

APPENDIX I

**United States Forest Service
Roads Inventory**

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DAKOTA, MINNESOTA AND EASTERN RAILROAD PROPOSAL EIS ROAD ANALYSIS

BACKGROUND

On January 12, 2001, the Forest Service published a final rule in the Federal Register for a new transportation policy. This rule requires that all decisions that effect the National Forest road system after July 12, 2001, will require a Roads Analysis. The Roads Analysis process (RAP) was developed over a two-year period with Forest Service resource specialists and scientists, and this process is outlined in Forest Service publication FS-643.

On April 16, 2001, the Douglas Ranger District Interdisciplinary Team (IDT) for the Dakota, Minnesota, and Eastern (DM&E) Railroad Proposal EIS met to perform the RAP for this Environmental Impact Statement analysis. The IDT consisted of the following resource specialist:

- Wendy Schmitzer – IDT Leader
- Ralph Cockrell – District Fire Management Officer
- Tim Byer – District Wildlife Biologist
- Dave Geer – District Reality Specialist
- Clarke McClung – District Range Staff
- Joe Reddick – District Lands, Mineral, and Special Uses Staff
- Ian Ritchie – Medicine Bow/Routt NF Zone Archeologist
- Rob Schmitzer – District Engineering and Recreation Staff

The greatest direct impact to the Forest Road System on the Thunder Basin National Grassland (TBNG) and the Buffalo Gap National Grassland (BGNG) from the construction of the DM&E Railroad will be the fragmentation of the road system. The proposed DM&E Unit Coal Train Railroad will effectively bisect roads and result in the isolation of the previous road segments. The IDT identified key areas for the analysis as follows:

1. The proponent will be required to provide road grade or underpass crossings of the railroad;
2. There are places where new roads will be needed to link the existing road system together following the construction of the railroad;
3. There are roads that need to be moved and reconstructed; and
4. Roads and roads segments that can be decommissioned if the railroad is built as the railroad will make their existence moot.

In addition to the road system passage needs across the railroad, livestock and wildlife crossings are also needed to reduce the fragmentation of grazing allotments and provide continued migration of wildlife to either side of the tracks. The IDT worked to identify opportunities to incorporate combined road, livestock and wildlife crossings where possible.

Only Alternative C, Modified Proposed Alternative, was analyzed.

TRANSPORTATION ANALYSIS

The Draft EIS for the DM&E Railroad preliminarily identified a number of road crossings on the railroad line provided by the proponent. However, much of this work did not involve Forest Service specialist review and the tables that list these crossings do not identify all that will be affected. The IDT for this RAP used the current Transportation Inventory and Atlas for the Thunder Basin National Grassland to compare the inventoried road system to the railroad route on topographic maps provided by the proponent. This team specifically identified the needed grade, overpass and underpass crossings needed to continue to allow public and administrative access to National Forest System lands on either side of the proposed rail line. In addition, the team identified specific transportation mitigation needs through this process for inclusion into the Final EIS and Record of Decision. The following table lists the required road-related actions from the construction of the rail line:

Thunder Basin National Grassland

Action	National Forest System Road #	Location	Notes
Road/Animal Underpass – 50' to 55' fill	1255J	T41N, R63W, SW Sec. 9 Paleo Area	Need 11'x11, bottomless concrete underpass. DEIS proposes moving road 1,300' east with a grade crossing. Underpass is needed to avoid train whistle noise.
Overpass – 80' cut	1255I	T41N, R63W, NE Sec. 18 Paleo Area	This road crossing was not identified in the DEIS. DEIS proposed a grade crossing 2,300' west. Overpass is needed to avoid train whistle noise while maintaining current road access to south.
Decommission 1.6 miles	1255ID	T41N, R63W, NW Sec. 18	Road accesses water impoundment. RR will shut off access and need for road.
Grade	1258A	T42N, R65W, NE Sec. 27	This road crossing was identified in the DEIS as a

Crossing			private road crossing.
Grade Crossing	1258BA	T42N, R65W, SW Sec. 22	This road crossing was identified in the DEIS as a private road crossing.
Decommission 0.25 miles	1258B	T42N, R65W, SW Sec. 22	Road segment wiped out by Railroad location.
Grade Crossing 600' to west. Level 3 (gravel) road	1257C	T42N, R66W, NE Sec. 24	0.4 miles of new road needed. About 0.25 miles decommissioned.
Grade Crossing	1267A	T42N, R68W, SW Sec. 1	This road crossing was not identified in the DEIS.
Grade Crossing	1267C	T42N, R68W, SW Sec. 2	This road crossing was not identified in the DEIS.
New road. Low standard	1267F	T42N, R68W, SW Sec. 2	0.25 miles extension of 1267F to link road system on north side of tracks.
New road. Low standard	1268BA	T42N, R69W, N Sec. 7	0.7 miles from windmill off 1268B in NE Sec. 7, west to windmill in NE Sec. 12. Access to windmill will be lost due to West Yard location.
Grade Crossing	1110B	T43N, R69W, NW Sec. 34	This road crossing was identified in the DEIS as a private road crossing.
Grade Crossing	968C	T43N, R69W, SW Sec. 29	This road crossing was identified in the DEIS as a private road crossing.
Reconstruct entire road 100' west. About 1.5 miles	968 - School Creek Road	T42N, R69W, Sec.6 T43N, R69W, Sec. 31	Railroad ROW overlaps the School Cr Road. Two lane gravel surface road. Construct train viewing pullout along road.
Grade Crossing	968B	T42N, R69W, NE Sec. 6	This road crossing was not identified in the DEIS.
Decommission 0.9 mile	943A1	T42N, R69W, W1/4 Sec. 18	This road was not identified in the DEIS. This road will not be needed after RR is built.
New road. Low standard	1111	T42N, R69W, NW Sec. 29	The RR crossing of this road was not identified in the DEIS.

for 0.4 miles			New road on east side of track to link both ends of 1111.
Decommission 0.25 miles	1111	T42N, R69W, NW Sec. 29	This is the portion of 1111 that is cut off by the RR.
Grade Crossing	1112A	T42N, R69W, NW Sec. 29	This crossing was not identified in the DEIS. Links road system on east side of tracks to 1111.
Reconstruct road 1,100' to west. 0.5 miles of new gravel surfaced road.	1618	T42N, R69W, Sec. 32	Move intersection of this road with the Piney Canyon Rd to the west side of RR to avoid need for road crossing of RR.
Decommission 0.4 miles	1618	T42N, R69W, Sec. 32	Relocation and construction of 1618 above, combined with RR impact negates need for this road segment.
Decommission 0.8 miles	1112D	T41N, R69W, SE Sec. 6	RR will obliterate access potential of this road.
Reclaim	Gravel Pit	T41N, R69W, SE Sec. 6	Loss of NFS road 1112D from RR negates access to gravel pit.
Underpass	1618	T41N, R69W, NE Sec. 8	This crossing was not identified in the DEIS.
Reconstruct closed two track road		T41N, R69W, NE Sec. 8	Road access to wildlife exclosures from 1112D eliminated due to RR. Reopen old two tract off 1618, east of RR tracks, for 0.3 mi.
Grade Crossing	973	T41N, R69W, SE Sec. 17	Phillips road crossing identified in DEIS.
Reroute road to east side of tracks	1618	T41N, R69W, SE Sec. 17	DEIS did not identify need reroute 1618 to avoid grade crossing. 0.25 miles new two track road.
Underpass	943M	T41N, R69W, SE Sec. 30	Identified in DEIS as a private road crossing. Move road 200' to north, reroute road to underpass, decommission about 0.25 mi of old road. Noise mitigation for critical elk

			winter habitat.
Decommission 0.3 miles	943L	T41N, R69W, SW Sec. 30	No FS ROW thru private land. NFS road 943M provides access to this area of TBNG.
Grade Crossing	943C	T41N, R70W, NW Sec. 35	This crossing was not identified in the DEIS.
Move existing County Road	Converse County Road 37	T40N, R70/71W	RR appears to be on top of Converse County Road 37 – Paved Road. Main access to southern mines.
Decommission 0.8 miles	1108D	T43N, R70 W, NE Sec. 23	RR will negate access this road provides to NFS lands.
Grade Crossing	1108	T43N, R70W, NE Sec. 14	This crossing was not identified in the DEIS. Some segments of 1108 on west side of RR may need relocated further west.

Thunder Basin NG Road Summary

National Forest System Road Underpasses not identified in DEIS:

- NFS road 1255J (66" CMP identified)
- NFS road 1618
- NFS road 943M

National Forest System Road Overpass not identified in DEIS:

- NFS road 1255I (no road crossing id'd at this location)

National Forest System Road Grade Crossings not identified in DEIS:

- NFS road 1267A
- NFS road 1267C
- NFS road 968B
- NFS road 1112A
- NFS road 943C
- NFS road 1108

National Forest System Roads identified as private roads in DEIS:

- NFS road 1258A
- NFS road 1258BA

NFS road 1110B

NFS road 968C

Total listing of NFS Road Crossings on TBNG:

NFS road 1255J – Underpass	NFS road 968C - Grade
NFS road 1255I – Overpass	NFS road 968B - Grade
NFS road 1258A – Grade	NFS road 1112A - Grade
NFS road 1258BA – Grade	NFS road 1618 - Underpass
NFS road 1257C – Grade	NFS road 973 - Grade
NFS road 1267A – Grade	NFS road 943M - Underpass
NFS road 1267C – Grade	NFS road 943C - Grade
NFS road 1110B – Grade	NFS road 1108 – Grade

Estimated miles of level 2 roads (low standard) to be decommissioned = 4.85

Estimated miles of level 3 roads (gravel surface) to be decommissioned = 0.65

Estimated miles of level 2 roads to construct = 2.55

Estimated miles of level 3 roads to construct = 2.5

Additional estimated road mitigation costs not identified in DEIS for NFS roads on TBNG:

Underpasses (11'x11') est. \$20,000 ea x 3 = \$60,000

Overpass (single lane) est. \$50,000 ea x 1 = \$50,000

Grade Crossings (incl 2 cattleguards ea) est. \$15,000 ea x 6 = \$90,000

Level 2 road decommissioning (reclaim/reveg) est. \$2,000/mi x 4.85 = \$9,700

Level 3 road decommissioning est. \$4,500/mi x 0.65 = \$2,925

Level 2 road construction est. \$4,000/mi x 2.55 = \$10,200

Level 3 road construction est. \$20,000/mi x 2.5 = \$50,000

Gravel pit reclamation lump est. \$10,000

Total additional road mitigation costs = \$282,825

Buffalo Gap National Grassland

The IDT team for this RAP was comprised of specialists who work on the Thunder Basin National Grassland and do not have a good understanding of the road system on the Buffalo Gap National Grassland. Regardless, the road related issues, assessment of effects, and recommendations should generally address the BGNG road concerns. Resource Specialists from the BGNG will review this RAP and adopt this analysis, or revise it if needed, to meet their particular situation. This IDT does recommend the following general direction to be specifically applied to all NFS roads on the BGNG:

- Provide grade crossings or over/under passes at all NFS roads listed in the DEIS for the BGNG.
- Apply all other recommendations in this RAP report for the TBNG to the BGNG.

ROAD RELATED ISSUES

The Roads Analysis Process requires the identification of road related issues to be used in responding to the questions in the Assessment of Effects section. The IDT identified the following road related issues:

The Railroad Will:

- Fragment, disrupt and limit the existing road access and road use onto and through the affected National Grasslands.
- Create impacts to the use of the existing road system during construction and subsequent operations of the railroad.
- Increase public safety concerns.
- Fragment habitat and disrupt habitat use by wildlife due to needed new roads and decommissioning of existing roads.

ASSESSMENT OF EFFECTS

To assess the effects of roads in the analysis area, the process described in Step 4 and Appendix 1 in "Roads analysis: informing decisions about managing the National Forest transportation system" (USFS, 1999a) was used. The Region 2 Roads Analysis Guidance package (USFS, 2000) provided additional guidance in addressing these questions.

ECOSYSTEM FUNCTIONS AND PROCESSES (EF)

EF1: What ecological attributes, particularly those unique to the region, would be affected by roading of currently unroaded areas?

Not applicable – Forest-Scale RAP issue.

EF2: To what degree do the presence, type, and location of roads increase the introduction and spread of exotic plant and animal species, insects, diseases, and parasites? What are the potential effects of such introductions to plant and animal species and ecosystem function in the area?

- 1) To a minor degree.
- 2) Minor – no additional threats above the current condition.

EF3: How does the road system affect ecological disturbance regimes in the area?

Soil erosion and wildfires are the predominant ecological disturbance regimes in the area. Roads have little to no measurable effects to these ecological disturbance regimes.

EF4: To what degree does the presence, type, and location of roads contribute to the control of insects, diseases, and parasites?

All existing road provide access for these control needs.

EF5: What are the adverse effects of noise caused by developing, using, and maintaining roads?

- 1) Noise is a negligible impact for most road development, use and maintenance.
- 2) Road crossings on the railroad will create the need for train whistle blowing which will impact recreationists seeking quite and solitude on public lands and will effect bird nesting, animal breeding, and critical winter range. Mitigation to some wildlife and semi-primitive settings will be required.

AQUATIC, RIPARIAN ZONE, AND WATER QUALITY (AQ)

AQ1: How and where does the road system modify the surface and subsurface hydrology of the area?

The existing road system has a negligible effect to modifying the surface and subsurface hydrology of the area.

AQ2: How and where does the road system generate surface erosion?

In areas of steeper road grades and poor soils. Few steep road grades exist and the road system causes limited surface erosion compared to the landscape of this area as a whole. Most roads are low standard with low use levels.

AQ3: How and where does the road system affect mass wasting?

There are no known road related mass wasting in the analysis area.

AQ4: How and where do road-stream crossings influence local stream channels and water quality?

Where low standard roads cross streams with unarmored, low water crossings. Few of these exist across perennial streams. Coal Bed Methane discharge water upstream on

Little Thunder Creek has recently increased the number of these crossings that cause use and resource concerns.

AQ5: How and where does the road system create potential for pollutants, such as chemical spills, oils, deicing salts, or herbicides, to enter surface waters?

Only at road/stream crossings from vehicles transporting such materials.

AQ6: How and where is the road system “hydrologically connected” to the stream system? How do the connections affect water quality and quantity?

- 1) Road system is hydrologically connected to the stream system at stream crossings and adjacent road ditch diversions.
- 2) These connections have minimal effect to the water quality and quantity.

AQ7: What downstream beneficial uses of water exist in the area? What changes in uses and demand are expected over time? How are they affected or put at risk by road-derived pollutants?

- 1) Downstream beneficial uses of water are primarily: livestock, wildlife habitat, and water rights for irrigation.
- 2) Uses and demands for downstream water are slowly increasing.
- 3) Road derived pollutants have a minimal affect at putting these uses at risk.

AQ8: How and where does the road system affect wetlands?

Road system affects wetlands where roads are adjacent to wetlands from minor sediment introduction.

AQ9: How does the road system alter physical channel dynamics, including isolation of floodplains, constraints on channel migration, and the movement of large wood, fine organic matter, and sediment?

The current road system is having minimal to no effect on altering the physical channel dynamics.

AQ10: How and where does the road system restrict the migration and movement of aquatic organisms? What aquatic species are affected and to what degree?

The road system is having minimal to no effect on restricting the migration and movement of aquatic organisms. Such organisms consist of fresh water minnows and aquatic invertebrates.

AQ11: How does the road system affect shading, litterfall, and riparian plant communities?

No effect.

AQ12: How and where does the road system contribute to fishing, poaching, or direct habitat loss for at-risk aquatic species?

No effect.

AQ13: How and where does the road system facilitate the introduction of non-native aquatic species?

No effect.

AQ14: To what extent does the road system overlap with areas of exceptionally high aquatic diversity or productivity or areas containing rare or unique aquatic species of species of interest?

Not applicable.

TERRESTRIAL WILDLIFE (TW)

TW1: What are the direct effects of the road system on terrestrial species habitat?

Habitat fragmentation of nesting sage grouse.

TW2: How does the road system facilitate human activities that affect habitat?

Road system provides access for hunting, grazing, oil and gas developments, recreation, and fire suppression.

TW3: How does the road system affect legal and illegal human activities? What are the effects on wildlife species?

The road system provides access for legal and illegal human activities. These effects are both beneficial for legal activities and detrimental to a small degree for illegal activities.

TW4: How does the road system directly affect unique communities or special features in the area?

The road system facilitates the spread of black tailed prairie dogs.

ECONOMICS (EC)

EC (1): How does the road system affect the agency's direct costs and revenues? What, if any, changes in the road system will increase net revenue to the agency by reducing cost, increasing revenue, or both?

The road system reduces administrative costs by reducing the time to access areas for land management purposes. The road system increases the net revenue to the government by providing access to the many producing facilities that extract federal minerals. Reducing the road miles on the road system to a minimal level needed will not reduce road maintenance costs but will allow more efficient use of these funds.

EC (2): How does the road system affect the priced and non-priced consequences included in economic efficiency analysis used to assess net benefits to society?

Forest – Scale RAP question.

EC (3): How does the road system affect the distribution of benefits and costs among affected people?

Forest – Scale RAP question.

COMMODITY PRODUCTION (TM, MM, RM)

Timber Management

TM1: How does the road spacing and location affect logging system feasibility?

Not applicable

TM 2-3: How does the road system affect managing the suitable timber base and other lands? How does the road system affect access to timber stands needing silvicultural treatment?

Not applicable.

MINERALS MANAGEMENT

MM1: How does the road system affect access to locatable, leasable, and salable minerals?

The road system facilitates access for exploration and development. Many of the roads on the Thunder Basin NG have been improved through mineral developments.

RANGE MANAGEMENT

RM1: How does the road system affect access to range allotments?

The road system provides access to the many range facilities on the allotments, and improves range management efficiency.

WATER PRODUCTION (WP)

WP1: How does the road system affect access, constructing, maintaining, monitoring, and operating water diversions, impoundments, and distribution canals or pipes.

The road system provides access to windmills, stockponds, and water and soil improvement impoundments.

WP2: How does road development and use affect water quality in municipal watersheds?

Not applicable.

WP3: How does the road system affect access to hydroelectric power generation?

Not applicable.

SPECIAL FOREST PRODUCTS (SP)

SP1: How does the road system affect access for collecting special forest products?

There are few special forest products other than invertebrate fossils. The road system provides access to significant vertebrate fossils where illegal thefts of these resources may be occurring.

SPECIAL USE PERMITS (SU)

SU1: How does the road system affect managing special-use permit sites (concessionaires, communication sites, utility corridors, and so on?)

The road system provides access to many oil and gas developments and pipelines. This system improves efficiency in managing these facilities, and in protecting soil, water, and wildlife resources by keeping vehicles on these roads.

GENERAL PUBLIC TRANSPORTATION (GT)

GT1: How does the road system connect to public roads and provide primary access to communities?

The road system provides little primary access to communities but it does connect with state highways and county roads.

GT2: How does the road system connect large blocks of land in other ownership to public roads?

The road system provides access to and through the Thunder Basin NG, which consists of a fragmented landownership that includes private and state lands.

GT3: How does the road system affect managing roads with shared ownership or with limited jurisdiction? (RS2477, cost share, prescriptive rights, FLPMA easements, FRTA easements, DOT easements)

The road system is in need of Forest Service ROW's in many places where it crosses private and state lands.

GT4: How does the road system address the safety of road users?

Most roads are low standard and low speed. Most of the major NFS roads are in need of warning signs and improved standards and signing at cattleguards. Railroad crossings will require standard legal crossing signage.

ADMINISTRATIVE USE (AU)

AU1: How does the road system affect access needed for research, inventory, and monitoring?

Road system allows adequate access for these uses.

AU2: How does the road system affect investigative or enforcement activities?

Provides adequate access for these activities.

PROTECTION (PT)

PT1: How does the road system affect fuels management?

The road system provides good access for fuels management and also provides firebreaks for prescribed burns.

PT2: How does the road system affect the capacity of the Forest Service and cooperators to suppress wildfires?

The road system provides good access for Forest Service and cooperator wildfire suppression.

PT3: How does the road system affect risk to firefighters and to public safety?

The road system creates very little risk to firefighters and to public safety. The railroad will increase access time for fire suppression activities from the current situation, and somewhat increase the risk to firefighters and public safety.

PT4: How does the road system contribute to airborne dust emission resulting in reduced visibility and human health concerns?

The current road system contributes very little to airborne dust emissions due to relatively low use on these roads. Use has been slowly increasing and the railroad construction has the potential to increase use on some roads significantly.

RECREATION (UR, RR)

Unroaded Recreation

UR1: Is there now or will there be in the future excess supply or excess demand for unroaded recreation opportunities?

Not applicable to this project.

UR2: Is developing new roads into unroaded areas, decommissioning of existing roads, or changing the maintenance of existing roads causing substantial changes in the quantity, quality, or type of unroaded recreation opportunities?

Not applicable to this project.

UR3: What are the adverse effects of noise and other disturbances caused by developing, using, and maintaining, on the quantity, quality, and type of unroaded recreation opportunities?

Not applicable to this project.

UR4: Who participates in unroaded recreation in the areas affected by constructing, maintaining, and decommissioning roads?

Very few people participate in unroaded recreation in this area. Some cross country hiking, especially in the form of hunting occurs.

UR5: What are these participants' attachment to the area, how strong are their feelings, and what are alternative opportunities and locations available?

Most of the current and past users of the area are local residents and they usually have a strong attachment to the area.

Road-Related Recreation (RR)

RR1: Is there now or will there be in the future excess supply or excess demand for roaded recreation opportunities?

Not applicable. There will be no significant changes to these opportunities.

RR2: Is developing new roads into unroaded areas, decommissioning of existing roads, or changing maintenance of existing roads causing substantial changes in the quantity, quality, or type of roaded recreation opportunities?

No.

RR3: What are the adverse effects of noise and other disturbances caused by constructing, using, and maintaining roads on the quantity, quality, or type of roaded recreation opportunities?

Negligible.

RR4: Who participates in roaded recreation in the areas affected by road construction, changes in road maintenance, or road decommissioning?

Most of the users of the area.

RR5: What are these participants' attachments to the area, how strong are their feelings, and are alternative opportunities and locations available?

Most of the current and past users of the area are local residents and they usually have a strong attachment to the area.

PASSIVE USE VALUE, SOCIAL ISSUES, CIVIL RIGHTS, AND ENVIRONMENTAL JUSTICE (PV,SI,CR)

PV3: What, if any, groups of people (ethnic groups, subcultures, and so on) hold cultural, symbolic, spiritual, sacred, traditional, or religious values for areas planned for road entry or road closure?

None specifically known, and if they exist, the project is minimizing road closures into the analysis area.

PV1: Do areas planned for road building, closure, or decommissioning have unique physical or biological characteristics, such as unique natural features and threatened or endangered species?

Significant paleontological and archeological resources exist in some of the area. Black tailed prairie dogs, sage grouse, mountain plover, raptor nesting, neotropical migratory songbird nesting, crucial winter elk range also exist in the area.

PV2: Do areas planned for road building, closure, or decommissioning have unique cultural, traditional, symbolic, sacred, spiritual, or religious significance?

None specifically known. Cultural resource surveys are on-going.

PV4: Will building, closing,, or decommissioning roads substantially affect passive-use values?

Not likely.

SI2: What are people's perceived needs and values for access? How does road management affect people's dependence on, need for, and desire for access?

Most of the historic users of the area have a high perceived need for motorized vehicle access. Forest Service signing of roads has a great effect at identifying access and reducing trespass onto adjacent private lands.

SI1: What are people's perceived needs and values for roads? How does road management affect people's dependence on, need for, and desire for roads?

Most of the historic users of the area have a high perceived need for roads.

SI3: How does the road system affect access to paleontological, archaeological, and historic sites?

The road system provides good access to many significant such resources, and increases the risk of these resources to theft and vandalism.

SI4: How does the road system affect cultural and traditional uses (such as plant gathering, and access to traditional and cultural sites) and American Indian Treaty Rights?

The road system provides adequate access for these uses.

SI5: How are roads that constitute historic sites affected by road management?

There are no recorded roads that are historic sites.

SI6: How are community social and economic health affected by road management (for example, lifestyles, businesses, tourism industry, infrastructure maintenance)?

The road system supports these social and economic benefits to local communities.

SI7: What is the perceived social and economic dependency of a community on an unroaded area versus the value of that unroaded area for its intrinsic existence and symbolic values?

Not applicable.

SI8: How does road management affect wilderness attributes, including natural integrity, natural appearance, opportunities for solitude, and opportunities for primitive recreation?

The high number of low standard roads helps to maintain naturally appearing intrinsic values and primitive types of recreation opportunities, although with low speed motorized access. This area provides a feeling of vastness with limited human developments. The proposed railroad will convert much of the area to the Urban end of the ROS classification.

SI9: What are traditional uses of animal and plant species in the area of analysis?

Livestock grazing is a predominant authorized use of the area. Hunting is a predominant recreation use of the area.

SI10: How does road management affect people's sense of place?

Maintaining a good network of low standard roads for motorized access is an important value to maintain people's sense of place.

CR1: How does the road system, or its management, affect certain groups of people (minority, ethnic, cultural, racial, disabled, and low-income groups)?

No effects are anticipated.

ROAD RELATED OPPORTUNITIES/RECOMMENDATIONS

This NFMA analysis identifies the opportunities for management actions to be considered in DM&E Railroad EIS NEPA analyses. The following summarizes high priority opportunities and recommendations to move the existing condition toward the desired condition. Some aspects of these opportunities and recommendations may not be adequately analyzed in the EIS and will require additional detailed analysis in separate NEPA analyses. The following opportunities are consistent with Forest Plan direction:

The following additional Forest Service road related requirements were identified by the IDT to be included in the DM&E RR EIS mitigation section:

- The DM&E Railroad will work with the Forest Service prior to construction activities to develop a plan for the development and authorization of roads needed for construction, and roads needed for access to the rail line.
- The construction and decommissioning of roads identified in this Roads Analysis will be required of the DM&E Railroad by the Forest Service concurrent with the construction of the railroad line.
- Use of existing roads and construction of new roads across National Forest System lands will require a Special Use Permit issued to the DM&E Railroad. Use of these National Forest System roads will require an assessment by the Forest Service as to the level, amount and types of use, and will determine the standard to which the roads must be maintained by the DM&E Railroad.

- Any commercial use of National Forest System roads by vehicles over 26,000 GVW requires a Road Use Permit.
- The DM&E Railroad must submit one (1) Special-Use Permit Application for any and all NFS roads they plan to use for construction and operations. The Forest Service will not issue permits to individual contractors for DM&E. Such application must be received by the Forest Service at least eight (8) months prior to anticipated road use needs by the proponent, to provide the Forest Service adequate time to complete environmental analyses for the road use requests.
- All concrete underpasses for livestock, roads, and wildlife must be a minimum dimension of 11 feet by 11 feet, with a natural dirt bottom, to realistically facilitate animal and vehicle passage.
- The Forest Service will locate, on-the-ground, all new roads identified for construction by the proponent prior to proponent construction. The Forest Service will also locate on-the-ground all road segments to be decommissioned by the proponent, and will specify the specific decommissioning and revegetation techniques to be used by the proponent.
- The Forest Service will determine drainage structure needs and design standards for all new roads the proponent is responsible for constructing.
- The proponent will be responsible for all the costs associated with constructing and decommissioning NFS roads to Forest Service standards. The proponent will also be responsible for the Forest Service administrative costs to oversee the required road mitigations.
- Road access on NFS roads across the railroad ROW to public lands will remain open at all times to the public and Forest Service during and after railroad construction. The U. S. Forest Service will retain all easements on all National Forest System roads across, under, and over the railroad ROW.
- All appropriate, and legally required, safety standards will be required of DM&E to any new roads and/or road crossings, such as proper signage, warning systems, and whistle-blowing. Required maintenance of NFS roads used by DM&E will be done to Forest Service road maintenance standards.
- Cattleguards will be required to be installed by DM&E on all railroad ROW fences at road ROW crossings. A gate will also be required on the fencelines adjacent to the cattleguard. The Forest Service will determine the cattleguard and fence standards. DM&E will be required to annually maintain the cattleguards and gates to Forest Service standards.
- All current 36 CFR 261 restrictions will be applicable to the proponent and their contractors and sub-contractors unless they are specifically authorized in writing otherwise.

FEDERAL LAND POLICY AND MANAGEMENT ACT OF 1976

PRINCIPLE LAWS RELATING TO FOREST SERVICE ROAD MANAGEMENT

TITLE V – RIGHTS-OF-WAY

Section 501

Section 503 – Rights-of-Way Corridors

Section 504 – General Provisions

Section 505 – Terms and Conditions

NATIONAL FOREST ROADS AND TRAILS ACT

HIGHWAY SAFETY ACT

FOREST AND RANGELAND RENEWABLE RESOURCES PLANNING ACT

Section 10 – Transportation system

PRINCIPLE REGULATIONS PERTAINING TO FOREST SERVICE ROAD MANAGEMENT

36 CFR 261.10 (a) – Constructing, placing, or maintaining any kind of road, trail, structure, fence, enclosure, communication equipment, or other improvement on National Forest System land or facilities without a special-use authorization, contract, or approved operating plan.

36 CFR 261.12 (c) – Damaging and leaving in a damaged condition any such road, trail or segment thereof.

36 CFR 261.12 (d) – Blocking, restricting, or otherwise interfering with the use of a road, trail, or gate.

36 CFR 261.54 (c) – Using a road for commercial hauling without a permit or written authorization.

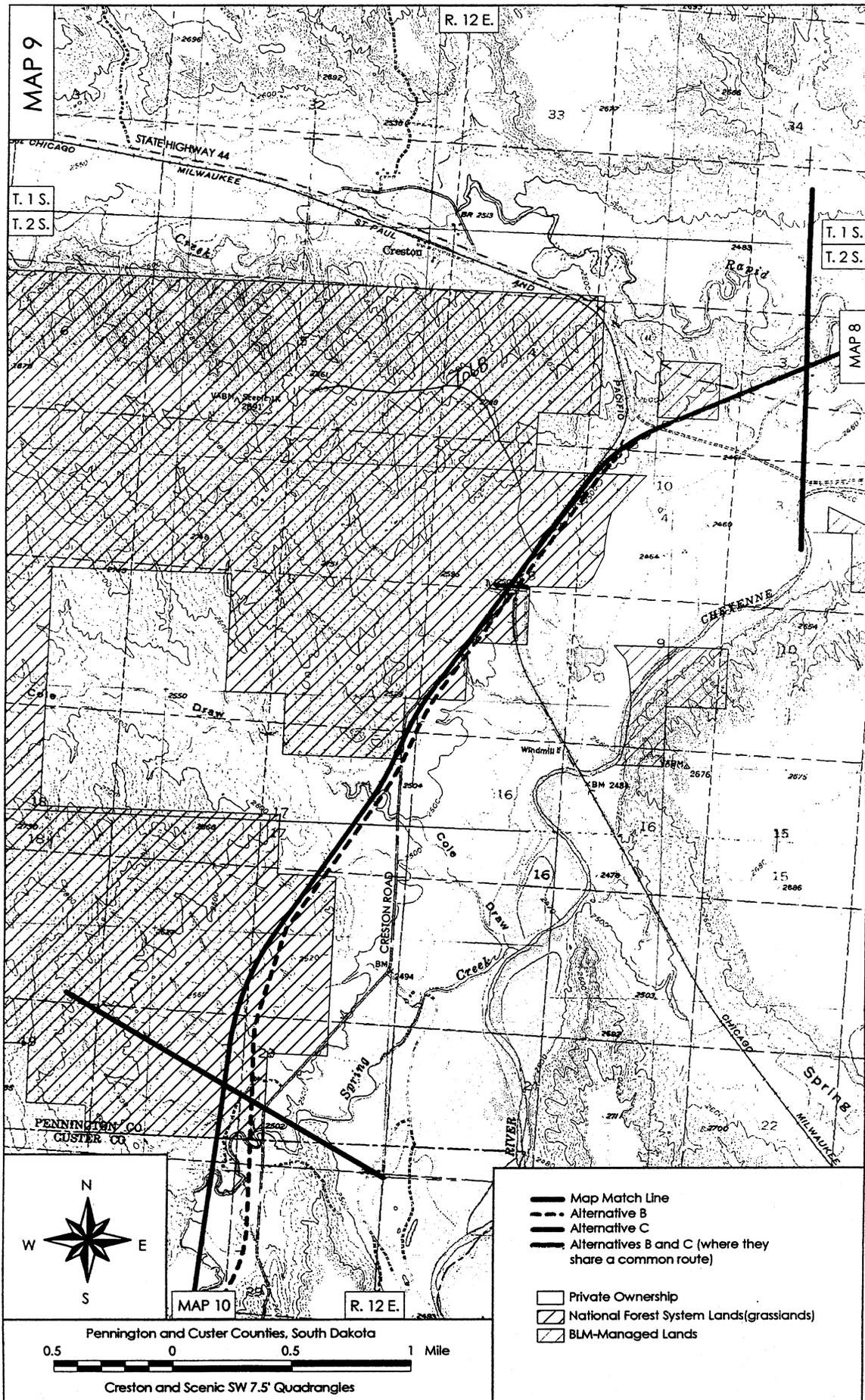
36 CFR 261.54 (d) – Operating a vehicle in violation of the speed, load, weight, height, length, width, or other limitations specified by the order. (26,000 gvw)

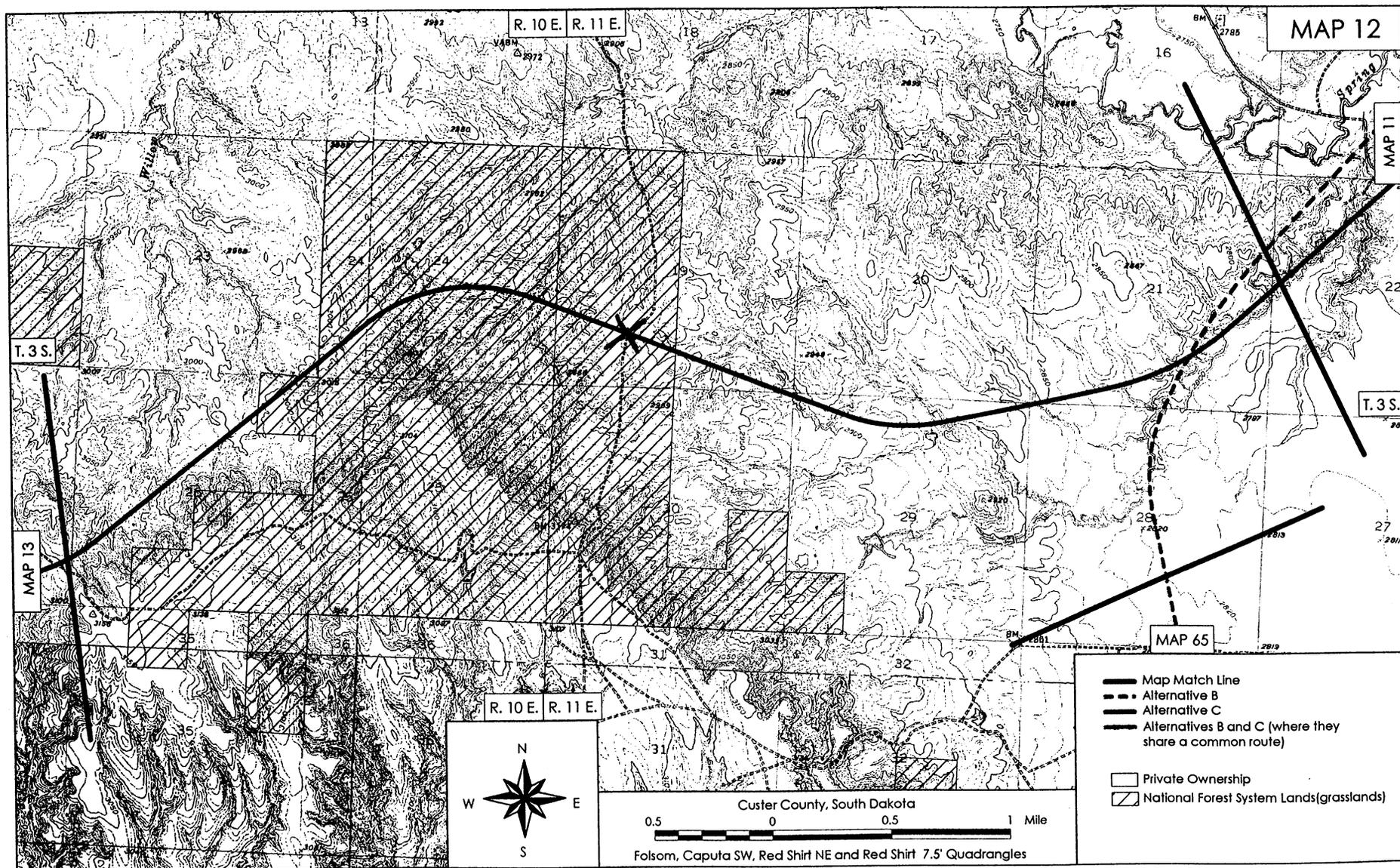
36 CFR 212 – ADMINISTRATION OF THE FOREST TRANSPORTATION SYSTEM

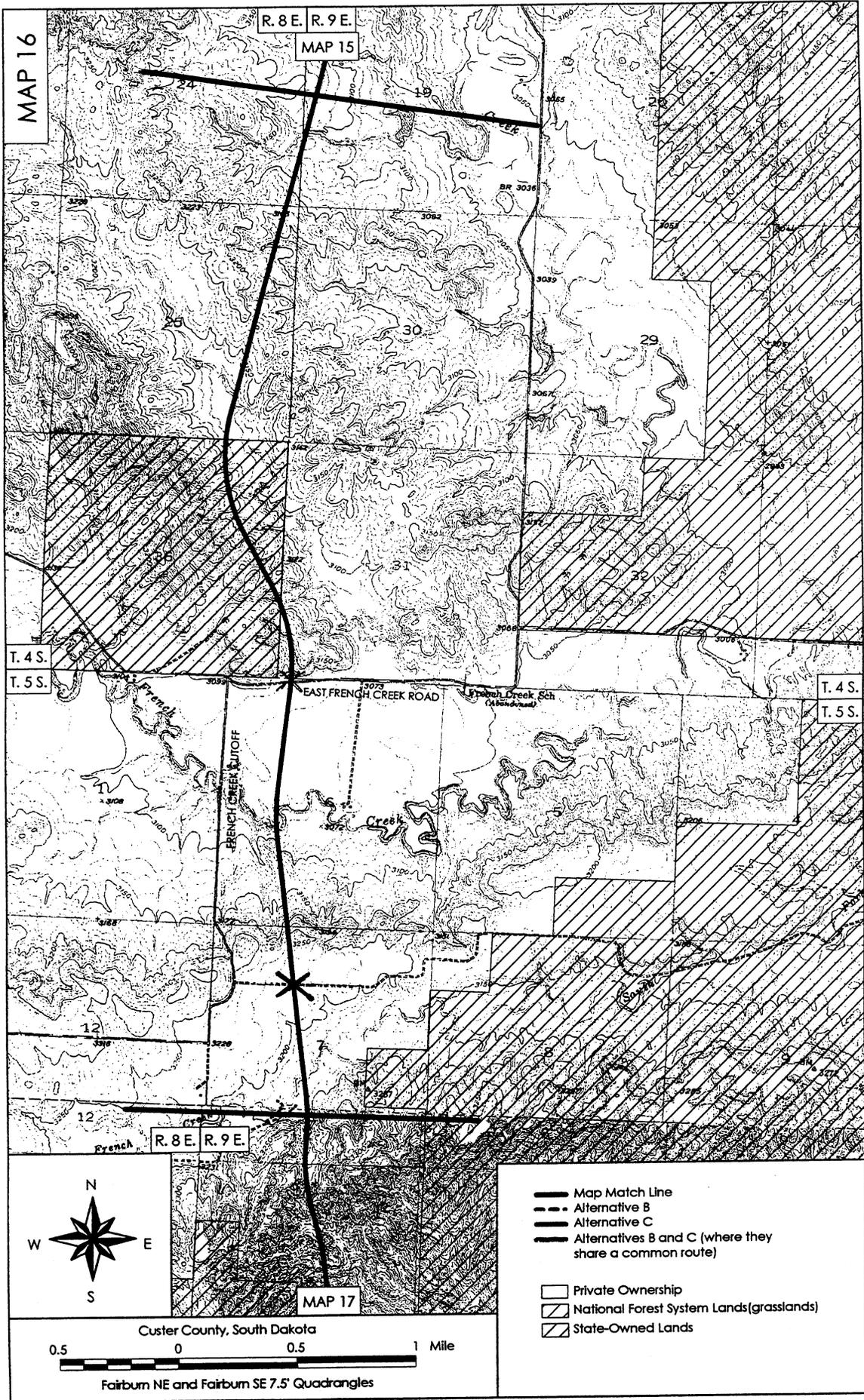
Rob Schmitzer

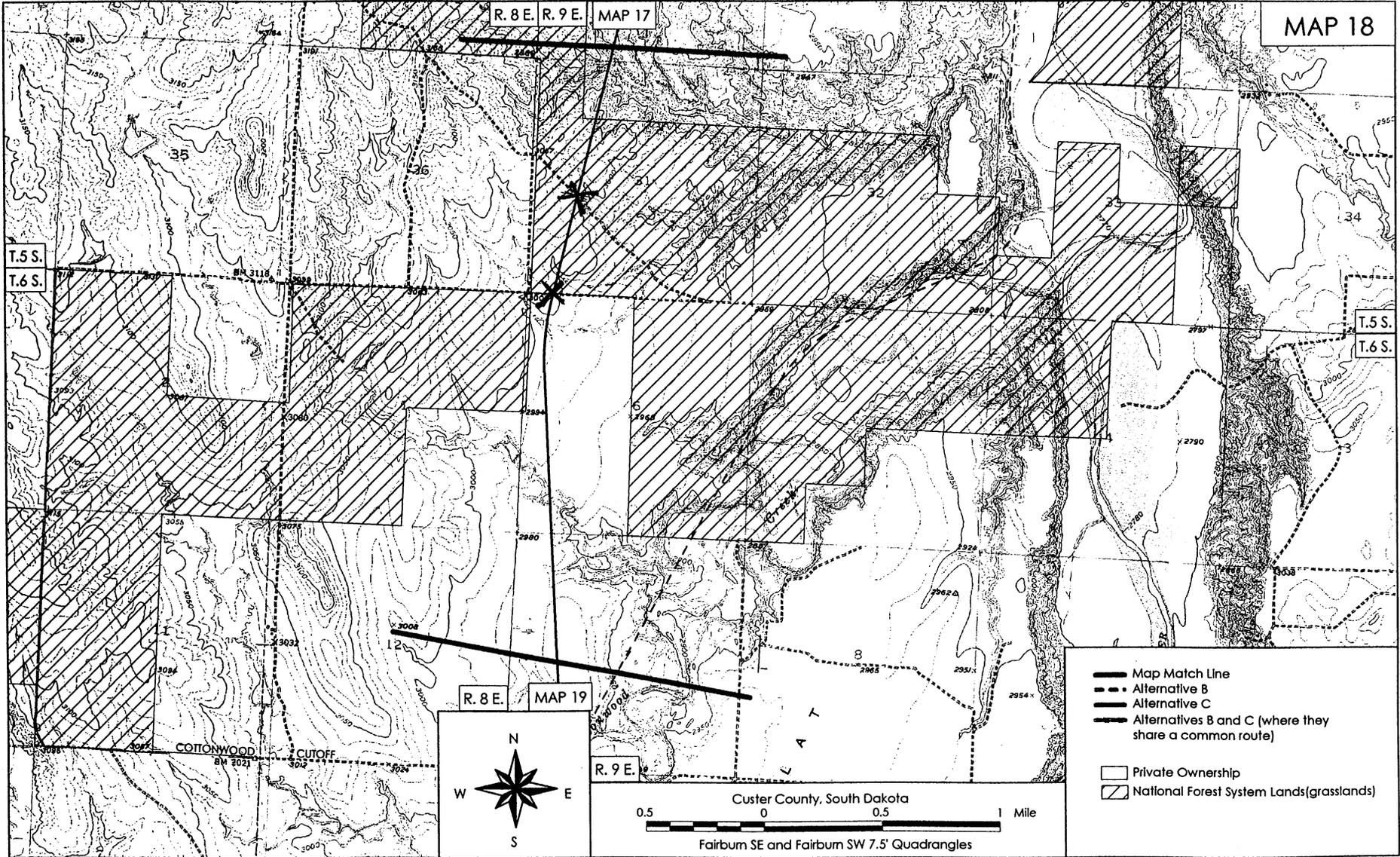
Douglas District Recreation/Engineering Staff Leader

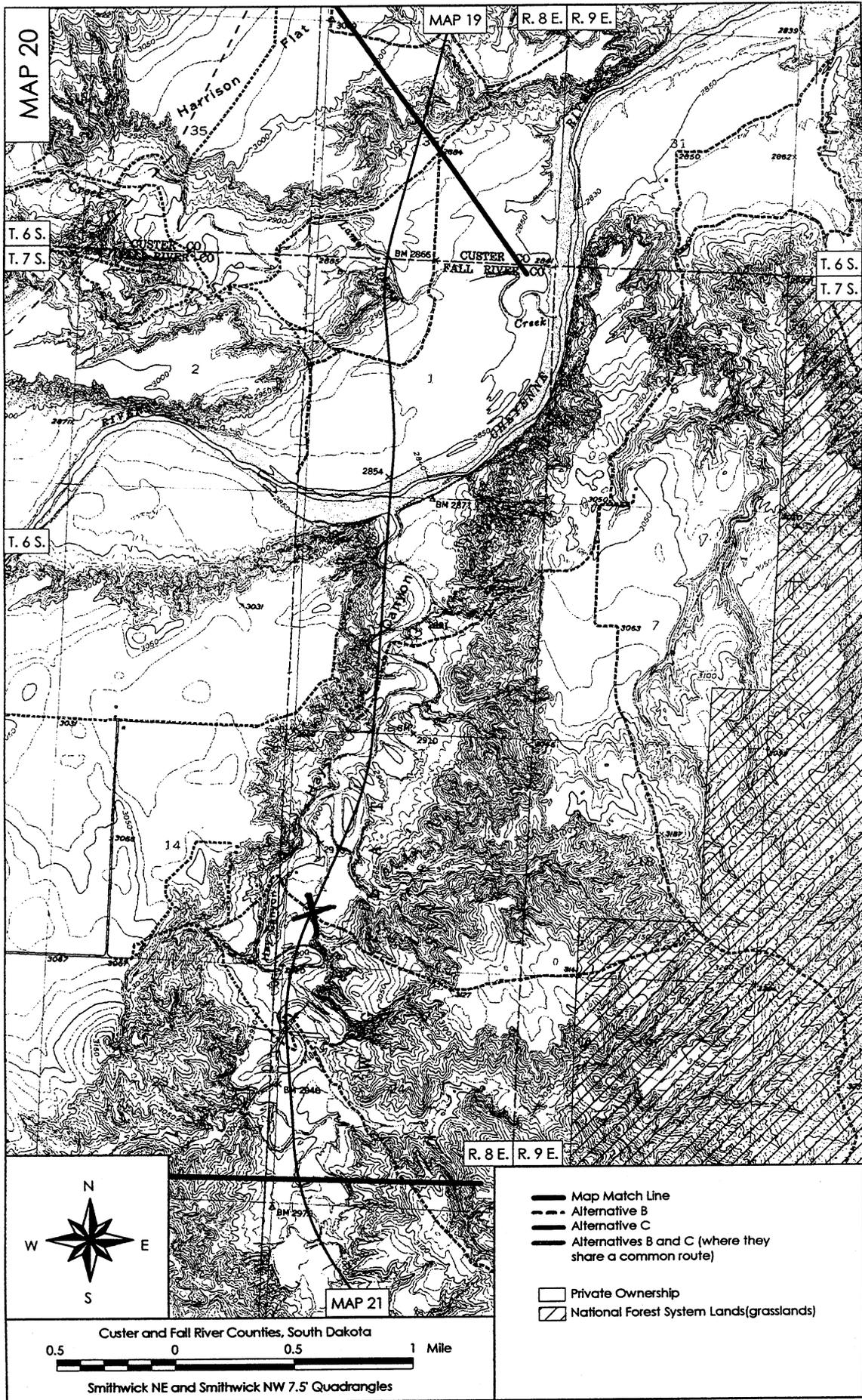
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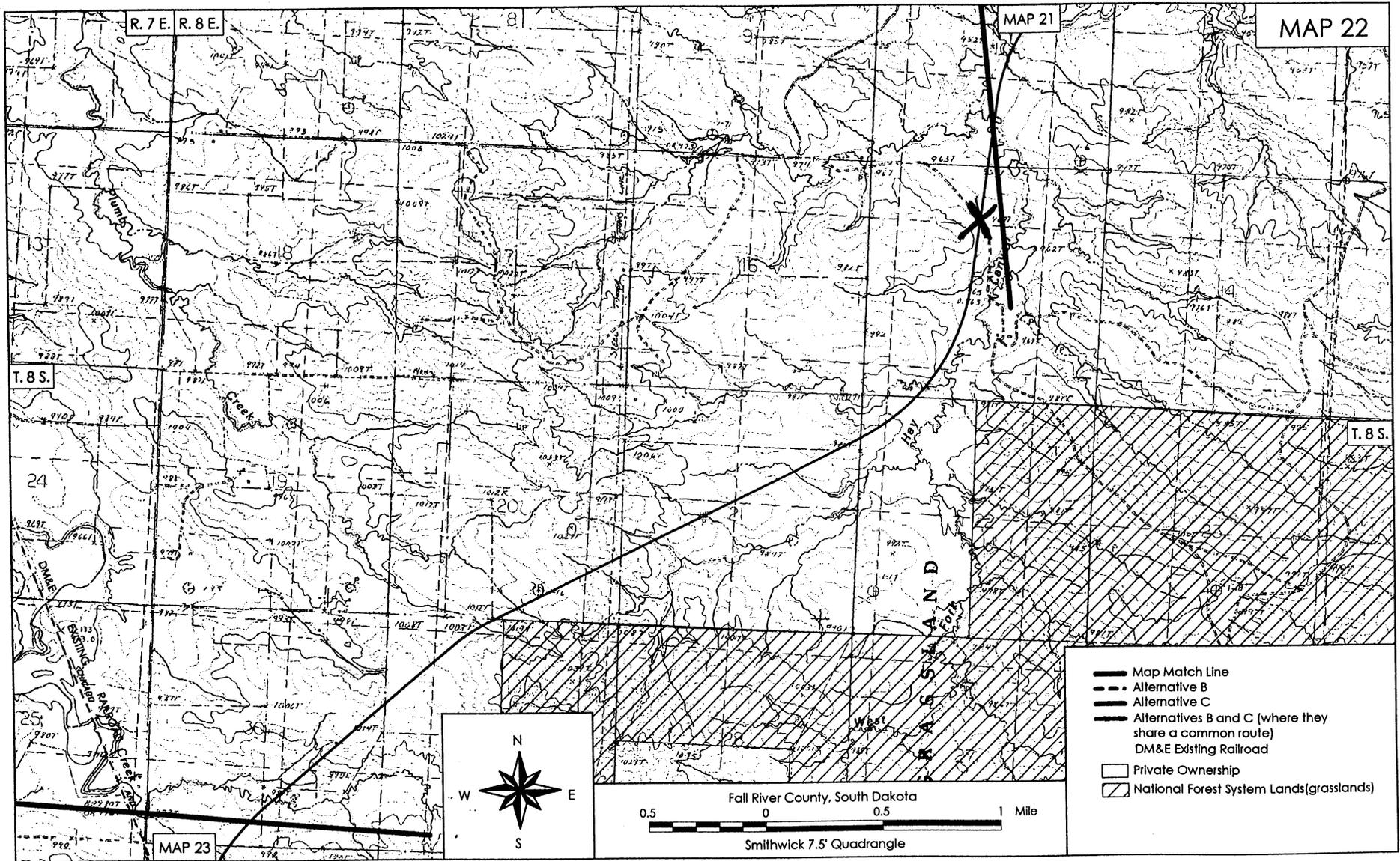












R. 7 E. R. 8 E.

MAP 21

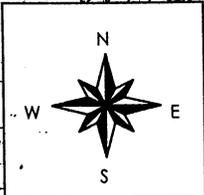
MAP 22

T. 8 S.

T. 8 S.

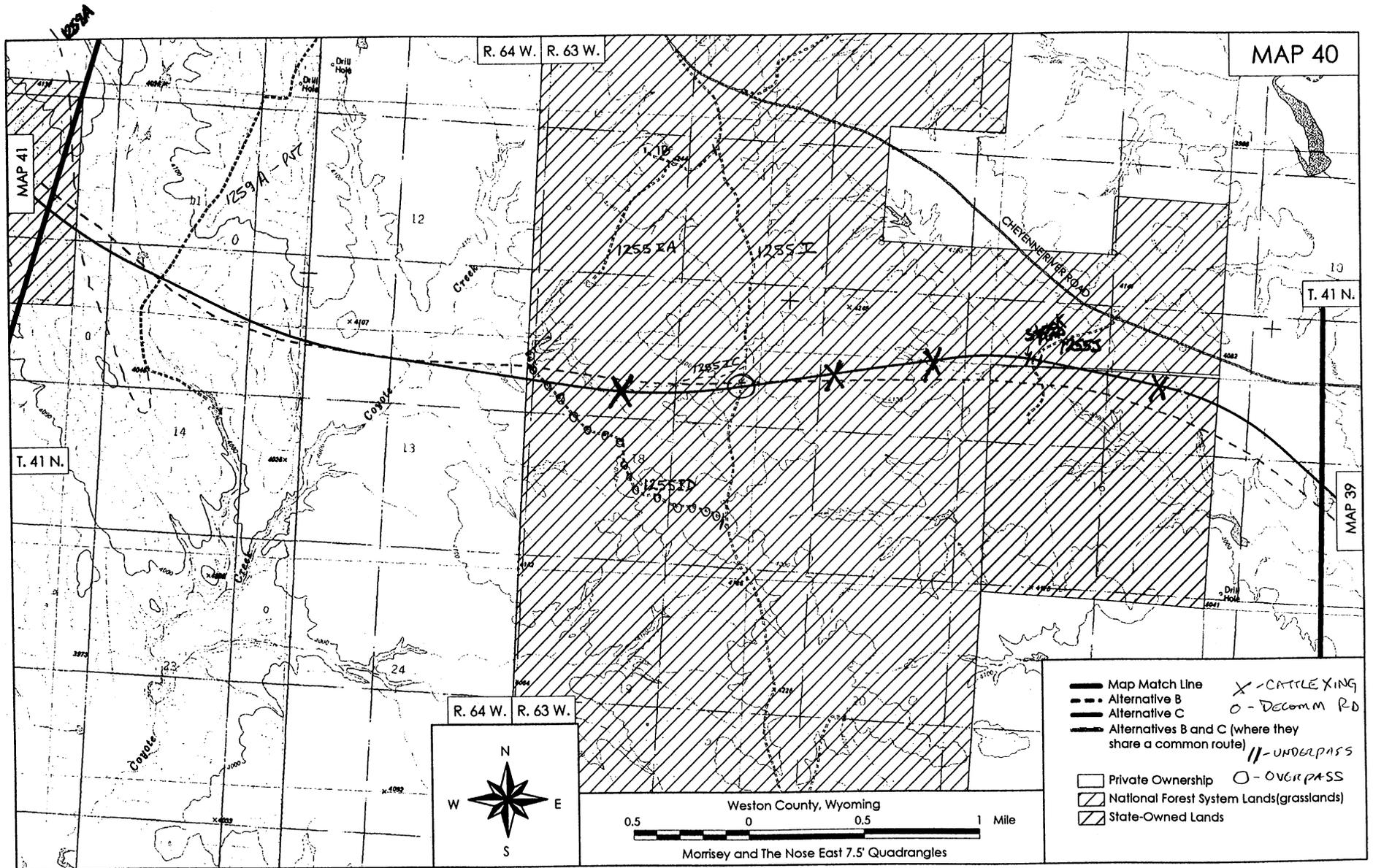
MAP 23

- Map Match Line
- - - Alternative B
- Alternative C
- Alternatives B and C (where they share a common route)
- DM&E Existing Railroad
- Private Ownership
- ▨ National Forest System Lands (grasslands)



Fall River County, South Dakota
 0.5 0 0.5 1 Mile

Smithwick 7.5' Quadrangle

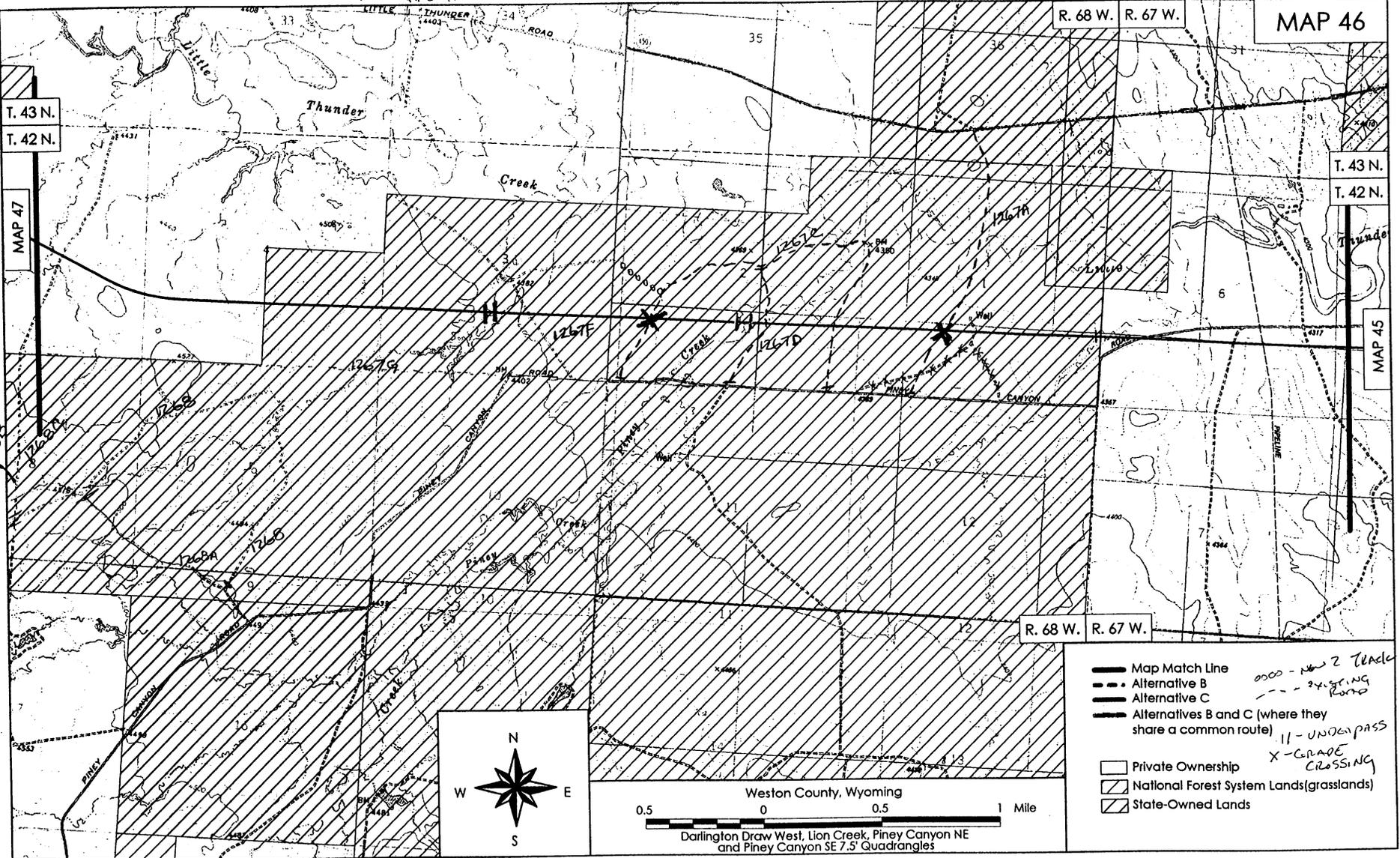


*WEST AREA
NFS (ROAD 930 (at sink)
AND HWY 450*

MAP 46

R. 68 W. R. 67 W.

R. 68 W. R. 67 W.



- Map Match Line
 - - - Alternative B
 - Alternative C
 - Alternatives B and C (where they share a common route)
 - Private Ownership
 - ▨ National Forest System Lands (grasslands)
 - ▩ State-Owned Lands
- 0000 - New 2 track
--- 24' SPACING
ROAD
11 - UNOPEN PASS
X - GRADE CROSSING*

0.5 0 0.5 1 Mile

Darlington Draw West, Lion Creek, Piney Canyon NE and Piney Canyon SE 7.5' Quadrangles

I-30

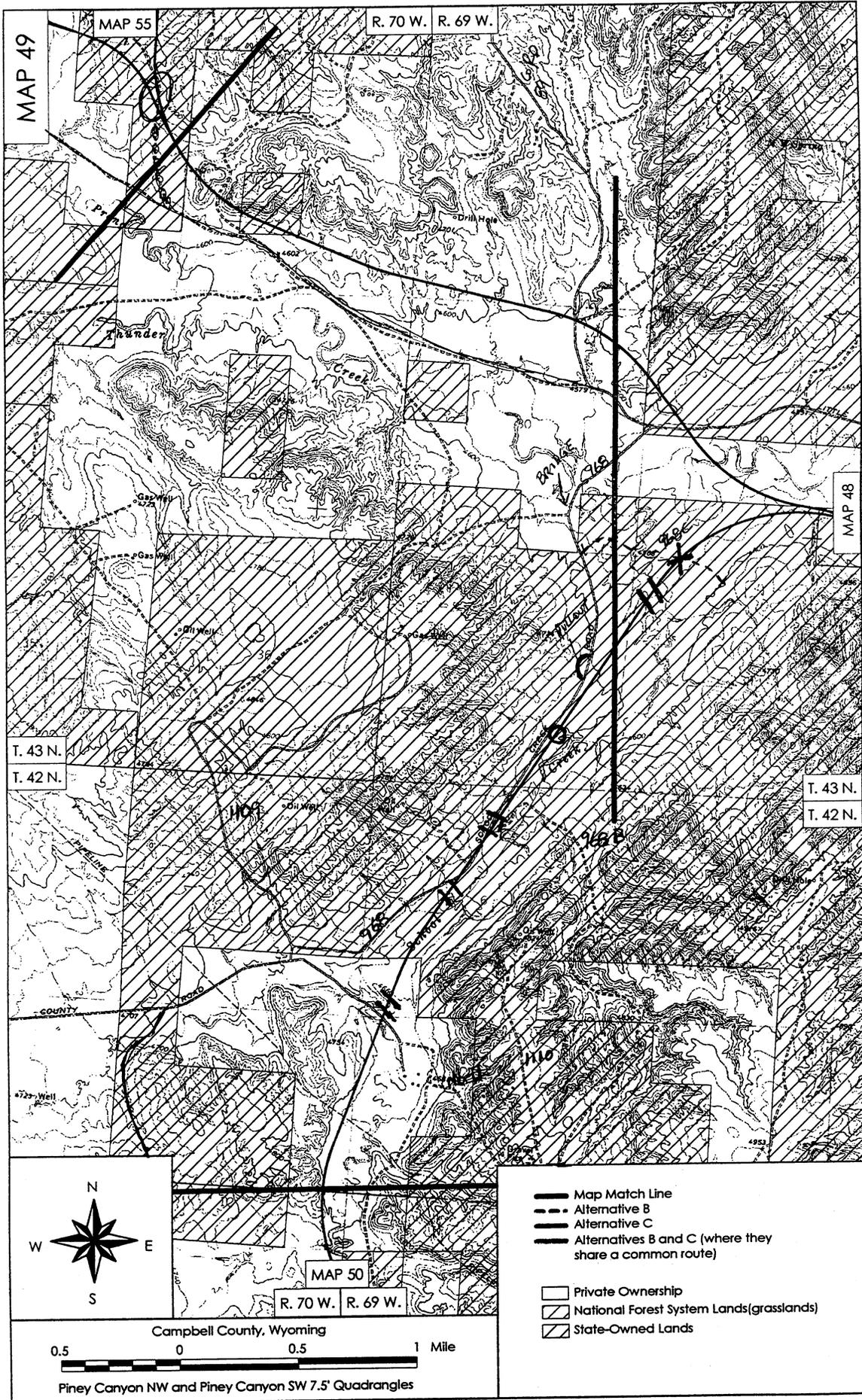
T. 43 N.
T. 42 N.

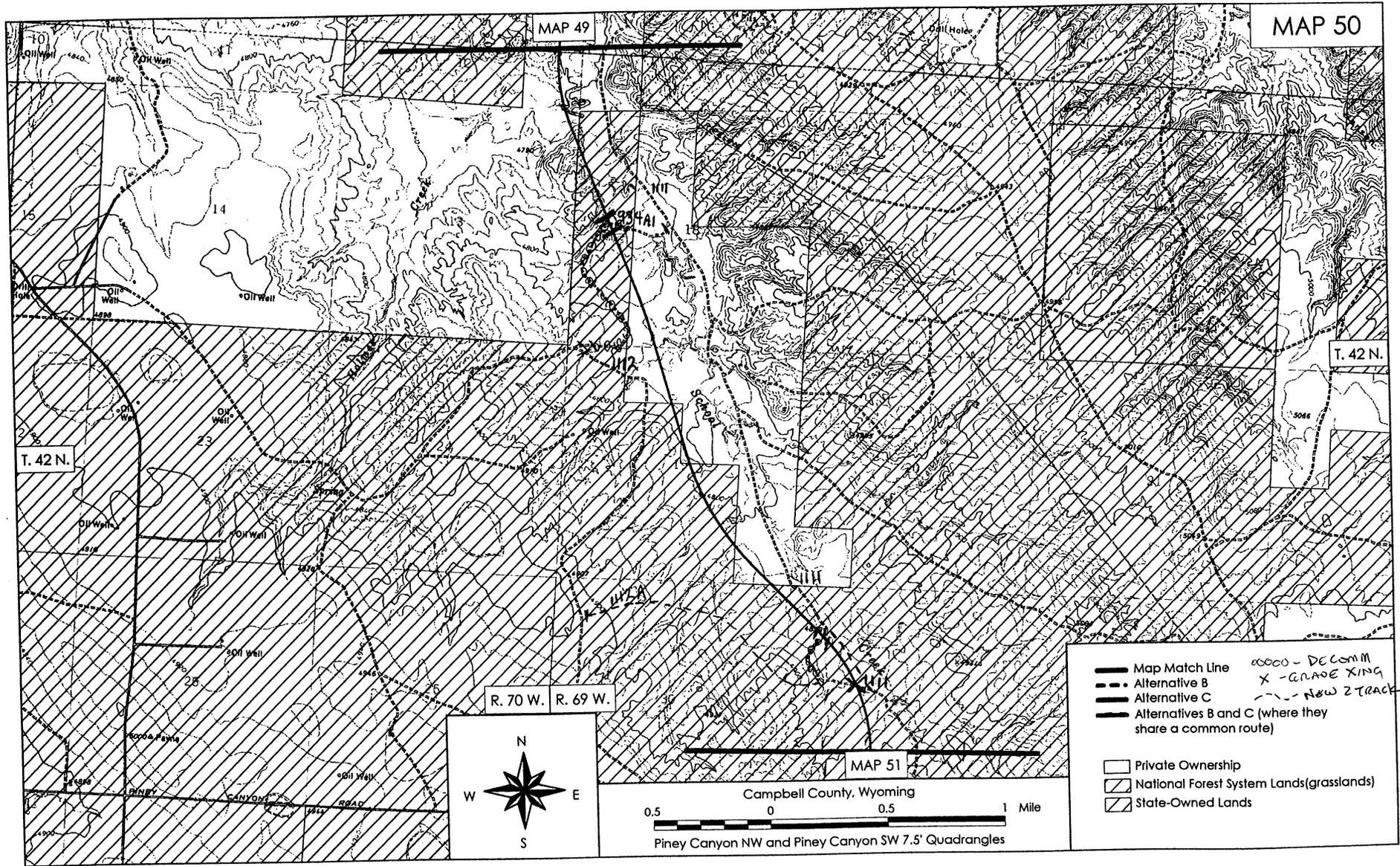
T. 43 N.
T. 42 N.

MAP 47

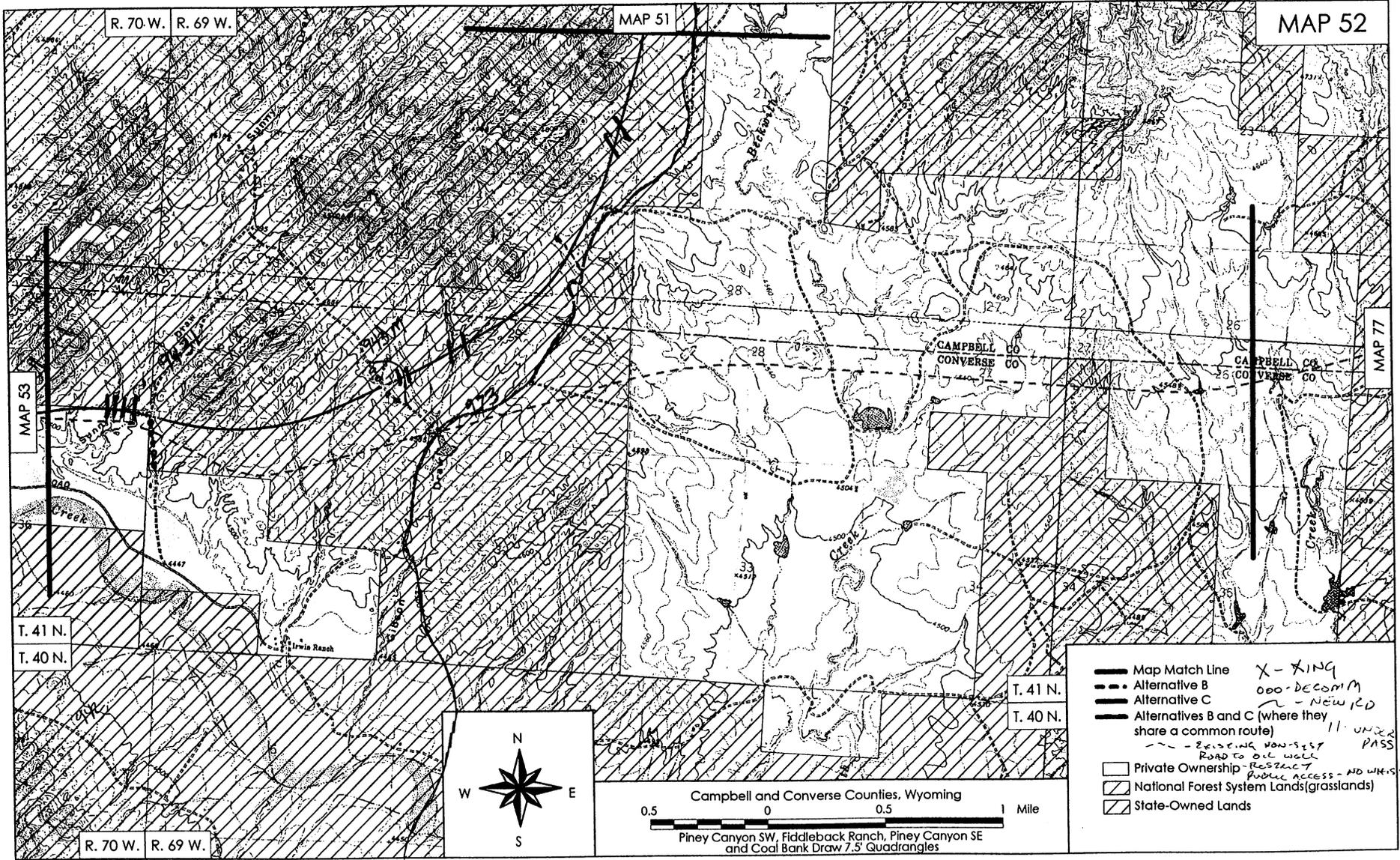
MAP 45



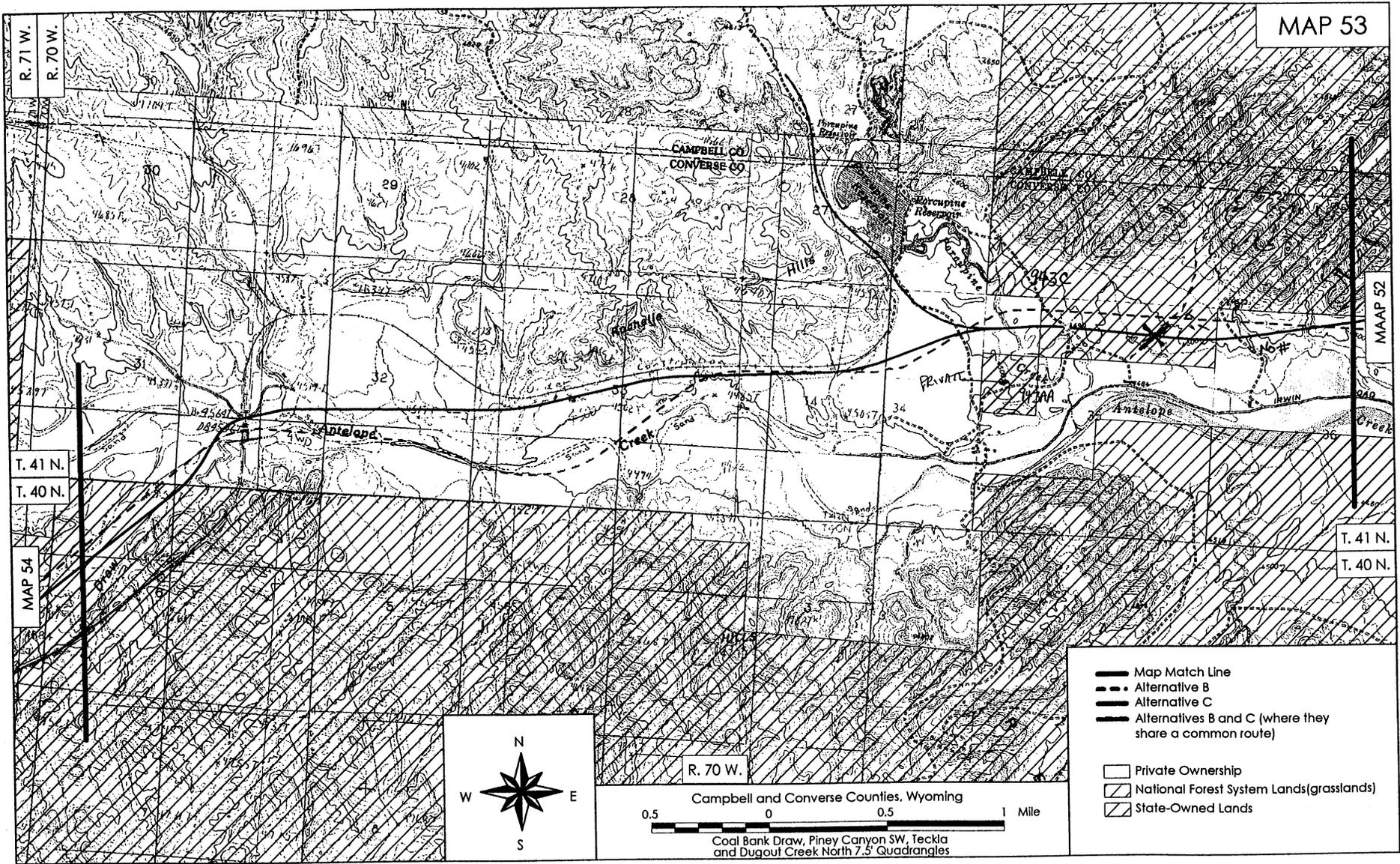


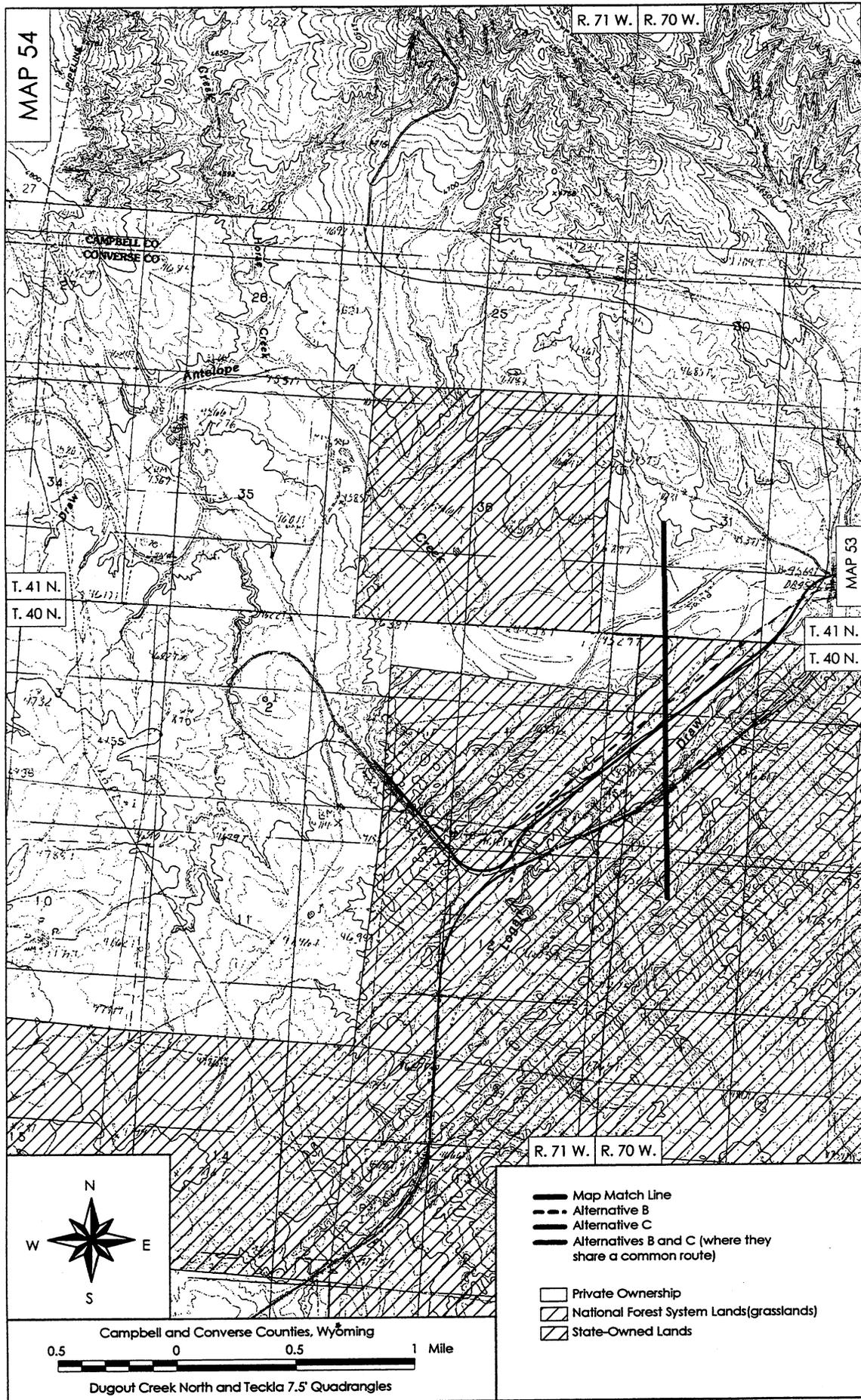


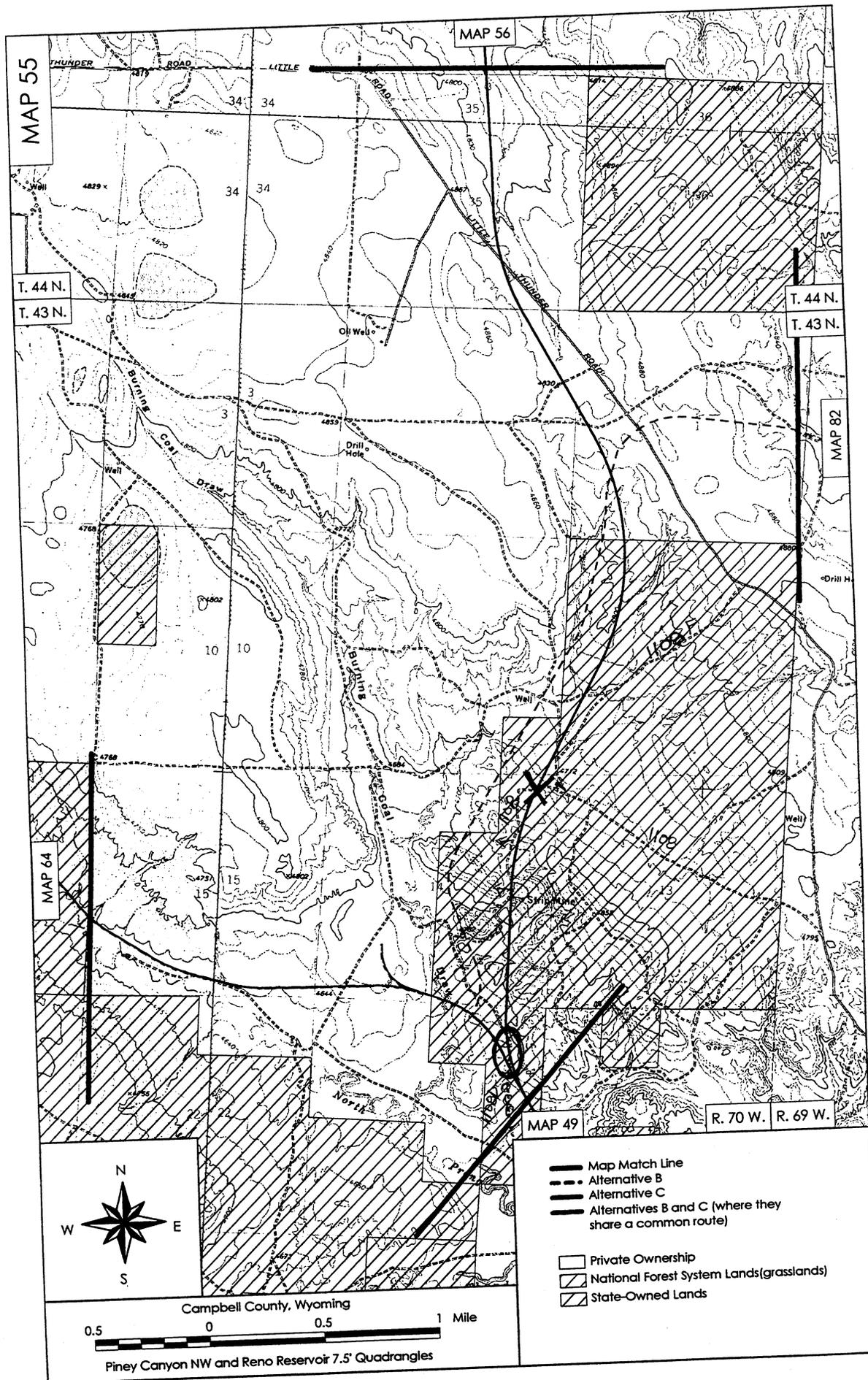
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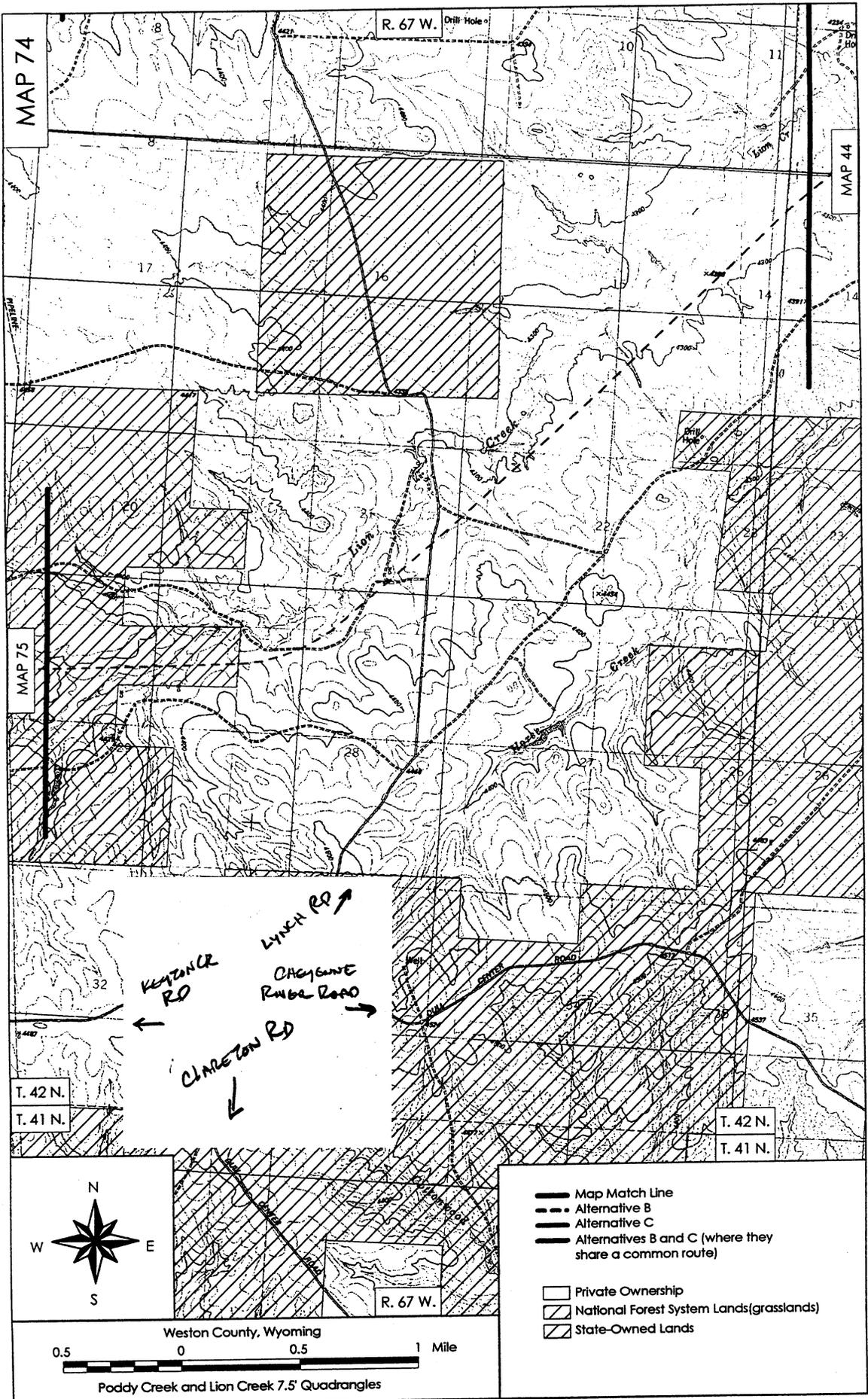


MAP 53









KEYANCE RD ←
 LYNCH RD ↗
 CHAYANE RUNGE ROAD →
 CLARETOWN RD ↘

T. 42 N.
 T. 41 N.

T. 42 N.
 T. 41 N.



- Map Match Line
- - - Alternative B
- Alternative C
- Alternatives B and C (where they share a common route)

- Private Ownership
- ▨ National Forest System Lands (grasslands)
- ▩ State-Owned Lands

Weston County, Wyoming
 0.5 0 0.5 1 Mile
 Poddy Creek and Lion Creek 7.5' Quadrangles