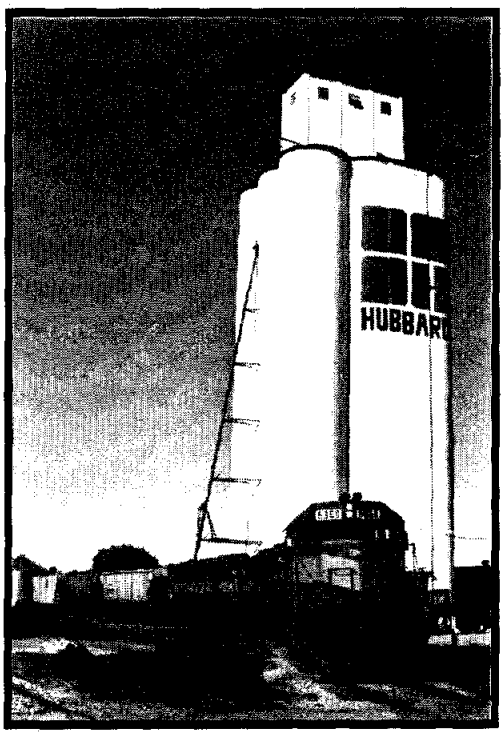
SOUTH DAKOTA RAIL PLAN 1997



SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION

APRIL 1997

South Dakota Rail Plan

April 1997

Prepared by:

Office of Planning and Programs

Office of Railroads

South Dakota Department of Transportation

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

Preface

PREFACE

This document, the South Dakota Rail Plan 1997, is South Dakota's official rail planning document. This plan is a component of the Statewide Intermodal Long Range Plan adopted by the South Dakota Department of Transportation in 1994.

The goals of the rail plan are:

- to inform the public and transportation officials of the transportation planning process and the importance of the rail plan component to an integrated intermodal transportation plan,

- to establish the goals and objectives to be achieved by the rail planning process,

- to inform the public and transportation officials of the current rail system characteristics,

- to examine the future of rail transportation in South Dakota.

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

Chapter 1 documents the transportation planning process and the interrelationship of the rail plan with the Statewide Intermodal Long Range Plan. The importance of intermodalism is examined.

Chapter 2 outlines the goals and objectives of the Department's rail planning process. The Local Rail Freight Assistance Program selection process is discussed in this chapter. Significant events since the last plan are also highlighted in this chapter.

Chapter 3 documents the characteristics of the current rail system and contains information on the rail carriers, rail miles in service, traffic levels, types of commodities carried, and other information to assist the reader in understanding the rail network and its importance. The State-owned rail system is also examined in this chapter.

Chapter 4 addresses future rail needs and expectations. Rail lines which may be abandoned, and those which may need financial assistance to maintain operation are identified.

Chapter 1

The Transportation Planning Process and the Importance of Intermodalism

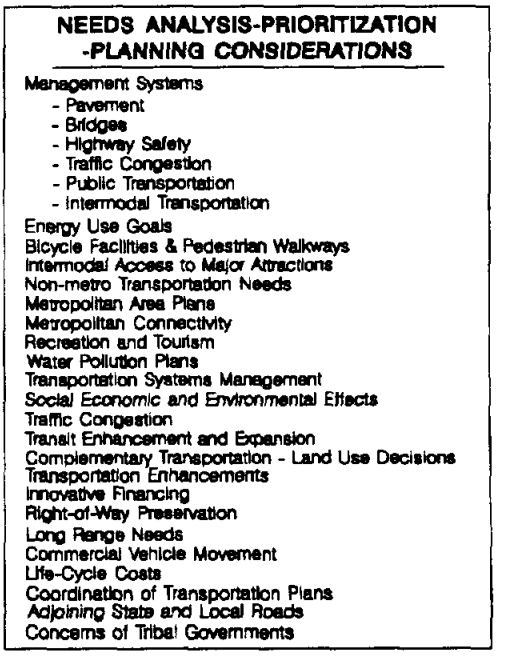
CHAPTER 1

The Transportation Planning Process and the Importance of Intermodalism

The Transportation Planning Process

The South Dakota Department of Transportation (SDDOT) has established a transportation planning process which includes specific planning considerations. Planning considerations will ensure equity among the modes and comprehensive decision-making. The planning considerations specified by SDDOT are shown in Figure 1. Those that are closely linked are combined for simplicity.

Figure 1



The challenge to the SDDOT is to coordinate the solutions which best balance these considerations and to ensure they are implemented. The SDDOT will meet this challenge by including these planning considerations at each junction of decision-making in the development of the Statewide Intermodal Long Range Plan and its components including the Rail Plan, the STIP, and in the Statewide Planning Process.

Input Groups and Coordination

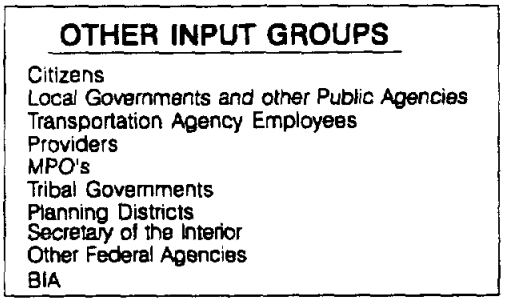
SDDOT has emphasized public input and review in the transportation planning process since the late 1970's. In planning, this input must be analyzed and coordinated using the Executive Management Team and the Transportation Commission. As decisions are made, the following should be done to incorporate public input and review:

1. Use the Statewide Intermodal Long Range Plan and its components along with the STIP planning processes to inform the public about the intermodal options and tradeoffs.

2. Use ad-hoc and annual review meetings to gather input, to develop suggested revisions to the Statewide Intermodal Long Range Plan and its components including the Rail Plan, and to assess new projects for the STIP.

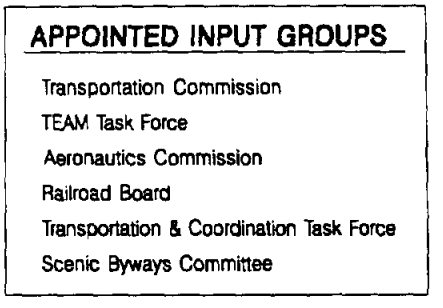
3. Use input from citizens, Tribal Governments, MPOs, local governments and other public agencies, transportation agency employees, providers, Planning Districts, the Secretary of the Interior, other Federal Agencies, and the BIA to formulate, guide, and coordinate new policies (See Figure 2).

Figure 2



4. Use input from appointed input groups, including TEAM, the Aeronautics Commission, the Railroad Board, the Transportation and Coordination Task Force, the Transportation Commission, and the Scenic Byways Committee to update the Statewide Intermodal Long Range Plan and its components including the Rail Plan (See Figure 3).

Figure 3



The SDDOT will coordinate data collection, analysis, and evaluation of transportation plans with the Management Systems, other plans, and all the input groups. Transportation plans will also be coordinated with other agencies responsible for recreation, tourism, economic development, intermodal facilities, environmental resources planning, corridor preservation, rail planning, and social, economic employment, energy, environmental, land use, housing, and community development effects of transportation actions.

Coordination, Decision-Making, and Approval Process

SDDOT advocates an approach to decision-making where each mode is considered before the most efficient mode is chosen to combat a particular transportation problem. This approach to decision-making is intended to avoid inefficient, modal-biased solutions. The Department is organized into three divisions, including Fiscal and Public Assistance, Planning/Engineering, and Operations. The organization of the SDDOT promotes an intermodal approach to decision-making.

The decision-making process in SDDOT is a coordinated effort. The Statewide Intermodal Long Range Plan and its components were reviewed by many different groups before it was finally adopted. Components of the Statewide Intermodal Long Range Plan include studies of each mode and of intermodalism. The Statewide Intermodal Long Range Plan brings the various components together into one cohesive decision-making

system. The Statewide Intermodal Long Range Plan will affect each junction of decision-making.

The future transportation challenges and intermodal relationships outlined in this rail plan must be considered by each member of the SDDOT during planning and decision-making. Management and staff need to be trained to look at transportation systems as a whole, to use the Intermodal Data Base for analysis purposes, and to determine the most efficient and effective mode or intermodal solution to serve a particular transportation need.

Rail Planning Process

As part of the rail planning process, the Office of Planning and Programs of the Division of Planning/Engineering performs the following tasks:

- conducts research on basic railroad problems,
- works with the Office of Air, Rail, and Transit of the Division of Fiscal and Public Assistance in development of solutions,
- maintains the State/Federal relationship on programs relating to rail transportation, and

- assists SDDOT and any other public or private agency in coordinating railroad services with those of other transportation modes.

The Office of Planning and Programs is jointly responsible with the Office of Air, Rail, and Transit for conducting planning and analysis functions necessary to maintain the Rail Plan. This includes the collection, analysis, and evaluation of data pertaining to rail lines and services in South Dakota. Such activities include:

- monitoring rail traffic and commodity flow,

- performing detailed line analyses on lines threatened by abandonment or in need of governmental financial assistance,

- evaluating changes in the status, condition, and service on rail lines,

- analyzing State-owned Rail Line operations.

Rail planning in South Dakota has long recognized the importance of public involvement. The Department 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 involvement in the rail planning process is generated through news releases, Department mailings,

meetings, and seminars. SDDOT personnel also interact directly with shipper groups and the rail carriers to solicit their input into the planning process.

Shipper surveys are conducted on rail lines selected for intensive study for financial assistance. These surveys provide information on the shipper's usage of rail transportation, future needs for rail service, and other related information. For additional information and points of view, SDDOT coordinates its rail activities with the surrounding states.

Public meetings on the rail plan and planned railroad improvement projects are held in conjunction with the public meetings on the Statewide Transportation Improvement Program held annually at various sites across the State. The meetings afford the public to review the plans and proposed projects for all modes of transportation, including rail. Public involvement is essential in ascertaining the needs and concerns of local rail users and will continue to be a major component of the transportation planning process in South Dakota.

Intermodalism

South Dakota has a long history of intermodalism. In South Dakota, the major intermodal transfer is grain from trucks to rail cars at elevators and unit train loading facilities. Following the late 1970s and early 1980s when many rail lines were abandoned and some elevators lost rail service, the Department identified the Preferential

Truck Network, long before the passage of ISTEA. The network consisted of state highways which linked elevators which had lost rail service to elevators and unit train loading facilities which maintained a rail connection. Improvements such as widening of lanes and shoulders, and improving turning radii at intersections were made on the network to accomodate twin 42 foot trailers.

To assist the development of unit train facilities, elevators capable of loading 25 rail cars or more, the Department developed a program in the 1980s to provide state highway funds to improve local roads that connected unit train loading facilities to state highways. The local roads were improved to handle the increased truck traffic generated by the unit train loading facility.

The Department also assists unit train loading facilities by providing loans and grants to railroads and elevators to add or improve track siding to develop or improve unit train loading facilities. The Department is committed to the development or improvement of at least one unit train facility every five years.

Chapter 2

Mission, Goals, Objectives, and Actions

CHAPTER 2

Mission, Goals, Objectives, and Actions

Mission

The mission of the South Dakota Department of Transportation is to deliver a cost-effective, intermodal, transportation system.

Rail Service and Planning Goals

The rail service and planning goals of the South Dakota Department of Transportation are to:

- Coordinate the efforts of rail users, railroad companies, local governments, and the SDDOT in solving rail transportation problems in South Dakota.

- Encourage the continuation of privately owned and operated essential rail service in South Dakota through the use of available public and private funds, where the public interest justifies such assistance.

- Facilitate the consolidation of rail services in South Dakota when opportunities exist for improving the efficiency of rail operations.

- Increase public awareness of rail service issues as they affect South Dakota and to promote public involvement in the rail planning process.

Rail Service and Planning Objectives

South Dakota's objectives in rail service and planning are to:

- Foster safe, efficient, and economical transportation services for the movement of freight in South Dakota.

- Integrate South Dakota's rail transportation system with other modes, with surrounding 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 rail transportation accessibility within South Dakota.

Rail Service and Planning Actions

Workable actions are essential to the rail planning process. The following actions have been developed to implement the goals and objectives:

- Identify the essential rail system needed to serve South Dakota's current and future agricultural, natural resource, industrial, and energy-related activities.

- Retain a viable core rail system comprising of essential rail lines which serve the primary traffic-producing areas in South Dakota and which provide accessibility to state and national markets.

- Eliminate non-profitable rail lines which are non-essential and whose services could be more efficiently 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 establishing regional railroad authorities and providing loans to develop or improve rail facilities, including unit train loading facilities.

Planning Process for Local Rail Freight Assistance Program (LRFA)

Historically, federal funding has been an important part of the maintenance and rehabilitation of rail lines in South Dakota. Since 1979, South Dakota has received over $20 million in federal grants under the Local Rail Assistance Program and the Local Rail Freight Assistance Program. Table 1 shows by year the amount of federal funds and the matching funds provided for railroad rehabilitation.

Table 1

Federal and Matching Funds For Railroad Rehabilitation				
Year	**Federal Funds**	**State Funds**	**Other Funds**	**Total Funds**
1979	$1,840,000	$0	$460,000	$2,300,000
1980	$2,000,000	$0	$500,000	$2,500,000
1981	$1,760,000	$2,370,000	$1,540,000	$5,670,000
1982	$8,156,404	$2,065,369	$1,097,817	$11,319,590
1983	$648,933	$0	$278,114	$927,047
1984	$495,914	$212,535	$0	$708,449
1985	$852,347	$810,413	$0	$1,662,760
1986	$626,143	$0	$268,347	$894,490
1987	$447,318	$0	$255,918	$703,236
1988	$132,245	$17,815	$64,312	$214,372
1989	$0	$0	$0	$0
1990	$256,333	$0	$135,167	$391,500
1991	$0	$0	$0	$0
1992	$298,200	$0	$127,800	$426,000
1993	$274,194	$0	$117,513	$391,707
1994	$2,457,951	$0	$428,572	$2,886,523
1995	$536,000	$0	$237,827	$773,827
Total	**$20,781,982**	**$5,476,132**	**$5,511,387**	**$31,769,501**

Since 1988, the availability of federal assistance for railroad rehabilitation has become increasingly problematic with the uncertainties of the federal budget process.

Authorization for the LRFA program expired in 1995. It is not known if the program will be reauthorized in the future. South Dakota does not have the resources to replace the loss of federal funds to rehabilitate rail freight lines. The shortline operations which relied on federal funds for maintenance and rehabilitation have limited ability to provide the capital needed for rail improvements.

Screening Criteria for Rail Projects Selected for Financial Assistance

The screening criteria used to select future rail projects to receive 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 to cost ratios which are greater than one.

Selection Process for Rail Projects to Receive Financial Assistance.

The selection process to determine the rail projects that the State will request federal assistance or provide state funding begins annually in January. The

Department of Transportation contacts each rail operator soliciting applications for projects to be considered for federal or state assistance. The deadline to submit an application is April 1.

The Department reviews each application and applies the Benefit - Cost Methodology the Federal Railroad Administration has established for the LRFA program. Each project is prioritized based upon the application of the established criteria and the results of the benefit to 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's Statewide Transportation Improvement Program (STIP). Public meetings are held across the State in July to gather input on the STIP. In August, the South Dakota Transportation Commission approves the STIP and authorizes the Department to prepare a federal application.

Accomplishments and Significant Events Since The 1992 Rail Plan

The following accomplishments and significant events have occurred since the publication of the 1992 Rail Plan:

1. **Abandonment of the rail line from Watertown to Sioux Valley Junction.**

   On February 18, 1993, the Interstate Commerce Commission (ICC) approved the Dakota, Minnesota and Eastern Railroad (DM&E) request to abandon the rail line from Watertown to Sioux Valley Junction. This 44 mile long rail line segment was embargoed in 1989. The DM&E traffic, consisting mainly of cement to Watertown, was diverted onto the Huron to Watertown line.

2. **Abandonment of the rail line from Aberdeen to Hecla.**

   On September 4, 1993, the ICC approved the DM&E request to abandon the segment of rail line from Aberdeen to Hecla. This segment was embargoed in 1989. The segment of rail line from Hecla to Oaks, ND is being operated by the Red River Valley and Western Railroad.

3. **Huron to Yale rail line rehabilitation project.**

   On July 30, 1994, the DM&E Railroad completed the rail rehabilitation project on the Huron to Yale rail line. Funding for the $391,500 project came from a Local Rail Freight Assistance (LRFA) grant in the amount of $256,333. The DM&E Railroad provided matching funds of $135,167. The project consisted of tie replacement and adding ballast on the 12.8 mile section of track.

4. **Sisseton to Milbank rail line rehabilitation project.**

The rehabilitation of the 37 mile track from Sisseton to Milbank was completed on October 14, 1995. The rail rehabilitation project consisted of tie replacement and adding of ballast. Funding for the $391,747 project consisted of $274,223 from a LRFA grant and $117,524 in matching funds from the Sisseton-Milbank Railroad.

5. **1993 Flood repair projects.**

Heavy rains in the spring of 1993 caused wide-spread flooding in eastern South Dakota. The flooding caused extensive damage to rail lines and caused a temporary disruption in some rail service. In response to the disaster, the Federal Railroad Administration provided a $1,422,951 grant to South Dakota for the repair of flood-damaged track. The following table shows the amount of federal funds received by the railroads:

Sisseton-Milbank Railroad	$ 49,794
D & I Railroad	$ 223,257
CP Rail	$ 141,000
DM&E Railroad	$1,008,900
Total	$1,422,951

6. **Colony Line rehabilitation project.**

On June 9, 1995, the Chicago & North Western Railroad (C&NW) completed the track rehabilitation on 60 miles of the rail line from Hermosa, south to the Nebraska State Line. The project consisted of replacing 26,000 cross ties and adding ballast. Funding for the $1.4 million project consisted of a LRFA grant for $1 million and the C&NW Railroad providing $428,572 in matching funds.

7. **Sale of the Colony Line.**

In the spring of 1996, the Union Pacific Railroad (UP) sold its Colony Rail Line to the DM&E Railroad. The Colony Line runs from Colony, WY south through Rapid City to Dakota Junction, NE, a distance of 174.7 miles. The UP had obtained the line as a result of its merger with the C&NW in 1995. The DM&E began operating the line on May 4, 1996.

8. **Light-weight rail replacement project on the D&I Railroad Line.**

In April 1995, the Department of Transportation received a LRFA grant in the amount of $554,927 to be used to replace 8 miles of light-weight rail near Chatsworth, IA and Hawarden, IA. This line is owned by the State of South Dakota and operated by the D&I Railroad which is providing $344,385.61 in matching funds. The rail replacement project is scheduled for completion in the summer of 1996.

9. Core line rehabilitation and rail replacement project.

On August 7, 1991, the Burlington Northern Railroad (BN) and the State of South Dakota agreed to extend the operating agreement for the 368 mile state-owned core system to June 30, 2020. In the amendment, The State of South Dakota agreed to commit $8 million in lease payments over eight years from the BN to assist in the following projects:

a. The rebuilding of the North Yard in Mitchell at a cost of $1,037,000. This project is complete.

b. The relay of light rail between Mitchell and Canton at a cost of $4,556,000. This project is fifty percent complete.

c. The relay of light rail between Mitchell and Sioux City at a cost of $4,707,000. Work has started on this segment.

d. The purchase and rehabilitation of 22 miles of track between Ortonville, MN and Appleton, MN at a cost of $2.4 million. This project is complete.

10. Unit Train Loading Facility Improvement at Midland.

In October 1994, the Dakota, Minnesota, and Eastern Railroad completed construction of the industrial siding serving Dakota, Mill and Grain in Midland, SD. Completion of the project allows the elevator to load 25 car unit grain trains. Financing of the project consisted of a five year $164,000 loan from the State Railroad Trust Fund to the Haakon County Regional Railroad Authority, an additional $27,728 from the railroad authority, and $22,000 from the DM&E. As a result of the project, carloadings at the elevator in 1995 was 160 % higher than in 1993.

11. Northern Hills Regional Railroad Authority.

In December 1994, the Northern Hills Regional Railroad Authority was incorporated to develop passenger rail service between Deadwood and Rapid City.

Chapter 3

The Current Rail System in South Dakota

CHAPTER 3

The Current Rail System in South Dakota

Rail Mileage

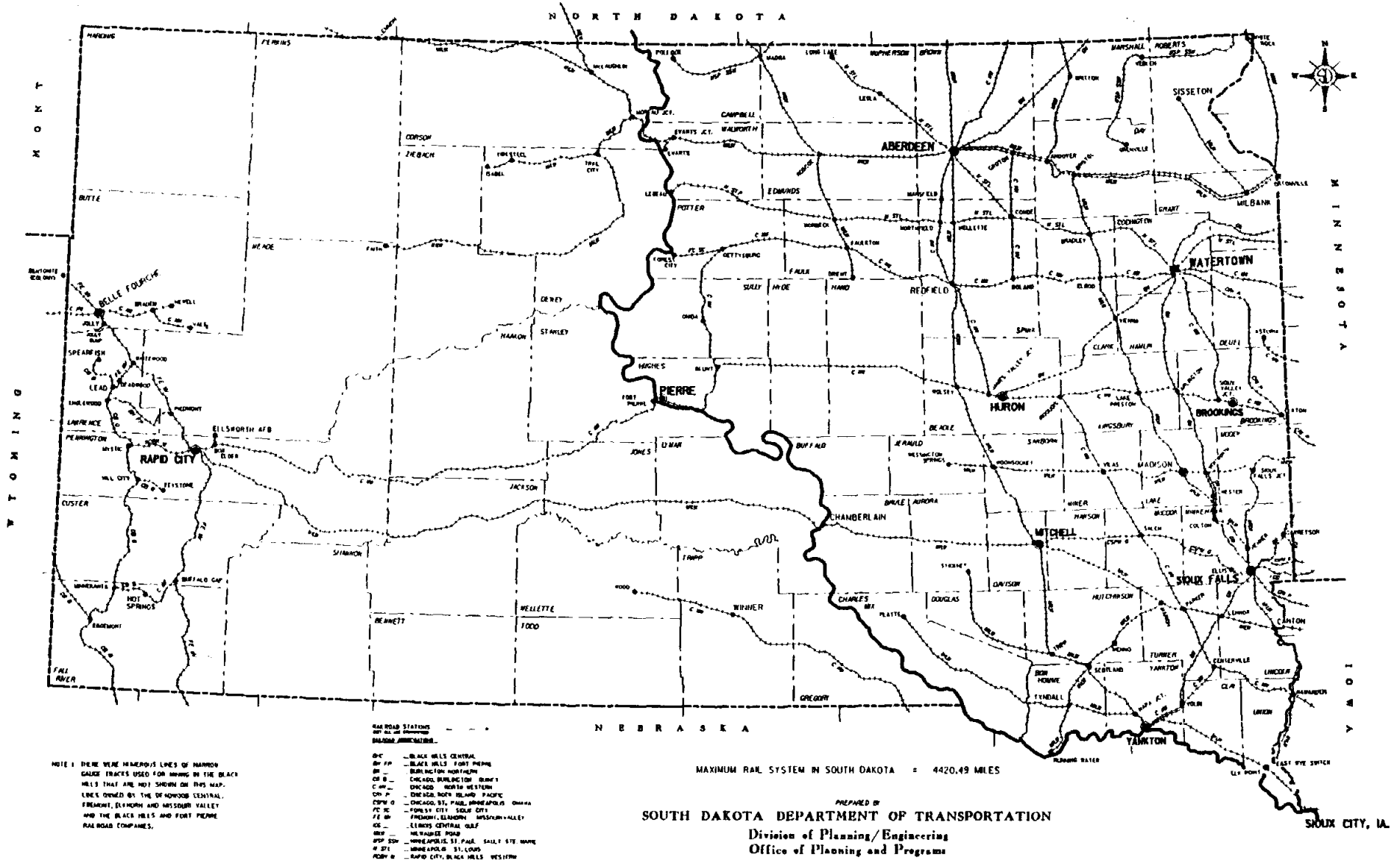
A total of 4,420.5 miles of railroad were constructed in South Dakota, with the last track laid in 1948. Figure 4 depicts the maximum rail system in South Dakota. Since 1909, rail abandonments have resulted in the loss of service on over 75% of the maximum system. The State of South Dakota, in cooperation with private railroads, was successful in restoring service on over 900 previously abandoned rail lines in the state. Currently there are 1,854.7 miles of operating rail lines in South Dakota. Figure 5 shows the current rail system in South Dakota.

Statewide Traffic Analysis

Farm products is the largest commodity group which is carried by rail in South Dakota. Tonnage shipped by rail in South Dakota increased in 1995, which reversed a three year period of declining rail traffic. The increase was due to the record setting 1994 crop production. Record production was set for corn at 367.2 million bushels, soybeans at 94.4 million bushels, and sunflowers at 1,427.2 million pounds. Production of sorghum, durum wheat, oats, and potatoes also increased in 1994. Figure 6 shows the tonnage of commodities shipped by rail from 1981 to 1995.

FIGURE 4

SOUTH DAKOTA RAIL MAP – MAXIMUM SYSTEM



NOTE : THERE WERE NUMEROUS LINES OF NARROW GAUGE TRACKS USED FOR MINING IN THE BLACK HILLS THAT ARE NOT SHOWN ON THIS MAP. LINES OWNED BY THE DEADWOOD CENTRAL, FREMONT, ELKHORN AND MISSOURI VALLEY AND THE BLACK HILLS AND FORT PIERRE RAILROAD COMPANIES.

RAILROAD STATIONS

RAILROAD ABBREVIATIONS

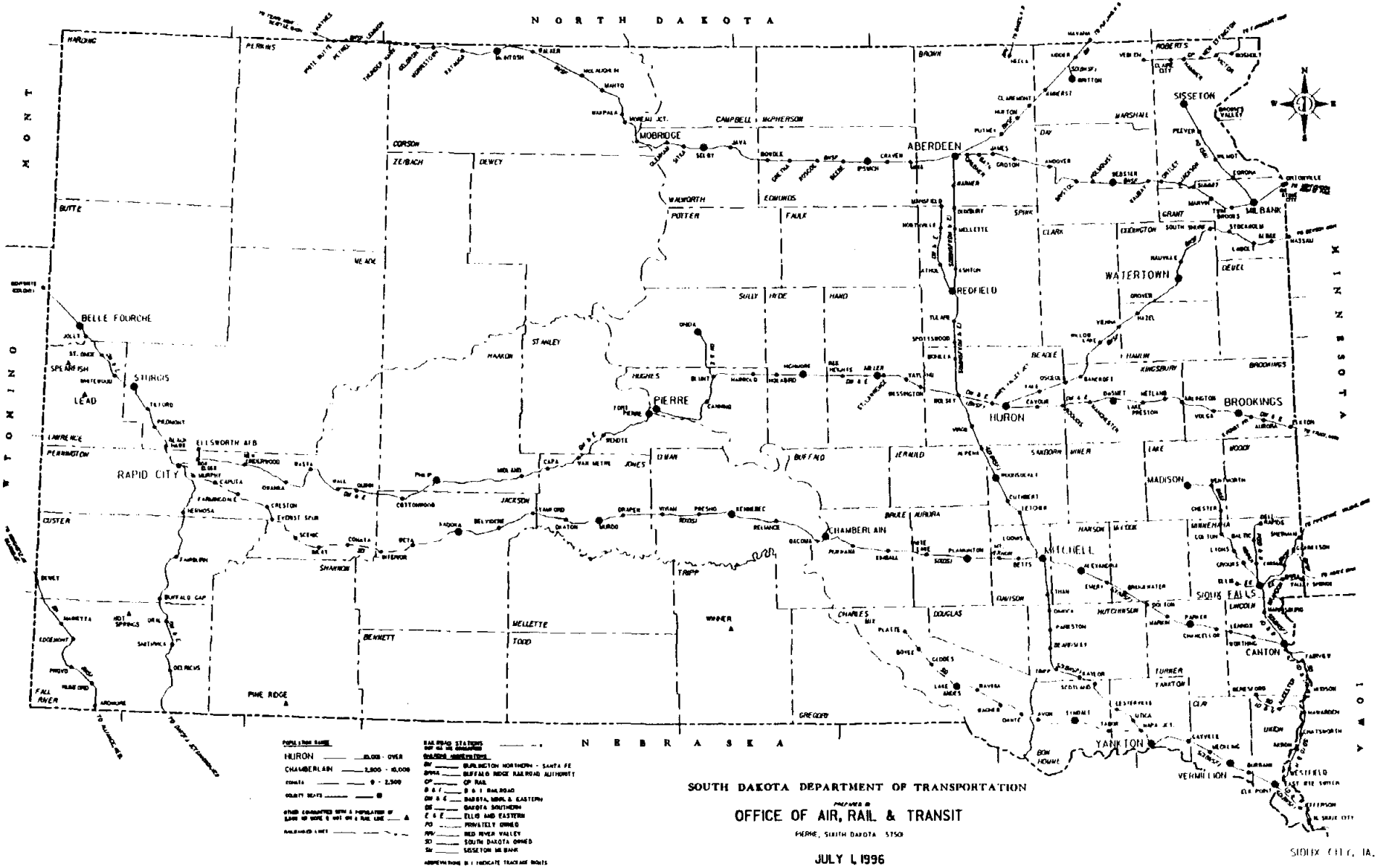
BHC — BLACK HILLS CENTRAL
BH FP — BLACK HILLS FORT PIERRE
BN — BURLINGTON NORTHERN
CB Q — CHICAGO, BURLINGTON QUINCY
C NW — CHICAGO NORTH WESTERN
CRI P — CHICAGO, ROCK ISLAND PACIFIC
CSPM O — CHICAGO, ST. PAUL, MINNEAPOLIS Omaha
FC FC — FORBES CITY SIOUX CITY
FE MV — FREMONT, ELKHORN MISSOURI VALLEY
IGS — ILLINOIS CENTRAL GULF
MILW — MILWAUKEE ROAD
MSP SSM — MINNEAPOLIS, ST. PAUL, SAULT STE. MARIE
M STL — MINNEAPOLIS ST. LOUIS
RCWY W — RAPID CITY, BLACK HILLS WESTERN

MAXIMUM RAIL SYSTEM IN SOUTH DAKOTA = 4420.49 MILES

PREPARED BY
SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION
Division of Planning/Engineering
Office of Planning and Programs

FIGURE 5

OFFICIAL SOUTH DAKOTA RAIL MAP



SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION

PREPARED BY

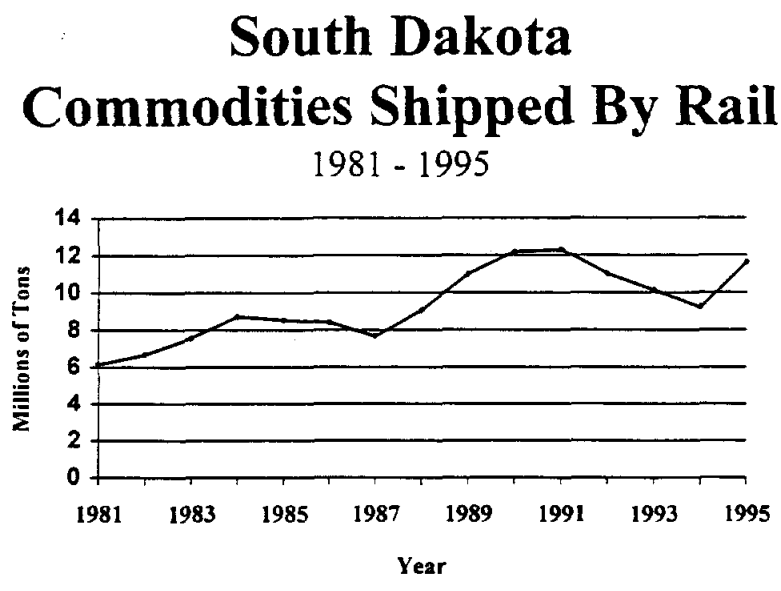
OFFICE OF AIR, RAIL & TRANSIT

PIERRE, SOUTH DAKOTA 57501

JULY 1, 1996

SIOUX CITY, IA.

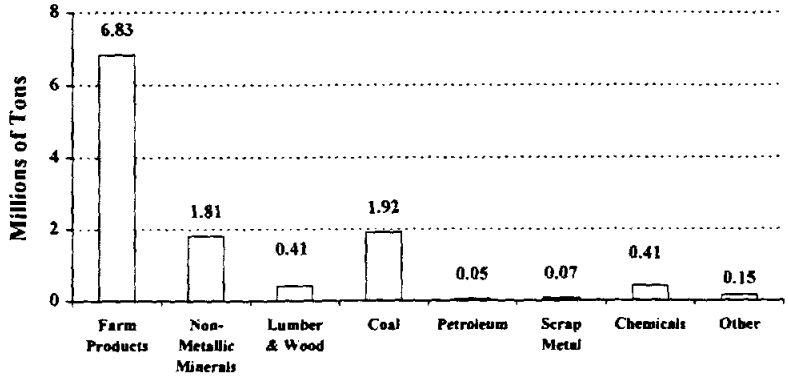
Figure 6



In addition to farm products, exported products include cement, stone, bentonite, scrap metal, lumber and wood products. Coal imported to the Big Stone Power Plant is the largest commodity imported by rail into South Dakota. Other imported products include fertilizers and petroleum products. Figure 7 shows the commodities imported and exported.

Figure 7

South Dakota Rail Traffic By Commodity* 1995



* Originating and Terminating Traffic to South Dakota Stations

State-owned Railroad System

As a result of the Milwaukee Road embargo in 1980, South Dakota was confronted with the loss of over fifty percent of its total operating rail mileage. The State analyzed each line individually and identified the essential rail lines vital to the economy of South Dakota. Some of the embargoed essential lines were purchased by other railroads and service was restored. The remaining essential lines for which a private solution could not be found were purchased by the State.

At its inception, South Dakota's rail acquisition fell into three categories of lines. They are:

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 8 highlights the state-owned rail lines.

Core System

The Core System, located in the eastern part of South Dakota, originally consisted of lines from Aberdeen south through Mitchell to Sioux City, IA, and from Sioux Falls to Chamberlain via Canton. In 1986, the Mitchell to 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 between South Dakota's principal grain production area and markets in the Pacific Northwest, Minneapolis, Duluth, and the Gulf of Mexico.

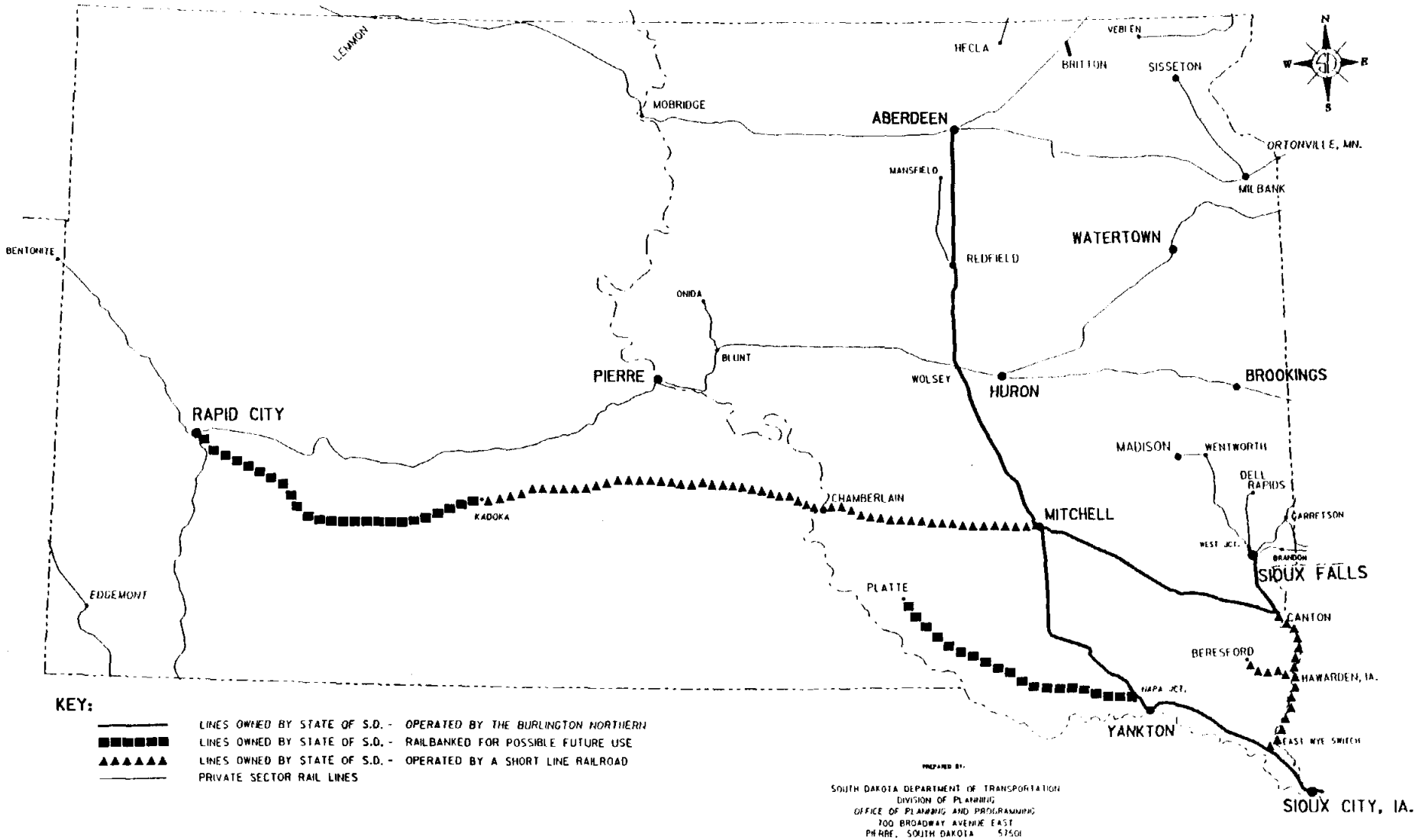
Local Option Lines (operating)

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

FIGURE 8

STATE OF SOUTH DAKOTA

MAP HIGHLIGHTED TO SHOW STATE OWNED RAIL LINES



KEY:

- LINES OWNED BY STATE OF S.D. - OPERATED BY THE BURLINGTON NORTHERN
- LINES OWNED BY STATE OF S.D. - RAILBANKED FOR POSSIBLE FUTURE USE
- LINES OWNED BY STATE OF S.D. - OPERATED BY A SHORT LINE RAILROAD
- PRIVATE SECTOR RAIL LINES

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

(49.7 miles) and between Beresford and Hawarden, IA (16.9 miles). Dakota Southern Railway operates 190 miles between Mitchell and Kadoka. The Burlington Northern Santa Fe operates over the five mile spur between its line and Britton. 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 had operations restored intermittently between 1985 and 1989 but has not been operated since. The Platte to Wagner segment of this line (40 miles) was authorized for salvage by the State in July 1992. The 98.5 mile Kadoka to Rapid City line has not had rail operations restored since 1980. The rail, ties, and bridges will be salvaged from both lines beginning in 1996, however, the State will retain the right-of-way of both lines for future railroad development.

Main Line

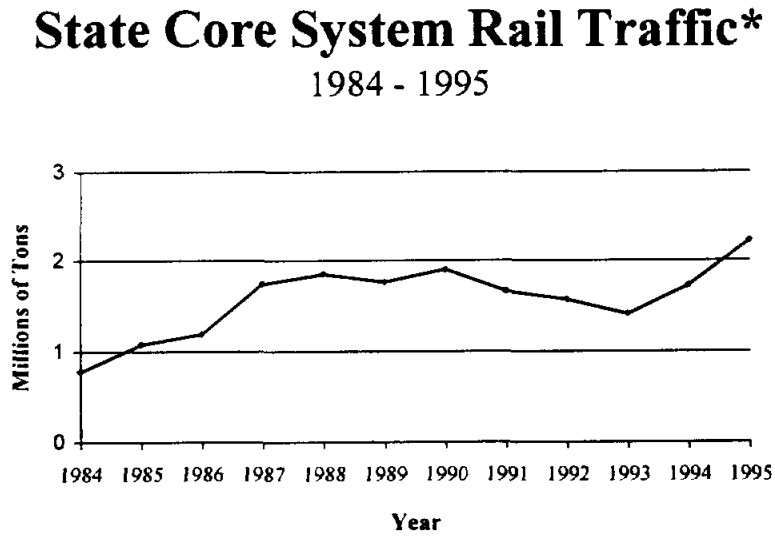
The third category of state-owned rail line was the South Dakota Main Line which ran 480 miles from Ortonville, MN through Aberdeen to Terry, MT. The ownership of the Main Line was transferred to the Burlington Northern in August 1991.

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 system to transport crop production to markets. 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.

Core System Traffic

Traffic on the Core System reached an all time high in 1995. Figure 9 shows the originating and terminating traffic on the Core System from 1984 to 1995.

Figure 9



* Originating and Terminating Traffic

Under the existing Operating Agreement with Burlington Northern, the State shares BN's profits from the Core System operations when the profits exceed a certain threshold. The Core System is and will continue to be the cornerstone of the state-owned rail system. It is imperative that the Burlington Northern and State of South Dakota continue to be mutually committed to a systematic program of track maintenance and capital improvement.

Rail Carriers and Traffic

Eight railroad companies provide freight service in South Dakota. Two of these carriers are Class I carriers, one is a Class II carrier, and the remaining five carriers are shortline operators. This section describes each operating railroad and a description of the lines they operate. The traffic carried by each railroad is also analyzed.

Burlington Northern Santa Fe

The Burlington Northern Santa Fe's (BNSF) operating system is the largest in South Dakota. The BNSF operates 575.4 miles of its own track and 367.6 miles of track owned by the State of South Dakota. Table 2 is a line by line listing of BNSF's operation in South Dakota. Figure 10 shows the BNSF operations and traffic density in South Dakota.

Table 2

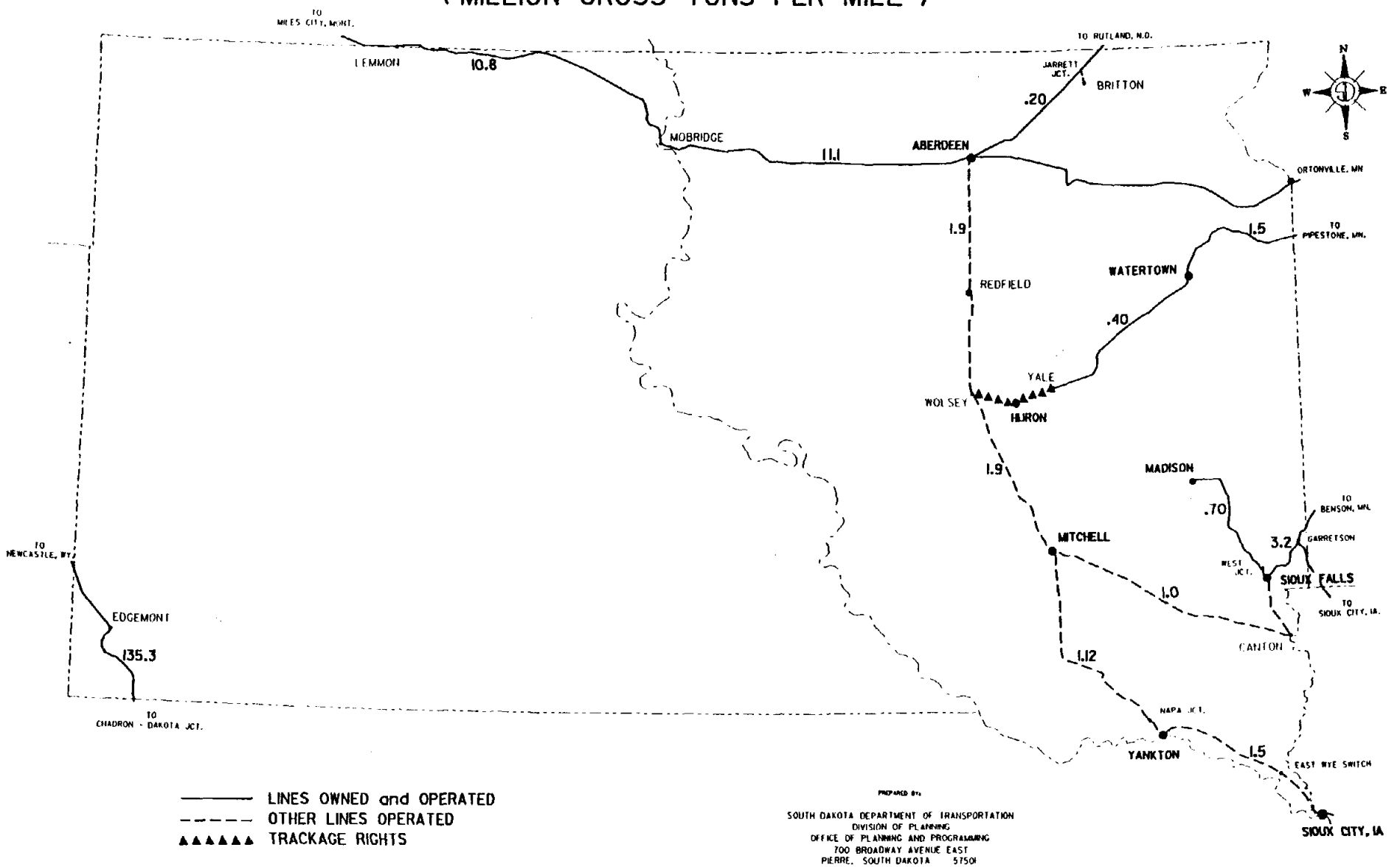
Burlington Northern Santa Fe Railroad South Dakota Operations			
BNSF Ownership			
From	To	Total Miles	SD Miles
Willmar, MN	Garretson, SD	127.9	4.6
Garretson, SD	Sioux City, IA	94.3	8.1
Garretson, SD	Sioux Falls, SD	17.4	17.4
Sioux Falls, SD	Madison, SD	42.1	42.1
Benson, MN	Watertown, SD	92.0	45.1
Watertown, SD	Yale, SD	56.6	56.6
Geneseo Jct., ND	Aberdeen, SD	76.6	53.6
Alliance, NE	Edgemont, SD	110.6	27.4
Edgemont, SD	Gillette, WY	121.1	21.4
Ortonville, MN	Terry, MT	479.9	299.1
Total		1,218.5	575.4
South Dakota Owned Track			
From	To	Total Miles	SD Miles
Sioux Falls, SD	Canton, SD	20.8	20.8
Canton, SD	Mitchell, SD	79.2	79.2
Mitchell, SD	Wolsey, SD	54.6	54.6
Wolsey, SD	Aberdeen, SD	74.0	74.0
Mitchell, SD	Yankton, SD	74.9	74.9
Yankton, SD	Sioux City, IA	62.0	56.0
Jarrett Jct., SD	Britton, SD	5.0	5.0
Sioux Falls, SD	West Jct.,SD	3.1	3.1
Total		373.6	367.6
Trackage Rights on DM&E Owned Track			
From	To	Total Miles	SD Miles
Wolsey, SD	Yale, SD	26.3	26.3
Total Operations		1,618.4	969.3

FIGURE 10

BURLINGTON NORTHERN – SANTA FE

SOUTH DAKOTA OPERATIONS and TRAFFIC DENSITY - 1995

(MILLION GROSS TONS PER MILE)



——— LINES OWNED and OPERATED

– – – – – OTHER LINES OPERATED

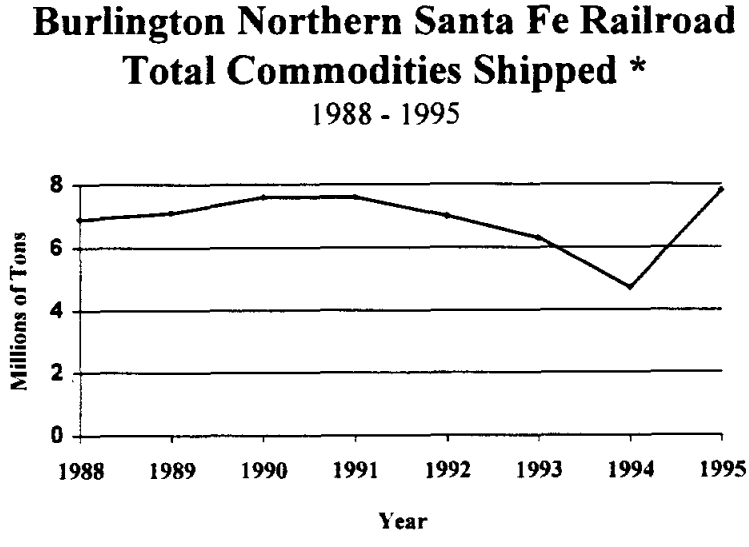
▲▲▲▲▲▲ TRACKAGE RIGHTS

PREPARED BY:

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

BNSF's operations have afforded South Dakota shippers access to an integrated national and international transportation system. Figure 11 shows the amount of commodities shipped to and from South Dakota stations by the BNSF since 1988.

Figure 11

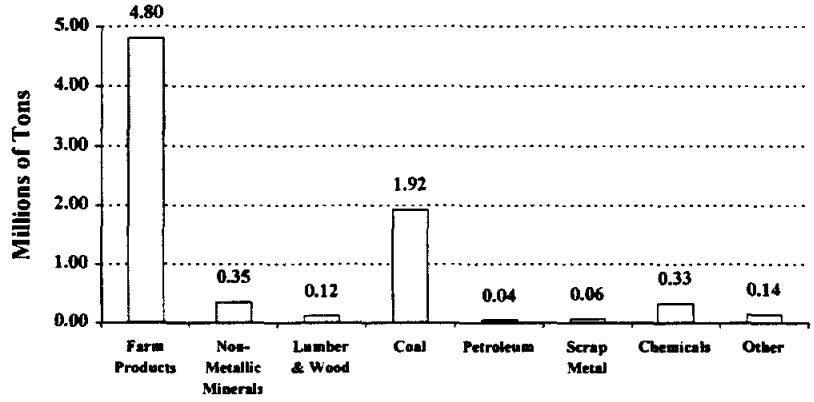


* Originating and Terminating Traffic to South Dakota Stations

Grain and Coal are the major commodities shipped to and from South Dakota by BNSF. Figure 12 shows the commodities shipped in 1995 by BNSF.

Figure 12

Commodities Carried by Burlington Northern Santa Fe* 1995



* Originating and Terminating Traffic to South Dakota Stations

Dakota, Minnesota & Eastern

With the purchase of the Colony Line from the Union Pacific Railroad, the Dakota, Minnesota & Eastern (DM&E) now operates 585.9 miles of their own tracks and has operating rights on 74 miles of state-owned track and 56.6 miles of track owned by the BNSF. Table 3 is a line by line listing of the track operated by the DM&E. Figure 13 is a map depicting the DM&E operations and traffic density in South Dakota.

Table 3

Dakota, Minnesota & Eastern Railroad South Dakota Operations			
From	To	Total Miles	SD Miles
Tracy, MN	Wolsey, SD	149.7	104.5
Redfield, SD	Mansfield, SD	26.3	26.3
Blunt, SD	Onida, SD	16.2	16.2
Huron, SD	Yale, SD	13.3	13.3
Colony, WY	Dakota Jct, NE	174.7	152.7
Wolsey, SD	Ft. Pierre, SD	108.3	108.3
Ft. Pierre, SD	Rapid City, SD	164.6	164.6
Total		653.1	585.9
Trackage Rights on South Dakota Owned Track			
From	To	Total Miles	SD Miles
Wolsey, SD	Aberdeen, SD	74.0	74.0
Trackage Rights on BNSF Owned Track			
From	To	Total Miles	SD Miles
Yale, SD	Watertown, SD	56.6	56.6
Total Operations		783.7	716.5

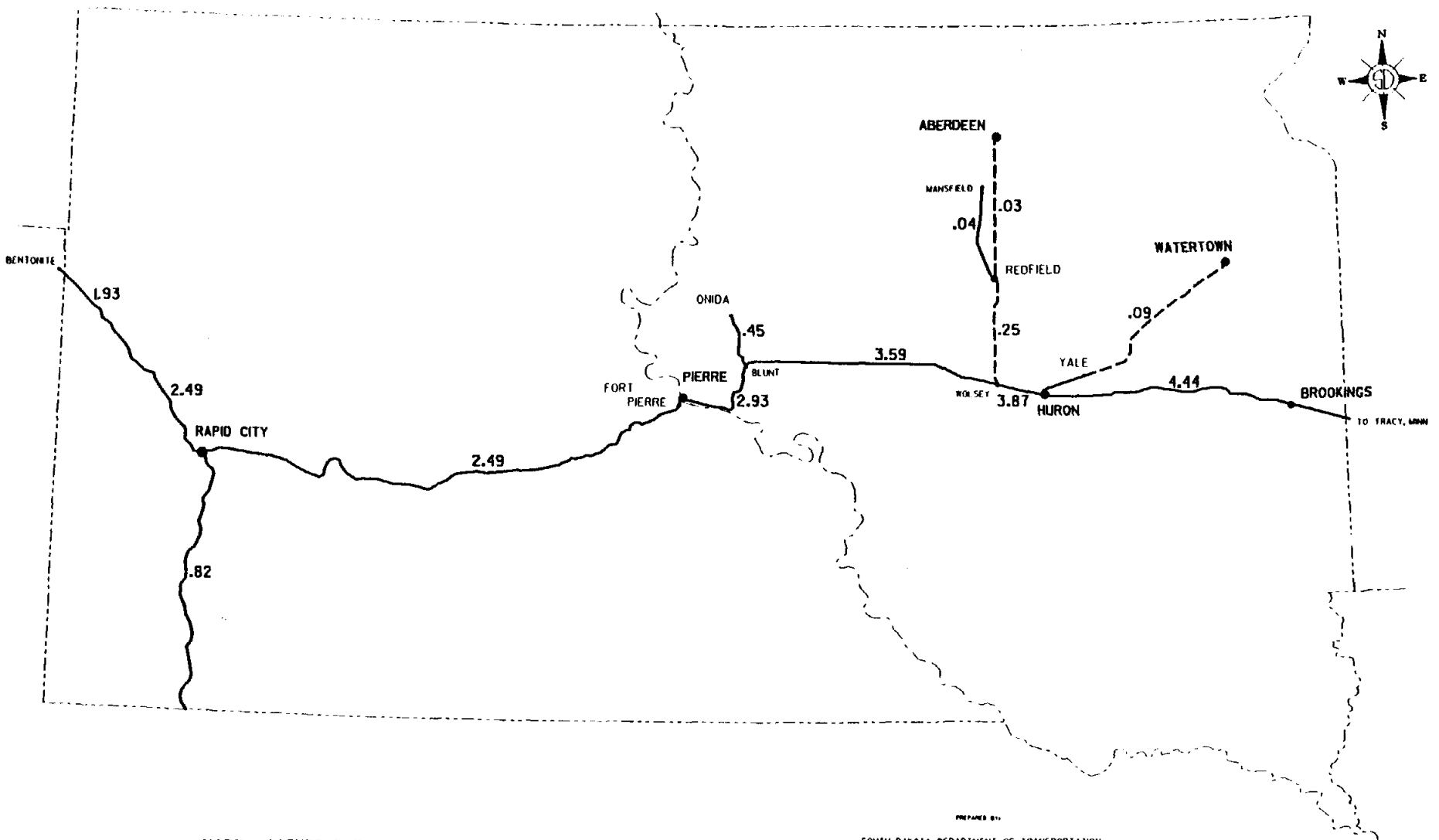
The DM&E operates the only east-west rail corridor across South Dakota. Figure 14 shows the traffic on the DM&E operated lines since 1988. The traffic on the DM&E has remained stable over the last seven years.

FIGURE 13

DAKOTA, MINNESOTA and EASTERN

SOUTH DAKOTA OPERATIONS and TRAFFIC DENSITY - 1995

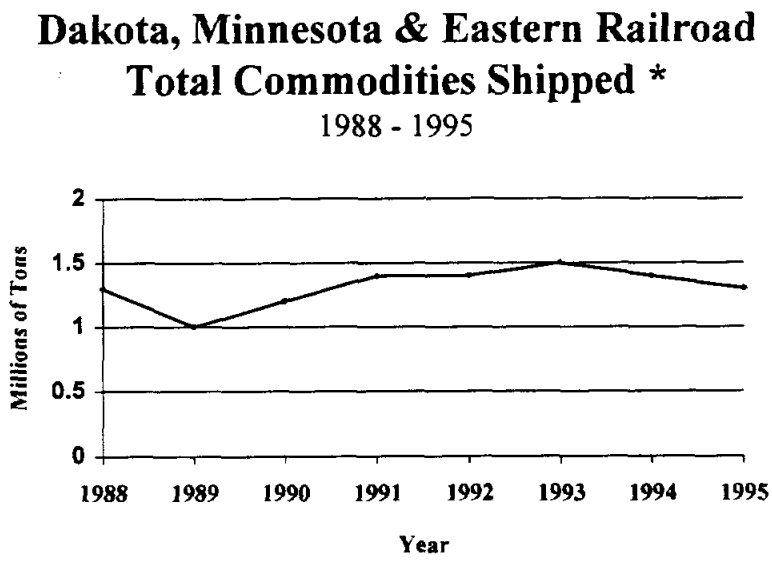
(MILLION GROSS TONS PER MILE)



NOTE: DASHED RAIL LINES INDICATE TRACKAGE RIGHTS

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

Figure 14

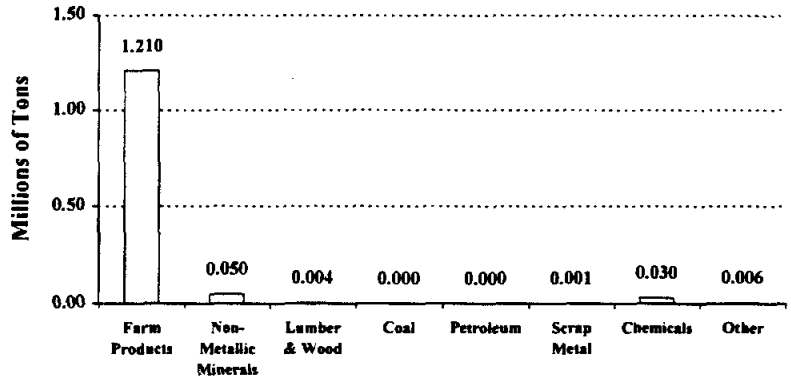


* Originating and Terminating Traffic to South Dakota Stations

The DM&E carries a large amount of overhead traffic consisting of bentonite, cement, and wood chips generated on the Colony Line. The transfer of ownership of the Colony Line from the Union Pacific to the DM&E which occurred in May 1995 will significantly increase the traffic generated by the DM&E in South Dakota. Grain is the major commodity generated along the DM&E line, as is shown in Figure 15.

Figure 15

Commodities Carried by Dakota, Minnesota & Eastern* 1995

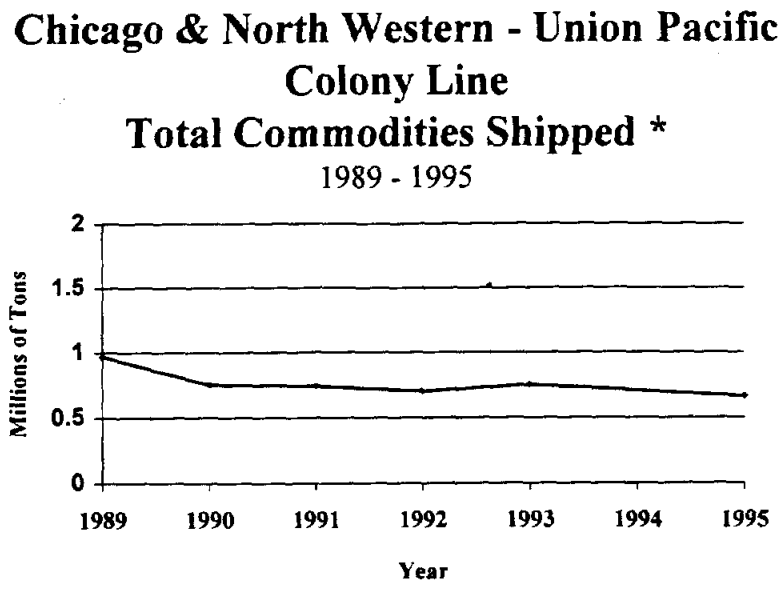


* Originating and Terminating Traffic to South Dakota Stations

Union Pacific Railroad

When the DM&E assumed operations of the Colony Line on May 4, 1996, the Union Pacific (UP) ceased its operations in South Dakota. Figure 16 shows the history of traffic on the Colony Line since 1989.

Figure 16

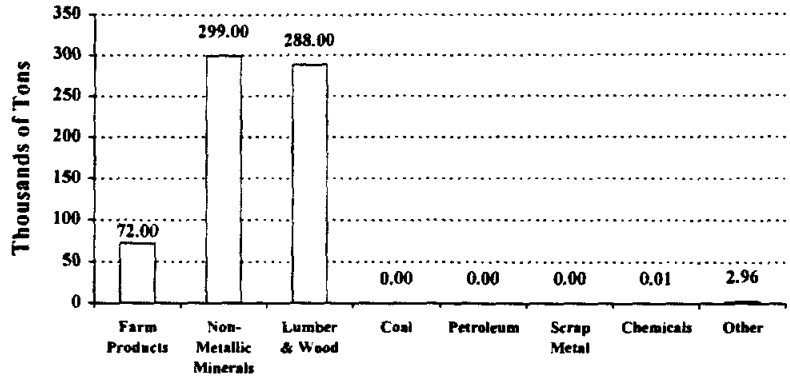


* Originating and Terminating Traffic to South Dakota Stations

The stations along the Colony Line generate lumber, bentonite, cement, and wood chips. Figure 17 shows the traffic generated on the Colony Line in 1995.

Figure 17

Commodities Carried by Union Pacific - Colony Line* 1995



* Originating and Terminating Traffic to South Dakota Stations

D & I Railroad

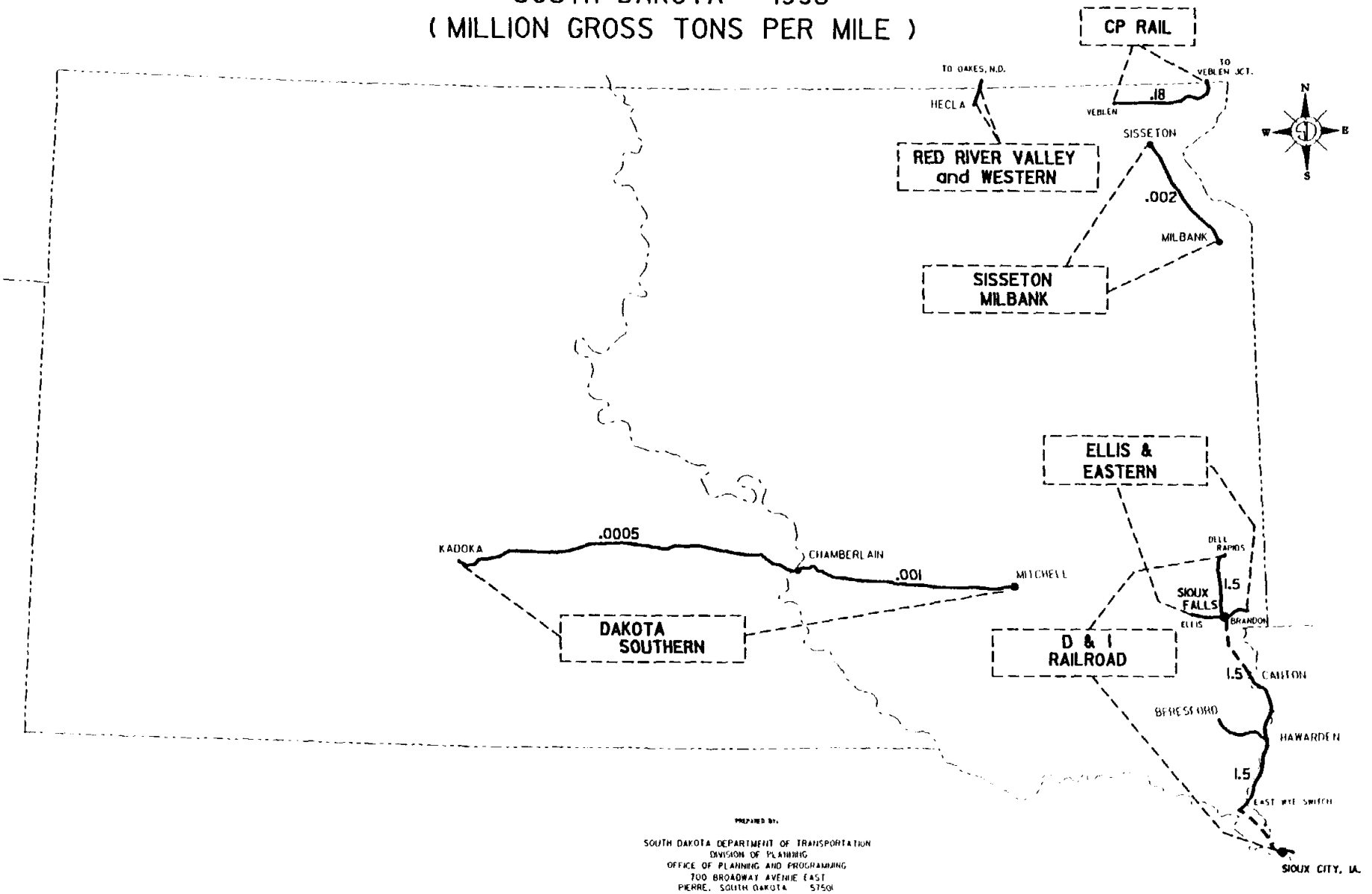
The D&I Railroad operates its own track from Sioux Falls to Dell Rapids. In November 1986, it began common carrier service between Sioux Falls and Sioux City via trackage rights on the state-owned line between Canton and Elk Point and the branch line from Beresford to Hawarden, IA. Figure 18 is a map showing the operations and traffic density of the shortline railroads in South Dakota, including the D&I Railroad.

FIGURE 18

SHORT LINE OPERATIONS AND TRAFFIC DENSITY

SOUTH DAKOTA - 1995

(MILLION GROSS TONS PER MILE)



PREPARED BY:

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

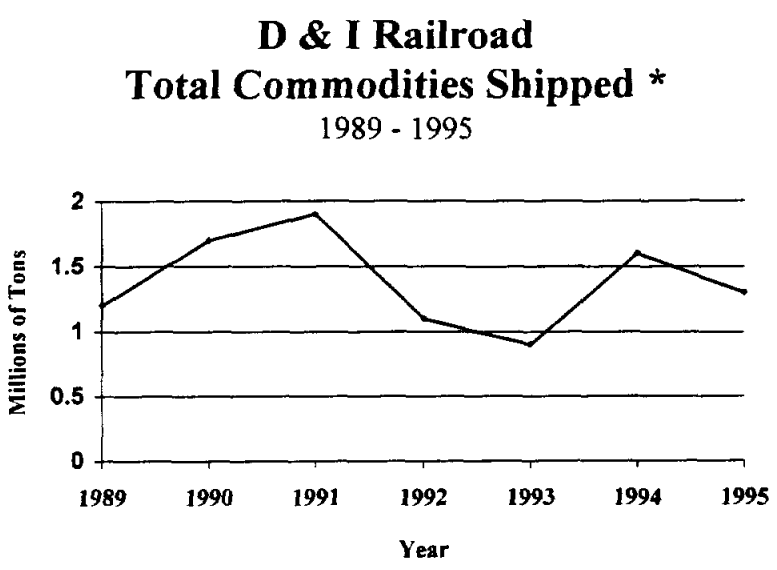
Table 4 is a line by line description of the D&I operations.

Table 4

D & I Railroad			
South Dakota Operations			
D&I Ownership			
From	To	Total Miles	SD Miles
Sioux Falls, SD	Dell Rapids, SD	16.8	16.8
South Dakota Owned Track			
From	To	Total Miles	SD Miles
Canton, SD	East Wye Switch, SD	49.7	14.1
Hawarden, IA	Beresford, SD	16.9	16.2
Total		66.6	30.3
Trackage Rights on South Dakota Owned Track			
From	To	Total Miles	SD Miles
Sioux Falls, SD	Canton, SD	20.8	20.8
East Wye Switch, SD	Sioux City, IA	17.3	11.3
Total		38.1	32.1
Total Operations		121.5	79.2

Figure 19 shows the traffic generated by the D&I Railroad since 1989.

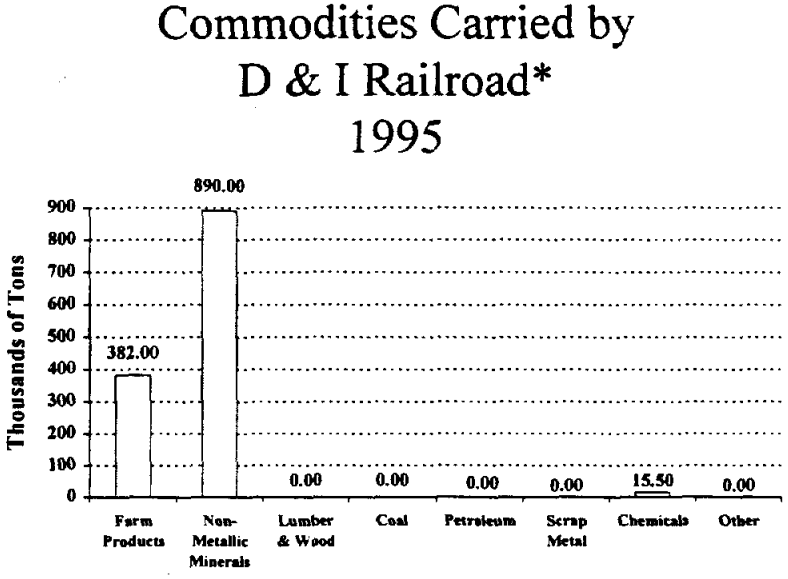
Figure 19



* Originating and Terminating Traffic to South Dakota Stations

The D&I Railroad was originally formed to haul rock, gravel, and crushed stone quarried at Dell Rapids and Hawarden IA. The railroad expanded its grain hauling when it became the common carrier between Sioux Falls and Sioux City. Figure 20 shows the traffic generated by the D&I Railroad in 1995.

Figure 20



* Originating and Terminating Traffic to South Dakota Stations

CP Rail

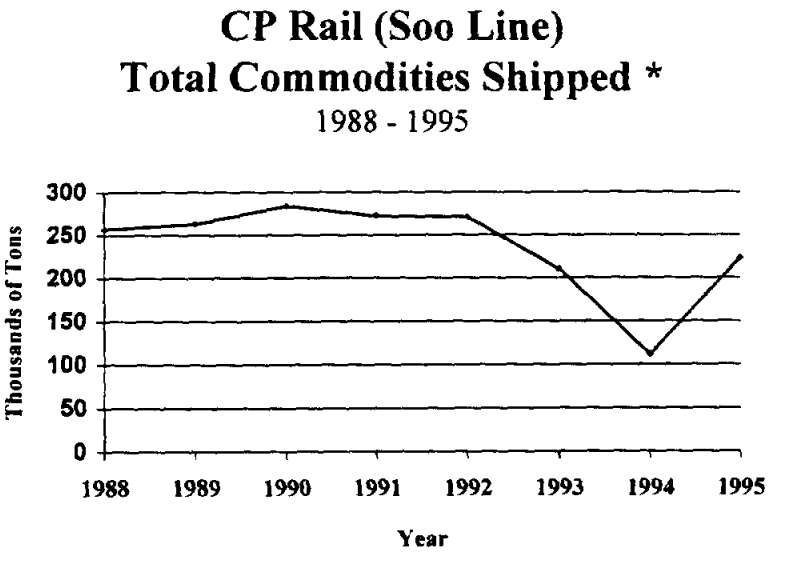
CP Rail operates a branch line from Veblen Jct., ND to Veblen, SD. Table 5 describes the line operated by CP Rail.

Table 5

CP Rail			
South Dakota Operations			
From	To	Total Miles	SD Miles
Veblen Jct	Veblen, SD	42.2	33.5

Traffic on this line has begun to recover from the 1993 flooding in the northeast part of the state as shown in Figure 21.

Figure 21

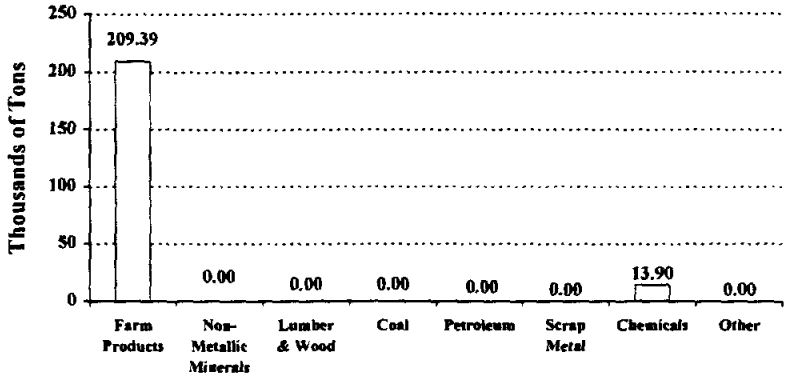


* Originating and Terminating Traffic to South Dakota Stations

All of the traffic on this line is farm products which are exported and fertilizer which is imported. Figure 22 shows the traffic generated on this line in 1995.

Figure 22

Commodities Carried by CP Rail* 1995



* Originating and Terminating Traffic to South Dakota Stations

Sisseton - Milbank Railroad

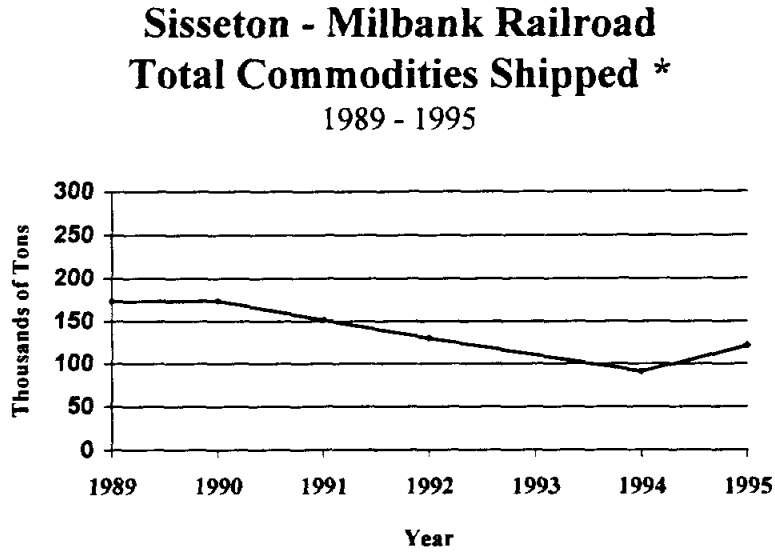
The Sisseton - Milbank Railroad operates a locally-owned grain line from Milbank to Sisseton as shown in Table 6.

Table 6

Sisseton - Milbank Railroad South Dakota Operations			
From	To	Total Miles	SD Miles
Milbank, SD	Sisseton, SD	37.1	37.1

The recent flooding in the area served by the Sisseton - Milbank Railroad has caused the amount of traffic to decline in recent years. However, in 1995 the traffic on this line increased reversing the downward trend as shown in Figure 23.

Figure 23

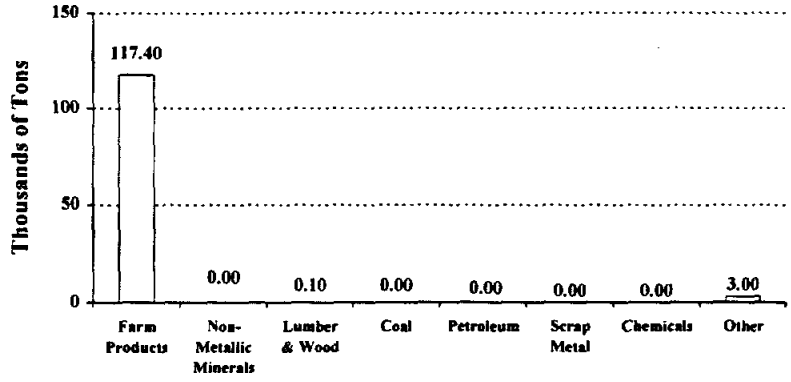


* Originating and Terminating Traffic to South Dakota Stations

Barley is the major farm product carried by the Sisseton - Milbank Railroad. Figure 24 shows the commodities shipped on this line in 1995.

Figure 24

Commodities Carried by Sisseton - Milbank* 1995



* Originating and Terminating Traffic to South Dakota Stations

Ellis & Eastern Company

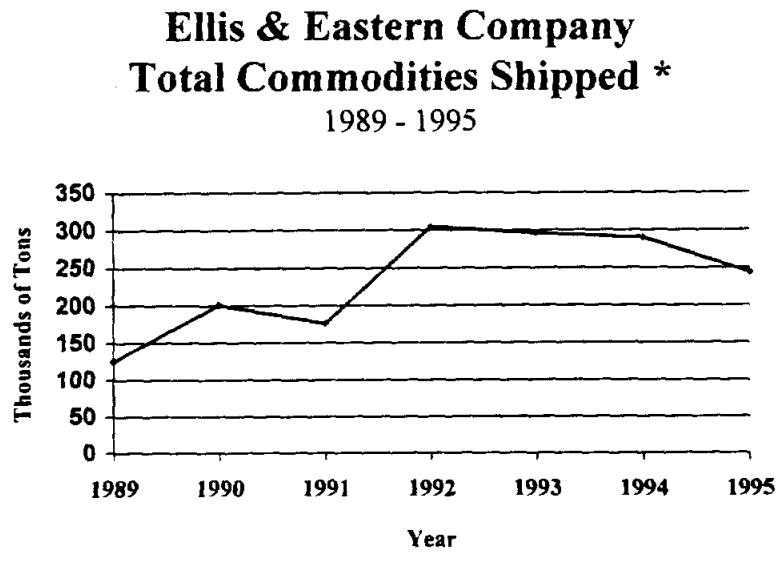
The Ellis and Eastern Company was formed as a subsidiary of Sweetman Construction Company in January 1989, and operates the line from Ellis to Brandon as shown in Table 7.

Table 7

Ellis & Eastern Railroad			
South Dakota Operations			
From	To	Total Miles	SD Miles
Ellis, SD	Brandon, SD	14.5	14.5

Traffic on the Ellis and Eastern Line has leveled off since 1992 as shown in Figure 25.

Figure 25

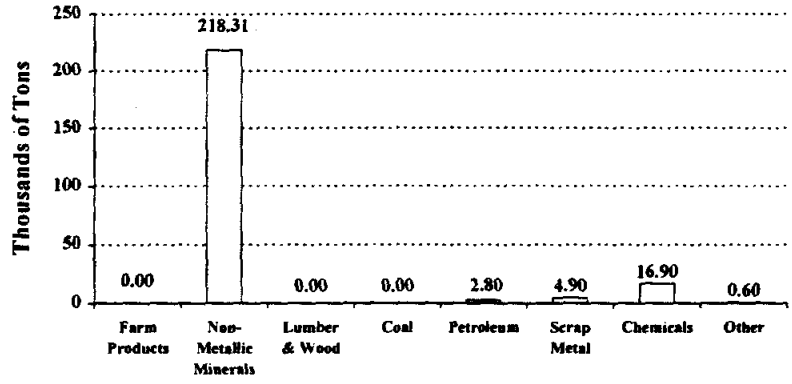


* Originating and Terminating Traffic to South Dakota Stations

The Ellis and Eastern Company's principal purpose is to provide its parent company with rail service for the shipment of aggregate products to outside customers, as well as for shipment of raw materials between Sweetman Construction plants on the east and west sides of Sioux Falls. The Ellis and Eastern also serves several outside customers located on the line. Figure 26 shows the traffic generated on the line in 1995.

Figure 26

Commodities Carried by Ellis & Eastern* 1995



* Originating and Terminating Traffic to South Dakota Stations

Red River Valley & Western Railroad

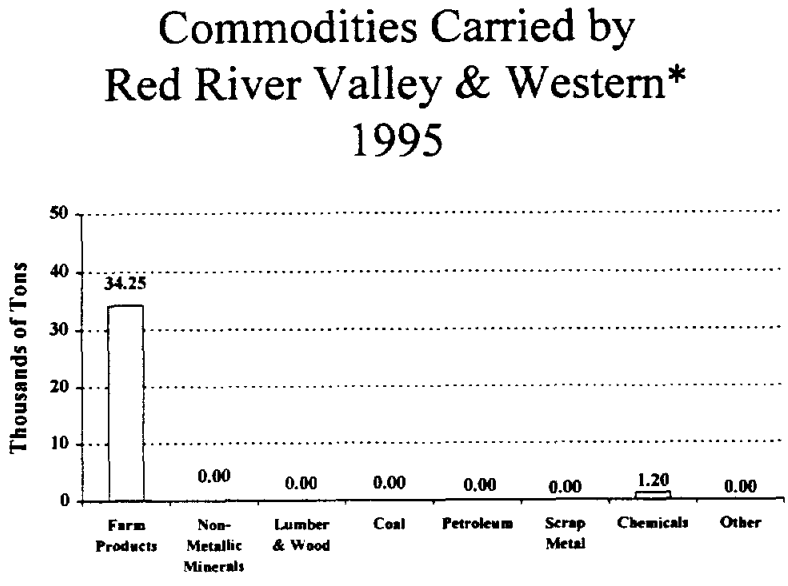
The Red River Valley & Western Railroad operates the line from Hecla to Oaks, ND as shown in Table 8.

Table 8

Red River Valley & Western Railroad Co. South Dakota Operations			
From	To	Total Miles	SD Miles
Hecla, SD	Oakes, ND	18.0	3.9

Figure 27 shows the traffic generated by the Red River Valley & Western Railroad in 1995.

Figure 27



* Originating and Terminating Traffic to South Dakota Stations

Dakota Southern Railway

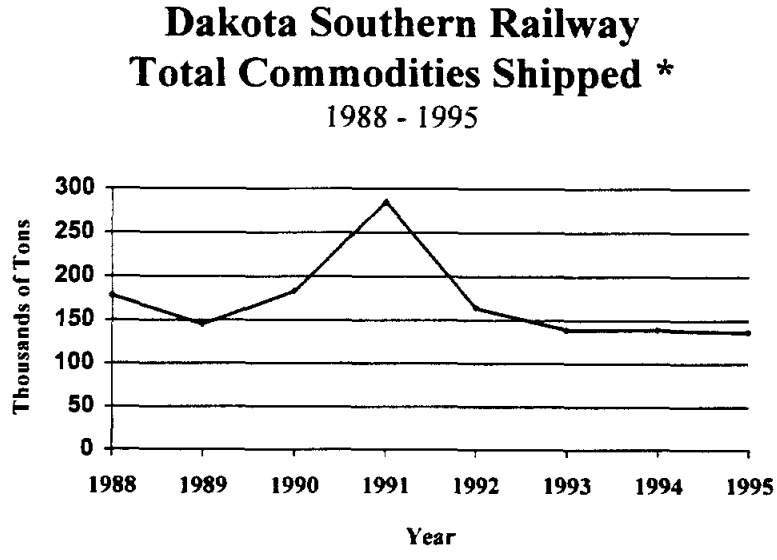
The Dakota Southern Railway operates the line from Kadoka to Mitchell as shown in Table 9.

Table 9

Dakota Southern Railway			
South Dakota Operations			
South Dakota Owned Track			
From	To	Total Miles	SD Miles
Mitchell, SD	Chamberlain, SD	68.5	68.5
Chamberlain, SD	Kadoka, SD	121.2	121.2
Total		189.7	189.7

Traffic on the Dakota Southern Line as leveled off since 1992 as shown in Figure 28.

Figure 28



* Originating and Terminating Traffic to South Dakota Stations

Chapter 4

The Future of the State Rail System

CHAPTER 4

The Future of The State Rail System

Since the late 1970's abandonment and the threat of abandonment have overshadowed the future of the rail system in South Dakota. Direct financial assistance from Federal, State, and Local governments combined with private investment spent to improve and maintain rail lines has stabilized the system in recent years. This chapter identifies rail lines which are potential candidates for abandonment and financial assistance. Future maintenance and finance requirements for the rail system are also discussed.

Abandonments

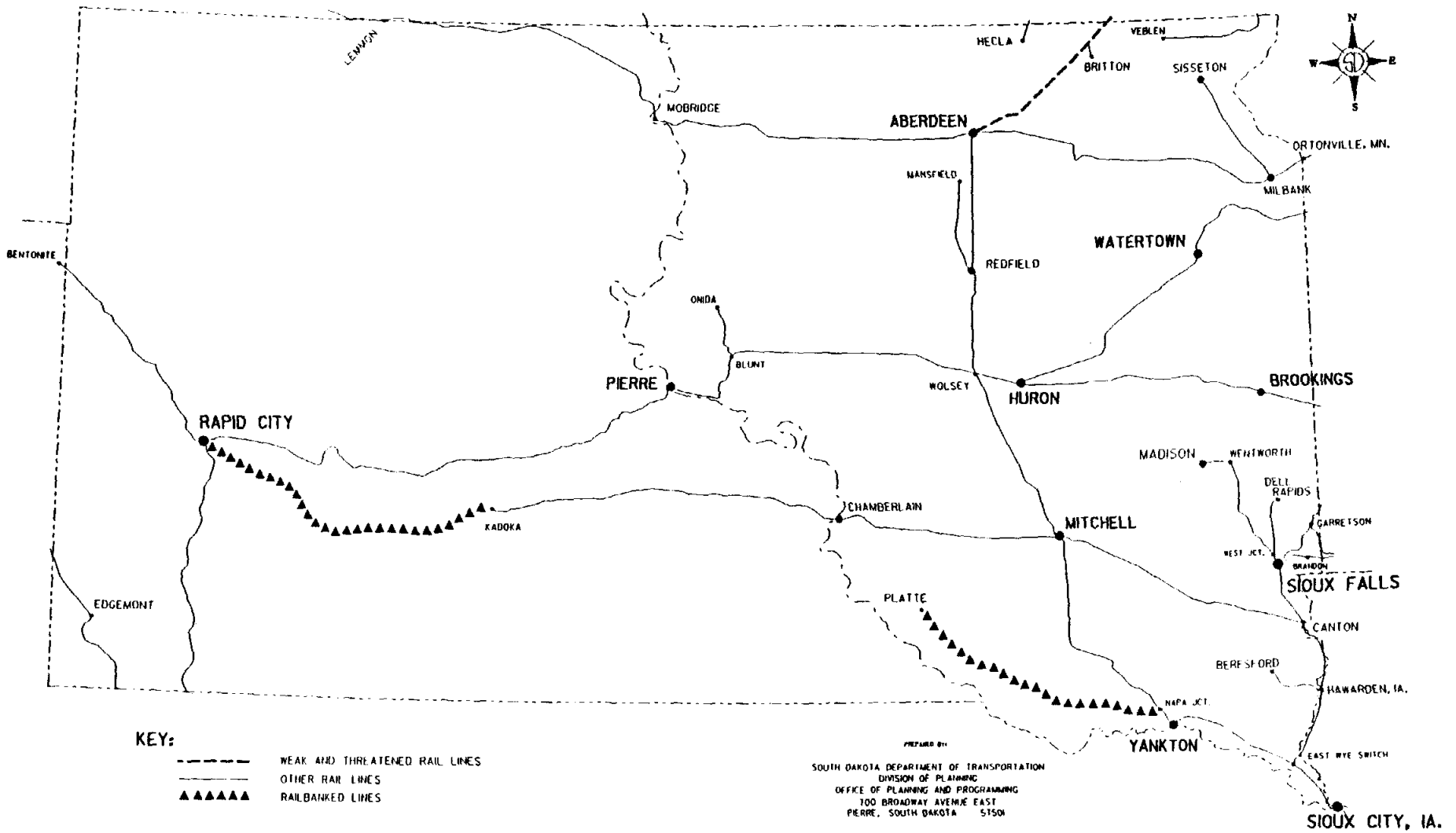
There are no rail lines in South Dakota which a rail operator has identified on its system diagram map as potentially subject to abandonment nor have any rail lines been identified as anticipated to be the subject of an abandonment or discontinuance application within the next three years. There are no rail lines in South Dakota for which abandonment or discontinuance applications are pending.

Threatened Lines

The Department has identified the BNSF line from Aberdeen to Rutland, ND as the only line that may be threatened by abandonment in the future (Figure 29). High water near Putney is eroding the track bed of this line. The deterioration of the track bed combined with low traffic on the line is a cause for concern for the future of this line. An extended

FIGURE 29

THREATENED RAIL LINES



rainless period in the region or the raising of the track bed will be required to preserve operations on this line.

Lines That May Require Financial Assistance.

The Department has identified several rail lines in South Dakota that may require financial assistance from federal or state funds to complete maintenance or capital improvements (Figure 30).

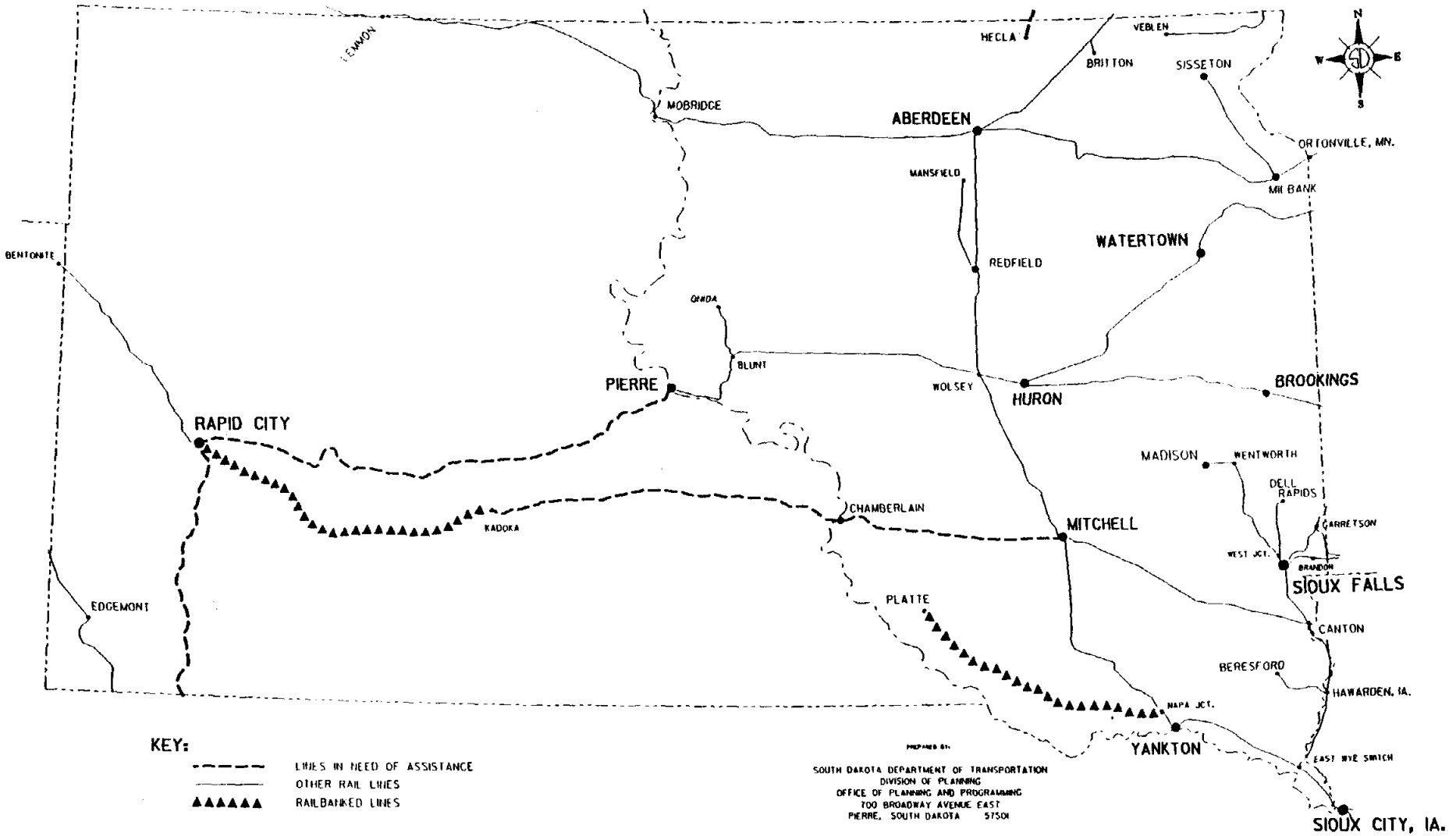
1. **Rapid City to Pierre.**

   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 DM&E, operators of the line, has received authorization from the South Dakota State Legislature to issue revenue bonds backed by the State of South Dakota to rehabilitate this segment. The DM&E plans to issue the bonds and commence rehabilitation as Phase II of the project to upgrade the line from Rapid City to Wolsey. Phase II is expected to commence in 1997.

FIGURE 30

RAIL LINES THAT MAY REQUIRE FINANCIAL ASSISTANCE



2. **Mitchell to Kadoka**

In a cooperative effort between the State and the MRC Regional Railroad Authority, a $1.2 million project to repair bridge ends and replace ties has been completed on the section of the line from Chamberlain to Kennebec.

Despite this investment, speeds are still restricted to 5-10 mph. It would take a large investment in the Mitchell to Kadoka track to upgrade the level and quality of service by any significant degree. Frequency and reliability of service remains a problem. The location of a large box manufacturing plant on this line in Mitchell will result in additional revenue for the line and may allow the operator to increase maintenance activity on the line.

3. **Hecla to Oaks, ND.**

The Red River Valley and Western Railroad, operator of this line, has contacted the Department regarding the availability of state and/or federal funds to rehabilitate this line. The Department will coordinate any rehabilitation project with the State of North Dakota and the operator. A benefit to cost analysis will be conducted prior to the commitment of funding by the Department.

Summary

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 growth of shortlines and regional railroads will continue as the larger Class I operators continue to sell their collector lines while retaining the more profitable main lines. The service being provided by the shortline operators has been dependable and responsive to the shipper needs.

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. South Dakota can not rely on federal funds in the future to improve or maintain the rail infrastructure. It is uncertain if the revenue generated from the leasing of rail properties by the State and from the profits generated by the operating agreement with BNSF will be adequate to provide assistance to rail operators to adequately maintain and preserve the large investment South Dakota has made in its rail system.

The success of rail service in South Dakota will continue to 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.