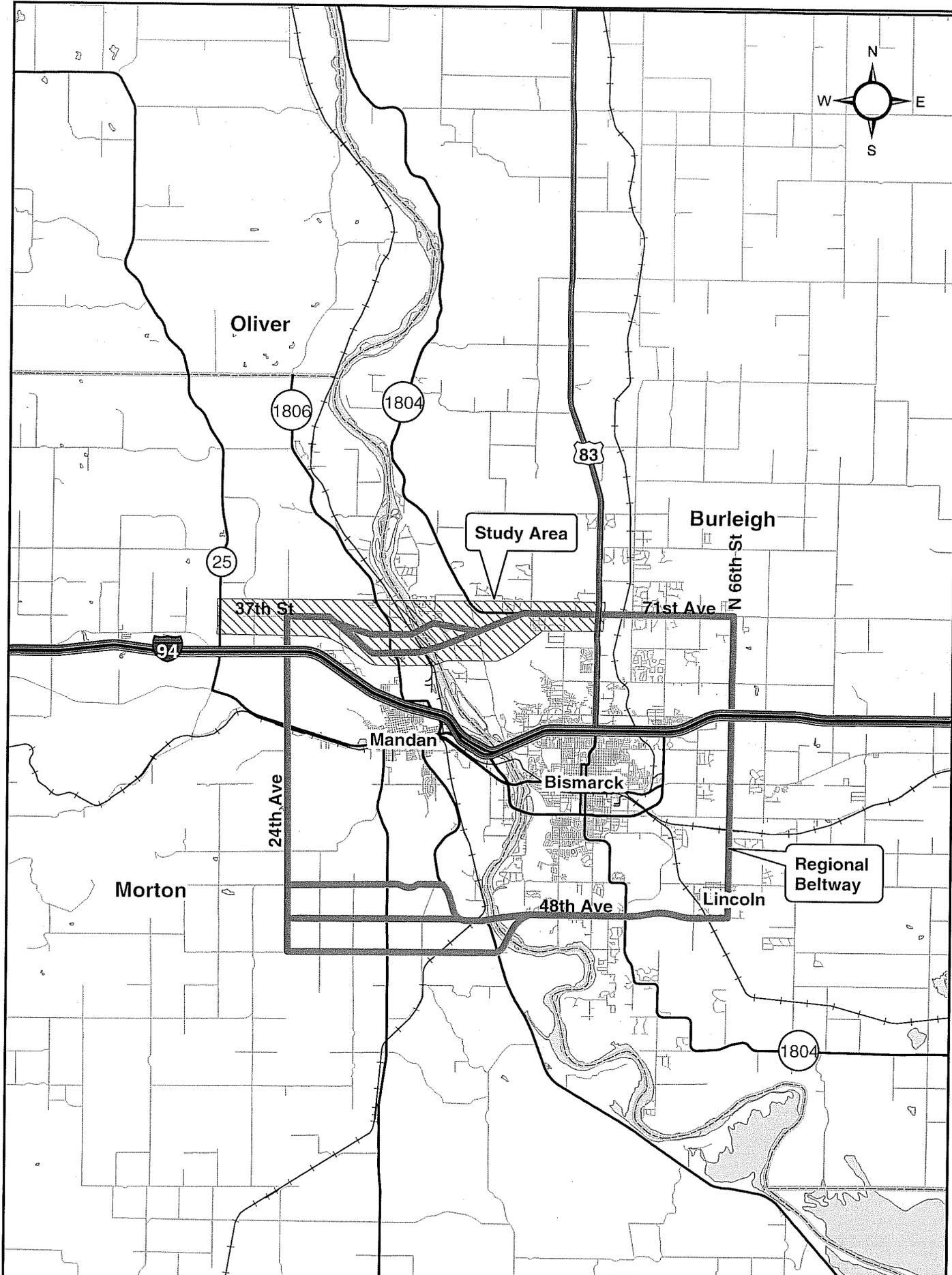
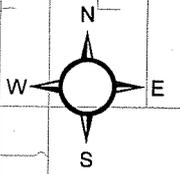


Exhibits Appendix

- Exhibit 1.1** Project Location Map
- Exhibit 3.1** Wetlands and Floodplain Maps
- Exhibit 4.1** Project Alternatives
- Exhibit 4.2** Project Alternatives and Routes
- Exhibit 4.3** Route B and Olive Tree Subdivision
- Exhibit 4.4** Route B-1 and ND Highway 1806
- Exhibit 4.5** Route B-3 and ND Highway 1804
- Exhibit 4.6** Route B-4 and ND Highway 1804
- Exhibit 4.7** Route D and ND Highway 1806
- Exhibit 4.8** Routes D-3, D-4, D-5, and ND Highway 1804
- Exhibit 4.9** Route D-3, D-5 and River Road
- Exhibit 4.10** Route D and Burnt Creek Loop

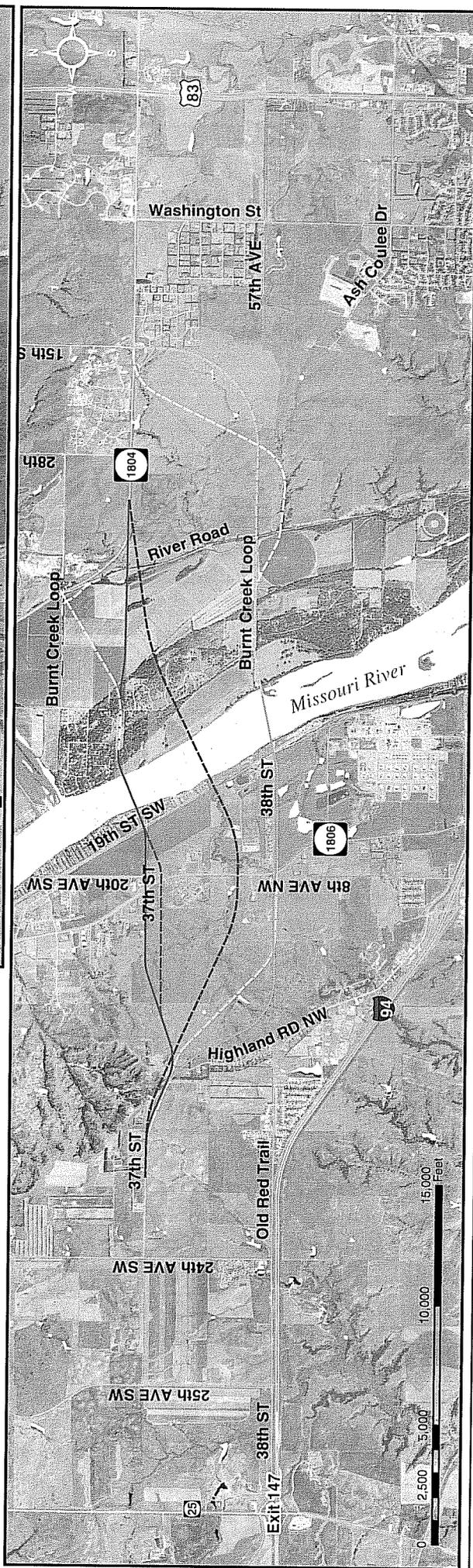
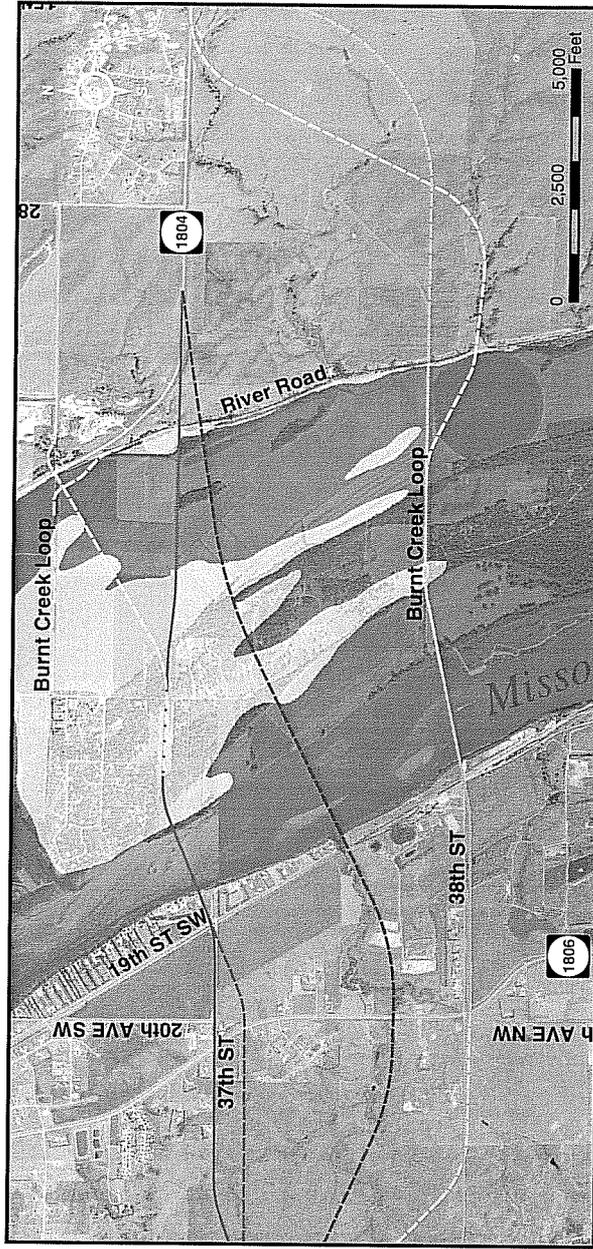


**Northern Bridge Corridor Study
Exhibit 1.1
Project Location Map**

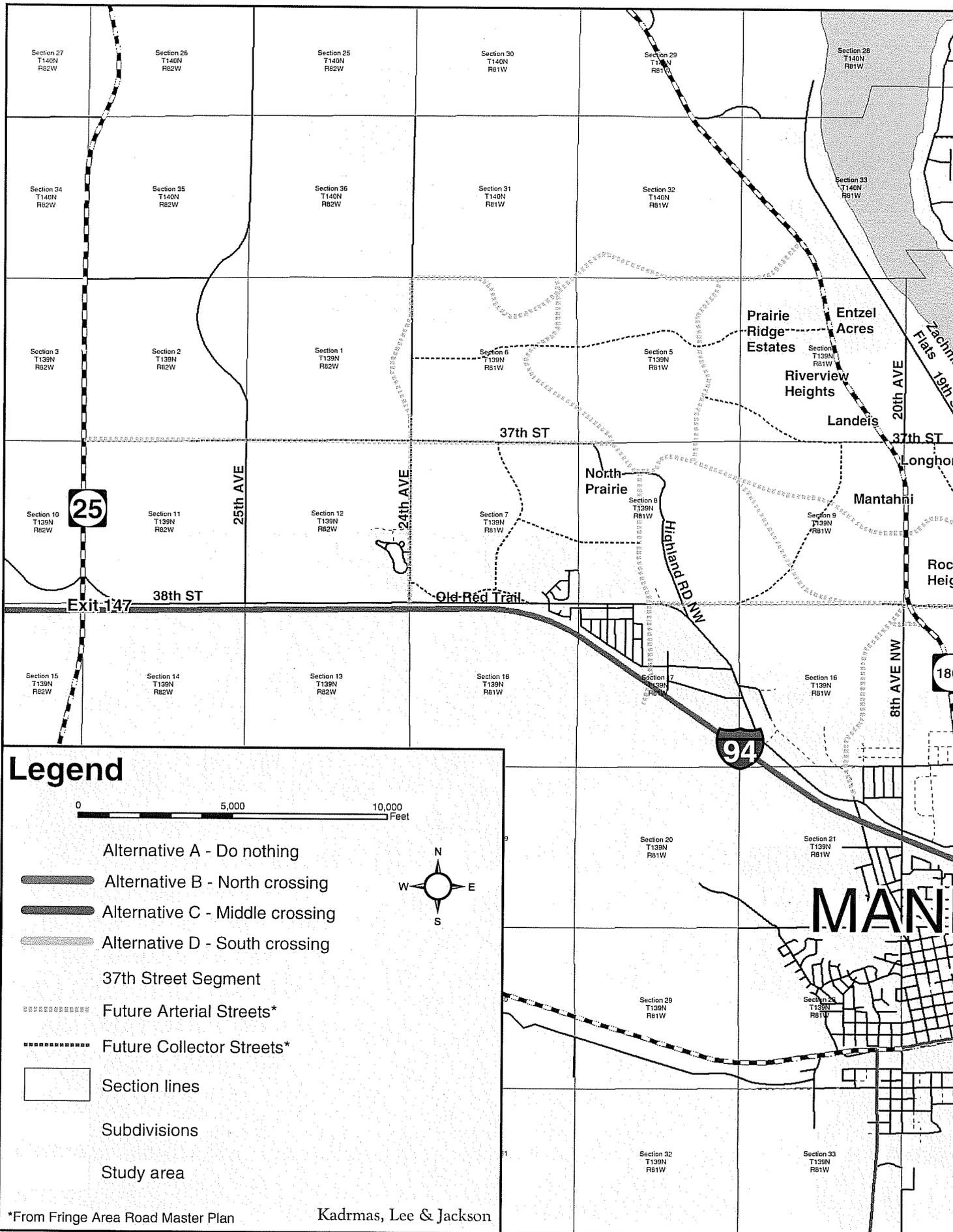
Zone AE: the flood insurance rate zone that corresponds to the 1-percent annual chance floodplains that are determined in the Flood Insurance Study by detailed methods of analysis. Mandatory flood insurance purchase requirements apply.

Zone X500: this area falls between the 100 and 500-year flood zone. X zones are the flood insurance rate zones that correspond to areas outside the 1-percent annual chance floodplain, areas of 1-percent annual chance sheet flow flooding where average depths are less than 1 foot, areas of 1-percent annual chance stream flooding where the contributing drainage area is less than 1 square mile, or areas protected from the 1-percent annual chance flood by levees. Insurance purchase is not required in these zones.

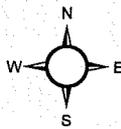
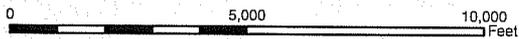
Wetlands: From National Wetland Inventory data



**Northern Bridge Corridor Study
Exhibit 3.1
Wetlands & Floodplain Maps**



Legend



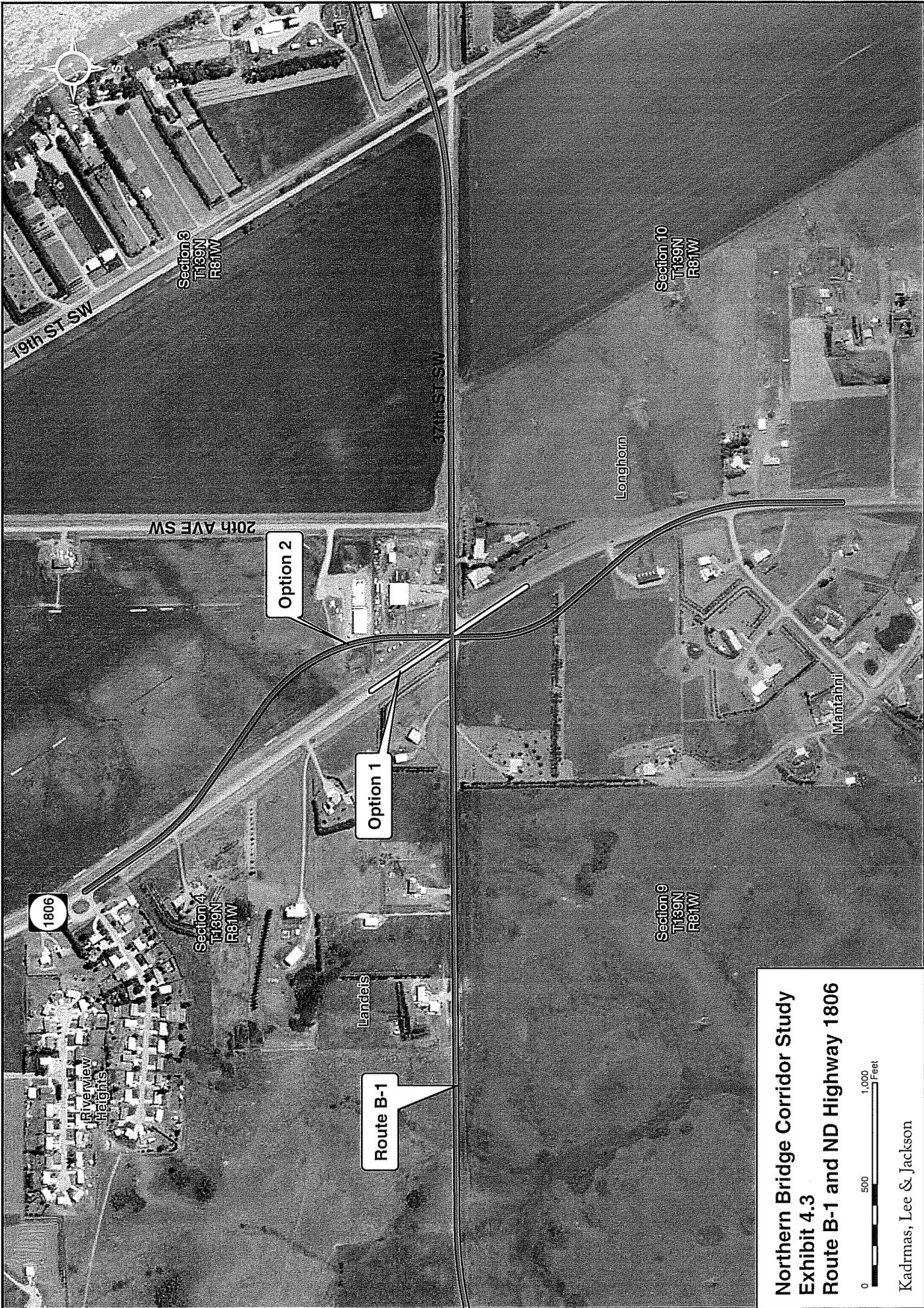
- Alternative A - Do nothing
- Alternative B - North crossing
- Alternative C - Middle crossing
- Alternative D - South crossing
- 37th Street Segment
- Future Arterial Streets*
- Future Collector Streets*
- Section lines
- Subdivisions
- Study area

*From Fringe Area Road Master Plan



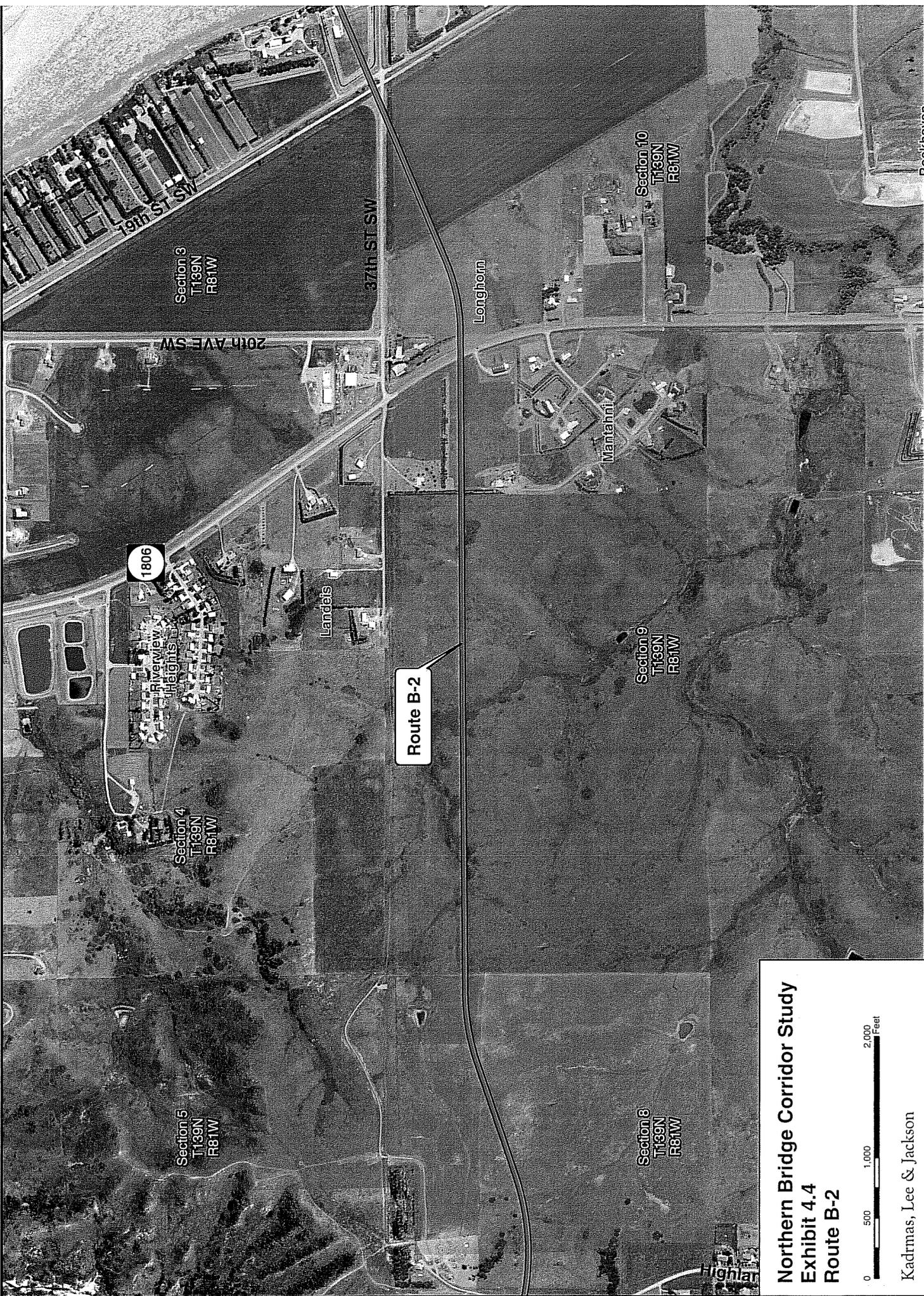
Kadmas, Lee & Jackson

MANDAN



**Northern Bridge Corridor Study
Exhibit 4.3
Route B-1 and ND Highway 1806**





Northern Bridge Corridor Study
Exhibit 4.4
Route B-2

0 500 1,000 2,000 Feet

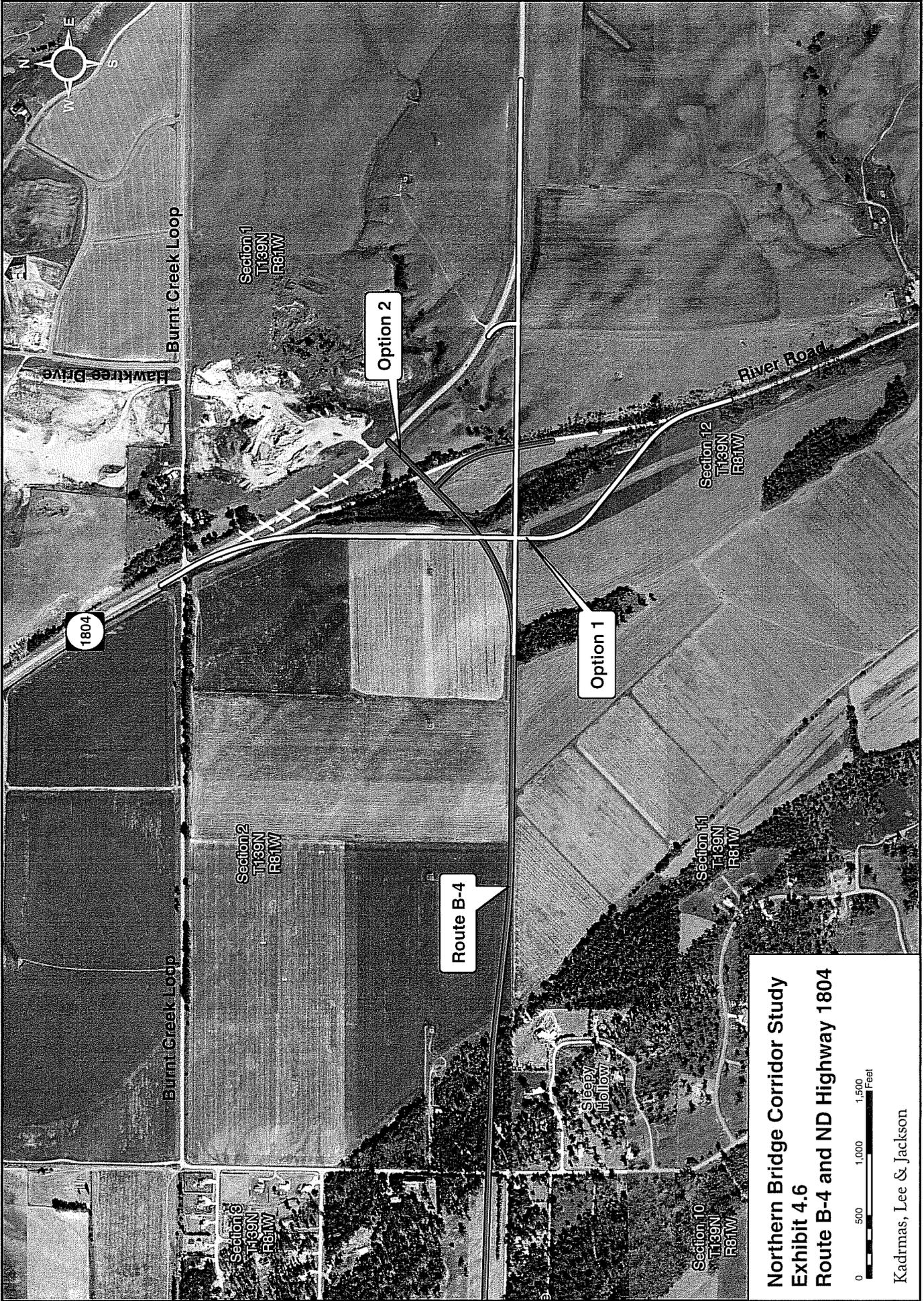
Kadmas, Lee & Jackson



**Northern Bridge Corridor Study
 Exhibit 4.5
 Route B-3 and ND Highway 1804**



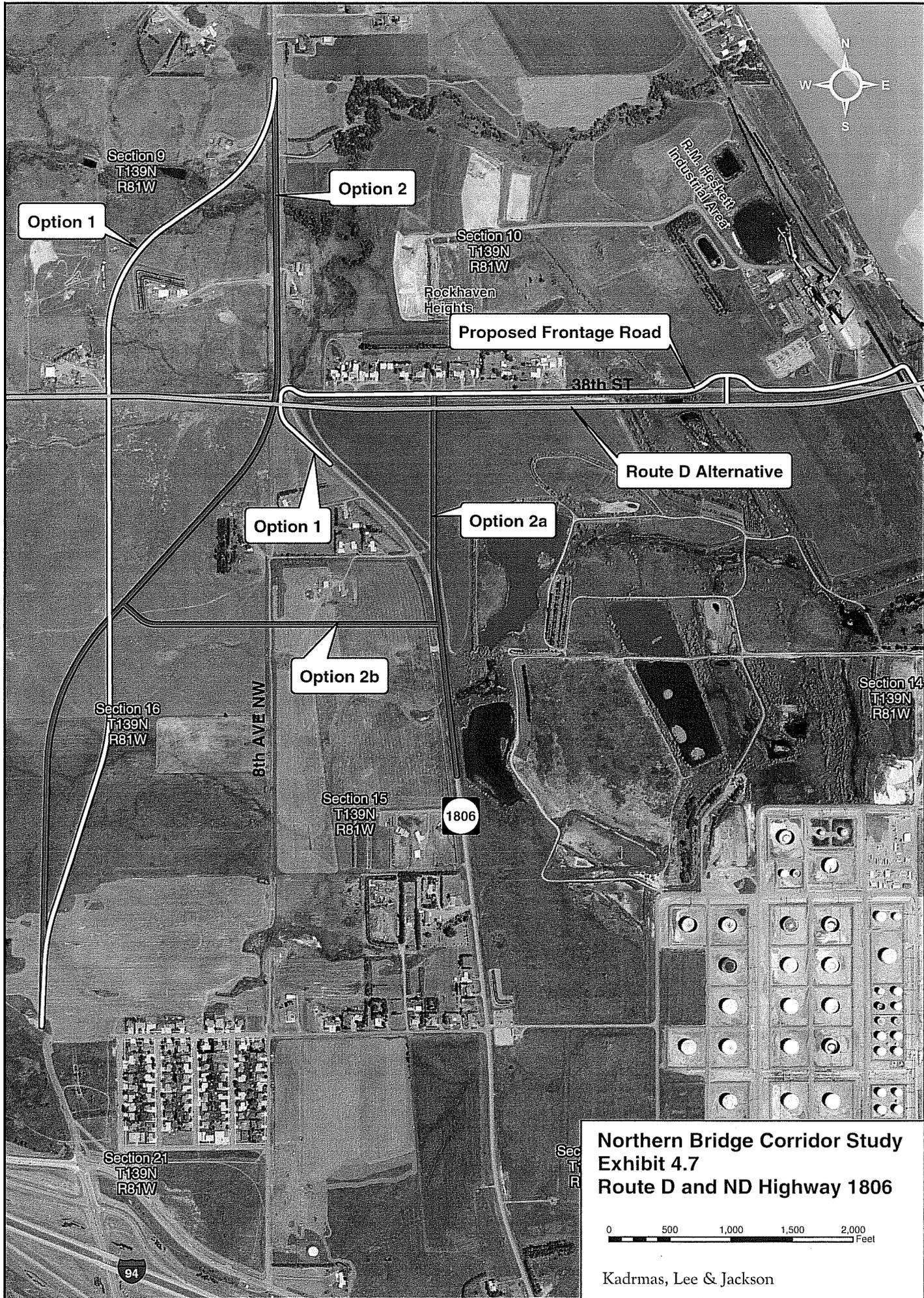
Kadmas, Lee & Jackson



Northern Bridge Corridor Study
Exhibit 4.6
Route B-4 and ND Highway 1804



Kadmas, Lee & Jackson



Option 1

Option 2

Proposed Frontage Road

Route D Alternative

Option 1

Option 2a

Option 2b

Section 9
T139N
R81W

Section 10
T139N
R81W

Rockhaven
Heights

P.M. Hestert
Industrial Area

38th ST

Section 16
T139N
R81W

6th AVE NW

Section 15
T139N
R81W

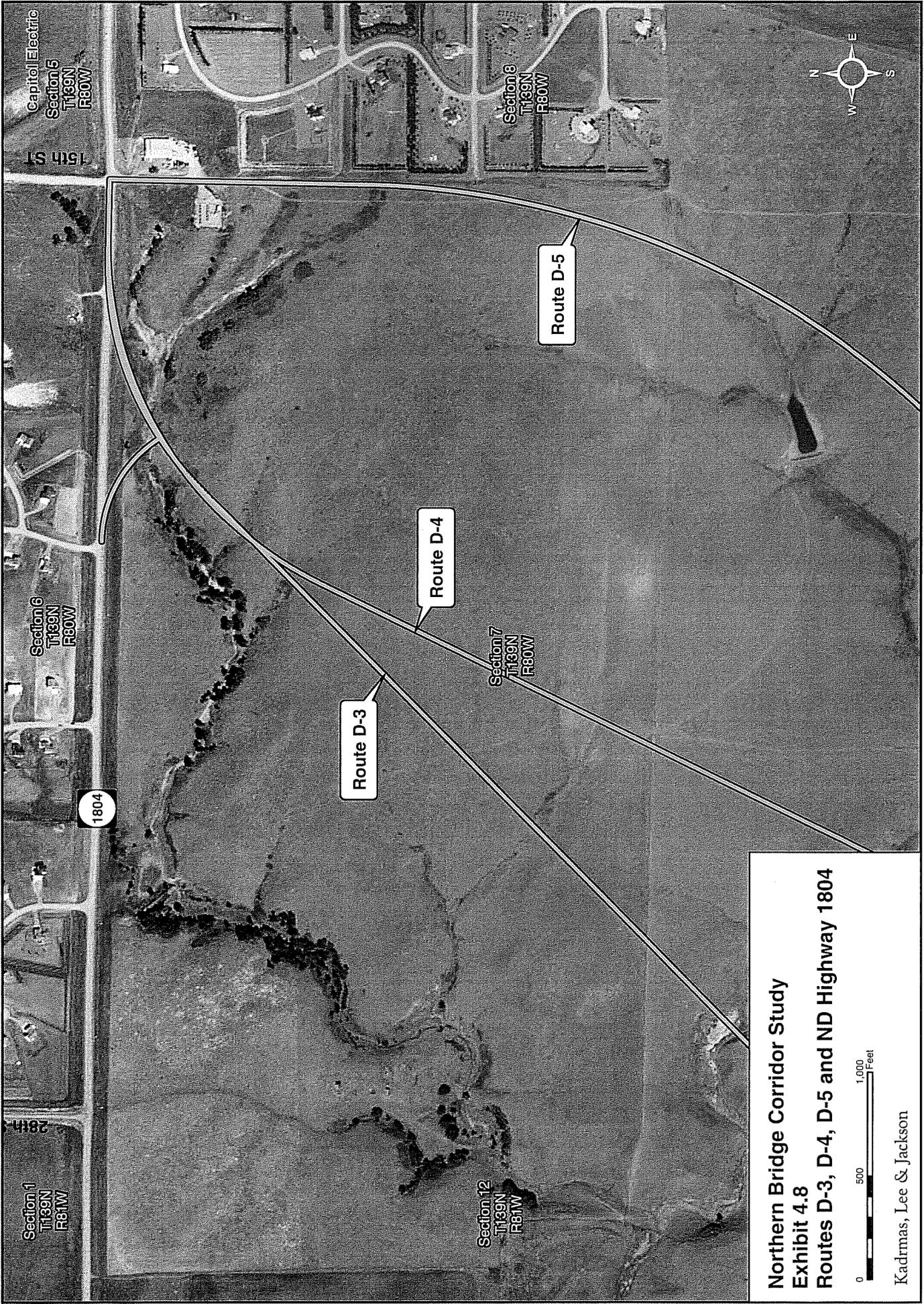
1806

Section 14
T139N
R81W

Section 21
T139N
R81W

**Northern Bridge Corridor Study
Exhibit 4.7
Route D and ND Highway 1806**





Capitol Electric
Section 5
T139N
R80W

Section 8
T139N
R80W

Section 6
T139N
R80W

Section 7
T139N
R80W

Section 1
T139N
R81W

Section 12
T139N
R81W

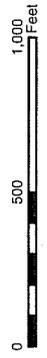
1804

Route D-3

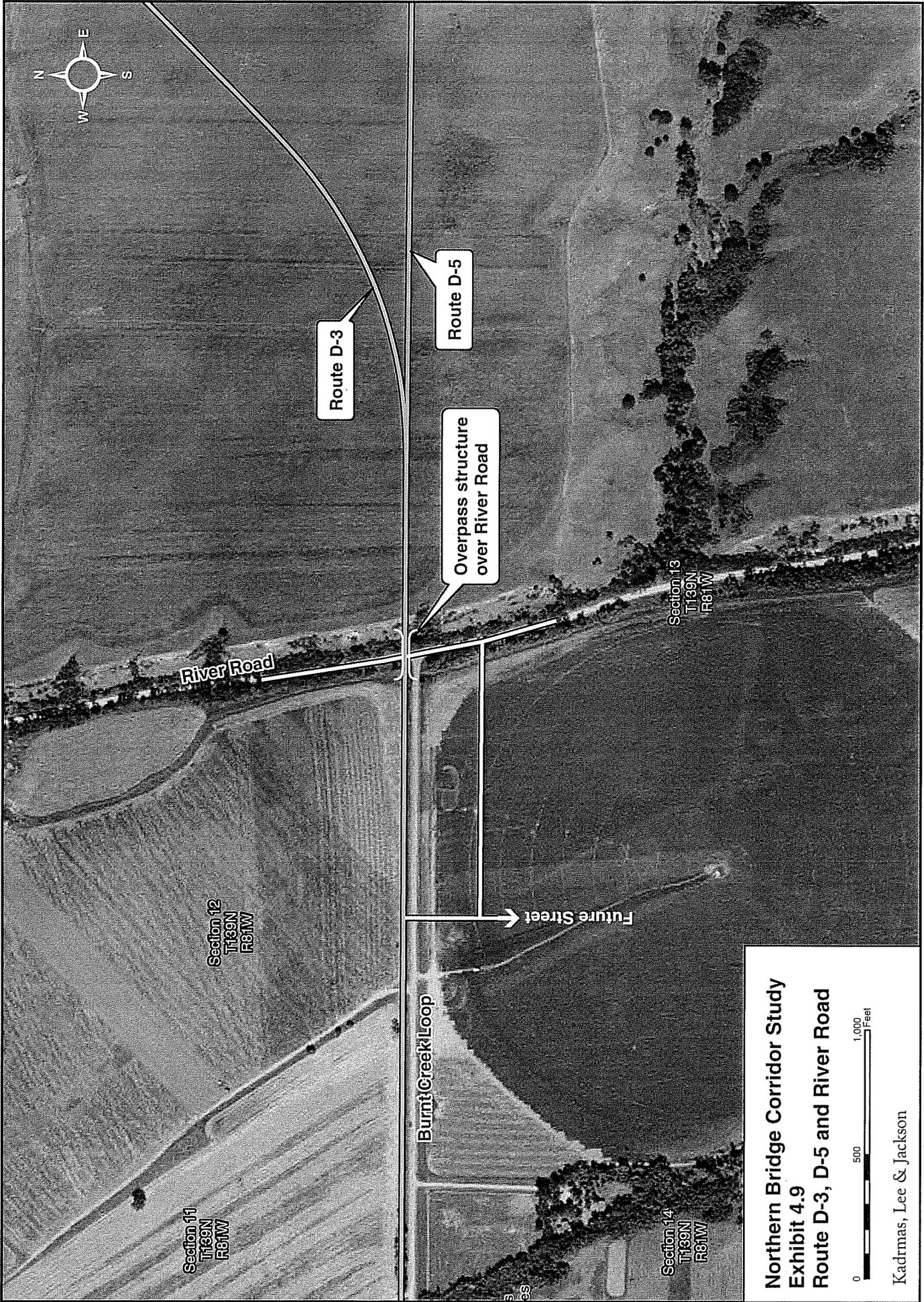
Route D-4

Route D-5

Northern Bridge Corridor Study
Exhibit 4.8
Routes D-3, D-4, D-5 and ND Highway 1804



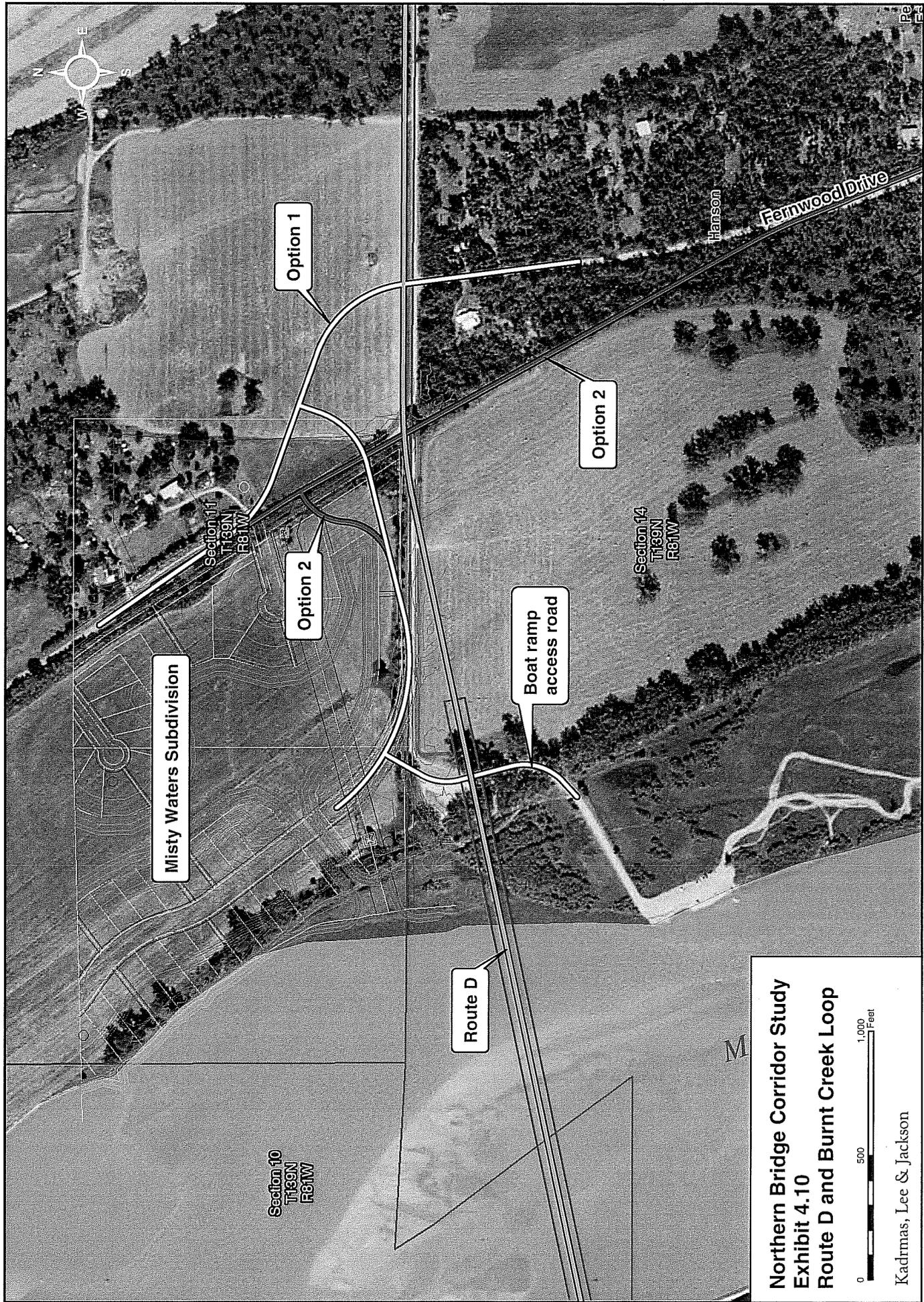
Kadmas, Lee & Jackson

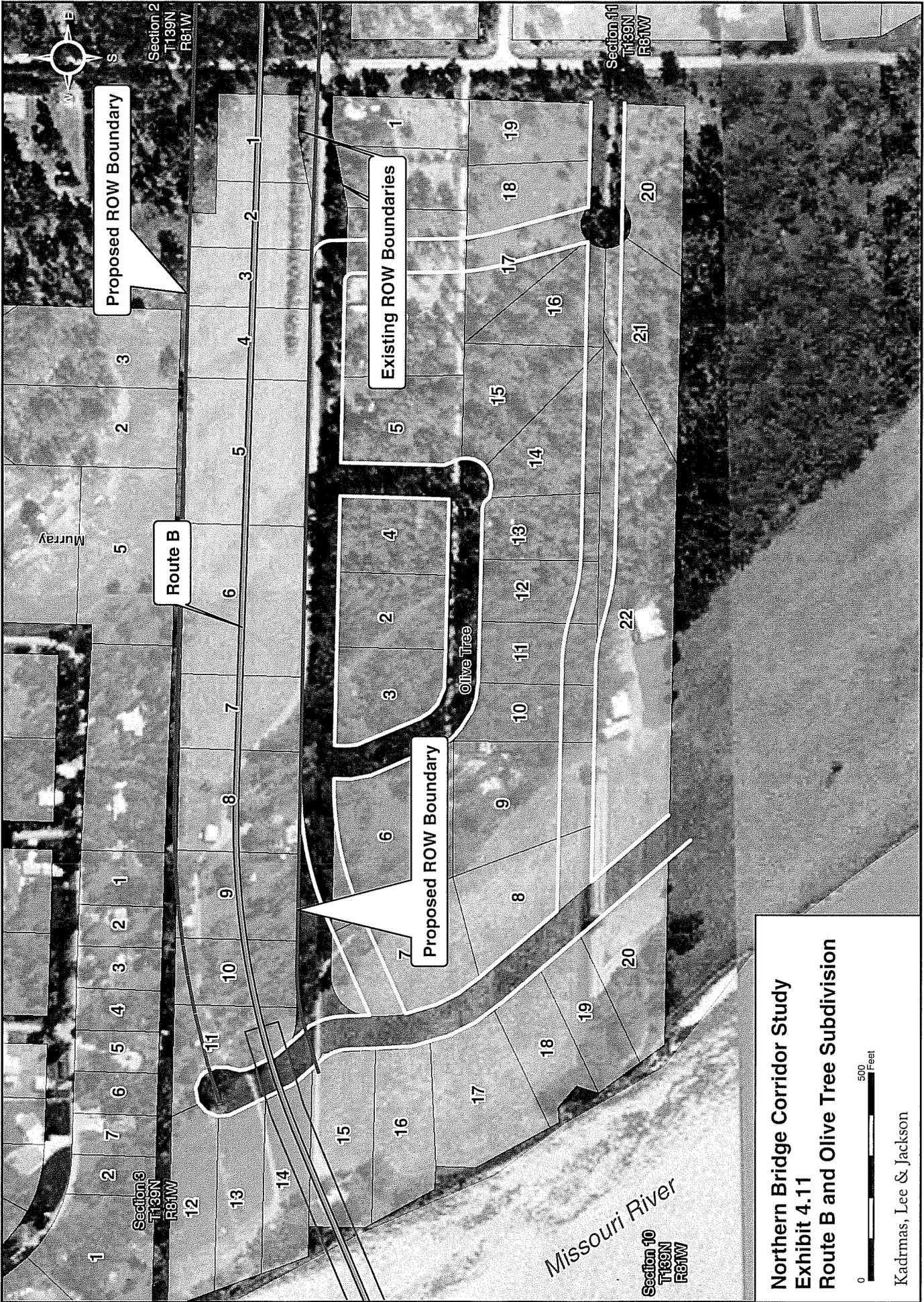


**Northern Bridge Corridor Study
Exhibit 4.9
Route D-3, D-5 and River Road**



Kadmas, Lee & Jackson





Northern Bridge Corridor Study
Exhibit 4.11
Route B and Olive Tree Subdivision

0 500 Feet

Kadmas, Lee & Jackson

Cost Summary

Appendix

Cost Summary

Engineers Estimate of Cost—Cost Summary

Engineers Estimate of Cost—Bridge Structure

Engineers Estimate of Cost—Alternative B: North Route

Engineers Estimate of Cost—Alternative D: South Route

Engineers Estimate of Cost

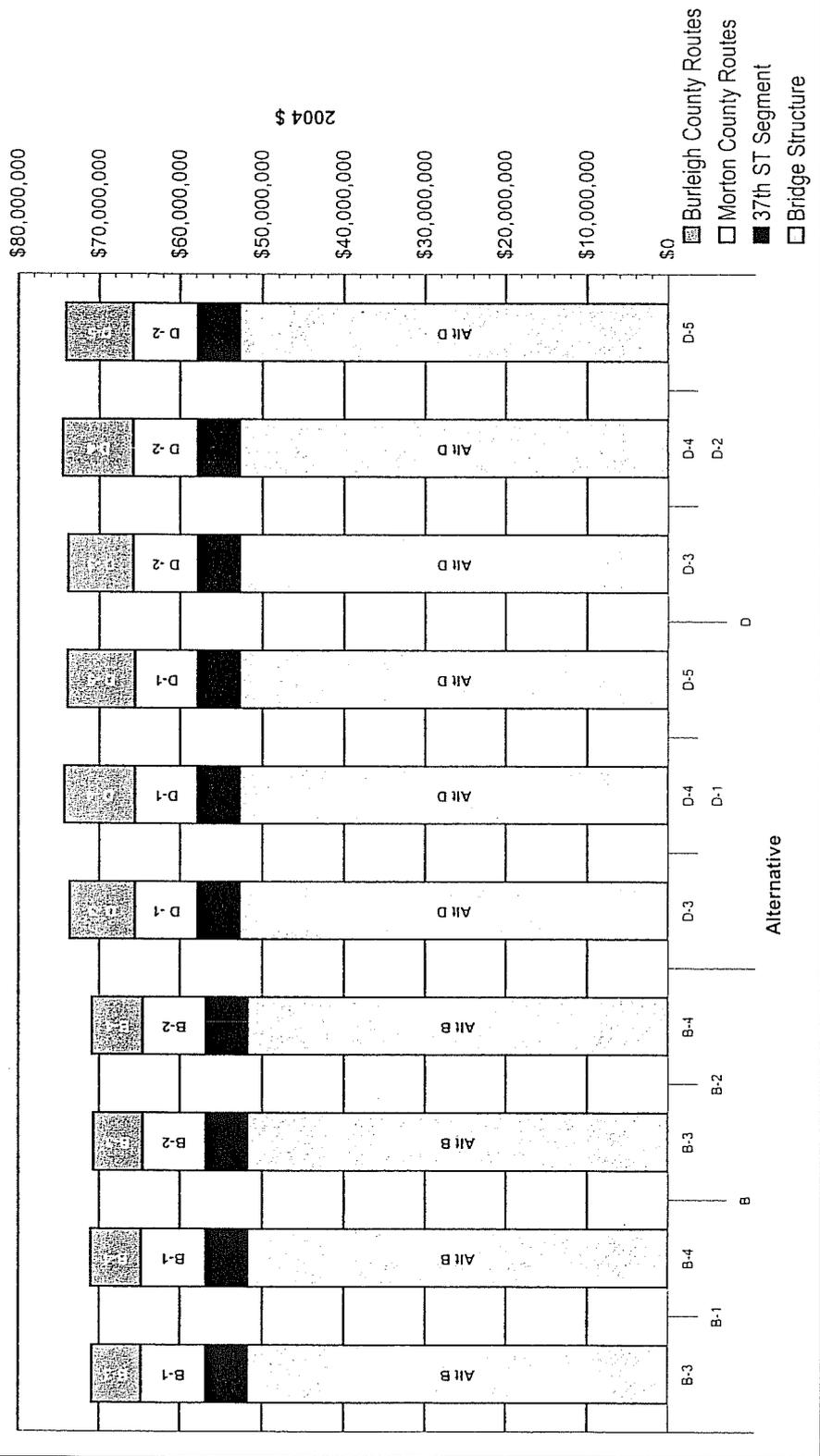
Engineers Estimate of Cost—Route B-1 and ND Highway 1806

Engineers Estimate of Cost—Route B-4 and ND Highway 1804

Engineers Estimate of Cost—Route D and ND Highway 1806

Engineers Estimate of Cost—Route D and Burnt Creek Loop

Cost Summary



*Northern Bridge Corridor Study
Engineers Estimate of Cost
2004 Dollars
Cost Summary*

Bridge Structure	Route	Intersection Options	COST
Bridge Alternative B	37th St Segment (ND 25 to Highland Rd)		\$5,014,288
			\$51,800,000
	Route B-1		\$7,894,865
	Route B-2		\$7,720,410
	Route B-3		\$6,200,104
	Route B-4		\$6,374,968
		Route B-1 & ND Highway 1806—Option 1	\$163,777
		Route B-1 & ND Highway 1806—Option 2	\$1,306,785
		Route B-4 & ND Highway 1804—Option 1	\$1,084,734
		Route B-4 & ND Highway 1804—Option 2	\$427,222
			\$52,800,000
Bridge Alternative D	Route D-1		\$7,720,525
	Route D-2		\$7,932,815
	Route D-3		\$8,128,350
	Route D-4		\$8,802,480
	Route D-5		\$8,392,585
		Route D & ND Highway 1806—Option 1	\$1,217,862
		Route D & ND Highway 1806—Option 2	\$1,801,843
		Route D & ND Highway 1806—Frontage Road	\$741,946
		Route D & Burnt Creek Loop—Option 1	\$675,280
		Route D & Burnt Creek Loop—Option 2	\$767,119
		Route D & Burnt Creek Loop—Frontage Road	\$316,819

Northern Bridge Corridor Study
 Engineers Estimate of Cost
 2004 Dollars
 Alternative B - North Route

ITEMS	UNIT	UNIT COST	ALTERNATIVE B-1		ALTERNATIVE B-2		ALTERNATIVE B-3		ALTERNATIVE B-4	
			QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL
<i>Construction</i>										
Asphalt	LF	\$110.00	15600	\$1,716,000.00	15900	\$1,749,000.00	11945	\$1,313,950.00	11700	\$1,287,000.00
Base	LF	\$100.00	15600	\$1,560,000.00	15900	\$1,590,000.00	11945	\$1,194,500.00	11700	\$1,170,000.00
Earthwork	CY	\$2.25	920000	\$2,070,000.00	940000	\$2,115,000.00	450000	\$1,012,500.00	545000	\$1,226,250.00
Topsoil	CY	\$1.50	39000	\$58,500.00	39000	\$58,500.00	29000	\$43,500.00	29000	\$43,500.00
Culverts	MILE	\$100,000.00	3.0	\$300,000.00	3.0	\$300,000.00	2.3	\$230,000.00	2.2	\$220,000.00
Box Culverts	EA	\$75,000.00	1	\$75,000.00	1	\$75,000.00	1	\$75,000.00	1	\$75,000.00
Seeding/Erosion Control	LF	\$1.00	15600	\$15,600.00	15900	\$15,900.00	11945	\$11,945.00	11700	\$11,700.00
Utility Relocation	LS									
Misc	LS	\$150,000.00	1	\$150,000.00	1	\$150,000.00	1	\$150,000.00	1	\$150,000.00
<i>Right of Way</i>										
River Bottom Farmland*	ACRE	\$0.00	9	\$0.00	10	\$0.00	37	\$0.00	21	\$0.00
Pasture/Farmland*	ACRE	\$0.00	28	\$0.00	57	\$0.00	7	\$0.00	9	\$0.00
Platted Lots	EA	\$20,000.00	1	\$20,000.00	3	\$60,000.00	11	\$220,000.00	11	\$220,000.00
Riverfront lots	EA	\$80,000.00					3	\$240,000.00	3	\$240,000.00
Residential/Commercial Relocations	LS	\$300,000.00	3	\$900,000.00	2	\$600,000.00	3	\$900,000.00	3	\$900,000.00
ROW Subtotal				\$920,000.00		\$660,000.00		\$1,360,000.00		\$1,360,000.00
15% Contingency				\$1,029,765.00		\$1,007,010.00		\$808,709.25		\$831,517.50
Subtotal				\$7,894,865.00		\$7,720,410.00		\$6,200,104.25		\$6,374,967.50

* Farmland to be acquired through platting



Northern Bridge Corridor Study
 Engineers Estimate of Cost
 2004 Dollars
 Alternative D - South Route

ITEMS	UNIT	UNIT COST	ALTERNATIVE D-1		ALTERNATIVE D-2		ALTERNATIVE D-3		ALTERNATIVE D-4		ALTERNATIVE D-5	
			QUANTITY	TOTAL								
<i>Construction</i>												
Asphalt	LF	\$110.00	20000	\$2,200,000.00	20600	\$2,266,000.00	17580	\$1,933,800.00	19280	\$2,120,800.00	17900	\$1,969,000.00
Base	LF	\$100.00	20000	\$2,000,000.00	20600	\$2,060,000.00	17580	\$1,758,000.00	19280	\$1,928,000.00	17900	\$1,790,000.00
Earthwork	CY	\$2.25	780000	\$1,755,000.00	800000	\$1,800,000.00	773000	\$1,739,250.00	853000	\$1,919,250.00	840000	\$1,890,000.00
Topsoil	CY	\$1.50	49000	\$73,500.00	51000	\$76,500.00	43000	\$64,500.00	48000	\$72,000.00	44000	\$66,000.00
Culverts	MILE	\$100,000.00	3.8	\$380,000.00	3.9	\$390,000.00	3.3	\$330,000.00	3.7	\$370,000.00	3.4	\$340,000.00
Box Culverts	EA	\$75,000.00	1	\$75,000.00	1	\$75,000.00	1	\$75,000.00	1	\$75,000.00	1	\$75,000.00
Seeding/Erosion Control	LF	\$1.00	20000	\$20,000.00	20600	\$20,600.00	17580	\$17,580.00	19280	\$19,280.00	17900	\$17,900.00
Overpass Bridge	EA	\$1,000,000.00					1	\$1,000,000.00	1	\$1,000,000.00	1	\$1,000,000.00
Utility Relocation	LS	\$150,000.00	1	\$150,000.00	1	\$150,000.00	1	\$150,000.00	1	\$150,000.00	1	\$150,000.00
Misc	LS	\$150,000.00	1	\$150,000.00	1	\$150,000.00	1	\$150,000.00	1	\$150,000.00	1	\$150,000.00
<i>Right of Way</i>												
River Bottom Farmland*	ACRE	\$0.00	11	\$0.00	17	\$0.00		\$0.00	26	\$0.00	8	\$0.00
Pasture/Farmland*	ACRE	\$0.00	50	\$0.00	46	\$0.00		\$0.00	45.5	\$0.00	46	\$0.00
Planted Lots	EA	\$20,000.00	3	\$60,000.00	3	\$60,000.00		\$0.00		\$0.00	0	\$0.00
Residential/Commercial Relocations	LS	\$300,000.00	0	\$0.00	0	\$0.00		\$0.00	0	\$0.00	0	\$0.00
Riverfront lots	EA	\$80,000.00										
ROW Subtotal				\$60,000.00		\$60,000.00		\$0.00		\$0.00		\$0.00
15% Contingency				\$1,007,025.00		\$1,034,715.00		\$1,060,219.50		\$1,148,149.50		\$1,094,685.00
Subtotal				\$7,720,525.00		\$7,932,815.00		\$8,128,349.50		\$8,802,479.50		\$8,392,585.00

*Farmland to be acquired through platting



*Northern Bridge Corridor Study
Engineers Estimate of Cost
2004 Dollars*

ITEMS	UNIT	UNIT COST	Hwy 25 to the start of Alternatives B & D	
			QUANTITY	TOTAL
<i>Construction</i>				
Asphalt	LF	\$110.00	14000	\$1,540,000.00
Base	LF	\$100.00	14000	\$1,400,000.00
Earthwork	CY	\$2.25	415000	\$933,750.00
Topsoil	CY	\$1.50	35000	\$52,500.00
Culverts	MILE	\$100,000.00	2.7	\$270,000.00
Box Culverts	EA	\$75,000.00		
Seeding/Erosion Control	LF	\$1.00	14000	\$14,000.00
Missouri River Bridge Structure	SF			
Utility Relocation	LS			
Misc	LS	\$150,000.00	1	\$150,000.00
<i>Right of Way</i>				
River Bottom Farmland*	ACRE	\$0.00		
Pasture/Farmland*	ACRE	\$0.00	44	\$0.00
Platted Lots	EA	\$20,000.00		\$0.00
Residential/Commercial Relocations	LS	\$300,000.00		\$0.00
15% Contingency				\$654,037.50
Total				\$5,014,287.50

*Farmland to be acquired through platting

Northern Bridge Corridor Study
Engineers Estimate of Cost
 2004 Dollars

Route B-1 & ND Highway 1806 (see exhibit 4.4)

ITEMS	UNIT	UNIT COST	OPTION 1		OPTION 2	
			QUANTITY	TOTAL	QUANTITY	TOTAL
<i>Construction</i>						
Asphalt	LF	\$45.00	915	\$41,175.00	4385	\$197,325.00
Base	LF	\$35.00	915	\$32,025.00	4385	\$153,475.00
Earthwork	CY	\$1.15	2000	\$2,300.00	11000	\$12,650.00
Topsoil	CY	\$1.50	2000	\$3,000.00	11000	\$16,500.00
Culverts	MILE	\$65,000.00	0.2	\$13,000.00	0.8	\$52,000.00
Box Culverts	EA	\$75,000.00	0	\$0.00	0	\$0.00
Seeding/Erosion Control	LF	\$1.00	915	\$915.00	4385	\$4,385.00
Utility Relocation	LS					
Misc	LS	\$100,000.00		\$50,000.00		\$100,000.00
<i>Right of Way</i>						
River Bottom Farmland*	ACRE	\$0.00				
Pasture/Farmland*	ACRE	\$0.00	4.2	\$0.00	19.5	\$0.00
Platted Lots	EA	\$20,000.00		\$0.00		\$0.00
Residential Relocations	EA	\$300,000.00		\$0.00	2	\$600,000.00
15% Contingency				\$21,362.25		\$170,450.25
Total				\$163,777.25		\$1,306,785.25

*Farmland to be acquired through platting

Northern Bridge Corridor Study
Engineers Estimate of Cost

2004 Dollars

Route B-4 and ND Highway 1804 (see exhibit 4.6)

ITEMS	UNIT	OPTION 1			OPTION 2		
		UNIT COST	QUANTITY	TOTAL	QUANTITY	TOTAL	TOTAL
<i>Construction</i>							
Asphalt	LF	\$45.00	9625	\$433,125.00	3090	\$139,050.00	
Base	LF	\$35.00	9625	\$336,875.00	3090	\$108,150.00	
Earthwork	CY	\$1.15	24000	\$27,600.00	8000	\$9,200.00	
Topsoil	CY	\$1.50	24000	\$36,000.00	8000	\$12,000.00	
Culverts	MILE	\$65,000.00	1.8	\$22.16	0.6	\$7.39	
Box Culverts	EA	\$75,000.00	0		0	\$0.00	
Seeding/Erosion Control	LF	\$1.00	9625	\$9,625.00	3090	\$3,090.00	
Utility Relocation	LS						
Misc	LS	\$100,000.00		\$100,000.00		\$100,000.00	
<i>Right of Way</i>							
River Bottom Farmland*	ACRE	\$0.00	23.1	\$0.00	14.2	\$0.00	
Pasture/Farmland*	ACRE	\$0.00	14.2	\$0.00		\$0.00	
Platted Lots	EA	\$20,000.00		\$0.00		\$0.00	
Residential Relocations	EA	\$300,000.00		\$0.00		\$0.00	
15% Contingency				\$141,487.07		\$55,724.61	
Total				\$1,084,754.23		\$427,221.99	

*Farmland to be acquired through platting

Kadmas
Lee &
Jackson
 Engineers, Surveyors
 and Planners

Northern Bridge Corridor Study
Engineers Estimate of Cost

2004 Dollars

Route D & ND Highway 1806 (see exhibit 4.7)

ITEMS	UNIT	OPTION 1		OPTION 2		FRONTAGE ROAD	
		QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL
<i>Construction</i>							
Asphalt	LF	9610	\$432,450.00	14670	\$660,150.00	5470	\$246,150.00
Base	LF	9610	\$336,350.00	14670	\$513,450.00	5470	\$191,450.00
Earthwork	CY	24000	\$27,600.00	37000	\$42,550.00	14000	\$16,100.00
Topsoil	CY	24000	\$36,000.00	36000	\$54,000.00	14000	\$21,000.00
Culverts	MILE	1.8	\$117,000.00	2.8	\$182,000.00	1.0	\$65,000.00
Box Culverts	EA	0	\$0.00	0	\$0.00	0	\$0.00
Seeding/Erosion Control	LF	9610	\$9,610.00	14670	\$14,670.00	5470	\$5,470.00
Utility Relocation	LS						
Misc	LS		\$100,000.00		\$100,000.00		\$100,000.00
<i>Right of Way</i>							
River Bottom Farmland*	ACRE		\$0.00		\$0.00	25.2	\$0.00
Pasture/Farmland*	ACRE	44.2	\$0.00	67.4	\$0.00		\$0.00
Platted Lots	EA		\$20,000.00		\$0.00		\$0.00
Residential Relocations	EA		\$300,000.00		\$0.00		\$0.00
15% Contingency			\$158,851.50		\$235,023.00		\$96,775.50
Total			\$1,217,861.50		\$1,801,843.00		\$741,945.50

*Farmland to be acquired through platting

*Northern Bridge Corridor Study
Engineers Estimate of Cost
2004 Dollars*

Route D & Burnt Creek Loop (see exhibit 4.10)

ITEMS	UNIT	OPTION 1		OPTION 2		FRONTAGE ROAD	
		QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL
<i>Construction</i>							
Asphalt	LF	4900	\$220,500.00	5660	\$254,700.00	1795	\$80,775.00
Base	LF	4900	\$171,500.00	5660	\$198,100.00	1795	\$62,825.00
Earthwork	CY	12000	\$13,800.00	14000	\$16,100.00	4000	\$4,600.00
Topsoil	CY	12000	\$18,000.00	14000	\$21,000.00	4000	\$6,000.00
Culverts	MILE	0.9	\$58,500.00	1.1	\$71,500.00	0.3	\$19,500.00
Box Culverts	EA	0	\$0.00	0	\$0.00	0	\$0.00
Seeding/Erosion Control	LF	4900	\$4,900.00	5660	\$5,660.00	1795	\$1,795.00
Utility Relocation	LS						
Misc	LS		\$100,000.00		\$100,000.00		\$100,000.00
<i>Right of Way</i>							
River Bottom Farmland*	ACRE	15.5	\$0.00	16.1	\$0.00	8.3	\$0.00
Pasture/Farmland*	ACRE		\$0.00		\$0.00		\$0.00
Platted Lots	EA		\$0.00		\$0.00		\$0.00
Residential Relocations	EA		\$0.00		\$0.00		\$0.00
15% Contingency			\$84,012.55		\$100,059.00		\$41,324.25
Total			\$675,280.00		\$767,119.00		\$316,819.25

*Farmland to be acquired through platting



BMMPO TAC Comments

Paul Benning, NDDOT

Mel J. Bullinger, City of Bismarck

Carl Hokenstad, City of Bismarck

Tom Little, City of Mandan

Jon R. Mill, Burleigh County

Chuck Morman, Morton County

Steve Saunders, MPO

2004 07 29



North Dakota Department of Transportation

David A. Sprynczynatyk, P.E.
Director

John Hoeven
Governor

July 29, 2004

Mr. Steve Saunders
Transportation Planner
Bismarck/Mandan MPO
221 North 5 Street
P.O. Box 5503
Bismarck, ND 58506

COMMENTS ON THE DRAFT BISMARCK/MANDAN NORTHERN BRIDGE CORRIDOR STUDY

The North Dakota Department of Transportation (NDDOT) has reviewed the Draft Bismarck/Mandan Bridge Corridor Study dated June 2004 and offer the following:

- **Page 37:** NDDOT will not commit to taking the corridor on the state system. From NDDOT's point of view, the Northern Bridge Corridor only holds value in moving mostly local traffic for the economic benefit of the counties and cities of the area (similar to the benefits seen on Century Avenue from Tyler Parkway to Centennial Road).

The NDDOT sees only a limited value in moving Interstate and intrastate freight. For major freight movements, north and south to east and west, the department already has existing corridors well outside the areas of development that could be expanded at lower cost. For example, US 83 southbound to westbound I-94 movements can be accommodated with the Washburn Bridge and ND 200a and ND 25. Similar movements to I-94 East can be accommodated with ND 36 at Wilton and ND 14 north of Sterling.

- **Page 41:** The NDDOT recommends **Alternative B (North Route)** as the preferred alternative.
- **Page 43:** Option 1 or 2 Relating to Route B-1

NDDOT Recommends **Option 2 relating to Route B-1** and the intersection of ND Highway 1806. As development occurs around the area, signalization of the intersection is likely and a 90 degree intersection is more desirable than a 60 degree intersection.

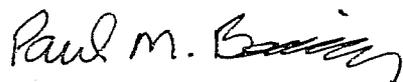
Mr. Steve Saunders
Page 2
July 29, 2004

- **Page 46:** Option 1 and 2 with respect to Route B-4.

NDDOT Recommends **Option 2 relating to Route B-4** to preserve logic of direction and intersections of River road. Right of way impacts are limited to land and not buildings, since it avoids relocation of River Road, ND Highway 1804 north-south, and Burnt Creek.

- **Page 50:** If Route D is selected as the chosen alternative, the department recommends that an additional option be developed that keeps the existing alignment of 1806 and provides for a county/city route north of the Sunset Interchange to the intersection of the new corridor. The current two alternatives will likely result in too few corridors servicing the developing area and would in effect make 1806 take the brunt of future development traffic. Also, moving 1806 also makes for a harder tie of continuity between 1806 north of I-94 and 1806 south of I-94.

If you have any additional questions or comments, please call me at (701) 328-2217.



PAUL M. BENNING, P.E. - URBAN/MPO ENGINEER - LOCAL GOVERNMENT

38:PMB

c: Mark Johnson - FHWA Transportation Planner and Research Manager
Tim Horner - Transportation Programs Director
Dave Leftwich - Local Government Engineer
Kevin Levi - Bismarck District Engineer

Bismarck

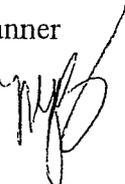
Engineering Department

July 2, 2004

MEMORANDUM

To: Steve Saunders, PE
MPO Transportation Planner

From: Mel J. Bullinger, PE
City Engineer



Subject: Northern Bridge Corridor Study
Comments on June 2004 Draft Report

I have finished my review of the referenced draft report on the Northern Bridge Corridor Study. In keeping with your request, I am pleased to offer the following comments:

In general I found the report to be well organized and to provide sufficient information about the process and the various alternates to allow the reader to reach a conclusion regarding their individual preferences for one alternate over another. However, I do believe this draft report would have benefited greatly from an enlarged version of the figure labeled as Exhibit 4.2 in the draft report. While that figure presents an overall view of the various alternatives and routes, the scale is too small to be able to discern much more than a general comparison of the approximate location of one alternative route to another. I would suggest that the final report should contain a version of Exhibit 4.2 that is at a minimum several times larger than the current version of that exhibit.

In regard to my recommendation for an alternative, in my professional opinion the best route of those studied is the northern route. Specifically I believe that Morton County alternate route B-2, Burleigh County alternate route B-4 with the Option 1 realignment of River Road is the best option of those presented for the long term functionality of the beltway. In essence, I agree with the recommendations of the KLJ firm on this matter.

By separate letter directly to Mr. Bob Shannon, PE, Kadrmass Lee & Jackson, Inc., I will directly provide him with my miscellaneous comments regarding typographical corrections and other errata contained within the report.

If you have any questions, please contact me @ 222-6580. Thank you.

MJB

Melvin J. Bullinger, P.E., City Engineer

Phone: 701-222-6580 ★ TDD: 711 ★ FAX: 701-222-6593 ★ 221 N. Fifth Street ★ P.O. Box 5503 ★ Bismarck, ND 58506-5503

Steve Saunders

From: Thomas Little [tlittle@cityofmandan.com]
Sent: Monday, June 28, 2004 2:20 PM
To: Steve Saunder (E-mail)
Subject: Northern Bridge Corridor Study—Comments

Steve,

This office supports the alignments B-2 (in Morton County) and B-4 (in Burleigh Co.).

I also support option 1 for the 1804 intersection and option 1 for the intersection with 1806.

I have also attached my list of recommended changes to the document in general. If there are wide differences of opinion concerning the recommendations, might I suggest a sit-down to go over everyone's thoughts.

If you have any questions, please feel free to contact me at your convenience.

Tom.

Steve Saunders

From: Thomas Little [tlittle@cityofmandan.com]
Sent: Friday, July 02, 2004 7:57 AM
To: Steve Saunder (E-mail)
Subject: North Bridge Corridor Study—Comments # 2

Steve,

As a supplement to my comments emailed to you on June 28, 2004; I wish to indicate my support —should Route D unfortunately be selected— for Option 2 at the 1806 intersection. More specifically, referring to page 50 of the draft report, I recommend that the said option 2 be tweaked by curving the existing 1806 westerly so that it intersects (perpendicularly) with the future 1806. My thoughts are that with the new 1806 in place, the old 1806 will become a very minor route and not warrant an intersection with the Route D.

If you have any questions, please contact Sarah H. (at this office) at your convenience.

Tom.

Comments; Draft Northern Bridge Corridor Study

1. Page iv Mayor LaMont should be Board President LaMont.
2. Page v (The 6th Whereas) This item should be removed. Suppose one of the entities does not approve the study; no one else can execute it, because they are signing/stating that all entities have approved it.
3. Page vi Suppose one of the entities does not approve the study. Their representative can not execute this document. Does that mean that the resolution is not valid and can not move forward? I recommend that only the Chairman of the MPO and the Secretary execute the resolution.
4. Page viii (Under PURPOSE--2nd line) the word can should be replaced with the word should.
5. Page viii (Under PURPOSE--2nd sentence) I don't understand the sentence.
6. Page ix (Under Alternative A--1st line--2nd sentence) Should read: In this alternative, a future bridge site is not----.
7. Page ix (Under Alternative A--2nd line--2nd sentence) Should read: Assuming that a river crossing would be needed sometime in the future, identification of --
8. Page ix (Under Alternative B--2st line) The word for should be replaced with the word of.
9. Page ix (Under Alternative C--1st bullet--2nd line) The word located should be removed.
10. Page ix (Under Alternative C--2nd bullet--2nd line) The words or more should be removed.
11. Page ix (Under Alternative C--3rd Bullet) Should read The route would require the realignment of the Rockhaver Creek----.
12. Page ix (Under Alternative D--4th line) That sentence should read: However, Alternative D creates a "U" shaped alignment, resulting in about two miles of additional travel distance than does Alternative B---.
13. Page x (The paragraph above CONCLUSION AND RECOMMENDATIONS) The word for should be replace with the word of.
14. Page x (Table--Alternative A--Advantages) On page ix, Alternative A, you state that this Alternative would only postpone the inevitable. Yet in this location you state there will be no right-of-way or bridge costs.

15. Page x (Table--Alternative A--Disadvantages) You list Greatest indirection; but if we do nothing, where is the indirection. I agree there will be indirection, but we need to explain this concept more thoroughly.
16. Page x (Table--Alternative B--Advantages) Do we know what the user costs will be. This should be expound on in the verbiage, and made part of the cost estimates.
17. Page x (Table--Alternative B--Advantages) Replace 6% with a hard number.
18. Page x (Table--Alternative D--Disadvantages) Replace 6% with a hard number and add: Probable need for truck climbing lanes, and steeper grades.
19. Page xi(1st sentence) Should read: The following recommendation is based---
20. Page xi(1st Bullet) Should read: Morton County Route B-2 (in the northerly portion of the study area).
21. Page xi(Under IMPLEMENTATION PLAN--Item # 2) I don't understand how revision of Road Master Plan will assist in the acquisition of right-of-way. Remove item # 2 as stated.
22. Page xi(Under IMPLEMENTATION PLAN--Number items) Add: Dedication during the platting process.
23. Page 2 (Under Project Background--4th line) Add Lincoln to the list.
24. Page 3 (1st paragraph--2nd line) Should read: --- areas outside the cities' corporate limits.
25. Page 3 (1st paragraph--5th line) Should read: --- river crossing location to a future study (this study addresses the specific location of the northern river crossing).
26. Page 3 (4th paragraph--2nd sentence) This is not a sentence.
27. Page 3 (5th paragraph--4th line) Remove the word for and insert the word during.
28. Page 5 (6th paragraph--3rd line) The word meeting should be meetings.
29. Page 15 (Under Environmental Issues--2nd paragraph--10th line) National Environmental Act--- should be National Environmental Policy Act---
30. Page 32 (Under Conclusion--3rd line) The word on should be of.

31. Page 40 (Under Alternative A--2nd line) Should read:---Bismarck-Mandan area, which is contrary to the recommendations identified in---
32. Page 40 (Under Alternative A--10th line) Should read:---will exist in the study area north of Bismarck-----.
33. Page 40 (Under Alternative A--2nd paragraph--1st line) Should read: Should the "Do Nothing Alternative" be selected, a future bridge could-----.
34. Page 43 (At the bottom of the page you list 2 Options f or the intersection of 1806 and this corridor alignment) Another option would be to have the existing 1806 curve westerly to connect with the future 1806 (south of the proposed B-1).
35. Page 61 (Table) Does not include cost for possible/probable truck climbing lanes or for user costs.
36. Page 61 (Table) Remove 37th St Segment & \$5,014,288. What and were are they? Is there a length in Burleigh Co. that should be listed?

**BURLEIGH COUNTY
HIGHWAY DEPARTMENT**

2000 NORTH 52ND STREET
BISMARCK, ND 58501-7900
701-221-6870
Fax 701-221-6872



JON R. MILL, RPE, RLS
COUNTY
ENGINEER

RODNEY NESS
HIGHWAY
SUPERINTENDENT

1 July 2004

Mr. Steve Saunders
MPO Transportation Planner
PO Box 5503
Bismarck, ND 58506

RE: Northern Bridge Corridor
Study Recommendations

Dear Mr. Saunders,

The above referenced study has required considerable time and effort and has revolved around sensitive social issues. As the study progressed, the final location recommendation seemed to be leaning towards accommodation of the social issues. The tendency to do this is strong, but analytical, technical, non-emotional reasoning sometimes dictates a different recommendation. This issue is an instance where clear conscience does not allow acquiescence to the social constraints of route selection.

After due deliberation of the draft report, I agree that Alternative B is the overall best route location to pursue. This route is the most direct, possible link between the tie points of 37th Street on the west side of the river and ND 1804 on the east side of the river. Alternative B appears to be over 2 miles shorter and involves much less indirection than Alternative D. Alternative B also offers a significant cost savings over Alternative D.

Alternative B-2 is preferable to Alternative B-1 since there are less social impacts without materially affecting the function or vision of the beltway function.

On the east side of the river, Alternative B-4 provides a much more direct alignment routing to the intended tie point than does Alternative B-3. Free flowing traffic use of the beltway is facilitated with Alternative B-4. This same desire for directness demands selection of Option 1 as the best treatment for the beltway-ND 1804 intersection.

The MPO Policy Board has a difficult decision to make in selecting a recommended route location. In the event that Alternative D is selected as the target corridor, there are some options to the large plan that have more merit than other options. Alternative D-2 requires flatter profile grades with shallower fill sections than Alternative D-1.

Of the presented options for the treatment of the beltway-ND 1806 intersection, Option 2 provides a smoother alignment for ND 1806. Careful study of this intersection suggests

that an Option 3 that would follow the existing alignment of ND 1806, with minor tweaking , might be a viable option to consider.

On the east side of the river, Alternative D-3 is the clear choice since it avoids the misdirection and additional length offered by Alternative D-4 and the misdirection and undesirable social impacts to Crested Butte Subdivision offered by Alternative D-5. The River Road bridge structure required by Alternative D-3 is actually a benefit since the structure assists the profile grade challenges in the area and enhances the north-south arterial type traffic flows for River Road. For the beltway-Burnt Creek Road intersection, Option 2 is preferred since it softens the social impact, matches fringe road layouts, and is less disruptive to the area. The frontage road to the Burnt Boat Ramp area is really not needed since the ramp area will be accessible under the beltway bridge with a very short roadway connection between existing roads and Misty Waters roadways.

Please contact this office if you have any questions concerning this issue.

Sincerely,

A handwritten signature in black ink that reads "Jon R. Mill". The signature is written in a cursive, flowing style.

Jon R. Mill, RPE & RLS
Burleigh County Engineer

Steve Saunders

From: Mill, Jon R. [jmill@state.nd.us]
Sent: Friday, July 02, 2004 10:57 AM
To: Saunders, Steve L.
Subject: Northern Bridge Draft Comment Addendum

As per your request, I reviewed the options list in the draft report to comment on all of the options, whether I preferred the route or not. The only option I did not comment on is for route B-1 as it intersects ND 1806. My option preference at this location is Option 1. This option offers a significant cost savings and has a very soft social and neighborhood impact. The intersection angle still meets minimums and is not undesirable enough to address.

Jon R. Mill, P.E., R.L.S.

Burleigh County Engineer
2000 N 52 St
Bismarck, ND 58501
701-221-6870
701-221-6872 fax
jmill@state.nd.us

7/2/2004

Bob Shannon

From: Steve Saunders [ssaunder@state.nd.us]

Sent: Thursday, July 08, 2004 10:47 AM

To: bob.shannon@kljeng.com

Hi Bob.

Here is Chuck's latest review of the N. Bridge draft. Please disregard the first review and replace it with this one.
Thanks Bob.

Steve

REPORT FOR NORTHERN BRIDGE CORRIDOR STUDY

PAGE 39, On this page it says the segment along 37th Street from North Dakota 25 to Highland Road will be able to follow existing road center lines and would not interfere with any homes in that particular area. I don't believe that is true at the east end, toward the Highland Road area.

For the first mile there is no homes, for the second mile there are 2 homes on the north side of the road, for the third mile in there is a home on the north side that belongs to Toby Huber and another cabin on the south side of the road. I believe that both of these are far enough back to get out of the right-of-way strip, although it will be close to the road. A little farther east there is a Mr. Backer who is close to the road. With this big of right-of-way it will definitely be up into his front yard. A little further east of Mr. Backer is Jan Froehlich, although his home is back far it will use a good chunk of his front yard. On the south side of the section line is another home. I don't believe that the Right-of-Way can be squeezed in thru this area. Then immediately east of that is a home almost on the section line itself which is going to cause some real problems. If your going to move the road north of this home enough to clear it your going to be down in deep valley. East of the last home is the original Norton farm. He has built extremely close to the section line and will cause problems. Another issue that comes up is that this is where the main water line for Missouri West Water starts and continues easterly along this particular area. As you get over further east as noted in the study you enter into the south side of the Landeis subdivision and then there are various options available there.

PAGE 40, On this page I don't know if I'm looking at something wrong but it appears as if on page xi at the beginning of the book it is recommending alternate B2 which is on 37th Street but on exhibit 4.2 it shows B2 as being south of 37th Street, so I'm not sure which one you are recommending.

PAGE 43, On this page as for options 1 or 2, Option 1 is present and is used effectively. Although the increase in east-west traffic expected to be rather significant I think it can't be handled in the same situation it is now. The north-south or option 2 would have some severe impacts on both Zachmeier Manufacturing & on Donnie Entzel's storage units and on his subdivision that is presently under construction. The south end would also infringe on some people's front yards rather severely, although there is no development taking place. Exhibit 4.4 route B1 is shown as being on the section line or 37th Street as being the choice. This page does not show B2 as even an option. I think maybe that needs to be put on there and still discussed somewhere along the line. Again I refer back to the fact that the water distribution line is in this area west of the last home you see in Landeis Subdivision, so that has to be addressed somewhere in this study as to the cost of moving that. There is also a power transmission line running along the entire length of this section line so far. It turns south into Heskett east of the Humane Society.

PAGE 49, This is along the south route and there are various access options available to do

this. Option 1 is shown in yellow. Option 1 would be difficult to put in because it would require another large change in Sunset Drive. I believe Sunset Drive's construction future is earlier than this is. Option 1 also with the frontage road would work for the homes on the frontage and would not create a real problem but somewhere along the line we need to get the other folks out to the west of 1806. There are 2 residents at this time and probably more by the time this goes in. Option 2 in red is basically the Sunset Drive as identified in the Long Range Transportation Study that appears to be fine. The one through Tesoro Oil Refinery I think would be a dead issue no matter when you go with the bridge.

As a final thought on this corridor, I believe that I would support corridor D or the southern route. Along with that corridor, option D2 for getting back up into the hills, north of Mandan. The reason is that a portion of this is an industrial area, so therefore it does fit in with the use. There are no homes to be moved. I like the idea of the D2 option to have the green space along the very steep hillside on the east side of Highland Road. In all practicality though, Morton County will not really be a player in this particular corridor because this all lies within the extraterritorial zoning of the City of Mandan. They will be the ones that will be imposing their wishes on the future zoning of this particular area. Also, I don't feel comfortable recommending anything on the East side of the river, as I personally am not acquainted with either of the options on that side.

CHOICES, REVIEW, AND COMMENTS OF N. BRIDGE DRAFT STUDY

CHOICES

1. Overall Alternatives Choice – B Route (Northern Crossing)
2. Specific route choices -
 - A. B2 and B4
 - B. D2 and D3
3. Option Choices
 - A. Alignment B1 Option Choice – Option 2
 - B. Alignment B4 Option Choice - Option 1
 - C. Alignment D Option Choice – Option 2
 - D. Burnt Creek Loop Alignment Option Choice – Option 1

REVIEW

1. Page vi is a signature certification of the MPO Policy Board by all 5 Board members. Recommend that only Chairman, Clause Lembke sign off on this certification.
2. Page vii is jurisdictional Resolution of Adoption. Paragraph 5 States, “Whereas, the engineering and planning department staff have reviewed the Northern Bridge Corridor Study, and have unanimously indicated their support for it as a guide for their future planning and development policies: and” Recommend that this paragraph be stricken.
3. Page 1 concerns the Introduction of the Corridor Study Development. Line 2 of the first paragraph states “...the beltway is between ND Highway 25 in Morton County (one mile north of I-94) and North 66th Street in Burleigh County (three miles north of I-94).” Recommend that the paragraph state, “that the beltway is between 24th Avenue and North 66th Street...” ND Highway 25 is not actually part of the planned beltway. Although we wanted KLJ to address the road connection between Highway 25 and 24th Avenue in this corridor study, we did not envision Highway 25 as a part of the beltway. I further recommend that any other applicable references in the report should refer to 24th Avenue and not ND Highway 25 as the western north/south leg of the beltway. Also the map on the bottom of page 1 should be changed to show that the connection between Highway 25 and 24th Avenue is being studied but not part of the beltway.

COMMENTS

Overall a well written report, that lays out the situation and choices well.

Alternative A (do nothing) does not address an upcoming transportation problem. It is clear that Alternative B (northern route) is the superior bridge/corridor route. It is also clear that this study has encountered local resistance that makes Alternative D (southern route) the more politically acceptable choice. But, it is important to remember that the route we protect will be our "transportation tool" for many decades. The route we choose should be something we are proud of now and in the future. Although some pain is involved in its selection, in my professional opinion, Alternative B is the selection the MPO should embrace.