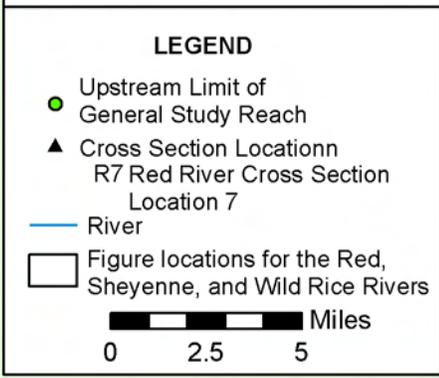
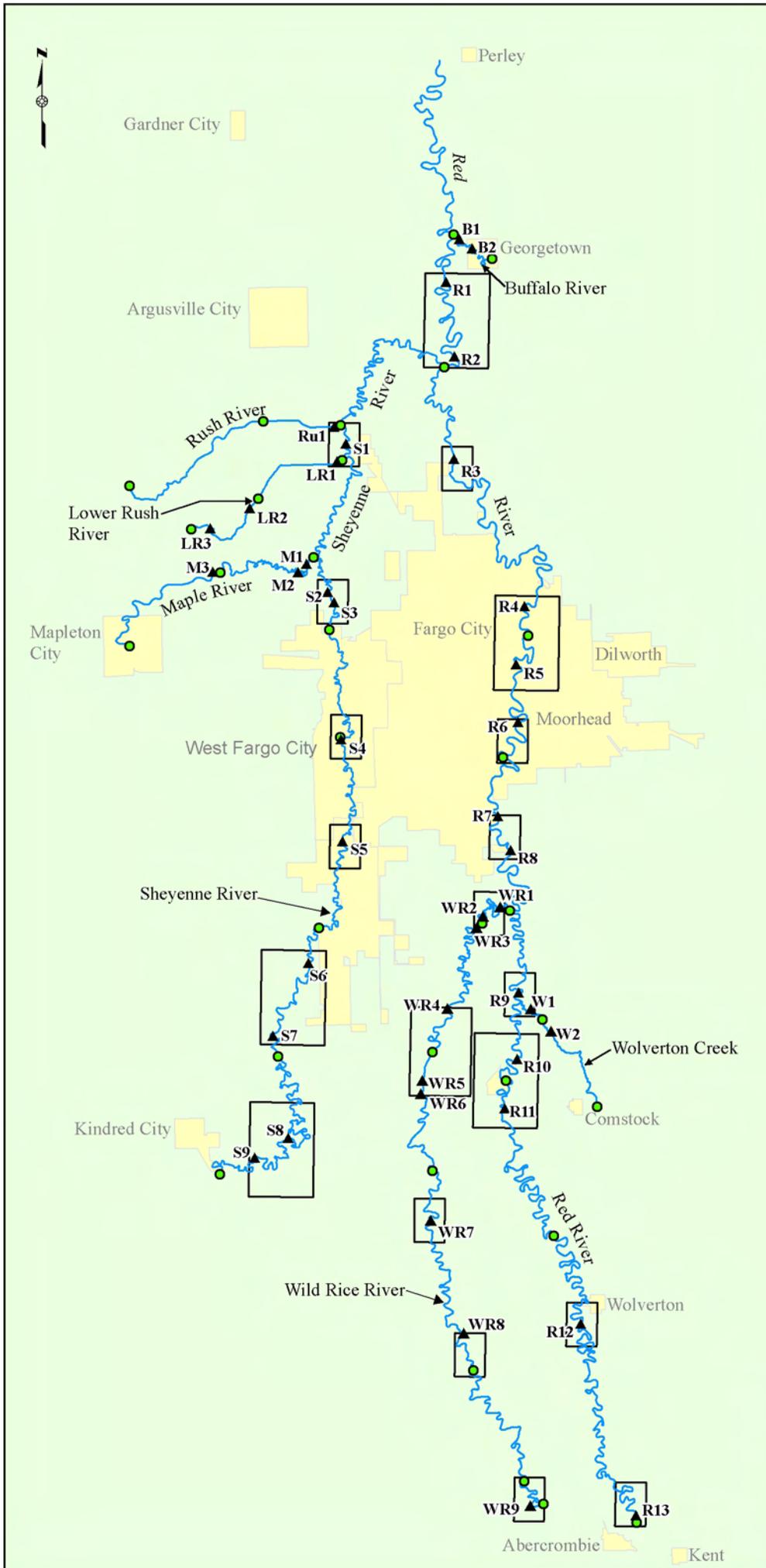


APPENDIX L

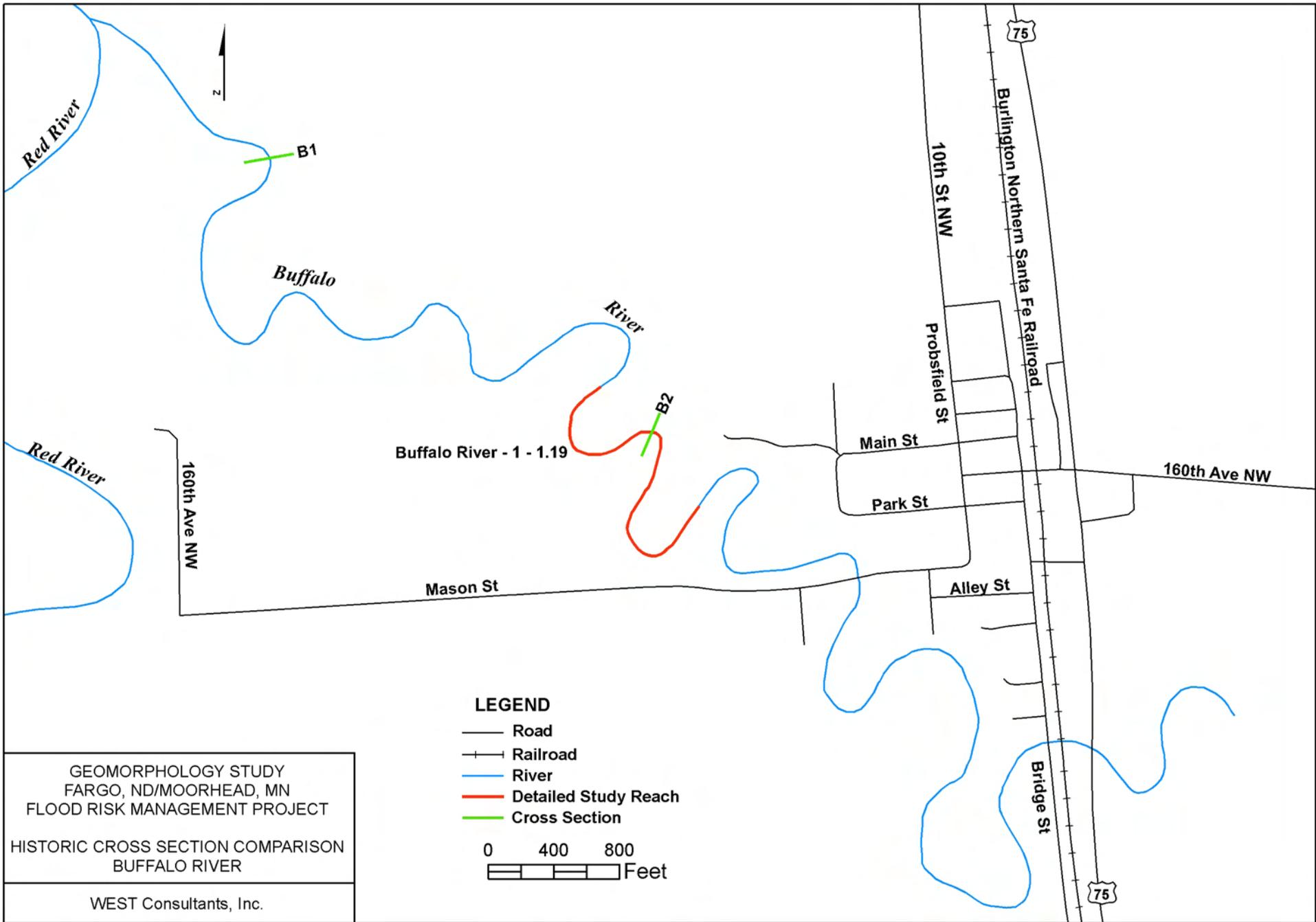


HISTORIC CROSS SECTION COMPARISONS



GEOMORPHOLOGY STUDY
 FARGO, ND/MOORHEAD, MN
 FLOOD RISK MANAGEMENT PROJECT
 HISTORIC CROSS SECTION LOCATIONS
 OVERVIEW MAP

WEST Consultants, Inc.



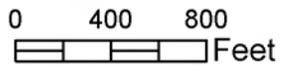
GEOMORPHOLOGY STUDY
 FARGO, ND/MOORHEAD, MN
 FLOOD RISK MANAGEMENT PROJECT

HISTORIC CROSS SECTION COMPARISON
 BUFFALO RIVER

WEST Consultants, Inc.

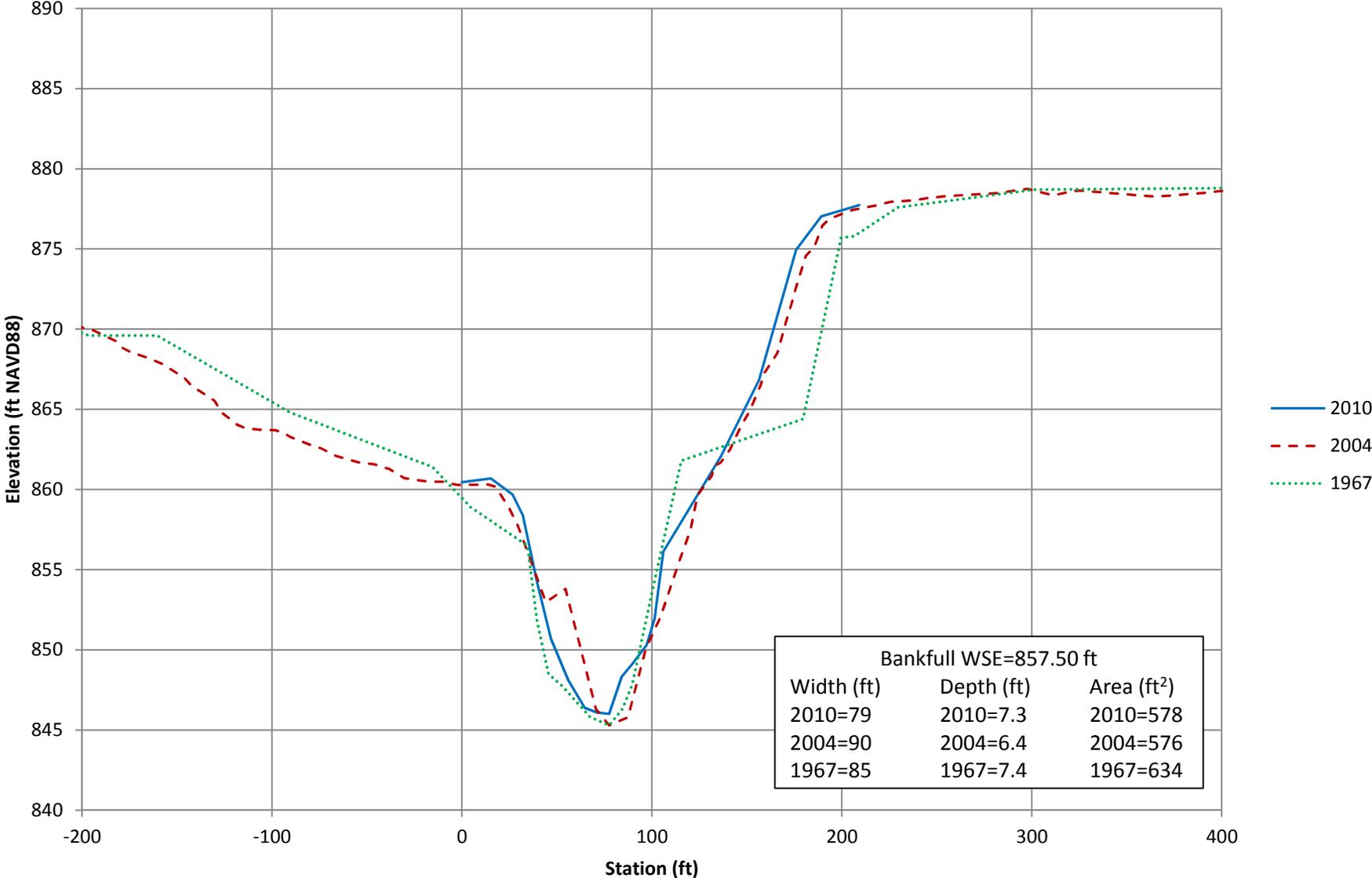
LEGEND

- Road
- +— Railroad
- River
- Detailed Study Reach
- Cross Section



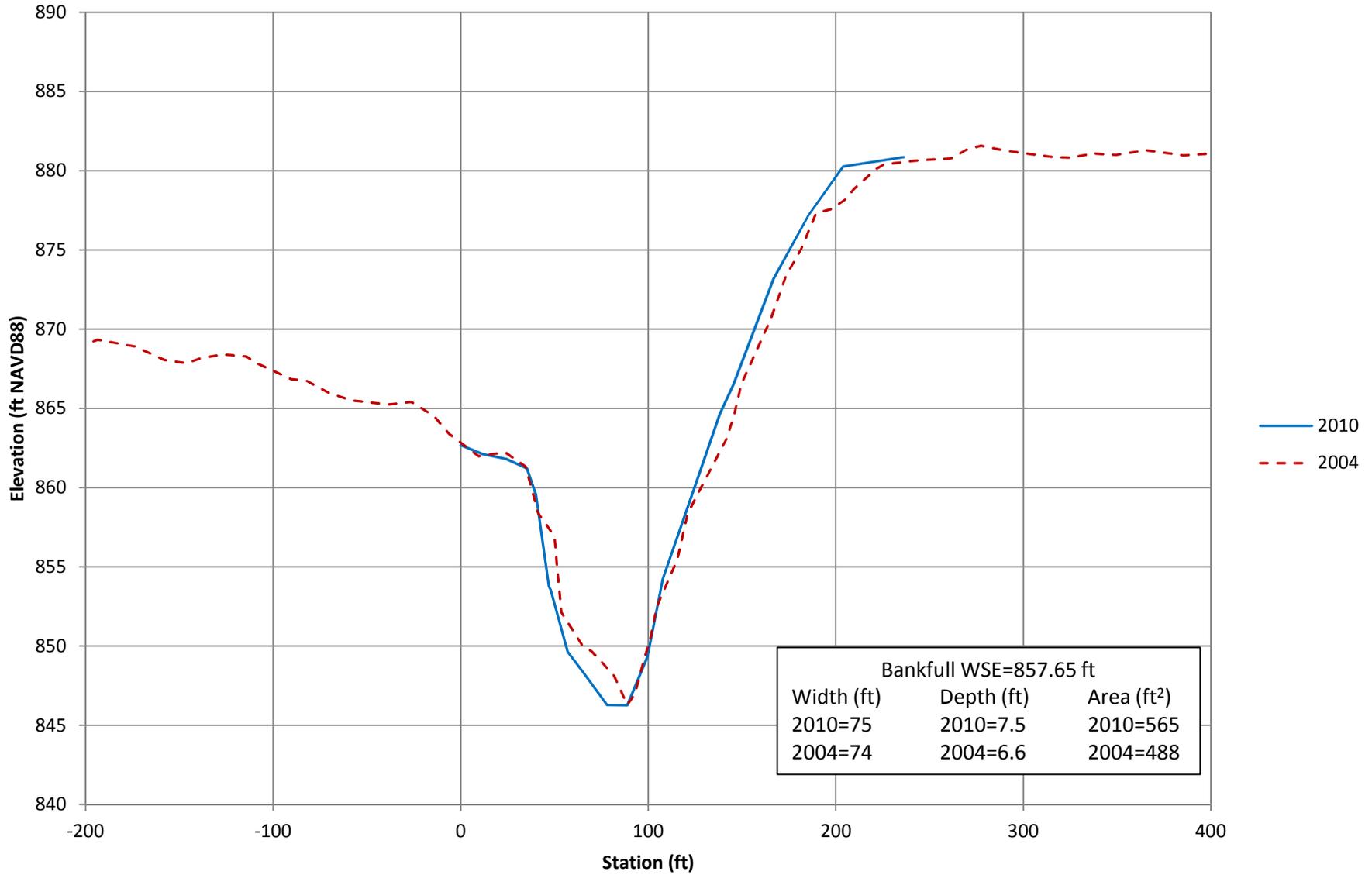
Historic XS Comparison

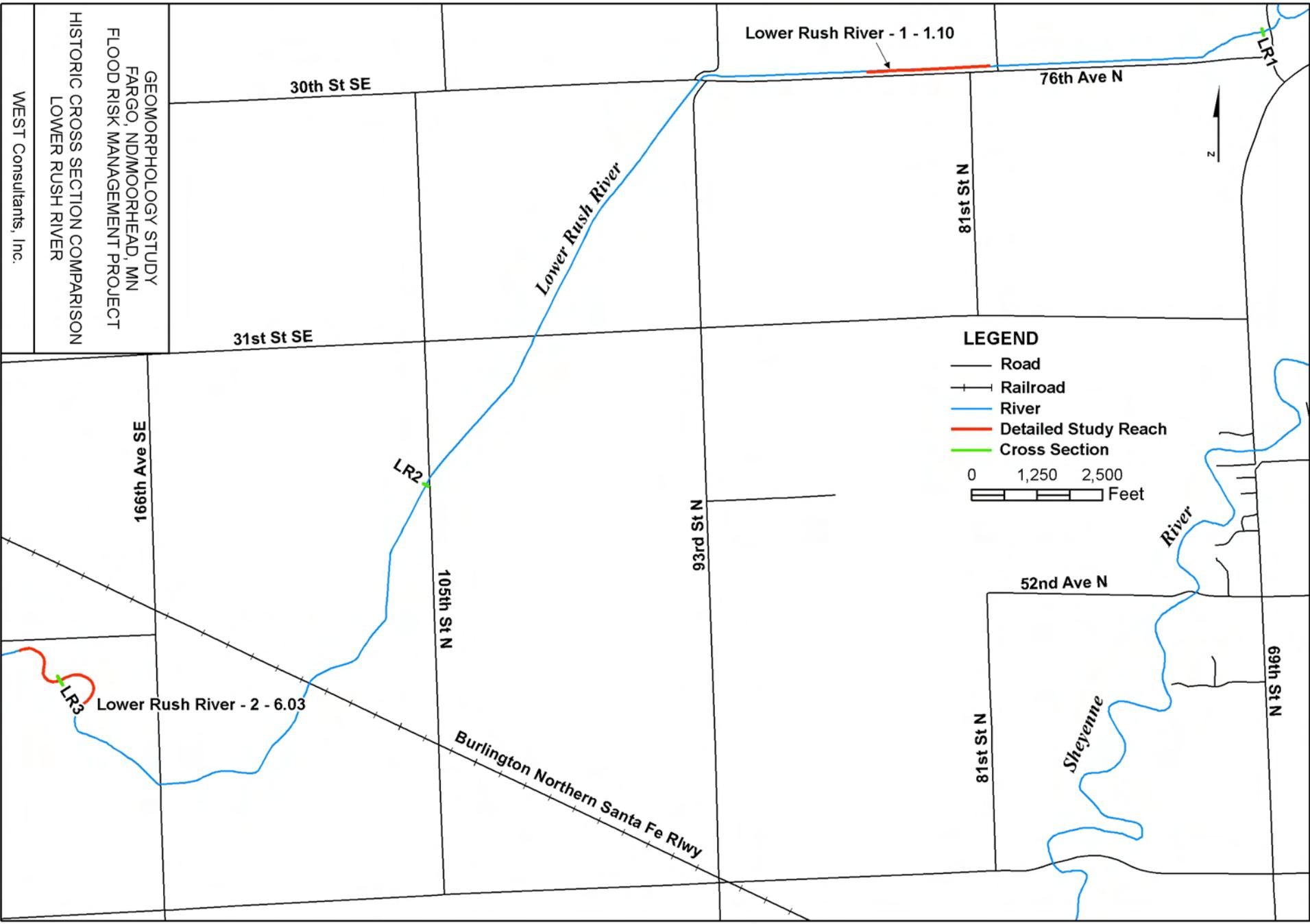
Buffalo River - B1 - RS 1305



Historic XS Comparison

Buffalo River - B2 - RS 7224





GEOMORPHOLOGY STUDY
 FARGO, ND/MOORHEAD, MN
 FLOOD RISK MANAGEMENT PROJECT
 HISTORIC CROSS SECTION COMPARISON
 LOWER RUSH RIVER
 WEST Consultants, Inc.

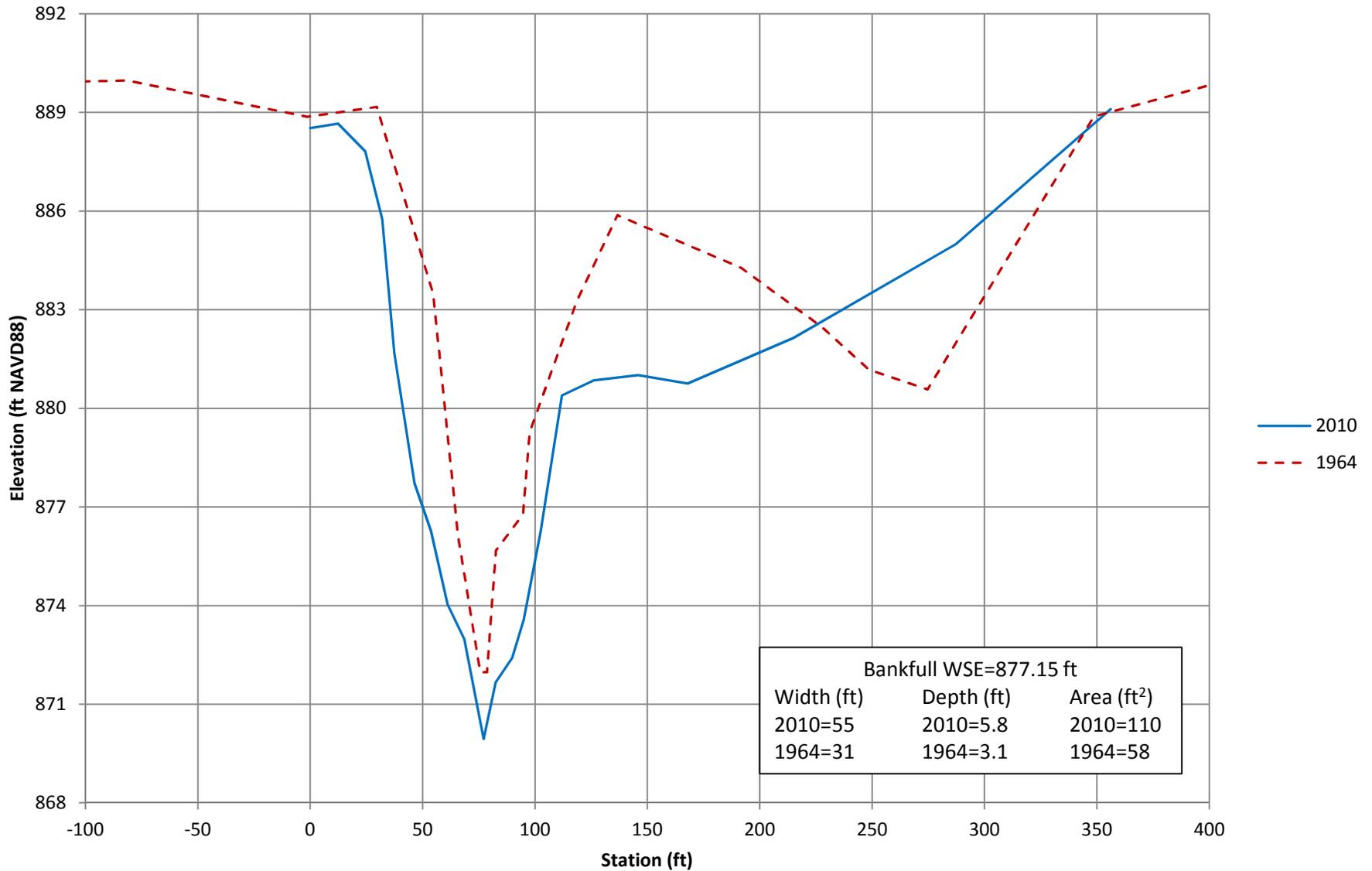
LEGEND

- Road
- +— Railroad
- River
- Detailed Study Reach
- Cross Section

0 1,250 2,500
 Feet

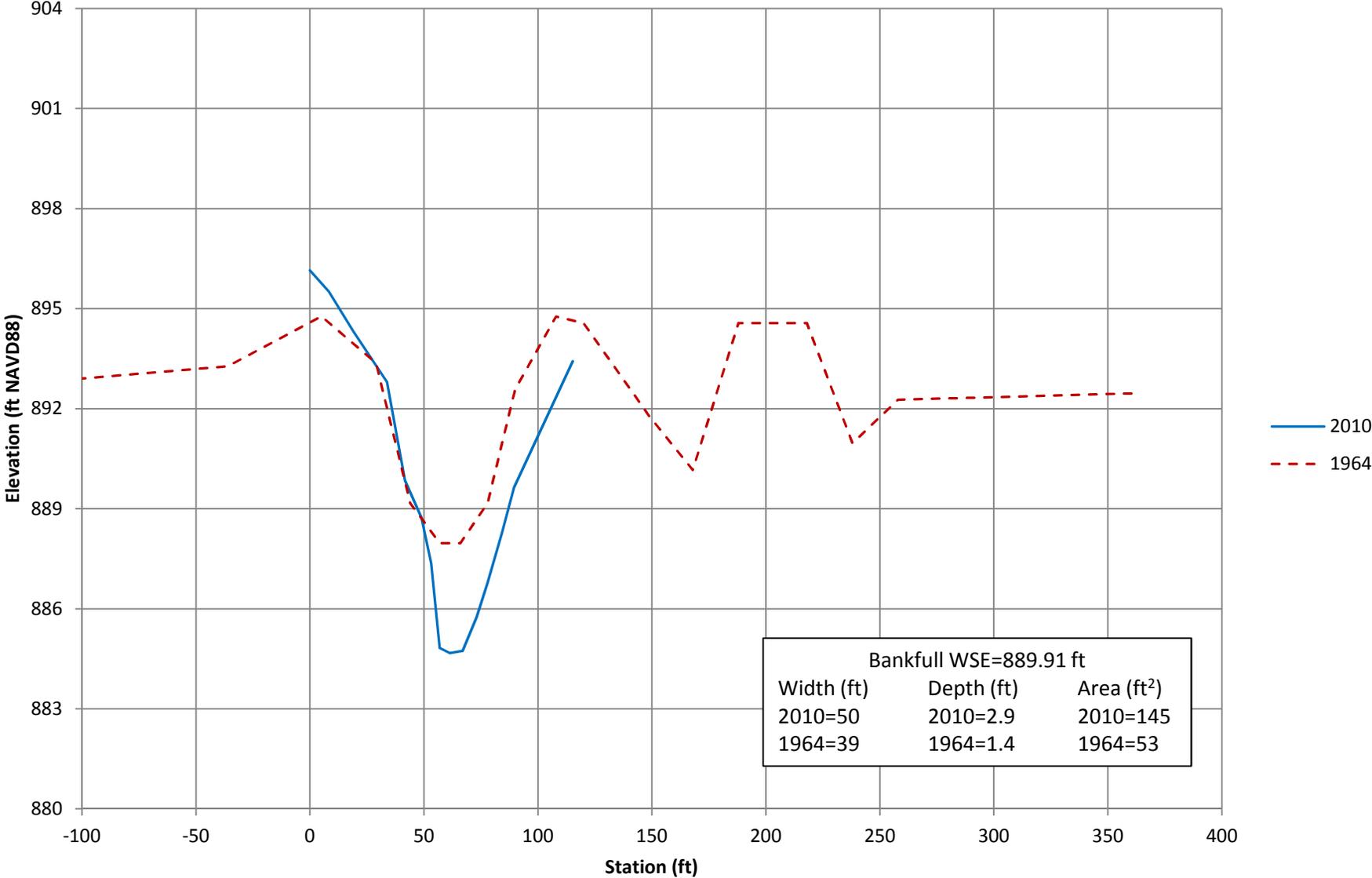
Historic XS Comparison

Lower Rush River - LRR1 - RS 451



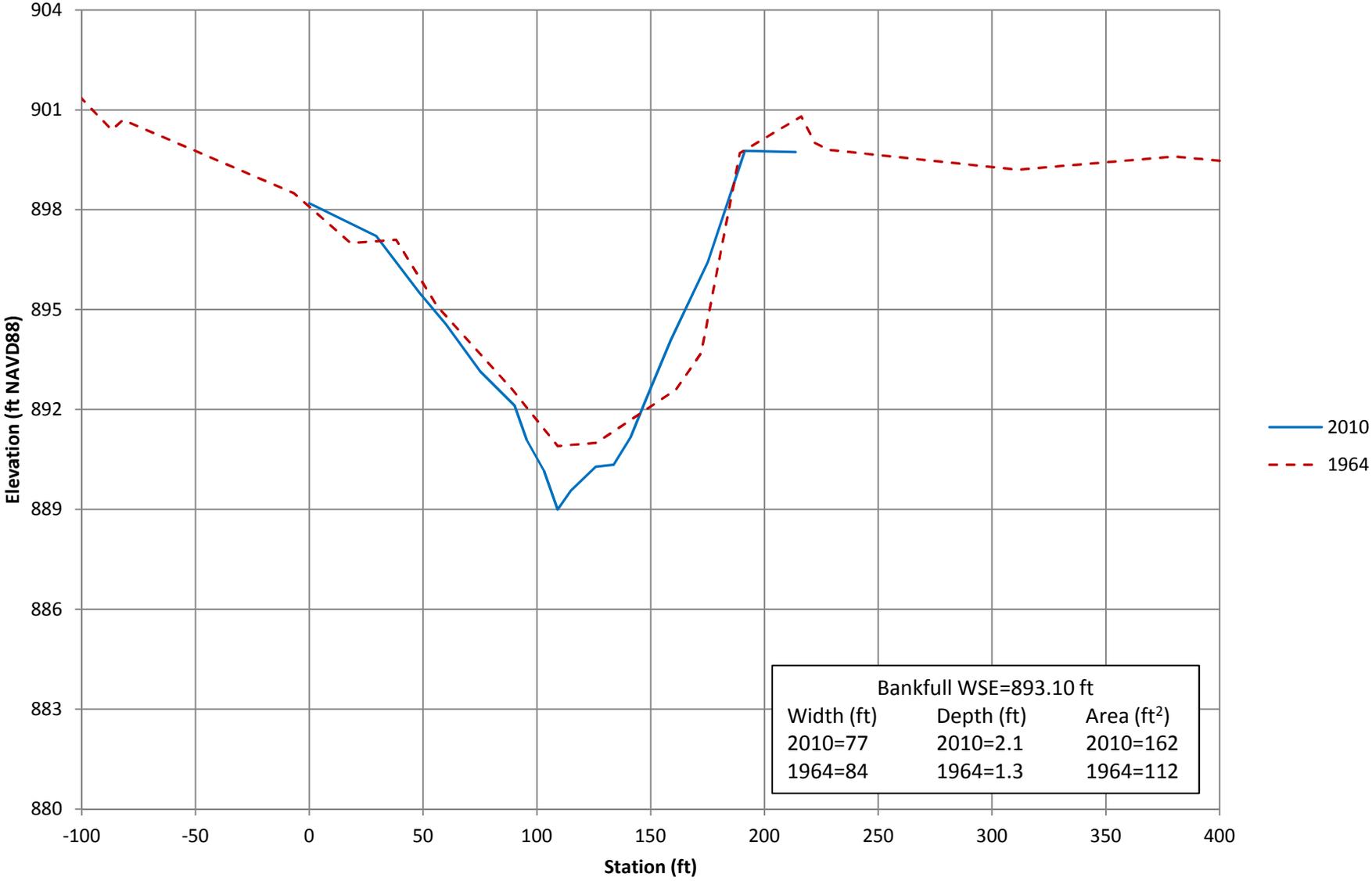
Historic XS Comparison

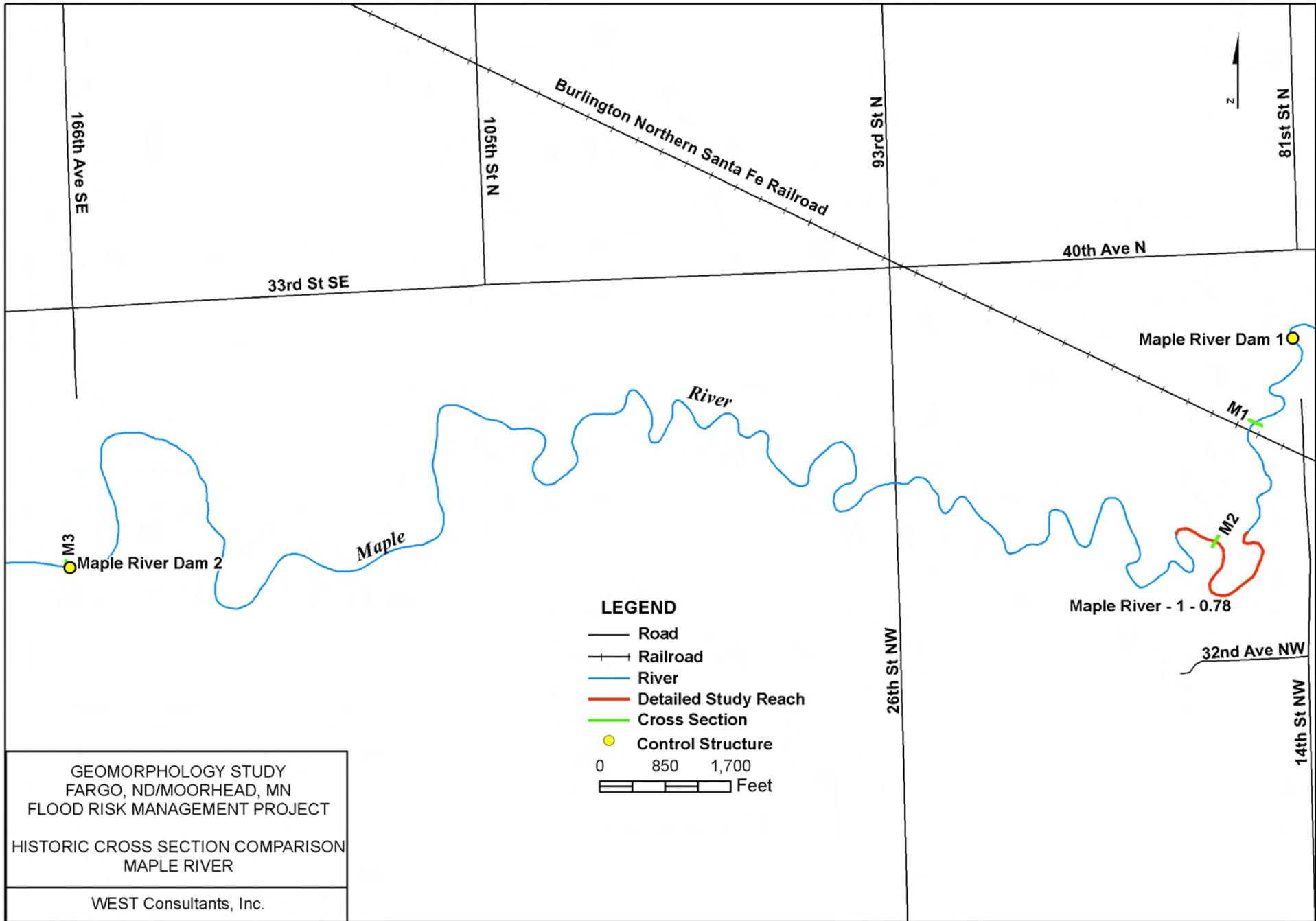
Lower Rush River - LRR2 - RS 20757



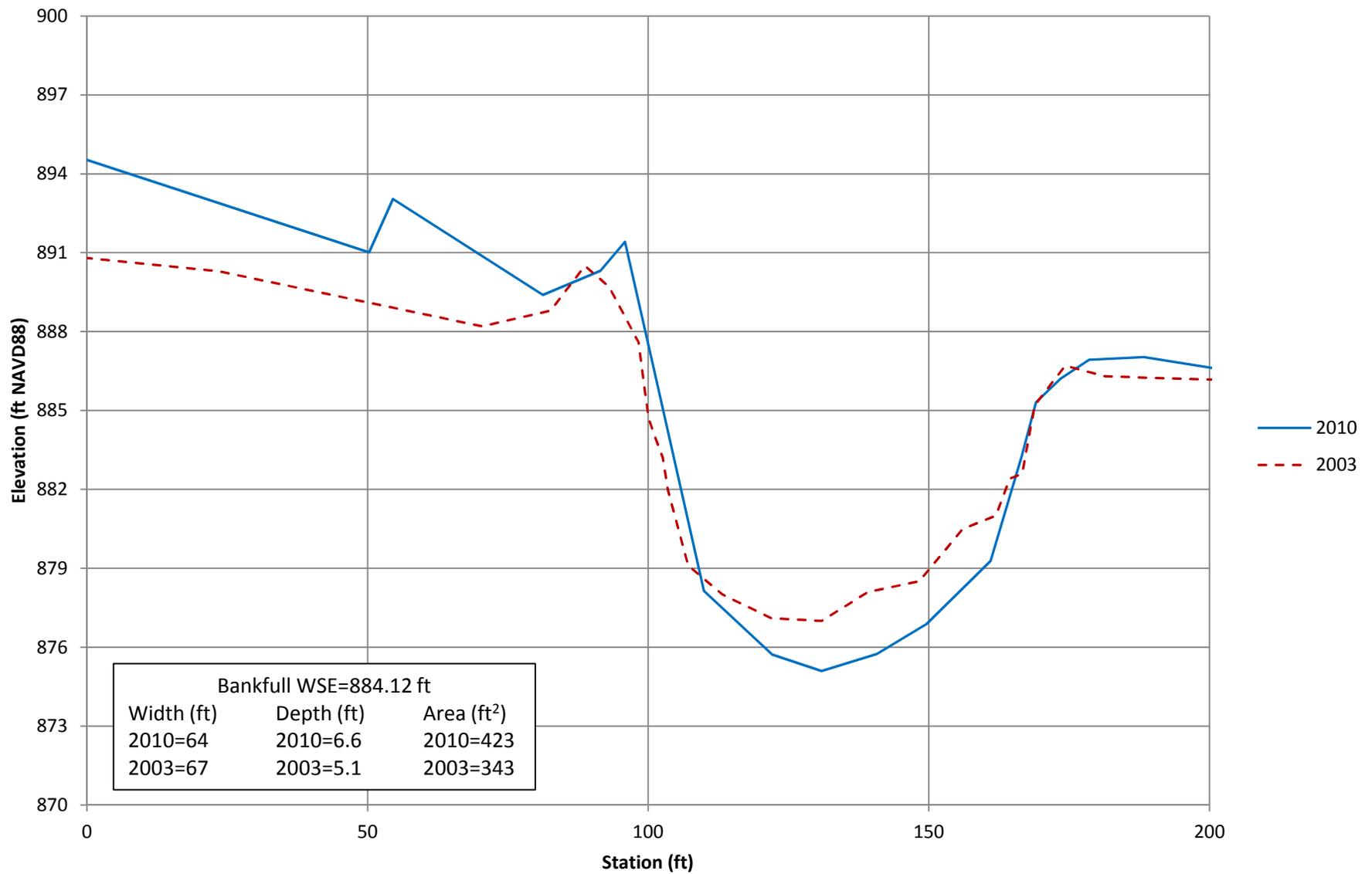
Historic XS Comparison

Lower Rush River - LRR3 - RS 33017

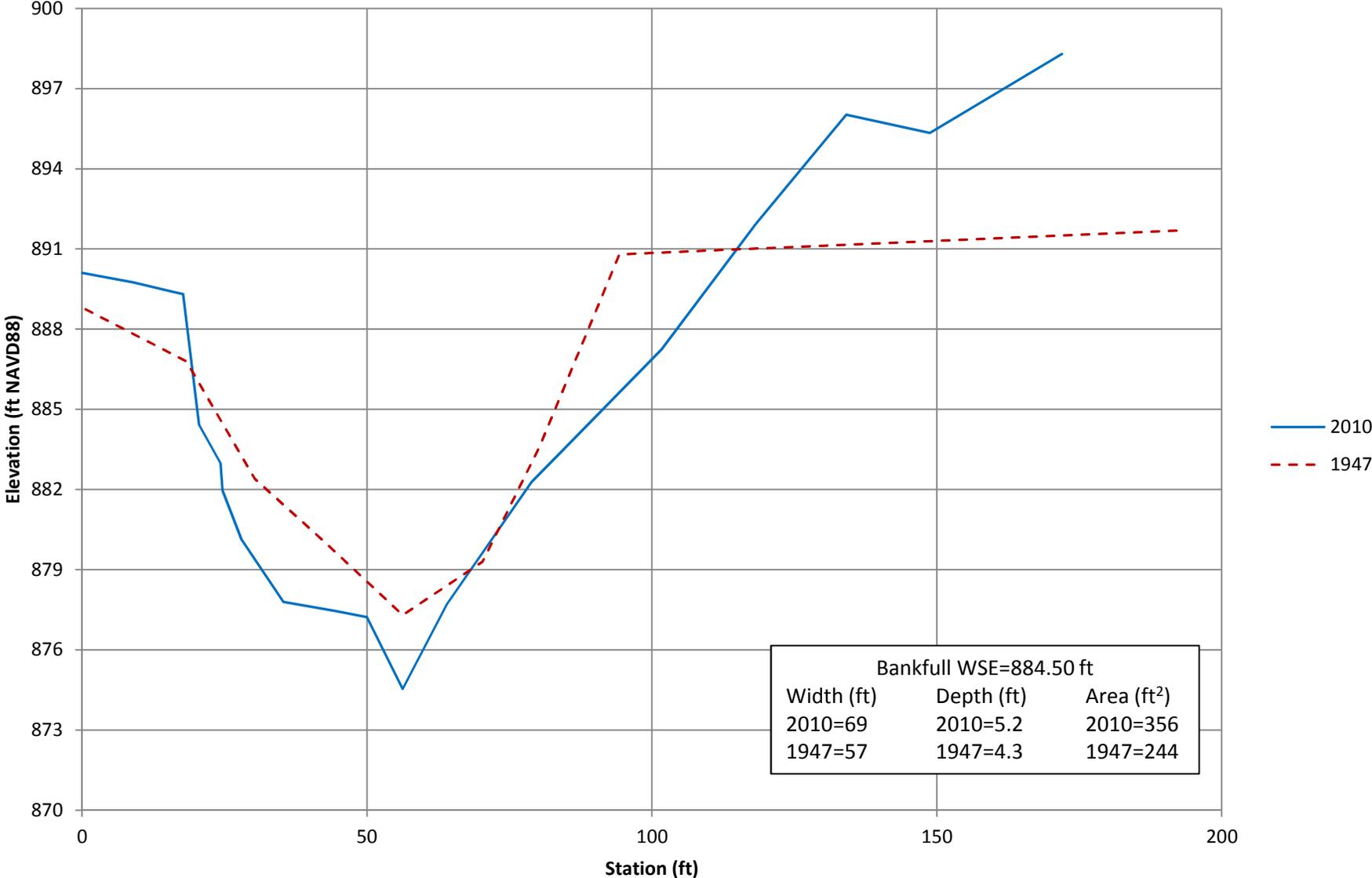




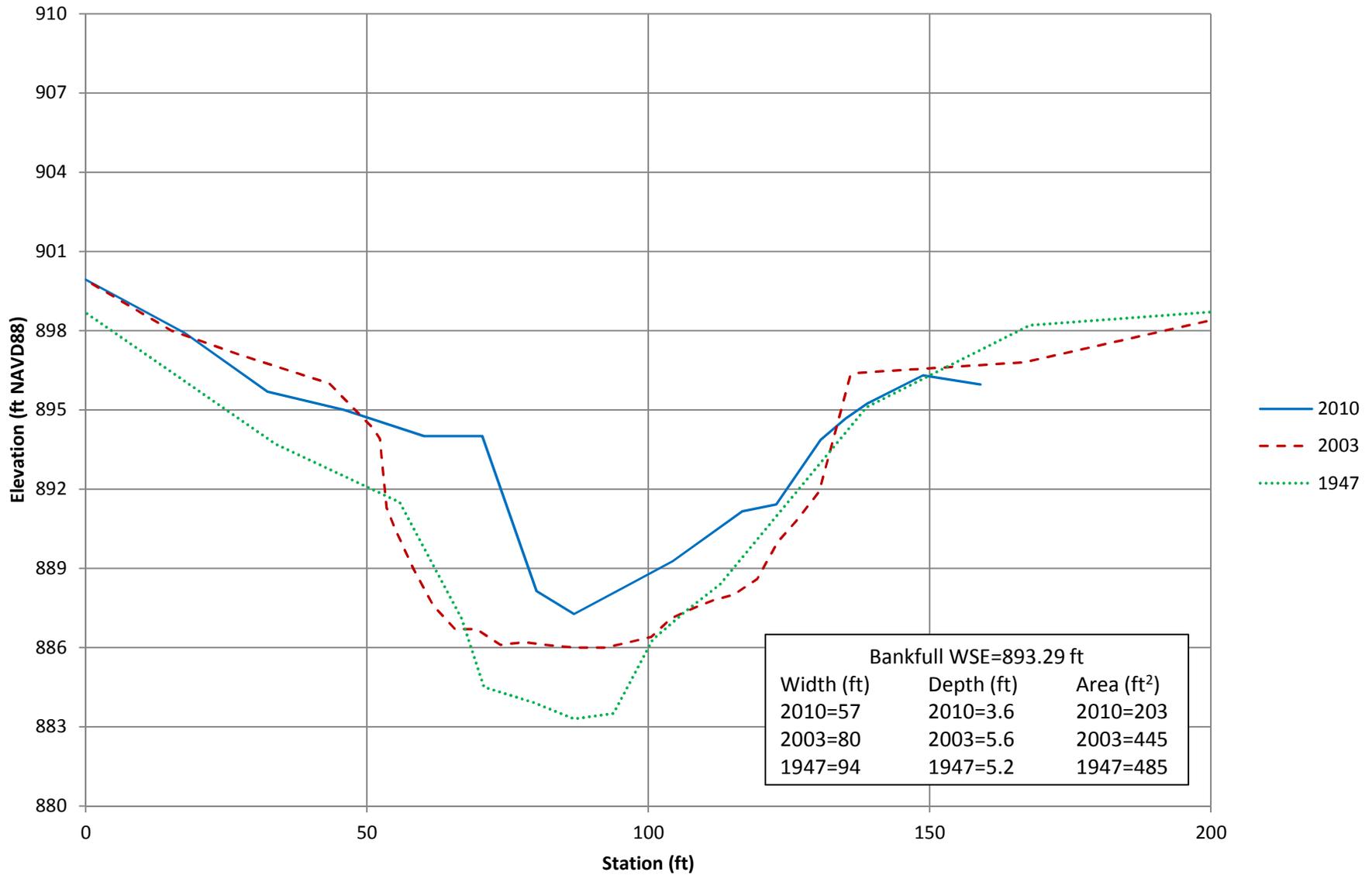
Historic XS Comparison Maple River - M1 - RS 2437

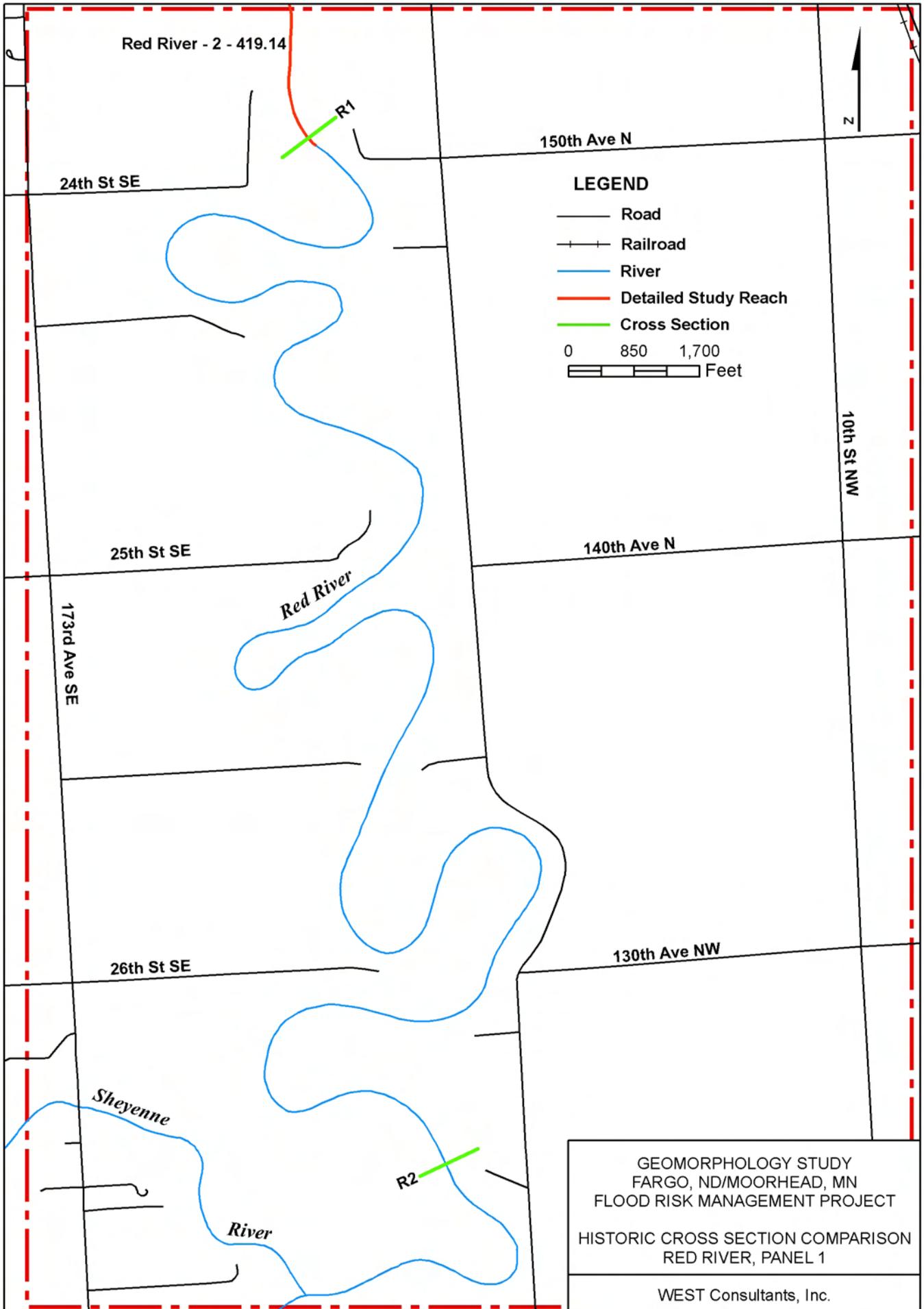


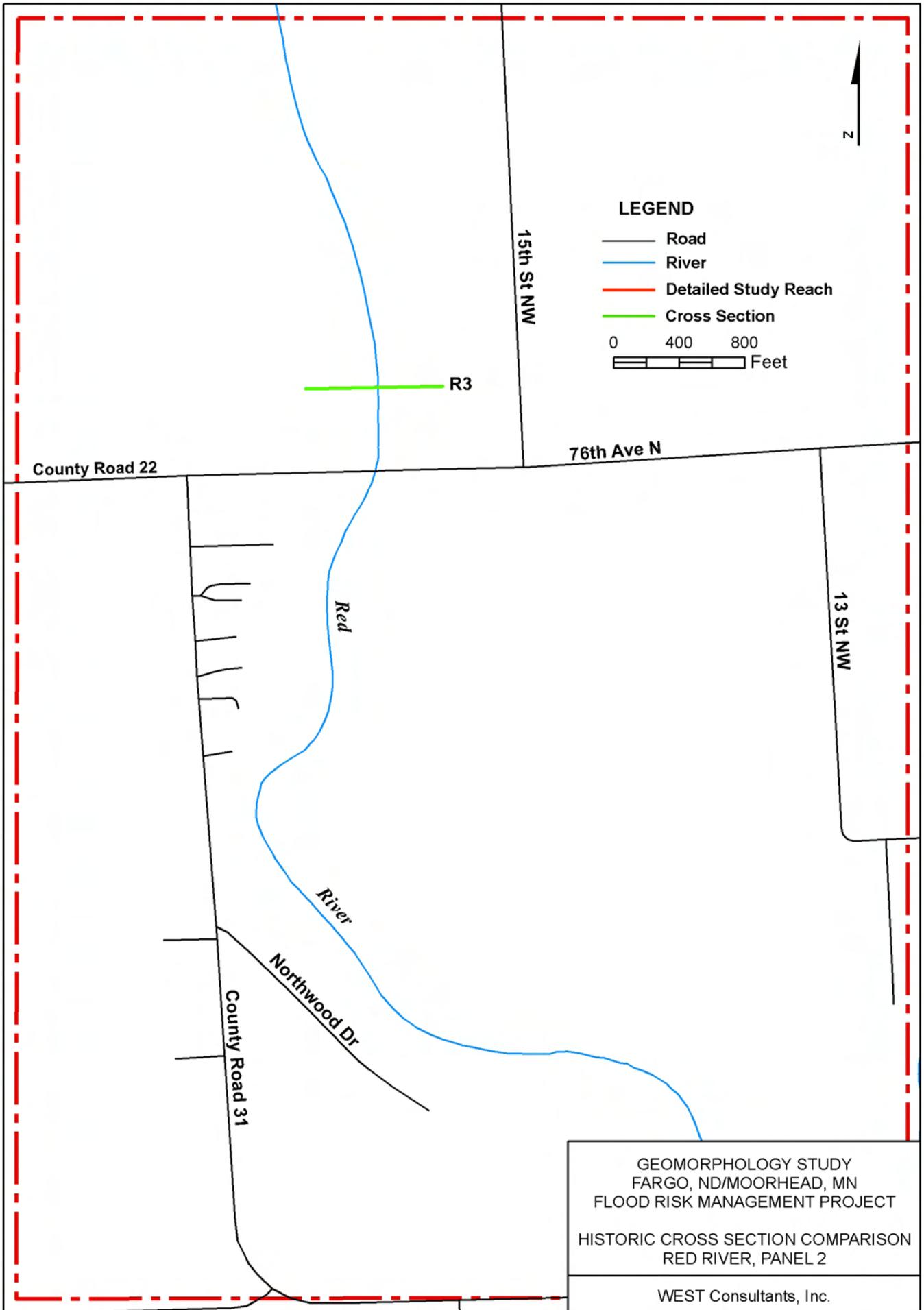
Historic XS Comparison Maple River - M2 - RS 6343

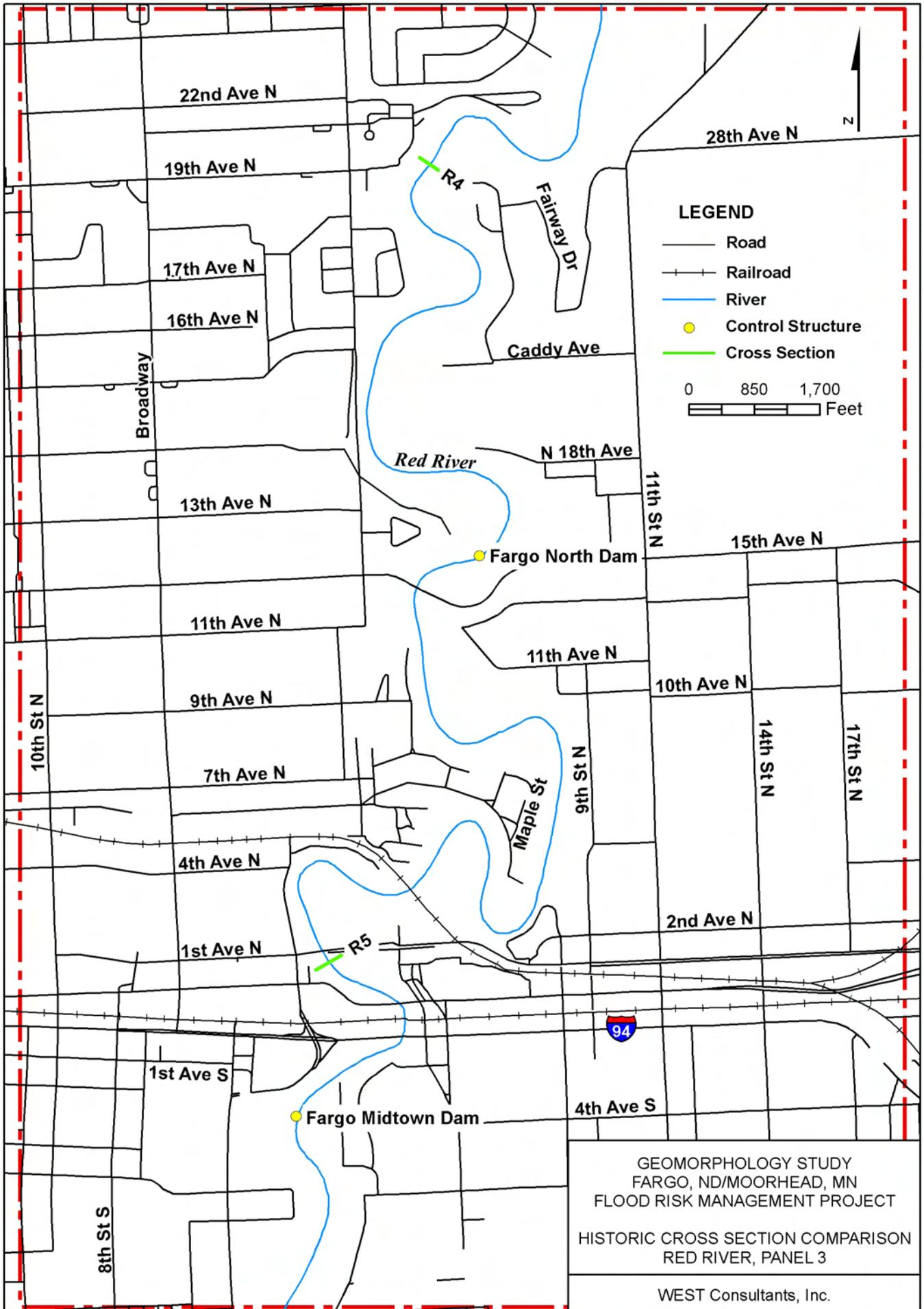


Historic XS Comparison Maple River - M3 - RS 36198









22nd Ave N

19th Ave N

17th Ave N

16th Ave N

Broadway

13th Ave N

11th Ave N

9th Ave N

7th Ave N

4th Ave N

1st Ave N

1st Ave S

8th St S

10th St N

Fairway Dr

Caddy Ave

N 18th Ave

11th Ave N

11th St N

10th Ave N

Maple St

N St 6th

14th St N

17th St N

2nd Ave N

4th Ave S

28th Ave N

N

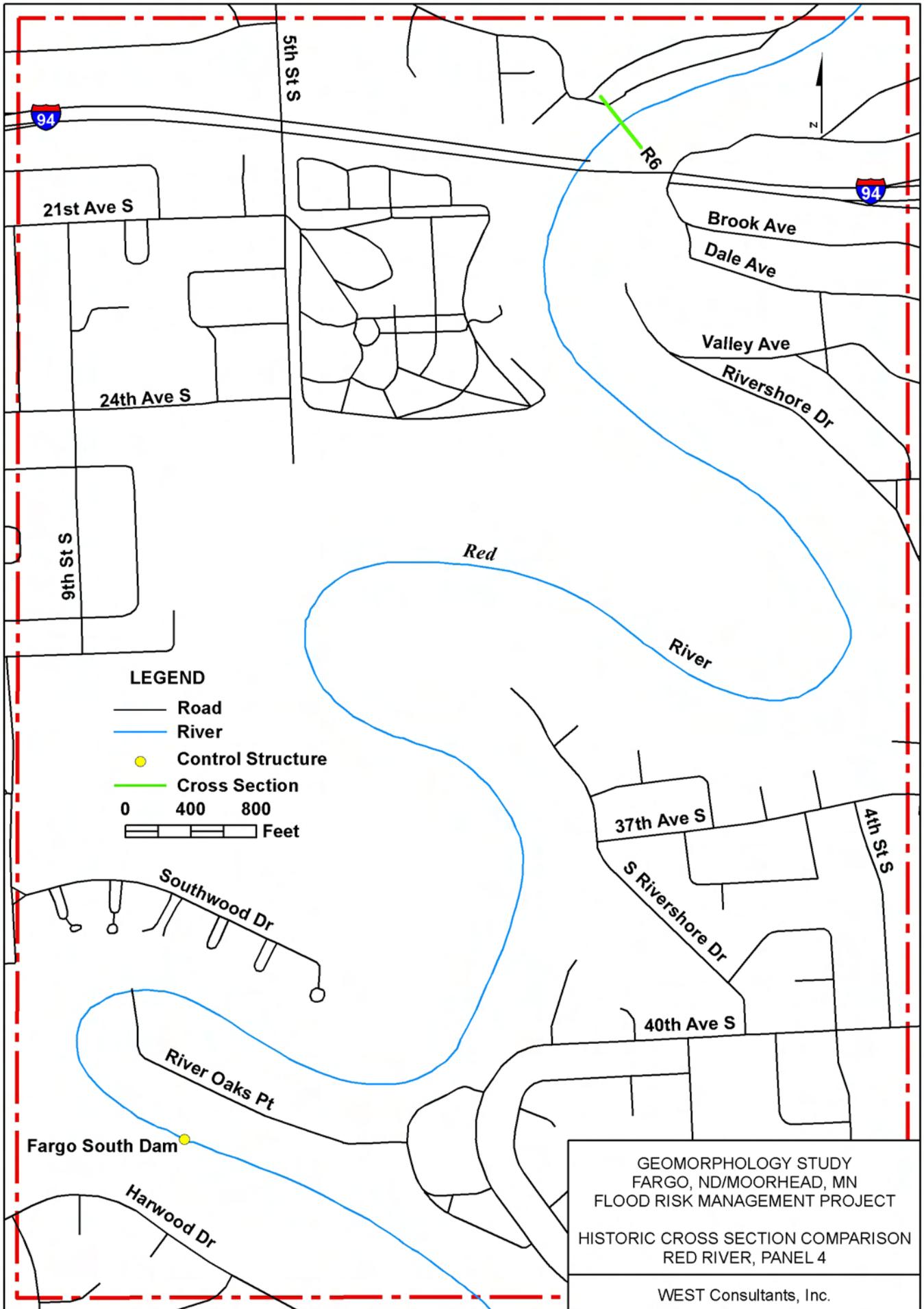
R4

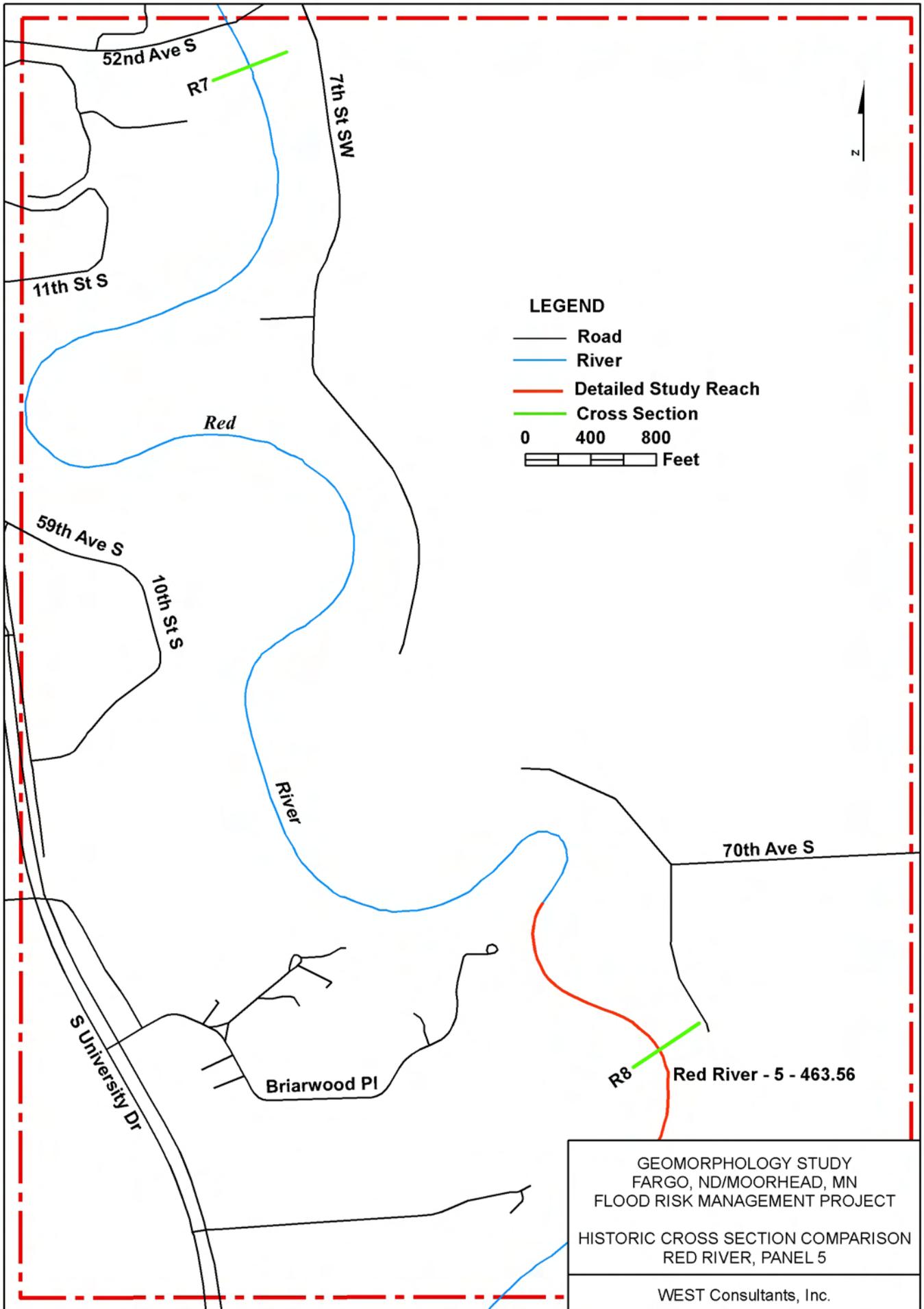
Fargo North Dam

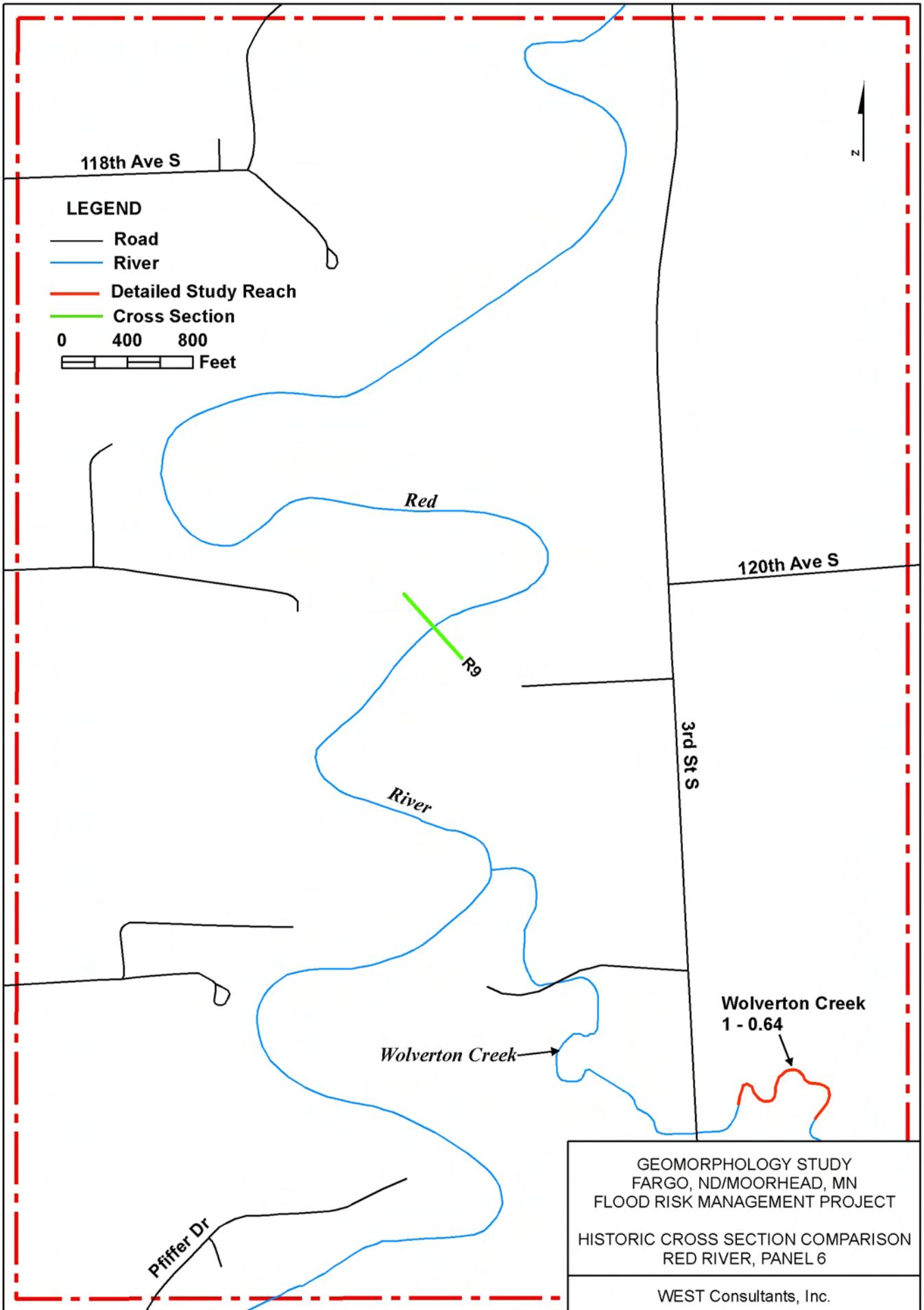
R5

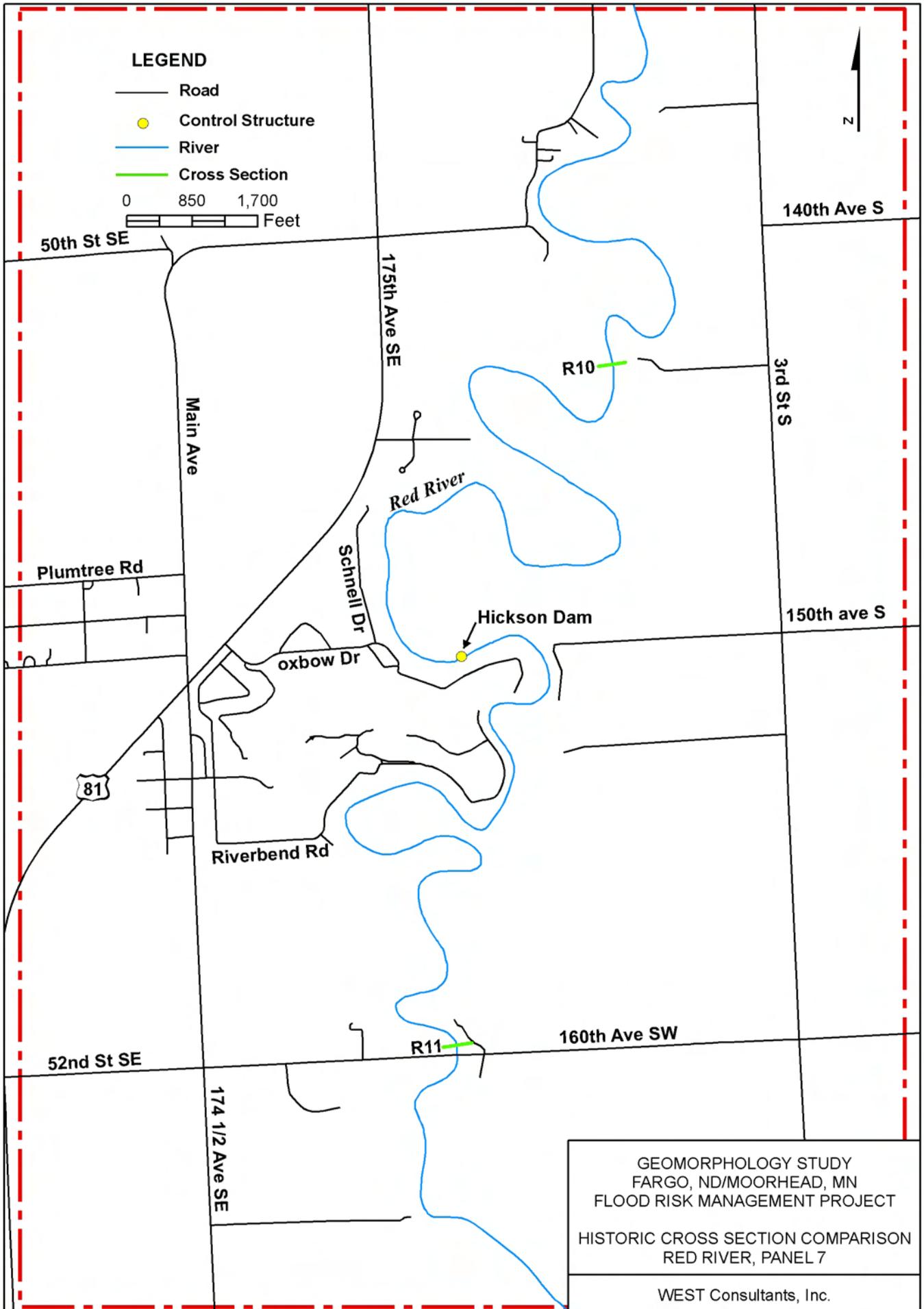
Fargo Midtown Dam





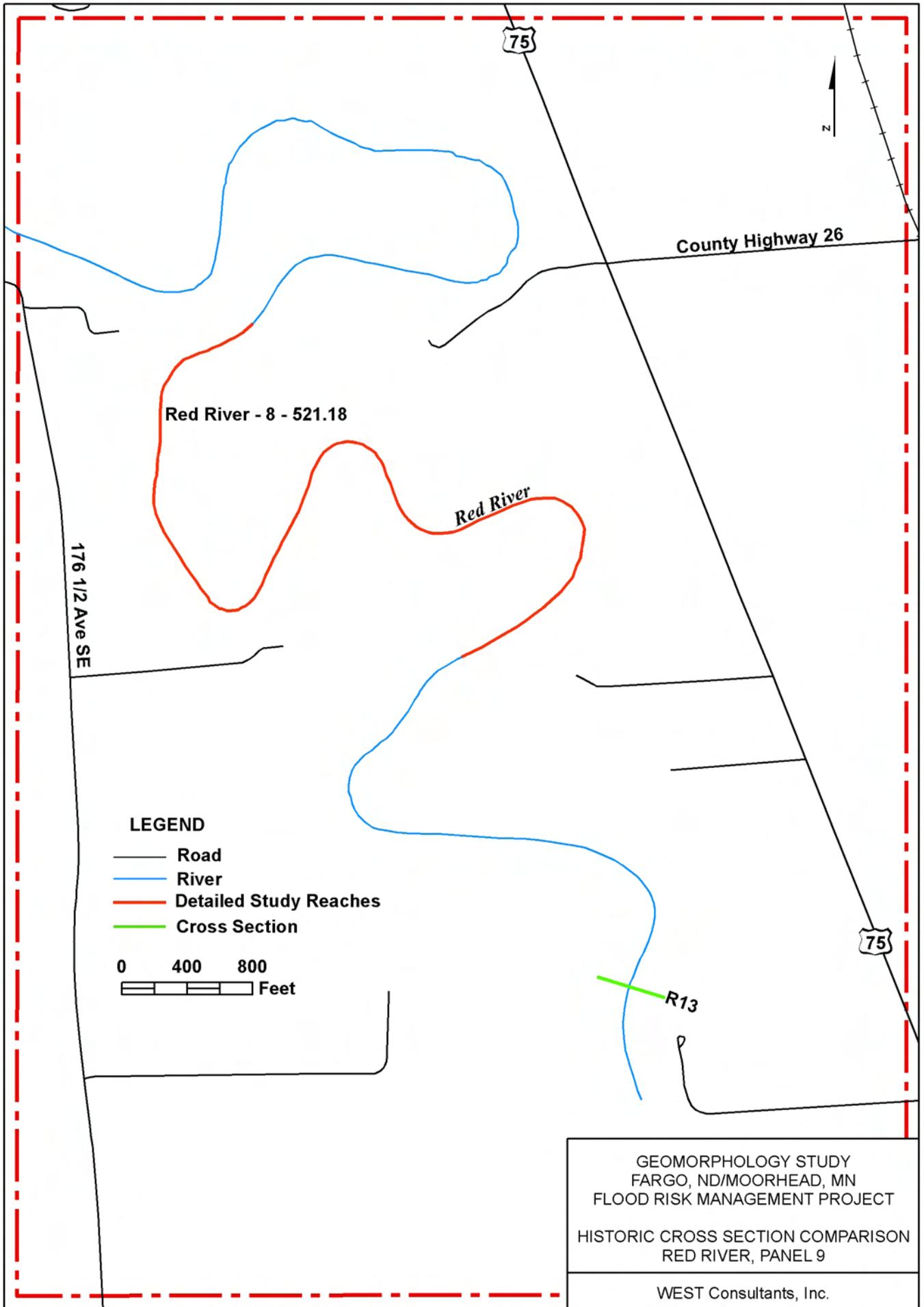






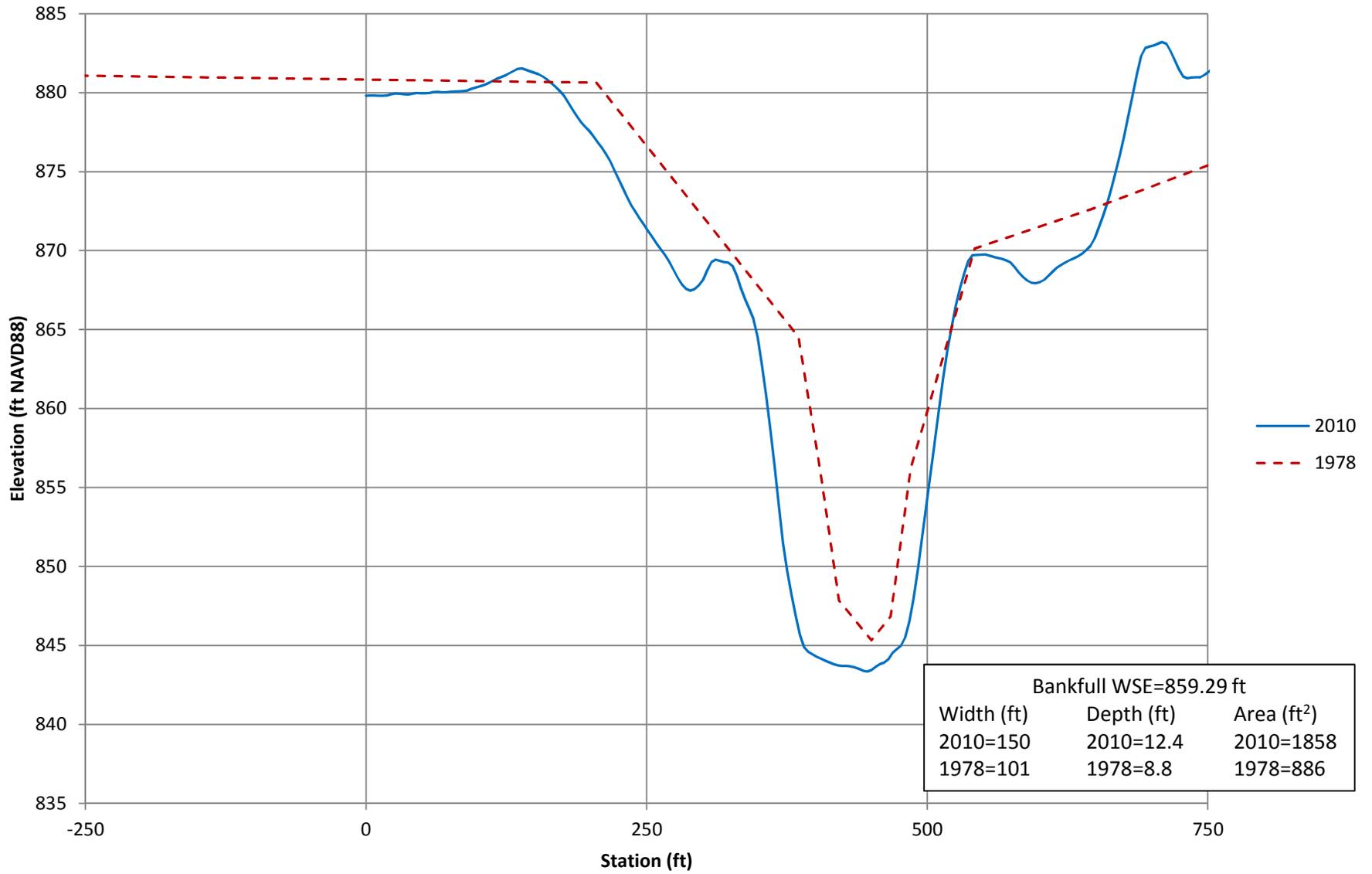


GEOMORPHOLOGY STUDY
FARGO, ND/MOORHEAD, MN
FLOOD RISK MANAGEMENT PROJECT
HISTORIC CROSS SECTION COMPARISON
RED RIVER, PANEL 8
WEST Consultants, Inc.

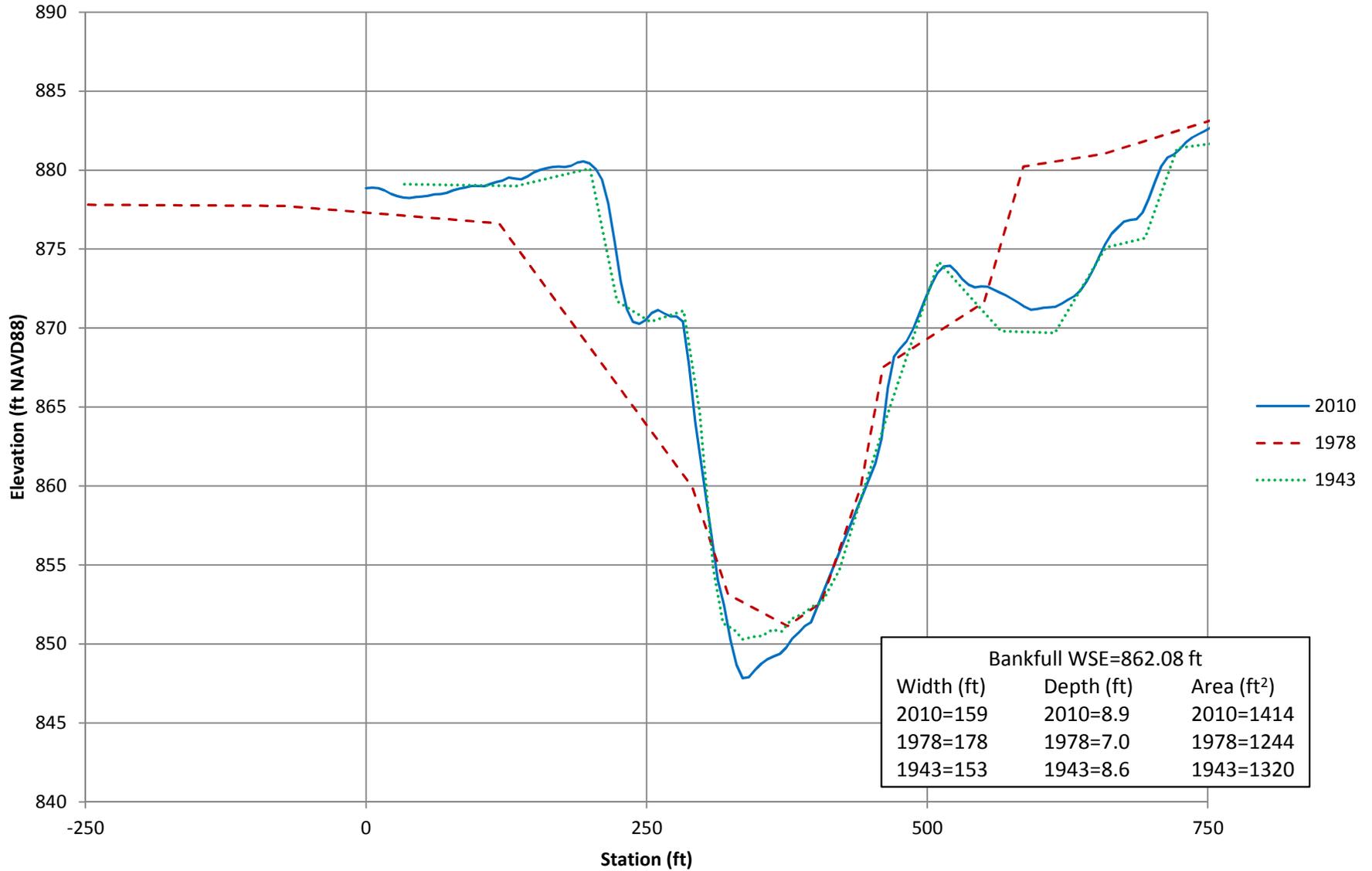


Historic XS Comparison

Red River - R1 - RS 2219762

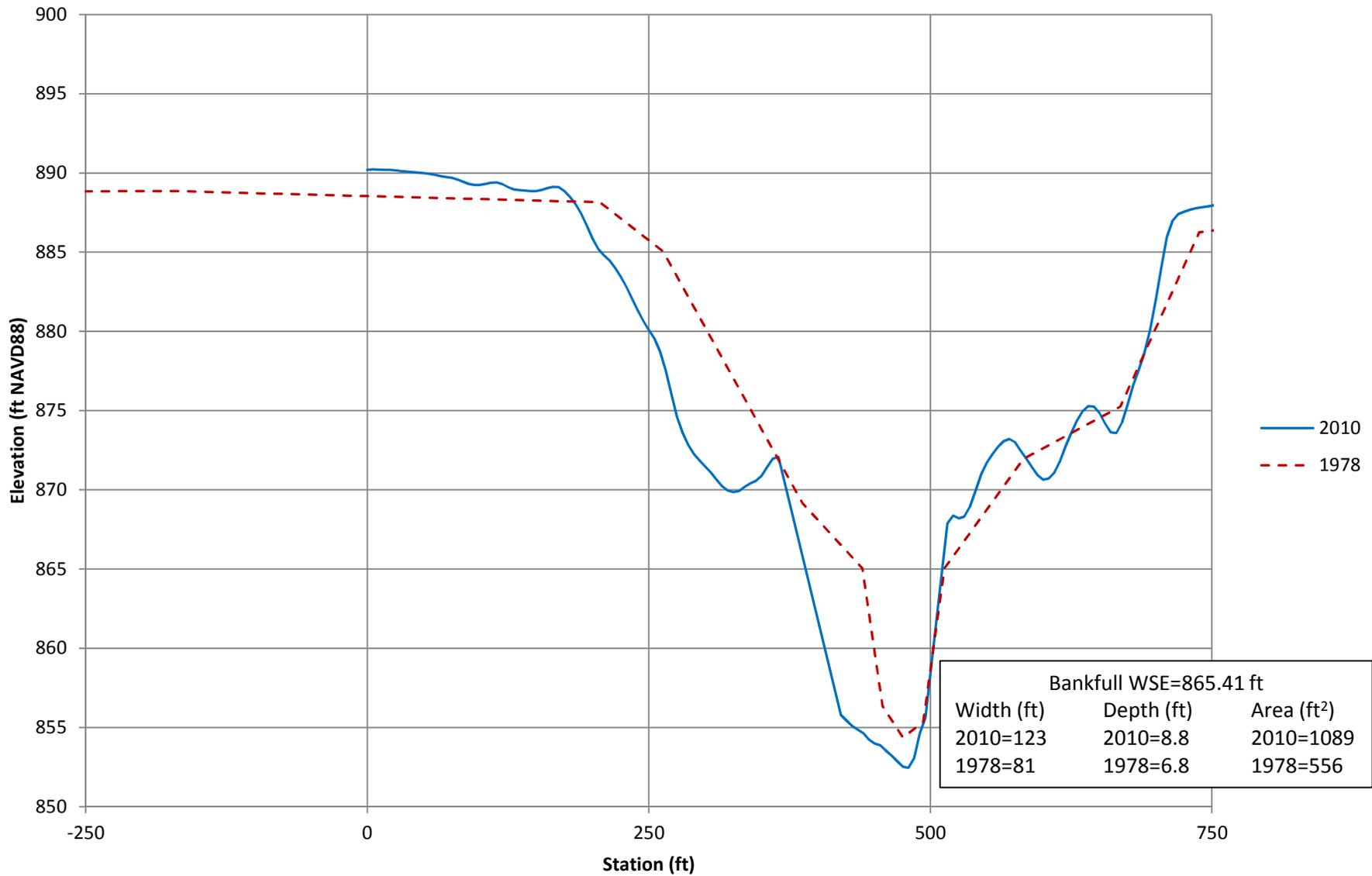


Historic XS Comparison Red River - R2 - RS 2254328



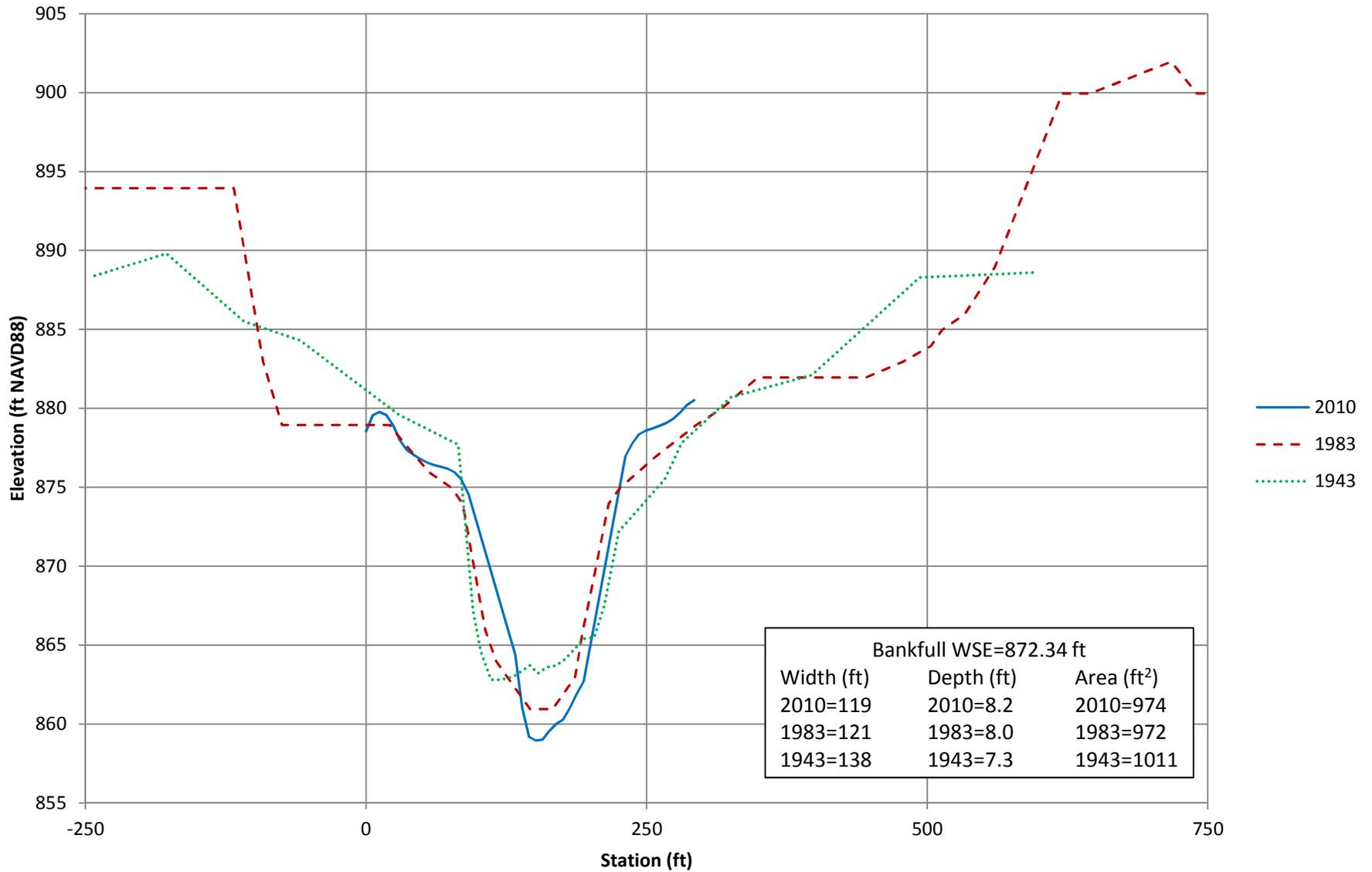
Historic XS Comparison

Red River - R3 - RS 2288183

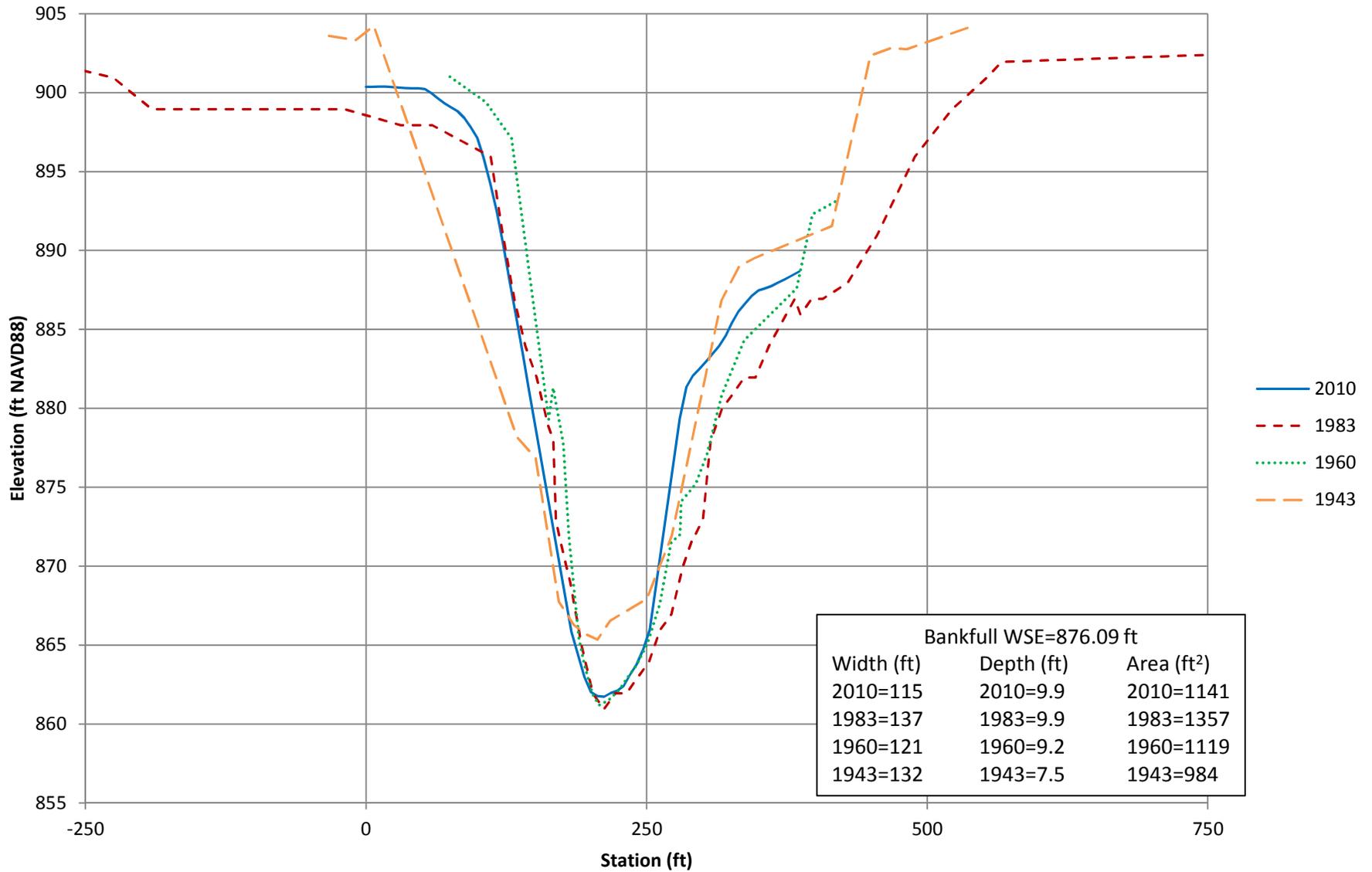


Historic XS Comparison

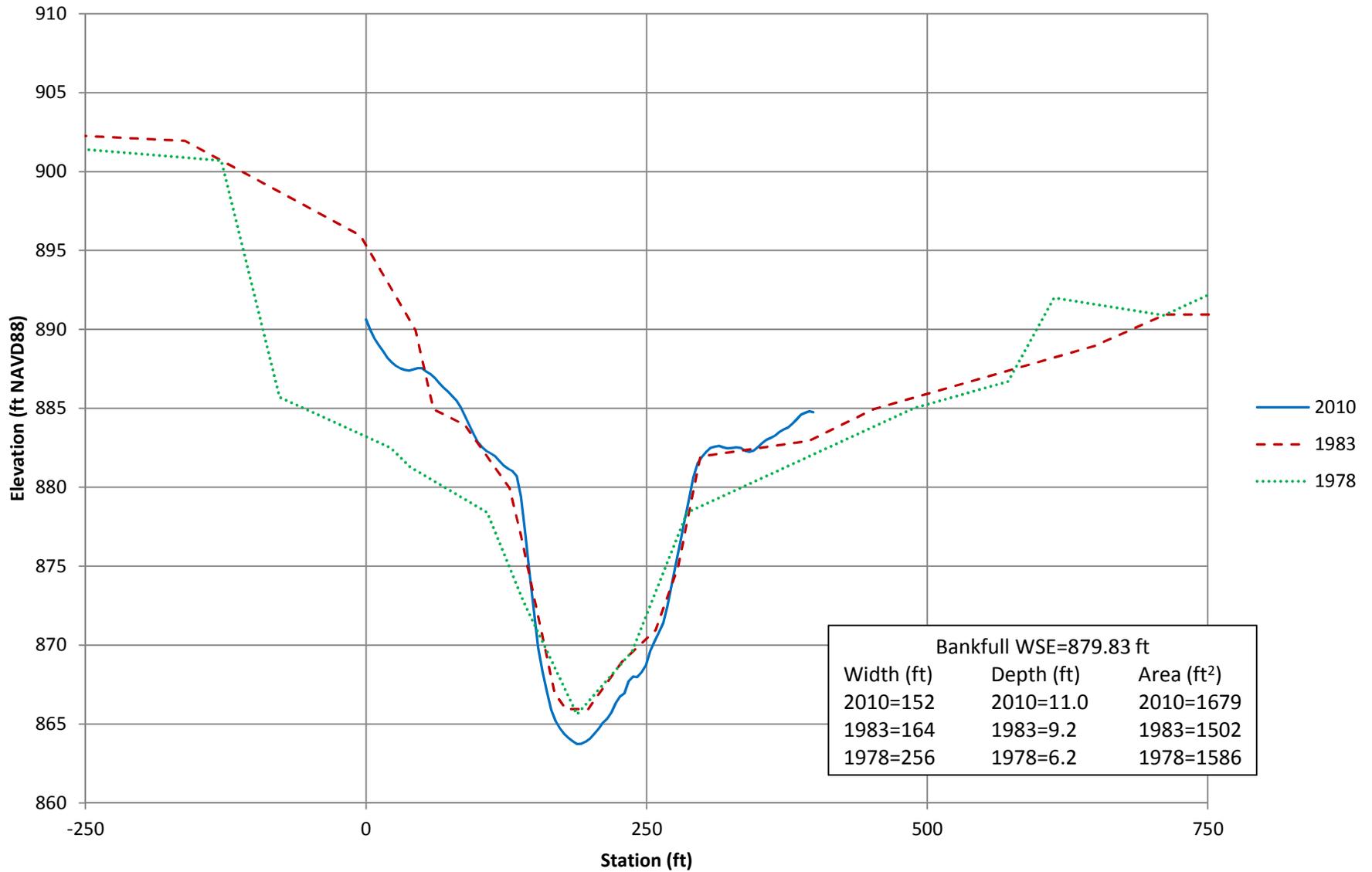
Red River - R4 - RS 2359548



Historic XS Comparison Red River - R5 - RS 2380772

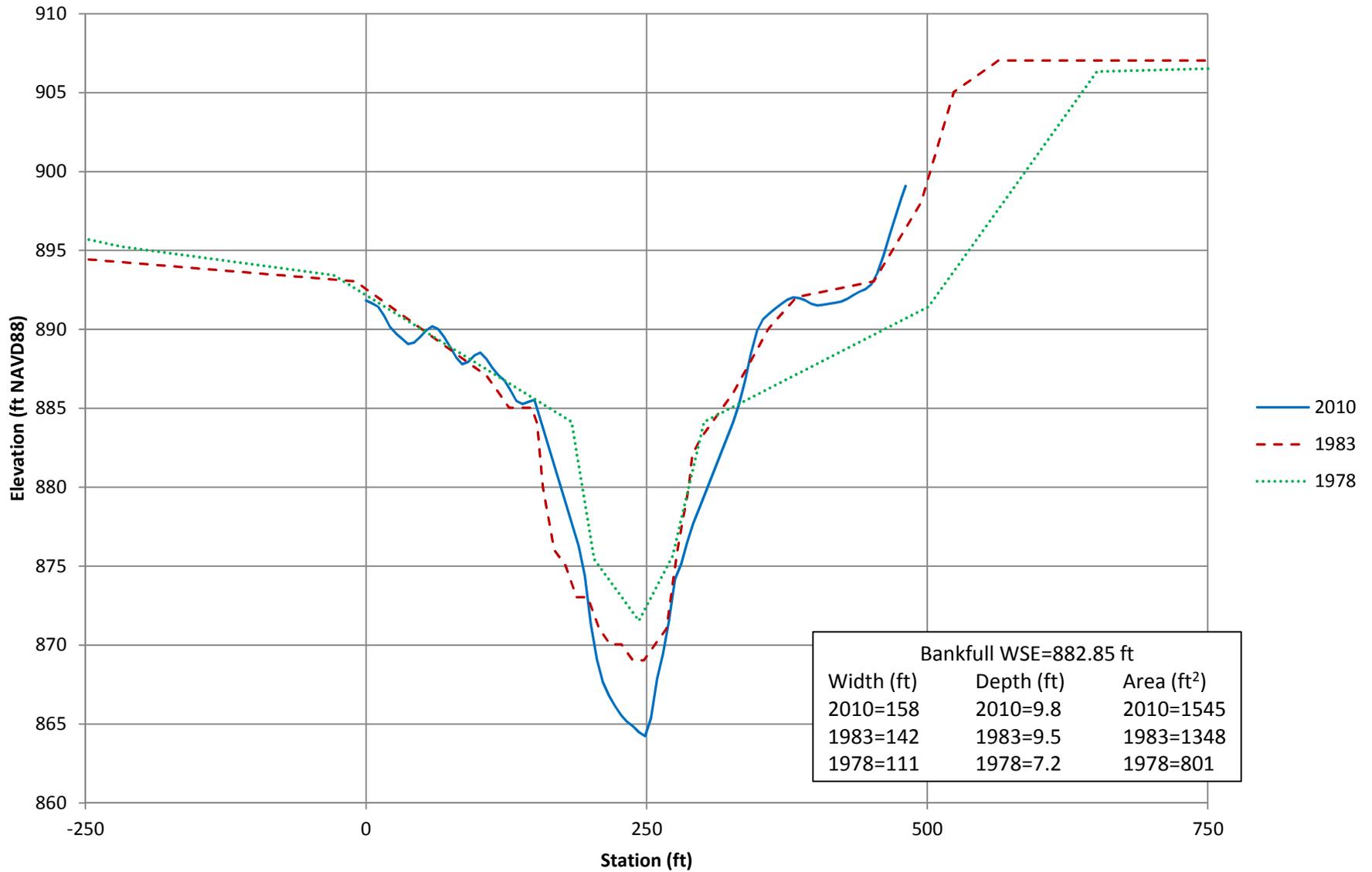


Historic XS Comparison Red River - R6 - RS 2400488



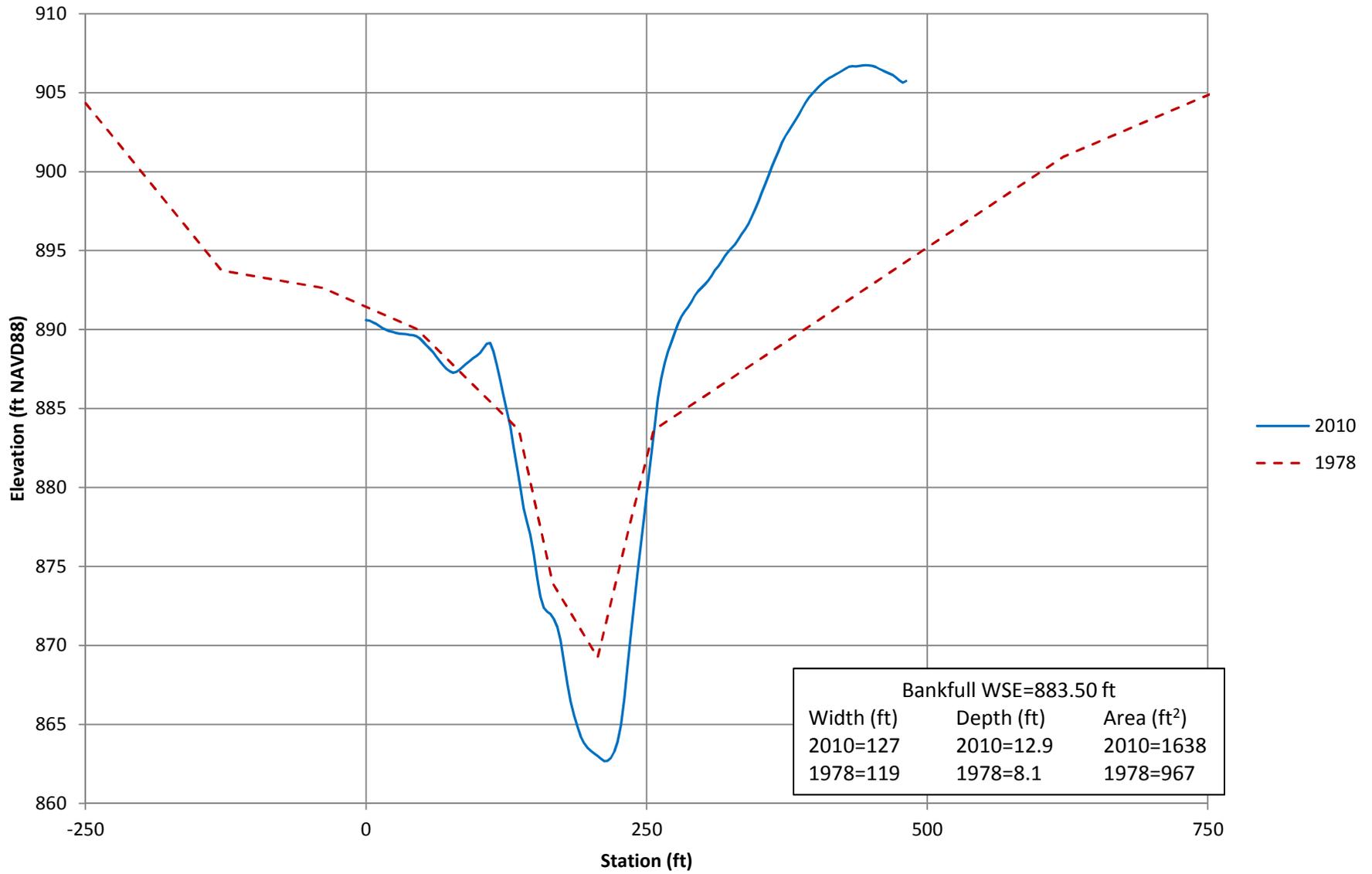
Historic XS Comparison

Red River - R7 - RS 2437441



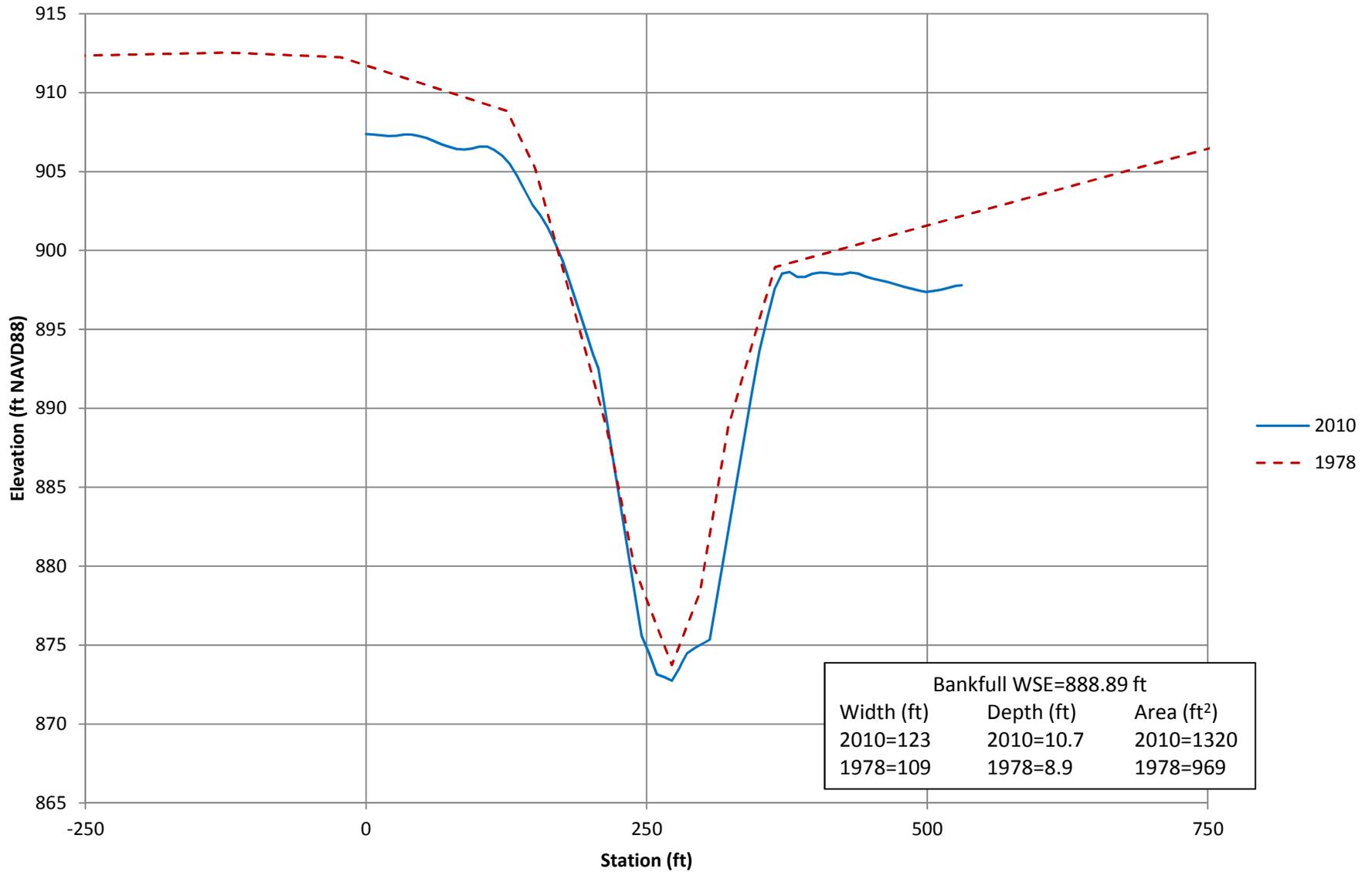
Historic XS Comparison

Red River - R8 - RS 2448951



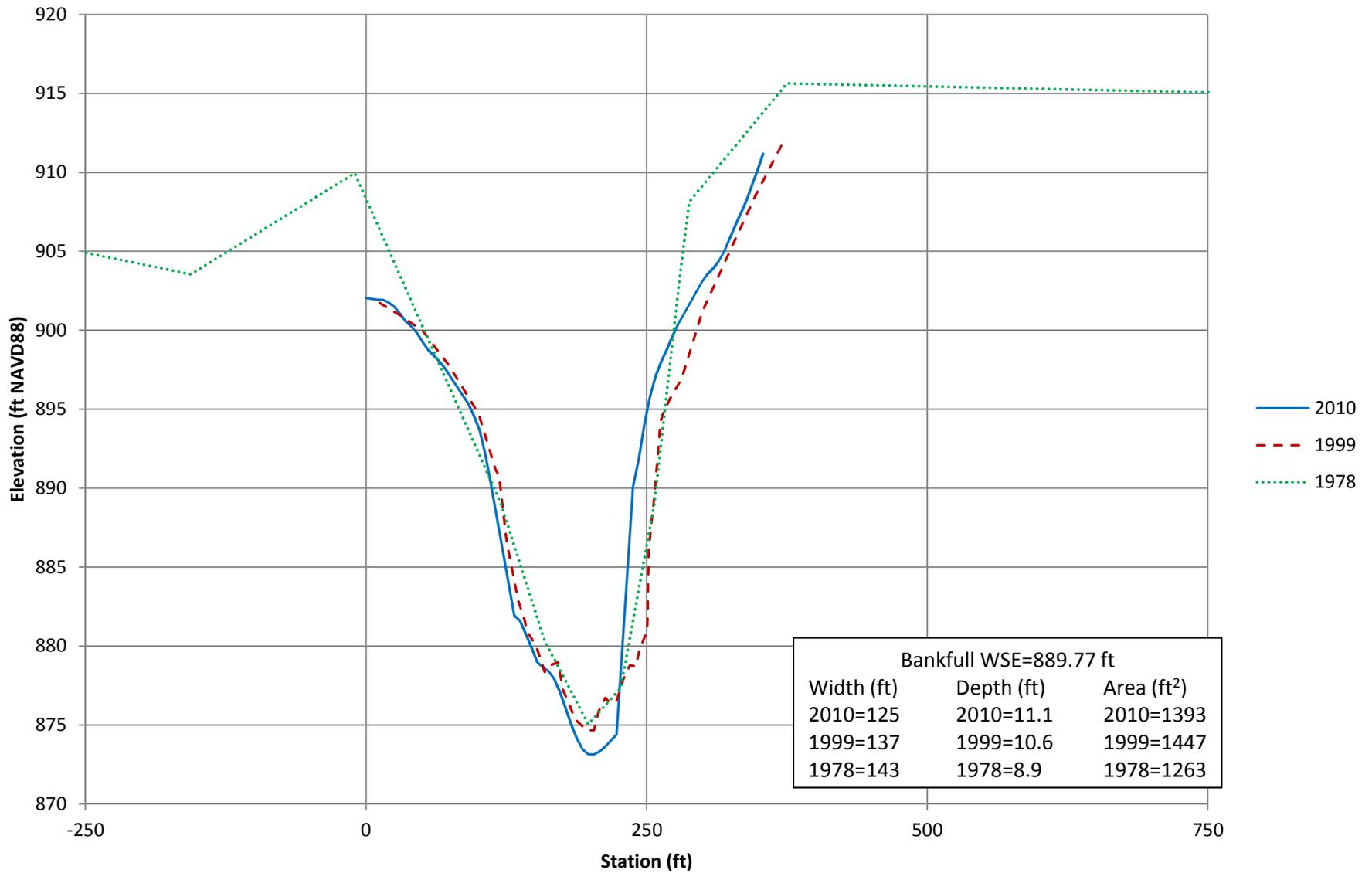
Historic XS Comparison

Red River - R9 - RS 2515596

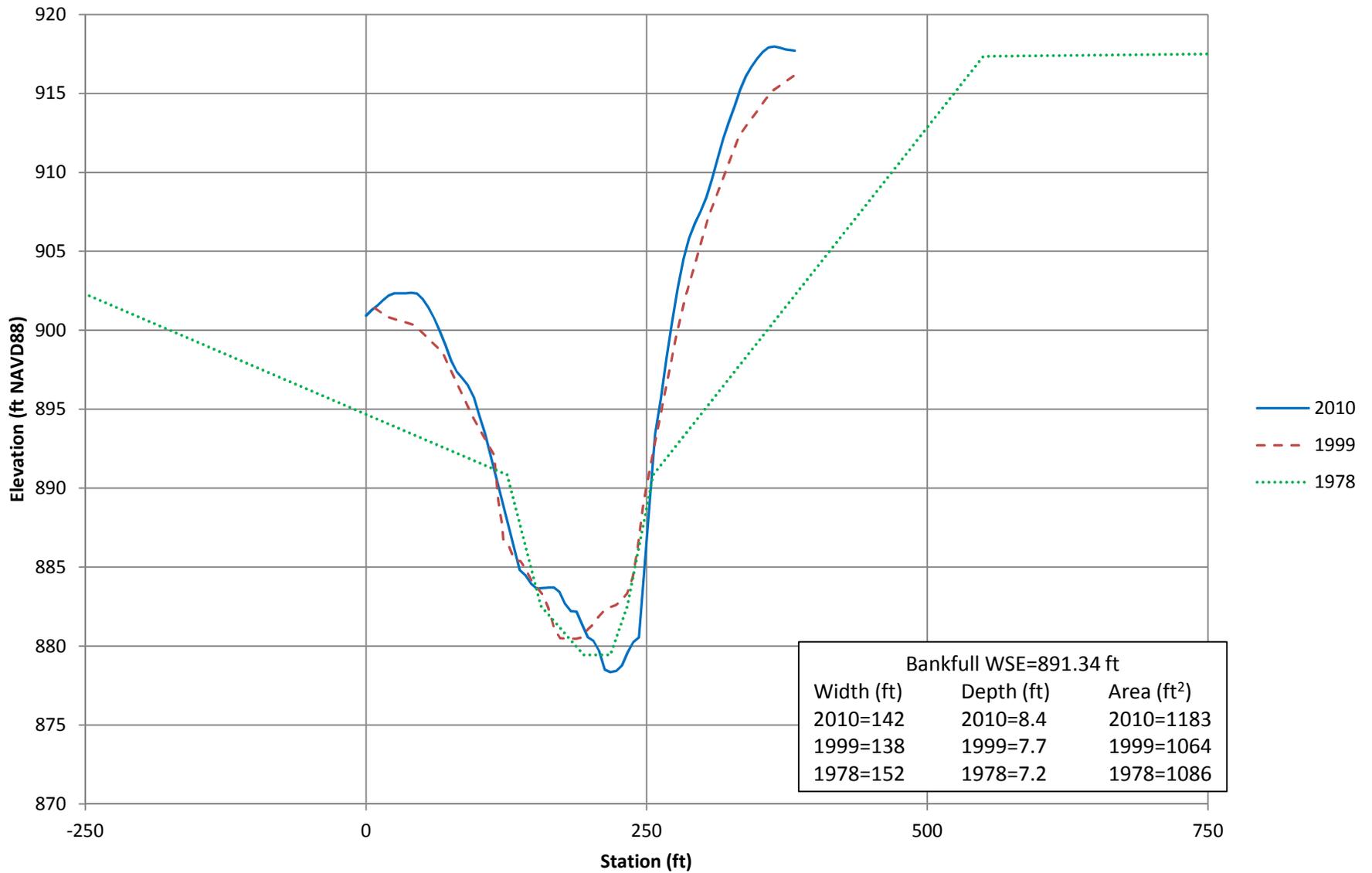


Historic XS Comparison

Red River - R10 - RS 2537700

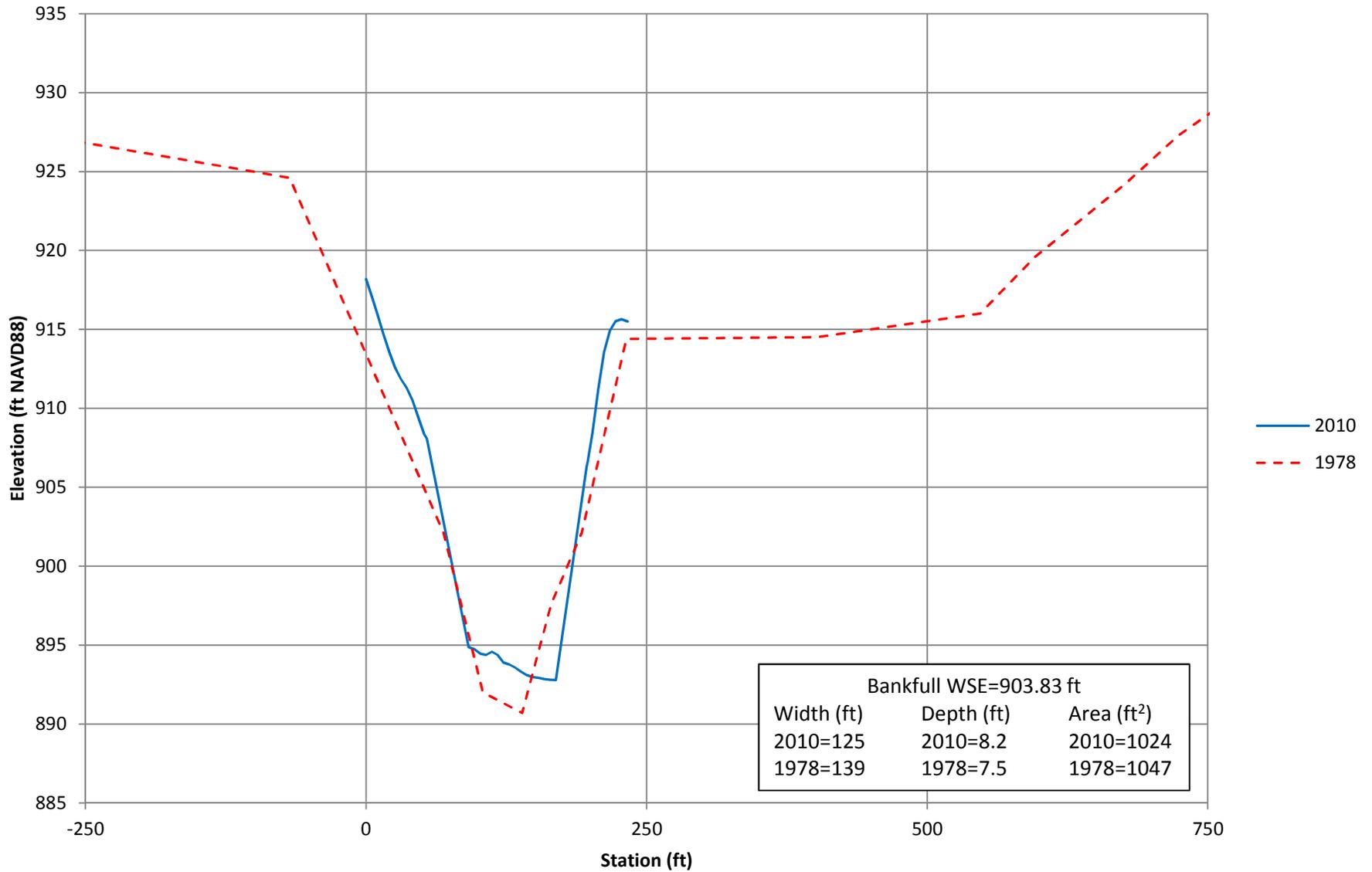


Historic XS Comparison Red River - R11 - RS 2562789



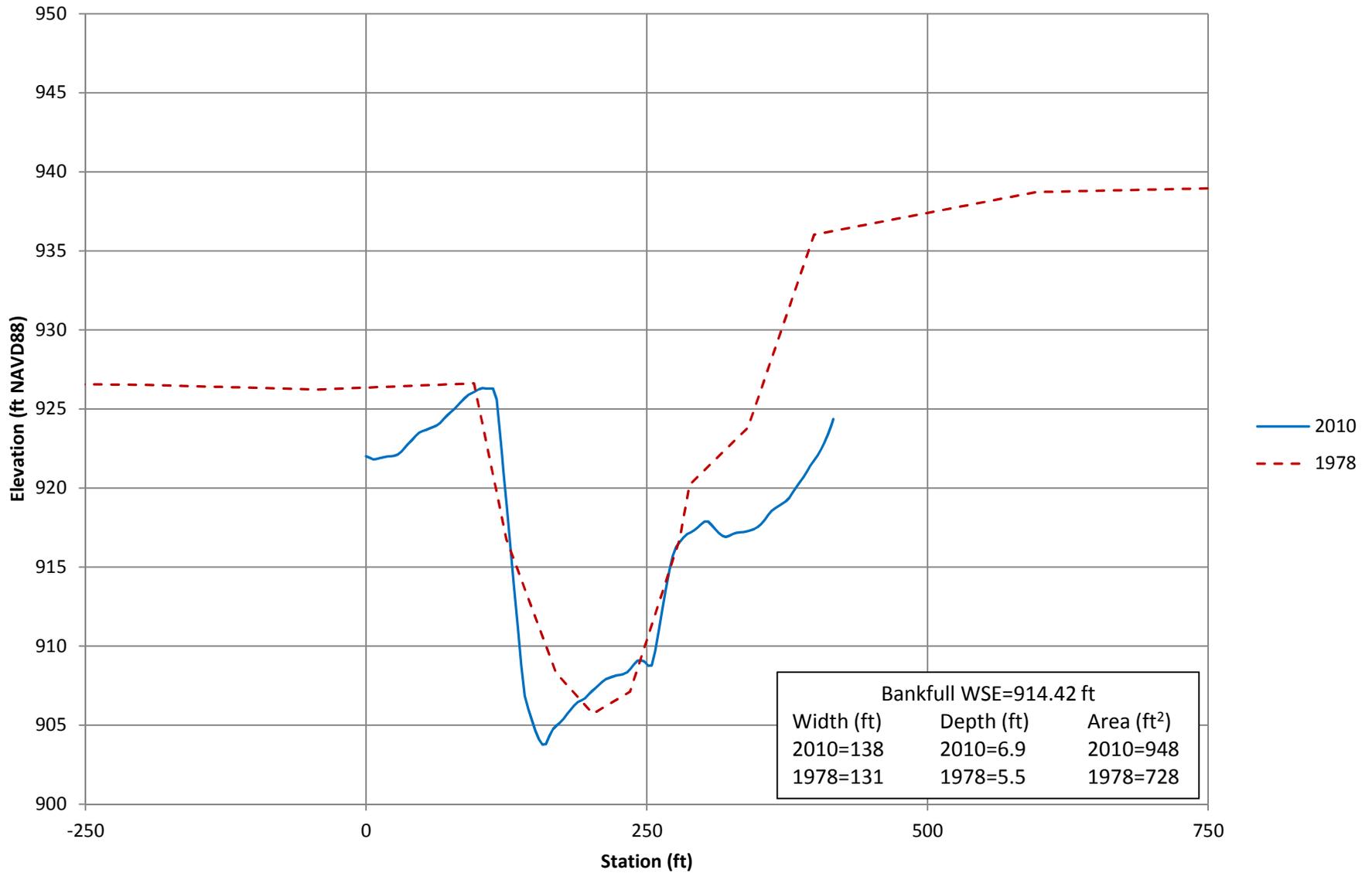
Historic XS Comparison

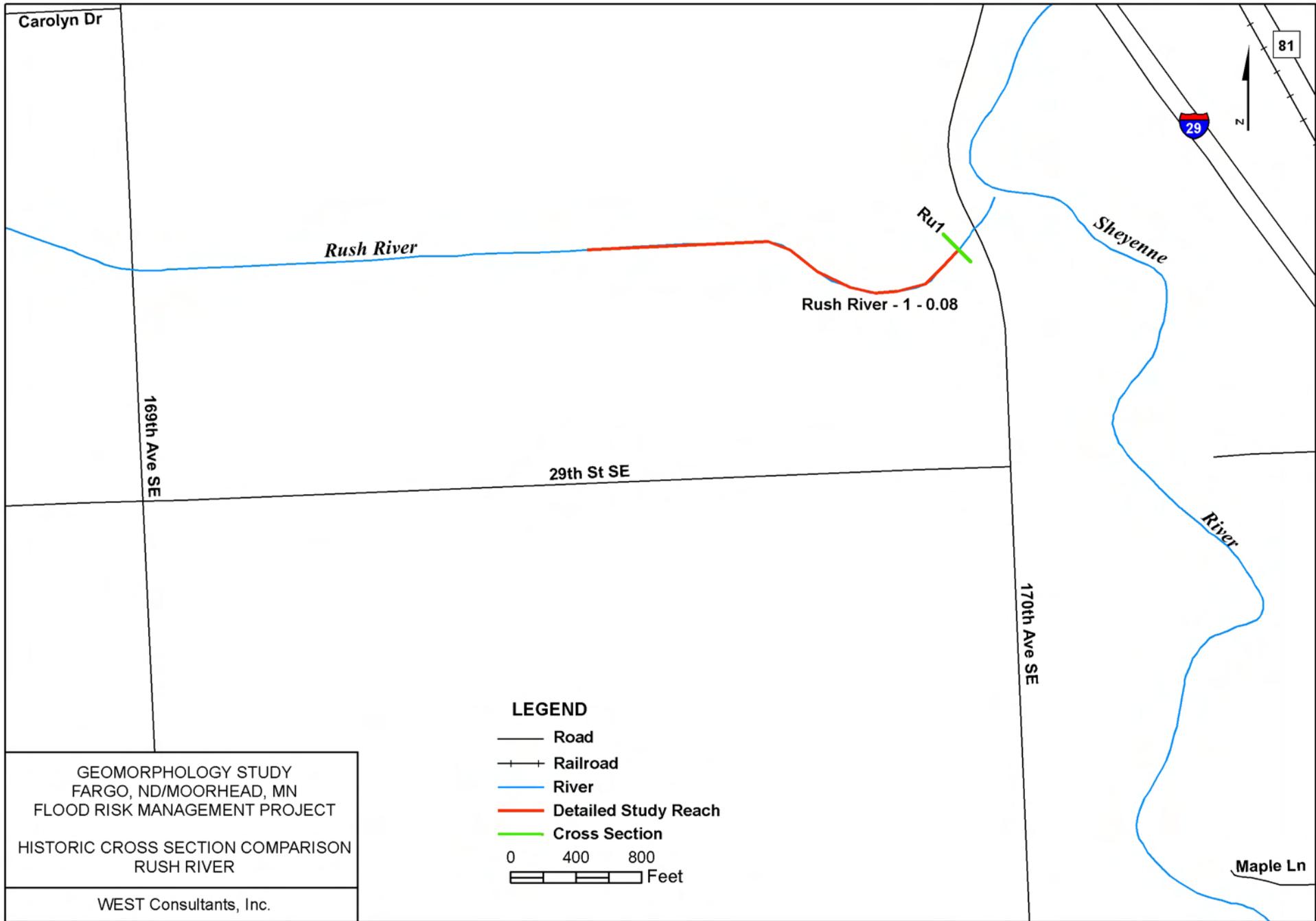
Red River - R12 - RS 2672724



Historic XS Comparison

Red River - R13 - RS 2762274



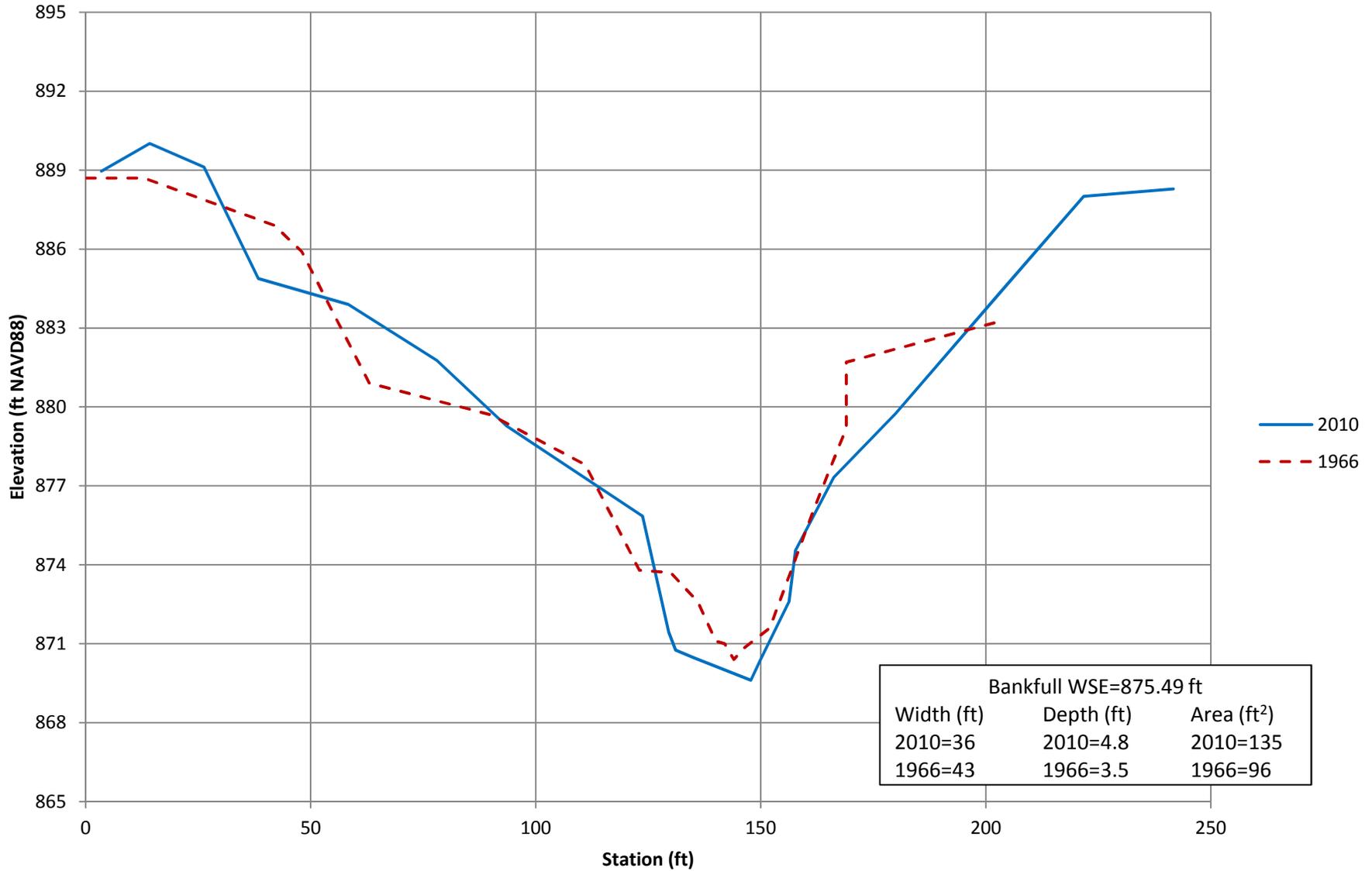


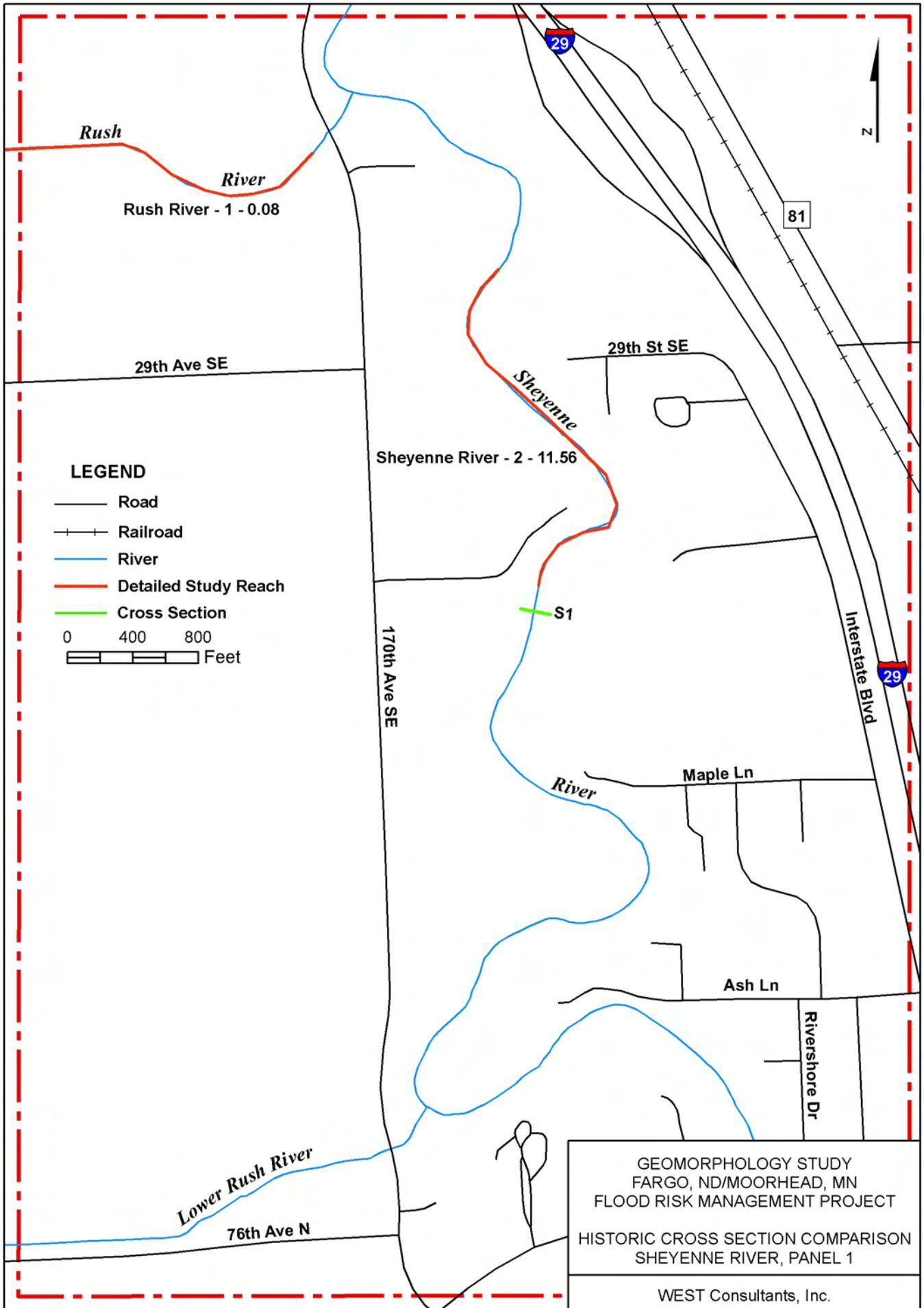
GEOMORPHOLOGY STUDY
 FARGO, ND/MOORHEAD, MN
 FLOOD RISK MANAGEMENT PROJECT
 HISTORIC CROSS SECTION COMPARISON
 RUSH RIVER

WEST Consultants, Inc.

Historic XS Comparison

Rush River - Ru1 - RS 394





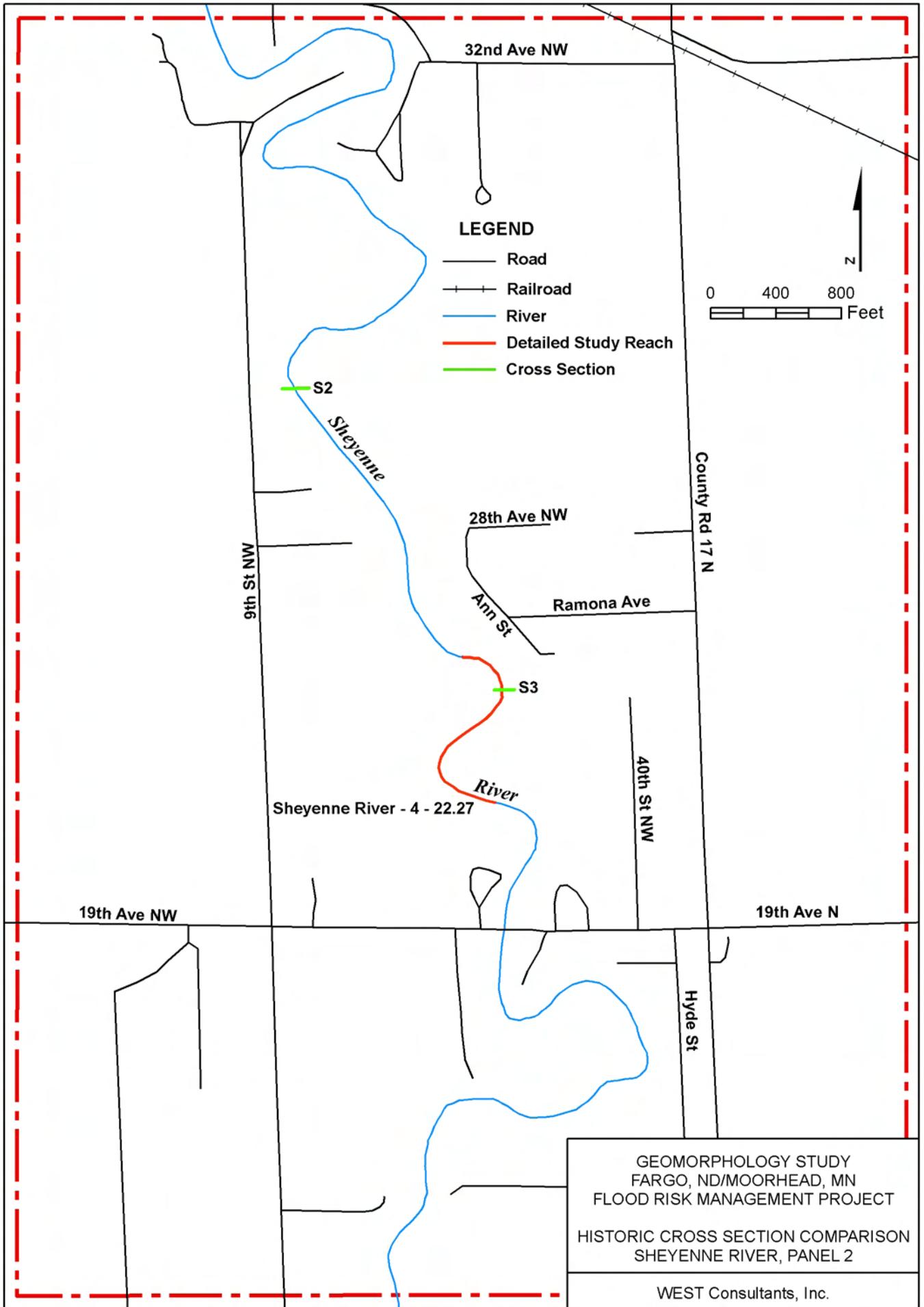
LEGEND

- Road
 - +— Railroad
 - River
 - Detailed Study Reach
 - Cross Section
- 0 400 800
 Feet

GEOMORPHOLOGY STUDY
 FARGO, ND/MOORHEAD, MN
 FLOOD RISK MANAGEMENT PROJECT

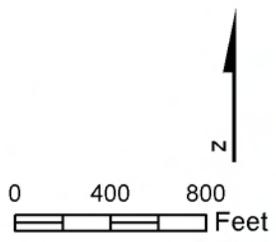
HISTORIC CROSS SECTION COMPARISON
 SHEYENNE RIVER, PANEL 1

WEST Consultants, Inc.



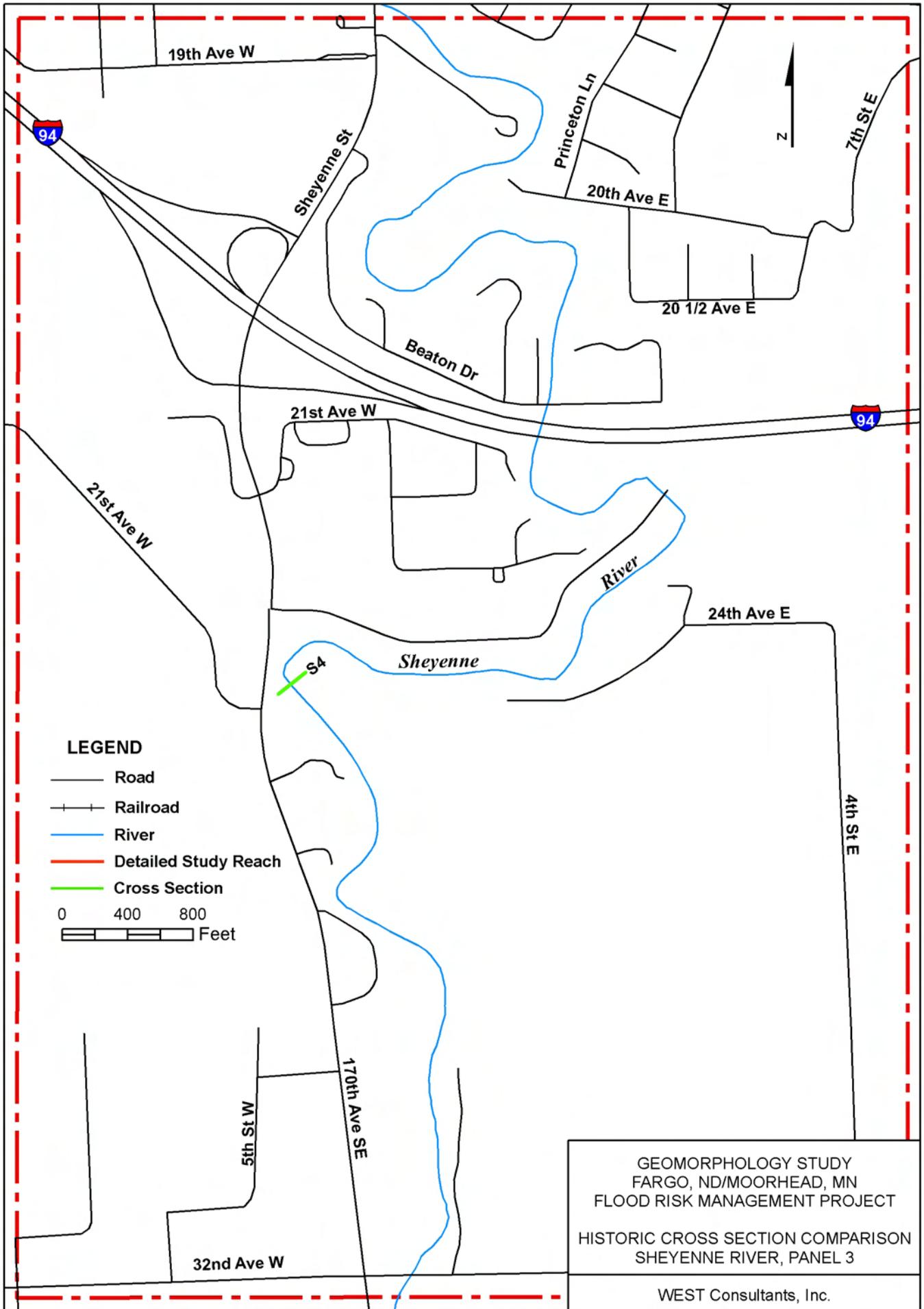
LEGEND

- Road
- +— Railroad
- River
- Detailed Study Reach
- Cross Section



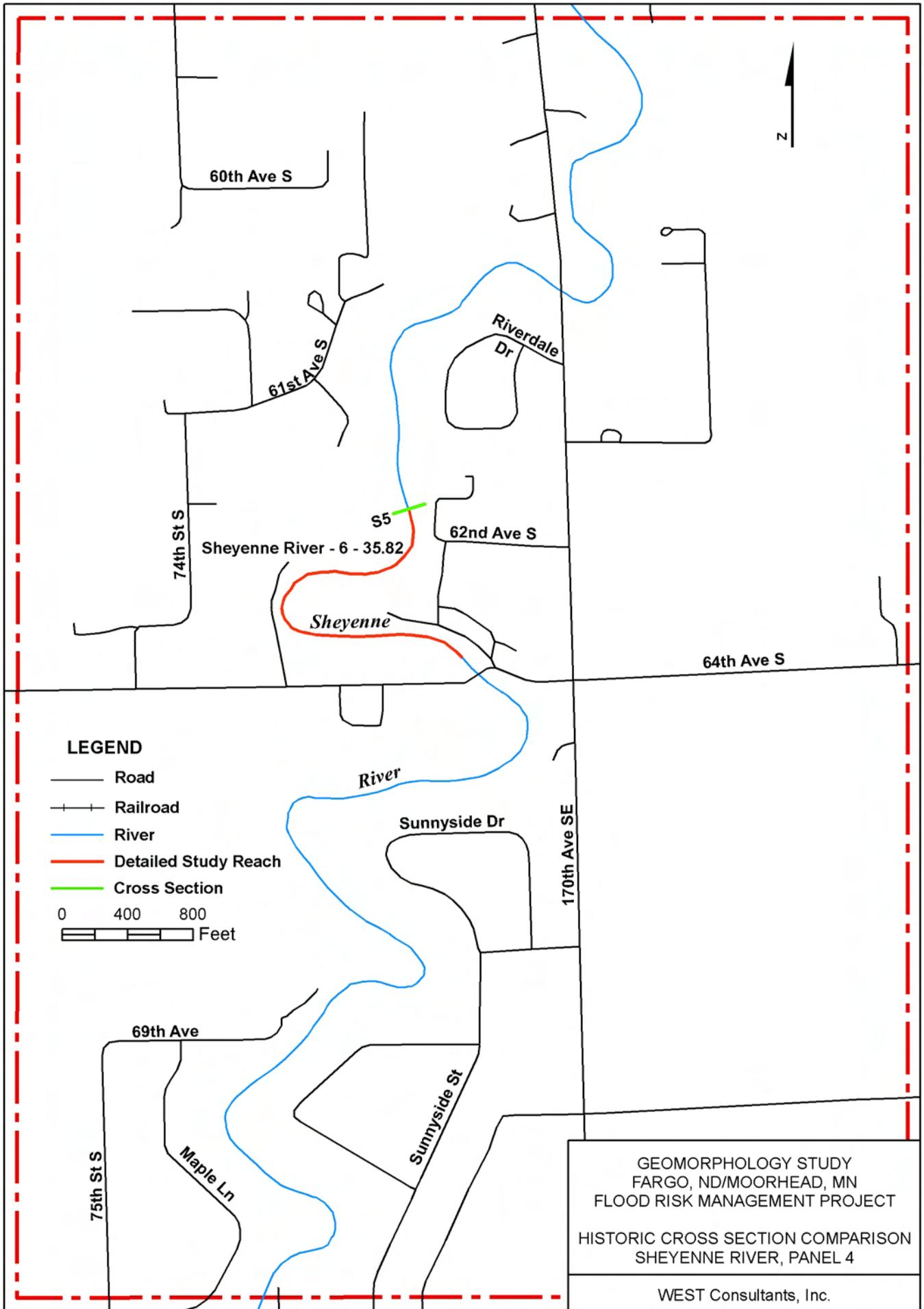
Sheyenne River - 4 - 22.27

GEOMORPHOLOGY STUDY
 FARGO, ND/MOORHEAD, MN
 FLOOD RISK MANAGEMENT PROJECT
 HISTORIC CROSS SECTION COMPARISON
 SHEYENNE RIVER, PANEL 2
 WEST Consultants, Inc.



GEOMORPHOLOGY STUDY
 FARGO, ND/MOORHEAD, MN
 FLOOD RISK MANAGEMENT PROJECT
 HISTORIC CROSS SECTION COMPARISON
 SHEYENNE RIVER, PANEL 3

WEST Consultants, Inc.

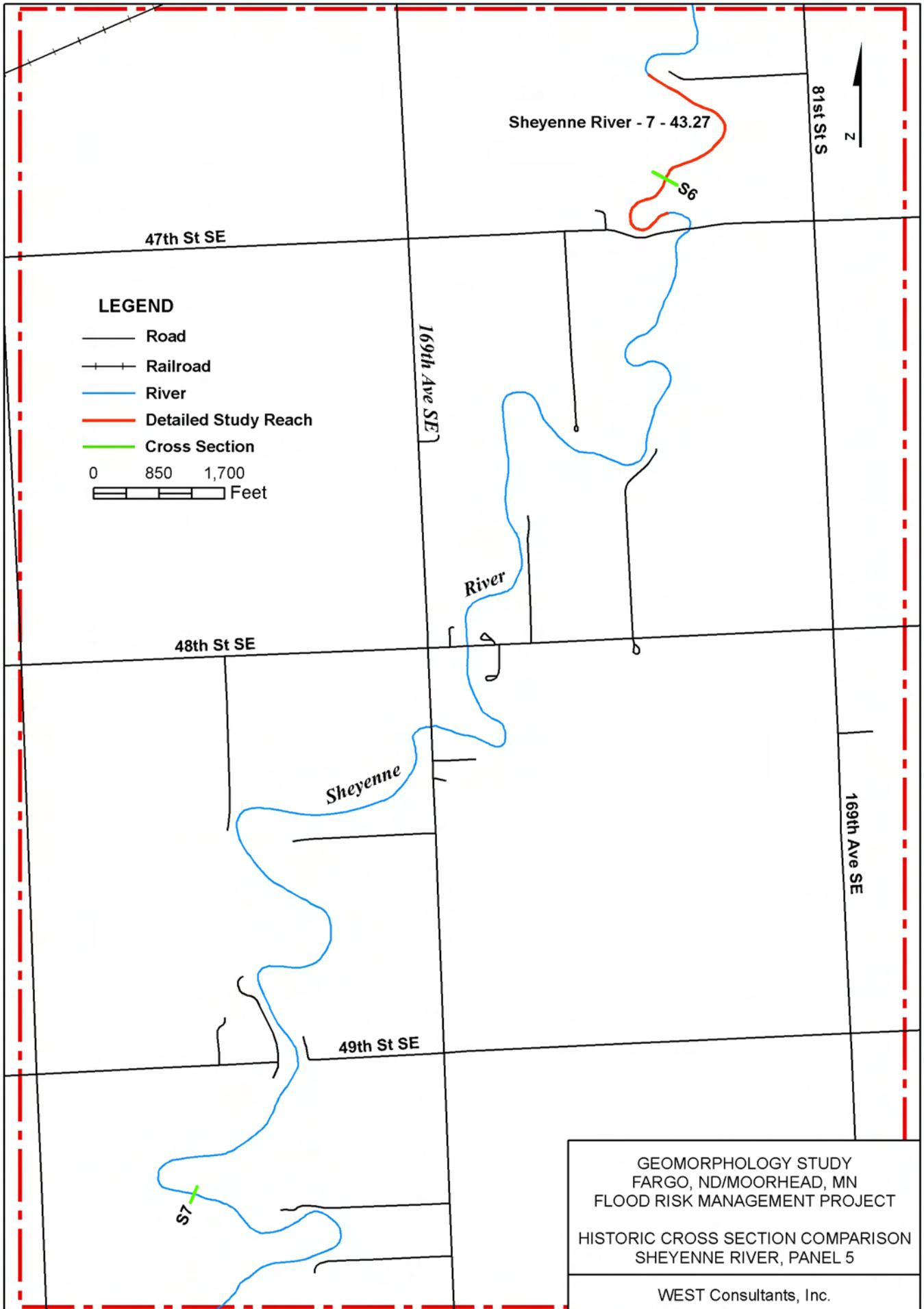


LEGEND

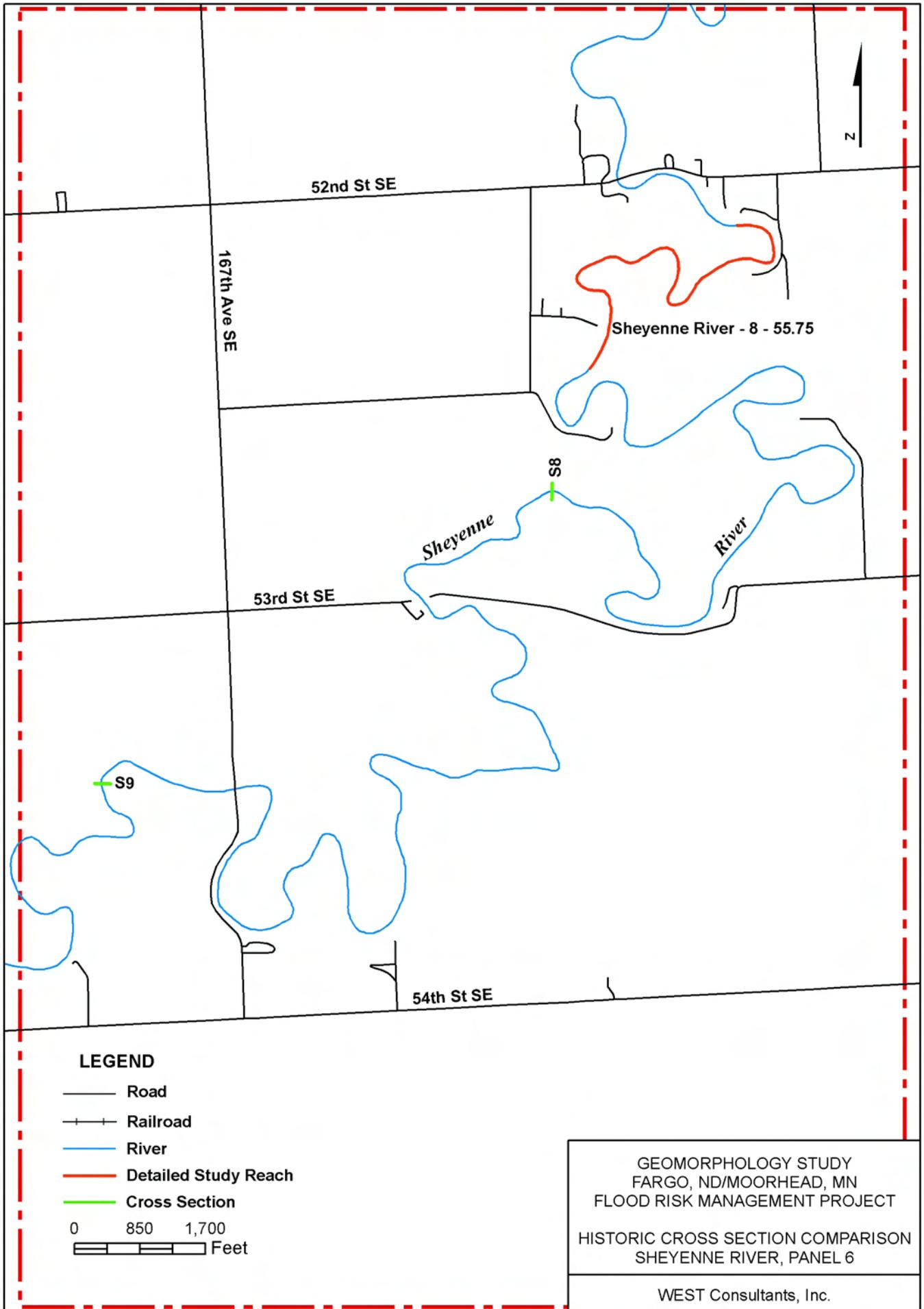
- Road
- + + Railroad
- River
- Detailed Study Reach
- Cross Section

0 400 800
 Feet

GEOMORPHOLOGY STUDY
 FARGO, ND/MOORHEAD, MN
 FLOOD RISK MANAGEMENT PROJECT
 HISTORIC CROSS SECTION COMPARISON
 SHEYENNE RIVER, PANEL 4
 WEST Consultants, Inc.



GEOMORPHOLOGY STUDY
 FARGO, ND/MOORHEAD, MN
 FLOOD RISK MANAGEMENT PROJECT
 HISTORIC CROSS SECTION COMPARISON
 SHEYENNE RIVER, PANEL 5
 WEST Consultants, Inc.



LEGEND

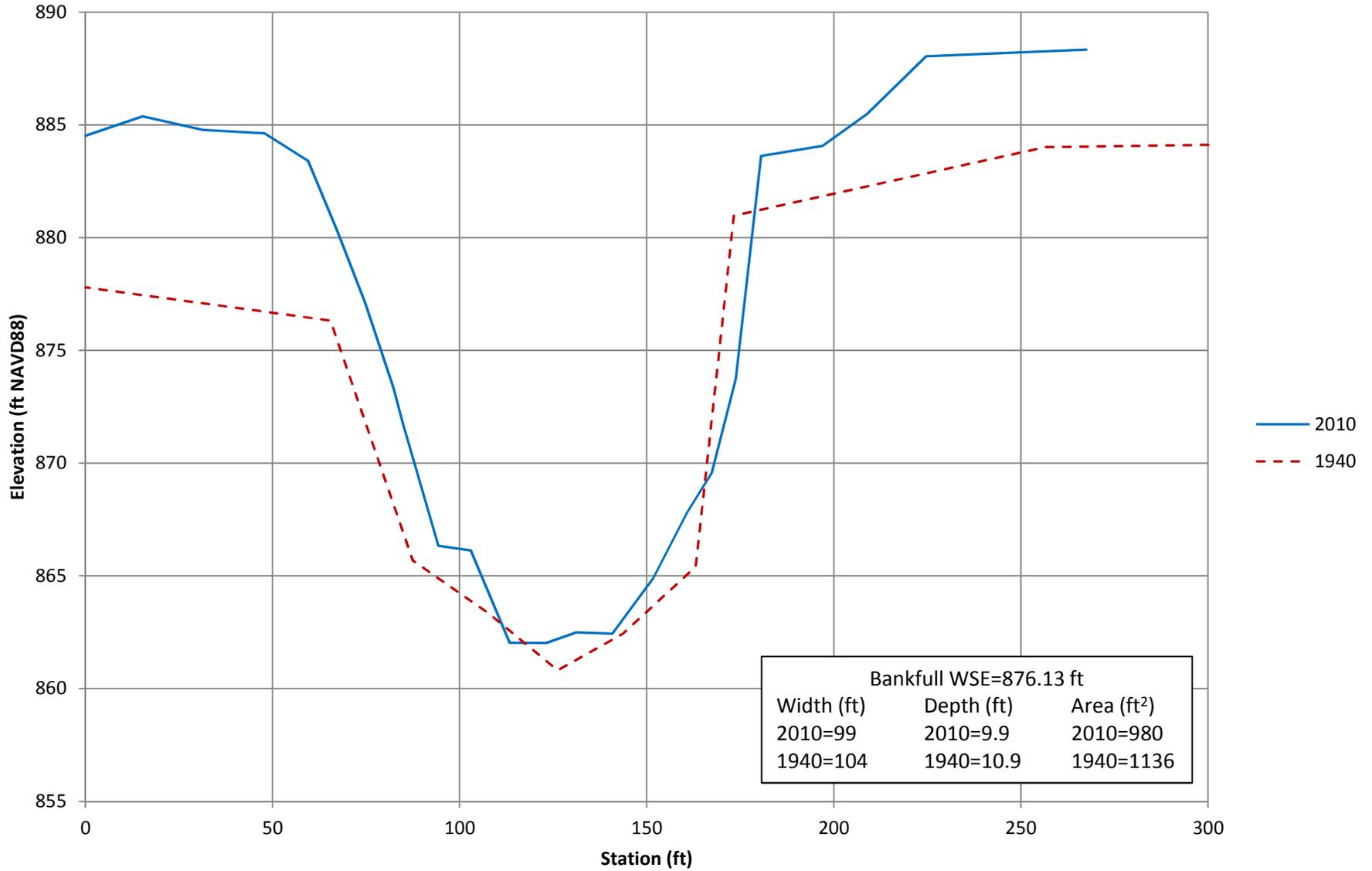
- Road
- +— Railroad
- River
- Detailed Study Reach
- Cross Section

0 850 1,700
 Feet

GEOMORPHOLOGY STUDY
 FARGO, ND/MOORHEAD, MN
 FLOOD RISK MANAGEMENT PROJECT
 HISTORIC CROSS SECTION COMPARISON
 SHEYENNE RIVER, PANEL 6
 WEST Consultants, Inc.

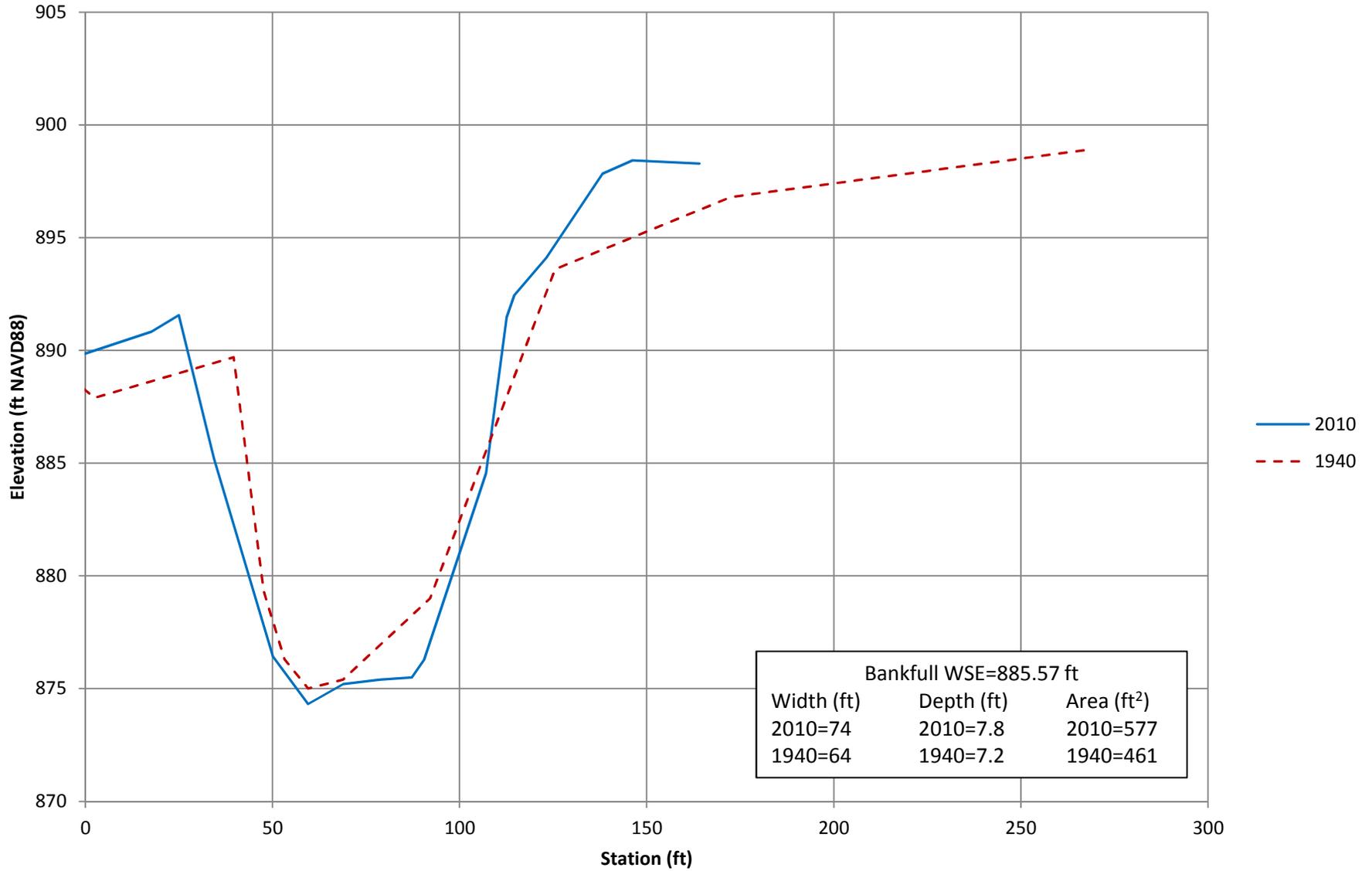
Historic XS Comparison

Sheyenne River - S1 - RS 63841

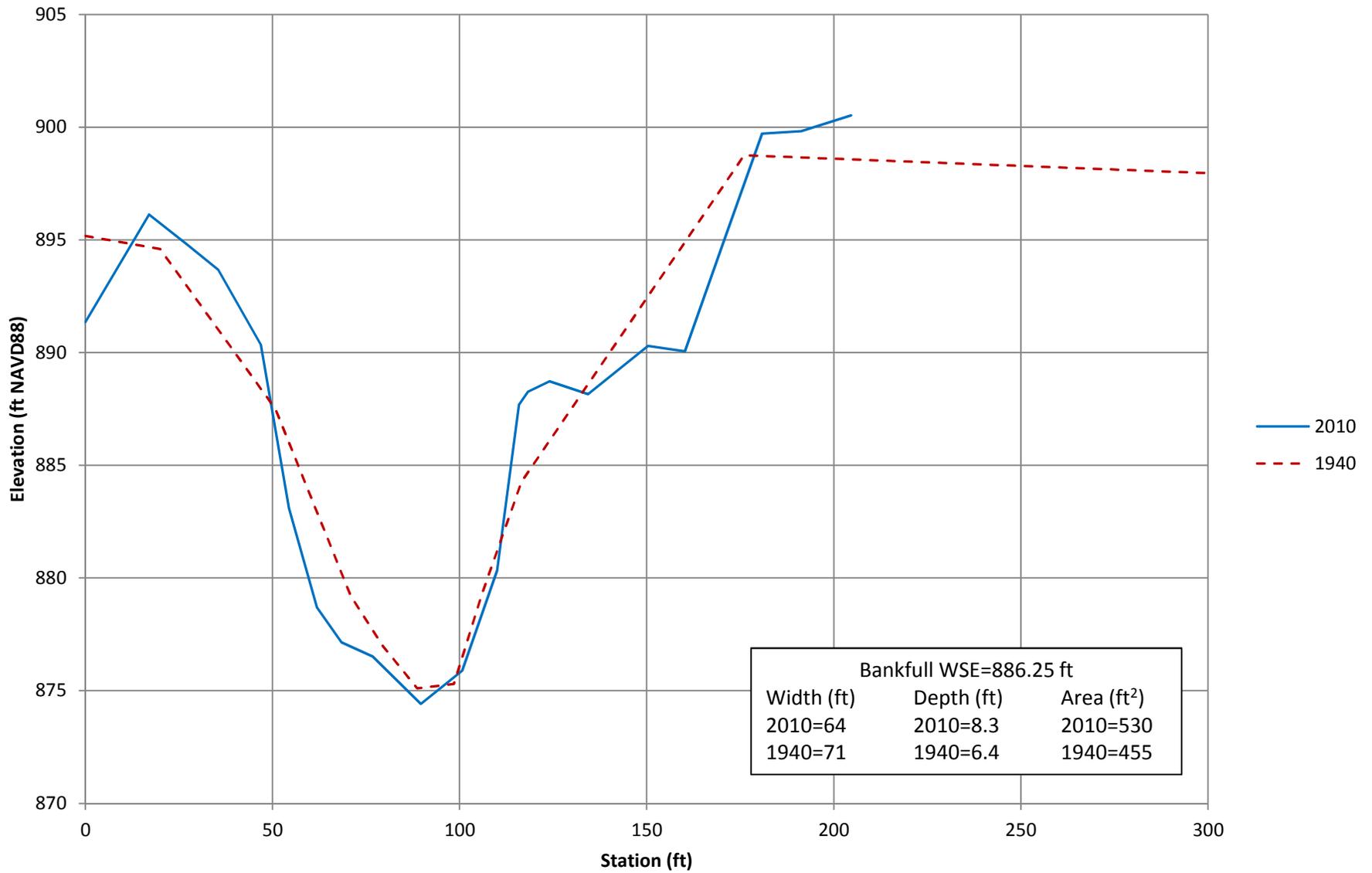


Historic XS Comparison

Sheyenne River - S2 - RS 115599

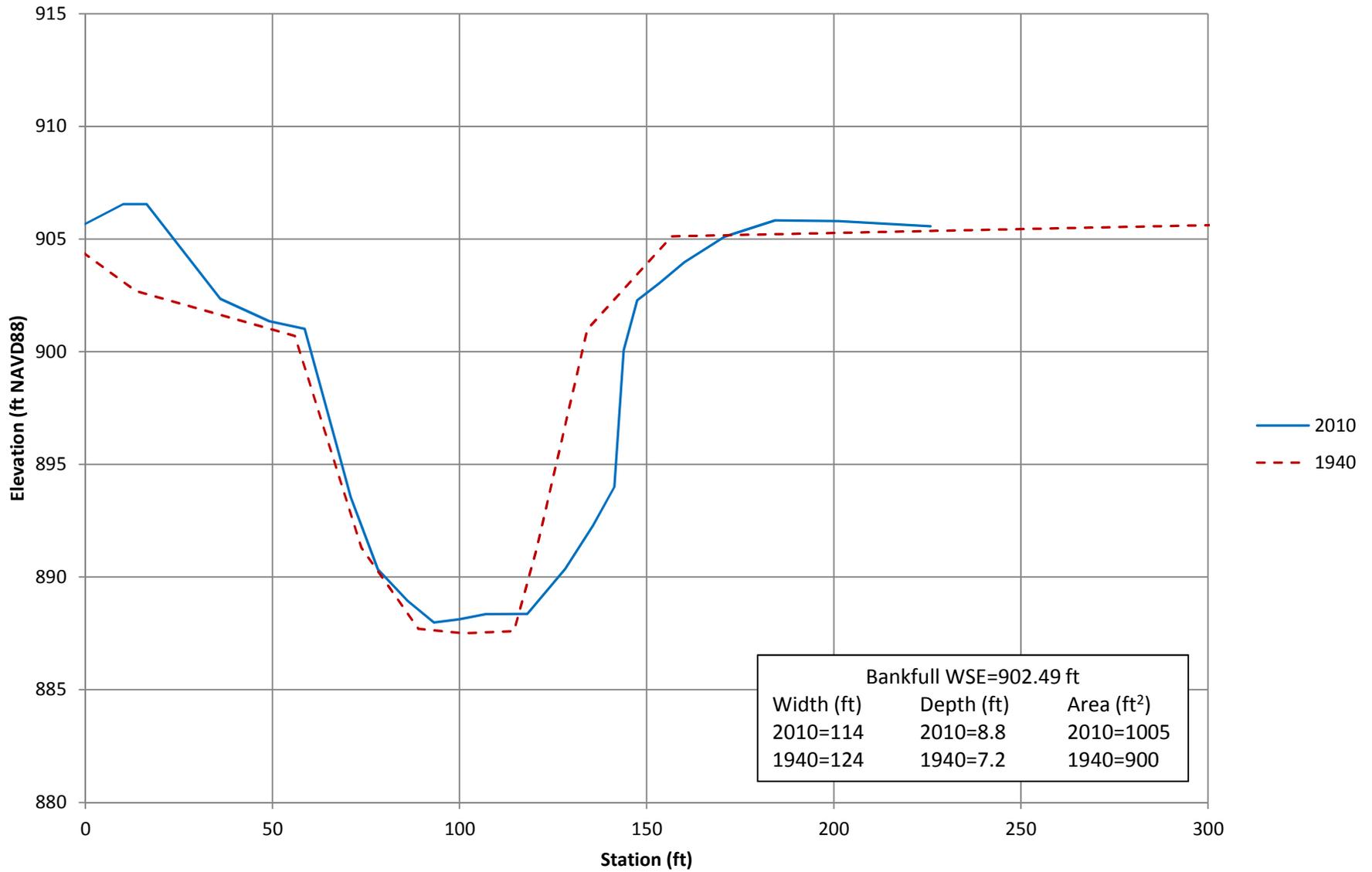


Historic XS Comparison Sheyenne River - S3 - RS 117965



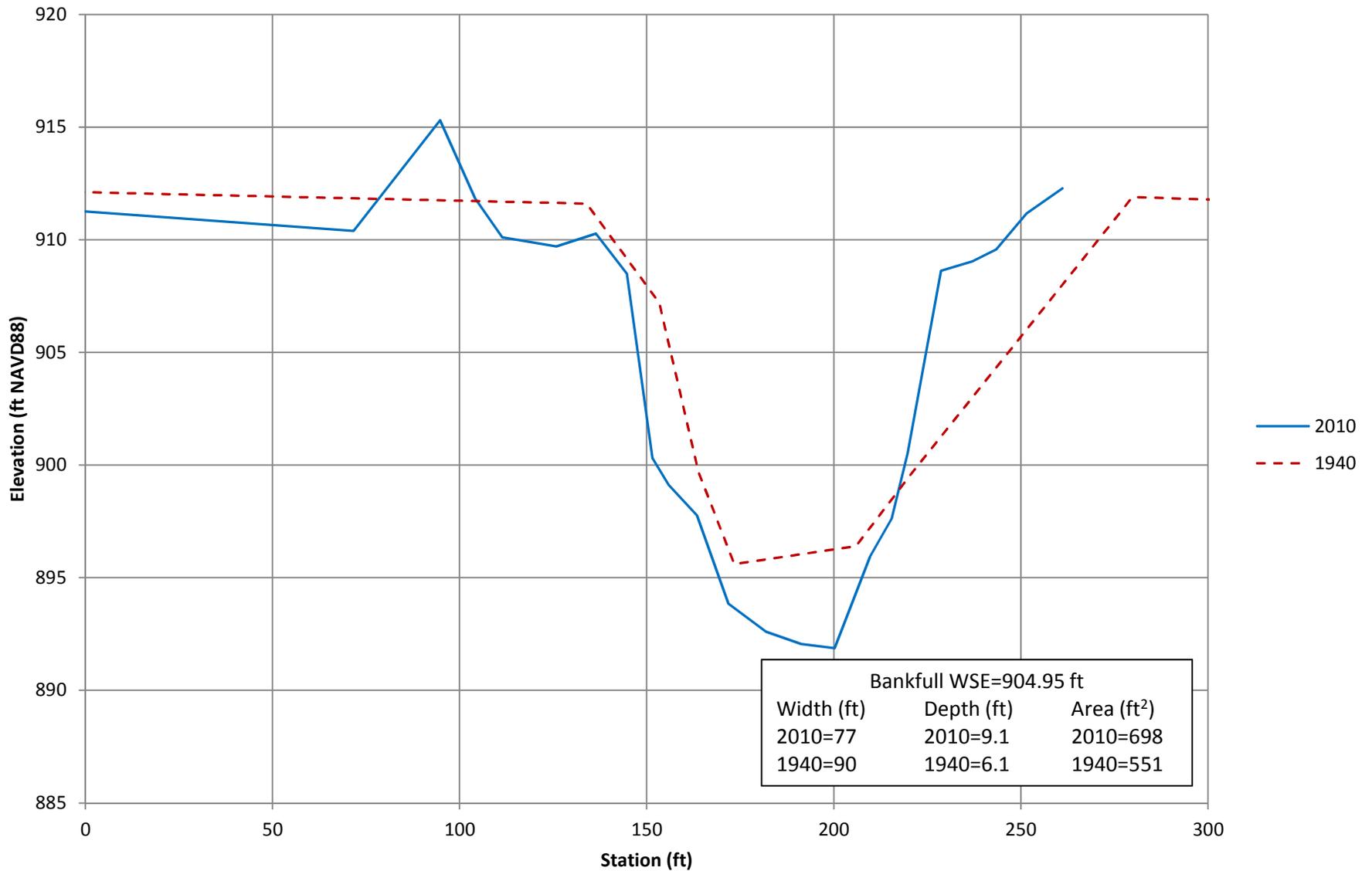
Historic XS Comparison

Sheyenne River - S4 - RS 158429

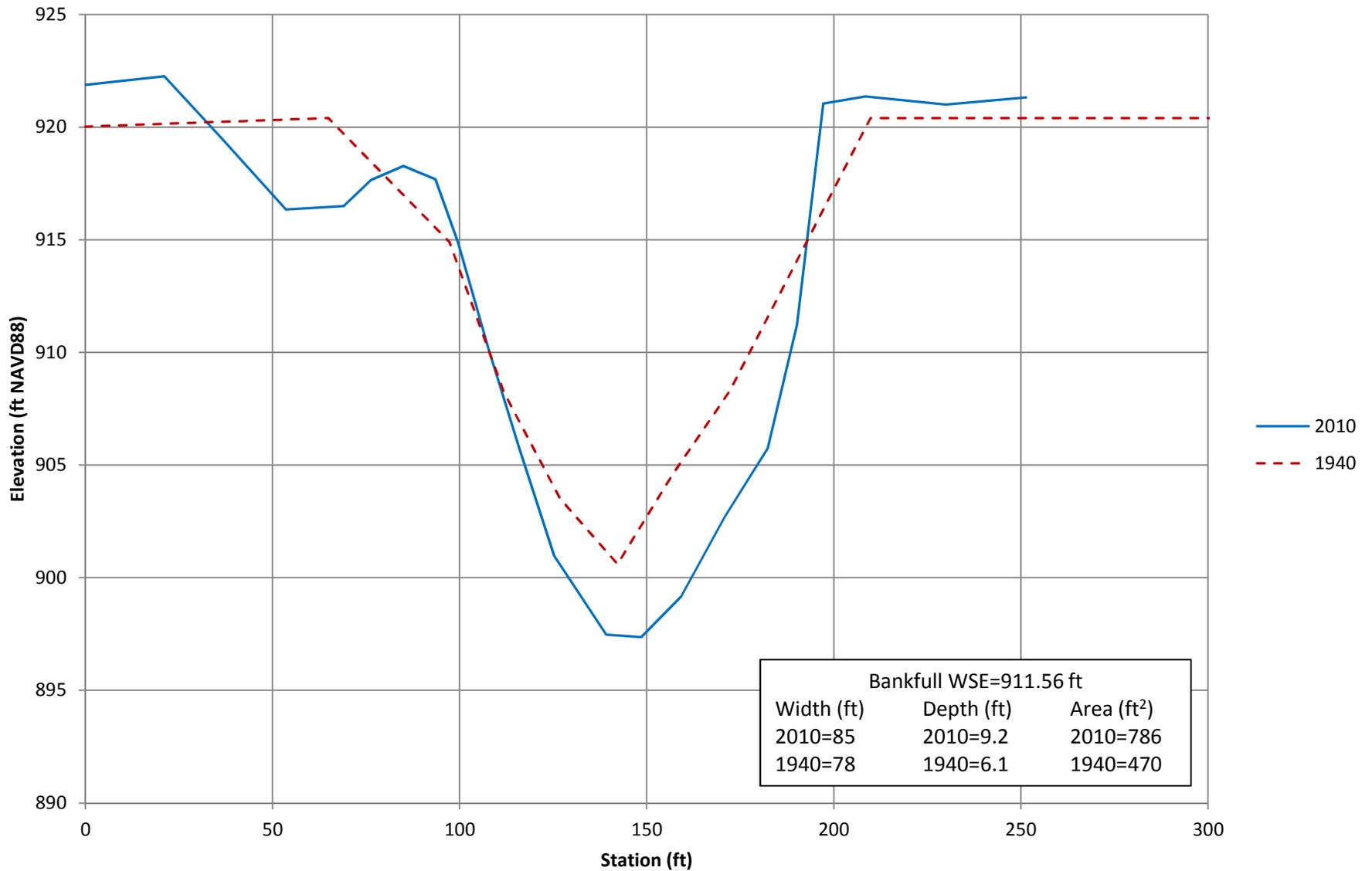


Historic XS Comparison

Sheyenne River - S5 - RS 189121

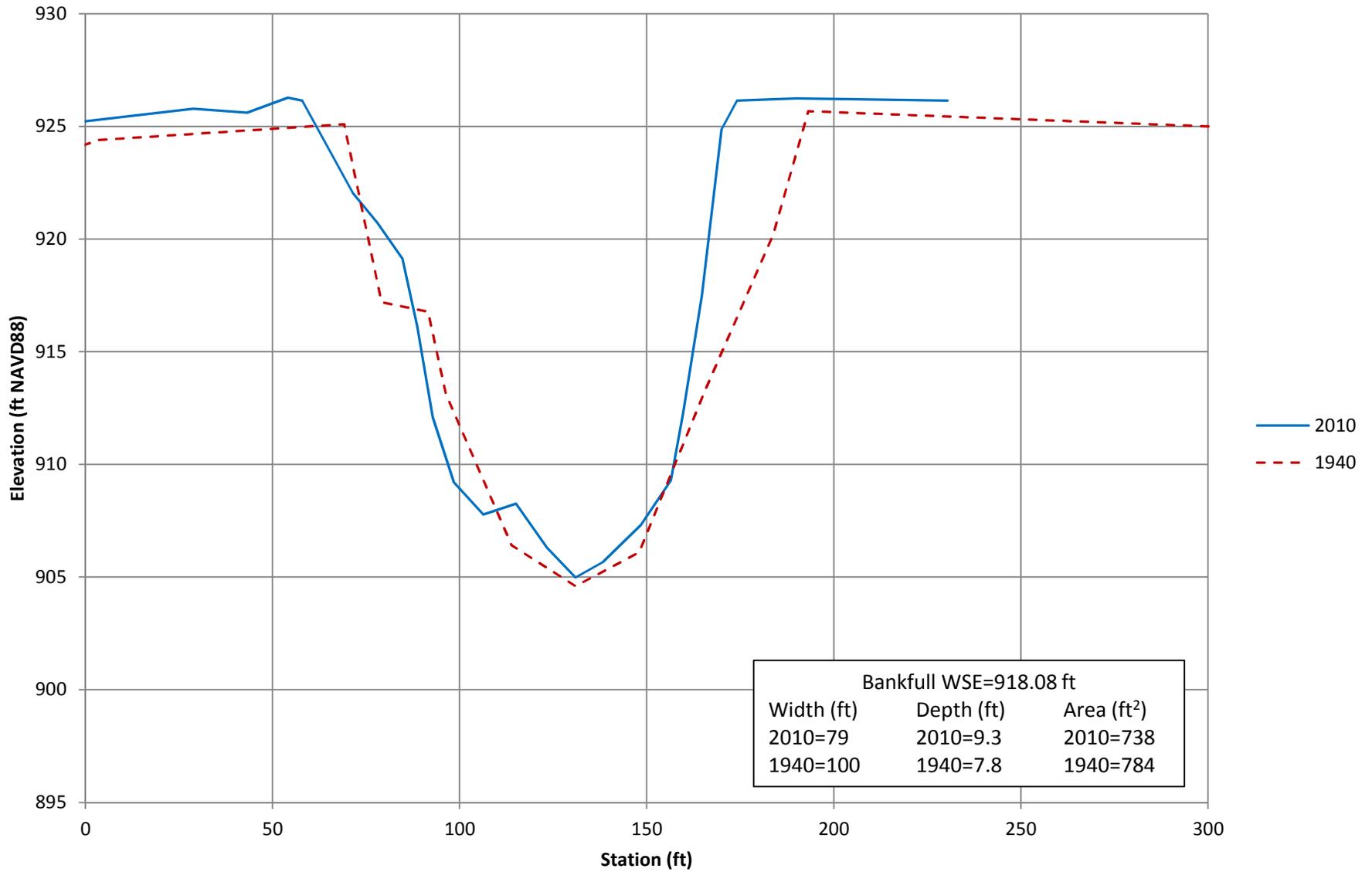


Historic XS Comparison Sheyenne River - S6 - RS 230797



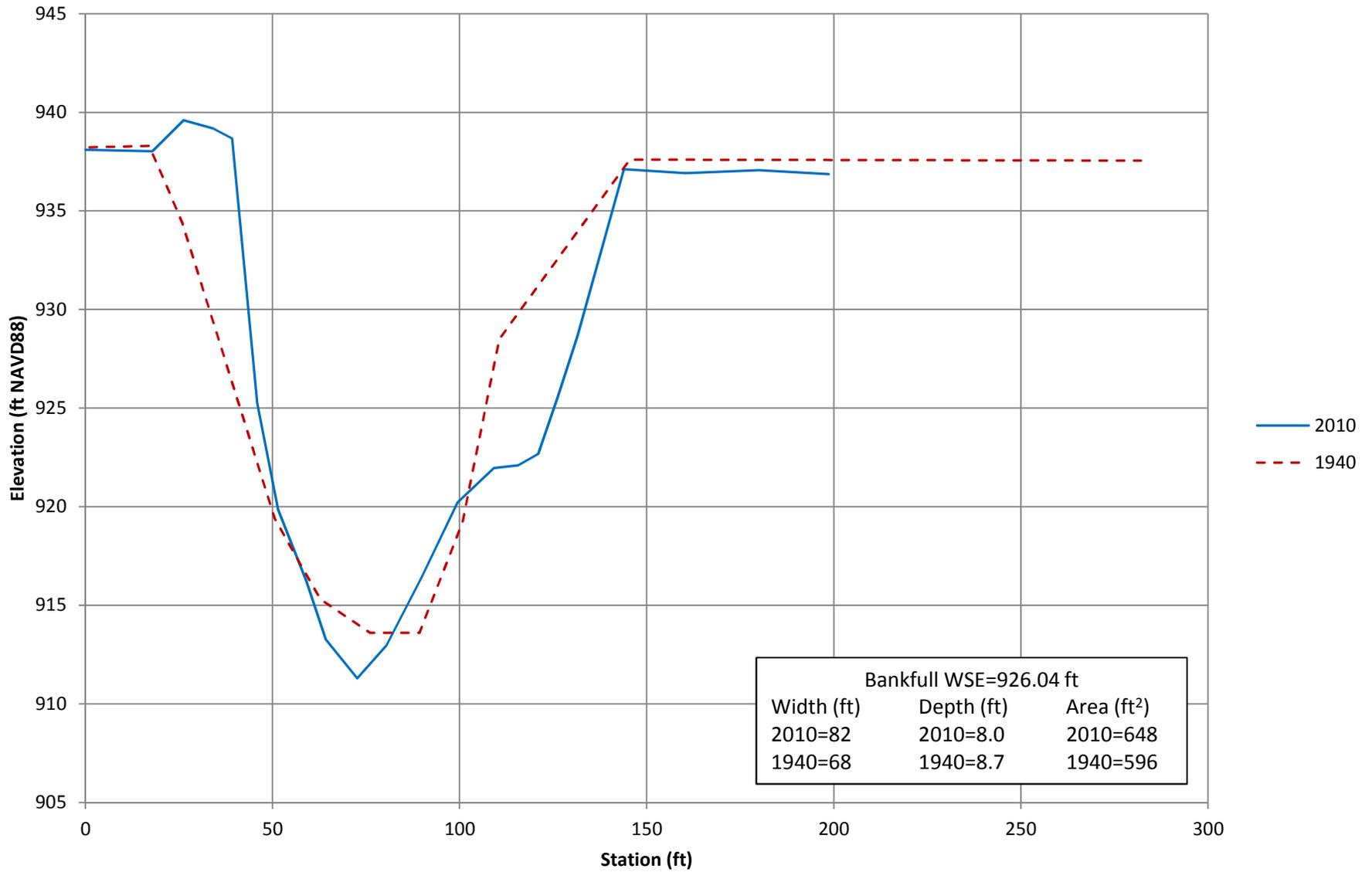
Historic XS Comparison

Sheyenne River - S7 - RS 255972



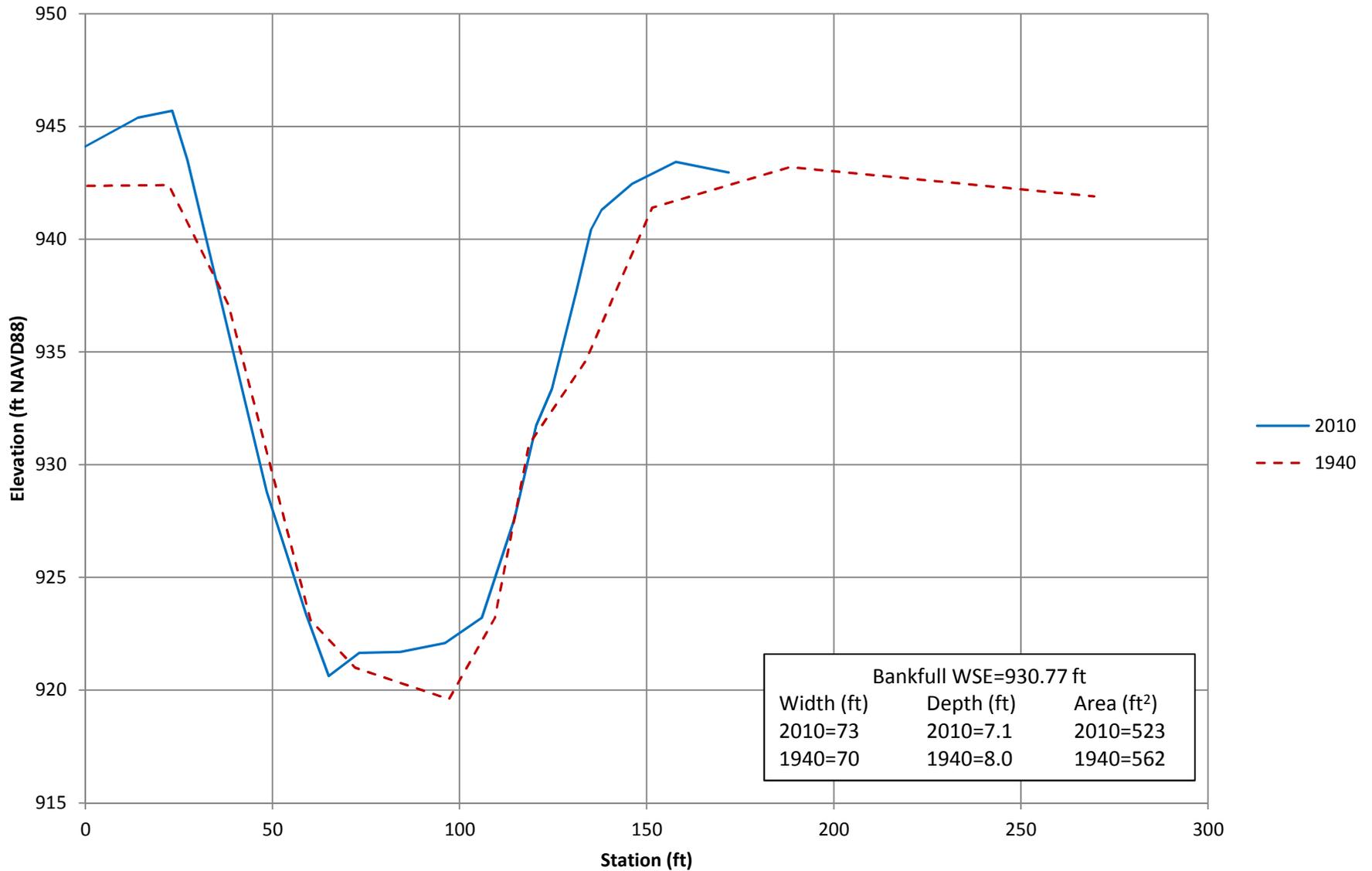
Historic XS Comparison

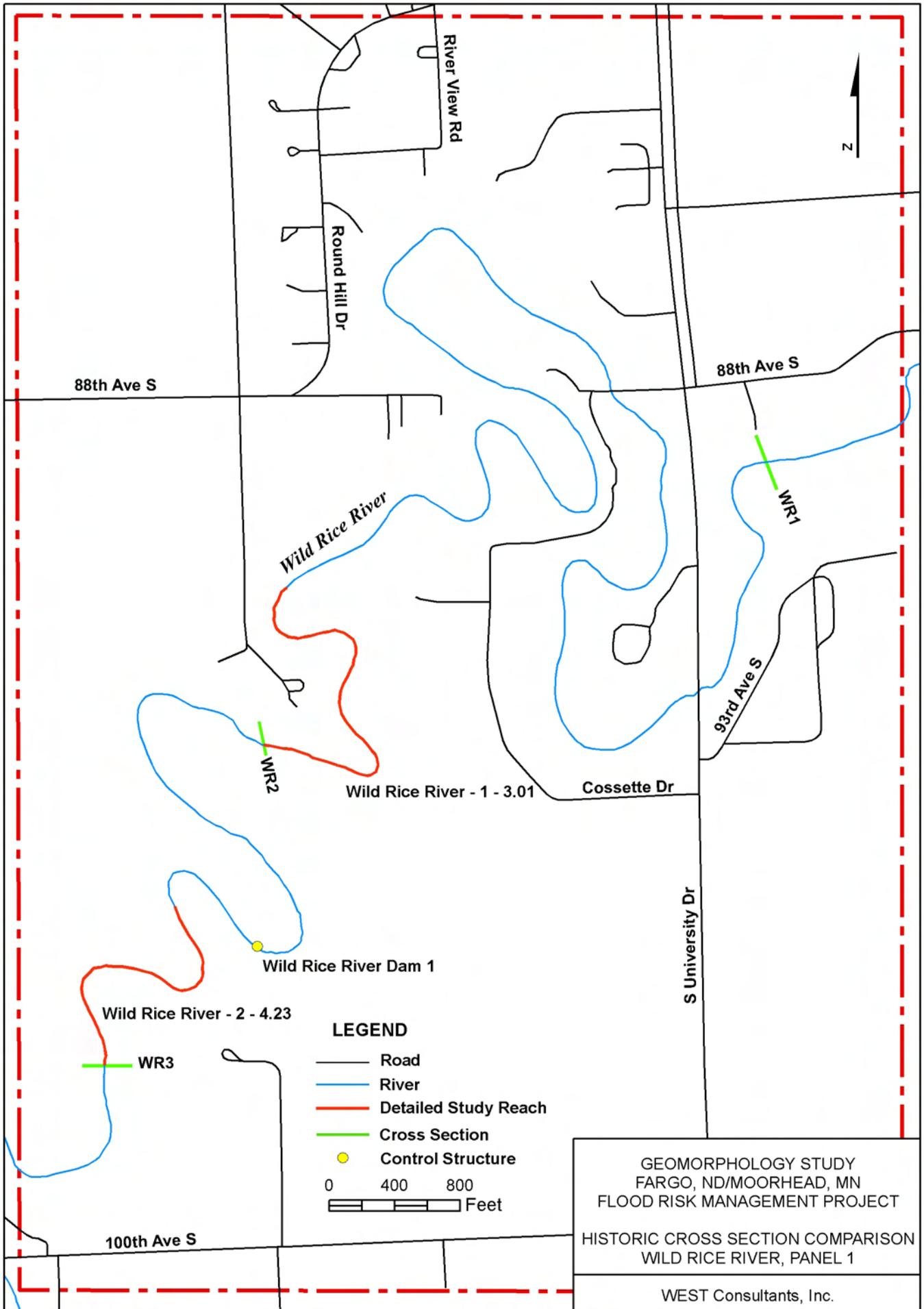
Sheyenne River - S8 - RS 316964

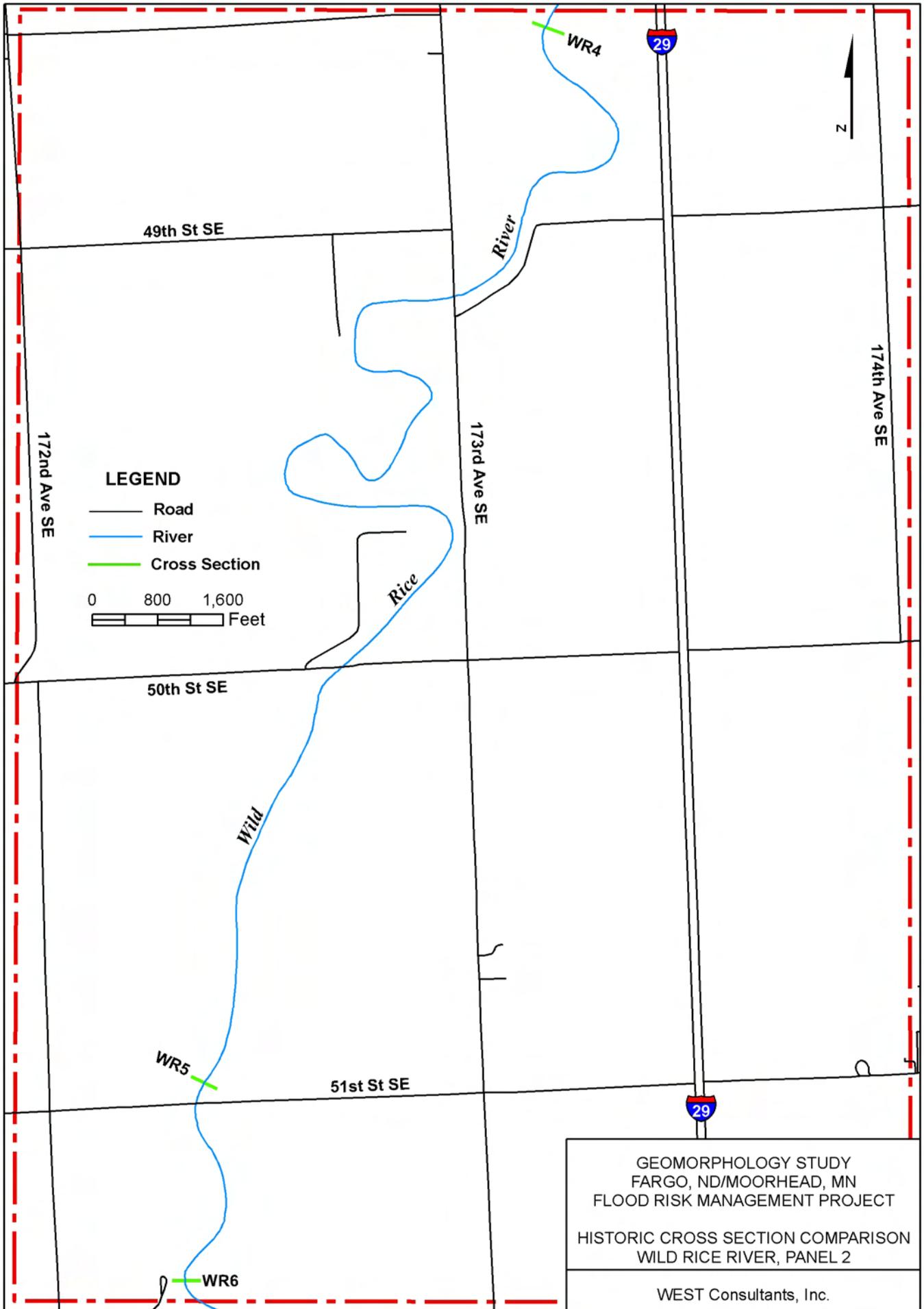


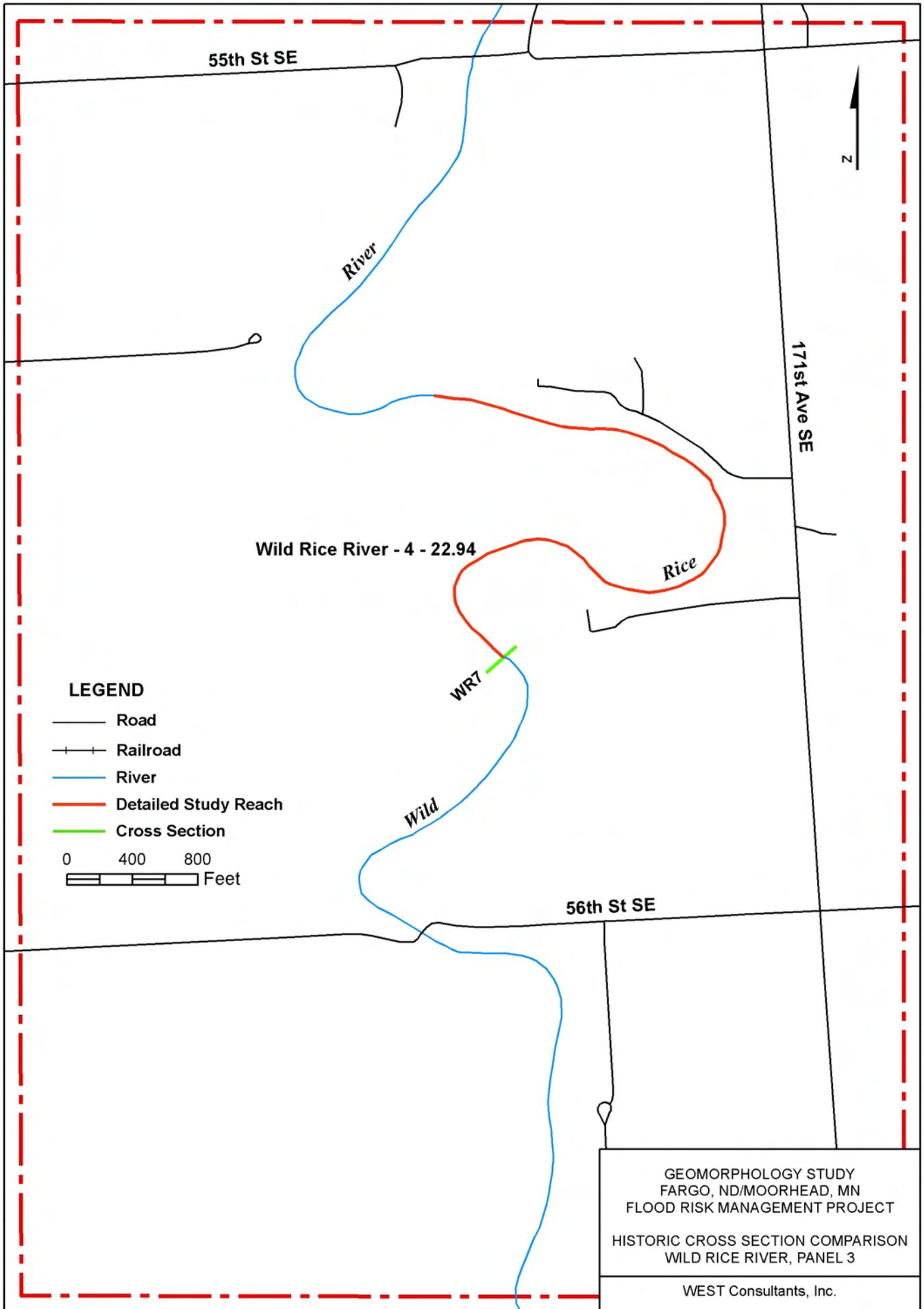
Historic XS Comparison

Sheyenne River - S9 - RS 337323







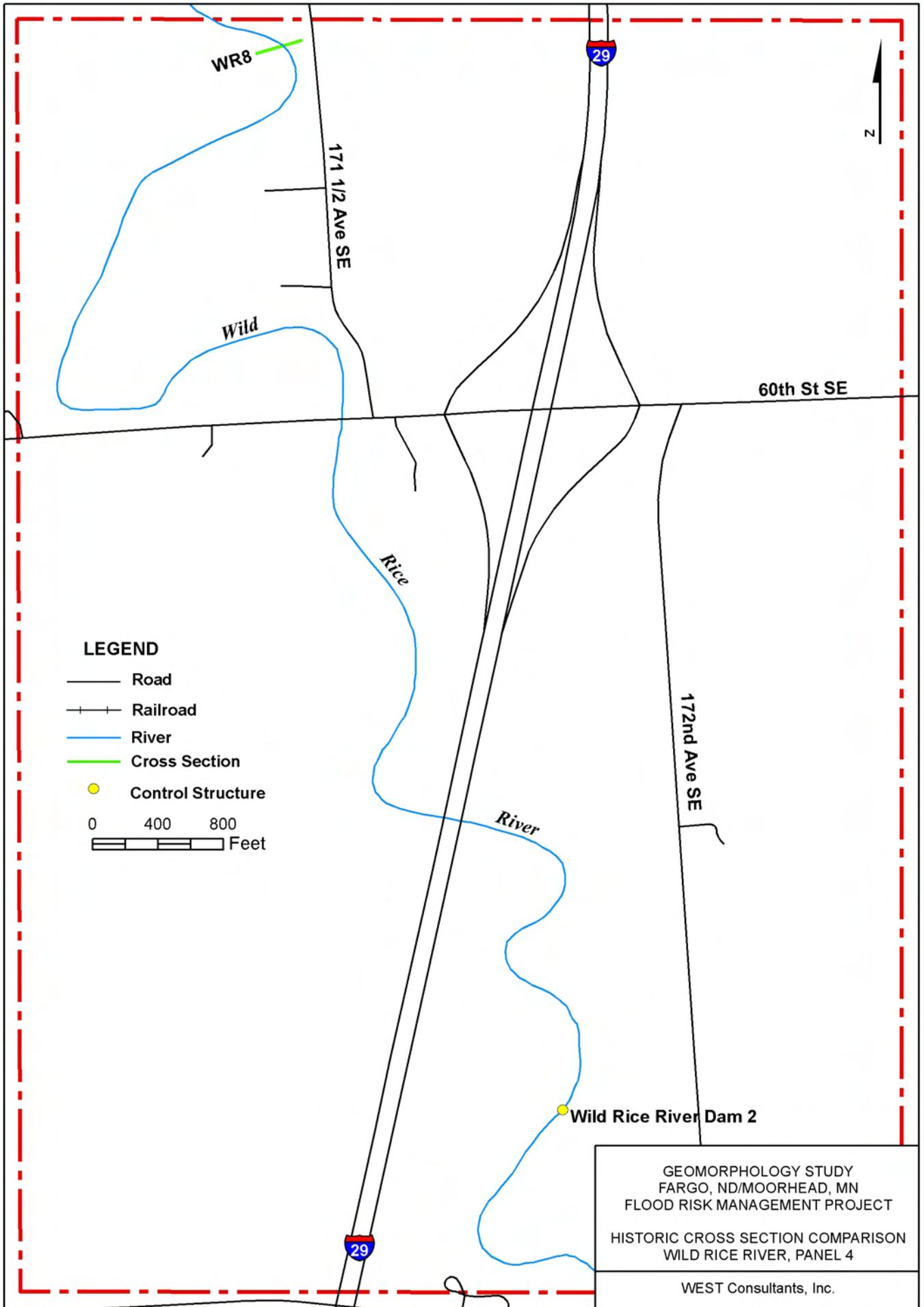


LEGEND

- Road
- +— Railroad
- River
- Detailed Study Reach
- Cross Section

0 400 800
 Feet

GEOMORPHOLOGY STUDY
 FARGO, ND/MOORHEAD, MN
 FLOOD RISK MANAGEMENT PROJECT
 HISTORIC CROSS SECTION COMPARISON
 WILD RICE RIVER, PANEL 3
 WEST Consultants, Inc.

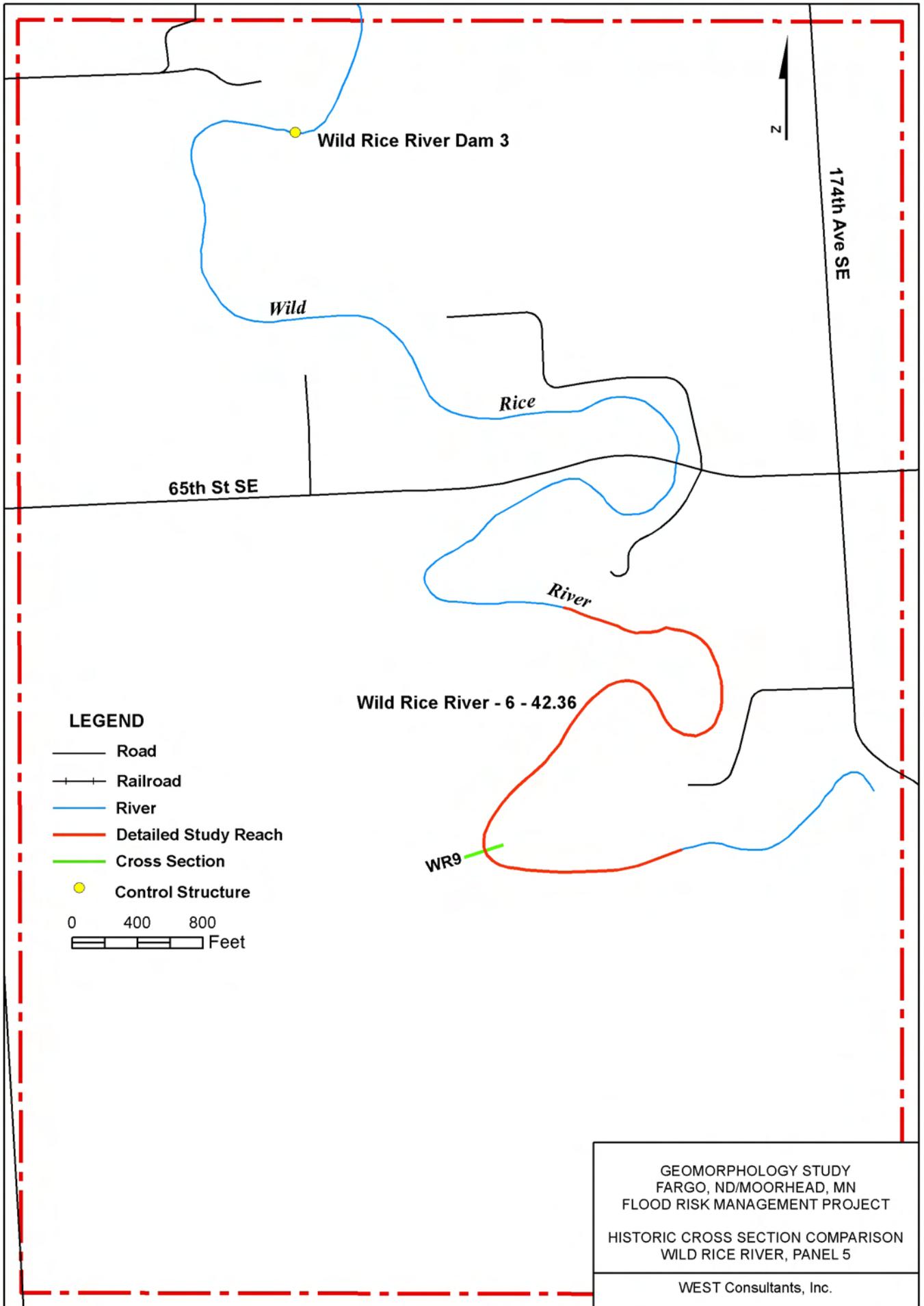


LEGEND

- Road
 - + + Railroad
 - River
 - Cross Section
 - Control Structure
- 0 400 800
 Feet

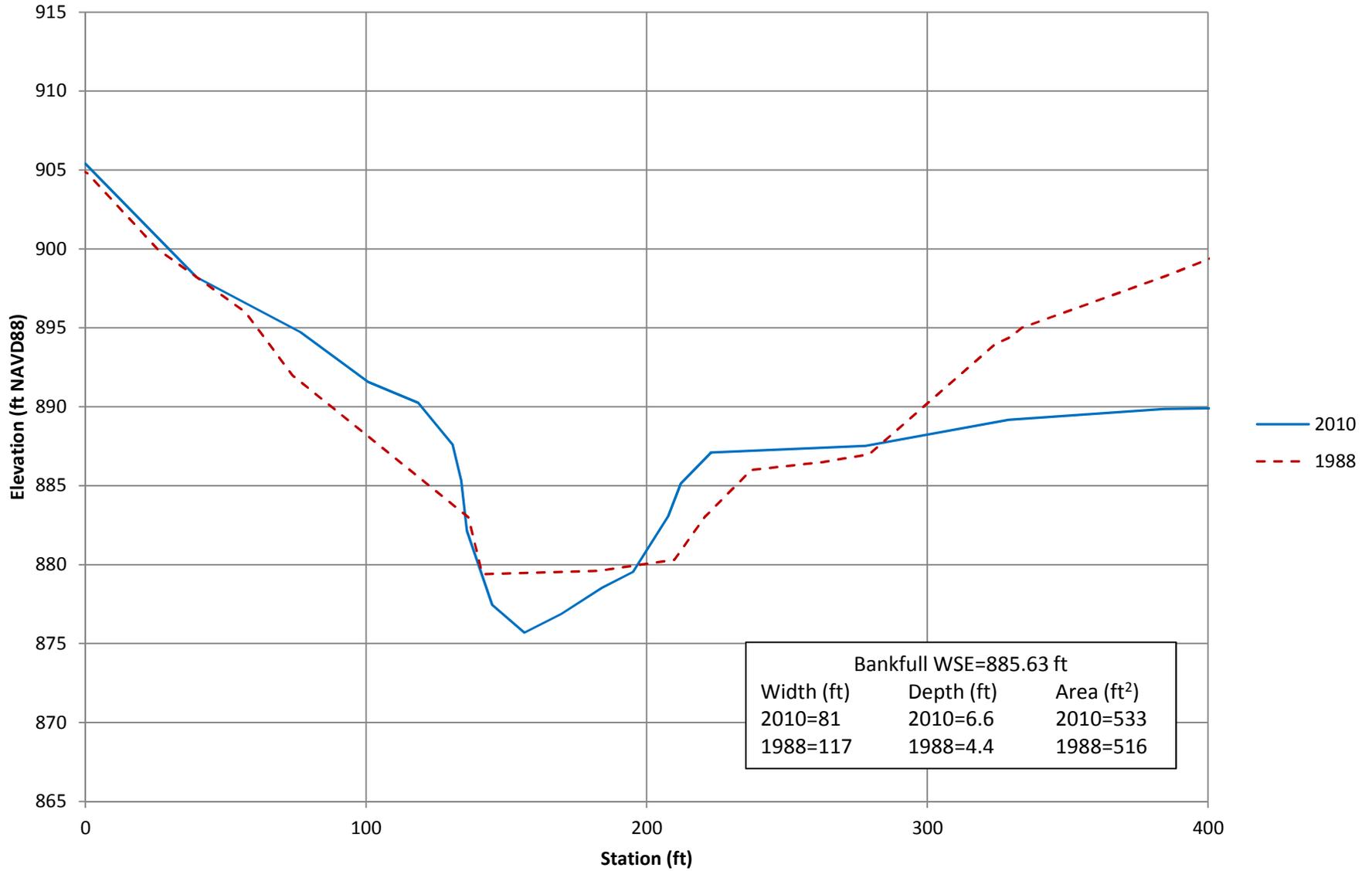
GEOMORPHOLOGY STUDY
 FARGO, ND/MOORHEAD, MN
 FLOOD RISK MANAGEMENT PROJECT
 HISTORIC CROSS SECTION COMPARISON
 WILD RICE RIVER, PANEL 4

WEST Consultants, Inc.



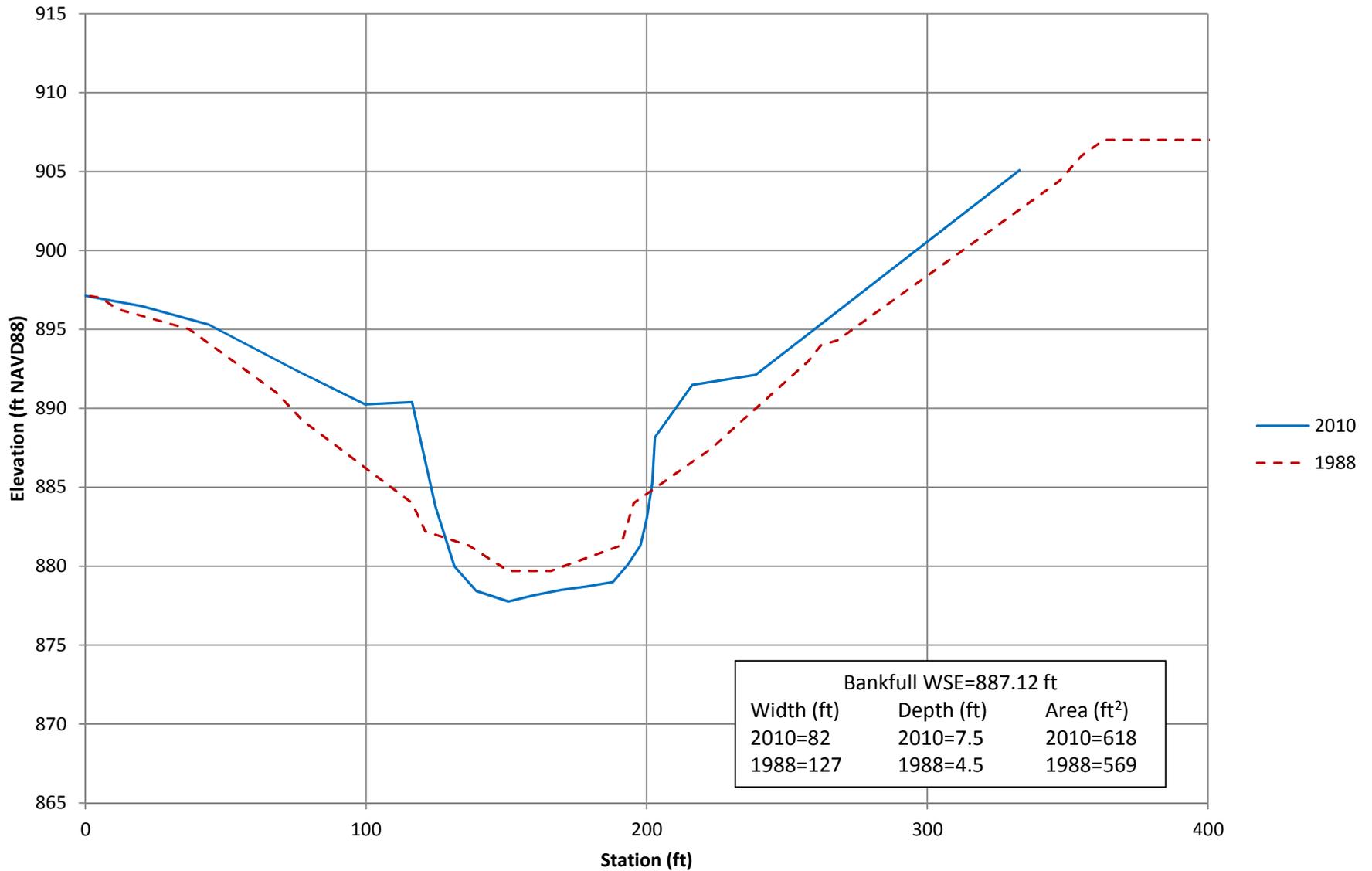
Historic XS Comparison

Wild Rice River - WR1 - RS 3145



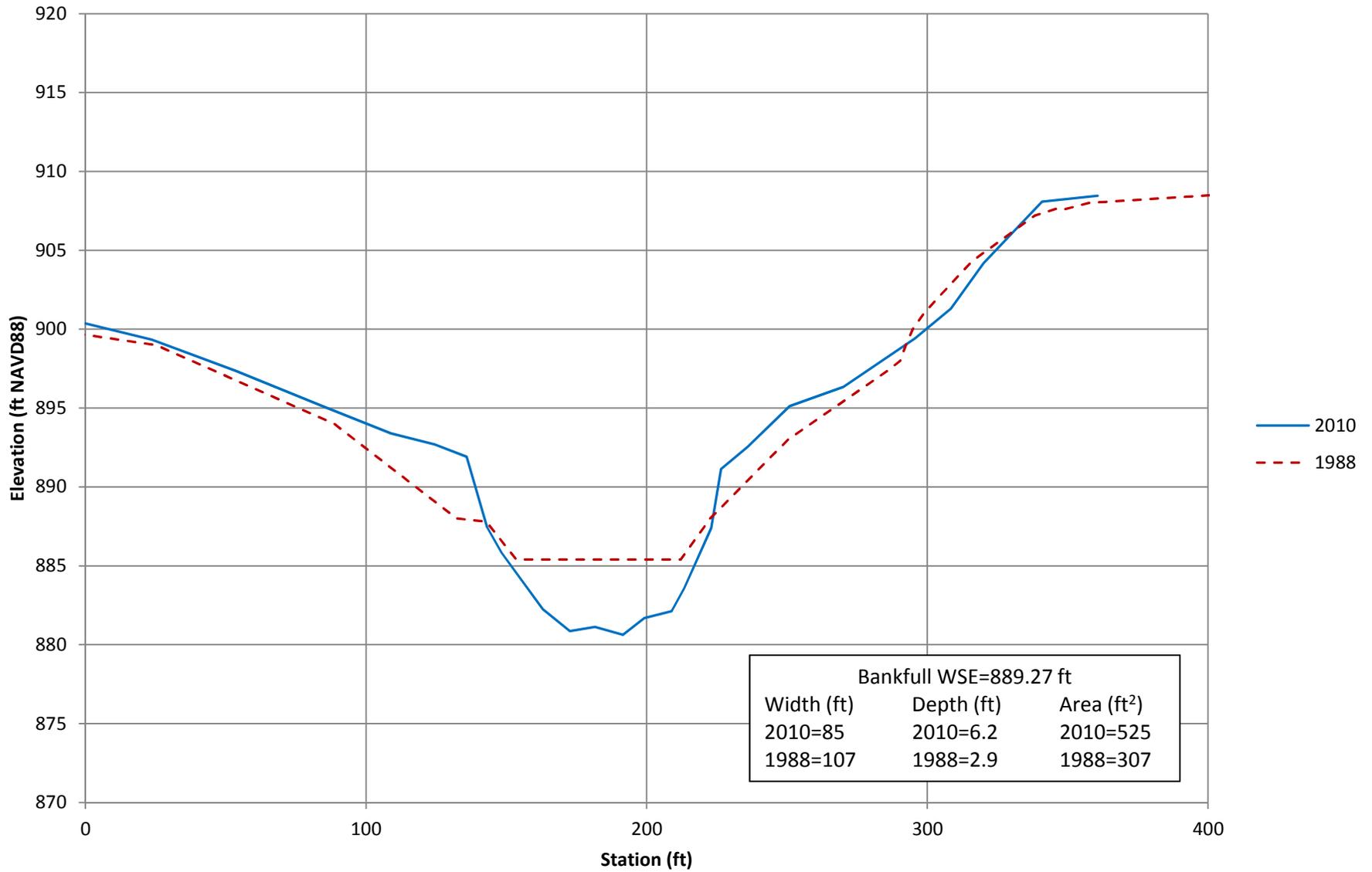
Historic XS Comparison

Wild Rice River - WR2 - RS 18332



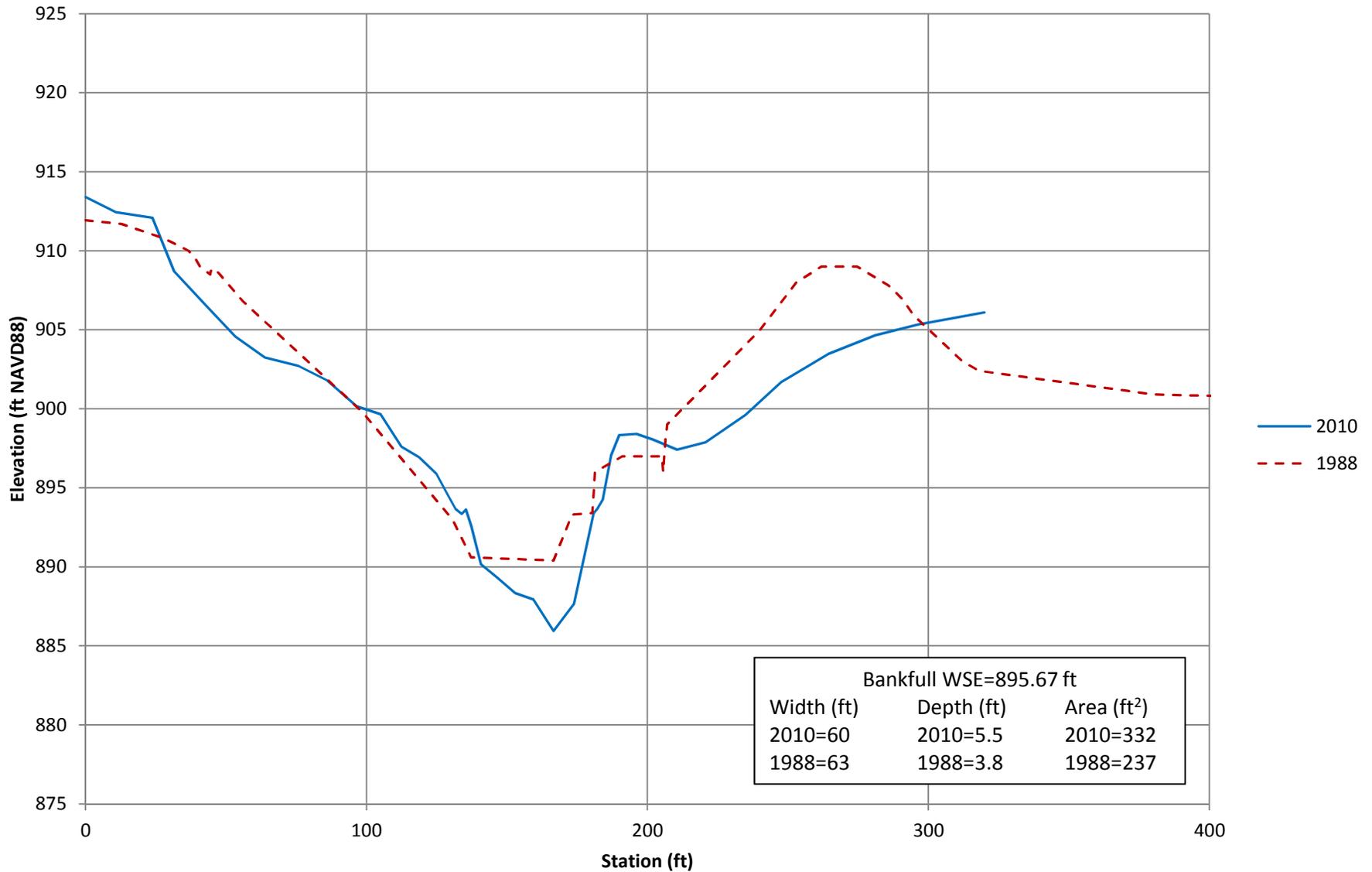
Historic XS Comparison

Wild Rice River - WR3 - RS 24208



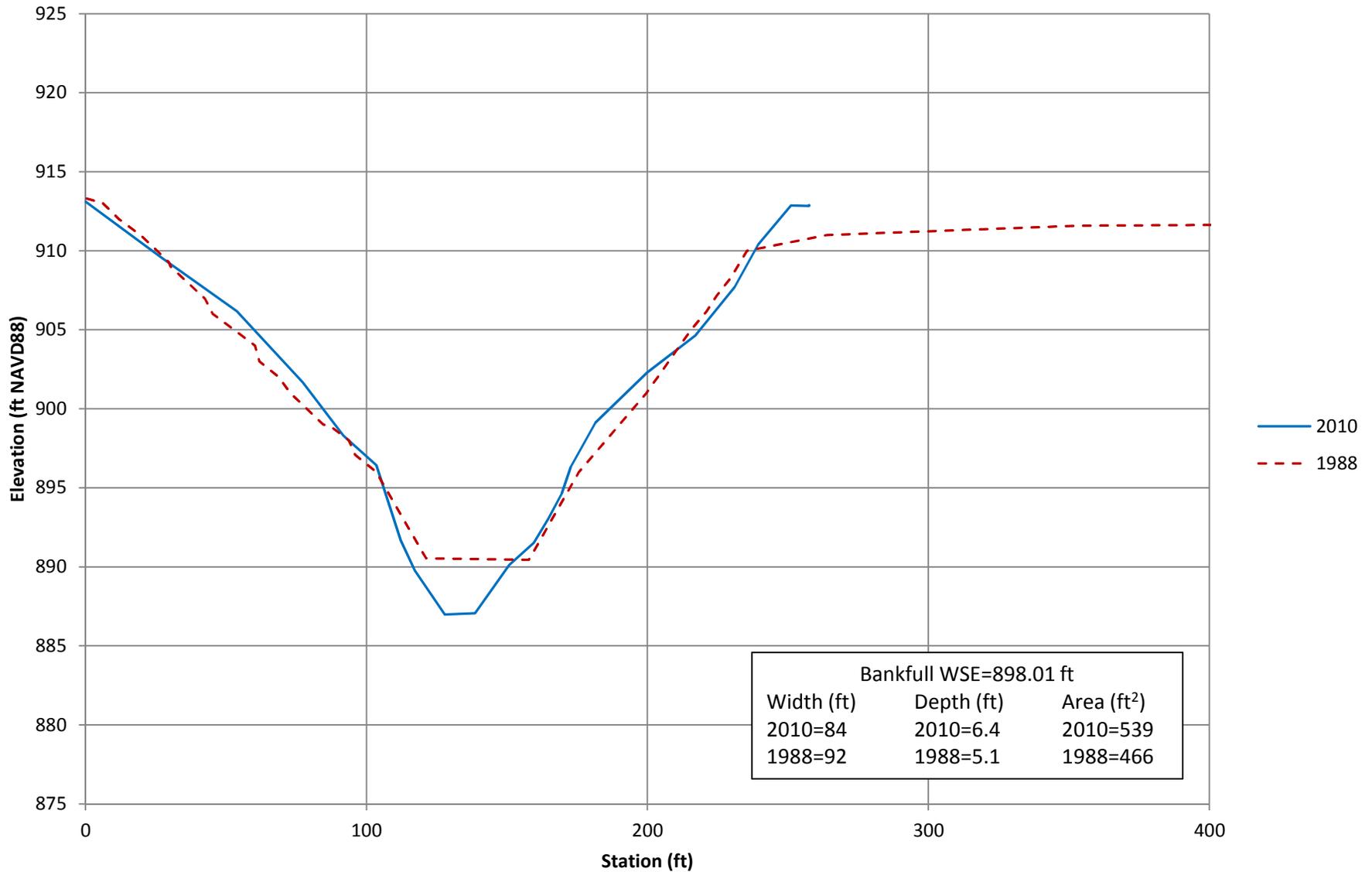
Historic XS Comparison

Wild Rice River - WR4 - RS 61751



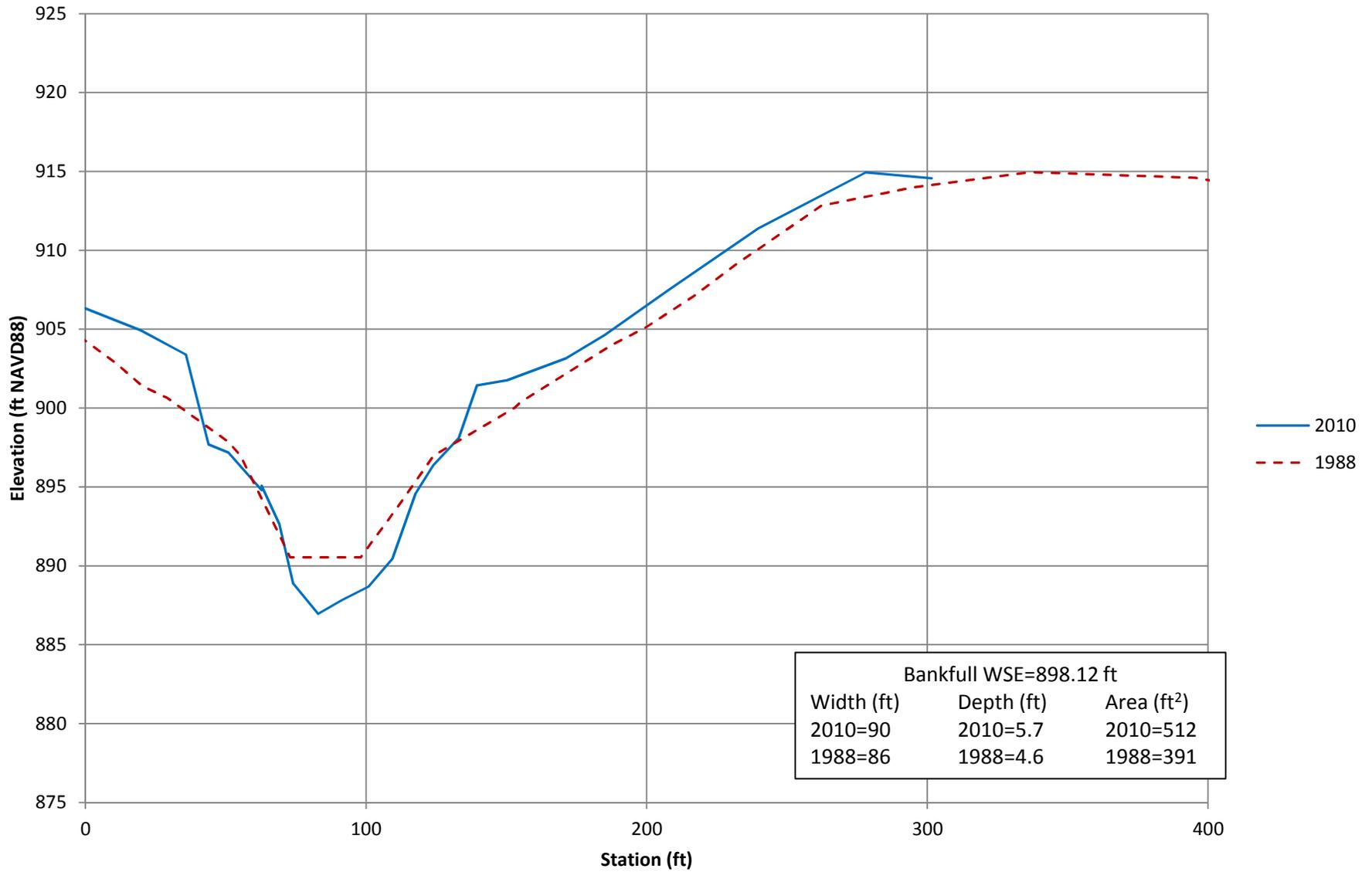
Historic XS Comparison

Wild Rice River - WR5 - RS 82497



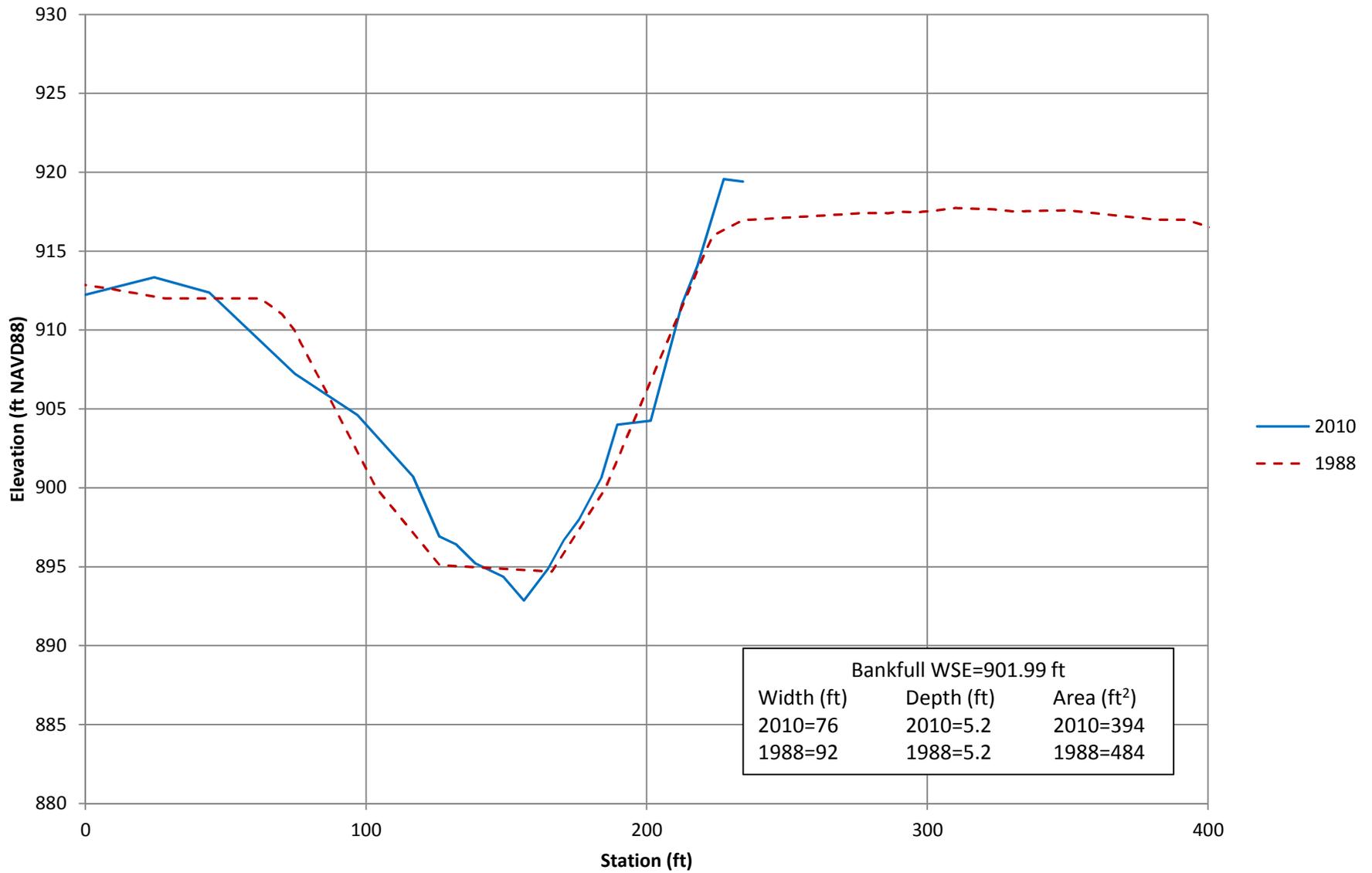
Historic XS Comparison

Wild Rice River - WR6 - RS 85196



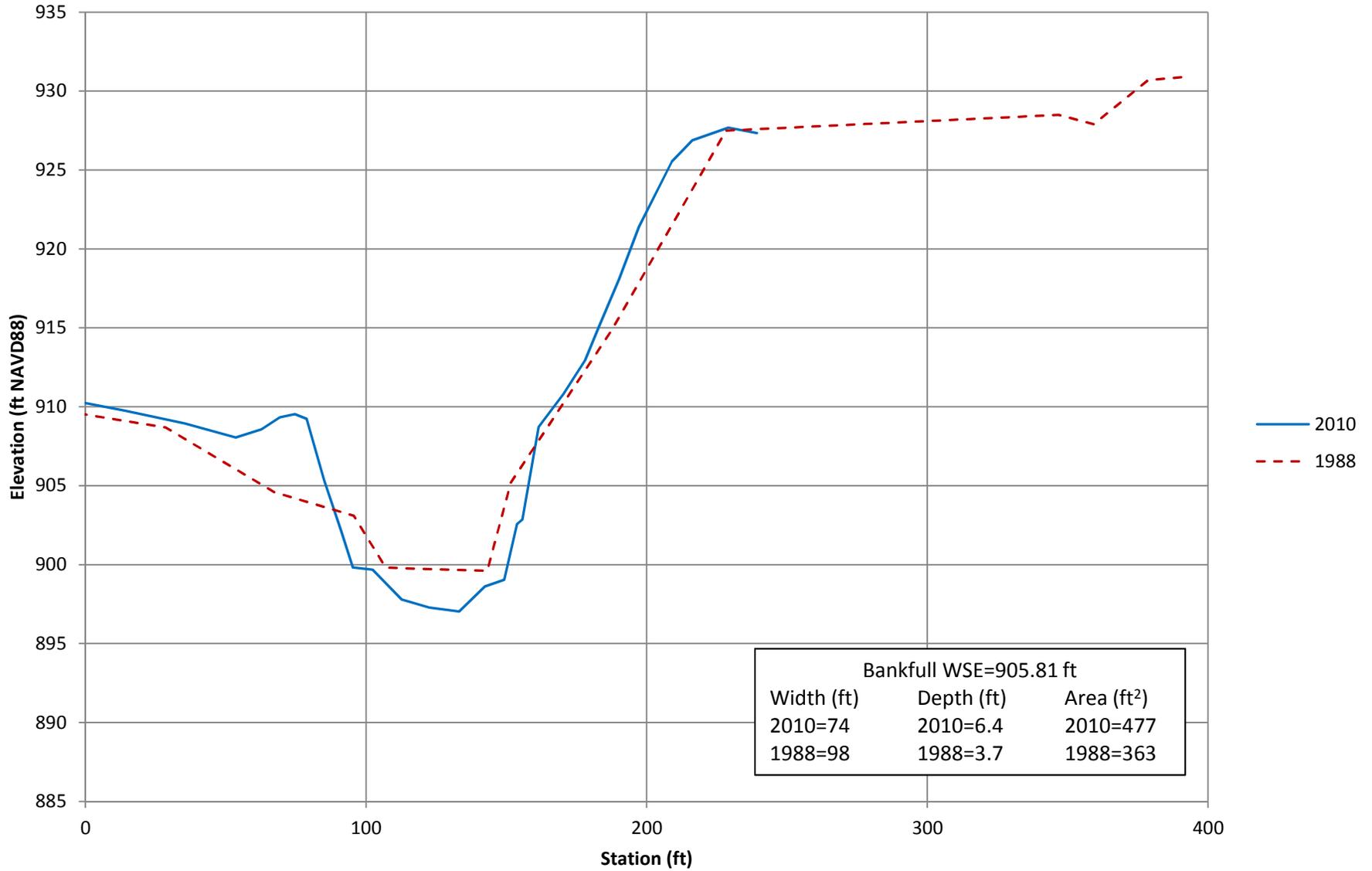
Historic XS Comparison

Wild Rice River - WR7 - RS 125885



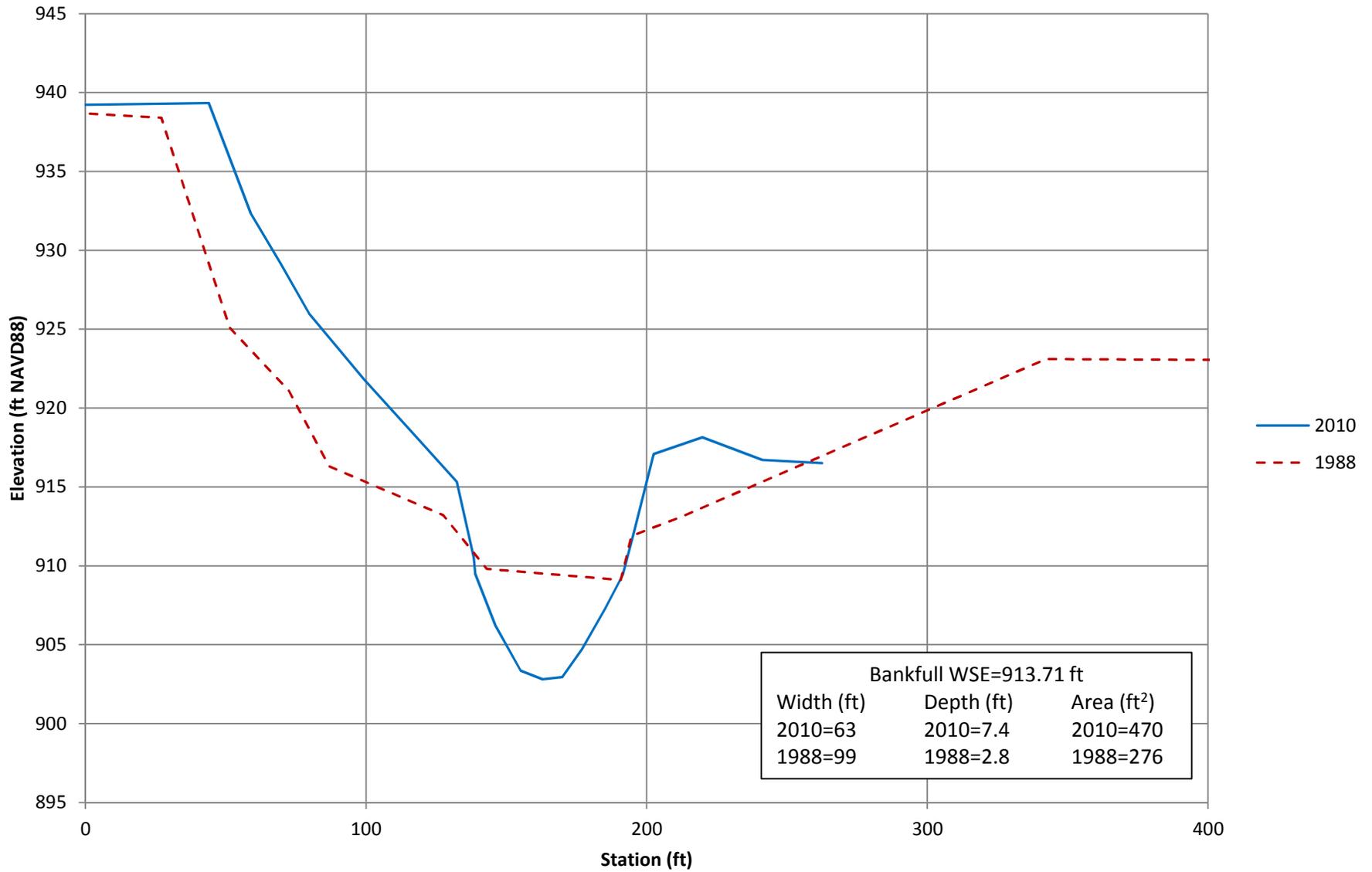
Historic XS Comparison

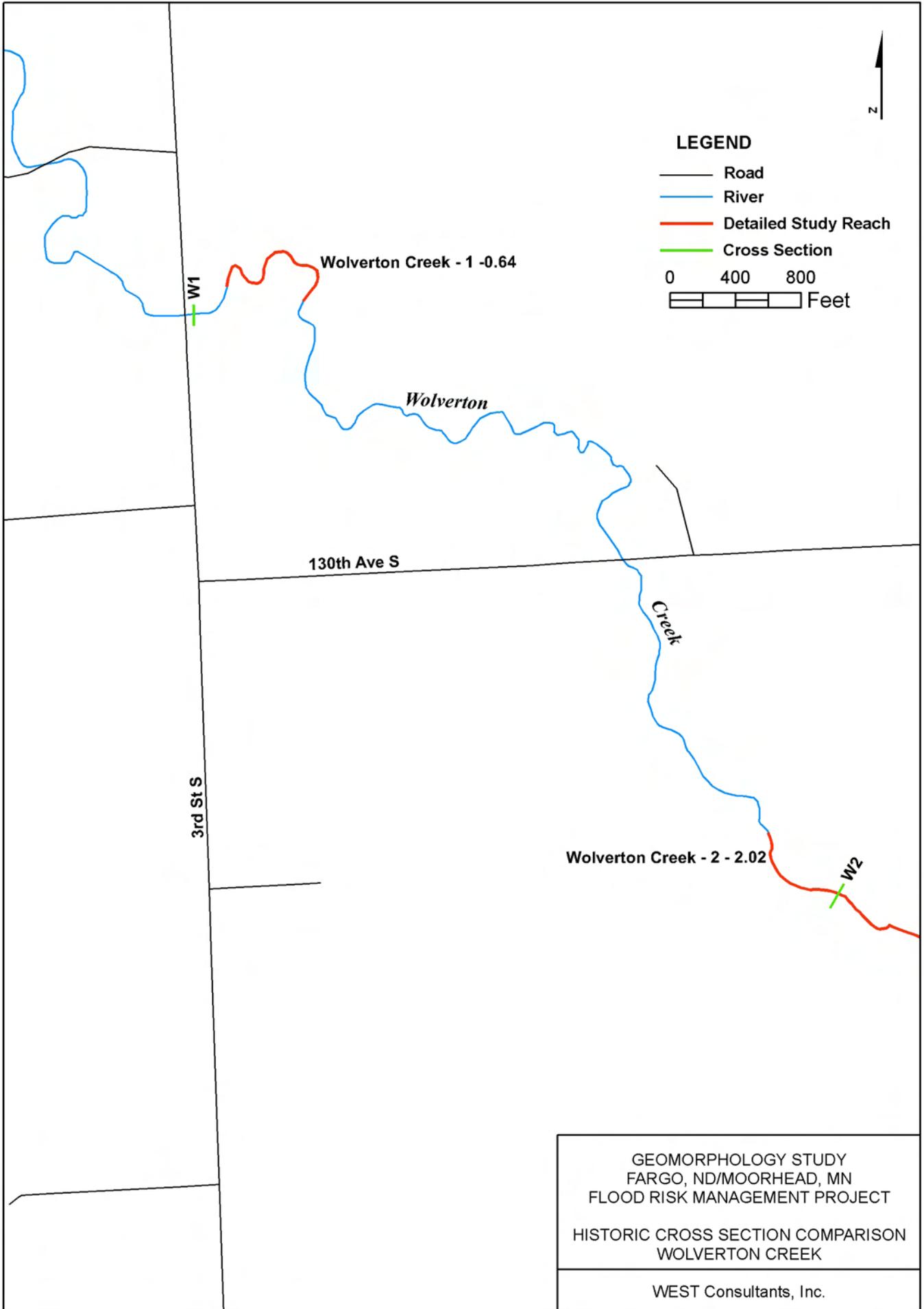
Wild Rice River - WR8 - RS 162498



Historic XS Comparison

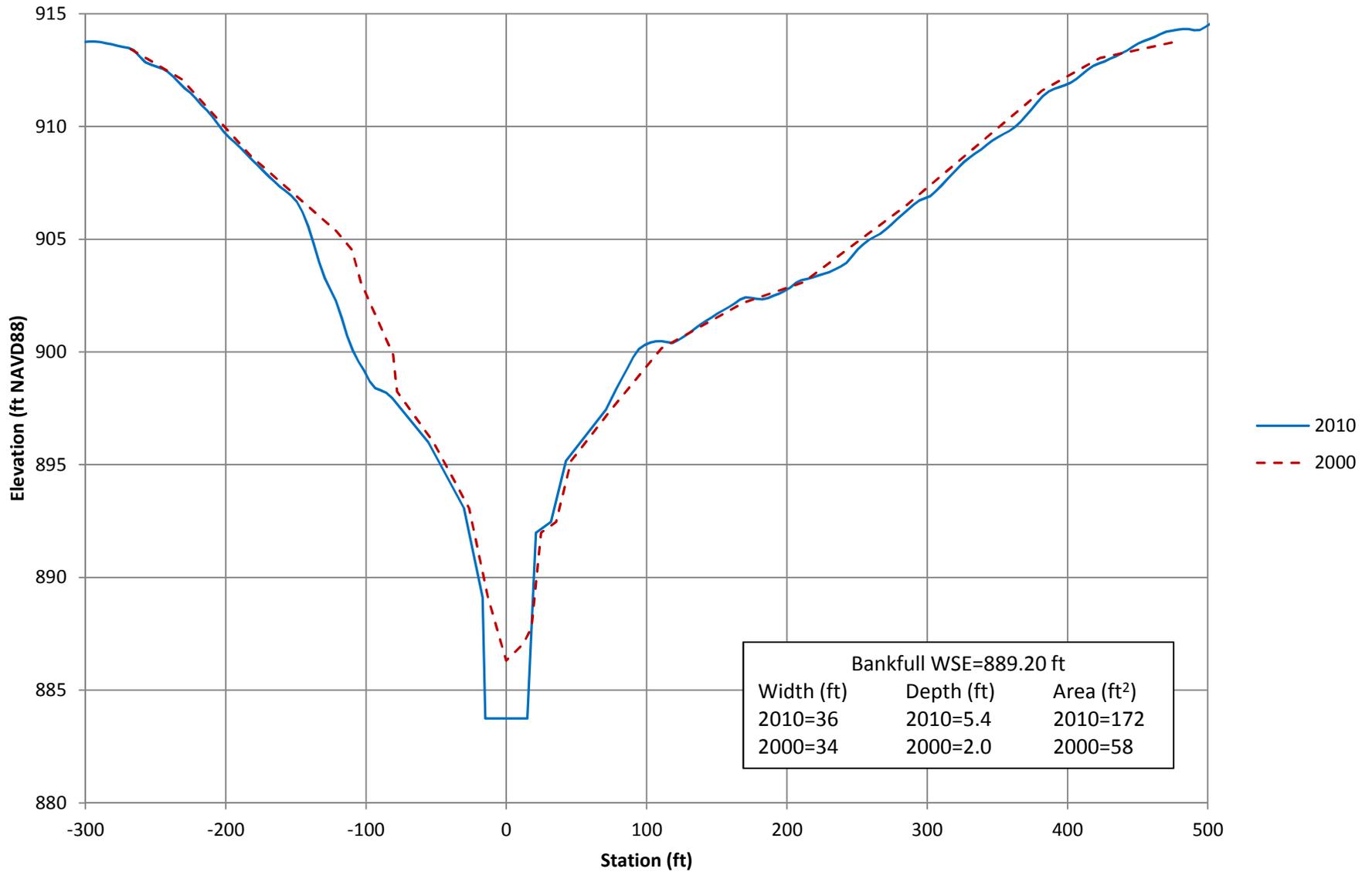
Wild Rice River - WR9 - RS 227263





Historic XS Comparison

Wolverton Creek - W1 - RS 3106



Historic XS Comparison

Wolverton Creek - W2 - RS 11329

