### **EXECUTIVE SUMMARY**

# Feasibility Study on Proposed Amtrak service from Chicago, to Iowa City, Iowa via Quad Cities

# (An Addendum to December 5, 2007 Feasibility Report on Proposed Amtrak Service, Quad Cities-Chicago)

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Amtrak April 18, 2008



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# Addendum to December 5, 2007 Feasibility Report on Proposed Amtrak Service, Quad Cities-Chicago

# **Quad Cities–Iowa City**

### I. <u>Introduction and Background</u>

### I.A. <u>General Discussion</u>

Soon after the Illinois Department of Transportation ("Ill. DOT") requested Amtrak to conduct a feasibility study on proposed Amtrak service between Chicago and the Illinois Quad Cities, the Iowa Department of Transportation ("Iowa DOT") asked that the study be extended to Iowa City and later to Des Moines. This report examines the feasibility of extending service to Iowa City.

The completed report for the proposed Chicago – Quad Cities' service was delivered to III. DOT in early January 2008. It assumes a stand-alone train operation strictly within the State of Illinois and makes no reference to extending the service into the State of Iowa. Therefore, there is no discussion about potential cost sharing allocations for capital improvements or operating losses between the two states which will become a matter of future negotiations between the two jurisdictions. That being said, this report on extending the service to Iowa City is simply an addendum to the Quad Cities report and covers such topics as additional capital infrastructure improvements that would be required in Iowa, impacts on operating expenses, revised ridership and revenue projections, and the like. With one minor exception, the recommended level of capital improvements within Illinois will still be required if the service to Iowa City is initiated. It is thus important for the readers of this report to refer to the Illinois study for detailed information on that state's portion of the route alternatives.

The Quad Cities area, with a population approaching 400,000, is a major visitor draw from both Illinois and Iowa. Among the attractions are its long scenic Mississippi River frontage, river boating and riverboat casinos, the Rock Island Arsenal, several museums and other cultural attractions.

The Iowa City area, with its growing population of nearly 63,000, is nationally recognized for its hospitals and the University of Iowa. Over 20% of the U of Iowa student population of approximately 30,000 students is from adjoining states, mostly Illinois.

It is a little more than one hour by automobile via Interstate Highway 80 between the Quad Cities and Iowa City. Greyhound offers two daily round trips between the two metro areas.

The only logical and direct rail route between the Quad Cities and Iowa City is via the Iowa Interstate Railroad ("IAIS"). The IAIS route would operate through Moline and Rock Island, over the Arsenal swing bridge across the Mississippi River toward Iowa City.

As discussed in the Quad Cities-Chicago Report, the Quad Cities is considering at least three different potential locations for an Amtrak Station. At Iowa City there is a former Rock Island passenger station now being used for non-rail purposes. It would require significant capital work to be made ready for use as an Amtrak stop and its availability for such use is unknown. If Amtrak service were to terminate at Iowa City, an overnight storage track of sufficient length with ample parking and certain other requirements covered elsewhere in the report would be required. Preliminary discussions with the IAIS indicate that such an overnight storage track might be made available at their Iowa City rail yard.

As was done in the Quad Cities-Chicago Feasibility Study, Amtrak conducted physical evaluations of the Quad Cities – Iowa City route segment with host railroad personnel, including hi-rail inspections, assessments of capital needs, and identification of operational challenges. Revenue/Ridership forecasts were determined based on recommended schedules, and estimates of cost to operate the service were developed.

The states and many of its communities have expressed the desire to establish Amtrak service in the most expeditious way possible. This study, therefore, has concentrated on incremental and focused improvements, including the possibility of raising the speeds on some of the route segments to up to 79 mph. No "high-speed" (110-mph) scenarios were considered. The goal was to prepare a high-level and objective report of the findings for Iowa DOT's further consideration. The study included fact-finding discussions with the host railroad owners/operators of the trackage, local governmental representatives, and advocacy groups.

Although there have been general operational discussions and field inspections with the host freight railroads, the specific infrastructure improvement proposals, draft schedules and other railroad-related comments in this report have not been negotiated or agreed to with the host freight railroads and reflect only the findings and best judgment recommendations of the study team. Should further progress on of one of the proposals be desired, detailed discussion and formal negotiations will have to be initiated with those rail carriers.

As was discussed in detail in the Quad Cities-Chicago Report, two alternative routes were identified as potentially feasible for establishment of Amtrak service between Chicago and the Quad Cities, with only one route being practical west of Wyanet to the Quad Cities and Iowa City. These alternatives are shown on the map included as Exhibit 1. Each requires a different level of capital investment to make the service a practical reality. As detailed elsewhere, the goal was to show current operating speeds alongside goals of 60 or 79 mph where those speeds might be achieved. In general, operating at current slow freight train speeds would not result in practical, attractive passenger service schedules. The routes studied were:

Route A:	Chicago-Wyanet-Quad Cities-Iowa City via Amtrak-BNSF-IAIS
Route B:	Chicago-Joliet-Quad Cities-Iowa City via Amtrak-Metra/Rock Island District-CSXT-IAIS

Legend:Amtrak-National Railroad Passenger CorporationMetra-Commuter Rail Division of the Regional Transportation AuthorityBNSF-Burlington Northern Santa Fe RwyIAIS-Iowa Interstate RailroadCSXT-CSX Transportation Company

The Illinois portions of both route alternatives are discussed in some detail in the Quad Cities-Chicago Report and a summary of the complete Chicago – Quad Cities – Iowa City routes are shown at the end of this report.

### I.B. <u>Rolling Stock</u>

All route alternatives assume that the train sets required for the service will operate in "push-pull mode," and will consist of 1 locomotive in each consist and 1 non-poweredcontrol-unit (NPCU), or second locomotive, and will include provisions for food service. Because of varying ridership projections over the different route options, it would be prudent to "right-size" the number of coaches in the consist to reflect the anticipated patronage. Accordingly, as reflected in the ridership/revenue forecast summary presented later in this report, it is estimated that 2 to 3 coaches will generally be required in each train set for operation of the service between Chicago and Iowa City. The specific number of coaches required for Routes "A" and "B" is listed in Section VIII, page 13. It should be understood that the current car supply situation at Amtrak is extremely tight and it is likely that equipment for this service would have to be generated from our storage inventory and scheduled for heavy repair in a car shop, thus requiring significant initial rehabilitation expenditures and time. The train consist can be modified as future demand dictates or as the State desires.

### I.C. <u>Station Facilities</u>

The discussion of Illinois stations is covered in the Quad Cities-Chicago Report. The only Iowa station considered in this Addendum is at Iowa City. For purposes of this report, it is assumed that all station facilities will be provided by parties other than Amtrak, including platforms, parking, and waiting areas. The assumption is that local communities desiring a station stop will provide such facilities as well as ongoing maintenance.

Although the suggested station stops have been shown in the sample schedules they can be modified depending upon the willingness and abilities of the communities to provide facilities and as the States direct.

Regarding station platform design and construction, it should be noted that there is industry-wide discussion underway of DOT's notice of proposed rulemaking concerning amendments to the Department's Americans with Disabilities Act (ADA) regulations, specifically Docket OST-2006-23985. In this notice, the DOT proposes that new commuter and intercity rail stations shall provide level-entry boarding to all accessible cars in each train using the station. Because this notice is still under consideration and no new rules have been promulgated, questions of station platform

designs, dimensions and construction cannot be fully addressed and may therefore delay station (platform) development efforts.

### II. <u>Route Description</u>

Except for a short segment in the Quad Cities on the "BNSF Industrial Track," the approximately 60-mile single main track route to Iowa City is on the Iowa Interstate Railroad. For all but about 10 miles of 10 mph and 25 mph track in the metro areas of the Quad Cities and Iowa City, the remaining 50 miles of the Iowa Interstate Railroad is operated at 40 MPH. Through-freight rail traffic west of Rock Island consists of two trains in each direction, seven days per week, one operating from Rock Island to Iowa City and on to Cedar Rapids and the other operating from Rock Island to Iowa City and on to Council Bluffs. One local round trip train operates out of the Rock Island yard five days per week turning at Walcott. The busy Rock Island yard operates 3 daily shifts, performing train make-up duties and serving local industries. Also operating in the Rock Island area are a daily local BNSF train and an Iowa, Chicago and Eastern (ICE) train every other day. BNSF and ICE have rights over the Arsenal bridge across the Mississippi. Total traffic west of Rock Island to Iowa City is approximately 14.8 million gross tons (MGT) per year. There are sidings at Walcott (6,520 feet), Twin States (4,980 feet), Wilton (12,272 feet), West Liberty (4,200 feet) and Iowa City (8,676 feet).

As is typical for any Midwest rail operations, there are numerous public at-grade street and highway crossings along the entire corridor and, in the more rural areas, private crossings as well. Although many are equipped with train activated devices, i.e., gates and/or flashers, there are still numerous crossings with only cross-buck signs. It is recommended discussions be initiated with the State of Iowa about any additional grade crossing warning devices or closures that may be deemed appropriate for the route.

### II.A.1. Capital Requirements

### II.A.1.i. <u>Recommended Track Upgrading</u>

Between the Quad Cities and Iowa City the Iowa Interstate's main track consists of a mixture of jointed and continuous welded rail (CWR), ranging in weight from 112-pound to 119-pound. Crosstie, ballast and surface conditions vary across the route, but the railroad is aggressively addressing these with ongoing annual projects covering the installation of continuous welded rail, crosstie replacement, surfacing, replacement of turnouts, and rehabilitation of highway grade crossings. Where crosstie rail replacement and surfacing programs have been carried out, the track conditions are dramatically improved. With a view toward upgrading the maximum authorized train speed for passenger trains on this trackage to either 60 mph or 79 mph, from today's 40 mph for existing freight operations, and for maintaining good ride quality and for ease of future maintenance, it is recommended that the remaining jointed rail, totaling approximately 30 track miles, be replaced with continuous welded rail, and that additional tie replacement and surfacing work be performed on the line. There will be

little difference in capital cost to upgrade the track to either 60 mph or 79 mph. It is also recommended that a crosstie replacement program totaling some 67,000 ties be carried out, together with surfacing of the entire line segment, which would include an increase in the superelevation of curves as warranted for higher speeds. Furthermore, a lump sum of funding should be provided for miscellaneous other work including joint elimination, ditching, minor bridge and culvert work, elimination of mud spots in the track, and shoulder work as warranted in connection with curve speed upgrades, etc. Under the 60 mph scenario, signal costs are included only to upgrade the approach circuits of existing train-activated grade crossing warning devices. Since existing signal regulations permit operation of passenger trains up to the speed without a wayside block signal system, no costs related to such a system were included in this report for the 60 mph scenario and the turnouts at sidings are contemplated to remain hand-thrown rather than remotely controlled. In the 79 mph estimate, two of the five sidings are powered and a wayside signal system is included. The cost of the dispatching console for the Iowa Interstate's Iowa City office is already included in the Quad Cities-Chicago Report prepared for the Illinois DOT. It is important to note that the Iowa Interstate continues to upgrade this line. In fact, management representatives indicated that within three years (i.e., by the end of 2010) all remaining jointed rail from Quad Cities to Iowa City will be replaced with CWR. Thus, the recommended scope of capital replacement could drop dramatically over the next year or so. This also applies to crosstie replacement and surfacing work.

#### II.A.1.ii. Order of Magnitude Summary of Capital Cost - Iowa Segment Only

		<u>\$ Mi</u>	llions
		<u>60 mph</u>	<u>79 mph</u>
a.	Replace remaining jointed rail with continuous welded		
	rail	\$13.5	\$13.5
b.	Replacement of 67,000 crossties	4.9	4.9
c.	Surfacing 56 miles	0.9	0.9
d.	Miscellaneous other track, bridge, culvert, drainage and		
	other roadbed work	1.5	1.5
e.	Extend grade crossing starts for higher speeds	1.6	1.6
f.	Install wayside signal system, controlled switches at		
	two sidings, electric locks on switches	-	5.6
g.	Contingencies 15% on items a – f above	3.4	4.2
ĥ.	Iowa City layover facility	0.3	0.3
	Total	<u>\$26.1</u>	<u>\$32.5</u>

# II.A.1.iii. Summary of Capital Costs - Chicago-Quad Cities-Iowa City Route

Via Route A:

	\$ Millions					
	A4 <u>As-is</u>	A5 <u>60 mph</u>	A6 <u>79 mph</u>			
Total Capital Cost – Iowa Segment Only (1)	\$0.3	\$26.1	\$32.5			
Total Capital Cost – Illinois Segment Only (2)	5.6	<u>13.8</u>	22.4			
Grand Total - Route A	<u>\$5.9</u>	<u>\$39.9</u>	<u>\$54.9</u>			

\* - ----

#### Via Route B:

	<b>\$ Millions</b>				
	B4	B5	B6		
	<u>As-is</u>	<u>60 mph</u>	<u>79 mph</u>		
Total Capital Cost – Iowa Segment Only (1)	\$0.3	\$ 26.1	\$ 32.5		
Total Capital Cost – Illinois Segment Only (2)		78.4	93.8		
Grand Total - Route B	<u>\$0.3</u>	<u>\$104.5</u>	<u>\$126.3</u>		

#### Footnotes:

(1) Iowa segment includes \$0.3 million for Iowa City layover facility

(2) Illinois segment excludes projected funding for a layover facility

### III. <u>Schedules</u>

All proposed Amtrak train schedules shown in this feasibility study are dependent upon schedule timeslots made available to Amtrak by certain of the host railroads. Scheduled timeslots provided are subject to further discussion based on traffic volumes, operating conditions and other considerations in existence at the time of actual service commencement on either route. Given likely freight and passenger traffic growth and the possibility of changing operating conditions on either route it is anticipated that revisions to the proposed schedules shown in this study will be required by the time of any future service commencement.

Using Amtrak's standard methodology and reflecting the maximum authorized timetable operating speeds, station dwell times, and 8% recovery time, "strawman" schedules were developed for both Routes A and B. They are as follows:

# Scenario A4: BNSF-IAIS Daily Origin/Destination: Chicago/Iowa City

Morning	Evening					Morning	Evening
Westbound	<u>Westbound</u>					Eastbound	Eastbound
9:30 AM	6:30 PM		Dp	Chicago, IL CT	Ar	12:00 PM	10:00 PM
R 9:47 AM	R 6:47 PM		Dp	La Grange Road, IL	Dp	D 11:32 AM	D 9:32 PM
R 10:04 AM	R 7:04 PM		Dp	Naperville, IL	Dp	D 11:17 AM	D 9:17 PM
10:29 AM	7:29 PM		Dp	Plano, IL	Dp	10:53 AM	8:53 PM
10:57 AM	7:57 PM		Dp	Mendota, IL	Dp	10:25 AM	8:25 PM
11:19 AM	8:19 PM		Dp	Princeton, IL	Dp	10:05 AM	8:05 PM
12:37 PM	9:37 PM		Dp	Geneseo, IL	Dp	8:47 AM	6:47 PM
1:32 PM	10:32 PM		Dp	Moline, IL	Dp	8:00 AM	6:00 PM
3:50 PM	12:50 AM	¥	Ar	Iowa City, IA	Dp	5:40 AM	3:40 PM

### Current Speeds via BNSF-IAIS Chicago...Naperville...Mendota...Princeton...Geneseo...Moline...Iowa City

**R** – LaGrange Road and Naperville Westbound – Stops only to receive passengers

**D** – Naperville and LaGrange Road Eastbound – Stops only to discharge passengers

# Scenario A5: BNSF-IAIS Daily Origin/Destination: Chicago/Iowa City

### 60 mph via BNSF-IAIS Chicago...Naperville...Mendota...Princeton...Geneseo...Moline...Iowa City

Morning <u>Westbound</u>	Evening Westbound						Morning Eastbound	Evening Eastbound
9:30 AM	6:30 PM		Dp	Chicago, IL CT	Ar		12:00 PM	10:00 PM
R 9:47 AM	R 6:47 PM		Dp	La Grange Road, IL	Dp		D 11:32 AM	D 9:32 PM
R 10:04 AM	R 7:04 PM		Dp	Naperville, IL	Dp	11	D 11:17 AM	D 9:17 PM
10:29 AM	7:29 PM		Dp	Plano, IL	Dp		10:53 AM	8:53 PM
10:57 AM	7:57 PM		Dp	Mendota, IL	Dp		10:25 AM	8:25 PM
11:19 AM	8:19 PM		Dp	Princeton, IL	Dp	11	10:05 AM	8:05 PM
12:24 PM	9:24 PM		Dp	Geneseo, IL	Dp		9:01 AM	7:01 PM
1:07 PM	10:07 PM		Dp	Moline, IL	Dp		8:25 AM	6:25 PM
3:02 PM	12:02 AM	¥	Ar	Iowa City, IA	Dp		6:28 AM	4:28 PM

 $\mathbf{R}$  – LaGrange Road and Naperville Westbound – Stops only to receive passengers

**D** – Naperville and LaGrange Road Eastbound – Stops only to discharge passengers

# Scenario A6: BNSF-IAIS Daily Origin/Destination: Chicago/Iowa City

Morning <u>Westbound</u>	Evening <u>Westbound</u>					Morning Eastbound	Evening Eastbound
9:30 AM	6:30 PM		Dp	Chicago, IL CT	Ar	12:00 PM	10:00 PM
R 9:47 AM	R 6:47 PM		Dp	La Grange Road, IL	Dp	D 11:32 AM	D 9:32 PM
R 10:04 AM	R 7:04 PM		Dp	Naperville, IL	Dp	D 11:17 AM	D 9:17 PM
10:29 AM	7:29 PM		Dp	Plano, IL	Dp	10:53 AM	8:53 PM
10:57 AM	7:57 PM		Dp	Mendota, IL	Dp	10:25 AM	8:25 PM
11:19 AM	8:19 PM		Dp	Princeton, IL	Dp	10:05 AM	8:05 PM
12:14 PM	9:14 PM		Dp	Geneseo, IL	Dp	9:12 AM	7:12 PM
12:52 PM	9:52 PM		Dp	Moline, IL	Dp	8:40 AM	6:40 PM
2:28 PM	11:28 PM	¥	Ar	Iowa City, IA	Dp	7:02 AM	5:02 PM

### 79 mph via BNSF-IAIS

# Chicago...Naperville...Mendota...Princeton...Geneseo...Moline...lowa City

 $\mathbf{R}$  – LaGrange Road and Naperville Westbound – Stops only to receive passengers

 $\boldsymbol{D}-Naperville$  and LaGrange Road Eastbound – Stops only to discharge passengers

# Scenario B4: Metra-CSXT-IAIS

## Daily Origin/Destination: Chicago/Iowa City

Current Speeds via Metra-CSXT-IAIS Chicago...Joliet...Morris...LaSalle...Geneseo...Moline...lowa City

Morning Westbound	Evening Westbound						Morning Eastbound	Evening Eastbound
9:22 AM	6:35 PM	I	Dp	Chicago, IL CT	Ar	<b>A</b>	1:54 PM	11:59 PM
R 10:43 AM	R 7:56 PM		Dp	Joliet, IL	Dp		D 12:35 PM	D 10:40 PM
11:40 AM	8:53 PM		Dp	Morris, IL	Dp		11:29 AM	9:34 PM
1:32 PM	10:45 PM		Dp	LaSalle, IL	Dp		9:21 AM	7:26 PM
3:25 PM	12:38 AM		Dp	Geneseo, IL	Dp		7:36 AM	5:41 PM
4:29 PM	1:42 AM		Dp	Moline, IL	Dp		6:49 AM	4:54 PM
6:47 PM	4:00 AM	¥	Ar	Iowa City, IA	Dp	I	4:29 AM	2:34 PM

 $\mathbf{R}$  – Joliet Westbound – Stops only to receive passengers

**D** – Joliet Eastbound – Stops only to discharge passengers

# Scenario B5: Metra-CSXT-IAIS Daily Origin/Destination: Chicago/Iowa City

Morning Westbound	Evening Westbound						Morning Eastbound	Evening Eastbound
9:22 AM	6:35 PM	I	Dp	Chicago, IL CT	Ar	▲	1:54 PM	11:59 PM
R 10:43 AM	R 7:56 PM		Dp	Joliet, IL	Dp		D 12:35 PM	D 10:40 PM
11:26 AM	8:39 PM		Dp	Morris, IL	Dp		11:44 AM	9:49 PM
12:48 PM	10:01 PM		Dp	LaSalle, IL	Dp		10:13 AM	8:18 PM
2:04 PM	11:17 PM		Dp	Geneseo, IL	Dp		9:05 AM	7:10 PM
2:49 PM	12:02 AM		Dp	Moline, IL	Dp		8:29 AM	6:34 PM
4:44 PM	1:57 AM	¥	Ar	Iowa City, IA	Dp		6:32 AM	4:37 PM

### 60 mph via Metra-CSXT-IAIS Chicago...Joliet...Morris...LaSalle...Geneseo...Moline...lowa City

**R** – Joliet Westbound – Stops only to receive passengers

 $\mathbf{D}$  – Joliet Eastbound – Stops only to discharge passengers

# Scenario B6: Metra-CSX-IAIS Daily Origin/Destination: Chicago/Iowa City

### 79 mph via Metra-CSXT-IAIS Chicago...Joliet...Morris...LaSalle...Geneseo...Moline...lowa City

Morning Westbound	Evening Westbound						Morning Eastbound	Evening Eastbound
9:22 AM	6:35 PM	I	Dp	Chicago, IL CT	Ar	▲	1:54 PM	11:59 PM
R 10:43 AM	R 7:56 PM		Dp	Joliet, IL	Dp		D 12:35 PM	D 10:40 PM
11:20 AM	8:33 PM		Dp	Morris, IL	Dp		11:52 AM	9:57 PM
12:31 PM	9:44 PM		Dp	LaSalle, IL	Dp		10:32 AM	8:37 PM
1:29 PM	10:42 PM		Dp	Geneseo, IL	Dp		9:40 AM	7:45 PM
2:10 PM	11:23 PM		Dp	Moline, IL	Dp		9:08 AM	7:13 PM
3:46 PM	12:59 AM	¥	Ar	Iowa City, IA	Dp		7:30 AM	5:35 PM

 $\mathbf{R}$  – Joliet Westbound – Stops only to receive passengers

 $\mathbf{D}$  – Joliet Eastbound – Stops only to discharge passengers

The proposed station stops indicated above reflect our initial recommendations for this route based on discussions with various parties. It is possible that these may change, or that other stations may be added, if this route is selected for possible implementation of service. (See also general discussion on "Station Facilities," Section I.C.)

#### IV. <u>Ridership/Revenue Forecast</u>

Based on a review of the route alternatives by the firm AECOM, the estimated annual ridership and revenue forecasts were developed and are included in Section VII.

#### V. <u>Summary of Key Elements of All Routes Including State Contract Cost</u>

Key elements of each route alternative are summarized in Section VII, including the projected annual state contract cost.

### VI. <u>Layover Facility</u>

Presuming the service terminates in Iowa City, an overnight train consist storage track location will need to be identified. In addition, a small building facility will be needed for use by train crews, as well as for storage of cleaning equipment and for communications facilities. A standby 480 volt power unit as well as potable water unit will also need to be provided.

The Iowa Interstate Railroad has indicated that a yard track associated with their Iowa City locomotive service building in that yard may be available for use as an overnight train storage location. Power and water including space for employee parking might be already available.

A line item of \$300,000 has been included in the Summary of Capital Costs for a layover facility. However, rental of a layover facility from the Iowa Interstate Railroad, at its Iowa City yard, might be an option.

#### VII. <u>Summary of Key Numbers – Proposed Quad Cities to Iowa City Route</u>

This section summarizes key elements of the Quad Cities to Iowa City report (Iowa Segment Only).

#### Route A - Iowa Segment Only - Quad Cities-Iowa City via IAIS (BNSF-Amtrak)

Length of Route (miles)		59.3	
No. Rail Carriers		1	
	A4	A5	A6
	<u>As-is</u>	<u>60 mph</u>	<u>79 mph</u>
Proposed Scheduled Running Time – Westbound (hr:min)	2:18	1:55	1:36
Proposed Scheduled Running Time – Eastbound (hr:min)	2:20	1:57	1:38
"Order of Magnitude" Capital Cost (\$millions) (1)	\$0.3	\$26.1	\$32.5
Estimated Annual Ridership (two daily round-trips)	43,800	60,700	76,100
Estimated Annual Revenue (\$millions)	\$1.2	\$1.7	\$2.2
Estimated Annual Operating Expense (\$millions)	\$2.1	\$1.9	\$2.3
Estimated Annual State Contract Cost (\$millions)	\$0.9	\$0.2	\$0.1

# <u>Route B – Iowa Segment Only - Quad Cities-Iowa City via IAIS (CSXT-Metra/Rock Island District-Amtrak)</u>

Length of Route (miles)		59.3	
No. Rail Carriers		1	
	B4	B5	B6
	<u>As-is</u>	<u>60 mph</u>	<u>79 mph</u>
Proposed Scheduled Running Time – Westbound (hr:min)	2:18	1:55	1:36
Proposed Scheduled Running Time – Eastbound (hr:min)	2:20	1:57	1:38
"Order of Magnitude" Capital Cost (\$millions) (1)	\$0.3	\$26.1	\$32.5
Estimated Annual Ridership (two daily round-trips)	24,600	46,000	63,200
Estimated Annual Revenue (\$millions)	\$0.7	\$1.3	\$1.8
Estimated Annual Operating Expense (\$millions)	\$1.9	\$2.3	\$2.1
Estimated Annual State Contract Cost (\$millions)	\$1.2	\$1.0	\$0.3

Footnote (1): Includes \$0.3 million for an Iowa City layover facility

### VIII. <u>Mobilization Costs (one-time expense) – Chicago-Quad Cities- Iowa City -</u> <u>Combined</u>

There are a number of up-front expenses that would be incurred by Amtrak should any of the route alternatives be funded. These include coach rehabilitation, personnel recruitment and training, radio equipment, uniforms for on-board personnel, etc. A summary of significant items is presented below:

	Route					
	<u>A4</u>	<u>A5</u>	<u>A6</u>	<u>B4</u>	<u>B5</u>	<u>B6</u>
Equipment Requirements Coach cars per train	2	2	3	1	2	2
Food Service cars per train	1	1	1	1	1	1
Mobilization Costs		D	<u>ollars, In</u>	Millions		
Coach Rehabilitation	\$6.3	\$4.2	\$5.6	\$4.2	\$6.3	\$4.2
Training and other	<u>1.1</u>	<u>1.1</u>	<u>1.1</u>	<u>1.1</u>	<u>1.1</u>	<u>1.1</u>
Total Estimated Mobilization Costs	\$7.4	\$5.3	\$6.7	\$5.3	\$7.4	\$5.3
Less: Illinois Segment only	5.2	5.2	<u>5.2</u>	<u>3.8</u>	<u>3.8</u>	<u>3.8</u>
Total Incremental Costs - Iowa Segment	<u>\$2.2</u>	<u>\$0.1</u>	<u>\$1.5</u>	<u>\$1.5</u>	<u>\$3.6</u>	<u>\$1.5</u>

### **One Time Costs**

#### Forecast Results for Proposed Quad Cities - Iowa City Service Options SUMMARIZED INCREMENTAL RIDERSHIP AND REVENUE FORECAST

#### **ROUTE A - QUAD CITIES TO IOWA CITY VIA IAIS**

Annual Totals		Annual Increments (1)						
	Baseline		A4 - Current Speed**		<u>A5 - 60 MPH**</u>		<u>A6 - 79 MPH**</u>	
		Ticket		Ticket		Ticket		Ticket
<u>Routes</u>	Ridership	Revenue	<u>Ridership</u>	<u>Revenue (2)</u>	<u>Ridership</u>	<u>Revenue (2)</u>	<u>Ridership</u>	<u>Revenue (2)</u>
New Route	0	\$0	43,800	\$1,163,000	60,700	\$1,610,000	76,100	\$2,010,000
				Average		Average		Average
Service Summary			Round <u>Trips</u>	Run Time (3)	Round <u>Trips</u>	Run Time (3)	Round <u>Trips</u>	Run Time (3)
Quad Cities-Iowa City via IAIS		2	2 hrs 18 mins.	2	1 hrs 55 mins	2	1 hr 36 mins	
Route Miles			59.3		59.3		59.3	
Projected total riders per train:								
Quad Cities - Iowa	a City		30		42		52	
Chicago-Quad Cit Projected total rider	•	BNSF-IAIS						
Chicago - Quad C	•		92		112		128	

#### Note 1:

\*\* Potential service options

Scenario A4 Quad Cities-Iowa City via IAIS at current operating speed

Scenario A5 Quad Cities-Iowa City via IAIS at an assumed maximum speed of 60 miles per hour.

Scenario A6 Quad Cities-Iowa City via IAIS at an assumed maximum speed of 79 miles per hour.

#### Note 2:

Revenues presented herein do not include projected food and beverage revenues.

#### Note 3:

Projected westbound running time between Moline, IL and Iowa City, IA. Projected eastbound running time is slightly longer.

#### Attachment 1 Iowa City Forecast

#### Forecast Results for Proposed Quad Cities - Iowa City Service Options SUMMARIZED INCREMENTAL RIDERSHIP AND REVENUE FORECAST

#### **ROUTE B - QUAD CITIES TO IOWA CITY VIA IAIS**

	Annual Totals		Annual Increments (1)						
	Baseline		B4 - Current Speed**		<u>B5 - 60 MPH**</u>		B6 - 79 MPH**		
		Ticket		Ticket		Ticket		Ticket	
<u>Routes</u>	Ridership	Revenue	<u>Ridership</u>	<u>Revenue (2)</u>	<u>Ridership</u>	<u>Revenue (2)</u>	<u>Ridership</u>	<u>Revenue (2)</u>	
New Route	0	\$0	24,600	\$595,000	46,000	\$1,164,000	63,200	\$1,645,000	
				_		_		_	
				Average		Average		Average	
Service Summary			Round <u>Trips</u>	<u>Run Time (3)</u>	Round <u>Trips</u>	<u>Run Time (3)</u>	Round <u>Trips</u>	<u>Run Time (3)</u>	
Quad Cities-Iowa City via IAIS		2	2 hrs 18 mins.	2	1 hrs 55 mins	2	1 hr 36 mins		
Route Miles			-	59.3	-	59.3	-	59.3	
Projected total riders per train:			0010		0010				
Quad Cities - Iowa City		17		32		43			
Chicago-Quad Cities-Iowa City via Metra-CSXT-IAIS									
Projected total rider									
Chicago - Quad C	ities - Iowa City		44		79		101		

#### Note 1:

\*\* Potential service options

Scenario B4 Quad Cities-Iowa City via IAIS at current operating speed

Scenario B5 Quad Cities-Iowa City via IAIS at an assumed maximum speed of 60 miles per hour.

Scenario B6 Quad Cities-Iowa City via IAIS at an assumed maximum speed of 79 miles per hour.

#### Note 2:

Revenues presented herein do not include projected food and beverage revenues.

#### Note 3:

Projected westbound running time between Moline, IL and Iowa City, IA. Projected eastbound running time is slightly longer.

# Attachment 2

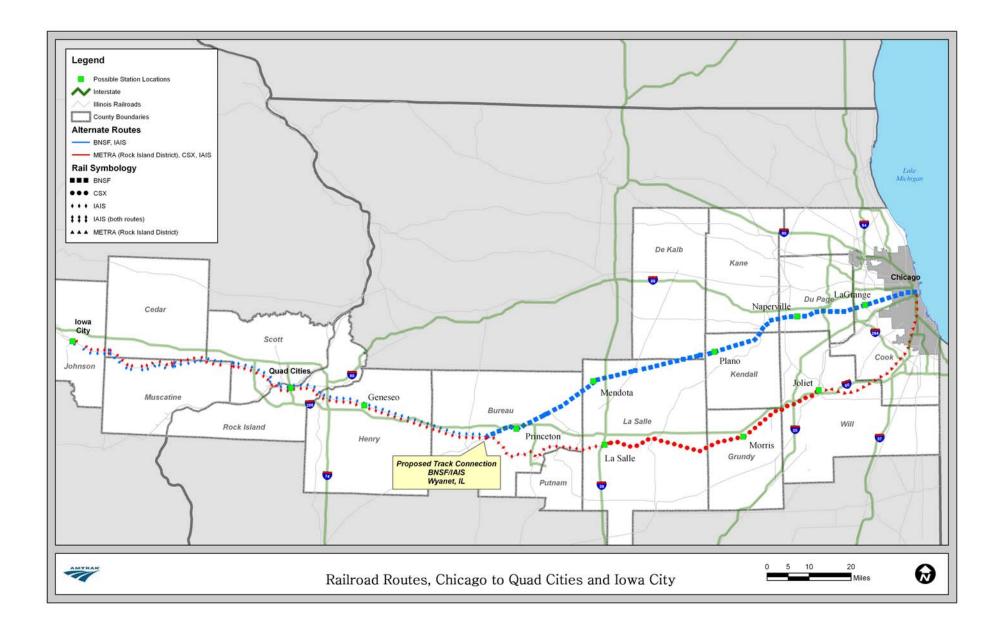
#### Iowa City Forecast

# Attachment 3

### Acronyms

ABS	-	Automatic Block Signals – On a specific section or length of track, an arrangement of automatic signals governing each block.
BNSF	-	The Burlington Northern Santa Fe Railway Company
Cab Signals	-	Signals that are located in the engine control compartment and which indicate track occupancy or condition. Cab signals are used in conjunction with interlocking signals and with or in lieu of block signals.
CN	-	Canadian National Railway Company
CSXT	-	CSX Transportation Company
СТС	-	Centralized Traffic Control – A term applied to a system of railroad operation by means of which the movement of trains over routes and through blocks on a designated section of track or tracks is directed by signals controlled from a designated control point.
CWR	-	Continuous Welded Rail
DTC	-	Direct Traffic Control – A block or series of blocks or sections of track where a train dispatcher authorizes track occupancy.
FRA Class of Track	-	Federal Railroad Administration classification of track based on physical conditions and geometry, which determines maximum train speeds that can be operated.
IAIS	-	Iowa Interstate Railroad
ICE		Iowa Chicago & Eastern Railroad
III. DOT	-	The Illinois Department of Transportation
Iowa DOT	-	The Iowa Department of Transportation
Metra	-	The Commuter Rail Division of the Regional Transportation Authority
MGT	-	Million Gross Tons – A traffic density measure. The movement of one million tons of weight, including the goods, cars, and locomotives.
TWC	-	Track Warrant Control – A method to authorize train movement to protect men or machines on a main track within specified limits in a territory designated by the timetable.

# **Exhibit 1 – Alternative Route Map**



# **Exhibit 2 – Iowa DOT Letter**



# lowa Department of Transportation

800 Lincoln Way, Ames, Iowa 50010

515-239-1111 FAX: 515-239-1120

April 3, 2007

Mr. Mike Franke Senior Director National Passenger Rail Corporation-Amtrak 525 West Van Buren St., Suite 200 Chicago, Illinois 60607

Dear Mr. Franke:

On February 20, 2007, the Illinois Department of Transportation requested Amtrak conduct a feasibility study to resume service between Chicago and the Quad Cities. The feasibility study would include potential routes, capital needs and associated ridership and cost estimates on a route that has not seen service since the demise of the former Rock Island Railroad in 1980. The Iowa Department of Transportation respectfully requests that the study be extended to include service to Iowa City, Iowa.

Both Iowa and Illinois are partners in the Midwest Regional Rail Initiative (MWRRI), the nine-state effort to plan and develop a passenger rail system hubbed in Chicago to serve the major metropolitan areas in the Midwest. The proposed route for the MWRRI would serve Chicago, Quad Cities and Iowa City before extending west to Des Moines and Omaha, Nebraska. The proposed feasibility study is an important first step for establishing service on this route and the potential development of the MWRRI.

Please let me know if there are any costs associated with the conduct of this study extension. I look forward to working with you. If you have any questions, please contact John Hey at 515-239-1653.

Sincerely,

Nancy J. Richardson Director

NJR:ckw

cc: George Weber, Illinois DOT Neil Volmer, Director, Planning, Programming and Modal Division, Iowa DOT John Hey, Modal Division, Iowa DOT