The Rural Comprehensive Plan
A Plan for the Unincorporated Area
of Johnson County, Kansas

Adopted June 3, 2004

Celebrating 25 Years of Planning in Johnson County
The Rural Comprehensive Plan

A Plan for the Unincorporated Area of John son County, Kansas

Adopted
Resolution No. 48-04
June 3, 2004

Johnson County
Rural Comprehensive Plan Update
Acknowledgements

Rural Comprehensive Plan
A Plan for the Unincorporated Area of Johnson County, Kansas

Board of County Commissioners

Annabeth Surbaugh, Chairman
C. Edward Peterson, First District
Susie Wolf, Second District
David A. Lindstrom, Third District
Dolores Furtado, Fourth District
Douglas E. Wood, Fifth District
John M. Toplikar, Sixth District
Gary A. Anderson, First District (former)
George R. Gross, Fourth District (former)

County Planning Commission

Carol Whitlock, Chair, At-Large Incorporated Area
Chris Iliff, Vice Chair, Aubry Township Zoning Board
Glenn E. Bonar, Southwest Consolidated Zoning Board (Gardner Township)
Floyd Danner, At-Large Unincorporated Area
Bonnie Givens, At-Large Unincorporated Area
Katherine M. Hoffman, Southwest Consolidated Zoning Board (McCamish Township)
William Klassen, Northwest Consolidated Zoning Board (Lexington Township)
Roger Mason, At-Large, Incorporated Area
Roxanne Morse, Oxford Township Zoning Board
Joel Riggs, At-Large Unincorporated
Clint Robinson, At-Large Incorporated Area
Kenneth A. Sanderson, South-Central Consolidated Zoning Board (Spring Hill Township)

Randy Downing, At-Large Incorporated (former)
Larry Jordan, At-Large Incorporated (former)

County Zoning Boards

Aubry Township

Chris Iliff
Patricia S. Fischer
Rod L. Richardson
H. Richard Noon, Ill
Ben Brown

Northwest Consolidated

Jennine Crowder, Lexington Township
Eric Erickson, Lexington Township
Mark Crumbaker, Lexington Township
Calvin Hayden, Lexington Township
Acknowledgements

William Klassen, Lexington Township
James Neese, Olathe Township
J. Roy Holliday, Olathe Township

Oxford
Roxanne Morse
Natalie Kenny
Martin Seem
Debra A. Lindsey
Gary A. Verhaeghe

South-Central Consolidated
Kenneth A. Sanderson, Spring Hill Township
James LasKares, Spring Hill Township
Dennis Bollin, Spring Hill Township
William Kiesling, Spring Hill Township
Mike Paterson, Olathe Township
Marvin Allen, Jr. Olathe Township
George R. Naylor, Jr., Olathe Township

Southwestern Consolidated
Karl Allen, Gardner Township
Glenn E. Bonar, Gardner Township
Charles F. Jones, Gardner Township
Karen Angell, McCamish Township
Mark Lathrum, McCamish Township
J. P. Lefmann, McCamish Township
Joel Johns, McCamish Township
Katherine M. Hoffman, McCamish Township
Robin A. Lewis, McCamish Township

Board of Zoning Appeals (BZA)
Mark Hannah, Aubry Township
Richard Hemphill, Lexington Township
Tom Price, Lexington Township
Floyd Danner, Planning Commission
Jan Pringle, Gardner Township
John Meyer, Oxford Township
Acknowledgements

County Administration
Michael B. Press, County Manager
Donald Jarrett, Chief Legal Counsel
Hannes Zacharias, Assistant County Manager
Eric Wade, Deputy County Manager (former)

Planning, Development, and Codes Department
Dean Palos, AICP, Director of Planning
David Peel, AICP, Principal Planner
Paul Greeley, AICP, Zoning Administrator
Diane Wicklund, Planner
Judy Stelljes, Code Enforcement Officer
Joyce Jackson, Senior Secretary and Secretary to the Planning Commission
Sherry Cross, Zoning Assistant
Helen Scott, Senior Secretary
Roger Kroh, AICP, Director of Planning (former)
Scott McCullough, AICP, Planner (former)
Bonnie Johnson, AICP, Planner (former)
Robert Schwarz, AICP, Planner (former)

Legal Department
F. Lawrence McAulay, Jr., Director of Legal Services
Richard Lind, Deputy County Counselor

Infrastructure and Transportation Department
Norm Bowers, County Engineer
Mac Andrew, Director of Infrastructure and Transportation
Brain Pietig, Design Engineer

Unified Wastewater Districts
Douglas L. Smith, Wastewater Administrator
John A. Metzler, Chief Engineer
Richard Alexander, Senior Planning Engineer

Park and Recreation District
Michael D. Meadors, Director
Bill Maasen, Planning and Development Manager
Randy Knight, Community Relations Manager

Environmental Department
Cindy Kemper, Director
Jack Maybee, Sanitation Division Director

Johnson County Rural Comprehensive Plan Update
Acknowledgements

**Extension Council**
Rick Miller, Director
Ryan Higbie, Extension Agent - Agriculture

**Automated Information Mapping Systems Department (AIMS)**
Jay Heermann, Director

**County Museum**
Mindi Love, Director

**Airport Commission**
Lee Metcalfe, Executive Director
Bob Perry, Director of Aviation

**Budget and Financial Planning Department**
David Vratny, Management and Budget Analyst

**Technical Advisory Group (TAG)**

**School Districts**
Blue Valley School District, David Hill and Robert Schwarz
De Soto School District, Marilyn Layman and Jack Deyoe
Gardner-Edgerton School District, John Hetlinger
Olathe School District, Ron Wimmer
Spring Hill School District, Bart Goering

**Cities**
De Soto, Gerald Cooper and Gregory Johnson
Edgerton, Rita Moore
Gardner, Stewart Fairbum and Fred Sheman
Olathe, Paul Curtis, Karan Johnson, Chris Gralapp
Overland Park, Roger Peterson, John Rod, and Mary Hunter
Spring Hill, Dave Peterson and Tanner M. Fortney

**Utilities**
KCPL, Vic Jots
KPL, Steve Osman
Kansas Gas Service, Al Walker
Atmos Energy (United Cities Gas), Al Martin
Southwestern Bell Telephone, Chris Carroll
WaterOne, Dan Smith
Johnson County Rural Water District No. 6, Mark Crumbaker
Johnson County Rural Water District No. 7, Alan Soetaert
Douglas County Rural Water District No. 4, Scott Schultz
Miami Rural Water District No. 2, Gerald Bennett
Edgerton Water, Glen Powers
Acknowledgements

Counties/Other Agencies
Douglas County, Linda Finger
Miami County, Jim McGuire and Scott McCullough
KACEE, Shari Wilson
Hillsdale Water Quality Project, Janet McRae
Kansas Land Trust, donna luckey
Kansas State Cooperative Extension, Robert Wilson
K-10 Association, Rich Caplan
Mid-America Regional Council (MARC), Marlene Nagle

Emergency Services
Sheriffs Department, John Foster
Med-Act, Ted McFarlane
Johnson County Fire District #1, Max Seelert
South Johnson County Fire District #2, Jim Francis
Johnson County Rural Fire District #3, A.J. Lang

Planning Consultants - HNTB Corporation
Uri Avin, AICP
Wayne Feuerborn, AICP
Brian Comer, AICP
John Benson, AICP

Infrastructure City/County Coordination Committee (I-4C)
Dick Alexander, Johnson County Wastewater
Mac Andrew, Johnson County Public Works
Rick Biery, City of Olathe
Norm Bowers, Johnson County Public Works
Mike Brungardt, City of De Soto
Paul Chaffee, City of Shawnee
Paul Curtis, City of Olathe
Jack Deyoe, De Soto School District
Ron Freyermuth, City of Shawnee
Bart Goering, Spring Hill School District
Dave Greene, City of Gardner
Chuck Griffith, Gardner-Edgerton-Antioch School District
David Hill, Blue Valley School District
Dick Holdman, Olathe School District
Karan Johnson, City of Olathe
Roger Kroh, City of Lenexa
Bob Lowry, City of Overland Park
John Metzler, Johnson County Wastewater
Ron Norris, City of Lenexa
Dean Palos, Johnson County Planning, Development, and Codes
Roger Peterson, City of Overland Park
Fred Sherman, City of Gardner

Johnson County Rural Comprehensive Plan Update
## Acknowledgements

**Public Meeting Attendees and Very Interested Group of Residents (VIGOR)**

<table>
<thead>
<tr>
<th>John Andrade</th>
<th>William Dorsey</th>
<th>Leonard Johnson</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valerie Andrade</td>
<td>David Dougan</td>
<td>Ron Jones</td>
</tr>
<tr>
<td>Joel Aust</td>
<td>Peter Dreyfuss</td>
<td>Eric Kirkendall</td>
</tr>
<tr>
<td>Georgiana Baer</td>
<td>Thomas Drummond</td>
<td>Pat Khan</td>
</tr>
<tr>
<td>Emett Ballweg</td>
<td>Brian Dyhouse</td>
<td>Ron Khan</td>
</tr>
<tr>
<td>Barbara Barthol</td>
<td>David Elmer</td>
<td>Ed Kinney</td>
</tr>
<tr>
<td>Robert Barthol</td>
<td>Stephanie Elmer</td>
<td>Donna L. Knoche</td>
</tr>
<tr>
<td>Jim Beadle</td>
<td>Calvin Engelmann</td>
<td>Shirley Kohlesberg</td>
</tr>
<tr>
<td>Sara Beals</td>
<td>Craig Eymann</td>
<td>Vemon Knoche</td>
</tr>
<tr>
<td>Andi Beamon</td>
<td>Byron Finley</td>
<td>Mike Kolich</td>
</tr>
<tr>
<td>Rich Beamon</td>
<td>Pat Finucane</td>
<td>Carl Krauss</td>
</tr>
<tr>
<td>Clay Blair</td>
<td>Marvin Fischer</td>
<td>Richard Kresge</td>
</tr>
<tr>
<td>Robert Bowman</td>
<td>Dustin Fish</td>
<td>Shirley Kresge</td>
</tr>
<tr>
<td>Virginia Bowman</td>
<td>Vickie Fish</td>
<td>Scott Lair</td>
</tr>
<tr>
<td>Chris Bowser</td>
<td>Keith Forrest</td>
<td>John Lanese</td>
</tr>
<tr>
<td>Paul Bradshaw</td>
<td>Bob Friday</td>
<td>Jim Laskares</td>
</tr>
<tr>
<td>Elizabeth Brauch</td>
<td>Cheryl Friday</td>
<td>Mark Lathnum</td>
</tr>
<tr>
<td>Walter Brockhouse</td>
<td>Dewey Fry</td>
<td>Chris Lawrence</td>
</tr>
<tr>
<td>Ben H. Brown</td>
<td>Pat Fry</td>
<td>Carol Lehman</td>
</tr>
<tr>
<td>Mike Brown</td>
<td>Mindy Fulgenzi</td>
<td>Jay Lehneretz</td>
</tr>
<tr>
<td>Gabe Brown</td>
<td>Doug Gentile</td>
<td>Brenda Lemar</td>
</tr>
<tr>
<td>Armond Burgdorfer</td>
<td>Diane Gingerick</td>
<td>Sandra Lengel</td>
</tr>
<tr>
<td>Beverly Burgdorfer</td>
<td>Richard Gratny</td>
<td>Tom Lengel</td>
</tr>
<tr>
<td>Jim Burditt</td>
<td>Eric Gourlet</td>
<td>Paul Lieclite</td>
</tr>
<tr>
<td>Panela Burditt</td>
<td>Bill Grubb</td>
<td>Fred Logan</td>
</tr>
<tr>
<td>William Wilton Bushno</td>
<td>Mary Gunter</td>
<td>George Lowe</td>
</tr>
<tr>
<td>Tomi Caldwell</td>
<td>Fred Hadle</td>
<td>Gerald Magnenat</td>
</tr>
<tr>
<td>John Cameron</td>
<td>Ruth Hadle</td>
<td>Thelma Magnenat</td>
</tr>
<tr>
<td>Vinita Canright</td>
<td>Carl Hampton</td>
<td>David Martin</td>
</tr>
<tr>
<td>Rich Caplan</td>
<td>Paul Hanson</td>
<td>Lynn Matile</td>
</tr>
<tr>
<td>Chrystee Carpenter</td>
<td>Brian Harker</td>
<td>Janet McCrae</td>
</tr>
<tr>
<td>John Carper</td>
<td>Hall Harsh</td>
<td>Richard McCreary</td>
</tr>
<tr>
<td>Connie Chapman</td>
<td>Carol Hatfield</td>
<td>Cal McDowell</td>
</tr>
<tr>
<td>Michael Chapman</td>
<td>Brian Haupt</td>
<td>Jim McGuire</td>
</tr>
<tr>
<td>Don Clarkson</td>
<td>Richard Hemphill</td>
<td>Gary Metcalf</td>
</tr>
<tr>
<td>Wesley Cohee</td>
<td>Elizabeth Hespe</td>
<td>Jack Meyers</td>
</tr>
<tr>
<td>Leon Coker</td>
<td>Ryan Higbie</td>
<td>David Moll</td>
</tr>
<tr>
<td>Myrtle Coker</td>
<td>David Holtwick</td>
<td>Donna Moll</td>
</tr>
<tr>
<td>Marion W. Collins</td>
<td>Patricia Houghton</td>
<td>Greg Montague</td>
</tr>
<tr>
<td>Ben Craig</td>
<td>Janet Howard</td>
<td>Dale Mooman</td>
</tr>
<tr>
<td>Bill Crawford</td>
<td>Jean Howard</td>
<td>Alan Morris</td>
</tr>
<tr>
<td>Frank Cucchiaara</td>
<td>Rob Hutchinson</td>
<td>Juanita Murrow</td>
</tr>
<tr>
<td>Forrest Cunningham</td>
<td>Trish Hutchinson</td>
<td>Richard Murrow</td>
</tr>
<tr>
<td>Nedra Dailey</td>
<td>Heather Inman</td>
<td>Greg Musil</td>
</tr>
<tr>
<td>Pauline Dana</td>
<td>Mike Irvin</td>
<td>Ralph Nelson</td>
</tr>
<tr>
<td>Keith Deaton</td>
<td>Jeny Jacobson</td>
<td>Peter Niosi</td>
</tr>
<tr>
<td>Peg Deaton</td>
<td>Bonnie Jenkins</td>
<td>Rick Noon</td>
</tr>
<tr>
<td>Bruce Devault</td>
<td>Dale Jenkins</td>
<td>Ralph Ochsner</td>
</tr>
<tr>
<td>Patricia Devine</td>
<td>Michael Jensen</td>
<td>John O'Donnell</td>
</tr>
</tbody>
</table>
Acknowledgements

Charlotte O'Hara
Jeff Okun
Diane Omstead
Peter Opperman
Archie Palmer
Carl Palmer
Vaunda Palmer
Gary Pannell
John Pattimore
H. Thomas Payne
Harold Phelps
Bob Phillips
James F. Pilley
Fred Plagens
Vivian Plank
Tom Porter
Harold Quaintance
Dan Quinn
Hugh Rapp
Melva Rapp
Rod Richardson
Margaret Riley
Darol Rodrock
Damon Ross
Edward Rowe
Leonore Rowe
Emestine Sanders
Wayne Sangster
Dr. Charles Sasse
Anna Schlagel
George J. Schlagel
Mollie Schwab
John Seaverton
Penny Seaverton
Martin Seem
Bill Sheldon
Dee Dee Smyth
Keith Snow
Sandy Spalitto
J. J. Stark
Dick Stephens
V Stewart
Dan Strausbaugh
John Stretcher
Myma Stringer
Rochelle Stringer
Tim Stringer
Charles Sunderland
Mark Taylor
Tom Thompson
Lynn Tiemier
Wayne Tiemier
Tom Tietier
Gail Todd
Don Todd
John Tootle
Barle Trumm
Donna Urban
Tim Urban
Emil Urbanek
Lyn Vallee
Mary VanVooren
Mark Verhulst
Mary Verhulst
Mark Vieth
Doug Vokins
Jim Vore
Patty Vore
Dave Webb
Sue E. Weltner
Richard Weisser
Bruce West
David White
Judy White
Jim Wilson
Harold Wolf
Pat Yelton

Edgerton Focus Group

Dennis Andrew
Brad Boyd
Betty Chaney
Mary Donham
Byron Finley
Frank Gieringer
Paul Hambelton
Carol Hatfield
Dennis Henricks
Jerry Hiatt
Junella Hiatt
Ryan Higbee
Chuck Kurtz
Mark Lathrum
Bob Moss
Lois Moss
Lee Quaintance
Emestine Sanders
Ed Schlagel
Lee Schmid
Bill Stephens
TABLE OF CONTENTS

Rural Comprehensive Plan
A Plan for the Unincorporated Area of Johnson County

PART I: THE PLAN

CHAPTER 1: INTRODUCTION

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td>1-1</td>
</tr>
<tr>
<td>1.0 Statement of Purpose</td>
<td>1-1</td>
</tr>
<tr>
<td>2.0 How to Use the Plan</td>
<td>1-4</td>
</tr>
<tr>
<td>3.0 Legal Basis for Comprehensive Plan</td>
<td>1-4</td>
</tr>
<tr>
<td>4.0 Previous Plans and Annual Review of Plan</td>
<td>1-5</td>
</tr>
<tr>
<td>5.0 Relation to Zoning Regulations</td>
<td>1-5</td>
</tr>
<tr>
<td>6.0 Citizen Involvement – Plan Preparation</td>
<td>1-5</td>
</tr>
<tr>
<td>7.0 Rural Character</td>
<td>1-8</td>
</tr>
<tr>
<td>8.0 Johnson County Vision</td>
<td>1-8</td>
</tr>
<tr>
<td>9.0 Living Our Vision: Johnson County 2020</td>
<td>1-8</td>
</tr>
<tr>
<td>10.0 Countyscape 2020 – Guiding Principles of Development</td>
<td>1-9</td>
</tr>
</tbody>
</table>

CHAPTER 2: LAND USE PLAN

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 Land Use Vision Statement</td>
<td>2-2</td>
</tr>
<tr>
<td>2.0 Planning Framework 10 - Points</td>
<td>2-3</td>
</tr>
<tr>
<td>3.0 Goals, Policies, and Action Steps</td>
<td>2-7</td>
</tr>
<tr>
<td>4.0 Rural Character Design Features</td>
<td>2-19</td>
</tr>
<tr>
<td>5.0 Land Use Plan</td>
<td>2-22</td>
</tr>
<tr>
<td>6.0 Urban Fringe Policy Area</td>
<td>2-25</td>
</tr>
<tr>
<td>7.0 Rural Policy Area</td>
<td>2-30</td>
</tr>
<tr>
<td>8.0 Rural Traditional Policy Area</td>
<td>2-33</td>
</tr>
</tbody>
</table>

CHAPTER 3: AREA PLANS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 Previous Area Plan Amendments</td>
<td>3-1</td>
</tr>
<tr>
<td>2.0 Five Area Plans</td>
<td>3-1</td>
</tr>
<tr>
<td>3.0 Woodland Road Corridor Plan</td>
<td>3-3</td>
</tr>
<tr>
<td>4.0 K-10 Corridor Goals and Objectives</td>
<td>3-4</td>
</tr>
<tr>
<td>5.0 K-7 Corridor Management Plan</td>
<td>3-4</td>
</tr>
<tr>
<td>6.0 City Plans within Unincorporated Area</td>
<td>3-4</td>
</tr>
<tr>
<td>7.0 Future Joint-Planning Studies</td>
<td>3-5</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS

8.0  Previous Planning Projects ............................................................................................................ 3-5

## CHAPTER 4: TRANSPORTATION PLAN

1.0  Background ................................................................................................................................... 4-1
2.0  Rural Transportation System ................................................................................................. 4-1
3.0  CARNP ......................................................................................................................................... 4-3
4.0  County Roads and Streets ........................................................................................................ 4-13
5.0  Railroads .................................................................................................................................... 4-18
6.0  Airports and Aircraft Transportation .................................................................................... 4-19

## CHAPTER 5: PARKS AND OPEN SPACE

1.0  Unincorporated Area Park Facilities ...................................................................................... 5-1
2.0  Other Park and Recreation Facilities .................................................................................... 5-4
3.0  MAP 2020 Summary ............................................................................................................... 5-7

## PART II: BACKGROUND AND SUPPORTING DATA

## CHAPTER 6: HISTORY

1.0  Following the Trails ................................................................................................................. 6-1
2.0  Settling Down ......................................................................................................................... 6-4
3.0  Blazing New Trails ................................................................................................................ 6-4
4.0  County Profiles ...................................................................................................................... 6-5
5.0  Historic Sites ........................................................................................................................ 6-11

## CHAPTER 7: PATTERNS AND TRENDS

1.0  Introduction and Purpose ...................................................................................................... 7-1
2.0  Geographic Factors ................................................................................................................ 7-1
3.0  Historical Factors .................................................................................................................. 7-3
4.0  Existing Land Uses ............................................................................................................... 7-5
5.0  Recent Patterns – Urban/Rural Interface ............................................................................. 7-8
6.0  Agriculture ............................................................................................................................ 7-11
7.0  Population ............................................................................................................................ 7-14
8.0  Unincorporated Area Population ....................................................................................... 7-19
9.0  Population Forecast ............................................................................................................ 7-19
10.0  Density ................................................................................................................................... 7-22
11.0  Employment and Business Growth .................................................................................. 7-24
# TABLE OF CONTENTS

12.0 Employees by Industry ................................................................. 7-26
13.0 Building Permits – Residential ..................................................... 7-28
14.0 Building Permits – Commercial and Industrial ............................. 7-30
15.0 Growth Areas ............................................................................. 7-32
16.0 Forecasted Growth Trends ........................................................... 7-32
17.0 Development Corridors – Unincorporated Area .............................. 7-33
18.0 Future Annexation Boundaries ..................................................... 7-36

## CHAPTER 8: RESOURCE AND SERVICE INVENTORY

1.0 Purpose ......................................................................................... 8-1
2.0 Introduction ................................................................................... 8-1
3.0 Geology and Topography ............................................................... 8-2
4.0 Hydrology .................................................................................... 8-8
5.0 Climate ......................................................................................... 8-22
6.0 Public Utilities and Services .......................................................... 8-25

APPENDIX A - Previous Plans for the Unincorporated Area
APPENDIX B - Outline of Public Participation
APPENDIX C - Executive Airport Compatibility Plan
APPENDIX D - New Century AirCenter Comprehensive Compatibility Plan
APPENDIX E - Blue Valley Plan
APPENDIX F - Sunflower Army Ammunition Plant Concept Plan
APPENDIX G - Lone Elm vicinity Plan
APPENDIX H - K-10 Highway Corridor Area Plan Goals and Objectives
APPENDIX I - Comprehensive Arterial Road Network Plan (CARNP) Resolution No. 001-99
APPENDIX J - K-7 Corridor Management Plan (incorporated by reference into the Rural Comprehensive Plan pursuant to Resolution No. _____. Copies of said K-7 Plan are available for review in the offices of the Clerk of the Board, and the Johnson County Planning Department.)

## LIST OF MAPS

Map 1: General Map ........................................................................... 1-3
Map 2: Policy Area Map ...................................................................... 2-24
Map 3: CARNP .................................................................................. 4-7
Map 4: Johnson County Corridors ...................................................... 4-10
Map 5: Metrogreen ............................................................................ 5-6
TABLE OF CONTENTS

Map 6: Proposed Plan for Parks and Recreation Facilities........................................................5-8
Map 7: Historic Trails..................................................................................................................6-3
Map 8: Townships......................................................................................................................6-9
Map 9: Historic Sites....................................................................................................................6-13
Map 10: Existing Land Use ......................................................................................................7-7
Map 11: Annexation Boundary Agreements...........................................................................7-37
Map 12: Environmental Characteristics..................................................................................8-5
Map 13: Polo Soils.......................................................................................................................8-6
Map 14: Prime Agricultural Soils.............................................................................................8-7
Map 15: General Land Cover....................................................................................................8-9
Map 16: River Basins..................................................................................................................8-11
Map 17: Total Maximum Daily Load ......................................................................................8-21
Map 18: Electrical Utility Areas...............................................................................................8-27
Map 19: Water Utility Areas......................................................................................................8-29
Map 20: Natural Gas Utility Areas............................................................................................8-30
Map 21: Wastewater Utility Areas............................................................................................8-31
Map 22: Fire Districts and Stations...........................................................................................8-33
Map 23: Schools and Libraries...................................................................................................8-34

LIST OF TABLES

Table 1: Corridor Development Categories..............................................................................4-5
Table 2: Trip Generation Ratios................................................................................................4-17
Table 3: Street Capacity Guidelines.........................................................................................4-17
Table 4: Year Incorporated - Northeastern Cities.....................................................................6-6
Table 5: Year Incorporated - Fringe Cities...............................................................................6-7
Table 6: Year Incorporated - Rural Cities..................................................................................6-8
Table 7: Year Established - Villages by Township......................................................................6-10
Table 8: Percent of Kansas City Metropolitan Statistical Area by County, 2000...................7-3
Table 9: Unincorporated Area Land Uses................................................................................7-6
Table 10: Rural and Urban Areas..............................................................................................7-8
Table 11: Johnson County Incorporated/Unincorporated Area Population............................7-8
Table 12: Excise Tax Comparison (2002)................................................................................7-10
Table 13: Lot Size Breakdown..................................................................................................7-10
Table 14: Farms by Acreage......................................................................................................7-12
Table 15: Farm Tenancy, 1992, 1997.......................................................................................7-12
Table 16: Farmer's Operator's Residency and Occupation.......................................................7-12
Table 17: Operator's Years on Present Farm...........................................................................7-13
Table 18: 1997 Agricultural Harvest.........................................................................................7-13
Table 19: Fruits and Vegetables ...............................................................................................7-13
Table 20: Nursery and Greenhouse Crops..............................................................................7-13
Table 21: Johnson County Population 1940 to 2000...............................................................7-16
Table 22: Johnson County 1990 - 2000 Population Change....................................................7-17
Table 23: Total Housing Units and Household Sizes, 1990 - 2000........................................7-18
Table 24: Johnson County Population Forecast.......................................................................7-20
Table 25: Johnson County Rural and Urbanized Area Population Forecast............................7-22
Table 26: Johnson County Population Density......................................................................7-22
Table 27: Percent of Land Area in Cities and Townships.......................................................7-23
TABLE OF CONTENTS

Table 28: Township Area and Density, 1990 – 2000 ......................................................... 7-24
Table 29: Johnson County, Sedgwick County, and Kansas Labor Force .......................... 7-25
Table 30: Johnson County Total Jobs, 1970 – 2020 .......................................................... 7-25
Table 31: Johnson County Business Establishments ....................................................... 7-25
Table 32: Single Family Building Permits – Unincorporated Areas ................................. 7-29
Table 33: Single-Family Building Permits, Unincorporated Johnson County, by Townships (1980, 1990, 2000) ................................................................. 7-30
Table 34: Unincorporated Johnson County, Commercial and Industrial Permits, 1995-2000 .................................................................................... 7-31
Table 35: Kansas City Regional Population Forecast ....................................................... 7-33
Table 36: Temperature and Precipitation Data ................................................................. 8-23
Table 37: Freeze Dates in Spring and Fall ....................................................................... 8-24
Table 38: Growing Season Length .................................................................................. 8-24

LIST OF FIGURES

Figure 1: Conceptual Schematics of Roadway Types ...................................................... 4-6
Figure 2: Johnson County Population 1940 – 2000 ......................................................... 7-15
Figure 3: Johnson County Township Comparison 1990 and 2000 ................................. 7-20
Figure 4: Johnson County Workers by Industry (2000) .................................................. 7-27
Figure 5: Unincorporated Johnson County Workers by Industry (2000) ......................... 7-27
Figure 6: Johnson County Single-Family Building Permits (1990-2001) ....................... 7-28
Figure 7: Unincorporated Areas Percent of Total Single-Family Building Permits Issued by County ................................................................. 7-29
PART I: THE PLAN
PREFACE

The two most basic resources for any community are its land and the people who live on it. Managing the relationship between people and the land is a balancing act between long-term and short-term gains and between individual and community aspirations. Comprehensive plans, along with land use regulations, set the framework for governing bodies, their appointed boards and commissions, and citizens to make informed choices among competing ideas on how the land might best be used.

A community’s comprehensive plan reflects a general consensus among citizens on their shared future. By creating a vision for the future, a comprehensive plan assists in coordinating decisions and the efficient allocation of limited public resources.

The Rural Comprehensive Plan, A Plan for the Unincorporated Area of Johnson County (Plan) is an “active document”, unlike other documents that address an issue, are referenced, and then eventually become out-dated. The Plan will be reviewed at least annually and periodic refinements may result from those reviews at the direction of the County Planning Commission and Board of County Commissioners. As the Plan is refined over time, changes to the County’s Zoning and Subdivision Regulations may also evolve, and new zoning districts and maps may be required. Refinements may result from changing situations in the County or from a better understanding of complex issues, which may result in further studies and considerations. The overall objective of the review and Plan modification process is to maintain relevancy for both current and long-range development.

While the Plan focuses on the unincorporated portions of Johnson County, its scope includes the entire County. Because the future of the unincorporated area and the future of cities are so closely tied together, the Plan outlines recommendations as to how cities and the County are to cooperate and coordinate growth and resources.

The goals, policies, and action steps contained in the Plan, although not binding like adopted County regulations, provide the general parameters for land use decisions to be made by County officials. The Plan establishes the County’s general guidance for the nature and character of activities that are desired within the unincorporated area of the County.

1.0 STATEMENT OF PURPOSE

Coordinated rural development has been a common thread in the County’s planning policies for the past 20 years. A policy statement first drafted in 1983 and subsequently adopted as part of the Plan in 1986, and herein adopted, outlined policies that continue to hold true. They are as follows:

1. To provide for orderly growth and to avoid scattered development which is costly for public services.

2. To control public service costs, especially capital improvements, by requiring that a fair share of the
improvement costs be borne by developers.

3. To adopt proper standards for public improvements, which will avoid excessive maintenance costs during the reasonable life of the facilities.

4. To encourage development within existing residential areas so that public services may be most efficiently provided.

5. To adopt compatible standards that will assure that residential areas subsequently annexed into municipal territory will be properly designed for municipal services.

6. To plan cooperatively with municipalities to assure that most development in the County occurs within cities and areas planned for urban expansion.
Map 1: General Map
2.0 HOW TO USE THE PLAN

Part I of this document is the Plan and consists of Chapters 1 through Chapter 5 and Part I Appendices A through I. These five chapters contain the County’s policies and recommendations for development within the unincorporated area of Johnson County.

Chapter 2: Land Use Plan, contains the goals, policies, and action steps for managing the future development and use of land within the unincorporated area of Johnson County for the next 20 years. This chapter also contains the Policy Area Map, which incorporates the goals, polices and action steps.

Chapter 2 serves as a guide for agricultural, residential, commercial, industrial, and open space development. This chapter is particularly important to public decision-makers who will use it to evaluate proposals and prioritize projects as well as to private individuals and businesses that may want to use it to help them determine where to reside or to invest.

Chapter 3: Area Plans includes plans for particular locations in the County and includes maps showing the locations of existing area plans that have been adopted previously. The Transportation Element can be found in Chapter 4 and the Parks and Open Space Element is in Chapter 5.

Part II of this document, Chapter 6 through Chapter 8 provides background information that supports and was used to develop the policies and recommendations contained in the Plan.

Because of the broad scope and comprehensive nature of the Plan, a large amount of background and supportive information is required for its preparation. Data on existing conditions, trends, and forecasts provide a useful resource for those interested in the unincorporated area’s existing and potential for development. Chapter 6: History describes the “story” of Johnson County and Chapter 7: Development Patterns and Trends, identifies where development has occurred and may be anticipated within the next 20 years. Chapter 8: Resource and Service Inventory includes information on utility service areas and maps related to the County’s geographic conditions.

3.0 LEGAL BASIS FOR COMPREHENSIVE PLAN

State law provides a broad outline of what should be included in a comprehensive plan. Johnson County is given the general authority to adopt plans and land use regulations pursuant to K.S.A. 19-2956 et. seq. with the goal of “bringing unity, consistency and efficiency to the county’s planning efforts.”

K.S.A. 19-2956 states in part that “such plans and regulations shall be designed, in accordance with the present and future needs of the county and shall promote the public health, safety, morals, comfort, convenience, prosperity and general welfare and protect the land, air, water, natural resources and environment and encourage their use in a desirable manner and insure efficient expenditure of public funds and conserve and protect the values of property under the jurisdiction of the county.”

This legislation was adopted specifically for Johnson County in 1984, and provides the general authority for adopting a comprehensive plan and subsequent regulations to guide orderly growth and development. Prior to this legislative act, the County exercised general zoning and planning authority under K.S.A.19-2901 et. seq.
PART I -- Chapter 1: INTRODUCTION

The 1984 statutory act also retained the existing Zoning Boards for rural townships that were established as early as 1940, and reorganized the County Planning Commission established in 1977. The County Planning Commission is now comprised of 12 members including a representative of each of the Zoning Boards and three members representing the incorporated area of the County.

The County's first full-time planning staff was employed in 1978 to assist the various township zoning boards and to begin preparation of a comprehensive plan for the unincorporated area. In 1982, the County Planning Commission and planning staff completed a policy statement and first draft of a plan for guiding development in the unincorporated area.

4.0 PREVIOUS PLANS AND ANNUAL REVIEW OF THE PLAN

The County’s first adopted comprehensive plan for the unincorporated area was adopted in 1986. The Plan has since been updated five times previous to this update--1991, 1994, 1996, 1998, 1999 and 2000. Appendix A provides a summary of these changes.

The Plan is reviewed annually by the County Planning Commission to ensure that it remains timely and that the goals, policies, action steps, and Policy Area Map are relevant.

5.0 RELATION TO ZONING REGULATIONS

The Plan represents Johnson County’s policy guide for decisions affecting where and how future development should occur within the unincorporated area. The Plan is to be used by the general public, County staff, zoning boards, and the Board of County Commissioners as part of their review and consideration of requests for rezoning or subdividing property within the unincorporated area.

Although most of the residential, commercial, and industrial development in this rapidly growing County occurs within city boundaries and is therefore managed under municipal jurisdiction, the unincorporated part of the County includes substantial land area in which scattered residential development can be found.

The County’s Zoning and Subdivision Regulations are the primary mechanism for coordinating changes from rural or agricultural uses to more intense land uses. Most of this change takes place in areas that are developing at an intermediate density--denser than rural agricultural uses, but much less dense than typical municipal development.

In recognition of the wide range of development densities in the unincorporated area, the following Land Use Plan in Chapter 2 is based on the premise that complementary zoning districts and development standards will be continued in the future. The fundamental concept is that appropriate development standards are a function of density. In keeping with the characteristics and use patterns of such areas, urban development requires urban standards for public improvements, whereas low-density rural residential uses do not require as high a level of development standards or improvements.

In 1978, a Kansas Supreme Court landmark case (Donald Golden v. City of Overland Park, KS), known as the “Golden” case, determined that conformance of a requested zoning change to the adopted or recognized master plan being utilized by the governing entity was one of eight factors a community should use to evaluate the appropriateness of a rezoning proposal.
The “Golden Factors” to be considered are:

1. The character of the neighborhood;
2. The zoning and uses of properties nearby;
3. The suitability of the subject property for the uses to which it has been restricted;
4. The extent to which removal of the restrictions will detrimentally affect nearby property;
5. The length of time the subject property has remained vacant as zoned;
6. The relative gain to the public health, safety, and welfare by the destruction of the value of the plaintiff’s property as compared to the hardship imposed on the individual landowner;
7. The recommendations of permanent or professional staff; and
8. The conformance of the requested change to the adopted or recognized master plan being utilized by the community.

6.0 CITIZEN INVOLVEMENT - PLAN PREPARATION

Under the direction of the County Planning Commission, every planning effort is designed to educate and involve the public through workshops and surveys.

The citizen involvement goals of the planning process are to:

- Build a base of support by involving persons and interest groups affected by the Plan, with a leadership role delegated to the County Planning Commission.
- Inform and educate the residents of Johnson County through special programs addressing County concerns and the need for sound planning principles.
- Promote cooperation and understanding between cities, townships, service agencies, County government, and the citizenry on County issues and concerns.
- Build a realistic awareness of the planning process with its limitations and the time commitments necessary for long-term effective planning.
- Promote cooperation and understanding of all County residents and government entities in the physical development of the County by the development community, such as, development businesses and design professionals.
- View the Plan as part of a flexible and continuous planning process that is responsive to changing conditions, rather than as a single planning effort.

In 2002-03, planning efforts included four public workshops held in different parts of the unincorporated area, along with consultations with various groups. One such group was a Steering Committee made up of County staff from the Public Works, Wastewater, Finance, Planning, Parks, and County Extension departments, a member...
of the Board of County Commissioners, the Chair of the County Planning Commission, and planning consultants hired for the project.

Individual meetings and focus groups were held with property owners who were particularly impacted. Further refinements were suggested through a series of meetings with the Technical Advisory Group made up of city, County, and utility representatives and a series of meetings with VIGOR (Very Interested Group of Residents), an ad hoc group of rural and some city residents.

The Board of County Commissioners provided input at joint meetings with the County Planning Commission at individual work sessions.

Appendix B contains a summary of the four public workshops that were held as part of the process for preparing this Plan. This summary includes a description of the four development scenarios or depictions of how the unincorporated area "might" evolve depending upon differing sets of assumptions.

The scenarios were presented to the public for comparison and were used as a basis for developing and selecting the goals, policies and action steps contained in this Plan.

The four scenarios considered are summarized below:

1. Current Plan Scenario -- With the County's current Plan document, cities will continue to grow, gradually suburbanizing Johnson County. In the next 20 years, as you drive from the cities into the unincorporated area, you will first see single-family homes on 3 acre lots. Then as you drive further, you will see houses on 10-acre lots mixed with some areas of open space and farms.

2. Urban Reserve Scenario -- In the next 20 years, as you drive from the suburbs into the unincorporated area, you will see areas open for suburban expansion. Development will be encouraged to occur within and in cooperation with city expansion. Areas adjacent to cities will develop according to joint city-county plans. If there are no joint plans, development will consist of residences on 10 to 20 acre lots until annexed into cities.

3. Exurban Reserve Scenario -- In the next 20 years, as you drive from the suburbs into the unincorporated area, you will see areas reserved for suburban expansion. As you proceed, you will see exurban development that consists of numerous existing and developing subdivisions with single-family homes on 2 to 3-acre lots scattered throughout the area. Natural open spaces and farms will continue to exist, but at a much lesser degree than today.

4. Conservation Development Scenario -- In the next 20 years, as you drive through the unincorporated area leaving the suburbs behind, you will see residences on 20-acre lots and some smaller lots clustered together preserving large areas of open space. As you reach the extreme southwest corner of the County, you will see 40-acre or larger farms.

7.0 RURAL CHARACTER

A prevailing sentiment heard throughout the planning process was a strong desire to preserve the "rural character" perceived to exist within the unincorporated area. For many, this sense of "ruralness" is what distinguishes the unincorporated
area from cities and is one of their primary reasons for choosing to live in the “countryside.”

Ironically, this very attraction itself, along with the development it has generated, may be the leading cause of the demise of some of these appealing rural features. In general, rural character refers to the open spaces, farms, and natural beauty of the Johnson County countryside. Rural character is further described in Chapter 2, Land Use Plan.

8.0 JOHNSON COUNTY VISION

A “Vision” is an outline of the broad goals to which a community aspires. It describes what citizens want their community to be like in the future. Since the 1994 adoption of the Plan, the Board of County Commissioners has undertaken efforts to define a countywide vision and establish guiding principles for future development. Those efforts have resulted in two vision documents: Living Our Vision: Johnson County 2020, and, Countyscape 2020 - Growing Together.

Although having a broader scope than the Plan, herein, these two documents provide a useful measure of the Board of County Commissioner’s perception of how the entire County should grow by the year 2020. For this reason, relevant portions of these two documents are referenced below for the general guidance they provide in developing specific goals, policies, and action step recommendations for future development within the unincorporated area of the County.

The specific “Land Use” vision statement contained in the Living Our Vision: Johnson County 2020 report is discussed separately in Chapter 2, Land Use.

9.0 LIVING OUR VISION: JOHNSON COUNTY 2020

In 1997, the Board of County Commissioners appointed a 23-member Citizens’ Visioning Committee whose report Living Our Vision: Johnson County 2020, has been instrumental in many of the Board’s decisions, including the reorganization of the County’s government approved by voters in 2000.

9.1 Countywide Vision Statement

The following is a summary of the Committee’s report:

- In 2020, Johnson County is a vibrant community with a national reputation for excellence. Despite the aging of its population and infrastructure, the County has preserved and enhanced its quality of life.
- The County is a safe and attractive residential and business community sheltered by ample green space and providing excellent educational and cultural opportunities.
- Bold initiatives have revitalized older areas of the County, ensured orderly growth, linked the County through a multi-modal public transportation system, and fostered a premier community arts center and cultural foundation.
- Human services needs are addressed through innovative partnerships with the not-for-profit and for-profit sectors and a resurgence of volunteerism. The County is a strong partner in metropolitan initiatives focusing on the
environment, transportation, and economic development.

- Responsible yet creative financing approaches and a consistently healthy economy have enabled Johnson County to earn its reputation for “affordable excellence.”

- Twenty years of cooperative, innovative and visionary leadership have earned the governments of the County respect as trustworthy communicators and policy advocates. To facilitate consistent leadership, County government abandoned its rotating chair of the Board of County Commissioners in lieu of a single full-term chairperson.

- Through fidelity to its vision and guiding principles, the County has followed an ongoing course to excellence, grounded in the strengths of the past and present but reaching for an even brighter future.

10.0 COUNTYSCAPE 2020 – GUIDING PRINCIPLES OF DEVELOPMENT

As part of its 2000 Strategic Plan, the Board of County Commissioners approved Countyscape 2020 - Growing Together. Countyscape 2020 serves as the County Commissioners’ view of how the County will look in the next 20 years, including development anticipated to occur within the unincorporated area.

The Board’s ten “guiding principles” for countywide development contained in Countyscape 2020 are summarized below.

10.1 Countywide Guiding Principles of Development

1. "Sense of Community"

Strengthening a “sense of community” should be the driving force behind all development decisions. Future development should be encouraged that fosters a sense of belonging and shared identity as well as a feeling of connection to each other and to the surrounding area.

2. Inter-jurisdictional Planning/ Coordination

Proactive and holistic interjurisdictional planning and coordination within the region as well as within the County should be encouraged. Close collaboration, including the sharing of resources is encouraged between the County public institutions (e.g., school districts) and utility providers as well as between local governments and adjacent jurisdictions in Missouri and across county lines.

3. Capital Improvement Plans/ Infrastructure Finance

Multi-year Capital Improvement Plans (CIP) should be prepared by every jurisdiction in the County to ensure there is adequate maintenance of the existing infrastructure in older areas as well as the timely installation of new improvements in developing areas.

To ensure that new development shares in the public financial burdens it creates (e.g., added roads, storm drainage, public safety),
jurisdictions within the County should levy fees and taxes on new development to defray its share of these public costs.

4. Public Participation

Public participation in the planning process should be the cornerstone of the County's planning efforts. Through the Internet and other means of communications, the County should endeavor to keep the planning process open and the public well informed as well as actively involved.

5. Growth Management–Environmental/Energy Conservation

Development by both the public and private sectors should be efficient and cost-effective, adhering to the goals of "Smart Growth" and "Sustainable Development." Energy conservation and environmental protection should be key concerns affecting development decisions.

In-fill development and the maximization of existing infrastructure (e.g., CARNP) is encouraged along with support for pollution control, the conservation of open space, and the protection of riparian areas, critical woodlands, and wildlife habitats.

6. Parks and Recreation

Park and recreation standards should be implemented throughout the County to ensure ample park and open space opportunities that are located conveniently for all Johnson County's residents.

7. Multiple Nuclei

The overall development pattern for the County should continue to support the existence of multiple activity centers (employment, cultural, residential) or "multiple nuclei," a term used by geographers. Instead of developing around one major center, this network of regional, sub-regional, community, and neighborhood centers, interspersed with residential development and conveniently linked by the County's transportation system, should continue to serve the various segments of the County's diverse population and business community.

8. Choice

Corresponding to the existence of multiple centers, Johnson County should endeavor to continue to provide a full range of choices in housing, jobs, commercial services, and cultural and recreational opportunities.

Special efforts should be made to preserve and assure the availability of affordable and accessible housing through the enforcement of the County's existing fair housing and equal access laws.

9. Transportation
An integrated, efficient, and economical transportation system, including service for transit-dependent and disabled citizens should serve the County, linking Johnson County residents to each other, to activity centers, and to the region. Land use and transportation planning should be coordinated allowing for integrated, human-scaled, mixed-use developments that are “pedestrian friendly.”

10. Preservation

An ongoing effort should be made to preserve and enhance cultural, historic, and archaeological sites throughout the County.
Land use planning pertains to three major community components—economy, ecology, and culture. "Economy" is the organization and distribution of goods, resources, and services. "Ecology" is the interrelationship between living things and their environment. "Culture" is the shared identity or collective history and beliefs held by people of a particular area. How a community balances these three elements will shape its future.

Land use plans and their implementation influence economy, ecology, and culture by guiding development proposals, the division of land, and the allocation of public resources. The Land Use Plan for the unincorporated area of Johnson County has a 20-year time horizon and contains the County’s vision, policies, and recommendations for how and where development should occur.

Implementation of the land use decisions based upon the Plan, however, will have an impact far beyond the next 20 years. The roads and utilities that are installed and the zoning decisions made predicated on the Plan will shape and influence the landscape for years to come. For this reason it is imperative that the vision, policies, and recommendations contained in the Plan be clear and representative of the common interest of the community. To that end, the Plan has undergone extensive public review and input before being adopted by the Board of County Commissioners.

Unincorporated Johnson County covers a large area with different degrees of development and different levels of infrastructure capabilities in various locations. Some areas are more capable of remaining rural while other areas, especially near the fringes of cities and adjacent to major roadways are experiencing development pressures. This Plan sets forth the County’s goals and policies for addressing these development pressures.

The Land Use Plan’s goals and policies call for coordinating and balancing growth, rural conservation, and agriculture production based on the land’s capabilities, including the availability of adequate infrastructure. The Policy Area Map, which is part of the Land Use Plan, incorporates the general goals and policies of the Plan and divides the unincorporated area into three general planning areas with policies tailored for each.

The Land Use Plan will be continually monitored and updated as needed. At a minimum, the Planning Commission will review the Plan, including the Policy Area Map, every year from the adoption of the Plan.

When a property within the unincorporated area is annexed, the County Plan is superseded by the city’s plan and regulations. Generally, until annexation occurs, property within the unincorporated area is subject to the County’s building and zoning regulations and to the recommendations and policies contained in this Plan.

Protecting the rural character of the unincorporated area of Johnson County emerged as an important issue during the planning process. So, as a conceptual design reference, the Plan includes a description of the qualities and design
features that contribute to the rural quality of life particular to Johnson County.

The Land Use Plan also incorporates many of the concepts referred to today as "Smart Growth." As defined by the National Association of Counties (NACo) and the Joint Center for Sustainable Communities in their joint publication Local Tools for Smart Growth, Smart Growth is:

Development that serves the economy, the community, and the environment. It is an approach to urban, suburban, and rural growth that encourages local economies to grow and expand while preserving the environment and improving the quality of life for all residents. Communities across America are looking to smart growth because they have begun to challenge the traditional assumption that any development is good development.

The following components of the Land Use Plan draw upon these smart growth concepts and work together to show how decisions, whether small or large, impact the growth, development, and rural nature of the unincorporated area. The Land Use Plan moves from the big picture to more detailed policies and recommendations as presented in the following six sections:

1. Land Use Vision Statement
2. Planning Framework-10 Points
3. Goals, Policies, and Action Steps
4. Rural Character Design Features
5. Land Use Plan, and
6. Policy Area Map

1.0 LAND USE VISION STATEMENT

The following County land use vision statement below provides the broadest description of the expected evolution of Johnson County over the next 20 years. This vision addressing future “land use” is from the Johnson County Citizens’ Visioning Committee report Living Our Vision: Johnson County 2020.

1.1 Land Use Vision and Desired Future

- By 2020, the hallmark of the County’s stewardship of the land is well-managed growth and development coordinated with adjoining cities and supported by adequate infrastructure and open space.
- The County’s long-term comprehensive plan is implemented through the consistent and creative application of land use and subdivision regulations.
- While the County has not imposed a “growth boundary,” it practices innovative planning which involves citizens, neighborhoods, and special interest groups and consistently enforces strict development standards.
- “Leapfrog” or “piecemeal” development has been prohibited.
- The County has maintained a healthy balance of development and the creation and preservation of open spaces, parks and recreation areas, and agriculture.
- Although the percentage of farmland has decreased over the past 20 years, it is still viewed as a valuable natural resource and a vital part of the community’s heritage.

1.2 Land Use Guiding Principles
PART I - Chapter 2: LAND USE PLAN

- The County should consistently and carefully weigh the merits of each individual land use proposal to decide whether it is consistent with the County's Comprehensive Plan and Zoning and Subdivision Regulations.
- The Commission should support development that is consistent with the Comprehensive Plan and Zoning and Subdivision Regulations.

2.0 PLANNING FRAMEWORK - 10 POINTS

2.1 Minimizing Uncertainty

An overarching objective of planning is to minimize uncertainty regarding the use of land - for existing and future residents as well as for County and other public decision makers. The 10-point Planning Framework below helps achieve this objective and represents a further refinement of the preceding "Land Use Vision and Desired Future" statement and the "Land Use Guiding Principles".

The general public, however, should be aware that the recommendations contained in the Plan are guidelines that may be subject to change. Caution, therefore, should be used if land purchases are to be based upon the recommendations contained in the Plan.

As the foundation of the County's Land Use Plan, the Framework's ten points establish general parameters for "how" development should occur within the unincorporated area.

The Planning Framework is the result of public participation in the workshops and discussions held regarding the various development scenarios considered during the preparation of this Plan.

2.2 Background - Unincorporated Area Land Use

The predominate land uses within the unincorporated area today are residential and agricultural. Relatively few commercial or industrial uses are found there. With the exception of the businesses located at New Century AirCenter, most of the non-residential development in the unincorporated area is of a relatively low intensity, primarily serving area residents. Because of earlier limited planning guidelines, many older residences and residential subdivisions are found scattered throughout the unincorporated area, non-contiguous to other developments.

In contrast, the vast majority of development in Johnson County occurs in a relatively compact manner within the cities. City boundaries are continually being extended to accommodate future growth. This pattern of development is expected to continue.

Municipal governments, however, are concerned that development in the unincorporated area near their boundaries often does not occur according to city standards and does not help cover the costs of meeting these standards. This can result in major costs to the cities to modify public facilities after annexation has occurred. In addition, unlike the fringe cities, development within the unincorporated area is not required to pay excise taxes.

Because of the County's limited resources for serving the unincorporated area, it is not feasible to provide full municipal-like services on a scattered basis throughout the rural area. As a result, the County has generally restricted development within the unincorporated area to planned low-density land uses that can be supported with only modest expansions of traditional rural-agricultural service levels. Because of anticipated continuing limitations on
County resources, this constraint on development in the unincorporated area is expected to continue throughout the planning period.

### 2.3 10-Point Planning Framework

The following Planning Framework is based on the preceding overview and has served as the basis for establishing the goals, policies, action steps, and Future Land Use Plan contained in the remainder of this chapter.

1. **Continued Slow Growth in the Unincorporated Area**

   As it has in the past, over the next 20 years the vast majority of Johnson County's population growth will occur within its cities. Today, Johnson County's 20 cities account for 53% of the County's total 477-sq. miles of land area and 97% of the County's population. In contrast, only 3% of the County's population resides in the unincorporated area, which accounts for the remaining 47% of total land area in the County. Over the next 20 years this general trend of city expansions and slow population growth in the unincorporated area is expected to continue.

   Rooftop-to-rooftop development is not envisioned within the unincorporated area over the next 20 years. Instead, the existing development pattern of low-density residences, limited commercial development, and predominately agricultural uses is expected to continue. Continuance of this trend is reinforced because of the County's limited resources available to provide major infrastructure improvements or increase the public services necessary to support extensive growth in the unincorporated area. Development outside of cities, therefore, is expected to continue at its current relatively slow rate (e.g., approximately 100 residential building permits issued annually).

2. **Natural Resources Protection**

   Johnson County's city and rural residents place a high value on the protection and enhancement of open spaces, rural character, and environmentally sensitive areas not only for today but also into the future. The goals, policies, and action steps contained in this Plan reflect this high priority.

   The "Natural Resources Map" in the County Park and Recreation District's master plan, MAP 2020, shows the locations of the County's existing and proposed parks, streamway trails, and other natural amenities that are recommended for preservation. This Plan uses the Natural Resources Map as a guide for delineating and protecting these important natural features within the unincorporated area.

3. **Continued Agriculture Production**

   The goals, policies, and action steps contained in this Plan support small scale agriculture (e.g. truck farming and wholesale nurseries), as well as large scale farm production as a valued County resource. Farming creates jobs; brings fresh
produce to local markets; requires little public infrastructure; and preserves rural character, scenic views, and wildlife habitats.

Because of the relatively slow growth expected to occur within the unincorporated area, agricultural activities are expected to be able to continue without excessive pressures to convert farmland for development purposes. This is especially likely for the more remote areas of the County such as in the far western reaches of McCamish Township where there is very limited infrastructure to support development (e.g., lack of central water systems).

The Plan recognizes the importance of managing and guiding development to avoid or minimize potential land use conflicts between agricultural uses and development.

4. “Sense of Community” and “Sense of Place” - Development Quality

Distinctive and coordinated development that fosters a strong “sense of community” and a “sense of place” is encouraged. This type of development is sensitive to cultural and the natural resources and blends well with existing surroundings. The neighborhoods created are attractive and walkable, promoting a sense of neighborhood and belonging. Quality development is sustainable and served by adequate public infrastructure and services. The Plan discourages fragmented, un-enduring, or incompatible development requiring major funding allocations to provide adequate public infrastructure or services.

The Plan further recognizes that the County is an attractive and desirable place to live and work. The Plan supports the continued maintenance of high development standards and supports the protection of existing and future residential areas from encroachment by incompatible development.

5. Limited Housing Choices

This Plan recognizes and supports the desire of Johnson County citizens to have a range of housing options from which to choose throughout the County. Housing choices within the unincorporated area, however, are generally limited to low-density residences (homes on 10-acre and larger lots to 2-acre lots) due to County regulations and the limited availability of infrastructure available to support more dense development.

Although there may be some exceptions, this Plan, in combination with the County’s Zoning and Subdivision Regulations, enables the opportunity for primarily low-density single-family residences provided necessary conditions are met (e.g., County Minimum Infrastructure Requirements) and the Board of County Commissioners authorizes such development.
6. Fiscal Responsibility - Adequate and Cost Effective Infrastructure and Public Services

Johnson County has always sought to achieve the highest level of fiscal responsibility in its delivery of public infrastructure and services. In order to maintain a high quality of life while minimizing the burden on taxpayers countywide, the County has provided both adequate and cost effective infrastructure in keeping with the rural nature and limited development in the unincorporated area.

The County, however, has traditionally not provided the much higher levels of services and infrastructure needed to serve dense residential or very intensive nonresidential developments normally found within cities. This Plan continues that practice and does not promote nor facilitate urban development in the unincorporated area. Development requiring a high degree of community or public services (e.g., public safety and road maintenance), therefore, is encouraged to locate within cities where such necessary infrastructure and services are available.

7. County/City Coordination

Development allowed within the unincorporated area generally within a mile of cities will be closely coordinated with the cities and will be of a transitional nature, preserving open space and natural amenities and land for future development. The County will also continue to work with cities to develop new or update existing Area Plans (e.g., Blue Valley Plan and the Lone Elm Vicinity Plan) near or adjacent to city boundaries. The objective is to ensure that future growth by cities is orderly so that the extension of future municipal infrastructure and services will be unencumbered and coordinated with the County.

8. Public Services and Utilities Coordination

To achieve development that occurs in an orderly and efficient manner, continued close coordination is needed between County service providers (e.g. County Wastewater District, Public Works, and public safety) and community facility and utility providers (e.g., school districts and water districts).

9. Quality Transportation

The County’s adopted Comprehensive Arterial Road Network Plan (CARNP) identifies future major transportation routes and construction standards, as well as supports multi-modal forms of transportation where feasible (mass transit, pedestrian, and bicycling). CARNP will continue to serve as the County’s plan for guiding future transportation improvements within the unincorporated area.

Recognizing that rural patterns of development generally promote reliance on motor vehicles, development patterns that reduce this reliance and promote multi-modal forms of transportation
are encouraged. New development should provide for safe, efficient pedestrian facilities.

10. Predictability and Public Involvement

The County is committed to making development decisions predictable, fair, and cost effective by encouraging community and stakeholder information sharing, problem solving, and collaboration in the decision-making process.

3.0 GOALS, POLICIES, AND ACTION STEPS

The goals and policies express the County's collective sentiment for the future of the unincorporated area of Johnson County and lay the groundwork for action steps. Goals identify the desirable future conditions toward which land development in the County should be guided. Policies are the means for implementing goals and are used to choose between alternatives. Action steps include both short-term and long-term recommendations.

The eight categories of goals with their respective policies and action steps are:

a. Sense of Community and Rural Character
b. Citizen Participation
c. Coordinated Approach to Development
d. Availability of Public Facilities and Services
e. Regional Coordination
f. Transportation
g. Environmental Quality
h. Land Use

The following goals, policies, and actions steps are based on input received from the Board of County Commissioners, the County Planning Commission, and citizens throughout the Plan update process. Direction was also provided by three previous major County planning efforts: 1) Living Our Vision: Johnson County 2020; 2) Countyscape 2020: Growing Together; and 3) Preserving Our Future.

The following goals, policies, and actions steps build on the foundation established by the preceding ten-point Planning Framework. The goals and policies provide guidance for land use decisions by describing the nature and character of activities and conditions that are desired within the unincorporated area of Johnson County. Action steps are recommended measures to be taken over time to help implement the goals and policies. Also, there are measures already in place (e.g., zoning regulations) that the County will continue to use to achieve implementation of the goals and policies.

The goals, policies, and action steps below apply to future proposed development within the unincorporated area of the County that complies with the County's zoning, subdivision, and building regulations and infrastructure (roads, wastewater, etc.) requirements.

3.1 Sense of Community and Rural Character

Goal: Residents feel a sense of community and a connection to the surrounding environment with its open spaces and rural character.

Policies:
1. Development should contribute as an enduring asset to the community.

2. Neighborhoods should be cohesive and designed to foster opportunities for interaction among residents.

3. New residential development, to the extent practical, should be contiguous to existing residential development, and isolated subdivisions should be avoided.

4. Historic structures and architectural or archeological remnants (e.g., trails) should be protected and development should be sensitive to the area’s history.

5. Development in predominantly rural areas should be designed with compatible elements (e.g., larger setbacks, low densities, buffering, landscaping) that blend the development into the surrounding rural character.

6. Development should be sensitive to the natural environment, incorporating or connecting with existing natural resources (e.g., open space and woodlands). Scattered development that interrupts open spaces and does not contribute to the continuation of existing natural areas should be discouraged.

Action Steps:

a. Use the Johnson County Museum’s inventory of historic structures and sites when reviewing development applications and minimize possible adverse impacts on the County’s historic resources.

b. Gateway markers, open spaces, woodlands, and riparian corridors (e.g., streams, rivers, wetlands) should contribute to a sense of identity.

c. Develop measures to enhance and protect scenic routes and vistas before or as development occurs.

d. Support the promotion and marking of historic trail routes in the unincorporated area and ensure that development is sensitive to these recognized landmarks.

e. Consider the adoption of historic preservation regulations.

f. Prepare a community-centered mixed-use plan for Stilwell in the vicinity of 199th and Metcalf Avenue as recommended in the Aubry Oxford Township Planning Committee (AOTPC) Report.

g. Review development applications with regard to the Johnson County Park and Recreation District Plan, Map 2020, and coordinate with Johnson County Public Works to protect riparian corridors and streamways, especially those that have special advantages for stormwater and water quality management. Where possible, easements or land dedications should be used to protect these designated areas for future public use.

h. Update the Zoning and Subdivision Regulations, as needed, to permit clustered/conservation subdivisions, where homes are “clustered” on part of a property...
leaving the remaining area as open space.

i. Review and update subdivision regulations to support connecting new development to existing or future adjoining developments through the use of networks of streets, sidewalks, and trails.

3.2 Citizen Participation

Goal: Public participation is active and open with well-informed and engaged citizens.

Policies:

1. The public should have the opportunity to meaningfully participate in the review of zoning and subdivision requests.

2. The public and members of the development community should be informed about land use and development issues and have the opportunity to meaningfully participate in the preparation of plans, programs, or changes to the Zoning and Subdivision Regulations.

3. The public and members of the development community should be notified of their opportunities to provide input regarding proposed planning changes that may affect their individual properties or development plans.

Action Steps:

a. Provide notice of planning meetings in compliance with State laws and County regulations.

b. Work with the media to disseminate planning and development information.

c. Study the use of a variety of information distribution methods (e.g., special ads, email, special courtesy notices, mail outs) to additionally notify the public of planning matters.

d. For special planning projects (e.g., area plans) learn community views through public meetings with focus groups, neighborhood groups, civic organizations (e.g., Grange, 4H), Very Interested Group of Residents (VIGOR), and meetings with individuals.

e. Work with the Johnson County/K-State Research & Extension Council to distribute information by informing their staff, contributing to their newsletters, and using their mailing list.

f. Provide educational materials and programs on planning and land use issues for boards, commissions, and the public.

g. Utilize the Planning, Development, and Codes Department website as a public information resource.

h. Seek opportunities to educate and engage youth in planning issues.

i. Maintain and use up-to-date mailing lists of interested citizens.

3.3 Coordinated Approach to Development

Goal: Political and service jurisdictions throughout Johnson County
have a coordinated decision-making framework for ensuring the orderly location and orientation of future land uses with adequate public improvements and services.

Policies:

1. The County should cooperate with affected governmental entities, utilities (e.g., water, electric), and public service providers (e.g., school districts, fire districts), by the exchange of relevant land use planning information.

2. Islands of unincorporated area surrounded by cities are not desirable from a planning perspective due to the inefficiencies and difficulties of providing County services to these areas.

3. Island annexations, non-contiguous to city boundaries should be avoided unless there is coordinated and appropriate planning between the County and the city annexing the property.

4. Areas within unincorporated Johnson County that are currently developing or are expected to develop near cities should be planned in cooperation with the nearby city or cities.

Action Steps:

a. Continue to facilitate periodic meetings of County, city, and utility representatives such as the Infrastructure City/County Coordinating Committee (I4C), to exchange information on development trends and to coordinate the provision of public infrastructure and services.

b. Evaluate proposals for new or expanded sewer districts and water system expansions within and near unincorporated Johnson County with regard to the capacities and availability of other public services and facilities needed for development.

c. The County’s Capital Improvements Program (CIP) should consider that upgrading gravel roads to paved conditions, in combination with other infrastructure improvements, may contribute to additional pressures for growth in the area of the proposed road upgrade.

d. Utilize the County Automated Information Mapping System (AIMS) to evaluate development patterns along with infrastructure and the provision of public services.

e. Consolidate zoning boards as recommended by the Living Our Vision: Johnson County 2020 Report.

f. Prepare or update joint City/County plans as needed.

g. When cities adjacent to the unincorporated area update or evaluate their comprehensive plans, participate by exchanging information and determining if joint area plans may be needed. An Interlocal Agreement may be needed if formal joint area planning is undertaken.
h. To the extent feasible a proposed development in the unincorporated area, near any city, should be coordinated with the plans, regulations, and standards of the nearest city.

i. Coordinate the dedication and acquisition of rights-of-way and easements with other utility providers to achieve efficient and cost effective installations of future roads and utilities.

j. Consult with cities in the County to explore mutual land use interests and possible ways to jointly review land use proposals. This might be implemented through the use of interlocal agreements or through joint overlay zoning districts (e.g., between the City of De Soto and Johnson County for the K-10 Highway Corridor).

3.4 **Availability of Public Facilities and Services**

Goal: Adequate public facilities and services are available and in place as development occurs and development patterns reflect an efficient, equitable, and effective use of public and private dollars.

Policies:

1. The Preserving Our Future (POF) Report, the County’s Capital Improvement Plan (CIP), which identify County goals for needed infrastructure (e.g., roads), and the County’s Triggers Policy, which provides a basis for determining when certain major road improvements may be needed, should be used to help coordinate where and what kinds of capital improvements should be made.

2. Development should be located where public infrastructure (e.g., water, sewer, and roads) is already adequate or can be most cost effectively extended.

3. New businesses should be discouraged from locating where there are no public sanitary sewers to serve them.

4. Public improvements should also support social and recreational opportunities (e.g., streamway corridors) for County residents as well as protect and promote the general public’s health, safety, and welfare.

Action Steps:

a. Evaluate and update the Zoning and Subdivision Regulations minimum infrastructure requirements, as needed, so that the requirements are consistent with development needs and impacts.

b. Consider developing additional strategies to protect, maintain, or possibly acquire land for future rights-of-way and easements (e.g., sanitary sewers or water).

c. Consider developing additional strategies to protect, maintain, or possibly acquire riparian corridors, greenways, and parkland (e.g., streamway trails).

d. As improved floodplain data becomes available, consider adopting regulations to protect
flood prone areas and to manage development near those areas.

e. As streamway inventory data becomes available, consider adopting streamway buffer regulations as a tool to protect streamway integrity and water quality.

3.5 Regional Coordination

Goal: Johnson County coordinates its planning and development to contribute to the physical, social, and economic well being of the greater Kansas City region.

Policies:

1. Major development proposals that may have regional impacts should be coordinated with neighboring community plans.

2. Guidelines for growth and development, as recommended by the Mid-America Regional Council (MARC), should be considered when developing plans and undertaking area planning [e.g., MetroGreen, Creating Quality Places, and Long-Range Transportation Plan (LRTP)].

Action Steps:

a. Exchange relevant information with surrounding counties and cities on development, planning, and public improvement trends and issues.

b. Actively participate in metropolitan forums, task forces, and studies involving socioeconomic trends, land use and development issues, and the provision of public services.

c. Exchange relevant planning and land use information with Federal and State governmental agencies.

d. Continue to participate in the MARC regional population forecasting process and other regional planning efforts.

3.6 Transportation

Goal: Unincorporated Johnson County has an efficient and safe transportation system.

Policies:

1. County road routes should be coordinated with the State highway system and the street systems of area cities.

2. The County’s Comprehensive Arterial Road Network Plan (CARNP) and Preserving Our Future (POF) report should be utilized as the basis for major road improvements within the unincorporated area.

3. The CARNP Triggers Policy should be used to determine when improvements should be made to designated Type II Major Arterials and Type III Parkway routes.

4. Type I Minor Arterial CARNP roadway improvements should be prioritized based on traffic counts, safety considerations, elimination of missing links, and proximity to urban growth areas.

5. The capacity of arterial roads should be enhanced by limiting
the number and location of driveways and street intersections and by other access control measures.

6. Engineered improvements to paved roads should be planned, and where appropriate, should support bicycle and pedestrian facilities (e.g., bicycle routes, sidewalks, and trails) as recommended in the Bicycle Transportation Plan for Johnson and Wyandotte Counties.

7. Developments should be designed to recognize and minimize the impacts of the traffic generated on area roads.

8. County road improvements should minimize possible adverse impacts (e.g., tree removal or noise) on adjacent residential properties, where practical.

9. New subdivisions should provide internal street connections to existing and future developments.

Action Steps:

   a. Adhere to CARNP when evaluating development proposals.

   b. As needed, review and update the Zoning and Subdivision Regulations to require through streets to adjoining properties, where appropriate.

   c. Coordinate new development in urban fringe locations to provide pedestrian connections (e.g., sidewalks, walking/biking trails) or greenway connections within the developments and to existing and future similar adjacent developments.

d. Work with the Park and Recreation District and Public Works Department to develop bikeway and trail plans that are integrated with both the road network and greenway network.

e. Utilize the estimates of the County Public Works Department for the optimum traffic count of roads when evaluating the feasibility or impact of developments that would use those roads.

3.7 Environmental Quality

Goal: Development is integrated with the natural environment, respects the limitations imposed by environmental factors, and protects the amenities that natural assets offer.

Policies:

   1. Development should respect existing natural assets and minimize any adverse impacts on the natural environment.

   2. Developments should utilize natural drainage systems and appropriate control methods as part of their stormwater management.

   3. Development should be avoided in locations where there is a potential for flooding by the one percent annual chance flood.

   4. Developments should minimize the increase in stormwater runoff through the use of low-impact development strategies.
5. Consideration should be given to the impact of development on upstream and downstream stormwater flows and water quality.

6. Development should be designed to take advantage of energy conservation through innovative site designs, solar or other renewable energy sources.

Action Steps:

a. Consider developing and using additional strategies to minimize adverse impacts on environmentally sensitive areas (e.g., riparian corridors, streamways, steep slopes, wetlands, woodlands).

b. Use the County's Stormwater Management Program recommendations to guide and coordinate stormwater management.

c. Continue to update and implement the County's Floodplain Management program.

d. Undertake a comprehensive inventory of environmentally sensitive areas (Natural Resources Survey) in the unincorporated area to determine the location of natural features and areas (streams, riparian corridors, woodlands, grasslands, wetlands, steep slopes, floodplains, important habitats, and other natural features) of special significance. Information from such a survey should be used to help develop ways to protect these significant features.

e. Coordinate land use planning with the countywide and regional water quality efforts of the Hillsdale Water Quality Project, Johnson County Public Works, Mid-America Regional Council, Johnson County/K-State Research & Extension Council, the Kansas Department of Agriculture Division of Water Resources and the National Resource Conservation Service.

f. Implement the National Pollution Discharge Elimination System (NPDES) Phase II permit requirements.

g. Floodplains should be considered as part of the County's infrastructure and should be managed to protect the environment as well as to minimize the impact of flooding on development.

h. Stormwater management and planning in the unincorporated area should be coordinated by County agencies including Public Works, Planning, Parks and Recreation, and Environmental Departments.

i. Develop and make available to County residents information that will help them be aware of maintenance methods and requirements for on-site wastewater systems.

j. Consider adopting and implementing the stormwater engineering standards, and design guidelines prepared with the Kansas City Metropolitan Chapter of the American Public Works Association and the Mid-America Regional Council in 2003. These include the "Stormwater Standards" known as Section 5600, the "Erosion/ Sediment Control Standards and

k. To minimize the potential for leaking on-site wastewater systems, and in accordance with the Sanitary Code, whenever a property in the unincorporated area changes ownership, required County inspections and permits for on-site wastewater systems should be enforced.

3.8 Land Use

Goal: Johnson County has achieved the compatible physical and economic coexistence of rural residences, agriculture uses, and cities.

Policies:

General

1. The Johnson County Rural Comprehensive Plan is the County’s policy for growth management within the unincorporated area. County officials and others should use the Plan as a guide for determining “how,” “when,” and “where” future development should occur within the unincorporated area of the County.

2. The “Policy Area Map” in the Johnson County Rural Comprehensive Plan, designates the recommended location for various types of future development to occur within the unincorporated area of the County. The Policy Area Map should be continually monitored and updated as needed. At a minimum, the Planning Commission should formally review the Policy Area Map every year from the date of adoption of the Plan.

3. The availability of land for the vital expansion of nonagricultural activities should be balanced with maintaining rural areas to prevent the random, premature conversion of agriculture or undeveloped lands to isolated residential, commercial, or industrial uses.

4. Proposed development plans will be reviewed and considered on their individual merits for consistency with this Plan and the County’s regulations, irrespective of the existing zoning district in which the development is proposed.

5. Development patterns that promote orderly growth and minimize conflicts with adjacent land uses should be encouraged.

6. Developments that have a low impact on water quality and the natural environment should be encouraged.

7. The efficient allocation of public facilities, services, and resources should be maximized by encouraging contiguous development and avoiding “leapfrog” development.

8. Proposed development with densities greater than allowed within the designated policy area should be directed to cities or locations within the unincorporated area where there is planned or existing infrastructure to support it (e.g., existing sanitary sewer districts, New Century AirCenter) and where such development would not require
an upgrade of existing infrastructure at the County’s expense.

9. The visual quality found in portions of the unincorporated area (e.g., aesthetic, panoramas, and vistas) should be preserved and enhanced whenever possible.

10. Environmentally sensitive areas should be protected to the extent reasonable.

11. Development should be planned so that it is coordinated with future orderly urban expansion especially with regard to roads and public utilities.

12. County infrastructure upgrades and new infrastructure should be considered for its impact as a possible catalyst for new development and should in some cases be used as a growth management tool to guide the timing and locations of new development.

13. More intensive land uses or higher densities may be appropriate in certain areas served by public utilities and facilities that meet the Minimum Infrastructure Requirements of the County’s Zoning and Subdivision Regulations if the development is carefully designed to be compatible with surrounding land uses and is appropriate for the land use policy area in which it is located.

Agriculture

1. Agriculture is a valued resource and asset that should be encouraged and protected from premature or incompatible development.

2. In the Rural Traditional Policy Area, public infrastructure improvements should be timed and designed to accommodate existing needs or the limited growth of low-density rural populations and not become an incentive for new subdivisions that might conflict with existing agriculture production.

Residential

1. The character, scale, and density of residential subdivisions should be integrated with adjoining residential development to optimize land use compatibility and to respect prevailing environmental conditions.

2. New residential developments should be designed to avoid long and narrow “piano key” type lots.

3. Subdivision designs should minimize the number of access points onto major roads.

4. The design of residential developments near or adjacent to cities should be coordinated with the respective city through joint planning and joint reviews of development proposals.

5. Subdivisions should provide ample green spaces that contribute to a pleasant environment and high quality of life.

6. Residential areas should be buffered from incompatible or nonresidential land uses and adjacent arterial roads.
Nonresidential

1. Commercial and industrial development is best suited in cities or the New Century AirCenter or where there is existing commercial/industrial zoning for it and where there is or will be adequate infrastructure to support it (i.e. roads, public sanitary sewer, and public water).

2. Within the unincorporated area, nonresidential development may be suitable only in those locations where there is adequate infrastructure and where there is an adopted area plan that recommends it.

3. Direct the clustering of industrial and commercial uses toward strategic intersections, corridors and areas adjacent to such existing uses. Such uses should be unified developments, should be compatible with any adjacent industrial or commercial development, and should be appropriately transitioned from any nearby residential development. Such areas should contain compatible environmental characteristics and adequate infrastructure. An appropriate wastewater disposal system shall be required with a preference for sanitary sewers but alternative systems may be allowed on an interim basis until sanitary sewers reasonably become available and where all other Minimum Infrastructure Requirements of the County’s zoning regulations are met.

4. Allowed nonresidential development should protect the environment and be compatible with or buffered to avoid adverse impacts on the surrounding area, particularly residences.

5. Where allowed, commercial development, especially retail activities, should not be spread along major roadways and should be grouped together to share parking and driveways so that customers can walk easily and safely from store to store.

6. Commercial development should be compatible with nearby development and adequately buffered (e.g., screening, landscaping, controlled outdoor lighting, separate traffic flows, and noise levels) to mitigate possible adverse impacts, particularly with residential development.

7. Necessary utility equipment (e.g. electrical substations, pump stations, cellular towers) should be designed and directed to locations to prevent or minimize potential adverse impacts (visual, noise, odors, etc.) on nearby residential areas.

8. Some major land uses, such as major employment centers, public or quasi-public uses, or mineral extraction, may be found to be significantly important to the overall economic vitality of the entire County to such a great extent that, if appropriate sites are not available within cities in the County, the uses may be found to be appropriate at strategic locations within the unincorporated area. Any such development allowed within the unincorporated area must be carefully integrated into the overall, orderly development pattern,
and it must be provided with all needed infrastructure in an efficient manner.

Action Steps:

a. Use goals, policies, and Land Use Planning Policy Areas (Urban Fringe, Rural, and Rural Traditional) in this Plan to review proposed development throughout the unincorporated area.

b. Create a countywide map showing each city’s future land use plan.

c. Use appropriate transition methods (e.g., site and building orientation, buffering, landscaping, and lighting) where non-residential uses abut or are near residential areas.

d. To avoid problems associated with premature development, particularly in areas lacking adequate infrastructure (e.g., sanitary sewers) periodically review existing zoning and consider downzoning properties that are now zoned for intensive land uses.

e. Update the Zoning and Subdivision Regulations regarding, but not limited to:
   - Accessory dwellings/apartments,
   - Access management techniques,
   - Clustered/conservation subdivisions,
   - Nonconforming uses, and
   - Limitations on the sizes of commercial buildings.

f. Review and update subdivision regulations to ensure development dedicates or to the extent reasonable, protects appropriate open space for parks, riparian corridors, and rural areas.

g. In the rural areas of the County, consider the recommendations of the Johnson County/K-State Research & Extension Council, the Natural Resources Conservation Service, and the Hillsdale Water Quality Project, to support agriculture uses.

h. Agricultural production has certain rights under State and County regulations to protect farming operations. People considering developing within the unincorporated area should be made aware of these farming rights.

i. Develop or promote the use of existing incentives for property owners who set aside areas for open space, and study the possible use of conservation easements (e.g., with the Kansas Land Trust).

j. Consider using “shadow platting” as a technique for reviewing subdivision applications near cities to show how the subdivisions might be developed further in the future when sanitary sewers become available.

k. To assure coordinated development and the orderly transition of unincorporated areas into cities, undertake joint planning with
4.0 RURAL CHARACTER DESIGN FEATURES

"Perhaps the most valuable enduring asset of America's small towns and rural communities is their character. Americans value the rural lifestyle."

National Association of Counties (NACo) and the Joint Center for Sustainable Communities, Local Tools for Smart Growth.

Throughout the planning process the public voiced strong support for protecting the “rural character” as they perceive it to exist in portions of Johnson County's unincorporated area. Locations exhibiting this “ruralness” are generally less developed and fairly distant from the urban fringe.

The following is a general description of some of the natural and man-made features that contribute to a sense of rural character that County residents value. This list of features was useful in the preparation of this Plan and may be useful in the future as a general conceptual design reference to discuss with prospective developers when they meet with staff to present their preliminary proposals. Although neither a regulation nor adopted guidelines, this list may also be a useful reference for planners, zoning board members, and commissioners when considering development proposals.

While all development need not be of a “rural” style, certain kinds of development interrupt or intrude on the appearance of rural or scenic areas. This type of development is often unwelcome by existing area residents. On the other hand, designs that blend with the visual character of the area are generally more in keeping with the expectations of nearby residents who want to live “in the country.”

4.1 Rural Features

The following is a summary list of many of the features that can be found in the unincorporated area of Johnson County that contribute to a sense of rural character.

4.1.1 General Features

- Most development is symmetrical and at right angles, reflective of the predominant rural grid pattern established by the network of section-line roads and reinforced by the division of land into half, quarter, and quarter-quarter grid sections.
- Large expanses of open space and agricultural lands (crops, pasture, prairies, nurseries, orchards, etc.) exist throughout the area.
- Wooded areas and natural habitat for wildlife are found throughout the area.
- Streams, ponds, wetlands, and riparian areas are found throughout the area.
- Roofs, almost without exception, have a pitch of at least 4” to 12” and do not tend to be greater than 12” to 12”. Mechanical equipment is rarely seen on rooftops.
- Except for numerous barnyard security lights, lighting levels are low.
- Gravel roads are common in agricultural or undeveloped areas.
while paved roads serve as connectors to cities and activity centers within the unincorporated area.

- Outside storage of farming and agricultural equipment is common. Existing buildings often screen such storage.

- Residential developments are often separated from each other by large farmsteads or agricultural uses.

- Numerous rustic and some historic structures are found throughout the unincorporated area, (e.g., the Turner Barn built in 1898, located at 199th St. and Moonlight Rd).

### 4.1.2 Residential Features

- Nearly all residential structures are made of natural materials (e.g., wood, stone, masonry - not concrete blocks or metal).

- Home designs are generally of a traditional style - one-story ranch style, two-story farmhouses, and new, large, estates (many of which are larger replicas of traditional farmhouse designs). Some older farmhouses and their barns or stables have gambrel roofs, parapets, porches, flared eaves, dormers, and cupolas.

- Farmhouses are framed by stands of large old trees and windbreaks.

- Residences are well maintained and have many windows to take advantage of the views.

- There are clear and distinct entrances to most residential properties.

- Many newer barns are made of metal.

- There are many wooden and barbwire fences and some new white vinyl or plastic horse fences - but little chain-link fencing or board-on-board privacy fencing.

- New residential structures have large setbacks. Buildings don’t crowd the site.

### 4.1.3 Nonresidential and Nonagricultural Features

- Nonresidential and nonagricultural structures are generally limited to only two major locations within the unincorporated area where there is zoning for it: along Metcalf Avenue and 199th Street, in the Stilwell area, and in the New Century AirCenter adjacent to the city of Gardner. A few other older nonresidential structures may also be found in isolated locations in the unincorporated area, often near cities or along highways or at the intersections of arterial roads.

- Although the Stilwell area has developed to the extent that it is no longer entirely “rural,” this unincorporated community’s image is that of a small town or village, which many of the residents there want to retain. Commercial structures that fit with this image are generally small scale with pitched roofs, earth tone colors, made of natural materials (wood, stone, masonry), well landscaped, with screened park-
5.0 LAND USE PLAN

The Land Use Plan provides more detailed recommendations for where and how future development is to occur within the unincorporated area. As noted in the Introduction section, the Land Use Plan, included herein as part of the Plan, is reviewed annually by the County Planning Commission to ensure that it remains current and that the goals, policies, action steps, and Policy Area Map are still relevant. As noted, the Johnson County Rural Comprehensive Plan, including the Land Use Plan, contains only recommended planning guidelines, and, therefore, is subject to change or variation. Caution, therefore, should be exercised if land purchases are based upon recommendations contained herein.

5.1 Balanced and Orderly Growth Strategy

The underlying strategy of the Land Use Plan is to achieve “balanced and orderly growth” in the unincorporated area. This strategy recognizes that population growth pressures will continue in the unincorporated area and that some locations are better suited for development or for continued rural uses than others.

Under a balanced and orderly growth strategy, the issue is not having to choose between either accepting growth versus protecting the environment and rural character. Instead, the issue is how to balance and allow development so that the quality of life in the unincorporated area remains high and an economic asset, while at the same time supporting the environment and preserving as much of the existing open space and rural character as is reasonable.

The objective of balanced and orderly growth, therefore, is to manage growth in a manner that may allow development but not at the expense of the environment or in a way that results in sprawl and the inefficient use of public resources. From this perspective, development in combination with environmental protection, energy conservation, and the wise allocation of public resources are attainable objectives that are not mutually exclusive.

In recognition of the wide range of densities that exist within the unincorporated area, the Land Use Plan is based upon the previous County Rural Comprehensive Plan objective that complementary zon-
ing districts and development standards will be continued into the future. A fundamental concept of balanced and orderly growth is that appropriate development standards are a function of density, i.e., urban development requires urban standards for public improvement, whereas low-density rural residential uses require lesser improvements, in keeping with the characteristics and use patterns of such areas.

A balanced and orderly growth strategy, therefore, encourages higher intensity development to occur in cities or locations where there is already infrastructure and services to support it. Doing so maximizes existing community resources by strengthening the tax base, increasing efficiencies in already developed land and infrastructure, while at the same time reducing development pressures on the unincorporated area thereby preserving farmland and open spaces.

Implementation of a balanced and orderly growth strategy allows for the orderly and gradual expansion of cities while protecting as much natural and open space areas as possible. This strategy seeks to prevent premature development, thereby supporting continued farming and agricultural production as well as sustaining the sense of rural character so strongly supported by many of the County’s residents.

Balanced and orderly growth recognizes that population growth within the County will lead to more pressures for development at the edges of cities where land is often less expensive yet relatively still convenient to jobs, commercial services, and public institutions. A balanced and orderly growth approach may accommodate some contiguous development in the urban fringe but only in those locations planned for development and where there is adequate infrastructure to support it.

When and if allowed, development in the area beyond the urban fringe, such as in portions of Aubry Township, would be managed to prevent conflicts with existing residential, agriculture, or environmentally sensitive lands and be sited to avoid the inefficient provision of public services and facilities.

In more remote and predominately rural areas such as McCamish Township, extensive agriculture and very low population levels would continue to be supported by limited public facilities (e.g., lack of central water service) and new, conflicting nonagricultural related development would be discouraged.
Map 2: Policy Area Map

![Policy Area Map]

Legend:
- City
- Urban Fringe
- Area Plan
- Rural
- Rural Traditional

Land Use Policy Areas:
- CARNP Corridor Study Areas
- CARNP Type 2, 2-lanes
- CARNP Type 2, 4-lanes
- CARNP Type 3, 2-lanes
- CARNP Type 3, 4-lanes
- Area reserved for potential, future grade-separation

Planned Parks:
- Planned Streamway Park Areas
- Wetland Bank & Restoration Sites
- Future Park Areas
- Streamway Trail Linkage
5.2 Land Use Planning Policy Areas

The Land Use Plan is based on the above balanced and orderly growth strategy and the recommendations and directions set forth by the preceding goals and policies. By recognizing that different areas of Johnson County present different issues for growth and development, the Land Use Plan reflects the relationships between such areas and with the community as a whole.

As a result, the Land Use Plan establishes three separate “Land Use Planning Policy Areas” for three geographic locations within the unincorporated area:

- Urban Fringe Policy Area,
- Rural Policy Area, and
- Rural Traditional Policy Area.

The three planning policy areas are general designations to be used by the property owners and the general public as well as Zoning Boards, County Planning Commission, and Board of County Commissioners when considering specific rezoning and subdivision applications, growth issues, and infrastructure improvements relevant to different parts of the County.

Each policy area is described in detail in the following sections including:

I. Description,
II. Boundary Criteria,
III. Purpose,
IV. Area Policies, and
V. Area Implementation Strategies.

5.3 Relationship of Land Use Plan to Zoning Review - Factors to Consider

The planning guidelines contained within a comprehensive plan are one of the criteria the Kansas Supreme Court has recommended to governmental bodies when reviewing zoning applications.

While all applications for rezoning approval are reviewed based upon this criterion, there are other factors to be considered. These factors include, but are not limited to, comments received from adjacent or nearby municipalities, if applicable, and public input.

6.0 URBAN FRINGE POLICY AREA

6.1 Description

The Urban Fringe Policy Area, including locations that have separate Area Plans (e.g., Blue Valley Plan) contains approximately 60,450 acres or nearly 94 square miles. This policy accounts for approximately 42 percent of the unincorporated area and is located on the outskirts of Olathe, Overland Park, De Soto, Edgerton, Gardner, and Spring Hill. This area may be characterized as the “middle ground” between the suburbs and the countryside.

The Urban Fringe Policy Area is currently comprised of a scattered mix of large-lot (10 acres or greater) and smaller-lot (2 acres or less) residences, a few commercial uses (e.g., office and small retail) and institutions (e.g., schools and churches) separated by some remaining working farms and open space. Many of the larger tracts of land within this area are held by real estate interests awaiting the necessary infrastructure to develop their property into more intensive uses.

Older subdivisions that predate County regulations and this Plan contain lots that are less than 10 acres and are found dispersed throughout the Urban Fringe Policy Area. Many of these subdivisions do not meet current County regulations (e.g. lot sizes less than 2 acres) and design standards (e.g., septic system require-
As population growth continues within the County, more pressure for development will be exerted at the edges of these cities. Portions of the Urban Fringe Policy Area, therefore, function somewhat as a reserve for the eventual growth of cities into this area.

As infrastructure and annexations extend into the Urban Fringe Policy Area, the area may accommodate a variety of urban land uses ranging from higher density residential development to possibly limited commercial activity. It is anticipated that annexations and the extension of central sanitary sewers may occur within the Urban Fringe Policy Area within the next 10 years and that other public infrastructure will be upgraded in accordance with needs and available funding resources.

Development within the Urban Fringe Policy Area is not anticipated to be rooftop-to-rooftop. Instead, through close coordination with adjacent cities and careful planning, valuable and ample open space would be protected and existing large estates and working farms would be able to continue, buffered from gradually occurring higher density development. Future joint plans to be prepared by the respective fringe cities and the County would be similar to the existing Blue Valley Plan that contains recommendations for a mix of residential densities and locations designated for limited nonresidential uses (e.g., office and neighborhood businesses).

Although the County provides many services to residents within the Urban Fringe Policy Area, the County generally does not provide levels of service (e.g., emergency response times) or infrastructure (e.g., street standards) equivalent to those found in cities. This disparity has resulted, and may continue to result, in development approved by the County within the Urban Fringe Policy Area that conflicts with city standards (e.g., right-of-way and setback requirements). This creates problems for the cities once they annex these areas that have been developed with different development standards.

Until upgraded infrastructure and services are available for more intensive development, the Urban Fringe Policy Area is expected to remain primarily as large open spaces, some agricultural activity, a mix of large- and small-lot residential uses, and very limited commercial development. Any new development allowed within this area should be designed and coordinated for eventual integration into the expanding urban development pattern.

Some limited commercial uses or other land uses may be allowed if they comply with area plans prepared jointly by the County and adjacent cities, or where the required zoning for such uses is already in place, provided such development meets County regulations, including minimum infrastructure requirements.

The policies for the Urban Fringe Policy Area, therefore, recognize that it will not remain predominately agricultural and low-density development and that expanding urban development pressures will generate demands for more non-agricultural uses. The suitability of further rezoning in such areas, however, will depend upon the merits of each case, with the burden on applicants for rezoning to demonstrate that such change in zoning is consistent with County policies, complies with the County’s Zoning and Subdivision Regulations, is supported by adequate public infrastructure, and is coordinated with the nearby cities.
6.2 Boundary Criteria

The boundary of the Urban Fringe Policy Area is based on proximity to existing city boundaries, the availability of central water service, the potential to economically expand or connect with planned as well as existing improved roads and sanitary sewers within the next 10 years, and the reasonable expectation that adjacent cities will expand their boundaries into some portions of the Urban Fringe Policy Area as indicated in their existing respective comprehensive plans or interlocal agreements.

6.3 Purpose

The purpose of the Urban Fringe Policy Area is to allow for “balanced and orderly” growth - preserving existing residences, active agricultural uses, and valuable open space, while enabling the gradual transition of portions of this area to development through close cooperation between the County and adjacent cities as well as through coordinated planning with utility and other service providers (e.g., electricity, fire protection, and schools).

The Urban Fringe Policy Area recognizes it is in the County’s and adjacent cities’ mutual interest to cooperate and manage growth within this area to protect existing residential and agricultural land uses and the environment and to assure that future development is compatible with existing development as well as balanced and orderly and consistent with their mutual goals and objectives. This cooperation should help avoid overloading, duplicating, or otherwise inefficiently providing public infrastructure and services as well as ensure that a high quality of life is maintained within this policy area.

6.4 Urban Fringe Area Policies

6.4.1 Intended Uses

- Existing agricultural and agricultural related uses.
- Large-lot (larger than 2 acres), or very low-density single-family residences.
- Small-lot (2-acres), low-density single-family residences.
- Residential development on less than 2 acres only under conditions permitted as described in
the following subsection 6.4.3, "Optional Residential Densities."

- Accessory uses as permitted by County regulations.

- Limited non-residential development only with adequate infrastructure to support it and in accordance with City/County plans (e.g., Blue Valley Area Plan and Lone Elm Vicinity Plan) or in locations previously zoned for such uses (e.g., New Century AirCenter, or along portions of U.S. Highway 169 and Metcalf Avenue).

6.4.2 Standard Residential Density

1 dwelling unit per 2 acres.

6.4.3 Optional Residential Densities

- Planned Rural (PRUR) subdivisions that allow an overall density of up to 1 dwelling unit per 10 acres, plus 1 bonus lot per 30 acres in the subdivision, with all lots at least 4 acres in size.

- Residential subdivisions with densities greater than 1 dwelling unit per 2 acres will require connection to central sanitary sewers as well as compliance with County regulations, including minimum infrastructure requirements, and may be allowed based upon, but not limited to, the following:
  a. Compliance with City/County plans;
  b. Installation of adequate infrastructure coordinated with the County's and nearby city's existing or planned infrastructure; and
  c. Adequate water to meet Fire Code requirements.

6.4.4 Infrastructure for Residential Subdivisions

The availability of adequate infrastructure to support development within the Urban Fringe Policy Area is a high priority. The extension of infrastructure within the Urban Fringe Policy Area is intended to serve existing and approved development.

The County's zoning and subdivision regulations establish infrastructure requirements such as the following:

Wastewater: Septic systems with dry sewers, or development connected to central sanitary sewers, as required by the regulations.

Water: Connection to central water systems.

Roads: Paved with gravel shoulders if any lots are less than 10 acres and paved with curb and gutter if any lots are less than 3 acres and where appropriate, designed to accommodate pedestrian and bicycle travel.

6.5 Urban Fringe Area Implementation Strategies

6.5.1 Development Review Policies

In addition to the land use criteria recommended to governmental bodies by the Kansas Supreme Court, rezoning and subdivision applications are also be
reviewed based upon, but not limited to, the following policies:

1. Conforms with the Goals and Policies in the Land Use Plan and the Policy Area Map contained in the Plan.

2. Coordinated with adjacent or nearby city plans, where applicable.

3. Proposals for development near city boundaries will be reviewed regarding whether such development may or should occur within the nearby city. County staff will consult with the abutting city and will counsel the prospective developer on the reasons and options for developing within the abutting city.

4. Meets the criteria of the County Zoning and Subdivision Regulations, particularly the “Minimum Infrastructure Requirements.”

5. Contiguous or nearby to similar existing development.

6. Located where public infrastructure (e.g., water, sewer, and roads) is adequate, would not be unduly burdened, or can be extended cost effectively.

7. Compatible with the existing surrounding or nearby residential and agricultural land uses, and to the extent reasonable, protects open space systems, wildlife habitats, riparian areas, and scenic views.

8. Interconnects and blends with surrounding open spaces and natural areas.

9. Buffers existing development through screening, landscaping, and large setbacks for new construction.

10. Achieves or maintains low-density residential development through the use of design techniques such as large setbacks, landscaping, or clustering.

6.5.2 Continued Area Planning

Working with adjacent cities, the County will continue to conduct detailed land use studies or area planning within the Urban Fringe Policy Area. Some area plans already exist such as, the Blue Valley Plan, the Lone Elm Vicinity Plan, and the Sunflower Army Ammunition Plant Plan.

The process of creating new area plans, or updating existing area plans, will depend on growth pressures and infrastructure expansion. Priority will be given to working with Overland Park to update the existing Blue Valley Plan and working with Olathe on an area plan adjacent to the city’s southern boundary. As De Soto, Edgerton, Gardner, and Spring Hill update or review their comprehensive plans, the County will work with them to determine future land uses within the Urban Fringe Policy Area. City plans that extend within the Urban Fringe Policy Area may be formally considered for adoption into this Plan.

As part of ongoing coordination efforts between the County and adjacent cities, any one of the following or other actions may initiate the need for a joint planning effort between the County and adjacent cities including:

- Receipt of a petition for sanitary sewers,
b. Requested or planned improvements to nearby major arterial roads,

c. City request to undertake joint planning, or

d. Increased or anticipated increases in development as indicated by building permit requests or applications and inquiries for rezoning or subdividing property.

6.5.3 Zoning and Subdivision Regulation Updates

Other actions the County may undertake related to managing development within the Urban Fringe Policy Area include, but are not limited to:

- Amending the County’s zoning and subdivision regulations to allow clustered/conservation subdivisions with open space. These regulations would allow houses to be clustered on part of the property with the remaining open space set aside for possible future development or permanent common open space (e.g., for the use of subdivision home owners).

- Creating criteria for density bonuses for the preservation of open space or riparian areas.

- Preparing nonresidential/nonagricultural design guidelines for commercial areas and institutional uses that the area plans may identify as appropriate uses in certain locations in the unincorporated area.

- Encouraging “shadow platting” for proposed subdivisions. This type of analysis can illustrate how large lots (e.g., 10 acres and greater) may be further subdivided into smaller lots for future higher density development (e.g., 3 dwelling units/1 acre) when central sanitary sewers and other necessary infrastructure become available.

- Updating minimum infrastructure requirements for developments denser than 1 dwelling unit per 10 acres to be coordinated and compatible with the infrastructure requirements of adjacent cities.

7.0 RURAL POLICY AREA

7.1 Description

The Rural Policy Area contains approximately 52,250 acres or about 82 square miles and is generally adjacent to the designated Urban Fringe Policy Area. This Policy Area accounts for approximately 37 percent of the total unincorporated area of the County. The Rural Policy Area has a very low population density with scattered single-family residences and small subdivisions interwoven between large expanses of open space and farming operations. This development pattern is generally in keeping with the established rural character and is consistent with the limited infrastructure and service delivery capabilities available to this area. As a result of limited infrastructure and service capacities, agriculture uses will continue and any development would be large residential lots (minimum of 10 acres per dwelling unit).

The common residential lot size within the Rural Policy Area is 1 dwelling unit per 10 acres with many lots larger than 40 acres or more. Older subdivisions, which predate this Plan and countywide regulations...
and contain lots ranging from 1 to 10 acres, are also found dispersed throughout the Rural Policy Area. Although these older subdivisions exist, many generally do not meet the County’s current regulations and design standards. Under the County’s current policies, which strongly discourage this density of development in rural areas, many of these types of subdivisions would not be permitted and similar proposed types of development would not be allowed to occur.

When allowed, future development within the Rural Policy Area would be in keeping with the established rural character at a density of at least 10 acres per dwelling unit. Such development would be well buffered so as to not encroach on existing agricultural operations and would be encouraged to incorporate as many of the existing natural features (e.g., existing vegetation) in the area as possible.

New residential lots sizes smaller than 10 acres may be possible in the Planned Rural (PRUR) zoning district and in clustered/conservation subdivisions if they are developed as recommended in this Plan. These subdivisions must be designed to protect the established rural character and open spaces to the extent reasonable, and there must be assurances that adequate infrastructure will be available to support each subdivision.

The policies for the Rural Policy Area recognize that it is not exclusively agricultural and that existing development patterns may generate demands for expansions of these non-agricultural uses. The suitability of further rezoning in such areas, however, will depend upon the merits of each case, with the burden on the applicant to demonstrate that such expansion is consistent with County policies, complies with the County’s Zoning and Subdivision Regulations, and is supported by adequate infrastructure. However, existing substandard developments, such as older isolated 1-acre lot subdivisions, should not be allowed to expand unless current County development requirements are met.

7.2 Boundary Criteria

The boundary of the Rural Policy Area is based on the limited availability of central water service, lack of existing or planned public sanitary sewers within approximately the next 20 years, limited adequate soils for septic systems, the limited availability of existing or planned paved roads, and a location generally beyond the 20-year time horizon for future city expansions.

7.3 Purpose

The purpose of the Rural Policy Area is to maintain the existing open space amenities and rural character, while allowing limited residential development that incorporates rural characteristics, and, to the extent reasonable, protects and promotes open space systems, wildlife habitats, riparian areas, and scenic views. The purpose of this policy area is also to ensure the efficient allocation of limited public resources and to assure that there is adequate infrastructure to support development. Proposed developments that do not meet this standard may be viewed as premature and inappropriate.

7.4 Rural Area Policies

7.4.1 Intended Uses

- Agricultural and related uses.
- Very low-density single-family residences (1 dwelling per 10 acres).
• Existing legal nonconforming residences on lots less than 10 acres.

• Accessory uses as permitted by County regulations.

### 7.4.2 Standard Residential Density

1 dwelling unit per 10 acres.

### 7.4.3 Optional Residential Densities

- Planned Rural (PRUR) subdivisions that allow an overall density of up to 1 dwelling unit per 10 acres, plus 1 bonus lot per 30 acres in the subdivision, with all lots at least 4 acres in size.

- Clustered/conservation subdivisions with densities greater than 1 dwelling unit per 10 acres that provide open space, wildlife habitat, or agricultural uses which, to the extent reasonable, protect the environment and scenic vistas, and blend with the surrounding area.

### 7.4.4 Infrastructure for Residential Subdivisions

The extension of infrastructure and infrastructure upgrades in the Rural Policy Area should be provided as needed to support existing or limited future rural demand.

The County’s zoning and subdivision regulations establish infrastructure requirements, such as the following:

- **Wastewater:** Septic systems.
- **Water:** Connection to central water system.
- **Roads:** Gravel surface if 7 lots or less are served and all 7 lots contain 10 acres or more, and paved if more than 7 lots are served or if any lots are less than 10 acres and where appropriate, designed to accommodate pedestrian and bicycle travel.

### 7.5 Rural Area Implementation Strategies

#### 7.5.1 Development Review Policies

In addition to the land use criteria recommended to governmental bodies by the Kansas Supreme Court, rezoning and subdivision applications are also to be reviewed based upon, but not limited to, the following policies:

1. Conforms with the Goals and Policies in the Land Use Plan and the Policy Area Map contained in the Plan.

2. Meets the criteria of the County Zoning and Subdivision Regulations, particularly the “Minimum Infrastructure Requirements.”

3. Compatible with the existing surrounding or nearby residential and agricultural land uses and to the extent reasonable, protects open space systems, wildlife habitats, riparian areas, and scenic views.

4. Interconnects and blends with surrounding open spaces and natural areas.

5. Buffers existing development through extensive screening, landscaping, and large setbacks for new construction.

6. Reinforces the rural character through low-density residential
development or design techniques, such as clustering.

### 7.5.2 Zoning and Subdivision Regulation Updates

Other actions the County may undertake related to managing development within the Rural Policy Area include, but are not limited to:

- Amending regulations to allow clustered/conservation subdivisions with permanent open space and consider the concept of temporary open space, where houses are clustered on part of the property and the rest is left as open space that someday might be developed further. The subdivision should be designed to include greater setbacks and landscaping to allow subdivisions to blend in with the rural character of the area.

- Creating criteria for density bonuses in exchange for the preservation of open space and riparian areas.

### 8.0 RURAL TRADITIONAL POLICY AREA

#### 8.1 Description

The Rural Traditional Policy Area contains approximately 31,100 acres or nearly 49 square miles in the remote, far southwestern corner of the County near the city of Edgerton. This Policy Area accounts for approximately 21 percent of the total unincorporated area. The area is predominately in agricultural use consisting of farms or undeveloped open space and divided into very large tracts of land, generally 40 acres or larger. Some scattered residences exist on lots of 10 acres or more along with a few pockets of older small subdivisions or certificate of survey areas with lots smaller than 10 acres. Many of these older residences and subdivisions with smaller lots predate this Plan and countywide regulations and do not meet the County’s current regulations and design standards. Under the County’s current policies, which strongly discourage this density of development in rural areas, many of these types of subdivisions would not be permitted to occur.

Because of its generally remote location and the limited availability of public facilities over the next 20 years, the Rural Traditional Policy Area is expected to remain relatively unchanged and predominately agricultural and open space with a continued very low-density rural population. County services and private utilities are expected to maintain the levels of service now provided and will be upgraded only if there is a significant need to do so. Infrastructure improvements used as an incentive for new development are not anticipated.

Central sanitary sewers for this area are not planned for the foreseeable future and only limited central water service is available at this time. The existing network of gravel roads, along with a few paved roads, are adequate to serve the existing and anticipated low-density rural population as well as farming needs within this area. These rural roads will be improved only when there is a significant need to do so. Generally, the major road upgrades in this area will be limited to Type II or III routes as identified in CARNP.

In the Rural Traditional Policy Area, only limited non-farm residential development that is consistent with rural character is anticipated. Residential development in the Rural Traditional Policy Area should not
unnecessarily remove productive agricultural land or interfere with farming operations. Most of the area will continue to be primarily served by individual wells, on-site septic systems, and accessed by gravel roads. The County will maintain the current level of services by providing basic, on-going maintenance.

The common residential lot size within the Rural Traditional Policy Area is 1 dwelling unit per 10 acres. Residential lot sizes smaller than 10 acres may be possible in the Planned Rural (PRUR) zoning district, and in clustered/conservation subdivisions (if regulations for such subdivisions are developed as recommended in this Plan) and if provisions are made to ensure the protection of the rural character and preservation of open spaces and assurances that there is adequate infrastructure to support it.

Like the Rural Policy Area, policies for the Rural Traditional Policy Area recognize that it is not exclusively agricultural and that existing development patterns may generate demands for expansions of these non-agricultural uses. The suitability of further rezoning in such areas, however, will depend upon the merits of each case, with the burden on the applicant to demonstrate that such expansion is consistent with County policies, complies with the County’s Zoning and Subdivision Regulations, and is supported by adequate public facilities. However, existing substandard developments, such as older isolated 1-acre lot subdivisions, should not be allowed to expand unless current County development requirements are met.

8.2 Boundary Criteria

The boundary of the Rural Traditional Policy Area is based on its generally remote location within a predominately open space and agricultural area with some scattered residential developments. This condition is largely due to this area’s distant location from the urbanized area and the very limited availability of planned as well as existing public infrastructure (e.g., roads, water, and sanitary sewers) and services (e.g., schools, sheriff, fire) services).

8.3 Purpose

The purpose of the Rural Traditional Policy Area is to maintain and support the area for continued farming and agricultural production with only very low levels of non-farming-related residential development due to the limited availability of public infrastructure and services to support it. Non-agricultural related development that is incompatible or may interfere with agricultural operations in the Rural Traditional Policy Area is discouraged.

8.4 Rural Traditional Area Policies

8.4.1 Intended Uses

- Agricultural and related uses. (On-site sales of agricultural products as permitted by County regulations.)
- Very low-density single-family residences.
- Existing legal nonconforming residences on lots less than 10 acres.
- Accessory uses as permitted by County regulations.

8.4.2 Standard Residential Density

1 dwelling unit per 10 acres.
8.4.3 Optional Residential Densities

- Planned Rural (PRUR) subdivisions that allow up to 1 dwelling unit per 10 acres, plus 1 bonus lot per 30 acres in the subdivision, with all lots at least 4 acres in size.

- Clustered/conservation subdivisions with densities greater than 1 dwelling unit per 10 acres, that comply with the regulations, and conserve open space, wildlife habitat, or agricultural uses, and protect the environment and scenic vistas, and blend with the surrounding area.

8.4.4 Infrastructure for Residential Subdivisions

Infrastructure improvements in the Rural Traditional Policy Area should be to support existing agricultural-related demand or only limited large lot residential development with an overall density of 1 dwelling to 10 acres.

The County’s Zoning and Subdivision Regulations establish infrastructure requirements, such as the following:

- **Wastewater**: Septic systems.
- **Water**: On-site or connection to central water system.
- **Roads**: Gravel surface if 7 lots or less are served and all 7 lots contain 10 acres or more, and paved if more than 7 lots are served or if any lots are less than 10 acres and where appropriate, designed to accommodate pedestrian and bicycle travel.

8.5 Rural Traditional Area Implementation Strategies

8.5.1 Development Review Policies

In addition to the land use criteria recommended to governmental bodies by the Kansas Supreme Court, rezoning and subdivision applications are also to be reviewed based upon, but not limited to, the following:

1. Conforms with the Goals and Policies in the Land Use Plan and the Policy Area Map contained in the Plan.

2. Uses design techniques where necessary to protect existing agricultural uses from incompatible development.

3. Meets the criteria of the County Zoning and Subdivision Regulations, particularly the “Minimum Infrastructure Requirements.”

4. Does not require major infrastructure upgrades by either the developer or the County, in predominantly agricultural areas, where the infrastructure upgrade would be an incentive for new large-scale subdivisions.

5. Maintains and is compatible with the existing surrounding or nearby residential and agricultural land uses and to the extent reasonable, protects open space systems, wildlife habitats, riparian areas, and scenic views.

6. Encourages clustered subdivisions that conserve open space, wildlife habitat or agricultural uses or that support voluntary efforts to retain such lands if
residential development is to occur near agricultural lands.

7. Interconnects as well as blends with surrounding open spaces and natural areas.

8. Buffers existing development through extensive screening, landscaping, and large setbacks for new construction.

9. Reinforces the rural character though low-density residential development or new design techniques, such as clustering, if allowed.

8.5.2 Zoning and Subdivision Regulation Updates

Other actions the County may undertake related to managing development within the Rural Traditional Policy Area include, but are not limited to:

- Amending regulations to allow clustered/conservation subdivisions with permanent open space and consider the concept of temporary open space where houses are clustered on part of the property and the rest is left as open space that someday might be developed further.

- Establishing rural residential design criteria including greater setbacks and landscaping to allow subdivisions that blend in with the rural character of the area.
### LAND USE PLAN CHART

<table>
<thead>
<tr>
<th>Purpose:</th>
<th>Rural Traditional Policy Area</th>
<th>Rural Policy Area</th>
<th>Urban Fringe Policy Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Maintain rural character.</td>
<td>Maintain rural character, e.g., agriculture, large-lot residential, environmental/open space.</td>
<td>Anticipated urban expansion within 10 years.</td>
</tr>
<tr>
<td></td>
<td>Support continuation of agriculture.</td>
<td>Area unlikely to be served by central sewer or extensive road improvements in the next 20 years.</td>
<td>Coordinate with adjacent city plans.</td>
</tr>
<tr>
<td></td>
<td>Urban infrastructure, e.g., central sanitary sewers, paved or improved roads, are not planned or anticipated in the next 20+ years.</td>
<td></td>
<td>Provide land for orderly, contiguous, and managed growth that protects the environment.</td>
</tr>
<tr>
<td></td>
<td>Area outside of urban expansions.</td>
<td></td>
<td>Avoid overloading, inefficiencies, or duplications of public infrastructure and services.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Major Uses Permitted*</th>
<th>Rural Traditional Policy Area</th>
<th>Rural Policy Area</th>
<th>Urban Fringe Policy Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Agriculture.</td>
<td>Agriculture.</td>
<td>Agriculture.</td>
</tr>
<tr>
<td></td>
<td>Very Low-Density Residential.</td>
<td>Very Low-Density Residential.</td>
<td>Low-Density Residential.</td>
</tr>
<tr>
<td></td>
<td>Other uses in accordance with City/County plans.</td>
<td></td>
<td>Other uses in accordance with City/County plans.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>General Timing of “Urban/Suburban” Infrastructure</th>
<th>20+ Years</th>
<th>20 Years</th>
<th>10 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Lot Size</td>
<td>10 Acres/Dwelling Unit</td>
<td>10 Acres/Dwelling Unit</td>
<td>2 Acres/Dwelling Unit</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Optional Residential Densities</th>
<th>PRUR Subdivisions.</th>
<th>PRUR Subdivisions.</th>
<th>Less than 2 acres, if on approved central sewer systems.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Clustered/Conservation Subdivisions that conserve open space, wildlife habitat or agricultural uses</td>
<td>Clustered/Conservation Subdivisions that conserve open space, wildlife habitat or agricultural uses.</td>
<td>PRUR Subdivisions</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Varies depending upon Area Plans.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Minimum Infrastructure*</th>
<th>Rural Traditional Policy Area</th>
<th>Rural Policy Area</th>
<th>Urban Fringe Policy Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sewer</td>
<td>Septic systems</td>
<td>Septic systems</td>
<td>Central sewers or septic systems with dry sewers and sewer agreements.</td>
</tr>
<tr>
<td>Water</td>
<td>On-site (e.g., wells or tanks) or central water systems.</td>
<td>Central water systems.</td>
<td>Central water systems.</td>
</tr>
<tr>
<td>Roads</td>
<td>Gravel (paved if any lots less than 10 acres).</td>
<td>Gravel (paved if any lots less than 10 acres).</td>
<td>Gravel (paved if any lots less than 10 acres, paved with curb and gutter if any lots less than 3 acres).</td>
</tr>
</tbody>
</table>

*See Johnson County Zoning and Subdivision Regulations for complete description and list of zoning categories and permitted uses.
PART I - Chapter 3: AREA PLANS

1.0 PREVIOUS AREA PLAN AMENDMENTS

The previous Johnson County Rural Comprehensive Plan included five separate Area Plans that were prepared in coordination with individual nearby cities and separately adopted as amendments to the Plan.

The publication of this Plan does not alter any of the five Area Plans. All five of these Area Plans are a part of this Plan as they were originally amended into the County’s previous Rural Comprehensive Plan.

Over time and as circumstances change within these respective areas (e.g., population changes, new sewers, road improvements) and as resources permit, these five Area Plans may need to be considered for review or updating. The future annexation of some of these areas, however, may preclude the need for further County input into planning for these areas.

These five Area Plans include:

1. Executive Airport Comprehensive Compatibility Plan
2. New Century AirCenter Comprehensive Compatibility Plan
3. Blue Valley Plan
4. Sunflower Army Ammunition Plant Conceptual Land Use Plan
5. Lone Elm Vicinity Plan.

2.0 FIVE AREA PLANS

A brief summary of each of these Area Plans is provided below.

Area Plans 1 and 2: New Century AirCenter (formerly the Industrial Airport) Comprehensive Compatibility Plan and Executive Airport Comprehensive Compatibility Plan.

During 1990, representatives from Johnson County and the cities of Olathe, Overland Park, and Gardner evaluated airport vicinity land use compatibility with respect to existing plans for the airport areas. The project led to the development of the Johnson County Executive Airport Comprehensive Compatibility Plan, provided separately as Appendix C of this Plan, and the New Century AirCenter Comprehensive Compatibility Plan, also provided separately as Appendix D of this Plan.

These two airport area compatibility plans were developed as a result of the need to mitigate the potential adverse relationship between airport operations and nearby land uses in the communities around the airports.

The airport area compatibility plans strive to develop land use compatibility guidelines based on the following four concerns:

1. Minimize aircraft noise impacts to the surrounding areas,
2. To protect the public by maintaining operationally safe approaches to the airports

3. To provide for appropriate densities and land use types with respect to the characteristics of the sites and particularly, the influences of the airports, and

4. To provide for reasonable opportunities for viable economic uses of the land while recognizing and establishing appropriate measures to balance the land use interests with the airport influences.

Area Plan 3: Blue Valley Plan

In 1996, a joint-planning committee of the Johnson County Planning Commission and the City of Overland Park Planning Commission prepared the Blue Valley Plan. The plan includes the general area south of 159th Street, west of the State Line, north of 215th Street, and a diagonal line running generally from U.S. 69 Highway to Pflumm Road. The plan encompasses the Aubry-Stilwell area. A copy of the Blue Valley Plan is provided separately as Appendix E of this Plan.

A portion of the area within the Blue Valley Plan has been annexed by the City of Overland Park and the city has updated its plan for this area.

Area Plan 4: Sunflower Army Ammunition Plant Conceptual Land Use Plan

In 1997, the U.S. Army declared the approximately 9,065-acre Sunflower Army Ammunition Plant (SFAAP) located one mile southwest of the city of De Soto to be “surplus” property and initiated statutory procedures to dispose of it. In response, in 1998, Johnson County adopted the Sunflower Army Ammunition Plant Conceptual Land Use Plan for the entire property in recognition of the Army’s intent to dispose of the property.

The Sunflower Army Ammunition Plant Conceptual Land Use Plan establishes a general vision and policies for how the site should be developed as a master planned community known as “Community in a Park.” The focus of the plan is on preserving and enhancing approximately 3,450 acres for open space and parks to be woven throughout the property connecting various mixed land uses (e.g., residential, commercial, civic) and activities. A greenbelt park is designated along the east, south, and west boundaries of the property, and will provide a recreational amenity as well as serves as a buffer to the surrounding rural properties and a boundary for growth within the 9,065 acres.

A copy of the Sunflower Army Ammunition Plant Conceptual Land Use Plan is provided separately as Appendix F of this Plan.

Area Plan 5: Lone Elm Vicinity Plan

In 2000, a joint plan was prepared by the City of Olathe and the County for the area generally south of 159th to approximately one-half mile south of 175th Street between approximately one-half mile east of U.S. Highway 169 and Clare Roads. Titled
the Lone Elm Vicinity Plan, the primary purpose of the document was to help guide decisions about future road improvements in area and future land uses. In June of 2000, the Lone Elm vicinity Plan was adopted as an amendment to the County's Rural Comprehensive Plan. A copy of the Lone Elm Vicinity Plan is provided separately as Appendix G of this Plan.

3.0 WOODLAND ROAD CORRIDOR PLAN

Another Area Plan, the Woodland Road Corridor Plan, prepared jointly in 1998 by the City of Olathe and the County also was adopted as an amendment to the County's previous Rural Comprehensive Plan. The Woodland Corridor Plan, however, has not been included as a part of this Plan because the area within the plan has since been completely annexed by the City of Olathe and new plans for it have been prepared by the city.

4.0 K-10 CORRIDOR GOALS AND OBJECTIVES

In addition to the adoption of the preceding Area Plans as amendments to the previous Rural Comprehensive Plan, the County also amended the previous Plan to include goals and objectives for future development within the K-10 Highway Corridor in Johnson County. The K-10 Highway Corridor Area Plan Goals and Objectives have become part of this Plan and are provided in Appendix H of this Plan.

These goals and objectives were developed in response to a 1991 study of the K-10 Highway Corridor west of K-7 Highway to Lawrence. The participants in the study included representatives from the seven cities and two counties served by K-10 Highway including the cities of Olathe, Lenexa, Shawnee, Overland Park, De Soto, Eudora, and Lawrence, Johnson and Douglas Counties and other parties. As a result of the K-10 Corridor Study, the K-10 Association, a non-profit organization of public and private sector representatives prepared goals and objectives for the corridor. Those goals and objectives were adopted as an amendment to the Johnson County Rural Comprehensive Plan in 1996.

5.0 CITY PLANS WITHIN UNINCORPORATED AREA

Area cities within the county often have planned for future land uses and development within the unincorporated area outside their boundaries.

This County Plan acknowledges the existence of such city plans. It also calls for optional-density Urban Fringe Policy Area development decisions to consider the guidance, which may be available from such city plans. However, this Plan does not propose that the city plans be considered to be formally adopted by the County unless the city plans are explicitly and specifically adopted by incorporation into this County Plan. There are two main reasons, which support this position:

1. In some instances, the land areas addressed in the plans of nearby cities overlap.

2. In some cases, a city's plans encompass land areas that may be larger than might reasonably be expected to develop within a 10 to 20-year planning period. While such very long-range future plans may help effect appropriate "urban design" characteristics to future development patterns, literal application of the future development patterns espoused by such plans without appropriate temporal considera-
6.0 FUTURE JOINT-PLANNING STUDIES

It is expected that the County and several cities will participate in the preparation of land use plans for areas near and adjacent to city boundaries. In the past, the County Planning Commission has indicated an interest in participating in planning studies for the area south of the City of Olathe. Other such areas may be identified in the future, perhaps near the cities of Gardner, Spring Hill, De Soto and/or Edgerton.

7.0 PREVIOUS PLANNING PROJECTS

The following is a summary of some of the previous relevant planning studies in which the Johnson County Planning, Development, and Codes Department has participated.

Kansas Highway 10 east of Kansas Highway 7.

This planning study was prepared in 1985 jointly by the Cities of Olathe and Lenexa and the County. All of the area encompassed in the plan has since been annexed and new plans have been prepared by the three respective cities.

135th Street (formerly Kansas Highway 150) east of the City of Olathe to the Kansas-Missouri state line.

This planning study was prepared jointly by the cities of Olathe, Overland Park and Leawood and the County in 1986. All of the area encompassed in the plan has since been annexed and new plans have been prepared by the three respective cities.

Population and Future Land Use Studies for Wastewater District Planning

The County Planning Office has prepared population forecasts for several drainage basins. For example, drainage basins in which wastewater treatment facility improvements are being studied or planned. In summary, the basins for which such studies have been prepared include the Mill Creek, Cedar Creek, Blue River, Tomahawk Creek, and the Hillsdale Basins.
PART I - Chapter 4: TRANSPORTATION

1.0 BACKGROUND

Throughout its history, transportation access and the location of routes have contributed dramatically to the capacity and pattern of growth in Johnson County. An excellent system of highways and major thoroughfares has facilitated this growth - first by linking new residential areas with existing employment and commercial centers, and then by enabling the development of new suburban employment centers, especially retail and offices.

Perhaps the single-most important factor shaping Johnson County's overall major road network occurred nearly 150 years ago in 1855. It was then that the original survey of the territory divided the County into a grid of one-mile square land sections. A “right-of-way” (ROW) spacing of at least 20-ft. reserved on each side of each section line became the initial basis for the County's future major road network with enlarged ROWs serving thousands of motorists daily (e.g., Metcalf, Antioch, Switzer, 95th, College Boulevard, and 199th). The effect of this section line layout is evident today and will continue to play an important role in shaping the location of future roadway improvements as well influence the pattern of future development within the unincorporated area.

In general, major road improvements typically occur in a progression as an area develops. For example, an original 2-lane gravel road is improved to a 2-lane asphalt road then ultimately to a 4-lane thoroughfare after the area has been annexed into a city and become fully developed.

2.0 RURAL TRANSPORTATION SYSTEM

The objective of a well-planned transportation system is to allow for safe, convenient, and efficient travel. The County strives toward an overall transportation system that meets these objectives.

The transportation system serving the urbanized portion of Johnson County fully exemplifies these objectives. Highways and major arterials serving this portion of the County provide direct access and convenient mobility for residents, businesses, and visitors. Limited public transit service is available to some of the smaller communities as well as to all the major cities in the County. Railroads and airport service support the County's growth in industrial and commercial development by providing means for cost-effectively distributing goods and services. A growing network of linked pedestrian sidewalks/trails and bikeways has become an important mode of transportation as well as an amenity for the County's suburban residents.

In contrast, the transportation system serving the unincorporated area functions at a much lesser capacity. This is because the rural road system has a limited ability to support large traffic volumes since it is intended to serve the comparatively low traffic volumes generated by a smaller and more dispersed population than found in the urbanized areas of the County.

Other factors that directly contribute to this condition of limited road capacity or and traffic flow within the unincorporated area includes:
1. Limited County resources to maintain a total of 518 miles of rural roads, of which, 248 miles are gravel-surfaced and 270 miles are asphalt-surface.

There are over 120 bridges the in the rural area maintained by the County.

- Gravel roads are not suitable for high traffic volumes. The Road Maintenance Budget annually allows for upgrading only one mile of gravel road to asphalt surface.

- The County Assistance Road System (CARS) program is intended to promote interlocal cooperation between the County and the cities in the planning, maintenance, and construction of streets and associated roadway improvement and to establish a program structure through which the County may provide financial or other assistance to the cities. Because of limited funding for CARS and because of the program’s focus on cities, only a small amount of CARS funds is available annually for rural road improvements.

- Unlike many cities, the County does not currently have an excise tax to require developers to help defray the cost of improving roads to serve development within the unincorporated area.

2. Scattered development within the unincorporated area is difficult to serve with a consistent level of service.

3. Many County section line roads have only 40 ft. of right-of-way. This is 80 ft. less than the minimum 120 ft. required for major road installations. Thus, major improvements to roads in these locations often require the added cost of land acquisition.

4. Most rural roads lack shoulders and have open ditches, thereby necessitating low speed limits and limited capacity.

5. Many rural roads have limited connectivity because of missing links due to geographic constraints such as steep hills or unbridged creeks.

6. Numerous land parcels have been divided into long and narrow “piano key” type lots that line many section line roads. The individual driveways resulting from these separate residences create potential traffic hazards, especially as traffic is anticipated to increase significantly on many of these roads as further development occurs. This type of lot also often limits the potential for future road connections into interior portions of land sections.

7. Some older subdivisions have been laid out in an isolated manner lacking tie-ins to surrounding lands, thereby precluding their connection and access to adjoining developments. The result of this is less convenience for residents and more travel time, fuel consumption and pollution along with an excessive number of intersections onto major thoroughfares.
PART I -- Chapter 4: TRANSPORTATION PLAN

8. Older private roads often pose a land use concern because: 1) the County is mistakenly assumed to be responsible for maintenance; 2) poor alignment or connection to future streets or adjacent development; and 3) design and construction that is not in accordance with current County standards. Maintenance of private roads is the responsibility of the property owners. New private roads allowed today must meet higher standards, thereby increasing the quality while reducing the number of new private roads proposed or constructed.

9. Long drive distances and lower operating speeds due to road conditions may effect the response times of emergency vehicles within portions of unincorporated Johnson County.

In general, some of the factors listed above are anticipated to continue, thus continuing to limit the County's rural road system to primarily serving residents and directing through traffic to the few major existing or planned thoroughfares.

Due to low traffic counts, it is difficult to justify major road expenditures to improve some rural roads. The County, however, recognizes its responsibility to protect the future traffic capacity of roads by restricting access and preventing incompatible land uses adjacent to major arterials.

Johnson County recently approved the Comprehensive Arterial Road Network Plan (CARNP) for upgrading some of the major arterial roads within the unincorporated area. The following provides a summary of CARNP.

2.1 CARNP

CARNP was adopted January 7, 1999, by the Board of County Commissioners as its “plan for future roadways in southern and western Johnson County.” Board Resolution No. 001-99 adopting CARNP is provided in Appendix I, and is hereby incorporated as part of the update of the Johnson County Rural Comprehensive Plan.

The following is a description of the CARNP planning process along with all of the recommendations contained in it.

2.1.1 Purpose and Objectives

The mission of the CARNP planning process was “to achieve a community consensus for maximizing the utility of the County’s existing arterial road network to meet anticipated perimeter transportation needs.”

CARNP recommends the development of both major and minor systems of routes, including parkways and boulevards that would interconnect the County's and the regional roadway network. Integral to the development of the plan was the utilization of previous local transportation studies, consideration of alternative transportation modes (e.g. transit, bicycle, and pedestrian), and the incorporation of growth management concerns (e.g. adequate infrastructure and compatibility with local growth policies and plans).

CARNP includes recommendations for typical roadway design standards and recommendations for protecting the environment as well as recommended strategies for ensuring that adequate rights-of-way will be available for future needed roadway improvements. CARNP recommends that roadway improvements should be coordinated with available
financing and land use planning as well as timed so as not to accelerate a low-density suburban pattern or result in leapfrog development.

An underlying goal of the project was to plan for improved arterial roads to serve primarily "through traffic" needs and secondarily to serve adjacent land uses. The focus, therefore, is to improve arterials to primarily connect major activity nodes and to have limited intersections with other roads, limited driveways, but have medians, and similar road features to maximize traffic carrying capacity, rather than providing direct access to adjoining properties.

### 2.1.2 CARNP Planning Process

Preparation of CARNP was in response to the Johnson County Board of County Commissioner's decision, at the end of 1995, to conclude further consideration of a controversial proposal for a controlled-access, four-lane beltway highway known as the "21st Century Corridor." Recognizing the need to continue planning for transportation needs and to protect future mobility within the County, the Board instructed County staff to "seek an alternative strategy for addressing the future transportation needs of Johnson County." Responsibility for the assignment was given to the County Departments of Public Works, Planning, and Financial Management.

The consulting firm of Bucher, Willis & Ratliff Corporation was retained to conduct the study with the assistance of the CARNP Leadership Committee, comprised of business and civic leaders and the CARNP Technical Committee comprised of local transportation officials and community representatives. Public input included a random telephone survey of residents, an ad hoc committee known as the Very Interested Group of Residents (VIGOR), numerous public informational meetings, and two public hearings with over 600 people in attendance.

### CARNP Recommendations

CARNP establishes a corridor development plan defining major County roadways in terms of function, design standards and right-of-way requirements as described in the Corridor Development Criteria included as Table 1, and illustrated in Figure 1.

Factors considered in developing the recommendation were safety; preservation of neighborhoods, rural areas, and the natural environment; land acquisition and timing, costs, growth management, accommodating alternative modes of transportation, relief of traffic congestion (mobility), existing and future economic development, improving accessibility and "through traffic," and future planning. Five alternative concepts were considered that provided a range of effectiveness relative to the factors considered.

The recommended plan provides a system comprised of two-lane roadways with paved shoulders, four-lane arterials, and boulevards/parkways. Roadways would be improved subject to the prioritization through the "triggers" review process (described in a following section) and subject to available funding.

The recommended roadway and corridor plan is illustrated on page 4-6.
### TABLE 1: CORRIDOR DEVELOPMENT CATEGORIES

<table>
<thead>
<tr>
<th>Item</th>
<th>Type I - Low</th>
<th>Type II - Medium</th>
<th>Type III - High</th>
<th>Type IV - Major(^1)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Functional Classification</strong></td>
<td>Minor Arterial</td>
<td>Major Arterial</td>
<td>Parkway</td>
<td>Highway</td>
</tr>
<tr>
<td><strong>Example Urban</strong></td>
<td>143(^{rd}) at Mur-Len</td>
<td>Antioch/Blackbob</td>
<td>135(^{th})/Northgate</td>
<td>K-7 North of K-10</td>
</tr>
<tr>
<td><strong>Example Rural</strong></td>
<td>143(^{rd}) West of Clare</td>
<td>I-35 to US-169</td>
<td>None</td>
<td>K-7 North of K-10</td>
</tr>
<tr>
<td><strong>Lanes - Urban</strong></td>
<td>3-4</td>
<td>4-6</td>
<td>4-6</td>
<td>4</td>
</tr>
<tr>
<td><strong>Lanes - Rural</strong></td>
<td>2</td>
<td>2</td>
<td>2-4</td>
<td>2-4</td>
</tr>
<tr>
<td><strong>Urban Speed Limit</strong></td>
<td>35</td>
<td>45</td>
<td>45</td>
<td>60</td>
</tr>
<tr>
<td><strong>Rural Speed Limit</strong></td>
<td>45</td>
<td>50</td>
<td>55</td>
<td>65</td>
</tr>
<tr>
<td><strong>Traffic volumes Urban ADT</strong></td>
<td>7,500 - 20,000</td>
<td>9,150 - 40,000</td>
<td>9,150 - 50,000</td>
<td>18,300 - 70,000</td>
</tr>
<tr>
<td><strong>Traffic volumes Rural ADT</strong></td>
<td>2,000 - 7,500</td>
<td>2,000 - 10,000</td>
<td>7,500 - 30,000</td>
<td>18,300 - 50,000</td>
</tr>
<tr>
<td><strong>Turn lanes</strong></td>
<td>As required</td>
<td>All intersections</td>
<td>All intersections</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Median breaks/street spacing (minimum)</strong></td>
<td>1,000 ft.</td>
<td>1/4 mile</td>
<td>1/2 mile</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Intersection Type</strong></td>
<td>Stop/Signal</td>
<td>Signal</td>
<td>Signal/Grade separation</td>
<td>Interchange</td>
</tr>
<tr>
<td><strong>Median breaks/street spacing (recommended)</strong></td>
<td>1/4 mile</td>
<td>1/3 Mile</td>
<td>1/2 mile</td>
<td>At interchanges</td>
</tr>
<tr>
<td><strong>Driveway corner clearance from centerline (min.)(^2)</strong></td>
<td>600 ft.</td>
<td>600 ft.</td>
<td>600 ft.</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Frontage - Driveway spacing(^3)</strong></td>
<td>400 ft.</td>
<td>660 ft.</td>
<td>1000 ft.</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>R/W - Rural</strong></td>
<td>80-120 ft.</td>
<td>120 ft.</td>
<td>150-200 ft.</td>
<td>200-300 ft.</td>
</tr>
<tr>
<td><strong>R/W - Urban(^4)</strong></td>
<td>120 ft.</td>
<td>120 ft.</td>
<td>150-200 ft.</td>
<td>200-300 ft.</td>
</tr>
<tr>
<td><strong>Bike lanes/paths</strong></td>
<td>Planned routes</td>
<td>Planned routes</td>
<td>Planned routes</td>
<td>Planned routes</td>
</tr>
</tbody>
</table>

\(^1\) No roads of Type IV are included in this plan.
\(^2\) Corner lots with less frontage than indicated are restricted to access along minor route.
\(^3\) Frontage required for each driveway.
\(^4\) Urban roads are not now in the study area, but are included here to show compatibility with rural requirements.

Source: Johnson County Public Works, BWR Corp, Cities of Lenexa, Overland Park and Olathe
FIGURE 1: CONCEPTUAL SCHEMATICS OF ROADWAY TYPES

Type I / 2 Lanes
- Existing Example: 143rd
- Rural Daily Traffic: 2,000 - 7,500
- Rural Speed Limit: 45
- Turning Lanes: As required
- Intersection Type: Stop or Signal

Type II / 2 Lanes
- Existing Example: 175th I-35 to US-69
- Rural Daily Traffic: 2,000 - 10,000
- Rural Speed Limit: 50
- Turning Lanes: All Intersections (not shown)
- Intersection Type: Signal

Type II / 4 Lanes
- Existing Example: Antioch / Blackbob
- Rural Daily Traffic: 9,150 - 40,000
- Rural Speed Limit: 50
- Turning Lanes: All Intersections (not shown)
- Intersection Type: Signal

Type III / 2 Lanes
- Existing Example: None (135th)
- Rural Daily Traffic: 7,500 - 30,000
- Turning Lanes: All Intersections (not shown)
- Intersection Type: Signal or Interchange

Type III / 4 Lanes
- Existing Example: 135th
- Rural Daily Traffic: 9,150 - 50,000
- Turning Lanes: All Intersections (not shown)
- Intersection Type: Signal or Interchange

* Drawings not to scale
CARNP Supplementary Recommendations

In addition to the map designating future road improvements, CARNP contains the ten “Supplementary Recommendations” that are provided below:

I. Update the County’s Master Plan to incorporate the recommendations of the CARNP.

II. Integrate the access control and right-of-way requirements proposed in the CARNP into the County’s Master Plan and the County Zoning and Subdivision Regulations.

III Utilize growth management techniques as “Guiding Principles” (comprehensive planning, zoning, platting, infrastructure programming, etc.) to manage the type, location, and timing of development. New roadway construction should be planned so that it does not encourage leapfrog development.

CARNP Guiding Principles

The following are guiding principles of CARNP that shall govern the implementation of roadway improvements identified in the CARNP.

1. A strong emphasis will be placed toward public notification and involvement in the development of all roadway improvement plans. This notification and involvement will be particularly focused toward property owners adjacent or in proximity to a proposed improvement project.

   a. Public notification shall include direct mailing, news-
      letters, media advertisements, signage, etc.

   b. Public input shall, at a minimum, include a community briefing at the start of an action such as the construction of a proposed roadway improvement.

   c. The Planning Commission, township boards, and township zoning boards will serve an integral role in the improvement planning process. These boards shall, at a minimum, have an opportunity to review and comment on roadway improvement plans prior to the County Commission taking action to proceed with construction of a proposed roadway improvement.

2. Sensitivity to the natural and built environment will be a centerpiece of the CARNP. Each improvement project will be designed such that impacts to adjacent property owners and the natural environment are minimized and/or mitigated. The following practices will be incorporated into all roadway improvement plans:

   a. Landscaping and vegetation will be relocated or replaced in “as good or better” condition upon completion of roadway improvements.

   b. Landscaping and vegetation will be used to the extent practical to minimize adverse noise and visual impacts on adjacent residential properties.
c. Projects shall be designed to avoid adverse impacts to the natural environment. Where adverse impacts to the natural environment are unavoidable, they shall be mitigated.

IV. Develop a right-of-way preservation plan and strategic acquisition program including how such a plan is to be financed over the next 20 years. The Board shall strive to complete this plan and implement its recommendations within one year of the adoption of the CARNP.

V. Research the impacts of an excise tax on new development similar to that used by the Cities of Overland Park, Olathe, and Shawnee to decrease the development pressure in rural areas, and also to place the burden of associated roadway improvement costs on new development.

VI. Complete detailed engineering and environmental studies to establish corridor alignments for the following locations:

1. Kill Creek/Corliss Road Corridor from K-10 Highway to 151st Street.

2. 111th/119th Street Corridor from K-7 to the Kill Creek/Corliss Road Corridor.

3. 119th/135th Corridor from Kill Creek/Corliss Corridor to Evening Star Road.

(Note: In 2002, the Board of County Commissioners approved a plan for the Northwest Corridor for items 1-3, above. The Northwest Corridor Plan (see page 4-11), shows the location of this approved new road plan.

4. Type III Corridor identified in the CARNP as Evening Star/Edgerton Road from K-10 Highway to 159th Street. This alignment study should be addressed in conjunction with the redevelopment planning of the Sunflower Ordinance facility.

5. 175th/199th Corridor from Mission to State Line.

(Note: No specific dates have been set for undertaking items 4 and 5, above).

VII. Develop a priority mechanism/schedule for upgrading roadways in which data such as traffic counts/accident statistics trigger the need for improvement. These triggers will serve as indicators to the County that improvements may be warranted along a roadway segment and should be studied. These road studies should include notification and significant involvement by those residents living on or near the roadway segment being considered for improvement. Recognize the desire of citizens to be actively involved and have public input in the development of the timing mechanisms.

VIII. Incorporate alternative transportation facilities (i.e., transit, bikeway, and pedestrian) into corridor development plans where appropriate.
IX. CARNP is not to accommodate interstate truck traffic. It is Johnson County’s position that it is the primary function of the State and interstate system to provide adequate access through the County for interstate truck traffic. Due to safety concerns and high maintenance costs, Johnson County will take aggressive action to discourage through truck traffic on local routes. It will start by conducting a study for the unincorporated area to determine the needs for local trucks and establish truck routes to fulfill these needs.

X. Roadway improvements that require the use of street lighting shall do so by incorporating the best technology available to minimize the adverse impacts of artificial lighting on the surrounding residents.
MAP 4: JOHNSON COUNTY CORRIDORS

- Kill Creek Alignment
- 111th Street Alignment
2.1.3 CARNP Triggers Policy

As part of CARNP, the Board of County Commissioners (BOCC) committed to establishing a "triggers" mechanism to prioritize when improvements would be made to CARNP-designated roads. To address this timing concern, the Board of County Commissioners, on June 27, 2002, approved a Triggers Policy to be used to help prioritize and determine when the road improvements are needed, and to assist in development of a 5-Year Construction Plan. The decision of when actual construction projects would begin will be made as separate decisions by the Board of County Commissioners.

An underlying concern throughout the CARNP planning process was that roads are often catalysts for premature development in locations that are inappropriate or lacking other adequate infrastructure (e.g., sewers, water, etc.). Therefore, one of the objectives of CARNP is to ensure that road construction is timed and major road improvements are not made in advance of need. The Triggers Policy, therefore, sets forth criteria for prioritizing when to approve certain CARNP road improvements thereby attempting to avoid the problems associated with premature development such as sprawl or "leapfrog" development.

The Triggers Policy enables private property owners as well as the public sector to be better informed and to plan accordingly. The Triggers criteria are not intended to limit the planning of route improvements or the preservation of rights-of-way (e.g., land dedication, land use planning, acquisition, zoning, etc.) necessary for future road construction. Nor are the criteria intended in any way to restrict the elimination of possible road hazards or any road improvements associated with general maintenance (e.g., adding shoulders or turn lanes, or upgrading gravel roads to asphalt). Any such roadway upgrades or the elimination of identified possible hazards will continue to be addressed through the County’s normal road maintenance and improvement process.

The Triggers Policy was initially prepared by Bucher, Willis & Ratliff, consulting engineers with extensive input from County staff and the CARNP Technical Committee. Special focus groups such as VIGOR and the CARNP Leadership Committee, also participated in development of the policy.

Triggers Program Review

Inquiries or requests to initiate the Triggers program review process may be made by various parties, including the Board of County Commissioners, the County Planning Commission, township boards, township zoning boards, other County departments, or the general public, particularly residents living near the designated CARNP routes.

Every two years, commencing from the adoption of the Triggers Policy June 27, 2002, Public Works will review the status of the designated CARNP Type II and Type III routes (see page 4-5 for Type II and III route definitions). The majority of the designated CARNP routes currently do not meet CARNP standards. Minimum threshold traffic volumes will be required before a Triggers review is conducted of a Type II or Type III corridor for potential improvement to CARNP standards. An existing two-lane CARNP designated road that does not meet CARNP standards shall not be considered for improvement to CARNP standards unless the traffic volume is at least 1,500 ADT (Average Daily Traffic). An existing two-lane CARNP designated road shall not be considered for improvement to a four-lane road unless
the existing traffic volume is at least 7,500 ADT.

Public Works' 5-Year Construction Plan

Roads not under the County's jurisdiction are not reviewed or subject to the County's Triggers Policy. The findings from Public Works' Triggers review and proposed 5-Year Construction Plan are to be provided to the Johnson County Planning Commission to be included as part of the Planning Commission's annual review of the Rural Comprehensive Plan. Members of the township boards and township zoning boards are to be invited and notified along with the public to attend this meeting. The findings of the Planning Commission are then to be forwarded to the Board of County Commissioners.

Based upon the results of the findings from the Triggers review and the comments received from the Planning Commission, the Board of County Commissioners will then determine whether to hold a public hearing on any proposed changes to the 5-Year Construction Plan. If a decision is made to not hold a public hearing, then the priorities on the existing 5-Year Construction Plan will not change.

The diagram on the next page illustrates the proposed Triggers Program Review.

On September 18, 2003, the Board of County Commissioners approved the first 5-Year Construction Plan based on the findings from the Triggers Review Process. The 5-Year Construction Plan calls for the widening and improvement of approximately 10 miles of 199th Street between Metcalf Avenue in the Aubry-Stilwell area and U.S. 169 Highway in Spring Hill.
PART I -- Chapter 4: TRANSPORTATION PLAN

TRIGGERS PROGRAM REVIEW
CARNP GUIDING PRINCIPLE NO. 7

**Initiation of Triggers Review Process**

- **BOCC**
- **Public**
- **Zoning Boards**
- **Planning Commission**

**Public Works Dept. Biennial Review of CARNP Type II & III Routes**

*Must Meet Minimum Threshold Levels*

1,500 ADT for 2-lane roads and 7,500 ADT for 4-lane roads

**Report to Planning Commission:**

- Public Works Dept. Trigger Review
- 5-year Construction Plan

**Planning Commission Reviews Triggers Report and 5-year Construction Plan as Part of Annual Comprehensive Plan Review**

**BOCC Reviews Planning Commission Findings and Comments**

**BOCC Public Hearing on 5-Year Construction Plan**

(If priority changes are desired from previous year)

**BOCC decision to modify 5-Year Construction Plan**
2.2 County Road and Streets

Knowledge of the location and type of County roads provides an important component for consideration in both plans for the future and during review of development proposals. Integral components of the streets and transportation elements include an inventory of existing roads and their conditions, minimum design and construction standards for new roads, design and layout considerations for new subdivisions, and the trip generation and road capacity standards for planning and development of the street and transportation system.

2.2.1 Existing Roads in Unincorporated Johnson County

1. Freeways

   a. U.S. 69 Highway is a four-lane, divided, limited access, north-south freeway approximately 3.75 miles west of the state line.

   b. U.S. 169 Highway is a north-south, four-lane, divided, controlled access freeway with at-grade intersections approximately 11.75 miles west of the State Line. This highway extends through the metropolitan area and connects the cities of Olathe and Spring Hill within the Johnson County planning area.

   c. Kansas Highway 10 is an east-west, four-lane, divided, limited access freeway, approximately 14 to 15 miles north of the south County Line. The eastern end of K-10 Highway connects with Interstate 435 approximately 9 miles west of the state line. Kansas Highway 10 provides a four-lane, divided, limited access highway between the metropolitan area and the City of Lawrence, approximately 8 miles west of the west County Line. Within Johnson County, Kansas Highway 10 provides ready access to the cities of De Soto, Olathe, Lenexa, and Overland Park. Through its connection to Interstate 435, ready access is also provided to the cities of Shawnee, Overland Park and Leawood, in Johnson County, and communities in Jackson County, Missouri, to the east and Wyandotte County, Kansas, to the north. Interstate 35 intersects Interstate 435 about 1-mile east of the K-10, I-435 interchange.

   d. Interstate 35 diagonally crosses the County from the northeast to southwest. It is a limited-access, divided, freeway which has four lanes southwest of the City of Olathe. Northeast of Olathe, Interstate 35 has been improved to a six-lane road with eight lanes at key highway interchanges. It extends into the central business district in Kansas City, Missouri, about 4 miles from the northeast corner of Johnson County, and it intersects with Interstate 70 in downtown Kansas City, Missouri. As mentioned above, Interstate 35 intersects K-10 Highway and Interstate 435 in Johnson County. Interstate 35 also intersects U.S. Highway 169.
near the south edge of the City of Olathe at 151st Street. Interstate 35 exits the north County Line about 3 miles west of the State Line, and Interstate 35 intersects Interstate 635, a north-south, inner-loop freeway, at that point.

e. Interstate 435 extends through Wyandotte County, Kansas, and provides access to Kansas City International Airport (KCI), about 26 road-miles from Johnson County.

f. Kansas Highway 7 is a north-south, four-lane, divided, freeway, with some at-grade intersections and some grade-separated interchanges. It is located approximately 13 miles west of the state line, and it joins with U.S. Highway 169 through the City of Olathe. K-7 Highway connects the cities of Shawnee, Lenexa, Olathe, and Spring Hill.

2. Paved Roads - Constructed to Engineering Standards

Generally, the paved roads in unincorporated Johnson County are two-lane, state or federal highways, or former highways, and County roads improved with federal funds and include the following

a. Metcalf Avenue (former U.S. Highway 69) is a two-lane, north-south road approximately 3.25 miles west of the State Line.

b. U.S. 56/Old U.S. 56 Highway is a two-lane, northeast-southwest road that parallels Interstate 35. This roadway connects the cities of Olathe, Gardner, and Edgerton, and it exits the west County Line about 2 miles north of the southwest corner of the County.

c. Old K-10 Highway follows Lexington Avenue and 103rd Street west of the City of De Soto.

d. Webster Street from 207th Street to U.S. 169 Highway.

e. Gardner Road from 167th Street to 151st Street.

f. 151st Street from Old U.S. 56 Highway to Gardner West Road.

g. 175th Street from Pflumm Road to I-35.

h. 175th/179th Street from South U.S. 69 Highway west to Pflumm Road.

i. Lone Elm Road, 175th Street to 159th Street.

3. Chip-and-Seal Surfaced Roads

Several roads have dust-free surfaces that largely consist of chip-and-seal surfacing placed on roadways that formerly were gravel roads. In places, some of these roads have been overlaid with asphalt or have been rebuilt with asphalt pavement in conjunction with bridge or intersection reconstruction projects. Since the pattern of chip-and-
seal surfaced roadways shows considerable dispersion, the latest County Road Map provides the best data on the location, length and pattern of such roadways. That map shows both paved and chip-and-seal surfaced roads with solid black lines, therefore, the list of paved two-lane roads in subparagraph B (2) above needs to be considered when reviewing that map.

4. Gravel Roads

Gravel surfaced roads are shown on the County Road Map with lightweight, double lines. Because of the somewhat random distribution pattern of gravel roads, the variety in their segment lengths, and their generally low-capacity for providing access to development in unincorporated Johnson County, the map of existing County roads should be carefully reviewed and considered with respect to each proposed development site in the County to identify any gravel roads which might be expected to experience increased traffic in excess of the capacity of such roads.

5. Existing Traffic Counts.


2.2.2 Minimum Standards for New Streets

1. On October 27, 1988, the County adopted several resolutions that established revised standards for new streets, bridges and storm drainage system improvements including:


b. Resolution No. 151-88 which adopted a new storm sewer design code and readopted specifications for road and bridge construction.

c. Resolution No. 152-88 which adopted policies, procedures, standards and guidelines for the construction of private roads.

2.2.3 Penalties Regarding Street Standards

On November 17, 1988, the Board of County Commissioners adopted Resolution No. 159-88 that established penalties for the violation of Resolution Nos. 150-88, 151-88, 152-88 and 153-88.

2.2.4 Right-of-Way Dedication Policy

The Board of County Commissioners, on February 8, 1996, adopted policies to guide the administration of the right-of-way dedication requirements. In summary, the policies:

1. Do not require dedications of right-of-way from rural or residential tracts or lots with more than 600 feet of frontage.
2. Require arterial street right-of-way dedications of forty (40) feet from section line or from half-section line unless any one of the following conditions apply, in which case right-of-way dedications to sixty (60) feet from section line or from half-section line shall be required:

a. In the Urban Fringe Policy Area and where there is a need to match city requirements;

b. If the land is adjacent to a Major Arterial or Parkway as designated on the CARNP map;

c. If the development is for commercial, industrial, quasi-public, or institutional zoning or land uses; or

d. If a subdivision plat is proposed for 2-acre or smaller lot sizes.

3. Establish an Official Street Line at 60 feet from the section line or from the half-section line along Major Arterial Streets and along Minor Arterial Streets. The Official Street Line delineates:

a. The typical boundary of street right-of-way that may be needed for street improvements and widening purposes as the County continues to develop.

b. The line from which front yard building setbacks are measured.

c. The required setback line for purposes of septic system installations and other private improvements that may not be subject to the front yard setback requirements (e.g., fences, gates, landscaping).

4. Enable rebates of some previously dedicated rights-of-way on a case-by-case basis as may be determined by the Board of County Commissioners after a public hearing, staff recommendation and findings. The cost of such rebating shall be paid by the persons requesting reconsideration and rebating of previously dedicated rights-of-way.

2.2.5 Street Design and Layout Considerations

A convenient, safe street system is important for the health, safety and welfare of the community and the economic well being of the County. The street system needs to provide appropriate routes for through traffic, especially with respect to major nodes of urban development. Local streets that serve individual building sites need to be interconnected to the network of the major and minor arterial streets which primarily provide for the through traffic needs. As areas of the County develop, a pattern of interconnected streets needs to be developed, therefore, new developments need to be reviewed with due consideration to the need for stub-out streets to adjoining tracts.

An effective street system also needs to respect the constraints provided by natural features such as floodplain areas, steep slopes, existing developed areas or land uses which should not be disrupted by significant through traffic. Similar overall design factors need to be
considered as plans for the future street system are developed.

2.2.6 Future Road Planning Considerations

Trip generation, road capacities, and general cost estimates are important components of planning for the future road and transportation system.

1. Traffic Volume Projection Factors

   a. Trip Generation Ratios:

   Trip generation ratios are available from sources such as the Urban Land Institute (ULI) and the Institute of Traffic Engineers (ITE). Trip generation references from these two sources were considered during the preparation of the Comprehensive Plan.

   The trip generation ratios presented below in Table 2 are based upon local experience within the unincorporated area combined with adjusted information from ULI and ITE. Table 2, therefore, is presented here for consideration with respect to the review and evaluation of individual land use or development proposals relative to the unincorporated area of Johnson County.

   b. Traffic Capacity Levels for Various Street Types:

   The Long-Range Road Network Draft prepared by Public Works, includes the following road traffic capacity guide-
TABLE 2: TRIP GENERATION RATIOS

Residential Uses ................................................... 7 vehicle trips/day per dwelling unit

Office Uses
Office Buildings (100,000 sq. ft.) ........................ 20 vehicle trips per day/1,000 square ft.

Industrial Uses
Industrial Park (200 Acres) ................................. 10 vehicle trips per day /1,000 sq. ft.

Manufacturing/Assembly (80 Acres) ...................... 4 vehicle trips per day /1,000 sq. ft.

Warehousing (60 Acres) ......................................... 5 vehicle trips per day /1,000 sq. ft.

TABLE 3. STREET CAPACITY GUIDELINES

<table>
<thead>
<tr>
<th>Class</th>
<th>Name</th>
<th>Description</th>
<th>ADT*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Primitive</td>
<td>Narrower than 17 feet</td>
<td>N/A</td>
</tr>
<tr>
<td>2</td>
<td>One Lane Gravel</td>
<td>Narrower than 17 feet</td>
<td>40</td>
</tr>
<tr>
<td>3</td>
<td>Narrow Gravel</td>
<td>17’-20’ wide</td>
<td>200</td>
</tr>
<tr>
<td>4</td>
<td>Gravel</td>
<td>Wider than 20 feet</td>
<td>350</td>
</tr>
<tr>
<td>5</td>
<td>Narrow Asphalt</td>
<td>Less than 22 feet wide</td>
<td>1,000</td>
</tr>
<tr>
<td>6</td>
<td>Asphalt</td>
<td>No shoulders, wider than 22 feet</td>
<td>2,000</td>
</tr>
<tr>
<td>7</td>
<td>Asphalt</td>
<td>With shoulders, wider than 24 feet</td>
<td>4,000</td>
</tr>
<tr>
<td>8</td>
<td>Rural Major Arterial</td>
<td>Engineered plan and profile, &gt;24’ wide</td>
<td>8,000</td>
</tr>
<tr>
<td>9</td>
<td>Rural Major Arterial</td>
<td>With turn lanes, &gt;24’ wide</td>
<td>10,000</td>
</tr>
<tr>
<td>10</td>
<td>Urban Major Arterial</td>
<td>4-lane, &gt;48’ wide</td>
<td>20,000</td>
</tr>
</tbody>
</table>

*Optimum Average Daily Traffic
2.3 Railroads

The railroad routes that cross through the unincorporated portions of the County are the Burlington Northern Santa Fe Railroad and the Missouri Pacific Railroad. This network of rail service is important to the economic welfare of the County as well as being a factor affecting the location and type of future development.

Within the unincorporated area, rail service is limited to freight traffic with only a few locations where such service is provided. The only major location within the unincorporated served by rail is New Century AirCenter. An old railroad spur of undetermined utility is also still available to the former Sunflower Army Ammunition Plant.

Because of the limited availability of infrastructure to support heavy industry, except for businesses at New Century AirCenter and possibly at the former Sunflower Army Ammunition Plant, there are no other locations within the unincorporated area anticipated to need rail service in the near future.

The primary impact of rail service within the unincorporated area is from the location of the tracks. The locations of these rails can pose a constraint to development as well as limit traffic flow on streets. Most of the tracks within the unincorporated area, however, are located in relatively remote areas along streambeds or in floodplains. It is not anticipated that there will be any major changes in the locations of these tracks within the planning horizon for this Plan.

In recent years there have been informal discussions among community leaders about the need and potential to relocate railroad tracks out of some of the cities within the County; especially within the downtown area of Olathe. These discussions have often pointed to the possibility of installing alternate routes within the western rural portions of the County, but no formal actions or studies have been made or undertaken as of this time.

The following is a summary of the two major railroad lines, and their routes, that pass through Johnson County:

1. The Missouri Pacific Railroad has a main north-south line that enters the east side of the County just south of 143rd Street and State Line. It follows the Blue River Valley and Camp Branch Creek in a south-southwest direction and exits the County at Antioch Road and 215th Street.

2. The Burlington Northern and Santa Fe Railroad has main railroad tracks that enter the north side of the County near Metcalf Avenue and Interstate 35. These tracks follow generally a southwesterly alignment parallel and adjacent to the west side of Interstate 35 until it crosses 143rd Street (Dennis Avenue) in the City of Olathe. South of 143rd Street, these railroad tracks generally follow U.S. 169 Highway and Woodland Road straight south through the City of Spring Hill.

The Burlington Northern and Santa Fe Railroad also have main railroad tracks along the south side of the Kansas River near Interstate 435. From that point, one branch of these tracks follows the bluffs along the south side of the Kansas River valley, west through the City of De Soto and into Douglas County near what would be 90th Street.
The other branch of these tracks turns south along the west side of Mill Creek and follows the Mill Creek Valley into the City of Olathe. South of 143rd Street (Dennis Avenue) this railroad line turns to a southwesterly path past the south side of the New Century AirCenter, travels through the City of Gardner and the City of Edgerton. This railroad line exits the County south of the City of Edgerton about 1.5 miles east of the southwest corner of the County.

2.4 Airports and Aircraft Transportation

2.4.1 County Airports

Johnson County owns and operates the New Century AirCenter (formerly named the Johnson County Industrial Airport) northwest of 175th Street and Interstate 35 and the Johnson County Executive Airport southeast of 151st Street and Pflumm Road. Both airports serve general aviation uses.

New Century AirCenter is the larger of the two airports, and it could be used for air-passenger and airfreight operations in the future.

New Century AirCenter (NCAC) is located within the unincorporated area, east of the city of Gardner at I-35 and 175th Street. The facility has been owned by Johnson County since it was acquired from the U.S. Navy in 1973. NCAC is the second busiest general aviation airfield in Kansas with approximately 65,000 flight operations a year. The only Kansas airport with more flight operations is Executive Airport (90,000 per year), located within the city limits of Olathe and also owned by Johnson County.

NCAC is home base for nearly 200 aircraft and seven aviation-related businesses employing over 200 people. The airport includes over 1,000 acres of land, 84 lane miles of pavement, 90 hangars, large runway and approach lighting systems, a control tower, and a crash/fire/rescue service. The Federal Aviation Administration (FAA) licenses NCAC for commercial operations.

The Board of County Commissioners approved the current master plan for NCAC in 1993. The master plan recommends the continued expansion of the airport operations and continued leasing of land for business park development. An update of the master plan for NCAC is anticipated provided funding is available from the FAA.

As part of the County’s 2000 infrastructure plan, Preserving Our Future (POF), the need to plan and control land uses surrounding NCAC was identified as essential to avoiding conflicts or limiting future aviation activities. POF recommended that continued joint planning in this location is needed between the County and neighboring cities to update regulations and planning efforts to protect NCAC from encroachment by new development.

POF recommended convening a group of representative pilots, aircraft owners/operators, business and economic development interests, etc. to develop a set of recommendations for the County Airport Commission for use in strategic planning efforts regarding the development of a future master plan for NCAC and future improvements.

Portions of Executive Airport are located within both the cities of Olathe and Overland Park. This airport is primarily for public use by smaller privately owned planes. This airport was originally con-
Executive Airport has over 60 T-hanger units for small planes and private facilities for airplane servicing and pilot training.

The Board of County Commissioners has adopted, as part of the Rural Comprehensive Plan, the Johnson County Executive Airport Comprehensive Compatibility Plan, and the New Century AirCenter Comprehensive Compatibility Plan. The two airport plans strive to develop land use compatibility guidelines associated with the existing airport operations and nearby development.

Airport vicinity overlay districts and zones have also been adopted as a part of the Zoning and Subdivision Regulations of Johnson County, Kansas. The regulations are intended to regulate, among other things, the height of structures and objects of natural growth in the vicinity of the airports pursuant to K.S.A. 3-701 et seq.

Furthermore, airport master plans for both Executive Airport and New Century AirCenter have been adopted by the Board of County Commissioners, and approved by the Federal Aviation Administration. The airport master plans set forth the blueprint for proposed development of the airport complexes in the future.

In addition to general planning and zoning authority pursuant to K.S.A. 19-2956 et seq., and county home rule authority, the Kansas Legislature has provided Johnson County with specific zoning authority of public airports and all property located within one mile thereof. K.S.A. 3-307e provides in part that city zoning control, except that any changes in existing city zoning must have the approval of the Board of County Commissioners.

A group appointed by the County, and composed of representatives of the cities of Gardner, Olathe, and Overland Park, plus representatives of the County and the Johnson County Airport Commission, studied land use compatibility characteristics around Executive Airport and New Century AirCenter. The initial report from that study suggested that procedures be explored for joint city-county planning and land use controls, to identify techniques for dealing with airport vicinity land use compatibility considerations.

### 2.4.2 Scheduled Airline Passenger Service

The Kansas City metropolitan area is served by airlines operating at Kansas City International Airport, about 26 road-miles north of the County. Both Interstate 435 and Interstates 35, 635 and 29 provide highway access to that airport.

### 2.4.3 Other Airports and Aircraft Landing Fields in the County

Several public, quasi-public or private facilities exist in the County as follows. It should be noted, however, that the County has not formally determined the status of many of these airport or aircraft landing fields under the County's Zoning and Subdivision Regulations.

1. “Gardner Airport,” southeast of 175th Street and Waverly Road, is owned by the City of Gardner and serves as a general aviation airport for small, private aircraft.

2. “Cedar Airpark,” located on the north side of 111th Street about 1.5 miles west of Kansas Highway 7 and about 1 mile south of
Kansas Highway 10, is open to the public.

3. “Hillside,” located at about 16900 Kenneth Road adjacent to the state line, is a private turf airstrip.
The provision of adequate open space and the opportunities for a broad range of recreational and leisure activities are an essential ingredient for any community’s quality of life. This is especially true for Johnson County, which prides itself for having a nationally recognized County Park system operated by the Johnson County Park and Recreation District.

Created in 1955, the County Park and Recreation District manages approximately 6,395 acres of parkland. Sixty-one percent (61%) of this parkland, approximately 3,900 acres, is located in the unincorporated area and the remaining 39%, approximately 2,495 acres, is located within the incorporated area of the County.

In addition to the parks operated by Johnson County, there are over 150 parks located within the 20 municipalities in the County. Combined, these municipal parks total over 2,000 acres. Most of these municipal parks are neighborhood or community oriented, primarily serving nearby residents. Additionally, there are a variety of private recreational facilities within the County including golf courses, athletic fields, swimming pools, and tennis courts.

In contrast, the parks operated by the County Park and Recreation District are more regional or sub-regional in scale, serving residents countywide. A summary of all the parkland and recreation facilities operated by the County Park and Recreation District within both the unincorporated and incorporated areas of the County is available in the County Park and Recreation District’s long-range plan, MAP 2020. Adopted by the County Park and Recreation District in April 2001, MAP 2020 serves as the District’s “official record for the future acquisition and development of existing and proposed parkland and recreation facilities.”

The District’s park and recreation plans contained in MAP 2020 have been considered in the preparation of this Plan. The information in MAP 2020, including the identification of natural and historic resources as well as the location of existing and proposed parks, was integral to the development of the recommendations in this Plan for where and how future development near these amenities should occur.

The following summary is limited to the park and recreation facilities available within and generally to the unincorporated area and to the recommendations contained in MAP 2020 relevant to the unincorporated area.

1.0 UNINCORPORATED AREA PARK FACILITIES

The following is a summary of Johnson County Park and Recreation District facilities available within the unincorporated area.

1. Heritage Park is a regional park dedicated in 1981. Located between 159th Street, 175th Street, Lackman Road, and Pflumm Road, it contains approximately 1,220 acres, and has facilities that include:
   a. Lighted football/soccer fields
b. Lighted baseball and softball fields  
c. Picnic areas and shelter houses  
d. 18-hole golf course & driving range  
e. 45-acre fishing and boating lake  
f. Equestrian trails (planned)  
g. Marina and boat rental  
h. Playgrounds  
i. Concession areas  
j. Handicap-accessible walking and jogging trails  
k. Bicycling trails

2. **Kill Creek Park** is a regional park dedicated in 2001 and is located adjacent to the east side of the Sunflower Army Ammunition Plant. The park’s main entrance is on Homestead Lane about one-quarter mile south of 115th Street. This park contains over 870 acres and is in the initial phase of development with the following facilities that include:

   a. Swimming beach  
   b. 26.5-acre lake  
   c. Marina and boat rentals  
   d. Picnic areas and shelters  
   e. Playground  
   f. Equestrian trails  
   g. Handicap-accessible walking and jogging trails  
   h. Bicycling trails  
   i. Nature trails  
   j. Adventure center and challenge course

3. **Sunflower Nature Park** is a sub-regional park located adjacent to the north boundary of the Sunflower Army Ammunition Plant at 103rd Street and Edgerton Road. This park contains approximately 57 acres and has facilities that include:

   a. Baseball and softball fields  
   b. Picnic area and shelter house  
   c. Playground  
   d. Fishing pond  
   e. Handicap-accessible walking, jogging and nature trail

4. **Stanley Nature Park** is a sub-regional park located adjacent to the south boundary of the Blue Valley South High School, east of Metcalf Avenue and south of 159th Street. The park contains approximately 40 acres and remains largely undeveloped with facilities that include:

   a. Natural areas for bird watching  
   b. Mowed trails for high school cross-country program

5. **Big Bull Creek Park and Big Bull Creek Streamway Park Sites (Future)** were acquired by funding approved by County voters in 1998. Located partially within the east side of the city of Edgerton, the park contains a total of approximately 1,349 acres - 150 acres are within the city of Edgerton and the remaining approximately 1,199 acres are within the unincorporated area. Planning for the future development of the park is still underway.

6. **Cedar Niles Park Site (Future)** is located in an area along and near 135th Street and Cedar Niles Road and currently includes approximately 500 acres of undeveloped land. MAP 2020 calls for the acquisition of an additional 1,010 acres and the
development of a regional park at the site. The Prairie Center operated by the Kansas Department of Wildlife is located directly to the west across Cedar Niles Road and the Olathe Prairie Center Park is adjacent to the east. Acquisition of additional parkland and planning for the future development of the Cedar Niles Park site is underway.

7. **Camp Branch Park (Future)** is approximately a 55-acre tract of undeveloped land located in the rural southeast corner of the County. The site is approximately ¼ mile east of Metcalf Avenue and north of 207th Street, bounded on the west by the Missouri Pacific Railroad and bisected by Camp Branch Creek. Planning for the future development of this future park is underway.

8. A **Streamway Park System** was approved by Johnson County voters in 1986 with the passage of a one-half mill levy increase for the primary purpose of obtaining land and developing a countywide streamway park system. Eight stream corridors have been identified throughout the County as potential sites for streamway park development: Mill Creek, Turkey Creek, Tomahawk Creek, Indian Creek are all entirely within existing municipal boundaries. Bull Creek, Kill Creek, Cedar Creek, and Coffee Creek/Blue River are within portions of both the incorporated and unincorporated areas. This system of streamway parks will protect these riparian areas as well as provide new recreational resources. The current system contains approximately 570 acres and is planned to increase to over 5,000 acres over the next 20-30 years.

These streamway parks will primarily consist of trails that will be for the exclusive use of bicycles, jogging, walking, horseback riding, cross-country skiing, and other non-motorized uses with park facilities located at public access points. The Mill Creek Streamway Park was the first project completed with these funds and is approximately 17 miles in length, beginning in Olathe and terminating at Nelson Island in the Kansas River to the north.

### 2.0 Other Park and Recreation Facilities

The following is a summary of other park and recreation facilities of potential significance to unincorporated area.

1. **Overland Park Arboretum** is located at 179th and Antioch Road within the boundaries of the city of Overland Park. This park contains 300 acres and includes the following facilities:

   a. Shelter and indoor display area
   b. Bike/pedestrian trails
   c. Preserve areas
   d. Botanical/water displays

   An additional 321 acres of land adjacent to the south and west of the Arboretum has been donated by members of the Kemper family for future park use. Planning for the development of this future parkland area is now underway.
2. **The Prairie Center** located west of Olathe, on the southeast corner of 135th Street and Cedar Niles Road, is managed by the Kansas Department of Wildlife. This approximately 300-acre center provides outdoor education and natural resource interpretation. The center contains 45 acres of original virgin prairie and 60 acres of restored prairies, along with lakes, woods, clear streams and hiking trails. The focus of the Prairie Center is to preserve the natural environment of the native tall grass prairie with park usage aimed at teaching about ecological systems. Activities for the public include field trips and guided hikes and a variety of special programs on prairie history, plant and animal life.

3. **Hillsdale Lake Reservoir** located in Miami County, approximately 1 mile south of Johnson County, contains a 4,580-acre lake that provides a wide variety of recreational opportunities, including sightseeing, fishing, and boating, and equestrian trails. Facilities at the Hillsdale Lake Reservoir include boat launches, a nature trail, a visitor’s center, and picnic areas. With the planned construction of camping areas, beaches, and other facilities over the next few years, it is anticipated that visitations to and usage of this lake will continue to increase in the future.

4. **Emie Miller Park** located at 909 North K-7 Highway in the City of Olathe, is a nature preserve containing approximately 116 acres and is managed by the County Park and Recreation District. The park is bisected by Little Cedar Creek and the facility has three miles of nature trails, including a quarter mile ADA accessible trail. The Emie Miller Nature Center includes a gift shop, interpretive displays, a meeting room, and there is an amphitheater, picnic shelter, and parking for 51 vehicles.

5. **MetroGreen** is a regional greenway system intended to establish an interconnected systems of trails that will serve and link together the Kansas City metropolitan area. It is principally comprised of linear corridors of land along streams, roadways, and within abandoned railroad corridors. The Mid-America Regional Council (MARC) has been the lead organization promoting the development of MetroGreen described in the following.

MetroGreen published by MARC in January 2002, envisions a greenway system of over 260 miles for Johnson County. The greenways envisioned in the MetroGreen for the unincorporated area were delineated in coordination with the County Park and Recreation District and correspond with similar proposals in MAP 2020, which is described in the following section.

Although not part of this Plan, MetroGreen serves as a useful reference for how Johnson County’s streamway parks may fit into the metropolitan-wide streamway planning. Within the unincorporated area of Johnson
County, the MetroGreen envisions nearly 130 miles of trails, including extensions of existing trails and new trails that would connect with the four surrounding counties.

Map 4 shows the location of the Metrogreen proposed greenways for the unincorporated area of Johnson County.
2.1 Natural Resources

As part of the MAP 2020 planning process, the County Park and Recreation District studied the locations of natural resources found throughout Johnson County. This study included the identification of the general location of woodlands, grasslands, croplands, and riparian areas, as well as the locations of major County parks, historic sites, and historic trails. This information was used as part of this Plan to identify sensitive environmental areas to be protected and enhanced. More information on the County’s natural resources is provided in Chapter 8, Resources and Service Inventory.

3.0 MAP 2020 SUMMARY

The following is a summary of the MAP 2020 recommendations relevant to the unincorporated area:

- Develop a new streamway park near the confluence of Blue River and Camp Branch Creeks.
- Develop Camp Branch Creek Park in coordination with future population increases for this area.
- Need for a new sub-regional park of approximately 60 acres in as yet undetermined location.
- Develop Cedar Niles Park into a regional park with a multi-use center, hiking trails, picnic shelters, a new Prairie Interpretive Center, and athletic fields.
- Increase the size of Heritage Park to more than double its present size (1,168 acres) and to be joined with the City of Overland Park Arboretum via a new Coffee Creek Streamway Park. Other recommendations include:

  - a new multi-use center, a campground, additional golfing, and renovations to many of the existing facilities (e.g., marina, athletic fields, parking lots).
  - Complete Phase II improvements to Kill Creek Park including: new camping facilities, a new environmental center, and additional picnic facilities.
  - Continue to upgrade the Sunflower Nature Park with trails connecting to the future Captain Creek Streamway, construct a wildlife observation shelter, and improve existing ball fields.
  - Develop a master plan for Big Bull Creek Park.
  - Expand the existing streamway park system, which is now approximately 570-acres in size, to over 5,000 acres, including the development of Bull Creek, Kill Creek, and the Coffee Creek/Blue River located within the unincorporated area.
  - If land (approximately 2,800 acres) is conveyed to the County Park and Recreation District, as recommended from the Sunflower Army Ammunition Plant Plan, prepare a new master plan for that area.

3.1 Plan for Parks

The Proposed Plan for Parks and Recreation Facilities (on the following page), shows the recommendations from MAP 2020 relevant to the County. The locations of existing and planned parks and streamways within the unincorporated area have been used as a guide for this Plan and have been
incorporated as part of the Policy Area Map in Chapter 2.
PART I -- Chapter 5: PARKS AND OPEN SPACE

MAP 5: PROPOSED PLAN FOR PARKS AND RECREATION FACILITIES

PROPOSED PARKS & RECREATION FACILITIES

MAP DATA DISCLAIMER

*Note: The Park Planning Areas (PPAs) on this map are called Community Planning Areas (CPAs) in the Map 1500 report. The boundaries of these areas correspond to school district boundaries.

Johnson County Rural Comprehensive Plan Update Page 5-9
PART II: BACKGROUND AND SUPPORTING DATA
PART II - Chapter 6: HISTORY

In comprehensive planning, a review of the history of an area and the socio-economic, political and geographic factors that have led to its present condition can be beneficial to the task of assessing both existing and anticipated land uses and environmental issues. In addition, a historical perspective is helpful for understanding how that development has been supported through the delivery of public facilities and services with respect to governmental structures, funding practices, responsibilities, and cooperation.

The following is a brief historic overview of how Johnson County has physically evolved. This information is helpful to understanding how certain geographic conditions (e.g., topography, waterways) have influenced the location of development and how certain manmade decisions (e.g., location of section line grid roads) continue to influence the pattern and shape of development throughout the County as well as within the unincorporated area.

Historically, development is guided by cultural influences and geographical conditions, particularly the availability of natural resources. Over time, changes in social, economic, and political behavior, in addition to technological advances, stimulate changes in the relationship between rural and urban areas and the physical configuration of development.

For example, the industrial revolution started a vast movement of people from rural areas to cities, resulting in the build-up of urban cores and adjoining residential areas. A subsequent increase in congestion, noise, pollution, and technological advances, particularly the automobile, stimulated the decentralization of populations. People moved out of core areas to fringe areas and to suburbs. Some suburbs became bedroom communities relying on the urban core for employment and services.

Subsequent technological advances, including communications, enabled suburbs to establish their own employment centers and regional commercial areas. An example of these population shifts is evident in the development throughout Johnson County.

1.0 FOLLOWING THE TRAILS

The Kansas or Kaw Indians were the first major recorded inhabitants in the area now known as Johnson County. They traveled and lived throughout much of the central part of the continent. Early pioneer settlement was closely associated with the emigrant trails leading to and through the area. Most important of these were the Santa Fe Trail, Oregon Trail, and the California Road, all of which passed through Johnson County. These trails
branched westward from landings located several miles to the northeast of Johnson County along the Missouri River. The landings housed fur trading posts, which were established along both the Missouri and Kansas Rivers in the early 1800's following the forays of trappers and the Lewis and Clark expedition in 1803.

Trade on the Santa Fe Trail, beginning in 1821, resulted in a steady flow of traffic through the County. Both the Santa Fe and the Oregon Trails, originating in Independence, Missouri, followed the same route west across the Missouri-Kansas state line into Johnson County and proceeded west through the southern part of the County. Near the present site of the Gardner Municipal Airport, just north of U.S. Highway 56, the trails divided. The Santa Fe continued in a southwesterly direction to New Mexico and the Oregon Trail proceeded northwesterly through the southwest corner of the present-day Sunflower Army Ammunition Plan into Douglas County and on to the Northwest Territory.

The California Road and Westport branch of the Santa Fe Trail passed through the northeastern comer of the County and continued westward. Four missions were established along this route after the area had been designated as a Shawnee Indian reservation in 1825. They were the Shawnee Methodist Mission, the Baptist Mission, the Quaker Mission and a mission established for the Delaware Indians.

The Shawnee Methodist Mission was located in present-day Fairway and was established by Rev. Thomas Johnson for whom the County was named. This was the most active of the County's missions flourishing until 1854. The Baptist Mission, established in what is now the City of Mission, operated from 1831 to 1855. The Quaker Mission was established in 1834 in present-day Merriam. The Mission period ended by the start of the Civil War. During that time, the Shawnee Sun was published as the County's first newspaper in the language of the Shawnee Indians.

After the Kansas-Nebraska Act of 1854, the Kansas Territorial Council established Johnson County in 1855 and Gum Springs (now known as Shawnee) was made the County Seat. Three years later, in 1858, Olathe was designated the seat of County government in part because of its central location within the County. It was not until 1861 that Kansas became a state. Raids during the Civil War and an accompanying drought resulted in especially difficult times for the entire region. Johnson County's population in 1860 was 4,364 people.

The future of Johnson County was assured after the Civil War when nearby Kansas City, Missouri, became a prominent commercial center due to its strategic rail connections across the Missouri river and across the country. Rail lines emanating from Kansas City to the southwestern range areas passed through Johnson County and sparked new growth for established towns as well as spurring the formation of new villages. Some of the towns existing by the 1870's were Spring Hill, Edgerton, Shawnee, Gardner, Lenexa, De Soto, Campbelltown (Memian), Mission and Olathe.

Perhaps one of the single-most important factors in shaping the County's overall layout occurred in 1855 when the original survey of the territory divided Johnson County into a grid of one-mile square land sections. A space of at least 20-ft. wide on each side of the section line was reserved as "right-of-way" for future public roads. Since then, this grid system has not only been the basis for the County's major road network (e.g., Metcalf, Antioch, Switzer, 95th, College Boulevard, and
199th), its imprint is evident today throughout the entire County’s overall development pattern.
2.0 SETTLING DOWN

After 1900, Johnson County became more closely associated with the rest of the metropolitan area largely due to the establishment of the interurban trolley lines connecting the County to Kansas City. During the 1920-30's, the metropolitan shift southward, triggered by the Country Club Plaza, developed by J. C. Nichols (an Olathe native), stimulated residential development in the extreme northeastern sector of the County, including the Mission Hills area.

The urban expansion after World War II had a greater impact on the County than anything up to that time. Nine new cities were incorporated in the extreme northeast portion of the County between 1948 and 1951. These cities were primarily residential areas and included Leawood, Fairway, Westwood, Westwood Hills, Mission Woods, Mission Hills, Roeland Park, Mission and Countryside. Most of these cities had experienced some development prior to this time, but expanded tremendously after the war. The northeastern portion of the County was taking on a definitely urban, as opposed to rural, character. The major road system was partially predetermined by the location of the old trails. While the traffic patterns were good between developments within the various cities, traffic coordination between cities was poor.

The County's population increased from 33,327 in 1940 to 105,345 in 1955. Due to the fragmentation among jurisdictions and the increasing population, efforts to provide urban services and direct development, were strained. Problems were most evident within the Urban Mission Township. Because it was a township, the governing body's ability to collect funds was limited; it had no power to spend money on public works projects other than maintenance; and it was unable to plan or zone sufficiently. As a result, in 1960, after annexations by existing cities, Mission Township became the incorporated first-class city of Overland Park. While there was still little countywide coordination, the creation of Overland Park allowed for improved management of growth.

3.0 BLAZING NEW TRAILS

Growth continued at a high rate in the County through the 1960's. Development moved to the urban periphery as population growth became less pronounced in the "landlocked" cities in the extreme northeast portion of the County. Construction of Interstate Highway 35 (I-35) made Johnson County more accessible, and industry and businesses more mobile. During this time, Johnson County became more diversified. Suburbs became core cities in their own right with major employers moving in and regional shopping centers developing. Development followed closely along the interstate corridors, as well as along major arterial streets such as Metcalf Avenue. Adjacency to I-35 resulted in a development boom in Lenexa and Olathe. The construction of Interstate Highway 435 (I-435) had a similar affect on southern Overland Park and Leawood.

The County population was 143,792 in 1960. In 1967, the population surpassed the 200,000 mark and then began to increase at a slower rate. For 1980, Johnson County recorded a population of 270,269 people. Several cities in the northeast portion of the County began to experience a slight loss of population in the 1970's due to demographic changes and out-migration to the fringe cities. In contrast to high immigration throughout the 1960's, the migration rate leveled off and began to fluctuate in the 1970's. Olathe, Shawnee, and Lenexa absorbed the bulk of the population growth in the 1970's. Nonresidential growth continued
at a heavy pace in Olathe and Lenexa. Office expansions along College Boulevard in Overland Park attracted a large number of companies from other parts of the Kansas City metropolitan area, as well as nationwide.

In the 1980's Johnson County grew faster than all major U.S. regions and surrounding states. Only the western region of the nation grew at a comparable rate. During the 1980's much of the northeast part of the County lost population while the area immediately south of I-435 more than doubled. Southern Overland Park and Leawood, eastern Olathe, western Lenexa and Shawnee together still comprised the rapidly growing urban fringe of the County.

Reaching a sustained growth rate of almost 10,000 people per year, the 1990's again brought growth to Johnson County. Currently, the 20 incorporated cities comprise over 50% of the County's land area. In 1990 the split was 55% unincorporated area and 45% in cities, and, in 2000, the numbers became 49% unincorporated and 51% cities. Retail development continues to be attracted to Johnson County's high incomes. However, it is now attracted further south to 135th Street in a band from Leawood to Olathe. The County's population in 2000 was 451,086, which is up 27% from 1990. Together, Overland Park and Olathe attracted 70% of the County's growth from 1990 to 2000 while the only rural area to gain any significant population was Aubry Township in the southeast corner of the County.

4.0 COUNTY PROFILES

For purposes of discussion, Johnson County jurisdictions may be classified into four main groups based upon their historical development and ability to expand: the northeast cities, developing fringe cities, rural cities, and the unincorporated area. The following is a brief summary of each.
4.1 Northeast Cities Profile

The northeast cities were the first ring of suburbs that sprang up outside of Kansas City from the 1920’s to the 1950’s. In general, they feature a coordinated residential pattern within their borders and have contained little commercial development until fairly recently. The Country Club cities located in the far northeast portion of the County near or adjacent to the State Line, trace their development to J. C. Nichols’ influence and emerged in the 1930’s and 1940’s. For the most part, housing there is attracting upper-middle to high-income households. These cities include Fairway, Prairie Village, Mission Hills, Mission Woods, Westwood Hills, and Westwood.

Cities in the northeast with different histories from the Country Club cities are Mission, Roeland Park, Lake Quivira, and Merriam. Roeland Park and Mission evolved primarily in the postwar suburban boom. Merriam was one of the older cities dating back to the mid-1800s with a historic downtown and grid streets. Historically residential, Olathe, Shawnee, and Lenexa are diversifying their land uses.

Overland Park is similar to Lenexa, Olathe, and Shawnee in that it was first platted in 1854, however, there was a long period where the area was not incorporated so Overland Park did not have the advantage of being a city until it was finally incorporated in 1960 and is now the second largest city in Kansas, serving as a major employment center independent from the central core of the Kansas City Metropolitan Area.

Leawood is a product of the post-war boom becoming an incorporated city in 1951. It is often associated with the other Country Club cities in the northeast corner of the County. However, Leawood still has some room for new development to the south within its city limits.

4.2 Developing Fringe Cities Profile

The “developing fringe cities” include cities able to expand their borders, or able to expand into undeveloped areas currently within their city limits. They are Leawood, Lenexa, Olathe, Overland Park, and Shawnee. The cities of Olathe, Shawnee, and Lenexa date back to the mid-1800’s. They have older cores, which feature a gridiron street pattern.
### TABLE 4: YEAR INCORPORATED - NORTHEASTERN CITIES

<table>
<thead>
<tr>
<th>Northeastern Cities</th>
<th>Year Incorporated</th>
<th>Background</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fairway</td>
<td>1949</td>
<td>J.C. Nichols development prior to incorporation.</td>
</tr>
<tr>
<td>Prairie Village</td>
<td>1951</td>
<td>Originally, J.C. Nichols housing development.</td>
</tr>
<tr>
<td>Lake Quivira</td>
<td>1972</td>
<td>Private lake community prior to incorporation.</td>
</tr>
<tr>
<td>Mission Hills</td>
<td>1949</td>
<td>Expansion of residential areas that crossed State Line and 47th Street in a southwesterly direction.</td>
</tr>
<tr>
<td>Mission Woods</td>
<td>1949</td>
<td></td>
</tr>
<tr>
<td>Westwood Hills</td>
<td>1949</td>
<td></td>
</tr>
<tr>
<td>Mission</td>
<td>1951, 1959</td>
<td></td>
</tr>
<tr>
<td>Roeland Park</td>
<td>1961</td>
<td></td>
</tr>
<tr>
<td>Merriam</td>
<td>1950, 1957</td>
<td>First platted in 1860, Merriam was previously known as Cambelltown and then Glenwood.</td>
</tr>
</tbody>
</table>

Source: Historic Johnson County by Elizabeth Barnes.

### TABLE 5: YEAR INCORPORATED - FRINGE CITIES

<table>
<thead>
<tr>
<th>Developing Fringe City</th>
<th>Year Incorporated</th>
<th>Background</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leawood</td>
<td>1951</td>
<td>Kroh Brothers development prior to incorporation.</td>
</tr>
<tr>
<td>Lenexa</td>
<td>1907</td>
<td>Early railroad town platted in 1869. It was a site along the Santa Fe Trail route from Westport.</td>
</tr>
<tr>
<td>Olathe</td>
<td>1868</td>
<td>Platted in 1857, Olathe has been the County Seat since 1858.</td>
</tr>
<tr>
<td>Overland Park</td>
<td>1960</td>
<td>From 1885 to 1895, this area was known as Glenn. It was an early inter-urban connection to Kansas City.</td>
</tr>
<tr>
<td>Shawnee</td>
<td>1856, 1922</td>
<td>Originally known as Gum Springs, Shawnee was the first stop on the Santa Fe Trail in 1802. The Indian Affairs Headquarters were established here in 1828. Served as County Seat until 1858.</td>
</tr>
</tbody>
</table>

Source: Historic Johnson County by Elizabeth Barnes.
4.3 Rural Cities Profile

The "rural cities" include De Soto, Edgerton, Gardner, and the part of Spring Hill within Johnson County. The rural cities of Edgerton, Gardner, and Spring Hill do not share borders with any other cities at this time. As a result, they are distinct cities surrounded by rural areas and open space. Gardner has experienced a tremendous increase in population from 3,191 people in 1990 to 9,396 in 2000. De Soto shares borders with Lenexa and Olathe and is bounded by the Kansas River to the north. It is still surrounded by unincorporated area to the south and west and is the closest city to the former Sunflower Army Ammunition Plant.

4.4 Unincorporated Area Profile

The fourth category consists of the "unincorporated area" which is land left in the original townships outside of any city limits. When Kansas was first opened up for settlement it was a public-domain state, meaning the federal government sold or gave away Kansas land. To know who owned what, the land was divided into townships. The original townships were Aubry, Gardner, Lexington, MacCnish, Mission, Monticello, Olathe, Oxford, Shawnee, and Spring Hill. In addition to cities, many small villages populated these townships in the 1800's. Some still exist like Stilwell, Ocheltree, and Stanley, while others are now remembered as street names (Clare and Kenneth).

<table>
<thead>
<tr>
<th>Rural Cities</th>
<th>Year Incorporated</th>
<th>Background</th>
</tr>
</thead>
<tbody>
<tr>
<td>De Soto</td>
<td>1863</td>
<td>Established as Lexington in 1857, the name changed to De Soto in 1863. Post Office first established in 1857.</td>
</tr>
<tr>
<td>Edgerton</td>
<td>1883</td>
<td>Lanesfield joined with an adjacent village, Hibbard, to become Edgerton.</td>
</tr>
<tr>
<td>Gardner</td>
<td>1907</td>
<td>Gardner was platted in 1857. The Santa Fe and Oregon trails split west of town.</td>
</tr>
<tr>
<td>Spring Hill</td>
<td>1858</td>
<td>It was on the stagecoach route prior to becoming a railroad stop after 1869.</td>
</tr>
</tbody>
</table>

Source: Historic Johnson County by Elizabeth Barnes.
### TABLE 7: YEAR ESTABLISHED – VILLAGES BY TOWNSHIP

<table>
<thead>
<tr>
<th>Villages by Township</th>
<th>Year Established</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frisbie</td>
<td>Monticello Township</td>
</tr>
<tr>
<td>Holliday</td>
<td>Monticello Township</td>
</tr>
<tr>
<td>Virginia Village</td>
<td>Monticello Township</td>
</tr>
<tr>
<td>Monticello</td>
<td>Monticello Township</td>
</tr>
<tr>
<td>Wilder</td>
<td>Monticello Township</td>
</tr>
<tr>
<td>Kenneth</td>
<td>Oxford Township</td>
</tr>
<tr>
<td>Oxford</td>
<td>Oxford Township</td>
</tr>
<tr>
<td>Stanley</td>
<td>Oxford Township</td>
</tr>
<tr>
<td>Ocheltree</td>
<td>Spring Hill Township</td>
</tr>
<tr>
<td>Clare</td>
<td>Olathe Township</td>
</tr>
<tr>
<td>Aubry</td>
<td>Aubry Township</td>
</tr>
<tr>
<td>Stilwell</td>
<td>Aubry Township</td>
</tr>
</tbody>
</table>

- Frisbie: Monticello Township, shipping service site along the railroad that was eventually abandoned as other cities developed.
- Holliday: Monticello Township, name changed from Waseca in 1885. Annexed by City of Shawnee in the 1960’s.
- Virginia Village: Monticello Township, loading/service site along the railroad that was abandoned as other sites expanded.
- Monticello: Monticello Township, loading/service site along the railroad that was abandoned as other sites expanded.
- Wilder: Monticello Township, loading/service site along the railroad that was abandoned as other sites expanded.
- Kenneth: Oxford Township, loading/service site along the railroad that was abandoned as other sites expanded.
- Oxford: Oxford Township, loading/service site along the railroad that was abandoned as other sites expanded.
- Ocheltree: Spring Hill Township, village formed in 1867 along the railroad, which competed with Spring Hill for a railroad depot.
- Clare: Olathe Township, shipping service site along the railroad, which was eventually abandoned as other cities developed.
- Aubry: Aubry Township, 1858-60 settled and received a post office. 1862 discontinued as a settlement. 1866 - Reestablished as a settlement.
- Stilwell: Aubry Township, village from 1888 to present. Originally named Mt. Auburn and changed to Stilwell to honor a Missouri Pacific railroad promoter.

Source: Historic Johnson County by Elizabeth Barnes.
4.4 Historic Sites

The Johnson County historic sites on the Kansas and National Registers remind us of the roles played by the Civil War, westward trails, missions, farms, and trains in shaping the County. The following Johnson County properties are on the National Register of Historic Places and the Register of Historic Kansas Places.

National Register of Historic Places - Unincorporated Area

1. Blackfeather Farm (1923), 8140 W. 183rd St., Stilwell
2. Gardner Lake Beach House (1937-38), west side of Gardner Lake
3. Lanesfield School (1869, altered 1904), 18475 Dillie Road
4. Redel District (1905, 5 buildings), 163rd and Mission Road
5. Turner Barn (1898), 19805 S. Moonlight Road
6. John McCarthy House (ca. 1860), 19700 Sunflower Road, Edgerton

National Register of Historic Places - Within Cities

1. Horn-Vincent-Russell Estate (1931), 6624 Wenonga Road, Mission Hills
2. J.B. Mahaffie House (1865), 1100 Kansas City Road, Olathe
3. Albert Ott House (1894), 401 S. Harrison, Olathe
4. Martin Van Buren Parker House (1880), 631 W. Park, Olathe
5. I.O. Pickering House (1869), 507 W. Park, Olathe
6. Shawnee Methodist Mission (west building 1839, east building 1841, north building 1845), 3403 W. 53rd St., Fairway
7. Herman and Ella Voigts House (1923), 2405 W. 103rd St., Leawood
8. John J. Wolcott House (1928), 5701 Oakwood, Mission Hills

Register of Historic Kansas Places - Within Cities

1. Edgerton Grange Hall (1904, altered 1930s), 404 E. Nelson, Edgerton
2. William C. Harkey House (1902), 224 E. Main, Gardner
3. George Hodges House (1892, altered 1921), 425 S. Harrison, Olathe
4. Hycrest (1881, altered 1919), 505 E. Cedar, Olathe
5. Lackman-Thompson Farm (1887), 11180 Lackman Road, Lenexa
6. Frank Lanter House (1901), 562 W. Park, Olathe
7. Graham Rogers House (ca. 1845), 6741 Mackey, Overland Park
8. Spring Hill Historic District (1887-1888, 1896, 1903-1905, 9 contributing buildings), Main Street, Spring Hill
Note: Those properties listed on the National Register of Historic Places are automatically included on the Register of Historic Kansas Places.

About 7,000 pre-1950 structures in Johnson County were identified in a recent survey by the Johnson County Museum. This survey is part of a larger project to document historic architectural resources in Kansas, and is funded by a historic preservation survey grant from the National Park Service, United States Department of the Interior, and administered by the Kansas Historic Preservation Department. A survey of these resources will contribute to an understanding of the County's history and will aid in planning to preserve historic structures.

This survey includes residences, commercial buildings, barns, outbuildings, and bridges. Volunteer surveyors record information about location of structures, their architectural style and form, construction materials and techniques. Each structure is photographed. From these ongoing surveys, structures are nominated for the Kansas and National Registers of Historic Places.

Bibliography


City of Overland Park, Kansas, Community Development Department, History of Overland Park, Kansas, city publication, 1978.

City of Overland Park Service and Information Department, Overland Park: City with a Vision, 1959-1976.

MAP 8: HISTORIC SITES

Historic Sites Legend

1. Shawnee Methodist Mission, 3402 W. 53rd St
2. John J. Wadsworth House, 5701 Olathe
3. Horn/Vocevich/Russell Estate, 8934 Wewangoa Road
4. Graham Rogers House, 8741 Mackey
5. Harlan and Ella Vogts House, 2420 W. 103rd St
6. Lambman-Thompson Farm, 11160 Lackman Road
7. J.B. Mahaffie House, 1100 Kansas City Road
8. Hycrest, 605 E. Cedar
9. George Hodges House, 426 S Harrison
10. I.O. Pickering House, 507 W. Park
11. Morton Van Buren Parker House, 631 W. Park
12. Albert Ott House, 401 S. Harrison
13. Frank Laster House, 992 W. Park
14. Rodeel District, 163rd and Mission Road
15. Black Leather Farm, 8140 W. 183rd St
16. Spring Hill Historic District, Main Street
17. Turner Barn, 1900 S. Moonlight Road
18. William C. Hartley House, 224 E. Main
19. Gardner Lake Beach House, west side of Gardner Lake
20. Lanesfield School, 19470 Dille Road
21. John McCarthy House, 19700 Sunflower Road
22. Edgerton Grange Hall, 404 E. Nelson

Map Elements
- [Green color] Unincorporated
- [White color] Incorporated
- [Black color] Historic Sites
- [Red color] Major Roads

Johnson County Rural Comprehensive Plan Update
1.0 INTRODUCTION AND PURPOSE

Tracking development trends helps paint a picture of how rural, suburban, and urban areas coexist and how transitions occur. It also reveals how geographic, demographic, economic, and governmental forces influence growth.

This following information was compiled and analyzed as part of the process leading to the development of this Plan. This chapter contains background data that was used to identify and assess existing geographic (e.g., land uses) and socio-economic (e.g., population and economic) trends and conditions affecting development in the unincorporated.

The information contained in this chapter serves as a resource for public or quasi-public agencies and for private individuals or businesses interested in knowing and understanding the geographic and demographic influences on development within the unincorporated area of Johnson County.

2.0 GEOGRAPHIC FACTORS

Geographic conditions play a significant role in the development pattern of urbanizing areas, so they have played an important role in directing the physical growth and configuration of development in Johnson County. While the physical terrain and natural characteristics of the County have not posed a major constraint to growth, they have had a notable affect upon the location of transportation corridors, utilities, and subsequent land use and development patterns.

The majority of Johnson County consists of rolling to flat terrain. Some steep slopes and bluffs define river and creek valleys. These areas of difficult terrain, however, are not widely prevalent. As such, Johnson County's topography has been largely conducive to a range of land use activities including industrial and commercial uses in addition to residential development.

In many ways, the existing alignments of major highways in the County (most notably, Interstate 35) are essentially the same corridors blazed by the early pioneer trails and rail lines. The configuration of these earlier routes followed high ridges and river valleys and served as the impetus for the location of villages and towns. Many of the original villages in Johnson County served as refueling and supply centers. When technology changed, some of these communities diminished while others thrived by maintaining a rail related function and/or assuming a broader economic base.

The pattern of urbanization in the northeastern portion of Johnson County, spawned by the momentum of economic development activity occurring in adjacent Kansas City, Missouri, was likewise influenced by geographic conditions. A key factor has been the establishment of a transportation system linked primarily to Missouri that was preceded by an interurban line to downtown Kansas City, Missouri.

In northeastern Johnson County, the Turkey Creek valley, which is oriented in a northeasterly direction, guided development patterns in a two-fold manner. First, it served as a physical barrier to contiguous growth spreading westward from Kansas City, Missouri and channeled this
development in a southwesterly direction through Johnson County. Second, Turkey Creek valley, as it emerged from the higher flat terrain extending in a southwesterly direction, provided the same barrier-free alignment through Johnson County as it did for the early trails and railroad improvements. This corridor, in turn, enabled the transportation linkage between Kansas City, Missouri and Johnson County. In effect, the Santa Fe Trail, then U.S. Highway 56, then I-35 and later its loop I-435, became the backbone of the County and combined, have largely influenced the industrial and commercial land use development patterns within the area. In addition, establishment of prime residential development relatively close to the County Club Plaza has further strengthened a link between Johnson County and Kansas City, Missouri as suburbanization occurred.

Due to the flat to moderately rolling terrain in the County, major thoroughfares have generally followed the convenience of section line roads. This has resulted in a physical development pattern of square mile grids with commercial development along portions and intersections of major arterials with residential development contained within the interior of each section. This pattern of development has been generally consistent, as urbanization has expanded in a continuous fashion south and westward. While lower residential densities have generally accompanied movement away from the northeast portion of the County, development has been increasing in intensity beyond the fringe of the urbanized area and development patterns are becoming more decentralized.

The relative relationship of Johnson County and Kansas City, Missouri can be seen in the percent of Kansas City area population by County. As home to Kansas City, Jackson County is first with the greatest population, followed by Johnson County, Clay County (where the Kansas City International Airport is located), and then Wyandotte County with Kansas City, Kansas.

Johnson County’s link to Wyandotte County and Kansas City, Kansas also has been shaped by the transportation connections between the two counties. The Turkey Creek valley also enabled a road network into Wyandotte County and encouraged a street system and a travel demand through the region. This is evident in Shawnee and in Merriam, particularly along Merriam Drive. For a long time, major northbound travel was generally restricted to the extreme northeast corner of Johnson County. This changed in 1958 when the 18th Street Expressway that connects with Roe Avenue was opened to Wyandotte County. A year later I-35 was opened from the 18th Street Expressway south to Miami County, improving convenient access between Johnson and Wyandotte Counties. The access between the two Kansas counties has further improved since the opening of I-635 and the completion of I-435.

As Kansas City, Kansas expands economically with the opening of the NASCAR track and attendant development; the north central portion of Johnson County, particularly within the cities of Shawnee and Lenexa, may be anticipated to experience increased growth.

The relative relationship of Johnson County and Kansas City, Missouri can be seen in the percent of Kansas City area population by County.
TABLE 8: PERCENT OF KANSAS CITY METROPOLITAN STATISTICAL AREA BY COUNTY, 2000

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Jackson, MO</td>
<td>633,232</td>
<td>654,880</td>
<td>36.87%</td>
<td>21,648</td>
<td>3.42%</td>
</tr>
<tr>
<td>Johnson, KS</td>
<td>355,054</td>
<td>451,086</td>
<td>25.40%</td>
<td>96,032</td>
<td>27.05%</td>
</tr>
<tr>
<td>Clay, MO</td>
<td>153,411</td>
<td>184,006</td>
<td>10.36%</td>
<td>30,595</td>
<td>19.94%</td>
</tr>
<tr>
<td>Wyandotte, KS</td>
<td>161,993</td>
<td>157,882</td>
<td>8.89%</td>
<td>-4,111</td>
<td>-2.54%</td>
</tr>
<tr>
<td>Cass, MO</td>
<td>63,808</td>
<td>82,092</td>
<td>4.62%</td>
<td>18,284</td>
<td>28.65%</td>
</tr>
<tr>
<td>Platte, MO</td>
<td>57,867</td>
<td>73,781</td>
<td>4.15%</td>
<td>15,914</td>
<td>27.50%</td>
</tr>
<tr>
<td>Leavenworth, KS</td>
<td>64,371</td>
<td>68,691</td>
<td>3.87%</td>
<td>4,320</td>
<td>6.71%</td>
</tr>
<tr>
<td>Lafayette, MO</td>
<td>31,107</td>
<td>32,960</td>
<td>1.86%</td>
<td>1,853</td>
<td>5.96%</td>
</tr>
<tr>
<td>Miami, KS</td>
<td>23,466</td>
<td>28,351</td>
<td>1.60%</td>
<td>4,885</td>
<td>20.82%</td>
</tr>
<tr>
<td>Ray, MO</td>
<td>21,971</td>
<td>23,354</td>
<td>1.31%</td>
<td>1,383</td>
<td>6.29%</td>
</tr>
<tr>
<td>Clinton, MO</td>
<td>16,595</td>
<td>18,979</td>
<td>1.07%</td>
<td>2,384</td>
<td>14.37%</td>
</tr>
</tbody>
</table>

KC MSA Total 1,582,875 1,776,062 100.00% 193,187 12.20%

MSA – Metropolitan Statistical Area
Note: Clinton County was added to the Kansas City MSA with the 2000 U.S. Census. For comparison, the table includes Clinton County’s population in the 1990 MSA as well.

3.0 HISTORICAL FACTORS

An overview of Johnson County history traces a number of factors that together established the development pattern and character of Johnson County today. These factors are as follows:

1. The intensive contiguous development patterns that have occurred in northeast Johnson County have been economically tied to the Kansas City metropolitan area. As new economic centers (i.e. College Boulevard, Corporate Woods, South Metcalf Avenue) emerged, contiguous development in the northeast was supplemented by increased scattered urbanization and a decentralized development pattern within Johnson County.

2. The early residential developments in northeastern Johnson County as well as cities dating back to the mid-1800’s have resulted in deep-rooted feelings of identity within these respective cities. While activity and development patterns throughout the
County have become more integrated and interdependent, these political jurisdictions have remained intact with respect to their responsibility for the delivery of public services and facilities. As the cost of providing services increases, cooperative efforts to share costs have become more common (e.g., libraries, Sheriff, MedAct).

3. While large-scale residential developments have been a notable feature of Johnson County's growth, this has not been characteristic of the unincorporated area where an average of a hundred residential building permits have been issued for each of the past ten years. If a decentralized development pattern continues, more pressure for such residential development in the unincorporated area will place additional demands on County services.

4. The terrain of Johnson County is conducive to most types of land use development. The pace and extent of development has been governed by the prevailing economic circumstances and the growth management requirements of the respective communities that are developing. The vast remaining balance of undeveloped land in the County possesses minimal topographical constraints for development.

5. Development has been closely related to transportation, which will continue to be an important factor. A good transportation network is essential for the County to retain its economic viability and benefit from service as well as distribution-oriented businesses.

6. As portions of the County have remained unincorporated over time, residents within the area have developed a strong affinity for the natural and rural characteristics found there. As urbanization continues and cities grow, conflicts have sometimes arisen between cities and rural areas with residents who do not want to live within incorporated areas. Rural residents may eventually face conflicts between the desire to remain in the unincorporated area, and the desire to have a higher level of public services. Some rural residents may also face conflicts of wanting to live in a rural area, until they choose to rezone or obtain approval to subdivide their land.

4.0 EXISTING LAND USES

Currently, land uses within Johnson County's unincorporated area are predominantly agriculture and scattered residential development. More concentrated residential areas are found in and around the Aubry-Stillwell area, Gardner Lake, and the Blue River Valley area. Except for some areas on U.S. Highway 69, U.S. Highway 169, I-35, and at the New Century AirCenter, commercial and industrial uses primarily are found in the cities.

A significant amount of single-family residential land uses are located east of the U.S. 69 Highway corridor to the southern County line (215th street). There are also small pockets of residential...
development that existed prior to 1986 throughout the unincorporated area. Few residential subdivisions are contiguous to other developments; a typical square mile in a developing portion of rural Johnson County may have 2 or 3 free standing subdivisions along section-line roads with much of the land area still in agricultural use, and many of the platted lots vacant.

Table 9, Unincorporated Area Land Uses, shows the number of acres and percentage comparisons of the most common land uses found within the unincorporated area of the County.

Not surprisingly, agriculture is the largest single land use within the unincorporated area. Based upon Table __, agricultural land uses account for nearly 172 square miles or 76% of the approximately 225 square miles that comprise the total unincorporated area of Johnson County. Agricultural land uses account for 36% of the total 477 square miles of combined incorporated and unincorporated area.

Government/public/quasi public land uses is the second largest land use category (7%) in the unincorporated area. This land use category, however, is dominated by the former Sunflower Army Ammunition Plant (9,065 acres) that was declared “surplus” by the U. S. Army in 1997 and which accounts for approximately 87% of the total 16.5 square miles in this land use category. Other land uses in this category include schools, churches, and public utilities.

Single-family residential land uses is the third largest category accounting for approximately 6.5% or nearly 14.8 square miles.

Rights-of-Way and “undesignated” is the fourth largest category accounting for approximately 3.5% or 8 square miles.
### TABLE 9: UNINCORPORATED AREA LAND USES

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Acres</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural</td>
<td>109,584</td>
<td>76.08%</td>
</tr>
<tr>
<td>Government/Public/Quasi Public</td>
<td>10,442</td>
<td>7.25%</td>
</tr>
<tr>
<td>Single-Family Residential</td>
<td>9,496</td>
<td>6.59%</td>
</tr>
<tr>
<td>Rights-of-Way or Unassigned</td>
<td>5,121</td>
<td>3.56%</td>
</tr>
<tr>
<td>Park/Recreation</td>
<td>2,750</td>
<td>1.91%</td>
</tr>
<tr>
<td>Vacant Residential</td>
<td>1,804</td>
<td>1.25%</td>
</tr>
<tr>
<td>Light Industrial</td>
<td>1,794</td>
<td>1.25%</td>
</tr>
<tr>
<td>Heavy Industrial</td>
<td>1,601</td>
<td>1.11%</td>
</tr>
<tr>
<td>Other Residential, and Mobile Homes</td>
<td>622</td>
<td>0.43%</td>
</tr>
<tr>
<td>Vacant Commercial/Industrial</td>
<td>415</td>
<td>0.29%</td>
</tr>
<tr>
<td>General Commercial</td>
<td>220</td>
<td>0.15%</td>
</tr>
<tr>
<td>Office</td>
<td>90</td>
<td>0.06%</td>
</tr>
<tr>
<td>Water Body</td>
<td>88</td>
<td>0.06%</td>
</tr>
<tr>
<td>Duplex or Triplex</td>
<td>5</td>
<td>0.00%</td>
</tr>
<tr>
<td><strong>Total Unincorporated Area Acres</strong></td>
<td><strong>144,032</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Johnson County AIMS, 2002
PART II -- Chapter 7: PATTERNS AND TRENDS

5.0 RECENT PATTERNS - URBAN/RURAL INTERFACE

The U.S. Census shows that Johnson County is becoming denser and more urban. In 2000, Johnson County crossed the threshold of having more land in cities than outside of cities. Generally, rural lands become urban after they are annexed into cities. Table below entitled, Percent of Land Incorporated, shows the percentage of the incorporated area in Johnson County from 1980 to 2002.

<table>
<thead>
<tr>
<th>Year</th>
<th>Percent of Land Incorporated</th>
<th>% Increase by Decade</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>33%</td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td>45%</td>
<td>12%</td>
</tr>
<tr>
<td>2000</td>
<td>51%</td>
<td>6%</td>
</tr>
<tr>
<td>2002</td>
<td>53%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Table 10: Rural and Urban Areas

Over the past decade, an average of approximately 1,800 acres of land has been annexed annually by cities in Johnson County. Currently, De Soto, Edgerton, Gardner, Olathe, Overland Park, and Spring Hill are the only remaining cities in the County that are not landlocked and capable of extending their boundaries. If this pattern of annexation continues, it will take nearly 80 years for all of Johnson County to be incorporated.

Table 11: Johnson County Incorporated/Unincorporated Area Population

<table>
<thead>
<tr>
<th>Year</th>
<th>Incorporated Area</th>
<th>%</th>
<th>Unincorporated Area</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>252,711</td>
<td>94</td>
<td>17,558</td>
<td>6</td>
</tr>
<tr>
<td>1990</td>
<td>339,103</td>
<td>96</td>
<td>15,951</td>
<td>4</td>
</tr>
<tr>
<td>2000</td>
<td>436,044</td>
<td>97</td>
<td>15,042</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: U.S. Census

5.1 Countywide Growth

The land use patterns and growth pressures experienced in the unincorporated portions of Johnson County are the result of the growth occurring throughout the entire County. Johnson County’s population and economic growth from 1990 to 2000 placed it in the top 2% of fastest growing counties in the United States.

Over the past 20 years the County has sustained an average net population growth of nearly 10,000 new residents per year. This accounts for half the net population growth in the 11-county Kansas City Metropolitan Statistical Area (MSA). As far as economic growth is concerned, Johnson County added an average of 419 new business establishments per year, accounting for 58% of new businesses in the Kansas City MSA (from The Johnson County Advantage by the County Economic Research Institute, Inc). In 2001, according to U.S. Census Bureau population estimates, Johnson County became the largest County in Kansas when its population exceeded Sedgwick County’s by 9,542 people.

5.2 Unincorporated Area Growth

Unincorporated Johnson County, predominantly agricultural in character, continues to experience pressures for sprawling rural residential development.
The stimulus has been the economic growth and employment opportunities in northeast Johnson County and the Kansas City metropolitan area. The proximity and convenience of outlying properties to employment, shopping and cultural centers within urban areas, while providing the desirable amenities associated with an open space setting, has made the low-density residential environment of unincorporated Johnson County attractive to prospective home buyers. Some issues associated with development in the rural areas are as follows:

1. Physical land use conflicts between agricultural and rural residential development,
2. Limited roads, maintenance, and traffic controls serving subdivisions,
3. Scattered development in portions of the County where there is a minimal water supply, and
4. Failing on-site wastewater disposal systems and potential water quality hazards where environmental constraints were not properly considered and addressed when these areas developed years ago.

5.3 **Fringe Development**

The general annexation pattern in Johnson County has been for areas to be annexed just prior to their development. An exception to this pattern occurred in the mid 1980’s with the extensive annexations of rural areas in the western portions of Lenexa and Shawnee and the southern portions of Overland Park.

The County is now facing the prospect of new sewer districts forming in the unincorporated area ahead of annexation. An example of this occurred in 2002 when the County expanded the Unified Wastewater District into Blue River No. 12 just south of the city limits of Olathe. New sewer districts cause pressures for denser development in areas with rural service levels.

Cities are particularly concerned about development in the unincorporated area if the development does not fully adhere to city standards or comply with city plans. Development within the unincorporated area is also exempt from city excise taxes, fees, or exactions. As a result, once these areas are annexed, they may require costly public improvements or higher public maintenance expenditures.

In the past, the difference between municipal and unincorporated development standards has promoted “leapfrog” development in which semi-urban residential areas have been created in rural territory, bypassing suitable sites within municipal boundaries. The cost differential includes both capital costs for arterial and collector street paving and less property taxes due to the absence of a city tax in unincorporated developments. The basic County property tax rate applies equally to city and unincorporated territory and there is no current provision for a special rural tax rate to finance semi-urban services.

5.4 **Paying for Development - City Fees**

Many cities within Johnson County have adopted excise taxes on new development to assist in paying for the impacts of growth. The unincorporated area of Johnson County, however, does not currently have an excise tax, which has lead some developers to seek County approval for their subdivisions prior to annexing into cities. The Table 12 shows
the excise tax rates for several jurisdictions in Johnson County in 2002.

**TABLE 12: EXCISE TAX COMPARISON (2002)**

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Excise Tax Rate (Per square foot of platted land)</th>
<th>Excise Tax Rate for a 40-acre Subdivision</th>
</tr>
</thead>
<tbody>
<tr>
<td>De Soto</td>
<td>$0.13</td>
<td>$226,512.00</td>
</tr>
<tr>
<td>Gardner</td>
<td>$0.17</td>
<td>$296,208.00</td>
</tr>
<tr>
<td>Lenexa</td>
<td>$0.16</td>
<td>$270,943.20</td>
</tr>
<tr>
<td>Olathe</td>
<td>$0.17</td>
<td>$296,208.00</td>
</tr>
<tr>
<td>Overland Park</td>
<td>$0.19</td>
<td>$322,344.00</td>
</tr>
<tr>
<td>Shawnee</td>
<td>$0.15</td>
<td>$261,360.00</td>
</tr>
<tr>
<td>Spring Hill</td>
<td>$0.06</td>
<td>$108,028.80</td>
</tr>
<tr>
<td>Johnson County</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

Source: Peridian Group, Inc. March 7, 2002 presentation to Spring Hill Chamber of Commerce.

In the future, Johnson County may want to consider using an excise tax or other fees within the unincorporated area to help defray the County's costs, as well as to preclude some developers from seeking County approval of their subdivisions prior to annexing into a city.

5.5 Coordinating City/Rural Development

Because there are few natural impediments to growth in Johnson County, managing infrastructure is particularly important to a rural/urban relationship. Implementing city standards for rural areas is difficult due to a difference among cities and the need to work with a variety of special service districts.

There has not been a unified or coordinated strategy for the extension of water, sewers, and other public facilities and services within unincorporated Johnson County. Each of the autonomous special service districts, which provide public facilities and services (i.e., sewers, water, fire protection, schools) to Johnson County residents, funds and administers its own capital facilities and operations and exercises its own expansion plans and service extension policies. The decisions to extend public services are often made independent of other agencies responsible for providing related support services to a particular geographic area.

Preserving Our Future (POF), an infrastructure-planning project undertaken by the County with input from utility providers and the cities, recommended the need to establish a means for working together to overcome some of the institutional and other barriers to coordination. As a result, efforts are now underway by various County, municipal, and utility officials to regularly meet and discuss matters of mutual interest and concern.

5.6 Lot Sizes

From 1986 to 2002, the County's Rural Comprehensive Plan supported a range of lot sizes from less than 1 acre to 10 acres in the areas adjacent to cities and then a 10-acre minimum lot size elsewhere. Since 1994, when updated County Zoning and Subdivision Regulations were adopted, developments of less than 10-acre lot sizes have been contingent upon having adequate infrastructure to service the development.

**TABLE 13: LOT SIZE BREAKDOWN**

<table>
<thead>
<tr>
<th>Acreage Range</th>
<th>Number of Lots</th>
<th>Percentage by lot</th>
<th>Total Acreage</th>
<th>Percentage by Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 1.9-Acre</td>
<td>1,954</td>
<td>36%</td>
<td>1,285</td>
<td>1%</td>
</tr>
<tr>
<td>2.0-4.9-Acre</td>
<td>1,025</td>
<td>19%</td>
<td>3,372</td>
<td>3%</td>
</tr>
<tr>
<td>5.0-9.9-Acre</td>
<td>699</td>
<td>13%</td>
<td>6,164</td>
<td>6%</td>
</tr>
<tr>
<td>10.0-19.9-Acre</td>
<td>547</td>
<td>10%</td>
<td>7,535</td>
<td>8%</td>
</tr>
<tr>
<td>20.0-39.9 Acre</td>
<td>414</td>
<td>8%</td>
<td>12,900</td>
<td>13%</td>
</tr>
<tr>
<td>&lt; .40+ Acre</td>
<td>753</td>
<td>14%</td>
<td>67,256</td>
<td>68%</td>
</tr>
<tr>
<td>Totals</td>
<td>5,392</td>
<td>100%</td>
<td>98,512</td>
<td>100%</td>
</tr>
</tbody>
</table>
As Table 13 shows, while most of the unincorporated area is in large acreages, there are smaller lots, which do not seem to fit any pattern. Many of the smallest lots were created prior to the County’s first adoption of the Rural Comprehensive Plan in 1986. These older lots lack a development pattern, which indicates that the subdivision of land has been somewhat at the discretion of the landowner without full regard for the eventual provision of public utilities and roads. The more recent subdivisions follow a pattern of occurring along existing paved roads.

Johnson County has been a highly speculative investment area for residential, industrial and commercial (office) construction, resulting in large land holdings by developers (particularly in the unincorporated area) awaiting the appropriate economic factors, market conditions and public facilities (i.e., roads, utilities) for development of their properties.

Zoning and subdivision regulations were administered within unincorporated Johnson County for many years without reliance upon a plan or guide for development. Planning is a necessary first step in determining the appropriate type and level of zoning and subdivision regulations, as well as other responsive land use management tools, to protect the County’s land and environmental resources, and to attain desired development objectives.

Most of unincorporated Johnson County is zoned Rural District, (RUR), which requires new lots to be at least 10 acres. In recent years, several farm acreages have been platted into 10-acre lots fronting on existing section line roads, commonly called “piano key lots”. Often those lots are about ¼-mile deep and have a lot-depth-to-width ratio of about 4:1. Such narrow, deep lots may not fit the topography well, may obstruct future sanitary sewer district expansions, and may be difficult to subdivide further in the future. In some instances, 10-acre lots may be larger than the owners want or care to maintain. In 2002, seeking to limit the creation of piano key lots, the County adopted subdivision regulations limiting the number of driveways with direct access onto major roads.

6.0 AGRICULTURE

Part of the urban/rural split in Johnson County is characterized by the viability of farming. With the continued rise in farming costs, however, the economic feasibility of farm operations in some portions of unincorporated Johnson County is uncertain. There appears to be, however, a significant amount of agricultural farmland remaining in the County as well as an apparent desire to maintain farming operations within the unincorporated area. As noted in the preceding, existing agricultural land uses, alone, comprise 76% or nearly 172 square miles of the unincorporated area.

6.1 Farms by Size

The U.S. Department of Agriculture U.S. Census of Agriculture provides information about farming operations in Johnson County. The U.S. Census of Agriculture definition of a farm is “any place from which $1,000 or more of agricultural products were produced and sold or normally would have been sold, during the census year.”

The most recent U.S. Census of Agriculture for 1997, shows Johnson County, as a whole, had 604 farms covering 135,787 acres (212 sq. miles). This is only down slightly from 1992 when 596 farms covered 141,386 acres (220 sq. miles) of the County. (It should be noted that some of
PART II -- Chapter 7: PATTERNS AND TRENDS

the land designated as farmland by the U.S. Census of Agriculture is located within cities in the County as well as land located within the unincorporated area.)

Farms by Size

Table 14 shows that approximately one-third of the properties the U.S. Census of Agricultural identified as farms were between 10 and 49 acres in size. About 15% of those properties in 1997, and about 20% of those properties in 1992, were between 180 and 499 acres in size.

Based upon staff observations, discussion with County Extension Council representatives and County residents, including farmers, it is recognized that much of the land identified above may not be in traditional or intense agricultural production. This is particularly true of farms identified as being less than 50 acres in size. Another indication of this is that, according the U.S. Census of Agriculture, 155 or 25% of the 604 farms identified in 1997 were horse farms with a combined total of nearly 1,300 horses.

6.2 Farm Tenancy

Of the total 604 farms reported in 1997 for Johnson County, full or part time owners operated 558 farms or 92%, while tenants operated only 46 farms or 8%. In 1997, 439 or 73% farm operators resided on their farm, while 133 or 22% did not reside on their farm (32 or 5% did not report where the resided). Over 62% or 376 operators indicated that farming was not their principal occupation and 38% said that farming was their principal occupation. The average tenancy on farms was 20.2 years.

Although it may be difficult to derive definitive conclusions from the preceding tables, it is apparent the majority of farms in the County are owned in whole or part by individuals who reside on their farm but farming is not necessarily the principal occupation of the individual who resides on the farm.

Characteristics of farm ownership and length of ownership are summarized in the following three tables:

**TABLE 14. FARMS BY ACREAGE**

<table>
<thead>
<tr>
<th>Size</th>
<th>1992</th>
<th>1997</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 9 acres</td>
<td>36</td>
<td>44</td>
</tr>
<tr>
<td>10 to 49 acres</td>
<td>183</td>
<td>207</td>
</tr>
<tr>
<td>50 to 179 acres</td>
<td>181</td>
<td>184</td>
</tr>
<tr>
<td>180 to 499 acres</td>
<td>120</td>
<td>97</td>
</tr>
<tr>
<td>500 to 999 acres</td>
<td>47</td>
<td>38</td>
</tr>
<tr>
<td>1,000 acres or more</td>
<td>29</td>
<td>34</td>
</tr>
<tr>
<td>Total</td>
<td>596</td>
<td>604</td>
</tr>
</tbody>
</table>

**TABLE 15. FARM TENANCY, 1992, 1997**

<table>
<thead>
<tr>
<th></th>
<th>Full/Part Owners</th>
<th>Tenants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>558</td>
<td>46</td>
</tr>
<tr>
<td>1992</td>
<td>544</td>
<td>52</td>
</tr>
<tr>
<td>Number of Farms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acres</td>
<td>113,806</td>
<td>114,059</td>
</tr>
<tr>
<td>Harvested Cropland Farms</td>
<td>385</td>
<td>405</td>
</tr>
<tr>
<td>Harvested Cropland Acres</td>
<td>57,402</td>
<td>59,415</td>
</tr>
<tr>
<td></td>
<td>21,981</td>
<td>27,327</td>
</tr>
<tr>
<td></td>
<td>38</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>9,964</td>
<td>12,088</td>
</tr>
</tbody>
</table>

**TABLE 16. FARM OPERATOR'S RESIDENCY AND OCCUPATION**

<table>
<thead>
<tr>
<th></th>
<th>1997</th>
<th>1992</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operator Resides on Farm Operated</td>
<td>439</td>
<td>435</td>
</tr>
<tr>
<td>Does Not Reside on Farm Operated</td>
<td>133</td>
<td>126</td>
</tr>
<tr>
<td>Residence Not Reported</td>
<td>32</td>
<td>35</td>
</tr>
<tr>
<td>Farming as Principal Occupation</td>
<td>228</td>
<td>267</td>
</tr>
<tr>
<td>Principal Occupation Not Farming</td>
<td>376</td>
<td>329</td>
</tr>
</tbody>
</table>
6.3 Harvest Records

Johnson County’s agriculture harvest for 1997 and its comparison to the State harvest is summarized in the following table:

<table>
<thead>
<tr>
<th>Product (bushels or as stated)</th>
<th>1997</th>
<th>1992</th>
<th>% of Kansas Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Com for grain or seed</td>
<td>980,662</td>
<td></td>
<td>2.7%</td>
</tr>
<tr>
<td>Sorghum for grain or seed</td>
<td>119,501</td>
<td></td>
<td>.5%</td>
</tr>
<tr>
<td>Wheat for grain</td>
<td>313,919</td>
<td></td>
<td>.7%</td>
</tr>
<tr>
<td>Oats</td>
<td>42,938</td>
<td></td>
<td>.9%</td>
</tr>
<tr>
<td>Soybeans for beans</td>
<td>831,802</td>
<td></td>
<td>1%</td>
</tr>
<tr>
<td>Hay - Alfalfa, other tame, small grain wild, grass silage, green chop, etc.</td>
<td>38,486</td>
<td></td>
<td>.6%</td>
</tr>
</tbody>
</table>

6.4 Agricultural Nurseries

The table below shows an increase of 23 nursery type operations between 1992 and 1997 as well as a substantial increase in sales (37%) for this same period. The table below also shows an increase in greenhouse space (up 220% from 1992) and nursery acreages show the shift from traditional crops to a more diverse type of agriculture activity. This shift may have implications for land use in the unincorporated area as these types of uses generally generate more on-site sales and customer traffic than other farming operations.

<table>
<thead>
<tr>
<th>Product</th>
<th>1997</th>
<th>1992</th>
<th>% of Kansas Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farms</td>
<td>50</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>Square Feet Under Glass</td>
<td>376,483 sq.ft.</td>
<td>117,484 sq.ft.</td>
<td></td>
</tr>
<tr>
<td>Acres in Open</td>
<td>1,942 acres</td>
<td>1,650 acres</td>
<td></td>
</tr>
<tr>
<td>Sales</td>
<td>$5,195,000</td>
<td>$3,798,000</td>
<td></td>
</tr>
</tbody>
</table>

6.5 Agriculture Conclusions

Overall, the U.S. Census of Agriculture indicates that the number of farms in Johnson County is not significantly different from 1992 to 1997. Farming appears to be still a viable option for landowners in the County. The major difference appears to be a shift in the type of farm operations, including 25% involved in horse raising and a substantial increase in greenhouse and nursery operations.

As pressure for development in the unincorporated area continues along with attendant increases in land values, it may be anticipated more and more agricultural land will be eventually converted from production to development. This will
be particularly likely in areas near to cities or other existing development where there is adequate infrastructure (e.g., roads and central water) available to support new development.

**7.0 POPULATION**

Most of the population growth in Johnson County is occurring in the fringe cities of Leawood, Lenexa, Olathe, Overland Park, and Shawnee. From 1970 through 2000, the incorporated area accounted for 98.5% percent of the County's growth while unincorporated Johnson County comprised approximately 1.5% percent of the total population growth during this same period. Gardner Township, Lexington Township, and Olathe Township experienced decreases in population, largely due to land being annexed into adjacent cities.

The 1940 to 2000 decennial censuses reveal Johnson County's urbanization began in the 1950s with rapid population growth of its cities. Between 1990 and 2000, Overland Park and Olathe accounted for nearly 70% of the County's growth. These two cities have also experienced significant development of retail, service, and entertainment services. In 1960, when Overland Park became an incorporated city, it had a population of approximately 28,000. The U.S. Census indicates Overland Park's 2000 population is now over 149,000 making it the second largest city in Kansas. Much of the city's growth has occurred east and west along I-435 and north and south on U.S. 69 Highway.

In 1960, Olathe had a population of approximately 10,987. In 2000 Olathe's population was approximately 93,000 persons. During this time, most population growth occurred east of I-35, west toward Kansas Highway 7 (K-7), and South along U.S. Highway 169. Olathe’s growth is expected to continue west of K-7 and south between U.S. Highway 169 and Pflumm Road.

Most of the cities in northeast Johnson County continued to grow through the 1970's with some experiencing modest decline in the last twenty years. These declines from 1980 to 2000 are generally attributed to lower household sizes as the result of aging families and individuals. For example, Prairie Village added housing units in the 1990's but their person per household size went from 2.38 in 1990 to 2.23 in the year 2000.

The developing fringe cities experienced annual growth rates in the 1960's and 1970's ranging from 4% to 20%. In the 1990's the rates were between 2% and 5% per year. The greatest change in growth rates in the latter part of the 20th Century occurred in the rural area cities. As noted, in the 1990's De Soto grew by 99% and Gardner grew by 194%. Of the townships, between 1990 and 2000 Aubry was the only one continuing to add significant population in the unincorporated area.

Table 21, entitled Johnson County Population 1940-2000, shows the population changes that have occurred to the cities and townships (unincorporated area) over the past 60 years.
Table 21, below, entitled Johnson County 1990-2000 Population Change, shows the changes in population within the County between 1990 and 2000.

### TABLE 21: JOHNSON COUNTY POPULATION 1940 TO 2000

<table>
<thead>
<tr>
<th>City/Township</th>
<th>Increase</th>
<th>City/Township</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aubry Township</td>
<td>1,146</td>
<td>Aubry Township</td>
<td>26.7%</td>
</tr>
<tr>
<td>Spring Hill Township</td>
<td>119</td>
<td>Spring Hill Township</td>
<td>6.1%</td>
</tr>
<tr>
<td>Oxford Township</td>
<td>95</td>
<td>Oxford Township</td>
<td>4.9%</td>
</tr>
<tr>
<td>McCamish Township</td>
<td>21</td>
<td>McCamish Township</td>
<td>2.5%</td>
</tr>
<tr>
<td>Shawnee Township</td>
<td>-106</td>
<td>Gardner Township</td>
<td>-25.8%</td>
</tr>
<tr>
<td>Monticello Township</td>
<td>-134</td>
<td>Lexington Township</td>
<td>-29.9%</td>
</tr>
<tr>
<td>Lexington Township</td>
<td>-561</td>
<td>Olathe Township</td>
<td>-38.5%</td>
</tr>
<tr>
<td>Olathe Township</td>
<td>-744</td>
<td>Shawnee Township</td>
<td>-100.0%</td>
</tr>
<tr>
<td>Gardner Township</td>
<td>-745</td>
<td>Monticello Township</td>
<td>-100.0%</td>
</tr>
<tr>
<td>Township Total</td>
<td>-909</td>
<td>Township Total</td>
<td>-5.7%</td>
</tr>
<tr>
<td>Overland Park</td>
<td>37,290</td>
<td>Gardner</td>
<td>194.5%</td>
</tr>
<tr>
<td>Olathe</td>
<td>29,610</td>
<td>De Soto</td>
<td>99.1%</td>
</tr>
<tr>
<td>Shawnee</td>
<td>10,003</td>
<td>Olathe</td>
<td>46.7%</td>
</tr>
<tr>
<td>Leawood</td>
<td>7,963</td>
<td>Leawood</td>
<td>40.4%</td>
</tr>
<tr>
<td>Gardner</td>
<td>6,205</td>
<td>Overland Park</td>
<td>33.4%</td>
</tr>
<tr>
<td>Lenexa</td>
<td>6,204</td>
<td>Shawnee</td>
<td>26.3%</td>
</tr>
<tr>
<td>De Soto</td>
<td>2,270</td>
<td>Lenexa</td>
<td>18.2%</td>
</tr>
<tr>
<td>Mission</td>
<td>223</td>
<td>Edgerton</td>
<td>15.8%</td>
</tr>
<tr>
<td>Spring Hill</td>
<td>207</td>
<td>Spring Hill</td>
<td>9.9%</td>
</tr>
<tr>
<td>Edgerton</td>
<td>196</td>
<td>Mission Hills</td>
<td>4.3%</td>
</tr>
<tr>
<td>Mission Hills</td>
<td>147</td>
<td>Mission</td>
<td>2.3%</td>
</tr>
<tr>
<td>Bonner Springs</td>
<td>-2</td>
<td>Westwood Hills</td>
<td>-1.3%</td>
</tr>
<tr>
<td>Westwood Hills</td>
<td>-5</td>
<td>Prairie Village</td>
<td>-4.8%</td>
</tr>
<tr>
<td>Mission Woods</td>
<td>-17</td>
<td>Fairway</td>
<td>-5.3%</td>
</tr>
<tr>
<td>Countryside</td>
<td>-17</td>
<td>Countryside</td>
<td>-5.4%</td>
</tr>
<tr>
<td>Lake Quivira</td>
<td>-60</td>
<td>Lake Quivira</td>
<td>-6.4%</td>
</tr>
<tr>
<td>Fairway</td>
<td>-221</td>
<td>Merriam</td>
<td>-6.9%</td>
</tr>
<tr>
<td>Westwood</td>
<td>-239</td>
<td>Mission Woods</td>
<td>-9.3%</td>
</tr>
<tr>
<td>Merriam</td>
<td>-813</td>
<td>Roeland Park</td>
<td>-11.5%</td>
</tr>
<tr>
<td>Roeland Park</td>
<td>-889</td>
<td>Westwood</td>
<td>-13.5%</td>
</tr>
<tr>
<td>Prairie Village</td>
<td>-1,114</td>
<td>Bonner Springs*</td>
<td>*</td>
</tr>
<tr>
<td>City Total</td>
<td>96,941</td>
<td>City Total</td>
<td>28.6%</td>
</tr>
<tr>
<td>County Total</td>
<td>96,032</td>
<td>County Total</td>
<td>27.0%</td>
</tr>
</tbody>
</table>

*Population changed from 3 to 1 between 1990 and 2000.

Notes:
1. Declines in some townships are primarily attributed to annexations into cities.
2. The cities of Bonner Springs, Lake Quivira, and Spring Hill have some of their population in other counties.
3. Total 2000 population of Bonner Springs, 6,768; Lake Quivira, 982; and Spring Hill, 2,727.
4. The 1990 Census counted 106 persons as residents of Shawnee Township. A preliminary review (March 1991) indicates that population would be in an area already annexed into the City of Shawnee.

Source: U.S. Census 1990, 2000
### TABLE 23. TOTAL HOUSING UNITS AND HOUSEHOLD SIZES, 1990 - 2000

<table>
<thead>
<tr>
<th>Townships</th>
<th>Total Housing Units</th>
<th>Average Population Per Household</th>
<th>1990 - 2000 Changes in Housing Units</th>
<th>1990 - 2000 Changes in Household Sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aubry</td>
<td>1,441</td>
<td>1,839</td>
<td>2.98</td>
<td>2.96</td>
</tr>
<tr>
<td>Gardner</td>
<td>1,176</td>
<td>793</td>
<td>2.46</td>
<td>2.70</td>
</tr>
<tr>
<td>Spring Hill</td>
<td>637</td>
<td>686</td>
<td>3.05</td>
<td>3.00</td>
</tr>
<tr>
<td>Oxford</td>
<td>580</td>
<td>681</td>
<td>3.32</td>
<td>2.97</td>
</tr>
<tr>
<td>Lexington</td>
<td>839</td>
<td>449</td>
<td>2.24</td>
<td>2.92</td>
</tr>
<tr>
<td>Olathe</td>
<td>593</td>
<td>404</td>
<td>3.26</td>
<td>2.94</td>
</tr>
<tr>
<td>McCamish</td>
<td>307</td>
<td>347</td>
<td>2.79</td>
<td>2.53</td>
</tr>
<tr>
<td>Monticello</td>
<td>42</td>
<td>0</td>
<td>3.19</td>
<td>--</td>
</tr>
<tr>
<td>Shawnee</td>
<td>0</td>
<td>0</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><strong>Township Total</strong></td>
<td>5,615</td>
<td>5,199</td>
<td>2.82</td>
<td>2.89</td>
</tr>
<tr>
<td>Cities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overland Park</td>
<td>47,998</td>
<td>62,586</td>
<td>2.33</td>
<td>2.38</td>
</tr>
<tr>
<td>Olathe</td>
<td>22,401</td>
<td>33,343</td>
<td>2.83</td>
<td>2.79</td>
</tr>
<tr>
<td>Shawnee</td>
<td>15,232</td>
<td>19,086</td>
<td>2.50</td>
<td>2.51</td>
</tr>
<tr>
<td>Lenexa</td>
<td>13,487</td>
<td>16,378</td>
<td>2.52</td>
<td>2.46</td>
</tr>
<tr>
<td>Leawood</td>
<td>7,212</td>
<td>10,129</td>
<td>2.73</td>
<td>2.73</td>
</tr>
<tr>
<td>Prairie Village</td>
<td>10,028</td>
<td>10,126</td>
<td>2.31</td>
<td>2.18</td>
</tr>
<tr>
<td>Mission</td>
<td>5,233</td>
<td>5,329</td>
<td>1.82</td>
<td>1.83</td>
</tr>
<tr>
<td>Merriam</td>
<td>5,399</td>
<td>5,042</td>
<td>2.19</td>
<td>2.18</td>
</tr>
<tr>
<td>Gardner</td>
<td>1,251</td>
<td>3,533</td>
<td>2.55</td>
<td>2.66</td>
</tr>
<tr>
<td>Roeland Park</td>
<td>3,330</td>
<td>3,115</td>
<td>2.31</td>
<td>2.19</td>
</tr>
<tr>
<td>Fairway</td>
<td>1,852</td>
<td>1,842</td>
<td>2.25</td>
<td>2.15</td>
</tr>
<tr>
<td>De Soto</td>
<td>863</td>
<td>1,730</td>
<td>2.65</td>
<td>2.63</td>
</tr>
<tr>
<td>Mission Hills</td>
<td>1,334</td>
<td>1,318</td>
<td>2.58</td>
<td>2.73</td>
</tr>
<tr>
<td>Spring Hill</td>
<td>789</td>
<td>1,014</td>
<td>2.78</td>
<td>2.69</td>
</tr>
<tr>
<td>Westwood</td>
<td>833</td>
<td>731</td>
<td>2.13</td>
<td>2.10</td>
</tr>
<tr>
<td>Edgerton</td>
<td>413</td>
<td>500</td>
<td>3.01</td>
<td>2.88</td>
</tr>
<tr>
<td>Lake Quivira</td>
<td>386</td>
<td>388</td>
<td>2.55</td>
<td>2.40</td>
</tr>
<tr>
<td>Westwood Hills</td>
<td>131</td>
<td>173</td>
<td>2.92</td>
<td>2.18</td>
</tr>
<tr>
<td>Countryside</td>
<td>133</td>
<td>131</td>
<td>2.35</td>
<td>2.25</td>
</tr>
<tr>
<td>Mission Woods</td>
<td>78</td>
<td>78</td>
<td>2.33</td>
<td>2.12</td>
</tr>
<tr>
<td><strong>City Total</strong></td>
<td>138,383</td>
<td>176,572</td>
<td>2.45</td>
<td>2.47</td>
</tr>
<tr>
<td><strong>County Total</strong></td>
<td>143,998</td>
<td>181,771</td>
<td>2.47</td>
<td>2.48</td>
</tr>
</tbody>
</table>

Note: Persons per household is calculated as population divided by total housing units. Vacancy rates are not accounted for in this summary.

*Includes 509 housing units annexed into the City of Gardner, March 1990

Source: U.S. Census Bureau
8.0 UNINCORPORATED AREA POPULATION

Preceding Table 21, Johnson County Population 1940 to 2000, shows that population within the townships (unincorporated area) has remained relatively stable over the past four decades ranging from: 11,635 in 1970 to 17,558 in 1980, to 15,951 in 1990, and 15,042 in 2000.

This appearance of stability, however, is primarily the result of annexations that have occurred over these past four decades. As much of the population increases within the unincorporated have been near cities, this population is no longer included as part of the unincorporated area after annexation has occurred.

For example, Figure 3, entitled Johnson County Township Population Comparison 1990 and 2000, illustrates that changes in population have occurred within the unincorporated area over the past decade. The township with the largest population in the unincorporated area is Aubry Township, which increased by 1,146 persons or 27% between 1990 and 2000. Spring Hill Township had the second largest population increase of 119 persons for a 6% increase for the same period.

Overall, however, the total population within the unincorporated area declined by 909 persons from 15,951 in 1990, to 15,042 in 2000. This decline is believed to be primarily the result of annexations by adjacent cities. Townships experiencing the largest population declines were: Lexington Township - lost 561 persons, Olathe Township - lost 744 persons, and Gardner Township - lost 745 persons.

Although it is apparent that there have been continual population increases within the unincorporated area, it is also apparent that much of this population growth has been, and likely will continue to be offset by annexations. An awareness of this pattern further reinforces the need for the County to work closely with nearby cities to coordinate development and infrastructure improvements as well as to plan together for additional population growth.

9.0 POPULATION FORECAST

9.1 Countywide Forecast

The Mid-American Regional Council (MARC) has forecast Johnson County’s population to increase from 451,086 in 2000 to 644,559 in 2020. This would be a 43% increase of 193,473 persons, or an average of approximately 9,675 persons annually for the next 20 years. This is similar to the previous 20-year trend in population growth for the County.

Table 24, entitled Johnson County Population Forecast, shows the County’ population growth from 1980 to 2000, and the MARC forecast for population growth for the years 2010 and 2020 are highlighted.
FIGURE 3: JOHNSON COUNTY TOWNSHIP COMPARISON 1990 AND 2000

JOHNSON COUNTY POPULATION FORECAST
MID AMERICA REGIONAL COUNCIL (MARC), 2002

TABLE 24: JOHNSON COUNTY POPULATION FORECAST

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>270,069</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td>355,054</td>
<td>84,985</td>
<td>31%</td>
</tr>
<tr>
<td>2000</td>
<td>451,086</td>
<td>96,032</td>
<td>27%</td>
</tr>
<tr>
<td>2010</td>
<td>550,904</td>
<td>99,818</td>
<td>22%</td>
</tr>
<tr>
<td>2020</td>
<td>644,559</td>
<td>93,655</td>
<td>17%</td>
</tr>
</tbody>
</table>
9.2 Unincorporated Area Forecast

Developing a population forecast specifically for the unincorporated area of Johnson County is difficult due to the way U.S. Census information is tabulated. The census tract boundaries used by the U.S. Census for Johnson County overlap city and unincorporated area boundaries, making it difficult to differentiate jurisdictional populations. Therefore, although not exclusively for the unincorporated area, the following MARC forecast provides a useful estimate of the extent of the overall growth that may be expected in the southern and western portions of the County outside of the current urbanized area.

Generally the unincorporated area of Johnson County is forecast to account for approximately 25% of the County’s population growth between 2000 and 2020 will. Over this 20-year period, MARC forecasts an increase of approximately 45,500 persons that will live within the approximately 225 square miles that now makes up the unincorporated area of Johnson County.

It is imperative to note, however, that of this forecasted increase, most of the population growth is expected to occur within the County’s urban fringe and rural cities as these communities continue to expand and annex over time and as infrastructure becomes available (e.g., sanitary sewers). Overland Park and Olathe are the County’s two major urban fringe cities expected to continue their expansion and the smaller rural communities of Gardner, Spring Hill, De Soto, and Edgerton also have plans to expand their boundaries over time.

Equally imperative to note is that over this 20-year period, population growth within the remaining unincorporated area is anticipated to continue to be low. This is because much of the future development anticipated to occur within the unincorporated area outside of cities would continue to be relatively slow and low-density (1 dwelling per 10 acres), particularly in comparison to the growth within the County’s cities.

This low level of growth is due, in part, to the limited availability of infrastructure to support denser development and is substantiated by the past 10-year trend of an annual average of approximately 100 residential building permits being issued within the unincorporated area compared to approximately 4,840 residential permits issued within the cities over the same period.

Table 25, entitled Johnson County Rural and Urbanized Area Population Forecast, is based on the MARC, Kansas City Regional Forecast 2002. This table shows current and forecasted population within the area designated by MARC as the “Balance of Johnson County.” This area is comprised of the southern and western portions of the County, including the townships of Lexington, McCamish, Gardner, Spring Hill, and Aubry, and the rural cities of Gardner, De Soto, Spring Hill and Edgerton that are located within these five townships. The table shows 29,539 persons living within the area designated as the Balance of Johnson County in 2000 and 44,571 and 75,040 persons in this same area forecasted respectively for 2010 and 2020.

In contrast, the vast majority of the County’s population now lives in and is forecast to live in the area designated by MARC as the “Urbanized Area” of Johnson County. Table 25 shows 421,547 persons living within the Urbanized Area in 2000 and 506,333 and 569,519 persons forecasted to live in the same area respectively for 2010 and 2020.
Table 26, entitled Percent of Land Area in Cities and Townships, provides a summary of density per square mile, total square miles, and population for each city and township in Johnson County for the year 2000.

While from 1980 to 1990, the townships in the unincorporated areas became more densely populated, this changed from 1990 to 2000. In the 1990’s the majority of the townships stabilized or the density went down. The two significantly denser townships are Aubry, which is the only one with a growing unincorporated village (Stilwell) and Oxford, which had a significant portion annexed into Overland Park in 2002. In general, Johnson County is becoming denser and more urban except for Gardner, Lexington, and McCamish Townships, and to a certain extent Spring Hill Township.

10.0 Density

As the population has increased in Johnson County, so has density. Table 26, Johnson County Population Density, illustrates this increase. In 1980 there were 567 persons per square mile in the County compared to 946 persons per square mile in 2000.

Table 25: Johnson County Rural and Urbanized Area Population Forecast

<table>
<thead>
<tr>
<th>Rural Area</th>
<th>2000</th>
<th>2010</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lexington Township</td>
<td>5,876</td>
<td>9,440</td>
<td>12,767</td>
</tr>
<tr>
<td>McCamish Township</td>
<td>2,318</td>
<td>2,481</td>
<td>2,627</td>
</tr>
<tr>
<td>Gardner Township</td>
<td>11,553</td>
<td>16,640</td>
<td>23,822</td>
</tr>
<tr>
<td>Spring Hill Township</td>
<td>4,350</td>
<td>5,144</td>
<td>9,936</td>
</tr>
<tr>
<td>Aubry Township</td>
<td>5,442</td>
<td>10,866</td>
<td>25,888</td>
</tr>
<tr>
<td>Total or &quot;Balance of Johnson County&quot;</td>
<td>29,539</td>
<td>44,571</td>
<td>75,040</td>
</tr>
<tr>
<td>Urbanized Area</td>
<td>421,547</td>
<td>506,333</td>
<td>569,519</td>
</tr>
<tr>
<td>Total</td>
<td>451,086</td>
<td>550,904</td>
<td>644,559</td>
</tr>
</tbody>
</table>

Table 26: Johnson County Population Density

<table>
<thead>
<tr>
<th>Year</th>
<th>Persons per square mile</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>567</td>
</tr>
<tr>
<td>1990</td>
<td>745</td>
</tr>
<tr>
<td>2000</td>
<td>946</td>
</tr>
</tbody>
</table>

Source: U.S. Census
(Decreased total population by 476,776 square miles.)
### TABLE 27: PERCENT OF LAND AREA IN CITIES AND TOWNSHIPS

<table>
<thead>
<tr>
<th>Density</th>
<th>Land Area</th>
<th>% Of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Persons/ Sq. Mi.</td>
<td>Land Area</td>
</tr>
<tr>
<td><strong>CITIES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Westwood Hills</td>
<td>5,512</td>
<td>0.1</td>
</tr>
<tr>
<td>Roeland Park</td>
<td>4,198</td>
<td>1.6</td>
</tr>
<tr>
<td>Mission</td>
<td>3,846</td>
<td>2.5</td>
</tr>
<tr>
<td>Westwood</td>
<td>3,792</td>
<td>0.4</td>
</tr>
<tr>
<td>Prairie Village</td>
<td>3,547</td>
<td>6.2</td>
</tr>
<tr>
<td>Fairway</td>
<td>3,469</td>
<td>1.1</td>
</tr>
<tr>
<td>Overland Park</td>
<td>2,627</td>
<td>56.7</td>
</tr>
<tr>
<td>Merriam</td>
<td>2,551</td>
<td>4.3</td>
</tr>
<tr>
<td>Countryside</td>
<td>2,450</td>
<td>0.1</td>
</tr>
<tr>
<td>Gardner</td>
<td>1,898</td>
<td>4.9</td>
</tr>
<tr>
<td>Leawood</td>
<td>1,833</td>
<td>15.1</td>
</tr>
<tr>
<td>Mission Hills</td>
<td>1,783</td>
<td>2</td>
</tr>
<tr>
<td>Olathe</td>
<td>1,716</td>
<td>54.2</td>
</tr>
<tr>
<td>Mission Woods</td>
<td>1,519</td>
<td>0.1</td>
</tr>
<tr>
<td>Lenexa</td>
<td>1,174</td>
<td>34.3</td>
</tr>
<tr>
<td>Shawnee</td>
<td>1,150</td>
<td>41.7</td>
</tr>
<tr>
<td>Edgerton</td>
<td>1,128</td>
<td>1.3</td>
</tr>
<tr>
<td>Lake Quivira</td>
<td>894</td>
<td>1</td>
</tr>
<tr>
<td>Spring Hill</td>
<td>852</td>
<td>2.7</td>
</tr>
<tr>
<td>De Soto</td>
<td>403</td>
<td>11.3</td>
</tr>
<tr>
<td>Bonner Springs</td>
<td>2</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>City Subtotal</strong></td>
<td>1800</td>
<td>242.3</td>
</tr>
<tr>
<td><strong>TOWNSHIPS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxford</td>
<td>313</td>
<td>6.5</td>
</tr>
<tr>
<td>Aubry</td>
<td>112</td>
<td>48.7</td>
</tr>
<tr>
<td>Spring Hill</td>
<td>76</td>
<td>27.1</td>
</tr>
<tr>
<td>Olathe</td>
<td>70</td>
<td>16.9</td>
</tr>
<tr>
<td>Gardner</td>
<td>55</td>
<td>39.3</td>
</tr>
<tr>
<td>Lexington</td>
<td>25</td>
<td>52.1</td>
</tr>
<tr>
<td>McCamish</td>
<td>20</td>
<td>43.4</td>
</tr>
<tr>
<td>Monticello</td>
<td>0</td>
<td>0.4</td>
</tr>
<tr>
<td>Shawnee</td>
<td>0</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>Township Subtotal</strong></td>
<td>64</td>
<td>235</td>
</tr>
<tr>
<td><strong>County Totals</strong></td>
<td>946.1</td>
<td>476.8</td>
</tr>
</tbody>
</table>

Source: U. S. Census, 2000
### TABLE 28: TOWNSHIP AREA AND DENSITY, 1990 - 2000

<table>
<thead>
<tr>
<th>Township</th>
<th>1980</th>
<th>1990</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Area</td>
<td>Density</td>
<td>Area</td>
</tr>
<tr>
<td>Aubry</td>
<td>49.5</td>
<td>62</td>
<td>49.5</td>
</tr>
<tr>
<td>Gardner</td>
<td>42.25</td>
<td>61</td>
<td>42</td>
</tr>
<tr>
<td>Lexington</td>
<td>61</td>
<td>32</td>
<td>57.4</td>
</tr>
<tr>
<td>McCamish</td>
<td>44.5</td>
<td>21</td>
<td>44</td>
</tr>
<tr>
<td>Monticello</td>
<td>32.8</td>
<td>86</td>
<td>5.6</td>
</tr>
<tr>
<td>Olathe</td>
<td>38.8</td>
<td>40</td>
<td>28</td>
</tr>
<tr>
<td>Oxford</td>
<td>18.3</td>
<td>136</td>
<td>7</td>
</tr>
<tr>
<td>Shawnee</td>
<td>6.3</td>
<td>98</td>
<td>0.1</td>
</tr>
<tr>
<td>Spring Hill</td>
<td>29</td>
<td>55</td>
<td>27.5</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>321</td>
<td>55</td>
<td>261.1</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau, and 1980 Johnson County Comprehensive Plan
11.0 EMPLOYMENT AND BUSINESS GROWTH

11.1 Countywide Labor Force

Johnson County's labor force has been the largest in Kansas since 1993. Employment growth within Johnson County over the past 30 years reflects that the County has evolved from a residential service oriented economy to a viable component of the metropolitan regional economic base. According to Johnson County Economic Research Institute (CERI) in 2000, there were more jobs available in Johnson County than there were Johnson County residents to be employed.

Table 29 on the following page, entitled Johnson County, Sedgwick County, and Kansas Labor Force Comparisons, shows the number of persons in the labor force for Johnson and Sedgwick Counties and for Kansas from 1990 through 2000. The labor force is generally comprised of County residents over 18. The table shows that in 2000, Johnson County had a larger labor force than Sedgwick County and that Johnson County's labor force accounted for 19% of the total Kansas labor force.

11.2 Countywide Jobs/Employment

According to MARC, between 1970 and 2000 the number of jobs available in Johnson County increased from 73,232 to 364,721. MARC has forecast Johnson County's jobs to increase to 487,210 in 2010, and to 590,731 in 2020.

11.3 Countywide Business Growth

Table 31 on the following page, entitled Johnson County Business Establishments, shows the large growth in businesses for various years between 1925 and 1999. During this period nearly 10,800 new businesses have opened in Johnson County. Between 1990 and 1999 just over 3,900 businesses opened, for an average of 430 new businesses each year.
### TABLE 29: JOHNSON COUNTY, SEDGWICK COUNTY, AND KANSAS LABOR FORCE

<table>
<thead>
<tr>
<th>Year</th>
<th>Johnson County</th>
<th>% of Kansas</th>
<th>Sedgwick County</th>
<th>% of Kansas</th>
<th>Kansas Labor Force</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>211,356</td>
<td>16.6%</td>
<td>216,499</td>
<td>17.0%</td>
<td>1,276,000</td>
</tr>
<tr>
<td>1995</td>
<td>234,976</td>
<td>17.6%</td>
<td>219,011</td>
<td>16.4%</td>
<td>1,338,000</td>
</tr>
<tr>
<td>2000</td>
<td>269,773</td>
<td>19.1%</td>
<td>235,385</td>
<td>16.7%</td>
<td>1,411,000</td>
</tr>
</tbody>
</table>

Source: County Economic Research Institute, Inc. & Kansas Department of Human Resources

### TABLE 30: JOHNSON COUNTY TOTAL JOBS, 1970 - 2020

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
<th>Percent Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>73,232</td>
<td>--</td>
</tr>
<tr>
<td>1980</td>
<td>145,973</td>
<td>99%</td>
</tr>
<tr>
<td>1990</td>
<td>241,291</td>
<td>65%</td>
</tr>
<tr>
<td>2000</td>
<td>364,721</td>
<td>51%</td>
</tr>
<tr>
<td>2010</td>
<td>487,210</td>
<td>34%</td>
</tr>
<tr>
<td>2020</td>
<td>590,731</td>
<td>21%</td>
</tr>
</tbody>
</table>

Source: Mid America Regional Council

### TABLE 31: JOHNSON COUNTY BUSINESS ESTABLISHMENTS

<table>
<thead>
<tr>
<th>Year</th>
<th>Johnson County Business Establishments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>4,718</td>
</tr>
<tr>
<td>1980</td>
<td>6,539</td>
</tr>
<tr>
<td>1985</td>
<td>9,571</td>
</tr>
<tr>
<td>1990</td>
<td>11,601</td>
</tr>
<tr>
<td>1995</td>
<td>13,622</td>
</tr>
<tr>
<td>1996</td>
<td>14,043</td>
</tr>
<tr>
<td>1997</td>
<td>14,793</td>
</tr>
<tr>
<td>1998</td>
<td>14,971</td>
</tr>
<tr>
<td>1999</td>
<td>15,507</td>
</tr>
</tbody>
</table>

Sources: U.S. Census Bureau
12.0 EMPLOYEES BY INDUSTRY

12.1 Countywide Employment

Johnson County's four largest labor sectors are: 1) Education, Health and Social Services, 2) Professional, Scientific, Management, Administrative and Waste Management, 3) Retail Trade, and 4) Finance, Insurance, Real Estate and Rental and Leasing.

(Note: the incorporated Johnson County figures include total workers from Lake Quivira and Spring Hill, which also have land areas in Wyandotte and Miami Counties, respectively.)

12.2 Unincorporated Area Industry Employment

When comparing incorporated and unincorporated Johnson County, it is noted that the percentage of workers in each sector are very similar. The significant differences are in the Construction and Agriculture areas. Even though the incorporated area employs more agriculture workers (694) as compared to the unincorporated area's 275, as a percentage of workers the unincorporated area is significantly higher at 3.2% (incorporated 0.3%). Construction is the other big difference at 5.3% for the incorporated area and 9.3% of unincorporated workers.

- Educational, Health, & Social Services: 18.9%
- Manufacturing: 12.0%
- Retail Trade: 13.5%
- Professional, Scientific, Management, Administrative, and Waste Management: 6.2%
- Arts, Entertainment, Recreation, Accommodation & Food Service: 4.4%
- Construction: 5.5%
- Finance, Insurance, Real Estate, & Rental & Leasing: 7.6%
- Transportation & Warehousing, & Utilities: 9.3%
- Other Services: 8.0%
- Public Administration: 7.5%
- Agriculture, Forestry, Fishing & Hunting, & Mining: 4.8%
- Information: 4.0%
- Wholesale Trade: 0.0%

**FIGURE 5: UNINCORPORATED JOHNSON COUNTY WORKERS BY INDUSTRY (2000)**

- Educational, Health, & Social Services: 17.8%
- Manufacturing: 10.5%
- Retail Trade: 10.8%
- Professional, Scientific, Management, Administrative, and Waste Management: 6.3%
- Arts, Entertainment, Recreation, Accommodation & Food Service: 9.3%
- Construction: 7.6%
- Finance, Insurance, Real Estate, & Rental & Leasing: 4.7%
- Transportation & Warehousing, & Utilities: 4.0%
- Other Services: 3.1%
- Public Administration: 3.2%
- Agriculture, Forestry, Fishing & Hunting, & Mining: 8.0%
- Information: 4.0%
- Wholesale Trade: 0.0%
13.0 BUILDING PERMITS - RESIDENTIAL

Within the unincorporated area of Johnson County from 1990 to 2001, an average of 100 single-family building permits were issued each year, compared to a combined average of 3,122 permits issued by the cities in the County.

Figure 6 below, entitled Johnson County Single-Family Building Permits 1990-2000, shows a comparison of the building permits issued by these two areas.
Table 32 below, entitled Single-Family Building Permits Unincorporated Areas, shows the number of permits issued in Johnson County and each of the five other counties within the region. When unincorporated Johnson County is compared to other unincorporated areas around Kansas City, Johnson County is found to be issuing the least amount of single-family building permits and the lowest percentage of total permits.

### TABLE 32. SINGLE FAMILY BUILDING PERMITS - UNINCORPORATED AREAS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Leavenworth County</td>
<td>117</td>
<td>108</td>
<td>143</td>
<td>137</td>
<td>154</td>
<td>146</td>
<td>216</td>
<td>215</td>
<td>261</td>
<td>237</td>
<td>187</td>
<td>160</td>
</tr>
<tr>
<td>Cass County</td>
<td>157</td>
<td>160</td>
<td>179</td>
<td>220</td>
<td>246</td>
<td>220</td>
<td>144</td>
<td>116</td>
<td>129</td>
<td>162</td>
<td>136</td>
<td>117</td>
</tr>
<tr>
<td>Platte County</td>
<td>126</td>
<td>112</td>
<td>176</td>
<td>167</td>
<td>130</td>
<td>120</td>
<td>169</td>
<td>153</td>
<td>171</td>
<td>234</td>
<td>196</td>
<td>201</td>
</tr>
<tr>
<td>Jackson County</td>
<td>88</td>
<td>134</td>
<td>173</td>
<td>168</td>
<td>171</td>
<td>157</td>
<td>134</td>
<td>153</td>
<td>148</td>
<td>133</td>
<td>157</td>
<td></td>
</tr>
<tr>
<td>Clay County</td>
<td>83</td>
<td>74</td>
<td>129</td>
<td>119</td>
<td>146</td>
<td>139</td>
<td>160</td>
<td>147</td>
<td>160</td>
<td>138</td>
<td>132</td>
<td>111</td>
</tr>
<tr>
<td>Johnson County</td>
<td>101</td>
<td>77</td>
<td>114</td>
<td>125</td>
<td>119</td>
<td>125</td>
<td>123</td>
<td>96</td>
<td>98</td>
<td>100</td>
<td>67</td>
<td>64</td>
</tr>
</tbody>
</table>

**Figure 7. Unincorporated Areas Percent of Total Single-Family Building Permits Issued by County**

- Leavenworth County: 38% 39% 40% 46% 45% 51% 62% 64% 70% 58% 53% 47%
- Platte County: 31% 26% 28% 31% 23% 25% 29% 26% 31% 35% 35% 39%
- Cass County: 33% 31% 27% 32% 37% 38% 24% 17% 20% 23% 23% 19%
- Clay County: 9% 8% 11% 11% 11% 10% 10% 11% 12% 9% 10% 9%
- Jackson County: 5% 6% 8% 7% 8% 7% 7% 7% 7% 6% 7% 8%
- Johnson County: 5% 3% 4% 4% 11% 5% 4% 3% 2% 2% 2% 2%
As previously noted, the township in Johnson County that is issuing the most residential building permits is Aubry, followed by Olathe and Oxford Townships. These unincorporated areas are influenced by the growth of the cities of Overland Park and Olathe, following the southerly development pattern radiating out of Kansas City.

<table>
<thead>
<tr>
<th>TOWNSHIP</th>
<th>1980</th>
<th>1990</th>
<th>Difference '80 - '90</th>
<th>2000</th>
<th>Difference '90 - '00</th>
<th>Total '80 - 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aubry</td>
<td>26</td>
<td>45</td>
<td>19</td>
<td>23</td>
<td>-22</td>
<td>94</td>
</tr>
<tr>
<td>Gardner</td>
<td>15</td>
<td>16</td>
<td>1</td>
<td>7</td>
<td>-9</td>
<td>38</td>
</tr>
<tr>
<td>Lexington</td>
<td>10</td>
<td>11</td>
<td>1</td>
<td>13</td>
<td>2</td>
<td>34</td>
</tr>
<tr>
<td>Mccamish</td>
<td>9</td>
<td>5</td>
<td>-4</td>
<td>4</td>
<td>-1</td>
<td>18</td>
</tr>
<tr>
<td>Monticello</td>
<td>20</td>
<td>0</td>
<td>-20*</td>
<td>0</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>Olathe</td>
<td>10</td>
<td>13</td>
<td>3</td>
<td>22</td>
<td>9</td>
<td>45</td>
</tr>
<tr>
<td>Oxford</td>
<td>23</td>
<td>9</td>
<td>-14**</td>
<td>13</td>
<td>4</td>
<td>45</td>
</tr>
<tr>
<td>Shawnee</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Spring Hill</td>
<td>9</td>
<td>11</td>
<td>2</td>
<td>20</td>
<td>9</td>
<td>40</td>
</tr>
<tr>
<td>**TOTALS</td>
<td>122</td>
<td>110</td>
<td>102</td>
<td>334</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Johnson County Planning, Development, and Codes Department

*Nearly all of Monticello Township was annexed into Shawnee or Lenexa in the late 1980s.

**A large part of Oxford Township was annexed into Overland Park and Leawood in the mid-1980s.

Various portions of unincorporated Johnson County are suitable for and reflect different types of developments and residential densities. Those areas having appropriate environmental conditions, available utilities and a generally favorable community sentiment toward development (e.g., eastern Aubry Township) lend themselves to more intensive development. In contrast, other areas, which are largely agricultural in nature without basic support facilities, reflect their relatively greater distance from the urbanized area or may be indicative of an overall community desire to maintain its rural character (e.g., McCamish Township).

14.0 BUILDING PERMITS - COMMERCIAL AND INDUSTRIAL

As noted, there are relatively few commercial or industrial uses in the unincorporated areas of the County. The few areas of commercial and industrial development that do occur are generally located within New Century AirCenter (a County-owned former naval air station) and along the major thoroughfares such as I-35, 69 Highway, and 169 Highway. Besides New Century AirCenter, much of
the property that is zoned commercial or industrial obtained such zoning before 1986. Much of this land has remained undeveloped possibly because of the lack of public facilities, or because the real estate market has not yet reached these remote rural areas.

While the overwhelming majority of commercial and industrial construction occurs within cities, around 18 commercial and industrial building permits are issued each year in the unincorporated area. Primarily, these permits have been issued in the New Century AirCenter in Gardner Township and along the South Metcalf corridor in Oxford and Aubry Townships.

There is some pressure for the small unincorporated community of Stilwell to have commercial uses, but the lack of adequate infrastructure limits this type of growth.

TABLE 34: UNINCORPORATED JOHNSON COUNTY COMMERCIAL AND INDUSTRIAL PERMITS, 1995-2000

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Aubry</td>
<td>2</td>
<td>6</td>
<td>4</td>
<td>1</td>
<td>8</td>
<td>8</td>
<td>29</td>
</tr>
<tr>
<td>Gardner</td>
<td>4</td>
<td>4</td>
<td>9</td>
<td>10</td>
<td>10</td>
<td>0</td>
<td>37</td>
</tr>
<tr>
<td>Lexington</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>McCamish</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Monticello</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Olathe</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Oxford</td>
<td>3</td>
<td>5</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>30</td>
</tr>
<tr>
<td>Shawnee</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Spring Hill</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>19</td>
<td>21</td>
<td>18</td>
<td>24</td>
<td>18</td>
<td>109</td>
</tr>
</tbody>
</table>

Source: Johnson County Planning, Development, and Codes Department
PART II -- Chapter 7: PATTERNS AND TRENDS

15.0 GROWTH AREAS

Notable features influencing future development within the unincorporated area of Johnson County include:

- New Century AirCenter,
- Former Sunflower Army Ammunition Plant,
- Blue Valley Middle School and High Schools,
- Big Bull Creek Park,
- Heritage Park,
- Kill Creek Park,
- Gardner Lake,
- Major transportation corridors (K-7 Highway, K-10 Highway, Interstate 35, Interstate 435, U.S. 56 Highway, U.S. 69 Highway, and U.S. 169 Highway), and
- The Aubry/Stillwell area.

There are locations within unincorporated Johnson County, which, due to prior private and public investment decisions, are experiencing growth pressures. Concentrated development within these areas will require greater attention to land use relationships, environmental constraints, traffic circulation, and coordinated and fundable levels of public improvements and services. In addition, these potential growth centers will probably affect activity and development patterns throughout the County, so they are of countywide importance. The primary growth areas are described as follows:

- The eastern portions of the Blue Valley area (Oxford Township and Aubry Township);
- The New Century AirCenter;
- The proposed and developing sanitary sewer districts in the Indian Creek, Tomahawk Creek, Blue River, Mill Creek and Cedar Creek drainage basins, (e.g. the Cedar Creek Development located within the city limits of Olathe, west of K-7 Highway, within Cedar Creek Sewer Sub-District #1); and
- The K-10 Highway corridor located within north central and northwestern Johnson County.

Certain village areas platted years ago with small lots and narrow streets for predominantly residential dwellings are undergoing a transition to more intense uses. These include, for example, the shift from residential to commercial and industrial uses in Stilwell. As this shift in the intensity of property uses occurs, residential dwellings within these areas may be negatively impacted. These areas should be given special attention related to the appropriate direction for, and orderly transition of land uses.

16.0 FORECASTED GROWTH TRENDS

As noted above, recent employment growth and current construction activity indicate sustained economic growth in the County in the near term. Long-range forecasts are more difficult to formulate because they are dependent on external factors that contribute to the health of the local and regional economy.

According to regional forecasts by MARC, the metropolitan economy should experience steady growth through the year 2010. The MARC forecasts that Johnson County will account for 44% of all the new households in the region; 47% of all employment gains; and 50% of the region's new population from 2000 to 2010. Recent construction activity shows that economic growth, both in the metropolitan area and in Johnson County, is in line with those forecasts. To facilitate and accommodate this trend, the County's
implementation of the goals, policies, and action steps contained in Chapter 2 of the Plan will help to promote orderly and coordinated growth.

In recent years, the ability to attract economic growth has become more important to sustain the population of an area. Declining family size and the increase of labor force to population ratio makes population growth more dependent upon employment growth. The MARC study forecasted an annual average population growth rate of 2.1% for Johnson County from 2000 to 2020. The population projection assumes that the economy will continue to expand through the year 2020 at a slower pace than was experienced from 1995 to 2000.

According to this projection, Johnson County's population will continue to experience steady growth but because of the larger population base, the rate of growth would slow. The County's rate of population growth between 1990 and 2000 was 27%. The rate of growth between 2000 and 2010 is forecast by MARC to be 22%, and down to 14% between 2020 and 2030. The table below provides a summary of the MARC forecasts for Johnson County and the Kansas City metropolitan area to the year 2030.

### TABLE 35. KANSAS CITY REGIONAL POPULATION FORECAST

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Jackson</td>
<td>654,178</td>
<td>629,266</td>
<td>633,232</td>
<td>654,857</td>
<td>684,840</td>
<td>702,429</td>
<td>719,372</td>
<td>679</td>
<td>64,515</td>
</tr>
<tr>
<td>Clay</td>
<td>123,702</td>
<td>136,488</td>
<td>153,411</td>
<td>184,006</td>
<td>212,386</td>
<td>236,914</td>
<td>260,275</td>
<td>60,304</td>
<td>76,269</td>
</tr>
<tr>
<td>Platte</td>
<td>32,081</td>
<td>46,341</td>
<td>57,867</td>
<td>73,781</td>
<td>88,432</td>
<td>101,488</td>
<td>113,752</td>
<td>41,700</td>
<td>39,971</td>
</tr>
<tr>
<td>Wyandotte</td>
<td>186,845</td>
<td>172,335</td>
<td>162,026</td>
<td>157,901</td>
<td>157,417</td>
<td>154,800</td>
<td>151,816</td>
<td>-28,944</td>
<td>-6,085</td>
</tr>
<tr>
<td>Johnson</td>
<td>220,073</td>
<td>270,269</td>
<td>355,054</td>
<td>451,086</td>
<td>550,904</td>
<td>644,559</td>
<td>733,334</td>
<td>231,013</td>
<td>282,248</td>
</tr>
<tr>
<td>Cass</td>
<td>39,488</td>
<td>51,029</td>
<td>63,808</td>
<td>82,092</td>
<td>101,004</td>
<td>119,018</td>
<td>135,942</td>
<td>42,644</td>
<td>53,850</td>
</tr>
<tr>
<td>Leavenworth</td>
<td>53,340</td>
<td>54,809</td>
<td>64,371</td>
<td>68,695</td>
<td>75,032</td>
<td>80,471</td>
<td>85,715</td>
<td>15,355</td>
<td>17,020</td>
</tr>
<tr>
<td>Ray</td>
<td>17,599</td>
<td>21,378</td>
<td>21,971</td>
<td>23,346</td>
<td>24,383</td>
<td>25,192</td>
<td>25,948</td>
<td>5,747</td>
<td>2,602</td>
</tr>
<tr>
<td>Region</td>
<td>1,327,266</td>
<td>1,381,915</td>
<td>1,511,740</td>
<td>1,695,764</td>
<td>1,894,399</td>
<td>2,064,872</td>
<td>2,226,154</td>
<td>368,498</td>
<td>530,390</td>
</tr>
</tbody>
</table>
The following is a general forecast of how development is envisioned to evolve in the developing areas of southern and western Johnson County. This forecast is taken from excerpts of Countyscape 2020, which is part of the Board of County Commissioner's 2001 Strategic Plan.

The intent here is to establish a general idea for where and what type of development may be expected to occur in the existing rural portions of the County. Countyscape 2020 is written as if one were able to look ahead to 2020 and describe what “will have occurred”. The following, therefore, is a summary of the development anticipated to have occurred along, or near by, these major transportation corridors relative to future development in the unincorporated area of Johnson County.

It should be noted, however, that based upon the goals, policies and action steps in Chapter 2 of the Plan, most of the development referenced in the following excerpts from Countyscape 2020 will have occurred within areas annexed by cities that have adequate public resources, services, and infrastructure to support the extent of development envisioned.

17.1 I-35 Highway Corridor

The I-35 Highway corridor will have continued to be an important direct route from Johnson County to downtown Kansas City, Missouri, and a major connection to the regional Interstate, U.S., and State highway network. Development along this traffic route will have continued to be highway oriented commercial uses with increasing warehouse/ freight operations taking advantage of adjacency to the North American Free Trade Agreement (NAFTA) highway trade route connecting Mexico and Canada to the Mid-West.

New Century AirCenter will have become a major employment center for light manufacturing and will have an important role in NAFTA. The businesses at the AirCenter will have helped to diversify the County's economy and provide a major source for light manufacturing labor.

Both the cities of Olathe and Gardner will have taken advantage of their strategic locations on I-35 along with their rail access. Both cities will have experienced significant light manufacturing and warehouse development next to this major traffic corridor. Olathe's residential development east of Highway 169 will have reached 175th Street, as new sewers will have been installed there.

As recommended in Gardner's 1998 Comprehensive Plan, the major share of the city's residential development will have occurred on the west side of the community and its industrial development will have occurred in New Century AirCenter and on the city's east side near I-35.

Through working cooperatively, the County and the cities of Gardner and Olathe will have prevented the kind of development near the AirCenter that would conflict with intensive aviation activity. This cooperation will have enabled the AirCenter to expand to accommodate the continually growing demand for air transport service.

New development regulations prepared by the County in coordination with Gardner Lake residents will have been tailored to the special needs of this lake front community. The Gardner Lake community will have become fully developed and the lake will have been completely restored for recreational use.

The city of Edgerton will also have benefited from its location adjacent to I-35.
Although its growth will have been modest compared to other Johnson County cities, Edgerton will have taken advantage of its location near the newly developed Big Bull Creek Park to the east and Hillsdale Reservoir in Miami County to the south.

Building on the successful restoration and conversion of its old historic downtown bank to a new library, Edgerton will have adhered to its comprehensive plan prepared in 2000. This growing community will have provided a convenient location for residents seeking a "small town" feeling along with quality low-cost housing and relatively convenient access from I-35 to major employment centers within the County and in the region.

17.2 K-10 Highway Corridor

As envisioned by the County and the K-10 Association in the early 1990s, the K-10 Highway corridor will have become an increasingly important traffic artery as well as a location for high quality residential and hi-tech development. Daily traffic volumes between Lawrence and Lenexa will have reached 60,000 vehicles as forecast by the Kansas Department of Transportation (KDOT) in 2000.

The completion of the combined Cedar Creek/Kill Creek Wastewater Treatment Facility will have enabled new urban density development to have occurred along the K-10 Highway corridor between K-7 Highway and Edgerton Road, just west of De Soto. This new development will have been a mix of residential and non-residential uses, including development in the former Sunflower Army Ammunition Plant property.

Because of its strategic location on K-10, the city of De Soto will have significantly increased its population. It will have become a growing employment center as well as a community known for its excellent school system and offering a wide range of housing opportunities. In cooperation with the County, De Soto will have managed the development along the K-10 Highway in accordance with the plans and regulations jointly adopted by both jurisdictions in 2000. The attractive appearance of development along the K-10 corridor will be orderly and will reflect positively as a gateway to Johnson County as well as to De Soto.

17.3 Sunflower Army Ammunition Plant

The 14 sq. mile Sunflower Army Ammunition Plant will have been transferred by the U.S. Army to a private developer and cleaned to EPA residential standards. The mixed-use development that will have occurred there will have followed the Land Use Concept Plan - "Community in a Park" adopted by the County for the site in 1998.

The 2,500-acre greenbelt park surrounding the site will have been developed as part of the County's adjacent Kill Creek Regional Park with an extensive network of pedestrian and bicycle trails interconnecting with the regional trails system. A complete and updated system of utilities, including sanitary sewers will serve the site. The neo-traditional town center will have been gradually developing as planned as the commercial and cultural center of the community. Mixed, primarily low-density, residential development will have been increasing in areas that will have been remediated. New schools and a library will serve the community.

As recommended in the Sunflower Army Ammunition Plant Plan, development of the business park on the north portion of the site will have included a growing number of high tech, research and development firms. These new businesses will have provided jobs for local and regional residents. A multi-modal trans-
portation facility will have provided trans-
portation options, including bus service,
carpooling, and light rail. Direct bus
service will have been available to the KU
campus and downtown Lawrence as well as
to eastern Johnson County and the
metropolitan area.

17.4 U. S. 169 Highway Corridor

Development along U.S. Highway 169 will
have been restricted in accordance with
the comprehensive plans of Olathe, Spring
Hill, and the County. Continued commer-
cial development will have occurred in
Olathe near the U.S. Highway 169 and I-35
interchange at 151st Street. This develop-
ment will have included further expansion
of Olathe Hospital and nearly full develop-
ment of the area north of the Great Mall
that will have been redeveloped as a
mixed office, retail, and hospitality center
serving the growing south central portion
of the County.

Development in Spring Hill will have been
in three directions along U.S. Highway 169.
Large-lot residential development will
have occurred to the west near the city's
golf course, along with some mixed
residential and manufacturing develop-
ment occurring to the north. South, into
Miami County, Spring Hill's development
will have been primarily residential with
some limited commercial uses to serve the
growing neighborhoods in this area.

U. S. 69 Highway Corridor

Developments along U.S. Highway 69 will
have been well planned and will have
adhered to the Blue Valley Area Plan
prepared jointly in 1996 by Johnson
County and the City of Overland Park. As
new sewers will have become available,
limited commercial development will
have been allowed to expand, primarily
to serve the growing residential population
in the surrounding area.

Because of its convenient access to U.S.
69 Highway and to Metcalf Avenue, the
Aubry/Stilwell community will have con-
tinued to grow in population. Within 20
years, sanitary sewers will have reached
this area enabling commercial develop-
ment as well as increased residential
development to have occurred. This de-
velopment will have been similar to a
small village development with limited
neighborhood services and conven-
iences, including a small community
center with cultural and recreational
facilities (pool, outdoor play areas, etc.) to
serve the growing population.

18.0 Future Annexation Boundaries

In preparation for coordinated growth
and orderly development, four cities within
the County have established boundary
agreements for future annexations. In
1988, the Cities of Gardner and Olathe
established such an agreement and then
in 1989, the City of De Soto joined into a
similar annexation agreement with both
Gardner and Olathe. In 2003, the Cities of
Olathe and Spring Hill also entered into an
annexation agreement.

Map 10, Annexation Boundary
Agreements, shows the locations of these
agreed upon future city boundaries.
MAP 10: ANNEXATION BOUNDARY AGREEMENTS

ANNEXATION AGREEMENT BOUNDARIES

Map Elements:
- De Soto/Gardner 1989
- De Soto/Olathe 1989
- Gardner/Olathe 1988 and 1989
- Spring Hill/Olathe 2003

February 27, 2004
PART II - Chapter 8: RESOURCE AND SERVICE INVENTORY

1.0 PURPOSE

The natural environment, along with the availability of public services, in large part determines how people settle and build. An understanding of Johnson County's unique natural features and the availability of utilities and public services will help in understanding past planning decisions and in guiding future ones.

This inventory was compiled and analyzed as part of the process leading to the development of this Plan. This chapter provides background data that was used to identify and assess existing conditions affecting development in the unincorporated area as well as to identify potential opportunities or constraints to future development.

This inventory is a resource for interested in factors influencing the development potential within the unincorporated area of Johnson County.

2.0 INTRODUCTION

The unincorporated area of the County has a variety of environmental assets and limitations with some areas being easier than others to provide utility and service extensions. By recognizing and respecting these characteristics, development can still occur in most areas if certain precautions are followed. Ideally, however, development should be encouraged in those areas that have the least constraints and are easiest to serve.

As the County continues to develop, the environmental characteristics that make this a pleasant place to live and work should be preserved. Development should protect or be integrated into the natural environment. Appropriate controls for floodplains, steep slopes, woodlands, wildlife habitats, and key agricultural areas along with strategic infrastructure decisions, can help protect the natural environment by keeping development isolated from such areas or by allowing only minimal or integrated development. Development design and the extension of improvements or infrastructure should recognize and appropriately respond to the sensitivities of the natural landscape.

Floodplains, watershed boundaries, steep slopes, geology, and soil types are all important factors in measuring the capacity of an area to support development. A look at rural Johnson County’s natural resources identifies small areas that pose significant limitations on development. Leaving floodplains undeveloped is especially important in order to reduce flood damage and to provide recreational and environmental resources as greenway corridors. These and other natural characteristics of the landscape can be used advantageously in the Rural Comprehensive Plan as a means of providing diversity and protecting a quality of life for future Johnson County residents. As the County grows, careful consideration should be given to natural features in order to avoid congested and inappropriate patterns of development.

Much of the information in the following subsections on the types of pollution and their impacts is from the Environmental Protection Agency’s Total Maximum Daily Loads Program (TMDL), which measures the impact of pollution on waterways.
3.0 GEOLOGY AND TOPOGRAPHY

The analysis of an area’s geology and topography reveals the locations of natural opportunities as well as constraints for development. The locations of steep slopes, certain soils, ground water, oil and gas reserves, and bedrock may influence the location, type, and amount of development possible.

Map 11, Environmental Characteristics, shows the general locations of these natural features.

3.1 STEEP SLOPES

In general, the natural topographic slopes found in the unincorporated area will not significantly affect future development. A 20% gradient usually is considered too severe for most uses, but is found only occasionally in scattered locations in the unincorporated area. Although only areas of 20% or greater slopes are mapped for this review, lesser gradients can also affect various types of development. For example, major roads should not have a grade greater than 7% and local roads should not have grades greater than 12%. Slopes less than 10% may be suitable for construction of buildings and septic systems using conventional design. Septic system design should be adjusted to accommodate the slope.

Slopes greater than 15% may pose problems for using heavy equipment as well as for general construction. Lots with slopes of 15% or greater require significant grading to create building sites with protection against erosion and bank slumping. Slopes greater than 15% also can cause severe limitations for septic system installation (from Housing and Residential Development Second Edition, by Joseph De Chiara, Julius Panero, and Martin Zelnik, pg. 70).

3.2 SOILS

Unincorporated Johnson County is dominated by clay-type soils, which have poor percolation or absorption characteristics. In addition, the County’s soils are largely susceptible to high water tables and contain extensive areas of shallow bedrock layers. These geologic characteristics present difficulties for conventional on-site wastewater disposal systems. Alternative on-site disposal systems may be used but often these systems are more expensive than conventional disposal systems. These soils also pose limitations for excavation and construction. The high shrink-swell characteristics of some soils also affect building construction requirements.

Considering the scale of development in the County, numerous private on-site systems could have adverse impacts on many people. For example, surface and subsurface waters can become polluted and untreated wastewater can come to the surface. Malfunctioning or overflowing septic systems can release bacteria and nutrients into the water cycle, contaminating nearby lakes, streams, estuaries, and groundwater. In many cases, problems can be minimized by careful design, installation and operation of the on-site systems. Properly maintained septic system should be inspected and emptied every 3 to 5 years.

The County’s procedures for issuing on-site wastewater system permits have been modified to include more thorough evaluation of existing site conditions, careful consideration of the expected wastewater quantities, and to provide more detailed design and construction reviews. While the on-site wastewater disposal permit process may effectively address development on existing tracts already zoned and/or platted, additional analysis of potential problems for on-site waste-
water disposal may need to occur when the zoning and subdivision of each future development site is considered. The ability to recognize those areas that might need special attention will help assure safe and sanitary development in those areas not expected to be served by sanitary sewers in the foreseeable future.

The conditions that cause problems for on-site septic systems include slow permeability in soils, seasonal water tables, and bedrock or impervious soils near the ground surface. As noted, the most prevalent of these problems in the County is slow permeability rates in predominantly clay soils.

According to the U.S. Soil Conservation Service, Polo (Pc) soils are the only soil type commonly found in the County that presents slight limitations for conventional septic tank use. All the other soil types commonly found pose moderate to severe limitations. Map 12, Polo Soils, shows the general location of these soils found within the County. In general, the Polo soils are scattered in narrow strips along the sides of hills above drainage ways. Polo soils are found in the unincorporated area primarily in the southeast quarter of the County (Oxford, Aubry and Spring Hill Townships). The remaining soil types are found throughout the unincorporated area, and as noted, these soils are less well suited for conventional septic tank use.

Because of this characteristic, the County should continue to administer a stringent permit process which requires careful site evaluation, appropriate system design and construction standards, and guidance for the operation and care of private, on-site wastewater disposal systems. In the future, because of this characteristic, the County may want to consider establishing specific site evaluation standards as a development requirement and the new requirements that existing septic systems be periodically inspected by regulatory personnel.

Also, there is a significant amount of prime agricultural land within Johnson County that continues to be reduced by scattered suburban development. Map 13 Prime Agricultural Soils, shows the general location of soils within the unincorporated area that possess the characteristics normally necessary to produce high cultivation yields. These general soil characteristics include gently sloping, fine grained, high to moderate permeability, well-drained, high natural fertility, and little subjectivity to flooding.

### 3.3 Bedrock Layers

The presence of bedrock layers within about 40 inches of the ground surface can make various forms of construction extremely expensive if not totally unrealistic. Although these high bedrock layers are quite common throughout the County, most are composed of an easily rippable material. These rippable bedrock layers can be excavated with a backhoe or by other mechanical devices. There are, however, many bedrock layers that are very hard and would require cutting or blasting to excavate.

Bedrock layers may also present a hazard for the use of conventional on-site wastewater systems. This is because layers of bedrock can convey wastewater sewage rapidly to subsurface and surface waters.

### 3.4 Shallow Excavation Limitations

As the County grows, a web of underground utility systems will be developed. Not all areas of the County are conducive to the installation of underground utility lines or the construction of drainage ditches. Most areas have some limitations that require special precautions in the use of shallow excavations. Some of these
limitations include the high water levels, shallow bedrock, and frequent flooding. In addition, the presence of large stones and the tendency for soils to cave-in make the digging and use of shallow excavations difficult in most locations. The use of proper construction techniques can overcome these constraints. Among these techniques are proper cut gradients and the use of protective coats on utility lines.
MAP 11: ENVIRONMENTAL CHARACTERISTICS

This map is interpreted from the Soil Survey of Johnson County, Kansas, published by the United States Department of Agriculture, Soil Conservation Service, 1979. Floodplain information illustrated on this map may not coincide with Flood Insurance Rate Maps published by FEMA. This map is not intended to indicate any land area is appropriate for a specific use.
MAP 13: PRIME AGRICULTURAL SOILS
3.5 Mineral Resources

Several areas of the County have stone, sand, gravel, oil or natural gas deposits. While fossil fuel resources are not being extracted in most locations, resources such as sand, gravel, crushed rock and building stone have been actively extracted at several locations. The extraction of fossil fuel and mineral resources from scattered sites throughout Johnson County often results in an incompatibility with nearby residences. This land use conflict can escalate if effective site planning is not employed. The availability and extraction of mineral resources within unincorporated Johnson County have been a valuable part of the area's economy because the proximity of quarries to the urbanized areas have helped to minimize the construction costs of asphalt, concrete and related building materials. In addition, long-term rises in fuel costs may increase incentives for the drilling of gas and oil deposits.

Mineral resources such as sand, gravel, crushed rock and building stone are actively extracted in the County. Although potential future quarry sites have not been identified, the locations of existing, former or proposed quarry sites provide a good indication of the distribution of these geologic resources. The preceding Environmental Characteristics Map also provides information on the location of rock and gravel resources. There is an abundance of sand along the Kansas River. While river dredging operations are closely restricted by federal requirements, pit dredging operations along the river valley are largely a matter for local government control.

A few soils in the County are well suited for road building purposes. Such soils have low shrink-swell characteristics with respect to moisture changes as well as the ability to support heavy loads. Unfortunately, these soils are relatively rare in the County since thin layers of low-strength clay soils predominate. The locations of the more desirable road fill soils are also identified on the preceding Environmental Characteristics Map.

3.6 Natural Resources Inventory

In addition to floodplain and steep slope areas, there are areas of tree cover, wildlife habitats and key agricultural areas that should be preserved or respected as development continues. While development has not extended substantially into floodplains, wooded areas or along steep slopes, future scattered and unrestricted pockets of development within unincorporated Johnson County could result in the depletion of these important amenities. The County's stream valley corridors should be protected for more suitable uses such as parks, open space preserves, and stormwater management areas. Map 14, General Land Cover, shows the general location of croplands, grasslands, woodlands, and riparian areas within the County. Some of the information contained in the General Land Cover Map was obtained from the County's Park and Recreation Plan, MAP 2020.

4.0 HYDROLOGY

Hydrology is the science dealing with the properties, distribution, and circulation of water on the surface of the land, in the soil, and underlying rocks. The hydrology of Johnson County is affected by several creeks and high ground water levels. The Kansas River valley cuts along the western half of the County's northern boundary. Western Johnson County consists of gently rolling uplands.
4.1 High Water Levels

Groundwater can be found within six feet of the surface in many locations either because of high water tables or because of stagnant pools between permeable surface soils and basins of tight clay soils or hardpan. Such areas are defined by the presence of at least a 6-inch water-saturated layer for at least a two-week period.

Two soil characteristics account for the occurrence of shallow groundwater levels:

1. In some places the water table is naturally high, for example, along the bottom of valleys. These high water tables are natural, underground drainage ways that eventually flow into area creeks, streams, and rivers.

2. In some places the high underground water levels are actually stagnant pools known as meteoric waters. These subsurface waters are collections of local rainwater between permeable surface soils and a pan formation of subsurface tight clay soils or hardpan. These situations result in a subsurface pool of water, which drains very slowly through a nearly impermeable material. It is important to note that these subsurface pools often occur in upland areas.

Both of these characteristics, high water tables and meteoric pools, are not necessarily year-round occurrences. They are most prevalent from winter to early summer when precipitation is the greatest. Even the temporary nature of this characteristic, however, warrants the need to apply special construction techniques in their presence. In particular, the water levels usually require specially designed foundations and more elaborate drainage systems.

4.2 Watersheds

Watersheds are the surface areas that drain to a common waterway, such as a stream, lake, wetland, or ocean. Watersheds create natural boundaries bringing together people with a shared interest in the amount, rate, and quality of water passing through or heading their way. There are three principal watersheds in the County. The Kansas River basin is the largest draining about one-half of the County. The four streams that flow into the Kansas River in Johnson County are: Cedar Creek, Kill Creek, Captain Creek, and Mill Creek. The Blue River basin is the second largest and it drains the eastern half of the County through Kansas City, Missouri, into the Missouri River. The third major drainage basin, made up of Big and Little Bull Creeks, flows south into Miami County, Kansas, the Hillsdale Reservoir, and ultimately into the Marias des Cygnes River. A minor basin, Massey Creek, at the extreme southeast corner of the County drains into the South Grand River in Cass County, Missouri.

Map 15, River Basins, shows the location of the three major river basins in Johnson County and the streams that flow within them.
In addition to their importance with respect to flooding and floodplains, the patterns of major drainage basins and sub-basins are important in at least two other ways.

1. The development of tracts within a drainage basin can have significant impacts downstream due to increased runoff volumes or velocities. The County has standards that require the management of stormwater to keep the runoff volumes and velocities at least at the pre-development levels. The adopted regulations generally apply to any development creating more than 1-acre of impervious surfaces. The cumulative effects of numerous developments with less than 1-acre of impervious surface could also result in stormwater problems downstream.

2. The most efficient wastewater collection and treatment systems will be those serving individual drainage basins with exclusive gravity-flow systems. Because of the high cost of providing and operating wastewater systems, it is important that they be carefully planned and implemented. If development is allowed to scatter among several basins, the wastewater collection and treatment systems may not be able to be provided in an efficient manner.

The Marais De Cygnes watershed is a good example of watersheds crossing and impacting different jurisdictions. This watershed drains from Johnson County into the Hillsdale Reservoir in Miami County. The Hillsdale Reservoir is important as both a regional recreation area and domestic water supply. As a result, the Marais des Cygnes watershed in Johnson County should be protected from potential pollutants.

4.3 Floodplains

The average annual rainfall in Johnson County is 38.5 inches. The runoff pattern of the nearly 300 billion gallons of rainwater involves several major drainage basins in the County. Areas around watercourses that have a 1% or greater chance of flooding in any given year are referred to as the "one percent annual chance floodplain". The one percent annual chance floodplain is a particularly important constraint on development.

Development within the one percent annual chance floodplain would have a relatively high probability of flooding problems. In recognition of the risks and problems in floodplain areas, development should be carefully controlled and restricted. Johnson County participates in the Federal Emergency Management Agency (FEMA) National Flood Insurance Program and has adopted regulations and policies to restrict and control development in floodplain areas. Floodplain Development Permits are required for any construction, filling or grading in one percent annual chance floodplain areas.

The Flood Insurance Study for Johnson County provides evidence and data for the administration of development controls and restrictions in the floodplains. To support and implement appropriate floodplain development policies, the County has adopted and administers floodplain regulations consistent with FEMA guidelines. The administration of the Floodplain Regulations enables County residents to qualify for federal flood insurance and helps protect properties and persons from future floods. Appropriate planning and regulatory practices also can help pre-
serve flood prone areas for appropriate uses such as greenways, agriculture, recreation uses, or wildlife or nature preserves.

There are two distinct aspects of floodplain areas to be considered when planning and administering floodplain area development controls and restrictions.

1. The floodway area is that part of the drainage basin which must remain open to carry the runoff from one percent annual chance floodplain floods without causing the flood elevation to increase by 1-foot or more at any point along the basin. Development within floodways is extremely hazardous, must be carefully restricted, and County regulations must meet federal guidelines and prohibit floodway development which would cause any increase whatsoever in the flood elevations within the floodway.

2. The floodway fringe is that part of the drainage basin which is within the one percent annual chance floodplain but which is not within a floodway. Development in floodway fringe areas may be appropriate if adequate measures are taken to protect the development from the flood hazards. County regulations should at least continue to meet or exceed federal guidelines for floodway fringe development. For this reason the County regulations require 2 feet of "freeboard" for residential structures elevated above the flood elevation or for non-residential structures flood-proofed or elevated above the one percent annual chance floodplain elevation.

Most of the major floodplain areas in the County’s basins have been studied and mapped. However, it must be noted that detailed flood elevations have not been determined for all mapped 100-year floodplain areas because the Flood Insurance Study prepared by the Federal Emergency Management Agency (FEMA) used FEMA’s approximate methods to determine some floodplains in the County. Also, it must be noted that the analysis methods used for preparation of the Flood Insurance Study has not caused all localized floodplains to be identified. For example, the federal flood insurance studies do not identify floodplain areas upstream of locations where the identified floodplain width is narrower than about 200 feet or where the tributary area in the upstream basin is less than one square mile. For these reasons, it is important that the County's floodplain regulations continue to require that persons subdividing or developing land cause the floodplain near their site to be studied to determine the floodplain elevations and boundaries on the property.

While there are presently no known major stormwater drainage problems existing within the unincorporated area, increasing development within the County's major watersheds and sub-basins will result in flooding hazards within these areas, unless appropriate measures are undertaken to alleviate increases in the rate of runoff.

4.4 Johnson County Stormwater Management Program

The Johnson County Stormwater Management Program promotes inter-local cooperation between the County Government and the cities in stormwater management.
management activities. Through this program, the County provides financial and other assistance to the cities for planning, design, and construction activities to assure an adequate, safe, and integrated storm drainage network throughout the communities.

The Stormwater Management Program (SMP), funded through a dedicated 1/10-cent sales tax, works collaboratively with the cities in Johnson County to improve the stormwater infrastructure. Ninety three percent of all sales tax revenue is spent on stormwater planning, design, and construction projects. To date, 18 of the 20 Johnson County cities and Johnson County have participated in SMP funded projects. The SMP funds 75% of eligible planning, design, and construction costs. Over 120 projects have been completed at a total cost in excess of $60 million and 45 projects are currently active with a total estimated cost in excess of $45 million. The completed and ongoing projects consist of reactive flood damage mitigation projects ranging from upgrading deteriorating and inadequate stormwater infrastructure to home buyouts. Additionally the SMP funds proactive projects focused on minimizing the potential for future flooding problems and minimizing the impacts of stormwater runoff to the environment. The most notable proactive effort to-date is the project to prepare current and accurate floodplain maps Countywide for existing development conditions and floodplain maps that account for future development throughout the County.

A Stormwater Management Advisory Council (SMAC) has been established to identify and recommend projects for inclusion in the Stormwater Management Program. Upon the recommendation of SMAC, the Board of County Commissioners has established and adopted a Five-Year Master Plan that lists designated stormwater management projects that are eligible for funding from the Stormwater Management and Flood Control Fund. The program encourages, to the extent practical, construction of the projects identified in the Five-Year Master Plan in priority order. Annually, SMAC develops a Project Priority List in accordance with the Stormwater Management Program's administrative provisions. This list provides the basis for annual funding allocations under the program.

The Stormwater Management Program may provide financial assistance for eligible projects, through interlocal agreements, for a percentage of the local share of estimated project costs. The participation percentage may be any amount but, in general, shall be 75% for flood remediation and stream stabilization projects and ninety percent (90%) for detailed watershed studies. Since its inception in 1990, the Stormwater Management Program has contributed over $60 million towards stormwater programs for approximately $90 million worth of projects. Detailed watershed studies have been completed for the Blue River Basin, and are well underway for the Northeast Area Basins, Mill Creek Basin, and for the Cedar Creek Basin. Studies of the remaining basins in the County began in the fall of 2002.

4.5 Streamway Corridors, Open Space, & Park Use

Streamway corridors make ideal open space preserves and parks since these areas are subject to flooding, and they are relatively more expensive and risky to develop. They also serve as important components of the stormwater management and water quality system. Some cities in the County have already developed or are planning greenbelts along their stream valleys for both parks and stormwater. The Johnson County Park and
Recreation District has endorsed this concept and since 1987, has been continually making significant improvements to its streamway corridor park system. Also, the Johnson County Public Works Department has drafted model standards for buffers along streams.

Streamway corridors are also called “riparian corridors.” A riparian corridor is a unique plant and animal community consisting of the vegetation growing near a river, stream, lake or other natural body of water and the animals that live there. Riparian corridors serve a variety of functions important to people and the environment as a whole by:

- Preserving water quality by filtering sediment from runoff before it enters rivers and streams,
- Protecting stream banks from erosion,
- Providing a storage area for flood waters,
- Providing food and habitat for fish and wildlife, and
- Preserving open space and aesthetic surroundings.

4.6 Riparian Corridor Protection

Riparian corridors include wetlands, lakes, wildlife habitats, the steep slopes along them, and areas that often need protection from the adverse impacts of stormwater drainage. These corridors are complex ecosystems vital to the protection of our streams, lakes, rivers, wetlands and other water bodies. Forests, vegetative cover, and wetlands within these corridors improve the quality of water resources by removing or ameliorating the effects of pollutants in runoff and by increasing the biological diversity and productivity of stream communities by improving habitat and adding to the organic food base. Some riparian areas are subject to periodic flooding.

Property development and redevelopment often increases stormwater runoff volumes and rates and thus may cause property damage, safety hazards, and nuisance problems. Developed properties often degrade water quality, especially during construction. Such effects are particularly likely for streamside sites unless diligent measures taken to attenuate the impacts before they affect streams and other water bodies.

Important development factors to consider regarding the protection of riparian corridors include:

1. The imperviousness of developed areas is the most significant influence on stormwater hydrology and pollutant loadings in streams and other water bodies.
2. The rate and quantity of soil erosion significantly increases on steep slopes of fifteen (15) percent or greater, so developing on steep slopes has the potential to cause excessive soil erosion and stormwater runoff during and after construction.
3. The sustainability of a healthy ecosystem requires the protection and proper management of our watersheds and riparian forests.

The benefits of riparian corridor protection include:

1. Restoration and maintenance of the chemical, physical, and biological integrity of the water resources;
2. Reduction of erosion and sediment entering streams and other water bodies;
3. Removal of sediments, nutrients, and other pollutants delivered from stormwater runoff;

4. Enhanced infiltration of stormwater runoff;

5. Reduced water temperature in streams and lakes;

6. Maintenance of base flow of streams;

7. Stabilization of stream banks and decrease stream bank erosion;

8. Contribution of the organic matter that is a source of food and energy for the aquatic ecosystem;

9. Provision of better, more stable stream habitat and tree canopy to shade streams and promote desirable aquatic organisms, resulting in improved fishery;

10. Provision of enhanced terrestrial habitat for plants and animals;

11. Provision of flood control resulting in less severe flooding, lower water velocities, and lower water depths in the stream; and


4.7 Water Quality

Water quality involves ensuring that watersheds support aquatic life and human uses. The Clean Water Act’s main goal is to make waterways “fishable and swimmable.” Pollution of waterways is defined as point source and nonpoint source pollution. Point source pollution is from factories and sewage treatment plants that put waste directly into streams and rivers. Nonpoint source pollution involves the runoff from parking lots, roads, farms, rooftops, wildlife areas, failing septic systems, and also habitat degradation. The most common nonpoint source pollutants are sediments and nutrients washed into water bodies from farms, animal feeding operations, construction sites, and other areas where land has been disturbed. Other pollutants include pesticides, pathogens (bacteria and viruses), salts, oil, grease, toxic chemicals, and heavy metals.

National Pollution Discharge Elimination System (NPDES)

One of the major federal water quality programs applicable to Johnson County is the Phase II National Pollution Discharge Elimination System (NPDES) administered by the Kansas Department of Health and Environment (KDHE). Six minimum control measures are necessary to fulfill the Phase II Storm Water Program requirements.

1. Public Education and Outreach

Distribute educational materials and perform outreach to inform citizens about the impacts polluted stormwater runoff discharges can have on water quality.

2. Public Participation/Involvement

A model Riparian Corridor Protection Ordinance has been prepared by the Johnson County Public Works Department as part of a grant from the U.S. Environmental Protection Agency (EPA). That model ordinance may serve as a starting point for the County’s efforts to protect these important environmental resources.
Provide opportunities for citizens to participate in program development and implementation, including effectively publicizing public hearings and encouraging citizen representatives on a stormwater management panel.

3. Illicit Discharge Detection and Elimination

Develop and implement a plan to detect and eliminate illicit discharges to the storm sewer system (including developing a system map and informing the community about hazards associated with illegal discharges and improper disposal of waste.) Effectively prohibit through ordinance or regulation mechanism, non-stormwater discharges into the storm sewer system.

4. Construction Site Runoff Control

Develop, implement, and enforce an erosion and sediment control program for construction activities that disturb 1 or more acres of land.

5. Post-Construction Runoff Control

Develop, implement, and enforce a program to address discharges of post-construction stormwater runoff from new development and redevelopment areas. Applicable controls could include preventative actions such as protecting sensitive areas (e.g. wetlands) or the use of structural Best Management Practices (BMPs) such as grassed swales or porous pavement.

6. Pollution Prevention/ Good Housekeeping

Develop and implement a program with the goal of preventing or reducing pollutant runoff from county operations. The program must include staff training on pollution prevention measures and techniques (e.g. reduction in the use of pesticides or street salt or frequent catch-basin and ditch cleaning.)

NPDES Phase II also requires permits for all construction activities that disturb one or more acres. Permits will be issued for those sites by KDHE.

After March 10, 2003, owners or operators who may discharge stormwater runoff from a small construction activity shall apply for authorization to discharge stormwater runoff from their construction site. Small construction activity consists of any activity (e.g. clearing, grubbing, excavating, grading, etc.) which disturbs a cumulative total area equal to one (1.0) acre; or greater than one (1.0) acre and less than five (5.0) acres. Activity which disturbs less than one (1.0) acre is considered to be small construction activity when the site is part of a larger common plan of development or sale which will disturb a cumulative total area equal to one (1.0) acre; or greater than one (1.0) acre and less than five (5.0) acres. (Kansas General Permit no.: S-MCST-0110-1, p.)

4.8 Total Maximum Daily Load (TMDL)

TMDL’s or Total Maximum Daily Loads, measure the impact of point and non-point source pollution on waterways. A TMDL is a calculation of the maximum
amount of a pollutant that a water body can receive and still meet water quality standards. TMDL’s also allocate the amount of pollution back to its source. KDHE has lead responsibility to set water quality standards. KDHE identifies the uses for each water body, for example, drinking water supply, swimming, or fishing and then sets criteria to ensure that the waterway is safe for its intended use. For example, the criteria address sedimentation, nutrients, pesticides, viruses, bacteria, and chemicals.

In Kansas, KDHE has the lead responsibility to identify which water bodies require TMDLs and to establish the TMDLs for them. The TMDLs are developed using the process described in the Guidance for Water Quality-Based Decisions: the TMDL Process, prepared by the U.S. Environmental Protection Agency (EPA) and the seven TMDL components suggested in the recommendations of the Federal Advisory Committee on the TMDL Program in its final report, issued July 1998.

The process of developing TMDLs determines:

1. The pollutants causing water quality impairments.

2. The degree of deviation away from applicable water quality standards.

3. The levels of pollution reduction needed or pollutant loading allowed that would meet water quality standards.

4. Corrective actions, including load allocations, to be implemented among point and non-point sources in the watershed affecting the water quality limited waterbody.

5. The monitoring and evaluation strategies needed to assess the impact of corrective actions in achieving TMDLs and water quality standards.

6. Provisions for future revision of TMDLs based on those evaluations.

The TMDLs for some water bodies in the County has implications for land uses and development:

1. If the Phase II NPDES permits become a tool for implementation of the TMDLs, those permits might impose more stringent water quality requirements in watersheds with TMDL water bodies.

2. Watersheds upstream of water bodies with TMDLs may be seen as questionable locations for land uses that would add pollutants to those water bodies especially if the pollutants are the same as those identified in the TMDL.

3. The TMDL water bodies and the identified need to abate the pollution may be an especially strong reason for planning that would lead to erosion and sedimentation requirements in the County’s regulation of land uses and development.

Within the unincorporated area of Johnson County, using the TMDL criteria, the Blue River, Cedar Creek, Kansas River, and Kill Creek are identified as being impaired. All are listed as having problems with fecal coliform bacteria attributed to older failing septic systems, wildlife areas, urban stormwater runoff, and small livestock operations. Some other problems are nutrients, sedimentation, chloride, and...
chlordane from pesticides. Map 16, Total Maximum Daily Load, shows the TMDL locations identified within the County.

4.9 Eutrophication

According to Kansas Department of Health and Environment (KDHE), there are only a few lakes in Johnson County that are impaired due to eutrophication. Eutrophication is the process whereby nutrients from fertilizers or sewage are added to a water body causing plants and algae to grow in increased amounts. The resulting plants use up the available oxygen so that eventually the plants and animals cannot survive.

4.10 Sedimentation

Sedimentation occurs when wind or water runoff carries soil particles from an area, such as a farm field or construction site, and transports them to a water body, such as a stream or lake. Excessive sedimentation clouds the water, which reduces the amount of sunlight reaching aquatic plants; covers fish spawning areas and food supplies; and clogs the gills of fish. In addition, other pollutants like phosphorus, pathogens, and heavy metals are often attached to the soil particles and wind up in the water bodies with the sediment. Farmers, ranchers, and builders can reduce erosion and sedimentation by 20 to 90 percent by applying management measures to control the volume and flow rate of runoff water, keep the soil in place, and reduce soil transport.

Increased water runoff also contributes to sedimentation. The porous and varied terrain of natural landscapes like forests, wetlands, and grasslands trap rainwater and snowmelt and allow it to slowly filter into the ground. Runoff tends to reach receiving waters gradually. In contrast, nonporous urban landscapes like roads, bridges, parking lots, and buildings don't let runoff slowly percolate into the ground. Water remains above the surface, accumulates, and runs off in large amounts.

Urbanization increases the variety and amount of pollutants transported to receiving waters. Sediment from development and new construction; oil, grease, and toxic chemicals from automobiles; nutrients and pesticides from turf management and gardening; viruses and bacteria from animal feces and from failing septic systems; road salts; and heavy metals are examples of pollutants generated in urban areas. Sediments and solids constitute the largest volume of pollutant loads to receiving waters in urban areas.

4.11 Nutrients

Nutrients such as phosphorus, nitrogen, and potassium in the form of fertilizers, manure, sludge, irrigation water, legumes, and crop residues are applied to enhance plant production. When they are applied in excess of plant needs, nutrients can wash into aquatic ecosystems where they can cause excessive plant growth, which reduces swimming and boating opportunities, creates a foul taste and odor in drinking water, and kills fish. Farmers can implement nutrient management plans, which help maintain high yields and save money on the use of fertilizers while reducing nonpoint source pollution. Measures to limit the overloading or containment of nutrients in urban areas is also important; particularly the maintenance of lawns by residents and businesses.
MAP 16: TOTAL MAXIMUM DAILY LOAD

STREAM TOTAL MAXIMUM DAILY LOADS

BASINS with TMDLs IDENTIFIED
- Modeled for Ammonia Basin
- TMDL Basins
- Hillsdale Lake Tributary Basins

Map Elements
- Unincorporated Area
- Major Roads
- Major Highways

---

Johnson County Rural Comprehensive Plan Update Page 8-20
5.0 CLIMATE

(Note: this summary of climatic characteristics is quoted from the Soil Survey of Johnson County, 1980. That document quoted text authored by L. Dean Bark, climatologist, Kansas Agricultural Experiment Station, Manhattan, Kansas.)

The climate of Johnson County is a typical continental type as would be expected from its location in the interior of a large landmass in the middle latitudes. Such climates are characterized by wide daily and annual variations in temperature. Winters are cold because of the frequent outbreaks of air from the Polar regions. Winter conditions prevail from December to February. Warm temperatures of summer last for about six months every year, and the transition seasons of spring and fall are relatively short. The warm temperatures provide a long growing season for crops in the County.

Johnson County is in the path of a fairly dependable current of moisture-laden air from the Gulf of Mexico. Precipitation is heaviest late in spring and early in summer with a good portion of it coming in late-evening or nighttime thunderstorms. Although the total precipitation is generally adequate for any crop, its distribution may cause problems in some years. Prolonged dry periods of several weeks duration are not uncommon during the growing season in this area. A surplus of precipitation often results in muddy fields that delay planting and harvest operations.

The prevailing wind is from the south. Average annual wind speed is 10 miles per hour, in March. An average of 72 percent of possible sunshine is received in summer, and 53 percent is received in winter.

Tomatoes and severe thunderstorms occur occasionally in Johnson County.

These storms are usually local in extent and of short duration so that risk is small. Hail occurs during the warmer part of the year, but again, it is infrequent and of local nature. Crop damage by hail occurs less in this part of the state than in western Kansas.

5.1 Temperature

In winter, the average temperature is 32.3 degrees Fahrenheit (F), and the average daily minimum is 22.5 degrees F. The lowest temperature on record, -29 degrees F., occurred at Olathe on February 12, 1899. In summer the average temperature is 76.0 degrees F., and the average daily minimum is 86.5 degrees F. The highest temperature was 111 degrees F., recorded on July 7, 1913 and again on August 14, 1936.

5.2 Precipitation

The average annual precipitation is 38.52 inches. Of this total, 27.48 inches or 71 percent usually falls during the period April through September, which includes the growing season for most crops. For approximately two out of every ten years, the April through September rainfall is less than 21.37 inches. The heaviest one-day rainfall during the period of record was 7.00 inches at Olathe on September 7, 1914.

Average annual snowfall is 19.0 inches. The greatest snowfall, 82.1 inches, occurred during the winter of 1911-12. In
## TABLE 36: TEMPERATURE AND PRECIPITATION DATA
(Recorded in the period 1941 - 1970 at Olathe)

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Precipitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>(degrees F)</td>
<td>(inches)</td>
</tr>
<tr>
<td>2 years in 10 will have</td>
<td>2 years in 10 will have</td>
</tr>
<tr>
<td>MO</td>
<td>Average daily</td>
</tr>
<tr>
<td></td>
<td>max.</td>
</tr>
<tr>
<td>Jan.</td>
<td>38.9</td>
</tr>
<tr>
<td>Feb.</td>
<td>44.2</td>
</tr>
<tr>
<td>Mar.</td>
<td>52.9</td>
</tr>
<tr>
<td>Apr.</td>
<td>66.3</td>
</tr>
<tr>
<td>May</td>
<td>75.2</td>
</tr>
<tr>
<td>Jun.</td>
<td>83.3</td>
</tr>
<tr>
<td>Jul.</td>
<td>88.4</td>
</tr>
<tr>
<td>Aug.</td>
<td>87.9</td>
</tr>
<tr>
<td>Sep.</td>
<td>80.2</td>
</tr>
<tr>
<td>Oct.</td>
<td>70.4</td>
</tr>
<tr>
<td>Nov.</td>
<td>54.4</td>
</tr>
<tr>
<td>Dec.</td>
<td>42.6</td>
</tr>
<tr>
<td>Year</td>
<td>--</td>
</tr>
</tbody>
</table>

Johnson County Rural Comprehensive Plan Update  Page 8-22
### TABLE 37: FREEZE DATES IN SPRING AND FALL

Minimum Temperature (Degrees F)

<table>
<thead>
<tr>
<th>Probability (Years in 10)</th>
<th>24 or lower</th>
<th>28 or lower</th>
<th>32 or lower</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Last freezing Temperature</td>
<td>April 7</td>
<td>April 19</td>
<td>May 1</td>
</tr>
<tr>
<td>2 &quot;           &quot;                     &quot; April 2</td>
<td>April 14</td>
<td>April 26</td>
<td></td>
</tr>
<tr>
<td>5 &quot;           &quot;                     &quot; March 24</td>
<td>April 4</td>
<td>April 16</td>
<td></td>
</tr>
<tr>
<td>1 First freezing Temperature</td>
<td>October 27</td>
<td>October 18</td>
<td>October 6</td>
</tr>
<tr>
<td>2 &quot;           &quot;                     &quot; November 1</td>
<td>October 23</td>
<td>October 12</td>
<td></td>
</tr>
<tr>
<td>5 &quot;           &quot;                     &quot; November 11</td>
<td>November 1</td>
<td>October 22</td>
<td></td>
</tr>
</tbody>
</table>

### TABLE 38: GROWING SEASON LENGTH

Daily Minimum Temperature During Growing Season (Degrees F)

<table>
<thead>
<tr>
<th>Probability (Years in 10)</th>
<th>Above 24</th>
<th>Above 28</th>
<th>Above 32</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 years in 10</td>
<td>204 days</td>
<td>189 days</td>
<td>166 days</td>
</tr>
<tr>
<td>8 years in 10</td>
<td>212 days</td>
<td>197 days</td>
<td>174 days</td>
</tr>
<tr>
<td>5 years in 10</td>
<td>229 days</td>
<td>213 days</td>
<td>189 days</td>
</tr>
<tr>
<td>2 years in 10</td>
<td>244 days</td>
<td>219 days</td>
<td>204 days</td>
</tr>
<tr>
<td>1 year in 10</td>
<td>253 days</td>
<td>237 days</td>
<td>211 days</td>
</tr>
</tbody>
</table>
an average year, 22 days have at least one inch of snow on the ground, but it is unusual for the snow cover to last over seven consecutive days.

5.3 Quality

Ozone is the main threat to air quality in the Kansas City metropolitan area including Johnson County. There are typically two types of ozone: stratospheric and tropospheric. Stratospheric ozone is the protective layer that shields the earth from harmful ultraviolet radiation. Tropospheric ozone, the prime ingredient in smog, is formed near the ground by a combination of sunlight and warm temperatures. Ground level ozone affects the respiratory system and can be particularly harmful to the very young, the very old, and people with chronic lung disease.

In the Kansas City area, consumers are responsible for a significant percentage of the air pollutants that lead to smog. These pollutants come from cars, lawn mowers, boats and the oil-based paints and cleaning products. Near the ground, ozone is formed in a three-step process:

1. Gasoline, paints and solvents evaporate, releasing reactive organic compounds.
2. Cars and factories burn fossil fuels, releasing nitrogen oxide gases and reactive organic compounds.
3. Heat and sunlight trigger a chemical reaction between these emissions, transforming them into ozone.

Although we have some control over pollutants, we have no control over the heat and sunlight that turn pollutants into ozone. Ozone is most likely to exceed safety limits from April through October (ozone season), when seasonal heat and sunlight are highest. (The above information on ozone is from the Mid America Regional Council’s Heartland Sky Program).

6.0 PUBLIC UTILITIES AND SERVICES

Public utilities, especially water and sanitary sewer systems, have substantial impact on the direction and location of growth. The financial and practical limits on expansion of sewer systems have promoted orderly development of the urban core in the northeast portion of Johnson County. Although limited water systems have constrained rural growth in some parts of the County, new and expanded systems are planned in most rural areas. The Johnson County Wastewater District provides sanitary sewer service to most of the urbanized area of the County but to only limited areas in the unincorporated portion of the County. The five cities (Olathe, Gardner, De Soto, Spring Hill, and Edgerton) that do provide sanitary sewers also do not generally provide such service outside their city boundaries.

Two electrical utility companies, five water providers and two natural gas companies provide service to various portions of the County. The level of services available varies considerably throughout the area. Both the available, proposed and required levels of service should be checked for each site proposed for development.

Eight school districts, three rural fire districts, the Johnson County Library system, and primarily the Johnson County Park and Recreation District administer and provide a variety of facilities and services within the unincorporated areas of the County. Johnson County Med-Act is the primary provider emergency ambulance service to the unincorporated area. The Johnson County Sheriff’s department patrols and responds to emergency calls.
6.1 Future Availability of Public Facilities and Services

Below is a list of possible future constraints on the availability of public facilities and services.

1. Unincorporated Johnson County is being increasingly divided into scattered 1-10 acre tracts. This trend toward the fragmented location of lots intended for single-purpose, non-agricultural uses, and their disjointed orientations and relationships, are imposing a potential obstacle to the orderly and economical planning, design and construction of roads, sewer collection and treatment facilities, water distribution systems and other public improvements which may be needed eventually to support additional development in the future.

2. The County is not in a fiscal position to provide certain public facilities and services, which are demanded by residents within a relatively higher density setting. Increases in County revenues or alternative funding sources are needed to fund the necessary level of public facilities and services within certain intensely developed portions of the unincorporated area of the County.

3. Certain development patterns and conditions within unincorporated Johnson County that may contribute to limiting the provision of public safety services (police protection, fire protection, and emergency medical assistance) to residences and other facilities include:
   a. Scattered and fragmented development patterns.
   b. Segments of the road network and natural physical barriers within portions of the County.
   c. Certain portions of unincorporated Johnson County possess limited water supplies.
   d. The construction and alignment of some older, existing private roads may limit access.

The County's unincorporated area has limited resources for serving dense urban development on a large scale. In terms of fiscal and management strategies, it is not feasible for the County to establish full municipal-like services on a scattered basis throughout the rural area. Planned low-density development can be supported with modest expansions of traditional rural-agricultural service levels.

6.2 Electric

Kansas City Power and Light (KCPL) and Westar [formerly Kansas Power and Light (KPL)] deliver electrical service to the unincorporated areas of Johnson County. Map 17, Electrical Utility Areas, shows the general boundaries these utility providers.

6.3 Water

Several water districts provide potable (clean) water service in the unincorporated area. In the past, Water One merged with other rural water districts assuming the water service responsibilities in the southeast part of the County. In a few locations, nearby cities also provide water service to properties outside, but near their city limits. Rural Water District No. 6 serves portions of northwest Johnson
County and Rural Water District No. 7 serves portions of southwestern Johnson County. Map 18, Water Utility Areas, shows the general boundaries these water service providers.

Water is obtained from several sources, including wells along the Kansas River, water intakes on the Kansas River and on the Missouri River, and a water intake at Hillsdale Reservoir. Many of the rural water districts obtain water from multiple sources. For example, the City of Olathe operates its own wells in the Kansas River valley near the City of De Soto, and Olathe sells water to some of the nearby rural water districts.

Because of the rural nature of most of the water district service areas, most water mains, storage tanks and related facilities have been sized and installed to provide service to rural land uses. Some areas are not served by water mains and there are many small-sized mains that are operating at or near capacity. Review of individual water district maps is needed on a case-by-case basis to determine where service is provided or planned. Consultation with the appropriate water district is needed in each case to determine whether service could be provided and to determine if available water flow rates would meet at least the minimum water flow rates required by the County Fire Code.

Some areas of the County, particularly on the western edge, do not have access to a public water supply system. As a result, they rely on wells located on the property or have water hauled to their site.

6.4 Natural Gas

Westar and Atmos Energy (formerly Greeley Gas and United Cities Gas) provide natural gas service to various parts of the County. However, there are some areas not served or the mains are operating at or near capacity. Review of individual utility company maps is needed on a case-by-case basis to determine where service is provided or planned, and consultation with the appropriate utility company is needed to determine whether service could be provided. For areas left unserved, houses generally use bottled gas or are totally electric.

Map 19, Natural Gas Utility Areas, shows the general boundaries these two utility providers.

6.5 Sanitary Sewers

Sanitary sewers or wastewater treatment facilities serve only a few locations within the unincorporated area, such as, the Lone Elm Subdivision and Wolf Creek Subdivision. The cities of Olathe, Gardner, Spring Hill, Edgerton, and De Soto operate their own wastewater treatment facilities. The Johnson County Unified Wastewater District provides wastewater collection and treatment services to the rest of the developed areas of the County. Map 20 of wastewater Service Areas, shows the general boundaries these utility providers.

6.6 On-Site Sewage Disposal Systems

Under the Johnson County Environmental Department, the On-Site Sewage Disposal Systems program (OSSDS) protects the health and environment of Johnson County citizens by ensuring that on-site septic systems are properly designed and operated. The OSSDS program inspects new residential and commercial on-site septic systems. Existing commercial systems are inspected annually. Existing residential systems may be inspected upon request during property transactions and are inspected when they are sold. The program also investigates complaints about malfunctioning on-site septic systems.
MAP 18: WATER UTILITY AREAS
MAP 19: NATURAL GAS UTILITY AREAS

NATURAL GAS UTILITY AREAS

Map Elements
- Incorporated
- Unincorporated Area
NOTE: This map does not show the city-operated sanitary sewer areas inside the cities of De Soto, Edgerton, Gardner, and Spring Hill.
The Johnson County Environmental Department performs a soil profile analysis on each lot prior to issuing a permit to install a private sewage disposal system. The soil profile analysis identifies particular soil characteristics and limiting soil conditions, and uses these in determining the design of private sewage disposal systems. Limiting soil conditions include: high water tables, seasonal water tables, shallow soil depth to bedrock, and soils with heavy clay content. Alternative systems, such as elevated sand mounds, intermittent sand filters, shallow-in-ground, and low-pressure pipe systems, can be used to overcome these limiting conditions at higher costs than conventional septic systems. Proper design, installation and operation of a private sewage disposal system will prevent premature failure and groundwater contamination.

6.7 Fire Districts and Stations

There are three fire districts that serve the unincorporated area of Johnson County:

- Rural Fire District 1,
- South Johnson County Fire District No. 2, and
- Rural Fire District No. 3.

Map 21, Fire Districts and Stations Areas, shows the general boundaries these three fire districts.

Because the County Fire Code establishes minimum water flows for development, development is restricted to those areas that can meet this requirement. Alternate methods for meeting fire safety standards may be available, if approved.

6.8 Schools and Libraries

Johnson County ranks first in public education among Kansas City metropolitan area counties and has one of the highest levels of education attainment of any County in the nation [Metro Market Profile: Kansas City 2000, County Economic Research Institute (CERI)]. There are eight school districts that serve Johnson County:

- Blue Valley Unified School District No. 299,
- De Soto Unified School District No. 232,
- Eudora Unified School District No. 491,
- Gardner-Edgerton-Antioch School District No. 231,
- Olathe Unified School District No. 233,
- Shawnee Mission Unified School District No. 512,
- Spring Hill Unified School District No. 230, and
- Wellsville Unified School District No. 289.

Not many schools are located in unincorporated Johnson County. Only the Blue Valley School District's Stilwell Elementary and Blue Valley High along with Spring Hill School District's Hilltop Elementary are within the unincorporated area.

The Johnson County Library system has 12 branch libraries and a Central Resource Library. The library system was established by a public vote in 1952, with volunteer libraries circulating the first material in 1953. Tax funding was not received until 1955. The current facilities opened in the following years: Antioch in 1956; Corinth in 1962; Cedar Roe in 1969; Oak Park in 1971; Spring Hill and De Soto in 1982; Lackman in 1986; Shawnee in 1992; Leawood Pioneer in 1994; the Central Resource Library in 1995; and Edgerton in 2000. The libraries most convenient to residents of the unincorporated area are: De Soto, Gardner, Edgerton, Spring Hill, Blue Valley, and Olathe. Major renovations at Antioch and Lackman were completed in 1996 and 1997, respectively. A new Blue Valley Library opened in 2000 and a new Gardner Library opened in November 2001.
MAP 21: FIRE DISTRICTS AND STATIONS

FIRE DISTRICTS & STATIONS

Legend:
- Bonner Springs Fire
- Consolidated Dist. #2
- De Soto Fire
- Gardner Fire
- JoCo RFD #1
- JoCo RFD #1 & Gardner Fire
- JoCo RFD #2
- JoCo RFD #2 & Olathe Fire
- JoCo RFD #2 & Overland Park
- JoCo RFD #3
- JoCo RFD #3 & De Soto Fire
- JoCo RFD #3 & Olathe Fire
- Lake Quivira Fire
- Leawood Fire
- Lenexa Fire
- Merriam Fire
- Olathe Fire
- Overland Park Fire
- Shawnee Fire
- Med Act Station
- Fire Station

Miles
PART I  Appendix A:  
Previous Plans for the Unincorporated Area

1982/1986 Plan (Resolution No. 071-86)

The County Planning Commission created the first plan devoted to the entire unincorporated area in 1982. Called the “Land Use Guide Plan,” this document, however, was never formally adopted. Using the draft 1982 plan and previous studies and reports as background, as recommended by the County Planning Commission, the Board of County Commissioners officially adopted the first plan for the unincorporated portion of the County on June 26, 1986. The principal changes from the earlier draft 1982 document were:

1. The 1986 plan more completely reflected growth patterns of the respective cities in Johnson County and recognized that, historically, most urban development in Johnson County has occurred under city jurisdiction. The 1986 plan recognized that it is an appropriate public policy for such a municipal role to continue in the future.

2. The method for growth management and guidance for zoning decisions were simplified in the 1986 plan to make it a more useful tool for Zoning Board and Board of County Commissioner actions on individual zoning applications.

3. Pending the completion of future detailed studies of selected growth corridors or areas, the 1986 plan incorporated a strong program of rural preservation by discouraging scattered, unplanned development in rural areas.

4. The text of the 1986 plan was shortened and streamlined in comparison to the 1982 draft plan in an attempt to be concise, readable, and understandable.

5. A 1983 policy proposal initially considered by the Board of County Commissioners and adopted in the 1986 Plan proposed that a range of densities continue to be anticipated in the rural area. The policy recognized that an additional zoning district was needed to reflect large-lot, low-density residential developments that are smaller than agricultural units but less concentrated than subdivisions of two-acre or one-acre lots.

6. The Plan called for a 40-acre standard lot size and a 10-acre optional lot size in the Rural Policy Area. However, Zoning and Subdivision Regulations require 40-acre minimum lot sizes never were adopted.

7. The Plan supported new development standards, including street paving and
Appendix A – Previous Plans for the Unincorporated Area

Annual reviews of the plan adopted in 1986 identified topics for further study and consideration, and determined that changes to the plan should be coordinated with the adoption of revised Zoning and Subdivision Regulations.

1991 Plan Update (Resolution No. 081-91)

In summary, the major refinements made to the Plan on August 22, 1991 include the addition of the following:

1. Updated development and demographic trend data.
2. Updated existing land use maps.
3. Specific plan for the Aubry-Stilwell area.
4. Updated and refined future land use maps.
5. Additional reference and background data included directly in the plan.
6. The 40-acre standard lot size policy recommended in the 1986 Plan was changed to a 10-acre minimum lot size for development in the Rural Policy Area.

1996 Plan Update (Resolution No. 013-96)

The February 8, 1996 Plan update included:

1. Further updated development and demographic trend data.
2. Refinements with respect to a 2-acre minimum lot size for residential lots not served by sanitary sewers.
3. The Blue Valley Area Plan was created for the Urban Fringe Area south of Overland Park, incorporating also what was the Aubry-Stilwell Area Plan, into new Part 5 of the Plan, along with associated changes in Part 1 of the Plan.
4. Goals and Objectives for the K-10 Corridor as a new Part 6 of the Plan.

1994 Plan Update (Resolution No. 020-94)

The March 17, 1994 changes to the Plan included the addition of the Johnson County Executive Airport Comprehensive Compatibility Plan and the addition of the Johnson County Industrial Airport Comprehensive Compatibility Plan as new Parts 3 and 4 of the Plan. (Note: the Johnson County Industrial Airport was renamed the New Century AirCenter later in 1994.) A major accomplishment in 1994 was adoption of new Zoning and Subdivision Regulations.
Appendix A - Previous Plans for the Unincorporated Area

1998 Plan Update (Resolution Nos. 078-98 and 079-98)

The July 23, 1998 Plan updates included adoption to two separate Area Plans as follows:

1. Woodland Road Corridor Plan.

2. Sunflower Army Ammunition Conceptual Land Use Plan.

1999 Plan Update (Resolution No. 068-99)

The July 29, 1999 Plan updates are summarized as follows:

1. Clarifications that the Plan encourages in all three land use policy areas conservation/open space subdivisions that maintain large areas as permanent open space or in reserve for development in the future when it becomes appropriate.

2. Refinements to enable conservation/open space subdivisions as an optional development density in the Rural Policy Area.

3. Clarifications that the Plan supports and, in some cases, encourages clustered, neo-traditional residential developments in conservation/open space subdivisions.

4. Changes to the Blue Valley Plan.

2000 Plan Update (Resolution No. 052-00)

The June 15, 2000, changes to the Plan included the addition of the Lone Elm Vicinity Plan. The Lone Elm Vicinity Plan was created for a portion of the Urban Fringe Area south of Olathe, south to approximately 183 Street, between Clare Road and approximately one-half mile east of U.S. 169 Highway.
The following is a general summary of some of the major topics and comments made at the four public workshops held in conjunction with the preparation of the Plan. These workshops were held in different locations throughout the County to obtain as broad as possible perspective of citizen’s views on how they would like to see growth managed within the unincorporated area.

Throughout these workshop discussions there were some conflicting views expressed regarding the extent of development that should be allowed (e.g., density, land uses, appearance) and where development should be allowed to occur. The general consensus, however, was that development within the unincorporated area should continue at its current relatively modest rate (averaging approximately 100 residential building permits per year) to be primarily low-density (1 dwelling unit per 10 acres), to the extent reasonable the rural character and open spaces should be preserved, public resources should be wisely allocated, and development should be directed to locations where there is adequate infrastructure available to support it.

The information obtained from these workshops was used to assess the public’s perception about current development trends and issues as well as used as a basis for formulating proposed goals, policies, and actions steps. The conflicting views that were expressed were noted and considered throughout the planning process but have not necessarily been included in the Plan.

- **Workshop #1 - July 23, 2001 at Johnson County Community College.** Citizens provided input on the strengths and weaknesses in rural Johnson County.

  **Results:** The key issues identified were preserving green space, very low density (1 dwelling unit per 10 acres), and guiding growth. The County’s strengths were perceived to be parkland dedication regulations, public input, services provided, grid road system, and the flexibility of the County’s current Plan document. Weaknesses identified included insufficient monitoring and support for existing regulations, the perception that cities have disproportionate influence over rural residents, the regulations do not adequately contain sprawl, development is not paying its share of needed public infrastructure, failure to approve the transportation corridor (no 21st Century Parkway), and the too frequent waiving of minimum infrastructure requirements.

- **Workshop #2 - October 1, 2001 at the Sprint/North Supply Building (600 New Century AirCenter).** The public participants at the workshop prepared and prioritized a list of guiding principles. They also critiqued the first draft of alternative future development scenarios.

  **Results:** Some of the guiding principles receiving the highest scores were:
Appendix B - Outline for Public Participation

- New development should be restricted in the unincorporated area and new development should primarily occur within existing municipalities.

- Environmentally sensitive areas including stream valleys, steep slopes, wetlands, forest cover, and native prairies should be heavily protected from development to preserve and protect greenways and buffers should be required between developed areas.

- Only lots of 10 acres and greater should be considered as being rural in character.

- Workshop #3 – December 3, 2001 at De Soto High School. At this workshop, attending members of the public were presented maps and detailed scenarios regarding the possible outcomes of different growth scenarios. They were given questionnaires and asked which scenarios they found the most acceptable.

**Results:** Four scenarios or depictions of how the unincorporated area might evolve were prepared. Each scenario was based on a different set of assumptions. The scenarios were then presented to the public for comparison.

The four scenarios are summarized below. A copy of the scenario descriptions and questionnaire used at workshop #3 is provided included at the end of this Appendix.

1. **Current Plan Scenario** - With the County’s current Plan document, cities will continue to grow, gradually suburbanizing Johnson County. In the next 20 years, as you drive from the cities into the unincorporated area, you will first see single-family homes on 3 acre lots. Then as you drive further, you will see houses on 10-acre lots mixed with some areas of open space and farms.

![Current Plan Scenario](image)

2. **Urban Reserve Scenario** - In the next 20 years, as you drive from the suburbs into the unincorporated area, you will see areas open for suburban expansion. Development will be encouraged to occur within and in cooperation with city expansion. Areas adjacent to cities will develop according to joint city-county plans. If there are no joint plans, development will consist of residences on 10 to 20 acre lots until annexed into cities.
Appendix B - Outline for Public Participation

3. Exurban Reserve Scenario – In the next 20 years, as you drive from the suburbs into the unincorporated area, you will see areas reserved for suburban expansion. As you proceed, you will see exurban development that consists of numerous existing and developing subdivisions with single-family homes on 2 to 3-acre lots scattered throughout the area. Natural open spaces and farms will continue to exist, but at a much lesser degree than today.

4. Conservation Development Scenario – In the next 20 years, as you drive through the unincorporated area leaving the suburbs behind, you will see residences on 20-acre lots and some smaller lots clustered together preserving large areas of open space. As you reach the extreme southwest corner of the County, you will see 40-acre or larger farms.

Development examples were provided to the public to illustrate the key differences between the scenarios, particularly the Current Plan and the Exurban Plan.

“Exurban” Development Pattern
The first example above, “Exurban” Development Pattern, illustrate what the County could look like if policies changed to allow a range of residential densities everywhere if the Exurban Scenario were adopted.

The second example below, “Planned Rural” Development Pattern, illustrates the concept of clustering similar residential densities and preservation of open space. This development pattern could be achieved with either the Urban Reserve or the Conservation scenarios through different implementation mechanisms. The Current Plan blends the best of both principals by modify the current plan and policies.

“Planned Rural” Development Pattern

When the questionnaires about the scenarios were tabulated the information was used to guide the preparation of draft alternative land use plans. The public then reviewed these alternative land use plans.

- Workshop #4 - April 30, 2002 at the Oxford Middle School in Overland Park. Citizens provided comments and completed questionnaires regarding goals contained in the County’s current Plan document and two possible versions of the Future Land Use Map. The scenario proposals were based on a blending of the Urban Reserve and Conservation Development Scenarios. One version showed an Urban Reserve Area next to the cities, a Rural 10 Area with 10-acre lots further away from cities, and a Rural 40 Area with 40-acre lots in the southwest corner of the County. The second version simply showed two areas: the Urban Reserve next to the cities and the rest as a Rural Area with 10-acre lots.

Results: The comments and questionnaires showed support for keeping 10-acre lots as the standard for rural Johnson County. The possibility of an area designated for 40 acres was proposed in the southwest corner of the County but was not considered politically viable.

The questionnaire also asked people about the current plan goals along with the policy areas. The suggestions receiving the most favorable responses included equally sharing the costs of infrastructure between the public and private sectors, protecting natural amenities, and conducting more specific joint city/county area plans. The biggest split vote was on whether or not to encourage concentrated development within existing growth areas. The other split votes showed a hesitancy to encourage city expansion into rural areas.
A. The Johnson County Executive Airport Comprehensive Compatibility Plan, shall be, and hereby is amended to read as follows:

**Johnson County Rural Comprehensive Plan**

**Appendix C**

**Area Plan 1**

**JOHNSON COUNTY EXECUTIVE AIRPORT COMPREHENSIVE COMPATIBILITY PLAN**

Recommended by the
Johnson County Planning Commission
October 26, 2004

Adopted by the
Board of County Commissioners
County of Johnson, Kansas
December 16, 2004
Resolution 111-04

Reviewed by the
Johnson County, Kansas Airport Commission
JOHNSON COUNTY
EXECUTIVE AIRPORT
COMPREHENSIVE COMPATIBILITY PLAN

"For I dipt into the future, far as human eye could see,
Saw the Vision of the world, and all the wonder that would be;
Saw the heavens filled with commerce, argosies of magic sails,
Pilots of the purple twilight, dropping down with costly bales;"

Alfred Lord Tennyson
Locksley Hall
1832
JOHNSON COUNTY EXECUTIVE AIRPORT
COMPREHENSIVE COMPATIBILITY PLAN

TABLE OF CONTENTS

Page

CHAPTER I. OVERVIEW 5
1. Background 5
2. Airport Interest Area 5
3. Primary Goal and Objectives of Plan 13
4. Critical Issues and Strategies 14

CHAPTER II. JOHNSON COUNTY EXECUTIVE AIRPORT 17
1. Background 17
2. Existing Facilities 17
3. Flying Operations 19
4. On-Airport Land Use 20
5. Economic Impacts 20

CHAPTER III. LAND USE RECOMMENDATIONS 23
1. Overview 23
2. Description of Future Land Use Map 23
3. Definition of Land Use Categories 26
4. Land Use Restrictions 30
5. Future Land Use-Present Zoning Inconsistencies 31

CHAPTER IV. CRITICAL ISSUES AND STRATEGIES 33
1. Overview 33
2. Noise Attenuation 33
3. Development Controls 38
4. Corrective Actions 40

CHAPTER V. IMPLEMENTATION 42
1. Administration of Plan 42
2. Implementation of Strategies 42
3. Amendment Process 42

GLOSSARY 46

REFERENCE SOURCES 48
LIST OF EXHIBITS

A. Johnson County Executive Airport Interest Area 7
B. Statutory One-Mile Radius vs. Airport Interest Area 8
C. Airport Interest Area Existing Land Usage 9
D. Drainage Areas 10
E. 100-Year Flood Plain Areas 11
F. Noise Impact Area 15
G. Primary Flight Corridors 16
H. Executive Airport: Existing Boundary 18
I. Executive Airport: Airport Land Use Plan 21
J. Future Land Use Map 25
K. Existing Zoning Map 32
L. Outdoor/Indoor Sounds and their Noise Levels 35
M. Single Exposure Noise Levels (SEL) compared to Ldn Noise Contours 36
N. Height Restrictions; Imaginary Surfaces in Accordance with
   Federal Aviation Regulations Part 77 41
O. Jurisdictional Boundaries 43
P. Review and Approval Process for Plan Amendment 44
Q. Implementation Matrix 45
CHAPTER I. OVERVIEW

Section 1. Background

This plan was developed as a result of the need to mitigate the potential adverse relationship between airport operations and nearby land uses in the communities surrounding Johnson County Executive Airport. Originally, this plan began from an interest on the part of the Board of County Commissioners of Johnson County to consider implementing its statutory authority to adopt zoning and land use regulations at and within one (1) mile of the airport (pursuant to authority granted it in K.S.A. 3-307e and K.S.A. 3-701 et seq). It resulted in a cooperative and coordinated effort between Johnson County and the Cities of Overland Park, Kansas and Olathe, Kansas and the Johnson County Airport Commission. In 2004, the Johnson County Planning Commission reviewed the Executive Airport Comprehensive Compatibility Plan and decided to recommend adoption of certain changes to the text and Future Land Use map as contained herein.

This plan strives to develop land use compatibility guidelines based upon two primary concerns associated with airport operations, and two primary concerns associated with airport area land uses and development. The two primary concerns for airport operations are: 1) to minimize aircraft noise impacts to the surrounding areas, and 2) to protect the public by maintaining operationally safe approaches. The two primary concerns for airport area land uses are: 1) to provide for appropriate densities and land use types with respect to the characteristics of the sites and particularly, the influences of the airport, and 2) to provide for reasonable opportunities for viable economic uses of the land while recognizing and establishing appropriate measures to balance the land use interests with the airport influences. Achieving and maintaining compatibility between the airport and its environs depends upon a delicate balance of assuring that the airport can maintain its size and level of operations to satisfy existing and future aviation demands, and assuring that persons who live, work, or own property near the airport may enjoy a maximum amount of freedom from noise or other adverse impacts of the airport. Equally important is the protection of the public investment in a facility for which there may be no feasible future replacement.

Section 2. Airport Interest Area

The Airport Interest Area for the Johnson County Executive Airport (as shown in Exhibit A) contains 5.5 square miles (3,520 acres) and lies within the boundaries of three jurisdictions: the City of Olathe, Kansas, the City of Overland Park, Kansas, and the unincorporated area of Johnson County, Kansas (shown in Exhibit O). It is for the Airport Interest Area that the goals, objectives, strategies, and Future Land Use Map of this Comprehensive Compatibility Plan applies.

While Kansas state statutes give the county statutory authority to adopt zoning and land use regulations at and within a one (1) mile radius of the airport, it was felt that this dimension could be improved and modified with respect to existing and future conditions. Therefore, the Airport Interest Area for Executive Airport is a modified area, which narrows some of the east-west dimension of the statutory one (1) mile area and extends farther north and south along the extended centerline of the airport runway, thereby resulting in areas with greater and lesser than one (1) mile distances. Exhibit B herein graphically compares the statutory 1
mile radius to the modified Airport Interest Area. Specifically, the statutory 1-mile radius (compared to the modified Airport Interest Area) would have gained approximately an additional 1/2 mile of jurisdiction to the east and west (Nieman Road alignment on the east and Blackbob/Lackman Road on the west) and would have lost approximately 1/2 mile of jurisdiction to the north and south (the Northwest 1/4 of Section 34-13-24 and the Southwest 1/4 of Section 22-14-24). In estimated acreages, there are approximately 375 acres which would not be within the statutory 1-mile area but which are located within the Johnson County Executive Airport Interest Area, and approximately 2,350 acres which are within the statutory 1-mile area of the airport but not located within the Airport Interest Area. The result is that, although, a significant amount of acreage (1,975 acres net) is eliminated from the control of the county's statutory authority, the modified area, identified as the Airport Interest Area, encompasses those land areas which are considered to be most critical to airport operations and compatibility issues.

Exhibit C herein identifies the existing land usage within the Airport Interest Area. As shown in the following summary, the dominant land usage for this area remains agricultural.

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Approx. Total Acreage</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>2501</td>
<td>71.1</td>
</tr>
<tr>
<td>Single-Family Residential</td>
<td>328</td>
<td>9.3</td>
</tr>
<tr>
<td>Multi-Family Residential</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Commercial</td>
<td>2.5</td>
<td>.1</td>
</tr>
<tr>
<td>Industrial</td>
<td>13.5</td>
<td>.4</td>
</tr>
<tr>
<td>Parks/Open Space</td>
<td>336</td>
<td>9.5</td>
</tr>
<tr>
<td>Institutional/Public</td>
<td>19</td>
<td>.5</td>
</tr>
<tr>
<td>Airport Operations</td>
<td>320</td>
<td>9.1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>3,520</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Based upon the 1990 U.S. Decennial Census, the estimated number of persons residing within the Johnson County Executive Airport Interest Area is 774. The total number of existing housing units was estimated at 238, based also upon the Census information and the 1986 Johnson County aerial photographs. The average number of persons per household in Southern Johnson County ranged from 3.10 in Aubry Township to 3.40 in Oxford Township.

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Total # of Occupied Housing Units</th>
<th>Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Olathe</td>
<td>118</td>
<td>383</td>
</tr>
<tr>
<td>Overland Park</td>
<td>113</td>
<td>368</td>
</tr>
<tr>
<td>Unincorporated Johnson County</td>
<td>7</td>
<td>23</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>238</strong></td>
<td><strong>774</strong></td>
</tr>
</tbody>
</table>

The Airport Interest Area is comprised of parts of two drainage basins: Tomahawk Creek and Blue River (Exhibit D). Portions of these two drainage basins contained within the Airport Interest Area are presently without sewers; it is expected that sewer lines will be extended into these areas in the future as development occurs. Exhibit E herein identifies areas within the Airport Interest Area that are within the 100-year floodplain. This Plan provides opportunities for the use of these areas for park and recreational facilities, particularly as streamway trails with linkages to existing park facilities such as Heritage...
Exhibit D  Drainage Areas
Park and Blackbob Park. Much of this concept has already been studied and included in the Master Park Plans for the Cities of Overland Park and Olathe.

As stated in the preceding section, noise sensitivity and insuring the public’s safety regarding airport operations are important elements in developing a land use compatibility plan. Therefore, it is important to identify those areas within the Airport Interest Area which would be most impacted by these two factors. Exhibit F herein shows the Noise Impact Area and the noise contours for the Airport Interest Area. The need to minimize noise impacts for areas near the airport is a critical issue and is discussed in greater detail in Chapter IV of this Plan. However, it is within the Noise Impact Area where the noise impact due to aircraft operations is considered to be significant and where strategies to attenuate noise impacts should be considered.

**Primary Flight Corridor Areas:**

Three areas are identified as Primary Flight Corridor Areas on the Future Land Use Map and are shown in Exhibit G herein. Two Primary Flight Corridor Areas are a 500’ wide open strips of land located along the extended centerline of the airport runway to the north and to the south of the airport. The third Primary Flight Corridor Area is a 500’ wide open strip of land located east of and parallel to the airport runway. This third Primary Flight Corridor Area extends south from the airport helipad, and it serves as the approach to the airport helipad. It is within these Primary Flight Corridor Areas where development should be discouraged due to the increased noise impacts and the increased potential for aircraft accidents. By leaving the Primary Flight Corridor Areas as open space, the safety of both flight operations and the public is improved.

Within the three Primary Flight Corridor Areas, two Primary Flight Corridor Subarea categories have been identified as appropriate for airport area land use compatibility. Primary Flight Corridor Subarea A includes those portions of the Primary Flight Corridor Area which are south of Tomahawk Creek and north of Coffee Creek. Primary Flight Corridor Subarea B includes all portions of the Primary Flight Corridor Area which are beyond Primary Flight Corridor Subarea A.

**Future Land Uses, Primary Flight Corridor Subarea A:**

Land areas adjacent to Primary Flight Corridor Subarea A are generally planned for rural residential densities. Due to noise sensitivity of residential uses and the potential for problems if there are high concentrations of persons within this area, the use of land within Primary Flight Corridor Subarea A should be restricted to the following uses:

1. Residential uses on 1-acre and larger lots in Airport Estate Residential (C) areas if Emergency Landing Areas provided; or, as an optional density, residential uses on 1 acre gross lots if Emergency Landing Areas are provided and if the Airport Commission approves an Airport-Related Open Space Plan.

2. Residential uses on 2-acre and larger lots in Airport Rural Residential areas if Emergency Landing Areas are provided; or, a higher density if the Airport Commission approves an Airport-Related Open Space Plan and if Emergency Landing Areas are provided.

3. General agricultural use except feed lots or other agricultural uses which attract substantial quantities of birds;
4. Conservation or open space or any combination thereof;

5. Public or private park, golf courses, or similar natural recreation areas;

6. Cemeteries;

7. Non-retail nursery including the growing of plant materials, but excluding sales offices or retain display of nursery products; and

8. Public utility local distribution or transmission facilities necessary for public service.

Properties partially within Primary Flight Corridor Subarea A may apply for planned developments (PUD or cluster zoning) which would include "density transfers" or "land use intensity" shifts to place structures and dense public use areas outside the Primary Flight Corridor Area boundary. Residences would be permitted only on large lots (5-10 acres) to accommodate such transfers. Existing residential properties within Primary Flight Corridor Subarea A should be classified as "non-conforming lots," thereby prohibiting new dwellings, but permitting reconstruction and rehabilitation of existing homes which may be damaged, destroyed, or in need of repair.

**Future Land Uses, Primary Flight Corridor Subarea B:**

Land areas adjacent to Primary Flight Corridor Subarea B are generally planned for residential densities. Due to noise sensitivity of residential uses and the desirability to avoid high concentrations of persons within Primary Flight Corridor Subarea B, special design considerations should be employed with any new urban development within Primary Flight Corridor Subarea B. These design considerations may apply at the zoning, subdivision (platting), or site planning phase of development. Wherever possible, residential dwellings should be located outside the limits of Primary Flight Corridor Subarea B, and the area should instead be used for open spaces, streets, Emergency Landing Areas, and other non-intensive uses. Further, construction standards should employ sound control measures wherever feasible. Deed restrictions, covenants, statements of equitable interests, and avigation easements should be attached to all property parcels involved in the development process. Within Primary Flight Corridor Subarea B, Low Density Residential (LDR) uses at densities from 1 dwelling unit to 5 dwelling units per acre may be allowed if the development provides Emergency Landing Areas (ELAs) that should be at least 75 feet wide, at least ½ acre in size, and located at not more than ¼-mile intervals in the Primary Flight Corridor Subarea B along the runway centerline extended.

It should also be noted that some portions of the identified Primary Flight Corridor Areas lie within the 100-year floodplain and thereby may be limited in their development potential. In order to compensate for limited development within these Primary Flight Corridors, a development control concept referred to as "transfer of development rights" (TDR), discussed in Chapter IV of this Plan, should be considered. Other development control measures might involve "net-density" zoning as in a Planned Unit Development or cluster zoning technique.

**Section 3. Primary Goal and Objectives of Plan**

The primary goal of this plan is to protect the public health, safety, and general welfare by ensuring the compatible and orderly development of land located within the Airport Interest Area. To achieve this goal, two objectives have been identified: 1) to identify a pattern of
future land uses around the airport which promote compatibility with airport operations yet allows reasonable and viable opportunities for development and use of the land, and 2) to identify various strategies and policies which strive to promote airport-environs compatibility.

Section 4. Critical Issues and Strategies

In evaluating potential strategies for achieving compatibility of the airport with its surrounding environment, several issues are evident. Perhaps the most obvious issue is aircraft noise and its impact on areas surrounding the airport. Recent residential and potentially noise sensitive development is apparent on all sides of the airport and is the source of concern about disruptive noise conditions. Furthermore, citizens with investments in homes view the airport and potential aircraft noise as a disturbance to their peaceful enjoyment of their property. To them, proposals to change the airport are seen as undesirable proposals to expand the airport activity for more and larger aircraft. Therefore, noise attenuation and strategies to achieve this is an important element in compatibility planning.

Safety of the public and safety of flight operations must also be an overriding factor during the development of a plan to improve airport-environs compatibility. This could include actions which relate to protecting runway approaches from any form of hazardous interference, to strategies to limit concentrations of people in airport approach areas. Therefore, development control strategies to ensure public safety are also important in evaluating compatibility.

Finally, in planning for airport-environs compatibility, existing land use patterns must be considered. Quite obviously, patterns of land development may already exist which are contrary to the goal of compatibility planning. These uses may also be found to be nonconforming uses with respect to the new land use map and regulations, and corrective or remedial strategies which will help to assure long-term compatibility with airport operations may need to be identified.

These critical issues and related strategies are discussed in greater detail within Chapter IV of this Plan.
CHAPTER II. JOHNSON COUNTY EXECUTIVE AIRPORT

Section 1. Background

The Johnson County Executive Airport was originally constructed as a naval auxiliary field during World War II. After the war, it was declared surplus and was deeded to the City of Olathe. In October of 1967, the City of Olathe transferred ownership of the airport to Johnson County. The Board of County Commissioners established a five-member Airport Commission which hired the County’s first Director of Aviation. Increasing activity at the airport in late 1968 resulted in widening and extending the existing runway to its present dimensions of 4,100 feet long and 75 feet wide.

In November of 1988, an updated Master Plan was completed for Executive Airport which identifies it as a general utility airport serving the needs of small general aviation aircraft in this area. It is planned that Johnson County Industrial Airport will accommodate the needs of larger aircraft for the Johnson County community.

Johnson County Executive Airport is currently the second busiest airport in the State of Kansas, with over 130,000 takeoffs and landings (air operations) annually. Activity is expected to increase gradually over the next twenty years to the effective airport capacity of 180,000 flight operations annually. No significant change in the mix of aircraft types and models is expected.

Section 2. Existing Facilities

In October of 2004, Johnson County Executive Airport consists of 560 acres of county-owned land as shown in Exhibit H herein. The airport has a single runway, Runway 17-35, which is north-south oriented. Access to the runway ends is provided by two parallel taxiways. A separate asphalt-surfaced helipad located on the east side of the airport and measures 100' x 75' is no longer in use.

Navigational aids include two enroute aids: the very high frequency omni-directional range (VOR) and the very high frequency omni-directional range/tactical air navigation (VORTAC); and three terminal area navigation and landing aids: a terminal VOR (TVOR), a non-directional beacon (NDB), and a localizer (LOC). A variety of lighting aids are available at Johnson County Executive Airport which include: an airport beacon identification light, an omni-directional approach lighting system (ODALS), Medium-Intensity Runway Lights (MIRL), Medium-Intensity Taxiway Lights (MITL), and Runway End Identifier Lights (REILs) and Visual Approach Slope Indicator Lights (VASIs) located at each end of the runway.

Planned near-term improvements of the facility include the installation of an instrument landing system (ILS) and an associated approach lighting system at the south end of the airport, and relocation and upgrade of an aircraft parking ramp at the northeast corner of the airport. These projects, which are being funded under a series of FAA grants, are currently underway and are expected to be completed by early 1992.
Section 3. Flying Operations

Flight activity is measured and recorded in terms of "air operations". An air operation is defined as either a take-off or a landing by an aircraft. In 1990, there were 130,135 air operations (65,067 flights) into or out of Executive Airport. Of this, 48% were itinerant flights (those which leave the traffic pattern) and 52% were local flights (those which remain in the traffic pattern [i.e. "touch-and-go’s] and student pilot traffic). Civilian flights accounted for 99.8% of all flights with the remaining .2% being military flights.

Due to the limited load-bearing capacity and length of Runway 17-35, flying operations at Johnson County Executive Airport are limited. Runway 17-35, 4,100 feet in length, is currently rated at 15,000 pounds single wheel loading (SWL). Twelve thousand, five hundred (12,500) pounds SWL is the minimum pavement strength required for such a general utility runway. This strength will permit the facility to accommodate smaller business jets in the utility category such as the Cessna Citation I and II. To regularly accommodate larger business jets, FAA criteria would require at least a 30,000 pound SWL strength and a runway length of 5,500 feet. The recently approved airport master plan for Executive Airport does not contemplate an increase in either length or load bearing capacity for the runway. Given these length and strength restrictions, flying operations at Johnson County Executive Airport are limited to small propellor airplanes weighing less than 12,500 pounds, including turboprop aircraft and smaller business jets. It is noted that a runway length of 4,500 feet is recommended as desirable for the landing of smaller business jets at this airport.

Due to favorable flying conditions in the Kansas City area, general aviation aircraft often operate under Visual Flight Rules (VFR). The airport traffic area for the Johnson County Executive Airport, under the direction of the air traffic control tower, consists of airspace within a horizontal radius of five statute miles from the geographic center of the airport extending from the ground surface up to, but not including, an altitude of 3,000 feet above the elevation of the airport. Thus, a pilot arriving at Johnson County Executive Airport, during tower operation hours, must be cleared by the air traffic controller before entering this Air Traffic Area. A pilot arriving at the airport after the tower is closed would issue a traffic advisory call on the tower radio frequency to state their flight intentions to other aircraft in the traffic area. Traffic patterns at Executive Airport are a standard left hand pattern for Runway 35 and a standard left-hand pattern for Runway 17. Altitudes within the traffic pattern are 900’ above ground level (a.g.l.) for piston aircraft and 1,500’ a.g.l. for turbine-powered aircraft.

Approach and landing patterns for the existing instrument approach to runway 17 are primarily from the north. The "outer marker," which is the beginning of the primary instrument approach for the airport, is identified at Interstate 435, 1/4 mile east of Pflumm Road. Aircraft making an approach will pass over this point at approximately 1,600 feet a.g.l. and will descend along the approach path (running parallel to and 1/4 mile east of the alignment of Pflumm Road) to an altitude of 344 feet a.g.l.. A circling approach to runway 35 would typically be flown to the west side of the airport at 500 feet a.g.l.

Approach and landing patterns for the existing instrument approach to runway 35 will be from the south, with the outer marker located at 207th Street, 1/4 mile east of Pflumm Road. The approach path runs northerly, parallel to and 1/4 mile east of Pflumm Road. Aircraft will descend from approximately 1,600 feet a.g.l. at the outer marker to 375 feet a.g.l. for a straight-in landing to Runway 35, or 500 feet a.g.l. for a circling approach to Runway 17. A circling approach to runway 17 would typically be flown to the east of the airport.
Section 4. On-Airport Land Use

Two primary objectives guide on-airport land use planning: 1) to secure those areas essential to the safe and efficient operation of the airport; and 2) to determine compatible land uses for excess property that will be most advantageous to the airport and the community. The Airport Land Use Plan, identified in Exhibit I herein, illustrates the various existing and proposed uses of the airport property based upon anticipated airport boundaries.

Section 5. Economic Impacts

The Johnson County Executive Airport plays a vital role in the continued economic well-being of Johnson County which is of direct and indirect benefit to all residents. The scope and magnitude of this economic impact was studied by the Johnson County Economic Research Institute in a report issued in September of 1990 entitled The Economic Impact of Johnson County Executive Airport and Johnson County Industrial Airport. This study analyzed the direct, indirect, and induced economic impact of both airports on the Johnson County economy. This section of the Plan tries to identify those economic impacts which were generated by Johnson County Executive Airport alone.

Direct economic impacts are those financial transactions which occur "on-site" at the airport due to the provision of air passenger and air cargo services. These include local expenditures such as the purchases of the services of air charter firms, airport tenants, air cargo firms, ground transportation firms, and others. Firms located at Johnson County Executive Airport conducting nonscheduled flights or providing goods or services to aviation users have a direct impact on the Johnson County economy as the result of expenditures including such items as flight and ground crew payroll, business services such as advertising, legal, or accounting, insurance, and local taxes. A summary of this economic impact follows:

<table>
<thead>
<tr>
<th>FIRM</th>
<th>NO. EMP.</th>
<th>DIRECT IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>KCH Inc.</td>
<td>32</td>
<td>$2,158,784</td>
</tr>
<tr>
<td>KC Aviation Center</td>
<td>75</td>
<td>$5,059,650</td>
</tr>
<tr>
<td>SKYTEK, Inc.</td>
<td>3</td>
<td>$202,386</td>
</tr>
<tr>
<td>Haynes Equipment Co.</td>
<td>12</td>
<td>$751,380</td>
</tr>
<tr>
<td>Systems Manufacturing</td>
<td>7</td>
<td>$438,305</td>
</tr>
<tr>
<td>Federal Aviation Administration</td>
<td>6</td>
<td>$161,381</td>
</tr>
</tbody>
</table>

**TOTAL:** 135 $8,771,886

Indirect economic impacts account for those financial transactions that are of economic value to the local economy and that occur due to the use that is made of an airport. This would include those expenditures made in the area by visitors to the region that arrive by air, purchases by air crews that lay-over in the area, air freight users and the on-site sales of aviation fuel. Based upon the actual number of flights into Executive Airport in 1990, (65,067 and assuming that 47% of this total are passenger flights) and assuming the average number of passengers and crew members at 3 to 1 respectively, and further assuming that 75% of
Exhibit I Executive Airport: Airport Land Use Plan

Johnson County Executive Airport

Comprehensive Compatibility Plan

December 16, 2004

Adopted December 16, 2004, BOCC Res. 111-04

Page -21-

Johnson County Airport Commission

Johnson County, Kansas
these flights leave the same day with an average 12 hour layover, the below referenced
indirect economic impact was estimated for visitor and flight crew expenditures. Also, based
upon the number of gallons of fuel sold at Executive Airport in 1990 (538,700 gallons at an
average price of $1.75 per gallon), and assuming that only 12% of the fuel value actually adds
to the local economy, the following indirect economic impact was also estimated for visitor,
crew and fuel values.

<table>
<thead>
<tr>
<th>IMPACT SOURCE</th>
<th>ANNUAL INDIRECT IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visitor Expenditures</td>
<td>$6,785,379</td>
</tr>
<tr>
<td>Flight Crew Expenditure</td>
<td>688,032</td>
</tr>
<tr>
<td>Fuel Value Added</td>
<td>113,127</td>
</tr>
</tbody>
</table>

TOTAL: $7,586,538

*Induced economic impacts* are the increased industrial outputs and increased household
earnings brought about through the "multiplier effect" in a local economy. These impacts are
derived through the use of a Regional Input-Output Model (RIMS II) developed for the local
study area by the U.S. Department of Commerce's Bureau of Economic Analysis. Induced
economic impacts are an important consideration since the ultimate impact of a dollar
coming into an economy is a direct function of the amount of time it stays within the
economy and the number of businesses and households it passes through. The multiplier
concept illustrates that as money enters the economy because of the airport, many people
and businesses benefit even though they may not use the airport facilities or work for the
airport. The exact induced economic impact is difficult to assess, however, the average
multiplier is 2.34 for the Johnson County economy. This means that, on average, for each $1
spent on aviation in Johnson County, an additional $1.34 is generated in induced impact.
Therefore, based on the above, an estimated induced economic impact, as well as the total
economic impact, of Executive Airport is shown below.

<table>
<thead>
<tr>
<th>Type of Impact</th>
<th>Induced Impact (2.34 Multiplier)</th>
<th>Total Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Impact</td>
<td>$8,771,886</td>
<td>$20,526,213</td>
</tr>
<tr>
<td>Indirect Impact</td>
<td>$7,586,538</td>
<td>$17,752,498</td>
</tr>
</tbody>
</table>

TOTAL: $16,358,424 $21,920,287 $38,278,711

Additionally, induced economic impact, though not specifically measured, can be seen in
employment. The money that courses through the Johnson County economy as a result of
the multiplier effect creates jobs in its wake in nearly every local employment sector,
including agricultural services, construction, manufacturing, transportation, wholesale and
retail trade, finance, insurance, and real estate, and service industries. The cumulative effect
of all economic impacts generated by Executive Airport on the local economy (direct,
indirect, and induced impacts) is estimated in the above table at $38,278,711. Therefore, it is
evident that the Johnson County Executive Airport is not only considered to be an integral
part of the local and regional transportation network, but it is also considered a vital element
in assuring the continued economic well-being of the county.
CHAPTER III. LAND USE RECOMMENDATIONS

Section 1. Overview

The Future Land Use Map is the tool which achieves the first objective of this Compatibility Plan, that is, to identify a pattern of land uses around the airport which promote compatibility with airport operations, yet allows reasonable and viable opportunities for development and use of the land. It provides a general framework for development of land within the Johnson County Executive Airport Interest Area for the next ten to twenty years. This map establishes land use recommendations which are compatible with airport operations, yet which are also consistent with the surrounding communities' long-term goals and objectives. It is specific enough to guide day-to-day development decisions, yet it is flexible enough to allow modification and continuous refinement.

This chapter defines the recommended Future Land Use Map for the Johnson County Executive Airport Interest Area. It includes a description of the Future Land Use Map and definitions of the land use categories. In developing these recommendations, the primary goal and objectives of this Plan were considered as well as the need to maintain airport safety and to minimize aircraft noise impacts on the surrounding environs. These elements are reflected in the recommended land use designations as shown on the Future Land Use Map. Also included in this chapter is a recommendation regarding land use restrictions which would prohibit certain land uses within the Airport Interest Area.

Section 2. Description of the Future Land Use Map

The Future Land Use Map (Exhibit J herein) provides a guide for future land use and development decisions within the Airport Interest Area. It identifies which land should be utilized for residential, commercial, business, airport, public/institutional, and park/open space land uses. Key features of the recommended Future Land Use Map are listed below:

A) The Future Land Use Map reflects, where possible, existing land use patterns where such patterns are consistent with the goal and objectives of this Plan. Also, this map tries to blend with the recommended land use designations as shown on the Future Land Use Plans for the Cities of Overland Park and Olathe.

B) The Future Land Use Map strives to preserve the openness surrounding the airport by recommending very low density residential uses (1 and 2-acre minimum lot sizes) within the Airport Interest Area. This recommendation is consistent with the goal and objectives of this Plan.

C) The future land patterns in the Executive Airport Interest Area reflect the concepts of land use compatibility guidelines promulgated by the Federal Aviation Administration Southern Region, the California Department of Transportation, and the Washington State Department of Transportation. In summary, those guidelines propose land use compatibility areas in patterns as shown in the following table and map:
<table>
<thead>
<tr>
<th>Land Use Compatibility Areas</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Runway Protection Areas</td>
</tr>
<tr>
<td>2</td>
<td>Inner Approach/Departure Areas</td>
</tr>
<tr>
<td>3</td>
<td>Inner Turning Areas</td>
</tr>
<tr>
<td>4</td>
<td>Outer Approach/Departure Areas</td>
</tr>
<tr>
<td>5</td>
<td>Runway Sideline Areas</td>
</tr>
<tr>
<td>6</td>
<td>Traffic Pattern Area</td>
</tr>
</tbody>
</table>

The Executive Airport Comprehensive Compatibility Plan focuses primarily on Land Use Compatibility Areas 2, 3, 4, and 6.

D) The Future Land Use Map promotes commercial and airport-related business uses in the area west of the airport (151st Street and Pflumm Road), including some airport-owned property. It is anticipated that these non-residential uses will be enhanced by their location near the airport.

E) The Future Land Use Map supports the anticipated commercial development of the 135th Street corridor located across the north end of the Airport Interest Area. The recommended land uses which front on this corridor are consistent with those land use designations shown on the Future Land Use Plans for the Cities of Overland Park and Olathe.

F) The Future Land Use Map strives to preserve the recreational open space opportunities within the Airport Interest Area by coordinating with the Park Master Plans for both the Cities of Overland Park and Olathe.

G) The Future Land Use Map also supports the transportation networks recommended by the Cities of Overland Park and Olathe by incorporating into the map where appropriate those designated thoroughfare and collector roads which are proposed through the Airport Interest Area.

This overall development pattern provides the basic framework for the specific issues and policies which are contained in Chapter IV.
Section 3. Definition of Land Use Categories

Ten land use categories have been created to allow for development of a spectrum of land uses within the Airport Interest Area which are consistent with the goal and objectives of this Plan. The location of the categories has been determined based upon an analysis of a variety of factors, including:

A) compatibility of the use with airport operations;
B) concerns for minimizing noise impacts and maintaining safety;
C) existing land usages;
D) availability of basic services, such as water and sewer;
E) environmental constraints;
F) other accepted planning principles.

The purpose of the ten categories and their related guidelines are discussed hereinafter. These guidelines should be used in planning infrastructure improvements, evaluating future land use proposals, and considering rezoning decisions. Furthermore, these guidelines should be used in conjunction with the land use restrictions contained in Chapter III, Section 4 herein. In the event of a conflict, either real or apparent, between the land use restrictions contained in Chapter III, Section 4 and this section, the restrictions contained in Chapter III, Section 4 shall control.

New developments in several of the land use categories should provide Emergency Landing Areas and Airport-Related Open Spaces in order to achieve the standard densities or optional densities supported by this plan.

The Emergency Landing Areas should be at least 75 feet wide, at least ½ acre in size, and should be located at not more than ¼-mile intervals in the Primary Flight Corridor along the runway centerline extended. The Emergency Landing Areas should be free of abrupt elevation changes and objects such as structures, overhead lines, and large trees and poles that might send a plane out of control at the last moment of an emergency landing, and should be free of uses or facilities that would be gathering spots for children, people with limited mobility, or large groups of people.

The Airport-Related Open Spaces may include Emergency Landing Areas, natural open space areas such as woodland, floodplain, streamway corridors, parkland (natural or passive recreational areas only) and other open areas free of facilities or locations where large groups of people may congregate.

1. Airport Rural Residential

The purpose of the Airport Rural Residential category is to provide residential opportunities while maintaining the openness of the area. This category is intended to maintain very low densities within the Airport Interest Area due to the concerns for maintaining safety and minimizing the aircraft noise sensitivities in this area. Guidelines for the Airport Rural Residential category are:
2. Standard Residential: 1 dwelling unit per 2 acres gross with Emergency Landing Areas required.

b. Optional Residential: Higher densities are possible if the Airport Commission approves an Airport-Related Open Space plan and if Emergency Landing Areas are provided.

c. To the extent practicable, residences and dense uses should be located on adjoining or nearby property that is outside this area by utilizing “density transfers” or “land use intensity shifts” as described in Chapter 1, Section 2, of this Plan with respect to the Primary Flight Corridor Areas, or, perhaps, by utilizing “Transfer of Development Rights,” as described in Chapter 4, Section 3, of this Plan.

d. Soundproofing measures should be encouraged in building construction standards for new residential construction to lessen noise impacts due to airport operations.

e. Avigation easements should be obtained whenever possible and required for all new subdivisions. Public disclosure statements should be filed of record for all properties located within the designated Airport Interest Area notifying property owners of the special land use restrictions for this area.

2. Airport Estate Residential (A)

This category, similar to the Airport Rural Residential category, is intended to keep densities low within the Airport Interest Area while still allowing for a reasonable use of land. Guidelines for the Airport Estate Residential category are:

a. Standard Residential: 1 acre gross with ten percent (10%) Airport-Related Open Space required.

b. Optional Residential: None

c. Soundproofing measures should be encouraged in building construction standards for new residential construction to lessen noise impacts due to airport operations.

d. Avigation easements should be obtained whenever possible and required for all new subdivisions. Public disclosure statements should be filed of record for all properties located within the designated Airport Interest Area notifying property owners of the special land use restrictions for this area.

3. Airport Estate Residential (B)

This category, similar to the Airport Rural Residential category, is intended to keep densities low within the Airport Interest Area while still allowing for a reasonable use of land. Guidelines for the Airport Estate Residential category are:


b. Optional Residential: 1 acre gross if Airport Commission approves Airport-Related Open Space Plan for at least ten percent (10%) of the total gross acreage to be Airport-Related Open Space.

c. Soundproofing measures should be encouraged in building construction standards for new residential construction to lessen noise impacts due to airport operations.

d. Avigation easements should be obtained whenever possible and required for all new subdivisions. Public disclosure statements should be filed of record for all properties located within the designated Airport Interest Area notifying property owners of the special land use restrictions for this area.
4. **Airport Estate Residential (C)**

This category, similar to the Airport Rural Residential category, is intended to keep densities low within the Airport Interest Area while still allowing for a reasonable use of land. Guidelines for the Airport Estate Residential category are:

a. **Standard Residential:** 1-acre minimum lot size if Emergency Landing Areas are provided. Airport-Related Open Space not necessary.

b. **Optional Residential:** 1 acre gross if Emergency Landing Areas are provided and if Airport Commission approves Airport-Related Open Space.

c. To the extent practicable, residences and dense uses should be located on adjoining or nearby property that is outside this area by utilizing “density transfers” or “land use intensity shifts” as described in Chapter 1, Section 2, of this Plan with respect to the Primary Flight Corridor Areas, or, perhaps, by utilizing “Transfer of Development Rights,” as described in Chapter 4, Section 3, of this Plan.

d. Soundproofing measures should be encouraged in building construction standards for new residential construction to lessen noise impacts due to airport operations.

e. Avigation easements should be obtained whenever possible and required for all new subdivisions. Public disclosure statements should be filed of record for all properties located within the designated Airport Interest Area notifying property owners of the special land use restrictions for this area.

5. **Low Density Residential (LDR)**

The Low Density Residential category tries to achieve what is considered a "standard single-family residential" category while still maintaining the goal and objectives of this Plan. It is intended that this category be limited in its usage as shown on the Future Land Use Map (Exhibit J herein) due to the higher residential densities permitted under this category. Guidelines for the Low Density Residential category are:

a. Maximum density not to exceed 1 to 5 dwelling units per acre if Emergency Landing Areas are provided.

b. Optional Residential: None

c. Soundproofing measures should be encouraged in building construction standards for new residential construction to lessen noise impacts due to airport operations.

d. Avigation easements should be obtained whenever possible and required for all new subdivisions. Public disclosure statements should be filed of record for all properties located within the designated Airport Interest Area notifying property owners of the special land use restrictions for this area.

6. **Medium Density Residential**

The purpose of the Medium Density Residential category is to provide for areas where moderate density housing may be appropriate. Guidelines for this category are:

a. Maximum density not to exceed 12.5 dwelling units per acre.

b. Soundproofing measures should be encouraged in building construction standards for new residential construction to lessen noise impacts due to airport operations.

c. Avigation easements should be obtained whenever possible and required for all new subdivisions. Public disclosure statements should be filed of record for all properties located within the designated Airport Interest Area notifying property owners of the special land use restrictions for this area.
located within the designated Airport Interest Area notifying property owners of the special land use restrictions for this area.

7. **General Commercial**

The purpose of the General Commercial category is to provide for areas that can meet the immediate retail needs of the surrounding neighborhoods and communities. Typical land uses for this category include low to medium intensity office, retail, and commercial service uses. Guidelines for this category are:

a. Low intensity office uses only. Meeting places, auditoriums, and the like are not recommended.

b. Factors to consider include: labor intensity, explosive/inflammable characteristics, structural coverage, emissions of vapor which could lead to fogging, size of establishment, occupant density, peak period concentrations (including shoppers/visitors).

c. Soundproofing measures should be incorporated into the design and construction of portions of these buildings where the public is received, office areas, or where normal noise levels are low.

d. Avigation easements should be obtained whenever possible and required for all new subdivisions. Public disclosure statements should be filed of record for all properties located within the designated Airport Interest Area notifying property owners of the special land use restrictions for this area.

8. **Airport Compatible Business**

The Airport Compatible Business category is intended to provide areas near the airport for the location of businesses which are inter-related to the airport and its operations. It is anticipated that this category will include office/showroom, warehouse/distribution and commercial-support land uses, as well as uses such as aircraft charter services, and the like. Guidelines for this category are:

a. Low intensity office uses only. Meeting places, auditoriums, and the like are not recommended.

b. Required buffering and screening of any outdoor storage areas.

c. Factors to consider include: labor intensity, explosive/inflammable characteristics, structural coverage, emissions of vapor which could lead to fogging, size of establishment, occupant density, peak period concentrations (including shoppers/visitors).

d. Soundproofing measures should be incorporated into the design and construction of portions of these buildings where the public is received, office areas, or where normal noise levels are low.

e. Avigation easements should be obtained whenever possible and required for all new subdivisions. Public disclosure statements should be filed of record for all properties located within the designated Airport Interest Area notifying property owners of the special land use restrictions for this area.

9. **Public/Institutional**

The Public/Institutional category shown on the Future Land Use Map reflects the existing and proposed public/semi-public or institutional uses in the Airport Interest Area. Any future public/institutional facilities developed within the Airport Interest Area should be located within the designated Airport Interest Area notifying property owners of the special land use restrictions for this area.
evaluated under the scrutiny of the land use restrictions governing crowd size contained in the following Chapter III, Section 4, herein. Guidelines for this category are:

a. Soundproofing measures should be incorporated into the design and construction of portions of any buildings where the public is received, office areas, or where normal noise levels are low.
b. Avigation easements should be obtained whenever possible and required for all new subdivisions. Public disclosure statements should be filed of record for all properties located within the designated Airport Interest Area notifying property owners of the special land use restrictions for this area.

10. Park/Open Space

The Park/Open Space category reflects existing and proposed parks and recreational open space areas and designated floodplain areas. It also reflects the Master Park Plan for both the Cities of Overland Park and Olathe. The designation of this category affirms the Plan’s commitment to preserve and protect the natural environment. Guidelines for this category are:

a. Recreational facilities should be low intensity. Spectator sports, including arenas, auditoriums and concert halls, outdoor amphitheaters and music shells, should not be developed in the Airport Interest Area.
b. Soundproofing measures should be incorporated into the design and construction of portions of any buildings where the public is received, office areas, or where normal noise levels are low.
c. Avigation easements should be obtained whenever possible and required for all new subdivisions. Public disclosure statements should be filed of record for all properties located within the designated Airport Interest Area notifying property owners of the special land use restrictions for this area.

Section 4. Land Use Restrictions

The protection of the public's health, safety, and welfare is of paramount interest to this plan. Toward that goal, guidelines have been established to lessen or prevent noise impacts affecting the public and the surrounding landowners. In a further attempt to secure the public's welfare, and in order to guide future land use decisions within the Executive Airport Interest Area, it is the policy of this Comprehensive Compatibility Plan to prohibit the development of any use which compromises the efficient and safe operation of the airport. Therefore, it is recommended that no use be made of land or water within any portion of the Airport Interest Area which would in any manner:

1. Create electrical or electronic interference with navigational signals or radio or radar communication between the airport and the aircraft,
2. Make it difficult for pilots to distinguish between airport lights and others,
3. Result in glare in the eyes of pilots using the airport,
4. Impair visibility in the vicinity of the airport,
5. Otherwise in any way endanger or interfere with the landing, takeoff, or maneuvering of aircraft,
6. Create bird strike hazards or promote large population concentrations of birds such as wetlands or permanent impoundments of water (see paragraph below), or
7. Emit or discharge smoke that would interfere with the health and safety of pilots and the public in the use of the airport.
New wetlands and new, permanent impoundments of water should be located one (1) mile or more from the sides and ends of the runway of the Executive Airport. If wetland mitigation is required for a project within one (1) mile of the runway of the Executive Airport, an exception to allow new wetland construction approved by the U.S. Army Corps of Engineers should be possible upon demonstration, supported by substantial evidence, that it is impractical to provide the required wetland mitigation elsewhere. Similarly, exceptions for existing wetlands proposed to be in a planned development located within one (1) mile of the airport runway should be possible if the wetland provides a unique ecological function, such as critical habitat for threatened or endangered species or ground water recharge. Such mitigation must be compatible with safe airport operations, and enhancing such mitigation areas to attract wildlife that could be hazardous to airport operations should be avoided.

Furthermore, single land uses which attract crowds in excess of 500 persons at any one time (such as hospitals, schools, theaters, arenas, stadiums, and the like), or concentrate persons who are unable to respond to emergency situations (such as children, elderly, or handicapped, such as day care establishments, nursing homes, and elderly care or special care facilities) should be evaluation carefully due to the large concentration of persons at such facilities. Such uses may be found to be appropriate within the Airport Interest Area based upon a thorough evaluation of the scope of the proposed development at the proposed location with regard to airport compatibility issues.

**Section 5. Future Land Use - Present Zoning Inconsistencies**

Within the Johnson County Airport Interest Area boundaries, there are some locations where the future land use designation as shown on the Future Land Use Map is not consistent with the present zoning of the property. (Exhibit K herein identifies the existing zoning of all lands located within the Johnson County Airport Interest Area at the time of adoption of this Plan.) In these cases, it is the intent of this Plan to identify what is considered to be the most compatible land use of the property with regard to the goal and objectives contained herein. It is understood that any property zoned in such a way that it is currently incompatible with the Future Land Use Map designation may develop within the parameters of its current zoning. However, any future rezoning of such property is to be evaluated with respect to its consistency with the Future Land Use Map and the goal and objectives contained within this Plan.

Specifically, those parcels of land which have been identified to be inconsistent with regard to their present zoning classification and which are currently zoned for uses more intensive than the designation shown on the Future Land Use Map are as follows:

A. The West 1/2 of the Northeast 1/4 of Section 4, Township 14 South, Range 24 East, located in the City of Olathe (approximately 80 acres); Current zoning: R-A, Single-Family Residential (20,000 sq. ft. min. lot size) and R-1, Single-Family Residential (7,200 sq. ft. min. lot size); Future land use: Airport Estate Residential (1 acre min. lot size).

B. The North 1/2 of the Northeast 1/4 of the Northeast 1/4 of Section 3, Township 14 South, Range 24 East, located in the City of Olathe (approximately 20 acres); Current zoning: R-1, Single-Family Residential (7,200 sq. ft. min. lot size); Future land use: Airport Estate Residential (1 acre min. lot size).

C. The Southwest 1/4 of Section 15, Township 14 South, Range 24 East, located in the City of Overland Park (approximately 160 acres); Current zoning: R-1, Single-Family Residential (8,000 sq. ft. min. lot size); Future land use: Airport Rural Residential (2 acre min. lot size).
NOTE: This zoning map shows the base zoning categories in the vicinity to the airport on the date of adoption of the Johnson County Executive Airport Comprehensive Compatibility Plan. Amendments to this zoning map with respect to unincorporated Johnson County areas shall be shown on the "Zoning Map of Johnson County, Kansas." See also the Zoning and Subdivision Regulations.

GENERAL ZONING CATEGORIES
- Agricultural
- Business-Commercial
- Business-Office
- Civic/Parks
- Industrial
- Multi-Family Residential
- Multi-Use
- Single-Family Residential

Executive Airport Boundary

AIRPORT INTEREST AREA

EXHIBIT K
EXISTING ZONING MAP

1 Miles

1 0 1 Miles

Johnson County Executive Airport Comprehensive Compatibility Plan December 16, 2004
Adopted December 16, 2004, BOCC Res. 111-04 Page -32-
Johnson County Airport Commission
Johnson County, Kansas
CHAPTER IV. CRITICAL ISSUES AND STRATEGIES

Section 1. Overview

The identification of various strategies and policies which strive to promote compatibility between the airport and its environs is the second objective of this Plan. Previously identified were three issues which are considered to be critical to the success of this Compatibility Plan: noise attenuation, development controls, and corrective or remedial actions. These three issues are discussed herein along with strategies which may be considered to address these issues.

Section 2. Noise Attenuation

The minimization of aircraft noise impacts on the surrounding area is the first primary concern identified in this Plan for striving to achieve airport-environs compatibility. People's concerns about aircraft noise are often reflections of the degree to which the aircraft intrudes on existing ambient noise exposure patterns. Where ambient noise is typically low, such as in the vicinity of Executive Airport, aircraft noise, though less in comparison to that which occurs at larger airports, might be perceived to be a problem. The identified Noise Impact Area for Johnson County Executive Airport is shown in Exhibit F herein. This area, which projects noise contours for this Plan, was defined based upon the Airport's commitment not to extend the existing runway. Although some sensitivity to noise may occur at lower levels, it is within the area identified by the 65 Ldn contour and above where noise exposure levels are recognized by the FAA as being significant. It is noted that this area is contained wholly on airport-owned property. The 60 Ldn contour (also shown on Exhibit F), though not considered by the FAA to be as significant in terms of noise exposure levels, is also included in the Noise Impact Area for this Plan.

Ldn (day-night average sound level) is defined as the average A-weighted sound levels measured in decibels in a 24-hour period (midnight to midnight). A 10 decibel (dB) penalty is applied to noise events occurring at night (10:00 p.m to 7:00 a.m.). For comparative purposes, Exhibit L herein identifies common outdoor and indoor sounds and their noise level in average decibels. Given this comparison, it is concluded that those areas outside the 60 Ldn contour as shown on Exhibit F would not experience significant noise impacts from the airport operations. For the purposes of this Plan, areas with 60 Ldn or greater noise exposures (inside the 60 Ldn contour) are the areas of greatest concern for attenuation of aircraft noise impacts, though noise attenuation concerns are important throughout the Airport Interest Area. Therefore, in order to provide for the public's welfare for a pleasing environment, the need for noise attenuation measures are recommended for all areas located within the boundaries of the Johnson County Airport Interest Area.

Because the Ldn contours can be difficult to understand, a comparison of Ldn contours with Single Exposure Level (SEL) data is provided. SEL is a measure of single event noise accounting for duration and magnitude at a given location, or sometimes best understood as the dose of noise associated with a single aircraft event. The following table provides SEL data for selected locations in the Executive Airport Interest Area. The points identified in this table are shown in Exhibit M herein. From this, one can see that SEL readings are generally much higher than Ldn contours.
### Comparison of Ldn and SEL Values

<table>
<thead>
<tr>
<th>Noise Exposure Analysis Points</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ldn Value</td>
<td>50.3</td>
<td>46.4</td>
<td>64.0</td>
<td>52.6</td>
<td>47.5</td>
<td>61.7</td>
<td>56.7</td>
<td>43.8</td>
</tr>
<tr>
<td>SEL Values</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cessna Citation (turbofan)</td>
<td>75.1</td>
<td>75.7</td>
<td>91.2</td>
<td>81.4</td>
<td>72.3</td>
<td>88.0</td>
<td>85.5</td>
<td>66.0</td>
</tr>
<tr>
<td>Cessna 441 (turboprop)</td>
<td>70.0</td>
<td>70.5</td>
<td>85.7</td>
<td>74.6</td>
<td>66.2</td>
<td>82.8</td>
<td>78.4</td>
<td>68.7</td>
</tr>
<tr>
<td>Beech Baron (twin piston)</td>
<td>78.4</td>
<td>79.0</td>
<td>92.8</td>
<td>83.6</td>
<td>76.1</td>
<td>90.4</td>
<td>87.3</td>
<td>74.6</td>
</tr>
<tr>
<td>Single engine piston</td>
<td>77.3</td>
<td>70.5</td>
<td>89.0</td>
<td>75.8</td>
<td>69.7</td>
<td>87.1</td>
<td>80.0</td>
<td>67.3</td>
</tr>
<tr>
<td>Number of daily events above 90 SEL</td>
<td>0.0</td>
<td>0.0</td>
<td>23.8</td>
<td>0.0</td>
<td>0.0</td>
<td>22.9</td>
<td>1.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Daily minutes exceeding 70 dB</td>
<td>1.1</td>
<td>0.2</td>
<td>19.1</td>
<td>3.8</td>
<td>5.6</td>
<td>18.5</td>
<td>5.2</td>
<td>0.4</td>
</tr>
</tbody>
</table>

The restriction of noise impact abatement measures is largely influenced by airport area development actions, aircraft operational characteristics, and air traffic control procedures. However, coupled with the need to minimize noise impacts on the surrounding area there are also concerns for safety of airport operations, the efficiency of aircraft operations, and the ability of the airport to service the needs of the community.

The following strategies have been identified as possible ways to promote noise control within the Noise Impact Area for the Johnson County Executive Airport. It should be noted that while the following strategies are possible, they may not be deemed to be practical for implementation. Those strategies which are determined to be practical have been identified in Chapter V, Section 2, Implementation of Strategies.

A. **Airport Development.** Development at an airport can significantly affect the location of its future noise impacts. The alignment and location of runways, terminal buildings, access roads, and avigational facilities are prime examples of development actions which influence where noise impacts will occur. The Johnson County Executive Airport has demonstrated its commitment to noise attenuation and its effect on nearby communities by reaffirming its market as a general aviation facility and by foregoing plans to expand its only runway. By so doing, the Noise Impact Area as defined remains at its minimum. Examples of possible airport development measures which may reduce the impact of aircraft noise on the surrounding areas are as follows:

1. **Construction of Noise Barriers or Shielding.** Aircraft-related noise can be reduced approximately 10 dBA in noise-impacted areas through the use of noise barriers. These barriers can be either constructed (concrete, steel, etc.) through the strategic placement of new hangers, terminal structures or accessory buildings, or planted landforms, such as landscaped berms. Plantings must be at least twenty feet wide to properly muffle and deflect noise.
### COMMON OUTDOOR/INDOOR SOUND LEVELS

<table>
<thead>
<tr>
<th>Common Outdoor Sound Levels</th>
<th>Noise Level dB(a)</th>
<th>Common Indoor Sound Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concorde Landing at 370 ft.</td>
<td>110</td>
<td>Rock Band</td>
</tr>
<tr>
<td>707 Landing at 370 ft.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>707 Takeoff at 1,000 ft.</td>
<td>100</td>
<td>Inside Subway Train, New York</td>
</tr>
<tr>
<td>Gas Lawn Mower at 3 ft.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diesel Truck at 30 ft.</td>
<td>90</td>
<td>Food Blender at 3 ft.</td>
</tr>
<tr>
<td>Noisy Urban Daytime</td>
<td>80</td>
<td>Garbage Disposal at 3 ft.</td>
</tr>
<tr>
<td>Mooney M-22 Flyover</td>
<td></td>
<td>Shouting at 3 ft.</td>
</tr>
<tr>
<td>747 Takeoff at 1,000 ft.</td>
<td>70</td>
<td>Vacuum Cleaner at 10 ft.</td>
</tr>
<tr>
<td>Cessna 150 Flyover</td>
<td></td>
<td>Normal Speech at 3 ft.</td>
</tr>
<tr>
<td>Commercial Area</td>
<td>60</td>
<td>Large Business Office</td>
</tr>
<tr>
<td>Quiet Urban Daytime</td>
<td>50</td>
<td>Dishwasher next room</td>
</tr>
<tr>
<td>Quiet Urban Nighttime</td>
<td>40</td>
<td>Small Theater, Large Conference Room (Background)</td>
</tr>
<tr>
<td>Quiet Suburban Nighttime</td>
<td>30</td>
<td>Library</td>
</tr>
<tr>
<td>Quiet Rural Nighttime</td>
<td>20</td>
<td>Bedroom at night</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>Concert Hall (Background)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Broadcast and Recording Studio</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Threshold of Hearing</td>
</tr>
</tbody>
</table>
Exhibit M Single Exposure Noise Levels (SEL) compared to Ldn Noise Contours
2. Acquisition of Land or Interest Therein. Purchase of full or partial interest in land can assure the airport of long-term protection with regard to minimizing noise impacts. This may be done in various forms and degrees from the purchase of land at fair market value, to condemnation through the airport's power of eminent domain.

3. Avigation Easements. As an alternative to outright land acquisition, the dedication of an avigation easement may be used as a requirement for proposed development.

B. Operational Procedures. Control over the operation of aircraft on and around the airport is a sensitive subject involving safety as well as service and efficiency. Yet, central to the development of a compatibility plan is the need to keep aircraft and the footprints of the noise patterns within defined areas where noise sensitive uses have been minimized or excluded. Examples of possible operational procedures targeted to effect noise control may include, but are not limited to, the following:

1. Restrictions on ground movement of aircraft;
2. Restrictions on engine runups or use of ground equipment (identifying times of day and limiting locations);
3. Raise glide slope angle or intercept;
4. Power and flap management;
5. Limited use of reverse thrust;

Due to the limited size and types of aircraft operating at Johnson County Executive Airport, items 3, 4, and 5, above mentioned, were evaluated and determined to be impractical for implementation. Items 1 and 2 were determined to be feasible for implementation and are further considered in this Plan. It should be noted that altering standard airport/aircraft operational procedures is not supported by the Johnson County Airport Commission nor recommended by this Plan because critical safety standards are compromised. Therefore, any modifications or restrictions in standard operational procedures should only be considered after careful consideration of all other potentially feasible alternatives and after thorough consultation with the affected parties and the Federal Aviation Administration.

C. Other Options. Other controls to further noise attenuation within the Noise Impact Area and throughout the Airport Interest Area may include:

Soundproofing. The use of soundproofing can reduce interior noise from 10 to 25 decibels. All types of new construction, particularly residential construction and non-residential uses that typically have low noise levels (i.e. offices), can benefit from soundproofing, and additional benefits can be gained from the extra heating/cooling insulation that soundproofing provides. Soundproofing and insulation techniques may include double-glazed windows, acoustical doors, gasketing of enclosure doors, staggering of structural members ("isolated double membrane" building construction), and new ventilation systems, as well as ceiling and wall insulation. Though soundproofing does not completely eliminate exterior noise effects within the home, it does reduce it to a more tolerable range.
Section 3. Development Controls

The appropriate application of land use and development controls can serve to deter the development of incompatible land uses, and can serve to protect certain areas for the maintenance of operationally safe and obstruction free approaches, which is the second primary concern of this Compatibility Plan. Although 99.99% of all general aviation flights are completed without accident, according to the 1990 statistics of the National Transportation Safety Board (NTSB), 49% of those accidents occurred off of the runway but within two (2) miles it. The following table summarizes the 1990 NTSB statistics on aircraft accidents given their location and occurrences.

<table>
<thead>
<tr>
<th>Location of Accident</th>
<th>Occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
</tr>
<tr>
<td>• On the runway</td>
<td>85</td>
</tr>
<tr>
<td>• On airport property (including clear zones), but off of runway</td>
<td>532</td>
</tr>
<tr>
<td>• Off airport property, but within 2 mile of runway</td>
<td>645</td>
</tr>
<tr>
<td>• More than 2 mile from runway</td>
<td>1,132</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2,394</td>
</tr>
</tbody>
</table>

A variety of different controls are normally available to local governments and/or airport operators to prevent hazardous intrusions which may be incompatible with airport operations. The controls which are generally considered most useful for achieving airport compatibility are discussed below.

A. **Zoning.** The most common and useful land use control is zoning. Zoning is an exercise of the police powers of the state and local governments which designates the uses permitted on each parcel of land. It normally consists of a zoning ordinance which delineates the various use districts and includes a zoning map based upon the land use element of the community's comprehensive plan, of which this Comprehensive Compatibility Plan is a part. The primary advantage of zoning is that it can promote compatibility while leaving the land in private ownership, on the tax rolls, and economically productive. At the same time, it is subject to change and must be continually monitored if it is to remain a viable compatibility tool. Zoning should be applied fairly and should be considered in conjunction with the Future Land Use Map as set forth herein. For zoning to be viable, there should be a reasonable present or future need for each designated use. Used within its limitations, zoning is the preferred method of controlling land use in striving to achieve airport-environs compatibility.

Land use control by zoning may be accomplished in a variety of ways: 1) through the use of conventional zoning, 2) with the use of conditional use permits, or 3) permitted under the scrutiny of planned district zoning. Conventional zoning is when permitted uses are specified for each zoning district, and development consistent with the permitted use list is allowed without formal plan review requirements. However, zoning utilizing conditional use permits and planned district zoning are encouraged within the Airport Interest Area where appropriate in order to insure more compatible development patterns between the airport and its environs. Through the use of conditional use permits, the zoning regulations specify standards for specific land uses, known as conditional uses. The landowner requesting a specific land use for a particular...
tract of land agrees to comply with these standards as part of the land use approval. Conditions which might be appropriate for airport area sites might include, for example, conditions that impose soundproofing standards at time of construction. Planned district zoning, which is the preferred choice for assuring land use compatibility with airport operations, adds a site development plan review to the elements of conventional zoning. Uses permitted in the zoning district may be developed only after review and approval by the governing body of a specific plan for the development of the site. Within certain parameters, the permitted development is "negotiated" between the landowner and the local government, thereby providing an appropriate method of analyzing and insuring airport-environ compatibility on a parcel-by-parcel scale.

B. Easements. Easements may be used as an effective and permanent form of land use control. An easement is a right held by one person to make use of the land of another for a limited purpose. In the context of airport compatibility planning, an easement may take several forms, such as a positive easement which allows the right of avigation and the right to make noise over someone's property, or a negative easement which prevents the creation or continuation of incompatible land uses on the property. Easements can be an effective strategy for assuring compatible development around airports. One major advantage of easements is that they can be permanent, whereas zoning may be easily changed. Acquisition of easements does not by and of itself change incompatible land uses to compatible uses or reduce the impact that airport operations have on the property, but the easement acquisition price can and should be dedicated to making the necessary change in use and constructing soundproofing measures to achieve compatibility with the airport. Easements can be obtained in a number of ways including purchase, condemnation, and dedication (either voluntary or required at time of subdivision).

C. Transfer of Development Rights (TDR). TDR involves separate ownerships and the use of various "rights" associated with a parcel of land. Under the TDR concept, some of the property's development rights are transferred to an alternate location where they may be used to intensify allowable development. For example, lands identified within the primary flight corridor of the extended runway could be kept in open space or agricultural uses and their development rights for residential uses transferred to locations outside the corridor. This concept is encouraged in the areas identified on the Future Land Use Map as the "Primary Flight Corridor" (extended north and south along the extended runway) (see also Exhibit G herein). Landowners could be compensated for the transferred rights by selling the development rights at the new location. In order to be a viable option, the TDR approach must be fully coordinated with the overall planning and zoning process and it is recommended that this be achieved through the use of Planned Zoning (discussed in paragraph 1 above).

D. Land Purchase and/or Land Banking with Restrictive Covenants. Purchase of land is simple by the airport is the most positive of all forms of land use control, but it is usually the most expensive. However, when combined with either resale for compatible uses (land banking with restrictive covenants) or retention and use for a compatible public purpose, the net cost may be effectively reduced and be found to be reasonable. Due to the cost of this alternative, purchase of land, either through negotiation with the property owner or condemnation, should usually be confined to critical locations most closely impacted by airport operations.

E. Height Restrictions. Height restrictions are necessary to insure that objects will not impair flight safety or decrease the operational capability of the airport. Federal

<table>
<thead>
<tr>
<th>Johnson County Executive Airport Comprehensive Compatibility Plan</th>
<th>December 16, 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adopted December 16, 2004, BOCC Res. 111-04</td>
<td>Page -39-</td>
</tr>
<tr>
<td>Johnson County Airport Commission</td>
<td>Johnson County, Kansas</td>
</tr>
</tbody>
</table>
Aviation Regulations (FAR) Part 77, Objects Affecting Navigable Airspace, define a series of imaginary surfaces surrounding airports. Exhibit N herein identifies these imaginary surfaces for approach zones, conical zones, transitional zones and horizontal zones. Any object or structure which would penetrate any of these imaginary surfaces is considered by the FAA to be an obstruction to air navigation. Therefore, height restrictions on proposed developments within the airport area in accordance with FAR Part 77 is an essential element of development control in assuring safety of the airport and the public. While details on specific height restrictions should be included in the development of zoning regulations for the Airport Interest Area, it is recommended by this Plan to adhere to and support the height restriction guidelines as set forth by the Federal Aviation Administration in FAR Part 77. It should be noted, however, that the area for which Part 77 Height Regulations cover, extends outside of the Airport Interest Area boundaries. Therefore, compliance with these regulations outside of the Airport Interest Area boundary would remain the authority of the jurisdiction in which the area is located.

Section 4. Corrective Actions

In cases where there are existing incompatibilities between land use and airport operations, corrective or remedial actions may be appropriate. Examples of possible actions that may be used to mitigate existing incompatibilities include: 1) changes in land use, 2) soundproofing, and 3) acquisition of full or partial interest in the land.

A. Changes in Land Use. Changes in the use of land to uses which are more compatible with airport operations are an obvious and practical strategy to resolving airport-environs incompatibilities. Approaches to encourage this transition may include the constructive use of planning and zoning; encouragement of existing favorable trends (i.e. redevelopment of older residential areas to non-residential uses); constructive use of public capital improvement projects to encourage development; and voluntary relocation programs.

B. Soundproofing. Compatibility may also be achieved through the implementation of a voluntary soundproofing program for existing incompatible structures. The general condition, age and repair of a structure normally dictate the degree of soundproofing application. While soundproofing is both a feasible and practical means of alleviating the impact of airport operations, particularly aircraft noise impacts, the analysis of its usefulness (benefits vs. costs) should be made on a case-by-case basis giving careful consideration of the condition and age of the existing structure.

C. Acquisition of Full or Partial Interest In Land. There are, in some cases, locations or circumstances which leave little choice other than direct acquisition of full or partial interest in the impacted land. While this option might be considered as a last resort due to the high costs it involves, the acquisition of land may be used for airport or airport related uses, for other public uses, or for compatible resale.
Exhibit N  Height Restrictions; Imaginary Surfaces in Accordance with Federal Aviation Regulations Part 77
CHAPTER V. IMPLEMENTATION

This Comprehensive Compatibility Plan evolved as a cooperative and coordinated effort between the Cities of Overland Park and Olathe, Johnson County Airport Commission and Johnson County. Multiple perspectives and multiple degrees and areas of interest were considered in the development of this Plan. Therefore, it is anticipated that administration and implementation of this Plan will also be the result of multi-jurisdictional cooperation.

Section 1. Administration of Plan

Upon adoption of this Comprehensive Compatibility Plan and the Future Land Use Map contained herein by all participating jurisdictions, any existing Comprehensive Plan previously adopted by any of the jurisdictions will be replaced by this Plan for those portions of the Airport Interest Area contained within their jurisdictional boundaries. Exhibit O herein identifies the current jurisdictional boundaries at the time of Plan adoption. In that regard, it will be the responsibility of each jurisdiction to administrate and support the goals, objectives, and strategies contained within this Plan as it relates to the growth of their community.

The elements of this Plan, including the future land use designations identified on the Future Land Use Map, shall be supported and implemented by each participating jurisdiction. Any proposed rezoning or conditional or special use permit for development of property within the Airport Interest Area shall be in conformance with the land use designation shown on the Future Land Use Map. If any proposed rezoning or conditional or special use permit is not in conformance with the Future Land Use Map designations, said proposal shall be processed by the jurisdiction in which the property is located with final approval or denial granted by the Johnson County Board of County Commissioners after review and recommendation by the Johnson County Airport Commission and all participating jurisdictions. Exhibit P herein conceptually illustrates this review process, although it is intended for the airport zoning regulations, adopted pursuant to this Plan, to specifically identify those review procedures.

Section 2. Implementation of Strategies

Chapter IV of this Plan identified several issues which are considered to be critical to achieving airport-environs compatibility. Also suggested were possible strategies to achieve this end. Within Chapter V of this Plan, specific implementation strategies are recommended and an implementation matrix is identified.

It should be noted that while Chapter IV of this Plan identified a wide range of general strategies, some strategies may not be practical for implementation at the Johnson County Executive Airport. Therefore, this Chapter of the Plan identifies only those strategies which are feasible for implementation within the Executive Airport Interest Area. Recommended implementation strategies are identified in Exhibit Q herein, the implementation matrix, by the same categorizations as discussed in Chapter IV: noise attenuation, development controls, and corrective actions.

Section 3. Amendment Process

As recommended by Kansas state law, this Plan shall be reviewed annually through the joint coordination of representatives from all participating jurisdictions hereto, with revisions and compliance changes enacted as needed. Compliance changes shall consist of those amendments to the Future Land Use Map necessitated by the previous approval of those rezonings or conditional or special use permits which were inconsistent with the Future Land Use Map.
AMENDMENTS TO THE COMPREHENSIVE COMPATIBILITY PLAN

(e.g.: Request for Zoning which is inconsistent with the Land Use Designation shown on the Future Land Use Map)

1. Originating City e.g.: City of Olathe

2. Olathe Planning Commission
   Public Hearing and Recommendation

3. Olathe City Council
   Recommendation to Airport Commission and Board of County Commissioners

4. Joint Review:
   Johnson County Airport Commission staff and Johnson County Planning Staff
   (including review and comment from all participating jurisdictions)

5. Board of County Commissioners
   Review and Final Approval or Disapproval

6. Appeals through procedures established in Interlocal Agreement

EXHIBIT P
Review and Approval Process for Plan Amendment
### Exhibit Q

#### IMPLEMENTATION MATRIX

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Mechanism</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Noise Attenuation</strong></td>
<td></td>
</tr>
<tr>
<td>• Construction of Noise Barriers on Airport Property</td>
<td>Airport Commission</td>
</tr>
<tr>
<td>• Restrictions on ground movement of aircraft and on engine runups or use of ground equipment</td>
<td>Airport Commission</td>
</tr>
<tr>
<td>• Acquisition or Dedication of Avigation Easements</td>
<td>Airport Commission/Avigation Easements</td>
</tr>
<tr>
<td>• Encourage Soundproofing Standards For New Construction</td>
<td>Zoning and Subdivision Regulations</td>
</tr>
<tr>
<td><strong>2. Development Controls</strong></td>
<td></td>
</tr>
<tr>
<td>• Zoning Controls: Conventional, Conditional Use Permits, and Planned Districts</td>
<td>Zoning Regulations</td>
</tr>
<tr>
<td>• Acquisition or Dedication of Easements</td>
<td>Zoning and Subdivision Regulations</td>
</tr>
<tr>
<td>• Transfer of Development Rights</td>
<td>Zoning and Subdivision Regulations</td>
</tr>
<tr>
<td>• Land Purchase/Land Banking</td>
<td>Airport Commission</td>
</tr>
<tr>
<td>• Height Restrictions</td>
<td>Zoning Regulations</td>
</tr>
<tr>
<td><strong>3. Corrective Actions</strong></td>
<td></td>
</tr>
<tr>
<td>• Changes in Land Use</td>
<td>Zoning Regulations</td>
</tr>
<tr>
<td>• Encourage Soundproofing Standards in Existing Structures</td>
<td>Technical Assistance at Local/County Levels</td>
</tr>
<tr>
<td>• Public Disclosure Statements</td>
<td>Zoning and Subdivision Regulations</td>
</tr>
</tbody>
</table>

Many of the above identified strategies shall be implemented through the cooperative inter-jurisdictional administration of Zoning and Subdivision Regulations for the Johnson County Executive Airport Interest Area. Other strategies such as land and/or easement acquisition, land banking, or airport property development shall be implemented by the Johnson County Airport Commission and the County of Johnson as is deemed to be financially appropriate.
GLOSSARY

*A-weighted Sound Level (also referred to as dBA).* The sound pressure level which has been filtered or weighted to reduce the influence of the low and high frequency noise; designed to approximate the response of the human ear to sound and has been found to correlate well with people's subjective judgment.

*Airport-Related Open Space.* Is to be defined by the local jurisdiction in which the development is proposed. For the unincorporated area, “Open space areas approved by the Airport Commission which may include Emergency Landing Areas (ELAs), natural open space areas such as woodland, floodplain, and streamway corridors, parkland (natural or passive recreational areas only), and other open areas free of facilities or locations where large groups of people may congregate.”

*Average Day-Night Sound Level (Ldn).* A day/night average sound level which is the twenty-four-hour average sound level, in decibels on the A scale, obtained after the addition of ten (10) decibels to sound levels during the night from 10:00 p.m. to 7:00 a.m., as averaged over a span of one year; the Federal Aviation Administration standard metric for determining the cumulative exposure of individuals to noise.

*Avigation Easement.* An air rights easement which protects air lanes around airports.

*Compatibility.* The degree to which land uses or types of development can coexist or integrate.

*Conditional (or Special) Use.* A use permitted in a particular zoning district only upon showing that such use in a specified location will comply with all the conditions and standards for the location or operation of such use as specified in the zoning ordinance and authorized by the planning board.

*Density.* The number of families, individuals, dwelling units, or housing structures per unit of land. (See also Intensity.)

*Easement.* A grant of one or more of the property rights by the property owner to and/or for the use by the public, a corporation, or another person or entity. (See Avigation Easement.)

*Floodplain.* The channel and the relatively flat area adjoining the channel of a natural stream or river which has been or may be covered by floodwater.

*Future Land Use Map.* A map which is part of this Plan identifying the planned utilization and the desirable intensity of a given parcel of land over the time horizon of this Plan; this map will be a guide to future zoning decisions.

*Goal.* The generalized overriding purpose of this Plan which identifies desirable future conditions.

*Intensity.* The degree to which land is used; while frequently used synonymously with the term "density", intensity has a broader meaning, referring to levels of concentration, or activity in certain uses.
**Issues.** The major areas of concern that are covered in this Plan (e.g. noise attenuation, development control).

**Land Banking.** The purchase of property by the government to be held for future use and development either by the government or for resale for the development of compatible uses.

**Nautical Mile.** Equivalent to 1.15 times a statute mile, or 6,072 feet.

**Noise Attenuation.** The policy of lessening or minimizing noise impacts to nearby properties due to airport operations.

**Noise Contour.** A continuous line on a map of the airport vicinity connecting all points of the same noise exposure level.

**Nonconforming Use.** A use of activity which was lawful prior to the adoption, revision, or amendment of a zoning ordinance, but which fails, by reason of such adoption, revision, or amendment, to conform to the present requirements of the zoning district.

**Objectives.** Objectives represent tangible steps to achieve identified goals.

**Open Space.** Land left undeveloped either for a specific purpose (such as for airport operations) or which is unsuitable for development, including parkland, recreational areas, and floodplain areas.

**Planned Zoning.** Similar to conventional zoning but adds a site development plan review to the process; uses permitted in the zoning district may be developed only after review and approval by the governing body of a specific plan for the development of the site. Planned zoning encourages more flexible development of land rather than the rigidity associated with conventional zoning; concepts such as transfer of development rights, zero-lot line development, and cluster housing, are typically developed under Planned Zoning.

**Primary Flight Corridor.** A 500' wide open strip of land located along the extended centerline of the airport runway; it is within this area where it is considered important to discourage development due to the area's increased potential for accidents.

**Single Exposure Level (SEL).** SEL is a measure of single event noise accounting for duration and magnitude at a given location, or sometimes best understood as the dose of noise associated with a single aircraft event.

**Special Use.** See Conditional Use.

**Statute Mile.** Equivalent to one land mile, 5,280 feet. (See also Nautical Mile.)

**Strategy.** A specific set of actions which will enable the goals and objectives of this plan to be carried out.

"Touch and Go". Refers to an aircraft which lands then makes an immediate takeoff without coming to a full stop or exiting the runway. These operations are normally associated with training and are considered as local operations.
Transfer of Development Rights (TDR). The removal of the right to develop or build, expressed in dwelling units per acre, from land in one location to land in another location where such transfer is permitted.

Zoning (Conventional). An exercise of the police powers of the State, as delegated to local governments, designating the uses permitted on each parcel of land within the zoning jurisdiction.

REFERENCE SOURCES


The Economic Impact of Johnson County Executive Airport and Johnson County Industrial Airport. CERI Research Papers, Johnson County Economic Research Institute, September 27, 1990.
Rural Comprehensive Plan
A Plan for the Unincorporated Area of Johnson County

PART 4

New Century AirCenter
Comprehensive Compatibility Plan

Adopted by
The Board of County Commissioners
Resolution 013-96

Recommended by
The County Planning Commission
Johnson County, Kansas

For Consideration by the
City of Olathe, Kansas,
and the
City of Gardner, Kansas

Reviewed by the
Johnson County, Kansas Airport Commission

1995 - 1998 Refinements to the Plan adopted by
Board of County Commissioners Resolution 71-86.
The Plan was amended and Part 2 was added by Resolution 081-91, August 22, 1991, and
Parts 3 and 4 were added by BOCC Resolution 020-94, March 17, 1994.
Parts 1, 2, and 4 were amended and Parts 5 and 6 added by BOCC Resolution 013-96, February 8, 1996, and
Parts 7 and 8 were added by BOCC Resolutions 078-98 and 079-98 respectively, July 23, 1998.
Part 1 was amended and one page of Part 5 was corrected by BOCC Resolution 068-99, July 29, 1999.

Johnson County Department of Planning, Development and Codes
Johnson County, Kansas
February 8, 1996

111 South Cherry, Olathe, KS 66061-3441
(913) 715-2201
Rural Comprehensive Plan
A Plan for the Unincorporated Area of Johnson County

This is Part 4 of the Rural Comprehensive Plan
The Plan is printed in eight parts as follows:

PART 1
The Plan Process, Analysis, Goals and Objectives

PART 2
Supporting Data, Studies and Analysis for the Rural Comprehensive Plan

PART 3
Johnson County Executive Airport
Comprehensive Compatibility Plan

PART 4
New Century AirCenter
Comprehensive Compatibility Plan

PART 5
Blue Valley Area Plan

PART 6
K-10 Highway Corridor Plan

PART 7
Conceptual Land Use Plan, Sunflower Army Ammunition Plant

PART 8
Woodland Road Corridor Plan
New Century AirCenter

Comprehensive Compatibility Plan

Johnson County, Kansas

"For I dipt into the future, far as human eye could see,
Saw the Vision of the world, and all the wonder that would be;
Saw the heavens filled with commerce, argosies of magic sails,
Pilots of the purple twilight, dropping down with costly bales;"

Alfred Lord Tennyson
Locksley Hall
1832
# New Century AirCenter

## COMPREHENSIVE COMPATIBILITY PLAN

## TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>OVERVIEW</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Background</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Airport Interest Area</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Primary Goal and Objectives of Plan</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Critical Issues and Strategies</td>
<td>11</td>
</tr>
<tr>
<td>2</td>
<td>New Century AirCenter</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Background</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Existing Facilities</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Flying Operations</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>On-Airport Land Use</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Economic Impacts</td>
<td>18</td>
</tr>
<tr>
<td>3</td>
<td>LAND USE RECOMMENDATIONS</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Overview</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Description of Future Land Use Map</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Definition of Land Use Categories</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Land Use Restrictions</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Future Land Use-Present Zoning Inconsistencies</td>
<td>33</td>
</tr>
<tr>
<td>4</td>
<td>CRITICAL ISSUES AND STRATEGIES</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Overview</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Noise Attenuation</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Development Controls</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Corrective Actions</td>
<td>39</td>
</tr>
<tr>
<td>5</td>
<td>IMPLEMENTATION</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Administration of Plan</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Implementation of Strategies</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Amendment Process</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>GLOSSARY</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>REFERENCE SOURCES</td>
<td>47</td>
</tr>
</tbody>
</table>
LIST OF EXHIBITS

A. New Century AirCenter Airport Interest Area 3
B. Statutory One-Mile Radius vs. Airport Interest Area 4
C. Airport Interest Area Existing Land Usage 5
D. Drainage Areas 6
E. 100-Year Floodplain Areas 7
F. Noise Impact Area 12
G. Primary Flight Corridors 13
H. New Century AirCenter: Existing and Anticipated Boundaries 16
I. New Century AirCenter: Airport Land Use Plan 19
J. Future Land Use Map 24
K. Existing Zoning Map 30
L. Outdoor/Indoor Sounds and their Noise Levels 33
M. Single Exposure Noise Levels (SEL) compared to Ldn Noise Contours 34
N. Height Restrictions; Imaginary Surfaces in Accordance with Federal Aviation Regulations Part 77 38
O. Jurisdictional Boundaries 42
P. Review and Approval Process for Plan Amendment 43
Q. Implementation Matrix 44
CHAPTER I. OVERVIEW

Section 1. Background

This plan was developed as a result of the need to mitigate the potential adverse relationship between airport operations and nearby land uses in the communities surrounding New Century AirCenter. Originally, this plan began from an interest on the part of the Board of County Commissioners of Johnson County to consider implementing its statutory authority to adopt zoning and land use regulations at and within one (1) mile of the airport (pursuant to authority granted it in K.S.A. 3-307e and K.S.A. 3-701 et seq). It resulted in a cooperative and coordinated effort between Johnson County and the Cities of Gardner, Kansas and Olathe, Kansas and the Johnson County Airport Commission.

This plan strives to develop land use compatibility guidelines based upon two primary concerns associated with airport operations, and two primary concerns associated with airport area land uses and development. The two primary concerns for airport operations are: 1) to minimize aircraft noise impacts to the surrounding areas, and 2) to protect the public by maintaining operationally safe approaches. The two primary concerns for airport area land uses are: 1) to provide appropriate densities and land use types with respect to the characteristics of the sites and particularly, the influences of the airport, and 2) to provide reasonable opportunities for viable economic uses of the land while recognizing and establishing appropriate measures to balance the land use interests with the airport influences. Achieving and maintaining compatibility between the airport and its environs depends upon a delicate balance of assuring that the airport can maintain its size and level of operations to satisfy existing and future aviation demands, and assuring that persons who live, work, or own property near the airport may enjoy a maximum amount of freedom from noise or other adverse impacts of the airport. Equally important is the protection of the public investment in a facility for which there may be no feasible future replacement.

Section 2. Airport Interest Area

The Airport Interest Area for the New Century AirCenter (as shown in Exhibit A) contains 14.25 square miles (9,120 acres) and lies within the boundaries of three jurisdictions: the City of Olathe, Kansas, the City of Gardner, Kansas, and the unincorporated area of Johnson County, Kansas (shown in Exhibit O). It is for the Airport Interest Area that the goals, objectives, strategies, and Future Land Use Map of this Comprehensive Compatibility Plan applies.

While Kansas state statutes give the county statutory authority to adopt zoning and land use regulations at and within a one (1) mile radius of the airport, it was felt that this dimension could be improved and modified with respect to existing and future conditions. Therefore, the Airport Interest Area for the New Century AirCenter is a modified area, which narrows some of the east-west dimension of the statutory one (1) mile area and extends farther north and south along the extended centerline of the airport runway, thereby resulting in areas with greater and lesser than one (1) mile distances. Exhibit B herein graphically compares the statutory 1-mile radius to the modified Airport Interest Area. Specifically, the statutory 1-mile radius (compared to the modified Airport...
Interest Area) would have gained approximately an additional one-half (1/2) mile of jurisdiction to the east (Hedge Lane alignment) and approximately and additional one (1) mile to the west (Moonlight Road alignment) and would have lost approximately one (1) mile of jurisdiction to the north and south (to 135th Street on the north and 191st Street on the south). In estimated acreages, there are approximately 1,800 acres which would not be within the statutory 1-mile area but which are located within the New Century AirCenter Airport Interest Area, and approximately 4,200 acres which are within the statutory 1-mile area of the airport but not located within the Airport Interest Area. The result is that, although, a significant amount of acreage (2,400 acres net) is eliminated from the control of the county's statutory authority, the modified area, identified as the Airport Interest Area, encompasses those land areas which are considered to be most critical to airport operations and compatibility issues.

Exhibit C herein identifies the existing land usage within the Airport Interest Area. As shown in the following summary, the dominant land usage for this area remains agricultural.

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Approx. Total Acreage</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>6,354</td>
<td>69.7</td>
</tr>
<tr>
<td>Single-Family Residential</td>
<td>368</td>
<td>4.0</td>
</tr>
<tr>
<td>Multi-Family Residential</td>
<td>155</td>
<td>1.7</td>
</tr>
<tr>
<td>Commercial</td>
<td>18</td>
<td>.2</td>
</tr>
<tr>
<td>Industrial</td>
<td>600</td>
<td>6.6</td>
</tr>
<tr>
<td>Parks/Open Space</td>
<td>293</td>
<td>3.2</td>
</tr>
<tr>
<td>Institutional/Public</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Airport Operations</td>
<td>1,332</td>
<td>14.6</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>9,120</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Based upon the 1990 U.S. Decennial Census, the estimated number of persons residing within the Airport Interest Area is 1,831. The total number of existing housing units was estimated at 741, based also upon the Census information and the 1986 Johnson County aerial photographs. The average number of persons per household in Southern Johnson County ranged from 2.72 in Gardner Township to 3.24 in Spring Hill Township.

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Total # of Occupied Housing Units</th>
<th>Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Olathe</td>
<td>472</td>
<td>1,091</td>
</tr>
<tr>
<td>Gardner</td>
<td>181</td>
<td>492</td>
</tr>
<tr>
<td>Unincorporated Johnson County</td>
<td>88</td>
<td>248</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>741</strong></td>
<td><strong>1,831</strong></td>
</tr>
</tbody>
</table>

The Airport Interest Area is comprised of parts of three drainage basins: Little Bull Creek, Kill Creek, and Cedar Creek (Exhibit D). The vast majority of these three drainage basins is presently without sewers, however, the New Century AirCenter has recently been sewerized through the creation of Little Bull Creek Wastewater Sub-District #2 which serves all of the airport property (shown in Exhibit D). The capacity of this subdistrict is somewhat limited at this time, however, the wastewater treatment plant may be expanded as needed to accommodate future development in this area. Exhibit E herein identifies areas within the Airport Interest Area that are within the 100-year floodplain. This Plan provides opportunities for the use of these areas for park and recreational facilities, particularly as streamway trails with linkages to
existing park facilities. Much of this concept has already been studied and included in the Master Park Plans for the Cities of Olathe and Gardner.

As stated in the preceding section, noise sensitivity and insuring the public’s safety regarding airport operations are important elements in developing a land use compatibility plan. Therefore, it is important to identify those areas within the Airport Interest Area which would be most impacted by these two factors. Exhibit F herein shows the Noise Impact Area and the noise contours for the Airport Interest Area. The need to minimize noise impacts for areas near the airport is a critical issue and is discussed in greater detail in Chapter IV of this Plan. However, it is within the Noise Impact Area where the noise impact due to aircraft operations is considered to be significant and where strategies to attenuate noise impacts should be considered.

Four areas are identified as Primary Flight Corridor Areas on the Future Land Use Map and are shown in Exhibit G herein. Two Primary Flight Corridor Areas are 1,000’ wide open strips of land located to the north and to the south of the airport along the extended centerline of the primary north-south Runway 17-35. The other two Primary Flight Corridor Areas are 500’ wide open strips of land located east of the primary runway where a second north-south runway is proposed. It is within these Primary Flight Corridor Areas where development of incompatible land uses, specifically single-family residential uses, should be discouraged due to the increased noise impacts within this area and the increased potential for aircraft accidents. By leaving these Primary Flight Corridor Areas either as open space or developed with compatible nonresidential land uses, the safety of both flight operations and the public is improved.

Within the four Primary Flight Corridor Areas, three Primary Flight Corridor Subarea categories have been identified as appropriate for airport area land use compatibility.

**Primary Flight Corridor Subarea A includes:**

1. For the primary north-south Runway 17-35, the Primary Flight Corridor Area north of 151st Street and the Primary Flight Corridor Area south of 183rd Street.

2. For the proposed second north-south runway, the Primary Flight Corridor Area between 143rd Street and the north end of the proposed runway.

**Primary Flight Corridor Subarea B includes:**

For the proposed second north-south runway, the Primary Flight Corridor Area north of 143rd Street and the Primary Flight Corridor Area that is north of 183rd Street but south of Primary Flight Corridor Subarea C.

**Primary Flight Corridor Subarea C includes:**

Primary Flight Corridor Areas planned for commercial or industrial uses.
Certain land use policies are appropriate within the three Primary Flight Corridor Subareas as follows:

**Future Land Uses, Primary Flight Corridor Subarea A:**

Land areas adjacent to Primary Flight Corridor Subarea A are generally planned for rural residential densities. Due to noise sensitivity of residential uses and the potential for problems if there are high concentrations of persons within this area, the use of land within Primary Flight Corridor Subarea A should be restricted to the following uses:

1. General agricultural use except feed lots or other agricultural uses which attract substantial quantities of birds;

2. Conservation or open space or any combination thereof;

3. Public or private park, golf courses, or similar natural recreation areas;

4. Cemeteries;

5. Non-retail nursery including the growing of plant materials, but excluding sales offices or retain display of nursery products; and

6. Public utility local distribution or transmission facilities necessary for public service.

Properties partially within Primary Flight Corridor Subarea A may apply for planned developments (PUD or cluster zoning) which would include "density transfers" or "land use intensity" shifts to place structures and dense public use areas outside the Primary Flight Corridor Area boundary. Residences would be permitted only on large lots (5-10 acres) to accommodate such transfers. Existing residential properties within Primary Flight Corridor Subarea A should be classified as "non-conforming lots," thereby prohibiting new dwellings, but permitting reconstruction and rehabilitation of existing homes which may be damaged, destroyed, or in need of repair.

**Future Land Uses, Primary Flight Corridor Subarea B:**

Land areas adjacent to Primary Flight Corridor Subarea B are generally planned for residential densities. Due to noise sensitivity of residential uses and the desirability to avoid high concentrations of persons within Primary Flight Corridor Subarea B, special design considerations should be employed with any new urban development within Primary Flight Corridor Subarea B. These design considerations may apply at the zoning, subdivision (plating), or site planning phase of development. Wherever possible, residential dwellings should be located outside the limits of Primary Flight Corridor Subarea B, and the area should instead be used for open spaces, streets and other non-intensive uses. Further, construction standards should employ sound control measures wherever feasible. Deed restrictions, covenants, statements of equitable interests, and avigation easements should be attached to all property parcels involved in the development process.
Future Land Uses, Primary Flight Corridor Subarea C:

Land areas adjacent to and within Primary Flight Corridor Subarea C are generally planned for commercial and industrial uses. Nonresidential uses are generally less sensitive to aircraft noise impacts and are therefore determined to be more compatible with airport operations. However, concentrations of persons within this area remains a primary concern when evaluating proposed urban development within Primary Flight Corridor Subarea C. Therefore, nonresidential development may occur within Primary Flight Corridor Subarea C as permitted by the underlying zoning district, subject to the following restrictions:

1. Compliance with the Noise Attenuation Construction Standards contained in special airport zoning regulations shall be required for all structures as therein defined that develop within this area of the Primary Flight Corridor.

2. Although nonresidential uses are permitted within Primary Flight Corridor Subarea C, as permitted by the underlying zoning district, special design considerations will be applied to the review of site development plans. The purpose of this special review requirement is to achieve, whenever possible, site layouts which place low-density uses in the most critical locations and which thereby minimize concentrations of persons in areas of highest quantities of aviation activity. This could include the use of this area for accessory site uses such as off-street parking lots, drainage and open space areas, outdoor storage areas, and the like.

3. The following uses are encouraged within Primary Flight Corridor Subarea C, as permitted by the underlying zoning district:
   
a. General agricultural uses, except feed lots or other agricultural uses which have the potential to attract substantial quantities of birds;

b. Conservation areas or open space or any combination thereof;

c. Public or private park, golf courses, or similar natural recreation areas;

d. Cemeteries;

e. Non-retail nursery including the growing of plant materials, but excluding sales offices or retain display of nursery products;

f. Public utility local distribution or transmission facilities necessary for public service;

g. Warehousing including building(s) for commercial storage of personal property;

h. Outdoor storage of equipment, automobiles, machinery, building materials, contractor's equipment storage yards;

i. Open storage areas for commercial storage of personal property such as boats and travel trailers;

j. Rail or trucking freight terminal; and

k. Off-street parking lot.
It should also be noted that some portions of the identified Primary Flight Corridor Areas lie within the 100-year floodplain and thereby may be limited in their development potential. In order to compensate for limited development within these Primary Flight Corridors Area, a development control concept referred to as "transfer of development rights" (TDR), discussed in Chapter IV of this Plan, should be considered where appropriate. Other development control measures might involve "net-density" zoning as in a Planned Unit Development or cluster zoning technique.

Section 3. Primary Goal and Objectives of Plan

The primary goal of this plan is to protect the public health, safety, and general welfare by ensuring the compatible and orderly development of land located within the Airport Interest Area. To achieve this goal, two objectives have been identified: 1) to identify a pattern of future land uses around the airport which promote compatibility with airport operations yet allows reasonable and viable opportunities for development and use of the land, and 2) to identify various strategies and policies which strive to promote airport-environs compatibility.

Section 4. Critical Issues and Strategies

In evaluating potential strategies for achieving compatibility of the airport with its surrounding environment, several issues are evident. Perhaps the most obvious issue is aircraft noise and its impact on areas surrounding the airport. Recent residential and potentially noise sensitive development is apparent on all sides of the airport and is the source of concern about disruptive noise conditions. Furthermore, citizens with investments in homes view the airport and potential aircraft noise as a disturbance to their peaceful enjoyment of their property. To them, proposals to change the airport are seen as undesirable proposals to expand the airport activity for more and larger aircraft. Therefore, noise attenuation and strategies to achieve this is an important element in compatibility planning.
Safety of the public and safety of flight operations must also be an overriding factor during the development of a plan to improve airport-environs compatibility. This could include actions which relate to protecting runway approaches from any form of hazardous interference to strategies to limit concentrations of people in airport approach areas. Therefore, development control strategies to ensure public safety are also important in evaluating compatibility.

Finally, in planning for airport-environs compatibility, existing land use patterns must be considered. Quite obviously, patterns of land development may already exist which are contrary to the goal of compatibility planning. These uses may also be found to be nonconforming uses with respect to the new land use map and regulations, and corrective or remedial strategies which will help to assure long-term compatibility with airport operations may need to be identified.

These critical issues and related strategies are discussed in greater detail within Chapter IV of this Plan.
CHAPTER II. NEW CENTURY AIRCENTER

Section 1. Background

A strong military presence has historically been maintained at the New Century AirCenter which dates back to its early development. This presence remains today, though in a more modest manner, yielding to the airport's growing industrial and commercial demands. The New Century AirCenter was developed prior to World War II by the Civil Aeronautics Administration. The original site was known as Johnson County Airport and totalled 760 acres. In 1942, the Navy acquired the airport and began primary flight training. By 1943, the initial base facilities had been completed and in 1943, the air station became the continental headquarters of the Naval Air Transport Service. Following World War II, the base's primary mission was to support the Naval and Air Force Reserves. In 1952, extensions were added to both runways to accommodate jet aircraft. Additional property was purchased and the total land area was raised to 2000 acres.

In June of 1970, the Olathe Naval Air Station deactivated its presence at the airport. In October of 1973, Johnson County accepted a grant of approximately 1,744 acres from the federal government with the stipulation that the property be used for a public airport. In December of 1975, an Airport Master Plan was completed as a blueprint for development at the Johnson County Industrial Airport. Since that time, the New Century AirCenter has experienced both aviation and industrial development, with significant improvements made to airport facilities.

In November of 1988, an updated Master Plan was completed for the New Century AirCenter which identifies it as an actively developing industrial/commercial airport serving the needs of larger aviation aircraft in the Johnson County community. The Army and Naval Reserves still maintains facilities at the New Century AirCenter with one Army Reserve unit and two Naval Reserve facilities. Because of the constraints on future growth at Johnson County Executive Airport, it is projected that the New Century AirCenter will meet the long-range aviation needs of Johnson County and the south and western portions of the Kansas City Metropolitan Area.

New Century AirCenter is currently the fourth busiest airport in the State of Kansas, with approximately 84,000 takeoffs and landings (flight operations) annually. Based upon existing facilities and runways, the effective airport capacity of New Century AirCenter is approximately 179,000 flight operations annually. But by the year 2000, activity at the New Century AirCenter is expected to exceed this capacity. Therefore, in order to meet future needs, a parallel runway to Runway 17-35 will be required.

Section 2. Existing Facilities

In 1991, New Century AirCenter consists of 2,080 acres of county-owned land. Upon completion of a Federal Aviation Administration-funded land acquisition program, airport property will total approximately 3,080 acres as shown in Exhibit H herein. The airport has three runways. The primary Runway 17-35, which is north-south oriented, is 190 feet in width and 7,338 feet in length. Runway 4-22 is oriented in a northeast-southwest direction and is 100 feet in width and 5,200 feet in length.
Runway 13-31, oriented in a northwest-southeast direction, is also 100 feet in width and 4,200 feet in length.

Navigational aids include two enroute aids: the very high frequency omni-directional range (VOR) and the very high frequency omni-directional range/tactical air navigation (VORTAC); and four terminal area navigation and landing aids: Visual Approach Slope Indicator Lights (VASIs) located at the runway ends, Precision Approach Path Indicators (PAPI) installed on Runway 4, an Instrument Landing System (ILS) on Runway 35 and its related navigational aids, including a localized antenna (LOC), an ultra high frequency glide slope (GS) transmitter, and outer and middle markers, and a non-directional beacon (NDB). A variety of lighting aids are available at Johnson County Executive Airport to facilitate airport identification, approach, landing, and taxiing operations at night and in adverse weather conditions. These include an airport beacon identification light, a Medium-Intensity Approach Lighting System with sequenced flashing lights and runway alignment indicator lights (MALS), High-Intensity Runway Lights (HIRL), and Medium-Intensity Taxiway Lights (MITL).

Planned future improvements of the facility include the addition of a 3,800 foot parallel runway to the east of Runway 17-35 to relieve small general aviation traffic demand at its inception with extension to 7,500 feet to handle future air cargo and air carrier aircraft, the extension of Runway 17-35 from 7,338 feet to 8,500 feet to accommodate air cargo aircraft, and the closing of Runway 13-31 at such time in the future when it would require major repairs to remain operational.

Section 3. Flying Operations

Flight activity is measured and recorded in terms of "air operations". An air operation is defined as either a take-off or a landing by an aircraft. In 1990, there were 83,929 air operations (41,964 flights) into or out of the New Century AirCenter. Of this, 40% were itinerant flights (those which leave the traffic pattern) and 60% were local flights (those which remain in the traffic pattern i.e. "touch-and-go's") and student pilot traffic. Civilian flights accounted for 93.9% of all flights with the remaining 6.1% being military flights.

Due to the various load-bearing capacities and lengths of the three existing runways, New Century AirCenter is able to service a wide range of aircraft types and sizes. The primary runway, Runway 17-35, 7,238 feet in length, is currently rated at 75,000 pounds Single Wheel Load (SWL), 90,000 pounds Double Wheel Load (DWL), and a Dual Tandem Wheel Load (DTL) rating of 155,000 pounds. Runway 4-22, 5,200 feet in length, has a SWL rating of 47,000 pounds and a DWL rating of 55,000 pounds. Runway 13-31, 4,200 feet in length, has a rating of 12,000 SWL and 16,000 pounds DWL. Due to this broad range, New Century AirCenter can regularly accommodate aircraft ranging in size from small single-engine planes, to larger business jets and military aircraft, to various sizes and types of commercial aircraft. With this ability, the New Century AirCenter is able to complement and compensate for the limited operations at Johnson County Executive Airport and serves as a potentially viable industrial/commercial airport for the southern metropolitan area.

Due to favorable flying conditions in the Kansas City area, the majority of all flying operations operate under Visual Flight Rules (VFR), with prescribed minimums of 1,000 feet cloud ceilings and three mile visibility. However, an Instrument Landing System (ILS) has been installed on Runway 35 which enables aircraft to land during periods of poor visibility operating under Instrument Flight Rules (IFR). An ILS approach to Runway 35 permits landings with cloud ceilings as low as 200 feet and visibility as low as 1/2 mile.
The airport traffic area for the New Century AirCenter, under the direction of the air traffic control tower, consists of airspace within a horizontal radius of five statute miles from the geographic center of the airport extending from the ground surface up to, but not including, an altitude of 3,000 feet above the elevation of the airport. Thus, a pilot arriving at New Century AirCenter, during tower operation hours, must be cleared by the air traffic controller before entering this Air Traffic Area. A pilot arriving at the airport after the tower is closed would issue a traffic advisory call on the tower radio frequency to state their flight intentions to other aircraft in the traffic area. Traffic patterns at the New Century AirCenter are a right-hand pattern for landings and take-offs in northerly directions and a left-hand pattern for operations in southerly directions. Altitudes within the traffic pattern are 800' above ground level (a.g.l.), however, inbound traffic from the west is advised to remain at 1,100 feet a.g.l. until clear of the Gardner Municipal Airport traffic pattern. This altitude allows for a 500 foot vertical separation from the Gardner Airport traffic and provides greater safety controls due to the proximity of the two airports.

Section 4. On-Airport Land Use

Two primary objectives guide on-airport land use planning: 1) to secure those areas essential to the safe and efficient operation of the airport; and 2) to determine compatible land uses for excess property that will be most advantageous to the airport and the community. The Airport Land Use Plan, identified in Exhibit I herein, illustrates the various existing and proposed uses of the airport property based upon anticipated airport boundaries.

Section 5. Economic Impacts

The New Century AirCenter plays a vital role in the continued economic well-being of Johnson County which is of direct and indirect benefit to all residents. The scope and magnitude of this economic impact was studied by the Johnson County Economic Research Institute in a report issued in September of 1990 entitled The Economic Impact of Johnson County Executive Airport and Johnson County Industrial Airport. This study analyzed the direct, indirect, and induced economic impact of both airports on the Johnson County economy. This section of the Plan tries to identify those economic impacts which were generated by New Century AirCenter alone.

Direct economic impacts are those financial transactions which occur "on-site" at the airport due to the provision of air passenger and air cargo services. These include local expenditures such as the purchases of the services of air charter firms, airport tenants, air cargo firms, ground transportation firms, and others. Firms located at New Century AirCenter conducting nonscheduled flights or providing goods or services to aviation users, government agencies, and industrial park tenants have a direct impact on the Johnson County economy as the result of expenditures including such items as flight and ground crew payroll, business services such as advertising, legal, or accounting, insurance, and local taxes. Tenants in the industrial park at the New Century AirCenter have by far, the greatest direct economic...
impact of any category investigated. A summary of this economic impact follows:

<table>
<thead>
<tr>
<th>FIRM</th>
<th>NO. EMP.</th>
<th>DIRECT IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Beechcraft</td>
<td>20</td>
<td>$1,349,240</td>
</tr>
<tr>
<td>United Telecom Flight Operations</td>
<td>3</td>
<td>$202,386</td>
</tr>
<tr>
<td>JCAir, Inc.</td>
<td>165</td>
<td>$5,597,295</td>
</tr>
<tr>
<td>Bendix/King</td>
<td>63</td>
<td>$4,441,059</td>
</tr>
<tr>
<td>Jo. Co. Industrial Avionics</td>
<td>4</td>
<td>$250,460</td>
</tr>
<tr>
<td>Midwest Air Traffic Control</td>
<td>10</td>
<td>$674,620</td>
</tr>
<tr>
<td>Johnson County Airport Commission</td>
<td>30</td>
<td>$4,812,831</td>
</tr>
<tr>
<td>United States Army (full-time)</td>
<td>58</td>
<td>$1,014,000</td>
</tr>
<tr>
<td>United States Army (part-time)</td>
<td>220</td>
<td>$647,198</td>
</tr>
<tr>
<td>United States Navy (full-time)</td>
<td>72</td>
<td>$565,248</td>
</tr>
<tr>
<td>United States Navy (part-time)</td>
<td>345</td>
<td>$719,648</td>
</tr>
<tr>
<td>Federal Aviation Administration</td>
<td>8</td>
<td>$215,174</td>
</tr>
<tr>
<td>Data Documents Systems</td>
<td>211</td>
<td>$4,151,847</td>
</tr>
<tr>
<td>Dazez Corporation</td>
<td>287</td>
<td>$20,231,491</td>
</tr>
<tr>
<td>Grinstead Products, Inc.</td>
<td>129</td>
<td>$30,587,835</td>
</tr>
<tr>
<td>Hadel Insurance</td>
<td>2</td>
<td>$88,910</td>
</tr>
<tr>
<td>Heartland Cement Company</td>
<td>2</td>
<td>$125,230</td>
</tr>
<tr>
<td>Howell Moldings, Inc.</td>
<td>55</td>
<td>$3,398,560</td>
</tr>
<tr>
<td>Jet-Tech, Inc.</td>
<td>33</td>
<td>$2,715,801</td>
</tr>
<tr>
<td>R.D. Long Contracting</td>
<td>5</td>
<td>$339,260</td>
</tr>
<tr>
<td>North Supply Company</td>
<td>528</td>
<td>$33,060,720</td>
</tr>
<tr>
<td>United Telephone Midwest Group</td>
<td>511</td>
<td>$31,996,265</td>
</tr>
<tr>
<td>Western Region Data Center</td>
<td>140</td>
<td>$8,766,100</td>
</tr>
<tr>
<td>Olathe Manufacturing</td>
<td>126</td>
<td>$10,853,514</td>
</tr>
<tr>
<td>Parsonitt Company</td>
<td>12</td>
<td>$669,636</td>
</tr>
<tr>
<td>Royal Tractor Company</td>
<td>70</td>
<td>$42,680,700</td>
</tr>
<tr>
<td>Stouse Sign and Decal</td>
<td>150</td>
<td>$3,128,643</td>
</tr>
<tr>
<td>Surgas, Inc.</td>
<td>5</td>
<td>$101,930</td>
</tr>
<tr>
<td>Van Den Berg Foods</td>
<td>206</td>
<td>$48,845,690</td>
</tr>
<tr>
<td>North Supply Distribution Center</td>
<td>37</td>
<td>$101,930</td>
</tr>
</tbody>
</table>

TOTAL: 3,507 $ 282,577,641

*Indirect economic impacts* account for those financial transactions that are of economic value to the local economy and that occur due to the use that is made of an airport. This would include those expenditures made in the area by visitors to the region that arrive by air, purchases by air crews that lay-over in the area, air freight users and the on-site sales of aviation fuel. Based upon the actual number of flights into the New Century AirCenter in 1990, (41,964 and assuming that 42% of this total are passenger flights) and assuming the average number of passengers and crew members at 4 to 2 respectively, and further assuming that 75% of these flights leave the same day with an average 12 hour layover, the below referenced indirect economic impact was estimated for visitor and flight crew expenditures. Also, based upon the number of gallons of fuel sold at the New Century AirCenter in 1990 (746,008 gallons at an average price of $1.75 per gallon), and assuming that only 12% of the fuel value actually adds to the local economy, the following indirect economic impact was also estimated for visitor, crew and fuel values.
### ANNUAL INDIRECT IMPACT

<table>
<thead>
<tr>
<th>IMPACT SOURCE</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Visitor Expenditures</td>
<td>$5,801,027</td>
<td></td>
</tr>
<tr>
<td>Flight Crew Expenditure</td>
<td></td>
<td>887,544</td>
</tr>
<tr>
<td>Fuel Value Added</td>
<td></td>
<td>156,662</td>
</tr>
<tr>
<td><strong>TOTAL:</strong></td>
<td></td>
<td><strong>$6,845,233</strong></td>
</tr>
</tbody>
</table>

*Induced economic impacts* are the increased industrial outputs and increased household earnings brought about through the "multiplier effect" in a local economy. These impacts are derived through the use of a Regional Input-Output Model (RIMS II) developed for the local study area by the U.S. Department of Commerce's Bureau of Economic Analysis. Induced economic impacts are an important consideration since the ultimate impact of a dollar coming into an economy is a direct function of the amount of time it stays within the economy and the number of businesses and households it passes through. The multiplier concept illustrates that as money enters the economy because of the airport, many people and businesses benefit even though they may not use the airport facilities or work for the airport. The exact induced economic impact is difficult to assess, however, the average multiplier is 2.34 for the Johnson County economy. This means that, on average, for each $1 spent on aviation in Johnson County, an additional $1.34 is generated in induced impact. Therefore, based on the above, an estimated induced economic impact, as well as the total economic impact, of the New Century AirCenter is shown below.

<table>
<thead>
<tr>
<th>Type of Impact</th>
<th>Induced Impact (2.34 Multiplier)</th>
<th>Total Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Impact</td>
<td>$282,577,641</td>
<td>$378,654,039</td>
</tr>
<tr>
<td>Indirect Impact</td>
<td>$6,845,233</td>
<td>$9,172,712</td>
</tr>
<tr>
<td><strong>TOTAL:</strong></td>
<td><strong>$289,422,874</strong></td>
<td><strong>$387,826,751</strong></td>
</tr>
</tbody>
</table>

Additionally, induced economic impact, though not specifically measured, can be seen in employment. The money that courses through the Johnson County economy as a result of the multiplier effect creates jobs in its wake in nearly every local employment sector, including agricultural services, construction, manufacturing, transportation, wholesale and retail trade, finance, insurance, and real estate, and service industries. The cumulative effect of all economic impacts generated by the New Century AirCenter on the local economy (direct, indirect, and induced impacts) is estimated in the above table at $38,278,711. Therefore, it is evident that the New Century AirCenter is not only considered to be an integral part of the local and regional transportation network, but it is also considered a vital element in assuring the continued economic well-being of the county.
CHAPTER III. LAND USE RECOMMENDATIONS

Section 1. Overview

The Future Land Use Map is the tool which achieves the first objective of this Compatibility Plan, that is, to identify a pattern of land uses around the airport which promote compatibility with airport operations, yet allows reasonable and viable opportunities for development and use of the land. It provides a general framework for development of land within the New Century AirCenter Airport Interest Area for the next ten to twenty years. This map establishes land use recommendations which are compatible with airport operations, yet which are also consistent with the surrounding communities' long-term goals and objectives. It is specific enough to guide day-to-day development decisions, yet it is flexible enough to allow modification and continuous refinement.

This chapter defines the recommended Future Land Use Map for the New Century AirCenter Airport Interest Area. It includes a description of the Future Land Use Map and definitions of the land use categories. In developing these recommendations, the primary goal and objectives of this Plan were considered as well as the need to maintain airport safety and to minimize aircraft noise impacts on the surrounding environs. These elements are reflected in the recommended land use designations as shown on the Future Land Use Map. Also included in this chapter is a recommendation regarding land use restrictions which would prohibit certain land uses within the Airport Interest Area.

Section 2. Description of the Future Land Use Map

The Future Land Use Map (Exhibit J herein) provides a guide for future land development decisions within the Airport Interest Area. It identifies which land should be utilized for residential, commercial, business, airport, public/institutional, and park/open space land uses. Key features of the recommended Future Land Use Map are listed below:

A) The Future Land Use Map reflects, where possible, existing land use patterns where such patterns are consistent with the goal and objectives of this Plan. Also, this map tries to blend with the recommended land use designations as shown on the Future Land Use Plans for the Cities of Gardner and Olathe.

B) The Future Land Use Map strives to preserve the openness surrounding the airport by recommending very low density residential uses (1 and 2-acre minimum lot sizes) where appropriate within the Airport Interest Area. This recommendation is consistent with the goal and objectives of this Plan.

C) The Future Land Use Map promotes industrial and airport-related business uses on airport-owned property and within the Airport Interest Area where appropriate. This is consistent with the emerging development of New Century AirCenter as an industrial park and air cargo facility.

D) The Future Land Use Map supports the anticipated development of the Twenty-First Century Parkway with the proposed alignment along Moonlight Road, the west boundary of the Airport Interest Area. It is believed that this alignment will be critical to the long-range development of New Century AirCenter as an air carrier facility. Once the alignment of this beltway is finalized and engineered, it is recommended that the Future Land Use Map be re-evaluated to insure that land use patterns along this beltway are appropriate.
E) The Future Land Use Map strives to preserve the recreational open space opportunities within the Airport Interest Area by coordinating with the Park Master Plans for both the Cities of Olathe and Gardner.

F) The Future Land Use Map also supports the transportation networks recommended by the Cities of Olathe and Gardner by incorporating into the map where appropriate those designated thoroughfare and collector roads which are proposed through the Airport Interest Area.

This overall development pattern provides the basic framework for the specific issues and policies which are contained in Chapter IV.
New Century AirCenter Area - Future Land Use Map

Note: This map is representative of a larger size, color map of future land uses proposed for the area at the New Century AirCenter.

Persons interested in the more accurate, larger map are advised to view it at the planning office.

EXHIBIT J
Future Land Use Map

- Airport Rural Residential (2 Acre min. lot size)
- Airport Estate Residential (1 Acre min. lot size) (with sanitary sewers)
- Low Density Residential (Maximum 3 DUA)
- Medium Density Residential (5-12.5 DUA)
- General Commercial
- Industrial (outside Interest Area only)
- Airport Industrial Park
- Office (outside Interest Area only)
- Public/Institutional
- Park/Open Space
- Critical Corridor Subarea A
- Critical Corridor Subarea B
- Critical Corridor Subarea C
- Gravel Roads
- Dustless Roads
- Airport Interest Area

Scale in Miles

New Century AirCenter Comprehensive Compatibility Plan
February 8, 1996, changes to 3/17/94 Plan

Johnson County Airport Commission
County of Johnson
Section 3. Definition of Land Use Categories

Eight land use categories have been created to allow for development of a spectrum of land uses within the Airport Interest Area which are consistent with the goal and objectives of this Plan. The location of the categories has been determined based upon an analysis of a variety of factors, including:

A) compatibility of the use with airport operations;
B) concerns for minimizing noise impacts and maintaining safety;
C) existing land usages;
D) availability of basic services, such as water and sewer;
E) environmental constraints;
F) other accepted planning principles.

The purpose of the eight categories and their related guidelines are discussed hereinafter. These guidelines should be used in planning infrastructure improvements, evaluating future land use proposals, and considering rezoning decisions. Furthermore, these guidelines should be used in conjunction with the land use restrictions contained in Chapter III, Section 4 herein. In the event of a conflict, either real or apparent, between the land use restrictions contained in Chapter III, Section 4 and this section, the restrictions contained in Chapter III, Section 4 shall control.

1. Airport Rural Residential

The purpose of the Airport Rural Residential category is to provide residential opportunities while maintaining the openness of the area. This category is intended to maintain very low densities within the Airport Interest Area due to the concerns for maintaining safety and minimizing the aircraft noise sensitivities in this area. Guidelines for the Airport Rural Residential category are:

a. Minimum lot size of 2 acres per dwelling unit.
b. Soundproofing measures should be encouraged in building construction standards for new residential construction to lessen noise impacts due to airport operations.
c. Avigation easements should be obtained whenever possible and required for all new subdivisions. Public disclosure statements should be filed of record for all properties located within the designated Airport Interest Area notifying property owners of the special land use restrictions for this area.

2. Airport Estate Residential

This category, similar to the Airport Rural Residential category, is intended to keep densities low within the Airport Interest Area while still allowing for a reasonable use of land. Guidelines for the Airport Estate Residential category are:

a. Minimum lot size of 1 acre per dwelling unit with sanitary sewers.
b. Soundproofing measures should be encouraged in building construction standards for new residential construction to lessen noise impacts due to airport operations.
c. Avigation easements should be obtained whenever possible and required for all new subdivisions. Public disclosure statements should be filed of record for all properties located within the designated Airport Interest Area notifying property owners of the special land use restrictions for this area.

3. Low Density Residential

The Low Density Residential category tries to achieve what is considered a "standard single-family residential" category while still maintaining the goal and objectives of this Plan. It is intended that this category be limited in its usage as shown on the Future Land Use Map (Exhibit J herein) due to the higher residential densities permitted under this category. Guidelines for the Low Density Residential category are:

a. Maximum density not to exceed 3 dwelling units per acre, except with density transfer under an approved Transfer of Development Rights development plan.
b. Soundproofing measures should be encouraged in building construction standards for new residential construction to lessen noise impacts due to airport operations.
c. Avigation easements should be obtained whenever possible and required for all new subdivisions. Public disclosure statements should be filed of record for all properties located within the designated Airport Interest Area notifying property owners of the special land use restrictions for this area.

4. Medium Density Residential

The purpose of the Medium Density Residential category is to provide for areas where moderate density housing may be appropriate. Guidelines for this category are:

a. Maximum density not to exceed 12.5 dwelling units per acre.
b. Soundproofing measures should be encouraged in building construction standards for new residential construction to lessen noise impacts due to airport operations.
c. Avigation easements should be obtained whenever possible and required for all new subdivisions. Public disclosure statements should be filed of record for all properties located within the designated Airport Interest Area notifying property owners of the special land use restrictions for this area.

5. General Commercial

The purpose of the General Commercial category is to provide for areas that can meet the immediate retail needs of the surrounding neighborhoods and communities. Typical land uses for this category include low to medium intensity office, retail, and commercial service uses. Guidelines for this category are:

a. Low intensity office uses only. Meeting places, auditoriums, and the like are not recommended.
b. Factors to consider include: labor intensity, explosive/inflammable characteristics, structural coverage, emissions of vapor which could lead to fogging, size of establishment, occupant density, peak period concentrations (including shoppers/visitors).
c. Soundproofing measures should be incorporated into the design and construction of portions of these buildings where the public is received, office areas, or where normal noise levels are low.
d. Avigation easements should be obtained whenever possible and required for all new subdivisions. Public disclosure statements should be filed of record for all properties located within the designated Airport Interest Area notifying property owners of the special land use restrictions for this area.

6. Airport Industrial Park

The Airport Industrial Park category is intended to provide areas on and near the airport for the location of businesses which may be inter-related to the airport and its operations. It is anticipated that this category will include light industrial, office/showroom, warehouse/distribution and commercial-support land uses, as well as aircraft charter services, air cargo services, and air carrier operations and their related services. Guidelines for this category are:

a. Low intensity office uses only. Meeting places, auditoriums, and the like are not recommended.
b. Required buffering and screening of any outdoor storage areas.
c. Factors to consider include: labor intensity, explosive/inflammable characteristics, structural coverage, emissions of vapor which could lead to fogging, size of establishment, occupant density, peak period concentrations (including shoppers/visitors).
d. Soundproofing measures should be incorporated into the design and construction of portions of these buildings where the public is received, office areas, or where normal noise levels are low.
e. Avigation easements should be obtained whenever possible and required for all new subdivisions. Public disclosure statements should be filed of record for all properties located within the designated Airport Interest Area notifying property owners of the special land use restrictions for this area.

7. Public/Institutional

The Public/Institutional category shown on the Future Land Use Map reflects the existing and proposed public/semi-public or institutional uses in the Airport Interest Area. Any future public/institutional facilities developed within the Airport Interest Area should be evaluated under the scrutiny of the land use restrictions governing crowd size contained in the following Chapter III, Section 4, herein. Guidelines for this category are:

a. Soundproofing measures should be incorporated into the design and construction of portions of any buildings where the public is received, office areas, or where normal noise levels are low.
b. Avigation easements should be obtained whenever possible and required for all new subdivisions. Public disclosure statements should be filed of record for all properties located within the designated Airport Interest Area notifying property owners of the special land use restrictions for this area.
8. **Park/Open Space**

The Park/Open Space category reflects existing and proposed parks and recreational open space areas and designated floodplain areas. It also reflects the Master Park Plan for both the Cities of Overland Park and Olathe. The designation of this category affirms the Plan's commitment to preserve and protect the natural environment. Guidelines for this category are:

a. Recreational facilities should be low intensity. Spectator sports, including arenas, auditoriums and concert halls, outdoor amphitheaters and music shells, should not be developed in the Airport Interest Area.

b. Soundproofing measures should be incorporated into the design and construction of portions of any buildings where the public is received, office areas, or where normal noise levels are low.

c. Avigation easements should be obtained whenever possible and required for all new subdivisions. Public disclosure statements should be filed of record for all properties located within the designated Airport Interest Area notifying property owners of the special land use restrictions for this area.

**Section 4. Land Use Restrictions**

The protection of the public's health, safety, and welfare is of paramount interest to this plan. Toward that goal, guidelines have been established to lessen or prevent noise impacts affecting the public and the surrounding landowners. In a further attempt to secure the public's welfare, and in order to guide future land use decisions within the New Century AirCenter Airport Interest Area, it is the policy of this Comprehensive Compatibility Plan to prohibit the development of any use which compromises the efficient and safe operation of the airport. Therefore, it is recommended that no use be made of land or water within any portion of the Airport Interest Area which would in any manner:

1. Create electrical or electronic interference with navigational signals or radio or radar communication between the airport and the aircraft,
2. Make it difficult for pilots to distinguish between airport lights and others,
3. Result in glare in the eyes of pilots using the airport,
4. Impair visibility in the vicinity of the airport,
5. Otherwise in any way endanger or interfere with the landing, takeoff, or maneuvering of aircraft,
6. Create bird strike hazards or promote large population concentrations of birds, or
7. Emit or discharge smoke that would interfere with the health and safety of pilots and the public in the use of the airport.

Furthermore, single land uses which attract crowds in excess of 500 persons at any one time (such as hospitals, schools, theaters, arenas, stadiums, and the like), or concentrate persons who are unable to respond to emergency situations (such as children, elderly, or handicapped, such as day care establishments, nursing homes, and elderly care or special care facilities) should be evaluated carefully due to the large concentration of persons at such facilities. Such uses may be found to be appropriate within the Airport Interest Area based upon a thorough evaluation of the scope of the proposed development at the proposed location with regard to airport compatibility issues.
Section 5. Future Land Use - Present Zoning Inconsistencies

Within the New Century AirCenter Airport Interest Area boundaries, there are some locations where the future land use designation as shown on the Future Land Use Map is not consistent with the present zoning of the property. (Exhibit K herein identifies the existing zoning of all lands located within the New Century AirCenter Airport Interest Area at the time of adoption of this Plan.) In these cases, it is the intent of this Plan to identify what is considered to be the most compatible land use of the property with regard to the goal and objectives contained herein. It is understood that any property zoned in such a way that it is currently incompatible with the Future Land Use Map designation may develop within the parameters of its current zoning. However, any future rezoning of such property is to be evaluated with respect to its consistency with the Future Land Use Map and the goal and objectives contained within this Plan.

Specifically, those parcels of land which have been identified to be inconsistent with regard to their present zoning classification and which are currently zoned for uses more intensive than the designation shown on the Future Land Use Map are as follows:

A. The subdivision known as Lakeview Hills, Lots 1-15, located in the East 1/2 of Section 32, Township 13 South, Range 23 East, located in unincorporated Johnson County (approximately 12 acres); Current zoning: R-1A, Single Family Residential (20,000 sq. ft. min. lot size); Future land use: Airport Rural Residential (2 acre min. lot size).

B. The East 1/2 of the West 1/2 of the Northeast 1/4 of Section 6, Township 14 South, Range 23 East, and the West 1/2 of the East 1/2 of the Northeast 1/4 of Section 6, Township 14 South, located in unincorporated Johnson County (approximately 80 acres); Current zoning: RR, Rural Residential (1 acre min. lot size); Future land use: Airport Rural Residential (2 acre min. lot size).

C. The West 1/2 of Section 5, Township 14 South, Range 23 East, and part of the West 1/2 of the Northeast 1/4 of Section 5, Township 14 South, Range 23 East, located in the City of Olathe (approximately 407 acres); Current zoning: R-1, Single Family Residential (7,200 sq. ft. min. lot size); Future land use: Airport Rural Residential (2 acre min. lot size).

D. That part of the Southwest 1/4 of Section 4, Township 14 South, Range 23 East, located within the city limits of Olathe (approximately 115.23 acres); Current zoning: R-1, Single Family Residential (7,200 sq. ft. min. lot size); Future land use: Airport Rural Residential (2 acre min. lot size).

E. That part of the North 1/2 of Section 29, Township 14 South, Range 23 East, which is currently zoned Planned Light Industrial, IP-1, located in unincorporated Johnson County, but which is shown on the Future Land Use Map as residential land use (approximately 70 acres); Current zoning: IP-1, Planned Light Industrial; Future land use: Medium-Density Residential. It should be noted that the existing industrial zoning of this property is not considered to be incompatible with airport operations.
Note: This zoning map shows the base zoning in the vicinity of the airport on the date of adoption of the New Century AirCenter Comprehensive Compatibility Plan. Amendments to this zoning map with respect to unincorporated Johnson County areas shall be shown on the "Zoning Map of Johnson County, Kansas." See also Article 8 of the zoning and subdivision regulations.

**KEY**

- **Olathe**
  - A = 40 Acres
  - RA-1 = 10,000 sq. ft.
  - R-1 = 7,200 sq. ft.
  - C-2 = Commercial
  - M-1 = Lt. Industrial
  - M-2 = Heavy Industrial

- **Gardner**
  - E = Mobile Home Park
  - C-3 = Commercial

- **Johnson County**
  - RUR = 10 Acres
  - RN-1 = 1 Acre
  - PRB-2 = Planned Residential Neighborhood Retail Business
  - PEC-3 = Planned Research Development and Light Industrial Park

*NOTE:* This is not intended to be used as an official zoning map.

**EXHIBIT K**

Existing Zoning Map
CHAPTER IV. CRITICAL ISSUES AND STRATEGIES

Section 1. Overview

The identification of various strategies and policies which strive to promote compatibility between the airport and its environs is the second objective of this Plan. Previously identified were three issues which are considered to be critical to the success of this Compatibility Plan: noise attenuation, development controls, and corrective or remedial actions. These three issues are discussed herein along with strategies which may be considered to address these issues.

Section 2. Noise Attenuation

The minimization of aircraft noise impacts on the surrounding area is the first primary concern identified in this Plan for striving to achieve airport-environs compatibility. People's concerns about aircraft noise are often reflections of the degree to which the aircraft intrudes on existing ambient noise exposure patterns. Where ambient noise is typically low, such as in the vicinity of the New Century AirCenter, aircraft noise, though less in comparison to that which occurs at larger airports, might be perceived to be a problem. The identified Noise Impact Area for New Century AirCenter is shown in Exhibit F herein. This area, which projects noise contours for this Plan, was defined based upon the Airport's commitment not to extend the existing runway. Although some sensitivity to noise may occur at lower levels, it is within the area identified by the 65 Ldn contour and above where noise exposure levels are recognized by the FAA as being significant. It is noted that this area is contained wholly on airport-owned property. The 60 Ldn contour (also shown on Exhibit F), though not considered by the FAA to be significant in terms of noise exposure levels, is also included in the Noise Impact Area for this Plan.

Ldn (day-night average sound level) is defined as the average A-weighted sound levels measured in decibels in a 24-hour period (midnight to midnight). A 10 decibel (dB) penalty is applied to noise events occurring at night (10:00 p.m to 7:00 a.m.) For comparative purposes, Exhibit L identifies common outdoor and indoor sounds and their noise level in average decibels. Given this comparison, it is concluded that those areas outside the 60 Ldn contour as shown on Exhibit F would not experience significant noise impacts from the airport operations. For the purposes of this Plan, areas with 60 Ldn or greater noise exposures (inside the 60 Ldn contour) are the areas of greatest concern for attenuation of aircraft noise impacts, though noise attenuation concerns are important throughout the Airport Interest Area. Therefore, in order to provide for the public's welfare for a pleasing environment, the need for noise attenuation measures are recommended for all areas located within the boundaries of the New Century AirCenter Airport Interest Area.

Because the Ldn contours can be difficult to understand, a comparison of Ldn contours with Single Exposure Level (SEL) data is provided. SEL is a measure of single event noise accounting for duration and magnitude at a given location, or sometimes best understood as the dose of noise associated with a single aircraft event. The following table provides SEL data for selected locations in the New Century AirCenter Airport Interest Area. The points identified in this table are shown in Exhibit M herein. From this, one can see that SEL readings are generally much higher than Ldn contours.
Comparison of Ldn and SEL Values

<table>
<thead>
<tr>
<th>Noise Exposure Analysis Points</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ldn Value</td>
<td>45.7</td>
<td>67.9</td>
<td>60.6</td>
<td>54.8</td>
<td>55.3</td>
<td>61.1</td>
<td>56.1</td>
</tr>
<tr>
<td>SEL Values</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B 727-200</td>
<td>75.1</td>
<td>104.3</td>
<td>100.5</td>
<td>90.0</td>
<td>91.0</td>
<td>93.0</td>
<td>79.0</td>
</tr>
<tr>
<td>B 737-300</td>
<td>64.4</td>
<td>94.9</td>
<td>91.7</td>
<td>83.7</td>
<td>81.8</td>
<td>85.5</td>
<td>68.6</td>
</tr>
<tr>
<td>Number of daily events above 90 SEL</td>
<td>0.0</td>
<td>25.0</td>
<td>16.1</td>
<td>3.6</td>
<td>9.0</td>
<td>0.4</td>
<td>1.9</td>
</tr>
<tr>
<td>Daily minutes exceeding 70 dB</td>
<td>1.8</td>
<td>20.7</td>
<td>10.4</td>
<td>7.</td>
<td>10.8</td>
<td>13.1</td>
<td>6.1</td>
</tr>
</tbody>
</table>

The restriction of noise impact abatement measures is largely influenced by airport area development actions, aircraft operational characteristics, and air traffic control procedures. However, coupled with the need to minimize noise impacts on the surrounding area there are also concerns for safety of airport operations, the efficiency of aircraft operations, and the ability of the airport to service the needs of the community.

The following strategies have been identified as possible ways to promote noise control within the Noise Impact Area for the New Century AirCenter. It should be noted that while the following strategies are possible, they may not be deemed to be practical for implementation. Those strategies which are determined to be practical have been identified in Chapter V, Section 2, Implementation of Strategies.

A. Airport Development. Development at an airport can significantly affect the location of its future noise impacts. The alignment and location of runways, terminal buildings, access roads, and avigational facilities are prime examples of development actions which influence where noise impacts will occur. Examples of possible airport development measures which may reduce the impact of aircraft noise on the surrounding areas are as follows:

1. Construction of Noise Barriers or Shielding. Aircraft-related noise can be reduced approximately 10 dBA in noise-impacted areas through the use of noise barriers. These barriers can be either constructed (concrete, steel, etc.) through the strategic placement of new hangers, terminal structures or accessory buildings, or planted landforms, such as landscaped berms. Plantings must be at least twenty feet wide to properly muffle and deflect noise.

2. Acquisition of Land or Interest Therein. Purchase of full or partial interest in land can assure the airport of long-term protection with regard to minimizing noise impacts. This may be done in various forms and degrees from the purchase of land at fair market value, to condemnation through the airport's power of eminent domain.
# COMMON OUTDOOR/INDOOR SOUND LEVELS

<table>
<thead>
<tr>
<th>Common Outdoor Sound Levels</th>
<th>Noise Level dB(a)</th>
<th>Common Indoor Sound Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concorde Landing at 370 ft. 707 Landing at 370 ft.</td>
<td>110</td>
<td>Rock Band</td>
</tr>
<tr>
<td>707 Takeoff at 1,000 ft. Gas Lawn Mower at 3 ft.</td>
<td>100</td>
<td>Inside Subway Train, New York</td>
</tr>
<tr>
<td>Diesel Truck at 30 ft.</td>
<td>90</td>
<td>Food Blender at 3 ft.</td>
</tr>
<tr>
<td>Noisy Urban Daytime Mooney M-22 Flyover</td>
<td>80</td>
<td>Garbage Disposal at 3 ft.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Shouting at 3 ft.</td>
</tr>
<tr>
<td>747 Takeoff at 1,000 ft. Cessna 150 Flyover Commercial Area</td>
<td>70</td>
<td>Vacuum Cleaner at 10 ft.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Normal Speech at 3 ft.</td>
</tr>
<tr>
<td>Quiet Urban Daytime</td>
<td>60</td>
<td>Large Business Office</td>
</tr>
<tr>
<td>Quiet Urban Nighttime</td>
<td>50</td>
<td>Dishwasher next room</td>
</tr>
<tr>
<td>Quiet Suburban Nighttime</td>
<td>40</td>
<td>Small Theater, Large Conference Room (Background)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Library</td>
</tr>
<tr>
<td>Quiet Rural Nighttime</td>
<td>30</td>
<td>Bedroom at night</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Concert Hall (Background)</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>Broadcast and Recording Studio</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Threshold of Hearing</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

---

**EXHIBIT L**  
Indoor/Outdoor Sounds & Noise
3. Avigation Easements. As an alternative to outright land acquisition, the dedication of an avigation easement may be used as a required for proposed development.

B. Operational Procedures. Control over the operation of aircraft on and around the airport is a sensitive subject involving safety as well as service and efficiency. Yet, central to the development of a compatibility plan is the need to keep aircraft and the footprints of the noise patterns within defined areas where noise sensitive uses have been minimized or excluded. Examples of possible operational procedures targeted to effect noise control may include, but are not limited to, the following:

1. Restrictions on ground movement of aircraft;
2. Restrictions on engine runups or use of ground equipment (identifying times of day and limiting locations);
3. Raise glide slope angle or intercept;
4. Power and flap management;
5. Limited use of reverse thrust;

Items 1 and 2 above listed were determined to be feasible for implementation and are further considered by this Plan. Items 3, 4, and 5 were evaluated and determined to be impractical for implementation due to the safety concerns that such altered procedures create. It should be noted that altering any standard airport/aircraft operational procedures is not supported by the Johnson County Airport Commission nor recommended by this Plan because critical safety standards are compromised. Therefore, any modifications or restrictions in standard operational procedures should only be considered after careful consideration of all other potentially feasible alternatives and after thorough consultation with the affected parties and the Federal Aviation Administration.

C. Other Options. Other controls to further noise attenuation within the Noise Impact Area and throughout the Airport Interest Area may include:

Soundproofing. The use of soundproofing can reduce interior noise from 10 to 25 decibels. All types of new construction, particularly residential construction and non-residential uses that typically have low noise levels (i.e. offices), can benefit from soundproofing, and additional benefits can be gained from the extra heating/cooling insulation that soundproofing provides. Soundproofing and insulation techniques may include double-glazed windows, acoustical doors, gasketing of enclosure doors, staggering of structural members ("isolated double membrane" building construction), masonry instead of frame construction and new ventilation systems, as well as ceiling and wall insulation. Though soundproofing does not completely eliminate exterior noise effects within the home, it does reduce it to a more tolerable range.

Section 3. Development Controls

The appropriate application of land use and development controls can serve to deter the development of incompatible land uses, and can serve to protect certain areas for the maintenance of operationally safe and obstruction free approaches, which is the second primary concern of this Compatibility Plan. Although 99.99% of all general aviation flights are completed without accident, according to the 1990 statistics of the National Transportation Safety Board (NTSB), 49% of those accidents occurred off of the runway but within two (2) miles it. The following table summarizes the 1990 NTSB statistics on aircraft accidents given their location and occurrences.
<table>
<thead>
<tr>
<th>Location of Accident</th>
<th>Occurrences</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>· On the runway</td>
<td>85</td>
<td>4%</td>
</tr>
<tr>
<td>· On airport property (including clear zones), but off of runway</td>
<td>532</td>
<td>22%</td>
</tr>
<tr>
<td>· Off airport property, but within 2 mile of runway</td>
<td>645</td>
<td>27%</td>
</tr>
<tr>
<td>· More than 2 mile from runway</td>
<td>1,132</td>
<td>47%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>2,394</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

A variety of different controls are normally available to local governments and/or airport operators to prevent hazardous intrusions which may be incompatible with airport operations. The controls which are generally considered most useful for achieving airport compatibility are discussed below.

A. **Zoning.** The most common and useful land use control is zoning. Zoning is an exercise of the police powers of the state and local governments which designates the uses permitted on each parcel of land. It normally consists of a zoning ordinance which delineates the various use districts and includes a zoning map based upon the land use element of the community's comprehensive plan, of which this Comprehensive Compatibility Plan is a part. The primary advantage of zoning is that it can promote compatibility while leaving the land in private ownership, on the tax rolls, and economically productive. At the same time, it is subject to change and must be continually monitored if it is to remain a viable compatibility tool. Zoning should be applied fairly and should be considered in conjunction with the Future Land Use Map as set forth herein. For zoning to be viable, there should be a reasonable present or future need for each designated use. Used within its limitations, zoning is the preferred method of controlling land use in striving to achieve airport-environs compatibility.

Land use control by zoning may be accomplished in a variety of ways: 1) through the use of conventional zoning, 2) with the use of conditional use permits, or 3) permitted under the scrutiny of planned district zoning. Conventional zoning is when permitted uses are specified for each zoning district, and development consistent with the permitted use list is allowed without formal plan review requirements. However, zoning utilizing conditional use permits and planned district zoning are encouraged within the Airport Interest Area where appropriate in order to insure more compatible development patterns between the airport and its environs. Through the use of conditional use permits, the zoning regulations specify standards for specific land uses, known as conditional uses. The landowner requesting a specific land use for a particular tract of land agrees to comply with these standards as part of the land use approval. Conditions which might be appropriate for airport area sites might include, for example, conditions that impose soundproofing standards at time of construction. Planned district zoning, which is the preferred choice for assuring land use compatibility with airport operations, adds a site development plan review to the elements of conventional zoning. Uses permitted in the zoning district may be developed only after review and approval by the governing body of a specific plan for the development of the site. Within certain parameters, the permitted development is "negotiated" between the landowner and the local government, thereby providing an appropriate method of analyzing and insuring airport-environs compatibility on a parcel-by-parcel scale.
B. Easements. Easements may be used as an effective and permanent form of land use control. An easement is a right held by one person to make use of the land of another for a limited purpose. In the context of airport compatibility planning, an easement may take several forms, such as a positive easement which allows the right of avigation and the right to make noise over someone's property, or a negative easement which prevents the creation or continuation of incompatible land uses on the property. Easements can be an effective strategy for assuring compatible development around airports. One major advantage of easements is that they can be permanent, whereas zoning may be easily changed. Acquisition of easements does not by and of itself change incompatible land uses to compatible uses or reduce the impact that airport operations have on the property, but the easement acquisition price can and should be dedicated to making the necessary change in use and constructing soundproofing measures to achieve compatibility with the airport. Easements can be obtained in a number of ways including purchase, condemnation, and dedication (either voluntary or required at time of subdivision).

C. Transfer of Development Rights (TDR). TDR involves separate ownerships and the use of various "rights" associated with a parcel of land. Under the TDR concept, some of the property's development rights are transferred to an alternate location where they may be used to intensify allowable development. For example, lands identified within the primary flight corridor of the extended runway could be kept in open space or agricultural uses and their development rights for residential uses transferred to locations outside the corridor. This concept is encouraged in the areas identified on the Future Land Use Map as the "Primary Flight Corridor" (extended north and south along the extended runways) (see also Exhibit G herein). Landowners could be compensated for the transferred rights by selling the development rights at the new location. In order to be a viable option, the TDR approach must be fully coordinated with the overall planning and zoning process and it is recommended that this be achieved through the use of Planned Zoning (discussed in paragraph 1 above).

D. Land Purchase and/or Land Banking with Restrictive Covenants. Purchase of land in fee simple by the airport is the most positive of all forms of land use control, but it is usually the most expensive. However, when combined with either resale for compatible uses (land banking with restrictive covenants) or retention and use for a compatible public purpose, the net cost may be effectively reduced and be found to be reasonable. Due to the cost of this alternative, purchase of land, either through negotiation with the property owner or condemnation, should usually be confined to critical locations most closely impacted by airport operations.

E. Height Restrictions. Height restrictions are necessary to insure that objects will not impair flight safety or decrease the operational capability of the airport. Federal Aviation Regulations (FAR) Part 77, Objects Affecting Navigable Airspace, define a series of imaginary surfaces surrounding airports. Exhibit N herein identifies these imaginary surfaces for approach zones, conical zones, transitional zones and horizontal zones. Any object or structure which would penetrate any of these imaginary surfaces is considered by the FAA to be an obstruction to air navigation. Therefore, height restrictions on proposed developments within the airport area in accordance with FAR Part 77 is an essential element of development control in assuring safety of the airport and the public. While details on specific height restrictions should be included in the
development of zoning regulations for the Airport Interest Area, it is recommended by
this Plan to adhere to and support the height restriction guidelines as set forth by the
Federal Aviation Administration in FAR Part 77. It should be noted, however, that
the area for which Part 77 Height Regulations cover, extends outside of the Airport
Interest Area boundaries. Therefore, compliance with these regulations outside of the
Airport Interest Area boundary would remain the authority of the jurisdiction in which
the area is located.

Section 4. Corrective Actions

In cases where there are existing incompatibilities between land use and airport operations,
corrective or remedial actions may be appropriate. Examples of possible actions that may
be used to mitigate existing incompatibilities include: 1) changes in land use, 2)
soundproofing, and 3) acquisition of full or partial interest in the land.

A. Changes in Land Use. Changes in the use of land to uses which are more compatible
with airport operations are an obvious and practical strategy to resolving airport-
environ incompatibilities. Approaches to encourage this transition may include the
constructive use of planning and zoning; encouragement of existing favorable trends (i.e.
redevelopment of older residential areas to non-residential uses); constructive use of
public capital improvement projects to encourage development; and voluntary
relocation programs.

B. Soundproofing. Compatibility may also be achieved through the implementation of a
voluntary soundproofing program for existing noncompatible structures. The general
condition, age and repair of a structure normally dictate the degree of soundproofing
application. While soundproofing is both a feasible and practical means of alleviating
the impact of airport operations, particularly aircraft noise impacts, the analysis of its
usefulness (benefits vs. costs) should be made on a case-by-case basis giving careful
consideration of the condition and age of the existing structure.

C. Acquisition of Full or Partial Interest In Land. There are, in some cases, locations or
circumstances which leave little choice other than direct acquisition of full or partial
interest in the impacted land. While this option might be considered as a last resort
due to the high costs it involves, the acquisition of land may be used for airport or
airport related uses, for other public uses, or for compatible resale.
CHAPTER V. IMPLEMENTATION

This Comprehensive Compatibility Plan evolved as a cooperative and coordinated effort between the Cities of Olathe and Gardner, Johnson County Airport Commission and Johnson County. Multiple perspectives and multiple degrees and areas of interest were considered in the development of this Plan. Therefore, it is anticipated that administration and implementation of this Plan will also be the result of multi-jurisdictional cooperation.

Section 1. Administration of Plan

Upon adoption of this Comprehensive Compatibility Plan and the Future Land Use Map contained herein by all participating jurisdictions, any existing Comprehensive Plan previously adopted by any of the jurisdictions will be replaced by this Plan for those portions of the Airport Interest Area contained within their jurisdictional boundaries. Exhibit O herein identifies the current jurisdictional boundaries at the time of Plan adoption. In that regard, it will be the responsibility of each jurisdiction to administer and support the goals, objectives, and strategies contained within this Plan as it relates to the growth of their community.

The elements of this Plan, including the future land use designations identified on the Future Land Use Map, shall be supported and implemented by each participating jurisdiction. Any proposed rezoning or conditional or special use permit for development of property within the Airport Interest Area shall be in conformance with the land use designation shown on the Future Land Use Map. If any proposed rezoning or conditional or special use permit is not in conformance with the Future Land Use Map designations, said proposal shall be processed by the jurisdiction in which the property is located with final approval or denial granted by the Johnson County Board of County Commissioners after review and recommendation by the Johnson County Airport Commission and all participating jurisdictions. Exhibit P herein conceptually illustrates this review process, although it is intended for the airport zoning regulations, adopted pursuant to this Plan, to specifically identify those review procedures.

Section 2. Implementation of Strategies

Chapter IV of this Plan identified several issues which are considered to be critical to achieving airport-environs compatibility. Also suggested were possible strategies to achieve this end. Within this Chapter V of this Plan, specific implementation strategies are recommended and an implementation matrix is identified.

It should be noted that while Chapter IV of this Plan identified a wide range of general strategies, some strategies may not be practical for implementation at the New Century AirCenter. Therefore, this Chapter of the Plan identifies only those strategies which are feasible for implementation within the New Century AirCenter Airport Interest Area. Recommended implementation strategies are identified in Exhibit Q herein, the implementation matrix, by the same categorizations as discussed in Chapter IV: noise attenuation, development controls, and corrective actions.
Section 3. Amendment Process

As recommended by Kansas state law, this Plan shall be reviewed annually through the joint coordination of representatives from all participating jurisdictions hereto, with revisions and compliance changes enacted as needed. Compliance changes shall consist of those amendments to the Future Land Use Map necessitated by the previous approval of those rezonings or conditional or special use permits which were inconsistent with the Future Land Use Map.
AMENDMENTS TO THE
COMPREHENSIVE COMPATIBILITY PLAN

(e.g.: Request for Zoning which is inconsistent with the
Land Use Designation shown on the Future Land Use Map)

Originating City
  e.g.: City of Olathe

  Olathe Planning Commission
  Public Hearing and Recommendation

  Joint Review:
  Johnson County Airport Commission staff and
  Johnson County Planning Staff
  (Including review and comment from all
  participating jurisdictions.)

  Olathe City Council
  Recommendation to
  Airport Commission and Board
  of County Commissioners

  Board of County Commissioners
  Review and Final Approval or Disapproval

  Appeals through procedures
  established in interlocal
  Agreement

EXHIBIT P
Review and Approval
Process for Plan Amendment
### IMPLEMENTATION MATRIX

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Mechanism</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strategy 1: Noise Attenuation</strong></td>
<td></td>
</tr>
<tr>
<td>• Construction of Noise Barriers or Shielding on Airport Property</td>
<td>Airport Commission</td>
</tr>
<tr>
<td>• Restrictions on ground movement of aircraft and on engine runups or use of ground equipment</td>
<td>Airport Commission</td>
</tr>
<tr>
<td>• Acquisition or Dedication of Avigation Easements</td>
<td>Airport Commission/ Subdivision Regulations</td>
</tr>
<tr>
<td>• Encourage Soundproofing Standards For New Construction</td>
<td>Zoning and Subdivision Regulations</td>
</tr>
<tr>
<td><strong>Strategy 2: Development Controls</strong></td>
<td></td>
</tr>
<tr>
<td>• Zoning Controls: Conventional, Conditional Use Permits, and Planned Districts</td>
<td>Zoning Regulations</td>
</tr>
<tr>
<td>• Acquisition or Dedication of Easements</td>
<td>Zoning and Subdivision Regulations</td>
</tr>
<tr>
<td>• Transfer of Development Rights</td>
<td>Zoning and Subdivision Regulations</td>
</tr>
<tr>
<td>• Land Purchase/Land Banking</td>
<td>Airport Commission</td>
</tr>
<tr>
<td>• Height Restrictions</td>
<td>Zoning Regulations</td>
</tr>
<tr>
<td><strong>Strategy 3: Corrective Actions</strong></td>
<td></td>
</tr>
<tr>
<td>• Changes in Land Use</td>
<td>Zoning Regulations</td>
</tr>
<tr>
<td>• Encourage Soundproofing Standards in Existing Structures</td>
<td>Technical Assistance at Local/County Levels</td>
</tr>
<tr>
<td>• Public Disclosure Statements</td>
<td>Zoning and Subdivision Regulations</td>
</tr>
</tbody>
</table>

Many of the above identified strategies shall be implemented through the cooperative inter-jurisdictional administration of Zoning and Subdivision Regulations for the New Century AirCenter Airport Interest Area. Other strategies such as land and/or easement acquisition, land banking, or airport property development shall be implemented by the Johnson County Airport Commission and the County of Johnson as is deemed to be financially appropriate.
GLOSSARY

A-weighted Sound Level (also referred to as dBA). The sound pressure level which has been filtered or weighted to reduce the influence of the low and high frequency noise; designed to approximate the response of the human ear to sound and has been found to correlate well with people's subjective judgment.

Average Day-Night Sound Level (Ldn). A day/night average sound level which is the twenty-four-hour average sound level, in decibels on the A scale, obtained after the addition of ten (10) decibels to sound levels during the night from 10:00 p.m. to 7:00 a.m., as averaged over a span of one year; the Federal Aviation Administration standard metric for determining the cumulative exposure of individuals to noise.

Avigation Easement. An air rights easement which protects air lanes around airports.

Compatibility. The degree to which land uses or types of development can coexist or integrate.

Conditional (or Special) Use. A use permitted in a particular zoning district only upon showing that such use in a specified location will comply with all conditions and standards for the location or operation of such use as specified in the zoning ordinance and authorized by the planning board.

Primary Flight Corridor. A 500' wide open strip of land located along the extended centerline of the airport runway; it is within this area where it is considered important to discourage development due to the area's increased potential for accidents.

Density. The number of families, individuals, dwelling units, or housing structures per unit of land. (See also Intensity.)

Easement. A grant of one or more of the property rights by the property owner to and/or for the use by the public, a corporation, or another person or entity. (See Avigation Easement.)

Floodplain. The channel and the relatively flat area adjoining the channel of a natural stream or river which has been or may be covered by floodwater.

Future Land Use Map. A map which is part of this Plan identifying the planned utilization and the desirable intensity of a given parcel of land over the time horizon of this Plan; this map will be a guide to future zoning decisions.

Goal. The generalized overriding purpose of this Plan.

Intensity. The degree to which land is used; while frequently used synonymously with the term "density", intensity has a broader meaning, referring to levels of concentration, or activity in certain uses.

Issues. The major areas of concern that are covered in this Plan (e.g. noise attenuation, development control).
Land Banking. The purchase of property by the government to be held for future use and development either by the government or for resale for the development of compatible uses.

Nautical Mile. Equivalent to 1.15 times a statute mile, or 6,072 feet.

Noise Attenuation. The policy of lessening or minimizing noise impacts to nearby properties due to airport operations.

Noise Contour. A continuous line on a map of the airport vicinity connecting all points of the same noise exposure level.

Nonconforming Use. A use of activity which was lawful prior to the adoption, revision, or amendment of a zoning ordinance, but which fails, by reason of such adoption, revision, or amendment, to conform to the present requirements of the zoning district.

Objectives. Objectives represent tangible steps to achieve identified goals.

Open Space. Land left undeveloped either for a specific purpose (such as for airport operations) or which is unsuitable for development, including parkland, recreational areas, and floodplain areas.

Planned Zoning. Similar to conventional zoning but adds a site development plan review to the process; uses permitted in the zoning district may be developed only after review and approval by the governing body of a specific plan for the development of the site. Planned zoning encourages more flexible development of land rather than the rigidity associated with conventional zoning; concepts such as transfer of development rights, zero-lot line development, and cluster housing, are typically developed under Planned Zoning.

Single Exposure Level (SEL). SEL is a measure of single event noise accounting for duration and magnitude at a given location, or sometimes best understood as the does of noise associated with a single aircraft event.

Special Use: See Conditional Use.

Statute Mile. Equivalent to one land mile, 5,280 feet. (See also nautical mile.)

Strategy. A specific set of actions which will enable the goals and objectives of this plan to be carried out.

"Touch and Go". Refers to an aircraft which lands then makes an immediate takeoff without coming to a full stop or exiting the runway. These operations are normally associated with training and are considered as local operations.

Transfer of Development Rights (TDR). The removal of the right to develop or build, expressed in dwelling units per acre, from land in one location to land in another location where such transfer is permitted.

Zoning (Conventional). An exercise of the police powers of the State, as delegated to local governments, designating the uses permitted on each parcel of land within the zoning jurisdiction.
REFERENCE SOURCES


The Economic Impact of Johnson County Executive Airport and Johnson County Industrial Airport. CERI Research Papers, Johnson County Economic Research Institute, September 27, 1990.
Rural Comprehensive Plan
A Plan for the Unincorporated Area of Johnson County

PART 5

Blue Valley Plan

Adopted by

The Board of County Commissioners
Resolution 013-96

Recommended by

The County Planning Commission

Johnson County, Kansas

1995 - 1996 Refinements to the Plan adopted by
Board of County Commissioners Resolution 71-86.
The Plan was amended and Part 2 was added by Resolution 081-91, August 22, 1991, and
Parts 3 and 4 were added by BOCC Resolution 020-94, March 17, 1994, and
Parts 1, 2, and 4 were amended and Parts 5 and 6 added by BOCC Resolution 013-96, February 8, 1996.

Johnson County Department of Planning, Development and Codes
Johnson County, Kansas
February 8, 1996

111 South Cherry, Olathe, KS  66061- 3441
(913) 764-8484 Extension 5299
PREFACE

This text for the Blue Valley Plan was prepared by staff members of the Johnson County Planning Office and of the City of Overland Park Department of Planning and Research. This text has been reviewed by the joint-planning committee of the Johnson County Planning Commission and of the City of Overland Park Planning Commission.

The joint-planning committee for the Blue Valley Plan is comprised of four members of the Johnson County Planning Commission and four members of the City of Overland Park Planning Commission. The joint-planning committee has reviewed the existing and previously proposed plans for the Blue Valley Planning Area. The joint-committee has become familiar with the area, and it has gathered additional information relevant to future development and land uses in the Blue Valley Planning Area. The joint-planning committee has received a copy of this draft, has reviewed it and has endorsed this draft.

The Johnson County Planning Commission held a public hearing regarding this and other aspects of the Rural Comprehensive Plan on July 12, 1995.

This plan blends, refines and updates text from two primary sources:

- The Aubry-Stilwell Area Plan that was adopted into the Johnson County Rural Comprehensive Plan in 1991, and

- A draft plan prepared in 1990 by the City of Overland Park for what was called an Extraterritorial Area Plan. (The 1990 proposal was forwarded to the Johnson County Planning Commission, but it was not formally reviewed or adopted.)
BLUE VALLEY PLAN

Introduction

This portion of the Comprehensive Plan deals with a special area in southeast Johnson County. It is an area where suburban and ex-urban development have occurred in patterns that require special attention and specific policies to foster orderly growth. Because of the interconnected services and facility plans, this also requires cooperative programming with the adjacent city, Overland Park.

a. History of Cooperative Planning in the Blue Valley Planning Area

Earlier versions of the Johnson County Comprehensive Plan recognized that the eastern Blue Valley area (the Aubry-Stilwell Area and eastern Oxford Township) contains a mixture of residential, commercial and industrial uses unlike the land use patterns in other unincorporated areas of Johnson County. Beginning as early as 1980, various land use studies and reports have identified the area as one experiencing exurban growth and development at a relatively greater rate and concentration than has been occurring in other parts of unincorporated the county. The earlier versions of the county's Plan established an objective for the preparation of a more specific plan for the orderly development of this area, designated as a Growth Policy Area. The Aubry-Stilwell Area Plan was adopted with other amendments to the Rural Comprehensive Plan in September 1991. The Aubry-Stilwell Area Plan adopted in 1991 did not address future land uses in the area north of the Blue River. Instead, that area was identified as an Urban Fringe Policy Area in anticipation of future, joint-planning for that area with the City of Overland Park.

The City of Overland Park has not previously included in its Master Plan areas outside the city's boundary. However, the city's 1988 Master Plan review identified "future land use planning in unincorporated areas" as an issue for further study. The 1989 Review of the Master Plan also supported such planning, and the city staff studied this during the fall of 1989 and the spring of 1990 for consideration as a possible revision to the city's Master Plan. In 1990, the City of Overland Park prepared a land use study and draft future land use plan for a recently annexed area near the south city limits and an adjoining area in the county. The extraterritorial portion of that planning study area included the Urban Fringe Policy Area described above, and some areas in the north part of the Aubry-Stilwell plan area. The future land use proposals resulting from the 1990 study were presented to
the Johnson County Planning Commission in July, 1990, as proposals for future consideration by both the city and the County.

The 1990 recommendations of the City of Overland Park were presented to the County Planning Commission while the Planning Commission was working on changes to the county zoning and subdivision regulations and on certain changes to the Rural Comprehensive Plan. These other tasks kept the Johnson County Planning Commission from considering the city's request until 1994. In July 1994, a joint-planning committee of the Johnson County Planning Commission and the City of Overland Park Planning Commission was formed to review the Extraterritorial Planning Area, study, make revisions as needed, and prepare a plan and land use goals for consideration and adoption by each jurisdiction.

As a result of this joint-study, the Overland Park Master Plan shows the city's future land use proposals for areas beyond city limits, in the northern part of the Blue Valley/Aubry-Stilwell area, but the plans of each jurisdiction clearly note that the future land uses inside the other jurisdiction are shown for illustrative purposes only, that they are not to be considered as officially adopted policy for areas outside their official jurisdiction. The reader is cautioned to check with both jurisdictions to determine if changes have occurred.

b. Blue Valley Planning Area Boundaries

As described below, this Plan now provides guidance for future development within the larger Blue Valley Planning Area instead of just the Aubry-Stilwell Growth Policy Area identified in 1991. This planning area is identified here as follows:

The Blue Valley Plan Area is the portion of Oxford and Aubry Townships roughly bounded by Pflumm Road on the west, the city limits of Overland Park on the north, Kansas - Missouri state line on the east, and the county's Growth Policy Area boundary on the south.

c. Subareas of the Blue Valley Planning Area

This Plan recognizes that existing, expected and preferred future development patterns support the identification of distinct areas of interest within the Blue Valley Planning Area.

There are separate north and south areas of interest as follows:

1). The Blue Valley Plan, Urban Fringe Area is the north part of the Blue Valley Planning Area. The Blue Valley Plan, Urban Fringe Area is
bounded by the city limits on the north, Pflumm Road on the west, 183rd Street and 191st Street on the south and the Kansas - Missouri state line on the east. This is the area that was studied by the Joint-Planning Committee of the planning commissions of Johnson County and the City of Overland Park. In the past, Johnson County referred to part of this area as an "Urban Fringe Policy Area" and the City of Overland Park has referred to it as an "Extraterritorial Planning Study Area." The future land uses in this Plan reflect the results of the study by the Joint-Planning Committee of the county and city.

About one-half of the Blue Valley Plan, Urban Fringe Area is in Oxford Township, and the rest is in Aubry Township. The portion of the Blue Valley Plan, Urban Fringe Area south of the Coffee Creek and Blue River channels was included in the Aubry-Stilwell Area Plan of the County’s Rural Comprehensive Plan adopted in September 1991. As described below in the section, "Applicability of this Plan" the future land uses for the county-jurisdiction area are adopted policy of the county only, and, similarly, the future land uses for the area annexed into the city are adopted policy of the city only.

2). **The Blue Valley Aubry-Stilwell Area** is the south part of the Blue Valley Planning Area. It encompasses all of the Blue Valley Planning Area that is not in the Blue Valley Plan, Urban Fringe Area described above. The Aubry-Stilwell Area is a Growth Policy Area per the general land use policies of the county’s Rural Comprehensive Plan. Future land use proposals for the Aubry-Stilwell area were first included in the county's Rural Comprehensive Plan in 1991, when distinct policies were established for the Aubry-Stilwell Area. The east and west portions of this area are two subareas of particular importance in the Aubry-Stilwell Area. Separate, appropriate future land use and development policies have been established for each of the two subareas. The two subareas of the Aubry-Stilwell Area are as follows:

a). **The West Aubry-Stilwell Area** of the Blue Valley Planning Area is the primary area of interest in the Aubry-Stilwell Area. It is south of the Blue Valley Plan, Urban Fringe Area in the vicinity of the Aubry and Stilwell communities. This developing part of the unincorporated area is near the 199th Street interchange with U.S. 69 Highway. It is roughly bounded by Antioch Road on the west, Camp Branch Creek on the east, the Blue River watershed boundary on the south, and it extends north to the south edge of the Blue Valley Plan, Urban Fringe Area.

b). **The East Aubry-Stilwell Area**. This Plan recognizes that the Blue Valley Planning Area includes several existing developed areas that
are small, rather isolated or which have more dispersed overall patterns of development than those in other areas. The "East Aubry-Stilwell" portion of the Blue Valley Planning Area is the primary of these other developed areas. The East Aubry-Stilwell area is within the Growth Policy Area but outside the primary area of interest in the Aubry-Stilwell Area. Generally, the East Aubry-Stilwell area is that portion of the Blue River basin east of Camp Branch Creek and south of the Blue Valley Plan, Urban Fringe Area. Others of these developed areas are within the Rural Policy Area near the Aubry-Stilwell Growth Policy Area.

c). The Blue Valley Plan, Urban Fringe Area includes part of "Study Area 95-1 which is a one-mile square area centered on the proposed interchange of 159th Street and U.S. 69 Highway. The plan analysis and future land use proposals and policies for the 95-1 Study Area are in a separate document titled, "Study Area 95-1, Proposed Future Land Uses."

Adjacent to the Blue Valley Plan, Urban Fringe Area there are other future land use plan changes proposed for sites near 159th Street and Mission Road inside the City of Overland Park. Those changes were considered by the Joint-Planning Committee, and the changes are proposed to be considered at the same time as the future land uses for Study Area 95-1 as mid-year amendments to the City of Overland Park Master Plan.

The map below conceptually depicts the Blue Valley Planning Area, the planning subareas, and some of the existing development areas.
d. How the Plan is to be Used

This plan is to be considered during reviews of zoning and development proposals and during preparation of special studies with respect to the Blue Valley Planning Area. Both the city and the county also shall consider this
Plan during preparation of any land use comments and recommendations to the other jurisdiction.

**e. Applicability of this Plan**

The land use goals and the future land uses cited herein for the Blue Valley Planning Area are adopted Johnson County policy with respect to only those portions of the Blue Valley Planning Area that are under the County's jurisdiction for zoning and subdivision control.

Conversely, the land use goals and the future land uses shown herein with respect to areas inside the City of Overland Park are illustrative of the goals and future uses of the city on the date of adoption of this Plan by the county. The land use goals and future land uses depicted herein must be considered with caution since the official adopted goals and policies of the city are reviewed annually and may have changed since this document was adopted by Johnson County.

**f. Organization of this Plan**

1). **Characteristics Common to All of the Planning Area:** Some characteristics of the Blue Valley Planning Area are common to both the Blue Valley Plan, Urban Fringe Area and to the Blue Valley Aubry-Stilwell Area. Those common characteristics, such as the character of the area, development constraints and development opportunities are discussed first in Section A of this Plan.

2). **North and South Sections:** As described above, this Plan is arranged with separate sections for the north and the south parts of the Blue Valley Planning Area. The Blue Valley Plan, Urban Fringe Area is the north part of the planning area. Specific discussion of this area is in Section B of this Plan.

The Aubry-Stilwell Area is the south part of the planning area, and the discussion for that area is in Section C of this Plan, and it immediately follows the Blue Valley Plan, Urban Fringe Area text.

3). **Goals and Policies:** To facilitate future reference and consideration of the goals and policies for the Blue Valley Planning Area, they are stated in "Section D" of this Blue Valley Plan.

**g. General Background Information**

As background information, the joint-planning committee was provided with copies of a 10-page summary of data on county-area subdivisions,
building permits (quantities and patterns), and areas that are available for
development. The Aubry-Stilwell Area future land use map from the Rural
Comprehensive Plan also was provided to the joint-planning committee.

Copies of the City of Overland Park's "Annual Development Report" were
provided to the joint-committee as background information. Other
background information about Overland Park included a data summary
titled "Single-Family Development South of I-435" (June 30, 1994).

A bar graph and data titled "Overland Park Population Change 1960 to
1994" were provided to the joint-planning committee. Separate charts and
data tables were provided with respect to the city and the county on the
following topics: "Population Growth 1980-94," and "Projected Growth 1995-
2000." A map showing City of Overland Park population by precinct also
was provided to the joint-planning committee.
Section A.

BLUE VALLEY PLAN

Area In General
Section A.

BLUE VALLEY PLAN
Area In General

1. Existing Conditions in the Blue Valley Planning Area

a. Character of the Area

The Blue Valley Planning Area is rural in character. A number of farmsteads with agricultural and/or livestock operations exist throughout the area but, as shown on the current land use map, there is a mixture of large-lot residential development interspersed with vacant or agricultural land. There are several large-lot subdivisions that are relatively new and of high quality.

The Blue River and three of its tributaries (Coffee Creek, Wolf Creek and the Camp Branch Creek) traverse the area flowing to the northeast. Coffee Creek flows to the east-southeast to that confluence point, and Wolf Creek flows to the east-northeast to that point. The Blue River Valley is quite scenic east of U.S. 69 with high bluffs and heavily wooded areas. Most of the Blue Valley Planning Area west of U.S. 69 consists of rolling open farmland or pastureland. Ridge lines on the east side of U.S. 69 Highway are also rolling open farmland or pastureland. East of Camp Branch Creek the ridge lines tend to be much narrower, but there also are open farmland and pastureland uses in that area.

The Blue Valley Planning Area is served by gravel, chip-seal and asphalt roads with open ditch storm drainage. Utilities in the area include electricity, limited natural gas, and limited rural water service. There is sanitary sewer service only in the extreme northeast and northwest corners of the Blue Valley Planning Area.

b. Current Land Use

The variety of existing land uses and the intermixed pattern of developed and vacant parcels shows this is not a homogeneous area.

The Blue Valley Planning Area is divided in half by U.S. 69 Highway. This highway is a four-lane, limited access freeway that has a north-south route through the area. The highway parallels and is about one-half mile west of Metcalf Avenue. Metcalf Avenue is the former route of the highway. The areas with older development are more prevalent along Metcalf Avenue.
Most of the area is undeveloped, but a larger number and more diverse types of land uses are found east of U.S. 69 Highway.

Existing land uses east of U.S. 69 include several pockets of large-lot single-family homes located within subdivisions or individually scattered along roadways. The subdivisions are generally in either the Stanley or Stilwell areas. There are more traditional-sized (urban-density) lot subdivisions near Kenneth Road.

The portion of the Blue Valley Planning Area west of U.S. 69 is predominantly undeveloped except for the Glad Acres subdivision between Quivira Road and Switzer Road from 175th Street to 179th Street.

c. Factors Influencing Development

There are pockets within the Blue Valley Planning Area which exhibit relatively low levels of past development or which have important constraints on future development as a result of:

1). Existing features such as steep slopes, floodplains, important agricultural use characteristics, vegetative cover, historical value, etc.

2). Limitations of existing infrastructure such as road access, services, and utilities, which place constraints on the near-term ability to handle development.

2. Development Constraints in General

a. Floodplains/River Valley

During heavy rains on May 15, 1990, all roads east of Metcalf Avenue were impassable. Access both west and east of U.S. 69 Highway was disrupted by high water wherever the roads crossed the floodplains of Coffee Creek, Wolf Creek, or Camp Branch Creek. U.S. 69 Highway provided the only uninterrupted access to the south portion of the Blue Valley Planning Area.

b. Ridges with Significant Slope

Topography is more of a constraint on the east side of the study area. The Existing Land Use Map depicts the topography of the Blue Valley Planning Area. Areas with steep slopes can be noted by observing the concentrations of topographic contour lines on that map.
c. Limited Existing Sanitary Sewer Lines

The only existing sanitary sewer subdistricts serve the extreme northeast and northwest corners of the Blue Valley Planning Area. There are some sanitary sewer subdistricts in adjoining areas inside the City of Overland Park.

The joint-committee reviewed the sanitary sewer system as a factor of future development in the Blue Valley Planning Area. The following observations were noted during that review:

• There might be opposition to sanitary sewer district formations in the area along Camp Branch Creek south of 167th Street due to the added costs for retro-fitting sewers into areas already partially developed, and the rather rugged terrain.

• The Blue River No. 8 subdistrict that was established in 1994 will initially use a pump station that probably will be replaced in about 5 to 10 years when gravity sewers are extended along the main stem of the Blue River to 171st Street and Metcalf Avenue.

• There may now be about 3 to 4 years of sewered residential land available for development in the south Overland Park area.

• There is a rather large amount of "vacant" land in the south Overland Park area that will not be developed for residential uses -- i.e. Miller's Woods, business uses along K-150, areas in floodplain areas, and so on.

• Overland Park might grow more quickly to the south on the west side of U.S. 69 Highway because the existing large-lot, unsewered developments to the east of the highway may obstruct the formation of sewer districts east of the highway.

In some cases lateral sanitary sewer costs may be high because of rock excavation costs, long distances between building sites or because of special construction conditions (i.e. construction down steep slopes, tunnels under streets or around other utilities, long connections through unsewered areas, piping through unstable soil areas, etc.).

The costs of constructing lateral sanitary sewers (i.e. the sewers within neighborhoods and blocks) and the costs of the private connection pipes from buildings to the lateral sewers is a cost borne solely by the property owners. In the case of new subdivisions, the lateral sewers usually are paid by the subdivision developer who includes those costs in the selling prices of the lots. In existing subdivisions, a lateral sewer benefit district usually is
created to enable the improvements to be financed with special improvement bonds and to levy special tax assessments that may be paid over a number of years.

Other than the lateral sanitary sewer costs, the direct cost to existing homes joining into the public wastewater district sewer system is reasonable via the established sewer funding process. The sewer funding process allows for deferments from the Annual Capital Charge ($62 per home and $186 per acre for undeveloped land in 1994) for up to 10 years for agricultural and residential uses. Until the property is actually brought into the sewer district via district enlargement, the property owner does not have to pay the Connection Fee ($1,500 in 1994), the System Development Fee ($750 in 1994) or the Permit Fee ($100 in 1994). Upon district enlargement, all properties, deferred or otherwise must pay a mill levy (6.736 mills in September 1994) for operation, maintenance and planning costs. If property owners petition their land into a sewer district, their property would not be eligible for the deferment discussed here.

The cost of constructing sanitary sewers through areas that may not soon be connected to the system tends to increase the capital costs for the public at large since some of the usual revenues to the system will not be collected for several years. Therefore, proposals to build sanitary sewers into areas that may only be partially connected to the system should be carefully evaluated from an overall cost-benefit perspective to assure that the public at-large costs would be reasonable.

d. Public Water Service

Johnson County Water District No. 1 serves the Blue Valley Planning Area. The joint-committee reviewed the current condition of the water system, its capabilities to expand and serve growth, and the usual methods for water system improvements. In general, the existing water system in the Blue Valley Plan Area is now capable of serving rural uses in most of the area, but the system could be incrementally improved to meet the needs of more intense development as the area develops further. Observations about the water system are as follows:

- The water district serves a 260 square-mile area. During the years 1987-1989 the district's territory increased 3-fold as it merged with former rural water districts numbers 2, 3, and 5.

- The Kansas River and the Missouri River are the water sources for the district, and about 1/2 of its daily needs can be provided from either source.
• The district needs about 130 Million Gallons per Day (MGD) to meet regular needs.

• For overall system development planning purposes, the district monitors building permit and subdivision plat trends. That helps guide water source and treatment planning. Water mains, however, are installed as development occurs, and they are sized to meet the needs of the development occurring. The improvements are targeted for completion just in advance of need. Thus, the types and patterns of future land uses shown in long-range plans are not as important for water main planning purposes as one might expect.

• Forty pounds per square inch (40 psi) pressure is the absolute minimum pressure that is acceptable in the district in general. However, 30 psi has been established as a absolute lowest appropriate pressure for new meters for residential uses on existing lines in the rural areas.

• There is a 1-million-gallon storage tank in this planning area, and that tank is expected to be kept in service in the long run. Some pump improvements for water pressure purposes are underway at that location.

• There is a 5-million-gallon storage tank that was recently completed about 4 miles from the northwest corner of this planning area.

• Demand on the system is highest during the summer months. In the area west of U.S. 69 Highway and north of 159th Street, the summer volume is about 3 or 4 times the volume during the rest of the year. The volume increases from about 3.5 MGD to about 13 MGD in the summer. The recently completed 5-million-gallon storage tank will help meet the needs in the area.

• The water main improvements at the time of development are aimed at meeting future, foreseen needs. The costs of those improvements are paid by the developers. (Other utilities like telephone, electrical are willing to pay 20 - 30% of the system extension costs, but the water district does not do that.)

• When service is initiated to a property, the water district charges and collects a system development fee that is based on the size of the water meter. The minimum fee is $1,200 for a 5/8-inch (residential) meter. If a meter as large as 6 inches is requested, the system development fee amount is determined by special calculations.
e. **Incomplete Roadway Network**

The Johnson County Public Works Office's draft Long-Range Road Network Plan and draft 5-Year Road Improvements Plan were summarized for the joint-planning committee. The summary of those draft plans noted county staff's observations about missing links in the road network, rights-of-way requirements, and need for coordination of the design standards for new roads.

The roadway network has missing links both north/south and east/west. In several places, severe conditions (i.e. steep slopes, wide floodplains, existing development or land use patterns) may make completion of the roadway network difficult and perhaps unreasonable to complete.

f. **Environmental**

In addition to the steep slope and floodplain areas that will significantly affect the cost, type and pattern of development in the future, there are areas with tree cover, especially to the east of the highway. These existing characteristics offer special opportunities for land uses that consider and respect open space, aesthetic amenities, recreational options, and so on.

g. **Development Capacities of Watersheds**

The Johnson County Planning Office has been studying the development capacities of watershed sub-basins in the county. The study method considers regional population growth forecasts and various planning factors such as planned future land uses, past development trends, relative distance to existing sanitary sewers and the acreages of vacant land in the sub-basins. The study method allocates future development to the various watersheds and sub-basins. The general forecast trends being identified in that study were highlighted for the Blue Valley Plan joint-planning committee. In summary, there appears to be considerable territory for urban development to occur in areas farther north than the Blue Valley Planning Area.

h. **Other Features That May Affect Development** -

- There are several existing electrical substations and high-voltage electricity lines in the Blue Valley Planning Area.
- Areas with tree cover are shown on the Existing Land Use Map.
- Two new schools are proposed in Overland Park near the Blue River in the area south of 159th Street and east of Nall Avenue.
- The oil tank farm on the north side of 159th Street east of Mission Road.
• Topographic features, roads, stream channels, and building footprints shown on the Existing Land Use Map (based on dated gathered in March 1986).
• Blue Valley School District campus on 160 acres on the west side of Antioch Road one-quarter mile south of 159th Street.
• The Unified Wastewater District might be enlarged circa the year 2000 to the area of 171st Street and Metcalf Avenue. A sanitary sewer line northwesterly from that location could then be built to sewer the Blue Valley School District Campus on Antioch Road south of 159th Street.
Section B.

BLUE VALLEY PLAN

Urban Fringe Area
Section B.

BLUE VALLEY PLAN
Urban Fringe Area

1. Existing Conditions in the Blue Valley Plan, Urban Fringe Area

a. Character of the Area

The Blue Valley Plan, Urban Fringe Area has a rural character. There are a number of farmsteads with agricultural or livestock operations, and there are several large-lot subdivisions that are relatively new and of high quality. Some higher intensity uses such as two quarries, the ARCO tank farm, and the Bayer (formerly Miles, Inc.), research farm, are interspersed throughout the Blue Valley Plan, Urban Fringe Area.

See also this topic in the general discussion in Section A above.

b. Current Land Use

Existing land uses in the Blue Valley Plan, Urban Fringe Area include:

1). An agricultural research facility Bayer (formerly Miles, Inc.) on Metcalf Avenue south of the Blue River;

2). A quarry operation between U.S. 69 and Metcalf north of 167th Street;

3). A quarry operation southeast of 167th Street and Switzer Road.

4). A highway maintenance facility of the Kansas Department of Transportation (KDOT) adjacent to the 167th Street and U.S. 69 half interchange at the southwest corner of the quarry);

5). A petroleum storage facility or tank farm (ARCO) east of Mission Road on the north side of 159th Street;

6). The Blue Valley High School on the south side of 159th Street between Metcalf and Nall Avenues;

7). The Blue River Treatment Plant of the Johnson County Unified Wastewater Districts southwest of the intersection of 151st Street and Kenneth Road.
8) A railroad main line (Union Pacific System Railroad) along the
floodplain of the Blue River and Camp Branch Creek. That railroad track
crosses the state line near 143rd Street and the Johnson - Miami County
line at Antioch Road.

The area west of U.S. 69 is predominantly undeveloped, some scattered
large-lot single-family homes exist, and there is a platted large-lot
subdivision (Glad Acres) between Quivira and Switzer Roads, south of 175th
Street. The 300-acre Overland Park Arboretum site is at the southwest corner
of 179th Street and Antioch Road. The arboretum site was annexed by the
city in 1994. The quarry operation southeast of 167th Street and Switzer
Road is smaller than the other quarry, but it is growing. A Kansas City
Power and Light Company electrical substation is being established on the
north side of 167th Street one-half mile west of Antioch Road. There is a
cemetery on the south side of 159th Street one-half mile west of Antioch
Road, and a new church has been built immediately to the west of that
cemetery.

See also this topic in the general discussion in Section A above.

c. Factors Influencing Development -- See the earlier discussion in Section A
above.

2. Development Constraints See also this topic in the general discussion in Section A
above.

a. Floodplains/River Valley

The Blue River floodplain is very broad in several areas and some flooding
occurs rather often in areas east of U.S. 69 Highway.

b. Ridges with Significant Slope -- See the discussion in Section A above.

c. Limited Existing Sanitary Sewer Lines

Two subdistricts serve the extreme northeast corner of the Blue Valley Plan,
Urban Fringe Area. Part of the area of recently formed Blue River No. 8
sanitary sewer subdistricts will serve small portion of the northwest corner
of the Blue Valley Plan, Urban Fringe Area near 159th Street and Pflumm
Road. Initially, the Blue River No. 8 subdistrict will use a force main
system along 159th Street. Force mains area generally regarded as interim
methods until gravity-flow sewers can be developed. A gravity-flow
system from the Blue River No. 8 area would have to extend through
several miles of the Coffee Creek and Blue River channels that are not now
sewered. This situation might become a reason to favorably regard the
formation of more sanitary sewer subdistricts in the area downstream of the Blue River No. 8 subdistrict.

The recently formed Blue River No. 10 sanitary sewer subdistrict will serve an adjacent area within the city (southeast of 159th Street and Nall Avenue) and could facilitate the extension of sewers into the Blue Valley Plan, Urban Fringe Area.

A study of whether to form another sanitary sewer subdistrict (Blue River No. 12) for the area generally north of 175th Street and east of Antioch Road has been proposed in 1995.

A study of whether to form another sanitary sewer subdistrict (Blue River No. 14) for the area generally north of 167th Street and east of Ridgeview Road was the subject of an information meeting held October 14, 1995.

d. Incomplete Roadway Network

Both north/south and east/west access in the area is interrupted by missing links along the mile section-line roads. As examples, Nall Avenue does not cross the Blue River south of 167th Street where the Blue River floodplain is about 1,500 feet wide and where there is a substantial hill to the south of the floodplain. Also, Antioch Road does not cross Coffee Creek north of 175th Street, and 167th Street has not been opened in the mile between Nall Avenue and Mission Road (it would have to cross both the Blue River and Camp Branch Creek in that mile.)

Some existing roads now open for very light traffic and travel conditions would be expensive and difficult to improve to urban arterial or even urban collector street conditions. Such roads include 175th Street between Mission Road and Nall Avenue and Mission Road north of 175th Street.

e. Environmental

Steep slopes and wide floodplains will make roadway construction more costly. Every north/south street west of U.S. 69 Highway must cross both Coffee and Wolf Creeks if the roadway network is to be completed. East of U.S. 69 Highway, the Blue River floodplain is 1,500 feet wide where Nall Avenue must cross if existing segments north and south of the Blue River are to be connected.
3. Blue Valley Plan, Urban Fringe Area Development Opportunities and Constraints

a. Opportunities West of U.S. 69

1). Easily Developed

The terrain is relatively level with slopes of only 0 - 5 percent over most of the area.

2). Two Potential Greenway Systems

The floodplains of Coffee and Wolf Creeks can be used to provide bike/hike trails and other recreation amenities linked to the existing park system. The greenway linkage proposed along the highway can help integrate the greenway system in the area.

3). Overland Park Arboretum

The city's 300-acre Arboretum site is located southwest of 179th Street and Antioch Road in this portion of the Blue Valley Planning Area.

4). Limited Existing Development

The area is relatively undeveloped so it is not committed to a particular land use pattern. Existing zoning in the area is for either agricultural or large-lot residential uses almost exclusively. Existing development is relatively new and high quality.

5). Topography

Unlike the other watershed sub-basins, the Coffee Creek sub-basin does not have major soil or slope limitations.

6). Proximity of Existing Development

Similar to the Blue River North sub-basin, the Coffee Creek sub-basin is close to population and employment centers.

7). Transportation Network

The major east-west streets (159th, 167th, and 175th) through the area are hard surfaced as are several of the north-south roads.
8). Utilities

Before 1990, it was forecasted that wastewater treatment facilities would be available in some areas of the Coffee Creek sub-basin of the Blue River watershed as early as 1995 and that the entire sub-basin would have facilities by 2005. Recent actions are showing some accuracy in that forecast. The Blue River No. 8 sanitary sewer subdistrict was formed in 1994 to serve the upper, northwest area of the Coffee Creek sub-basin. In 1995, a study of Blue River No. 12 was proposed for the Coffee Creek sub-basin area north of 175th Street and east of Ridgeview Road.

9). Educational Complex Proposed

The Blue Valley School District proposes to develop an educational complex with an elementary school, a middle school, a high school and a school district sports activity complex on 160 acres on the west side of Antioch Road about one-quarter mile south of 159th Street and about the same distance north of 167th Street.

b. Constraints West of U.S. 69

1). Johnson County Executive Airport

The existing airport at Pflumm Road and 159th Street limits development in that area to uses compatible with air traffic. In March 1994, Johnson County adopted a Comprehensive Compatibility Plan for the area around the Executive Airport. Although the concept for that plan was that it mutually be adopted also by the cities of Olathe and Overland Park, the cities have not yet completed their actions to adopt the airport area compatibility plan. (Although each city has voted favorably to do so, final enactment of the airport area compatibility plan is awaiting completion of joint-review and decision procedures for the drafted airport interest area zoning and subdivision regulations.)

2). Gravel Roads

These roads would require substantial work and acquisition of additional right-of-way to bring them up to urban standards.

3). Incomplete Roadway Network

Antioch Road has not been opened across Coffee Creek and 167th Street has not been opened between Switzer Road and Pflumm Road.
4). Quarry

By its nature, the quarry operation is unsightly, generates noise and dust, and has considerable truck traffic in and out of the facility.

5). Coffee and Wolf Creeks

The two creeks crossing the west side divide the area and will make connecting the various segments of the road network expensive.

6). Right-of-Way

Acquisition of the right-of-way needed to build new thoroughfares or upgrade existing thoroughfares to urban standards may be difficult and costly.

c. Opportunities East of U.S. 69

1). Potential Greenway Systems

The floodplain of the Blue River can be used to tie the area to the Blue River Parkway in Missouri and to the city of Leawood’s greenway systems, as well as to other parkland. Again, the proposed greenway linkage along the highway can help integrate the greenway system in the area.

2). Scenic Vistas

The Blue River Valley offers an excellent opportunity to develop very-low-density residential areas which integrate with the existing topography and woodlands while retaining the scenic vistas.

3). Utilities

The east side of the study area is well served by utilities with the exception of sanitary sewer service which is available only in the northeast portion of the area.

4). Employment Center

Bayer (Miles, Inc.'), Research Farm is an employment center for the area.
d. **Constraints East of U.S. 69**

1). **Gravel Roads**

   These roads would require substantial work and acquisition of additional right-of-way to bring them up to urban standards.

2). **Incomplete Roadway Network**

   Connection of segments of the roadway network and upgrading of existing segments to thoroughfare standards will be difficult and expensive.

3). **Quarry**

   The quarry operation is unsightly, generates noise and dust, and has considerable truck traffic in and out of the facility. In addition, this quarry east of U.S. 69 is a much more extensive facility than the one on the west side, with a greater amount of material excavated from the site.

4). **Existing Zoning**

   Some areas in and along the floodplain and along the railroad tracks near 159th Street and Mission Road are already zoned for nonresidential uses. Some of these sites have floodplain or topography limitations which limit the range of nonresidential uses that might occur. Such existing zoning is not suited to the sites or compatible with orderly development.

5). **Right-of-Way**

   Acquisition of the right-of-way needed to build new thoroughfares or upgrade existing thoroughfares to urban standards may be difficult and costly.

6). **Large-Lot Single-Family Development**

   The existence of several major areas of large-lot single-family development served by private septic systems will make the extension of public sanitary sewer service to the remaining undeveloped tracts in the area more costly. Because of the dispersed housing pattern and the high cost of treatment facilities, there are few remaining areas that could be served with public sanitary sewer service without requiring
sub-district participation by existing residents living in the large-lot subdivisions.

7). Railroad

The railroad (mainline of the Union Pacific System Railroad) has a considerable amount of hazardous materials traffic which presents a safety concern.

8). Topography

Areas east and south of Stanley may be expected to develop at a slower rate and at lower densities due to rugged terrain and limiting ground conditions such as a high water table or impervious soils.

4. Blue Valley Plan, Urban Fringe Area - Plan Analysis

The Blue Valley Plan, Urban Fringe Area Plan focuses on future development of the 21 square-mile Blue Valley Plan, Urban Fringe Area south of the City of Overland Park.

In spite of the existing development pattern and the scattered zoning districts for residential and rural uses, the Blue Valley Plan, Urban Fringe Area has experienced only limited non-residential growth in the past ten years. There are two principal reasons for this slow growth rate:

a. The area encompasses a relatively small population in comparison to the balance of the County, and the labor force is tied to employment centers elsewhere in the metropolitan region. The resulting commuting patterns facilitate shopping for goods and services in locations closer to work. This characteristic has supported only limited services, e.g., convenience shopping, in the Blue Valley Plan, Urban Fringe Area.

b. Public sanitary sewers are just now becoming available in the Blue Valley Plan, Urban Fringe Area. Only very limited commercial and industrial activities could be accommodated in this area in the recent years because of the absence of public sanitary sewers. Because of the recently established Blue River No. 8 and Blue River No. 10 sanitary sewer subdistricts, and the revised sewer system financing method established a couple of years ago, this condition is now changing and additional sanitary sewer system development should be expected in the Blue Valley Plan, Urban Fringe Area in the foreseeable future. This does not mean a great increase in nonresidential development in this area, however, as the population base needed to support extensive commercial development is still absent.
5. Recommendations for the Blue Valley Plan, Urban Fringe Area

a. The Blue Valley Plan, Urban Fringe Area Future Land Use Plan includes the following proposed land uses:

1). Rural Policy Area

- One dwelling unit per 10 acres. More intense development is not appropriate at this time.

- Locate on the west side of U.S. 69 Highway, south of the ridge line between the Coffee Creek and the Wolf Creek basins.

- Locate in Section 15-14-25 west of Camp Branch Creek, east of the Blue River and north of the conservation easement area. (The south boundary of this area would be 167th Street if that street were extended between Nall Avenue and Mission Road.

- Locate along both sides of Nall Avenue, north of 175th Street, east of the Bayer (formerly Miles, Inc.), property, south of the Blue River floodplain and south the conservation easement area. (Nearby, located in Overland Park in Section 16-14-25 there is a Rural Policy Area north of what would be 167th Street between the Blue River floodplain and the Camp Branch Creek floodplain.

- Prohibit more intense development at this time.

2). Growth Policy Area - Planned Residential Areas, and Growth Policy Area - Agricultural/Residential Areas

- One dwelling unit per 10 acres is the standard density in Growth Policy Areas. Planned residential developments with two-acre, three-acre or larger residential lots may be appropriate as an option in the Growth Policy Area.

- Growth Policy Area - Planned Residential Areas are for infill development of low-density residential uses that complement existing residential development and promote compatibility of existing and future uses.

- Growth Policy Area - Agricultural/Residential Areas may be appropriate for orderly, reasonable expansions of existing residential development areas if there is adequate infrastructure to serve the development.
• Locate Growth Policy Area - Planned Residential Areas as infill residential development areas among the existing residential areas in the area west of Camp Branch Creek.

• Locate Growth Policy Area - Agricultural/Residential Areas around the existing residential development areas in the area east of Camp Branch Creek.

3). Parks, Recreation and Open Space (modified to include other types of uses generally not found in a more urbanized setting.)

The location of future park sites is based upon the following criteria:

a). Maximum use by surrounding residents. b). Continued development of the neighborhood park concept. c). Where possible, park sites will be located adjacent to proposed school sites to ensure maximum usage and to avoid duplication of services. d). For optimum management and conservation of natural waterway, floodplains and open space areas of unique environmental or historic value.

• Locate neighborhood parks west of U.S. 69 Highway where residential development at urban densities is proposed.

• Locate one neighborhood park in each square mile section with ties to the floodplains of Coffee and Wolf Creeks to provide greenway ties to the Overland Park Arboretum and other parkland in the area.

• Locate neighborhood parks adjacent to future schools wherever possible.

• Provide greenway linkages along U.S. 69 Highway to tie into the Overland Park Arboretum and the Blue River for eventual connection with the Blue River Parkway in Missouri.

• Provide a greenway linkage in the Coffee Creek floodplain for a tie to Heritage Park.

• Provide ties to the greenway linkages already proposed in the Stanley and Morse neighborhoods and into the greenway system in the city of Leawood.

• Redevelop the quarry at 167th Street and Switzer Road as a park, recreation or open space when extraction operations are complete.
• Recognize and appropriately reflect the nature conservation easement area established in 1994 in Section 21-14-25 southeast of 167th Street and Nall Avenue.

• Consider the guidelines included in the City of Overland Park Master Plan's Parks, Recreation and Open Space Land Use Goals.

• Augment the greenway linkages along U.S. 69 Highway with park and open space areas north of 167th Street on the west side of the highway.

4). Very-Low-Density Residential

| Less than or equal to one unit per acre. |

• Locate east of U.S. 69 Highway in areas with topographic limitations.

• Allow in areas having no public sanitary or storm sewer systems.

• Do not allow in the Transition Area west of U.S. 69 Highway, south of Coffee Creek, and north of the ridge line between the basins of Coffee Creek and Wolf Creek unless it is determined that there is not a strong potential for subdivisions with improved roadways, sanitary sewer and storm drainage systems developed to urban standards in this Transition Area. Discourage in the Transition Area east of U.S. 69, south of 167th Street.

5). Transition Areas

These are areas where the pressures for development and the factors that would affect the nature of development are evolving. However, there are reasons to not commit to specific plans for these areas now. For example,

• The evolving direction and pace of the change are not clear in some ways.

There may be some existing development that would obstruct or conflict with reasonable, appropriate future development options for the area in general, or the existing development has a long enough remaining useful, appropriate life that the pressures to development should be weak in the near-term even though the appropriate long-term development and use of the area probably will not be the same as it is today.
Some of the key factors that would affect the nature of future development are subject to as yet unpredictable responses to very important questions. For example, sanitary sewers may be expanding into the general area, but there is still an important distance between the Transition Area and the areas that will be served by sanitary sewers in the near future.

Until the proper future trends can be identified, general development controlling policies should be established to protect a broad range of future options. Generally, the Transition Areas should be regarded as areas that might someday develop for residential uses at urban densities with sanitary sewers. In the interim, the areas might be partially developed with residential uses not served by sanitary sewers, but any such development should be carefully guided to not unreasonably obstruct urban-density residential uses in the future.

Three "Transition Areas" have been identified for the Blue Valley Plan, Urban Fringe Area.

- Locate south of Coffee Creek, north of the ridge line between the Coffee Creek and Wolf Creek basins, and west of U.S. 69 Highway.

- Locate south of 167th Street, east of U.S. 69 Highway, and north of the Blue River floodplain.

- Locate south of 159th Street, east of Metcalf Avenue, to the north and west of the existing residential area.

6). Low-Density Residential

**Greater than one and less than or equal to five units per acre.**

- Locate mostly west of U.S. 69 Highway, north of Coffee Creek where there are few topographic limitations.

- Locate where there is strong potential for subdivisions with improved roadways, sanitary sewer and storm drainage systems developed to urban standards.

- Allow in the Transition Area west of U.S. 69 Highway, south of Coffee Creek, and north of the ridge line between the basins of Coffee Creek and Wolf Creek as sanitary sewer and storm drainage systems are developed to urban standards. Provide for the right-of-way needed for roadway improvements.
• Allow in the Transition Area east of U.S. 69, south of 167th Street.

• Consider the guidelines included in the City of Overland Park Master Plan's Low-Density Residential Land Use Goals.

7). Medium-Density Residential

Greater than five and less than or equal to 12.5 units per acre.

• Use as a buffer between Low-Density Residential and Light Industrial/Business Park uses.

• Locate on the northwest corner of 159th Street and Mission Road.

• Consider the guidelines included in the City of Overland Park Master Plan's Medium- and Higher-Density Residential Land Use Goals.

• Use as a buffer on the west side of U.S. 69 Highway, east of a new north-south collector street located generally along the ridge line that parallels the highway, north of 167th Street for about one-half mile. Locate in the vicinity of the northwest corner of 167th Street and U.S. 69 Highway.

8). Neighborhood Commercial Center

• Locate on the northeast corner of 179th Street and U.S. 69 Highway.

• Locate on the northeast corner of 167th Street and Antioch Road.

• Consider the guidelines included in the City of Overland Park Master Plan's Commercial Land Use Goals.

9). Low-Intensity Office (residential style)

• Locate on the southeast corner of 179th Street and U.S. 69 Highway.

• Consider the guidelines included in the City of Overland Park Master Plan's Office Land Use Goals.

10). Light Industrial/Business Park

Business Park is intended to allow a mix of office; light industrial; and limited retail and service uses in a planned setting of 15 acres or more.
• Locate between 159th Street and 167th Street between U.S. 69 Highway and Metcalf Avenue.

• Locate on the north side of 159th Street west of the Blue River (existing ARCO site).

• Consider the guidelines included in the City of Overland Park Master Plan's Light Industrial/Business Park Land Use Goals.

11). Research and Development

• Locate along the east side of Metcalf Avenue between 179th Street and the Blue River [existing Bayer (Miles, Inc.), research farm facility].

• Consider the guidelines included in the City of Overland Park Master Plan's Light Industrial/Business Park Land Use Goals.

12). Street Designations

• Continue thoroughfares along section lines at one-mile intervals recognizing that at some locations natural features may be too significant to justify the cost of construction.

• Provide for collector streets in the annexation area and the Blue Valley Plan, Urban Fringe Area as shown.

13. Public and Semi-public

• Locate on the east side of Antioch Road across from the proposed school district sports activity complex.

• Locate southeast of the intersection of 159th Street and Metcalf Avenue, especially north of the existing fire station.

• Locate east of the electrical utility substation on the north side of 167th Street one-half mile east of Switzer Road (especially if a collector street from 167th Street to an educational complex were located there.)

6. Goals and Policies for the Blue Valley Plan, Urban Fringe Area

The Goals and Policies for the Blue Valley Plan, Urban Fringe Area are as stated in Section D below.
Note: Greenway linkages are proposed along both sides of U.S. 69 Highway as indicated on the maps titled "Blue Valley Plan Urban Fringe Area" and "Blue Valley Planning Area, Proposed Land Use and Development Plan."

Persons interested in the more accurate, larger maps are advised to view the maps titled "Blue Valley Plan Urban Fringe Area" and "Blue Valley Planning Area, Proposed Land Use and Development Plan" at the Planning Department.

Future Land Use

* GPA = Growth Policy Area

Future Office/Research & Development
Future Business Area
Transition Zone (Low-Density Residential)
Proposed Arboretum Corridor
Future Use

Existing Residential in GPA
Low-Density Res.
Medium Density Res.
Commercial/Neighborhood Business
Office/Research & Development
Lt. Industrial/Business Park
Industrial Warehouse
Public/Quasi Public
Parks/Recreation/Open Space
Rural Policy Area
Growth Policy Area
Ag/Residential Growth Policy Area
Planned Residential
Very Low Density Res.
Section C.

BLUE VALLEY PLAN

Aubry-Stilwell Area
Section C.

BLUE VALLEY PLAN
Aubry-Stilwell Area

1. Existing Conditions in the Aubry-Stilwell Area

a. Character of the Area

The Aubry-Stilwell Area of the Blue Valley Planning Area has a rural character. There are a number of farmsteads with agricultural and/or livestock operations, but there is a mixture of large-lot residential development interspersed with vacant or agricultural land. Outside of the Aubry and Stilwell plat areas near 199th Street and Metcalf Avenue, most of the residential development is on large lots or small acreages, and it is relatively new and of high quality. The Aubry and Stilwell plats are older areas where a few of the houses and structures are around 100 years old.

Generally, more development has occurred in the west portion of the area. Some higher intensity uses such as the Kansas City Power and Light Company (KCP&L) service center on the southeast corner of 199th Street and U.S. 69 Highway, the Stilwell Elementary School, the Meyers Company heavy equipment yard, and a variety of small commercial or industrial uses are interspersed throughout the area.

West of Metcalf Avenue, the Blue Valley Plan, Aubry-Stilwell Area drains to the northwest into Wolf Creek. The rest of the Aubry-Stilwell Area drains into Camp Branch Creek.

The Camp Branch Creek tributary of the Blue River flows to the northeast from southeast of 207th Street and Metcalf Avenue to the Blue River near Mission Road. A main line track of the Union Pacific System Railroad is located along the creek bed. Generally, that creek and railroad form a boundary between the west and east portions of the Aubry-Stilwell Area.

The East Aubry-Stilwell Area generally has more rugged terrain, less development and has more rural-like infrastructure.

See also this topic in the general discussion in Section A above.
b. Current Land Use

Most of the Aubry-Stilwell Area is undeveloped but there are pockets of residential development -- mostly in subdivisions but also on scattered lots along existing roads.

In the West Aubry-Stilwell Area, the mixture of exurban residential uses and vacant land each encompass about one-half of the land area. Nonresidential uses are found primarily in the West Aubry-Stilwell Area and include an elementary school at 199th Street and Lamar Avenue, several churches, a post office, a fire station, a couple of retail gasoline and convenience grocery stores, a couple of veterinarian clinics, an automobile repair shop, and miscellaneous other retail business shops. In 1994, the Kansas City Power and Light Company completed an electrical utility service center (warehouse, offices and storage yard facility) on the southeast corner of 199th Street and U.S. 69. There also is a variety of industrial uses in the West Aubry-Stilwell Area including a printing shop, a welding shop, a precast concrete fabrication business, motor vehicle repair and servicing of various vehicles including heavy construction equipment, a school bus servicing shop and storage/dispatching lot.

In the East Aubry-Stilwell Area, there is a fire station, but except for some nonconforming business uses (mostly salvage yards or construction contractor operations) the East Aubry-Stilwell Area is primarily an agricultural area with some wooded areas along Camp Branch Creek and with a few residential subdivisions and some houses on sites scattered along existing roads.

Although not fully developed, the eleven square miles of the Aubry-Stilwell Area contain a mixture of land uses and densities much higher than other parts of the unincorporated area. These clusters of development constitute the core of such uses in the larger area of Aubry and Oxford Townships. Commercial developments in the vicinity extends along parts of both 199th Street and Metcalf Avenue. There is a proliferation of small and medium-sized residential building lots in the original plats of Aubry and Stilwell.

*See also this topic in the general discussion in Section A above.*

c. Factors Influencing Development

*This topic is covered in the general discussion in Section A above.*
2. General Development Constraints in the Aubry-Stilwell Area

   a. Floodplains/River Valley

   Existing 100-year floodplain along Camp Branch Creek and rather rugged terrain along that channel both preclude development along or near that channel but also tend to isolate the East and West portions of the Aubry-Stilwell Area. Section-line roads that do not now cross that channel include 167th Street and 183rd Street. There are two low-water crossings for 175th Street through Camp Branch Creek. A bridge built in the early 1990's on 191st Street at Camp Branch Creek replaced a very steep, twisty low-water crossing. The 100-year floodplain areas in the East Aubry-Stilwell Area are more extensive than those in the West Aubry-Stilwell Area.

   b. Ridges with Significant Slope

   Topography is more of a development and land use constraint in the East Aubry-Stilwell Area where there are more stream valleys with sharply-sloped sides and where the hilltop areas tend to be narrower than those to the west of Camp Branch Creek.

   c. No Existing Sanitary Sewer Lines

   Large areas of the Aubry-Stilwell Area have already been developed and now use on-site wastewater collection and disposal systems, usually septic tanks with lateral fields. The dispersed but rather extensive pattern of such development in the west part of the area suggests that it could be difficult to smoothly integrate sewered-density development with the existing large-lot (1-to 3-acre lots) residential areas. New sanitary sewers would have to be built through several existing residential areas, and that could be very disruptive for residents of those areas. It is doubtful that sanitary sewers could be reasonably extended into and through such areas. While there are fewer existing residential areas in the east portion of the Aubry-Stilwell Area, the terrain there is more rugged, so it may be more difficult and costly to build sanitary sewers in that area.

   While some owners with failing on-site wastewater systems might be compelled to connect to new sanitary sewers, existing residences are not required to be connected promptly to new sanitary sewers.

   d. Incomplete Road Network

   As mentioned in item "a" above in this subsection, several existing roads now have low-water crossings through 100-year floodplain areas, and some roads have not been built across rugged terrain, steep-slope areas or the railroad.
For example, 183rd Street has not been open east of Nall Avenue to Mission Road, and it seems unlikely that it would be built any time soon. Further, 183rd Street also ends one-half mile east of Mission Road where it would have to be built across two tributary channels of Camp Branch Creek and along a third tributary channel of that creek. Similarly, 175th Street and 171st Street encounter steep slopes and sharp horizontal turns near their intersections with Mission Road.

Except for the highway, there are no 4-lane roads in the area.

e. Environmental

There should be some environmental concerns due to failing on-site wastewater systems in the area, especially since the area has a rather large number of such systems.

3. Aubry-Stilwell Area Development Opportunities and Constraints

a. Opportunities in the East Aubry-Stilwell Area

1). Interesting topography for residential subdivisions. The rather rugged topography in the northern part of the east area will tend to discourage nonresidential uses which might disrupt the quality or integrity of residential areas.

2). Potential Greenway Areas along the Camp Branch Creek main channel (next to the railroad) and the tributary that extends to the southeast from 175th Street and Mission Road.

3). Largely undeveloped area with some large tracts that could be developed in unified, planned manner.

4). Development in Missouri -- The Loch Lloyd residential development east of the State Line at about 167th Street may contribute to residential real estate market interest for quality residential development in the east Aubry-Stilwell Area where the topography and tree cover characteristics are somewhat similar. (The Aubry-Stilwell Area, although farther south, benefits from somewhat better north-south access as a result of the four-lane, U.S. 69 Highway.)

5). There is extensive tree cover in several areas.

6). There is a recently constructed fire station at about 18500 Mission Road.
b. Constraints in the East Aubry-Stilwell Area

1). **There is no school** in the East Aubry-Stilwell Area.

2). **The more rugged topography** will cause development costs to be higher.

3). **Several roads have not been opened** across floodplain or steep slope areas. Many of the roads are gravel surfaced, a few are chip-seal surfaced, but only short segments of the roads (i.e. near recently built bridges) are engineer-designed, paved roads. There are at least two low-water crossings on 175th Street, and that street has a significant vertical grade and sharp curves on the bluff to the west of the railroad tracks.

4). **The floodplain and the railroad tend to isolate the area** from the West Aubry-Stilwell Area.

5). **There are no existing public park or recreation areas** in the East Aubry-Stilwell Area.

c. Opportunities in the West Aubry-Stilwell Area

1). **Stilwell Elementary School at 199th Street and Lamar Avenue** contributes to the sense of community for families with elementary school-aged children. However, the capacity of that school and its ability to be reasonably expanded might reduce this as an opportunity for the area.

2). **The existing fire station at about 19500 Metcalf Avenue and the nearby U. S. Post Office** are important amenities for the community.

3). **Access to U.S. 69 Highway is reasonably good** for most of the area via interchanges at 179th Street and 199th Street. That highway provides reasonable access to the urbanized area to the north (i.e. the College Boulevard area is 11 miles north of 199th Street.)

4). **There is generally better infrastructure** than in the East Aubry-Stilwell Area. Metcalf Avenue formerly was the route of U.S. 69 Highway.

   Water lines in the west area are generally larger and better networked than in the east portion of the Aubry-Stilwell Area. (In the long-run this might be a constraint, if the current water system enables further large-lot residential development that might obstruct urban-density development and uses which could be more appropriate in the area in the long run. More study is suggested.)
5). **There are a few employment center uses** [Bayer (Miles, Inc.), research farm, KCP&L service center, miscellaneous business and industrial uses], but most job opportunities for area residents are and will likely continue to be located for several more years in other, more densely developed areas several miles north of the Aubry-Stilwell Area.

6). **Potential Greenway Systems** along the southern end of Camp Branch Creek, and perhaps, along the highway corridor edge. Also, the greenway linkage along U.S. 69 Highway could be continued into the Aubry-Stilwell Area.

d. **Constraints in the West Aubry-Stilwell Area**

1). **Scattered and rather extensive pattern of large-lots** for residential uses may tend to obstruct some types of infill development in the area, especially perhaps if urban-density uses were pursued.

2). **Gravel roads** in the area would require extensive improvements to meet the traffic demands of full development of the area, especially if urban-density development were to be undertaken.

3). **There is an old, inactive rock quarry** on the north side of 191st Street between Metcalf Avenue and U.S. 69 Highway. That old quarry is now surrounded by residential development, and the site should be reclaimed to increase its compatibility with the nearby residential uses. Of course, any reclamation of the site would have to be done in a manner that respects the sensitivities of the nearby residential areas.

4). **There is an extra amount of land area zoned for nonresidential uses** than would be needed in the foreseeable future, especially with respect to the anticipated population of the area during the planning period.

5). **There are no existing public parks** and the only public recreation facilities are two tennis courts and softball fields near the Stilwell Elementary School.

6). **Water System.** The existing water system cannot meet the fire-flow requirements even for residential uses in many areas.
4. Blue Valley Plan, Aubry-Stilwell Area - Plan Analysis

The Aubry-Stilwell portion of the Blue Valley Planning Area focuses on the eleven square-mile area in the vicinity of 199th Street and Metcalf Avenue (the West Aubry-Stilwell Area, and the East Aubry-Stilwell Area).

a. The West Aubry-Stilwell Area and the East Aubry-Stilwell Area

1). Limited non-residential growth. In spite of the existing development pattern and the scattered zoning districts for commercial and industrial uses, the Aubry-Stilwell area has experienced only limited non-residential growth in the past ten years. There are two principal reasons for this slow growth rate:

a.) Small Population. The West and East Aubry-Stilwell Areas of the Blue Valley Planning Area encompass a relatively small population in comparison to the balance of the county, and the labor force is tied to employment centers elsewhere in the metropolitan region. The resulting commuting patterns facilitate shopping for goods and services in locations closer to work. This characteristic has supported only limited services, e.g., convenience shopping, in the Aubry-Stilwell portions of the Blue Valley Planning Area.

b.) Central sewers are not available in the Aubry-Stilwell Area and such facilities are not anticipated in the planning period of ten to twenty years, (see also the Blue River Population Forecast).1 In the absence of central sewers, only very limited commercial and industrial activities could be accommodated in this area. Because the area lies in two watersheds, and because of the relative distance from other sewer systems, this condition is expected to continue for the foreseeable future.

5. Recommendations for the Aubry-Stilwell Area

a. Based on the existing patterns described above, and the projected level of future services and economic demand, the future land use plan map below has been prepared to guide future development in this area. The land use categories and densities are based on these policies:

1). To promote infill of low density residential uses generally in the West Aubry-Stilwell Area, which is the area generally west of Camp Branch

---

1 The Blue River Population Forecast prepared by the Johnson County Planning Office, 1989.
Creek, complementing existing residential development, and promoting compatibility of existing and future uses.

2). In the West Aubry-Stilwell Area, the Growth Policy Area policies shall apply and infill development may be found to be appropriate where the property is adequately situated with available infrastructure and services.

3). To plan for future nonresidential use needs. To designate certain locations with arterial street access for future, more intense uses, especially commercial services and light industrial uses, at such time in the future when critical public services are available, especially central sewer facilities.

4). Current zoning for commercial sites exists on the east side of Metcalf Avenue, south of 199th Street, and in the vicinity of 191st Street and Metcalf. These are sites currently available for development. Also, there are scattered unused or under-used commercial sites throughout the Aubry-Stilwell area. In total, nearly 40 separate properties are in this category averaging about two acres each. In addition, zoning to allow modest expansion of existing commercial sites might be appropriate after careful assessment of environmental and facility needs (such as septic systems, holding tanks, street network, and other facilities). Therefore, it is recommended that the future nonresidential development areas shown for the West Aubry-Stilwell Area by the Blue Valley Plan but not currently zoned for such use be reserved for future development when urban service systems are provided. Five such locations are designated on the Aubry-Stilwell Plan map; first, the southeast corner of 179th Street and U.S. 69; second, the west side of Metcalf Avenue south of 199th Street to almost 207th Street; third, the east side of Metcalf Avenue north of the railroad tracks and south of the Coventry Estates Subdivision; fourth, areas on the northeast and southeast corners of 191st Street and Metcalf Avenue; and fifth, areas adjacent to the 199th Street and U.S. 69 Highway interchange.

b. With the exception of the four five reserved for future development areas described in item 4 above, and except for modest expansion of existing commercial/industrial uses, the major appropriate types of development for the Aubry-Stilwell Area of the Blue Valley Planning Area during the next ten to fifteen years is projected to be as follows:

1). Infill by residential development in the West Aubry-Stilwell Area which is generally that part of the Aubry-Stilwell Area that is west of Camp Branch Creek.
2). Orderly, reasonable expansions of existing development areas in the East Aubry-Stilwell Area which is generally that part of the Aubry-Stilwell Area that is east of Camp Branch Creek if there is adequate infrastructure to serve the development. -

3). Where there are existing developed areas whether within the Growth Policy Area, but outside the West Aubry-Stilwell Area, or within the Rural Policy Area, very limited, orderly, controlled expansion of the existing developed areas may be appropriate. However, significant development additions or expansions which replicate existing development patterns would be contrary to the orderly development pattern policies in this plan. Existing infrastructure limitations, primarily roads, utility mains and services also would make some proposed development additions or expansions inappropriate.

c. "Other" Developed Areas in the Aubry-Stilwell Area

Aside from the Aubry-Stilwell Areas described above, most of the Aubry-Stilwell Area is characterized by agricultural and low density residential zoning and uses. The policy here, and elsewhere in this Plan, is to permit gradual, orderly expansion of development areas in a manner which would be compatible with existing development and which, likely, would be similar to existing land uses.

d. The land use plan map also reflects areas of significant site impact such as railroad lines, major arterials, areas which should be retained as open space or used for recreation because of floodplain or steep slopes, watershed boundaries, and special uses such as the electric power substations. As rezoning applications and subdivision proposals are submitted to the Zoning Board, these factors should be considered on a case-by-case basis.

6. Goals, Policies and Objectives

The Goals, Policies and Objectives for the Aubry-Stilwell Area of the Blue Valley Planning Area are as stated in Section D below.
Section D

BLUE VALLEY PLAN

Area Goals, Policies and Objectives
Blue Valley Area Plan

Section D

BLUE VALLEY PLAN
Area Goals, Policies and Objectives

Entire Blue Valley Planning Area

The Future Land Use Plan includes the following goals and policies that are appropriate for all of the Blue Valley Planning Area:

ISSUE: Guidelines are needed to address the future transition of the Blue Valley Planning Area from agricultural and rural residential to more urban uses.

Goal 1: Limit Premature Development
Minimize the random, premature conversion of agricultural lands to scattered-site residential, commercial, and industrial uses.

Policy 1.1: Concentrate in the Urban Fringe -
Restrict development outside the Urban Fringe Area as shown on the county's Rural Comprehensive Plan until such time as public services (streets and sewers) which are built to urban standards become available.

Blue Valley Plan, Urban Fringe Area
Land Use Goals and Policies

The Blue Valley Plan, Urban Fringe Area - Future Land Use Plan includes the following goals and policies:

ISSUE: Guidelines are needed to address the future transition of the Blue Valley area from agricultural and rural residential to more urban uses.

Goal 1: Limit Premature Development
Minimize the random, premature conversion of agricultural lands to scattered-site residential, commercial, and industrial uses.

Policy 1.1: Locate Contiguous to Incorporated Areas -
Encourage future development adjacent to existing growth centers and corridors contiguous to incorporated areas.
Policy 1.2: Limit Higher-Intensity Uses -
Direct industrial, office, and commercial uses toward intersections shown on the Future Development Plan in accordance with the Land Use Goals of the Master Plan for sites in the city, and for sites in unincorporated Johnson County in accordance with the Proposed Land Use Map for the Blue Valley Planning Area and the Land Use Goals of the county's Rural Comprehensive Plan.

**ISSUE:** Guidelines are needed to address the city's and the county's interests and stakes in the manner in which development occurs on their common border

**Goal 2: Joint Development Review**
Adopt a coordinated approach between the city and the county for joint development review and approval.

**Policy 2.1 Adopt Joint Resolution** -
Adopt a joint resolution addressing the review process.

**ISSUE:** Guidelines are needed to ensure the preservation and protection of unique physical features of the area.

**Goal 3: Preserve and Protect the Environment**
In the area south of the Blue River, east of U.S. 69 Highway, and north of 183rd Street preserve and protect scenic views and significant slopes along the river valley by limiting scale and intensity of future development to very-low-density land uses.

**Policy 3.1: Recognize Development Constraints** -
Minimize undesirable and irrevocable change to woodlands, scenic views, terrain, and natural drainage systems by respecting the limitations they impose on development.

**Policy 3.2: Manage Stormwater Runoff** -
Undertake detailed joint-studies to identify the effect that various levels of development will have on stormwater runoff.

**Policy 3.3: Transfer Development Intensity** -
Encourage development patterns which will preserve the character of the area (scenic vistas, large stands of trees, significant topography) by allowing a transfer of development intensity to areas with 0-5% slopes or ridge lines with minimal tree cover.

**ISSUE:** Guidelines are needed to ensure the expansion of public park systems into the Blue Valley Planning Area and the linkage of existing city
and county parks, recreation and open space uses with similar proposed uses in the Blue Valley Planning Area.

**Goal 4: Parks, Recreation and Open Space**
Develop an expanded system of parks, recreation and open spaces in the Blue Valley Plan, Urban Fringe Area with ties to existing facilities and open spaces.

**Policy 4.1: Plan for Neighborhood Parks**
Ensure that land is preserved for a neighborhood park in the square mile sections of the Blue Valley Plan, Urban Fringe Area as shown on the Future Development Plan for sites in the city and for sites in unincorporated Johnson County as shown on the Proposed Land Use Map for the Blue Valley Planning Area.

**Policy 4.2: Use Greenway Linkages**
Use Greenway Linkages to tie existing parks, recreation and open space into the Overland Park Arboretum, Heritage Park, the county's Streamway Park System, the greenway system in Leawood, and the Blue River Parkway in Missouri.

**ISSUE:** Guidelines are needed to ensure the availability of adequate public facilities and services prior to more intense development.

**Goal 5: Public Facilities and Services**
Develop sanitary sewer service, water service, and thoroughfare and collector streets to urban standards in the Blue Valley Plan, Urban Fringe Area.

**Policy 5.1: Regulate Patterns of Development**
Ensure that development patterns reflect an efficient and effective use of private dollars and public revenues to fund public facilities and services built to urban standards.

**ISSUE:** Guidelines are needed to allow for the development of a roadway network to fully serve the Blue Valley Plan, Urban Fringe Area.

**Goal 6: Roadway Network**
Ensure a complete, efficient, safe and unimpeded traffic circulation system.

**Policy 6.1: Develop a Joint Plan**
The city and county should continue to jointly develop a road network plan for thoroughfares and collector roads in all of the Blue Valley Plan,
Urban Fringe Area, providing an overall scheme for coordinated traffic circulation.

Policy 6.2: Develop Design Standards -
The city and county should adopt mutually agreed upon design standards for thoroughfares and collectors in the Blue Valley Plan, Urban Fringe Area.

Policy 6.3: Require Dedication of Right-of-Way -
Ensure that the amount of right-of-way needed to serve development as shown in the Master Plan or the Rural Comprehensive Plan will be available. Upon request for a zoning, subdivision or tract split approval, require a dedication of minimum right-of-way, measured from the center line of the street to the property line of the lot or tract, with the amount required to be based on the classification of the abutting street as shown in the and the joint road network plan.

Blue Valley Plan, Aubry-Stilwell Area
Goals and Objectives

The Blue Valley Aubry-Stilwell Area - Future Land Use Plan includes the following goals and policies:

Several of the Goals and Objectives established in Section 5 of Part 1 of the Rural Comprehensive Plan need to be especially noted with respect to the future plans for the Aubry-Stilwell Area. In summary the following Goals and Objectives are especially applicable to the Aubry-Stilwell Area and they deserve special attention during review and decisions on future land uses and zonings in the Aubry-Stilwell Area:

Note to Readers: The Blue Valley Plan is Part 5 of the Rural Comprehensive Plan. The overall land use and development goals and objectives of the county are already in Part 1 of the Plan Although it is repetitive to state the goals and objectives text again here in Part 5, the cross-reference list below is supplemented with an attachment that includes the overall goals and objectives established in Part 1 of the Plan. (To assist the readers, the specific goals and objectives cross-referenced here are highlighted in that attachment.)

- The Land Use Goal and objectives 2, 3, 4, 5, 6, and 7 of the 7 objectives for that goal;
- The Coordinated Approach to Development Practices and Initiatives and both of the two objectives for that goal;
- The Availability of Public Facilities Goal and all 7 objectives for that goal;
• The Environmental Quality Goal and all 5 objectives for that goal;
• The Transportation Goal and all 5 objectives for that goal;
• The Rural Environmental and Open Space Character Goal and all 5 objectives for that goal;
• The Improved Local Intergovernmental Coordination Goal and all 5 objectives for that goal; and
• The Specific Study Area Goal and especially objectives 1, 2, and 4 of the 4 objectives for that goal.
Part One of the Rural Comprehensive Plan establishes 8 goals and related objectives for future development in unincorporated Johnson County. The following excerpt of the Plan shows the goals and objectives of the Plan (adopted in 1986 and refined in 1991 and in 1996).

**NOTE:** The goals and objectives of special interest for the Blue Valley Planning Area - Aubry-Stilwell Area Plan are enclosed in boxes in this excerpted text.

### SECTION V. GOALS AND OBJECTIVES

Goals and objectives are the foundation of the Land Use Element of the Comprehensive Plan. They express the County's collective sentiment toward the future development of unincorporated Johnson County and lay the groundwork for the action-measures of the Plan. Goal statements identify the desirable future conditions toward which land development in the County should be guided. Objectives represent the tangible steps to achieve these goals.

In addition to depicting a state of desirable future land use conditions, an effort has been made to address certain development-related concerns. Eight (8) goals are established, as listed below:

**A. SUBJECT AREA: LAND USE**

**GOAL:** To assure the compatible physical and economic coexistence among agricultural and nonagricultural uses of land throughout unincorporated Johnson County. A conscious and equitable balance should be achieved, assuring ample land for the vital expansion of nonagricultural activities and minimizing the random, premature conversion of agricultural lands to isolated residential, commercial and industrial uses.

**Objectives:**

1. To establish voluntary programs and technically-supported guidelines designed to retain agricultural lands and stabilize agricultural uses and operations within appropriate areas of unincorporated Johnson County.

2. To encourage future development which occurs within unincorporated Johnson County to be located in existing growth centers and corridors. These include existing sewer districts, New Century AirCenter, (formerly named the Johnson County Industrial Airport), the Blue Valley area, and locations contiguous to incorporated areas.

3. To integrate the character, scale and density of residential subdivisions with adjoining residential developments, to optimize land use compatibility, and to respect prevailing environmental conditions.

4. To direct industrial and commercial uses toward strategic intersections and corridors with suitable environmental and infrastructure characteristics, especially sanitary sewers; such uses should be unified developments and be integrated with any nearby or surrounding residential development.

5. To encourage unified and coordinated decisions affecting the development of multiple, large (>40 acres) and small (0-40 acre) tracts in developing areas, in an effort to achieve compatible orientations and complimentary relationships with nonagricultural uses.

6. To encourage development which takes advantage of energy-conscious patterns and site design layouts.

7. To recognize that some major land uses such as major employment centers or mineral extraction may be significantly important to the overall economic vitality of the entire County to such a great extent that if appropriate sites are not available within cities in the County, the uses may need to occur at strategic locations in the unincorporated area if carefully integrated into the overall, orderly development pattern and if provided with all appropriate and needed infrastructure in an efficient manner.
B. SUBJECT AREA: A COORDINATED APPROACH TO DEVELOPMENT PRACTICES AND INITIATIVES

GOAL: To establish and attain the mutual acceptance among political and service jurisdictions of a common framework for determining the orderly location and orientation of future land uses and also assure adequate public improvements and services to accommodate that development.

Objectives:
1. To improve communication with special service districts operating within Johnson County concerning expansion and extension of public facilities and services.
2. To provide that new or expanded sewer districts and water systems within unincorporated Johnson County will be preceded by a thorough evaluation of related public support services and facilities.

C. SUBJECT AREA: AVAILABILITY OF PUBLIC FACILITIES AND SERVICES

GOAL: To assure that an adequate level of public facilities and services are available and in place to accommodate proposed intensities of development within unincorporated Johnson County, and that the costs of providing these public improvements are distributed in an equitable manner. Development patterns should reflect an efficient and effective use of private dollars and public revenues to fund the necessary level of public facilities and services being demanded.

Objectives:
1. To replace the practice of reacting to requests for expanded public facilities and services as the result of development within unincorporated Johnson County, and to assume a more authoritative role in managing the type, location and intensity of development according to the availability and affordability of public improvements.
2. To develop a capital improvements plan in coordination with the special service districts and other political jurisdictions, which provides a guideline for the orderly expansion, planning and funding of public improvements and services necessary to assure quality development patterns within unincorporated Johnson County.
3. To establish mechanisms for developer cost-sharing to finance improvements to major roads, where such facilities are necessitated by adjacent or nearby development.
4. To establish an equitable and effective funding program to upgrade major collector and thoroughfare routes within developing portions of unincorporated Johnson County.
5. To work closely with special service districts and other political jurisdictions to identify those public facilities and services which are being duplicated and which could be provided more cost-effectively.
6. To encourage private development of neighborhood "pocket" parks with new residential development. In addition, Johnson County should continue to administer adopted subdivision regulations which provide for the reservation or dedication of land for open space for either public recreational use or for the future use of the owners or occupants of the subdivision.
7. To generally discourage business uses wherever sufficient sanitary sewers would not be available to serve the development.

D. SUBJECT AREA: ENVIRONMENTAL QUALITY

GOAL: To obtain the maximum use and benefit of Johnson County's environmental characteristics and conditions by reflecting the limitations they impose for construction, by protecting the amenities these natural assets offer for development, and by integrating future types and intensities of development with the environment.

Objectives:
1. To assure that the site of any development proposal intending to use on-site wastewater disposal systems is thoroughly evaluated with respect to the workability of these systems and also to establish the most effective layout of the subdivision in order to maintain water quality.
2. To apply special consideration and appropriate requirements to any development located along the County's major stream valleys in order to minimize undesirable and irrevocable change
to woodlands, terrain and natural drainage systems.
3. To identify those areas with the most potential and likelihood for mineral extraction activities, and to assure that surrounding developments will occur in a compatible manner.
4. To undertake detailed studies in conjunction with neighboring cities to identify the effect that various levels of development will have upon stormwater runoff patterns and erosion, and to take appropriate measures to manage runoff and prevent flooding.
5. To generally discourage uses and development which would have deleterious effects on the environment.

E. SUBJECT AREA: TRANSPORTATION
GOAL: To achieve and sustain a complete, efficient, safe, and unimpeded traffic circulation system, and to plan so that existing and future segments of the roadway network will be of sufficient quality and capacity to meet the demands placed upon the system by the developing portions of unincorporated Johnson County.

Objectives:
1. To develop a road network plan for thoroughfares and collector roads to provide an overall scheme for coordinated traffic circulation within the unincorporated area and with adjoining jurisdictions, including design standards requiring through streets to adjoining properties, and logical street addressing practices.
2. To establish an equitable funding program to upgrade existing thoroughfare and collector roads to necessary design standards and which has sufficient funds to improve these segments of the road network to accommodate future development.
3. To periodically review County standards for road design, construction, and maintenance, for both public and private roads, in order to assure that such standards are adequate to serve traffic demand and to be compatible with other County development policies.
4. To evaluate arterial street and highway corridor needs with respect to the traffic demands of land uses and development and to assure compatibility with County development policies.
5. To develop bikeway and walking pathway plans that are integrated with both the road network and the streamway corridor system.

F. SUBJECT AREA: RURAL ENVIRONMENTAL AND OPEN SPACE CHARACTER
GOAL: To maintain and protect the County's rural character and potential park areas, which are significant environmental assets and amenities of unincorporated Johnson County and to encourage concentrated and orderly development patterns within existing growth areas in order to preserve this open space resource.

Objectives:
1. To protect and preserve land necessary to Johnson County's agricultural economy.
2. To work closely with the Johnson County Park and Recreation District to preserve stream valley corridors since these areas are most appropriately used for park development, especially those areas which should receive immediate attention due to impending development: Cedar Creek, Mill Creek and the Blue River.
3. To further mark the Oregon (Santa Fe) Trail route through Johnson County and to encourage the trail's integration into adjoining developments which should, in turn, be sensitive to and recognize this landmark.
4. To support the preservation of historic sites and structures and to encourage that they be protected or sensitively integrated into adjoining development.
5. To discourage scattered developments in an effort to maintain the aesthetic qualities provided by the rural character of the unincorporated area.

G. SUBJECT AREA: IMPROVED LOCAL INTERGOVERNMENTAL COORDINATION
GOAL: To strengthen the realization that unincorporated Johnson County is part of a larger economic, social and physical environment consisting of Johnson County and the Kansas City metropolitan area, recognize its relative position with respect to other local governments, and to act...
responsively in the formulation of plans and decisions affecting development within the unincorporated area.

Objectives:

1. To facilitate compatibility between incorporated areas and the existing development located within the fringe areas of those cities, and consistent with the municipalities' development standards, and to encourage cities to consider carefully the consequences of proposed fringe developments upon adjoining unincorporated areas.
2. To monitor closely and anticipate the effects of development and public improvements within adjoining counties upon the unincorporated area.
3. To participate actively in metropolitan forums and task forces involving the exchange of information related to area-wide socioeconomic trends, land use problems and public service delivery concerns.
4. To incorporate applicable and feasible guidelines for growth and development as recommended by the Mid-America Regional Council (MARC) and to weigh the benefits of making development-related decisions consistent with regional programs and planning proposals.
5. To regularly exchange information concerning neighboring local government plans and to communicate with appropriate Federal and State governmental agencies regarding proposed public improvements (e.g., highways), so that improved decisions can be made to affect land use development within unincorporated Johnson County.

H. SUBJECT AREA: SPECIFIC STUDY AREAS

GOAL: To assure the orderly and appropriate development of those specific geographic locations within unincorporated Johnson County which are currently developing, or are expected to expand, especially those with relatively high residential densities or intensity of land use.

Objectives: To prepare County studies of specific geographic areas, within the overall framework of the Land Use Element of the Comprehensive Plan for unincorporated Johnson County, in the following order (additional areas will be addressed as the need for more detailed study is identified):

1. To implement the more specific plan for the orderly development of the eastern portion of the Blue Valley area (Oxford and Aubry Townships).
2. To adopt additional criteria for development proposals lying within the unincorporated area but adjoining, or located within the planning areas of cities that have adopted land use development plans, especially concerning the differences between city and County development standards (e.g., street design and construction).
3. To develop a more specific plan for the orderly development of the K-10 Highway corridor, particularly in the vicinity of the major development which is initiated in the Cedar Creek drainage basin.
4. To study and, if needed, prepare plans for rural area highway interchange landuses and development, plans for coordination of public utility facilities with the needs of development, methods for developer cost-sharing and plans for coordination of capital improvements with the needs of development and other topics as identified through the planning process.
Exhibit A

Stilwell Community Plan

An Amendment to the Johnson County Rural Comprehensive Plan
Appendix E, Section E.

Approved by the Board of County Commissioners of Johnson County, Kansas

December 12, 2013

Prepared by:

The Community of Stilwell, Kansas

Aubry-Oxford Consolidated Zoning Board

Johnson County Planning Commission

Johnson County Planning, Development and Codes Department
PARTICIPANTS

Aubry-Oxford Consolidated Zoning Board

Vic Mosby, Chair
H. Richard “Rick” Noon, Vice-Chair
Patricia S. Fischer
Kenneth Klingensmith
Brad Miller
Martin Seem
Lori Tinkler

Former Zoning Board Members:
Chris Illif
Jason Meier
Rod Richardson

Aubry Township Officials

Brad Miller, Trustee
Tim Gnau, Clerk
Lori Hisle, Treasurer

Stilwell Community Organization Representative

Kenneth Klingensmith, President
Ronald Smith, Vice Chairman
Stacie Moeller

Mike Ward
Chris Bramhall

Focus Group Participants

Ackerly, Mike
Adair, Pat
Adair, Tony
Arquiera, Arturo
Baldwin, Thomas
Ballentine, Scott
Baum, Bill
Baum, Karen
Bauman, Jonathan
Bottaro, Pat
Bradshaw, Joe
Bramhall, Chris
Brown, Ben
Brown, Gary
Burnett, Rhonda
Burnett, Ron
Cross, Vicki
Daschlke, Charlene
Davidson, Lindsay
Devinki, Sam
Doughan, Darrel
Dunn, Jeff
Durham, Benham
Eidemiller, Don
Elliott, Roger
Emel, Brandon
Epps, Haley
Fathollahi, Ali
Fischer, Pat
Fish, Dustin
Fish, Vickie
Fountain, Paul
Fountain, Vickie
Francis, Jim
Frank, Jerame
Fry, John
Gates, Tim
Gaul, Brant
Gliden, Terry
Gnau, Tim
Ham, Amy
Ham, Shane
Harris, Eleanor
Harris, Vickie
Hauser, Edward
Hernstrom, Dave
Hill, Dave
Huggins, Mark
Illif, Chris  
Inman, Steven  
Johnson, Jim  
Johnson, Lois  
Klika, Steve  
Klingensmith, Kenneth  
Koch, Tim  
Koppel, Arlan  
Kranker, Paul  
Kuhnkal, Mark  
Kure, Ken  
Kure, Linda  
Lambie, Jim  
Langhofer, Tom  
Lawson, Linda  
Ledgin, Norm  
Mallicoat, Barbara  
Mallicoat, Charles  
Mallicoat, Howard  
Mason, Michael  
Matile, Lynne  
McDaniel, David  
Meier, Jason  
Meyers, Lorna  
Miller, Brad  
Miller, Paul  
Miller, W. R.  
Moeller, Staci  
Moore, Pam  
Moore, Tom  
Morse, Roxanne  
Mosby, Vic  
Mourning, Josh  
Noon, Rick  
Park, Sue  
Parker, Ken  
Passantino, Dante  
Pennington, Virginia  
Phelps, Harold  
Pintar, Gil  
Pishny, Norman  
Predmore, Corby  
Quinn, Dan  
Read, Dave  
Read, Joyce  
Read, Marvin  
Reed, Donna  
Richardson, Dave  
Richardson, Rod  
Robb, Debbie  
Robinson, Tom  
Rodlund, Daphne  
Roeseler, Joan  
Rozell, Laura  
Rudrick, Maggie  
Rupert, Brooke  
Rupert, Tyler  
Rusinger, Brian  
Sapp, Fletcher  
Scheumann, Brent  
Schulz, Mark  
Seem, Martin  
Shyver, Tom  
Siegel, Herbert  
Smith, Matt  
Smith, Tracy  
Stansbarger, Charles  
Staten, Dale A.  
Stuart, Bill  
Thome, Jim  
Thompson, Phyllis  
Tulock, Matt  
Turner, Ted  
Tweed, Colin  
Vano, Ruth  
Veatch, Randy  
Waltin, S.  
Walton, James  
Ward, Mike  
Ward, Nacona  
Webb, Dave  
Williams, Matt  
Winston, Mary

**Johnson County Planning Commission**

Chris Illif, Chair  
Floyd Danner, Vice-Chair  
Dennis Bollin  
E. Glenn Bonar  
Mike Fowks  
Bonnie Givens  
Katherine Hoffman  
Mark S. Huggins  
George Lund  
Roger Mason  
Roxanne Morse  
Peter Opperman

**Johnson County Board of County Commissioners**

Ed Eilert, Chair  
Jason Osterhaus, Vice-Chair, Commissioner 4th District  
E. Edward Peterson, Commissioner 1st District  
Jim Allen, Commissioner 2nd District
Table of Contents

Participants

Stilwell’s Community Vision

Chapter 1 - Purpose and Background
   I. Purpose and Need
   II. Background – History of Planning in the Blue Valley Area
   III. Study Area
   IV. Overland Park Future Development Plan

Chapter 2 - Community Characteristics
   I. Brief History of Stilwell
   II. Image Map
   III. Existing Land Uses
   IV. Demographics
   V. Natural Environmental
   VI. Public Infrastructure, Utilities and Services

Chapter 3 - Future Land Use
   I. Blue Valley Plan
   II. No Changes to Blue Valley Plan Future Land Use Map
   III. Streamway Park and Greenway Linkage Development
   IV. Future Transportation

Chapter 4 – Goals, Objectives, and Community Initiatives and Implementation
   I. Establishing Goals, Objectives, and Community Initiatives
   II. Stilwell Community Goals and Objectives
   III. Community Initiatives
   IV. Implementation

Appendix

Appendix A  Focus Group and Aubry-Oxford Consolidated Zoning Board Comments
Stilwell Community’s Vision

Stilwell is a community of neighbors - proud of their rural heritage and proud of their commitment to civic involvement. Adjacent to expanding suburban development, the community is committed to retaining its historic small town identity - characterized by well-kept homes, small locally-owned businesses, safe and walkable neighborhoods, abundant agriculture and open spaces, clean air and beautiful night skies, and great community facilities.

CHAPTER 1 – Purpose and Background

I. Purpose and Need

Project Purpose

The purpose of the Stilwell Community Plan is to update, as needed, a portion of the Blue Valley Plan for an area that contains some of the oldest and most diverse land uses and development patterns in the unincorporated area. The project “Study Area” for the plan is a portion of Aubry Township that is approximately six square miles - bounded by 183rd Street on the north, Nall Avenue on the east, 215th Street on the south, and U.S. Highway 69 on the west. In response to public comments received throughout the planning process, the goals and objectives adopted for the Study Area may also be applied to other locations throughout Aubry Township, e.g., extend to State Line Road.

Though gradual, changes to this area over the past twenty years have been continuous. Pressures for new commercial development continue along Metcalf Avenue and 199th Street, particularly south of 199th Street. Continuous upgrades to residences throughout the area have been ongoing along with improvements in the old downtown Stilwell area, including removal of older structures, the addition of some new businesses, and the construction of new residences. Throughout the Study Area today there also remains numerous large tracts of land that offer opportunities for future development.

Updating this portion of the County’s Blue Valley Plan will help to identify and protect important community, historic, and natural assets in the Study Area, assure coordination with nearby jurisdictions, and support orderly growth by establishing goals and objectives to help guide future public and private sector land use and development decisions within the Study Area.

No other changes have been made or recommended to the Blue Valley Plan outside of the Study Area boundaries and the goals and objectives in the Stilwell Community Plan are considered to be supplemental the Blue Valley Plan.

Project Need
The need for a special plan for this area has long been contemplated. In 2001, the Report of the Aubry Oxford Planning Committee (AOTPC) to the Board of County Commissioners recommended the preparation of a “Village Plan” for the vicinity of 199th and Metcalf Avenue. In 2004, the update of the Johnson County Rural Comprehensive Plan included a similar recommendation to prepare a community-centered mixed use plan for the vicinity of 199th Street and Metcalf Avenue.

In 2010, the Aubry Oxford Consolidated Zoning Board (AOCZB) formally discussed the need for a plan for the area and requested the County Planning, Development, and Codes Department to undertake such a project. With authorization from the County Planning Commission, the County’s planning staff undertook the project with the AOCZB serving as the project Steering Committee. The AOCZB established the Study Area boundaries and the scope and content for the project.

**Project Time Frame**

The time frame or “planning horizon” for the Stilwell Community Plan is 2030, approximately 20 years from now.

**Project Organization**

Planning staff met regularly with the AOCZB to get their input, and to update them on the project’s progress. Planning staff also met periodically with the County Planning Commission to keep them apprised of the project and its progress. At the end of this process, the Zoning Board took the lead in presenting the Stilwell Community Plan to the County Planning Commission. By state statute, the County Planning Commission is responsible for conducting the official public hearing on the Plan. The Planning Commission’s recommendation for approval was forwarded to the Board of County Commissioners for final approval and adoption of the Stilwell Community Plan as an amendment to the Johnson County Rural Comprehensive Plan.

Initial public input was obtained through two series of targeted focus group meetings with over 200 participants. The first series of focus group meetings identified the Study Area’s strengths, weaknesses, opportunities, and threats (SWOT) and the second series of meetings was a discussion of the proposed goals and objectives drafted by planning staff and the AOCZB. A final public meeting with over 160 attendees was held to review the draft goals and objectives. The meeting was conducted by the AOCZB, the township trustee, and the chairman of the Stilwell Community Organization. A more detail description of the focus group and public meeting process is provided in Chapter 3.

**II. Background – History of Planning in the Blue Valley Area**

Earlier versions of the Johnson County Rural Comprehensive Plan recognized that the Blue Valley area contains a mixture of residential, commercial and industrial uses unlike the land use patterns in other unincorporated areas of Johnson County. Since 1980, various land use studies and reports have identified Aubry Township as experiencing exurban growth at a greater rate and
concentration than other parts of the unincorporated area. Earlier versions of the county's Comprehensive Plan identified the need for a more specific plan for the orderly development of this area.

In 1991, the Aubry-Stilwell Area Plan was adopted by the County as an amendment to the Comprehensive Plan. This area plan, however, did not address future land uses in the area north of the Blue River that was identified as “Urban Fringe Policy Area” in anticipation of future, joint-planning for that area with the City of Overland Park.

In July 1996, a joint-planning committee of the Johnson County Planning Commission and the City of Overland Park Planning Commission prepared the Blue Valley Plan that was adopted by both jurisdictions. As part of the 2013, planning process, a review of the “Land Use Map” in the Blue Valley Plan concluded that the future land use recommendations in 1996 remain valid for the Study Area and no changes are proposed to this map. As noted in the following, since 1996 several annexations have occurred north of the Study Area. Therefore, the Land Use Map may need to be revised in the future for the areas outside the Study Area.

Since 2008, Overland Park annexed over eight square miles of Aubry Township and the city amended its Comprehensive Plan to include a new plan (West Aubry Study Area Future Land Use Plan and Goals Report, 2009) for development west of U.S. Highway 69, adjacent to the Study Area. Overland Park’s plan anticipates the installation of sanitary sewers west of U.S. Highway 69 and subsequently has planned for more diverse and dense development than is currently planned for the area east of U.S. Highway 69. An overview of Overland Park’s plan for the areas east as well as west of U.S. Highway 69 is provided in a following section.

New State annexation laws, however, may limit future involuntary annexations in Aubry Township as well as throughout the County.

**III. Study Area**

The Study Area is bounded by 183rd Street on the north, U.S. Highway 69 on the east, 215th St. (county line) on the south, and Nall Avenue on the west. The area is approximately 6 square miles in size.
Study Area Map
IV. Overland Park Future Development Coordination

Because of the City of Overland Park’s close proximity to the Stilwell Community Plan Study Area it is important to be knowledgeable of the city’s future development plans as well as to work together with the County to assure coordinated development, e.g., future street improvement.

The following is a summary of some the Overland Park’s major proposed future developments that may directly or indirectly impact the Stilwell Community Plan Study Area.

Overland Park’s current Future Development Plan adopted in 2011, anticipates the installation of sanitary sewers to the annexed area west of U.S. Highway 69 and also to an approximately 2 square-mile annexed area east of Mission Road, south of 171st Street and abutting the State Line. The City’s Future Development Plan proposes a relatively dense mix of residential, commercial and business park development in these two separate areas located close to the Stilwell Community Plan Study Area.

East of Study Area

Sanitary sewers are now under construction to serve the soon to be developed Walnut Trail subdivision located on 571 acres, east of Mission Road between 183rd Street and 191st Streets. The majority of the subdivision has been zoned PRN, Planned Residential Neighborhood District, which allows for a mixture of residential uses and a future elementary school site. Approximately .7 acre of the property has been zoned CP-1, Planned Restricted Business District, which allows for limited neighborhood commercial uses.

As sanitary sewers become available to this area, it may be anticipated that more similar residential and limited neighborhood commercial development will occur east of Mission Road as proposed in the Overland Park Future Development Plan.

Much of the area around the intersection of 179th Street and Metcalf Avenue already has access to sanitary sewers. For this general area, the city’s Future Development Plan proposed a mix of low-density residential, commercial, office, and light industrial/business park uses west of Metcalf Avenue and east of U.S. Highway 69.

West of Study Area

Overland Park’s Future Development Plan for west of U.S. Highway 69, between 179th and 199th Streets, proposes low-density residential development with a concentrated mix of commercial, office and medium-density residential development west of the 199th Street and U.S. Highway 69 interchange.
Most of the City’s development proposed for the area west of U.S. Highway 69, however, is not anticipated to occur until sanitary sewers become available. The County Wastewater District’s current estimate is that sanitary sewers will likely not reach this area within the next 10-15 years.

**Future Transportation and Greenway Linkage Improvements**

Two important future arterial road improvements are proposed in Overland Park’s *Future Development Plan*. Both roads are proposed to cross the State Line and connect with the existing Missouri roads system to the east. One proposed connection is an extension of 191st Street east of Mission Road through the future Walnut Trail subdivision. The other proposed arterial connection is an extension of 199th Street also east of Mission Road, extending northeast to approximately 195th Street.

The City of Overland Park’s future transportation planning also includes the identification of existing and proposed bicycle routes. The city’s *Bike Route Plan* proposes a series of on-street bicycle routes throughout Overland Park, primarily along minor arterial roads such as Lamar, Foster and Roe, 147th Street and 163rd Street. Several on-street bike routes are planned in the Walnut Trail subdivision and the other new areas near State Line Road.

The only existing route shown that directly serves the Stilwell Community Plan Study Area is on Metcalf Place, a local street just west of Metcalf Avenue, between approximately 171st and 179th Streets.

Overland Park is now preparing to undertake a city-wide bicycle safety study that may propose additional bicycle routes that could connect with the Stilwell Community Plan Study Area. The bicycle safety study will take a comprehensive approach to studying and identifying safe bike routes, street signage/markings, and street designs for expanding on-street bicycling choices in the city.

Overland Park’s *Greenway Linkages Plan*, proposes a Type 5 Parkway greenway along both sides of U.S. Highway 69. Such a greenway would be up to a 100 ft. wide and a trail on at least one side. In addition, a Type 2 Thoroughfare Greenway Linkage, where a bike/hike trail is built in replacement of a sidewalk, is proposed along both the north and south sides of 179th Street from Metcalf on west.

A Type 1 Greenway Linkage, which is a separate bike/hike trail along a linear green space such as a streamway, is proposed to come down both branches of Camp Branch Creek. The greenway linkage is proposed to connect with the future Walnut Trail subdivision east of Mission Road and tie into future development that may occur within the general Stilwell area.

West of U.S. Highway 69, Overland Park’s *Greenway Linkages Plan* proposes a Type 2 Thoroughfare Greenway Linkage on both sides of 199th Street and on one side of 191st Street.
As the above developments occur and as Stilwell continues to grow, it is important for the Stilwell Community as well as for the County to continue to communicate and work together to assure that such development is orderly and coordinated.

CHAPTER 2 – Community Characteristics

I. Brief History of Stilwell

The following text is an excerpt from volume II of *Kansas: a cyclopedia of state history, embracing events, institutions, industries, counties, cities, towns, prominent persons, etc...* 1912

Stilwell, one of the new towns that have grown up in the southeastern part of Johnson County, is located on the Missouri Pacific R. R. 10 miles from Olathe, the county seat. The railroad was the making of the town, which has a good public school; several churches and general stores, a blacksmith and wagon shop, implement and hardware house, lumber yard, express and telegraph facilities, and a money order post office with one rural route. In 1910 its population was 200. Being the only large town in the southeastern part of the county it is the shipping and supply point for a rich agricultural district and does considerable business. The town was formerly known as Mount Auburn, the name having been changed by act of the legislature, approved March 2, 1889. (1)

With the arrival of the train, the town of Stilwell was established. The plat for Mt. Auburn, the original name of the town, was filed on November 20, 1886, by Michael O’Keefe, John Larkin, William A. Kelly and A. J. Norman. The town was located on the Southeast Quarter of Section 5, Township 15 South, Range 25 East, on land owned by Noah Spears. The name of the town was changed later to Stilwell in honor of Arthur E. Stilwell, a conductor for the Missouri Pacific Railroad.

The Stilwell train depot was located northeast of Main and Wall Streets. East of the Stilwell depot, across the tracks, was a fenced area with loading chutes used as a stockyard. The farmers would often use 199th Street, which was also known as Missouri or Ocheltree Road, as the path for driving their hogs and cattle to the stockyard. Southwest of the Stilwell depot was a hotel owned by the Adam Miller family and later managed by the Burgess family.

Shortly after the train came to the area, telegraph service was established and located inside the train depot. Another means of communication arrived on June 22, 1888, when the US Post Office at Stilwell was established.

The first telephone office was located on Delaware Street, west of the railroad tracks. In 1907 the company was called the Mijo Telephone Company, referring of course to the areas it served, Miami and Johnson Counties. Because the Stilwell-Aubry community did
not have a fire department, the telephone was used to communicate the location of the fire; four long rings announced the location and the need for volunteer firemen.

Other business established around the turn of the century included:

- E. K. Gibson Merchandise Store, Northeast Corner of Main and Broadway
- Balthrope Hardware
- Sloan Drug Store
- Whitsett Restaurant and Ice House
- Conboy Grocery and Dry Goods
- Medaris Grocery Store
- Noon Hardware and Implement Store
- Blaker Lumber Company
- Witherspoon Barbershop
- Wright Lunch Room and Confectionary

A gas well located east of the Whitsett Restaurant was used by many people for heating and cooking – at a charge of 50 cents a month.

In 1925, a train engineer spotted flames in the Main Street business district in Stilwell; much of the area was destroyed and it seems Stilwell never fully recovered from the devastating fire.

II. Image Map

The Aubry Oxford Consolidated Zoning Board undertook an exercise to identify important physical elements that contribute to the image and character of the Study Area.

These physical features can be categorized into five components that may be further sub-categorized as “major” or “minor”:

1) Paths – Routes used to traverse an area, including, streets, walkways, transit, rail, etc.

2) Edges – Linear elements that are not considered paths that establish boundaries, seams, separations, or breaks in continuity, including abrupt changes in topography, treelines, railroad tracks, walls, etc.

3) Districts – Sections or areas that have a distinct common identifiable character or general boundaries that you enter “inside of”.

4) Nodes – Strategic locations of concentrated activity into which an observer may enter, including, street intersections, junctions of paths or concentrations of some activity or characteristic.

5) Landmarks - Sharply defined physical objects that are often points of reference for an area and may or may not be of historic interest or value, including buildings, signs, art, stores, mountains.

The following Image Map and text are the results of the zoning board efforts:

1. Paths:

- Major paths are: U.S. Highway 69, Metcalf Avenue and 199th Street.
- Within the Study Area, Metcalf Avenue and 199th Street primarily serve slower local circulation compared to U.S. Highway 69 that carries pass-by traffic.
- All of the other arterial streets within the Study Area function as minor paths, primarily serving local traffic.
- Nall Avenue, between 191st Street and 199th Street does not connect.

2. Edges:

- U.S. Highway 69 functions as a major edge and western boundary of the Study Area.
- The Union Pacific Railroad tracks also function as a major edge that severs the older residential and nonresidential development in the west half of the Study Area from the newer larger lot residential undeveloped area to the east.
- The watershed ridge within the southeastern portion of the Study Area serves as a minor edge separating with open space and agricultural uses to the south.
3. **Districts:**

- Metcalf Avenue from 191<sup>st</sup> Street to 215<sup>th</sup> Street still reflects much of the character of the corridor from when it was U. S. Highway 69, before the bypass was built in the 1970s. The corridor contains numerous large open agricultural fields as well as new and many older residential, commercial, industrial developments.
- Downtown Stilwell is a minor district with only a few active commercial uses along with many smaller and older well-kept residences.
- The north side of 199<sup>th</sup> Street from U.S. Highway 69 to Metcalf functions as a commercial use corridor with a mix of older and new commercial structures.
- The two large undeveloped tracts of land northeast and southwest of 199<sup>th</sup> Street and Metcalf Avenue are two prominent agricultural districts located near the center of the Study Area. Future development of either of these two properties will likely have a significant impact on the image and character of the Stilwell Community.

4. **Nodes:**

- The two major nodes within the Study Area are at the intersections of U.S. Highway 69 and 199<sup>th</sup> Street and at Metcalf Avenue and 199<sup>th</sup> Street.
- The node at Metcalf and 199<sup>th</sup> Street also functions as the primary “gateway” to the Stilwell Community.
- All of the other arterial street intersections with Metcalf Avenue (179<sup>th</sup>, 183<sup>rd</sup>, 191<sup>st</sup>, 207<sup>th</sup>, and 215<sup>th</sup>) function as minor nodes.
- The intersection at 179<sup>th</sup> Street and Metcalf Avenue functions as the north “gateway” to the community as well as a minor node.
- The intersection of 207<sup>th</sup> Street and Metcalf functions as south “gateway” to the community as well as a minor node.

5. **Landmarks:**

**Major Landmarks:**

- Stilwell Elementary School
- KCPL Service Center
- Stilwell Station
- Post Office

**Minor Landmarks:**

- Shell Station
- Old Stilwell Elementary School
• Future Stilwell Park site
• Cemetery
• Quarry
• Stilwell Smokehouse (former)
• Fire Station
• Meyer Turf Farm
• Dougan Insurance Building
• Stilwell United Methodist Church
• First Baptist Church of Stilwell
• Holiness Church
• KCPL substation

III. Existing Land Uses

Land Use

The predominant land uses within the Study Area are agriculture, large and small lot residential uses, and some limited nonresidential development along 199th Street from U.S. Highway 69, east to Metcalf Avenue, scattered on the west side of Metcalf Avenue between 191st and 199th Streets. Light industrial uses have emerged along Metcalf Avenue, south of 206th Street. There is a public school along 199th St., east of Metcalf Avenue. The Union Pacific Railroad has an active main rail line that runs along the east side of the “old downtown” Stilwell area (at 199th Street, just west of Nall Avenue).

The following Existing Land Use Map shows locations of the various land use within the Study Area.

Nonresidential Land Uses

There are numerous businesses in the Study Area. Most of these businesses are located along Metcalf Avenue between 191st Street and 207th Street. In addition, there are several businesses on 199th Street between Metcalf Avenue and US Highway 69. Three industrial parks are located in the Study Area, one small and older industrial area just north of 207th Street and Metcalf Avenue (Griffin Industrial Park) and two larger and newer industrial areas southwest of 207th and Metcalf Avenue.

The following is a list of some of the businesses located within the Study Area:

- Aubry Animal Clinic
- Blue Valley Motor
- Blue Valley School District Bus Parking & Dispatch
- Bolivar Contracting Inc.
• Communication Link
• Custom Alignment
  Tow & Recovery
• Custom Craft
  Cabinets
• Dougan Insurance
  Group
• Family Styles
  Beautician
• First National Bank
• Grafton Fabrication
• H & R Lawn and
  Landscape
• Hardware Shack
• Hayes Brothers
  Construction
• InterBank 1
• Kansas Asphalt Inc.
• KC Complete Auto
  Care
• KC Motor Company
• KCPL Southland
  Service Center
• Koechner Gas/Oil
  Company
• Linder’s Welding
• McClan Construction
• Messenger’s Lawn &
  Landscape
• Meyer’s Brothers
  Construction, Inc.
• Meyers Companies
  Inc.
• Midwest Bioscience
  Research Park, LLC
• Miller Plumbing
• Motel
• NAPA Store
• NJ Trenching
• NORAG
• Offices – 19175
  Metcalf
• Open Source Auto
• People’s Bank
• Plumbing Showroom
• Quarry (inactive)
• Red Oak
  Landscaping
• RSD Construction
• Rye Studio
• Shell Gas Station
• Smokehouse - vacant
• Sports Floor
  Specialist
• Stilwell Animal
  Hospital & Equine
  Center
• Stilwell Station
• Stilwell Storage
  Units
• Stor It, Park It
• Topps Products
• Town & Country
  Landscaping
• United Boats &
  Motors Company
• Universal Hospital
  Services
• Vet Hospital
• VMC Precision
• Volker Industries
• WaterOne Facility
• Weers Construction
• Wholesale Flooring
  Inc.
• Williams Auto Body
  Shop
• Wine Cellar
Community Facilities

As noted in Section II, above, there are three churches in the general Study Area as well as a post office, an elementary school, and a fire station. The new future Stilwell Park, on the north side of 207th Street just east of the Union Pacific Railroad tracks, is still in the design and funding phase.

Cultural

The only State-designated historical feature within the Study Area is U.S. Highway 69, on the western border of the Study Area. This highway was designated in 1990 by the Kansas State Transportation Secretary as part of the “Frontier Military Historic Byway” that generally follows U.S. Highway 69 from Leavenworth through Ft. Scott, Kansas to the Oklahoma border. There are no other national or state designated historic structures within the Study Area.

Government Jurisdictions

The entire study area is within the unincorporated area of Johnson County, Kansas. The only shared border of the Study Area is with a portion of the City of Overland Park along the west side of U.S. Highway 69.

Blue Valley School District serves most of Aubry Township and Stilwell Elementary School is the only school within the Study Area.

IV. Demographics

Because the 2000 and 2010 U.S. Census information data does not directly align with the Study Area, staff has estimated the following demographic information based on the use of aerial photography and available U.S. Census data.

Population

Based upon the 2000 U.S. Census, the estimated total population for the Study Area was 1,845 compared to a 2010 U.S. Census based estimate of 1,763 for a population decline of 82 persons.

Age and Gender

In 2000, 10% of the population was within the age range of 45-49. In 2010, that 10% group, advanced to the age range of 50-54. In 2000, 31% of the population within the Study Area was between 0-19 years of age. In 2010, that decreased to 27%.

The split between male and female was almost even. The following graphic shows the population breakdown in the Study Area for age and gender in 2010.
Race

In 2000, 97% of the population within the Study Area was white compared to 92% in 2010.

Income

According to the 2010 census data, the average household income in the Study Area was $103,069 and the median household income was $79,870. In 2013, 20% of the households had income between $50,000-$74,999 and another 20% had income between $100,000-$149,999. 3% of the households, had an income of less than $15,000 within the Study Area.

Housing

In contrast to the above population decline the estimated the number of housing units increased between 2000 and 2010. In 2000 there were 640 household units within the Study Area compared to 698 in 2010 representing an increase of 58 housing units. Average household size between 2000 and 2010 increased from 2.8 persons per household in 2000 to 3.0 persons per household in 2010.

In 2000, the housing vacancy rate within the Study Area was estimated to be 3%, compared to an estimated 5% vacancy rate in 2010.
In 2010, there were approximately 603 owner-occupied housing units, and 59 renter-occupied housing units. In 2000, there were approximately 582 owner-occupied housing units, and 44 renter-occupied housing units.

V. Natural Environment

The natural environment within the Study Area may be generally characterized as very low density development with large areas of agriculture and open spaces.

There are two watersheds that encompass the Study Area - the Wolf Creek watershed on the west and the Camp Branch Creek watershed on the east. The two tributaries of Wolf Creek are located at the south end of the Study area near 207th Street and U.S. Highway 69 and on the north just west of the Aubry Cemetery on 191st Street. The Camp Branch Creek tributary is located generally east of the Union Pacific Railroad tracks between 191st and 207th Streets. The lands adjacent to these tributaries are designated as flood plain, where development should be discouraged.

Generally, there are no significant ridges or slopes within the Study Area and according to the U.S. Soil Conservation Service, the Polo Soils (Pc) found in and around Aubry Township are the only soils within the County that present slight limitations for septic systems. The Polo soils are generally found on lands nearby the three tributaries noted above.

Overall the flood plain, topographic and general soil conditions found within the Study Area do not pose any major obstacles to development.

Natural resources including large areas of trees and vegetation have a significant impact on the quality of life within the Study Area and are important assets that need to be protected as the area develops.

VI. Public Infrastructure, Utilities, and Services

To identify future Study Area public infrastructure, utility and service changes and needs as well as assess existing conditions, interviews were conducted with the following eleven public infrastructure, utility, and service providers. Below is a summary of the findings from the interviews.

Wastewater Treatment

Sanitary Sewers

Johnson County Wastewater Department provides sanitary sewer service to the areas immediately north and west of the Study Area. Within the Study Area today, however, there are no sanitary sewer lines or service. The closest sanitary sewer lines are located near the north boundary of the Study Area at 183rd Street and Metcalf Avenue.
The Johnson County Wastewater has prepared estimates of when sanitary sewers might become available to the Study Area but notes that construction will depend on when individual property owners petition the County to approve such service.

- Within the Study Area, north of 191st Street, sanitary sewers are projected to be installed between 2016 and 2020. A portion of the Estates of Prairie Glen subdivision currently has dry low pressure sewers.
- The majority of the eastern portion of the Study Area is projected to have sanitary sewers between 2026 and 2030.
- South of 191st Street and west of Metcalf Avenue, sanitary sewer projections are generally between 2021 and 2025.
- South of the Massey Creek watershed boundary, the sanitary sewer projections are beyond 2030.

From the above it is apparent that although the sanitary sewers are feasible in the Study Area, installation costs are significant. Given today’s economic trends, the above listed estimates might be conservatively extended 5 years to reflect slower growth and the feasibility of private funding for large developments.

On-Site Wastewater Treatment Systems

Because there are no sanitary sewers within the Study Area, on-site wastewater treatment is by individual on-site septic or holding tank systems. Most residences utilize septic systems while commercial or nonresidential properties may be served by either septic systems or a holding tank.

The Johnson County Department of Health and Environment (DHE) issue permits for all on-site wastewater treatment systems. DHE conducts inspections of all properties with septic systems that change ownership and conducts yearly inspections of all commercial on-site systems as well as investigates complaints regarding on-site system issues.

Although the standard minimum residential lot area for a septic system in the unincorporated area is now 2 acres, there are numerous residences, particularly in the old town area, that are on smaller lots that predate the County’s current septic tank standards that were adopted in 1994.

Of note, the *Johnson County Zoning and Subdivision Regulations* were recently amended to allow commercial uses (including restaurants) to be served by a septic system or a holding tank instead of the previous requirement to be served by a sanitary sewer system.

Water Supply

WaterOne District serves this area and has indicated there is sufficient capacity and capability to expand water service to serve existing and future development in the Study Area. The Kansas and Missouri rivers are the primary water sources for WaterOne. A 5 million gallon reservoir
and pumping station is located at 211th Street and Metcalf Avenue. A 30-inch water supply line extends along Metcalf Avenue and there are generally 12-inch water lines along the section line roads with the exception of 199th Street that has an 8-inch line.

Future WaterOne plans include a 20-inch line along 199th Street, estimated for construction between by 2014 and to increase the size of the 211th Street and Metcalf Avenue storage facility by 2024. Typical water distribution design in the Study Area is 12-inch mains on section line roads and 8-inch mains on half sections. Any distribution improvements needed (if any) would be paid for by development.

WaterOne officials, however, did acknowledge that although sufficient water capacity exists, in some locations pressure may be an issue. WaterOne also is actively promoting policies and programs for water conservation by its customer/user base.

**Electricity**

Kansas City Power & Light (KCPL) provides electricity to the Study Area. KCPL indicated existing service to the area is adequate to support current development and can be expanded in the future, if needed. There are three substations that currently serve the study area: (1) the substation at 191st Street and Nall Avenue, (2) the substation at 194th Street and Lackman Road, and (3) the substation at 215th Street and Antioch Road, while located outside of the study area, it provides electricity within the study area.

KCPL has indicated, based on current load growth, there are no new plans for future distribution substations in this area. In addition, KCPL is actively promoting resource conservation through education; customer rebate and net metering programs. KCPL is actively encouraging the use of energy efficient lighting systems and solar panels, among other methods.

**Natural Gas**

Kansas Gas Service provides natural gas to the Study Area. Kansas Gas Service indicated that current service to the Study Area is adequate and there is sufficient capacity to serve new development as it occurs. Residential uses are generally served by 2 to 4-inch plastic pipe lines that hold about 35-40 pounds of pressure. Kansas Gas Service future plans for this area include expanding a 12-inch line along Nall Avenue, expanding an 8-inch line south on Antioch Road, west of the Study Area.

**Transportation**

**U.S. Highway 69**

The most important roadway serving the Study Area is U.S. Highway 69 that is maintained by the Kansas Department of Transportation (KDOT). U.S. Highway 69 provides the most direct and convenient access to the urbanized area of Johnson County to the north as well as access to
southeast Kansas and beyond. The 2011 annual average daily traffic (ADT) on the stretch of U.S. Highway 69 near Stilwell was 25,320 vehicles.

**County-Maintained Roads**

The Johnson County Infrastructure and Transportation Department (Public Works) provides road improvements and maintenance for all the public roads, including local residential streets, in the Study Area. This ongoing maintenance includes snow removal, signage, drainage (culverts, bridges, ditches), and safety projects.

The primary arterial roads that serve the Study Area are: 199th Street, Metcalf Avenue, and Nall Avenue. Other important arterial roads are 183rd Street, 191st Street, 207th Street and 215th Street.

**Comprehensive Arterial Road Network Plan (CARNP)**

The County will continue to utilize the *Comprehensive Arterial Road Network Plan* (CARNP) as its guide for future road improvements and the County’s Capital Improvement Plan (CIP). A copy of the CARNP Map is on the following page.

CARNP designates 199th Street as a Type III road (4-lane), Metcalf Avenue as a Type II road (2-lane), and Nall Avenue as Type I (2-lane). All of the other arterial or section line roads within the Study Area are designated as Type I (2-lane) routes.

**Average Daily Traffic (ADT) 2010 and 2013 counts at the intersection of 199th Street and Metcalf Avenue, an at-grade four way stop, are:**

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Bound</td>
<td>4,114</td>
<td>3,583</td>
</tr>
<tr>
<td>East Bound</td>
<td>4,277</td>
<td>3,973</td>
</tr>
<tr>
<td>South Bound</td>
<td>3,206</td>
<td>2,493</td>
</tr>
<tr>
<td>West Bound</td>
<td>5,299</td>
<td>5,193</td>
</tr>
<tr>
<td>Total</td>
<td>16,896</td>
<td>15,242</td>
</tr>
</tbody>
</table>

Since 2012, there have been three accidents at the intersection of 199th Street and Metcalf Avenue and a total of eight accidents at this location since 2008.

The County’s 2014 CIP designates four projects in the Study Area for improvement within the next five years: (1) a shoulder addition project on 191 Street, from Lowell to Heritage Streets; and (2) a railroad crossing/elimination roadway re-alignment project on 207th Street, east of Metcalf Avenue, (3) Shoulder safety project at 199th Street and the Union Pacific Railroad tracks to Nall Avenue, and 4) converting 1.5 miles of millings roads to asphalt in the Aubry/Stilwell area.

Public Works indicated that 199th Street will continue to be a major thoroughfare for this area and at this time there are no plans for improvements of 199th Street within the Study Area.
Recommended CARNP

Legend

Recommended CARNP
- Type I / 2 Lanes
  120ft. ROW
- Type II / 2 Lanes (47mi)
  120ft. ROW
- Type III / 2 Lanes (7mi)
  150-200ft. ROW
- Type III / 4 Lanes (67mi)
  120ft. ROW
- Corridor to be Determined
- Area reserved for potential future grade-separation

Parks
Railroads

Missing Links - non-existing section or half-section line roads. See Section 4.7 in the Comprehensive Plan for further requirements.

Alternative 3a: Designate Two Major Corridor Routes: Inner / Outer
5-County Regional Transportation Study - 199th Street and Potential Outer Loop

In 2013, the Kansas Department of Transportation (KDOT), Mid-America Regional Council, and Lawrence-Douglas County Metropolitan Planning Organization completed a 5-County Regional Transportation Study that includes two separate future road improvements related to the Stilwell Plan Study Area. The 5-County Study identifies major road corridor improvements through the year 2040 for Leavenworth, Wyandotte, Douglas, Johnson, and Miami Counties.

The first recommendation related to the Stilwell Community Plan Study Area is to widen 199th Street to a 4-lane road as recommended in CARNP, as noted above. The second recommendation is for consideration of a potential outer loop highway that would connect U.S. Highway 73 in Leavenworth County to I-70, to K-10 Highway and I-35 in Johnson County, connect east to I-49/U.S. Highway 71 in Missouri. Although a portion of this conceptual corridor is shown within the Stilwell Community Plan Study Area, the potential outer loop received the lowest ranking in the 5-County Study and was not recommended for development within the 2040 time frame.

Railroad and Railroad Crossings

As noted in Chapter 2, the arrival of the Missouri Pacific Railroad in the mid 1880s “was the making of the town.” Today the Union Pacific Railroad operates the only active main line that runs diagonally through the Study Area from southwest to northeast and along the east side of the “old downtown” Stilwell.

The Union Pacific doesn’t make any stops in the Study Area and according to railroad officials, there are approximately 30 trains daily that pass through the Stilwell area. There is no passenger service and all of the rail traffic through the area is hauling freight. The average speed of the trains within the Study Area is from 40 mph to 60 mph.

207th Street and Metcalf Avenue Road Crossing:

The existing at-grade railroad intersection at 207th Street east of Metcalf Avenues is scheduled for realignment in 2014. Public Works plans to swing 207th street south to avoid the railroad line and reconnected it as a “T” intersection to Metcalf approximately 700’ further south. The project consists of two 12’-wide asphalt lanes with 4’ paved shoulders. The existing 207th Street right-of-way alignment will be retained to allow for a future overpass, if warranted.

183rd Street Future Overpass:

Currently, the County has plans but no funding at this time to construct an overpass on 183rd over Camp Branch Creek and the Union Pacific Railroad tracks between Mission Road and Nall Avenue. The estimated cost of construction is over $5 million. This also includes improving the 183rd Street to a 24’ wide asphalt surface with 6’ paved shoulders (Nall to Mission). It is anticipated that this overpass will improve mobility throughout the area for emergency services as well as for local traffic.

199th Street At-Grade Crossing:
The County is aware of and supports the community’s interest in an overpass of the Union Pacific Railroad on 199th Street. This project, however, is not on the current 5-year County Road Plan and due to the large expense of construction such an overpass structure is not likely to be built in the near future.

**Public Transit**

Currently, there is no public transit service to the Stilwell area and Johnson County Transit has indicated that there is no planned transit service to the area in the near future. Study Area residents, however, now can access the Park and Ride lot at the Blue Valley Baptist Church at 151st and Antioch to catch the Route 673 – South Overland Park Xpress that provides service from south Johnson County to the downtown Kansas City, Missouri area.

**Pedestrian and Bicycle Facilities**

Throughout the Study Area there only a few locations with sidewalks (e.g., 199th Street) and there no designated bicycle routes or trial. The wide 2-lane design used on 199th from Antioch to the railroad tracks (approx. 1.5 miles), however, is intended not only to allow for turning movements but to provide additional width for bicycles. Also, the future improvement of 183rd Street between Nall Avenue and Mission Road will be designed to have 6’ paved shoulders to allow additional width for bicycles as well as vehicle traffic.

Although the County is aware of a growing interest in adding pedestrian and bicycle facilities to the Study Area, there are no other plans or funding available at this time to do so. As future road improvements are made within the Study Area consideration will be given to addressing the needs of pedestrians and bicyclist as directed by the County’s 2011, adopted Complete Streets Policy that calls for safe travel for all transportation modes.

**Stormwater Management**

Public Works indicated stormwater management requirements for any new development in this Study Area generally will continue to be required to adhere to new 2008 American Public Works Association (APWA) standards adopted by the County for on-site stormwater management.

**Parks and Recreation**

The only parkland in the Study Area owned by Johnson County Park & Recreation District is located north of 207th Street, approximately one-quarter mile east of Metcalf Avenue. This approximately 55-acre parkland has not yet been developed but plans are in the works for picnic, trails, and recreational facilities. The Stilwell Community Organization is working in conjunction with the Parks and Recreation District on an implementation/development plan for this park.
The Park District at this time has no other future parks planned for the Study Area. The Park District, however, has one future streamway pedestrian/bicycle trail connection point proposed from 183rd Street to the new Stilwell parkland at 207th Street and Metcalf.

The Park District supports a plan that would include greenway linkages and bike/walking paths and trails (new or connections to existing trails) in the Study Area. One concept that has been considered for the future is to eventually develop new pedestrian/bicycle trails that would connect Stilwell Elementary School and/or the future Stilwell Park to the Mid-America Regional Council (MARC) planned Metro Green trail system. This may be a connection to the recently acquired Park District properties along 175th Street and Mission Road, outside of the Study Area.

Overland Park’s future development plan shows a greenway linkage paralleling U.S. Highway 69 south to 207th Street.

**Schools**

Blue Valley School District serves the Study Area and as noted, Stilwell Elementary School located on 199th Street, east of Metcalf Avenue, is the only school facility within the Study Area. The elementary school has an on-site treatment plant that treats the wastewater. In addition, the School District has recently purchased an operations facility located west of Metcalf Avenue, just south of 194th Street, for bus storage/parking, dispatching, and maintenance.

The School District indicated there are no immediate plans for any new school facilities to be located with the Study Area. Outside of the Study Area, however, School District officials indicated there may be a future school site (K-8) as part of a new subdivision development that is proposed within an area recently annexed by Overland Park’s at 191st Street and State Line Road.

**Emergency Services**

**Fire Protection**

Fire District No. 2 serves the Study Area and has one fire station located within the Study Area, on the east side of Metcalf Avenue at 194th Street. This station is staffed full-time. Just outside the Study Area, there are two more fire stations. One is located at 191st Street and Lackman Road and the other is located 184th Street and Mission that also serve the Study Area, if needed. The Fire District indicated there are currently sufficient facilities, manpower, and equipment to serve the Study Area. There are no immediate plans for new fire stations in the Study Area, with the possible exception of enlarging the fire station at 194th Street and Metcalf Avenue.

The Fire District indicated there are adequate facilities now to serve new development as well as existing development. Fire District officials, however, did indicate that some existing, older residential subdivisions can be challenging due to limited fire flow or lack of fire hydrants.
Fire District officials noted two road/access response concerns in the Study Area: (1) on Nall Avenue, south of 191st Street to Wall Street, and (2) 183rd Street west of Nall Avenue. Fire District officials also noted that as development increases throughout the area, there will be an increasing need for a railroad overpass on 199th Street and possible improvements to portions of Mission Road.

Med-Act Ambulance Service

Johnson County Med-Act provides ambulance and emergency medical services throughout the county. Med-Act operates both ambulances and paramedic advance response (PAR) units to provide this service. Med-Act works in partnerships with other Johnson County cities to provide optimum response times and service.

Med-Act services are generally dispatched from fire stations depending on equipment availability at each fire station, including the fire station in the Study Area located at 194th Street and Metcalf Avenue. The two closest hospitals to the Study Area are St. Lukes South at 12000 South Metcalf Avenue and Menorah Hospital at 119th Street and Nall Avenue.

Med-Act officials indicated that they have few calls (e.g., 1/day) within the Study Area. The average age of the patient they respond to is 58. Med-Act officials indicated there were no outstanding or major impediments to providing emergency services to the Study Area.

Sheriff

The County Sheriff’s officials indicated they receive few calls for emergency services, including domestic or criminal activity (e.g., burglaries), within the Study Area. Sheriff officials noted commercial buildings in the area sometimes are a target for theft and limited security lighting throughout this portion of the County can contribute to criminal opportunities.

Within the Study Area, the Sheriff’s department has an office located in the fire station at 194th Street and Metcalf Avenue. The Study Area is patrolled on a regular basis and deputies monitor the elementary school site for safety and speed control. In addition, Sheriff’s officials indicated traffic safety might be improved in front of the elementary school if there is a turn lane for picking-up and dropping-off of students. The Sheriff’s department assists with community events such as organized bicycle races, the “Running of the Cows” event, the Fourth of July parade and fireworks display. Sheriff’s officials also noted there are few vehicle accidents within the Study Area with the exception of an increasing incidence of vehicle/deer collisions during the fall.

Sheriff’s officials indicated there are no immediate plans for law enforcement facilities within the Study Area.

Infrastructure/Utilities Conclusions

Based upon the above findings, it is apparent that, other than funding availability, there are few development pressures or limitations on the Study Area’s ability to continue to grow at its current modest pace. If, however, sanitary sewers do become available to the Study Area, it may be anticipated that the pace of development will increase along with pressure for more dense and diverse development.
CHAPTER 3 – Future Land Use

I. Blue Valley Plan

As noted in Chapter 1, the purpose of the Stilwell Community Plan is to review and update, as needed, a six square-mile portion (Study Area) of the Blue Valley Plan. The Blue Valley Plan sets forth detailed goals, policies, and objectives for the area covered by the plan, including the Stilwell Community Plan Study Area. The “Future Land Use Map” within Blue Valley Plan along with goals, policies, and objectives in the plan serve as the County’s official guide on where and how development should occur. Along with other considerations, the recommendations contained and the Blue Valley Plan and the “Future Land Use Map,” are included as part of the County’s development (e.g., zoning) decision making process.

Within the Stilwell Community Plan Study Area, the Blue Valley Plan recommends a general range of future land uses from rural and low-density residential to office/research and industrial warehousing. The portion of the Blue Valley Plan “Future Land Use Map” within the Study Area is shown in the following map.

The Blue Valley Plan “Future Land Use Map” includes the following proposed land uses within the Study Area:

- Rural Policy Area – 1 dwelling/10 acres
- Growth Policy Area – 1 dwelling/10 acres is the standard with 1 dwelling/2 or 3 acres appropriate as an option
- Very-Low-Density Residential – 1 dwelling/acre
- Commercial/Neighborhood Business – General neighborhood convenience retail
- Low-Intensity Office – Limited office compatible with residential development
- Light Industrial/Business Park – A mix of planned office, light industrial, limited retail, and services on 15 acres or more
- Research and Development – Research-oriented development
- Industrial Warehouse – General warehouse and light manufacturing
- Public and Quasi-Public – Community facilities, churches, etc.
- Parks/Recreation/Open Space – public trails, greenways, outdoor activities, floodplain, etc.

II. No Changes to Blue Valley Plan Future Land Use Map

For the purpose of this planning project, no changes are recommended for the goals, policies and objectives or the land uses recommended in the Blue Valley Plan “Future Land Use Map.”

This recommendation is based upon an evaluation of the information collected related to this plan update; particularly an assessment of the unlikely potential for sanitary sewers to reach the Study Area within the 20-year project timeframe. Also, although substantial, the impact of continuing development pressures from the north, east, or west are not anticipated to
significantly alter the existing on-going fragmented, low-density, and low-intensity development pattern that has occurred within the Study Area over the past two decades. For these reasons, the Blue Valley Plan goals, policies, and objectives and recommended future land uses within the Study Area remain appropriate and do not require modification.

III. Streamway Park and Greenway Linkage Development

Streamway park development, also referred to as greenway linkages, are open spaces set aside for public use. Greenway linkages are generally wide enough to accommodate pedestrian, bike, and sometimes even equestrian trials. Typically, greenway linkages are located along or within existing flood plain areas or existing public right-of-way.
The study area has two major drainage ways: Camp Branch and Wolf Creek. Camp Branch, located along the eastern portion of the study area, extends between the future community park on the south side 207th, east of Metcalf and property donated for a future park on the north at 183rd and Mission. A greenway linkage along this floodplain would connect the two future parks through the study area. Potential future greenway linkages are shown along the two areas where Wolf Creek enters the study area. These linkages, along with linkage along U.S. Highway 69, tie the study area with the Overland Park Arboretum, Heritage Park, the county’s Streamway Park System, the greenway system in Leawood, and the Blue River Parkway.

IV. Future Transportation

As noted in Chapter 2, Section VI. Infrastructure/Utilities, the County will continue to utilize the Comprehensive Arterial Road Network Plan (CARNP) as its guide for future road improvements and the County’s Capital Improvement Plan (CIP). CARNP designates 199th Street as a Type III road (4-lane), Metcalf Avenue as a Type II road (2-lane), and Nall Avenue as Type I (2-lane).
All of the other arterial or section line roads within the Study Area are designated as Type I (2-lane) routes.

CHAPTER 4 – Goals, Objectives, Community Initiatives and Implementation

I. Establishing Goals, Objectives, and Community Initiatives

Goals and Objectives

The following goals and objectives were derived from input by the Aubry-Oxford Consolidated Zoning Board, focus groups, and the community. Goals are desirable future conditions towards which development in Stilwell should be guided. Objectives are the general means for achieving the goals.

Community Initiatives

Following the description of goals and objectives is a list of Community Initiatives to be implemented by Stilwell’s residents, businesses, and property owners. These initiatives are beyond the normal realm of government services but could possibly be implemented jointly through public/private sector partnerships, similar to the development and operation of the future Stilwell Park on 207th Street.

Focus Group Process

The focus group process consisted of a series of meetings with three separate representative groups from the community: 1) area businesses, 2) members of the real estate and development community, and 3) community institutions and residents.

These participants were invited to two separate series of focus group meetings. The first series of meetings used a “brainstorming” process to identify the Study Area’s strengths, weaknesses, opportunities, and concerns. The results of the focus group’s discussions provided an initial overview of the general concerns and interests of those who participated and are summarized in Appendix A. The second series of meetings was to critique the goals and objectives drafted by staff and the AOCZB in response to the findings from the effort.

Zoning Board and County Commission representatives also actively participated in the focus group meetings as well as received regular progress updates and provided feedback on staff’s working drafts.

Focus Group Meetings Attendance
A total of 207 individuals attended the two series of three focus group meetings.

First Series:
1) Area business owners – 21 Attendees - November 22, 2011
2) Members of the development community – 28 Attendees - December 20, 2011
3) Community institution representatives and residents – 60 Attendees - February 15, 2012

Second Series:
1) Area businesses– 23 Attendees – June 20, 2013

A list of the attendees at the focus group meetings is included in the Project Participants section at the front of this report.

The findings from the first series of focus groups are summarized in Appendix A.

The comments and input from the second series of meetings are incorporated into the following goals and objectives.

**Community-Wide Public Meeting**

Following completion of the focus group review, the AOCZB revised the draft goals and objectives and hosted an open public meeting to present and receive input on the draft goals and objects. Over 160 people attended the public meeting held at the Stilwell Elementary School that was conducted by the AOCZB, the township trustee, and the chairman of the Stilwell Community Organization.

**II. Stilwell Community Goals and Objectives**

These goals and objectives directly align with the goals, policies, and action steps contained in the County’s comprehensive plan. Responsibility for implementation of these goals and objects is shared by the County and the Stilwell community. Prioritization and funding of these goals and objectives, however, have not been identified at this time.

1. **Goal:** Historic Small Town Character and Sense of Community. Stilwell residents are proud of their community and share a strong sense of commitment to enhancing as well as preserving its rural traditions and small town character.

   **Objectives:**

---

*Stilwell Community Plan*
a. Encourage new development, particularly nonresidential structures and uses, to be appropriately scaled and designed to be compatible with and embrace the community’s character.

b. Establish guidelines to restrict excessive lighting, particularly on new nonresidential development. Undertake voluntary efforts to encourage businesses and residents to limit their outdoor lighting to be sufficient for safety and promote the use of new lighting technologies to reduce glare, e.g., LED when and if this lighting option becomes available.

c. Encourage multigenerational development that supports residents in all stages of their lives and particularly support efforts to enable the elderly to “age in place” with access to essential services (e.g., groceries, medical, and health services).

d. Increase efforts to improve property maintenance; particularly with absentee property owners and initiate a campaigns to promote a “litter-free” community.

e. Upgrade streetscapes of all major roadways into Stilwell to be inviting gateways, e.g., 199th Street, and Metcalf Avenue north and south from 199th Street.

f. Upgrade the intersection of 199th Street and Metcalf Avenue to be a community focal point with welcoming signs, street fixtures, and landscaping in keeping with the village’s character.

g. Increase opportunities for residents to meet and interact, including the addition of sidewalks or safe walking areas.

h. Encourage redevelopment and adaptive reuse of older structures by reviewing applicable zoning and building codes to identify possible regulation changes that might facilitate redevelopment; particularly within old downtown Stilwell.

2. **Goal: Public Gathering Places - Parks, Greenways, Paths, and Recreation.** Parks, greenways, paths, and recreational facilities are essential public amenities for Stilwell’s residents as well as providing opportunities to meet and interact.

**Objectives:**

a. Support the establishment of a new centrally located and easily accessible public gathering place like a village green to provide a common space, e.g., outdoor stage, picnic shelters, etc. for community events and enjoyment as well as a place of civic pride.

b. Develop a Camp Branch Creek bicycle and pedestrian greenway and possibly horse trail to connect with the recently acquired parkland at 175th and Mission Road as recommended in the *Johnson County Rural Comprehensive Plan*. Access to these improvements should be safe and convenient and could be developed through public/private partnerships.
c. Identify utility corridors and unused land near stream corridors suitable for future trails.

d. Develop a future bicycle and pedestrian trail connection to the Overland Park Arboretum.

3. **Goal: Environmental Quality.** Protection of the natural environment is essential to maintaining a balance between the natural and built environments as well as maintaining the Village’s rural small town character.

**Objectives:**

a. Integrate new development with the natural environment, minimizing adverse impacts while conserving open spaces.

b. Encourage the inclusion of conservation or open space areas as part of new development, particularly, nonresidential development.

c. Minimize stormwater run-off by utilizing natural drainage systems and continue to restrict development in flood prone areas.

4. **Goal: Future Development.** Undeveloped land provides a wide range of opportunities for new development including a balanced mix of housing types, shopping, entertainment, employment, and new community facilities.

**Objectives:**

a. Assure harmonious transitions between new and existing development and differing land uses.

b. Support a diversity of housing types with a wide range of prices.

c. Review applicable zoning and building codes to identify possible regulation changes that might facilitate new restaurants with local flavor along with expanded grocery and neighborhood convenience-type stores.

d. Explore establishing new zoning regulations that will allow for mixed-use development in the unincorporated area.

e. Encourage infill development of vacant and underutilized lots; particularly in old downtown Stilwell.

f. If sanitary sewers become available, assure that any new medium density development is appropriately located and compatible with adjacent existing development.
g. Develop “general” voluntary design guidelines, including lighting and landscaping, for non-residential development to establish a common frame of reference for future and current development.

h. Restrict parking for future non-residential development to the rear or sides of the new building as well as provide sufficient screening from adjacent residential uses. Consider lowering parking requirements; particularly in the downtown area.

5. **Goal: Transportation and Accessibility.** Stilwell’s location, in combination with its convenient transportation connections to the region, provides access to a wide range of business, employment, and shopping/entertainment opportunities.

**Objectives:**

a. To the extent feasible, maintain the area’s low-traffic volume and existing transportation system to assure continued mobility, access, and safety throughout the local network system of Stilwell.

b. Continue to adhere to the County’s *Comprehensive Arterial Road Network Plan* (CARNP), which designates future road improvements and establishes design standards for the major and minor arterials that serve the area.

c. Adhere to the County’s policy of encouraging “Complete Streets” that serve the needs of pedestrian, bicycle (e.g., striping bike lanes), and transit as well as motor vehicles.

d. Survey the community’s streets and identify potential ways to make them safer for pedestrians and bicyclists.

e. Continue to require paved streets for new development and continue to adequately maintain streets, including snow removal, assuring safety, and long lasting low-maintenance improvements.

f. Explore opportunities for public transportation (e.g., Johnson County Transit Local Link or Commuter Express) to serve Stilwell as well as promote use of the 151st Street and Antioch Road Park and Ride facility. Also, explore the potential for a future Park and Ride facility in Stilwell for carpooling and possibly for a future Stilwell JO route, if feasible.

g. Address traffic safety (e.g., pedestrian, bicycles, railroad crossing) on 199th Street, while minimizing adverse impacts on surrounding existing development including Stilwell Elementary School.

6. **Goal: Public Facilities/Services and Coordination.** The effective use of limited public resources and coordinated delivery of public facilities and services is essential to the continued high quality of life for Stilwell.
Objectives:

a. Centrally locate future community facilities to create a “civic center” or area that would include other community facilities such as a post office, after-school facilities, a library, or a community center.

b. Plan and design the future installation of public utilities, including sanitary sewers, to limit adverse impacts on existing development.

c. Identify locations with utility services deficiencies (e.g., water pressure, power, etc.) and work with the utility providers to upgrade these services.

d. Increase communication and coordination with surrounding jurisdictions to ensure development is coordinated, orderly, efficient, and compatible.

III. Community Initiatives

As noted, the following list of community initiatives was developed during the preparation of the above goals and objectives. Because these initiatives are generally beyond the normal realm of government services, responsibility for implementation will be up to Stilwell’s residents, businesses, and property owners. Some of these initiatives, however, might be implemented jointly through public/private sector partnerships or support by the County and community organizations working together.

1. Historic Small Town Character and Sense of Community.

   Community Heritage

   • Promote Stilwell’s heritage as essential to maintaining the community’s rural small town identity as well as to its sense of pride and connection to its past.

   • Survey important historic and cultural features to identify structures or locations important to the community, preserve them, and commemorate them with historical signs or markers. Along with long-time and knowledgeable residents, the Johnson County Museum may provide assistance for conducting a survey.

   • Increase awareness of Stilwell’s old downtown through the addition of new directional signs and markers.

   • Establish a venue or location (e.g., future village green) to commemorate the community’s history, e.g., historical markers, public displays, etc.

   • Develop a sample historic-themed Village architectural style pamphlet for property owners to consider when remodeling or building new structures.
Sense of Community

- Encourage local civic organizations to bring neighbors together through community social, cultural, and historic events (e.g., Stilwell Parade).

- Support redevelopment of the original Stilwell School into a community center or public gathering space.

- Create a Stilwell logo or “brand” that can be used throughout the area on signs, banners, newsletters, websites, etc.

Small Town Character and Identity

- Establish an ongoing farmer’s market to capitalize on locally grown produce as well as to provide a location and opportunity for residents to meet and interact.

- Encourage development of agri-businesses such as orchards, vineyards, pumpkin patches, etc., that reflect the community’s rural traditions and character and that attract visitors to the area.


- Continue collaboration between the County Park and Recreation District and the Stilwell Community Organization to develop parkland at 207th Street, east of Metcalf Avenue and create other “pocket parks” or trails in this area as well.

- Capitalize on the number of bicyclists that ride through Stilwell by providing inviting amenities and commercial services, similar to communities along the KATY bicycle/pedestrian trial in Missouri.

3. Environmental Quality.

- Promote the planting of hardy flowering trees and ornamental plants to reinforce a common image for the community (e.g., host an annual community festival in celebration of a selected tree’s flowering) as well as to improve the overall environment.

- Identify significant open spaces and stands of trees and encourage conservation of these areas through public-private cooperation or partnerships such as the Blue River Land Trust and the Kansas Land Trust.

4. Future Development.

- Support existing local businesses as well as encourage new business and new employment opportunities.
5. Transportation and Accessibility.

- Establish a “Quiet Zone” along the Union Pacific tracks in residential areas.

6. Public Facilities/Services and Coordination.

- Support retaining Stilwell Elementary School at its current location while improving its accessibility (e.g., sidewalks, bike lanes).

- Increase communication between the County and Village property and business owners through newsletters, websites, email alerts, a community billboard, and various other forms of communication.

- Establish an organization of business owners in the Stilwell area to collaborate with one another as well as promote their businesses, e.g., create a Stilwell business directory.

- Explore opportunities to raise funds to support special community events and projects.

IV. Implementation

As noted above, the preceding goals and objectives align with the goals, policies, and action steps contained in the Johnson County Rural Comprehensive Plan.

Responsibility for implementation of the goals and objectives is shared by the County and the Stilwell community.

At this time, however, neither prioritization nor funding for the goals and objectives has been identified.
APPENDIX A

Focus Group and Aubry-Oxford Consolidated Zoning Board Comments

Each of the three focus groups and the Aubry-Oxford Consolidated Zoning Board were asked to “brainstorm” the following questions at the first series of focus group and zoning board meetings:

1. What are some of the strengths of the community?
2. What are some of the weaknesses or challenges facing the community?
3. Given the strengths discussed, what are the elements that the community wants to preserve and enhance?

The results of the focus group’s and the zoning board’s discussions provided an initial overview of the general concerns and interests of those who participated.

The following is a summary of the comments received from the zoning board and the three focus groups.

**Strengths**

- Rural small town character
- Excellent location within Johnson County and the region – close proximity to wide ranges of employment, business, shopping, and entertainment opportunities
- Direct convenient access to U.S. Highway 69
- Adequate infrastructure (roads, utilities) in place
- Active civic organizations
- High level of community identity/spirit/pride - engaged citizens that care about the community and are willing to work to help improve it.
- Friendly people who know and interact with each other
- Engaged political leadership aware and responsive to major local concerns/issues
- Well-maintained properties and landscaped residences
- Abundant trees, vegetation, and rural open space
- Open Canvas – large tracts of land available for future development
- Vacant “Key” properties (e.g., KCPL property)
- Excellent emergency services (Sheriff, fire, and Med-Act)
- Low crime – generally a safe and secure community
- Excellent School District and Elementary School
- Continuity of rural architecture styles
- Diversity – income, lifestyles, age, etc.
- Dark night sky to see the stars – limited light pollution
- Community events - 4th July parade, Methodist church carnival, etc.
Numerous Churches
Clean – litter-free community
No stop lights
Excellent County services (e.g., public works snow removal)
Convenient banking services
U.S. Post Office
Low density development
“We’re not Overland Park”
Ample business park zoning
Time is right to plan
Convenient commercial services (NAPA auto parts store, veterinarians, Stilwell Station)
Low traffic volume and good mobility throughout area
Metcalf Avenue and Mission Road convey rural image
Diversity of housing with a wide range of prices

Weaknesses

Some “hodgepodge” development – lacking continuity
Lack of a community/town center/focal point
Lack of convenient public parks; especially for small children – no community park
Few sidewalks and overall limited safe walkability
No pedestrian or bicycle trails
Limited connectivity because of dead end roads, missing bridges, rail lines, etc. in some locations
Insufficient population density to support higher-end businesses and services
Limited non-residential design requirements
Lack of sanitary sewers
Some aging or deteriorating residences or properties – limited zoning code enforcement
Threat of annexation by Overland Park
Railroad crossings posses delays as well as potential hazard
Surplus of undeveloped platted and zoned large lots
Need for more smaller 1- and 2-acre sized residential lots
Current zoning and building code regulations make it difficult (e.g., nonconforming use requirements) to redevelop, especially in old downtown Stilwell.
Uncertainty of zoning
Few remaining older historic buildings
No public transit service to the area
• Limited options for the elderly in need of services (e.g., convenient transportation, medical, food, etc.)
• Limited County investment – e.g., lack of parks
• Old Downtown is not visible or easily accessed from main thoroughfares.
• Historic feel and memories of the original community are lessening as new development occurs that is not in keeping with the existing rural-exurban character of the area.
• Limited job opportunities
• Limited self-government
• Empty buildings and properties
• Absentee property owners
• Lack of a common communication medium for community news/alerts/etc.
• No single significant architectural style
• 199th Street and Metcalf Avenue intersection is unattractive
• Metcalf Avenue is unattractive in many places
• Limited grocery services
• Limited restaurant services
• Limited water pressure and fire flow in some locations

Opportunities

• Redevelopment of old high school – possible community center
• KCPL land is prime area for commercial, but not big box (e.g., Wal-Mart)
• Architectural continuity, e.g., Wheaton, Illinois requires “colonial” style architecture in certain areas
• Open Canvas to plan for as there is a lot of undeveloped land within the Study Area.
• NE and SW corners of 199th and Metcalf offer high potential for future development
• Access to local produce and an ongoing farmer’s market
• Community residents are involved and anxious to help each other
• Stilwell community Park on 207th Street
• Plan for walkability to parks services – biking
• Convenient access to Louisburg (potential shoppers, etc.)
• Remaining historic buildings
• Opportunity to connect government/community services together, e.g., post office, school, future library or community center
• Good safe traffic circulation system - existing street, signage, movements
• Nearby parkland, bike trails – 175th Street to 183rd and Mission Park
• Limited system or structural impediments to sanitary sewer extension - except for installation cost.
- Large tracts provide development opportunity
- Continue opportunity for small businesses
- Existing community identity as a small community/village
- Overall high quality of life
- Open Space (maybe small pocket parks)
- 263 businesses already listed as located in the Study Area
- “Off the beaten path” development

**Concerns**

- Large lots can limit options for commercial, etc.
- Development (lights) will affect rural (night time) character – light pollution
- Deteriorating older buildings - redevelopment occurs too slowly
- Non-resident property owners
- Citizen apathy
- Limited support of local business
- Lack of guidelines for visual continuity/visual character
- Lack of bike/pedestrian “Paths”
- Annexation by Overland Park
- “Inconsistent” streetscape/viewscape
- Large area of industrial zoning (Metcalf and highway area)
- Storm drainage from development
- Dispersion of community “node” uses – post office, library, etc.
- Lack of coordination between County, residents, developers
- Lack of funding
- East-West connections – advantages and disadvantages, Missouri
- Environmental issues
- Limited influence/authority of township board
- East/West Community Divide
- Older residents Vs. newcomers
- External traffic (e.g., cut through) adversely impacting the area
- Wide streets encourage higher traffic speeds
- Increasing 199th Street corridor traffic volume
- Migration of county from west to east?
- Green space threatened by development
- Train traffic- noise, safety
- Loss of Stilwell Elementary School
- Increased truck traffic and other traffic related to intermodal facilities in Missouri and in Edgerton
CONCEPTUAL LAND USE PLAN

SUNFLOWER ARMY AMMUNITION PLANT

Amendment to
Johnson County Rural Comprehensive Plan
Resolution No. 079-98
July 23, 1998

Background
The United States General Services Administration (GSA), in conjunction with
the United States Army, is completing a review process that will eventually lead
to the disposal of the Sunflower Army Ammunition Plant property. This process
provides the County with both a challenge and an opportunity to exercise some
control over the disposal and to establish policies and guidelines for
redevelopment of the Sunflower site.

On April 21st, 1998, at the public hearing held by the GSA, Commissioner Johnna
Harris-Lingle spoke on behalf of the Johnson County Board of County
Commissioners and outlined the primary points of interest for the County, which
included:

1. That a comprehensive land use plan should be developed for the whole
property and should guide its disposal and ultimate redevelopment;

2. That the property should be divided into a minimum number of parcels for
disposal and redeveloped in a compatible manner; and,

3. That environmental remediation and clean-up should be planned and financed
for the entire site and not just certain portions of the property.

Those points of interest were repeated throughout the comments of other local
officials and area residents.

The future development of the Sunflower site will depend greatly upon how well
the County and GSA, together with the State, cooperate to guide the disposal and
redevelopment. Two key issues to controlling the future development are (1)
what the conceptual, future land-use plan for the property will be; and, (2) what
methods are available to the State and to the County to implement and guide
redevelopment.

The Sunflower property is now under Federal jurisdiction and is not subject to
any State, Johnson County, or other local governmental regulations (building
codes, zoning , etc.) or taxation (real estate, personal property, etc.). If the
property, however, is sold, conveyed, or released for uses other than a Federal purpose, the property may become subject to Johnson County regulations. In this event the County will need to have a basis for evaluating development proposals before any building permits will be issued. For this reason staff is recommending that the Board establish a conceptual land use plan for the redevelopment of the plant site. Such a plan, if approved by the Board of County Commissioners and adopted as an amendment to the _Johnson County Rural Comprehensive Plan_ would establish a clear vision and policy on how the Sunflower site should be developed as well as establish a firm basis for evaluating any future development proposals for the site.

To assist in that consideration, County staff has completed a preliminary review of the area and has developed the attached "Future Land Uses - Concept Plan" on page 7. This plan would be considered during reviews of zoning and development proposals and during preparation of special studies with respect to the Sunflower site and its environs.

This Future Land Uses - Concept Plan has been prepared by the County with a full understanding that at this time Johnson County has no planning, zoning, or building codes jurisdiction over the Sunflower property. This plan, however, has been prepared with the expectation that the GSA will eventually complete its mission and dispose of the property. Rather than wait until the GSA has completed this property transfer, the County has taken a proactive approach to establish plans and policies for how the site should be developed.

**Sunflower Army Ammunition Plant**

*The Site*

The Sunflower Army Ammunition Plant site covers 9,065 acres of land in northwestern Johnson County. The location boundaries of the site are shown on the attached proposed Future Land Uses Plan. The approximately 14-square mile facility is located just south of Kansas Highway 10 (K-10) and the City of DeSoto. The facility was established in 1941 by the U. S. Army and went into production in 1942, employing over 10,000 workers manufacturing explosives. Placed on inactive status in 1946, the facility was reactivated for the Korean and Vietnam conflicts.

Until 1992, the facility’s most recent use was for the production of nitroguanidine, an ingredient in large gun propellant. There is now no active production of nitroguanidine on the site which contains over 2,200 buildings in varying conditions. The facility is currently maintained and operated by Alliant Techsystems, under a contract with the U.S. Army until March 2000. Several private companies now have leases to use the site including Koch Industries (sulfuric acid), Southwestern Bell and Sprint (communication tower), Sunflower...
Aquaculture, L.L.C. (tilapia fish farm), and Kansas Wastewater, Inc. (commercial wastewater treatment). Kansas State University (KSU) has leased over 300 acres in the southeast corner of the site for an agriculture research facility and other locations on the site have been leased to individuals for private agriculture production.

**Major Topography and Streams**
The Sunflower property is divided approximately in half, east/west, by a major north/south ridge line that generally runs through the center of the property. The highest elevation on the site is 980 ft. mean sea level (msl) located at the southeast corner of the site just northwest of 143rd and Dillie Road.

Three creeks pass through the Sunflower property and flow into the Kansas River to the north. All three of the streamways have designated flood plains that present opportunities for future public open space preservation and recreational use as well as constraints to future development. The two streamways located on the east side of the major ridgeline are Kill Creek and Spoon Creek. Kill Creek, the largest streamway, is located on the far eastern portion of the Sunflower property. The lowest elevations on the property, 780 ft. msl, are found along the banks of Kill Creek on the northeast corner of the property near 95th Street. Spoon Creek is west of Kill Creek and connects with Kill Creek at approximately 111th Street. Captain Creek is located on the far west side of the major ridge line that divides the Sunflower property. Captain Creek flows northwest and into Douglas County where it empties into the Kansas River.

**Environmental Concerns**
According to Sunflower officials, 53 sites on the property have been identified as "solid waste management units" (SWMU) having environmental contamination. These contaminants consist of concentrations of nitroglycerin, chromium, and lead from the production of large gun propellants. The largest contaminant on the site, however, is asbestos found in existing structures and wrapped around several miles of pipes used to carry steam throughout the facility. U.S. Army officials have acknowledged responsibility for the site and are currently conducting an "Environmental Baseline Study" to determine the extent of clean-up necessary. A Restoration Advisory Board (RAB), comprised of local residents, has been established by the Army to participate in the oversight of the clean up operation. In addition, the Kansas Department of Health and Environment (KDHE) and the Federal Environmental Protection Agency (EPA) will have responsibility for monitoring clean up efforts.

**Existing Surrounding Land Uses**
The land uses surrounding the Sunflower site are varied. Immediately to the north is Clearview City, a private, 230-unit multifamily residential development built to house Sunflower workers during World War II. Clearview City was annexed into DeSoto in the Spring of 1998. Some light manufacturing and warehouse operations are located just west of Clearview City on 103rd Street and north along Sunflower Road. Sunflower Park, an approximately 40-acre passive recreation area (trails and picnicking) is owned by Johnson County and is located adjacent to the north boundary of the Sunflower property, just west of the main entrance to Sunflower on 103rd Street. Lighted baseball diamonds, owned by the City of DeSoto, are located on the north end of the Sunflower property, adjacent to the west side of Sunflower Park. Northeast along Lexington Avenue is a new apartment complex under construction, a tire repair shop, Countryside Elementary School, and a recently completed contractors shop. Several large acreage residences are located between K-10 and 103rd Street.

Hunt Midwest Rock Quarry is located adjacent to the east side of the Sunflower property. A 10-year Conditional Use Permit (LE-CU-867) was issued for the rock quarry on January 24, 1991 and may be reconsidered for an continuation in January 2001. Long term future reclamation plans for the site include conversion to recreational (park and golf course) and residential uses.

The County's new, approximately 850-acre, Kill Creek Park is also adjacent to the Sunflower property, just south of the Hunt Midwest rock quarry. Projected to open in the year 2000, future development for the park includes extensive trails, picnicking, fishing, and limited group and day camping. Other land uses to the east are primarily agricultural and very low density residences. The areas to the south and west of the Sunflower site are predominately agricultural with some scattered, very low density residences. An approximately 50-acre park owned by the City of DeSoto is located adjacent to the south west boundary of the Sunflower Property. An approximately 3-acre Lexington Township Cemetery is located just north of the DeSoto park and adjacent to the Sunflower property.

**Transportation**

The only public entrance to the Sunflower property is from the gated entry located on 103rd Street, just south of Clearview City. Recently widened and resurfaced, 103rd Street is a paved, County-maintained roadway. Three interchanges on K-10 Highway provide direct access to the site: Lexington Road, Edgerton Road, and Evening Star Road. All three of these county-maintained roads are paved to 103rd Street. K-10 Highway now carries an average daily traffic (ADT) of over 25,000 vehicles. With the exception of 135th and 143rd Streets, all of the other roads south of K-10 that approach (but do not connect) with the site are gravel-surfaced. There are no public roads that pass through the Sunflower property nor is there any public transit service available to the site or to the DeSoto area.
Rail service is available to the site from a spur owned by the U.S Army. The site itself contains over 20 miles of standard gauge track. The spur connects with the Santa Fe/Burlington Northern tracks located to the north in DeSoto. The Sunflower site itself has an extensive internal road network comprised of over 120 miles of paved and unpaved streets in varying condition.

**Utilities**
Originally the Sunflower facility had its own utilities system. Over the past five years, however, the U.S. Army has sold or leased these utilities. In May 1998, the Army leased the sewer and water treatment utilities to the City of DeSoto. The existing sewer system has a 0.25 million gallon per day (MGD) capacity. A separate wastewater treatment facility built by the Army in 1992 for treating nitrogen has been leased to a private company, Kansas Wastewater, Inc., which commercially processes industrial wastewater. The existing water treatment facility has a storage capacity of over 13 million gallons making it capable of serving very large users. Power to the site is now provided by Western Resources (approximately 115,000 Kilovolts) with 40,000 Kilowatts of capacity available. Natural gas is available to the site from Williams Natural Gas Company. Telephone and fiber optic services are now available to the site.

**Public Safety**
Rural Fire District No. 3 now provides limited (nights, weekdays, and holidays) fire suppression service to the Sunflower facility on a contract basis. The facility has its own security service and does not rely on the County Sheriffs Office.

**Options**
Due to its size and location, the Sunflower facility offers a variety of options for land use planning. Given its current use and condition, the most obvious land use plan would be centered around industrial and manufacturing uses. These obvious industrial and manufacturing uses, however, are not necessarily the most viable and preferred uses. Absorption rates for such uses on over 9,000 acres would indicate that full development could take more than 50 years, and the resulting density of those uses would adversely affect much of the surrounding area.

Significantly, the Sunflower site offers a much more unique opportunity — to plan and create a landmark community in a single, planned development. The proposed plan is, therefore, based upon a “planned community” concept.

**Planned Community Concept Objectives:**
The planned community concept seeks to achieve the following primary objectives for the property:
1. Minimize the impact of the development on surrounding properties and maintain the overall natural character of the area;

2. Recognize existing infrastructure and topography to best serve the property;

3. Establish land uses that are compatible with existing infrastructure and existing comprehensive plans, including the K-10 Corridor plan, with an emphasis upon high-tech, research industry, and business center uses;

4. Establish diverse, but compatible land uses to fully integrate sections of the property into a comprehensive whole, while ensuring that sufficient properties can be developed in a reasonable time period to make the development viable;

5. Establish a prominent community presence for governmental and public uses at the center of the development; and,

6. Provide for adequate green space and parkland in a community setting to create the park atmosphere and to provide accessible park ground as a buffer zone for surrounding properties.

Planned Community Description - "Community in a Park"

Within Sunflower Site
The central theme of the plan is “Community in a Park”—approximately 3,450 acres of green space and defined park land uses woven throughout the property connecting separate land use areas. Park land is designated along the east, south, and west boundaries to take advantage of existing topography, which is partially wooded and partially flood plain. The park land provides a green belt buffer zone to the surrounding properties. The over 400 acres in the southeast corner of the site now leased by KSU as an agriculture research facility would be integrated as part of the community's open space.

The plan incorporates a substantial portion of property designated for residential use, planned at urban area design standards of three to four homes per acre. The residential areas would encompass nearly 3,000 developable acres. Multi-family residential areas would be available in a buffering area.

An area designated for light industrial uses would be available near the center of the development. That area accommodates existing facilities, including the water treatment plant and sewage plant. The area would allow limited light industrial and would seek to obtain industries related to high technology. The area would cover approximately 400 acres, which is considered adequate for projected industry absorption rates in the County.
A town center area of approximately 600 acres would serve as the prominent center piece. That area would serve as the location for schools, churches, government offices, medical facilities, and the typical down-town retail and small office establishments.

The remaining area would be designated for business center, highway commercial, and research and technology center. Those areas would encompass more than 2,000 acres, or roughly eight (8) times the size of the Sprint campus. The business uses would be located at the north boundary, which has the primary road access, but also maintains minimum impact to the surrounding uses. A potential site for a research/technical center, including a possible microchip manufacturer, has been identified for the northwest area of the Sunflower property.

**Surrounding Sunflower Site**

Proposed land uses surrounding the Sunflower property have been coordinated with the recently adopted City of DeSoto Comprehensive Plan (1996) and the Johnson County Rural Comprehensive Plan (1991). The proposed uses surrounding the Sunflower property are dependent upon the prior development of the Sunflower site, including the installation of the adequate infrastructure (sewer, water, power, etc.) required to support development within and outside the Sunflower property.

The proposed uses north of 103rd Street consist of residential mixed uses including single and multi-family dwellings with limited retail, office, and light industrial businesses. Commercial uses are proposed for the Evening Star Road, Lexington Road and Kill Creek Road interchanges with K-10 Highway. The proposed land uses south of 95th Street and east of the Sunflower property are for park and low density residences (3 to 4 dwelling units/acre with sewers) uses. If sewers are not available the residential uses in this area should be restricted to a range of: 1 dwelling unit/2 acres to 1 dwelling unit/10 acres, depending upon the availability of adequate infrastructure. A small commercial area at 115th and Kill Creek Road is proposed to serve future park user needs generated by Kill Creek Park.

Proposed land uses for west of the Sunflower property are Rural Residential, ranging between 1 dwelling unit/10 acres to 1 dwelling unit/3 acres, also depending upon the availability of adequate infrastructure. This recommendation is based on the long-range limited availability of infrastructure in this area (primarily sewer and roads) and is consistent with the County Rural Comprehensive Plan.
Proposed Land Uses:

**Within Sunflower Site:**

- **BUSINESS CENTER**
  Mixed office, research and development, technology, *etc.*

- **HIGHWAY COMMERCIAL**
  Automobile-oriented retail, hotels, services, *etc.*

- **TOWN CENTER**
  Mixed use retail, office, public and quasi-public facilities (*e.g.* schools, churches, medical facilities), civic, cultural and entertainment, residential

- **LIGHT MANUFACTURING**
  Low-intensity industrial

- **MULTI-FAMILY RESIDENTIAL**
  Five or more dwelling units per acre

- **SINGLE-FAMILY RESIDENTIAL**
  Three to four dwelling units per acre

- **PARK/OPEN SPACE**
  Parks, open space, trails network, recreation, *etc.*

- **KANSAS STATE UNIVERSITY**
  Agricultural research

**Surrounding Sunflower Site:**

- **RETAIL COMMERCIAL**
  Retail businesses, including shopping centers and isolated retail establishments

- **RESIDENTIAL MIXED USE**
  Single and multi-family with limited retail, office and light industrial, *etc.*

- **LOW DENSITY RESIDENTIAL**
  If public sewers are available, three to four dwelling units per acre. If public sewers are *not* available, one dwelling unit per two acres to one dwelling unit per ten acres

- **RURAL RESIDENTIAL**
  Depending upon the availability of adequate infrastructure, one dwelling unit per 10 acres to one dwelling unit per 3 acres

**Implementation**

The planned community concept allows redevelopment of the Sunflower plant site as one comprehensive whole, with the minimum number of segregated parcels. Linkages throughout the development would be enhanced by interconnecting parks and a network pedestrian/bicycle path systems. It also establishes diversity of land uses that make the comprehensive development
viable, but it includes uses that have a minimum impact on surrounding properties.

Implementation of the plan will depend on the following factors:

1. A full and complete plan for the environmental remediation of the entire property;
2. A means to establish a redevelopment district over the property to provide means to attract development and to develop the park land atmosphere; and,
3. A cooperation agreement with GSA and the State of Kansas to complete the clean-up, to process the disposal of the property, and to attract quality high-tech business ventures.

**Recommendation:**
Planning staff has provided copies of the proposed conceptual land use plan to County staff, utility providers, various individuals, and has made presentation of the plan to:

- K-10 Association Executive Committee
- Johnson County Planning Commission
- Aubry, Lexington, McCamish, Gardner, and Olathe/Monticello/Shawnee Township Zoning boards
- Lawrence/Douglas County Planning Commission
- City of DeSoto
- OZ Entertainment Company
- U.S. General Services Administration (GSA)
- Sunflower Army Ammunition Plant Task Force

Based upon the favorable comments received, staff recommends approval of the attached proposed "Future Land Uses - Concept Plan" for the Sunflower Army Ammunition Plant.
Lone Elm Vicinity Plan

Approved by the Board of County Commissioners of Johnson County on June 15, 2000

NOTE:
The City of Olathe, on August 21, 2007, adopted a new Lone Elm Vicinity Plan that replaced the Plan jointly approved by the Board of County Commissioners in 2000.

Copies of the new 2007 Lone Elm Vicinity Plan are available at the City of Olathe Planning Division.

Prepared for:
City of Olathe, Kansas
and
Johnson County, Kansas

Prepared by:
Gould Evans Goodman Associates
Kansas City, Missouri
Rural Comprehensive Plan
A Plan for the Unincorporated Area of Johnson County

PART 6
K-10 Highway Corridor Area Plan

Adopted by
The Board of County Commissioners
Resolution 013-96

Recommended by
The County Planning Commission

Johnson County, Kansas

1995 - 1996 Refinements to the Plan adopted by
Board of County Commissioners Resolution 71-86.
The Plan was amended and Part 2 was added by Resolution 081-91, August 22, 1991, and
Parts 3 and 4 were added by BOCC Resolution 020-94, March 17, 1994, and
Parts 1, 2, and 4 were amended and Parts 5 and 6 added by BOCC Resolution 013-96, February 8, 1996.

Johnson County Department of Planning, Development and Codes
Johnson County, Kansas
February 8, 1996

111 South Cherry, Olathe, KS 66061-3441
(913) 715-2201
# Rural Comprehensive Plan
A Plan for the Unincorporated Area of Johnson County

This is Part 6 of the Rural Comprehensive Plan
The Plan is printed in eight parts as follows:

<table>
<thead>
<tr>
<th>PART 1</th>
<th>The Plan Process, Analysis, Goals and Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>PART 2</td>
<td>Supporting Data, Studies and Analysis for the Rural Comprehensive Plan</td>
</tr>
<tr>
<td>PART 3</td>
<td>Johnson County Executive Airport Comprehensive Compatibility Plan</td>
</tr>
<tr>
<td>PART 4</td>
<td>New Century AirCenter Comprehensive Compatibility Plan</td>
</tr>
<tr>
<td>PART 5</td>
<td>Blue Valley Area Plan</td>
</tr>
<tr>
<td>PART 6</td>
<td>K-10 Highway Corridor Plan</td>
</tr>
<tr>
<td>PART 7</td>
<td>Conceptual Land Use Plan, Sunflower Army Ammunition Plant</td>
</tr>
<tr>
<td>PART 8</td>
<td>Woodland Road Corridor Plan</td>
</tr>
</tbody>
</table>
# K-10 Corridor Plan

<table>
<thead>
<tr>
<th>SECTION I.</th>
<th>INTRODUCTION AND BACKGROUND</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SECTION II.</td>
<td>ANALYSIS</td>
<td>3</td>
</tr>
<tr>
<td>SECTION III.</td>
<td>GOALS AND OBJECTIVES</td>
<td>5</td>
</tr>
<tr>
<td>MAP OF THE K-10 CORRIDOR AREA</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>
K-10 HIGHWAY CORRIDOR PLAN
ANALYSIS, GOALS AND OBJECTIVES

SECTION I
INTRODUCTION and BACKGROUND

This Part 6 of the Rural Comprehensive Plan includes analysis and goals and objectives for the K-10 Highway Corridor area in Johnson County, Kansas.

The original draft of the Goals and Objectives was prepared in 1991 by the Johnson County Planning Office as part of the K-10 Corridor Study. This involved participation by seven cities and two counties including the cities of Olathe, Lenexa, Shawnee, Overland Park, DeSoto, Eudora, and Lawrence, Johnson and Douglas Counties and other parties. The participants approved report on this study.

In 1992, under the direction of the governing bodies of the corridor communities, staff representatives from each community worked together to review and revise the report. The AK10CD received the staff-revised report and held a workshop in April, 1992 to consider it. On September 11, 1992, the Board of Directors of the Association for K-10 Corridor Development, Incorporated, (AK10CD) adopted a comprehensive set of Goals and Objectives to guide the organization's planning efforts in future years. The AK10CD is a non-profit organization of public and private sector representatives working together to promote and guide growth within the Kansas Highway 10 (K-10) corridor.

The Goals and Objectives have been reviewed by the planning and elected bodies in the AK10CD and those jurisdictions have adopted or at least endorsed the Goals and Objectives.

The Johnson County Planning Commission reviewed and discussed these Goals and Objectives for the K-10 Highway Corridor at its meeting on August 31, 1993, and the Planning Commission voted to include them in the Rural Comprehensive Plan when it was reviewed and revised the next time.

The K-10 Corridor Goals and Objectives were included in draft revisions to Part 2 of the Rural Comprehensive Plan. Part 2 of the Plan includes "Supporting Data, Studies and Analysis for the Rural Comprehensive Plan." The Planning Commission held public hearings on certain proposed changes to the Rural Comprehensive Plan on October 26, 1993, and February 8, 1994.

In 1995, the Planning Commission considered the K-10 Highway Corridor Goals and Objectives further and decided to recommend they be adopted as County policy in a new Part 6 of the Plan: The K-10 Highway Corridor Plan.

The AK10CD also has drafted "Corridor Design Guidelines" in response to the Goals and Objectives adopted for the corridor. The Johnson County Planning Commission received a summary of those design guidelines at its meeting on May 31, 1994, and at its meeting on June 28, 1994, the Planning Commission voted to consider including the design guidelines in the Rural Comprehensive Plan when it was reviewed and revised the next time. In 1995, the "Corridor Design Guidelines" were added into Part 2 of the Plan for reference and for consideration with respect to future, overall goals and objectives of this Plan, and in support for joint-planning for future land uses and development in this corridor.

Further joint-planning activities should be undertaken to prepare and implement mutually acceptable, coordinated planning for future land uses in the K-10 Highway corridor.
SECTION II
ANALYSIS

The report on the "K-10 Corridor Study, Douglas and Johnson Counties, Kansas" was completed in April 1991, by the Johnson County Planning Office. The purpose of that study was to:

A. Obtain a general overview of the existing conditions within the corridor, including:
   1. The corridor's role within the regional economy;
   2. The physical environment;
   3. The transportation system;
   4. The availability of major community facilities and utilities; and,
   5. The location of existing and proposed development.

B. Obtain a general understanding of the opportunities and constraints to development that exist within the corridor.

C. Obtain a general understanding of the existing plans and policies of the seven separate jurisdictions that are located within the corridor.

D. Determine whether or not there is a need or desire on the part of the communities within the corridor to undertake formalized efforts to coordinate future planning for the corridor.

The K-10 Corridor Study reviewed and discussed background topics as follows:

- Transportation Network
- Highway Users
- Regional Trends
- Higher Education
- High Tech Development
- Economic Context
- Regional Scale for Assumptions

The study assessed the K-10 corridor with respect to Traffic and Road Network Characteristics, Demographic and Economic Characteristics, Environmental Features, Existing Land Use and Zoning, and Public Utilities and Services.

The K-10 Corridor Study in reviewing Existing Policies and Plans and discussed Opportunities and Constraints, Existing Plans for the K-10 Corridor, Existing Goals and Objectives, and Options for Long-Range Corridor Development.

Opportunities and Constraints

Opportunities:

1. Connection to Inter-Regional Highway Network.
2. Connection to Kansas City and Lawrence-Douglas County Regional Highway Network.
3. Attractive Business Location.
4. Access to Community Resources.
5. Attractive Residential Location.
7. Highway Controls in Place.
8. Environmental Quality.
10. Commitment to Cooperation.

Constraints:

1. Independent Community Plans and Regulations.
2. Environmental Protection.
3. Uncoordinated Design.
4. Physical Limitations.
5. Limited Wastewater Control Facilities.
7. Limited Public Resources.
8. Diverse Interests.

Existing Plans for the K-10 Corridor:
There is considerable variation in the plans of the five cities and two counties with the corridor focus area. The land use plans of some of the cities overlap and some conflict with the land use plans of the counties for the same areas.

The K-10 Corridor Study summarizes the differences in those plans in 1991 when the report was prepared.

Summary of Existing Goals and Objectives:

The 1991 study noted that it is apparent that the communities served by K-10 recognize the importance of this thoroughfare to their future economic and physical growth. Combined, there rate several common development policies contained in these community plans that relate to the highway corridor.

The 1991 study report summarized the policies found in the comprehensive plans reviewed during that study.

Options for Long-Range Corridor Development:

To provide a framework for preparing and evaluating preliminary corridor-wide goals and objectives, the 1991 study examined four alternative general options for development within the corridor. The four options examined were:

Continuation of Past Trends:

Based on the assumption that planning and development would continue to follow the individual city and county comprehensive plans and land use policies then in place. This would result in no single, unified, multi-jurisdictional plan for coordinating design, streets, economic development or the provision of services.

Under this option, some areas would grow and others would not. Overall, the pattern of growth would include some scattered new residences, some sprawl, and larger developments where infrastructure could be provided.

Concentrated Economic Development:

This option envisions a coordinated, well-funded, multi-jurisdictional economic development program promoting extensive residential, office and advanced technology, and some limited light industrial development throughout the corridor. The primary goal under this option would be to promote development wherever possible.

This option would enable development to occur throughout the corridor where physically feasible, including scattered residential growth, mixed land uses at nearly all intersections, full development of existing business parks and residential projects, and, possibly, some commercial strip development.

Concurrently, implementation of this option would significantly reduce the existing rural character of portions of the corridor and would accelerate exurban growth and the possibility of urban sprawl. With a coordinated program, however, the communities could reduce competition, improve design consistency, and possibly attract valued advanced technology firms or other businesses to the corridor that otherwise might not locate there.

Open Space and Agricultural Preservation:

The comprehensive open space and agricultural preservation option is a stark contrast to the economic development option. Here the primary goal would be to preserve the existing open spaces, rural character, environmental features and natural habitats. The primary coordination between jurisdictions would be to agree to limit all urban-type uses to within cities and
create large minimum lot sizes for the limited rural residential construction allowed outside of a few clustered subdivisions. These restrictions would accelerate infill of existing urban sites and prevent premature development. Agriculture would remain the principal land use for a much longer period under this option.

Urban Concentration/Rural Preservation:

Urban concentration/rural preservation is a combination of the latter two options above. A coordinated economic development and promotion effort would be instituted by the cities and counties, but the rural areas would still be largely preserved. There would presumably be more business development overall, but this development would be limited to the cities. Some development might be allowed outside of the cities, thus potentially disrupting the natural landscape, but such growth would be regulated by a strict growth management plan that would require clustering at nodes and design controls that would limit environmental problems.

Projects would only be approved for sites with adequate infrastructure. A unified system of common general site design policies would be established and applied. The overall goal of this option would be to expand the size and diversity of the local economy, balanced by efforts to conserve and protect the natural environment and preserve the valued rural character of portions of the corridor.

Comparison of Option Impacts:

The K-10 Corridor Study discusses potential Economic, Population, Transportation System, Utilities, Community Facilities, Environmental, Agricultural Land/Open Space and Government/Tax impacts of these options.

SECTION III
GOALS AND OBJECTIVES

At least partially as a result of the K-10 Corridor Study, Goals and Objectives have been prepared for the K-10 Highway Corridor. The Goals and Objectives cover eight major issues related to the development within the K-10 Highway Corridor:

1. Economic Development
2. Land Use
3. Agricultural Preservation
4. Natural Environment/Open Space
5. Development Appearance/Image
6. Transportation
7. Minimize Public Expense
8. Coordination

The Association for K-10 Corridor Development, Inc., (AK10CD) has prepared certain goals and objectives for the corridor along Kansas Highway 10 (K-10 Highway) in Johnson County and Douglas County. As outlined above, the Goals and Objectives have been prepared with the participation of numerous persons and have been reviewed by jurisdictions and agencies with interest in the future development of the K-10 Highway Corridor. Those goals and objectives are included here for consideration with respect to future, overall goals and objectives of this Plan and in support for joint-planning for future land uses and development in this corridor. Except where cities exercise extraterritorial zoning authority, these goals and objectives are applicable to all unincorporated areas of the K-10 Highway Corridor within the planning area indicated on Map 1 on page 2 of this part of the Plan.

A. K-10 CORRIDOR SUBJECT AREA: ECONOMIC DEVELOPMENT

GOAL: Encourage the attraction, retention and expansion of business while enhancing the surrounding environment to increase employment opportunities within
the K-10 highway corridor and strengthen community economies and tax bases.

Objectives:

1. Capitalize on the relationship of the corridor to the higher education facilities and well-educated labor pool accessible within the region by promoting quality business development along the corridor in strategic locations.

2. Promote the economic advantages of the corridor's convenient access to existing established employment centers.

3. Encourage and support the location of continued business development in existing business and industrial parks within the corridor to take advantage of the existing pool of skilled labor that now resides within the area.

4. Capitalize on the linkage of K-10 Highway to the regional air transportation network by promoting its convenient access to Kansas City International Airport (KCI) and Johnson County Industrial Airport.

5. Support the continued upgrading of individual community services and facilities to promote and attract high quality residential and commercial/industrial development including innovative methods to finance infrastructure to support new development.

6. Prepare a jointly adopted or endorsed economic development plan that may be used by communities within the corridor to coordinate their individual economic and marketing efforts including the reuse of the Sunflower Army Ammunition Plant.

7. Promote the higher educational facilities, business environment and overall quality of life available within the corridor.

8. The unique role of the Association to supplement existing economic development strategies of area communities should be clarified and expanded to include comprehensive goals and objectives for the K-10 area.

9. The Association should support and participate in the regional "Capital Resources Network".

10. The excellence of area public schools and educational facilities, prevailing business vitality should be the major focus of corridor promotional efforts.

B. K-10 CORRIDOR SUBJECT AREA: LAND USE

GOAL: Prevent sprawl and promote development that is orderly, compatible with one another, and appropriate for the region. Manage land uses to accommodate a full range of uses necessary to strengthen the economic base of the communities served by K-10.

Objectives:

1. General Development
   a. Development within the corridor should be orderly. Compatibility between land uses should be encouraged.
   b. High-density or more intensive land uses should take particular care to be designed to blend with the natural character of the environment and enhance the overall appearance of the corridor.
   c. Whenever practical, development within the corridor should occur where services are already available and preserve as much natural area
and open space as possible to minimize public infrastructure and service costs resulting from sprawl.

d. New development should respect existing significant natural land forms (hills, ponds, forests, etc.) by either avoiding or enhancing them through imaginative and integrative design.

e. Before approval is granted for any rezoning within the corridor, applicants should be required to verify that adequate utilities and infrastructure will be available in a timely manner to support permitted new uses. New development should be discouraged where it may create adverse impacts on the capacity and safety of the transportation system.

f. In cooperation with local and state historic preservation groups, so far as is practical, historic sites, areas or structures should be identified, documented, protected and commemorated for their contribution to local heritage. Development near these features should be sensitively designed to not conflict with them.

2. Non-Residential Development

a. Commercial development is basically an urban use and only rarely a rural or exurban need. Such development should be limited to clustered locations within or adjacent to municipalities.

b. It should be a general objective to provide adequate site choices for non-residential uses throughout the highway corridor in planned and appropriate locations with adequate access, services, and infrastructure.

c. Light commercial and industrial uses, such as research, business parks, light manufacturing and warehousing, should be encouraged to locate within the corridor in areas designated for such activities.

d. Strip commercial development should be avoided and discouraged from expanding to deter a proliferation of scattered automobile-oriented development.

3. Residential Development

a. Where allowed, residential development should utilize land conserving techniques such as PUD type design that conserves energy, maximizes open space, and provide recreational opportunities and other amenities.

b. Residential subdivisions and individual scattered residential lots should be discouraged in agricultural zones.

c. Where site characteristics warrant it and adequate infrastructure is available, multi-family residences should be allowed. Such developments should be located in cities, near major access points, be of quality design standards, and be adequately buffered from other uses.

d. A full range of housing choices should be available within the corridor.

e. The communities within the corridor should consider and strive to "integrate" their comprehensive plans towards the benefit of the corridor as a whole. Existing land uses plans should be updated to reflect the vision of the Association.
f. The transfer of development rights and/or conservation easements should be explored as viable alternatives to encourage development while protecting lands identified as worthy of preserving in their undeveloped state.

g. Land uses which are unwanted in the corridor should be explicitly identified by area communities.

h. The active involvement by the State Historic Society in the identification and preservation of historic sites and/or resources should be solicited by the Association.

C. K-10 CORRIDOR SUBJECT AREA: AGRICULTURAL PRESERVATION

GOAL: Preserve agricultural land with high productivity potential within the K-10 Highway corridor.

Objectives:

1. Non-agricultural growth and urban uses should be limited to areas where adequate infrastructure (water, wastewater treatment facilities, roads, drainage and power utilities) are available. Non-farm residential uses should be discouraged in rural areas not served by wastewater treatment facilities. Residential development allowed within these areas should be restricted to platted subdivisions with access to the roads that can adequately support increased traffic loads.

2. Agricultural lands with high productivity should be identified and designated to preserve the long-term viability of farm use.

3. Proposed non-agricultural development or rezoning requests within agriculturally zoned districts should be adjacent to existing platted development. Free standing developments should be discouraged unless a need is established and adequate infrastructure is available.

4. New development permitted adjacent to existing agricultural lands should be screened and prevented from encroaching on surrounding existing agricultural activities.

5. Applicants for development beyond existing corporate limits and adjacent to the highway corridor should provide reasonable documentation showing that similar development sites are not available within corporate limits of the nearby municipalities.

6. The preservation of agricultural lands should recognize the rights of property owners to reasonably develop their land for alternative uses consistent with corridor planning standards. The right to continue to farm in the corridor should also be recognized and protected.

D. K-10 CORRIDOR SUBJECT AREA: NATURAL ENVIRONMENT/OPEN SPACE

GOAL: Preserve and protect the natural environment and the scenic quality of the highway corridor, including flood plains, wetlands and wooded areas.

Objectives:

1. Environmental Protection

   a. Stream valleys and flood plains should be protected and maintained as open space preserves, greenways and parks, as these areas are subject to flooding, require expensive storm drainage systems, and are risky to develop. In general, development within flood plains should be strongly discouraged and limited to
non-structural, recreational or greenway uses.

b. Individual septic systems should be prohibited from use in areas where there are unsuitable soil conditions.

c. Strict enforcement should be imposed for open dumping violations to ensure the K-10 Highway and the surrounding area are free of litter and debris.

d. To the extent feasible, natural vegetation and existing mature trees should be preserved on sites to be developed. If vegetation or tree removal is necessary, replacement should be encouraged.

e. An environmental audit of the corridor should be undertaken to consider major ecosystems, such as streamways, prairies, heavy timber, etc., in the area.

2. Aesthetics

a. Areas along K-10 Highway or within the corridor that are of irretrievable natural or scenic value should be designated as such and prohibited from development. Consideration should be given and strategies encouraged for public acquisition or control of these important and sensitive areas. Two locations for possible consideration are the area near the confluence of Cedar and Camp Creeks along K-10 Highway just west of the Cedar Creek Parkway and Blue Mound in Douglas County.

b. Development should be encouraged to maximize the opportunity to preserve and access natural and scenic areas.

c. A visual buffered between the K-10 Highway right-of-way (ROW) and the building set-back line should be established to integrate new development with the character of the corridor and to retain open space. This buffered strip should be well landscaped and maintained to enhance the appearance of the corridor and development adjoining the corridor.

d. Landscaping and architectural/engineering design treatments should be used to unify, enhance and harmonize the corridor with the adjacent scenic area. Care should be taken, however, to avoid any planting that might create hazards to personal safety or traffic operations.

e. Consideration should be given to establishing a roadside park or special boundary marker near the Douglas/Johnson County line to highlight natural and other area features.

f. Rock quarries and other mineral extracting industries are important to local development but may pose potential health, safety and visual nuisances and adversely affect surrounding land uses. Such industries should be located in areas where they will have a minimum negative impact. If allowed, they should be adequately screened and buffered from the highway and other adjoining non-industrial land uses and be required to plan for and implement reclamation of these areas as soon as extraction activity has stopped.

g. Consideration should be given to renaming K-10 Highway and corridor area to emphasize and
draw attention to the environmental and aesthetic qualities of the area.

h. A greenway linkage between communities and among land uses should be encouraged. This greenway should also link trails, stream ways and bike paths. Growth should respect natural barriers, such as flood plains, heavy timbered areas, etc.

i. Open space will largely be preserved as a result of economic factors and/or incentives.

E. K-10 CORRIDOR SUBJECT AREA: DEVELOPMENT APPEARANCE /IMAGE

GOAL: Enhance the overall appearance and image of the highway corridor by ensuring high quality design standards.

Objectives:

1. Development Appearance/ Image, in general

a. Consideration should be given to preparing a corridor design guidebook for use by communities along K-10 Highway. Such a guidebook should set forth goals and standards for ensuring a high quality of compatible design that would enhance the general appearance of the corridor. The guidebook could also be used as a reference to identify valuable environmental features and to encourage sensitivity and a general unity of design.

b. Consideration should be given to the creation of a special overlay design guidelines for aiding the appearance and orderly development within the corridor. Such guidelines might be jointly approved and enforced by all the communities within the corridor to include design and development criteria and specifically related to the highway corridor.

c. A beautification plan along the frontage of K-10 highway and its bridge overpasses should be designed and implemented.

d. Manufactured homes and any off-site manufactured office-type units should be screened from view of the highway and adjoining secondary roads. Temporary structures should not be permitted within the corridor except those used in conjunction with construction.

e. All intensive uses, particularly industrial uses, should have minimal off-site impacts including: noise, odor, glare, vibration, and truck and automobile traffic generation. All on-site, outdoor storage should be completely screened from view from K-10 Highway.

2. Community Appearance/ Entries

a. Each highway interchange to a city should be distinctive with its own easily recognizable and attractive identity. These areas should be treated as gateways or entries to the communities they serve. Special landscaping, architectural or public improvements should be installed to enhance these areas. An investigation should be made along K-10 with KDOT to determine the possibility of adding special landscaping (evergreens, trees, etc.) within the median and ramp areas at highway interchanges.

b. The entry routes to each community should encourage unified street accessories (street lights,
informational signs, etc.) to create a more orderly appearance and to assist motorists.

c. The street edge of properties abutting major entry routes into cities should be uncluttered and as maintenance free as possible.

3. Site Design

a. Buildings adjacent to K-10 Highway or within immediate view of passing motorists should be designed to show sensitivity to the highway traveler. Parking, storage, trash receptacles and other normal rear yard equipment should be screened or out-of-view of the highway.

b. Permitted commercial and industrial buildings and developments design should blend with or enhance the environment and surrounding area. Adequate safeguards should be provided to protect visual and environmental integrity of abutting properties.

c. Building setbacks within the corridor should provide for ample space for landscaping, parking, and traffic circulation on the site.

d. The display or storage of any outdoor goods offered for sale should be restricted to certain locations behind building setback lines. These areas should be adequately screened from K-10 Highway, required to be well-maintained, compatible with surrounding uses and not adversely affect the corridor's overall appearance.

e. Fenced areas visible to K-10 Highway should be decorative in type of include exterior landscaping facing the roadway to minimize potential negative impact from extensive or monotonous rows of fences.

f. To the extent feasible, utilities should not be visible to the highway.

g. All landscaped areas should be continually maintained and replaced if necessary by more appropriate or suitable materials.

4. Signs

a. Within cities, near K-10 Highway interchanges, commercial signs visible to the highway should be restricted to prevent the creation of a negative image for the highway corridor. Limitations should be adopted for signs, including number, size, height, illumination and materials.

b. All billboards should be prohibited from the view of K-10 Highway, a standard already in place for rural interstate highways. Existing billboards should be amortized and eventually eliminated. Advertising media should be restricted to signs on the property where the business advertised is located. Efforts should be made to limit the size and location of such signs.

F. K-10 CORRIDOR SUBJECT AREA: TRANSPORTATION

GOAL: Ensure adequate, safe and efficient traffic service on K-10 highway and on the adjoining secondary road system that serves it.

Objectives:

1. Safety

a. Access for properties adjoining K-10 Highway should be limited to controlled interchanges. No other
direct vehicular access should be allowed.

b. The secondary roads serving the corridor should be adequately maintained to handle current traffic demands. Improvements to these roads should be in place before major new development occurs that will significantly increase the use of these roads.

c. Driveways should be prevented at locations where additional traffic might contribute to or exacerbate a hazardous traffic or road condition. Wherever possible, driveways should be aligned with opposing street intersections. In order to minimize traffic hazards from turning movements, the number of curb cuts allowed on secondary roads should be limited. Property owners should be encouraged or required to share driveways to accomplish this objective.

2. Planning

   a. A long-range planning effort to look at transportation needs and activities should be pursued.

   b. Energy efficiency and conservation should be principal factors in the evaluation of all transportation proposals within the corridor.

   c. Car pooling and other alternatives to single-occupancy automobile use should be encouraged. Safe, adequate, well-screened and well-maintained off-street park-and-ride lots for commuter use should be evaluated and provided where needed and desirable.

   d. Any highway operation or maintenance facilities within the right-of-way should be adequately screened.

   e. The development of a pedestrian and bicycle path system within or adjacent to the corridor right-of-way should be considered.

   f. The long-range possibility of an inter-city transit system, including existing rail service, to serve communities within the K-10 corridor and the region should be explored. Funding for a demonstration project in alternative and/or mass transit should be pursued.

G. K-10 CORRIDOR SUBJECT AREA: MINIMIZE PUBLIC EXPENSE

GOAL: Minimize the need for and expense of public improvements and maintenance while returning the highest level of service and safety possible for existing and future corridor area development.

Objectives:

1. City comprehensive plans should discourage “leap frog” development.

2. A regional Tax Increment Fund District should be evaluated to fund capital improvements important to the development of the corridor.

3. A legislative agenda should be developed which supports the goals and objectives of the corridor.

4. Encourage Johnson County Community College and The University of Kansas (K.U.) to have appropriate investment along the corridor.

5. Explore the role of state and federal assistance in supporting corridor development.
6. An entity such as the Mid-America Regional Council should/could serve as a coordinator to minimize public expense.

7. Community Capital Improvement Plans should include special consideration for extending or upgrading public improvements within the corridor in a timely manner. Communities should consider developing long-term capital improvement plans in the vicinity of the corridor to encourage area wide coordination.

8. Development proposals in unincorporated areas should ensure limited costs to adjoining communities. Developments that require road improvements or utility costs borne by the community-at-large should be discouraged.

H. K-10 CORRIDOR SUBJECT AREA: COORDINATION

GOAL: Accomplish the forgoing goals through cooperative planning by all of the jurisdictions located within the highway corridor to benefit all of the people of Johnson and Douglas Counties, Kansas.

Objectives:

1. A joint program for cooperating in planning and implementing recommendations for the overall improvement of the highway corridor should be established. Cooperation should assure consistency in development standards, street classifications, subdivision regulations and capital improvements for areas located adjacent to the K-10 Highway.

2. School districts in the corridor need to become informed/coordinate/participate with the corridor goals and objectives.

3. A formal mechanism to ensure area coordination needs to be formed. This coordination should address a manner to advise/review/comment on development proposals in the corridor, contain common standards for aesthetics, codes and overlays, etc., and include an implementation plan.

4. Consideration should be given to establishing a multi-jurisdictional advisory group to jointly review and comment on major development proposals or issues within the corridor.

5. A cooperative economic development program within the corridor should be determined. The Association may serve as the organizing body however, any program must be carried out in full cooperation with community's economic development strategies.

6. A jointly prepared economic development plan should be adopted and endorsed for use by communities within the corridor to coordinate their individual economic and marketing efforts, including the reuse of the Sunflower Army Ammunition Plan and its' adjoining acreage.

7. The joint identification and use of financial resources should be explored including the possibility of multi-jurisdictional funding for infrastructure planning within the corridor.

SECTION IV
RELATIONSHIP TO THE K-10 CORRIDOR STUDY

This plan is based in part upon the research, data and analysis contained in the 1991 K-10 Corridor Study. This plan provides further analysis and establishes certain policies, goals and objectives to be considered with respect to land use and development
decisions for the K-10 Corridor Area as identified on the map in this part of the Plan.
EXHIBIT A

Comprehensive Arterial Road Network Plan (CARNP)

Leadership Committee Recommendation
(As Amended)

Preliminary Approval
November 9, 1998

Final Approval
December 21, 1998

Board of County Commissioners
Approval January 7, 1999
Resolution No. 001-99
Recommended CARNP

Alternative 3a: Designate Two Major Corridor Routes: Inner/Outer
<table>
<thead>
<tr>
<th>Item</th>
<th>Type I – Low</th>
<th>Type II – Medium</th>
<th>Type III – High</th>
<th>Type IV – Major</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional Classification</td>
<td>Minor Arterial</td>
<td>Major Arterial</td>
<td>Parkway</td>
<td>Highway</td>
</tr>
<tr>
<td>Example Urban</td>
<td>143&lt;sup&gt;rd&lt;/sup&gt; at Mur-Len</td>
<td>Antioch/Blackbob</td>
<td>135&lt;sup&gt;th&lt;/sup&gt;/Northgate</td>
<td>K-7 North of K-10</td>
</tr>
<tr>
<td>Example Rural</td>
<td>143&lt;sup&gt;rd&lt;/sup&gt; West of Clare</td>
<td>175&lt;sup&gt;th&lt;/sup&gt; I-35 to US-169</td>
<td>None</td>
<td>K-7 North of K-10</td>
</tr>
<tr>
<td>Lanes – Urban</td>
<td>3-4</td>
<td>4-6</td>
<td>4-6</td>
<td>4</td>
</tr>
<tr>
<td>Lanes – Rural</td>
<td>2</td>
<td>2</td>
<td>2-4</td>
<td>2-4</td>
</tr>
<tr>
<td>Urban Speed Limit</td>
<td>35</td>
<td>45</td>
<td>45</td>
<td>60</td>
</tr>
<tr>
<td>Rural Speed Limit</td>
<td>45</td>
<td>50</td>
<td>55</td>
<td>65</td>
</tr>
<tr>
<td>Traffic volumes – Urban ADT</td>
<td>7,500 - 20,000</td>
<td>9,150 - 40,000</td>
<td>9,150 - 50,000</td>
<td>18,300 - 70,000</td>
</tr>
<tr>
<td>Traffic volumes – Rural ADT</td>
<td>2,000 - 7,500</td>
<td>2,000 – 10,000</td>
<td>7,500 - 30,000</td>
<td>18,300 - 50,000</td>
</tr>
<tr>
<td>Turn lanes</td>
<td>As required</td>
<td>All intersections</td>
<td>All intersections</td>
<td>N/A</td>
</tr>
<tr>
<td>Median breaks/street spacing (minimum)</td>
<td>1000 ft.</td>
<td>1/4 mile</td>
<td>1/2 mile</td>
<td>N/A</td>
</tr>
<tr>
<td>Intersection Type</td>
<td>Stop/Signal</td>
<td>Signal</td>
<td>Signal/Interchange</td>
<td>Interchange</td>
</tr>
<tr>
<td>Median breaks/street spacing (recommended)</td>
<td>1/4 mile</td>
<td>1/3 Mile</td>
<td>1/2 mile</td>
<td>At interchanges</td>
</tr>
<tr>
<td>Driveway corner clearance from centerline (min.) *</td>
<td>600 ft.</td>
<td>600 ft.</td>
<td>600 ft.</td>
<td>N/A</td>
</tr>
<tr>
<td>Frontage - Driveway spacing **</td>
<td>400 ft.</td>
<td>660 ft.</td>
<td>1000 ft.</td>
<td>N/A</td>
</tr>
<tr>
<td>R/W – Rural</td>
<td>80-120 ft.</td>
<td>120 ft.</td>
<td>150-200 ft.</td>
<td>200-300 ft.</td>
</tr>
<tr>
<td>R/W – Urban</td>
<td>120 ft.</td>
<td>120 ft.</td>
<td>150-200 ft.</td>
<td>200-300 ft.</td>
</tr>
<tr>
<td>Bike lanes/paths</td>
<td>Planned routes</td>
<td>Planned routes</td>
<td>Planned routes</td>
<td>Planned routes</td>
</tr>
</tbody>
</table>

* Corner lots with less frontage than indicated are restricted to access along minor route.
** Frontage required for each driveway.

Urban roads are not now in the study area, but are included here to show compatibility with rural requirements.
Supplementary Recommendations

Following the adoption of the County Arterial Road Network Plan (CARNP), it is recommended that the Board of County Commissioners move forward with the following supportive measures:

I. Update the County’s Master Plan to incorporate the recommendations of the CARNP.

II. Integrate the access control and right-of-way requirements proposed in the CARNP into the County’s Master Plan and the County Zoning and Subdivision Regulations.

III. Utilize growth management techniques as “Guiding Principles” (comprehensive planning, zoning, platting, infrastructure programming, etc.) to manage the type, location, and timing of development. New roadway construction should be planned so that it does not encourage leapfrog development.

GUIDING PRINCIPLES

The following are guiding principles of the Johnson County Comprehensive Arterial Road Network Plan (CARNP). These guiding principles shall govern the implementation of roadway improvements identified in the CARNP.

A. A strong emphasis will be placed toward public notification and involvement in the development of all roadway improvement plans. This notification and involvement will be particularly focused toward property owners adjacent or in close proximity to a proposed improvement project.

1. Public notification shall include direct mailing, newsletters, media advertisements, signage, etc.

2. Public input shall, at a minimum, include a community briefing at the start of the action to proceed with construction of a proposed roadway improvement.

3. The Planning Commission, township boards, and township zoning boards will serve an integral role in the improvement planning process. These boards shall, at a minimum, have an opportunity to review and comment on roadway improvement plans prior to the County Commission taking action to proceed with construction of a proposed roadway improvement.

B. Sensitivity to the natural and built environment will be a centerpiece of the CARNP. Each improvement project will be designed such that impacts to
adjacent property owners and the natural environment are minimized and/or mitigated. The following practices will be incorporated into all roadway improvement plans:

1. Landscaping and vegetation will be relocated or replaced in “as good or better” condition upon completion of roadway improvements.

2. Landscaping and vegetation will be used to the extent practical to minimize adverse noise and visual impacts on adjacent residential properties.

3. Projects shall be designed to avoid adverse impacts to the natural environment. Where adverse impacts to the natural environment are unavoidable, they shall be mitigated.

IV. Develop a right-of-way preservation plan and strategic acquisition program including how such a plan is to be financed over the next 20 years. The Board shall strive to complete this plan and implement its recommendations within one year of the adoption of the CARNP.

V. Research the impacts of an excise tax on new development similar to that used by the Cities of Overland Park, Olathe, and Shawnee to reduce the incentive to prematurely develop in rural areas, and also to place the burden of associated roadway improvement costs on new development.

VI. Complete detailed engineering and environmental studies to establish corridor alignments for the following locations:

A. Complete the necessary engineering and environmental studies to establish a roadway alignment for the Type III Corridor identified in the CARNP as Evening Star/Edgerton Road from K-10 Highway to 159th Street. This alignment study should be addressed in conjunction with the redevelopment planning of the Sunflower Ordinance facility.

B. Kill Creek/Corliss Road Corridor from K-10 Highway to 151st Street.

C. 111th/119th Street Corridor from K-7 to the Kill Creek/Corliss Road Corridor.

D. 119th/135th Corridor from Kill Creek/Corliss Corridor to Evening Star Road.

E. 175th/199th Corridor from Mission to State Line.

VII. Develop a priority mechanism/schedule for upgrading roadways in which data such as traffic counts/accidents statistics trigger the need for improvement. These triggers will serve as indicators to the County that improvements may
be warranted along a roadway segment and should be studied. These road studies should include notification and significant involvement by those residents living on or near the roadway segment being considered for improvement. Recognize the desire of citizens to be actively involved and have public input in the development of the triggers.

VIII. Incorporate alternative transportation facilities (i.e., transit, bikeway, and pedestrian) into corridor development plans where appropriate.

IX. CARNP is not to accommodate interstate truck traffic. It is Johnson County’s position that it is the primary function of the State and interstate system to provide adequate access through the County for interstate truck traffic. Due to safety concerns and high maintenance costs, Johnson County will take aggressive action to discourage through truck traffic on local routes. It will start by conducting a study for the unincorporated area to determine the needs for local trucks and establish truck routes to fulfill these needs.

X. Roadway improvements that require the use of street lighting shall do so by incorporating the best technology available to minimize the adverse impacts to the surrounding residents associated with the artificial lighting.