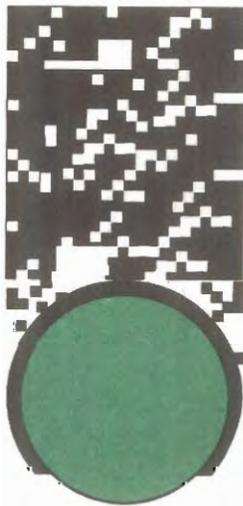


Strategic Regional Arterial

**Illinois Route 59 (Vol. I)
from Interstate 55 to
Illinois Route 72 (Higgins Road)**



**Operation
GreenLight**

**Illinois Department of Transportation
May, 1993**

FOREWORD

Illinois Route 59 is a Strategic Regional Arterial from Interstate 55 in Will County to Illinois Route 173 in Lake County. This study includes those portions between Interstate 55 and Illinois Route 72 (Higgins Road); the remaining portions of the route will be the subject of a later study. This Strategic Regional Arterial (SRA) report for Illinois Route 59 has been prepared for the Illinois Department of Transportation and the Strategic Regional Arterial Subcommittee of the Work Program Committee of the Chicago Area Transportation Study by Harland Bartholomew & Associates, Inc.

As an SRA route, Illinois Route 59 is intended to function as part of a regional arterial system, carrying high volumes of long-distance traffic in conjunction with other SRA routes and the regional expressway and transit systems. This report is one element of a long-range plan for all routes in the SRA network. Together, the route studies constitute a comprehensive, coordinated plan for the entire SRA network.

Volume I of this report includes a description of the SRA study objectives and process, a detailed exposition and analysis of the existing route conditions, recommendations for ultimate and low-cost improvements, and exhibits of existing facility, environmental and developmental characteristics, recommended improvements and details. Volume II consists of documentation of the public involvement process including citizen comments.

SUMMARY OF RECOMMENDATIONS

The SRA Route Illinois Route 59 is divided into nine route segments. (See *Figures i.i* and *i.ii.*) Recommendations are made for each route segment, and a summary of the major recommendations is presented below.

SRA Segment 1: Interstate 55 to Black Road

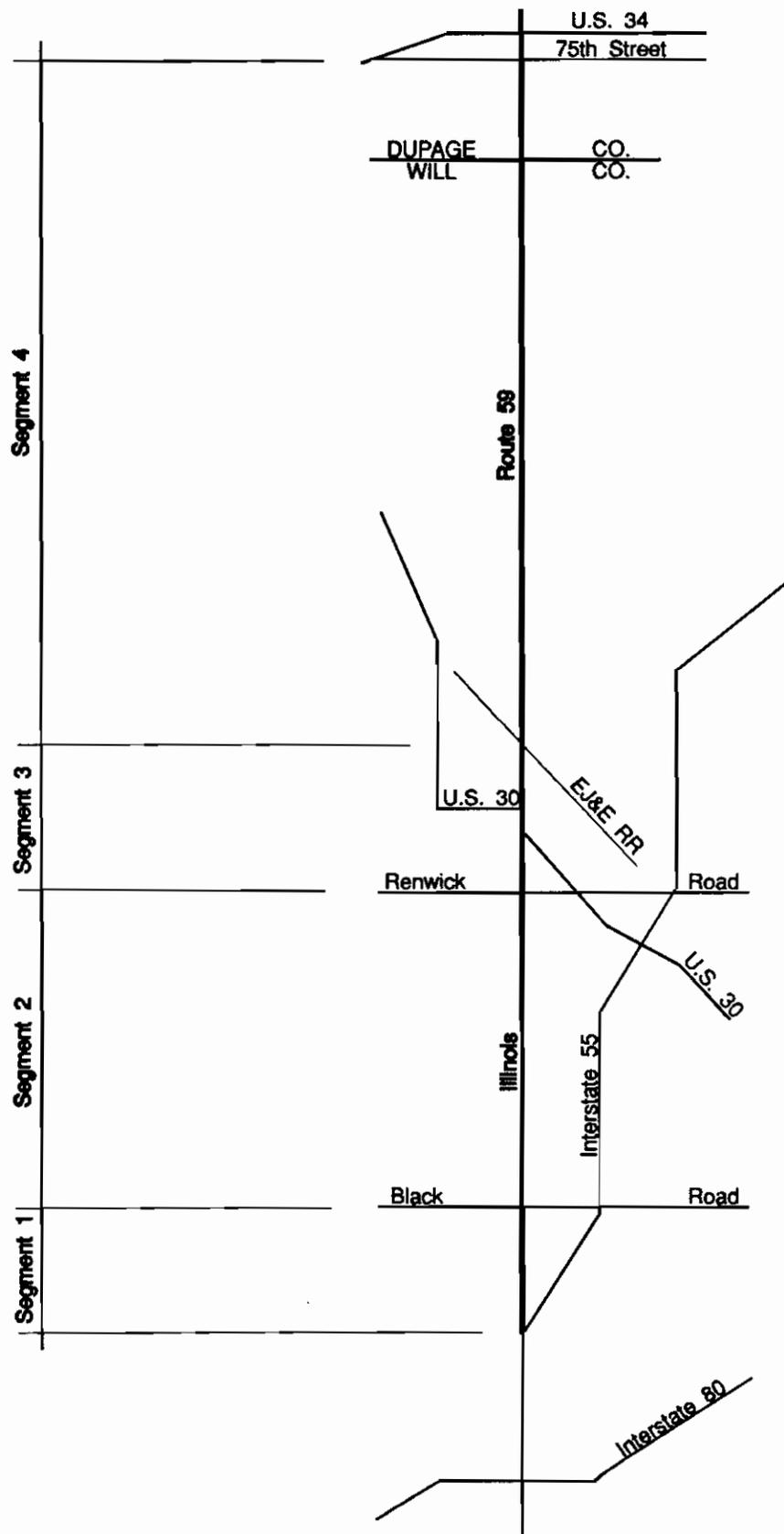
- Two through lanes in each direction with a 12 to 18 foot wide median within a 120-foot wide desirable ultimate right-of-way
- An interconnected signal system from U.S. Route 52 (Jefferson Street) through the end of the segment
- Lengthen Interstate 55 on-ramp on southbound Illinois Route 59

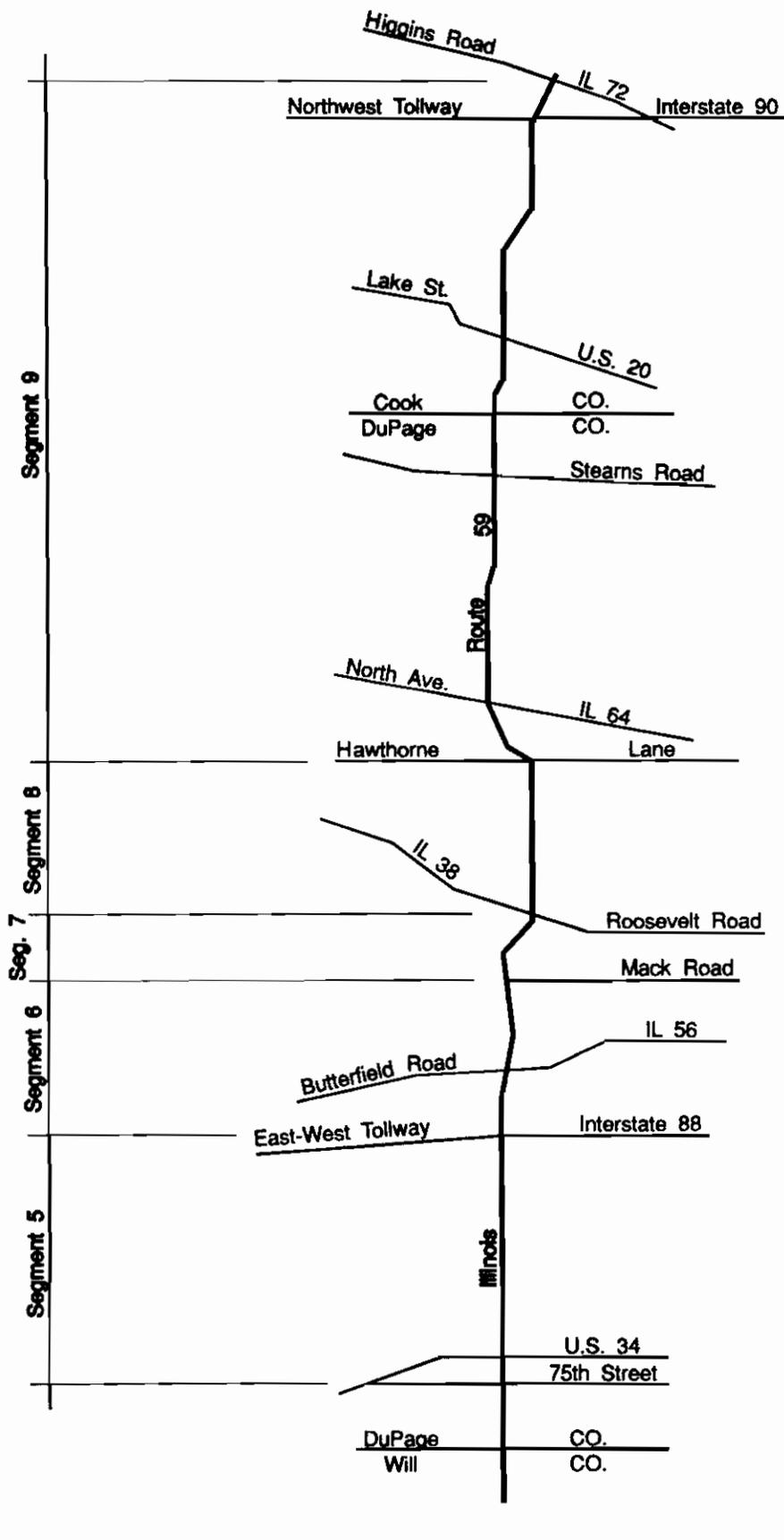
SRA Segment 2: Black Road to Renwick Road

- Two through lanes in each direction separated by an 18-foot wide raised median within a 120 to 135 foot wide right-of-way
- An interconnected signal system for the entire segment

SRA Segment 3: Renwick Road to the Elgin Joliet & Eastern Overpass

- Renwick Road to Robert Avenue, two through lanes in each direction with an 18-foot wide median with a desirable ultimate right-of-way width of 125 feet
- Robert Avenue to Plainfield-Naperville Road, two 11-foot wide through lanes in each direction with a continuous 11-foot wide median within an 80-foot wide right-of-way
- Plainfield-Naperville Road to EJ&E overpass, two through lanes in each direction with a 12-foot wide median within a 120-foot wide right-of-way
- An interconnected signal system from Segment 2 to Illinois Route 126 (Main Street)





Illinois Route 59 (DuPage/Cook County)
 prepared by Harland Bartholomew & Associates, Inc.

Segment Location Map
Figure I.ii

SUMMARY OF RECOMMENDATIONS_(cont.)

SRA Segment 4: Elgin, Joliet & Eastern Overpass to 75th Street

- EJ&E overpass to just north of the DuPage River, two through lanes in each direction separated by a 12-foot wide median within a 120-foot wide right-of-way
- Just north of the DuPage River to Pilcher Road (135th Street), two through lanes in each direction separated by an 18 foot wide median within a desirable ultimate right-of-way width of 120 feet
- Pilcher Road to Chapins Road (127th Street), two through lanes in each direction with a 30-foot wide median within a desirable ultimate right-of-way width of 150 feet
- Chapins Road to 75th Street, three through lanes in each direction separated by a 30-foot wide median within a desirable ultimate right-of-way width of between 150 and 180 feet
- An interconnected signal system from Pheasant Chase Drive to 91st Street and from White Eagle Drive to the existing signal system at 75th Street
- Protect right-of-way at 75th Street for post-2010 interchange

SRA Segment 5: 75th Street to Interstate 88 (East-West Tollway)

- Three through lanes in each direction separated by a 30-foot wide median within a desirable ultimate right-of-way width of 150 feet
- An interconnected signal system from North Aurora Road to the existing system at Diehl Road
- Modify the structure at the Burlington Northern Railroad and Interstate 88 (East-West Tollway)

SRA Segment 6: Interstate 88 (East-West Tollway) to Mack Road

- Three through lanes in each direction separated by a 30-foot wide median within a desirable ultimate right-of-way width of 150 feet
- An interconnected signal system from the existing signal system at Ferry Road to Batavia-Warrenville Road
- Protect right-of-way at Illinois Route 56 (Butterfield Road) for post-2010 interchange

SRA Segment 7: Mack Road to Illinois Route 38 (Roosevelt Road)

- Three through lanes in each direction and a 30-foot wide median within existing right-of-way
- An interconnected signal system for the entire segment

SRA Segment 8: Illinois Route 38 (Roosevelt Road) to Hawthorne Lane

- Three through lanes in each direction and an 18-foot wide raised median within a desirable ultimate right-of-way width of 120 feet
- An interconnected signal system from Segment 7 to James Avenue
- Full access at all signalized intersections, right-in/right-out at all unsignalized cross streets

SUMMARY OF RECOMMENDATIONS_(cont.)

SRA Segment 9: Hawthorne Lane to Illinois Route 72 (Higgins Road)

- Three through lanes in each direction and a 30-foot wide median within a desirable ultimate right-of-way width of 150 feet
- Interconnected signal systems from Illinois Route 64 (North Avenue) to Diversey Parkway, Army Trail Road to Auburn Lane, West Bartlett Road to U.S. Route 20, Illinois Route 19 (Irving Park Road) to Illinois Route 58 (Golf Road), and from Shoe Factory Road to Illinois Route 72 (Higgins Road)
- Diamond interchange at Illinois Route 72 (Higgins Road)

TABLE OF CONTENTS

VOLUME I

Page

SECTION ONE: INTRODUCTION

1.1 THE STRATEGIC REGIONAL ARTERIAL SYSTEM AND OPERATION GREENLIGHT	1
1.2 SRA ROUTE TYPES	3
1.3 DESIRABLE ROUTE CHARACTERISTICS AND TECHNIQUES FOR SPECIAL CIRCUMSTANCES	3
1.4 STUDY OBJECTIVES	7
1.5 THE SRA PLANNING STUDY PROCESS	8
1.6 STUDY DATA SOURCES AND METHODOLOGIES	9
1.7 ORGANIZATION OF THE REPORT	11

SECTION TWO: ROUTE OVERVIEW

2.1 THE ILLINOIS ROUTE 59 SRA STUDY AREA	13
2.2 REGIONAL TRANSPORTATION FACILITIES	13
2.3 PROJECTED TRAVEL DEMAND	15
2.4 ROUTE AREA TYPES	15
2.5 EVALUATION OF EXISTING ROUTE CHARACTERISTICS AND RECOMMENDED ROADWAY IMPROVEMENTS	15
2.6 TRANSIT	19
2.7 SUMMARY OF CONSTRUCTION AND RIGHT-OF-WAY COST ESTIMATES .	25

SECTION THREE: ROUTE ANALYSIS

3.1 SRA SEGMENT 1: INTERSTATE 55 TO BLACK ROAD	
3.1.1 LOCATION	27
3.1.2 EXISTING FACILITY CHARACTERISTICS	27
3.1.3 EXISTING ENVIRONMENTAL CHARACTERISTICS	29
3.1.4 DEVELOPMENT CHARACTERISTICS	30

TABLE OF CONTENTS (cont.)

	<u>Page</u>
3.1.5 RECOMMENDED IMPROVEMENTS	31
3.1.6 ADDITIONAL RIGHT-OF-WAY REQUIREMENTS	36
3.1.7 POTENTIAL ENVIRONMENTAL CONCERNS	36
3.1.8 CONSTRUCTION/RIGHT-OF-WAY COST ESTIMATES	36
3.2 SRA SEGMENT 2: BLACK ROAD TO RENWICK ROAD	
3.2.1 LOCATION	38
3.2.2 EXISTING FACILITY CHARACTERISTICS	38
3.2.3 EXISTING ENVIRONMENTAL CHARACTERISTICS	40
3.2.4 DEVELOPMENT CHARACTERISTICS	40
3.2.5 RECOMMENDED IMPROVEMENTS	41
3.2.6 ADDITIONAL RIGHT-OF-WAY REQUIREMENTS	47
3.2.7 POTENTIAL ENVIRONMENTAL CONCERNS	47
3.2.8 CONSTRUCTION/RIGHT-OF-WAY COST ESTIMATES	48
3.3 SRA SEGMENT 3: RENWICK ROAD TO ELGIN, JOLIET & EASTERN OVERPASS	
3.3.1 LOCATION	49
3.3.2 EXISTING FACILITY CHARACTERISTICS	49
3.3.3 EXISTING ENVIRONMENTAL CHARACTERISTICS	51
3.3.4 DEVELOPMENT CHARACTERISTICS	52
3.3.5 RECOMMENDED IMPROVEMENTS	53
3.3.6 ADDITIONAL RIGHT-OF-WAY REQUIREMENTS	59
3.3.7 POTENTIAL ENVIRONMENTAL CONCERNS	59
3.3.8 CONSTRUCTION/RIGHT-OF-WAY COST ESTIMATES	59
3.4 SRA SEGMENT 4: ELGIN, JOLIET & EASTERN OVERPASS TO 75TH STREET	
3.4.1 LOCATION	61
3.4.2 EXISTING FACILITY CHARACTERISTICS	61
3.4.3 EXISTING ENVIRONMENTAL CHARACTERISTICS	63
3.4.4 DEVELOPMENT CHARACTERISTICS	64
3.4.5 RECOMMENDED IMPROVEMENTS	65
3.4.6 ADDITIONAL RIGHT-OF-WAY REQUIREMENTS	78
3.4.7 POTENTIAL ENVIRONMENTAL CONCERNS	78
3.4.8 CONSTRUCTION/RIGHT-OF-WAY COST ESTIMATES	79
3.5 SRA SEGMENT 5: 75TH STREET TO INTERSTATE 88 (EAST-WEST TOLLWAY)	
3.5.1 LOCATION	80
3.5.2 EXISTING FACILITY CHARACTERISTICS	80
3.5.3 EXISTING ENVIRONMENTAL CHARACTERISTICS	83
3.5.4 DEVELOPMENT CHARACTERISTICS	83

TABLE OF CONTENTS (cont.)

	<u>Page</u>
3.5.5 RECOMMENDED IMPROVEMENTS	85
3.5.6 ADDITIONAL RIGHT-OF-WAY REQUIREMENTS	91
3.5.7 POTENTIAL ENVIRONMENTAL CONCERNS	91
3.5.8 CONSTRUCTION/RIGHT-OF-WAY COST ESTIMATES	91
3.6 SRA SEGMENT 6: INTERSTATE 88 (EAST-WEST TOLLWAY) TO MACK ROAD	
3.6.1 LOCATION	92
3.6.2 EXISTING FACILITY CHARACTERISTICS	92
3.6.3 EXISTING ENVIRONMENTAL CHARACTERISTICS	94
3.6.4 DEVELOPMENT CHARACTERISTICS	95
3.6.5 RECOMMENDED IMPROVEMENTS	96
3.6.6 ADDITIONAL RIGHT-OF-WAY REQUIREMENTS	101
3.6.7 POTENTIAL ENVIRONMENTAL CONCERNS	101
3.6.8 CONSTRUCTION/RIGHT-OF-WAY COST ESTIMATES	101
3.7 SRA SEGMENT 7: MACK ROAD TO ILLINOIS ROUTE 38 (ROOSEVELT ROAD)	
3.7.1 LOCATION	103
3.7.2 EXISTING FACILITY CHARACTERISTICS	103
3.7.3 EXISTING ENVIRONMENTAL CHARACTERISTICS	105
3.7.4 DEVELOPMENT CHARACTERISTICS	106
3.7.5 RECOMMENDED IMPROVEMENTS	107
3.7.6 ADDITIONAL RIGHT-OF-WAY REQUIREMENTS	110
3.7.7 POTENTIAL ENVIRONMENTAL CONCERNS	110
3.7.8 CONSTRUCTION/RIGHT-OF-WAY COST ESTIMATES	110
3.8 SRA SEGMENT 8: ILLINOIS ROUTE 38 (ROOSEVELT ROAD) TO HAWTHORNE LANE	
3.8.1 LOCATION	111
3.8.2 EXISTING FACILITY CHARACTERISTICS	111
3.8.3 EXISTING ENVIRONMENTAL CHARACTERISTICS	113
3.8.4 DEVELOPMENT CHARACTERISTICS	114
3.8.5 RECOMMENDED IMPROVEMENTS	115
3.8.6 ADDITIONAL RIGHT-OF-WAY REQUIREMENTS	118
3.8.7 POTENTIAL ENVIRONMENTAL CONCERNS	118
3.8.8 CONSTRUCTION/RIGHT-OF-WAY COST ESTIMATES	119
3.9 SRA SEGMENT 9: HAWTHORNE LANE TO ILLINOIS ROUTE 72 (HIGGINS ROAD)	
3.9.1 LOCATION	120
3.9.2 EXISTING FACILITY CHARACTERISTICS	120
3.9.3 EXISTING ENVIRONMENTAL CHARACTERISTICS	123

TABLE OF CONTENTS (cont.)

	<u>Page</u>
3.9.4 DEVELOPMENT CHARACTERISTICS	125
3.9.5 RECOMMENDED IMPROVEMENTS	126
3.9.6 ADDITIONAL RIGHT-OF-WAY REQUIREMENTS	138
3.9.7 POTENTIAL ENVIRONMENTAL CONCERNS	138
3.9.8 CONSTRUCTION/RIGHT-OF-WAY COST ESTIMATES	139

VOLUME II

SECTION FOUR: PUBLIC INVOLVEMENT

4.1 THE PUBLIC INVOLVEMENT PROCESS	140
4.2 ADVISORY PANEL MEETING MINUTES	141
4.3 PUBLIC HEARING MINUTES AND RECORDED COMMENTS	142
4.4 NEWSLETTERS	143

SECTION ONE

INTRODUCTION

1.1 THE STRATEGIC REGIONAL ARTERIAL SYSTEM AND OPERATION GREENLIGHT

The Strategic Regional Arterial (SRA) system is a 1340-mile network of existing roads in Northeastern Illinois. The system includes 146 route segments in Cook, DuPage, Kane, Lake, McHenry and Will Counties. (See *Figure 1.1.*) As part of the 2010 Transportation System Development Plan adopted by the Chicago Area Transportation Study (CATS) and Northeastern Illinois Planning Commission (NIPC), the SRA system is intended to supplement the existing and proposed expressway facilities by accommodating a significant portion of long-distance, high volume automobile and commercial vehicle traffic in the region. Many of the roads in the SRA system, including Illinois Route 59, are already on the arterial highway network of the Illinois Department of Transportation (IDOT) and now carry high volumes of long-distance traffic.

According to forecasts prepared by CATS, travel in the year 2010 in Northeastern Illinois is expected to increase by 23 percent over 1980 levels. In the last few years, rapid economic development and growing population have resulted in significant increases in congestion on the regional expressway system, as well as on arterial and local roads in many parts of the region. Creation of the SRA system is a major component of Operation GreenLight, an eight-point plan to deal with urban congestion and improve regional mobility. The plan was developed by IDOT in cooperation with the Illinois State Toll Highway Authority (ISTHA), CATS, NIPC and the Regional Transportation Authority (RTA). In addition to creating the SRA network, Operation GreenLight addresses the following major transportation issues:

- Developing Major Transit/Highway Facilities
- Improving Other Key Arterial Roadways
- Identifying Strategic Transit Improvements
- Reducing Demand for Highway Use
- Increasing Environmental Consideration.

Together, the components of Operation GreenLight are a blueprint for a comprehensive approach to improve transportation in Northeastern Illinois. As part of this comprehensive approach, the SRA system is designed to (1) improve regional mobility by providing a comprehensive network of arterial routes designed to carry significant volumes of long-distance traffic across the region, (2) complement the regional transit and highway facilities by providing access for regional trips on these facilities, and (3) provide for long-distance travel to supplement the regional expressway system.

ILLINOIS ROUTE 59
SECTION 1: Introduction

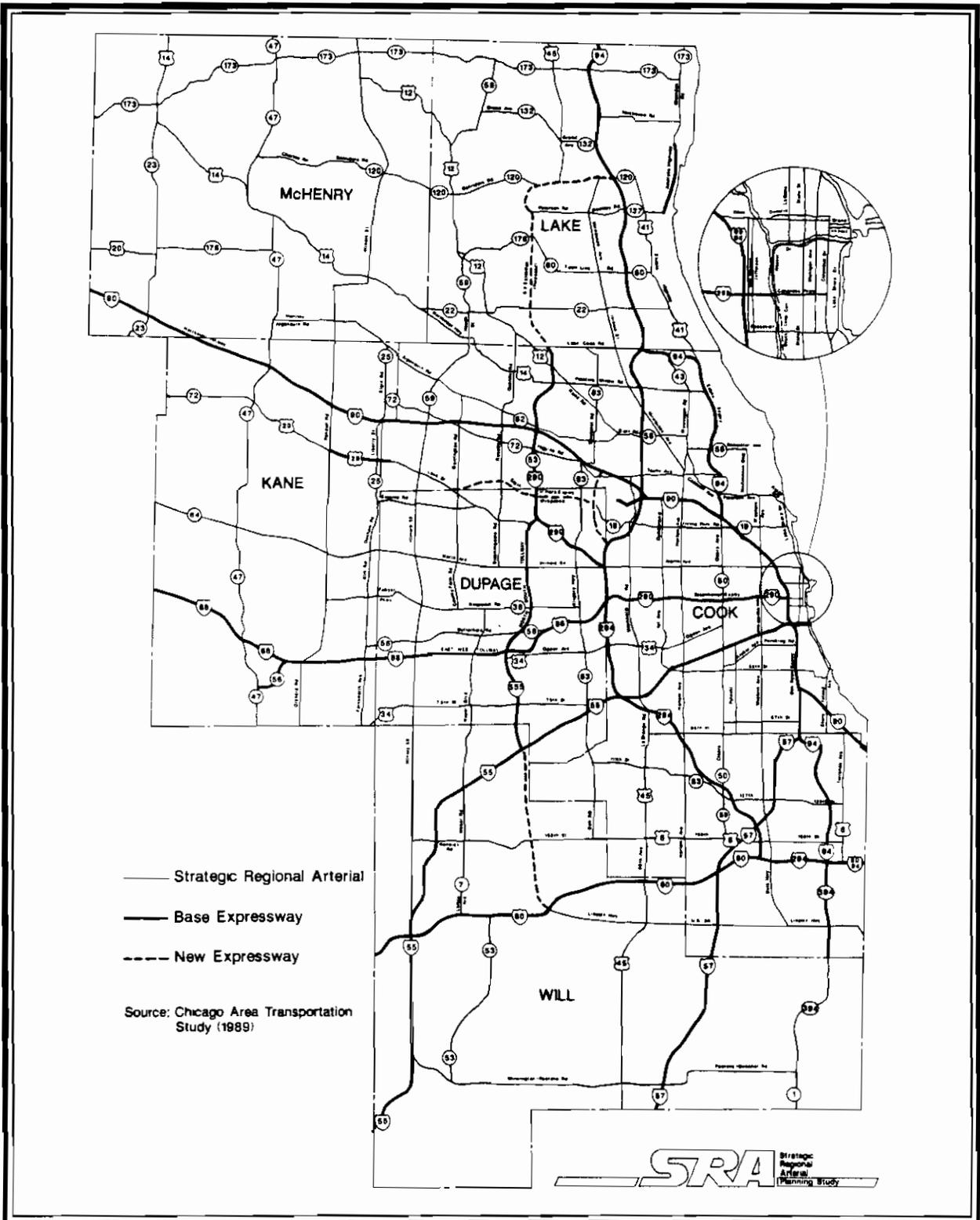


Figure 1.1 The Strategic Regional Arterial System

1.2 SRA ROUTE TYPES

Within the SRA network there are significant differences in the roadway environment. These differences affect how routes will function in the system. Three different types of SRA routes have been designated, corresponding to three types of roadway environment:

- Urban Routes;
- Suburban Routes; and
- Rural Routes;

The designation of route types is based upon the projected 2010 density of development within the Chicago region. Illinois Route 59 is designated as a suburban route. (See *Figure 1.2*.) Urban SRA routes are located in the City of Chicago and adjacent portions of more densely developed suburbs such as Oak Park, where projected densities are greater than 5.0 households per acre. Suburban SRA route designations, where projected densities are between 0.5 and 5.0 households per acre, apply to most of suburban Cook and Lake Counties, all of DuPage County, and the more developed portions of McHenry, Kane and Will Counties. Rural SRA routes are located in the outer portions of Lake, McHenry, Kane and Will Counties, where projected densities are less than 0.5 households per acre.

SRA routes located in densely urbanized areas typically are existing routes with minimal possibilities for roadway expansion, but where improvements could be made to intersections, transit facilities and structural clearances. For routes in developing suburban areas, additional lanes on roadways, new connections to improve route continuity, and operational improvements such as signal coordination may be considered. In rural areas, right-of-way preservation and access control would provide for movement of through traffic and accommodate future needs.

1.3 DESIRABLE ROUTE CHARACTERISTICS AND TECHNIQUES FOR SPECIAL CIRCUMSTANCES

Desirable route characteristics for the year 2010 have been delineated for each of the three SRA route types - Urban, Suburban and Rural - related to the roadway environment. These desirable characteristics are intended to provide adequate traffic service and geometric design, serving as criteria for planning the individual SRA routes. *Table 1.1* lists desirable characteristics for SRA suburban routes in the year 2010, including typical geometrics, operational measures, level of service, and access policies. These desirable characteristics are the basis for defining the desirable SRA suburban route cross-section which is shown in *Figure 1.3*.

As planning criteria, these design features and other route characteristics are designed to be generally applicable to all SRA suburban routes. However, the SRA planning process recognizes that there may be situations along suburban routes where certain design features are not appropriate or where special treatment of some features is desirable, such as:

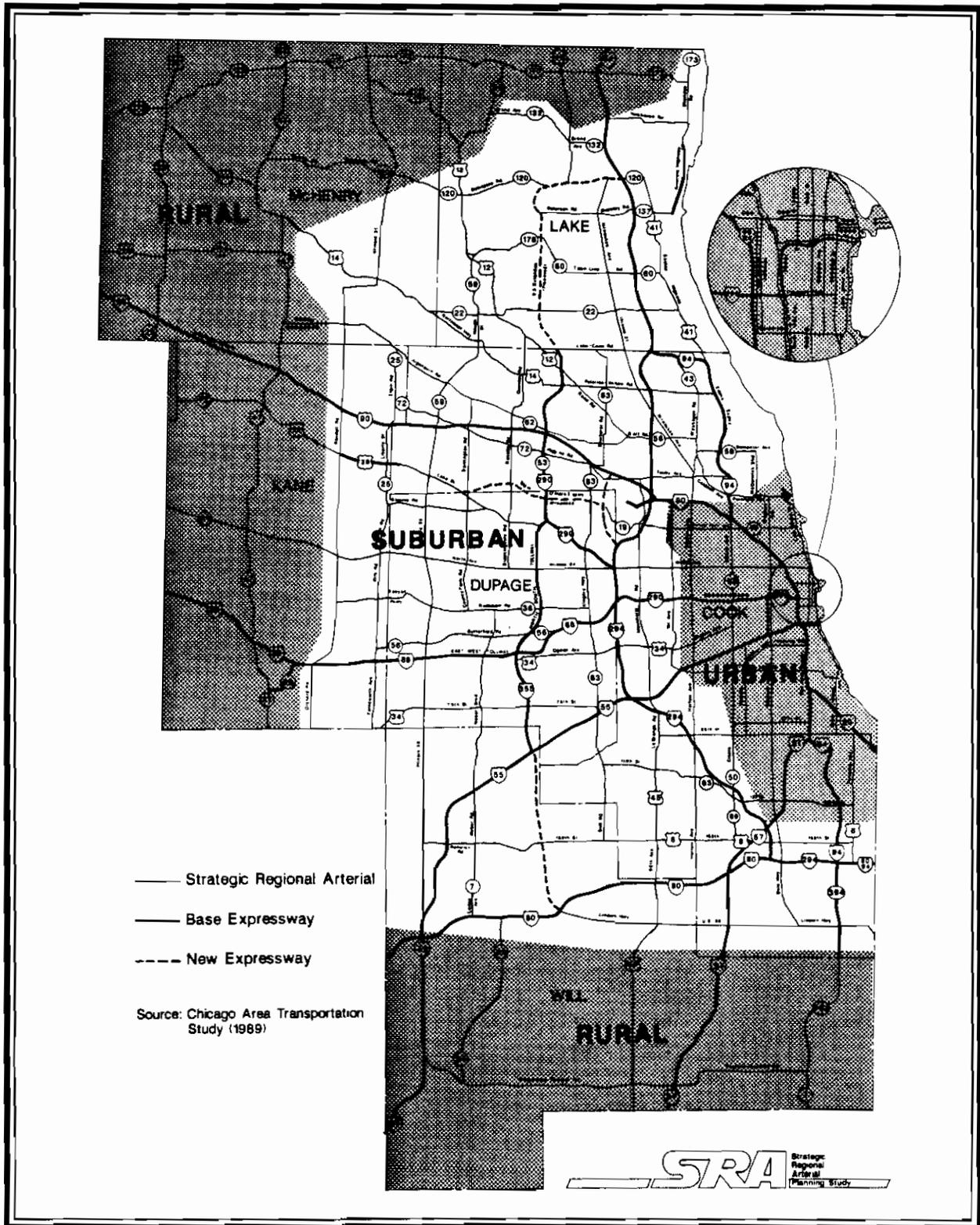


Figure 1.2 Route Types on the Strategic Regional Arterial System

Table 1.1
2010 Desirable Route Characteristics
Suburban Strategic Regional Arterials

Right-of-way Width	120' - 150'
Level of Service (Peak Hour)/Design Speed	C or D / 45 mph
Number of Through Lanes	3 in each direction; 12' width
Median Width	18' - 46', raised
Right Turns	Turn lanes at all major intersections
Left Turns	Dual left turn lanes at all major intersections
Shoulders	Where appropriate, 10' width paved
Curbs	Yes, with 2' gutters
Sidewalks	Where appropriate, 5' width
Parking	Not recommended
Cross Street Intersections	Signals with collectors and arterials New local roads right-in/right-out only
Curb Cut Access	Consolidate access points at 500' spacing with cross easements
Transit	Bus turnouts, signs and shelters. Express bus service only. Signal pre-emption and HOV potential.
Number of Traffic Signals Per Mile	4 maximum
Signalization	Synchronization with pedestrian actuation where needed.
Freight: Radii	WB-55 typical/WB-60 Type II truck route
Vertical Clearances	New structures: 16'-3" Existing Structures: 14'-6"
Loading	Off-street loading

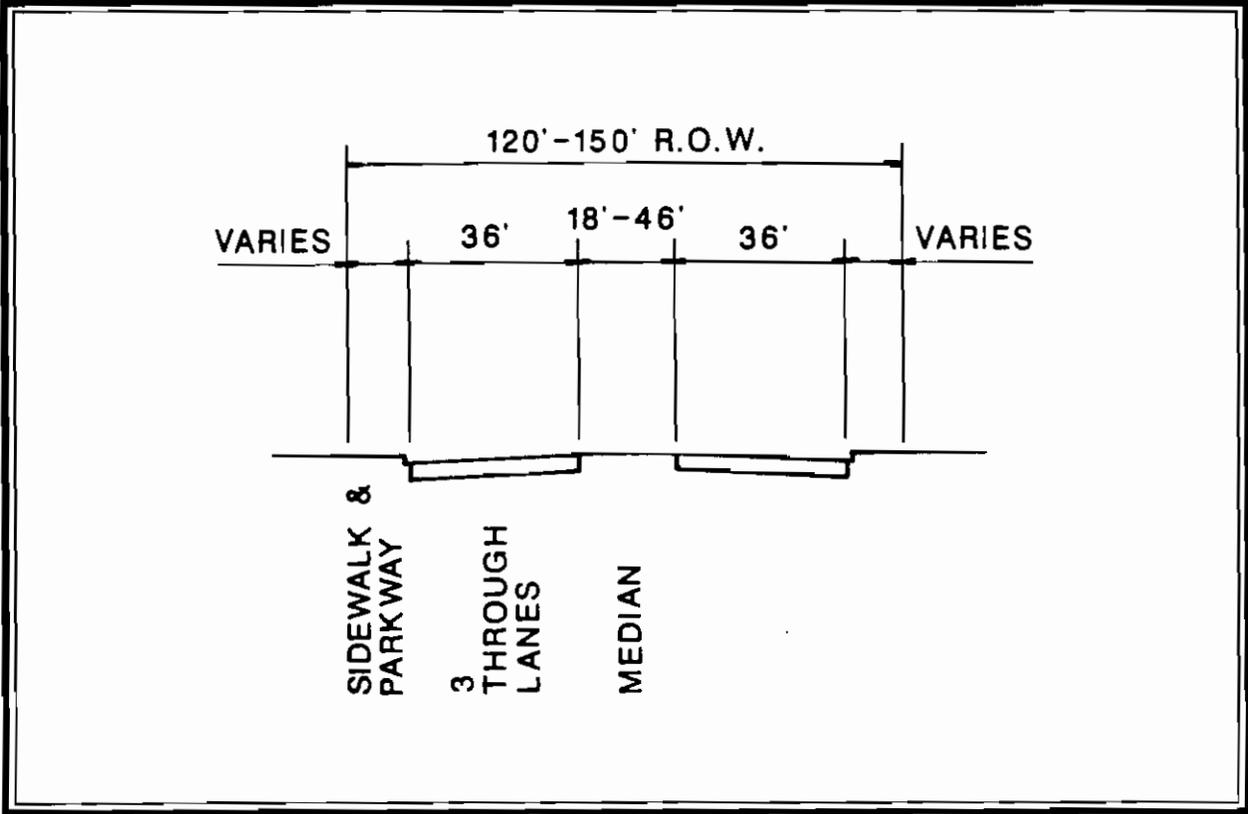


Figure 1.3 Desirable Suburban SRA Cross-Section

- Bus lane/ high occupancy vehicle (HOV) lanes;
- Signal preemption capability for transit vehicles;
- Demand actuated signals at transit stations;
- Channelization or interchanges at high volume intersections;
- Use of continuous two-way left-turn lanes;
- Designation of route bypasses for constricted areas; or
- Location of transit or pedestrian facilities in public easements outside the right-of-way.

While not all of these special techniques may be applicable to Illinois Route 59, they illustrate the range of treatments which have been considered.

A full description of the recommended designs and features applicable to all SRA routes, and techniques for special circumstances can be found in the Strategic Regional Arterial Design Concept Report, dated March, 1991.

1.4 STUDY OBJECTIVES

As an SRA route, Illinois Route 59 is intended to function as part of a regional arterial system, carrying high volumes of long-distance traffic in conjunction with other SRA routes and the regional expressway and transit systems. To implement the SRA system, development of a comprehensive, long-range plan for the entire network is necessary. The planning process for the SRA system is to be accomplished over a five year period, with individual route studies comprising one-fifth of the total system to be undertaken each year. Together, the route studies constitute a comprehensive, coordinated plan for the entire SRA network.

The Illinois Route 59 study identifies both ultimate and low-cost improvements to enable the route to function as part of the SRA system. The following objectives have guided the study process.

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

- Identify necessary improvements to accommodate commercial traffic.
- Accommodate necessary bicycle and pedestrian travel.
- Identify potential environmental concerns.

The completed study will guide implementation of improvements on Illinois Route 59, so that individual projects are consistent with the coordinated long-range development of the route as an integral part of the SRA system.

1.5 THE SRA PLANNING STUDY PROCESS

The SRA planning study process is accomplished through the following six phases:

Data Collection/Evaluation. The SRA planning process is designed to efficiently use available data. For each route, data is assembled from right-of-way information, roadway plans, traffic volume counts, transit information, bicycle usage, adjacent development characteristics, accident data, environmental studies and other sources, and is analyzed to establish current conditions, constraints and improvement needs.

Route Analysis. Possible improvements for the SRA route are determined by incorporating the recommended design features in specific configurations for each segment of the overall route. These configurations include alternative designs and techniques where necessary to accommodate local conditions or constraints. Whether improvements are the ultimate recommended or low-cost is identified.

Environmental Issues/Screening. While the SRA planning process does not include detailed environmental assessments or analysis of specific mitigation measures, a screening process identifies significant environmental conditions along each route. The results of this process are used to evaluate improvement alternatives, and serve as an early indicator of environmental issues for future design studies.

Construction Cost Estimates/Identification of Right-of-Way Needs. Construction cost estimates for each route segment are prepared, both for ultimate and low-cost improvements. Right-of-way needs to accommodate recommended ultimate improvements are also identified.

Local Involvement and Coordination. Throughout the SRA route planning process, the involvement of local and regional agencies is an important consideration. Information and coordination efforts include forming Advisory Panels for each SRA route, which work with IDOT during the planning process. A regular newsletter for each Panel informs members about the SRA program and ongoing route studies. A public hearing in an open house format is also conducted in each county on the route.

Final Route Improvement Plan/Report. As the final step in the planning process, a report for each SRA route documents the recommended improvements and findings.

1.6 STUDY DATA SOURCES AND METHODOLOGIES

Existing Roadway Characteristics Several data sources were compiled to create route inventories. Traffic counts for the route segments and for selected major intersections were obtained from IDOT Traffic Volume Maps and 1990 IDOT Intersection Turning Movement Data. The route was photographed using a video camera. On-site inspection confirmed IDOT scoping report data for number of lanes, location of traffic signals and turn bays, structures, setbacks, pavement width, speed limit, existence of sidewalks and other appurtenances, frontage roads, and median. The locations of median and curb cuts were identified by type: unlimited, frequent, coordinated, managed. Pavement widths were further confirmed with construction plan sheets whenever these were available. Sidwell maps provided right-of-way widths.

Existing Transit Characteristics Data on existing transit service and facilities was obtained from published data and reports as well as limited field verification of location and characteristics of transit facilities. Basic information on transit services in the SRA study area, including routes and schedules, was obtained from data compiled by the Division of Public Transportation of Illinois DOT. This was supplemented by reports from operating entities, including Pace, Metra and the CTA, which provided information on transit ridership and other operating characteristics. Locations of transit facilities, including bus stops and facilities at commuter rail and rapid transit stations, were verified in the field.

Development Characteristics Development characteristics include existing and planned uses. Current uses were included in the route inventory and derived from NIPC aerial photography, video and on-site inspection. These uses were identified in some detail and later grouped into more general development categories, such as residential, commercial, industrial, public and semi-public. Access was examined in the course of this analysis.

Planned uses were identified in response to a specific inquiry at the beginning of the SRA study, within adopted Comprehensive and Specific Plans identified by municipal officials, and during meetings with municipal officials. Such information was used to assess potential route impact and plan for access.

Environmental Considerations Because the purpose of the analysis was to identify those conditions and uses which *may* be negatively impacted by improvement of the SRA, the selection of data was as inclusive as possible.

Floodplain boundaries were obtained from the Federal Emergency Management Agency (FEMA) on the Flood Boundary and Floodway Maps and the Flood Insurance Rate Maps. The Illinois Department of Conservation (IDOC) National Wetlands Inventory Maps, local land use plans, and on-site surveys were used to identify wetlands and any streams which were not identified by FEMA.

IDOC also provided information from the Illinois Natural Heritage Database about endangered, threatened and watched species in Illinois and about natural areas. An endangered species is any species which is in danger of extinction as a breeding species in Illinois, while a threatened species is any breeding species which is likely to become a state endangered species within the foreseeable future. A species on the watch list is not listed as endangered or threatened, but is of special concern and could eventually become listed. Unless it could be determined that the species or area is not

adjacent to the route, it is included in this inventory. This information was located to the nearest square mile.

Location of historic buildings, districts, and markers were provided by the National Register of Historic Places in Illinois, the Inventory of Historic Structures prepared by the Illinois Historic Structures Survey, the Inventory of Historic Landmarks prepared by the Illinois Historic Landmarks Survey, the Illinois State Historical Markers Text Book, and IDOT. The buildings, districts, and other structures appearing on the Inventory of Historic Landmarks are not necessarily significant historical resources. This inventory includes all buildings constructed prior to World War II. Those buildings with aesthetic merit are included on the Inventory of Historic Structures. Historic districts were most often listed on the National Register of Historic Places in Illinois, but others appeared in the Inventory of Historic Landmarks. Selected information was refined by IDOT design studies.

The Hazardous Waste Research and Information Center provided a list of waste disposal and hazardous waste dumping sites. The landfills and dumps are located to the nearest square mile. Unless it could be determined that the site is not adjacent to the route, it is included in this inventory. The list notwithstanding, it is recommended that any site used for industrial purposes at any time be tested for hazardous waste prior to roadway facility development.

The analysis of environmentally sensitive land uses included: schools, churches, theaters, auditoriums, parks, cemeteries, recreation facilities, nature and forest preserves, hospitals, nursing homes, hotels, utilities and other public buildings. While all such facilities and uses have been identified, there is no presumption that all such uses would be negatively impacted by roadway improvements.

Year 2010 Traffic Demand Projections The Chicago Area Transportation Study (CATS) projected Year 2010 traffic for all routes in the SRA system, and for tollways and expressways. Projections made for the SRA system are different from those made for most projects, because they assume that all routes in the system have been improved as suggested in the design criteria for the system. This assumption insures that no one route or part of a route would be expected to handle more than its share of the expected 2010 traffic volumes which may be traveling in that general direction. It also insures that no part or segment of a route would be improved more than is necessary to provide a consistent level of service throughout the route.

The projection methodology for SRA routes included four phases: trip generation, trip distribution, trip mode, and trip assignment. Collectively, the number of vehicle trips was projected for each SRA to SRA and SRA to expressway junction. Results are expressed in ranges corresponding to the number of lanes of capacity required to serve the demand.

Roadway Capacity Estimates A roadway capacity analysis estimates how many vehicles can be carried on the roadway. The analysis allows change in several conditions that affect the flow of traffic. The capacity of an arterial roadway depends most heavily on the number of vehicles that can be accommodated at its signalized intersections, so a group of variables describes how long the average vehicle is stopped at each signal. The number of signals and distance between them is included. Variables relating to the roadway and its operation, such as the number of through lanes in each direction; how many vehicles each lane can accommodate; the posted speed; how many vehicles are likely to make turns; and the characteristics of rush hour traffic, complete the information used in the analysis.

Cost Estimates Cost estimates include a standardized factor for land value added to construction cost estimates typical for the improvement type. The estimates are provided in 1991 dollars.

1.7 ORGANIZATION OF THE REPORT

This report on the Illinois Route 59 SRA route study is divided into four sections:

Section One (Volume I), Introduction, provides information about the SRA system and Operation GreenLight; SRA route types; desirable route characteristics; study objectives and the study process; and the organization of the report.

Section Two (Volume I), Route Overview, presents a general description of the study process; existing route characteristics; and type of recommended improvements for the overall route.

Section Three (Volume I), Route Analysis, presents a detailed analysis of existing route characteristics and recommended route improvements. This section is organized by the following route segments on Illinois Route 59:

- **Section 3.1:** Interstate 55 to Black Road
- **Section 3.2:** Black Road to Renwick Road
- **Section 3.3:** Renwick Road to Elgin, Joliet & Eastern Overpass
- **Section 3.4:** Elgin, Joliet & Eastern Overpass to 75th Street
- **Section 3.5:** 75th Street to Interstate 88 (East-West Tollway)
- **Section 3.6:** Interstate 88 (East-West Tollway) to Mack Road
- **Section 3.7:** Mack Road to Illinois Route 38 (Roosevelt Road)
- **Section 3.8:** Illinois Route 38 (Roosevelt Road) to Hawthorne Lane
- **Section 3.9:** Hawthorne Lane to Illinois Route 72 (Higgins Road)

For each route segment the following analyses are presented:

Existing Facility Characteristics. The existing facility characteristics are defined. Current traffic volumes are listed. Existing right-of-way, number of lanes, pavement widths, location of existing traffic signals and sidewalks, existing transit usage and routes, location of structures and other appropriate existing facility characteristics are discussed and shown on the corresponding aerial base maps.

Environmental Characteristics. Environmental characteristics of the route segment are defined. Existing streams, wetlands and floodplains; historic properties and districts; flora

and fauna; waste disposal sites; sensitive land uses; and other environmental characteristics are discussed and shown on the corresponding aerial base maps.

Existing and Projected Development Characteristics. The existing and projected development characteristics of the route segment are analyzed. Jurisdictional boundaries are defined. Existing land use characteristics are examined with respect to the types, density or intensity of use and setbacks and access locations. Future development potential is examined by identification of vacant land, planned or likely redevelopment and other planned development in the vicinity. Finally, public and institutional areas are identified by location and type. The existing and projected development characteristics are shown on corresponding aerial base maps.

Recommended Improvements. The recommended improvements are identified for each route segment. Ultimate and low-cost improvements are specified in the categories of roadway, intersection, traffic signalization, access management, transit and other relevant areas. Right-of-way requirements for the implementation of the recommended improvements are identified. Potential environmental considerations for the implementation of the recommended improvements and right-of-way expansion are analyzed. Cost estimates relating to construction of the recommended improvements and acquisition of right-of-way are given.

Section Four (Volume II), Public Involvement summarizes the public involvement process during the study, including the Illinois Route 59 SRA Advisory Panel meetings, the Advisory Panel newsletters, the public hearings and other efforts to promote local involvement in the study process.

SECTION TWO

ROUTE OVERVIEW

2.1 THE ILLINOIS ROUTE 59 SRA STUDY AREA

Illinois Route 59 is an SRA route over its entire length from Interstate 55 in Will County to Illinois Route 173 in Lake County. However, this study includes only the portions of the route from Interstate 55 to Illinois Route 72 (Higgins Road), a distance of 40 miles. It is located in Will, DuPage, and Cook Counties and passes through the municipalities of Shorewood, Plainfield, Aurora, Naperville, Warrenville, West Chicago, Wayne, Bartlett, Streamwood, and Hoffman Estates.

2.2 REGIONAL TRANSPORTATION FACILITIES

Figure 2.1 indicates the existing and proposed facilities connecting Illinois Route 59 to the regional transportation system as defined in the 2010 Transportation System Development (TSD) Plan prepared by the Chicago Area Transportation Study (CATS).

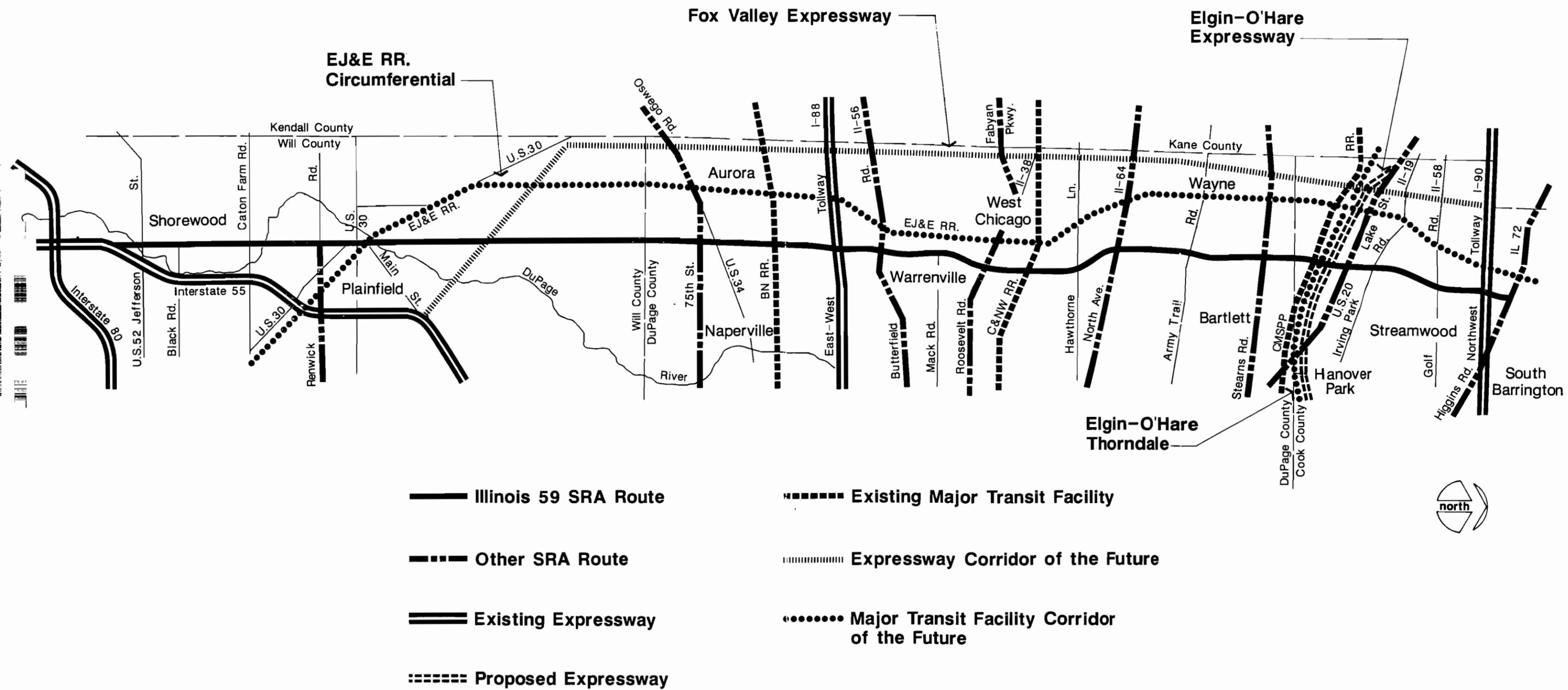
Illinois Route 59 intersects eight other designated SRA routes: Renwick Road, 75th Street, Illinois Route 56 (Butterfield Road), Illinois Route 38 (Roosevelt Road), Illinois Route 64 (North Avenue), Stearns Road, U.S. Route 20 (Lake Street), and Illinois Route 72 (Higgins Road). Illinois Route 59 has interchanges with three expressways: Interstate 55, Interstate 88 (East-West Tollway), and Interstate 90 (Northwest Tollway). Only the Interstate 88 and Interstate 90 interchanges are fully directional.

Three Metra commuter rail lines presently cross Illinois Route 59. The Burlington Northern Railroad provides commuter rail service to Aurora and Naperville. The Chicago & NorthWestern West line provides service to West Chicago and Winfield, and at the north end of the route, commuter service is provided to Bartlett and Elgin by the Milwaukee West Division.

A proposed expressway in the 2010 TSD plan related to the Illinois Route 59 study area is the Elgin-O'Hare Expressway Extension (FAP 426). It intersects Illinois Route 59 south of U.S. Route 20 and will provide the link between the Elgin-O'Hare Expressway and the U.S. Route 20 Bypass in Elgin.

An expressway corridor of the future for post-2010 development located in the Illinois Route 59 study area is the Fox Valley Expressway. The 2010 TSD Plan identifies the corridor for this facility from Interstate 90 on the north, through western DuPage County, to Interstate 55 north of Joliet. Because this corridor parallels Illinois Route 59 from Plainfield to Interstate 90, its construction could significantly affect traffic volumes on Illinois Route 59 and ultimately the need for and timing of recommended improvements.

Two major transit facility corridors of the future are within the Illinois Route 59 study area. The corridor for the Elgin-O'Hare Thorndale line crosses the route just south of U.S. Route 20 while the EJ&E Circumferential crosses Illinois Route 59 in Plainfield on the existing EJ&E Railroad alignment. A portion of the EJ&E Circumferential parallels Illinois Route 59 from Plainfield to Interstate 90 providing a north south link between many of the suburbs and transit facilities in the study area.



Illinois 59

Regional Transportation Facilities



prepared by Harland Bartholomew & Associates, Inc. for the
ILLINOIS DEPARTMENT OF TRANSPORTATION

Figure 2.1

2.3 PROJECTED TRAVEL DEMAND

Figures 2.2 and 2.3 indicate the projected 2010 travel demand in terms of average annual daily traffic (AADT) for Illinois Route 59. The projected 2010 AADT travel demand forecasts are taken from the regional travel simulation model developed by CATS. Included in assumptions for the model were that all SRA routes would have been brought to the recommended desirable design and that Year 2010 improvements in the CATS TSD Plan would have been completed. The projections do not include facilities, such as the Fox Valley Expressway or EJ&E Circumferential transit line, which are identified as corridors of the future in the 2010 TSD Plan.

2.4 ROUTE AREA TYPES

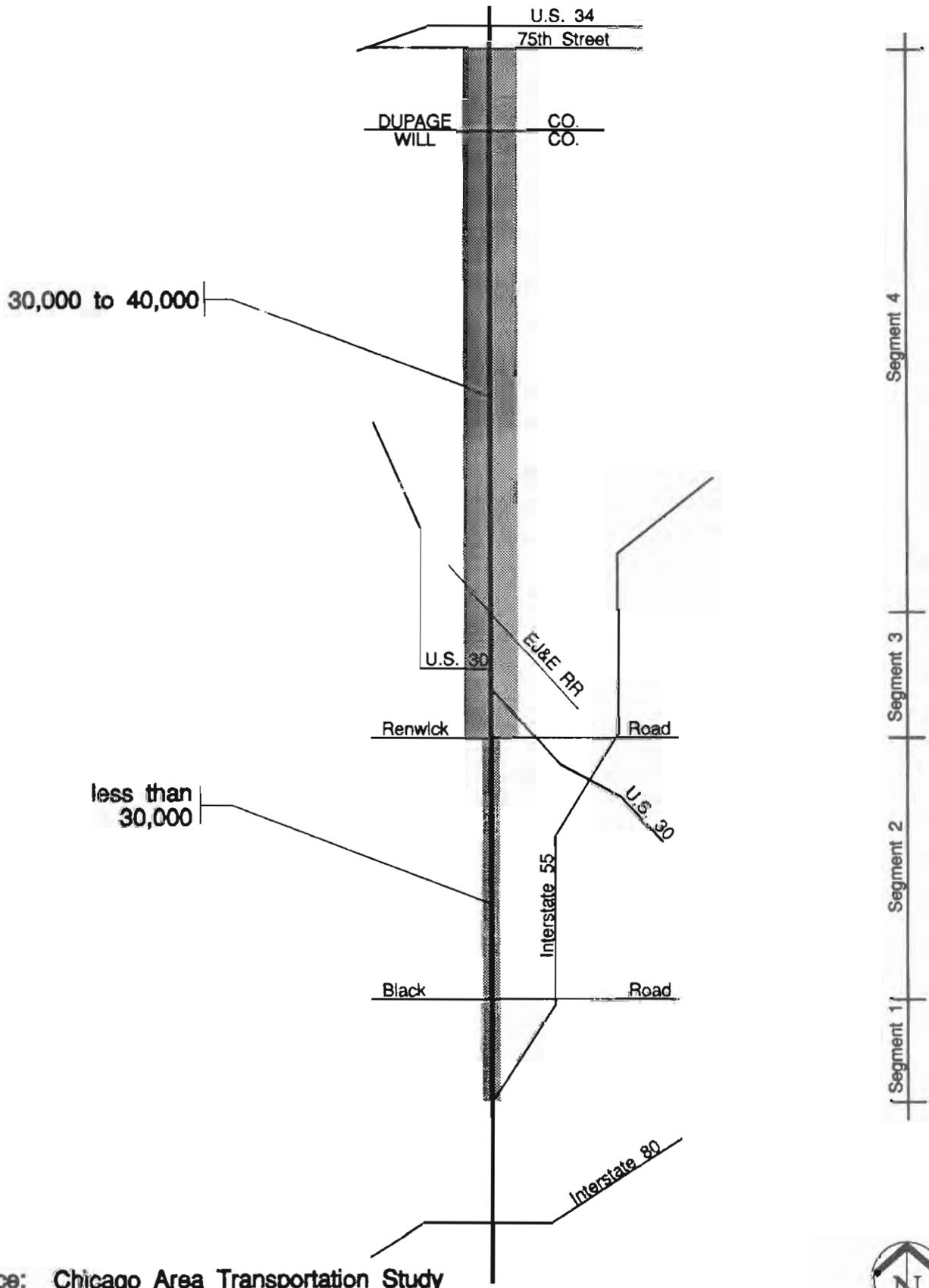
Illinois Route 59 is classified as a suburban SRA route and has been evaluated based on suburban SRA desirable route characteristics. The portion of the route between Robert Avenue and the Elgin, Joliet & Eastern (EJ&E) Overpass in Plainfield, however, exhibits a distinctly urban development pattern, and has been evaluated using urban SRA route design criteria. This section has a very narrow right-of-way, buildings abutting the sidewalk and there is no foreseeable opportunity for major redevelopment that could yield adequate additional right-of-way. The design speed for a suburban SRA is 45 miles per hour, and the desirable minimum level of service is "C/D" at which average travel speeds are between 40 and 55 percent of the typical free flow speed of 40 miles per hour. While recommendations for the urban-like portion in Plainfield will not be exactly like a typical urban area, it will be closer to urban than to suburban. The design speed for an urban SRA is 35 miles per hour, and the minimum desirable level of service is "D" at which average travel speeds are about 40 percent of the typical free flow speed of 33 miles per hour.

Illinois Route 59 is also classified as a Type II Truck Route; therefore, any recommendations should take into account the requirements of larger and more frequent commercial vehicles. Improvements to structure clearances and turning radii are of increased importance on these particular routes.

2.5 EVALUATION OF EXISTING ROUTE CHARACTERISTICS AND RECOMMENDED ROADWAY IMPROVEMENTS

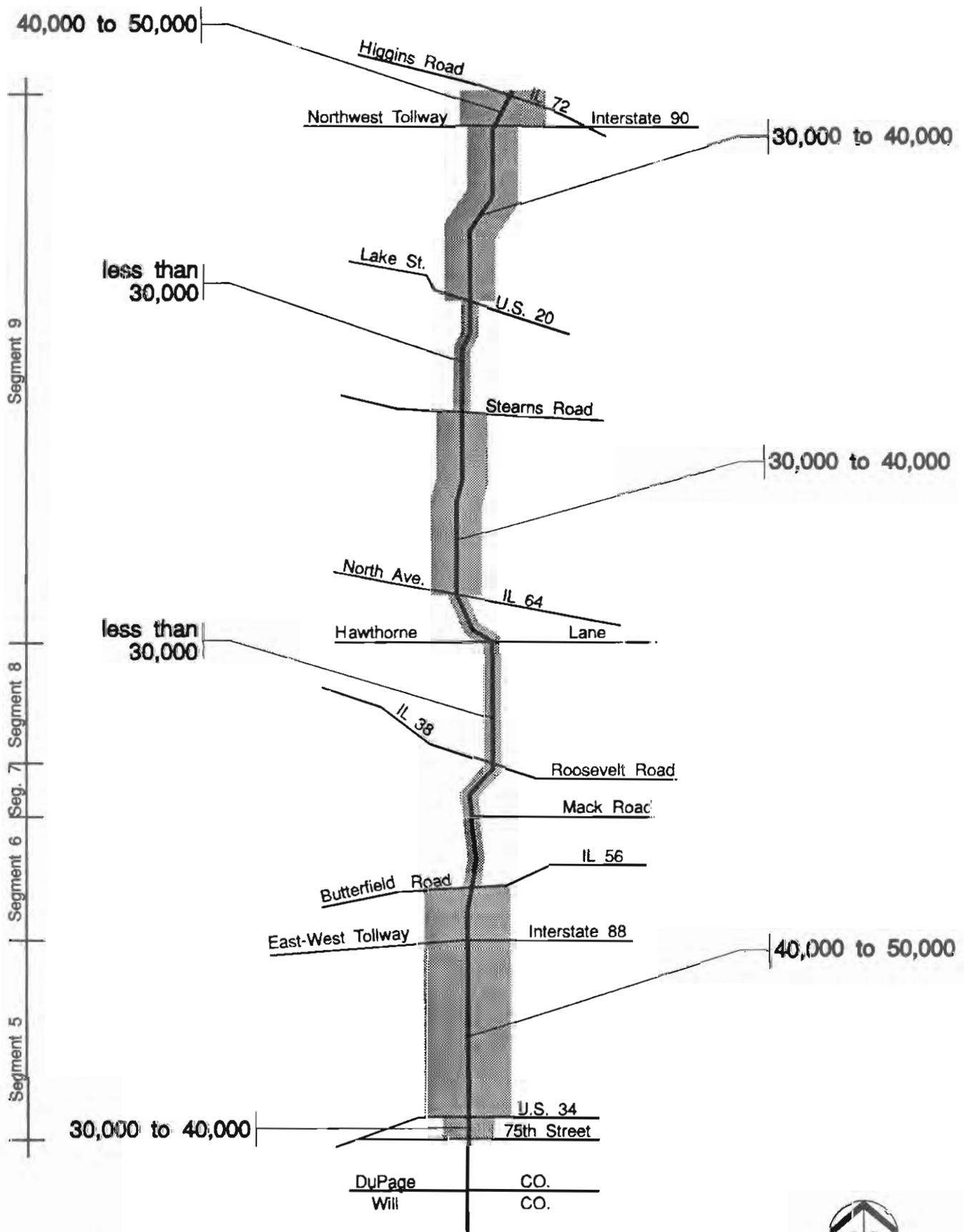
As shown in *Table 2.1*, both the existing right-of-way and number of through lanes vary along the length of Illinois Route 59. Typically, the current right-of-way width and number of through lanes is less than the minimum desirable for a suburban SRA route, which is a 120-foot wide right-of-way and three through lanes in each direction.

Additional right-of-way for the minimum desirable suburban criteria is generally available along the entire length of Illinois Route 59 except in the Village of Plainfield. The development and setbacks in Plainfield will not allow the minimum right-of-way to be acquired; however, the full desirable width should be protected, so that future development or redevelopment does not encroach on the ultimate right-of-way. The recommended right-of-way width in other segments may be sufficient to accommodate additional lanes as a post-2010 improvement.



Source: Chicago Area Transportation Study





Source: Chicago Area Transportation Study



Illinois Route 59 (DuPage/Cook) 2010 Projected Travel Demand Volumes
 prepared by Harland Bartholomew & Associates, Inc. Figure 2.3

Table 2.1 Existing and Recommended Right-of-Way Width and Number of Through Traffic Lanes				
ILLINOIS ROUTE 59	Right-of-Way Width (feet)		Number of Through Lanes in Each Direction	
	Existing	Recommended	Existing	Recommended
DESIRABLE STANDARD FOR AN URBAN SRA		96-110 ⁽¹⁾		2
DESIRABLE STANDARD FOR A SUBURBAN SRA		120-150		3
Segment 1 Interstate 55 to Black Road	66-80	120-150	1	2
Segment 2 Black Road to Renwick Road	80	150	1	2
Segment 3 Renwick Road to EJ&E Overpass ⁽²⁾	66	80	1	2
Segment 4 EJ&E Overpass to 75th Street	100	120-180	1	2-3
Segment 5 75th Street to Interstate 88	100-120	150	2-3	3
Segment 6 Interstate 88 to Mack Road	120	120-150	2	3
Segment 7 Mack Road to Illinois 38	125	125	2	3
Segment 8 Illinois 38 to Hawthorne Lane	66-90	120	2	3
Segment 9 Hawthorne Lane to Illinois 72	100-125	150	1-2	3
⁽¹⁾ 72-86 feet where bus/HOV lanes are not provided. ⁽²⁾ Section between Robert Avenue and the EJ&E Overpass to meet modified desirable urban standards.				

The existing roadway configuration on Illinois Route 59 is generally one through lane in each direction between Interstate 55 and 75th Street, two through lanes in each direction between 75th Street and Illinois Route 64 (North Avenue), and one through lane in each direction between Illinois Route 64 (North Avenue) and Illinois Route 72 (Higgins Road).

The recommended number of through lanes in each direction is based upon an evaluation of the projected 2010 travel demand, along with the existing roadway characteristics and character of development in each segment. The results of the capacity analyses comparing the projected 2010 travel demand to the recommended roadway configurations for Illinois Route 59 are given in *Table 2.2*.

The recommended roadway configuration is two through lanes in each direction from Interstate 55 to Chapins Road and three through lanes in each direction from Chapins Road to Illinois Route 72 (Higgins Road). The recommended roadway configuration is adequate for the 2010 travel demand in all segments except for Segment 3 through Plainfield. Due to right-of-way constraints in Plainfield, the six through lane cross-section that would satisfy the 2010 travel demand could not be accommodated. A Plainfield/U.S. Route 30 bypass and upgrading other area roadways may alleviate future congestion on Illinois Route 59 and improve circulation in the Plainfield area.

The Illinois Department of Transportation presently has ongoing projects in the design or construction stages which will continue due to an existing need for the improvement. Phase I projects presently underway include adding lanes and a median to Illinois Route 59 between Interstate 55 and 75th Street (maintaining four through lanes in Plainfield) and between Illinois Route 64 and Shoe Factory Road. Other ongoing projects relating to Illinois Route 59 include intersection and bridge widening at U.S. Route 52 in Shorewood, resurfacing with median addition in Plainfield, interchange reconstruction at Interstate 90 (IDOT/ISTHA), and various other intersection improvement projects. In some cases these improvements will serve as staged construction for the ultimate recommendations of the SRA study.

Specific roadway and right-of-way recommendations for each route segment are discussed in their respective segments in Section Three of this report.

2.6 TRANSIT

Existing transit service in the Illinois Route 59 SRA study area includes Pace bus service and Metra commuter rail service. No one transit route serves the entire length of the SRA route. The following sections discuss existing service and conditions, as well as the general type of recommended improvements for the overall route. Specific recommended improvements are discussed with the respective route segments in Section Three of this report.

ILLINOIS ROUTE 59
SECTION 2: Route Overview

Table 2.2 Summary of Arterial Corridor Capacity Analysis					
Segment	Projected Travel Demand (AADT)⁽¹⁾	Number of Through Traffic Lanes	Arterial Capacity (AADT)⁽¹⁾	Peak Direction Level of Service	Adequate to Meet Projected Demand
Segment 1 Interstate 55 to Black Road	< 30,000	4 *	32,000 34,000	C D	Yes
		6	48,000	C	Yes
Segment 2 Black Road to Renwick Road	< 30,000	4 *	29,000 31,000	C D	Yes
		6	43,000	C	Yes
Segment 3 Renwick Road to EJ&E Overpass	30 to 40,000	4 *	32,000	D	No
		6	44,000	C	Yes
Segment 4A EJ&E Overpass to Ferguson Road	30 to 40,000	4 **	30,000	D	No
		6 **	45,000	C	Yes
Segment 4B Ferguson Road to 95th Street	30 to 40,000	4	32,000	D	No
		6 *	45,000	C	Yes
Segment 4C 95th Street to 75th Street	30 to 40,000	4	33,000	D	No
		6 *	47,000 50,000	C D	Yes
Segment 5A 75th Street to U.S. Route 34	30 to 40,000	6 *	48,000	D	Yes
Segment 5B U.S. Route 34 to Aurora Avenue	40 to 50,000	6 *	47,000	D	No
⁽¹⁾ Average Annual Daily Traffic					
* - Indicates recommended number of lanes for this segment. ** - Recommend four lanes from EJ&E to Chapins and six lanes from Chapins to Ferguson.					

Table 2.2 continued Summary of Arterial Corridor Capacity Analysis					
Segment	Projected Travel Demand (AADT)⁽¹⁾	Number of Through Traffic Lanes	Arterial Capacity (AADT)⁽¹⁾	Peak Direction Level of Service	Adequate to Meet Projected Demand
Segment 5C Aurora Avenue to Interstate 88	40 to 50,000	6 *	49,000	D	Yes
Segment 6 Interstate 88 to Mack Road	< 30,000 to 50,000	6 *	49,000	D	Yes
Segment 7 Mack Road to Illinois 38	< 30,000	4	32,000	D	Yes
		6 *	44,000	C	Yes
Segment 8A Illinois 38 to Main Street	< 30,000	4	32,000	D	Yes
		6 *	44,000	C	Yes
Segment 8B Main Street to Hawthorne Lane	< 30,000	4	31,000	D	Yes
		6 *	42,000	C	Yes
Segment 9A Hawthorne Lane to Army Trail Rd	< 30,000 to 40,000	4	30,000	D	No
		6 *	42,000	C	Yes
Segment 9B Army Trail Road to Stearns Road	30 to 40,000	4	29,000	D	No
		6 *	39,000	C	Yes
Segment 9C Stearns Road to Illinois 19	< 30,000 to 40,000	4	33,000	D	No
		6 *	47,000	C	Yes
Segment 9D Illinois 19 to Illinois 72	30 to 40,000	4	32,000	D	No
		6 *	46,000	C	Yes
⁽¹⁾ Average Annual Daily Traffic					
* - Indicates recommended number of through lanes for this segment.					

2.6.1 EXISTING TRANSIT SERVICES AND FACILITIES

Bus Service

The 11 bus routes that operate on or across Illinois Route 59, carry over 1,600 riders on an average week day. The services and their general routings are displayed on *Table 2.3*.

Table 2.3 Pace Bus Service Characteristics				
Route No.	General Routing	Service Type	Pssngs/ Revenue Hour	Avg. Wkday Rdrshp
507*	Joliet Metra to Plainfield	Satellite	22.0	264
530	Aurora Metra to Naperville	Satellite	30.3	676
534**	Fox Valley Villages to IL59 Metra	Rush Hour	18.8	73
632**	Streamwood to Bartlett Metra	Rush Hour	11.1	21
676	Warrenville to Naperville Metra	Rush Hour	36.0	72
684	S.W. Naperville to Naperville Metra	Rush Hour	43.5	102
685	W. Naperville to Naperville Metra	Rush Hour	43.9	110
686	S.W. Naperville to Naperville Metra	Rush Hour	31.7	95
737	Des Plaines CTA rail to I-88 corridor	Rush Hour	24.3	145
781	Naperville Metra to I-88 corridor	Rush Hour	21.1	81
790	Warrenville to IL59 Metra	Rush Hour	21.1	81
791	N.W. Naperville to IL 59 Metra	Rush Hour	22.9	50

* Only one trip per day to Plainfield, ridership is for all trips.
 ** Routes have been identified for review
 Source: PACE, Quarterly Route Review, January - March 1991.

With the exception of the #737 which links the CTA Des Plaines transit station with the I-88 corridor, all bus service in the study area links communities to Metra rail stations. Route #530 between Aurora and Naperville is the only route that operates at other than the peak periods.

Rail Service

Metra commuter rail service, between the communities along Illinois Route 59 and the City of Chicago, is provided by three lines:

- the Milwaukee West Division, operating between Big Timber Road in Elgin and Chicago Union Station, has a station in Bartlett;
- The Chicago & NorthWestern West line, operating between Geneva and NorthWestern Station in Chicago, has a station just west of Illinois Route 59 in West Chicago; and

- the Burlington Northern, operating between Aurora and Chicago Union Station with the Route 59 station located just south of North Aurora Road.

These stations serve 2,491 passengers on an average weekday (Metra Fall 1989 Station Passenger Count). All stations have parking and are in good condition. Two of the rail facilities in the corridor are relatively new. One, the Route 59 Station is, in effect, a transportation center. To the north of the tracks parking is provided by Naperville, and to the south it is provided by Aurora. There are 1366 parking spaces to serve a daily average of 1,112 passengers. Greyhound buses use the center as a terminal and there are also local Pace services to the station. The station began as a joint public-private development project by Aurora, Naperville, the Burlington Northern Railroad and the Illinois Department of Transportation and, development is beginning to occur on the vacant land abutting the parking area.

The Chicago & NorthWestern station in West Chicago is also relatively new. Located a few blocks from the old West Chicago station, it provides 181 parking spaces for a daily average of 464 passengers.

The Milwaukee West Division Bartlett station is the only older station. It is located in downtown Bartlett about a mile east of Route 59. There are 582 parking spaces and a daily average of 915 passengers.

2.6.2 RECOMMENDED TRANSIT IMPROVEMENTS

Bus Stops

Locations for bus stops have been recommended consistent with provision of express bus service along the entire length of the route. Typically, these locations are at signalized intersections with a one-quarter to one-half mile spacing and near locations of existing or planned commercial and employment centers and other transportation facilities. Typically, the recommended locations will provide for bus turnouts, consistent with Pace Development Guidelines, along with shelters and paved walks within the right-of-way.

Signage

Graphically consistent directional signs to and identification signs at transit facilities and stops should be installed. Directions from arterial intersections, and signs indicating stops at route intersections or not more than one every half mile for local routes could significantly improve public awareness of bus and commuter rail service availability.

Park-and-Ride Facilities

Several locations for potential Park-and-Ride facilities have been identified along the route. These could be developed as multi-purpose facilities, supporting car and van pooling as well as transit service. In conjunction with express bus service Park-and-Ride facilities would offer opportunities to serve trips to and from regional centers which would not otherwise be well

served by transit. An example of this would be trips between western DuPage County and the eastern part of the Interstate 88 (East-West Tollway) corridor, which could be served by future express bus service along Illinois Route 59, stopping at Park-and-Ride facilities and then running on Interstate 88 to the Oak Brook area.

Transportation Centers

There are opportunities to improve or develop multi-purpose transportation centers which would complement the SRA improvements and could help relieve congestion along the route. A transportation center is a facility which provides not only park and ride facilities, train station/bus stop, taxi stand, parking lot, and drop off area but commuter related commercial tenants as well. Transportation centers tend to become more feasible at intersections of more than one transit type: e.g. the intersection of existing and planned commuter rail services; because the increased number of passengers provides more of a market for consumer goods and services. Park-and-ride facilities and transportation centers are recommended as appropriate within their relevant route segment sections.

Transportation Management Associations

It is recommended that the service provided by the existing Transportation Management Associations in the region be continued, and expansion to meet increased needs along the route is encouraged. The Illinois Corridor Transportation Management Association (ICTMA) serves the southern end of the route as far north as Illinois Route 64 (North Avenue). Members of ICTMA represent local governments and major employers along the Interstate 88 corridor in Kane and DuPage counties. Their recent survey (ICTMA, *Eisenhower/I-88 Corridor Study*, administered 11/90, published 5/91) showed a strong demand for suburb-to-suburb commuter facilities in addition to the Chicago-to-suburb facilities already in use. The Northwest Municipal Conference, serving communities along Interstate 90 (Northwest Tollway), has formed a transportation element. In addition to the transit related issues normally addressed by such an element, the Conference also provides an opportunity to develop land use and zoning requirements which will preserve the qualities which have made the corridor attractive and promote access to transit as well.

Pace Development Guidelines

Pace has published a set of development guidelines and established an official development review function. Guidelines include interior circulation to defined transit stops served with adequate facilities. It is recommended that communities experiencing development of major parcels along the SRA route encourage developers to meet as many of these guidelines as are appropriate to the community and to avail themselves of the review service.

2.6.3 TRANSIT CORRIDOR OF THE FUTURE

Construction of a major new commuter rail facility, the EJ&E, is being considered for the Illinois Route 59 corridor. The railroad is a circumferential freight line which travels from northern Indiana to Waukegan. Development at the northern end of Illinois Route 59 has

resulted in analyses of potential service from the Joliet area to Barrington. It would be the first commuter rail line in the region that is not oriented to the Chicago central business district.

A 1990 Metra Study of the EJ&E evaluated potential station areas with a view to maximizing potential for joint development which would serve not only to maximize ridership, but also offer opportunities for tax increment financing to offset station development and maintenance costs. Potential station sites under consideration in the Illinois Route 59 corridor include:

- the vicinity between 111th and 103rd Street in Wheatland Township; New York Street in Aurora and an additional site about a mile north where the line crosses the BN to accommodate interline transfers;
- Diehl Road, just south of the East-West Tollway where there may be opportunity for coordination with express bus service and park and ride facilities;
- Butterfield Road to coordinate with an industrial development;
- the junction of the CNW West Line and the EJ&E in West Chicago to permit interline transfers;
- North Avenue in West Chicago in the DuPage Airport development zone;
- Stearns Road in Bartlett;
- the interchange with the Milwaukee West Division at Spaulding; and
- Golf Road to coordinate with development and Hoffman Estates.

2.7 SUMMARY OF CONSTRUCTION AND RIGHT-OF-WAY COST ESTIMATES

A summary of the construction cost estimates in 1991 dollars for the recommended improvements to Illinois Route 59 is shown in *Table 2.4*. Construction cost estimates for the recommended improvements for each route segment are included with the discussion of the respective route segments in Section Three of this report.

Table 2.4	
Construction Cost Estimates for Illinois Route 59	
Improvement	Estimated Cost
Ultimate	
Roadway	\$168,900,000
Intersection Improvements	\$16,100,000
Traffic Signals	\$4,000,000
Signal Interconnection	\$4,800,000
Structure Modification	\$16,900,000
Transit (includes land acquisition)	\$7,200,000
Right-of-way Acquisition	\$15,200,000
Total Estimated Cost for Ultimate Improvements	\$233,100,000
Low-Cost	
Roadway	\$200,000
Signal Interconnection	\$800,000
Transit	\$120,000
Total Estimated Cost for Low-Cost Improvements	\$1,120,000
Post-2010	
Interchanges	\$14,000,000
Right-of-way Acquisition	\$2,600,000
Total Estimated Cost for Post-2010 Improvements	\$16,600,000
Total Estimated Cost for All Improvements	\$250,820,000

SECTION THREE ROUTE ANALYSIS

3.1 SRA SEGMENT 1: INTERSTATE 55 TO BLACK ROAD

3.1.1 LOCATION

Segment 1 extends from Interstate 55 to Black Road. The segment is approximately 2 miles long. (See *Figure 3.1.*)

3.1.2 EXISTING FACILITY CHARACTERISTICS

Existing facility characteristics for this segment are shown on Route Map A-1.

Traffic Volumes

The average annual daily traffic (AADT) volume for this segment is 13,000 vehicles. Traffic volumes were obtained from the 1987 IDOT Will County Traffic Map.

Right-of-Way

The right-of-way in this segment is 80 feet wide, except for the section between the DuPage River and U.S. Route 52 (Jefferson Street) which is 66 feet wide.

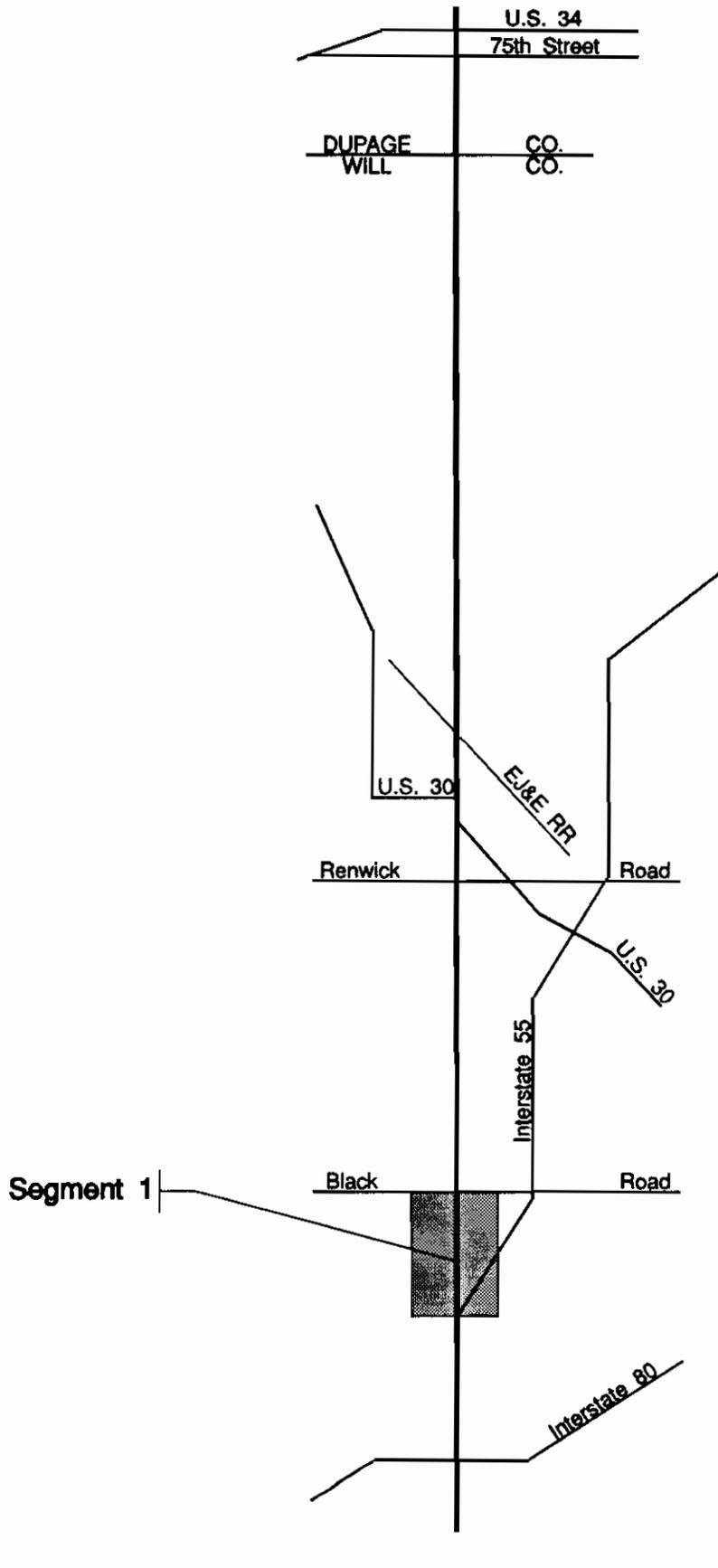
Pavement Width and Number of Lanes

The existing pavement is generally 26 feet wide. The roadway includes two through lanes (one in each direction) and a striped median which is, in some places, up to 10 feet wide. There is a three- to eight-foot wide unpaved shoulder throughout the segment.

Traffic Signals

There are two signalized intersections on this segment. They are listed from south to north on *Table 3.1.*

Table 3.1 Signalized Intersections					
Intersection	No. of Through Lanes		Turn Bays		Remarks
	NB	SB	Left	Right	
U.S. 52 (Jefferson St.)	2	2	YES	NO	4 lanes at intersection only
Black Road	2	2	NO	NO	4 lanes at intersection only
Note: NB = northbound; SB = southbound					



Illinois Route 59 (Will County)

prepared by Harland Bartholomew & Associates, Inc.

Location Map

Figure 3.1

Parking, Sidewalks, and Frontage Roads

There are no on-street parking spaces, sidewalks, or frontage roads on the segment.

Structures

In Segment 1 there is only one structure, which is shown on *Table 3.2*.

Table 3.2					
Existing Structures					
Structure	Structure No. (SN)	Location	Clearance		Remarks
			Vert.	Horiz.	
DuPage River	099-0144	S. of Jefferson St.	N/A	75'	SRA over
Note: N/A=Not Applicable					

Transit

Transit service is provided at the Joliet Metra station six miles east of Shorewood.

Other Characteristics

The Interstate 55/Illinois Route 59 interchange provides direct movements to southbound Interstate 55 and from northbound Interstate 55 only. There is a fully directional interchange between U.S. Route 52 and Interstate 55 one-half mile east of Illinois Route 59.

3.1.3 EXISTING ENVIRONMENTAL CHARACTERISTICS

The existing environmental characteristics for Segment 1 of Illinois Route 59 include floodplains, prime farmland and sensitive land uses and are shown on Route Map B-1.

Streams/Wetlands/Floodplains

On this segment Illinois Route 59 crosses the DuPage River and Hammel Creek. The DuPage River crossing is south of U.S. Route 52 (Jefferson Street) where the floodplain is 300 feet wide. The other crossing, at Hammel Creek, is 150 feet wide and located north of U.S. Route 52 (Jefferson Street).

Prime Farmland

The one area classified as prime farmland extends north from Hammel Woods to Black Road on the east side of the route.

Sensitive Land Uses

Sensitive land uses on this segment include Hammel Woods which is east of the route north of Hammel Creek and a Northern Illinois Gas Company facility west of the route at the interchange with Interstate 55.

3.1.4 DEVELOPMENT CHARACTERISTICS

Existing development characteristics and potential future development are indicated on Route Map C-1.

Jurisdiction

The principal local jurisdiction exercising control over development on this segment is the Village of Shorewood. All of Segment 1 is within Shorewood except for an area on the east side of the route extending one-third mile south from Black Road, which is in unincorporated Will County.

Type and Intensity of Development

Illinois Route 59 serves as the main north-south thoroughfare through Shorewood. Most development is single-family residential. Other residential development includes a trailer park on the northeast corner of Illinois Route 59 and U.S. Route 52 (Jefferson Street). There is commercial activity extending south from the intersection with U.S. Route 52 (Jefferson Street). There is also a limited amount of industrial development north of U.S. Route 52 (Jefferson Street) on the east side of the route.

Development Access and Setback

Development has direct access to the route. South of the DuPage River, residential driveways intersect the route. North of the DuPage river most residential development is accessed via intersecting cross streets. There are curb cuts for commercial and industrial developments.

Residential development south of U.S. Route 52 (Jefferson Street) is set back approximately 10 to 15 feet from the roadway. Other buildings are set back 30 feet or more.

Future Development

According to municipal records as of August, 1990, a commercial development is proposed for the northeast corner of Illinois Route 59 and U.S. Route 52 (Jefferson Street). Construction of this development has not yet begun.

Two areas on this segment are undeveloped and could accommodate future development. They are at the south end of the segment near the Interstate 55 interchange and at the north end of the segment south of Black Road.

3.1.5 RECOMMENDED IMPROVEMENTS

Improvements for this segment of Illinois Route 59 have been recommended after evaluating the projected travel demand for the year 2010 along with the existing roadway characteristics and character of development along the route. Improvements are categorized by ultimate and low-cost, and divided into those related to the roadway, intersections, traffic signalization, structures, access, transit and other improvements. Right-of-way requirements, potential environmental concerns and improvement cost estimates are also provided in this section. Recommended improvements are shown on Route Map D-1.

Ultimate Improvements

Roadway

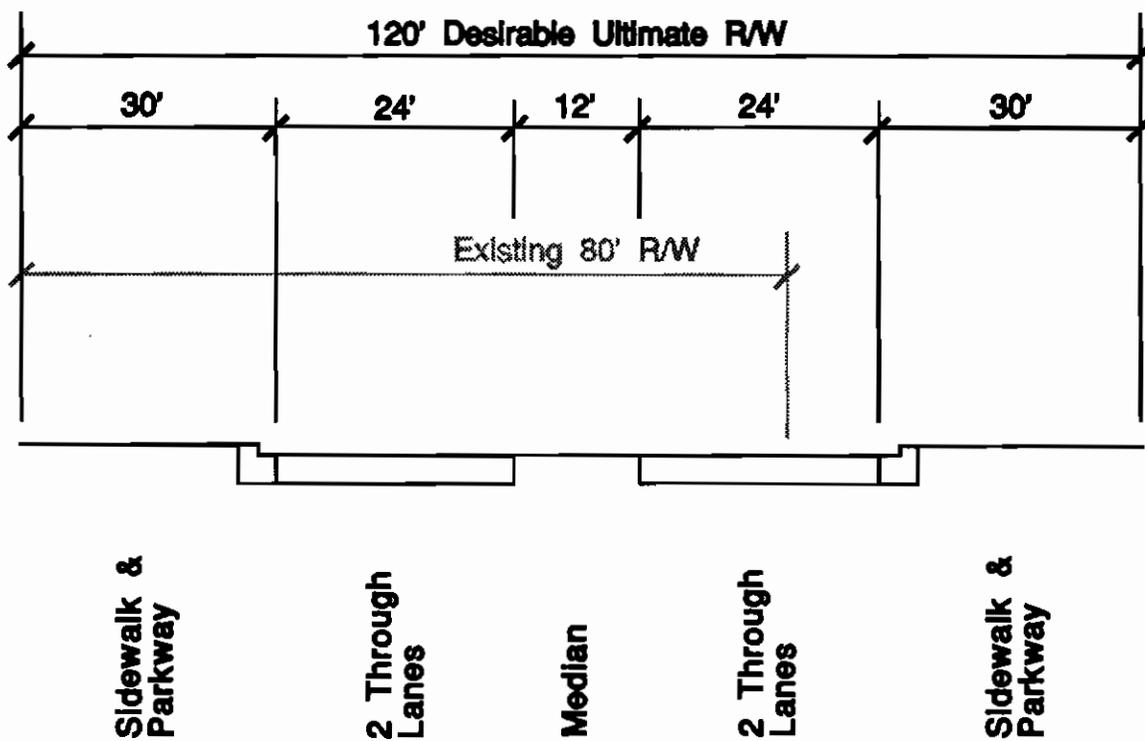
The recommended roadway configuration for this segment includes two through lanes in each direction and a continuous median. Due to the character of development in Shorewood, a 12-foot flush median is recommended between Interstate 55 and U.S. Route 52 (Jefferson Street), a 16-foot raised median from U.S. Route 52 (Jefferson Street) to Ridge Drive, and an 18-foot raised median from Ridge Drive to Black Road. Curb and gutter is recommended on each side of the roadway. (See *Figures 3.2, 3.3, and 3.4.*)

Results of the capacity analysis for this segment are shown in *Table 3.3.*

Table 3.3					
Capacity Analysis for Segment 1 - Illinois Route 59					
Segment	Projected Travel Demand (AADT)⁽¹⁾	Number of Through Traffic Lanes	Arterial Capacity (AADT)⁽¹⁾	Peak Direction Level of Service	Adequate to Meet Projected Demand
Interstate 55 to Black Road	< 30,000	4 *	32,000 34,000	C D	Yes
		6	48,000	C	Yes
⁽¹⁾ Average Annual Daily Traffic					
* - Indicates recommended number of through lanes for this segment.					

Intersections

The 12- to 18-foot median will allow development of single left-turn lanes as required. As a post-2010 improvement, consideration should be given to providing dual left turn lanes on Illinois Route 59 at Black Road.

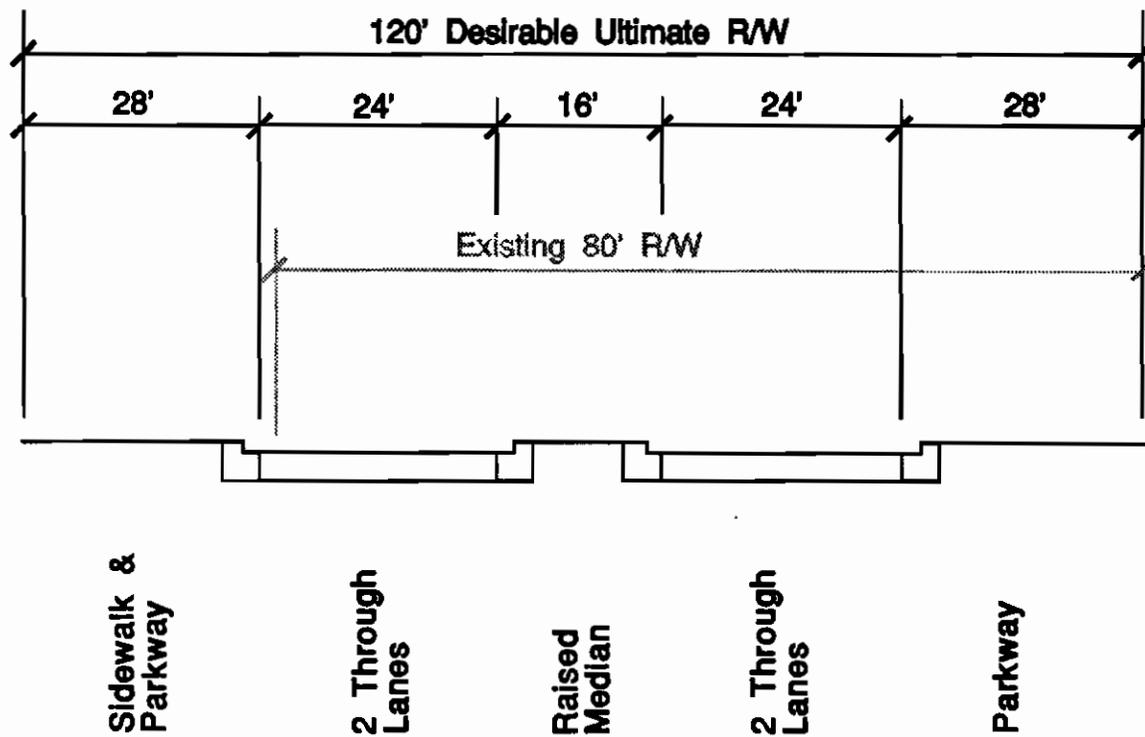


Section A-A

Recommended Roadway Typical Section

Illinois Route 59 Interstate 55 to U.S. Route 52 (Jefferson Street)

prepared by Harland Bartholomew & Associates, Inc. **Figure 3.2**

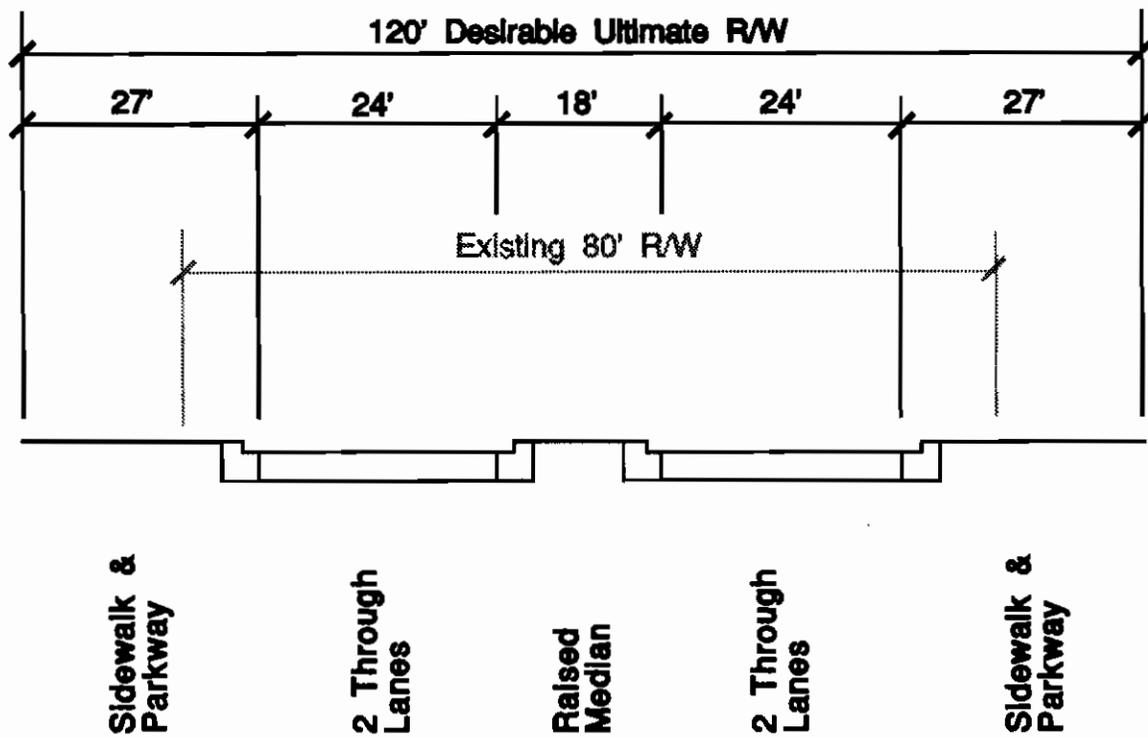


Section B-B

Recommended Roadway Typical Section

Illinois Route 59 U.S. Route 52 (Jefferson Street) to Ridge Drive

prepared by Harland Bartholomew & Associates, Inc. **Figure 3.3**



Illinois Route 59

prepared by Harland Bartholomew & Associates, Inc.

**Section C-C
Recommended Roadway Typical Section
Ridge Drive to Black Road**

Figure 3.4

Exclusive right-turn lanes are recommended at U.S. Route 52 (Jefferson Street), Ridge Drive, and Black Road.

Traffic Signalization

Future signals should maintain a typical spacing of approximately one-half mile between signals. The only future signal location recommended for this segment is at Ridge Drive. A future signal should be installed on the route only at the recommended location and only when the signal warrants recommended for SRA routes are met. (Recommended signal warrants for SRA's are discussed in Section 10.4.2 of the Strategic Regional Arterial Design Concept Report.) Signals should not be installed at other than the recommended location; additional signals would tend to impede traffic flow on the SRA route and interfere with optimization and progression of signal systems.

Existing signals at U.S. Route 52 (Jefferson Street) and Black Road would be retained, and interconnection of signals in coordinated systems is recommended. Ultimately, one system should be implemented to include all the signals in this segment from U.S. Route 52 (Jefferson Street) to Black Road.

Transit

Locations for future bus stops in this segment are recommended for all signalized intersections. These locations should be developed with bus turnout areas, shelters and other amenities as recommended in the Pace Development Guidelines.

Consideration should be given to development of a Park-and-Ride facility in conjunction with future express bus service along the SRA route. A potential location for such a facility would be at U.S. Route 52 (Jefferson Street) where proximity to Interstate 55 would allow coordination with express bus service to other regional destinations.

Other Improvements

The absence of a northbound Interstate 55 to southbound Illinois Route 59 movement causes operational problems in the Interstate 55 interchange area. Vehicles attempting this movement often execute u-turns in abutting commercial and residential areas. As development continues south of Seil Road, these maneuvers and the potential for accidents will increase. SRA recommendations for improving this operational concern in the interchange area have been deferred to those proposed under the ongoing IDOT Phase I study of the interchange.

Low-Cost Improvements

Roadway

Consideration should be given to increasing the length of the southbound Interstate 55 entrance ramp by shifting the frontage road/Illinois Route 59 intersection further north

along Illinois Route 59. The ramp could be lengthened by as much as 600 feet to accommodate increased acceleration distances for vehicles entering Interstate 55.

Traffic Signalization

A traffic signal should be installed at the recommended location when the signal warrants recommended for SRA routes are met.

Access Management

As parcels are developed or redeveloped, it is recommended that future access be limited to the locations shown on Route Map D-1. Existing restrictions on direct access from abutting lots to the roadway should be retained.

Transit

Directional signage is recommended on this segment for the Joliet Metra rail station six miles east of Illinois Route 59. The signage should be located at the U.S. Route 52 and Black Road intersections.

3.1.6 ADDITIONAL RIGHT-OF-WAY REQUIREMENTS

Forty feet of additional right-of-way is required on the west side of the route between Interstate 55 and Ridge Drive to achieve the 120-foot desirable width. North of Ridge Drive to Meadow Drive, fifteen feet of right-of-way is required on each side of the roadway and from Meadow Drive to Black Road an additional twenty feet of right-of-way is required on each side of the roadway to achieve the 120-foot desirable ultimate right-of-way width.

Relocating the Frontage Road/Illinois Route 59 intersection and lengthening the Interstate 55 entrance ramp will require 100 feet of additional right-of-way west of Illinois Route 59 and north of Seil Road.

3.1.7 POTENTIAL ENVIRONMENTAL CONCERNS

The environmental concerns raised by acquisition of right-of-way between Interstate 55 and Ridge Drive are being addressed as part of the design phase of ongoing improvement projects. North of Ridge Drive, the impacts of the desirable ultimate right-of-way on prime farmland abutting the route will be studied during the design phase of proposed improvements.

3.1.8 CONSTRUCTION/RIGHT-OF-WAY COST ESTIMATES

A summary of the construction cost estimates for the recommended improvements to SRA Segment 1 of Illinois Route 59 is shown in *Table 3.4*.

ILLINOIS ROUTE 59
SECTION 3: Route Analysis - Interstate 55 to Black Road

Table 3.4	
Construction Cost Estimates for Segment 1 - Illinois Route 59	
Improvement	Estimated Cost
Ultimate	
Roadway	\$5,600,000
Intersection Improvements	\$900,000
Traffic Signals	\$100,000
Signal Interconnection	\$200,000
Transit Improvements (includes land acquisition)	\$600,000
Right-of-way Acquisition	\$1,000,000
Total Estimated Cost for Ultimate Improvements	\$8,400,000
Low-Cost	
Roadway (frontage road relocation at Interstate 55)	\$200,000
Transit Improvements	\$10,000
Total Estimated Cost for Low-Cost Improvements	\$210,000
Total Estimated Cost for All Improvements	\$8,610,000

3.2 SRA SEGMENT 2: BLACK ROAD TO RENWICK ROAD

3.2.1 LOCATION

Segment 2 extends from Black Road to Renwick Road, a distance of about four miles. (See Figure 3.5.)

3.2.2 EXISTING FACILITY CHARACTERISTICS

Existing facility characteristics for Segment 2 of Illinois Route 59 are shown on Route Maps A-1 and A-2.

Traffic Volumes

An average annual daily traffic (AADT) volume of 13,500 vehicles on Route 59 was obtained from 1990 IDOT Turning Movement Counts at Caton Farm Road.

Right-of-Way

The existing right-of-way is 80 feet wide.

Pavement Width and Number of Lanes

Most of the pavement is 26 feet wide which accommodates two through lanes (one in each direction). There are six-foot wide unpaved shoulders along the entire segment.

Traffic Signals

There is a signalized intersection which is listed on Table 3.5.

Table 3.5					
Signalized Intersections					
Intersection	No. of Through Lanes		Turn Bays		Remarks
	NB	SB	Left	Right	
Caton Farm Road	1	1	YES	NO	
Note: NB = northbound; SB = southbound					

Parking, Sidewalks, and Frontage Roads

There are no on-street parking spaces, sidewalks, or frontage roads.

Structures

There is one structure on the segment. It is shown in Table 3.6.

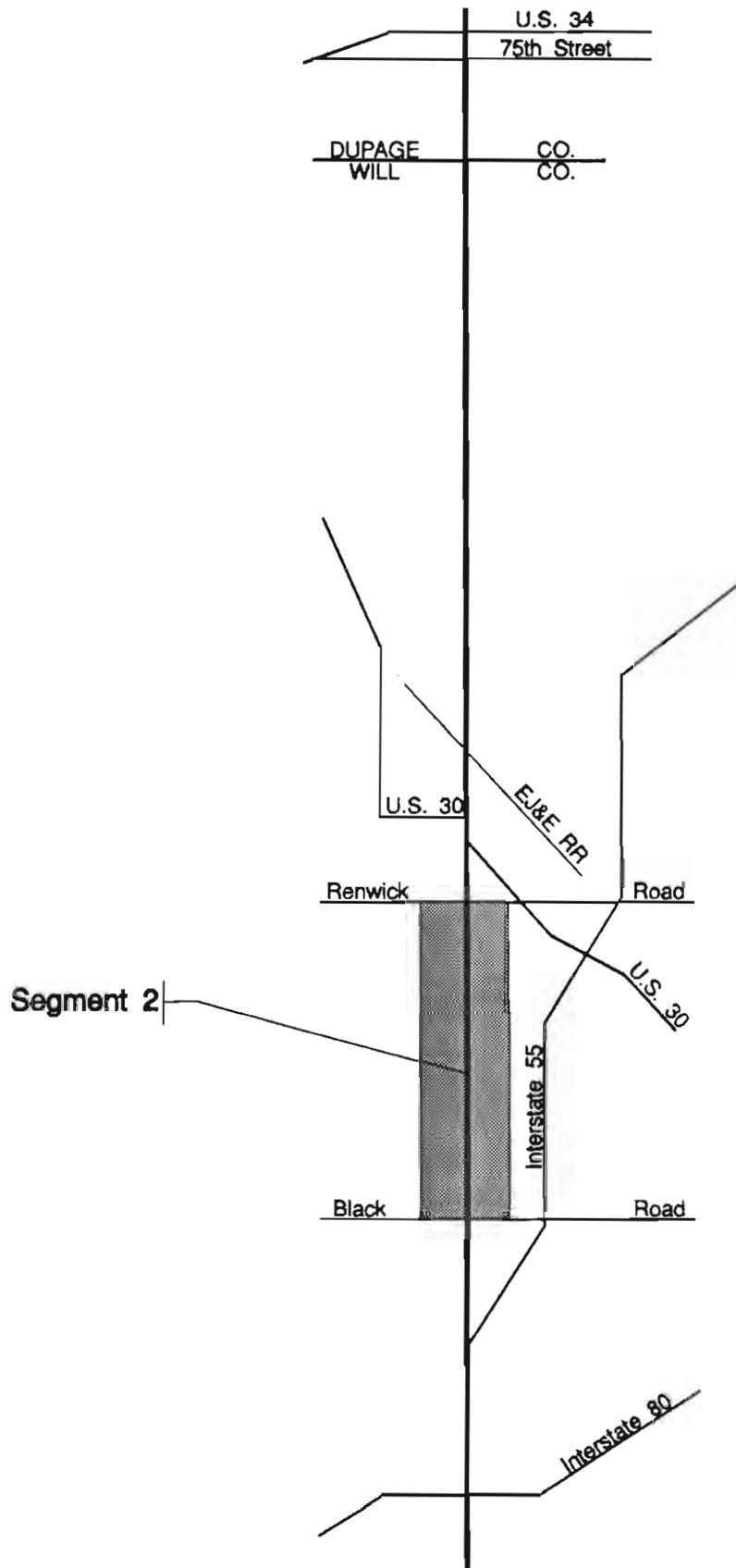


Table 3.6					
Existing Structures					
Structure	Structure No. (SN)	Location	Clearance		Remarks
			Vert.	Horiz.	
DuPage River	099-0143	N. of Caton Farm	N/A	30'	SRA over
Note: N/A=Not Applicable					

Transit

Transit service is provided at the Lockport Metra rail station seven miles east of Illinois Route 59.

3.2.3 EXISTING ENVIRONMENTAL CHARACTERISTICS

The existing environmental characteristics for Segment 2 of Illinois Route 59 include wetlands, floodplains, prime farmland, and sensitive land uses and are shown on Route Maps B-1 and B-2 .

Streams/Wetlands/Floodplains

There is a 1000-foot wide floodplain at the crossing of the DuPage River north of Caton Farm Road. There are wetlands in association with this floodplain.

Prime Farmland

All undeveloped land along the segment is classified as prime farmland.

Sensitive Land Uses

There is a church at the northwest corner of Illinois Route 59 and Fraser Road, and the Wedgewood Golf Course (public) is at the northwest corner of Illinois Route 59 and Caton Farm Road.

3.2.4 DEVELOPMENT CHARACTERISTICS

Existing development characteristics and potential future development are shown on Route Maps C-1 and C-2 .

Jurisdiction

Segment 2 passes through the Villages of Shorewood and Plainfield. The village limits of Shorewood extend for one-half mile north of Black Road on the west side of the route. Plainfield extends to the DuPage River. The City of Joliet has secured annexation agreements with property owners between the two jurisdictions and intends to annex most intervening properties as soon as it is able to provide services. Until annexation, the area between Plainfield and Shorewood is in the planning areas of all three communities.

Type and Intensity of Development

The primary land use is agriculture. Other land uses on this segment include commercial, industrial and single-family residential. The largest of the residential developments is a small subdivision on the northeast corner of Illinois Route 59 and Mink Farm Road.

Development Access and Setback

Since there is little development on this segment, direct access is limited except for the residences which front Illinois Route 59. These properties are served by intersecting driveways.

Development is set back significantly from the roadway.

Future Development

According to municipal records as of May, 1991, one commercial and townhome development is planned at the southwest corner of Caton Farm Road. The general area between Shorewood and Plainfield is considered by local government officials to be under some development pressure as twelve residential subdivisions are currently being built and marketed there. Other property owners have agreed to annexation to the City of Joliet in order to hook up to sanitary sewer service needed for development.

3.2.5 RECOMMENDED IMPROVEMENTS

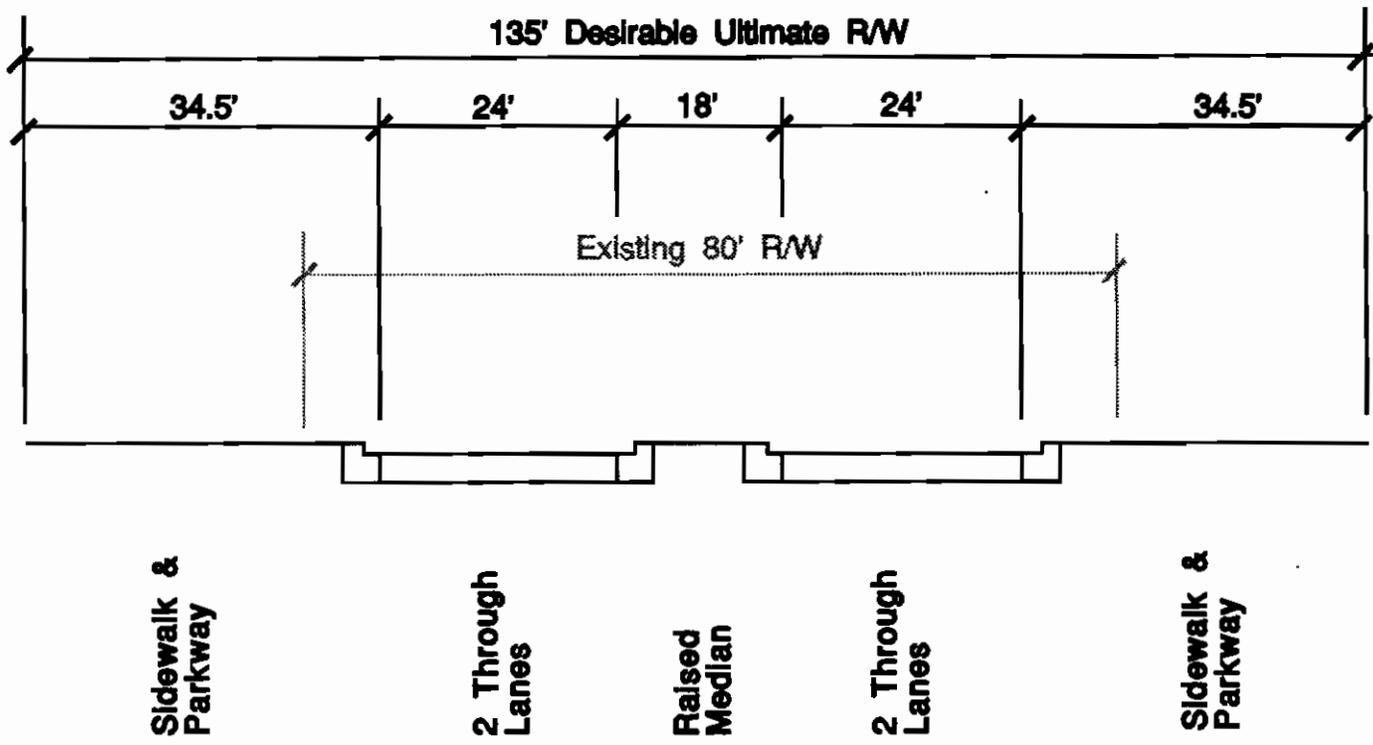
Improvements for this segment of Illinois Route 59 have been recommended after evaluating the projected travel demand for the year 2010 along with the existing roadway characteristics and character of development along the route. Improvements are categorized by ultimate and low-cost, and divided into those related to the roadway, intersections, traffic signalization, structures, access, transit and other improvements. Right-of-way requirements, potential environmental concerns and improvement cost estimates are also provided in this section. Recommended improvements are shown on Route Maps D-1 and D-2.

Ultimate Improvements

Roadway

The recommended roadway configuration for this segment of Illinois Route 59 provides two through lanes in each direction, an 18-foot wide continuous raised median and curb and gutter. (See *Figure 3.6, 3.7, and 3.8.*)

Results of the capacity analysis for this segment are shown in *Table 3.7.*

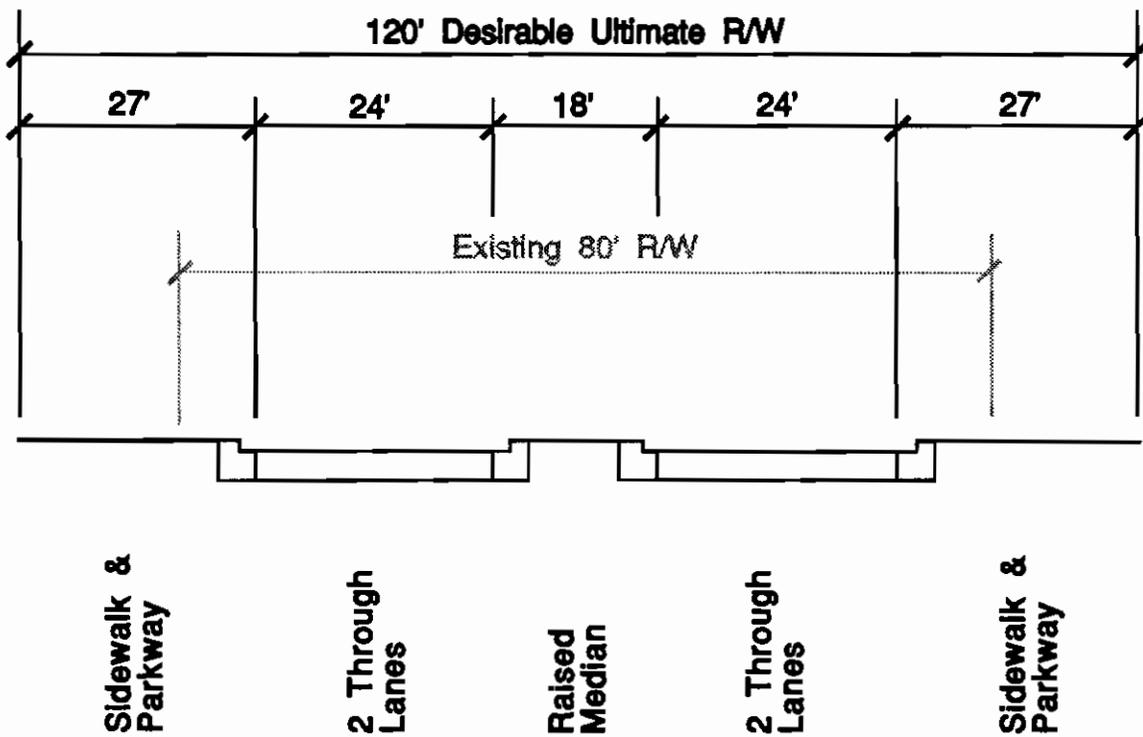


Illinois Route 59

**Section D-D
Recommended Roadway Typical Section
Black Road to Caton Farm Road**

prepared by Harland Bartholomew & Associates, Inc.

Figure 3.6



Section F-F

Recommended Roadway Typical Section

Illinois Route 59 1/2 mile south of Fraser Road to Renwick Road

prepared by Harland Bartholomew & Associates, Inc. Figure 3.8

ILLINOIS ROUTE 59
SECTION 3: Route Analysis - Black Road to Renwick Road

Table 3.7 Capacity Analysis for Segment 2 - Illinois Route 59					
Segment	Projected Travel Demand (AADT)⁽¹⁾	Number of Through Traffic Lanes	Arterial Capacity (AADT)⁽¹⁾	Peak Direction Level of Service	Adequate to Meet Projected Demand
Black Road to Renwick Road	< 30,000	4 *	29,000 31,000	C D	Yes
		6	43,000	C	Yes
⁽¹⁾ Average Annual Daily Traffic					
* - Indicates recommended number of through lanes for this segment.					

Intersections

The 18-foot wide median will allow development of single left-turn lanes at cross streets as required. Right-turn lanes are recommended on Illinois Route 59 at all signalized intersections. Both Caton Farm Road and Theodore Street are identified as proposed 4-lane roadways in the Joliet Transportation Plan. As a post-2010 improvement, consideration should be given to providing dual left turn lanes on Illinois Route 59 at these intersections.

A major intersection improvement is recommended at the intersection of Illinois Route 59 and Renwick Road, with dual left-turn lanes on all legs and right-turn lanes on the north, south, and east legs of the intersection. (See Detail 1)

Because Renwick Road is an SRA route east of Illinois Route 59, the level of service was calculated for each intersection movement and for the total intersection. For Renwick Road the AADT used was 32,000 vehicles and for Illinois Route 59 the AADT used was 31,500 vehicles. The resulting levels of service are shown in *Table 3.8*.

Traffic Signalization

Locations that maintain a spacing of approximately one-half mile are recommended for potential future signals. The recommended future locations are Theodore Road, Mink Farm Road, Fraser Road, Renwick Road, and the three future mid-mile collectors between Black Road and Renwick Road.

Future signals should be installed on the route only at the recommended locations and only when the signal warrants recommended for SRA routes are met. (Recommended signal warrants for SRA's are discussed in Section 10.4.2 of the Strategic Regional Arterial Design Concept Report.) Signals should not be installed at other than the recommended locations;

ILLINOIS ROUTE 59
SECTION 3: Route Analysis - Black Road to Renwick Road

Table 3.8		
Illinois Route 59/Renwick Road Intersection Level of Service		
Direction	Movement	Level of Service
Illinois Route 59 northbound	left turn	D
Illinois Route 59 northbound	through	C
Illinois Route 59 northbound	right turn	A
Illinois Route 59 southbound	left turn	D
Illinois Route 59 southbound	through	D
Illinois Route 59 southbound	right turn	A
Renwick Road eastbound	left turn	D
Renwick Road eastbound	through and right turn	D
Renwick Road westbound	left turn	D
Renwick Road westbound	through	B
Renwick Road westbound	right turn	D
Total Intersection		D

additional signals would tend to impede traffic flow on the SRA route and interfere with optimization and progression of signal systems.

The existing signal at Caton Farm Road would be retained and interconnection of signals in coordinated systems is recommended. Ultimately, one signal system would incorporate all signals in this segment with the signals extending southward to U.S. Route 52 in Segment 1.

Structure

The structure carrying Illinois Route 59 over the DuPage River has inadequate horizontal clearance for the recommended roadway configuration and will require modification to provide adequate horizontal clearance for at least the six lane roadway section.

Transit

Locations for future bus stops in this segment are recommended for all signalized intersections. These locations should be developed with bus turnout areas, shelters and other amenities as recommended in the Pace Development Guidelines.

Consideration should be given to development of a Park-and-Ride facility in conjunction with future express bus service along the SRA route. Potential locations for such facilities would be at Caton Farm Road and Renwick Road to allow coordination with express bus service to other regional destinations.

Low-Cost Improvements

Traffic Signalization

Traffic signals should be installed at the recommended locations when the signal warrants recommended for SRA routes are met.

Access Management

As parcels are developed or redeveloped, it is recommended that future access be limited to the locations shown on Route Maps D-1 and D-2. Existing restrictions on direct access from abutting lots to the roadway should be retained.

Transit

Directional signage is recommended on this segment for the Lockport Metra rail station seven miles east of Illinois Route 59. The signage should be located at the Renwick Road intersection.

3.2.6 ADDITIONAL RIGHT-OF-WAY REQUIREMENTS

The right-of-way recommendations for this segment coincide with the limits identified in the preliminary plans for the ongoing IDOT Phase I study of the same segment. The Phase I right-of-way requirements represent a more detailed study of the roadway profile, existing topography, drainage requirements and other factors.

Additional right-of-way recommended for protection includes:

- 55 feet from Black Road to Caton Farm Road to achieve the 135-foot desirable ultimate width,
- 50 feet from Caton Farm Road to one mile north to achieve the 130-foot desirable ultimate width, and
- 40 feet from one mile north of Caton Farm Road to Renwick Road to achieve the 125-foot desirable ultimate width

3.2.7 POTENTIAL ENVIRONMENTAL CONCERNS

Sections of the existing and expanded right-of-way lie within the floodplain of the DuPage River and its associated wetlands. Environmental studies associated with the proposed improvement design, particularly modification of the structure over the DuPage River (SN-099-0143), should include examination of impacts on these resources as well as upon the prime farmland.

3.2.8 CONSTRUCTION/RIGHT-OF-WAY COST ESTIMATES

A summary of the construction cost estimates for the recommended improvements to SRA Segment 2 of Illinois Route 59 is shown in *Table 3.9*.

Table 3.9	
Construction Cost Estimates for Segment 2 - Illinois Route 59	
Improvement	Estimated Cost
Ultimate	
Roadway	\$14,000,000
Intersection Improvements	\$2,600,000
Traffic Signals	\$700,000
Signal Interconnection	\$800,000
Structure Modification	\$2,000,000
Transit Improvements (includes land acquisition)	\$1,100,000
Right-of-way Acquisition	\$1,200,000
Total Estimated Cost for Ultimate Improvements	\$22,400,000
Low-Cost	
Transit Improvements	\$10,000
Total Estimated Cost for Low-Cost Improvements	\$10,000
Total Estimated Cost for All Improvements	\$22,410,000

3.3 SRA SEGMENT 3: RENWICK ROAD TO ELGIN, JOLIET AND EASTERN OVERPASS

3.3.1 LOCATION

Segment 3 extends from Renwick Road to the Elgin, Joliet and Eastern (EJ&E) overpass. The segment is approximately 1.5 miles long. (See *Figure 3.9*.)

3.3.2 EXISTING FACILITY CHARACTERISTICS

Existing facility characteristics for Segment 3 of Illinois Route 59 are shown on Route Maps A-2 and A-3 .

Traffic Volumes

An average annual daily traffic (AADT) volume of 12,000 vehicles on Illinois Route 59 was obtained from IDOT 1990 Turning Movement Counts at Renwick Road.

Right-of-Way

The right-of-way is 95 feet wide between Renwick Road and Robert Avenue , 66 feet wide between Robert Avenue and Lincoln Highway, 80 feet wide between Lincoln Highway and Lockport Street and 66 feet wide between Lockport Street and the EJ&E overpass.

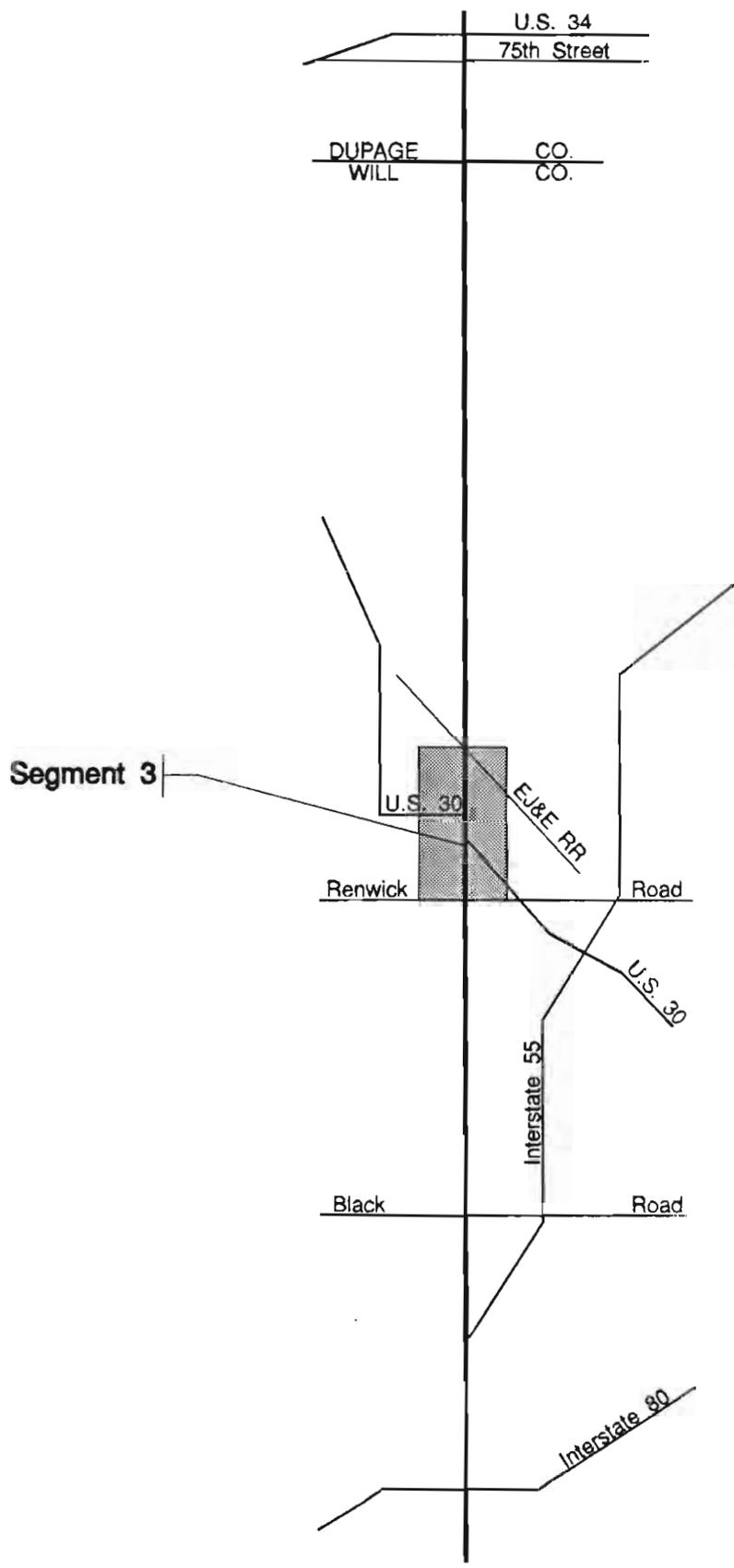
Pavement Width and Number of Lanes

The pavement varies from 24 to 48 feet wide along the length of this route segment as follows:

- Renwick Road to Robert Avenue is 26 feet wide,
- Robert Avenue to U.S. Route 30 East (Lincoln Highway) is 40 feet wide,
- U.S. Route 30 East (Lincoln Highway) to Illinois Route 126 (Main Street) is 48 feet wide, and
- Illinois Route 126 (Main Street) to the EJ&E overpass is 24 feet wide.

There are two through lanes (one in each direction) between Renwick Road and U.S. Route 30 East (Lincoln Highway), four through lanes (two in each direction) between U.S. Route 30 East (Lincoln Highway) and the Illinois Route 126 (Main Street), and two through lanes (one in each direction) between Illinois Route 126 and the EJ&E overpass.

There are unpaved shoulders on both sides of the route except between Robert Avenue and Illinois Route 126 (Main Street) where curb-and-gutter is provided.



SECTION 3: Route Analysis - Renwick Road to the Elgin, Joliet and Eastern Overpass**Traffic Signals**

There are three signalized intersections on the segment. They are listed from south to north on *Table 3.10*.

Intersection	No. of Through Lanes		Turn Bays		Remarks
	NB	SB	Left	Right	
U.S. 30 East	1	1	SB	NO	
U.S. 30 West	2	2	YES	NO	
Illinois 126 (Main St.)	2	2	NO	NO	
Note: NB = northbound; SB = southbound					

Parking, Sidewalks, and Frontage Roads

There are sidewalks on both sides of the roadway from Robert Avenue to Main Street. On-street parking is prohibited and there are no frontage roads.

Structures

There is one structure. It is listed in *Table 3.11*.

Structure	Structure No. (SN)	Location	Clearance		Remarks
			Vert.	Horiz.	
EJ&E Overpass	099-0219	north of U.S. 30	14'-1"	—	SRA under

Transit

The only bus service on this segment is the Route #507 which runs between Plainfield and the Joliet Metra station eight miles southeast of Plainfield. The Lockport Metra station is seven miles east of Plainfield.

Other Characteristics

U.S. Route 30 and Illinois Route 59 share the same roadway between Lincoln Highway, also known as Commercial Street, and Lockport Street, a distance of about 1,100 feet.

3.3.3 EXISTING ENVIRONMENTAL CHARACTERISTICS

The existing environmental characteristics for Segment 3 include a floodplain, historic landmarks, prime farmland and sensitive land uses that are shown on Route Maps B-2 and B-3.

SECTION 3: Route Analysis - Renwick Road to the Elgin, Joliet and Eastern Overpass

Streams/Wetlands/Floodplains

The DuPage River floodplain extends 300 feet south from the EJ&E overpass. It is 1,300 feet wide.

Historical Significance

The Illinois Historic Landmarks Survey lists two historic landmarks on this segment: the Plainfield Cemetery which is on the east side of the route, south of U.S. Route 30 and opposite Fort Beggs Drive; and a war memorial which is west of the route at the intersections of Arnold Street with Oak Street and Illinois Route 59.

Prime Farmland

Prime farmland is identified on the west side of the route extending from Renwick Road to Fort Beggs Drive.

Sensitive Land Uses

In addition to Plainfield Cemetery, sensitive land uses on this segment include the St. Mary Immaculate Church and School and Plainfield Elementary School.

3.3.4 DEVELOPMENT CHARACTERISTICS

Existing development characteristics and potential future development are shown on Route Maps C-2 and C-3.

Jurisdiction

The Village of Plainfield is the principal local jurisdiction exercising control over development on this segment. Village limits include all property abutting the roadway in this segment except the area west of the route between Renwick Road and Fort Beggs Drive.

Type and Intensity of Development

Residential and commercial development are the predominant land uses on this segment. Commercial development is concentrated in Plainfield at the intersections of Illinois Route 59 with Renwick Road, Fort Beggs Drive, U.S. Route 30 (Lincoln Highway), U.S. Route 30 (Lockport Street) and Illinois Route 126 (Main Street). Commercial development also extends to the east and west of the route along these thoroughfares. Residential development, primarily single-family, is interspersed between the commercial development on this segment. Industrial development is located southeast of the EJ&E overpass.

Development Access and Setback

Most residences and commercial developments fronting the route have driveway and curb cut access to the route.

The development south of Fort Beggs Drive is set back significantly from the route. North of Fort Beggs Drive and continuing through the remainder of the segment, building setbacks are 15 feet or greater except at the Lockport Street intersection where setbacks are approximately 10 feet.

Future Development

According to municipal records as of August, 1990, there are no plans for development on this segment. The area with the most significant amount of vacant land is on the west side of the route between Renwick Road and Fort Beggs Drive. There are also several vacant parcels on the east side of the route through this same area.

3.3.5 RECOMMENDED IMPROVEMENTS

Improvements for this segment of Illinois Route 59 have been recommended after evaluating the projected travel demand for the year 2010 along with the existing roadway characteristics and character of development along the route. Improvements are categorized by ultimate and low-cost, and divided into those related to the roadway, intersections, traffic signalization, structures, access, transit and other improvements. Right-of-way requirements, potential environmental concerns and improvement cost estimates are also provided in this section. Recommended improvements are shown on Route Maps D-2 and D-3.

Through the Village of Plainfield the recommended roadway configuration is not adequate to meet the projected 2010 travel demand. A six through lane section would be adequate to meet the demand but is not recommended due to the right-of-way constraints from minimal setbacks of existing development. The IDOT Phase I project which will provide a four through lane plus continuous flush median section will utilize all of the right-of-way that is considered available for roadway expansion in Plainfield. Should major redevelopment occur in Plainfield, however, additional right-of-way should be dedicated for further roadway improvements.

A variety of on-route improvements are recommended to improve the flow of traffic on Illinois Route 59 through Plainfield including a continuous median and interconnection of traffic signals. Adequate capacity on this segment, however, can only be provided if plans for other improvements in local traffic circulation are implemented.

Improvements identified in county and municipal long-range transportation plans include upgrading 135th, 127th, 111th, 95th and Weber Roads as regional arterials and widening Caton Farm Road and Theodore Street to four through lanes. The Plainfield/U.S. Route 30 bypass is another improvement that could increase the capacity of this segment. Suggested bypass alignments have included the diversion of U.S. Route 30 traffic around Plainfield on newly constructed roadways or on upgraded existing routes. Further study is required to determine the feasibility of each alternative.

Ultimate Improvements**Roadway**

The recommended configuration in this segment provides two through lanes in each direction and a continuous median. The type and width of the median varies from an 18-foot raised median between Renwick Road and Robert Avenue to an 11-foot painted median from Robert Avenue to Plainfield-Naperville Road. North of Plainfield-Naperville Road to the end of the segment a 12-foot wide flush median is recommended. (See *Figures 3.10, 3.11, and 3.12.*)

Results of the capacity analysis for this segment are shown in *Table 3.12.*

Segment	Projected Travel Demand (AADT)⁽¹⁾	Number of Through Traffic Lanes	Arterial Capacity (AADT)⁽¹⁾	Peak Direction Level of Service	Adequate to Meet Projected Demand
Renwick Road to EJE Overpass	30 to 40,000	4 *	32,000	D	No
		6	44,000	C	Yes
⁽¹⁾ Average Annual Daily Traffic					
* - Indicates recommended number of through lanes for this segment.					

Intersections

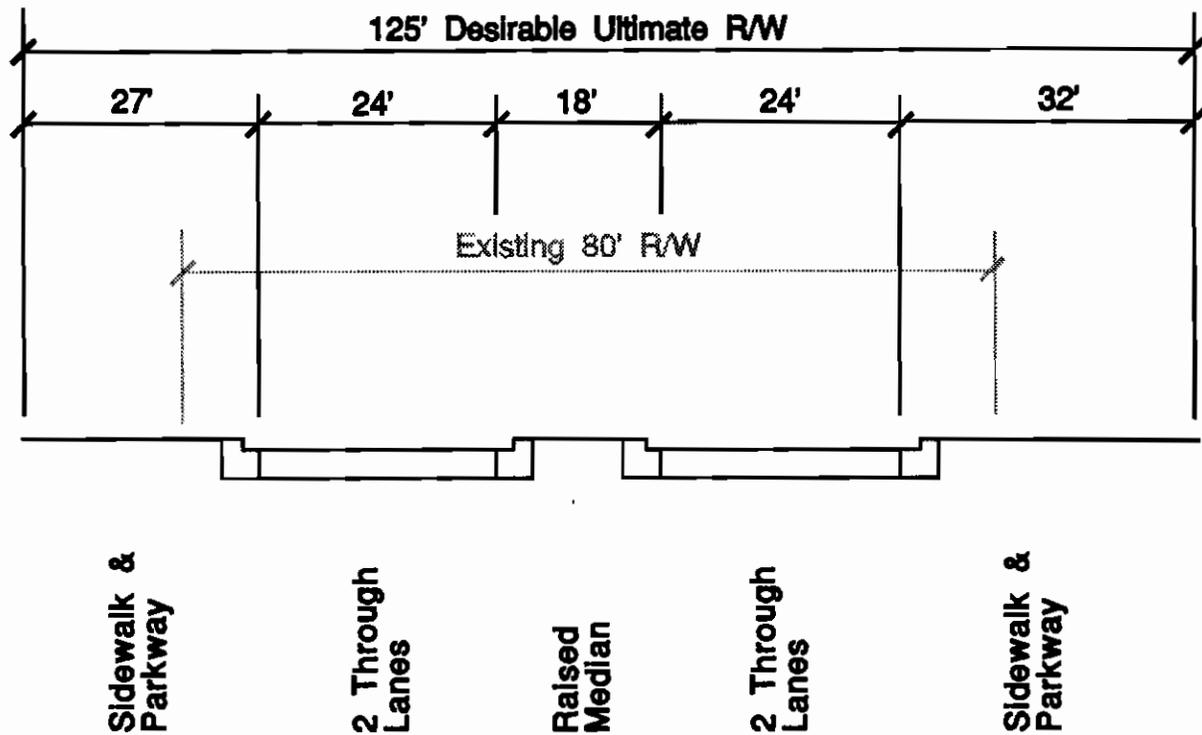
The continuous median will allow single left-turn lanes to be developed as needed throughout this segment. Separate right-turn lanes are recommended at all signalized intersections.

It is recommended that the direct access to Illinois Route 59 from Plainfield-Naperville Road be closed and Plainfield-Naperville Road realigned to the south. Realigned Plainfield-Naperville Road would utilize Main Street to access Illinois Route 59.

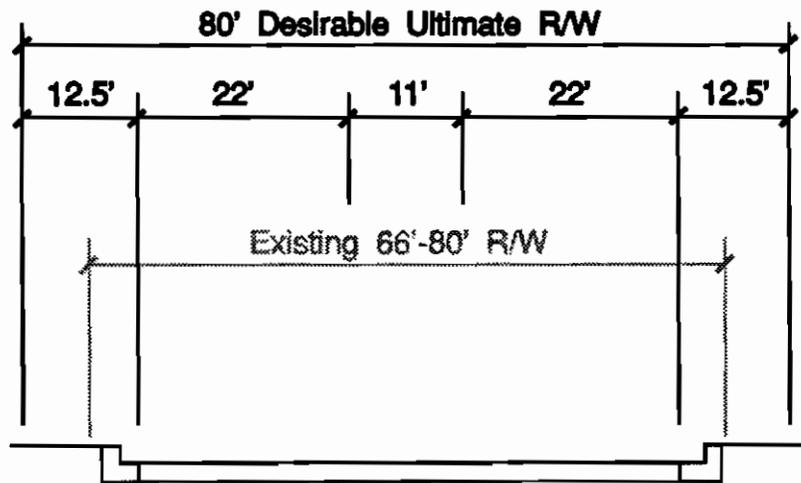
Traffic Signalization

The only recommended location for a potential future signal in this segment is at Fort Beggs Drive.

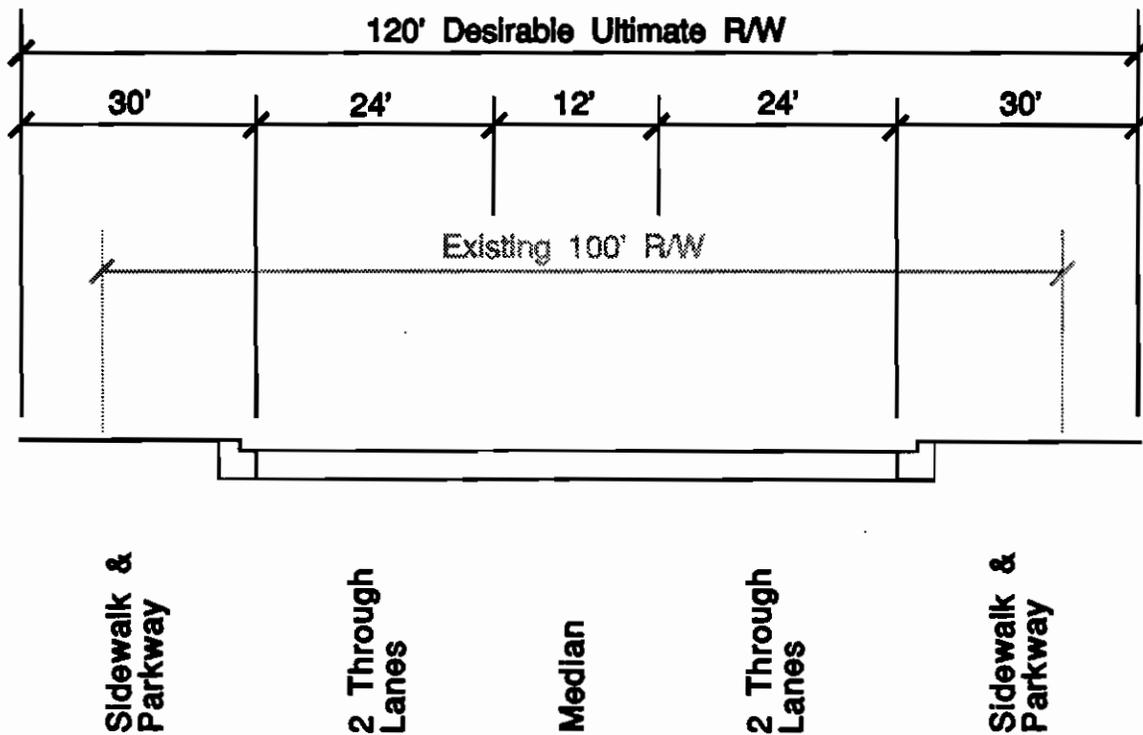
A future signal should be installed on the route only at the recommended location and only when the signal warrants recommended for SRA routes are met. (Recommended signal



Section G-G
Recommended Roadway Typical Section
Renwick Road to Robert Avenue
 Illinois Route 59
 prepared by Harland Bartholomew & Associates, Inc. Figure 3.10



Sidewalk 2 Through Lanes Median 2 Through Lanes Sidewalk



Section I-I
Recommended Roadway Typical Section
Illinois Route 59 Plainfield-Naperville Road to EJ&E Overpass
 prepared by Harland Bartholomew & Associates, Inc. **Figure 3.12**

SECTION 3: Route Analysis - Renwick Road to the Elgin, Joliet and Eastern Overpass

warrants for SRA's are discussed in Section 10.4.2 of the Strategic Regional Arterial Design Concept Report.) Signals should not be installed at other than the recommended locations; additional signals would tend to impede traffic flow on the SRA route and interfere with optimization and progression of signal systems.

Interconnection of signals into coordinated systems is recommended. All of the signals in this segment should be interconnected into the recommended signal system continued from Segment 2.

Structures

The structure at the Elgin, Joliet & Eastern Railroad has inadequate vertical and horizontal clearance. It should be modified to provide the desirable suburban SRA vertical clearance and the horizontal clearance should be increased to provide for the recommended roadway cross-section. Any profile adjustments for Illinois Route 59 beneath this structure should include improved roadway drainage to eliminate flooding.

Transit

Locations for future bus stops in this segment are recommended for all signalized intersections. These locations should be developed with bus turnout areas, shelters and other amenities as recommended in the Pace Development Guidelines.

The EJ&E Railroad, identified in the CATS 2010 TSD Plan as a major transit facility corridor of the future, crosses Illinois Route 59 at the north end of Plainfield. To ensure that proper access is available between Illinois Route 59 and the EJ&E Circumferential transit line, it is recommended that right-of-way be protected for a transit station at the intersection of the two facilities. The protected right-of-way would also serve as a Park-and-Ride facility in conjunction with future express bus service along the SRA route.

Low-Cost Improvements**Traffic Signalization**

Interconnection of the existing signals at Lincoln Highway, Lockport Street, and Illinois Route 126 (Main Street) is recommended. The traffic signal at Fort Beggs Drive should be installed when the signal warrants recommended for SRA routes are met.

Access Management

As parcels are developed or redeveloped, it is recommended that access be limited to a maximum of one curb cut for each 500 feet. Recommended locations for future access consolidation are shown on Route Maps D-2 and D-3. Existing restrictions on direct access from abutting lots on this segment should be retained.

Transit

Directional signage is recommended on this segment for Pace service between the Joliet Metra Station and Plainfield. This signage should be located at all signalized intersections.

3.3.6 ADDITIONAL RIGHT-OF-WAY REQUIREMENTS

It is recommended the following additional right-of-way be protected:

- 35 feet from Renwick Road to Robert Avenue to achieve the 125-foot desirable ultimate width,
- up to 14 feet between Robert Avenue and U.S. 30 East (Lincoln Highway) and between Lockport Street and Plainfield-Naperville Road to achieve the 80-foot desirable ultimate width, and
- 40 feet from Plainfield-Naperville Road to EJ&E overpass to achieve the 120-foot desirable ultimate width.

3.3.7 POTENTIAL ENVIRONMENTAL CONCERNS

The environmental concerns raised by acquisition of right-of-way between Robert Avenue and the EJ&E Overpass are being addressed as part of the design phase of ongoing improvement projects. For the remainder of the segment, impacts of the desirable ultimate right-of-way on floodplains, wetlands, and prime farmland abutting the route will be studied during the design phase of proposed improvements.

3.3.8 CONSTRUCTION/RIGHT-OF-WAY COST ESTIMATES

A summary of the construction cost estimates for the recommended improvements to SRA Segment 3 of Illinois Route 59 is shown in *Table 3.13*.

SECTION 3: Route Analysis - Renwick Road to the Elgin, Joliet and Eastern Overpass

Table 3.13	
Construction Cost Estimates for Segment 3 - Illinois Route 59	
Improvement	Estimated Cost
Ultimate	
Roadway	\$3,000,000
Traffic Signals	\$100,000
Signal Interconnection	\$200,000
Structure Modification	\$2,000,000
Transit Improvements (includes land acquisition)	\$600,000
Right-of-way Acquisition	\$300,000
Total Estimated Cost for Ultimate Improvements	\$6,200,000
Low-Cost	
Signal Interconnection	\$100,000
Transit Improvements	\$10,000
Total Estimated Cost for Low-Cost Improvements	\$110,000
Total Estimated Cost for All Improvements	\$6,310,000

3.4 SRA SEGMENT 4: ELGIN, JOLIET AND EASTERN OVERPASS TO 75TH STREET**3.4.1 LOCATION**

Segment 4 extends from the Elgin, Joliet and Eastern (EJ&E) overpass to 75th Street, a distance of approximately nine miles. (See *Figure 3.13.*)

3.4.2 EXISTING FACILITY CHARACTERISTICS

Existing facility characteristics for Segment 4 of Illinois Route 59 are shown on Route Maps A-3, A-4 and A-5.

Traffic Volumes

Average annual daily traffic (AADT) volumes of 21,000 vehicles at 79th Street and 29,000 vehicles at U.S. Route 34 (Oswego Road) were obtained as part of the 1990 Turning Movement Counts performed by IDOT.

Right-of-Way

The existing right-of-way is 100 feet throughout the segment.

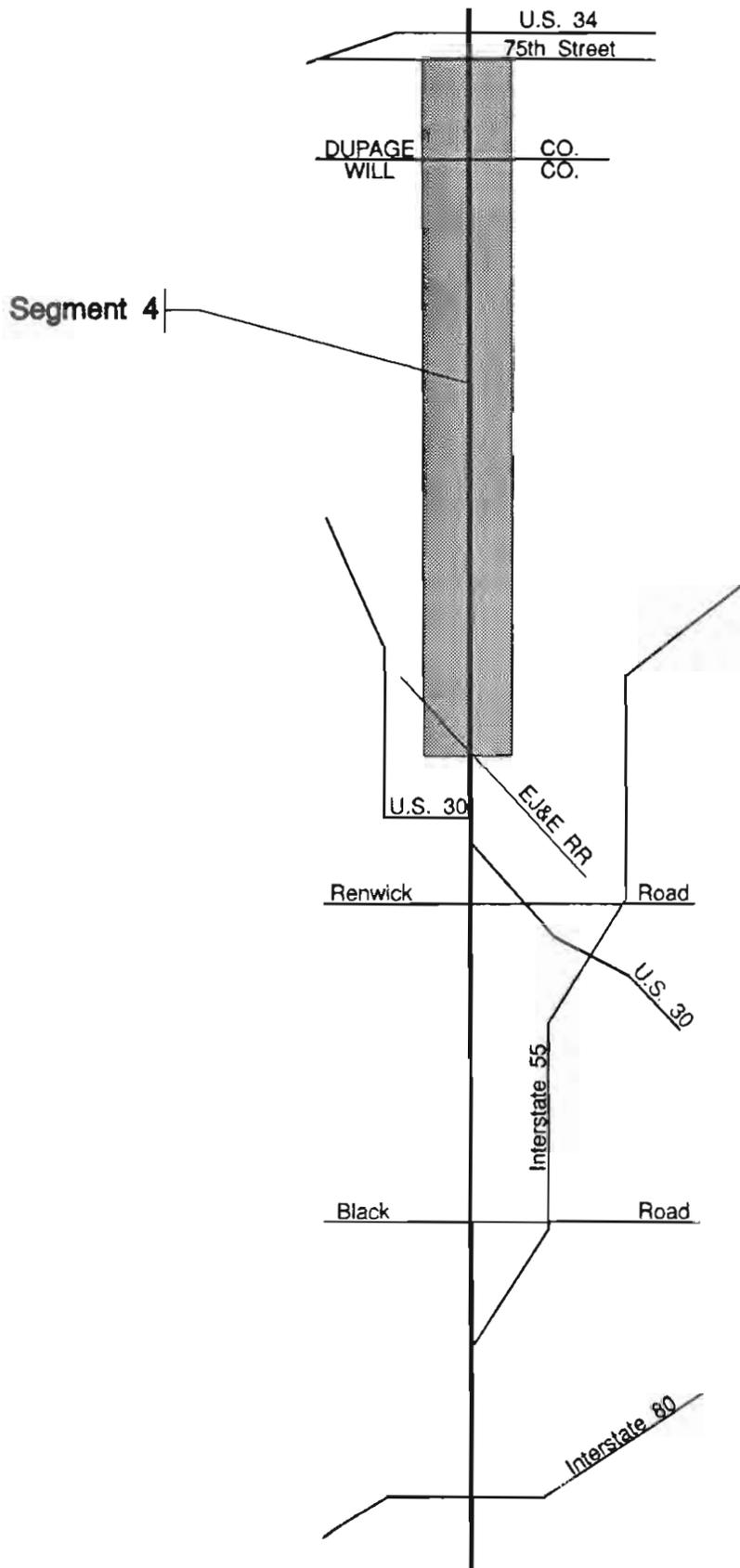
Pavement Width and Number of Lanes

The width of the pavement is 24 feet from the EJ&E overpass to just south of 75th Street where it widens to 50 feet. The roadway includes one through lane in each direction and gravel shoulders. It expands to two through lanes in each direction just south of 75th Street.

Traffic Signals

There are three signalized intersections. They are listed from south to north in *Table 3.14.*

Intersection	No. of Through Lanes		Turn Bays		Remarks
	NB	SB	Left	Right	
103rd Street	1	1	NO	NO	
83rd St./Montgomery	1	1	YES	SB	
75th Street	2	2	YES	YES	
Note: NB = northbound; SB = southbound					



SECTION 3: Route Analysis - Elgin, Joliet and Eastern Overpass to 75th Street**Parking, Sidewalks, and Frontage Roads**

There are no on-street parking spaces, sidewalks, or frontage roads.

Structures

There are three existing structures. They are listed in *Table 3.15*.

Structure	Structure No. (SN)	Location	Clearance		Remarks
			Vert.	Horiz.	
DuPage River	099-0142	north of EJ&E	N/A	50'	SRA over
DuPage River Trib	099-0141	north of EJ&E	N/A	41'	SRA over
DuPage River Trib	022-0164	north of 111th St	N/A	78'	SRA over
Note N/A=Not Applicable					

Transit

The Lockport Metra rail station is seven miles east of Plainfield and the Illinois Route 59 Metra rail station is two miles north of 75th Street.

The EJ&E freight line, which parallels Illinois Route 59 less than one and a half miles to the west, has been identified in the CATS 2010 plan as a major transit facility corridor of the future.

3.4.3 EXISTING ENVIRONMENTAL CHARACTERISTICS

The existing environmental characteristics for Segment 4 of Illinois Route 59 include wetlands, floodplains, prime farmland and sensitive land uses, and are shown on Route Maps B-3, B-4 and B-5.

Streams/Wetlands/Floodplains

On this segment Illinois Route 59 crosses floodplain areas in nine locations:

- The DuPage River at the EJ&E overpass with the floodplain extending 900 feet to the north,
- The West Norman Drain south of Whiskey Road where the floodplain is 50 feet wide,
- The East Norman Drain north of Chapins Road where the floodplain is 150 feet wide,
- A DuPage River Tributary south of Ferguson Road where the floodplain is 250 feet wide,
- A DuPage River Tributary north of 111th Street where the floodplain is 200 feet wide,
- Three minor floodplains between 103rd Street and the Will/DuPage county line, and
- A Tributary of Spring Brook No. 2 north of the Will/DuPage county line.

SECTION 3: Route Analysis - Elgin, Joliet and Eastern Overpass to 75th Street

There are wetlands located in association with the floodplains. Three additional wetland areas were found to abut the right-of-way: one between Ferguson Road and 111th Street, and two between 103rd Street and the Will/DuPage County line.

Prime Farmland

Almost all of the undeveloped land along the segment is classified as prime farmland.

Sensitive Land Uses

Noise sensitive land uses on this segment include Wheatland School, at the northwest corner of the intersection with 103rd Street, and two churches, one at the southwest corner of the intersection with 95th Street and one on the east side of the route half way between Montgomery Road and 75th Street.

Other sensitive uses are the Plainfield Village Hall north of the EJ&E Railroad and an Illinois Bell switching station near the southwest corner of the intersection with 111th Street.

3.4.4 DEVELOPMENT CHARACTERISTICS

Existing development characteristics and potential future development are indicated on Route Maps C-3, C-4 and C-5.

Jurisdiction

This segment includes large areas of unincorporated Will and DuPage Counties. The only incorporated area is within the Village of Plainfield which ends just north of Pilcher Road.

Type and Intensity of Development

This segment is generally located between the communities of Plainfield, Aurora and Naperville, all of which are experiencing growth. While the area remains predominantly agricultural, land is being developed into new residential communities.

There are several industrial areas on the segment which are grouped in the following areas:

- Approximately one mile north from the EJ&E overpass;
- Southeast of the intersection with Ferguson Road, and
- West of the intersection with 111th Street.

In addition to the very low density rural residential associated with the agricultural uses, there are also several residential subdivisions including those:

- Between Whiskey Road and Pilcher Road;

SECTION 3: Route Analysis - Elgin, Joliet and Eastern Overpass to 75th Street

- Northeast and southwest of the intersection with 83rd Street; and
- Under construction between 111th Street and 103rd Street.

Commercial establishments through this area are located at the intersections with 111th Street, 103rd Street and 95th Street as well as approximately one-quarter mile south of 95th Street. There is an office development abutting White Eagle at the intersection with 83rd Street.

Development Access and Setback

On the south end of this segment, there are curb cuts accessing each industrial development. Commercial development is accessed in the same manner. Individual residences fronting the route have driveways which intersect the route. Residential subdivisions are accessed via cross streets.

All buildings are setback well over 30 feet from the right-of-way line. The industrial buildings at the south end of the segment are closest to the right-of-way.

Future Development

This segment is within a rapidly growing area. Proposed projects include:

- An 86-unit single-family residential development at the northwest corner of the intersection with Pilcher Road,
- Combined industrial and residential use projects at the southeast corner of Andrew Road between Chapins Road and Ferguson Road, and at the southeast corner of 111th Street, and
- A commercial development at the southwest corner of 111th Street.

The City of Naperville is planning a new Public Works facility which will be located on the southeast corner of the intersection with 103rd Street.

3.4.5 RECOMMENDED IMPROVEMENTS

Improvements for this segment of Illinois Route 59 have been recommended after evaluating the projected travel demand for the year 2010 along with the existing roadway characteristics and character of development along the route. Improvements are categorized by ultimate, low-cost and post-2010, and divided into those related to the roadway, intersections, traffic signalization, structures, access, transit and other improvements. Right-of-way requirements, potential environmental concerns and improvement cost estimates are also provided in this section. Recommended improvements are shown on Route Maps D-3, D-4 and D-5.

SECTION 3: Route Analysis - Elgin, Joliet and Eastern Overpass to 75th Street

Ultimate Improvements

Roadway

The recommended roadway configuration in this segment is:

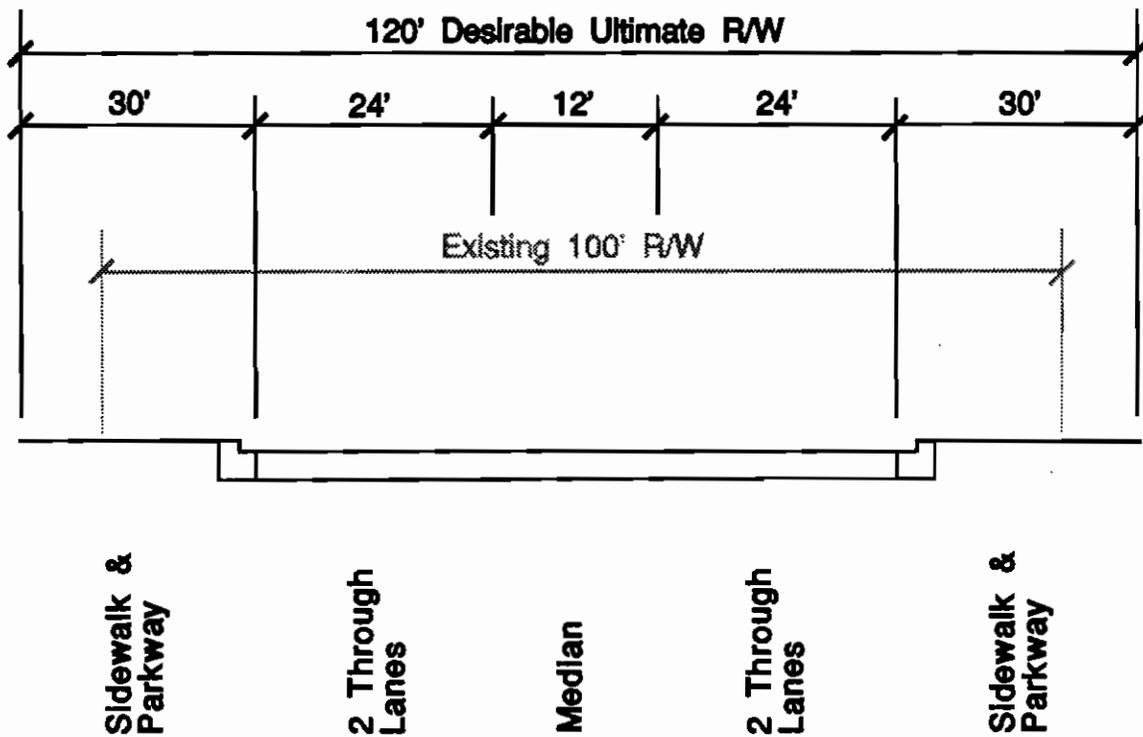
- two through lanes in each direction and a 12-foot flush median from the EJ&E overpass to just north of the DuPage River,
- two through lanes in each direction and an 18-foot raised median between the DuPage River and Pilcher Road, (135TH ST)
- two through lanes in each direction and a 30-foot raised median between Pilcher Road (135TH ST) and Chapins Road, and (127TH ST)
- three through lanes in each direction and a 30-foot raised median between Chapins Road (127TH ST) and 75th Street. (See Figures 3.14 through 3.22.)

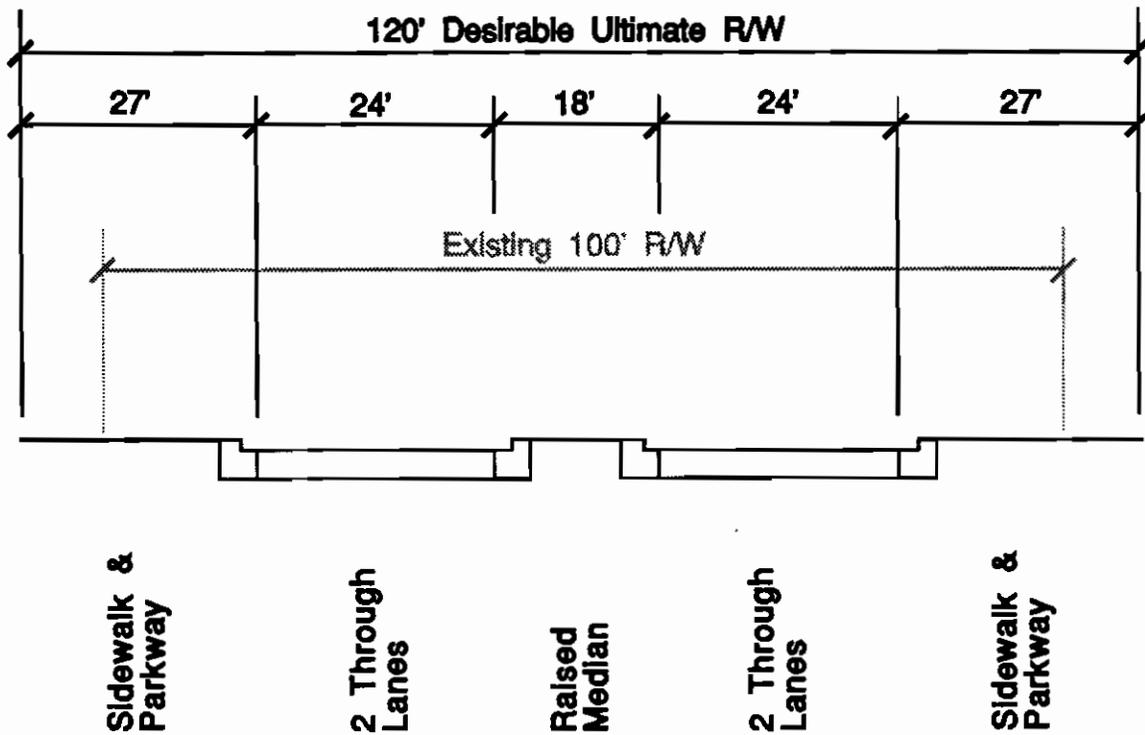
Results of the capacity analysis for this segment are shown on Table 3.16.

Table 3.16 Capacity Analysis for Segment 4 - Illinois Route 59					
Segment	Projected Travel Demand (AADT) ⁽¹⁾	Number of Through Traffic Lanes	Arterial Capacity (AADT) ⁽¹⁾	Peak Direction Level of Service	Adequate to Meet Projected Demand
EJ&E Overpass to Ferguson Road	30 to 40,000	4 **	30,000	D	No
		6 **	45,000	C	Yes
Ferguson Road to 95th Street	30 to 40,000	4	32,000	D	No
		6 *	45,000	C	Yes
95th Street to 75th Street	30 to 40,000	4	33,000	D	No
		6 *	47,000 50,000	C D	Yes
⁽¹⁾ Average Annual Daily Traffic					
* - Indicates recommended number of through lanes for this segment. ** - Recommend four lanes from EJ&E to Chapins and six lanes from Chapins to Ferguson.					

↑
127TH ST

↑
127TH ST



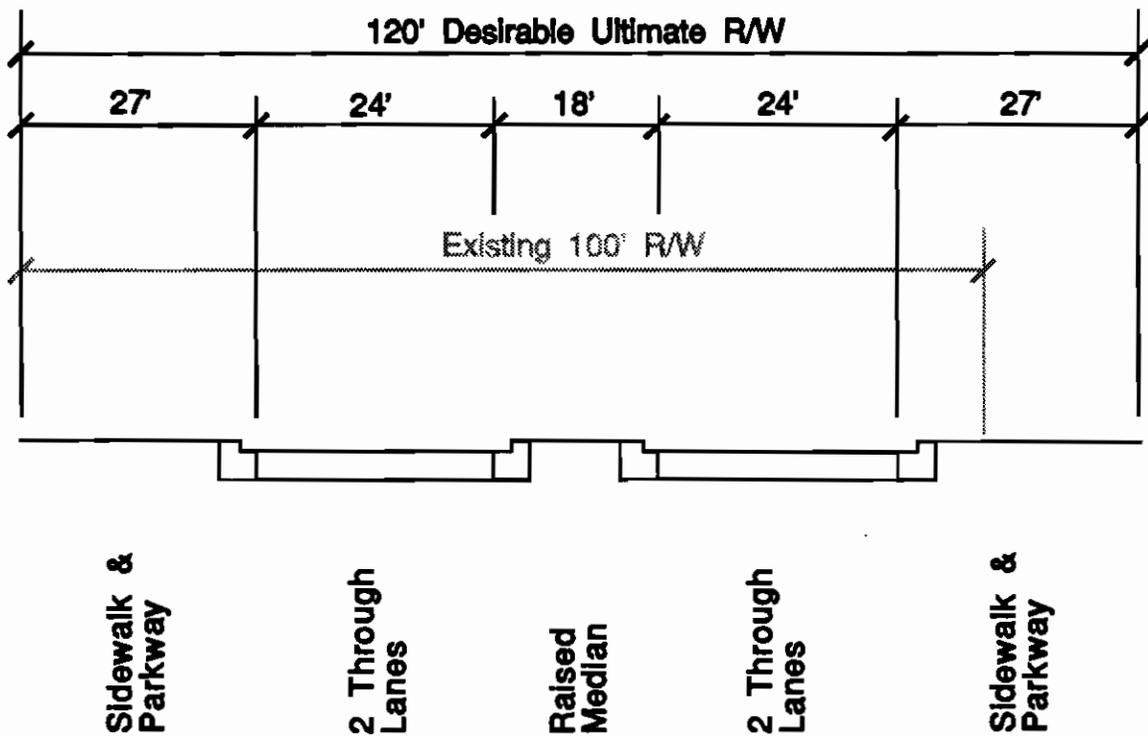


Illinois Route 59

prepared by Harland Bartholomew & Associates, Inc.

**Section J-J
Recommended Roadway Typical Section
DuPage River to Hazel Crest Drive**

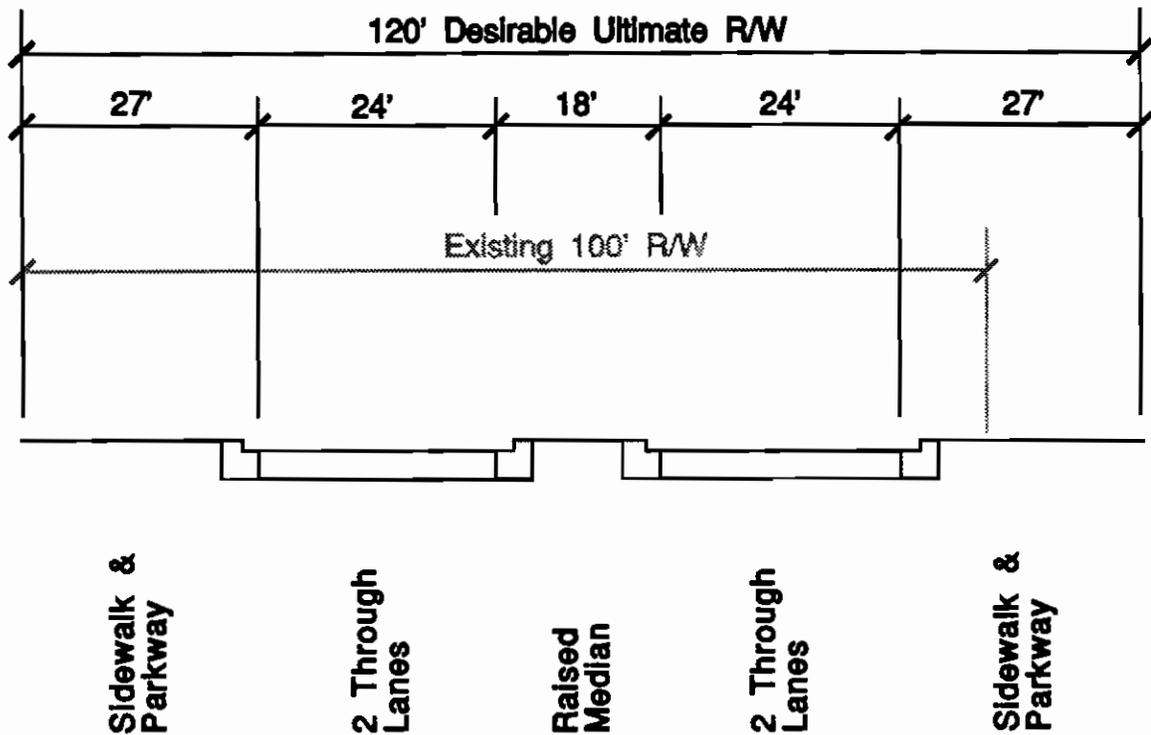
Figure 3.15



Section K-K

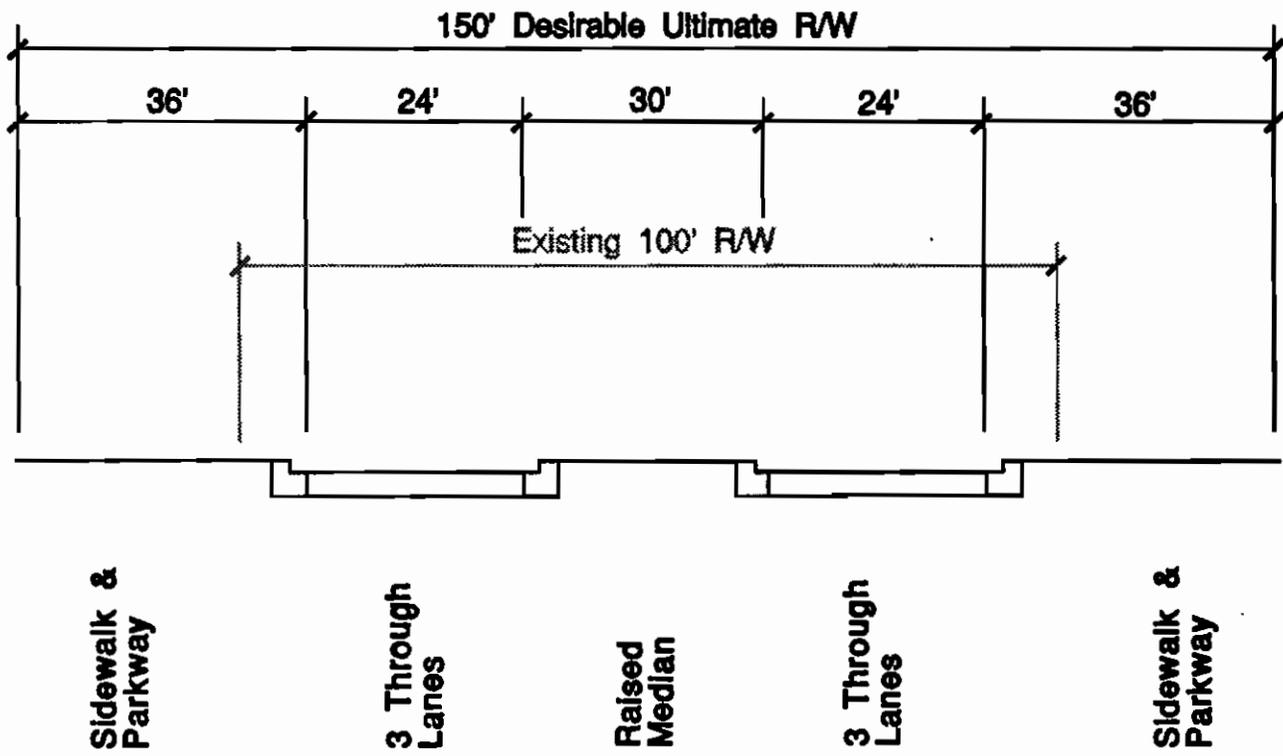
Recommended Roadway Typical Section
Hazel Crest Drive to Pheasant Chase Drive

Illinois Route 59 prepared by Harland Bartholomew & Associates, Inc. **Figure 3.16**



Section L-L
Recommended Roadway Typical Section
Pheasant Chase Drive to Pilcher Road

Illinois Route 59
 prepared by Harland Bartholomew & Associates, Inc. **Figure 3.17**

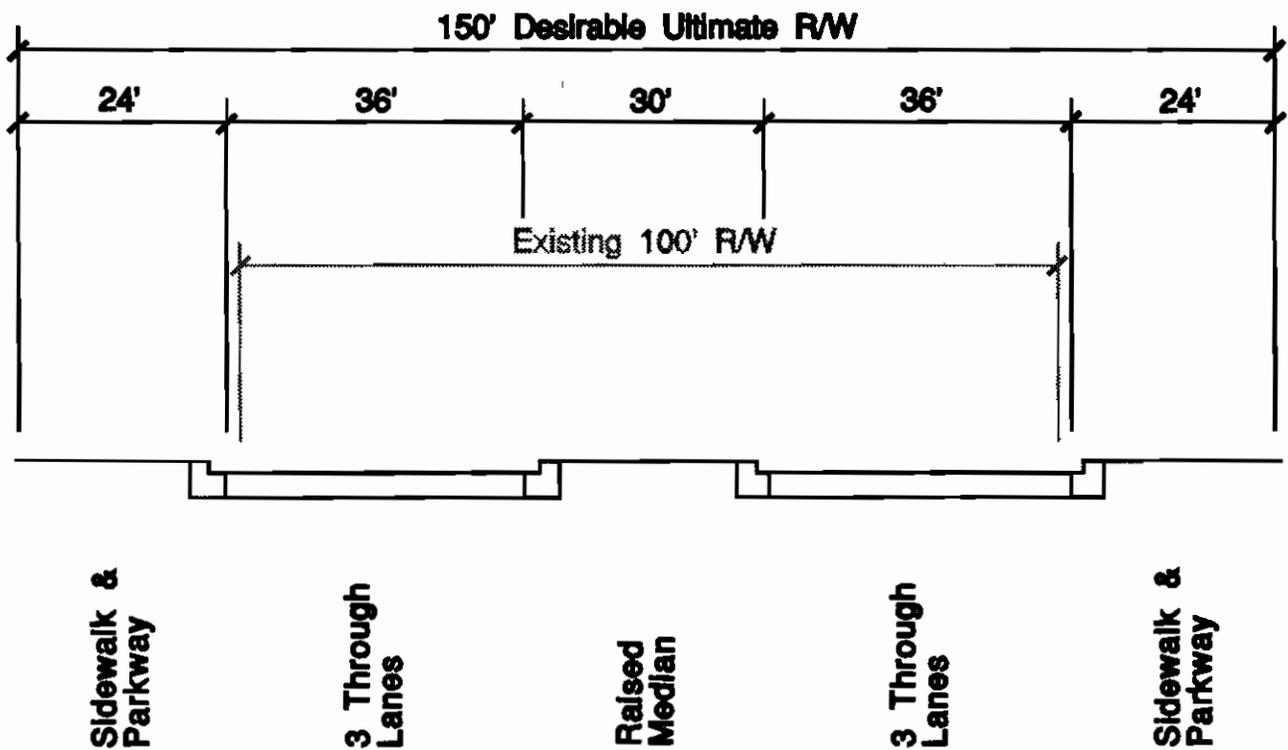


Illinois Route 59

prepared by Harland Bartholomew & Associates, Inc.

**Section M-M
Recommended Roadway Typical Section
Pilcher Road to Chaplins Road**

Figure 3.18

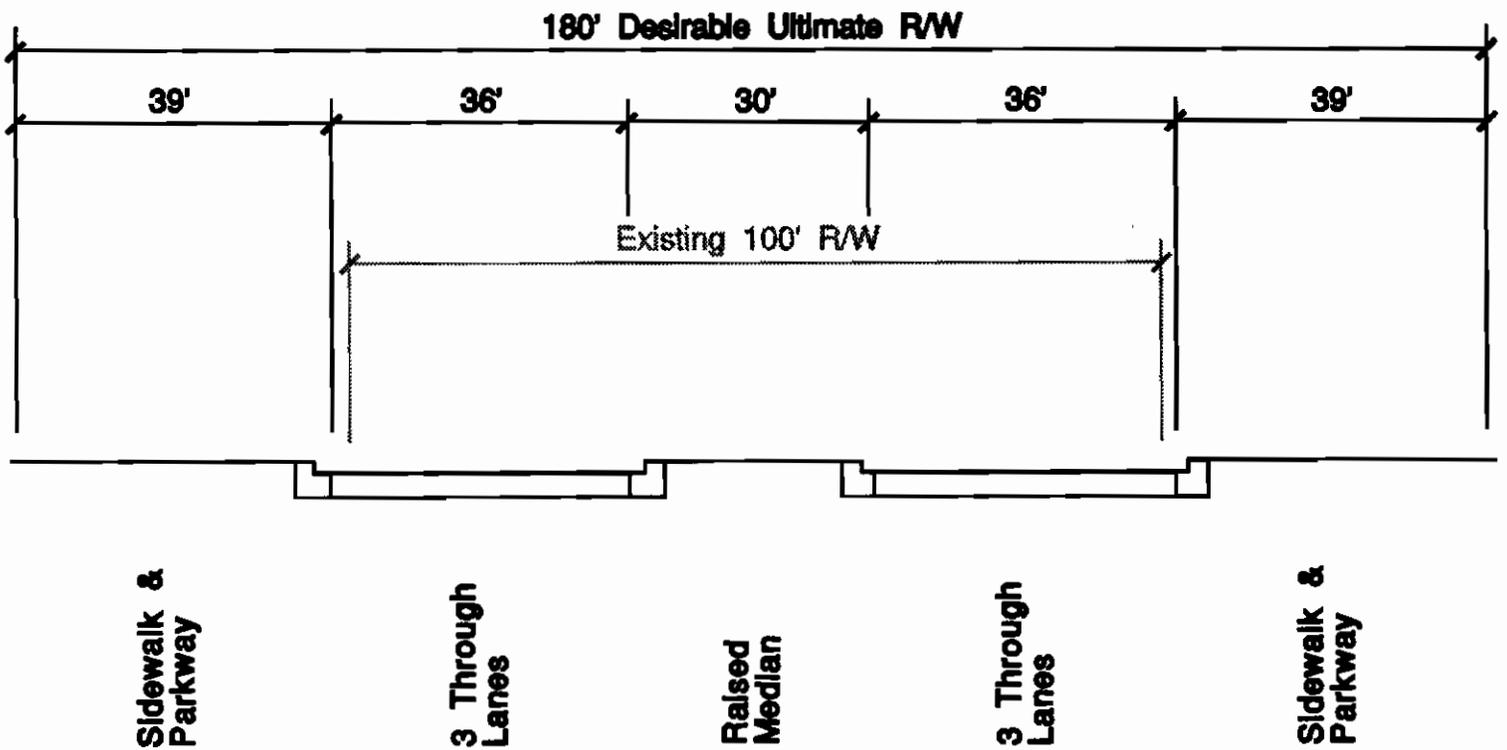


Section N-N

Recommended Roadway Typical Section

Illinois Route 59 Chaplins Road to 1/2 mile north of 111th Street

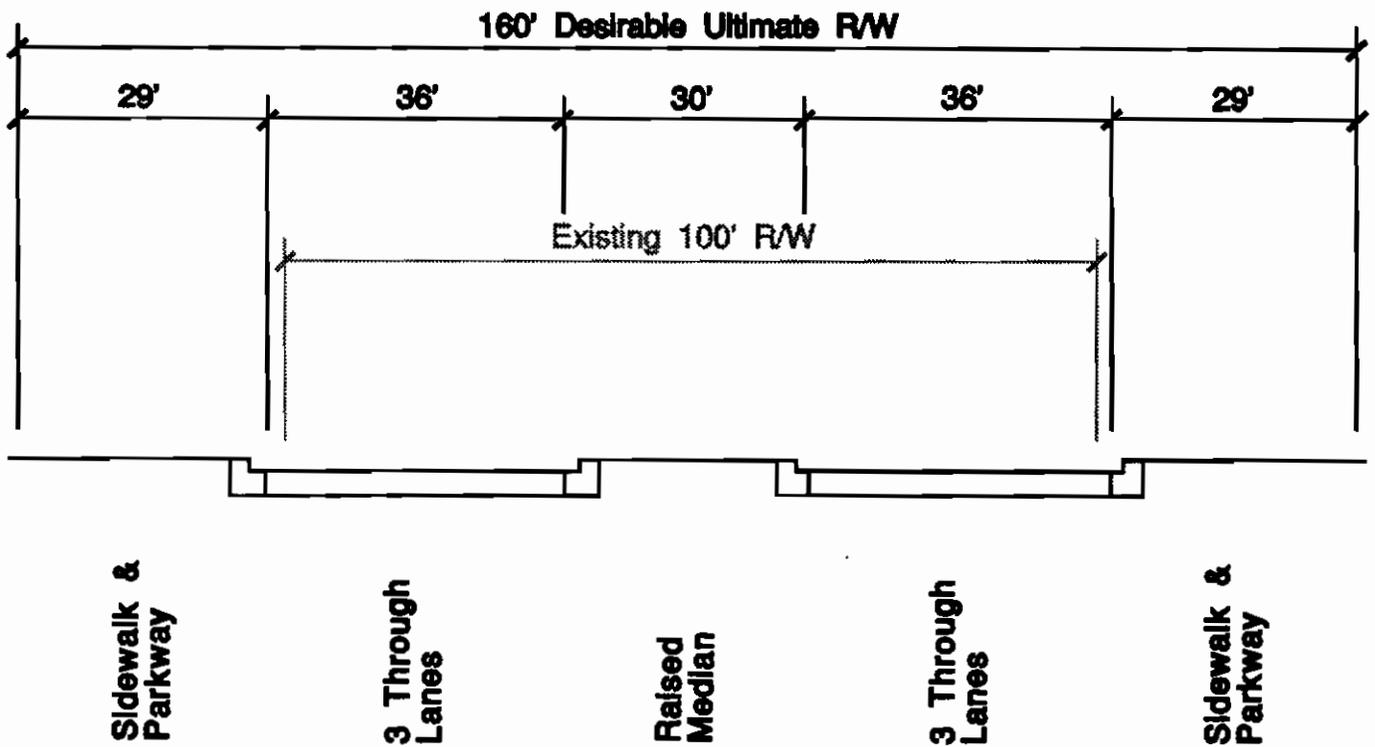
prepared by Harland Bartholomew & Associates, Inc. Figure 3.19



Section O-O

Recommended Roadway Typical Section
1/2 mile north of 111th Street to 103rd Street

Illinois Route 59 prepared by Harland Bartholomew & Associates, Inc. **Figure 3.20**

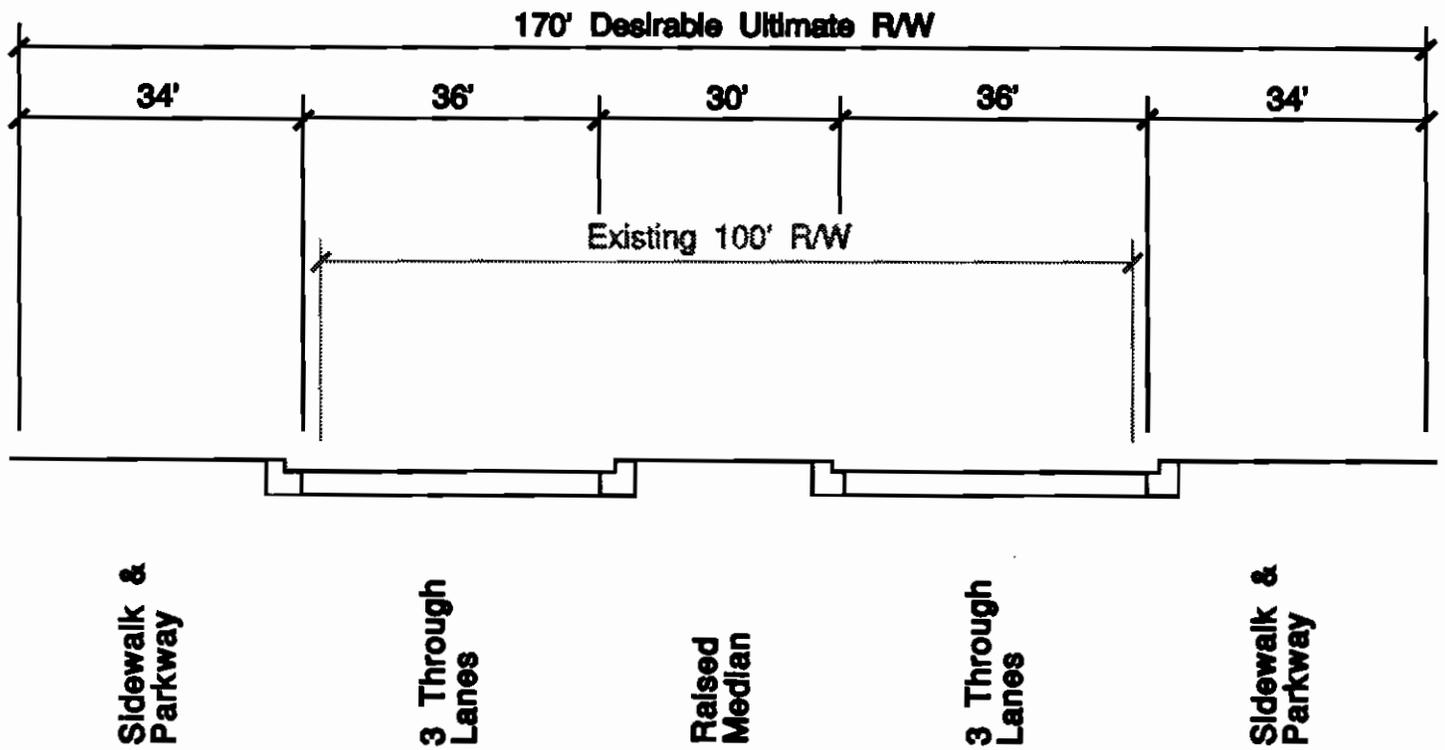


Illinois Route 59

prepared by Harland Bartholomew & Associates, Inc.

**Section P-P
Recommended Roadway Typical Section
103rd Street to 95th Street**

Figure 3.21



Illinois Route 59

prepared by Harland Bartholomew & Associates, Inc.

Section Q-Q
 Recommended Roadway Typical Section
 95th Street to 75th Street

Figure 3.22

SECTION 3: Route Analysis - Elgin, Joliet and Eastern Overpass to 75th Street**Intersections**

The 12 to 18-foot wide median will accommodate a single left-turn lane as required. The 30-foot median will accommodate dual left turn lanes at major cross streets which will be important in routing traffic around the four lane roadway segment in Plainfield. County and Municipal long-range improvement plans indicate that 135th, 127th 111th and 95th Streets could develop into major arterials in the future.

Major intersection improvements are recommended at Pilcher Road and 75th Street providing dual left-turn lanes on all legs of the intersections. (See Details 2 and 3.) Separate right-turn lanes are recommended at all signalized intersections.

Because 75th Street is also an SRA route, the level of service was calculated for each intersection approach and the total intersection. For 75th Street the AADT used was 32,000 vehicles and for Illinois Route 59 the AADT used was 49,000 vehicles. The resulting levels of service are shown in *Table 3.17*.

Direction	Movement	Level of Service
Illinois Route 59 northbound	left turn	D
Illinois Route 59 northbound	through	D
Illinois Route 59 northbound	right turn	A
Illinois Route 59 southbound	left turn	D
Illinois Route 59 southbound	through	B
Illinois Route 59 southbound	right turn	A
75th Street eastbound	left turn	D
75th Street eastbound	through and right turn	C
75th Street westbound	left turn	D
75th Street westbound	through	D
75th Street westbound	right turn	B
Total Intersection		D

Traffic Signalization

Locations are shown for potential future signals at Whiskey Road, Pheasant Chase Drive, Pilcher Road, Douglas Drive, Chapins Road, Andrew Road, Ferguson Road, 111th Street, Royal Worlington Drive, 95th Street, 91st Street, White Eagle Drive, 79th Street, and at the recommended location for a mid-mile collector at 115th Street. Future signals should be installed on the route only at the recommended location and only when the signal warrants recommended for SRA routes are met. (Recommended signal warrants for SRAs are discussed in Section 10.4.2 of the Strategic Regional Arterial Design Concept Report.)

SECTION 3: Route Analysis - Elgin, Joliet and Eastern Overpass to 75th Street

Signals should not be installed at other than the recommended locations; additional signals would tend to impede traffic flow on the SRA route and interfere with optimization and progression of signal systems.

Interconnection of signals into two coordinated systems is recommended. The first system would include all of the signals from Pheasant Chase Drive to 91st Street, the second would begin at White Eagle Drive and extend to Glacier Park Avenue in Segment 5.

Structures

The existing structures over the DuPage River and tributary north of the EJ&E Overpass have inadequate horizontal clearance for the recommended roadway cross-section and should be modified to provide adequate horizontal clearance for the four through lane roadway section.

The existing structure over the DuPage River tributary north of 111th Street has inadequate horizontal clearance for the recommended roadway cross-section and should be modified to provide adequate horizontal clearance for the six through lane roadway section.

Transit

Locations for future bus stops in this segment are recommended for all signalized intersections. These locations should be developed with bus turnout areas, shelters and other amenities as recommended in the Pace Development Guidelines.

The EJ&E Railroad, identified in the CATS 2010 TSD Plan as a major transit facility corridor of the future, parallels Illinois Route 59 less than one and one-half miles to the west. Consideration is being given to the location of a transit station along this corridor between 111th and 103rd Streets. A portion of the right-of-way reserved for the transit station could serve as a Park-and-Ride facility in conjunction with future express bus service along the SRA route.

Low-Cost Improvements**Traffic Signalization**

Traffic signals should be installed at the recommended locations when the signal warrants recommended for SRA routes are met.

Access Management

As parcels are developed or redeveloped, it is recommended that future access be limited to the locations shown on Route Maps D-3, D-4, D-5. Existing restrictions on direct access from abutting lots on this segment should be retained.

SECTION 3: Route Analysis - Elgin, Joliet and Eastern Overpass to 75th Street

Transit

Directional signage is recommended on this segment for the Illinois 59 Metra rail station south of North Aurora Road. This signage should be located at all signalized intersections.

Post-2010 Improvements

It is recommended that additional right-of-way be protected at 75th Street to allow for post-2010 implementation of a diamond interchange. (see Detail 3)

3.4.6 ADDITIONAL RIGHT-OF-WAY REQUIREMENTS

Additional right-of-way recommended for protection includes:

- 20 feet from EJ&E overpass to Pilcher Road to achieve the 120-foot desirable ultimate width,
- 50 feet from Pilcher Road to Royal Worlington Drive to achieve the 150-foot desirable ultimate width,
- 80 feet from Royal Worlington Drive to 103rd Street to achieve the 180-foot desirable ultimate width,
- 60 feet from 103rd Street to 95th Street to achieve the 160-foot desirable ultimate width, and
- 70 feet from 95th Street to 75th Street to achieve the 170-foot desirable ultimate width.

Right-of-way should be protected on the east side of the route at Joseph, 103rd and 95th Streets to accommodate an alignment shift to avoid existing development or environmentally sensitive areas.

At 75th Street, it is recommended that additional right-of-way be protected for potential post 2010 interchange construction. The defined interchange right-of-way limits (on Detail 3) are based on preliminary geometry for either a single point or compressed diamond interchange. (Recommended Right-of-Way Requirements are discussed in Section 8.3.2 of the Strategic Regional Arterial Design Concept Report).

3.4.7 POTENTIAL ENVIRONMENTAL CONCERNS

This segment of the route is crossed by nine floodplains and is adjacent to identified prime farmland. All should be addressed in any design studies for roadway improvements, particularly those involving reconstruction of the structures over the DuPage River (SN 099-0142) and its tributaries (SN 022-0164 and SN 099-0141).

3.4.8 CONSTRUCTION/RIGHT-OF-WAY COST ESTIMATES

A summary of the construction cost estimates for the recommended improvements to Segment 4 of Illinois Route 59 is shown in *Table 3.18*.

Table 3.18	
Construction Cost Estimates for Segment 4 - Illinois Route 59	
Improvement	Estimated Cost
Ultimate	
Roadway	\$38,500,000
Intersection Improvements	\$3,900,000
Traffic Signals	\$1,500,000
Signal Interconnection	\$1,400,000
Structure Modification	\$3,000,000
Transit Improvements (includes land acquisition)	\$700,000
Right-of-way Acquisition	\$3,700,000
Total Estimated Cost for Ultimate Improvements	\$52,700,000
Low-Cost	
Transit Improvements	\$20,000
Total Estimated Cost for Low-Cost Improvements	\$20,000
Post-2010	
Interchange at 75th Street	\$7,000,000
Right-of-way Acquisition	\$400,000
Total Estimated Cost for Post-2010 Improvements	\$7,400,000
Total Estimated Cost for All Improvements	\$60,120,000

3.5 SRA SEGMENT 5: 75TH STREET TO INTERSTATE 88 (EAST-WEST TOLLWAY)**3.5.1 LOCATION**

Segment 5 extends from 75th Street to Interstate 88 (East-West Tollway), a distance of approximately four miles. (See *Figure 3.23.*)

3.5.2 EXISTING FACILITY CHARACTERISTICS

Existing facility characteristics for Segment 5 of Illinois Route 59 are shown on Route Maps A-5 and A-6.

Traffic Volumes

Average annual daily traffic (AADT) volumes of 29,000 vehicles at U.S. Route 34 (Oswego Road) and 42,500 vehicles at North Aurora Road were obtained as part of the IDOT 1990 Turning Movement Counts.

Right-of-Way

The right-of-way is 120 feet from U.S. Route 34 (Oswego Road) to Aurora Avenue and 100 feet throughout the remainder of the segment.

Pavement Width and Number of Lanes

With the exception of the section adjoining the Fox Valley Center, the pavement is 54 feet wide and has four through lanes (two in each direction). On the section between South Street and Aurora Avenue there are six through lanes (three in each direction) on 78 feet of pavement.

The entire segment is divided by a barrier median and has curb-and-gutter.

Traffic Signals

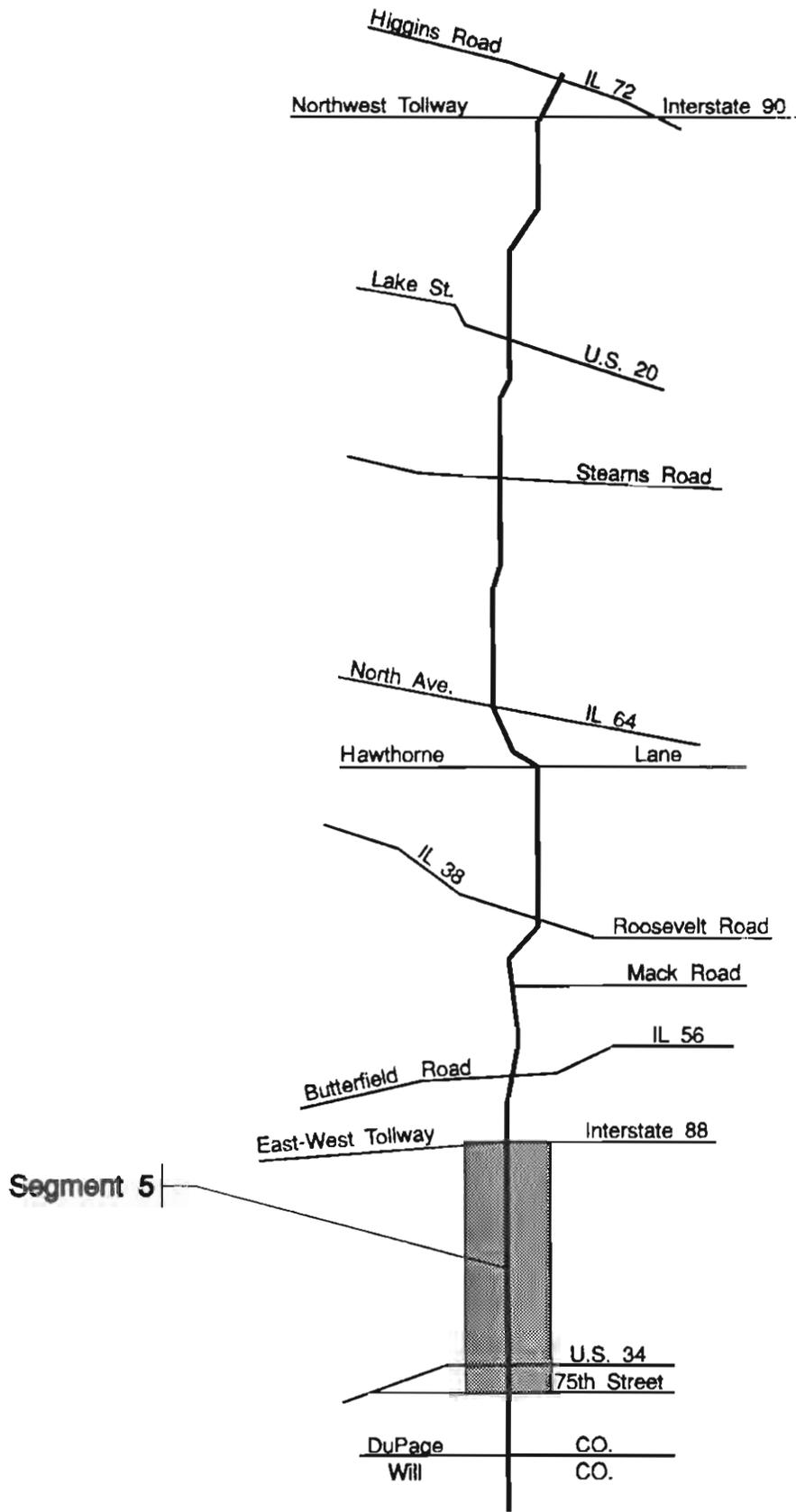
There are 13 signalized intersections. They are listed in *Table 3.19*. All of the traffic signals from 75th Street to Glacier Park Avenue are interconnected into a signal system.

Parking, Sidewalks, and Frontage Roads

There are no on-street parking spaces, sidewalks, or frontage roads.

Structures

There are two existing bridge structures. They are shown in *Table 3.20*.



SECTION 3: Route Analysis - 75th Street to Interstate 88 (East-West Tollway)

**Table 3.19
Signalized Intersections**

Intersection	No. of Through Lanes		Turn Bays		Remarks
	NB	SB	Left	Right	
Shopping Center Ent.	2	2	NB	SB	
U.S. 34 (Oswego Rd.)	2	2	YES	YES	
South Road	2	2	YES	YES	
Fox Valley Mall Ent.	3	3	YES	YES	
New York/Aurora Ave.	3	2	YES	SB	
Yorkshire Plaza Ent.	2	2	NB	SB	
Jefferson Ave./Liberty	2	2	YES	YES	
Glacier Park Ave.	2	2	YES	YES	
North Aurora Road	2	2	YES	YES	
Bruce Lane/Brookdale	2	2	YES	SB	
Diehl Road	2	2	YES	YES	
I-88 south ramps	2	2	SB	NB	
I-88 north ramps	2	2	NB	SB	
Note: NB = northbound; SB = southbound					

**Table 3.20
Existing Structures**

Structure	Structure No. (SN)	Location	Clearance		Remarks
			Vert.	Horiz.	
Bur/Nor RR	022-0038	N. of Liberty St	N/A	—	SRA over
Interstate 88	022-9900	—————	N/A	68'	SRA over
Note: N/A=Not Applicable					

Transit

The Illinois 59 Metra station is west of the route on the north and south sides of the Burlington Northern tracks. Pace Routes #534, #790, and #791 offer rush hour service to the station from Fox Valley Villages, Warrenville, and northwest Naperville respectively.

Pace Routes #530, #684, #685, #686 provide rush hour service to the Naperville Metra station from Aurora and southwest Naperville. Route #530 also operates at other than the rush hour. Route #781 provides rush hour service to the Naperville Metra station from the Interstate 88 corridor. During rush hours, the corridor is also linked to the CTA rail by Route #737.

SECTION 3: Route Analysis - 75th Street to Interstate 88 (East-West Tollway)

The EJ&E Railroad, identified in the CATS 2010 TSD Plan as a major transit facility corridor of the future, parallels Illinois Route 59 less than one and one-half miles to the west. Consideration is being given to station locations at the crossing of the Burlington Northern Metra line, New York Street in Aurora, and Diehl Road.

Other Characteristics

There is a fully directional diamond interchange with Interstate 88 (East-West Tollway).

3.5.3 EXISTING ENVIRONMENTAL CHARACTERISTICS

The existing environmental characteristics for Segment 5 include wetlands, a floodplain, prime farmland, and sensitive land uses. They are shown on Route Maps B-5 and B-6.

Streams/Wetlands/Floodplains

On this segment, there is one floodplain crossing. It is 150 feet wide and located north of Bruce Lane where Illinois Route 59 crosses Ferry Creek Tributary No. 1. In addition to the floodplain, there are two wetlands, one north of 75th Street and one south of Bruce Lane.

Prime Farmland

Undeveloped land is designated as prime farmland.

Sensitive Land Uses

Public uses on this segment include the School District 204 Administration building at the northwest corner of the intersection with U.S. Route 34 (Oswego Road); a Commonwealth Edison power facility at the southwest corner of the intersection with the Burlington Northern Railroad; and a fire station well east of the right-of-way and south of Diehl Road.

3.5.4 DEVELOPMENT CHARACTERISTICS

Existing development characteristics and potential future development are indicated in Route Maps C-5 and C-6.

Jurisdiction

This segment of Illinois Route 59 is within the Cities of Aurora and Naperville. The west side of the route is within the City of Aurora between U.S. Route 34 (Oswego Road) and Aurora Avenue, and between Liberty Street and the Burlington Northern Railroad. The Naperville jurisdiction is between the northwest corner of North Aurora Road as well as on the west side of the route between Innisbrook Drive and Interstate 88 (East-West Tollway) and much of the land on the east side of the route between U.S. Route 34 (Oswego Road) and Interstate 88 (East-West Tollway).

SECTION 3: Route Analysis - 75th Street to Interstate 88 (East-West Tollway)

The Naperville planning area extends the entire length of the east side of the route and north of the Burlington Northern Railroad line west of the route. The Aurora planning area covers those areas not planned by Naperville.

Type and Intensity of Development

Commercial development, anchored by the Fox Valley Mall which is at the northwest corner of the intersection with U.S. Route 34 (Oswego Road), is the predominant land use on the south end of this segment. The Mall is surrounded by strip commercial development and other shopping centers including Yorkshire Plaza, Naper West Plaza, Aurora Marketplace, Westridge Court, and Fox River Commons.

The only industrial development on the segment is on the east side of the route near the Burlington Northern Railroad.

There is a small residential development south of U.S. Route 34 (Oswego Road) on the east side of the route and also to the west of the commercial development fronting Illinois Route 59.

Between North Aurora Road and Diehl Road the developed land is a mixture of residential, office and commercial subdivisions. On the west side of the route there are single-family and multi-family subdivisions. On the east side of the route there are office and commercial projects.

The area between Diehl Road and Interstate 88 (East-West Tollway) is occupied by office development.

Development Access and Setback

Access to Illinois Route 59 between U.S. Route 34 and Interstate 88 is controlled by a barrier median. South of U.S. Route 34 (Oswego Road) on the east side of the route, residences have driveways intersecting Illinois Route 59. Commercial development is served by curb cuts on Illinois Route 59 and U.S. Route 34 (Oswego Road). Full access is provided by signalized intersections at 75th Street, the shopping center entrance, and U.S. Route 34 (Oswego Road).

Between U.S. Route 34 (Oswego Road) and Aurora Avenue two full access points are provided to the Mall, South Road and the Mall Entrance, along with several curb cuts servicing the commercial development on the east side. Several outlots associated with the Mall and shopping centers are developed with buildings very close to the right-of-way.

Direct access to the industrial development is primarily limited to North Aurora Road. Glacier Park Avenue also provides direct access to the industry directly south of the Burlington Northern Railroad.

Cross streets provide most of the access to developments north of North Aurora Road. Signalized intersections at Bruce Lane/Brookdale Road and Diehl Road are supplemented with median openings and left-turn bays at regular intervals. All development is set back significantly from the route.

Future Development

This area of Illinois Route 59 is experiencing rapid growth. Surrounded by the expanding communities of Naperville and Aurora and with direct access to Interstate 88 (East-West Tollway), this area is considered an attractive location for new office, commercial and residential development. According to municipal records as of August, 1990, plans for additional construction on Illinois Route 59 include two office and one commercial development.

A 1.1 million square-foot office complex is planned for a site on the northwest corner of Illinois Route 59 and Liberty Street. Directly across from this site on the east side of the route, another office development is proposed. The commercial development is proposed for the east side of the route north of North Aurora Road.

3.5.5 RECOMMENDED IMPROVEMENTS

Improvements for this segment of Illinois Route 59 have been recommended after evaluating the projected travel demand for the year 2010 along with the existing roadway characteristics and character of development along the route. Improvements are categorized by ultimate and low-cost, and divided into those related to the roadway, intersections, traffic signalization, structures, access, transit and other improvements. Right-of-way requirements, potential environmental concerns and improvement cost estimates are also provided in this section. Recommended improvements are shown on Route Maps D-5 and D-6.

Ultimate Improvements

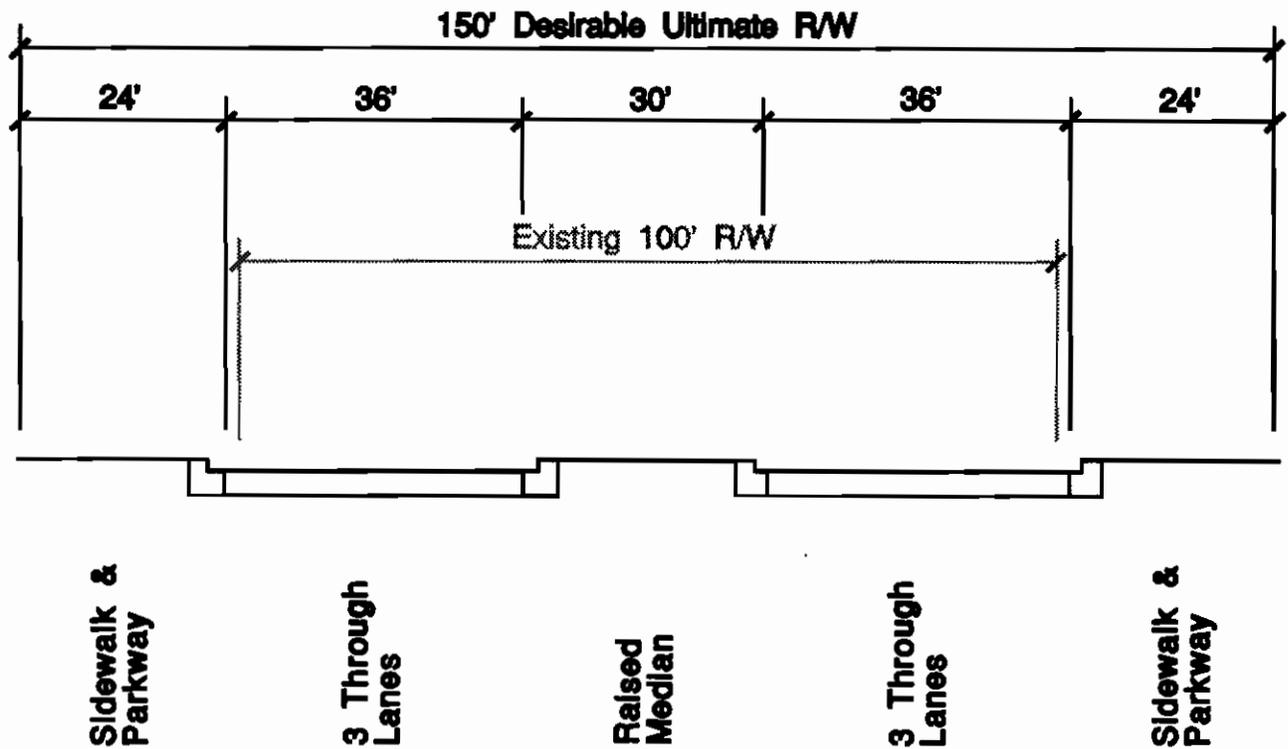
Roadway

The recommended roadway configuration for this segment of Illinois Route 59 is three through lanes in each direction and a continuous 30 foot raised median. (See *Figures 3.24, 3.25, and 3.26.*)

Results of the capacity analysis for this segment are shown in *Table 3.21.*

Intersections

The recommended roadway configuration will allow either single or dual left-turn lanes to be developed at intersecting cross streets where required. Recommended locations for dual left-turn lanes on Illinois Route 59 are at U.S. Route 34 (Oswego Road), Aurora Avenue, and the Interstate 88 (East-West Tollway) interchange ramps. The interchange ramps would

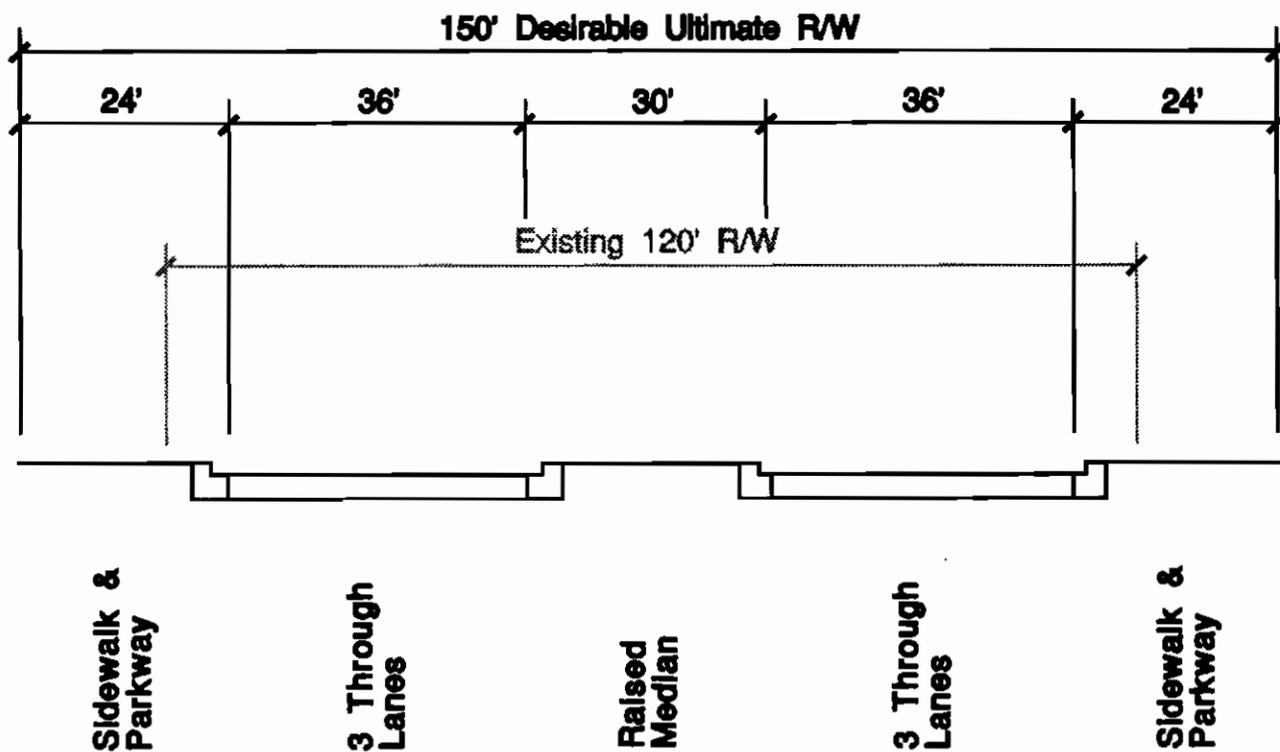


Section R-R

Recommended Roadway Typical Section

Illinois Route 59 **75th Street to U.S. Route 34 (Oswego Road)**

prepared by Harland Bartholomew & Associates, Inc. **Figure 3.24**

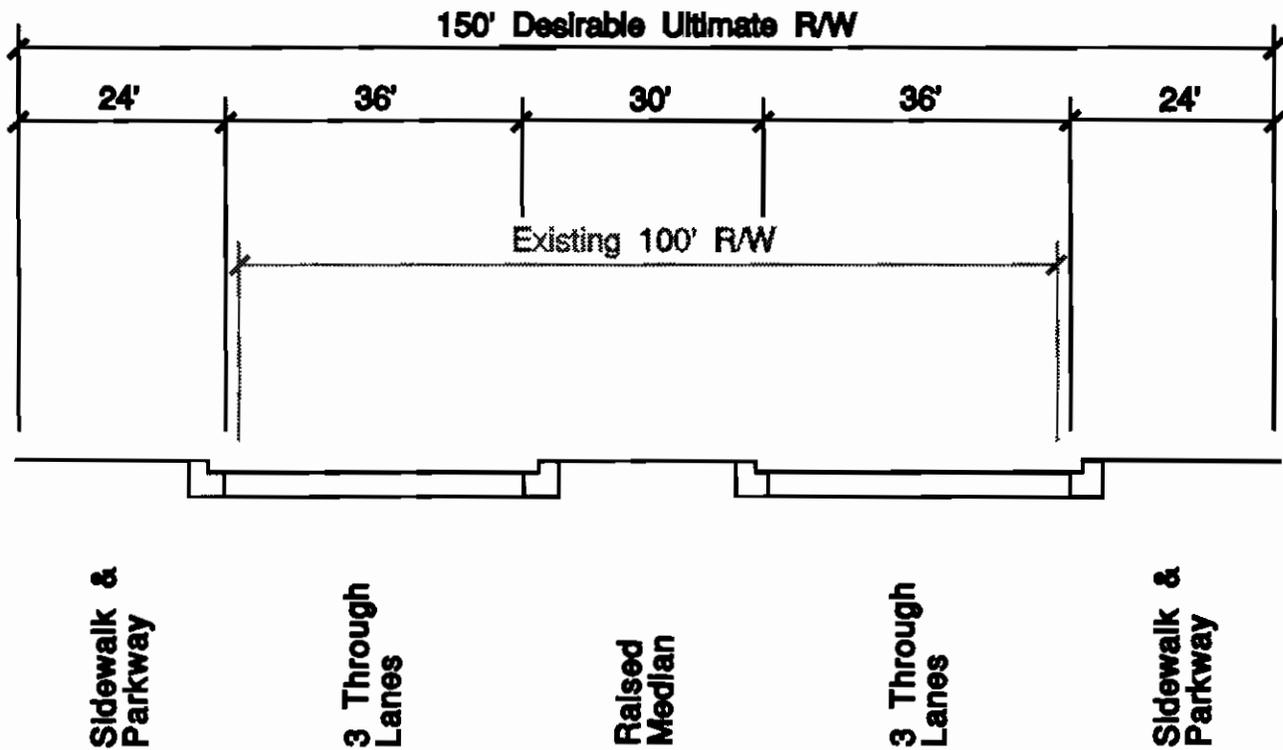


Section S-S

Recommended Roadway Typical Section

Illinois Route 59 U.S. Route 34 (Oswego Road) to North Aurora Road

prepared by Harland Bartholomew & Associates, Inc. **Figure 3.25**



SECTION 3: Route Analysis - 75th Street to Interstate 88 (East-West Tollway)

Table 3.21 Capacity Analysis for Segment 5 - Illinois Route 59					
Segment	Projected Travel Demand (AADT)⁽¹⁾	Number of Through Traffic Lanes	Arterial Capacity (AADT)⁽¹⁾	Peak Direction Level of Service	Adequate to Meet Projected Demand
75th Street to U.S. Route 34	30 to 40,000	6 *	48,000	D	Yes
U.S. Route 34 to Aurora Avenue	40 to 50,000	6 *	47,000	D	Yes
Aurora Avenue to Interstate 88	40 to 50,000	6 *	49,000	D	Yes
⁽¹⁾ Average Annual Daily Traffic					
* - Indicates recommended number of through lanes for this segment.					

have to be widened for dual left-turns from Illinois Route 59. Exclusive right-turn lanes are recommended at all signalized intersections.

Traffic Signalization

The only recommended location for a potential future signal is midway between North Aurora Road and Brookdale Road. Future signals should be installed on the route only at the recommended location and only when the signal warrants recommended for SRA routes are met. (Recommended signal warrants for SRA's are discussed in Section 10.4.2 of the Strategic Regional Arterial Design Concept Report.) Signals should not be installed at other than the recommended locations; additional signals would tend to impede traffic flow on the SRA route and interfere with optimization and progression of signal systems.

All existing traffic signals would remain and interconnection of traffic signals into coordinated systems is recommended. Ultimately, all of the signals from North Aurora Road to Diehl Road would become part of the existing signal system that extends from Diehl Road to Ferry Road in Segment 6.

Structures

The structure that carries the Burlington Northern Railroad over Illinois Route 59 and the structure that carries Illinois Route 59 over Interstate 88 (East-West Tollway) both have inadequate horizontal clearance for the recommended roadway configuration and should be modified to provide clearance for the six lane roadway cross-section. Additional clearance considerations at these structures include providing for a sidewalk on the west side of the

ILLINOIS ROUTE 59

SECTION 3: Route Analysis - 75th Street to Interstate 88 (East-West Tollway)

Burlington Northern structure to facilitate pedestrian traffic around the Illinois Route 59 Metra rail station and providing clearance for opposing single or dual left turn lanes across the Interstate 88 structure.

Transit

Locations for future bus stops in this segment are recommended for all signalized intersections. These locations should be developed with bus turnout areas, shelters and other amenities as recommended in the Pace Development Guidelines.

A Park-and-Ride facility in conjunction with future express bus service should be considered at Diehl Road, in proximity to Interstate 88 (East-West Tollway).

The EJ&E Railroad parallels the route less than one and one-half miles to the west. Consideration is being given to the location of transit stations along this corridor at the intersection with the Burlington Northern Railroad, to facilitate interline transfers and, also, at Diehl Road.

Other Improvements

It is recommended that a detailed study of the Illinois Route 59/Interstate 88 interchange be undertaken to determine the appropriate level of improvement required to correct existing operational deficiencies due to inadequate capacity. Alternatives to be evaluated could include increasing the capacity of the existing diamond configuration with additional turn lanes and increased storage lengths or conversion of the interchange to a cloverleaf configuration. Additional interchanges along Interstate 88 providing access to other north-south arterials in this corridor should also be examined.

Low-Cost Improvements

Access Management

As parcels are developed or redeveloped, it is recommended that future access be limited to the locations shown on Route Maps D-5 and D-6. Existing restrictions on direct access from abutting lots on this segment should be retained.

When development occurs west of the route, between Liberty Street and the Burlington Northern Railroad, internal circulation should be included to provide direct access from Liberty Street to the Route 59 rail station. This will enable station-bound commuters travelling on Liberty Street to reach their destination without having to utilize Illinois Route 59.

Transit

Directional signage is recommended on this segment for Metra Service at the Illinois Route 59 station of the Burlington Northern line. The signage should be located at major

SECTION 3: Route Analysis - 75th Street to Interstate 88 (East-West Tollway)

intersections such as 75th Street, U.S. 34, Aurora Avenue, Jefferson Avenue, North Aurora Road, Diehl Road, and Interstate 88 (East-West Tollway) exit ramps.

3.5.6 ADDITIONAL RIGHT-OF-WAY REQUIREMENTS

The desirable right-of-way width for this segment is 150 feet. To achieve this width an additional 50 feet of right-of-way will be required between 75th Street and U.S. Route 34, an additional 30 feet between U.S. Route 34 and Aurora Avenue, 40 feet between Aurora Avenue and Jefferson Avenue and an additional 50 feet of right-of-way from Jefferson Avenue to Interstate 88 (East-West Tollway).

3.5.7 POTENTIAL ENVIRONMENTAL CONCERNS

During the design phase of proposed improvements the recommended desirable right-of-way should be studied with respect to its impact on the floodplains, wetlands, and prime farmland abutting the route.

3.5.8 CONSTRUCTION/RIGHT-OF-WAY COST ESTIMATES

A summary of the construction cost estimates for the recommended improvements to Segment 5 of Illinois Route 59 is shown in *Table 3.22*.

Improvement	Estimated Cost
Ultimate	
Roadway	\$15,200,000
Intersection Improvements	\$2,400,000
Traffic Signals	\$100,000
Signal Interconnection	\$300,000
Structure Modification	\$3,000,000
Transit Improvements (includes land acquisition)	\$600,000
Right-of-way Acquisition	\$4,200,000
Total Estimated Cost for Ultimate Improvements	\$25,800,000
Low-Cost	
Transit Improvements	\$20,000
Total Estimated Cost for Low-Cost Improvements	\$20,000
Total Estimated Cost for All Improvements	\$25,820,000

3.6 SRA SEGMENT 6: INTERSTATE 88 (EAST-WEST TOLLWAY) TO MACK ROAD**3.6.1 LOCATION**

Segment 6 extends from Interstate 88 (East-West Tollway) to Mack Road, a distance of 2.7 miles. (See Figure 3.27.)

3.6.2 EXISTING FACILITY CHARACTERISTICS

Existing facility characteristics for Segment 6 of Illinois Route 59 are shown on Route Map A-6.

Traffic Volumes

An average annual daily traffic (AADT) volume of 36,500 vehicles at Illinois Route 56 (Butterfield Road) was obtained as part of the IDOT 1990 Turning Movement Counts.

Right-of-Way

The right-of-way is a minimum of 100 feet wide and as wide as 120 feet in some places.

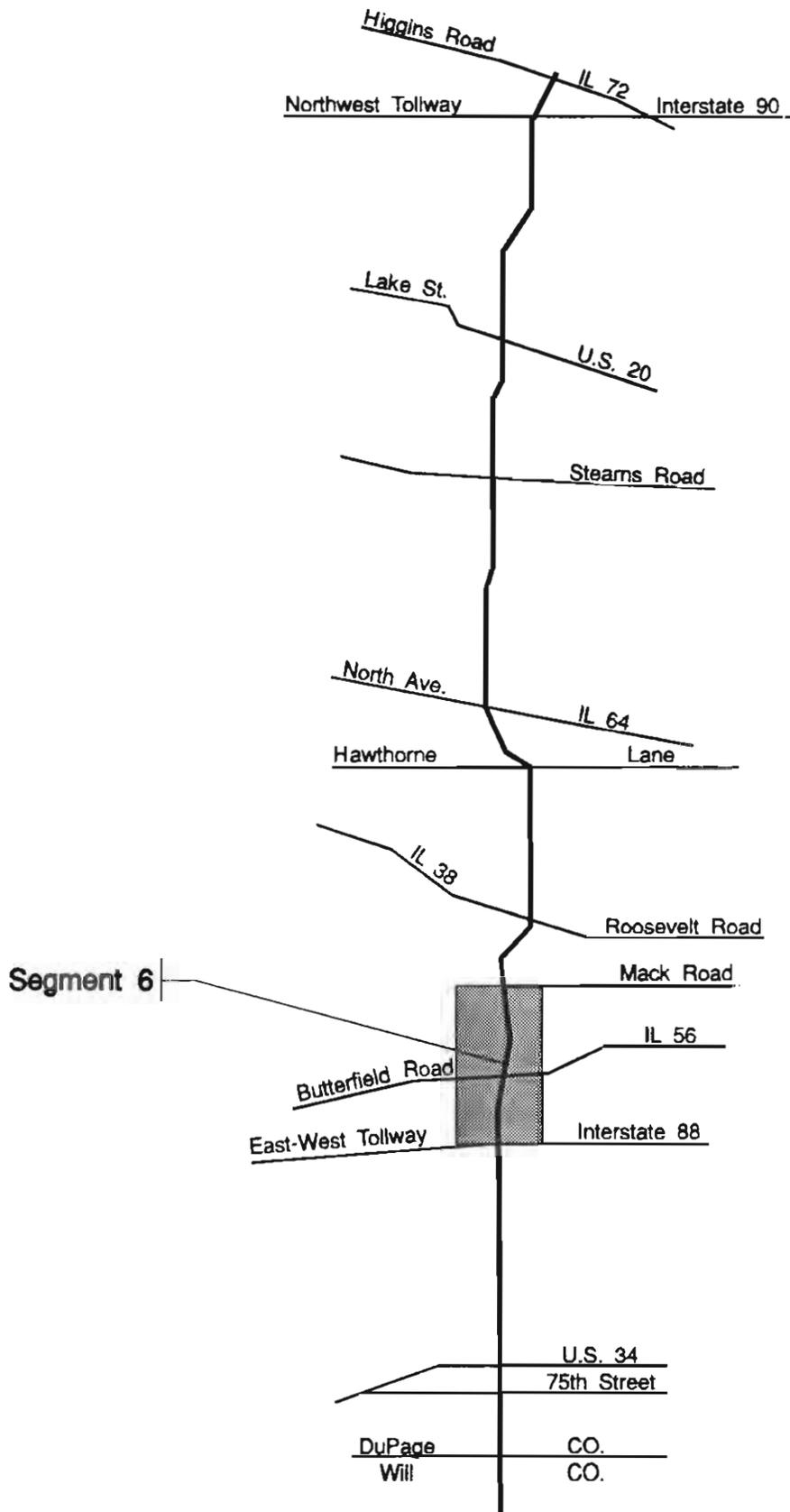
Pavement Width and Number of Lanes

The pavement width ranges from 48 to 54 feet and has four through lanes (two in each direction). The roadway includes a mountable median, 8- to 12-foot paved shoulders, and curb-and-gutter at the edge of the shoulder in developed areas.

Traffic Signals

There are five signalized intersections. They are listed from south to north on Table 3.23.

Intersection	No. of Through Lanes		Turn Bays		Remarks
	NB	SB	Left	Right	
Ferry Road	2	2	YES	NO	
Illinois 56 (Butterfield)	2	2	YES	NO	
Continental Drive	2	2	YES	NO	
Batavia/Warrenville Rd.	2	2	YES	NO	
Mack Road	2	2	YES	NO	
Note: NB = northbound; SB = southbound					



ILLINOIS ROUTE 59

SECTION 3: Route Analysis - Interstate 88 (East-West Tollway) to Mack Road

Parking, Sidewalks and Frontage Roads

There are no on-street parking spaces, sidewalks, or frontage roads.

Structures

There is one bridge structure which is shown on *Table 3.24*.

Table 3.24 Existing Structures					
Structure	Structure No. (SN)	Location	Clearance		Remarks
			Vert.	Horiz.	
Ferry Creek	022-0152	N. of Illinois 56	N/A	70'	SRA over
Note: N/A=Not Applicable					

Transit

Transit service on Segment 6 includes Pace Route #676 which links Warrenville to the Naperville Metra station.

Other Characteristics

The Illinois Prairie Path passes beneath Illinois Route 59 just north of Ferry Road

3.6.3 EXISTING ENVIRONMENTAL CHARACTERISTICS

The existing environmental characteristics include floodplains, prime farmland, and sensitive land uses. They are shown on Route Map B-6.

Streams/Wetlands/Floodplains

There are two floodplain crossings: a minor crossing at the Illinois Prairie Path; and the 100-foot wide floodplain of Ferry Creek north of Illinois Route 56 (Butterfield Road). North of Batavia-Warrenville Road, the West Branch of the DuPage River flows toward the route and runs parallel through the remainder of the segment. There are several small wetlands within the floodplains and several others not associated with the floodplains.

Prime Farmland

There is prime farmland on the west side of the route from Interstate 88 (East-West Tollway) to Ferry Road. On the east side of the route prime farmland extends north from Ferry Road for about one-quarter mile.

SECTION 3: Route Analysis - Interstate 88 (East-West Tollway) to Mack Road

Sensitive Land Uses

Sensitive land uses on this segment include the Illinois Prairie Path, just north of Ferry Road, and the Roy C. Blackwell Forest Preserve, beginning just south of Mack Road and extending almost to Illinois Route 38 (Roosevelt Road) on the east side of the route.

3.6.4 DEVELOPMENT CHARACTERISTICS

Existing development characteristics and potential future development are indicated on Route Map C-6.

Jurisdiction

The segment passes through the Cities of Naperville and Warrenville. Naperville lies between Interstate 88 (East-West Tollway) and Ferry Road on both sides of the route. The route crosses Warrenville in several places: between Townline Road and Illinois Route 56 (Butterfield Road), Prairie Avenue and Waverly Avenue, and a small area on the west side of the route south of Mack Road. Warrenville is on the west side of the route between Ferry Road and Joliet Street; on the east side of the route from the Naperville Township line to just south of Mack Road; and, for a short distance north of Mack Road

Type and Intensity of Development

Development is a mixture of office, commercial and residential uses. Between Interstate 88 (East-West Tollway) and Ferry Road, there is a large office development on the east side of the route and commercial developments on the southwest and northwest corners of the intersection with Ferry Road. The west side of the route is undeveloped.

From Illinois Prairie Path to Illinois Route 56 (Butterfield Road) there are residential and commercial developments. The residential use is single-family. There are commercial developments on three of the four corners at Illinois Route 56 (Butterfield Road).

Between Illinois Route 56 (Butterfield Road) and Mack Road, land use is primarily single-family residential. Commercial and office development is clustered around the intersection with Batavia-Warrenville Road.

Development Access and Setback

Access to commercial developments north of Interstate 88 (East-West Tollway) is via Ferry Road. For the remainder of the segment, there are curb cuts for commercial development. Most residential development is accessed via cross streets, but there are a few remaining driveways.

Most structures are set back significantly from the right-of-way line. North of Illinois Route 56 (Butterfield Road), residential development is set back approximately 20 feet from the roadway.

SECTION 3: Route Analysis - Interstate 88 (East-West Tollway) to Mack Road

Future Development

Land around the Interstate 88 (East-West Tollway) interchange is very desirable. Most of the undeveloped land on this segment is between Interstate 88 (East-West Tollway) and Illinois Route 56 (Butterfield Road). According to municipal records as of August, 1990, office and commercial development is planned for this segment. Two parcels of land just north of the interchange are expected to be developed with offices. A 92 unit single-family residential development is planned for an area south of Batavia-Warrenville Road on the east side of the route.

3.6.5 RECOMMENDED IMPROVEMENTS

Improvements for this segment of Illinois Route 59 have been recommended after evaluating the projected travel demand for the year 2010 along with the existing roadway characteristics and character of development along the route. Improvements are categorized by ultimate, low-cost and post-2010, and divided into those related to the roadway, intersections, traffic signalization, structures, access, transit and other improvements. Right-of-way requirements, potential environmental concerns and improvement cost estimates are also provided in this section. Recommended improvements are shown on Route Map D-6.

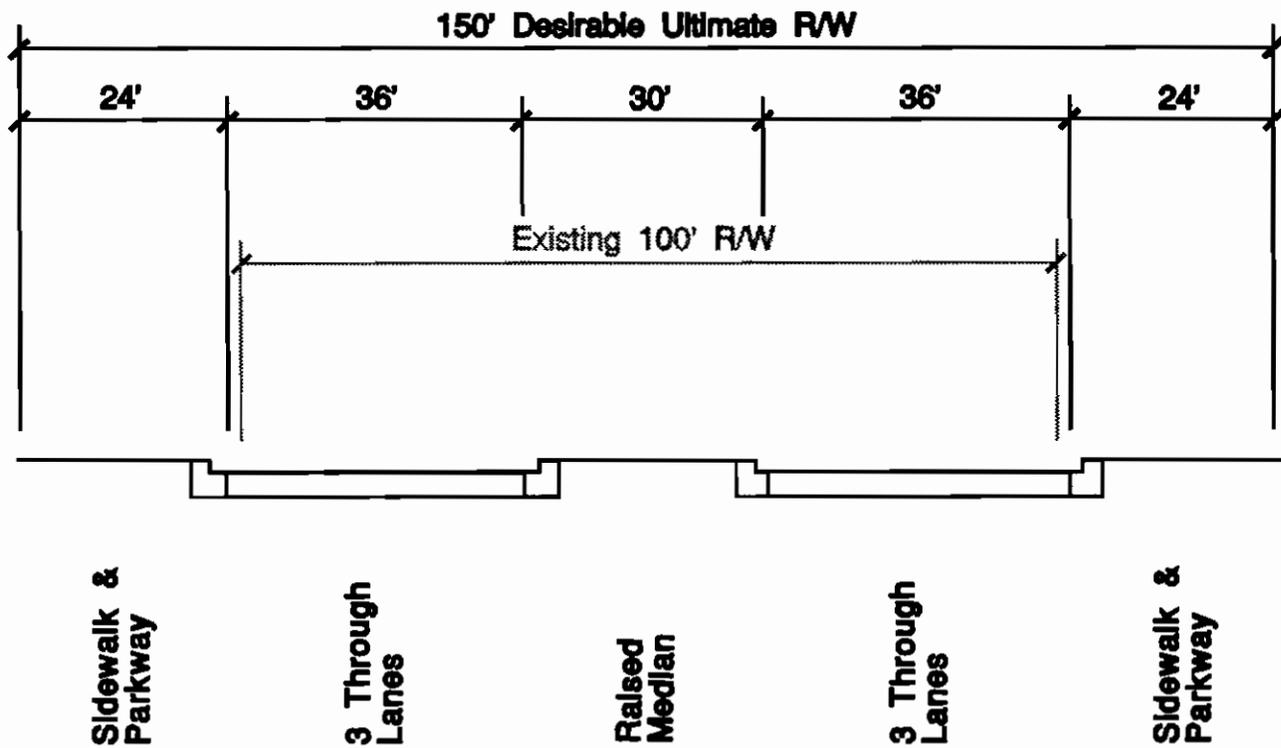
Ultimate Improvements

Roadway

The recommended roadway configuration for this segment provides for three through lanes in each direction and a continuous 30-foot raised median. (See *Figures 3.28 and 3.29.*)

Results of the capacity analysis for this segment are shown in *Table 3.25.*

Table 3.25 Capacity Analysis for Segment 6 - Illinois Route 59					
Segment	Projected Travel Demand (AADT)⁽¹⁾	Number of Through Traffic Lanes	Arterial Capacity (AADT)⁽¹⁾	Peak Direction Level of Service	Adequate to Meet Projected Demand
Interstate 88 to Mack Road	< 30,000 to 50,000	6 *	49,000	D	Yes
⁽¹⁾ Average Annual Daily Traffic					
* - Indicates recommended number of through lanes for this segment.					

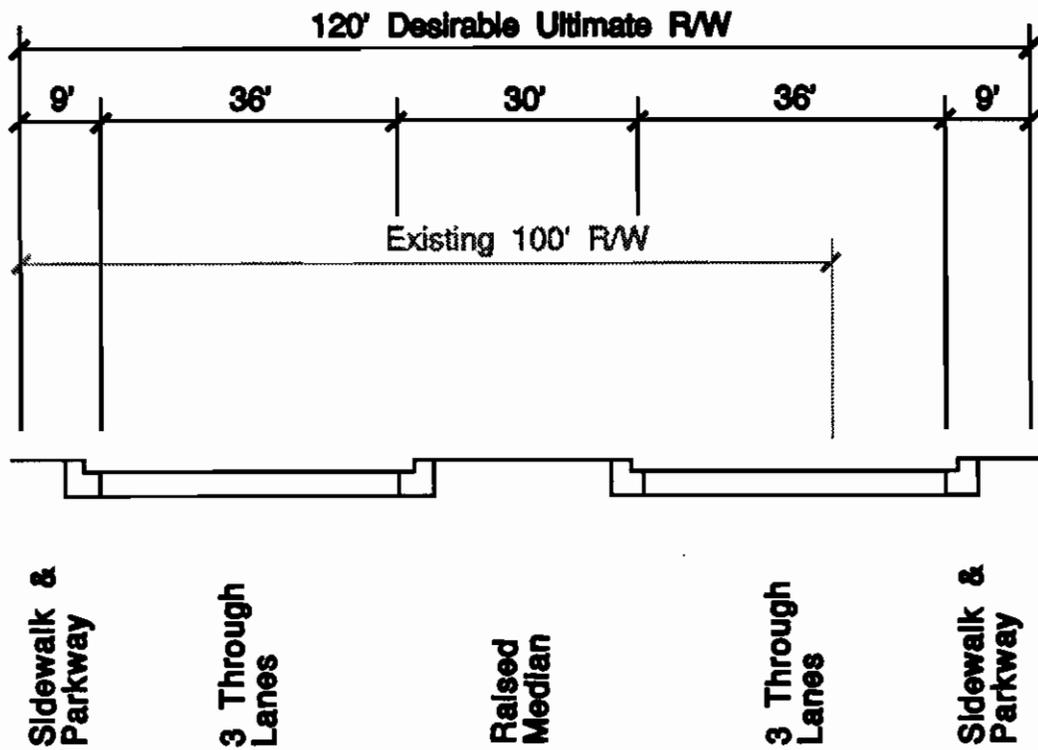


Section T-T

Recommended Roadway Typical Section

Illinois Route 59 Interstate 88 to Illinois Route 56 (Butterfield Road)

prepared by Harland Bartholomew & Associates, Inc. Figure 3.28



Section U-U

Recommended Roadway Typical Section

Illinois Route 59 Illinois Route 56 (Butterfield Road) to Mack Road

prepared by Harland Bartholomew & Associates, Inc. **Figure 3.29**

Intersections

The 30-foot median will allow single or dual left-turn lanes to be developed as required. Separate right-turn lanes are recommended at all signalized intersections.

Dual left-turn lanes and separate right-turn lanes are recommended on all legs of the Illinois Route 56 (Butterfield Road) intersection (see Detail 4). Because both Illinois Route 56 and Illinois Route 59 are SRA routes, the level of service for each intersection movement and for the total intersection was calculated. For this calculation the AADT volumes used were 49,000 vehicles on Illinois Route 59 and 20,000 vehicles on Illinois Route 56. The resulting levels of service are shown in *Table 3.26*.

Direction	Movement	Level of Service
Illinois Route 59 northbound	left turn	D
Illinois Route 59 northbound	through	B
Illinois Route 59 northbound	right turn	A
Illinois Route 59 southbound	left turn	D
Illinois Route 59 southbound	through	D
Illinois Route 59 southbound	right turn	A
Illinois Route 56 eastbound	left turn	D
Illinois Route 56 eastbound	through	C
Illinois Route 56 eastbound	right turn	B
Illinois Route 56 westbound	left turn	D
Illinois Route 56 westbound	through	D
Illinois Route 56 westbound	right turn	B
Total Intersection		C

Traffic Signalization

A potential future signal location is recommended at the mid-mile collector south of Illinois Route 56. Future signals should be installed on the route only at the recommended location and only when the signal warrants recommended for SRA routes are met. (Recommended signal warrants for SRAs are discussed in Section 10.4.2 of the Strategic Regional Arterial Design Concept Report.) Signals should not be installed at other than the recommended locations; additional signals would tend to impede traffic flow on the SRA route and interfere with optimization and progression of signal systems.

Existing signals at Ferry Road, Illinois Route 56 (Butterfield Road), Continental Drive, Batavia-Warrenville Road and Mack Road would be retained, and interconnection of signals in coordinated systems is recommended.

SECTION 3: Route Analysis - Interstate 88 (East-West Tollway) to Mack Road

Ultimately, all of the signals from Illinois Route 56 (Butterfield Road) to Batavia-Warrenville Road should be incorporated into the existing signal system that presently ends at Ferry Road.

Structures

The structure over Ferry Creek should be modified to provide horizontal clearance for the recommended six through lane cross-section.

Transit

Locations for future bus stops in this segment are recommended for all signalized intersections. These locations should be developed with bus turnout areas, shelters and other amenities as recommended in the Pace Development Guidelines.

Consideration should be given to development of a Park-and-Ride facility in conjunction with future express bus service along the SRA route. Potential locations include the Illinois Route 56 (Butterfield Road)/Illinois Route 59 intersection or the potential EJ&E transit station.

Low-Cost Improvements***Roadway***

It is recommended that a median be constructed between Batavia-Warrenville Road and Mack Road similar to the existing median provided south of Batavia-Warrenville Road. This median should be of sufficient width to provide left turn lanes at Waverly Avenue, Ridge Drive and Branch Avenue. Full access to Illinois Route 59 for Countryside Avenue should be via Batavia-Warrenville Road.

Traffic Signalization

Interconnection of the existing signals from Illinois Route 56 (Butterfield Road) to Batavia-Warrenville Road is recommended. Traffic signals should be installed at the recommended locations when the signal warrants recommended for SRA routes are met.

Access Management

As parcels are developed or redeveloped, it is recommended that future access be limited to the locations shown on Route Map D-6. Existing restrictions on direct access from abutting lots on this segment should be retained.

Transit

Directional signage is recommended on this segment for Pace service between the Naperville Metra Station and Warrenville. This signage should be located at all signalized intersections.

Post-2010 Improvements***Intersections***

It is recommended that additional right-of-way at Illinois Route 56 be protected to allow implementation of a post-2010 single point diamond interchange (see Detail 4).

3.6.6 ADDITIONAL RIGHT-OF-WAY REQUIREMENTS

To achieve the 150-foot right-of-way south of Illinois Route 56 (Butterfield Road), 50 feet of additional right-of-way will be needed south of Ferry Road and 15 feet additional north of Ferry Road. The desirable 120-foot right-of-way north of Illinois Route 56 (Butterfield Road) will require 20 feet of additional right-of-way.

At Illinois Route 56 (Butterfield Road), it is recommended that additional right-of-way be protected for potential post 2010 interchange construction. The defined right-of-way limits in Detail 4 are based on preliminary geometry for a single point diamond interchange. (Recommended Right-of-way Requirements are discussed in Section 8.3.2 of the Strategic Regional Arterial Design Concept Report).

3.6.7 POTENTIAL ENVIRONMENTAL CONCERNS

During the design phases of improvements, the recommended desirable right-of-way should be studied with respect to its impact on the floodplain, wetlands, forest preserve, and prime farmlands. Of particular concern might be the modification of the Ferry Creek structure (SN 022-0152) to accommodate the six through lanes cross-section.

Roadway improvements should allow for safe crossing by users of the Illinois Prairie Path. Intermittent flooding and poor equestrian clearance at the Illinois Route 59 crossing are issues of special concern to Prairie Path users.

3.6.8 CONSTRUCTION/RIGHT-OF-WAY COST ESTIMATES

A summary of the construction cost estimates for the recommended improvements to Segment 6 of Illinois Route 59 is shown in *Table 3.27*.

ILLINOIS ROUTE 59

SECTION 3: Route Analysis - Interstate 88 (East-West Tollway) to Mack Road

Table 3.27	
Construction Cost Estimates for Segment 6 - Illinois Route 59	
Improvement	Estimated Cost
Ultimate	
Roadway	\$11,200,000
Intersection Improvements	\$1,000,000
Traffic Signals	\$100,000
Structure Modification	\$300,000
Transit Improvements (includes land acquisition)	\$600,000
Right-of-way Acquisition	\$400,000
Total Estimated Cost for Ultimate Improvements	\$13,600,000
Low-Cost	
Signal Interconnection	\$200,000
Transit Improvements	\$10,000
Total Estimated Cost for Low-Cost Improvements	\$210,000
Post-2010	
Interchange at Illinois Route 56 (Butterfield Road)	\$7,000,000
Right-of-way Acquisition	\$2,200,000
Total Estimated Cost for Post-2010 Improvements	\$9,200,000
Total Estimated Cost for All Improvements	\$23,010,000

SECTION 3: Route Analysis - Mack Road to Illinois Route 38 (Roosevelt Road)**3.7 SRA SEGMENT 7: MACK ROAD TO ILLINOIS ROUTE 38 (ROOSEVELT ROAD)****3.7.1 LOCATION**

Segment 7 extends from Mack Road to Illinois Route 38 (Roosevelt Road), a distance of approximately 1.5 miles. (See *Figure 3.30.*)

3.7.2 EXISTING FACILITY CHARACTERISTICS

Existing facility characteristics for Segment 7 of Illinois Route 59 are shown on Route Map A-7.

Traffic Volumes

An average annual daily traffic (AADT) volume of 29,900 vehicles was obtained from the 1989 IDOT DuPage County Traffic Map.

Right-of-Way

The right-of-way is 125 feet wide, except for the section between Gary's Mill Road and Illinois Route 38 (Roosevelt Road) where the right-of-way is 100 feet wide.

Pavement Width and Number of Lanes

The pavement width ranges from 48 to 52 feet wide and has four through lanes (two in each direction). The roadway includes a mountable median, eight- to twelve-foot wide paved shoulders and curb-and-gutter in the more developed areas .

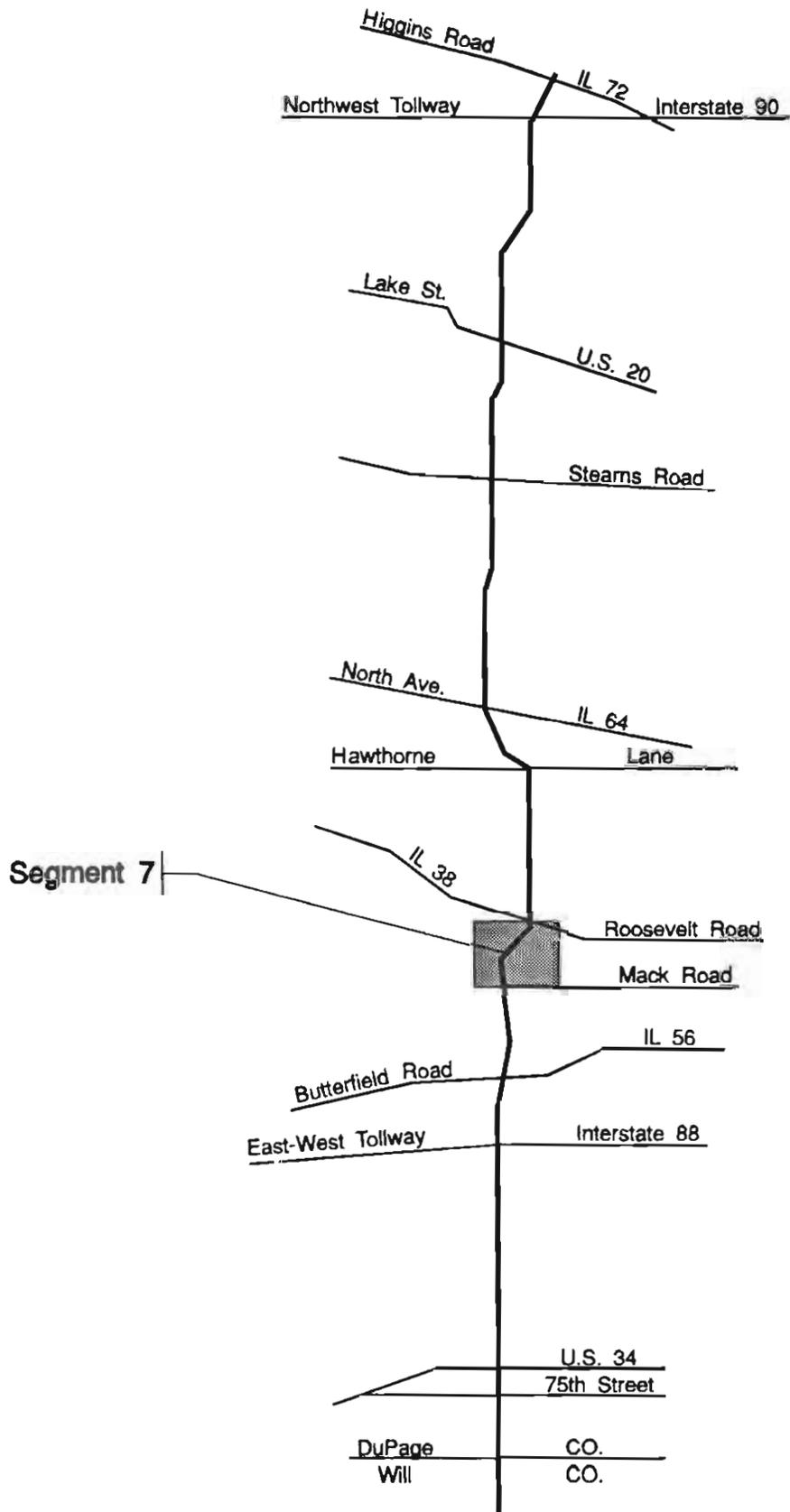
Traffic Signals

There are three signalized intersections. They are listed from south to north on *Table 3.28.*

Intersection	No. of Through Lanes		Turn Bays		Remarks
	NB	SB	Left	Right	
Joliet Street	2	2	NB	NO	
Illinois 38 south ramp	2	2	NB	NO	
Illinois 38 north ramp	2	2	SB	NO	
Note: NB = northbound; SB = southbound					

Parking, Sidewalks and Frontage Roads

There are no on-street parking spaces, sidewalks, or frontage roads.



Illinois Route 59 (DuPage County)

prepared by Harland Bartholomew & Associates, Inc.

Location Map

Figure 3.30

SECTION 3: Route Analysis - Mack Road to Illinois Route 38 (Roosevelt Road)

Structures

There are two structures. They are listed in *Table 3.29*.

Table 3.29 Existing Structures					
Structure	Structure No. (SN)	Location	Clearance		Remarks
			Vert.	Horiz.	
Kress Creek	022-0037	north of Joliet St	N/A	60'	SRA over
Illinois 38	022-0036	—————	N/A	63'	SRA over
Note: N/A=Not Applicable					

Transit

Transit service is provided at the West Chicago Metra station located one and one-half miles north of Illinois Route 38 (Roosevelt Road) and one-quarter mile west of Illinois Route 59.

Other Characteristics

There is an interchange with Illinois Route 38 (Roosevelt Road). The interchange is fully directional.

3.7.3 EXISTING ENVIRONMENTAL CHARACTERISTICS

The environmental characteristics include wetlands, floodplains, an historic landmark, endangered and threatened species, prime farmland, and sensitive land uses. These characteristics are shown on Route Map B-7.

Streams/Wetlands/Floodplains

The West Branch DuPage River flows near the east side of the route and two of its tributaries cross the route. One floodplain crossing is north of Mack Road and is 250 feet wide. The other crossing is northeast of the intersection with Joliet Street and is 300 feet wide. There are wetland areas in association with these floodplains.

Historical Significance

The Illinois Historic Landmarks Survey lists an historic landmark home approximately one-half mile north of Mack Road near the west side of the route.

Flora/Fauna

This segment is in the vicinity of the habitats of five endangered and two threatened species. The endangered species are the pied-billed grebe, least bittern, Cooper’s hawk, the black tern, and the yellow-headed blackbird. The threatened species are the common moorhen and the Henslow’s sparrow.

SECTION 3: Route Analysis - Mack Road to Illinois Route 38 (Roosevelt Road)

Prime Farmland

There is prime farmland on the west side of the route extending about 3,000 feet north from Mack Road.

Sensitive Land Uses

There are two churches: northwesterly of the intersection with Joliet Street and northeast of the intersection with Gary's Mill Road.

The Roy C. Blackwell Forest Preserve extends south from the intersection with Gary's Mill Road on the east side of the segment.

3.7.4 DEVELOPMENT CHARACTERISTICS

Existing development characteristics and potential future development are shown on Route Map C-7.

Jurisdiction

Most of the segment is in unincorporated DuPage County. The southerly city limit of West Chicago begins 1,000 feet south of Illinois Route 38 (Roosevelt Road) near Gary's Mill Road.

Type and Intensity of Development

Development includes commercial, office and residential uses. In addition to a new 301-unit townhouse development on the west side of the route north of Mack Road, there are scattered single-family residences. There are multi-family residential units and an office development on the southwest corner of the intersection with Illinois Route 38 (Roosevelt Road). Commercial development is located south of the new townhouse development and on the southeast corner of the intersection with Illinois Route 38 (Roosevelt Road). Most of the properties abutting the segment are undeveloped.

Development Access and Setback

Most of the single-family residences which front the route have driveway access. Joliet Street provides additional access to several residences. The townhouse subdivision has an access road. The multi-family residential development near Illinois Route 38 (Roosevelt Road) has an access point on the route. The commercial developments on this segment are serviced by curb cuts.

All building setbacks appear to be relatively distant from the right-of-way.

Future Development

According to municipal records as of August, 1990, there are no plans for additional development on the segment.

3.7.5 RECOMMENDED IMPROVEMENTS

Improvements for this segment of Illinois Route 59 have been recommended after evaluating the projected travel demand for the year 2010 along with the existing roadway characteristics and character of development along the route. Improvements are categorized by ultimate and low-cost, and divided into those related to the roadway, intersections, traffic signalization, structures, access, transit and other improvements. Right-of-way requirements, potential environmental concerns and improvement cost estimates are also provided in this section. Recommended improvements are shown on Route Map D-7.

Ultimate Improvements

Roadway

The recommended roadway configuration for this segment provides for three through lanes in each direction and a continuous 30-foot raised median. (See *Figure 3.31*.)

Results of the capacity analysis for this segment are shown in *Table 3.30*.

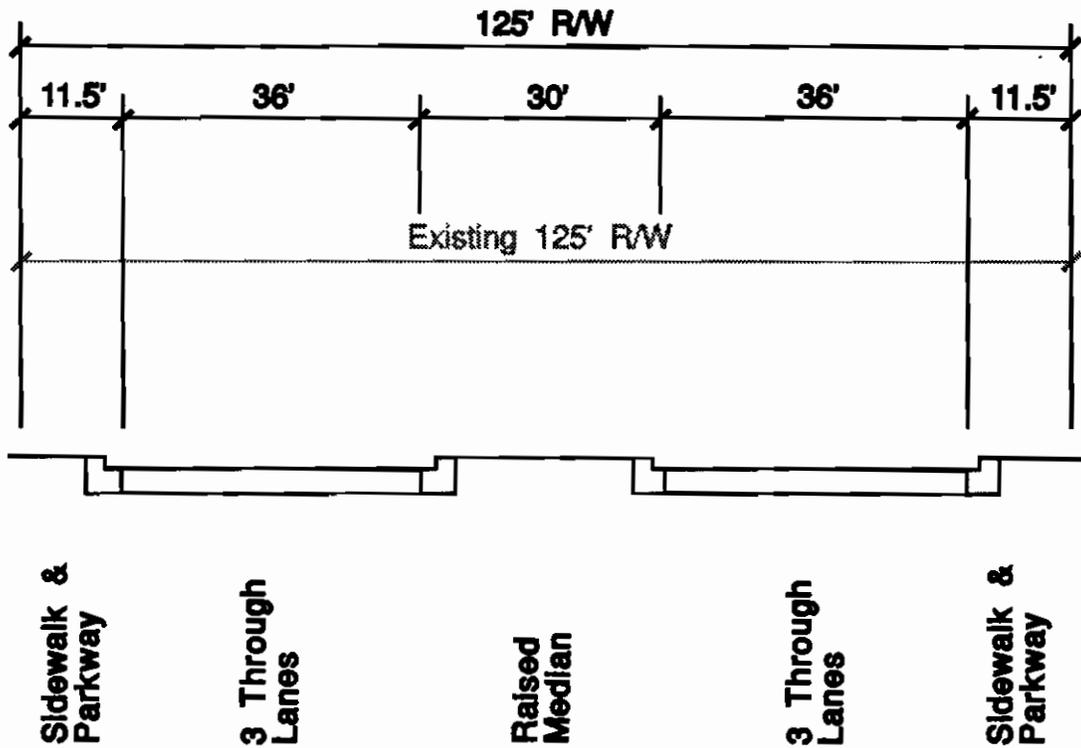
Segment	Projected Travel Demand (AADT) ⁽¹⁾	Number of Through Traffic Lanes	Arterial Capacity (AADT) ⁽¹⁾	Peak Direction Level of Service	Adequate to Meet Projected Demand
Mack Road to Illinois 38	< 30,000	4	32,000	D	Yes
		6 *	44,000	C	Yes
(1)Average Annual Daily Traffic					
* - Indicates recommended number of through lanes for this segment.					

Intersections

The recommended roadway configuration allows for the development of either single or dual left-turn lanes as required. Single left and right-turn lanes are recommended at all signalized intersections in this segment.

Traffic Signalization

Potential future signal locations are recommended at Willow Lane and Wilson Street. Future signals should be installed on the route only at the recommended locations and only when the signal warrants recommended for SRA routes are met. (Recommended signal warrants



Section V-V

Recommended Roadway Typical Section

Illinois Route 59 Mack Road to Illinois Route 38 (Roosevelt Road)

prepared by Harland Bartholomew & Associates, Inc. Figure 3.31

SECTION 3: Route Analysis - Mack Road to Illinois Route 38 (Roosevelt Road)

for SRAs are discussed in Section 10.4.2 of the Strategic Regional Arterial Design Concept Report.) Signals should not be installed at other than the recommended locations; additional signals would tend to impede traffic flow on the SRA route and interfere with optimization and progression of signal systems.

Existing signals at Joliet Street and the Illinois Route 38 (Roosevelt Road) ramps would be retained. Interconnection of signals into coordinated systems is recommended. Ultimately, one signal system could be used to interconnect all the signals in this segment into a proposed signal system extending from Ferry Road in Segment 6 to James Avenue in Segment 8.

Structures

The structures over the West Branch DuPage River tributary and Illinois Route 38 (Roosevelt Road) have inadequate horizontal clearance for the recommended roadway configuration and should be modified to provide adequate clearance for the recommended six through lane cross-section.

Transit

Locations for future bus stops in this segment are recommended for all signalized intersections. These locations should be developed with bus turnout areas, shelters and other amenities as recommended in the Pace Development Guidelines.

Consideration should be given for locating a Park-and-Ride facility at the intersection of Illinois Route 38 (Roosevelt Road) and Joliet Street in conjunction with express bus service on both Illinois Route 59 and Illinois Route 38 (Roosevelt Road).

Low-Cost Improvements***Traffic Signalization***

Interconnection of the Illinois Route 38 (Roosevelt Road) ramp signals is recommended. Traffic signals should be installed at the recommended locations when the signal warrants recommended for SRA routes are met.

Access Management

As parcels are developed or redeveloped, it is recommended that access be limited to the locations shown on Route Map D-7. Existing restrictions on direct access from abutting lots on this segment should be retained.

Transit

Directional signage is recommended on this segment for the Metra station in West Chicago. This signage should be located at all signalized intersections.

SECTION 3: Route Analysis - Mack Road to Illinois Route 38 (Roosevelt Road)**3.7.6 ADDITIONAL RIGHT-OF-WAY REQUIREMENTS**

The existing right-of-way from Mack Road to Gary's Mill Road is adequate for the recommended roadway configuration. North of Gary's Mill Road, in the Illinois Route 38 (Roosevelt Road) interchange area, additional right-of-way is necessary for the six through lane cross-section.

3.7.7 POTENTIAL ENVIRONMENTAL CONCERNS

Retention of the existing right-of-way width is expected to reduce the impact of improvements on surrounding areas of environmental concern. Of concern is expansion of the structure over the West Branch DuPage River tributary (SN 022-0037) as it flows into the Roy C. Blackwell Forest Preserve. All areas should, however, be addressed in subsequent design studies.

3.7.8 CONSTRUCTION/RIGHT-OF-WAY COST ESTIMATES

A summary of the construction cost estimates for the recommended improvements to Segment 7 of Illinois Route 59 is shown in *Table 3.31*.

Table 3.31 Construction Cost Estimates for Segment 7 - Illinois Route 59	
Improvement	Estimated Cost
Ultimate	
Roadway	\$6,400,000
Intersection Improvements	\$700,000
Traffic Signals	\$200,000
Signal Interconnection	\$300,000
Structure Modification	\$2,000,000
Transit Improvements (includes right-of-way acquisition)	\$600,000
Total Estimated Cost for Ultimate Improvements	\$10,200,000
Low-Cost	
Signal Interconnection	\$100,000
Transit Improvements	\$10,000
Total Estimated Cost for Low-Cost Improvements	\$110,000
Total Estimated Cost for All Improvements	\$10,310,000

SECTION 3: Route Analysis - Illinois 38 (Roosevelt Road) to Hawthorne Lane**3.8 SRA SEGMENT 8: ILLINOIS ROUTE 38 (ROOSEVELT ROAD) TO HAWTHORNE LANE****3.8.1 LOCATION**

Segment 8 extends from Illinois Route 38 (Roosevelt Road) to Hawthorne Lane, a distance of 2.7 miles. (See *Figure 3.32*.)

3.8.2 EXISTING FACILITY CHARACTERISTICS

Existing facility characteristics for Segment 8 of Illinois Route 59 are shown on Route Map A-7.

Traffic Volumes

Average annual daily traffic (AADT) volumes in this segment vary between 23,700 and 31,200 vehicles according to the 1989 IDOT DuPage County Traffic Map.

Right-of-Way

The existing right-of-way ranges from 76 feet wide to over 100 feet wide. The right-of-way is 120 feet wide at Illinois Route 38 (Roosevelt Road) but narrows to less than 80 feet wide south of the Chicago and North Western railroad overpass. Between the railroad overpass and Hawthorne Lane the right-of-way ranges between 76 feet and 105 feet wide.

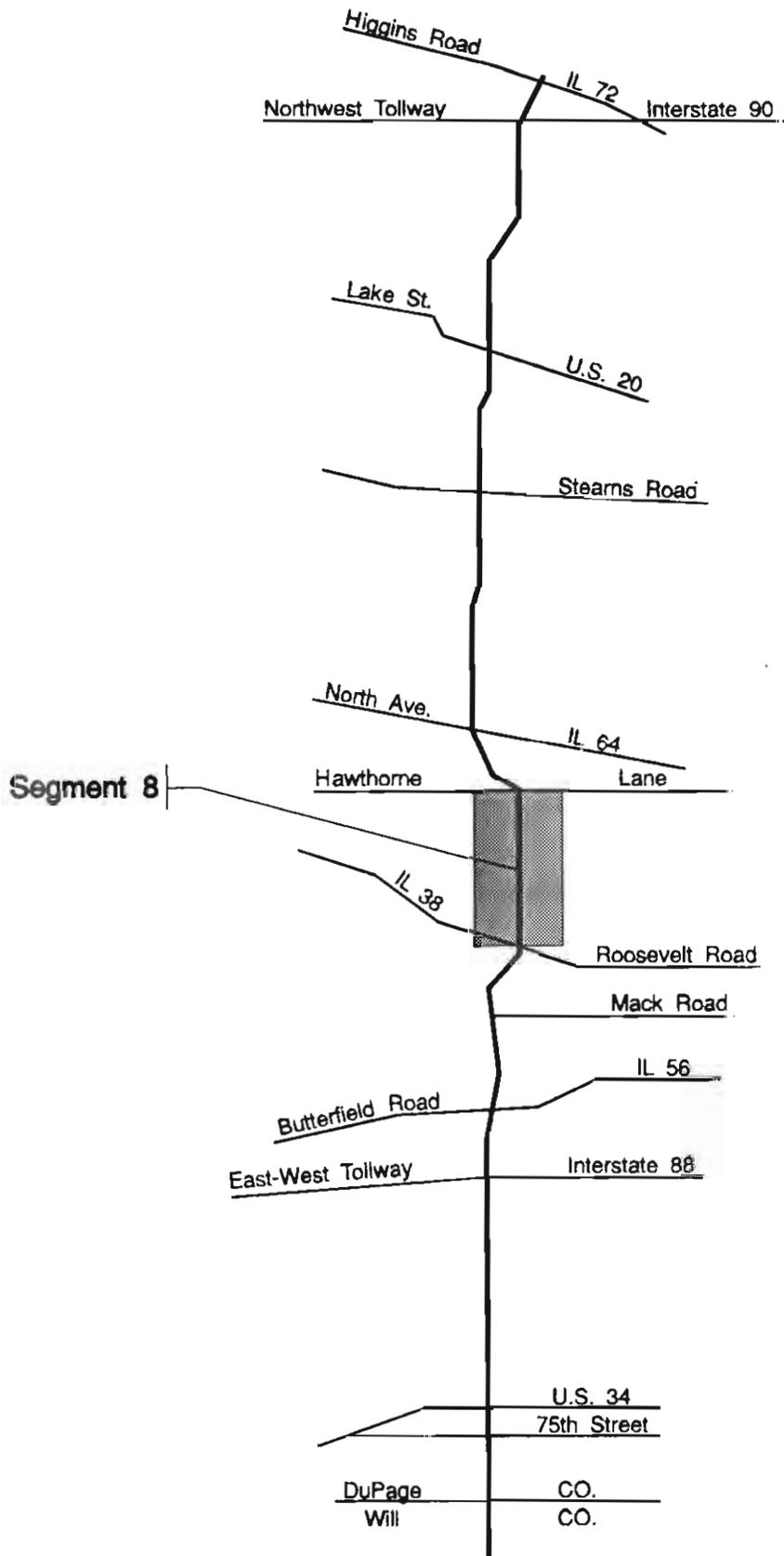
Pavement Width and Number of Lanes

The pavement width ranges from 48 to 52 feet and has four through lanes (two in each direction). The roadway includes a two- to ten-foot wide mountable median, and curb-and-gutter.

Traffic Signals

There are four signalized intersections. They are listed from south to north on *Table 3.32*.

Intersection	No. of Through Lanes		Turn Bays		Remarks
	NB	SB	Left	Right	
Forest Avenue	2	2	YES	NO	
Main Street	2	2	YES	NO	
Washington Street	2	2	YES	NO	
James Avenue	2	2	NO	NO	
Note: NB = northbound; SB = southbound					



SECTION 3: Route Analysis - Illinois 38 (Roosevelt Road) to Hawthorne Lane**Parking, Sidewalks and Frontage Roads**

There are no on-street parking spaces. There is a frontage road on the west side of the route between Dale Avenue and Forest Avenue. Sidewalks are located on both sides of the route from the Chicago & NorthWestern Railroad to Washington Street and on the west side of the route from Forest Avenue to the Chicago & NorthWestern Railroad.

Structures

There is one bridge structure in this segment. It is listed in *Table 3.33*.

Table 3.33 Existing Structures					
Structure	Structure No. (SN)	Location	Clearance		Remarks
			Vert.	Horiz.	
C&NW RR	022-0143	south of Main St	N/A	64'	SRA over
Note: N/A=Not Applicable					

Transit

The West Chicago Metra station is one-quarter mile west of Illinois Route 59 on Main Street. The station is served by the Chicago & NorthWestern West line commuter rail service to Chicago. There is no Pace service to the station.

3.8.3 EXISTING ENVIRONMENTAL CHARACTERISTICS

The existing environmental characteristics include an historic landmark, a hazardous waste site, and sensitive land uses. These characteristics are shown on Route Map B-7.

Historical Significance

The Illinois Historic Landmarks Survey lists an historic landmark at the northwest corner of the intersection with Forest Avenue. It was built in the 1850s and now houses a commercial establishment.

Waste Disposal Sites/Hazardous Waste Sites

The West Chicago wastewater treatment plant is at the northeast corner of the intersection with Illinois Route 38 (Roosevelt Road). The Illinois Hazardous Waste Resource and Information Center has reported hazardous waste in the vicinity of the treatment plant and in the vicinity of Kress Creek.

SECTION 3: Route Analysis - Illinois 38 (Roosevelt Road) to Hawthorne Lane

Sensitive Land Uses

Noise sensitive land uses include the Veterans of Foreign Wars hall and a church which are adjacent to one another east of the route and mid-way between the Chicago & North Western railroad and Hawthorne Lane.

The West DuPage Park Forest Preserve extends from the waste water treatment plant to Forest Avenue, on the east side of Illinois Route 59.

The Geneva Spur of the Illinois Prairie Path crosses beneath Illinois Route 59 on the Chicago & NorthWestern Railroad right-of-way.

3.8.4 DEVELOPMENT CHARACTERISTICS

Existing development characteristics and potential future development are shown on Route Map C-7.

Jurisdiction

The City of West Chicago is the local jurisdiction exercising control over development on most of this segment. Beginning south of Illinois Route 38 (Roosevelt Road) West Chicago extends to James Avenue.

Type and Intensity of Development

There is commercial, residential and industrial development on this segment. Most properties fronting the segment are single-family residential. Multi-family residences are located southeast of the intersection at Grand Lake Boulevard. The two areas of commercial development are at the intersection with Illinois Route 38 (Roosevelt Road) and between the Chicago & NorthWestern Railroad and Washington Street. There is an industrial area southwest of the crossing of the Chicago & NorthWestern Railroad.

Development Access and Setback

Driveways, alleys, service roads and other curb cuts provide access to residential properties that front the route.

Commercial development is set back approximately 30 feet, while residential setbacks range from 15 to 25 feet.

Future Development

According to municipal records as of August, 1990, there are no plans for additional development on this segment.

3.8.5 RECOMMENDED IMPROVEMENTS

Improvements for this segment of Illinois Route 59 have been recommended after evaluating the projected travel demand for the year 2010 along with the existing roadway characteristics and character of development along the route. Improvements are categorized by ultimate and low-cost, and divided into those related to the roadway, intersections, traffic signalization, structures, access, transit and other improvements. Right-of-way requirements, potential environmental concerns and improvement cost estimates are also provided in this section. Recommended improvements are shown on Route Map D-7.

Ultimate Improvements

Roadway

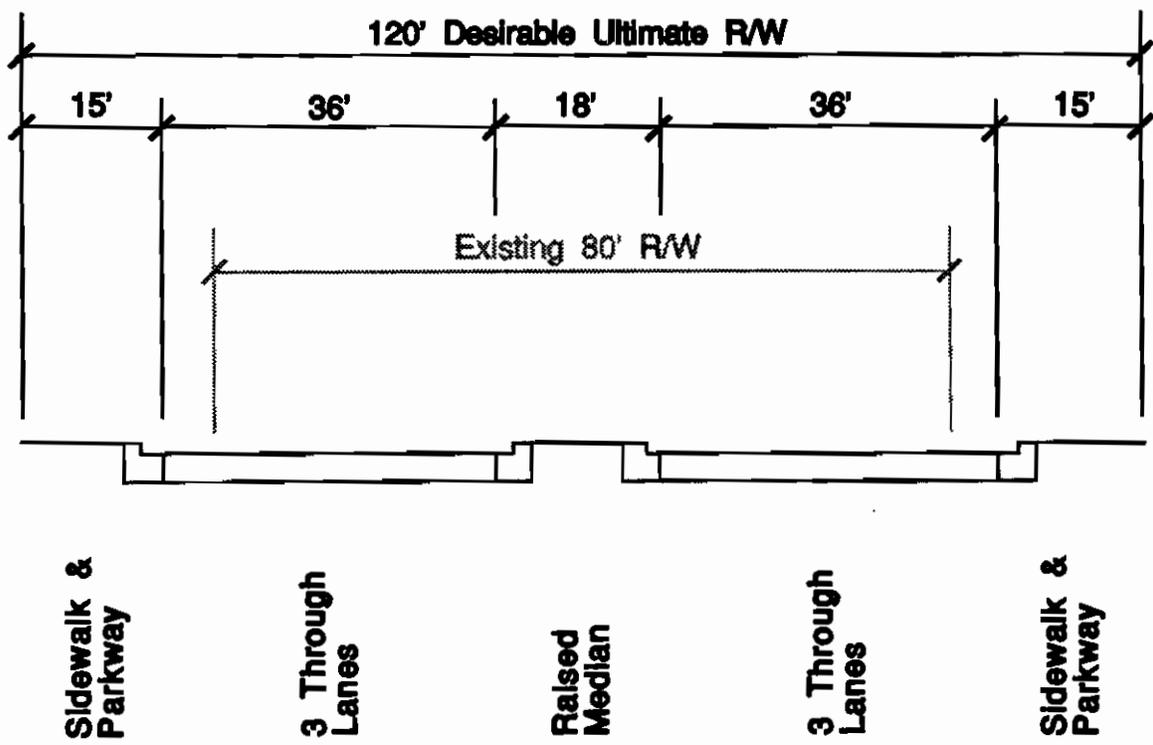
The recommended roadway configuration for this segment provides for three through lanes in each direction and a continuous 18-foot raised median. (See Figure 3.33.)

Results of the capacity analysis for this segment are shown in Table 3.34.

Table 3.34 Capacity Analysis for Segment 8 - Illinois Route 59					
Segment	Projected Travel Demand (AADT) ⁽¹⁾	Number of Through Traffic Lanes	Arterial Capacity (AADT) ⁽¹⁾	Peak Direction Level of Service	Adequate to Meet Projected Demand
Illinois 38 to Main Street	< 30,000	4	32,000	D	Yes
		6 *	44,000	C	Yes
Main Street to Hawthorne Lane	< 30,000	4	31,000	D	Yes
		6 *	42,000	C	Yes
⁽¹⁾ Average Annual Daily Traffic					
* - Indicates recommended number of through lanes for this segment.					

Intersections

The recommended roadway configuration allows for the development of single left-turn lanes as required. Single left- and right-turn lanes are recommended at all signalized intersections. To reduce conflicts and improve safety and capacity on this segment, it is recommended that all unsignalized local streets between Illinois Route 38 (Roosevelt Road) and James Avenue be restricted to right-in/right-out movement only. Full access would be



Section W-W

Recommended Roadway Typical Section

Illinois Route 59 **Illinois 38 (Roosevelt Road) to Hawthorne Lane**

prepared by Harland Bartholomew & Associates, Inc. Figure 3.33

SECTION 3: Route Analysis - Illinois 38 (Roosevelt Road) to Hawthorne Lane

limited to the following streets: Forest Avenue, Brown Street, Main Street, Washington Street, Grand Lake Boulevard and James Avenue. Upgrading other area roadways, such as extending Ridgeland Avenue to Hawthorne Lane, or the construction of Williams Road from James Avenue to Hawthorne Lane, is recommended in order to improve circulation in the West Chicago area.

Traffic Signalization

Potential future signals in this segment are recommended at Brown Street and Grand Lake Boulevard. Future signals should be installed on the route only at the recommended location and only when the signal warrants recommended for SRA routes are met. (Recommended signal warrants for SRAs are discussed in Section 10.4.2 of the Strategic Regional Arterial Design Concept Report.) Signals should not be installed at other than the recommended locations; additional signals would tend to impede traffic flow on the SRA route and interfere with optimization and progression of signal systems.

Existing signals at Forest Avenue, Main Street, Washington Street, and James Avenue would be retained. Ultimately, all of the signals in this segment should be interconnected into a signal system extending from Ferry Road in Segment 6 to James Avenue.

Structures

The existing structure over the Chicago & NorthWestern railroad has inadequate horizontal clearance for the recommended roadway configuration and should be modified to provide adequate clearance for the six through lane cross-section.

Transit

Locations for future bus stops in this segment are recommended for all signalized intersections. These locations should be developed with bus turnout areas, shelters and other amenities as recommended in the Pace Development Guidelines.

A Park-and-Ride facility is recommended in this segment for future express bus service along the route. A possible location for this facility would be in conjunction with the EJ&E railroad station under consideration at the intersection of the EJ&E and the Chicago & NorthWestern Railroad in West Chicago.

Low-Cost Improvements***Roadway***

It is recommended that a median be constructed from James Avenue to the Ingalt Avenue intersection. This median should be of sufficient width to provide left turn lanes at Ingalt Avenue, Hawthorne Lane and James Avenue.

SECTION 3: Route Analysis - Illinois 38 (Roosevelt Road) to Hawthorne Lane

Intersections

The adequacy of the sight distance at the Hawthorne Lane intersection should be evaluated due to the proposed development on the northwest corner of the intersection. If the sight distance is inadequate, consideration should be given to closing the eastbound leg of Hawthorne Lane to avoid potentially hazardous movements that could be made more safely from other area streets.

Traffic Signalization

Interconnection of the existing signals at Main and Washington Streets is recommended. Traffic signals should be installed at the recommended locations when the signal warrants recommended for SRA routes are met.

Access Management

As parcels are developed or redeveloped, it is recommended that access be limited to a maximum of one curb cut for each 500 feet. Recommended locations for future access points are shown on Route Map D-7. Existing restrictions on direct access from abutting lots and those created by the median on this segment should be retained.

Transit

Directional signage is recommended on this segment for the West Chicago Metra rail station and the Pace route near the segment. This signage should be located at all signalized intersections.

3.8.6 ADDITIONAL RIGHT-OF-WAY REQUIREMENTS

The desirable right-of-way width for this segment is 120 feet. To achieve this width 30 feet of additional right-of-way will be needed from Illinois Route 38 (Roosevelt Road) to Forest Avenue, and 40 feet of additional right-of-way will be needed from Forest Avenue to Hawthorne Lane.

3.8.7 POTENTIAL ENVIRONMENTAL CONCERNS

The impact of right-of-way expansion between Illinois Route 38 (Roosevelt Road) and Forest Avenue should be studied during the design phase of improvement projects, particularly with respect to the wastewater treatment plant area and the West DuPage Park Forest Preserve. Care should be exercised to preserve the historic landmark at the northwest corner of the intersection with Forest Avenue.

Modification of the Chicago & NorthWestern Railroad structure should provide clearance for the Geneva Spur of the Illinois Prairie Path.

3.8.8 CONSTRUCTION/RIGHT-OF-WAY COST ESTIMATES

A summary of the construction cost estimates for the recommended improvements to Segment 8 of Illinois Route 59 is shown in *Table 3.35*.

Table 3.35	
Construction Cost Estimates for Segment 8 - Illinois Route 59	
Improvement	Estimated Cost
Ultimate	
Roadway	\$10,800,000
Traffic Signals	\$200,000
Signal Interconnection	\$400,000
Structure Modification	\$1,000,000
Transit Improvements (includes right-of-way acquisition)	\$600,000
Right-of-way Acquisition	\$900,000
Total Estimated Cost for Ultimate Improvements	\$13,900,000
Low-Cost	
Signal Interconnection	\$100,000
Transit Improvements	\$10,000
Total Estimated Cost for Low-Cost Improvements	\$110,000
Total Estimated Cost for All Improvements	\$14,010,000

SECTION 3: Route Analysis - Hawthorne Lane to Illinois Route 72 (Higgins Road)

3.9 SRA SEGMENT 9: HAWTHORNE LANE TO ILLINOIS ROUTE 72 (HIGGINS ROAD)

3.9.1 LOCATION

Segment 9 extends from Hawthorne Lane to Illinois Route 72 (Higgins Road), a distance of 12.6 miles. (See *Figure 3.34.*)

3.9.2 EXISTING FACILITY CHARACTERISTICS

Existing facility characteristics for Segment 9 are shown on Route Maps A-8, A-9, A-10 and A-11.

Traffic Volumes

An average annual daily traffic (AADT) volume of 26,400 at Illinois Route 19 (Irving Park Road) was obtained as part of the IDOT 1990 Turning Movement Counts.

Right-of-Way

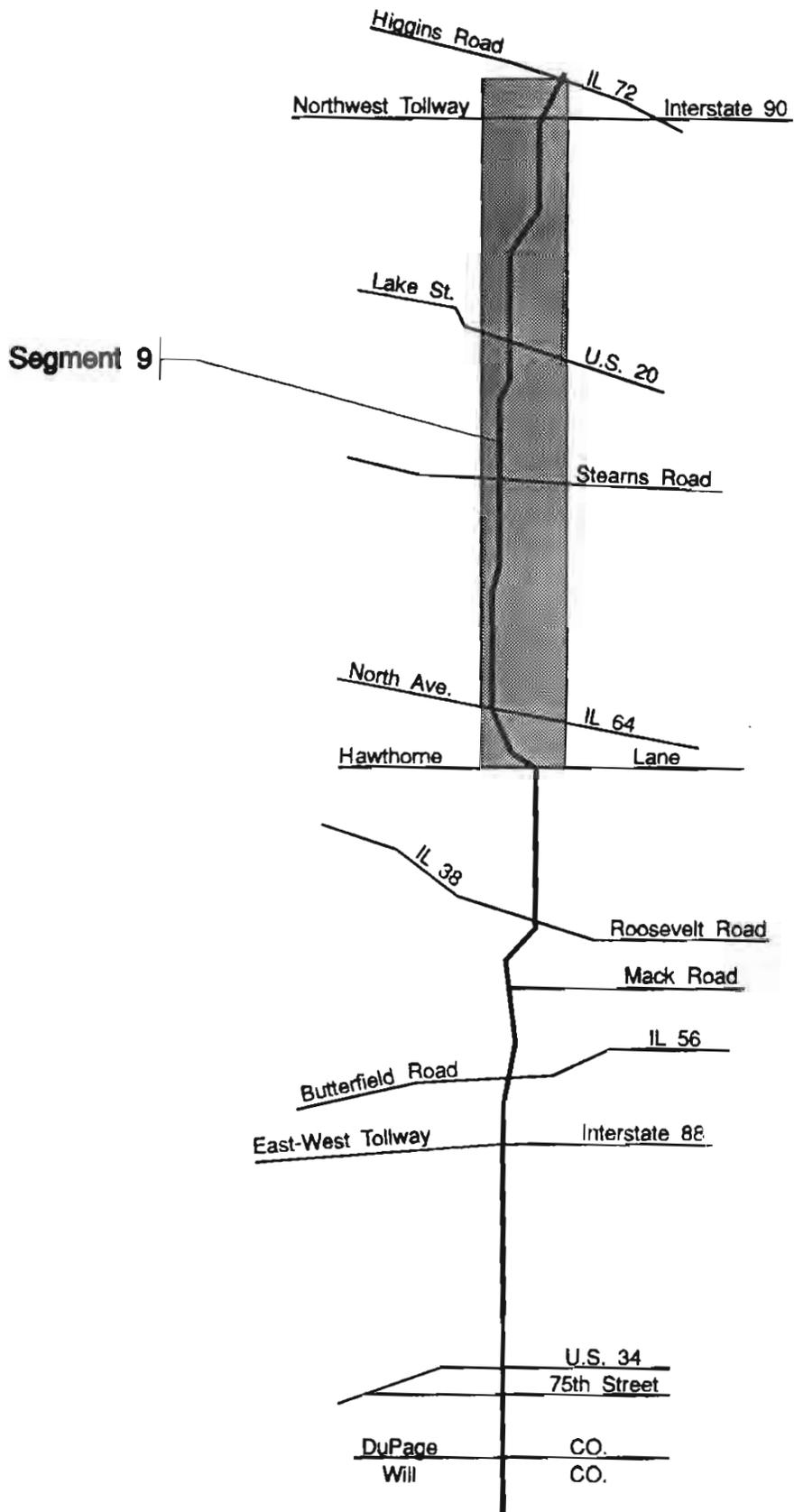
The right-of-way is 100 feet wide from Illinois Route 64 (North Avenue) to Shoe Factory Road. South of Illinois Route 64 the right-of-way is 125 feet, and north of Shoe Factory Road it varies from 150 to 175 feet.

Pavement Width and Number of Lanes

Pavement width and number of through lanes are as follows:

- From Hawthorne Lane to Illinois Route 64 (North Avenue) the pavement is 48 feet wide and includes four through lanes (two in each direction);
- From Illinois Route 64 (North Avenue) to U.S. 20 (Lake Street) the pavement is 24 feet wide and includes two through lanes (one in each direction);
- From U.S. 20 (Lake Street) to Illinois Route 19 (Irving Park Road) the pavement is 48 feet wide and includes four through lanes (two in each direction);
- From Illinois Route 19 (Irving Park Road) to Interstate 90 (Northwest Tollway) the pavement is 24 feet wide and includes two through lanes (one in each direction), except at major intersections where the pavement widens to accommodate four through lanes (two in each direction); and
- From Interstate 90 (Northwest Tollway) to Illinois Route 72 (Higgins Road) the pavement is 48 feet wide and includes four through lanes (two in each direction).

There are unpaved shoulders throughout the segment except for the section north of Interstate 90 (Northwest Tollway) which includes curb-and-gutter.



SECTION 3: Route Analysis - Hawthorne Lane to Illinois Route 72 (Higgins Road)**Traffic Signals**

There are fourteen signalized intersections. They are listed from south to north in *Table 3.36*.

Intersection	No. of Through Lanes		Turn Bays		Remarks
	NB	SB	Left	Right	
Ingaltan Avenue	2	2	YES	YES	
Illinois 64 (North Ave.)	2	2	YES	NB	
Army Trail Road	2	2	NO	NO	Widens at intersection only
Stearns Road	1	1	YES	NB	
West Bartlett Road	2	2	NO	NO	Widens at intersection only
U.S. 20 south ramp	2	2	NB	NO	Widens at intersection only
U.S. 20 north ramp	2	2	NB	NO	Widens at intersection only
Illinois 19 (Irving Park)	2	2	YES	NO	Widens at intersection only
Schaumburg Road	1	1	YES	NO	
Illinois 58 (Golf Road)	2	2	YES	NO	Widens at intersection only
Shoe Factory Road	2	2	YES	NO	
Interstate 90 (South)	2	2	NO	NO	
Interstate 90 (North)	2	3	NB	SB	Dual left-turns northbound
Illinois 72 (Higgins Rd.)	2	3	YES	NB	Dual left-turns NB and SB

Note: NB = northbound; SB = southbound

Parking, Sidewalks and Frontage Roads

There are no on-street parking spaces, sidewalks, or frontage roads.

Structures

There are six structures. They are listed in *Table 3.37*.

Transit

The Bartlett Metra station is about one mile east of Illinois Route 59 south of West Bartlett Road. The station is served by the Milwaukee District West line commuter rail service to Chicago. Pace Route #632 provides rush hour service to the Bartlett Metra station from Streamwood. There is no off-peak service.

SECTION 3: Route Analysis - Hawthorne Lane to Illinois Route 72 (Higgins Road)

Structure	Structure No. (SN)	Location	Clearance		Remarks
			Vert.	Horiz.	
C&NW RR	022-0144	N. of Hawthorne	N/A	66'	SRA over
CMSTP&P RR	016-0392	south of U.S. 20	N/A	23.8'	SRA over
U.S. 20	016-0220	—————	N/A	88'	SRA under
Poplar Creek	016-1040	N. of Illinois 19	N/A	36'	SRA over
Poplar Creek	016-2088	at Illinois 58	N/A	66'	SRA over
Interstate 90	016-0390	—————	N/A	153'	SRA over

Note: N/A=Not Applicable

Other Characteristics

There are two interchanges: a fully-directional partial clover leaf interchange with U.S. Route 20 (Lake Street); and a fully directional interchange with Interstate 90 (Northwest Tollway). North of Granger Road there is an at-grade rail crossing of the Illinois Central Gulf Railroad.

3.9.3 EXISTING ENVIRONMENTAL CHARACTERISTICS

The existing environmental characteristics for Segment 9 of Illinois Route 59 include wetlands, floodplains, an historic structure, endangered and threatened species, prime farmland, and sensitive land uses. The wetlands, floodplains, historic structure and sensitive land uses are shown on Route Maps B-8, B-9, B-10 and B-11.

Streams/Wetlands/Floodplains

There are four floodplain crossings:

- A 250-foot wide crossing of Brewster Creek south of Stearns Road;
- A 150-foot wide crossing of Brewster Creek south of Auburn Drive;
- An 800-foot wide crossing of the South Branch Poplar Creek north of Illinois Route 19 (Irving Park Road); and
- An 800-foot wide crossing of Poplar Creek at the Illinois Route 58 (Golf Road) intersection.

In addition to the wetlands associated with the floodplains, there are some minor wetland areas that extend into the right-of-way.

SECTION 3: Route Analysis - Hawthorne Lane to Illinois Route 72 (Higgins Road)

Historical Significance

There is an historic bridge at the southeast corner of the Illinois Route 58 (Golf Road) intersection.

Flora and Fauna

Listed near this segment are the habitats of four endangered species and one threatened species. The endangered species are the least bittern, the black tern, the yellow-headed blackbird, and the pied-billed grebe. The threatened species is the common moorhen.

The Shoe Factory Prairie is located within one mile of this segment. This nature area contains a high quality dry gravel prairie.

Prime Farmland

Approximately 75 percent of the undeveloped land between Smith Road and Stearns Road is prime farmland. Also, prime farmland extends approximately one-quarter mile south from the Cook/DuPage County line.

Sensitive Land Uses

Noise sensitive land uses on this segment include a church at the northeast corner of the intersection with Congress Drive, Streamwood High School east of the intersection with Schaumburg Road, Poplar Creek Music Theatre west of the route between Interstate 90 (Northwest Tollway) and Illinois Route 72 (Higgins Road), and a nursing home at the northwest corner of the intersection with Illinois Route 64 (North Avenue).

Public recreational uses include:

- Illinois Prairie Path, a bicycle path which crosses the route north of Illinois Route 64 (North Avenue);
- Sunrise Lake Recreation Center, at the northeast corner of the intersection with the Cook/DuPage County lines;
- St. Andrew's Golf Course, a privately held facility at Lies Road; and
- Bartlett Hills Golf Course, a publicly held facility northeast of the intersection with the Chicago Milwaukee St. Paul and Pacific Railroad crossing.

The Poplar Creek Forest Preserve extends north from Bode Road, in sections, to Interstate 90 (Northwest Tollway).

SECTION 3: Route Analysis - Hawthorne Lane to Illinois Route 72 (Higgins Road)

The Wayne Township Office is located southeast of the Chicago & North Western Railroad overpass, and the Hanover Township Office is located on the west side of the roadway between the Cook/DuPage county line and West Bartlett Road.

3.9.4 DEVELOPMENT CHARACTERISTICS

Existing development characteristics and potential future development are shown on Route Maps C-8, C-9, C-10 and C-11.

Jurisdiction

The segment passes through four communities: the City of West Chicago and the Villages of Bartlett, Streamwood and Hoffman Estates. West Chicago begins at the Chicago & North Western Railroad and extends to the Illinois Prairie Path crossing. Bartlett begins at Army Trail Road and extends to U.S. Route 20 (Lake Street). Streamwood begins at Illinois Route 19 (Irving Park Road) and extends to Schaumburg Road. Hoffman Estates begins at the Interstate 90 (Northwest Tollway) interchange and extends through the end of the segment.

Type and Intensity of Development

Much of the land is either agricultural or vacant. Development is predominantly residential. Other land uses are commercial and recreational.

The residential development between Hawthorne Lane and Illinois Route 19 (Irving Park Road) is the most dense in the segment. North of Illinois Route 19, development becomes less dense. Commercial development is typically located at intersections with other major thoroughfares, including Illinois Route 64 (North Avenue), Stearns Road, Illinois Route 19 (Irving Park Road) and Schaumburg Road.

Development Access and Setback

Many older residences use driveways to access the route. Such driveways are particularly common between the Illinois Prairie Path and Smith Road, and north of the Chicago, Milwaukee, St. Paul and Pacific Railroad. More recently subdivided residential areas access the route via collector streets.

Individual curb cuts provide direct access to the commercial developments and recreational areas that front the route.

All setbacks are at least 25 feet from the right-of-way. Development north of Illinois Route 64 (North Avenue) is set back approximately 30 feet. Further north, setbacks deepen to approximately 40 feet. North of Illinois Route 19 (Irving Park Road), residential development is within 25 feet of the route.

Future Development

Land is rapidly being developed. According to municipal records as of August, 1990, both residential and commercial developments are planned for this segment.

Subdivisions providing more than 1,000 new housing units make up the bulk of new construction planned. In West Chicago, residential development is proposed along Hawthorne Lane west of the route. North of West Chicago, residential development is planned for the northwest and southeast corners at Smith Road, and on the west side of the route north of Army Trail Road. In Bartlett, residential developments are proposed west of the route near the Illinois Central Gulf Railroad and on the east side of the route north of Struckman Road.

A hotel and 200,000 square foot shopping center are planned for the southwest corner of the intersection with Illinois Route 64 (North Avenue).

Sears Roebuck and Company has acquired 786 acres of land at the northwest corner of Illinois Route 59 and the Northwest Tollway for the development of a business park. The company plans to move to the site most operations now carried out in its headquarters in the Chicago Loop. The Poplar Creek Music Theater would be redeveloped as part of the ultimate build out which would provide up to 12 million square feet of mixed use development. Additional development may be generated on other properties adjacent to Illinois Route 59 due to their proximity to the Sears development and the Northwest Tollway.

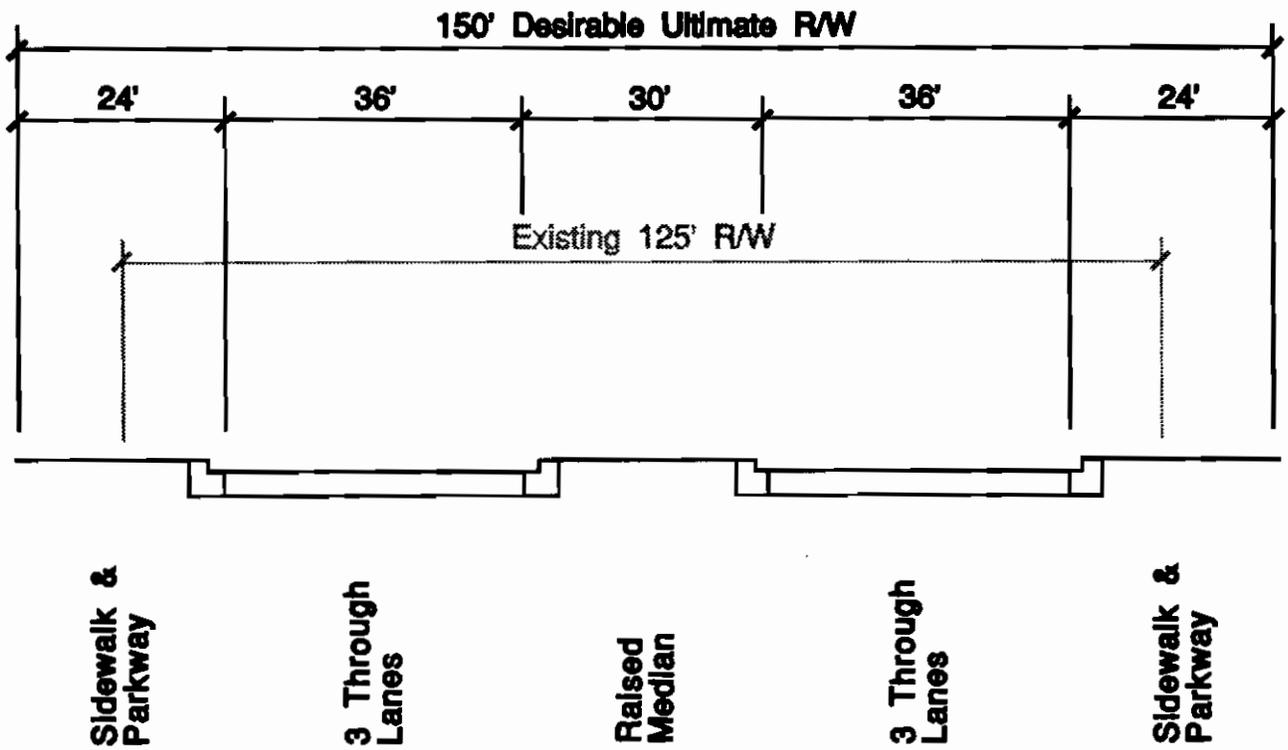
3.9.5 RECOMMENDED IMPROVEMENTS

Improvements for this segment of Illinois Route 59 have been recommended after evaluating the projected travel demand for the year 2010 along with the existing roadway characteristics and character of development along the route. Improvements are categorized by ultimate and low-cost, and divided into those related to the roadway, intersections, traffic signalization, structures, access, transit and other improvements. Right-of-way requirements, potential environmental concerns and improvement cost estimates are also provided in this section. Recommended improvements are shown on Route Maps D-8, D-9, D10 and D-11.

Ultimate Improvements***Roadway***

The recommended roadway configuration for this segment provides for three through lanes in each direction and a continuous 30-foot raised median. (See *Figures 3.35 through 3.41.*)

Results of the capacity analysis for this segment are shown in *Table 3.38.*

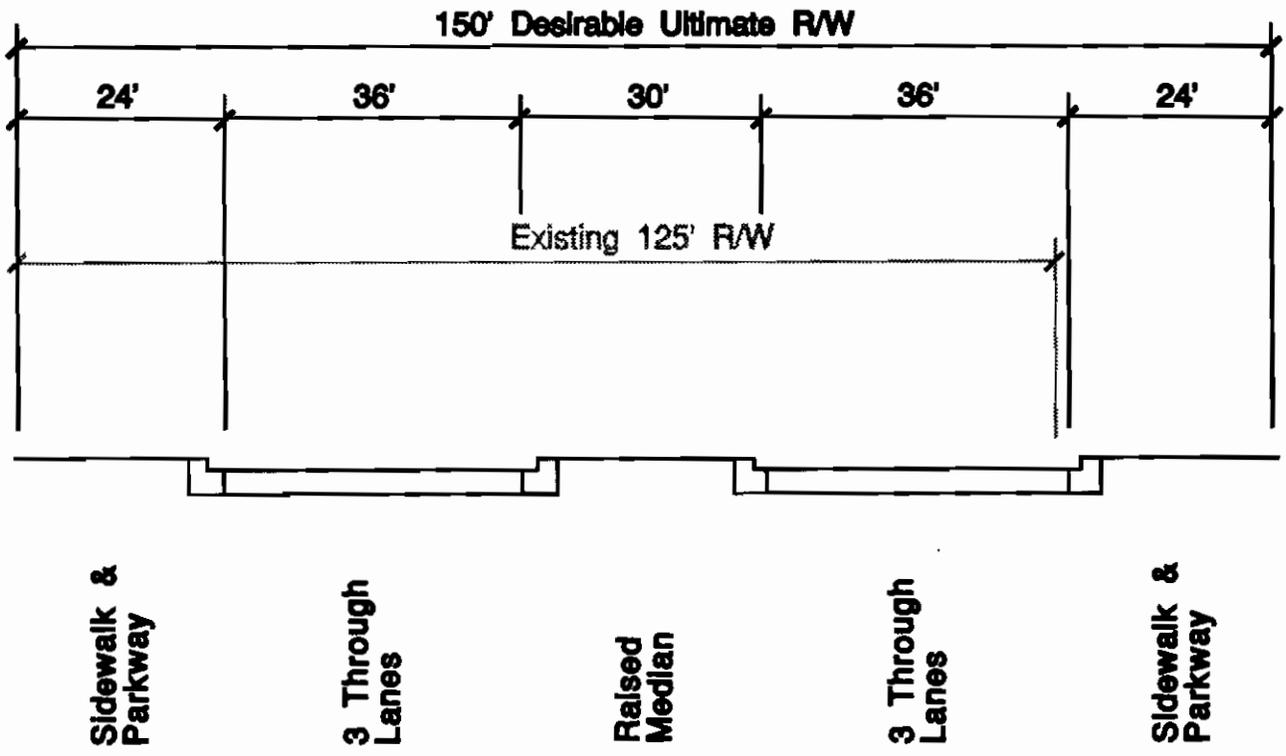


Section X-X

Recommended Roadway Typical Section

Illinois Route 59 Hawthorne Lane to Illinois Route 64 (North Avenue)

prepared by Harland Bartholomew & Associates, Inc. **Figure 3.35**

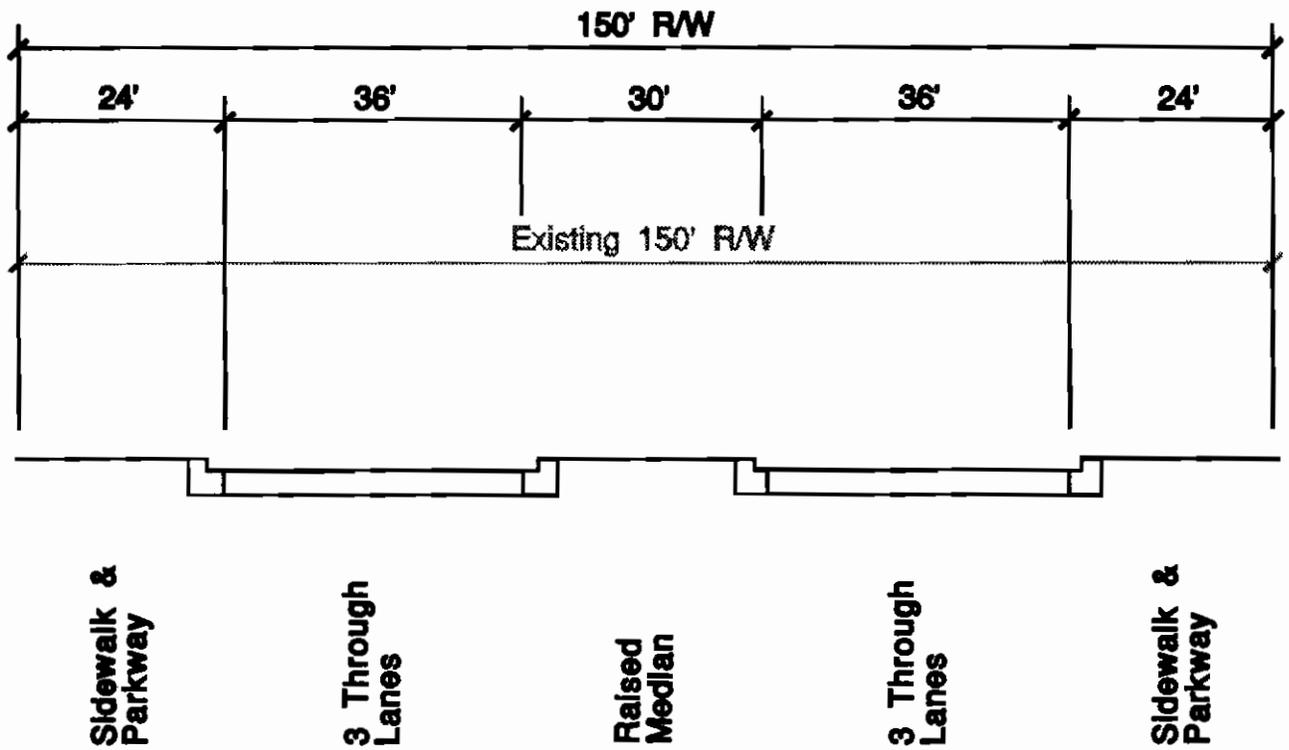


Section Y-Y

Recommended Roadway Typical Section

Illinois Route 59 **Illinois Route 64 (North Avenue) to Lies Road**

prepared by Harland Bartholomew & Associates, Inc. **Figure 3.36**

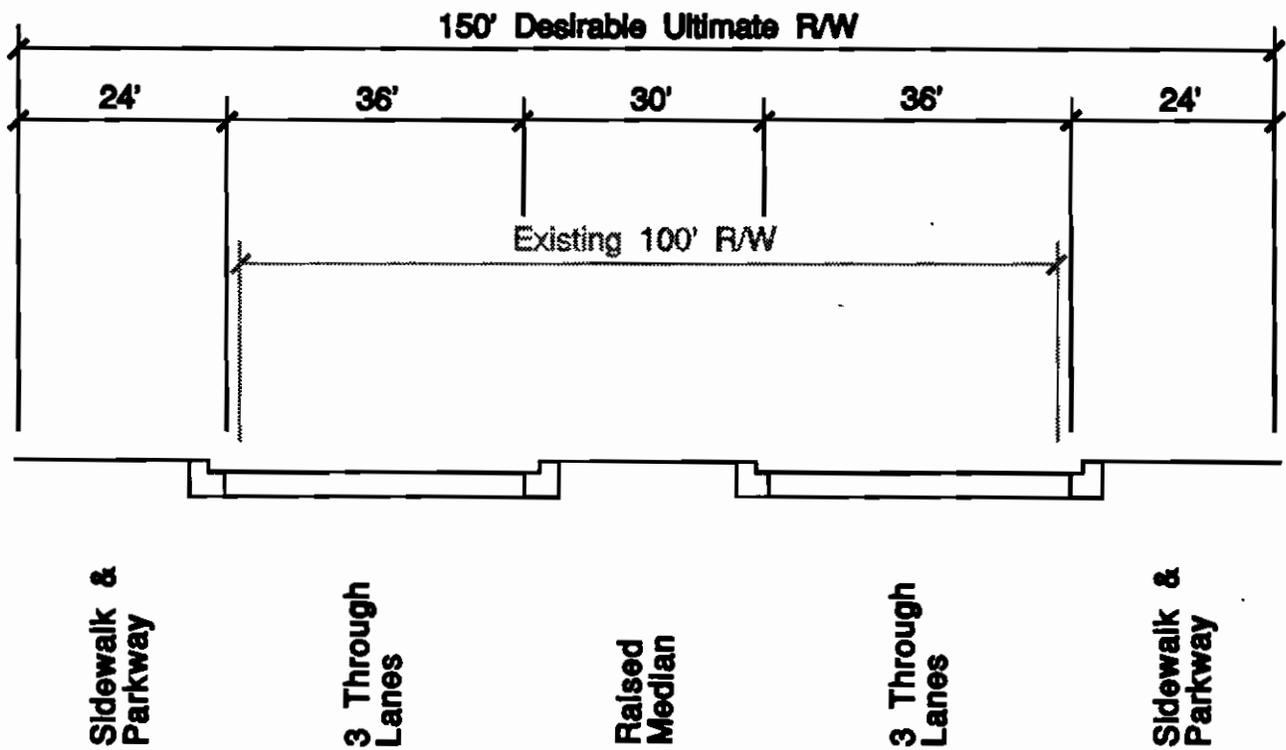


Illinois Route 59

**Section Z-Z
Recommended Roadway Typical Section
Lies Road to Smith Road**

prepared by Harland Bartholomew & Associates, Inc.

Figure 3.37

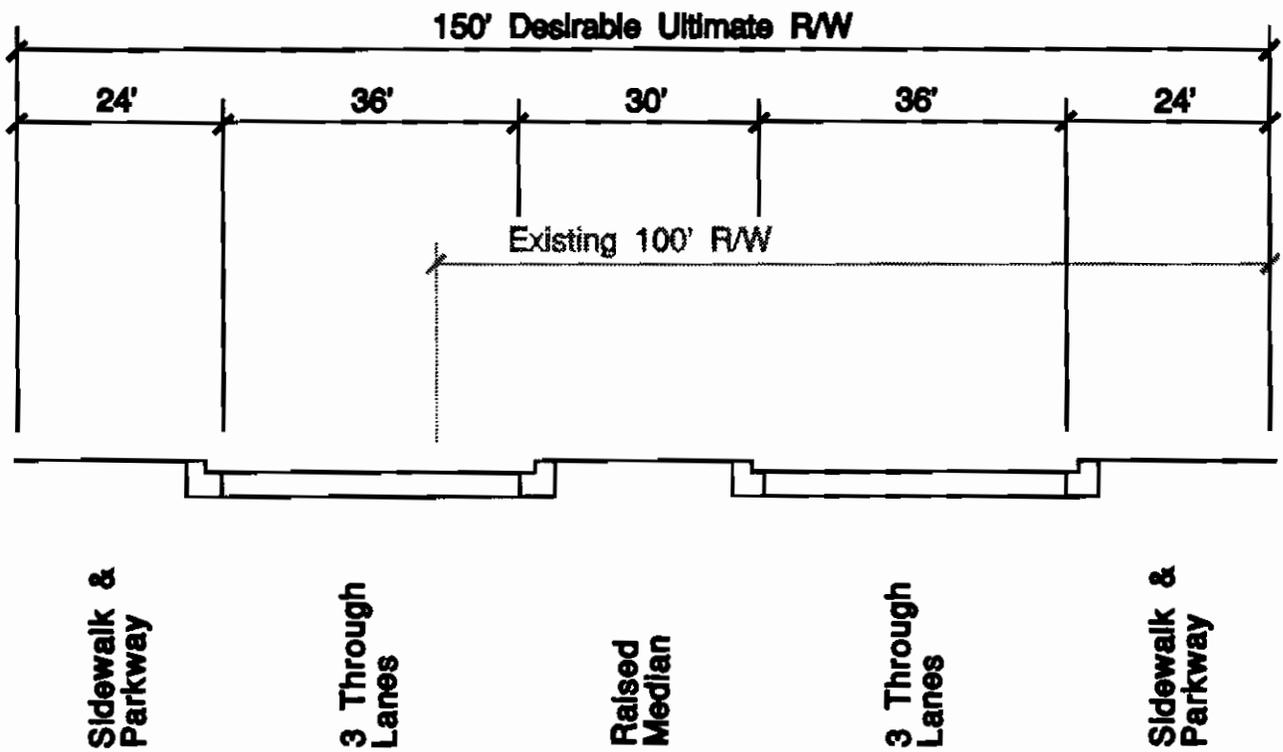


Illinois Route 59

**Section AA-AA
Recommended Roadway Typical Section
Smith Road to Granger Road**

prepared by Harland Bartholomew & Associates, Inc.

Figure 3.38

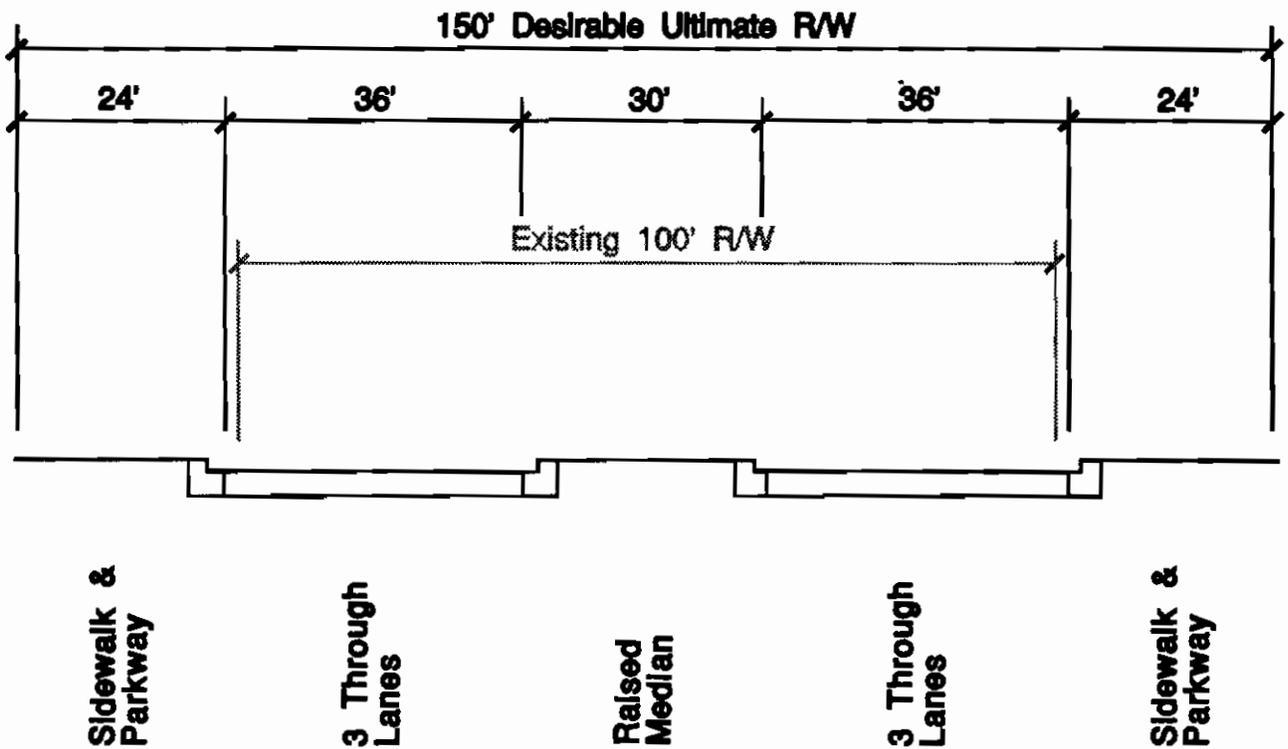


Illinois Route 59

**Section BB-BB
Recommended Roadway Typical Section
Granger Road to Apple Valley Drive**

prepared by Harland Bartholomew & Associates, Inc.

Figure 3.39

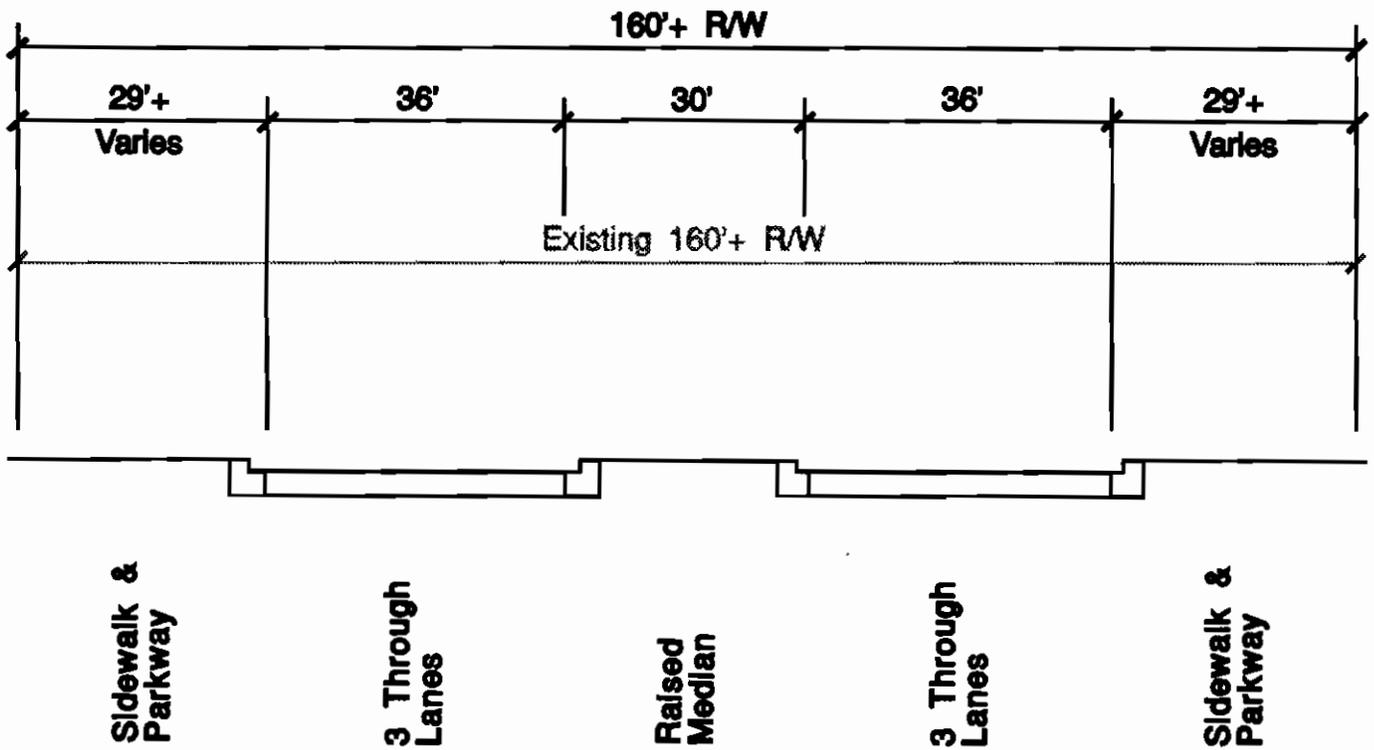


Illinois Route 59

prepared by Harland Bartholomew & Associates, Inc.

**Section CC-CC
Recommended Roadway Typical Section
Apple Valley Drive to Shoe Factory Road**

Figure 3.40



Section DD-DD
Recommended Roadway Typical Section
Shoe Factory Road to
Illinois Route 72 (Higgins Road)

Illinois Route 59

prepared by Harland Bartholomew & Associates, Inc.

Figure 3.41

SECTION 3: Route Analysis - Hawthorne Lane to Illinois Route 72 (Higgins Road)

Segment	Projected Travel Demand (AADT) ⁽¹⁾	Number of Through Traffic Lanes	Arterial Capacity (AADT) ⁽¹⁾	Peak Direction Level of Service	Adequate to Meet Projected Demand
Hawthorne Lane to Army Trail Rd	< 30,000 to 40,000	4	30,000	D	No
		6 *	42,000	C	Yes
Army Trail Road to Stearns Road	30 to 40,000	4	29,000	D	No
		6 *	39,000	C	Yes
Stearns Road to Illinois 19	< 30,000 to 40,000	4	33,000	D	No
		6 *	47,000	C	Yes
Illinois 19 to Illinois 72	30 to 40,000	4	32,000	D	No
		6 *	46,000	C	Yes
(1)Average Annual Daily Traffic					
* - Indicates recommended number of through lanes for this segment.					

Intersections

The recommended roadway configuration allows for the development of single or dual left-turn lanes at intersections as required. Separate right-turn and left-turn lanes are recommended at all signalized intersections. Dual left-turn lanes and separate right-turn lanes are recommended on all four legs of the Illinois Route 59/Illinois Route 64 intersection and the Illinois Route 59/Stearns Road intersection. (See Details 5 and 6.)

Because Illinois Route 64 (North Avenue) and Stearns Road are intersecting SRA routes, the level of service for each intersection movement and for the total intersection was calculated at both locations. The capacity for these SRA route to SRA route intersections was based on the year 2010 projected AADT volumes. The AADT volumes used in each calculation were: 42,000 vehicles on Illinois Route 59 at Illinois Route 64, 30,000 vehicles on Illinois Route 64, 43,000 vehicles on Illinois Route 59 at Stearns Road, and 24,000 vehicles on Stearns Road. The resulting levels of service are shown in *Tables 3.39 and 3.40.*

SECTION 3: Route Analysis - Hawthorne Lane to Illinois Route 72 (Higgins Road)

Direction	Movement	Level of Service
Illinois Route 59 northbound	left turn	D
Illinois Route 59 northbound	through	C
Illinois Route 59 northbound	right turn	B
Illinois Route 59 southbound	left turn	D
Illinois Route 59 southbound	through	C
Illinois Route 59 southbound	right turn	B
Illinois Route 64 eastbound	left turn	D
Illinois Route 64 eastbound	through	C
Illinois Route 64 eastbound	right turn	B
Illinois Route 64 westbound	left turn	D
Illinois Route 64 westbound	through	B
Illinois Route 64 westbound	right turn	B
Total Intersection		C

Direction	Movement	Level of Service
Illinois Route 59 northbound	left turn	D
Illinois Route 59 northbound	through	C
Illinois Route 59 northbound	right turn	B
Illinois Route 59 southbound	left turn	D
Illinois Route 59 southbound	through	B
Illinois Route 59 southbound	right turn	B
Stearns Road eastbound	left turn	D
Stearns Road eastbound	through	C
Stearns Road eastbound	right turn	B
Stearns Road westbound	left turn	D
Stearns Road westbound	through	B
Stearns Road westbound	right turn	B
Total Intersection		C

Traffic Signalization

Potential future signals in this segment are recommended at Diversey Parkway, Smith Road, Schick Road, Realigned Granger Road, Struckman Boulevard, Congress Drive, Auburn Lane, Bay Tree Drive, West Magnolia Drive, and Ascot Lane.

Future signals should be installed on the route only at the recommended locations and only when the signal warrants recommended for SRA routes are met. (Recommended signal warrants for SRAs are discussed in Section 10.4.2 of the [Strategic Regional Arterial Design Concept Report](#).) Signals should not be installed at other than the recommended locations; additional signals would tend to impede traffic flow on the SRA route and interfere with optimization and progression of signal systems.

Existing signals at Ingaltan Avenue, Illinois Route 64 (North Avenue), Army Trail Road, Stearns Road, West Bartlett Road, U.S. Route 20 north and south ramps, Illinois Route 19 (Irving Park Road), Schaumburg Road, Illinois Route 58 (Golf Road), Shoe Factory Road, Interstate 90 north and south ramps, and Illinois Route 72 (Higgins Road) would be retained.

Interconnection of signals in coordinated systems is recommended. Ultimately, five systems would interconnect signals on this segment. The first system includes the Illinois Route 64 (North Avenue) and Diversey Parkway signals. The second system includes all of the signals from Army Trail Road to Auburn Lane. System three includes all of the signals from West Bartlett Road to the U.S. Route 20 northernmost ramp. System four includes all of the signals from Illinois Route 19 to Illinois Route 58, and the fifth system includes all of the signals from Shoe Factory Road to Illinois Route 72 (Higgins Road).

Structures

The structures that carry Illinois Route 59 over the Chicago & North Western Railroad, the Chicago Milwaukee St. Paul & Pacific Railroad, the South Branch of Poplar Creek, Poplar Creek, and the U.S. Route 20 (Lake Street) structure over Illinois Route 59 all have inadequate horizontal clearance for the recommended roadway configuration and should be modified for at least the recommended six through lane cross-section. Modification of the Chicago & Northwestern structure should take into consideration present abandonment of the rail line and potential future use of the right-of-way as a spur of the Illinois Prairie Path.

Transit

Locations for future bus stops in this segment are recommended for all signalized intersections. These locations should be developed with bus turnout areas, shelters and other amenities as recommended in the [Pace Development Guidelines](#).

Pace also has extensive plans to serve the new Sears development and related future growth. These plans include construction of a transit center on the Sears site which will incorporate six bus bays in Phase I, with addition of three to six more in Phase II. Transit will also have direct access to the Sears Management Center with twelve loading bays adjacent to the

SECTION 3: Route Analysis - Hawthorne Lane to Illinois Route 72 (Higgins Road)

building entryway. Implementation of fixed route services is also planned. Further, Pace is working with both Sears and Ameritech to establish an extensive network of vanpools.

Consideration should be given to the development of Park-and-Ride facilities at the Illinois Route 59 intersections with Illinois Route 64 (North Avenue), Stearns Road, and U.S. Route 20. Park-and-Ride facilities could also be developed at transit station locations under consideration along the EJ&E transit corridor. The transit station locations at Illinois Route 64 (North Avenue), Stearns Road, and Illinois Route 58 (Golf Road) are less than one and one-half miles west of Illinois Route 59 and could be used in conjunction with express bus service along the route or feeder service into the Sears development area.

Other Improvements

As an ultimate improvement, it is recommended that the at-grade intersection between Illinois Route 59 and Illinois Route 72 (Higgins Road) be replaced by a single point diamond interchange. (See Detail 7) Since both roadways are SRA routes, the level of service was calculated for each approach and for the total intersection. Because of the heavy AADT volumes projected for this intersection, 40,700 vehicles on Illinois Route 59 and 45,000 vehicles on Illinois Route 72, the capacity analysis produced undesirable levels of service on the south and east approaches as shown in *Table 3.41*.

Table 3.41		
Illinois Route 59/Illinois 72 (Higgins Road) Intersection Level of Service		
Direction	Movement	Level of Service
Illinois Route 59 northbound	left turn	E
Illinois Route 59 northbound	through	E
Illinois Route 59 northbound	right turn	B
Illinois Route 59 southbound	left turn	D
Illinois Route 59 southbound	through	C
Illinois Route 59 southbound	right turn	B
Illinois Route 72 eastbound	left turn	D
Illinois Route 72 eastbound	through	E
Illinois Route 72 eastbound	right turn	B
Illinois Route 72 westbound	left turn	D
Illinois Route 72 westbound	through	C
Illinois Route 72 westbound	right turn	B
Total Intersection		D

SECTION 3: Route Analysis - Hawthorne Lane to Illinois Route 72 (Higgins Road)

Low-Cost Improvements

Traffic Signalization

Interconnection of the U.S. Route 20 (Lake Street) ramp signals and interconnection of the signals from Shoe Factory Road to Illinois Route 72 (Higgins Road) is recommended. Traffic signals should be installed at the recommended locations when the signal warrants recommended for SRA routes are met.

Access Management

As parcels are developed or redeveloped, it is recommended that access be limited to the locations shown on Route Maps D-8, D-9, D-10 and D-11. Existing restrictions on direct access from abutting lots on this segment should be retained.

Transit

Directional signage is recommended on this segment for the West Chicago, Bartlett, and Barrington Metra rail stations. This signage should be located at all signalized intersections for the nearest station.

3.9.6 ADDITIONAL RIGHT-OF-WAY REQUIREMENTS

From Hawthorne Lane to Illinois Route 64 (North Avenue) 25 feet of additional right-of-way will be necessary to achieve the 150-foot desirable ultimate right-of-way. To achieve this right-of-way an additional 50 feet will be required from Illinois Route 64 (North Avenue) to Lies Road and from Smith Road to Shoe Factory Road. Additional right-of-way may be required at Smith Road to improve sight distance.

At Illinois Route 72 (Higgins Road) additional right-of-way will be necessary to construct the recommended improvement of a single point diamond interchange. The defined right-of-way requirements on Detail 7 are based on preliminary geometry for a single point diamond interchange and include a northward shift for Illinois Route 72 (Higgins Road) due to right-of-way restrictions to the south. (Recommended Right-of-way Requirements are discussed in Section 8.3.2 of the Strategic Regional Arterial Design Concept Report.)

3.9.7 POTENTIAL ENVIRONMENTAL CONCERNS

Roadway improvements in current IDOT Phase I will allow for a grade separated crossing for users of the Illinois Prairie Path. Right-of-way expansion through floodplain and wetland areas will require further study in the design phase of any improvements. The recommended interchange at the intersection with Illinois Route 72 (Higgins Road) will require further study to ensure it does not impact surrounding wetlands. Modification of the structures at the South Branch of Poplar Creek (SN 016-1040) and Poplar Creek (SN 016-2088) will also require further study to insure the modification does not impact the floodplain.

3.9.8 CONSTRUCTION/RIGHT-OF-WAY COST ESTIMATES

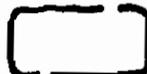
A summary of the construction cost estimates for the recommended improvements to Segment 9 of Illinois Route 59 is shown in *Table 3.42*.

Table 3.42 Construction Cost Estimates for Segment 9 - Illinois Route 59	
Improvement	Estimated Cost
Ultimate	
Roadway (including interchange at Illinois Route 72)	\$64,200,000
Intersection Improvements	\$4,600,000
Traffic Signals	\$1,000,000
Signal Interconnection	\$1,200,000
Structure Modification	\$3,600,000
Transit Improvements (includes land acquisition)	\$1,800,000
Right-of-way Acquisition	\$3,500,000
Total Estimated Cost for Ultimate Improvements	\$79,900,000
Low-Cost	
Signal Interconnection	\$300,000
Transit Improvements	\$20,000
Total Estimated Cost for Low-Cost Improvements	\$320,000
Total Estimated Cost for All Improvements	\$80,220,000

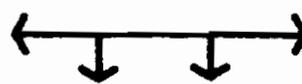
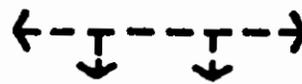
FACILITY CHARACTERISTICS

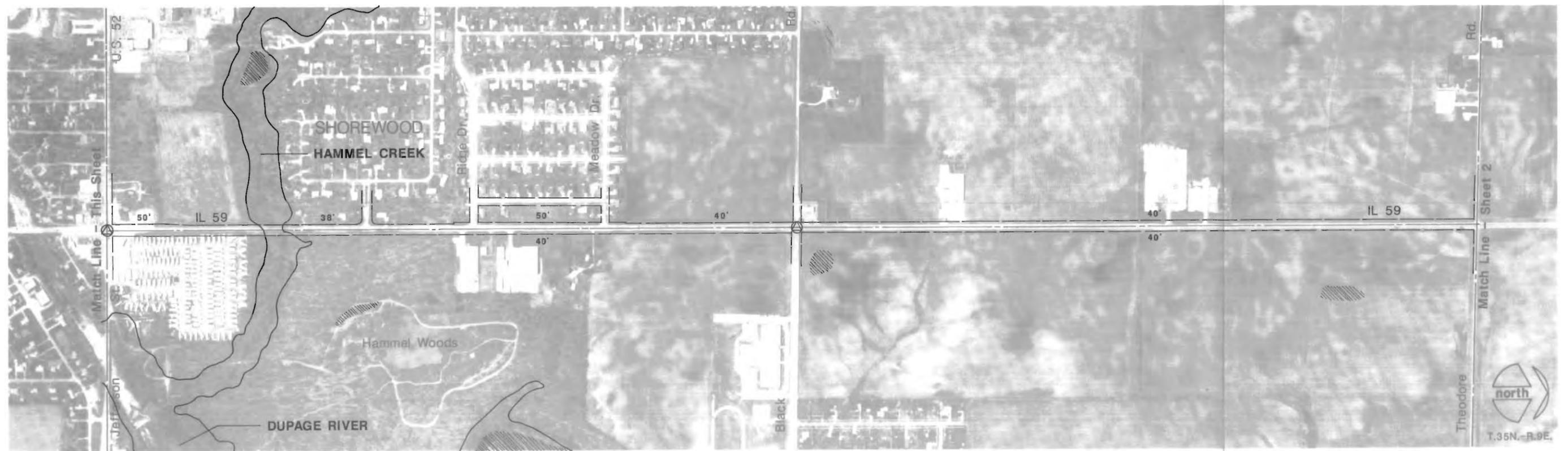
	Existing R/W
	Existing Signal
	Existing Structure

ENVIRONMENTAL CHARACTERISTICS

	Wetlands
	Floodplain
	Historic Site
	Sensitive Land Use

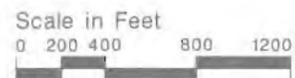
RECOMMENDED IMPROVEMENTS

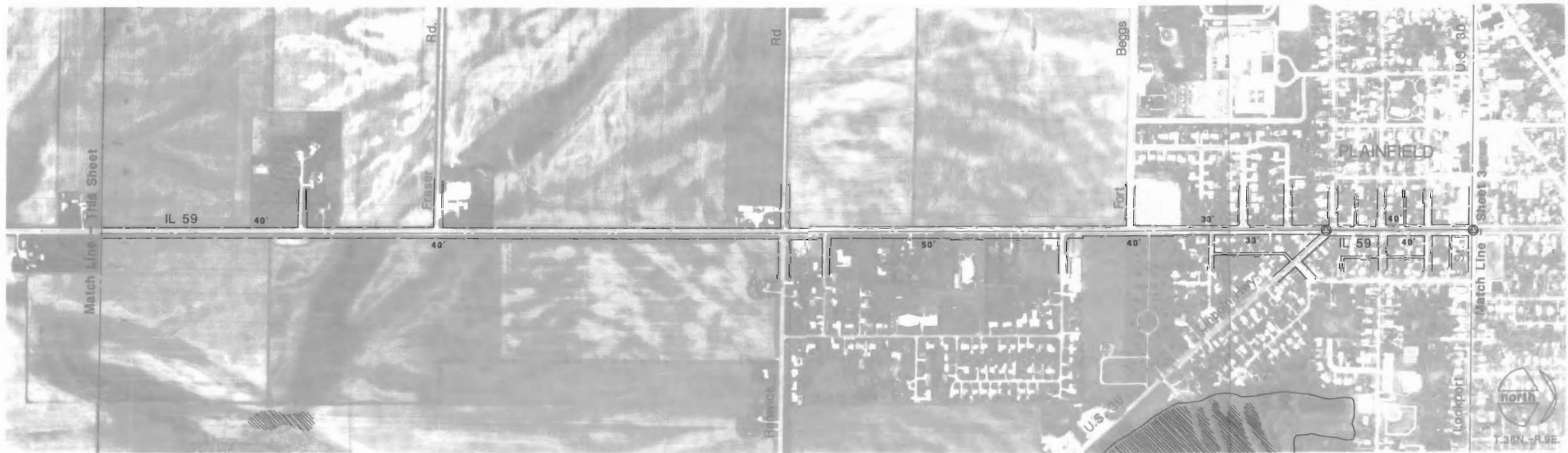
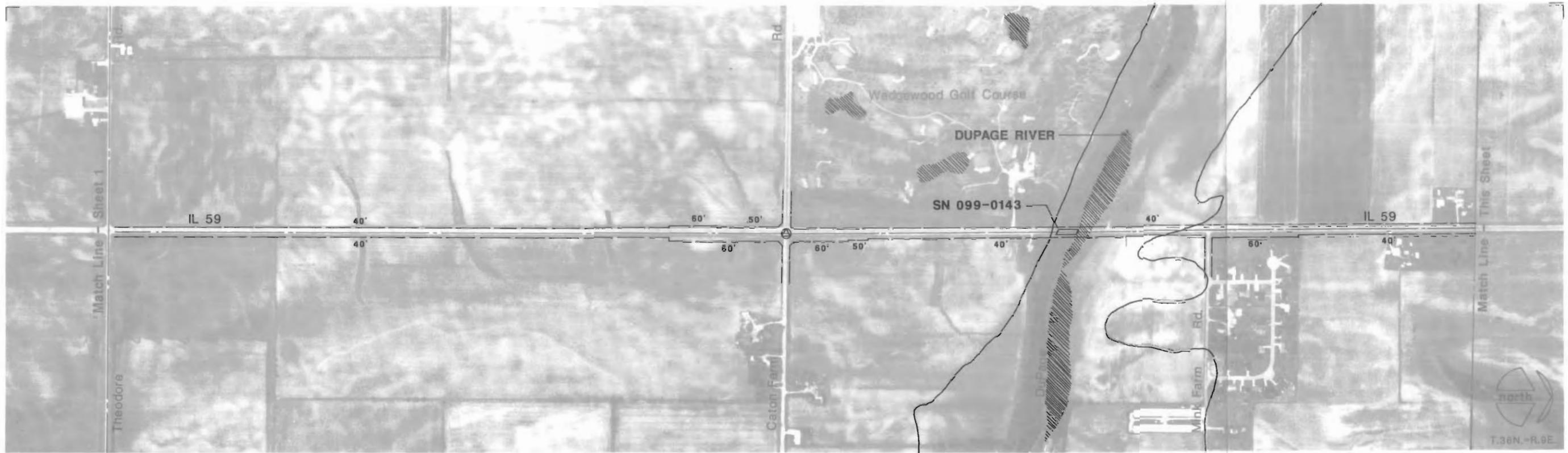
	Proposed R/W
	Proposed Signal
	Consolidate Access
	Maintain Access
	Mid-Mile Collector



Illinois 59

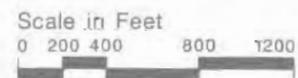
Existing Facility Characteristics

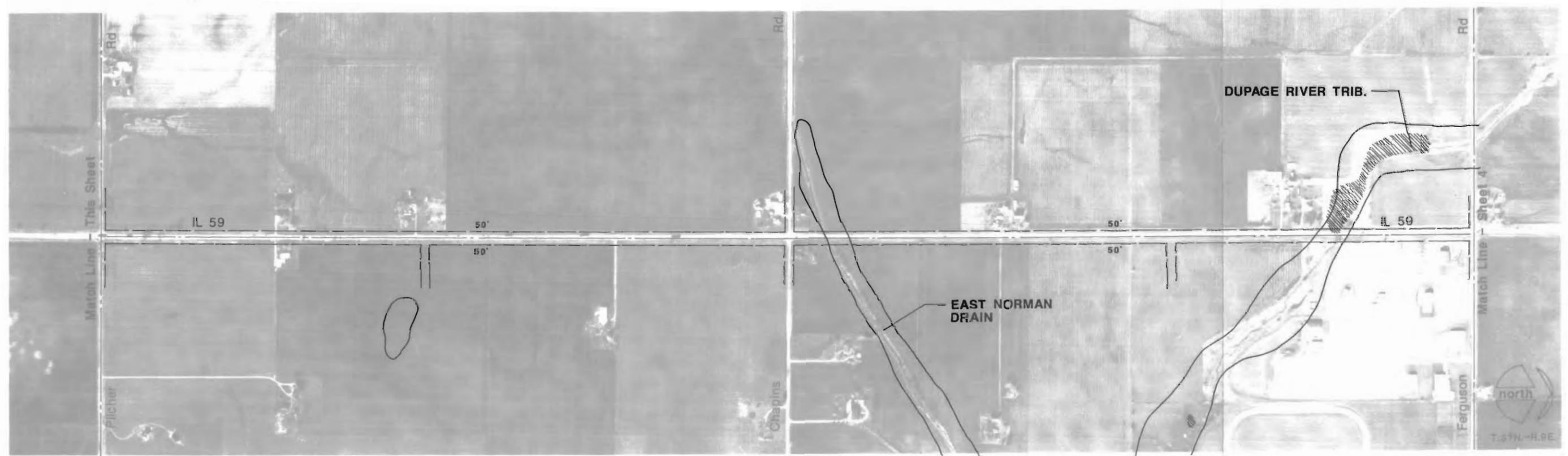
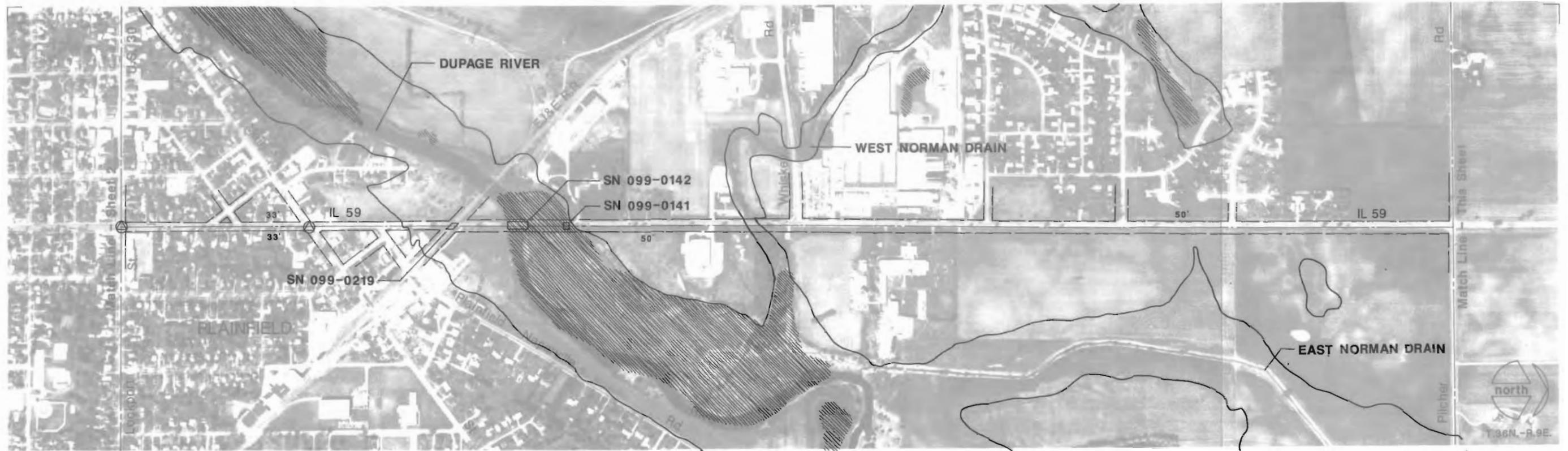




Illinois 59

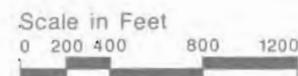
Existing Facility Characteristics

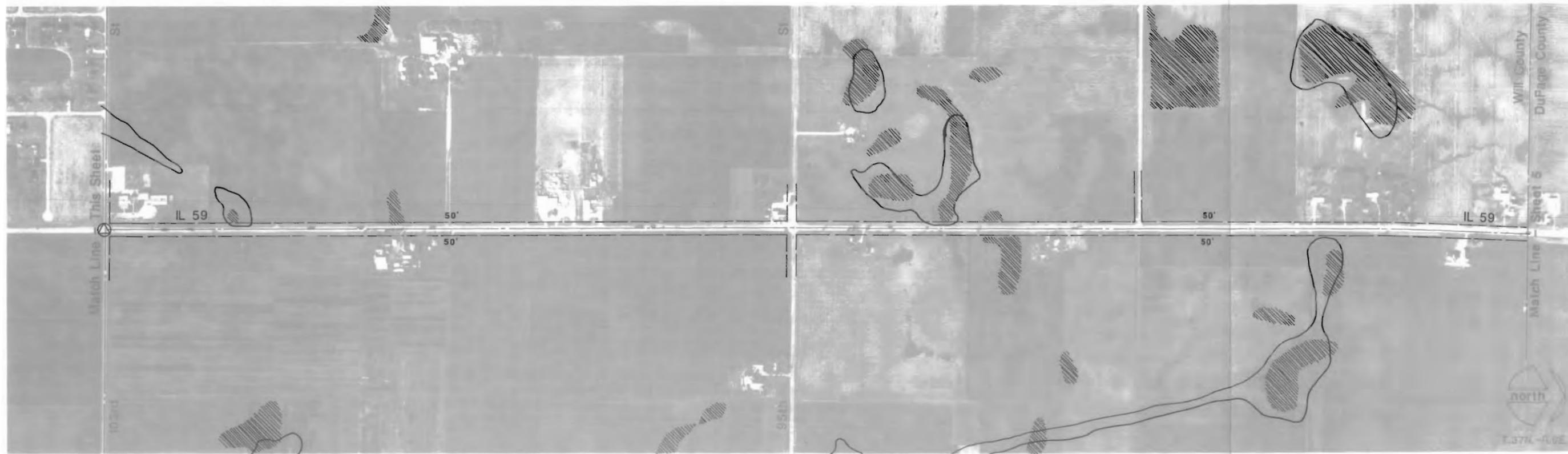
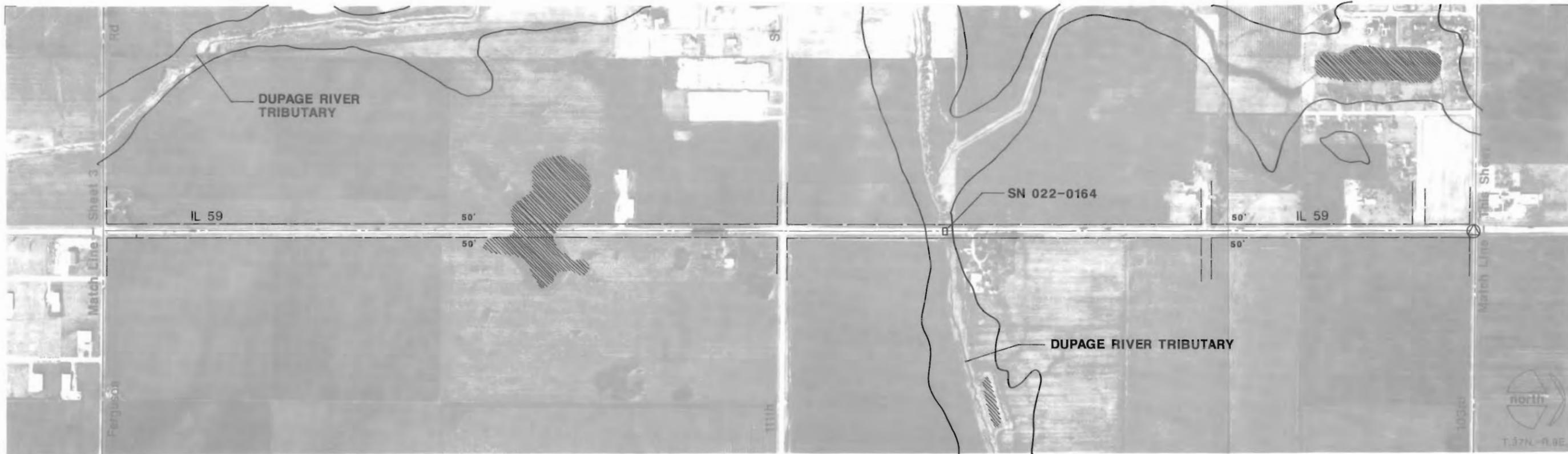




Illinois 59

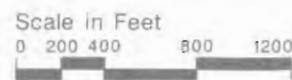
Existing Facility Characteristics

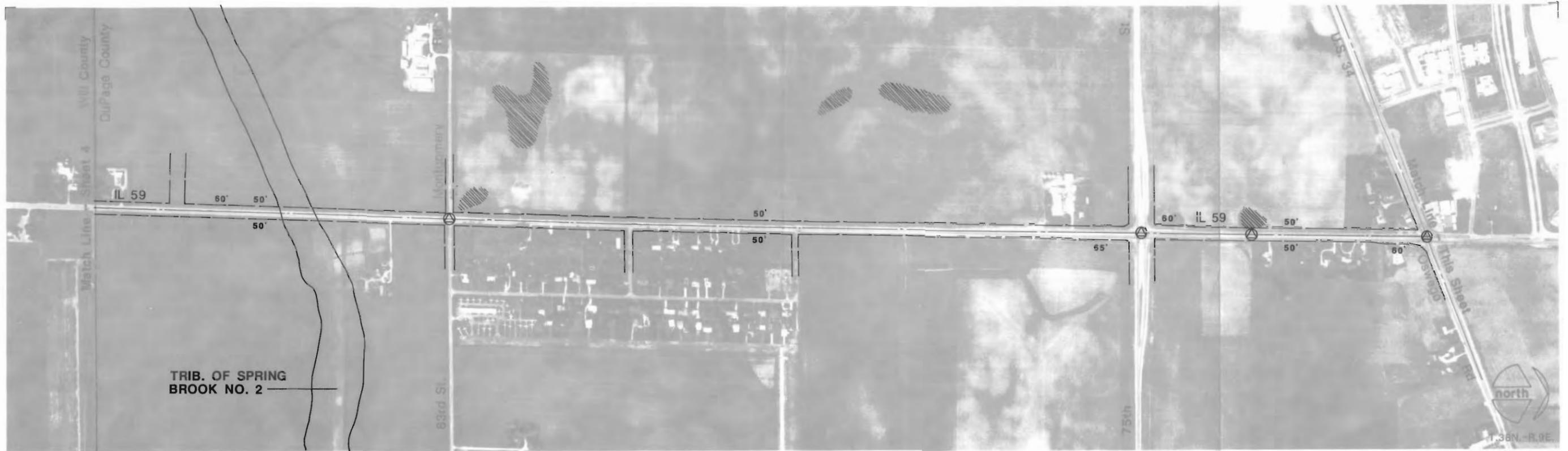




Illinois 59

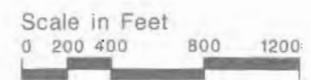
Existing Facility Characteristics

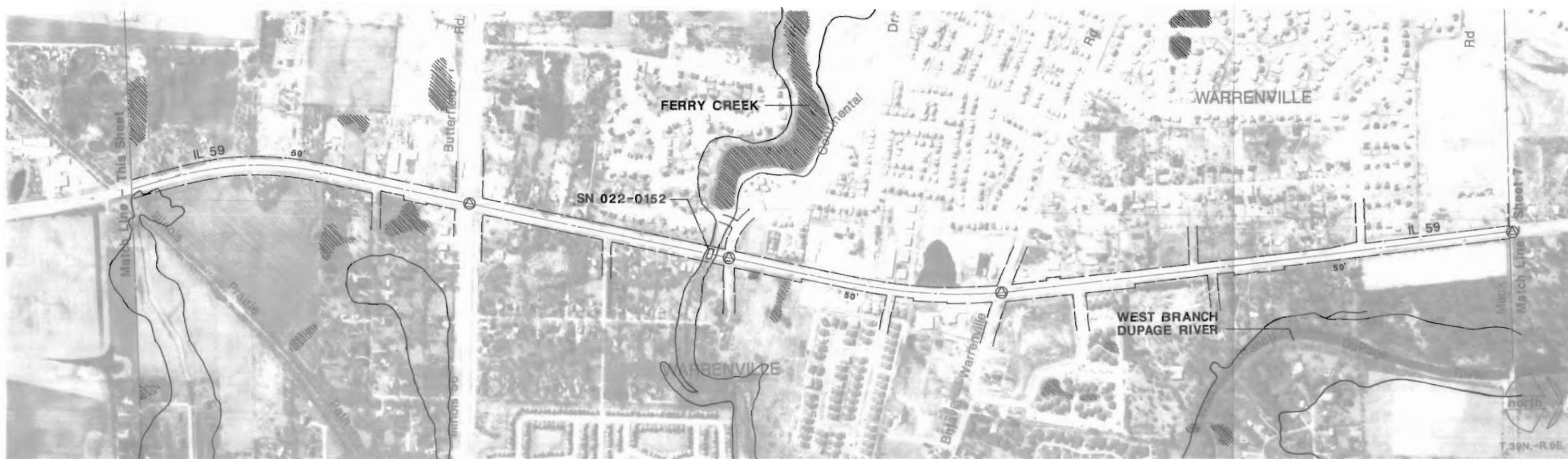




Illinois 59

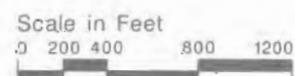
Existing Facility Characteristics

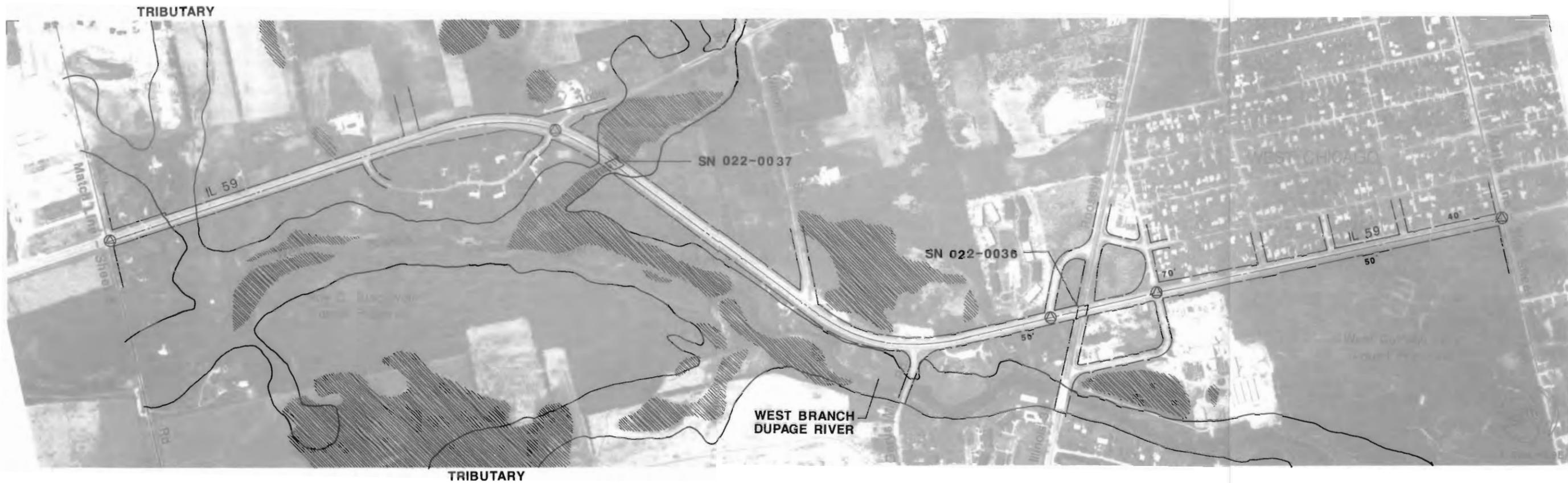




Illinois 59

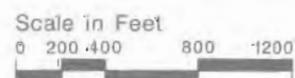
Existing Facility Characteristics





Illinois 59

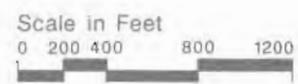
Existing Facility Characteristics

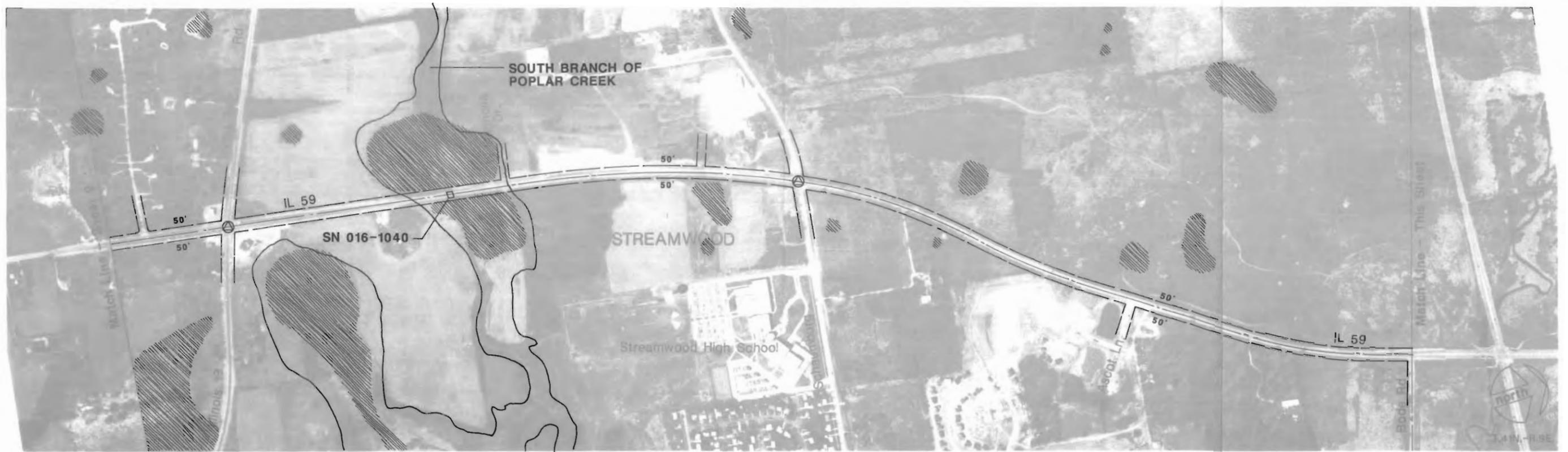




Illinois 59

Existing Facility Characteristics





Illinois 59

Existing Facility Characteristics

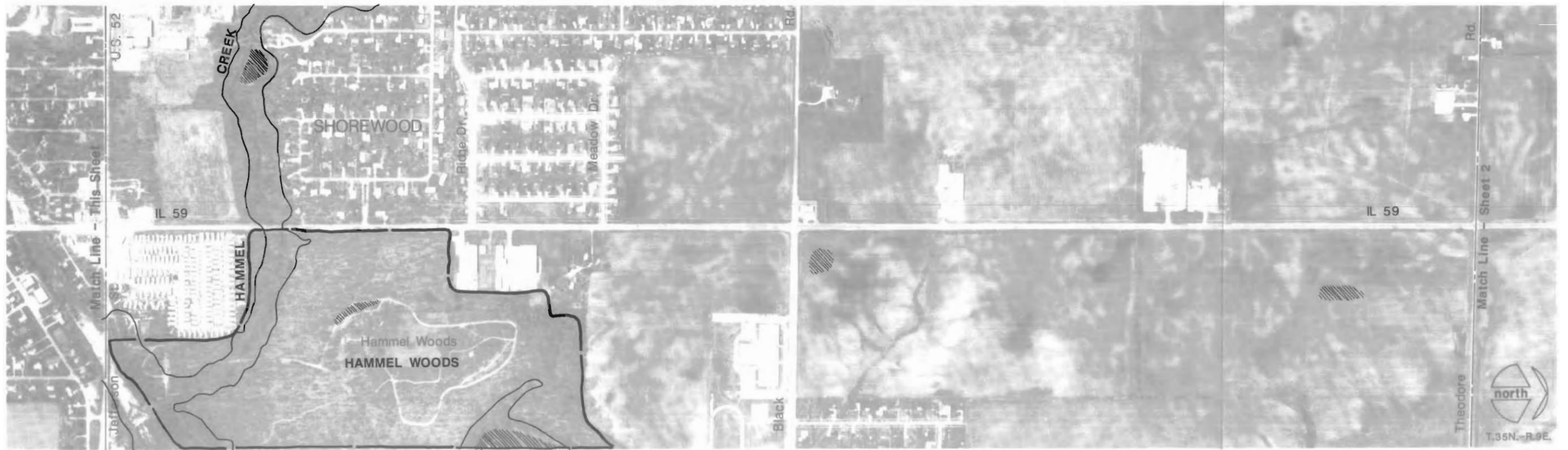




Illinois 59

Existing Facility Characteristics

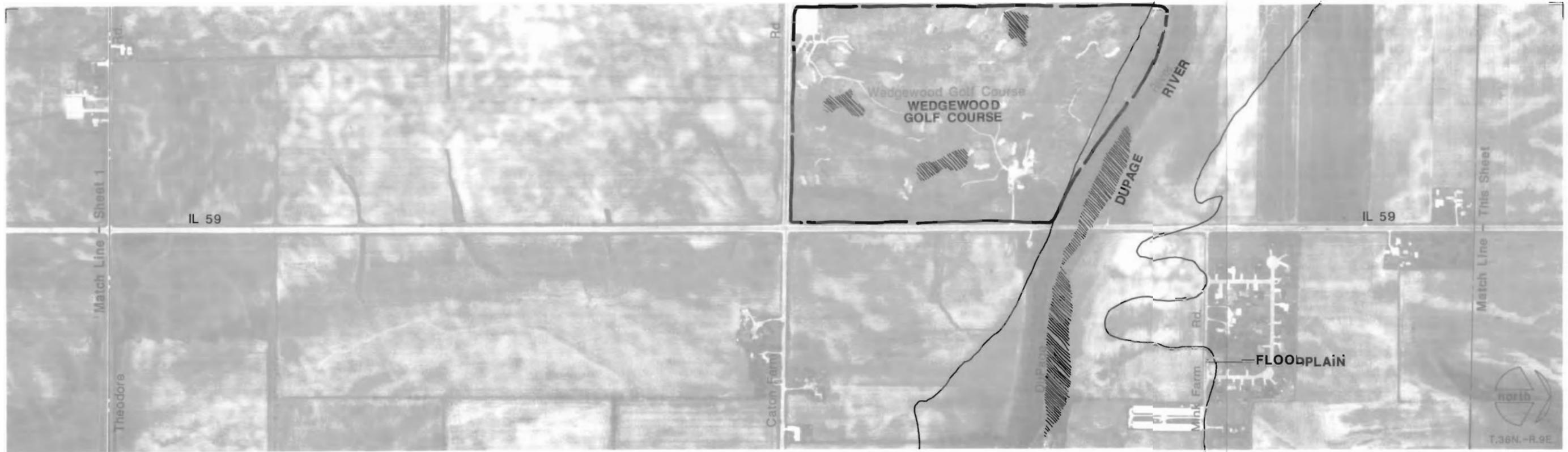




Illinois 59

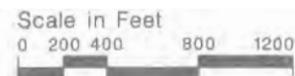
Environmental Characteristics

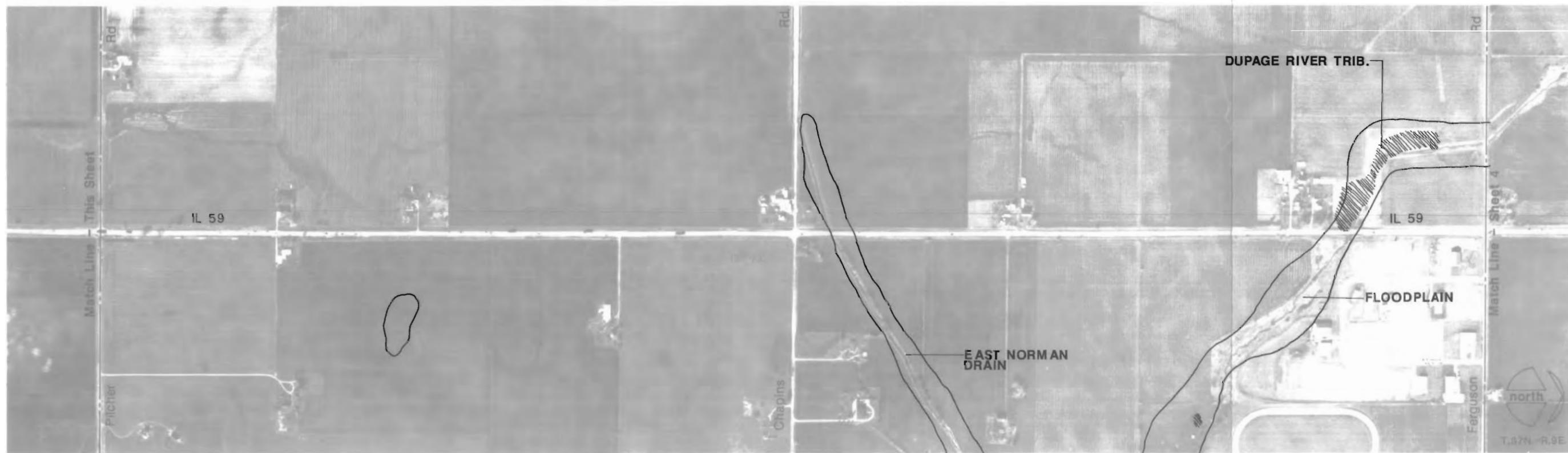




Illinois 59

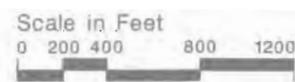
Environmental Characteristics

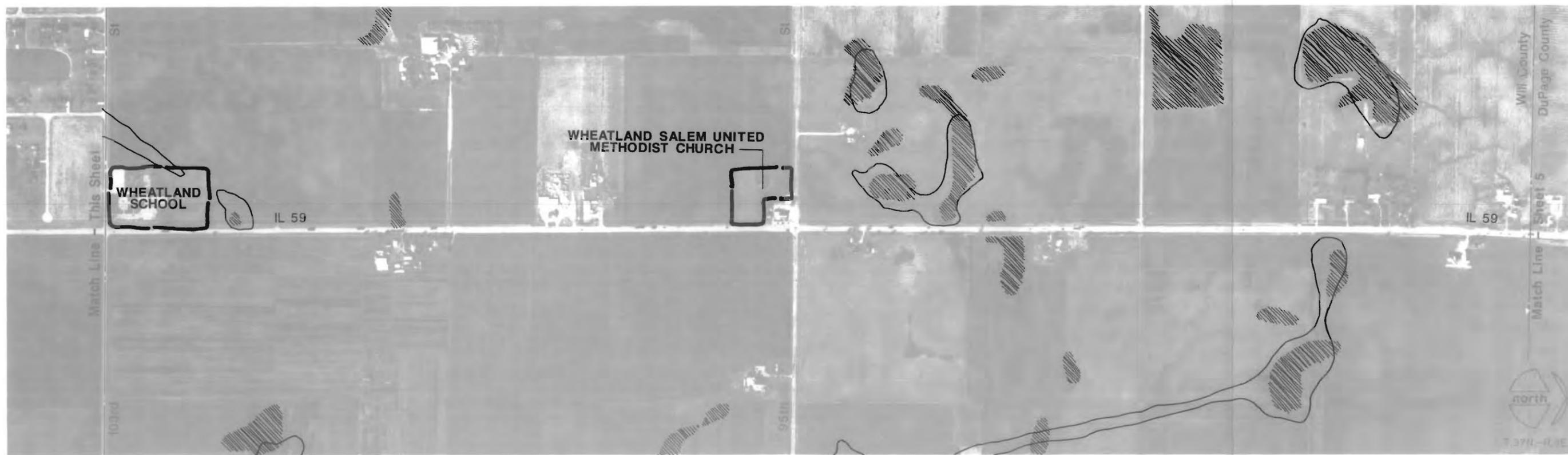




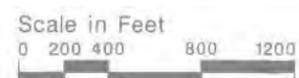
Illinois 59

Environmental Characteristics





Illinois 59



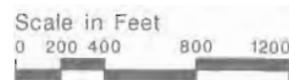
Environmental Characteristics

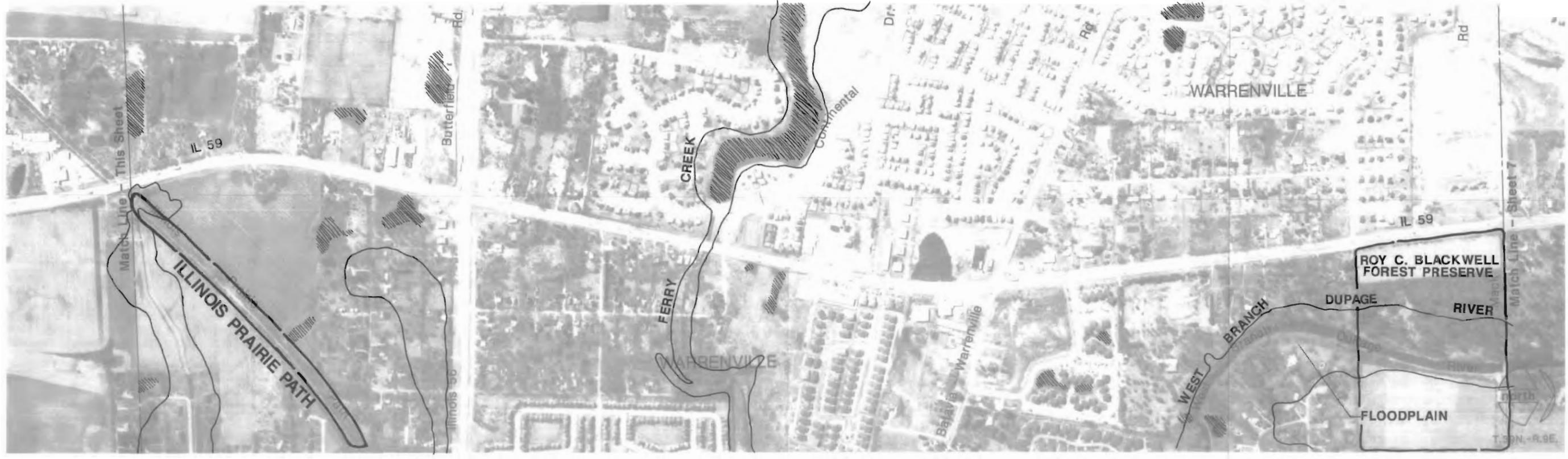




Illinois 59

Environmental Characteristics





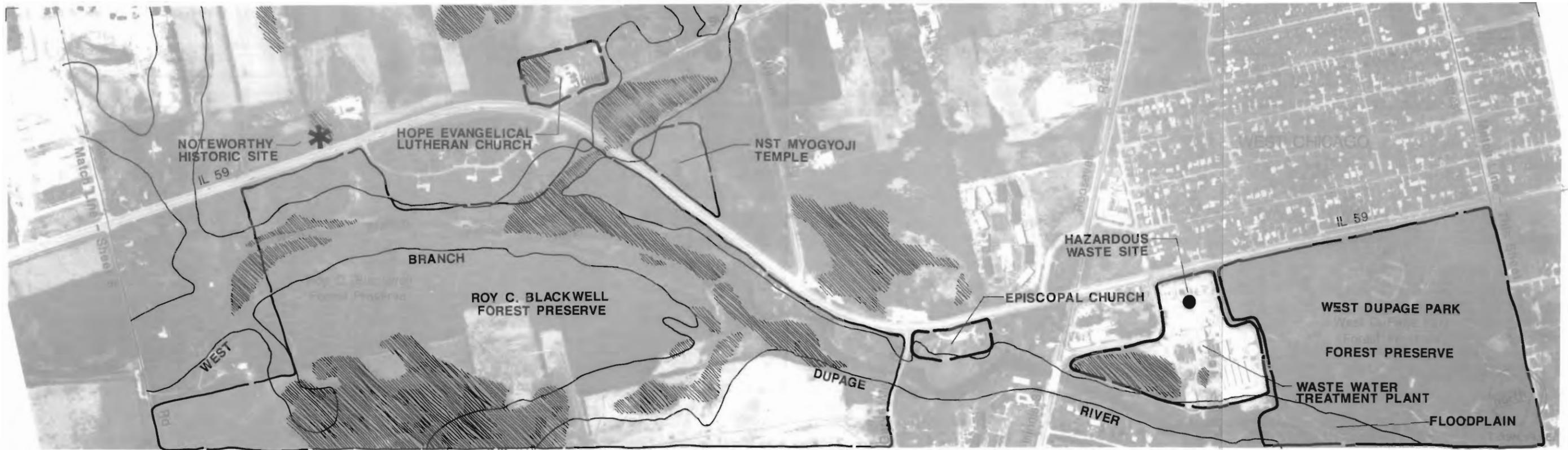
Illinois 59

prepared by Harland Bartholomew & Associates, Inc. for the
ILLINOIS DEPARTMENT OF TRANSPORTATION



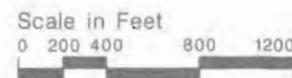
Environmental Characteristics





Illinois 59

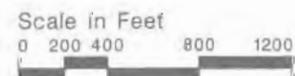
Environmental Characteristics





Illinois 59

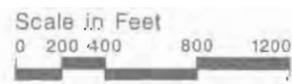
Environmental Characteristics

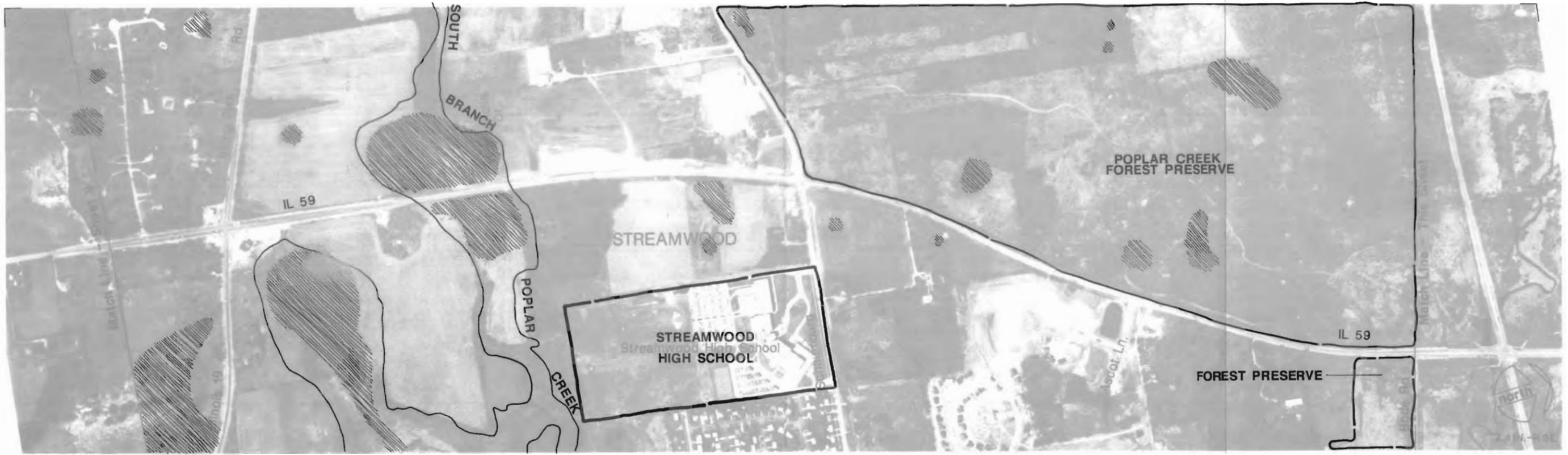




Illinois 59

Environmental Characteristics

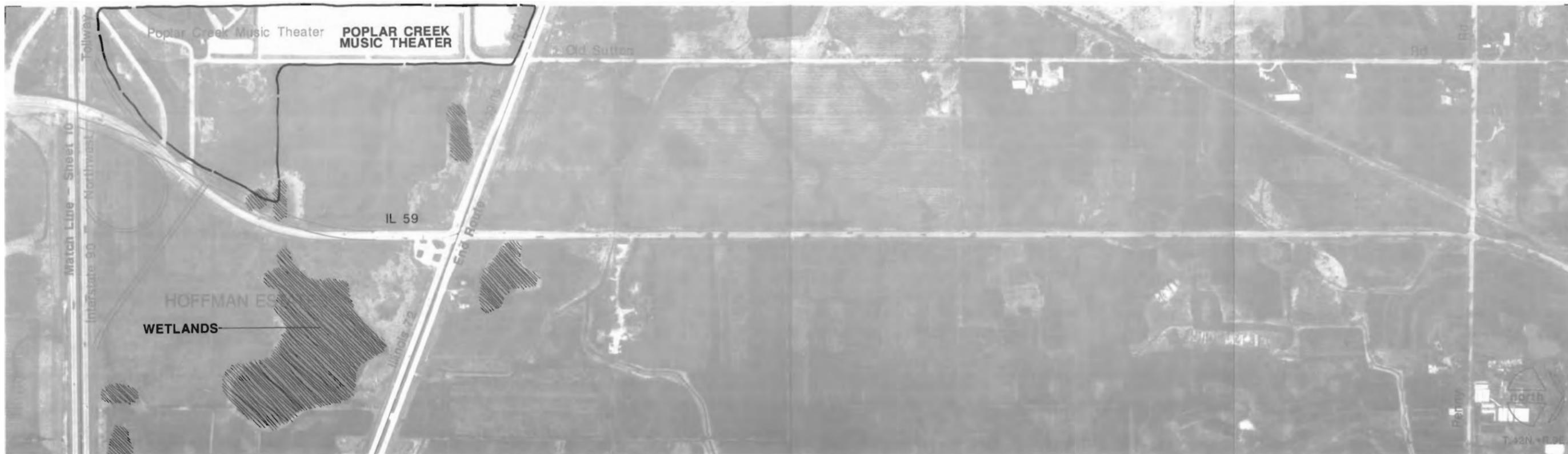




Illinois 59

Environmental Characteristics

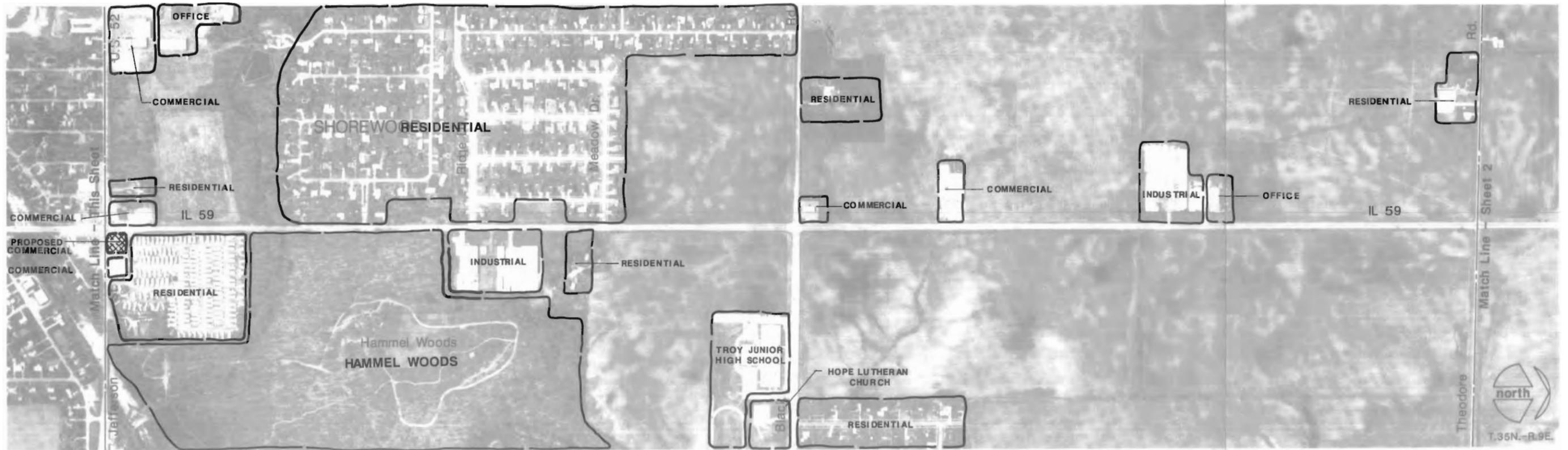




Illinois 59

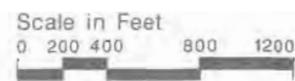
Environmental Characteristics

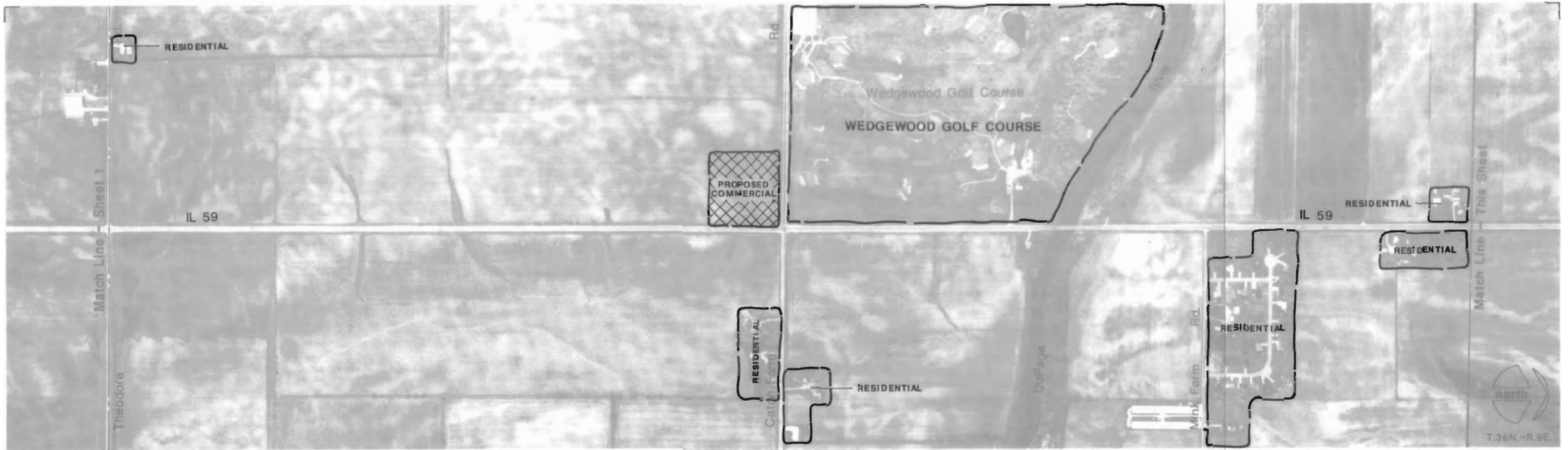




Illinois 59

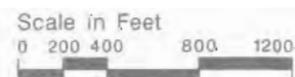
Development Characteristics

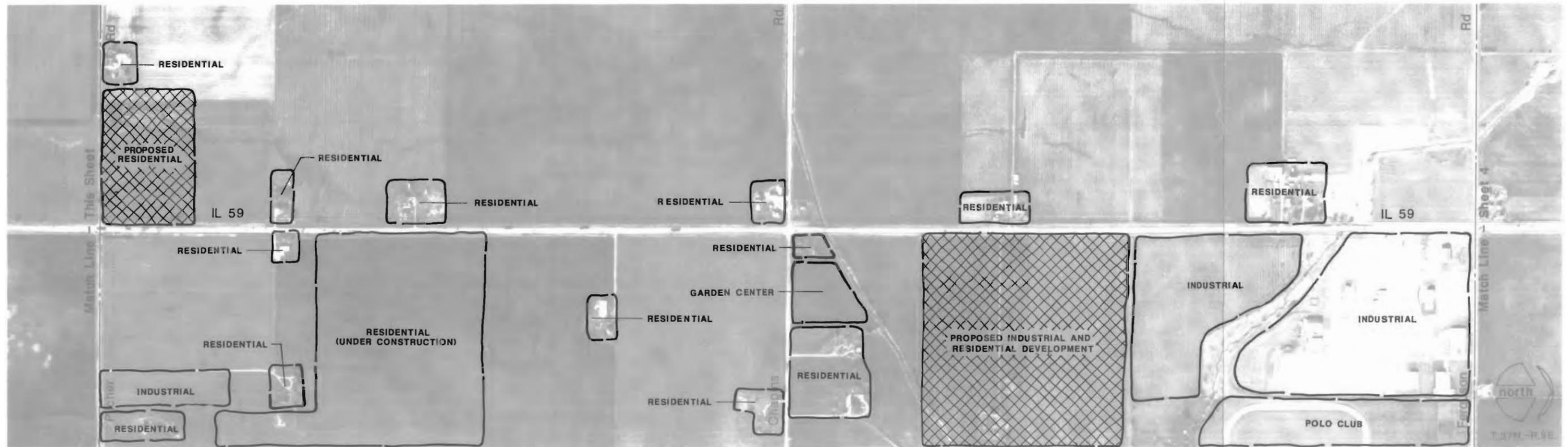




Illinois 59

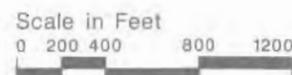
Development Characteristics

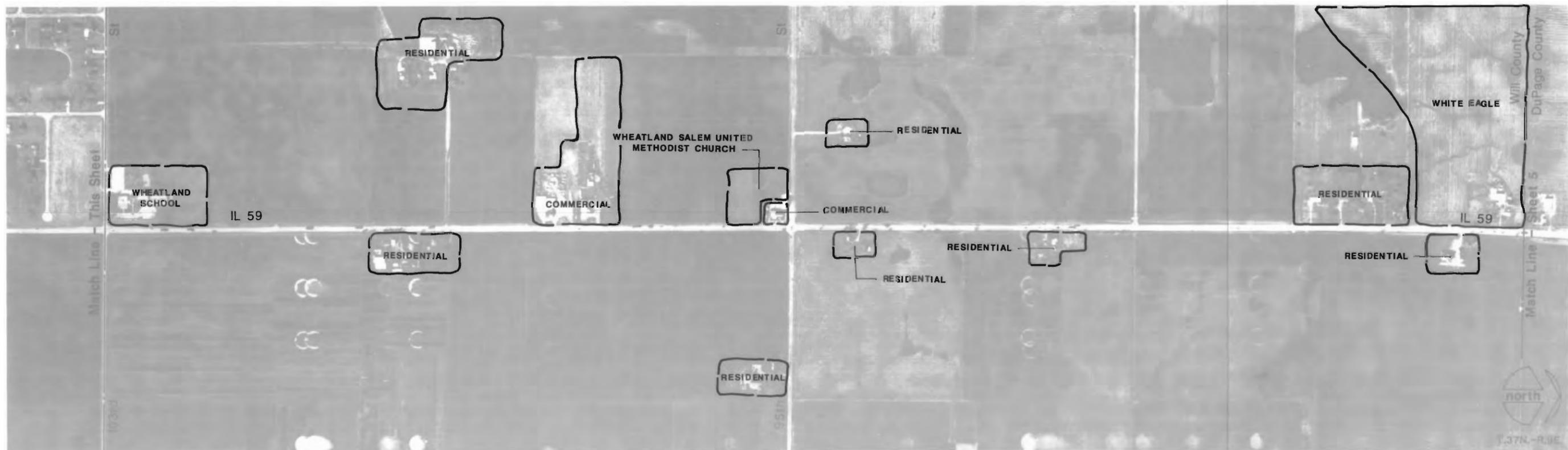
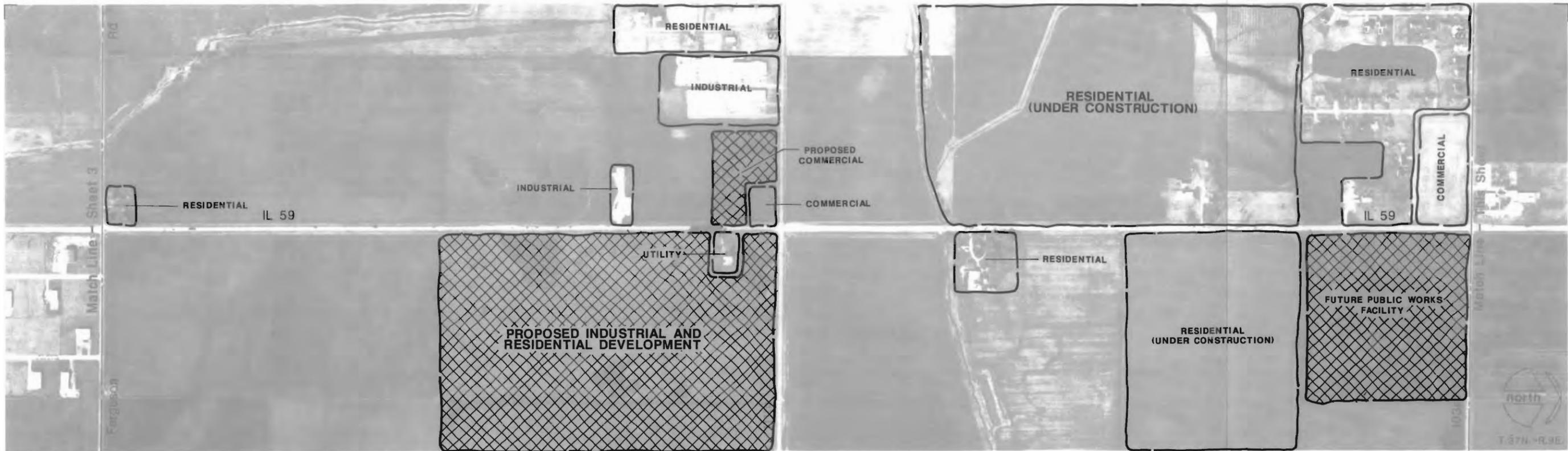




Illinois 59

Development Characteristics





Illinois 59

Development Characteristics

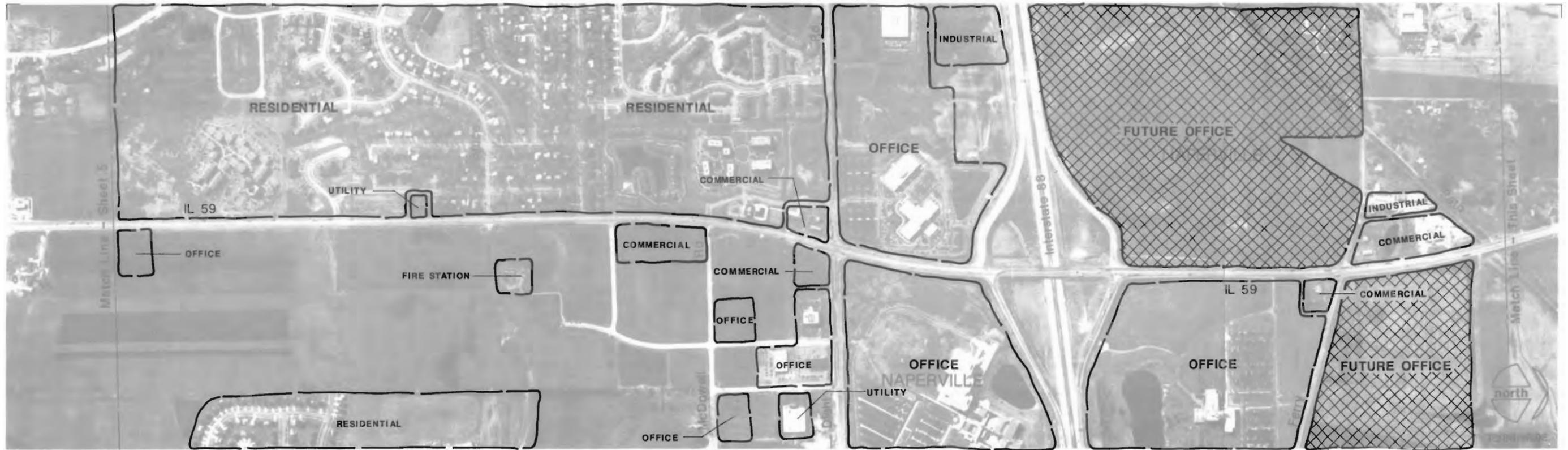




Illinois 59

Development Characteristics



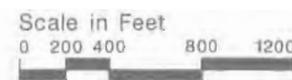


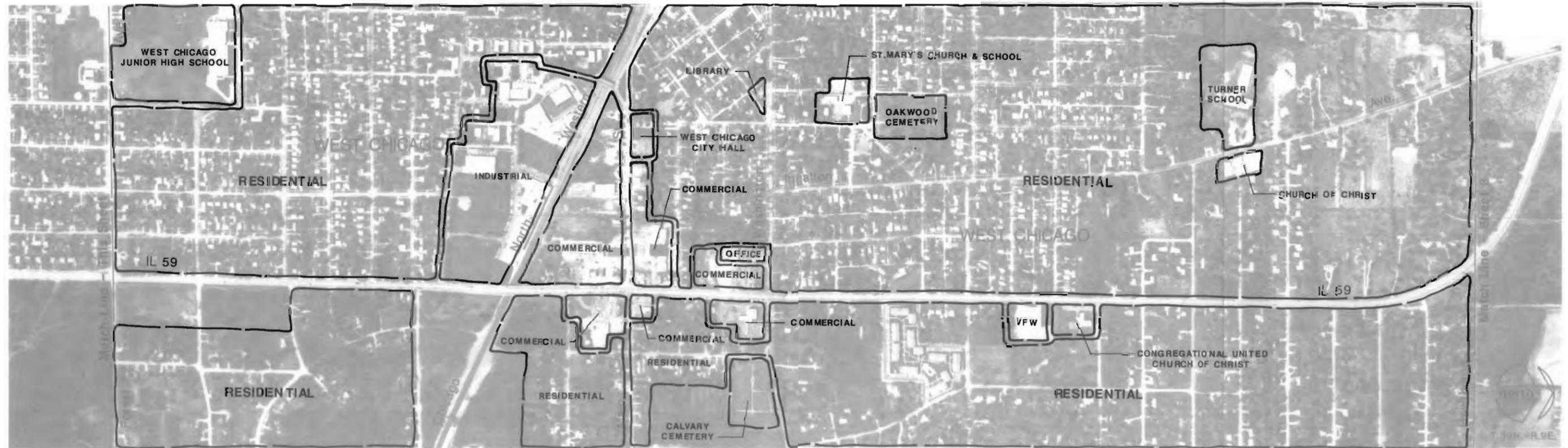
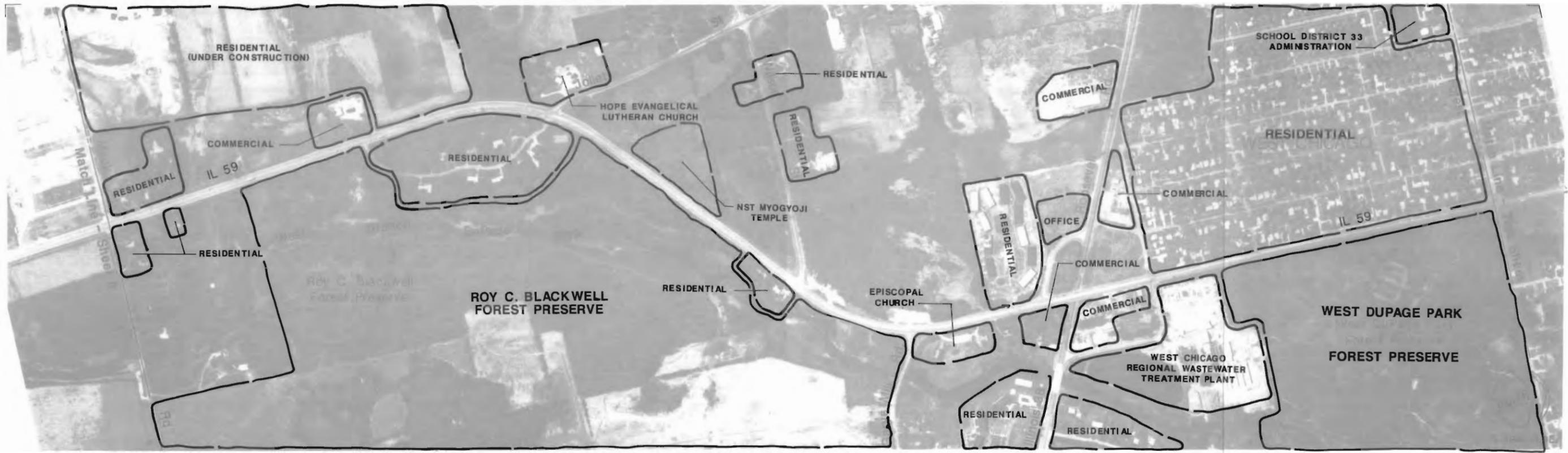
Illinois 59

Development Characteristics



Strategic
Regional
Arterial
Planning Study

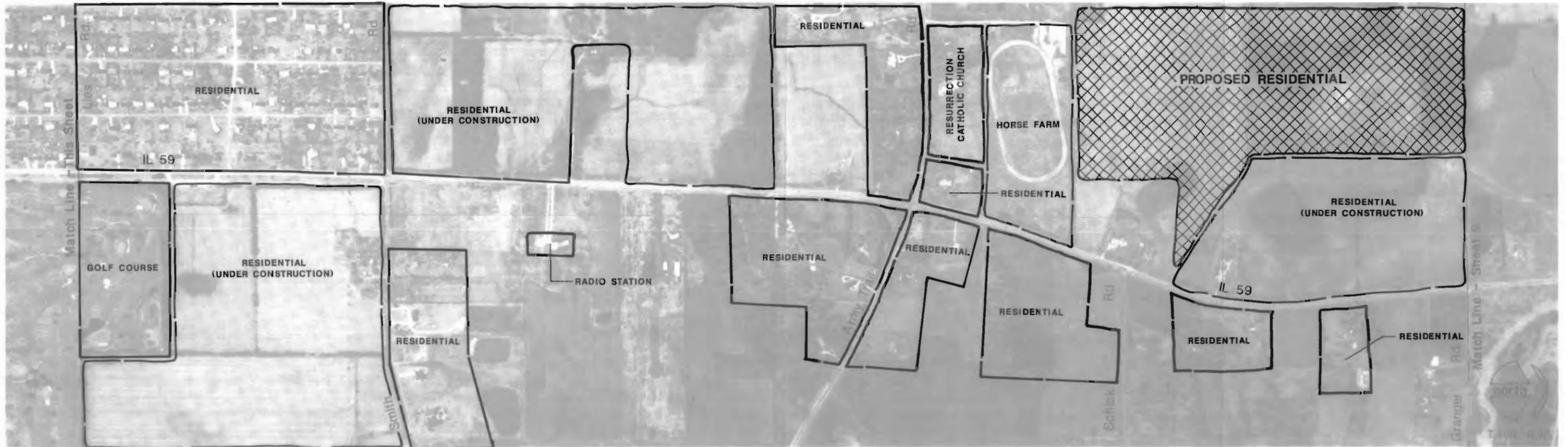




Illinois 59

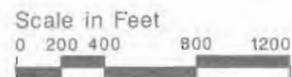
Development Characteristics

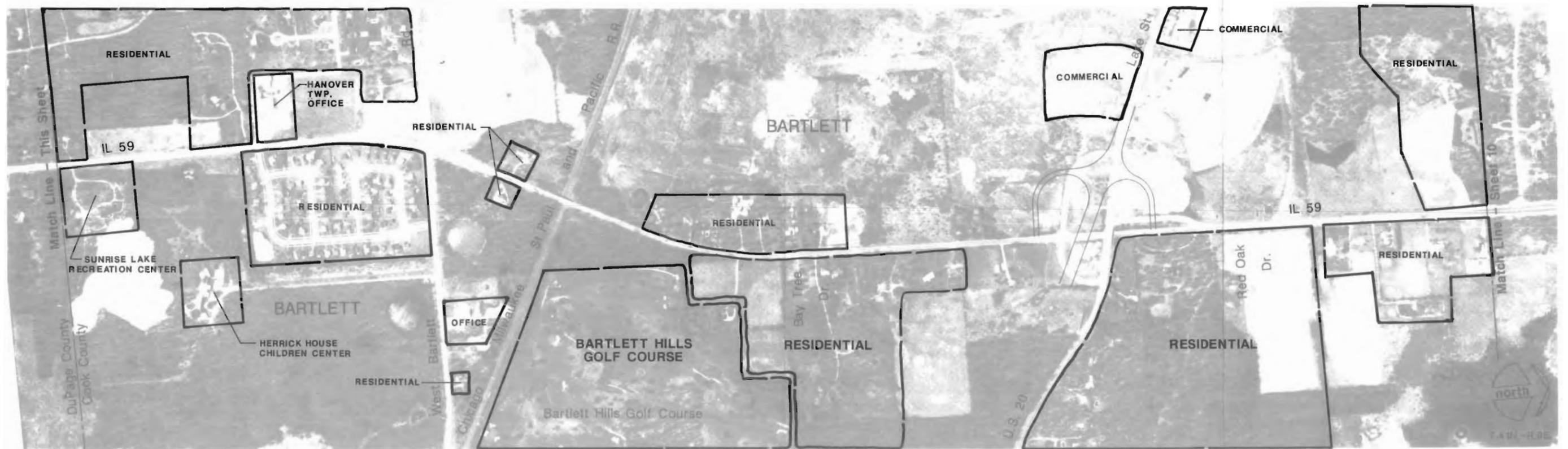
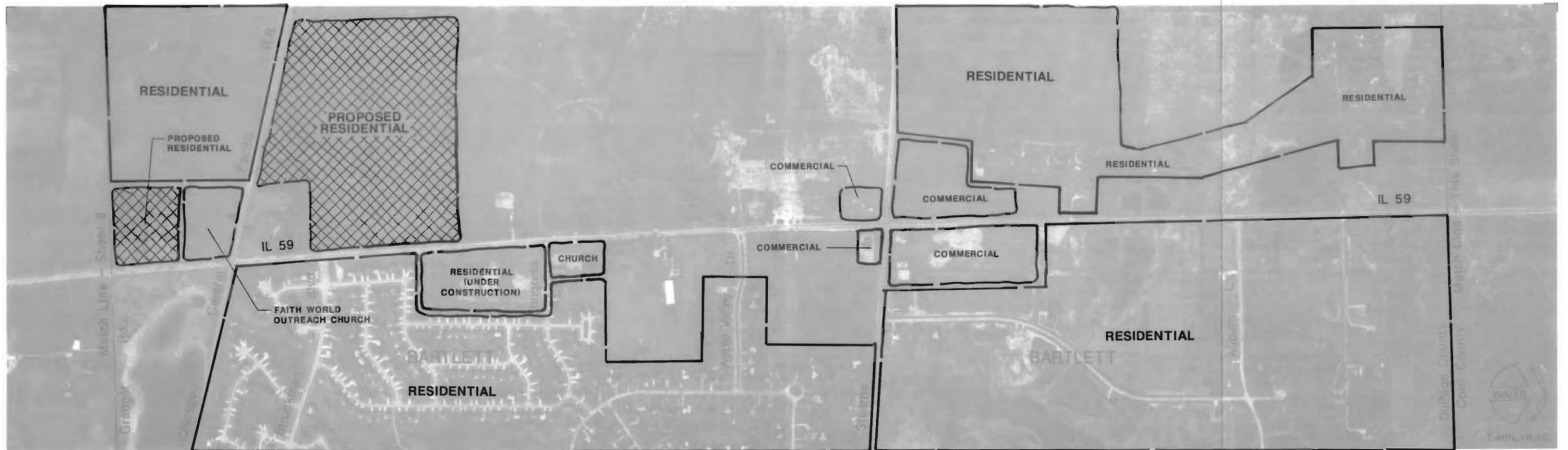




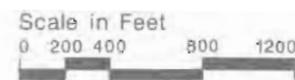
Illinois 59

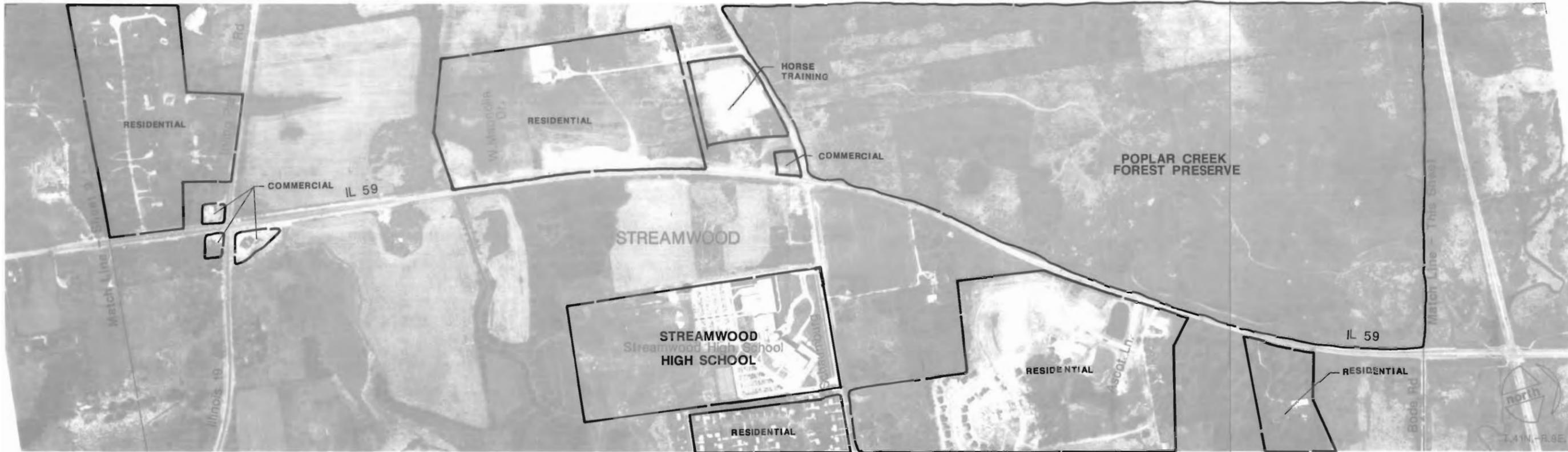
Development Characteristics





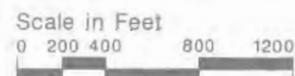
Illinois 59

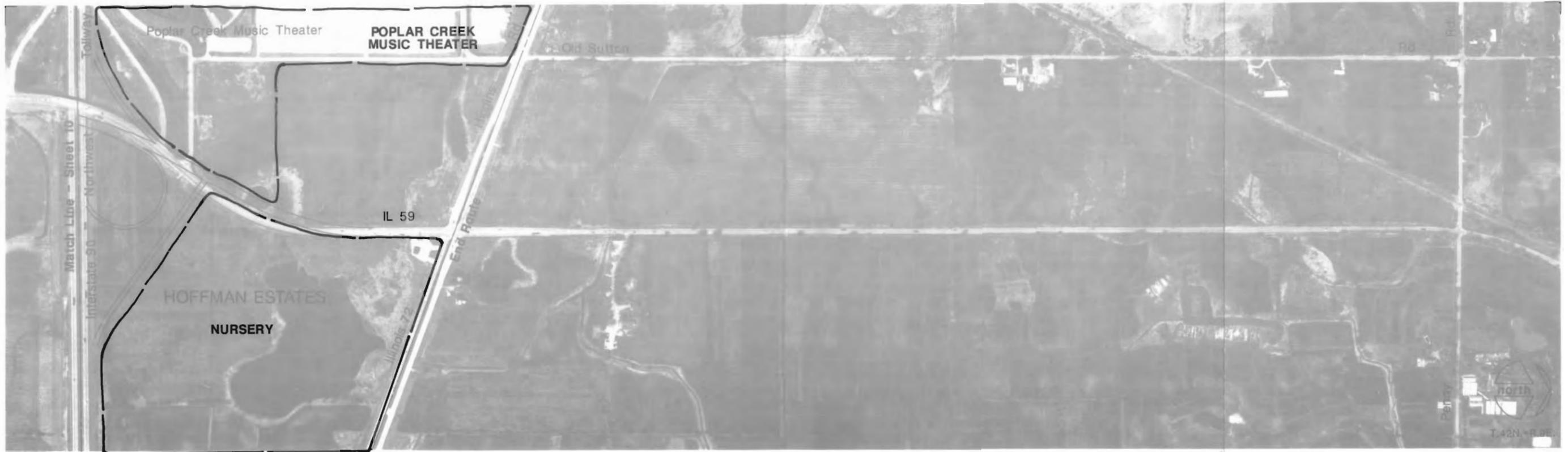




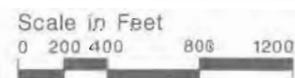
Illinois 59

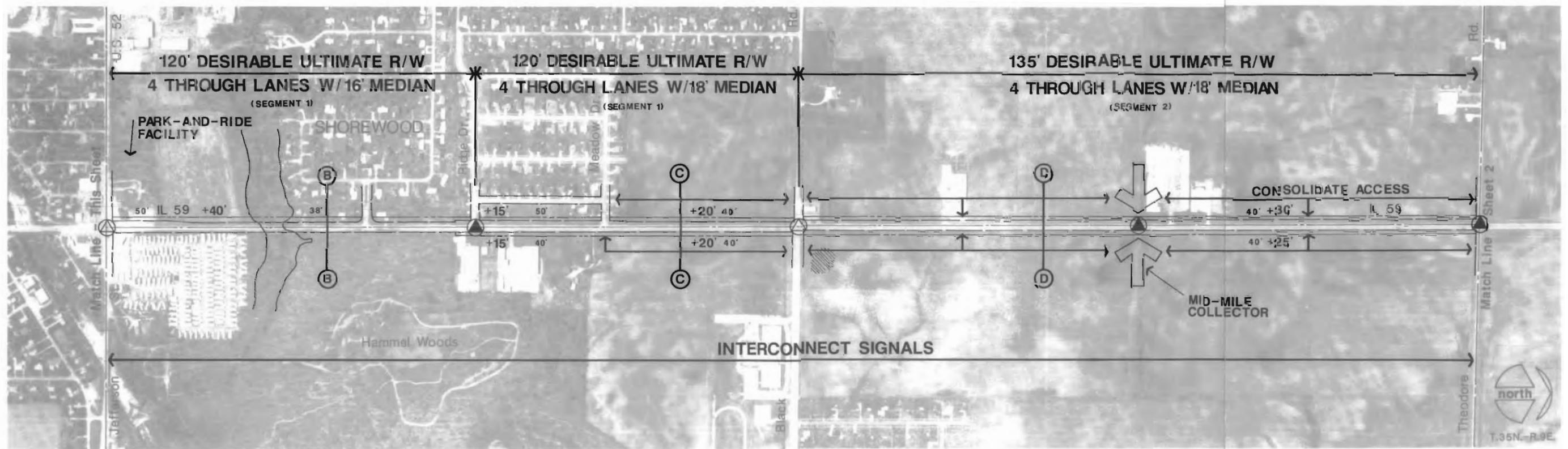
Development Characteristics





Illinois 59

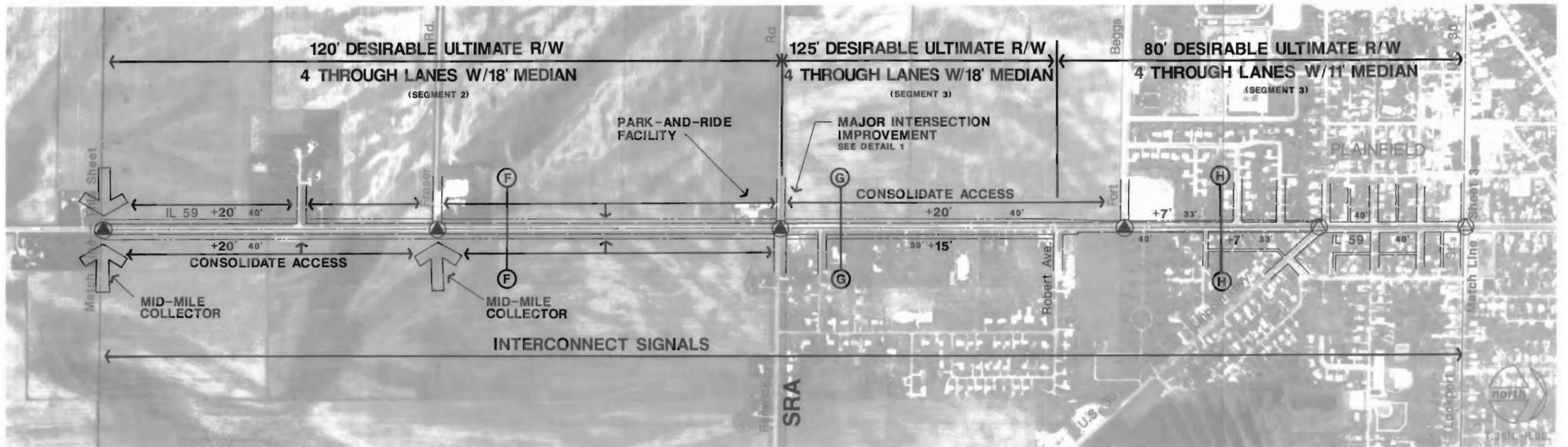
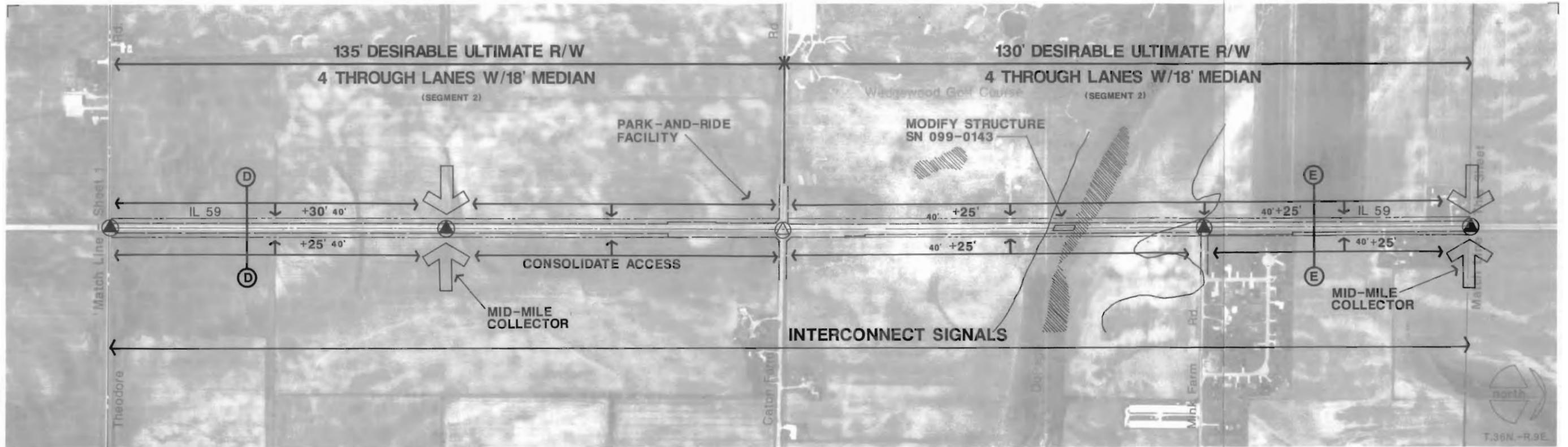




Illinois 59

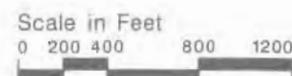
Recommended Improvements

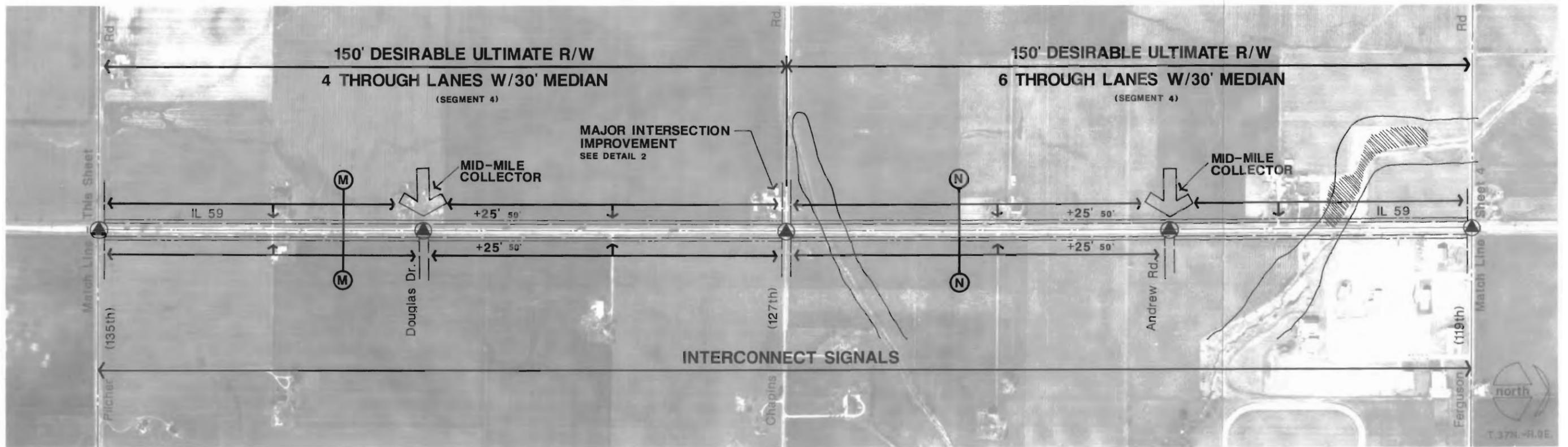
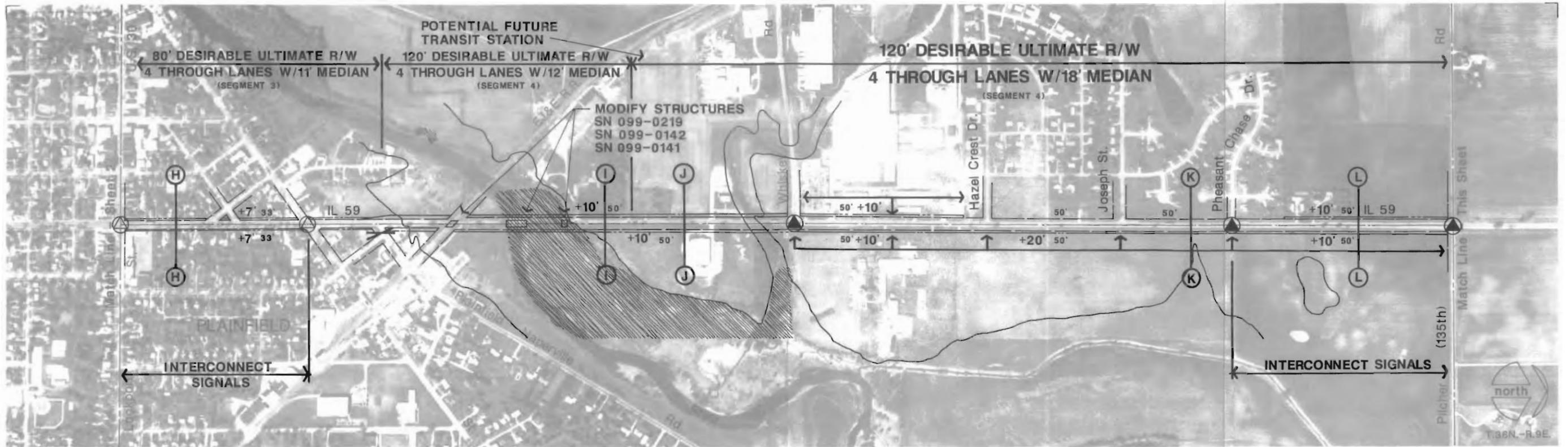




Illinois 59

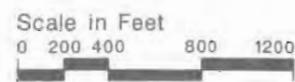
Recommended Improvements

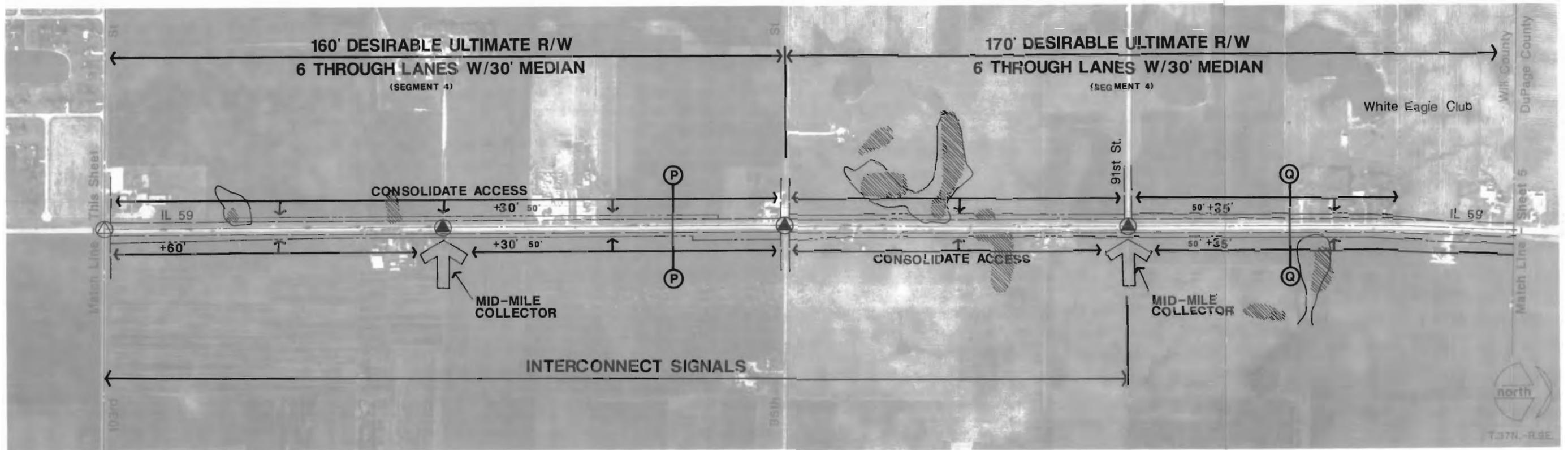
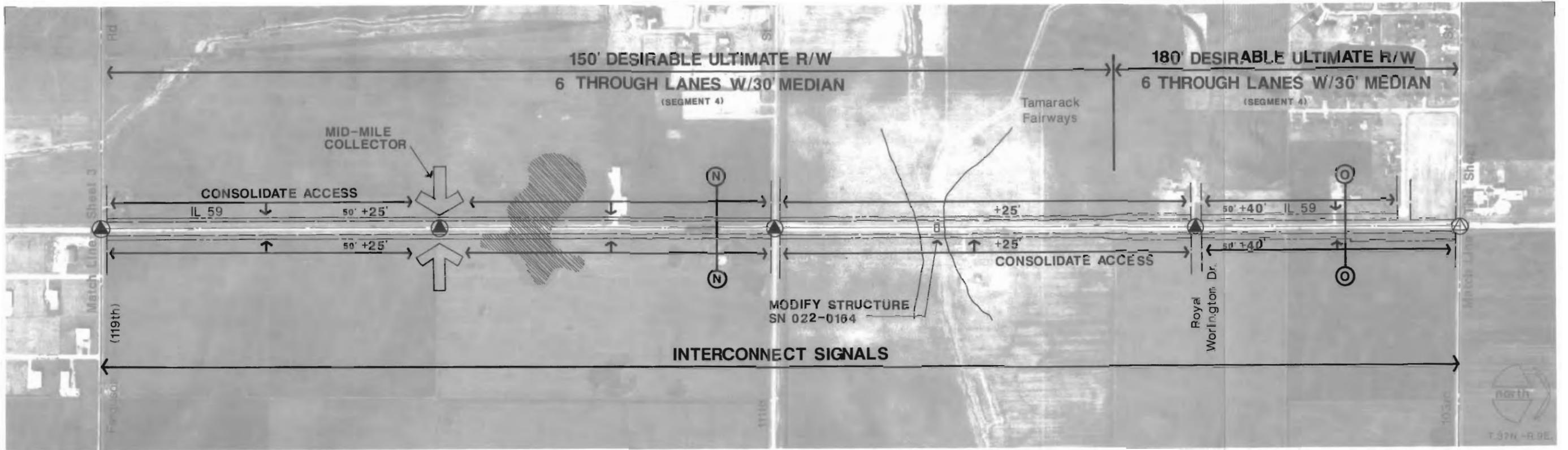




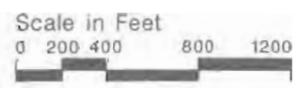
Illinois 59

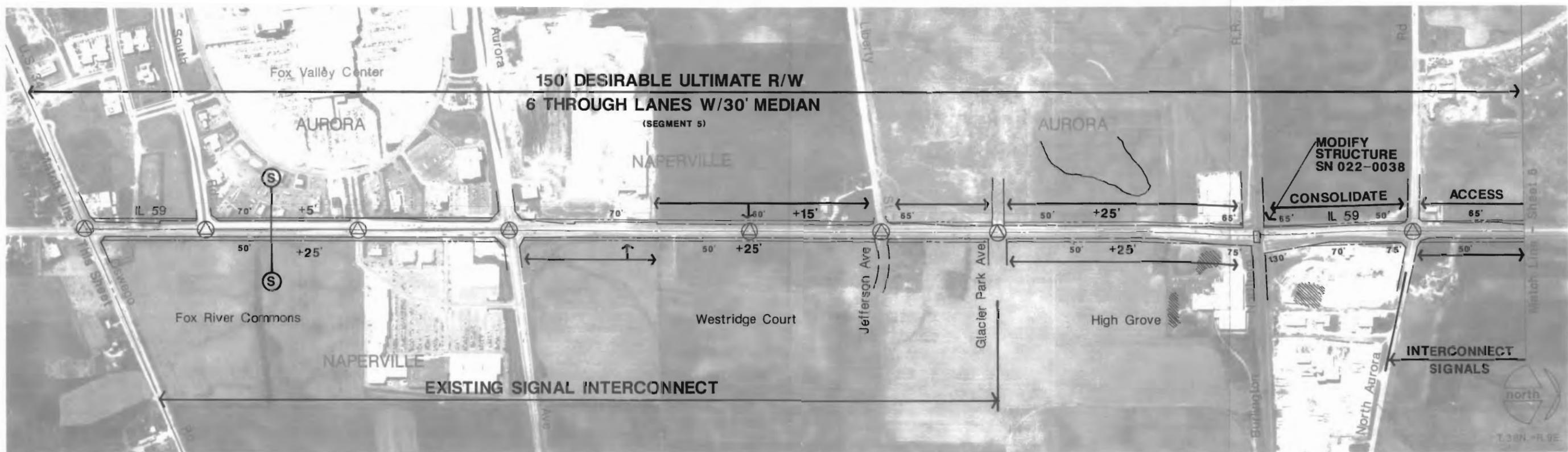
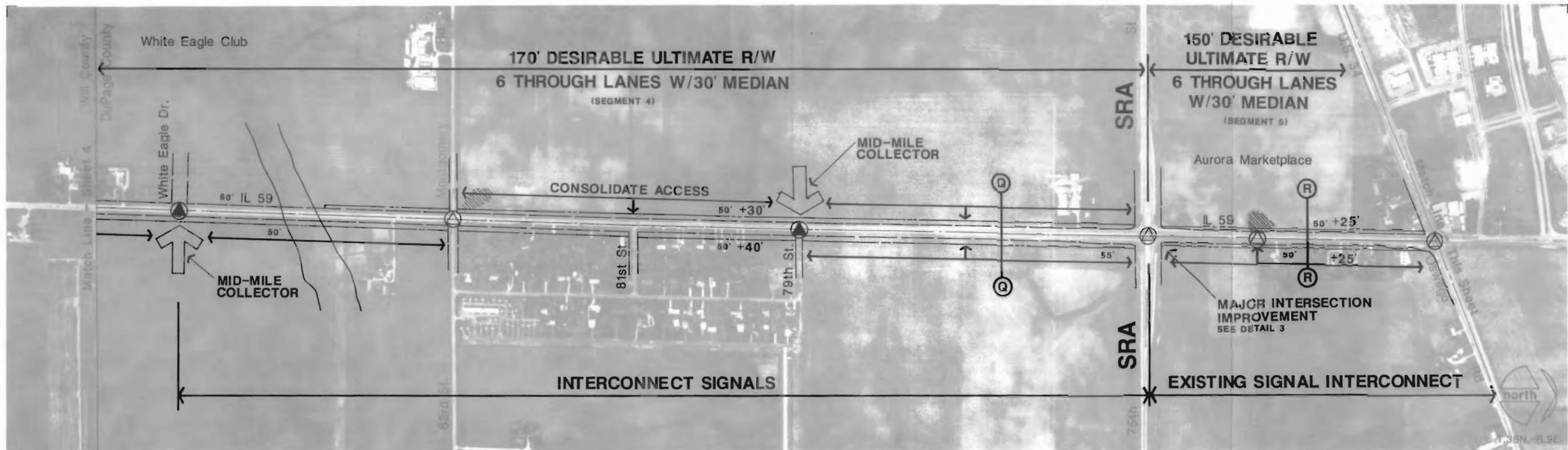
Recommended Improvements





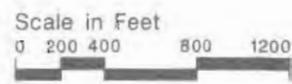
Illinois 59

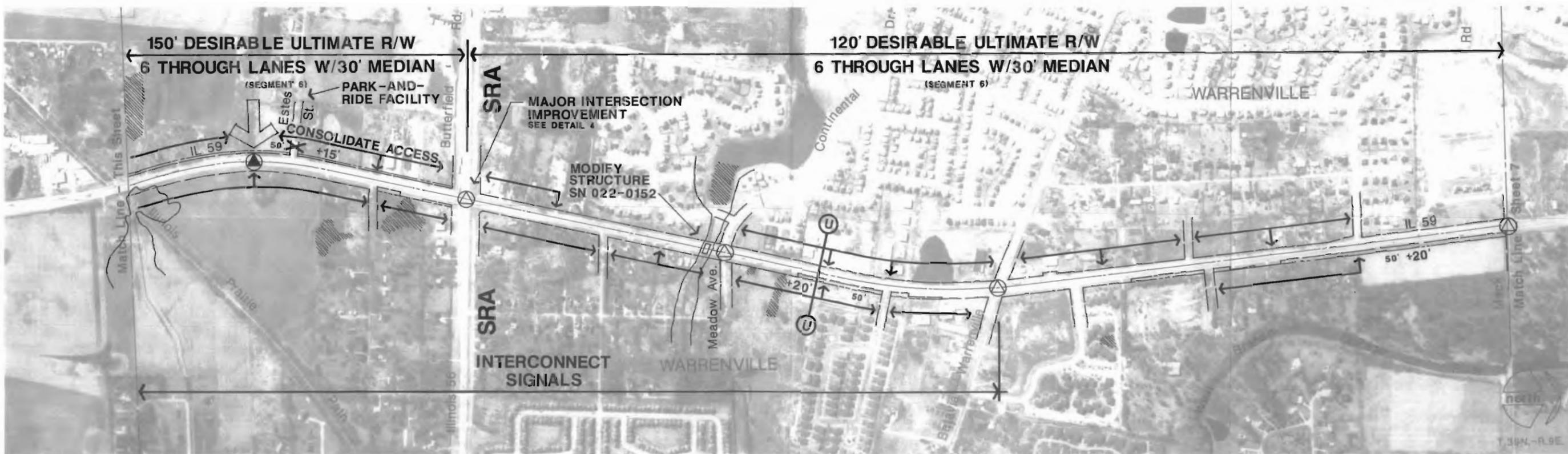
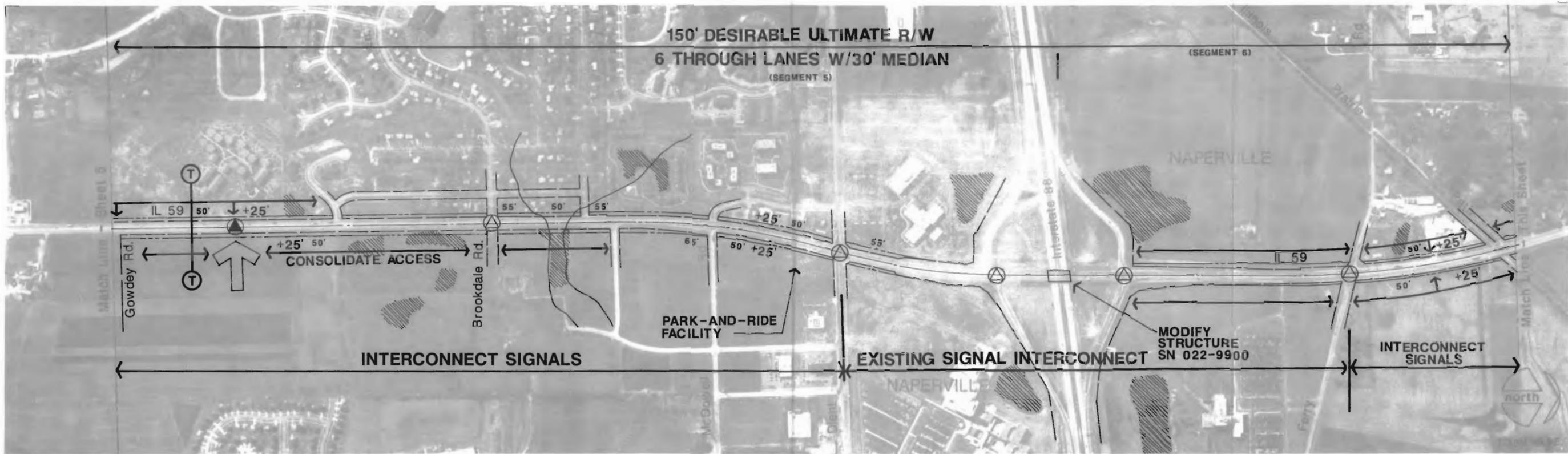




Illinois 59

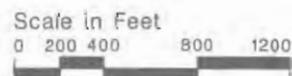
Recommended Improvements

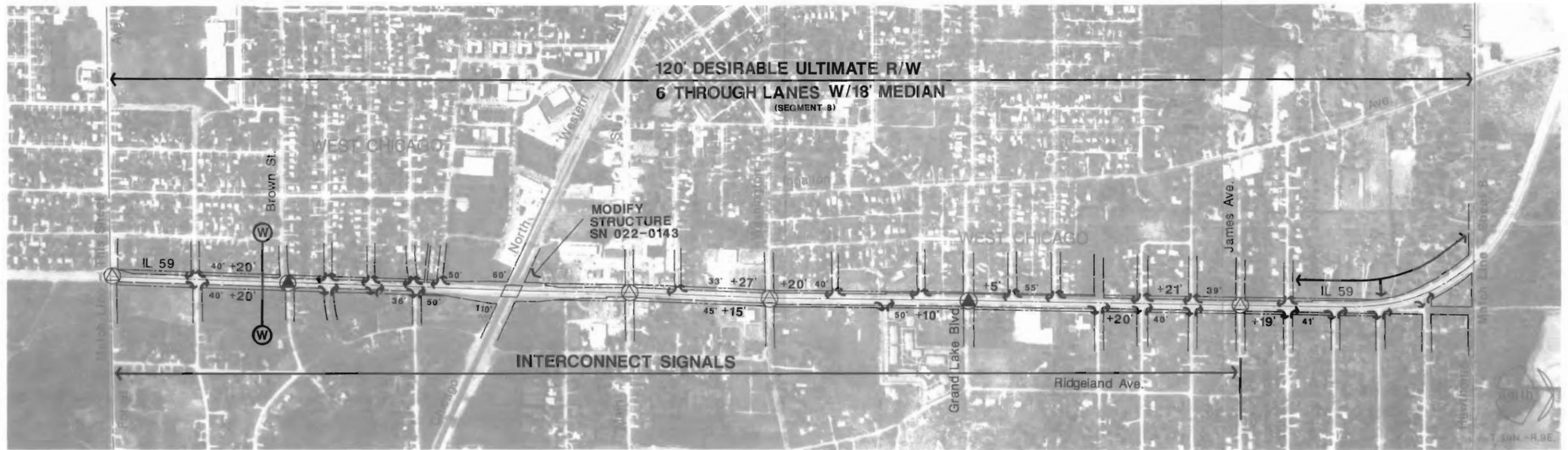
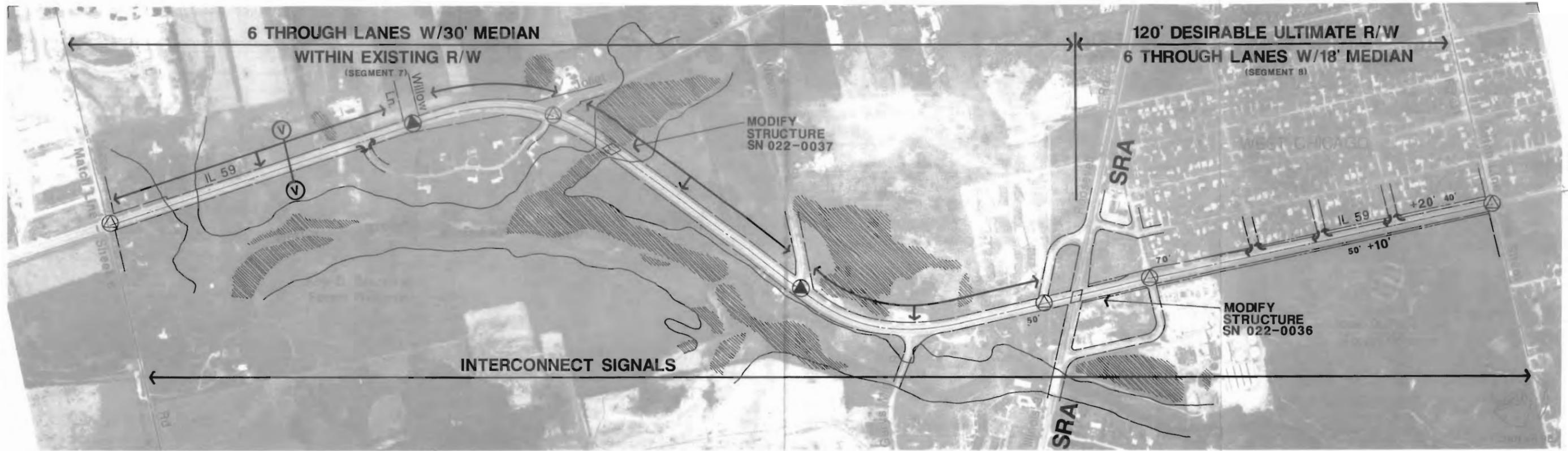




Illinois 59

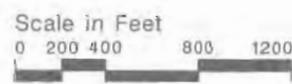
Recommended Improvements

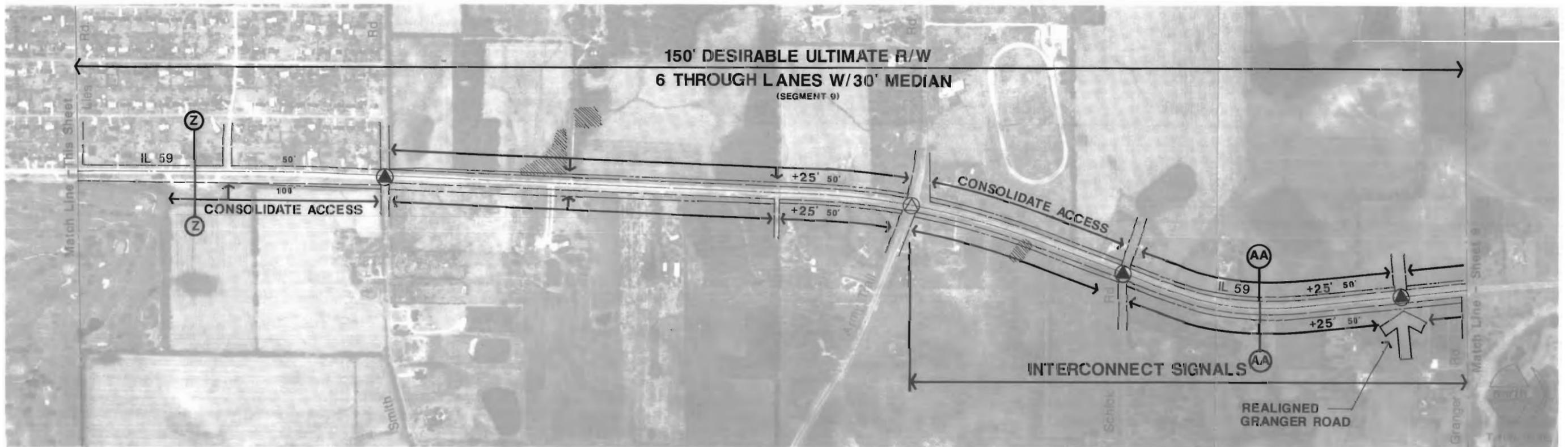
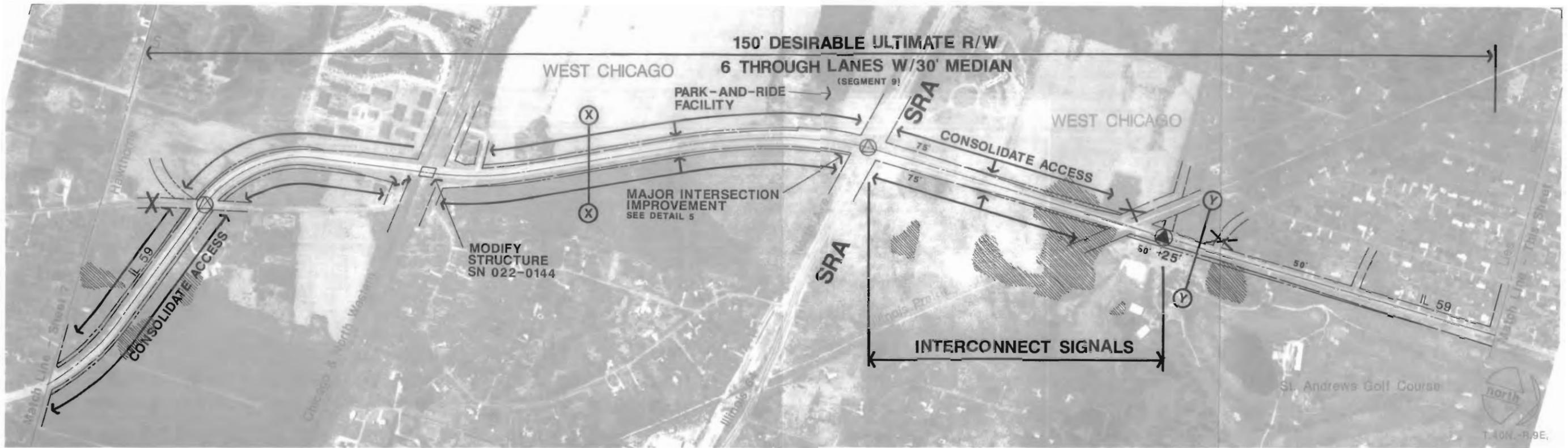




Illinois 59

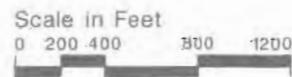
Recommended Improvements

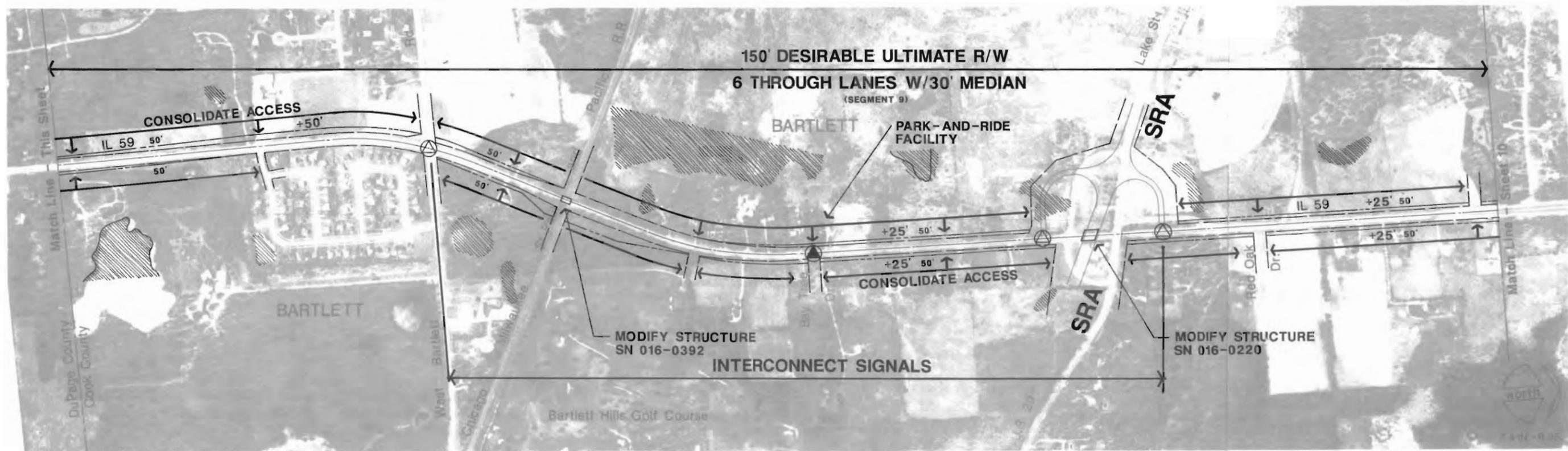
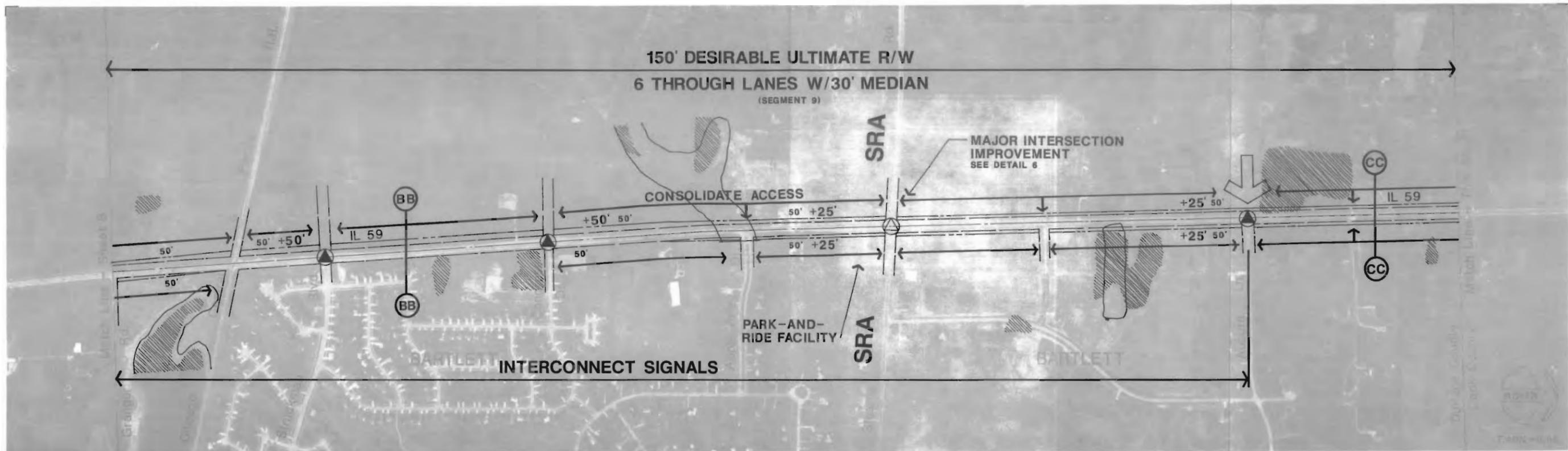




Illinois 59

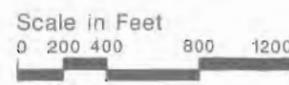
Recommended Improvements

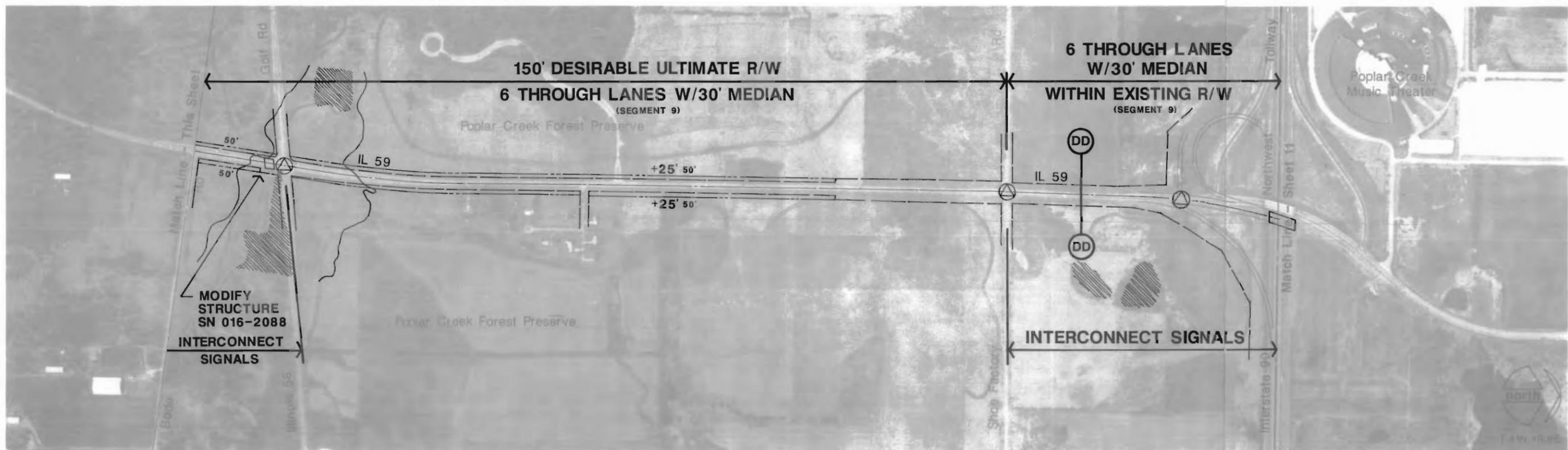
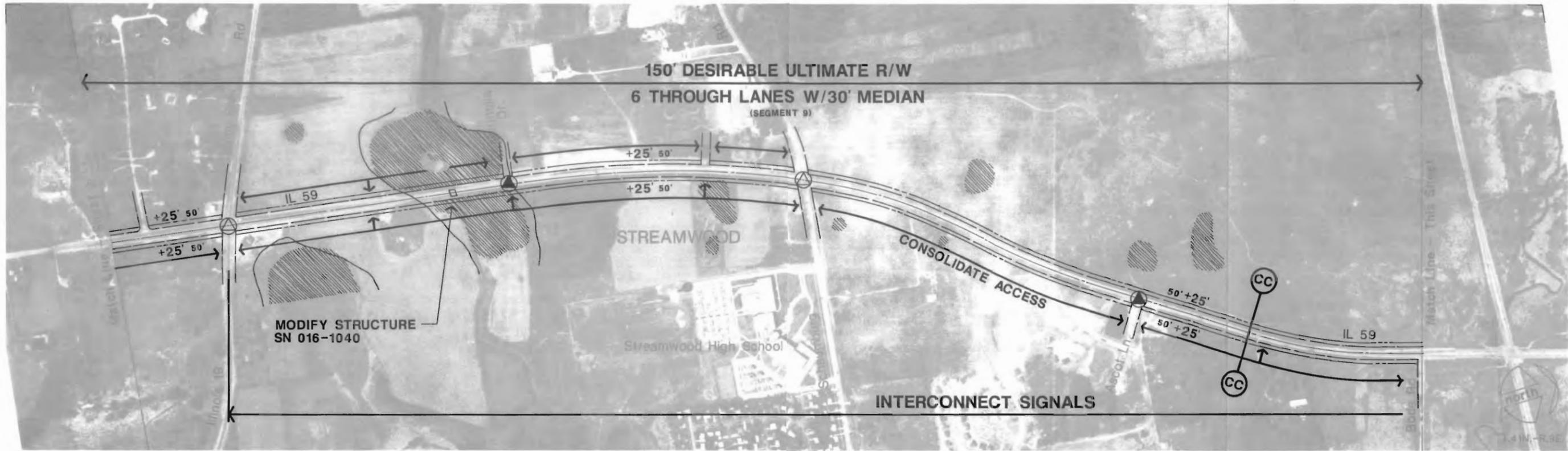




Illinois 59

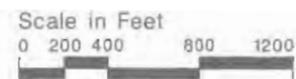
Recommended Improvements

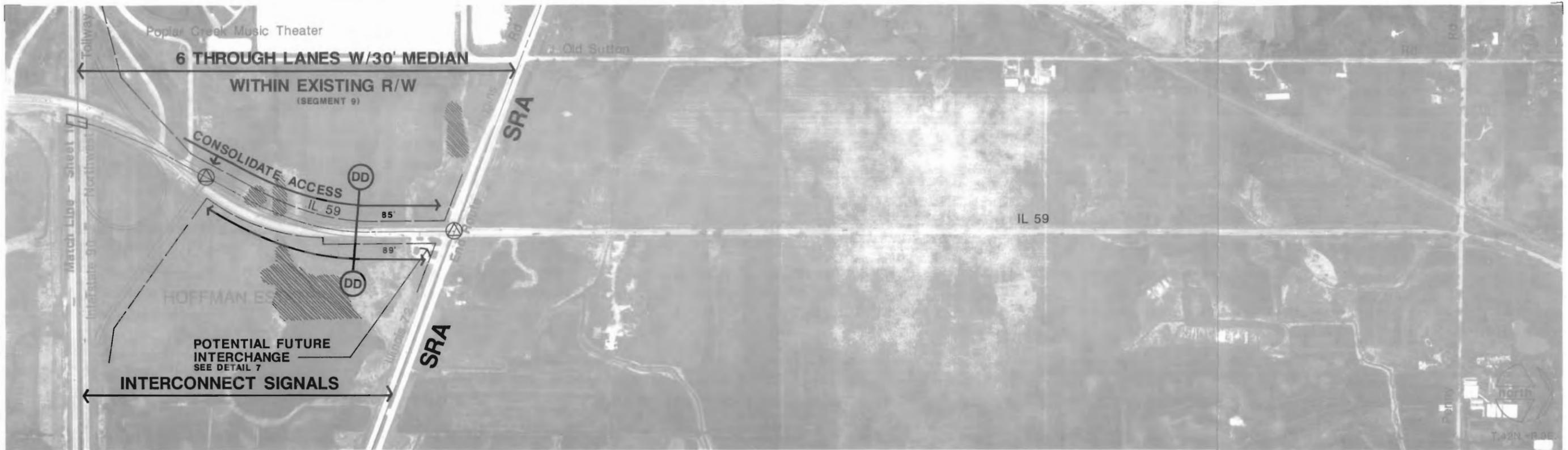




Illinois 59

Recommended Improvements

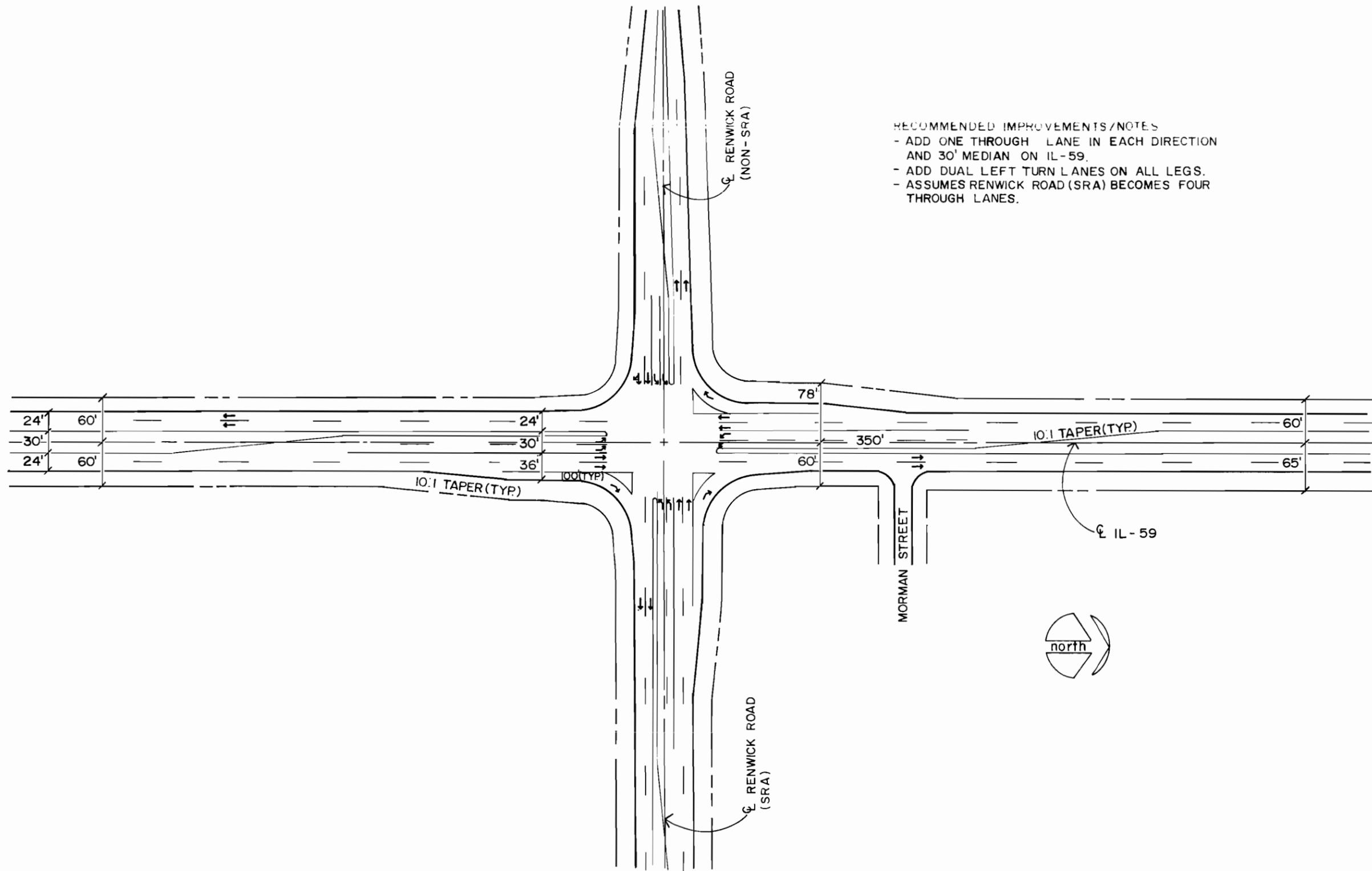




Illinois 59

prepared by Harland Bartholomew & Associates, Inc. for the
ILLINOIS DEPARTMENT OF TRANSPORTATION





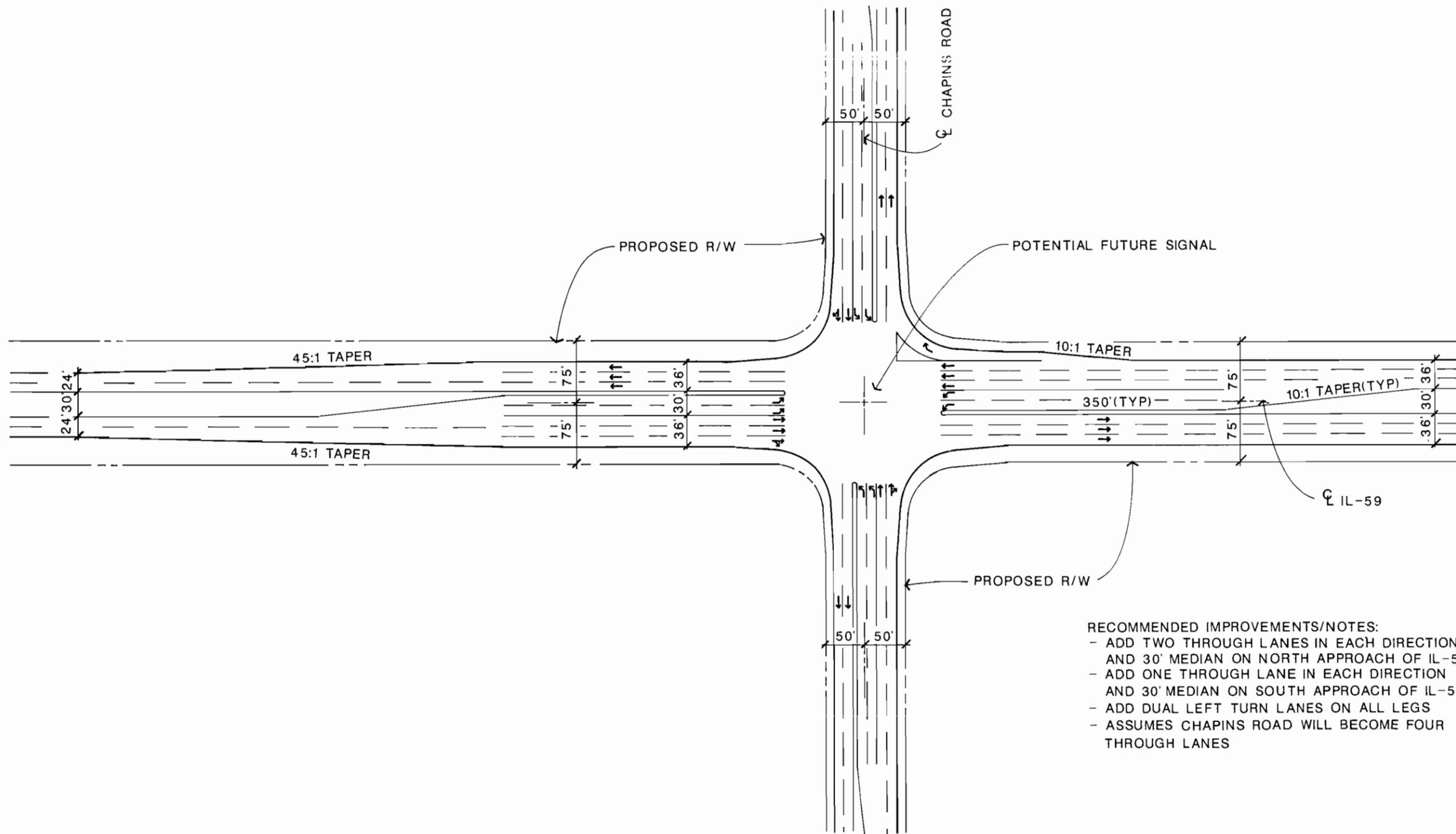
IL-59 @ Renwick Road



prepared by Harland Bartholomew & Associates, Inc. for the

ILLINOIS DEPARTMENT OF TRANSPORTATION

Detail 1



- RECOMMENDED IMPROVEMENTS/NOTES:
- ADD TWO THROUGH LANES IN EACH DIRECTION AND 30' MEDIAN ON NORTH APPROACH OF IL-59
 - ADD ONE THROUGH LANE IN EACH DIRECTION AND 30' MEDIAN ON SOUTH APPROACH OF IL-59
 - ADD DUAL LEFT TURN LANES ON ALL LEGS
 - ASSUMES CHAPINS ROAD WILL BECOME FOUR THROUGH LANES



IL-59 @ Chapins Road (127th Street)



prepared by Harland Bartholomew & Associates, Inc. for the

ILLINOIS DEPARTMENT OF TRANSPORTATION

Detail 2



- RECOMMENDED IMPROVEMENTS/NOTES:
- ADD ONE THROUGH LANE IN EACH DIRECTION AND 30' MEDIAN ON IL-59 & 75TH STREET.
 - ADD DUAL LEFT TURN LANES ON ALL LEGS.
 - PROTECT INTERCHANGE R/W FOR POST 2010 IMPROVEMENT.
 - INTERCHANGE R/W BASED ON CONCEPTUAL GEOMETRICS FOR COMPRESSED DIAMOND INTERCHANGE. FINAL R/W SUBJECT TO DETAILED STUDY OF 75TH STREET ALIGNMENT, PROFILE, TURNING VOLUME AND OTHER FACTORS.

IL-59 @ 75th Street

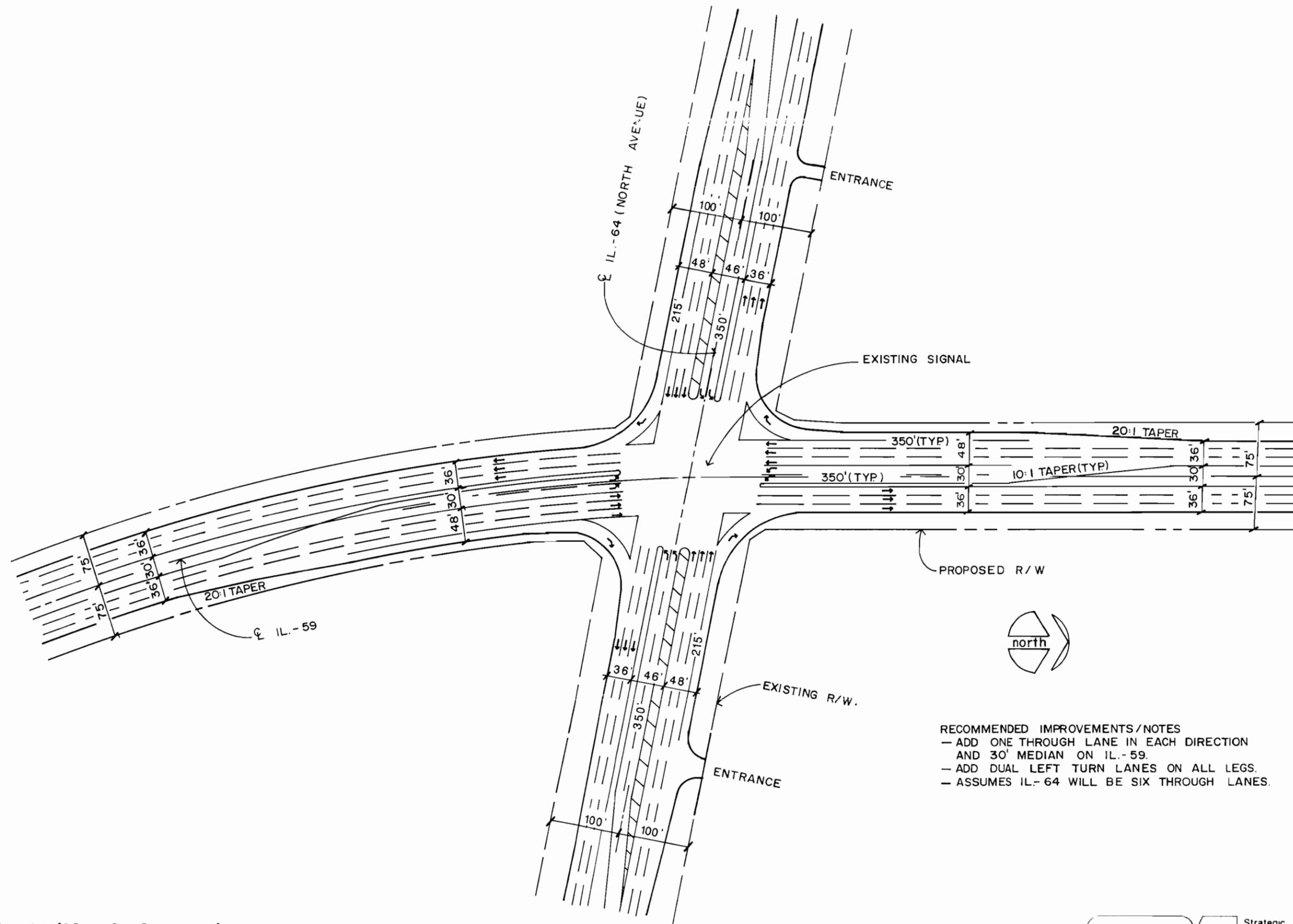




RECOMMENDED IMPROVEMENTS/NOTES:
 - ADD ONE THROUGH LANE IN EACH DIRECTION AND 30' MEDIAN ON IL-59.
 - ADD DUAL LEFT TURN LANES ON ALL LEGS.
 - PROTECT INTERCHANGE R/W FOR POST 2010 IMPROVEMENT.
 - R/W BASED ON CONCEPTUAL GEOMETRICS FOR SINGLE POINT DIAMOND INTERCHANGE FINAL R/W SUBJECT TO DETAILED STUDY OF IL-56 ALIGNMENT, PROFILE, TURNING VOLUMES AND OTHER FACTORS.

IL-59 @ IL-56(Butterfield Road)

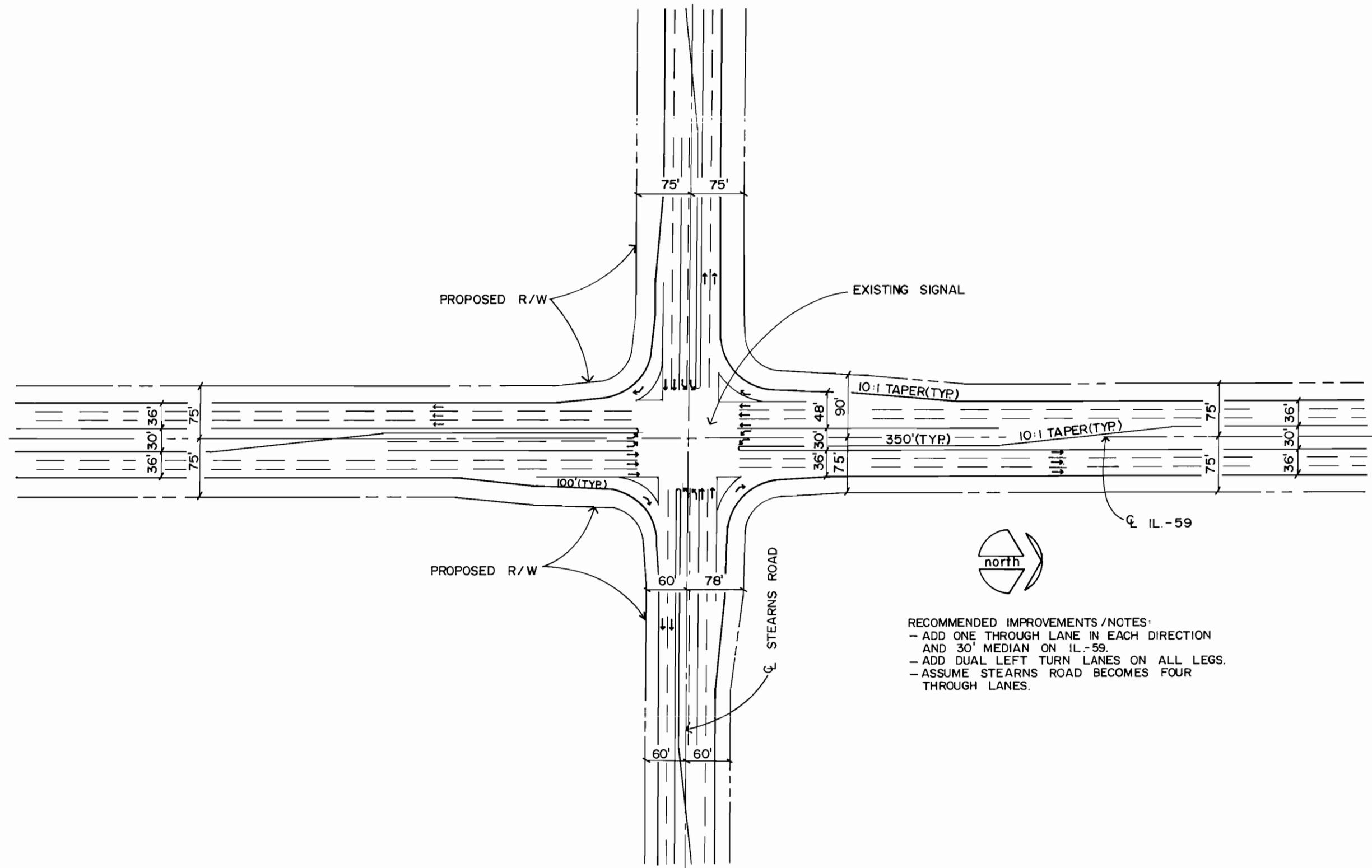




- RECOMMENDED IMPROVEMENTS/NOTES
- ADD ONE THROUGH LANE IN EACH DIRECTION AND 30' MEDIAN ON IL.-59.
 - ADD DUAL LEFT TURN LANES ON ALL LEGS.
 - ASSUMES IL.-64 WILL BE SIX THROUGH LANES.

IL-59 @ IL-64(North Avenue)





IL-59 @ Stearns Road



prepared by Harland Bartholomew & Associates, Inc. for the

ILLINOIS DEPARTMENT OF TRANSPORTATION

Detail 6



- RECOMMENDED IMPROVEMENTS/NOTES:
- ADD ONE THROUGH LANE IN EACH DIRECTION AND 30' MEDIAN ON IL-59.
 - CONSTRUCT SINGLE POINT DIAMOND INTERCHANGE AT IL-72.
 - REALIGN IL-72 NORTH TO AVOID WETLANDS ON THE SOUTH.
 - INTERCHANGE LAYOUT BASED ON CONCEPTUAL GEOMETRICS ONLY, FINAL GEOMETRY AND ULTIMATE R/W REQUIREMENTS SUBJECT TO A DETAILED ANALYSIS OF IL-72 ALIGNMENT, PROFILE, TURNING VOLUMES AND OTHER FACTORS.
 - REALIGN OLD SUTTON ROAD TO THE WEST AWAY FROM INTERCHANGE AREA.

IL-59 @ IL-72(Higgins Road)

