

Memorandum

DATE **March 6, 2020**

TO Dillon Dittmer, Moujtaba Mohammed, Kevin Krolikowski, Brett Harbison

FROM Robert Carnazzo

THRU Julie Ramirez and Kirk Harvey

SUBJECT Floodplain Certification — Rock/Keya Paha County Line North, 7-4(118), CN 80868, Permit Not Required

Rock/Keya Paha County Line North is a resurfacing project located in Rock and Keya Paha Counties, Nebraska, along Highway N-7. The project will begin just south of the Niobrara River Bridge (MM 73.13), and extends north to Section 01, T32N R20W, approximately 800 feet south of the Clay Drive / Wentworth Drive intersection with Highway N-7 (MM 77.66).

Improvements to the project consist of milling and resurfacing the roadway, curb and flume installation, trench widening, asphalt patching, removing and replacing guardrail, and bridge repairs. The project will remove two (2) inches of existing asphalt by milling, and place a four (4) inch of asphalt overlay, resulting in a two (2) inch increase in pavement elevation. The project will widen the existing asphalt highway pavement two (2) feet on each side using a trench widening process. Where surface shoulders exist, and in other select locations an asphalt shoulder with curb and flumes will be constructed. All other locations the earth shoulders will be regraded. Guardrail will be removed and replaced throughout the project. Bridge work consists of deck repair, construction of new bridge approach sections with underlying piles and grade beam, repair of the concrete rail and remodeling of the guardrail attachment, and placement of a two (2) inch overlay for a two (2) inch increase in deck elevation. There is no culvert work.

Rock and Keya Paha Counties have no FEMA Floodplain mapping and do not participate in the National Flood Insurance Program (NFIP). NDOT policy in unmapped communities is to classify drainages with greater than 640 acres of watershed upstream of the highway and drainages that the Nebraska Department of Natural Resources has identified as Flood Awareness Areas as Potential Base Floodplains. State Minimum Standards require that all activity within potential Base Floodplains meet a "Less Than 1-foot Rise" criteria. A Permit is not required from the non-participating communities, the certifications provided for the location discussed below that meet this criteria will be retained in their stead.

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

Community of Rock County and Keya Paha County
Niobrara River, S007 07323 and S007 07337

The project encroaches upon the Base Floodplain for the Niobrara River in Sections 19 and 30, T32N R19W. The river's ordinary high water flow is conveyed through the highway by a 520-foot long bridge, structure S007 07323, a box culvert with three (3) eight (8) foot wide by four (4) foot high openings (Triple 8x4 Box Culvert), and a pair of 48-inch pipe culverts (Twin 48-inch Pipe Culvert). At this location the project will complete bridge repair work consisting of deck repair, replacement of expansion joints, guardrail removal and replacement, and placement of a two (2) inch asphalt overlay for a two (2) inch increase in deck elevation. The highway work will mill 4-

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inches and place a four (4) inch overlay for a two (2) inch increase in pavement elevation. It will widen the highway, and regrade the earth shoulders. There will be no culvert work. The 1981 as-built plans for the bridge indicate that the computed base flood elevation at that time was below the low steel elevation of the bridge, and did not overtop the highway. Since the project work, which is occurring at the deck and roadway elevations, and which will not affect a change in the river's conveyance under the bridge, the project will not affect the depth of flow of the base flood. The project will not cause a change in the base flood elevation of the Niobrara River.

Enclosures: Certificates of Compliance (1)
 State Minimum Standard mapping covering project (5)
 Project Location Map

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Permit Information:

Community of Rock County and Keya Paha County

Niobrara River, S007 07323 and S007 07337

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 Rock/Key Paha Cnty Line North Stream Niobrara River
Project No. 7-4(118) County Rock and Keya Paha
Control No. 80868 Section(s) 19 & 30 T 32 N R 19 W

FEMA LOCATION

County/Community Rock County and Keya Paha County, Nebraska
Panel No. State Minimum Standards
Effective Date N/A

TYPE OF STRUCTURE

☒ Bridge ☒ Culvert Triple 8x4 Box Culvert ☐ Roadway
Structure No. S007 07323 ☒ Structure No. S007 07337

TYPE OF IMPROVEMENT

☒ Modify Existing ☐ Replace Existing ☒ Other

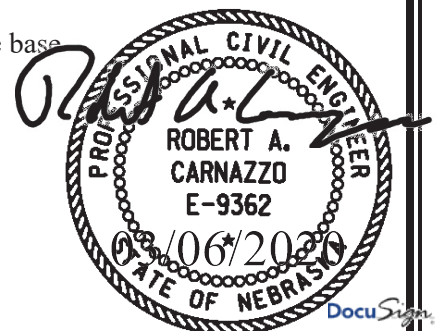
Details Bridge - Bridge Repair, 2-inch bridge deck overlay, guardrail replacement, rail repair;
Highway – milling and overlay for a 2-inch in pavement elevation, widening.

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





36-33-20W

31-33-19W

End Project
MM 77.66

WENTWORTH DRIVE

02-32-20W

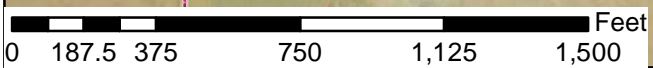
01-32-20W

Drainage Area
< 640 acres

007 - 77

Hwy N-7

State Minimum Standards





01-32-20W

06-3



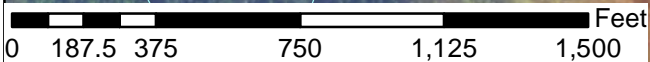
Hwy N-7

07-32-19W

12-32-20W

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State Minimum Standards





12-32-20W

07-32-19W

Hwy N-7

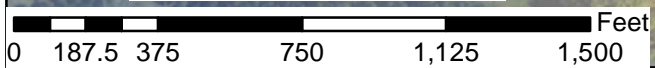


13-32-20W

18-32-19W

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State Minimum Standards





18-32-19W

Drainage Area
< 640 acres

19-32-19W

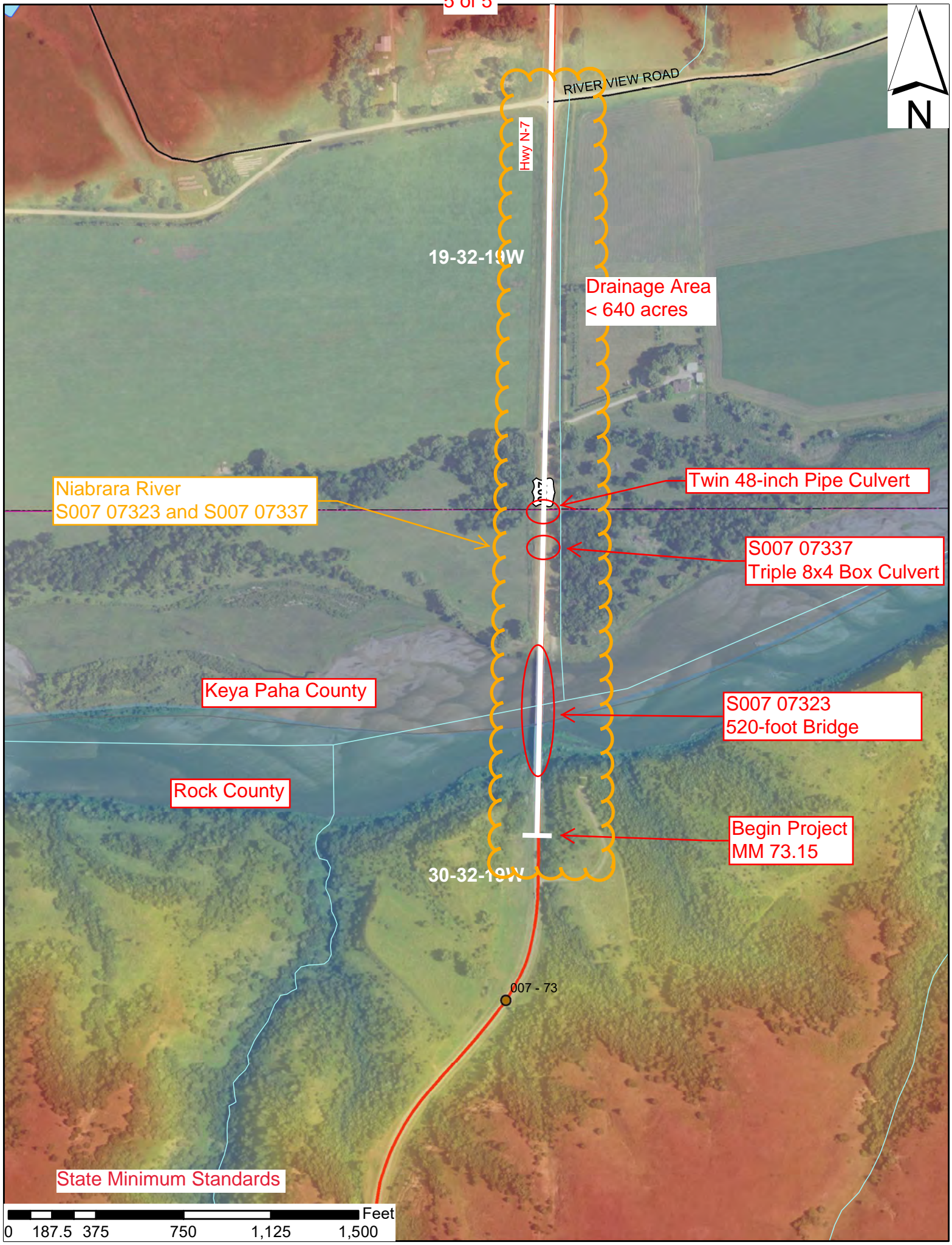
007 - 74

Hwy N-7

RIVER VIEW ROAD

State Minimum Standards





RIVER VIEW ROAD

Hwy N-7

19-32-10W

Drainage Area
< 640 acres

Niabrara River
S007 07323 and S007 07337

Twin 48-inch Pipe Culvert

S007 07337
Triple 8x4 Box Culvert

Keya Paha County

Rock County

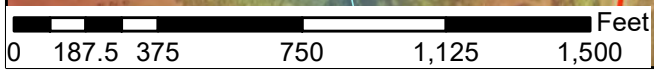
S007 07323
520-foot Bridge

Begin Project
MM 73.15

30-32-10W

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State Minimum Standards



ROCK/KEYA PAHA COUNTY LINE

7-4(118)

C.N. 80868 BOOK 6248
KEYA PAHA COUNTY

