provide athletic fields for neighborhoods within ½ mile radius. The open space requirement in the PRD zones may be inadequate unless undevelopable land (slopes greater than

20%, power line easements and storm water detention basins) is either excluded, or reduced in its contribution to the open space requirement.

C. Greenways

An inexpensive way to provide undeveloped open space is to assure the linkage of neighborhoods by greenways, or corridors of natural or man made landscaped paths, and trails. These can be easily placed along drainage ways, creeks, sewer easements and portions of the land that cannot be otherwise developed. These paths can maintain undisturbed wildlife habitat, or create new habitat through plantings and creative use of storm water retention and detention facilities. These areas of developments are often afterthoughts in the design and planning process. They should be viewed as opportunities to improve the value of the development and link developments. The Mid-Ohio Regional Planning Commission has developed a set of suggested standards for greenways that are available at the Delaware County Regional Planning Commission.

D. Developed Open Space - Township wide

Suggestion: The township should provide active recreational areas for its ultimate population. Use the NRPA Standards as a guide.

NRPA Recreational Standards

Excerpted from The Subdivision and Site Plan Handbook, David Listokin and Carole Walker, copyright 1989, Rutgers, State University of New Jersey, Center for Urban Policy Research, New Brunswick, New Jersey.

EXHIBIT 3-3

NRPA RECOMMENDED STANDARDS FOR LOCAL DEVELOPED OPEN SPACE

This classification system is intended to serve as a *guide* to planning – not as an absolute blueprint. Sometimes more than one component may occur within the same site (but not on the same parcel of land), particularly with respect to special uses within a regional park. Planners of park and recreation systems should be careful to provide adequate land for each functional component when this occurs.

NRPA suggests that a park system, at a minimum, be composed of a “core” system of parklands, with a total of 6.25 to 10.5 acres of developed open space per 1,000 population. The size and amount of “adjunct” parklands will vary from community to community, but *must* be taken into account when considering a total, well-rounded system of parks and recreation areas.

<i>Component</i>	<i>Use</i>	<i>Service Area</i>	<i>Desirable Size</i>	<i>Acres / 1,000 Population</i>	<i>Desirable Site Characteristics</i>
LOCAL / CLOSE-TO-HOME SPACE					
Mini-Park	Specialized facilities that serve a concentrated or limited population or specific group such as tots or senior citizens	Less than ¼ mile radius	1 acre or less	0.25 to 0.5 acres	Within neighborhoods and in close proximity to apartment complexes, townhouse developments, or housing for the elderly.
Neighborhood Park / Playground	Area for intense recreational activities, such as field games, craft, playground apparatus area, skating, picnicking, wading pools, etc.	¼ to ½ mile radius to serve a population up to 5,000 (a neighborhood).	15+ acres	1.0 to 2.0 acres	Suited for intense development. Easily accessible to neighborhood population – geographically centered with safe walking and bike access. May be developed as a school-park facility
Community Park	Area diverse environmental quality. May include areas suited for intense recreational facilities, such as athletic complexes, large swimming pools. May be an area of natural quality for outdoor recreation, such as walking, viewing, sitting, picnicking. May be any combination of the above, depending upon site suitability and community need.	Several neighborhoods. 1 to 2 mile radius	25 + acres	5.0 to 8.0 acres	May include natural features, such as water bodies, and areas suited for intense development. Easily accessible to neighborhood served.

TOTAL CLOSE-TO-HOME SPACE = 6.25-10.5 A / 1,000

Source: National Recreation and Park Association, *Recreation, Park and Open Space Standards and Guidelines*, p. 56. Copyright © 1983 by the National Recreation and Park Association, 3101 Park Center Drive, Alexandria, Virginia 22302.

Activity / Facility	Recommended Space Requirements	Recommended Size and Dimensions	Recommended orientation	No. of units per Population	Service Radius	Location Notes
Badminton	1620 sq. ft.	Singles - 17' x 44' Doubles – 20' x 44' with 5' unobstructed are on all sides	Long axis north-south	1 per 5000	¼ - ½ mile	Usually in school, recreation center, or church facility. Safe walking or bike access
Basketball Youth High School Collegiate	2400-3036 sq. ft. 5040-7280 sq. ft. 5600-7980 sq. ft.	40'-50' x 84' 50' x 84' 50' x 94' with 5' unobstructed space on all sides	Long axis north-south	1 per 5000	¼ - ½ mile	Same as badminton. Outdoor courts in neighborhood and community parks, plus active recreation areas in other park settings
Handball (3-4 wall)	800 sq. ft. for 4-wall, 1000 sq.ft. for 3-wall	20' x 40' – minimum of 10' to rear of 3-wall court. Minimum 20' overhead clearance	Long axis north-south. Front wall at north end	1 per 20,000	15-30 minute travel time	4-wall usually indoor as part of multi-purpose facility. 3-wall usually outdoor in park or school setting
Ice Hockey	22,00 sq. ft. including support area	Rink 85' x 200' (minimum 85' x 185') Additional 5000 sq. ft. support area	Long axis north-south if indoor	Indoor – 1 per 100,000 Outdoor-depends on climate	½ - 1 hour travel time	Climate important consideration affecting no. of units. Best as part of multi-purpose facility.
Tennis	Minimum of 7,200 sq. ft. single court (2 acres for complex)	36' x 78' 12' clearance on both sides 21' clearance on both ends	Long axis north-south	1 court per 2000	¼ - ½ mile	Best in batteries of 2-4. Located in neighborhood/ community park or adjacent to school site
Volleyball	Minimum of 4,000 sq. ft.	30' x 60'. Minimum 6' clearance on all sides	Long axis north-south	1 court per 5,000	¼ - ½ mile	Same as other court activities (e.g. badminton, basketball, etc.)
Baseball Official Little League	3.0 – 3.85 acre minimum 1.2 acre minimum	<ul style="list-style-type: none"> • Baselines-90' • Pitching distance-60 ½' • Foul lines-min. 320' • Center field – 400'+ • Baselines-60' • Pitching distance – 46' • Foul lines – 200' • Center field – 200'-250' 	Locate home plate so pitcher throwing across sun and batter not facing it. Line from home plate through pitcher's mound run east-north-east	1 per 5000 Lighted – 1 per 30,000	¼ - ½ mile	Part of neighborhood complex. Lighted fields part of community complex

Field Hockey	Minimum 1.5 acres	180' x 300' with a minimum of 10' clearance on all sides	Fall season – long axis northwest to southeast For longer periods, north to south	1 per 20,000	15 – 30 minute travel time	Usually part of baseball, football, soccer complex in community park or adjacent to high school
Football	Minimum 1.5 acres	160' x 360' with a minimum of 6' clearance on all sides.	Same as field hockey	1 per 20,000	15-30 minutes travel time	Same as field hockey
Soccer	1.7 to 2.1 acres	195' to 225' x 330' to 360' with a minimum clearance on all sides.	Same as field hockey	1 per 10,000	1-2 miles	Number of units depends on popularity. Youth soccer on smaller fields adjacent to schools or neighborhood parks.
Golf – Driving Range	13.5 acres for minimum of 25 tees	900' x 680' wide. Add 12' width for each additional tee	Long axis south-west. Northeast with golfer driving toward north-east.	1 per 50,000	30 minutes travel time	Part of golf course complex. As a separate unit, may be privately operated.
¼ Mile Running Track	4.3 acres	Overall width – 276' Length – 600.02' Track width for 8 to 4 lanes is 32'.	Long axis in sector from north to south to north-west-south-east with finish line at northerly end	1 per 20,000	15-30 minutes travel time	Usually part of high school or in community park complex in combination with football, soccer, etc.
Softball	1.5 to 2.0 acres	<ul style="list-style-type: none"> • Baselines – 60' • Pitching distance – 46' min. 40' – women • Fast pitch field radius from plate – 225' between foul lines. • Slow pitch – 275' (men) • 250' (women) 	Same as baseball	1 per 5,000 (if also used for youth baseball)	¼ - ½ mile	Slight difference in dimension for 16" slow pitch. May also be used for youth baseball.
Multiple Recreation Court (baseball, volleyball, tennis)	9,840 sq. ft.	120' x 80'	Long axis of courts with <i>primary</i> use is north-south	1 per 10,000	1-2 miles	
Trails	N/A	Well defined head maximum 10' width, maximum average grade 5%, not to exceed 15%. Capacity rural trails – 40 hikers/day/mile. Urban trails – 90 hikers/day/mile.	N/A	1 system per region	N/A	

Activity / Facility	Recommended Space Requirements	Recommended Size and Dimensions	Recommended Orientation	No. of units per Population	Service Radius	Location Notes
Archery Range	Minimum 0.55 acres	300' length x minimum 10' wide between targets. Roped clear space on sides of range minimum of 30', clear space behind targets minimum of 90' x 45' with bunker.	Archer facing north + or - 45°	1 per 50,000	30 minutes travel time	Part of a regional / metro park complex
Combination Skeet and Trap Field (8 station)	Minimum 30 acres	All walks and structures occur within an area approximately 130' wide by 115' deep. Minimum cleared area is contained within two superimposed segments with 100-yard radii (4 areas). Shot-fall danger zone is contained within two superimposed segments with 300-yard radii (36 acres)	Center line of length runs northeast-southwest with shooter facing northeast.	1 per 50,000	30 minutes travel time	Part of a regional / metro park complex
Golf Par 3 (18 hole) 9 Hole standard 18 hole standard	50-60 A Minimum 50 A Minimum 110 A	Average length – vary 600-2700 yards Average length – 2250 yards Average length – 6500 yards	Majority of holes on north-south axis	1/25,000 1/50,000	½ to 1 hour travel time	9 hole course can accommodate 350 people/day. 18 hole course can accommodate 500-550 people/day. Course may be located in community or district park, but should not be over 20 miles from population center.
Swimming Pools	Varies size of pool and amenities. Usually ½ to 2 A site	Teaching-minimum of 25 yards x 45' even depth of 3 to 4 feet. Competitive- minimum of 25m x 16m. Minimum of 27 sq. ft. of water surface per swimmer. Ratios of 2:1 deck vs. water.	None-although care must be taken in siting of lifeguard stations in relation to afternoon sun.	1 per 20,000 (Pools should accommodate 3 to 5% of total population at a time.)	15 to 30 minutes travel time	Pools for general community use should be planned for teaching, competitive, and recreational purposes with enough depth (3.4m) to accommodate 1m and 3m diving boards. Located in community park or school site.
Beach Areas	N/A	Beach area should have 50 sq. ft. of land and 50 sq. ft. of water per user. Turnover rate is 3. There should be 3.4 A supporting land per A of beach.	N/A	N/A	N/A	Should have sand bottom with slope a maximum of 5% (flat preferable). Boating areas completely segregated from swimming areas.

Recommendations at Build-Out

- Overall active recreational area required - NRPA recommends 6.25-10.5 acres /1000 population. Use the lower ratio because of the existence of Alum Creek State Park, Hoover Reservoir and Big Walnut Creek.
- Establish mini parks of one acre or less within neighborhoods, serving the population within ¼ mile radius (these should be developer dedications as part of the PRD zoning).
 1. Establish neighborhood parks of 15 acres, with field games, play ground apparatus, serving the population within ¼ to ½ mile radius, such as the Concord Township Park on Home Road.
 2. Establish a community park of 25-50 acres (when built out) with an athletic complex, large swimming pool, and recreational fields.

Within these parks consider the following facilities:

- tennis courts
- basketball courts
- volleyball courts
- baseball fields (this may be reduced according to the popularity of baseball versus soccer)
- softball fields
- football fields
- field hockey field
- soccer fields (this number may rise according to the popularity of soccer versus baseball)
- ¼ mile running track
- Swimming Pool (normally should be large enough to accommodate 1000 people; with Alum Creek beach, make large enough to accommodate 200 people).
- Delaware County voters approved a ballot initiative for a parks levy in November 1999. Preservation Parks now receives a .4 mill levy, which is expected to generate about \$900,000 per year for parks. 10% of that money is set aside for townships and municipalities to develop parks. Concord Township can apply for a share of this money.

CHAPTER 13

Future Development Patterns



13.1 Preserving Rural Character- Community Choices

The number one goal of Concord Township is to preserve its rural character. This rural character is expressed as an overall low density, with the preservation of open space and natural lands such as a stream valley, wildflower meadow or patch of woods.

Clearly, part of what makes the township desirable is the vision there will always be some permanent, interconnected open space and natural lands throughout. When agriculture changes to other land uses, this rural character will be lost unless conservation areas are preserved by future development patterns.

Concord Township is still a rural community with 39% of its acreage in agriculture. However, agricultural lands are quickly converting to large-lot residential uses, which account for 28 % of all acreage.

Concord's vision to remain a low-density (average one unit per acre) residential community seems understandable and defensible for the scope of this comprehensive plan (2002-2012) because most areas are not serviced by public centralized sanitary sewer, and are not anticipating public sewer

service in the next ten years, which is the horizon of this plan. If the county offers sewer it will be at a modest density of 1.25 units per acre per contract with Columbus. If average overall densities remain less than one unit per acre, local two lane collector and arterial roads will generally be able to carry the traffic with a good level of service.

There are different development pattern options to consider.

13.2 Rural Large-Lot Development



Until 1997, most residential development had taken place along township roads. These “splits” are minor no-plat subdivisions on lots larger than one acre with on-site sewage disposal. Such large lot development also occurs on Common Access Drives, or CAD subdivisions which are 3-5 lots on a 12-

foot wide gravel drive approved by the county regional planning commission.



CAD subdivision, lower right

Such acreage development, surrounded by woods and farm fields, has been accepted as retaining rural character. The Comprehensive Plan Steering Committee acknowledged, however, that if all rural lands were developed for one-acre house lots, there would be no interconnecting open space, and the rural character would be destroyed. Development of large lots everywhere on township roads would actually lead to “rural sprawl”.

Build-Out Map

In order to picture how the township would look fully built out at today’s zoning standards, a “Build-Out Map” was created. This map may be compared with the Existing Land Use, Development Pattern and Land in Speculation Maps from Chapter 5 to see how much land is currently available for development, and how the township would look fully built out under the current zoning and subdivision regulations.

The Build Out Map suggests:

1. There is an open space corridor around the O’Shaughnessey reservoir owned and maintained as parkland by the city of Columbus.
2. With the exception of a handful of tracts, most of the land south of Harriot Road is already developed.

3. The Martin Marietta Quarry on the east-side of Dublin Road could, upon completion of quarrying, be converted to an upscale condominium development, with units overlooking interior deep quarry lakes and the river. This would require a centralized sewer system, and rezoning to PRD. This area lies within the sewer contract area, but is not currently sewerred, nor is there a timetable for sewerreding it.



Martin Marietta quarry, Dublin Road in background



Martin Marietta Quarry, Dublin Road in foreground

4. Due to the lack of sanitary sewer and generally unsuitable soils for on-site septic and leach line systems, the development of the remainder of the township west of the river must be very low density (approximately one unit per two acres) utilizing mounds, or other alternative sewage disposal systems such as land application zero discharge systems.
5. Without alternatives such as conservation subdivisions in the rural areas, there will ultimately be no public or semi public (common, private) open space in this area.
6. Bellepoint will become surrounded by large lots, either in subdivisions or on road frontage lots. The neighborhood grid pattern will stop at its current limits. The walking scale traditional neighborhood will not be expanded.
7. Two commercial areas on US 42 will be developed within $\frac{3}{4}$ mile of one another. The first is approximately 16 acres on the immediate east-side of the reservoir, being the northeast and southeast corners of Riverside Drive and US 42., displacing some homes and vacant land. The second commercial area comprises 18 acres at the intersection of S. Section Line Road and US 42. These areas are currently zoned Planned Commercial, but no development plans are currently in place, meaning that any commercial development will be reviewed only as an administrative action, and no right of referendum will be available to the residents. To be viable commercial land, sanitary sewer must be available.
8. A large Industrial area (173 acres) will straddle US 42 at the northeast corner of the township, abutting the city of Delaware. These lands will be developed in the Industrial zone, which is not a planned district. Any permitted use in this district will be allowed provided it meets zoning requirements. There will be no right of referendum. To be truly viable industrial land, sanitary sewer must be provided. If sewer is not available in the township, these lands may eventually annex into Delaware for services. Alternatively, a joint economic development agreement, or JEDD, might be struck between the township and Delaware to share the services and revenues without annexation.
9. Few new road connections are guaranteed in the rural areas due to the repeated use of Common Access Drive subdivisions. Existing two lane township roads may therefore have to bear all connecting traffic.

10. As road frontage is used up by no plat lot splits, and CADS, some new “conventional” subdivision streets will be platted. Concord Township has many such conventional subdivisions, Brust Road, Irish Hills Drive, Eversole Run, and more. Conventional subdivisions create only lots and streets. There are no public open spaces to walk to, no central green or woods, no riverbank or lakeshore because all the land has been parceled out to all landowners. Conventional subdivisions do not create permanent, interconnected open space. They do not preserve conservation areas. If all land were divided into conventional subdivisions, rural character would eventually be destroyed.

13.3 Alternative Development Patterns

1. Cluster Subdivisions

For thirty years, cluster subdivisions, or “Planned Residential Developments” have been touted as an improved alternative to the conventional subdivision. To date, one large cluster subdivision, Scioto Reserve, has been approved in Concord Township.



Scioto Reserve PRD subdivision, Home Road running east-west

In PRDs, greater design flexibility is obtained by reducing lot size, and width. The absence, however, of comprehensive standards for quantity, quality and configuration of open space has permitted uninspired designs, which are reduced-scale conventional subdivisions. Scioto Reserve uses its golf course as the required open space. This is a single-use open space that does not provide for non golfers and children’s open space needs.



Typical Delaware County Planned Residential Development

The typical Delaware County PRD has often resulted in developments that did not fulfill community expectations for:

- Open Space- In Concord Township, there is no PRD open space requirement. Environmentally sensitive areas or unbuildable areas (wetlands, steep slopes, floodplains, storm water detention basins and utility easements) do not have to be delineated. The calculation of density per gross acre results in inflated “net” densities because unbuildable areas count toward density. The result is smaller lot sizes and a more urban feel than the gross density suggests. For example, many PRD’s have been built in Delaware county at a gross density of 2 units per acre, yet the actual lot size is 6,000- 9,000 square feet (5-7 net units per acre).

- Useable Open Space- PRD subdivisions with small (7,200-10,000 square feet) lots have been created without any useable common open space. Scioto Reserve has little common or public open space. The golf course is private open space, for members only.



Scioto Reserve. Looking west toward the Scioto River

- Density-Any property owner in the township may request a PRD at densities of up to 3 units per acre. Densities greater than one unit per acre may not conform to the comprehensive plan.
- Design- large (300 units or more) Planned Unit Developments need a local pedestrian oriented design, with a possible local commercial and service core, active recreation area, and sidewalks/bike paths. Many true Delaware County villages are smaller than 300 homes. For example, Shawnee Hills is currently 208 homes, and the village provides local services and pedestrian scale.
- Architectural Standards- in order to make higher density cluster subdivisions work, considerable thought needs to be given to the architecture, materials, facades, detailing, colors and landscape features that will bind the neighborhood into a cohesive unit. Such criteria are generally required. Seldom does a land developer, who intends to sell the subdivision to a builder or builders, bother to provide significant criteria. The result is often a jarring hodge-podge of different builder's standard production houses with no continuity of material or architectural syntax. Without specific standard criteria, the zoning commissions must negotiate these details on an inconsistent basis. Cluster housing demands greater advance planning and significant landscape architecture and architectural design elements.

Harbor Pointe is a Berlin Township Planned Residential Development (cluster subdivision) designed



to better open space and environmental protection standards. With an overall density of 1.25 units per acre, Harbor Pointe saves sensitive areas, preserves useable open space, and connects neighborhoods with trails.



Harbor Pointe, under construction on the right, Meadows of Cheshire on the left, Berlin Township, Delaware County, Ohio. Note the preserved tree lines, open space at the entrance and distributed throughout the site.

2. Conservation Subdivisions

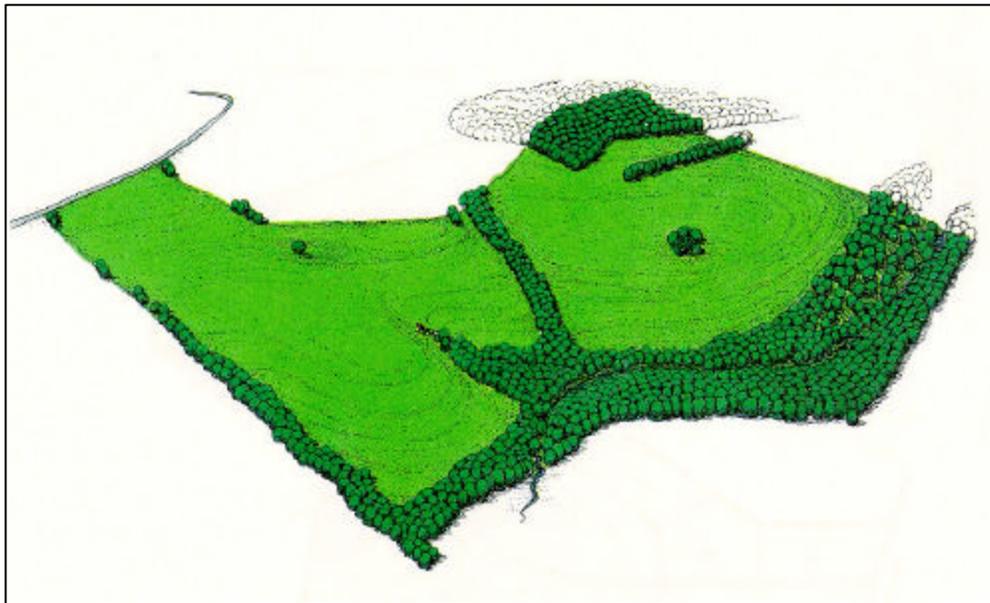
Conservation Subdivisions are a form of rural cluster subdivision where natural features and environmentally sensitive areas (conservation areas) are excluded from development and preserved. Homes are clustered in the remaining areas.

The term Conservation Subdivision, as coined by author Randall Arendt (Conservation Design for Subdivisions, 1996, Island Press) requires the following elements:

- 50% or more of the buildable land area is designated as undivided permanent open space.
- The design is density-neutral. The overall number of dwellings allowed is the same as would be permitted in a conventional subdivision layout based on an alternative “yield plan”.
- Primary Conservation Areas are protected as open space and deducted from the total parcel acreage, to determine the number of units allowed by zoning on the remaining parts of the site. Primary conservation areas are highly sensitive resources that are normally unusable, such as wetlands, steep slopes, and floodplains.
- Secondary Conservation Areas are preserved to the greatest extent possible. Secondary conservation areas are natural resources of lesser value such as woodlands, prime farmland, significant wildlife habitats, historic archaeological or cultural features, and views into, or out from the site.
- Compact house lots are grouped adjacent to the open space.
- Streets are interconnected to avoid dead ends wherever possible.
- Open space is interconnected and accessible by trails or walkways.

Conservation subdivisions are typically located in areas without sanitary sewer service, at densities of less than one unit per acre. (Note: For densities greater than one unit per acre, a PRD with 25-35% open space may be more appropriate. Primary conservation areas should still be preserved.)

The following graphics are presented with permission of Randall Arendt, from his book *Conservation Design for Subdivisions* (1996, Island Press,)



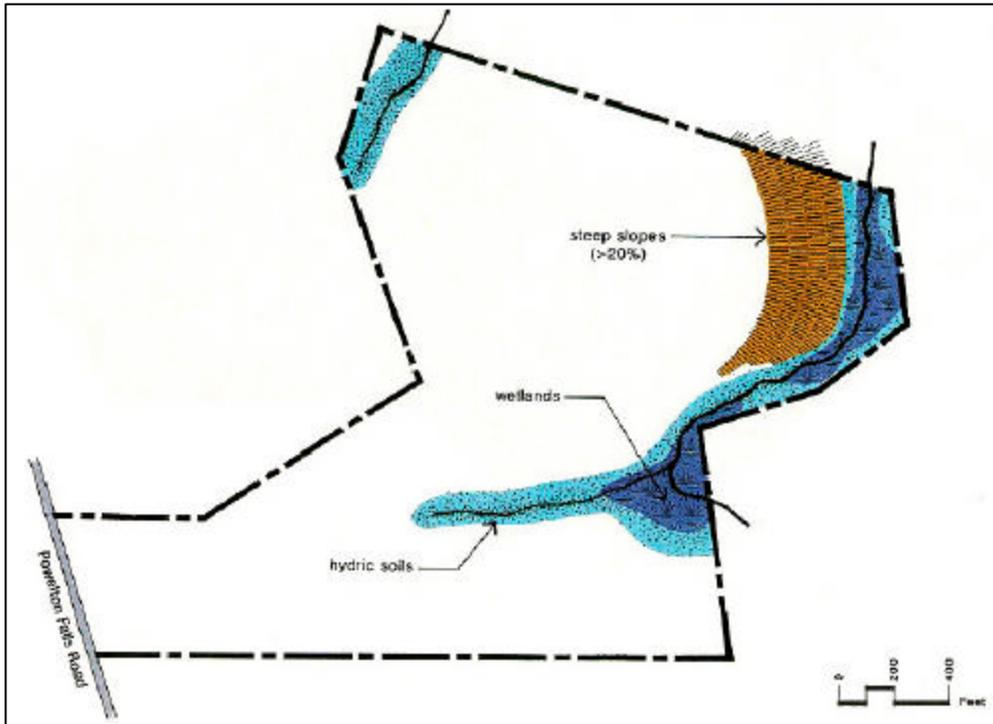
Site before development



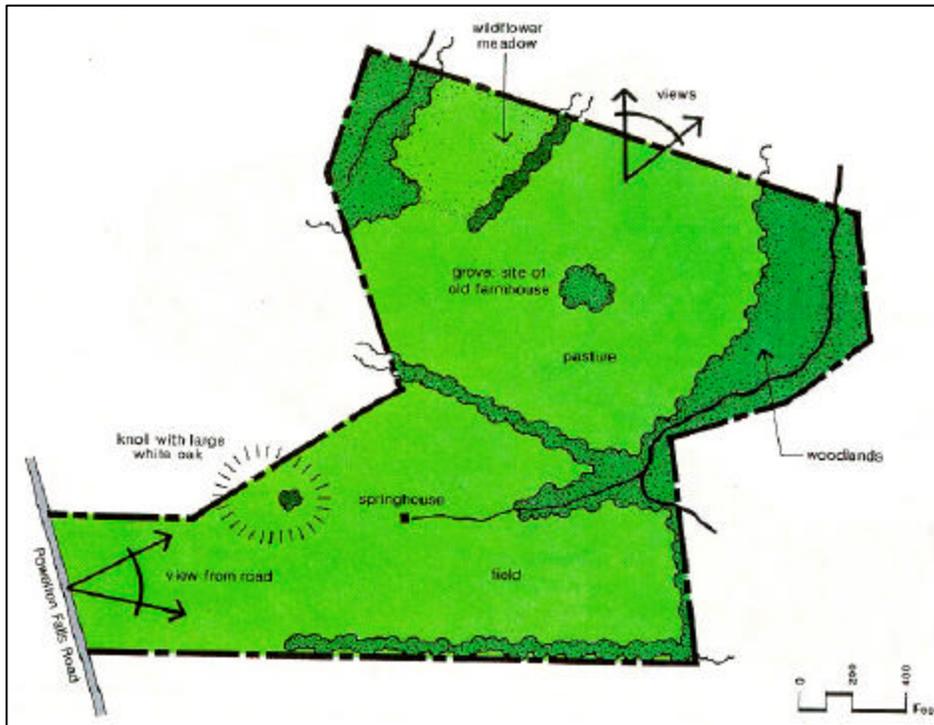
Traditional subdivision of large lots, leaving no common open space – Yield Plan



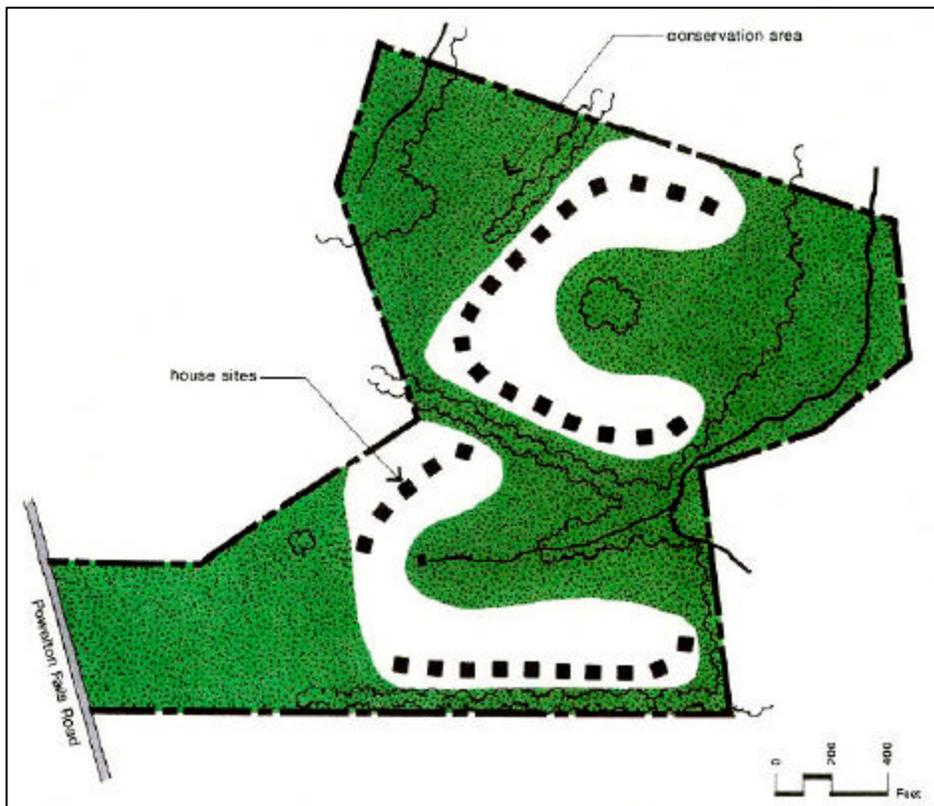
Site with conventional subdivision



Identifying primary conservation areas



Identifying the secondary conservation areas



Siting of potential buildings



Drawing streets and lot lines



Site build-out with conservation design

Conservation Subdivisions offer tremendous potential for retaining rural character and maintaining an overall low density in Concord Township.

3. Traditional Neighborhood Development (TND)

Andres Duany, Elizabeth Plater-Zyberk, Peter Calthorpe and others are a school of architects and planners (*The New Urbanism, Toward an Architecture of Community*, Peter Katz, 1994, McGraw Hill) who advocate a return to the traditional neighborhood design popular in the United States before World War II. The hallmarks of TNDs are formal design, a dense core, grid streets, mixed uses, and strict guidelines for architecture, materials, and common open space. Distance from the center of a neighborhood to its edge is ideally ¼ mile, or a five-minute walk. TNDs emulate successful older neighborhoods such as Delaware's north end historic district and old Sunbury. TNDs require public sanitary sewer to support urban densities.

The following TND graphics are reproduced from Rosemary Beach sales literature. Rosemary Beach is a TND located on the Gulf of Mexico in Florida, designed by Andres Duany and Elizabeth Plater-Zyberk.

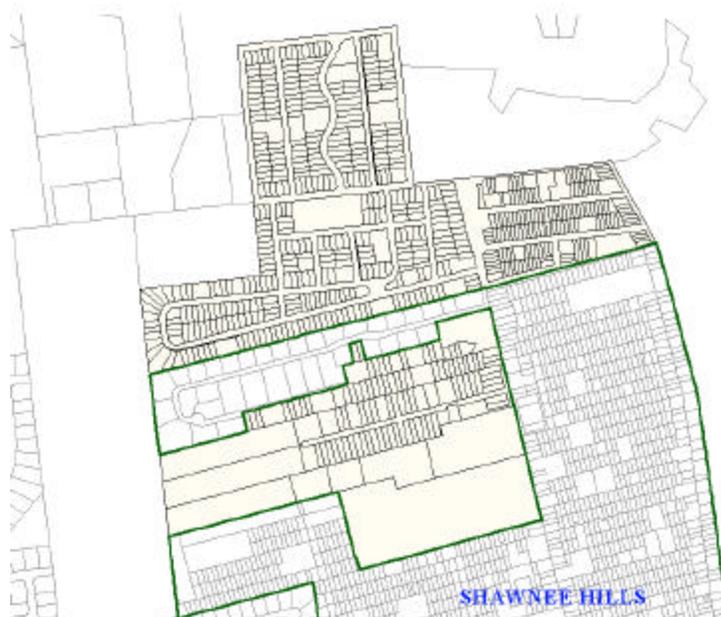


A miniature TND already exists at Bellepoint. Expansion of the grid street pattern with smaller lots would be possible if sanitary sewer service could be provided.

Aerial photo of Bellepoint, April 2002



Lucy Depp subdivision was platted in the 1920's with grid streets and small lots (35' x 70'). If it were desired, Lucy Depp could become a TND with the addition of mixed uses, strict architectural



standards and sanitary sewer.

Common Elements of Great Communities and the TND

In 1996 the state of Florida prepared a development guide for its Department of Community Affairs as a way of attempting to improve the tremendous growth it foresaw in the coming decades. The book was republished by the American Planning Association as *Best Development Practices*, by Reid Ewing, and immediately became a planner's must-read. It looked at new and mature developments in Florida and identifies the best development practices to be emulated by others.

In so doing it listed dozens of developments and communities considered Florida's best. What relevance is there for Ohio? Ohio's traditional neighborhoods (TND's) were designed like theirs, in grids, and then evolved into curvilinear street patterns of segregated land uses. As Florida became one of the nation's fastest growing states, new thinking was needed to prevent traffic congestion, sustain investment in neighborhoods, and create interesting, efficient, places to live and work. DCRPC Director Philip Laurien visited Florida to tour these preferred communities. While touring older, established communities that had never declined, or had been reborn with vitality, it was obvious there were shared elements of the best of the new and the best of the old. As a way of concentrating these perceived physical elements of that one trip, the following list is offered for consideration in planning TND's, and rural communities.

Common Elements of Great Communities

1. Central public open spaces (park, square, greenbelt, and water) in every neighborhood.
2. Variety of architectural styles, with compatible elements
3. Retention of history through reinvestment and restoration of structures
4. Fine grained downtown or village centers with:
 - a.) Intimate, human scale
 - b.) Angle parking, with 2-3 lanes of traffic
 - c.) Street trees/planters
 - d.) Decorative/historic street lighting (at human scale)
 - e.) High quality, permanent, natural materials (stone, brick, stucco, real wood)
 - f.) Classic architectural elements: pillars, cornices quoins, deep overhangs. No plain boxes.
 - g.) Wide sidewalks, with colored paver or brick accents
 - h.) Retention of public and cultural buildings as anchors
 - i.) Mixed uses (residential, commercial, office)
 - j.) Compact blocks with no rapid through-traffic. Block design purposefully interrupted. Where through streets exist, make tree boulevards.
 - k.) Fine grained signage with theme. No pole signs. Extensive use of painted window signs, labeled awnings, fascia signs, none internally lit. Small hanging signs from buildings.

- l.) Large glass area on first floor shops to invite the outside in. Glass divided by vertical posts or pillars as support and as design element.
 - m.) Narrow streets
 - n.) Restrained color palette. No clashing garish colors.
 - o.) "0" setbacks or minimal setbacks from the right of way. Commercial uses on ROW with paved sidewalk up to storefronts. House with 10-20' courtyards, fenced at ROW.
 - p.) Grid pattern streets, short blocks, with low speeds, stop signs at intersections.
 - q.) Wall graphics in classic style, restrained palette. Historic murals or advertising.
 - r.) Small shops, narrow structures, with greater depth. Parking to rear and angle parking in street.
 - s.) Landscape end islands to protect angle parking and provide location for street trees.
5. Highway Commercial Uses with the following attributes:
- a.) Greenbelts along roadway
 - b.) Controlled access points, adequate setback for parallel access roads.
 - c.) Ground signs rather than pole signs. High (100') pole signs only permitted within certain distance of major interstate interchanges for on-premise advertising of highway related services (motel, food, auto).
 - d.) Prohibition of billboards
 - e.) Lush landscaping; end islands for parking stalls. Forested parking lots.
 - f.) Signage restraint. Use of franchise type fonts and colors, but neutral backgrounds. No garish or florescent colors. Unified background color on shared signs.
 - g.) Avoidance of white, yellow and red plastic internally lit signs.
 - h.) Limit number, type and location of signs.
 - i.) Limit conversion to inappropriate uses such as flea markets from storage lockers.
 - j.) Parallel access roads or interconnecting parking lots to limit curb cuts to major highway.
 - k.) Community theme for greenbelt/landscape along road.
 - l.) Deep setbacks.
6. Residential Areas with the following attributes:
- a.) Narrow streets with either no on street parking for streets with deep (more than 35' from ROW) setbacks, or on-street parking with landscaped end islands for streets with shallow (less than 35' from ROW) setbacks.
 - b.) Traffic calming features (center islands with landscaping), eyebrow islands with landscaping), parks at blocks end to divert traffic flow.
 - c.) Separation of residential uses from all other uses, or alternatively, intentional mixture of residential and commercial as part of a town center or Traditional Neighborhood Development with strict architectural controls and elements.
 - d.) Curvilinear roads to fit hilly topography and/or environmentally sensitive areas; grid streets in flat, or formal planned town centers or TND's, low speeds.
7. A general plan for overall road development.
8. Require development to "fit" and preserve natural features such as topography, wetlands, floodplains, water views, and trees. Encourage public space around such features.
9. Preserve rural areas with the following attributes
- a.) open vistas from the roads
 - b.) save natural resources
 - c.) retain agriculture where feasible

- d.) retain woods where feasible or replant.
- e.) Narrow roads, wide spacing of curb cuts
- f.) Deep setbacks.
- g.) Low densities.
- h.) Retention of rural/historic structures, such as attractive wooden barns.
- i.) Retain tree lines along rural roads.

10. Industrial areas with the following attributes:
- a.) Ground or fascia signage, no pole signs.
 - b.) Wide roads with large curve radii for heavy trucks.
 - c.) Location in parks, not stripped out along highways.
 - d.) Landscaped greenbelt around parking areas.
 - e.) Signalized entrance to park areas for safe vehicular entry.
 - f.) Landscaped buffer to residential uses
 - g.) Generous area for truck loading and turning

4. Farmland Preservation

With 39% of Concord Township land still in agriculture (Table 5.1), agricultural preservation is an issue. The Delaware County Commissioners appointed a Farmland Preservation Task Force in 1998. The Task Force issued a Farmland Preservation Plan in June 2000 with 12 recommendations for action. Recommendation number 4 is to “Support and encourage any township that seeks to protect its agricultural industry through zoning codes.”

The following are some possibilities:

A. Purchase of Agricultural Easements- (Quoting from the County Farmland Preservation Plan):

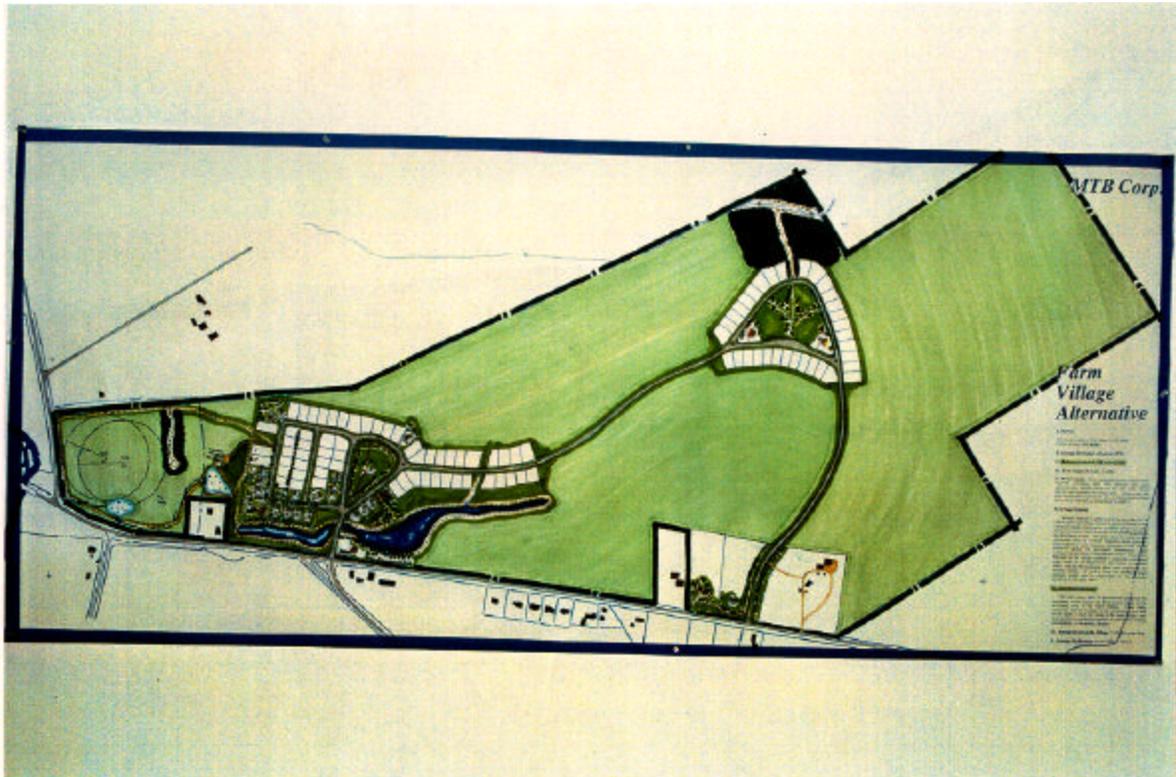
“With the passage of Ohio Senate Bill 223 in 1998, purchase of agricultural conservation easements (PACE), also known as purchase of development rights (PDR), is now legal under Ohio law. The Ohio Department of Agriculture-Office of Farmland Preservation is currently drafting rules in anticipation that Ohio will be able to offer matching funds to local entities that have set up a program to retain and protect farmland.” The plan also recommends that the county “ Provide redevelopment incentives for cities and villages with existing urban services to reduce cost of new services and unnecessary conversion of farmland.” Perhaps both Bellepoint and Lucy Depp would be considered as locations for such redevelopment efforts.

B. The Farm Village

The Farm Village is a conservation-subdivision where the “secondary” conservation area is farmland. In the Concord Township Farm Residential zone, one-acre lots are currently required, but 2-5 acres

lots are common in order to meet Board of Health requirements for on-site sewage disposal systems. As an alternative, a Farm Village could permit the same overall density, but with clustering of smaller lots to preserve large amounts of open space as agriculture.

Farm Village, 120 lots (15 % bonus for doing Farm Village) in cluster, 240 acres in permanent easement for open space/farmland, 320 acres total.



The township could delineate areas farmers wish to see remain agricultural, if any. The township could also determine what densities can reasonably be served with roads, sewer, water, fire, schools, etc, and plan for only those densities.

13.4 Smart Growth

Maryland enacted “Smart Growth” legislation in 1997. Since then, Smart Growth has been a topic for planners nationwide. Maryland directs state growth related expenditures into locally designated compact growth areas.

The American Planning Association defines Smart Growth as “a collection of planning, regulatory, and development practices that use land resources more efficiently through compact building forms, in-fill development and moderation in street and parking standards.” For APA, one of the purposes of

Smart Growth “is to reduce the outward spread of urbanization, protect sensitive lands and in the process create true neighborhoods with a sense of community.”

Smart Growth encourages the location of stores, offices, residences, schools and related public facilities within walking distance of each other in compact neighborhoods. The popularity of many smart growth concepts has captured the interest of the press as well. Smart growth incorporates many of the concepts of conservation subdivisions in rural areas, and TNDs in urban areas.

13.5 Which Development Pattern(s) for Concord?

Concord Township should:

- Identify critical resource areas that should be given primary or secondary conservation area status, and permit both Conventional large lot and Conservation subdivisions in the FR-1 District.
- Consider using “Farm Villages” as Conservation Subdivisions to preserve farmland .
- Consider a TND as a mixed- use development “node” at either Bellepoint and/or Lucy Depp.
- Group commercial buildings to share parking and access to arterial streets. Consider mixed uses of commercial and residential as part of a large scale planned unit development that creates a sense of community rather than strip the commercial along arterial roads.

13.6 Development Patterns and Cost of Services

Many growing communities struggle with the cost of providing new services, especially when their property tax base is primarily residential. Depending on the development pattern chosen, Concord Township has the potential opportunity to develop a significant commercial and industrial property tax base on US 42. This commercial tax base could help pay for new services and support the school districts.

Every community must determine what land use mix provides an appropriate balance of commercial versus residential property tax base. Single family residential development is often suspected of not paying its fair share of its costs because of school costs for children.

A \$150,000 single family house in the Olentangy School district that generates one school age child also generates a \$5,100 negative fiscal impact (property taxes paid versus cost to educate the student) that must be made up by other sources of revenue, most importantly other property tax revenues.

In order to ascertain what land use mix might be optimal, it is necessary to analyze the fiscal impacts of development to determine the costs versus revenues to the community.

Models for estimating the fiscal impact of new development were developed by Robert Burchell, David Listokin and William Dolphin in *The New Practitioner's Guide to Fiscal Impact Analysis*, (Center for Urban Policy Research, Rutgers University, 1985), and the *Development Assessment Handbook*, Urban Land Institute, 1994). Burchell and Listokin define development impact analysis as follows:

“Development impact analysis is the process of estimating and reporting the effects of residential and nonresidential construction on a host political subdivision, usually a local community, school district, special district and/or county. The effects take several forms:

- a.) physical
- b.) market
- c.) environmental
- d.) social
- e.) economic
- f.) fiscal
- g.) traffic

Development impact assessment may be either prospective or retrospective; it may be short term or long term; it may be an in depth or abbreviated study.”

Burchell and Listokin have created models to calculate fiscal development impacts. These models use derived multipliers from regional or national standards to gauge impacts. For example, a single family home with four bedrooms in Central Ohio would be expected to generate 1.428 school age children. These may be further broken down to .9866 school age children in grades Kindergarten–Sixth; .2475 in Junior High School, and .1906 in High School. Local school districts use their own derived multipliers.

13.7 Impact Fees and Ohio Law

Concord Township’s vision for future development will be represented by its Comprehensive Plan. The potential fiscal impacts of future development projects can be determined, but such determination does not, however, entitle the township or the school district to charge an impact fee.

Although some states permit impact fees based upon a fair share allocation of the costs of new development, Ohio planning and zoning legislation does not currently empower townships to charge impact fees that offset costs of service expansion (roads, schools, parks, etc.). It has been generally held, however, that if road improvements are needed immediately adjacent to the development, and can be directly attributable to the project, and if the benefit of contributing to the improvement outweighs the burden of such improvement for the development in question, a “fair share” contribution to the improvement can be requested by the community.

Alternatively, if large proposed developments do not reasonably mitigate their own impacts, they may impose an undue burden on the township. In such cases the rezoning may be premature.

Cities and villages can impose impact fees for road improvements. An Ohio Supreme Court case (Home Builders Association of Dayton and the Miami Valley et al v. City of Beavercreek, 89 Ohio St 3d 121; decided June 14, 2000) held that an impact fee imposed on real estate developers is constitutional if:

- 1.) the impact fee bears a reasonable relationship between the city’s interest in constructing new roads and the traffic generated by new developments, and
- 2.) there is a reasonable relationship between the fee imposed and the benefits accruing to the developer as a result of the construction of new roads.

Clearly, cities and villages may now adopt impact fees that conform to the Supreme Courts ruling in Ohio. Whether this power will ever be extended to townships is unclear, and should be discussed with township legal counsel.

CHAPTER 14

Goals and Objectives

14.1 Vision Statement for Future Development of Concord Township, 2002-2012

Now that the Steering Committee has studied the history of the township's recent growth, the forces that bear upon it for additional growth, the opportunities and constraints to such growth, they have expanded their initial vision statement (see Chapter 4) for development of the township in the next ten years.

Ultimately, we would like Concord Township to be a community that retains large lots, and a low residential density (generally less than one unit per gross acre) in a pastoral setting with significant permanent open space.

The rural character of the township will be maintained by agriculture as long as it is economically viable. When agriculture is no longer viable, open space should be preserved by large lots, and by conservation subdivision developments at an overall density of less than one unit per acre. Rural roads should generally remain two lane roads, and have a rough edge, with fencing that reminds of the rural past. Mature landscaping should replace fence/tree rows if they are removed.

Sensitive environmental aspects (ravines, floodplains, jurisdictional wetlands, waterways, etc.) should be preserved as the township develops. "Special places" such as forested lands, open meadows and creek-side trails can be preserved within conservation subdivisions. Historic and/or significant agricultural structures that give a sense of our heritage should be preserved as part of new developments.

There should be a variety of housing choices and price ranges, and adequate infrastructure to serve new development. We would like to see a diversity of housing types to meet different housing needs (i.e., older adults, empty nesters, individuals and families). There should be a balance of commercial, residential and recreational uses; commercial and industry should be developed for a broader tax base, but should be buffered from exclusively residential areas. The Scioto River should be a continuous park and open space corridor.

14.2 Goals and Objectives for Future Development

Natural Resources

Goals

1. To preserve the rural character of Concord Township as expressed in its openness, green areas, farms, natural resources (floodplains, wetlands, slopes > 20%, ravines, creeks and rivers).
2. To retain wildlife cover and corridors where feasible.
3. To preserve the rural “look” along township roads via fencing and landscaping in new planned developments.
4. To retain historic and agricultural structures, where feasible.
5. To preserve scenic views, where feasible, as open space within Planned Residential Developments or Conservation Subdivisions.
6. To preserve a high degree of environmental quality.
7. To link Planned Residential Developments (PRD’s) and Conservation Subdivisions with common green spaces and paths.
8. To conserve surface and ground water quality around the Scioto River and the O’Shaughnessey Reservoir.

Objectives

1. Obtain the linkage of subdivisions by streets, bike paths, or green way trails so neighborhoods are connected and pedestrian oriented. Create a landscape detail for green way trails.
2. Retain wooded green ways along ravines, waterways and project perimeters.
3. Amend the zoning resolution to reflect the net developable acreage rather than gross density in calculating the number of dwelling units in a PRD.
4. Amend the zoning resolution to identify and protect floodplains, jurisdictional wetlands, and steep slopes.
5. Adopt regulations that permit Conservation Subdivisions in the FR-1 District as a Planned Unit Development at FR-1 density.
6. Support amendment of county subdivision regulations to protect 100-year floodplains.
7. Set landscape and architectural design standards for PRD subdivisions. Stipulate centralized green space.
8. Create a rural landscape detail for PRD’s that front on township roads.

9. Amend the zoning text to require the appropriate landscaping buffer detail between residential and non-residential land uses. Retain natural vegetation and use existing topography as buffers.
10. Promote off-stream storm water detention in developments tributary to the O'Shaughnessey Reservoir.
11. Retain natural ravines and their vegetation as filter strips for surface water.
12. Establish a 120-foot structural setback from the normal pool elevation of the Scioto River to preserve surface water quality. Such setback should include subsurface wastewater disposal systems.

Agriculture

Goals

1. To provide an opportunity for agriculture to continue through flexible/creative zoning.
2. To retain low residential density in agricultural areas.

Objectives

1. Retain a 1.5-acre minimum lot size in areas not served by centralized sanitary sewer.
2. Permit Conservation Subdivisions and Farm Villages in the FR-1 zoning district. .
3. Use the Land Evaluation Site Assessment (LESA) system to evaluate lands worthy of Purchase of Agricultural Conservation Easements (PACE).
4. Identify potential farmlands for PACE.
5. Preserve farmland by voluntary (sale) of development rights from farmland to adjacent Farm Villages.
6. Assist interested farmers in applying for state or federal funding for purchase of agricultural easements.

Residential Development

Goals

1. To relate land use and density to land suitability, utility availability, existing land use, and the recommendations for each sub area.
2. To consider the carrying capacity of infrastructure (sewer, water, fire protection, roads, etc) in establishing residential densities.
3. To provide rural areas where agriculture is transitioning to large lot residential and where no central sewer is available.

4. To provide for suburban residential housing districts where central water, sewer, fire protection, schools, adequate roads and other suburban services can be economically provided.
5. To retain a primarily single family residential housing mix, but permit a diversity of housing types.
6. To avoid sprawling subdivisions consisting only of lots and streets and no local parks or green space, and where every human need results in an automobile trip, even a trip to a green space area.
7. To protect township real estate values.

Residential Development

Objectives

1. Retain a minimum lot size of 1.5 acres where there is no centralized sanitary sewer provided.
2. Use the width of roads, water and sewer systems, and soil characteristics to establish densities and land uses on the comprehensive plan.
3. Permit Conservation Subdivisions in the FR-1 district at a density of .75 units per acre with centralized sewer service.
4. Avoid development of uses or densities that cannot be serviced by currently available or imminently planned infrastructure, unless such development mitigates its unplanned infrastructure impacts.
5. Amend the PRD text to identify non-developable lands (floodplains, water, slopes greater than 20%, jurisdictional wetlands and utility easements) in density calculations.
6. Permit multi-family units in Planned Residential Developments, approved per development plan.
7. Permit age-restricted elderly housing in prescribed areas along arterial roads.
8. Maintain the area east of The Scioto River, and south of Home Road as a possible suburban residential heart of the township, subject to provision of centralized water and sewer.
9. Permit single family housing in standard "straight zoning" subdivisions on 20,000 square foot lots with centralized sanitary sewer and water, adequate fire protection and road access.
10. Permit PRD's at approximately 1.25 units per acre. PRDs should have centralized sewer, access to a major collector or arterial street, and mitigate their fair share of off site traffic impacts.
11. Consider a Traditional Neighborhood Development on the platted narrow lots in the Lucy Depp area adjacent to Shawnee Hills if public sewer can be extended.
12. Consider a Traditional Neighborhood Development (country village) adjacent to Bellepoint if public sewer can be extended.

Commercial and Industrial Development

Goals

1. To encourage commercial and light industrial development in planned districts to broaden the jobs and tax base, and to prevent property taxes from rising faster than the growth in the township tax base.
2. To provide for dense landscape buffering between Commercial/Industrial and residential uses.
3. To encourage commercial, office and light industrial development in the US 42 corridor.
4. Work with the village of Shawnee Hills to encourage a community shopping center (grocery store, drugstore, etc.) in Shawnee Hills to serve Concord Township, Shawnee Hills and Muirfield Village.
5. To provide for transitional land uses and dense landscape buffering between incompatible land uses.

Objectives

1. Create development guidelines for planned commercial development.
2. Use parallel frontage or backage roads on U.S. 42 to control access onto the arterial road.

Recreation

Goals

1. To provide passive and active recreational areas as the township grows.
2. To expand the township parks program.
3. To link planned residential neighborhoods with green spaces and walking/biking paths.

Objectives

1. Improve Home Road park with more active recreation (playing fields for organized sports).
2. Create a series of mini-parks (less than 1 acre) with ¼ mile spacing within Planned Residential Developments where densities are between 1-2 units per acre. Create a series of neighborhood parks of 15 acres with active recreation with ½ mile spacing in PRD neighborhoods.
3. Where possible, link new parks in PRDs with Columbus parkland along the Scioto River.

Township Services

Goals

1. To recognize and maintain only those services needed for a predominantly rural/low density community.

2. To expand township services at a rate to ensure public health and safety, and to discourage premature development.
3. To acquire suitable land for the township's future needs.

Objectives

1. Acquire new sites for township facilities, including fire, police, road maintenance, etc.
2. Determine the services the township can provide as a suburban community with a sense of rural character.
3. Work with elected officials to increase services as needed, but not in a way to compete with urban development, so as to retain a rural community.
4. Use the Comprehensive plan as the guideline in zoning.

Planning and Zoning

Goals

1. To determine and implement an appropriate land use mix.
2. To coordinate central sewer extensions to appropriate suburban core areas.
3. To implement and maintain the land use plan.
4. To enforce zoning regulations.

Objectives

1. Revise the zoning text and map in accordance with the comprehensive plan.
2. Develop policies for service provision that relate to the comprehensive plan.
3. Provide for 5 year updates and revisions to the plan.

Transportation

Goals

1. To avoid congestion on local, county and state roads.
2. To retain the narrow township roads where possible as part of the rural character.
3. To improve the road network without destroying the rural character.
4. To seek developer mitigation of their road impacts of their adjacent developments.

Objectives

1. Cooperate with ODOT on removing/preventing unnecessary commercial curb cuts on US 42.
2. Require commercial parallel access roads and connections between planned commercial developments along major arterial roads, especially US 42.

3. Assist appropriate government agencies in the review of corridors for the proposed Alternative 1 to the County Thoroughfare Plan. Seek the corridor that provides the best traffic efficiency and least impact on north Concord Township. Consider portions of Bunty Station Road as a corridor.
4. Restrict left turns across traffic on US 42. Coordinate turns at new signals.
5. Adopt the appropriate ODOT Access Management recommendations; work with ODOT to prevent the deterioration of US 42.
6. Encourage construction of new roads A and B shown on the Comprehensive Plan as part of new developments.

Citizen Participation

Goals

1. To ensure significant and diverse citizen input into the planning process.

Objectives

1. Use the 24-member steering committee as the primary citizen input to the Zoning Commission in amending the Comprehensive Plan.
2. Advertise open informational meetings to discuss and review the recommendations of the plan prior to public hearings.
3. Publish and mail a synopsis of the plan to every household in Concord Township.
4. Encourage active citizen participation in future comprehensive plan updates.

Chapter 15

Recommendations

Intent of the Concord Township Comprehensive Land Use Plan

The 2004 Concord Township Comprehensive Plan is the sum of all the chapters and appendices. Chapter 15 is to be read in conjunction with the Comprehensive Land Use Plan map.

15.1 Sub Area I – Dublin and Shawnee Hills area, southern portion of the township

Boundaries: Territory inside of the city of Dublin and the Village of Shawnee Hills, pockets of Concord Township along the Scioto River.

Land Area: 1,458 acres.

General Facts and Findings

Concord Township has no planning or zoning authority over municipal areas. Nonetheless, Township land use plans should relate to the adjacent existing land uses within Dublin or Shawnee Hills.

The Shawnee Hills Comprehensive Plan resolved the issue of building rights on hundreds of non-conforming lots of record by a policy and zoning amendment that distributes sewer taps to all land owners, but not every lot of record. The ability to obtain sewer may encourage the annexation to Shawnee Hills of non-conforming lots of record in Lucy Depp and Shaw Nee Hills Additions.

Certain land uses that need sewer service might be better located within Shawnee Hills than Concord Township. For example, a community shopping center and satellite local stores could be serviced with infrastructure in Shawnee Hills, and would still serve the region.

The isolated subdivisions of Stan-Gene No. 3 and Hiland Heights are pockets of Concord Township that are surrounded by Dublin. They are recommended for continued Farm Residential district usage, as they are developed in accordance with standards for single family homes on acreage lots.

15.2 Sub Area II - Shawnee Heights

Boundaries: Territory outside the city of Dublin and the Village of Shawnee Hills, west of the Scioto river, south of Merchant Road.

Land Area: 2,941 acres

General Facts and Findings

This area has access to Dublin Road, SR 745. It is the only location in the township with major arterial streets, water and potential sewer service (subject to annexation to Shawnee Hills in their sewer contract area, or provided by Delaware County in the future using Dublin sewer as the discharge point). The highest elevations in the township are found in the southwest, sloping towards the river, with rolling land veined with seasonal creeks. A two-pronged confluence of Eversole Run and its southern sister divides the eastern portion of the sub area. There are few large blocks of undeveloped land remaining. Most soils are suitable for development, but with limitations for on-site sewage systems due to slow permeability in heavy soils, or shallow depth to bedrock. Most soils do not produce high agricultural yields, and the value for housing is rapidly changing agriculture to country lots in the desirable Dublin school system. Most development is single family homes on acreage lots in FR-1 zoning, which requires 1.5 acre lots. The exception is Tartan Fields, a 302-acre golf course and upscale housing development in the southwest corner of the township. Tartan Fields will ultimately provide centralized sewer service to 455 homes with a developer-built, OEPA approved and county-maintained tertiary sewage treatment plant and land application system.

No Delaware County public sewer service is anticipated in Sub Area II in the near future, however, Delaware County does have a contract with Columbus that would allow either party to sewer this sub-area at up to 4 persons per acre (approximately 1.25 units per acre). The 2004 Delaware County Sewer Master Plan Preliminary Report depicts this area as the Lower Scioto (future) Service Area, with densities up to 1.25 dwelling units per acre.

Sub Area II Recommendations

1. **Lucy Depp-** Lands in the Lucy Depp area north of Shawnee Hills have been platted since 1920's with very small (typically 35' x 70') lots and are currently without sewer service. This area is part of the Shawnee Hills sewer contract area, but it requires annexation to Shawnee Hills to obtain sewer service. If county sewer service were made available, the Township should create a new zone that requires the same lot size as Shawnee Hills (14,700 square feet) per building lot, but also have a system to recognize certain smaller non-conforming lots of record. Annexation will reflect the personal decision of the landowners. A Traditional Neighborhood Development (see Chapter 13) could be developed in Lucy Depp and Shawnee Hills based on the original subdivision plat.

2. Baker and Hagloch land - approximately 13 acres west end of Logan Street.

11.2 acres are being used for agriculture with greenhouses. The Baker and Hagloch lands could be redeveloped as higher-value uses. With the recent rezoning of the Saunders tract to the west as PRD at 1.25 units per acre, a stub street was required to access these lands. These lands are recommended for single family development at 1.25 units per acre with centralized sewer service.

3. **Corner of Glick and Manley Roads-** the Kroger Company purchased 9.6 acres in a triangle bound by Glick and Manley Roads in 2002. Kroger has since announced that the grocery store planned for this site will be moved to the intersection of Hard and Sawmill Roads in Dublin. The Comprehensive Plan recommends the 9.6-acre site be used as a Planned Residential Development for single family residential at approximately 1.5 units per acre with centralized sewer. If township officials feel some limited convenience commercial is appropriate at this site, approximately one-acre of “the Point” of the 9.6-acre triangle could be developed as convenience store, subject to strict architectural controls such as brick exterior, A-roof, ground signs, no pole signs, parking and loading facing Manley Road. Dense landscaping should buffer the residential homes.

4. **Saunders lands-** the lands to the east of Tartan Fields and west of Shawnee Hills on the south side of Harriot road have recently been rezoned to PRD in accordance with the recommendation of this plan for single family residential uses at a density of 1.25 units per acre.

5. Marble Cliff Quarry lands, east/west side of Dublin Road, north of Cook Road.

These lands lie south of the existing limestone quarry. The quarry was recently decommissioned and is being closed out.

The comprehensive plan recommends residential re-use of the quarry after the 120 acre mining operation is done at a density of approximately 1.5 units per acre if served by sanitary sewer, or .66 units/ac. if served by on-site sewage disposal systems. The plan also recommends the same use and density for the lands directly opposite the existing quarry, being 63.89 acres owned by Marble Cliff, 40.2 acres owned by Kaylor Hill Painter, and 10 acres

owned by Constance Patridge. This quarry site has the opportunity to line the riverbank with upscale homes or condominiums that take advantage of river views and lake views in the quarry. If all the Marble Cliff tracts were eventually combined into one upscale waterfront development, there would be a total of approximately 327 (gross) acres, which could result in approximately 490 housing units. Centralized sanitary sewer service would be required.

6. The remainder of Sub Area II is recommended for residential use maintaining the current minimum lot size of 1.5 acres with septic systems, or single family residential PRDs at 1.25 units per acre with centralized sewer.
7. In order to promote rural character and still retain permanent open space, it is suggested that FR-1 zoning be amended to permit density-neutral Conservation Subdivisions. Total number of lots in the Conservation subdivision if no centralized sewer were provided would be equivalent to a yield plan showing 1.5 acre lots (approx. .67 units/ac.). If centralized sewer is provided in Conservation Subdivisions, density could be .75 units per acre.

15.3 Sub Area III - Farm Country

Boundaries: West of the Scioto river, south of U.S. Route 42, north of Merchant Road.

Land Area: 3,496 acres

General Facts and Findings

The area contains some moderately high yielding level farmland west of Dublin Road. More than 1,000 acres are being farmed, but there have been extensive road frontage lot splits into acreage home sites with on site septic systems. Such lots are typically 2 acres and larger. This low-density area geographically relates to the Union County farms to the west.

Del-Co water is available. Although no county sewer service is anticipated in Sub Area III in the near future, Delaware County has a contract with Columbus that would allow either party to sewer this sub-area at up to 4 persons per acre, equivalent to 1.25 dwelling units per acre. The Township Trustees have requested the County Sanitary Engineer consider the feasibility of sewer service at a density of 1.25 units per acre for this area in his current sewer master planning.

The 1,000 acres of active farmland north and south of Moore Road and west of Dublin Road is a potential target for another PRD, which, at present densities of 1.5-3 units per gross acre could allow

1,500-3,000 new homes and 4,500-9,000 new residents. Such dense subdivisions served by skinny farm-to-market township roads would promote suburban sprawl, adversely impact the township's desire to maintain rural character, and result in the need to widen township roads, increase fire protection, consider township police protection, and construct new schools.

Recommendations, Farm Country Sub Area III

8. A standard minimum lot size for a residential lot should be maintained at 1.5 acres (.66 dwelling units per acre) when served by on-site sewage disposal systems. Depending on soil conditions, larger lot sizes may be required by the Board of Health for on site sewage disposal systems. Pewamo soils shown on the Plan map are not suitable for septic systems.
9. In order to promote rural character and still retain permanent open space, it is suggested that Conservation Subdivisions be made a permitted use in FR-1 zoning at a density of .75 dwelling units per acre with sanitary sewer service.
10. If Planned Residential Developments are requested, they should not exceed 1.25 dwelling units per acre, be located on a major collector or arterial road, be served by centralized sanitary sewer, and their fair share of road improvements to mitigate their traffic impacts. They should remain a referendable legislative event, enacted pursuant to Ohio Revised code 519.021 A.).
11. U.S. Route 42 road frontage should not be developed commercially at this time. This is a federal highway with heavy truck traffic connecting from I-70 and US 33 to US 23 and I-71. This is a 2-lane 55-mile per hour road. Excessive commercial development along this corridor would slow down traffic and result in more accidents. When centralized sanitary sewer becomes available to the commercial and industrial development in the northeast corner of the township (Area V) then this corridor should be revisited for possible commercial development provided there are proper access management practices such as limited left turns across traffic, parallel backage roads and strict sign controls to prevent visual clutter.

15.4 Sub Area IV - Lower Scioto

Boundaries: East of O'Shaunessey Reservoir, south of Hyatts Road.

Land Area: 1,893 acres

General Facts and Findings

Until 1998 this sub area was a farming and low-density residential area, with no sewer service. In 1998 the township zoned 748 acres PRD for Scioto Reserve, a 1,255-unit planned golf course development utilizing on-site sewage treatment with land application to the golf course (density 1.67 units per acre). New home sales by production builders at Scioto Reserve pushed Concord Township into the third fastest growing township in the county, with 330 new homes built in 2001. While the golf course provides a visual green space in the center of the development, there is little common open space other than the golf course, and virtually none that is useable and free. The township has already received comments from Scioto Reserve residents that there is no place for children to play.

Scioto Reserve now dominates the Lower Scioto sub area. It has brought a diversity of housing sizes and types to the township, and attracted city dwellers to come live in the “country” in a suburban setting, albeit a very nice suburban setting. When completed, its 1,255 new homes will generate 12,000 new auto trips per day. The developer widened Home Road to 3 lanes, and has committed to placing a traffic signal at the intersection of Home and Riverside Drive. Riverside Drive traffic has increased.

Home Road is the major east-west arterial. The narrow two-lane Home Road Bridge has been replaced by a wide two lane bridge with the capability to be expanded to four-lanes, which makes it easier to cross the river, but may also signal that the west bank is ready for development.

The steering committee acknowledged the many improvements made by the developer of Scioto Reserve, and the apparent demand for housing types such as those provided at Scioto Reserve, but lamented the rapidity of change, and the loss of rural character. The committee felt that Concord Township would not be well served to repeat large PRD’s at this density wherever developers could assemble lands, although expansion of Scioto Reserve to adjacent lands may be appropriate, if there is additional sewer capacity.

Del-Co water is available to sub area IV, but there is no county sanitary sewer service currently provided outside of Scioto Reserve.

Delaware County has undertaken a sewer master plan for the entire unincorporated county and solicited opinions from the trustees as to their desire for sewer in the township and at what density. The trustees have indicated a willingness to have county sewer service at 1.25 units per acre.

The city of Powell is within 1,500 feet of the east boundary of the township after the Golf Village annexation (at Steitz Road).

Sub Area IV Recommendations

12. A standard minimum lot size for a residential lot should be maintained at 1.5 acres when served by on-site sewage disposal systems.
13. Planned Residential Developments at a density of 1.25 units per acre should also be allowed in this sub area if served with centralized county sewer. If Planned Residential Developments are requested, they should have access to a major collector or arterial road, and have centralized sewer, plus pay their fair share of road improvements to mitigate their traffic impacts.
14. PRDs should remain a referendable legislative event, enacted pursuant to Ohio Revised code 519.021 A.) as amended by HB 280 in 1997. The lands adjacent to Scioto Reserve and south of Hyatt's Road are potential extensions of Scioto Reserve if sewer capacity is available.
15. The 39- acre R-6 multi family zoning district on the west side of Steitz Road has begun to develop for eighteen 4-unit condominium buildings. The plan reflects its R-6 zoning.

15.5 Sub Area V - Upper Scioto

Boundaries: North: Scioto Township; West: Scioto River; East: Delaware/Delaware and Liberty Townships; South: Hyatts Road.

Land Area: 4,108 acres

General Facts and Findings

This is an area of very level, high-yield agriculture soils. Agriculture continues, but proximity to the city of Delaware puts development pressure on flat lands along US 42 if sewer ever becomes available. There is Del-Co water service, but no county sewer currently provided. The 2004 Delaware County Sewer Master Plan Preliminary Report designates this area as part of the future Lower Scioto Sewer Service Area. Residential development tends to be large lot 2-10 acres, with many flag lots and

some Common Access Drive (CAD) subdivisions. Extensive Pewamo soils are not conducive to on-site sewage disposal systems.

There are two areas of active farmland that could be a potential PRD. Approximately 200 acres lie north of Hyatts Road, south of Clark Shaw Road, and east of Section Line Road. Approximately 400 acres lie north of Bean Oller, south of Maynard, and east of Section Line Road. If developed under current PRD standards of 1.5-3 units per acre these 600 acres could yield 900-1800 homes and 2,700-5,400 new residents. Such large, dense subdivisions accessed by skinny farm-to-market township roads would promote suburban sprawl and adversely impact the townships desire to maintain its rural character, result in the need to widen township roads, increase fire protection, consider township police protection, construct new schools, and encourage neighborhood commercial development.

Riverside Drive and Section Line Road are the major north/south arterial streets, and are expected to see increased traffic. Section Line Road carries heavy trucks from the quarries in Union County and Scioto Township. These trucks run down Bunty Station Road to U.S. 23 and points east.

The 2002 Delaware County Thoroughfare Plan recommends two new roads in this sub area. Alternate G is a Riverside Drive to Section Line Road connector south of Clark Shaw Road. Alternate 1 is an east-west connector from U.S. 42 to U.S. 23 whose alignment is being further studied, but could be anywhere in a swath from north of Bean Oller Road to south of Slack Road.

Sub Area V Recommendations

16. A standard minimum lot size for a residential lot should be maintained at 1.5 acres when served by on-site sewage disposal systems.
17. In order to promote rural character and still retain permanent open space, it is suggested that Conservation Subdivisions be made a permitted use in FR-1 zoning at a density of .75 dwelling units per acre with sanitary sewer service.
18. If Planned Residential Developments are requested, they should be a maximum density of 1.25 dwelling units per acre, have access to a major collector or arterial road, and have centralized sewer, plus pay their fair share of road improvements to mitigate their traffic

impacts. PRDs should remain a referendable legislative event, enacted pursuant to Ohio Revised code 519.021 A.).

19. U.S. Route 42 road frontage should not be developed commercially southwest of Freshwater Road at this time. This is a two-lane 55-mile per hour federal highway with heavy truck traffic connecting from I-70 and U.S. 33 to U.S. 23 and I-71. Excessive commercial development along this corridor would slow traffic and increase accidents. However, if county sewer service is provided to the proposed commercial and industrial area in the northeast corner of the township (Area V) then this US 42 corridor should be revisited for possible commercial development provided there is proper access management control.
20. When agriculture is no longer viable, a large industrial park area should be developed north of Bunty Station Road and extending west of Section Line Road. Delaware County should be encouraged to provide sanitary sewer service. There have been significant large industrial developments interested in tracts of 150 or more acres here, but the lack of loop roads around Delaware, the possibility of being divided by the Sawmill Parkway extension to US 42, and lack of sanitary sewer have delayed development. Industrial development is especially desirable in the flight paths of Delaware airport. Federal Aviation Administration height restrictions must be considered for structures in the direct flight path.
21. Sawmill Parkway will be extended from Home Road in Liberty Township north to intersect with US 42, potentially within Concord Township. The Sawmill Parkway corridor study has been commissioned by the Delaware County Engineer and is currently underway. To preserve the major super blocks of land north of Bunty Station in Sub Area V for industrial development, the Comprehensive Plan suggests Sawmill Parkway be routed to the west to intersect US 42 northeast of Section Line Road (new road "A" on the Comprehensive Plan). Sawmill Parkway should continue north across US 42 to end at Section Line Road (new road "B" on the Comprehensive Plan). A portion of Bunty Station Road could be incorporated into the Sawmill Parkway. Bunty Station Road could thus be considered as the preferred alignment for Alternate 1, a widely defined corridor east-west connector from US 42 to US 23 depicted in the 2002 Delaware County Thoroughfare Plan. If Bunty Station became the improved Alternate 1, improvements would be needed at the northerly terminus of SR 315, Bunty Station and US 23. Such improvements must avoid the Stratford Ecological Preserve, a

state- protected farm. The Plan suggests further study of these proposals as part of the Delaware County Engineer's corridor study for the Sawmill Parkway.

22. A 45-acre tract at the NW corner of the US 42 and Section Line Road intersection and extending to Freshwater Road is recommended for Planned Commercial as a future neighborhood shopping center when sewer is available. Access management practices should limit access. There should be extensive landscape mounding and tree buffering established to screen the single-family homes on the south side of Freshwater Road.
23. Land north of U.S 42 and west of the proposed industrial and commercial areas should remain low-density single family residential along Freshwater and Klondike Roads with minimum lot sizes of 1.5 acres. PRD's are generally not preferred for this area.

15.6 Sub Area VI - Mill Creek Valley

Boundaries: North: Scioto Township; South: U.S. 42 to a line south of the U.S. 42/Dublin Road intersection extending east to the river; East: east side of parcels that front on the east side of Klondike Road; West: Scioto Township and Union County.

Land Area: 1,981 acres.

General Facts and Findings

This area is divided east west by the Scioto River and north- south by Mills Creek. Mills Creek's wide floodplain impacts lands along Mills Road. The topography is rolling with flat plateaus. The unincorporated village of Bellepoint is a 19th century grid town center, commercially zoned but without commercial development. Bellepoint church is a local gathering place, as are the City of Columbus parklands at the confluence of Mills Creek and the Scioto River. With the closure of the old Bellepoint Bridge, the small east and west side settlements are divided.

Other than Bellepoint, the area is sparsely populated with low-density 2-10 acre lots and small farms. Many of the township roads are narrow. Three large power lines cross the area.

Soils along the Scioto River and Mills Creek have underlying bedrock. Upland soils are moderately high yielding croplands. One family owns much of the agricultural acreage.

The approximately 400 acres of active farmland northwest of US 42 and south of Mills Creek is a potential target for another PRD. At present densities of 1.5-3 units per gross acre such development could allow 600-1200 homes and 1800-3600 new residents. Such far-flung large suburban density subdivisions, accessed by skinny farm-to-market township roads on the west side of the Scioto River would promote suburban sprawl, result in the loss of rural character, the immediate and costly need to widen township roads, increase fire protection, consider township police protection, construct new schools, and encourage neighborhood commercial development.

Soils over bedrock may be unsuitable for on site sewage disposal systems. This territory is part of Delaware County's future Lower Scioto Sewer Service area, but sewer extension is going to be development driven and may be a long time in the future.

Sub Area VI Recommendations

24. A standard minimum lot size for a residential lot should be maintained at 1.5 acres when served by on-site sewage disposal systems.
25. In order to promote rural character and still retain permanent open space, it is suggested that FR-1 zoning be amended to also allow Conservation Subdivisions as permitted uses at the same density of (.66 units/acre) without sanitary sewer, or .75 units per acre with centralized sewer.
26. U.S. Route 42 road frontage should not be developed commercially at this time. This is a two-lane 55-mile per hour federal highway with heavy truck traffic connecting from I-70 and U.S. 33 to U.S. 23 and I-71. Excessive commercial development along this corridor would slow traffic and increase accidents. However, if county sanitary sewer is provided to the commercial and industrial development in the northeast corner of the township (Area V), then this corridor should be revisited for possible commercial development provided there is proper access management.
27. If Planned Residential Developments are requested, they should be a maximum of 1.25 dwelling units per acre, have access to a major collector or arterial road and have centralized sewer, plus pay their fair share of road improvements to mitigate their traffic impacts. PRDs

should remain a referendable legislative event, enacted pursuant to Ohio Revised code 519.021 A.).

15.7 Future Land Use Mix

Table 15.1 shows the future land use mix of the township if the 2004 Comprehensive Plan were implemented and the township was totally built out.

Table 15.1 Future Land Use Mix- 2002 Concord Township Comprehensive Plan-Total build out

	2001 land use in acres	% Total	Comprehensive Plan (total build-out) to nearest acre	% Total
Single Family	4,371.802	27.53	10,035	63.2 %
Multi family	89.284	.562	93	.58 %
Commercial/office	63.87	.402	90	.56 %
Institutions	156.112	.9832	156	.98 %
Industrial/Hwy Dev.	212.29	1.337	688	4.33 %
Agriculture	6,307.693	39.729	0	0 %
Water	956.92	6.027	957	6.02 %
Highway/Rail/Utility	724.68	4.564	1539	9.69 %
Parks/undev land	2373.476	14.949	2373	14.94 %
Totals		100.00	15,931	100.00

15.8 Future Population- Alternative Scenarios

The projected 2003 year end population of Concord Township was 6,612 (DCRPC housing unit method).

There are approximately 6,000 acres of unplatted, developable agricultural land (after factoring out 2,198 acres of river, floodplain, steep slopes, and jurisdictional wetlands) recommended for residential use.

The alternate scenarios for future population and open space are:

1.) **Build Out Scenario Based On Existing Zoning**

- With PRDs at 3 units per (gross) acre- If the township were built out under current 2003 zoning, with all identified potential PRD sites developed at 3 units per acre (no deductions for roads, steep slopes, wetlands or floodplains) within the 6,000 developable acres, the maximum population would be approximately 56,000. Because of the 3 units per gross acre density, the zoning resolution would require the developer to provide “ useable parks or public open space” but there is no certainty as to the percentage of open space that would be provided. All farmland would be developed.

- With PRDs at 1.5 units per (gross) acre- If the township were built out under current (2003) zoning, with all identified potential PRD sites developed at 1.5 dwelling units per gross acre (no deductions for roads, steep slopes, wetlands or floodplains) within the 6,000 developable acres, the maximum population would be approximately 31,000. Because this is the standard 1.5 units per gross acre density, there is no specific open space requirement. All farmland would be developed.

2.) **Build Out Scenarios Based On The 2004 Comprehensive Plan**

- **(Highest population estimate)**- If all the large tracts of vacant land were developed as PRDs at 1.25 units per (gross) acre, (no deductions for roads, steep slopes, wetlands or floodplains within the 6,000 developable acres) the maximum population of Concord Township would be approximately 26,000.
- **(Medium Population Estimate with Conservation Subdivisions and PRD density reductions for environmentally sensitive areas)** -If all potential large tracts of vacant land were developed as PRDs at 1.25 units per acre, but with density deductions for roads, steep slopes, wetlands and floodplains within the 6,000 developable acres, the maximum population of Concord Township would be approximately 23,000. There would be approximately 1,200-2000 acres of preserved open space if the township adopted a 20% open space standard in PRDs and 50% in Conservation Subdivisions. This would permit fields of prairie grass, new forests, walking and biking paths, ponds and wetlands. Homes sitting on one-quarter to one-half acre lots would be interspersed within this open space, so there would be a rural feel and sense of tranquility. Wildlife would continue to run through these open areas.
- **(Low Population Estimate- no PRDs or Conservation Subdivisions)**
If no new PRDs or Conservation subdivisions are developed and all remaining land is simply developed with on-lot sewage disposal systems at the minimum lot size of 1.5 acres, the maximum build out population would be approximately 16,000, with no new open space preserved other than parks existing in 2003.
- **Realistic Expectation of Future Population**- A realistic expectation of the township's maximum population developed pursuant to the 2004 Comprehensive Plan would be

20,000, with 1,500 acres of permanent open space in addition to current park land. If the 2001 rate of building continues (320 homes per year x 2.74 person /unit = 879 new residents/year), the township could be totally built out by 2019.

The character of the township will continue to reveal itself as the plan is implemented. The township should revisit the comprehensive plan in five years (2009) to consider whether changes need to be made.

Chapter 16

Implementation

The Comprehensive Plan is intended to be the basis for township zoning. Zoning is the enforceable tool. The Comprehensive Plan is a guide that should be consulted in every proposed rezoning.

16.1 Recommended Zoning Amendments

1. Minimum lot size- FR-1 lot size of 1.5 acres in zone for lots not served by centralized sewer. Require at least one acre of net developable land within the 1.5-acre lot.

2. Planned Residential Developments
 - a.) Establish density for PRD zoning as a maximum of 1.25 dwelling units per gross acre. Make a base density of less than 1.25 units per acre, but allow that density provided certain performance criteria are met.
 - b.) Create a two step approval process. The first step would be the review and approval of a preliminary development plan by the Township Zoning Commission and Trustees, and the amendment of the zoning map. This would be a referendable event. The second step would be the administrative review of the development plan for final

3. Conservation Subdivisions
 - a.) Adopt a Conservation Subdivision text.
 - b.) Make Conservation Subdivision subdivisions a permitted use in the FR-1 zone at a density of .66 units per net developable acre without centralized sewer, and .75 units per net developable acre with centralized sewer.

4. Signs- revise sign code to prohibit pole signs and billboards. Permit ground signs and fascia signs.

5. Floodplains-
 - a.) Prohibit filling of 100- year floodplain unless granted a conditional use for cause.
 - b.) Create a zoning regulation for floodplain development that supplements the county floodplain regulations.

6. M-2 district- Establish performance conditions for the quarrying use in the M-2.

7. Planned Commercial – Modernize and update. Use the North American Standard Industrial Classification system numbers to identify specific land uses that are permitted. Create a two step approval process as described in the PRD section above.
8. Planned Industrial -Modernize and update. Use the North American Standard Industrial Classification system numbers to identify specific land uses that are permitted. Create a two step approval process as described in the PRD section above.
9. Adult Entertainment- Adopt new regulations to control the location of adults only uses.
10. Access Management and Traffic-
 - a.) Work with County Engineer to develop access policies and standards for county/township roads.
 - b.) Coordinate developments along state roads with ODOT regarding access management standards.
 - c.) Require access management compliance as condition of development plan approval for Planned Developments.
 - d.) Require traffic studies for rezoning to any use that generates more than 100 new trips per day, or as determined by the proposed Delaware County Traffic Impact Standards. Require developer to mitigate his fair share of the traffic impact as part of PUD review and approval. Establish a level of service (LOS) C as the desired level of service.
11. New Roads- Use the comprehensive plan as the guide where new roads need to be built. Coordinate with County Engineer regarding corridor studies for such new roads. Seek provision of right of way within super blocks of land developed as planned districts. Use Bunty Station as the northern terminus of the Sawmill Parkway and also as the east west Alternative 1 corridor depicted generally on the County Thoroughfare Plan.
12. Recreation- use NRPA standards as a guide for recreational areas needed. Secure the provision and/or construction of useable open space by developers of major new Planned Unit Developments (30 homes or more).

13. Greenways- Require a landscaped or forested greenway linkage of new Planned Unit Developments (Planned Residential Developments, Conservation Subdivisions, and/or Farm Villages). Add greenway criteria to the zoning resolution; count its area as open space.
14. Buffer-Amend the zoning resolution to show a landscape detail buffer between incompatible land uses.
15. Definitions-
 - a.) Amend definition of single family dwelling to include permanently sited manufactured homes in compliance with Ohio Revised code.
 - b.) Add other definitions as needed to clarify the intention of the zoning resolution.

13. Scioto River Corridor- Establish 900' elevation on the zoning map in Sub Areas III-VI. Maintain lot size of at least 1.5 acre below 900' elevation to protect the Scioto River from urban runoff. This continues the same regulation in Liberty Township. Within Conservation Subdivisions and PRDs served by centralized sewer lot sizes may be reduced to .6 acre below elevation 900', provided all houses are constructed outside of the 100-year floodplain.

16.2 Non zoning related actions

1. Consider acquisition of additional public parklands in quantities that relate to population size, according to NRPA standards in this plan.