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IOWA RAIL PLAN

1987 Amendment to 1986

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1987 Amendment  
to  
1986 Iowa Rail Plan

October 6, 1987

The Iowa Interstate Railroad, Ltd. Rail Assistance Application by Heartland Rail Corporation provides the basis for this Amendment. Detailed project descriptions, operation statistics and supporting methodology used in estimating operating savings were obtained from this application.

## Introduction

The 1986 Iowa Rail Plan, as approved by the Federal Railroad Administration, in accordance with the Code of Federal Regulations, Part 266.15, consisted of the 1985 Iowa Railroad Analysis Update and the 1986 Amendment. This document recommended nine rail-line improvement projects to be eligible for state and federal funding under the Iowa Rail Assistance Program and the Iowa Railway Finance Authority. The nine projects recommended for funding totaled 711 miles at a cost of approximately \$62 million.

The 1986 Rail Plan included current railroad system financial and operating information and maps for each of Iowa's rail carriers as well as several new short-line railroads which have recently instituted service. The report discussed the role of railroads in transporting freight in Iowa, describes the process of determining rail service levels for the state and sets forth state rail policy and programming objectives. To be eligible for funding, a project must be included in the latest Iowa railroad plan, have qualifying rail traffic density, and have an economic benefit-cost analysis completed.

The Rail Assistance Program was initiated in 1974. Since then the railroads, shippers and the state and federal governments have funded the upgrading of 1,453 miles of track at a total cost of \$115 million.

Of the nine rail projects included in the 1986 plan, four have now been contracted for rehabilitation and five have been postponed due to a change in proprietary railroad priorities. Therefore, it is necessary to identify and analyze additional project candidates for program eligibility. This 1987 Amendment will be submitted to the Federal Railroad Administration to qualify another project candidate for rail rehabilitation assistance.

This amendment evaluates an application by Heartland Rail Corporation in conjunction with the Iowa Interstate Railroad Ltd. for a no-interest loan and a grant from the Iowa Rail Assistance Program. This application is for the rehabilitation of trackage in downtown Des Moines and the installation or rehabilitation of eight specific passing tracks essential to the operation of the Iowa Interstate Railroad on Heartland Rail Corporation's tracks across Iowa.

Submission of this amendment will alter the Federal Railroad Administration's approved list of rail projects. Federal Railroad Administration regulation requires an amendment to the approved plan in conjunction with a statewide public hearing when significant revisions to a plan are proposed. The Iowa Department of Transportation is conducting a public hearing on this proposed action to provide an opportunity for public discussion and review of this 1987 Amendment.

HEARTLAND RAIL CORPORATION'S DES MOINES AND OTHER PASSING TRACK  
IMPROVEMENTS FOR IOWA INTERSTATE RAILROAD LTD.

Background

After over 125 years of operation, the Chicago, Rock Island and Pacific Railroad (Rock Island) was ordered into liquidation on January 25, 1980. The Rock Island had filed for reorganization five years earlier under Section 77 of the Bankruptcy Act. Shortly thereafter, the bankruptcy trustee was granted approval to abandon all lines and discontinue Rock Island operations over the railroad's entire system. After March 23, 1980, portions of the Rock Island system were continued in operation under voluntary service agreements with other railroad companies.

One of these interim operating companies was the Chicago and North Western Transportation Company (C&NW), which operated many of the Rock Island lines in Iowa. On June 29, 1983 the C&NW won approval to purchase 720 miles of Rock Island track including the "Spine Line" between Kansas City and the Twin Cities, Northern Iowa Grain Lines and 14 miles of the east-west main line through Des Moines.

The Iowa Railroad Company provided partial service over the remaining east-west Rock Island line and connecting branchlines starting in November 1981. Service was originally provided from Council Bluffs to Adair, and was extended across the state through Des Moines to Iowa City and on to Bureau, Illinois, under a lease from the Rock Island Trustee.

On June 1, 1984 after other extensive liquidations of Rock Island assets, a newly reorganized company, Chicago Pacific Corporation (CPAC) assumed responsibility over the remaining assets. One of the principal assets was this east-west main line between Chicago and Council Bluffs. On October 30, 1984, the Interstate Commerce Commission ruled the Iowa Railroad Company was no longer authorized to operate the line since CPAC had sold the lines.

Heartland Rail Corporation (Heartland) had purchased this former Rock Island east-west main line and connecting branchlines (435 miles of road) from Council Bluffs, Iowa to Bureau, Illinois, on October 10, 1984.

Heartland was formed in June 1983 by a group of shippers to preserve this main line which passes through the most densely populated rail corridor in Iowa and provides for the only direct east-west rail service out of Des Moines. Heartland purchased and leased, as lessor, these lines which are operated by Iowa Interstate Railroad (IAIS), as lessee. IAIS was formed on May 17, 1984 by three individuals who contributed capital to its formation, and operations commenced during November 1984. The IAIS system map is shown on Attachment 1.

Included in Heartland's purchase were provisions that CPAC grant certain trackage rights to IAIS to permit overhead operations without local service rights. They included: 14 miles from West Des Moines to east of Des Moines over the Chicago and North Western; 74 miles over the Baltimore and Ohio Railroad between Bureau and Joliet, Illinois; and 24 miles over the Chicago Regional Transit Authority from Joliet to Blue Island Yard (Chicago, Illinois).



Essentially, the combination of purchased properties (435 miles) and overhead rights (112 miles) permits single-line through service to shippers between Council Bluffs and the important interchange point of Chicago.

### Project Description

The trackage rights agreement entered into between IAIS and the C&NW granted IAIS the nonexclusive right to operate its trains over C&NW trackage between a point east of Des Moines (Milepost 350.8) and West Des Moines (Milepost 365.0) a distance of 14.2 miles.

However, from early 1985 and thereafter, the C&NW, because of high maintenance expenses on this former Rock Island track, entered into a trackage rights agreement with the Des Moines Union Railway Company (DMU). The DMU track provides parallel service on the westerly portion of C&NW's route through downtown Des Moines. IAIS's trackage rights over C&NW's route were therefore "piggybacked" onto the DMU trackage as well.

On April 8, 1987 the C&NW served notice of its intent to abandon certain sections of its Des Moines track over which IAIS has trackage rights. These sections include Milepost 350.80 to Milepost 353.25 east of Short Line Yard and Milepost 355.89 to Milepost 358.57 west of Short Line Yard (the portion not operated by C&NW because of parallel DMU trackage rights).

To protect the integrity of its route across Iowa, IAIS was forced to conduct an assessment of the economics between the acquisition and rehabilitation of the C&NW trackage in downtown Des Moines versus the existing DMU route with its escalating trackage rights fees.

IAIS has also identified the need for installation or rehabilitation of eight specific passing tracks across its east-west main line. These passing tracks are in a state of disrepair and, in conjunction with the Des Moines acquisition, are an important part of the efficient operations of IAIS. The IAIS has experienced continued traffic growth during its first three years of service, and these operating improvements are needed to support continued growth.

In summary, Heartland is applying, in conjunction with the IAIS, for a \$279,659 no-interest loan and a \$279,659 grant from the Iowa Rail Assistance Program. This funding will provide 40 percent of total project costs which are estimated at \$1,398,294. The Des Moines trackage rehabilitation or Phase I will cost \$750,254. The proposed passing track improvements or Phase II will cost \$648,040.

### Project Justification

Iowa Interstate Railroad has reached an agreement in principle with C&NW for the acquisition of those portions of track in Des Moines which C&NW had placed in abandonment category. IAIS found this alternative more desirable than the presently operated DMU route through Des Moines for several reasons.

### Line Description

IAIS's acquisition of C&NW property in Des Moines would consist of two track segments--one located east of Short Line Junction and Yard and the other just west of Short Line Junction and Yard. The two track segments have been designated as the East Segment and West Segment. Only the West Segment requires upgrading or rehabilitation in Phase I of this project. Short Line Junction is the point where C&NW's recently acquired north-south Rock Island SpineLine intersects the former east-west Rock Island main line. C&NW's Short Line Yard is the interchange yard just east of this intersection and is located east of downtown Des Moines. C&NW will continue to own and operate Short Line Yard and Junction with easement rights to IAIS.

The East Segment begins at Milepost 350.80, approximately 1,000 feet west of the crossing of the railroad and NE 56th Street in Des Moines. The single track heads generally in a southwestern direction for approximately 2.5 miles to near Short Line Yard at Milepost 353.25, which is located near the Laurel Hill Road crossing in Des Moines (see Attachment 2).

The West Segment begins just west of Short Line Junction at Milepost 355.89 near the East 18th Street crossing. This single-track main line heads generally in a western direction to SE 7th Street where it becomes a double-track main line. The line then crosses the Des Moines River and continues on through downtown Des Moines to the DMU crossing west of SW 11th Street. A single track continues west from the DMU crossing to the end of the Phase I project at Milepost 358.568 located near the SW 16th Street crossing. Total route length for this West Segment is nearly 2.7 miles. The DMU line presently used by C&NW and IAIS through downtown Des Moines parallels this West Segment for 2.5 miles and is located one block to the north (see Attachment 3).

Under Phase II of the project, 8.44 miles of passing track improvements are identified for completion within the next two years. Existing sidings located along the east-west main line near West Liberty, Ascalon, Colfax, Booneville, Earlham and Atlantic need rehabilitation. In addition, the siding located east of Menlo requires a new switch installation, and in Des Moines a need has been identified for construction of a completely new siding. Locations for the proposed sidings improvements are shown in Attachment 4, as well as those sidings which are currently operated. An inventory of all sidings and passing tracks located along the east-west Iowa trackage is shown in Attachment 5.

### Current Track Conditions

The IAIS main line is currently being upgraded to FRA Class III track standards, which permit up to 40 mph operating speeds. With the exception of the project area, the IAIS's ongoing maintenance program and the nearly completed FRA-funded rehabilitation project have resulted in a line in generally good condition. Speed restrictions of 10 mph are in effect for the Des Moines area yard limits.

Atlantic and Bureau (208 annual trains). This combined service will mean an average of four trains daily or 1,456 trains annually will pass over the proposed Des Moines project. Other C&NW trains will also operate over this track under a joint easement arrangement with IAIS.

In addition to these through train movements, other local or switch and transfer trains will provide service over other portions of IAIS's east-west main line and connecting branchlines. One "rover" local is scheduled six times per week to work Atlantic to Hancock Jct., the Audubon branchline and on to Booneville as needed. Another road switcher will run six times per week from Newton to Pella, then Pella to Des Moines and back east to Newton. One local will work Iowa City to Marengo and beyond to Newton as needed three times per week. Others will provide local or switch service between Iowa City and Wilton; between Rock Island and Wilton; from Rock Island to the Milan Branch, and east to Atkinson; and from Bureau to Peoria as needed. Phase II of this application will permit uninterrupted, smooth operation of all IAIS through and local train movements.

### Freight Traffic

Gross tons of freight and equipment and car-flow counts provided by IAIS for 1986 on the east-west main line are indicated on Attachment 6. Over 19,500 cars of freight or 1.55 million gross tons per mile traveled over the line west of Des Moines, while over 22,500 cars or 1.86 million gross tons per mile were carried between Des Moines and Newton. The highest traffic density on this line was 3.35 million gross tons per mile between Iowa City and Rock Island. This is much lower than the peak traffic density for this line which reached as high as 10.5 million when the line was operated by the Rock Island during 1977. Historic density through Des Moines is indicated in Attachment 7.

Since IAIS has been providing service, traffic has fluctuated from month to month, but generally the total annual carloads are increasing. During 1986, 38,228 carloads were carried by IAIS. This represented a 21 percent increase over the 1985 carloads. Carloads during 1987 are expected to increase another 31 percent to 50,170. By 1990 IAIS has forecasted traffic to reach 60,845 carloads (see Attachment 8), nearly double the traffic carried by the railroad during its first full year of service.

During 1986, 10,984 carloads or 832,000 tons of IAIS traffic were originated at Iowa stations, and 9,805 carloads or 758,000 tons of freight were terminated at Iowa stations. This is a major portion of the total carloads (38,228) and tonnage (3,010,000) reported from IAIS's total system.

A diverse range of traffic by commodity type is shipped across the state by IAIS. Major commodities, in order of decreasing volume, include farm products (grain), lumber, coal, scrap, TOFC/COFC traffic, paper and fertilizer. In 1986 these commodities accounted for 66 percent of all traffic shipped on the railroad (see Attachment 9). IAIS is marketing a new service--the double-stack container train. This service began in April 1987 with three cars shipped per week and increased to a total of nine cars per week by July 1987. By the end of 1987 IAIS expects that growth to increase to 15 cars per week. This and other growth in traffic described



the benefits. In strict economic terms, a desirable benefit-cost ratio is defined as one which is greater than or equal to 1.0. Because the benefit-cost analysis does not permit the quantification of all indirect benefits, railroad projects with ratios somewhat less than 1.0 may still be economically viable. Recognizing this, a ratio equal to 0.75 has been adopted by the Iowa DOT as the test of economic viability (see Chapter Six of the 1986 Iowa Rail Plan for additional information on this analysis procedure).

### Carrier Benefits

Carrier or railroad benefits are defined as the net contribution a rail line makes to a railroad's economic viability if the line is rehabilitated. Net contribution is the difference between the revenues and the costs from operations, or the net profit or loss. Carrier benefits may result from net profit or loss generated by rail traffic and/or from a reduction or savings in operating costs.

Phase I of this project will provide significant benefits to IAIS in the form of reduced trackage rights charges and the reduction of train delays experienced on the currently operated DMU line. These train delays increase IAIS operating costs by increasing crew costs @ \$38.67 per hour, car-hire costs @ \$0.35 per car-hour and locomotive costs @ \$9.15 per locomotive-hour.

IAIS has estimated a 51 minute-per-train savings in running time after the Phase I improvement on C&NW's line is completed. Based upon 1986 traffic levels, the C&NW alternative would have saved IAIS \$24,980 in lower crew costs, \$5,928 in car-hire savings and \$13,654 in locomotive costs during 1986. Based upon increasing traffic and corresponding number of trains, these projected annual savings increase to over \$168,000 by 1988 (see Attachment 10 and table shown below). During 1988, 1,456 trains are projected to use this corridor, which compares to 760 trains operated by IAIS during the 1986 year. Since trackage rights fees on the DMU line are expected to increase from 23 cents-per-car-mile to \$30.00-per-train-mile in 1988, significant savings from trackage rights reductions are also projected--a net savings of \$76,047 is expected during 1988.

### Annual IAIS Carrier Savings Phase I

	<u>Actual 1986</u>	<u>Estimated 1987</u>	<u>Projected 1988</u>
Crew Savings	\$24,980	\$24,980	\$ 47,858
Car-Hire Savings	5,928	7,113	16,438
Locomotive Savings	13,654	14,659	28,084
Subtotal	<u>\$44,562</u>	<u>\$46,752</u>	<u>\$ 92,380</u>
Net Trackage Rights Reduction	<u>27,396</u>	<u>32,875</u>	<u>76,047</u>
Total Annual Cost Savings	<u>\$71,958</u>	<u>\$79,627</u>	<u>\$168,427</u>



### Project Salvage Value

Project salvage value is defined as the residual value, at the end of the project's life, of the materials placed in the project. The residual value includes the value of ties, rail and other track materials less wear and tear, loss in recovery and the cost of removal and transportation to the consumer. Salvage values for Phase I and II as indicated in Attachment 11 were included as project benefits.

### Project Costs

Phase I work includes removal of the remains of the old Rock Island west-bound (north) double main track which has been unused for several years, and the construction of a new single line, mostly along the same line as the eastbound former (south) main. Work includes rebuilding the existing signals at 15 crossings, along with new battery boxes and relocation of some signals. Surfaces at all crossings will be renewed with rubber. New ties, 112-pound second-hand rail, and ballast will be part of the track work. Estimated construction costs for Phase I are \$750,254, as shown in Attachment 12.

Phase II work includes the upgrading of seven existing sidings and construction of a new siding along the line in Des Moines. These sidings are all located in areas where there used to be double main so no grading work is required. These sidings total 8.44 miles in length with the one in Des Moines being new construction. Work includes mainly ties and ballast, and four new turnouts, along with related surfacing and anchoring. Estimated costs for Phase II are \$648,040.

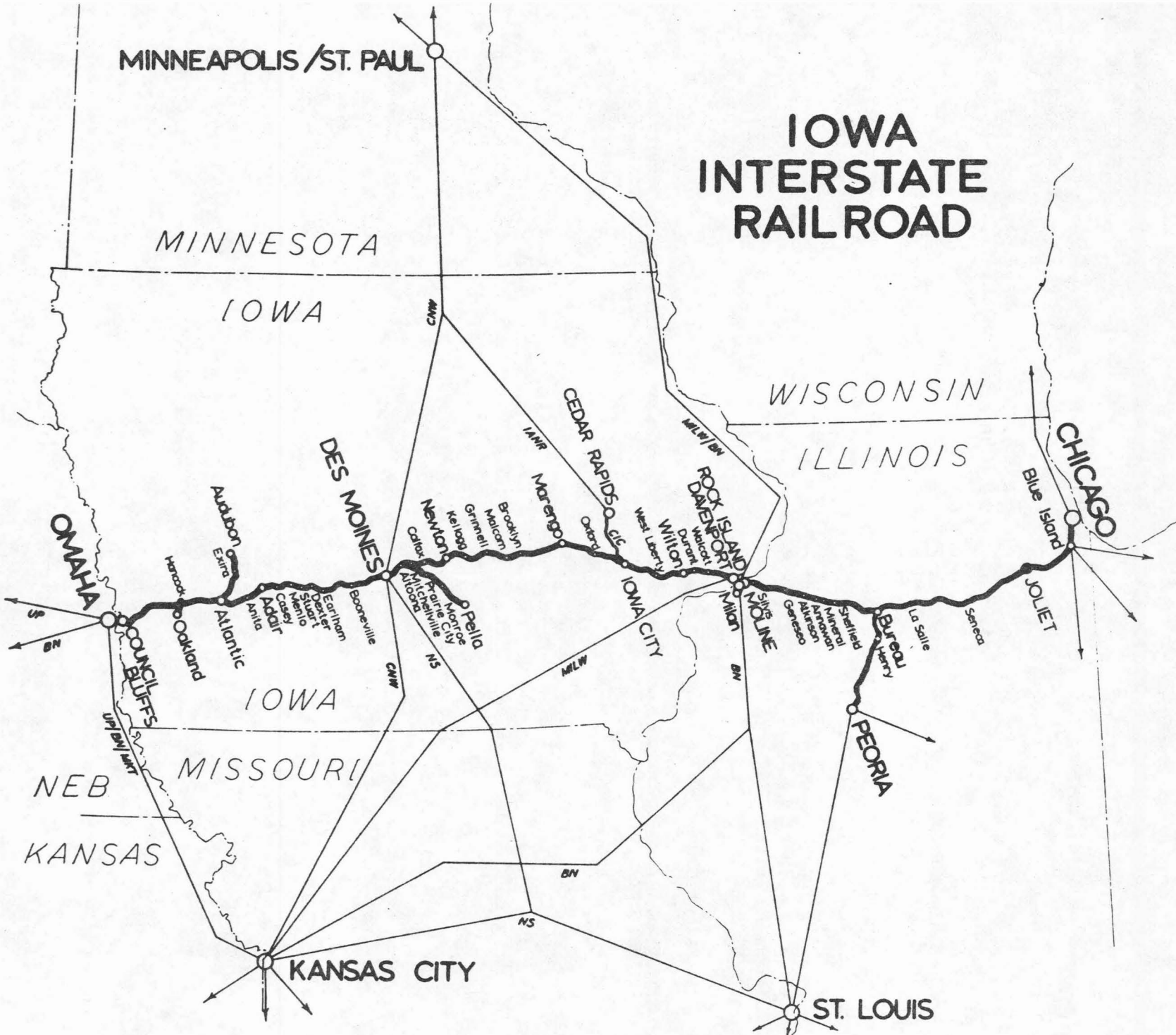
An additional project cost was included in the economic analysis for this project to provide for recapitalization of track assets at the end of their useful life. A remaining life of 70 years was assigned to the bridge over the Des Moines River in accordance with the Benesch & Company assessment. Other asset items were assigned appropriate annual costs for their replacement. These annual costs (for Phase I and II) were calculated at \$20,356 and \$20,942, respectively and discounted for the 10-year period.

### Conclusion

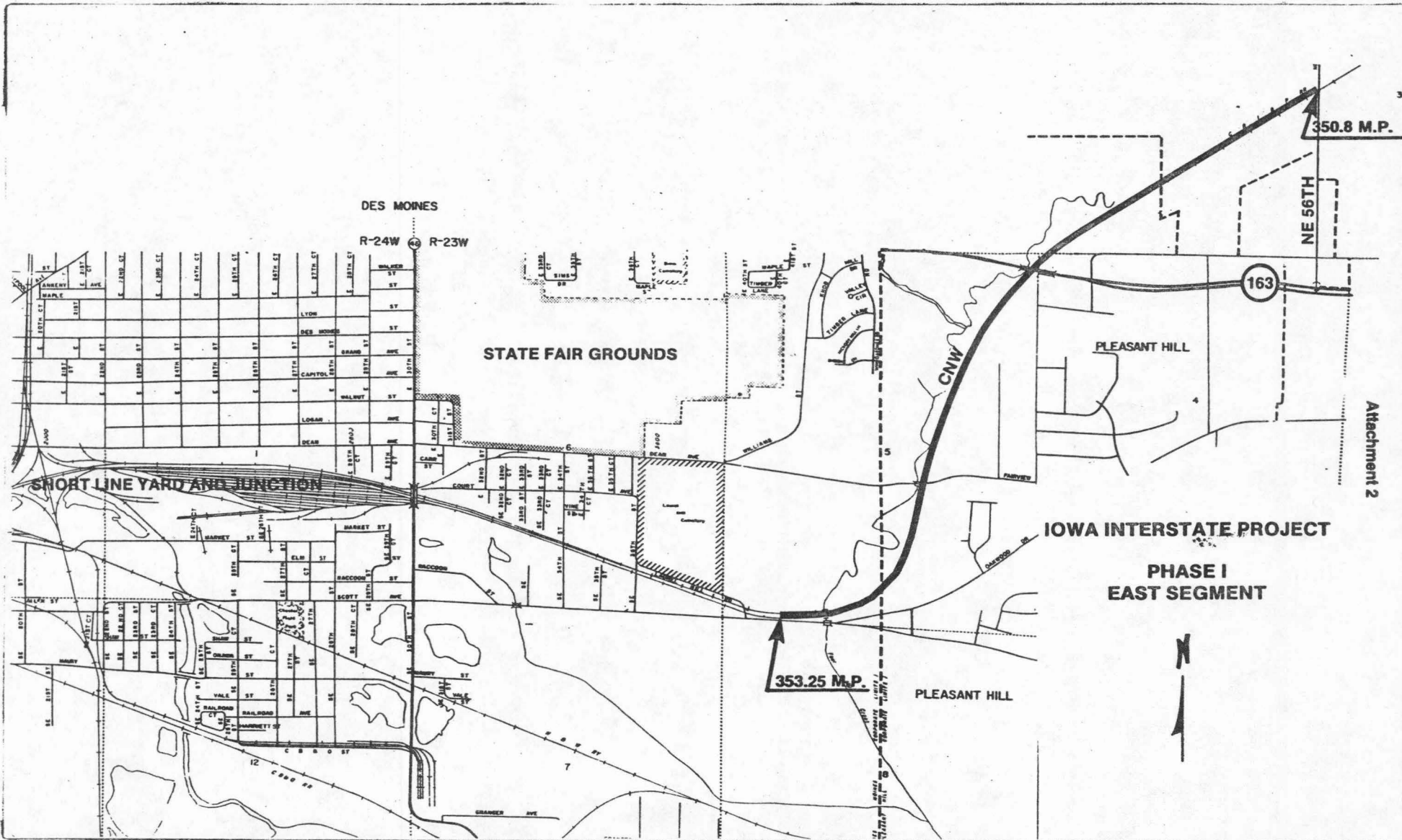
The Phase I rehabilitation of Des Moines trackage would yield a ratio of benefits to costs of 1.14 to 1.0 without recapitalization of project assets. If assets are recapitalized, this ratio is lowered to 0.96 to 1.00. Phase I benefits totaled \$858,554 compared to total costs of \$893,194 including recapitalization. The benefit-cost analysis summary is shown in Attachment 13.

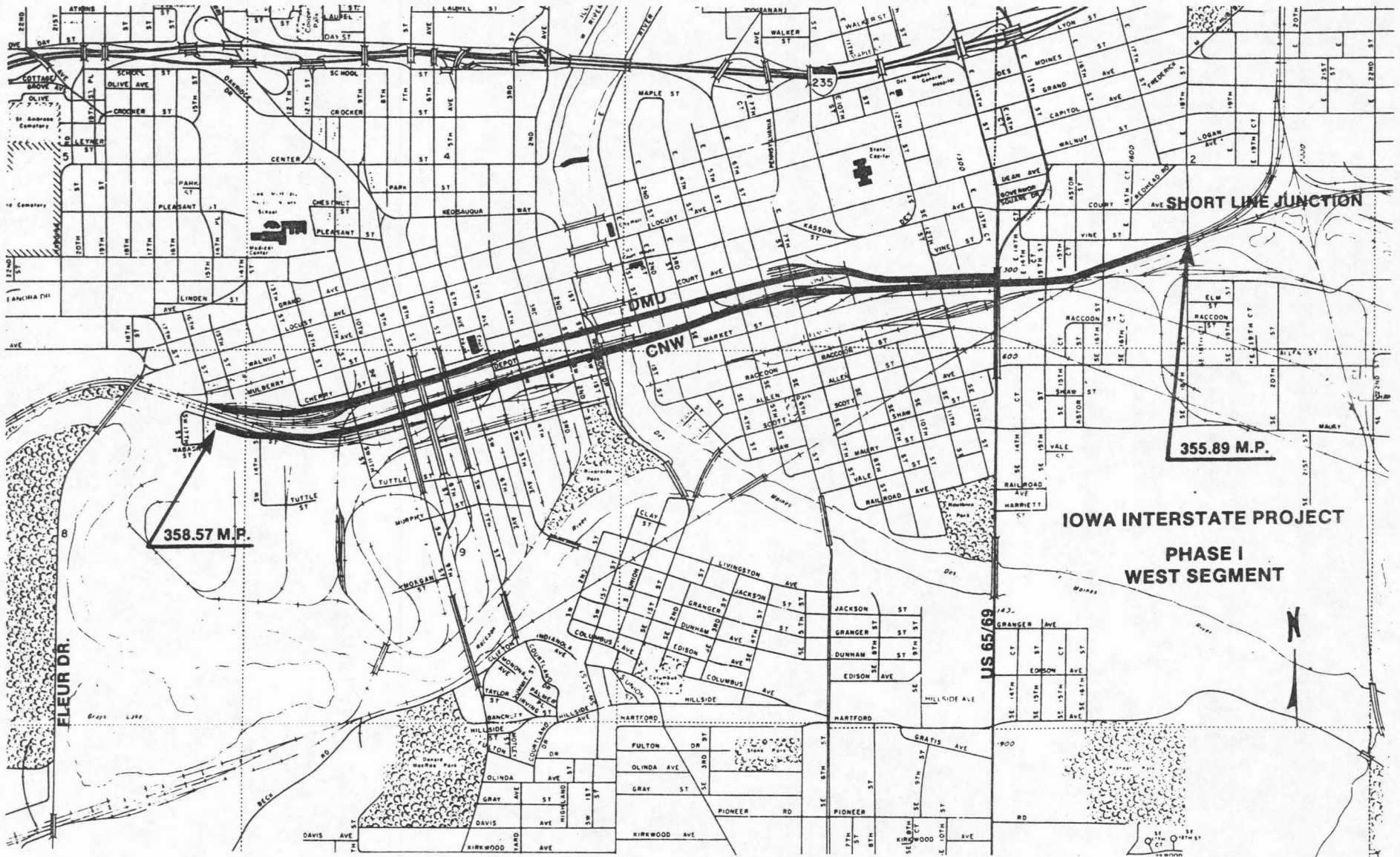
Rehabilitation of the passing tracks included in Phase II would yield a ratio of benefits to costs of 1.18 to 1.0 without consideration for recapitalization. Including recapitalization would also lower the ratio to 0.96 to 1.0. Phase II benefits totaled \$761,980 which compares to total costs of \$795,095 with recapitalization.

# IOWA INTERSTATE RAILROAD



Attachment 1









## Attachment 5

### IOWA INTERSTATE RAILROAD, LTD. IOWA SIDINGS & PASSING TRACKS - 1987 -

Length of Siding	Other Trks.	Stations	Mile Post From Chgo.
	Yard	Blue Island	15.7
		24.6	
		Joliet	40.2
		75.5	
5000	W1500	Bureau	115.7
		6.7	
	W500	Tiakilwa	122.4
		14.1	
2000	1800	Sheffield	136.5
		5.4	
		Mineral	141.9
		3.7	
		Annawan	145.6
		5.9	
5000	E700	Atkinson	151.5
		7.6	
	E2500	Geneseo	159.1
		10.5	
		Colona	169.6
		0.1	
		B.N. Crossing	169.7
		4.0	
	W5200	Silvis	173.7
		1.4	
	W500	East Moline	175.1
		3.8	
5200	5000	Moline	178.9
		2.2	
3200	Yard	Rock Island	181.1
		0.2	
		B.N. Crossing	181.3
		0.7	
1500		Miss. River Brdg.	182.0
		0.8	
		Davenport	182.8
		0.9	
		Mo. Div. Jct.	183.7
		3.2	
	W4000	Farnum	186.9
		8.0	
5000	E2000	Walcott	194.9
		4.3	
	E250	Stockton	199.2
		2.8	
	750	Durant	202.0
	E150	1.1	
6000	E2000	Twin States	203.2
		4.5	
	Yard	Wilton	207.6
		2.4	
5200		North Star	210.0
		5.9	
	W500	Atalissa	215.9
		5.4	
4000		West Liberty	221.3
		15.5	
10000	Yard	Iowa City	236.8
		221.1	

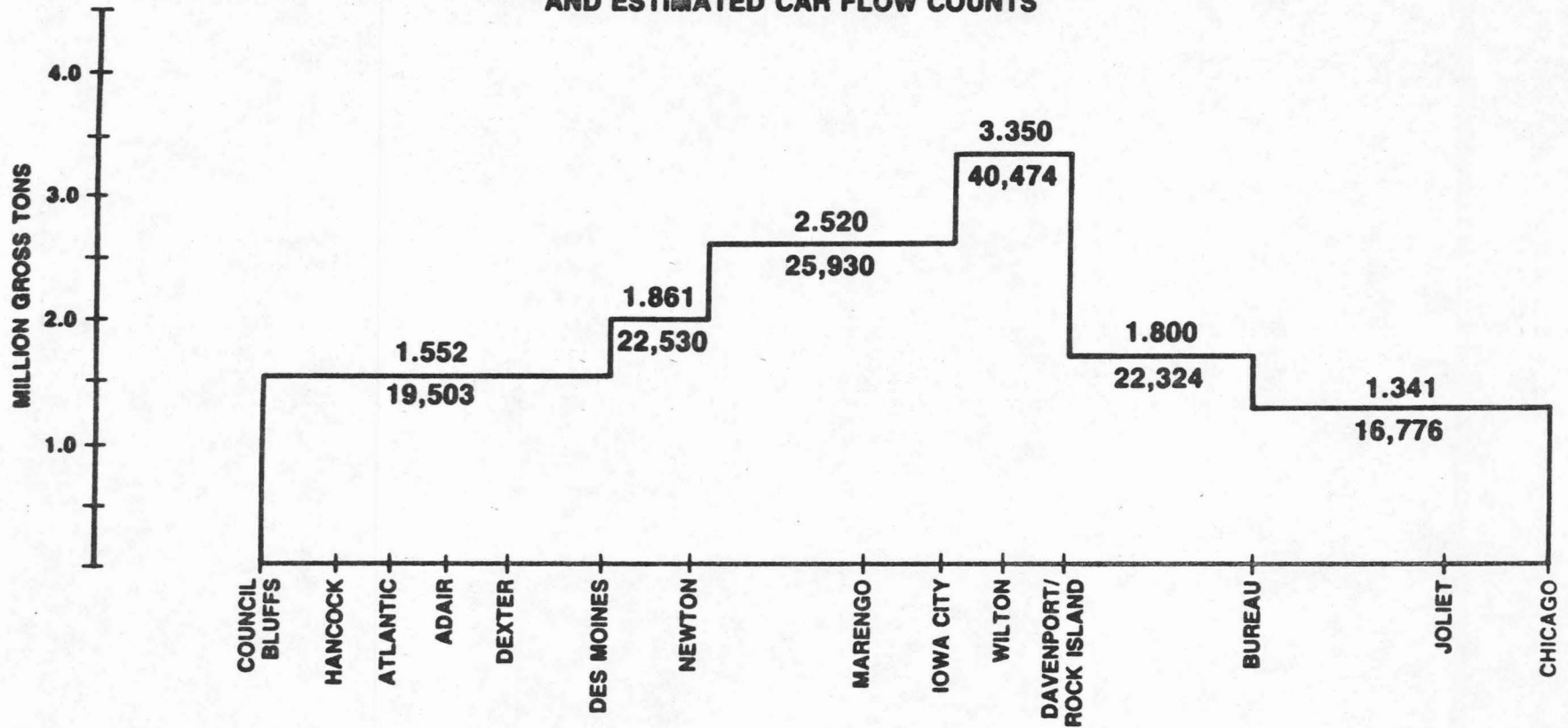
Length of Siding	Other Trks.	Stations	Mile Post From Chgo.
10000	yard	Iowa City	236.8
		4.2	
	E500	Vernon	241.0
	W500	1.7	
1200	E400	Hawkeye	242.7
	E240	8.8	
4500	W500	Oxford	251.5
		5.1	
		Homestead	256.6
		10.7	
3050		Marengo	267.3
5300	W700	6.6	
	1000	Ladora	273.9
	W1000	6.0	
		Victor	279.9
		7.8	
7800	E250	Brooklyn	287.7
	W250	6.0	
	1000	Malcom	293.7
		3.6	
4100		Ascalon	297.3
		5.4	
		CNW Crossing	302.7
2500	500	Grinnell	302.7
	W150	11.1	
4000	W300	Kellogg	313.8
	500	8.7	
	Yard	Newton	322.5
		85.7	

Length of Siding	Other Trks.	Stations	Mile Post From Chgo.
	Yard	Newton	322.5
		12.2	
5900	W300	Colfax	334.7
	1000	5.9	
	E1000	Mitchellville	340.6
		6.3	
	E1000	Altoona	346.9
	750	3.9	
		MP 350.8	350.8
		13.7	
		MP 364.5	364.5
		8.2	
5900		Booneville	372.7
		7.1	
	600	De Soto	379.8
		5.7	
1500		Winear	385.5
		1.9	
6000	W300	Earlham	387.4
	1000	5.6	
	1000	Dexter	393.0
		5.2	
4000	W850	Stuart	398.2
	W800	3.3	
4500		East Menlo	401.5
		1.6	
	1000	Menlo	403.1
		7.0	
	W1000	Casey	410.1
	3000	6.7	
	W3000	Adair	416.8
		8.7	
5000	2400	Anita	425.5
		14.4	
	Yard	Atlantic	439.9
		0.8	
		Audubon Jct.	440.7
		14.9	
5000		Hillis	455.6
		3.7	
	Yard	Hancock Jct.	459.3
		15.4	
		Peter	474.7
6300		1.9	
	W1000	McClelland	476.6
		11.4	
	Yard	Bluffs	488.0
		165.5	

★ Proposed Rehabilitation Locations & Des Moines New Installation.

# IOWA INTERSTATE RAILROAD, LTD.

RAIL ASSISTANCE APPLICATION  
1986 ESTIMATED GROSS TONS/MILE  
AND ESTIMATED CAR FLOW COUNTS



## Attachment 7

EAST - WEST MAIN LINE  
HISTORIC DENSITY  
MILLION GROSS TON-MILES PER MILE

	1977	1978	1980	1981	1982-83	1984-85	1986
DEXTER-WEST DES MOINES	8.73	8.49	0.33	0.37	0.20(E)	0.60(E)	1.55
WEST DES MOINES- DES MOINES	10.52	9.84	0.91	0.78	0.96(E)	0.60(E)	1.55
DES MOINES- ALTOONA	10.52	9.84	0.45	0.61	0.42(E)	0.70(E)	1.86
ALTOONA- NEWTON	10.07	9.49	0.24	0.27	0.16(E)	0.70(E)	1.86

OPERATION

1977-1978 - ROCK ISLAND

1979 - BANKRUPT & NO FILING

1980-1981 - CHICAGO & NORTH WESTERN TRANSPORTATION CO.

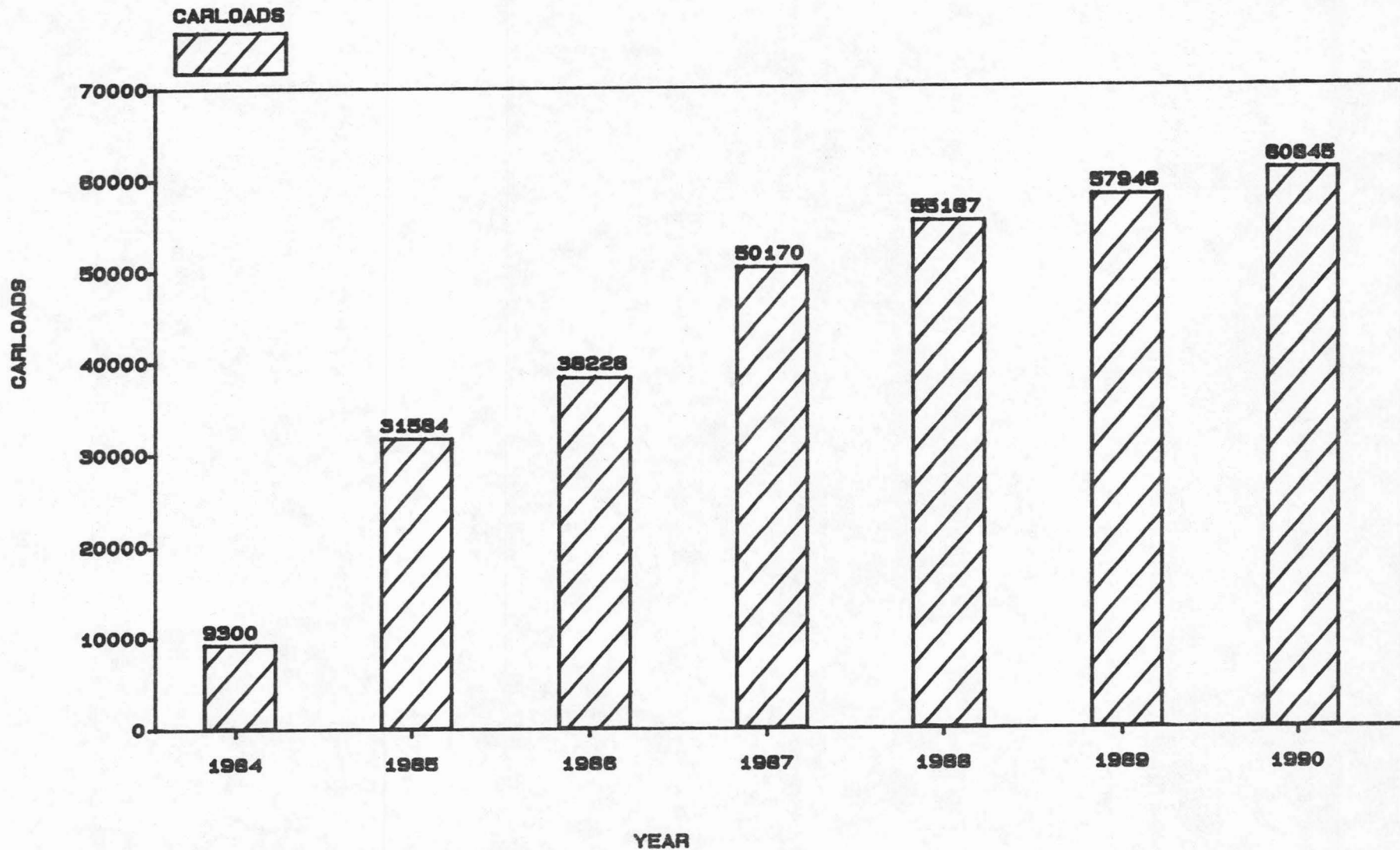
1982-1984 - IOWA RAILROAD COMPANY

1985-1986 - IOWA INTERSTATE RAILROAD, LTD.

(E) = Estimate based on partial year traffic.



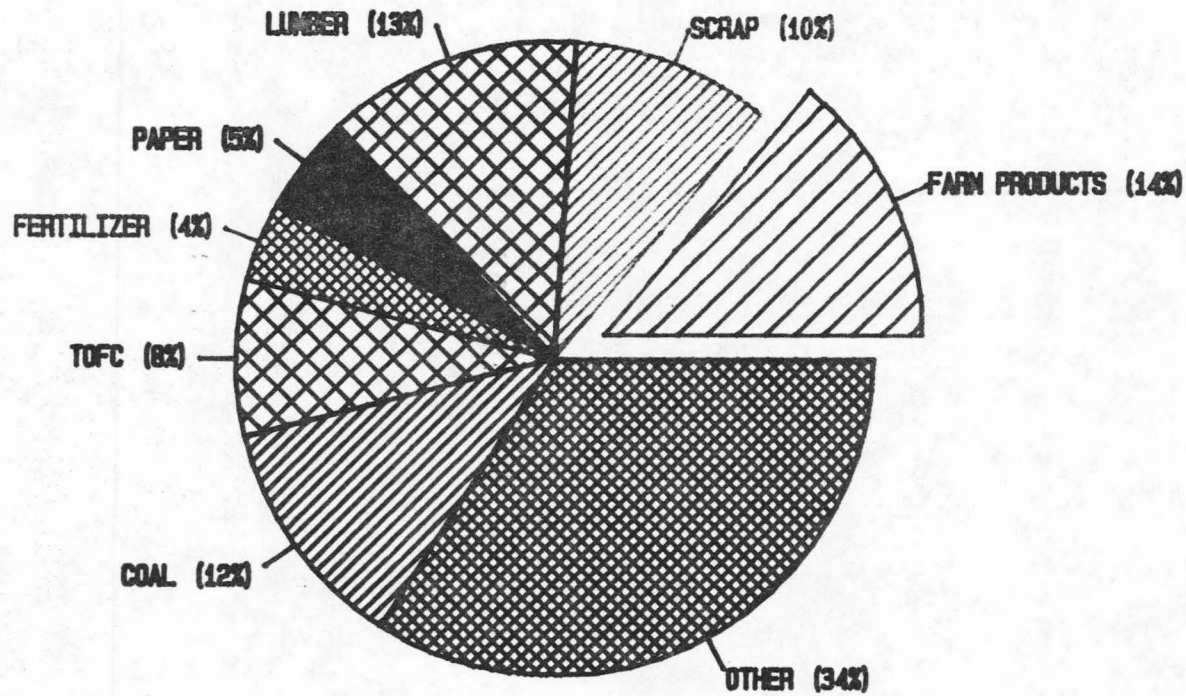
# IOWA INTERSTATE RAILROAD CARLOADINGS HISTORIC AND PROJECTED



1984 CARLOADS HANDLED BY IOWA RAILROAD  
1984-1986 HISTORIC CARLOADS  
1987-1990 PROJECTED CARLOADS

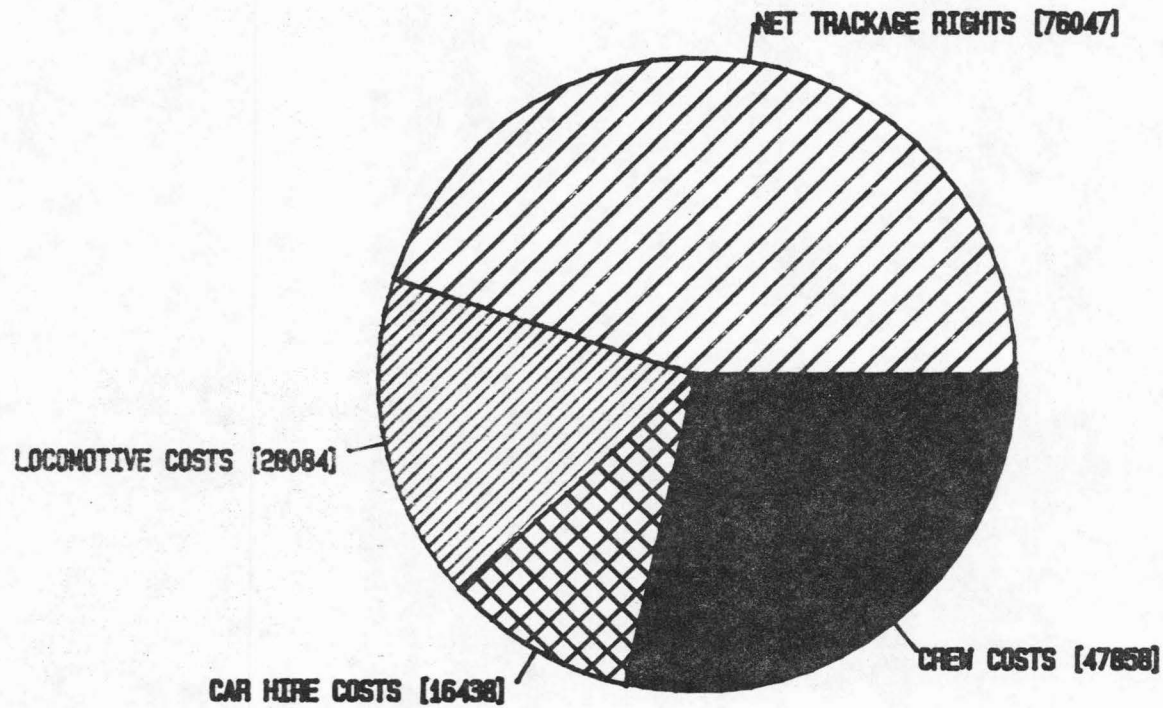
# 1986 IOWA INTERSTATE TRAFFIC BY COMMODITY TYPE

TOTAL CARLOADS 38, 228



# IOWA INTERSTATE RAILROAD TOTAL ANNUAL COST SAVINGS

PHASE I \$168,427



# SALVAGE VALUE AT END OF PROJECT

## PHASE I (WEST SEGMENT REHABILITATION DES MOINES)

## PHASE II (PASSING TRACK REHABILITATION)

	PHASE I	PHASE II
CURRENT ESTIMATED COST OF MATERIALS	\$432, 835	\$435, 157
REMAINING USEFUL LIFE AT END OF PROJECT	.7143	.7143
SALVAGEABLE MATERIAL FACTOR	.9500	.9500
SALVAGE VALUE AT END OF PROJECT	<u>\$293, 715</u>	<u>\$295, 291</u>
PRESENT WORTH FACTOR	.5083	.5083
PRESENT WORTH	<u>\$149, 295</u>	<u>\$150, 096</u>

### ASSUMPTIONS:

1. LAIS COST ESTIMATE AS REVISED.
2. MATERIAL LIFE 35 YEARS.
3. SALVAGE LOSS OF 5% OF MATERIAL.



## Iowa Interstate Railroad, Ltd. Rehabilitation Cost Estimate

<u>Description of Items</u>	<u>Phase I</u>	<u>Phase II</u>	<u>Total</u>
<b>Rail Renewal</b>			
A. Material	\$110,592	\$126,612	\$ 237,204
<b>Tie Renewal</b>			
A. Material	112,349	183,587	295,936
B. Labor	113,717	179,989	293,706
<b>Ballast</b>			
A. Material	57,996	94,870	152,866
<b>Surfacing</b>			
A. Labor	13,401	16,967	30,368
<b>Crossing Work</b>			
A. Material	91,785		91,785
B. Labor	88,480		88,480
<b>Signals</b>			
A. Material	27,000		27,000
B. Labor	67,000		67,000
<b>Bridge &amp; Drainage</b>			
A. Material	4,797	1,620	6,417
B. Labor	6,055	2,000	8,055
<b>Work Train</b>			
A. Labor	8,000		8,000
<b>Subtotal Material &amp; Contengencies (7%)</b>	<b>432,835</b>	<b>435,157</b>	<b>867,992</b>
<b>Subtotal Labor &amp; Contengencies (7%)</b>	<b>317,419</b>	<b>212,883</b>	<b>530,302</b>
<b>GRAND TOTAL</b>	<b>\$750,254</b>	<b>\$648,040</b>	<b>\$1,398,294</b>

# Iowa Interstate Railroad, Ltd.

## Benefit Cost Analysis Summary

All Amounts Are Present Worth

	<u>Phase I</u>	<u>Phase II</u>
<b>Carrier Net Benefits</b>	<b>\$709,259</b>	<b>\$611,884</b>
<b>Net Salvage Value at End of Project</b>	<b><u>149,295</u></b>	<b><u>150,096</u></b>
<b>Total Project Benefits</b>	<b>\$858,554</b>	<b>\$761,980</b>
<b>Rehabilitation Costs</b>	<b>\$750,254</b>	<b>\$648,040</b>
<b>Recapitalization Costs</b>	<b><u>142,940</u></b>	<b><u>147,055</u></b>
<b>Total Project Costs</b>	<b>\$893,194</b>	<b>\$795,095</b>
<b>Benefit - Cost Ratio (W/O Recap.)</b>	<b>1.14</b>	<b>1.18</b>
<b>Benefit - Cost Ratio (W/Recap.)</b>	<b>0.96</b>	<b>0.96</b>
<b>Net Project Benefits</b>	<b>(\$ 34,640)</b>	<b>(\$ 33,115)</b>

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