

MINNESOTA DEPARTMENT OF TRANSPORTATION
and
CITY OF MOORHEAD

**PROGRAMMATIC
SECTION 4(f) EVALUATION**

FOR

**State Project: SP 144-116-07
SP 144-136-06
SP 144-123-11**

Minnesota Project: HPP MN 58 (102)

SE Main Avenue/20th Street/21st Street Railroad Grade Separation Safety Project

SE Main Avenue

FROM: Approximately 250 feet northwest of Oak Way

TO: 3rd Avenue South

20th Street

FROM: Approximately 250 feet south of 6th Avenue South

TO: SE Main Avenue/20th Street/21st Street intersection

21st Street

FROM: SE Main Avenue/20th Street/21st Street intersection

TO: 1st Avenue South

IN THE CITY OF: Moorhead

AFFECTED 4(f) RESOURCE: Moorhead Senior High School soccer practice field

PROPOSED IMPROVEMENT: Grade separation of 20th Street/21st Street and SE Main Avenue from the Burlington Northern-Santa Fe (BNSF) Moorhead Subdivision railroad tracks and Otter Tail Valley (OTV) railroad tracks, reconstruction of the SE Main Avenue/20th Street/21st Street intersection, and construction of a railroad wye connection between the BNSF Moorhead Subdivision tracks and the BNSF Main line.

TABLE OF CONTENTS

	<u>Page</u>
AREA LOCATION MAP.....	i
PROJECT MAP – MOORHEAD SENIOR HIGH SCHOOL SOCCER FIELD.....	ii
I. INTRODUCTION.....	1
II. PROPOSED ACTION.....	2
III. DESCRIPTION OF SECTION 4(f) PROPERTY.....	2
A. Moorhead Senior High School Soccer Practice Field	2
1. Detailed Map	2
2. Location and Size	2
3. Ownership and Type	3
4. Function and/or Available Activities	3
5. Description of Existing and Planned Uses	3
6. Access.....	4
7. Relationship to Other Similarly Used Lands in the Vicinity	4
8. Applicable Clauses Affecting the Ownership	5
9. Unusual Characteristics Reducing or Enhancing the Value of the Property	5
IV. DESCRIPTION OF ALTERNATIVES	6
A. No-Build Alternative	7
B. Alternative A.....	7
C. Alternative B (Complete Avoidance Alternative)	8
D. Alternative C (Build Alternative)	8
V. IMPACTS ON THE SECTION 4(f) PROPERTY.....	9
VI. AVOIDANCE ALTERNATIVES	12
A. No-Build Alternative	12
B. Alternative B.....	12
C. Build on Alternative Alignment	13
VII. MEASURES TO MINIMIZE HARM.....	13
VIII. COORDINATION	13
IX. CONCLUSION	14
A. Basis for Concluding That There Are No Feasible and Prudent Alternatives to the Use of the Section 4(f) Property	14

TABLE OF CONTENTS CONTINUED

	<u>Page</u>
B. Basis for Concluding That the Proposed Action Includes All Possible Planning to Minimize Harm to the Section 4(f) Property.....	15
C. Summary of the Formal Coordination	16
D. Concluding Statement.....	16

APPENDIX

Figure 3 – Alternative A

Figure 4 – Alternative B (Complete Avoidance Alternative)

Figure 5 – Alternative C (Build Alternative)

Correspondence between City of Moorhead and Moorhead Area Public Schools – Independent School District #152

H:\Projects\4918\EP\Reports\Section 4f\4f-MoorheadSEMain-02nov05.doc

I. INTRODUCTION

The Section 4(f) legislation as established under the Department of Transportation Act of 1966 (49 USC 303, 23 USC 138) provides protection for publicly owned parks, recreation areas, historic sites, wildlife and/or waterfowl refuges from conversion to a transportation use. The FHWA may not approve the use of land from a significant publicly owned park, recreation area, or wildlife and waterfowl refuge, or any significant historic site unless a determination is made that:

- There is no feasible and prudent alternative to the use of land from the property; and
- The action includes all possible planning to minimize harm to the property resulting from such use (23 CFR 771.135).

The purpose of this Section 4(f) Evaluation is to provide the information required by the Secretary of Transportation to make the decision regarding the use of properties protected by Section 4(f) and/or Section 6(f) legislation under the preferred alternative selected in the City of Moorhead SE Main Avenue/20th Street/21st Street Railroad Grade Separation Project Environmental Assessment (EA).

This Section 4(f) Evaluation describes all identified Section 4(f) and/or Section 6(f) properties which are proposed to be “used” under the preferred alternative, potential impacts on those properties, and possible mitigation measures to minimize impacts. A “use” occurs (1) when land from a Section 4(f) site is acquired for a transportation project, (2) when there is an occupancy of land that is adverse in terms of the statute’s preservationist purposes, or (3) when the proximity impacts of the transportation project on the Section 4(f) sites, without acquisition of land, are so great that the purposes for which the Section 4(f) site exists are substantially impaired (normally referred to as a constructive use).

The Section 4(f) process requires that any impacts from use of a park, recreation area, historic site, wildlife or waterfowl refuge for highway purposes be evaluated in context with the proposed highway construction/reconstruction activity. An inventory of these types of properties was completed based on a review of the design concept drawings and the project’s impacts on these properties were assessed. Based on the initial inventory and impact assessment, the design modifications discussed in Section VII of this document were implemented to avoid and minimize use of these Section 4(f) properties.

The following Section 4(f) properties will be impacted by the proposed project (see Figure 2):

- Moorhead Senior High School soccer practice field

II. PROPOSED ACTION

A description of the proposed project, and an explanation of the purpose and need for the project, are included in the Environmental Assessment. Please refer to the Alternatives section (Section IV.C) of that document for a full description of the proposed action, the Purpose and Need section (Section III) of that document for the purpose and need of the project and the Social, Economic and Environmental Impacts section (Section VII.A.), Item 25 of the Environmental Assessment Worksheet, for additional discussion of the recreational facilities at Moorhead Senior High School.

III. DESCRIPTION OF SECTION 4(f) PROPERTY

The Section 4(f) resource that will be affected by the proposed action is a soccer field on Moorhead Senior High School property, which is located in the City of Moorhead (City) in Clay County as shown in Figure 1. The property location in relation to the proposed SE Main Avenue/20th Street/21st Street railroad grade separation is shown in Figure 2. The proposed railroad wye construction will not result in the use of Moorhead Senior High School property.

1. Detailed Map

Refer to Figure 5 in the Appendix for a detailed map of the Build Alternative in relation to the Moorhead Senior High School property and the school soccer practice field along 21st Street.

2. Location and Size

Moorhead Senior High School is bounded by 21st Street to the west, the Burlington Northern-Santa Fe (BNSF) Mainline railroad tracks to the north, residential development to the east, and 4th Street South to the south. The high school campus is approximately 54 acres in size.

The high school soccer practice field is bounded 21st Street to the west, 2nd Avenue South to the north, a school parking lot and driveway to the east, and 4th Street South to the south. The practice field is 2.3 acres in size. The proposed project will require 0.17 acres of property as permanent acquisition; this represents approximately seven percent of the high school soccer practice field, below the ten percent programmatic threshold for facilities less than ten acres in size.

3. Ownership and Type

The property affected by the proposed project is on the Moorhead Senior High School campus, which is owned by Moorhead Area Public Schools – Independent School District #152. Moorhead Senior High School is a public school. The soccer practice field that will be affected by the proposed project is open to public use when not being used for school functions (i.e., physical education classes; Moorhead Senior High School soccer team practices).

4. Function and/or Available Activities

The affected facility is the soccer practice field on the west end of the high school campus. This soccer field is not a regulation-size soccer field but is used by the school for high school soccer team practices in the fall and by school physical education classes as needed. The soccer practice field is open for public use year round, and is used as a practice facility by local youth soccer teams. These practices are not organized by the school or by any other public institution (e.g., city parks and recreation department); if the field is open, it is available for public use.

Moorhead Sports Center, on the high school campus east of the project area, provides fields for soccer, football, baseball, softball or other team sports. Tennis courts are located at the facility along 4th Avenue South. An indoor hockey arena, used by the high school as well as other local organizations, is also located at the Moorhead Sports Center.

5. Description of Existing and Planned Uses

As noted above, the affected soccer practice field on the Moorhead Senior High School campus is used for school functions and is also available for public use.

The property that will be impacted by the grade separation is currently used by the school as a soccer practice facility. The field is important to the school in this function as recent expansion elsewhere on the school campus has resulted in the loss of space for soccer practices.

The soccer practice field is identified as public/semi-public in the existing land use map in the *City of Moorhead Comprehensive Plan* (July 2004). The soccer practice field parcel is identified as commercial in the future land use map in the City's Comprehensive Plan.

6. Access

The main access to Moorhead Senior High School is from 4th Avenue South. Access can also be gained from 2nd Avenue South off of 21st Street. Access to the high school and the affected soccer practice field will not be affected under the Build Alternative. Access to the high school is anticipated to improve under the Build Alternative by eliminating delays associated with the at-grade railroad crossing and improving safety by eliminating auto-train, school bus-train and pedestrian-train exposures.

School parking lots are located to the east and northeast of the soccer field. The parking lots and access to the parking lots will not be affected by the project.

7. Relationship to Other Similarly Used Lands in the Vicinity

Several parks and recreation facilities are located near Moorhead Senior High School. These facilities provide the same or similar opportunities for the public. A complete description of these parks and their facilities is listed below.

- Centennial Athletic Complex

Centennial Athletic Complex (2600 15th Avenue North) is a City of Moorhead athletic facility located approximately 1.2 miles north of the project area. The Centennial Athletic Complex is used by the Red River Valley Softball Association, Babe Ruth Baseball, Fargo-Moorhead Youth Athletics, and the City of Moorhead Parks and Recreation for baseball, softball, and football activities.

- Moorhead Municipal Pool

The Moorhead Municipal Pool is located at 801 19th Street South, just south of the project area. The Moorhead Municipal Pool has three pools (two wading pools and one larger pool with a diving area and waterslides). The pool is open from June to August.

- Moorview Soccer Complex

Moorview Soccer Complex is located at 3001 24th Avenue South, approximately 1.5 miles south of the project area near I-94. These soccer fields are used by the Moorhead Parks and Recreation Department and Moorhead Youth Soccer Club.

- Moorhead Sports Center

The Moorhead Sports Center (324 24th Street South) is located adjacent to the project area and Moorhead Senior High School on school district property. Refer to Section III.4 above for a description of facilities at the Moorhead Sports Center.

- Moorhead Youth Hockey Arena

The Moorhead Youth Hockey Arena (707 SE Main Avenue) is located adjacent to the SE Main Avenue/20th Street/21st Street intersection. The hockey arena is used by the Moorhead Youth Hockey Association teams.

- Morningside Park

Morningside Park (455 Oak Way) is a City of Moorhead park located at the SE Main Avenue/Oak Way intersection, adjacent to the southern project terminus along SE Main Avenue. Recreation opportunities at the park include outdoor skating and hockey rinks and a recreation center.

- Romkey Park

Romkey Park (900 19th Street South) is a City of Moorhead park located just south of the project area along 20th Street South and 19th Street South. Several opportunities are available at the park including outdoor skating and hockey rinks during the winter months, ball fields, a recreation center, and basketball courts.

8. Applicable Clauses Affecting the Ownership

The property that will be acquired as part of this project was not planned, developed or improved with Land and Water Conservation (LAWCON) funds.

There are no other applicable clauses affecting the ownership of this land.

9. Unusual Characteristics Reducing or Enhancing the Value of the Property

There are no unusual characteristics that either reduce or enhance the value of the property.

IV. DESCRIPTION OF ALTERNATIVES

Several design and alignment alternatives, in addition to the No-Build Alternative, were considered for the SE Main Avenue/20th Street/21st Street railroad grade separation to avoid and/or minimize impacts to the Moorhead Senior High School property. These included:

- 1) Construction of the grade separated intersection along the existing roadway alignments and at the existing SE Main Avenue/20th Street/21st Street intersection location (see Section IV.B of the EA/EAW); and
- 2) Construction of the grade separated intersection along a shifted roadway alignment. 21st Street would be shifted to the west; 20th Street and SE Main Avenue would be largely along their existing alignments. The SE Main Avenue/20th Street/21st Street intersection would be shifted to the west relative to the existing intersection location.

The alignment alternative to construct the grade-separated facility along the existing roadway alignment and at the existing SE Main Avenue/20th Street/21st Street intersection location would result in the acquisition of 0.19-acre of land from the high school soccer field along 21st Street and 4th Avenue South, similar to the 0.17-acre of land to be acquired from the high school soccer practice field for the Build Alternative. However, this alternative was rejected from further consideration during early project development because:

- Property impacts – 5 commercial properties (4 businesses and 1 vacant commercial parcel) would be acquired along 21st Street between 4th Avenue South and SE Main Avenue, just to the south of the high school soccer field;
- Traffic impacts – construction of this alternative would result in greater traffic disruptions during construction compared to the shifted alignment alternative;
- Impacts to City utilities – more City utilities would be affected by construction along the existing intersection alignment; and
- Greater project costs – the BNSF Moorhead Subdivision bridge would have to span the middle of the SE Main Avenue/20th Street/21st Street intersection. Construction of the railroad overpass over the existing intersection location would result in a longer, more expensive railroad bridge, increasing project costs by approximately \$1 million.

Refer to Section IV.B. of the EA for additional discussion of the alternative along the existing roadway alignment.

Following is a brief description of each alternative considered along the shifted alignment as it relates to the proposed grade separation project. The figures in the Appendix for the

alternatives described below illustrate the roadway alignment adjacent to the Section 4(f) property. All alternatives would be the same at the grade-separated railroad crossings, the SE Main Avenue/20th Street/21st Street intersection, and along 20th Street and SE Main Avenue. Refer to Figure 3 in the EA/EAW for an illustration of the full project corridor.

The project also includes the construction of a railroad wye between the BNSF Moorhead Subdivision tracks and BNSF Mainline west of the Moorhead Senior High School; the construction of the railroad wye will not impact the school. Refer to Section IV.C. of the EA for a description of the railroad wye construction. Note that the railroad wye construction would be included with each of the alternatives described below. Because the railroad wye would have no impacts on the high school, it is not included in the description and analysis of alternatives as part of this Section 4(f) evaluation.

A. No-Build Alternative

The No-Build Alternative would maintain the existing four-lane urban roadway (two through lanes in both directions on SE Main Avenue, 20th Street, and 21st Street) and at-grade intersections with the railroad and include routine maintenance on the existing roadway.

B. Alternative A

Alternative A is illustrated in Figure 3 in the Appendix. Alternative A would reconstruct the existing SE Main Avenue, 20th Street and 21st Street four-lane urban roadway along a shifted alignment. The roadway would be depressed approximately 25 feet to accommodate the railroad overpasses. The SE Main Avenue/20th Street/21st Street intersection would be shifted just to the west of the existing intersection. 21st Street would tie into the existing roadway alignment at 2nd Street South at the high school soccer field. A sidewalk would be reconstructed along the east side of 21st Street adjacent to school property, along both sides of 20th Street, and along the south side of SE Main Avenue northwest of the SE Main Avenue/20th Street/21st Street intersection. No retaining walls would be constructed along the east side of 21st Street adjacent to the high school property.

4th Avenue South would be reconstructed as a four-lane urban roadway between 21st Street and the senior high school entrance, tapering to the existing roadway section east of the high school. The roadway would be constructed along the existing 4th Avenue South alignment. A pedestrian/bicycle trail would be constructed on both sides of 4th Avenue South. No retaining walls would be included along the reconstructed roadway.

Access to the high school from 4th Avenue South would be realigned to the west to consolidate access points with a proposed back access to commercial properties at the northeast corner of the SE Main Avenue/20th Street/21st Street intersection.

C. Alternative B (Complete Avoidance Alternative)

Alternative B is illustrated in Figure 4 in the Appendix. Alternative B would reconstruct the existing SE Main Avenue, 20th Street and 21st Street four-lane urban roadway along a shifted alignment. This alignment would be shifted to the west to completely avoid the high school property. The roadway would be depressed approximately 25 feet to accommodate the railroad overpasses as described for Alternative A. The SE Main Avenue/20th Street/21st Street intersection would be shifted just to the west of the existing intersection. 21st Street would tie into the existing roadway alignment north of 2nd Avenue South near the high school soccer field. A sidewalk would be reconstructed along the east side of 21st Street adjacent to the high school property, along both sides of 20th Street, and along the south side of SE Main Avenue northwest of the SE Main Avenue/20th Street/21st Street intersection. Retaining walls would be constructed along the east side of 21st Street adjacent to the high school property as well as along the west side of 21st Street adjacent to the commercial properties.

4th Avenue South would be reconstructed as a four-lane urban roadway between 21st Street and the senior high school entrance, tapering to the existing roadway section east of the high school. The roadway would be aligned to the south of the existing roadway alignment to completely avoid the senior high school property. A pedestrian/bicycle trail would be constructed on both sides of 4th Avenue South. Retaining walls would also be included adjacent to the trails on both sides of the roadway between the senior high school entrance and 21st Street.

Access to the high school from 4th Avenue South would remain at its existing location under Alternative B.

D. Alternative C (Build Alternative)

Alternative C is the Build Alternative described in Section IV.C of the EA. Alternative C is illustrated in Figure 5 in the Appendix. Under Alternative C, SE Main Avenue, 20th Street and 21st Street would be constructed as described above for Alternative B. The northern terminus of the project on 21st Street would tie into the existing alignment north of 2nd Avenue South. A retaining wall would be constructed along the east side of 21st Street adjacent to the high school property.

4th Avenue South would be reconstructed with the Build Alternative as described above under Alternative A. However, under the Build Alternative, retaining walls would be constructed along 4th Avenue South between 21st Street and the high school entrance.

Access to the high school from 4th Avenue South is proposed to be realigned to the west to align with the proposed access to commercial property at the 21st

Street/4th Avenue South intersection. Realignment of the high school access will be determined with final design.

V. IMPACTS ON THE SECTION 4(f) PROPERTY

The impacts of the alternatives on the Section 4(f) property and surrounding properties are shown in Table 1 below.

Table 1 only describes social, economic and environmental impacts that differ among the alternatives. Other impacts to social (e.g., environmental justice, historic resources), economic, and environmental (e.g., air quality, endangered species, farmlands, floodplains, hazardous materials, noise, water quality) resources would either not be present or would be the same across all alternatives.

Alternative A would use a total of 0.46-acre of land from the high school soccer field. This acquisition would decrease the amount of available space on the field for use as part of the soccer field; the soccer field is already smaller than a regulation size soccer field. Access to the soccer field and school would not be impacted by Alternative A.

Alternative B, the complete avoidance alternative, is discussed in Section VI.B. below.

Alternative C, the Build Alternative, would use a total of 0.17-acre from the high school soccer field; acquisition of soccer field property would be “strip” takings along 21st Street and 4th Avenue South.. The Build Alternative will not affect the use of this space as a soccer facility. Access to the soccer field and the high school would not be impacted by the Build Alternative.

**TABLE 1
MOORHEAD SENIOR HIGH SCHOOL SOCCER PRACTICE FIELD – ALTERNATIVES COMPARISON**

	ALTERNATIVES			
	No-Build Alternative	Alternative A	Alternative B (Complete Avoidance Alternative)	Alternative C (Build Alternative)
Impacts to the 4(f) Property:				
Amount of land to be used	0 acres.	0.46-acre	0 acres	0.17-acre ⁽¹⁾
Facilities affected	Not Applicable (N/A)	None	None	None
Functions affected	N/A	Decreases available space for soccer field	None	None
Access	N/A	No changes to access – refer to Section III.6 and Section IV.B	No changes to access – refer to Section III.6. and Section IV.C	No changes to access – refer to Section III.6. and Section IV.D
Unique problems	N/A	None	None	None
Unusual factors	N/A	None	None	None
Visual intrusion	N/A	None	None	None
Impacts to Surrounding Properties:				
Relocations – full acquisition ⁽²⁾	0 properties	4 properties (0 residential; 1 commercial; 3 vacant commercial ⁽³⁾)	3 properties (0 residential; 3 vacant commercial ⁽³⁾)	3 properties (0 residential; 3 vacant commercial ⁽³⁾)
Partial acquisition	0 properties	1 commercial property	2 commercial properties	1 commercial property
Right of way ⁽⁴⁾	0 acres	1.22 acres	1.39 acres	1.22 acres
Other	None	None	- Encroachment on commercial property would disrupt traffic patterns necessary for operations. - Relocation of USTs at gas station at 21st Street/4th Avenue South intersection.	None

Additional information on items above:

- ⁽¹⁾ Temporary construction impacts for the Build Alternative would be located within the acquisition limits adjacent to the retaining walls along 21st Street and 4th Avenue South. Minor temporary construction impacts may occur along 21st Street north of the proposed retaining wall.
- ⁽²⁾ Relocations under each alternative in this programmatic Section 4(f) evaluation are for properties adjacent to the high school along 21st Street and 4th Avenue South. Refer to the EA/EAW for a discussion of relocations associated with the entire project.
- ⁽³⁾ One vacant parcel is owned by the City of Moorhead and another is owned by the Moorhead Economic Development Authority. Under the proposed alternatives, these vacant parcels could not be resold for redevelopment.
- ⁽⁴⁾ Additional right of way to be acquired from partial acquisition of commercial properties on the west side of 21st Street and at the 21st Street/4th Avenue South intersection across from the Senior High School.

TABLE 1 continued
MOORHEAD SENIOR HIGH SCHOOL SOCCER PRACTICE FIELD – ALTERNATIVES COMPARISON

	ALTERNATIVES			
	No-Build Alternative	Alternative A	Alternative B (Complete Avoidance Alternative)	Alternative C (Build Alternative)
Other Issues:				
Safety issues	Safety issues and concerns with at-grade railroad crossing ⁽⁵⁾	Improved safety with railroad grade separation	Improved safety with railroad grade separation	Improved safety with railroad grade separation
Traffic issues	LOS D or F at 4 key intersections in project area by year 2011 ⁽⁶⁾	None	None	None
Geometric issues	None	None	- 21st St./4th Ave. S. Intersection at steep grade compared to Build Alternative; - 4th Ave South alignment deficiencies	None
Estimated Project Cost ⁽⁷⁾	N/A	+ \$40,000	\$0	\$0

Additional information on items above:

⁽⁵⁾ Refer to Section III of EA/EAW for a discussion of safety issues and concerns with existing at-grade railroad crossing.

⁽⁶⁾ Refer to Section VII.A., Item 21 of EA/EAW for additional information on traffic in the project area.

⁽⁷⁾ Project cost for Alternative A and Alternative B are represented as costs compared to the Build Alternative (approximately \$25 Million – see Section V.A. of the EA). Cost differences between Alternatives A and B compared to the Build Alternative as shown assumes all costs would be the same except for additional relocations, additional partial right of way acquisitions, and fewer retaining walls under Alternative A. Property values were obtained from the Clay County GIS Website. Partial acquisitions assumed \$2.00 per square foot acquired; severance damages were not estimated. Does not include costs for relocation of underground storage tanks as described in Section VI.B.

VI. AVOIDANCE ALTERNATIVES

Avoidance alternatives considered, but eliminated from detailed study include:

A. No-Build Alternative

The No-Build Alternative was not chosen as the build alternative as it would not address the transportation, operational, and safety-related concerns along the existing roadway with the at-grade railroad crossings.

B. Alternative B

Complete avoidance of the Section 4(f) property (Alternative B) was considered for the grade separation project. The complete avoidance alternative, Alternative B, is described in Section IV above. The right of way and alignment for Alternative B relative to Moorhead Senior High School soccer practice field are shown on Figure 4 in the Appendix.

Complete avoidance of Moorhead Senior High School (Alternative B) is not a feasible and prudent alternative because it would result in:

- Partial acquisition of commercial property (Holiday Gas Station) along the east side of 21st Street at 4th Avenue South. Encroachment into the parcel would disrupt traffic patterns necessary for gas station operations and eliminate parking from the north side of the building;
- Relocation of underground gasoline storage tanks (UST) at the Holiday Gas Station along the east side of 21st Street at the 21st Street/4th Avenue South intersection. Relocation of these USTs would result in temporary impacts to this business and add to project costs;
- Partial acquisition of commercial property (Stop-n-Go Gas Station) along west side of 21st Street across from the high school. Encroachment into the parcel would disrupt traffic patterns necessary for gas station operations;
- Geometric deficiencies with the 21st Street/4th Avenue South intersection (steep grade) and the existing 4th Street South alignment near the high school entrance. Additional construction would be required east of the project terminus along 4th Street South to correct the alignment deficiency; and
- Additional project costs due to relocation of USTs at 21st Street/4th Street intersection gas station as noted above.

C. Build on Alternative Alignment Location

The proposed project is not new construction and is roadway specific. Therefore, it cannot be completed on another alignment location. Refer to Section III of the EA for a discussion of the purpose and need of the proposed project.

VII. MEASURES TO MINIMIZE HARM

The proposed action includes all possible planning to minimize harm. Proposed mitigation measures include the following:

- Adjusting the roadway alignment to minimize impacts to the school property and commercial properties along 21st Street;
- Adjusting the high school access alignment along 4th Avenue South to minimize impacts to the southeast corner of the soccer practice field;
- Incorporating retaining walls along 21st Street and 4th Avenue South; and
- Minimizing boulevard width and width between the pedestrian/bicycle trails and retaining walls.

The school district will be compensated for the property acquisition in accordance with federal law.

School officials, in discussions during the preparation of this Section 4(f) evaluation, indicated that they were interested in replacing the existing fencing along 21st Street with taller fencing to prevent soccer balls from being kicked off the soccer field onto the adjacent roadways. Existing fencing along 21st Street will be replaced as part of the project construction. Replacement of existing fencing with taller fencing will be considered during final design in discussions with school officials.

VIII. COORDINATION

Moorhead Senior High School administrative staff was contacted during the completion of this document. A meeting was held with the Moorhead Senior High School principal in July 2004 to discuss the proposed project. Moorhead Area Public Schools Independent

School District #152 officials have been involved with Project Management Team (PMT) meetings. Coordination will continue with Moorhead Senior High School throughout the project. Refer to the correspondence with Moorhead Area Public Schools in the Appendix.

IX. CONCLUSION

A. BASIS FOR CONCLUDING THAT THERE ARE NO FEASIBLE AND PRUDENT ALTERNATIVES TO THE USE OF THE SECTION 4(f) PROPERTY

The supporting information in Section IV above demonstrates that the cost, social, economic, and environmental impacts and community disruption resulting from such alternatives reach extraordinary magnitudes, as summarized below:

The “do nothing” alternative is not feasible and prudent because:

- The “do nothing” alternative would not improve safety at the SE Main Avenue/20th Street/21st Street intersection for both vehicles and pedestrian traffic, and would not reduce auto/train and pedestrian/train exposures; and
- The “do nothing” would not address existing and projected traffic operations. The SE Main Ave/20th Street/21st Street intersection operates at LOS D and is expected to operate at LOS D through year 2030 without improvements. The 21st Street/4th Avenue South intersection operates at LOS C and is anticipated to operate at LOS D by year 2020. Other key Main Avenue intersections operate at LOS F and are anticipated to operate at LOS F through year 2030 without improvements.

It is not feasible and prudent to avoid Section 4(f) lands by minor alignment shifts or design alternatives, because implementing such measures would result in:

- Partial acquisition of commercial property at the 21st Street/4th Street intersection to accommodate the complete avoidance alternative (Alternative B – see Section VI.B above);
- The relocation of USTs at the gas station at the 21st Street/4th Avenue South intersection across from the soccer practice field would result in temporary impacts to this business and add to project costs;
- Additional right-of-way would be acquired from commercial property along the west side of 21st Street across from the high school;
- Additional right-of-way and relocation of USTs would increase costs relative to Build Alternative; and
- The 21st Street/4th Avenue South intersection and the 4th Avenue South Alignment would be geometrically deficient as described above in Section VI.B.

It is not feasible and prudent to avoid Section 4(f) lands by constructing on a new alignment because:

- This project is roadway specific. Construction on a new alignment would not address safety and operational concerns with the SE Main Avenue/20th Street/21st Street intersection.

B. BASIS FOR CONCLUDING THAT THE PROPOSED ACTION INCLUDES ALL POSSIBLE PLANNING TO MINIMIZE HARM TO THE SECTION 4(f) PROPERTY

The Build Alternative is a feasible and prudent alternative because:

- The Build Alternative provides a grade-separated intersection from the two railroad tracks crossing through the intersection, improving safety for vehicular traffic, school bus traffic and pedestrian/bicycle traffic, thereby addressing the project's purpose and need;
- The Build Alternative would be expected to result in acceptable intersection LOS in both the a.m. peak hour and p.m. peak hour at all key intersections within the project area;
- The Build Alternative minimizes property acquisition/impacts to both Moorhead Senior High School soccer practice field and commercial property along 21st Street; and
- The Build Alternative would not require the acquisition and relocation of businesses along 21st Street.

The Build Alternative has the least harm on the soccer practice field at Moorhead Senior High School after considering mitigation to the high school property. Mitigation measures include the following:

- The Build Alternative alignment along 21st Street has been shifted to the west as far as possible to minimize impacts to the high school soccer practice field;
- The access to the high school on 4th Avenue South has been shifted to the east as far as possible to minimize impacts to the high school soccer practice field;
- Retaining walls have been incorporated into the Build Alternative design along 21st Street and 4th Avenue South to minimize property impacts to the high school and to avoid relocation of businesses along 21st Street; and
- The Build Alternative design has minimized boulevard width and width between the pedestrian/bicycle trail and the retaining walls to minimize property impacts to the high school soccer field.

C. SUMMARY OF THE FORMAL COORDINATION

The proposed project has been reviewed by Moorhead Senior High School and Moorhead School District officials. Correspondence between the City of Moorhead and Moorhead Area Public Schools is located at the end of the Appendix. Additional coordination will continue with Moorhead Senior High School and school district officials throughout the project.

D. CONCLUDING STATEMENT

Based upon the above considerations, there is no feasible and prudent alternative to the use of land from the soccer field along 21st Street at Moorhead Senior High School, and the proposed action includes all possible planning to minimize harm to Moorhead Senior High School soccer field resulting from such use.

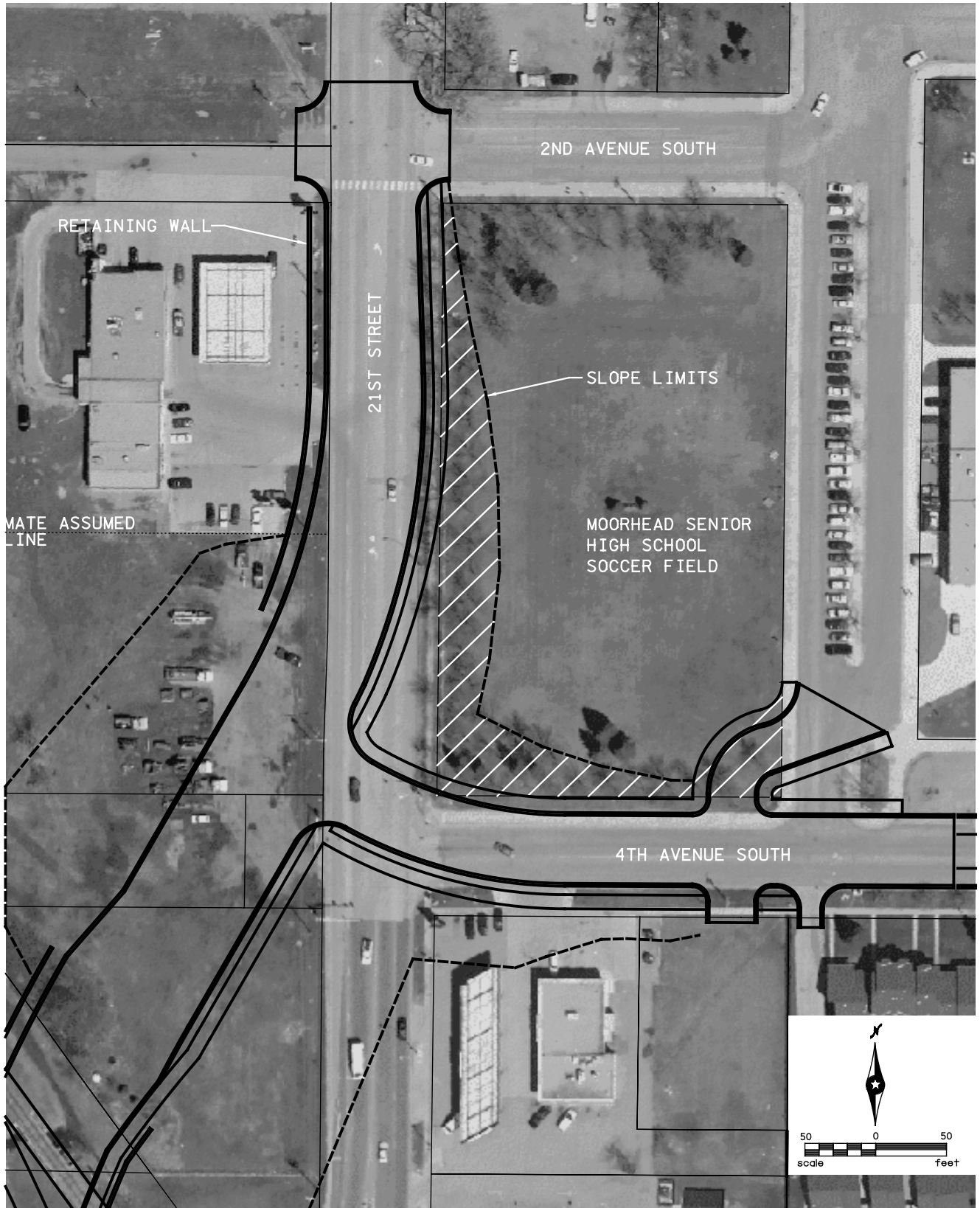
APPENDIX

Figure 3 – Alternative A Alignment

Figure 4 – Alternative B (Complete Avoidance Alternative) Alignment

Figure 5 – Alternative C (Build Alternative) Alignment

Correspondence between the City of Moorhead and Moorhead Area Public Schools –
Independent School District #152



H:\Projects\4918\H1\MOORHEAD\SHIFTED ALIGNMENT\FIGURES\4\FIGURE3.dgn

**PROGRAMMATIC SECTION 4(F) EVALUATION -
ALTERNATIVE A ALIGNMENT**

SOUTHEAST MAIN AVE./20TH STREET/21ST STREET RAILROAD GRADE
SEPARATION PROJECT
CITY OF MOORHEAD - SP# 144-116-06, MINN. PROJ. HPP MN 58(102)

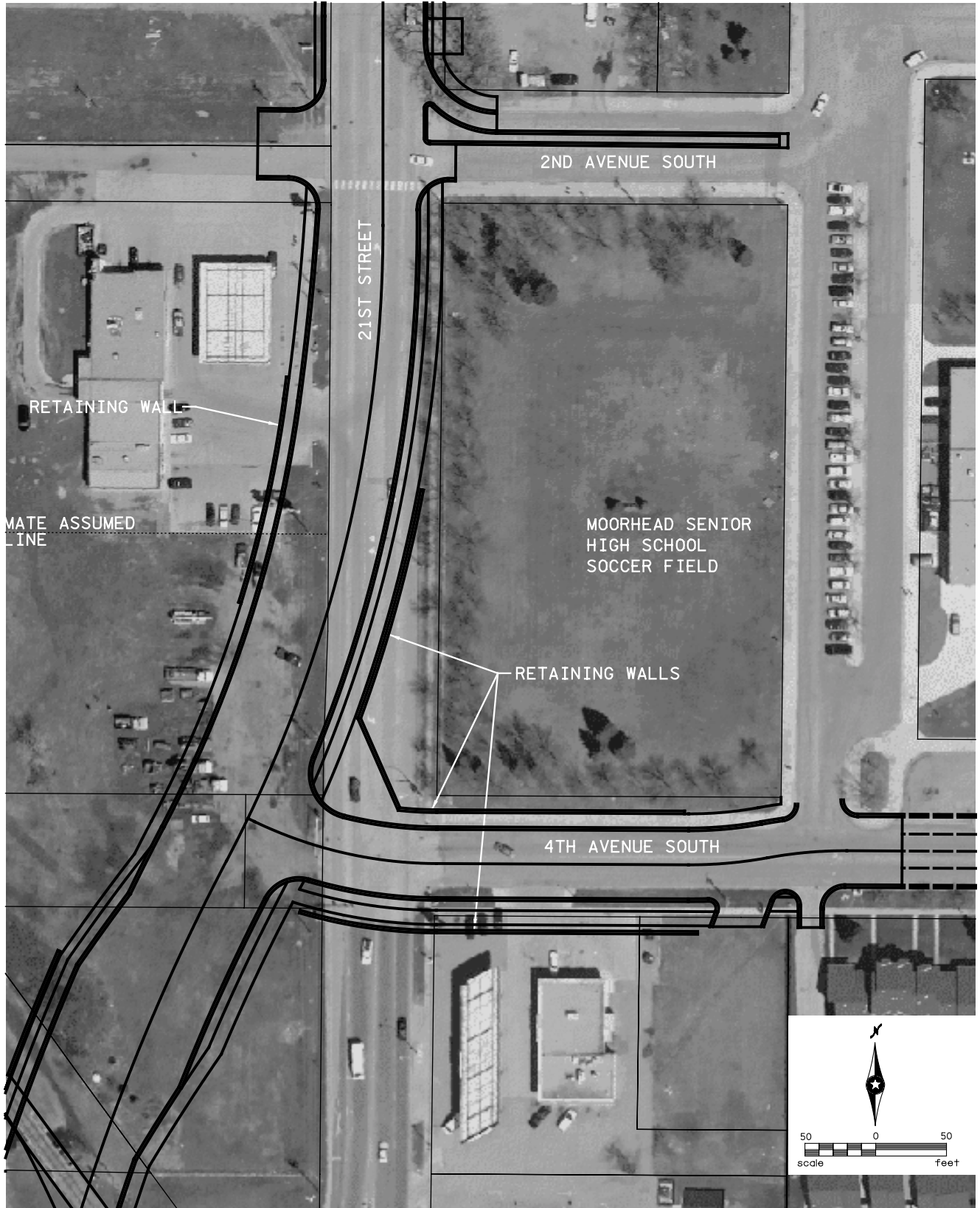
Figure 3



CONSULTING GROUP, INC.

4918
1/13/2005

H:\Projects\4918\H1\MO\6069\SHIFTED ALIGNMENT\FIGURES\Figure4.dgn



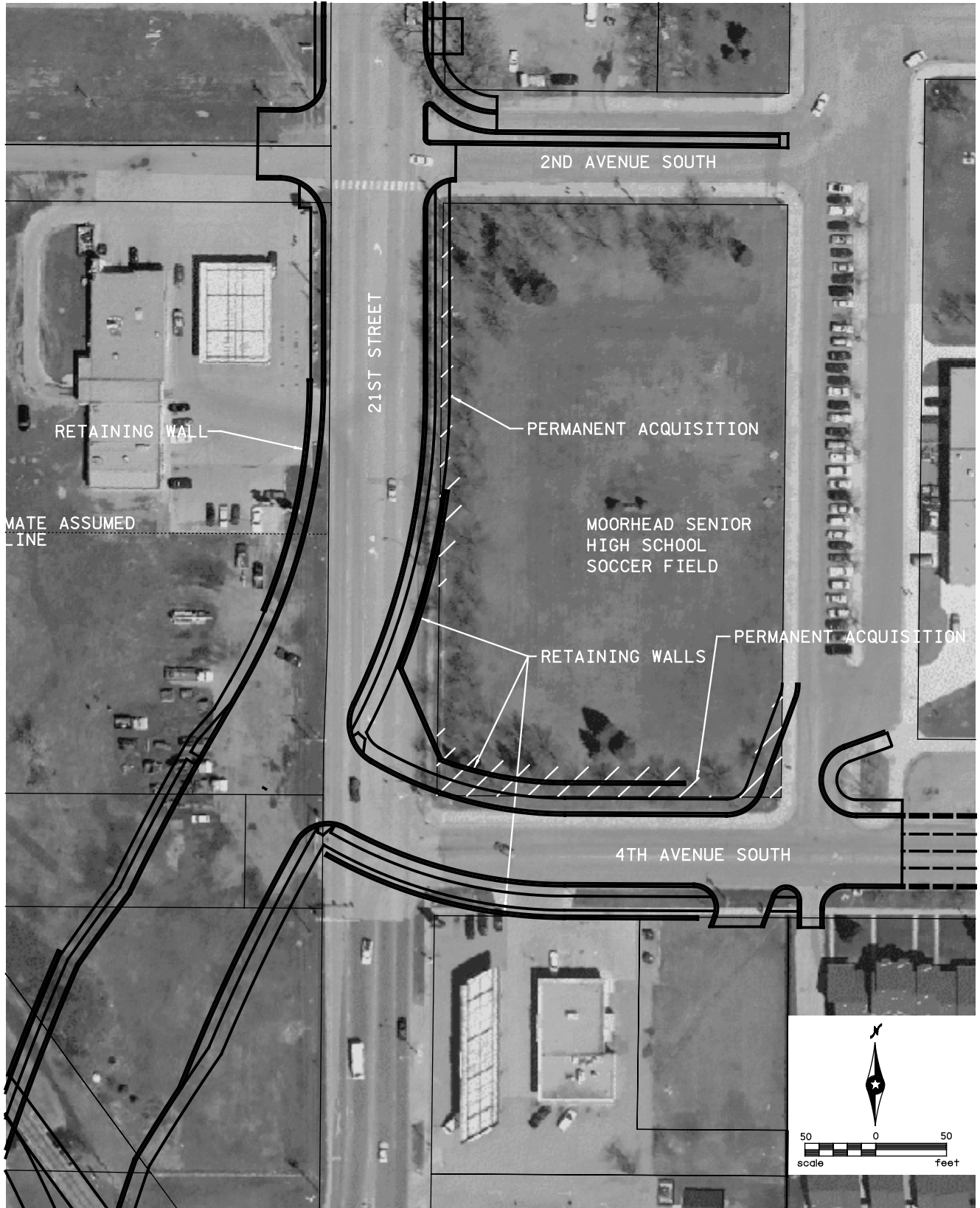
4918
1/13/2005

**PROGRAMMATIC SECTION 4(F) EVALUATION -
ALTERNATIVE B**

SOUTHEAST MAIN AVE./20TH STREET/21ST STREET RAILROAD GRADE
SEPARATION PROJECT
CITY OF MOORHEAD - SP# 144-116-06, MINN. PROJ. HPP MN 58(102)

Figure 4

H:\Projects\4918\H1\MOORHEAD\SHIFTED ALIGNMENT\FIGURES\4\FIGURE5.dgn



4918
1/13/2005

**PROGRAMMATIC SECTION 4(F) EVALUATION -
ALTERNATIVE C (BUILD ALTERNATIVE)**

SOUTHEAST MAIN AVE./20TH STREET/21ST STREET RAILROAD GRADE
SEPARATION PROJECT
CITY OF MOORHEAD - SP# 144-116-06, MINN. PROJ. HPP MN 58(102)

Figure 5