

**CC&P/STEARNS ROAD
CORRIDOR
DESIGN REPORT**

**Prepared for Kane County and the
Illinois Department of Transportation**

May, 2006

Prepared by:

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Chicago, Illinois 60601**

CC&P/Stearns Road Corridor Design Report

Route: FAP 361

Local Agencies: Kane County & DuPage County

LA Section No. 98-00214-02-BR

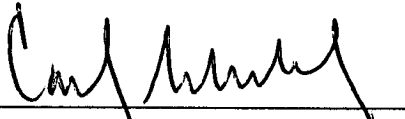
Federal Project No. DPC-CMM-HPD-M-0019 (014)

Street Name: New Stearns Road

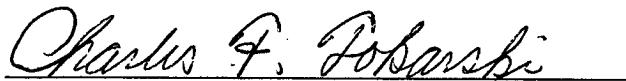
Termini: West of Randall Road, east to east of Dunham Road



**Design Approval Recommended
(Check Box)**


For Kane County

5/25/06
Date


For DuPage County

5-26-06
Date


IDOT Regional Engineer

6/30/06
Date



**Design Approval
(Check Box)**


Central Bureau of Local Roads & Streets

7/17/06
Date

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June 5, 2006

Mr. Carl Schoedel, Director
Kane County Department of Transportation
41W011 Burlington Road
St. Charles, IL 60175

RE: Village of South Elgin's Support
of the Fox River Regional Bridge Construction

Dear Carl,


In 2002, the President and Board of Trustees adopted Resolution 2002-28 entitled *A Resolution in Support of the Construction of the CC&P/Stearns Road Regional Bridge*. The Board considered the construction of a bridge in the central region of the County to be beneficial to area residents for the following reasons:

- Presently the only crossing of the Fox River between St. Charles and Elgin is the State Street Bridge in South Elgin, and traffic from this crossing flows primarily through residential areas on both sides of the river.
- The proposed east-west arterial McDonald Road extension would alleviate traffic in these residential areas and create a more direct route between Randall Road and Route 59; and
- The Randall Road corridor has become a prime location for commercial growth and is vital to the economic future of South Elgin.

On behalf of the President and Board of Trustees, please allow this letter to reaffirm the Village's strong support of the County of Kane in its effort to construct a regional bridge in the Village of South Elgin for the above reasons.

I have enjoyed working with you and the Kane County staff on this project for the past several years. I understand the scope of the project; look forward to the work beginning this year – and to the completion of this major transportation improvement. As the project moves forward, please let me know if I can assist you in any way.

Sincerely,


Larry D. Jones
Village Administrator

LDJ/mv

TABLE OF CONTENTS

Executive Summary

1.0	INTRODUCTION	1
1.1	Project Description and Location.....	1
1.2	Project Status and History	1
1.3	Design Criteria	2
2.0	PURPOSE AND NEED FOR THE PROJECT	2
2.1	Purpose of the Project.....	2
2.2	Need for the Project	2
	Access.....	2
	Traffic (Existing and Projected).....	2
	Land Use	3
	Roadway Deficiencies and Safety	3
3.0	EXISTING SETTING/CONDITIONS	4
3.1	Topography	4
3.2	Adjoining Land Use.....	4
3.3	Transportation Network	4
	Roadway Network.....	4
	Roadway Classifications	5
	Roadway Right-Of-Way	5
	Roadway Typical Sections.....	6
	Railroads.....	6
	Pedestrian/Bicycle Access.....	6
3.4	Structures.....	6
3.5	Utilities	7
3.6	Drainage	7
3.7	Environmental Factors Affecting Design	8
	Wetlands.....	8
	Threatened and Endangered Species	8
	Flood Plains.....	9
	Section 4(f) Resources.....	9
	Cultural Resources - Historic Resources & Archaeological.....	9
	Special Waste.....	9
4.0	ALTERNATIVES CONSIDERED	10
4.1	No-Action.....	10
4.2	Other Modes of Transportation.....	10
4.3	Base Roadway Configuration	10
	Alignment.....	10
	Intersection Locations and Base Roadway Configurations	11

Access Alternates.....	12
Pedestrian/Bicycle Alternates	12
5.0 PROPOSED ALTERNATE	13
5.1 General Description	13
Typical Sections.....	13
Intersection/Interchange Types	14
5.2 Design Criteria	14
5.3 Pavement Recommendations	15
5.4 Geometric Design	16
5.5 Intersection Design Studies (IDSs).....	16
5.6 Utilities	16
5.7 Pedestrian/Bicycle Access.....	17
5.8 Structural Recommendations	17
5.9 Drainage Recommendations	19
5.10 Environmental Findings/Recommendations	20
5.11 Design Variances	20
5.12 Right-Of-Way	22
5.13 Cost Estimate	22
5.14 Staging and Maintenance of Traffic Recommendations	22
5.15 Conclusions.....	25
6.0 COMMENTS AND COORDINATION	25
6.1 Coordination.....	25
IDOT/FHWA/LA Coordination Meetings.....	25
Technical Advisory Committee Meetings.....	25
Threatened and Endangered Species	25
6.2 Public Involvement.....	26
6.3 Other Coordination	26
6.4 Commitments.....	27

EXHIBITS

- 1 Area Map
- 2 Project Location Map
- 3 Existing & Projected Traffic
- 4 Existing Conditions Aerial
- 5 Accident Analyses
- 6 Flood Plain Map
- 7 Cost Estimate
- 8 Construction Contract Stages
- 9 Construction Staging/Maintenance of Traffic
 - Sheet 1 Contract 2 - Stages 1& 2
 - Sheet 2 Contract 3 - Stage 1
 - Sheet 3 Contract 3 - Stage 2
 - Sheet 4 Contract 4 - Stage 1
 - Sheet 5 Contract 4 - Stage 2
 - Sheet 6 Contract 5 - Stage 1
 - Sheet 7 Contract 5 - Stage 2

APPENDIX A - Coordination Documentation

IDOT/FHWA/Local Agency Coordination

Geometric Approval

Technical Advisory Committee Coordination

Threatened and Endangered Species Coordination (includes copy of the Authorization and Implementing Agreement and the Conservation Plan as part of the Incidental Take Authorization Permit for the Slippershell Mussel)

Railroad Coordination

Park Coordination

APPENDIX B - Plan Sheets

(Bound Separately 11" x 17"-reduced scale)

Existing Typical Sections

Proposed Typical Sections

Plan and Profile Sheets

Intersection Design Studies

Bridge General Plans

DOCUMENTS INCORPORATED BY REFERENCE

Final Environmental Impact Statement and Section 4(f) Evaluation - Fox River Bridge Crossings
Record of Decision - Fox River Bridge Crossings
Environmental Vision Document
Location Drainage Study
Hydraulic Reports
Wetland Assessment Report
Conservation Plan for the Threatened Slippershell Mussel
Preliminary Environmental Site Assessment (PESA), Prepared ISGS for the IDOT
Revised Preliminary Site Investigation Report for Illinois Route 25 from Dunham Road to Brewster
Creek, Bartlett, Kane County, Illinois
PESA for Midwest Groundcovers, Prepared by Huff & Huff, Inc.
Phase II Soil Investigation for H&B Blacktop & Sons Paving Property, Prepared by Huff & Huff, Inc.
A Survey for Bats at the Proposed Road Improvement of CC&P/Stearns Road in Kane County,
Illinois

EXECUTIVE SUMMARY

This design report opens with the development, need and existing conditions of the CC&P/Stearns Road project. This material is primarily adapted and summarized from the Environmental Impact Statement (EIS), signed November 1, 2001, and the Record of Decision (ROD), signed May 13, 2002, for this project. These documents also developed the broad alternatives that were evaluated and then selected. The alternative selection at that point involved alignment selection and the number of lanes in the proposed improvement. At that time specific detailed geometrics, drainage, and structure design had not been developed.

With approval of the EIS and ROD, any decision that changed the base roadway configuration would require reopening the evaluations of the EIS. Since additional through lanes would not be acceptable due to an increase in impacts, the base number of lanes of the EIS and the choice of year 2020 traffic of the EIS were to be used for subsequent plan development.

The most significant environmental issue affecting the development of the proposed project was wetlands and other water resources. The project area contains a number of valuable wetlands and high quality streams. With the commitment to extensive mitigation and to a design that minimized impacts to these resources, the resource and regulatory agencies agreed that the project effectively resulted in "no net harm," and possibly an enhancement to the natural environment. The commitments associated with this and the commitments associated with other impacts are discussed in this document.

With the signing of the ROD, detailed geometric design, drainage and structural design proceeded. On May 30, 2004 geometric approval was granted based upon developed plan and profile sheets and upon the intersection design sheets. The geometrics of that approval remain unchanged in this design report. The only additional step relating to geometrics was an additional formal submittal and request for approval of the design variances in the proposed project. These variances were accepted by the Illinois Department of Transportation (IDOT) Bureau of Design and Environment (BDE) for the variances on the State system and by the IDOT Bureau of Local Roads and Streets (BLRS) for the variances on the local system at May 10, 2005 coordination meeting.

The proposed project is the construction of a new crossing of the Fox River near South Elgin by a four lane roadway. Extensive approach road and cross-road work is also part of the project to provide logical termini and regional access to the bridge. While the main crossing is and will be responsibility of Kane County as a Kane County highway, the cross-roads and approach roads involve roads on the State system that will remain on the State system, and on the local system of other agencies, notably the Village of South Elgin and DuPage County. The result is the procedures for review and acceptance for the structures and the drainage vary by under whose jurisdiction they fall. In the case of drainage, the implementation of this approach means that the local agency will review and be responsible for the proposed drainage on the local system. The proposed project satisfies the purpose and need for the project while minimizing environmental impacts.

1.0 INTRODUCTION

1.1 Project Description and Location

The proposed action consists of the construction of a new crossing of the Fox River, with approach roads, within Kane and DuPage Counties (see Exhibit 1 for an area map). The proposed bridge corridor is the CC&P/Stearns Road in the Villages of South Elgin, Bartlett and Wayne and in unincorporated Kane County, and unincorporated DuPage County (see Exhibit 2 for project location map); South Elgin straddles the Fox River, while Bartlett and Wayne are both on the east side of the Fox River. The proposed CC&P/Stearns Road typical cross section consists of two 12 foot lanes in each direction separated by an 8 to 32 foot median. Signalized intersection improvements will be provided at Randall Road/McDonald Road (the western terminus), McLean Boulevard, Illinois Route 25, Gilbert Street, and Dunham Road. The intersections of Illinois Route 25 with Dunham Road and the intersection of Dunham Road with Stearns Road will be realigned into one intersection. The proposed roadway continues east of the intersection to join the four lane section of Stearns Road completed by DuPage County. Illinois Route 31 will be grade separated from the proposed road. The length of this improvement from western terminus to eastern terminus is approximately 5.1 miles, with another 3.4 miles of intersecting road improvements.

1.2 Project Status and History

The CC&P/Stearns Road corridor was one of the three bridge and roadway corridors recommended in the Environmental Impact Statement (EIS) signed by the Federal Highway Administration (FHWA) in November of 2001. This corridor was subsequently one of the three recommended for construction in the Record of Decision signed by the FHWA in May of 2002. The roadway configuration analyzed and recommended in the environmental documents is the one described in the project description above.

The concept of additional bridges across the Fox River has been included in county and municipal planning and transportation studies at least since the 1960's. In 1969, the Fox River Valley Transportation Study recommended two bridges for construction by the year 1985: Fabyan Parkway in Batavia and Illinois Route 25/McLean in the community of Valley View. Of these, only the Fabyan Parkway bridge was built.

In 1990, this project was initiated by the Fox River Bridge Advisory Committee, which produced the *Fox River Bridge Study*, due to the ongoing growth of development on the west side of the Fox River. This study analyzed approximately 20 crossings within Kane, McHenry, and Kendall counties. Nine remaining corridors were evaluated as part of the *Corridor Analysis Document* (May 1994). The remaining five corridors including the CC&P/Stearns Road corridor, after agreement from the Kane County Board, were evaluated in more detail in the Environmental Impact Statement.

Public meetings and hearings have been conducted with the general support of the public for the proposed corridor. Environmental concerns with wetlands and other sensitive issues are more fully discussed in the Environmental Impact Statement.

1.3 Design Criteria

For the most part the project involves new construction of a suburban arterial on new alignment. At locations where the project is within an existing corridor, the project will be reconstruction to improve capacity.

2.0 PURPOSE AND NEED FOR THE PROJECT

2.1 Purpose of the Project

The purpose of the CC&P/Stearns Road corridor is to provide transportation improvements, which would increase access across the Fox River in central Kane County. The Fox River represents a physical barrier, which limits east-west access in this area. The purpose recognizes this barrier and refines the objectives to address it more precisely in terms of land use and transportation issues. The three objectives as stated in the Environmental Impact Statement are:

- Enhance the transportation network by reducing congestion and providing alternate and more direct routes for South Elgin;
- Serve existing land use in the area through efficient access to central business districts, public services, and employment and commercial centers; and
- Serve proposed land use in conformance to local and county land use and resource management plans, which encourage compact, contiguous growth for central Kane County and preserve the rural qualities of the western portion of the Fox River.

2.2 Need for the Project

Access

There are no river crossings within the 5.5 miles from the Illinois Route 64 Bridge in the City of St. Charles to the State Street Bridge in the Village of South Elgin. The Illinois Route 64/Main Street Bridge serves both local and regional traffic. Illinois Route 64/Main Street is very congested through St. Charles with numerous driveways and businesses fronting the road. The State Street Bridge in South Elgin is a two lane bridge that serves primarily local traffic since it is offset from the through road on the west and ends 1000 feet east of the Fox River. Also, State Street has a truck restriction for the bridge. The nearest continuous crossing in U.S. Route 20, another 2 miles further north. Providing highway improvements will enhance travel by reducing travel times and providing safer travel conditions.

Traffic (Existing and Projected)

The need for the CC&P/Stearns Road corridor is for access across the Fox River to reduce congestion and providing alternate and more direct routes. As documented in the EIS, the need is for more than relief to an existing roadway or bridge; the traffic demand for crossings of the Fox River in the immediate project area will exceed the effective capacity available. Therefore, the benefit to the roadway network will be diffuse. In the design year the benefit would not be immediately evident by a reduction in volume on nearby links due to redistribution impacts. Instead, network modeling by the Chicago Area Transportation Study (CATS) indicated that the network will be more efficient, since trips will be more direct on a slightly less congested network. Also, through traffic will be diverted outside of downtown St. Charles and downtown South Elgin. Modeling indicated with or without

new bridges, traffic will continue to grow, resulting in further congestion of the roadway network, as a result of continued growth of population, employment, and automobile usage.

The need is evident from an examination of the existing and projected traffic in the project corridor (see Exhibit 3). With projected traffic in excess of 30,000 vehicles per day, the driving public will benefit from a more direct regional corridor that allows crossing of the Fox River with minimal delays.

Land Use

The Village of South Elgin is experiencing rapid growth in residential and commercial development west of the Fox River. The proposed CC&P/Stearns Road corridor will support and complement the existing development and the expected growth.

Roadway Deficiencies and Safety

Along the CC&P/Stearns Road corridor, the intersection of Illinois Route 25 with Dunham Road is a three-legged intersection, forming a “Y” (one leg south, one leg southwest, and one leg to the north) that suffers from restricted sight distance, tight curves, and approach grade problems (see Exhibits 2 and 4). While it was signalized in 1996, it is a recognized safety hazard by both the Illinois Department of Transportation and Kane County Division of Transportation. The intersection of Stearns Road with Dunham Road is also a three-legged signalized intersection (one leg north, one leg south, and one leg east). Dunham Road immediately south of the intersection has an abrupt crest over a railroad which acts as a restriction on sight lines.

Accident data provided by the Illinois Department of Transportation and the Kane County Division of Transportation for the years 2001 through 2003 (and then supplemented through 2004 by IDOT and 2005 by KDOT) were analyzed for this project (see Exhibit 5 for accident summaries and diagrams). The signalized intersections of Illinois Route 25 with Dunham and of Dunham and Stearns Road had high accident rates compared to comparable average rates from the State for District 1 (Chicago metropolitan area). Rear end accidents were approximately half the accidents at each location, which can be related to the unexpected geometry combined with limitations on sight lines.

The intersection of Gilbert with Illinois Route 25 is stop sign controlled on Gilbert. Illinois 25 is on a curve at this point and Gilbert abuts a railroad embankment, limiting sight distance. The accident data indicates that this intersection has a high accident rate for a stop-sign controlled intersection compared to comparable District 1 rates, with a mix of accident types, especially turning and fixed object. The other intersections analyzed: Illinois Route 31 with McLean and Randall with McDonald have relatively low accident rates compared to State comparable average rates.

The segment and wet analyses indicate that Illinois Route 25 has a higher than average rate of accidents, including wet accidents, compared to State average rates. These higher rates are consistent with the curving alignment and rolling profile, and do not appear to be primarily a problem of poor drainage or inadequate skid resistance. While the accident rate on Illinois Route 31 in general is not high, the incidence of wet accidents is. Besides a curved alignment, the two culverts on either side of McLean have reported problems that could cause water on the pavement.

3.0 EXISTING SETTING/CONDITIONS

3.1 Topography

The major defining topographic feature of the project corridor is the Fox River Valley, occupied by a winding Fox River (see Exhibit 2 for a map of the corridor and Exhibit 4 for an aerial photo). On the east bank of River, the land gently slopes toward the river with a broad flood plain adjoining the river (see also Exhibit 6 for flood plain maps). On the west side, the flood plain is narrower as the ground slopes steeply down toward the Fox River. The drainage divide between the Fox River and the Otter Creek drainage basin is located near Umbdenstock Road. Throughout the project length the land form has been greatly disturbed by quarrying operations and the construction of roads and railroads.

3.2 Adjoining Land Use

Residential development in proximity to the CC&P/Stearns Road corridor is single-family detached (see Exhibit 4). West of the Fox River, in South Elgin, the development has been for small lot subdivisions and scattered residential north of the CC&P RR tracks along Illinois Route 31. East of the Fox River, dispersed residential areas exist along Dunham Road and Stearns Road.

Several commercial and industrial operations are located adjacent to the CC&P/Stearns Road corridor, including: Fox River Stone Quarry, Midwest Groundcovers, Woodland Landfill, Groot Industries, and Elmhurst Chicago Stone (see Exhibit 4). Allied Asphalt and Bluff City Materials are east of the corridor along Stearns Road.

Scattered highway-oriented retail/service establishments occur along Illinois Route 25, south of CC&P RR, and at the intersection of Spring Street and McLean Boulevard, near South Elgin's Village Hall.

Randall Road has emerged in the last decade as a major commercial corridor throughout its length in Kane County.

Another major land use is park land. At the eastern edge of the project are Tri-County State Park and Pratt's Wayne Woods. Along the west bank of the Fox River is Blackhawk Forest Preserve.

3.3 Transportation Network

Roadway Network

Illinois Route 64 is the only bridge crossing in this area that provides regional east-west access. The two other bridges in St. Charles' Central Business District, Illinois Street and Prairie Street, serve primarily local traffic because they do not provide direct connections to east-west arterials. State Street in South Elgin is primarily local in function because it is only continuous for 0.5 miles and carries a truck restriction.

The east-west Strategic Regional Arterial (SRA) arterial north of Illinois Route 64 is U.S. Route 20 in the City of Elgin, 7 miles away. Stearns Road is a major east-west arterial, which does not cross the Fox River. There are two north-south SRAs in the area; Illinois Route 25 and Randall Road.

Roadway Classifications

Major highways which traverse the project area are: Illinois Route 25, Illinois Route 31, Randall Road, McLean Boulevard, Dunham Road, and Stearns Road. Illinois Route 25 and Illinois Route 31 are classified as minor arterials, except north of the intersection at Illinois Route 25 and Dunham Road, Illinois Route 25 is a principal arterial. Randall Road, Dunham Road, and Stearns Road are classified as principal arterials. Randall Road has limited access control under the jurisdiction of Kane County. Otherwise, none of the roads are access-controlled.

Other roadways intersecting CC&P/Stearns Road corridor are: McDonald Road, Umbdenstock Road, and Gilbert Street. McDonald Road and Umbdenstock Road are classified as local roads. Gilbert Street is classified as an urban collector road.

The current posted speed limits along the CC&P/Stearns Road Corridor are listed in the following table.

Roadway Name	Northbound Posted Speed Limit	Southbound Posted Speed Limit	Eastbound Posted Speed Limit	Westbound Posted Speed Limit
Randall Road	50 mph	50 mph	NA	NA
McDonald Road	NA	NA	35 mph	35 mph
Umbdenstock Road	30 mph	30 mph	NA	NA
McLean Boulevard	45 mph	45 mph	NA	NA
Illinois Route 31	45 mph	45 mph	NA	NA
Illinois Route 25 (between the CC&P Railroad and UP Railroad)	45 mph	45 mph	NA	NA
Illinois Route 25 (North of UP Railroad)	40 mph	40 mph	NA	NA
Gilbert Street	55 mph	55 mph	NA	NA
Dunham Road	50 mph	50 mph	NA	NA
Stearns Road	NA	NA	50 mph	50 mph

Roadway Right-Of-Way

The right-of-way along Illinois Route 31 north and east of McLean Boulevard is 66 feet. West of McLean Boulevard the right-of-way varies from 66 feet up to over 200 feet. Along Stearns Road in the area improved by DuPage County the right-of-way is 120 feet. From that section west, the right-of-way is 80 feet. The right-of-way for Dunham Road is typically 66 feet. The right-of-way along Randall Road is approximately 140 feet, but varies. The right-of-way for Illinois 25 varies throughout its length from 66 feet to in excess of 120 feet.

Roadway Typical Sections

Illinois Route 25, Illinois Route 31, McDonald Road, Umbdenstock Road, McLean Boulevard, Gilbert Street, Dunham Road, Stearns Road in Kane County consists of two lanes with shoulders. Randall Road consists of four lanes with a painted median and shoulders. Stearns Road within DuPage County consists of four lanes with painted median and shoulders; this section was constructed in 1999 (See also Appendix B - Section 1).

Railroads

There are three sets of railroad tracks within the CC&P/Stearns Road Corridor: the Chicago Central & Pacific (CC&P - owned by the Canadian National Railroad) Railroad tracks, the Union Pacific (UP) Railroad (formerly the Chicago & NorthWestern) tracks, and the Fox River Trolley Museum tracks.

The CC&P RR operates a single track line in the CC&P/Stearns Road Corridor. There are currently 5-10 trains per day with the operating speed at 50 mph, though the railroad has indicated they would like to increase the operating speed to 60 mph. The railroad line within the corridor is grade-separated from Umbdenstock Road, McLean Boulevard, Illinois Route 31, the UP RR, and from Dunham Road. It has at-grade crossings at Illinois Route 25 and at Randall Road.

The UP RR operates a single track line that crosses Illinois Route 25 at Gilbert Street, east of the Fox River. At Illinois Route 25, the railroad is grade-separated above the roadway. Immediately north, however, there are a number of at-grade crossings which lead into the residential area bordered by the Fox River and the railroad line. South of Illinois Route 25 the line is grade separated over the CC&P RR. This line currently operates approximately 5 trains per week with a schedule speed of 49 mph.

The Fox River Trolley Museum is located in the Village of South Elgin; it is not a commercial railroad. Rather it is operated as a non-profit organization dedicated to preserving and showing to the public trolley cars. The museum's tracks run from approximately 2 miles north of the CC&P tracks to 1 mile south. The museum had maintained on CN property an interchange spur between their tracks and the CC&P for receiving supplies and equipment. That spur track, however, was removed by the CN. The Museum maintains that the removal was an error and the track will be restored; the owning railroad, the CC&P RR, has no interest in seeing the tracks restored.

Pedestrian/Bicycle Access

Within the CC&P/Stearns Road Corridor, the Illinois Prairie Path crosses Dunham Road at-grade and is grade-separated over the CC&P RR tracks and over Illinois Route 25. In the project area, the Fox River Trail parallels the west bank of the Fox River. Additional trails are located in Blackhawk Forest Preserve and in Tri-County State Park.

3.4 Structures

There are a number of existing bridges within the corridor, including the Illinois Prairie Path structures over Illinois Route 25 and over the CC&P RR. There are roadway structures over the CC&P RR at Dunham Road, at Illinois Route 31 and at Umbdenstock Road. The CC&P RR crosses over McLean

Boulevard. The UP RR crosses over Illinois Route 25. Illinois Route 25 also crosses over Brewster Creek. The crossing of Dunham Road over the East Branch of Brewster Creek is a culvert.

3.5 Utilities

There are a number of utilities using the CC&P/Stearns Road Corridor located within the existing right-of-way, outside the right-of-way, or crossing the roadway. The known utilities within the project area are Commonwealth Edison Company (ComEd), Fox River Water Reclamation District (FRWRD), and Nicor Gas. SBC has buried cable and buried fiber-optic lines in the area. Other utilities present are municipal water, sewer, lighting and cable television.

ComEd has electric transmission and underground lines within the project area. There are major transmission lines located parallel to the CC&P tracks. Other lines are located throughout the corridor.

Midwest Groundcovers is served by a private electric service from the transmission lines just south of the CC&P RR between the Fox River and Illinois Route 25.

The FRWRD has existing sewer lines in the project area. FRWRD has a 14" sanitary sewer force main parallel to the east bank of the Fox River, along the south side of the CC&P tracks, parallel along Illinois Route 25, and finally turning north along the Illinois Prairie Path.

Nicor Gas has existing gas lines throughout the project area. These locations include gas mains located along the north and south side of Stearns Road, the east side of Dunham Road and crossing over to the west side south of the Stearns Road intersection, and along the west side of Illinois Route 25. A gas transmission corridor crosses McDonald Road near the west end of the project.

3.6 Drainage

A Location Drainage Study has been prepared for the CC&P/Stearns Road Corridor. The proposed roadway passes through three principal watersheds (see Exhibit 6 for the major waterways and associated flood plains). The Otter Creek watershed eastern limit is approximately Umbdenstock Road. The watershed drains to the Fox River south of the corridor. West of the Fox River and east of the Otter Creek watershed, drainage is directly to or by minor tributaries to the Fox River. East of the Fox River, drainage is directly to the Fox River or to a tributary of Brewster Creek and then to the Fox River.

The Fox River has a designated floodway. The North Arm of Brewster Creek and Brewster Creek west of Illinois Route 25 also have designated floodways. East of Illinois Route 25 Brewster Creek and its tributaries have a regulatory floodplain, but not floodway.

Both Kane County and DuPage County have storm water management ordinances requiring detention with a controlled release rate for new impervious areas.

3.7 Environmental Factors Affecting Design

A more extensive discussion of environmental features can be found in the Environmental Impact Statement. Noteworthy environmental features that could influence design are listed below. The aerial photobase (Exhibit 4) highlights the locations of these features.

Wetlands

The wetland assessment report details the location and classifications of the wetlands throughout the project corridor (see Exhibit 4 for general locations). The particularly noteworthy wetlands adjacent to or within the corridor boundaries are:

- South Elgin Fen/Sedge Meadow. This is located north of the CC&P RR tracks and west of Illinois Route 25. It is outside the project construction limits. Nevertheless, it is part of the project mitigation. Also, a recommendation of the wetlands study indicated that direct roadway drainage to this wetland is to be avoided
- McLean Boulevard Fen/Seep, formerly known as Day's Fen. Again, this wetland is outside the project construction limits. Nevertheless, it is part of the project mitigation.

The remaining wetlands within the project impact area are lower quality wetlands.

Threatened and Endangered Species

The corridor contains two Illinois Natural Areas containing state listed species. These natural areas are the DeSantos Brewster Creek site (privately owned and maintained) and the South Elgin Sedge Meadow (partially privately owned and partially owned by the Kane County). The McLean Boulevard Fen (aka Day's Fen) also contains a state listed plant. Another state listed plant is located near the intersection of the UP RR and the CC&P RR in a prairie remnant outside the potential project impact area.

The river redhorse and the greater redhorse, state listed fish, were observed downstream of the proposed crossing of the Fox River. The proposed crossing is considered potential habitat. Remnants of state listed mussel were found in the Fox River in the project corridor and a live state listed mussel was found in Brewster Creek. Additional coordination has been undertaken with the U.S. Fish and Wildlife Service and the Illinois Department of Natural Resources recently as the project progresses to design (see Appendix A - Coordination Documentation, for documentation of the Threatened and Endangered Species Coordination).

On May 6, 2005, the Illinois Department of Natural Resources signed off on the project as not potentially adversely affecting state listed threatened/endangered species or Natural Areas.

On April 26, 2005, the United States Fish and Wildlife Service issued a letter indicating that they are supportive of the proposed environmental mitigation measures integrated into the project. The only new comment provided is that they requested a survey be conducted for the presence of the federally endangered Indiana bat (*Myotis sodalis*). A new survey has been conducted and no Indiana bats were found.

In a July 25, 2005 letter, the Illinois Department of Natural Resources (IDNR) indicated that a recent survey of the East Branch of Brewster Creek in Tri-County State Park, live specimens of the state

listed Slippershell mussel (*Alasmidonta viridis*) were found. They noted that potential impacts could include Incidental Taking. IDNR requested the development of a conservation plan for the mussel as part of an agreement authorizing an incidental taking.

Flood Plains

The Fox River, the North Arm of Brewster Creek, and Brewster Creek west of Illinois Route 25 have regulatory floodways within the project corridor (see Exhibit 6). The remainder of Brewster Creek and its tributaries within the corridor have identified flood plains, but not regulatory floodways. Otter Creek also has a regulatory floodway, but it is beyond the limits of this project.

Section 4(f) Resources

There are a number of public recreational facilities throughout the corridor. These include:

- Tri-County State Park - located at the east end of the corridor. It spans Cook, DuPage and Kane County
- Pratt's Wayne Wood - a DuPage County Forest Preserve located at the east end of the corridor adjacent to Tri-County State Park and generally south of Stearns Road
- Illinois Prairie Path - a multi-use path operated by the Kane County Forest Preserve that crosses Dunham at-grade and is grade separated above Illinois Route 25
- Fox River Trail and Blackhawk Forest Preserve - located on the west bank of the Fox River. Owned and operated by the Kane County Forest Preserve.

Cultural Resources - Historic Resources & Archaeological

No sites identified as eligible for inclusion on the National Register of Historic Places were identified within the project corridor. Four sites have been identified (location known to Kane County and IDOT, but withheld here to protect the sites from poaching) as requiring detailed investigation prior to construction occurring at those sites. Prior to the awarding of any construction contract, the County will review whether one of these sites may be affected and work with the IDOT to initiate the investigation. Otherwise, the sites are not expected to affect the project implementation.

Special Waste

Adjoining Illinois Route 25 is the Tri-County Landfill, a closed site for hazardous waste that has implemented a remediation plan. Woodlands Landfill is located west of Tri-County Landfill and also adjoins Illinois Route 25; this landfill accepts only non-hazardous waste. A Preliminary Environmental Site Assessment (PESA) was conducted by IDOT for this project September 2004.

The owner of Midwest Groundcovers had maintained a private shooting range on-site. A Preliminary Environmental Site Assessment conducted for the site (Huff & Huff, April 2004) found lead concentrations requiring remediation in the shooting range berm. Portions of the berm, if removed, will need to be handled as special waste and a portion as hazardous waste.

The Daily property is located just west of Illinois Route 31 and south of the CC&P RR tracks. A solid waste disposal site was operated on this property until 1989. No closure documentation was provided to IEPA for this site and additional work is required to assess the possibility for special waste and the impact of construction across the site. Documentation has been submitted to the Illinois Environmental Protection Agency to define the limits of the landfill and to characterize it.

For the portion of the project along State Routes, the PESA and any subsequent PSI were prepared for the Illinois Department of Transportation. For the portion not adjoining a State Route, the PESA and subsequent PSI were prepared for the County. These studies indicated a potential for a high risk from this project if the areas to be disturbed on the Tri-County Landfill, Woodlands Landfill, Crown Disposal/Monarch Disposal (as known as Groot Industries), Illini Construction, H&B Blacktop & Sons and Daily property exceeded a minimal prescribed depth. Based upon a review of the project scope at the above referenced sites, the Tri-County Landfill site and the Groot Industries sites would not be disturbed beyond the prescribed depth (no excavation). The Preliminary Site Investigation for Woodlands Landfill and Illini Construction indicate that based upon the proposed scope no special handling is required. The PSI for the H & B Blacktop & Sons site indicated no hazardous waste. Some of the material to be excavated will be classified as special waste and will need approval from an approved disposal facility. Characterization of the fill material on the Daily site indicates construction demolition material requiring no special handling.

4.0 ALTERNATIVES CONSIDERED

4.1 No-Action

Under the No-Action alternative, Illinois Route 64 in St. Charles and State Street in South Elgin would continue to be the primary crossings of the Fox River in the project vicinity. The Illinois Street and Prairie Avenue bridges do not provide the continuity necessary to be primary access roads. The State Street Bridge in the Village of South Elgin lacks sufficient continuity to be a primary access road, as well as it has a truck restriction.

The No-Action alternative would also allow traffic congestion on existing bridges to increase. Traffic will continue to grow such that travel across the Fox River to the other side of St. Charles will become increasingly difficult. Pressure to improve traffic flow by widening existing bridges and approach roads would increase, though this action would not be possible without major impacts to the surrounding areas.

The limited access across the river also acts as a restriction on community cohesion.

For the above cited reasons, the No-Action alternative does not meet the needs of the project.

4.2 Other Modes of Transportation

Bus service is limited along the corridor. As part of the EIS, Congestion Management Strategies (CMS) were investigated. CMS, including transit, was identified as not having the potential to address the need for this project.

4.3 Base Roadway Configuration

Alignment

The logical termini identified in the EIS for this project are Stearns Road at the four lane section in DuPage County improvement and the intersection of McDonald and Randall Roads. Since the

intersections of Illinois Route 25 with Dunham Road and Dunham Road with Stearns Road are locations of non-standard geometry with high accident rates, the project proposes to realign these two three legged intersections into one four-legged intersection. This realignment relocates Stearns Road by Dunham Road north of its current location and relocates the connecting Illinois Route 25 west of Dunham Road south of its current location. The realignment of Illinois Route 25/Stearns Road was limited on the north due to the presence of Tri-County State Park. The realignment of Illinois 25/Dunham Road was also limited by Tri-County State Park and the need to minimize the skew angle of the intersection with Illinois Route 25/Stearns Road for safety and operation of the new intersection. Illinois Route 25 and Gilbert Street will be widened basically following the existing alignment with some allowances for widening and intersection improvements.

New Stearns Road west of Illinois Route 25 to McDonald Road is proposed south and roughly parallel to the CC&P RR tracks. Options north of the tracks were not prudent due to the presence of houses, power lines and valuable wetlands. At Illinois Route 25 the intersection was moved away from the tracks to provide distance between the at-grade crossing of Illinois Route 25 by the CC&P RR and the intersection of Illinois Route 25 with New Stearns Road to provide for a safe, signalized intersection near an at-grade railroad crossing.

The Illinois Route 31, McLean Boulevard, McDonald Road and Randall Road improvements all follow the existing alignment, with minor adjustments. McLean Boulevard is to be widened west of the existing location to avoid impacts to residences on the east side of McLean Boulevard. Illinois Route 31 will be widened to the north to minimize impacts to Blackhawk Forest Preserve, located on the south side of Illinois Route 31.

Intersection Locations and Base Roadway Configurations

All proposed intersections will be at-grade; no interchanges are proposed. The possibility of an intersection between New Stearns Road and Illinois Route 31 west of the Fox River was investigated. Illinois Route 31 is currently on high embankment to allow an overpass over the CC&P RR. It is also on a curved alignment with steep approach grades from the south. These factors would have created an unsafe intersection or extensive reconstruction with additional right-of-way to provide a safe intersection. The decision was that a connection to Illinois Route 31 would still be maintained via McLean Boulevard.

The highway capacity analyses performed as part of the Intersection Design Studies and during the EIS development established the base number of lanes and auxiliary lanes for the sections at signalized intersections and subsequently away from intersections. The following is the list of proposed signalized intersections and a description of the intersection configuration:

North-South Intersection Leg	East-West Intersection Leg	North-South Leg Base Lane Configuration	East-West Leg Base Lane Configuration
Randall Road	McDonald Road	3 through lanes each direction dual left turn lanes right turn lane	3 through lanes each direction dual left turn lanes right turn lane

North-South Intersection Leg	East-West Intersection Leg	North-South Leg Base Lane Configuration	East-West Leg Base Lane Configuration
McLean Boulevard	New Stearns Road	2 through lanes each direction 2 left turn lane single right turn lane (S. leg only)	2 through lanes each direction dual left turn lanes (E. leg) single left turn lane (W. leg) right turn lane
McLean Boulevard (North Leg Only)	Illinois Route 31	2 through lanes (Northbound) single left turn lane (Southbound) single right turn lane (Southbound)	1 through lane each direction dual left turn lanes (Eastbound) right turn lane (Westbound)
Illinois Route 25	New Stearns Road (West Leg Only)	2 through lanes each direction single left turn lane (Northbound) right turn lane (Southbound)	2 through lanes (Westbound) dual left turn lanes (Eastbound) right turn lane (Eastbound)
Illinois Route 25	Gilbert (NW Leg Only)	2 through lanes each direction single left turn lane (Northbound) right turn lane (Southbound)	1 lane (NWbound) left turn lane (SEbound) right turn lane (SEbound)
Illinois Route 25/Dunham	Illinois Route 25/Stearns Road	2 through lanes each direction dual left turn lanes (Southbound) single left turn lane (Northbound) right turn lane	2 through lanes each direction dual left turn lanes right turn lane

Access Alternates

To maintain safe, efficient operation and protect the investment in a major new roadway facility, New Stearns Road will have access limited to existing roads and a limited number of driveways between Illinois Route 25 on the east and Umbdenstock Road on the west. Total access control is not practical because of the lack of suitable alternate access adjoining the properties in this area. The exact placement and number of access points along the non-State system component of this improvement will be determined in negotiations between the County and property owners prior to the finalization of development plans by the property owners.

Outside of the above area there are already driveways along the roads to be widened, and these will be maintained. Along the portion of the improvement to become a County highway, the County will be responsible for the issuance of any additional access permits to ensure safe operations. The State will continue to control access along the State system.

Pedestrian/Bicycle Alternates

The project proposes to provide multi-use paths throughout most of its length, while connecting to and maintaining the existing paths. Alternatives were evaluated to provide non-motorized access from Tri-County State Park across the Fox River, while linking up to existing paths. Also, because the Illinois Prairie Path is currently grade separated from Illinois Route 25 and because the proposed Dunham with Illinois 25 intersection will be operating without spare capacity to allow safe non-motorized crossing, the County working with the Kane County Forest Preserve, DuPage County Forest Preserve and Illinois Department of Natural Resources decided to grade separate the path from the intersection.

Preliminary designs with cost estimates were prepared for an overpass grade separation and for an underpass. Considering that the intersection of Illinois 25/Dunham/Stearns will be on fill above ground due to clearance requirements for Dunham Road over the CC&P RR and that 17' 3" is the clearance requirement for a path structure over a roadway, an overpass would have been approximately 30'-35' above grade. This structure would have had a major visual impact on the surrounding park. Additionally, the overpass would have been more expensive to build and maintain, while being less user-friendly due to the long approach grades. The underpass is the recommended option.

To maintain the continuity of the Illinois Prairie Path while connecting to Tri-County Path, it was decided to build the path westerly from Tri-County State Park along Illinois 25/Stearns Road to New Stearns Road to cross the Fox River. East of the Fox River this path would connect with the Illinois Prairie Path to the north without an additional structure. To connect to the Prairie Path to the south, rather than building a new structure over new Illinois 25/Stearns Road along the current Prairie Path alignment and maintaining an at-grade crossing of widened Dunham Road, it was decided to maintain the path east of proposed Dunham (along existing Dunham Road) and proceed north to a grade separation structure under Stearns Road that connects to the east-west path from Tri-County State Park.

For the remainder of the project to McLean Boulevard, the path will parallel the proposed road. At McLean Boulevard the path would connect to a north-south path being promoted by the Village of South Elgin. West of McLean Boulevard there is no additional path or features for an extended path to connect to. Instead of providing a separate path, the outside lanes will be widened to 14' to allow shared usage.

5.0 PROPOSED ALTERNATE

5.1 General Description

Stearns Road was selected as the logical terminus for this corridor because it is a designated Strategic Regional Arterial (SRA). Stearns Road will be constructed as a four lane road with a median to connect with DuPage County's widened four lane Stearns Road to Illinois Route 59. The construction limit of the CC&P/Stearns Road project would be the western terminus of the DuPage County improvement, approximately 2800 feet east of the Kane/DuPage County line. On the west the construction limit is the proposed improved Randall Road/McDonald Road intersection. Randall Road is a principal arterial serving all of Kane County and provides a suitable terminus. This project would then provide a four-lane arterial from Randall Road in Kane County to Illinois Route 59, a distance of approximately 7 miles.

Typical Sections

The proposed typical section for the mainline roadway improvements (McDonald/New Stearns Road, Illinois Route 25/Stearns Road, and Illinois Route 25/Dunham Road) away from the ends meeting existing conditions is two lanes in each direction plus median and auxiliary lanes at intersections (see Appendix B, section 2). Except at the ends, the proposed mainline roadway will have combination concrete curb and gutter due to restricted right-of-way. Besides limiting right-of-way impacts, the combination concrete curb and gutter will provide the benefit of allowing salt laden roadway runoff to

be diverted around sensitive wetland areas, and directed to detention ponds. Since along most of the project a multi-use path parallels the proposed roadway, the combination curb and gutter, with a setback provides positive separation from the road and the path.

Gilbert will be maintained at one lane in each direction, with curb and gutter, McLean Boulevard will be widened to two lanes in each direction plus median, with combination concrete curb and gutter. Randall Road will be widened to three lanes in each direction, maintaining shoulders.

At one point during the project development, Umbdenstock at New Stearns Road/McDonald Road had been proposed as a two lane facility - one receiving lane and one left/through lane (note: at this time on the opposite side of New Stearns is a private driveway). The right turn movement was to be maintained on the existing curved structure connecting to McDonald Road. In discussions with the Village of South Elgin - the proposed owner of the road and structure - they objected. They did not want to own and maintain two structures. Instead, the proposed roadway will be three lanes - matching the roadway just north of the proposed improvement

Intersection/Interchange Types

All the intersections are at-grade. As noted in Section 4.3, no direct intersection will be provided between Illinois Route 31 and New Stearns Road. Intersection design studies were prepared for all proposed signalized intersections to establish configurations (see Appendix B, section 4).

5.2 Design Criteria

The County proposed to designate New Stearns Road from Randall Road to Illinois Route 25 as a County Road and incorporate it into the Strategic Regional Arterial network. West of Randall Road, the roadway would remain under the jurisdiction of the Village of South Elgin.

Design criteria and standards were gathered from a variety of sources. The principal sources used for the project are based on the Illinois Department of Transportation’s (IDOT’s) Bureau of Design and Environment (BDE) Manual, IDOT’s Highway Standards, Bureau of Local Roads and Streets Manual, the Manual on Uniform Traffic Control Devices and the IDOT Drainage Manual. The complete list of criteria used for this project is too extensive to list as part of this report. The governing criteria and some critical criteria are listed below.

Name of Road	Functional Classification	Design Speed (mph)	Design Vehicle	Construction Class
Randall Road	Other Principal Arterial	50	WB 65	Widening and Resurfacing
McDonald Road (west of McDonald)	Local	45	WB 65	Reconstruction and Widening
McDonald Road/ New Stearns Road (east of Randall)	Other Principal Arterial	45	WB 65	New Construction
Umbdenstock Road	Local	30	WB 50	New Construction

McLean Boulevard	Minor Arterial	45	WB 65	New Construction
Illinois Route 31	Minor Arterial	45	WB 65	New Construction
Illinois Route 25/ Stearns Road	Other Principal Arterial	45	WB 65	New Construction
Gilbert	Collector	45	WB 55	New Construction
Illinois Route 25/ Dunham	Other Principal Arterial	45	WB 65	New Construction

Other important criteria for the project are:

Criterion	Value
Vertical Clearance over Railroad*	23'
Vertical Clearance over Roadway**	14' 9"
Vertical Clearance Pedestrian Structure over Roadway	17' 3"
Minimum Clearance low beam of bridge and Design (50 year) natural high water (State system)	2'
Minimum Clearance low beam of bridge and Design (30 year) natural high water (Local Agency system)	1'
Minimum Freeboard Roadway above Design high water	3'
Preferred Freeboard from water impoundments to maximum design storage elevation (min. 100 year flood)	2'
Traffic Signal Sight distance for 45 mph design speed - from vehicle to stop bar	460'

* The Fox River Trolley Museum tracks and the interchange tracks connecting the Trolley Museum tracks with the CC&P tracks are not considered commercial railroad tracks and are not subject ICC clearance requirements. Based upon agreement with the Trolley Museum, 22' and 20' of clearance are needed, respectively.

** The UP Railroad specified additional minimal clearance requirements. For the proposed Deck Plate Girder bridge the requirement specified is 16' 6" or a sacrificial grade beam is required with lesser clearances. Vertical clearances for structures above roadways were also governed by sight distance requirements, particularly to traffic signals.

An additional criterion that influenced design was the stipulation that drainage is to be away from the mainline highway at an intersection.

5.3 Pavement Recommendations

Pavement design will be developed in Phase II design. The project is reconstruction or new construction. New pavement will generally be placed throughout, except Randall Road. Randall Road is proposed to have a base course widening and resurfacing. There will also be base course widening and resurfacing in the transition section from the full improvement to the existing road the improvement meets.

5.4 Geometric Design

The plan and profile sheets (Appendix B section 3) illustrate the centerline alignments, roadway profile, lane widths, storage lengths and tapers. The centerline alignments and profiles were developed to comply with the above listed controlling criteria and critical criteria. Lane widths are standard 12 foot lanes and tapers are as appropriate to the design speed.

Geometrics were reviewed and approved by the Illinois Department of Transportation on March 31, 2004 (see Appendix A - Geometric Approval). While this represented a complete review, it did not comply with the standard procedures for review and acceptance of design variances. The design variances were presented, discussed, and approved at the May 10, 2005 IDOT/FHWA/LA Coordination Meeting (see Appendix A - IDOT/FHWA/Local Agency Coordination). These variances are listed in Section 5.11 following.

5.5 Intersection Design Studies (IDSs)

As noted in Chapter 4 Intersection Design Studies were prepared for each of the proposed signalized intersection (see Appendix B section 4). The proposed lane configurations and storage lengths are the result of the highway capacity analyses performed for the IDSs. The Intersection Design Studies were also part of the approval granted March 31, 2004.

The IDSs for the intersections of Illinois Route 25 with Gilbert and of New Stearns Road with McLean demonstrate design to accommodate sight lines to signals for signalized intersections near bridges. At McLean Boulevard it is proposed to accommodate sight lines for trucks to signals by horizontally mounting the signal heads. Trucks will also have a sight line to post-mounted signals.

The Illinois Route 25 intersection with Gilbert will require signal heads to accommodate sight lines for trucks will be post mounted signals to ensure adequate sight distance. The face of abutment wall on the south also needs to be located behind the curb to ensure sight lines.

5.6 Utilities

In general the proposed improvements will avoid major utilities on private property. Utilities in public right-of-way, other than municipal utilities, will be required to relocate at their own expense under the conditions of their permit. The project proposes to adjust or relocate fire hydrants and drainage structures where they conflict with the proposed improvement. These conflicts are restricted to the area west of Umbdenstock Road along McDonald Road.

The proposed roadway improvements cross the Commonwealth Edison Company (CECO) high voltage transmission a number of times, as do the existing roadways. Coordination has been conducted with CECO to verify clearances. Because of grade changes in the roadways, widenings and alignment shifts, retaining walls are proposed at McLean Boulevard and at Dunham Road to maintain the existing transmission line; this proposal is part of an on-going coordination activity with CECO.

As part of the land acquisition for the Midwest Groundcovers site, it was agreed to relocate the electric service to the remainder of the property.

The Fox River Water Reclamation District (FRWRD) 14" sewer force main proceeds north along the east bank of the Fox River, proceeds east south of the CC&P RR, continues parallel to Illinois Route 25, before proceeding north along the Illinois Prairie Path. The bridge over the Fox River will span the force main, eliminating any conflicts. Coordination with FRWRD is on-going.

Nicor gas has distribution lines throughout. They also have a 30" transmission line crossing McDonald Road west of the proposed roadway improvement, but within the area of a new, proposed storm water outfall. This potential conflict can be addressed by the outfall proceeding below the line. As plans are further developed, additional coordination will be required with Nicor.

5.7 Pedestrian/Bicycle Access

As noted in Chapter 4, options were considered for the provision of non-motorized access within the corridor. The plan and profile plan sheets (see Appendix B section 3) indicate those areas where the path is on grade nearby the road, where it is on independent alignment and independent structures, where it is on structure shared with the roadway and where no separate path is provided. Where no separate path is provided along New Stearns Road west of Umbdenstock Road and east of Randall Road, 14' wide outside lanes are used to allow shared use.

5.8 Structural Recommendations

New bridges are proposed throughout the project. General plan sheets have been prepared and submitted for many of these structures, though the reviews are not complete (see Appendix B section 5 for the bridge general plan sheets). These bridges are:

Description of Bridges	Proposed Owner	Proposed Structure Number	Comments
Umbdenstock over CC&P RR	Village of South Elgin	045-3162	Replaces an existing structure on different alignment. The existing structure carries water and sewer lines that will need to be relocated. Bridge plans still under development.
CC&P RR over McLean Blvd.	IDOT or CC&P (to be determined)	045-3163	Replaces an existing structure that is not long enough to span the proposed widened McLean Blvd.
Illinois Route 31 over New Stearns Road	IDOT	045-2031	New structure since New Stearns Road will be grade-separated under Illinois Route 31.
New Stearns Road over the Fox River	Kane County	045-3166	New bridge, including multi-use path, spanning over the Fox River, the Trolley Museum track and the interchange track. Also over the FRWRD force main and multi-use path.
New Stearns Road over the North Arm of Brewster Creek	Kane County	045-3167 (EB) 045-3165 (WB)	New dual structures due to wide median. Of different lengths because of stream bends, floodway limits and soil conditions.

Description of Bridges	Proposed Owner	Proposed Structure Number	Comments
Illinois Route 25 over Brewster Creek	IDOT	045-2025	Modification of existing structure due to wider road and median. Existing deck will be removed, substructure widened and new deck placed.
Union Pacific RR over Illinois Route 25	IDOT or UP RR (to be determined.)	045-3168	Replaces an existing structure that is not long enough to span the proposed widened Illinois Route 25. RR has indicated the design will be 2-span deck plate girder on offset alignment to facilitate construction and maintenance of rail traffic. Bridge plans still under development.
Illinois Route 25 /Stearns Road (EW link) over East Branch Brewster Creek	IDOT	045-2033 (EB) 045-2035 (WB)	New dual structures due to wide median.
Illinois Route 25 /Dunham Road (NS link) over East Branch Brewster Creek	IDOT	045-2032	New structure replacing box culvert. On new alignment with wider pavement. Longer than culvert to minimize impacts to Section 4(f) property - Tri-County State Park - and to minimize wetland impacts.
Multi-use path grade separation from Stearns Road - Underpass	Kane County	045-3173	Effectively replaces grade separation of Illinois Prairie Path from Illinois Route 25. (Not included in plan set)
Multi-use path grade separation from Illinois Route 25 - Underpass	Kane County	045-3174	Effectively replaces at-grade crossing of Dunham Road by the Illinois Prairie Path. (Not included in plan set)
Dunham Road over CC&P/RR	Kane County	045-3169 (SB) 045-3170 (NB)	Replaces an existing structure that is not wide enough for the proposed roadway configuration and on new alignment relative to existing road.
Multi-Use over CC&P	Kane County	045-3172	Reuse of existing substructure of Dunham Road over CC&P RR to grade separate Illinois Prairie Path. Effectively replaces an existing grade separation over the CC&P RR. (Not included in plan set)

As noted in the above table, the ultimate ownership of the two proposed railroad structures has not been determined. Both the CN RR (owner of the CC&P RR) and the UP RR have policies of not

assuming ownership or responsibility for new bridges or lengthened bridges where the work is not initiated to serve their needs. Both of the proposed structures are over State Routes (McLean Boulevard and Illinois Route 25, respectively) and the state has indicated that they will not assume ownership. This issue is still being evaluated with the involvement of IDOT, the railroads and possibly the Illinois Commerce Commission.

Retaining walls are proposed at four locations. On the east side of McLean Boulevard at the CC&P RR north for approximately 700 feet to South Lancaster Circle a wall is proposed. McLean Boulevard is proposed to be depressed to provide adequate signal sight distance under the CC&P structure. This area adjoins a residential development on the east side. Without the retaining walls a row of houses would be displaced.

Shifting the alignment to the west on McLean Boulevard is limited by the Commonwealth Edison high voltage transmission line. As mentioned in Section 5.6 above, a retaining wall is also proposed to maintain a transmission line.

West of new Dunham Road south of the CC&P RR is the site of another retaining wall. This one is proposed to prevent the side slope from Dunham Road encroaching onto a transmission tower.

Approximately 400 feet of retaining wall is proposed west of McLean Boulevard, south of New Stearns Road. This retaining wall is required since the roadway is higher than the concrete batch plant that was installed in year 2005 near the proposed road.

Two multi-cell culverts are proposed. They are under McLean Boulevard and under Illinois Route 31. These culverts are more fully addressed in the Location Drainage Study and Hydraulic Reports.

5.9 Drainage Recommendations

Most of the project involves roadway sections with combination concrete curb and gutter due to right-of-way restrictions and multi-use path proximity on one side of the roadway. The principal exceptions to this are Randall Road and Illinois Route 31. Within the curb and gutter section, an enclosed drainage system is proposed. When the road is in a cut section, swales will be provided behind the curb. In compliance with the Kane County storm water management ordinance, the enclosed drainage system will outfall to detention ponds located throughout the project. In DuPage County separate detention ponds are not prudent because the adjoining land uses are parks. The park owners have indicated that providing detention in the parks is not compatible with their plans for the properties. Ditch detention will be provided in DuPage County.

Illinois Route 31 and Randall Road will have shoulders with ditches. Adjoining land uses combined with right-of-way limitations prevent detention from being provided along Randall Road. Illinois Route 31 will have detention for the section just east of McLean Boulevard.

Coordination is on-going to receive permits for the proposed drainage plan from DuPage and Kane Counties and from the Village of South Elgin. The Illinois Department of Transportation has also reviewed the Location Drainage Study prepared for this project, particularly as relates to State routes.

More details are available in the Location Drainage Study.

5.10 Environmental Findings/Recommendations

Due to the nature of the sensitive wetland and water resources in the project area, the *Environmental Vision Document* was developed to provide a comprehensive framework for wetland mitigation and water resource impacts on a watershed basis. Enhancement of recreational facilities, including Forest Preserve holdings was also part of the *Vision Document*; the associated commitments of the *Vision Document* are documented in Section 6.4 of this report. The highlights of the mitigation plan are:

1. creation of approximately 12 acres of replacement wetlands;
2. protection of the Day's Fen with critical watershed;
3. protection of South Elgin Sedge Meadow;
4. protection of a Black Oak Hill community referred to as the Sand Hill Annex.

Public access and paths accessing and linking these areas are also part of the *Vision Document*. These protections and enhancements would fall under the jurisdiction of the Kane County Forest Preserve and would include the mitigation for impacts to the Black Hawk Forest Preserve.

Because of the potential presence of the greater redhorse and the river redhorse in the Fox River, in-stream work will be limited to June 8 through February 29, to avoid the spawning season.

As of the Record of Decision, no threatened or endangered mussels were identified in the project area; it was agreed that a mussel survey will be conducted prior to construction. If any non-invasive mussels are identified in an area of disturbance, a relocation program will be developed in conjunction with the Illinois Department of Natural Resources.

Since that time, a State listed mussel was identified upstream of the project (see Section 3.7 of this report and Appendix A- Threatened and Endangered Species Coordination). A Conservation Plan has been developed for and accepted by the Illinois Department of Natural Resources to minimize impacts to the slippershell and all non-invasive mussels that may be affected by the project (see Appendix for plan, excluding Appendices.).

5.11 Design Variances

The design variances were presented and approved at the May 10, 2005 FHWA/IDOT/LA coordination meeting. Design variances from standard for the State system were the responsibility of BDE. Those variances on the local system were the responsibility of BLRS.

The issues and dispositions on the State system were:

- Superelevation reduction from design value of 3.0% to 2% for curve on Illinois Route 25 with PI Sta. 97+36.6. The proposed reason was proximity of the curve to a bridge that would place the superelevation transition on or, if not, carry a constant superelevation across the bridge. The decision was to place the full 3.0% SE for the curve, transition down to 2% at the PT and carry the 2% across the bridge. After the bridge the SE would transition to normal crown.

- Superelevation reduction from design value of 3.5% to 2% for curve on Illinois Route 25 with PI Sta. 110+70.84. The proposed reason was the desire to limit rollover to approximately 3% for the eastbound to northbound turning traffic from New Stearns Road onto the Illinois Route 25 curve. The proposed 2% superelevation meets AASHTO Method 2 superelevation requirements. This reduction was approved.
- Superelevation reduction from design value of 3.4% to 2% for curve on Illinois Route 25 with PI Sta. 273+83. The proposed reason was the desire to limit rollover to approximately 3% for the eastbound to northbound turning traffic from Illinois Route 25/Stearns Road onto the Illinois Route 25/Dunham Road curve. The proposed 2% superelevation meets AASHTO Method 2 superelevation requirements. This reduction was approved.
- The proposed reduction of design period to approximately 15 years from 20 years for had been previously discussed. The reasons were related to environmental analyses being based upon year 2020 traffic. Also, further lane additions would not be allowed due to unacceptable increases in impacts. It was reiterated that this reduction was still valid.
- Intersection sight distance for left turns for the northbound Illinois Route 25 movements onto New Stearns Road was discussed. It was noted that if the median north of the intersection were planted or otherwise covered with possible sight obstructions then sight lines would be limited; protected left turn phasing only could address this. It was decided that a commitment will be put in the Design Report noting that the median for a distance of approximately 400 feet must remain unobstructed. With that provision there is no design exception and permitted phasing could be used.
- Intersection sight distance for left turns for the northbound Illinois Route 25 movements onto Gilbert was discussed. It was noted that if the median north of the intersection were planted or otherwise covered with possible sight obstructions then sight lines would be limited; protected left turn phasing only could address this. It was decided that a commitment will be put in the Design Report noting that the median for a distance of approximately 400 feet must remain unobstructed. With that provision there is no design exception and permitted phasing could be used.
- Clearance from face of curbs was discussed. Since the roadway will have barrier curb and the design speeds are 45 mph or less, a minimum of 1.5 foot clearance from face of curb is sufficient. Since more clearance will be provided, there is no design exception.
- Traffic signals are to be mounted horizontally for northbound Illinois Route 25 at Gilbert and for southbound McLean Boulevard (an unmarked State Route). This is because railroad structures would otherwise obstruct the sight lines to the signals. This issue had been discussed with the Bureau of Traffic as part of the geometric approval process and was accepted. It was reiterated that this was still valid. While this is non-standard, it is not actually a design exception.

The issues on the Local System discussed were:

- Superelevation on Umbdenstock Road. Since this road is a local, curbed and gutter, low speed road, Method 2 of AASHTO allows normal crown. No design exception required with the provision of normal crown.
- Clearance from face of curbs was discussed. Since the roadway will have barrier curb and the design speeds are 45 mph or less, 1.5 foot of clearance from face of curb is sufficient. Since more clearance will be provided, there is no design exception.

5.12 Right-Of-Way

As shown on the attached plan sheets, right-of-way will be required throughout the project. The right-of-way requirements are dictated by the roadway section and the proposed mitigation measures. Right-of-way will be purchased as the opportunity arises, depending upon funding availability and staging. Agreements between the Kane County Forest Preserve District and Kane County are in development to transfer jurisdiction of independent mitigation sites to the Forest Preserve District.

Approximately 305 acres will be acquired in fee from 70 property owners. An additional 4.5 acres will be required for permanent easements. The permanent easements include crossings of railroad and utility company corridors, as well as for the construction of storm sewer. Approximately 12 acres of temporary easements will be required for grading and for maintenance of railroad traffic.

The right-of-way acquisition will result in the displacement of seven businesses and twenty residential displacements.

5.13 Cost Estimate

The estimated cost of construction for the total project, including contingencies and engineering is \$ 124 M. The estimated cost to secure the remaining right-of-way is \$ 21 M. See Exhibit 7 for the more detailed project cost estimate.

5.14 Staging and Maintenance of Traffic Recommendations

It is anticipated that this project will be constructed under six separate contracts (see Exhibit 8). These contracts are based upon permitting requirements, independent utility and possible funding constraints. These contracts are as follows:

- Contract 1 - Wetland mitigation, floodplain compensation and detention facilities on the Midwest Groundcovers site

This contract would proceed first to ensure that the wetland mitigation is in place prior to other construction activities. This contract also allows preconsolidation to be used in treat softer subgrade and to allow fills to settle.

- Contract 1A - Independent bridges
 - UP RR over Illinois Route 25
 - Illinois Route 31 over New Stearns Road
 - Dunham Road over CC&P RR

This contract allows longer lead time bridges to begin where they do not interfere with other construction where they might otherwise be a time constraint on a subsequent project. Also, any one of these bridges could be accelerated or delayed without affecting the overall project schedule.

- Contract 2- McLean Boulevard, Illinois Route 31 and the CC&P RR over McLean Boulevard
This contract allows the long lead time associated with construction of the CC&P RR over McLean to proceed without delaying other portions of the project. McLean Boulevard is aggregated with the railroad bridge construction because the construction activities associated with the bridge disrupt access on McLean Boulevard and the desire is to avoid the disruption a second time. Illinois Route 31 intersecting McLean Boulevard is also part of this contract because of drainage and grade involvement with McLean Boulevard.
- Contract 3 - Illinois Route 25/Stearns Road/Dunham Road intersection

This contract represents the first step in improvement of the through roadway network. It has independent utility in that it addresses the alignment issues with the current intersection and is necessary before the bridge is built to handle the traffic that would be attracted to the bridge.

- **Contract 4 - Illinois Route 25 to McLean Boulevard**
This contract includes the bridge over the Fox River and links to the existing roadway network on each side of the river. This project has utility in that traffic approaching McLean Boulevard from Illinois Route 31 or from north of New Stearns Road on McLean Boulevard can now cross the Fox River all the way to DuPage County, and the reverse.
- **Contract 5 - McLean Boulevard through the McDonald/Randall Road intersection.**
This contract extends the limits from McLean Boulevard so that traffic from the Randall Road/McDonald Road intersection will now be able to cross the Fox River on a new crossing all the way to DuPage County. This contract is also last because until the Fox River Stone Quarry has initiated site reclamation, the right-of-way and fill requirements would be excessive to make this contract viable.

Additional details of the staging and associated maintenance of traffic by stages follow (see Exhibit 9).

Contract 1

Contract 1 has minimal staging considerations or maintenance of traffic since the work is off the existing roadway network. As a result, it is not included in Exhibit 9.

Contract 1A

Contract 1A staging is somewhat more involved. The UP RR over Illinois Route 25 is proposed to be built in line; this approach will still require limited closures of the track. These limited closures will be coordinated with the UP RR to occur at low traffic times.

While the construction staging is discussed in more detail on the general plan for this bridge (See Appendix B, section 5), the highlights follow. A temporary bent will be placed in front of the existing east abutment. Then temporary bents will be placed behind the east and west abutments. The existing span will be removed and replaced with a temporary span on the bents. The new abutments will then be built. The temporary span can then be removed and replaced with the permanent span. This work will require temporary concrete barriers along Illinois Route 25 to protect the work zones, including temporary bents, and a shift of traffic onto temporary pavement on the current west (north) shoulder. A limited closure of Illinois Route 25 will be required while the girders are lifted into place.

For the construction staging of Illinois Route 31 over the New Stearns Road, Illinois Route 31 will be closed. A detour is proposed to Hopps Road and McLean Boulevard or Randall Road.

The Dunham Road bridge over the CC&P RR is off the existing roadway network and therefore has minimal staging concerns. The existing road and bridge will not be removed until the new road is open at the end of Contract 3.

Contract 2

Construction staging of the CC&P RR over McLean Boulevard requires construction of a temporary runaround for the rail traffic to the south of the existing structure. The existing structure can then be

removed and replaced. The proposed plan closes McLean Boulevard during construction. A detour is proposed via Hopps Road, Randall Road and Silver Glen Road.

Illinois Route 31 will be staged constructed. Some temporary widening will be required on the south (east) side of Illinois Route 31 before traffic is shifted to allow construction on the north (west) side of Illinois Route 31. Upon completion of this activity, traffic will be shifted to the new pavement and construction can proceed on the south (east) side.

Contract 3

Construction staging of this contract begins with temporary widening at each end. This widening allows traffic to be maintained on the existing plus temporary pavement while new pavement is constructed. Because of grade differentials, sub-stages are required at the north end of Illinois Route 25 to maintain traffic. Proposed improvements off the existing roadway will proceed with limited interruptions to traffic.

During the second stage of this contract, a temporary connection will be required between existing Dunham Road and new Dunham Road. Traffic from the east on Stearns Road would use the local connection to Old Stearns Road to Old Dunham Road and then via the temporary connection to proceed on new Dunham Road.

Contract 4

Part of this contract is off-system and part is along Illinois Route 25. The part crossing the Fox River is off-system and requires no special staging or maintenance of traffic considerations.

To construct Illinois Route 25 from the south project limit to the western limit of Contract 3 will require staged construction. Illinois Route 25 will be temporarily widened to the west and north. This allows traffic to be shifted to the north and west while the permanent pavement is constructed on the east and south. After completion of the east and south, it will be necessary to close the connection between Gilbert and Illinois Route 25 while the intersection pavement is built. The proposed detour is Gilbert to Bartlett Road to Illinois Route 25. After that, traffic will be shifted to the east and south while the west and north is constructed. This stage will require some temporary pavement.

One other complication of this contract is the staging of the railroad crossing. Coordination with the UP RR is critical to maintaining protection.

Contract 5

The construction of Randall Road will proceed by a base course widening to the outside. Randall will be temporarily restriped to provide working room. With Randall Road widened, median work could proceed and then finalize Randall Road.

McDonald Road construction will require temporary widening to the north. Construction could then proceed on the south. After construction on the south is complete, traffic would switch to the south and construction will proceed on the north.

5.15 Conclusions

The above described proposed alternative is the recommended alternative. While there are potential impacts associated with the project, the proposed mitigation addresses them while satisfying the purpose and need for the project.

6.0 COMMENTS AND COORDINATION

6.1 Coordination

Coordination with local, state, and federal agencies is required for this project. All environmental documentation is included in the EIS (Appendix A). All remaining correspondence that has been received to date is included in this section.

IDOT/FHWA/LA Coordination Meetings

There have been a number of meetings on this project since approval of the Record of Decision. For the most part, they related to administrative and funding issues. The ones that do not are described below and listed in Appendix A.

At the April 9, 2002 meeting the *Environmental Vision Document* was discussed. The intent of the document was agreed upon.

At the May 10, 2005 meeting, all design variances were approved.

The August 9, 2005 meeting was primarily a status update on the project for FHWA.

The November 8, 2005 was primarily a status update meeting with an emphasis on the current funding situation. Another issue discussed was the Indiana bat. As this issue was addressed in the EIS and the 2005 study found no Indiana bats, IDOT considers this issue closed.

Geometric Approval

Geometric approval for this project was granted in an email dated March 31, 2004.

Technical Advisory Committee Meetings

A Technical Advisory Committee was established during the course of the project to facilitate coordination on NEPA/404 merger issues. Meetings were held and documented prior to the signing of the Record of Decision (ROD) to verify impacts and agree upon mitigation. The ROD documents the May 17, 2001 meeting. At this meeting the *Environmental Vision Document* was discussed as the basis for providing no net harm to valuable wetlands and water resources. The Technical Advisory Committee met again on May 15, 2003 and February 5, 2004 to present and complete the *Environmental Vision Document*. Minutes of these meetings are included in Appendix A.

Threatened and Endangered Species

In April 2005 Kane County requested updates on threatened and endangered species status evaluations from the Illinois Department of Natural Resources (IDNR) and from the US Fish and Wildlife Service (US FWS) for this project due to the time that had elapsed since the Record of

Decision. The responses, dated 5/18/05 from IDNR and 4/26/05 from US FWS are in Appendix A. Both agencies indicated that the assessments of the EIS remain valid, with one exception noted by US FWS. US FWS indicated they need an assessment performed for the federally endangered Indiana bat. As a result, Kane County undertook an Indiana bat survey. The study found no Indiana bats. The Illinois Department of Transportation has reviewed the report and deems the issue resolved (November 8, 2005 FHWA/IDOT/LA Coordination meeting).

On July 25, 2005 IDNR advised Kane County that a state listed species, Slippershell mussel, was identified in the East Branch of Brewster Creek, upstream of the project. The County responded in an August 2 letter. IDNR responded to that letter with the recommendation that the County seek Incidental Take Authorization. Since then, the County has developed and IDNR agreed to a Conservation Plan for the mussel as part of the Incidental Take Authorization.

6.2 Public Involvement

All public involvement prior to the signing of the ROD is documented in the EIS (Record of Public Hearings, Comments to the Release of the Draft EIS and Responses). Since the EIS and ROD, there have been no active public involvement activities. Involvement with property owners has been limited to clarifying the impacts to an individual owner.

6.3 Other Coordination

Parks:

A major coordination effort in the EIS was devoted to Section 4(f) issues involving the Kane County Forest Preserve District, the Illinois Department of Natural Resources and the DuPage County Forest Preserve District. (See EIS for details). Kane County Forest Preserve has been an active participant in the process, including attending internal status meetings. A meeting was held on January 28, 2004 (see Appendix A) involving representatives from the Kane County Forest Preserve, DuPage County Forest Preserve and the Illinois Department of Natural Resources to discuss implementation of the project and right-of-way issues. An additional meeting was held December 12, 2005 to review and update involved parties. Continued involvement will be required for right-of-way acquisition and as part on-going participation.

Railroads:

The involved railroads, the UP and the CC&P, have been part of on-going coordination process. The recent communication has tended to focus on issues specific to the design and construction of the improvement.

The CN (owners of the CC&P) have reviewed the proposed bridge design concept for the railroad over McLean Boulevard and have reached agreement on the bridge. They are also only reluctantly agreeing to the at-grade intersection improvement of Illinois Route 25, subject to provisions on cost participation (May 20, 2004 letter). The February 10, 2005 letter also stipulates that the railroad does not want to accept responsibility for owning or maintaining the new structure over McLean Boulevard -an unmarked State route.

The UP RR has also been involved in the development and review of the proposed bridge design for their line over Illinois Route 25. Agreement has been reached on the basic bridge type, configuration and track realignment (February 22, 2006 letter). One concern of the railroad is maintenance access. Another concern is that they do not want to accept ownership of the new structure.

The State has also indicated they will not accept responsibility for either the UP or CN structure (June 28, 2005 letter). The decision on ownership of the proposed railroad structures over State routes will be resolved before construction can proceed.

Local Agencies:

Besides Kane and DuPage County, the proposed improvement involves the Villages of South Elgin and Bartlett. These communities have been involved in the project throughout.

6.4 Commitments

The commitments of the project are primarily environmental (as described in Section 5.10 of this Design Report) with an additional design/operation commitment as described in Section 5.11 to avoid a design variance. The below listing does not include satisfying legal or permitting requirements since that should be assumed. The commitments by type, responsibility and status follow:

Socio-Economic:

Right-of-way acquisition from the Midwest Groundcovers site has the potential to displace a disproportionate number of minority employees. To reduce the impact to this community, the County agreed to:

- Allow Midwest Groundcovers at least one grow season to vacate. This commitment has been accomplished, since property has now been acquired.
- Allow Midwest Groundcovers access to Brewster Creek during the transition period. This commitment has been accomplished, as the project is currently in the transition period.
- Provide relocation assistance to Midwest Groundcovers. This commitment was accomplished as part of the land acquisition agreement, and is continuing.
- Provide employment placement assistance to employees who cannot relocate to Midwest Groundcovers' new location. The County is currently reviewing how to implement this.
- Work with a local transit provider for up to two years to assist workers for whom the new commute is no longer reasonable. The County is still proceeding on how to implement this.

Transportation:

Bicycle Facilities

Kane County agreed to coordinate bicycle facility development through the Kane County Forest Preserve, Illinois Department of Natural Resources and the DuPage County Forest Preserve. This has been an on-going activity throughout the project and will continue throughout the preliminary design (Phase I).

Transit

The relevant portions of the Phase I plans will be sent to Pace (the local bus service provider) and Metra (the suburban rail transit provider) for their review to ensure that the plans do not hinder, and may in fact contribute, to transit usage. The County will perform this at the appropriate time.

Fox River Trolley Museum.

Technically, the Trolley Museum is not an active transportation facility. Rather it is a non-profit group dedicated to maintaining historic trolley facilities. As part of that program, they run a train as part of a sight-seeing experience. The County agreed to not hinder the operations of the Fox River Trolley Museum by design and construction of the project. This means the design will provide 22 feet of clearance over their main track and 20 feet over the spur track connecting the trolley main to the CC&P main track. This commitment is reflected in the design.

Cultural Resources:

Four sites have been identified as requiring detailed archaeological investigation before construction. The County will work with IDOT before awarding a contract affecting one of these sites to assist in the detailed investigation.

Water Quality and Water Resources:

Groundwater Protection

- Where there are near surface granular materials and ditches are used to convey roadway drainage, the ditches will be lined to minimize infiltration of spills or other contaminants. This will be reflected in the design.
- Where there is shallow groundwater hydraulically connected to wetlands, the roadway, ditches, storm sewers and other appurtenances will be designed to avoid lowering groundwater that could adversely affect wetlands. This will be reflected in the design.
- The County agreed to remove some of the sources of chlorides and other pollutants that adversely affected water quality in sensitive areas. This commitment was accomplished with the purchase and removal of a horse stable and is further being accomplished by the removal of houses with their septic tanks.

Stormwater Management

- Kane County Stormwater Management requirements will be implemented as prudent. This is a commitment to Kane County and is reflected in the proposed design, which will be reviewed by the County for compliance.
- For Brewster Creek and its tributaries, all proposed crossings must have a natural bottom spanning the entire channel to facilitate animal migration. This is reflected in the design.

Environmental Corridor Plan

An Environmental Corridor Plan was developed to address water quality and wetland issues beyond what is listed above. This plan was developed to address concerns raised by regulatory and resource agencies raised during the NEPA/404 Merger process and to address the vision of the Kane County Forest Preserve District in protecting these and other features bordering the project. The corridor plan was to be further detailed in the *Environmental Vision Document*, which included recommendations for construction, interim management, and ultimate ownership by the Kane County Forest Preserve

District. The additional components of the Corridor plan as described in the Record of Decision include:

- Development of a monitoring program for vegetative and aquatic life in the Brewster Creek tributaries and wetlands created and maintained by the project. This commitment will be reviewed as part of the 404 permit submittal and approval. The requirements of the permit will be binding upon the project.
- Protection, including potential acquisition of part, of the recharge area for the McLean Boulevard Fen. Protection has been implemented as part of a Fen Protection ordinance. Discussions are proceeding with the owner on the acquisition.
- Acquisition of major parts of the South Elgin Sedge Meadow/Fen and restoration to a more natural state. Dedication of the part of the South Elgin Sedge Meadow/Fen acquired as an Illinois Nature Preserve. Work with owner of the remainder of the wetland to attempt dedication. A major part of the South Elgin Sedge Meadow/Fen has been acquired as part of this project. The County is working with the Kane County Forest Preserve District on the restoration. The dedication as an Illinois Nature Preserve is part of a long-term goal that will not change the goal of the restoration plan.
- Work with the owners of the Elmhurst-Chicago Stone Pipe Plant to create a riparian buffer or other interception measures to improve the water quality of runoff from the plant. This commitment has been superseded by water quality agreements between the plant and IEPA, which now govern runoff from the plant.
- Vegetative stabilization of the spoils banks adjoining the proposed roadway from the Fox River Stone facility to improve air and water quality. The project will stabilize all areas within the proposed right-of-way; this is part of the design. Fox River Stone has its own long-term site reclamation goals that will include removal of spoils banks and stabilization of all areas.
- Detention facilities will not be developed below the ground water level and will be lined to prevent the infiltration of pollutants directly into the groundwater. This is actually an extension and repetition of previous commitments above and will be incorporated into the design.
- Control of runoff by detention ponds with extended detention times before release into receiving streams. Use of bio-treatment to improve the quality of runoff. This is part of the design and is being incorporated into the design as prudent.
- Roadway runoff bypassing sensitive wetlands. This is part of the design and has been incorporated as practical. In particular, this commitment applies to the bypassing of roadway runoff around the South Elgin Sedge Meadow by the storm sewer system.
- Development of an erosion and sediment control plan with enforcement for this project in cooperation with the Kane County Department of Water Resources. This will be accomplished in the Design Phase of this project.
- Creation of vegetative berms adjoining the roadway in the area of the South Elgin Sedge Meadow/Fen and the Day's Fen (McLean Boulevard Fen) to reduce airborne transport of potential pollutants. This is part of the design and has been incorporated as practical.
- Wetlands created on site. Wetlands will be designed for sediment settling. The site for the wetlands mitigation has been purchased by the County. The design will be accomplished in the Design Phase of this project.

The components of the *Environmental Vision Document* were developed after the Record of Decision, but included commitments made to resource and regulatory agencies to address their concerns on water quality and wetland issues. Additional agreements were made on behalf of the Kane County Forest Preserve District to accommodate their goals of protecting additional resources and providing recreation and educational opportunities, as facilitated by this project. The District was designated to manage and restore the environmental resources that were part of the commitments. The properties listed below are proposed to be managed for a minimum of 5 years, subject to the terms of permits, agreement by permitting authorities, before being turned over to the Kane County Forest Preserve District. The proposals in the *Vision Document* by area are:

McLean Boulevard Fen:

- Enhance and protect 11.6 acres of predominately fen vegetation. Kane County Forest Preserve owns this property and will incorporate it into their long term maintenance plan.
- Restore 36.7 acres of mesic prairie in a savanna mosaic. Discussions on acquisition of this property are proceeding. Kane County Forest Preserve will be involved in the development of long-term plans for this area.
- Restore 8.5 acres of dry-mesic prairie with an oak/hazel savanna. Discussions on acquisition of this property are proceeding. Kane County Forest Preserve will be involved in the development of long-term plans for this area.
- Protect the water recharge area of the fen through purchase and other measures. A groundwater recharge protection area ordinance has been enacted governing development in the area and discussions are still proceeding on the area to be acquired.
- Create a destination point of the fen, including a 10-20 space parking lot and other site development to be managed by the Kane County Forest Preserve. Kane County Forest Preserve will be involved in the long-term plans for the usage and development of this area.
- Provide a vegetative screening from adjacent industrial land use. This commitment relates to the long term use of the McLean Boulevard Fen and was established before the usage of the industrial property was established. The property is industrial warehousing with no outward manifestations of industrial activity. The need for screening will be reviewed by the Kane County Forest Preserve as part of their involvement in the long-term plans and development of this area.

South Elgin Sedge Meadow:

- Enhance the Sedge Meadow by: creating a 4.8 acre vegetative buffer: managing and enhancing the existing 5.8 acre pond/wetland complex, removing turf grass and replacing with 11 acres of mesic prairie in a savanna matrix. The part of the Sedge Meadow that was indicated for acquisition has been acquired by the County for protection and enhancement of the Sedge Meadow; part remains in private hands. The Kane County Forest Preserve will be involved in the in the long-term plans for the usage and development of this area.
- Create a buffer of sumac along the railroad. This was a goal of the Kane County Forest Preserve in the development of the site. Actual implementation will depend upon the long-term plans for the usage and development of this area.

- Create a destination point. This was a goal of the Kane County Forest Preserve in the development of the site. Actual implementation will depend upon the long-term plans for the usage and development of this area.

Sandhill Annex

- Restore an 8.4 acre oak community. Kane County Forest Preserve will be involved in the long-term plans for the usage and development of this area.
- Restore 10.0 acres of sand hill prairie. Kane County Forest Preserve will be involved in the long-term plans for the usage and development of this area.

Direct Impact Mitigation Site

- Create/restore impacted wetlands at a minimum 1.5 to 1 ratio. This commitment will be reviewed as part of the 404 permit submittal and approval. The requirements of the permit will be binding upon the project.
- Provide 12.8 acre-feet of compensatory storage for floodplain fill. This commitment will be reviewed as part of the 404 permit submittal and approval and as part of the IDNR-OWR permit process. The requirements of the permits will be binding upon the project.

Biology

Threatened and Endangered Species

- In-stream work in the Fox River will be limited to June 8 through February 29, to avoid the spawning season of the potentially present of the greater redhorse and the river redhorse. The County will incorporate this requirement into the plan set requirements and schedule.
- A mussel survey will be conducted prior to construction in Brewster Creek or the Fox River. If any non-invasive mussels are identified in an area of disturbance, a relocation program will be developed in conjunction with the Illinois Department of Natural Resources. The County will incorporate this requirement into the plan set requirements and schedule.
- For Brewster Creek and its tributaries, all proposed crossings must have a natural bottom spanning the entire channel to facilitate animal migration. This has been incorporated into the plan set development.

Restoration

- All land areas will be restored to turf or other vegetative cover. Native grasses and wildflowers will be plant where appropriate. This will be reflected in the design phase of the project.
- Plantings, including trees, will be coordinated with local officials, where applicable.

Design/Operation Commitment

The median on Illinois Route 25 at the intersections with New Stearns Road and Gilbert will remain visually unobstructed for approximately 400 feet. This means no tall plantings, large signs, etc. will be placed. This requirement is necessary because Illinois 25 is on curve at these points and the northbound left turn from Illinois Route 25 needs to see above the median to have adequate sight distance. This requirement will be implemented as part of the design.

6.5 Permits

A number of permits are required prior to construction of this project. These permits are:

NPDES - This project will disturb in excess of 1 acre of land. As part of the NPDES requirement, the construction contracts will include a Stormwater Pollution Prevention.

Section 404 - This project involves the filling of wetlands and public waters of the US. This permit will be complete before construction. As the project will use a common mitigation site, the intent is to have approval of the mitigation plan relative to overall impacts before initiating construction of the mitigation site.

IDNR - OWR. This project involves construction in floodways, both designated and not, in Northeastern Illinois (Part 3708 and 3700 rules, respectively) and construction in a Public Water- the Fox River (Part 3704 rules).

Kane County Stormwater Management Permit.

DuPage/Bartlett Stormwater Management Permit. - Bartlett is the designated agent for the DuPage County Program.

Bartlett Special Use Permit - for filling wetlands.

Incidental Taking Permit - This has been issued by IDNR as a contingency against unintentional impacts to the slippershell mussel from removing the Dunham Road culvert spanning the East Branch of Brewster Creek.