



***POND-GROVER
COMMUNITY AREA STUDY***



ST. LOUIS COUNTY DEPARTMENT OF PLANNING

December 1990

ST. LOUIS COUNTY PLANNING COMMISSION

GOVERNMENT CENTER . 41 SOUTH CENTRAL . CLAYTON, MISSOURI 63105
889-2516

December 17, 1990

The Honorable County Council
County Government Center
41 South Central Avenue
Clayton, Missouri 63105

Re: Pond-Grover Community Area Study

Council Members:

The accompanying Pond-Grover Community Area Study Report represents the fifth in a series of community-based, intensive land use planning efforts collectively undertaken by the St. Louis County Planning Commission, the St. Louis County Department of Planning, and local residents, business owners, and service providers from a designated area of the unincorporated County. These residents, business owners, and service providers, each appointed by the County Executive, became the Pond-Grover Community Area Study Advisory Committee. This report is the culmination of a twenty-month study process which began in March, 1989 and ended with a Public Hearing held by the St. Louis County Planning Commission in November, 1990. Over the twenty-month period, the seventeen member Pond-Grover Community Area Study Advisory Committee participated in a total of seventeen meetings.

Each of these meetings were held in the Pond-Grover community and were open to the public. The meetings were so structured as to gain input into future development and community issues not only from the Advisory Committee, but also from property owners, community groups, and other outside interests. Additionally, state and local agencies were given the opportunity to participate throughout the process.

The historic communities of Pond and Grover became the focal points of the eleven square mile area under study. The study area encompassed a diversity of interests, people, and environments. The boundaries of the study area were the existing city limits of Ellisville, Missouri to the east, Old State Road and Rockwoods Reservation to the south, Wild Horse Creek Road to the west, and Babler State Park, State Route 109, and Clayton Road to the north. The study area contains the State Route 100/State Route 109 intersection, an identified Major Activity Center in the County General Plan Update - 1985.

Each community area study is unique. The physical environments, the people, and the issues that make up that community vary from one part of the County to another. In the Pond-Grover community, the density of future residential developments, the location of future commercial areas, proposed roadway plans and priorities, and the preservation of the natural environment (native forest cover and environmentally sensitive land) were the major issues as defined by those who live and work there. To this end, the Pond-Grover Advisory Committee deliberated and formulated planning recommendations to achieve a number of long-standing community goals. These goals were:

- 1) To retain the area west of State Route 109 in its existing low-density residential character;
- 2) To restrict commercial development to the intersections of major arterials and be integrated and compatible with nearby residential communities;
- 3) To establish an open space/riparian corridor linking Babler State Park and Rockwoods Reservation in direct support of an overall effort to preserve and protect the natural environment in the Pond-Grover community.
- 4) To establish and prioritize roadway improvements to encourage greater citizen input and eliminate existing unsafe or overcrowded roadway conditions.

The St. Louis County Planning Commission supports the Advisory Committee's recommendations contained within the report and believes that many of these recommendations reflect existing precedents and policies that the Planning Commission has established over the years in the Pond-Grover area. It is the Planning Commission's intent to consult and adhere to the report's recommendations and the Advisory Committee's community strategies whenever rezoning requests are brought before it within the designated study boundaries.

The Planning Commission has identified a few instances where the recommendations may be inconsistent with current land use precedents within the Pond-Grover area. In those instances where inconsistencies exist, previous precedent requires a greater latitude in the interpretation of the Advisory Committee's recommendations. These specific recommendations include:

Subarea One and One A: Strategy 3 - The Planning Commission concludes that limiting commercial development to a single corner at the intersection of Clayton and Strecker Roads may prove to be difficult because of legal considerations. Therefore, the Planning Commission does support limiting the intensity and type of development (low intensity, neighborhood uses) per the Advisory Committee's recommendation and additionally, supports specific limits on its extent (only within 300 - 500 feet of the intersection), but believes that each corner should be equally treated with respect to possible commercial development proposals.

Subareas Three and Four: Strategies 3 and 5 - The Planning Commission concludes that the 300 foot buffer is not consistent with previous actions by the Commission, nor is it currently applicable to the majority of properties abutting the northern right-of-way line of Old State Road. The Commission, in previous actions, has approved a variety of setback distances along Old State Road to better reflect topography, existing vegetation, density of development, and general location. With the full development of properties between Lawler Ford Road and the Cherry Hills Country Club along Old State Road, the dedication of a standardized setback distance has little application within the area. Therefore, the Commission intends to use the aforementioned criteria for the remaining properties further south along Old State Road (including the Cherry Hills Country Club) when determining appropriate setbacks from the roadway.

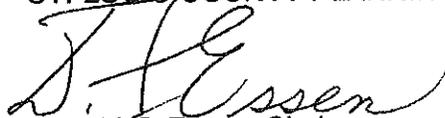
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Subarea Seven: Strategy 3 - The Planning Commission concludes that limiting highway-oriented commercial uses from this northeast corner of State Routes 100/109 may again prove difficult to accomplish due to past precedents established on the southeast and southwestern corners of the same intersection. However, the Planning Commission agrees that alternative uses should be considered when proposals are reviewed, but will not disregard any appropriate highway-oriented commercial uses if properly designed to mitigate site and traffic impacts.

It is with these points clarified, the St. Louis County Planning Commission is pleased to forward to the St. Louis County Council for their review and consideration of the Pond-Grover Community Area Study Report.

Respectfully submitted,

ST. LOUIS COUNTY PLANNING COMMISSION


Donald F. Essen, Chairman

DFE/JV/dlv
(a\council)

ACKNOWLEDGEMENTS

To the Committee and governmental or service provider representatives listed below and all those who attended, called, or wrote regarding the development of this Report, the Department of Planning staff gratefully acknowledges your support, interest, and participation in the process. Involvement of the citizenry is the cornerstone to an area's future. Certainly, no greater future could lie ahead for a community than that which was exemplified by the interest, commitment, and energy of the people who live, work, and shop in the Pond-Grover area.

Pond-Grover Community Area Advisory Committee:

- **Donald F. Essen**
Chairman of St. Louis County Planning Commission
Chairman of Advisory Committee

- **Gregory F. Quinn**
Former St. Louis County Planning Commissioner
Former Vice-Chairman of Advisory Committee
Councilman - Seventh District

- **Dan Burns**
Assistant Superintendent - Rockwoods School District

- **Ron Coleman**
Recreation Resources
Business owner in the study area

- **Mary Kay Corsair**
Covert-Corsair Homes, Inc.
Business owner in study area

- **Dr. John J. Dann**
Resident of study area

- **William Harrison**
Board Member - St. Louis County Public Water District #1

- **Helen James**
Resident of the study area

- **Thomas K. Lehr**
Resident of the study area

- **Dr. Thomas Loafmann**
Resident of the study area

- **Joyce Miner**
Resident of the study area
- **Fannie Pritchett**
Resident of the study area
- **John Robertson**
Resident of the study area
- **Chris Schauffert**
Resident of the study area
- **Mike Sheahan**
Mike Sheahan Realtors, Inc.
Business owner in study area
- **Chief James Silvernail**
Ballwin Fire Protection District
- **Barry Zimmermann**
McBride and Sons, Co.
Resident of the study area

Governmental and Service Provider Representatives:

Missouri Highway and Transportation Department
J.T. Yarnell, District Engineer
Freeman McCullah, Assistant District Engineer

St. Louis County Department of Highways and Traffic
Jan Paynton, Director
Richard Daykin, Former Director
Donald Spencer, Planning and Design Engineer
Jack Gallai, Planning Supervisor
Joe Passanise, Traffic Planning Supervisor

St. Louis County Department of Parks and Recreation
Susan Sedgewick, Senior Planner
Esley Hamilton, Historic Preservation Specialist

Missouri Department of Conservation
Cathy DeJong, Area Manager

St. Louis County Department of Planning
Roger M. Grow, Director
Donald E. Clark, Former Director
Glenn A. Powers, Land Use Supervisor
Julie M. Tintera, Zoning Section-Division Chief
Lori Fiegel, Report Coordinator
Joe Vujnich, Report Coordinator
Debra Voracek, Report Assistant
Dori Covault, Report Assistant
Marcie Towers, Graphics Supervisor
Danny Friganza, Graphics Support
Vicki Feliciano, Graphics Support
Pete Rogado, Graphics Support

St. Louis County Police Department
Tom Kraus, Community Relations Officer

Outside Consultants:

Josephine Emerick, Robert Boyer, and Edward Johnston
Booker and Associates, Inc., Traffic Study

Photo Credits (Cover):

Dr. John J. Dann

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CREATING A COMMUNITY VISION

INTRODUCTION

General Plan

By charter mandate St. Louis County is required to provide a County plan and review it every five years. The County's General Plan was updated in 1980 and 1985, and a 1990 plan is soon to be completed. One of the implementation strategies included in the 1985 General Plan calls for the "systematic preparation of detailed area studies for unincorporated County." This study is the fifth to be initiated since the 1985 General Plan was adopted.

The Community Area Study Process

Purpose. The intent of the Community Area Study process is to produce a plan, with input from a citizen's advisory committee, which can be used as a guide by the Planning Commission and County Council in land use decision-making. While the focus of the study is principally on land use issues, other issues of a community-wide interest are also included. Most importantly, the study provides guidelines that can be applied to specific zoning petitions and other planning decisions to ensure the orderly development of the area.

The Community Area Study process is conducted under the auspices of the St. Louis County Planning Commission. The process is initiated with the designation of a specific area for study by the Planning Commission. As specified in the 1985 General Plan, an Advisory Committee is appointed by the County Executive that includes area residents, service providers, business/development representatives, and Planning Commission members. Through a series of meetings, the Advisory Committee provides direct input to the study with the assistance of Planning Department staff. Additional input is obtained from public comments received by the Advisory Committee during its meetings and later at a public hearing before the Planning Commission. The report is submitted first to the Planning Commission for adoption and then to the County Council for consideration.

Selection. In order to be considered for selection, an area must meet some basic criteria. First, and most fundamental, in selecting a study area is that it be characterized by active development where that process is not yet complete, and/or have strong potential for future development. The study area should also constitute a "community of interest" where concerns or issues are shared by local interests, such as residents, businesses, or service providers. Additionally, the issues important to the area should be relevant to the public welfare and within the purview of St. Louis County (or can be coordinated with other public entities).

Finally, higher priority is given to an area that:

- Possesses the strongest potential for continued new development, infill development, or redevelopment.
- Includes a major activity center at any stage of development, or any other development or redevelopment with a major or regional influence.
- Has a history of continuous development interest or redevelopment proposals.

- Includes a significant potential for major capital investments by St. Louis County or other service providers.
- Includes identified historic sites, environmentally sensitive areas, or other sites worthy of conservation.
- Possesses unique characteristics or qualities that merit attention.

Recommendations. After a study area is designated by the Planning Commission and an Advisory Committee established, the work of the Committee is focused on developing land use recommendations. The scope of the study is largely limited to potentially developable areas, although areas of redevelopment may also be considered. The Committee assesses numerous factors in developing its land use recommendations, including surrounding land uses, topographic/environmental features, specific site characteristics, road conditions, and other infrastructure issues.

The study recommendations are not intended to supersede the technical review of staff or consideration of the merits of proposed developments by the Planning Commission and County Council. The consideration of site specific design criteria is deferred to the normal zoning review process. The study is intended to support those review processes by establishing guidelines, residential density ranges, and development alternatives by which future proposals may be compared. Other important considerations are derived from public input and are incorporated in the guidelines to reflect the preference of the local community as much as possible.

Implementation. The recommendations of the Pond-Grover Community Area Study will be implemented primarily by St. Louis County through provisions of the Zoning and Subdivision Ordinances and other related regulations. As the Planning Department or other County Departments review proposals or enforce County regulations, there will be opportunities to encourage decisions consistent with the study and to also consider alternatives compatible with the study's guidelines. It should be noted that no specific timeframe has been suggested for implementation since most land use changes will be initiated by private interests. However, as individual land use changes are proposed, they will be reviewed in the context of a larger land use plan.

DEFINING THE COMMUNITY

Physical Boundaries of the Study Area

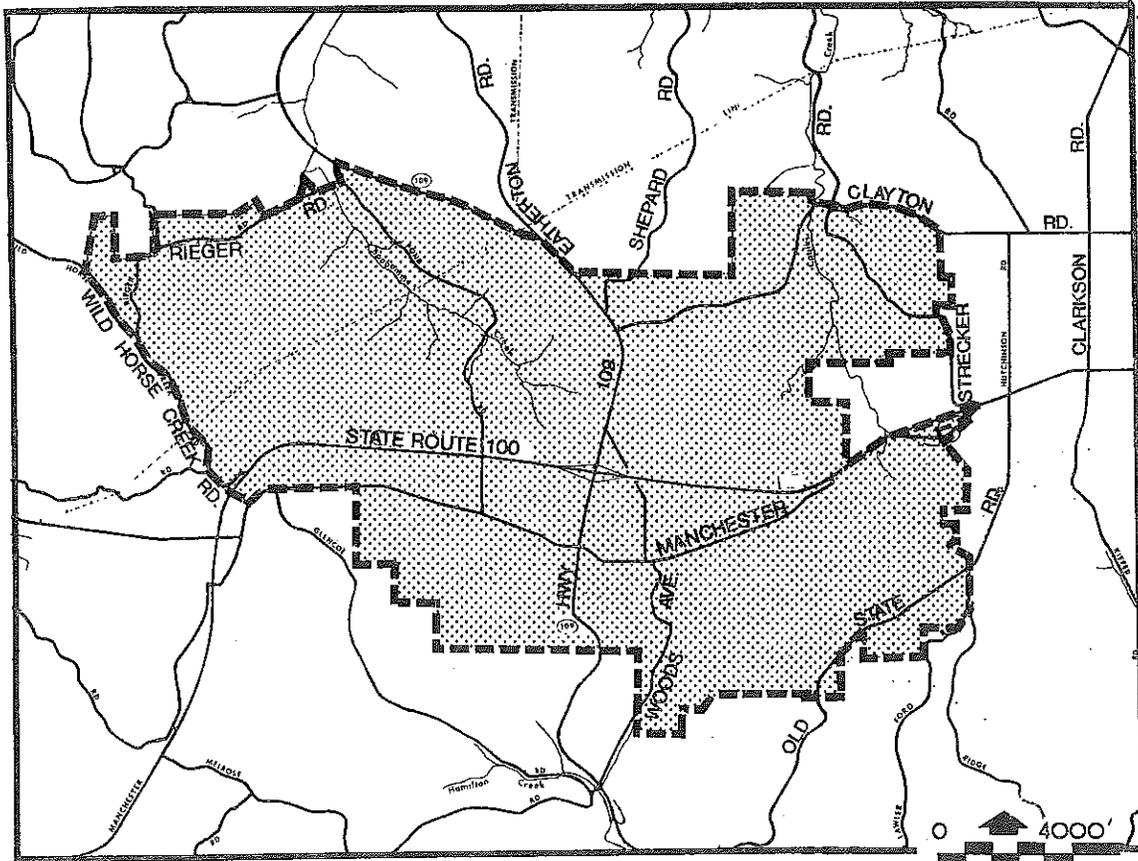
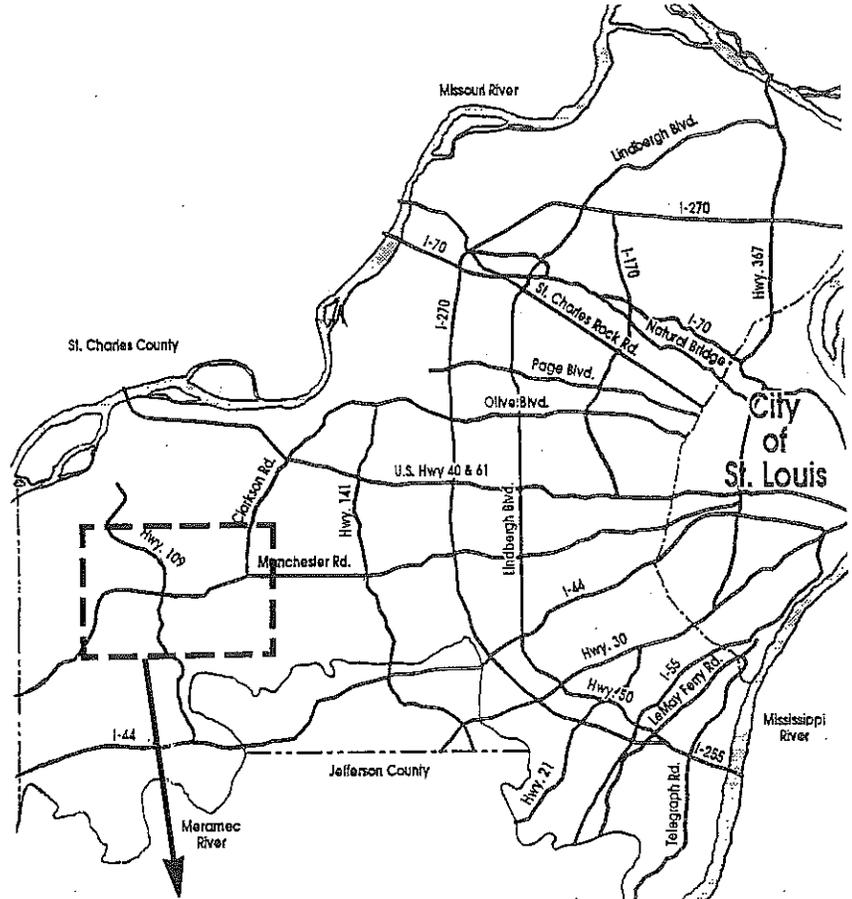
The first task of the St. Louis County Planning Commission and the Department of Planning, within the established guidelines of the community area study process, is the identification and delineation of an area of the unincorporated County that meets the required selection criteria for further study. There are a number of criteria used and these are discussed in greater detail in the Introduction of this report, but the most important, of these is the criteria of growth. If the level of new or proposed growth is escalating and continues at a sustained pace over a number of years, this area then becomes a candidate for an intensive, site-specific planning process. The intent of the study process is to insure that local residents, service providers, and business/development interests have an active and participatory role in the overall conceptual development of their community.

Since 1985, four community area studies have been undertaken. Geographically, one study had been completed in the Chesterfield area (before its incorporation), two had been completed in the north County area - Old Jamestown and Robertson, and one had been completed in the Oakville area of south County. Logical choices for the fifth study area were centered in the southwest or western portions of St. Louis County.

With this general area of the County determined, the Department of Planning began a thorough inventory and analysis of rezoning petitions filed over the past several years. After a detailed analysis of trends since 1985, the community loosely centered at the intersection of State Routes 100 and 109 was identified as an area of significant growth and development activity. This growth is illustrated by the submittal of 57 individual rezoning requests and an average yearly increase of approximately 40 percent in petitions filed with the Department of Planning over that same time span. The generalized area included the historic, unincorporated communities of Pond and Grover.

After this first review is completed, further refinements to the boundaries are undertaken. Several measures are employed in this refinement process, including the use of natural physical boundaries, roads, and defined density changes in development patterns. The specific boundaries for this community area study utilized a number of these types of features. The southern boundary follows the refuge boundaries of Rockwood Reservation. The northern boundary follows Babler State Park, State Route 109, and the subdivisions of Winding Woods, Shepard Valley, and Winding Trails Village (a density change in the development pattern), and Clayton Road. The eastern boundary is the corporate limits of Ellisville and the western boundary is Wild Horse Creek Road (see Location Map).

LOCATION MAP



The northern and western boundaries, as described above, represent a change from those that had originally been agreed upon by the Planning Commission. The original boundary in this area had been the Union Electric right-of-way that etches a distinctive path across this northwestern corner of the community. The Pond-Grover Advisory Committee, at its second meeting, requested the boundaries be changed to include the area north and west of Babler State Park. The inclusion of this additional area provided a continuous linkage of properties between Babler State Park to the north and Rockwood Reservation to the south. The provision for this linkage allows future land use recommendations to take into consideration the preservation of an open space corridor between these two large open space/recreational areas and provide the community with a truly unique recreational/ecological/aesthetic asset for the future.

Participant Selection and Make-up

The second task in defining the community is to develop a list of Community Area Study Advisory Committee candidates for submittal to the County Executive. The Committee's make-up is crucial to ensuring that the community's interests are accurately reflected by its representatives.

The selection of candidates begins with requests being made of community leaders, such as St. Louis County Planning Commissioners, State Representatives, and County Council members, to nominate individuals who they feel are representative of community interests. These individuals who live, work, or have businesses within the designated area, must be able to gauge public sentiments and determine community issues and concerns for eventual conversion to actual policy recommendations for future growth.

Other organizations, such as the Home Builder's Association and the West County Chamber of Commerce, were also encouraged to submit names of nominees. Finally, the Department of Planning, with the assistance of The Suburban Journals, requested that any other individuals or organizations within the general area forward requests stating their interest in being or having a representative on the Committee. Over seventy-five individuals either called or responded by letter and requested they be considered for selection.

After soliciting candidates through these three means, approximately 100 people were either nominated or requested to be considered for selection to the Committee. To maximize each member's input to the Committee process, several selection guidelines were considered:

- a. Representatives from subdivision trustee or homeowner's associations were given priority in the selection process because of the number of people each represents.
- b. A geographic mix of residents from the areas east of State Route 109, as well as west of State Route 109, was sought.
- c. Service district representatives from the area were given immediate consideration and selection. For the Pond-Grover area, this included the Ballwin Fire Protection District, St. Louis County Public Water District #1, and Rockwood School District.

- d. A minimum of two St. Louis County Planning Commissioners, generally those who live in or near the selected geographic area under study, were given immediate nomination. The Planning Commissioners serve as Chairperson and Vice-Chairperson of the Committee.

A total of ten residents, three service providers, three local business representatives, and two Planning Commissioners were selected to serve as Advisory Committee members. The eighteen member committee, the largest of any previous Community Area Study Advisory Committee, in principle represents the range of perspectives held in the community concerning the services, development, and amenities necessary for its desired and proper growth.

Citizen/Resident Participation

Due to the large amount of interest generated within the community, it was the intention of the Committee to provide an opportunity for citizens/residents, to have a forum for their views, opinions, or ideas to be voiced and incorporated into the report.

All community area study meetings were open to the public and announced through local newspapers and direct mailings. Generally, an audience of interested individuals is in attendance at each meeting. A portion of every meeting's agenda provides an opportunity for members of the public to have input. This process allows the Committee to consider issues raised outside its membership, and, if applicable, to incorporate these ideas into its report.

Throughout the process, residents and interested parties also were encouraged to call or write the Committee members or the Department of Planning to express their ideas or opinions. Copies of all written comments were available to the Committee members prior to their meetings.

Finally, representatives of businesses or landowners were afforded the opportunity to make formal presentations to the Committee, within the defined limits of the agenda. These presentations reflected their concerns, ideas, or opinions on how the Pond-Grover community should develop and grow.

UNDERSTANDING THE COMMUNITY

One of the first actions requested of the newly appointed Pond-Grover Advisory Committee was to complete a questionnaire. This questionnaire asked each member to identify major or pressing issues and concerns within the community, and also to provide a listing of features each member considered to be an asset and amenity within the community. The questionnaire presented several general categories under the issue identification heading. These categories were: Infrastructure (road and bridges), Utilities, Commercial development, Residential development, Environment, and Other. The questionnaire was intended to give each Committee member an opportunity to begin formulating ideas about the study area prior to the scheduling of meetings and also to assist the Department of Planning in its gathering of preliminary data which would be used and discussed at future Committee meetings. Similarly, the responses from the questionnaires provided the Department of Planning staff with a better understanding of the commonly held views and visions for the community, thereby giving initial direction to the policy and recommendation development phase of the report.

Concurrently, area service providers were questioned regarding what they felt were major concerns and trends in this area - concern and trends that could either affect service delivery capability or impact the community's quality of life. These service providers included the following: the Metropolitan St. Louis Sewer District, Missouri Departments of Conservation and Natural Resources, St. Louis County Water Company, St. Louis County Public Water District #1, Laclede Gas Company, Union Electric Company, Southwestern Bell Telephone Company, United Video, and Cencom Cable Television Companies, St. Louis County Library, Rockwood School District, Special School District, the Ballwin Fire Protection District, United States Postal Service-Grover Station, Bi-State Development Agency, Corp of Engineers-St. Louis District, and the Missouri Highway and Transportation Department.

Identification of Community Assets and Amenities

Within the Pond-Grover community, there are several areas where consensus exists about community assets and amenities. These groupings included the following: the general character of the environment, location, residents, schools, parks and recreation opportunities, roads, existing type of development, and services. Specifically, under these general groupings, the assets and amenities of the community that were identified are:

- General Character - a rural setting that offers a diversity of landscapes and a country feeling.
- Location - accessible to downtown, suburbs, and major attractions throughout the area.
- Residents - people who take pride in their community.
- Schools - high quality schools with a triple A rating.

- Parks and Recreational Opportunities - Rockwoods Reservation and Babler State Park.
- Roads - potential for convenient road system.
- Existing Type of Development - well planned, quality residential and commercial development.
- Services - excellent emergency services (police, fire, ambulance).

These impressions formed the background of the planning recommendations, in that any future development would attempt to protect, preserve, or deter any potential negative impacts that future growth could have on the assets and amenities within the Pond-Grover area.

Identification of Community Issues

The identification of community issues through the original questionnaire indicated no level of consensus among the Committee members. A large number of different responses were received under the eight general categories. Through a ranking process of these numerous responses, consensus was finally developed for the major issues the Advisory Committee agreed should be addressed through the recommendations of the report. Under these general categories, the issues identified are:

- **INFRASTRUCTURE**
 1. State Route 109
 - Completion and presentation to the public of the Corridor Study.
 - Improvement prior to commercial development.
 - Widening from State Route 100 to New State Route 109/Interstate 44 Interchange.
 2. Clayton Road
 - Improvement between Strecker Road and Clarkson Road.
 3. Traffic Signals
 - Signalized intersection at Manchester Road and State Route 109.
 4. Bridge
 - Improvement at Old State Road and State Route 109.
- **UTILITIES**
 1. Need to extend urban services
 - Extension of sanitary sewers by the Metropolitan St. Louis Sewer District.
 - Final resolution of water service debate between St. Louis County Public Water District #1 and the St. Louis County Water Company.

- ENVIRONMENT

1. Preservation of the environment .
 - Native tree stands and scenic areas.
 - Wildlife habitats.
 - Quality of existing landscape.
2. Stormwater runoff controls to prevent soil erosion.

- RESIDENTIAL DEVELOPMENT

1. Type and density should be compatible with terrain and road capacity.
2. High quality, single family development should be encouraged.
3. Multiple family development should be located along major arterials and at major intersections and should not detract from existing single family areas.
4. Due to physiographic features, the "NU" Non-Urban District zoning pattern should be maintained, while also offering housing for varied socio-economic households.

- COMMERCIAL DEVELOPMENT

1. Commercial development should be restricted to major arterials at intersections.
2. Commercial development should not extend along entire corridor of major arterials or secondary roads.
3. This type of development should include several, well-landscaped, well-planned centers which support residential areas versus piece-meal development of strip centers.
4. Commercial development should not adversely impact on residential areas.

- OTHER

1. Zoning should be established which will be more permanent ("NU" Non-Urban District - a three-acre zoning category).
2. There should be greater citizen input into building and facility expansions and educational programs within the Rockwood School District.
3. Historic sites should be identified and protected for preservation.

Additionally, many of the Advisory Committee respondents identified three additional issues which were felt to be equally important. These three additional issue areas are:

1. Identify and target lands for future acquisition and/or preservation as public open space or parks.
2. Establish urban design standards for the area to include street trees, beautification and enhancement standards, and protection of significant urban forestry resources.
3. Rockwood School District should rename many of its existing schools to better reflect student population and service area.

As mentioned earlier, the area's service providers identified major issues facing the community which could affect service delivery capabilities or the community's quality of life in the future. These issues are:

- MISSOURI DEPARTMENT OF CONSERVATION
 1. Increased traffic on Glencoe Road through Rockwoods Reservation.
 2. Endangered hawk species, the Coopers Hawk, nests in pine plantations along Manchester Road in Rockwoods Reservation (may be adversely affected by development).
- ROCKWOOD SCHOOL DISTRICT
 1. There is a need to set aside land for an additional elementary school in the area for anticipated future demand.
 2. Accelerate programs for the widening of State Route 109 between State Route 100 and the State Route 109/Interstate 44 interchange.
- UNION ELECTRIC COMPANY
 1. Road improvements should be completed in large sections rather than on a piecemeal basis by individual developers.
- BI-STATE DEVELOPMENT AGENCY
 1. There is a need for additional park-and-ride lots in the general vicinity to serve express bus service.

This prioritization and issue identification exercise provided the Advisory Committee and Department of Planning staff points of common interest or concern to work toward when analyzing and developing planning recommendations for future development in the fifteen subareas. It is the Report's intent to address each of these major areas in the applicable subareas.

Identification of Other Community Concerns

Throughout the entire meeting schedule, several common themes were continually repeated by Committee members regarding the administration of future development proposals by County Government. These themes centered more on issues of an area-wide basis versus a single subarea or grouping of several subareas within the study boundaries. In some instances, these identified themes far exceeded their impact upon the Pond-Grover area and became more countywide in content and application.

Under the Committee's guidance, these themes were treated as any of the other issues identified within the Pond-Grover community. These general planning recommendations are:

1. TRAFFIC STUDIES STRATEGY

- Given the amount of vacant and developable land, held in single, large holdings and the potential impact these properties would have upon traffic volumes and patterns in the Pond-Grover area (as determined by the Traffic Study by Booker Associates, Inc.), project specific or site-specific traffic studies shall be required when deemed necessary by the St. Louis County Department of Planning. Criteria for requiring such a traffic study to be made will be: land use recommendations as made by the Pond-Grover Community Area Study Advisory Committee, size and intensity of the proposed development, proximity to State Routes 100/109, and any applicable findings of the Traffic Study by Booker Associates, Inc.

2. ARCHITECTURAL REVIEW STRATEGY

- In an effort to maintain the rural, country flavor of the Pond-Grover community, commercial developments shall be required to submit appropriate renderings of the building's design, facade, and landscaping for review by the St. Louis County Planning Commission. Special attention shall be given to:
 - Building height - proposed or rehabbed buildings shall not exceed the typical building height of structures on the same block.
 - Signage - sign size and style shall be subject to Planning Commission review; signs should not clutter the building's facade or cover windows and/or other architectural details. Illumination of signs shall be discouraged and only permitted if approved on the site plan by the Planning Commission.
 - Roofs - original rooflines should be preserved when possible; new buildings should entail a roof style comparable to other buildings on the block, if possible.
 - Building materials - materials should be consistent with buildings typical of the site area; brick, brick veneer, frame, siding comparable in width and direction with other buildings in the area and stone would be appropriate; others may also be appropriate if approved by the Planning Commission.

- Building setbacks - setbacks for new building shall conform or coordinate with existing buildings, even if lesser setbacks can be permitted by the underlying zoning district. Landscaping of all setback areas shall be required, including front setback areas; parking islands shall be landscaped where large enough to support plant and/or tree growth.
- Demolition - Building demolition shall be discouraged if evidence is found related to architectural/historic merit or potential negative effect on the site area.

The intent of the review is to insure that buildings are constructed reflecting the locational and cultural qualities of the Pond-Grover community. Similarly, the review is intended to ensure compatibility with surrounding physical characteristics and features and reduce conflicting architectural styles between developments.

3. TRUST FUND STRATEGY

- Given the level of needed road and bridge improvements and the limited amount of monies currently in the Pond-Grover Traffic Generation Assessment Trust Fund, a more comprehensive approach to funding roadway improvements through Trust Fund revenue needs to be introduced. This approach includes: dropping developer credits to priority road or bridge projects, assessing greater contributions on larger developments whose impact far exceeds their road frontage, and extending Trust Fund assessments to include the construction or dedication of schools, parks, and other community facilities.

4. SATELLITE GOVERNMENT CENTER STRATEGY

- Despite the incorporation of the City of Chesterfield, the Satellite Government Center should remain open and serve this area of the County. The Center provides local governmental services to a large and growing unincorporated and incorporated population in western St. Louis County. If budget constraints arise, limited hours of operation should be explored in lieu of outright closure.

5. COMMON GROUND STRATEGY

- Future development in areas where topography or other physical characteristics limit full utilization of the site will generally require the application of one of the Special Procedures of the St. Louis County Zoning Ordinance. If the application of the procedures results in the dedication of common ground, the following guidelines shall be employed during the review process by the Department of Planning staff and the Planning Commission. These guidelines are:
 - Common ground areas will be identifiable and will be accessible to all subdivision residents. Entry areas abutting residential properties will be a minimum of twenty feet in width (as required by St. Louis County Subdivision Ordinance) and will be so designed to preserve future access from closure.

- Aesthetic needs will be equally weighed against density concerns. Common ground areas shall be designed not only to encompass the area of the site deemed unbuildable, but also to provide for scenic vistas, open and usable green areas, and the preservation of trees and wildlife habitat.
- The dedication of common ground areas shall be such as to preserve them forever. Indentures shall be written so as to protect them from being sold and converted to other uses in the future. Such conversions circumvent the intent of the Special Procedures provisions of the Zoning Ordinance, and densities often far exceed the eventual carrying capacity of the land and other infrastructure systems in the community.
- Maintenance needs of common ground areas must be addressed in the design and approval stage of the development. These areas must be accessible to utility companies and lawn/landscaping equipment.

The assets and amenities that were described and the issues and recommendations that were identified indicate that Pond-Grover residents have a strong attachment to their community and feel that these essential protections are necessary to protect their quality of life. Understanding this attachment was the first step in providing tangible policies for the future.

DESCRIBING THE COMMUNITY

Historical Perspective and Sites - Its History

The settlement of west St. Louis County was generally less intense than that of the northern or southern parts of the County. Farms were larger and roads were fewer. The west county was also much slower to be settled. E. Dupre's county atlas of 1838 shows many square miles still unclaimed, and Hutawa's 1847 atlas still shows many vacant sections. The first areas to be settled were along the rivers, particularly in the Bonhomme Bottom, the bottom land along the Missouri River. Land grants also reached into the interior along Bonhomme Creek and Wild Horse Creek. Louis Courtois, Senior, was granted over 6,000 acres on the Meramec at the west end of the County in 1800, and, according to testimony later given by Benito Vasquez to the U.S. land commissioners, Courtois and his family were to be seen traveling back and forth from this property as early as 1780.

In the area of Pond and Grover, most of the land along Manchester Road had been claimed by 1838, but the rest of township 44 range 3 was almost entirely vacant. Most of the early claimants settled here briefly, if at all, selling their land to later settlers, particularly the incoming Germans. The exception was Cyrus Speers, who acquired a tract of 160 acres east of Pond Road and straddling Manchester Road about 1835 and opened a store there. (He also bought 40 adjacent acres from John Brockman, but that was not the site of the store, contrary to what Scharf wrote in 1883). The name Pond is said to come from a pond Speers had on his property, but it is not the pond that currently can be seen on the west side of Pond Road north of Manchester Road; the latter is on ground originally owned by Philip Tippet. Speers sold his land in 1846, so he couldn't have operated this store for many years. The most prominent resident of Pond was Frederick Essen, who took over Speer's store in 1853. His widow and children later operated a hotel there.

The primary reason for the location of Pond, and later of Grover, was the presence of Manchester Road, which was for years the most important road to the west in St. Louis County. Although stories of settlement along western Manchester Road go back to before 1820, the road was not officially authorized by the state legislature until 1835. It was intended to provide a route to the state capital in Jefferson City. Ballwin was laid out in 1837, about the same time as Cyrus Speers opened his store. When the railroads began to come into the County in the 1850's however, they followed routes closer to the Missouri and Meramec Rivers, leaving Manchester, Ballwin, Ellisville, Grover and Pond as backwaters, dependent on the much less important highway traffic and on trade with farmers in the immediate vicinity. Pond and Grover did have post offices from time to time, but residents of the vicinity often got their mail from rural routes based in Glencoe in the south or Centaur in the north.

By 1911, when William L. Thomas wrote his history of St. Louis County, Pond (presumably including environs) had a population of about seventy. In addition to the hotel, then run by Frederick Essen's daughter Emma, the settlement included two general stores, two blacksmith shops, and a whip manufactory. One of the blacksmith shops was Peter Blum's, on the south side of Manchester Road just east of Maple. Blum earlier had built the house at 2550 Pond Road. The other was John A. Kern's at 17300 Manchester Road, which is still standing in the form of a gasoline service station, to which it was converted in the 1920's.

Grover in 1911 had a population of about forty. All three of its key businesses survive in somewhat altered form. Fred Rettker's general store at 16962 Manchester Road was then operated by Louis C. Fick. Fick also managed the switchboard of the Grover Mutual Telephone Company, which moved to a new building in Pond in 1920. The blacksmith shop at 16957 Manchester Road had been established as early as 1865 by Fridoline Wetterer and was owned at this time by his successor August Wetterer. The saloon, on the west side of the Eatherton Road intersection, was owned by Christian von Gruben, who, Thomas reported, "will not countenance anything approaching vulgarity, expecting his patrons always to conduct themselves in an orderly and gentlemanly manner." Christian's son Edward later took over the business.

The arrival of the automobile made Pond and Grover for the first time logical places of residence for people who didn't also work there. William and Emilie Poertner laid out a subdivision just west of the Pond Hotel in 1910, while Louis J. and Louisa Funk platted Grover Heights in 1925. Lindy Lane in Grover was privately subdivided by Caroline Paubel beginning in 1927. None of these subdivisions grew rapidly, however. When U.S. Route 66 was originally designated in 1926, the route from Chicago to Santa Monica went down Manchester Road. This brought another spurt of growth, recalled today by the former Big Chief Hotel, actually an early motel, located in Pond. Suburbanization of west county may be said to begin with the incorporation of Ellisville in 1932. More extensive suburbanization, however, has occurred only within the past twenty years, and the recent state highway improvements to State Routes 100 and 109 portend much more extensive development in the near future.

Environmental Assessment - Its Land

St. Louis County is located at the confluence of several varied physical environments. Glaciers, producing a unique landscape in their wake, scoured the northern reaches of the County, while the western and southern areas of the County underwent regional mountain-building episodes forming the familiar ridge and valley character of these areas. The resultant landforms from these major earth shaping occurrences reflect these forces. Since landforms exhibit specific patterns and are recognizable over large distances, regardless of specific geographic or jurisdictional boundaries, groups of these features and related characteristics can be developed for analysis.

These groupings are known as physiographic provinces (areas or regions of similar characteristics). One such province, with the ridge and valley character described earlier, is exhibited across much of central and southern Missouri and has been given the name "The Ozarks." The far western reaches of St. Louis County lie on the eastern flank of the Ozarks. In St. Louis County, the Ozarks province manifests itself as a rolling, upland surface known as the Salem Plateau. Due to its expansiveness and associated localized variability, the Salem Plateau can be divided into subprovinces which allow for a more detailed portrayal of the geologic and topographical characteristics.

Physiographic Provinces. Within the Pond-Grover Study Area, two smaller subprovinces of the Salem Plateau can be identified. These two are the Meramec Hills Subprovince and the Hilly Upland Subprovince. Each of these represents a distinct geologic time period in terms of formational environment. Rock units found in the Meramec Hills Subprovince consist primarily of limestones. These limestones are called the Kimmswick formation and represent the oldest rock units within the study area. In the Hilly Uplands Subprovince, the Burlington-Keokuk limestones,

Burlington-Keokuk limestones, the youngest rock units in the study area, occur. The most distinguishing characteristic between these two limestones is the occurrence of rock fragments of differing composition (chert) in the Hilly Upland Subprovince. These fragments, in fact, can compose up to 50 percent of the total rock strata's content.

The Meramec Hills Subprovince. The Meramec Hills Subprovince can be described as an area that has been dissected by the surface drainage system into a series of deep valleys and steep ridges with minimal flood plain development. Where the floodplain does exist, it lies almost entirely within the channels of the streams and creeks found within the subprovince. The majority of the slopes are over 20 percent, a condition that makes the application of special engineering techniques with development essential. Reliefs range between 200 to 300 feet. The bedrock in some areas is within 20 inches of the surface and lacks the heavy growth of trees indicative of most of the subprovince. This shallow layer of residual soil is clayey and is very permeable. In addition to the red cedar trees in the gladed areas, this subprovince has some of the last forested areas in St. Louis County. These forests are typical of the Ozark Region with oak-hickory type woods, particularly hop hornbeam, yellow oak, and grub oak, along with several species of woody plants, willows, and other species indigenous to Ozark hardwood forests. The development of caverns along solution-enlarged fractures is common, as are natural springs.

The Hilly Uplands Subprovince. The Hilly Uplands Subprovince lies atop steeply-inclined limestone strata which covers older, cavernous limestones (Kimmswick formation). The Burlington-Keokuk limestone has undergone tectonic activity sometime in its past (folding) resulting in the inclination of the rock beds. The terrain varies from rolling to steep uplands with numerous small valleys and Ozark surface characteristics. Slopes range from 10 to 20 percent with localized relief between 200 to 250 feet. The residual soil contains an extremely high content of chert and is very permeable. This type of soil provides a favorable habitat for the white hickory and lowbush blueberry species of trees. Much of this subprovince is unforested today, except for areas along streams and steep slopes. It is probable that these unforested areas existed even before European settlement. The more level and open parts of the upland exhibit prairie-type flora. These include grasses and perennial herbs. Along smaller streams there are cottonwoods, pin oaks, and small thickets of shrubs alternating with tall grasses and ranker growth of herbs. These prairie flora correspond to the areas underlain by the Burlington-Keokuk limestones.

Development Issues. These groupings help to identify potential conflicts which could arise if development is allowed to occur without adequate safeguards to mitigate or protect the environment from degradation or destruction. Within the study area boundaries, several inherent physiographic features exist that require special attention due to their uniqueness, sensitive nature, or potential for harm to the environment through overuse or exploitation. These are:

1. The majority of slopes are over ten percent, with most in excess of twenty percent, requiring special engineering techniques to avoid soil creep, slide, or failure;
2. The destruction of habitat with the clearing and removal of native forest cover via new development;

3. Groundwater contamination with increased development outside of the existing Metropolitan St. Louis Sewer District boundaries, particularly in the Meramec Hills Subprovince;
4. The loss of ecologically sensitive or unique scenic areas to new development and increased urbanization; and
5. Increased erosion within the existing drainage network brought on by additional runoff from new development.

Additionally, if urbanization continues to increase in the area, other environmental conflicts will arise. Some of these will be: increased noise and air pollution, litter and debris, and the loss of native wildlife community.

The practical application of this technique, using physiographic features to develop provincial groupings, is that the groupings illustrate the linkage between the subsurface and surface features of the environment. With this understanding between the two, development decisions can be made intelligently, reflecting environmental concerns and hazards, as well as special procedures necessary to mitigate potential conflicts. Without such an understanding, land use decisions made regardless of either surface or subsurface characteristics are, at best, risky and pose a threat to the health, safety, and welfare of the general public.

A Demographic Profile - Its People

The Pond-Grover community has grown significantly in the last decade. New residential development, particularly east of State Highway 109, has substantially increased the population and number of dwelling units in the area. According to estimates, the study area has a 1990 population of 7,290. This estimate is based on 1980 Census data and has been updated using figures for residential building permits issued between 1980 and 1990 and the projected person per unit rate.

The number of housing units in the Pond-Grover study area is estimated at 2,827 for 1990. More than 80 percent of these housing units have been built since 1980 as shown in Table One below. All multi-family units in the area have been built since 1985.

Table One
Percentage of Units by Year Built

<u>Year</u>	<u>Percent</u>
Pre-1960	9%
1960-1969	2%
1970-1979	6%
1980-1984	16%
1985-1990	<u>67%</u>
	100%

Source: St. Louis County Department of Planning, 1990

Aside from the Department of Planning's estimates for population and dwelling units, other demographic data is not readily available for the study area. Since Census tracts in far western St. Louis County are quite large, and the study area boundaries do not conform to the tracts, extrapolating Census data is not very useful.

Public Services and Facilities - Its Infrastructure

As communities grow and change, so do their service needs from government and other providers. Services vary based upon providers and funding. These services, which include, but are not limited to, fire, police, schools and the provision of gas, electric, and water, are collectively called an area's "infrastructure network." An infrastructure network also includes roads, bridges, and other public facilities essential to a community's existence.

The study area's infrastructure network is in the process of expanding to meet new demands being placed upon it by the area's rapid growth. Much of an infrastructure network and its related services are demand driven and need a minimum threshold population to support them. In fact, these services will seldom exist prior to an established development pattern. Interestingly, growth of an infrastructure network has a multiplier effect. With its growth, additional development can be accommodated by the expanded network, thus providing increased opportunities for new growth.

The study area's infrastructure network can be divided into four broad categories based upon services provided to its residents. These categories and related services are:

Public Utilities

Electricity. Union Electric Company, a state-regulated public utility, provides service into the study area. The northwestern boundary of the study area was previously defined by the Osage-Page right-of-way which has two 34KV high-voltage transmission lines and towers traversing it. Additional facilities include a substation at the southeast corner of State Route 109 and Manchester Road and two single circuit 34KV high-voltage transmission lines along Manchester Road and State Route 109.

Natural Gas. Laclede Gas Company, a state-regulated public utility, provides partial service into the study area. Generally, the area west of State Route 109 and older homes in the developing areas have individual service systems (tanks) and are not currently included within the service network.

Telephone. Southwestern Bell Company, a state-regulated public utility, provides service into the study area. A Southwestern Bell facility is located on Manchester Road east of Pond Road and a major conduit and trunk/toll cables traverse the area along Manchester Road and Old State Road to the east.

Sanitary Sewers. The Metropolitan St. Louis Sewer District services about 50 percent of the study area. This service area is within the Caulks Creek watershed. Homes and businesses in either the Bonhomme or Hamilton and Carr Creeks watersheds dispose of sewage through individual septic systems.

Stormwater. Stormwater control exercised by St. Louis County Government is limited to two components. The first is the Department of Highways and Traffic's review responsibility to insure compliance with current regulations set by the Metropolitan St. Louis Sewer District for all new developments in the unincorporated portions of the County. Again, this is only a review responsibility where water runoff from streets is not directly taken into a stormwater control system and the actual maintenance and upkeep remains the responsibility of individual property owners or their representatives (trustees in most cases). The second is the actual control of stormwater runoff by the Department of Highways and Traffic along County-maintained right-of-way or where runoff from streets enters into a stormwater control system.

The Metropolitan St. Louis Sewer District accepts limited responsibility for the areas outside the 1977 annexation boundary (which roughly follows the Interstate 270 loop). The Metropolitan St. Louis Sewer District does, however, maintain a comprehensive listing of existing and potential stormwater problems found in the study area.

Water. Except for a small portion of the Westglen Farms Subdivision and the area south of the Clayton/Strecker Roads Intersection, water service for the study area is provided by the St. Louis County Public Water District #1. The area not served by the Public Water District is serviced by the St. Louis County Water Company. Additionally, some older residences, particularly west of State Route 109, depend on private wells for household needs.

The Public Water District was established by decree from the Circuit Court of St. Louis County on November 10, 1965 and approved by voters residing within the boundaries in late November of that year. The district was divided into five sub-districts, each having a director, and has provided continuous service since its incorporation.

Cable Television. Two cable television companies provide limited service to the study area. United Video Cablevision of St. Louis provides service to area residents who live north of Manchester Road and east of State Route 109. Cencom Cable provides service to the area south of Manchester Road and east of State Route 109. The area west of State Route 109 has yet to receive cable television service.

Community Services

Fire/Emergency Medical Services. Both of these services are provided by the Ballwin Fire Protection District to study area residents. The District's headquarters and Station Three are located within the study area at the northeast corner of Manchester Road and State Route 109. The 1990-91 tax rate per \$100 of assessed valuation for the District is \$0.69.

Police. St. Louis County Police Department provides a number of comprehensive services to study area residents. Residents currently receive the following: basic patrol, 911 assistance and computer-aided dispatching, crime scene investigation, lab analysis, evidence and property control, SWAT team experts, helicopter assistance, neighborhood watch programs, and school safety officers. Additionally, the Ballwin Fire Protection District's facility on Manchester Road and State Route 109 acts as a satellite station for administrative needs. Finally, the County Police Department instituted a resident beat officer program in this area as a means to maintain high visibility of personnel and develop better relationships between officers and residents.

Schools. The Rockwood School District has a number of facilities within the study area. These facilities are the "New" Lafayette High School, Babler Elementary School, Green Pines Elementary School, Pond Elementary School, a bus transportation center, and a warehouse and maintenance center. Currently, the Rockwood School District serves some 15,637 students and has an AAA rating. The 1990-91 tax rate for the District is \$3.75 per \$100 of assessed valuation.

Library. The study area is currently served by the Daniel Boone Branch of the St. Louis County Library located at the intersection of Clarkson/Clayton Roads.

Parks. Within the study boundaries there are two parks. The largest, Mallard Park, is a district park by classification (serving a three-mile radius) and owned by the City of Ellisville. The second park, Winding Trails County Park, is a neighborhood park (serving a one-mile radius) adjacent to Caulks Creek. Both are located near the intersection of Clayton and Strecker Roads. Regional park needs are met by Babler State Park, Rockwoods Reservation, Rockwood Range, and Greensfelder Park. All these parklands lie outside the study area boundaries. Queeny Park serves as the County's designated metropolitan park for the far western reaches of St. Louis County.

Public Transportation and Roads

Public Transportation. Bi-State Transit currently operates fixed route express bus service from the Cities of Ellisville, Clarkson Valley, and Chesterfield. Routes are along Clayton and Manchester Roads respectively.

Roads. Jurisdictional responsibility, along with maintenance and capital improvement programs are split between the State of Missouri and St. Louis County within the study area. State jurisdiction and responsibility are limited to State Routes 100 and 109. County jurisdiction is over the remainder of major arterials, collectors, and subdivisions streets. A number of private roadways are located in the study area and are maintained by individual landowners at their own expense.

Future Demands and Capital Improvements - Its Needs

Prior to 1980, very little of the existing infrastructure network in the Pond-Grover area could be characterized as modern and up-to-date. Existing utilities were generally provided on an individual, site-by-site basis, such as septic systems, private wells, and containerized gas. The transportation network reflected the rural nature of the area with streets, roads, and bridges being narrow, winding, shoulderless, and crowned. In many instances other services, normally considered as amenities, are not as easily accessible to residents of the study areas as they are to other County residents. Such services, like cable television, are demand driven and directly related to a threshold population large enough to justify the need and cost. If this threshold population does not exist, these services are deferred to a later date or until favorable economies of scale can be obtained.

As subsequent development petitions were pursued, a modern community-wide infrastructure network began to take shape. This network has been developed in an incremental fashion and therefore, is not complete nor comprehensive. Additionally, as new development occurred, existing, older businesses and residences, in many instances, did not chose to participate in the infrastructure network's growth. Overall, particularly in the area east of State Route 109, the growth of community-wide utility systems (sewers, water, gas, electric, and telephone), the enlargement of the roadway system, and the improvement of the existing roads have progressed; but limited facility expansion (parks, schools, and government buildings) has also followed (see Map Two). For growth and development to continue, additional improvements are needed to the infrastructure network. More fundamentally, to provide adequate, reliable, and safe services and conditions within the community, the network of infrastructure needs these improvements.

In response to these needs, many of the area's service providers have proposed or are in the planning stages of projects intended to upgrade and improve existing facilities and to meet anticipated demands for future services. Major projects that have been undertaken or scheduled for long-term completion include the following:

Public Utilities

Sanitary Sewers. The Metropolitan St. Louis Sewer District presently has only jurisdictional responsibility and authority in the east half of the study area (Caulks Creek Watershed). The remainder is served by individual septic systems or small neighborhood-size treatment facilities. The District has no immediate plans to further extend its boundaries to include the western boundaries of the study area. Within the Caulk Creek Watershed, the installation of major trunk systems and improvements to the Missouri River Treatment Plant are underway and near completion. With these improvements, the District anticipates that sanitary sewer and collection treatment systems appear adequate for any anticipated growth in the area for the foreseeable future.

Public Water. There is currently a single provider of public, potable water. It is the St. Louis County Water Company. The Public Water District #1 had previously provided service to approximately 700 customers. The Public Water District had received its water from the County Water Company. During 1989, the Public Water District reached capacity. Additionally, that year saw many residents experience shortages brought on by increased demand and drought. A number of solutions were discussed within the community, with voters finally determining a buyout by the County Water Company of the Public Water District's assets as the preferred alternative. The County Water Company has proposed a phased, capital improvement program. This program would improve existing mains and upgrade capacity from where the County Water Company's system ends and the Public Water District's begins. Many of the more specific details remain unclear at this time because of uncertainties in the condition, type, and location of the Public Water District's system, verification of easements, and the projected demand in the future.

Gas and Telephone. Both Laclede Gas Company and Southwestern Bell have extended services into the developed portions of the study area with cables, lines, or circuits along major streets and secondary roadways. Improvements will be made as residential and commercial development occurs. Both foresee no problems in providing adequate services well into the future.

Electricity. Union Electric Company has extended services into the developed portions of the study area. Additionally, improvements and upgrading of the electrical system are proposed and planned. An existing substation at Manchester Road and State Route 109 will be upgraded to two transformer units in 1993 or adjusted to meet the load growth in the area (whichever is greater). Although no new bulk substations and/or subtransmission facilities are planned in the next five to ten years, the need for additional local distribution substations just north and west of the study area is anticipated in the future, and such substations are being planned.

Community Services

Fire/Emergency Medical Services. The Ballwin Fire Protection District has recently opened a new fire station just northeast of the study area on Clayton Road. With this addition, the District can provide fire and emergency medical services to the entire study area. To decrease response times and accommodate future growth, an additional fire station was recommended near the study area's far western boundaries by the Pond-Grover Advisory Committee (Subarea Fifteen).

Education. The Rockwood School District began construction of an additional elementary school near the intersection of Old State and Lawler Ford Roads in 1990. The District opened this structure September 4, 1990.

Over the past several years, increased enrollments have prompted the District to initiate a major building and renovation program that has benefitted the study area. These recent capital improvements include "new" Lafayette Senior High School, renovation of the "old" Lafayette Senior High School to the "new" Crestview Junior High School, and the conversion of the "old" Crestview Junior High School to Babler Elementary School.

Additionally, the Pond-Grover Advisory Committee identified two locations for three additional schools (see Subareas Four and Fourteen).

Library. The St. Louis County Library is considering building an additional library in the general vicinity of the State Routes 100/109 Intersection. Immediate plans call for the enlargement of the existing Daniel Boone Branch within three to five years and possibly constructing a smaller branch near State Route 109 and Interstate 44 to serve as a popular library. Both decisions are expected to be made within in the near future.

Parks. The St. Louis County Department of Parks and Recreation has identified a number of recreational areas and facilities that are needed throughout the study area in its report Recreation Spaces - Community Places 1982-2000. These needs include the following: a recreation center, four neighborhood parks, one district park, and one metropolitan park. Similarly, the Department of Parks and Recreation has endorsed the establishment of an open space corridor between Babler State Park and Rockwoods Reservation. Although there is a need for additional recreation facilities, no long-range acquisition or construction programs are planned due to monetary constraints.

The Pond-Grover Advisory Committee recommended that several park sites be identified and protected for future use in six subareas (See Subareas One, Four, Five, Seven, Nine/Ten, and Fourteen).

Public Transportation and Roads

Public Transportation. The Bi-State Development Agency has identified a shortage of park-and-ride lots to serve existing fixed route express routes. Specific locations and development plans have yet to be determined and identified.

Roads. The Missouri Highway and Transportation Department (MHTD) is proposing two projects within the designated boundaries of this study. The first is a major Corridor Study for the location of an improved State Route 109. The impetus for the study is to develop a limited access divided highway between Interstate 64 to the north and Interstate 55 to the south. The preliminary research and field work have been completed, and review by the Missouri Highway and Transportation Commission is scheduled for either late October or early November, 1990. The second project is the replacement of the State Route 109 bridge at Old State Road. Neither construction funding nor or specific timelines have been established for these two projects.

The St. Louis County Department of Highways and Traffic is continually updating its 1986 Highway System Plan detailing long-range road improvements throughout St. Louis County. The Highway System Plan does not set definitive dates for completion, but represents more a comprehensive inventory of all possible future projects regardless of funding capability. Included in this Plan are a number of proposed improvements within the study area boundaries. Additionally, Booker Associates, Inc., a private consultant, completed an independent review of roadway needs within the Pond-Grover area and similarly identified a large number of improvements needed for the existing roadway network. Both Booker Associates in its Traffic Study and the St. Louis County Department of Highways and Traffic identified a number of similar roadway improvements necessitated by increased utilization and projected future demand (see Maps Three and Four). These projects are detailed below in Table Two (also see Appendix C):

**TABLE 2
PROPOSED ROADWAY IMPROVEMENTS**

<u>NAME AND DESIGNATION</u>	<u>GENERAL LOCATION</u>	<u>NATURE OF IMPROVEMENT</u>
Eatherton Road State Route 109 & C - State of Missouri	State Route 100 to Wild Horse Creek Road	Construct and improve to arterial standards
*Manchester Road - St. Louis County	Pond Road east to Westglen Farms Drive intersection at State Route 100	Improve to arterial standards
*Manchester Road - Pierside Lane: Overpass and connecting roadways - St. Louis County	Manchester Road north to Fullerton Meadows Drive	Construct new arterial and bridge over State Route 100

<u>NAME AND DESIGNATION</u>	<u>GENERAL LOCATION</u>	<u>NATURE OF IMPROVEMENT</u>
Pond Road - St. Louis County	Manchester Road north to Pond-Grover Loop Road	Widen to arterial standards
	Pond-Grover Loop Road to Reiger Road	Improve to collector standards
	Reiger Road to State Route 109	Improve to arterial standards
Shepard Road - St. Louis County	Shepard Road at State Route 109 intersection	Realign existing road to intersect at Clayton Road opposite main entrance to high school and cul-de-sac former intersection
Shepard Road Extension - St. Louis County	West of State Route 109 and south to the proposed Pond-Grover Loop Road	Construct new collector connection (suggested)
State Route 100 - State of Missouri	Manchester Road to west of Hutchinson Road	Improve to arterial standards - divided highway
State Route 109 - State of Missouri	I-44 to State Route 100	Improve to arterial standards
Westglen Farms Drive Extension - St. Louis County	South from Clayton Road to existing terminus of Westglen Farms Drive	Construct new collector connection
Pierside Lane Extension - St. Louis County	East from existing Pierside Lane terminus to Old State Road	Construct new arterial
Taylor Road - St. Louis County	Manchester Road north and west to proposed Pond-Grover Loop Road	Construct new arterial

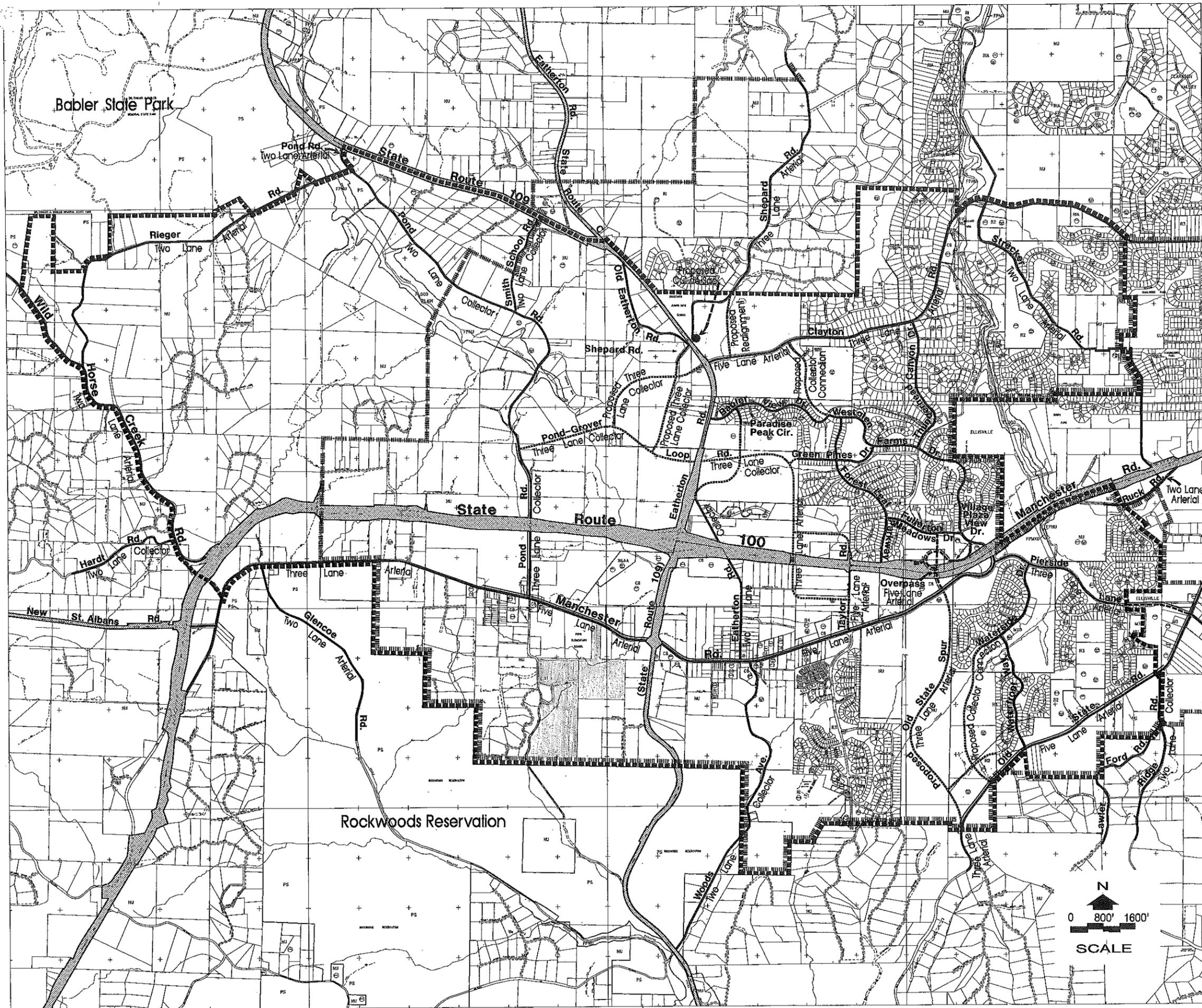
<u>NAME AND DESIGNATION</u>	<u>GENERAL LOCATION</u>	<u>NATURE OF IMPROVEMENT</u>
*Pond-Grover Loop Road - St. Louis County	Taylor Road west and north to Pond Road	Construct new arterial and bridge over State Highway 100
*Old State Road - St. Louis County	State Route 100 south to Eagle Ridge Road	Improve to arterial standards
Waterside Drive Extension - St. Louis County	South from existing terminus of Waterside Drive to Old State Road Spur	Construct new collector connection
Old Eatherton Road - Shepard Road Extension - St. Louis County	State Route 109 and Old Eatherton Road intersection south to Clayton Road Extension	Eliminate existing intersection and construct new collector connection
Paradise Peak Circle Extension - St. Louis County	Paradise Peak Circle south to Pond-Grover Loop Road	Construct a new roadway connection
Clayton Road Extension - St. Louis County	Existing intersection of Clayton Road and State Route 109 (Lafayette Senior) High School) southwest to Pond-Grover Loop Road	Construct a new collector connection (suggested)
Eatherton Road Relocation - St. Louis County	Relocation of access from State Route 109 east and north to Pond-Grover Loop Road opposite Paradise Peak Circle intersection	Construct a new collector connection
Reiger Road - St. Louis County	Wild Horse Creek Road to Pond Road	Improve to arterial standards
Wild Horse Creek Road - St. Louis County	State Route 100 to Ossenfort Road	Improve to arterial standards

<u>NAME AND DESIGNATION</u>	<u>GENERAL LOCATION</u>	<u>NATURE OF IMPROVEMENT</u>
Strecker Road - St. Louis County	State Route 100 to Kehrs Mill Road	Improve to arterial standards
Smith School Road - St. Louis County	State Route 109 to Pond Road	Improve to collector standards

* Except for the extreme western reaches of the Highway 100/Highway 109 Study Area, the remainder lies within the Pond/Grover Road Trust Fund boundaries. This trust fund, like others throughout the unincorporated County, was established to require assessment contributions from developers in this area to fund road and bridge improvements necessitated by increased traffic generation. With each new residential or commercial development, a predetermined fee, based on parking spaces, is required to be deposited with St. Louis County. Subsequently, four road projects have been prioritized and construction will be undertaken when funding reaches anticipated cost.

Without a major, planned capital improvements program addressing each component of the infrastructure network, future demands will predictably exceed the capacity of the system. If this should occur, inconveniences, delays, shortages, and environmental damage to the water and land are almost certain.

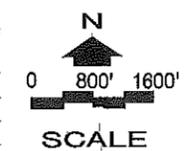
NOTE: Maps 3 and 4 are included for background and informational purposes only. Narratives for each respective subarea detail the specifics of Advisory Committee Recommendations regarding roadway widths and alignments.



..... *POND-GROVER

Legend

- Area Study Boundary
- County Roads
- State Roads
- Pond - Grover (Rte 100/109) Road Trust Fund Boundary
- County Road Widening and Resurfacing included in Pond-Grover (Rte 100/109) Road Trust Fund
- Proposed Roads*
- *Road Improvements that may be completed by Developers.
- Proposed Overpass (Manchester-Pierside)
- Proposed Cul-de-Sac*



HIGHWAY SYSTEMS PLAN MAP

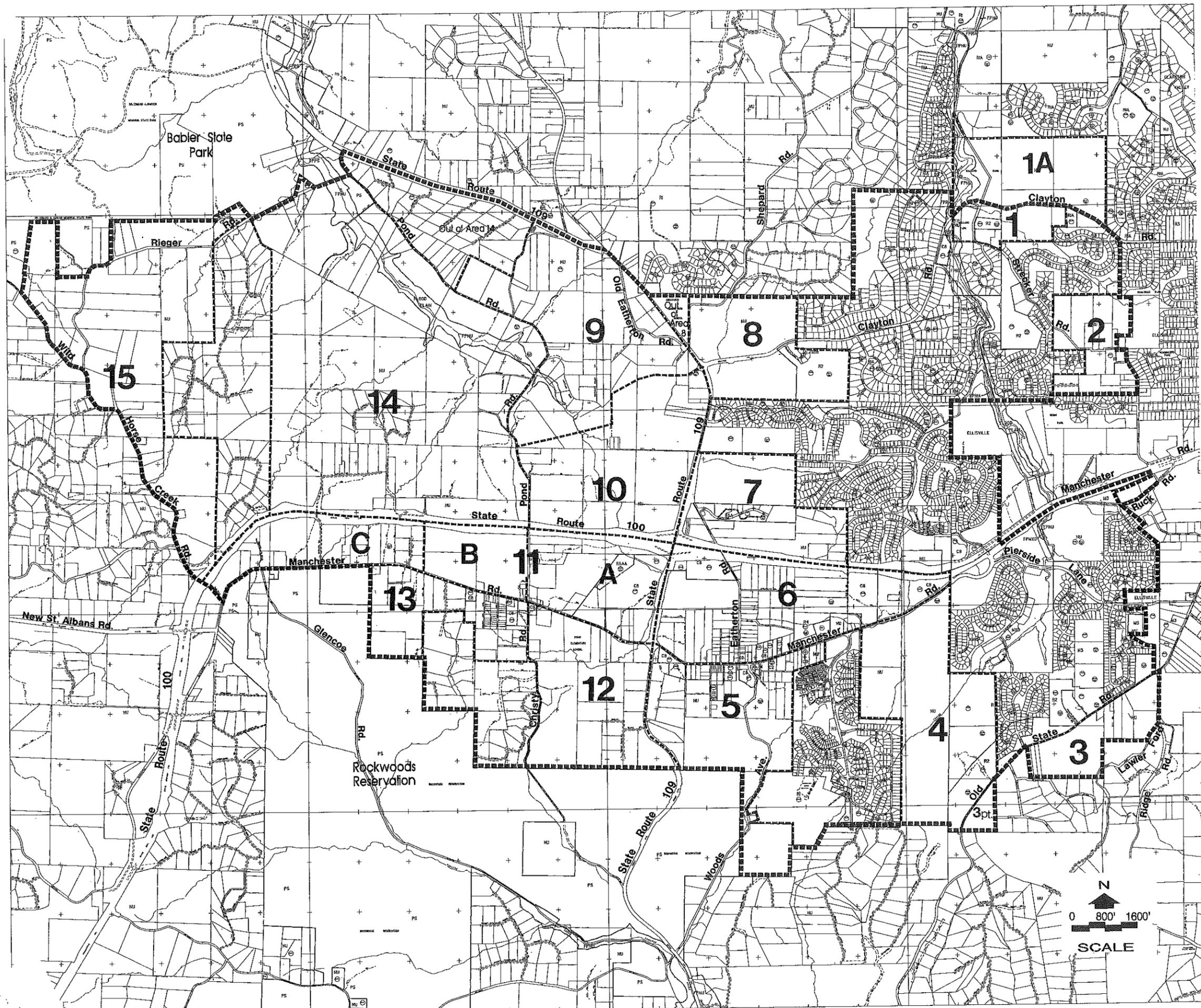
RELATING COMMUNITY VISION TO COMMUNITY GOALS

DELINEATING AREAS OF COMMONALITY - THE SUBAREAS

For ease of analysis and discussion and to better target the time and resources of the Advisory Committee, the eleven square mile study area encompassing the communities of Pond and Grover was divided into smaller subareas based upon common or shared features, interests, or location. The delineation of subareas recognizes the interrelationships between distinct parcels of land linked together by a roadway, common watershed, similar topography, or other shared characteristic or property.

These delineations, fifteen in all, are not entirely inclusive of the eleven square mile study area (see Map Five). In instances where the level of existing development was complete or where the development pattern had been established, no planning recommendations were formulated. Again, this is premised on the assumption that future development or redevelopment in these areas will occur in a complementary and similar pattern to that which has been previously established at the time of this study.

The recommendations that follow reflect land use guidelines for the fifteen subareas where the potential for development is greatest and where a land use pattern has yet to be established (see Map Six).

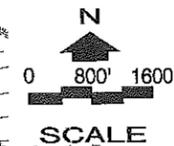


* POND-GROVER

Legend

- Community Area Study Boundary
- Subarea Boundaries (1-15)

BOUNDARY MAP



POND-GROVER COMMUNITY AREA STUDY

SUBAREA ANALYSIS: INVENTORY OF CHARACTERISTICS

Subarea One

Special Features

- The Clayton Road/Strecker Road intersection is located within the subarea.
- The former City of Ellisville's Mallard Park (part of which is now being developed as a church site) is located within the subarea.

Physical Characteristics

- Slopes generally exceed 14 percent throughout and trend in a northerly direction toward Clayton Road.
- Several small, intermittent creeks traverse the subarea, eventually draining into Caulks Creek.
- Portions are heavily wooded with the characteristic oak-hickory species indigenous to the Rolling Upland physiographic subprovince.

Land Use

- Current land uses include a plant nursery and single family homes on large lots.

Zoning/Subdivision Activity

- Current zoning is "NU" Non-Urban District and "R-2" 15,000 square foot Residence District (nine single family units approved on four acres).
- A single rezoning petition has been approved in this subarea since the 1965 adoption of the County's Zoning Ordinance. The petition was: P.C. 208 and 209-88: Vista View Partners: A request for a change from the "NU" Non-Urban District to the "R-2" 15,000 square foot Residence District with a Planned Environment Unit. Proposed use: Nine single family homes.

POND-GROVER COMMUNITY AREA STUDY
SUBAREA ANALYSIS: INVENTORY OF CHARACTERISTICS

Subarea One (A) *

Special Features

- The Clayton Road/Strecker Road intersection is also located in this subarea.

Physical Characteristics

- Slopes generally trend southwardly toward Clayton Road and a tributary of Caulks Creek that parallels the roadway and exceed 14 percent.
- Portions are heavily wooded with the characteristic oak-hickory species indigenous to the Rolling Upland physiographic subprovince.
- Several small, intermittent creeks traverse the subarea, eventually draining into Caulks Creek.
- Caulks Creek is located on the western edge of the subarea, within the northwestern portion of the City of Ellisville's Mallard Park (parkland is being sold or has been sold to private interests), creating a significant area of flood plain.

Land Use

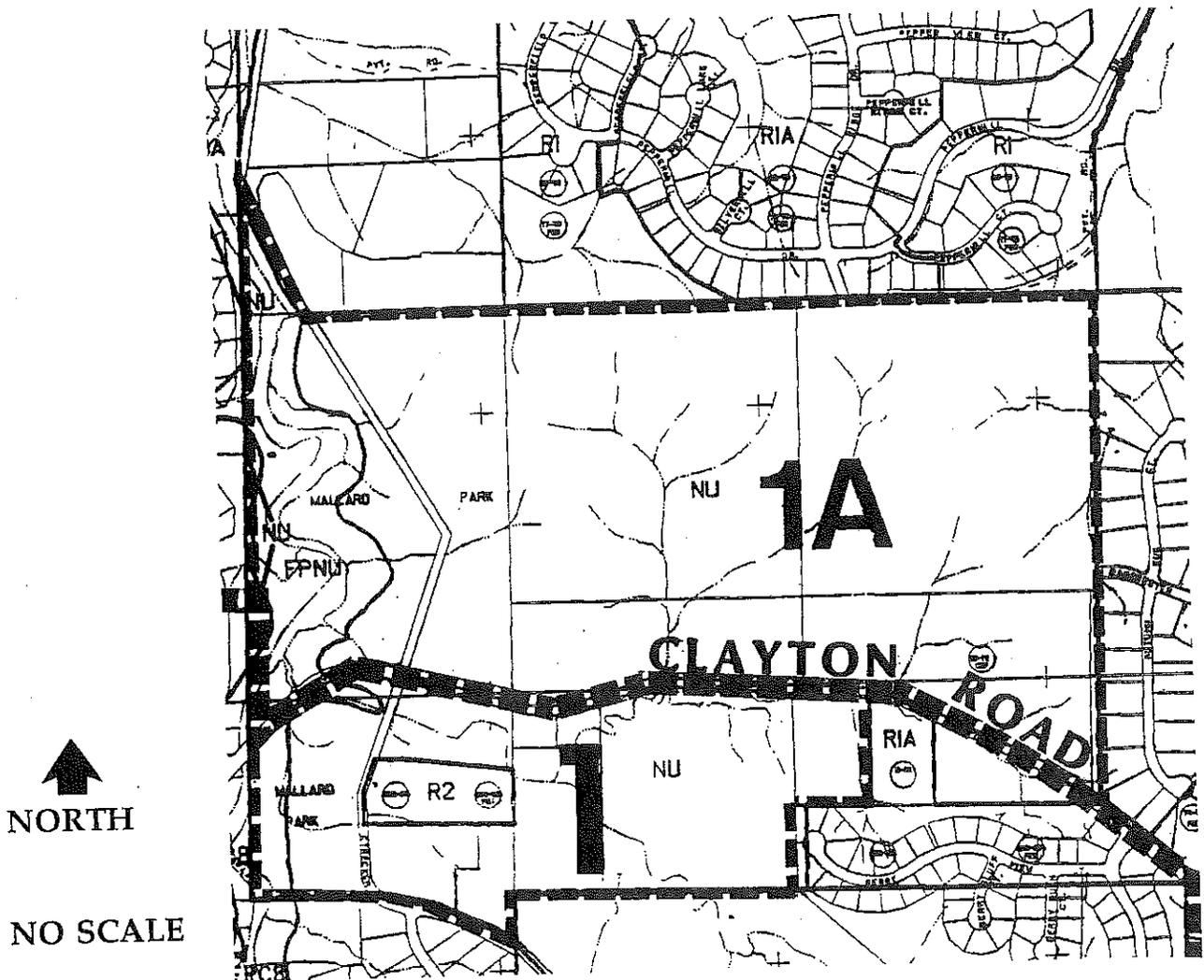
- Current land uses consist of vacant parcels and one single family residence on a forty-acre parcel.

Zoning/Subdivision Activity

- Current zoning is "FPNU" Flood Plain Non-Urban District and "NU" Non-Urban District.
- A single rezoning petition has been approved in this subarea since the 1965 adoption of the County's Zoning Ordinance. The petition was: P.C. 43-72: Masonic Home of Missouri: A Conditional Use Permit in the "NU" Non-Urban District. Proposed use: Housing for children and adults of the Masonic Home of Missouri.

- * Although lying outside the established study boundaries, the Committee moved to include this area north of Clayton Road in the study process because of its obvious effect upon Subarea One and adjacent subdivisions, if development would occur.

POND-GROVER COMMUNITY AREA STUDY
 SUBAREAS ONE AND ONE (A)



Subarea One:

The area is bounded by Clayton Road to the north, the Turnberry Place Subdivision ("R-2": 202 single family units approved) to the east, Winding Trails County Park to the west, and the Village of Winding Trails ("R-1": 32 single family units) and Turnberry Place Subdivisions to the south.

Subarea One (A):

The area is bounded by Clayton Road to the south, the Pointe Clayton Subdivision ("R-1A" and "FPR-1A": 162 single family units) to the west, Brentmoor Place ("R-1" and "R-1A": 110 single family units) to the north, and Valley View Subdivision ("R-1" and "R-1A": 198 single family units) to the east.

POND-GROVER COMMUNITY AREA STUDY

SUBAREA ANALYSIS: PLANNING RECOMMENDATIONS

Subarea One and One (A)

LAND USE STRATEGIES

Residential Components

1. The future development of tracts south of Clayton Road should be primarily considered for residential use in the low-medium density range consistent with surrounding development and compatible with existing topography.
2. The future development of large tracts north of Clayton Road should be primarily considered for residential use in the low to low-medium density range consistent with surrounding development and compatible with existing topography.

Commercial Components

3. Due to site limitations, including a substantial area of flood plain, commercial development at Strecker Road and Clayton Road should be strictly limited to the northeast corner of this intersection and should be a mix of low-intensity, neighborhood uses oriented to meeting the needs of local residents.
4. Given the availability of more appropriate sites within the study area, commercial development in this subarea should not be encouraged along Clayton Road or at any point along Strecker Road, except where noted in Planning Recommendation 3.

Recreational Component

5. The flood plain area west of Strecker Road, formerly owned by the City of Ellisville as Mallard Park, should be maintained as a park with appropriate recreational uses. This is consistent with the identified need for additional park and recreational opportunities in the area and supports the effort to link open space corridors along Caulks Creek. The City of Ellisville, the current property owner, and the St. Louis County Department of Parks and Recreation should cooperatively work toward an eventual agreement.

INFRASTRUCTURE STRATEGIES

6. Improvement of Clayton Road and Strecker Road should be an integral part of any development which occurs adjacent to it. Additionally, the improvement of these two roadways should be considered the highest priority for funding by County government, particularly the length of Clayton Road between Strecker and Valley Roads. Both are heavily travelled and sorely inadequate for increased vehicular traffic because of pavement condition and construction. Additionally, future traffic volumes may require the conversion of the intersection of Clayton and Strecker Roads to a four-way stop for all traffic entering from either roadway (currently traffic is required to stop only when entering the intersection from Strecker Road).

7. In an effort to lessen the impact of the extension of Clayton Road to State Route 109, where it intersects with Westglen Farms Drive and Thunderhead Canyon Drive, the installation of stop signs at these locations should be completed at the earliest possible time. Additional signage may be appropriate after traffic volumes and driving patterns are better established and impacts are more discernable.
8. Existing stub streets should be linked into future residential developments to promote an efficient and continuous internal roadway system.
9. The completion of Clayton Road to State Route 109 has provided a needed east-west alternative to State Route 100. With increased utilization of this roadway, Booker Associates, Inc. has in its Traffic Study recommended that Clayton Road be upgraded from a three-lane width to a four-lane width. Because of the existing residential pattern along Clayton Road from McBride Pointe Drive to the future extension of Westglen Farms Drive (driveways accessing directly onto the roadway), widening of this roadway beyond its existing width should not be considered or undertaken. Potential negative impacts on abutting property owners outweighed possible traffic circulation benefits.

COMMUNITY STRATEGIES

10. To the extent possible, properties should be consolidated to facilitate unified development proposals, particularly south of Clayton Road.
11. Preservation of the remaining forest cover should be paramount and vigorously enforced during the design, review, and development stages by the St. Louis County Departments of Planning and Public Works. Additional strategies to accomplish this preservation may include the following: a review of existing County ordinances to identify potentially detrimental effects caused by their enforcement, a taxing district for preservation purposes, or a requirement that an inventory of trees be shown on the Site Development Plan indicating those to be retained and requiring some type of escrow or bond for their protection.
12. To insure that purchasers of homes in newly platted subdivisions are aware of stub streets, the St. Louis County Planning Commission and the Department of Planning should require, within the conditions of the enabling legislation, that appropriate language be included in all sales contracts indicating that stub streets exist within the subdivision and may be linked to new development at some time in the future.

POND-GROVER COMMUNITY AREA STUDY
SUBAREA ANALYSIS: INVENTORY OF CHARACTERISTICS

Subarea Two

Special Features

- Strecker Road bisects the subarea.

Physical Characteristics

- Heavily wooded areas consisting of the characteristic oak-hickory species are prevalent throughout the subarea, particularly along the numerous, small intermittent creeks and streams that flow throughout it.
- Slopes generally exceed fourteen percent and trend toward the north and west.

Land Use

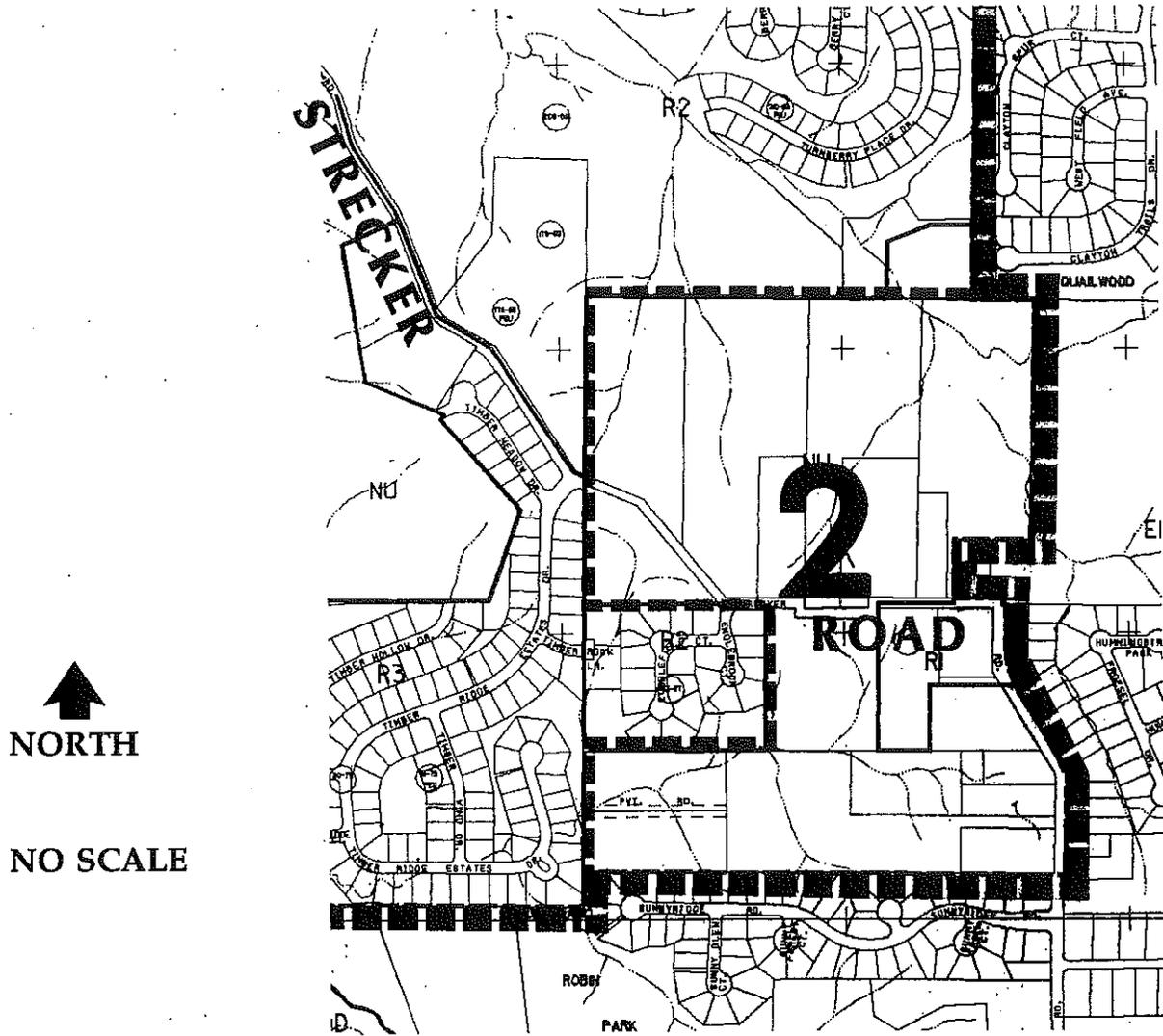
- Current land uses include single family residences on large, rectangular lots that front onto Strecker Road.

Zoning/Subdivision Activity

- Current zoning is "NU" Non-Urban District and "R-1" One Acre Residence District (two single family units on five acres).
- A single rezoning petition has been approved in this subarea since the 1965 adoption of the County's Zoning Ordinance. The petition was: P.C. 71-27: F.J. Niebruegge: A request for a change from the "NU" Non-Urban District to the "R-1" One Acre Residence District. Proposed use: Two single family homes.

POND-GROVER COMMUNITY AREA STUDY

SUBAREA TWO



Subarea Two:

The area is bounded on the north by the Turnberry Place Subdivision ("R-2": 202 single family units approved), to the east and south by the municipal boundaries of the City of Ellisville, and to the west by the Timber Ridge Subdivision ("R-3": 160 single family units approved) and the Carriage Crossing Subdivision ("R-2": 19 single family units approved).

POND-GROVER COMMUNITY AREA STUDY
SUBAREA ANALYSIS: PLANNING RECOMMENDATIONS

Subarea Two

LAND USE STRATEGIES

Residential Components

1. The future development of vacant parcels or the redevelopment of assembled parcels should continue the existing land use pattern of medium-low density residential.
2. In the event of new subdivision development, lots should not front or access onto Strecker Road. Consideration should be given to requiring a minimum depth for lots backing onto Strecker Road or providing a common ground buffer between Strecker Road and rear lots, thus enhancing the visual quality along Strecker Road and mitigating negative impacts of traffic into new residential areas.

Commercial Component

3. Commercial uses should not be introduced within the subarea. However, limited non-residential uses (institutional, public facility) could be introduced into the area provided each is appropriately scaled and does not require access through residential areas.

INFRASTRUCTURE STRATEGIES

4. If significant residential development should occur, a circulation pattern served by internal streets is most appropriate given the through nature of Strecker Road.
5. Improvements to Strecker Road should enhance alignment and sight distance (see Subarea One and One (A) for additional comments on Strecker Road).

COMMUNITY STRATEGIES

6. To the extent possible, properties should be consolidated to facilitate unified development proposals and optimal circulation patterns.
7. Preservation of the remaining forest cover should be paramount and vigorously enforced during the design, review, and development stages by the St. Louis County Departments of Planning and Public Works. Additional strategies to accomplish this preservation may include the following: a review of existing County ordinances to identify potentially detrimental effects caused by their enforcement, a taxing district for preservation purposes, or a requirement that an inventory of trees be shown on the Site Development Plan indicating those to be retained and requiring some type of escrow or bond for their protection.
8. To insure that purchasers of homes in newly platted subdivisions are aware of stub streets, the St. Louis County Planning Commission and the Department of Planning should require, within the conditions of the enabling legislation, that appropriate language be included in all sales contracts indicating that stub streets exist within the subdivision and may be linked to new development at some time in the future.

POND-GROVER COMMUNITY AREA STUDY
SUBAREA ANALYSIS: INVENTORY OF CHARACTERISTICS

Subarea Three

Special Features

- Old State Road defines the northern and western boundaries of the subarea.
- The large-lot subdivision named Mac Acres bisects the subarea into two non-contiguous sections.
- The Old State Road/State Route 109 bridge is located southwest of the subarea.¹

Physical Characteristics

- Many of the parcels fronting onto Old State Road have relatively few topographic constraints. Slopes range generally from five to nine percent.
- Wooded areas are isolated along the southern boundary of the subarea.
- The ridge line separating the Caulks Creek Watershed from the Hamilton and Carr Creek and Meramec River Watersheds trends through the subarea. As a result, the drainage pattern of tributaries and streams is not as defined as others in nearby subareas.

Land Use

- Current land uses include single family residences and several, large vacant parcels.
- This subarea includes a Rockwood School District's elementary school.

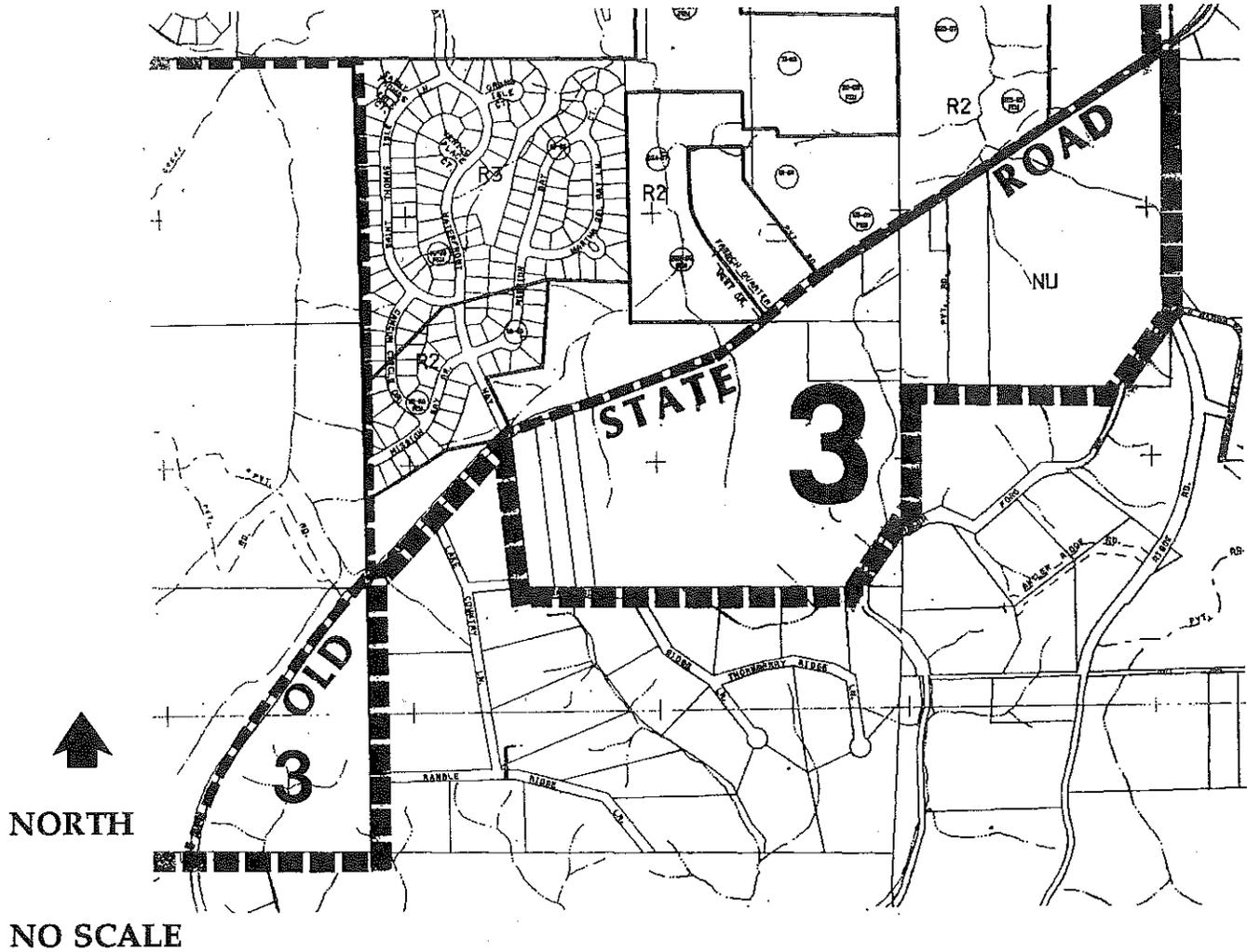
Zoning/Subdivision Activity

- Current zoning designation for the entire subarea is "NU" Non-Urban District.
- P.C. 64 and 65-89, a request for rezoning from the "NU" Non-Urban District to the "R-3" 10,000 square foot Residence District with a Planned Environment Unit (P.E.U.) for the two parcels at the southwestern corner of Old State Road and Lawler Ford Road, was withdrawn prior to Planning Commission action. After the withdrawal, the owners requested that the two parcels be annexed by the City of Ellisville. The petitioned annexation was approved and two development proposals were submitted. The City of Ellisville has approved a 10.9 acre commercial development at the intersection of Ridge and Old State Roads and residential units at the medium-low density range on the remainder of the property.

¹ Because of identified safety concerns from Committee Members and residents alike, the Old State Road/State Route 109 Bridge has been included in Subarea Three so as to allow recommendations to be made to reduce or eliminate this existing hazard.

POND-GROVER COMMUNITY AREA STUDY

SUBAREA THREE



Subarea Three:

The area is bounded on the north and west by Old State Road, to the east by Lawler Ford Road, and to the south by the large lot subdivisions of Mac Acres, Country Ridge Estates, and Antler Ridge.

POND-GROVER COMMUNITY AREA STUDY
SUBAREA ANALYSIS: PLANNING RECOMMENDATIONS

Subarea Three

LAND USE STRATEGIES

Residential Components

1. Because of the emerging residential pattern in the Old State Road vicinity, further industrial and commercial development should be discouraged as a means to reduce land use conflicts and promote compatible developments.
2. Development densities in this subarea should not reflect the existing densities of the newer, residential areas to the north. If residential development should occur in this subarea, transitions should range from low to medium-low densities along Old State Road to large-lot densities bordering the subarea's southern boundary and be compatible with existing topography.
3. The existing 300 foot green space buffer along the north right-of-way of Old State Road should be maintained, if subsequent development should continue to occur.
4. Extensive buffering, use of common ground, or larger lot sizes with minimum frontage requirements should be encouraged for any future residential developments that may have lots backing onto Old State Road.

Institutional Component

5. Extensive buffering and appropriate land use transitions should be utilized along the boundaries of the Rockwood School District's elementary school at Lawler Ford and Ridge Roads.

INFRASTRUCTURE STRATEGIES

6. Access onto Old State Road should be restricted from the developing residential areas to the north as a means to offset additional circulation and safety concerns brought on by increased utilization, until significant upgrading and improvements have been completed along the roadway.
7. It may be premature to conclude that a five-lane arterial is necessary along the entire length of Old State Road from Manchester Road to Lake Country Lane as proposed. Development of Old State Road as a five-lane arterial, therefore, should be reviewed prior to the commitment of resources to insure that the road widening is necessary and consistent with the level of existing and future traffic demands, and will not unduly degrade the natural character of the community environment along the roadway. Recommendations made by Booker Associates, Inc. in the Traffic Study should act as the guide for future right-of-way dedications along Old State Road.

8. The Missouri State Highway and Transportation Department and the St. Louis County Police Department should make every effort to decrease hazardous road and driving conditions at the Old State Road/State Route 109 bridge. This effort will probably entail the bridge being significantly renovated or replaced and increased patrol and enforcement efforts to reduce speeding and reckless driving.
9. Any future development should carefully address the need for a coordinated approach to the provision of adequate utilities, particularly sanitary sewers and stormwater controls.

COMMUNITY STRATEGIES

10. Future development within this subarea should address the assemblage of smaller parcels to facilitate the development of a continuous, internal circulation system for traffic and appropriate linkages of open space.
11. Preservation of the remaining forest cover should be paramount and vigorously enforced during the design, review, and development stages by the St. Louis County Departments of Planning and Public Works. Additional strategies to accomplish this preservation may include the following: a review of existing County ordinances to identify potentially detrimental effects caused by their enforcement, a taxing district for preservation purposes, or a requirement that an inventory of trees be shown on the Site Development Plan indicating those to be retained and requiring some type of escrow or bond for their protection.
12. To insure that purchasers of homes in newly platted subdivisions are aware of stub streets, the St. Louis County Planning Commission and the Department of Planning should require, within the conditions of the enabling legislation, that appropriate language be included in all sales contracts indicating that stub streets exist within the subdivision and may be linked to new development at some time in the future.
13. Much of the area south of Old State Road is served by a system of private streets or drives. To insure that emergency vehicles (police and fire) are capable of quickly responding and locating a site, homes in private subdivisions or along a private drive should be encouraged to prominently display house numbers in an easily identifiable and visible location. To insure that future, new large-lot subdivisions adhere to this requirement and provide road signage within internal roadway systems of private subdivisions, the St. Louis County Subdivision Ordinance should be revised to insure street signage and house numbering are in place on all new homes and private, residential streets.

POND-GROVER COMMUNITY AREA STUDY
SUBAREA ANALYSIS: INVENTORY OF CHARACTERISTICS

Subarea Four

Special Features

- This subarea has frontage onto both Manchester and Old State Roads.
- The subarea is the combination of six parcels of property, all of which are greater than twenty acres in size, the largest being 156 acres.

Physical Characteristics

- The ridge line separating the Caulks Creek Watershed from the Hamilton and Carr Creek and Meramec River Watersheds bisects the southern half of the subarea. The headwaters of Caulks Creek lie directly adjacent to this subarea.
- Slopes generally range between five and nine percent and can be characterized as rolling to gently rolling in nature. Steepest slopes are along the existing system of creeks and streams within the subarea (between drainage divides).
- Forest cover, principally oak-hickory in nature, is limited to those areas adjacent to Caulks Creek and its tributaries. The remaining land that is undeveloped is either in original pasture or being farmed.

Land Use

- Current land uses include the Cherry Hills Country Club and several vacant parcels.

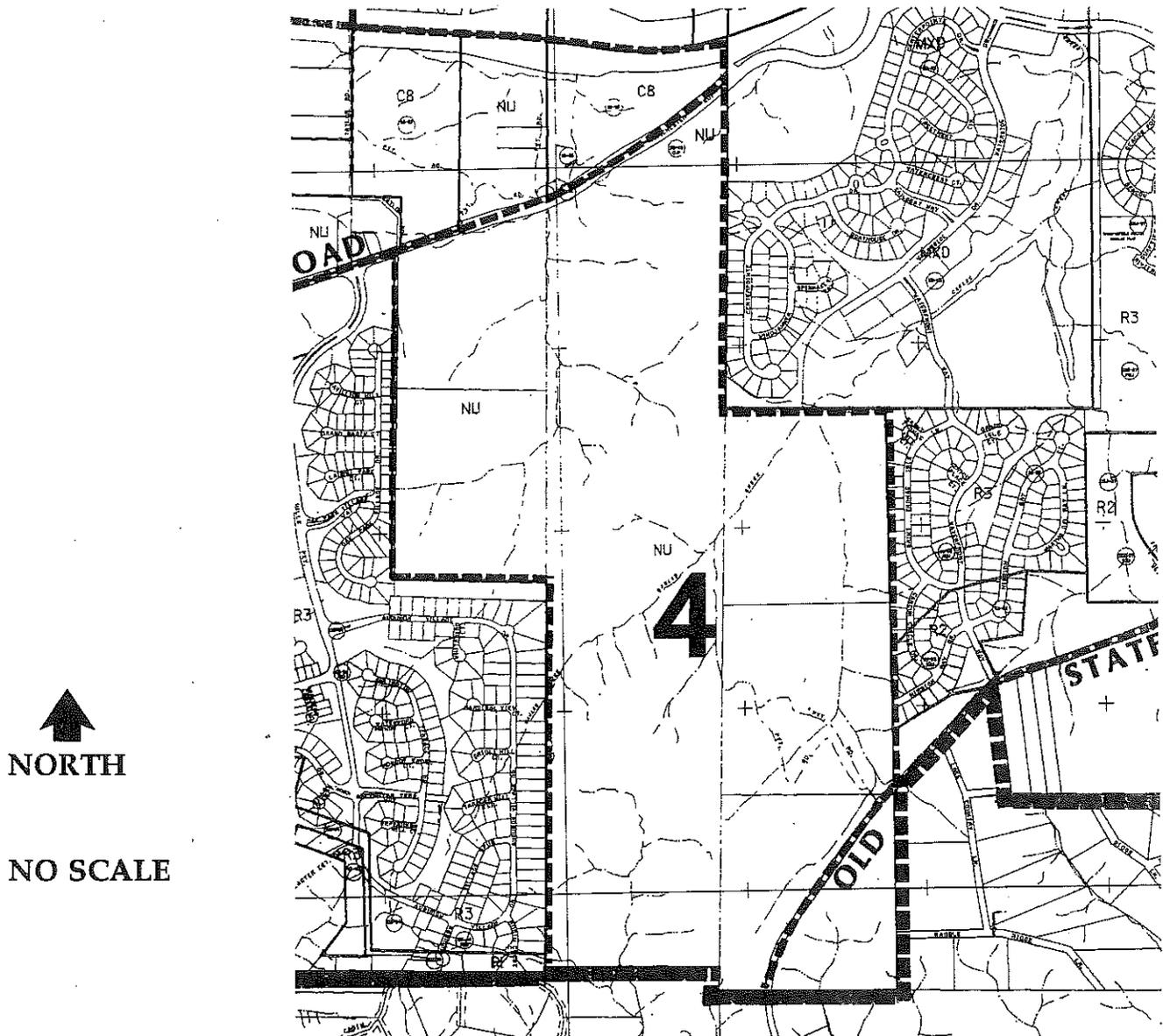
Zoning/Subdivision Activity

- Current zoning for the subarea is "NU" Non-Urban District, "R-2" 15,000 square foot Residence District, and "R-3" 10,000 square foot Residence District.
- Two rezoning petitions were approved in this subarea since the 1965 adoption of the County's Zoning Ordinance. The petitions requested for a Conditional Use Permit in the "NU" Non-Urban District. P.C. 218-69: Cherry Hills Country Club: A Proposed use: Expansion of existing golf clubhouse.

P.C. 41 and 42-90: J.L. Mason of Missouri, Inc.: A request for a change in zoning from the "NU" Non-Urban District to the "R-2" 15,000 square foot Residence District and "R-3" 10,000 square foot Residence District with an accompanying Planned Environment Unit (P.E.U.). Proposed use: 283 single family homes with associated recreational facilities and common ground.

POND-GROVER COMMUNITY AREA STUDY

SUBAREA FOUR



Subarea Four:

The area is bounded by Manchester Road and the Harbors at Lake Chesterfield Subdivision to the north, by the Harbors at Lake Chesterfield Subdivision to the east, by Old State Road to the south, and by the Seven Villages of Cherry Hills Subdivision to the west.

POND-GROVER COMMUNITY AREA STUDY
SUBAREA ANALYSIS: PLANNING RECOMMENDATIONS

Subarea Four

LAND USE STRATEGIES

Residential Components

1. Residential densities should reflect existing pattern of development in the adjacent subdivisions. Densities, therefore, should be in the medium-low range and compatible with existing topography.
2. The Special Procedure provision of the Zoning Ordinance, particularly the Planned Environment Unit, should be considered and encouraged to promote the protection of Caulks Creek and to maintain the natural character of the area. In addition, appropriate landscaping and buffering, including increased setbacks, should be employed along the Harbors of Lake Chesterfield and the Seven Villages of Cherry Hills Subdivisions to maintain current green space and aesthetics. Setback requirements should be established on a petition by petition basis, but minimally should include existing tree masses that border along each of the two subdivisions.
3. In lieu of institutional or multiple family uses directly adjacent to Manchester Road, residential lots should be internally oriented and serviced by an appropriate roadway system. Consequently, extensive buffering, use of common ground, or larger lot sizes should be encouraged on any future residential developments that back onto Manchester Road or Old State Road.
4. If the Cherry Hills Country Club is converted to another use, the utilization of this site should be residential in nature. The "Village Concept" should be employed here. This concept generally includes a mix of housing types, but for the purpose of this subarea it should exclude any multiple family units, including condominiums. The "Village Concept" offers unique opportunities to incorporate more flexible site designs, consistent architectural themes, and efficient roadway systems.
5. The existing 300 foot green space buffer along the north right-of-way of Old State Road should be maintained, if subsequent development should continue to occur.

Commercial Component

6. Commercial land uses should be restricted along Manchester Road in this subarea because of the previously approved commercial developments within the Harbors of Lake Chesterfield and the Seven Villages of Cherry Hills Subdivisions and the existing precedent in Subarea Six.

Institutional/Recreational Component

7. Any large scale, future development in this subarea should be required to donate a school site to the Rockwood School District for the educational needs of this emerging community. Density credits or some other form of relief should be considered to offset the economic impacts to the developer or developers. Given the size and eventual density of development in this subarea, consideration should also be given to the dedication of a neighborhood size park (5-10 acres) to the St. Louis County Department of Parks and Recreation.

INFRASTRUCTURE STRATEGIES

8. Access between Old State Road and Manchester Road, through this subarea, should be restricted to a single arterial road that aligns with the proposed Manchester Road/Pierside Lane Overpass. Additionally, construction of the arterial roadway should begin immediately at the time of development, but access from the Old State Road Spur to the south should not be permitted until improvements to Old State Road are completed.
9. The conceptual location of the proposed Old State Road Spur as it approaches the Manchester Road/Pierside Lane Overpass should be moved further west toward the center of the site (Cherry Hills Country Club). This realignment would provide increased protection to residential properties that are located in the adjacent Harbors at Lake Chesterfield Subdivision. Due to its conceptual nature, this movement of the Old State Road Spur provides additional flexibility for adapting site characteristics to future development proposals.
10. Other existing stub streets should be linked into future residential developments to promote an efficient, safe, and continuous internal roadway system. When stub streets are linked into existing subdivisions, special considerations need to be in place to reduce or eliminate any potential detrimental effects. These considerations should include: increased patrol activity, speed zones, roadway striping and signage, and educational campaigns.

COMMUNITY STRATEGIES

11. Whenever possible, improvements to Manchester Road should be done in an orderly and comprehensive manner to minimize traffic congestion and delays, and development should not proceed on adjacent properties until all improvements are completed.
12. Preservation of the remaining forest cover should be paramount and vigorously enforced during the design, review, and development stages by the St. Louis County Departments of Planning and Public Works. Additional strategies to accomplish this preservation may include the following: a review of existing County ordinances to identify potentially detrimental effects caused by their enforcement, a taxing district for preservation purposes, or a requirement that an inventory of trees be shown on the Site Development Plan indicating those to be retained and requiring some type of escrow or bond for their protection.
13. To insure that purchasers of homes in newly platted subdivisions are aware of stub streets, the St. Louis County Planning Commission and the Department of Planning should require, within the conditions of the enabling legislation, that appropriate language be included in all sales contracts indicating that stub streets exist within the subdivision and may be linked to new development at some time in the future.

14. With the acquisition of right-of-way by the St. Louis County Department of Highways and traffic from private landowners, every reasonable effort should be made to insure that the integrity of the remaining lot is maintained. This process may mean adhering to existing lot lines, whenever possible, to avoid splitting or rendering the remaining lot unusable.

POND-GROVER COMMUNITY AREA STUDY

SUBAREA ANALYSIS: INVENTORY OF CHARACTERISTICS

Subarea Five

Special Features

- Current zoning is "NU" Non-Urban District, "R-1" One Acre Residence District (a 1.5 acre tract with a C.U.P. for a child care center), "C-2" Shopping District, and "C-8" Planned Commercial District.
- This subarea has extensive road frontage onto Manchester Road and State Route 109. It also contains the southeast corner of this intersection. Currently, the intersection is not fully signalized and has only a two-way stop sign on Manchester Road and a flashing red signal.
- The historic community of Grover is located adjacent to Manchester Road. Several structures in this area are listed in the St. Louis County West Inventory of Historic Buildings - Phase Two: Pond and Grover, 1989 prepared by the St. Louis County Department of Parks and Recreation as holding some historic significance in the early growth of St. Louis County.
- Much of the subarea's southern boundary is defined by the Rockwoods Reservation, a wildlife refuge operated by the Missouri Department of Conservation.
- Woods Road bisects the subarea in a north-south direction.

Physical Characteristics

- Except where urbanization has occurred, this subarea is characterized by heavily forested and very hilly terrain. Species are oak-hickory which are indigenous to the Meramec Hills physiographic subprovince. Slopes exceed fourteen percent in most locations.
- The drainage divide between the Hamilton and Carr Creek Watershed and the Caulks Creek Watershed trends through the northeast corner of the subarea. Much of the ridge line can be defined somewhat by Manchester Road, with slopes dramatically dropping off to the south toward the Meramec River.

Land Use

- Current land uses include the following: numerous single family residences on lots of varying size and shape (large parcels over five acres and post-war lots no greater than 5,000 square foot in size within the Grover area), the largest concentration of industrial sites in the study area (a telecommunications tower, a State Highway Department garage, a Union Electric substation and an oil distributorship), a post office, numerous commercial businesses, and several vacant, undeveloped parcels.

Zoning/Subdivision Activity

- Within the last three years, there has been eight rezonings in this subarea. Two were requests for Conditional Use Permits (C.U.P.) allowing the following uses:

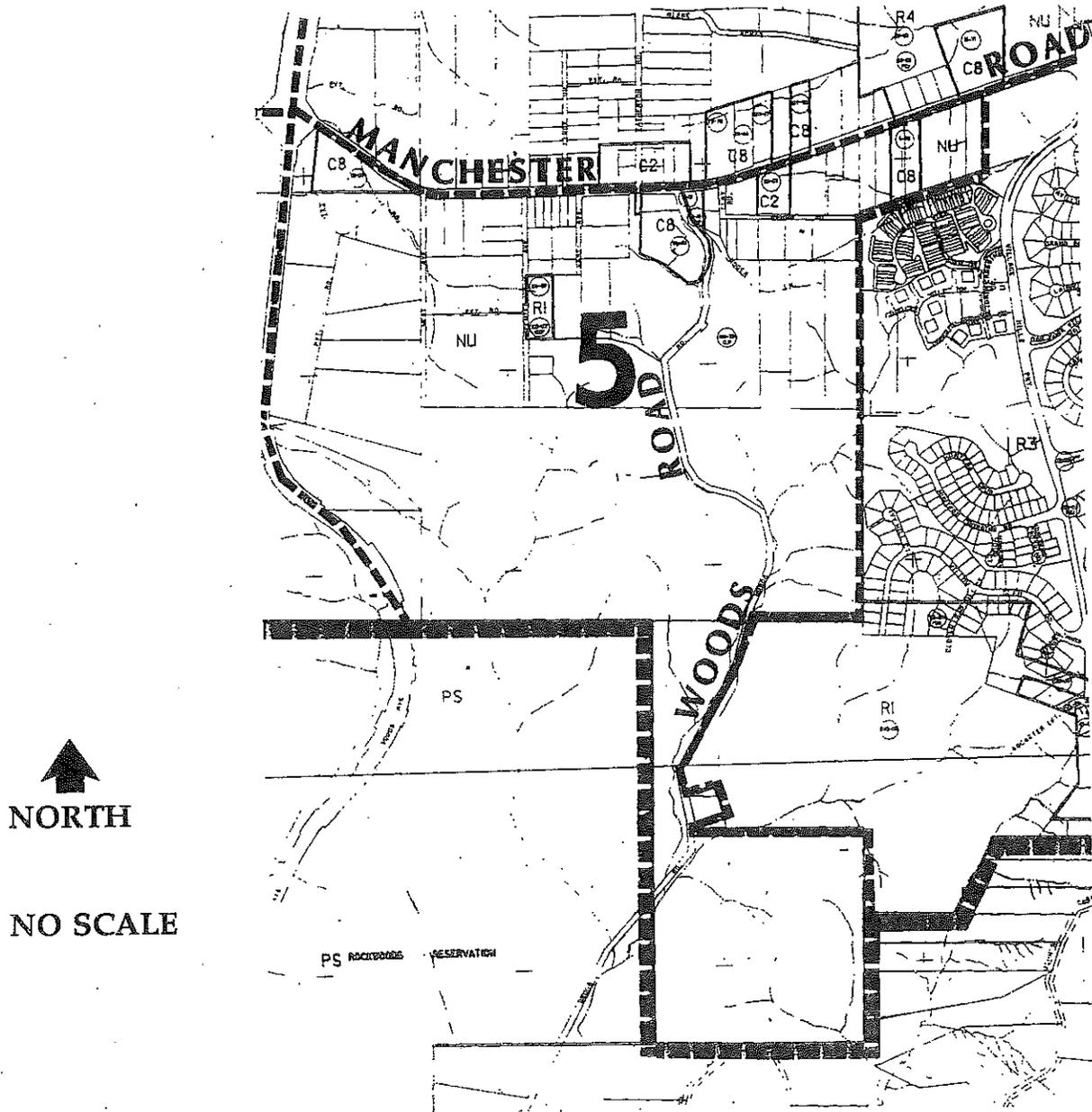
<u>Petition Number</u>	<u>Petitioner</u>	<u>Use</u>
199-87	G.A. & D.J. Baker	Child care center
76-89	The Grover Company	Decorative clock tower

The remaining six requests were changes from the "NU" Non-Urban District to the "C-8" Planned Commercial District:

<u>Petition Number</u>	<u>Petitioner</u>	<u>Use</u>
98-86	Manchester-Woods Partnership	Retail sales, office, warehouse, furniture showroom
180-86	Christine Mary Simcik	Vet clinic, medical offices, dental clinic
65-87	W. Stude and E. Manion	Service station, drive-thru, retail sales
249-88	St. Louis Nursery Partnership	Lawn and garden center
98-89	McKinnon Realty	Offices
112-89	Cliff Rufkar	Feed store

POND-GROVER COMMUNITY AREA STUDY

SUBAREA FIVE



Subarea Five:

The area is bounded by the Seven Villages of Cherry Hills Subdivision to the east, by Manchester Road to the north, by State Route 109 to the west, and by Rockwoods Reservation to the south.

POND-GROVER COMMUNITY AREA STUDY

SUBAREA ANALYSIS: PLANNING RECOMMENDATIONS

Subarea Five

LAND USE STRATEGIES

Recreational/Open Space Components

1. Adjacent to Rockwoods Reservation, certain height and setback requirements should be imposed to insure that intrusion from any future development is minimal and does not detract from the surrounding beauty of the area. These requirements should encompass the following:
 - a) No structure, building, or tower may exceed sixty feet in height within a prescribed distance of the Reservation's boundary to be determined on a case-by-case basis. Criteria used to develop this distance calculation will be elevations and slopes of site, location of the facility (distance from refuge boundaries), and proposed use.
 - b) A minimum 100 foot setback will be employed around the perimeter of the refuge.
 - c) Access from any new development should be to the north or west toward Manchester Road or State Route 109 and not to Woods Avenue.
2. The Department of Parks and Recreation and the Department of Planning should encourage and support the designation of Woods Road as a scenic roadway, as it exhibits unique and diverse fauna, flora, and terrain characteristics of the Missouri Ozarks, and is located in proximity to Rockwoods Reservation. A scenic roadway could be established by acquisition of property easements, or by ordinance, which would specify limitations to development and access onto the road. Prior to such designation, sensitivity should be exercised in preserving the existing character of the Woods Road Corridor.

Residential Components

3. Special design and engineering practices will be necessary in those areas exhibiting slopes in excess of fourteen percent. These areas are particularly susceptible to erosion because of extreme grades, rocky soils, and rapid surface runoff. Where slopes exceed fourteen percent, low density residential development is the preferred alternative. There are, however, certain instances where even this low density level of residential development may be unsuitable. In Subarea Five, these particular areas occur adjacent to and near the well-defined system of creeks and streams characteristic of the southern half of the study area.
4. Any future development abutting the existing single family homes in the Seven Villages of Cherry Hills Subdivision should provide an adequate buffer area to reduce visual intrusion and maintain existing aesthetic qualities. This buffer distance can vary according to specific site characteristics (topography, size and location of existing tree stands, and distance to nearest home) and therefore, should be determined on a case-by-case basis.

Design District Components

5. In an effort to maintain the unique, country flavor of the Grover area, particularly its business district, the establishment of a Design District should be encouraged and pursued. Within the district boundaries, certain design standards, architectural styles, and materials will be required to insure that the 19th Century style of many of the older, core buildings is replicated or closely followed by newer construction. For the purposes of this Design District, these requirements will apply to the area of Grover north of Manchester Road (part of Subarea Six).
6. Within the Design District, future land uses should be limited to neighborhood size, retail or service businesses or medium density residential. Appropriate land use mixes within the Design District are preeminent to avoid redundancy of uses along Manchester Road. Additionally, any commercial use must be of appropriate type as to not detract from the purpose of the District. To insure that the reuse of identified structures within the Design District is economically feasible, site development practices as required by the Departments of Planning, Highways and Traffic, and Public Works should be reviewed on a petition by petition basis with the intention of identifying regulations or requirements which would be inapplicable or detrimental to the reuse of these structures, and therefore be waived.
7. Lots abutting Manchester Road within the Design District are generally elongated, narrow lots with minimal actual road frontage. However, the majority of lots are over one acre in size. With these long, deep lots, a potential exists for further development as a second tier (behind existing structures). This development would make restoration and reuse more economically viable and help to maintain the Design District concept. Development would have to meet all the previously stated requirements of the Design District (see Recommendations 3 and 4) and access directly onto Manchester Road.

Commercial/Multiple Family Components

8. Commercial development south of Manchester Road should be limited to a depth equal to the second tier of lots directly to the rear of the established commercial pattern or to the depth of existing commercial zoning (see P.C. 98-86).
9. Commercial development along State Route 109 should be limited to the intersection at Manchester Road and should not be allowed to encroach to the south. Appropriate land uses for these abutting properties along State Route 109 may include: institutional uses or medium to medium-high density residential uses oriented toward Manchester Road or West and Center Avenues, where topography permits. Additionally, to insure that multiple family developments are compatible with the surrounding community, a maximum of two-stories shall be permitted on these types of structures, except in instances where topography and grades would allow an additional story to be added without increasing the overall height of the building. Review of proposed multiple family developments by the St. Louis County Planning Commission should be required to assure appropriate exterior or facade materials and architectural styles are employed. Appropriate setbacks and buffering and landscaping should be employed to reduce adverse impacts associated with State Route 109.

Industrial Component

10. With the largest concentration of existing industrial uses located within this subarea, every effort should be made to provide adequate land use transitions between them and future developments. Similarly, where appropriate, existing conflicts should be addressed by encouraging present owners to provide additional landscaping or property cleanup (trees, shrubs, and fencing), particularly the State Highway Department's garage and substation. Despite this level of existing industrial development in the subarea, this should not be interpreted as a continued precedent for further industrial land use growth.

INFRASTRUCTURE STRATEGIES

11. Any improvement to State Route 109 should include the appropriate protections for cyclists, refuge visitors, and native wildlife along the adjacent Rockwoods Reservation. This may include increased signage, speed zones, and below-grade crossings.
12. Priority should be placed upon the full signalization of the Manchester Road/State Route 109 intersection from its current status as a two-way stop and flashing red signal. With the growth of traffic, the location of the Rockwood School District garage and bus lot, and the existing roadway conditions, increased safety and traffic hazards can be anticipated. Additionally, any signalization should consider the close proximity of the Ballwin Fire Protection District's Firehouse with regard to insuring unrestricted ingress and egress at all times.
13. With the proposed undertaking and future completion of an outer-loop corridor study, changes in State Route 109 are almost a certainty at some point in the future. These changes could include a new alignment, decreased or increased access, additional lanes, medians, and signalization. Such changes will have a major impact on the surrounding community. Several considerations must be made to protect the existing community's integrity, environment, and quality of life. These considerations are:
 - a) any widening of State Route 109, along its existing alignment must take into account the location of Babler State Park, Rockwoods Reservation, and Greensfelder County Park. Accommodations should be made to lessen impact on these surrounding properties. The accommodations should address effects on wildlife and surrounding habitat, visual and noise intrusion into park settings, access and safety considerations for users, and ancillary traffic patterns.
 - b) any movement of the alignment to the east or west must address the immediate impacts on affected landowners and future impacts on surrounding land uses (particularly residential properties).
 - c) extensive public forums and related education materials should be provided to all interested parties to assist in the determination of the overall validity and acceptability of proposed location and extent of improvements.
14. Consideration should be given to improving Center Avenue to a two-lane collector standard and providing an appropriate temporary turnaround for non-resident traffic at its terminus.

15. Future development within this subarea should address the assemblage of smaller parcels to facilitate the development of well-planned, architecturally integrated buildings and facilities, a continuous, internal circulation system for traffic, and appropriate linkages of open space. This is particularly imperative along State Route 109 from Manchester Road south to the study area boundaries.
16. Whenever possible, improvements to Manchester Road and State Route 109 should be done in an orderly and comprehensive manner to minimize traffic congestion and delays, and development should not proceed on adjacent properties until all improvements are in place.
17. Any future development should carefully address the need for a coordinated approach to the provision of adequate utilities, particularly sanitary sewers, stormwater controls, and potable water.

COMMUNITY STRATEGIES

18. Preservation of the remaining forest cover should be paramount and vigorously enforced during the design, review, and development stages by the St. Louis County Departments of Planning and Public Works. Additional strategies to accomplish this preservation may include the following: a review of existing County ordinances to identify potentially detrimental effects caused by their enforcement, a taxing district for preservation purposes, or a requirement that an inventory of trees be shown on the Site Development Plan indicating those to be retained and requiring some type of escrow or bond for their protection.
19. Much of the area south of Manchester Road is served by a system of private streets or drives. To insure that emergency vehicles (police and fire) are capable of quickly responding and locating a site, homes in private subdivisions or along a private drive should be encouraged to prominently display house numbers in an easily identifiable and visible location. To insure that future, new large-lot subdivisions adhere to this requirement and provide road signage within internal roadway systems of private subdivisions, the St. Louis County Subdivision Ordinance should be revised to insure street signage and house numbering are in place on all new homes and private, residential streets.

POND-GROVER COMMUNITY AREA STUDY
SUBAREA ANALYSIS: INVENTORY OF CHARACTERISTICS

Subarea Six

Special Features

- This subarea has frontage onto Manchester Road, State Route 100, and State Route 109. Because of the road configuration, the shape of the subarea resembles a wedge and contains the southeast corner of the intersection between State Routes 100/109.
- The area immediately around the intersection of Eatherton Road and Manchester Road signifies the historic community of Grover. Several bungalows and other structures are of historic significance because of age, design, or past use.
- Several private streets and one County maintained road (Eatherton) form a noncontinuous internal circulation pattern within the subarea. These roads either stub at a property line or abruptly end at the southern right-of-way of State Route 100.
- Part of the Grover Business District lies directly south of this subarea's boundaries along Manchester Road.

Physical Characteristics

- Part of this subarea, roughly the area west of Eatherton Road, lies in the Bonhomme Creek Watershed (not within Metropolitan St. Louis Sewer District boundaries). The remainder lies within the Caulks Creek Watershed.
- Slopes generally range between five to nine percent, except for several isolated occurrences along State Route 100 to the north and Manchester Road to the south. At these locations, slope exceeds fourteen percent.
- The majority of land within this subarea has undergone some degree of disturbance from urbanization. The extent of native growth, either in wooded areas or pasture, is limited.
- There are several large intermittent creeks and streams which cut across the subarea in a roughly east-west direction.

Land Use

- Current land uses include the headquarters and fire house of the Ballwin Fire Protection District, a church, numerous single family residences, and a large concentration of commercial businesses. Some of these businesses are: Clancy's Mercantile, Bubba and Coys Restaurant, Grover Inn, Hill-Behan Lumber Company, Amoco Service Station, and several small office centers.

Zoning/Subdivision Activity

- Current zoning for the subarea includes the following Districts: "NU" Non-Urban District, "C-8" Planned Commercial District, "C-2" Shopping District, and "R-4" 7,500 square foot Residence District.
- Over the past twenty years, eight petitions requesting zoning changes from the "NU" Non-Urban District to commercial districts have been approved in this area by the St. Louis County Planning Commission and the County Council. These have reinforced the growth of Grover as the historic center of business within the area. These petitions are:

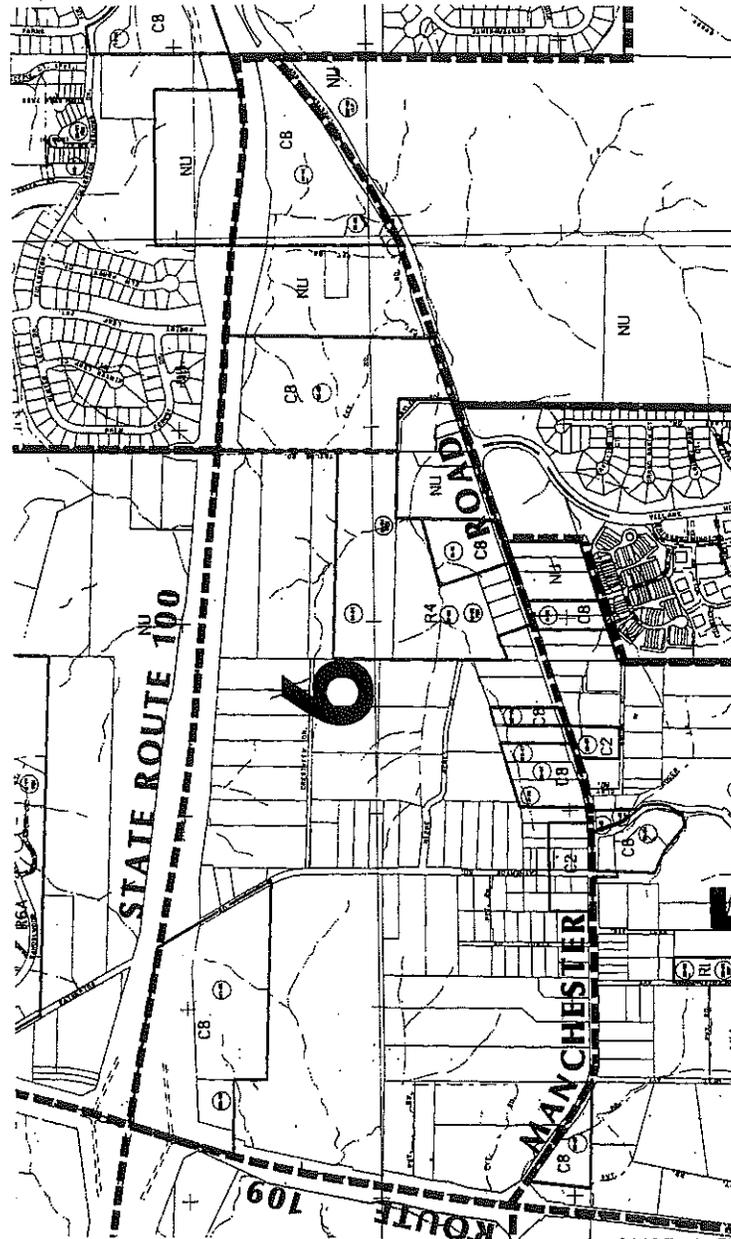
<u>Petition Number</u>	<u>Petitioner</u>	<u>Use</u>
187-88	RDR Investments	Retail/commercial services and offices
161-88	Cherry Hill Acres	Retail/commercial services, offices, and convenience store
229-87	Robert Covert	General offices
236-85	Amoco Oil Company	Convenience store, gas pumps, and car wash
28-84	Ballwin Fire Protection District	Vehicle service center and vehicle rental facility
65-83	Greenberg	A theater, medical/dental offices, fast food restaurant, a sit-down restaurant, a supermarket, and other retail stores
217-78	Ed Holthaus	Offices
73-70	W.A. Sullins	Hardware store and outside storage

Three other petitions were approved over this same time period for the following uses. These are:

<u>Petition Number</u>	<u>Petitioner</u>	<u>Use</u>
114/115-84	Greenberg	Multiple family units (NU to R-6A)
59/60-83	Ridgley Properties	Multiple family units (NU to R-4)
13-71	Ralph and Helen Spaeth	Restaurant (formerly the Barn Dinner Theatre, now Bubba and Coys Restaurant)

POND-GROVER COMMUNITY AREA STUDY

SUBAREA SIX



← NORTH

NO SCALE

Subarea Six:

The area is bounded to the north by State Route 100, to the south by Manchester Road (forming a tip at their intersection to the east), and to the west by State Route 109.

POND-GROVER COMMUNITY AREA STUDY
SUBAREA ANALYSIS: PLANNING RECOMMENDATIONS

Subarea Six

LAND USE STRATEGIES

Multiple Family Component

1. Due to its proximity to two recent commercial rezonings ("C-8" Planned Commercial District), the Calvary Christian Church site may face pressures to sell part or all of its property at some point in the future. If this were to occur, development of this site should be limited to multiple family units or institutional uses because of site characteristics along State Route 100 and for aesthetic purposes along Manchester Road. Such development will allow for an appropriate mix of uses in this area and will provide a break between two large, planned commercial developments on either side. Additionally, to insure that multiple family developments are compatible with the surrounding community, a maximum of two-stories shall be permitted on these types of structures, except in instances where topography and grades would allow an additional story to be added without increasing the overall height of the building. Review of proposed multiple family developments by the St. Louis County Planning Commission should be required to assure appropriate exterior or facade materials and architectural styles are employed.

Commercial/Multiple Use Components

2. Properties between the proposed Pond-Grover Loop Road and Taylor Road and those adjacent properties to the south along the Pond-Grover Loop Road as it aligns in an east-west direction should be considered as sites for future neighborhood commercial and medical office developments. These uses would be orientated toward the portion of the Pond-Grover Loop Road as it runs in the east-west direction and have significant landscaping and buffering along the southern and northern property lines to mitigate impact on surrounding properties and limit visual clutter along State Route 100.
3. Properties lying west of Taylor Road, not including those mentioned in Recommendation 2, or within the Design District boundaries of Grover to Eatherton Road, should be considered as a single development plan. A similar approach was used in the development of the Chesterfield Village at Clarkson Road and Interstate 64. A mix of compatible land uses would be employed to obtain a campus-like setting of offices, multiple family units, and institutional uses. The integration of the uses would allow for consistent architectural themes, abundant green space, a well-planned and continuous road system, and a diversity of housing and employment opportunities (see Planning Recommendation 1 for multiple family requirements regarding height and building style and materials).

4. The area lying between Eatherton Road and State Route 109 provides an opportunity to limit the encroachment of commercial uses south along State Route 109. With the development of the Slavik petition in Subarea 11A, a curb cut on State Route 109 is planned. A linkage between this curb cut and Crestview Road to the east should be developed. A commercial development, preferably no larger than a community-type center, would be appropriate north of this proposed linkage and the already approved "C-8" Planned Commercial District at the southeast corner of State Route 100/State Route 109. The area south of this linkage should be considered for single family residential development at a medium density level. Special considerations need to be made regarding any future residential development in this area. These are:
 - a) Appropriate landscaping and buffering will be necessary along State Route 109, Manchester Road, and the yet unnamed linkage. Included will be plantings, earthen berms, and any other appropriate methods to reduce potential noise and aesthetic problems.
 - b) Increased setbacks, larger lots, or the utilization of common ground should be considered along State Route 109 and Manchester Road. Additionally, appropriate steps should be taken to mitigate the noise and traffic generated by the firehouse at the intersection of State Route 109 and Manchester Road.
 - c) New residential lots should not front onto any of the aforementioned roadways and all residential lots should be served by an internally orientated road system.

Design District Components

5. In an effort to maintain the unique, country flavor of the Grover area, particularly its business district, the establishment of a Design District should be pursued. Within the district boundaries certain design standards, architectural styles, and materials will be required to insure the 19th Century style of many of the older, core buildings is replicated or closely followed by newer construction. For the purposes of this Design District, these requirements will apply to the area of Grover south of Manchester Road (part of Subarea Five).
6. Within the Design District, future land uses should be limited to neighborhood size, retail or service businesses, or medium density residential. Appropriate land use mixes within the Design District are preeminent to avoid redundancy of uses along Manchester Road. Additionally, any commercial use must be of appropriate type as to not detract from the purpose of the District. To insure that the reuse of identified structures within the Design District is economically feasible, site development practices as required by the Departments of Planning, Highways and Traffic, and Public Works should be reviewed on a petition by petition basis with the intention of identifying regulations or requirements which would be inapplicable or detrimental to the reuse of these structures, and therefore be waived.

7. Lots abutting Manchester Road within the Design District are generally elongated, narrow lots with minimal actual road frontage. However, the majority of lots are over one acre in size. With these long, deep lots, a potential exists for further development as a second tier (behind existing structures). This development would make restoration and reuse more economically viable and help to maintain the Design District concept. Development would have to meet all the previously stated requirements of the Design District (see Recommendations 5 and 6) and access directly onto Manchester Road.

INFRASTRUCTURE STRATEGIES

8. Whenever possible, improvements to Manchester Road and State Route 109 should be done in an orderly and comprehensive manner to minimize traffic congestion and delays, and development should not proceed on adjacent properties until all improvements are in place.
9. Access onto State Route 100 should be limited to the proposed Taylor Road intersection (right in-right out only).
10. The construction and improvement of the intersection at Taylor Road and State Route 100 should not be initiated until adequate funding is available to begin the development of the Pond-Grover Loop Road and Overpass. The sequencing of these road projects is essential to limiting the length of time Taylor Road would be operating as an at-grade, bidirectional intersection.
11. With the proposed development of the Pierside Lane/Manchester Road Overpass, traffic patterns and habits of area drivers will be significantly altered in the immediate area. To offset some of the residents' concerns, the Department of Highways and Traffic and the Department of Planning should initiate a comprehensive public information effort to explain the proposed improvements, impacts, and changes from the roadway completion. This effort should target community leaders and trustee organizations.
12. The effect of the completion of the Manchester Road/Pierside Lane Overpass on Fullerton Meadows Drive will be significant. To insure that the existing two-lane collector can adequately function under increased use, several measures need to be in place prior to the opening of the overpass to protect adjacent homeowners. These measures are:
 - a) parking restrictions should be established between Westglen Farms Drive and Forest Leaf Parkway. Level of restrictions to be determined after on-site investigations and review.
 - b) increased signage indicating road conditions and safety measures that are present.
 - c) additional patrol activity during the first few months after the completion of the overpass to establish and insure that driving habits reflect the nature of the roadway (residential).
13. With the proposed undertaking and future completion of an outer-loop corridor study, changes in State Route 109 are almost a certainty at some point in the future. These changes could include a new alignment, decreased or increased access, additional lanes, medians, and signalization. Such changes will have a major impact on the surrounding community. Several considerations must be made to protect the existing community's integrity, environment, and quality of life. These considerations are:

- a) any widening of State Route 109 along its current alignment must take into account the location of Babler State Park, Rockwoods Reservation, and Greensfelder County Park relative to its future location. Accommodations should be made to lessen impact on these surrounding properties. The accommodations should address effects on wildlife and surrounding habitat, visual and noise intrusion into park settings, access and safety considerations for users, and ancillary traffic patterns.
 - b) any movement of the alignment to the east or west must address the immediate impacts on affected landowners and future impacts on surrounding land uses (particularly residential properties).
 - c) extensive public forums and related education materials should be provided to all interested parties to assist in the determination of the overall validity and acceptability of proposed location and extent of improvements.
14. Any future development should carefully address the need for a coordinated approach to the provision of adequate utilities, particularly sanitary sewers, stormwater controls, and potable water.

COMMUNITY STRATEGIES

15. Future development within this subarea should address the assemblage of smaller parcels to facilitate the development of well-planned, architecturally integrated buildings and facilities; a continuous, internal circulation system for traffic; and appropriate linkages of open space.
16. Preservation of the remaining forest cover should be paramount and vigorously enforced during the design, review, and development stages by the St. Louis County Departments of Planning and Public Works. Additional strategies to accomplish this preservation may include the following: a review of existing County ordinances to identify potentially detrimental effects caused by their enforcement, a taxing district for preservation purposes, or a requirement that an inventory of trees be shown on the Site Development Plan indicating those to be retained and requiring some type of escrow or bond for their protection.
17. To insure that purchasers of homes in newly platted subdivisions are aware of stub streets, the St. Louis County Planning Commission and the Department of Planning should require, within the conditions of the enabling legislation, that appropriate language be included in all sales contracts indicating that stub streets exist within the subdivision and may be linked to new development at some time in the future.
18. With the acquisition of right-of-way by the St. Louis County Department of Highways and traffic from private landowners, every reasonable effort should be made to insure that the integrity of the remaining lot is maintained. This process may mean adhering to existing lot lines, whenever possible, to avoid splitting or rendering the remaining lot unusable.

POND-GROVER COMMUNITY AREA STUDY
SUBAREA ANALYSIS: INVENTORY OF CHARACTERISTICS

Subarea Seven

Special Features

- This subarea lies at the northeast corner of the State Route 109/State Route 100 intersection, an identified major activity node in St. Louis County.
- Eatherton Road provides access into the Sandlewood Condominiums and several single family homes from State Route 109 and stubs above the roadway grade at State Route 100.
- The subarea has lengthy road frontage onto both State Route 109 and State Route 100. Frontage is generally at grade with the roadway, except adjacent to the intersection of State Route 100/State Route 109.

Physical Characteristics

- Slopes generally range between five and nine percent throughout the area. There is an area where slope exceeds fourteen percent and it is centered along the rear of the Sandlewood Condominium development and trends toward State Route 100 in a southerly direction.
- Forest cover is limited to the areas adjacent to the system of intermittent creeks and streams that flow in a northeasterly direction toward Caulks Creek. This system of intermittent creeks and streams is well developed and defines most of this subarea's landscape.
- The drainage divide between the Caulks Creek Watershed and the Bonhomme Creek Watershed cuts across the subarea and follows Eatherton Road and State Route 109 to the north.

Land Use

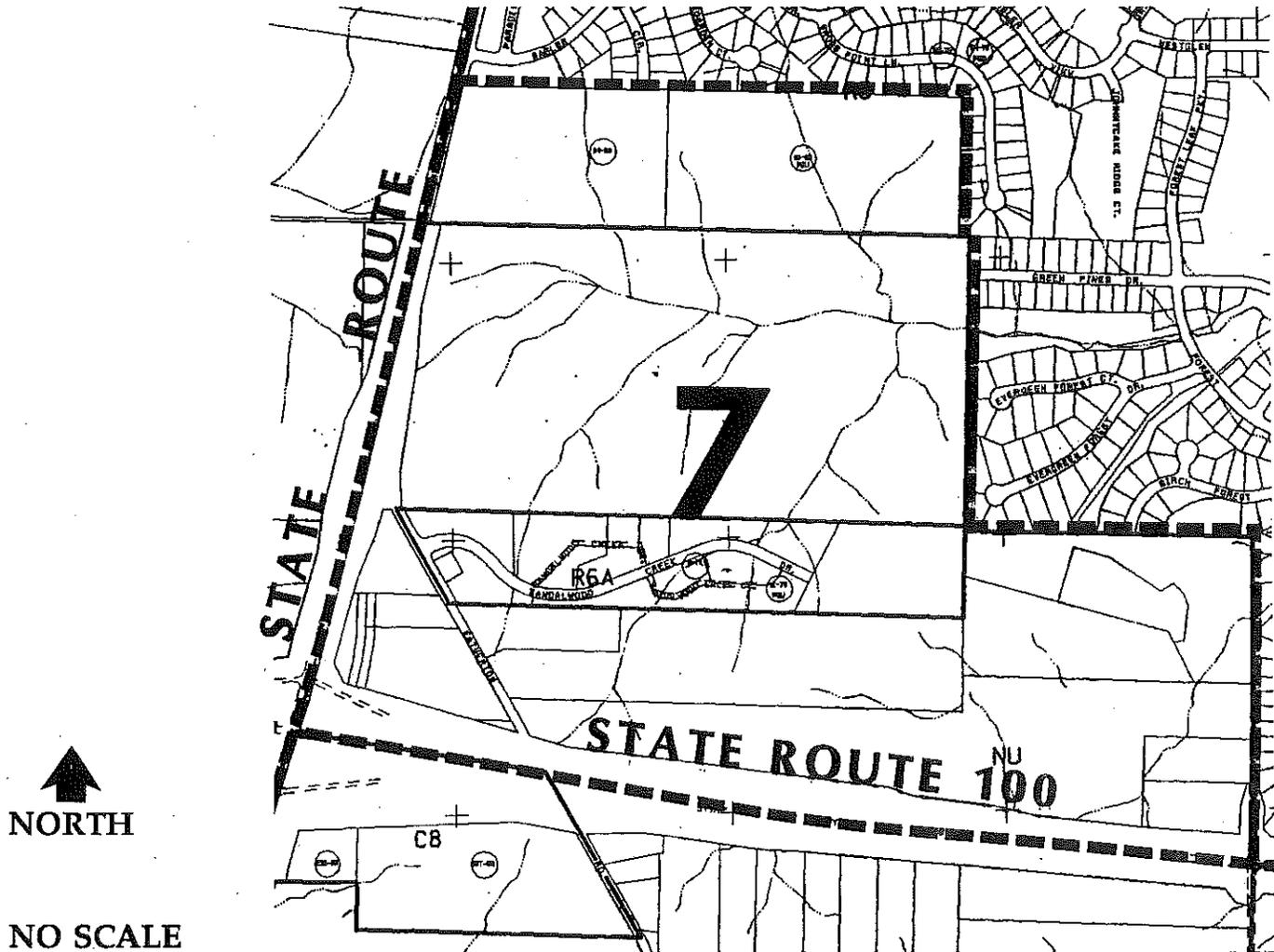
- Current land uses include a plant nursery, a condominium development (212 multiple family units), several single family residences, and one large vacant parcel (77 acres).

Zoning/Subdivision Activity

- Current zoning for the subarea includes the following Districts: "NU" Non-Urban, "R-3" 10,000 square foot Residence District, and "R-6A" 4,000 square foot Residence District.
- Riverdale Homes, P.C. 114 and 115-88, was a request for a change in zoning from the "NU" Non-Urban District to the "R-3" 10,000 square foot Residence District with an accompanying Planned Environment Unit for 104 single family homes to be built on the existing site of the West County Nursery.

POND-GROVER COMMUNITY AREA STUDY

SUBAREA SEVEN



Subarea Seven:

The area is bounded on the north and east by the Babler Park Estates ("R-1A" and "R-3": 235 single family units) and the Evergreen ("R-3": 314 single family units and 190 multiple family units) Subdivisions, to the west by State Route 109, and to the south by State Route 100.

POND-GROVER COMMUNITY AREA STUDY

SUBAREA ANALYSIS: PLANNING RECOMMENDATIONS

Subarea Seven

LAND USE STRATEGIES

Commercial Components

1. Due to its location at the intersection of two major highways, the scenic, rural character of the area, and the proximity to high quality housing, Pond-Grover has been cited in other studies as having the potential for attracting a corporate office/satellite research park. The area with extensive frontage on State Route 100, between Eatherton Road and the proposed Loop Road, would be suitable for such a development. The area should be developed in a unified manner, with particular consideration given to the following: its visual impact from State Route 100; appropriate building height and design (limited to a maximum of three stories and approximately 15,000 square feet of office floor area per acre in size); an internal road system which coordinates parking and circulation; and extensive use of green space and buffers between adjacent land uses. This type of office park development should complement the mixed use development, south of State Route 100, recommended for Subarea 6.
2. Given the proximity of State Route 100 and anticipated traffic patterns through this subarea, the properties between the proposed Pond-Grover Loop Road and Taylor Road should be considered as sites for future neighborhood commercial development and not replicating existing commercial uses at The Villages Shopping Center adjacent to Westglen Farms Subdivision.
3. The triangular area bounded by State Route 100, State Route 109, and Eatherton Road is an elevated, highly visible site from State Route 100. While its visibility and access from State Route 109 make it a desirable location for highway oriented commercial uses, such as a service station, alternative uses should also be considered (due to the proximity of potential residential development north of the site). Appropriate alternatives could include: commercial uses of a limited size and intensity; small scale offices; a small scale hotel to complement the proposed office park; or compatible non-residential uses, such as a day care facility.

Residential Component

4. The future development of the seventy-six acre tract, abutted by Evergreen Subdivision on the east and the proposed Riverdale Homes site on the north, should be considered for residential development in the low-medium density range (preferably at the lower end of this range) consistent with adjacent development and compatible with existing topography. Appropriate buffering and transitions should be instituted between Sandalwood Condominiums and any future development adjacent to it. Wooded areas should be integrated with development in this area through the utilization of the Special Procedures Provisions of the St. Louis County Zoning Ordinance.

Institutional/Recreational Component

5. The area bounded by Evergreen Subdivision on the north and east, and by the proposed extension of Taylor Road on the south should be considered for a neighborhood-scale park and an institutional or public facility, such as a library. Such uses would directly serve nearby residents and act as an appropriate green space buffer between residences to the north and any proposed commercial development adjacent to State Route 100.

INFRASTRUCTURE STRATEGIES

6. Access from State Routes 100 and 109 and the establishment of an internal circulation system are of primary importance to future development in this area. The basis of an arterial/collector road network has been proposed by the County Department of Highways and Traffic to include the Pond-Grover Loop Road (three-lane arterial and overpass), Taylor Road (three-lane arterial), and Paradise Peak Circle Extension. This proposed roadway system was supported by the Traffic Study conducted by Booker Associates, Inc., with very minor modifications. However, the specific alignments of Taylor Road and the proposed Pond-Grover Loop Road should be changed to avoid placing arterial roadways at the rear of existing residential lots. These alignments should consider a western relocation. The extent of this western realignment would be determined based upon a case-by-case review of applicable development proposals. Concerns raised regarding the necessity of aligning the intersection of Taylor Road on both the north and south sides of State Route 100 are diminished when viewed against future plans calling for Taylor Road to serve only as a right-in/right-out access intersection with a median strip to be constructed down the center of State Route 100 restricting turning movements.
7. With the proposed undertaking and future completion of an outer-loop corridor study, changes in State Route 109 are almost a certainty at some point in the future. These changes could include a new alignment, decreased or increased access, additional lanes, medians, and signalization. Such changes will have a major impact on the surrounding community. Several considerations must be made to protect the existing community's integrity, environment, and quality of life. These considerations are:
 - a) Any widening of State Route 109, along its existing alignment, must take into account the location of Babler State Park, Rockwoods Reservation, and Greensfelder County Park to its future location. Accommodations should be made to lessen its impact on these surrounding properties. The accommodations should address effects on wildlife and surrounding habitat, visual and noise intrusion into park settings, access and safety considerations for users, and ancillary traffic patterns.
 - b) Any movement of the alignment to the east or west must address the immediate impacts on affected landowners and future impacts on surrounding land uses (particularly residential properties).
 - c) Extensive public forums and related educational materials should be provided to assist in the determination of the validity and acceptability of proposed location and extent of improvements.

8. Development should be coordinated or phased with completion of road improvements which will support traffic generated by each individually approved land use.
9. Efforts should be made to mitigate the infiltration of non-residential traffic into nearby and adjacent residential areas.
10. Existing stub streets should be linked into future residential developments to promote an efficient, safe, and continuous internal roadway system. When stub streets are linked into existing subdivisions, special considerations should be given to reducing or eliminating any detrimental effects. Such considerations could include: increased patrol activity, speed zones, roadway striping and signage, and public education programs.

COMMUNITY STRATEGIES

11. To insure that purchasers of homes in newly platted subdivisions are aware of stub streets, the St. Louis County Planning Commission and the Department of Planning should require, within the conditions of the enabling legislation, that appropriate language be included in all sales contracts indicating that stub streets exist within the subdivision and may be linked to new development at some time in the future.
12. With the acquisition of right-of-way by the St. Louis County Department of Highways and traffic from private landowners, every reasonable effort should be made to insure that the integrity of the remaining lot is maintained. This process may mean adhering to existing lot lines, whenever possible, to avoid splitting or rendering the remaining lot unusable.

POND-GROVER COMMUNITY AREA STUDY
SUBAREA ANALYSIS: INVENTORY OF CHARACTERISTICS

Subarea Eight

Special Features

- Shepard Road winds through the northwestern portion of the subarea and intersects with State Route 109 at Babler Elementary School.
- The western half of the subarea has frontage onto State Route 109 and Clayton Road bisects the remainder of the subarea into two parts. Clayton Road has been recently extended from Black Canyon Court to State Route 109. As part of this project, a traffic signal has been installed at the intersection of Clayton Road and State Route 109 (adjacent to Lafayette High School).

Physical Characteristics

- Slopes are predominantly in excess of 14 percent and are found adjacent to and along a well-developed and extensive system of intermittent creeks and streams. Forest cover is most prevalent in these same locations with the remainder of the acreage found as pasture or grasses.

Land Use

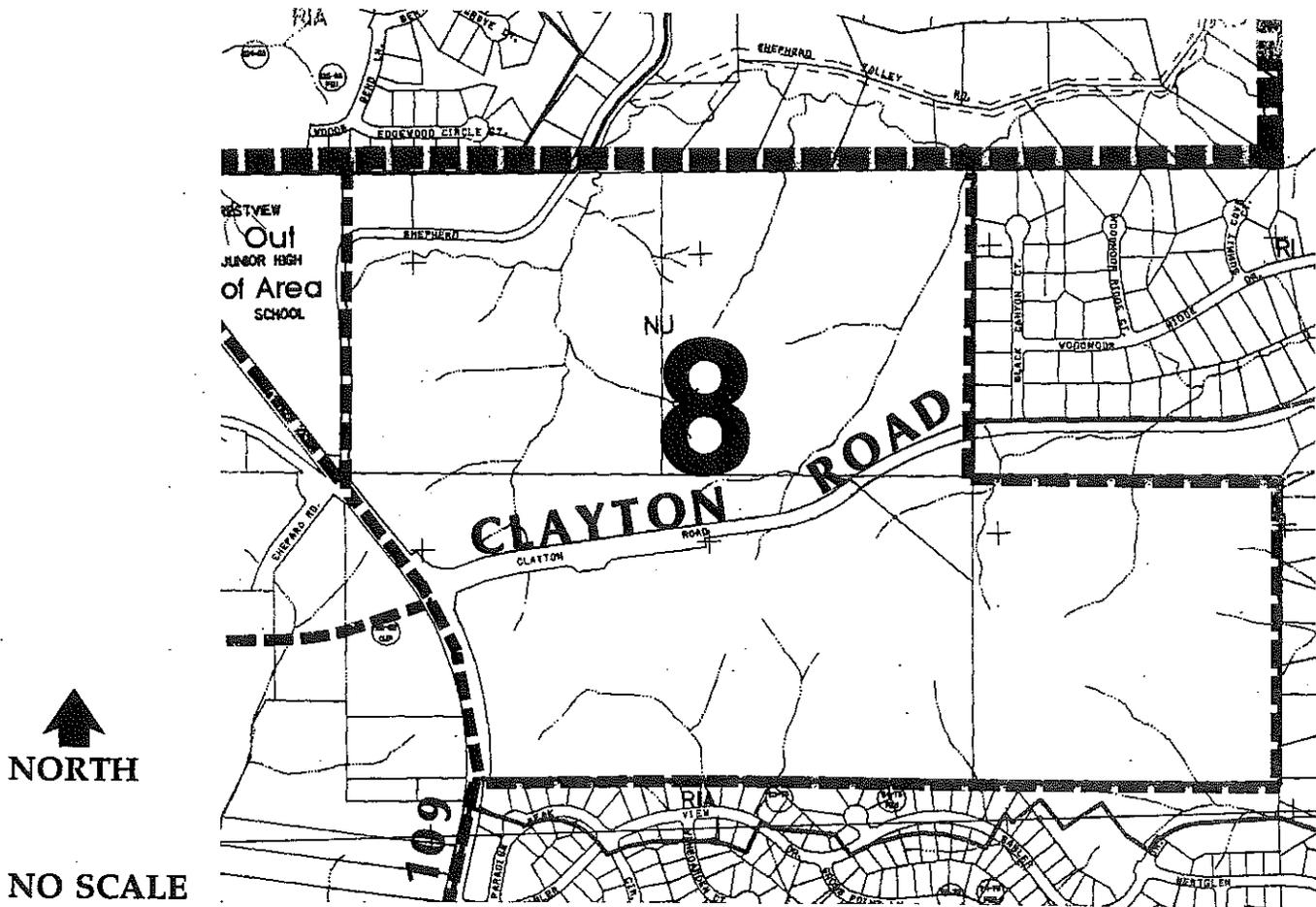
- The remaining land uses within the subarea consist of several large, vacant parcels and one single family residence.
- This subarea is the site of the new Lafayette High School which opened in the fall of 1989.

Zoning/Subdivision Activity

- Current zoning designation in this subarea is the "NU" Non-Urban District.

POND-GROVER COMMUNITY AREA STUDY

SUBAREA EIGHT



Subarea Eight:

The area is bounded by Babler Park Estates Subdivision ("R-1A" and "R-3": 235 single family units) to the south, by the Winding Trails Village Subdivision ("R-1", "FPR-1", and "R-1A": 349 single family units and 44 multiple family units) to the east, by the Shepard Valley (27 large-lot single family units) and the Winding Woods ("R-1" and "R-1A": 87 single family units) Subdivisions to the north, and by State Route 109 and Babler Elementary School to the west.

POND-GROVER COMMUNITY AREA STUDY

SUBAREA ANALYSIS: PLANNING RECOMMENDATIONS

Subarea Eight

LAND USE STRATEGIES

Institutional Component

1. With the completion of Clayton Road, its intersection at State Route 109 should be considered a potential site for institutional development. However, due to possible mitigating factors, future development in the vicinity of the State Route 109/Clayton Road intersection should be viewed first as part of a larger residential development plan as recommended in Planning Recommendation 3 (see below).

Residential Components

2. Extensive buffering and landscaping should be employed along the boundaries of Lafayette High School, particularly along the lighted athletic fields. This buffering should include plantings and trees of sufficient growth and height to provide immediate relief to surrounding property owners. Additionally, policies regarding lighting and the scheduling of athletic events should be made available to adjacent landowners.
3. Residential densities in the area directly east of Lafayette High School should be in the medium-low range and reflect existing patterns of development (particularly along the Winding Trails Village Subdivision) and topography. Where topography is less restrictive, higher densities within this range should be considered.
4. Residential densities in the area directly north of Clayton Road should be in the low range. Densities should transition as development moves north from Clayton Road. Largest lots should directly abut the existing large-lot subdivision east of Shepard Road (Shepard Valley).

INFRASTRUCTURE STRATEGIES

5. With the extension of Clayton Road to State Route 109, every effort should be made by the Departments of Planning, Highways and Traffic, and the County Police to mitigate potential adverse impacts on Winding Trails residents. Efforts could include: increased patrol and enforcement activity, additional road signage and striping, limitation of non-residential traffic (trucks), and additional buffering and landscaping for future homesites.
6. Parking on Clayton Road and surrounding subdivision streets should be restricted, particularly on school days for non-resident traffic.
7. Residential development along Clayton Road and Shepard Road should be served by an internally oriented street system (residential lots should not directly front onto either of these two roadways).

8. With the proposed undertaking and future completion of an outer-loop corridor study, changes in State Route 109 are almost a certainty at some point in the future. These changes could include a new alignment, decreased or increased access, additional lanes, medians, and signalization. Such changes will have a major impact on the surrounding community. Several considerations must be made to protect the existing community's integrity, environment, and quality of life. These considerations are:
 - a) Any widening of State Route 109 along its current alignment must take into account the location of Babler State Park, Rockwoods Reservation, and Greensfelder County Park to its future location. Accommodations should be made to lessen its impact on these surrounding properties. The accommodations should address effects on wildlife and surrounding habitat, visual and noise intrusion into park settings, access and safety considerations for users, and ancillary traffic patterns.
 - b) Any movement of the alignment to the east or west must address the immediate impacts on affected landowners and future impacts on surrounding land uses (particularly residential properties).
 - c) Extensive public forums and related education materials should be provided to all interested parties to assist in the determination of the overall validity and acceptability of proposed location and extent of improvements.
9. Existing stub streets should be linked into future residential developments to promote an efficient, safe, and continuous internal roadway system. When stub streets are linked into existing subdivisions, special considerations need to be given to reduce or eliminate any detrimental effects. These considerations should include: increased patrol activity, speed zones, roadway striping and signage, and public education programs.

COMMUNITY STRATEGIES

10. The completion of Clayton Road to State Route 109 has provided a needed east-west alternative to State Route 100. With increased utilization of this roadway, Booker Associates, Inc. has in its Traffic Study recommended that Clayton Road be upgraded from a three-lane width to a four-lane width. Because of the existing residential pattern along Clayton Road from McBride Pointe Drive to the future extension of Westglen Farms Drive (driveways accessing directly onto the roadway), widening of this roadway beyond its existing width should not be considered or undertaken. Potential negative impacts on abutting property owners outweighed possible traffic circulation benefits.
11. Preservation of the remaining forest cover should be paramount and vigorously enforced during the design, review, and development stages by the St. Louis County Departments of Planning and Public Works. Additional strategies to accomplish this preservation may include the following: a review of existing County ordinances to identify potentially detrimental effects caused by their enforcement, a taxing district for preservation purposes, or a requirement that an inventory of trees be shown on the Site Development Plan indicating those to be retained and requiring some type of escrow or bond for their protection.
12. With the acquisition of right-of-way by the St. Louis County Department of Highways and traffic from private landowners, every reasonable effort should be made to insure that the integrity of the remaining lot is maintained. This process may mean adhering to existing lot lines, whenever possible, to avoid splitting or rendering the remaining lot unusable.

13. To insure that purchasers of homes in newly platted subdivisions are aware of stub streets, the St. Louis County Planning Commission and the Department of Planning should require, within the conditions of the enabling legislation, that appropriate language be included in all sales contracts indicating that stub streets exist within the subdivision and may be linked to new development at some time in the future.

POND-GROVER COMMUNITY AREA STUDY

SUBAREA ANALYSIS: INVENTORY OF CHARACTERISTICS

Subarea Nine/Ten

Special Features

- This subarea contains the northwest corner of the State Route 100/State Route 109 intersection, an identified major activity center within St. Louis County.
- The eastern and southern boundaries of the subarea are defined by State Route 109 and State Route 100, with significant frontage along both. Due to topographic characteristics, frontage along State Route 109 is generally at grade with the roadway, while frontage immediately adjacent to State Route 100 has significant grade differences.
- Pond Road and Smith School Road form the remaining two boundaries and can be described best as rural lanes. These roads are generally narrow, winding, hilly, crowned, and shoulderless. Additionally, Pond Road has a number of one-lane bridges adding to already poor road and driving conditions.
- Due to similarity in site characteristics and development issues, Subareas Nine and Ten have been combined. Originally, the proposed extension of Clayton Road west of State Route 109 and the proposed Pond-Grover Loop Road defined the boundary between the two subareas. Since the subareas were delineated, the extension of Clayton Road has not been included in Booker Associates' Traffic Study.
- A number of private roads or drives provide the existing internal circulation pattern into and out of the subarea. These roads or drives generally provide access to a cluster of homes or a single home, each on a large parcel of land.
- Since the entire subarea is situated west of State Route 109, service by the following utilities is not provided: Sanitary or stormwater sewers, gas, or cable television. Potable water is provided by the St. Louis County Public Water District #1 or individual systems.
- Much of the recent development east of this subarea has been at the medium-low residential density range, while to the west, an established pattern of three-acre development has occurred. This subarea is being pressured for high density residential and commercial development, due to its proximity to a high growth area and increased commercial activity, and the nature of the surrounding road system.

Physical Characteristics

- Much of the subarea is heavily wooded and very scenic. The area is characteristic of Hilly Upland physiographic subprovince, with native species of oak-hickory and additional species of white hickory, blueberry, cottonwoods, and pin oaks common along small streams. In fact, the majority of the subarea's southern half (previously Subarea Ten) is thickly wooded with this native vegetation.
- Slopes vary greatly within the subarea. Much of the northern half (previously Subarea Nine) exhibits slopes in excess of fourteen percent, while the remainder has slopes that range between five and fourteen percent. However, in certain locations in this southern half, slopes exceed fourteen percent, particularly along State Route 100 and adjacent to the network of small streams and creeks traversing the subarea.
- These local drainage networks, small intermittent creeks and streams, eventually empty into Bonhomme Creek (which drains into the Missouri River). A small portion of the Bonhomme Creek flood plain is situated in the western extremes of the subarea.

Land Use

- Current land uses include numerous single family residences, a nursery, a church, and several large tracts of vacant land currently used as pasture or for other limited agricultural purposes.
- A Union Electric transmission right-of-way splits the subarea in a northeasterly/southwesterly direction. The right-of-way includes two sets of high tension lines and towers. For maintenance, access, and safety requirements, the areas directly beneath and adjacent to the towers and lines have been cut and cleared, creating a highly visible and linear easement along the ground.

Zoning/Subdivision Activity

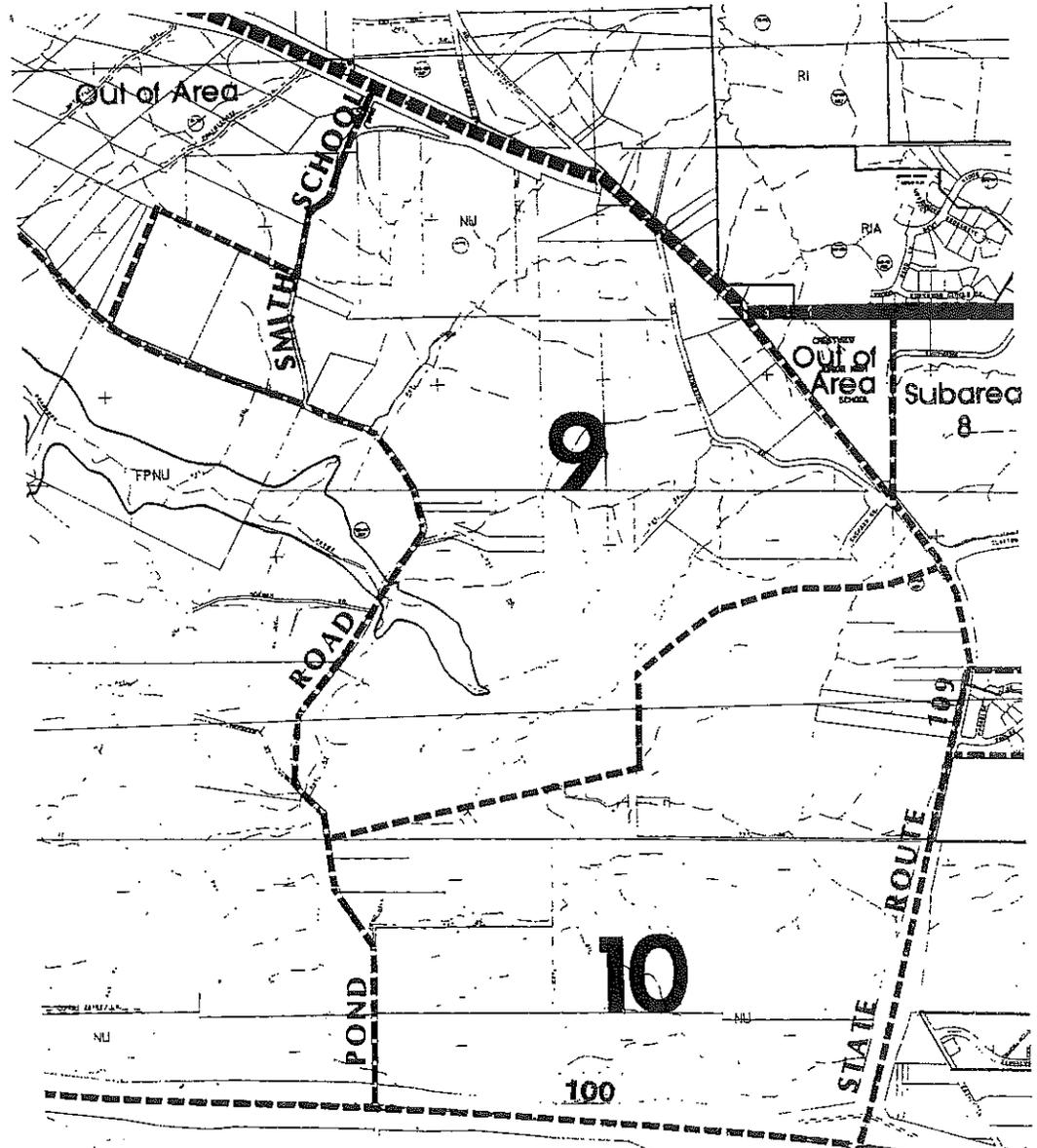
- Current zoning designations within the subarea are: "FPNU" Flood Plain Non-Urban and "NU" Non-Urban Districts.
- Two petitions for rezoning have occurred in the subarea since the County's adoption of its Zoning Ordinance in 1965:
 - * P.C. 72-014: "PS" Park and Scenic District to "NU" Non-Urban District - St. Louis County Planning Commission.
 - P.C. 88-022: Conditional Use Permit (C.U.P.) in the "NU" Non-Urban District - Joseph Passiglia - plant nursery and salesroom.
- * Property was sold by the Missouri State Park Board to a private individual.

POND-GROVER COMMUNITY AREA STUDY

SUBAREA NINE/TEN


NORTH

NO SCALE



Subarea Nine/Ten: The area is bounded to the east by State Route 109, to the north by Smith School Road, to the west by Pond Road, and to the south by State Route 100.

POND-GROVER COMMUNITY AREA STUDY
SUBAREA ANALYSIS: PLANNING RECOMMENDATIONS

Subarea Nine/Ten

LAND USE STRATEGIES

Residential Components

1. Special design and engineering practices will be necessary in those areas exhibiting slopes in excess of fourteen percent. These areas are particularly susceptible to erosion due to extreme grades, rocky soils, and rapid surface runoff. Where slopes exceed fourteen percent, low density residential development is the preferred alternative. There are, however, certain instances where even this low density level of residential development may be unsuitable. In Subarea Nine/Ten, excessive slopes occur adjacent to and around the well-defined system of creeks and streams characteristic of the western half of the study area.
2. Old Eatherton Road, with its two intersections along state Route 109, creates an island of seven properties. This island currently is residential in character. To avoid non-residential development from encroaching northward along State Route 109 from State Route 100 and establishing a commercial precedent away from this intersection, this island should be maintained as residential properties, with a possible increase in density to the low-medium range.
3. The area west of Old Eatherton Road, south of the proposed Pond-Grover Loop Road, and west of the subarea boundaries should be considered for residential uses only at the low density range, except where noted in Planning Recommendations 11 and 22. This area exhibits a large percentage of the slopes that exceed fourteen percent and is adjacent to an established pattern of low density development (see Planning Recommendation 10 for further details).
4. The area south of the Clayton Road/State Route 109 Intersection and the proposed Pond-Grover Loop Road should be considered for residential development, with densities in the low-medium range in the areas along State Route 109, transitioning to low densities in the western portions of the subarea.
5. The intersection of Pond Road and State Route 100 should not be considered as a location for any future commercial development. This intersection and adjacent properties should be integrated into any future residential development at the low to medium-low density range. Transitions should be employed (where appropriate) and, preferably, residential densities should be at their highest adjacent to the commercial areas near the intersection of State Routes 100/109, and then decreasing as development moves westward along State Route 100 toward Pond Road. Again, site design, buffering and landscaping, and other noise and visual reduction measures should be employed to lessen negative impacts associated with residential properties abutting a major thoroughfare.

6. If the Union Electric transmission right-of-way cannot be incorporated into the overall concept of an open space corridor in this subarea, certain steps need to be established regarding its protection from otherwise unacceptable development. Minimum setbacks and other policies need to be developed, based upon site characteristics and accepted research, relating to health and safety concerns of high-tension wires.

Commercial Component

7. Due to its location at the intersection of two major highways, the scenic, rural character of the area, and the proximity to high quality housing, Pond-Grover has been cited in other studies as having the potential for attracting a corporate office/satellite research park or a community size commercial center. This subarea, with extensive frontage onto State Route 109, between State Route 100 and the proposed Loop Road, would be suitable for such a development. The area should be developed in a unified manner, with particular consideration given to: its visual impact onto surrounding residential properties to the west and State Route 100; appropriate building heights and designs, along with non-traditional site designs and building layouts incorporating existing natural landscapes and topography to minimize grading and filling of creek areas and valley floors; an internal road system which coordinates parking and circulation; and extensive use of green space and buffers between adjacent land uses. Future developments such as these should strive to avoid providing redundant uses and, preferably, be complementary to those existing, approved, or proposed uses on the remaining three corners of the State Route 100/State Route 109 intersection.

Environmental/Recreational Components

8. Similarly, any potential development in the flood plain areas for recreational uses should be encouraged as part of the open space corridor.
9. The expansion and upgrading of the existing Pond Athletic Association's complex may provide a short-term solution to the area's recreational needs. With expansion, additional precautions need to be implemented along Pond Road to reduce safety concerns brought on by additional traffic. These precautions should include the following: an educational campaign for parents emphasizing the poor roadway conditions and need for heightened awareness when driving on the roadway (a short, informational sheet could be handed out at registration periods), increased signage at particularly hazardous curves or bridge locations, reduced speed at these locations, and increased police patrol during the Association's operating hours.
10. As part of the effort to provide an open space/riparian corridor between Babler State Park and Rockwoods Reservation, the flood plain areas adjacent to Bonhomme Creek represent a key element toward its success. Every effort should be made to protect and preserve these flood plain areas from development. This protection does not preclude the inclusion of this land area into a residential development plan under the Special Provisions of the County's Zoning Ordinance. Such a development, however, should be required to either dedicate the flood plain area as common ground with some form of access agreement with St. Louis

County, or donate the area as a gift to the St. Louis County Department of Parks and Recreation. Similar measures should be considered and encouraged along the western banks of Bonhomme Creek, where flood plain is minimal, but slopes exceed 45 percent in some instances and regularly exceed 20 percent. Inclusion of these areas would help to reduce the effects of stormwater erosion and provide a diversity of habitats along Bonhomme Creek. For additional information see: A Five-Year Strategic Action Plan for St. Louis County Objective 3.2, Strategy (d).

11. An unutilized corridor of open space already exists in the subarea adjacent to and beneath the Union Electric transmission right-of-way. Efforts should be undertaken to study and analyze any potential recreational possibilities that may exist through its use, given obvious safety and site concerns.

INFRASTRUCTURE STRATEGIES

12. Development should be coordinated or phased with completion of road improvements that will support traffic generated by each new development.
13. With the proposed undertaking and future completion of an outer-loop corridor study, changes in State Route 109 are almost a certainty at some point in the future. These changes could include a new alignment, decreased or increased access, additional lanes, medians, and signalization. Such changes will have a major impact on the surrounding community. Several considerations must be made to protect the existing community's integrity, environment, and quality of life. These considerations are:
 - a) Any widening of State Route 109 along its current alignment must take into account the location of Babler State Park, Rockwoods Reservation, and Greensfelder County Park to its future location. Accommodations should be made to lessen its impact on these surrounding properties. The accommodations should address effects on wildlife and surrounding habitat, visual and noise intrusion into park settings, access and safety considerations for users, and ancillary traffic patterns.
 - b) Any movement of the alignment to the east or west must address the immediate impacts on affected landowners and future impacts on surrounding land uses (particularly residential properties).
 - c) Extensive public forums and related education materials should be provided to all interested parties to assist in the determination of the overall validity and acceptability of proposed location and extent of improvements.
14. Access onto State Route 100 from adjacent properties should be limited to the improved intersection at Pond Road or State Route 109.
15. Based on the recommendations of the Booker Associates' Traffic Study, Pond Road should be upgraded to a two-lane collector with shoulders from State Route 100 to State Route 109. Given the need for higher priority improvements in other parts of the study area, improvements to Pond Road are recommended as a medium priority.

16. Given its current condition and alignment, Old Eatherton Road is unsuitable for increased vehicular traffic. Any proposed development that would require access onto this roadway should be required to improve the roadway to collector standards or higher, depending upon type and density of development, along its entire length.
17. Consideration should be given to improving Smith School Road to a two-lane collector standard. However, due to the level of existing and proposed development and topography, its completion should be considered a low priority, given other more pressing roadway concerns within the Pond-Grover community.
18. The Metropolitan St. Louis Sewer District should undertake a comprehensive analysis of the area west of State Route 109 with the intention of determining feasibility and likelihood of extending services to this area within the near future. The extension of sanitary sewers west of State Route 109 is an issue of primary importance. While the establishment of individual systems is currently unavoidable, the proliferation of such systems in the future should be discouraged and consideration given to an integrated system. Additionally, the Metropolitan St. Louis Sewer District should make every effort to provide service to this area as soon as possible. The design of future sanitary systems should be undertaken with the intent of tying into a larger, integrated system operated by the Metropolitan St. Louis Sewer District. Existing systems should be encouraged to tie into newer systems when economically feasible and available to limit environmental damage and promote public health.
19. Any future development should carefully address the need for a coordinated approach to the provision of stormwater controls.

COMMUNITY STRATEGIES

20. Landscaping, earthen berms, and appropriate site designs should be employed along State Routes 100 and 109 where noise and visual clutter may be problems for new development.
21. Preservation of the remaining forest cover should be paramount and vigorously enforced during the design, review, and development stages by the St. Louis County Departments of Planning and Public Works. Additional strategies to accomplish this preservation may include the following: a review of existing County ordinances to identify potentially detrimental effects caused by their enforcement, a taxing district for preservation purposes, or a requirement that an inventory of trees be shown on the Site Development Plan indicating those to be retained and requiring some type of escrow or bond for their protection.
22. To insure that purchasers of homes in newly platted subdivisions are aware of stub streets, the St. Louis County Planning Commission and the Department of Planning should require, within the conditions of the enabling legislation, that appropriate language be included in all sales contracts indicating stub streets exist within the subdivision and that they may be linked to new development at some time in the future.

23. With the acquisition of right-of-way by the St. Louis County Department of Highways and Traffic from private landowners, every reasonable effort should be made to insure that the integrity of the remaining lot is maintained. This process may mean adhering to existing lot lines, whenever possible, to avoid splitting or rendering the remaining lot unusable.
24. Much of the area west of State Route 109 is served by a system of private streets or drives. To insure that emergency vehicles (police and fire) are capable of quickly responding and locating a site, homes in private subdivisions or along a private drive should be encouraged to prominently display house numbers in an easily identifiable and visible location. To insure that future, new large-lot subdivisions adhere to this requirement and provide road signage within internal roadway systems of private subdivisions, the St. Louis County Subdivision Ordinance should be revised to insure street signage and house numbering are in place on all new homes and private, residential streets.

POND-GROVER COMMUNITY AREA STUDY
SUBAREA ANALYSIS: INVENTORY OF CHARACTERISTICS

Subarea Eleven (A)

Special Features

- The entire subarea is not currently served by the following utilities: sanitary or stormwater sewers, gas, and cable television. Water is provided by the St. Louis County Public Water District #1 or individual systems.
- The subarea has frontage onto three major roadway systems and lies at the southwest corner of the State Route 100/State Route 109 intersection, an identified major activity node in St. Louis County.

Physical Characteristics

- Wooded areas are prevalent throughout the subarea. These wooded areas are often bordered or are adjacent to scenic, rolling pastures of legumes or grasses.
- Slopes generally are below fourteen percent and present few topographic constraints to development or use. Steepest slopes are found along an intermittent creek that parallels the southern right-of-way line along State Route 100.

Land Use

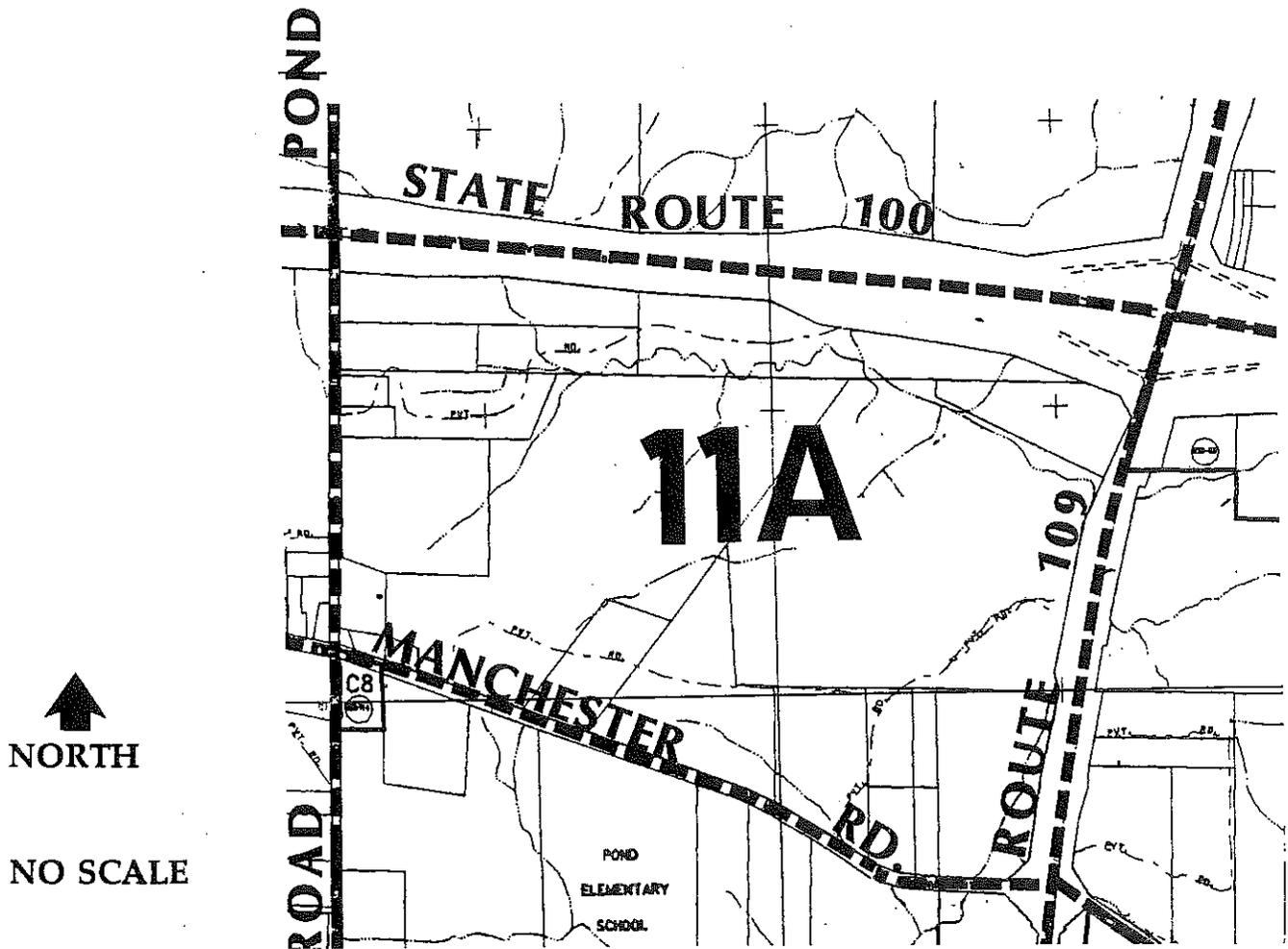
- Current land uses include: a Southwestern Bell Telephone Company switching/relay center, a church, a number of single family residences, historic Pond School, and several vacant structures and properties.

Zoning/Subdivision Activity

- This subarea includes the site of the Slavik Associates approved petitions, P.C. 8, 9, and 10-89, for a major commercial and multiple family development. The commercial development calls for an enclosed mall approximately 400,000 square feet in size and nine outlots with a sewage treatment plant. Additionally, the petition allows for the development of 108 multiple family units.
- P.C. 102-89, St. Onge Partnership, was a petition for rezoning at the southwest corner of State Route 100 and State Route 109. This petition called for a retail store of approximately 20,000 square feet, a fast food restaurant, convenience store with gas pumps and a car wash, and a sewage treatment plant. The St. Louis County Planning Commission recommended that the site be approved for a general office and either a fast food restaurant or a convenience store with gas pumps and a car wash. In conjunction, a sewage treatment plant was approved.
- Current zoning classifications within the subarea include the following Districts: "NU" Non-Urban District, "C-8" Planned Commercial District, and the "R-6AA" 3,000 square foot Residence District.

POND-GROVER COMMUNITY AREA STUDY

SUBAREA ELEVEN (A)



Subarea Eleven (A):

The area is bounded to the east by State Route 109, to the north by State Route 100, to the west by Pond Road, and to the south by Manchester Road.

POND-GROVER COMMUNITY AREA STUDY
SUBAREA ANALYSIS: PLANNING RECOMMENDATIONS

Subarea Eleven (A)

LAND USE STRATEGIES

Residential Components

1. The flat, undeveloped area west of the proposed Slavik development could be considered for residential development in the low-medium to medium density range. Appropriate buffering or transitions should be applied to address the effects related to the Slavik development.
2. The development of the northeast quadrant of the Manchester Road-Pond Road Intersection should not detract from the historic character and ambiance of the Pond community. Although not part of the proposed Design District, future development should be primarily residential in nature and at the medium-low density range. Appropriate steps should be undertaken to insure that this area is incorporated into the larger development plan as proposed in Planning Recommendation 2 and flexible site designs, increased setbacks, and unique utilization of landscape materials should be encouraged.
3. Preservation of the Eliza Dreinhofer Italianate-style house, circa 1865, and on-site cemetery plots should be encouraged. This residence and cemetery are located at 17225 Manchester Road. The structure and cemetery could be incorporated into future residential development if consideration is given to appropriate platting and site design.

Multiple Use Component

4. The old Pond School with its on-site cemetery plots should be preserved and considered for adaptive reuse. Since location and economic viability threaten their existence, an effort still should be made to include them in future development plans and protect or adequately address concerns regarding the cemetery's existence and future disposition. Public, institutional, or commercial uses could be appropriate for the site given appropriate design accommodations.

Commercial Component

5. Given the predominance of the proposed Slavik commercial development, future adjacent commercial development should be integrated into this larger site. This integration includes the development of the parcel north of the Slavik site (southwest corner of State Routes 100 and 109 - P.C. 102-89, St. Onge Partnership) and the remaining parcels south of the site (northwest quadrant of Manchester Road and State Route 109). Commercial buildings on these sites should be oriented in a manner that is compatible with the Slavik site plan so that the development of the area is cohesive and visually uniform. Where possible, access should be combined and cross access encouraged for efficient, on-site circulation.

Institutional Component

6. In an effort to concentrate commercial development in more appropriate locations and limit the redundancy of uses, commercial development should be discouraged at the State Route 100 and Pond Road intersection (see Planning Recommendation Number Four, Subarea 11 (B and C) for possible exception). The southeast quadrant of the intersection could be considered for institutional, non-retail uses, or residential development in the medium density range, including attached single family units. However, without the advent of sanitary sewer lines or pocket treatment plants, premature residential development should not be allowed on lots smaller than three acres in size.

INFRASTRUCTURE STRATEGIES

7. Cross-access between commercial development in the eastern portion of this subsection and residential development in the western portion should not be permitted.
8. Given recommended development densities, Manchester Road west of Pond Road should remain a two-lane roadway, as supported in the Booker Associates Traffic Study. East of Pond Road to State Route 109 should be improved to five lanes, although consideration should be given to tapering Manchester to three lanes as it approaches Pond Road.
9. With the proposed undertaking and future completion of an outer-loop corridor study, changes in State Route 109 are almost a certainty at some point in the future. These changes could include a new alignment, decreased or increased access, additional lanes, medians, and signalization. Such changes will have a major impact on the surrounding community. Several considerations must be made to protect the existing community's integrity, environment, and quality of life. These considerations are:
 - a) Any widening of State Route 109 along its current alignment must take into account the location of Babler State Park, Rockwoods Reservation, and Greensfelder County Park to its future location. Accommodations should be made to lessen its impact on these surrounding properties. The accommodations should address effects on wildlife and surrounding habitat, visual and noise intrusion into park settings, access and safety considerations for users, and ancillary traffic patterns.
 - b) Any movement of the alignment to the east or west must address the immediate impacts on affected landowners and future impacts on surrounding land uses (particularly residential properties).
 - c) Extensive public forums and related education materials should be provided to all interested parties to assist in the determination of the overall validity and acceptability of proposed location and extent of improvements.
10. Any future development should carefully address the need for a coordinated approach to the provision of stormwater controls.

COMMUNITY STRATEGIES

11. The extension of infrastructure west of State Route 109 is an issue of primary importance. While the establishment of individual systems is currently unavoidable, the proliferation of such systems in the future should be discouraged and consideration given to an integrated system, particularly sanitary sewers. Additionally, the Metropolitan St. Louis Sewer District should make every effort to provide service to this area as soon as possible. The design of future sanitary systems should be undertaken with the intent of tying into a larger, integrated system operated by the Metropolitan St. Louis Sewer District. Existing systems should be encouraged to tie into newer systems when economically feasible and available to limit environmental damage and promote public health.
12. Every effort should be made to resolve the current water supply problem in the St. Louis County Public Water Supply District #1. Without appropriate solutions, water service may not be provided to new development and existing customers face growing shortages.
13. To insure that purchasers of homes in newly platted subdivisions are aware of stub streets, the St. Louis County Planning Commission and the Department of Planning should require, within the conditions of the enabling legislation, that appropriate language be included in all sales contracts indicating that stub streets exist within the subdivision and may be linked to new development in the future.

POND-GROVER COMMUNITY AREA STUDY

SUBAREA ANALYSIS: INVENTORY OF CHARACTERISTICS

Subarea Eleven (B and C)

Special Features

- This subarea has extensive road frontage onto both Manchester Road and State Route 100. Currently, access between the two roadways is limited to Pond Road.
- The historic community of Pond is located in the southeast corner of the subarea. Several structures in this area are listed in the St. Louis County West Inventory of Historic Buildings - Phase Two: Pond and Grover, 1989 prepared by the St. Louis County Department of Parks and Recreation, and cited as having some historic significance in the early growth of St. Louis County.
- The entire subarea is not currently served by the following utilities: sanitary or stormwater sewers, gas, and cable television. Water is provided by the St. Louis County Public Water District #1 or individual systems.
- Mueller Road is a platted roadway with an improved intersection at State Route 100, but is not paved or maintained.
- The southern boundary of this subarea is adjacent to the Missouri Department of Conservation's Rockwoods Reservation, a wildlife refuge.

Physical Characteristics

- Slopes generally range between five and nine percent and present few topographic constraints to development or use. Steepest slopes are located along State Route 100 and are the result of grading and filling for its widening. The area at the far western tip of this subarea is also characterized by several localized occurrences of slope in excess of fourteen percent.
- Wooded areas are limited, and the majority of vacant land is pasture or native grasses.
- The physiographic divide between the Rolling Uplands Subprovince and the Meramec Hills Subprovince trends in a northwesterly direction from Manchester Road and Rockwood Trail Court toward State Route 100.
- The Meramec Hills Subprovince is characterized by rocky soils, some of the last native forest cover in St. Louis County, and a series of deep valleys and steep ridges with minimal flood plain development.

Land Use

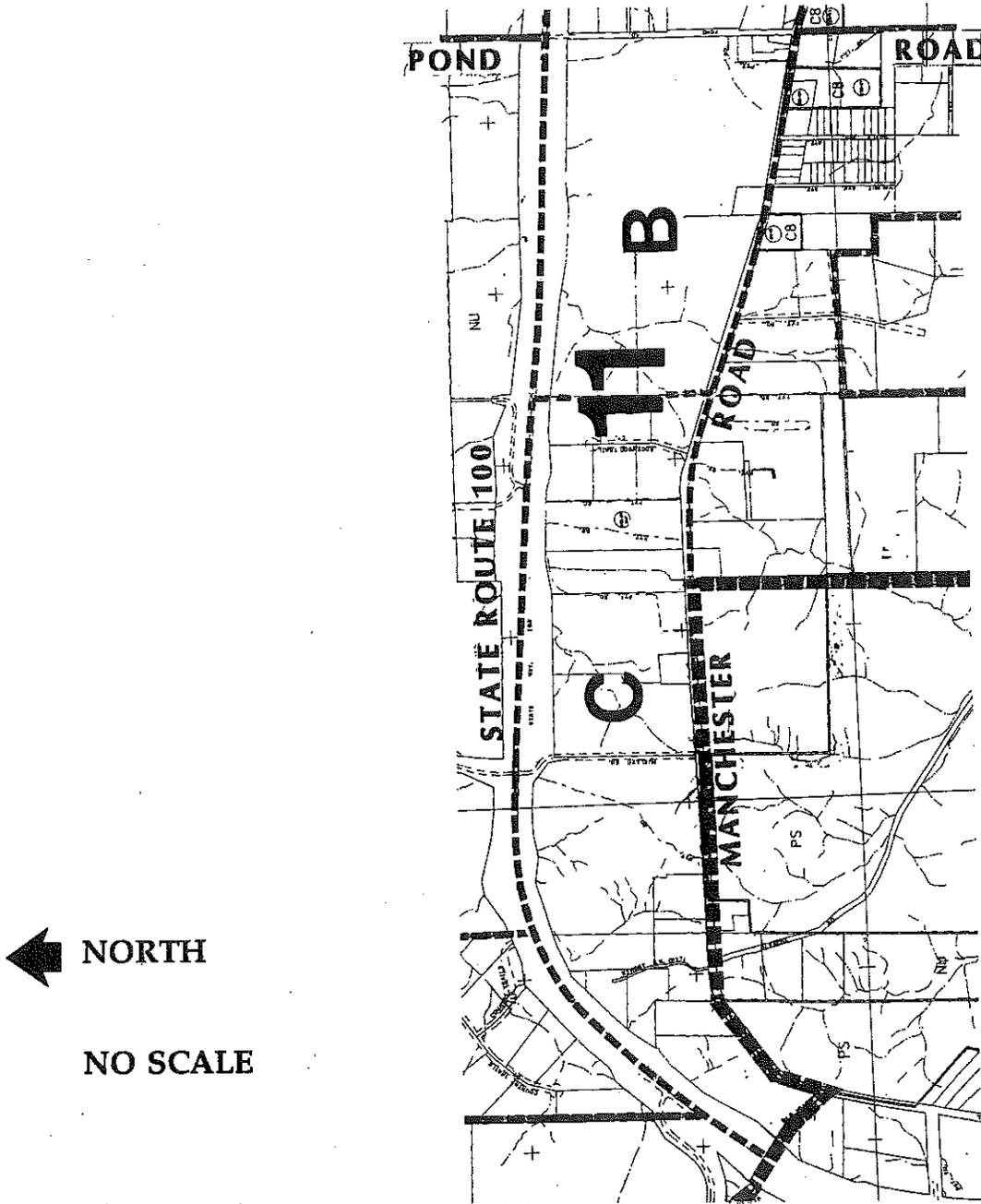
- Current land uses include an antique store, a service station, a veterinary clinic, a church, a building products firm, numerous single family residences (several in a platted large-lot subdivision), and a number of large pastures.

Zoning/Subdivision Activity

- Current zoning designation for this subarea is the "NU" Non-Urban District.
- P.C. 205-88, Thomas Loafmann, was a request for a Conditional Use Permit (C.U.P.) allowing a veterinary surgery/clinic limited to equine service only. The C.U.P. was approved on November 28, 1988 by the St. Louis County Planning Commission.

POND-GROVER COMMUNITY AREA STUDY

SUBAREA ELEVEN (B and C)



Subarea Eleven (B and C): The area is bounded by Pond Road to the east, by Manchester Road to the south, by Old Wild Horse Creek Road to the west, and by State Route 100 to the north.

POND-GROVER COMMUNITY AREA STUDY
SUBAREA ANALYSIS: PLANNING RECOMMENDATIONS

Subarea Eleven (B and C)

LAND USE STRATEGIES

Residential Components

1. The low-density residential pattern of development should be continued to the western extremes of the subarea (and study boundaries) from the existing Rockwood Trail large-lot subdivision.
2. The area between Pond Road and the Rockwood Trail large-lot single family subdivision should be at the medium-low density range and residential in nature. Transitions should reflect larger lot sizes to the west (approaching Rockwood Trail Subdivision).

Residential/Open Space Component

3. Given the location of Rockwoods Reservation to the subarea's southern boundary, development in this area should be limited to residential uses and lots should be no smaller than three acres in size. Additionally, during construction certain restrictions must be met:
 - a) A minimum 100 foot setback will be employed along all properties fronting Manchester Road opposite Rockwoods Reservation.
 - b) Every effort should be made to insure that current densities of the pine plantations remain undisturbed. If improvements are made to Manchester Road in this area, the location of additional lanes should be to the north of the existing roadway. In all areas adjacent to the Coopers Hawk Habitat, construction activity should be restricted during the critical nesting months of March, April, and May for a minimum distance of 300 feet from the Reservation's boundary.

Commercial Component

4. Limited commercial development may be considered adjacent to the existing node of commercial activities south of Manchester Road (Subarea Thirteen). The intensity of commercial development should be limited to neighborhood scale uses and have an average gross leasable area of only 50,000 square feet (preferably part of a Planned Environment Unit - P.E.U.). Additionally, given the level of growth that is occurring in the surrounding areas, additional commercial development may be appropriate to meet future demands at other locations. This commercial development should be located at either the Mueller Road or Pond Road intersections (southwest corner) of State Route 100 and be limited to neighborhood scale uses. Due to site distances between Manchester Road and State Route 100, extensive landscaping, screening, and fencing should be required on all future commercial developments to limit visual impact on surrounding residential and recreational properties.

Recreational Components

5. As a means of advancing the open space corridor between Babler State Park and Rockwoods Range to the south, any proposed or future programmed roadway improvements to Manchester Road should include the dedication of an additional eight to ten feet of easement to accommodate a multiple use trail or path. This path or trail would be used to link the two recreation/open space areas together and meet an important recreational need as identified by the St. Louis County Department of Parks and Recreation in Recreation Spaces - Community Places 1982-2000.
6. Preservation of the remaining forest cover should be paramount and vigorously enforced during the design, review, and development stages by the St. Louis County Departments of Planning and Public Works. Additional strategies to accomplish this preservation may include the following: a review of existing County ordinances to identify potentially detrimental effects caused by their enforcement, a taxing district for preservation purposes, a requirement that an inventory of trees be shown on the Site Development Plan indicating those to be retained and requiring some type of escrow or bond for their protection.

INFRASTRUCTURE STRATEGIES

7. The Metropolitan St. Louis Sewer District should undertake a comprehensive analysis of the area west of State Route 109 with the intention of determining feasibility and likelihood of extending services into this area within the near future.
8. Access onto State Route 100 should be limited to the two improved intersections at Pond Road and Mueller Road. Adjacent properties should be served by either an internal roadway system or Manchester Road to the south.
9. With the improved Mueller Road Intersection at State Route 100, consideration should be given to the improvement of the remaining roadway from its current status (unpaved, inaccessible, overgrown) to collector standards as another north-south access point.
10. Given recommended development densities, Manchester Road west of Pond Road should be maintained as a two-lane collector. Improvements to Manchester Road may only need to include repaving, restriping, and additional shoulder acquisition and repair.

11. Since much of western St. Louis County's history is linked to Manchester Road, from its earliest days as the primary route to the State capital to the advent of the automobile and suburbanization, its recognition as a historic roadway should be considered. Special signage indicating the roadway's significance and preservation of the area's charm and character should be vigorously pursued and supported by County Government (see Planning Perspective 4, Subarea Thirteen for additional details).
12. With any improvement of Pond Road, additional right-of-way should be set aside to provide a multiple use trail or path between Babler State Park and Rockwoods Reservation. This additional right-of-way should be a minimum of eight to ten feet in width and along its entire distance.

COMMUNITY STRATEGIES

13. Landscaping, earthen berms, and appropriate site designs should be employed along State Route 100 where noise and visual clutter may be problems for new development.

POND-GROVER COMMUNITY AREA STUDY

SUBAREA ANALYSIS: INVENTORY OF CHARACTERISTICS

Subarea Twelve

Special Features

- The subarea has extensive frontage onto both Manchester Road and State Route 109 and contains the southwest corner of the Manchester Road/State Route 109 intersection. Currently, this intersection is not fully signalized and has only a one-way stop sign on Manchester Road with a flashing red signal.
- The southern boundary of the subarea is defined by the Rockwoods Reservation Wildlife Refuge, a Missouri Department of Conservation property.
- Christy Road, the western boundary of this subarea, can be characterized as a rural lane. It is narrow, severely crowned, lacks shoulders, and ends abruptly in the Cougar Trails Subdivision.
- The historic community of Pond is located adjacent to Manchester Road. Several structures in this area are listed in the St. Louis County West Inventory of Historic Buildings - Phase Two: Pond and Grover, 1989 prepared by the St. Louis County Department of Parks and Recreation, and cited as having some historic significance in the early growth of St. Louis County.
- The entire subarea is not currently served by the following utilities: sanitary or stormwater sewers, gas, and cable television. Water is provided by the St. Louis County Public Water District #1 or individual systems.

Physical Characteristics

- The southwestern portion of the subarea lies within the Hamilton and Carr Creek Watershed, while the remainder drains to the north into the Bonhomme Creek Watershed. This drainage divide also roughly defines the boundary between the two physiographic subprovinces within the study boundaries - To the south lies the Meramec Hills Subprovince and to the north, the Hilly Uplands Subprovince. Each subprovince exhibits a unique set of physiographic characteristics reflective of its underlying geologic structure and the resultant surface features from physical and chemical weathering processes.
- Slopes vary within the subarea. In the southwestern portion, slopes exceed fourteen percent, but along Manchester Road and the adjacent properties, slopes seldom exceed the five to nine percent range. These areas of minimal slope (less than nine percent) present few engineering problems for development or use.

- Much of the southern half of the subarea (approximately the area lying in the Hamilton and Carr Creek Watershed) is heavily wooded with the characteristic oak-hickory species typical of the Ozark Region. The northern portion of this subarea is typified by the prairie flora associated with the Hilly Uplands subprovince. Also characteristic throughout the subarea is a well-defined and deeply entrenched system of creeks and streams. The areas adjacent to these creek and stream banks show dense, localized occurrences of oak-hickory forestation.

Land Use

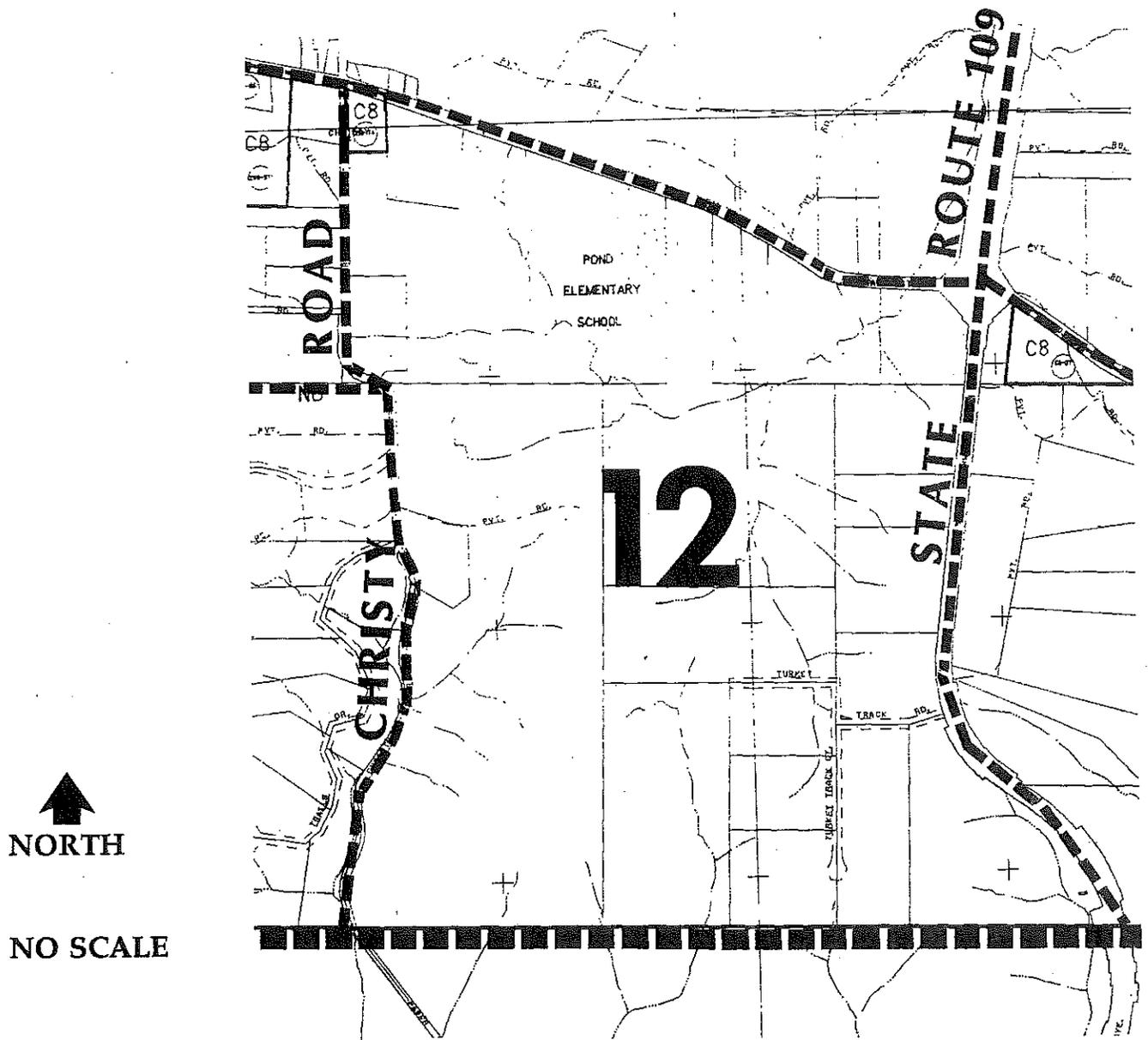
- Current land uses include the following: Pond Elementary School, a convenience store, a surplus auto parts yard, the Pond Inn Restaurant, a new church, numerous single family residences, some of which are part of platted large-lot subdivisions (Turkey Tract Corners and Cougar Trails), and several large, vacant parcels of land.

Zoning/Subdivision Activity

- Current zoning is "NU" Non-Urban District and "C-8" Planned Commercial District (the Pond Inn - P.C. 138-74).

POND-GROVER COMMUNITY AREA STUDY

SUBAREA TWELVE



Subarea Twelve:

The area is bounded by State Route 109 to the east, by Manchester Road to the north, by Christy Road to the west, and by Rockwoods Reservation to the south.

POND-GROVER COMMUNITY AREA STUDY
SUBAREA ANALYSIS: PLANNING RECOMMENDATIONS

Subarea Twelve

LAND USE STRATEGIES

Residential Components

1. Residential densities in this subarea, except where noted in Planning Recommendation 3, should be in the medium-low density range. Topography, particularly slope, is less restrictive toward Manchester Road, thus allowing more flexibility. A "Village Concept" similar to that in the Seven Villages of Cherry Hills Subdivision should be considered. This concept offers unique opportunities to incorporate more flexible site designs, consistent architectural themes, efficient roadway systems, and contiguous and usable open space.
2. Special design and engineering practices will be necessary in those areas exhibiting slopes in excess of fourteen percent. These areas are particularly susceptible to erosion due to extreme grades, rocky soils, and rapid surface runoff. Where slopes exceed fourteen percent, low density residential development is the preferred alternative. There are, however, certain instances where even this low density level of residential development may be unsuitable. In Subarea Twelve, these particular areas occur adjacent to and around the well-defined system of creeks and streams characteristic of the southern half of the study area.
3. Any future development in the vicinity of Pruitt's Auto Salvage or the Rockwood School District Garage should be required to provide adequate setbacks, buffering, and landscaping to minimize any future problems arising from possible conflicting land uses. If this future development is residential, potential buyers need to be informed about these two sites. This disclosure can be accomplished by the St. Louis County Planning Commission and the Department of Planning requiring, within the conditions of the enabling legislation, that appropriate language be included in any sales contract stating the existence and operating capacity of these uses.

Commercial/Institutional Component

4. Any future commercial development in this subarea should be limited to the vicinity of the Manchester Road/State Route 109 Intersection. This development should not be a continuation of the freestanding, high-intensity, retail uses proposed at the intersection of State Route 100 and State Route 109, but should be a multiple use facility similar to that of the Grove Retail Center or some comparable type of development. The extent of commercial development should be no further west than the proposed church site and no further south than the existing property lines of the adjacent parcels (see subarea map). Other potential land uses that may be appropriate for the remaining parcels fronting onto either State Route 109 or Manchester Road are residential (as described in Planning Recommendation 1) or institutional uses, preferably churches and related facilities. Limiting commercial to the point of the proposed church site along the southern right-of-way of Manchester Road is contingent upon two factors:

- 1) Residential development will occur in the southern half of the subarea as described in Planning Recommendation #1; and
- 2) Primary access from this emerging residential area will be onto Manchester Road insuring that the remaining two parcels of land not designated for commercial activity along this roadway will be included into any new development proposal.

Open Space Component

5. Adjacent to Rockwoods Reservation, certain height and setback requirements should be imposed to insure that intrusion from any future development is minimal and does not detract from the surrounding beauty of the area. These requirements should encompass the following:
 - a) No structure, building, or tower may exceed sixty feet in height within a prescribed distance of the reservation's boundaries to be determined on a case-by-case basis. Criteria used to develop this distance calculation will be elevations and slopes of surrounding property, distance from refuge boundaries, and proposed use.
 - b) A minimum 100-foot setback will be employed around the perimeter of the refuge.
 - c) Access from any new development should be to the north or east toward Manchester Road or State Route 109 and not to Christy Road.

Historic Preservation Component

6. With any proposed road widening along Manchester Road, certain older, historic structures that have limited or non-existent setbacks from the roadway could be adversely affected. In Subarea Twelve, the Pond Inn, is one such structure. Special considerations in planning, design, and construction, as well as a thorough and intensive review of final proposals by the individual property owners and the St. Louis County Historic Buildings Commission, are necessary to insure that these links between the past and present are preserved and not obliterated as new development moves westward.

INFRASTRUCTURE STRATEGIES

7. With the proposed undertaking and future completion of an outer-loop corridor study, changes in State Route 109 are almost a certainty at some point in the future. These changes could include a new alignment, decreased or increased access, additional lanes, medians, and signalization. Such changes will have a major impact on the surrounding community. Several considerations must be made to protect the existing community's integrity, environment, and quality of life. These considerations are:
 - a) Any widening of State Route 109 along its current alignment must take into account the location of Babler State Park, Rockwoods Reservation, and Greensfelder County Park to its future location. Accommodations should be made to lessen its impact on these surrounding properties. The accommodations should address effects on wildlife and surrounding habitat, visual and noise intrusion into park settings, access and safety considerations for users, and ancillary traffic patterns.

- b) Any movement of the alignment to the east or west must address the immediate impacts on affected landowners and future impacts on surrounding land uses (particularly residential properties).
 - c) Extensive public forums and related education materials should be provided to all interested parties to assist in the determination of the overall validity and acceptability of proposed location and extent of improvements.
8. Any improvement to State Route 109 should include the appropriate protections for cyclists, refuge visitors, and native wildlife along the adjacent Rockwoods Reservation. This protection may include increased signage, speed zones, and below grade crossings.
 9. Consideration should be given to improving Christy Road to a two-lane collector standard with a temporary turnaround at the entrance into the Cougar Trails Subdivision. Additionally, appropriate signage indicating Christy Road as not a through street is necessary.
 10. Since much of western St. Louis County's history is linked to Manchester Road, from its earliest days as the primary route to the State capital to the advent of the automobile and suburbanization, recognition of this as a historic roadway should be considered. Special signage indicating the roadway's significance and preservation of the area's charm and character should be vigorously supported and pursued by County Government (see Planning Recommendation 4, Subarea Thirteen for additional details).
 11. Priority should be placed upon the full signalization of the Manchester Road/State Route 109 intersection from its current status as a two-way stop and flashing red signal, as recommended in the Booker Associates' Traffic Study. With the growth of traffic, the location of the Rockwood School District garage and bus lot, and the existing roadway conditions, increased safety and traffic hazards can be anticipated.
 12. Given recommended development densities, Manchester Road west of Pond Road should remain a two-lane roadway, as supported in the Booker Associates' Traffic Study. East of Pond Road to State Route 109 should be improved to five lanes, although consideration should be given to tapering Manchester to three lanes as it approaches Pond Road.
 13. The extension of infrastructure west of State Route 109 is an issue of primary importance. While the establishment of individual systems is currently unavoidable, the proliferation of such systems in the future should be discouraged and consideration given to an integrated system, particularly sanitary sewers. Additionally, the Metropolitan St. Louis Sewer District should make every effort to provide service to this area as soon as possible. The design of future sanitary systems should be undertaken with the intent of tying into a larger, integrated system operated by the Metropolitan St. Louis Sewer District. Existing systems should be encouraged to tie into newer systems when economically feasible and available to limit environmental damage and promote public health.
 14. Whenever possible, improvements to Manchester Road and State Route 109 should be done in an orderly and comprehensive manner to minimize traffic congestion and delays and development should not proceed on adjacent properties until all improvements are completed (phasing).

15. Every effort should be made to resolve the current water supply problem in the St. Louis County Public Water Supply District #1. Without appropriate solutions, water service may not be provided to new development and existing customers face growing shortages.
16. Any future development should carefully address the need for a coordinated approach to the provision of stormwater controls.

COMMUNITY STRATEGIES

17. Future development within this subarea should address the assemblage of smaller parcels to facilitate the development of well-planned, architecturally integrated buildings and facilities, a continuous, internal circulation system for traffic, and appropriate linkages of open space. This need is particularly imperative along State Route 109 from Manchester Road south to the study area boundaries.
18. Preservation of the remaining forest cover should be paramount and vigorously enforced during the design, review, and development stages by the St. Louis County Departments of Planning and Public Works. Additional strategies to accomplish this preservation may include the following: a review of existing County ordinances to identify potentially detrimental effects caused by their enforcement, a taxing district for preservation purposes, or a requirement that an inventory of trees be shown on the Site Development Plan indicating those to be retained and requiring some type of escrow or bond for their protection.
19. Much of the area west of State Route 109 is served by a system of private streets or drives, including this subarea. To insure that emergency vehicles (police and fire) are capable of quickly responding and locating a site, homes in private subdivisions or along a private drive should be encouraged to prominently display house numbers in an easily identifiable and visible location. To insure that future, new large-lot subdivisions adhere to this requirement and provide road signage within internal roadway systems of private subdivisions, the St. Louis County Subdivision Ordinance should be revised to insure street signage and house numbering are in place on all new homes and private, residential streets.

POND-GROVER COMMUNITY AREA STUDY

SUBAREA ANALYSIS: INVENTORY OF CHARACTERISTICS

Subarea Thirteen

Special Features

- This subarea has road frontage along Manchester Road (a two-lane arterial maintained by the St. Louis County Department of Highways and Traffic).
- The western boundary of the subarea, along with a portion of its southern boundary, is defined by Rockwoods Reservation. Rockwoods Reservation is an approximately 2,000 acre wildlife refuge operated by the Missouri Department of Conservation. Located along the western boundary are the pine plantations cited as one of the few remaining nesting sites in the Midwest for the endangered Coopers Hawk.
- Part of the historic community of Pond is located adjacent to Manchester Road. Several structures in this area are listed in the St. Louis County West Inventory of Historic Buildings - Phase Two: Pond and Grover, 1989 prepared by the St. Louis County Department of Parks and Recreation as having some historic significance in the early growth of St. Louis County. Two of the more prominent and important historic structures within the Pond-Grover area are the Pond Hotel and the Bethel Methodist Church and Cemetery. The Bethel Methodist Cemetery in Pond is one of the most notable historic cemeteries in St. Louis County, dating from 1873. The Pond Hotel dates from 1841 and operated as a residential hotel and restaurant through 1951.
- The entire subarea is not currently served by the following utilities: sanitary or stormwater sewers, gas, and cable television. Potable water is provided by the St. Louis County Public Water District #1 or individual systems.

Physical Characteristics

- Slopes along Manchester Road and adjacent properties to the south range between five and nine percent. In the southern portion of this subarea, however, slopes are found in excess of fourteen percent reflecting changes in underlying geology and physiographic subprovince. The dividing line between these two subprovinces roughly follows the same line as the Hamilton and Carr Watershed (Meramec Hills Subprovince) and the Bonhomme Creek Watershed (Hilly Uplands Subprovince) drainage divide.
- In the areas exhibiting steeper slopes, large, dense growths of oak-hickory trees are very common and widespread.

Land Use

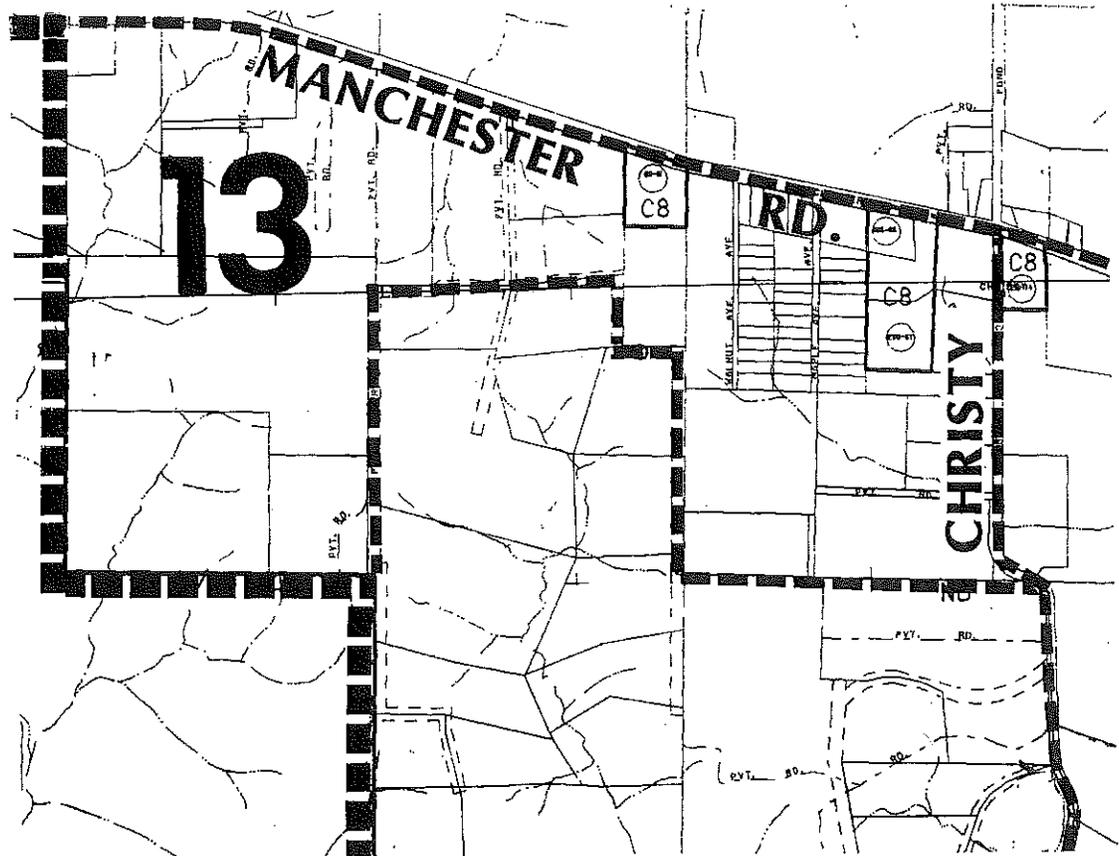
- Current land uses include the Bethel Methodist Church and Cemetery, the Allen Roofing Company, several small commercial establishments (in Pond), the vacant and dilapidated Big Chief Hotel, numerous single family residences on larger lots, and several vacant parcels of land.

Zoning/Subdivision Activity

- Current zoning designations include the following: the "NU" Non-Urban District and the "C-8" Planned Commercial District.
- There have been three rezonings in the subarea since 1981:
 - P.C. 81-69: "NU" Non-Urban District to the "C-8" Planned Commercial District - Frank Erickson - Restaurant, Retail and Office Space.
 - P.C. 86-185: "C-8" Planned Commercial District to an Amended "C-8" Planned Commercial District - Virgil and Linda Issak - Filling Station with vehicle repair facilities.
 - P.C. 87-299: "NU" Non-Urban District to the "C-8" Planned Commercial District - Allen Roofing and Siding - Offices, warehouses, and outside storage area.

POND-GROVER COMMUNITY AREA STUDY

SUBAREA THIRTEEN



NO SCALE

Subarea Thirteen: The area is bounded by Christy Road to the east, by Manchester Road to the north, by Rockwoods Reservation to the west, and by Rockwoods Reservation and the large lot subdivisions of Cougar Trails and Bridal Trails West to the south.

POND-GROVER COMMUNITY AREA STUDY
SUBAREA ANALYSIS: PLANNING RECOMMENDATIONS

Subarea Thirteen

LAND USE STRATEGIES

Residential Components

1. Due to topographic constraints, the existing pattern of low density residential development, and the subarea's proximity to the Rockwoods Reservation, low density residential development should be encouraged throughout, except within the defined Design District's boundaries.
2. Special design and engineering practices will be necessary in those areas exhibiting slopes in excess of fourteen percent. These areas are particularly susceptible to erosion due to extreme grades, rocky soils, and rapid surface runoff. Where slopes exceed fourteen percent, low density residential development is the preferred alternative. There are, however, certain instances where even this low density level of residential development may be unsuitable. In Subarea Thirteen, these particular areas occur adjacent to and around the well-defined system of creeks and streams characteristic of the southern half of the study area.

Residential/Open Space Component

3. Given the location of Rockwoods Reservation to the subarea's western and southern boundaries, development in this area should be residential and minimum lot size should be three acres. Additionally, during design and construction certain restrictions must be met:
 - a) Construction activity should be limited during the critical nesting months of the Coopers Hawk. These months are March, April, and May. A minimum 300 foot buffer should be maintained between any future development and the western boundary of Rockwoods Reservation (Coopers Hawk habitat) during the prescribed construction period.
 - b) A minimum 100-foot setback will be employed along all other properties adjacent to Rockwoods Reservation.
 - c) Every effort should be made to insure that current densities of the pine plantations remain undisturbed.
 - d) No structure, building, or tower may exceed sixty feet in height within a prescribed distance of the reservation boundaries to be determined on a case-by-case basis. Criteria used to develop this distance calculation will be elevations and slopes of surrounding property, distance from refuge boundaries, and proposed use.

Historical Preservation Component

4. Two properties within Subarea Thirteen require special attention due to their age, history, and community importance. The former Pond Hotel and the Bethel Methodist Church and Cemetery represent two of the more unique community landmarks in west St. Louis County. Every effort, including local protection and possible nomination to the National Register of Historic Sites, should be undertaken to preserve and protect these structures from being destroyed and lost to future generations. Another structure, Big Chief Hotel, constructed 1929, is one of the last remnants of "Route 66" fame in western St. Louis County and may be a worthwhile addition to either the "District" concept or the historic roadway recognition effort.

Design District Components

5. In an effort to maintain the unique, country flavor of the Pond area, particularly the business district near the intersection of Christy and Manchester Roads, and the remaining area to the west, including the Bethel Methodist Church and Cemetery, the establishment of a Design District should be encouraged. Within the district boundaries certain design standards, architectural styles, and materials will be required to insure the 19th Century style of many of the older, core buildings is replicated or closely followed by newer construction. For the purposes of this Design District, these requirements will apply to the vacant property between the Bethel Methodist Church and Cemetery and the Big Chief Hotel (to the east).
6. Within the Design District, future land uses should be limited to neighborhood size, retail or service businesses or medium density residential. Appropriate land use mixes within the Design District is preeminent to avoid redundancy of uses along Manchester Road. Additionally, any commercial use must be of appropriate type as not to detract from the purpose of the District. To insure that the reuse of identified structures within the Design District is economically feasible, site development practices as required by the Department of Planning, Highways and Traffic, and Public Works should be reviewed on a petition by petition basis with the intention of identifying regulations or requirements that would be inapplicable or detrimental to the reuse of these structures, and therefore should be waived.
7. Lots abutting Manchester Road within the Design District are generally elongated, narrow lots with minimal actual road frontage. However, the majority of lots are over one acre in size. With these long, deep lots, a potential exists for further development behind existing structures. This development would make restoration and reuse more economically viable and help to maintain the Design District concept. Development would have to meet all the previously stated requirements of the Design District (see Recommendations 3 and 4) and have access only onto Manchester Road.

INFRASTRUCTURE STRATEGIES

8. Since much of western St. Louis County's history is linked to Manchester Road, from its earliest days as the primary route to the State capital to the advent of the automobile and suburbanization, recognition of it as a historic roadway should be considered. Special signage indicating the roadway's significance and preservation of the area's charm and character should be vigorously pursued and supported by County Government (see Recommendation 4 for additional details).

9. Consideration should be given to improving Christy Road to a two-lane collector standard with a temporary turnaround at the entrance into the Cougar Trails Subdivision. Additionally, appropriate signage indicating Christy Road as not a through street is necessary.
10. Given recommended development densities, Manchester Road west of Pond Road should be maintained as a two-lane collector. Improvements to Manchester Road may only need to include repairing, restriping, and additional shoulder acquisition and repair.
11. Whenever possible, improvements to Manchester Road should be done in an orderly and comprehensive manner to minimize traffic congestion and delays and development should not proceed on adjacent properties until all improvements are completed.
12. The Metropolitan St. Louis Sewer District should undertake a comprehensive analysis of the area west of State Route 109 with the intention of determining feasibility and likelihood of extending services into this area within the near future.

COMMUNITY STRATEGIES

13. Preservation of the remaining forest cover should be paramount and vigorously enforced during the design, review, and development stages by the St. Louis County Departments of Planning and Public Works. Additional strategies to accomplish this preservation may include the following: a review of existing County ordinances to identify potentially detrimental effects caused by their enforcement, a taxing district for preservation purposes, or a requirement that an inventory of trees to be shown on the Site Development Plan indicating those to be retained and requiring some type of escrow or bond for their protection.
14. Future development within this subarea should address the assemblage of smaller parcels to facilitate the development of well-planned, architecturally integrated buildings and facilities, a continuous, internal circulation system for traffic, and appropriate linkages of open space.
15. Much of the area west of State Route 109 is served by a system of private streets or drives, including this subarea. To insure that emergency vehicles (police and fire) are capable of quickly responding and locating a site, homes in private subdivisions or along a private drive should be encouraged to prominently display house numbers in an easily identifiable and visible location. To insure that future, new large-lot subdivisions adhere to this requirement and provide road signage within internal roadway systems of private subdivisions, the St. Louis County Subdivision Ordinance should be revised to insure street signage and house numbering are in place on all new homes and private, residential streets.

POND-GROVER COMMUNITY AREA STUDY
SUBAREA ANALYSIS: INVENTORY OF CHARACTERISTICS

Subarea Fourteen

Special Features

- The subarea is not currently served by any internal roadway system. Existing access is via a system of private streets, roads, or driveways, which do not meet any County requirements regarding design or construction standards.
- Pond Road and Reiger Road are both primarily rural roadways, meaning that each is generally narrow, crowned, shoulderless, and hilly. Additionally, several one-lane bridges are located along Pond and Reiger Roads increasing safety concerns.
- The subarea has a lengthy frontage along State Route 100, but has only improved intersections at Pond Road and Mueller Road. Each of these intersections was significantly upgraded with the widening of State Route 100.
- Babler State Park, a Missouri Department of Natural Resources property, defines the northern boundary of the subarea. This park is approximately 2,500 acres in size and has a variety of active and passive recreational facilities available.
- The western boundary is defined by a group of large-lot subdivisions developed under the provisions of the St. Louis County Subdivision Ordinance and represents an established pattern of development and density. Additionally, one of the earlier large-lot subdivisions in the Pond-Grover area is located in the center of this subarea (Wakefield Farms).

Physical Characteristics

- The subarea lies within the Hilly Uplands Subprovince and exhibits certain physiographic characteristics. These characteristics include: rolling to steep uplands with numerous small valleys, slopes ranging from ten to twenty percent with localized relief between 200 to 250 feet, and an extremely high content of chert in the soil. This subarea has the greatest concentration of slopes that exceed fourteen percent of any of the other fourteen subareas.
- Forest cover is extensive due largely to the lack of disturbance this area has experienced. Species of trees are commonly oak-hickory, but low-bush blueberry and cottonwoods are abundant along creek and stream banks. Urbanization and development have been minimal and when it has occurred, it has been low density residential.

- Besides the location of Bonhomme Creek, numerous small, tributary creeks and streams are common in this subarea and run perpendicular to Bonhomme Creek in a northeasterly/southwesterly direction.
- The entire study area's largest extent of flood plain occurs in this subarea and is found along Bonhomme Creek. The flood plain occurs along a narrow valley between two ridges of more resistant rock units. Bonhomme Creek is a deeply-entrenched, intermittent creek with steep banks and heavy vegetation along its course. High flow occurs during spring or after heavy, intense single-event storms.

Land Use

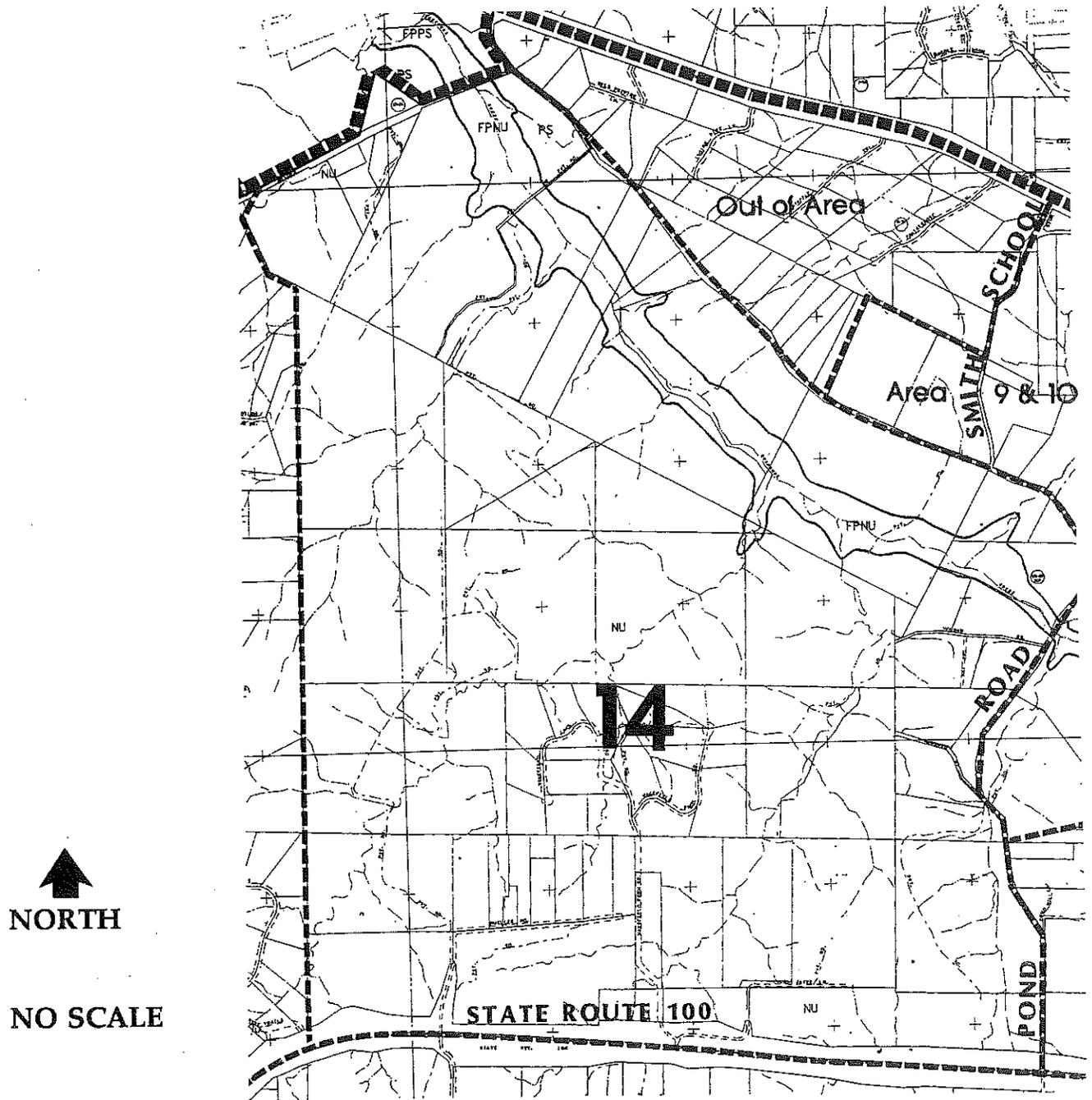
- Current land uses include the Pond Athletic Fields, a small area of Babler State Park, single family residences primarily on lots greater than three acres in size (actually, most are greater than ten acres in size), and numerous, undeveloped, vacant parcels of land.
- A Union Electric transmission right-of-way splits the subarea in a northeasterly/southwesterly direction. The right-of-way includes two sets of high tension lines and towers. For maintenance, access, and safety requirements, the areas directly beneath and adjacent to the towers and lines have been cut and cleared creating a highly visible, linear easement along the ground.

Zoning/Subdivision Activity

- Current zoning is "FPNU" Flood Plain Non-Urban District, "NU" Non-Urban District, and "PS" Park and Scenic District (a small portion of Babler State Park that crosses over Reiger Road to the south).
- Two rezoning petitions have been approved in this subarea since 1965:
 - 125-65: Conditional Use Permit in the "NU" Non-Urban District - Pond Athletic Association - Recreational Uses
 - 119-84: "PS" Park and Scenic District to the "NU" Non-Urban District - St. Louis County Planning Commission.

POND-GROVER COMMUNITY AREA STUDY

SUBAREA FOURTEEN



Subarea Fourteen:

The area is bounded by Pond Road to the east, by Babler State Park to the north, by a group of large lot, single family subdivisions named Shiloh Valley, Shiloh Ridge, Shiloh Acres, Shiloh Crest, and Country Trail Estates to the west, and by State Route 100 to the south.

POND-GROVER COMMUNITY AREA STUDY

SUBAREA ANALYSIS: PLANNING RECOMMENDATIONS

Subarea Fourteen

LAND USE STRATEGIES

Residential Components

1. If the Union Electric transmission right-of-way cannot be incorporated into the overall concept of an open space corridor in this subarea, certain steps need to be established regarding its protection from otherwise unacceptable development. Minimum setbacks and other policies need to be developed, based upon site characteristics and accepted research, relating to health and safety concerns of high-tension wires.
2. An existing pattern of large-lot development has been established in this subarea. Residential densities near the Shiloh and Wakefield Subdivisions should reflect this precedent. However, depending upon topography, lot sizes may approach the higher limits of the low density residential range and appropriate transitions should be applied where necessary.
3. Special design and engineering practices will be necessary in those areas exhibiting slopes in excess of fourteen percent. These areas are particularly susceptible to erosion due to extreme grades, rocky soils, and rapid surface runoff. Where slopes exceed fourteen percent, low density residential development is the preferred alternative. There are, however, certain instances where even this low density level of residential development may be unsuitable. In Subarea Fourteen, these areas are prevalent throughout.

Commercial Component

4. Commercial development should be discouraged due to the subarea's proximity to the State Route 100/State Route 109 Intersection, a recognized major commercial activity node. Additionally, in Subarea Eleven, accommodations have been made for the potential, future service needs of residents at the intersections of Pond and Mueller Roads with State Route 100.

Environmental/Recreational Components

5. As part of the effort to provide an open space/riparian corridor between Babler State Park and Rockwoods Reservation, the flood plain areas adjacent to Bonhomme Creek represent a key element toward its success. Every effort should be made to protect and preserve these flood plain areas from development. This does not preclude the inclusion of this land area into a residential development plan under the Special Provisions of the County's Zoning Ordinance, but should be required to either dedicate the flood plain area as common ground with some form of access agreement with St. Louis County or donate the area as a gift to the St. Louis County Department of Parks and Recreation. Similar measures should be considered and encouraged along the western banks of Bonhomme Creek, where flood plain is minimal, but slopes exceed 45 percent in some instances and regularly exceed 20 percent. Inclusion of these areas would help to reduce the effects of stormwater erosion and provide for a diversity of habitats along Bonhomme Creek. For additional information see: A Five-Year Strategic Action Plan for St. Louis County Objective 3.2, Strategy (d).

6. Similarly, any potential development in the flood plain areas for recreational uses should be encouraged as part of the open space corridor.
7. An unutilized corridor of open space already exists in the subarea adjacent to and beneath the Union Electric transmission right-of-way. Efforts should be undertaken to study and analyze any potential recreational possibilities that may exist through its use, given obvious safety and site concerns.
8. As a result of demographic changes and increasing demand, shortages in recreational facilities and programs within the Pond-Grover community will grow. In response, a longer-term, more comprehensive solution to the recreation needs of the community has to be considered. Based upon an identified need, the longer-term solution may be the development of a metropolitan park in this subarea as identified within the report Recreation Spaces - Community Places 1982-2000 authored by the Departments of Parks and Recreation and Planning in 1983. Emphasis should be on facility development in the area along Pond Road or between the Pond Athletic Association Complex and State Route 100. Siting should consider the following locational variables: existing and proposed road system, proximity to flood plain corridor, topography, availability, and potential linkages to existing recreational facilities.

Institutional Component

9. Until this park and associated facilities are available, the recent expansion and upgrading of the existing Pond Athletic Association's complex may provide a short-term solution to the area's recreational needs. With expansion, additional precautions need to be implemented along Pond Road to reduce safety concerns brought on by additional traffic. These precautions should include the following: an educational campaign for parents emphasizing the poor roadway conditions and need for heightened awareness when driving on the roadway (a short, informational sheet could be handed out at registration periods), increased signage at particularly hazardous curves or bridge locations, reduced speed at these locations, and increased police patrol during the Association's operating hours.

Open Space Component

10. Adjacent to Babler State Park, certain height and setback requirements should be imposed to insure that intrusion from any future development is minimal and does not detract from the area's natural beauty. These requirements should encompass the following:
 - a) No structure, building, or tower may exceed sixty feet in height within a prescribed distance of the park's boundaries to be determined on a case-by-case basis. Criteria used to develop this distance calculation will be elevations and slopes of surrounding property, distance from park boundaries, and proposed use.
 - b) A minimum 100-foot setback will be employed around the perimeter of the park.

- c) Any widening or movement of the current alignment of State Route 109 must take into account the location of Babler State Park. Accommodations should be made to lessen its impact on this park property. These accommodations should address effects on wildlife and surrounding habitat, visual and noise intrusion into park settings, access and safety considerations for users, and ancillary traffic patterns.

Institutional Component

11. With continued population growth anticipated well into the next decade, the designation of an elementary school and middle school site should be considered in the vicinity of Mueller Road and State Route 100 Intersection. This general area provides good access, an improved intersection, a westward orientation, and largely undeveloped tracts of land.

INFRASTRUCTURE STRATEGIES

12. Access onto State Route 100 from any new development within the subarea should be limited to the improved intersections at Mueller and Pond Roads.
13. Based on the recommendations of the Booker Associates' Traffic Study, Pond Road should be upgraded to a two-lane collector with shoulders from State Route 100 to State Route 109. Given the need for higher priority improvements in other parts of the study area, improvements to Pond Road are recommended as a medium priority.
14. Due to the current condition and characteristics of Pond Road north of the proposed Pond-Grover Loop Road and Reiger Road (hilly, narrow, one-lane bridges, shoulderless, and winding), any proposed development will need to address road improvements beyond their respective frontage. Any slight increase in traffic onto either Pond or Reiger Roads without a comprehensive and unified program of improvements along their entire lengths would overburden the existing system and increase safety risks to drivers and other users (cyclists, joggers, and pedestrians). Additionally, due to the scenic and rural nature of Pond and Reiger Roads, their recognition and designation as scenic roadways should be considered and pursued. With such designation, all new development and roadway improvements would have to adhere to strict design standards to protect and preserve the unique site and aesthetic qualities along each roadway.
15. With any improvement of Pond Road, additional right-of-way should be set aside to provide a multiple-use trail or path between Babler State Park and Rockwoods Reservation. This additional right-of-way should be a minimum of eight to ten feet in width and along its entire distance.

16. The Metropolitan St. Louis Sewer District should undertake a comprehensive analysis of the area west of State Route 109 with the intention of determining feasibility and likelihood of extending services into this area within the near future. In the interim, the design of future sanitary systems should be undertaken with the intent of tying into a larger, integrated system operated by the Metropolitan St. Louis Sewer District. Existing systems should be encouraged to tie into newer, community systems when economically feasible and available to limit environmental damage and promote public health.
17. Any future development should carefully address the need for a coordinated approach to the provision of stormwater controls.

COMMUNITY STRATEGIES

18. Preservation of the remaining forest cover should be paramount and vigorously enforced during the design, review, and development stages by the St. Louis County Departments of Planning and Public Works. Additional strategies to accomplish this preservation may include the following: a review of existing County ordinances to identify potentially detrimental effects caused by their enforcement, a taxing district for preservation purposes, or a requirement that an inventory of trees to be shown on the Site Development Plan indicating those to be retained and requiring some type of escrow or bond for their protection.
19. Much of the area west of State Route 109 is served by a system of private streets or drives, including this subarea. To insure that emergency vehicles (police and fire) are capable of quickly responding and locating a site, homes in private subdivisions or along a private drive should be encouraged to prominently display house numbers in an easily identifiable and visible location. To insure that future, new large-lot subdivisions adhere to this requirement and provide road signage within internal roadway systems of private subdivisions, the St. Louis County Subdivision Ordinance should be revised to insure street signage and house numbering are in place on all new homes and private, residential streets.

POND-GROVER COMMUNITY AREA STUDY
SUBAREA ANALYSIS: INVENTORY OF CHARACTERISTICS

Subarea Fifteen

Special Features

- Wild Horse Creek Road and Reiger Road are two County maintained roads within the subarea. Both can be characterized as rural roads that are narrow, winding, hilly, and shoulderless. Wild Horse Creek Road is a popular route with many area bicyclists, with resulting concerns among area residents about safety considerations.
- The subarea has minimal roadway frontage onto State Route 100. Due to the alignment of the intersection of Wild Horse Creek Road with State Route 100, none of the properties in the subarea actually have direct frontage onto the roadway.
- The northern boundary of the subarea is defined by Babler State Park, a Missouri Department of Natural Resources property. The park is approximately 2,500 acres in size and has a variety of active and passive recreational facilities available.
- Lot sizes and shapes reflect a limited development pattern. Generally, lots are extremely large, greater than ten acres in size, and rectangular, all characteristic of past survey practices.

Physical Characteristics

- The current route of Wild Horse Creek Road, from State Route 100 to the intersection with Reiger Road, defines the ridgeline between two distinct watersheds. To the east lies the Bonhomme Creek Watershed and to the west lies the Wild Horse Creek Watershed, both eventually emptying into the Missouri River to the north.
- The entire subarea is located within the Hilly Upland physiographic subprovince. Surface characteristics indicative of this subprovince are: rolling-to-steep upland terrain with numerous small valleys and Ozark surface characteristics, slopes generally ranging between ten and twenty percent with many areas exceeding twenty percent, and reliefs ranging between 200 to 250 feet between valley floors and ridge tops.
- Much of the property in this subarea is wooded with native growths of oak-hickory being typical.

Land Use

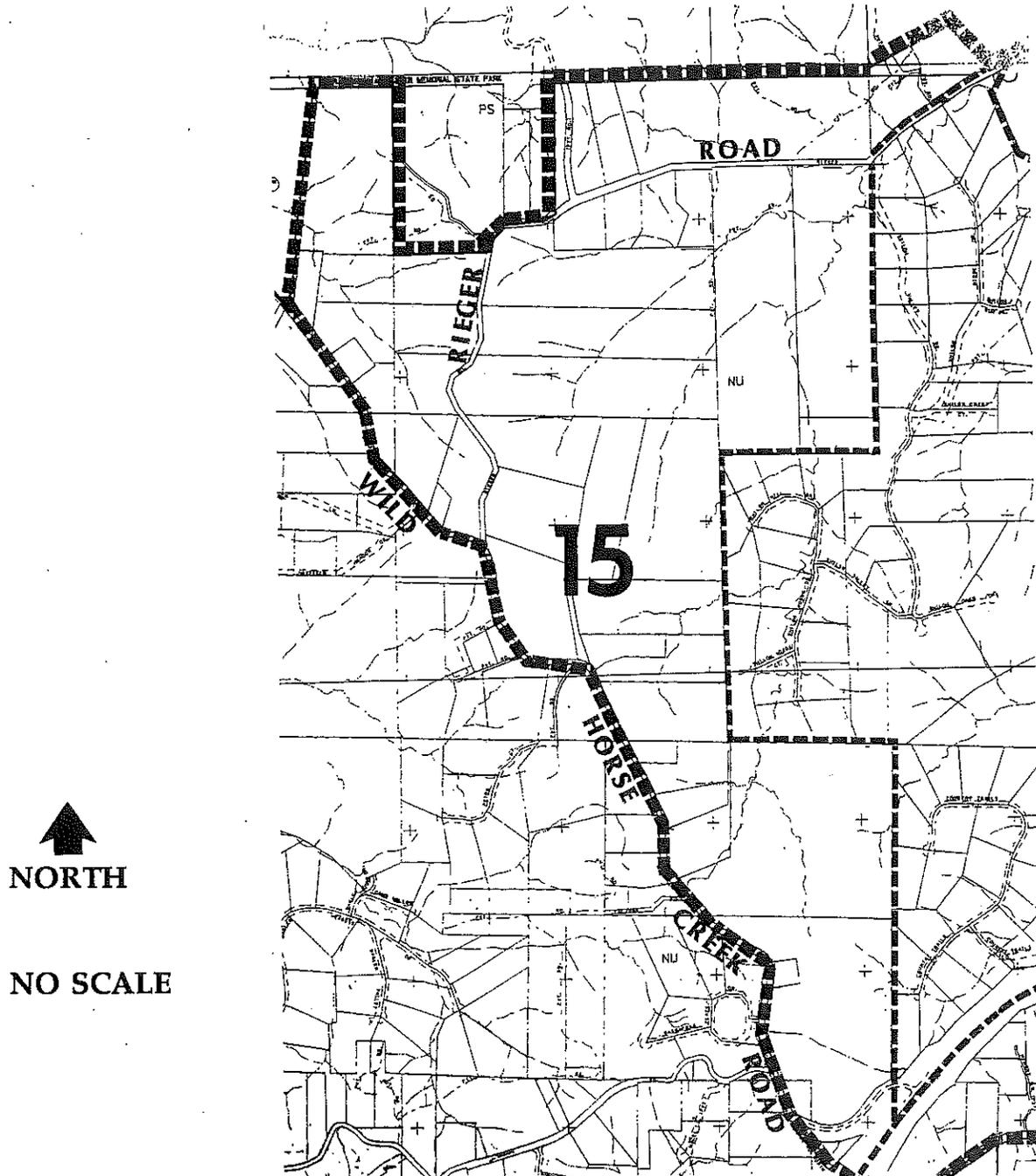
- Current land uses include single family residences on large lots, many over ten acres in size and numerous vacant parcels of undeveloped land.
- A Union Electric transmission right-of-way splits the southern half of the subarea in a northeasterly/southwesterly direction. The right-of-way includes two sets of high tension lines and towers. For maintenance, access and safety requirements, the areas directly beneath and adjacent to the towers and lines have been cut and cleared creating a highly visible and linear easement along the ground.

Zoning/Subdivision Activity

- Current zoning includes the following district designation of the "NU" Non-Urban District.
- Within the subarea, development has been limited to a single large lot subdivision in the "NU" Non-Urban District. The subdivision, South Fork, has a total of four lots fronting onto Reiger Road. No other zoning or subdivision activity has occurred in this subarea.

POND-GROVER COMMUNITY AREA STUDY

SUBAREA FIFTEEN



Subarea Fifteen:

The area is bounded by the group of large-lot single family subdivisions named Shiloh Valley, Shiloh Ridge, Shiloh Acres, Shiloh Crest, and Country Trail Estates to the east, by Babler State Park to the north, by Wild Horse Creek to the west, and State Route 100 to the south.

POND-GROVER COMMUNITY AREA STUDY
SUBAREA ANALYSIS: PLANNING RECOMMENDATIONS

Subarea Fifteen

LAND USE STRATEGIES

Residential Components

1. Special design and engineering practices will be necessary in those areas exhibiting slopes in excess of fourteen percent. These areas are particularly susceptible to erosion due to extreme grades, rocky soils, and rapid surface runoff. Where slopes exceed fourteen percent, low density residential development is the preferred alternative. There are, however, certain instances where even this low density level of residential development may be unsuitable. In Subarea Fifteen, these areas are prevalent throughout.
2. An existing pattern of large-lot development has been established in this subarea. Residential densities near the Shiloh and South Fork Subdivisions should reflect this precedent. Depending upon topography, lot sizes may approach the higher limits of the low density residential range, and appropriate transitions should be instituted where necessary.
3. If the Union Electric transmission right-of-way cannot be incorporated into the overall concept of an open space corridor in this subarea, certain steps need to be established regarding its protection from otherwise unacceptable development. Minimum setbacks and other policies need to be developed, based upon site characteristics and accepted research, relating to health and safety concerns of high-tension wires.

Commercial Component

4. Commercial development should be discouraged in this subarea due to the existing road system, population densities, and proximity to existing and proposed commercial centers to the east.

Institutional Component

5. As residential growth continues to move westward, even into adjacent Franklin County, the need for readily available emergency medical services and fire protection has grown accordingly. This subarea, with its proximity to the western extremes of St. Louis County and nearby residential areas, should be considered a potential site for a fire station facility. The siting of such a facility should consider the State Route 100 and Wild Horse Creek Road Intersection or vicinity, which offers good visibility, access, and an orientation toward the southern portion of the Ballwin Fire Protection District's boundaries.

Recreational Component

6. An unutilized corridor of open space already exists in the subarea adjacent to and beneath the Union Electric transmission right-of-way. Efforts should be undertaken to study and analyze any potential recreational possibilities that may exist through its use, given obvious safety and site concerns.

Open Space Component

7. Adjacent to Babler State Park, certain height and setback requirements should be imposed to insure that intrusion from any future development is minimal and does not detract from the area's natural beauty. These requirements should encompass the following:
 - a) No structure, building, or tower may exceed sixty feet in height within a prescribed distance of the park's boundaries to be determined on a case-by-case basis. Criteria used to develop this distance calculation will be elevations and slopes of surrounding property, distance from park boundaries, and proposed use.
 - b) A minimum 100-foot setback will be employed around the perimeter of the park.
 - c) Any road improvements along Wild Horse Creek Road or Reiger Road must take into account the location of Babler State Park to its eventual configuration. Accommodations should be made to lessen impact on the park property. These accommodations should address effects on wildlife and surrounding habitat, visual and noise intrusion into park settings, access and safety considerations for users, and ancillary traffic patterns.

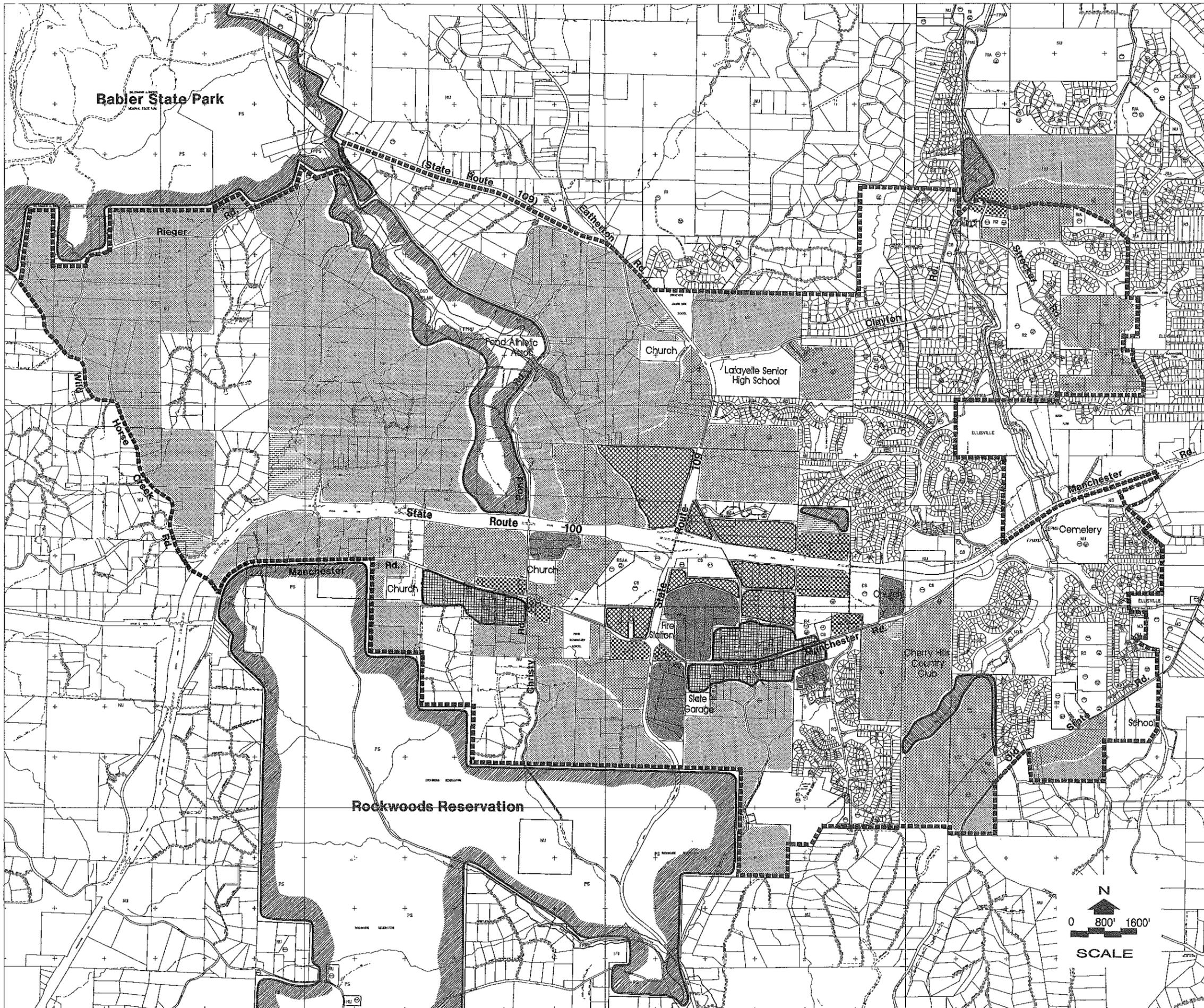
INFRASTRUCTURE STRATEGIES

8. The Metropolitan St. Louis Sewer District should undertake a comprehensive analysis of the area west of State Route 109 with the intention of determining feasibility and likelihood of extending services into this area within the near future. In the interim, the design of future sanitary systems should be undertaken with the intent of tying into a larger, integrated system operated by the Metropolitan St. Louis Sewer District. Existing systems should be encouraged to tie into newer, community systems when economically feasible and available to limit environmental damage and promote public health.
9. Any future improvement of Wild Horse Creek Road from its current condition and capacity should include the provision for additional easement to be acquired for the construction of a multiple-use trail or path at a minimum eight to ten feet in width. This path will reduce the existing vehicle/cyclist competition on a roadway that is narrow, hilly, winding, and crowned, and improve safety conditions along it.
10. Due to the current condition and characteristics of Reiger Road, any proposed development will need to address road improvements beyond their respective frontage. Any slight increase in traffic on Reiger Road, without a comprehensive and unified program of improvements along its entire length, would overburden the existing system and increase safety risks to drivers and other users (cyclists, joggers, and pedestrians). Additionally, due to the scenic and rural nature of Reiger Road, its recognition and designation as a scenic roadway should be considered and pursued. With such designation, all new development and roadway improvements would have to adhere to strict design standards to protect and preserve the unique site and aesthetic qualities along this roadway.

11. Any future development should carefully address the need for a coordinated approach to the provision of stormwater controls. On-site detention systems should be designed to insure that off-site erosion, within the existing system of creeks and streams, is maintained or reduced to pre-development rates.

COMMUNITY STRATEGIES

12. Preservation of the remaining forest cover should be paramount and vigorously enforced during the design, review, and development stages by the St. Louis County Departments of Planning and Public Works. Additional strategies to accomplish this preservation may include the following: a review of existing County ordinances to identify potentially detrimental effects caused by their enforcement, a taxing district for preservation purposes, or a requirement that an inventory of trees to be shown on the Site Development Plan indicating those to be retained and requiring some type of escrow or bond for their protection.
13. Much of the area west of State Route 109 is served by a system of private streets or drives, including this subarea. To insure that emergency vehicles (police and fire) are capable of quickly responding and locating a site, homes in private subdivisions or along a private drive should be encouraged to prominently display house numbers in an easily identifiable and visible location. To insure that future, new large-lot subdivisions adhere to this requirement and provide road signage within internal roadway systems of private subdivisions, the St. Louis County Subdivision Ordinance should be revised to insure street signage and house numbering are in place on all new homes and private, residential streets.



• POND-GROVER

Legend

- Low Density Residential
- Medium-Low Density Residential
- Medium Density Residential (including multiple family)
- Design District Boundaries
- Neighborhood & Service Commercial
- Office, Community Center Commercial, or Mixed Use
- Open Space/Recreational
- Institutional (schools, churches, or public facilities)

NOTE: The location of these depicted uses are approximations and are not intended to represent precise boundaries or locations. For more specific information refer to the Planning Recommendations for each of the respective subareas.

FUTURE LAND USE MAP

APPENDICES

APPENDIX A

Zoning and Subdivision Activity in the Study Area

ZONING ACTIVITY SINCE 1985

<u>YEAR</u>	<u>PETITION NUMBER</u>	<u>PETITION NAME</u>	<u>ZONING CHANGE</u>	<u>SIZE (ACRES)</u>	<u>STATUS</u>
1985					
	210-85	Bridge Holding Corp.	Development Plan in M-3 (Offices, communications, data processing, electronic assembly)	25.0	A
	219-85	Al Hicks and J.L. Mason	NU and FPNU to MXD and FPMXD (Retail, office, 172 single family lots, 492 multiple family units)	172.4	A
	236-85	Amoco Oil Co.	NU to C-8 (Service station, convenience store)	1.6	A
	242-85	Cherry Hills Partnership	NU to R-1 (55 single family lots)	70.8	A
1986					
	98-86	Manchester-Woods Partnership	NU and C-2 to C-8 (Offices, warehouses, retail uses, furniture showroom)	3.8	A
	103-86	The Clarkson Group	M-3 to R-6A (See 104-86)	31.5	A
	104-86	The Clarkson Group	P.E.U. in R-6A (270 multiple family units)	31.5	A
	118-86	Al Hicks and J.L. Mason	NU to R-2 and R-3 (See 119-86)	52.3	A
	119-86	Al Hicks and J.L. Mason	P.E.U. in R-2 and R-3 (158 single family lots)	52.3	A

ZONING ACTIVITY SINCE 1985 / continued

<u>YEAR</u>	<u>PETITION NUMBER</u>	<u>PETITION NAME</u>	<u>ZONING CHANGE</u>	<u>SIZE (ACRES)</u>	<u>STATUS</u>
	180-86	Christine Mary Simcik	NU to C-8 (Vet clinic, dental clinic, medical offices)	1.4	A
	185-86	V.L. & L.M. Isaak	Amended C-8 (Service station, vehicle repair)	.8	A
	209-86	J.R. Green Properties	NU to R-1A and R-3 (See 210-86)	87.0	A
	210-86	J.R. Green Properties	P.E.U. in R-1A and R-3 (202 single family lots)	87.0	A
1987					
	65-87	W. Stude & E. Manion	NU to C-8 (Service station, drive-thru, retail)	2.7	A
	183-87	C. Kersten & R. Frame	NU to R-2 (19 single family lots)	11.9	A
	198-87	G.A. & D. J. Baker	NU to R-1 (See 199-87)	1.5	A
	199-87	G.A. & D. J. Baker	C.U.P. in R-1 (Child care center)	1.5	A
	229-87	R.W. Covert III	Amended C-8 (Offices)	1.1	A
	252-87	Suntide, Inc.	M-3 to R-2 and R-3 (See 253-87)	46.1	A
	253-87	Suntide, Inc.	P.E.U. in R-2 and R-3 (138 single family lots)	46.1	A
	254-87	Suntide, Inc.	NU to R-2 and R-3 (See 255-87)	31.4	A
	255-87	Suntide, Inc.	P.E.U. in R-2 and R-3 (82 single family units)	46.1	A

ZONING ACTIVITY SINCE 1985 / continued

<u>YEAR</u>	<u>PETITION NUMBER</u>	<u>PETITION NAME</u>	<u>ZONING CHANGE</u>	<u>SIZE (ACRES)</u>	<u>STATUS</u>
	279-87	RDR Investments	NU to C-7 (Commercial)	11.5	W
	282-87	Al Hicks & J.L. Mason	M-3 to R-3 (See 283-87)	67.9	A
	283-87	Al Hicks & J.L. Mason	P.E.U. in R-3 (166 single family lots; See 210-85)	67.9	A
	299-87	Allen Roofing & Siding	NU and C-8 to C-8 and Amended C-8 (Offices, warehouses, storage)	3.7	A
1988					
	19-88	Rucci Development Co., Inc.	NU to R-1A	3.2	A
	20-88	J.P. Passiglia	C.U.P. in NU (Plant nursery, salesroom)	6.1	A
	31-88	DeShetler Homes	NU to R-2 and R-3 (See 32-88)	20.0	A
	32-88	DeShetler Homes	P.E.U. in R-2 and R-3 (54 single family lots)	20.0	A
	48-88	Villages of Cherry Hills Development Co.	R-1 to R-3	4.3	A
	74-88	Village Plaza Inc.	Amended C-8 (Bank, vet clinic, retail)	4.8	A
	85-88	Greenberg Development	R-4 to C-8 (Commercial)	12.1	D
	114-88	Riverdale Homes	NU to R-3 (See 115-88)	34.4	A
	115-88	Riverdale Homes	P.E.U. in R-3 (104 single family lots)	34.4	A

ZONING ACTIVITY SINCE 1985 / continued

<u>YEAR</u>	<u>PETITION NUMBER</u>	<u>PETITION NAME</u>	<u>ZONING CHANGE</u>	<u>SIZE (ACRES)</u>	<u>STATUS</u>
	134-88 (formerly 103/104-85)	J.L. Mason	Amended P.E.U. in R-6A (106 single family lots; 32 multiple family units)	29.0	A
	144-88	M.A. Development Co.	NU to C-8 (Commercial)	4.3	W
	161-88	Cherry Hills Acres Development	NU to C-8 (Commercial)	12.2	A
	178-88	C.C. Estates	NU to R-2 (See 179-88)	11.6	A
	179-88	C.C. Estates	P.E.U. in R-2 (26 single family lots)	11.6	A
	187-88	RDR Investments	NU to C-8 (Commercial)	11.5	A
	205-88	T.G. & F.L. Loafmann	C.U.P. in NU (Vet clinic)	8.2	A
	208-88	Vista View Partnership	NU to R-2 (See 209-88)	4.0	A
	209-88	Vista View Partnership	P.E.U. in R-2 (9 single family lots)	4.0	A
	249-88	St. Louis Nursery Partnership	NU to C-8 (Lawn & garden center)	3.3	A
1989					
	8-89	Slavik Associates	NU to R-6AA (See 9-89)	7.7	A
	9-89	Slavik Associates	P.E.U. in R-6AA (108 multiple family units)	7.7	A
	10-89	Slavik Associates	NU to C-8 (Retail, offices, cinema, child care center, service station, car wash, convenience store)	42.9	A

ZONING ACTIVITY SINCE 1985 / continued

<u>YEAR</u>	<u>PETITION NUMBER</u>	<u>PETITION NAME</u>	<u>ZONING CHANGE</u>	<u>SIZE (ACRES)</u>	<u>STATUS</u>
	64-89	Jim Hespen and Louis Mitschang	NU to R-3	23.6	W
	65-89	Jim Hespen and Louis Mitschang	P.E.U. in R-3	23.6	W
	74-89	Ina T. Farms	C.U.P. in NU (Riding stable)	7.2	A
	81-89	Nothum Homes	NU to R-3 (See 82-89)	20.0	A
	82-89	Nothum Homes	P.E.U. in R-3 (68 single family units)	20.0	A
	98-89	McKinnon Realty	NU to C-2 (Offices)	1.4	A
	102-89	St. Onge Partnership	NU to C-8 (Convenience store or fast-food restaurant with one office building)	4.7	A
	122-89	Cliff Rufkahr	NU to C-8 (Feed store)	1.4	A
1990					
	1-90	Mrs. Janet Hoven	NU to C-8 (Retail center)	24.3	H
	2-90	Mrs. Janet Hoven	NU to R-3 (Day care center)	5.3	H
	23-90	Cherry Hills Square, Inc.	Amended C-8 (Clock tower)	1.3	A
	25-90	D and D Development	NU to R-2 (See 35-90)	29.0	A
	35-90	D and D Development	P.E.U. in R-2 (45 single family units)	29.0	A
	41-90	J.L. Mason of Missouri	NU to R-2/R-3 (See 42-90)	93.7	A

ZONING ACTIVITY SINCE 1985 / continued

<u>YEAR</u>	<u>PETITION NUMBER</u>	<u>PETITION NAME</u>	<u>ZONING CHANGE</u>	<u>SIZE (ACRES)</u>	<u>STATUS</u>
42-90		J.L. Mason of Missouri	P.E.U. in R-2/R-3 (283 single family units)	93.7	A
43-90		Quest Microwave III, Inc.	C.U.P. in the NU	8.5	W
70-90		The Jones Company	NU to R-2 (See 71-90)	44.9	A
71-90		The Jones Company	P.E.U. in R-2 (106 single family units)	44.9	A
81-90		Shell Oil Company	NU and C-8 to Amended C-8 and C-8 (Gas station with convenience store and car wash)	1.7	A
90-90		Pond Athletic Association	C.U.P. in NU (Ballfields)	7.89	A
107-90		Helmuth and Doris Wiemann	C.U.P. in NU (Plant nursery)	7.2	A

Status Codes (Final County Council Action).

A = Approved
D = Denied
W = Withdrawn
H = Held

Source: St. Louis County Department of Planning, November 1990.

SUBDIVISION ACTIVITY VIA THE REZONING PROCESS SINCE 1977

<u>YEAR</u>	<u>PETITION NUMBER</u>	<u>APPROVED UNITS</u>	<u>PETITIONER AND SUBDIVISION NAME</u>
1977	51-77	414 Single family 150 Multiple family	Jones Co. - Westglen Farms
	107-77	358 Single family	Manlin-Liebert, Inc. - Winding Trails
	110-77	314 Single family 190 Multiple family	MB Holding Co. - Evergreen
1978	93/94-78	235 Single family	J.R. Green - Babler Park Estates
	198-78	160 Single family	Manlin-Liebert, Inc. - Winding Trails
1979	12-79	212 Multiple family	J.R. Green - Sandlewood Condominiums
	31-79	142 Single family 66 Multiple family	Concord Homes - Timber Ridge Estates
1984	195-84	324 Single family 420 Multiple family	Taylor-Morley-Simon - Cherry Hills
1985	219-85	172 Single family 492 Multiple family	Al Hicks - Lake Chesterfield
	*242-85	55 Single family	Cherry Hills Partnership
1986	118/119-86	158 Single family	Al Hicks - Lake Chesterfield
	209/210-86	202 Single family	J.R. Green - Turnberry Place
1987	183-87	19 Single family	C. & R. Kersten - Carriage Crossing
	252/253-87	138 Single family	Suntide, Inc. - Lake Chesterfield
	254/255-87	82 Single family	Suntide, Inc. - Lake Chesterfield
	282/283-87	166 Single family	Al Hicks - Lake Chesterfield

Subdivision Activity / continued

<u>YEAR</u>	<u>PETITION NUMBER</u>	<u>APPROVED UNITS</u>	<u>PETITIONER AND SUBDIVISION NAME</u>
1988	31/32-88	54 Single family	DeShetler Homes - Lake Chesterfield
	*114/115-88	104 Single family	Riverdale Homes
	134-88	106 Single family 32 Multiple family	J.L. Mason - Tarten Green
	*178/179-88	26 Single family	CC Estates - Clayton Woods
	*208/209-88	9 Single family	Vista View Properties - Vista View Estates
1989	81/82-89	68 Single family	Nothum Homes
1990	25/35-90	45 Single family	D and D Development
	41/42-90	283 Single family	J.L. Mason of Missouri-Nantucket
	70/71-90	106 Single family	Jones Company
	**	22 Single family	The Courtyards at West Park

* Approved, but not under construction.

** An amended Final Development Plan was submitted for an area of the original Evergreen Subdivision (110-77) requesting a change from multiple family units to single family units.

Source: St. Louis County Department of Planning, November 1990.

***LARGE LOT SUBDIVISIONS IN THE "NU" NON-URBAN DISTRICT**

<u>SUBDIVISION NAME</u>	<u>UNITS</u>	<u>GENERAL LOCATION</u>
Niere Acres	14 Single family	Eatherton Road
Turkey Tract Corners	18 Single family	Highway 109
Cougar Trails	12 Single family	Christy Avenue
Wakefield Farms	17 Single family	North of Highway 100
Rockwood Trail	6 Single family	South of Highway 100
Country Trail Estates	22 Single family	West of Highway 109
Bridal Trails West	19 Single family	South of Manchester Road
Lancaster Estates	14 Single family	Terminus of Village Hills Parkway
Portland Cove	38 Single family	East side of Pond Road, north of State Route 100

***LARGE LOT SUBDIVISIONS WITHIN BOUNDARY EXTENSION**

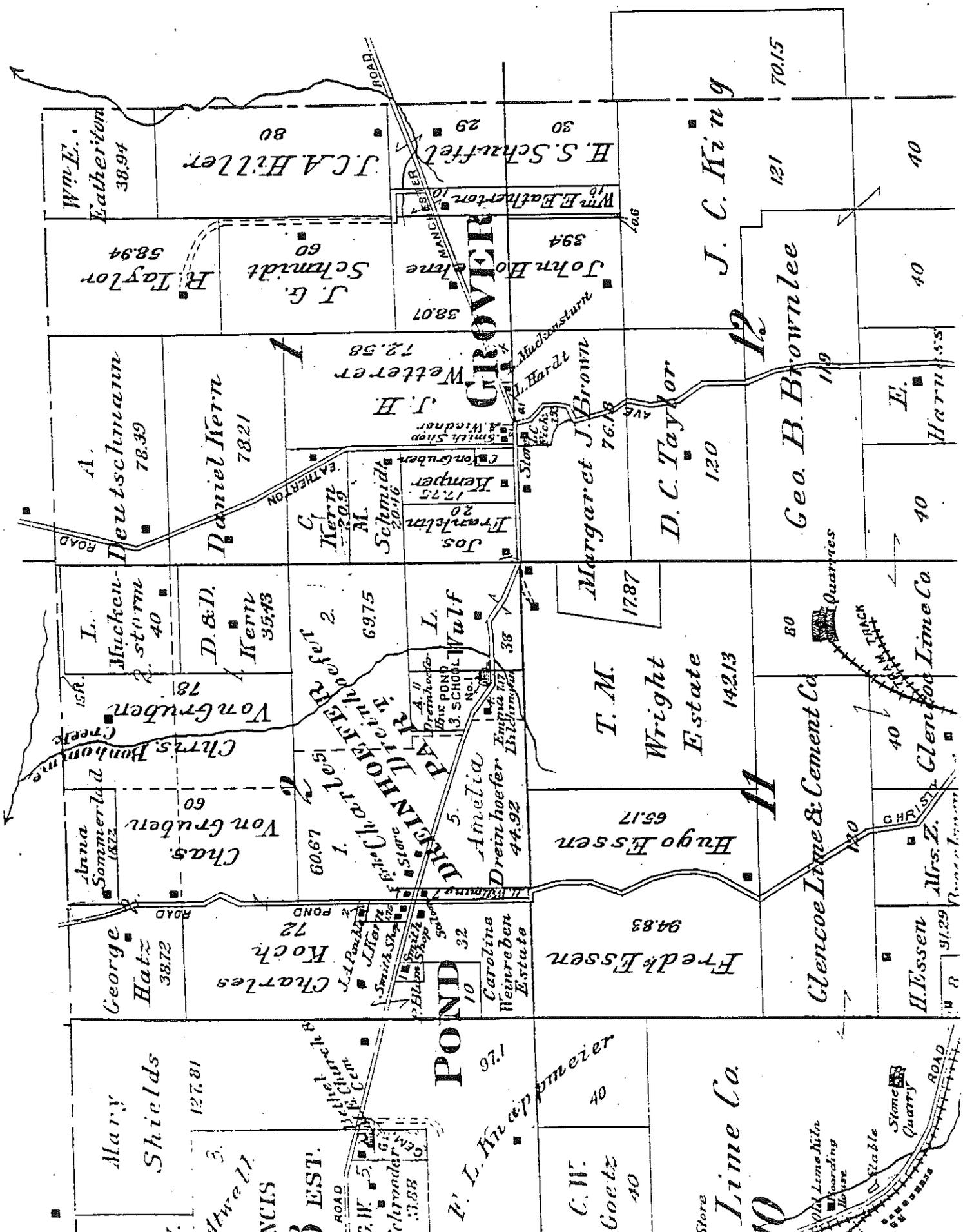
<u>SUBDIVISION NAME</u>	<u>UNITS</u>	<u>GENERAL LOCATION</u>
Shiloh Valley, Ridge, Acres, and Crest	52 Single Family	Reiger Road
Oak Creek Estates	7 Single Family	Pond Road
Babler Hills	33 Single Family	State Highway 109
Southfork	4 Single Family	Reiger Road

* A large-lot subdivision constitutes a single family residential subdivison wherein all lots are three acres or more in area and each boundary side is greater than 200 feet in length, and is a permitted use within the "NU" Non-Urban Zoning District.

Source: St. Louis County Department of Planning, November 1990.

APPENDIX B

Inventory of Historic Structures



Mary Shields
127.81

3.
G.W. Goetz
Schmieder
33.58

POND
10
32

L. I. Knappmeier
40

C.W. Goetz
40

10
Lime Co.

George Hatz
38.72

Charles Koch
72

Caroline Weireben Estate
10
32

Fred & Esser
94.83

Chas. Von Gruben
60

D. & D. Kern
35.43

1.
60.67
DREINHOEFER
1.51
2.
69.75

Amelia Dreinhofer Estate
44.92

Hugo Esser
65.17

T.M. Wright Estate
142.13

L. Muckensturm
40

Daniel Kern
78.21

Jos. Irraschler
20
Kemper
12.75
Schmid
20.16

L. Wulf
38

Margaret J. Brown
76.8

17.87

A. Deutschmann
78.39

J.G. Schmidt
60

Wetterer
72.58

J.H. Wetterer
Smith Shop
Wiedner
Kemper
Irraschler
Schmid
Kern

D.C. Taylor
120

Glencoe Lime & Cement Co.
80
Glenside Lime Co.
40
Mrs. Z.
31.29

H. Taylor
58.94

J.C.A. Hiller
80

H.S. Schuffel
29
30

J.C. King
121
70.15

Geo. B. Brownlee
119
40
E. Harniss
40

Wm E. Featherton
38.94

Wm E. Featherton
10

John H. Bohne
38.07
39.4

Muckensturm
106

12

40

Stone Quarry
Stable
Lime Mill
Boarding House

Historic Inventory
Pond and Grover

1.	Duffy-Lang House	1909 Eatherton Rd. (Hwy 109)
2.	Henry Knappmeyer Farm	2100 Eatherton Rd. (Hwy 109)
3.	Shotwell-Kern Farm	2310 Eatherton Road
4.	George Kern Farm	2418 Eatherton Road
5.	Second John E. Schnarr House	16941 Manchester Road
6.	First John E. Schnarr House	16943 Manchester Road
7.	Wetterer House	16955 or 16865 Manchester Road
8.	Wetterer Smith Shop	16957 Manchester Road
9.	Rettker-Fick Store	16962 Manchester Road
10.	Christian von Gruben Saloon	17005 Manchester Road
11.	Annie Rickard House	17011 Manchester Road
12.	Thomas J. Coyle House	17014 Manchester Road
13.	James Franklin House	17049 Manchester Road
14.	Pond School	17109 (?) Manchester Road
15.	Eliza Dreinhofer House	17225 Manchester Road
16.	Pond Inn	17250 Manchester Road
17.	Kern Service Station	17300 Manchester Road
18.	Pond Hotel	17301 Manchester Road
19.	Anthony Kessels House	17330 Manchester Road
20.	Big Chief Hotel	17340 (?) Manchester Road
21.	William Knappmeyer Farm	17466 Manchester Road
22.	Bethel Methodist Church	17500 Manchester Road
23.	Frederick William Stosberg	17724 Manchester Road
24.	Thomas M. Nichols House	501 Old State Road
25.	Conway-Ruwwe House	1205 Old State Road
26.	Henry Kroner House	1450 Old State Road
27.	"Overbrook," Frederick Steines Farm	1333 Pond Road
28.	August von Gruben House	2204 Pond Road
29.	Andrew J. Kern House	2541 Pond Road
30.	Peter Blum House	2550 Pond Road
31.	Henry Kempf House	145 Strecker Road
32.	Strecker-Kempf House	165 Strecker Road
33.	Ben Baumer House	246 Strecker Road

APPENDIX C

**Traffic Study Recommendations
by Booker Associates, Inc.**

4.2 Recommended Roadway Improvements

Traffic projections within the Pond-Grover Study Area indicate that the volume of traffic will dramatically increase on the existing roadway system as "end-state" development changes the area from typically rural residential to a mixed-use suburban community. In order to provide a roadway system with the capacity to carry the ultimate development of the area, roadway improvements will be required. These improvements will consist of the widening of existing roadways and the construction of new roadways, ramps, and overpasses. The recommended ultimate roadway system with "end-state" development Average Weekday Traffic (AWT) volumes are shown on Sheets 1 through 24 and the recommended roadway system improvements are listed below. A key map for area location of Sheets 1 through 24 is shown on Figure C. The guidelines of the recommended number of lanes for the existing roadway system and new roadway construction which constitutes the ultimate roadway system are shown in Table 2. These guidelines provide a Level of Service "C", which provides stable flow operation but the freedom to maneuver is not noticeably restricted. This is generally an acceptable operating "Level of Service". The summary and comparison of existing AWT volumes and number of existing lanes to the recommended ultimate roadway system AWT volumes and number of lanes are shown in Table 3.

TABLE 2
Guidelines for Roadway Improvements

Functional Classification	Speed Limit MPH	Parking	Number of Lanes	Average Weekday Traffic (AWT)
Collector/Arterial	30-45	No	2	13,000
Collector/Arterial	30-45	No	3	15,145
Collector/Arterial	30-45	No	4	26,000
Collector/Arterial	30-45	No	5	28,145
Collector	25-30	Yes	2	7,000
Collector	25-30	Yes	3	8,155
Limited Access Expressway	45-55	No	2	16,000
Limited Access Expressway	45-55	No	4	32,000
Limited Access Expressway	45-55	No	6	48,000
Divided Freeway	55	No	4	48,000
Divided Freeway	55	No	6	72,000

The recommended roadway improvements described below were developed using the anticipated AWT volumes for the end-state development shown on Sheets 1 through 24 and the general guidelines for numbers of lanes shown in Table 2.

4.2.1 Clayton Road

Clayton Road from State Route 109 east to the eastern boundary of the Pond-Grover Study Area will function as an east-west arterial roadway and will continue to provide access to primarily residential development and Lafayette High School. As traffic volumes increase on State Route 100, Clayton Road will also serve as a possible route for east-west through traffic providing motorists an alternate roadway to bypass congestion on Route 100.

Projected Average Weekday Traffic (AWT) volumes along Clayton Road are shown on Sheets 5, 8, 9, and 10 for the "end-state" development of the Pond-Grover Study Area. AWT volumes will range from 19,296 vehicles per weekday between State Route 109 and Shepherd Road/Lafayette High School entrance to 14,018 to 18,197 vehicles per weekday from Shepherd Road to Strecker Road. East of Strecker Road, Clayton Road will carry 18,516 vehicles per weekday.

Existing Clayton Road will be unable to carry the projected "end-state" development traffic volumes from State Route 109 to Valley Road east of the study's eastern boundary. It is recommended that Clayton Road be upgraded to a four-lane arterial from State Route 109 to Valley Road. Due to the steep driveway grades along the north side of Clayton Road, an emergency parking lane should be constructed from east of Thunderhead Canyon Drive to High Pointe Drive. The existing signalized intersection at State Route 109 should be improved by the construction of additional approach lanes and channelization to provide adequate capacity through the intersection.

4.2.2 Strecker Road

Strecker Road will continue to function as north-south arterial roadway and provide access to primarily low and medium density residential development.

Projected AWT volumes along Strecker Road are shown on Sheets 5, 10, 11, and 17 for the "end-state" development of the Pond-Grover Study Area. AWT volumes will range from 4,402 vehicles per weekday south of Clayton Road to 6,481 north of State Route 100.

It is recommended that Strecker Road remain a two-lane arterial roadway. The existing two-lane roadway contains four 15 mph curves and a 20 mph curve. Sight distances are limited due to the curves and hills. Although it is recommended that Strecker Road remain a two-lane arterial roadway, geometric improvements should be made to provide a safer roadway. With increased residential development along Strecker Road, adequate sight distances and shoulders should be provided. The existing signalized intersection at State Route 100 should be improved by the construction of additional approach lanes and channelization to provide adequate capacity through the intersection.

4.2.3 Shepherd Road

Shepherd Road north of Clayton Road will continue to function as an arterial roadway and provide access to low and medium density residential development.

Projected AWT volumes along Shepherd Road are shown on Sheets 4 and 9. AWT volumes will range from 4,396 vehicles per weekday north of the study area boundary to 7,220 north of Clayton Road.

Existing Shepherd Road is a winding, shoulderless, two-lane roadway with access to State Route 109. In order to improve travel on Route 109, it is recommended that existing Shepherd Road be terminated east of State Route 109 and a cul-de-sac be constructed. Shepherd Road should be relocated to Clayton Road north of the Lafayette High School entrance. With the increased residential development north of Clayton Road, Shepherd Road should be upgraded to a two-lane arterial with shoulders.

West of State Route 109, existing Shepherd Road provides access to a church. It is recommended that the Shepherd Road/Old Eatherton Road access to State Route 109 be terminated and Old Eatherton Road be extended south as a two-lane collector roadway with shoulders to the State Route 109 and Clayton Road.

ULTIMATE ROADWAY SYSTEM

signalized intersection. The extension of Shepherd and Clayton Roads west of State Route 109 to Pond-Grover Loop Road may be developed if necessary to provide local access to residential development north of Pond-Grover Loop Road and west of State Route 109.

4.2.4 Northeast Residential Streets

The area bounded by Clayton Road on the north, Strecker Road on the east, State Route 100 on the south, and State Route 109 on the west is primarily residential development. This area is presently served by a number of residential collectors. North-south residential collectors include Forest Leaf Parkway, Westglen Farms Drive, and Thunderhead Canyon Drive, and east-west residential collectors include Babler View Drive, Green Pines Drive, and Fullerton Meadows Drive. The lack of an existing north-south collector roadway from Clayton Road to State Route 100 in this area has resulted in this system of residential collector roadways providing both access to the existing subdivisions and a roadway system for "cut through" traffic. The "end-state" development of the Pond-Grover Study Area will result in increased traffic volumes not only on the existing residential collectors but also the roadways surrounding the area. The recommended roadway system for this area may change the traffic patterns within the area. However, the existing roadway system with the recommended roadway improvements will continue to provide a safe and adequate capacity roadway system to serve this residential area.

Analysis for signalized intersections at Forest Leaf Parkway and Westglen Farms Drive with State Route 100 indicated that "end-state" development traffic volumes will exceed the capacity of the intersections. It is recommended that access to and from westbound State Route 100 be limited to right-on and right-off ramps at Forest Leaf Parkway, at Westglen Farms Drive at the proposed Taylor Road and at the proposed Manchester-Pierside overpass ramps. Access to and from eastbound State Route 100 will be provided by the proposed right-on and right-off ramps at the proposed Taylor Road and at Manchester Road.

The extension of Westglen Farms Drive from north of Babler View Drive north to Clayton Road will provide an additional north-south residential collector, thus relieving increased pressure from Thunderhead Canyon Road.

The extension of Green Pines Drive as a residential collector to the proposed Pond-Grover Loop Road will provide an additional east-west connection to State Route 109.

The extension of Paradise Peak Circle as a two-lane residential collector to the proposed Pond-Grover Loop Road will provide access for the residential development of the land along this roadway.

Access to State Route 109 from Eatherton Road east of State Route 109 should be terminated. It is recommended that Eatherton Road be extended northward to the proposed Pond-Grover Loop Road/Paradise Peak Circle intersection and eastward to the proposed Pond-Grover Loop Road/Taylor Road intersection. The extension of Eatherton Road as a two-lane collector will provide access for the residential and commercial development of the northeast corner of State Route 100 and 109.

Projected "end-state" development AWT volumes along the residential collectors serving this area are shown on Sheets 5, 9, 10, 15, and 16. AWT volumes on Forest Leaf Parkway will range from 1,321 vehicles per weekday north of State Route 100 to 3,694 north of Green Pines Drive. AWT volumes on Westglen Farms Drive will range from 2,756 north of State Route 100 to 5,592 vehicles per weekday north of Fullerton Meadows Drive and 4,377 east of Thunderhead Canyon Drive. West of Thunderhead Canyon Drive, Westglen Farms Drive AWT volumes will range from 898 vehicles per weekday to 3,600 north of Babler View Drive. Thunderhead Canyon Drive AWT volumes will range from 4,324 vehicles per weekday south of Clayton Road to 4,749 north of Westglen Farms Drive. Green Pines Drive traffic volumes will range from 4,078 vehicles per weekday east of Pond-Grover

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Loop Road to 688 south of Westglen Farms Drive. Fullerton Meadows Drive traffic volumes will range from 2,272 vehicles per weekday west of the Pierside-Manchester overpass to 3,878 east of the overpass.

"End-state" development of the Pond-Grover Study Area will result in a number of roadways in this area exceeding the highest existing traffic volume of 3,050 vehicles per weekday on Thunderhead Canyon Drive south of Clayton Road. However, the recommended roadway system for this area will provide the required capacity and safety necessary to carry the anticipated weekday traffic volumes generated by the "end-state" development.

4.2.5 Manchester Road

Forecasted traffic volumes along Manchester Road are shown on Sheets 12 through 16, 19, and 20. Traffic volumes will range from 1,699 vehicles per weekday west of Glencoe Road to 5,246 west of Pond Road, from 9,620 vehicles per weekday east of Pond Road to 25,636 west of State Route 109 and from 28,277 east of State Route 109 to 29,055 east of Manchester-Pierside overpass.

Manchester Road west of Pond Road will continue to provide access to low to medium-low density residential development. Limited neighborhood commercial development is recommended at the northwest corner of Pond Road and Manchester. The existing two-lane roadway from the western boundary to Pond Road will provide adequate capacity for the forecasted traffic volumes.

East of Pond Road to State Route 109, Manchester Road will provide access to residential development and highway oriented commercial and retail development along State Route 109. The forecasted traffic volumes will exceed the capacity of the existing roadway. Manchester Road should be upgraded to a five-lane arterial along this section and the intersection with State Route 109 signalized.

Manchester Road east of State Route 109 to State Route 100 will provide access to residential and neighborhood commercial development along the south side of this roadway and residential, office, retail, and commercial development along the north side. Forecasted traffic volumes resulting from the "end-state" development along Manchester Road between State Route 109 to east of the existing Cherry Hills Country Club will exceed the capacity of the existing two-lane roadway. East of Cherry Hills Country Club, existing Manchester Road is five lanes and will provide adequate roadway capacity. Manchester Road between State Route 109 and the Cherry Hills Country Club should be upgraded to a five-lane arterial roadway.

Proposed signalized intersections are located at Taylor Road/Village Hills Parkway and proposed Old State Spur/proposed Manchester-Pierside overpass. Intersection improvements are recommended at the existing signalized intersection with Pierside Lane. Traffic volumes at the existing signalized intersection of State Route 100 with Manchester Road will exceed the capacity of the intersection. As a result, right-on and right-off ramps are recommended for access to and from eastbound Route 100. The on-ramp to eastbound Route 100 is recommended to be two lanes and the off-ramp from eastbound Route 100 is recommended to be one lane.

4.2.6 Pond Road

The forecasted AWT volumes along Pond Road are shown on Sheets 3, 8, and 14 for the "end-state" development of the Pond-Grover Study Area. AWT volumes will range from 574 vehicles per weekday south of State Route 109 to 4,643 north of the proposed Pond-Grover Loop Road and 2,445 vehicles per weekday north of the proposed right-on and right-off ramps to westbound State Route 100. Pond Road from State Route 109 to State Route 100 will continue to provide access to primarily low density residential development and the Pond

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Athletic Associations's ball fields. South of State Route 100, Pond Road AWT volumes will range from 8,044 vehicles per weekday to 9,343 north of Manchester Road. Pond Road will provide access to low and medium residential development, a church, and limited commercial development.

Existing Pond Road is a narrow, shoulderless, two-lane roadway containing a number of one-lane bridges between State Routes 100 and 109. "End-state" development will increase traffic volumes on this roadway. It is recommended that Pond Road be upgraded to a two-lane collector with shoulders from State Route 100 to State Route 109 and the one-lane bridges be widened to two-lanes. South of State Route 100 to Manchester Road, "end-state" development will result in increased traffic volumes on Pond Road. It is recommended that this section of Pond Road be upgraded to a two-lane collector.

Two options were considered at the Pond Road/State Route 100 intersection for "end-state" development conditions. These options included signalization of the intersection and providing right-on and right-off ramps. The signalization of the intersection created unacceptable delays on State Route 100. The recommended option for access to and from State Route 100 is the right-on and right-off ramps. Access to westbound State Route 100 is provided from Pond Road north of State Route 100 and access to eastbound State Route 100 provided from Pond Road south of State Route 100. North-south access across Route 100 would be eliminated.

4.2.7 Pond-Grover Loop Road/Taylor Road

The existing roadway system for the Pond-Grover Study Area lacks adequate roadways to provide access for development of the northwest corner of State Routes 100 and 109 and the area generally bounded by Eatherton Road on the west, Babler View Road on the north, the subdivisions west of Forest Leaf Parkway on the east, and Manchester Road on the south. The proposed Pond-Grover Loop Road and Taylor Road will provide access for residential and commercial development of this area.

Forecasted traffic volumes along Pond-Grover Loop Road are shown on Sheets 8, 9, and 15. Traffic volumes will range from 2,353 vehicles per weekday east of Pond Road to 10,317 vehicles per weekday west of State Route 109 and from 9,462 vehicles per weekday east of State Route 109 to 15,451 west of Taylor Road. Pond-Grover Loop Road will carry 12,712 vehicles per weekday over State Route 100.

Forecasted traffic volumes on Taylor Road are shown on Sheet 15. Forecasted traffic volumes on Taylor Road north of State Route 100 will range from 9,699 vehicles per weekday at Pond-Grover Loop Road to 8,959 vehicles per weekday north of the on and off ramps. Forecasted traffic volumes on Taylor Road south of State Route 100 will range from 14,597 south of the on and off ramps to 11,352 vehicles per weekday north of Manchester Road.

The proposed Pond-Grover Loop Road will begin at Pond Road and will generally parallel State Route 100 on the north to State Route 109. This section of Pond-Grover Loop Road is recommended as a two-lane collector roadway. The signalization of the intersection with State Route 109 is proposed. Pond-Grover Loop Road will continue easterly to near the western boundary of the subdivisions west of Forest Leaf Parkway and then turn southerly. The proposed intersection with the extended Eatherton Road from the south and Paradise Peak Circle from the north and the proposed extension of Green Pines Drive to Pond-Grover Loop Road were discussed under northeast residential streets. This section of Pond-Grover Loop Road is recommended as a three-lane collector.

Pond-Grover Loop Road will continue southerly and an intersection is proposed with Taylor Road north of State Route 100. An overpass is proposed over State Route 100 which will provide north-south access across State Route 100 without affecting the operation of Route 100. Pond-Grover Loop Road will then turn easterly and terminate at the proposed intersection with Taylor Road. This section of Pond-Grover Loop Road is recommended as a three-lane arterial.

Proposed Taylor Road north of State Route 100 will provide access to residential and commercial development east of the proposed Pond-Grover Loop Road. Access to and from westbound State Route 100 is recommended by right-on and right-off ramps. A fully accessible signalized intersection at this location would provide unacceptable delays on State Route 100. This section of Taylor Road is recommended as a three-lane arterial and with Pond-Grover Loop Road forms the northern half of the loop for access to State Route 100.

Proposed Taylor Road south of State Route 100 will provide access to residential and commercial development north and south of Pond-Grover Loop Road to Manchester Road. Access to and from eastbound State Route 100 is recommended by right-on and right-off ramps, again due to high traffic volumes on State Route 100. Termination of Taylor Road is recommended at Manchester Road and directly north of Village Hills Parkway, a north-south residential collector which provides access to a large, developed subdivision. The signalization of the intersection with Manchester Road and Village Hills Parkway is proposed. This section of Taylor Road is recommended as a three-lane arterial and with Pond-Grover Loop Road forms the southern half of the loop for access to State Road 100 and Manchester Road.

4.2.8 Manchester-Pierside Overpass

The proposed Manchester-Pierside Overpass will provide north-south access across State Route 100 without affecting the operation of Route 100. The Manchester-Pierside Overpass is recommended to begin at Manchester Road directly north of the proposed Old State Spur terminus and continue north across State Route 100 to Fullerton Meadows Drive.

"End-state" traffic volumes at the existing signalized intersection of State Route 100 with Manchester Road/Westglen Farms Drive will result in severe capacity problems at this intersection. The study recommendation is to provide right-on and right-off ramps to westbound State Route 100 from Westglen Farms Drive and right-on and right-off ramps to eastbound State Route 100 from Manchester Road. Access across Route 100 between Manchester Road and Westglen Farms Drive is proposed to be eliminated. The extension of Village Plaza View Drive, a two lane collector that provides access to commercial development is proposed to the Manchester-Pierside Overpass. This extension will eliminate unnecessary traffic on Fullerton Meadows Drive and Westglen Farms Drive while providing access to Manchester Road and eastbound State Route 100. Access to and from westbound State Route 100 is recommended west of the Manchester-Pierside Overpass with the ramps directly west of the proposed terminus of Village Plaza View Drive. These recommended improvements will provide a loop system similar to that at Pond-Grover Loop Road/Taylor Road with access to State Route 100 and Manchester Road.

The forecasted traffic volumes on the Manchester-Pierside Overpass are shown on Sheet 16. Traffic volumes will range from 20,646 vehicles per weekday north of Manchester Road to 6,025 vehicles per weekday south of Fullerton Meadows Drive.

It is recommended that the Manchester-Pierside Overpass from Manchester Road to the intersection with Village Plaza View Drive/State Route 100 ramps be constructed as a four-lane arterial and the section north to Fullerton Meadows Drive as a two-lane arterial.

The existing two-lane Fullerton Meadows Drive will provide adequate capacity for the anticipated traffic volumes generated by the "end-state" development of the Pond-Grover Study Area.

4.2.9 Old State Road/Old State Spur/Pierside Lane

Forecasted traffic volumes along Old State Road are shown on Sheets 11, 17, 21, 22, and 24. Volumes will range from 5,760 vehicles per weekday south of the proposed Old State Spur to 13,690 vehicles per weekday south of

State Route 100. Old State Road south of Pierside Lane will continue to provide access to residential development and north of Pierside to commercial and industrial development.

It is recommended that Old State Road be upgraded to a three-lane arterial from the southern study boundary to Pierside Lane and a five-lane arterial from Pierside Lane to State Route 100. The existing signalized intersection with State Route 100 will require major improvements to operate at capacity (Level of Service E) during the p.m. peak hour period. To achieve this level, three through lanes in each direction are required on State Route 100 with dual left turn lanes on westbound Route 100. Four lanes are required on the northbound Old State Road approach, including dual left lanes. If this is not acceptable, an overpass and ramp system will be required to provide a better level of operation, assuming "end-state" traffic volumes.

Forecasted traffic volumes along Old State Spur are shown on Sheets 16, 21, and 24. Traffic volumes along Old State Spur will range from 2,870 vehicles per weekday west of Old State Road to 11,022 vehicles per weekday south of Manchester Road. The proposed Old State Spur will provide access to the residential development of the Cherry Hills Country Club golf course.

It is recommended that Old State Spur be constructed as a two-lane collector from Old State Road to the proposed signalized intersection with Manchester Road and the proposed Manchester-Pierside Overpass.

Forecasted traffic volumes along Pierside Lane are shown on Sheets 16 and 17. Traffic volumes will range from 15,509 vehicles per weekday west of Waterside Drive to 6,081 west of Old State Road and 7,856 east of Old State Road. Pierside Lane will continue to provide access to residential and commercial development.

The extension of Pierside Lane from the western boundary of the City of Ellisville to Old State Road will provide a continuous east-west arterial roadway from Manchester Road to Kiefer Creek Road and an alternate roadway to bypass the severe congestion at the State Route 100/Old State Road signalized intersection.

It is recommended that Pierside Lane be upgraded to a three-lane arterial roadway from Old State Road to Waterside Drive and a four-lane arterial from Waterside Drive to Manchester Road. Upgrading of the existing signalized intersection at Manchester Road is also proposed.

The roadway system provided by the upgrading of Old State Road, the upgrading and extension of Pierside Lane, and the construction of Old State Spur will eliminate the need to use the residential street system north of Old State Road for "cut through" north-south travel. To improve traffic circulation patterns within the subdivisions and reduce the high concentration of traffic volumes on the residential collectors with access to Pierside Lane, it is recommended that Waterfront Way, which is currently stubbed at the north setback line of Old State Road be extended to Old State Road. In addition, Waterside Drive should be extended to the proposed Old State Spur. Forecasted Average Weekday Traffic (AWT) volumes generated by the "end-state" development of the Pond-Grover Study Area indicate that the extension of the existing two-lane residential collectors will provide more than adequate capacity for the anticipated traffic volumes.

4.2.10 Old State Road Improvements

During the development of the recommended ultimate roadway system for the Pond-Grover Study Area, consideration was given to improving Old State Road south of the study area boundary to State Route 109 and to improving Route 109/Old State Road intersection sight distance problems created by the Route 109 bridge to the south. Forecasted average weekday traffic (AWT) volumes for the ultimate roadway system are shown on Figure G with and without the Old State Road improvements to Route 109 and are summarized in Table 4. The recommended ultimate number of lanes for both alternatives are also shown in Table 4.

While the improvement of Old State Road to a three-lane arterial south of the study area boundary is anticipated to reduce the average weekday traffic volumes on State Route 100 and Manchester Road, it will not reduce the recommended number of lanes on either roadway. For this reason, the improvement of Old State Road south of the study area boundary was not included in the recommendations for the ultimate roadway system for the Pond-Grover Study Area.

4.2.11 Eatherton Road

Existing Eatherton Road is a non-continuous roadway with access to Manchester Road and terminates south of State Route 100. It is recommended that Eatherton Road be extended as a two-lane collector to the existing access roadway to the service station on the southeast corner of State Route 100 and 109.

4.2.12 State Route 100

State Route 100 will remain the principal east-west roadway into and through the study area. As stated previously, this study assumes that the required improvements to this route will be constructed. If the improvements are not constructed, traffic volumes on the County maintained system will result in severe congestion.

Average Weekday Traffic (AWT) volumes along State Route 100 are shown on sheets 11 through 17. Forecasted volumes range from 25,131 vehicles per weekday north of State Route T to 31,896 west of State Route 109 and from 51,066 vehicles per weekday east of the Route 109 interchange to 58,529 of Old State Road.

The four-lane divided, limited access State Route 100 from north of State Route T to the State Route 109 interchange will provide adequate capacity for "end-state" development traffic volumes. Access to Route 100 should be primarily limited to Wild Horse Creek Road and Pond Road.

Ramp improvements will be required at the State Routes 100 and 109 interchange. Recommendations include the widening of the eastbound Route 100 on ramp to two lanes, providing additional turn lanes on the ramps to State Route 109, and the signalization of the two intersections at State Route 109 and the ramps, and widening the State Route 109 overpass.

East of the State Routes 100 and 109 interchange, access to Route 100 within the Pond-Grover Study Area is proposed at Taylor Road, Forest Leaf Parkway, Manchester-Pierside Overpass, Manchester Road/Westglen Farms Drive, Strecker Road/Ruck Road, and Old State Road. Two options were analyzed for access to Route 100, the signalization of the intersections and right-on and right-off ramps with overpasses at Pond-Grover Loop Road and Manchester-Pierside. The signalization of the intersections along State Route 100 included interconnection of the signals to optimize the intersection capacities. The existing four through lanes on Route 100 with additional auxiliary turn lanes will not provide the capacity necessary to handle "end-state" development p.m. peak hour traffic volumes from Taylor Road to Old State Road. As a result, right-on and right-off ramps were analyzed to provide access to and from the four-lane State Route 100. The summary of this analysis is shown in Table 10. During the p.m. peak hour period, the existing four-lane Route 100 will provide adequate capacity for the anticipated traffic volumes if access is limited to right-on and right-off ramps and auxiliary deceleration and acceleration lanes are provided.

The study recommends that access to and from State Route 100 be provided by right-on and right-off ramps at Taylor Road (north and south of Route 100), Forest Leaf Parkway, Westglen Farms Drive, immediately west of the Manchester-Pierside Overpass, and Manchester Road; and that overpasses be constructed at Pond-Grover Loop Road and Manchester-Pierside, and the signalized intersection at Manchester Road/Westglen Farms Drive be eliminated. It is anticipated that average weekday traffic volumes in the range of 32,000 to

ULTIMATE ROADWAY SYSTEM

41,000 vehicles per day on State Route 100 will result in intolerable delays during the p.m. peak hour period at Signalized intersections along this Route. As State Route 100 approaches this range of volumes, the construction of the proposed overpasses, the closure of the multi-directional intersections, and the restriction to right-in, right-out access onto and off State Route 100 is recommended.

Ruck Road is a two-lane arterial roadway with access to Route 100 and "dead ends" at the St. Louis County maintenance substation. Ruck Road provides the only access from the Tartan Green subdivision, the Storage Inn, a small trucking company, and the St. Louis County maintenance substation. It also provides access to Bussmann's shipping and receiving area and parking lot. Limiting access to and from eastbound State Route 100 with right-on and right-off ramps will create unacceptable circulation patterns for motorists desiring to access Ruck Road from westbound Route 100 or westbound Route 100 from Ruck Road.

Therefore the study recommends the signalization of the "at-grade" intersection at State Route 100 with Ruck Road/Strecker Road and, as mentioned previously, the intersection with Old State Road. The signals should be interconnected with the signals at Clarkson Road (State Route 340)/Kiefer Creek Road. Four through lanes on eastbound and westbound Route 100 will not provide sufficient intersection capacity for the anticipated "end-state" development p.m. peak hour traffic volumes. An additional through lane in each direction on Route 100 is proposed at both intersections.

4.2.13 State Route 109

State Route 109 will continue to serve as the principal north-south roadway into and through the study area. With improvements proposed for State Routes 40/61 and 44, it is anticipated that intercounty traffic volumes will substantially increase along this route. The Missouri Highway and Transportation Department currently is studying the relocation of Route 109 to within a corridor west of its existing location. Due to uncertainties in the location for this roadway, intercounty traffic anticipated to utilize the Relocated Route 109 were included in the average weekday traffic volumes shown along Route 109 on Sheets 2, 3, 8, 9, 14, 15, and 19. The traffic volumes distributed on the ultimate roadway system assumes that the required improvements to State Routes 109 and 100 will be constructed. If this does not occur, the traffic volumes resulting from "end-state" development of the Pond-Grover Study Area on the county roadway system will be unreasonable.

Average Weekday Traffic (AWT) volumes along Route 109 will range from 32,291 vehicles per weekday south of Manchester Road to 62,613 south of State Route 100 and from 51,050 vehicles per weekday north of Route 100 to 25,279 south of the Route C junction.

AWT volumes on Route C north of Route 109 are projected at 19,980 vehicles per weekday and north of the Route C junction on Route 109 at 5,678 vehicles per weekday to 4,004 north of the study area.

It is recommended that State Route 109 be upgraded to a six-lane, limited access highway from Clayton Road to Manchester Road, a four-lane limited access highway south of Manchester Road and north of Clayton Road to the Route C junction. Route 109 and Route C north of the Route C junction are recommended to remain two-lane roadways. Access to State Route 109 should be limited to the proposed signalized intersections at Manchester Road, on and off ramps south of State Route 100, on and off ramps north of State Route 100, and Pond-Grover Loop Road, and at the existing signalized intersection at Clayton Road. To optimize the capacity of the intersections, interconnection of the signals is recommended.

4.2.14 Relocated State Route 109

The Missouri Highway and Transportation Department is currently studying the relocation of State Route 109 within a corridor west of its existing location but the exact location has not been determined. However, the

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reduction in traffic volumes on existing Route 109 and in the Pond-Grover Study Area will be affected by its final location. The further west State Route 109 is relocated, the less impact there will be on existing Route 109. AWT volumes on the Pond-Grover Study Area roadway system with and without relocating State Route 109 are shown on Figure F and summarized with the recommended number of lanes on Route 109, 100, and C in Table 5. The relocation of State Route 109 is anticipated to reduce the recommended number of lanes on existing Route 109 between Pond-Grover Loop Road and Clayton Road from six to four and between Clayton Road and Route C junction from four to two. The anticipated number of lanes on Route 109 will not change south of Pond-Grover Loop Road, however, travel conditions will be improved.

Five phases of construction are proposed for the development of the ultimate roadway system for the Pond-Grover Study Area beginning in the year 1990 and ending with the eventual "end-state" development of the area. No specific timing for the construction of the improvements is given due to the speculative nature of how the development of the study area will occur.

Phase One

- Old State Road Widening
- Pierside Lane (extension to Old State Road)
- Clayton Road (to provide a continuous roadway within study area)
- Old State Spur (old State Road to Manchester Road)

Phase Two

- Manchester Road widening (State Route 109 to State Route 100)
- Manchester-Pierside Overpass
- Manchester-Pierside (Manchester Road to Fullerton Meadows Dr.)
- Taylor Road (south of State Route 100)

Phase Three

- Clayton Road Widening
- Pond-Grover Loop Road and Overpass
- Taylor Road (north of State Route 100)
- Eartherton Road Extension (east of State Route 109 and north of State Route 100)
- Pond Road (south of Pond-Grover Loop Road)
- Strecker Road Improvements
- Shepherd Road Relocation

Phase Four

- Manchester Road Widening (Pond Road to State Route 109)
- Pond Road (State Route 100 to Manchester Road)

Phase Five

- Pond Road Improvements (north of Pond-Grover Loop Road)
- Eartherton Road Relocation (east of State Route 109 and south of State Route 100)

CONCLUSIONS

5.0 CONCLUSIONS

The analysis in this report is based on the Missouri Highway and Transportation Department (MHTD) improving Route 100 and 109 as required. These improvements would include widening Route 100 to six through lanes east of Route 109. At this time, MHTD does not have any plans to do this work. Current plans do include the widening of Clarkson Road (Route 340) at Route 100 but the improvements to Route 100 are limited to that intersection. Existing traffic volumes along Route 100 near Clarkson and throughout the study area have already reached MHTD's projections for the year 2000.

MHTD does have plans for relocating Route 109 to the west. At this time, a specific alignment or a typical section has not been established. From the traffic volume projections, it appears that a relocated Route 109 would require a minimum of four lanes.

Even if Route 109 is relocated, existing Route 109 will need to be widened to handle "end-state" development. Widening to six through lanes north of Route 100 and to four through lanes south of Route 100 would be recommended.

The roadway system recommended in this study will provide adequate capacity for the "end-state" development, if the State roadway improvements are programmed and constructed. Level of Service for critical locations range from "B" to "E", with a Level of Service "E" indicating operation at capacity with very unstable traffic flow. The intersections of Route 100 with Ruck / Strecker and Old State are the most congested within the study area.

The magnitude of improvements to Route 100 and 109 is very unlikely to happen in the near future, and it would not be feasible to expect the County roadway system to handle the excess traffic from the State Routes. Therefore, it appears that the level of "end-state" development proposed is too dense for a reasonable future roadway system.

In summary, the proposed County roadway system will provide acceptable, although less than desirable, operating conditions for "end-state" development. At this time, it appears that development within the Pond-Grover Study Area will be limited by the State Routes within and adjacent to the study area.

APPENDIX D

State Route 109 Corridor Study Recommendations

APPENDIX E

Reference Guide to Density Ranges

GENERAL REFERENCE GUIDE TO THE ZONING ORDINANCE OF ST. LOUIS COUNTY

Chapter 1003 , SLCRO (as amended*)

DISTRICTS:	Minimum Area Per Lot/Unit (maximum units per acre)	Setbacks			Maximum Height	General Permitted Uses
		Front	Side	Rear		
MU Non-Urban	3 acres	50 ft.	20 ft.	20 ft.	Based on use	Single family dwellings, agricultural, recreational, wildlife preserves
R-1 Residential	1 acre (1.0)	30 ft.	15 ft.	15 ft.	45 ft./3 stories	Single family dwellings, agricultural, recreational, wildlife preserves
R-1A Residential	22,000 sq. ft. (1.98)	25 ft.	12 ft.	15 ft.	45 ft./3 stories	Single family dwellings
R-2 Residential	15,000 sq. ft. (2.90)	25 ft.	10 ft.	15 ft.	45 ft./3 stories	Single family dwellings
R-3 Residential	10,000 sq. ft. (4.35)	20 ft.	8 ft.	15 ft.	45 ft./3 stories	Single family dwellings
R-4 Residential	7,500 sq. ft. (5.80)	20 ft.	6 ft.	15 ft.	45 ft./3 stories	Single family dwellings
R-5 Residential	6,000 sq. ft. (7.26)	20 ft.	6 ft. ⑤	15 ft. ⑤	45 ft./3 stories	Single family dwellings-detached Single family dwellings-attached
R-6A Residential	4,500 sq. ft./lot-S.F. 4,500 sq. ft./unit-2 Fam. 4,000 sq. ft./unit-3 Fam. & M.F. (10.89)	20 ft.	5 ft.-S.F. ⑤ 10 ft.-Others	15 ft. ⑤	4 stories	Single family, 2 family, 3 family, and multiple family dwellings
R-6AA Residential	4,500 sq. ft./lot S.F. 4,500 sq. ft./unit-2 Fam. 3,500 sq. ft./unit-3 Fam. 3,000 sq. ft./unit M.F. (14.52)	20 ft.	5 ft.-S.F. ⑤	15 ft. ⑤	4 stories	Single family, 2 family, 3 family, and multiple family dwellings
R-6 Residential	4,500 sq. ft./lot-S.F. 2,500 sq. ft./unit-2 Fam. 2,000 sq. ft./unit-3 Fam. & M.F. (21.78)	20 ft.	5 ft.-S.F. ⑤ 10 ft.-Others	15 ft. ⑤	4 stories	Single family, 2 family, 3 family, and multiple family dwellings
R-7 Residential	4,500 sq. ft./lot-S.F. 2,500 sq. ft./unit-2 Fam. 2,000 sq. ft./unit-3 Fam. 1,700 sq. ft./unit-M.F. (24.89)	20 ft.	5 ft.-S.F. ⑤ 10 ft.-Others	15 ft. ⑤	200 ft.	Single family, 2 family, 3 family, and multiple family dwellings; limited commercial with multiple family
R-8 Residential	4,500 sq. ft./lot-S.F. 2,500 sq. ft./unit-2 Fam. 2,000 sq. ft./unit-3 Fam. 500 sq. ft./unit-M.F. (87.12)	20 ft.	5 ft.-S.F. ⑤ 10 ft.-Others	15 ft. ⑤	200 ft.	Single family, 2 family, 3 family, and multiple family dwellings; limited commercial with multiple family
C-1 Neighborhood Shopping	6,000 sq. ft. 10,000 sq. ft. max. GFA (building per lot)	20 ft. ③	15 ft. ③	15 ft. ③	20 ft./1 story	Retail shops, offices, and service facilities (30% maximum building coverage)
C-2 Shopping	12,000 sq. ft. 30,000 sq. ft. max. GFA	15 ft.	15 ft. ③	15 ft. ③	40 ft./2 stories	Shops, offices, service facilities, restaurants (excluding certain fast- food restaurants) (25% maximum building coverage)
C-3 Shopping	12,000 sq. ft.	15 ft.	15 ft. ③	15 ft. ③	200 ft.	Shops, offices, service stations, restaurants, indoor auto sales (25% maximum building coverage)
C-4 Highway Service Commercial	1 acre/None ④	50 ft. ⑤	20 ft. ③	20 ft. ③	30 ft. 45 ft./hotels	Hotels, auto and equipment sales, vehicle service centers, restaurants, advertising signs
C-6 Office and Research Service	12,000 sq. ft.	15 ft.	15 ft. ③	15 ft. ③	45 ft./3 stories	Offices, colleges and universities, medical facilities, business schools
C-7 General Extensive Commercial	None ④ ⑤	50 ft.	20 ft. ③	20 ft. ③	45 ft.	Animal hospitals, offices, outdoor storage, warehousing, advertising signs
C-8 Planned Commercial	⑥	⑥	⑥	⑥	⑥	All "C" Commercial uses

DISTRICTS:	Minimum Area Per Lot/Unit (maximum units per acre)	Setbacks			Maximum Height	General Permitted Uses
		Front	Side	Rear		
M-1 Industrial	1 acre/Vehicle storage yard None/Others ⑤	30 ft.	10 ft. ③ 25 ft./NU, PS, R	10 ft. ③ 25 ft./ NU, PS, R	200 ft.	Manufacturing from semi-finished materials, offices, warehousing and storage
M-2 Industrial	1 acre/Vehicle storage yard None/Others ⑤	30 ft.	10 ft. ③ 25 ft./ NU, PS, R	10 ft. ③ 25 ft./ NU, PS, R	200 ft.	Steel mills, foundries, heavy manufacturing, warehousing and storage
M-3 Planned Industrial	None ⑥	⑥	⑥ 10 ft./ NU, PS, R	⑥ 10 ft./ NU, PS, R	⑥	All "M" Industrial Uses and associated "C" Commercial Uses
MXD Mixed Use Development	None ⑥	⑥	⑥	⑥	⑥	Required combination of residential, commercial, and industrial uses. See Ordinance for percentage formula
SPECIAL PROCEDURES: C.U.P. Conditional Use Permit	⑦	⑦	⑦	⑦	⑦	Specifically governed uses in all standard zoning classifications
C.I.D.D. Commercial Industrial Design Development	⑦	⑦	⑦	⑦	⑦	Uses directly associated with allowable uses in the "C" Commercial and "M" Industrial Districts
P.E.U. Planned Environment Unit	⑦	⑦	⑦	⑦	⑦	Applicable to developments with 5 or more lots or units in all "R" Residence Districts
D.D. Density Development	⑧	⑦	⑦	⑦	⑦	Applicable to developments with 5 or more lots or units in the "NU" Non-Urban and "R-1" - "R-5" Residence Districts
L.P.A. Landmark and Preservation Area	⑦	⑦	⑦	⑦	⑦	All uses permitted in underlying districts, stores, shops, offices, limited retail facilities, single, two, and multiple family dwellings (fast-food restaurants excluded)

EXPLANATORY NOTES	
①	Minimum frontage determined by lot size per Subdivision Ordinance.
②	Specific support commercial uses allowed within multiple family structures - Consult Zoning Ordinance for additional restrictions.
③	See Ordinance for specific requirements based on adjoining zoning classifications.
④	See Ordinance for specific requirements based on use type.
⑤	See Ordinance for specific requirements, exclusions, further limitations, and/or exceptions.
⑥	Based on specific governing ordinance, permit or resolution.
⑦	Determined by underlying zoning district and/or specific requirements and limitations established by enabling or specific ordinance.
⑧	Based on lot size of next higher density zoning classification but not to exceed an overall density based upon net area of a given tract as governed by the actual zoning classification.
<p>*NOTE: The above chart is intended to serve as a capsulized guide only.-- For complete detailed information, refer to the Zoning Ordinance of St. Louis County.</p> <p>(ORDINANCE 10,889 AS AMENDED ADOPTED DECEMBER 22, 1982)</p>	