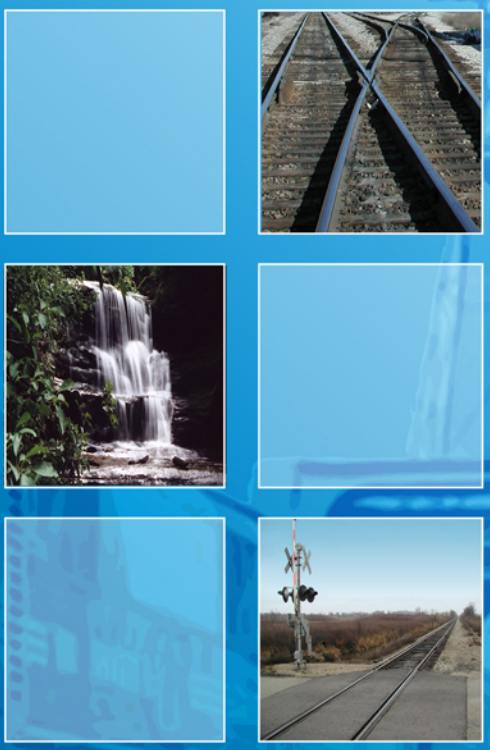
ILLINOIS VALLEY COMMUTER RAIL FEASIBILITY STUDY

AUGUST 2003



Prepared for :

CITY OF OTTAWA, ILL. INCORPORATED 1853

&

The Steering Committee

Submitted by:

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PREFACE

This report has been prepared for the City of Ottawa and the other Members of the Steering Committee comprised of:

Nine municipalities:

- City of Joliet
- Village of Minooka
- Village of Channahon
- City of Morris
- Village of Seneca
- City of Marseilles
- Village of Utica
- City of LaSalle
- City of Peru

Two counties:

- Grundy County
- LaSalle County

And the:

- Illinois Department of Transportation Division of Public Transportation (IDOT-DPT).

This report is a feasibility study to evaluate the potential of commuter rail service utilizing existing active railroad right-of-way between the City of Joliet and the Cities of LaSalle/Peru, and includes commentary, survey data, conceptual plans, cost estimates and other supporting documentation.

The Study Team would like to acknowledge and thank all of those involved with this study who provided both information and strong support.

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1.0 EXECUTIVE SUMMARY

The purpose of the Illinois Valley Commuter Rail (IVCR) feasibility study is to evaluate the potential of a commuter rail service utilizing existing active railroad right-of-way and trackage between Joliet and LaSalle/Peru, Illinois. This study is intended to provide a broad-brush analysis of the physical, operational and financial feasibility of providing commuter rail service in this 60-mile corridor. This study includes an examination of the following:

- Existing Conditions
  - Track, Structures, Right-of-Way, Clearances, and At-Grade Crossings
  - Signals and Interlockings
  - Freight Railroad Operations
  - Existing Public Transportation
  - Socioeconomic Characteristics
  - Surrounding Land Use
  - Environmental Features Adjacent to the Right-of-Way

- Assessment of Future Plans
  - Projected Future Freight Operations and Improvements
  - Projected Land Use
  - Roadway Improvements
  - Regional Projects that Impact Illinois Valley Commuter Rail Service

- Potential Ridership

- Financial Feasibility
  - Rail Facility Upgrades
  - Passenger Facilities
  - Rolling Stock

- Next Steps
  - Phase II Feasibility Study
  - Federal Transit Administration Process

Conclusions

- This feasibility study concludes that the Illinois Valley Commuter Rail (IVCR) Service is physically, operationally, and financially feasible on its face. However, further, more detailed analysis is needed on such issues as ridership; financing of capital and operational needs; and procurement of an operator, if commuter rail service is implemented. Most of this rail line is outside of the Regional Transportation Authority (RTA) service area, which comprises Cook, DuPage, Kane, Lake, McHenry, and Will Counties. It should be understood that this conclusion and recommendation is qualified based on this study's findings, and does not account for any "unknowns" that may emerge from more detailed studies. Furthermore, at the present time, this study's results should not be construed as indicating that this rail line will be considered operationally viable or the sole option. The final decisions/conclusion can only be made pending completion of the remaining feasibility study process.

- Future conditions are not likely to preclude commuter rail service in the Illinois Valley. This is based on the assessment of projected future demographic and freight traffic conditions in the corridor done as a part of this feasibility study.
    - The proposed commuter rail service would operate within the existing railroad right-of-way over existing tracks or new tracks to be constructed. Therefore, the line itself poses no additional encroachment into the surrounding environment, as the current right-of-way will not be altered.

- To determine potential ridership for this service, a sketch-planning level of comparable commuter rail systems' ridership and population characteristics was completed. This analysis indicates that there is enough potential ridership to justify moving forward to the next phase of study, which includes a more detailed demand analysis.

- CSX Transportation (CSX) has a long-term lease on the rail line currently being studied in this report and provides freight service on it. Its lease will expire in approximately 27 years. The International Mining Company (IMC) appears to own this rail line, however, this study could not positively ascertain this. Further research, therefore, is necessary. Also uncertain is the nature of the Hawkeye Land Company's easement rights on this rail line.

- Financial feasibility includes the development of order-of-magnitude cost estimates (in 2002 dollars) for improvements needed to implement commuter rail service. This report gives order-of-magnitude capital (up-front) cost estimates for stations, parking lots, rolling stock, a layover facility, track investments, structural improvements, and a signal system totaling approximately $161M, Table 1-1. In addition, an annual operating cost of approximately $10M, Table 1-2 has been estimated. It should be noted that these cost estimates do not include land or station acquisition costs, which could be significant. Some of the former Rock Island passenger stations are in excellent condition and could be re-used for commuter rail service, if commuter rail service were to be implemented on this line in the future.

Table 1-1 Estimate of Capital Costs – Summary

Capital Cost Item	Total
New Track	$23,756,000
Rehabilitation of Track & Structures and Right-of-Way Improvements	$61,639,000
Signals	$24,332,000
Stations & Parking Lots*	$7,176,200
Rolling Stock	$39,850,000
Layover Facility*	$4,100,000
Total	**$160,853,200**

*Cost Estimates do not include land or existing building acquisition costs.

Table 1-2 Estimate Annual Operating Costs – Summary

Item	Total
IVCR Annual Operating Cost	9,762,000
Total	**$9,762,000**

2.0 INTRODUCTION

The Illinois Valley Commuter Rail (IVCR) Feasibility Study was led by a Steering Committee comprised of ten municipalities, three counties, the Illinois Department of Transportation Division of Public Transportation (IDOT-DPT), and a consultant team comprised of CTE Engineers, Inc. and LTK Engineering Services, hereafter referred to as the Study Team.

The study area is defined as a five-mile wide band centered on the existing railroad right-of-way. The corridor under study runs 60 miles from Joliet, west to LaSalle/Peru, Illinois. The right-of-way parallels Interstate 80, U.S. Route 6 and the Illinois and Michigan (I&M) Canal. A map depicting the overall study corridor can be found at the end of this report. It is suggested that the reader of this report unfold the location map, and refer to it while reading the report. A color version of the existing conditions for the overall corridor can be found in Appendix A.

The goal of this study is to determine if commuter rail is feasible for the Illinois Valley. Therefore, in this study, the existing railroad corridor, currently operated by CSX Transportation (CSX) has been examined. Through an analysis of the feasibility study's results, including an analysis of the existing conditions and an assessment of future conditions, potential ridership and cost estimates, there is enough justification to move forward to the next level of study. Based on the analysis, the proposed commuter rail service consists of three three-car trains for the a.m. and p.m. peak periods operating between LaSalle/Peru and Joliet. The report also includes a discussion of operations between Joliet and Chicago, along with Metra operations. The following portion of this section gives an overview to highlight the individual chapters of the feasibility study report.

To accurately document conditions, the Study Team hi-railed the rail line and made observations of track and right-of-way conditions, as well as freight operations. The Study Team has also observed Metra operations at Joliet to determine how the potential IVCR service could be blended into the existing operations. Other necessary information has been obtained from various on-site inspections, historical documents available to team members, informal discussions with railroad employees familiar with this line, and research of published materials concerning the operation. All surveys were taken from public access areas, supplemented with the experience of the Study Team's personnel.

Maps showing the existing track layouts, bridges and rail crossings, along with the assumed improvements made as a part of this study can be found in Appendix B.

The Study Team kept an ongoing dialogue internally and includes discussions with other interested parties, including local chambers of commerce.

2.1 Purpose of the Study

This purpose of this study is to evaluate the potential of a commuter rail service within the railroad right-of-way from Joliet to LaSalle/Peru, and to provide a broad-brush analysis of its physical, operational and financial feasibility. This study includes an examination of the following:

- Existing Conditions
  - Track, Structures, Right-of-Way, Clearances, and At-Grade Crossings
  - Signals and Interlockings
  - Freight Operations
  - Existing Public Transportation
  - Socioeconomic Characteristics
  - Surrounding Land Use
  - Environmental Features Adjacent to the Right-of-Way

- Assessment of Future Plans
  - Projected Future Freight Operations and Improvements
  - Projected Land Use
  - Roadway Improvements
  - Regional Projects that Impact Illinois Valley Commuter Rail Service

- Potential Ridership

- Financial Feasibility
  - Rail Facility Upgrades
  - Passenger Facilities
  - Rolling Stock

- Next Steps
  - Phase II Feasibility Study
  - Federal Transit Administration Process

2.1.1 Existing Conditions

The Joliet to LaSalle/Peru rail line has been examined and studied for the feasibility of potential Illinois Valley Commuter Rail (IVCR) service. This section of the report documents the existing conditions for the study corridor including: track, structures, right-of-way, clearances, and at-grade crossings; signals and interlockings; freight operations; alternative public transportation; socioeconomic characteristics; surrounding land use; and environmental features adjacent to the right-of-way. Existing land uses along the railroad corridor include industrial, residential, commercial, agricultural and green space. A map illustrating the existing conditions for the overall IVCR corridor can be found in Appendix A and existing land use for the municipalities can be found in Appendices E, F and G.

2.1.2 Assessment of Future Plans and Conditions

An examination and analysis of future plans, along with development growth and projections, is done to develop a profile of the study area for potential IVCR service. A review and analysis of freight operations and improvements for CSX, Iowa Interstate Railroad and Illinois RailNet has been done to assess future plans and conditions of the rail line.

Information about future plans and conditions for the land use in the IVCR study area was gathered using a variety of sources. Communities provided, when available, information including zoning and comprehensive plans. These plans were reviewed for potential growth scenarios that would influence the demand for commuter rail service. Meetings were held with each of the 10 corridor communities to confirm existing land use conditions, as well as

to discuss future growth and development areas. Information from the zoning and comprehensive plans was used to support the data gathered during the meetings.

In addition, meetings were held with Grundy and LaSalle County, and other interested parties including the Will County Center for Economic Development, the Illinois River Area Chamber of Commerce (serving Marseilles and Seneca), Starved Rock State Park, and the Illinois Valley Area Chamber of Commerce. Information about the broader area, beyond the defined five-mile wide band centered on the railroad corridor, was obtained from these meetings (e.g. the Joliet Arsenal redevelopment including the CenterPoint Intermodal Center).

The information obtained from the meetings is outlined in this section of the feasibility study. In addition, supporting exhibits depicting the projected land use can be found in Appendix H.

2.1.3 Potential Improvements

This chapter of the report lists and describes potential improvements, based on a feasibility level analysis, needed for IVCR service to operate. The potential improvements include the existing railroad infrastructure, track investments and rehabilitation, structures, roadbed of the track, and the signal and crossing protection system. This section of the report also discusses the potential future service patterns of the freight railroads that operate on the line. In addition, there is a discussion of stations and parking sites, commuter rail support facilities, shuttle service and environmental impacts of the potential IVCR service.

2.1.4 Potential Ridership

The Potential Ridership chapter of the IVCR Feasibility Study begins with the following question:

> *Is there an indication that there will be enough potential ridership for the IVCR service to justify going to the next level of study?*

Through the analysis conducted in this feasibility study, the answer to that question as it relates to potential ridership is “yes”. The next level of study would involve a computer ridership demand-forecasting model. There are firms that specialize in this area, and are able to produce ridership estimates in a statistically significant manner.

To determine a range of potential riders for IVCR service, a sketch-planning level of analysis was conducted. This analysis included a review of comparable commuter rail systems throughout the country that serve major metropolitan areas from a similar distance to that of the potential IVCR service. The IVCR service is a 60-mile corridor that runs from LaSalle/Peru east to Joliet. This service would then connect in Joliet to serve Chicago, adding an additional 40 miles to the journey. Commuter rail systems of comparable distances (40-100 miles) have been analyzed.

2.1.5 Financial Feasibility

This section of the report discusses order-of-magnitude costs for instituting the IVCR service. It identifies, in general, locations for upgrades of the existing railroad infrastructure to accommodate commuter rail.

Order-of-magnitude cost estimates were prepared as part of this study to provide a basis for financial evaluation of the recommended corridor service.

Further along in the study process, a line capacity analysis is needed to refine the assumed improvements in this study to determine what specific improvements are needed to institute commuter rail service.

2.1.6 Next Steps

The information in this section of the report discusses the next steps in the study process following both local and federal (Federal Transit Administration) processes. The selected local process should follow the intent of the Federal process to ensure there is no duplication of work.

If findings of a Phase I Feasibility Study determine that the new service is physically, operationally, and financially feasible, as is the case with the potential IVCR service studied in this report, the next step in the process is a Phase II Feasibility Study. The approach to a Phase II Feasibility Study is to start with looking at the more difficult items as noted throughout a Phase I Feasibility Study, historically called “red flags”. These items are studied in a more thorough manner first. If these difficult items do not reveal fatal flaws that would prevent further study, the rest of the components of Phase II are studied. When a Phase II Feasibility Study is complete, some of the work necessary for the Alternatives Analysis, following the FTA regulations, will have been completed. The Alternatives Analysis process, along with the rest of the FTA process is discussed in Chapter 8.

2.2 Intergovernmental Agreement

In June of 2001, the City of Ottawa asked the Illinois Department of Transportation's Division of Public Transportation (IDOT-DPT) to fund approximately half of this feasibility study's cost. The City of Ottawa, therefore, became IDOT-DPT's grantee, and was ultimately responsible for having ensured that the study was executed and the consultant paid. When IDOT-DPT agreed to fund this project, the City of Ottawa went to Grundy and LaSalle Counties and the ten corridor communities adjacent to this line to collectively fund the remainder. By having helped fund this study, each of the communities and counties was allowed one representative on the oversight committee. The formation of the Illinois Valley Rail Corridor Committee represents a unique effort. It is the first time in this area’s history where an organized effort among two counties and ten communities and the IDOT worked to pursue a common transportation objective of establishing rail to this unserved corridor.

2.3 Historical Background

The rail line being studied for IVCR service was part of the Rock Island rail line that at one time had inter-city passenger train service. The historical chronology of the railroad below was provided by Bill Molony, President of the Blackhawk Chapter of the National Railway Historical Society.

2.3.1 Historical Chronology of the Railroad

Before the Illinois & Michigan Canal opened for business between Chicago and LaSalle in the spring of 1848, a connecting railroad was being planned and financed. On February 27, 1847, the Illinois General Assembly approved the charter that established the Rock Island & LaSalle Rail Road Company. The charter provided for the company's right to "survey, locate and construct and during its continuance to maintain and continue a railroad with single or double

track and with such appendages as may be deemed necessary for the convenient use of the same, from the Town of Rock Island, on the Mississippi River, in the County of Rock Island, on the Mississippi River, to the Illinois River at the termination of the Illinois & Michigan Canal...". By 1850, the directors of the Rock Island & LaSalle concluded that the proposed railroad should run along side the new I&M Canal and extend to Chicago.

The canal people would not stand for a railroad taking their business. The Illinois legislators had the interests of the canal and on February 7, 1851, they authorized an amended charter for the railroad. A section was inserted into the charter that provided that the railroad would pay a toll on all commodities, except livestock, that the canal could carry. The tolls were equal to the canal rates, and were to apply to all shipments destined to or from any point between Chicago and a point 20 miles west of LaSalle. The tolls were to be paid by the railroad only during the periods when navigation on the canal was open. The railroad directors met on April 8, 1851, and formally accepted the amended charter, including the canal tolls provision. The new corporate title became the Chicago & Rock Island Rail Road (C&RI).

One part of the tolls section read, "If the Canal Board of Trustees refuse to comply with this act by the first Monday in June following the passage of this Act, then said railroad company shall have the right to build and all restrictions with reference to tolls removed." The I&M Canal trustees deliberated over the railroad's revised charter, but failed to assent to the terms and conditions by the specified date. Therefore, the railroad's obligation to pay the tolls ceased by the terms of the act of incorporation.

In April of 1852, construction of the Chicago & Rock Island began, and by October 1, 1852, the 40-mile segment between Chicago and Joliet was almost ready for opening. The people living along the line between Chicago and Joliet were very eager to see the railroad in operation. Therefore, arrangements were made to run the first train on October 10, 1853. The only station close to completion was Blue Island, Illinois. The Mokena depot was barely under construction, and at Joliet there were no facilities to turn the engine.

At 10 a.m. on Sunday, October 10, 1852, a fine new wood burning locomotive named Rocket departed from Chicago pulling six new coaches. The run to Joliet was accomplished in two hours. Newspapers reported that a vast number of people turned out at Joliet to pay tribute to "this unbelievable thing." Regular daily service between Chicago and Joliet with two passenger trains began on October 18, 1852.

The arrival of the railroad to Ottawa touched off a tremendous public celebration. The first train from Chicago pulled to a stop at the Ottawa station on February 14, 1853. In the coaches were many prominent business leaders from Chicago and intermediate points. The citizens of Ottawa gave their visitors a grand reception and banquet complete with speeches by local civic leaders and railroad officials. Through service from Chicago to LaSalle was established in the latter part of March, 1853, and was extended to Peru the following month.

On September 12, 1853, the Rock Island rail line came to the town of Bureau and opened for service to Rock Island on February 22, 1854, becoming the first railroad to connect Chicago with the Mississippi River. The branch line from Bureau south to Peoria opened on November 7, 1854. Service to Davenport, Iowa, and beyond commenced in April, 1856, upon the completion of the bridge over the Mississippi River.

The first fatal accident on the Rock Island occurred on Wednesday night, November 1, 1854, as the west bound passenger train struck a horse at Rock Run (about 14 miles west of Joliet)

and derailed. The engine of the train was thrown from the tracks and the first two passenger cars landed on top of it. One of the steam pipes of the engine was severed, and the escaping steam poured through the cars, terribly scalding sixty-two of the passengers. Twelve of them died in the accident and four more passengers died subsequently of their injuries.

In 1866, the C&RI was reorganized as the Chicago, Rock Island & Pacific Railroad (CRI&P) and began to develop a rail network stretching 8,000 miles in fourteen states. Unfortunately for the CRI&P, there were very few large cities on its line that were not also served by other major railroads.

By the 1880's the Rock Island was joined in Joliet by four other railroads, namely the Chicago & Alton, the Michigan Central, the Atchison, Topeka & Santa Fe and the Elgin, Joliet & Eastern. Although railroads had attracted new residents and businesses to the Joliet area, they also brought aggravation and problems to the growing community. Each railroad maintained its own stations and tracks near the downtown area. The Rock Island tracks ran right through the courthouse square and then crossed Chicago and Jefferson Streets in the business district. As early as 1875, the city began pressing the Rock Island to relocate its tracks. The city council passed several ordinances over the years calling for either the elevation of the tracks or lowering of the streets. Agreements were reached with the railroads and work began on the elevation of the tracks in 1908.

At the same time, the three major railroads involved in the relocating and elevating of their tracks decided to share the expense of building a Union Station for their common use. By the fall of 1912, the tracks were elevated, the new station was completed, and approximately eighty passenger trains were stopping in Joliet.

On June 7, 1933, the Rock Island, devastated by the Great Depression, passed into receivership. The general economic depression along with repeated crop failures had combined to weaken the system financially.

During the glum years of 1934-1935, the receivers decided to bring some new management to the railroad. The new management determined there was need for a program of "planned progress." The program called for heavier rail, new ballast and tie replacement for main and secondary track. New bridges were needed at various locations. In 1937, ten diesel switch engines, six passenger diesels, and twenty stainless-steel passenger cars of various classes were purchased.

The name Rocket was chosen for the new passenger trains, the Rock Island Rockets. The first streamlined Rocket was inaugurated on the Chicago-Peoria run. Other Rockets – to Texas, Des Moines, Kansas City, and Minneapolis-St. Paul – quickly followed. Dieselized freights were inaugurated in 1945.

On January 1, 1948, the railroad came out of receivership and the reorganized company took control of the railroad's property under the name of the Chicago, Rock Island & Pacific Railroad Company. More new freight and passenger equipment was acquired and a heavy repair and building program in company shops was launched. As the Rock Island approached its centennial year of 1952, it was a strong railroad, and one of the best in the country. Total dieselization was achieved in the centennial year.

The railroad industry in the United States entered into a period of decline in the late 1950's that lasted for the next twenty-five years. Retrenchment of the railroads resulted in various

mergers and the abandonment of thousands of miles of track from coast to coast. Mergers were expected to save money, to improve service to customers and to help railroads to compete against other forms of transportation. In 1959, the Rock Island opened merger negotiations with the Chicago, Milwaukee, St. Paul & Pacific Railroad; but after two years of discussions no agreement was produced. In 1962, the Rock Island began merger negotiations with the Southern Pacific Railroad; later that year, the Union Pacific Railroad also joined negotiations with the Rock Island-Southern Pacific. In 1963, the Union Pacific announced that it would seek to merge with the Rock Island and, upon approval, sell the portion of the Rock Island south of Kansas City to the Southern Pacific.

The negotiations resulted in many delays and became the most protracted and tangled merger case of all time. The Interstate Commerce Commission (ICC) attempted to correct the merger case between the Rock Island and Union Pacific Railroads and took the ICC 13 years to reach a decision. That decision was rejected by the railroads.

Assuming the Union Pacific would soon be in control and would start rebuilding it from scratch, the Rock Island Board of Directors stopped putting any money into it. The Rock Island property began to decline rapidly; it had 500 miles of track under slow orders in 1967, but by 1970 it had 2,300 miles under slow orders. Locomotives were broken down and rolling stock was in disrepair. Unable to afford admission to Amtrak in 1971, the Rock Island continued to operate its last intercity passenger trains through the 1970's.

The crisis at the Rock Island made headlines on March 17, 1975, when the Federal District Court in Chicago granted the company protection from its creditors. The railroad reportedly had just $200 in its cash drawer. Despite the best efforts of the management and trustees, the company could not survive. The last two intercity passenger trains, from Peoria and Rock Island to Chicago operated on December 31, 1978. In August, 1979, two unions walked out over a wages dispute. A month later, President Jimmy Carter ordered the strikers to return to work for 60 days. Angry employees ignored the president and refused to return unless they received appropriate compensation. The Interstate Commerce Commission ordered the Kansas City Terminal Railway, a switching company owned by a dozen carriers, to operate the Rock Island and pay the disputed wages with federal funds.

In early 1980, the bankruptcy court determined that the Rock Island could not be successfully reorganized and ordered the liquidation of the railroad. The very last train of the Chicago, Rock Island & Pacific operated on March 31, 1980.

Immediately following the shut down of the Rock Island, the Elgin, Joliet & Eastern Railway (known as the “J”) leased the lines from Joliet west to Bureau and south to Peoria, handling steel traffic for Caterpillar Tractor's several Peoria area plants. The "J" saw it as a means of handling traffic directly from the steel mills it served to a major steel customer at a relatively low cost. The Rock Island trackage also would provide new sources of grain, sand, and chemical traffic for the "J".

On March 28, 1980, the EJ&E's Peoria service commenced following the company's designation as a "directed service carrier" ICC order. Operations of the "Elgin, Joliet & Western" were based at Ottawa from where trains would run west and south to Peoria and east to EJ&E's East Joliet yard. Although the EJ&E's management was pleased with the operating results of the Peoria experiment, they objected to the price for the long-term lease that was named by the Rock Island trustee. The EJ&E's term as a direct service operation expired May 31, 1980, and the "J" chose to discontinue its Rock Island operations.

Today, CSX holds the lease for the ex-Rock Island from Joliet 74 miles west to Bureau and 14 miles south to Henry and has designated it as its New Rock Subdivision. The Iowa Interstate Railroad has overhead trackage rights that allow it to operate freight trains over the CSX leased track.

After a period of designated operation by the Chicago & North Western Railroad, the Chicago to Joliet commuter operations of the Rock Island were taken over by the Regional Transportation Authority (RTA) in June, 1981. The current name, Metra, was adapted in July, 1985. Metra continues to own and operate the former Rock Island railroad line between Chicago and Joliet. CSX and Iowa Interstate have trackage rights to operate their freight trains over Metra between Joliet and Blue Island.

3.0 DOCUMENTATION OF EXISTING CONDITIONS

This section documents the physical and operating characteristics of the railroad corridor from Joliet to LaSalle/Peru, Illinois. This initial step is an early indicator of what new facilities might be required if commuter rail service is implemented on this line.

The Study Team obtained their information from informal discussions with railroad employees familiar with this line, various on-site inspections, and historical and publicly available documents. The Study Team analyzed track and signal charts, valuation maps, track clearance charts, bridge lists and reports, and a grade crossing inventory. The Study Team also hi-railed this line to observe track, drainage, and right-of-way conditions. Maps that show this line's physical characteristics are located in Appendix B.

3.1 Alignment Description

The designs and condition of the track, roadbed, signal systems, interlockings, and at-grade crossings are fairly typical of any railroad infrastructure. An analysis of the existing documents and data gathered during the field inspection show that this line can be a viable alignment for commuter train operations.

3.1.1 Railroad Corridor from Joliet to LaSalle/Peru

The Rock Island Railroad originally owned this rail line from Joliet to LaSalle/Peru as part of a larger system until 1980, when it went bankrupt and was liquidated. In August 1980, CSX entered into a lease agreement with the trustee of the bankrupt Rock Island Railroad to operate this line for fifty years. The ownership of this line remained with the railroad's successor corporation, Chicago Pacific Corporation, which emerged from bankruptcy as a diversified holding company. The Maytag Corporation later acquired the Chicago Pacific Corporation in 1989. Maytag subsequently sold the line to International Mining Corporation (IMC), and IMC recently used these assets to secure financing. In addition, the Hawkeye Land Company owns easement rights; however, the nature of their easement rights is unknown.

This line is a portion of a through route, extending from LaSalle Street Station in Chicago, to Council Bluffs, IA. Ownership of the entire through route is now divided between Metra (from Chicago to Joliet), IMC (from Joliet to Bureau, IL), and Heartland Rail Corporation that owns the Iowa Interstate Railroad (from Bureau to Council Bluffs). The milepost numbers reflect the distances along the track to LaSalle Street Station in Chicago (414 S. LaSalle Street), which is MP 0.0. Creve Cour Street in LaSalle, IL is at milepost 99.12, making it 99.12 miles from LaSalle Street Station.

The following data summarizes the physical condition of the line.

3.1.2 Track

This single-track, freight only rail line spans 60 miles from Joliet to LaSalle/Peru and was built to mainline standards, resulting in flat and straight characteristics. Most of the main track consists of 132 pound jointed rail that was laid in the 1950s. CSX has changed a little of the rail in curves, using new industrial quality rail and second hand rail. The rail joint conditions vary considerably from location to location. Tie plates are undersized for mainline

uses. The tie condition generally meets the class at which CSX is operating, however, a significant portion of the ties are at or near the end of their useful lives.

3.1.3 Roadbed

Ballast used throughout the line is limestone, which is a substandard material for mainline tracks. The limestone ballast is heavily fouled in some areas and has insufficient shoulders for continuous welded rail.

The roadbed throughout the corridor is typically above ground level, permitting water to drain away from the tracks. The roadbed was wide enough to carry two tracks on 13 foot track centers. The overall width of the roadbed is too narrow for mainline designs of double track, where track centers are 15 feet and have wider ballast sections than what this line has. Typical embankment slopes are steep by today's standards, and the ditches have not been kept clear.

3.1.4 Sidings and Switches

This line has approximately 35 switches and 26.2 miles of sidings. These sidings primarily serve adjacent industries and are, therefore, not universally available for freight trains to pass each other. Long trains can pass each other only at Rockdale (west of Joliet), Seneca, and Ottawa Yard.

All of the switches are hand thrown. The Seneca siding, between Crotty Lane and Phosphate Road, has spring switches with signals on each end to indicate the switch's position.

3.1.5 Authority for Train Movements and Line Signals

Trains on the rail line run under Direct Train Control (DTC). A train dispatcher located at the CSX Western Regional offices in Calumet City gives verbal or written instructions to a train engineer, detailing the limits a train has authority to operate. As a train proceeds along the track, the authorities are updated, reflecting the changing positions of other trains. While a few specialized signals exist on this line to govern trains, they are only in place where a peculiarity of the line needs special authorities.

One of these places is the eastbound approach to the Des Plaines River Bridge in Joliet. It consists of a fixed yellow indicator located a mile west of the bridge and a home or absolute signal with stop or proceed indications at the bridge. This signal remains red until the bridge is down and safe for the train to proceed.

Another of these places is the crossing diamond at the junction of the study line and the Illinois RailNet Railroad in Ottawa. The diamond's signals will automatically allow the train to proceed unless a conflicting train has already activated the equipment. This interlocking has home and fixed approach signals on each side.

3.1.6 Grade Crossings and Warning Devices

There are 45 public vehicular crossings of two or more lanes and 26 private or farm crossings. Thirty-eight of these crossings have train activated warning devices with flashers and gates, one has flashers only, and two have warning bells only. Most of this equipment is over 25 years old and near the end of its useful life. The remaining crossings have only crossbucks.

Most of these train activated warning devices use motion sensors that detect trains approaching the crossing. Motion sensors with hard wire or narrow band shunts at crossing starts eliminate the need for pole lines or other wires extending out from the crossing that other warning devices use. Appendix C provides a complete detailed description of each grade crossing.

3.1.7 Structures

Structures on this line include the Des Plaines River Bridge, three 200 to 500 foot long bridges, 42 minor bridge structures, and numerous culverts. The bridges appear to be in good condition based on a visual inspection. A detailed assessment was not included in the scope of work for the Phase I Feasibility Study, however will be required for any future studies.

Des Plaines River Bridge

The two track, open deck Des Plaines River Bridge was built in 1930. It extends 557 feet and consists of a 301 foot clear span vertical lift and two ballasted deck approach spans. One of these approach spans is 152 feet long while the other is 104 feet. Although the bridge is sound, only one track is used while the other one was abandoned. Formal inspections are done every year by CSX, with quarterly inspections done on the mechanical and electrical equipment. Underwater inspections are done every five years.

3.1.8 Joliet Union Station

The study line runs directly into Metra's Rock Island Line just west of Joliet Union Station. The track serving this station is single-track on an otherwise double track corridor between Joliet and Chicago's LaSalle Street Station. Service on the Rock Island Line fully occupies the single track through the station during the morning and evening rush hours. Additional trains could not operate through this station during these hours without substantial improvements at the station. In addition, rush hour trains using Joliet are near their maximum length, limiting Metra's ability to accommodate large increases of riders without changing service patterns.

3.2 Compatibility of Freight & Commuter Rail

Freight and commuter rail traffic operate on the same tracks in many places throughout the country. The Federal Railroad Administration's (FRA) standard safety specifications for commuter rail cars, long-established safety practices, and advanced signal systems help make commuter trains one of the safest forms of travel. This is shown in a comparison of rail and highway safety statistics from the Bureau of Transportation Statistics and the FRA's Office of Safety Analysis. The five-year average based on 1997-2001 data shows that 15.6 fatalities occurred per billion vehicle travel miles on the highway compared to 0.2 fatalities per billion passenger travel miles on commuter trains. These statistics indicate that fatalities are over 75 times more likely to occur on highways as compared to commuter rail.

3.3 Freight Railroad Operating Characteristics

The Study Team observed freight operations during trips made to the study corridor. Supplemental information was obtained from people familiar with the line as well as from published research on freight operations.

3.3.1 CSX Freight Traffic

CSX currently operates one long road train a day, each way, between Ottawa and the Chicago area. For CSX to access this line from the rest of the CSX system, CSX operates over Metra from Blue Island to Joliet. CSX schedules these trains to use the Metra line at night or between rush hours during the day. CSX also operates an additional five local trains daily on the study line, plus a weekend relief train. The local trains operate in the day light hours and they typically occupy the main tracks for much of the day. The combination of the local trains, road trains, and Iowa Interstate through trains create many conflicts with potential IVCR trains.

Westbound CSX Road Train

The CSX runs a road train daily between Barr Yard in Riverdale and Ottawa. The purpose of this train is to bring cars from the rest of the CSX system onto this line and drop them off at various locations for local trains to place at industries. This train typically leaves Barr Yard around midnight. Given the track layouts, this train must back out of the yard, then reverse direction to connect to Metra's Rock Island Line tracks, where it proceeds southwest toward Joliet. This train's first stop is Rockdale, where the train usually goes onto a long siding near Houbolt Road, where it drops off cars and waits for the eastbound road train to pass.

Cars are set out on a south side siding between Larkin and Midland Avenues. On occasion, a pick up of loaded freight cars, which need weighing, at Ottawa is also done. On weekends, more cars may be delivered than what the siding can hold, resulting in the overflow cars to be placed in the passing siding west of Houbolt Road.

This train also makes set offs, and an occasional pickup, at Seneca and the east side of Marseilles. This train terminates in Ottawa, where the Ottawa yard engine switches this train, lining cars up for other local trains to make customer deliveries.

Eastbound CSX Road Train

CSX runs a counterpart to the westbound, making the same stops, departing from Ottawa Yard at 11:00 p.m. The purpose of this train is to gather cars from the local trains and take them to the Chicago area for connections to the national system. This train may also distribute freight cars that were temporarily stored in Ottawa because of storage constraints at Seneca and Marseilles.

The eastbound road train picks up cars at Seneca and Rockdale. At Seneca, pickups are in a two track yard that lies on the south side of the line, whereas in Rockdale, the pickups are on an industrial lead track going into the Johns-Manville and Caterpillar plants. After making the drop off and/or pickup, it will proceed to Metra's Rock Island Line and eventually terminate at the Belt Railway's Clearing Yard.

This train must enter the Metra's Rock Island Line before 4:00 a.m., otherwise, it will be kept out until the end of Metra's morning rush hour. Approximately 10-25 percent of the time, this train fails to meet the window for entry and must wait at a siding in Rockdale. It may wait in Rockdale for as long as 22 hours, depending upon crew availability.

Rockdale Local Train

The local Rockdale train begins at 9:00 a.m., switching freight cars that the westbound road train left behind the night before. This train sorts cars for customers in Rockdale and

Minooka. If there are freight cars destined for Minooka, this train will take the cars to Minooka and pickup returning cars.

Most industry tracks in Rockdale and Minooka have only one entrance, which alternate direction. The switching crew thus has to properly position the engine in relation to the freight cars. For practical purposes, the side track between Midland and Larkin Avenues in Rockdale is the only spot for running around cars. While positioning the cars, this train will occupy the main track for an extended period.

Delivery times are dependent upon the presence or absence of an eastbound CSX road train in the Rockdale passing siding and the timing of eastbound Iowa Interstate freight trains passing through this area.

Seneca Local Train

CSX has a local switching assignment in Seneca with a 10:00 a.m. start. The engine is parked near the old depot close to the Main Street crossing. To start the day, the crew runs the engine east on the main track to the eastern end of Seneca's two track yard to sort cars. This end of the yard is preferable for switching because it has no crossings nearby, whereas the western end has a busy crossing. Here, cars that the westbound road train left behind the night before and other cars from prior days will be sorted. Cars that are going southbound on the Dupont Spur are placed on one leg of the wye, and the engine uses the other leg to run around them. (A wye track is a triangular track arrangement used to turn locomotives, freight cars, and trains.) The engine will couple to its sorted cars and travel south on the Dupont Spur to an industrial complex on the other side of the Illinois River and typically spend a couple of hours switching cars to local industries. Although the main track is clear during this time, this train crew may hold train movement authority to the main track if no through trains need it.

When the switch work in Seneca is complete, the crew will align cars for Morris, and then head eastbound to serve this portion of the line. In Morris, the customers are served from a long single ended siding. This siding is long enough to hold this little train clear of the main track if needed.

This train's last set of customers is located in a large industrial complex accessed through a lead track that is approximately four miles east of Morris. When this engine enters the complex, it can clear the main track to do its switching. Upon completion of the Morris area switching, the train returns to Seneca. Cars brought back to Seneca are added to those cars that are already waiting on the yard track for the eastbound through train to pick them up.

Ottawa Local Trains

Three local trains operate weekdays out of Ottawa. One runs east to Marseilles, another runs within the Ottawa Yard limits, and another runs west to Henry.

The Ottawa-Marseilles local takes cars and sometimes engines from the westbound CSX road train and makes deliveries on its way to Marseilles. It occupies the main track when it makes many of its deliveries because many of the industrial spurs in this part of the line are directly attached to the main track. This engine typically occupies the main track until 9:00 p.m. In eastern Marseilles, tracks exist for the train to clear the main track and run around its cars. However, it may have to occupy the main track and make multiple moves, if it has a large number of cars.

At 7:00 a.m., the Ottawa Yard switcher begins its duties of lining up cars within the yard for the other local trains, positioning cars in or out of storage, and switching local industries near the yard. Some of these activities require use of the main track.

At 12:30 p.m., the Ottawa-Henry train begins sorting cars and making industrial deliveries as far as Utica on Tuesdays and Thursdays and as far as Henry on Mondays, Wednesdays, and Fridays. Given track constraints, it will occupy the main track throughout its shift. Most of its switching activity occurs in Utica where a silica customer is located north of the right-of-way with support tracks located south of the right-of-way. These support tracks are used to stage spare empties and loaded cars that have not been billed.

The Ottawa-Henry train has only one customer in LaSalle/Peru and it is best served with a westbound move. Due to track constraints in LaSalle, the train will run down a lead track to exchange cars while the remainder of the train occupies the main track. The industrial lead is the only serviceable support track here.

On the days this train only operates to Utica, it will typically return to Ottawa by the late afternoon. On the other days when it operates to Henry, it will return to Ottawa in the late evening. Cars from this train connect with the CSX road train and are taken to the Chicago area for forwarding to other lines.

Weekend Relief Train

On the weekends, the above-mentioned local train assignments in Ottawa do not operate, however, the through trains do operate. One weekend train assignment, starting on Thursday and working through Monday, does fill in work, operating out of Ottawa. About twice a month, this train covers an extra switch in Utica, and it routinely handles the switching of the road trains, both the inbound and outbound, and other industry switching between Ottawa and Seneca. This assignment begins at 5:00 p.m. and fills the roles as a second shift yard switcher when it operates on the same days as the daytime Ottawa yard switcher.

3.3.2 Iowa Interstate Railroad's Freight Traffic

The Iowa Interstate Railroad (IAIS) runs a daily through train in each direction from Council Bluffs, Iowa, to one of its Blue Island yards using its own, CSX, and Metra tracks. The crew of the eastbound through train typically originates from Rock Island. At Bureau, this train enters the CSX controlled track, using overhead trackage rights to run into Blue Island. It also uses a small yard in Bureau, IL, to pick up cars that originated on IAIS's Peoria line. This train is scheduled to leave Bureau between 6:30 and 8:00 a.m.

In Rockdale, a switch crew will take over this train and take it to an IAIS yard in Blue Island after it receives Metra's permission to enter the Rock Island Line. (As previously stated, Metra will allow freight traffic only after its morning rush hour is finished.) From this yard, the switch crew will move the cars to interchanges with other railroads and to freight customers on the line from Blue Island to Joliet. The switch crew returns to Rockdale with a westbound through train typically between 7:00 and 9:00 p.m. so that the above process can work in reverse.

The CSX switching trains may hinder IAIS trains from reaching their destination in a timely manner because they need to use the main track. These delays seem to occur most between Ottawa and Marseilles.

3.3.3 Illinois RailNet's Freight Traffic

Illinois RailNet trains bound for U.S. Silica (daily train service) and communities south of Ottawa (twice weekly train service) originate on Ottawa's north side. They cross the diamond with the CSX between 8:00 and 10:00 a.m. and return between noon and 3:00 p.m. Illinois RailNet trains bound for Streator typically take four hours round trip following U.S. Silica trains across the diamond by a half hour. An automatic interlocking protects this crossing, which permits one train to cross at a time on a first-come-first-served basis. The CSX maintains this crossing, including the track and signals.

Currently, Illinois RailNet operations include daily service north to Eola. Illinois RailNet and CSX jointly operate within the U.S. Silica facility and on industrial and side tracks on Ottawa's West Side. Both companies switch U.S. Silica and use tracks between U.S. Silica and the Illinois RailNet mainline as the interchange between the two railroads. All of these joint use tracks are completely outside of the right-of-way that potential IVCR trains would use and therefore IVCR trains would not impact them.

Illinois RailNet has experience running trains on high-density commuter rail lines since they operate trains on the Burlington Northern Santa Fe (BNSF) mainline from Montgomery to their eastern terminus at Eola. Between these points is Aurora, where Metra's BNSF service terminates. The BNSF has Centralized Traffic Control (CTC).

3.4 Existing Public Transportation Services

This section looks at existing transportation services which could connect to a potential IVCR service. These services include Pace, GREAT Transit System, Amtrak, Greyhound, Burlington Trailways, Act II Transportation, City of Ottawa Bus Service, and the Starved Rock Trolley. Below is a description of these existing transportation services.

3.4.1 Pace

Pace, the Suburban Bus Division of the Regional Transportation Authority, provides fixed bus and Dial-a-Ride services throughout Northeastern Illinois' six counties. It operates over 3,446 square miles and serves 5.2 million people in 210 communities. Although most of the study area is outside of Pace's service area, Pace has nine routes that serve the greater Joliet area. These routes are described below:

Route 501 Forest Park and West Jefferson

The Forest Park Branch of Route 501 serves residential areas in northeastern Joliet, the Joliet Central Business District, and Joliet Union Station. Buses on this branch run eastbound from Jefferson and Chicago from 6:10 a.m. to 7:10 p.m. and westbound from State and Nobes from 5:35 a.m. to 6:35 p.m.

The West Jefferson Branch of this route serves the Marycrest and Twin Oak Shopping Centers, Joliet Junior College, and Rock Run Business Park. Buses on this branch run eastbound from Rock Run from 5:45 a.m. to 7:39 p.m., and westbound from Jefferson and Chicago from 6:10 a.m. to 7:10 p.m.

Route 502 Cass and Marquette Gardens

The Cass Branch of Route 502 serves residential areas in eastern Joliet, Silver Cross Hospital, and the Joliet Central Business District. Buses on this branch run eastbound every hour between 6:10 a.m. and 5:10 p.m., except for the 9:10 a.m. run, which terminates at Silver Cross Hospital. On Saturdays, these buses run hourly from 10:10 a.m. until 4:10 p.m., except the 2:10 p.m. run, which terminates at Silver Cross Hospital.

Buses that run westbound leave Parkwood and Bogdan in eastern Joliet approximately every hour between 5:39 a.m. and 4:39 p.m. On Saturdays, these buses run approximately every hour between 8:39 a.m. and 4:39 p.m.

The Marquette Gardens Branch of this route serves Joliet Union Station, the Central Business District, several medical facilities, and Jefferson Square Mall. Westbound buses on this branch run hourly from 6:10 a.m. to 5:10 p.m. from Jefferson and Chicago. On Saturdays, these buses run hourly between 10:10 a.m. and 4:10 p.m.

Eastbound buses on this line run hourly from Jefferson Square Mall between 5:42 a.m. and 4:42 p.m. On Saturdays, these buses run hourly between 9:42 a.m. and 4:42 p.m.

Route 503 Black Road and Raynor Park

The Black Road Branch of Route 503 serves Joliet Union Station, the Central Business District, Harrah's Casino, North Ridge Plaza, and residential areas of western Joliet. Westbound buses hourly leave Jefferson and Chicago between 6:10 a.m. and 5:10 p.m. No bus leaves at 10:10 a.m.

Eastbound buses leave North Ridge Plaza approximately every hour between 5:47 a.m. and 5:47 p.m. No bus leaves at 10:47 a.m.

This route does not have weekend service.

Route 504 South Joliet

Route 504 serves Joliet Union Station, the Joliet Central Business District, Harrah's Casino and medium and light density industrial areas in southern Joliet. Southbound buses hourly leave Washington and Scott between 6:13 a.m. and 5:13 p.m. Northbound buses hourly leave Pico and Shearing between 5:38 a.m. and 5:38 p.m.

This route does not have weekend service.

Route 505 Lidice and Rockdale

The Lidice Branch of Route 505 serves Joliet Union Station, the Hillcrest Shopping Center, North Ridge Plaza, and residential neighborhoods on Joliet's north and northwest side. Westbound buses leave every hour from Chicago and Jefferson between 6:10 a.m. and 5:10 p.m. On Saturdays, these buses leave every hour from 10:10 am to 5:10 p.m.

Eastbound buses leave every hour from North Ridge Plaza between 6:42 a.m. and 4:42 p.m. On Saturdays, these buses leave every hour from 9:42 a.m. and 4:42 p.m.

The Rockdale branch of this route serves Joliet Union Station, the Joliet Central Business District, Rockdale Village Hall, the Greyhound Station, Caterpillar, the River Valley Justice Center, and residential neighborhoods in Rockdale and southern Joliet. Westbound buses

hourly leave Chicago and Jefferson between 6:10 a.m. and 5:10 p.m. On Saturdays, these buses leave hourly between 10:10 a.m. and 5:10 p.m.

Eastbound buses hourly leave River Valley Justice Center between 6:42 a.m. and 4:42 p.m. On Saturdays, these buses leave hourly between 9:42 a.m. and 4:42 p.m.

Route 506 East Washington/New Lenox

Buses on this route travel along East Washington Street between Joliet and New Lenox. They serve Joliet Union Station, Joliet Central High School, Providence High School, Trinity School, and the New Lenox Village Hall. Eastbound buses travel hourly from Chicago and Jefferson between 6:10 a.m. and 5:10 p.m. Westbound buses travel hourly from Nelson and U.S. 30 between 6:43 a.m. and 5:43 p.m. However, a 5:52 a.m. bus leaves Briggs and Washington in New Lenox to arrive at Chicago and Jefferson at 6:04 a.m.

This route does not have weekend service.

Route 507 Plainfield

Buses on this route serve Joliet's Central Business District, the College of St. Francis, the Hillcrest Shopping Center, residential areas in northern Joliet and western Crest Hill, and the Louis Joliet Mall. Eastbound buses travel hourly from Louis Joliet Mall to Jefferson and Chicago weekdays between 5:41 a.m. and 6:41 p.m. These buses operate hourly between 9:10 a.m. and 6:10 p.m. on Saturdays. Westbound buses travel hourly from Jefferson and Chicago to Louis Joliet Mall between 6:10 a.m. and 6:10 p.m. These buses operate hourly between 9:10 a.m. and 6:10 p.m. on Saturdays.

This route does not have Sunday service.

Route 831 Joliet to Midway Airport

This long-distance bus serves Joliet, Stateville Prison, Lewis University, Orland Square Mall, and Midway Airport as well as communities that lie on the route. Northbound buses leave Joliet from Scott and Washington at 9:10 a.m., 12:15 p.m., and 3:40 p.m. to arrive at Midway Airport at 10:28 a.m., 1:36 p.m., and 5:02 p.m. respectively. On Saturdays, these buses leave Scott and Washington at 7:15 a.m., 9:10 a.m., 1:10 p.m., 2:10 p.m., and 4:10 p.m. to arrive at Midway Airport at 8:23 a.m., 10:18 a.m., 2:20 p.m., 3:20 p.m., and 5:20 p.m.

Southbound buses leave Midway Airport at 7:45 a.m., 10:35 a.m., 1:45 p.m., and 6:09 p.m. to arrive at Scott and Washington at 9:08 a.m., 12:01 p.m., 3:11 p.m., and 7:32 p.m. respectively. On Saturdays, these buses leave Midway Airport at 8:32 a.m., 9:30 a.m., 10:22 a.m., 2:23 p.m., 3:25 p.m., and 5:25 p.m. to arrive at Scott and Washington at 9:52 a.m., 10:50 a.m., 11:42 a.m., 3:43 p.m., 4:43 p.m. and 6:43 p.m. respectively.

A northbound bus leaves Scott and Washington every weekday at 6:15 a.m. and arrives at Midway Airport at 7:30 p.m. via Lemont and Willow Springs. A southbound bus reverses this trip from Midway Airport at 5:12 p.m. and arrives at Scott and Washington at 6:27 p.m.

There is no Sunday service.

Route 834 Joliet to Yorktown

Buses on this route serve Joliet's Central Business District, downtown Lockport, Lewis University, Bolingbrook, Downers Grove, Good Samaritan Hospital, and the Yorktown

Shopping Center. Northbound buses leave almost hourly from Washington and Scott between 5:07 a.m. and 4:25 p.m. to arrive at Yorktown Shopping Center at 6:36 a.m. to 5:56 p.m. A northbound bus leaving Washington and Scott at 5:20 p.m. stops at Briarcliff and Highway 53 in Bolingbrook at 6:05 p.m. On Saturdays, buses leave Washington and Scott almost hourly between 9:10 a.m. and 2:13 p.m. to arrive at Yorktown between 9:41 a.m. and 3:47 p.m. No departure is scheduled between 9:10 a.m. and 11:15 p.m.

Southbound buses leave Yorktown in thirty to ninety minute intervals between 7:53 a.m. and 6:08 p.m. to arrive at Washington and Scott between 9:25 a.m. and 7:42 p.m. On Saturdays, these buses leave almost hourly from Yorktown Shopping Center between 9:55 a.m. and 5:10 p.m. to arrive at Washington and Scott between 11:29 a.m. and 6:44 p.m. No departure is scheduled between 11:07 a.m. and 1:05 p.m. The 1:55 p.m. bus terminates at 9th and State in Joliet, instead of traveling to Washington and Scott. (Source: http://www.pacebus.com)

3.4.2 GREAT Transit System

The GREAT Transit System provides demand responsive general public transportation to the residents of Grundy County using an ADA accessible twenty-six (26) passenger bus. This service is available five (5) days per week on a year round basis. The GREAT system coordinates service with a local senior citizen transportation system and a medical care transportation system.

In the fall of 1998, Grundy County was approached by two separate groups with a similar problem. Because the County is considered to be a predominantly rural area, it is not economical for a mass transit service to operate. This was considered by one group to be one of two significant barriers, (the other being child care), for welfare recipients to transition from welfare to work.

A second group, social service agencies, identified transportation as a barrier to their clients being able to access services located in a different population center than the one in which they live. The provision of transportation by a social service agency was prohibitive from a budget standpoint due to the cost of equipment and liability insurance. The cost for each agency to provide services for their clients was considered unreasonable.

The County determined that it did not want to assume the liability for a transportation system, nor, did they have the expertise to operate a system efficiently. Therefore, they determined to contract with an experienced service provider. GREAT Transit handles both the administrative portion of the program and serves as the service provider.

Transit services are provided on Monday through Friday from 7:00 a.m. to 4:00 p.m. Several residents have standing service orders that are either daily or weekly, allowing them to use the service to attend scheduled meetings or commute to work. County residents are able to schedule trips to an adjacent regional shopping mall, or to a commuter rail system that gives them access to Chicago and the airports.

Riders schedule trips, preferably in advance, and are picked up at a specified location (usually their home) and transported to their destination. If a person calls the same day for service, an attempt to accommodate them is made, if they are within close proximity to a scheduled pickup point. In addition to meeting the daily transit needs of County residents, they have been able to accommodate some group activities that help promote the transit program as well as provide a community service.

The system was initially designed as a fixed route system to operate more economically. However, ridership was not as expected. Once they acquired radio and telephone capability on the bus, the dispatcher was able to communicate with the driver to schedule trips "on the fly". In addition, the technology has allowed them to track the progress of the vehicle; has allowed them to be more responsive to client needs; has allowed them to minimize downtime in the event of a breakdown; has served as an additional pair of eyes to report accidents; and has allowed them to divert the bus to assist in emergencies (e.g., local hospital fire that required evacuation of patients).

In April of 1999 when GREAT began operation, they averaged 9 – 15 riders per month. As they tweaked the system and gained a reputation for dependable service, they now average just under 200 riders per month. They have a waiting list at times for open slots (rides) and are awaiting delivery of their second bus, with a third bus waiting for approval. (Source: Information provided by Grundy County.)

3.4.3 Amtrak

Trains Operating to and from Joliet Union Station

Amtrak operates in 46 states to approximately 500 stations using more than 22,000 miles of track. Its State House train operates twice a day from Chicago to St. Louis via Joliet Union Station. These trains leave Joliet Union Station at 4:15 p.m. and 6:05 p.m. to arrive in St. Louis at 8:50 p.m. and 10:40 p.m., respectively. Its eastbound trains leave St. Louis at 4:35 a.m. and 10:10 a.m. to arrive in Joliet at 9:00 a.m. and 2:49 p.m. respectively.

Amtrak's Ann Rutledge train operates once a day between Chicago and Kansas City and stops at Joliet and St. Louis. This train leaves Joliet Union Station at 8:25 a.m. and arrives in Kansas City at 8:40 p.m. It leaves Kansas City at 7:35 a.m. and arrives in Joliet at 6:24 p.m.

The Texas Eagle train provides daily long distance service from Chicago to San Antonio and tri-weekly service from Chicago to Los Angeles via Joliet. St. Louis, Little Rock, Dallas, Fort Worth, and San Antonio are major cities that lie on this line.

Eastbound Texas Eagle trains leave Joliet at 4:15 p.m. daily to arrive in San Antonio at 11:45 p.m. the next day. Those trains that arrive in San Antonio on Mondays, Wednesdays, and Fridays have a short layover and continue on to Los Angeles. Westbound trains arrive in Joliet at 2:49 p.m. daily from San Antonio and/or Los Angeles.

Passengers who want to travel locally between Joliet and Chicago must use Metra, unless they are connecting to another Amtrak train.

Trains Operating to and from Mendota

Amtrak also operates the Illinois Zephyr to Quincy and the Southwest Chief to Los Angeles from Chicago via Mendota. Mendota is sixteen miles north of LaSalle/Peru. The Illinois Zephyr daily leaves Chicago at 5:55 p.m. and arrives in Mendota at 7:20 p.m. and Quincy at 10:18 p.m. The eastbound Illinois Zephyr leaves Quincy at 6:12 a.m. and arrives in Mendota at 8:49 a.m. and Chicago at 10:35 a.m.

Southwest Chief trains provide daily service from Chicago to Los Angeles via Mendota. Kansas City, Albuquerque, Flagstaff, and Los Angeles are major cities lying on this line. Southwest Chief trains leave Mendota at 5:06 p.m. and arrive in Los Angeles 1 ½ days later. Returning trains arrive daily in Mendota at 1:44 p.m. and in Chicago at 4:36 p.m.

The fare from Mendota to Chicago is approximately $23.00 round trip. (Source: http://www.amtrak.com)

3.4.4 Greyhound and Burlington Trailways

Greyhound and Burlington Trailways share a reservation network that allows intercity bus passengers to choose from an array of destinations nationwide and within the State of Illinois. Buses on Greyhound's Route 5201 daily leave Chicago at 10:50 a.m. and arrive in Joliet at 12:01 p.m. Buses on Routes 1330 and 5204 daily leave Joliet at 11:40 p.m. and 7:10 p.m. to arrive in Chicago at 12:50 p.m. and 8:15 p.m. respectively.

Burlington Trailways also has limited daily service between Chicago and the study area. Buses on Route 1401 leave Chicago at 6:40 a.m. and arrive in Joliet at 7:40 a.m., Ottawa at 8:20 a.m., and LaSalle at 8:40 a.m. These buses continue to Davenport and Omaha. Buses on Route 1402 leave Omaha to reach LaSalle at 5:55 p.m., Ottawa at 6:15 p.m., Joliet at 6:50 p.m., and Chicago at 7:30 p.m. Reservations are required 24 hours in advance for Burlington Trailways.

Only the Burlington Trailways routes offer the possibility of a reverse commute trip. However, given their limited schedule to the study area, it would unlikely attract commuters. (Source: http://www.greyhound.com/ and http://www.burlingtontrailways.com/index.html)

3.4.5 Act II Transportation

Act II Transportation has regularly scheduled shuttle service from the Quad Cities to Chicago airports. This shuttle service starts from Moline and stops in Geneseo, Annawan, Princeton, Peru, Ottawa, and Morris (it only stops at an intermediate station with three days minimum notice to the company) on the way to both Chicago airports. There are currently four daily round trips except on Sunday when there are three round trips (in 2001 there was one less round trip each day). The ticket price currently is $50 one-way. (Source: www.actiitransportation.com)

3.4.6 City of Ottawa

The City of Ottawa runs a scheduled city-wide bus service using paratransit type mini-buses. Buses run five days per week, Monday through Friday from 9 a.m. to 5 p.m. There are a couple of buses in the fleet serving two routes. All routes start at the bus station at Madison and Canal. Below is a narrative of the routes in the Ottawa system.

Bus Route 1 – Hospital Route

This bus departs every two hours beginning at 9:30 a.m. through 3:30 p.m. with the route's travel time equaling a half hour. This route serves the Ottawa Hospital and Medical Center and returns directly to the bus station.

Bus Route 1 – Center and North

This bus departs every two hours beginning at 10 a.m. through 4 p.m. with the route's travel time equaling an hour. This route serves the Ottawa Hospital and Medical Center, along the with the northern and central portion of Ottawa.

Bus Route 1 – West and East Sides

This bus departs every two hours beginning at 9 a.m. through 11 a.m. with the route's travel time equaling a half hour. This route serves Boyce Memorial Drive and the west and east sides of Ottawa.

Bus Route 2 – West Side 1

This bus departs every two hours beginning at 10 a.m. through 4 p.m. with the route's travel time equaling a twenty minutes.

Bus Route 2 – West Side 2

This bus departs every two hours beginning at 10:30 a.m. through 4 p.m. with the route's travel time equaling a half hour.

Bus Route 2 – South Side

This bus departs every two hours beginning at 9 a.m. through 3 p.m. with the route's travel time equaling an hour. This route serves the south side of Ottawa. Highlights include the Pleasant View Luther Home, Summit View Cemetery, Ottawa Grade School District #141, and the Ottawa Pavilion.

There is limited off-route service. Overall, the bus routes wind through medical clinics and nursing homes. Riders are predominately senior citizens.

3.4.7 Starved Rock Rocky Trolley

The "Rocky Trolley" runs from Starved Rock State Park Lodge to the Waterway Visitor Center then through downtown Utica out to the Junction of US 6 and IL 178 and back to the Lodge on a regular schedule. This is a tourist related trolley, rather than a commuter-related service. The "Rocky Trolley" is a trackless trolley that brings old world charm and modern amenities to the Lodge and Park. Passengers are able to experience a portion of the history and culture of the area by first traveling back in time to when the I & M Canal was in full use. Passengers learn about the Native American Indians that fought and died atop Starved Rock, as well as other interesting historical facts of this area. There is not a standing schedule and numerous special trolley tours are composed to relate to the season and highlights of the park. Tickets are $10.00 for adults, $8.00 for Senior Citizen Rate (60 or over), $6.00 for Children (2-12 years), and no charge for infants under the age of two. The trolley can be used for private charters for $275 per hour. Tickets can be purchased at the Front Desk of the Starved Rock Lodge.

3.5 Alternative Public Transportation

The previous section highlighted existing public transportation in the study area. As the analysis indicates, there are no alternative public transportation services in the study area to serve traditional commuting hours for residents in the Illinois Valley. Illinois Valley residents can travel between the study corridor and Chicago, however, depending on layovers in the schedules, not always at convenient hours, and not always in a timely manner.

3.6 Socioeconomic Characteristics

The IVCR study area corridor has experienced growth between 1990 and 2000 according to census data at the county level and at the individual municipality level. The City of Joliet is participating in this study and is located in Will County, therefore, statistics for Will County are shown. Table 3-1 and Table 3-2 depict the population in 1990 and 2000, along with the

change. Projections for 2020 produced by Census & Data Users Services (CADUS) at Illinois State University are shown for the counties. As Table 3-1 shows, the population of the three counties increased between 1990 and 2000. Growth is projected to continue through 2020 in Will and Grundy Counties. In Will County the growth rate is anticipated to be higher, 47%, between 2000 and 2020 compared to the 41% experienced between 1990 and 2000. The growth in Grundy County is projected to remain constant at 16% over the next 20 years. LaSalle County experienced a population growth of 4% between 1990 and 2000. Looking at the 2020 projection, a decline of 1% is shown. The CADUS model is based on 1990 data, and projected a lower 2000 population than was actually counted during the 2000 Census. Given the CADUS projected 2000 population (which was 110,334) the model did project a 0.4% increase in LaSalle County for 2020.

3.6.1 Population

Table 3-1 Population by County

County	1990	2000	1990 - 2000 % Change	2020 Projection[1]	2000 - 2020 Projection % Change
Will	357,313	502,266	40.6%	738,189	47.0%
Grundy	32,337	37,535	16.1%	43,583	16.1%
LaSalle[2]	106,913	111,509	4.3%	110,788	-0.6%
Total	**496,563**	**651,310**	**31.2%**	**892,560**	**37.0%**

1990 & 2000 Data Source: U.S. Census
2020 Projections Source: http://www.cadus.ilstu.edu/database/COUNTY.xls
CADUS: Census & Data Users Services, Illinois State University.

[1] The 2020 projections are based on 1990 population, fertility, mortality, and migration data from the early 1990's and have not been adjusted for the 2000 Census population. The State of Illinois is currently preparing population projections from the 2000 Census and is expecting to release them between 2004 and 2006.

[2] The 2020 CADUS model projections for LaSalle County show a decrease from the 2000 Census. The CADUS model is based on 1990 data, and projected a lower 2000 population than was actually counted during the 2000 Census. Given the CADUS projected 2000 population (which was 110,334) the model did project a 0.4% increase in LaSalle County for 2020.

Table 3-2 depicts the population in 1990 and 2000 for municipalities in the study corridor, along with the percent change. All but one municipality, Marseilles, experienced growth in population between 1990 and 2000. The City of Marseilles believes that the 2000 census was not accurate and is completing its own count. For the remaining municipalities, the percentage increases ranged from over 70% in Channahon to 1% in LaSalle.

Table 3-2 Population by Municipality

Municipality	1990	2000	1990 - 2000 % Change
Joliet	76,836	106,221	38.2%
Channahon	4,266	7,344	72.2%
Minooka	2,561	3,971	55.1%
Morris	10,270	11,928	16.1%
Seneca	1,878	2,053	9.3%
Marseilles	4,811	4,655	-3.2%
Ottawa	17,451	18,307	4.9%
N. Utica	848	977	15.2%
Peru	9,302	9,835	5.7%
LaSalle	9,717	9,796	0.8%
Total	**137,940**	**175,087**	**26.9%**

Source: U.S. Census 1990 & 2000

3.6.2 Major Employers

Table 3-3 shows the occupational category of the civilian labor force in the IVCR study area. The study area is defined as a five-mile wide band centered on the railroad right-of-way. This data comes from a report produced by Claritas, Incorporated. Claritas, Inc. provides geodemographic market research information based on census data from a low-level of geography termed “Zip+4”, a lower level of geography than census tracts. The table lists the occupational category along with the percentage of the labor force in that occupational category. Administrative support is the top occupational category, followed by precision production and craft, and professional specialty. The majority, 75%, of the civilian labor force in the 5-mile study area is employed at private for profit organizations, while 8% are employed at private non-profit organizations. Government workers account for 13% of the civilian workforce: 7% local, 4% state, and 2% federal government. The source of this information is census data and the April 25, 2002 Claritas report.

Table 3-3 Civilian Employment by Occupation in 5-mile wide Study Area

Occupational Category	Percentage (%)
Administrative Support	15.53
Precision Production & Craft	13.97
Professional Specialty	12.15
Service: Other	11.65
Sales	10.99
Executive and Managerial	9.43
Machine Operator	8.78
Handlers, Helpers & Laborers	5.07
Transportation & Material Moving	4.67
Technical Support	3.57
Service: Protective	2.64
Farming, Forestry & Fishing	1.37
Service: Private Household	0.18
Total	**100.00**

Source: Claritas Inc. Report, dated April 25, 2002

A table of major employers in the study area can be found in Appendix D. This list has been compiled from data found on the Illinois Department of Commerce and Community Affairs (DCCA) website (http://www.commerce.state.il.us/communityprofiles/profiles/), along with information obtained in the individual corridor community meetings. There are many industries located in the study area including chemical, manufacturing, and distribution facilities. Major industrial employers in the study area include Caterpillar Company, Equistar Chemicals, ExxonMobil, Commonwealth Edison, J.C. Whitney & Company, and Carus Chemical.

Other large employers are hospitals including St. Joseph, Silver Cross, Morris Hospital, Community Hospital of Ottawa and Illinois Valley Community. Schools, including Joliet Junior College, and individual community elementary and high schools also account for a number of jobs in the study area. In the eastern end of the study area, the Empress and Harrah's casinos are major employers, while the Peru Mall is one of the major employers on the western end of the study area.

Counties

Below is the labor force summary for the counties in the study area obtained from the Illinois Department of Commerce and Community Affairs (DCCA). The summary for the City of Joliet is shown, in addition to the summary for Will County, as Joliet encompasses a major portion of study area. Labor force summaries are also shown for Grundy and LaSalle Counties.

Labor Force – City of Joliet

The City of Joliet labor force was 44,217 persons in 1999. The employment breakdown is 20% manufacturing, 79% non-manufacturing, and 1% agricultural. There was a 6.6% unemployment rate, equaling 2,912 persons. The 2000 census indicates that the City of Joliet median household income was $47,761, and median family income was $55,870. This compares to a per capita income of $19,390. The 2000 census data is based on 1999 income.

Labor Force – Will County

The Will County labor force was 250,597 persons in 1999. The employment breakdown is 17% manufacturing, 81% non-manufacturing, and 2% agricultural. There was a 5.2% unemployment rate, equaling 13,045 persons. The 2000 census indicates that the Will County median household income was $62,238, and median family income was $69,608. This compares to a per capita income of $24,613. The 2000 census data is based on 1999 income.

Labor Force Summary – Grundy County

The Grundy County labor force was 19,320 persons in 1999. The employment breakdown is 14% manufacturing, 85% non-manufacturing, and 1% agricultural. There was a 5.8% unemployment rate, equaling 18,194 persons. The 2000 census indicates that the Grundy County median household income was $51,719 and median family income was $60,862. This compares to a per capita income of $22,591. The 2000 census data is based on 1999 income.

Labor Force Summary – LaSalle County

The LaSalle County labor force was 56,396 persons in 1999. The employment breakdown is 18% manufacturing, 81% non-manufacturing, and 1% agricultural. There was a 6.0% unemployment rate, equaling 3,373 persons. The 2000 census indicates that the LaSalle County median household income was $40,308 and median family income was $49,533. This compares to a per capita income of $19,185. The 2000 census data is based on 1999 income.

The source of the information above is the Illinois Department of Commerce and Community Affairs (DCCA) now named the Illinois Department of Commerce and Economic Opportunity. The website information is http://www.illinoisbiz.biz/map/community.html Community Profiles Directory. Information also came from the 2000 U.S. Census.

3.7 Surrounding Land Use

The proposed IVCR service would utilize the existing rail line, and therefore, the right-of-way for the alignment would not be imposing on any of the existing adjacent land. The existing rail line is currently single tracked, but roadbed exists for double track. The land use in the study area varies, and includes residential, industrial, and commercial. Residential uses vary from single-family detached homes to apartments to townhomes. In the recent past, and continuing now, there has been development of multi-family housing on the eastern portion of the IVCR corridor. Industrial land uses range from light to heavy industry, including manufacturing, and distribution centers. As noted in Section 3.6.2, major employers in the corridor include ExxonMobil and Commonwealth Edison. There is support retail and commercial development in the study area, including the Peru Mall, a regional shopping mall.

Land cover maps, environmental features maps and aerial maps were developed for the 60-mile corridor. The study area is defined as a five-mile wide band centered on the right-of-way. These items are illustrated in a series of fold-out maps located in several appendices as noted.

Using Digital Orthophoto Quadrangles (DOQ's) from 1998, an aerial map has been developed. Information depicted on the maps was obtained from the Illinois Geographic Information System (IGIS) and the Illinois Department of Natural Resources (IDNR).

Land cover maps are located in Appendix E for each community in the study corridor. Each land cover map identifies existing land classes such as urban, crop, forest, marsh, wetland and water classes. Land cover statistics for Will, Grundy and LaSalle Counties are also located in Appendix E.

Environmental features maps are provided in Appendix F for each community along the study corridor. These maps identify water bodies, wetlands, flood zones, natural areas and state parks. An example is the Des Plaines River and the Illinois River that runs along the study corridor.

Existing land use maps contain information provided in local communities' zoning and comprehensive plans, when available, and from corridor community meetings. Since the aerials are from 1998, the changes in land use between 1998 and the summer of 2002 are illustrated on the existing conditions maps found in Appendix G.

3.8 Environmental Features Adjacent to the Right-of-Way

The proposed commuter rail line would not require alteration of the existing right-of-way, and therefore, the proposed service poses no additional encroachment into the surrounding environment.

Significant natural environmental features in the corridor are illustrated in a series of fold-out maps located in Appendix F. Information depicted on the maps was obtained from the Illinois Geographic Information System (IGIS) and the Illinois Department of Natural Resources (IDNR). The environmental feature maps include wetlands, streams, waterways, flood zones, natural areas, and state parks. Instances where environmental concerns are located at or adjacent to the site are depicted on the existing conditions maps with aerial background. In other communities, water treatment facilities are or were along the Illinois River, which are illustrated on the existing maps in Appendix G. Two environmental features, the Matthiessen and Hegeler Zinc Company, and the Illinois and Michigan Canal are highlighted below. There is nothing to indicate these two features would preclude commuter rail service.

3.8.1 Matthiessen and Hegeler Zinc Company (MHZ) site

The Illinois Environmental Protection Agency (IEPA) requested that the Illinois Department of Public Health (IDPH) perform a public health assessment for the Matthiessen and Hegeler Zinc Company (MHZ) site. Past smelting, mining, and rolling operations at MHZ have resulted in contamination of soils by organic chemicals and various metals. The purpose of the public health assessment was to evaluate, based on information reviewed and currently available at the time of the assessment, any or potential adverse human health effects if people are exposed to contaminants related to the site. The assessment was published on September 30, 1999.

The assessment has concluded that the MHZ site is considered a public health hazard. The IEPA requested that the IDPH perform a public health assessment for this site called the MHZ site.

The results of the assessment were recommendations for future actions including additional sampling on and off the site, maintenance of the site fencing, periodic sampling of existing groundwater monitoring wells or construction of new ones, and education of the nearby residents on ways to reduce exposure.

In addition to these recommendations, a Public Health Action Plan has been initiated for the IDPH to work with the IEPA to plan additional sampling in nearby residential areas to further evaluate the effect of the site on neighboring properties. IDPH suggested giving special attention to neighboring yards, gardens, and parks. IDPH will develop a fact sheet for distribution to residents to provide information that will allow them to reduce their exposures to site-related chemicals in soil.

The Study Team sees no reason why the cleanup of this site would affect the proposed IVCR rail line. The MHZ site is adjacent to the City of LaSalle. This information is included on the Existing Conditions map for LaSalle and on the Environmental Features Map for base or context information only, as outlined on Map 6 in Appendix F. The Study Team is unaware of any additional information, findings, or how the IEPA has proceeded.

3.8.2 Illinois and Michigan Canal

The Illinois and Michigan Canal (I&M Canal) runs parallel to the Illinois River and along much of the rail line in the study corridor. On August 24, 1984, President Ronald Reagan signed legislation establishing the region as the nation's first National Heritage Corridor. It thereby recognized the historic importance of this region and the waterway that connected Lake Michigan and the Illinois River. The goal of the Corridor is to preserve, protect and interpret its rich natural and cultural history while fostering economic growth in the region. The Corridor is not owned or governed by a single authority. Its creation involved a partnership of federal, state, and local governments in cooperation with private industry and interest groups. The corridor is an on-going partnership between the public and private sectors created to achieve a successful mixture of preservation, public use and industrial activity.

The designation does not directly affect the railroad because the railroad owns its right-of-way. The land that is designated as the National Heritage Corridor is owned by the Illinois Department of Natural Resources (Illinois DNR), which leases some of the property. The Corridor is a partnership between the IDNR and many agencies.

Below the areas along the rail line that fall within the closest distance to the I & M Canal are illustrated.

- From Peru to Utica, the rail line is adjacent to the I & M Canal, which is approximately seven miles long. Along this portion, the distance between the Canal and the centerline of the rail line is within 50 feet in some places.

- For a distance of approximately one mile, between the Village of Utica and the City of Ottawa, there is a portion of the rail line that is adjacent to the Canal where the distance between the entities ranges from 150 to 300 feet.

- Directly west of the City of Ottawa for approximately 1.3 miles, there is a portion of the rail line that is adjacent to the I & M Canal, where the distance between the entities ranges from 100 to 200 feet.

- Between the City of Ottawa and the Village of Marseilles, there is a portion of the rail line adjacent to the I & M Canal within 500 feet from one another for an approximate distance of 5.6 miles. Directly east of the Village of Marseilles there is another portion of the rail line adjacent to the I & M Canal within 500 feet from one another for an approximate distance of three miles.

- Directly east of the Village of Seneca, there is a portion of the rail line adjacent to the I & M Canal within 500 feet from one another for an approximate distance of 1,000 feet.

- West of the City of Joliet, near the intersection of Houbolt Road and Mound Road there is a portion of the rail line within 500 feet of the I & M Canal for an approximate distance of 1.5 miles.

4.0 ASSESSMENT OF FUTURE PLANS AND CONDITIONS

An examination and analysis of future plans, along with development growth and projections, is done to develop a profile of the study area for potential Illinois Valley Commuter Rail (IVCR) service. A review and analysis of freight operations and improvements for CSX, Iowa Interstate and Illinois RailNet has been done to assess future plans and conditions of the rail line.

Information about future plans and conditions for land use in the IVCR study area was gathered using a variety of sources. Communities provided information including zoning and comprehensive plans, when available. These plans were reviewed for potential growth scenarios that would influence the demand for commuter rail service. Meetings were held with each of the 10 corridor communities to confirm existing land use conditions, as well as to discuss future growth and development areas. Information from zoning and comprehensive plans was used to support data gathered during the meeting.

In addition, meetings were held with Grundy and LaSalle Counties, and other interested parties including the Will County Center for Economic Development, the Illinois River Area Chamber of Commerce (serving Marseilles and Seneca), Starved Rock State Park, and the Illinois Valley Area Chamber of Commerce. Information about the broader area, beyond the defined five-mile wide band centered on the rail line, was obtained from these meetings (i.e. the Joliet Arsenal redevelopment including the CenterPoint Intermodal Center).

4.1 Projected Future Freight Operations and Improvements

With the Metra commuter operations serving as a constraint, CSX and Iowa Interstate Railroads have limited options as to when they can schedule trains between Joliet and Blue Island. The freight railroads have shown modest general growth trends in rail freight traffic since the Staggers Act of 1980 deregulated the freight railroad industry. The following is a sampling of the freight railroad growth trends between 1985 and 2000:

- Gross Domestic Product (GDP) has grown at a compounded rate of 4.0 percent.
- Originated rail freight tonnage has grown at a rate of 1.9 percent.
- Revenue ton-miles have increased at a rate of 3.5 percent.
- Freight train miles have grown at a rate of 2.5 percent.
- Car loads of freight originated have grown at a rate of 2.4 percent.

A reasonable assumption for growth in traffic on this line is 2.5 percent per year. At that rate, it will take traffic 29 years to double in volume. However, the road trains on this line are already quite long. A more reasonable estimate as to when additional freight trains are needed to serve general growth is 20 percent, which takes only eight years. Thus, within 10 years, it is reasonable to expect that both CSX and Iowa Interstate will be consistently running a second pair of road trains each way each day.

The industrial development potential for the line is very good. The impact of adding (or subtracting) a single large customer can change traffic patterns dramatically. A delay in adding additional through freight trains could be realized if Metra and the freight railroads could agree on provisions for utilizing 286,000 pound freight cars from Joliet to Blue Island. This change could increase train tonnage capacity without the trains becoming longer, which

is a constraint for the freight railroads on the Metra line. Currently, Metra restricts gross loading to 263,000 pounds on a four axle car.

4.1.1 CSX Transportation

Future train assignments are not likely to change significantly, except for the eastbound road train. Several new industries have been located on the line over the last few years, with more in the development stage. The projected business growth of 2002 over 2001 is 5,000 carloads, which is an approximate increase of 10 percent. This growth comes from new industries and expansion of existing businesses. There is little restraint for further industrial developments, as some existing sites with relatively little railroad usage could experience growth, and in addition, there are many other land sites where totally new industries can be built. Some of the commodities on the line are products taken from mines that could diminish over time, but no short-term exhaustion is contemplated. With the line's general diversity of businesses, coupled with a good industrial development climate, train traffic can be expected to maintain at least the status quo, but more likely, will grow.

CSX has no particular plans for handling increased carload volumes other than absorbing the work with existing train assignments. Existing assignments typically absorb more work by working longer days and other minor schedule adjustments. Railroad customers on this line generally work with single and relatively small lots of carloads, requiring switching for their services. Individual customers with extensive switching requirements generally have their own switch engine and perform the moves themselves, just setting out and picking up blocks of cars from the railroad. Several of the customers on this line already do this. Potentially larger industrial developments will be designed with necessary support tracks. As car loadings increase on this line, local trains can be expected to work longer hours and occupy the main track for longer times while switching. Specific locations where this will occur are difficult to predict since it is depends on the growth of individual businesses.

The one train schedule change that CSX is contemplating is the eastbound road train between Ottawa and the Chicago area. Currently, there is one train a day that runs at night into the Belt Railway of Chicago's Clearing Yard. This routing has no train length restrictions, thereby permitting CSX to stay with one train. CSX has an interest in rerouting this train to its Barr Yard for various reasons, but this option has train length restrictions that will necessitate splitting this train into two sections. If this were to happen, CSX's preferred time to run an earlier section out of Ottawa is approximately 3:00 p.m. with no pickups, entering the Metra trackage in Joliet at 7:30 p.m. The later section would follow the existing eastbound schedule.

4.1.2 Iowa Interstate Railroad

In the future, Iowa Interstate Railroad (IAIS) plans to increase traffic through various business developments. Occasionally, the IAIS runs a second train and is aggressively seeking new business to have this happen regularly. Some of this increased volume could be handled by converting bulk products to 286,000 pound cars. This can only occur over time as IAIS is able to upgrade their system to this new standard and CSX and Metra allow this new standard on this line, which is now limited to 263,000 pounds. In the mean time, when IAIS runs a second train, it is normally within one to two hours of the first train. To avoid conflicts with the potential IVCR trains and the second IAIS trains, the IAIS trains will have to hold their current schedule by not running any earlier. IAIS emphasizes the need for a second main track in areas to support passenger services.

4.1.3 Illinois RailNet

Illinois RailNet is currently working with a business development that may increase to daily the frequency to Streator. If the service to Streator increases, the times Illinois RailNet occupies the crossing for the Streator train may change to late morning, with returns around 4:00 p.m. to 6:00 p.m. In the future, expected growth in Illinois RailNet traffic can be handled by the existing schedules. Illinois RailNet currently handles 286,000 pound capacity rail cars.

4.2 Projected Socioeconomic Growth

As a means of estimating the potential growth in population, number of households, and household income for the study area, a report was produced by Claritas, Incorporated. Claritas, Inc. is a provider of geo-demographic market research information based on census data from a low-level of geography termed “Zip+4”. This is very detailed and accurate information. Claritas provides data based on block groups, which are very small. For instance there are 42,000 zip codes in the U.S.; however, only 31,000 are "mailable" zip codes. There are 228,000 block groups.

Claritas, Inc. makes projections based on five-year timeframes. The population of Illinois grew by 9.4% between 1990 and 2000, compared to 12% in the study area. Projections indicate that population in the study area is anticipated to grow by 3.6%, compared to 2.9% for Illinois. Average income levels in the study area grew by 46% between 1990 and 2000, from $36,374 to $53,112, compared to 72.5% for Illinois. Average income levels in the study area are anticipated to grow by 15.8% or to $61,501 in the next five years, compared to a 24.1% increase for the State of Illinois. Table 4-1 shows the population and number of households for the IVCR study area, defined as a five-mile wide band centered on the railroad right-of-way.

Table 4-1 Population & Households in 5-mile wide Study Area

	1990	2000	1990 - 2000		2006 Projection	2000 - 2006 % Change
			Change	% Change		
Population	212,095	237,634	25,539	12.0%	246,132	3.6%
Households	76,498	86,819	10,321	13.5%	90,208	3.9%

Source: Claritas Inc. Report, dated April 25, 2002

4.3 Projected Land Use

Meetings with the individual communities participating in the study, as well as other related agencies including Grundy County, LaSalle County, the Will County Center for Economic Development, the Illinois River Area Chamber of Commerce (serving Marseilles and Seneca), and the Illinois Valley Area Chamber of Commerce were held. This allowed the participants to indicate potential growth opportunities in the residential, commercial / industrial, and recreational / institutional areas.

An aerial map and a land cover map for the individual community were presented at each meeting to confirm existing conditions and to delineate future growth and development as it impacts ridership of the proposed new rail service. The parties participated in developing a graphic representation of the potential growth areas.

Information provided, when available from local communities, such as zoning and comprehensive plans, was used to support the data gathered during the meeting. These plans were reviewed for potential growth scenarios that would influence the demand for commuter rail. The growth indicated will not impose any direct conflict or assumptions that would significantly impact the feasibility of commuter rail in the Illinois Valley.

It should be noted that the IVCR study area is not contained within a Metropolitan Planning Organization (MPO). Joliet and Will County is within the Chicago Area Transportation Study (CATS), the Chicagoland MPO. The remainder of the IVCR study area falls outside the jurisdiction of the following MPO's or Regional Planning Commissions (RPC's): Tri-County RPC, Peoria; Rockford Area Transportation Study MPO, Rockford; and McLean County RPC, Bloomington. Therefore, information obtained varies by municipality. In addition, there is no zoning in LaSalle County.

Some communities had comprehensive plans with patterns of development that could be determined for the next five to ten years. Several communities do not have any such plans and are using outdated zoning plans. These communities do not show any indication of proposing zoning that would oppose development of rail. Projected land use for the corridor communities can be found in Appendix H.

Will County is currently experiencing unprecedented population and development growth. Will County adopted a Land Resource Management Plan in April of 2002. The intent and the desire behind the Forms and Use Concepts is to establish a long range vision that can serve as a coordinating mechanism to allow regional coordination at the same time that individual community planning efforts continue at the local level. As a part of the plan, a Land Resource Management Map was developed, which is located in Appendix I. Additional information can be found at http://www.willcountylanduse.com/lrmp/lrmpmain.html.

Grundy County has a Land Use Plan Year – 2010 Update. A copy of the Grundy County Land Use Plan Map – 2010 Update is located in Appendix I.

A county-wide zoning advisory referendum in LaSalle County was lost in March of 2002, and no county-wide map is included in this report.

The City of Ottawa has a Comprehensive Plan developed in 2002 for guiding future growth and development in and around the community. The Ottawa Future Land Use Plan Map can be found in Appendix I.

Below is a listing of the residential, commercial / industrial, recreational / institutional growth patterns, or projections for each municipality. Additional categories have been listed as appropriate for some municipalities.

MUNICIPALITIES

4.3.1 Joliet

The City of Joliet is the county seat of Will County. Joliet's current population is 106,000 residents and experienced a 38% increase in population between 1990 and 2000. Joliet is experiencing unprecedented growth and is now the third fastest growing city in Illinois. Future projections place Joliet's population at 120,580 by 2020 according to NIPC projections.

Residential

Growth is occurring along Canton Farm Road in Joliet with possible annexation. Presently the city limits are along Ridge Road that extend one mile into Kendall County and the city has a boundary agreement with Plainfield that it will not expand further to the north. The city is currently issuing 1,500 single-family home permits per year and 3,000 new unit permits per year. The Joliet Junior College constructed 364 new apartment units to offer on-site living for students, which opened in the fall of 2002.

Joliet is building a new waste treatment plant and subsequent residential development is expected in the Joliet, Shorewood, and Plainfield area.

Commercial / Industrial

Joliet has two business parks in the study area, South Field Business Park contains five lots on 67.5 acres, and Rock Run Business Park contains 35 lots on 386 acres. Rock Run has big box stores (big box stores are larger stores, an example of a big box store is Walmart).

The Joliet Arsenal Redevelopment project has diverse development activity including CenterPoint, an intermodal transportation hub. CenterPoint is a 1,100 acre site with a 17 million square foot industrial park suitable for distribution, warehouse, and light manufacturing uses. The CenterPoint intermodal facility is projecting 10,000 truck movements along with 88 train movements per day (Burlington Northern Santa Fe Railway). The Union Pacific Railroad will also access CenterPoint from their tracks along Route 53.

Will County is widening I-55 to improve access to the former Joliet Arsenal site. Further, Metra could potentially run a line southwest to the Arsenal by an extension of its SouthWest Service on what is presently the Norfolk Southern Railroad right-of-way.

Recreational / Institutional

The Medewin National Tallgrass Prairie will be part of the Joliet Arsenal Redevelopment. The proposed 1,900-acre prairie will be the largest of its type east of the Mississippi River.

The Joliet Arsenal Redevelopment site will also include the Abraham Lincoln National Veterans Cemetery where approximately 24 funerals are anticipated daily. This will be the second largest Veterans cemetery, with Arlington Cemetery as the largest.

These two aspects of the Joliet Arsenal Redevelopment project are anticipated to draw many visitors.

A 900-acre Nascar complex is a major recreational draw which hosts several National Series races in Joliet. Joliet has existing recreational trails, many with planned expansions.

The former State Prison located in Joliet is of a unique architectural style and is being considered for potential redevelopment by local business owners who are interested in converting the structure into an ethnic themed shopping plaza and market. Currently, the Department of Corrections will not provide access to the site; therefore, the potential future use cannot be determined.

Kendall County, which has students coming from the Joliet area, is building new schools to meet increasing demands.

Metra

There will be an increase in the number of Metra parking spaces. Joliet has received an IDOT Operation Green Light Grant for 50 new parking spaces at Eastern and Art Schultz Drive. The project is expected to be complete by Summer 2003. There is potential to add another 50 parking spaces on the south side of the existing Metra tracks on land previously purchased by Metra. There is an opportunity for an additional 200 parking spaces on the south side of the Metra tracks where the City has obtained appraisals of the land value. This development may occur within the next two years.

The City of Joliet is supportive of a station at Houbolt Road because it would help alleviate congestion at Union Station. Also, it is a prime location that is near the I-80 / I-55 interchange, and in close proximity to the Joliet Junior College. The Will County Forest Preserve owns property along the I&M Canal to Lockport.

4.3.2 Minooka

Residential

Residential growth is occurring in Minooka, and according to an article in the Chicago Tribune that interviewed the Mayor and Village Administrator of Minooka, there are 15 active subdivisions planned that will result in 3,688 new homes. As an example, the Chestnut Ridge subdivision near Ridge Road has 93 single-family homes priced from $159,000 to $210,000, and 83 townhomes priced from $118,000 to $147,000. The new subdivisions include a mixture of single-family homes, town homes, and duplexes.

Commercial / Industrial

Minooka is actively planning for commercial and industrial growth with the Year 2000 Comprehensive Land Use Plan that respects the Grundy County Land Use Plan. The Land Use Plan includes the Minooka Business Park which is primarily industrial with pockets of commercial areas. The Village of Minooka also has a 2002 Zoning Map that which shows that the majority of zoned land in Minooka includes manufacturing and residential areas. Minooka is seeking a larger sales tax base and there have been some discussions for attracting an auto mall.

Recreational / Institutional

There is no Park District in Grundy or Kendall County portions of Minooka. The Will County portion of Minooka is served by the Channahon (Township) Park District.

With the recent signing of the boundary agreement with the Village of Channahon, Minooka now has formal boundary agreements with all neighboring communities.

The existing wastewater plant cannot accommodate all of the proposed development at its current capacity. The Village is considering a new sewer and well plant, and is discussing the possibility of financial assistance from developers for the additional infrastructure.

Minooka has a new junior high and high school. The high school capacity is 1,500 students and 1,400 students registered for fall 2002 enrollment. The school district has purchased 120 acres on Route 52, and 80 acres in Channahon for future expansion if and when it becomes necessary.

Minooka is currently proposing a possible extension of the existing Rock Island Commuter Line from Joliet with a proposed commuter station near the intersection of Canal and Bell Roads.

Minooka is coordinating with Grundy County, Morris, and Channahon for the I-80 / Brisbin Road interchange.

4.3.3 Channahon

The Village of Channahon has a current Comprehensive Land Use Plan, Zoning Plan and a map of Future Development.

Residential

The Village Board of Channahon does not encourage residential growth, but focuses on commercial and industrial growth. Currently, there are approximately 150 building permits issued yearly and the Village Board would like to see that number remain static.

Commercial / Industrial

Channahon is seeking to grow a commercial and industrial base. Growth is planned along Route 6 which is currently annexed and zoned for heavy/light industrial use. Plans for highway service for the Route 6 / I-55 intersection include hotel/motel complexes and restaurants. The existing trailer park will be removed upon sale of the property. Channahon expects potential business interests in the Joliet Arsenal Redevelopment may cross-over into Channahon and create synergy along I-55 and Route 6.

The Village annexed and zoned approximately 2,700 acres of property for industrial use along the railroad right-of-way with the intention of utilizing the rail line for industrial purposes. Municipal utilities are not currently provided in this area but service is planned over the next few years. Industrial use of this line is Channahon's first priority and the Village wants to ensure that potential commuter rail service will not interfere with freight service along this line. The Village is working with the Grundy Economic Development Council to develop and market rail-served industrial sites along the rail line.

Recreational / Institutional

The proposed Town Center Plan is a Master Plan for a 100-acre mixed-use development that centers on creating a downtown area. The new Village Hall and Police Department recently constructed is located in the Town Center. Plans for the existing seven acres where the former municipal building is located have not yet been finalized.

The Channahon Park District operates a swimming pool, golf course, fitness center, parks and tot lots. The Channahon State Park serves as the trailhead for the 60-mile I&M Canal State Trail. The Village has zoned the area surrounding the Des Plaines River to the north and south of the city as a Park and Recreational District.

Channahon residents could benefit from a commuter rail station at Houbolt Road in Joliet.

Illinois Department of Transportation (IDOT)

The Village of Channahon is working with Grundy County, Minooka, the Grundy Economic Development Council, and local businesses to develop a new interchange at I-80 and Brisbin Road. The interchange is currently in Phase I of project development. Phase II and Land Acquisition for this new interchange is funded in IDOT's 2003-2007 five-year plan.

Plans exist for widening Route 6 from the I-55 interchange west to the DuPage River to four lanes with a center turn lane. The plans are complete and construction is programmed for Summer 2003.

4.3.4 Morris

The City of Morris is the county seat of Grundy County. Morris updated its zoning map in 2000, and developed a Comprehensive Plan in 2002.

Residential

Residential growth is occurring west of the City. The Rockwell Estates is a new development with larger homes priced at $225,000 - $500,000. This development is located between I-80 and Route 6, west of Ashton Road near the Morris County Club and Nettle Creek. This is a mixed-use development and comprises 108 lots, of which 25 have been sold and developed. The undeveloped land upon which the *Rockwell Estates* subdivision is being developed is offered for sale in three sections or in bulk. These sections consist of: one unimproved 12-acre parcel of 94 lots zoned single-family (R1), one 10-acre commercial lot (B3) and one 27.9-acre multifamily parcel (R4). Additionally, 21 improved lots are still available at prices ranging from $35,000 to $55,000 per lot. Source: *Rockwell Estates* website.

Commercial / Industrial

Grundy County is the only county in the State of Illinois that assesses machinery and equipment as real estate. It is considered personal property in other counties and not subject to property tax. Because machinery and equipment are subject to property taxes, this creates a disincentive for heavy industry to locate in the county.

Morris Municipal - James R. Washburn Field Airport serves Morris and Grundy County and is owned by the City Of Morris. The City is in the process of expanding the airport. At this time the airport does not provide commercial flights, but serves private, corporate and small jets. As an example, customers of the Morris Airport go to the Ritchie Brother Auctioneers located nearby. The paved runway extends for 4,000 feet. The airport is located on Route 47, approximately 4 miles from Downtown Morris. Air traffic is growing as the expansion grows. Currently there are three to four charter flights per month, but as expansion continues, and planes are based at the Morris Airport, it is anticipated that there will be three to four charter flights per week.

The Morris Hospital is currently an 82-bed hospital serving Grundy County and parts of Will, Kendall, LaSalle, and Livingston Counties, employing 600 people. This hospital is located at 150 West High Street, at Route 6 and Lisbon Road, approximately a mile north northwest of the potential IVCR station in Morris. The hospital is expanding, and when complete it will be a third to a half larger than the original size.

A Costco Distribution Center recently opened and employs approximately 100 employees. The previously vacant Wal-Mart building has become a “Big R” store.

The City would like to purchase or rent the eight-acre site of a former paper mill for the relocation of their public works building that is currently at capacity.

Recreational / Institutional

The Morris Airport draws recreational flyers and competitors for Sky Dive Illinois.

White Oak is a new kindergarten through fifth grade school that can accommodate 1,300 students and currently has over 900 students. The school employs approximately 80 people and is located on Dupont Road, approximately two miles northwest of the potential IVCR station in Morris.

Engineering is complete for adding an additional lane to Route 6 from Route 47 to Saratoga Road; however, it is not in the IDOT 2003-2007 five-year plan.

4.3.5 Seneca

The Village of Seneca revised their Comprehensive Plan in 2002.

Residential

There is a three-phase residential development planned in the former Spicer Gravel Pit. While there is some multi-family residential development in Seneca, the majority of planned development is continued growth of single-family subdivisions.

Commercial / Industrial

Seneca seeks more industrial development in their Land Use Plan. Industrial growth is planned for the south side of Route 6, which will allow for access to the rail line.

Approximately 2,000 acres of Commonwealth Edison property is planned for auction; currently the land is agricultural.

The Land Use Plan promotes the development of a Central Business District Plan.

Recreational / Institutional

Seneca currently has several marinas and received a $200,000 grant for the development of a public boat launch. The Land Use Plan recognizes the importance of the surrounding natural resources with development related to recreational opportunities such as boating and camping. Seneca hosts an annual Summer Fest the third week of August, attracting 3,000 - 4,000 people. The Summer Fest is in its third year and attendance is growing.

The historic red grain elevator in downtown Seneca underwent a $1 million restoration and hosts a museum and visitors center.

4.3.6 Marseilles

The City of Marseilles has a zoning ordinance that was adopted in 1989 and current zoning maps dated spring of 2002.

Residential

According to the 2000 US Census, Marseilles was the only community in the IVCR study area that lost population over the last decade. The City believes the census was not accurate and is completing its own count.

Commercial / Industrial

The City of Marseilles would like to direct growth towards I-80 with future infrastructure expansion.

Recreational / Institutional

The National Guard Station has undergone an $11 million expansion with the addition of permanent barracks. This facility will be used for summer training of 10,000 Illinois National Guardsmen who are currently trained in Wisconsin. The facility will also serve the State Police and FBI. The facility employs approximately 30 people and is located south of downtown Marseilles, approximately two miles from the proposed IVCR train station.

The former Rock Island train station in Marseilles is currently being used as a health clinic. Employees at the clinic have received inquiries regarding train schedules even though no service is currently available.

Marseilles no longer has a high school in the community and there is concern that due to a lack of tax base they may not be able to support their existing elementary school in the future. This correlates with the decrease in population. Currently the school employs 110 people and has 650 students.

4.3.7 Ottawa

The City of Ottawa is the county seat of LaSalle County. Ottawa is finalizing a Comprehensive Plan, which encompasses not only the geographic area included within the corporate limits, but also unincorporated areas within its one-and-one-half mile extra-territorial zoning jurisdiction. A plan that specifically focuses on the downtown area is in the process of being developed. Ottawa has a zoning ordinance, and an active planning staff with GIS capabilities.

Residential

The City of Ottawa is anticipating residential growth on the south side of Ottawa. The City Comprehensive Plan aims to contain residential growth south of I-80 and identifies concepts of diverse forms of residential growth like rural residential, hamlet residential and non-traditional residential.

A developer is proposing mixed-use development including duplexes and townhouses within a marina off of Gentleman Road; an Army Corps permit has been obtained for the development.

Commercial / Industrial

Ottawa's Comprehensive plan actively seeks to preserve their Central Business District (CBD) as a vital part of the community. There is a proposal for an upscale resort and conference center at the confluence of the Illinois and Fox Rivers. The proposal includes 300 guestrooms and, a 600-room conference facility. The City is engaged in negotiations with a national hotel chain. This development would serve the Chicago Area, tie into the park and historic downtown, and be only a half-mile from the proposed train station (The former Rock Island train station is currently being used by CSX Transportation).

Recreational / Institutional

A consulting firm prepared a plan for the City to develop gateway parks for a connected parkway system throughout some of Ottawa's neighborhoods. The goal of the system is to

create a half mile walk from the neighborhoods to small community parks. There is currently no park zoning classification or funding for the proposed 29 miles of parkway and trails that have been planned.

Ottawa expects the installation of commuter rail service to serve recreational access needs due to their proximity to Starved Rock State Park and the Illinois River. There is vacant land south of the existing train station that could provide potential parking for the station.

4.3.8 Utica

The Village of Utica has a 2002 Comprehensive Plan, current maps of their corporate limits, and a current zoning map.

Residential Growth

Utica's residential population is primarily single-family homes located west of Illinois 178. Larger single-family homes have been built most recently on County Route 28 and are similar to traditional suburban development with larger lot sizes. The Comprehensive Plan identifies the area to the north and west of Utica for potential residential development as housing demands increase in north central Illinois. There is little multi-family or low-income housing in Utica. There is, however, a mobile home complex on the east side of the Village.

Utica is considered a bedroom community because it is less than an hour commute to Joliet where commuters can access Metra to Chicago. Growth potential is limited because there are wetlands to the east, along with a private hunting club.

Commercial / Industrial Growth

Utica realizes the importance of expanding up to I-80. Funding for a sewer system is in the bank, and the Village is in negotiation with property owners for easements. The Village recognizes some growth in light industrial and commercial businesses. The Comprehensive Plan identifies future industrial development could occur near the intersection of Illinois 178 and Route 6 if utilities connections are completed.

The Central Business District in Utica consists of a five block area. Due to it's proximity to Starved Rock, the retail stores provide more niche shopping catering to tourists. The recent addition of a new hotel in Utica provides opportunity for tourists to stay in the Village instead of nearby LaSalle/Peru or Ottawa. This has created additional sales tax revenue for Utica.

Recreational / Institutional

Due to the physical location of Utica on the Illinois River, some of the land is un-developable and is in a conservation zoning category. Utica has two parks for recreational use as well as being adjacent to Starved Rock State Park. Results of a community survey indicate that the residents of Utica would like an additional park in their community. Potential locations for a new park are identified as either a part of a subdivision on the northwest side or on undeveloped land north of the Illinois River. The Village Central Business District is frequented during local festivals such as the annual Burgoo Irish Stew Festival.

There is community support for the rehabilitation of the existing, abandoned train station in Utica. Individuals currently drive to Mendota to access Amtrak trains into Chicago. A commuter rail service would provide access to the recreational opportunities in and around Utica.

4.3.9 LaSalle

The City Administration is proactive to growth. The Comprehensive Plan however, has not been updated since the 1960's. The current zoning map is from the year 2001.

Residential Growth

Population increased by less than 100 between 1990 and 2000. The development of the Illinois Cement property for residential and recreational development by the City is on hold because of conflicts with adjacent landowners. New single-family homes are being developed east of I-39, south of I-80, with potential future residential growth north up to I-80.

Commercial / Industrial Growth

LaSalle is planning for a new wastewater treatment plant and is in the process of acquiring land at the location of a current dump site.

The City Chamber of Commerce offers a façade grant program where half of the improvement cost is paid as incentive to drawing new businesses into the downtown area. The City is also involved with an Illinois Department of Commerce and Community Affairs (DCCA) Revolving Door Fund program to assist local businesses. There is competition for commercial development with Peru due to a dramatic disparity in monthly sales tax revenue between the municipalities.

LaSalle has a mobile workforce that commutes to larger cities located within an hour drive like Rockford, Aurora, Joliet, Peoria, Bloomington, and the Quad Cities.

The Army Corps application for a potential marina on the Huse Lake wetlands development is on hold because of a nearby dumpsite. It is undergoing an EPA study.

Recreational / Institutional

LaSalle's proximity to several parks and the Illinois River are a draw for recreational tourism. The LaSalle Speedway attracts a large number of spectators from throughout the Midwest.

The City Engineer illustrated the topographic obstacle, the Little Vermillion River, to the cross-town road discussed in the Peru corridor community meeting.

At present, individuals drive approximately 20 miles from LaSalle to Mendota and take Amtrak to Chicago for work and retail opportunities.

4.3.10 Peru

The City of Peru has recently updated zoning maps and a zoning ordinance (2001).

Residential

The City is contemplating growth south of the Illinois River and there are plans to add water and sewer to the area within the next five years. This growth would be primarily residential. There has been some residential development south of I-80.

Commercial / Industrial

Peru was ranked 14th nationally in industrial/commercial growth of areas with a population of 50,000 or less. Peru has experienced growth in both the industrial and commercial sectors. Much of the growth in Peru is related to the transportation network in Peru with proximity to

I-39 running north/south, I-80 running east/west, rail lines, river barge movement and the general aviation airport which has a 6,000 foot runway that can accommodate private jets.

The Peru Mall is a major employer, however, because the land is unincorporated, the Dalzell School District (rather than the Peru School District) receives the sales tax receipts that exceed $5.5 million per year.

The City continues to have an unusually high unemployment rate. Peru's workforce is mobile because Peru is located one hour away from Rockford, Aurora, Joliet, Peoria, Bloomington, and the Quad Cities.

Recreational / Institutional

Peru is located at the western end of the I&M Canal. Peru's local park hosts annual festivals. The Central States Baseball Tournament is held annually in Peru.

Illinois Valley Community College and St. Bede Academy are located near Peru. A new theater at the local high school hosts productions that draw large audiences.

COUNTIES

4.3.11 Will County

Recreational

There is a water park in operation in Joliet near the Empress Casino. Additionally, there is a proposed theme park at the I-80 / Houbolt Road interchange which is expected to be constructed in approximately one to two years. The proposed theme park is planned for dual seasons, summer would be a Renaissance Fair (similar to the Bristol Fair in Kenosha, Wisconsin), and fall is proposed to be a Wild West theme.

4.3.12 Grundy County

Residential

Approximately 5,000-6,000 new housing units are planned for the Ridge Road corridor from Route 52 to Route 6 within the next five years. Due to a new sewer plant in Coal City, a significant increase in both residential and industrial development is expected in the Reed Road area which is adjacent to I-55.

Proposed development on Pine Bluff Road includes 143 units over a three-year period. At Lanham Station an individual owns 2,400 acres with 62 building permits. This property is adjacent to the river and the County is unsure of the owner's plans for the area. A development in Eldamor-Lisbon, located in Kendall County, would tie into Lisbon Road in Grundy County. Given environmental reasons of crossing the Fox River this project is approximately seven to eight years in the future. Within a two-and-a-half mile ring around Minooka (some in Channahon) there are several thousand homes. North of I-80, along Ridge Road, there is potential for 800-900 new homes. This proposal would include land on Tabler Road which is currently unincorporated. Lakewood Homes, located south of Minooka, is in Phase I development for 800 homes and is expected to expand.

Commercial / Industrial

Catellus Corporation owns a 600-acre industrial park along Minooka Road, which includes the 1.2 million square foot Kellogg Warehouse. Industrial growth is planned for Ashley Road, specifically light industry that needs the Morris Airport. Longer runways were added to the Morris Airport in 2002, and water and sewer services will be extended to the airport within the year 2003. Executives of corporations located in Grundy County use this airport.

The majority of industrial growth potential is located between Minooka, Channahon, and Morris. There is approximately 20,000 acres zoned or planned for industrial use on either side of Route 6. Grundy County is also experiencing industrial development along Route 6, Grove Road and Brisbin Road.

Recreational / Institutional

The County has multiple recreation opportunities including the I&M Canal and Goose Lake Prairie which is located off of Pine Bluff Road and includes an education center, trails, a wildlife refuge, and hunting and fishing opportunities. Festivals draw a large number of tourists annually to the County. A Statewide Basketball Shoot Out Tournament is held in Morris. The Route 66 Raceway draws hundreds of thousands of people from around the country. The raceway hosts Nascar, and is a venue for outdoor concerts.

Other

There is a new Illinois River Bridge under construction, which will allow better access south of the river, and provide an opportunity for future commercial and residential development along Route 47. There are no plans for water and sewer service for this area at the present time.

Two studies that are included in the Will County Transportation Plan that will have an impact on residents of Grundy County include, the Metra Heritage Corridor Line expansion to Wilmington and the Metra Rock Island District Line expansion to Minooka. These possible Metra expansions will be tested with Pace bus routes.

The GREAT Transit System (Grundy County Expanded Area Transit System) may not fully be able to accommodate commuters, due to hours of operation (Monday through Friday, 7:00 a.m. to 4:00 p.m.). There are approximately 145-150 riders/month with some regularly scheduled passengers. The fee is $2.50/trip. Kendall County has approached GREAT for expansion of service for their residents. Currently Grundy and Kendall Counties are working on an intergovernmental agreement. Presently, there is one 26-passenger bus, with a possible new 14-passenger bus in the fall of 2002.

The Brisbin Road interchange on I-80 is included in the Illinois Department of Transportation's (IDOT) five-year plan. This will allow increased commercial and industrial development south, east, and west of the interchange. The proposed Prairie Parkway would tie into I-80, two miles west of Minooka. This proposed highway corridor is a central corridor through Grundy, Kendall and Kane counties for a future transportation facility to serve regional traffic providing a link between Interstate 80 and Interstate 88; approximately a 35-mile corridor. This would have a significant impact on development in the surrounding area.

In 1963, Minooka High School had 200 students and Morris High School had 760, in 2000 Minooka High School had 1,400 students and Morris had 1,000. Residents are concerned

about the impacts growth may have on services. Minooka estimates the need for three new schools, and has begun site selection. A referendum for funding will be coming in the future.

Potential for reverse commuters from the City of Chicago includes the $350 million expansion of Midwest Generation and PG&E companies, which will generate new, high-paying jobs.

The proposed Peotone Airport would be located 30 miles east of the Grundy County border. It would be the third airport in the Chicagoland area and would have a major impact on Grundy County.

4.3.13 LaSalle County

Residential

A large amount of growth is occurring in northeastern LaSalle County. The number of registered voters, for example, doubled between 1990 and 2000 in Lake Holiday. There is also population growth in the northern communities of Leland and Earlville. LaSalle County has experienced some residents relocating from other suburbs, like Naperville, to the County.

Commercial / Industrial

There is no county level zoning for LaSalle County. Zoning was defeated in 1970, 1994, and most recently in April 2001. The County feels a commuter transfer at Joliet would be a disincentive for riders. The County proposes that a commuter schedule include two a.m. and two p.m. trains. The cost saving of a commuter train versus the cost of parking in the City of Chicago could serve as an incentive for riders.

OTHER ORGANIZATIONS

4.3.14 Will County Center for Economic Development

Job growth is occurring in Will County due in part to the problems with the tax code in Cook County. This growth is expected to continue. Examples of this growth include a large industrial area located off of I-80 on the Grundy County side of Channahon that is currently available for development. Currently there are 99 business parks in Will County. Additional business parks are being developed in Grundy and Kankakee Counties where land is less expensive than in the north. The former Olin Chemical 700-acre site is for sale. The land is in unincorporated Will County that is not contaminated and is served by rail. New commercial growth is occurring along the I-57 corridor. If the Peotone Airport is constructed then the Metra Electric Rail Line would likely provide commuter service to Chicago from this site.

The Will County Center for Economic Development provided information on the Joliet Arsenal Redevelopment/CenterPoint project. Information on this as it relates to commercial, industrial, recreational and institutional land uses and growth can be found under Joliet, Section 4.3.1, of this report.

4.3.15 Illinois Valley Area Chamber of Commerce

Residential

There is a large amount of growth occurring in the northeast and northern portions of LaSalle County. Residential development is occurring south of Wenzel Road, south of the Oak Ridge Golf Course, and north of the golf course across Route 6 to I-80. The development consists of higher end single-family houses and some duplexes.

Commercial / Industrial

There is discussion in Peru for a cross-town road which would relieve congestion from the Peru Mall. The road would connect with US Route 6. If this road were built, it would open up large parcels of land for development that are currently agricultural.

Recreational / Institutional

At a meeting in the fall of 2001, discussing potential commuter rail service along the rail line, a number of people supported the project. There are some residents who drive to different municipalities with Metra service (i.e. Mokena), and they indicated that they often find the parking lots at or near capacity.

4.4 Roadway Improvements

The Illinois Department of Transportation's (IDOT) State Fiscal Year (SFY) 2003-2007 Proposed Highway Improvement Program has been obtained and reviewed and is the source for information provided in this section of the report. The total five-year program for SFY 2003-2007 equals $8.45 billion. IDOT divides the state into nine Highway Districts. The IVCR study area includes portions of Will, Grundy and LaSalle Counties. Will County is in IDOT District One, and Grundy and LaSalle Counties are in IDOT District Three.

Below is an overview for Districts One and Three. A table showing the state and local highway projects included in the SFY2003-2007 Proposed Highway Improvement Program can be found in Appendix J.

4.4.1 IDOT District One

Overview

IDOT District One encompasses six counties in northeastern Illinois and includes the City of Chicago, suburban Cook County, and the five collar counties of DuPage, Kane, Lake, McHenry and Will. The state highway system in District One consists of 3,072 miles of highways and 1,745 bridges, supporting more than 97.0 million miles of travel daily.

State Program

The program for state and local highways will average $1.69 billion annually for the SFY 2003-2007 period. Approximately $3.2 billion will be provided during SFY2003-2007 for improvements to state highways in District One. The following table summarizes anticipated accomplishments on the state highway system in District One during this time.

SFY2003-2007 DISTRICT 1 PROPOSED ACCOMPLISHMENTS	
Interstate Rehabilitation (miles)	71
Interstate Bridges (number)	94
Other Bridge Rehab/Replace (number)	123
Resurfacing/Widening (miles)	265
Major Highway Construction (miles)	101
Traffic/Safety Improvements (locations)	185

Major projects of interest that are tentatively scheduled during the SFY2003-2007 period in the study area include the following:

Interstate 55 at Arsenal Road
District One has programmed $30 million for interchange reconstruction, bridge replacement, land acquisition, lighting, and engineering during SFY2004-2007. This work will be done concurrently with redevelopment of the Joliet Arsenal facility, which when completed, will be the largest inter-modal facility in the nation. Level of traffic is anticipated to be in the range of 3,400 vehicles per day to 30,600 vehicles per day by 2020. More information on the Joliet Arsenal redevelopment project can be found in Section 4.3.1.

There are approximately 20 state and local projects in District One in the IVCR study area. A list of these projects can be found in Appendix J. Examples of the state and local projects range from improved signage and bridge repairs, to interchange reconstruction of I-55 and I-80. It is anticipated that none of the IDOT projects will negatively impact this potential IVCR service.

4.4.2 IDOT District Three

Overview
IDOT District Three encompasses 11 counties in central and eastern Illinois. It includes the municipalities of Bloomington-Normal, Kankakee, LaSalle/Peru, Mendota, Morris, Oswego, Ottawa, Pontiac, Streator, and Watseka. The state's highway system in District Three consists of 2,096 miles of highway and 923 bridges.

The State of Illinois has proposed to spend $400 million between SFY2003-2007 to improve roads and bridges in District Three. Within this budget are 60 state and local projects that fall within the study corridor. Several of these projects are highlighted below with the rest of them listed in Appendix J.

State Program
The program for state and local highways is estimated to average $1.69 billion annually during the SFY2003-2007 period. Approximately $400 million will be provided during SFY2003-2007 for improvements to state highways in District Three. The following table summarizes anticipated accomplishments on the state highway system in District Three during this time.

SFY2003-2007 DISTRICT THREE PROPOSED ACCOMPLISHMENTS	
Interstate Rehabilitation (miles)	37
Interstate Bridges (number)	23
Other Bridge Rehab/Replace (number)	49
Resurfacing/Widening (miles)	475
Major Highway Construction (miles)	6
Traffic/Safety Improvements (locations)	49

Major projects that are tentatively scheduled during the SFY2003-2007 time frame in the study area include the following:

Interstate 80 East of Morris to the Will County Line
District Three has rebuilt the westbound lanes and programmed $28.3 million in SFY2003 for bridge replacement, bridge superstructure, and reconstruction of 7.6 miles of the eastbound lanes and shoulder. It has also programmed a $1.5 million reconstruction of the Minooka interchange at Ridge Road for SFY2004-2007.

Illinois 47 over the Illinois River at Morris in Grundy County
District Three has built an approach roadway and two two-lane southbound bridges over the Illinois River and I&M Canal. The approach roadway and two bridges cost $18.9 million. It has programmed $14 million in SFY2003 for removal of the two two-lane northbound bridges and construction of their replacements. TEA-21 provided nearly $14.3 million in High Priority Project Funds. The northbound structure over the Illinois River is funded through the Major Bridge Program.

Illinois 170 Bridge at Seneca over the Illinois River in LaSalle County
District Three has the preliminary engineering for a location and design report and an environmental impact statement programmed at $600,000 in SFY2003 for a bridge over the Illinois River in Seneca. This is a new two-lane bridge project that has been approved for Major Bridge Program funding and is programmed during SFY2003-2007 at a cost of $11.5 million.

Reviewing the IDOT 2003-2007 five-year plan, there are approximately 60 state and local projects in District Three in the IVCR study area. The list of these projects can be found in Appendix J.

4.5 Regional Projects that Could Impact a Potential Illinois Valley Commuter Rail Service

Below is a listing of regional projects that could impact a potential IVCR service. Information about these projects came from IDOT Division of Public Transportation, along with the Chicago Area Transportation Study's (CATS) Regional Transportation Plan (RTP). CATS is the metropolitan planning organization for Northeastern Illinois. The RTP recommends major transportation projects, systems, policies and strategies designed to maintain the existing systems and serve the region's future travel needs. More information can be found at the CATS RTP website: http://www.catsmpo.com/progs/rtp-sum00.htm.

4.5.1 Union Pacific-West (UP-W) Line Extension to LaFox, Elburn

This project proposes an eight mile extension of the UP-West Line with stations at LaFox and Elburn. The proposed extension of the UP-W line will serve Virgil, Kaneville, Campton, and Blackberry Townships in central Kane County and will be open for revenue service in the first quarter of 2006. The overall project is currently 5% complete, and under construction. Metra relied on the CATS travel demand model to provide a ridership forecast. This proposed extension is under a FFGA (Full Funding Grant Agreement) with the US DOT Federal Transit Administration (FTA) and is currently under construction.

4.5.2 Metra SouthWest Service (SWS) Enhancement and Expansion

This project, presently under construction, is a 12.3 mile extension on the Norfolk Southern Railroad and will have stations at Laraway Road and Manhattan. It will serve Jackson, Manhattan, Florence, and Wilton Townships in central Will County. Metra expects to begin revenue service from Orland Park to Manhattan in the first quarter of 2007. Metra relied on the CATS travel demand model to provide a ridership forecast. Federal New Start funding has been obtained for this project.

Metra will also perform the following work on this line:

1. Construction of a 3.3 mile second main track between 123rd Street in Palos Park and 143rd Street in Orland Park.
2. Expansion of the 179th Street Yard and construction of a new yard and layover facility in Manhattan.
3. Upgrade of the existing tracks and signals from 74th Street to Manhattan to accommodate additional trains and operating speeds.
4. Upgrade of nine existing stations along the SouthWest Service Line to accommodate increased ridership.
5. Purchase of three diesel locomotives.
6. Construction of a new Palos Heights Station.

4.5.3 Elgin Joliet and Eastern (EJ&E)

The potential Outer Circumferential Service would link Metra's radial lines. A Phase I Feasibility Study of this line proposed a new 50 to 60-mile commuter rail line in portions of Lake, northwestern Cook, DuPage, Will, and southern Cook Counties. Phase I found this service to be feasible, and Metra is currently in the second phase of its feasibility study. As part of Phase II, Metra has begun reviewing a draft copy of the route alternatives and is beginning to develop ridership estimates.

4.5.4 Kane/Kendall County Extension

This is a study for the possible extension of the Metra-BNSF Chicago-Aurora Commuter Rail Service into Kane and Kendall Counties. Phase I found this service to be feasible, and the project is now undergoing a Phase II Feasibility Study. Possible station locations include Montgomery, Oswego, Yorkville and Plano. All station sites will be designed for incorporation of park-and-ride and feeder bus facilities. This study will determine whether the service should extend only as far as Oswego, or be implemented all the way to Plano. Phased implementation is possible.

4.5.5 Heritage Corridor

In its Future Agenda for Suburban Transportation, Metra stated that it may extend more than fifteen miles, over the Union Pacific Springfield District to Wilmington. This extension would

serve Jackson, Channahon, Florence, Wilmington, Reed, Custer, and Wesley Townships in southwestern Will County. Near Wilmington, this railroad passes through the closed Joliet Arsenal.

Metra has talked with the Joliet Arsenal's managers about serving this property, but no agreements have been developed. They hope to resume talks with Joliet Arsenal's managers in 2003.

Metra just finished working on conceptual alignments, costs, and designs for railroad grade separations at Brighton Park (MP 5.1), Corwith (MP 6.6), LeMoyne (MP 7.9), and Argo (MP 13.1). Completion of these grade separations should increase the line's on-time performance.

5.0 POTENTIAL IMPROVEMENTS

The following section lists and describes potential improvements needed for the Illinois Valley Commuter Rail (IVCR) service to operate based on a feasibility level analysis. The potential improvements include railroad infrastructure, railroad operations, stations and parking sites, shuttle service and environmental impacts. Each of these categories is discussed below.

5.1 Railroad Infrastructure

5.1.1 Track Investments Required

Substantial infrastructure improvements are necessary for maintaining the existing level of freight service and sustaining a fast and reliable commuter rail service. The line is primarily single track with limited existing sidings for train meets. During the day, local trains that are switching customers occupy the track for extended periods, which limit the operating windows that commuter trains need. Therefore, the following track additions are required: 1) sidings where road trains can meet, and 2) sidings that local switching engines can occupy to leave the main track open. By keeping switching crews away from extended main track occupancies, road trains can operate with minimal delays and the line's fluidity can improve. The following list describes major additions needed to the infrastructure:

- A second main track between Rockdale (mile post (MP) 43.3) and the east side of Morris (MP 61.3). This is necessary to keep CSX westbound trains moving when they are running late in the morning and accommodate potential early section CSX eastbound trains.
- Three sets of universal crossovers in the Rockdale-Channahon segment will permit two large road trains to be held for commuter trains. This capacity is needed when freight trains are held out of Metra's territory. The siding from Rockdale to Larkin Avenue would function as a yard lead, but would have a powered turnout on its east end. This turnout would allow freight trains into and out of the trackage without having to wait for train crews to throw the switches.
- The existing passing siding at Seneca would be extended through the yard to the east, providing enough space for the Seneca local train to work without occupying the main track and for road trains to deliver and pick up cars, leaving the main track open for other through moves. Additional tracks would also be constructed to replace those currently used for industry storage cars that would be lost because of construction of the siding.
- Trackage on Marseilles' East Side would be reconfigured to enable the Ottawa-Marseilles switching engine to pull all the way off the main track while serving its customers. On Marseilles' West Side, additional tracks would be built, providing a control siding for train meets and space for the Ottawa-Marseilles switching engine to work without occupying the main track. Also, additional tracks would be constructed to replace those currently used for industry storage cars that would be lost because of the siding construction.
- A by-pass track would be constructed around Ottawa Yard so that through commuter trains do not interfere with yard operations. An alternative, not costed in this feasibility study, would be to expand the yard.

- At some locations, additional storage tracks have been provided off passing sidings to allow local trains to switch cars out of the through trains' path and to replace those tracks that will be rehabilitated for use as mains and control sidings.
- Even with the significant investments outlined, operation of mid-day service may not be practical without further improvements.
- The order-of-magnitude cost estimates do not include infrastructure investments on Metra tracks. While a modest increase in the number of trains on Metra appears feasible, Metra will want to be compensated for some of their capital investments and will likely assess IVCR for a pro-rata of future projects required.

5.1.2 Track Rehabilitation Required

The following assumptions underlie the track rehabilitation cost estimates:

- The existing jointed rail will not dependably support 79 MPH commuter rail operations. New 136 pound welded rail would be installed, along with new OTM – other track materials – (tie plates, anchors, etc.) on the main track and will allow for 79 MPH commuter rail operations.
- The second main and sidings would be upgraded with relay welded rail fabricated from materials released during the main track relays. By selecting the best of the released rail for the second main track, operating speeds of 60 MPH, at a minimum, can be obtained. It is possible that 79 MPH can be obtained for commuter trains, but they will not normally use this track. New or relay 14" tie plates would be utilized on the second main. The sidings will be rehabilitated with tie plates released from the main track relays.
- All existing switches will be replaced with new materials.
- All second hand rail will have rail grinding performed on it to smooth out minor surface imperfections.
- The mains and control sidings would be surfaced with high quality ballast and fully timbered with 1,400 new ties per mile. Some additional shoulder ballast would be provided where it is now deficient.
- The existing ballast section would be shoulder cleaned and some muddy spots would be undercut.
- All road crossings would be reworked in conjunction with the track rehabilitation.
- Freight speeds on the new and rehabilitated main tracks could be raised to 50 MPH, at CSX's discretion.

5.1.3 Structures and Roadbed

Overall, bridges were assumed to be in good shape and some roadbed improvements needed:

- Some funds have been provided for structural repairs on spans that remained in place when the original second track was retired. Some of these spans will be required to reestablish either second tracks or provide passing sidings. This provision has been made without the benefit of detailed inspection.
- New decks have been provided for the three multiple span deck girder bridges.

- Brush will be cut and ditching performed to ensure good drainage. West of Ottawa, where a problem with erosion from old sand quarries exists, a new ditch line will be opened and new cross drainage provided.
- Some funding is provided for relocation of the fiber optic cable, even though it was installed clear of the old second track at most locations.

Des Plaines River Bridge
The Des Plaines River Bridge is a movable bridge that was constructed in 1930 and used daily for freight operations. It has a two-track, 301 foot clear span vertical lift and open deck construction with two ballasted deck approach spans. One of these spans is 152 feet long and the other is 104 feet long, giving a total overall bridge length of 557 feet. Only one track is used, while the other one has been abandoned. The bridge is structurally sound. Formal inspections are done every year with quarterly inspections being done on the mechanical and electrical equipment. Underwater inspections are done every five years. The bridge is manned Monday through Friday from 2 a.m. to 10 p.m. and from 2 a.m. to 12 p.m. on weekends.

For purposes of this report, it can be assumed that there will be no up-front structural costs for this bridge. Track rehabilitation costs for the entire bridge are included in the order-of-magnitude cost estimates. In future phases of the study process, shared maintenance costs will need to be addressed.

5.1.4 Signals and Crossing Warning Devices

In order to provide highway competitive transit times, train speeds are assumed to be 79 MPH. The 79 MPH design speed was chosen because faster speeds require much more expensive signal systems and higher track standards. The Rock Island in the 1950s ran trains up to 90 MPH on this stretch of track, but had running times that were only marginally better than 79 MPH. Still, for 79 MPH operation, federal regulations require a signal system. The best value signal system is Centralized Traffic Control (CTC) which has a dispatcher controlling the desired train movements by setting wayside signal displays and the switches. Use of this type of remotely controlled dispatching allows trains to pass in either direction with minimal delays. Assumptions of the new signal system are the following:

- The signal system will be Centralized Traffic Control (CTC).
- The signal system will provide bi-directional running on the main tracks and signaled sidings.
- All switches at the ends of sidings will be power operated and dual control.
- All spur or industry tracks directly tying into the main tracks or controlled sidings will be equipped with electrically locked hand-throw switches.
- The control circuitry for all at-grade road crossings will be upgraded using grade crossing predictors (GCPs).
- Current crossings without train activated warning devices will be upgraded with gates, flashers, and bells.
- Existing proven technology will be used.

Actual signal placement is dependent on many factors and will be determined in subsequent design work. Automatic block signals are spaced between sidings based on braking

distances for both commuter and freight operations. Maintainer access, power feeds, and track curvature, which impact the train engineer's line of sight to the signal, are also used to evaluate actual signal locations.

5.2 Railroad Operations

Potential IVCR trains would be expected to leave LaSalle/Peru around 5:00 a.m. to 7:00 a.m. to serve passengers reaching downtown Chicago for normal workdays. Evening return trips would leave Joliet around at 5:30 p.m. to 7:30 p.m.

5.2.1 CSX Transportation

Potential IVCR trains will conflict with many of CSX's current train assignments, assuming inbound early morning and outbound early evening schedules. Almost all of their train assignments have some of their operations extending into the time when commuter trains would run. The track improvements noted in Section 5.1.1 are designed to mitigate what otherwise would be numerous conflicts. The following is a summary of conflicts between existing CSX and potential IVCR trains:

- The Rockdale local train starts after inbound IVCR trains would pass, and appears to end before the outbound IVCR trains would come through. With the Rockdale train potentially serving Minooka every day as a new customer increasingly receives more cars, it would increase the likelihood of conflicting with outbound commuter trains.
- The Seneca-Morris local train works Seneca during the day, then works the Morris area by early evening, when outbound IVCR trains could be expected.
- The Ottawa-Marseilles local train works on Marseilles' East Side when outbound IVCR trains would pass through.
- The daytime Ottawa Yard job starts about the same time that the latest inbound IVCR train would pass.
- The evening yard job would be on duty when outbound IVCR trains are scheduled.
- The Ottawa-Henry local train is on duty in the afternoon and evenings. On the days when it only works Seneca, it would most likely return to Ottawa before outbound IVCR trains would pass. On the other days when it works to Henry, it could conflict with outbound IVCR trains on its return to Ottawa.
- The current eastbound CSX Ottawa-Chicago area through train is scheduled to go ahead of the morning inbound IVCR trains. If an earlier second section of this train occurs, as described above, it will meet the outbound IVCR trains somewhere on this line.
- The CSX westbound Chicago area-Ottawa train will meet inbound IVCR trains on this line.

5.2.2 Iowa Interstate Railroad

Based on IVCR inbound early morning and outbound early evening schedules, IVCR trains will precede Iowa Interstate Railroad (IAIS) trains in both directions, with the latest IVCR times possibly overlapping IAIS's earliest time. On the rare occasions that IAIS and IVCR trains would have overlapping times, the IVCR train would be expected to take precedence, and, once on the road, will travel much faster. Once the IVCR train is in front by a few miles,

there is little likelihood the IAIS train will catch up and be further delayed. The additional sidings provided in Section 5.1.1 will greatly increase the flexibility of dispatching their trains across the line.

5.2.3 Illinois RailNet

The only spot where the Illinois RailNet and potential IVCR trains would conflict is where the lines cross on a diamond in Ottawa.

IVCR trains that originate in LaSalle/Peru to serve passengers that travel to downtown Chicago for normal work days would be expected to pass through Ottawa around 5:30 a.m. to 7:30 a.m. IVCR trains that would make evening return trips would pass through Ottawa at 6:30 p.m. to 8:30 p.m. Based on these schedules, there is not a conflict. On the rare occasions that a conflict may exist, the potential IVCR trains would likely occupy the crossing for approximately five minutes, from the time the train passes the approach signal until it finishes, occupying the crossing.

5.2.4 Metra

IVCR service is expected to bring new passengers to the line that will require additional seats on Metra's portion of the route. It is not practical to expect Metra to absorb new IVCR passengers into the existing Metra service without making provisions to expand seating on existing Metra services.

Even though Joliet Union Station's capacity for the Rock Island service is constrained, Metra appears to have line capacity on the remaining portion of the Rock Island service between Joliet and LaSalle Street Station in both rush hours. Metra also appears to have additional rush hour station capacity at the LaSalle Street Station. In other words, the only portion of Metra's Rock Island service with capacity constraints is Joliet Union Station.

Metra might be able to accommodate IVCR train service by having some of the existing Metra trains originate and terminate at New Lenox and by using IVCR trains for some of its Joliet passengers. The Metra trains that get bumped out of Joliet would then originate and terminate at New Lenox, the first station east of Joliet. Substituting New Lenox as the originating and terminating station is operationally feasible since Metra's Joliet storage yard lies between New Lenox and Joliet, before the end of its double track. Therefore, the New Lenox trains can move between the station and the storage yard on a portion of the line that has the line capacity to handle these moves. Metra already does this with one evening rush hour train, when station time at Joliet is limited.

A second Metra service to Chicago Union Station, the Heritage Corridor, originates at the Joliet station, but on a crossing track. Connecting the IVCR to the Heritage Corridor can only be done through an awkward back up move, but would still necessitate IVCR trains to make use of the single track Rock Island side of the station.

Assuming IVCR trains run through to LaSalle Street Station, storage of the IVCR trains is needed in the daytime on the Metra portion of the route. It is assumed that Metra facilities can accommodate the equipment during the day.

5.3 Station and Parking Sites

This study analyzed potential station locations for the IVCR service, and determined eight locations. Below is a list of the potential station locations; the cost estimates can be found in Chapter 7.

The cost of station acquisition has not been accounted for in the order-of-magnitude cost estimates, when use of an existing rail station facility is recommended. In some instances, other entities are currently using the former Rock Island stations and may require shared use of the facility. Land acquisition costs have not been included in the order-of-magnitude costs for any of the potential eight stations.

The Study Team conducted meetings with mayors/administrators/managers, engineers, planners and other community representatives from each municipality to identify potential station sites. For some communities, the identified station site is a former Rock Island station. Not all potential stations sites are identified in master plans, comprehensive plans, or transportation plans.

A map that shows potential station sites is located in Appendix H. The cost estimates for stations and parking sites are preliminary in order to give an order-of-magnitude cost and have been developed using 2002 dollars. In the current Metra system, municipalities fund a portion of the station and parking lot expenses.

5.3.1 Houbolt Road / Empress Road

The Houbolt Road/Empress Road site is located near the Joliet Junior College and the interchange of Interstates 80 and 55.

Based on the potential 2010 ridership forecast, this location will require a three-car low level platform that is 10 feet wide by 255 feet long; a warming shelter that is approximately 16 feet by 48 feet inside with roof coverage of approximately 32 feet by 74 feet; and a 750 stall parking lot. Additional land would be required on the northeast or northwest quadrant to permit construction of a warming shelter and parking lot.

5.3.2 Minooka

The former Rock Island station that served Minooka no longer exists. The station was located on the north side of the tracks, and is now a parking lot serving the municipal center.

Based on the potential 2010 ridership forecast, this location will require a three-car low level platform 10 feet wide by 255 feet long; a warming shelter that is approximately 16 feet by 48 feet inside with roof coverage of approximately 32 feet by 74 feet; and an 80 stall parking lot. Additional land would be required on the northeast or northwest quadrant to permit construction of a warming shelter and parking lot.

5.3.3 Morris

The old Rock Island station at Morris is still in use, functioning as the Grundy County Chamber of Commerce and Industry. This station is in excellent condition and requires minimal remodeling to convert back to a passenger station.

Based on the potential 2010 ridership forecast, this location will require a three-car low level platform that is 10 feet wide by 255 feet long, and an 85 stall parking lot. This station site's

largest cost would involve potential displacement of the Chamber of Commerce and improvement or expansion of the existing parking lot. This location may require additional land to accommodate the expanded parking requirements.

5.3.4 Seneca

In Seneca, remnants of an old Rock Island depot are located off of Main Street. This wooden facility seems is in very poor condition. Due to special track work crowding the building, and its current state, rehabilitation of this station is not recommended.

Based on the potential 2010 ridership forecast, this location will require a three-car low level platform that is 10 feet wide by 255 feet long; a warming shelter that is approximately 16 feet by 48 feet inside with roof coverage of approximately 32 feet by 74 feet; and a 15 stall parking lot. Additional land would be required on the northeast or northwest quadrant to permit construction of a warming shelter and parking lot.

5.3.5 Marseilles

The old Rock Island station at Marseilles is still in use, functioning as a medical clinic. This station is in excellent condition and requires minimal remodeling to convert back to a commuter rail station.

Based on the potential 2010 ridership forecast, this location would require a three-car low level platform that is 10 feet wide by 255 feet long and a 35 stall parking lot. The largest cost to this station site would derive from potential displacement of the medical clinic and improvement or expansion of the existing parking lot. This location may require additional land to accommodate the expanded parking requirements.

5.3.6 Ottawa

The CSX Railroad is currently using the original Rock Island station at Ottawa. This facility appears to be in fair condition. With some exterior and interior work this facility can be converted back into a commuter rail station that is shared with CSX.

Based on the 2010 ridership forecast, this location would require a three-car low level platform that is 10 feet wide by 255 feet long and a 130 stall parking lot. The largest cost to this location derives from improving or expanding the existing parking lot. This location may require additional land to accommodate the expanded parking requirements.

5.3.7 Utica

In Utica, remnants of an old depot seem to remain at Mill Street. This brick facility is in very poor condition. Due to special track work crowding the building and its current state, rehabilitation is not recommended.

Based on the 2010 ridership forecast, this location will require a three-car low level platform that is 10 feet wide by 255 feet long; a warming shelter that is approximately 16 feet by 48 feet inside with roof coverage of approximately 32 feet by 74 feet; and a 15 stall parking lot. Additional land would be required on the southwest quadrant to permit construction of a warming shelter and parking lot.

5.3.8 LaSalle / Peru

The old Rock Island station located at Creve Coeur Street serving LaSalle and Peru is in fair to poor condition and currently serves as a home and garden store. This current location

has no handicap accessibility. For these reasons, this station is not recommended for rehabilitation. A new station located in a more central location would better serve both communities.

Based on the 2010 ridership forecast, this location will require a three-car low level platform that is 10 feet wide by 255 feet long; a warming shelter that is approximately 16 feet by 48 feet inside with roof coverage of approximately 32 feet by 74 feet; and a 130 stall parking lot. Additional land would be required on the southwest quadrant to permit construction of a warming shelter and parking lot.

5.4 Commuter Rail Support Facilities

Storage of the IVCR trains is needed in the daytime and nighttime. It is assumed that the operational expenses for running over Metra's tracks would include fees for facilities that accommodate the equipment during the day. At night, the trains will need to be close to the end of the line, requiring Illinois Valley to construct and operate a layover facility. Since the equipment is assumed to be Metra compatible, Metra or other third party shops in the Chicago area can perform the heavy maintenance. Therefore, it is assumed that no heavy maintenance shops are needed. The order-of-magnitude cost estimate for the layover facility can be found in Chapter 7.

5.5 Shuttle Services

Consideration should be given to instituting a shuttle service that would serve existing Chicago commuters in the Illinois Valley. This shuttle service could help build a market for this potential commuter rail service.

One type of shuttle service could be a bus rapid transit (BRT) system, which is a well-defined bus system that combines various technologies, operating practices and design features to substantially upgrade bus system performance. BRT systems are designed to increase schedule reliability, improve passenger convenience and reduce travel times. Reduction of delays is key to BRT.

BRT is not a typical bus system. Technology advancements allow buses to provide transit-like service, but at lower capital costs. BRT systems use high-quality buses on busways or guideways, heavily traveled arterial streets and high-occupancy vehicle (HOV) lanes. Other major features of BRT include bus signal priority, traffic management improvements, station improvements, advanced boarding and fare collection route flexibility, queue jumpers, running ways and inclusive transitways.

Potential benefits of BRT compared to rail service include the following:

- Lower capital costs
- Comparable operating costs
- Incremental implementation
- Lower vehicle costs
- Comparable average operating speeds
- Flexibility

BRT may include other benefits not listed.

5.6 Environmental Impacts

To determine the potential environmental impacts of the IVCR service, information from the Illinois Geographic Information System (IGIS) and the Illinois Department of Natural Resources (DNR) have been mapped and reviewed. Given the IVCR corridor is an existing freight rail corridor, environmental impacts are relatively minor. The environmental features map for the IVCR corridor can be found in Appendix F. These maps depict wetlands, flood zones, streams, natural areas, and state parks for the study corridor.

6.0 POTENTIAL RIDERSHIP

6.1 Methodology

To determine a range of potential riders for IVCR service, a sketch-planning level of analysis was conducted. This analysis included a review of comparable commuter rail systems throughout the country that serve major metropolitan areas from a distance similar to that of the IVCR service. This potential service is a 60-mile corridor that runs from LaSalle/Peru east to Joliet with continuing service to Chicago, an additional 40-mile trip, resulting in a 100-mile total trip. These comparable commuter rail systems are shown in Table 6-1.

Table 6-1 Comparable Commuter Rail Systems

System Name	Metropolitan Area Served	Distance
Northeastern Indiana Commuter Transportation District (NICTD)	South Bend, Indiana to Chicago, Illinois	90 miles
Metro-North Railroad (MNR)	Upstate New York to New York City	Port Jervis Line: 95 miles Upper Harlem Line: 82 miles Upper Hudson Line: 73 miles
Metra	Metropolitan Illinois to Chicago, Illinois	UP-NW Line: 63 miles NCS Line: 53 miles UP-N Line: 52 miles UP-McHenry Line: 51 miles Milw-N Line: 50 miles
Amtrak (Downeaster Portland Line)	Portland, Maine to Boston, Massachusetts	116 miles
Altamont Commuter Express (ACE)	San Francisco Bay Area (Stockton to San Jose, California)	84 miles
Northstar *	Rice to Minneapolis, Minnesota	82 miles

* Northstar's ridership numbers are projections. The Northstar Corridor has undergone the NEPA process as well as, Preliminary and Final Engineering. It is awaiting local financial commitments in order to obtain a Full Funding Grant Agreement.

These systems were categorized into mile post ranges that equate to the distance from the city served. Table 6-2 shows the mile post ranges and the number of stations that fall within those ranges.

Table 6-2 Mile Post Ranges

Distance Range	Number of Stations
41 – 50 Miles	11
51 – 60 Miles	12
61 – 70 Miles	9
71 – 80 Miles	6
81 – 90 Miles	5
91 Miles and Above	4
6 Distance Ranges	**47 Stations**

6.1.1 Ridership

To determine potential ridership for each distance range, ridership data was obtained from the comparable systems listed above. The information that these systems provided came from various years. For example, Metra and NICTD's data came from 1999, while Amtrak's Downeaster ridership data came from 2002. For purposes of this analysis, all of the data was converted to the year 2010. Metra has used this base year for forecasting many of its commuter rail feasibility studies. Although the IVCR service is outside of Metra's service area, it was assumed that Metra would operate this service.

Ridership data for the comparable systems was inflated to 2010 using two rates of inflation to determine a ridership range. The inflation rates were determined by looking at some of the comparable system's historical ridership data, which showed annual growth rates ranging from 3% to 10%. Stations located the furthest distance on the line have experienced annual growth rates ranging from 3% to 9%. Since all of the comparable systems are mature and some of them serve bigger metropolitan areas (e.g., Metro-North Railroad serving New York City), the existing ridership numbers for each distance range were inflated from the year that the data was received to 2010 by both 2% and 5%. These inflation rates seem reasonable since 2% and 5% are lower than the historical growth rates of comparable systems. As a cross-check, the Gross Domestic Product (GDP), an indicator of economic growth, is increasing by approximately 3% per year.

Because the comparable systems' data for each distance range was consistent at the AM peak level, it was used in this analysis and inflated by 2% and 5%. Each system's inflated ridership data was then classified as low, average, and high.

Using the 2% growth rate, the comparable systems' average AM peak ridership would be approximately 1,800 riders. Because all of these comparable systems are mature and some serve larger metropolitan areas, it is reasonable to assume that IVCR service may not attract the average level of ridership initially. Therefore, for initial service the Study Team assumed capacity for approximately 75% of the peak ridership, or 1,350 passengers. Based on this, for purposes of developing order-of-magnitude capital costs, initial service levels are assumed to be three three-car trains per day (three AM and three PM). The AM peak capacity for three three-car trains is 1,350 passengers.

The potential IVCR's stations were placed within six distance range categories (e.g., 41-50, 51-60 miles, etc.). To determine potential ridership for each Illinois Valley Commuter Rail

station, the 2000 population of each municipality was calculated as a percentage of the total IVCR study area and can be found in Table 6-3.

Table 6-3 IVCR 1990 & 2000 Population & 2000 Population as Percent of the Study Area

Municipalities	1990	2000	1990 - 2000 % Change	2000 Population as % of Study Area
Joliet	76,836	106,221	38.2%	60.7%
Channahon	4,266	7,344	72.2%	4.2%
Minooka	2,561	3,971	55.1%	2.3%
Morris	10,270	11,928	16.1%	6.8%
Seneca	1,878	2,053	9.3%	1.2%
Marseilles	4,811	4,655	-3.2%	2.7%
Ottawa	17,451	18,307	4.9%	10.5%
N. Utica	848	977	15.2%	0.6%
Peru	9,302	9,835	5.7%	5.6%
LaSalle	9,717	9,796	0.8%	5.6%
Total	**137,940**	**175,087**	**26.9%**	**100.0%**

Source: U.S. Census. American FactFinder website of U.S. Census Bureau; http://factfinder.census.gov/servlet/BasicFactsServlet

In order to determine how many parking spaces should be planned for in this initial feasibility stage, the mode of arrival for the Metra system was reviewed. According to the 1999 passenger survey data (the most current Metra data), the mode of arrival to stations in the Metra system was distributed as follows:

Metra Systemwide Mode of Access	Percentage
Walk	23%
Drove Alone	54%
Drop Off	13%
Carpool Driver	2%
Carpool Passenger	2%
Transit	4%
Biked	1%
Other	1%

Source: 1999 Metra Passenger Survey

Given the locale of potential IVCR stations, to approximate the number of parking spaces, a factor of 65% was applied to the projected riders.

Table 6-4 shows the average level of ridership per distance range divided by the population of the Illinois Valley municipality and the estimated number of parking spaces. The table shows the potential a.m. peak ridership for IVCR stations based on the comparable systems' 2% and 5% annual growth rate. Ridership has been allocated to each municipality's station as percentage of its (the municipality's) population as it relates to the total population of the study area. The number of parking spaces is based on a 65% calculation of the potential ridership.

Table 6-4 Potential Ridership by IVCR Station & Estimated Parking Spaces

IVCR Station Falling Within Mile Range	Number of Stations	Population as % of Study Area Municipalities	Potential Ridership - 2% Growth Rate	Estimated Parking Spaces	Potential Ridership - 5% Growth Rate	Estimated Parking Spaces
41 - 50 Mile Range Houbolt Road	1	60.7%				
Low Ridership			85	55	109	71
High Ridership			3,954	2,570	5,213	3,330
Average Ridership			1,152	749	1,498	974
51 - 60 Mile Range Minooka	1	6.5%				
Low Ridership			9	6	12	8
High Ridership			421	274	546	355
Average Ridership			123	80	160	104
61 - 70 Mile Range Morris	1	6.8%				
Low Ridership			10	6	12	8
High Ridership			444	289	575	374
Average Ridership			129	84	168	109
71 - 80 Mile Range Seneca & Marseilles	2	3.8%				
Low Ridership			5	4	7	4
High Ridership			250	162	324	210
Average Ridership			73	47	95	61
Seneca		*1.2%*				
Low Ridership			*2*	*1*	*2*	*1*
High Ridership			*76*	*50*	*99*	*64*
Average Ridership			*22*	*14*	*29*	*19*
Marseilles		*2.7%*				
Low Ridership			*4*	*2*	*5*	*3*
High Ridership			*173*	*113*	*225*	*146*
Average Ridership			50	33	66	43
81 - 90 Mile Range Ottawa	1	10.5%				
Low Ridership			15	10	19	12
High Ridership			681	443	883	574
Average Ridership			198	129	258	168
91 & Above Mile Range Utica & LaSalle/Peru	2	11.8%				
Low Ridership			17	11	21	14
High Ridership			767	499	994	646
Average Ridership			223	145	291	189
Utica		*1.0%*				
Low Ridership			*1*	*1*	*2*	*1*
High Ridership			*65*	*42*	*84*	*55*
Average Ridership			*19*	*12*	*25*	*16*
LaSalle/Peru		*11.0%*				
Low Ridership			*15*	*10*	*20*	*13*
High Ridership			*717*	*466*	*929*	*604*
Average Ridership			*209*	*136*	*272*	*177*
IVCR Total Stations:	**8**	**100.0%**				
Low Ridership			**141**	**91**	**180**	**117**
High Ridership			**6,517**	**4,236**	**8,445**	**5,489**
Average Ridership			**1,898**	**1,234**	**2,469**	**1,605**

6.1.2 Population

Along with ridership data, the municipal population served by stations in the comparable systems was analyzed. Population trends have been developed using 1990 and 2000 U.S. Census data. The average population for 1990 and 2000 as well the percentage change for each of the distance range categories has been calculated.

These calculated averages were compared with municipal populations in the study area. For some of the distance range categories, the absolute values of the 1990 and 2000 population were greater for the comparable systems, and for some categories, greater for the Illinois Valley. The growth rate between 1990 and 2000 was also studied. The IVCR municipalities are growing at a higher rate in two of the six distance ranges.

Population for some station locations (eight of the 47 stations in the comparable systems) is not available. The names of these eight station locations do not represent free-standing governmental units (cities, towns, townships), nor Census Designated Places, per a discussion with a representative of the U.S. Census Bureau Population Distribution office (November 14, 2002).

Table 6-5 shows the 1990 and 2000 population for each municipality in the distance ranges, along with the average for the distance range. The same data is shown for municipalities in the IVCR service.

Table 6-5 1990 & 2000 Population for Municipalities of Comparable Systems & IVCR Municipalities

MP	System, Station, Municipality, State	Population			
		1990	2000	1990-2000 Change	1990-2000 % Change
	11 Stations Within the 41 – 50 Mile Range				
41	MNR – Upper Hudson Line, Peekskill, Peekskill, NY	19,536	22,441	2,905	14.9%
43	ACE – Stanislaus County, Vasco, Vasco, CA	**			
45	MNR – Port Jervis Line, Harriman, Harriman, NY	2,288	2,252	(36)	-1.6%
46	NICTD, Dune Park, Dune Acres, IN	263	231	(32)	-12.2%
46	Metra – Milw-N, Long Lake, Long Lake, IL	2,888	3,356	468	16.2%
46	Metra – NCS, Round Lake Beach, Round Lake Beach, IL	16,434	25,859	9,425	57.4%
48	Metra – NCS, Lake Villa, Lake Villa, IL	2,857	5,864	3,007	105.3%
48	Metra – Milw-N, Ingleside, IL	**			
48	Northstar, Becker, Becker, MN	902	6,763	5,861	649.8%
50	MNR – Upper Hudson Line, Garrison, NY	**			
50	Metra – Milw-N, Fox Lake, Fox Lake, IL	7,478	9,178	1,700	22.7%
	Average Population:	**6,581**	**9,493**	**2,912**	**44.3%**
	Potential Illinois Valley Service				
	Joliet – Houbolt Rd	*76,836*	*106,221*	*29,385*	*38.2%*
	12 Stations Within the 51 - 60 Mile Range				

MP	System, Station, Municipality, State	Population			
		1990	2000	1990-2000 Change	1990-2000 % Change
51	Metra – UP-McHenry, McHenry, McHenry, IL	16,177	21,501	5,324	32.9%
51	Amtrak – Downeaster, Exter, Exter, NH	9,556	23,817	14,261	149.2%
52	Metra – UP-NW, Woodstock, Woodstock, IL	14,353	20,151	5,798	40.4%
52	Metra – UP-N, Kenosha, Kenosha, WI	80,352	90,352	10,000	12.4%
53	MNR – Upper Hudson Line, Cold Spring, Cold Spring, NY	1,998	1,983	(15)	-0.8%
53	Metra – NCS, Antioch, Antioch, IL	6,105	8,788	2,683	43.9%
55	MNR – Port Jervis Line, Salisbury Mill, Cornwall on Hudson, NY	3,093	15,365	12,272	396.8%
56	NICTD, 11th St/Michigan City, Michigan City, IN	33,822	32,900	(922)	-2.7%
56	Northstar, Clear Lake, Clear Lake, MN	315	1,896	1,581	501.9%
58	NICTD, Carroll Ave/Michigan City, Michigan City, IN	33,822	32,900	(922)	-2.7%
59	MNR – Upper Hudson Line, Beacon, Beacon, NY	13,243	13,808	565	4.3%
60	MNR – Upper Harlem Line, Patterson, Patterson, NY	8,679	11,306	2,627	30.3%
	Average Population:	**18,460**	**22,897**	**4,438**	**24.0%**
	Potential Illinois Valley Service				
	Minooka	*2,561*	*3,971*	*1,410*	*55.1%*
	Channahon	*4,266*	*7,344*	*3,078*	*72.2%*
	Subtotal:	**6,827**	**11,315**	**4,488**	**65.7%**
	9 Stations Within the 61 - 70 Mile Range				
62	Amtrak – Downeaster, Durham, Durham, NH	9,236	21,688	12,452	134.8%
62	ACE – Stanislaus County, Tracy, Tracy, CA	33,558	56,929	23,371	69.6%
63	Metra – UP-NW, Harvard, Harvard, IL	5,975	7,996	2,021	33.8%
64	MNR – Upper Harlem Line, Pawling, Pawling, NY	1,974	9,754	7,780	394.1%
64	MNR – Upper Hudson Line, New Hamburg, NY	**			
66	MNR – Port Jervis Line, Campbell Hall, Goshen & Maybrook, NY	8,057	8,760	703	8.7%
66	Northstar, St. Cloud East, St. Cloud, MN	48,812	59,107	10,295	21.1%
68	Amtrak – Downeaster, Dover, Dover, NH	20,024	26,884	6,860	34.3%
69	MNR – Upper Harlem Line, Harlem Valley - Wingdale, NY	**			
	Average Population:	**18,234**	**27,303**	**9,069**	**49.7%**
	Potential Illinois Valley Service				
	Morris	*10,270*	*11,928*	*1,658*	*16.1%*
	6 Stations Within the 71 - 80 Mile Range				
72	MNR – Port Jervis Line, Middetown, Wallkill, NY	2,125	26,802	24,677	1161.3%

MP	System, Station, Municipality, State	Population			
		1990	2000	1990-2000 Change	1990-2000 % Change
73	MNR – Upper Hudson Line, Poughkeepsie, Poughkeepsie, NY	68,987	72,648	3,661	5.3%
75	NICTD, Hudson Lake, IN	**			
75	ACE – Stanislaus County, Lathrop, Lathrop, CA	6,841	10,445	3,604	52.7%
77	MNR – Upper Harlem Line, Dover Plains, Dover Plains, NY	1,847	1,996	149	8.1%
80	MNR – Upper Harlem Line, Ten Mile River, NY	**			
	Average Population:	**19,950**	**27,973**	**8,023**	**40.2%**
	Potential Illinois Valley Service				
	Seneca	*1,878*	*2,053*	*175*	*9.3%*
	Marseilles	*4,811*	*4,655*	*(156)*	*-3.2%*
	Subtotal:	**6,689**	**6,708**	**19**	**0.3%**
	5 Stations Within the 81 - 90 Mile Range				
81	MNR – Port Jervis Line, Otisville, Otisville, NY	1,078	989	(89)	-8.3%
81	Northstar, Rice, Rice, MN	610	845	235	38.5%
82	MNR – Upper Harlem Line, Wassaic, NY	**			
84	Amtrak – Downeaster, Wells, Wells, ME	7,778	9,400	1,622	20.9%
84	ACE – Stanislaus County, Stockton, Stockton, CA	210,943	243,771	32,828	15.6%
90	NICTD, South Bend Airport, South Bend, IN	105,511	107,789	2,278	2.2%
	Average Population:	**65,184**	**72,559**	**7,375**	**11.3%**
	Potential Illinois Valley Service				
	Ottawa	*17,451*	*18,307*	*856*	*4.9%*
	4 Stations Within the 91 & Above Mile Range				
95	MNR – Port Jervis Line, Port Jervis, Port Jervis, NY	9,060	8,860	(200)	-2.2%
100	Amtrak – Downeaster, Saco, Saco, ME	15,181	16,822	1,641	10.8%
104	Amtrak – Downeaster, Old Orchard, Old Orchard, ME	7,789	8,856	1,067	13.7%
116	Amtrak – Downeaster, Portland, Portland, ME	64,358	64,249	(109)	-0.2%
	Average Population:	**24,097**	**24,697**	**600**	**2.5%**
	Potential Illinois Valley Service				
	Utica	*848*	*977*	*129*	*15.2%*
	LaSalle	*9,717*	*9,796*	*79*	*0.8%*
	Peru	*9,302*	*9,835*	*533*	*5.7%*
	Subtotal:	**19,867**	**20,608**	**741**	**3.7%**

Source: 1990 and 2000 Population, U.S. Census
****** Not a free-standing governmental unit (city, town, township), nor a Census Designated Place, per U.S. Census Bureau Population Distribution office.

Given the current population and growth trends, it is reasonable to assume that potential ridership would exist to begin service with three three-car trains. The 2000 Census shows a positive growth rate for the Illinois Valley. Table 6-6 shows the population and number of households for the IVCR study area, defined as a five-mile wide band centered on the railroad right-of-way, as well as, the 1990 and 2000 population and the population projection for 2006. Claritas, Inc., a provider of geo-demographic market research based on census data, made the 2006 projection.

Table 6-6 Population & Households in 5-mile wide Study Area

	1990	2000	1990 – 2000		2006 Projection	2000 – 2006 % Change
			Change	% Change		
Population	212,095	237,634	25,539	12.0%	246,132	3.6%
Households	76,498	86,819	10,321	13.5%	90,208	3.9%

Source: Claritas report, dated April 25, 2002

An analysis of Table 6-6 concludes that:

- Population for the IVCR study area grew by 12.0% from 1990 - 2000 compared to 9.4% for the State of Illinois.
- Projections indicate population in the IVCR study area is anticipated to grow by 3.6% over the next five years, compared to 2.9% for the State of Illinois.
- Households in the IVCR study area grew by 13.5% from 1990 – 2000 compared to 9.9% for the State of Illinois.
- Projections indicate that the number of households in the IVCR study area is anticipated to grow by 3.9% over the next five years, compared to 3.2% for the State of Illinois.

In addition, the following information was gathered from other reports:

- Average income levels in the IVCR study area grew by 46.0% from $36,374 to $53,112, compared to 72.5% for the State of Illinois.
- Average income levels in the IVCR study area are anticipated to grow by 15.8% in the next five years, compared to 24.1% for the State of Illinois.

6.2 Metra License Plate Survey

Metra provided license plate survey data that was collected in April 2002. The methodology for the license plate survey is as follows: Metra staff and/or consultants go to station parking lots, type license plate numbers into handheld computers, and then match that data to the Department of Motor Vehicles database maintained by the Secretary of State. Using the handheld computers (rather than handwriting the license plate numbers and then keying in the information) has led to higher match rates. The April 2002 survey had an approximate 90% match rate.

Metra provided information obtained from the license plate survey shows the number of vehicles that are registered in the counties of the study area. The counties in the study area

are portions of Will County, and Grundy and LaSalle Counties. For purposes of ridership, Metra also included data from Bureau County, the county to the west of LaSalle County. Table 6-7 shows the county in which the vehicle is registered and what station that vehicle used.

Table 6-7 Metra License Plate Survey Data

Metra Station	County				Total
	Bureau	Grundy	LaSalle	Will (Fraction)	
103rd St.				3	3
107th St.				3	3
111th St., Morgan Park		1		2	3
80th St., Tinley Park	1	1	1	2	5
Arlington Heights				1	1
Arlington Park			2	1	3
Aurora	1	1	12		14
Belmont	1			4	5
Berwyn				2	2
Big Timber				1	1
Blue Island				1	1
Buffalo Grove				1	1
Calumet				1	1
Cicero				1	1
Crystal Lake				1	1
Downers Gr. Fairview				2	2
Downers Gr. Main St.				5	5
Elmhurst			1	1	2
Evanston				1	1
Galewood				1	1
Geneva		1	3		4
Hegewisch				1	1

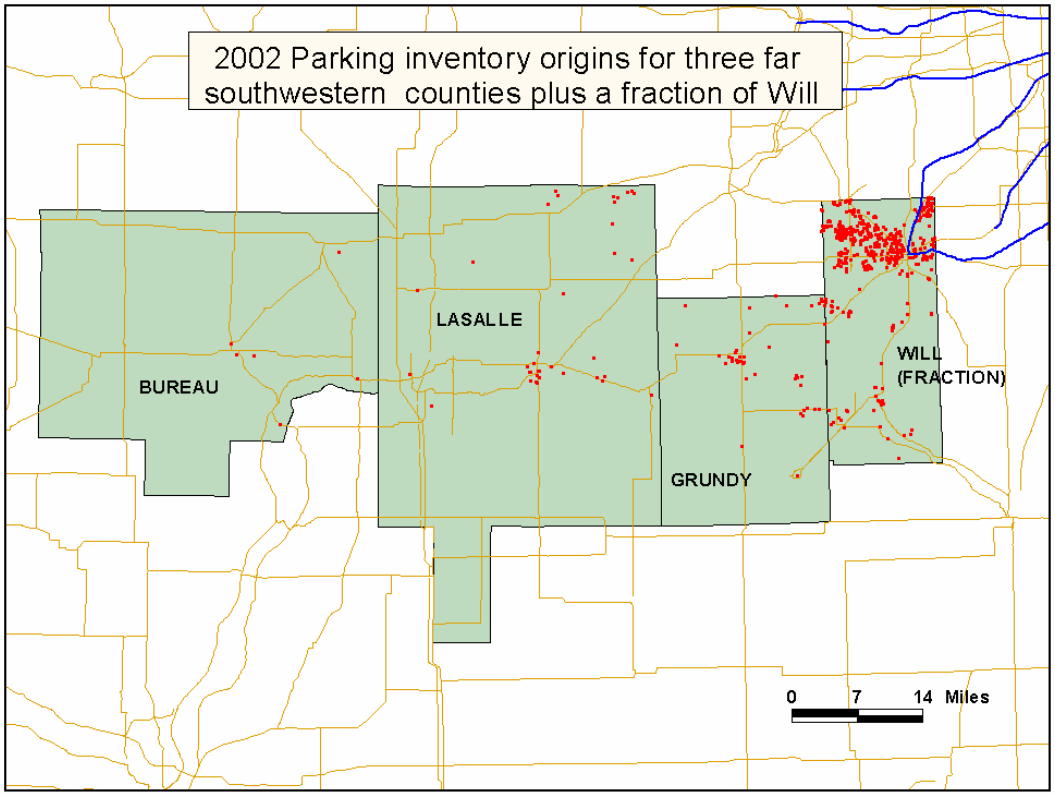
Metra Station	County				Total
	Bureau	Grundy	LaSalle	Will (Fraction)	
Hickory Creek		1	2	19	22
Hinsdale			1	1	2
Homewood			1	1	2
Joliet	1	30	5	241	277
Kenilworth				1	1
Kensington, 115th St.			1		1
LaGrange Road			1		1
Lake Forest (West)				1	1
Lavernge				1	1
Lemont				12	12
Lisle				4	4
Lockport		1		54	55
Midlothian				2	2
Mokena				1	1
Montclare				1	1
Mount Prospect				1	1
Naperville			1	4	5
New Lenox		7	2	72	81
Oak Forest				1	1
Oak Park			1		1
Orland Park				2	2
Orland Park (153rd)				6	6
Orland Park (179th)				2	2
Riverside				1	1
Roselle		1			1
Route 59	2		2	104	108

Metra Station	County				Total
	Bureau	Grundy	LaSalle	Will (Fraction)	
Shaumburg			1		1
University Park		1		3	4
Vermont, Blue Island				1	1
Willow Springs				1	1
TOTALS:	**6**	**45**	**37**	**572**	**660**

Source: Metra, Office of Planning and Analysis ; April 2002 license plate survey.

The map in Figure 6-1 shows graphically, the portions of Will County, Grundy, LaSalle, and Bureau Counties. The dots indicate where the vehicle was registered that was parked in one of the Metra train station parking lots.

Figure 6-1 Metra Parking Inventory Origins



Source: Metra, Office of Planning and Analysis.

7.0 FINANCIAL FEASIBILITY

This section of the report discusses order-of-magnitude costs for instituting the Illinois Valley Commuter Rail (IVCR) service. It identifies, in general, locations for upgrades of the existing conditions to accommodate commuter rail.

Further along in the study process, a line capacity analysis will need to be completed to determine what additional improvements are necessary in order to institute commuter rail service.

7.1 Rail Facility Upgrades

7.1.1 New Track Construction

Highlights of new track construction are:

- Second main track from Joliet to Morris.
- Extension of the Seneca passing siding through support track areas adjoining it.
- Siding extension west of Marseilles, creating a control siding.
- By-pass track around Ottawa Yard.
- At some locations, additional storage capacity in the form of sidings.

A more detailed description can be found in Section 5.1.1. Table 7-1 summarizes the new track construction cost estimates.

Table 7-1 New Track Construction Cost Estimates*

Line Segment	New Main Tracks	Other Support Tracks	New Switches	Totals
Des Plaines River – Houbolt Road	$0	$578,000	$1,081,000	$1,659,000
Houbolt Road – Minooka	$5,134,000	$0	$572,000	$5,706,000
Minooka – Morris	$7,867,000	$0	$701,000	$8,568,000
Morris – Seneca	$1,367,000	$491,000	$499,000	$2,357,000
Seneca – Marseilles	$76,000	$318,000	$417,000	$811,000
Marseilles – Ottawa	$438,000	$605,000	$758,000	$1,801,000
Ottawa – Utica	$2,002,000	$0	$694,000	$2,696,000
Utica – LaSalle/Peru	$0	$0	$158,000	$158,000
TOTALS	**$16,884,000**	**$1,992,000**	**$4,880,000**	**$23,756,000**

* Costs are based on 2002 dollars.

7.1.2 Track Rehabilitation Required

The majority of the upgrade expenses involve rehabilitating existing track, crossings and roadbed. Highlights of the track rehabilitation include the following:

- New 136 pounds per yard welded rail would be installed, along with new OTM (tie plates, anchors, etc.) on the main track.
- The second main and control sidings would be upgraded with relay welded rail fabricated from materials released during the main track relays. New or relay 14" tie plates would be utilized on the second main. The sidings will be rehabilitated with tie plates released from the main track relays.
- All existing switches would be replaced with new materials.
- All second hand rail would have rail grinding performed on it to smooth out minor surface imperfections.
- New track would include installation of 1,400 new ties per mile of main and side tracks.
- All main and side tracks would be surfaced using high quality ballast. Some additional shoulder ballast would be provided in some areas.
- Existing ballast section would be shoulder cleaned; muddy spots would be undercut.
- All road crossings would be rebuilt in conjunction with track rehabilitation.

A more detailed description can be found in Section 5.1.2. Table 7-2 below summarizes the track rehabilitation cost estimates.

Table 7-2 Track and Structures Rehabilitation and Right-of-Way Improvements Cost Estimates*

Line Segment	Track Rehabilitation	Grading & Right-of-Way	Crossings	Bridges	Totals
Des Plaines River – Houbolt Road	$4,704,000	$1,547,000	$114,000	$594,000	$6,959,000
Houbolt Road – Minooka	$3,935,000	$1,941,000	$86,000	$733,000	$6,695,000
Minooka – Morris	$5,893,000	$2,753,000	$84,000	$410,000	$9,140,000
Morris – Seneca	$6,318,000	$1,979,000	$81,000	$453,000	$8,831,000
Seneca – Marseilles	$2,828,000	$1,048,000	$117,000	$105,000	$4,098,000
Marseilles –	$5,223,000	$2,105,000	$152,000	$631,000	$8,111,000

Line Segment	Track Rehabilitation	Grading & Right-of-Way	Crossings	Bridges	Totals
Ottawa					
Ottawa – Utica	$3,036,000	$1,234,000	$19,000	$301,000	$4,590,000
Utica – LaSalle/Peru	$5,696,000	$6,597,000	$102,000	$820,000	$13,215,000
TOTALS	**$37,633,000**	**$19,204,000**	**$755,000**	**$4,047,000**	**$61,639,000**

* Costs are based on 2002 dollars.

7.1.3 Structures and Roadbed

The highlights of the structures and roadbed rehabilitation estimates are discussed below. Cost estimates can be found in Table 7-2.

- Some funds have been provided for structural repairs on the spans that remained in place when the original second tracks were retired. Some of these spans will be required to reestablish either second tracks or provide passing sidings. This provision has been made without the benefit of detailed inspection.
- New decks would be provided for three multiple span deck girder bridges.
- Brush would be cut and ditching performed to ensure good drainage. West of Ottawa where there is a problem with erosion from old sand quarries, a new ditch line would be opened and new cross drainage provided.
- Some funding is provided for relocation of the fiber optic cable, although it was installed clear of the old second track locations.

7.1.4 Signals and Crossing Warning Devices

An all new signal system and grade crossing train activated warning devices are assumed, since existing systems do not exist or are technically obsolete. Highlights of the assumptions are as follows:

- Maximum train speeds of 79 MPH.
- A Centralized Traffic Control (CTC) signal system would be installed.
- All switches at the ends of control sidings would be power operated and dual control.
- Automatic block signals would be commuter and freight compatible.
- All industry tracks from the main or control sidings would have electrically locked hand-throw switches.
- All crossing warning device circuitry would be upgraded to grade crossing predictors (GCP's).
- Crossings without train activated warning devices would be upgraded to gates, flashers and bells.

A more detailed description can be found in Section 5.1.4. Table 7-3 below is a summary of the entire line cost estimate for this signal system.

Table 7-3 Signals Cost Estimates*

Preliminary Breakdown of Costs	
45 grade crossings (upgrades, new)	$150,000 each
8 control point end of sidings	$500,000 each
3 control point universal crossovers	$750,000 each
2 interlockings (D.R. Bridge & INRR)	$600,000 each
45 intermediate signals locations	$100,000 each
27 electric lock locations	$50,000 each
Control Center	$500,000
Total Costs	
Grade Crossings	$6,750,000
Control Points (includes Control Facility)	$6,750,000
Interlockings	$1,200,000
Signal Locations	$4,500,000
Electric Locks	$1,350,000
Preliminary Engineering (35% level)	$220,000
Final Engineering (100% level)	$750,000
Construction Oversight	$300,000
Railroad Oversight	$300,000
Total	**$22,120,000**
Contingency (10%)	**$2,212,000**
GRAND TOTAL	**$24,332,000**

*Year 2002 prices. All costs include material, contractor design and installation. Engineering and construction oversight cost are separate.

7.2 Passenger Facilities

Potential station locations and parking sites were identified for this IVCR service study. The team conducted meetings with city or village mayors/administrators/managers, engineers, planners, and other community representatives from each community in order to identify potential station sites. For some communities, the station location is the area where a station was under the former Rock Island service. The sites noted here are potential, as discussed during corridor community meetings. Not all potential station locations are identified in master plans, comprehensive plans or transportation plans.

The location of the potential stations can be found on the projected land use maps found in Appendix H. Note that the cost estimates for the stations and parking sites are preliminary and have been developed using 2002 dollars. As a point of reference, note that in the

current Metra system, host municipalities fund a portion of the station and parking lot expenses. These potential savings have not been included in the order-of-magnitude estimates.

It is important to note that the cost estimates listed below do not include land acquisition costs, which could be a large cost driver. In the cases where it is recommended to use the existing rail station facility, the cost of station acquisition has also not been accounted for in the order-of-magnitude cost estimate. In some instances, the former Rock Island stations are currently being used by other entities. There may be a possibility for joint or shared use of the facility, rather than the need to completely acquire the station.

The Potential Ridership chapter of this report describes the methodology for determining potential ridership of the IVCR service. In addition, it distributes potential ridership by proposed stations of the system, and determines the parking capacity for each station location. The cost estimate for stations and parking lots as shown in Table reflects that analysis.

Below is a listing of the potential station locations along with a cost estimate. There are a total of eight potential station locations for the IVCR service.

Table 7-4 Station and Parking Lots Cost Estimates*

STATIONS	ITEM	UNIT	QUANTITY	UNIT COST	COST
Houbolt Road	Platforms	LF	255	$55	$14,025
	Warming Shelter	EA	1	$520,000	$520,000
	Parking Lot	STALL	750	$3,600	$2,700,000
	Land Acquisition	EA	1	**	
				Subtotal:	**$3,234,025**
Minooka	Platforms	LF	255	$55	$14,025
	Warming Shelter	EA	1	$520,000	$520,000
	Parking Lot	STALL	80	$3,600	$288,000
	Land Acquisition	EA	1	**	
				Subtotal:	**$822,025**
Morris	Platforms	LF	255	$55	$14,025
	Parking Lot	STALL	85	$3,600	$306,000
	Land / Station Acquisition	EA	1	**	
				Subtotal:	**$320,025**
Seneca	Platforms	LF	255	$55	$14,025
	Warming Shelter	EA	1	$520,000	$520,000
	Parking Lot	STALL	15	$3,600	$54,000
	Land Acquisition	EA	1	**	
				Subtotal:	**$588,025**
Marseilles	Platforms	LF	255	$55	$14,025
	Parking Lot	STALL	35	$3,600	$126,000
	Land / Station Acquisition	EA	1	**	
				Subtotal:	**$140,025**

STATIONS	ITEM	UNIT	QUANTITY	UNIT COST	COST
Ottawa	Platforms	LF	255	$55	$14,025
	Parking Lot	STALL	130	$3,600	$468,000
	Land / Station Acquisition	EA	1	**	
				Subtotal:	**$482,025**
Utica	Platforms	LF	255	$55	$14,025
	Warming Shelter	EA	1	$520,000	$520,000
	Parking Lot	STALL	15	$3,600	$54,000
	Land Acquisition	EA	1	**	
				Subtotal:	**$588,025**
LaSalle / Peru	Platforms	LF	255	$55	$14,025
	Warming Shelter	EA	1	$520,000	$520,000
	Parking Lot	STALL	130	$3,600	$468,000
	Land Acquisition	EA	1	**	
				Subtotal:	**$1,002,025**
Total Illinois Valley Commuter Rail Station & Parking Lots:					**$7,176,200**

* Costs are based on 2002 dollars.

** Totals do not include costs for land or station acquisitions.
The land and station acquisition costs will be determined in future stages of the study process.

7.3 Rolling Stock

As discussed earlier in the report, Metra trains and equipment are fully utilized, necessitating or requiring IVCR to acquire its own rolling stock for this service. It is assumed that IVCR rolling stock will be compatible with Metra due to a reasonable likelihood of coordinated service and maintenance.

7.3.1 Equipment Concept

On the Metra Rock Island service, the rolling stock consists of multi-level passenger gallery cars with propulsion by a diesel-electric locomotive. The trains operate in push/pull mode; the inbound train to Chicago has the locomotive pushing the train, and a specially outfitted gallery car with an engineer cab control room is in the lead. The outbound train from Chicago is reversed; the locomotive is in the lead and pulls the train. As implied above, there are two types of gallery cars needed, a cab car for operating the train in push mode and trailer cars. The initial service envisioned consists of three sets for three morning Illinois Valley departures and three evening Illinois Valley arrivals.

7.3.2 Description

Locomotives used in the IVCR service will have head end power (HEP) supply at 400-600 kW generated by the 3000-4000 hp diesel engine to operate the HVAC, lighting, doors, communication equipment, and other electrical apparatus in each passenger car. The locomotives will be capable of a top speed of 110 mph, but the top speed for IVCR operations will be 79 mph.

The passenger cars will consist of multi-level cab and trailer coaches. The structural strength of the cars will meet all applicable FRA requirements and American Public Transportation Association (APTA) standards, including those, which have recently gone into effect. The cars will be matched to low-level station platforms with a boarding surface at

about 8 inches above the top of rail. Seating capacity will be 135-150 passengers, depending on the interior arrangement and amenities provided in each car. Cab cars will be equipped with all of the devices necessary to operate the train–throttle, brake valve, headlight switches, communication equipment, etc.– essentially most of the controls found in the locomotive cab.

7.3.3 Unit Cost and Fleet Size

The total cost of a fleet of locomotives and cars for a commuter rail service depends upon two underlying cost drivers:

- The base unit cost assumed for each of the specific types of rolling stock required for the service (i.e. locomotives, trailer gallery cars, and cab gallery cars).
- The number of locomotives and cars which make up the fleet required for the service, sized according to demand forecasts, the forecasts themselves dependent upon socioeconomic factors and the operations concept.

Like other kinds of industrial equipment, unit costs for railroad equipment have been subject to inflationary trends over the years. There has been significant recent restructuring in the locomotive manufacturing industry, with the exit from passenger locomotive manufacturing of the largest builder: Electro-Motive Division (EMD). One of the most relevant recent examples of a new locomotive procurement is one placed by Metra, which has purchased 26 locomotives from Motive Power Industries (now WABTEC), manufactured under license from EMD, at an average price of $3.05 million each. These locomotives are newer model successors to the F40PH, the main locomotive model of Metra.

In the passenger car field, unit costs have been affected by stricter FRA crashworthiness regulations (49CFR238), which apply to equipment now being ordered. On Metra's recent gallery car order, the overall average price for each car is $1.33M. The estimated price per new cab cars is $1.4M to $1.5M, with trailers at approximately $1.2M.

In estimating the costs of rolling stock, besides the typical manufacturer's quoted price, there are four additional costs that need to be included for a new start. In setting up the initial fleet size, typically a 20% spare ratio is maintained. Spare equipment is required to run trains when equipment is out of service for routine maintenance or unscheduled repair. It is assumed that all spare cars will be cab cars, rather than trailers, in order to maximize reliability and flexibility.

The building of the rolling stock requires management effort to oversee the engineering and procurement, with a typical budget of 15% of the purchase price. Also, to be considered is building an inventory of parts and required equipment to maintain the equipment, with typical budgets of 15% of initial purchase price. Larger fleets experience modestly lower spare parts ratios. Lastly, a contingency is needed to cover unexpected expenses that invariably occur, typically 10%.

The assumed startup IVCR train consist is assumed to be one locomotive and three cars. For three three-car train sets and a 20% spare ratio, a total of 4 locomotives and 11 cars will need to be purchased. Since the IVCR will need a proportionately higher number of cab cars to trailers than what Metra ordered, the average IVCR price is adjusted to $1.38 million each. These prices assume that IVCR can acquire the equipment as tag along orders to

some other agency's order, providing pricing reflecting economies of scale of larger orders. The rolling stock cost estimates are shown in Table 7-5. Table 1-1

Table 7-5 Rolling Stock Cost Estimates*

Equipment	Qty	Base Price	Spare Parts	Engin-eering	Contin-gency	Adjusted Price	Total Price
Locomotives	4	$3,050,000	15%	15%	10%	$4,440,000	$17,770,000
Gallery Cars	11	$1,380,000	15%	15%	10%	$2,010,000	$22,080,000
						TOTAL	**$ 39,850,000**

* Costs are based on 2002 dollars.

Lower acquisition costs are possible by purchasing second-hand equipment. Since the equipment market can vary over time, no reasonable cost estimate can be produced. Also IVCR most likely will need a strong working relationship with Metra, resulting in Metra most likely having a strong influence as to what second hand rolling stock would be accepted to operate in its system.

7.4 Layover Facility

At the end of the line, a layover facility will be utilized to store the three train consists overnight and have them ready for the initial morning dispatch. The areas adjacent to the layover tracks will be paved to facilitate trash removal and airbrake tests and inspections prior to dispatch. The yard will be equipped with train electrical hotel receptacles, a compressed air system, and water for coach cleaning. The train locomotive can be shut down during the overnight layover period. Only minor repairs will be performed at this type of facility. A small building will provide space for offices, crew services, a storage area for the inspection/cleaning of industrial trucks, and storage of train consumables. Basic design of a layover facility includes the following:

- Storage trackage capable of handling the three trains. It is preferable to have multiple tracks, preventing the necessity of using the last train in as the first train out. Also, space for expansion is highly desirable.
- For multiple tracks, track centers of 25 feet, and a minimum free clearance distance of 15 feet on each side.
- Pavement is needed on each side of the track starting at the edge of tie, with a minimum width of six feet, providing a service aisle for personnel and servicing carts. There also needs to be track crossings at both ends of standing trains.
- Area lighting and a yard intercom to provide security and sufficient illumination to perform maintenance and servicing.
- Utilities provided for each stored train consist:
  - 480-volt three phase Hotel power connection
  - 120-volt outlets, typically two per car length, for small power tools
  - Compressed air 120-psi
- Each track will be equipped with a 12 foot wide, 70 foot long collection pan located on the locomotive end of the train to prevent oil and fuel spills infiltrating into the soil.

The drainage from these pans must pass through an oil water separator and will require a discharge permit from the local and state authorities.

- If storage tracks are stub ended, each track will be equipped with a cushioned bumping block.
- Local Fire Marshall and agency insurance may require fire hydrants and a loop distribution system.
- Yard Facility Building with space for office and administration, train crew sign in area, locker room for train servicing personnel and operation crews, and storage area for train consumables and spare replacement parts.
- The layover site needs an access service road with a 22-foot minimum width, perimeter fencing with gates around the access road for track entrance, and a parking area for both train crews and servicing personnel.

The estimated cost of an IVCR layover facility is $4,100,000 as shown in Table 7-6. This is based on a similarly sized facility that was engineered for the Northstar Corridor Rail Project in the Minneapolis/St. Paul area. The estimated cost of the Northstar layover facility was estimated at $6,100,000. Included in that figure was unusually high interlocking (special trackwork and signalling) and trackwork expenses needed to access a busy BNSF mainline. For the IVCR commuter service, a simplified track plan with a small interlocked facility for access was re-evaluated, resulting in a $2,000,000 reduction. However, it is important to remember that this is an order-of-magnitude cost estimate developed in the feasibility study phase without the benefit of an actual facility location. Therefore, it is not possible to include land acquisition and only modest site preparation costs are included. A conceptual estimate has been determined based on proposed operational requirements, which includes space for three trains.

Table 7-6 Layover Facility Cost Estimate*

Item	Cost Estimate
Layover Facility	$4,100,000
Total	**$4,100,000**

* Costs are based on 2002 dollars.

Table 7-7 shows the estimated capital cost of $161 million for IVCR commuter rail service, the culmination of the costs from Table 7-1 through Table 7-6.

Table 7-7 IVCR Capital Cost Estimate

Capital Cost Item	Total
New Track	$23,756,000
Rehabilitation of Track & Structures and Right-of-Way Improvements	$61,639,000
Signals	$24,332,000
Stations & Parking Lots*	$7,176,200
Rolling Stock	$39,850,000
Layover Facility*	$4,100,000
Total	**$160,853,200**

*Cost Estimates do not include land or existing building acquisition costs.

7.5 Startup Cost Comparisons

Order-of-magnitude capital costs are estimated at $161 million for the 60 mile proposed Illinois Valley Corridor Line. Table 7-8 puts this number in perspective while comparing the cost per mile of other commuter rail extensions and the Interstate 80 reconstruction project currently underway along the eastern portion of the IVCR Corridor. The startup cost comparison table is below. These costs do not include engineering studies.

Table 7-8 Startup Cost Comparison

Project	Miles	Cost ($ Millions)	$/Mile ($ Millions)
Commuter Rail			
IVCR	60	$160.9	$2.7
Metra South East Service	40		
Joint Operation (Commuter and Freight)	Ranges:	$214.4	$5.4
		$263.4	$6.6
Expanded Physical Plant (Third Main Track UP/CSX)	Ranges:	$316.6	$7.9
		$363.7	$9.1
Kane/Kendal Corridor Study			
BNSF Oswego Alternative	6.4	$56.6	$8.8
BNSF Plano Alternative	13.4	$74.0	$5.5
Metra UP-West Extension	7	$127.8	$18.3
Metra Southwest Service Extension	11	$202.0	$18.4
Highway			
Interstate 80 Reconstruction	7	$367.0	$52.4

Source of commuter rail capital cost estimates are from the feasibility study documents. Source of the highway capital cost estimate is the project management consultant for the reconstruction project.

Another important factor when comparing rail and highway projects is that rail projects typically can be constructed in a faster timeframe and with less disruption to the public.

7.6 Operating Agreements and Costs

7.6.1 Agreements Required

The start-up of any new system takes a surprising number of legal agreements between an authority set up for IVCR and among various other governmental authorities and host property owners and operators. There will also be one or more agreements required with the host railroads, CSX and Metra. In addition to these, an agreement will be required with the Regional Transit Authority, the Illinois Department of Transportation, and possibly a third party operator.

Since CSX only leases the line, operating and other improvement agreements will be needed with the property owner, to which the extent is unknown as it is out of the scope of

this study phase. The railroads may actually require as many as five or more agreements. These are listed below in the nominal order of their execution:

- An agreement to provide engineering and other information necessary for all stages of design. This may also include design reviews.
- An agreement to allow IVCR and its consultants on Metra and other railroad properties for such activities as surveying.
- An operating agreement that spells out what the railroads will provide in the way of commuter train time slots and other services for a given level of compensation. This agreement should also spell out what improvements have been agreed upon as necessary for the service to be commenced.
- A force account agreement that spells out what work the railroads will perform in making any improvements to their systems necessary for service start-up and how the work will be paid for. Typically, this agreement would also cover management of any of IVCR's contractors working on railroad property (flaggers or inspectors).
- Agreements for any improvements that the railroads will contract out.

Once IVCR has a viable project and is under construction, a decision must be made on who will operate the service. In this case, there are two clear options for operations. The first would be to negotiate with Metra to manage and operate the service. The second would be to put the service up for competitive bidding. There would be a number of advantages to the former, not the least of which is Metra's established relationships with all of the organizations mentioned above. In particular, CSX states that they will only work with established passenger carriers, such as Metra, in negotiating commuter services. The problem with this approach is how to make Metra, which is a different political jurisdiction, with numerous capital projects that are potentially competing with IVCR for state and federal funding, responsive to the needs of IVCR.

Systems going through a start-up of service in recent years have had a very good success record in contracting the operation to professional railroad service companies. These companies specialize in this sort of activity and have been instrumental in keeping initial costs as low as possible. Even Amtrak and the freight railroads have participated in this business to some extent. There may be some restrictions on what CSX and Metra can permit to be contracted out due to union considerations. Some railroads insist that their crews operate the trains. The operating agreements with CSX and Metra should spell out any limitations that IVCR will face in contracting with third parties for its operation.

7.6.2 Operating Costs

As with the agreements, the cost of operating commuter service is typically broken into several components. Each in turn has several components. The broad categories are:

- Operating costs of the trains
- Access and infrastructure costs
- Administrative costs

The administrative cost for IVCR could consist of a small group whose function it is to make and monitor agreements or it could have an active role in the day-to-day operation. The staff

could consist of employees of IVCR, a joint powers board set up with other involved agencies, or consultants. Coming to an agreement with Metra for the operation of this service may minimize the cost of administration.

The actual day-to-day operation has at least six major components. These are:

- Overall supervision of the operation
- Train crews
- Equipment servicing and maintenance
- Fare collection and security
- Station maintenance
- Advertising and public relations, including provision of information to the public

The costs paid to the railroads must cover several functions:

- Right-of-way rental, if any
- The routine maintenance of the infrastructure (inspection and minor repairs)
- Capitalized maintenance of the infrastructure (major track and bridge repairs)
- True capital improvements
- Transportation functions not contracted to third parties, such as train dispatching
- Supervision

In addition to the costs above, some agreements provide for incentive payments for meeting or exceeding certain agreed upon targets, such as on-time performance. It is required to have an agreement upon the methods of apportioning costs for common expense items. Track maintenance, for example, provides support to all services using the track. Costs of performing this work are usually apportioned by a usage parameter that compares each service using the track to the total usage. Often the issue of whether passenger services should pay on an incremental basis or a fully allocated basis becomes a major source of disagreement. The cost of track maintenance has a substantial fixed component in addition to the incremental components related to usage. Passenger operators paying for three trains per day on a line with 30 trains are likely to view themselves as an incremental user. The host railroad will take the view that commuters ought to pay a pro rata share because it is using valuable incremental capacity. Operating cost assumptions in this report are based on pro rata sharing.

7.6.3 Contract Operating Costs

IVCR may choose to contract out the operation of its service to an independent company and oversee the operation with staff especially hired for that purpose. Alternatively, IVCR may be able to contract with Metra, which already has an administrative structure in place. Metra manages directly the functions of train operations, including crews, fuel, maintenance of equipment, and stations. The provided operating costs reflect the assumption that Metra will agree to run the IVCR service as a contract operation.

7.6.4 Estimated Cost of Illinois Valley Commuter Rail Operations

Operational costs of the new service will depend heavily on the type of agreement IVCR is able to reach with CSX, Metra, and other users along the route. The approach to operating costs concentrated on estimating a share of the fixed and variable cost of the infrastructure maintenance and the cost of operating commuter trains based on Metra's experience. These operating costs assume that three roundtrip IVCR trains will operate every weekday from LaSalle/Peru through to LaSalle Street Station in Chicago, 100 miles. Therefore, operating costs not only reflect the portion of service between Joliet and LaSalle/Peru, but also the incremental service required on Metra's part to accommodate IVCR's passengers.

The methodology for producing operating expenses is to break out the major operating expense categories Metra reports, and analyze various components for predominant cost measures. Metra's operations are varied, but the general Metra characteristic that the IVCR resembles is the services comprised of the Rock Island, Heritage, Milwaukee, North Central, and SouthWest Services. Metra groups these services together because Metra owns these lines and operates diesel hauled trains on them. IVCR, being a new start on a light to medium tonnage freight line, most likely will have the operating expense characteristics of this group of Metra lines. Other groups singled out are Metra's Electric Line and contracted services with major freight carriers.

Many of the operating costs are associated with the expected number of passengers to be served. As a proxy to this measure, the common statistic used was revenue vehicle miles, which can be assumed to closely correlate with the expected patronage. Items in this category include maintenance of way, maintenance of equipment, administration, diesel fuel, claims, insurance and risk management, and regional services. In this group, maintenance of equipment was adjusted from the Metra average to reflect the smaller average length of IVCR trains. Also, for maintenance of way, the Metra unit cost was used for the CSX portion; since it closely reflected the cost IVCR would bear for additional maintenance forces to maintain passenger speeds. Transportation and downtown stations are the other two Metra operating costs, and correlate better to train movements shows Metra unit costs and Table 7-10 shows the annual operating costs for the potential IVCR service, based on information contained in Table 7-9.

Table 7-9 Metra Unit Cost Analysis*

Operating Expense	Unit Operating Expense Measurement	NIRCRC**	All of Metra	IVCR
Maintenance of Way	$ per Revenue Vehicle Mile	$4.26	$2.82	$4.26
Maintenance of Equipment	$ per Revenue Vehicle Mile	$3.97	$3.26	$4.50
Transportation	$ per Train Mile	$24.71	$20.59	$24.71
Administration	$ per Revenue Vehicle Mile	$1.78	$1.17	$1.78
Diesel Fuel	$ per Revenue Vehicle Mile	$0.92	$0.80	$0.92
Claims, Insurance, etc.	$ per Revenue Vehicle Mile	$0.72	$0.59	$0.72
Regional Services	$ per Revenue Vehicle Mile	$0.69	$0.53	$0.69
Downtown Stations	$ per Train Arrival/Departure	$52.56	$56.42	$52.56

* Costs are based on 2002 dollars taken from Metra's 2002 budget.

** NIRCRC – Northeastern Illinois Regional Commuter Railroad Corporation. Northeastern Illinois Railroad Corporation is the legal name of Metra, the Regional Transit Authority's (RTA) commuter rail agency. NIRCRC is

the operating arm of the system responsible for the lines primarily owned and operated directly by Metra. Not included are contracted services with BNSF, UP, and the Electric Line.

Table 7-10 IVCR Annual Operating Cost Estimate

Operating Expense	Unit Quantity	Unit Measures (Per Year)	Unit Price	IVCR Annual Operating Expenses
Maintenance of Way	459,000	Revenue Vehicle Miles	$4.26	$782,000
Maintenance of Equipment	459,000	Revenue Vehicle Miles	$4.50	$2,064,000
Transportation	153,000	Train Miles	$24.71	$3,780,000
Administration	459,000	Revenue Vehicle Miles	$1.78	$818,000
Diesel Fuel	459,000	Revenue Vehicle Miles	$0.92	$420,000
Claims, Insurance, etc.	459,000	Revenue Vehicle Miles	$0.72	$331,000
Regional Services	459,000	Revenue Vehicle Miles	$0.69	$315,000
Downtown Stations	1,530	Number of Trains A/D	$52.56	$80,000
			TOTAL	**$9,762,000**

* Costs are based on 2002 dollars taken from Metra's 2002 budget.

8.0 NEXT STEPS

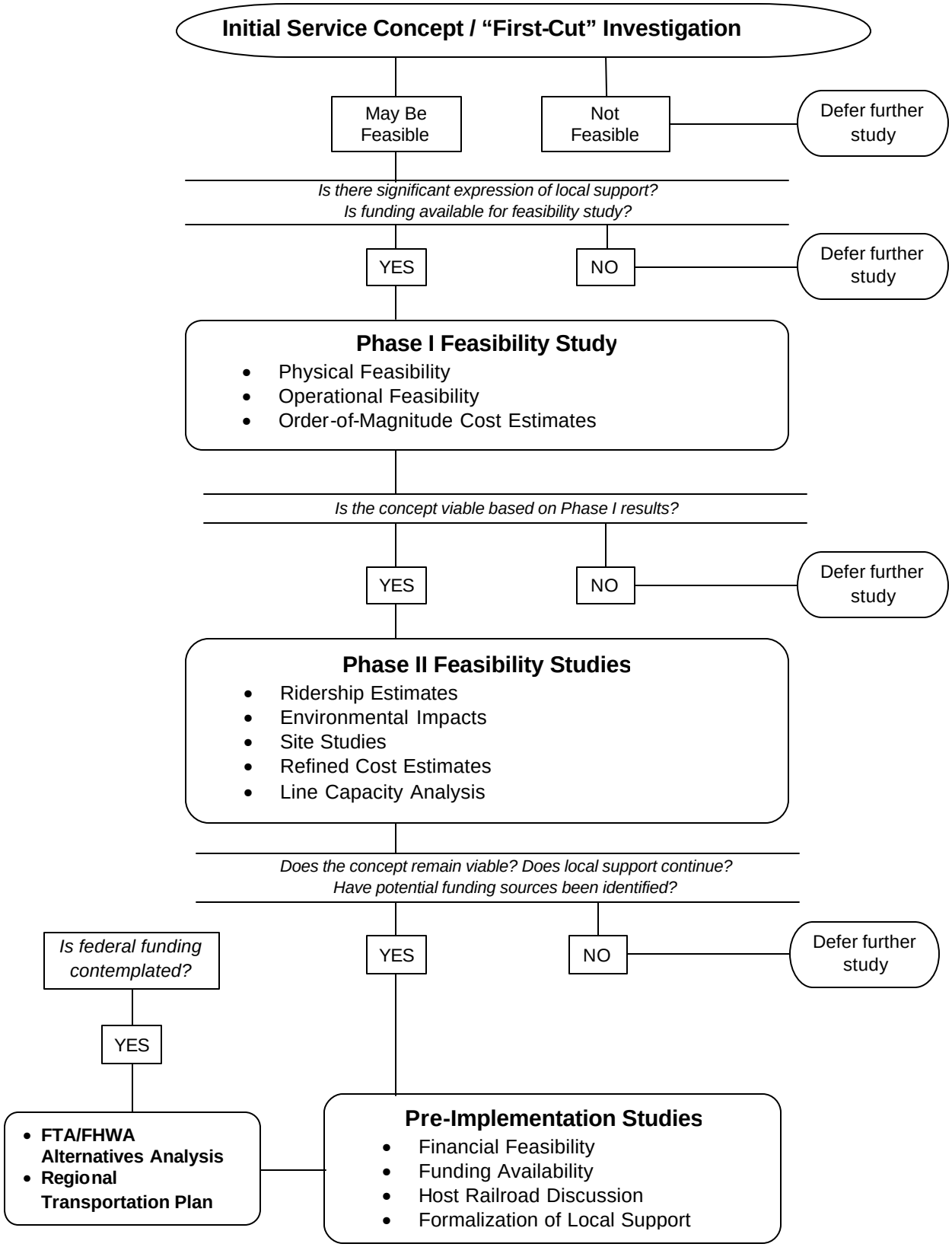
The information below discusses the next steps following both the local and federal (Federal Transit Administration) processes. The selected local process should follow the intent of the Federal process to ensure there is no duplication of work.

If a Phase I Feasibility Study finds that the new service is physically, operationally and financially feasible, as is the case with the potential IVCR service studied in this report, the next step in the process is a Phase II Feasibility Study. The approach to a Phase II Feasibility Study is to start looking at the more difficult items, or "red flags" discovered in the Phase I Feasibility Study. These items are studied first in a more thorough manner. All components will be studied in Phase II if there are no fatal flaws that would prevent further study. When Phase II is complete, some of the work necessary for the FTA's Alternatives Analysis will have been completed. For more information on the FTA's process, see Section 8.2.

8.1 Phase II Feasibility Study

It is recommended that the selected local process be similar to an already existing process established by local transportation agencies as project stakeholders likely will have familiarity with these processes and project development would be enhanced. A flow chart representing this process is shown in Figure 8-1.

Figure 8-1 Local Overall Rail Corridor Evaluation Process



This report is the Phase I Feasibility Study for an Illinois Valley Commuter Rail Service. The question asked at the end of Phase I is "Is this concept viable based on Phase I results?" The answer for Illinois Valley is "yes". Phase II Feasibility Study is ready to begin.

The key elements of Phase II are listed in the flow chart and are described in the following technical tasks.

- Refined Ridership Estimates
- Environmental Impacts
- Site Studies
- Refined Cost Estimates
- Line Capacity Analysis
- CSX Lease Terms

Refined Ridership Estimates

The Phase I IVCR Feasibility Study used a sketch planning approach to develop initial ridership forecasts. Phase II will include a more detailed computerized travel demand model approach for developing ridership forecasts. The IVCR study area is not contained within a Metropolitan Planning Organization (MPO). Joliet and Will County is within the Chicago Area Transportation Study (CATS), the Chicagoland MPO. The remainder of the IVCR study area falls outside the following MPO's or Regional Planning Commission's (RPC's) jurisdiction: Tri-County RPC, Peoria; Rockford Area Transportation Study MPO, Rockford; and McLean County RPC, Bloomington.

The more detailed model will estimate the following types of trips that were not covered in the Phase I study:

- Reverse commutes
- Non-work trips
- Non-Chicago oriented trips
- Diversions from the current commuter rail system stations

Environmental Impacts

The railroad right-of-way will be evaluated based on the results of this Phase I study. Phase II would focus on construction impacts, water systems, wetlands, air quality issues, noise and vibrations, living species, historical issues and other actions, which could require mitigation strategies. This Phase II study would produce a report that describes and locates topographical features and environmental concerns and describes potential mitigation measures.

Site Studies

Continued refinement of the service plans with updated ridership forecasts may have an impact on the location of station and parking areas. The station sites described in this report have been discussed with the communities involved.

Refined Cost Estimates

The Phase II cost estimating effort would refine work done in Phase I. It would involve analyzing existing ridership, producing a ridership forecast, developing a revised service plan, and accounting for changes in design and engineering on cost estimates. These cost

estimates would specifically take into account additional infrastructure needs that the line capacity analysis identified.

Line Capacity Analysis

Initial stringline charts have been produced to determine potential infrastructure improvements. A computer simulation of the CSX, Iowa Interstate, and potentially, Metra operations, would be performed in Phase II.

CSX Lease Terms

CSX has a limited term lease within unknown covenants concerning the operation of commuter rail trains. Also unknown is the status of capital improvements at the expiration of the lease. Therefore, property rights agreements will need to be directly negotiated with the owner and CSX.

8.2 The Federal Transit Administration Process

The Federal Transit Administration (FTA) describes its capital investment process for new projects in the following brochure, **FTA's New Starts – An Introduction to FTA's Capital Investment Program.**

This brochure briefly describes: 1) the criteria FTA uses for New Starts' project justification and local financial commitments, 2) the New Starts planning and project development process, 3) FTA's process for evaluating and rating candidate New Starts projects, and 4) how FTA uses its ratings to formulate its annual budget request to Congress.

New Starts Criteria

TEA-21 identifies several specific New Starts criteria, which the FTA must consider in its approval to advance transit fixed guideway projects through the New Starts project development process and to enter into a long-term financial commitment to implement proposed investments. The Act categorizes these criteria into three broad areas:

1. Alternatives Analysis and Preliminary Engineering

Along with the Final Design Phase, these activities constitute the ***New Starts Planning and Project Development Process***. The FTA requires all projects that seek discretionary New Starts funding to follow this process, and must approve its entrance into all but the Alternatives Analysis Phase of planning and development. This planning and project development process provides for development and refinement of TEA-21's ***Project Justification*** and ***Local Financial Commitment*** criteria (see below), and for addressing other planning, environmental, engineering, and design issues and requirements.

2. Project Justification

TEA-21 requires that proposed New Starts projects be justified based on several criteria including:

- Mobility Improvements
- Environmental Benefits
- Operating Efficiencies
- Cost Effectiveness
- Transit Supportive Land Use and Future Patterns

- Other Factors, such as the project sponsor's technical capability to implement and operate the proposed investment

3. Local Financial Commitment

TEA-21 requires that project sponsors of New Starts demonstrate adequate local support for the proposed project as measured by:

- The proposed share of total project costs from sources other than the Section 5309 New Starts program, including Federal formula and flexible funds, the local match that Federal law requires, and any additional capital funding ("overmatch");
- The strength of the proposed project's capital financing plan;
- The sponsoring agency's ability to fund the transit system's operation and maintenance as planned once it is built.

New Starts Planning and Project Development Process
Projects seeking New Starts funding — like all Federally-funded transportation investments in metropolitan areas — must emerge from a locally-driven, multimodal transportation planning process. Three key steps define the FTA's New Starts planning and project development process: 1) ***Alternatives Analysis,*** 2) ***Preliminary Engineering,*** and 3) ***Final Design***. This process is shown in Figure 8-2.

1. Alternatives Analysis

To specifically qualify for Section 5309 New Starts funding, candidate projects must have emerged from an alternatives analysis study (also known as a major investment study or multimodal corridor analysis) that evaluated several modal and alignment options for addressing a given corridor's mobility needs. This analysis is intended to inform local officials about each alternative's costs, benefits, and impacts. Potential local funding sources for implementing and operating the investment are also to be identified and studied and New Starts criteria are developed. Involvement of a wide range of stakeholders — including the general public — is strongly encouraged. At bcal discretion, the alternatives analysis may include the undertaking of a Draft Environmental Impact Statement (DEIS).

An Alternatives Analysis is considered complete when local and regional decision-makers select a locally preferred alternative (LPA) that the metropolitan planning organization (MPO) adopts in its financially constrained metropolitan transportation plan. At this point, the local project sponsor may submit the LPA's New Starts project justification and local financial commitment criteria to the FTA for approval to enter into the Preliminary Engineering Phase of project development.

2. Preliminary Engineering

During the Preliminary Engineering Phase, local project sponsors refine the proposal's design, taking into consideration all reasonable design alternatives. Preliminary engineering results in estimates of project costs, benefits, and impacts for which there is a much higher degree of confidence. The proposed project's New Starts criteria are similarly refined in the preliminary engineering phase of development. In addition, requirements of the National Environmental Policy Act of 1969 (NEPA) must be met (in the case of New Starts projects, this usually includes completion of a Final Environmental Impact Statement); project

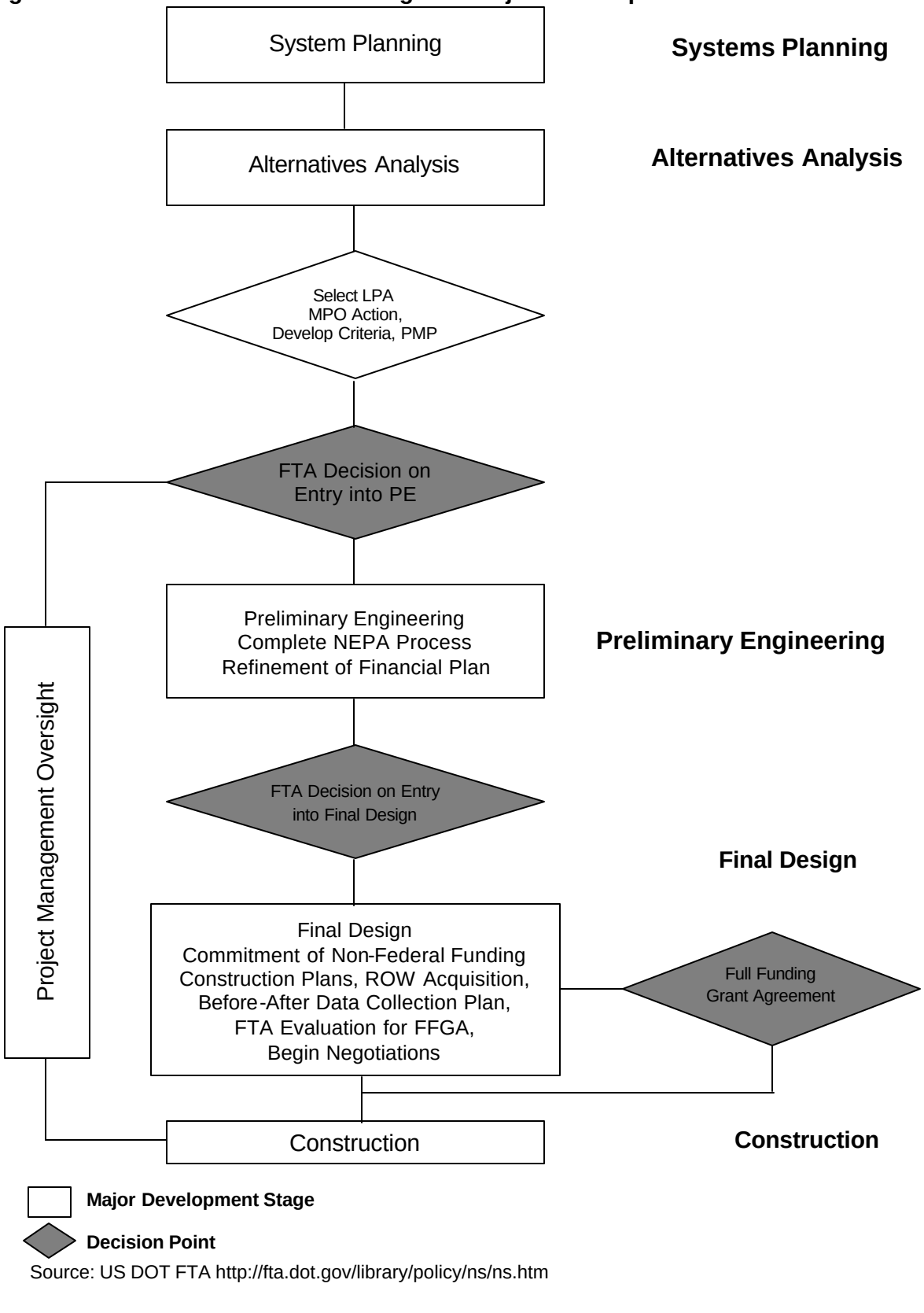
management plans (PMP) are finalized; and local funding sources are committed to the project (if not previously committed).

Preliminary engineering for a New Starts project is considered complete when FTA has issued a Record of Decision (ROD) or Finding of No Significant Impact (FONSI), as required by NEPA; and when the local project sponsor has demonstrated to FTA its technical capability to advance the project into the next stage of development.

3. Final Design

Projects which have completed preliminary engineering must request FTA approval to enter the final design stage of project development. Like the approval to enter into preliminary engineering, FTA's approval to enter final design is based upon a review and evaluation of the project's New Starts criteria. Final design is the last phase of project development, and includes right-of-way acquisition, utility relocation, and the preparation of final construction plans (including construction management plans), detailed specifications, construction cost estimates, and bid documents.

Figure 8-2 FTA New Starts Planning and Project Development Process



Source: US DOT FTA http://fta.dot.gov/library/policy/ns/ns.htm

Project Justification

TEA-21's project justification criteria are intended to reflect the broad range of benefits and impacts which may be realized by the proposed New Starts transit investment. Project justification criteria are initially developed as part of alternatives analysis and are refined throughout the preliminary engineering and final design phases of project development. FTA's New Starts project justification criteria — and the current measures that make up each criterion — are summarized below:

Criteria	Measures*
Mobility Improvements	• Travel Time Saving • Low-Income Households Served
Environmental Benefits	• Change in Regional Pollutant Emissions • Change in Regional Energy Consumption • EPA Air Quality Designation
Operating efficiencies	• Operating Cost per Passenger Mile
Cost Effectiveness	• Incremental Cost per New Rider
Transit Supportive Land Use and Future Patterns	• Existing Land Use • Containment of Sprawl • Transit Supportive Corridor Policies • Supportive Zoning Regulations • Tools to Implement Land Use Policies • Performance of Land Use Policies • Other Land Use Factors
Other Factors	• Technical Capacity • Project benefits not reflected by other New Starts criteria

* FTA may change these measures in the future to better reflect national policies and industry practice.

Local Financial Commitment

The local financial commitment criterion is intended to reflect the level of local funding proposed for the project, and the extent to which this local funding is dedicated to — and in place for — the proposed investment. This criterion also addresses the reasonableness of project cost estimates and revenue forecasts; the adequacy of provisions to address unanticipated costs or funding shortfalls; the financial condition of the New Starts project sponsor; and how the sponsor will ensure the operation and maintenance of its existing transit services while implementing the proposed fixed guideway system. Like the project justification criteria, information which supports the local financial commitment criterion is refined throughout the New Starts planning and project development process.

The three measures for local financial commitment include:

Criteria	Measures*
Local Financial Commitment	• Stability and Reliability of Capital Financing Plan • Stability and Reliability of Operating Financing Plan • Local Share of Project Costs

* FTA may change these measures in the future to better reflect national policies and industry practice.

New Starts Rating and Evaluation
FTA evaluates and rates New Starts projects for several specific reasons:

- To approve project entrance into preliminary engineering;
- To approve project entrance into final design;
- As an input to development of the Department's annual New Starts budget request. FTA's ratings are included in the *Annual Report on New Starts*, which is submitted to Congress each Spring; and
- To execute full funding grant agreements.

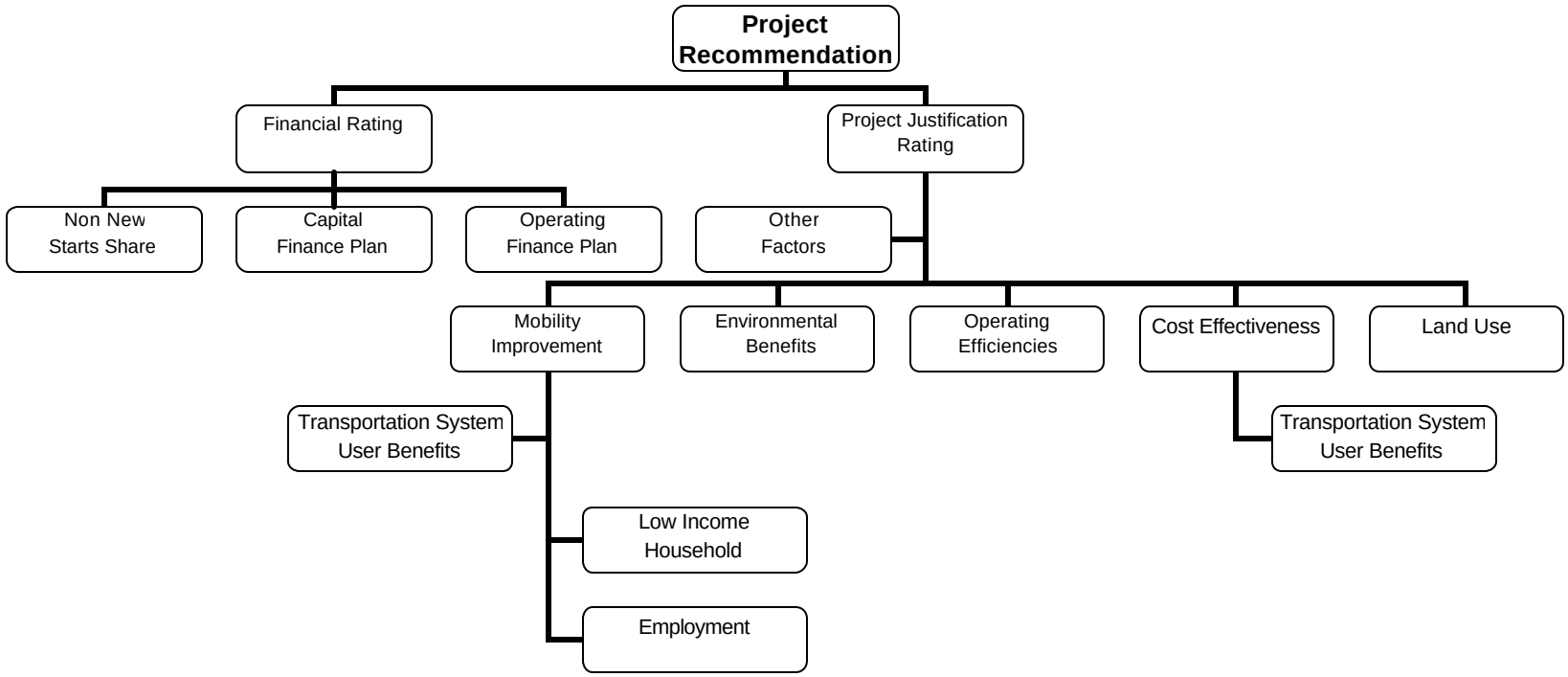
In undertaking its evaluation, TEA-21 requires that FTA rate each candidate New Starts project (in preliminary engineering or final design) as ***Highly Recommended***, ***Recommended***, or ***Not Recommended***. These overall project ratings are based on ratings assigned by FTA to each of the project justification criteria and local financial commitment measures.

New Starts Rating and Evaluation
Figure 8-3 below summarizes FTA's evaluation and rating process. FTA assigns a rating of *high*, *medium-high*, *medium*, *low-medium*, or *low* to each of the individual project justification criteria and to the measures for local financial commitment. These criteria/measure-specific ratings are then combined into summary project justification and finance ratings. These summary ratings are in turn used to determine overall project ratings according to the following decision rule:

- **Highly Recommended** — Projects must be rated at least *medium-high* for both finance and project justification;
- **Recommended** — Projects must be rated at least *medium* for both finance and project justification;
- **Not Recommended** — Projects not rated at least *medium* in both finance and justification will be rated as *not recommended*.

It is very important to note that project evaluation is an on-going process. FTA evaluation and rating occurs annually in support of budget recommendations presented in the *Annual Report on New Starts* and when projects request FTA approval to enter into preliminary engineering or final design. Consequently, as proposed New Starts projects proceed through the project development process, information concerning costs, benefits, and impacts is refined and the ratings updated to reflect new information.

Figure 8-3 The FTA New Starts Evaluation and Rating Process



What do FTA's ratings mean?

TEA-21 requires FTA to rate candidate New Starts projects which have completed at least the Alternatives Analysis as Highly *Recommended*, *Recommended*, or *Not Recommended*. These ratings are intended to reflect conditions at the time of FTA's evaluation. Project evaluation is an on-going process. It is based on an analysis of the Section 5309 New Starts Criteria and documentation submitted to FTA by local agencies. As New Starts projects proceed through project development, the estimates of costs, benefits, and impacts are refined. FTA's ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.

FTA Budget Recommendations

FTA's ratings are intended to reflect overall project merit; proposed projects that are rated as *recommended* or *highly recommended* have demonstrated significant potential benefits and are therefore eligible for New Starts funding. However, *a rating of recommended or highly recommended does not translate directly into a funding recommendation or commitment in any given year.* Rather, FTA must also consider the amount of New Starts funding available on an annual basis and the phase of project development of candidate New Starts projects. *To be included in FTA's annual budget request, proposed New Starts projects must also be sufficiently developed for consideration of a Federal full funding grant agreement (FFGA)* — FTA's funding mechanism for supporting the multi-year capital needs of project construction.

The following general principles are applied when determining annual funding allocations among proposed New Starts projects:

- *The New Starts program is a capital program.* FTA budget recommendations will be limited primarily to providing capital assistance. Funding for alternatives analysis may be provided through FTA's §5303 Metropolitan Planning or §5307 Urbanized Area Formula Grants programs, or through local sources. New Starts funds should not be used for planning activities in support of alternatives analysis.

- TEA-21 requires that no less than 92% of annual New Starts funding be made available for final design and construction.

- Firm funding commitments, embodied in FFGAs, are not made until the final design process has progressed to the point where costs, benefits, and impacts are most accurately known. FTA will not enter into FFGAs with projects in the preliminary engineering stage of development.

- Existing FFGA commitments are to be honored before any additional funding recommendations are made. As a consequence, the amount of New Starts funding available for entering into new FFGAs in any given year is limited to the balance of funding remaining after fulfilling existing FFGA commitments.

- The FFGA defines the terms of the Federal commitment to a specific project. Upon completion of an FFGA, the Federal funding commitment has been fulfilled; additional project funding will not be recommended. Any additional costs beyond the scope of the Federal commitment are the responsibility of the grantee.

How much money is available under the program?

TEA-21 authorized $6.09 billion in guaranteed funding for New Starts through FY2003 as shown in Table 8-1. An additional $2.35 billion in "contingent" or "bridge" authority was authorized, increasing the total guaranteed commitment authority to $8.44 billion. TEA-21 also authorized $2.1 billion in non-guaranteed funding, but only if Congress finds offsets in other domestic programs.

Table 8-1 FY1998-2003 Guaranteed New Start Money

Year	Amount ($ millions)
1998	$800.0
1999	$902.8
2000	$980.4
2001	$1,058.4
2002	$1,136.4
2003	$1,214.4

Source: *FTA's New Starts – An Introduction to FTA's Capital Investment Program* brochure. The brochure can be found at the following website: http://www.fta.dot.gov/library/policy/ns/itcip/newstarts.htm .