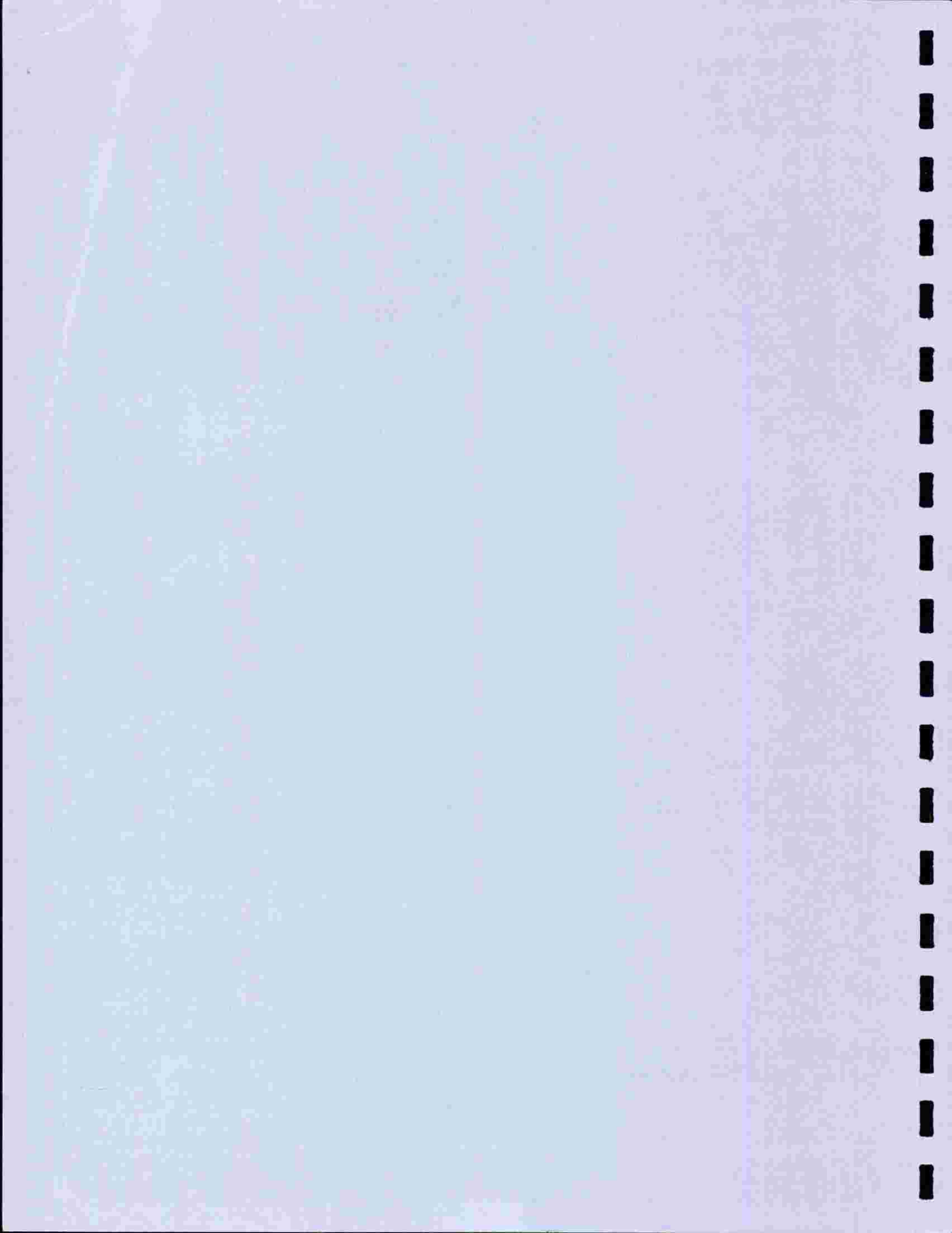


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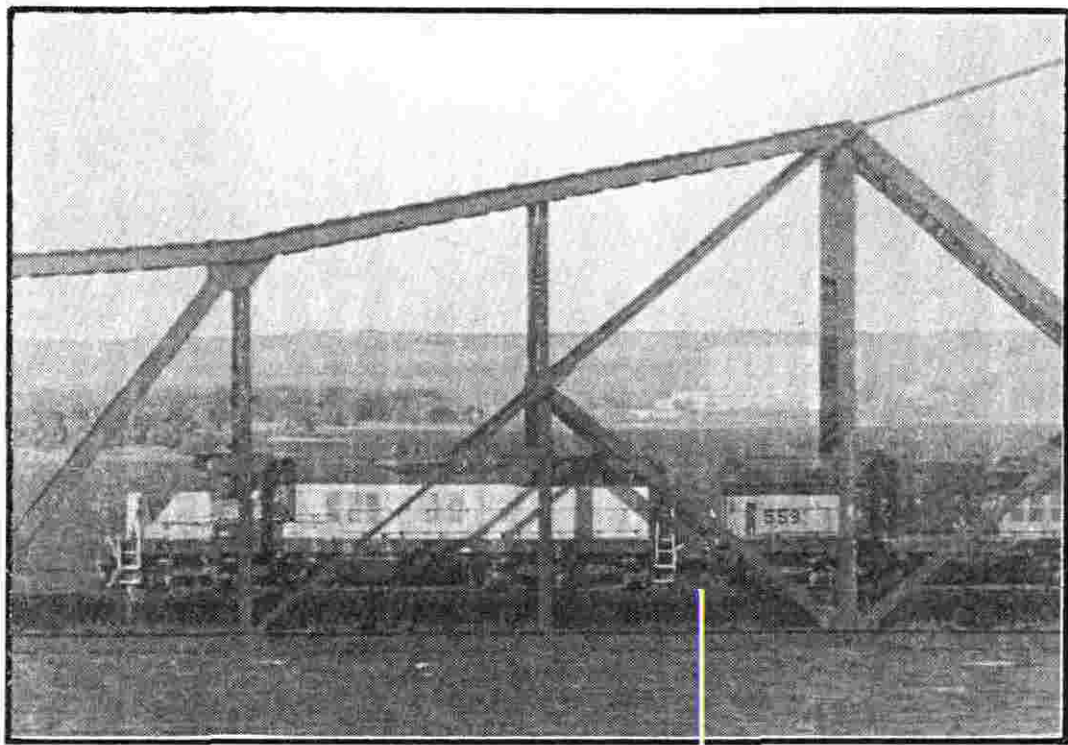


**SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
DIVISION OF RAILROADS**

SEPTEMBER, 1992



SOUTH DAKOTA RAIL PLAN - 1992 -



**SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
DIVISION OF RAILROADS**

SEPTEMBER, 1992



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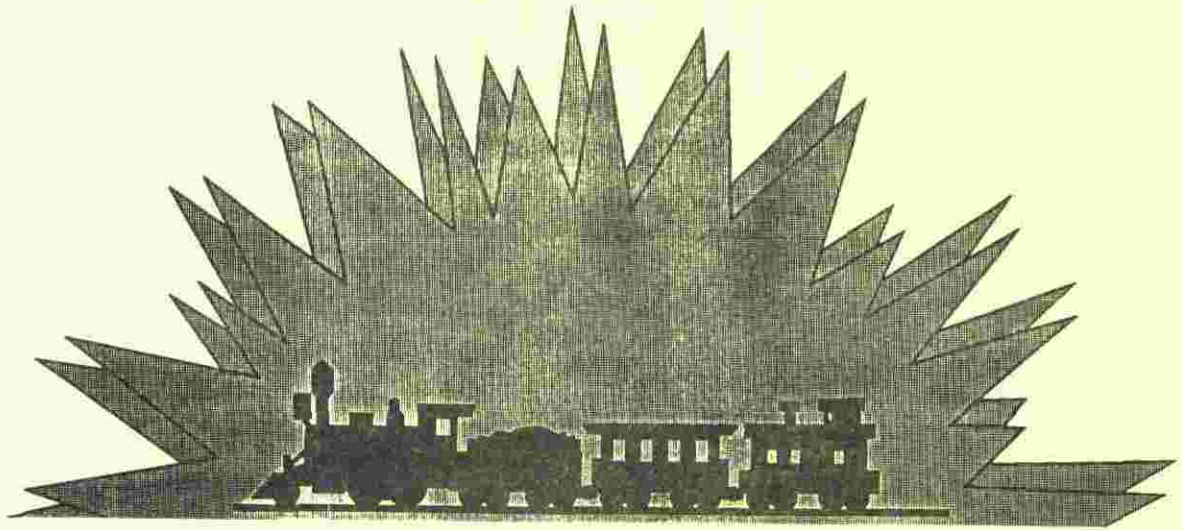
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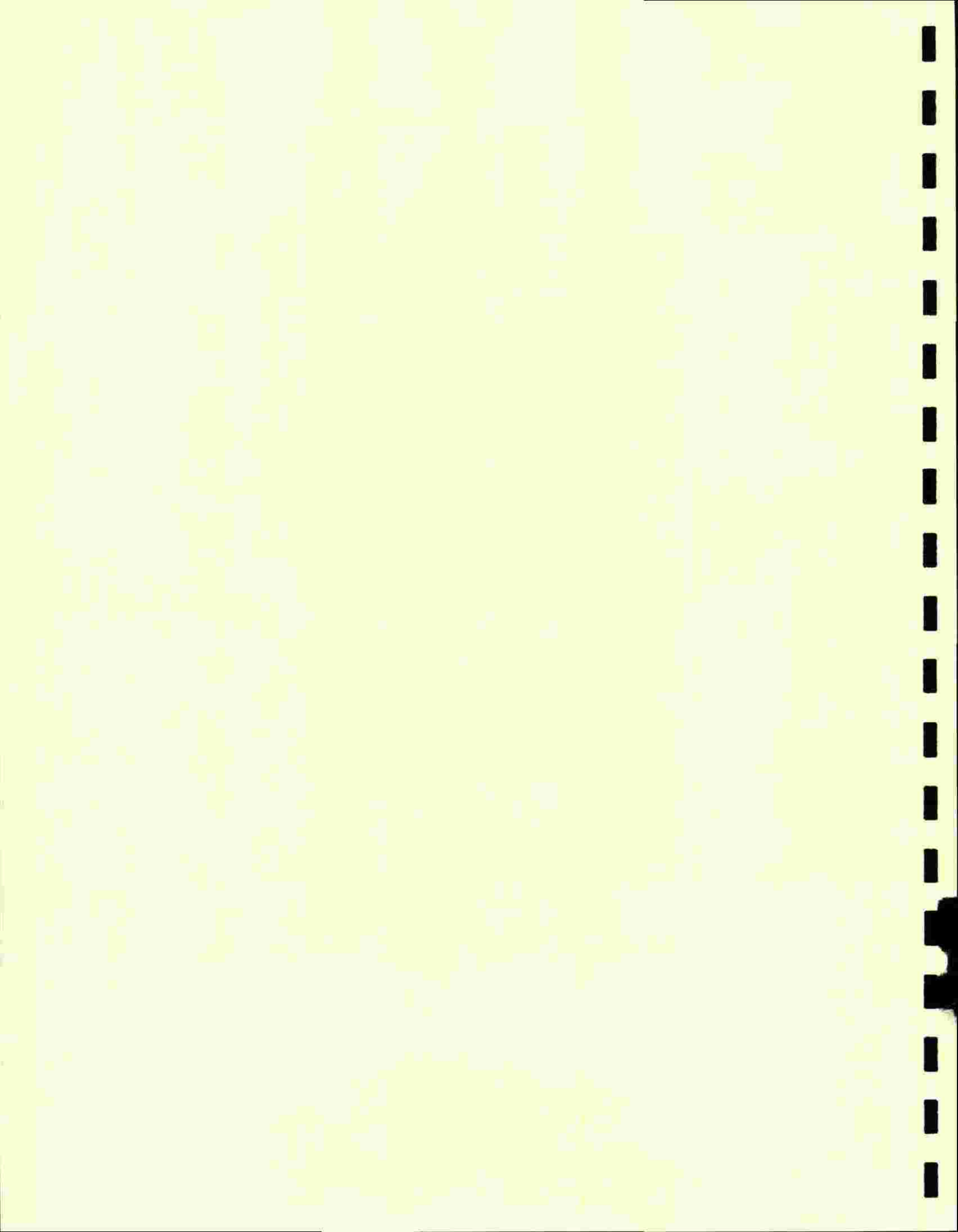
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Chapter

I



CHAPTER I
INTRODUCTION

This document, RAIL PLAN SOUTH DAKOTA 1992, is South Dakota's official rail planning document. It was prepared in 1992 using 1991 data. This plan will serve as an update of the 1986 Plan and will build upon prior work.

Its goals are:

- (1) to acquaint the public with past activities and projects,
- (2) to inform the public of current rail system characteristics,
- (3) to establish the foundation for future rehabilitation projects, and
- (4) to examine the future of rail transportation in South Dakota.

To achieve these goals, the plan is divided into four chapters, plus the appendices.

Chapter II documents the South Dakota Department of Transportation's (DOT's) rail planning process and organizational structure. This section also describes past planning efforts, projects completed, and significant events affecting State rail transportation since publication of the last rail plan.

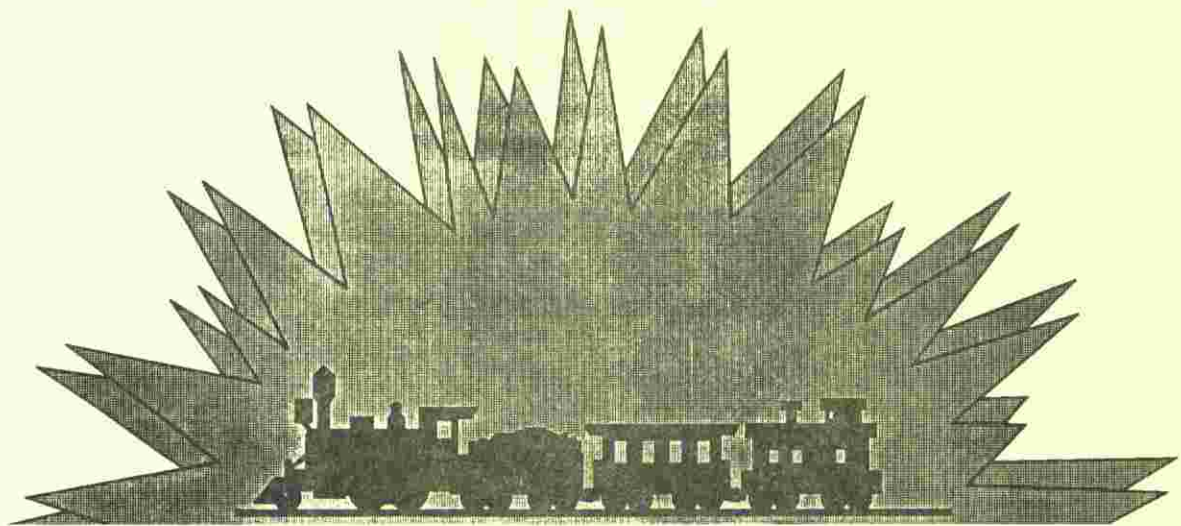
Chapter III focuses on characteristics of the existing rail system. It provides detailed background on the rail carriers, miles in service, traffic levels, types of commodities carried and other pertinent information to assist the reader in understanding the rail network and its importance.

Chapter IV addresses future rail planning activities in South Dakota. It examines past activities, future direction and the methodology for achieving the plan's defined goals. It also analyzes the rail line rehabilitation project for which the State will seek federal funds.

Chapter V summarizes the 1992 Rail Plan.

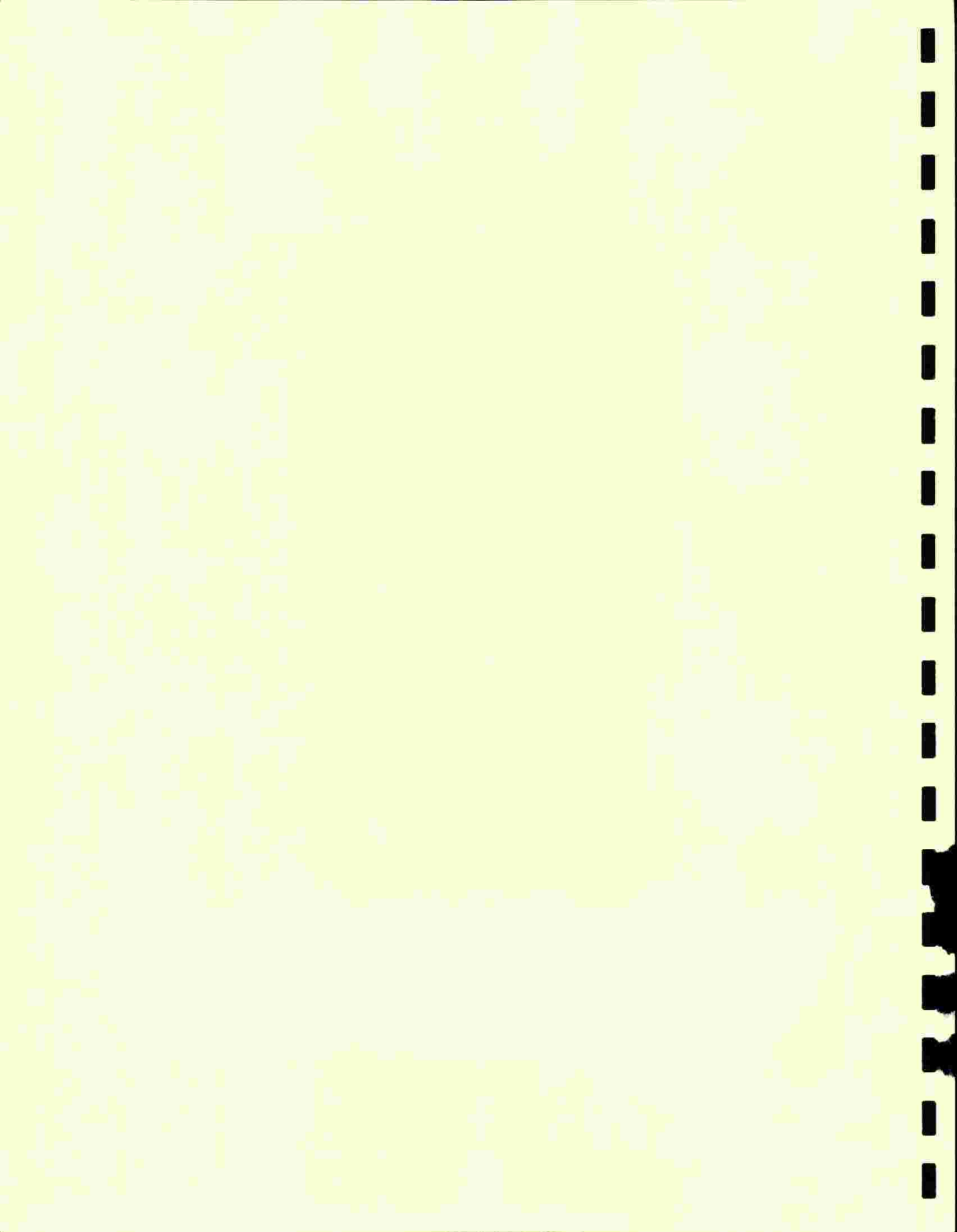
The **appendices** contain the official railroad map, a rail/highway map, a maximum system map, detailed rail traffic characteristics, and reference list of the items in the plan which are required by the Federal Railroad Administration.





Chapter

II



CHAPTER II

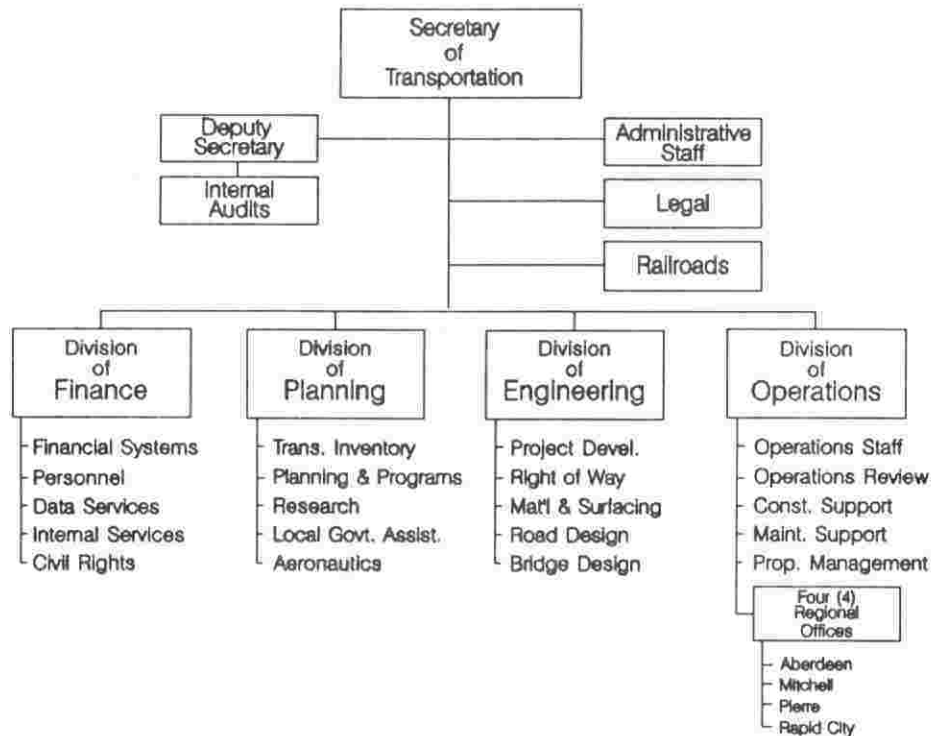
TRANSPORTATION PLANNING PROCESS

Rail planning in South Dakota has developed in response to a variety of rail issues. Crises brought about by bankruptcies and abandonments have all drastically changed the character of rail operations in the State. This chapter reviews the organizational structure for rail planning and the mechanics for the overall planning process. In accordance with 49 CFR Section 266.17(c)(7), a brief description of the planning effort has been included to provide insight into state rail purchases and projects. The goals and objectives identified in this chapter add direction to rail planning and project implementation.

ORGANIZATIONAL STRUCTURE

Rail planning in South Dakota is the responsibility of the South Dakota Department of Transportation (DOT). Figure II-1 illustrates the organizational structure of the South Dakota DOT.

Figure II-1



Rail planning historically has been a function of the Division of Planning within the DOT. Legislation passed during the 1991 legislative session transferred the once-independent Division of Railroads to the DOT. The Division of Planning now works in consultation with the Division of Railroads in planning for South Dakota's rail transportation needs. The South Dakota State Railroad Board provides public input and policy guidance for the planning process in matters relating to management of State-owned railroad property. The South Dakota Railroad Authority was created to provide a public financing mechanism for the acquisition and improvement of railroad facilities.

The Governor has also designated the South Dakota DOT as the State agency responsible for managing federal rail assistance programs. Over the years, federal funds have been received for both planning and rehabilitation projects pursuant to Section 5, Department of Transportation Act, as amended by the Railroad Revitalization and Regulatory Reform Act of 1976, the Local Rail Service Assistance Act of 1978, and the Local Rail Freight Assistance Act of 1989. DOT also has statutory authority to intervene in abandonment cases and other legal proceedings with railroad companies and the Interstate Commerce Commission (ICC).

OVERALL PLANNING PROCESS

As part of the overall planning process, the Division of Planning

- (1) conducts research on basic railroad problems,
- (2) works with the Division of Railroads in the development of solutions,
- (3) maintains the State/Federal relationship on programs relating to rail transportation and
- (4) assists the DOT and any other public or private agency in coordinating railroad services with those of other transportation modes.

The Division of Planning is jointly responsible with the Division of Railroads for conducting planning and analysis functions necessary to maintain an up-to-date State rail plan. This includes the collection, analysis, and evaluation of data pertaining to rail lines and services in South Dakota.

Typically, such activities include:

- monitoring rail traffic and commodity flows;
- performing detailed line analyses on lines threatened by abandonment;
- evaluating changes in the status, condition, and service on rail lines;
- analyzing State Core operations.

Rail planning in South Dakota has long recognized the importance of public interaction. Rail planners will continue to keep the public informed and actively solicit their input. Rail planning grew out of public awareness of the rail crisis facing the State and the public's desire to solve the resulting transportation problems. Direct public participation in the rail planning process is generated through news releases, agency mailings, meetings, and seminars. DOT staff also interacts directly with shipper groups to solicit their input into the planning process.

In the past, shipper surveys have been conducted on lines selected for intensive study. These surveys provide information on the shippers' usage of rail, future needs for rail service and other related information. Various State departments and agencies also provide input into the rail planning process. For additional information and points of views, efforts have been made to coordinate DOT activities with those of the rail planning staffs in neighboring states.

All rail plans receive two final reviews before implementation. Public meetings are held on all plans to solicit additional comments. The meetings afford the State the opportunity to describe the study rationale and findings and to solicit public comment regarding the recommendations.

Public participation is essential in ascertaining the needs and concerns of local rail users. Public participation will continue to be a major component of the rail planning process in South Dakota.

RAIL SERVICE AND PLANNING MISSION STATEMENT

The State's mission statement provides general direction for rail service and planning for South Dakota. The following are the various components of that mission statement:

- To coordinate the efforts of rail users, railroad companies, local governments, and the State in solving transportation problems in South Dakota.
- To encourage the continuation of financially solvent, privately owned and operated rail services in the State.
- To support essential rail services which are threatened by abandonment through the use of available public and private funds, where the public interest justifies such assistance.
- To facilitate the consolidation of rail services in the State where opportunities exist for improving the efficiency of rail operations.
- To increase public awareness of rail service issues as they affect the State and to promote public involvement in the on-going State rail planning process.

RAIL SERVICE AND PLANNING OBJECTIVES

The State's objectives are comprised of the following:

- Foster safe, efficient and economical transportation services for the movement of freight in South Dakota.
- Integrate the State's rail transportation system with that of neighboring states and with the national rail transportation system.
- Provide and maintain essential rail services and facilities in South Dakota which serve the public interest but which cannot otherwise be profitably continued by private carriers.
- Provide a point of coordination for rail users, railroad carriers, and governments (local, state, and federal) in maintaining essential transportation accessibility within South Dakota.

RAIL SERVICE AND PLANNING GOALS

Workable goals are essential to the State rail planning process. These goals are as follows:

- Identify the essential rail system needed to serve South Dakota's current and potential agricultural, natural resource, industrial and energy-related activities.
- Retain a viable Core rail system made up of essential lines which serve the primary traffic-producing areas of the State and which provide accessibility to State and national markets.
- Work toward the elimination of non-profitable rail lines which are non-essential and whose services could be more economically provided by an alternative rail line or transportation mode.
- Invest Railroad Trust Fund dollars and assist in securing Federal funds for the permanent improvement and rehabilitation of essential rail lines.
- Assist in completing one justifiable unit train loading facility project every five years.

PAST PLANNING EFFORT

Since 1978, South Dakota has prepared a number of rail plans and addendums as part of the rail planning process. Each plan tracks changes in the State rail system, as well as actions taken by the State, the rail carriers, and the shippers. The addendums have focused specifically on critical transportation issues facing the State between rail plan publications, issues which principally arose from the problems of rail service discontinuance caused by the Milwaukee Road bankruptcy and other abandonments.

At one time, circumstances were so fluid that several addendums to the State rail plan were published in a single year. Since publication of the last major rail plan in 1986, the pace of change has slowed and rail plans and addendums are prepared less frequently. Nevertheless, a number of significant events have occurred since the last rail plan and those changes will be noted throughout this document.

Much of South Dakota's early rail planning ensued after the Milwaukee Road embargo in 1980, when the State was confronted with the loss of over 50 percent of its total operating rail mileage. The effects of the embargo were far-reaching, going significantly beyond the elimination of unnecessary lines.

In an effort to provide a knowledgeable approach to the rail problem, the State analyzed each line individually. Through that analysis, a Core System of essential lines was identified. That Core System concept is identified in Figure II-2.

The Core System concept served as the foundation for State purchases and rehabilitation projects and was designed to preserve essential rail service. While some Core System lines have remained in the private sector, other lines for which a private solution could not be found were purchased by the State. Service was restored on all State-owned Core System lines by the State of South Dakota through an operating agreement with Burlington Northern Railroad.

A select group of non-Core System lines were also purchased that were recognized as having either a future potential or a high level of local interest. These local option lines are presently operating with the exception of the Napa Junction to Platte line and the rail-banked Kadoka to Rapid City line. Local option lines purchased by the State are shown in Figure II-3.

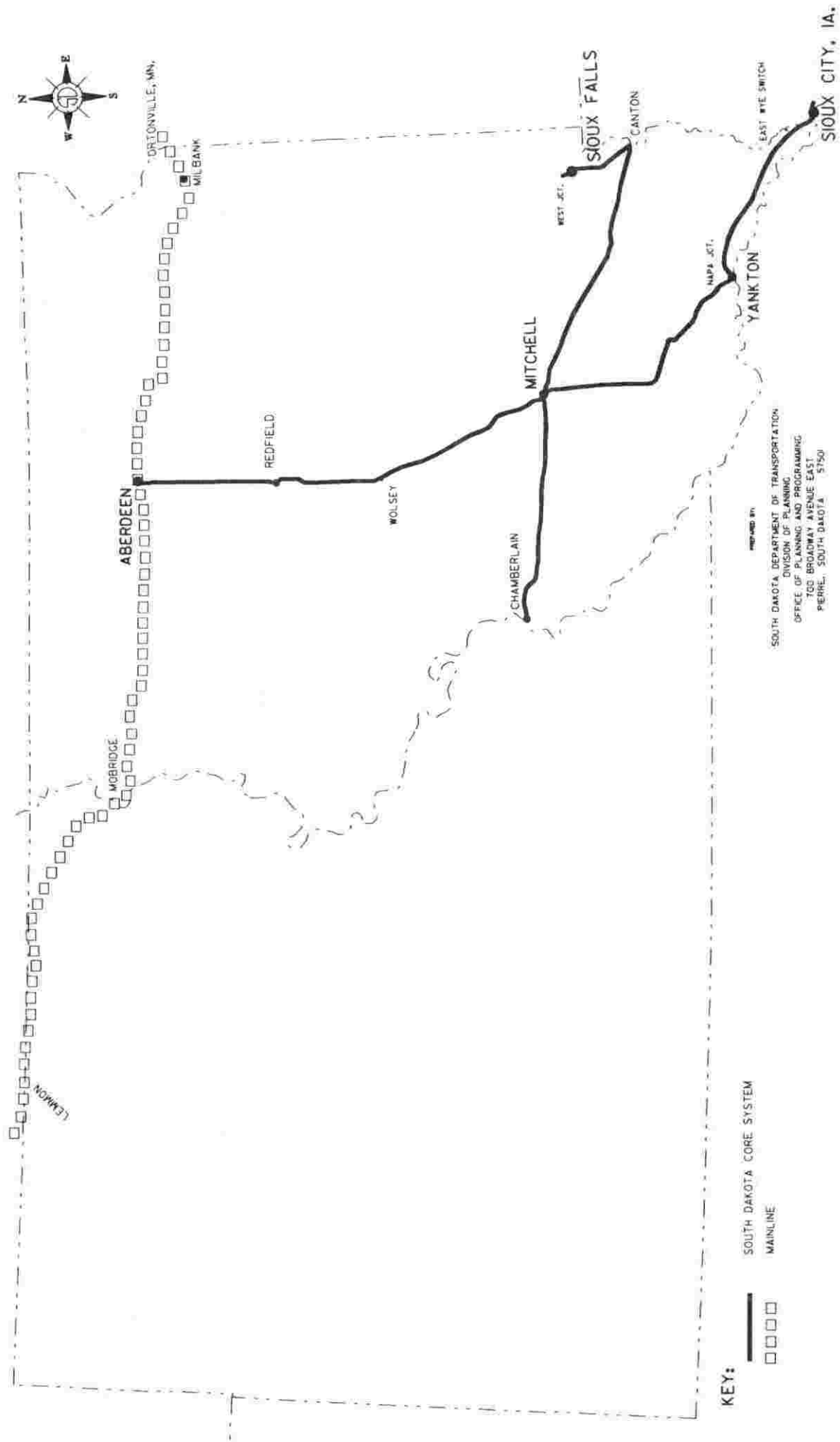
All lines that have demonstrated an urgent need and those that would benefit from assistance efforts have been analyzed. Table II-1 lists all past projects which have received financial assistance through State funding and through the Local Rail Freight Assistance Act administered by the Federal Railroad Administration.

Historically, most rail rehabilitation projects using federal funds have been financed by grants. However, the \$30 million Ortonville, MN to Terry, MT rehabilitation project was funded through a loan agreement between the State of South Dakota, the Federal Railroad Administration (FRA), and Burlington Northern Railroad under the FRA's 505 program. Under that agreement, the South Dakota Railroad Authority issued and guaranteed the loan and Burlington Northern was responsible for repayment. In 1990, Burlington Northern repaid the loan in total.

The availability of federal assistance for rail rehabilitation has become increasingly problematic with the uncertainties of the federal budget process. Since the expiration in 1988 of the Local Rail Service Assistance program, continued funding and support for its successor, the Local Rail Freight Assistance program, have been erratic. As a result, the Federal role in rail rehabilitation has been greatly diminished in recent years, and that appears unlikely to change.

Despite reduced Federal rehabilitation funding levels, the State

FIGURE II-2
CORE SYSTEM CONCEPT



KEY:
 ——— SOUTH DAKOTA CORE SYSTEM
 - - - - - MAINLINE

PREPARED BY
 SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION
 DIVISION OF PLANNING
 OFFICE OF PLANNING AND PROGRAMMING
 700 BROADWAY AVENUE EAST
 PERRIS, SOUTH DAKOTA 57501

FIGURE II-3

LOCAL OPTION LINES

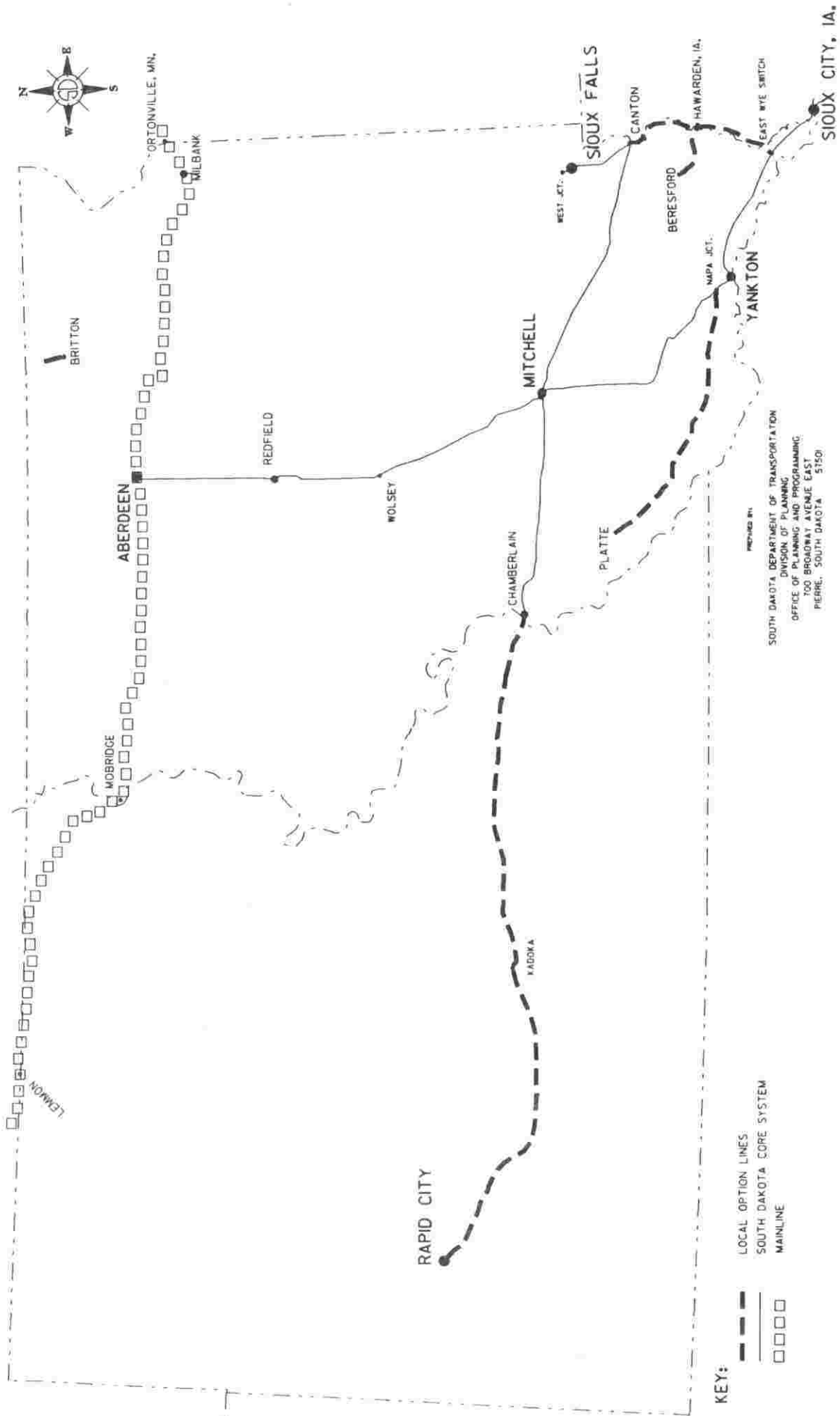


TABLE II-1
RAIL IMPROVEMENT PROJECTS
USING SOUTH DAKOTA AND LOCAL RAIL FREIGHT ASSISTANCE FUNDS

<u>PROJECT</u>	<u>YEAR</u>	<u>FEDERAL FUNDS</u>	<u>STATE FUNDS</u>	<u>OTHER FUNDS</u>	<u>TOTAL COST</u>
Big Stone - Gascoyne	1979	\$ 1,840,000	\$ 0	\$ 460,000	\$ 2,300,000
Gascoyne - Miles City	1980	2,000,000	0	500,000	2,500,000
Sioux Falls - Madison	1981	1,760,000	2,370,000	1,540,000	5,670,000
Britton - BN Jct.	1982	678,620	169,655	0	848,275
Burbank - Yankton Jct.	1982	768,408	388,092	0	1,156,500
Yankton Jct. - Mitchell	1982	2,047,965	1,026,435	0	3,074,400
Canton - Mitchell	1982	1,285,213	481,187	0	1,766,400
Pierre - Huron	1982	3,376,198	0	1,097,817	4,474,015
Milbank - Sisseton	1983	648,933	0	278,114	927,047
Blunt - Onida	1983	498,781	0	1,772,725	2,271,506
Mitchell - Tulare	1984	495,914	212,535	0	708,449
Mitchell - Aberdeen	1985	852,347	810,413	0	1,662,760
Redfield - Mansfield	1986	626,143	0	268,347	894,490
Canton - East Wye Switch	1987	447,318	0	255,918	703,236
Canton - East Wye Switch	1988	132,245	17,815	64,312	214,372
Huron - Yale	1990	256,333	0	135,167	391,500
Ellis - Brandon	1992	298,200	0	127,800	426,000
TOTAL		\$18,012,618	\$ 6,500,200	\$4,727,475	\$29,988,950

continues to monitor its rail system for opportunities to improve the level of service provided the shipping public. The Railroad Trust Fund, administered by the Division of Railroads, has helped fund a number of rehabilitation projects since 1986 when a Core System rental agreement with Burlington Northern began to help capitalize the Fund. To date, South Dakota has received \$3,374,630 from the BN under the rental agreement.

This document, South Dakota Rail Plan 1992, is the sixth rail plan developed by the State. There have also been numerous addendums documenting individual rail line analyses. As South Dakota's rail needs continue to change, the rail planning process will adapt as well.

SIGNIFICANT EVENTS SINCE PUBLICATION OF THE 1986 RAIL PLAN

There have been several noteworthy changes in South Dakota's rail system since publication of the last rail plan.

(1) Dakota, Minnesota and Eastern Railroad

On September 4, 1986, the L.B. Foster Company purchased 825 miles of main line track and secured 140 miles of trackage rights from the Chicago and North Western Transportation Company to create the Dakota, Minnesota and Eastern Railroad (DM&E). Of the purchased track, 512 miles are located in South Dakota. The line extends from Rapid City to Winona, MN with branch lines in South Dakota from Blunt to Onida, Redfield to Mansfield, Aberdeen to Oakes, ND and Sioux Valley Junction to Watertown. Operations began on September 5, 1986.

The DM&E has been very successful in procuring Federal assistance for track rehabilitation, obtaining \$7.8 million in loans from the Federal Railroad Administration for rehabilitation of its main line. It also secured Local Rail Freight Assistance (LRFA) funding from the FRA for two other projects. In 1986, DM&E rehabilitated its Redfield to Mansfield branch line at a cost of \$894,490 with FRA providing \$626,143. In 1990 and 1991, it received \$256,333 from FRA toward a \$391,500 project to rehabilitate the Huron to Yale line which it obtained from Burlington Northern in exchange for the Hecla, SD to Oakes, ND line.

(2) D&I Railroad

On October 24, 1980 the State purchased the abandoned Milwaukee Road branch line from Sioux Falls, SD to Dell Rapids, SD. The D&I Railroad, which is affiliated with the L.G. Everist Company, was formed to operate this line and provide service to the company's rock quarry in Dell Rapids. The State sold the Sioux Falls-Dell Rapids line to L.G. Everist in October of 1983. The D&I also has operating rights on the State-owned line from Sioux Falls to Sioux City for overhead movements of rock products. On November 1, 1986, the D&I assumed common carrier service from the Burlington Northern on the Canton to Elk Point and Hawarden to Beresford lines.

The Sioux Valley Regional Railroad Authority (SVRRA) leases the rail properties from Canton to Elk Point and Hawarden to Beresford from the State and contracts operations of the lines to the D&I Railroad. SVRRA has aggressively pursued rehabilitation projects on these lines. In 1983, the line was upgraded to Class I standards through a financing package totalling \$812,136. The package included a \$300,000 State loan which has been completely repaid by shippers.

In 1988, the 25 mile segment between Hawarden and Elk Point was rehabilitated to Class II standards at a cost of \$872,661. The Federal Railroad Administration contributed \$579,563 toward completion of this project. In 1989, the line from Canton to Hawarden was also upgraded to Class II at a cost of \$807,942. The State participated through a \$300,000 loan and \$265,560 grant. The 1989 loan has also been repaid by shippers.

In July of 1990, the SVRRA received approval for a \$1,778,000 rehabilitation project between Hawarden and Beresford. Funding for the project consisted of a \$1 million grant and \$300,000 loan from the State, and contributions of \$283,500 by the SVRRA, and \$194,500 by D&I Railroad. The project, which upgraded the 16.9 mile segment to Class II standards, was completed in October of 1991.

(3) Dakota Southern Railway Company

The Dakota Southern Railway Company, a short line railroad, was formed for the purpose of restoring service to the State-owned Napa Jct. to Platte branch line. Operations started October 12, 1985 on this 82.4 mile line which had been idle since the Milwaukee Road ceased service in 1980.

Dakota Southern expanded its operation in May of 1987 to the 68.5 Mitchell to Chamberlain line. The Mitchell to Chamberlain line is also owned by the State of South Dakota and previously had been operated by the Burlington Northern. In 1988, Dakota Southern expanded its operation again, extending service from Chamberlain to Kadoka, a distance of 121 miles. This trackage had been without service since 1980.

On March 31, 1989, Dakota Southern officially terminated operations on the Napa Jct. to Platte line. Shortly thereafter, the Napa Jct. to Platte line was leased to South Dakota Railway Company, which held the lease until November of 1991, but failed to operate over the line. On December 10, 1991 the Napa Jct. to Platte Regional Railroad Authority agreed to lease the line again on a short term basis to Dakota Short Line, Inc. Dakota Short Line returned the lease in May, 1991. On July 15, 1992 the State Rail Board approved the abandonment and salvage of the line between Platte and Wagner.

(4) Ellis and Eastern Company

In January, 1989, operations were restored to the former C&NW rail line between Ellis, SD, and Agate, MN. A 14.5 mile segment between Ellis and Brandon, SD, was acquired and is operated by Ellis and Eastern Company, a subsidiary of Sweetman Construction Company, which ships aggregate products to outside markets and between Sweetman plants in Sioux Falls. In April of 1992, Ellis and Eastern received approval from the FRA for a Local Rail Freight Assistance (LRFA) grant in the amount of \$298,200 to rehabilitate 4.4 miles of its track in downtown Sioux Falls.

(5) Buffalo Ridge Railroad

The approximately 7.5 miles between Brandon, SD, and the Minnesota State line are owned by the Buffalo Ridge Railroad. The Buffalo Ridge was formed to serve the agricultural communities of Southwest Minnesota from Worthington, MN, to the South Dakota State line. The Buffalo Ridge ceased operations over the line in April of 1992 and has filed for abandonment of its 7.5 mile ownership in South Dakota.

(6) Sisseton-Milbank Railroad

In 1982, the abandoned 38 mile Milwaukee Road rail line from Milbank to Sisseton was purchased by some of the line's shippers. They contracted for service with Dakota Rail, a short line railroad created expressly for this purpose. Dakota Rail ceased operations on the line in 1987 and the line's owners contracted with a new short line, the Sisseton Southern Railway Company. In 1989, the line changed operators again and became the Sisseton-Milbank Railroad. The Sisseton-Milbank railroad serves local grain producers in five Northeastern South Dakota communities.

(7) Application to lease Kadoka to Rapid City rail line

In April of 1989, an application was made to the South Dakota State Railroad Board by the Mitchell to Rapid City Regional Railroad Authority (MRC) to lease the State-owned Kadoka to Rapid City rail line. The line was abandoned by the Milwaukee Road in 1980 and has not been operated since its abandonment. The application followed passage of a legislative resolution (HCR 1001) during the 1989 session which requested that two public hearings be held by the State Railroad Board if in the ensuing two year time period rail operations had not been restored on the line. The public hearings were to precede any decision by the State Railroad Board to dispose of the line.

The Railroad Board complied with HCR 1001 by holding three public input hearings on April 4-5, 1991. Subsequent to the public hearings, the Board held a contested case hearing on May 29-30, 1991, to consider the MRC's lease application. DM&E Railroad contested the lease application and appeared as an intervenor at

the contested case hearing. On July 19 the Board met again to hear findings of fact and conclusions of law from the MRC and DM&E. At that meeting, the Board voted to deny the lease application and adopted its own findings of fact and conclusions of law.

In September, the MRC appealed the Railroad Board's decision to the 6th Circuit Court. After reviewing extensive hearing records and legal briefs, the Court on March 18, 1992, received oral arguments from attorneys for the MRC and DM&E. At the conclusion of oral arguments, the Judge ruled from the bench and affirmed the Railroad Board's decision.

At the present time, the future of the Kadoka to Rapid City line remains uncertain.

(8) Core System Agreement and Amendment

On July 10, 1986, a new fifteen year agreement was executed between the State and Burlington Northern for service on the 368 mile State-owned Core rail system. The agreement;

- (a) eliminated Mitchell to Chamberlain as part of the Core line, and
- (b) provided for the State to share in Burlington Northern's gross freight revenues earned on the Core System when those revenues exceed a threshold amount.

That agreement was subsequently amended on August 7, 1991. The amendment extended the term of the existing Operating Agreement to June 30, 2020. It further called for an investment of \$12.7 in track purchase and rehabilitation. South Dakota committed \$8 million over the next eight years from the payments the State receives under the Core System rental agreement to the projects. Burlington Northern will supply the remainder of the project cost.

Improvements to the Core System under the amendment include:

- (a) The rebuilding of North Yard in Mitchell at a cost of \$1,037,000.

(b) The relay of light rail between Mitchell and Canton at a cost of \$4,556,000.

(c) The relay of light rail between Mitchell and Sioux City at a cost of \$4,707,000.

The State also agreed to help Burlington Northern acquire for \$900,000 and rehabilitate for \$1.5 million a 22 mile stretch of track between Ortonville and Appleton, MN. This segment is strategic in terms of the access it affords South Dakota shippers to Burlington Northern main lines via the former South Dakota Mainline.

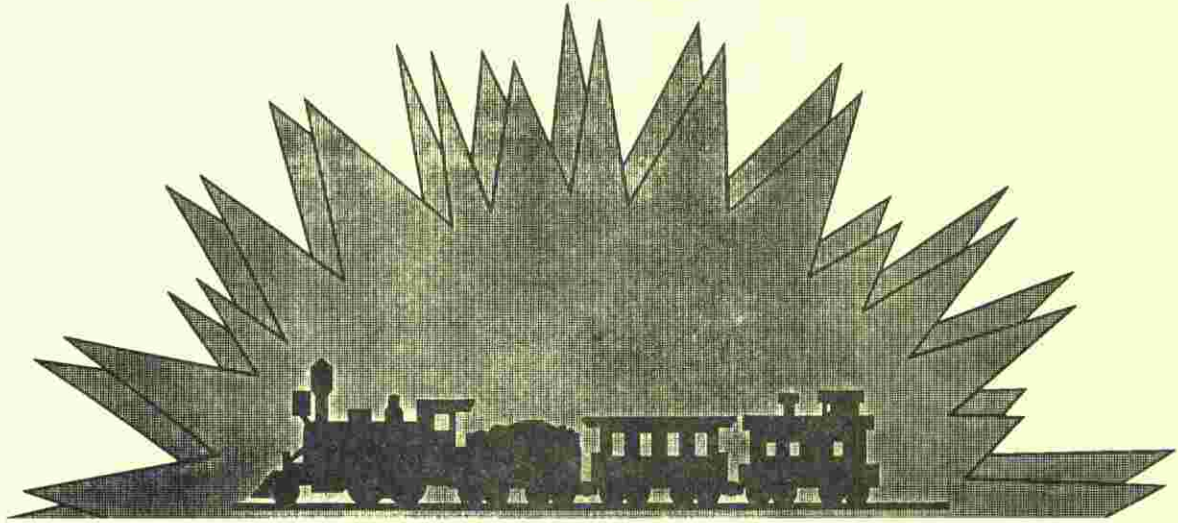
(9) Mainline Transfer

On August 30, 1991, ownership of the South Dakota Mainline was transferred from the South Dakota Railroad Authority to Burlington Northern Railroad. The Mainline extends 480 miles from Ortonville, MN, through northern South Dakota to Terry, MT. The transfer began on July 2, 1991, when Burlington Northern prepaid in full its remaining obligation on the \$30.8 million in bonds used to finance the acquisition of the Mainline.

In 1990, Burlington Northern prepaid the \$30 million in notes issued by the South Dakota Railroad Authority to the Federal Railroad Administration for rehabilitation of the line. The last of the notes weren't due to mature till 2007.

Under the terms of the transfer, the State negotiated a ten-year service agreement, whereby Burlington Northern will continue to provide service over the Mainline equivalent to service required under the lease/purchase agreement. The Mainline has been rehabilitated to a Class III standard and figures prominently into the future of rail transportation in South Dakota.





Chapter

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CHAPTER III

THE RAIL SYSTEM IN SOUTH DAKOTA

In order to plan wisely for the future, it is important to thoroughly understand the existing rail system in South Dakota. This chapter will examine the various dynamics of the present system and attempt to identify emerging trends.

As has been previously noted, track reductions in recent years have consolidated the traffic volume on fewer miles of railroad. However, there are still many miles of operating lines which have a low traffic density and remain in poor physical condition. Since it is inevitable that additional trackage will be abandoned, careful monitoring is necessary to ensure that lines important for the movement of the State's products remain intact.

Rail Mileage

A total of 4,420.5 miles of railroad were constructed in South Dakota, with the last track having been laid in 1948. Since 1909, rail abandonments have resulted in the loss of service on over 75% of the maximum system. South Dakota, in cooperation with private companies, was successful in restoring service on over 900 miles of abandoned rail lines in this state. Operating trackage in this state presently totals 1,943.4 miles. A map illustrating South Dakota's maximum rail system and a map depicting the current rail system can be found in Appendix A.

Rail Carriers

Currently, eight railroad companies provide freight service in South Dakota. Three of these companies are Class I carriers, one is a Class II carrier, and the remainder are Class III railroads or shortline operators. This section describes each line as required in 49 CFR Section 266.17(c)(2)(iii).

Burlington Northern

The Burlington Northern's (BN) operating system, see Figure III-1, is the largest in South Dakota and is comprised of 579.3 miles of its own track and 367.6 of State-owned track. Table III-1 is a line by line listing of its trackage, showing the miles of track per line segment and corresponding weight limits.

TABLE III-1
BURLINGTON NORTHERN
SOUTH DAKOTA OPERATIONS (7-1-92)

SEGMENT (BN OWNERSHIP)

<u>FROM</u>	<u>TO</u>	<u>TOTAL MILES</u>	<u>SD MILES</u>	<u>WEIGHT LIMIT (LBS.)</u>
Willmar, MN	Garretson, SD	127.9	4.6	263,000
Garretson, SD	Sioux City, IA	94.3	8.1	263,000
Garretson, SD	Sioux Falls, SD	17.4	17.4	263,000
Sioux Falls, SD	Madison, SD	42.1	42.1	263,000
Benson, MN	Watertown, SD	92.0	45.1	263,000
Watertown, SD	Yale, SD	56.6	56.6	263,000
Geneseo Jct.	Aberdeen, SD	76.6	53.6	263,000
Alliance, NE	Edgemont, SD	110.6	27.4	315,000
Edgemont, SD	Gillette, WY	121.1	21.4	315,000
Hecla, SD	Oakes, ND	18.0	3.9	210,000
Ortonville, MN	Terry, MT	<u>479.9</u>	<u>299.1</u>	263,000
	TOTAL	1,236.5	579.3	

SEGMENT (SD OWNERSHIP)

<u>FROM</u>	<u>TO</u>	<u>TOTAL MILES</u>	<u>SD MILES</u>	<u>WEIGHT LIMIT (LBS.)</u>
Sioux Falls, SD	Canton, SD	20.8	20.8	263,000
Canton, SD	Mitchell, SD	79.2	79.2	263,000
Mitchell, SD	Wolsey, SD	54.6	54.6	263,000
Wolsey, SD	Aberdeen, SD	74.0	74.0	263,000
Mitchell, SD	Yankton, SD	74.9	74.9	263,000
Yankton, SD	Sioux City, IA	62.0	56.0	263,000
Jarrett Jct.	Britton, SD	5.0	5.0	263,000
Sioux Falls	West Jct.	<u>3.1</u>	<u>3.1</u>	263,000
	TOTAL	373.6	367.6	

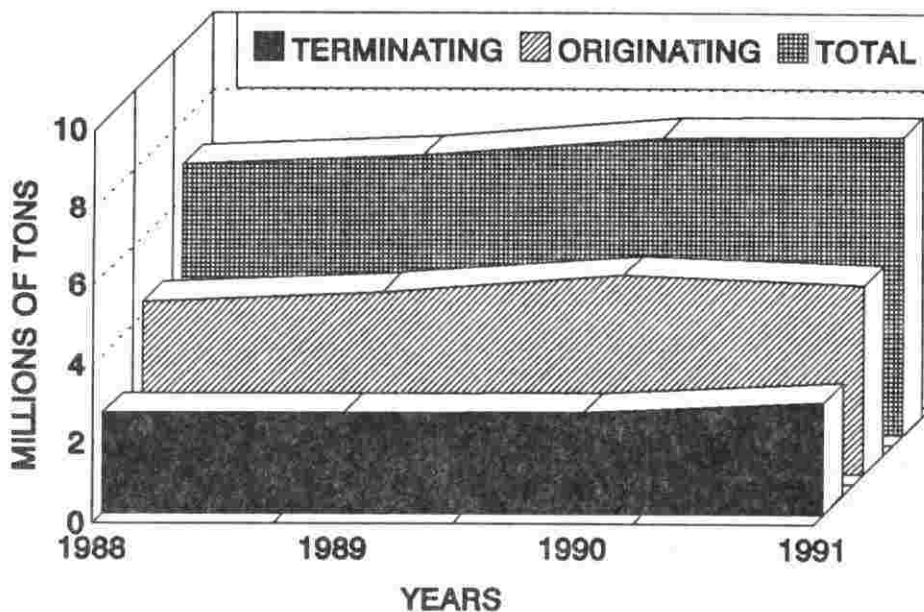
TRACKAGE RIGHTS ON DM&E

<u>FROM</u>	<u>TO</u>	<u>TOTAL MILES</u>	<u>SD MILES</u>	<u>WEIGHT LIMIT (LBS.)</u>
Huron, SD	Wolsey, SD	13.3	13.3	263,000

Although the transfer in 1991 of South Dakota's Mainline to the BN increased its private ownership in South Dakota, it left unchanged the total miles of track over which BN operates. BN's operations over the Mainline and State-owned Core System have afforded South Dakota shippers access to an integrated national and international transportation system. With the exception of the Mainline, which is predominantly a coal line, most of BN's South Dakota traffic is farm products. Figure III-2 shows the originating and terminating tonnage of commodities carried by the BN in South Dakota from 1988 to 1991.

FIGURE III-2

BURLINGTON NORTHERN RAILROAD
ORIGINATING AND TERMINATING TRAFFIC
1988-1991



Dakota, Minnesota, and Eastern

The Dakota, Minnesota, and Eastern (DM&E), see Figure III-3, operates 512 miles of their own track in South Dakota, and has trackage rights on 74 miles of State-owned track. Table III-2 lists line by line DM&E trackage showing the miles operated and the weight limits. All but two of the lines operated by DM&E are capable of carrying the fully-loaded covered hopper cars preferred for grain service. DM&E serves elevators in over 30 South Dakota communities.

TABLE III-2
DAKOTA, MINNESOTA & EASTERN RAILROAD
SOUTH DAKOTA OPERATIONS (7-1-92)

SEGMENT (DM&E OWNERSHIP)

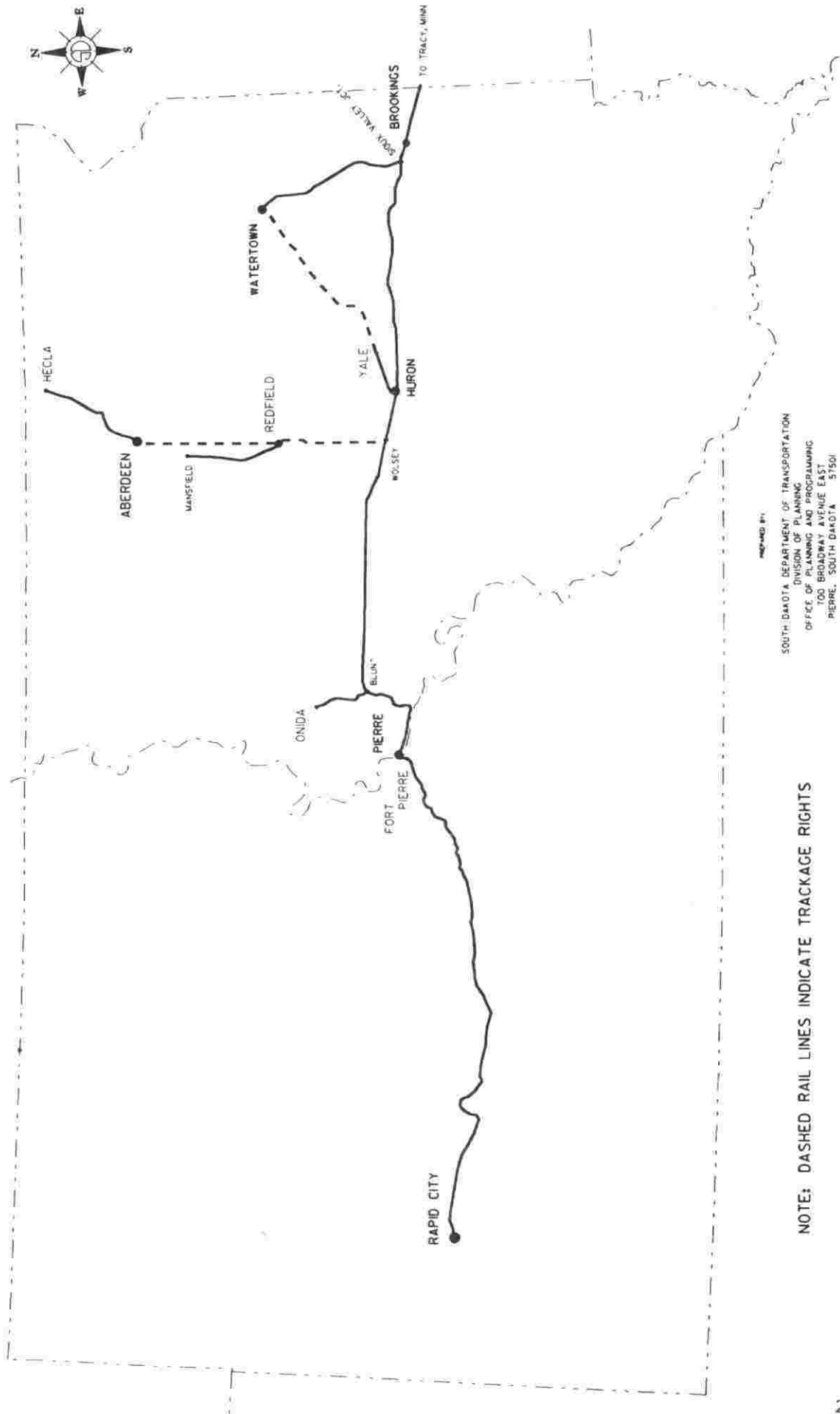
<u>FROM</u>	<u>TO</u>	<u>TOTAL MILES</u>	<u>SD MILES</u>	<u>WEIGHT LIMIT (LBS.)</u>
Tracy, MN	Wolsey, SD	149.7	104.5	263,000
Wolsey, SD	Ft. Pierre, SD	108.3	108.3	263,000
Ft. Pierre, SD	Rapid City, SD	164.6	164.6	263,000
Redfield, SD	Mansfield, SD	26.3	26.3	263,000
Aberdeen, SD	Hecla, SD	34.7	34.7	210,000
Sioux Valley, Jct, SD	Watertown, SD	44.2	44.2	210,000
Blunt, SD	Onida, SD	16.2	16.2	263,000
Huron, SD	Yale, SD	<u>13.3</u>	<u>13.3</u>	263,000
	TOTAL	557.3	512.1	

TRACKAGE RIGHTS ON SOUTH DAKOTA OWNED LINES

<u>FROM</u>	<u>TO</u>	<u>TOTAL MILES</u>	<u>SD MILES</u>	<u>WEIGHT LIMIT (LBS.)</u>
Wolsey, SD	Aberdeen, SD	74.0	74.0	263,000

FIGURE III-3

DAKOTA, MINNESOTA and EASTERN SOUTH DAKOTA OPERATIONS - 1992



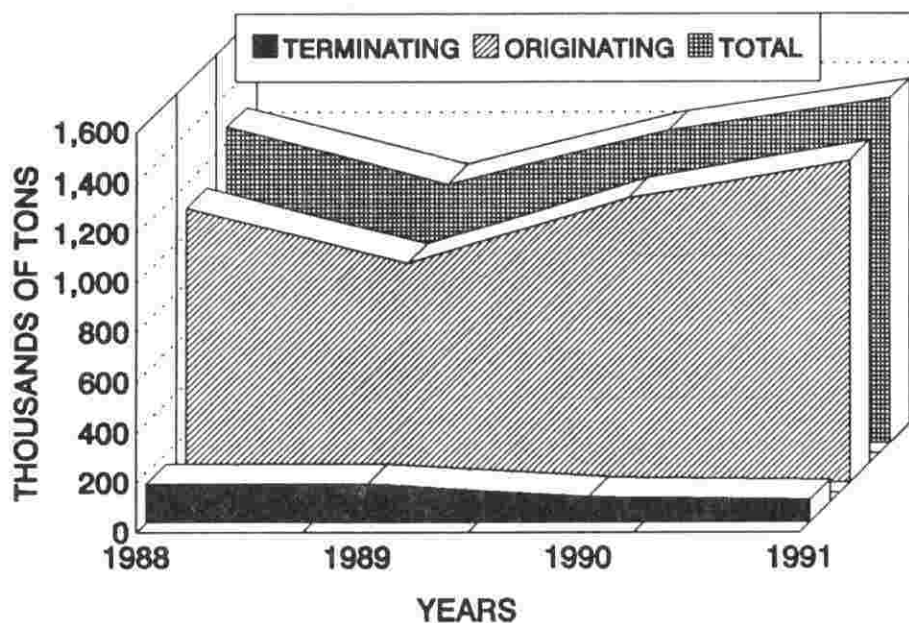
NOTED BY:
SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION
DIVISION OF PLANNING
OFFICE OF PLANNING AND PROGRAMMING
700 BROADWAY AVENUE EAST
PIERRE, SOUTH DAKOTA 57501

NOTE: DASHED RAIL LINES INDICATE TRACAGE RIGHTS

DM&E also provides South Dakota's only active link between the eastern part of the state and the Black Hills. South Dakota's western shippers are therefore very dependent upon it for east-bound movements. Much of DM&E's east-bound traffic originating in the Black Hills consists of bentonite clay. Figure III-4 shows the originating and terminating tonnage carried in South Dakota by the DM&E from 1988 to 1991.

FIGURE III-4

DAKOTA, MINNESOTA & EASTERN RAILROAD
ORIGINATING AND TERMINATING TRAFFIC
 1988-1991

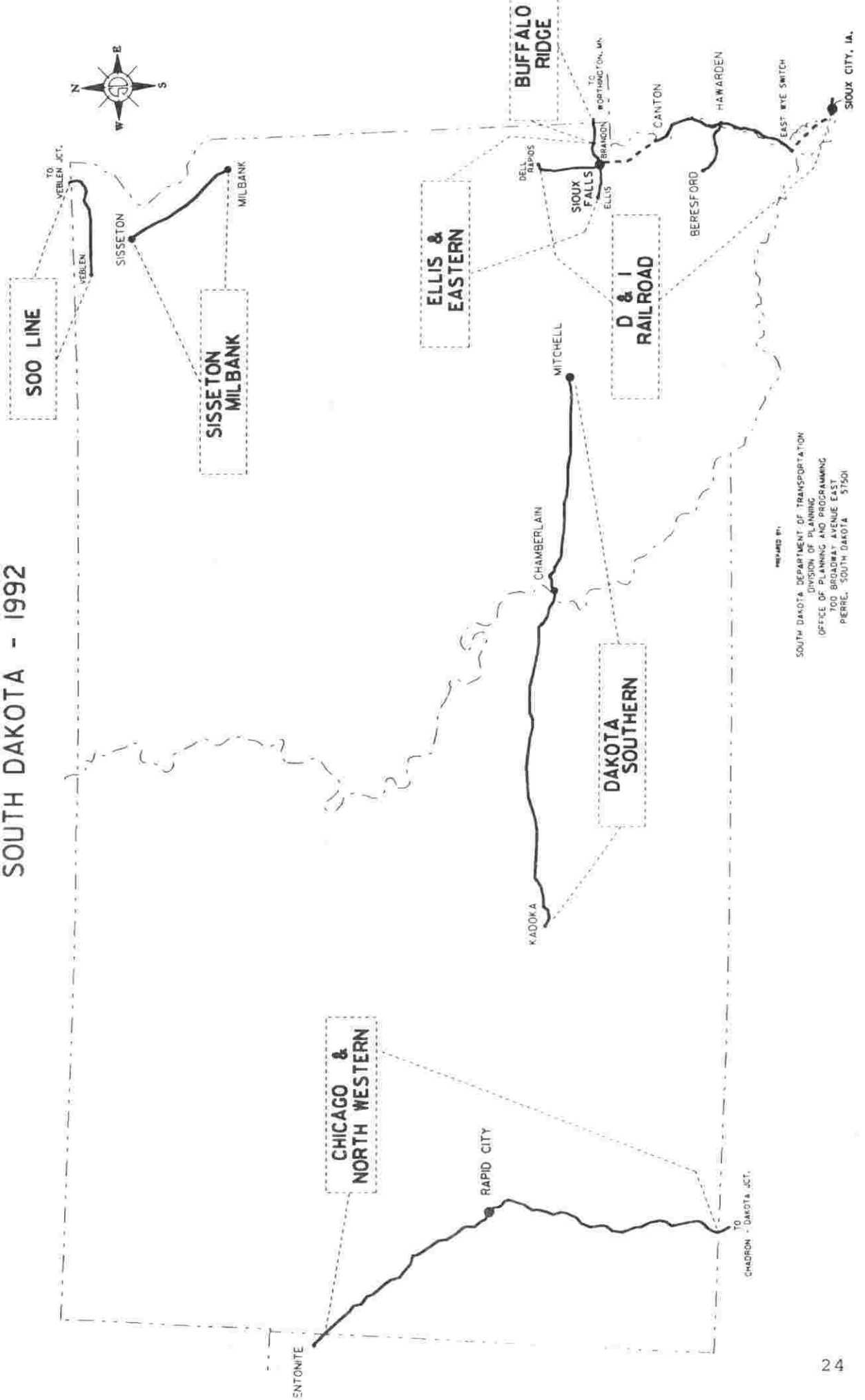


Other Rail Carriers

The seven remaining rail carriers in the State are also illustrated in Figure III-5. The various segments and weight limits for each carrier are listed in Table III-3.

FIGURE III-5

OTHER RAIL OPERATIONS SOUTH DAKOTA - 1992



PREPARED BY:
SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION
DIVISION OF PLANNING
OFFICE OF PLANNING AND PROGRAMMING
100 BROADWAY AVENUE EAST
PERRIE, SOUTH DAKOTA 57501

TABLE III-3
OTHER RAIL OPERATIONS
SOUTH DAKOTA

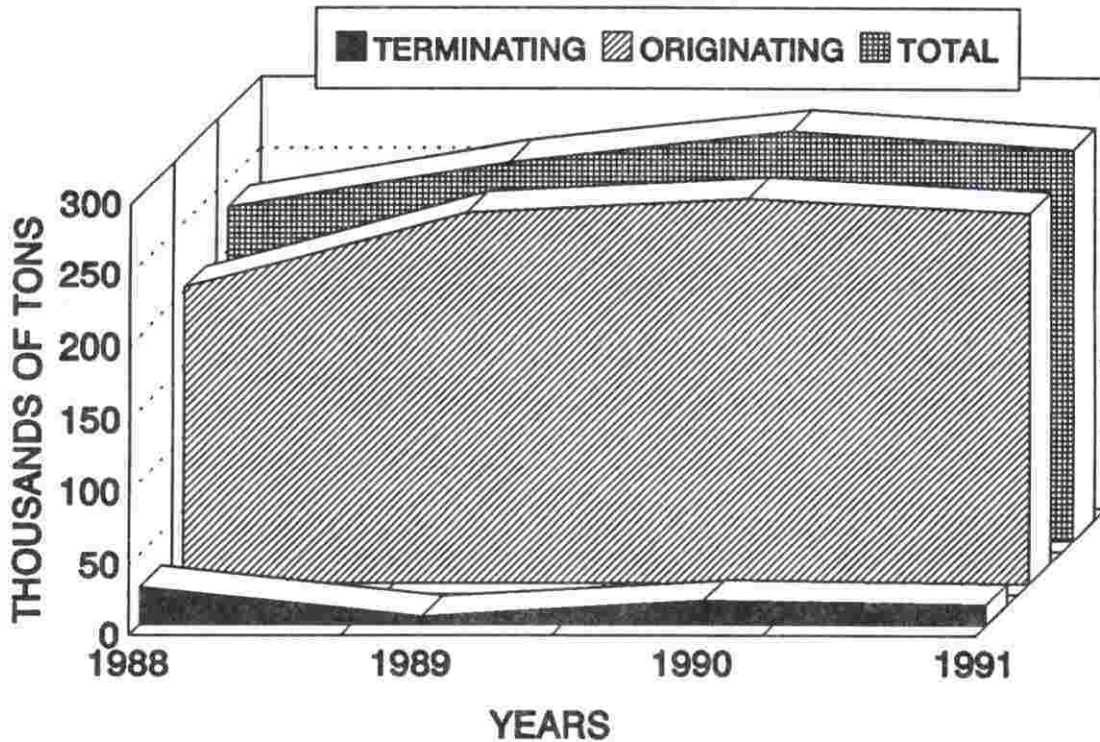
<u>FROM</u>	<u>TO</u>	<u>TOTAL MILES</u>	<u>SD MILES</u>	<u>WEIGHT LIMIT (LBS.)</u>
<u>Chicago & North Western</u>				
Colony, WY	Dakota Jct., NE	174.7	155.0	263,000
<u>Sisseton - Milbank</u>				
Milbank, SD	Sisseton, SD	37.1	37.1	263,000
<u>Soo Line</u>				
Veblen Jct.	Veblen, SD	42.2	33.5	263,000
<u>D&I</u>				
Sioux Falls, SD	Dell Rapids, SD	16.8	16.8	263,000
SD Owned Track				
Canton, SD	East Wye Switch	49.7	14.1	263,000
Hawarden, IA	Beresford, SD	16.9	16.2	263,000
Trackage Rights on SD Owned Line				
Sioux Falls, SD	Canton, SD	20.8	20.8	263,000
East Wye Switch	Sioux City, IA	<u>17.3</u>	<u>11.3</u>	263,000
	TOTAL	121.5	79.2	
<u>Dakota Southern</u>				
SD Owned Track				
Mitchell, SD	Chamberlain, SD	68.5	68.5	263,000
Chamberlain, SD	Kadoka, SD	<u>121.2</u>	<u>121.2</u>	263,000
	TOTAL	189.7	189.7	
<u>Ellis & Eastern</u>				
Ellis, SD	Brandon, SD	14.5	14.5	263,000
<u>Buffalo Ridge</u>				
Worthington, MN	Brandon, SD	54.1	7.5	263,000

Soo Line Railroad

The Soo Line Railroad Company, doing business as CP Rail System, operates one dead end branch line which extends 33.5 miles to Veblen in northeastern South Dakota from North Dakota. Nearly all of the traffic on this line is comprised of farm products. Figure III-6 shows the originating and terminating tonnage carried by the Soo Line in South Dakota from 1988 to 1991.

FIGURE III-6

***SOO LINE RAILROAD
ORIGINATING AND TERMINATING TRAFFIC
1988-1991***



Chicago and North Western Transportation Company

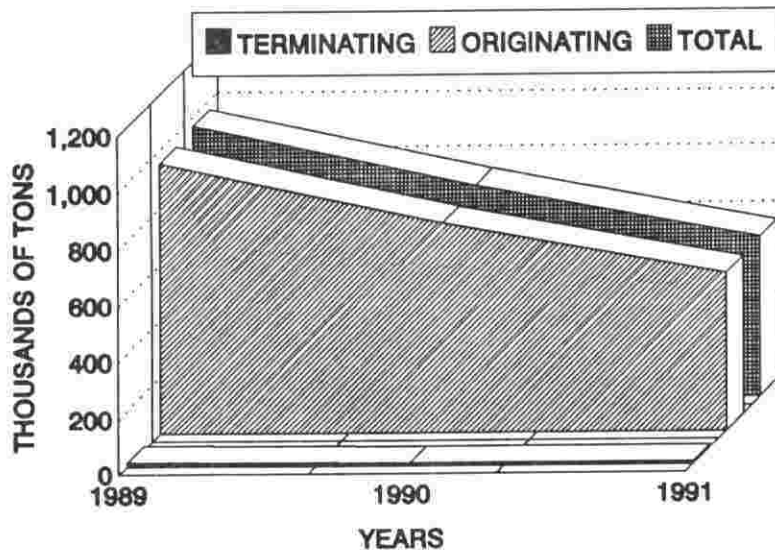
The Chicago and North Western Transportation Company's (C&NW) only remaining presence in South Dakota is its 175 mile Colony Line running from Colony, WY to Dakota Junction, NE. The C&NW also owns a 22 mile east-west segment in Nebraska between Dakota Junction and Crawford that represents critical access for Black Hills Shippers to western markets.

East-bound shipments of bentonite clay which originate on the C&NW line at Colony, WY are interchanged with the DM&E at Rapid City for transport across the Pierre-Rapid City Line to final destinations throughout the U.S. These shipments are considered overhead traffic, and are not reflected in Figure III-7 which shows originating and terminating traffic from 1989-91.

In August 1992, the C&NW and the Union Pacific Railroad (UP) made a joint filing before the Interstate Commerce Commission (ICC) requesting ICC approval for UP to obtain control of 25 percent of C&NW's common stock. Approval was also requested for the eventual 100 percent ownership of C&NW by UP.

FIGURE III-7

CHICAGO & NORTH WESTERN RAILROAD **ORIGINATING AND TERMINATING TRAFFIC** 1989-1991



D&I Railroad

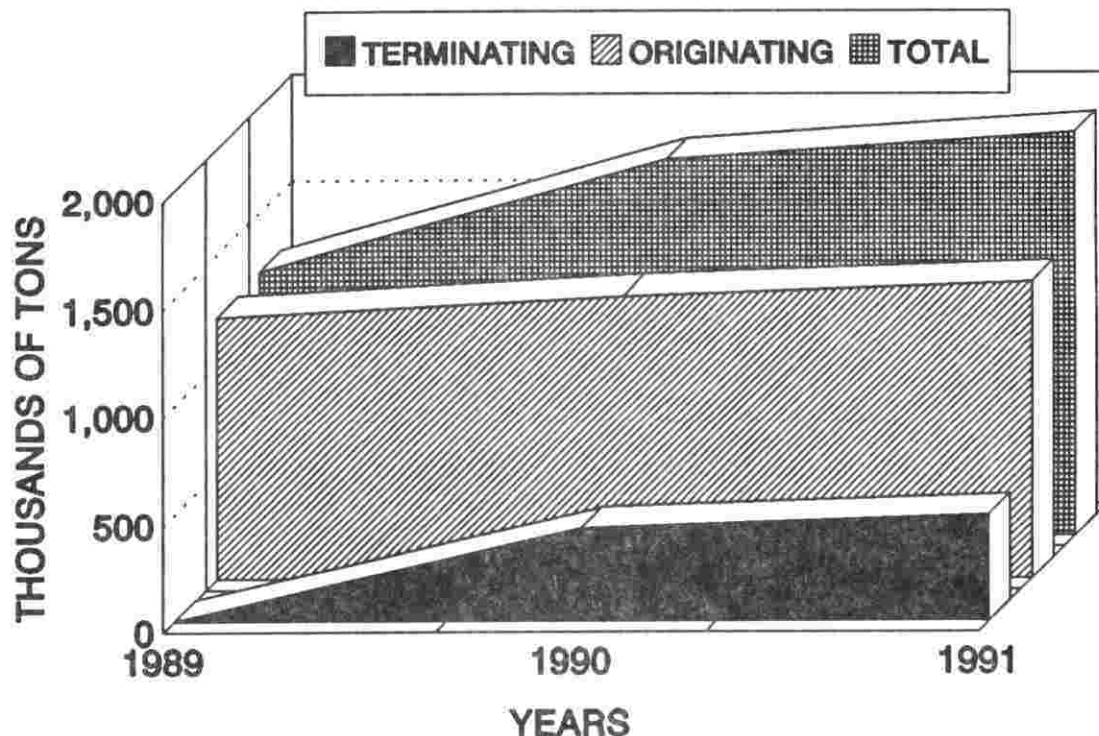
The D&I Railroad was originally formed to haul rock, gravel, and crushed stone quarried at Dell Rapids, SD, and Hawarden, IA. It operates on its own track from Sioux Falls to Dell Rapids and previously had operated on the State-owned track between Sioux Falls and Sioux City via trackage rights from the BN. In November 1986, it began common carrier service on the 49.7 mile State-owned line from Canton to Elk Point and the 16.9 mile branch line between Beresford and Hawarden, IA. D&I still operates via trackage rights from the BN on the State-owned Core System between Sioux Falls and Canton and between Elk Point and Sioux City. Figure III-8 shows the tonnage carried by the D&I Railroad from 1989 to 1991.

FIGURE III-8

D & I RAILROAD

ORIGINATING AND TERMINATING TRAFFIC

1989-1991

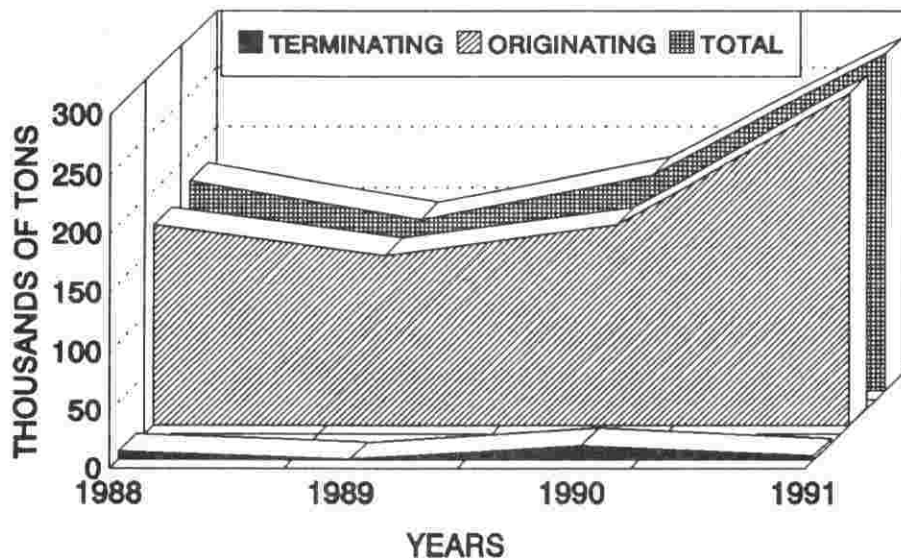


Dakota Southern Railway Company

Dakota Southern Railway Company operates the 190 mile State-owned line between Mitchell and Kadoka, formerly owned by the Milwaukee Road. Formed in 1985 to operate the State-owned line from Napa Jct. to Platte, Dakota Southern extended its operation to include Mitchell to Chamberlain in 1987, and then added Chamberlain to Kadoka in 1988. It terminated operations on the Napa Jct. to Platte line in 1989. Its current operation serves as a grain line for agricultural producers in Central and Western South Dakota. Figure III-9 shows the tonnage carried by the Dakota Southern Railway from 1988 to 1991.

FIGURE III-9

DAKOTA SOUTHERN RAILWAY
ORIGINATING AND TERMINATING TRAFFIC
1988-1991



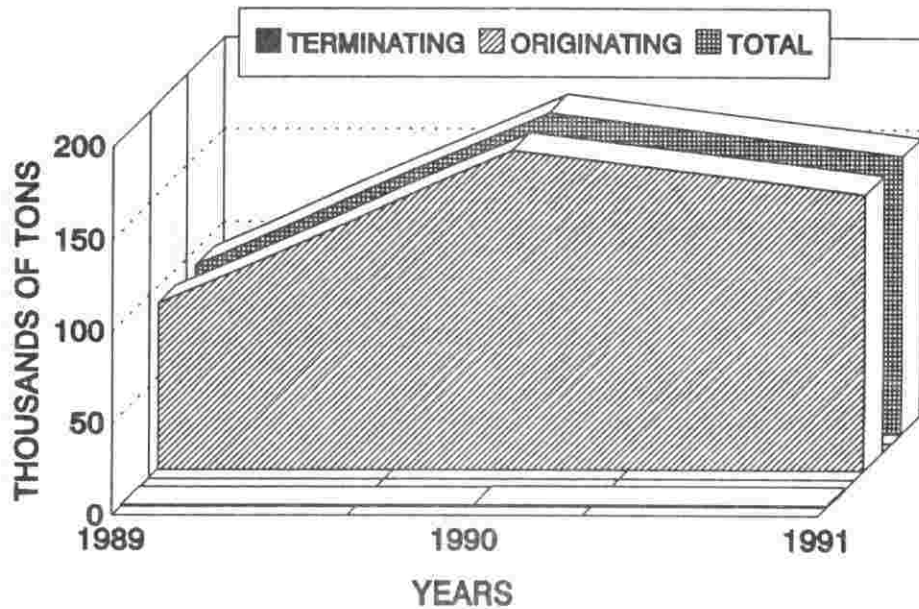
Sisseton - Milbank Railroad

The Sisseton-Milbank Railroad operates a 37 mile, locally-owned grain line from Milbank to Sisseton. The Sisseton-

Milbank succeeded the Sisseton Southern Railroad as that line's operator in 1989. Figure III-10 shows the tonnage carried by the Sisseton - Milbank Railroad from 1989 to 1991.

FIGURE III-10

SISSETON MILBANK RAILROAD ***ORIGINATING AND TERMINATING TRAFFIC*** **1989-1991**



Ellis and Eastern Company

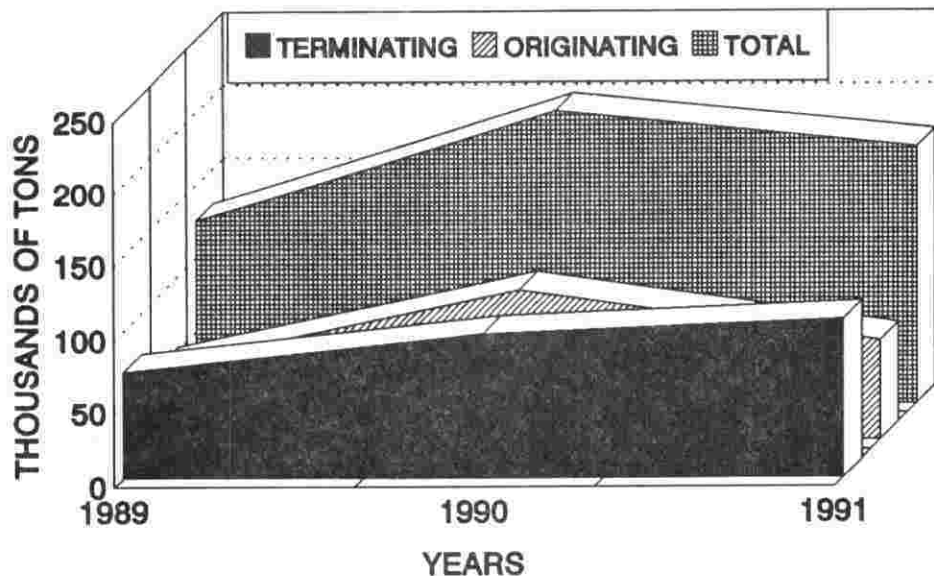
The Ellis and Eastern Company was formed as a subsidiary of Sweetman Construction Company in January, 1989 and operates 14.5 miles between Brandon and Ellis. The railroad's principal purpose is to provide its parent company with rail service for shipment of aggregate products to outside customers, as well as for shipment of raw materials between Sweetman plants on the east and west sides of Sioux Falls. Ellis and Eastern also serves several outside customers located on its line. Figure III-11 shows the tonnage carried by the Ellis and Eastern Company from 1989 to 1991.

FIGURE III-11

ELLIS & EASTERN COMPANY

ORIGINATING AND TERMINATING TRAFFIC

1989-1991



Buffalo Ridge Railroad

The Buffalo Ridge Railroad is a branch line railroad formed in 1989 to serve agricultural shippers in Southwest Minnesota. As was previously noted, an abandonment application has been filed on its 7.5 mile ownership between Brandon and the Minnesota State Line.

Rail Traffic

Measurements of rail traffic take many different forms. Those forms most often used include carloads, tonnage, and revenue. Railroads also measure traffic in terms of gross tons per mile of track. For comparison analysis of rail traffic, the 1992 Rail Plan uses the most reliable statistic of tonnage shipped.

Figure III-12 graphically illustrates the percentage of rail tonnage shipped by carrier for the year 1991. This figure shows that the Burlington Northern is the largest carrier in South Dakota.

FIGURE III-12

SOUTH DAKOTA RAIL TONNAGE BY CARRIER

1991

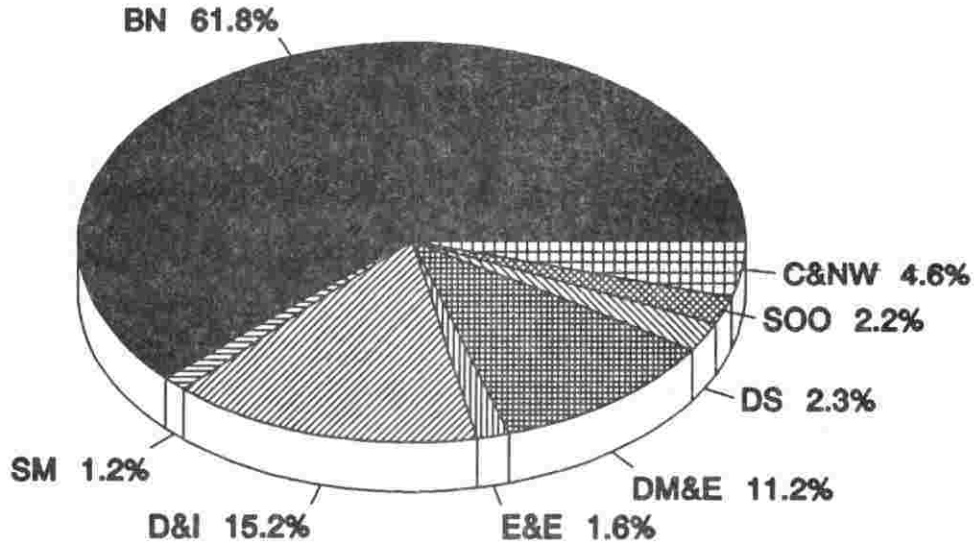
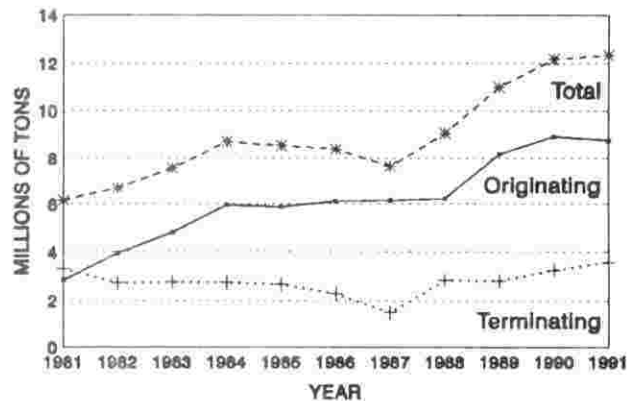


FIGURE III-13

TONS OF COMMODITIES ORIGINATING AND TERMINATING BY RAIL IN SOUTH DAKOTA

The historical trend for the tons of commodities shipped for the years 1981-1991 is shown in Figure III-13. The tonnage shipped in South Dakota dipped in 1987 as a result of a shutdown of the Big Stone Power Plant for repairs. The effect was a significant decline in the amount of coal Burlington Northern carried to the plant.



As you would expect in a rural state, farm products comprise the largest share of originating rail tonnage as illustrated in Figure III-14.

FIGURE III-14

ORIGINATING RAIL TONNAGE BY COMMODITY TYPE

1991

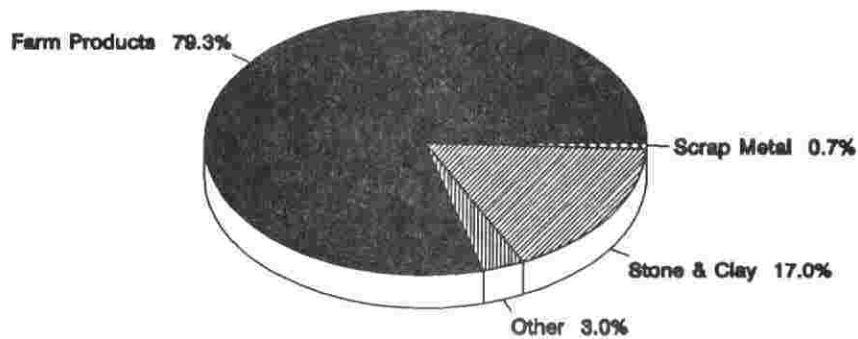
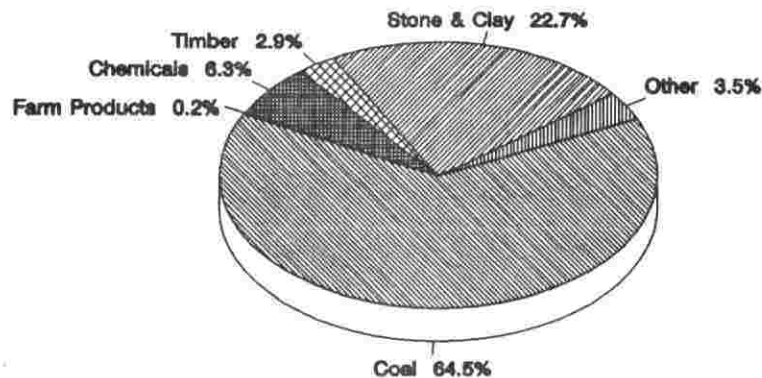


Figure III-15 shows the terminating tonnage by commodity type. Coal delivered to the Big Stone Power Plant represents the largest share of terminating traffic.

FIGURE III-15

TERMINATING RAIL TONNAGE BY COMMODITY TYPE

1991



A common measurement of rail line health by a railroad company is freight density. This measurement is quantified in millions of gross tons per mile of track operated. Figure III-16 is a traffic density composite of all operating lines in the State for the year 1991.

The railroads, as a general rule, suggest that a line must carry three million gross tons per mile to provide an adequate return on investment while justifying necessary maintenance. Branch lines are often treated as exceptions to this rule since their conditions and needs are different than through routes. Much of the trackage in South Dakota falls into the branch line category.

Other Rail Characteristics

While rail volume is a good indicator of rail usage, there are several other factors that influence traffic, income, and abandonment decisions. One such factor is the maximum load limit for each operating rail line in the State. In order to achieve full efficiency, a rail line should have the capacity to carry 263,000 pound fully loaded hopper cars. Any line rated less than 263,000 pounds will generally suffer inefficiencies by having to rely on smaller cars, such as boxcars or smaller hoppers. Grain sold to export terminals, if transported by rail, must be moved in the large hopper cars to facilitate handling and unloading.

With a few exceptions, South Dakota's major rail lines are now capable of supporting fully loaded hopper cars. Between 1986 and 1989, the load limit on 315.4 miles of track in South Dakota was increased to 263,000 pounds. These increases in capacity have improved the carriers' ability to compete and increased grain shippers' profits.

Intermodal Developments

Perhaps South Dakota's most significant development in intermodal transportation has been the growth of unit train loading facilities. When the 1986 Rail Plan was published, there were 29 unit train grain loading facilities in South Dakota. As of this writing, there are 59 such facilities. Figure III-17 shows the locations of the existing unit train loading facilities. In addition, certain shortlines in the state distribute and reconsolidate unit trains among several shippers. The trains are then considered as single origin unit trains by the Class I connecting carrier.

The steady growth in expansion activity can be largely attributed to substantial investments by the State, shippers, and carriers in track improvements. The result of these investments has been improvements in the quality and dependability of rail service,

FIGURE III-16

1991 - RAIL FREIGHT TRAFFIC DENSITY

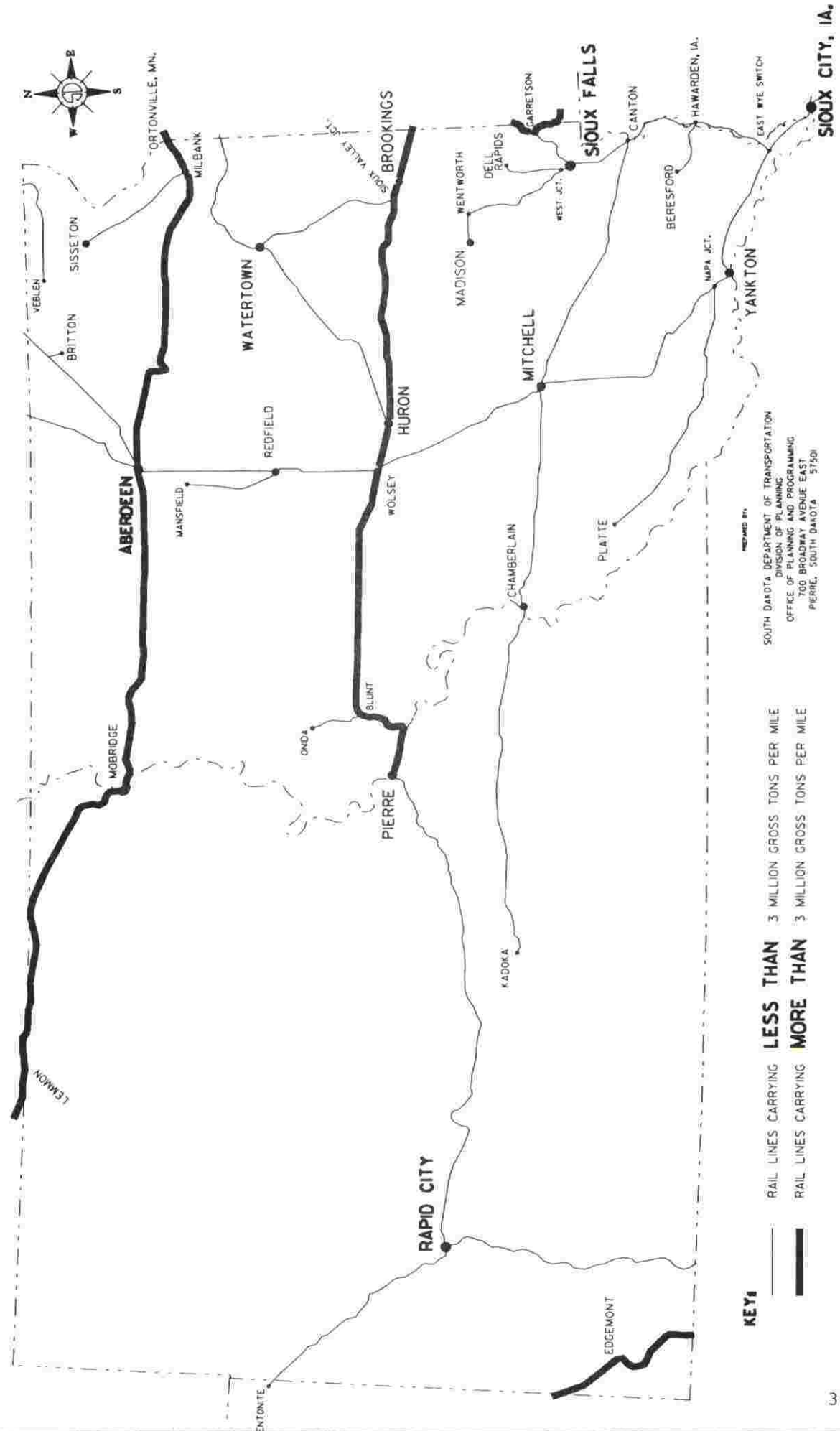
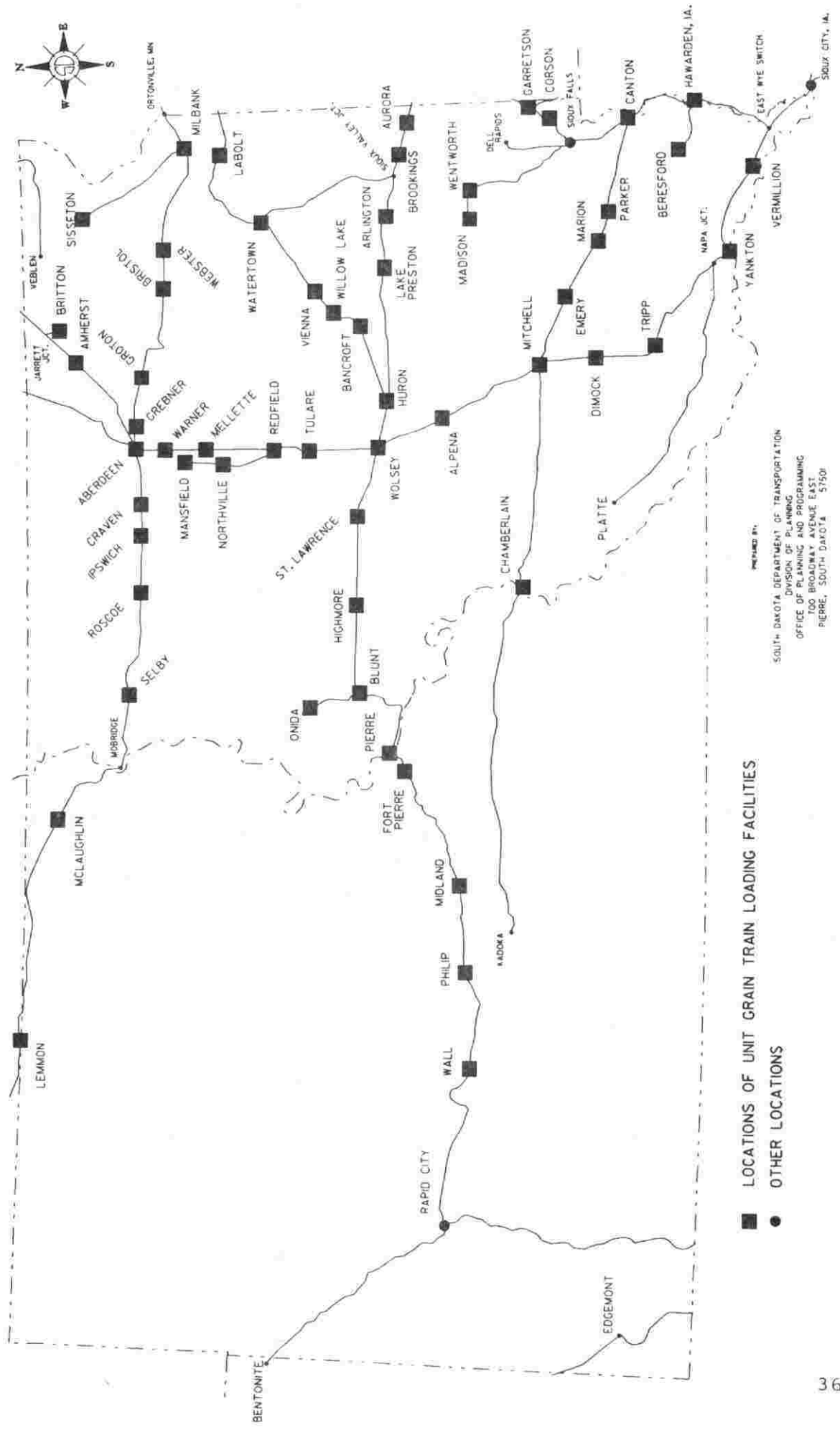


FIGURE III-17
**UNIT GRAIN TRAIN LOADING FACILITIES
 CAPABLE OF LOADING 25 OR MORE CARS**



allowing shippers to take advantage of the economies of scale offered by rail transportation.

It is readily acknowledged that unit trains are largely responsible for reversing the railroads' long standing competitive disadvantage with trucks in grain transportation. In recent years, there has been a greater utilization of trucks for short hauls to unit train terminals as opposed to long haul trips to out-of-state markets. This trend has resulted in lower overall transportation costs, thereby contributing to a much-needed revenue boost for railroads and better prices for grain producers. Private industry has responded by building new elevators and expanding existing facilities to take advantage of unit train rates.

Present Status of the State-owned System

The most significant justification for a continued State-owned railroad system in critical areas of South Dakota is a function of economics. Agriculture, which is South Dakota's principal industry, needs an efficient bulk carrier to transport crop production. It is more cost-effective to move farm commodities long distances by railroad than by truck. With reliable rail service, South Dakota's producers are afforded access for their products to international markets at the lowest possible farm to market cost.

At its inception, the State's rail acquisition fell into the following three main categories of lines:

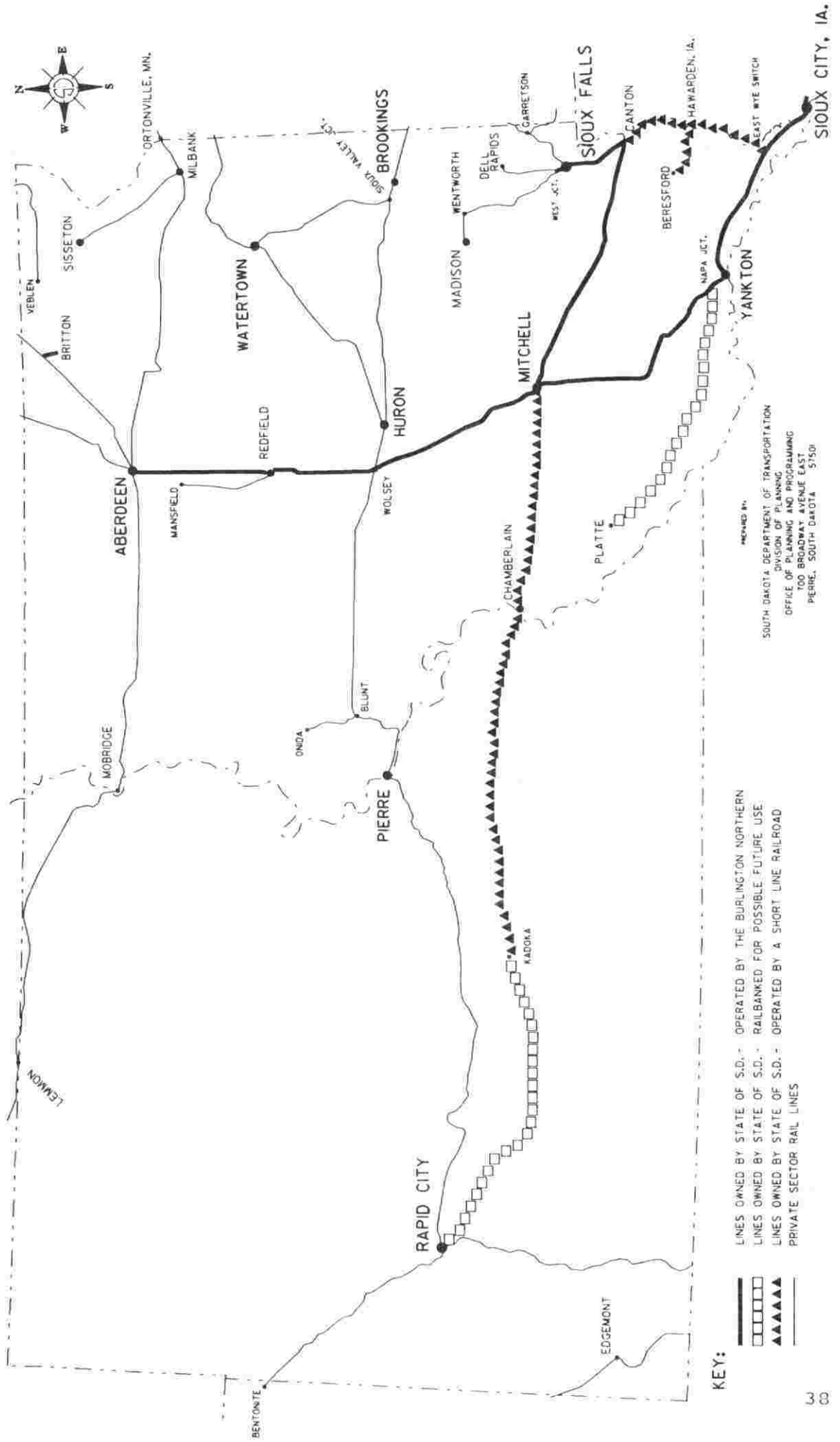
1. Core System
2. Local Option Lines
 - a. Operating
 - b. Non-operating
3. Main Line

Each category was considered an essential part of the State's overall transportation system. Figure III-18 highlights the State-owned rail lines.

Core System

The Core System, located in the eastern part of the state, originally consisted of lines from Aberdeen south through Mitchell and on to Sioux City, Iowa and from Sioux Falls to Chamberlain via Canton. In 1986, the Mitchell-Chamberlain segment was dropped from the Core System and re-categorized as a local option line. Today, the State Core System is comprised of 368 miles of track and serves as a vital link

FIGURE III-18
STATE OF SOUTH DAKOTA
MAP HIGHLIGHTED TO SHOW STATE OWNED RAIL LINES



DESIGNED BY:
 SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION
 DIVISION OF PLANNING
 OFFICE OF PLANNING AND PROGRAMMING
 700 BROADWAY AVENUE EAST
 PIERRE, SOUTH DAKOTA 57501

KEY:
 ——— OPERATED BY THE BURLINGTON NORTHERN
 - - - - RAILBANKED FOR POSSIBLE FUTURE USE
 ▲▲▲▲ OPERATED BY A SHORT LINE RAILROAD
 _____ PRIVATE SECTOR RAIL LINES

between South Dakota's principal grain production area and markets in the Pacific Northwest and the Gulf of Mexico.

Local Option Lines (operating)

There are four State-owned local option lines currently in operation. The D&I Railroad operates on two local option lines between Canton and Elk Point (49.7 miles) and between Beresford and Hawarden, Iowa (16.9 miles). Dakota Southern Railroad operates 190 miles between Mitchell and Kadoka. And, Burlington Northern operates over the five mile industrial spur between its line and Britton, South Dakota. Each of these operations has been important to the communities they serve, allowing for the continuation of rail service where Class I Railroads found it unprofitable.

Local Option Lines (non-operating)

There are two State-owned rail segments currently in non-operating status. The 82.4 mile Napa Jct. to Platte line saw operations restored intermittently between 1985 and 1989 but has not been operated since. In July, 1992 the State Railroad Board approved the abandonment of 40 miles of this line from Platte to Wagner. The 98.5 mile Kadoka to Rapid City line has not had rail operations restored since its abandonment in 1980.

Main Line

The last category of State-acquired rail lines was the South Dakota Mainline which runs 480 miles from Ortonville, Minnesota, to Terry, Montana. Of that distance, 299 miles are in South Dakota. As has been previously noted, the Mainline was transferred to BN ownership in August of 1991.

Since the State began acquiring railroads, Burlington Northern has served as its largest operator, at one time operating on 983 miles of State-owned track. In 1986, BN relinquished operations on three line segments. Operating rights on the 68.5 mile line between Mitchell and Chamberlain were transferred to Dakota Southern Railway and the D&I Railroad assumed operations of the 49.7 mile segment between Canton and Elk Point and the 16.9 mile segment between Beresford and Hawarden, Iowa. With BN's acquisition in 1991 of the former South Dakota Mainline, their miles operated on State-owned rail lines were reduced, however, actual operating status on the Mainline remained unchanged.

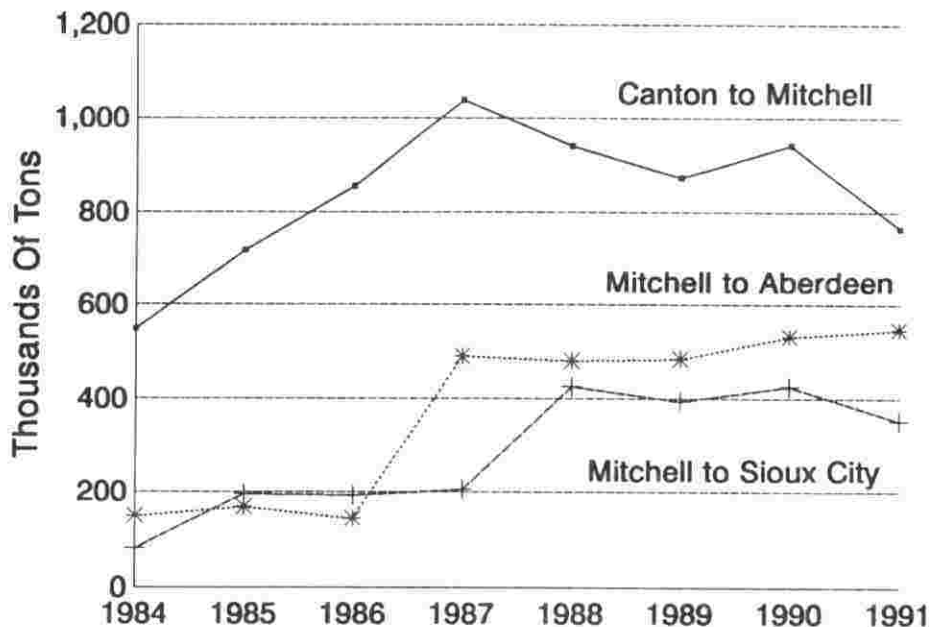
As the current operator of the 368 mile State Core System, BN remains the largest provider of service over State-owned tracks.

Core System Traffic Analysis

Traffic on the Core System has declined slightly in recent years. However, traffic on the System has achieved objectives far above original expectations. Figure III-19 graphically shows the Core System originating and terminating traffic by tonnage for each individual line segment for the years 1984-1991.

FIGURE III-19

STATE CORE SYSTEM RAIL TRAFFIC 1984 - 1991

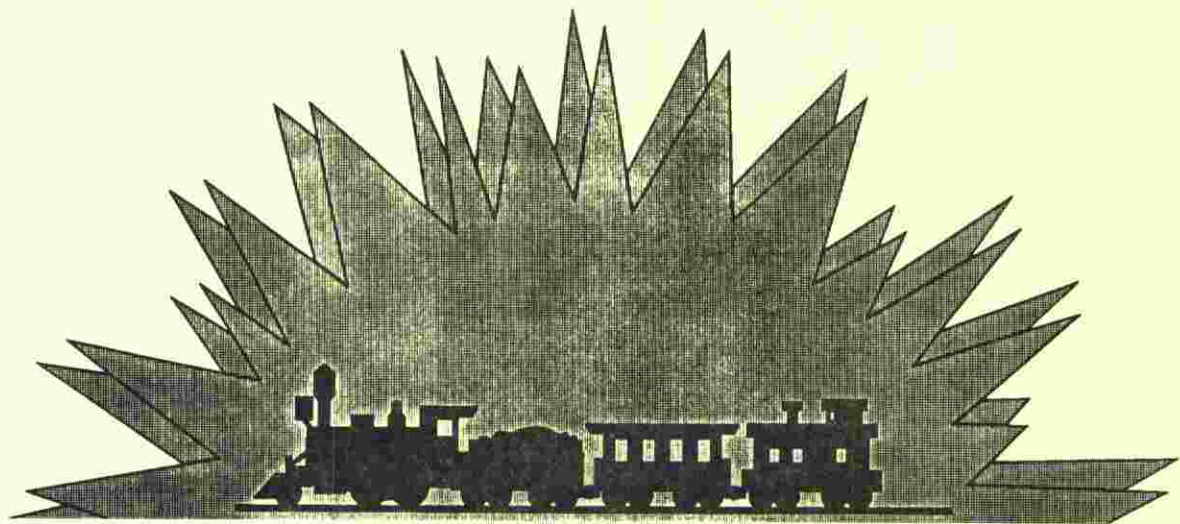


An analysis of individual line segments shows a decline in traffic on the Canton to Mitchell line segment. Rehabilitation of the Canton to Marion segment of this line, as contemplated under the new Core System Operating Agreement, should enhance this line's viability. Traffic on the Mitchell to Aberdeen line jumped dramatically in 1987 when DM&E began interchanging traffic with the BN at Wolsey. DM&E currently has a trackage rights agreement with the BN between Wolsey and Aberdeen.

Under the existing Operating Agreement with Burlington Northern, the State shares in BN's profits on Core System traffic when those profits exceed a certain threshold. As was previously mentioned, the State has realized \$3,374,630.76 under this provision of the Operating Agreement.

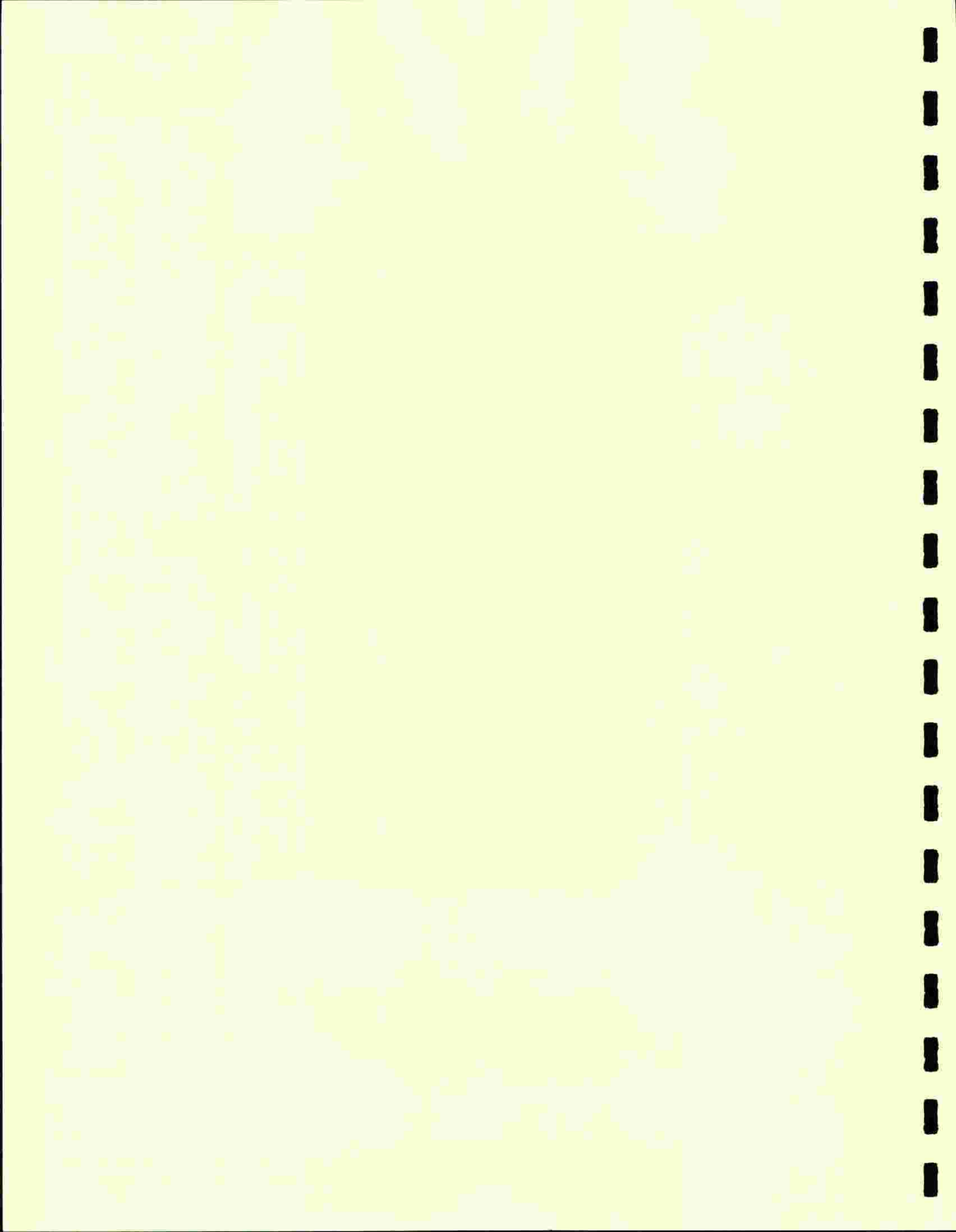
The Core System is and will continue to be the cornerstone of the State's rail system. It is imperative, therefore, that Burlington Northern and South Dakota continue to be mutually committed to a systematic program of track maintenance and capital improvement.





Chapter

IV



CHAPTER IV

THE FUTURE OF THE STATE RAIL SYSTEM

In the early 1980's, rail planning in South Dakota was a very dynamic process. In large measure, the planning process was driven by external events and modified frequently as circumstances dictated. The future of South Dakota's rail transportation system now appears more stable than during the crises years of a decade ago. Today, South Dakota's rail system is smaller but the surviving lines can, in most cases, be supported by the traffic they carry. The cycle of events which preceded the rail crisis has been reversed through the combined efforts of the State, railroads, private investors and the Federal government.

Abandonments may continue in the future. However, future abandonments will occur on light density rail lines which are unable to safely support modern rail equipment and on rail lines which do not generate sufficient traffic to cover operating expenses. The task facing South Dakota now is the preservation and improvement of essential rail lines. By effectively utilizing available State and Federal resources in conjunction with assistance from the carriers and the shippers, we are optimistic rail service can be maintained where it is needed.

Future rail planning will center on those lines that are in the most immediate danger of abandonment and those lines that with the right assistance could be strengthened and operations secured well into the future.

Threatened Lines

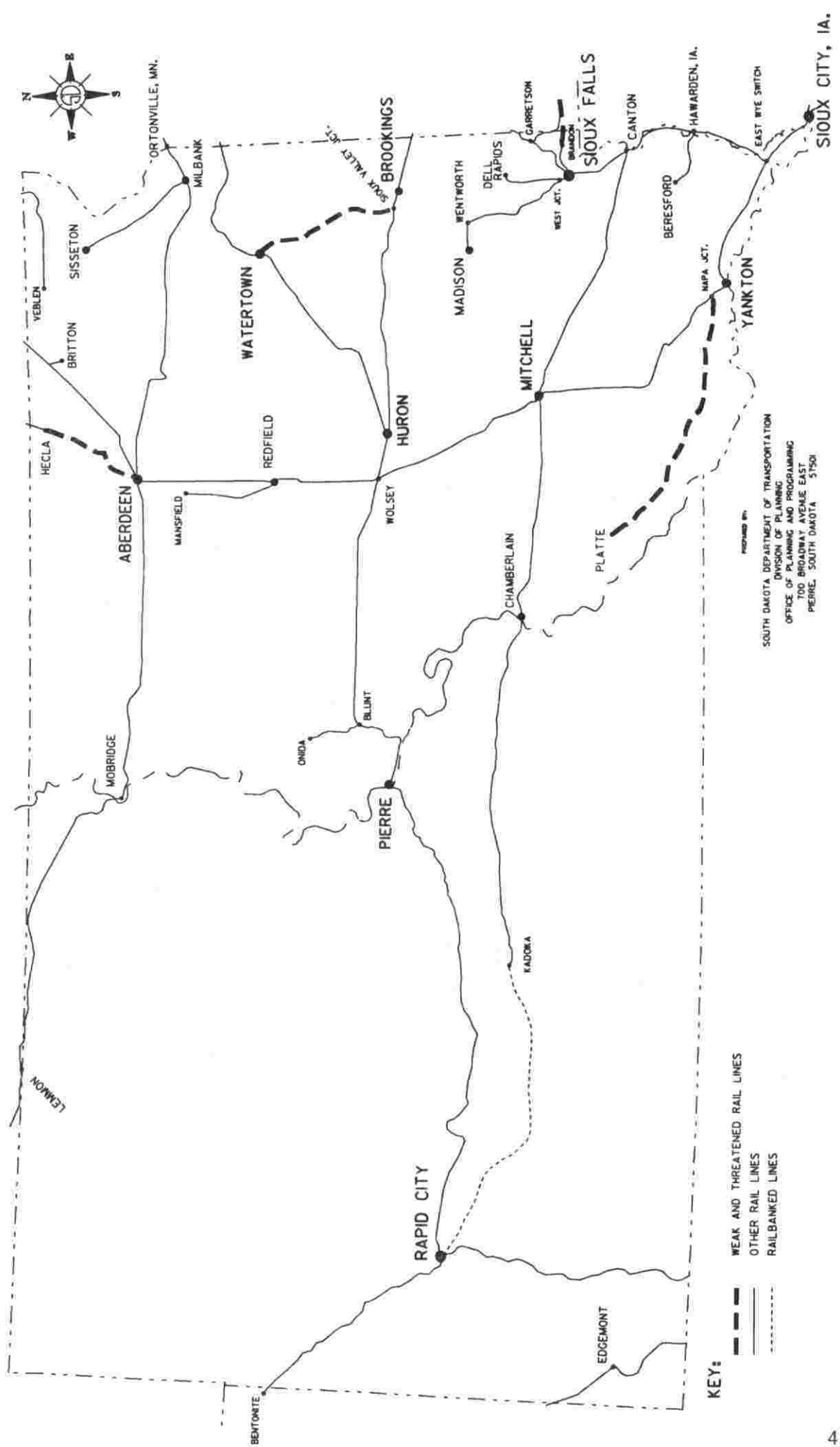
In accordance with 49 CFR Section 266.17(c)(3)(ii), the four rail lines that are currently "threatened" and in the most immediate danger of abandonment are identified in Figure IV-1.

(1) **Aberdeen to Hecla**

This former C&NW line is owned by DM&E and has been in embargo status since 1989. Abandonment of the line is imminent. There are virtually no shippers left on the line south of Hecla (there is one elevator at Columbia). The rail is light weight, either 60 or 65 lbs. in most places. The line between Hecla and Oakes, ND, will remain in service under the operation of a Burlington Northern subsidiary, the Red River Valley Railroad.

THREATENED RAIL LINES

FIGURE IV-1



(2) Sioux Valley Junction to Watertown

Also embargoed in 1989, this DM&E-owned 44 mile segment could not produce the necessary traffic levels to justify continued service. The line is comprised of 72 lbs. rail and will be abandoned in the very near future.

(3) Worthington, MN, to Brandon, SD

Prior to 1988, this line served as C&NW's access to Sioux Falls. In 1988, the C&NW received ICC approval for abandonment of the entire line from Worthington, MN, to Ellis, SD. In 1989, service was restored on this line by two shortline railroads. The Ellis and Eastern took over the line between Ellis and Brandon, and the Buffalo Ridge assumed operations between Brandon, SD and Worthington, MN. While Ellis and Eastern has succeeded as a carrier for its parent company, Sweetman Construction, the Buffalo Ridge has failed to meet expectations and in the Spring of 1992 ceased operations between Brandon and Worthington. The Buffalo Ridge attributed its shutdown to revenue losses and poor track conditions. In August of 1992, the Buffalo Ridge filed with the ICC an application to abandon the 7.5 mile segment between Brandon and the Minnesota State Line.

Unless the State of Minnesota and another operator can work out an agreement to make the necessary track improvements, this line's future is in serious jeopardy. Since nearly all of the traffic on the line originates in Minnesota, abandonment of this line would not have a significant impact on South Dakota shippers or its rail system.

(4) Napa Junction to Platte

Since Dakota Southern discontinued service on the Napa Jct. to Platte line, the line's future has been in doubt. The Napa Jct. to Platte Regional Railroad Authority has retained two lessees subsequent to Dakota Southern's departure but neither has been able to run a train over the line. The rail is 60 lbs. and the other materials are badly deteriorated. It would require a substantial capital investment to make the track passable. Notwithstanding the track condition, the most formidable impediment to the line's viability is its apparent lack of shipper support. As previously noted, the State Railroad Board has approved the abandonment and salvage of the portion of this line between Platte and Wagner.

Lines in Need of Assistance

There are other lines in the State that in order to sustain profitable operations will require substantial capital investment. These lines are identified in Figure IV-2.

(1) **Wolsey to Rapid City**

As the only active connection between east and west in South Dakota, the viability of this line segment looms large in terms of its geostrategic importance to the State rail system. As part of a 1989 agreement between the C&NW and DM&E, C&NW agreed to divert its eastbound clay traffic originating in the Northern Black Hills from its Nebraska line to the Pierre to Rapid City line. DM&E's long-term success in South Dakota is dependent on traffic transported over this line.

Despite track rehabilitation and ongoing efforts to stabilize the subgrade between Pierre and Rapid City, major problems remain. An impermeable clay which is endemic to this area renders conventional surfacing efforts ineffective. Repeated attempts to correct the problem through conventional remedies have proven very costly as have derailments and excessive slow orders caused by the condition. The Pierre to Wolsey segment is hampered by 72 lbs. rail.

Long-term solutions are available but expensive. Making the necessary improvements to this line will require a multi-million dollar investment. And since it is already heavily leveraged, it is unlikely that DM&E would opt to obtain the necessary financing through conventional debt sources.

In the event that public assistance, perhaps in the form of low interest loans, should become available once again in the future, this line would appear to be a high priority for such assistance.

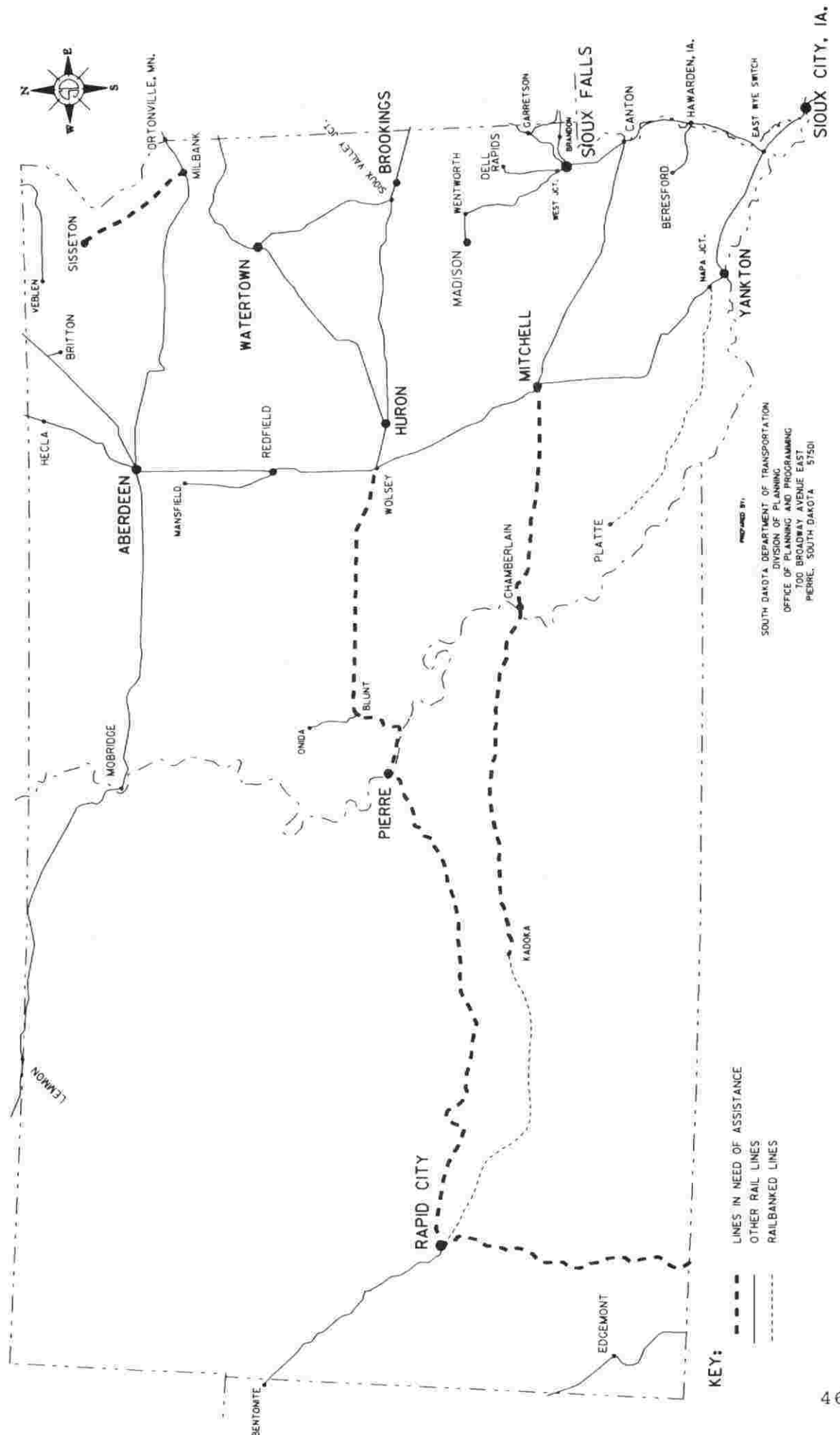
(2) **Mitchell to Kadoka**

The State-owned Mitchell to Kadoka line has managed to exceed most predictions about its life expectancy. Carloadings were up 46 percent in 1991 due to a strong harvest and an excellent joint wheat rate with Burlington Northern on shipments destined for the Gulf of Mexico.

Notwithstanding its success, the line's long-term viability is still a question mark. Due to a timeworn track facility that predates the era of modern rail equipment, speeds are restricted to 5-10 m.p.h.

FIGURE IV-2

RAIL LINES IN NEED OF ASSISTANCE



Frequency and reliability of service have been a problem.

It would take a large investment in the Mitchell to Kadoka track facility to upgrade the level and quality of service by any significant degree. However, a systematic maintenance plan that includes regular surfacing and tie work could preserve and improve upon existing service. Until progress toward that end becomes evident, this line will remain in the vulnerable category.

Although previous rail plans have not identified the Mitchell to Kadoka line as an essential rail line, it does serve 14 elevators in 16 communities in Central South Dakota and has produced hundreds of thousands of additional dollars for their economies.

It is presumed that continuance of this line is in the State's best interest. However, it is further noted that public financial assistance will be difficult to obtain due to the line's light traffic density.

(3) Milbank to Sisseton

This locally-owned rail line provides a valuable service to the farmers of five northeastern South Dakota communities. Tonnage originating on this 37 mile branch amounted to 149,599 in 1991. With a small investment into upgrading the track, this line's future viability can be further strengthened. Operating efficiencies could be achieved through a surfacing project over a major portion of the line. Due to the traffic densities on this line, and the nature of the upgrading needed, this line may be a candidate for Federal LRFA funding, provided the program continues to be funded.

(4) Rapid City to Dakota Junction, NE

This C&NW-owned line provides the only reasonable access to western markets for Rapid City shippers. On average, 800,000 tons annually are hauled over this line. One of its primary users is the State-owned cement plant in Rapid City.

Despite the line's importance to the Black Hills shipping community, it has suffered greatly in recent years from deferred track maintenance. It is expected that the line will need extensive rehabilitation in the years ahead, particularly on the south end. Preserving this line's viability is a critical priority for South Dakota's freight transportation system. Protecting the existing western access through the Crawford, NE gateway is also

considered a key priority for the State and regional rail system.

Rail Projects Selected For Federal Assistance

Screening Criteria

The screening criteria used to select future projects for financial assistance are:

- A. Lines that are part of South Dakota's Core rail system concept.
- B. Lines whose abandonment could have significant impacts on the affected shippers and communities.
- C. Light density lines threatened by physical deterioration or requiring rehabilitation to permit cost efficient operations.
- D. Light Density lines providing access to the regional and national railroad network.
- E. Project locations where significant shipper interest in improving or maintaining local rail operations is demonstrated.
- F. Lines with benefit cost ratios greater than one.

Selection Process

The selection process to determine the rail projects for which the State will request federal assistance begins annually in January. The Department of Transportation contacts each rail operator soliciting applications for projects they would like the Department to consider for federal assistance. The deadline to submit an application to the Department is April 1.

The Department reviews each application and applies the Benefit - Cost Methodology FRA has established for the Local Rail Freight Assistance Program. Each project is prioritized based upon the conclusions of the benefit - cost analysis. A priority list of projects is completed by June 1.

The priority list of projects is then included in the Department of Transportation Statewide Transportation Improvement Plan. Public hearings are held across the State in July to gather input on the plan. In August, the South Dakota Transportation Commission approves the

plan and authorizes the Division of Railroads to prepare a federal application.

Project Selected To Receive Federal Assistance

As the result of the selection process, the Department of Transportation plans to seek federal assistance to rehabilitate a 17.5 mile segment of the Sisseton-Milbank line from M.P. 0 in Milbank, SD to M.P. 17.5 in Wilmot, SD (Figure IV-3). This was the only project submitted which had a benefit-cost ratio greater than one. The benefit-cost analysis is detailed later in this chapter.

The line is operated by the Sisseton Milbank Railroad, Inc. (SMRR) and provides vital rail service to the communities of Sisseton, Peever, Wilmot, Corona and Milbank. Although the line is not a part of the Core System, it does provide an essential link to the major rail systems network and access for grain elevators to the major grain markets. Shipper support of the line is evident by the fact that the SMRR transports approximately 150,000 tons annually on the line. The line is currently operating at a break-even point. Rehabilitation of the line is required to permit cost efficient operations. Based upon the criteria outlined earlier in this chapter, the project is eligible for funding assistance.

The 17.5 mile segment from Milbank to Wilmot has sixty and sixty-five pound rail. The track bed is inadequate and is in need of raising the existing track bed four inches, filling the crib with ballast, aligning the ties and tamping the ballast.

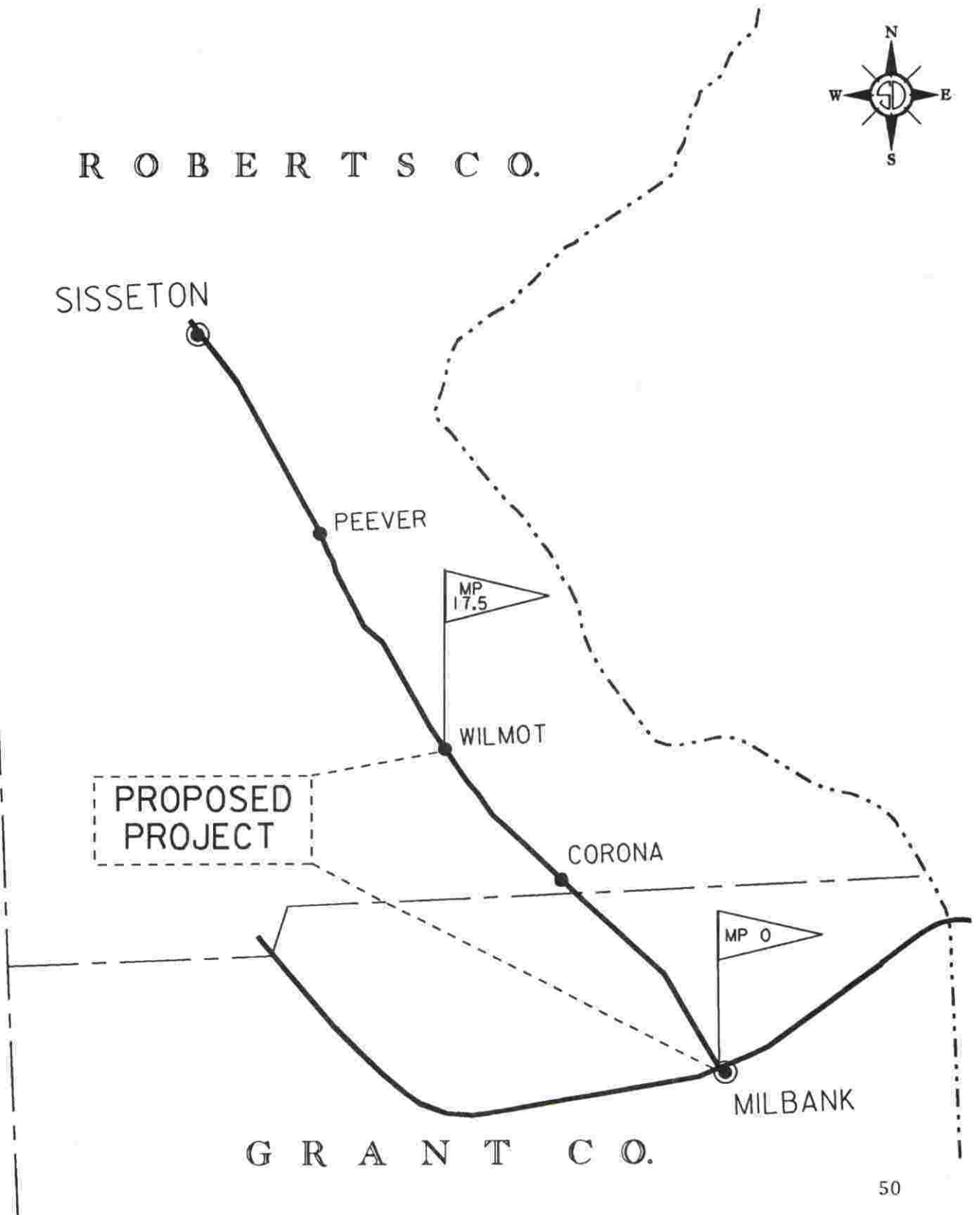
The proposed rehabilitation project includes:

- a. raising the existing railroad track bed four inches;
- b. filling the crib with ballast;
- c. aligning the railroad ties;
- d. and tamping the ballast.

The estimated cost of the project is \$391,707. Federal funds would comprise 70 percent or \$274,195 and the SMRR would fund the remaining 30 percent or \$117,512. There

FIGURE IV-3

SISSETON - MILBANK REHABILITATION PROJECT



are no State funds involved in the project. Table IV-1 shows the detailed estimated cost of the project and the proposed funding sources.

TABLE IV-1

ESTIMATED COST OF PROPOSED PROJECT

Ballast	39,501 tons @ \$5.75 per ton	\$227,131
Freight	\$75 per carload (55 ton) @ 718 loads	53,850
Unloading	\$77 per carload @718 loads	55,286
Tamping	\$0.45 per foot @5,280 ft. per mile @ 17.5 miles	41,580
Regulating	\$0.15 per ft. @ 5,280 ft. per mile @ 17.5 miles	<u>13,860</u>
	TOTAL COST OF PROPOSED PROJECT	\$391,707

PROPOSED FUNDING SOURCES

Amount requested from LRFA	\$274,194
Amount of SMRR funds	<u>117,513</u>
TOTAL FUNDING	\$391,707

Benefit-Cost Analysis

Table IV-2 is a detailed cost analysis based upon the operation of the line for the last three fiscal years. By upgrading the rail line, the project would improve the efficiency of the SMRR rail service by reducing the monthly average operating time by 46 hours. This improvement would allow approximately three additional trains to circuit the SMRR rail line increasing revenue approximately \$2,324 each month. This amount is based upon three additional trains consisting of 135 cars at a rate of \$250 per car with an estimated 25 percent demand for the additional capacity.

Based upon the information contained in Table IV-2, the transportation efficiency benefits which would be realized from the project are depicted in Table IV-3.

TABLE IV-2
SISSETON MILBANK RAILROAD (SMRR)
ESTIMATED COST TO BENEFIT ANALYSIS BASED ON 1989 - 1992 SMRR DATA

Date Month Year	(1)			(2)			(3)		(2)	Saved	(4)		(5)	(6)		(7)	
	Total miles	Miles 0 -MP17.5	Total Train Hrs.	Train Hrs. 0 -MP17.5	Fuel # Gal. 0 -MP17.5	Mech. &Crew Hours	Train Hrs. 0 -MP17.5	Fuel # Gal. 0 -MP17.5	Mech. &Crew Hours	Saved Hrs. 0 -MP17.5	Fuel # Gal. 0 -MP17.5	Increased Train Revenue	Saved Fuel Train	\$ Saved Wages	\$ Saved Wages	\$ Saved Wages	\$ Saved Wages
July '89	583	268	97	45	156	242	13	47	211	31	110	1,589	93	216	1,349		
Aug.	953	439	159	73	256	366	22	77	315	51	179	2,600	152	353	1,349		
Sept.	1,120	516	187	86	301	323	26	90	263	60	211	3,056	179	415	1,349		
Oct.	855	394	143	66	230	342	20	69	296	46	161	2,334	137	317	1,349		
Nov.	791	364	132	61	212	332	18	64	290	42	149	2,157	126	293	1,349		
Dec.	871	401	145	67	234	208	20	70	161	47	164	2,376	139	323	1,349		
Jan. '90	1,308	602	218	100	351	267	30	105	196	70	246	3,569	209	485	1,349		
Feb.	1,268	584	211	97	341	286	29	102	217	68	238	3,459	203	470	1,349		
Mar.	1,387	638	231	106	372	336	32	112	261	74	261	3,783	222	514	1,349		
Apr.	739	340	123	57	199	352	17	60	312	40	139	2,016	118	274	1,349		
May	664	306	111	51	178	286	15	54	251	36	125	1,812	106	246	1,349		
June	883	407	147	68	237	327	20	71	279	47	166	2,409	141	327	1,349		
TOTALS	11,421	5,259	1,903	877	3,068	3,665	263	920	3,051	614	2,148	31,159	1,825	4,234	16,191		
July '90	453	209	76	35	122	261	10	37	236	24	85	1,236	72	168	1,349		
Aug.	1,465	675	244	112	394	429	34	118	350	79	275	3,997	234	543	1,349		
Sept.	754	347	126	58	203	248	17	61	207	41	142	2,057	121	280	1,349		
Oct.	982	452	164	75	264	284	23	79	231	53	185	2,679	157	364	1,349		
Nov.	900	414	150	69	242	289	21	73	241	48	169	2,455	144	334	1,349		
Dec.	862	397	144	66	232	342	20	69	295	46	162	2,352	138	320	1,349		
Jan. '91	626	288	104	48	168	392	14	50	358	34	118	1,708	100	232	1,349		
Feb.	1,128	519	188	87	303	393	26	91	332	61	212	3,077	180	418	1,349		
Mar.	926	426	154	71	249	429	21	75	379	50	174	2,525	148	343	1,349		
Apr.	608	280	101	47	163	270	14	49	237	33	114	1,659	97	225	1,349		
May	971	447	162	75	261	579	22	78	527	52	183	2,649	155	360	1,349		
June	928	427	155	71	249	297	21	75	247	50	174	2,532	148	344	1,349		
TOTALS	10,603	4,882	1,767	814	2,848	4,211	244	854	3,641	570	1,994	28,926	1,695	3,930	16,191		
July '91	698	321	116	54	188	271	16	56	233	38	131	1,904	112	259	1,349		
Aug.	660	304	110	51	177	304	15	53	269	35	124	1,801	105	245	1,349		
Sept.	743	342	124	57	200	270	17	60	230	40	140	2,027	119	275	1,349		
Oct.	778	358	130	60	209	334	18	63	292	42	146	2,123	124	288	1,349		
Nov.	528	243	88	41	142	255	12	43	227	28	99	1,441	84	196	1,349		
Dec.	754	347	126	58	203	279	17	61	238	41	142	2,057	121	280	1,349		
Jan. '92	751	346	125	58	202	296	17	61	238	41	142	2,057	121	280	1,349		
Feb.	919	423	153	71	247	291	21	74	242	49	173	2,507	147	341	1,349		
Mar.	663	305	111	51	178	276	15	53	240	36	125	1,809	106	246	1,349		
Apr.	448	206	75	34	120	291	10	36	267	24	84	1,222	72	166	1,349		
May *	852	392	142	65	229	316	20	69	270	46	160	2,324	136	316	1,349		
June *	852	392	142	65	229	316	20	69	270	46	160	2,324	136	316	1,349		
TOTALS	8,646	3,981	1,441	664	2,322	3,499	199	697	3,034	464	1,626	23,588	1,382	3,205	16,191		
Annual Avg.	10,223	4,708	1,704	785	2,746	3,791	235	824	3,242	549	1,922	27,891	1,634	3,790	16,191		
Monthly Avg.	852	392	142	65	229	316	20	69	270	46	160	2,324	136	316	1,349		

* May & June 1992 figures are based on an average from the previous 34 month period.

3 YEAR PERIOD: TRAIN, FUEL, TRAIN & TRACK CREWS SAVINGS \$ 148,518
 ESTIMATED ANNUAL SAVINGS \$ 49,506

BASED ON: 3.5 G.P.H. fuel consumption; (1) current rate of 6 M.P.H.; (2) estimated rate of 20 M.P.H.; (3) reduced time on MP-0 to MP-17.5; (4) 13 car train @ \$250/car at a 25% demand for increased capacity; (5) \$0.85/gal.; (6) Avg. rate of \$6.90/hr. & reduced hrs. train crew; (7) a 25% maintenance time requirement on MP-0 to MP-17.5 & 8,929 hrs./yr. for '90 & '91 @ 5/hr.
 NOTE: (4),(5),(6) & (7) are based on the implementation of the proposed project and an estimated 25% demand for increased capacity.

TABLE IV-3
ANNUAL TRANSPORTATION EFFICIENCY BENEFITS

Increased Revenue	\$27,891
Reduced Crew Costs	3,790
Fuel Savings	1,634
Reduced Maintenance Costs	<u>16,191</u>
TOTAL ANNUAL BENEFITS	\$49,506

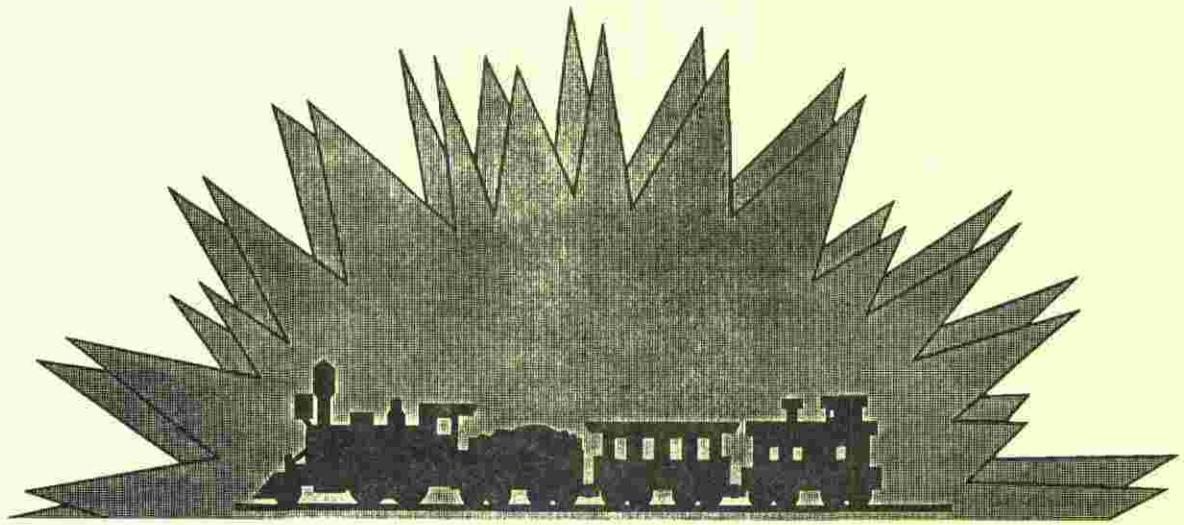
Benefit to Cost Ratio

Using the FRA discount fact of 4.0 percent, Table IV-4 shows the calculation of rehabilitation project benefits for the proposed project. The calculation establishes a benefit to cost ratio of 1.03 for the project.

Table IV-4
 Calculation of the Present Value of Rehabilitation Project Benefits

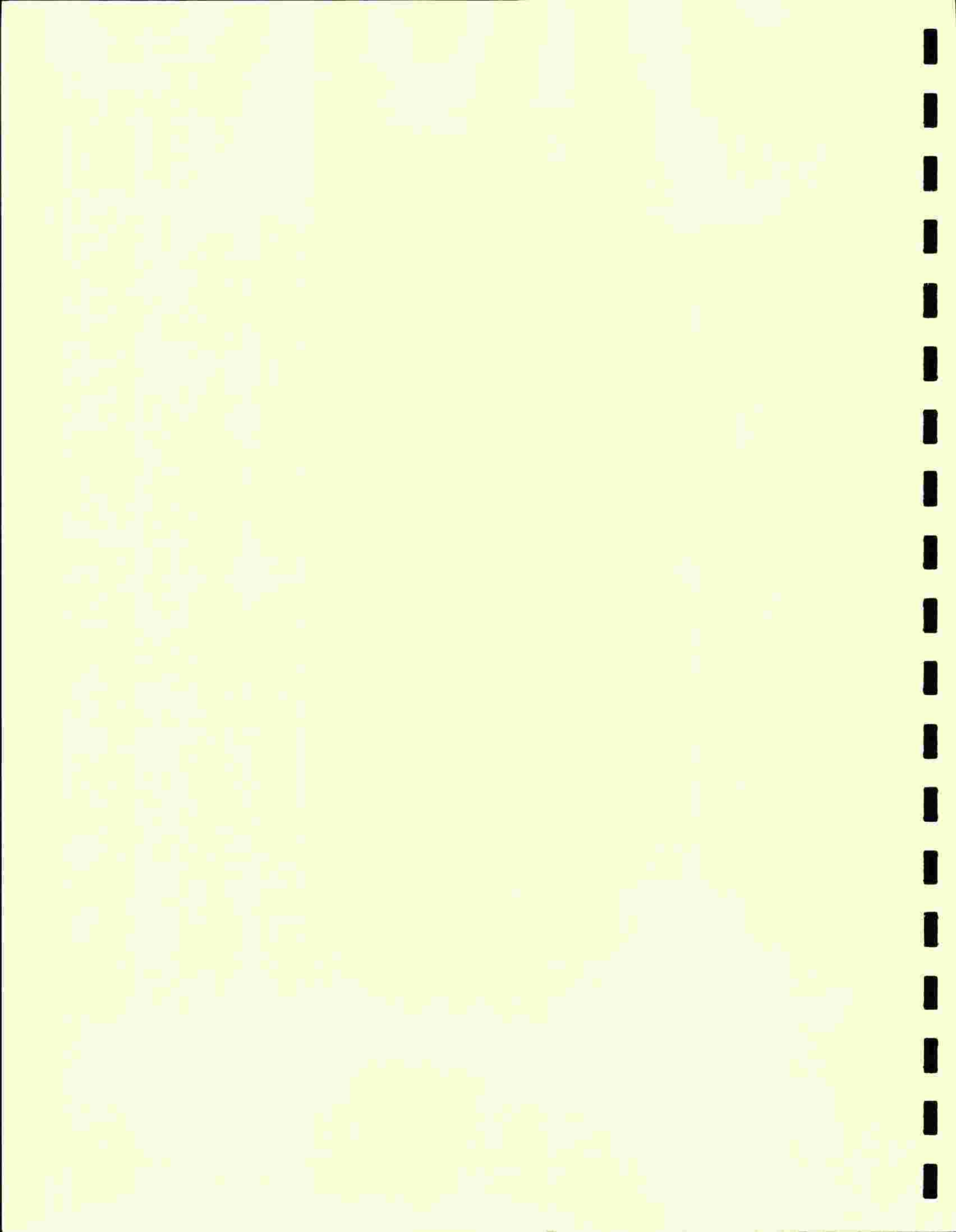
Benefits Category	Year										
	1	2	3	4	5	6	7	8	9	10	
1. Transportation Efficiency Benefits	\$49,506	\$49,506	\$49,506	\$49,506	\$49,506	\$49,506	\$49,506	\$49,506	\$49,506	\$49,506	\$49,506
2. Lost Labor Output											
3. Salvage Value--end of Period											\$0
4. Total Benefits (constant dollars)	\$49,506	\$49,506	\$49,506	\$49,506	\$49,506	\$49,506	\$49,506	\$49,506	\$49,506	\$49,506	\$49,506
5. Discount Factor (at 4.0%)	1.04	1.082	1.125	1.170	1.217	1.265	1.316	1.369	1.423	1.480	
6. Present Value (4 divided by 5)	\$47,602	\$45,771	\$44,011	\$42,318	\$40,690	\$39,125	\$37,620	\$36,174	\$34,782	\$33,444	
7. Sum of Present Values of Benefits	\$401,538										
8. Present Value of Costs	\$391,707										
9. Benefit-Cost Ratio (7 divided by 8)	1.03										





Chapter

V



CHAPTER V

SUMMARY

Having survived the difficult transition years of the late 1970's and early 1980's, South Dakota's rail system has emerged a leaner but stronger system. State intervention was a necessary ingredient throughout that transitional process and is still evident today in the State's continued ownership of lines that were once privately owned and operated.

Since publication of the 1986 Rail Plan, a number of changes have occurred in the State rail system. Changes in the ownership status and operations status of various lines throughout South Dakota appear to have brought greater stability to the system as it enters its second decade since being reconstructed. Traffic patterns continue to evolve but the system is now mature enough to accommodate changing traffic needs.

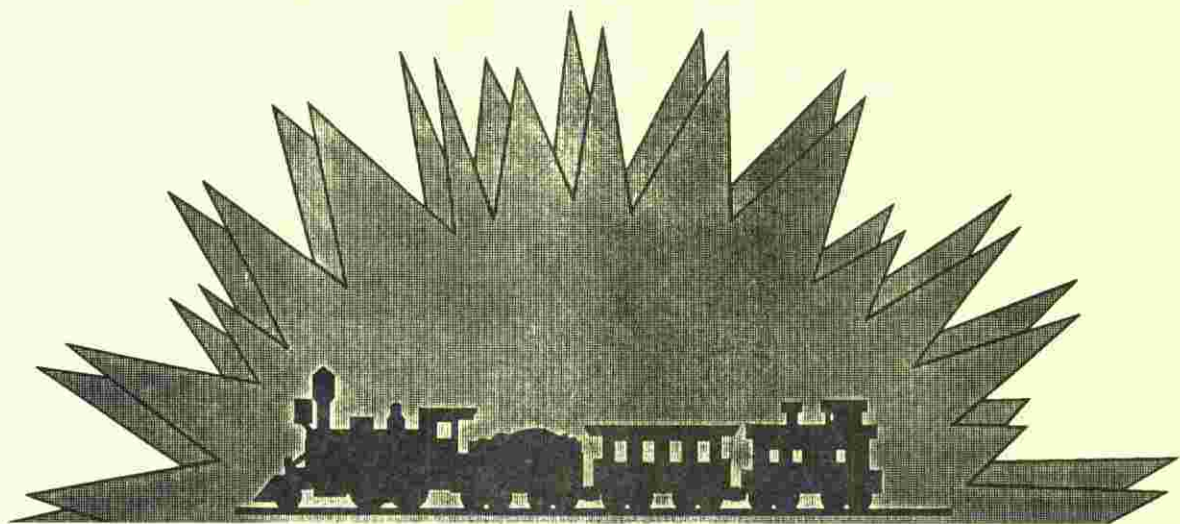
As South Dakota plans for the future of its rail freight transportation system, the only constant is change. Modal relationships are forever adapting to changing market conditions. The regulatory environment is less restrictive, favoring rail carriers, often at the expense of shippers. The advent of shortlines has realigned traditional markets, routings and rate structures.

In today's transportation environment, it is even more important that South Dakota take the necessary steps to protect its investment in rail infrastructure. Past experience is testimony to the need for a systematic program of maintenance and capital improvement.

Eventually, it is hoped that State-owned rail properties can be returned to private ownership. In the case of the State Core System, it is unlikely that will occur anytime soon. However, selling excess property and leased property on all State-owned lines should be carefully considered.

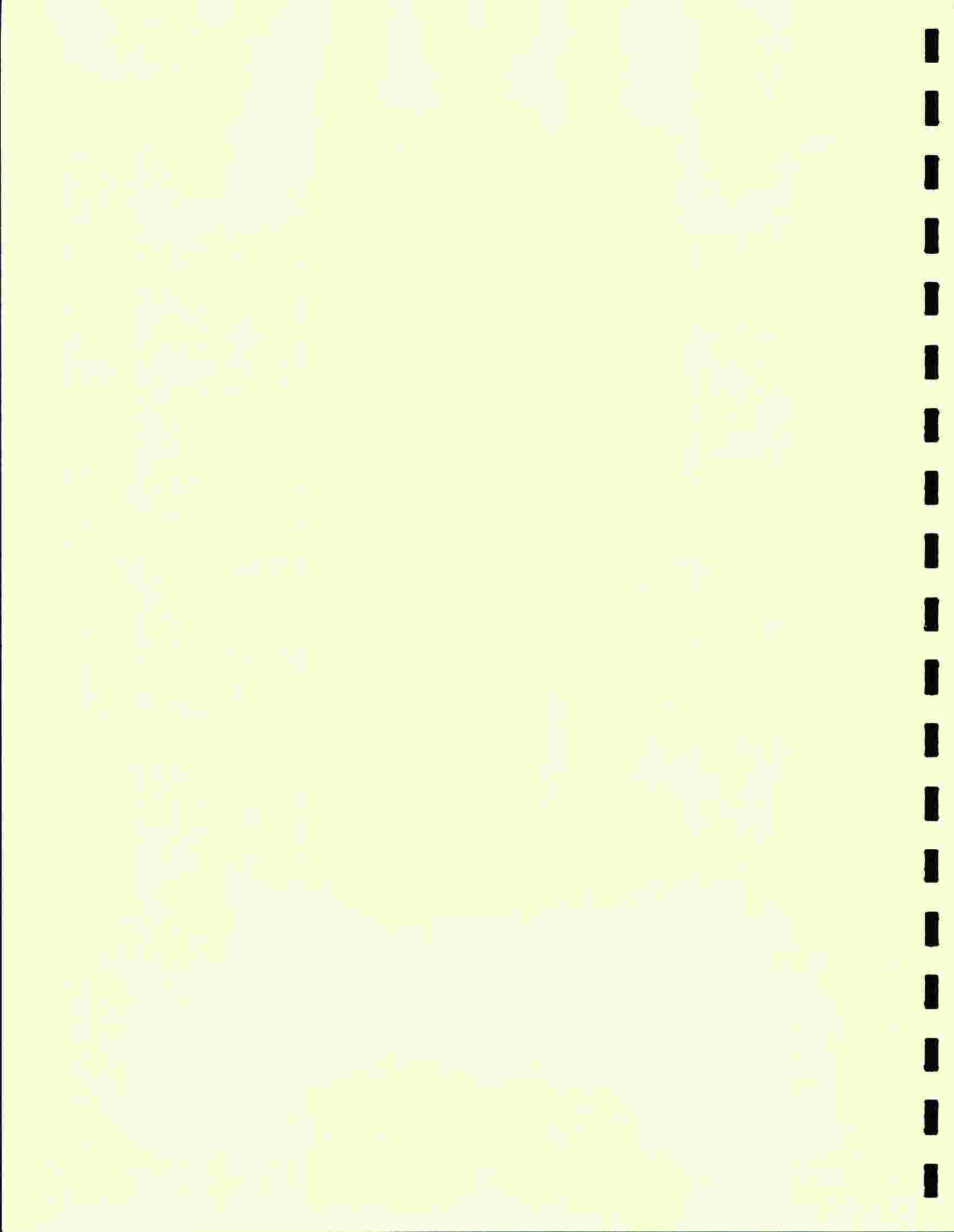
In addition, serious consideration should be given to the abandonment and salvage of State-owned non-operating rail lines. Twelve years have elapsed since the Napa to Platte and Kadoka to Rapid City lines were acquired by the State, certainly a sufficient time in which to gauge the probability of rail service being restored.

Tough decisions lie ahead but one thing is certain. The success of rail service in South Dakota will depend on the collaborative efforts of the carriers, shippers, and government entities at all levels. As the past record of accomplishments illustrates, anything is possible when these groups work together.

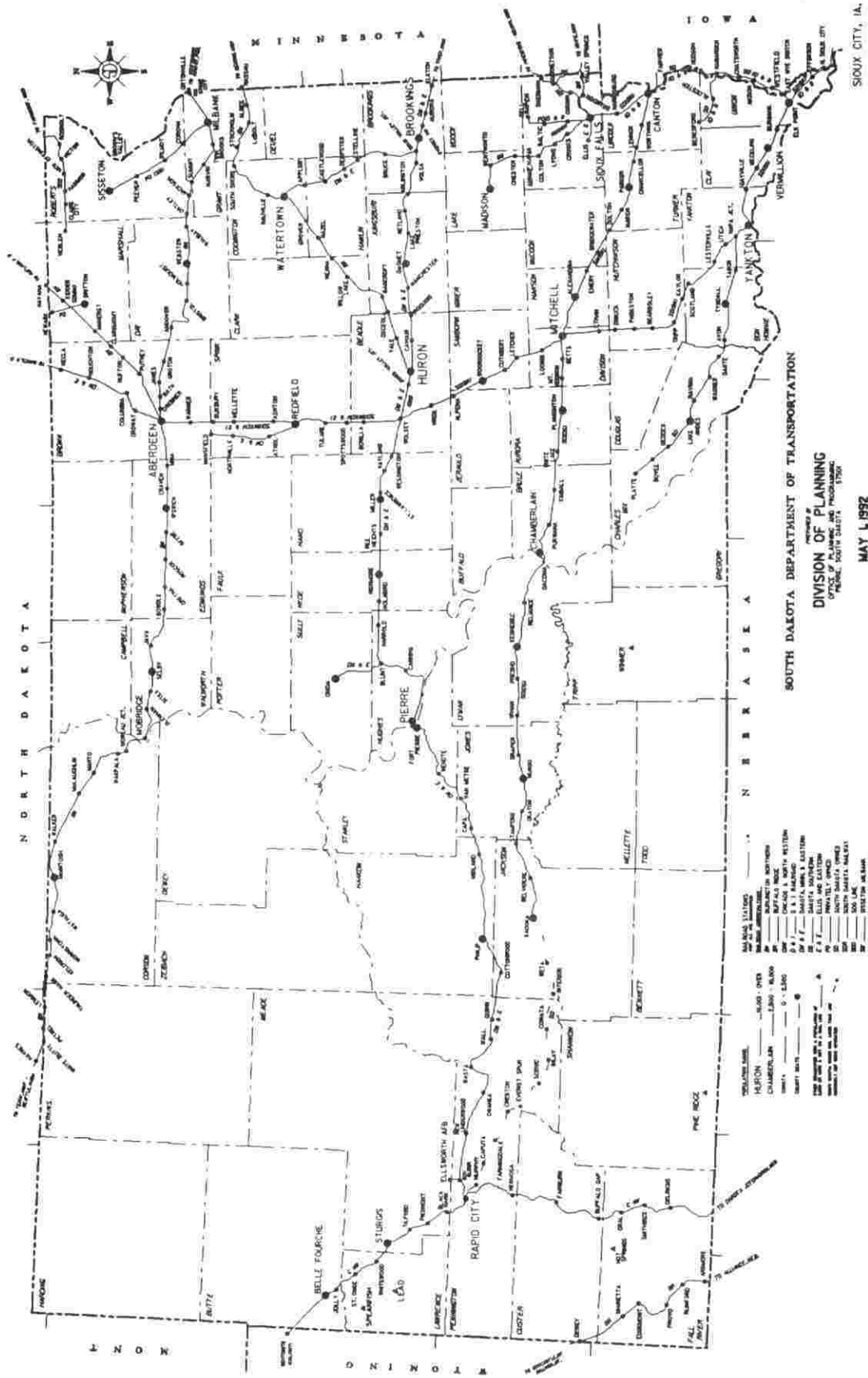


APPENDIX

A



OFFICIAL SOUTH DAKOTA RAIL MAP

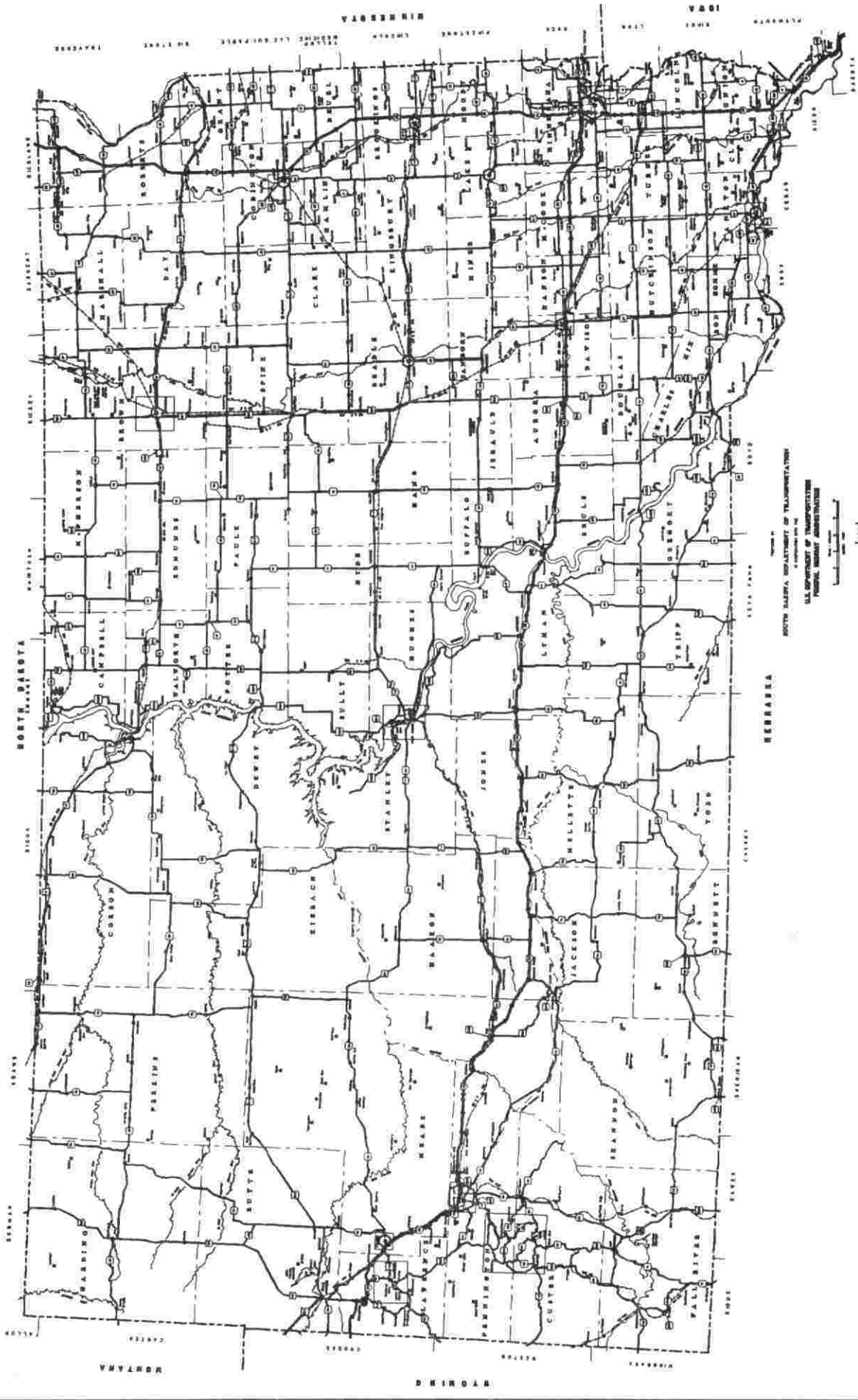


SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION
 DIVISION OF PLANNING
 OFFICE OF PLANNING AND RESEARCH
 PIERRE, SOUTH DAKOTA
 MAY 1, 1952

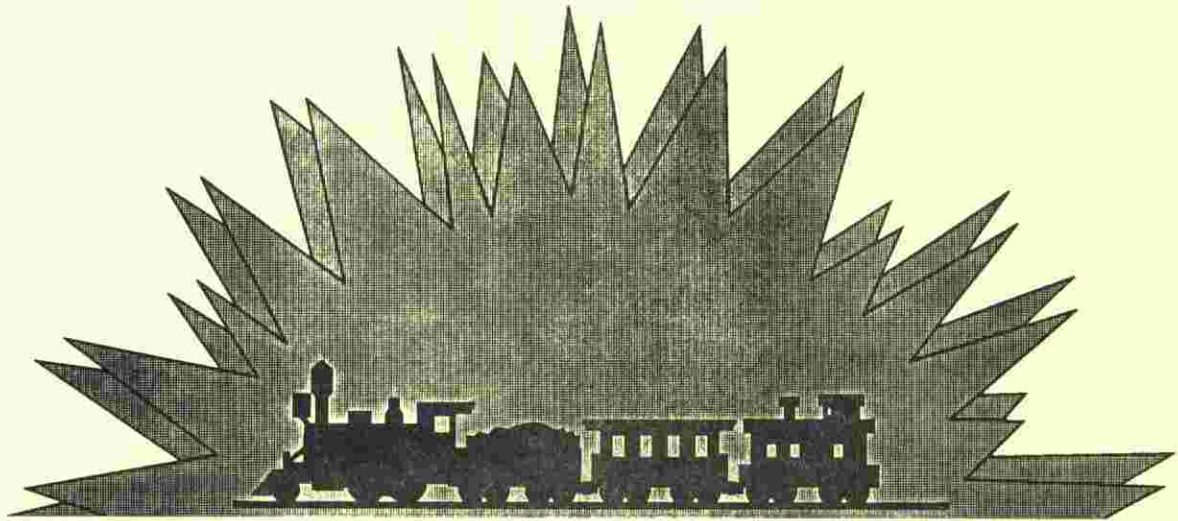
- RAIL SERVICE**
- 100+ OVER
 - 50-100
 - 25-50
 - 10-25
 - 5-10
 - 1-5
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- RAIL SERVICE**
- 100+ OVER
 - 50-100
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 - 5-10
 - 1-5
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- RAIL SERVICE**
- 100+ OVER
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SIoux CITY, IA.

SOUTH DAKOTA

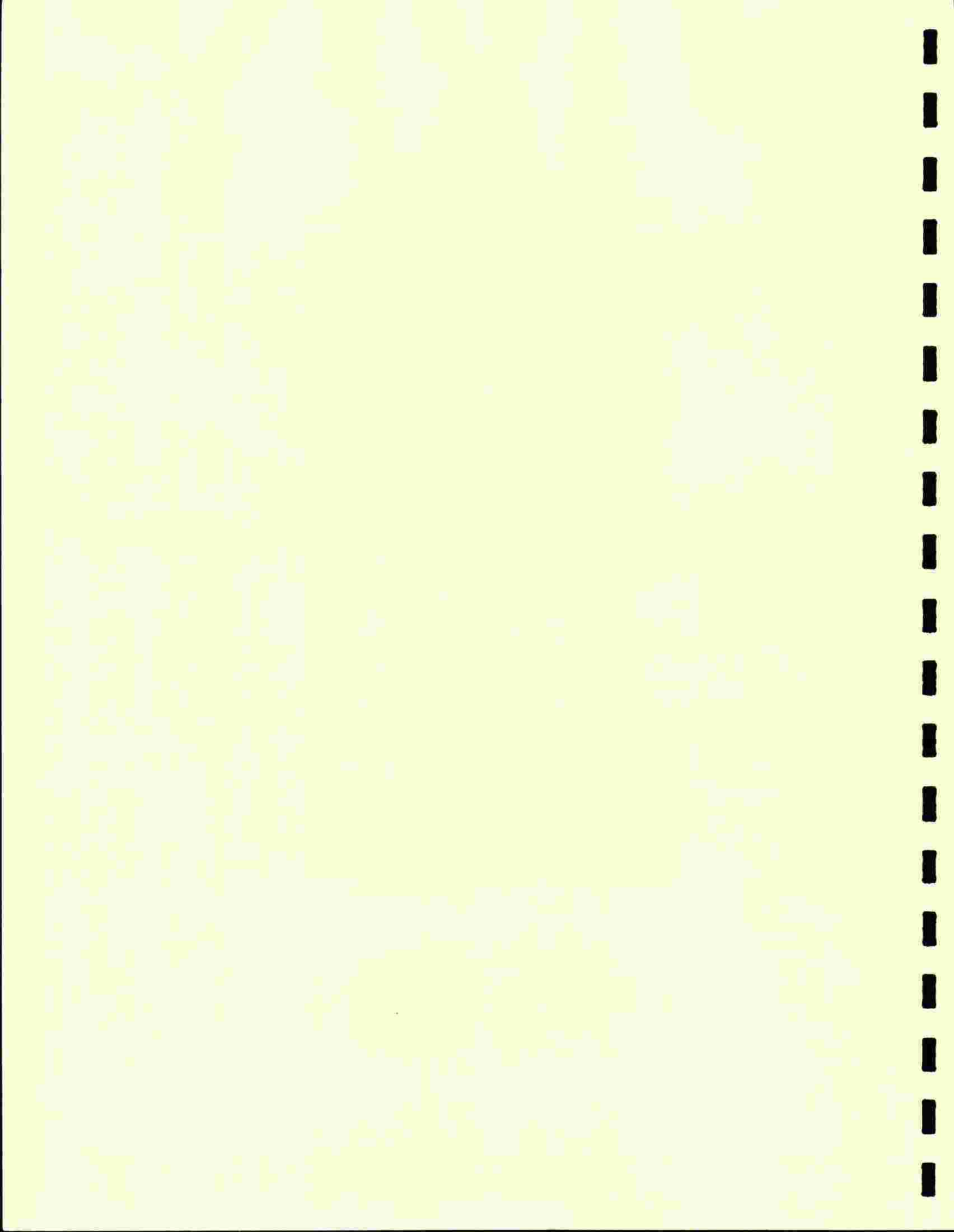






APPENDIX

B



**CARLOADS OF COMMODITIES ORIGINATING AND TERMINATING
BY RAIL IN SOUTH DAKOTA**

1975 - 1991

YEAR	ORIGINATING CARLOADS	TERMINATING CARLOADS	TOTAL CARLOADS
1975	54,008	50,848	104,856
1976	43,310	53,920	97,230
1977	43,642	52,094	95,736
1978	51,801	56,702	108,503
1979	54,907	53,728	108,633
1980	57,792	44,118	101,910
1981	39,982	40,704	80,686
1982	53,545	32,981	86,526
1983	59,709	32,185	91,894
1984	72,855	31,506	104,361
1985	70,118	30,971	101,089
1986	71,507	26,729	98,236
1987	68,093	17,384	85,477
1988	66,431	31,154	97,585
1989	89,623	31,305	120,928
1990	98,323	35,929	134,252
1991	93,203	38,775	131,978

**TONS OF COMMODITIES ORIGINATING AND TERMINATING
BY RAIL IN SOUTH DAKOTA (MILLIONS)**

1975 - 1991

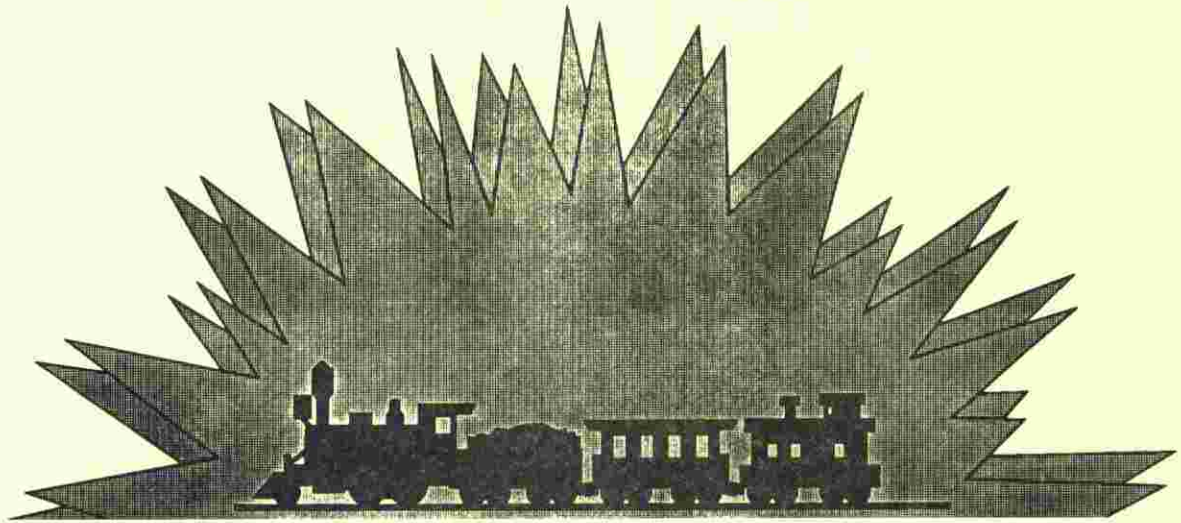
YEAR	ORIGINATING TONS	TERMINATING TONS	TOTAL TONS
1975	3.20	2.59	6.78
1976	2.59	4.02	6.61
1977	2.69	3.78	6.47
1978	3.23	4.29	7.52
1979	3.49	4.09	7.58
1980	3.84	3.50	7.35
1981	2.84	3.31	6.15
1982	3.95	2.72	6.67
1983	4.79	2.76	7.56
1984	5.96	2.75	8.71
1985	5.88	2.67	8.54
1986	6.11	2.29	8.40
1987	6.15	1.49	7.64
1988	6.21	2.84	9.06
1989	8.18	2.81	10.98
1990	8.93	3.25	12.18
1991	8.77	3.59	12.36

STATE CORE SYSTEM RAIL TRAFFIC TONS OF FREIGHT

1988 - 1991

SEGMENT	1988	1989	1990	1991
Canton to Mitchell	940,387	874,721	942,108	765,176
Mitchell to Sioux City	426,364	395,510	426,218	353,960
Mitchell to Aberdeen	480,497	484,884	530,752	545,677
Total	1,847,248	1,755,115	1,899,078	1,664,813





APPENDIX

C

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is crucial for ensuring transparency and accountability in the organization's operations.

2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the need for consistent and reliable data collection processes to support informed decision-making.

3. The third part of the document focuses on the role of technology in modern data management. It discusses how advanced software solutions can streamline data collection, storage, and analysis, leading to more efficient and accurate results.

4. The fourth part of the document addresses the challenges associated with data management, such as data quality, security, and privacy. It provides strategies to mitigate these risks and ensure that data is used responsibly and ethically.

5. The fifth part of the document concludes by summarizing the key findings and recommendations. It stresses the importance of ongoing monitoring and evaluation to ensure that data management practices remain effective and up-to-date.



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