CITY OF GODDARD, KANSAS

COMMUNITY COMPREHENSIVE PLAN

EDITION OF 2015

PREPARED FOR THE

GODDARD CITY PLANNING COMMISSION

BY

RIGGS ASSOCIATES

PLANNERS • LAND PLANNERS • LANDSCAPE ARCHITECTS

Lindsborg, Kansas

Adopted as the Official Development Guide for the

Community by Ordinance No. 771

EFFECTIVE DATE: April 6, 2015

Public Officials

City of Goddard, Kansas

MAYOR

Hon. Marcy Gregory

CITY COUNCIL

Joe Torske, Council President

Larry Zimmerman

Clayton Applegate

Jamey Blubaugh

Chris Hahn

PLANNING COMMISSION / BOARD OF ZONING APPEALS

Doug VanAmburg, Chairman

Darrin Cline

Ed Knox

Chris Hedrick

Shane Graffing

Doug Hall

Justin Parks

CITYADMINSTRATOR

Brian W. Silcott

CITY CLERK

Teri Laymon

CITY ATTORNEY

Thomas R. Docking

Law Offices of

Morris Laing

Evans Brock & Kennedy, Chtd.

PLANNING AND ZONING ADMINSTRATOR

Justin S. Givens

PLANNING CONSULTANT

RIGGS ASSOCIATES

Engineers • Planners • Landscape Architects

Lindsborg, Kansas

ABSTRACT

TITLE:	City of Goddard, Kansas, Comprehensive Community Plan, Edition 2015
PLANNING CONSULTANT:	Riggs Associates, Planner, Land Planers, Landscape Architects, Lindsborg, Kansas
AUTHOR:	John W. Riggs, R.L.A. Kansas Certified Planner
SUBJECT:	Long Range Community Development Planning:

I	Background for Planning
II.	Goals and Objectives
III.	Demographic Patterns
IV.	Land Use
V.	Housing
VI.	Transportation
VII.	Public Facilities
VIII.	Plan Implementation

DATE:	April 2015
LOCAL PLANNING AUTHORITY:	Goddard City Planning Commission
SOURCE OF COPIES:	City of Goddard 118 N Main St P.O. Box 667 Goddard, KS 67052

COMPREHENSIVE DEVELOPMENT GUIDELINES:

The Comprehensive Community Plan for the City of Goddard and the surrounding extraterritorial planning area in Sedgwick County is oriented toward maintenance of proper community development practice during a 10-year planning period reaching to the year 2025. The plan, through a strong and sustained collaborative planning process, recognizes the continuing pattern of enlargement being experienced by the City, and formalizes a series of detailed studies, guidelines and procedures aimed at maintenance of compatible land use patterns and quality neighborhoods while encouraging continued economic expansion and physical growth.

As an aid to sound and continuing planning practice, the scope of the comprehensive planning effort includes formal development policies as well as revised zoning and subdivision regulations. A training workshop for City officials conducted as part of the plan development procedure provides the groundwork for a strong and continuing program of community planning during the course of the next two decades.

Where the concepts, directions and principles established through the detailed planning process are supplemented and extended by a viable and continuing local planning program, the comprehensive plan can be maintained as a meaningful guide for community development throughout the 10-year planning period and beyond.

TABLE OF CONTENTS

SECTION I- BACKGROUND FOR PLANNING

Planning and the Community....1
History....2
Geographic Location....3
Climate....5
Topographic Characteristics....6
Area Geology....8
Existing Soil Characteristics....8
Water Resources....13
Minerals....13

SECTION II- GOALS AND OBJECTIVES

Introduction....14
Effect and Purpose of Goals and Objectives....14
Goals and Objectives for Comprehensive Planning....15
Economic Development....16
Housing....17
Transportation....18
Public Services and Facilities....18
Community Growth and Development....20
Open Space and Recreation....21
Environmental Quality....21
Planning Standards....22
Residential Neighborhoods....22
Commercial Development....23
Industrial Expansion....23
Transportation....24

Public Services....26
Parks and Recreation....29
Public Buildings....30
Summary....31

SECTION III- DEMOGRAPHIC PATTERNS

Introduction....32
Historic Patterns of Demographic Change....32
Historic Trends in City and County Demographic Patterns....34
Sedgwick County, Kansas Decennial Census Trends....37
Natural Increase....41
Potential Future Population Patterns....42
Summary....44

SECTION IV - LAND USE

Introduction....45
Land Use Definition and Survey....45
Community Development Characteristics....46
Current Incorporated Area Land Use Patterns....47
Existing Land use in the Rural Study Area....51
Potential Future Development Trends....55
Land Use Forecast....55
Land Use Ratio Comparison....58
Future Land Use Plan....59
Neighborhood Expansion....61
Commercial Uses....61
Industrial Growth....61
Cultural, Entertainment and Recreation....61

Transportation, Communications and Utilities 62
Development Constraints 62
Implementing the Land Use Plan 62
Community Growth and Urban Expansion Policies 65
Municipal Growth Policies 65
Housing and Residential Policies 65
Commercial Development Policies 66
Industrial Expansion Policies 66
Community Planning Policies 67
Summary 67

SECTION V- HOUSING

Introduction 69
Existing Housing Inventory and Condition 69
Housing Unit Structural Types 71
Dwelling Unit Development Density 73
Housing Patterns in the Extraterritorial Study Area 74
General Housing Characteristics 76
Estimated Future Housing Demand 80
Future Housing Demand by Type of Unit 82
Access to Adequate Housing 83
Housing and Neighborhood Improvement Strategy 83
Summary 85

SECTION VI- TRANSPORTATION

Introduction 86
Regional Transportation Systems 86
Municipal Circulation System 87

Existing Community Street Network 88
Street Surfacing 91
Traffic Volumes 93
Traffic Accidents 93
Current and Future Operational Characteristics 94
Major Street and Transportation Plan 94
Vehicular Travelway Standards 98
Implementing the Street System Plan 101
Summary 102

SECTION VII- PUBLIC FACILITIES

Introduction 104
Existing Facilities 104
Recreational Opportunity 104
Existing Parks and Open Space 105
Charles Means Memorial Park 105
Linear Park 105
Future Public Recreation Requirements 107
Implementing Recreation Improvements 109
Public Schools 109
Elementary Schools 111
Middle Schools 112
Intermediate Schools 112
High Schools and Academy 113
School Enrollment Patterns 114
City Administrative Facilities 114
City Hall 114
Community Center 115

Public Works Facility 115
Waste Water Treatment Facility 116
Law Enforcement 116
Fire Protection 117
Health Services 117
Public Library 117
Potable Water 119
Sanitary Sewer 121
Solid Waste Disposal 124
Current and Future Waste Generation Patterns 124

SECTION VIII- PLAN IMPLEMENTATION

Introduction 126
Community Comprehensive Development Plan 126
Adopting the Comprehensive Plan 128
Action Plan 129
Other Tools of Implementation 132
Zoning Ordinance 132
Implementing the Zoning Ordinance 132
Adopting the Zoning Ordinance 132
Amendments to the Zoning Ordinance and Official Map 134
Special Use Permits (Exceptions) 135
Appeals and Variances 135
Planned Unit Development 137
Floodplain Areas 137
Administering the Subdivision Regulations 138
Amendments to the Text 138
Review of Subdivision Proposals 139

Lot Splits 139
The Continuing Planning Process 140
Role of the Planning Commission 141
Administrative Aids 141

Appendix .....a

Figures

Figure 1 - Geographic Location, City of Goddard, Kansas 4
Figure 2 - Area Topographic Characteristics, City of Goddard, Sedgwick County, KS 7
Figure 3 -Geographic Structure of Surface Strata, City of Goddard, ...10
Figure 4 - Area soil Classification, City of Goddard, Kansas 12
Figure 5 - Incorporated Area Development Patterns, City of Goddard, Kansas 50
Figure 6 - Existing rural Area Land Use, 2007, City of Goddard, Kansas 54
Figure 7 - Future Land Use Plan, 2025, City of Goddard, Kansas 60
Figure 8 - Generalized Locations of Sub-standard Dwelling Units, City of Goddard, Kansas, 2007 72
Figure 9- Dwelling Unit Development Density, City of Goddard, Kansas 75
Figure 10- Existing Municipal Street Network, City of Goddard, Kansas, 2008 90
Figure 11 -Existing Street Surfacing, City of Goddard, Kansas, 2008 92
Figure 12- Vehicular Accident Experience 2007, City of Goddard, Kansas 95
Figure 13 - Transportation Plan, City of Goddard, Kansas 96
Figure 14- Street and Highway Standards, City of Goddard, Kansas 100
Figure 15 -Public Facilities Inventory, City of Goddard, Kansas 2008 106
Figure 16 - Future Park and Recreation Plan, City of Goddard, Kansas 108
Figure 17 - Public School Boundaries, USD 265 -Goddard, Kansas 110
Figure 18- Potable Water System Schematic 2008, City of Goddard, Kansas 120
Figure 19 - Sanitary Sewer System Schematic 2008, City of Goddard, Kansas 123

Figure 20-Comphrehesive Development Plan 2025, City of Goddard, Kansas 127

Tables

Table 1 - Engineering Properties of Area Soils, City of Goddard, Kansas 9

Table 2 – Community and Neighborhood Planning Standards 22

Table 3 – Volume, Space and Circulations Standards.....27

Table 4 – Recreational Facilities Standards.....30

Table 5 – Population of Kansas, Urban and Rural.....33

Table 6- Demographic Patterns, 1890-2012 Sedgwick County, Kansas 34

Table 7 - Municipal Demographic Trends, 1890-2012, City of Goddard, Kansas.....35

Table 8 - City/County Demographic Patterns, 1890 - 2012, City of Goddard, Kansas.....36

Table 9 - General Population Characteristics, 2000-2012, Sedgwick County, Kansas.....37

Table 10 -Age Group Representation, 2000-2010, Sedgwick County, Kansas.....38

Table 11 - General Population Characteristics, 200-2010, City of Goddard, Kansas 39

Table 12 - Age Group Composition, 2000-2010, City of Goddard, Kansas 40

Table 13 -Actual Births and Deaths, Sedgwick County, 1980 – 2005 41

Table 14 -Future Population Forecasts, City of Goddard, Kansas, 2000 – 2025 42

Table 15- Existing Land use Summary, Incorporated Area Characteristics
City of Goddard, Kansas.....48

Table 16- Existing Land Use, Extraterritorial District, City of Goddard, Kansas.....52

Table 17 - Future Land Use Characteristics, City of Goddard, Kansas.....56

Table 18 - Land use Development Ratios, City of Goddard, Kansas & 32 Other Cities 58

Table 19 - Dwelling Unit Inventory, City of Goddard, Kansas 2012.....70

Table 20- Summary of Dwelling Unit Structural Types, Municipal Housing Stock 2012
City of Goddard, Kansas.....71

Table 21 -Rural Area Housing Characteristics, City of Goddard, Kansas 74

Table 22- General Housing Characteristics 2010, City of Goddard.....77

Table 23- Summary Housing Characteristics 2010, Sedgwick County, Kansas 79

Table 24 -Potential Long-range Housing Demand, City of Goddard, Kansas 81
Table 25 -Estimated Future Dwelling Unit Structural Mix, City of Goddard 82
Table 26 -Existing Platted Street Network, City of Goddard, Kansas.....89
Table 27 - Existing Street Network by Surface Type, City of Goddard, Kansas 91
Table 28 - Traffic Volumes, City of Goddard 93
Table 29- Future Transportation System Summary, City of Goddard.....97
Table 30 – Minimum Library Standards.....118
Table 31 – Solid Waste Generation Standards 124
Table 32- Estimated Solid Waste Generation, City of Goddard, Kansas 125
Table 33- Action Plan, City of Goddard, Kansas 130

SECTION I

BACKGROUND FOR PLANNING

PLANNING AND THE COMMUNITY

The unique spatial phenomenon known as a community was defined by the 1963 USDA Yearbook of Agriculture as -- "people who have common laws, interests and hopes, but not necessarily the same viewpoints, resources or awareness of change and needs." Because of these strong bonds of common interest, people have historically banded into communities to avail themselves of opportunities for protection, trade and industry.

Throughout history, cities have originated, prospered and grown where there was a natural resource capable of being exploited to sustain the population. In Kansas and across the west, this resource was most often land and the associated economic opportunity for establishment of farms and ranches and points of supply for needed commodities. Although economic opportunity was the primary factor in the founding of most western communities, it is the natural setting which is directly responsible for the observable patterns of physical development. Accordingly, in order to understand long-range community potential, it is first necessary to know something of the history and sociology of the population, as well as the physical circumstances which have shaped present development patterns, and which will continue to profoundly affect community expansion opportunity in the future.

In any location, as the community, with its myriad interrelated elements, continues to grow and expand, and mature socially, there is an accompanying need for establishment of some sort of common direction by which the good of all the people can be welded into an established direction and course of action. The basic and most immediate means to achieve this end is through a community planning process which will result in a realistic and workable comprehensive plan.

A comprehensive plan is an essential instrument for influencing efficient and orderly patterns of community growth and development. Almost every day some community official or group must make decisions that will impact the community and its people at some point in the future. Such decisions plan the future, to some extent, for someone or something. The impact of these decisions may either be immediately apparent, or may emerge gradually over a period of years. Whether the planning in such instances is haphazard or sound will depend upon the criteria available to the official or group at the time the decision is required. The comprehensive planning process, and preparation of the associated detailed studies, establishes a solid foundation for long- range planning, with a direct benefit to the decision making process.

The Comprehensive Plan, as a statement of policy, sets forth the kind of a community desired in the future. It is the objective of the Plan to achieve a healthful, wholesome and attractive community environment in which to live, work and rear a family.

Planning must, by its nature, deal with every facet of community activity, hence the term "Comprehensive Plan." The broad range of diversity of activities is approached through a series of studies, the results of which are expressed in general terms. These studies, together with the accompanying explanatory notes and implementation procedures, form the body and detail of the Comprehensive Plan.

In this context, it is the purpose of this element of the plan to review selected aspects of the community setting, including history, geography, geology, topography, climate, soils, water and minerals. These are the considerations of primary importance to an understanding of the present community and its potential for physical growth and development.

HISTORY

The City of Goddard dates from the 1880's, however, the surrounding area and the south-central region of the State of Kansas has historical roots dating to the time of the Spanish explorations of the 16th century. Long the province of the native peoples of pre-history, it is probable that the first documented incursion by Europeans was the Coronado expedition of 1541 which more or less followed the route of the Arkansas River. It would be nearly another 300 years before waves of immigrant Europeans would inundate the central plains with permanent settlement and establishment of towns and cities.

Even after the flood of westward migration and settlement reached the central plains, European intrusion in to the area south of the Arkansas River was delayed until the middle 1870's by the Treaty of Medicine Lodge in 1867 which granted the region as a permanent hunting ground to the Indians. However, by 1872 the tide of immigration became so great that the area was declared open to settlement resulting in rapid colonization and platting of numerous towns and cities. It was within this period of massive settlement that the City of Goddard was platted in 1883.

The history of the City of Goddard has been documented and detailed in several publications including A History of Goddard, Kansas by Hardy Wunsch and Goddard 1876- 1976 by the Goddard Women's Club. These sources indicate that the area around Goddard was initially formed as Attica Township in 1873 with the first townsite of Goddard started in 1882. The original townsite was moved I.5 miles south to the present location to coincide with the route of the railroad. The town was platted in 1883 and named Goddard in honor of J. F. Goddard, surveyor and vice-president of the Santa Fe Railroad.

The town experienced rapid growth during the 1880's with the initial population consisting of many union soldiers and European immigrants which were predominantly of German ancestry. From the outset there was an overriding importance placed upon development of public amenities as well as commercial and industrial facilities. The first churches were established in 1884 along with a post office and a public school. In that year the Santa Fe Railroad was completed through town and a permanent depot was completed in 1886. The first bank opened in 1902 and a telephone system was installed in 1903.

The town was also located along the route of the Cannonball Trail, so named for "Cannonball" Green who operated an early stagecoach line from Wichita to Dodge City. The "Cannonball" later became US 54 highway, a major transcontinental transportation route reaching from Chicago to El Paso. This highway together with the railroad strongly contributed to the early importance of Goddard as a center of commerce and industry.

Throughout its history the City has maintained a proactive status with regard to improvement of public facilities. In 1936 a new Townhall was completed and in 1953 the town installed a new sanitary sewer system and disposal plant. During the 1950's due to the growth of the industrial complex at Wichita, the town became increasingly urban and began a transition toward a predominantly residential character. This trend continues today with Goddard providing a location of suburban residence for large numbers of population which find employment in Wichita. The associated increase in assessed valuation due to residential building has provided the financial capability for continuing improvement of a range of public amenities and facilities. This general trend is also expected to continue for the foreseeable future.

GEOGRAPHIC LOCATION

The geographic location of the City of Goddard is depicted graphically on the following figure.

The map shows that Goddard is situated in the south-central portion of the state immediately west of Wichita. The location is on US 54/400 Highway about 45 miles north of the Kansas-Oklahoma state line and about 150 miles west of the Kansas-Missouri border. The City is about 19 miles west of the Kansas Turnpike/Interstate Highway 35 corridor, a major regional highway reaching from Topeka and Kansas City on the northeast to Oklahoma City and Dallas/Ft. Worth on the south. Those highway corridors allow connection with the transcontinental highway system assuring vehicle access coast to coast from east to west and north to south from Canada to Mexico.

The central location of Goddard assures direct vehicular connection to all major metropolitan market areas in the continental United States within 2 to 3 days travel time.

CITY OF GODDARD

CLIMATE

The Goddard area is typical of a mid-continental location in the temperate latitudes having a climate characterized by strong seasonal temperature variation and undependable annual rainfall. These climatic conditions are summarized in the Soil Survey of Sedgwick County. Kansas prepared by the United States Department of Agriculture, which contains the following:

"Sedgwick County has a typical continental climate, as would be expected of a location in the interior of a large land mass in the middle latitudes. Such a climate is characterized by large daily and annual variations in temperature. Winters are cold because air frequently moves in from the polar regions, but they last only from December to February. Warm summer temperatures last for about 6 months every year, and the transition seasons, spring and fall, are short. The warm temperatures provide a long growing season for crops in the county.

Sedgwick County is generally along the western edge of the flow of moisture-laden air from the Gulf of Mexico. Shifts in this current produce a large range in the amount of precipitation received. Precipitation is heaviest from May through September. A large part of it falls as late evening or nighttime thunderstorms. Precipitation in dry years is marginal for farming, and even in wet years prolonged periods without rain often produce stress in crops. -- - -.

In winter the average temperature is 33.3 degrees F, and the average daily minimum temperature is 23.0 degrees. The lowest temperature on record, which occurred at Wichita on February 12, 1899, is minus 22 degrees. In summer the average temperature is 78.9 degrees, and the average daily maximum temperature is 90.1 degrees. The highest recorded temperature, which occurred on August 12, 1936, is 114 degrees.

The average annual precipitation is 28.93 inches. Of this total, 21.26 inches, or 73 percent, usually falls in April through September, which includes the growing season for most crops. In 2 years out of 10, the rainfall in April through September is less than 12.75 inches. The heaviest 1-day rainfall during the period of record was 7.99 inches at Wichita on September 7, 1911.

The prevailing wind is usually from the south, but in February it is northerly. Average annual windspeed is 13 miles per hour; it is highest, 15 miles per hour, in March and April. The percent of possible sunshine averages 77 in summer and 61 in winter.

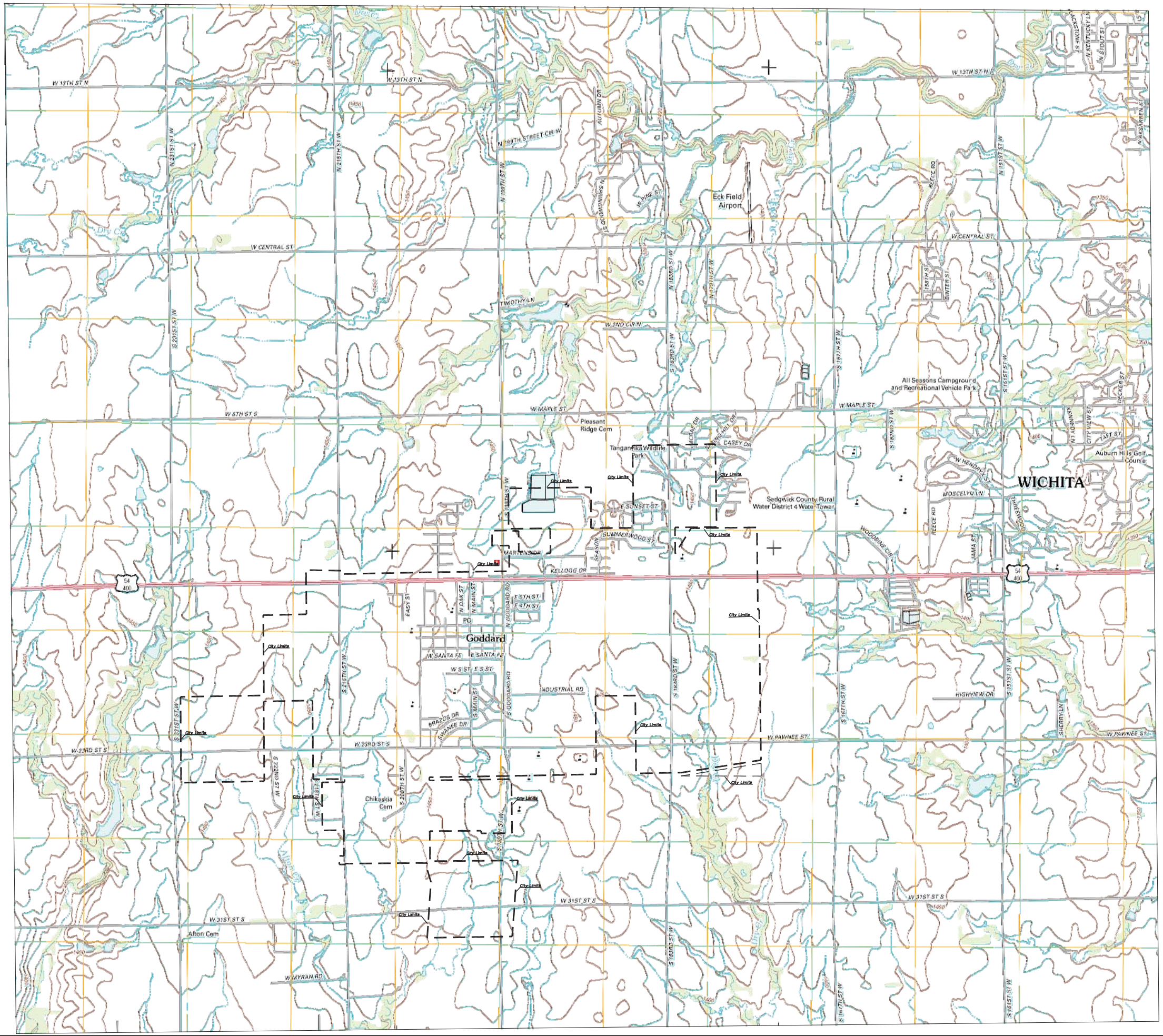
Tornadoes and severe thunderstorms occur occasionally in Sedgwick County. These storms are usually local in extent and short duration so that the risk of damage is small. Hail falls during the warmer part of the year, but it is infrequent and local in extent. Crop damage by hail is less in this part of the State than it is further west."

The summary notes the potential for more than 130 degrees of temperature variation between the highs of summer and the lows of winter as well as the seasonal potential for very strong storms such as the tornadoes which devastated the Cities of Udall and Andover. While infrequent, such storm events are possible in almost all months of the year, except the coldest months, throughout the State of Kansas.

TOPOGRAPHIC CHARACTERISTICS

The topography of the immediate Goddard area is relatively moderate as shown on the following figure. The map shows that the City is located on the divide between Dry Creek on the north and Afton Creek on the southwest. Across the City surface elevations range from about 1430 msl on the northeast to about 1485 in the northwest quadrant for an overall elevational difference of up to 55 feet over the corporate area of the City. Along the US 54/400 corridor, elevations range from about 1430 on the eastern edge of town to about 1475 on the far west.

The topography map also shows that the area is characterized by gradual elevational change over considerable distance without hills and valleys or abrupt precipitous change. Within the planning study area the major topographic feature is Dry Creek about 1.5 miles north which is a tributary of Cow Creek toward the east. There are no creeks or other major drainage channels within the incorporated area of the City of Goddard.



2014
TOPOGRAPHIC MAP
GODDARD, KANSAS

AREA GEOLOGY

The Goddard area is an uplands location which is blanketed by deep silts deposited by persistent northeasterly winds during the Pleistocene era. The mantle of windblown silt is underlain by sands and gravels resulting from four periods of glacial activity which is in turn underlain by an older mantle of consolidated rock of the Tertiary, Cretaceous and Permian systems. Research prepared by the USDA for the report Arkansas River Basin, December 1974 notes the following:

"The Ogallala Formation composed of mortar beds, calcareous silt, sand, and gravel occurs as two outliers in Kingman and Reno Counties. These erosional remnants are evidence of greater areal extent of the beds in earlier times.

The Cretaceous rocks are composed of sandstones and shale of which the Dakota formation is the most prominent. These rock formations occur in small area in Barber, Comanche, McPherson, and Rice counties.

The Permian rock occurs chiefly under the surface in southern counties of the unit. The formations are composed of sandstone, siltstone, and shale. The Blaine Formation contains massive gypsum beds while the Wellington Formation includes large salt deposits of economic importance."

The immediate Goddard vicinity is blanketed by surface materials which have formed from loess, plains sediments or materials weathered from shale. Surface loams and loessal deposits are typically underlain by clayey old alluvium above deep outwash silts, sands and gravels. The structural relationship of these materials is shown graphically on the following figure, which was prepared by the USDA for inclusion in the Sedgwick County Soil Survey.

The figure illustrates the deep rich soils and abundant water bearing subsurface granular deposits which historically have sustained the intensive agricultural enterprise which has characterized the area since settlement.

EXISTING SOIL CHARACTERISTICS

Concerning soil conditions, the previously cited soil survey of Sedgwick County prepared by the USDA Soil Conservation Service notes that the City of Goddard is located in an area which is blanketed by soils of the Blanket-Farnum-Voss Association, which are described as deep, nearly level to sloping well drained soils that have a loamy or clayey subsoil; formed in old clayey, silty, and loamy sediments. These soils are further described as follows:

"This map unit occupies uplands in the central third of the county. It makes up about 35 percent of the county. It is about 35 percent Blanket soils; 30 percent Farnum soils; 15 percent Vanoss soils; and 20 percent well drained Elandco and Milan soils, moderately well drained Tabler soils, and somewhat poorly drained Drummond and Waurika soils.

Blanket soils typically are on the nearly level and gently sloping parts of the landscape. Farnum soils typically are on gently sloping parts, and Vanoss soils typically are on the gently sloping and sloping parts of the landscape. Blanket and Vanoss soils have a silt loam surface layer, and Farnum soils have a loam surface layer."

These soils each have varying characteristics with respect to suitability for developed uses. Engineering properties as well as limitations for a range of non-agricultural uses are summarized in the following table.

TABLE 1

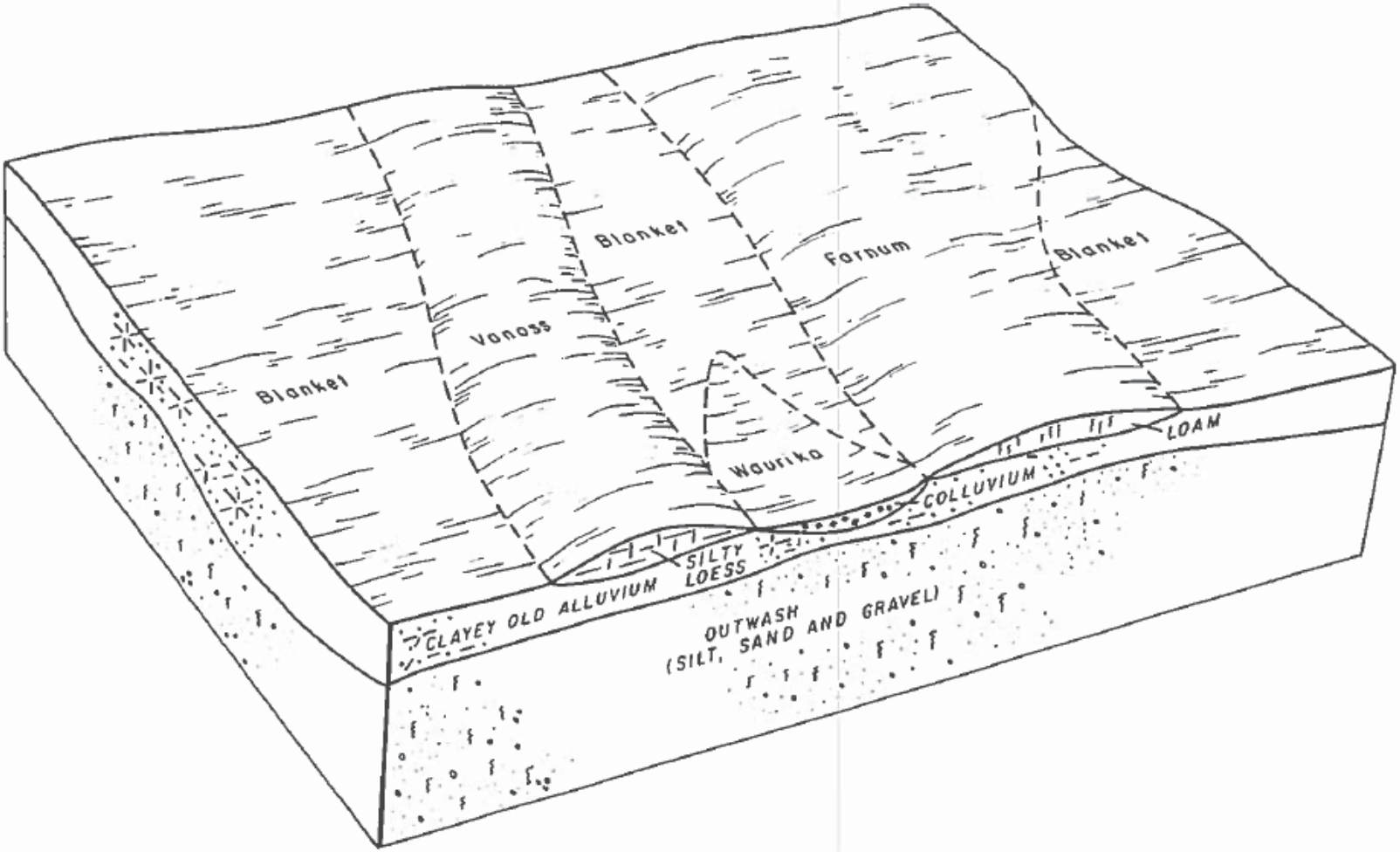
ENGINEERING PROPERTIES OF AREA SOILS*
City of Goddard, Kansas

DEGREE OF LIMITATION OF BY SOIL TYPE

Use	Blanket	Elandco	Farnum	Milan	Vanoss
Building Site Development					
Shallow Excavation	Moderate[1]	Moderate[2]	Moderate[4]	Moderate[3]	Moderate[1]
Dwellings with Basements	Moderate[2]	Severe[2]	Moderate[3]	Moderate[3]	Moderate[3]
Local Road and Streets	Severe[4]	Severe[4]	Severe[4]	Severe[4]	Moderate[3]
Sanitary Facilities					
Septic Tank Absorption	Severe[5]	Moderate[5]	Severe[5]	Severe[5]	Slight
Sewage Lagoons	Slight	Moderate[6]	Slight	Moderate[7]	Moderate[6]
Recreational Development					
Camp Areas	Moderate[5]	Moderate[2]	Moderate[5]	Moderate[5]	Slight
Playgrounds	Moderate[5]	Slight	Moderate[5]	Moderate[5]	Moderate[7]
Construction Material					
Road Fill	Poor[4]	Poor[4]	Poor[4]	Poor[4]	Poor[4]
Top Soil	Fair[8]	Fair[1]	Good	Fair[8]	Fair[8]

***Source: Soil Survey of Sedgwick County, Kansas**

1. Too Clayey
2. Floods
3. Shrink-Swell, Low Strength
4. Low Strength
5. Percs Slowly
6. Seepage
7. Slope
8. Thin Layer



Source: U.S.D.A. Soil Conservation Service

Figure 3

GEOLOGIC STRUCTURE OF SURFACE STRATA
City of Goddard, Sedgwick County, Kansas

The table shows that area soils exhibit moderate to severe limitations for most types of developed uses. Limitations are typically due to flooding and soil structure having a high clay content which results in low strength, high shrink-swell and slow percolation. These limitations are an indication that most developed uses, particularly those involving foundation support, road construction and septic tank absorption fields will require careful design to assure location compatibility.

While native soil conditions indicate that continued community growth will be affected by a range of limitations, the long history of development in the area shows that such limitations need not present major impediments provided proper precautions are observed as part of the individual project design process.

Locations of the various types of native soils in and around the Goddard community are illustrated graphically on the following figure.

Source: US.D.A. Soil Conservation Service

Ba - Blanket Silt Loam - 0 -1%

Bb - Blanket Silt Loam - 1 – 3%

Ma - Milan Silt Loam - 1 - 3%

Me - Milan Silt Loam - 2 – 6%

Eb - Elandco Silt Loam - Occ. Flooded

Ec - Elandco Silt Loam - Freq. Flooded

Vb - Vanoss Silt Loam - 1 - 3%

Vc - Vanoss Silt Loam - 3 - 6%

Vd - Vanoss Silt Loam - 3 - 6%, Errod.

Figure 4

AREA SOIL CLASSIFICATION
City of Goddard, Kansas

WATER RESOURCES

The previously cited county soil survey information includes the following:

"Ground water is an important mineral resource of the county. Most water used in the county is ground water. The principal source of the ground water is the un- consolidated deposits underlying the Arkansas Valley, where well fields of a few gallons per minute to over 2,000 gallons per minute are readily obtained. The chemical quality of the ground water ranges from moderately hard to extremely hard, depending on the source of the water. Ground water in the Arkansas Valley is generally of moderate hardness, but locally it contains undesirable quantities of dissolved salt and iron. Water from the Permian rocks is generally extremely hard and of limited use because of its high content of chloride and sulfate ions."

Across Sedgwick County groundwater is the principal source of supply, although surface water from Cheney Reservoir provides a portion of the annual water requirement for the City of Wichita. Given the increasing requirements of the Wichita-Sedgwick County metropolitan area, it is likely that surface water sources will provide an increasing portion of the total water supply in the future. Water supply as it affects the City of Goddard is examined in more detail in the Community Facilities section of the planning report.

MINERALS

Sedgwick County is known to have a range of mineral resources including oil, gas, salt, gypsum, sand and gravel.

The County also has limited deposits of high quality red-firing clay in the southwest quadrant as well as good quality building stone (limestone) in the areas on the east which border the Flint Hills.

Of these resources, only petroleum and sand and gravel are in production currently, although one industry in Wichita utilizes a limited amount of salt. Of these minerals, petroleum has the highest economic value followed by sand and gravel. There are no mineral production activities within the corporate boundary of the City of Goddard.

SECTION II

GOALS AND OBJECTIVES

INTRODUCTION

Although the general process of structuring long-range planning around established goals and objectives has long been practiced at the federal level, setting goals to guide community development has only recently become a working part of community planning practice. Through the process of establishing goals and objectives a series of formal statements are developed which are intended to provide levels of attainment that can be realized through the long-range planning process.

As the practices and procedures of community development have become more diverse and sophisticated so too have the processes of establishing results expected from the planning effort. Experience has shown that the planning process is most successful where the effort is guided by formally adopted goals and objectives oriented toward definition of quality standards, particularly as those standards help to identify the type of community environment desired for the future. Where the goal statements provide a definition of general quality, the planning standards provide the yardstick by which long-range physical development needs can be gauged and sized.

For the purposes of the Comprehensive Plan, it will be important that adopted goals and objectives identify conditions and qualify parameters for application throughout the community, although the quality parameters identified can also be tailored for specific application in identified regions within the community.

The formulation of goals and objectives to guide community development should involve people having diverse interests coupled with an awareness of need for sound community development practice. When formalized, the goals and objectives statements then provide the framework for guiding the long-range planning studies within the context of a cohesive comprehensive plan.

Accompanying the goals and objectives are general development standards which provide the technical guidelines for physical development, based on the intent of the established goals and objectives. Where the goals statements provide a definition of general quality, the planning standards provide the yardstick whereby long-range physical development needs can be gauged and scaled.

EFFECT AND PURPOSE OF GOALS AND OBJECTIVES

The community plan is intended as a basis for formulating public policy which will aid in guiding the growth and development of the municipality. Establishing goals is a means of involving people in community affairs, developing a community attitude toward planning and promoting informed leadership in all areas of civic activity.

Adopted goals and objectives provide community leaders with:

An expressed policy regarding future community development which answers the question, "what kind of community do we want to build?"

A basis for future planning of physical, social and fiscal policies and programs leading to sound community development, and;

A sound basis for decision making and developing the strategy for community development by ordering goals in terms of their priority. For example, housing may be a goal of highest priority, but to achieve this, the development of other systems, such as water and sanitary facilities, must also receive equally high priority.

The broad goal of the comprehensive plan is to foster the creation of a community where people may live in a safe, convenient and healthful environment. The community must be an enjoyable place in which to live and raise families, to conduct business and to find educational and employment opportunities. The community planning process provides the framework in which this goal may be approached.

Where this process has been formalized, the intent of the broad goals will be present throughout all aspects of community development, from preparation of long-range planning studies through the decision-making process and implementation of individual programs and improvement projects. By this means, all aspects of the future community may be guided toward common goals which are known and understood by all.

GOALS AND OBJECTIVES FOR COMPREHENSIVE PLANNING

Grounded in broad values consistent with fostering a beneficial human environment for all citizens of the community, goals and objectives are intended to provide quality guidelines for preparation of individual planning studies, as well as beneficial influences in the municipal decision-making process generally.

While this process is potentially applicable to almost any aspect of community development, for the purposes of comprehensive planning, goals and objectives are most commonly prepared for the broad aspects of the community which will be reviewed and studied in the planning process. For the City of Goddard, these categories consist of the following:

- Economic Development
- Housing
- Transportation
- Public Services and Facilities
- Community Growth and Development
- Open Space and Recreation
- Environmental Quality

Within these categories, the following goals, objectives and standards outline quality parameters for the comprehensive planning program.

ECONOMIC DEVELOPMENT

Goal: ENCOURAGE DIVERSIFIED COMMERCIAL AND INDUSTRIAL DEVELOPMENT A MEANS TO PROMOTE ECONOMIC STABILITY, INCREASE THE LOCAL TAX BASE AND IMPROVE LOCAL EMPLOYMENT OPPORTUNITY FOR CITIZENS OF THE COMMUNITY.

Objectives:

- Maintain efforts to attract businesses and industries which will utilize locally available raw materials and merchandise on a regional and national basis.
- Plan for continued growth of commerce and industry based on sound land development practices which are in conformance with the comprehensive plan.
- Encourage diversified retail merchandising of goods and service within appropriately planned areas while protecting the vitality of the central core area.
- Foster an atmosphere in which business and industry may grow and prosper; thereby encouraging enterprises which will provide needed goods and services to the community and region and a livelihood for its citizens.
- Maintain an economic development strategy to guide promotional efforts and maximize the benefits of available resources.
- Continue to promote development and use of the existing industrial park.
- Influence functional and efficient commercial development along the US 54/400 corridor.

Goal: PROMOTE CONTINUED RESIDENTIAL DEVELOPMENT TO ENLARGE THE TAX BASE AND STRENGTHEN THE MUNICIPAL CAPACITY TO PROVIDE QUALITY PUBLIC FACILITIES.

Objectives:

- Work with area developers to initiate new neighborhoods through the Planned Unit Development process.
- Strengthen and enhance the image of the City as a location for suburban residence in a high quality living environment.
- Maintain an ongoing strategy for marketing the City as a place of suburban residence as a facet of the economic development program.
- Utilize formal procedures and standards including appropriate zoning and subdivision regulations to guide future neighborhood development toward established quality parameters.
- Promote the concept of community and sense of place to attract and keep new residents.

Goal: MAINTAIN AND STRENGTHEN THE CENTRAL BUSINESS DISTRICT.

Objectives:

- Encourage diversification of retail goods and services.
- Promote external advertising and sales events.
- Provide for continuing aesthetic improvement of the Central Business District consistent within practical needs and budgetary limitations.

Goal: MAINTAIN AN EFFECTIVE ECONOMIC DEVELOPMENT STRATEGY.

Objectives:

- Target and solicit businesses and industries which will maximize use of available local resources. Provide funding adequate to allow external travel and promotional effort.
- Foster continued cooperation between the private and public sectors in all aspects of finance, real estate, taxation, planning, and provision of public and private services, particularly with regard to promotion of economic expansion and business diversification.

HOUSING

Goal: ASSURE SAFE, DECENT AND SANITARY HOUSING FOR ALL CITIZENS OF THE COMMUNITY.

Objectives:

- Provide housing with adequate living space for all citizens.
- Plan for diversification in housing to meet the needs of individual user groups.
- Provide for multiple family dwellings, retirement housing and other specialized housing as required to meet the needs of defined user groups within the community.
- Encourage maintenance of older residential structures in good condition and replacement of obsolete structures with new units.
- Promote a safe and sanitary living environment, controlled to avoid undue pollution of land, air or water.
- Provide every living unit with City water and sewer services.
- Support innovative planning and utilization of new technology in the design of new neighborhood units.
- Utilize participation funding grants and other sources of technical and financial aid to assist low income families with housing improvement.
- Adopt and maintain housing codes as a means to establish minimum quality expectations for the local housing stock.

Goal: ASSURE EQUAL OPPORTUNITY IN CHOICE OF HOUSING FOR ALL PEOPLE REGARDLESS OF RACE, RELIGION, AGE, OR SEX.

Objectives:

- Maximize the opportunity for each family or individual to rent or purchase safe, sanitary and decent housing within their economic means.
- Investigate participating grant funding sources as a means to finance housing improvement programs.

TRANSPORTATION

Goal: PROVIDE AND MAINTAIN AN EFFICIENT AND SAFE NETWORK OF VEHICULAR TRAVELWAYS ALLOWING EQUITABLE ACCESS TO ALL AREAS OF THE COMMUNITY.

Objectives:

- Utilize appropriate design standards and sound policies for various classes of streets and roads which are keyed to vehicular traffic types and anticipated traffic volumes.
- Adopt and follow a plan for development of the street system including appropriate traffic controls to enhance the function and safety of the system.
- Provide for adequate parking as a consideration of the transportation system. Maximize utilization of all available resources, including alley side spaces in commercial areas where appropriate.
- Develop and maintain a functional pedestrian circulation system throughout the community.
- Plan for aesthetic enhancement of major traffic corridors consistent with an established community image.
- Continue to work with the Kansas Department of Transportation and Sedgwick County in the process of planning major highway improvements in and around the community.

PUBLIC SERVICES AND FACILITIES

Goal: MAINTAIN HIGH QUALITY PUBLIC SAFETY SERVICES AND FACILITIES.

Objectives:

- Provide adequate and responsive police protection for all areas of the community.
- Maintain efficient and reliable fire and disaster response capability.

Goal: PROVIDE APPROPRIATE PUBLIC UTILITIES IN ALL AREAS OF THE COMMUNITY

Objectives:

- Assure an Adequate supply of potable water and an expandable distribution system, suitable for present and future consumption and for fire protection.
- Provide storm drains and protection works where needed to prevent flood damage, unsanitary conditions or hazards to travel.
- Provide sewage treatment, refuse collection and disposal, street cleaning and similar environmental control processes.
- Maintain general standards and policies for utility system capabilities and extent of service. Identify needs for detailed engineering studies of present demands and potential future areas of demand in regard to changing land use and population distribution.

Goal: MAINTAIN EFFECTIVE, CONVENIENT, AND ORDERLY DISTRIBUTION OF PUBLIC FACILITIES THROUGHOUT THE CITY.

Objectives:

- Provide functional and attractive civic buildings and related facilities conveniently located for public access and operational efficiency.
- Promote planned and efficient future expansion of governmental services through adoption and maintenance of a Comprehensive Plan and associated measures for the present community and its future growth area.

Goal: PROVIDE CONTINUED DIVERSIFICATION AND IMPROVEMENT OF AVAILABLE PUBLIC SERVICES.

Objectives

- Continue and intensify participation in State and Federal grant programs as a vehicle for improvement of services for the elderly, low and moderate income families, and the physically and mentally handicapped.
- Promote local access to health care facilities and professionals through subsidized transportation and other means.
- Continue to maximize community access to available public educational and cultural programs and seminars. Provide for churches, schools and other institutions as desired and needed.
- Continue to encourage maintenance of a quality school system which will encourage and support excellence in education.
- Promote education/cultural stimulation and growth from preschool to senior citizens.
- Encourage full utilization of facilities, public and private, to avoid unnecessary duplication of costs.

COMMUNITY GROWTH AND DEVELOPMENT

Goal: PROMOTE BALANCED AND EFFICIENT FUTURE EXPANSION PATTERNS IN ALL CATEGORIES OF COMMUNITY LAND USE.

Objectives:

- Develop and implement a Future Land Use Plan which maximizes the efficiency of the existing elements with new development areas located in the most advantageous relationship.
- Utilize effective zoning and subdivision controls to minim
- Work closely with area developers to influence continuity of transportation and utility systems through appropriate design of future community expansions.
- Maintain a continuing planning program which will monitor new trends and emerging community needs in both the short-and long-term time frames.

Goal: ENCOURAGE RATIONAL AND PLANNED RESIDENTIAL EXPANSION WHICH IS IN HARMONY WITH THE COMPREHENSIVE PLAN.

Objectives:

- Designate and plan extensions of existing residential neighborhoods. Plan and develop new areas based on principles, patterns and directions established by the comprehensive plan.
- Plan for residential development at densities which will encourage economic and efficient spatial relationships between structures, public and private uses of land, and vehicular and pedestrian circulation patterns.
- Provide paved streets and pedestrian sidewalks in all residential areas. Protect neighborhood areas from heavy through-traffic, and from encroachment of incompatible land uses.
- Encourage use of the Planned Unit Development (PUD) approaches for major new residential neighborhoods.
- Maintain a continuing planning program to monitor emerging development patterns and direct future community growth within the direction outlined in the Comprehensive Plan.

Goal: INFLUENCE FUNCTIONAL AND APPROPRIATE COMMERCIAL AND INDUSTRIAL EXPANSION.

Objectives:

- Utilize the Future Land Use Plan to guide all future development.
- Enforce the zoning regulations as a means to help assure protection of adjoining areas of residential neighborhood expansion.
- Promote use of frontage roads in developing commercial areas along major traffic routes, particularly adjacent to US 54/400 Highway.
- Plan for aesthetic enhancement of current and future commercial and industrial development.
- Provide adequate off-street parking and opportunity for pedestrian circulation.

OPEN SPACE AND RECREATION

Goal: PROMOTE CONSERVATION AND IMPROVEMENT OF EXISTING OUTDOOR RECREATIONAL SPACE IN THE COMMUNITY.

Objectives:

- Continue an aggressive program of open space and facility maintenance, repair and replacement.
- Maintain an ongoing recreation planning program which is responsive to trends and needs for changes and modifications of recreational offerings.
- Maintain a program of periodic review of space and facility adequacy in the neighborhood setting.
- Utilize the former railroad corridor for recreational uses benefiting the entire community.

Goal: CONTINUE TO PROVIDE ADEQUATE RECREATIONAL FACILITIES IN EVERY NEIGHBORHOOD OF THE COMMUNITY.

Objectives:

- Maintain a continuing policy of assuring that newly development neighborhood areas will include adequate allowances for playlots, park, and other public spaces.
- Develop and maintain a long-range park and recreation plan for the community which is in concert with the Future Land Use Plan of the City.
- Provide recreational facilities that can be utilized by tourists as well as the resident population.
- Make available additional recreational facilities meeting public demand for the specific amenities such as basketball courts, spraygrounds, skateboard courts, hike and bike trails and other items of current interest.

ENVIRONMENTAL QUALITY

Goal: PROMOTE A SAFE, SANITARY AND PLEASING COMMUNITY ENVIRONMENT WITH REGARD FOR THE SURROUNDING NATURAL SETTING.

Objectives:

- Develop and implement land use regulations which are based on sound environmental principles.
- Develop a system and process for weighing community development decisions with regard to resultant environmental consequences.
- Encourage the elimination of wasteful practices and promote recycling and reduction of solid waste volume.
- Promote opportunities for public education with regard to environmental issues of community development through maximum use of available aids such as workshops and dissemination of printed material available from state and federal sources.

- Encourage public participation in all aspects of community development planning particularly in those processes and actions which involve environmental evaluation of development alternatives.

PLANNING STANDARDS

The goals and objectives statements outline a framework of quality threshold to guide planning and maintenance of a quality living environment. However, they do not provide standards of measurement by themselves. Because of this, it is important that the goals and objectives be supported with quantifiable standards and guidelines for all aspects of community development in order to gauge current and future needs.

Based on values, concepts, and methods developed from planning theory and years of experience with many other similar communities across the high plains, the following guidelines and standards are intended as a means of assessing minimum values for community development.

RESIDENTIAL NEIGHBORHOODS

Residential neighborhood development standards are based on the walking distance from the farthest point in the neighborhood. The following are recommended standards for major community and neighborhood facilities:

Table 2
Community & Neighborhood Planning Standards

Nursery School	1/4 mile
Kindergarten	1/4 to 1/2 mile
Elementary School	1/4 to 1/2 mile
Junior High School	3/4 to 1 mile
High School	1 to 1-1/2 miles
Playgrounds	1/4 to 1/2 mile
Neighborhood Park	1/4 to 1/2 mile
Shopping Center	1/4 to 1/2 mile
Indoor Social, Cultural and Recreation Center	1/2 mile
Health Center	1 /2 mile
Fire Station (Residential Areas)	1-1/2 miles
Fire Station (Industrial Areas)	3/4 mile

In this context, planning for future community expansion and neighborhood development should include consideration of the following:

- Neighborhoods should be planned for a mix of housing units at costs which will permit access by low and moderate income groups.
- Amenities paralleling residential need should be incorporated into the neighborhood unit, such as neighborhood convenience shopping, school site, park sites, and locations for churches.
- All residential areas should be served with a complete compliment of utilities including water, sewer, electrical power, natural gas, telephone, and solid waste disposal.
- Utilities should be located to serve each land use while taking account of the specific design criteria of each utility. Whenever possible, utilities should be placed underground.
- Environmental constraints should be carefully weighed in the approval process for any subdivision for residential uses. Among these constraints are soil capability, subsurface geology, slope conditions, water table, vegetative cover, surface drainage, historic and archaeological sites, potential for flooding, and displacement of plant and animal life.

COMMERCIAL DEVELOPMENT

Planning for continued development of commercial uses must include consideration of the unique characteristics of the downtown core area while acknowledging the diverse requirements of commercial experience in other locations. General guidelines include the following:

- Expansion of the Central Business District should occur through careful redevelopment of adjacent transition areas, maintaining the same basic concepts and development patterns which have been traditional in the downtown area.
- Strip commercial developments should have lots 200 to 400 feet deep and be provided with frontage roads parallel to the major street with adequate traffic separation, one- or two-way street operation with access to the arterial limited to defined points.
- Control of allowable types of uses in areas outside the central core should be provided through exercise of appropriate zoning regulations.
- Continued commercial expansion should be carefully evaluated with respect to conformance with the adopted Future Land Use Plan.

INDUSTRIAL EXPANSION

As industrial uses typically have intensified needs for large site areas, high volume transportation systems, extra capacity utility services, and special environmental protection, it is important that expansion proposals be carefully evaluated for compatibility with the existing community. General guidelines for industrial expansion include:

- To the extent possible, industrial expansion should occur in planned industrial park areas.
- Industrial development planning should include allowance for:
- Streets designed for heavy truck traffic.
- Adequate building setback and height allowances.
- Appropriate building density ratios

- Aesthetic controls, including landscape provisions
- Industrial uses should be compatible with each other and surrounding areas of the community.
- Industrial expansion should occur in areas where adequate tract size is available to assure maintenance of quality development standards.

TRANSPORTATION

Several types of transportation systems are important to maintenance of the present and future community; however, the primary systems affecting physical development are the airport, the railroad and the network of vehicular travelways. Concerning vehicular travelways, the following guidelines apply:

Street System

Planning standards for street system are based on functional classifications which reflect intensity of usage. For the purposes of comprehensive community planning, four separate classes of urban streets and highways are usually recognized. These are:

- Expressways and Interstate Highways
- Arterial Streets
- Collector Streets
- Local Streets

Expressways and Interstate Highways are the large multi-lane traffic corridors which are intended to efficiently move the bulk of through traffic to, from, and around the community. A primary goal of these trafficways is to avoid directly impacting built-up urban areas. As such, expressways are the largest class of roads and are designed and located in accordance with traffic volumes to be accommodated.

Major functions of the expressway are to provide for through traffic and to receive the traffic flowing from the arterial network, although they are themselves arterials by functional classification. At the present time, the Goddard community does not have major streets which would qualify in this category, however, in the future the reconstructed US 54/400 corridor will function as an expressway.

Arterial Streets are intended to move large volumes of traffic generated within the community. Service access to abutting property is a function of secondary importance to the primary function of efficiently moving traffic. Where possible, the design of arterial streets should incorporate access control, and on-street parking should be minimized or eliminated. Design of arterial streets typically incorporates right-of-way widths of 80 to 150 feet, depending upon pavement and drainage requirements and pavement widths of 48 to 64 feet, depending upon traffic lane and median arrangements. It is over these streets that the greater part of everyday travel will occur. An example of this type of facility in the local community would be the current US 54/400 travelway.

Collector Streets provide the important function of collecting traffic from local streets in the interior of neighborhoods and distributing it to the arterial system. As with the arterial streets, the primary function is to move traffic, and property access points and on-street parking should be minimized. Traffic safety is an important consideration for the collector system. Unnecessary property access points and street crossings should be minimized or eliminated. Right-of-way widths for collectors typically range from 70 to 90 feet with pavement widths ranging from 45 to 69 feet, depending upon lane, access, and parking arrangements.

The spacing of collector streets is often influenced by land use, density of development, and land use traffic generating characteristics. A spacing of one-half mile intervals is a reasonable standard where conditions are such that it can be achieved.

Local Streets are designed and located for the primary purposes of providing access to property, and providing connecting traffic routes to the collector system. Access should be provided for both vehicles and pedestrians. Through traffic should be discouraged on local streets.

The local street is a major element in the design composition of the city, providing space for grass and tree planting and arranging properties in various sizes and shapes of blocks with an irregular or rectangular street pattern. In residential areas, the local street serves as open space, providing light and air to adjoining properties and also acts as a fire stop between blocks of buildings.

Local streets and other streets serve as easements for sewer, water, and gas mains. The street often carries a part of the storm water runoff from abutting properties to storm sewers which may also occupy its right-of-way. In residential areas, power and communication lines should not be located within street right-of-way, except in instances where it is feasible or desirable to locate them underground. Overhead utilities are usually located in easements provided for this purpose at the rear of lots or alongside lot lines.

Design of local streets usually incorporates a right-of-way width from 60 to 70 feet with a pavement width from 30 to 34 feet. Spacing of streets is as required to provide property access.

Hike and Bike Trails are a specialized type of transportation facility designed to promote reduction in use of fossil fuels through provisions of an alternate means of community circulation. Where the trail will accommodate both bicycles and pedestrians, a minimum width should be 10 feet, however, a pedestrian only walkway can be as little as 5 to 6 feet in width.

The trail system should circulate throughout the developed areas of the community with the specific design intent to allow access from residential neighborhoods to the schools, shopping areas, parks and other major public facilities. In all cases, the trail system should be ADA compliant and meet all federal guidelines and standards for pedestrian facilities.

PUBLIC SERVICES

Schools

Anticipating and planning new or enlarged schools are largely based on future requirements. Estimates of future requirements are, in turn, substantially based on the population projections which provide a general overview of the numbers of school-age children to be accommodated.

Generally, schools should be adequately sized, providing sufficient classrooms to avoid overcrowding, and should be located on a site large enough to allow development of ancillary functions, such as playgrounds, athletic fields, and off-street parking. School planning standards indicate that an adequate facility should have not more than 25 pupils per classroom and should have available special and multi-purpose spaces, such as lunchrooms, gymnasiums, laboratories, health offices, libraries, and faculty work rooms. While generalized planning standards help to size individual schools, detailed determinations of interior space requirements necessary to meet desired specific functions must be carried out by local school officials.

In terms of site size, generally accepted standards indicate that elementary schools should have about five acres of land plus one acre for each 100 students of estimated enrollment. Junior high schools should have a site size of 15 acres plus one acre per 100 students, while senior high schools should ideally have a site size of 30 acres plus one acre per 100 students.

School locations within the community should be such that elementary schools are within 0.25- to 0.5-mile walking distance, or not more than 20 minutes travel time by bus for all students, and ideally should complement the neighborhood concept. High schools within small communities should be centrally located with easy access from all residential areas, and should be directly and easily accessible for school buses.

Libraries

The following generally accepted standards were developed through experience with the planning of numerous libraries. The standards are guidelines that can be used to measure the space and operational requirements of a given library at a given point in time.

Table 3
Volume, Space, and Circulations Standards

Book Stock	Volumes per Capita	5
Number of Seats	Per 1 ,000 Population	10
Circulation	Volumes per Capita	9
Square Feet	per Capita	.8
Desirable First Floor Ground Area	Square Feet per Capita	.7

Volume, Space and Circulation, National Library Association.

Fire Protection

Fire protection standards vary widely, depending upon population and development density, type of land use in the fire district, and topographic characteristics of the service area. Staffing requirements are equally variable; however, minimum requirements indicate that at least six men should be available at any time over any 24-hour period to provide initial fire call response. Providing a minimum or better staffing pattern will require a larger actual manpower complement, up to 30 to 36 persons for a fully staffed municipal company. Fire response distance from the fire station should not exceed 10 miles measured in driving distance.

Other general guidelines related to location and overall characteristics of municipal fire stations are noted below.

Fire stations should be within a 0.75-mile radius of the Central Business District, Commercial, Service Districts, and Industrial Areas.

Fire stations should be within the center (time of travel) of the districts they serve.

The stations should be within a 1.5-mile service radius of neighborhood shopping areas and residential districts.

Movement of firefighting equipment from fire stations should not be impaired by physical or topographic barriers.

Fire stations should be located with direct access for firefighting equipment to the thoroughfare networks of the City. Movement of equipment must not be impaired or be a danger to other traffic.

The design of station houses should be compatible with the surrounding area so that buildings fit into the character of the neighborhood. Space should be provided on station sites for adequate parking, landscaping, and maneuvering area.

Police Protection

Precise definition of standards for police facilities is not realistic due to extreme variation in social, economic, and physical characteristics, size of service area, and nature of department work load. Even the long used standard of one to two patrolmen per 1,000 population has been inadequate for staffing patterns in recent years due to the growing diversity in case load and the general broadening of police responsibility. Accordingly, police staffing patterns and physical accommodations should be developed to match specific local requirements resulting from a planning process involving municipal officials acting in concert with other county, regional, and state law enforcement agencies.

In general, a police district should comprise, if possible, a homogeneous area, unbroken by impassable barriers, such as expressways, railroads, or rivers that provide natural barriers. In addition, a district should have convenient major street access throughout the area.

The district headquarters should be near the geographic center of the service area; on a major street with good access to all parts of the service area; near concentrations of commercial and industrial uses and the highest crime rate; preferably not in residential areas, but adjacent to a commercial area; and district headquarters should emphasize administration and service to the public rather than the long-term incarceration of prisoners.

Utilities

Planning for utility extensions is an important tool in the guiding of community growth toward common environmental and economic goals. In general, a full complement of utility services should be available to all areas of development; however, such extensions should not encourage scattered development outside the corporate limits. It is also important in the planning process to consider the physical capability of service systems in order to guide future growth toward a development pattern which can be efficiently and economically served with utilities. This becomes especially critical for extensions of sanitary sewer service which are most economical when the system can continue to operate on gravity flow without special pumping apparatus. In general, the overall capacities of utility systems will be a consideration throughout the planning period as will the quality of service provided. Water and sewer systems, for instance, must meet a range of quality standards more related to public health than physical design; however, efficient development patterns will complement efforts to maintain a high-quality product throughout.

PARKS AND RECREATION

Outdoor recreation planning standards recognize five basic categories of municipal parks, which include playlots, neighborhood playgrounds, neighborhood playfields, neighborhood parks, and community or regional parks.

Playlots are the equivalent of the backyards of homes in sparsely settled residential districts. The size of each lot may range from 1,500 to 2,500 square feet in area and, ideally, is located within a clear view of all the dwellings it serves. The playlot is designed for pre-school children and should have low swings, slides, sand box, jungle gyms, and space for running and circle games. Passive recreation is also provided for the adults while they watch their children.

Neighborhood Playgrounds are designed for children whose ages range from 6 to 14 years. They are intended as the recreation center of the neighborhood and are usually within 0.25-mile walking distance of the dwellings they serve. The preferable location of a playground is adjacent to a community center or elementary school where supervised recreation is possible.

The playground should have an area for apparatus and open space for informal play. There should be courts for various games, such as soccer, softball, tennis, handball, and volleyball. Space is also needed for the quiet activities, such as crafts, dramatics, and story-telling.

Neighborhood Playfields are intended for both young people and adults, and provide for a variety of recreation activities. Each may serve five to six neighborhoods. The desirable space standard is one acre per 800 people. Recreation facilities normally include softball, basketball, football, handball, hockey, archery, outdoor theater and a swimming pool. Night lighting is desirable.

Neighborhood Parks provide active and passive recreation for all age groups. The service radius should not exceed 0.75 to one mile. The desirable space standard is one acre per 800 population. The size of the park should not be less than ten acres.

Community or Regional Parks serve as open air spaces in the built-up urban area. Frequency depends a great deal upon the degree of population density. This is the place where active and passive recreation facilities for all ages are provided. There should be areas for picnicking, boating, swimming, winter sports, day camping, and bridle paths. This is a park which serves the whole community.

The general overall space standard for outdoor recreational opportunity within developed areas is ten acres per 1,000 population, or one acre per 100 persons.

Concerning standards for individual recreation facilities, the following guidelines provide an initial gauge for determination of probable present and future needs.

Table 4
Recreational Facilities Standards

AREA OR FACILITY	STANDARD
Park Land	1 acre per 100 people
Neighborhood Park Land	1 acre per 800 people
District Playfield	1 acre per 800 people
Softball Diamond	1 per 3,000 people
Baseball Diamond	1 per 6,000 people
Tennis Courts	1 per 2,000 people
Archery Range	1 per 1,500 people
Handball Court	1 per 1,500 people
Bicycle Trail	1 per 2,500 people
Group Picnic Center	1 per 2,500 people
Outdoor Theater	1 per 10,000 people
Gymnasium	1 per 10,000 people
Auditorium	1 per 15,000 people
Social Room	1 per 15,000 people
Recreation Building	1 per 20,000 people
Arts and Crafts Workshop	1 per 10,000 people
Municipal Golf Course	1 per 9,000 people
Shuffleboard Court	1 per 1,500 people
Nature Trail	1 per 10,000 people
Wading Pool	1 per 2,500 people
Day Camp	1 per 10,000 people
Indoor Swimming Pool	1 per 50,000 people
Outdoor Swimming Pool	15 sq. ft. per 3 percent of population

PUBLIC BUILDINGS

There are few general standards for gauging the adequacy of most public buildings. Building and site size requirements differ widely between communities and are related to population growth and the extent of functions and services to be accommodated. Requirements are best determined by local survey with future land requirements estimated accordingly. Projections of future populations to be served are one of the basic considerations of all such determinations.

Generally, public buildings should be adequate to provide the needs of the community and should be centrally located for equitable access from all parts of the community. Sites should feature ample parking capacity with easy pedestrian flow to, from, and within facilities. Site design should minimize the potential for vehicular congestion and should be aesthetically pleasing. All public facilities, inside and out, must be completely accessible and usable by the physically handicapped.

SUMMARY

The goals, objectives, standards, and guidelines provide a general framework for evaluation of individual development proposals as well as the means to monitor short- and long-range trends across the municipal planning jurisdiction. Maintenance and use of these standards is one of the basic tools available to the Planning Commission in the continuing effort to influence an increasingly attractive, healthful, and pleasant environment in both existing and developing areas of the community.

SECTION III

DEMOGRAPHIC PATTERNS

INTRODUCTION

Throughout history, people have banded together into communities to avail themselves of benefits and amenities which would not be obtainable on an individual and uncoordinated basis. As a result, every aspect of development in the physical makeup of the community is directly connected to corresponding human need, in particular the need of the resident population of the City and the immediately surrounding area. And, because the underlying social aspirations and values change little over time, potential needs and requirements of defined future populations are measurable, and predictable with a reasonable degree of accuracy.

In this context, analyses and projections of existing and potential community populations provide one of the important gauges of estimation of the physical scale of the community during the planning period. Based on anticipated long-term trends in population, estimates of required services, public facilities, institutions and land use patterns can be prepared on a scale which is appropriate to the population to be accommodated. Estimating future population levels is often difficult due to the uncertainty of many factors which tend to influence rates of growth or decline in local populations.

Population growth occurs naturally when resident births exceed resident deaths; this is termed "natural increase". The population may also change because of migration, which is population change other than that accounted for by births and deaths. The population may increase from "in-migration" or people moving into the community, or it may decrease from people leaving the community which is termed "out-migration". Probably the most significant factor in local patterns of migration is that of economic opportunity, although many other factors also influence individual decisions about place of residence. The analysis of past and present population trends provides an overview of these influences and Jays the foundation for estimation of future populations.

Toward this end, the following paragraphs review historic population patterns, past and present trends, and develop a foundation for estimation of possible future population levels for a 10-year period, or until the year 2025.

HISTORIC PATTERNS OF DEMOGRAPHIC CHANGE

Throughout the state of Kansas, the surrounding Midwestern states, and the nation as a whole, there has been a continuing trend toward urbanization of the population as ever increasing percentages of area residents were counted as citizens of incorporated towns and cities. Due partly to decreasing manpower requirements of area farms and ranches, this process has also been closely tied to the economic opportunity available in the form of jobs in area communities. As the rural population expanded dramatically during the last century on response to succeeding waves of settlement following the Civil War, there developed a corresponding need for centers where commodities could be bought and sold and supplies purchased. These early centers of commerce and transportation established the seeds of the urbanization process which has

continued largely unabated throughout most of this century. As a result, a majority of all residents of the state have been classified as urban since 1950. It is likely that this trend will continue to some extent throughout the 10-year planning period and beyond.

Concerning state-wide patterns of urbanization, the following table summarizes demographic trends by decade for the period 1860 -2010.

TABLE 5
POPULATION OF KANSAS, URBAN AND RURAL*

Census Year	State	Percent Change	Urban	Percent Change	Rural	Percent Change	Percent of Total Urban	Percent of Total Rural
1860 **	107,206		10,045		97,161		9.4	90.6
1870	364,339	239.9	51,870	416.4	312,529	221.7	14.2	85.8
1880	996,096	173.4	104,956	102.3	891,140	185.1	10.5	89.5
1890	1,428,108	43.4	269,539	156.8	1,158,569	30	18.9	81.1
1900	1,470,495	3	329,696	22.3	1,140,799	-1.5	22.4	77.6
1910	1,690,949	15	492,312	49.3	1,198,637	5.1	29.1	70.9
1920	1,769,257	4.6	616,485	25.2	1,152,772	-3.8	34.8	65.2
1930	1,880,999	6.3	729,834	18.4	1,151,165	-0.1	38.8	61.2
1940	1 ,801,028	-4.3	753,941	3.3	1,047,087	-9	41.9	58.1
1950***	1,905,299	5.8	993,220	31.7	912,079	-12.9	52.1	47.9
1960	2,178,611	14.3	1,328,741	33.8	849,870	-6.8	61	39
1970	2,246,578	3.1	1,484,870	11.8	761,708	-10.4	66.1	33.9
1980	2,363,679	5.2	1,575,899	6.1	787,780	3.4	66.7	33.3
1990	2,477,574	4.8	1,712,564	8.7	765,010	-2.9	69.1	30.9
2000	2,688,418	8.5	1,920,081	12.1	768,337	0.4	71.4	28.6
2010	2,853,118	6.1	2,116,961	10.2	736,157	-4.2	74.2	25.8

* Source: U.S. Department of Commerce, Bureau of the Census
** Population of that part of Kansas Territory lying within present limits of the State
*** New definition of urban area

HISTORIC TRENDS IN CITY AND COUNTY DEMOGRAPHIC PATTERNS

Historic patterns and trends in the population of Sedgwick County are summarized in the following table:

TABLE 6
DEMOGRAPHIC PATTERNS, 1890-2012* Sedgwick County, Kansas

Year	Population	Number Change	Percent Change
1890	43,626		
1900	44,037	411	0.9
1910	73,095	3	6.7
1920	92,234	19,139	26.2
1930	136,330	44,096	47.8
1940	143,311	6,981	5.1
1950	222,290	78,979	55.1
1960	343,231	120,941	54.4
1970	350,694	7,463	2.2
1980	367,088	16,394	4.7
1990	403,662	36,574	10
2000	452,869	49,207	12.2
2005	466,061	13,192	2.9
2010	496,365	43,496	9.6
2012	503,889	7,524	1.5

*Source: U.S. Department of Commerce, Bureau of the Census

The table shows that throughout the 20th Century the population of the County registered an unbroken pattern of increase, unlike the demographic history of most other counties. The statistics show a slight increase during the 1890's - a decade if cataclysmic weather events complicated by economic collapse which resulted in severe population depletion in many cities and counties throughout the state. Across Sedgwick County the overall population has expanded by over 400,000 since 1890 with major bursts of growth between 1910 and 1960. This strong growth experience was fueled by an expanding economy which resulted in magnified job opportunity in area businesses and industries associated with the Wichita metropolitan area.

The table also shows, however, that the most recent population estimates for 2025 suggest a return to growth rates more typical of the period between 1960 and 1980.

The sustained economic expansion in the Wichita metroplex also provided the foundation for growth in the populations of many smaller area towns and cities throughout the region.

In this respect, the following table outlines a summary of demographic information for the City of Goddard.

TABLE 7
MUNICIPAL DEMOGRAPHIC TRENDS, 1890 - 2012*
City of Goddard, Kansas

Year	Population	Number Change	Percent Change
1890	210		
1900	225	15	7.1
1910	225	0	0
1920	255	30	11.8
1930	255	0	0
1940	248	-7	-0.3
1950	274	26	10.5
1960	533	259	94.5
1970	955	422	79.2
1980	1,427	472	49.4
1990	1,804	377	26.4
2000	2,037	233	12.9
2005	3,337	1,300	63.8
2010	4,344	1,007	30
2012	4,532	188	4.3

The summary of demographic trends in the City of Goddard indicates a condition of little to no growth prior to 1950, but a trend toward accelerated population expansion in the decades since. The recent trend toward a pattern of growth has been particularly pronounced since 1990, with a population increase of more than 2,700 amounting to an 150 percent between 1990 and 2012. In this regard, Goddard has been one of the fastest growing cities in the State of Kansas during this period.

These figures reflect the increasing trends toward westward expansion of the Wichita metroplex, particularly with regard to residential neighborhood and associated retail commercial development. If the overall economy of the Wichita Metropolitan Area continues to expand, these trends are likely to continue to some degree for the foreseeable future.

The demographic record also points out the growing disparity in rates of population expansion in the City as compared to the County generally. This relationship is summarized in the following table.

TABLE 8
CITY/COUNTY DEMOGRAPHIC PATTERNS 1890- 2012*
City of Goddard/Sedgwick County, Kansas

Year	City Population	County Population	City as Percent of County
1890	210	43,626	0.5
1900	225	44,037	0.5
1910	225	73,095	0.3
1920	255	92,234	0.3
1930	255	136,330	0.2
1940	248	143,311	0.2
1950	274	222,290	0.1
1960	533	343,231	0.2
1970	955	350,694	0.3
1980	1,427	367,088	0.4
1990	1,804	403,662	0.4
2000	2,037	452,869	0.4
2005	3,337	466,061	0.7
2010	4,344	496,365	0.8
2012	4,532	503,889	0.9

* Source: U.S. Department of Commerce, Bureau of the Census

The statistical summary shows that for the 50 year period from 1890 to 1940 there was little change in the population of the City while the overall County population continued to expand resulting in a progressively smaller percentage representation by the City. Since 1950 the City population has accelerated in growth rate with the latest figures indicating a substantially higher rate of expansion in the City population with a corresponding spike in the percentage representation. Overall, over the course of the 115 year demographic history, the City has consistently represented less than one percent of the County population total.

The statistical comparison also shows, however, that if the City population growth rate of recent history continues, the City will represent an increasing percentage of the County total throughout the period, and will top one percent in the near future.

DECENNIAL CENSUS TRENDS

A summary of general population characteristics for Sedgwick County as reported by the federal decennial census in recent years is outlined below.

TABLE 9
GENERAL POPULATION CHARACTERISTICS, 2000-2010*
Sedgwick County, Kansas

Item	2000	2010	Change	Percent
Population	452,869	498,365	+45,496	+10
Percent Black	10	11	+1	
Percent Spanish Origin	8	13	+5	
Percent Under 18 Years	31	30	-1	
Percent 18 to 64 Years	58	59	+1	
Percent 65 Years and Over	11	11	-	
Median Age	34	33	-1	
Population in Group Quarters	6,278	7,252	974	+16
Number of Households	176,444	193,502	17,058	+10
Persons Per Household	3	3	-	
Average Family Size	3	3	-	

*Source: U.S. Department of Commerce, Bureau of the Census

The census data show that between 2000 and 2010 the overall population of Sedgwick County enlarged by over 10 percent. During this period the percentages of black population and persons of Hispanic origin both increased with a particularly strong enlargement in the percentage of Hispanic population. Persons of Hispanic origin may be of any race.

With respect to major age segments of the population, those under age 18 decreased by 1.0 percent while those aged 18 to 64 years increased by 1.0 percent. The segment of population aged 65 years and over remained stable at 11.4 percent of the total, and the median age decreased from 33.6 to 33.4. The slight decrease in the median age is an indication of an aging process which has been more or less typical throughout the nation in recent decades.

In other aspects, the statistics for Sedgwick County also show that the population in group quarters increased as did the number of households. The average number of persons per household, however, declined slightly although the average family size edged up by a small margin.

In general, the figures show that the strong economic base of Sedgwick County has continued to fuel population expansion, with enlargements in most elements of demographic composition as well. Concerning age group representation, the following table outlines trends by specific age as reported by the 2000 and 2010 decennial census.

TABLE 10
AGE GROUP REPRESENTATION, 2000-2010*
Sedgwick County, Kansas

Item	2000	2,010	Change	Percent
Total Population	452,869	498,365	45,496	10
Under 5 Years	35,697	39,302	3,605	10
5 - 14 Years	71,368	74,185	2,817	4
15 - 24 Years	63,563	70,078	6,515	10
25-34 Years	64,459	70,319	5,860	9
35 - 44 Years	72,868	61,661	-11,207	-15
45-54 Years	59,162	70,411	11,249	19
55 - 64 Years	34,178	55,440	21,262	62
65 Years and Over	51,574	56,969	5,395	11
Male	223,870	246,042	22,172	10
Female	228,999	252,323	23,324	10

*Source: U.S. Department of Commerce, Bureau of the Census

The statistical comparison shows that during the 2000's the population of the County grew slightly more than 45,000 persons, of which total the male segment increased by 22,172 while females increased by 23,324 with females continuing to outnumber males overall. Within the specific age groupings, all registered some degree of growth except the 35 - 44 year group which evidenced a decline of slightly more than 11,000 or about a 15.4 percent decline. This is an indication of younger people leaving the area looking for more opportunities in beginning careers. Balancing this loss was the strong enlargement of 21,262 or a 62 percent increase in the 55 to 64 year group. The next largest increase was in the 45 - 54 year group which gained 11,249 or about a 19 percent increase. Increases in these age groups are an indication of a strong economy as persons in these age brackets will typically have the greatest demand for upper level higher paying jobs and returning to the area as their family life cycle progressed.

A summary of demographic change in the population of the City of Goddard during the 2000's is outlined in the following table.

TABLE 11
GENERAL POPULATION CHARACTERISTICS, 2000-2010*
City of Goddard, Kansas

Item	2000	2010	Change	Percent
Total Population	2,037	4,344	2,307	113
Persons per Household	3	3	0	1
Number of Households	666	1,442	776	117
Number in Group Quarters	79	54	-25	-32
Female	1,054	2,220	1,166	110
Male	983	2,124	1,141	116
Percent Black	0	2	2	-----
Percent Hispanic Origin	2	6	5	-----
Percent 18 to 24 Years	8	7	-1	-----
Percent 65 Years and Over	10	7	-4	-----
Median Age	33	30	-3.3	-10

The statistics indicate a climate of general growth and enlargement in most aspects of the resident population. The only elements registering decline were the number of persons in group quarters and the percent of people over 65. A slight decrease was observed in persons 18 to 24 years of age.

The table also shows that while both male and female segments of the population registered increases, the male segment increased at a somewhat faster rate, although females continue to outnumber males by a margin of 4.5 percent. This is a fairly typical pattern in most population groups.

Concerning population age makeup, the percentage of 18 to 24 year representation in current population registered a moderate decrease, as did the percentage of older population aged 65 years and over. Across the total population during the decade of the 2000's, however, the median age decreased from 32.8 to 29.5 years, indicating a more youthful population. In a strong economic climate, the median age will typically range from the middle 20's to the lower 30's.

With respect to population age brackets, the following table contains a review of age group composition of the municipal population.

TABLE 12
AGE GROUP COMPOSITION, 2000-2010*
City of Goddard, Kansas

Age Category	2000	2010	Change	Percent
Under 5 Years	132	424	292	+221
5 - 14 Years	410	857	447	+109
15 - 19 Years	198	338	140	+71
20 - 24 Years	97	195	98	+101
25 - 44 Years	608	1,451	843	+138
45 - 54 Years	250	487	237	+95
55 - 64 Years	134	301	167	+124
65 Years & Over	208	291	83	+40
TOTAL	2,037	4,344	2,307	+113

*Source: U.S. Department of Commerce, Bureau of the Census

The statistical record shows that for both 2000 and 2010 that segments of the population under 20 years of age represented slightly over one-third of the total, with percent 36.3 in 2000 and 37.3 percent in 2010. Another 10.2 percent in 2000 was accounted for by population aged 65 and over but that population dropped to 6.7 percent in 2010. The remaining 53.5 percent in 2000 and 56 percent, or well over one-half of the City population was in the productive working years between 20 and 65. This is the population group which is rearing families, buying homes and automobiles, and producing the bulk of economic activity throughout the region.

NATURAL INCREASE

While migration is the dominant aspect of population change locally as well as statewide, the effects of natural increase, that is, the difference between resident births and deaths, is also a factor. A summary of actual live births and death as well as birth and death rates per 1,000 population for Sedgwick County is outlined in the following table.

TABLE 13
ACTUAL BIRTHS AND DEATHS**
Sedgwick County, 1980 - 2005

Year	Live Births	Rate Per 1000 Population	Deaths	Rate Per 1000 Population	Natural Increase
1980	7,094	19	2,717	7	4,377
1985	7,251	19	2,982	8	4,269
1986	9,268	19	2,968	8	4,300
1987	7,274	18	2,951	8	4,323
1988	7,491	19	3,024	8	4,467
1989	7,474	18	3,060	8	4,414
1990	7,496	18	3,071	8	4,425
1991	7,550	18	3,149	8	4,401
1992	7,580	18	3,165	8	4,415
1993	7,463	18	3,252	8	4,211
1994	7,248	17	3,260	8	3,988
1995	7,022	17	3,400	8	3,622
1996	6,949	16	3,442	8	3,507
1997	7,209	16	3,434	7.8	3,775
1998	7,468	17	3,640	8	3,828
1999	7,548	17	3,477	7.7	4,077
2000	7,838	17.3	3,626	8	4,212
2001	7,423	16.3	3,684	8.1	3,736
2002	7,562	16.4	3,847	8.3	3,715
2003	7,568	16.3	3,834	8.3	3,715
2004	7,757	16.7	3,686	7.9	4,071
2005	7,746	16.6	3,954	8.5	3,792

*Rate per 1,000 population
**Source: Annual Summary of Vital Statistics, Selected Years, Kansas Department of Health and Environment

The vital statistics history for Sedgwick county shows that there has been a continuing pattern of population growth due to natural increase throughout the period. During the 25 years from 1980 to 2005 live births have averaged 17.5 per thousand population while deaths have averaged 7.9 per thousand per year. The differential in rates yields a substantial net annual increase which is more or less typical of a strong economic condition which is resulting in a positive job market.

While the state does not maintain vital statistics summaries for small cities such as Goddard, the community's position in the Wichita-Sedgwick county metropolitan area and its current growth rate suggest that the local rate of natural increase is at least equal to, and possibly greater than, the overall County average.

POTENTIAL FUTURE POPULATION PATTERNS

Estimating long-range population patterns is at best an imprecise process due to the wide range of variables which will influence actual trends during the study period. As the background analyses show, significant, net in-migration is occurring, coupled with moderate to strong natural increase resulting in substantial population expansions. While this rate of increase appears likely to continue for at least the near term, it is important to consider a number of possible growth scenarios for the long term as well.

In this context, the following table contains a series of population forecasts, each representing different forecasting methods and/or assumptions about short- and long-term conditions in the community and the surrounding region.

TABLE 14
FUTURE POPULATION FORECASTS
City of Goddard 2000 -2025

Forecast	2000	2005	2010	2015	2020	2025
Historic Trends						
Since 1980	2,037	3,337	4,238	5,383	6,837	8,683
Since 1990	2,037	3,337	4,055	4,927	5,965	7,247
Since 2000	2,037	3,337	5,473	8,976	14,721	24,142
From 1998 Plan*	2,014		4,912		6,865	
From 2002 Plan**	2,015		3,615		6,685	
	(2002)		(2012)		(2022)	
Cohort Method 1	2,037	3,337	5,614	6,823	7,339	7,760
Cohort Method 2	2,037	3,337	3,771	5,252	7,705	8,906
Cohort Method 3	2,037	3,337	4,459	6,542	8,313	9,390***

*High Estimate
**Adopted by the Planning Commission as most likely
***Population of 10,000 adopted by the Planning Commission for use in the planning program

The population estimates all forecast varying degrees of increase based on assumptions about prevailing economic conditions. If the average trend since 1980 were to prevail, the City would reach 6,837 by 2020 and more than 8,600 by 2025. If the average demographic pattern since 1990 were to continue, the municipal population would grow at a slightly slower rate, reaching slightly more than 5,965 by 2020 and more than 7,200 by 2025. If, however, the explosive growth rate just since 2000 continues unabated, the City could well reach nearly 15,000 by 2020 and more than 24,000 by 2025, an improbable although conceivably possible event under the right circumstances.

Although the trend line forecasts are useful for basic scaling of population size, they are based on continuation of average of historic values over long periods of time, an event which is unlikely to actually occur given the range of factors which will impact future demographic characteristics. Accordingly, the cohort forecasts, which utilize variable birth, death and migration rates are likely more representative of actual circumstances during the forecast period.

In this context, the three cohort method forecasts summarized in the table all utilize the previously noted rates since 1985 which were 17.5 births per thousand population with 7.9 deaths per thousand. The other great factor of demographic change, migration patterns, were varied substantially between the forecasts to reflect the potential effects of possible changes in local and regional economic conditions during the period.

Cohort forecast number 1 assumes continuation of average birth and death rates with a pattern of net in-migration ranging from 5 to 7 percent per year in the initial term, declining to 1.5 percent toward the end of the 20 year statistical period. This pattern would reflect a very strong initial expansion similar to current conditions with a leveling out process as the surrounding area reaches development saturation. Based on this pattern, the population of Goddard could reach over 7,339 by 2020 and over 7,700 by 2025. This rate of expansion is somewhat similar to the historical growth pattern since 1990.

Cohort forecast number 2 also utilizes average birth and death rates with progressive growth in the rates of net in-migration ranging from 1.5 percent per year to as much as 7 percent, declining to 2 percent toward the end of the period. If these demographic trends were to prevail, the population of the City would reach 7,705 by 2020 and over 8,900 by 2025. This growth rate would be slightly stronger than the historic expansion pattern prior to 2000.

Cohort forecast number 3 is also based on the assumption that the very strong growth rates of recent years will prevail initially with some degree of moderation in the later stages of the statistical period. For this forecast average birth and death rates are combined with a pattern of net in-migration ranging from 5 to 7 percent per year through the 2015 with a general decline to as little as 1.5 percent per year in later years. Such a trend would yield a 2020 population of 8,313 and a 2025 population of 9,390, the highest of the three cohort results.

The range of forecasts illustrates the spread of possibilities which could occur depending upon emerging economic conditions. If a much stronger than expected economic expansion or strong downtown were to occur in the local, regional and national economies corresponding adjustment of the population forecasts would be necessary. Based on current indications, those cohort forecasts showing higher range future population expansion appear to be most realistic.

SUMMARY

The background demographic record shows that the community registered little or no growth prior to 1950 followed by an uninterrupted pattern of progressively stronger expansion through the current time. Most recently, since 2000, census estimates indicate a very strong upward surge amounting to over 12 percent per year. Whether or not this will continue, and for how long, is directly tied to a number of factors including local and regional economic conditions and the policies and actions of the City with regard to preparation for future growth.

Due to the uncertainty of future demographic trends, it will be important to continually monitor emerging community directions as part of the continuing planning program. Because patterns of population growth or decline will seldom match the smooth progressions evident in the forecasts, determination of long-range demographic trends will be dependent upon annual review as part of the plan maintenance procedures contemplated by state statute. Where this is a regular aspect of the continuing planning process, demographic information can be kept current and suitable for use in the decision making process.

Maintenance of the continuing planning program in all aspects, including monitoring of population change, is a primary responsibility of the Planning Commission acting in its role of official advisor to the Governing Body. Where this process is keyed to emerging community characteristics, the population forecasts as well as the comprehensive planning directions generally can be kept viable and useful throughout the 10-year planning period and beyond.

SECTION IV

LAND USE

INTRODUCTION

One or the singularly influential studies in the process of planning the future community is that of land use. The term "land use" refers to the various typed of activities conducted by the resident population, as evidenced by the spatial extent of development utilizing the land resources within the defined planning jurisdiction. The uses of land are widely varied and may include any type of residential, commercial, and industrial development, as well as public and quasi-public uses. It is this aggregation of human activities, which constitutes a community.

Because communities exist to serve the common needs of the residents, an understanding of the prevailing patterns of existing land utilization especially important to the process of formulating estimates and guidelines for future community expansion. Laid upon this foundation of information about existing land use characteristics are estimates of potential future changes in the community development pattern, which together represent the future land use plan for the incorporated area of the community and the immediately surrounding rural area.

In too many instances, poor planning or lack of planning, has resulted in areas of land use conflict, often complicated by corresponding failure to make adequate provision for utilities, streets, drainage and other aspects of community infrastructure. Recognizing that retroactively changing or subsequently improving an established urban development pattern is usually difficult and expensive, and often impossible, it is the purpose and intent of the land use plan to identify policies, procedures and planning directions based on sound planning principles and projected future need in order to maintain a harmonious, safe and healthy living environment in all areas of the present and future community.

LAND USE DEFINITION AND SURVEY

Developed uses of land encompass all aspects of human development. Associated activities may be residential, a commercial enterprise, the production of goods, or the offering of various services. Uses of available land resources are so numerous and activities so diversified that for study purposes they are grouped into general classifications by related activity. These groupings are in accordance with the North American Industrial Classification System (NAJCS), published by the Federal Office of Management and Budget, and include:

- Residential
    - Single Family Two Family Multiple Family
    - Manufactured Housing
- Commercial Retail Trade Service Business
- Industrial
    - Light Industry
    - Heavy Industry
- Public and Quasi-Public
- Transportation

- Open Space and Recreation
- Utilities and Communications
- Undeveloped Land and Water Areas

In order to inventory existing development patterns, a field survey of current land use patterns in and around the Goddard community was completed in April of 2007. The survey included the incorporated area of the City as well as the surrounding extraterritorial planning area within three-miles of the corporate boundary except for the incorporated area of the adjacent City of Wichita. The survey was conducted on the basis of a lot-by-lot inventory of each land parcel in the study area, with the resulting data assembled into data tables and depicted on area maps for inclusion in the comprehensive plan.

COMMUNITY DEVELOPMENT CHARACTERISTICS

The City of Goddard has an irregular shape occupying portions of 8 sections situated along and either side of US 54/400 highway. The City has a common boundary with the City of Wichita along the east sides of Sections 28 and 33, with the incorporated area extending west approximately 3.5 miles. Within this area, layout of earlier areas of the community were heavily influenced by the east to west corridor of US Highway 54 and the right-of-way of the former Santa Fe Railroad located one-half mile south of the highway. This pattern has changed dramatically in recent years in response to the rapid buildup of residential development toward the north and northeast of the original City. These areas lying mostly north of US 54/400 and northeast of the original townsite have been annexed to produce a pronounced elongation of the corporate area toward the east and northeast.

With respect to land use patterns, much of the US 54/400 corridor has been developed for commercial uses, with a smaller commercial district in the downtown area. Substantial areas of public and quasi-public development represented by the schools occur on the southwest and south. Industrial uses occur on the far west, and at the industrial park adjacent to the former railroad corridor on the southeastern flank. In addition to the old town area, substantial areas of new residential development are occurring on the southwest, north and northeast, with a particularly strong expansion of single-family residential development north of the US 54/400 corridor. Also within the corporate area of the City are sizeable expanses of undeveloped land which appear to have the potential for development of all types in the years ahead.

In general throughout the City, new development is occurring at a somewhat lower density than the earlier pattern with generally large lots, and areas dedicated to control of drainage and erosion. Additionally, newer development patterns utilize a curvilinear street pattern rather than the traditional 90 degree lot and block design. These development patterns offer a more pleasing neighborhood environment, but increase the difficulty of assuring street connectivity between older and newer sections of the City.

An additional aspect of the current development pattern is that due to a ridge-top location, the city does not have a major floodplain within the current corporate boundary. There is, however, a substantial floodplain associated with the Dry Creek flowageway, located about 1.5 to 2 miles north and northeast of the City.

This natural feature has, and will continue to, affect patterns of suburban development in the vicinity. It is possible that at some point in the future portions of the Dry Creek floodplain could be included in the corporate area of the City of Goddard.

CURRENT INCORPORATED AREA LAND USE PATTERNS

The following table summarizes information about existing land utilization patterns inside the corporate boundary of the community as of the time of the field survey (April, 2007). This information outlines land use types by acreage, percent of total and acres per 100 population.

TABLE 15
EXISTING LAND USE SUMMARY INCORPORATED AREA CHARACTERISTICS
City of Goddard, Kansas

NAICS Code	Classification	Estimated Acres	%Of Total Land Area	%Of Developed Land	Acres Per 100 Population*
1	Residential				
	Single-Family	328.4	12.7	26.1	9.8
	Two-Family	6	0.2	0.4	0.2
	Multiple-Family	5.1	0.2	0.4	0.2
	Manufactured	6.3	0.3	0.05	0.2
	Subtotal	345.8	13.4	27.4	10.4
2&3	Industrial (Manufacturing)				
	Light Industry	13.6	0.5	I.I	0.4
	Heavy Industry	178.5	6.9	14.1	5.4
	Subtotal	192.1	7.4	15.2	5.8
4	Transportation, Communications and Utilities				
	Utilities &	33.3	1.3	2.6	1
	Streets & Alleys	294.8	11.4	23.4	8.8
	Subtotal	328.1	12.7	26	9.8
5&6	Commercial				
	Retail	24	0.9	0.7	0.1
	Services	107.7	4.2	8.5	3.2
	Subtotal	131.7	5.1	10.5	3.9
7	Cultural, Entertainment and Recreation				
	Public and Quasi-Public	259.8	10.1	20.6	7.8
	Parks and	2.9	0.1	0.3	0.1
	Subtotal	262.7	10.2	20.9	7.9
	TOTAL	1,260.40	48.8	100	37.8
9	UNDEVELOPED	1,321.50	51.2		39.6
	TOTAL	2,581.90	100		77.4

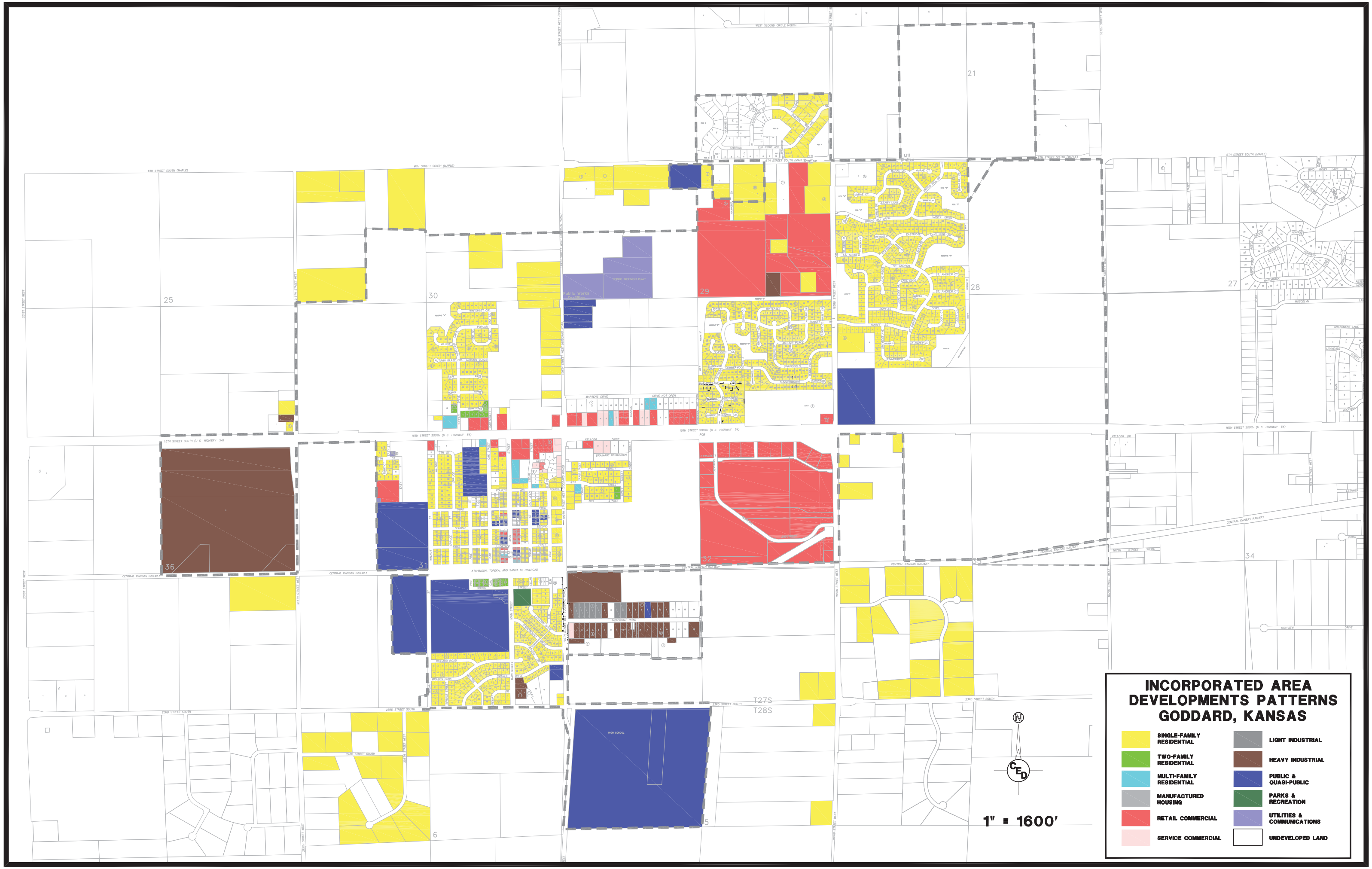
*Based On 2005 population estimate of 3,337

The data indicates that at the time of the survey the city had an estimated total land area of 2,581.9 acres, of which, approximately 1,260 acres were used for varying types of urban development. Within the total developed acreage, Residential development represented 27.4 percent of the total, with Transportation, Communications, and Utilities accounting for an even 26 percent. Cultural, Entertainment and Recreation represented 20.9 percent of the developed land, while Commercial and Industrial acreage together accounted for 35.7 percent of the total. Together, currently developed acreage represents only 48.8 percent of the total area included in the corporate boundary of the city.

Concerning the relationship between the resident population and current patterns of urban development, the city currently contains 37.8 acres of development of all types for each 100 population. Within this total, Residential development utilized slightly over 10 acres per I00 population, while Transportation, Communications, and Utilities required almost 10 acres per 100. Cultural, Entertainment and Recreation utilized 7.9 acres per 100, while Commercial and Industrial together utilized 9.7 acres.

The data shows that the current development pattern of Goddard is very low density with considerable light open space and air in neighborhoods and the surrounding area. The data also show that more than half of the acreage inside the corporate boundary is currently undeveloped.

Current patterns of development inside the corporate boundary of the city are presented graphically on the following figure.


INCORPORATED AREA
DEVELOPMENTS PATTERNS
GODDARD, KANSAS
SINGLE-FAMILY RESIDENTIAL
TWO-FAMILY RESIDENTIAL
MULTI-FAMILY RESIDENTIAL
MANUFACTURED HOUSING
RETAIL COMMERCIAL
SERVICE COMMERCIAL
LIGHT INDUSTRIAL
HEAVY INDUSTRIAL
PUBLIC & QUASI-PUBLIC
PARKS & RECREATION
UTILITIES & COMMUNICATIONS
UNDEVELOPED LAND
1" = 1600'
N
CED
15TH STREET SOUTH (U.S. HIGHWAY 54)
23RD STREET SOUTH
24TH STREET SOUTH
CENTRAL KANSAS RAILWAY
ATCHINSON, TOPEKA, AND SANTA FE RAILROAD
INDUSTRIAL ROAD
HIGH SCHOOL
SEWAGE TREATMENT PLANT
Public Works
Lift Station
T27S
T28S
25
30
29
28
27
36
31
32
33
34
5
6

EXISTING LAND USE IN THE RURAL STUDY AREA

Current urban development in the 3-mile rural planning area surrounding the city is presented in statistical format in the following table. The data presented in the table does not include the incorporated jurisdiction of the City of Wichita which occupies a large portion of the 3-mile study area toward the east and northeast.

TABLE 16
Existing Land Use
Extraterritorial District
City of Goddard, Kanas

NAICS Code	Classification	Estimated Acres	%Of Total Land Area	Acres Per 100 Population*
1	Residential			
	Single-Family	2,017.1	68.5	91.5
	Manufactured	131.3	4.0	6.0
	Subtotal	2,149.0	66.5	97.5
2&3	Industrial (Manufacturing)			
	Light Industry	13.8	0.4	0.6
	Heavy Industry	12.9	0.4	0.6
	Subtotal	26.7	0.8	1.2
4	Transportation, Communications and Utilities			
	Streets & Roads	865.4	26.8	39.2
	Utilities	9.2	0.3	0.4
	Subtotal	874.6	27.1	39.6
5&6	Commercial			
	Services	0.0	0.0	0.0
	Retail	8.3	0.3	0.4
	Subtotal	8.3	0.3	0.4
7	Cultural, Entertainment and Recreation			
	Public and Quasi-Public	29.4	0.9	1.3
	Parks and Recreation	140.5	4.4	6.4
	Subtotal	169.9	5.3	7.7
	TOTAL DEVELOPED LAND	3,228.5	100.0	146.4

*Based On 2005 population estimate of 3,337

The statistical summary reflects the presence of significant suburban development of all types amounting to over 3,000 acres in the rural study area. Of this total, over 2,000 acres amounting to slightly over 66 percent is represented by residential development, all of which is single-family at the present time. The land use field survey did not record apartments or other multiple-family dwelling units as of April, 2007.

The second largest category was Transportation, Communications and Utilities which accounted for another 874.6 acres of land representing over 27 percent of the total. Within this category, streets and roads were the largest user of land resources with over 865 acres representing 26.8 percent of the developed acreage total.

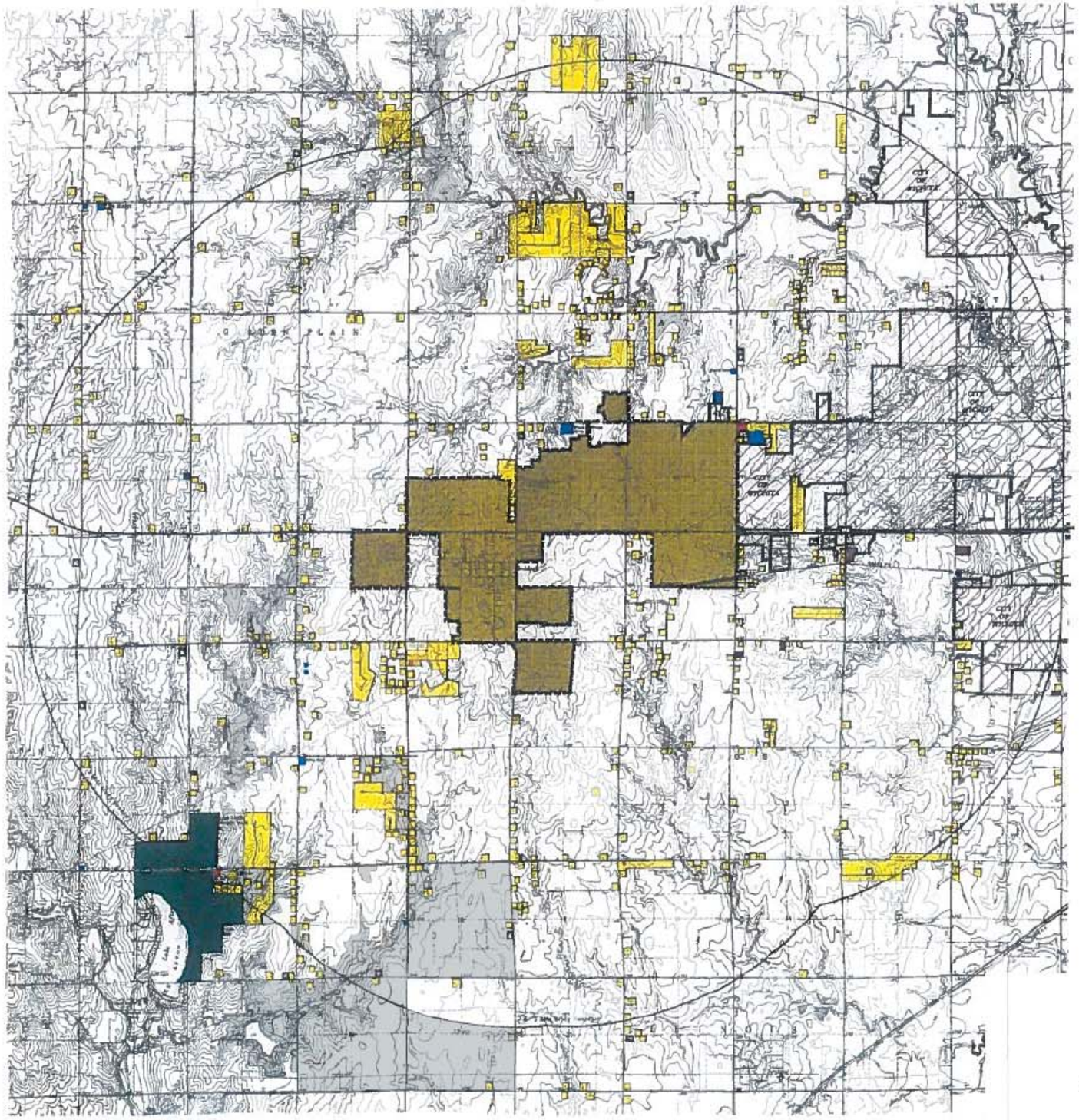
Next in volume was the Cultural, Entertainment, and Recreational category with nearly 170 acres or 5.3 percent of the total. Of this group, Parks and Recreation accounted for over 140 acres, mostly by that portion of the Lake Afton Park included in the 3-mile study area.

The remaining 1.1 percent of the developed acreage total was represented by Commercial and Industrial development which in the aggregate accounted for only 35 acres. These types of uses outside the corporate area of the city are scattered with no particular areas of concentration.

Locations of developed uses of land resources in the rural study area are shown graphically on the following figure.

Overall, the rural area land use studies indicate that the area has been subject to increasing pressure for suburban residential development, occasionally at near urban densities. In general, low to medium density development patterns are desirable throughout the rural area to minimize the potential for serious deterioration of environmental quality.

In this regard, future expansion of urban uses in the rural area, and the adjacent area of influence in particular, should be carefully monitored to prevent a buildup of incompatible uses which will be difficult to manage at a later time. In this respect, such uses already located outside the corporate boundary should be evaluated for annexation into the City at some future point. This is particularly true where there may be developed areas adjacent to the municipality which are receiving municipal services and which should be brought within to assure proper land use controls and maintenance of quality environmental conditions. Of particular concern are police and fire protection, proper utility services, and building standards as well as drainage and floodplain characteristics. These and other aspects of planning for future development will be examined in greater detail in subsequent elements of the plan.



LEGEND

- SINGLE FAMILY RESIDENTIAL
- TWO FAMILY RESIDENTIAL
- MULTI FAMILY RESIDENTIAL
- MANUFACTURED HOUSING
- RETAIL COMMERCIAL
- SERVICE COMMERCIAL
- LIGHT INDUSTRY
- HEAVY INDUSTRY
- PUBLIC & QUASI - PUBLIC
- PARKS & RECREATION
- UTILITIES & COMMUNICATIONS
- UNDEVELOPED LAND
- INCORPORATED AREA

Figure 6

EXISTING RURAL AREA LAND USE, 2007
City of Goddard, Kansas

POTENTIAL FUTURE DEVELOPMENT TRENDS

Studies of future land use provide important estimations of the potential future size of the community. Based on the review of physical conditions, existing future population levels and current development trends, a forecast of physical expansion patterns by major land use element for the community can be prepared, which in tum provides the statistical base for preparation of a future growth plan. The forecast of future land use patterns is important to the estimation of potential future need for housing, streets and all of the other interrelated elements of the community. In this respect, the forecast establishes a general framework for long-range planning.

Complicating the process of forecasting future land use characteristics is the potential for major suburban projects of dramatic size close to the community and within the 3-mile planning jurisdiction. If and when large scale development occurs, there will be a corresponding impact to population as well as to existing community infrastructure. Accordingly a primary aspect of the land use planning process will be to develop a plan, together with policies and procedures for dealing effectively with continuing pressure for subdivision development and the social and physical impacts which will result.

LAND USE FORECAST

The land use forecast, based on the influences noted above, is grounded in the assumption that future development patterns will result from a range of social and economic factors similar to those responsible for recent expansion patterns. Based on these parameters, the following table illustrates a forecast of future land use acreage for the Goddard community through the year 2025.

TABLE 17
FUTURE LAND USE CHARACTERISTICS
City of Goddard, Kansas

NAICS Code	Classification	Existing Area In Acres	Percent Of Total	Developed Acres Per 100 Population* 2007	2025	Acres Added	Total Acres 2025	Percent Of Total	Percent Increase 2007-2025
1	Residential								
	Single-Family	328.4	26.1	9.8	9.6	631.6	960	28.7	192.3
	Two-Family	6	0.4	0.2	0.3	24	30	0.9	400
	Multiple-Family	5.1	0.4	0.2	0.4	34.9	40	1.2	684.3
	Manufactured Housing	6.3	0.5	0.2	0.3	23.7	30	0.9	376.2
	Subtotal	345.8	27.4	10.4	10.6	714.2	1060	31.7	206.5
2&3	Industrial (Manufacturing)								
	Light Industry	13.6	1.1	0.4	0.2	6.4	20	0.6	47.1
	Heavy Industry	178.5	14.1	5.4	3.6	181.5	360	10.8	101.7
	Subtotal	192.1	15.2	5.8	3.8	187.9	380	11.4	97.8
4	Transportation, Communications & Utilities								
	Utilities & Communications	33.3	2.6	1	0.9	56.7	90	2.7	1701.3
	Streets & Alleys	294.8	23.4	8.8	9	605.2	900	26.9	205.3
	Subtotal	328.1	26	9.8	9.9	661.9	990	29.6	201.7
5&6	Commercial								
	Retail Trade	24	2	0.7	0.4	16	40	1.2	66.7
	Services	107.7	8.5	3.2	2.2	112.3	220	6.6	104.3
	Subtotal	131.7	10.5	3.9	2.6	128.3	260	7.8	97.4
7	Cultural, Entertainment, & Recreational								
	Public & Quasi-Public	259.8	20.6	7.8	5.5	290.2	550	16.5	111.7
	Parks and Recreation	2.9	0.3	0.1	1.0	97.1	100	3.0	3,348.30
	Subtotal	262.7	20.9	7.9	6.5	387.3	650	19.5	149.4
	Total Developed Land	1,260.4	100.0	37.8	33.4	2,079.6	3,340.0	100.0	165.0

*Based on a 2005 population estimate of 3,337 and a 2025 population forecast of 10,000

The land use forecast is based on the assumption that the resident population will enlarge dramatically over the next two decades, eventually reaching 10,000 or more by the year 2025. If this growth pattern is realized, between 3,000 and 3,500 acres of urban development in all categories will likely be required to continue the development densities and the quality living environment currently being experienced.

Residential Uses are expected to increase throughout, with proportionately larger increases possible for two- family, multi-family, and manufactured home uses. Overall, the acreage committed to residential uses is expected to increase by over 200 percent during the period, growing from 345.8 acres at the present time to over 1,000 acres by the year 2025. Due to the probability of continuation of medium density development patterns, the overall acreage per 100 population is expected to increase slightly from 10.4 to 10.6 per 100 over the course of the 10-year planning period.

Industrial Land is also forecasted to show a modest increase during the period. Such increases are likely if the community enjoys continued success in the effort to attract new sources of employment for area residents. Part of the forecasted acreage expansion is due to growing demands for larger sites for individual businesses; however, the forecast also assumes that there will be a continuing enlargement in the number of businesses as well. Based on these guidelines, the forecast indicates the potential demand for up to an additional I 80 acres or more of land for industrial expansion during the planning period.

Commercial Uses, which include both retail and service businesses, are also expected to demonstrate continuing expansion during the years ahead. Within the total, the forecast assumes that retail business will experience a smaller overall expansion, but both retail and service businesses have the potential for continuing growth. If the population enlarges at or near the forecast, commercial uses in the aggregate could expand by up to 128 or more acres by the year 2025, resulting in an overall increase of over 97 percent during the period.

Cultural, Entertainment, and Recreational Uses of land include parks, institutions, and other public facilities which are essential to providing common amenities of a pleasing living environment. Although well developed at the present time, it will remain essential to provide the same opportunity to newly developing neighborhoods. This will be particularly important with respect to providing schools and recreation in locations where safe access for small children can be available. As a group, these uses are anticipated to expand by over 650 acres or more which represents an increase of over 147 percent during the planning period.

Transportation, Communications, and Utilities as a group are expected to require approximately the same acreage per capita due to the urban characteristics of future development which will likely require slightly more per capita acreage for streets and alleys due to increased right-of-way widths, but slightly less per capita acreage for utilities and communications. Together, this category of land use is expected to account for 19.5 percent of the total developed land, and require up to 660 or more additional acres if the population enlarges at or near the forecasted rate.

In general, as the population grows, there will be increases in all categories of land use; however, the acreage per 100 population ratios will vary because much of the current infrastructure, particularly the institutions, can serve a larger population base without expansion, resulting in a smaller per capita figure. In this context, the table shows that the total developed land requirement in the future could decline from 37.8 acres per 100 population at the present time to 33.4 acres per 100 by 2025.

LAND USE RATIO COMPARISON

Concerning current and future land use ratios, the following table details a comparison of current and future ratios projected for the Goddard community with average ratios for 32 similar size cities. The 32-city average represents values which were developed from actual land use research conducted by the Consultant in each of the subject communities, thus assuring comparability of background research methodology.

TABLE 18
LAND USE DEVELOPMENT RATIOS*
City of Goddard, Kansas and 32 Other Cities

Use Type	Goddard 2007	Goddard 2025	32-City Average
Single-Family Residential	9.8	9.6	10.1
Two-Family Residential	0.2	0.3	0.3
Multiple-Family Residential	0.2	0.4	0.3
Manufactured Housing	0.2	0.3	0.8
Retail Trade	0.7	0.4	0.7
Service Commercial	3.2	2.2	0.9
Light Industry	0.4	0.2	0.6
Heavy Industry	5.4	3.6	1.4
Public & Quasi-Public	7.8	5.5	1.1
Utilities & Communications	1	0.9	2.2
Parks & Recreation	0.1	1	3.7
Streets & Alleys	8.8	9	9.2
Railroads	0	0	0.4
TOTAL	37.8	33.4	31.7

*Acres Per 100 population

The land use ratios developed for the land use forecast reflects a per capita value which is a measurement of development demand for a given population. This makes it possible to assemble mathematical values, or ratios, which illustrate the proportional relationship between population numbers and developed land acreage by broad category. These values, or ratios, are reflective of the fact that communities across broad regions often exhibit remarkable similar development patterns due to common moral values, social views and platting practices.

The table shows that development patterns in the Goddard community are slightly lower in density than the 32- city average requiring a larger per-capita acreage overall. In general, most of the development ratios are remarkably similar with several notable exceptions. The Service Commercial and Heavy Industrial categories are substantially higher for Goddard, but Manufactured Housing, Retail Trade, Light Industrial, and Parks and Recreation are all lower.

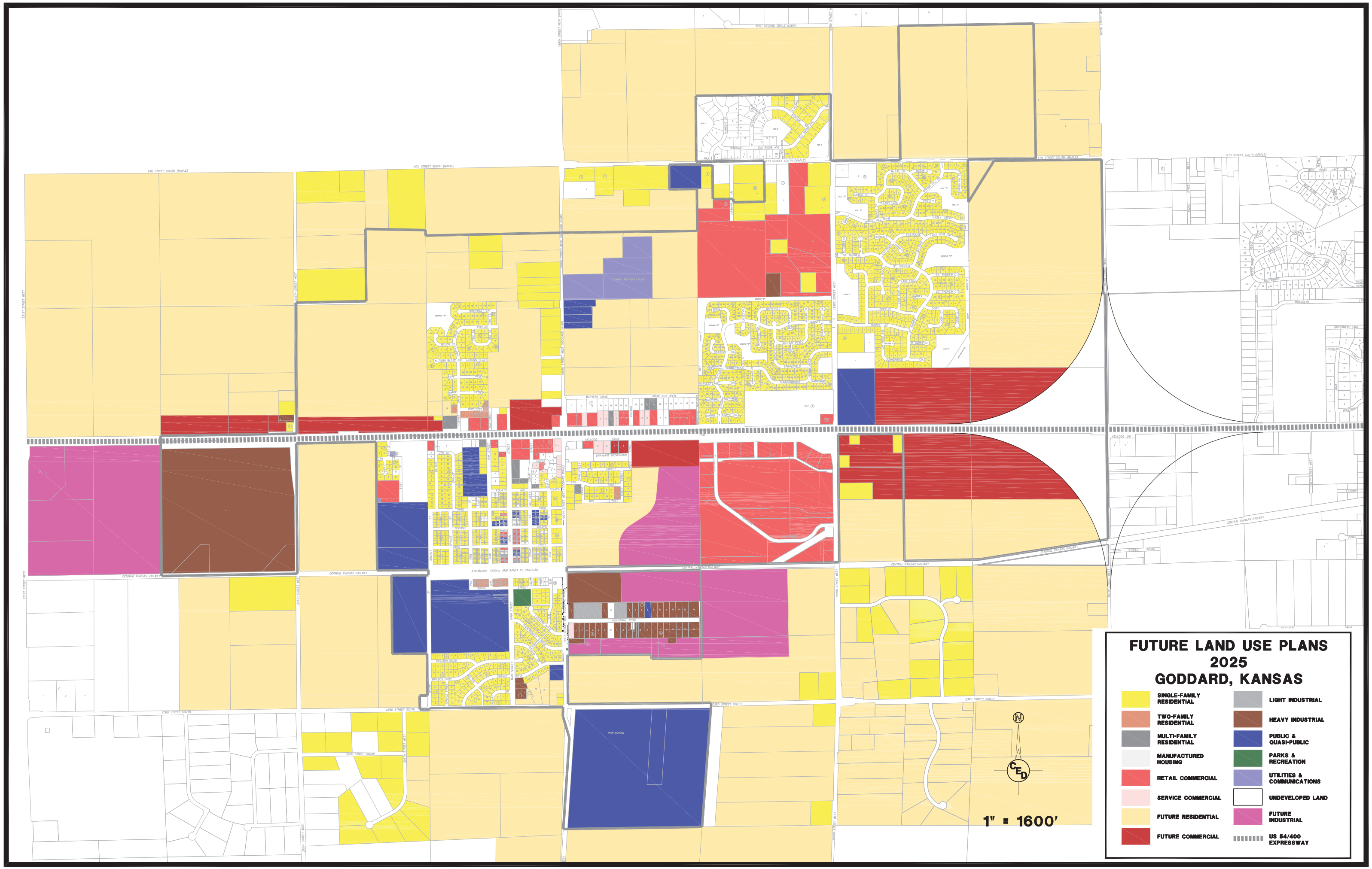
While the comparison indicates that development densities in Goddard are generally lower than those indicated by the average, it is also probable that if the individual cities included in the average were to be studied in light of 2007 development patterns, the averages, both in total and in category, would increase somewhat. In most cities, as in Goddard, development densities of recent years have been generally lower than those experienced in earlier decades.

The ratio comparison also indicates that while there will be variations in individual categories, the broad pattern in terms of overall developed acres per 100 population will likely change very little during the planning period, except for a continuing trend toward a generally lower density. Because these ratios will remain relatively constant, they provide a useful yardstick for the continuing planning program, and one of the tools by which the land use plan can be kept current during the planning period.

FUTURE LAND USE PLAN

Utilizing the forecast of future land use patterns in concert with the earlier studies of physical conditions and development constraints, a future land use plan for the Goddard area can be prepared. The plan, depicted on the following figure, shows the potential shape and spatial extent of the community toward the end of the 10-year planning period if all of the factors, directions, and influences outlined earlier materialize substantially as estimated.

The plan anticipates that a substantial portion of the overall demand for expansion acreage will be satisfied through a process of infilling current vacant land parcels within the present municipal boundary. As shown by the existing land use summary, the community currently contains a considerable amount of vacant land, much of which will be suitable for development during the planning period. However, even with a strong infilling process, urban uses of land will continue to expand in surrounding areas, resulting in a general enlargement of the community. Potential locations for future expansion zones by land use type are shown graphically on the Future Land Use Plan.


FUTURE LAND USE PLANS
2025
GODDARD, KANSAS
SINGLE-FAMILY RESIDENTIAL
TWO-FAMILY RESIDENTIAL
MULTI-FAMILY RESIDENTIAL
MANUFACTURED HOUSING
RETAIL COMMERCIAL
SERVICE COMMERCIAL
FUTURE RESIDENTIAL
FUTURE COMMERCIAL
LIGHT INDUSTRIAL
HEAVY INDUSTRIAL
PUBLIC & QUASI-PUBLIC
PARKS & RECREATION
UTILITIES & COMMUNICATIONS
UNDEVELOPED LAND
FUTURE INDUSTRIAL
US 54/400 EXPRESSWAY
1" = 1600'
N
CED
61H STREET SOUTH (MAPLE)
23RD STREET WEST
CENTRAL KANSAS RAILWAY
ATCHISON, TOPEKA, AND SANTA FE RAILROAD
23RD STREET SOUTH
24TH STREET SOUTH
WEST SECOND CIRCLE NORTH
MARTENS DRIVE
DRIVE NOT OPEN
INDUSTRIAL ROAD
HIGH SCHOOL
SEWAGE TREATMENT PLANT
DRAINAGE DEDICATION

NEIGHBORHOOD EXPANSION

As shown on the plan, expansion of residential development is likely to continue on the north, northeast and southwest, with lesser degrees of expansion toward the northwest and southeast. Because of the immediate presence of the city of Wichita on the east, additional growth toward that direction is effectively blocked. This will become increasingly true on the northeast and southeast as well as Wichita continues to grow toward the west. Accordingly, the immediate growth directions of the city of Goddard are likely to be toward the north and south with secondary growth toward the west.

COMMERCIAL USES

The future needs forecasts show that up to 128 acres or more of new commercial development of all types is likely during the planning period. A review of the existing land use survey map shows that little of the demand can be satisfied in the Central Business District, leaving a substantial element of expansion for elsewhere. Much of this additional growth in commercial acreage is expected to occur along the highway corridor as has been the historical pattern. In this respect, a cohesive highway corridor location will be preferable to allowing commercial intrusions into neighborhood expansion areas.

INDUSTRIAL GROWTH

The long-range land use forecast indicates the potential for up to 188 acres or more of additional industrial development during the planning period. The bulk of this expansion is expected to occur near the major travelways, where high grade access can be available, and adjacent to existing areas of similar development such as the existing industrial park.

It should be the policy of the community to designate and establish areas appropriate for industrial expansion and to guide such expansion toward a planned growth with regard for transportation access and for extension of community services. Future industrial development should be encouraged in a manner which will minimize the potential for land use conflict in the future and adverse impacts to surrounding residential development.

CULTURAL, ENTERTAINMENT, AND RECREATION

These uses of land are essential to creation and maintenance of a pleasing community environment. Such uses include institutions, parks, and other public facilities. Demand for increases in these amenities will occur as a result of an expanding population base, and it should be the policy of the City to provide upgraded and additional facilities as the needs develop. It will be especially important to maintain a proper balance in newer and older portions of the City to help assure equitable access by all citizens in all areas of the community.

TRANSPORTATION, COMMUNICATIONS, AND UTILITIES

As the community grows and the expansions in the other categories of land use occur, there will be a corresponding and directly proportional demand for streets and alleys, utilities, and communications facilities to serve new neighborhood areas and growing commercial and industrial areas. Toward these ends, it should be the policy of the community to provide adequate street and extensions of municipal services to all developed areas. Sanitary sewer and water should be extended only into designated areas. Extensions should not be made where the availability of services will precipitate a scattered development in outlying areas.

DEVELOPMENT CONSTRAINTS

Due to a ridge-top location, there are few natural constraints in the immediate area, although local topographic and drainage issues will continue to influence specific patterns of urban expansion. Toward the north, the floodplain of Dry Creek will influence long-range development patterns as will the flowageway of the smaller creek, also known as Dry Creek, on the south. The presence of these drainages represents long-term constraints, but also present the opportunity for all types of recreational development which could preserve the drainage characteristics as well as provide possible recreational opportunity for adjacent residential neighborhoods.

Although there are few major natural constraints to future development, the primary influences to emerging development patterns through the central portion of the community will continue to be the US 54/400 Highway corridor. After reconstruction as is currently (2007) being proposed there will be alterations in access patterns which will result in substantial pressure for new and expanded areas of commercial development both for both retail and service commercial uses. This will most likely occur both east and west of the existing commercial district.

In order to manage and to guide emerging urban expansion toward compatible development patterns, implementation of the Future Land Use Plan must include application of sound zoning and subdivision controls as well as formal policies to guide specific development proposals as part of the local administrative process. Within this process, primary responsibility for monitoring continuing expansion directions and guiding urban expansion toward directions established by the plan rests with the Planning Commission acting in its role as technical advisor to the governing Body. Where this process has been successful, urban expansion can occur in a rational and planned manner within the context of compatibility with surrounding areas of the City both current and future.

IMPLEMENTING THE LAND USE PLAN

Implementing the long-range land use plan for the community is a continuing process carried forward by the daily decisions of government officials. To a high degree, the ultimate quality and utility of the future community will depend on the policies, controls and actions of the City in guiding future growth and expansion toward development patterns which are consistent and suitable within the present community and which will contribute to an orderly and economical growth pattern.

Implementation of a land use plan is facilitated through official development policies, application of appropriate environmental controls, and a sound policy of future annexation. Realization of the full scope and intent of future development guidelines is dependent upon close cooperation of both the public and private sectors to achieve a balanced and cohesive community which can continue to offer a healthful and quality living environment.

Some specific actions the City can take with regard to planning implementation include the following:

- **Advance Land Acquisition**. The City should acquire land for playgrounds, neighborhood parks, and other open spaces in advance of need. Land reserved in this manner can, if reserved in appropriate areas, become the focal points for new residential neighborhoods.
- **Code Enforcement**. The City should continue an active policy of building code enforcement aimed at preservation of property values, providing safe and sanitary living accommodations and providing community amenity. Additionally, it should be the policy of the City to minimize conflicts between different types and densities of land uses through the appropriate administration of development policies.
- **Drainage Improvement**. It should be the policy of the City to maintain area-wide drainage plans and to review all development proposals for conformance with established guidelines. Easements should be established along all drainage courses in the City and the adjacent expansion area in order to provide for increased runoff volumes which will result from continued development. In addition, the city should work to ensure, through appropriate development policies, that future community growth does not occur in the vicinity of a drainageway or within a floodplain. By doing this, the City will be able to protect development from natural hazards that exist in these areas.
- **Historic Preservation**. A policy aimed at restoration and preservation of areas and structures having historical significance should be adopted. Buildings and districts treated in this manner have increased value and utility and contribute to community pride.
- **Urban Revitalization**. The City should continue to encourage the redevelopment of existing areas, both through private means as well as through community efforts. By doing this, not only are older neighborhoods able to retain their property values, but the aesthetic and functional integrity of the City generally can be preserved.
- **City Beautification**. It should be the policy of the City to enhance the environment through tree planting programs and landscaping of all parks and public buildings, and to encourage appropriate landscaping of all private property.
- **Adequate Public Facilities**. All development proposals considered by the City should be carefully reviewed to guarantee that future development contains necessary infrastructure to support the proposed development. Included in this would be provisions not only for streets as well as water and sewer services, but also pedestrian travelways and recreational facilities.

- **Annexation**. Existing areas of suburban development, as well as those which may emerge in the future, should be considered for annexation to the City when:
    - The fringe area is needed for continued orderly growth and the prosperity of the City.
    - Fringe lands are needed so that public service facilities, such as water and sewer systems, street extensions and recreational facilities, may be planned and provided on a rational and economic basis.
    - Fringe areas need to be brought within and developed under City land use control; planning, zoning, housing codes, and building regulations.
    - Fringe areas may be subject to City protective regulations and receive City police and fire services.
    - The fringe area may be subjected to City health and sanitation regulations and receive these services.
    - Residents of the fringe areas actually benefit from many of the services and facilities provided by the City and should bear their full share of the costs.
- **Public Education**. It should be the policy of the City to keep the general public constantly informed about community growth issues through all available means. Experience has shown that the success of the planning implementation program will be greatly aided or hindered by the degree of understanding of the general public. As citizens become more knowledgeable about the structure and process of local government, there is heightened cooperation with a resultant benefit to the processes and practices of building the future community.

These guidelines expressed as policies will provide a framework for guiding future development toward established quality standards. In this context, following specific policy statements are oriented toward implementation of planning directions on a progressive and continuing basis.

COMMUNITY GROWTH AND URBAN EXPANSION POLICIES

Formal policy statements based on expressed goals and objectives as tempered by the background studies of existing community characteristics provide a means to formalize the short- and long-range intent of the City with regard to future development. In this context, the following policies address the major aspects of the physical community.

MUNICIPAL GROWTH POLICIES

- **Policy MG.I.** The community Comprehensive Plan shall be the official guide for future community development.
- **Policy MG.2**. The adopted Comprehensive Plan shall be regularly reviewed and updated to remain current with respect to changing conditions, needs and desires of the Citizens, and sound planning practice.
- **Policy MG.3**. Future development patterns and definition of zoning districts shall conform to the directions and intent of the Future Land Use Plan.
- **Policy MG.4**. Future urban growth shall not be located in areas of defined flood hazard without proof of compliance with applicable local, state and federal floodplain regulations.
- **Policy MG.5**. Areas of community expansion shall be located and designed to make efficient use of available energy resources, established travelways, community facilities and public services.
- **Policy MG.6**. Future urban development shall be served by a full range of municipal utilities.
- **Policy MG.7**. Municipal utilities and other tax paid amenities will not be extended outside the corporate boundary of the City.
- **Policy MG.8**. Continuing development of the City should occur as logical extensions of the existing community with due regard for street connectivity and preservation of a high quality living environment.
- **Policy MG.9**. The City will annex property based on ability to provide infrastructure and the need of the community for expansion area.
- **Policy MG.10**. New development shall make provision for adequate and safe stormwater drainage.
- **Policy MG.11**. Areas of future urban expansion shall be evaluated for infrastructure needs, such as utilities, streets and recreational opportunity as part of the development process.

HOUSING AND RESIDENTIAL POLICIES

- **Policy HR.1**. The community housing stock shall be developed as residential neighborhoods which are in conformance with the Future Land Use Plan.
- **Policy HR.2.** Future housing expansion shall be served by a full range of public utilities including sanitary sewer, potable water, natural gas and electricity.
- **Policy HR.3.** Areas of housing concentration will have available recreational opportunity meeting established minimum quality and service area standards.

- **Policy HR.4.** Housing and residential neighborhood development shall provide for continuation of community street and sidewalk systems.
- **Policy HR.5.** Renovation and improvement of existing residential neighborhoods will be encouraged, and supported by financial assistance when such resources are available.
- **Policy HR.6.** The community housing stock will be available to all citizens on an equal basis without discrimination.
- **Policy HR.7.** The City may require proof of financial ability to guarantee installation of needed improvements as part of the project approval process for new residential subdivisions.
- **Policy HR.8.** The City will cooperate with Sedgwick County in the process of joint planning for future residential development in suburban areas outside the City boundary.

COMMERCIAL DEVELOPMENT POLICIES

- **Policy CD.1.** The existing Central Business District shall be preserved and enhanced as the primary commercial, financial and administrative center.
- **Policy CD.2.** Commercial development outside the Central Business District shall be located near businesses of similar nature to promote a cohesive development pattern.
- **Policy CD.3.** Commercial tracts shall be platted and zoned in accordance with the regulations of the City of Goddard.
- **Policy CD.4.** Commercial development shall be connected to municipal utility systems.
- **Policy CD.5.** Commercial expansions are encouraged near major travelways to enable vehicular access and parking.
- **Policy CD.6.** Commercial development shall be appropriately buffered and screened to assure protection of less intense uses, and in particular, areas of neighborhood residential development.
- **Policy CD.7.** Commercial development shall provide for adequate management of stormwater runoff, and may be required to provide engineering certifications where deemed appropriate by the City.

INDUSTRIAL EXPANSION POLICIES

- **Policy IE. 1.** New industrial businesses are encouraged to locate adjacent to existing business areas of like nature to promote cohesive districts.
- **Policy IE.2.** Industrial businesses shall have immediate access major streets to assure adequate access to transportation.
- **Policy IE.3.** Industrial development shall be connected to municipal utility systems, or shall submit proof of adequate service by alternative means.
- **Policy IE.4.** Industrial development shall be appropriately buffered and screened to assure protection of less intense uses, and in particular, areas of neighborhood residential development.
- **Policy IE.5.** Industrial development shall provide for adequate management of stormwater runoff, and may be required to provide engineering certifications where deemed appropriate by the City.

- **Policy IE.6.** Industrial tracts shall be platted and zoned in accordance with the regulations of the City of Goddard.
- **Policy IE.7.** Industrial diversity is encouraged with particular emphasis upon industries which can utilize local agricultural products and market on a regional basis, and which can serve the local aircraft industry.
- **Policy IE.8.** The city will pursue grants and other outside funding sources as a means to encourage additional industrial expansion.

COMMUNITY PLANNING POLICIES

- **Policy CP.1.** The City shall maintain a continuing planning process encompassing all elements of community development.
- **Policy CP.2.** The adopted Comprehensive Plan shall be regularly reviewed and up-dated to remain current with respect to changing conditions, needs and desires of the Citizens, and sound planning practice.
- **Policy CP.3.** The Future Land Use Plan shall be maintained as the basis for future zoning decisions and shall be up-dated as required to remain in concert with emerging community development patterns.
- **Policy CP.4.** As required by state statute, the Planning Commission shall annually review the community planning documents and associated directions to determine if up-dates or changes are necessary to remain in concert with current community development patterns.

When adopted as part of the Comprehensive Plan for the community, the policy statements provide a framework for decision making and a gauge for quality assessment with regard to emerging patterns of community development. In this sense, the adopted policy positions should be utilized as a formal aspect of evaluations when considering proposals for additional development, changes in zoning, or planning for major public infrastructure improvements.

SUMMARY

The studies of existing and potential future uses of land resources in and around the community show that a very strong expansion in all categories of developed uses is likely to continue over the course of the 20-year planning period. As this continued community growth and expansion occurs, it will be particularly important that proposals for development be very carefully evaluated for compliance with the policies and directions established by the comprehensive plan.

Much will depend upon the ability of the City to work with are developers to encourage appropriate and manageable growth, both in terms of timing and in terms of relationship to the existing community. It will be particularly important that the planning recommendations be implemented and maintained in order to preserve and extend efficient development practices and appropriate growth patterns in order to promote a cohesive community expansion.

With the extent of possible future growth envisioned by the forecast, the City will experience a correspondingly strong demand for all types of infrastructure improvements which must be carefully scaled to anticipated development and timed according to demand. Successful management of future growth pattern will be directly dependent upon adopting and implementing a planned approached to community expansion.

While the primary impetus for plan implementation must come from city government, full-range implementation will ultimately require the understanding and cooperation of all elements of the private sector as well. This coordination of governmental policies with the development actions of the private sector is one of the important responsibilities of the Planning Commission acting in its official capacity as technical advisor to the governing body. In this sense, the Planning Commission should play an active role in the formulation of day-to-day actions and policy decisions concerning community expansion, and should represent a primary resource for the Governing Body in the process of managing continuing urban development ultimately, the course and effect of this process will significantly impact the direction of the City for decades to come, and with it the living environment of all of the citizens of the community, present and future.

SECTION V

HOUSING

INTRODUCTION

The land use field survey shows that the predominant use of land resources in the City of Goddard is for residential purposes. Due to the location of the City within the metropolitan area of Wichita, a substantial percentage of local residents work outside the community but live in Goddard due to the beneficial neighborhood environment available in the more rural setting. In this context, the quality and availability of the local housing stock is of premier importance to the economic condition and long range growth potential of the City.

In addition to the primary purpose of providing places of residence for the population, the community housing stock is also the primary determinant of the prevailing patterns of neighborhood development which define the physical size and shape of the community, as well as the overall visual quality. In this sense, it is the local housing stock which will most directly influence the quality of the living environment available in the community.

Toward a better understanding of current and future housing needs, it is the purpose of this section of the Comprehensive Plan to review the existing housing supply from the viewpoints of adequacy, present and long range needs, and opportunities for solutions and remedies through actions, policies and programs in both the public and private sectors.

Information presented in the housing study has been developed from the 2010 Federal Decennial Census materials and from current housing characteristics noted during the course of the land use survey. Housing patterns and trends from these sources are detailed in the following paragraphs.

EXISTING HOUSING INVENTORY AND CONDITION

In order to provide data which would be as current as possible for the planning program physical aspects of the housing stock were gathered by field observation. During the land use survey, the physical condition of each dwelling structure was rated according to a visual exterior inspection with a “sound” rating if it appeared to need little or no maintenance and normal conservation measures would maintain it in good condition. Structures with exterior indications of neglect, such as loose siding and windows, roofs and doors in need of repair, received a "deteriorated" rating. Structures with this rating can be economically restored to a sound condition. A "dilapidated" rating was assigned to buildings exhibiting major structural damage of a type not economically to repair, such as crumbing foundations, sagging roof lines, walls out of plumb and steps, siding, and porches rotted and falling. Structures rates as dilapidated are unfit for human habitation and should be removed from the community housing inventory.

Housing information recorded during the Land Use field survey procedures is summarized in the following table. The table outlines numbers and condition of dwelling units by type for the incorporated area of the city as of September 2012.

TABLE 19
DWELLING UNIT INVENTORY
City of Goddard, KS, 2012

Unit Type & Condition	Number	Total
Conventional		
Sound	1,536	96.2
Deteriorated	6	0.5
Dilapidated	2	<0.1
Subtotal	1,544	96.8
Manufactured Housing		
Sound	25	3.2
Deteriorated	0	0
Dilapidated	4	0.2
Subtotal	29	3.4
Total Dwelling Units	1,573	100.0

The summary of the existing housing stock in the City of Goddard as of 2012 shows that there were a total of 1,573 of all types recorded inside the City boundary, of which, 1,561 or 99 percent were in sound condition. An additional 6 units, or less than 1 percent, were noted as evidencing varying degrees of deterioration, while only 6 were noted as being in dilapidated condition. These figures show that the existing housing stock was generally in excellent condition overall at the time of the land use field survey.

The table also shows that of the total housing stock, 1,544, or almost 97 percent were classified as conventional stick-built units, while the remaining 29 units, or slightly more than 3 percent, were classified as manufactured housing units.

Generalized locations of deteriorated and dilapidated housing units noted during the field survey are shown graphically on the following figure.

In general, the map indicates there are no especially pronounced areas of structural deterioration, and that the relatively few units so recorded, were located in the older sections of the community.

HOUSING UNIT STRUCTURAL TYPES

Within the total housing stock, dwelling units occur in several different types of structures, including conventional single family detached dwellings, duplexes, apartments and manufactured housing units. Based on information gathered during the field survey, the following table summarizes the municipal housing stock by type of structure.

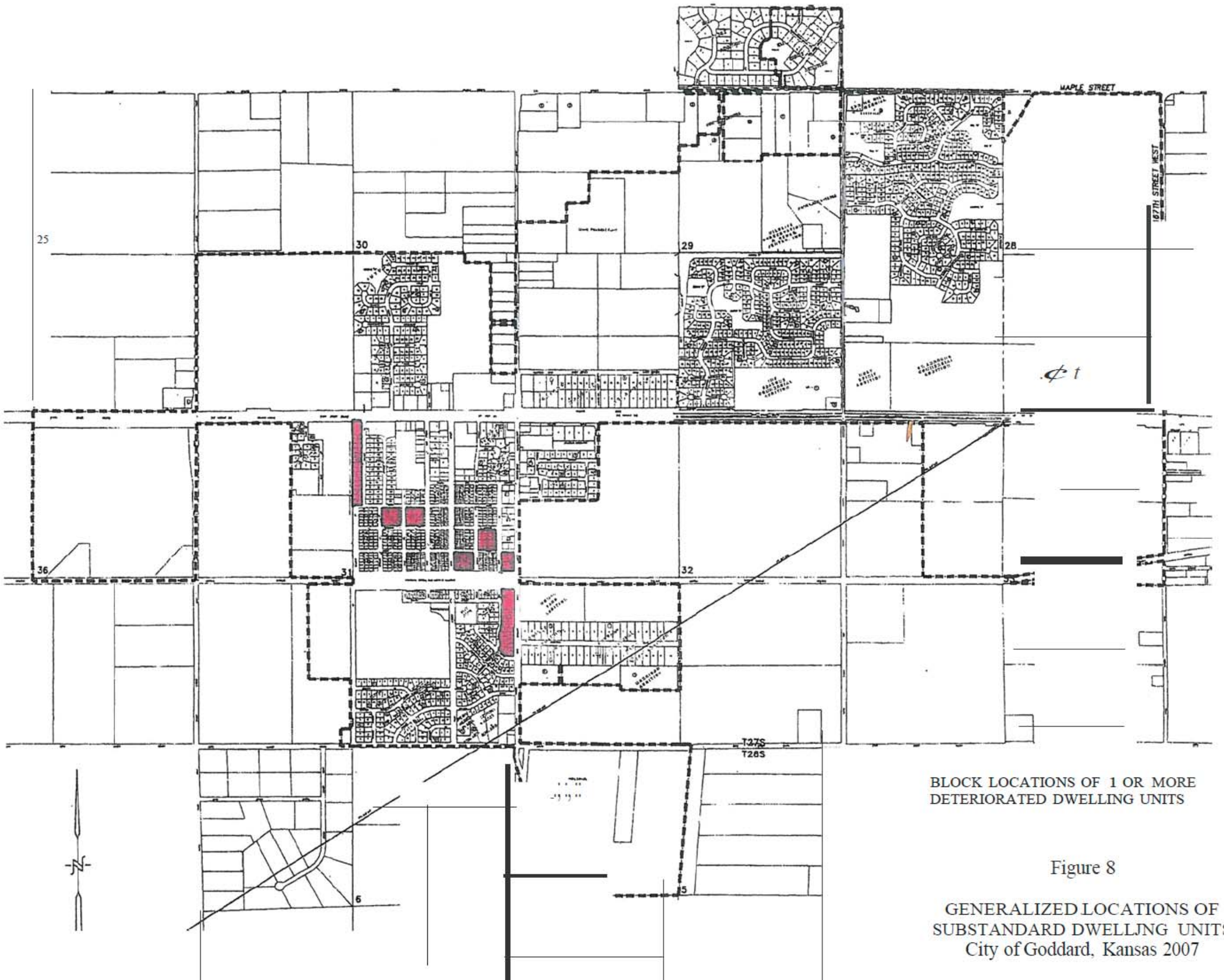
TABLE 20
SUMMARY OF DWELLING UNIT STRUCTURAL TYPES
City of Goddard, Kansas

Type of Structure	Number of Dwelling Units	Percent of Total
Conventional Single Family Detached	1,414	91.6
Two-Family Duplex	42	2.7
Multi-Family Apartment	52	3.4
Manufactured Housing	36	2.3
TOTAL	1,544	100.0

The table shows that of the community housing stock, slightly over 91 percent of all units occurred in conventional single-family stick-built structures, while another 6.1 percent were located in multi-family structures including duplexes and apartments. The remaining 2.3 percent of the total dwelling unit inventory was represented by manufactured housing unit, both single-wide and multiple-width. When manufactured housing unit totals are combined with those of conventional units, 93.9 percent of the community housing stock as of 2012 was represented by single-family units. Only 94, or 6.1 percent of the total dwelling units were located in duplexes or apartments.

These numbers show that Goddard is generally similar to many other communities, with a strong preference for detached single-family dwelling units. However, if local trends remain typical of the region, there will be a growing demand for duplexes and apartments as alternatives to the high cost of individual dwelling structures. Accordingly, it is probable that there will be proportionately more duplexes and apartments in the future, with a particularly strong resurgence of duplexes as a housing type of choice.

In addition to type and condition of structure, the field survey also 31 units recorded as vacant, which represents 2.0 percent of the overall housing stock. These statistics show that the housing market has been, and remains tight, with little choice other than construction of new housing on a custom basis.



BLOCK LOCATIONS OF 1 OR MORE DETERIORATED DWELLING UNITS

Figure 8

GENERALIZED LOCATIONS OF SUBSTANDARD DWELLJNG UNITS
City of Goddard, Kansas 2007

DWELLING UNIT DEVELOPMENT DENSITY

General patterns of dwelling unit distribution and density inside the municipal boundary are illustrated on the following figure. The figure shows that densities are generally similar across the community except where there are apartments or manufactured housing parks. In these locations, development patterns are typically somewhat more intense than in the new residential subdivisions where homes are typically sited on larger lots.

Future neighborhood development should continue to reflect the lower range of development densities with larger lots in order to promote adequate light, air circulation, and green space for all units. In general, new single-family neighborhoods should not exceed a density of 3 to 5 units per acres, while multiple-family development should not exceed a range of 8 to 12 units per acre in order to assure opportunity for development and maintenance of a quality living environment.

HOUSING PATTERNS IN THE EXTRATERRITORIAL STUDY AREA

The land use field survey also recorded general housing characteristics in the 3-mile extraterritorial study are surrounding the City of Goddard except for that area inside the City of Wichita. A summary of this information is outlined below.

TABLE 21
RURAL AREA HOUSING CHARACTERISTICS
City of Goddard, Kansas

Type of Structure		Number of Dwelling Units	Percent Of Total
Conventional Single-Family			
	Sound	767	90.6
	Deteriorated	8	0.9
	Dilapidated	2	0.2
	Subtotal	777	91.7
Manufactured Housing			
	Sound	69	8.1
	Deteriorated	1	0.2
	Subtotal	70	8.3
	Total	847	100

The rural area statistics are in several ways similar to those for the City, reflecting an overwhelming preference for the single-family accommodation. However, the rural study area contains a significantly larger percentage of manufactured housing units, which in April of 2007 accounted for over 8 percent of the total. The field survey did not record multi-family units in the extraterritorial study area.

With regard to structural condition of the housing stock in the rural area, almost 99 percent were noted as being in sound condition, while slightly less than 2 percent were noted as deteriorated with less than one percent listed as dilapidated. Many of the deteriorated units were also noted as vacant.

1" = 1600'
DWELLING UNIT
DEVELOPMENT DENSITY
GODDARD, KANSAS
= 10 DWELLING UNIT
N
CED
15TH STREET SOUTH (U.S. HIGHWAY 54)
23RD STREET SOUTH
CENTRAL KANSAS RAILWAY
ATCHINSON, TOPEKA, AND SANTA FE RAILROAD
SEWAGE TREATMENT PLANT
HIGH SCHOOL
MAIN STREET
INDUSTRIAL ROAD
DRAINAGE DEDICATION
MARTENS DRIVE
DRIVE NOT OPEN
WEST SECOND CIRCLE NORTH
SHERIAN
ELK RIDGE AVE
KELLOGG DRIVE
KELLOGG DR
MOSCELIN
GRASSMERE LANE
HIGHVIEW DRIVE
POPLAR
WALNUT
OAK STREET
PINE STREET
ELM STREET
HOLLOW ROAD
24TH STREET SOUTH
24TH STREET WEST
23RD STREET WEST
19TH STREET WEST (COUNTY ROAD)
17TH STREET WEST
16TH STREET WEST
15TH STREET WEST
14TH STREET WEST
13TH STREET WEST
12TH STREET WEST
10TH STREET WEST
9TH STREET WEST
8TH STREET WEST
7TH STREET WEST
6TH STREET SOUTH (MAPLE)
MAIN STREET SOUTH (MAPLE)
POB

GENERAL HOUSING CHARACTERISTICS

A wide range of information about housing characteristics in the City of Goddard is also available from the Federal Decennial Census. The following table contains a summary of background information outlined by the census of 2010.

TABLE 22
GENERAL HOUSING CHARACTERISTICS 2010*
City of Goddard

Item	Number	Percent
Total Population	4,344	100
Total housing units	1,542	100
Occupied housing units	1,442	95.4
Units in Structure		
1 unit, detached	1,256	84.9
1 unit, attached	83	1.7
2 units	31	3.2
3 or 4 units	69	4.6
5 to 9 units	0	1.3
10 to 19 units	5	0.4
20 or more units	0	0.0
Manufactured Home	33	3.5
Year Structure Built		
2010 -2012	19	1.4
2000 - 2009	701	51.8
1980 - 1999	321	23.7
1960-1979	146	10.8
1940 to 1959	66	4.9
1939 or earlier	99	7.3
Median number of rooms	6.8	
Housing units with 1.01 or more persons per	21	3
Vacant units	32	4.6
Homeowner vacancy rate (percent)	2.4	
Rental unit vacancy rate (percent)	7	
Value of specified owner-occupied units		
Total specified units	486	100
Less than $50,000	21	4.1
$50,000 - $99,000	352	72.1
$100,000 to 149,000	97	19.8
$150,000 to $199,000	18	3.7
$200,000 to $299,000	0	0
$300,000 or more	2	0.4
Median value	$141,000	
Renter occupied units	309	100
Less than $200	0	0
$200-$299	0	0
$300-$499	27	8.7
$500-$749	26	8.4
$750-$999	105	34.0
Over $1,000	151	48.8
Median rent	$950	
Year structure built		
1990 to year 2000	106	15.3
1939 or older	35	5.1
Lacking complete plumbing facilities	0	0
Lacking complete kitchen facilities	0	0
No telephone service	13	2.1

**Source: Census of Housing 2010, US Department of Commerce, Bureau of Census*

The federal decennial census reported a total of 1,542 dwelling units in the City of Goddard, of which total, 95.4 percent were occupied. Owner-occupied units accounted for 80 percent of the total. Most dwelling units, over 85 percent, were conventional single-family units with another 11.2 percent represented by units in duplexes and apartments. As of 2012, manufactured housing accounted for 3.5 percent of the dwelling unit total.

Only 21 units, or 3 percent of the total were recorded as having more than one person per room, which is an indication that overcrowding has not been a serious problem. Concerning vacancies, at the time of the census, 4.6 percent of the housing stock was reported as vacant. There was a vacancy rate of less than 3 percent in owner-occupied units, but a rate of 7 percent in rental units

Concerning value of housing units, owner occupied units had a median value of $141.100. The figures also show that only .4 percent only 2 housing units valued as high as $300,000 or more. For rental units the median rent was set at $950, with 151 units reporting monthly values above $1,000.

The census data also reported that 5.1 percent of all housing units in the City had been built before 1939, while 37.5 percent of the total were units which had been constructed between 1980 and March 2000. These figures reflect the effects of recent growth trends and show that residential growth has been an aspect of community expansion.

Concerning dwelling unit condition, the census data indicated that as of 2010 there were 13 units or 2 percent of all units which were recorded as having no telephone service. Part of this statistic could be the effects of cellular telephone availability in instances where cellular telephones are replacing traditional land line service to the dwelling unit.

A summary of similar housing information for Sedgwick County is outlined in the following table:

TABLE 23

SUMMARY HOUSING CHARACTERISTICS 2010*

Sedgwick County, Kansas

Item	Number
All housing units	211,593
1 unit (percent)	72.7
1 unit (number)	137,057
2 – 4 units	15,703
5 – 9 units	6,116
10 or more units	24,545
Manufactured home or trailer	9,070
Median number of rooms	5.4
Units with 1.01 or more persons per room (percent)	2.2
Persons per occupied housing unit	2.68
Value of Housing Units	
Specified owner-occupied	125,055
Less than $100,000	47,029
$100,000 - $149,000	32,896
$150,000 - $199,000	20,419
$200,000 - $299,000	15,052
$300,000 or more	9,659
Specified renter occupied units	64,613
Rent less than $200	556
$200 - $499	11,148
$500 - $749	25,174
$750 - $999	17,685
$1,000 or more	10,050
Median Rent	$703
Rooms per housing unit	
1 -2 rooms	7,755
3 -5 rooms	90,426
6-7 rooms	63,080
8 or more	50,852
Structures built 2000 – 2012 (percent)	13.5
Structures built 1939 or earlier (percent)	9.9
Housing units lacking complete plumbing facilities (percent)	.03
Householder aged 65 years and over	8.1

**Source: Census of Housing 2010, US Department of Commerce, Bureau of Census, 2013 American Community Survey Estimates*

The table shows that the County had nearly 212,000 dwelling units as of 2010. Of this total, 72.7 percent were conventional single-family units with another 4.3 percent represented by single-family manufactured homes. The average number of persons per unit was 2.68 with a relatively small number of units having more than one person per room. In this regard, almost 73 percent of all dwelling units had 3 to 7 rooms, with only 3.7 percent having 2 or less rooms. These numbers show that county-wide most dwelling units are modest in size.

Concerning value, 63.9 percent of all dwellings were valued under $150,000 as of the year 2010, with 7.8 percent having values of $300,000 or greater. The median value in 2013 was estimated at $124,000.

With respect to rental units, 18 percent reported monthly rent under $500, while 15.6 percent reported rent of $1,000 or more.

Regarding age of structure, 13.5 percent were newer than 1999, while 9.9 percent were built prior to 1940, with nearly 77 percent constructed from 1940 to 1989. Very few, only 0.3 percent, of all units were lacking complete plumbing facilities, indicating that for the most part, existing housing is in generally good condition county-wide. Within the housing inventory recorded by the census, 8.1 percent of all householders were aged 65 years or over.

ESTIMATED FUTURE HOUSING DEMAND

Potential future demand for housing is dependent upon many variables, including demographic patterns, economic conditions, and market capacity for provision of materials necessary for housing construction. For the purpose of estimating future housing needs, assumptions are grounded in expectation of improving economic conditions, market capability for product delivery, and population growth as envisioned by the growth forecast adopted by the Planning Commission for use in the planning program.

Based on these parameters, the following table outlines a forecast of potential dwelling unit demand through the year 2025.

TABLE 24

POTENTIAL LONG-RANGE HOUSING DEMAND

City of Goddard, Kansas

Item	2020	2025
Population in Households	8,313	9,390
Persons Per Household	2.94	2.94
Dwelling Unit Demand	2,828	3,194
Vacant Demand @ 5%	142	160
Replacement Demand @ 1%	29	32
TOTAL DWELLING UNIT DEMAND	2,999	3,386
Less Sound Housing (Current Supply)	1,107	1,107
Less Units Suitable for Rehab (Current Supply)	6	6
Accumulative Deficit (new units)	-1,886	-2,273
Deficit without Deteriorated Units	-1,892	-2,279

If the strong population expansion envisioned by the background planning studies are realized, there could be a potential need for large numbers of new dwelling units over the course of the planning period. As shown in the forecast of housing demand, between 2,000 and 2,300 new units could be required by the year 2025, assuming the resident population reaches levels in the 9000 range. Included in the demand calculations are allowances for progressive replacement of obsolescent units, plus a vacancy allowance to provide an element of choice in the overall supply. Together, these factors point to the probability of strongly increasing demand for housing in the years ahead.

Because the actual demand for housing will be based on a range of highly variable conditions, the forecast should be reviewed annually by the Planning Commission based on emerging demographic trends and prevailing housing conditions. In some cases, deteriorated dwelling units could, through further neglect, become dilapidated, the statistical dwelling unit demand.

Accordingly, it will be important that monitoring emerging housing patterns and dwelling unit demand be an integral facet of the continuing planning program maintained through the formal process of the Planning Commission.

FUTURE HOUSING DEMAND BY TYPE OF UNIT

Current dwelling unit characteristics as determined through field survey provide a factual basis for estimation of potential housing demand by type of unit. The estimates assumes that present characteristics and patterns will remain relatively the same over the course of the planning period, with small variations to account for a larger percentage of alternative housing styles as represented by duplexes, apartments and manufactured housing. The conventional single family detached type of dwelling unit, however, will continue to remain the overwhelming choice for the majority of families.

Based on these parameters, the following table outlines an estimate of potential dwelling unit needs by type of structure toward the end of the 10-year planning period.

TABLE 25
POTENTIAL FUTURE DWELLING UNIT STRUCTURAL DISTRIBUTION
City of Goddard, Kansas

	Percent		Number			
Dwelling Structure Unit	2007	2025	2007	2025	Increase	Percent
Single-family (Conventional)	88.3	82.7	984	2,800	1,816	+184.8
Two-family (Duplex)	3.8	5.0	42	170	128	+304.8
Multi-Family (Apartment)	4.7	6.5	52	220	168	+323.1
Subtotal Conventional Units	96.8	94.2	1,078	3,190	2,112	+196.2
Manufactured Housing	3.2	538	36	196	160	+444.4
Total All Units	100.0	100.0	1,114	3,386	2,272	+204.2

The forecast of future dwelling unit structural mix anticipates expansion in the numbers of all types of units with proportionately larger increase in the numbers of two-family units, apartments and manufactured housing units. While single-family units will have the largest number increase at around 1,800 units accounting to slightly about 185 percent, the other types will have larger percentage increases although the actual number increases will be smaller. In all, of the 2,273 projected new units, 170 or 5 percent will likely be duplex units, 220, or 6.5 percent will be multi-family apartments, while 196 or 5.8 percent will be manufactured homes with the remainder being conventional single-family units.

Ideally, the future dwelling unit mix should include a reasonable variety of housing units of different sizes and arrangements in order to meet the needs of all income levels. Changing lifestyles and family formation affect the number of bedrooms and hence the size of dwellings. Single per households are currently more common and reflect the needs of single persons within the younger and elder age groups. Accordingly, recent indications show that due to a statistically smaller average family size, the overall need for larger units is somewhat lower, however, birth rates as well as social perception and demand for particular sizes and styles of housing units can be subject to considerable change over time, resulting in alteration of the patterns anticipated by the forecast.

For these reasons, housing demand is another of the planning considerations which should be continually reviewed by the Planning Commission as part of the continuing planning process.

ACCESS TO ADEQUATE HOUSING

Within the broad goal of assuring adequate housing for all citizens of the community there will be a certain percentage of the population which will be effectively barred from acquiring safe, decent and sanitary housing because of household income. For example, the census estimates that 5.0 percent of all people in the City of Goddard are below the poverty level. Applying these proportions to the 2025 population forecast for the City provides indication that upwards of 500 or more people may be eligible for some form of housing assistance under the range of federally funded programs.

Experience shows that the majority of these households will be 1 or 2 person households with lesser numbers of families with children. While definitive forecasting of exact numbers is difficult, if not impossible, due to the certainty of continuing economic change, the figures do show the need to include assistance requirements as an integral facet for future neighborhood improvements.

These estimates, while useful as general indicators of potential need, should be updated and revised as need data become available, and as local economic circumstances and housing characteristics change over the years. Maintenance of updated housing data, including estimates of housing assistance needs, is one of the singularly important aspects of the continuing planning program.

HOUSING AND NEIGHBORHOOD IMPROVEMENT STRATEGY

The location, type, style and quality of residential development are critical elements in the design composition of the City, and in large measure define the quality of life available in the various neighborhood units. It is the visual quality of residential neighborhoods which most directly establishes the flavor and "feel" of the community to both the resident population and those who will visit the community. Because housing and neighborhood development are of such importance, the process must be a continuum involving both the public and private sectors. Initial direction and program planning, including funding and budgeting of neighborhood improvements, must be carried out by government according to a defined strategy based on identified housing improvement priorities. Central to these efforts will be:

- Code enforcement to determine building deficiencies.
- Rehabilitation programs for correction of structural and environment deficiencies.
- Correction of major neighborhood deficiencies such as trash accumulations, rodent infestations, weed problems and surface drainage deficiencies.
- Provision of street improvements, utilities and community services.
- Preservation and/or restoration of historic structures where they are worthy of special effort. Continued cooperation with the policies and programs of the state and county.
- Promotion of equal opportunity in all aspects of housing.

While attention to current and emerging residential deficiencies must be an important focus of the administrative programs, long-range housing and neighborhood improvement will also be dependent to a large degree upon maintenance of quality standards for new development. Among the standards and guidelines appropriate for newly developing neighborhood areas are the following:

- New residential development should not be permitted in defined wetlands and floodplains known hazard areas, such as areas of land subsidence, or geologic faults, should be avoided.
- High hazard areas such as flight approach zones, high volume traffic streets and sites adjacent to high pressure natural gas or petroleum products lines should be avoided for residential development.
- Noise and air pollution levels should be considered in all housing developments.
- Multiple-family housing and manufactured housing should be developed on sites that are equal in quality to those for single-family homes.

Environmental assessment procedures should be developed for all housing projects including 25 or more units. The City should require these reviews at the time that a preliminary subdivision plat is submitted for approval. This requirement could be broadened to include an economic feasibility statement for proposed new developments.

Whenever possible, all development should be timed to assure the economic and orderly provision of services. Without proper planning and development of the necessary services and utilities, delays and inconveniences will result for homeowners. Plans for providing sewer, water, electricity, gas and solid waste disposal should be completed well in advance of development.

Systematic code enforcement programs should be developed and employees well trained to carry out these regulations so that minimum delay will result in getting projects developed.

The primary vehicle for influencing future development quality is through exercise of the review authority present in the Subdivision Regulations. Through the process of land planning, development of preliminary and final plats, and preparation of plans and specifications for actual construction of improvements for the City will have a broad opportunity for application of quality standards aimed at correction of most development deficiencies and promotion of a quality living environment in all developing residential neighborhoods.

Where the formal public program is consistent and fair with clearly identified objectives, experience shows that corresponding private action and cooperation may be expected with a resulting benefit to the entire spectrum of housing improvement considerations.

SUMMARY

The background studies and reviews show that the housing stock of the City of Goddard has been expanding in both the incorporated and rural areas of the municipal planning jurisdiction, and that significant additional development for residential purposes is expected over the next two decades. For the most part, the existing housing stock is sound, with a relatively low percentage of obsolescent units, most of which occur in the older sections of the community where lots and dwelling structures are both older and smaller. Correction of current housing deficiencies and maintenance of high quality standards for future residential growth will be dependent upon positive and cooperative actions by both the public and private sectors.

The background reviews also indicate the presence of moderate numbers of manufactured housing units located in courts and on individual lots scattered throughout the planning jurisdiction. Due to a continuing tight housing market with respect to dwelling units in the lower to mid-range price, it is likely that manufactured units will continue to represent housing of choice for many. If the population enlarges as expected, it is probable that this type of dwelling will represent an increasing percentage of the total throughout the planning period.

Concerning the ongoing process of improving the housing stock and overall neighborhood conditions, enforcement of Zoning and Subdivision Regulations. These measures standardize lot sizes, building setbacks and other aspects of residential neighborhoods and help to assure a rational, planned approach to continued expansion. Such regulations will help to control uses of land within residential neighborhoods and minimize the potential for intrusion of incompatible uses. Such regulations also provide an influence toward street system planning with the intent to minimize through traffic in neighborhood areas.

Other considerations and opportunities for housing include application of emergent technologies for housing construction and efficient heating and cooling. An important ongoing local program will be to continue to participate in governmental programs which offer special inducements for housing improvement and expansion. Utilization of the new technologies for heating and cooling could require some revision of existing codes and ordinances. An important program for the future, in this regard, will be to monitor new developments and to recommend appropriate changes to allow full application of new materials and methodologies.

Central to these efforts will be continuing participation of the Planning Commission in all aspects of neighborhood improvement. Beyond the traditional role of Zoning and Subdivision review, the Planning Commission acting in its capacity as technical advisor to the Governing Body, should play a pivotal role in identification of long-range neighborhood improvement needs. This process will be most effective where housing and neighborhood improvement issues are approached as an aspect of annual review as part of the continuing planning program.

SECTION VI

TRANSPORTATION

INTRODUCTION

The present and future characteristics of the transportation systems available in the City and throughout the region in large measure influence long-range patterns of local growth and development, both from the viewpoint of continued expansion of businesses and industries, and from the viewpoint of the ultimate design of the overall community. Adequate transportation is vital to the movement of raw materials and to the movement of the commodities and products of agriculture and local industry. Adequate transportation is equally vital in an internal sense, as the day-to-day activities of the population are heavily dependent upon direct, efficient and safe access to all portions of the community.

The purpose of the transportation study is to review the current systems available in and around the community and to explore ways and means to help assure than these systems will continue to function efficiently in the years ahead. At the present time, only one primary transportation mode serves the Goddard community, that being the surface vehicular mode which is comprised of the system of streets, roads and highways.

Technological systems such as petroleum pipelines and electrical transmission lines are also examples of transportation systems which also serve the area and region; however, they only rarely influence community design, and for the most part, are outside the scope of planning commission influence.

Accordingly, the central object of this section of the plan is to develop an efficient system of major streets which will continue to move traffic safely and efficiently in and around the current and future community.

REGIONAL TRANSPORTATION SYSTEMS

In addition to the local system of streets, roads and highways, there are several other transportation modes, which affect and materially benefit the Goddard community. Among these are rail, air and major highway networks as well as alternate circulation systems. Although the railroad line serving Goddard was abandoned several years ago, access to freight service offered by several companies including the Burlington Northern Santa Fe (BNSF) and Union Pacific is available at nearby Wichita. Additionally, AMTRAC passenger service is available at Newton, approximately 40 miles north, and may in the near future also be available at Wichita if the current north-south route from Oklahoma City to Fort Worth is extended to Newton as is currently expected.

The region is also served by high quality air transportation for both freight and passengers at Mid-Continent Airport in Wichita, a regional certificated air carrier hub providing access to all major metropolitan areas worldwide. Mid-Continent is located only about 8 miles east of Goddard.

While rail and air systems are important to the community and region, it is the area network of major highways which daily move the majority of all freight and passengers entering or departing Wichita Metropolitan Area. Major highways serving the region include US 54/400 on an east-west alignment, Interstate 35/135 on a north- south alignment, Kansas 96 northwest from Wichita, and Kansas 42 southwest from Wichita. Of primary importance to Goddard is US 54/400 which bisects the incorporated area providing immediate access with ultimate connection to most other major highways in the region and state.

Supplementing the service available from traditional transportation systems are non-traditional modes including specialized corridors reserved for non-motorized circulation only. Typical of these is the hike & bike trail which is usually designed to accommodate pedestrian and bicycles. Such trails not only allow alternative means of transportation between points, thus reducing reliance upon fossil fuel, but also provide a high quality recreational amenity as well.

At the present time, the abandoned rail corridor between Goddard and Wichita is being developed as a hike and bike trail which will eventually be part of a regional alternate transportation system serving the Goddard- Wichita metro area.

MUNICIPAL CIRCULATION SYSTEM

As noted previously, the primary circulation system serving the Goddard community is the local network of vehicular travelways. As an aid to study and planning, municipal streets may be classified according to function and traffic carrying capacity. For the purposes of structuring a long-range major street system, three basic classifications are utilized, which are local streets, collector streets and arterial streets. A fourth classification, expressways, is commonly used to designate multi-lane restricted access travelways typical of the interstate highway system. For the purposes of this study, current segments of major highways in and around Goddard will be designated as arterials. In the future, the re-routed and restructured US 54/400 highway corridor will likely quality as an expressway.

Arterial Streets

The arterial system is a network of through streets serving the major traffic movements. Arterial streets not only interconnect the various sections of the community, but also interconnect the community with the external highway system. Arterial streets carry the bulk of through traffic operating on the street system, which will vary greatly in average daily and yearly vehicular volumes. Arterial streets may carry as few as 2,000 or as many as 20,000 vehicles per day.

Accordingly, the arterial streets are the primary travelways within the community and are constructed to a higher design standard requiring greater width and strength characteristics than the other streets in the municipal system. Right-of-way widths typically range from 70 to 100 feet with pavement widths of 50 to 75 feet. New arterial streets which will carry significant volumes of through traffic of external origin would be designed with rights-of-way from 100 to 150 feet in width. The greater width will provide space sufficient for division of opposing traffic lanes, and will allow frontage roads on either side to reduce side friction resulting from vehicles turning into or leaving adjacent land uses.

The arterial street system, carefully planned, can be one of the major elements of long-range community design through definition of land use patterns. Because of physical size and vehicular activity, arterial streets often form functional boundaries between neighborhood areas, between commercial and residential land uses, and between classes of commercial or industrial development.

Collector Streets

The function of the collector street is to collect traffic from the local streets and distribute it to the arterial system. Land access is a secondary function to that of moving traffic. Toward this end, disruptive influences such as curb cuts and abutting commercial land uses should be kept to a minimum. Traffic safety is an important design consideration for the collector street.

As the collector streets must move more traffic at greater speeds, they require greater width than local streets, but less than arterial travelways. Traffic volumes on collector streets will vary greatly depending on location, adjacent land use and extent of development. Normally, collector streets in the urban environment should not carry more than 2,000 to 3,000 vehicles per day. Spacing of collector streets is largely a function of requirements based on land use, density of development and traffic flow characteristics of the area local streets

Local Streets

The primary purpose of a local street is to provide access to abutting property. Traffic generated from abutting land use is generally light. Through traffic, buses and large trucks are discouraged from using local streets. The traffic volume on such streets is normally related to the residential dwelling unit. Many national transportation studies have found that a dwelling unit will usually generate on the average about 4 to 10 trips per day. Studies indicate that volumes on local streets usually will not exceed more than 500 to 600 vehicles per day.

Local streets are the major elements in the design composition of a city, providing direct property access, space for grass and tree planting, and arrangement of properties in various sizes and shapes of blocks with irregular or rectangular street patterns.

EXISTING COMMUNITY STREET NETWORK

The existing street system in the City of Goddard is dominated by a grid pattern on a north-south axis. The grid system, which is typical of most American communities, reflects the European ancestry of the early town builders, and is frequently centered about a town square or courthouse block. Originating in eastern Europe and the Orient, the grid system was heavily utilized in the original design of new communities during the period of colonization and settlement of the west, and remains readily identifiable in the original town platting of most communities today.

While the grid system is perhaps the most efficient method of maximizing use of urban land, there are several associated problems which are difficult to deal with in the long-range growth pattern of the community. The principal difficulty with the grid system is its rather weak potential for recognition of significant topographical change, frequently resulting in platting of steep grades, poor building sites and areas with serious drainage problems. Although widely copied, the grid system has failed to achieve the desired result of uniform, straight arterial and collector streets due to varied platting practice which has resulted differing block and right-of-way sizing.

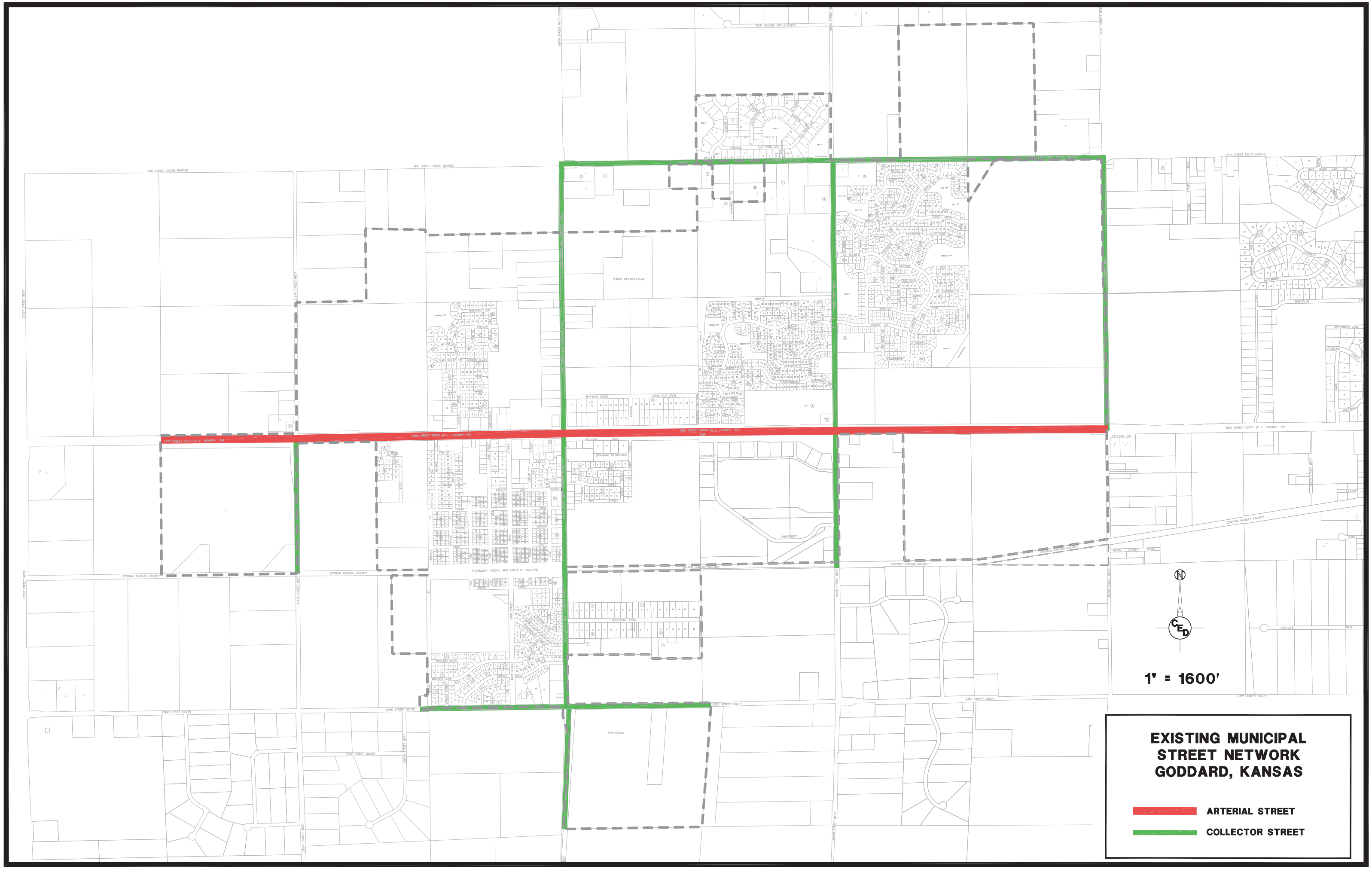
Within the Goddard street system, most streets are paved and most are well-drained, although due to very plat terrain coupled with continuing urban development, the City has been experiencing a growing problem with drainage, particularly in the eastern and northern portions of the community. Right-of-way widths range from as little as 50 to 60 feet on some local streets to as much as 120 to 150 feet along US Highway 54/400. Most streets in the system, however, have been platted with 60 foot rights-of-way except in the downtown area where widths of up to 100 feet are common. Surface pavements range from 40 to 50 feet to as much as 80 to 100 feet or more, with many streets in the 30 to 40 foot range.

Also typical of the Goddard platting pattern and street system are extensive use of alleys in older sections which are typically platted with 20 feet of width. Alleys serve the important purpose of providing a secondary means of property access, a route for public utilities and occasionally as a drainage corridor. In this respect, if alleys are not to be provided, future expansion should allow for reservation of permanent drainage and utility easements to assure that adequate property access and drainage will be available.

Concerning the physical characteristics of the Goddard street system, the following figure illustrates the present pattern of development and outlines the existing major street network based on current usage patterns. Based on the system shown on the figure coupled with the results of the field surveys, the following table presents a summary of the estimated street mileage by classification within the corporate boundary.

TABLE 26
EXISTING PLATTED STREET NETWORK
City of Goddard, Kansas

Functional Classification	Estimated Mileage	Percent Classification	Total
Arterials	3.5	12.1	11.5
Collectors	6.0	20.7	19.7
Local Streets	19.5	67.2	63.9
Subtotal Streets	29.0	100.0	95.1
Platted Alleys	1.5	100.0	4.9
Total System	30.5		100.0


EXISTING MUNICIPAL
STREET NETWORK
GODDARD, KANSAS
ARTERIAL STREET
COLLECTOR STREET
1" = 1600'
N
CED
15TH STREET SOUTH (U.S. HIGHWAY 54)
45TH STREET SOUTH (MAPLE)
23RD STREET SOUTH
24TH STREET SOUTH
21ST STREET WEST
25TH STREET WEST
SEWAGE TREATMENT PLANT
HIGH SCHOOL
CENTRAL KANSAS RAILWAY
ATCHINSON, TOPEKA, AND SANTA FE RAILROAD
INDUSTRIAL ROAD
MARTENS DRIVE
DRIVE NOT OPEN
KELLOGG DRIVE
DRAINAGE DEDICATION
WEST SECOND CIRCLE NORTH
ELK RIDGE AVE.
MOSCELYN
GRASSMERE LANE
HIGHVIEW DRIVE

The statistics indicate that there is an estimated 29 miles of platted streets inside the present City boundary. Of the estimated platted street mileage, a majority, or over 67 percent of the total is represented by local streets, followed by collectors at nearly 21 percent and arterials at 12.1 percent.

Also included in the platted public travelway mileage are over 1 .5 miles of platted alleys which represent almost 5 percent of all platted travelways. When alleys are included with streets, the total municipal system contains over 30 miles of travelways, 95 percent of which is represented by streets with the remainder represented by the platted alleys.

STREET SURFACING

Types of street surfacing and the locations of unimproved streets are illustrated on the following figure. The figure shows that most streets within the corporate boundary have either an asphaltic or concrete wearing surface with only a few unpaved sections, these occurring in older sections in the center of town and at the edge of the community. For the most part, the overall condition of street surfaces throughout the City is very good with respect to surface condition, although drainage is a problem in some areas. A statistical summary of the existing street system by surface type is shown in the following table.

TABLE 27
EXISTING STREET NETWORK BY SURFACE TYPE
City of Goddard, Kansas

Surface Type	Mileage	Percent of Total
Concrete	3.5	12.1
Asphalt w/c & g	16.6	57.2
Asphalt wo/c & g	6.6	22.8
Gravel	1.4	4.8
Platted Streets Not Open	0.9	3.1
System Total	29.0	100.0

The data show that the predominant pavement type is asphalt which accounts for 80 percent of the system total. Of the asphalt streets, nearly 72 percent also had concrete curb and gutter systems. Next in number were concrete streets, primarily represented by US 54/400, which accounted for 12.1 percent. The few gravel streets accounted for less than 5 percent, while platted streets not open, less than one mile, represented only about 3 percent of the total. There were no brick or other types of surfacing recorded.

The field survey results show that for the most part existing street surfaces are in good repair and well maintained. In areas subject to intermittent flooding surface maintenance is more difficult and frequent, particularly with asphaltic types of surfaces. Accordingly, drainage should be an important aspect of the street maintenance program in the future.

1" = 1600'
EXISTING MUNICIPAL
STREET NETWORK
GODDARD, KANSAS
CONCRETE W/CURB & GUTTER
ASPHALT W/CURB & GUTTER
ASPHALT WO/CURB & GUTTER
GRAVEL

TRAFFIC VOLUMES

Traffic volume data provides one of the important gauges of street system function and adequacy. The following table summarizes volume data available from the Kansas Department of Transportation.

TABLE 28
TRAFFIC VOLUMES US-54
City of Goddard, Kansas

	Auto	Heavy Truck
US 54, West Side at 215th ST W	13,100	1,590
US 54, East of 199th ST W	17,900	1,710

Concerning traffic mix, the KDOT counts show that east of Goddard US 54/400 heavy commercial traffic amounts to slightly over 10 percent of the total, while west of town the heavy commercial component accounts for more than 12 percent of the total

With the continuing growth and expansion in all aspects of the City, it is probably that traffic will continue to intensify with an increasing percentage of heavy commercial vehicles in the years ahead. While most route segments will continue to demonstrate physical capacity for carrying the traffic load, the US 54/400 corridor will become an increasing problem due to conflicting land uses and traffic movements resulting in an increasingly unsafe environment. In recognition of these conditions, the Kansas Department of Transportation is in the process of planning a significant new roadway up-grade as part of a general reconfiguration of the major traffic corridors at the west edge of Wichita. While planning for these improvements has not been finalized at this time (spring, 2008) route improvements in the Goddard area are expected to include a major new interchange west of I63'd street west with an elevated roadway section for US 54/400 through Goddard. Preliminary aspects of these proposed improvements are summarized in more detail as part of the Future Transportation Plan developed herein.

TRAFFIC ACCIDENTS

The Goddard Police Department maintains detailed records of reportable vehicular accidents inside the City boundary. In this regard, the following information was provided by the Department for the 2011 calendar year.

There were a total of 60 accident cases produced within the City. Of these 17 involved injuries.

CURRENT AND FUTURE OPERATIONAL CHARACTERISTICS

The existing and future municipal street system will continue to be heavily influenced by the US 54/400 corridor, particularly after the future reconfiguration is completed. The major new US 54/400 – K254 highway interchange proposed west of 167th street west together with the new restricted access elevated east-west highway section through town will tend to function as a boundary for separate sections of the community which could have profound influence upon emerging land use patterns.

Two additional travelways which will likely reach arterial significance during the planning period are 199th street west and 183rd street west which provides major north-south access through what will become increasingly the center of the future community. This street corridor will be a primary route providing access to US 54/400 for the developing neighborhoods on the north as well as the schools, commercial and residential neighborhoods on the south. This route will carry significant traffic volumes originating in areas beyond the corporate boundaries of the community as well.

The secondary system, that is the collector streets, occur on travelways with higher vehicular volumes, such as Maple Street on the north, 23rd south, and Main Street. These street corridors distribute local destination traffic from the arterial routes and annually handle large numbers of commercial trucks as well as passenger vehicles. As such, these routes will be immediately affected by changes in land use patterns and will be subject to some degree of change as the community continues to grow and enlarge physically. In this sense, it is likely that over the years emerging traffic patterns will influence extensions of existing collector corridors as well as designation of new collector routes in emerging neighborhood areas.

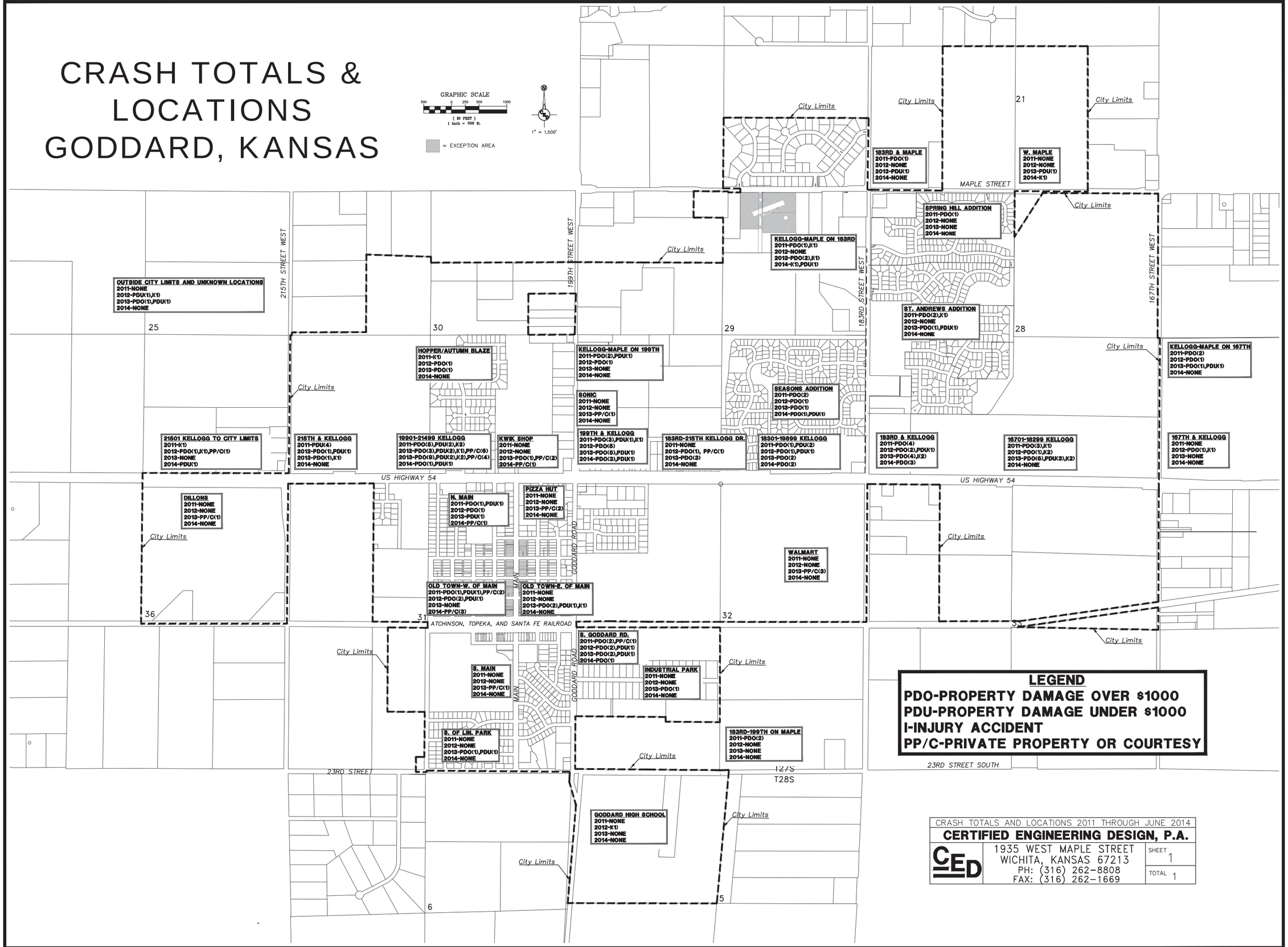
An additional aspect of the functional characteristics of the street system is that of alternative transportation. It will become increasingly important to provide capacity for non-motorized vehicles and pedestrians throughout the community in the years ahead. In this regard, the future circulation system should include consideration of alternative transportation higher as a design feature of the street, or as a separate travelway specifically designated for non-vehicular use.

In general, as the community continues to grow and expand, it is probable that future development patterns and transportation needs will result in requirement for additional collector streets as well as a significantly enhanced capacity for alternative transportation. The central requirements of the future system are that it be balanced to provide equitable access and circulation capacity with efficient connection to major external travelways for all areas of the community and that the system serve to solidify future development patterns rather than creating effective boundaries which divide separate sections of the City.

MAJOR STREET AND TRANSPORTATION PLAN

The Future Transportation Plan for the City of Goddard is illustrated on the following figure. The plan does not materially change the existing street pattern, but anticipates up-grading several existing streets, in addition to US 54/400, to higher standard. Additionally, the Plan shows a potential route for a hike & bike trail as an alternative transportation measure.

CRASH TOTALS & LOCATIONS GODDARD, KANSAS



CRASH TOTALS AND LOCATIONS 2011 THROUGH JUNE 2014

CERTIFIED ENGINEERING DESIGN, P.A.

CED

1935 WEST MAPLE STREET
WICHITA, KANSAS 67213
PH: (316) 262-8808
FAX: (316) 262-1669

SHEET 1
TOTAL 1

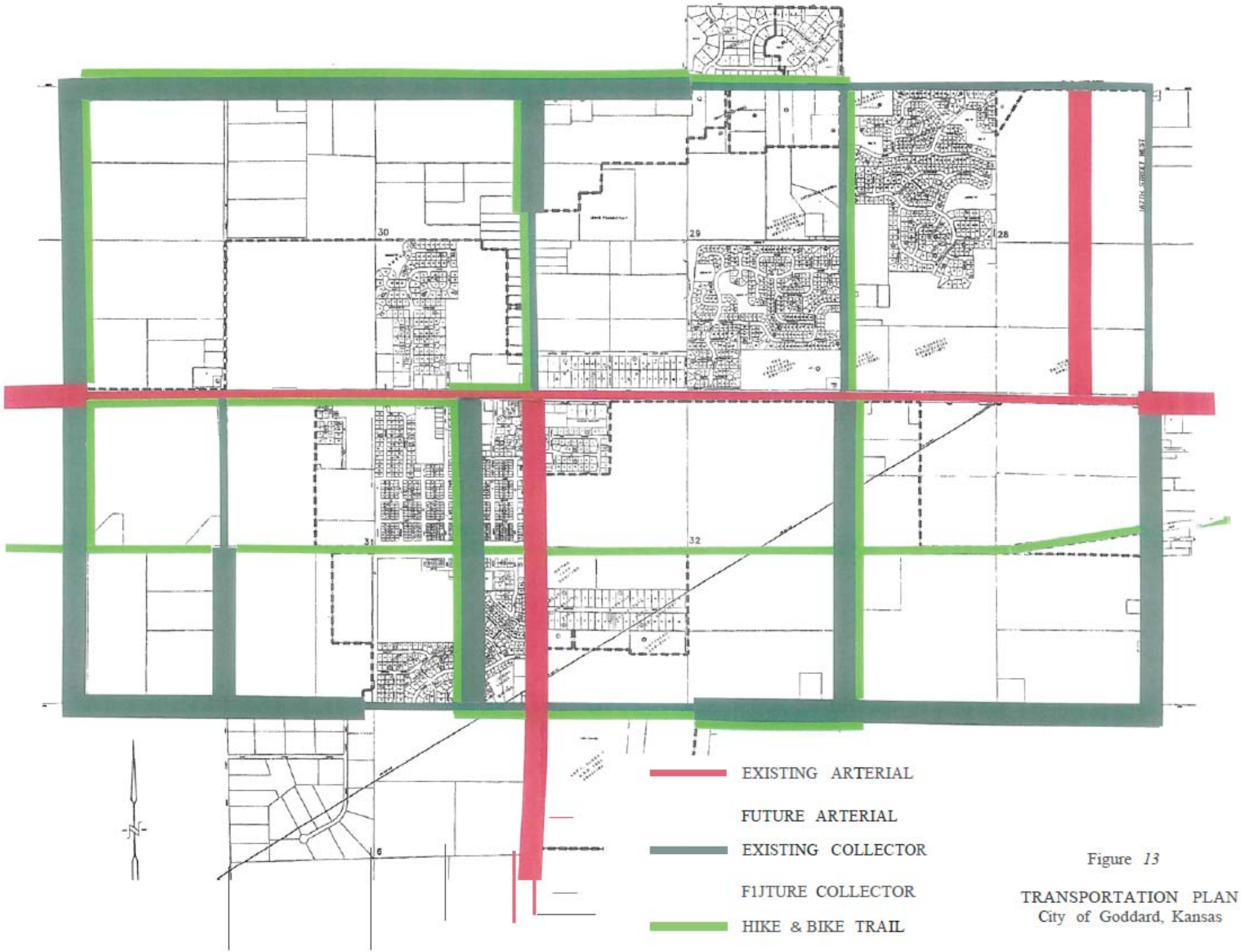


Figure *13*

TRANSPORTATION PLAN
City of Goddard, Kansas

Among the proposed long-range improvements, in addition to the US 54/400 corridor, are upgrading 199th and 183rd Streets to arterial standard, and addition of the proposed new K 254 arterial route north of US 54/400 and west of I 67th Street. Included in the future arterial system will be the major interchange planned for the US 54/400 - K 254 intersection west of 167th street.

The future street system also anticipates short- and long-range up-grading of several existing streets from local to collector standard. New collector routes shown on the plan include 167th Street from US 54/400 south to 23rd; 183rd from US 54/400 south to 23rd; 23rd from 199th east to 167th; Main Street from US 54/400 south to 23rd; 23'd from Main west to 215th; 215th from 23rd to Maple Street on the north; and Maple Street from 215th east to 167th.

The proposed improvements will result in a balanced collector system serving all areas of the community and providing convenient access to the primary US 54/400 corridor.

Based on these improvements, the, the following table contains a comparison of the present and proposed future system in terms of surface mileage.

TABLE 29
FUTURE TRANSPORTATION SYSTEM SUMMARY
City of Goddard, Kansas

Functional Classification	Estimated Current Mileage	Percent	Estimated Future Mileage	Percent
Arterials	3.5	36.8	12.6	35.1
Collectors	6.0	63.2	6.8	64.9
Major Street Total	9.5	100.0	19.4	100.0
Hike & Bike Trail	3.5	100.0	10.9	100.0

The table shows that the proposed future major street network could expand by up to 10 miles or more, with most of the additional mileage represented by new collector streets. New arterials would add about 3.3 miles.

This would equal an expansion of up to 110 percent for collectors, and about 94 percent for arterials. This would result in a major street network comprised of 65 percent collectors with 35 percent arterials, which is in a normally expected proportion for a balanced system.

The table also shows that the alternative transportation system represented by the hike and bike trail shown on the plan would amount to 10.9 miles for all routes in total. Combined with the major streets, the primary and alternative transportation system would amount to some 30.3 miles of travelways exclusive of local streets.

VEHICULAR TRAVELWAY STANDARDS

Typical street standards for the various types of vehicular travelways, both inside the City and in the rural area, are illustrated on the following figure. The standards outline general dimensional details for a range of streets including four types of arterials, two types of collectors and a residential street.

Arterials

The arterial sections include an arterial with frontage roads, an arterial with paved median, and an arterial with and without parking and a rural arterial.

The rural arterial is intended for rural roads which will be up-graded at some future point to the urban arterial standard. This type of section can be used for roads at the periphery of the City in developing areas which later may become part of the interior street system. This type of road should have a minimum right-of-way of 60 to 80 feet. Greater widths may be required to allow for drainage ditches at each side.

Collectors

Two basic types of collector streets are illustrated, one for residential neighborhoods and one for business/industrial locations. Both types are designed to permit parking.

Residential Streets

The residential standard is based on a 60-foot minimum right-of-way with a minimum pavement width of 30 feet. This type of street is designed to permit parking; however, long-term vehicle storage beyond overnight should be discouraged.

Frontage Roads

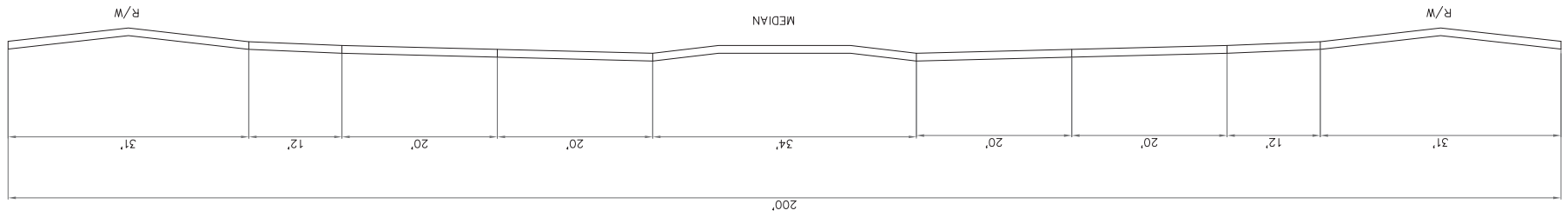
As shown on the figure, frontage roads should be developed along primary arterial routes which are carrying, or which are expected to carry, heavy traffic volumes. At the present time, such an example is the US 54/400 corridor. While the corridor is currently heavily developed there may be future opportunity for additional frontage roads where land is to be re-developed for commercial purposes. In all cases, the possibility of frontage roads should be explored as a means to deal with traffic increases which will be associated with continuing urban expansion. A reasonable minimum standard for a one-way frontage road is not less than 18 feet of width, with a 24-foot minimum width where the frontage road will carry two-way traffic.

Hike and Bike Trails

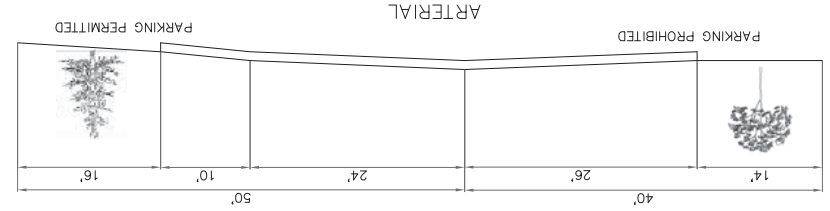
Multiple-use trails can be developed as separate transportation corridors, or may be incorporated as part of an existing street where pavement widths are adequate to accommodate a vehicle land plus area on the side for the trail. In any event, a combination hike and bike trail will typically require a minimum 10-foot wide surface pavement or marked street surface reservation. Where the trail is reserved for only bicycles or only pedestrians, the width can be reduced to 6 to 8 feet. If the trail is located in a separate corridor, a right-of-way width of at least 20 feet will be typically required to allow construction and maintenance activities. Additionally, the trail system will require specific safety features where there are street crossings and where the trail is a marked lane on an existing street.

STREET AND HIGHWAY STANDARDS
CITY OF GODDARD, KANSAS

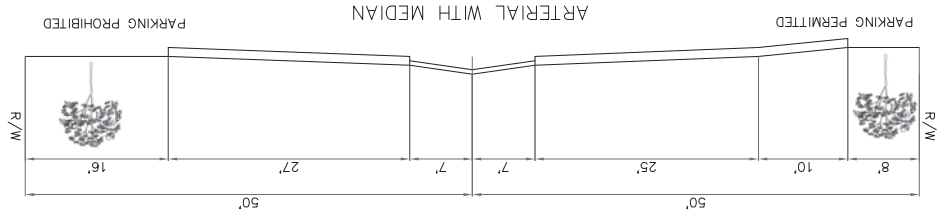
EXPRESSWAY
(4-LANE DIVIDED, CONTROLLED ACCESS)



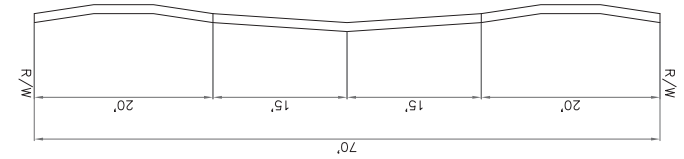
ARTERIAL
(URBAN)



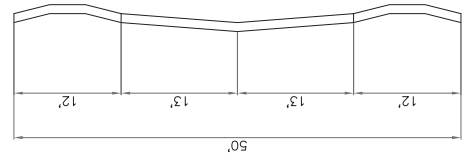
ARTERIAL WITH MEDIAN
(URBAN)



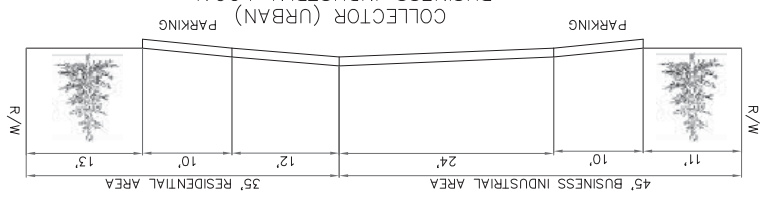
MAJOR ARTERIAL
(RURAL)



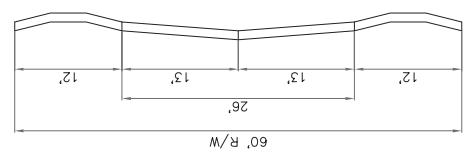
MINOR ARTERIAL
(RURAL)



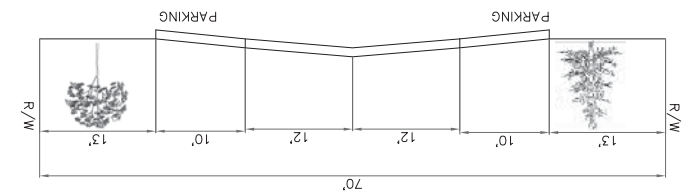
COLLECTOR (URBAN)
BUSINESS-INDUSTRIAL LOCAL



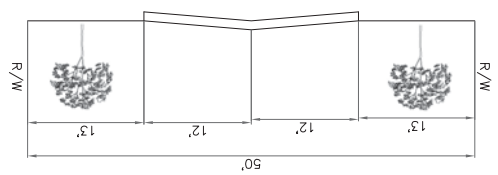
COLLECTOR (RURAL)



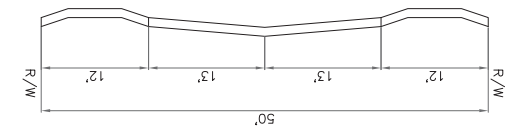
LOCAL BUSINESS - INDUSTRIAL (URBAN)



LOCAL RESIDENTIAL (URBAN)



LOCAL/OTHER ROAD (RURAL)



IMPLEMENTING THE STREET SYSTEM PLAN

For the future major street system to function as intended, it must be implemented on a phased and continuous basis. In this regard, the street standards presented earlier will provide a general guideline with respect to sizing requirements to help assure that the transportation corridor will have the necessary physical capacity. In general, the standards will provide adequate service characteristics for the intended type of street.

In addition to physical design details, other means toward implementation of the major street plan include appropriate use of signage and other traffic control measures. Traffic patterns are directly influenced by the presence of required stops and yields on route segments. Developing through streets, while requiring stops on others, produces immediate alternations in traffic flow and is one of the primary means for reducing traffic volume on some route segments and transferring this volume to designated major street corridors.

Concerning administrative guidance as an implementation measure, one of the primary tools is the adopted comprehensive plan and the subdivision regulation. State law provides that when the City has adopted a major street plan, the Planning commission may review land subdivision proposals for compliance, and may require conformance therewith.

Additionally, state law also provides that when the City has adopted a major street plan, the required rights-of- way may be protected through land reservations. This process is outlined and described in K.S.A. 12-765 which states in part:

"(a) Whenever any city or county has as a part of a comprehensive plan adopted a plan for its major street or highway system, after consultation with the secretary of transportation and the county engineer and any planning commission of the county or counties within which such system lies, the governing body is hereby authorized and empowered, to establish by the appropriate ordinance or resolution building or setback lines on such existing and proposed major streets or highways and to prohibit any new building being located within such building or setback lines on property within the plat approval jurisdiction of the City. Such ordinance or resolution may incorporate by reference an official map, which may include supplementary documents, setting forth such plan which shall show with reasonable survey accuracy the location and width of existing or proposed major streets or highways and any building or setback lines. "

Subject to a range of procedural requirements as further outlined in detail in the body of the enabling legislation, this authority provides a means whereby Kansas communities can preserve the rights-of-way of future streets from conflicting development, thus assuring that the major street plan can be implemented on a phased and continuing basis.

It should be noted that this authority does not provide a direct taking of land. Actual acquisition of the required right-of-way must proceed according to the usual negotiated purchase procedures.

Implementing a trail system is in many ways similar to the street system except that the trail will usually be as much a recreation facility as an alternative transportation mode and can potentially receive funding from both sources. Currently, the potential value of the trail system as an alternative transportation facility is so high that federal and state grants may be available to help fund construction. Under the T-21 program, trail systems can be eligible for participating KDOT funding provided the trail meets certain state and federal requirements.

SUMMARY

The background reviews of transportation in the City of Goddard show that like most small to medium size communities transportation capacity is almost exclusively dependent upon motor vehicles of one type or another. Almost all of the goods and products of local commerce and industry move by private truck with individual transport dependent upon private automobiles, both of which require an extensive network of high grade streets and roads plus parking and vehicle storage areas.

The background studies show that the City has a well-developed street system that can continue to provide service throughout the planning period. However, although the system is functional, there are several blocks of streets which lack all-weather surfacing or curb and gutter or both. In order to promote maintenance of a high quality living environment in existing and future neighborhoods, the City should pursue a vigorous program of upgrading the existing street system, particularly those streets evidencing current deficiencies. Additionally, planning for a new development should include allowance for upgrading adjacent vehicular travelways to a modem standard as a means to enhance function, but also as a means to improve the visual quality of the neighborhoods. As a facet of the continuing planning program, emerging trends in community use patterns and demands for transportation facilities should be monitored on a regular basis so that upgrading and improvements can be provided as required to keep pace with community growth. This will be especially important with regard to vehicular traffic patterns associated with new growth regions of the community.

The transportation review also shows that there would be a positive benefit available from development of an alternative transportation means. For the City of Goddard the most feasible mode will be a hike & bike trail system to serve internal circulation needs as well as provide connection to other regional trail systems. With the ever increasing vehicular volume using the street system, implementing alternative transportation capability will become increasingly important in the years ahead.

If the community continues to expand physically as anticipated by the land use studies, major extensions of the existing street system will be necessary to pace development. It will be especially important that future street development occur on a planned and phased basis to assure adequate connection to the existing network, and that future major streets be planned to complete a looped system providing access to all neighborhoods, points of commercial and industrial connections, and major community facilities.

Where the community transportation system is developed on a rational and planned basis in concert with the directions established by the Comprehensive Plan, adequate service and efficient operation can be maintained throughout the 20-year planning period and beyond.

The street system is continually evolving to fit the every-changing urban pattern. Change most often has occurred without the guidance of a plan. The continuing transportation planning program should provide up-to- date information which can be used as a firm basis for planning future street and highway extensions. Analysis of these data should be used to measure the accuracy of the proposed plan. Continuing study may indicate areas where the plan is weak, or where government policies should be strengthened to achieve the desired goal. Maintenance of the major street plan in the context of continued community expansion is one of the primary responsibilities of the Planning Commission within the scope of the continuing planning program.

SECTION VII

PUBLIC FACILITIES

INTRODUCTION

In large measure, the quality of the living environment within any community can be measured not so much by the sizes or extent of development, but by the diversity and quality of available public facilities. Such amenities provide for the overall safety and well-being of all of the citizens and provide a nucleus upon which the fabric of the future community may be developed.

The term public facilities is used to describe a range of urban amenities which provide for the health and welfare, and general well-being of the resident population. Such amenities may include, but are not limited to, health facilities; police and fire protection; water, sewer and other utility systems; recreation opportunity; educational facilities; and public buildings such as the Library, City Hall, City Maintenance Shops and similar considerations. The presence or absence of such facilities is a primary determinant of the quality of life available in the community.

Because these amenities are complex and often expensive, they are available only through group effort, which constitutes one of the essential reasons why people band together into communities. As the population base expands, these facilities and services often trend toward obsolescence in the presence of intensifying public demand. Accordingly, it is important to long-term maintenance of a quality living environment that the comprehensive planning process include study of potential future requirements in order to assure that adequate service levels will be available to future populations, and that the associated facilities will fit harmoniously into the long-range plan for community development.

EXISTING FACILITIES

The locations of a number of public and quasi-public community facilities which serve the Goddard community are illustrated on the following figure. The extent and diversity of these facilities, and the services they provide, are evident on the map. The inventory shows a total of more than 20 facilities of all types located throughout the community. The inventoried facilities include utilities, schools, churches, parks and governmental offices as well as a wide range of other facilities which together allow maintenance of a healthful and pleasant community environment.

The inventory indicates that the community enjoys a diverse and well developed range of facilities. It is important that these and similar future amenities be sized and located on a planned basis so that they will remain fully functional and easily accessible to persons from all sections of the present and future community.

RECREATIONAL OPPORTUNITY

Among the public amenities having a direct and significant impact upon the living environment and the quality of life available in the community are the available recreation facilities. Although difficult to quantify definitively, public and recreation facilities also impact the social

and economic environments and are among the factors of influence in the long-range economic development process. For these reasons, current and future need for recreation facilities is an important aspect of planning for continued community development in the years ahead.

EXISTING PARKS AND OPEN SPACE

For the purposes of long-range community planning, public recreational facilities are those that are available without restriction for year-round use by the general public. Recreational facilities associated with the schools, private clubs and similar facilities which are not available to the general public on an unrestricted basis also contribute, but do not count toward calculation of short- and long-term community needs.

Means Family Memorial Park

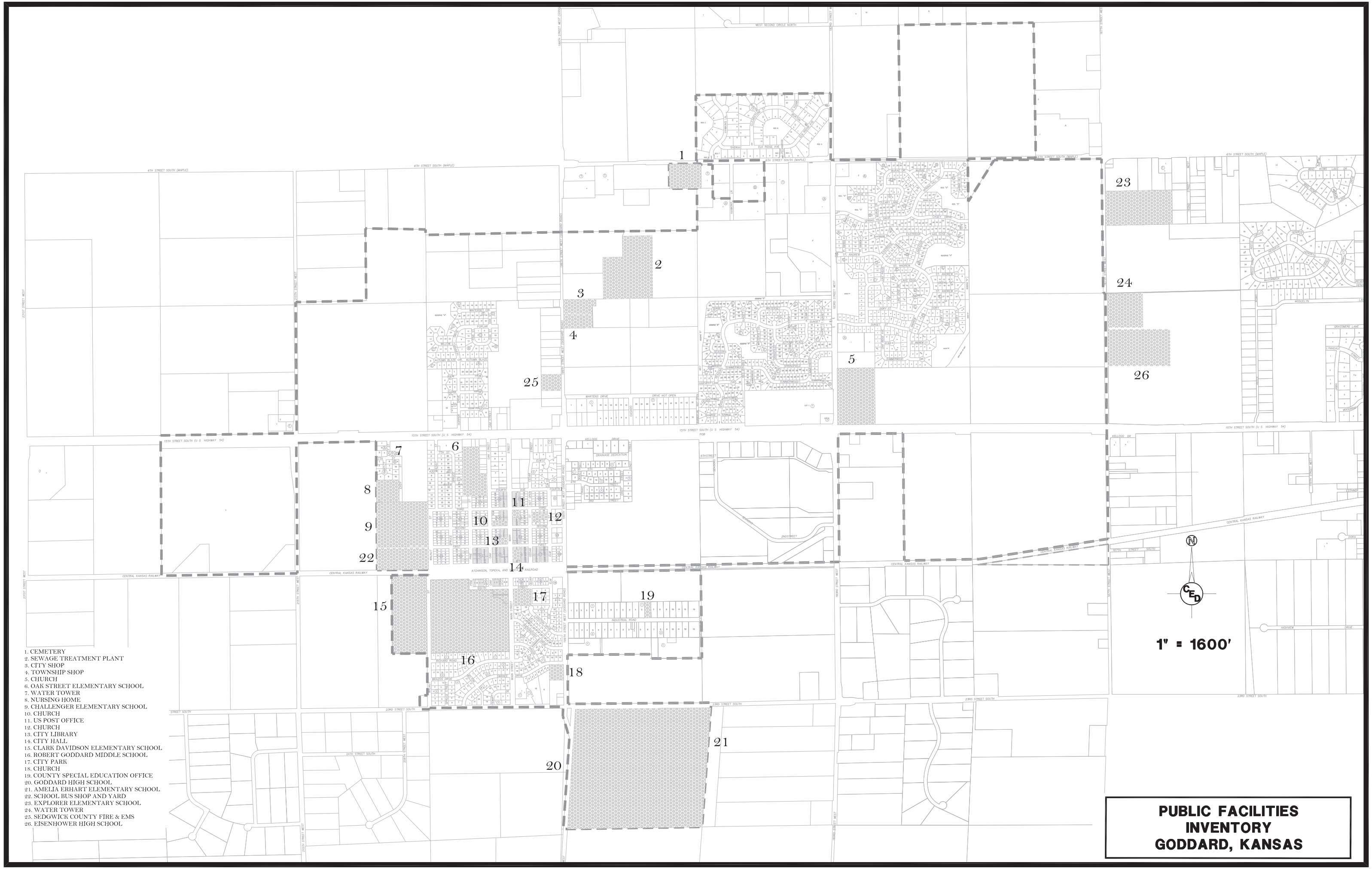
Located on the east side of Main Street and south of South Street, this park contains about 3 aces and provides space for as range of public amenities including an array of outdoor recreational equipment. Among the recreational equipment and facilities at this location are the following:

- Swimming Pool
- Basketball Court
- Merry-go-round
- Spring Toys
- Climbers (2)
- Memorial Tablet
- Picnic Shelters (2)
- Covered Seating Bike Racks Swing Set
- Teeter Totter
- Tot Swing Slide Landscaping

This park is the primary recreation resource for the entire community at the present time. Because of the swimming pool, the park is heavily utilized by visitors as well as the resident population. Although functional for a range of recreational needs, due to limited size, the existing park does not provide opportunity for tennis, baseball and other types of outdoor court and field games.

Linear Park

The Linear Park is a Rails to Trails project and is part of the Prairie Sunset Trail. The park itself is located between Goddard Road and Walnut Street. The park consists of abandoned railroad right of way and has a playground, walking trail with exercise stations, bathroom facilities and a storm shelter. The park is central to downtown and host a wide array of community events including National Night Out and Fall Festival Activities.



1. CEMETERY
2. SEWAGE TREATMENT PLANT
3. CITY SHOP
4. TOWNSHIP SHOP
5. CHURCH
6. OAK STREET ELEMENTARY SCHOOL
7. WATER TOWER
8. NURSING HOME
9. CHALLENGER ELEMENTARY SCHOOL
10. CHURCH
11. US POST OFFICE
12. CHURCH
13. CITY LIBRARY
14. CITY HALL
15. CLARK DAVIDSON ELEMENTARY SCHOOL
16. ROBERT GODDARD MIDDLE SCHOOL
17. CITY PARK
18. CHURCH
19. COUNTY SPECIAL EDUCATION OFFICE
20. GODDARD HIGH SCHOOL
21. AMELIA ERHART ELEMENTARY SCHOOL
22. SCHOOL BUS SHOP AND YARD
23. EXPLORER ELEMENTARY SCHOOL
24. WATER TOWER
25. SEDGWICK COUNTY FIRE & EMS
26. EISENHOWER HIGH SCHOOL

FUTURE PUBLIC RECREATION REQUIREMENTS

Potential future requirements for recreational land may be determined through application of appropriate space standards. When balanced with current and future population levels, growth patterns and usage trends, this process provides an indication of current and future requirements which may be compared with present development levels to determine likely need for future recreational opportunity.

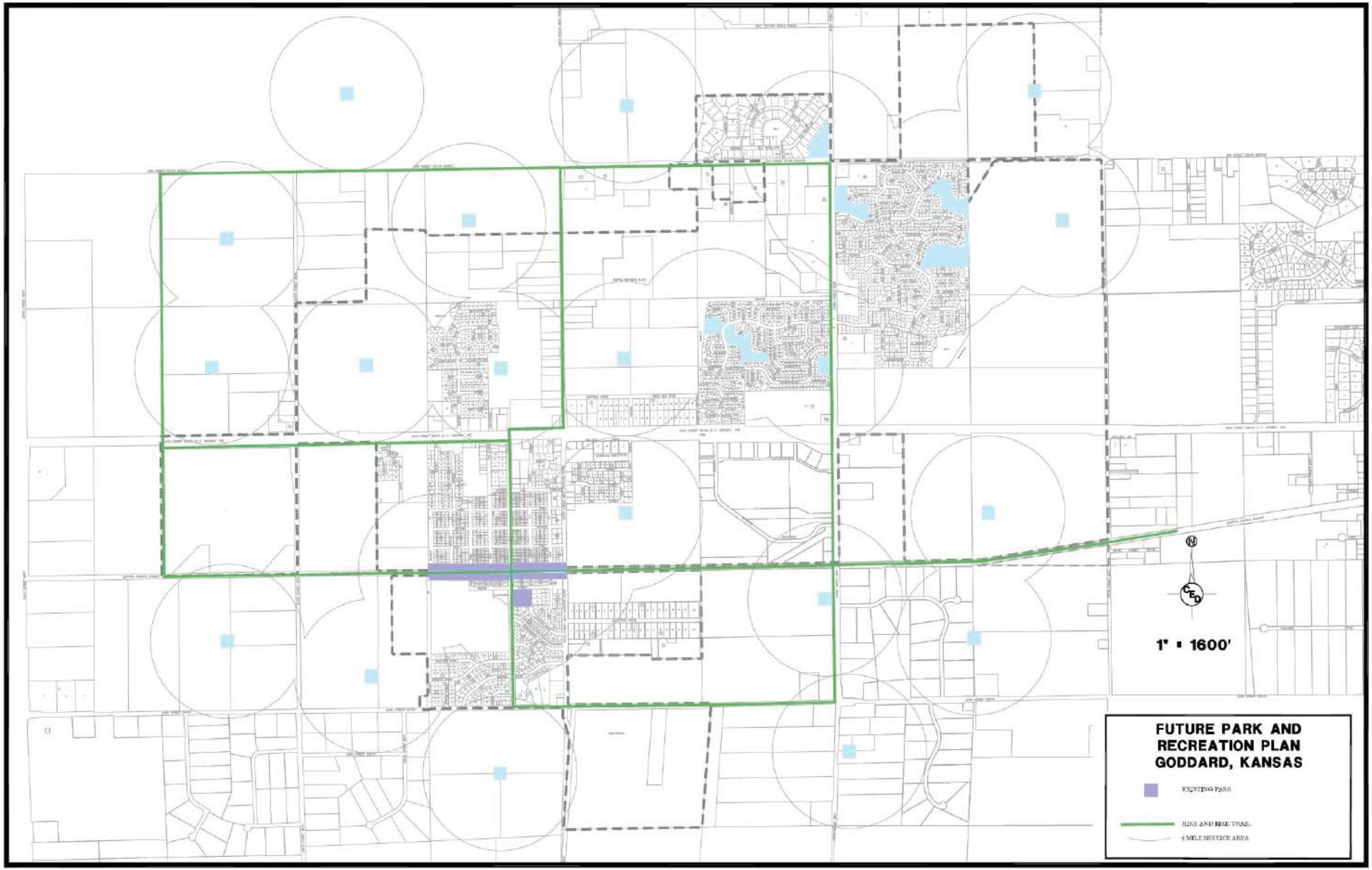
The general space standard for the overall recreation area of a city is 10 acres per 1,000 population or one acre per 100 population. Using this standard and applying it to the 2007 population of 3,697 indicates a present community need for about 37 acres of park land. By the year 2025, the statistical acreage needs will increase to a total of about 94 acres, based on an estimated population of 9,930

The space needs calculation indicates that at the present time there is a theoretical recreational acreage deficiency of 34 acres, and that by 2025 the deficiency will amount to as much as 91 acres if nothing is done, and the population continues to grow as indicated by the background demographic studies. These figures show that an aggressive recreational planning process should be an aspect of future community development programming.

Within the overall need for additional recreational acreage, the existing and future land use studies suggest that there are current and long-range needs for several small neighborhood parks oriented toward small children and passive recreation for older adults. Such facilities should be available within mile walking distance of all residential neighborhood locations.

Additional needs are for a general community park of adequate size to accommodate court and field games and for a network of hike and bike trails which can provide recreational opportunity as well as function as an alternate transportation mode. In future years, the hike and bike trail should be expanded to circulate throughout all developed areas of the city.

Possible locations, in general terms, for additional park and recreational facilities are illustrated on the following figure. The map shows that if the City enlarges as anticipated by the Future Land Use Plan, there will be needs for additional recreational opportunity on the northwest, north and northeast and to a lesser extent on the southwest and southeast in rapidly enlarging residential neighborhoods, as well as for a ball field site and a hike and bike trail system. Together, these facilities would help assure that outdoor recreational opportunity is available to all citizens of the City within reasonable walking distance.


FUTURE PARK AND
RECREATION PLAN
GODDARD, KANSAS
EXISTING PARK
HIKE AND BIKE TRAIL
¼ MILE SERVICE AREA
1" = 1600'
N

IMPLEMENTING RECREATIONAL IMPROVEMENTS

Many of the park and recreation proposals are long-range considerations which should be provided at a rate commensurate with the actual growth and development of the community. Implementation will be expensive and should be undertaken on a phased basis. The Planning Commission, acting in concert with other municipal boards and commissions, should share in the primary responsibility for planning, scheduling and budgeting future improvements based on developing community need.

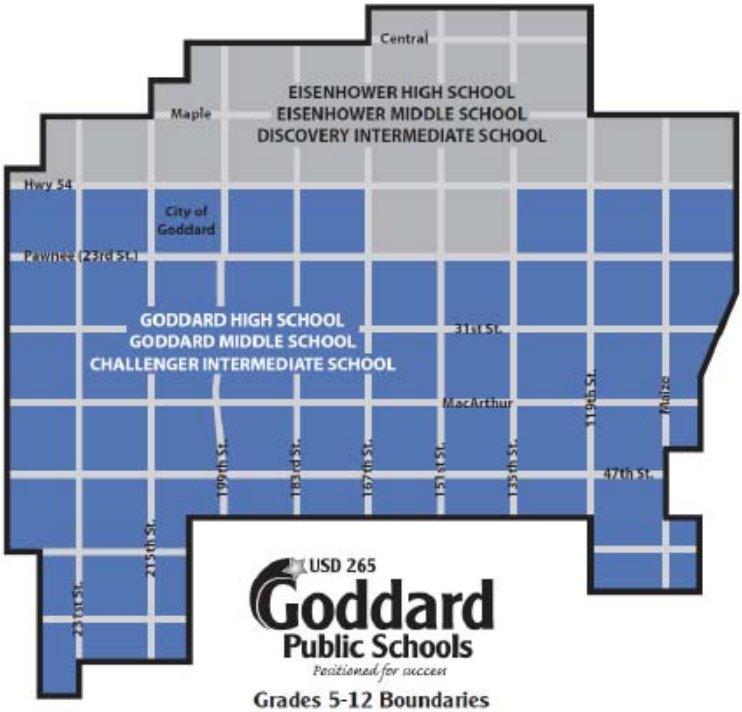
In this regard, the Planning Commission can provide valuable assistance in implementing the long-range proposals by preparing and maintaining a Capital Improvements program and Capital Budget which will help to establish the methodology and scheduling necessary to implement individual projects in a rational and prudent manner.

In the past, participating federal funding for recreation development has been available from several sources, and has been utilized extensively by many communities. Although funding from these traditional sources is more uncertain in the future time frame, the City should continue to pursue any available funding which may provide assistance for developing portions of the future system. Other methods which are also considerations for future application, include dedications as part of new developments, and gifts of land for park purposes. Either or both of these, in combination with local budget line item funding, could help to provide a means toward implementation.

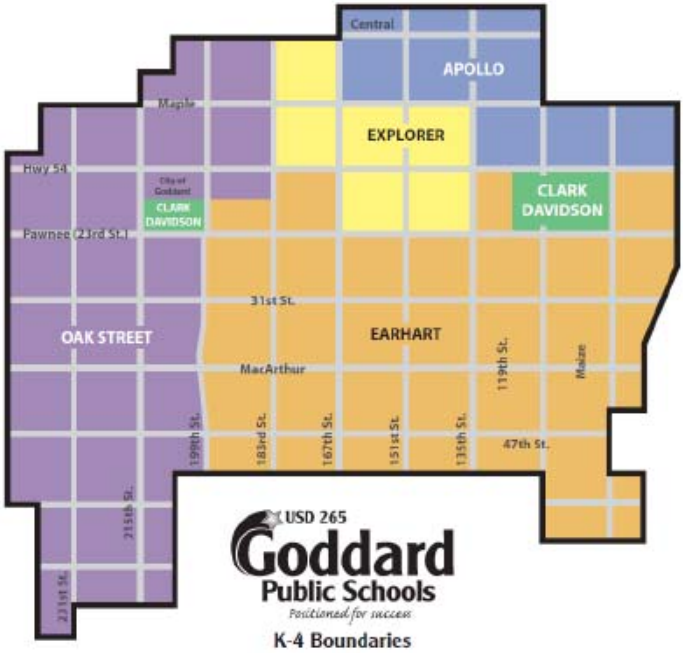
In general, the first priorities for action should be continuation of hike and bide trail development coincidental with initial development of neighborhood parks to serve already developed residential areas. Second priorities should be additional parks in developing neighborhood areas and expansion of the hike and bike trail to serve the entire community. The large community park should be located so as to maximize access to outdoor recreational opportunity from all residential locations throughout the City.

PUBLIC SCHOOLS

The public school system for the Goddard community is within Unified School District number 265. The district, which is headquartered at 201 South Main, operates 4 elementary schools, 2 middle schools, 2 intermediate schools, an academy and 2 high schools. School boundaries are illustrated on the following figure.



Grades 5-12 Boundaries



K-4 Boundaries

ELEMENTARY SCHOOLS

Elementary schools currently serving the community include Clark Davidson Elementary, Oak Street Elementary, Amelia Earhart Elementary, and Explorer Elementary.

Clark Davidson Elementary. Located at 333 S. Walnut, this school consists of a single-story structure completed in 1990 with an addition completed in 1993. The building contains 34 classrooms, a gymnasium seating 375, a lunch room seating 155 and a library seating 50. The surrounding grounds contain a baseball diamond, a basketball court, a football/soccer field, 8 swings, 3 slides, and a multi-purpose facility. There are 147 off-street parking stalls provided.

The school is staffed by a principal, 34 teachers, 2 secretaries, 4 custodians, 4 dieticians, and 43 others for a total of87.

At the present time there are no plans for either site or building enlargements.

Oak Street Elementary. The single-story structure housing the school was built in 1953 and has had additions and up-dating in 1966, 1974, 1977 and 2001. The structure contains 18 classrooms plus a library, a gymnasium with seating for 415, and a lunch room seating 263. Also located on the grounds are a soccer field and a playground featuring 12 swings and 4 slides. Off-street parking for up to 125 is provided.

The school is staffed by a principal, 21 teachers, 2 secretaries, and 4 custodians. There are no plans for remodeling or enlargement.

Explorer Elementary. The single-story structure located at 454 S. 167th ST West was constructed in 2006 and is in excellent condition. The building accommodates classrooms plus a gymnasium with seating for up to 480 and a lunch room with seating for up to 180. Also at the location are 4 basketball courts, a football field, 8 swings, 5 slides and 2 multi-purpose facilities.

The school is staffed by a principal, 32 teachers, 2 secretaries, 4 custodians, 4 dieticians plus 42 others for a total of 85.

There are no plans for remodeling or up-dating.

Amelia Earhart Elementary. Located at 19201 W. 23rd ST South, this school features a single-story structure constructed in 2001. The building, which is in good condition, accommodates 33 classrooms, as gymnasium with seating for up to 500, a lunch room seating up to 115, and a psychologists office. The school is staffed by a principal, 65 teachers, 2 secretaries, 4 custodians, 4 food service workers, and 15 paraprofessionals for a total of 91.

The location contains 2 basketball courts, 6 swings, 1 slide, 2 multi-purpose facilities and a soccer field. There are no off-street parking stalls.

At the present time there are no plans for enlargement or remodeling.

MIDDLE SCHOOLS

Robert Goddard Middle School. This school, located at 201 S. Main Street, is comprised of a school structure and an automobile shop. The single-story structures were completed in 1967 and 1970 and are in fair to good condition. The school structure contains 37 classrooms plus 2 at the shop. Also provided are 2 gymnasiums, one with seating for up to 500 and the other with seating for up to 999. Facilities also include an auditorium with seating for up to 360 and a lunch room seating up to 200.

The school is staffed by 2 principals, 38 teachers, 3 secretaries, 5 custodians, 1 nurse, 5 cooks, and 15 paraprofessionals for a total of 69.

The school site contains, in addition to the school buildings, 4 baseball diamonds, 8 tennis courts, a concession stand and a storage shed.

There are no plans for remodeling or enlargement.

Eisenhower Middle School. Utilizing a single-story structure situated at 2700 S. 179th Street West, the structure was completed in 2002 and is in good condition. The building contains 37 classrooms plus an auditorium/lunch room with seating for 200-500, a gymnasium seating up to 1,200, a second gymnasium seating up to 400, and a library with seating for up to 90.

In addition to the school building, the site also accommodates off-street parking for 400 plus 12 tennis courts, 2 basketball courts, an athletic field with running tract, and a wrestling room.

The school staff consists of 2 principals, 34 teachers, 3 secretaries, 5 custodians, I dietician, and 10 others for a total of 55.

There are no plans for remodeling or expansion.

INTERMEDIATE SCHOOLS

Discovery Intermediate School. Located at 231 W. Walnut, the school consists of two single-story buildings which were constructed in 1966 and 1967 and which are in good condition. There are 22 classrooms available plus a gymnasium and a lunch room. Off-street parking for up to 43 which includes 4 handicapped stalls is provided. Also at the location are; 1 set of basketball goals, a football field, 2 swings and 2 playgrounds.

The school has a staff consisting of a principal, 28 teachers, 3 secretaries, 6 custodians, 6 dieticians and 13 others for a total of 57.

There are no plans for remodeling or enlargement.

Challenger Intermediate School. Constructed in 1954, this single-story building is in good condition. There are 33 classrooms available plus a gymnasium seating up to 750 plus a lunch room seating up to 100. Recreation facilities available include 2 basketball courts, a football field, 10 swings, and 2 multi-purpose facilities. The site also contains off-street parking for more than 50 vehicles.

School staff include a principal, 35 teachers, 3 secretaries, and 6 custodians for a total of 45.

There are no plans for remodeling or enlargement.

HIGH SCHOOLS AND ACADEMY

Goddard High School. The high school, which is located at 2500 S. 199th Street West, was completed in 1995 and is in good condition. The building provides space for 50 classrooms, an auditorium seating up to 1,200, a gymnasium with seating for up to 2,000, a lunch room with seating for 400, and a library with seating for 150. Also at this location are 3 baseball diamonds, an athletic field with running track, a multi-purpose area, and off¬ street parking for up to 800 vehicles.

The high school staff includes; 1 principal, 2 assistant principals, 1 police officer, 1 school nurse, 2 counselors, 1 librarian, 1 social worker, 1 school psychologist, 11 food service handlers, 47 teachers, 5 secretaries, 10 custodians, and 20 others for a total of 103.

There are no plans for remodeling or enlargement.

Eisenhower High School. Eisenhower High School is located at 1230 S. 167th St. West, was opened in 2011 and is in excellent condition. The building provides space for 59 classrooms. Also within the building are: foods lab and culinary kitchen, 2 art classrooms, 1 vocal and 1 instrumental classroom, 2 sewing classrooms, 2 computer labs, and a physical education classroom. There is an auditorium with seating for 950, a gymnasium with seating for 2000, an auxiliary gym with seating for 800, a cafeteria with seating for 400, a library with seating for 150. Also on site are 2 baseball and 2 softball diamonds, a Field Turf athletic field and 8 lane running track, 8 tennis courts, and two practice fields. The building has off street parking for 600 vehicles.

The high school staff includes: 1 principal, 2 assistant principals, 1 police officer, 1 school nurse, 2 counselors (1 therapy dog), 5 secretaries, 57 teachers, 1 librarian, 1 social worker, 1 school psychologist, 11 custodians, 11 food service handlers and 20 others for a total of 114.

There are no plans for remodeling or enlarging the building.

Goddard Academy. Utilizing a new building completed in 2008, the school has available 7 classrooms, a gymnasium, a lunch room and a library. There are 68 off-street parking spaces provided.

The academy is staffed by a principal, 8 teachers, 1 secretary, 2 custodians, 2 dieticians and 6 others for a total of 20.

There are no plans for remodeling or enlargement.

SCHOOL ENROLLMENT PATTERNS

School enrollments total in excess of 5,500 pupils for the 2012-2013 academic year, with more than 1,800 in the elementary graders and nearly 1,500 at the high school level. In order to provide high quality educational services for this high enrollment number, the school district operates a total of 10 schools. If the community and school service area experience population growth at the levels contemplated by the background demographic studies, the number of enrollments will climb dramatically in the next two decades.

In order to meet the challenges of the future, school administrative officials should maintain an aggressive planning process oriented toward identification and funding as needed capital improvements commensurate with emerging need. As part of this process, location of future facilities, particularly with regard to elementary schools will be particularly important.

At the present time, the city is growing and expanding rapidly toward the north and east. The long-range use plan indicates the potential for significant additional neighborhood development as well as extensions of major streets and other infrastructure in this area of the community over the next two decades. Accordingly it is likely that emerging demographic patterns will indicate the need for a new elementary school somewhere on the northern flank of the current community. Such a school should ideally be located near the center of the expected population served and on a major street to insure easy access.

Location is but one of the important considerations faced by the school board and administrative officials in the process of building and maintaining high quality school facilities. While municipal government will not have direct participation in the planning process, the background studies associated with the comprehensive plan, particularly the population and land use studies, provide valuable insight into the potential makeup of the future city. In this context among the most important contributions of City government will be maintenance of the comprehensive plan as a guide for long-range urban development.

CITY ADMINISTRATIVE FACILITIES

Also included within the scope of the facilities serving the general public and the buildings and equipment utilized by local government. Among the facilities utilized by the municipality are City Hall, the community center and the public works shop.

City Hall. Located at 118 N. Main in the downtown area, this 6,642 square foot building serves as the administrative center for the community. The structure was remodeled and expanded in 2003 and is in good condition. The building provides space for administrative offices, municipal court, utility billings, planning and zoning offices, mayor's office, council chambers/municipal court, and the police station. A total of 6 off-street parking spaces are available on the alley side of the building.

While the building is generally adequate for current usage, space is limited both for offices and for work area and storage. If the City grows as anticipated by the background studies, there will be expanding needs for additional staff and administrative activities which will require substantial building space enlargements at intervals throughout the planning period.

Additional usable space could be affected by several different methods. The police station could be relocated; the existing building could be expanded; or the administrative offices could be relocated and combined with other functions to achieve an administrative center housing all of the functions of local government.

As the paperwork burden and the demands of an expanding population base continue to intensify over the coming years, the need for additional building square footage will become more acute. In recognition of this growing need, the City should, at some point, initiate a capital improvements planning program oriented toward identifying the most functionally adequate and cost effective means to increase the floor space available at the City Hall within the expectation of the range and extent of service demands arising from a local population base reaching 9,000 to 10,000 or more in the next few years.

Community Center. This aging structure situated at 122 North Main consists of a single-story 3,000 square foot building which is described as being in poor condition. The building provides space for the Keen Club and other civic groups as well rental space. These are 8 off-street parking stalls provided at the location. This is another of the important public facilities which will become increasingly inadequate as the population expands in the years ahead. To remain in concert with public demand, the City should include a new community center in the formal capital improvements planning program. This could be accomplished by remodeling and expansion; relocation to a new structure; or relocating to a combined civic center complex designed to accommodate a new community center as well as City Hall and other municipal administrative functions.

Such an approach would offer efficiency of operation and would produce a cost savings as compared to the cost of operating numerous individual buildings thereby affecting conservation of tax dollars as well.

Public Works Facility. This 3,200 square foot building located on North 199th Street West is situated on a 2 acre site. The structure accommodates several municipal departments including Streets, Wastewater, Water, and Collection Systems, and is in good condition. Rooms available include a 96 square foot office, a 110 square foot lunch room, a 154 square foot bathroom and storage area, and a 168 square foot police evidence room. There are 20 off-street parking spaces available.

The facility is described as adequate for present activity levels, but like other City services will require expansion in the years ahead if the City grows as anticipated. This is another of the municipal departments which could be eventually combined with others to create a new municipal services center with the intent to maximize shared facilities and internal administrative support to achieve maximum efficiency in expenditure of public tax dollars. Toward these end, the City should closely monitor the needs of the public works services groups to assure that shop space, storage yards and operating equipment will remain adequate for efficient and effective service.

Waste Water Treatment Facility – Operational since 2009 the WWTF is an Enhanced Biological Nutrient Removal facility with a maximum operating capacity of .800 MGD per day. The facility includes a belt press for dewatering and three bays for sludge removal, as well as two fuzzy filters and 2 UV disinfection lamps to treat effluent.

LAW ENFORCEMENT

Law enforcement for the City of Goddard is provided by the City Police Department which is headquartered at City Hall. The department has a staff level of 12 FTE employees and has a total of 6 patrol cars available. In the calendar year 2011, the department responded to 8,327 calls, or an average of up to 694 calls per month. Department records indicate that during this period there were 2,321 traffic stops which resulted in 1,169 written citations. Overall, there were a total of 51 arrests which required booking, and large numbers of other miscellaneous activities such as building checks, alarm calls and animal calls. The department also has an agreement with the Sheriff's Office for assistance within three miles of the City,

At the present time, available administrative and operating space is very limited for existing activity levels. There are only 2 interview rooms, with no facilities for booking and photographing, and only 1 fingerprint ink station. The Department utilizes County facilities for training and firearms practice when the facilities are available. There are no holding cells and storage space is very limited. Police equipment is stored at the Public Works facility.

If the community continues to enlarge as forecast by the planning studies, there will be immediate and long- range needs for significant expansion of staff, operating equipment and building space. Based on a typical standard of 2 to 3 police personnel per 1,000 population, there will be a need for up to 10 or more additional staff with associated personal and operating equipment.

Due to current deficiencies and probable future requirements of the department, there will be a growing need for a secure, efficient and modem facility. The new facility should provide space for a range of needs including class rooms, secured evidence storage, staff work space including a shower/locker room, administrative offices, processing area and holding cells, secured building entry and provision for storage and maintenance of major operating equipment.

These and other associated requirements will result in need for either a new building, or inclusion with other City departments at a combined administrative center. Long-range improvements should be timed to pace population enlargement and activity levels. Physical improvements should be prioritized and scheduled as part of an on-going capital improvements programming process. By this means implementation can be planned and financing timed to mesh with the other improvement obligations of the City.

FIRE PROTECTION

Fire protection for the City of Goddard is provided by Sedgwick County Fire District No. 1 from Station 35 which is located on south 199th ST West. The station opened in 2010, in recognition of the growing demands of the community. The facility is a full service 5-man installation plus quarters for an EMS group. Operating equipment includes a 3-man engine plus a 2,500 gallon tanker and a rescue squad.

The City will have adequate fire protection for the foreseeable future. Response times will be within 5 minutes to any location within the corporate limits with an improvement in response capability for emergency medical services.

HEALTH SERVICES

Health services available in Goddard include a small medical center, dental and chiropractic services and an extended care nursing facility. Due to extensive availability of medical services of all types in nearby Wichita, the City does not have a hospital or other extended care facilities other than two nursing homes.

The nursing facility, Medicalodges, is located at 501 Easy Street in the northwest quadrant of the community. The initial building was completed in 1980 with remodeling and additions in 1986, 1988 and 2005. The structure contains 35,079 square feet of floor space on one floor and has a basement area available. The facility accommodates 85 beds and provides employment for 64 full-time and 13 part-time employees, 37 of which are typically on duty during the peak work shift. In addition to the 85 beds, which include 60 skilled beds and 25 assisted living rooms, the facility also offers 12 independent living apartments.

Dove Estates, located on South 183rd ST W offers 60 skilled nursing suites, with a full service kitchen and other accommodations, including garages for those with cars or needing additional storage. The facility also has 24 independent living units with full access to the shared facilities.

PUBLIC LIBRARY

The City Library, located at 201 North Main, occupies a 39 year old single-story building with basement. The facility is staffed by a librarian plus 4 other employees for a total of 5.

For its present configuration, the library does not have separate facilities for adults and children and does not have meeting rooms available. The library provides 11 tables and 20 chairs and currently accommodates nearly 24,000 volumes. There are 650 linear feet of shelving and 238 square feet of staff work space.

There were over 1,800 cardholders who generated a circulation of 21,915 volumes during the most recent year of operation.

Concerning adequacy of present facilities the following tabulation compares current library characteristics with generally accepted minimum library standards.

Table 30
Minimum Library Standards

Item	Planning Standard	Existing Requirement**	Deficiency	2025 Requirement
Book Stock (Volumes per Capita)	5	10,185	None	46,950
Number of Seats per 1,000	3	6	None	29
Circulation, Volumes per Capita	9	18,333	None	84,510
Square Feet per Capita	0.55	1,120 sq. ft.	None	5,165 sq. ft.

*Source: Volume, Space and Circulation Standards, American Library Association
**Based on 2000 population of 2,037
***Based on a forecast of 9,390

The comparison shows that there are no current deficiencies with regard to library function, however, activity levels are expected to enlarge significantly if the population continues to expand as anticipated by the background studies. In this regard, the comparison shows that overall library service demands could expand by 400 to 500 percent over the next two decades.

With regard to physical facilities, staff notes a range of current deficiencies which include inadequate meeting rooms and space for programs, as well as lack of break room for staff. Also, the basement is not useable and outside lighting is in need of improvement.

In the future, in addition to present needs, there will be a continuing need for increased shelf space and enlarged area for application and use of electronic media including computer labs.

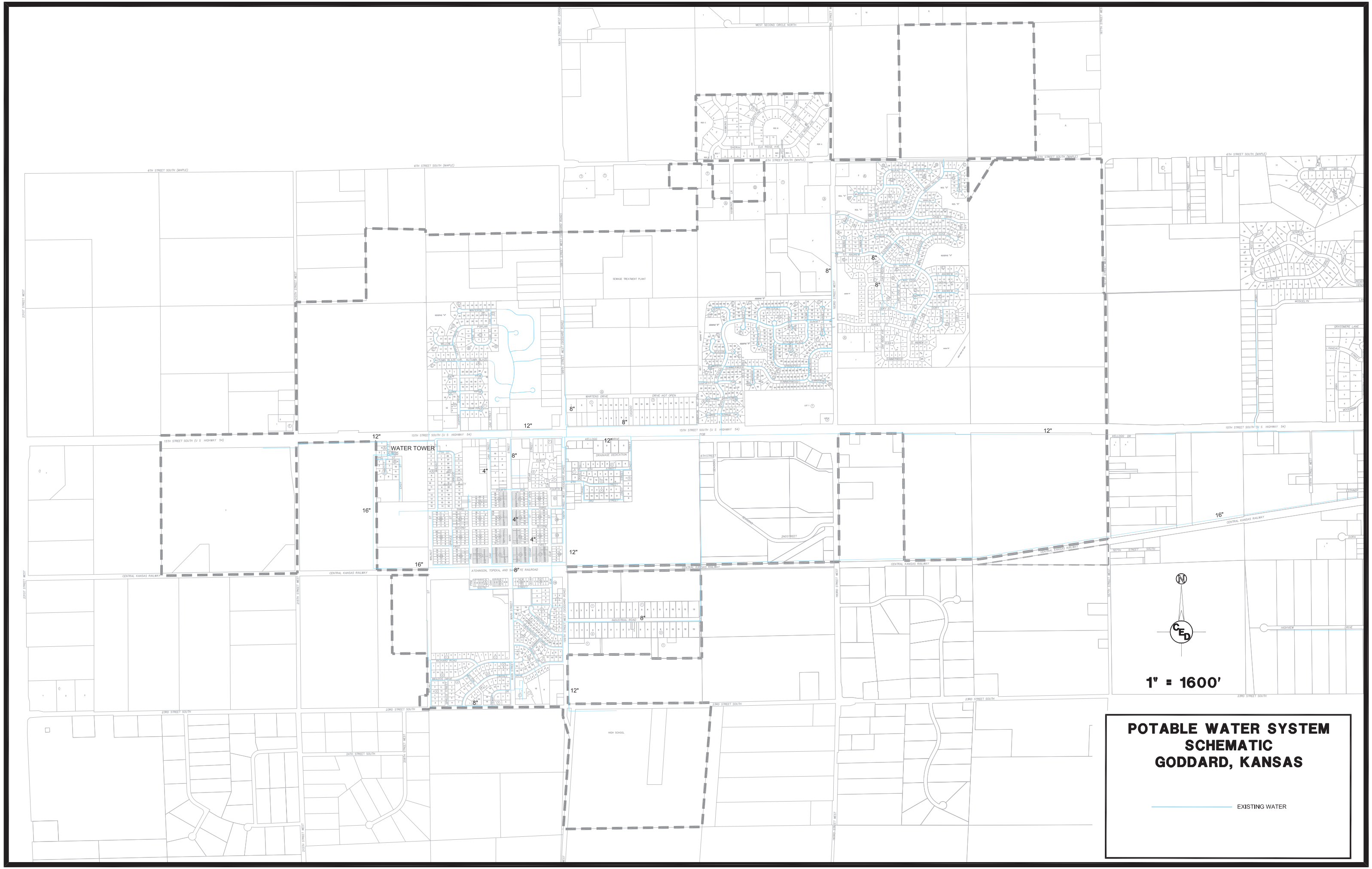
Satisfying these needs may require both remolding and building expansion, as well as evaluation and changes in operational patterns. For these reasons, library planning and improvement must be based on a continuing process of evaluation and capital improvements programming. Where this process is dynamic and effective the library will remain a functional and viable community facility throughout the planning period and beyond.

POTABLE WATER

The City of Goddard obtains water from 4 groundwater wells which is chlorinated at the well-head prior to distribution. The system annually serves more than 1,600 customers, a number which has steadily risen over the years, up from 795 in 1998 to 1,361 in 2004 with the 2008 number set at 1,635. According to statistics maintained by the Kansas Water Office the average gallons per capita day (GPCD) water consumption rate for all uses has varied annually in response to weather patterns, but has ranged in recent years from 156 GPCD in 2005 to 235 GPCD in 2002 with an average of 201 GPCD for the period 2001 to 2005.

The existing municipal water system is shown in schematic format on the following figure. The drawing shows that water from the well field is delivered to an elevated and ground storage facility near the highway on the west flank of the community by a 16" main. . Water is distributed from the water tower throughout the City through a system of pipes which range from 2" to 12" in size. The drawing shows that all of the newer residential neighborhoods are served by 8" mains, which size is required for volumes and pressures necessary for adequate fire protection.

In general, the potable water system is in good repair and adequate for current and near future years. The City has appropriate water rights to assure adequate supply for the near future, however, substantial population growth and physical expansion is forecasted to occur throughout the 10-year planning period and beyond with associated growth in water demand and usage. In order to assure continuation of high quality water service, the City should complete a water system master plan geared to identification of future needs for water supply, storage and distribution. In addition to basic physical improvements, the water system master plan should include consideration of emerging standards and requirements for water processing and resource conservation as well as final product quality.


WATER TOWER
SEWAGE TREATMENT PLANT
HIGH SCHOOL
15TH STREET SOUTH (U.S. HIGHWAY 54)
45TH STREET SOUTH (MAPLE)
23RD STREET SOUTH
CENTRAL KANSAS RAILWAY
ATCHINSON, TOPEKA, AND SANTA FE RAILROAD
MAIN STREET SOUTH (MAPLE)
WEST SECOND CIRCLE NORTH
MARTENS DRIVE
DRIVE NOT OPEN
INDUSTRIAL ROAD
DRAINAGE DEDICATION
8"
12"
16"
4"
1" = 1600'
POTABLE WATER SYSTEM
SCHEMATIC
GODDARD, KANSAS
EXISTING WATER

In this regard, the master plan should include a water conservation policy for application throughout the community. The policy should address current water conserving plumbing techniques, water usage patterning, and application of low water demand landscaping through use of xeriscaping. These methods together have the potential to affect a significant decrease in the annual per capita water requirements.

SANITARY SEWER

A sanitary sewer system is a network of pipelines which collect liquid wastes from individual dwelling units and other water use points. The network of pipes then conveys the wastewater to the sewage treatment area prior to disposal. Collection, treatment and disposal of sewage are essential to the health of the general public, and for a quality environment in the community. The system is designed for gravity flow to the maximum possible extent to assure reliability and economy of operation. A pumping station and force main are used where necessary to lift the sewage to a higher elevation where gravity flow can be resumed.

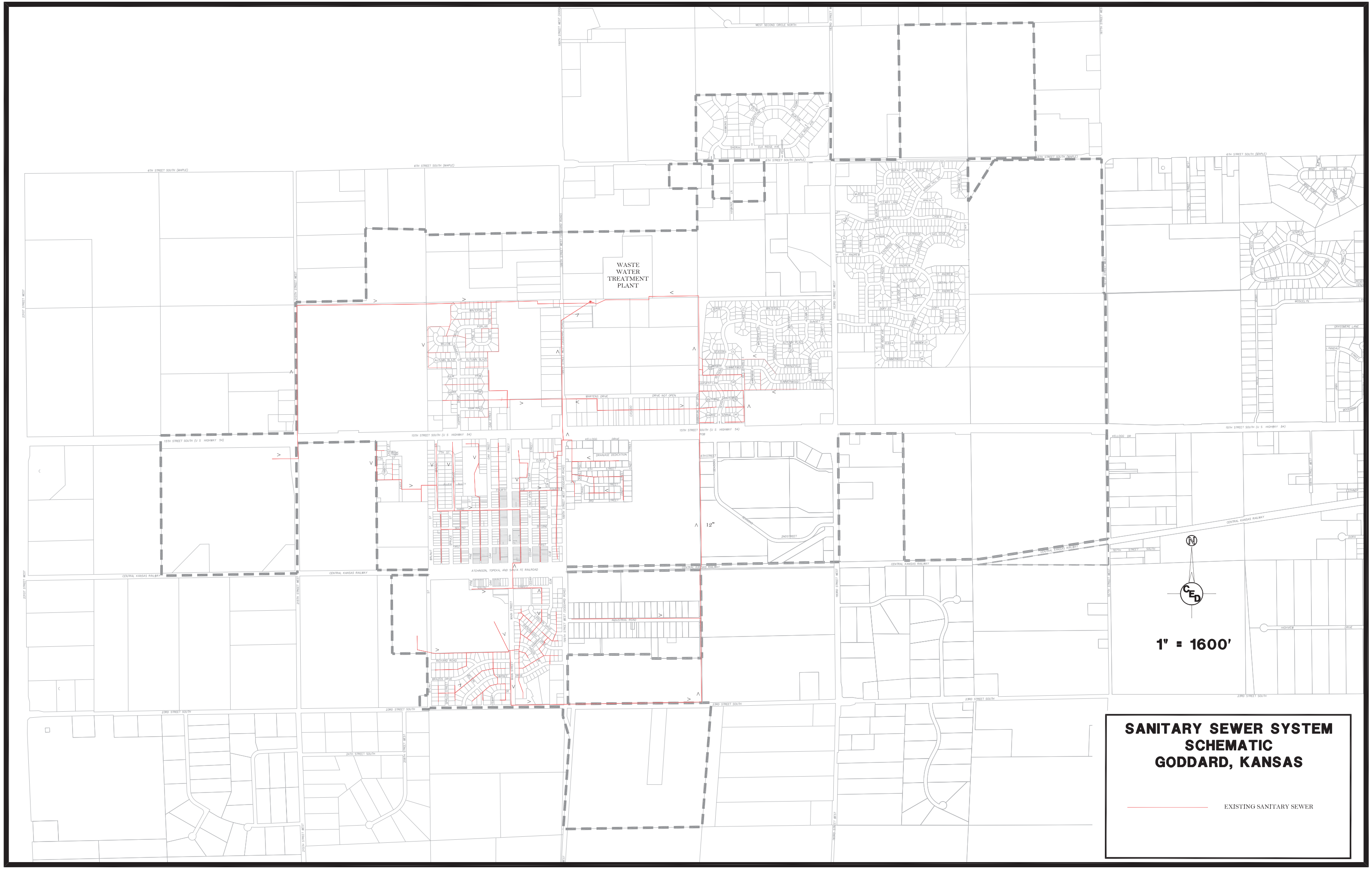
A schematic diagram showing the municipal sanitary sewer system is shown on the following figure. The drawing shows that the incorporated area of the City is served by the system with collected wastewater delivered to a treatment plant located on the northern flank of the City east of 199th ST W and near the Westar utility substation.

As with the potable water system, however, continues community growth will be accompanied by attendant increases in overall sewage volume to be collected, transported and treated.

As the community grows and expands into previously undeveloped areas, need for sanitary sewer modifications must be carefully monitored to assure that service extensions will pace actual development. Additionally, as the need for expansions develops, the extensions should be carefully planned to avoid the need for lift stations to a maximum extent. Like the water system, the City should carefully consider the full impact of service extensions and should seek to limit, or discourage, system expansions which will encourage a scattered and haphazard suburban development.

In order to assure continuing adequacy of the overall system, including the treatment plant, the City should maintain the sewer system master plan oriented toward establishment of development policies and programming of future improvements. The land use studies developed earlier shows that in the years ahead there will be substantial expansion of existing system on the north and northeast. It is important that the sewer system development keeps pace with urban expansion with extensions occurring on a rational and planned basis. Fortunately, much of the future service area on the north will be at higher elevations where reliance upon force main systems can be minimized.

Overall, planned extensions of water and sewer service are among the primary means of guiding and encouraging future growth toward a planned development. Development is usually retarded where water and sewer are not available and stimulated where new growth areas can be easily connected to existing systems. This is an especially effective means of guiding future residential and industrial growth.


WASTE
WATER
TREATMENT
PLANT
1" = 1600'
SANITARY SEWER SYSTEM
SCHEMATIC
GODDARD, KANSAS
EXISTING SANITARY SEWER
45TH STREET SOUTH (MAPLE)
15TH STREET SOUTH (U.S. HIGHWAY 54)
23RD STREET SOUTH
24TH STREET SOUTH
CENTRAL KANSAS RAILWAY
ATCHINSON, TOPEKA, AND SANTA FE RAILROAD
MAIN STREET
2ND STREET
12"

SOLID WASTE DISPOSAL

Methods and practices of dispersing of solid waste generated by urban development have become increasingly important issues for most communities in recent years. Materials generated by the Goddard community are collected by commercial haulers for disposal at an out-of-county location. Due to current state and federal requirements for solid waste disposal it is no longer practical for small communities to operate a landfill, and all counties in the state are required to maintain a short and long range plan for disposing of waste generated in their administrative jurisdictions.

Solid waste volumes requiring disposal are variable by community, with rates of generation affected by the density of residential neighborhoods, the type and extent of commercial business, and the characteristics of industrial development in the area. In most similar communities, the largest volumes of solid waste are represented by household and commercial wastes, with lesser quantities of industrial and agricultural wastes. Overall, daily generation rates of from 3 to 5 pounds of solid waste per person per day for material from all sources is typical of this type of community pattern. Because of the predominately residential character of the community, actual solid waste generation rates at the present time are likely in the lower range of these values for Goddard.

Current and Future Waste Generation Patterns

Although the community will not be directly responsible for solid waste disposal, it is nevertheless helpful to have some idea of potential solid waste generation as an aspect of community facility planning. Because Goddard appears poised for substantial growth in all categories of land use in the years ahead, daily per capita solid waste volumes will be assumed to evidence some degree of increase throughout the planning period. Within this general pattern, for the purposes of estimating solid waste volumes, rates of from 3.0 to 5.0 pounds per person per day for solid waste generation from all sources will be assured. Based on this range, the following annual per capita rates will be used in the waste generation forecast:

Table 31
Solid Waste
Generation Standard

Year	Pounds Per Person Per Day
2000	3.0
2005	3.0
2010	3.5
2015	4.0
2020	4.5
2025	5.0

While the waste generation factors are expected to demonstrate some degree of expansion during the period, the extent of enlargement is well below that which otherwise might be expected due to waste stream reduction programs mandated by state government. Without these programs, generated solid wastes requiring disposal could reach as much as 6 to 7 pounds per persons per day during the 20-year planning period.

Founded on these assumptions for solid waste generation and balanced by the estimates of future community populations, an estimate of potential solid waste in tons per year can be prepared. These values are summarized in the following table.

TABLE 32
ESTIMATED SOLID WASTE GENERATION
City of Goddard, Kansas

Year	Estimated Population	Estimated Solid Waste {Tons Per Year}
2000	2,037	1,115
2005	3,337	1,827
2010	4,459	2,848
2015	6,542	4,776
2020	8,813	7,238
2025	9,390	8,568

The projection shows that increasing population levels may be expected to result in substantially magnified solid waste volumes, which could register more than 600 percent increase over the course of the planning period. If future growth patterns also include substantial increases in commercial and industrial uses, the actual volume of solid waste requiring disposal could be even greater.

Because waste disposal issues will become increasingly acute administratively, the City should maintain a program of review and monitoring of waste collection activities and practice to help assure an adequate level of service in all areas of the community. Toward this end, review of solid waste handling arrangements should also be an aspect of review for all future subdivision and community expansion proposals.

Additionally, as the community enlarges, municipal waste stream reduction programs, such as waste separation, recycling and composting will become increasingly important, as will maintenance of local capacity for disposal of construction debris and yard waste.

SECTION VIII

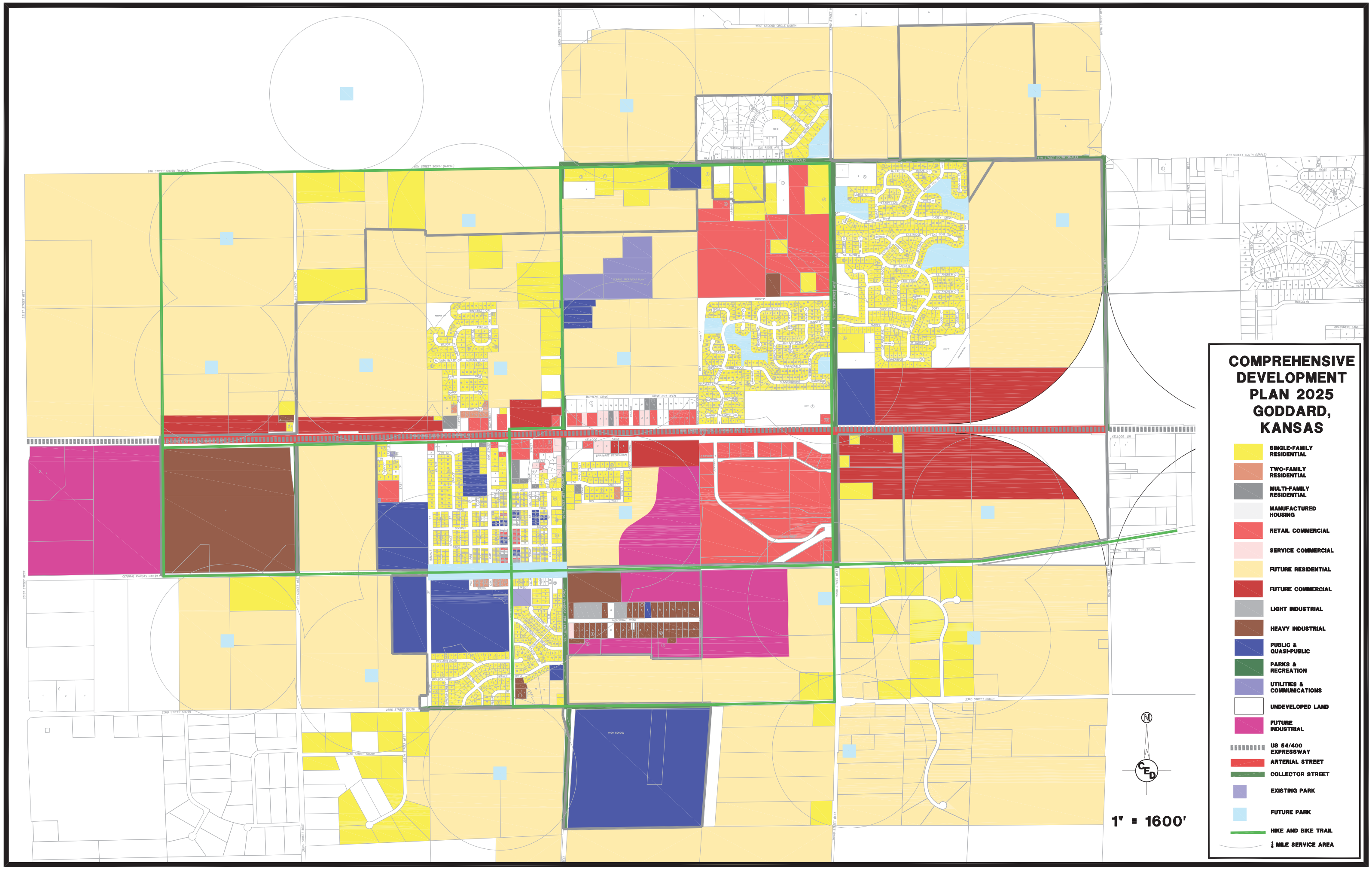
PLAN IMPLEMENTATION

INTRODUCTION

The question of how to implement the intent and proposals of the completed and legally adopted comprehensive plan is both the most important and most difficult consideration of the planning process for most communities. Recognizing that plans are of little value if they are not followed and carried out to the greatest extent possible, the processes and means employed to effect a close correspondence between the plan and actual community development are of special concern.

COMMUNITY COMPREHEHSIVE DEVELOPMENT PLAN

The Comprehensive Development Plan for the Goddard community is shown in graphic format on the following figure. The map illustrates the potential physical characteristics of the future community toward the end of the planning period if all of the planning recommendations developed in the earlier individual planning studies were to materialize essentially as envisioned.


COMPREHENSIVE DEVELOPMENT PLAN 2025
GODDARD, KANSAS
SINGLE-FAMILY RESIDENTIAL
TWO-FAMILY RESIDENTIAL
MULTI-FAMILY RESIDENTIAL
MANUFACTURED HOUSING
RETAIL COMMERCIAL
SERVICE COMMERCIAL
FUTURE RESIDENTIAL
FUTURE COMMERCIAL
LIGHT INDUSTRIAL
HEAVY INDUSTRIAL
PUBLIC & QUASI-PUBLIC
PARKS & RECREATION
UTILITIES & COMMUNICATIONS
UNDEVELOPED LAND
FUTURE INDUSTRIAL
US 54/400 EXPRESSWAY
ARTERIAL STREET
COLLECTOR STREET
EXISTING PARK
FUTURE PARK
HIKE AND BIKE TRAIL
½ MILE SERVICE AREA
1" = 1600'
N
CED
6TH STREET SOUTH (MAPLE)
23RD STREET SOUTH
24TH STREET SOUTH
CENTRAL KANSAS RAILWAY
US 54 EXPRESSWAY
WEST SECOND CIRCLE NORTH
MARTENS DRIVE
DRIVE NOT OPEN
KELLOGG DRIVE
DRAINAGE DEDICATION
INDUSTRIAL ROAD
HIGH SCHOOL
SEWAGE TREATMENT PLANT
ST. ANDREW
SPRING HILL DRIVE
OAK RIDGE
MOSCELYN
GRASSMERE LANE
KELLOGG DR
19TH STREET WEST (DOCK)
19TH STREET WEST
20TH STREET WEST
21ST STREET WEST
22ND STREET WEST
23RD STREET WEST
24TH STREET WEST
25TH STREET WEST
26TH STREET WEST
27TH STREET WEST
28TH STREET WEST
29TH STREET WEST
30TH STREET WEST
31ST STREET WEST
32ND STREET WEST
33RD STREET WEST
34TH STREET WEST
35TH STREET WEST
36TH STREET WEST
37TH STREET WEST
38TH STREET WEST
39TH STREET WEST
40TH STREET WEST
41ST STREET WEST
42ND STREET WEST
43RD STREET WEST
44TH STREET WEST
45TH STREET WEST
46TH STREET WEST
47TH STREET WEST
48TH STREET WEST
49TH STREET WEST
50TH STREET WEST
51ST STREET WEST
52ND STREET WEST
53RD STREET WEST
54TH STREET WEST
55TH STREET WEST
56TH STREET WEST
57TH STREET WEST
58TH STREET WEST
59TH STREET WEST
60TH STREET WEST
61ST STREET WEST
62ND STREET WEST
63RD STREET WEST
64TH STREET WEST
65TH STREET WEST
66TH STREET WEST
67TH STREET WEST
68TH STREET WEST
69TH STREET WEST
70TH STREET WEST
71ST STREET WEST
72ND STREET WEST
73RD STREET WEST
74TH STREET WEST
75TH STREET WEST
76TH STREET WEST
77TH STREET WEST
78TH STREET WEST
79TH STREET WEST
80TH STREET WEST
81ST STREET WEST
82ND STREET WEST
83RD STREET WEST
84TH STREET WEST
85TH STREET WEST
86TH STREET WEST
87TH STREET WEST
88TH STREET WEST
89TH STREET WEST
90TH STREET WEST
91ST STREET WEST
92ND STREET WEST
93RD STREET WEST
94TH STREET WEST
95TH STREET WEST
96TH STREET WEST
97TH STREET WEST
98TH STREET WEST
99TH STREET WEST
100TH STREET WEST

ADOPTING THE COMPREHENSIVE PLAN

The Comprehensive Plan is formally adopted by the Governing Body after preparation and recommendation by the Planning Commission as outlined in K.S.A. 12-747, which states in part:

---- "The Planning Commission may adopt and amend a Comprehensive Plan as a whole by a single resolution, or by successive resolutions, the Planning Commission may adopt or amend parts of the plan. Such resolution shall identify specifically any written presentations, maps, plats, charts or other materials made a part of such plan. ----

---- Before adopting or amending any such plan or part thereof, the Planning Commission shall hold a public hearing thereon, notice of which shall be published at least once in the official city newspaper in the case of a city or in the official county newspaper in the case of a county. Such notice shall be published at least 20 days prior to the date of the hearing. Upon the adoption or amendment of any such plan or part thereof by adoption of the appropriate resolution by the Planning Commission, a certified copy of the plan or part thereof, together with a written summary of the hearing thereon, shall be submitted to the Governing Body. No Comprehensive Plan shall be effective unless approved by the Governing Body as provided by this section. The Governing Body either may: (1) Approve such recommendations by ordinance in a city or resolution in a county; (2) override the Planning Commission's recommendation by as 2/3 majority vote; (3) may return the same to the Planning Commission for further consideration, together with a statement specifying the basis for the Governing Body's failure to approve or disapprove. If the Governing Body returns the Planning Commission's recommendations, the Planning Commission, after considering the same, may resubmit its original recommendations giving the reasons therefore or submit new and amended recommendations. Upon the receipt of such recommendations, the Governing Body, by a simple majority thereof, may adopt or may revise or amend and adopt such recommendations by the respective ordinance or resolution, or it need take no further action thereon. If the Planning Commission fails to deliver its recommendations to the Governing Body following the Planning Commission's next regular meeting after receipt of the Governing Body's report, the Governing Body shall consider such course of inaction on the part of the Planning Commission as a resubmission of the original recommendations and proceed accordingly. The Comprehensive Plan and any amendments thereto shall become effective upon publication of the respective adopting ordinance or resolution."

Once the plan has been formally adopted, copies must be made available to the other taxing jurisdictions, and at least once each year the Planning Commission is required to review the plan and associated measures for needed changes, or updating. In this respect, K.S.A. 122-747 states:

---- "An attested copy of the comprehensive plan and any amendments thereto shall be sent to all other taxing subdivisions in the planning area which request a copy of such plan. Such plan or part thereof shall constitute the basis or guide for public action to insure a coordinated and harmonious development or redevelopment which will best promote the health, safety, morals, order, convenience, prosperity and general welfare as well as wise and efficient expenditure of public funds.

At least once a year, the Planning Commission shall review or reconsider the plan or any part thereof and may propose amendments, extension or additions to the same. The procedure for the adoption of any such amendment, extension or addition to any plan or part thereof shall be the same as that required for the adoption of the original plan or part thereof."

Beyond the statutory provisions for formal administrative adoption of the plan as the official guide for future community development, the intent of the plan is further defined and implemented through adoption of an action plan to provide a guide to realization of the findings and recommendations of the individual planning studies.

ACTION PLAN

Over the course of the planning project, the detailed studies of current and potential future community characteristics identified a range of needs which were documented within the individual research subject headings. These needs, often expressed in the form of planning recommendations, were developed through a multi-year planning process involving the Goddard City Planning Commission, the Goddard Governing Body, municipal operating departments, and members of the general public. The planning process, facilitated by a professional planning consultant, involved a series of meetings which included special presentations concerning the process and recommendations of the Comprehensive Planning project. The results of these meetings combined with the community research developed by the consultant provided detail and background for development of the long range planning directions, which were expressed initially as a detailed series of goals and objectives followed by specific planning directions and recommendations prepared by major subject heading.

Concerning the Action Plan, or Planning Implementation Process and Schedule, the following table notes major needs and recommendations by major comprehensive plan element or classification, and outlines priorities, goals and objective, action steps, primary responsibility, resources available, results expected and potential year or years of initiation. In this sense the table outlines a process for implementing the findings of the planning studies.

Table 33
Action Plan
City of Goddard

Classification	Priority*	Goals	Objectives	Action Steps	Primary Responsibility	Resources Available	Results Expected	Expected Year
Land Use	1 and on going	Influence orderly and efficient expansion patterns	Utilize a planned approach to guide future development	Adopt an updated Comprehensive Plan	City of Goddard	City and State Funds	Planned municipal growth patterns	2015-2025
	1 and on going		Assure proper spatial relationship of various types of uses of land	Maintain and utilize the Future Land Use Plan	City of Goddard	City Funds	Cohesive land use patterns	2015-2025
			Minimize conflicts of incompatible uses of land	Adopt and utilize appropriate zoning controls	City of Goddard	City Funds	Limitations of potential land use conflicts	2015-2025
			Protect flood hazard areas from urban development	Maintain and enforce flood-plain regulations	City of Goddard	City Funds	Reduction of flood damage potential	2015-2025
			Utilize effective zoning and subdivision controls	Adopt and maintain Zoning Ordinance and Subdivision Regulations	City of Goddard	City Funds	Control of land utilization patterns	2015-2025
			Use formal policies to guide land development	Adopt and utilize the community growth policy statement	City of Goddard	City Funds	Provide a policy basis for development decisions	2015-2025
	1 and on going		Regularly review and update all planning documents	Establish a formal yearly review schedule	City of Goddard	City Funds	Maintenance of current and effective community planning decisions	2015-2025
HOUSING	1 and on going	Promote adequate housing for all citizens	Assure safe, sanitary, and decent housing	Provide every living unit with all public utility services	City of Goddard / Private Property Owners	City / State / Private Funds	Adequate housing for all citizens	2015-2025
	1 and on going	Promote equal access to housing for all citizens	Eliminate discriminatory policies with regard to housing access	Adopt and enforce equal opportunity programs and standards	City of Goddard	City Funds	Equitable access to housing for all citizens	2015-2025
	1 and on going	Influence functionally efficient and environment-tally safe neighborhoods	Plan future neighborhoods according to established quality standards	Utilize quality standards embodied in the Comprehensive Plan	City of Goddard / Private Developers	City / Private Funds	Functional and safe residential neighborhoods	2015-2025
			Maintain older neighborhoods and replace obsolete dwelling units	Enforce City Codes	City of Goddard	City Funds	Quality residential areas	2015-2025
				Utilize grant programs and other forms of housing assistance	City of Goddard / Private Property Owners	City / State/ Private Funds	Upgraded housing supply	2015-2025
	1 and on going	Promote housing assistance for low income families	Assist low income families with acquisition of adequate housing	Participate in grant programs and other forms of housing assistance	City of Goddard / Private Property Owners	City / State / Private Funds	Adequate housing for low income families	2015-2025
	1 and on going	Plan future residential and housing of existing neighborhoods	Assure a quality environment	Utilize the future land use plan to guide development	City of Goddard	City / State / Private Funds	Maintenance of logical and cohesive neighborhood expansion	2015-2025

Table 33
Action Plan
City of Goddard

Classification	Priority	Goals	Objectives	Action Steps	Primary Responsibility	Resources Available	Results Expected	Expected Year
Transportation	1 and on going	Maintain a balanced and efficient municipal street system	Utilize a planned approach to future street development	Adopt a Major Street Plan	City of Goddard	City funds	Balanced and adequate municipal street system	2015 – 2025
			Utilize appropriate design standards and policies for street types	Adopt planning standards for design of area streets	City of Goddard	City funds	Adequate street service characteristics	2015 – 2025
			Maintain existing streets in good repair	Continue an aggressive street maintenance and repair program	City of Goddard	City funds	Functionally adequate streets	2015 – 2025
			Progressively upgrade the major street system	Cooperate with KDOT and participate in available grant programs	City of Goddard	City / State funds	Safe and efficient operational characteristics	2015 – 2025
	2 – 3	Develop an alternative transportation facility	Install a hike and bike trial	Design trail and assemble funding	City of Goddard	City / State funds	Enhanced non-motorized transportation capability	2015
	4	Upgrade US 54 to freeway standard	Complete final plans	Cooperate with KDOT and Sedgwick County	KDOT	State / Federal funds	Enhanced traffic flow	2025 and beyond
	4	Upgrade 199th ST from US 54 south to arterial standards	Develop construction plans and specifications	Assemble funding and let contract	City of Goddard	City/ States funds	Improve traffic carrying capacity	2020
	1 – 2	Upgrade Maple Street to collector standard	Develop construction plans and specifications	Assemble funding and let contract	City of Goddard	City/ States funds	Improve traffic carrying capacity	2015
	1 – 2	Upgrade east 23rd Street to collector standard	Develop construction plans and specifications	Assemble funding and let contract	City of Goddard	City/ States funds	Improve traffic carrying capacity	2020
	2 – 3	Upgrade west 23rd Street to collector standard	Develop construction plans and specifications	Assemble funding and let contract	City of Goddard	City/ States funds	Improve traffic carrying capacity	2025
	1 – 2	Upgrade north 199th Street south of Maple to collector standard	Develop construction plans and specifications	Assemble funding and let contract	City of Goddard	City/ States funds	Improve traffic carrying capacity	2020
	4	Upgrade Main Street to collector standard	Develop construction plans and specifications	Assemble funding and let contract	City of Goddard	City/ States funds	Improve traffic carrying capacity	2025
	4	Upgrade 215th to collector standard	Develop construction plans and specifications	Assemble funding and let contract	City of Goddard	City/ States funds	Improve traffic carrying capacity	2025
	1 – 2	Upgrade 183rd to collector standard	Develop construction plans and specifications	Assemble funding and let contract	City of Goddard	City/ States funds	Improve traffic carrying capacity for new development	2018
	4	Develop new west side collector from Maple south to 23rd ST South	Develop construction plans and specifications	Assemble funding and let contract	City of Goddard	City/ States funds	Improve traffic carrying capacity for new development	2025

Table 33
Action Plan
City of Goddard

Classification Public Facilities	Priority*	Goals	Objectives	Action Steps	Primary Responsibility	Resources Available	Results Expected	Expected Year
Parks & Recreation	1 – 2	Install playlots in developing neighborhoods on the northwest	Prepare development plans	Assemble funding and complete construction	City of Goddard / Developers	City / Private Funds	Provide outdoor recreation for residents of surrounding neighborhoods	2018
	3 – 4	Install playlots in developing neighborhoods on the southwest	Prepare development plans	Assemble funding and complete construction	City of Goddard / Developers	City / Private Funds	Provide outdoor recreation for residents of surrounding neighborhoods	2018
	3 – 4	Install playlots in developing neighborhoods on the southeast	Prepare development plans	Assemble funding and complete construction	City of Goddard / Developers	City / Private Funds	Provide outdoor recreation for residents of surrounding neighborhoods	2018
	1	Develop a new City Park North of Kellogg	Prepare plans and specifications	Assemble funding and lot contract	City of Goddard	City / State Funds	Develop a large City park for recreation	2015
	1 and on going	Complete Hike & Bike Trails	Prepare plans and specifications	Assemble funding and lot contract	City of Goddard	City / State Funds	Expanded outdoor recreation opportunities	2015
City Hall	4	Develop a new combined administrative complex	Prepare plans and specifications	Assemble funding and complete construction	City of Goddard	City Funds	Provide adequate space for expanding staff and administrative functions	2020
Community Center	4	New center in administrative complex	Include in complex plans	Fund as part of new Administrative Complex	City of Goddard	City Funds	Provide adequate space for expanding needs	2020
Public Works Facility	3	Develop a new facility	Prepare plans and specifications	Assemble funding and complete construction	City of Goddard	City Funds	Provide adequate space for required functions	2025
Police Department	2 – 3	New police station at administrative center	Include in complex plans	Fund as part of new Administrative Complex	City of Goddard	City Funds	Provide adequate space for expanding staff and functional requirements	2020
Public Library	2 – 3	Remodel or New Library to provide more space	Prepare plans and specifications	Assemble funding and complete construction	City of Goddard	City Funds	Provide adequate space for expanding needs and public use	2020
Water System	2 – 3	Develop a Water System Master Plan	Prepare research and formulate plan	Adopt master plan for future system expansion and rehabilitation	City of Goddard	City Funds	Prepare for future expansion and systematic maintenance and upgrades of existing facilities	2017
Sewer System	2 – 3	Develop a Sewer System Master Plan	Prepare research and formulate plan	Adopt master plan for future system expansion and rehabilitation	City of Goddard	City Funds	Prepare for future expansion and systematic maintenance and upgrades of existing facilities	2017

OTHER TOOLS OF IMPLEMENTATION

In addition to the direct process of implementing specific improvement projects, there are a range of ancillary tools for implementing the philosophy and intent of the Comprehensive Plan. Among these are the following:

ZONING ORDINANCE

Zoning regulates the use, height and area of buildings. It is accomplished by dividing the City into uniform use districts and preparing regulations for each of the districts. The Zoning Ordinance and District Map should bear a substantial relationship to the Comprehensive Plan and its documentation if it is to be used as a successful tool in maintaining a healthful and wholesome community with proper land use relationships.

In order to keep the Zoning Ordinance in time with emerging social values and development technologies it may become necessary to incorporate revisions from time to time. Such changes should occur through the process of comprehensive review to assure that revisions will reflect the needs of the total community rather than the individual desire of isolated elements. It is important that the Zoning Ordinance continue to reflect the established goal and policies of the community for long range use of available land resources.

IMPLEMENTING THE ZONING ORDINANCE

Implementation of the Zoning Ordinance will involve a series of procedures for adopting the ordinance; amending the text of the ordinance; making changes to district boundaries; processing requests for variances and exceptions; and processing requirements for special reviews, as are required for the Planned Unit Development District. These guidelines also include the procedure for processing appeals to the Board of Zoning Appeals.

Adopting the Zoning Ordinance

The Zoning Ordinance is adopted by the governing body upon recommendations of the Planning Commission. In this regard, K.S.A. 12-756 states in part:

---- "Upon the development of proposed zoning regulations, the planning commission shall hold a public hearing thereon. Notice of such public hearing shall be published at least once in the official city newspaper in the case of a city or in the official county newspaper in the case of a county at least 20 days prior to the date of the hearing. In the case of a joint zoning board, notice of such hearing shall be published in the official city and official county newspapers. Such notice shall fix the time and place for such hearing and shall describe such proposal in general terms. The hearing may be adjourned from time to time and at the conclusion of the same, the planning commission shall prepare its recommendations and by an affirmative vote of a majority of the entire membership of the commission adopt the same in the form of a proposed zoning regulations and shall submit the same, together with the written summary of the hearing thereon, to the governing body. The governing body either may: (1) Approve such recommendations by the adoption of the same by ordinance in a city or resolution in a county; (2) override the planning commission's recommendations by a 2/3 majority vote of the

membership of the governing body; or (3) may return the same to the planning commission for further consideration together with a statement specifying the basis for the governing body's failure to approve or disapprove. If the governing body returns the planning commission's recommendations, the planning commission, after considering the same, may resubmit its original recommendations giving the reasons therefore or submit new and amended recommendations. Upon the receipt of such recommendations, the governing body, by a simple majority thereof, may adopt or may revise or amend and adopt such recommendations by the respective ordinance or resolution, or the governing body need take no further action thereon. If the planning commission fails to deliver its recommendations to the governing body following the planning commission's next regular meeting after receipt of the governing body's report, the governing body shall consider such course of inaction on the part of the planning commission as a resubmission of the original recommendations and proceed accordingly. The proposed zoning regulations and any amendments thereto shall become effective upon publication of the respective and adopting ordinance of resolution."

When entire ordinance is to be adopted, the actual administrative process can provide for adoption by reference. This process is outlined by K.S.A. 12-3009 which states:

---- "Any City is hereby authorized and empowered to incorporate in an ordinance by reference, in the manner hereinafter provided, any standard or model code or ordinance, regulation having the effect of law of a state officer, board or other agency, or statute, or portions thereof on any subject on which a city may legislate, which standard or model code or ordinance or state regulation is available in book or pamphlet form: Provided, that nothing herein shall be deemed to waive any statutory procedural requirement concerning a zoning ordinance, except that any city may incorporate by reference in conformity with K.S.A. 12-3010 a zoning ordinance or subdivision regulations in code form as that term is defined in K.S.A. 12-3301© if all other procedural requirements set forth in K.S.A. 12-708 are met."

Subject to the further detailed procedural requirements of K.S.A. 12-3010, the City may adopt the ordinance without reprinting in its entirety. K.S.A. 12-3010 states in part:

---- "The provisions of any standard or model code or ordinance, state regulations or statute or portions thereof incorporated in an ordinance by reference shall be as much a part of the ordinance as if the same had been set out in full therein."

The statute also contains detailed requirements for clear notation of any changes; that three copies of the ordinance adopted by reference must be filed with the city clerk to be open for public inspection and that all administrative departments charged with the enforcement of the ordinance be supplied official copies for their use.

Because adoption of a new ordinance is a community process initiated by the planning commission and governing body, no particular application format is applicable.

Amendments to the Zoning Ordinance and Official Map

Amendments to the zoning ordinance and official map may involve changes in the language of the text of the ordinances, or a change in the zoning district boundaries as shown on the official map. Requests for text or map changes may be initiated by a private citizen as well as any agency of government. Such changes are, in general, handled in the same manner as the original adoption procedures, except that property owner notification is required for changes on the official map.

Concerning proposals for zoning amendments, K.S.A. 12-757 states in part:

"----A proposal for such amendment may be initiated by the governing body or the planning commission. If such proposed amendment is not a general revision of the existing regulations and affects specific property, the amendment may be initiated by application of the owner of property affected. Any such amendment, if in accordance with the land use plan or the land use element of a comprehensive plan, shall be presumed to be reasonable.----"

"---- All such proposed amendments first shall be submitted to the planning commission for recommendation. The planning commission shall hold a public hearing thereon, shall cause an accurate written summary to be made of the proceedings, and shall give notice in like manner as that required for recommendations on the original proposed zoning regulations provided in section I 8. Such notice shall fix the time and place for such hearing and contain a statement regarding the proposed changes in regulations or restrictions or in the boundary or classification of any zone or district. If such proposed amendment is not a general revision of the existing regulations and affects specific property, the property shall be designated by legal description or a general description sufficient to identify the property under consideration. In addition to such publication notice, written notice of such proposed amendment shall be mailed at least 20 days before the hearing to all owners of record of lands located within at least 200 feet of the area proposed to be altered for regulations of a city and to all owners of record of lands located within at least 1,000 feet of the area proposed to be altered for regulations of a county. If a city proposes a zoning amendment to property located adjacent to or outside the city's limits, the area of notification of the city's action shall be extended to at least 1,000 feet in the unincorporated area. ----"

The statute also provides for public protest concerning proposed amendments to the ordinance, and defines the circumstances under which a protest may be filed and considered:

---- "Regardless of whether or not the planning commission approves or disapproves a zoning amendment, if a protest petition against such amendment is filed in the office of the city clerk or the county clerk within 14 days after the date of the conclusion of the public hearing pursuant to the publication notice, signed by the owners of record 20% or more of any real property proposed to be zoned or by the owner of record of 20% of more of the total area required to be notified b this act of the proposed rezoning of a specific property, excluding streets and public ways, the ordinance or resolution adopting such amendment shall not be passed except by at least a % vote of all of the members of the governing body."

Because proposals for either text or map changes, or both in combination, will occasion the need for a range of specific information for administrative considerations, it is appropriate to maintain a formal application process utilizing a standard application format. A sample zoning change application is appended to this section of the plan.

Special Use Permits (Exceptions)

In instances where specific zoning district language allows certain uses or exceptions by special use permit, a formal application and review process by the board of Zoning Appeals is required. Concerning exceptions by special use permit, K.S.A. 12-759 state in part:

---- "When deemed necessary by the board of zoning appeals, the board may grant variances and exceptions from the zoning regulations on the basis and the manner hereinafter provided:

----to grant exceptions to the provisions of the zoning regulation in those instances where the board is specifically authorized to grant such exceptions and only under the terms of the zoning regulation.

In no event shall exceptions to the provisions of the zoning regulation be granted where the use or exception contemplated is not specifically listed as an exception in the zoning regulation. Further, under no conditions shall the board of zoning appeals have the power to grant an exception when conditions of this exception, as established in the zoning regulation by the governing body, are not found to be present."

Through this process, both administrative and public reviews are assured, with the Board of Zoning Appeals retaining the authority to require whatever safeguards as may be deemed necessary to protect the interest of the neighborhood and the surrounding community.

A sample application for a special use permit is appended to this section of the plan.

Appeals and Variances

The state enabling legislation also provides for an appeals process where there is alleged to have been error in interpretation of the ordinance or map, or where a variance from the strict terms of the ordinance is desired. With respect to Board of Zoning Appeals authority in this regard, K.S.A. 12-759 states in part:

---- "Appeals to the board of zoning appeals may be taken by any person aggrieved, or by any officer of the city, county or any government agency or body affected by any decision of the officer administering the provisions of the zoning ordinance or resolution. Such appeal shall be taken within a reasonable time as provided by the rules of the board, by filing a notice of appeal specifying the grounds thereof and the payment of the fee required therefore. The officer from whom the appeal is taken, when notified by the board or its agent, shall transmit to the board all the papers constituting the record upon which the action appealed from was taken. The board shall have the power to hear and decide appeals where it is alleged there is error in any order, requirement, decision, or determination made by an administrative official in the enforcement of the zoning ordinance or resolution. In exercising the foregoing powers, the board, in conformity with the provisions of this act, may revise or affirm, wholly or partly, or may modify the order,

requirements, decision, or determination, and to that end shall have all the powers of the officer from whom the appeal is taken, may attach appropriate conditions, and may issue or direct the issuance of a permit."

The Board may also...

---- "authorize in specific cases a variance from the specific terms of the regulations which will not be contrary to the public interest and where, due to special conditions, a literal enforcement of the provisions of the regulations, in an individual case, results in unnecessary hardship, and provided that the spirit of the regulations shall be observed, public safety and welfare secured, and substantial justice done. Such variance shall not permit any use not permitted by the zoning regulations in such district. A request for variance may be granted in such case, upon a finding by the board that all of the following conditions have been met: (A) that the variance requested arises from such condition which is unique to the property in question and which is not ordinarily found in the same zone or district; and is not created by an action or actions of the property owner or the applicant; (B) that the granting of the permit for the variance will not adversely affect the rights of adjacent property owners or residents; (C) that the strict application of the provisions of the zoning regulations of which variance is requested will constitute unnecessary hardship upon the property owner represented in the application; (D) that the variance desired will not adversely affect the public health, safety, morals, order, convenience, prosperity, or general welfare; and (E) that granting the variance desired will not be opposed to the general spirit and intent of the zoning regulations;----"

The statute also provides a route to challenge or appeal actions and decisions of the Board. In this respect the statute notes the following:

---- "Any person, official or governmental agency dissatisfied with any order or determination of the board may bring an action in the district court of the county to determine the reasonableness of any such order or determination. Such appeal shall be filed within 30 days of the final decision of the board."

The Board of Appeals functions in a quasi-judicial capacity and acts as the official interpreter of the zoning regulations. Decisions and actions of the board are subject to review and revision only by the district court.

The function of the board is a most important one and must be approached with impartiality. In many cases, property values will be significantly influenced by board decisions.

Sample application forms for zoning appeals and variances are appended as attachments to this section of the plan.

PLANNED UNIT DEVELOPMENT

The zoning ordinance for the community contains a PUD, Planned Unit Development District, which is oriented toward an extensive administrative and public review prior to approval of the development and zoning proposal. Designed to operate in the same manner as any other zoning change, procedures for the PUD zone, as outlined in the ordinance, require a public hearing and Planning Commission recommendation prior to action by the governing body.

Because PUD proposals will typically involve unusual development and platting details, a range of background information is required to aid in the review process. It is important that the applicant receive a clear and concise explanation of the detailed process requirements at the outset. To aid in this process, a sample format for a PUD Planned Unit Development District application is appended to this section of the plan.

FLOODPLAIN AREAS

An additional aspect of zoning which is potentially important where there may be defined flood hazard areas is that of administration of formal floodplain zoning. Concerning legal authority, K.S.A. 12-766 states in part:

---- "The governing body may establish floodplain zones and districts and restrict the use of land therein and may restrict the application thereof to lands, adjacent to watercourses, subject to floods of a lesser magnitude than that having a chance occurrence in any one year of 1%.

Any floodplain regulations shall comply with the minimum requirements of the national flood insurance act of 1968, as amended (42 U.S.C. 84001 et seq.) or any rules and regulations adopted pursuant thereto.

(b) Prior to the adoption thereof, the governing body shall submit to the chief engineer of the Division of Water Resources of the State Board of Agriculture any ordinance, resolution, regulation or plan that proposes to create or to effect any regulation or plan that proposes to create or to effect any change in a floodplain zone or district, or that proposes to regulate or restrict the location and use of structures, encroachments, and uses of land within such an area. The chief engineer may require, pursuant to rules and regulations, each submission hereunder to be accompanied by complete maps, plans, profiles, specifications and textual matter. The chief engineer shall approve or disapprove any such ordinance, resolution, regulation or plan or changes thereof within 90 days of the date of receipt of all such data required by the chief engineer as specified in rules and regulations adopted thereby. If the chief engineer fails to approve or disapprove within the ninety day period required by this section, such ordinance, resolution, regulation or plan or change thereof shall be deemed approved. The chief engineer shall provide in writing specific reasons for any disapproval."

It will be important that any zoning regulations established through this authority be structured to acknowledge the requirements of the enabling ordinance adopted at the time the official floodplain was formalized. In this manner the hydrological integrity of the flowageway can be preserved and new structures planned to avoid damage by flooding.

ADMINISTERING THE SUBDIVISION REGULATIONS

In general, the Subdivision Regulations are administered in much the same manner as the zoning ordinance. Concerning adoption of the regulations, K.S.A. 12-749 states in part:

---- "Following adoption of a comprehensive plan, a city planning commission may adopt and amend regulations governing the subdivision of land. A city planning commission shall apply such regulations outside of, but within three miles of the nearest point of the city limits provided such land is within the same county in which the city is located and does not extend more than the distance between such city and another city which has adopted regulations under this section. A county planning commission may establish subdivision regulations for all or for parts of the unincorporated areas of the county. Subdivision regulations may include, but not to be limited to, provisions for the: (1) Efficient and orderly location of streets; (2) reduction of vehicular congestion; (3) reservation or dedication of land for open spaces; (4) off-site and on-site public improvements; (5) recreational facilities which may include, but not limited to, the dedication of land area for park purposes; (6) flood protection; (7) building lines; (8) compatibility of design; and (9) any other services, facilities and improvements deemed appropriate."

---- "Before adopting or amending any subdivision regulations, the planning commission shall call and hold a hearing on such regulations or amendments thereto. Notice of such hearing shall be published at least once in the official city newspaper in the case of a city or in the official county newspaper in the case of a county.

Such notice shall be published at least 20 days prior to the hearing. Such notice shall fix the time and place for such hearing and shall describe such proposal in general terms. ----"

"---- the planning commission shall prepare its recommendations and by an affirmative vote of the majority of the entire membership of the commission adopt the same in the form of proposed subdivision regulations and shall submit the same, together with the written summary of the hearing thereon, to the governing body. The governing body either may: (1) Approve such recommendations by ordinance in a city or resolution in a county; (2) override the planning commission's recommendation by a 2/3 majority vote; or (3) may return the same to the planning commission for further consideration, together with a statement specifying the basis for the governing body's failure to approve or disapprove.----"

In general, subdivision control is a vital tool of community planning. It is the means of shaping the development patterns of individual areas as well as of the total community.

Amendments to the Text

Amendments to the Subdivision Regulations are accomplished in the same general manner as a change to the Zoning Ordinance. As noted by K.S.A. 12-749, a public hearing is required, following the hearing, and upon action of the governing body, the changes are adopted by ordinance.

Review of Subdivision Proposals

The subdivision regulation is based on a 3-part review process consisting of:

- A pre-application review;
- Preliminary Plat review; and
- Final Plat review and approval.

Through this process, the developer, City administrative groups and the general public are afforded a broad review opportunity to assure that the new development will meet the function and quality standards of the community.

In simplified form, the process of subdivision review will occur according to a series of steps as outlined below.

1. Pre-Application. Developer meets with the City to determine process for subdivision review and to establish requirements for zoning infrastructure design and quality parameters.

2. Formal Application. Developer submits completed formal application for a subdivision platting process.

3. Preliminary Plat. Developer submits preliminary plat with a wide range of background information to allow objective review.

4. Final Plat. Based on directions from preliminary plat review, developer submits final plat with changes as requested.

5. Administrative Approval and Plat Filing. Planning Commission recommends final plat for governing body acceptance. Upon approval, plat is signed and filed with the Register of Deeds.

A sample checklist format for preliminary and final plat review is appended to this section of the plan.

Lot Splits

A prescribed by K.S.A. 12-752, a single existing tract of land may be divided into two Jots without being subject to the requirements of subdivision regulations, providing that the lots so created may not again be subdivided. The same statute also provides that land zoned for industrial uses may be divided into two or more tracts without re-platting.

While such divisions of land are exempt from the formal subdivision procedure, lot split proposals should be reviewed by the Planning Commission to determine compatibility with zoning requirements and the intent of the comprehensive plan prior to acceptance by the city. In general, lot splits should meet the following criteria:

1. The tract has not previously been split.

2. Lots resulting from the split will meet the minimum requirements of the zoning ordinance, including setback lines and access to public streets.

3. Vacation or creation of new streets, alleys, easements or other public improvements will not be required.

4. Existing street and easement rights-of-way will not be adversely affected.

5. There will be no significant change in requirements for public services.

Requests for lot splits should include at the minimum, a scale drawing of the proposed split with legal descriptions of the tracts of land; the location of any existing improvements; the location of any easements or right-of-way; and the name, signature and seal of the engineer or surveyor who prepared the drawing.

THE CONTINUING PLANNING PROCESS

In order for the plan to remain useful as a guide for community development, the process of planning must be continuous. Because cities are dynamic and marked by repeated change in response to varying social and economic circumstances, some portions of the plan may become outdated early in the planning period. Additionally, technological advancement has exerted, and will continue to exert, influence toward rethinking some of the basic concepts which are useful today.

For these reasons, maintenance of the comprehensive plan will require a continual process of review and updating if the planning concepts are to remain as useful tools for evaluating and guiding community growth.

Of special importance to this process will be current data on land use patterns, street and traffic conditions, demands for public facilities, general housing conditions and similar considerations. Maintenance of a continuing planning program may also occasion need for development of special investigations such as studies of requirements for neighborhood rehabilitation, park and recreation space or commercial expansion areas.

Also of importance is maintenance of meaningful communication between governmental agencies and the general public.

As the central purpose of the planning process is to improve the quality of the human environment, it is important that there continue to be positive efforts to involve and inform the citizens at each state of implementation.

There are many means by which this may be accomplished, including hearings, newspaper articles, notices and similar methods, as well as through information systems available from active participation of organized citizens groups. Such efforts will make available the widest possible dissemination of information about the planning process and through public education, secure the widest possible support by the citizens of the community. Where these processes and programs have been successfully carried out, the comprehensive plan will continue to provide a meaningful and useful tools for structuring of an appropriate urban environment throughout the established planning period and beyond.

ROLE OF THE PLANNING COMMISSION

In order for the implementation processes and procedures to achieve the maximum results, it is essential that the practice of local government remain in tune with the emerging needs of the community, and that these needs be channel toward the concepts envisioned by the comprehensive plan. In this regard, the Planning Commission operates in the forefront through exercise of its authority for review of new development prior to consideration by the governing body. All proposals for new projects should be reviewed by the Planning Commission as should plans for improvement and extension of public facilities. It is at this stage of the review process where the initial, and many feel the most significant, impact can be brought to bear on the issue of influencing development patterns which reflect the concepts and intent of the comprehensive plan.

The Planning Commission should also be actively involved with development and maintenance of a long range capital improvements programming process. Through this means long range needs for extension of public facilities can be anticipated and priorities established prior to introduction into the annual budget cycle of the governing body.

Operating through extension of power from the governing body, and within the framework established by the state enabling legislation, the Planning Commission is charged with the primary responsibility for maintaining the comprehensive plan and for guiding actual development toward the patterns and characteristics portrayed in the plan.

Where this process has been successful, the plan will not become archaic or static, but will continue to represent a viable community development influence throughout the planning period.

ADMINISTRATIVE AIDS

Implementation of the broad range of planning related measures is essentially an administrative process involving numerous individual actions with needs for collection of information. Most of these procedures will necessitate some type of application or formal request. As an aid to these needs, the following sheets contain sample application forms for most of the administrative actions associated with planning and zoning. Also attached are checklists for evaluating preliminary and final plats.