WIKADUKE TRAIL Land Use



January 2004





WIKADUKE Trail Land Use and Access Management Study

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WIKADUKE TRAIL LAND USE AND ACCESS MANAGEMENT STUDY

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WIKADUKE Trail Land Use and Access Management Study

The following document reflects a collaborative effort between the various counties, townships, municipalities, and private agencies that will be impacted by the development of the WIKADUKE Trail corridor. Through the formation of an Advisory Committee, representatives of the various governmental and private development agencies were given an open forum to debate and discuss the issues related to transportation, land use and access control measures, as well as devise appearance standards for the WIKADUKE Trail Corridor.

The WIKADUKE Trail Land Use and Access Management Study (the Study) is intended to communicate a vision for the design of and development along the planned route of the WIKADUKE Trail. It builds upon the concept of Context Sensitive Design, which is an approach that considers the total context within which a transportation improvement project will exist. It is a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic, and environmental resources while maintaining safety and mobility. It thinks "beyond the pavement" about the impact a roadway will have on the area it traverses, including the people who live, work, or pass through the area. Context sensitive design asks questions first about the need and purpose of the transportation project. It maintains the traditional focus on safety, while also integrating mobility and the preservation of scenic, aesthetic, historic, environmental, and/or other community values into the roadway planning process.

As related to the development of the WIKDAUKE Trail, context sensitive design promotes the following six (6) key principles:

- 1. Balance safety, mobility, community, and environmental goals in all projects within the WIKADUKE Study area.
- 2. Involve the public and affected agencies early and continuously.
- 3. Use an interdisciplinary team tailored to project needs.
- 4. Address all modes of travel.
- 5. Apply flexibility inherent in design standards.
- 6. Incorporate aesthetics as an integral part of good design.



1. INTRODUCTION

WIKADUKE is an acronym for a joint effort by four counties (<u>Wi</u>II, <u>Kane</u>, <u>Du</u>Page and <u>Ke</u>ndall) to create a road system that would connect northbound and southbound traffic from I-88 to I-80. This regional location is depicted on the following page. As recommended by the Illinois Department of Transportation (IDOT), and for the purposes of this study, the proposed road system alignment includes existing rights-of-way along Ridge Road, Plainfield Road, and Stewart Road extending north to Eola Road. This planned road is referred to as the WIKADUKE Trail.

This Study examines the impacts of the planned road alignment on a one-mile wide corridor along the proposed route of the WIKADUKE Trail. It provides a forum for regional planning to address issues such as land use, appearance, buffering, and access control along the corridor.

The study began in late 2002, and was completed in January of 2004. Along with a grant from IDOT, local matching funds have been provided by Kendall County, the Villages of Plainfield, Minooka, and Oswego, and the City of Joliet. Other participating communities include Will County, the City of Aurora, the Village of Shorewood, Oswego Township, Na-Au-Say Township, and Seward Township.

<u>Authority</u>

The Study was initiated by the Village of Plainfield and Kendall County in August of 2002 to address the regional needs of the WIKADUKE Trail and help facilitate intergovernmental cooperation amongst the municipalities, townships, and counties that will be impacted by this road project. This effort follows the WIKADUKE Strategic Regional Arterial (SRA) Study, which was completed in September of 1999 by IDOT, that identified a detailed road alignment for the planned arterial. Teska Associates, Inc., with assistance from Parsons Transportation Group, was selected to conduct the analysis and create the Plan.

Report Overview

The WIKADUKE Trail Land Use and Access Management Study is organized to address the following plan components:

- A Summary of the 1999 IDOT SRA Study;
- A *Policy Framework* section, which includes the goals and objectives for the WIKADUKE Trail Corridor;
- o Current, Planned, and Future Land Use Development;
- Roadway Character and Land Use Design components;
- Access Policy issues; and
- Implementation options, which will include project phasing, jurisdiction and the identification of funding sources.





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2. WIKADUKE STRATEGIC REGIONAL ARTERIAL (SRA) STUDY

In September of 1999, IDOT completed the WIKADUKE Strategic Regional Arterial (SRA) Study, which was developed as part of the 2010 Transportation System Development (TSD) Plan that was adopted by both the Chicago Area Transportation Study (CATS) and the Northeastern Illinois Planning Commission (NIPC). Based on findings from the TSD Plan, which recognized that due to congestion "the regional expressway system will be unable to meet the future demand for long-distance, high volume auto and commercial vehicle traffic," the SRA system was developed with the following intent:

- To supplement the primary expressway system;
- Enhance public transportation;
- Accommodate commercial vehicle traffic; and
- Increase personal mobility and reduce congestion.

Originally composed of five (5) subsets of route segments and corridors, the SRA network was modified by IDOT to include the WIKADUKE SRA Study. As part of the study, IDOT examined existing route conditions, traffic analyses, environmental studies, public involvement and cost implementation. The overall goal was to develop a comprehensive, coordinated plan for the entire SRA network that would be supported by all parties involved. The following objectives guided the study process of the WIKADUKE SRA study:

- Determine the types of roadway improvements needed for each route including additional lanes, signalization and interchanges.
- Define right-of-way requirements.
- Enhance access to the regional transit system.
- o Identify ways to manage access which would improve through traffic movement and reduce conflicts.
- Coordinate recommended route improvements with projected development.
- o Identify necessary bicycle and pedestrian travel.
- Identify potential environmental concerns. 0

The following list summarizes the key recommendations resultant from the WIKADUKE SRA Study conducted by IDOT:

- Ridge Road from Interstate 80 to Wheeler road should be constructed with two (2) through lanes in each direction with an 18-foot wide median within a 150-foot right-of way. An interconnected signal system is recommended for this entire segment.
- A new roadway should be constructed from Wheeler Road to Illinois Route 126. This road should be constructed with the same characteristics noted above, excluding the interconnected signal system.



- Plainfield Road from Illinois Route 126 to Stewart Road, and Stewart Road from Plainfield Road to 119th Street/Collins Road Connector should be designed with the same characteristics as those noted on Ridge Road.
- o A new roadway alignment connecting Stewart Road with Heggs Road should be developed with the same characteristics as Ridge Road, with an interconnected signal system from U.S. Route 30 to Wolf's Crossing Road.
- A 119th Street/Collins Connector should be constructed from Stewart Road to U.S. Route 30 constructed to the same specifications as Ridge Road.



3. POLICY FRAMEWORK

To provide clear direction to the planning efforts of the WIKADUKE Trail Project, a policy framework consisting of a vision statement and a series of goals and objectives was developed by the Advisory Committee. This framework is not only intended to be used as a tool to guide future development within the Project Area, but should also serve to influence the future decision making efforts pertaining to development and access along the WIKADUKE Trail.

Vision Statement

The purpose of the vision statement is to convey the ideal future of the WIKADUKE Trail, what it hopes to become in the eyes of the community and region. The development of a vision statement has numerous purposes. First, it seeks to help build a partnership and a consensus with the community for the overall planning and development of the WIKADUKE Trail. It also looks to inspire decision makers and public officials to achieve the goals identified by the Advisory Committee and help frame decisions made by the representative governmental organizations and decision makers in the context of achieving the goals. In light of this, the Advisory Committee formulated the following vision statement for the WIKADUKE Trail:

The WIKADUKE Trail is a limited access arterial roadway corridor that accommodates regional vehicular, pedestrian and bicycle movement. The corridor will have a distinct identity, with a parkway character that blends with the environment and the rural and growing suburban character of the area, promotes appropriate transitions between communities and development types, and provides a pleasant and memorable driving experience.

The planning process is based on a continuum of personal and collective decision making reflected in a shared vision of the corridor. The identification of goals and the formulation of objectives in support of these goals is a critical part in the process to establish a common vision. Goal and objective statements provide the *policy framework* upon which all land use and access decisions, both now and in the future, must be supported. The WIKADUKE Trail Land Use and Access Management Study is a declaration of intent. It is advisory and does not itself constitute regulation. When the Plan is adopted by the involved governmental entities - all goals, objectives, principles, and standards therein become policy.

Goals and Objectives

The following goals and objective statements are based on the various discussions of the Advisory Committee. Under each subject heading is a goal statement which is followed by a list of objectives established to achieve the associated goal.

Community Goal:

The WIKADUKE Trail should reflect a positive identity that is built upon the unique qualities of a historically rural landscape, creating an environment that distinguishes itself from other roadways in the region.

Community Objectives:

- Enhancing the visual character of the surrounding environment.
- Creating a unique identity for the WIKADUKE Trail corridor.
- Creating a sense of arrival from town to town.
- Carefully consider the driving experience and character of the corridor in roadway design.

Intergovernmental Cooperation Goal:

The WIKADUKE Trail communities and counties will continue to work together to insure coordinated planning and development.

Intergovernmental Cooperation Objectives

- Develop intergovernmental agreements to develop and maintain the WIKADUKE Trail landscape.
- Coordinate roadway amenities such as lighting, signage, and landscape materials for consistency and to capitalize in joint purchasing power.
- Maintain a unified voice to seek funding support from state and federal sources.
- Adhere to the standards contained in this Study to provide consistency throughout the corridor and to maintain functionality of the roadway.



Transportation Goal:

The WIKADUKE Trail will serve as a major roadway for both regional vehicular traffic moving from Interstate 80 to Interstate 88 and for traffic moving between municipal and commercial destinations. The WIKADUKE Trail should provide for the needs of pedestrians, bicyclists, transit users, and motorized-vehicle users in a manner that is sensitive to the rural, cultural, and environmental amenities of the region.

Transportation Objectives:

- Improving the overall traffic flow and circulation of the area.
- Minimizing conflicts and enhance safety between automobile, truck, bicycle, and pedestrian traffic
- o Increase the driver's ability to identify destinations along the corridor.
- Provide cross-access between developments to minimize ingress/egress to the WIKADUKE Trail.

Commercial and Residential Goal:

Residential and commercial development should be the result of careful land planning that is regionally supported and provides appropriate locations along the WIKADUKE Trail with coordinated access.

Commercial and Residential Objectives:

- Improve coordination between businesses through common signage and parking
- Promote quality site design, including distinctive architecture, landscaping, and lighting for commercial centers.
- Provide convenient neighborhood shopping locations that serve the surrounding residential development, with direct pedestrian access.
- Prevent randomly scattered and strip commercial development; keep commercial development uniform.
- Provide opportunities for a diversification of housing types.
- Establish standards of design, construction, and maintenance of all residential structures, to minimize monotonous development.
- Minimize the visual and noise impacts of the corridor on existing and proposed housing developments through creative landscaping, not noise walls or barriers.

Environmental Goal:

A balanced relationship between vehicular and human activities and the environment that minimizes the adverse impacts of the WIKADUKE Trail and associated development types on the natural resources in the area.

Environmental Objectives:

- Integrate innovative stormwater management approaches that meet both functional and aesthetic goals and blend the roadway into the parkway environment.
- Encourage land use patterns which preserve the integrity of existing environmental corridors as a means of natural erosion control and protecting the environmental quality of the area.
- Emphasize the use of native trees, prairie wildflowers and grasses to create a landscape theme for the WIKADUKE Trail.



4. EXISTING CONDITIONS

Summary of Existing Land Uses

The proposed route of the WIKADUKE Trail bisects the Village of Minooka's, Village of Plainfield's, and the City of Joliet's existing municipal boundaries, with additional land in the Villages of Shorewood's and Oswego's planning boundaries. There is no single governmental entity that comprehensively plans the WIKADUKE region (see accompanying *Project Location Map*).

A majority of the WIKADUKE Trail route is unincorporated land that is rural in character, supporting principally agricultural uses and farmsteads. However, new single-family residential neighborhoods, such as *Grande Park* in Plainfield and *Clublands*, located at the southeast corner of Caton Farm Road and Ridge Road in Joliet, are occurring along the route. The project corridor currently supports limited amounts of commercial uses, with the most recent development occurring in Joliet at the southwest corner of Caton Farm Road and County Line Road. Contractor yards/uses are sporadically mixed throughout the project area, with the largest concentrations occurring along Route 30, to the north end of the corridor. Other noted developments include the recently completed *Bednarcik Junior High School*,

located at the southwest corner of Wolf Road and Heggs Road, which was developed "on top of" the planned path of the WIKADUKE Trail; the Plainfield High School site located within Joliet at the southeast corner of Caton Farm Road and Ridge Road; and the Minooka power facility, located between Wildy and Holt Roads, along the western side of County Line Road.

The WIKADUKE Trail corridor is experiencing rapid urbanization, with forecasts from the Northeastern Illinois Planning Commission (NIPC) and the Kendall County Economic Development Commission showing a continuation of this trend. As reported in the WIKADUKE Strategic Regional Arterial (SRA) Study conducted by the Illinois Department of Transportation, the three (3) eastern townships of

Growth Trends...

According to a special census, the Village of Plainfield grew from 13,000 to over 20,000 in just three years (2000 to 2003): Oswego grew by over 5,000 new residents during the same time period, while Joliet added approximately 14,000 new residents. In just these three communities. the area has added over 26,000 residents in three years. As guoted in the September 28, 2003, Chicago Tribune, Tracy Cross, president of a leading housing market research firm says, "The southwestern swath is capturing almost 40% of all single-family development in the region. It's phenomenal. This is clearly the dominant quadrant. New housing will be big in this area for the next 10 years. maybe 20 years."



Kendall County – Oswego, Seward, and Na-Au-Say – are projected to experience a 58% population increase between the years 1990 and 2010; from 18,000 to 29,000 persons, respectively. Furthermore, 95% of this increase is projected for Oswego Township, which accounts for approximately 60% of the total population growth projected for the entire County. It should be noted that this projection was made before the *Grande Park* project was announced. With the additional population generated by this new development, these population projections may be low. As growth continues to occur within the WIKADUKE area, much of the undeveloped and agricultural land will be converted to a more urban or suburban usage.

Transportation Network

Interstate 80, a major US freeway, serves as the southern boundary of the project study area, with a full access interchange at Ridge Road. Ridge Road and County Line Road are two (2) of the major north-south arterials that serve the WIKADUKE area, however, neither extend north of Illinois Route 126. Whereas County Line Road is proposed to have a minor northerly extension, Ridge Road is planned to connect to Plainfield Road, which will connect to Stewart Road, ultimately composing the foundation for the WIKADUKE Trail. Other noted arterials include U.S. Highway 52, which extends beyond Kendall County's western boundary to downtown Joliet in the east; Illinois Route 126, which connects to Yorkville on the west and Interstate 55 on the east; and U.S. Highway 30, which extends coast to coast nationally and from Aurora to Joliet within the region.

Other planned road extensions/connections for the WIKADUKE Trail project corridor include the following:

- The northerly extension of Arbieter Road from Walker to Johnson Road;
- The easterly extension of Johnson Road at Plainfield Road;
- A newly constructed north-south road located between Douglas Road and Gilmore Road that connects Plainfield Road to Collins Road;
- The southerly extension of Gilmore Road from Simons Road to Cherry Road;
- The northeasterly extension of Collins Road from Stewart Road to 119th Street; and
- The northerly extension of Douglas Road from Wolf Crossing Road into the Village of Oswego.

The E.J. & E. Railroad bisects the southeastern portion of the corridor, extending south into the Village of Minooka. Currently no Metra service extends to Kendall County. However, a feasibility study is underway to evaluate an extension along the Burlington Northern line. Metra is also exploring the long-range potential of service on the E.J. & E. Line, which would have a stop in Plainfield, just east of the WIKADUKE Trail corridor. Per the WIKADUKE SRA Study conducted by IDOT, Pace bus service is planned for the WIKADUKE area.



The WIKADUKE Trail project corridor has a well-established road network, however, as development continues to occur measures will need to be taken to satisfy the increased travel demands and facilitate movement throughout the area.

Environmental Features

The Aux Sable Creek, a tributary of the Illinois River that drains approximately 119,000 acres, originates south of the Village of Oswego and flows south until it enters the Illinois River east of Morris. Eight tributaries flow into the Aux Sable main channel, all totaling 96 miles. Not only does the Aux Sable watershed provide recreational and aesthetic amenities to the area, but also it provides such functional features as the filtration of pollutants, storm water storage, and a habitat for wildlife.

The Aux Sable Creek is located approximately three-quarters (3/4) of a mile west of Ridge Road. Most of the Study Area is located within this watershed. As development continues to occur, measures will need to be taken to assure that the watershed is protected in accordance with sound environmental and engineering practices and adopted watershed plans.





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5. DEVELOPMENT PLAN/FUTURE CONDITIONS

Summary of Municipal Land Use Plans

Within the Project Corridor Area, the proposed route of the WIKADUKE Trail currently passes through three (3) incorporated areas - the City of Joliet and the Villages of Minooka and Plainfield. As with the aforementioned locales, the WIKADUKE Trail corridor bisects land within the municipal planning boundaries of the Villages of Shorewood and Oswego.

The WIKADUKE Trail and its various roadway segments have previously been incorporated into local transportation plans. The 2000 Village of Minooka Comprehensive Plan identified Ridge Road as an arterial, with a 120-foot right-ofway: the 2000 Village of Oswego Comprehensive Plan identified the WIKADUKE Trail as a major arterial with a 150-foot right-of way; the 2001 Village of Shorewood Comprehensive Community Plan identified the development of the WIKADUKE Trail as a major arterial that will contain a mix of land uses; and the 2002 Village of Plainfield Comprehensive Plan Update identified the construction of the WIKADUKE Trail as a transportation goal, further classifying it as a major arterial with a planned right-of-way of 150 feet. Along with Kendall County's current 150-foot right-of-way dedication requirement for the WIKADUKE Trail, the transportation plan from the 2002 County adopted Land Resource Management Plan recognizes IDOT's proposed alignment as a limited access roadway with a right-of-way of 150 feet. The Will County 2020 Transportation Framework Plan and the Will County Land Resource Management Plan also endorse and promote the WIKADUKE Trail in its entirety.

The following section will offer a brief description of the planned land uses that are reflected in the adopted municipal and County plans.

Village of Minooka:

The Village of Minooka is located at the southern end of the project corridor study area. A majority of the Village's incorporated land is located south of Interstate 80, however the LS Power Facility and surrounding lands located south of Wildy Road and west of County Line Road are incorporated and located within the study area. In 2003, the Village annexed the Kettleson and Roberts farms, which are located immediately south of Wildy Road and in the planned route of the WIKADUKE Trail; these parcels are anticipated to be developed with single-family residential uses. Several other developments are under consideration, which, if approved, would extend the Village's municipal limits north along Ridge Road. All other land within Minooka's planning boundaries and within the study area remains unincorporated.



Highlights of the Minooka Comprehensive Plan of 2002 are as follows:

- Approximately 70-acres of land proposed as *Highway Commercial* at the northeast and northwest intersections of Interstate 80 and Ridge Road and approximately 25-acres of land proposed as *Highway Commercial* at the intersection of Wildy Road and Ridge Road.
- Approximately 900-acres of planned *Office, Research, Light Industrial* use within the corridor area.
- Approximately 630-acres planned as *Traditional Neighborhood* (residential) at the general location of Ridge Road and Wildy Road.
- Approximately 650-acres of land planned as *Transitional Rural Neighborhood* (residential).

Village of Shorewood:

The Village of Shorewood is located to the east of the WIKADUKE Trail corridor, with its northern municipal boundary generally at Van Dyke Road (eastern extension of) and the southern boundary at Bell Road. Whereas the Village contains no incorporated land within the study area, its planning boundaries do intersect the planned route of the road.

As identified in the Shorewood Comprehensive Community Plan of 2001, a majority of the land surrounding the WIKADUKE Trail corridor is planned for *Residential*. Additionally, the plan designates nodes of *Commercial* at the intersections of Ridge Road and U.S. Highway 52, Bell Road and Ridge Road, and on U.S. Highway 52 – equidistant between Ridge Road and County Line Road.

City of Joliet :

The City of Joliet is generally located to the north of Shorewood and south of Plainfield, with a portion of incorporated land within the study area. At the time this Study was conducted, the planning boundary identified in the City's Comprehensive Plan did not include any land within the WIKADUKE Trail study area. Joliet's "Future Zoning" map, dated 01.09.03, reflects the land use types anticipated for properties within the Project Corridor and is used as a guide for all land use decisions. Realizing the importance of planned growth along the WIKADKE Trail, the City is currently conducting a more detailed study that will address future growth within Kendall County.

As reflected in the "Future Zoning" map, the stretch of Ridge Road located approximately 500 feet north of Jones Road to approximately 500 feet north of Theodore Street is planned for commercial uses. Approximately 160-acres of land at the general intersection of Ridge Road and Caton Farm Road is planned for commercial as well. The remainder of the incorporated land within the corridor is anticipated for residential uses. The City has also identified future school sites which have been indicated on the Future Land Use map for Na-Au-Say Township.



Village of Plainfield:

The Village of Plainfield, which is primarily located to the east of the WIKADUKE Trail corridor, has portions of incorporated land within the study area. The Village's planning boundaries extend as far north as Rance Road/111th Street and as far south as Walker Road. Highlights Plainfield's Comprehensive Plan Update from 2002 include the following:

- General Commercial is planned for at the northwest corner of Ridge and Walker Roads; at the northeast and northwest corners of Ridge and Wheeler Roads; at the northwest and southwest corners of County Line and Wheeler Roads; at the general intersection of Illinois Route 126 and Plainfield Road; at the general intersection of Plainfield Road and the Johnson Road/143rd Street connector; at the southwest corner of Stewart and Simons Road; along Stewart Road, north of Simons Road/127th Street to an approximate ¼ mile south of 119th Street; and at the southwest corner of Rance Road and the proposed route of the WIKADUKE Trail.
- *Village Residential*, at densities of 3.1 to 7.0 dwelling units per acre, are proposed along the WIKADUKE Trail corridor in close proximity to the proposed *General Commercial* areas listed above.
- *Multiple Family Residential*, at densities between 7.1 to 24.0 dwelling units per acre, are proposed at the general intersections of Stewart and Simons Road (southwest corner) and Stewart and Plainfield Roads (northeast corner).
- An approximate 80-acre *Park District* site is at the northeast intersection of Walker Road and Plainfield Road. This facility is planned for a major sports complex.
- The "Master Planned Community" of Grande Park, located between Simons Road and Plainfield Road, is currently under development and is planned to contain a mix of residential housing options, open space, and commercial uses.
- Light Industrial/Business Park uses are planned along the section of the WIKADUKE Trail route north of the Collins Road/119th Street connector and south of Wooley Road.
- The remainder of the land generally bound by Collins Road on the south, Walker Road on the north, Schlapp Road on the west, and Gilmore Road on the east is planned for either *Medium Density Residential* (2.1 to 3.0 dwelling units per acre) or *Low Density Residential / Countryside Residential* (0.0 to 2.0 dwelling units per acre).

Other noted recommendations reflected in the transportation component of the Village's *Comprehensive Plan* Update include the identification of Caton Farm Road as an SRA connector between the proposed WIKADUKE Trail SRA and the IL 59 SRA. As planned, it will be widened to a four (4) lane facility with an 18-foot median within a 120-foot right-of-way. Furthermore, 119th Street was identified as an SRA facility, connecting the proposed WIKADUKE Trail SRA with the IL 59 and Weber Road SRAs. As planned, 119th Street will be widened to four (4) lanes, with an 18-foot median within a 120-foot right-of-way between Weber Road and Stewart Road.



Village of Oswego:

The Village of Oswego is located to the north of the WIKADUKE Trail corridor study area, with incorporated land located just west of the proposed route. Per Oswego's Comprehensive Plan adopted in 2000, the following future land use recommendations were made:

- A majority of the land located within the study area is planned for *Residential* and Estate Residential uses.
- Auto-Urban Commercial* is planned to radiate outward from the intersection of Collins Road and Stewart Road with a ring of Auto-Urban Residential* on the periphery. As stated in the Plan, all "Auto-urban" areas are located and designed primarily for auto access; roads and parking lots dominate these areas.
- o The intersection of the proposed WIKADUKE Trail route and Route 30 is planned for Auto-Urban Commercial, as well.
- o Auto-Urban Industrial* uses are planned at the northwest intersection of Wolf Crossing Road and Route 30, with Auto-Urban Residential planned for along the eastern side of Route 30, north of Wolf Crossing Road.

*For details as to the prescribed land use definitions, see the Village of Oswego's Comprehensive Plan.

Kendall County:

The proposed route of the WIKADUKE Trail passes through the following three (3) eastern Kendall County Townships: Seward Township, Na-Au-Say Township, and Oswego Township. Per the currently adopted Land Resource Management Plan, the following future land use recommendations were made:

- A majority of the land located within the study area is planned for either *Rural* Residential (maximum density of 0.6 dwelling units per acre), Rural Estate (maximum density of 0.45 dwelling units per acre), or Contiguous Growth Areas (mixed use per municipal plan, with a maximum residential density of 1.0 dwelling units per acre)
- o Commercial/Industrial land uses are planned at the intersections of Ridge Road and U.S. Highway 52; at the intersection of Ridge Road and Caton Farm Road; and along the intersection of the planned route of the WIKADUKE Trail and Illinois Route 126.
- All land bound by Holt Road to the north, Interstate 80 to the south, the E.J. & E. Railroad to the east, and Arbieter Road to the west is planned for Transportation Corridors, which represent areas within the County meant to encourage economic development. This land use classification is also planned for on the east side of Route 30, north of Wolf Road.



6. FUTURE LAND USE AND TRANSPORTATION PLAN

The Future Land Use and Transportation component of the Plan provides a framework to assist decision makers in planning and regulating development. In order to accomplish this, two (2) future land use development plan maps have been developed. Both depict future land use generally consistent with existing development patterns, suggesting areas for future growth and development. The first plan addresses the anticipated development within the next ten (10) years, while the second plan addressed the ultimate land use strategy for the area. Both plans are not only based on the vision statement and goals and objectives established by the Advisory Committee, but reflect current and pending development projects, current land use and economic development trends, and building permit forecasts. Along with identifying future land use options, each plan contains a transportation component that addresses future road developments and improvements.

In order to assure development that is consistent with the expressed desires of the Advisory Committee and the public and private entities that they represent, the following land use categories have been identified and illustrated on both the Long Range and 10-Year Future Land Use Plan maps. The prescribed land use categories are arranged to address the following development types:

- Estate Single-Family Residential
- Detached Single-Family
- o Multiple-Family
- Neighborhood Commercial
- Regional Commercial
- o Office/Research/Industrial
- Civic/Institutional
- o Open Space

In order to gain a better understanding of the intent of each land use classification, the following section of the report offers a description of each use. It should be noted that all recommended residential densities described below are based upon the "gross *buildable* acreage" of a site. The gross *buildable* part of the land is determined by subtracting those portions of the property which cannot or should not be developed due to flood plains or wetlands. Densities indicated are for general planning purposes only. All proposed residential developments should be evaluated and advised as to the acceptable number of units which appear to be appropriate based on the physical constraints of the property in question as determined by the local government.



Future Land Use Descriptions and Classification:

Residential Land Uses

The predominant land use shown on the future land use plan is residential. The residential category has been divided into three (3) categories and is meant to accommodate a wide range of densities and housing types within the Project Area. Estate Residential accommodates lower densities and is used to preserve natural features and to provide a transition between higher density residential uses and existing areas of agricultural use. The Estate Residential category includes land typically located on the western periphery of the Project Area, in locations that have not yet experienced increased development pressures. The Single-Family Residential category reflects the current residential development trends in the area and is consistent with the residential development types identified in the municipal Comprehensive Plans. This category makes up the bulk of the proposed future residential development and is dispersed throughout the Project Area. Multiple-Family Residential accommodates higher density projects including duplexes, townhome buildings, and low-rise multiple-family residences. Such uses are located more central to the corridor and are often used as land use buffers between commercial and less intense single-family residential uses.

Estate Single-Family Residential:

The Estate Residential land use category is designed to provide opportunities for very low intensity, single-family residences with an overall density of one dwelling unit per acre or less. This category provides a semi-rural or countryside character, and preserves the land's natural features and open space. Governmental, educational, religious and recreational uses which are compatible with this form of development may also be permitted. To preserve areas where high quality environmental features are present, clustering or conservation design is encouraged.

Single-Family Residential (Detached):

This land use category promotes a residential character of low to medium density residences on lots where adequate public sewer and water systems exist or can be made available. While anticipated to contain primarily single-family detached housing, compatible governmental, educational, religious, and recreational uses are also appropriate in these areas.

The intent of the detached single-family land use category is to provide a range of single-family residential subdivisions on fully improved lots that respect the natural topography and vegetation, and offer amenities to foster quality neighborhoods. The anticipated density range is between 1.1 to 3.0 dwelling units per acre.

Multiple-Family Residential:

This land use category allows for single-family attached residences such as duplexes, triplexes, quadraplexes, townhome buildings, and low-rise multiple-family residences. It further allows for a higher density form than the detached single-family residential category, permitting opportunities for people whose lifestyles benefit from common exterior maintenance and a more affordable housing alternative. This category also may act as a transition between lower density residential categories and non-residential uses.

The intent is to provide attached single-family and multiple-family residential with a density range between 3.1 and 18.0 dwelling units per acre. The specific density that would be appropriate for an individual parcel shall be determined by the local government.

Neighborhood and Regional Commercial Land Uses

Two (2) levels of commercial land use have been identified; they are *Neighborhood* and Regional. Neighborhood commercial uses are shown with typical sizes of ten (10) to twenty (20) acres per development corner, and are located in areas surrounded by residential development. Such locations are at the intersection of the WIKADUKE Trail and the following roads: Bell Road, the extension of Black Road, Walker Road, Wheeler Road, Johnson Road, Paydon Road, and Route 30. In order to comply with the City of Joliet's future development plans, a strip of Neighborhood commercial has been identified along the western edge of the WIKADUKE Trail north of Black Road to approximately 1/4 mile north of Theodore Street. Regional commercial land uses are anticipated to be located at the major arterials/ arterials and their intersection with the WIKADUKE Trail. Such locations include: US Highway 52, Caton Farm Road, IL Route 126, and Collins Road/119th Street. Additionally, a Regional commercial center has been located at the intersection of the WIKADUKE Trail and Interstate 80. Such uses have a typical spacing of approximately three (3) miles between each regional level center and contain an average of eighty (80) acres per development site. In order to minimize curb-cuts and signalized intersections in these locations, development sites have been located in a manner that deters four (4) corners of commercial.

A location map identifying existing and proposed "major" regional level commercial centers was presented to the Advisory Committee (see accompanying *Regional Commercial Centers* map). This map was used as a preliminary measure to determine if the Future Land Use Plan showed a realistic level of supportable regional commercial. The accompanying land use maps reflect the decisions of the Advisory Committee.





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Neighborhood Commercial:

This land use category is intended to promote the establishment of local commercial centers that provide goods and services primarily for the convenience of the residents of the surrounding neighborhood and those in the immediate vicinity. All neighborhood commercial centers should integrate "pedestrian-friendly" design components, which include interconnected streets or areas that provide convenient and safe pedestrian access, areas that are attractively landscaped and provide visual interest and a sense of security to encourage walking. This land use category is not intended to permit major commercial or service establishments that would attract substantial amounts of trade from outside the neighborhood.

The neighborhood level commercial category often attracts the development of one (1) large-scale anchor store with supporting small-scale retailers. A grocery store anchored center would be common in a neighborhood commercial district, along with supporting businesses like a pharmacy or video store (or other like uses). The market/service radius for the neighborhood commercial category is between one (1) to five (5) miles. Pedestrian access should be incorporated into the design of all neighborhood commercial centers.

Regional Commercial:

This land use category is intended to provide for retail establishments that offer a wide range of goods and services. The purpose is to provide for commercial uses that are typically oriented to the automobile, however, mixed-use centers that integrate "pedestrian-friendly" design are encouraged. Included in this category are large-scale retail developments such as "lifestyle centers" or "power centers." Uses may include traditional "big box" developments such as Target and Kohls, along with centers that integrate similar users like the Gap, Pottery Barn, and other "upscale" stores into a unified, pedestrian friendly shopping environment.

In comparison to the neighborhood level commercial category, the market/service radius for the regional commercial level category extends beyond a five (5) mile radius, typically attracting two (2) or more large-scale anchor stores and supporting small-scale retailers.

Office/Research/Industrial Land Uses

The Office/Research/Industrial land use category appears in three (3) locations. The largest planned Office/Research/Industrial location is along Interstate 80 and the E.J. & E Railroad right-of-way. This is generally consistent with the planned development patterns reflected in both the Village of Minooka's and Village of Shorewood's Comprehensive Plans. Additional locations include undeveloped land generally located along the planned route of the WIKADUKE Trail bound by Wooley Road on the north and Collins Road on the south, and along the western side of Route 30 north of Wolf Crossing Road. Both locations are generally consistent with the recently adopted Comprehensive Plans for the Villages of Plainfield and Oswego.



Office/Research/Industrial:

This land use category provides opportunities for employment and provision of services in locations with good accessibility. It is intended to provide for manufacturing, warehousing, distribution, office, research facilities, and related uses. The intent of this category is to require a master plan approach to the development of large parcels incorporating high quality design standards for building, landscaping, and signs.

This land use should provide a good transition between more intensely developed commercial areas and adjacent neighborhoods. Building scale and design should help to accentuate this transition, as should careful site planning with landscape buffers where appropriate.

Civic/Institutional Land Uses

Only existing or planned public and institutional facilities are specifically shown on the Future Land Use Map. Such uses include the existing power facility in Seward Township, Plainfield South High School, Bednarcik Junior High School, several planned elementary and middle school sites, and the future Plainfield Fire Department facility located just south of Johnson Road. Other municipal and institutional facilities should be located where they are necessary and compatible with surrounding uses.

Civic/Institutional:

Civic uses are properties owned and operated by a federal, state, or local government including schools, maintenance facilities, and public cemeteries. Institutional uses are private uses that generally serve the public, including churches and private schools. The intent of this category is for public or quasi-public uses that provide educational, religious, medical, cultural, or social services. Only civic and institutional uses that currently exist have been illustrated on the Future Land Use Plans. Additional civic and institutional uses may be appropriate as the area continues to develop.

Open Space Land Uses

As part of this Plan, floodplains and environmental corridors along the Aux Sable Creek and its tributaries have been preserved as open space. This reflects their unsuitability for development and the desire to create greenway and pedestrian connections throughout the Project Area. Additionally, designated open space areas have been identified adjacent to the power facility west of County Line Road and south of Wildy Road; to the general east of the intersection of Ridge Road (or the WIKADUKE Trail) and the future extension of Black Road adjacent to a planned future school site; an approximate eighty (80) acre site has been identified at the northeast corner of Walker Road and Ridge Road (or the WIKADUKE Trail); and throughout the Grande Park development in the Village of Plainfield.



Whereas it has not been specifically designated on the Plan, the incorporation of open space and park settings within large-scale residential and office/business park developments is anticipated. The locations and amount of land required will be at the discretion of the impacted regulatory body.

Open Space:

Land that has been permanently dedicated for open space uses falls into this land use category. Private recreational space such as golf courses or private parks located in residential developments would also be included in this category.

This category is also intended to identify lands that are sensitive to development, and which contain unique environmental characteristics that should be preserved. These characteristics include: wetlands, floodplains, woodlands, and prairies. In addition to their sensitive nature, these areas provide for such natural functions as flood storage and conveyance, pollution control, and wildlife habitat area. It should be noted that the boundaries of the floodplains, wetlands, and soils that might limit development are imprecise at this regional scale. A trained wetlands conservationist or soil specialist needs to be consulted to determine the particular constraints for specific sites.

The intent of this land use category is for permanent private or public open space used for active and passive recreational purposes and to conserve and maintain public and/or private open space used for active and passive recreational purposes.

Transportation Classifications

The transportation system provides the framework upon which the future land use recommendations are based. In many locations, the land uses proposed are dependent upon proposed transportation accessibility. Therefore, the functional classification of existing and future roadways is shown on both of the future land use maps.

Expressway:

Expressways provide a high-degree of mobility, with access limited to gradeseparated interchanges, spaced at least one mile apart, to preserve the high-speed (45-65 mph), high-volume characteristics of the facility.

Major Arterial/Arterial:

Major Arterials/Arterials are intended to provide a high degree of mobility and function as the primary travel routes for vehicles entering, leaving, and passing through urban areas. They are generally located about a mile apart to form a grid street system and are intended to carry high volumes at high operating speeds (35-45 mph) and have adequate capacity to operate at high levels of service. Although major arterials do interconnect with such major developments as central business districts, large suburban commercial centers, industrial parks and residential areas,



access management is essential to preserve capacity. Signalized intersections should be spaced far enough apart (typically ½-mile as a minimum) to permit efficient two-way progression of traffic, and left- and right-turn lanes should be provided at these intersections to ensure that traffic capacity and level of service is maintained.

Minor Arterial/Major Collector and Minor Collector:

The collector street system is designed to support the arterial network. Collector streets are generally located at the ½-mile points within the grid system and consist of medium-capacity, medium volume streets that serve to link high-level arterial streets to lower level local streets. Operating speeds are typically lower on collectors than non-minor arterials and should have limited continuity to not encourage through traffic but still provide for local movement of vehicles between residential, commercial and industrial areas of the community. The collector system provides for some direct land access, but to a more limited degree than local streets. *Minor Arterials/Major Collectors* tend to be located on the edges of residential neighborhoods, while *minor collectors* penetrate the neighborhoods and may permit curbside parking.

Local Street:

Local streets provide direct land access. Movement on local streets is incidental and involves traveling to or from a collector facility. Therefore, trip lengths on local streets are typically short and, as a result, volumes and speeds on these streets are typically low. The local street system is also typically planned to ensure that all neighborhoods are accessible by at least two (2) routes for emergency and service vehicles. The principal role of the local street system is to carry traffic and provide for safe and convenient access to housing areas and other land uses.

Multi-Use Trail (Bikeway):

Any path or way which in some manner is specifically designated as being open to bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are shared with other non-motorized transportation modes (pedestrians, roller-blading, and other recreational uses). Included in this category are bike paths, bike lanes, shoulder bikeways, shared roadways, and unpaved bike trails.





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7. <u>DESIGN COMPONENTS</u>

The character of the WIKADUKE Trail corridor today can be described in one word...rural. Existing segments of the trail (Ridge Road, Stewart Road, etc.) are two lane roadways with a typical crowned cross-section and open swales. Farms literally stretch as far as the eye can see to the west and, with only a few exceptions, to the east as well. Both the existing roadway design and the adjacent lands will experience radical change in the near future as growth continues to push west into Kendall County.



Existing Roadway Character

In the near term, it is desirable to maintain the existing rural character. In development of the Kendall County Land Resource Management Plan, the vistas and open views along Ridge Road were noted for their scenic beauty. The challenge will be to extend the "pleasant and memorable driving experience" the roadway has today into the future.

The following guidelines outline policies that will guide the development of the roadway corridor. Unless noted, these guidelines shall apply throughout the corridor. Consistent application of these guidelines will provide the roadway corridor with a unique character that is reflective of visionary and cooperative planning that lead to the development of the WIKDAUKE Trail.

Public Right-of-Way

As defined in the WIKADUKE Trail SRA Study, the planned right-of-way for the roadway is 150' wide. Improvements within this right-of-way will change over time as development and the need for roadway capacity increase. This section addresses anticipated improvements within the right-of-way. "Public perception of community character is based largely on what can be seen from an automobile..."

Randall Arendt from Rural by Design

Typical Cross Section:

The roadway cross-section will evolve over time based on traffic demand and the availability of funding. It is anticipated that new sections of the roadway will be



developed with two lanes in each direction, with a paved shoulder and a center median. As needed, left turn lanes can be developed within the space reserved for the median. This initial construction is depicted by cross-section A on the attached exhibit. The roadway would generally be centered within the 150' right-of-way, and would have a rural cross section with open swales provided on both sides of the roadway to handle stormwater run-off. Earth slopes should be no steeper than four (4) feet in order to facilitate maintenance. It should be noted that curb and gutter and storm sewer may be required along the entire length of the corridor within Joliet's jurisdiction.

Over time, traffic demands may require additional capacity along the WIKADUKE Trail. The roadway's ultimate cross-section is depicted in Section B on the attached exhibit. This section illustrates a six-lane roadway with curb and gutter. Existing turn lanes may need to be lengthened, and additional turn lanes and acceleration/deceleration lanes added based on detailed traffic engineering studies conducted at the time of roadway improvement.

As noted on both Section A and Section B, a fifteen (15) foot space has been reserved on both the east and west side of the WIKADUKE Trail right-of-way to accommodate future utilities. If additional width is needed for utilities, it can be incorporated into the proposed landscape easement on both sides of the roadway. All utilities shall be placed underground to enhance the visual character of the corridor.

Roadway Design Characteristics

The design speed for a typical suburban Strategic Regional Arterial is 45 miles per hour (mph). However, to promote movement of regional traffic, it is recommended that the design speed be 50 mph for the WIKADUKE Trail, with a posted speed of 45 mph. This design speed will factor into detailed engineering of turn lanes, stacking requirements, and many other details of the actual roadway design.

A right-of-way of 150' has been established for the entire length of the WIKADUKE Trail. In addition, corner cuts at regional commercial centers will be needed to accommodate appropriate intersection design. Arterial cross streets should have a 120' right-of-way at the intersection of the WIKADUKE Trail to provide adequate space to accommodate future turn lanes. A 100' to 120' right-of-way width should be provided for major and minor collector roadways where they intersect with the WIKADUKE Trail.

Given anticipated truck traffic on this route, concrete construction is preferred. At a minimum, all intersections with a crossing arterial roadway should be of concrete construction. Given the impact of turning movements and drainage requirements at major intersections, a curb and gutter profile is recommended. In other areas, a rural cross-section is planned with an 8' wide bituminous shoulder.





A Initial Build Cross-Section



B Ultimate Build Cross-Section

- * Cross-Sections represent Northbound Perspective.
- ** Easements may vary from 30' to 60' or greater depending on adjacent land use and development pattern.



Median

To enhance the flow of traffic, improve safety, and to provide some visual relief to the roadway, a center median is planned. This median will typically be 18' wide, will have curbs, and will be planted with lowmaintenance vegetation. In order to allow for future dual turn lanes, a thirty (30) foot wide, raised median with trees/landscaping may be required along the entire length of the corridor within Joliet's jurisdiction. At intersections and transition areas, plantings will be comprised of trees, perennials and other accent landscaping, and native grasses and wildflowers. In these areas, the median will have a slight crown for improved drainage and plant habitat growth. In areas shown on the greenway plan for native plantings, the median will be depressed and planted with grasses and wildflower that are appropriate for swales. Although the WIKADUKE Trail is planned as a Kendall County road, maintenance expenses for median areas within incorporated areas will be the responsibility of Details of Median Design individual municipalities along the roadway.





An Example of a Raised Median with Plantings

Where detention/retention areas are located adjacent to the right-of-way, opportunities to eliminate the roadside drainage swale and increase the median width should be explored. In some areas, it may be possible to increase the median to thirty (30) feet in This will provide variety to the width. landscape treatment and enhance the overall driving experience. This concept is illustrated on page 7-6.

Lighting

Initially, lighting along the WIKADUKE Trail should only occur at intersections to minimize cost and to maintain the rural character of the area. However, as development occurs along the roadway and traffic volumes increase, it is anticipated that additional roadway lighting may be needed. It should be noted that the City of Joliet may require the initial installation of lighting along the entire length of the corridor within their jurisdiction.



When required, it is anticipated that lighting would occur within the center median to minimize the number of poles required. A standardized light fixture and pole is recommended throughout the corridor. A dark bronze powder coated finish is recommended to blend with the environment and native landscape plantings. Cut-off light fixtures, similar to that shown below, are also recommended to minimize glare and impact on adjacent land uses.



Lighting in Median as Needed

At gateway areas, municipalities are encouraged to supplement this roadway lighting with more decorative fixtures on the same poles to enhance the gateway identity and community image. Light poles may also be designed to accommodate banners if desired by the local municipality. Banners can provide permanent community identification; identification of the WIKADUKE Trail; or seasonal messages.



Examples of a light poles incorporating banners identifying the the WIKADUKE Trail and representative municipality (above left), and one incorporating decorative light fixtures (above right).

WIKADUKE Trail Land Use and Access Management Study January 2004





Greenway Median Alternate | WIKADUKE Trail | January 2004

Multi-Use Paths

A 10' wide multi-use path is planned for the west side of the WIKADUKE Trail. This asphalt path will be placed in a landscape and trail easement right-of-way. outside of roadwav the Connections from adjacent neighborhoods, and to adjacent shopping areas, should be provided at appropriate locations. The path should meander through the easement, with a freeflowing alignment that fits with the landscape and topography. To provide privacy, the trail should be no closer than eight (8) feet from the edge of Separate Multi-Use Path in Easement the right-of-way.



A sidewalk should be provided along the east side of the WIKADUKE Trail for enhanced pedestrian access and linkage to the multi-use path on the west side of the roadway. Sidewalks will be concrete, five (5) feet wide, and placed in the landscape and trail easement outside of the roadway right-of-way.

At five (5) locations along the roadway, overhead pedestrian crossings are proposed to provide safe bicycle and pedestrian access across the WIKADUKE Trail. Proposed locations are illustrated on the Future Land Use In addition, at grade pedestrian Plan. crossings should be provided at all signalized intersections.



Path Link to Neighborhood



Pedestrian Bridge Example



Meander Path and Provide Mow Strip



WIKADUKE Trail Land Use and Access Management Study January 2004

Project Identity

To enhance the identity of the WIKADUKE Trail Greenway, identification markers are proposed. These markers would be used throughout the corridor to identify this as a special route. Markers would be located at major intersections in the Consideration should be given to parkway. incorporating street names into the design to serve a duel purpose. Markers should be setback from the roadway to avoid visibility or other safety concerns. Specific setback can best be determined at time of installation based on design speed. topographic conditions. and roadwav characteristics at the specific intersection.



Typical Road Identification Marker

Greenway Concept

Although greenways are typically viewed as open space areas along a stream or river, the WIKADUKE Trail Vision Statement suggests that the roadway corridor should be viewed as a greenway opportunity. The limited access nature of this roadway enhances opportunities for greenway development by minimizing roadway crossings and reducing the overall amount of pavement. The functional need for stormwater management, coupled with a desire to create more livable and identifiable communities also point towards a greenway concept.

Viewing the roadway corridor as a greenway also facilitates regional multi-use trail connections for bicyclists and pedestrians. The WIKADUKE Trail greenway can be linked to the Aux Sable Creek greenway located approximately 1¹/₄ miles west and parallel to the WIKADUKE Trail. Several small existing swales that run from the Trail corridor to the creek can be maintained as greenways to provide this linkage. ...The Corridor will have a distinct identity, with a **parkway character** that blends with the environment and the rural and growing suburban character of the area, promotes appropriate transitions between communities, and development types, and proves a pleasant and memorable driving experience.

WIKADUKE Trail Vision Statement



Example Depicting Use of Vegetative Swales



Eola Road is a key component of the WIKADUKE Trail in Will and DuPage Counties. Portions of this roadway exhibit similar greenway characteristics. The major thematic difference is in the proposed use of native landscape materials within the Kendall County portion of the Trail.

The following plans highlight the overall greenway concept for the WIKADUKE Trail. Five (5) key elements of this plan are highlighted as follows:

1. Gateways

Gateways are entry points. From a design perspective, they provide an opportunity to welcome visitors to an area. They also provide an opportunity to create a sense of identity or a sense of place through incorporation of design features such as signs and unique landscape treatment. Three types of gateways are noted on the attached Community gateways plans. provide an opportunity to make a clear demarcation between municipalities. Commercial gateways provide an opportunity to create some identify to a regional shopping district. The WIKADUKE Trail gateway just north of Interstate 80 provides an opportunity to introduce motorists to the unique character planned for the roadway corridor.



Community Identity Example

Details of specific gateway designs will be left to individual municipalities. However, conceptual sketches and plans are provided to hint at the possibilities. Municipalities will need to work closely with developers of adjacent properties to provide for the land, construction, and maintenance of these gateway treatments.

2. Minor Intersections

At non-gateway intersections, a thematic landscape planting is proposed that relates to the areas existing agricultural heritage. An agricultural and row crop inspired planting scheme that features trees, shrubs, and perennials planted in rows could provide a consistent and unique image.



3. Transition Areas

As a motorist moves away from an intersection, a transitional planting design is proposed that shifts from the more formal plantings at roadway intersections to a native planting design. This planting scheme features regularly spaced trees and native grasses and wildflowers in the median. Parkway plantings will focus on clusters of trees surrounded by low maintenance massing of native grasses and wildflowers.



Located midway between intersections, areas suggested for native plantings will features grasses and wildflowers on the up-slope of the drainage swales. This planting scheme should be extended into the private landscape and trail easement located on both sides of the Trail. This planting scheme will serve as the base level of landscape improvements that will be installed along the WIKDAUKE Trail. The design and funding of gateway, minor intersection, and transition areas will be the responsibility of municipalities and adjacent property owners with Kendall County approval.

5. Landscape and Trail Easements, Outlots, and Stormwater Management Areas

A variable-width landscape and trail easement is proposed along the entire length of the WIKADUKE Trail. This easement will provide for appropriate buffering along the roadway, needed space to accommodate a pedestrian bicycle trail, and opportunities for and stormwater management. Ownership of this easement will be private, with appropriate address agreements put in place to maintenance and liability issues. It is recommended that these easements be created as separate outlots within a larger residential development.



Typical Transition Area Median



Native Parkway Landscaping



Residential Greenway Concept



Stormwater management areas should be placed along the WIKADUKE Trail and integrated into the overall greenway concept. Where commercial development is proposed, stormwater management areas can also be located at the rear of the development to provide a buffer to residential or agricultural land uses.

Design of these stormwater management areas should integrate modern Best Management Practices (BMP's), including the use of native vegetation to provide filtration and reduce stormwater flows. Design of management within stormwater areas commercial areas should utilize bio-filtration strategies to reduce run-off pollutants and provide on-site storage.

Landscape, Path and Utility Easement

As а regional arterial roadway. the WIKADUKE Trail will carry a high volume of traffic. With this traffic comes the associated noise, and the need to address how adjacent properties will be developed along the roadwav. A variable transition area is proposed, depending on land use and design This transition area will be character. immediately outside of the 150' right-of-way. The first portion of this transition area will be a required easement. Within this easement, no buildings, parking, or vehicular circulation areas will be permitted. The intent of this area is to provide space for appropriate landscaping and a path or sidewalk.



Use of Stormwater Management as a Buffer



Residential Landscape Easement

In locations where the WIKADUKE Trail abuts existing residential development and the prescribed transition areas cannot be accommodated, each municipality or county will work with individual property owners on how to best accommodate and implement appropriate buffering/easement practices.



Section 7-11

The following table of minimum setback requirements outlines required easements:

Minimum Setback Requirements

	Building	Pavement	Loading
Residential*	60'	n/a	n/a
Retail/Commercial	30'	40'	60'
Industrial	50'	75'	100'

*Landscape and trail easement/outlot is 30' minimum / 50' average





Commercial Landscape Easement

Push Commercial Buildings to Street

If fencing is desired, it shall be of a consistent design and shall be located along the back edge of the easement/outlot.

Design of Residential Developments

Residential lots located along the WIKADUKE Trail will not have direct access to the roadway; most residential lots will back to the roadway. However, to avoid monotony, residential roadways should not directly parallel the WIKADUKE Trail. The use of curvilinear streets, the creative use of cul-de-sacs, and the strategic placement of stormwater management areas can all be used to provide a varied setback of homes along the roadway. As an alternative, a frontage road could be provided to permit homes to face the WIKADUKE Trail.





A Appropriate Residential Road Alignment (Option 1)



B Appropriate Residential Road Alignment (Option 2)

Local Street										
Ŷ	Ŷ	Ŷ	Ŷ	Ŷ	¢	Ŷ	Ŷ	¢	Ŷ	
WIKADUKE Trail										

C Inappropriate Residential Road Alignment





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Greenway Transition Landscaping | WIKADUKE Trail | January 2004



Greenway Gateway Perspective | WIKADUKE Trail | January 2004 | TESKA ASSOCIATES, INC. - 627 Grove Street - Evanston, Illinois - 847, 869, 2015







Typical Residential Gateway Plantings







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Prairie Shade Trees — * Red Oak * Quaking Aspen * White Ash

Intersection and Transition Shade Trees * Green Ash * Honylocust * River Birch

Prairie and Transition – Native Grasses and Perennials - IDOT Class 4A (Low Native Grasses) and 5A (Native Forbs) * Little Blue Stem * Side-Oats Grama * Wild Rye * New England Aster * Downy Sunflower * Prairie Blazing Star * Rigid Goldenrod



* Sadblow Serviceberry

* Rattlesnake Master * Butterfly Weed

Greenway Plant Lists | WIKADUKE Trail | January 2004 | TESKA ASSOCIATES, INC. - 627 Grove Street - Evanston, Illinois - 847, 869, 2015

* Fults Salt Grass



Typical Residential Transitional Yard/Setback Shown at 30 Feet

Cross-Section Represent Northbound Perspective



8. ACCESS POLICY

The primary objective of this access management policy is to expedite the movement of traffic. Traffic flow into and out of property is expedited by ensuring that access points are clearly identified and travel paths are easy to follow. Driveways and turning lanes must be designed so that they are capable of handling the anticipated amount of traffic. Through traffic is also expedited by minimizing the causes of delay. The number of points where the movement of through traffic can come into conflict with traffic moving into or out of adjacent properties should be kept to a minimum and turning movements should generally be physically separated from through movements.

The application of a comprehensive access management policy will also help to achieve greater safety for those using the public streets. A roadway constructed or upgraded with the principles of access management in mind will minimize the potential for accidents by minimizing the number of conflict points between opposing traffic flows. Drivers are provided a uniform driving environment where they are able to easily identify travel paths. Drivers are also given sufficient sight distance and reaction time to recognize and react to potential hazards.

The construction of new roadways (or the upgrade of existing roadways) that will carry relatively high volumes of traffic at higher speeds with less delay will be expensive. Private development along public roadways also requires a substantial financial investment in order to provide goods and services, recreation, and housing for a community. Extreme care must be taken to ensure that access is designed and constructed so that the gains in roadway capacity are not negated by the conflicting traffic movement generated by new development.

One of the most important principles of access management and, for that matter, of roadway design in general is to ensure sufficient distance between the driveways and streets that intersect any given roadway so that the roadway can function properly. Insufficient spacing can have serious impacts on the safety of drivers and pedestrians, the efficiency of traffic operations, and ultimately the value of the properties abutting the roadway. Proper spacing will provide drivers sufficient perception time to identify locations where they might expect another vehicle or a pedestrian making a conflicting movement. Proper spacing will also allow more time for necessary deceleration and lane changes providing smoother, more efficient traffic flow.



Access Policies

Access control along the WIKADUKE Trail has been established to preserve the safety and efficiency of the roadway and to preserve the public investment. Using the recommendations discussed in the SRA Study conducted by IDOT as a guide, the following Access Policies have been established by the WIKADUKE Trail Advisory Committee (see the following pages for graphic representations):

- Signalized intersections and full access is typically permitted every ½ mile throughout the length of the WIKADUKE Trail;
- Within all identified Regional Commercial Centers full access is permitted every ¼ mile and signalized intersections will be permitted when traffic warrants are met;
- Right in / right out access is permitted as needed throughout the length of the WIKADUKE Trail as long as there is a minimum spacing of 500' between any other access location;
- Right deceleration lanes are required at all proposed access locations;
- All intersection designs and locations shall comply, at a minimum, with the designated intersection types and locations identified on the accompanying Access Maps of this document.

Traffic Studies

During the zoning process, all new development projects along the WIKADUKE Trail shall be required to prepare a traffic study conducted by a qualified traffic engineer. Such study shall evaluate existing traffic volumes and capacity, anticipated traffic from the proposed development, and anticipated growth in background traffic from other new developments in the area. Copies of all traffic studies shall be provided to both Kendall County and the local municipality. Once reviewed, such studies will form the basis of specific intersection design and access controls such as acceleration and/or deceleration lanes or right in/right out controls.

Intersection Design

Within the Study Area, a total of thirty-five (35) intersections have been identified along the WIKADUKE Trail (for a detailed account of each location, see the following Access Plan maps). It should be noted that right in/right out locations have not been identified and will be governed by the aforementioned policy statements. For greater clarification, each identified intersection has been assigned an "Intersection Classification Type" ranging from Type I to Type VI, with each classification identifying the minimum number of lanes in each direction and all turning movements. It should be noted that the prescribed intersection in types in this plan generally reflect those identified by the IDOT SRA Plan. However, selected intersections have been upgraded from "Type II" to "Type I" to provide additional capacity on cross streets accessing the WIKDAUKE Trail. Of the six (6) identified intersection types, four (4) can be classified as being more "specialized" as they apply to limited circumstances and locations such as the intersection of the Interstate 80 westbound access ramp and the WIKADUKE Trail. Intersection Type I, which is generally located at all "major mile" and "mid-mile" intersections is the most typical and appears in the greatest frequency throughout the WIKADUKE corridor.









Intersection Requirements | WIKADUKE Trail | January 2004 TESKA ASSOCIATES, INC. - 627 Erone Street - Evanston, Illinois - 647, 866, 2015

<u>Type I</u>: The Type I intersection occurs at thirty-one (31) locations throughout the corridor and is typically located at the existing and proposed "major" intersections with a typical spacing of one half ($\frac{1}{2}$) mile between each Type I intersection. Each Type I intersection may contain a traffic signal.

As designed, the Type I intersection will permit the following traffic movements:

- Northbound Lane: Two (2) dedicated northbound non-turning lanes, one (1) dedicated left turn lane, and one (1) dedicated right turn lane.
- Southbound Lane: Two (2) dedicated southbound non-turning lanes, one (1) dedicated left turn lane, and one (1) dedicated right turn lane.
- Eastbound Lane: One (1) dedicated eastbound non-turning lane, one (1) dedicated left turn lane, and one (1) dedicated right turn lane.
- Westbound Lane: One (1) dedicated westbound non-turning lane, one (1) dedicated left turn lane, and one (1) dedicated right turn lane.



Starting from the south of the Project Area, a Type I intersection is designated at the intersection of the WIKADUKE Trail and the following twenty-six (26) roadways: Holt Road; new mid-mile collector between Holt Road and Wildy Road; Wildy Road; Mound Road extension; Bell Road; Seil Road extension; U.S. Highway 52; Baltz Road extension; Jones Road; Black Road extension; Van Dyke Road; Theodore Street extension; new mid-mile collector between the Theodore Street extension and Caton Farm Road; new mid-mile collector between Caton Farm Road and Walker Road; Walker Road; new mid-mile collector between Walker Road and Wheeler Road; Wheeler Road; new mid-mile collector between Illinois Route 126 and Johnson Road/143rd Street; Johnson Road/143rd Street; Plainfield Road; Paydon Road/135th Street; Simons Road/127th Street; Wooley Road; Rance Road; and Wolf Crossing Road.

Additionally, five (5) permitted access points within identified Regional Commercial Centers have been designated with Type I intersections. Four (4) of these locations occur along the WIKADUKE Trail approximately ¼ of a mile north of the following roadways: Interstate 80, U.S. Highway 52, Illinois Route 126, and Simons Road/127th Street. The fifth location occurs south of Caton Farm Road and is aligned with the existing easterly access to the Plainfield South High School site. In the interim, all five (5) of these intersections are not planned to be signalized. However, when traffic warrants are met, full signalization may occur.



<u>Type II</u>: Although identified in the SRA Study conducted by IDOT, designated locations for the Type II intersection have not been indicated on the following Access Plans and will only be permitted if warranted by the required traffic study. If the Type II intersection is utilized, the appropriate right-of-way width to accommodate the Type I intersection must be dedicated in order to facilitate its future conversion to a Type I intersection.

As designed, the Type II intersection will permit the following traffic movements:

- Northbound Lane: Two (2) dedicated northbound non-turning lanes, one (1) dedicated left turn lane, and one (1) dedicated right turn lane.
- Southbound Lane: Two (2) dedicated southbound non-turning lanes, one (1) dedicated left turn lane, and one (1) dedicated right turn lane.
- Eastbound Lane: One (1) shared lane that permits continued eastbound traffic and a right turn, and one (1) dedicated left turn lane.
- Westbound Lane: One (1) shared lane that permits continued westbound traffic and a right turn, and one (1) dedicated left turn lane.



<u>Type III</u>: The Type III intersection occurs at the intersection of the WIKADUKE Trail and the following two (2) roadways: the Collins Road/119th connector and Route 30; a designated minor collector and arterial, respectively. Both intersections will contain a traffic signal.

As designed, the Type III intersection will permit the following traffic movements:

- Northbound Lane: Two (2) dedicated northbound non-turning lanes, two (2) dedicated left turn lanes, and one (1) dedicated right turn lane.
- Southbound Lane: Two (2) dedicated southbound non-turning lanes, two (2) dedicated left turn lanes, and one (1) dedicated right turn lane.
- Eastbound Lane: Two (2) dedicated eastbound non-turning lanes, two (2) dedicated left turn lanes, and one (1) dedicated right turn lane.
- Westbound Lane: Two (2) dedicated westbound non-turning lanes, two (2) dedicated left turn lanes, and one (1) dedicated right turn lane.





Type IV:

The Type IV intersection occurs at the intersection of the WIKADUKE Trail and the westbound Interstate 80 entrance/exit ramp. This intersection may contain a traffic signal.

As designed, the Type IV intersection will permit the following traffic movements:

- Northbound Lane: Two (2) dedicated northbound non-turning lanes, and one (1) dedicated left turn lane.
- Southbound Lane: Two (2) dedicated southbound non-turning lanes, and one (1) dedicated right turn lane.
- Westbound Lane: One (1) dedicated left turn lane, and one (1) dedicated right turn lane.



<u>Type V</u>:

The Type V intersection occurs at the intersection of the WIKADUKE Trail and Caton Farm Road, which is a designated arterial. This intersection will contain a signalized traffic signal.

As designed, the Type V intersection will permit the following traffic movements:

- Northbound Lane: Two (2) dedicated northbound non-turning lanes, one (1) dedicated left turn lane, and one (1) dedicated right turn lane.
- Southbound Lane: Two (2) dedicated southbound non-turning lanes, two (2) dedicated left turn lanes, and one (1) dedicated right turn lane.
- Eastbound Lane: One (1) dedicated eastbound non-turning lane, One (1) shared lane that permits continued eastbound traffic and a right turn, and one (1) dedicated left turn lane.
- Westbound Lane: Two (2) dedicated westbound non-turning lanes, two (2) dedicated left turn lanes, and one (1) dedicated right turn lane.





<u>Type VI</u>:

The Type IV intersection occurs at the intersection of the WIKADUKE Trail and Illinois Route 126, which is a designated arterial. This intersection will contain a signalized traffic signal.

As designed, the Type VI intersection will permit the following traffic movements:

- Northbound Lane: Two (2) dedicated northbound non-turning lanes, one (1) dedicated left turn lane, and one (1) dedicated right turn lane.
- Southbound Lane: Two (2) dedicated southbound non-turning lanes, one (1) dedicated left turn lane, and one (1) dedicated right turn lane.
- Eastbound Lane: Two (2) dedicated eastbound non-turning lanes, one (1) dedicated left turn lane, and one (1) dedicated right turn lane.
- Westbound Lane: Two (2) dedicated westbound non-turning lanes, one (1) dedicated left turn lane, and one (1) dedicated right turn lane.



Existing Access

Existing access along the planned route of the WIKADUKE Trail will be permitted "as is" until such land is developed to a more intense use, or if it is determined by the Kendall County Highway Department that said access is no longer required or is unsafe. Any new access must comply with the access policy contained within this document.

Cross Street Right-of-Way Preservation

To ensure adequate right-of-way for future cross-street intersection improvements, it will be important for the municipalities to work closely with the County. Additional right-of-way will be needed beyond the typical 80' to 100' right-of-way of a crossing major collector or arterial road. The following sketch illustrates the desired cross-street right-of-way standards for major roadway crossings of the WIKADUKE Trail. By providing this additional right-of-way, there will be adequate space if dual left and dedicated right turn lanes are needed in the future.



Major Arterial/Arterial & Minor Arterial/Major Collector Cross Street Requirements:

- A 100' R.O.W. (Major Collector/Arterial)
- **B** Transition Area
- C 120' R.O.W.*



*100-foot width may be sufficient for minor arterials/major collectors depending on final intersection design.

Acceleration/Deceleration Lanes

Another very important aspect of tailoring access to the needs of an area concerns the use of exclusive turn lanes and acceleration/deceleration lanes. Traffic operations will be safer and more efficient when vehicles that are slowing down or stopped in order to make a turning movement are separated from the flow of through traffic. On roads with higher travel speeds, vehicles re-entering the traffic stream may need an acceleration lane to pick-up sufficient speed to merge safely with the through traffic.

At those access points where it can be determined through site specific traffic studies that vehicles turning to and from the roadway will affect the capacity of the roadway or create an unacceptable accident risk, the developer will be responsible for dedicating sufficient right-of-way and constructing turning lanes or acceleration/deceleration lanes as necessary to maintain the capacity of the roadway and minimize the potential accident risk.



Traffic Signals

Traffic signals along the WIKADUKE Trail will only be permitted at the locations illustrated on the Access Plans, and only when the involved County and the local municipality determine that the signal is warranted. As discussed in IDOT's WIKADUKE SRA Study, additional signals would tend to impede traffic flow on the WIKADUKE Trail and interfere with the optimization and progression of signal systems. Provisions should be made for developers to pay their fair share of signalization costs, upon platting, for future signal installations.

All signals should be designed and constructed to accommodate the appropriate interconnection and synchronization equipment. Interconnection of signals may not be practical in rural areas until all intersections are signalized. Installation and interconnection of signals at regional commercial centers, where access points may be as close as 1/4 mile, must be emphasized.

Interconnection of traffic signals helps to reduce congestion, minimizes conflicting traffic movements, increases safety for users of the roadway, and contributes to the overall environmental benefits of the area by reducing the amount of "stop and go" This study continues to support the recommendations noted in the traffic. WIKADUKE SRA Study completed by IDOT.

The interconnection of signals into one coordinated system is recommended for the future traffic signals along the following segments of the WIKADUKE Trail:

- \circ I-80 on the south to Wheeler Road on the north an approximate nine (9) mile segment;
- o Illinois Route 126 to the 119th Street/Collins Road connector an approximate 3.5 mile segment;
- The future signals between U.S. Route 30 and Wolf's Crossing Road an 0 approximate $\frac{1}{2}$ mile segment.

Bus Service and Access

Although not specifically identified on the accompanying maps, bus service is anticipated for the WIKADUKE Trail study area. Bus stop locations/terminals, at a minimum, should be located within regional commercial centers. This will enhance the accessibility of these facilities to the public and will provide opportunities to use these regional centers as park-and-ride facilities. All future proposed routes, stops, and terminals should be coordinated with Pace, the suburban bus division of the Regional Transportation Authority. It should be noted that the Study Area is not currently within Pace's jurisdiction. However, due to their regional presence and existing transit routes and service, they would be the logical service provider.





When planning and designing roadways for bus service, Pace recommends consideration of the following (from *Pace Development Guidelines*, produced by the Department of Planning Services):

- For both public and private roadways that accommodate transit vehicles, Pace recommends a 12-foot lane width for the curb lane to insure proper maneuverability of its vehicles.
- Bus stops are placed in one of three locations: near-side (located immediately before an intersection); far-side (located immediately after an intersection); and mid-block (located between intersections). Each of these locations offer advantages to vehicle drivers and pedestrians. However, the final decision on bus stop locations depends on ease of operation, transfer situations, space availability, and traffic volumes. Pace performs on-site evaluations of proposed bus stops to analyze operating conditions and identify appropriate bus stop locations.
- A variety of amenities can be provided at bus stop locations to enhance the attractiveness of public transportation. Designing waiting facilities with amenities that increase passenger's comfort levels and feelings of security can encourage suburban travelers to use public transit. Bus stop locations that are designed with paved waiting pads, shelters, benches, windbreaks and lighting can furnish comfortable, safe waiting areas for transit users.

Additionally, Pace identifies bus stop spacing dimensions based on various employment and population densities and categorizes the levels based upon High, Medium. or Low. High is defined for areas supporting a population/employment density of greater that 4,000 persons per square mile, containing an overall density of four (4) or more units per acre. If these factors are present, a 660-foot bus stop spacing dimension is recommended. Medium is defined for areas supporting a population/employment density of greater that 2,000 to 4,000 persons per square mile, containing an overall density three (3) units per acre. If these factors are present, a 1.320-foot bus stop spacing dimension is recommended. Low is defined for areas supporting a population/employment density of 2,000 or less persons per square mile, containing an overall density of one (1) to two (2) units per acre. If these factors are present, Pace recommends Flag Stop Areas, in which the bus only "drops-off" or "picks-up" passengers at designated bus stops at an on-board passenger's request, or if someone is present at the stop location. These factors should be considered when planning for bus service along all segments of the WIKADUKE Trail.



Park-and-Ride Facilities

Park-and ride facilities serve as collection points for individuals transferring to transit. They are designed to accommodate transit, rail, car-pooling, van-pooling, and shuttle services. Such facilities may be dedicated lots on public property or joint-use lots on privately owned property where the normal parking function is not oriented towards modal transfer (i.e.- transit and rail stations where commuters can switch from auto to rail or transit).

The Access Plans identify three (3) park-and-ride facilities for the Study Area; typical spacing is between 6.5 and 7 miles. They are planned at the following road intersections with the WIKADUKE Trail (starting from the south): Interstate 80 northbound ramp; Caton Farm Road; and the Collins Road/119th connector. Exact locations for such facilities have not been indicated and should be determined collaboratively by each municipality and Pace.




Regional Commercial Center Guidelines | WIKADUKE Trail | January 2004 TESKA ASSOCIATES, INC. - 627 Grove Street - Evanston, Illineis - 847, 869, 2015



WIKADUKE Trail ROW





Access Man lagement Study | WIKADUKE Trail | Jan. 2004 💻 ise a TESKA ASSOCIATES, INC. = 627 Grove Street = Evanston, Illinois = 847.869.2015



Right In / Right Out access is permitted as needed as long as there is a minimum of 500 feet between any other access

required at all proposed access

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9. IMPLEMENTATION

From the beginning, the idea of the WIKADUKE Trail has been based on the concept of mutual cooperation for the benefit of the region. Four counties and numerous municipalities along the roadway have worked cooperatively to develop an appropriate alignment and develop the land use, access, and design standards contained in this document. To take this plan from paper to reality, this intergovernmental cooperation will need to be maintained and even enhanced.

The following chapter identifies issues that Kendall County and local governments will face in development of the WIKADUKE Trail. For each critical issue, one or more policies are outlined that will form the basis of plan implementation. An action plan is also provided to summarize key steps required to achieve the vision outlined in this Land Use and Access Management Study.

Road Name

Currently, the route for the WIKADUKE Trail contains several existing roadways including portions of Ridge Road, Plainfield Road, Stewart Road, and Eola Road. To maintain a consistent roadway identity, a common name is preferred. Since the Eola Road section of the roadway corridor through Will County is already developed, many homes and businesses have Eola Road addresses. In contrast, the roadway corridor through Kendall County has limited existing development. It is recommended that Ridge Road serve as the official street name for the WIKADUKE Trail through Kendall County. This will require renaming of portions of Plainfield Road and Stewart Road where these existing roadways occupy the future WIKADUKE Trail route. The roadway name could then change from Ridge Road to Eola Road at U.S. Highway 30.

Implementation Policy

The WIKADUKE Trail will be called Ridge Road in Kendall County, with a name change to Eola Road at U.S. Highway 30 as it moves into Will County.

Jurisdiction

Roles and Responsibilities

Cooperation between developers, local municipalities, and the respective county will be critical to ensure appropriate and timely roadway improvements.

Developers will benefit significantly from the visibility and access provided by the WIKADUKE Trail. A fare-share cost of roadway improvements will be required to take advantage of these benefits. This fare-share may include some off-site roadway improvements to ensure that the overall road infrastructure is capable of handling the proposed development. In some cases, it may also mean that developers will be asked to front-fund roadway improvements beyond what is required exclusively for their development. In such instances, appropriate recapture provisions should be made to reimburse the developer once adjacent development occurs.

Municipalities will play a critical role in coordinating and regulating development. The majority of the WIKADUKE Trail corridor is currently unincorporated. However, it is anticipated that most if not the entire corridor will eventually be annexed and incorporated into a municipality for access to water, sewer, and other public services. During annexation, municipalities will create an agreement that outlines what services will be provided by the community and what improvements will be required of the developer. Through these annexation agreements, municipalities will need to outline specific roadway improvements that will be required of the developer. Such agreements should also address the timing of improvements to ensure that needed road facilities are in place to handle anticipated traffic demand.

Kendall and Will Counties will need to work closely with both the developers and municipalities to implement the plan. Since the roadway is planned as a County Highway through Kendall County, the County will play a critical role in all aspects of the WIKADUKE Trail. They will serve as the lead agency in seeking federal and state grants for roadway planning and improvements. They will serve as a coordinating agency to ensure roadway improvements in each community are done in a consistent and timely fashion. They will serve as a repository of information, from the proposed roadway centerline to individual project traffic studies and agreements.

Implementation Policy

Municipalities shall incorporate provisions for developer contributions for construction of the WIKADUKE Trail and related intersection and signal improvements within annexation agreements for property adjacent to or within one mile of the WIKADUKE Trail. Contributions shall be based on specific traffic studies, discussions with the relevant County to review needed improvements, and timing of development.





Right-of-Way Acquisition

The majority of the right-of-way needed to accommodate the WIKADUKE Trail is anticipated to be dedicated through the platting process. As land along the corridor is planned for development, each municipality shall require dedication of the required right-of-way at the time of final plat approval. Additionally, in residential areas, the establishment of a separate outlot for the identified trail/landscape/utility easement will be required. Since the roadway is planned to be under county control, the dedication should be made directly to Kendall County. Although the dedication could be made to the municipality, with a future dedication to the County, this approach is not recommended as it adds an extra step in the process. Where development along the corridor is planned within County planning jurisdiction, the County itself will require right-of-way dedication at the time of platting. The exception to this procedure is in Will County, where the roadway will likely remain under municipal control similar to existing Eola Road.

Kendall County has recorded a centerline for the WIKADUKE Trail. This centerline map should be used to determine the location of required right-of-way. Since a total 150' has been established as the required right-of-way width. dedications should include 75' on each side of the recorded centerline.

There may be cases were a new segment of the roadway is needed prior to the development of adjacent properties. In cases such Kendall County, with municipal assistance, will need to proactively seek dedication of the required right-of-way. lf the property owner does not wish to dedicate the land, then a direct purchase may be required.

Wording on Plats of Subdivision

Since direct access along the WIKADUKE Trail is limited to those locations illustrated on the enclosed Access Plan, the following note shall be placed on plats of subdivision. This note shall be placed on all plats that have lots or outlots along the WIKADUKE Trail frontage that will not take direct access.

Direct Access to the WIKADUKE Trail (or existing street name at the time of platting i.e. Ridge Road or Stewart Road) from Lots ______ is prohibited.

Implementation Policy

Within Kendall County, the WIKADUKE Trail will be a County Highway. Municipalities along the roadway will assist the County in acquisition of the required 150' right-of-way width through the platting process.





Ownership/Roadway Maintenance

As a county road, the right-of-way, improvements, and future roadway maintenance will be the responsibility of the Kendall County Highway Department. However, given the desire for enhanced landscape medians and other ornamental plantings and gateway treatments within the right-of-way, the County will require intergovernmental cooperation to address maintenance issues. Funding for maintenance of enhanced medians, gateways and parkway areas will be the responsibility of local municipalities, with intergovernmental agreements established to clarify responsibilities and standards.

To promote public access and safety, it is recommended that the proposed multiuse path along the west side of the WIKADUKE Trail be publicly owned and maintained. The local Park Districts or municipalities would be the logical agencies to own and operate the path. The sidewalk on the east side of the WIKADUKE Trail would best be treated as a municipal sidewalk. Agreements will be needed with adjacent property owners and associations to allow for public access and use of the path and sidewalk.

Implementation Policy

The multi-use trail on the west side of the WIKADUKE Trail will be publicly owned and maintained through easements and agreements with adjacent property owners and associations.

Landscape Maintenance

Maintenance of landscape areas was a topic of discussion at several of the advisory committee meetings conducted as a part of this planning process. To implement the greenway plan, an enhanced level of maintenance will be required for key areas within the roadway corridor. Gateway, intersection, and transitional areas will require additional maintenance beyond routine mowing. Prairie and wildflower plantings, which ultimately will have a relatively low maintenance cost, will require weeding and watering during initial establishment.

Annual maintenance costs for all landscape areas within the right-of-way through Kendall County is estimated to be approximately \$250,000. This estimate includes all mowing, fertilization, weeding, pruning, watering, and pick-up of trash. Although the work could be done by County or municipal crews, the cost estimate assumes that the work would be done by a qualified private landscape maintenance firm.



Implementation Policy

Cost for landscape maintenance will be shared by the County, local municipalities, and adjacent property owners. Kendall County will be responsible for maintenance in all unincorporated areas. Local municipalities will be responsible for landscape maintenance costs within their communities, with adjacent property owners providing assistance as appropriate.

Construction Cost

The cost estimate for recommended improvements within the WIKADUKE Trail right-of-way are detailed in the following table. This table breaks the roadway into a series of sections as identified below. Segments 1 and 2 are south of Interstate 80, and thus not within the project area of this plan.

Segment Description

Segment 3:Interstate 80 to Wheeler RoadSegment 4:Wheeler Road to Illinois Route 126Segment 5:Plainfield Road - Illinois Route 126 to Stewart RoadSegment 6:Stewart Road - Plainfield Road to 119th Street/Collins Road ConnectorSegment 7:119th Street/Collins Road Connector to Wolf's Crossing Road



WIKADUKE Trail Construction Cost Estimate

	Segment 3	Segment 4	Segment 5	Segment 6	Segment 7
Ultimate Improvement					
Roadway	\$38,603,827	\$5,147,177	\$6,648,437	\$8,149,697	\$19,128,022
Intersection Improvements	\$4,887,499	\$862,500	\$862,500	\$1,575,453	\$1,287,953
Traffic Signals	\$2,608,367	\$144,909	\$434,728	\$579,637	\$289,819
Signal Interconnection	\$2,381,149	\$0	\$409,224	\$499,647	\$129,839
Structures	\$1,391,129	\$0	\$0	\$0	\$0
Transit Improvements	\$927,419	\$0	\$0	\$463,710	\$0
Right-of-way Acquisition	\$3,814,012	\$4,131,653	\$2,275,655	\$3,314,365	\$8,010,584
TOTAL	\$54,613,402	\$10,286,239	\$10,630,543	\$14,582,509	\$28,846,217
Low-Cost Improvement*					
Roadway	\$2,587,500	\$0	\$287,500	\$575,000	\$0
TOTAL	\$2,587,500	\$0	\$287,500	\$575,000	\$0
Enhancements***					
Pedestrian Bridges	\$750,000	\$750,000	\$0	\$750,000	\$0
Gateways	\$680,000	\$170,000	\$170,000	\$170,000	\$170,000
Intersection Landscape	\$810,000	\$90,000	\$270,000	\$270,000	\$270,000
Total	\$2,240,000	\$1,010,000	\$440,000	\$1,190,000	\$440,000
Post 2020 Improvement					
Roadway	\$54,196,063	\$8,520,664	\$8,804,687	\$10,792,842	\$17,041,329
TOTAL	\$54,196,063	\$8,520,664	\$8,804,687	\$10,792,842	\$17,041,329
OVERALL TOTAL PER SEGMENT	\$113,636,964	\$19,816,903	\$20,162,730	\$27,140,350	\$46,327,546

Total Ultimate Improvement** \$126,866,409 Total Including Post 2020 \$227,084,493

* Low cost improvements are recommended interim projects to be constructed prior to the implementation of the ultimate improvements. These types of improvements can be constructed at a much lower cost than the ultimate improvements and include provision of dedicated left turn lanes and signage improvements.

Includes Ultimate Improvement, Low Cost Improvement, and Enhancement figures *Landscape improvements for transitional and native planting areas included in roadway budget

Source: WIKADUKE SRA Study Final Report, Illinois Department of Transportation - 09.09 Updated, assuming 3% inflation since 1998



Funding Sources

Direct Development Funding:

Development adjacent to the WIKADUKE Trail will have the most direct impact on roadway capacity and therefore should bare significant responsibility for funding needed roadway improvements.

Determination of appropriate development share of roadway improvements will be based on the roadway design criteria outlined in the SRA Study, this Land Use and Access Management Study, and development specific needs based on a site-specific traffic study. Each traffic study should consider existing roadway traffic, projected traffic from the development, traffic projections from adjacent development proposals, and appropriate levels of background traffic growth.

Implementation Policy

A detailed traffic study, including an intersection design study, will be required for all development proposals along the WIKADUKE Trail.

Impact Fees:

A common method of collecting funds for roadway projects is through the assessment of roadway impact fees. These fees are collected as property is developed using a formula that evaluates the anticipated impact a development will have on the transportation The formula is typically system. based on a number of factors including land use, trip generation, and the percentage of new trips generated by a use (to avoid double counting), and attributes some square foot (commercial) or per person (residential) cost to the development. Although legislation (HB 1539) has been proposed to clarify the rules that should be followed in creation and assessment of impact fees, this legislation has yet to be put into law.

DuPage County Road Impact Fee System

The DuPage County Impact Fee System divides the county into nine districts based on geography. Within each district, specific capital improvement projects are defined. The districting approach allows the County to clearly assess and utilize impact fees that are directly attributable to new development. Rates very significantly by district. For example, a single family detached home would be assessed a fee of \$70 in District 6 vs. a fee of \$1,171 in District 1. Similarly, rates for commercial development very significantly. For a 100,000 square foot retail development, the fee would range from \$9,900 in District 6 vs. \$113,700 in District 2. State legislation would need to be amended to permit Kendall County to assess a similar fee.



Based on their home rule authority, some large communities have developed their own roadway impact fee. Some large counties, such as DuPage and Lake Counties, have also implemented or have attempted to implement a roadway impact fee. Impact fees are usually assessed at the building permit stage of development. and work well when applied to an entire roadway system - they are typically not designed to fund one particular roadway project.

Under current state law Kendall County does not have the authority to impose roadway impact fee. It may be possible for municipalities to assess a roadway impact fee and, much like they currently do for schools, forward that fee onto the County for roadway development.

Implementation Policy

Kendall County and other local governments should work with the state legislature to enact statutes that will allow the creation of County and municipal roadway impact fees.

Special Service Areas:

Counties and municipalities in Illinois have the ability to create "Special Service Areas". According to Article 27, the Special Service Area Tax Law (35 ILCS 200/27) a "special service area means a contiguous area within a municipality or county in which special governmental services are provided...the cost of the special services to be paid from revenue collected from taxes levied or imposed upon property within that area." The law further states "a county may create a special service area within a municipality or municipalities when the municipality or municipalities consent to the creation of the special service area." Special service areas are often put in place to fund major water or sewer line projects. However, they can also be used for roadway projects.

One reason that special service area financing is not used more frequently in Illinois is the requirement for voter approval. To implement a special service area, all property owners within the proposed boundary of the special service area vote to create or reject the district. A benefit to the use of a special service area to fund roadway improvements is that the service area could go beyond just those properties fronting on the WIKADUKE Trail. All properties within several miles on either side of the roadway will benefit from the enhanced regional access provided by the WIKADUKE Trail. Given this regional benefit, it seems appropriate to consider funding assistance from a larger area.

This type of funding may be appropriate for areas of the roadway corridor that are currently unimproved, such as between Wheeler Road and Route 126 in Plainfield, and between Collins Road and Wolf Crossing Road in Oswego.

Implementation Policy

Property owners within a one-mile wide corridor of the WIKADUKE Trail should be contacted to explore the possibility of creating a special service area to equitably and expediently promote roadway construction.

<u>Grants:</u>

The communities along the WIKADUKE Trail are, in some ways, ahead of the curve in terms of design of the roadway corridor. Particularly with this project, corridor communities have embraced principals of context sensitive design (see side bar). Recently approved legislation, 625 ILCS 5/4-219) in Illinois now requires the Department of Transportation to "embrace principles of context sensitive design and context sensitive solutions in its policies and procedures for the planning, design, construction and operation of its projects. A hallmark of context sensitive design...shall be early and ongoing collaboration with...stakeholders to ensure that the

"Context sensitive design" (CSD) is collaborative, а interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic. aesthetic. historic. and environmental resources. while maintaining safety and mobility. CSD is an approach that considers the total context within which a transportation improvement project will exist."

values and needs of the affected communities are identified and carefully considered in the development of transportation projects." While this roadway is not currently planned as an IDOT roadway, funding assistance from IDOT will be important. By developing a plan that is responsive to the needs of communities throughout the corridor, the WIKADUKE Trail is a model of regional context sensitive design and planning. Assuming that IDOT utilizes this mandate as a criterion in their funding decisions, the probability of state funding assistance for this project should be enhanced.

Federal assistance through the Transportation Equity Act for the 21st Century (TEA 21) should also be pursued. The Committee on Transportation and Infrastructure is still resolving details of this bill. Local senators and representatives should be contacted to urge support for the WIKADUKE Trail given its regional importance.



Local Capital Improvement Budgets:

Even if grant funds become available, local matching funds will likely be required. Both Kendall and Will County, along with local municipalities, should reserve funds within their capital improvement budgets to provide funding for roadway and enhancement efforts for the WIKADUKE Trail.

Action Plan

Actior	n	Who
1.	Adopt this Land Use and Access Management	Kendall and Will
	Comprehensive Plans.	Municipalities
2.	Establish a 6-month meeting schedule for	Kendall and Will
	progress and development of the WIKADUKE Trail.	Municipalities
3.	Promote public awareness of the WIKADUKE	Kendall and Will
	and referral to the web site, www.wikaduketrail.net.	Municipalities
4.	Modify the Kendall County Land Resource Management Plan to remove the scenic route designation from Ridge Road.	Kendall County
5.	Inform all applicants for annexation, zoning and	Kendall and Will
	Use and Access Management Study, the IDOT	Municipalities
	SRA Study, and requirements for right-of-way dedication.	
6.	Notify owners of property along WIKADUKE	Kendall County
	future name change to Ridge Road.	
7.	Re-Sign portions of Plainfield Road and Stewart Road to Ridge Road and notify post office.	Kendall County
8.	Develop standard intergovernmental agreements	Kendall and Will
	to provide for municipal or private funding of	Municipalities
	landscape improvements and maintenance at	
	Such agreements will also address energy costs	
	for street lighting and traffic signal maintenance,	
	replacement and energy costs. General liability	
	snail also de addressed within the agréements.	



Action	า	Who
9.	Require detailed traffic studies at the time of annexation or rezoning for all developments adjacent to or within one mile of the WIKADUKE Trail. A qualified engineer should conduct traffic studies, with copies provided to both the local municipality and the appropriate county. Where applicable, such studies should provide justification for any proposed ¼ mile access locations at regional commercial centers.	Local Municipalities, Property Owners/Developers and Traffic Engineers
10.	Amend the recorded centerline of the WIKADUKE Trail between just south of Route 30 and Wolf Crossing to reflect the revised alignment indicated in this study.	Kendall and Will Counties
11.	Pool funds and work with local federal and state representatives to obtain funding assistance for detailed engineering (Phase I and Phase II) to complete links in the WIKADUKE Route and to fund identified safety and traffic improvements such as turn lanes.	Kendall and Will Counties and Local Municipalities
12.	Develop detailed engineering plans for each segment of the WIKADUKE Trail following guidelines contained in this study, the SRA Study, and Kendall County Highway Department Standards.	Kendall County, Engineering Consultants, and Local Municipalities
13.	Follow IDOT guidelines for Intersection Design Studies (IDS).	Kendall and Will Counties, Local Municipalities, Developers, and Traffic Engineers
14.	Install the multi-use path on the west side and concrete sidewalk on the east side of the improved WIKADUKE Trail.	Kendall and Will Counties, Local Municipalities, and Developers
15.	Install traffic signals only when traffic warrants are met. Signals shall be designed and constructed to accommodate the appropriate interconnection and synchronization equipment.	Kendall County, Local Municipalities, and Developers
16.	Require dedication of adequate right-of-way for both the roadway and proposed/future intersection improvements. This includes both the 150' of WIKADUKE Trail right-of-way and expanded right- of-way on side streets to accommodate appropriate turn lanes.	Kendall County and Local Municipalities



Actio	n	Who
17.	Require compliance with the design standards for private development established in this Land Use and Access Management Study.	Kendall and Will Counties and Local Municipalities
18.	Coordinate planning for the pedestrian crossings and multi-use path proposed for the west side of the WIKADUKE Trail with regional trail providers such as the Kendall County Forest Preserve, Oswegoland, Plainfield, and Joliet Park Districts, and local municipalities.	Local Governments
19.	Seek grants and work with developers to secure land and construct the proposed pedestrian crossings.	Kendall County, Local Municipalities, Developers, Federal and State grant sources.
20.	Provide storm water detention for the improved roadway in connection with adjacent development utilizing common detention facilities.	Kendall and Will Counties, Local Municipalities, and Developers
21.	Provide lighting at all intersections and at regional commercial centers. All fixtures should utilize high-pressure sodium luminaries with cut-off optics.	Kendall County and Local Governments
22.	Require dedication of an outlot in residential development or an easement in commercial/industrial areas adjacent to each side of the WIKADUKE Trail for landscaping, paths and sidewalks. (See design component section of this study for recommended outlot/easement width.)	Local Governments and Developers

