

Memorandum

DATE **March 20, 2020**

TO Dillon Dittmer, Bill Cook, Kevin Krolkowski, Brett Harbison

FROM Robert Carnazzo

THRU Julie Ramirez and Jason Dayton

SUBJECT Floodplain Certification — Gibbon–Shelton, 80-6(113), CN 42794

Gibbon-Shelton is a Mill and Overlay project located in Buffalo County, Nebraska, along Highway I-80. The project will begin approximately two (2) miles west of the Highway L-10C (Gibbon) Interchange bridge over the Interstate, about the middle of Section 03, T08N R14W, (Mile Marker (MM) 283.70) and extends east to approximately one-half (0.5) mile west of the L-10D (Shelton) Interchange bridge over the Interstate (MM 290.96). The project includes the four ramps in the L-10C (Gibbon) Interchange.

The highway improvements on this project will consist of repairs of the underlying concrete pavement, milling and resurfacing of the roadway and surfaced shoulders and the removal and replacement of the guardrail.

- On Highway I-80 the project will complete localized repairs of the underlying concrete pavement, remove by milling two (2) inches of existing pavement, followed by a four (4) inch asphalt overlay. There will be a two (2) inch increase in the highway pavement elevation. The inside paved shoulders along the median will be widened three (3) feet. The existing earth sections of the shoulder will be regraded to bring them up to the new pavement elevation. The guardrail along the project will be removed and replaced.
- On Ramps of L-10C Interchange they consist of repairs of the underlying concrete pavement and the placement of a two (2) inch overlay. There will be a two (2) inch increase in the pavement elevation. The adjacent earth shoulders will be graded to bring them up to the new pavement elevation.

Please review the attached mapping showing where this project encroaches into flood zones. Enclosed you will find certifications for these encroachments:

Community of Buffalo County

North Channel Platte River, Sections 03, 02 & 01 T08N R14W

The project encroaches upon the Base Floodplain for the North Channel Platte River in Sections 03, 02 & 01, T08N R14W. The river's ordinary high water flow is conveyed in the river's natural channel along the south side of the Interstate highway. Through this section of the project the project will complete concrete pavement repair, milling and overlay of the existing roadway for a two (2) inch increase in the highway pavement elevation. The inside shoulders will be widened and the earth sections of the shoulder will be regraded to bring them up to the new pavement elevation. There will be no grading on the outsides of the highway embankment. The floodplain of the river is shown to only run along the south side of the highway and does not overtop the highway to flow on the other side. Because the flow is already contained to the south by the highway embankment, the increase in highway elevation will not affect the flow of the floodwater and will not impact the depth of the flow. The project will not cause a change in the base flood elevation of the North Channel Platte River in Sections 03, 02 & 01, T08N R14W.

March 20, 2020

North Channel Platte River, Section 36 T09N R14W and Section 31 T09N R14W

The project encroaches upon the Base Floodplain for the North Channel Platte River in Section 36 T08N R14W, and Section 31 T09N R13W. The river's ordinary high water flow is conveyed in the river's natural channel along the south side of the Interstate highway. Through this section of the project the project will complete concrete pavement repair, milling and overlay of the existing roadway for a two (2) inch increase in the highway pavement elevation. The inside shoulders will be widened and the earth sections of the shoulder will be regraded to bring them up to the new pavement elevation. There will be no grading on the outsides of the highway embankment. The floodplain of the river is shown to only run along the south side of the highway and does not overtop the highway to flow on the other side. Because the flow is already contained to the south by the highway embankment, the increase in highway elevation will not affect the flow of the floodwater and will not impact the depth of the flow. The project will not cause a change in the base flood elevation of the North Channel Platte River in Section 36 T08N R14W, and Section 31 T09N R13W.

North Channel Platte River, Sections 32, 29, 28, 27 and 26 T09N R14W

The project encroaches upon the Base Floodplain for the North Channel Platte River in Sections 32, 29, 28, 27, and 26 T09N R14W. The river's ordinary high water flow is conveyed in the river's natural channel along the north side of the Interstate highway. Through this section of the project the project will complete concrete pavement repair, milling and overlay of the existing roadway for a two (2) inch increase in the highway pavement elevation. The inside shoulders will be widened and the earth sections of the shoulder will be regraded to bring them up to the new pavement elevation. There will be no grading on the outsides of the highway embankment. The floodplain of the river is shown to only run along the north side of the highway and does not overtop the highway to flow on the other side. Because the flow is already contained to the north by the highway embankment, the increase in highway elevation will not affect the flow of the floodwater and will not impact the depth of the flow. The project will not cause a change in the base flood elevation of the North Channel Platte River in Sections 32, 29, 28, 27, and 26 T09N R14W.

Enclosures: Certificates (3)
 FIRMettes covering project (7)
 Location Map

March 20, 2020

Permit Information:

Community of Buffalo County

North Channel Platte River, Sections 03, 02 & 01 T08N R14W

Is the work substantial improvement?	No
Is the work in an identified floodplain?	Yes
Elevation of the base flood (100-year event)?	No Change
Elevation/floodproofing requirement (if applicable)?	NA
Is the work in a designated floodway?	No

North Channel Platte River, Section 36 T09N R14W and Section 31 T09N R14W

Is the work substantial improvement?	No
Is the work in an identified floodplain?	Yes
Elevation of the base flood (100-year event)?	No Change
Elevation/floodproofing requirement (if applicable)?	NA
Is the work in a designated floodway?	No

North Channel Platte River, Sections 32, 29, 28, 27 and 26 T09N R14W

Is the work substantial improvement?	No
Is the work in an identified floodplain?	Yes
Elevation of the base flood (100-year event)?	No Change
Elevation/floodproofing requirement (if applicable)?	NA
Is the work in a designated floodway?	No

*Certification of Compliance
Floodplain and Floodway Regulations*

FLOODPLAIN/ FLOODWAY LOCATION

Project Name Gibbon – Shelton Stream North Channel Platter River
Project No. 80-6(113) County Buffalo
Control No. 42794 Section(s) 03/02/01 T 08 N R 14 W

FEMA LOCATION

County/Community Buffalo County, Nebraska
Panel No. 31019C 0650D and 31019C 0655D
Effective Date 11/26/2010

TYPE OF STRUCTURE

☐ Bridge ☐ Culvert ☒ Roadway

Structure No. ☐

TYPE OF IMPROVEMENT

☐ Modify Existing ☐ Replace Existing ☒ Other

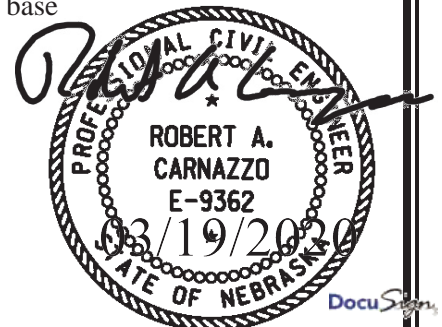
Details Remove 2-inches by milling, and Place 4-inch overlay for 2-inch increase in elevation.
Widen inside shoulder, grade outside shoulder, remove and replace guardrail.

Highway Profile Change: ☒ Yes ☐ No

THE FOLLOWING IS HEREBY CERTIFIED

- ☐ Floodplain in Un-mapped Community (State Minimum Standards Apply)
Proposed construction will not increase the base
(100 year) flood heights more than one foot at any location.
- ☒ Floodplain (without Designated Floodway) or Flood Fringe
Proposed construction will not increase the base
(100 year) flood heights more than one foot at any location.
- ☐ Designated Floodway
Proposed construction will result in no rise along the base
(100 year) floodway water surface profile.

Completed By: ROBERT A. CARNAZZO, P.E., CFM
NDOT Roadway Design Hydraulics



*Certification of Compliance
Floodplain and Floodway Regulations*

FLOODPLAIN/ FLOODWAY LOCATION

Project Name Gibbon – Shelton Stream North Channel Platter River
Project No. 80-6(113) County Buffalo
Control No. 42794 Section(s) 36 T 09N R 14 W

FEMA LOCATION

County/Community Buffalo County, Nebraska
Panel No. 31019C 0655D
Effective Date 11/26/2010

TYPE OF STRUCTURE

☐ Bridge ☐ Culvert ☒ Roadway

Structure No. ☐

TYPE OF IMPROVEMENT

☐ Modify Existing ☐ Replace Existing ☒ Other

Details Remove 2-inches by milling, and Place 4-inch overlay for 2-inch increase in elevation.

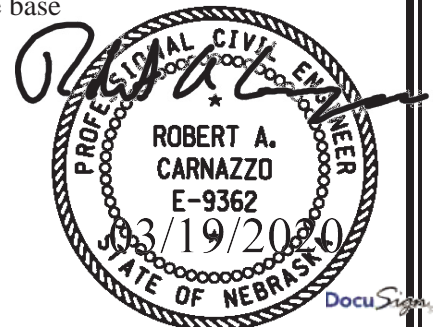
Widen inside shoulder, grade outside shoulder, remove and replace guardrail.

Highway Profile Change: ☒ Yes ☐ No

THE FOLLOWING IS HEREBY CERTIFIED

- ☐ Floodplain in Un-mapped Community (State Minimum Standards Apply)
Proposed construction will not increase the base
(100 year) flood heights more than one foot at any location.
- ☒ Floodplain (without Designated Floodway) or Flood Fringe
Proposed construction will not increase the base
(100 year) flood heights more than one foot at any location.
- ☐ Designated Floodway
Proposed construction will result in no rise along the base
(100 year) floodway water surface profile.

Completed By: ROBERT A. CARNAZZO, P.E., CFM
NDOT Roadway Design Hydraulics



DocuSign

*Certification of Compliance
Floodplain and Floodway Regulations*

FLOODPLAIN/ FLOODWAY LOCATION

Project Name Gibbon – Shelton Stream North Channel Platter River
Project No. 80-6(113) County Buffalo
Control No. 42794 Section(s) 32/29-26 T 09N R 13 W

FEMA LOCATION

County/Community Buffalo County, Nebraska
Panel No. 31019C 0655D and 31019C 0675D
Effective Date 11/26/2010

TYPE OF STRUCTURE

☐ Bridge ☐ Culvert ☒ Roadway

Structure No. ☐

TYPE OF IMPROVEMENT

☐ Modify Existing ☐ Replace Existing ☒ Other

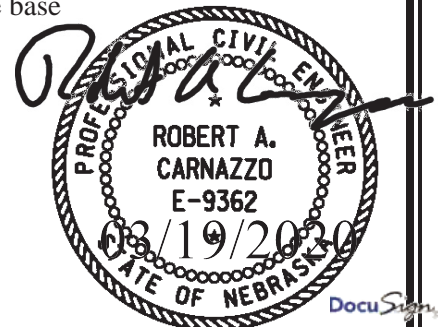
Details Remove 2-inches by milling, and Place 4-inch overlay for 2-inch increase in elevation.
Widen inside shoulder, grade outside shoulder, remove and replace guardrail.

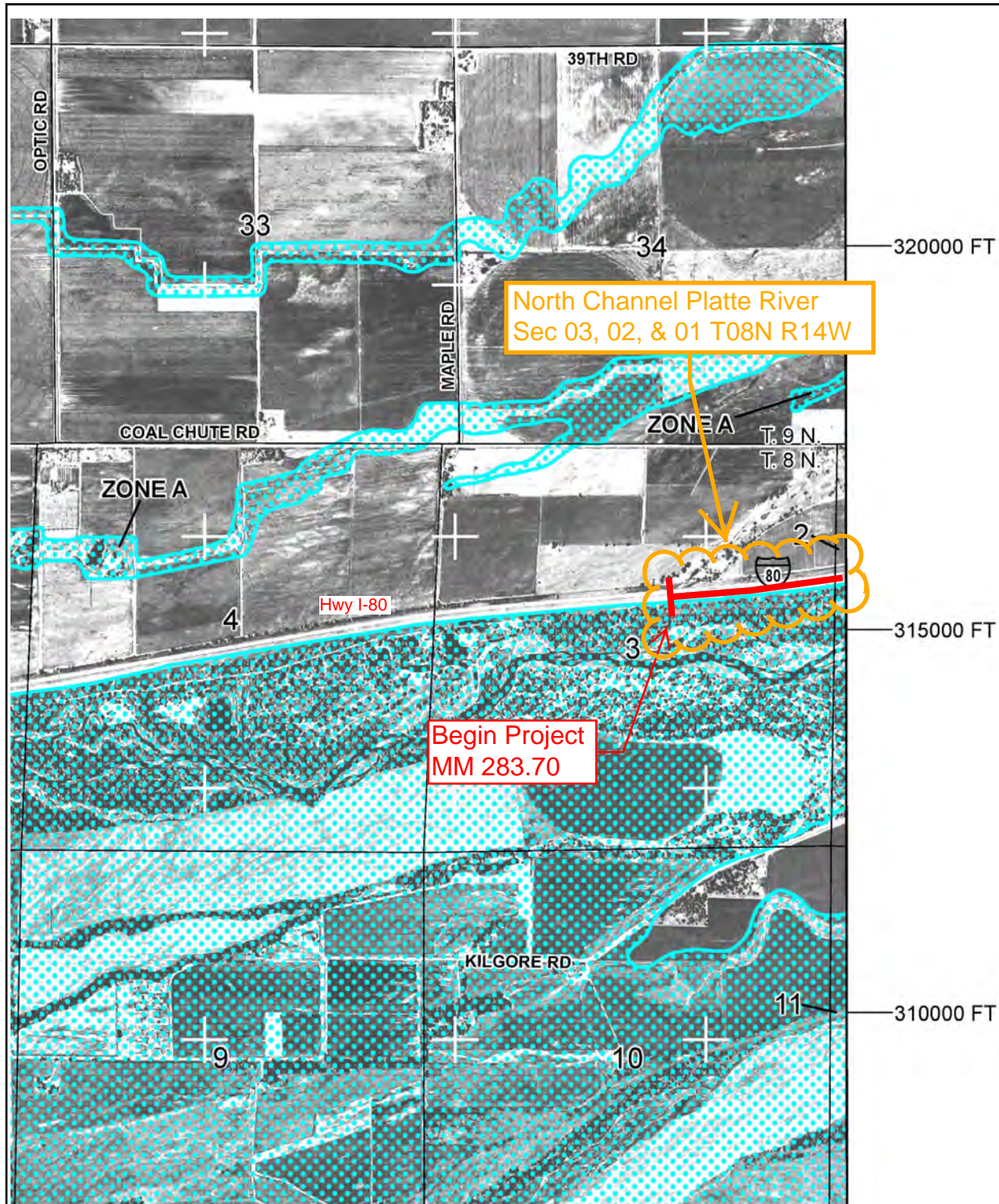
Highway Profile Change: ☒ Yes ☐ No

THE FOLLOWING IS HEREBY CERTIFIED

- ☐ Floodplain in Un-mapped Community (State Minimum Standards Apply)
Proposed construction will not increase the base
(100 year) flood heights more than one foot at any location.
- ☒ Floodplain (without Designated Floodway) or Flood Fringe
Proposed construction will not increase the base
(100 year) flood heights more than one foot at any location.
- ☐ Designated Floodway
Proposed construction will result in no rise along the base
(100 year) floodway water surface profile.

Completed By: ROBERT A. CARNAZZO, P.E., CFM
NDOT Roadway Design Hydraulics





MAP SCALE 1" = 2000'

1000 0 2000 4000
FEET

NFIP

PANEL 0650D

FIRM

FLOOD INSURANCE RATE MAP
BUFFALO COUNTY,
NEBRASKA
AND INCORPORATED AREAS

PANEL 650 OF 700

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
BUFFALO COUNTY	310419	0650	D
GIBBON, CITY OF	310015	0650	D
KEARNEY, CITY OF	310016	0650	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

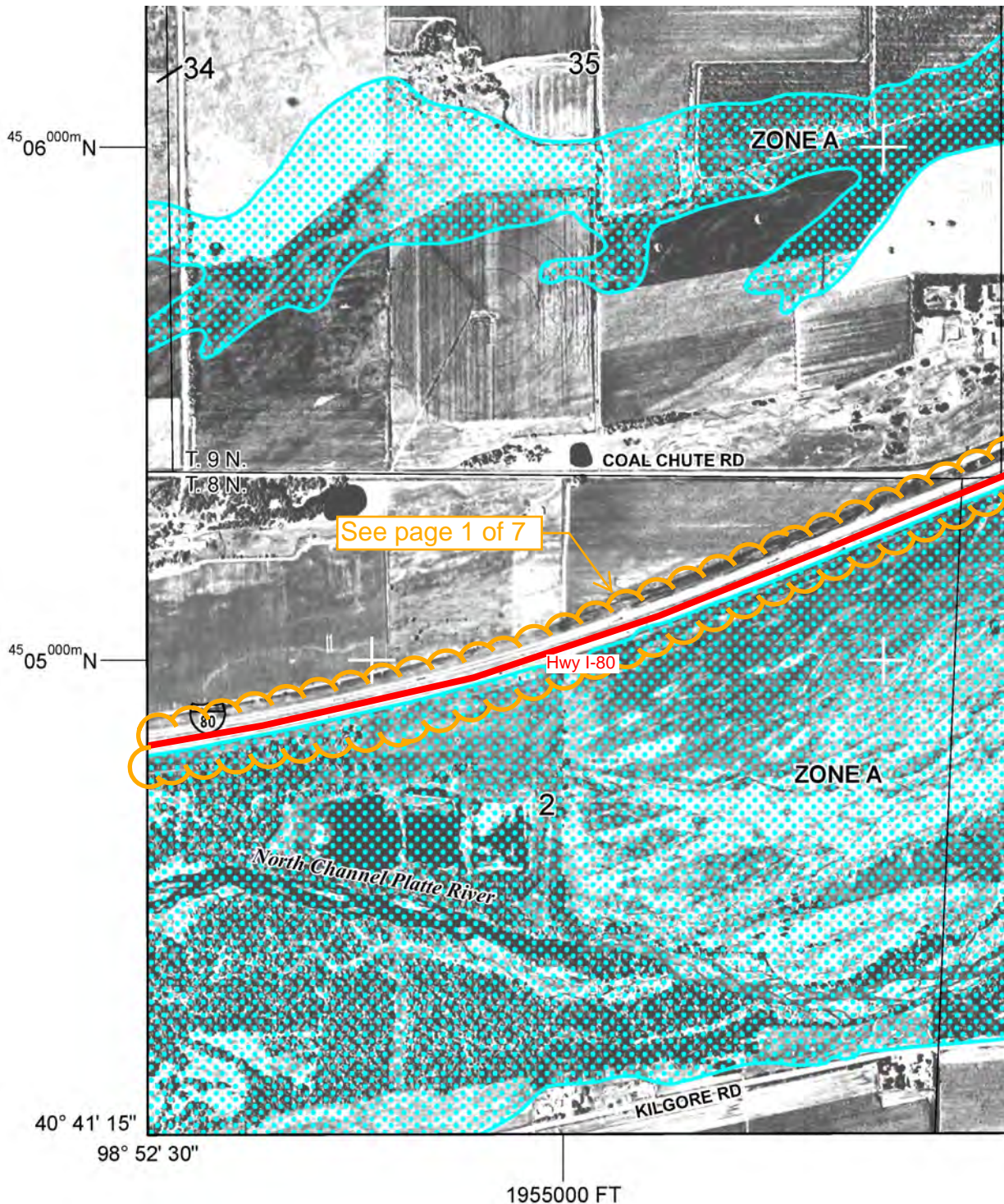


MAP NUMBER
31019C0650D

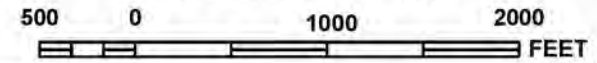
EFFECTIVE DATE
NOVEMBER 26, 2010

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using FIRMette - Desktop version 3.0. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. Further information about National Flood Insurance Program flood hazard maps is available at <http://www.msc.fema.gov/>.



MAP SCALE 1" = 1000'



NFIP

PANEL 0655D

FIRM

FLOOD INSURANCE RATE MAP
BUFFALO COUNTY,
NEBRASKA
AND INCORPORATED AREAS

PANEL 655 OF 700

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

<u>COMMUNITY</u>	<u>NUMBER</u>	<u>PANEL</u>	<u>SUFFIX</u>
BUFFALO COUNTY	310419	0655	D
GIBBON, CITY OF	310015	0655	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.



MAP NUMBER
31019C0655D

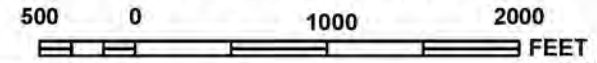
EFFECTIVE DATE
NOVEMBER 26, 2010

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using FIRMette - Desktop version 3.0. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. Further information about National Flood Insurance Program flood hazard maps is available at <http://www.msc.fema.gov/>.



MAP SCALE 1" = 1000'



NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0655D

FIRM

FLOOD INSURANCE RATE MAP
BUFFALO COUNTY,
NEBRASKA
AND INCORPORATED AREAS

PANEL 655 OF 700

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

<u>COMMUNITY</u>	<u>NUMBER</u>	<u>PANEL</u>	<u>SUFFIX</u>
BUFFALO COUNTY	310419	0655	D
GIBBON, CITY OF	310015	0655	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

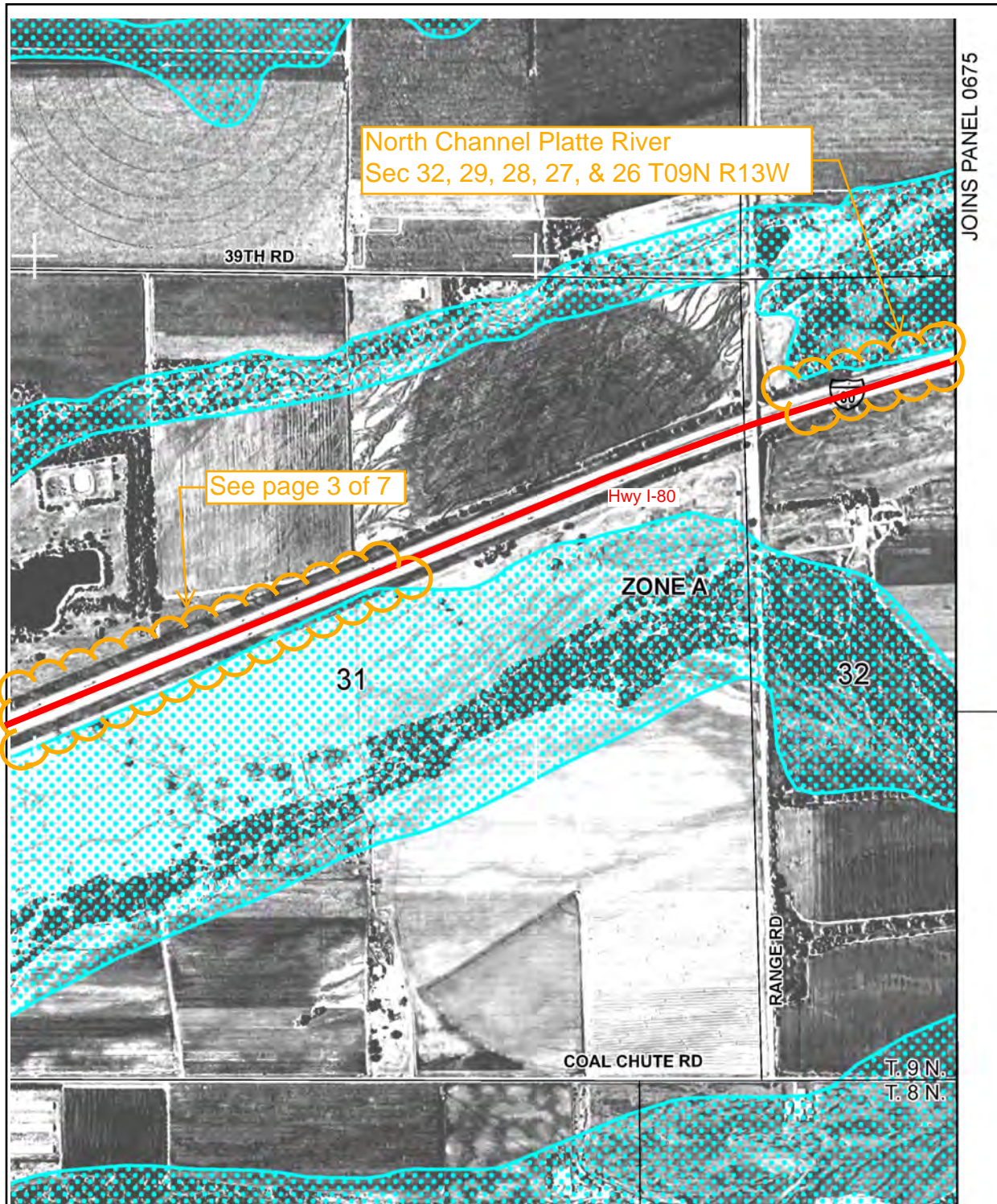


MAP NUMBER
31019C0655D

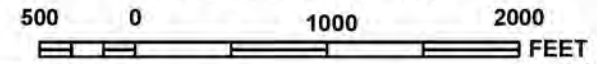
EFFECTIVE DATE
NOVEMBER 26, 2010

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using FIRMette - Desktop version 3.0. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. Further information about National Flood Insurance Program flood hazard maps is available at <http://www.msc.fema.gov/>.



MAP SCALE 1" = 1000'



NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0655D

FIRM

FLOOD INSURANCE RATE MAP
BUFFALO COUNTY,
NEBRASKA
AND INCORPORATED AREAS

PANEL 655 OF 700

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

<u>COMMUNITY</u>	<u>NUMBER</u>	<u>PANEL</u>	<u>SUFFIX</u>
BUFFALO COUNTY	310419	0655	D
GIBBON, CITY OF	310015	0655	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

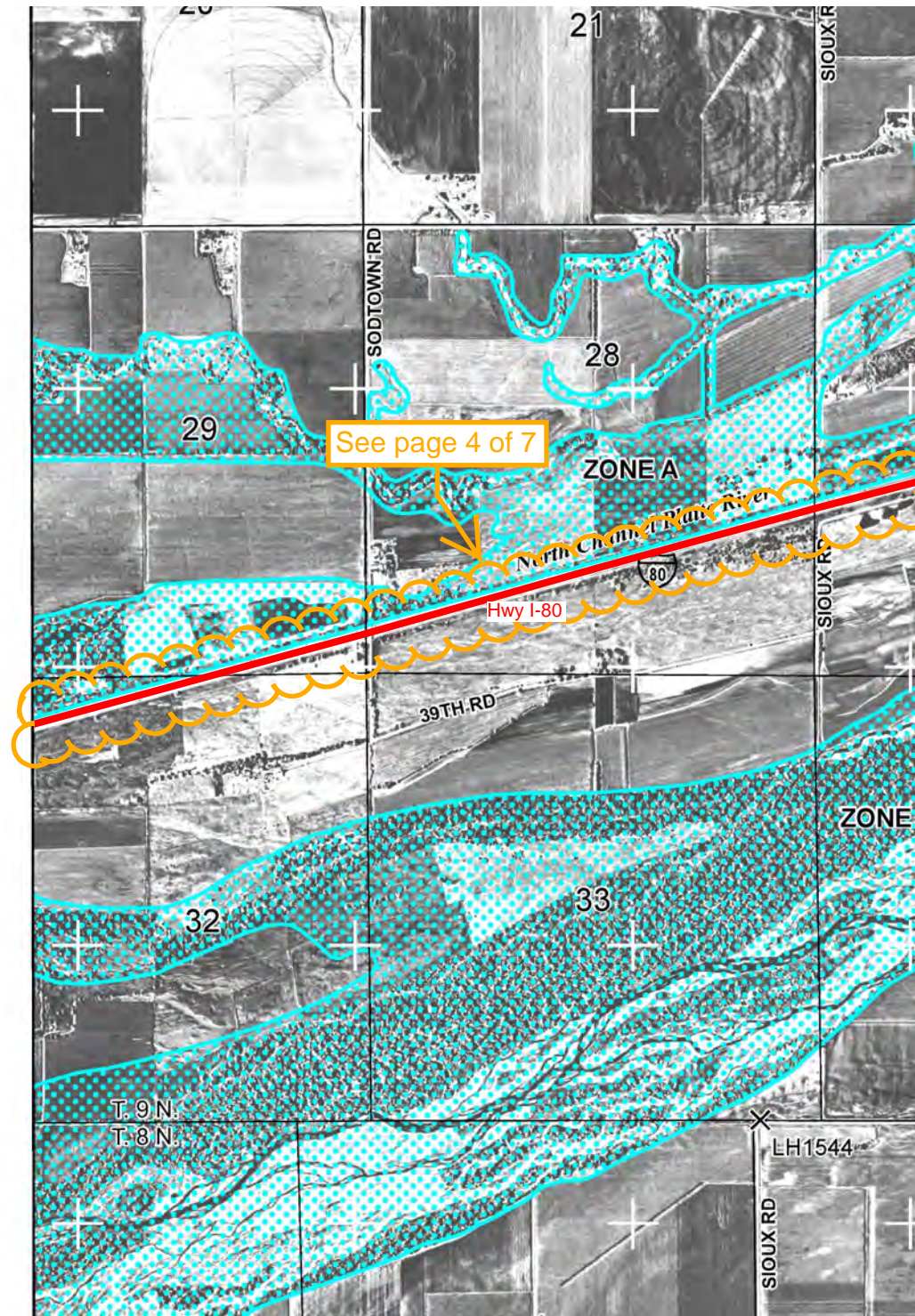


MAP NUMBER
31019C0655D

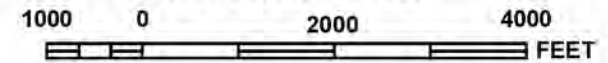
EFFECTIVE DATE
NOVEMBER 26, 2010

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using FIRMette - Desktop version 3.0. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. Further information about National Flood Insurance Program flood hazard maps is available at <http://www.msc.fema.gov/>.



MAP SCALE 1" = 2000'



NFIIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0675D

FIRM

FLOOD INSURANCE RATE MAP
BUFFALO COUNTY,
NEBRASKA
AND INCORPORATED AREAS

PANEL 675 OF 700

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
BUFFALO COUNTY	310419	0675	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

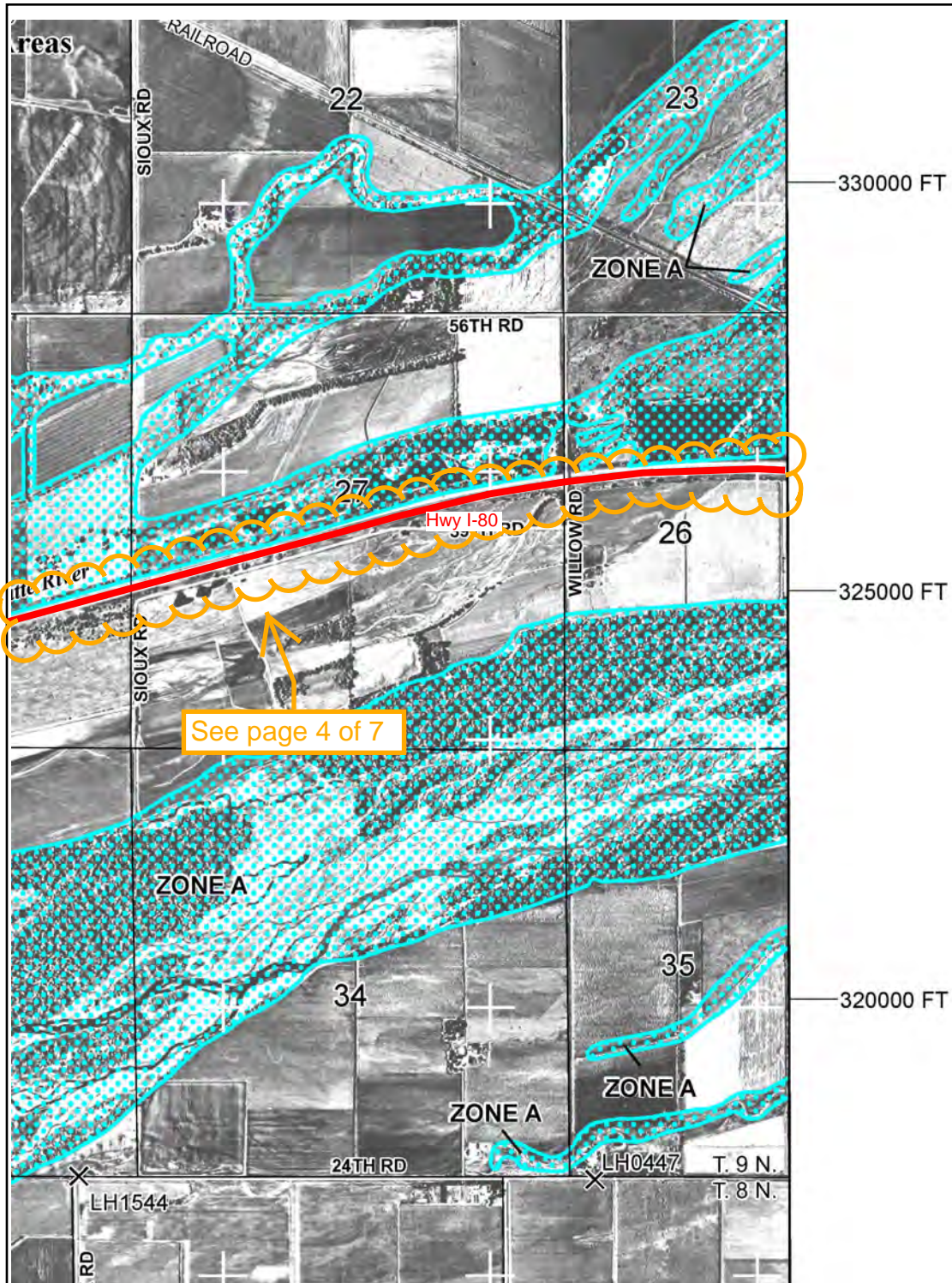


MAP NUMBER
31019C0675D

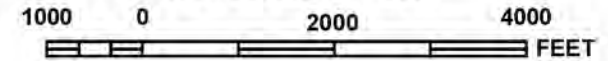
EFFECTIVE DATE
NOVEMBER 26, 2010

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using FIRMette - Desktop version 3.0. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. Further information about National Flood Insurance Program flood hazard maps is available at <http://www.msc.fema.gov/>.



MAP SCALE 1" = 2000'



NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0675D

FIRM

FLOOD INSURANCE RATE MAP
BUFFALO COUNTY,
NEBRASKA
AND INCORPORATED AREAS

PANEL 675 OF 700

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
BUFFALO COUNTY	310419	0675	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

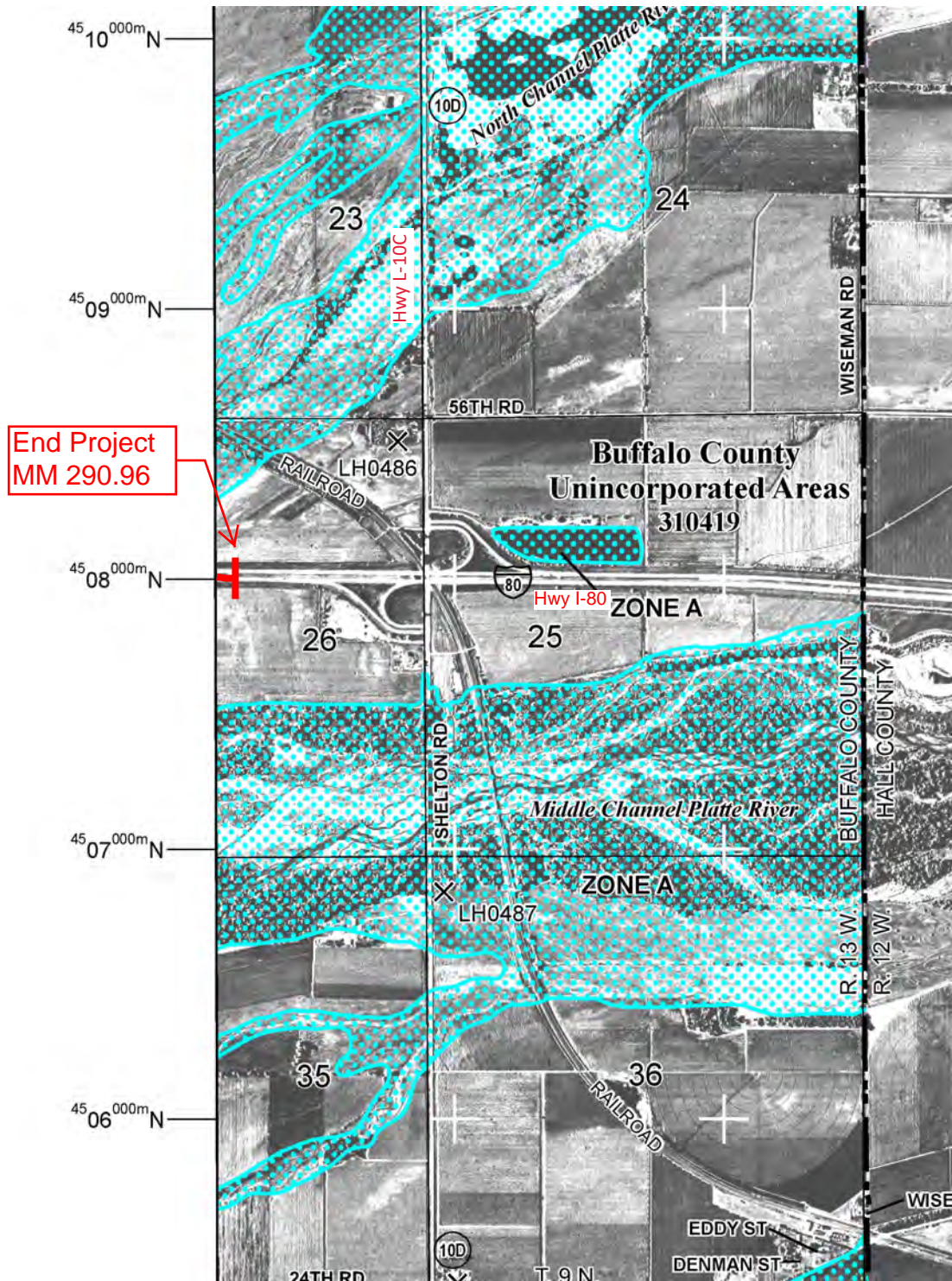


MAP NUMBER
31019C0675D

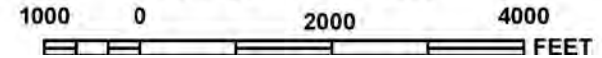
EFFECTIVE DATE
NOVEMBER 26, 2010

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using FIRMette - Desktop version 3.0. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. Further information about National Flood Insurance Program flood hazard maps is available at <http://www.msc.fema.gov/>.



MAP SCALE 1" = 2000'



NFIP

PANEL 0700D

FIRM

FLOOD INSURANCE RATE MAP
BUFFALO COUNTY,
NEBRASKA
AND INCORPORATED AREAS

PANEL 700 OF 700

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
BUFFALO COUNTY	310419	0700	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.



MAP NUMBER
31019C0700D

EFFECTIVE DATE
NOVEMBER 26, 2010

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using FIRMette - Desktop version 3.0. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. Further information about National Flood Insurance Program flood hazard maps is available at <http://www.msc.fema.gov/>.

GIBBON - SHELTON

NH-80-6(113)

C.N. 42794 BOOK X273
BUFFALO COUNTY

STOP PROJECT
STA. 1535+00.00
R.P. 290+96 HWY. I-80

BEGIN PROJECT
STA. 1152+13.27
R.P. 283+70 HWY. I-80

