

DRAFT ENVIRONMENTAL ASSESSMENT

**Helmuth Marsh Property Disposal and
Modification of Wetland Reserve Program Easement
For Raymond Southeast Bridge Replacement Project
North 14th Street, Lancaster County, Nebraska**
Project Number: C55-F-88



Prepared for:

Nebraska Game and Parks Commission
2200 North 33rd Street
Lincoln, Nebraska 68528

and US Fish and Wildlife Service, Region 6
Wildlife Sportfish Restoration Program
Denver, Colorado

In cooperation with

Natural Resources Conservation Service
Lincoln, Nebraska

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EXECUTIVE SUMMARY

Background. Use of 0.59 acres from Helmuth Marsh is required for the Lancaster County (County) Raymond Southeast Bridge Replacement project. The 0.27-mile long project is located on North 14th Street at Little Salt Creek in a rural area approximately 3.3 miles north of the City of Lincoln. The project consists of (1) replacement of the existing bridge at Little Salt Creek and North 14th Street (County Structure Number F-88); and (2) construction of a drop structure. Other features of the project include construction of (3) a channel grade stabilization structure and (4) an access drive for maintenance of the structure.

Helmuth Marsh Property. The 119-acre Helmuth Marsh property is managed by Nebraska Game and Parks Commission (NGPC). To allow the County project to proceed, approvals are required from:

- U.S. Fish and Wildlife Service (Service) Region 6, Wildlife Sportfish Restoration Program to dispose of property originally acquired with a grant funded under the Section 6 (of the Endangered Species Act) Cooperative Endangered Species Conservation Fund (Section 6) and State Wildlife Grants (SWG), and
- Natural Resources Conservation Service (NRCS) Wetland Reserve Program (WRP) to release and replace property under a WRP conservation easement.

Section 6 and SWG Funds Property Disposal. The Helmuth Marsh property was purchased, in part, with federal grants originally provided by Section 6 and SWG to NGPC through the Recovery Land Acquisition Program, and was distributed by NGPC to Pheasants Forever, Inc for the following purpose:

“to provide the protection, restoration, and enhancement of a habitat that is vital to the survival and recovery of rare and endangered wildlife like the Salt Creek tiger beetle, and to maintain and enhance existing wildlife populations for the people of the State of Nebraska as well as the United States”.

The County proposes to reimburse Pheasants Forever for the value of the 0.59 acres. Pheasants Forever will use the County funds to reimburse NGPC and NGPC will then reimburse the Section 6 and SWG funds. The transfer of ROW, addition of permanent or temporary easements for transportation use, and enrollment of new easement for WRP mitigation would not interfere with the original purpose of the Helmuth Marsh property acquisition (per the Section 6 and SWG funding).

Federal Actions. Approval of the proposed Section 6 and SWG property disposal constitutes a federal action subject to the provisions of the National Environmental Policy Act of 1969, as amended (NEPA). The Service is therefore required to prepare an Environmental Assessment (EA) to analyze the effects on the human and natural environment, and document the analysis. The Draft EA will be used to determine if the proposed action is likely to result in significant impacts. If it is determined that there are no significant adverse impacts, the Service will issue a Finding of No Significant Impact (FONSI). Conversely, if it is determined that significant impacts might occur, an Environmental Impact Statement (EIS) will be prepared.

WRP Easement Modification. Prior to purchase by Pheasants Forever, the previous owner had placed 46.7 acres of the property in a WRP conservation easement; the required 0.59 acres occur within this easement. Modification of land from conservation use to roadway use requires that replacement mitigation lands be equal or greater in size, economic value, and conservation values and functions. It is proposed that 1.25 acres from an adjacent parcel be transferred to the WRP easement (**Appendix A: Figure 2**). The adjacent parcel is also owned by Pheasants Forever but is not under WRP easement.

NRCS approval of the WRP modification is also subject to NEPA; therefore, this EA will be provided to NRCS for use in its review and administrative action decision.

Purposes. There are three project purposes:

- The purpose of property disposal, reimbursement of Section 6 and SWG funds, and replacement of 0.59 acres is to allow replacement of the bridge, construction of channel grade stabilization structure, and drop structure by Lancaster County.
- The purpose of the bridge replacement is to preserve the transportation asset, improve the reliability of the transportation system, and perpetuate the mobility of the traveling public.
- The purpose of the channel grade stabilization structure and access drive is to prevent channel incision from progressing upstream, and the purpose of the associated drop structure is to arrest further development of an erosional feature/head-cut.

Need. The need for the property disposal, reimbursement, and WRP modification is to replace the existing 60-year old bridge which does not meet design standards for current and future traffic volumes and speeds. Incision at North 14th Street and Little Salt Creek is causing erosion which compromises bridge footings and stability. In addition to incising, the Little Salt Creek Master Plan (2009) indicates that the bridge will overtop in a 100-year storm event.

Sediment released from incision and subsequent bank failures could threaten natural resources along the channel, including potential habitat for the federally endangered Salt Creek tiger beetle (*Cicindela nevadica lincolniana*) and the state endangered saltwort (*Salicornia rubra*). Downcutting is also responsible for intercepting the local groundwater which provides a salt source for adjacent saline wetlands and their protected species. The Little Salt Creek Watershed Master Plan (2009) includes the channel grade stabilization structure as the number 1 priority project in the basin. The erosion control drop structure is also compatible with the Upper Little Salt Creek Saline Wetlands Plan (2015) to arrest further head-cutting (Priority 2 Saline Wetland Improvement Project, H-22-1).

Alternatives. Two alignment alternatives were considered along with a No Action (No Build) Alternative to avoid and/or minimize impacts to Helmuth Marsh, WRP easement, and other environmental resources. The two alignment alternatives were to build the new bridge (1) centered on existing alignment or (2) realigned east of the existing bridge. A third alternative, realignment west of the existing bridge, would require more ROW and easements from Helmuth Marsh and, therefore, was not evaluated.

Preferred Action. Based on the alternatives analysis, the centered alignment was chosen as the Preferred Action Alternative because it:

- Improves the transportation corridor for local and through traffic
- Avoids the need for additional ROW and easements by maximizing use of the existing ROW
- Avoids the need for additional ROW and easements by minimizing the alignment length needed for pavement transition
- Minimizes impacts to freshwater and saline wetlands
- Minimizes impacts to farmland
- Best supports the Little Salt Creek Watershed Master Plan and Upper Little Salt Creek Saline Wetlands Plan
- Improves available natural habitats along Little Salt Creek by implementing measures to reduce bank incision and bank failure which result in loss of habitat and interception of groundwater

Project Description. The Preferred Action is property disposal and reimbursement of Section 6 and SWG funds and modification of the WRP easement to allow construction of the project along the centered alignment.

Construction Schedule. The duration of construction is estimated to be completed in one construction season (over approximately 6-8 months).

Relocations and Construction Access. No residences would require relocation; all existing driveways would be reconstructed. Access to adjacent properties would be maintained during construction.

Detour Route. North 14th Street would be closed to traffic during construction. The detour route for the project, starting south of the project, would consist of taking Waverly Road east to North 56th Street and heading north to Davey Road, then traveling west to North 14th Street. The detour for through traffic is approximately 6 miles in length. No improvements would be made to the detour route.

Evaluation of Impacts. The document has been prepared in accordance with NEPA and the Council on Environmental Quality's Regulations (40 CFR 1500–1508). Fourteen relevant environmental resources were evaluated and discussed in depth; findings of the evaluation are summarized in **Table A**. Of the resources reviewed, two were found to have minor adverse, long-term impacts (protected areas and wetlands and WOUS) and four were found to have minor adverse, short-term impacts (protected birds, floodplains, water quality, and invasive species). No significant indirect or cumulative impacts are anticipated. With careful planning and implementation of mitigation and BMPs, adverse impacts would remain insignificant and beneficial impacts could occur for two resources (floodplains and water quality).

The proposed project design is the best option for the safety of the traveling public, for improvement of natural resources associated with Little Salt Creek, and for protection of the Helmuth Marsh property.

Permitting. A Section 404 Nationwide Permit (NWP) 14 for linear transportation projects was previously issued for this project by the US Army Corps of Engineers (USACE) on November 28, 2012 (Permit No. 2012-02349-WEH) allowing impacts to wetlands and channels. An extension provided for the permit expired on March 18, 2017 with the expiration of all Nationwide permits. As such a new permit application was submitted November 6, 2018. It is assumed that the project will again meet the criteria for NWP 14 which allows up to 0.5 acres of wetland impacts and up to 300 ft of channel impact.

As part of the permit program, the project was also reviewed for compliance with Section 401 Water Quality Certification (WQC) as implemented by the Nebraska Department of Environmental Quality (NDEQ). NDEQ grants WQC for NWP 14 in Eastern Saline Wetlands so long as there are no discharges into Category I wetlands. Because this project includes 0.077 acres of impact to Category I saline wetlands, an individual WQC was required. The individual Section 401 WQC was issued 31 December 2018.

A Floodplain Development Permit will be obtained from Lancaster County/City of Lincoln prior to construction to certify that the project would not raise the 100-year water surface elevation.

Findings. This EA indicates that the Preferred Action would have no significant impact on the human or natural environment. Therefore, a FONSI is recommended for the property disposal and reimbursement of Section 6 and SWG funds and modification to the WRP easement to allow the bridge replacement by Lancaster County.

Table A: SUMMARY OF IMPACTS AND MITIGATION BY ENVIRONMENTAL RESOURCE

ENVIRONMENTAL RESOURCE	NO ACTION ALTERNATIVE	PREFERRED ACTION ALTERNATIVE
Protected Areas and Publicly-Owned Land	No Impact	<p>No Significant Impact with Mitigation: Section 6 and SWG Funds. The County will reimburse Pheasants Forever for the value of the required 0.59 acres. Pheasants Forever will use the County funds to reimburse NGPC, and NGPC will then reimburse Section 6 and SWG funds. WRP. The County will coordinate with Pheasants Forever and NRCS to enroll the 1.25 acres replacement area into the WRP easement. The County will reimburse Pheasants Forever for the change in value from unencumbered to encumbered for the 1.25 acres. Pheasants Forever will use the County funds to reimburse NGPC, and NGPC will then reimburse Section 6 and SWG funds.</p>
Wetlands and WOUS	No Impact	<p>No Significant Impact with Mitigation: Compliance with Section 404, Section 401, and Nebraska Title 117. The County will mitigate 0.385 acres of unavoidable permanent wetland impacts at the City of Lincoln/Lancaster County Wetland Mitigation Bank. The County will debit 0.519 credits from the bank ledger following Mitigation Guidelines for Nebraska’s Eastern Saline Wetlands. Compliance with EO 11990. The County will transfer 0.425 acres of wetlands (on the 1.25-acre replacement land) to the WRP easement on Helmuth Marsh. Additionally, 0.104 acres of permanent wetland impacts on the WRP modification area will be offset by the purchase of wetland bank credits. Proposed mitigation will fully compensate for the unavoidable wetland and WOUS impacts for Section 404, Section 401, and Nebraska Title 117 requirements. Other Mitigation Measures and Best Management Practices (BMPs). Agency coordination conducted in 2012, 2018, and 2019 with the Service, USACE, NGPC, Lower Platte South Natural Resource District, City of Lincoln Watershed Management Department, and Nebraska State Historical Society indicated support for the project and resulted in the following environmental conservation measures and BMPs to be incorporated into the project to avoid or minimize impacts to natural resources:</p> <ul style="list-style-type: none"> • Lancaster County will include Special Provisions in the Construction Contract for the project prohibiting night time work. • Lancaster County will include Special Provisions in the Construction Contract prohibiting the Contractor from using machinery in the waters of Little Salt Creek. No low water stream crossing/work platform will be allowed in the Little Salt Creek channel. • Lancaster County will include Special Provisions in the Construction Contract prohibiting demolition/construction debris from entering the waters of Little Salt Creek. In addition, a note has been added to the plans prohibiting the burial of debris from clearing and grubbing, demolition and construction operations on the project ROW. • Lancaster County will include Special Provisions in the Construction Contract for the placement of 6 inches of native soil cover on rip rap (with the exception of rip rap downstream of weir) and seeding above the historical ordinary high water mark or approximately three feet above the existing channel flow, whichever is greater. • Lancaster County will acquire the services of a qualified scientist to survey the project prior to construction. A written report of the findings will be prepared should migratory birds, threatened and endangered species, or bald or golden eagles be discovered. Lancaster County will immediately contact the Service and NGPC for further consultation if any of the above are discovered. • Lancaster County will consult with Nebraska Department of Transportation – Roadside Development and Compliance Division for recommendations for native seed mixtures in upland and wetland areas. Lancaster County will incorporate these recommendations in the Specifications for the Construction Contract. • No machinery or construction equipment will be allowed on private property (or wetlands situated thereon) beyond the project ROW or easements. The prime contractor and subcontractors are not allowed to trespass on private property by the Specifications which are part of the construction contract. • Lancaster County will include Special Provisions in Easement Contracts with private landowners east of the bridge prohibiting the use of permanent easements for channel crossings. Permanent easements are permitted only for (1) construction of this project and (2) access by the Lower Platte South Natural Resource District (LPSNRD) or Lancaster County (and appointed assignors) for future maintenance activities associated with the channel grade stabilization structure.

		<ul style="list-style-type: none"> Lancaster County will include Special Provisions in the Easement Contract with Pheasants Forever (west of the bridge) prohibiting the use of permanent easements for channel crossings. Permanent easements are permitted only for (1) construction of this project and (2) access by Lancaster County (and appointed assignors) for future maintenance activities associated with channel stabilization and the drop structure.
Threatened and Endangered Species	No Effect	<p>May Affect, but Not Likely to Adversely Affect Northern Long-Eared Bat or Designated Critical Habitat for Salt Creek Tiger Beetle with Mitigation; No effect for other listed T&E Species:</p> <ul style="list-style-type: none"> Coordination conducted in 2012 and 2019 with the Service, NGPC, Lower Platte South Natural Resource District, City of Lincoln Watershed Management Department, USACE, and Nebraska State Historical Society indicated support for the project and resulted in concurrence on a list of environmental conservation measures and BMPs to be incorporated into the project to avoid or minimize impacts to natural resources (see Wetlands & WOUS above). Tree removal will not occur from June 1 through July 31, which corresponds to the maternity roost season for the northern long-eared bat (NLEB). If the County proposes tree removal during this time period, the County must submit a request to the USACE Nebraska Regulatory Office (NRO). The NRO will coordinate this request with the Service for concurrence (including a copy to NGPC) and NLEB surveys may be required. For purposes of this conservation measure, "tree removal" is defined as cutting down, harvesting, destroying, trimming, or manipulating in any other way the trees, saplings, snags, or any other form of woody vegetation likely to be used by NLEB, as defined by the Final 4(d) Rule published on February 15, 2016. Tree removal will NOT occur within 0.25-mile of known NLEB hibernacula at any time of the year. The County will send the proposed post-construction seed mixture list to NGPC for review prior to seeding, as recommended by NGPC for the purposes of habitat management.
Protected Birds	No Impact	<p>No Significant Impact with Mitigation:</p> <ul style="list-style-type: none"> Clearing and grubbing of vegetation in areas of suitable habitat will be avoided during the primary nesting season for sedge wrens, cliff swallows, and other migratory birds (April 1 to September 30). If clearing of vegetation cannot be avoided during these periods, then a qualified biologist will conduct a pre-construction survey to determine the presence or absence of breeding birds and their nests. Bridge removal will avoid the primary nesting season to avoid 'take' of cliff swallows or will implement avoidance measures, such as exclusion netting, prior to the nesting season to discourage nesting. If a survey identifies nesting raptors or migratory birds before or during construction, then Lancaster County would halt pending construction operations and contact NGPC and the Service for further consultation.
Floodplains	No Impact	No Significant Impact; no mitigation required.
Water Quality	No Impact	<p>No Significant Impact with Mitigation:</p> <ul style="list-style-type: none"> BMPs for erosion and sedimentation control would be applied to all upland soil disturbances and would be designed to avoid or minimize sedimentation. Erosion control measures would be used, including one or more of the following: barriers, erosion checks, inlet/outlet protection, mulching, post-construction erosion control, rolled erosion control, and vegetation. Construction related impacts to water quality would last only until vegetation is re-established. Contractors would be instructed to store all potential hazardous materials (gasoline, hydraulic fluids, etc.) in upland areas within confined berms to contain spills and prevent impacts to the surrounding environment. <p>The County will include the following special provisions in the construction contracts:</p> <ul style="list-style-type: none"> The contractor will prohibit demolition/construction debris from entering the waters of Little Salt Creek. In addition, a note has been added to the plans prohibiting the burial of debris from clearing and grubbing, demolition and construction operations within the project ROW. All riprap placed, except for the bottom of channel downstream of weir, will be covered with 6 inches of native soil cover and seeded above the historical ordinary high water mark or approximately three feet above the existing channel flow, whichever is greater. The contractor will be prohibited from using machinery in the waters of Little Salt Creek. No low water stream crossing/work platform will be allowed in the Little Salt Creek channel.
Prime Farmland	No Impact	No Significant Impact; no mitigation required.
Terrestrial Habitat	No Impact	No Significant Impact with Mitigation: BMPs for erosion control would include revegetation with a native seeding mix.

Invasive Species	No Impact	No Significant Impact with Mitigation: BMPs for weed control would be implemented to minimize introduction of invasive species from construction activities. This would include that all construction equipment be required to be cleaned and free of soil and vegetative debris that may contain invasive species' seeds. Disturbed areas would be seeded with a native seed mixture to minimize the likelihood that invasive plants would become established on disturbed soils.
Hazardous Materials	No Impact	No Significant Impact with Mitigation: Project specifications would include the following requirements for the contractor: <ul style="list-style-type: none"> • If contaminated soils and/or water or hazardous materials are encountered, all work would stop within the immediate area until NDEQ is notified and a plan is developed to properly dispose of the contaminated materials. Should contamination be found on the project during construction, NDEQ would be contacted for consultation and appropriate actions be taken. If necessary, a remediation plan would be developed. • If the contractor's method of removal of the bridge components generates paint debris, the waste shall be handled in accordance with Title 128, Nebraska Hazardous Waste Regulations. Extreme caution shall be taken to minimize the amount of potential lead-based painted material or debris from causing or threatening to pollute the air, land, and waters of the State. The contractor shall recycle any lead plates on Structure Number C55-F-88 at a legitimate recycling facility in accordance with Title 128, Nebraska Hazardous Waste Regulations. • The contractor shall submit the NESHAP Notification of Demolitions and Renovation to NDEQ at least 10 working days prior to commencement of any demolition activities. The ten-day clock starts with the day the Notification is postmarked, hand delivered (includes submittals by email notification) or picked up by a commercial delivery service, such as UPS, FedEx, etc. Faxing documents is prohibited. The Lancaster County engineer shall be provided copies of said notifications and their submittal date.
Cultural Resources	No Impact	No Impact with Mitigation: In the event of an unanticipated discovery of cultural resources or archeological remains, work would be halted. Work would not continue until area is inspected by a qualified archeologist. If determined that the discovery requires further consultation, NeSHPO would be notified.
Environmental Justice	No Impact	No Impact
Air Quality	No Impact	No Significant Impact with Mitigation: BMPs to minimize PM-10 particles would be implemented during construction activities, including but not limited to, wetting the construction area, avoiding idling of construction machinery, and covering or mulching staging areas during or following construction activities.
Noise Pollution	No Impact	No Significant Impact with Mitigation: Limiting construction to daylight hours only would be implemented to reduce construction noise disturbances.
Indirect Impacts	No Impact	No Significant Impact; no mitigation required.
Cumulative Impacts	No Impact	No Significant Impact; no mitigation required.

Impact Definitions: See Section 3.0

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LIST OF ACRONYMS AND ABBREVIATIONS

ACM	Asbestos containing materials
ADT	Average daily travel
BGEPA	Bald and Golden Eagle Protection Act
BMPs	Best Management Practices
CAA	Clean Air Act
CFR	Code of Federal Regulations
Comp Plan	2040 Lincoln/Lancaster County Comprehensive Plan
CWA	Clean Water Act
DEA	Draft Environmental Assessment
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
EPA	US Environmental Protection Agency
FPPA	Farmland Protection Policy Act of 1981
FONSI	Finding of No Significant Impact
MBTA	Migratory Bird Treaty Act
MSAT	Mobile Source Air Toxics
NAAQS	National Ambient Air Quality Standards
NRCS	Natural Resources Conservation Service
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NeSHPO	Nebraska State Historical Preservation Office
NDEQ	Nebraska Department of Environmental Quality
NGPC	Nebraska Game and Parks Commission
NLEB	Northern long-eared bat
NPDES	National Pollutant Discharge Elimination System
PEMA	Palustrine Emergent Temporarily Flooded
PEMC	Palustrine Emergent Seasonally Flooded
PM	Particulate Matter
PSSA	Palustrine Scrub Shrub Temporarily Flooded
ROW	Right-of-Way
SCTB	Salt Creek tiger beetle
Section 6 Service	Section 6 Cooperative Endangered Species Conservation Fund United States Fish and Wildlife Service
SWG	State Wildlife Grant
SWPPP	Storm Water Pollution Prevention Plan
T&E	Threatened and Endangered Species
USACE	United States Army Corps of Engineers
WRP	Wetland Reserve Program
WQC	Water Quality Certification

1.0 INTRODUCTION

Use of 0.59 acres from Helmuth Marsh is required for the Lancaster County (County) Raymond Southeast Bridge Replacement project. The Helmuth Marsh property is managed by Nebraska Game and Parks Commission (NGPC). To allow the County project to proceed, approvals are required from:

- U.S. Fish and Wildlife Service (Service) Division of Ecological Services to dispose of property originally acquired with a grant funded under Section 6 (of the Endangered Species Act) Cooperative Endangered Species Conservation Fund (Section 6) and State Wildlife Grants (SWG), and
- Natural Resources Conservation Service (NRCS) Wetland Reserve Program (WRP) to release and replace property under a WRP conservation easement.

Helmuth Marsh Property. Disposal of 0.30 acres of right-of-way (ROW) and 0.28 acres of permanent easements from the 119-acre Helmuth Marsh Pheasants Forever, Inc. property is required by the County for the project. Also required are 0.01 acres of temporary easement. The project consists of (1) replacement of the existing bridge at Little Salt Creek and North 14th Street (County Structure Number F-88); and (2) construction of a drop structure (**Appendix A: Figures 1 and 2**). Other features of the project include construction of (3) a channel grade stabilization structure, and (4) access drive for maintenance of the structure.

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Sediment released from incision and subsequent bank failures could threaten natural resources along the channel, including potential habitat for the federally endangered Salt Creek tiger beetle (*Cicindela nevadica lincolniiana*) and state endangered saltwort (*Salicornia rubra*). Downcutting is also responsible for intercepting the local groundwater which provides a salt source for adjacent saline wetlands and their protected species. The Little Salt Creek Watershed Master Plan (2009) includes the channel grade stabilization structure as the number 1 priority project in the basin. The erosion control drop structure is also compatible with the Upper Little Salt Creek Saline Wetlands Plan (2015) to arrest further head-cutting (Priority 2 Saline Wetland Improvement Project, H-22-1).

1.2 **PROJECT LOCATION**

The project is located on North 14th Street between Waverly Road and Mill Road in Lancaster County, Nebraska (Sections 11 and 12 of Township 11 North, Range 6 East) (**Appendix A: Figure 1**). The existing bridge crosses over Little Salt Creek in a rural area approximately 3.3 miles north of the City of Lincoln. The project begins approximately 785 feet south of the existing bridge south abutment and ends approximately 540 feet north of the existing bridge north abutment (**Appendix A: Figure 2**). The length of the project is approximately 1,407 feet (0.27 miles). Helmuth Marsh is located west of the bridge. The Capital City Horse and Pony Club, a private organization, is northeast of the bridge. Other nearby properties along North 14th Street are privately-owned agricultural land or rural residences.

1.3 **PUBLIC INVOLVEMENT**

The proposed bridge replacement has been part of the Lancaster County Fiscal Year 1 & 6 Year Road and Bridge Program for several years (2010 - 2019). Public hearings were held in each of the respective years with the most recent held on 9 October 2018 (County Clerk Website 2019). The Lincoln-Lancaster Planning Commission held a public hearing on 26 September 2018 to confirm that the Lancaster County Fiscal Year 1 & 6 Year Road and Bridge Program is compatible with the 2040 Lincoln City – Lancaster County Comprehensive Plan.

Prior to a decision on whether to prepare an EIS or FONSI, the Service would place the DEA on their website and provide a 30-day comment period for public and resource agency input.

2.0 ALTERNATIVES

NEPA requires that feasible and prudent alternatives, including a No Action (No Build) Alternative, are presented and evaluated in a NEPA document. To avoid and/or minimize impacts to the Helmuth Marsh property, WRP easement, and environmental resources, two alignment alternatives were considered. These were to build the new bridge (1) centered on existing alignment or (2) realigned east of the existing bridge. A third alternative, realignment west of the existing bridge, would require more ROW and easements from Helmuth Marsh and therefore, was not evaluated. The following table compares the two alternative alignments and a No Build scenario relative to property rights, wetlands, safety or sustainability of the bridge, and other project considerations (**Table 1**).

TABLE 1: COMPARISON OF IMPACTS BY ALTERNATIVE

EVALUATION CRITERIA	CENTERED ALIGNMENT ALTERNATIVE	REALIGNMENT EAST ALTERNATIVE	NO BUILD ALTERNATIVE
Purpose and Need	Meets project purpose and need	Meets project purpose and need	Does not meet project purpose and need
Safety and Sustainability	Minimum roadway design standards would be met; channel stability would be improved	Minimum roadway design standards would be met; channel stability would be improved	Bridge does not meet design standards for current or future traffic volumes and speeds; creek channel is vulnerable to incision, overtopping and instability
Property Rights/ROW/ Permanent Easements	Maximizes use of the existing ROW on both sides of the roadway; minimizes need for property acquisitions on both sides of road	Requires longer alignment (up to 3,000 feet in length) and more ROW to accommodate horizontal curves in the roadway to bring the alignment back to center	None
ROW from Helmuth Marsh (and WRP easement)	Requires 0.59 acres of permanent ROW or easements	Requires no ROW or easements	None
Wetland Impacts (total)	Approximately 0.42 acres	Approximately 0.84 acres	None
Saline Wetland Impacts (Category I)	Approximately 0.08 acres	Approximately 0.16 acres	None
Farmland Conversion	Approximately 0.48 acres	Approximately 1.23 acres	No impact to farmland
Little Salt Creek Watershed Master Plan	Includes priority project to construct sheet pile and rip rap weir to stabilize stream grade elevation to prevent channel incision from progressing upstream	Includes priority project to construct sheet pile and rip rap weir to stabilize stream grade elevation to prevent channel incision from progressing upstream	No channel grade stabilization structure
Upper Little Salt Creek Saline Wetlands Plan	Includes priority project to construct erosion control drop structure to arrest further head cutting in an existing erosional feature	Does not include erosion control drop structure; erosional feature/head-cut northwest of bridge may continue to advance into Helmuth Marsh property	Does not include erosion control drop structure; erosional feature/head-cut northwest of bridge may continue to advance into Helmuth Marsh property
Designated Critical Habitat for Salt Creek Tiger Beetle (SCTB)	Installation of weir and drop structure are designed to stabilize water levels in the creek; this would improve creek bank habitat for SCTB	Installation of weir and drop structure are designed to stabilize water levels in the creek; this would improve creek bank habitat for SCTB.	No change; conditions remain unsuitable for SCTB

Preferred Action Alternative. The centered alignment alternative was chosen as the Preferred Action Alternative because it:

- Improves the transportation corridor for local and through traffic
- Avoids the need for additional ROW and easements by maximizing use of the existing ROW
- Avoids the need for additional ROW and easements by minimizing the alignment length needed for pavement transition
- Minimizes impacts to freshwater and saline wetlands
- Minimizes impacts to farmland
- Best supports the Little Salt Creek Watershed Master Plan and Upper Little Salt Creek Saline Wetlands Plan
- Improves available natural habitats along Little Salt Creek by implementing measures to reduce bank incision and bank failure which result in loss of habitat and interception of groundwater

The No Action alternative was carried forward for analysis and is discussed in subsequent sections to establish a baseline for comparison of the Preferred Action.

2.1 *Alternative 1 – Preferred Action*

The Preferred Action is property disposal and reimbursement of Section 6 and SWG funds and modification of the WRP easement to allow replacement of the F-88 bridge on a centered alignment, as well as construction of the channel grade stabilization structure, access drive and erosion control drop structure (**Appendix B**).

The Preferred Action was selected to be carried forward for further evaluation because it meets the purpose and need, minimizes ROW acquisition and minimizes impacts to the existing wetlands. As such, the alternative is the least environmentally damaging practicable alternative.

2.2 *Alternative 2 – No Action*

No Action alternative, to deny the request for property disposal and modification of the WRP easement, would leave the bridge compromised for design standards and safety, as well as vulnerable to incision, overtopping and instability. No Action alternative would do nothing to address the progressing effects of incision and downcutting on adjacent saline wetland habitat and their protected species. The No Action alternative does not meet the purpose and need to meet design standards for future traffic volume and speed and to stabilize the Little Salt Creek channel.

For the near future there would be no disturbances to Helmuth Marsh; however, the County could invoke their power of condemnation for matters of ensuring public safety—resulting in comparable reimbursement of Section 6 and SWG funds and comparable replacement of the WRP easement. The amount of compensation would be negotiated based on an appraised market value and the funds would be returned to Section 6 and SWG funds.

2.3 Project Description

The Preferred Action is property disposal and reimbursement of Section 6 and SWG funds and modification of the WRP easement to allow construction of the following County project.

Bridge Replacement. The existing bridge crosses Little Salt Creek in a rural area approximately 3.3 miles north of the City of Lincoln. The project begins approximately 785 feet south of the existing bridge south abutment and ends approximately 540 feet north of the existing bridge north abutment, for a length of approximately 1,407 feet (0.27 miles). The 2-lane bridge was built in 1959 and is an 82-foot long deck steel girder structure with a 26-foot wide deck. Guardrails do not extend beyond the abutments. The existing roadway is a 22-foot wide paved surface. The old bridge would be replaced with a new 2-lane 125-foot long by 40-foot wide 3-span continuous concrete slab bridge. The roadway would have a 24-foot wide asphalt surface with an 8-foot wide earthen shoulder on each side. A grade raise of approximately 1-foot is anticipated to accommodate the bridge height.

Channel Grade Stabilization Structure and Access Drive. The project would include construction of a sheet pile and rip rap weir to stabilize the stream grade elevation downstream of the bridge to prevent channel incision from progressing upstream. This channel grade stabilization structure is listed as a priority project in the Little Salt Creek Watershed Master Plan (2009). An access drive north of the bridge and east of North 14th Street would be constructed to facilitate periodic maintenance of the weir. The access drive alignment would be a 20-foot wide earthen roadway with a turn-off located approximately 250 feet north of the north abutment of the existing bridge.

Drop Structure. A drop structure consisting of a culvert pipe (30-inch by 54-foot double broken back culvert with concrete headwall on inlet) north of Little Salt Creek and west of North 14th Street would be installed to convey ditch drainage to Little Salt Creek. Construction of the culvert is compatible with the Upper Little Salt Creek Saline Wetlands Plan (2015) to arrest further head-cutting from Little Salt Creek in an existing erosional feature (Priority 2 Saline Wetland Improvement Project, H-22-1).

Construction Schedule. The duration of construction is estimated to be completed in one construction season (over approximately 6-8 months).

Relocations and Construction Access. No residences would require relocation; all existing driveways would be reconstructed. Access to adjacent properties would be maintained during construction.

Detour Route. North 14th Street would be closed to traffic during construction. The detour route for the project, starting south of the project, would consist of taking Waverly Road east to North 56th Street and heading north to Davey Road, then traveling west to North 14th Street north of the project (**Appendix A: Figure 3**). The detour for through traffic is approximately 6 miles in length. No improvements would be made to the detour route.

Construction Methods. Temporary cofferdams and de-watering operations may be necessary to accommodate construction of bridge piers; however, no temporary work platforms or channel diversion structures would be allowed in the Little Salt Creek channel. No night work would be allowed.

Acquisition of ROW is required (**Appendix A: Figure 4**).

The proposed project also would include the following activities, not already previously described:

- Survey and staking
- Removal of pavement
- Milling and/or in-place recycling
- Grading within and outside of the hinge point, including clearing and grubbing of vegetation
- Underground utility conduit installation
- Construction of earth shoulder
- Pile driving (impact and vibratory)
- Pier construction with pile/pier encasement
- Construction of guardrail
- Paving of roadway
- Pavement marking
- Installation of signs with soil disturbance
- Driveway reconstruction with culvert replacement (crushed rock or gravel surfacing)
- Rock or gravel surfacing
- Bank stabilization (rip rap, type “b” and “c”)

Erosion Control. Areas disturbed during construction would be stabilized utilizing methods of erosion control as shown in the Storm Water Pollution Prevention Plan (SWPPP) (i.e., erosion checks, inlet/outlet protection, mulching, post-construction erosion control, rolled erosion control, and revegetation with an appropriate seed mix).

WRP Easement Modification. The County proposes that 1.25 acres from an adjacent parcel be transferred to the WRP easement to replace and mitigate 0.59 acres of WRP easement to be modified from conservation use to transportation use. The proposed WRP mitigation area is also owned by Pheasants Forever and is located northwest of the bridge replacement on the west side of Little Salt Creek (**Appendix A: Figure 2**).

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This chapter begins with an overview of the project setting and is followed by an evaluation of existing conditions and environmental consequences of the alternatives. Organized by relevant resources, both adverse and beneficial impacts are discussed for the Preferred Action and No Action alternatives. Also included are mitigation measures (referred to as conservation measures depending on the resource) that would avoid, reduce, or compensate for substantial adverse impacts of the Preferred Action. Impacts are quantified whenever possible. Qualitative descriptions concerning the intensity of impacts are explained by accompanying text where used:

Magnitude of Adverse Impacts.

<i>No impact</i>	Resource not measurably effected (i.e., negligible effect)
<i>Minor</i>	Noticeable impacts to the resource, but the resource is still mostly functional
<i>Moderate</i>	The resource is impaired, so that it cannot function normally (significant if long-term impact)
<i>Major</i>	The resource is significantly impaired so that it is no longer functional in the project area

Duration of the Impact.

<i>Short-term</i>	Effects caused by the construction and/or implementation of an alternative that cease to continue either before or soon after the completion of the alternative
<i>Long-term</i>	Effects caused by the construction and/or implementation of an alternative that continues or occurs after the completion of the alternative either indefinitely or until future actions are taken to alter the resource

The type of impact relative to this analysis are defined as the following:

- Direct impacts are caused by the action and occur at the same time and place (**Section 3.2**).
- Indirect impacts are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable (**Section 3.3**).
- Cumulative impacts are the impact on the environment which results from the incremental impact of the action when added to other past, present, or reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions (**Section 3.3**).

Significance has been analyzed in this document in terms of both context (sensitivity) and intensity (magnitude and duration).

Project Limits. The Project Limits include all project areas where construction would likely occur as shown in a broken black line in **Appendix A: Figure 5**.

Relevant Resources. Relevant resources are those protected or regulated by laws, executive orders (EOs), regulations, and other standards of national, state, or regional agencies; technical or scientific agencies, groups, or individuals; and the general public. Resources for which in-depth analysis has been warranted included: protected areas and publicly-owned lands, wetlands, threatened and endangered species, protected birds, floodplains, water quality, farmland, terrestrial habitat, invasive species, hazardous materials, cultural resources, environmental justice, air quality, and noise pollution. These resources are described in **Section 3.3**. Also discussed are indirect and cumulative impacts.

Resources Eliminated from Further Consideration. Several environmental resources with regulatory drivers were not included in the environmental consequences analysis because they were either absent

within the study area or were not applicable. For example, Wild and Scenic Rivers are not present in the study area and Coastal Zone Management is not applicable to the project.

3.1 ENVIRONMENTAL SETTING

The project is located along North 14th Street in a rural area approximately 3.3 miles north of the City of Lincoln. Helmuth Marsh is adjacent to the west side of the F-88 bridge; the Capital City Horse & Pony Club is adjacent to the east side of the F-88 bridge (**Appendix A: Figure 2**).

3.1.1 Topography and Geology

The project lies within the Rolling Hills Topographic Region of Nebraska which generally consists of hilly land with moderate to steep slopes and rounded ridge crests. This description is consistent with the south end of the project limits; however, the remaining area of the project limits is situated within the Little Salt Creek floodplain, which is generally flat with gentle slopes or eroded drainage pathways. Channel banks are typically steep and eroded in places.

The primary upper bedrock underlying much of Lancaster County is the Dakota Sandstone Formation deposited during the Lower Cretaceous Period, roughly 120-million years ago. Dakota Sandstone is porous, which allows saline groundwater in areas with deeper rock formations containing salt deposits to seep up to the soils surface. Below the Dakota Sandstones are the Wabaunsee Formations of the Pennsylvanian System limestone, deposited prior to 280-million years ago, and Admire and Council Grove Formations of Permian System limestones and interbedded shales laid down in the vast Cretaceous Inland Sea more than 245-million years ago.

Eastern Nebraska was glaciated during the Nebraskan (1.5 to 1.1-million years ago) and Kansan (900 – 600-thousand years ago) glaciations that pushed into eastern Nebraska during the early Pleistocene Epoch. As such, local hills are underlain with end-moraine, esker, drumlin, and kame formations composed of glacial till ranging in size from small cobbles to large glacial erratics. As the glaciers retreated, the till covered surfaces were eroded and reshaped by glacial outwash streams which also deposited thick layers of clay, sand, and gravel alluvium along the stream floors.

3.1.2 Hydrology

The project crosses Little Salt Creek within the Salt Creek Watershed. Little Salt Creek flows from northwest to southeast until it enters Salt Creek. From this point, Salt Creek generally flows northeast until it enters the Platte River. The Salt Creek Watershed covers roughly 2,016 square miles and the longest segment of creek is roughly 50 miles long. The Salt Creek watershed is unique within the state because of the presence of salt marshes which have formed due to saline seeps and upwelling from the underlying sedimentary deposits. These wetlands form a regionally unique wetlands complex located in the floodplain swales and depressions of the Salt Creek, Little Salt Creek, and Rock Creek drainages in Lancaster and southern Saunders Counties. Saline wetland acquisition and restoration projects such as the Helmuth Marsh, Frank Shoemaker Marsh and Arbor Lake Wildlife Management Area have been undertaken to preserve these unusual landscapes and their flora and fauna.

A section of Little Salt Creek, from the F-88 bridge west approximately 1,000 feet upstream, was channelized prior to the construction of the F-88 bridge in 1959. A channel scar remains as a drainage swale that terminates in an erosional feature/head-cut northwest of the F-88 bridge (Priority 2 Saline Wetland Improvement Project, H-22-1). There are at least three similar erosional features on the south bank of the channel, west of the F-88 bridge.

In addition, there is a floodplain drainage northeast of the F-88 bridge on the Capital City Horse & Pony Club property; this feature is associated with an unnamed tributary of Little Salt Creek.

3.1.3 Vegetation

The channel terrace south of the F-88 bridge and on both sides of North 14th Street supports freshwater wetlands on saline and non-saline soils; these wetlands are dominated by cattail (*Typha angustifolia* and *T. latifolia*), spikerush (*Eleocharis palustris*), or reed canarygrass (*Phalaris arundinacea*). Scattered areas of upland occur on the terrace and are characterized by a mix of smooth brome (*Bromus inermis*), Canada goldenrod (*Solidago canadensis*), American plum (*Prunus americanus*), and rough-leaved dogwood (*Cornus drummondii*).

Within the project limits, the steep creek banks support wetlands dominated by false indigo bush (*Amorpha fruticosa*) and reed canarygrass or prairie cordgrass (*Spartina pectinata*) and reed canarygrass.

The channel terrace north of the F-88 bridge and on both sides of North 14th Street is an upland dominated by smooth brome.

Freshwater wetlands on saline soils occur within the drainage swale located northwest of the F-88 bridge. This area is dominated by reed canarygrass, cattail, or spikerush. Mesic prairie surrounds the drainage swale and supports a mix of smooth brome, dogbane hemp (*Apocynum cannabinum*), Maximilian's sunflower (*Helianthus maximiliani*), and prairie cordgrass.



Photograph 1. View of saline wetland patches within the intermediate wheatgrass hayfield on the Capital City Horse and Pony Club property.



Photograph 2. View of a hayfield dominated by intermediate wheatgrass located on the Capital City Horse and Pony Club property, northeast of the bridge. Wetland patches dominated by foxtail barley and saltgrass are visible in the background (see Photograph 1).

Photograph 3. View a hayfield dominated by smooth brome located on the Capital City Horse and Pony Club property, northeast of the bridge. The floodplain dominated by intermediate wheatgrass and saline wetlands is visible in the background (see Photograph 2).

Small patches of saline wetlands on saline soils occur northeast of the F-88 bridge within a floodplain drainage. These wetlands are dominated by inland saltgrass, foxtail barley (*Hordeum jubatum*), and prairie cordgrass (**Photograph 1**); however, most of the floodplain, which is hayed periodically, is dominated by intermediate wheatgrass (*Thinopyrum intermedium*) (**Photograph 2**) or smooth brome (**Photograph 3**).

The upland area southwest of the F-88 bridge is a hayed prairie dominated by smooth brome, big bluestem (*Andropogon gerardii*), Kentucky bluegrass (*Poa pratensis*), switchgrass (*Panicum virgatum*), and Canada bluegrass (*Poa compressa*). The upland area southeast of the F-88 bridge is a row-crop agricultural field.

3.1.4 Land Use

The project occurs in a rural area approximately 3.3 miles north of the City of Lincoln. North 14th Street has been a well-used County road for over a century as it is one of the few continuous and paved north-south roads connecting the City of Lincoln and Lancaster County to Saunders County to the north. Adjacent land uses are agricultural and include rangeland, hay fields, and row-crop fields. Helmuth Marsh, a wildlife habitat conservation area, is adjacent to North 14th Street, west of the F-88 bridge (see **Appendix A: Figure 2**). Capital City Horse & Pony Club, a private riding club, is located northeast of the bridge. Some nearby areas have experienced rural acreage development along North 14th Street and intersecting east-west section line roads.

3.1.5 Climate

The climate in eastern Nebraska is described as humid continental which is characterized by wide seasonal variations in temperature and precipitation. In general, eastern Nebraska has hot humid summers and cold winters. The average July (summer) high temperature is 88 degrees Fahrenheit and the average low temperature is 65 degrees Fahrenheit. The average January (winter) high temperature is 32 degrees Fahrenheit and the average low temperature is 11 degrees Fahrenheit. The average yearly rainfall is 29 inches and the average yearly snowfall is 23 inches. Thunderstorms are common in the spring and summer months with the growing season generally considered as May to October.

3.2 ENVIRONMENTAL CONSEQUENCES

3.2.1 Protected Areas and Publicly-owned Lands

Existing Conditions. Helmuth Marsh, a public-access area owned by Pheasants Forever, is the only protected area along the project alignment. The property is managed by NGPC for the purpose of protection, restoration, and enhancement of habitat for rare and endangered wildlife, and for maintenance and enhancement of existing wildlife populations for the people of Nebraska and the United States.

A portion of Helmuth Marsh is included in a 46.7-acre WRP easement. An area of 0.59 acres required for ROW and easements for the Preferred Action is also part of the WRP easement. Characteristics of the area of the WRP easement, referred to as the WRP modification area, are described below.

- Contains 0.208 acres of wetlands with conservation functions and values, including:
 - Groundwater recharge/discharge
 - Floodflow alteration
 - Sediment/toxicant retention
 - Nutrient removal
 - Production export
 - Wildlife habitat
 - Sediment/shoreline stabilization
- Situated entirely within the 100-year floodplain of Little Salt Creek

- Contains hydric soils, including saline soils (Judson silt loam, Salmo silt loam, and Salmo silty clay loam)
- Includes uplands dominated by smooth brome and weedy annuals with patchy areas of prairie cordgrass, smartweed (*Polygonum coccineum*), Canada goldenrod, or Maximillian's sunflower
- Extends along 105 linear feet of the Little Salt Creek channel
- Lacks prior restoration efforts
- Situated adjacent to North 14th Street, a well-traveled roadway and one of the few continuous north-south roads in Lancaster County

Impacts of the Preferred Action Alternative. The Preferred Action would result in a loss of 0.30 acres of ROW, 0.28 acres of permanent easement, and 0.01 acres of temporary easement from the 119-acre Helmuth Marsh property (**Appendix A: Figure 6**). The transfer of ROW, addition of permanent or temporary easements for transportation use, and enrollment of new easement for WRP mitigation would not interfere with the original purpose of the Helmuth Marsh property acquisition (per the Section 6 and SWG grant funding). The total required 0.59 acres of ROW and easements, including 0.208 acres of wetlands, are within the WRP easement. ROW and easements are required for the following construction activities:

- grading and fill activities for removal of the existing bridge and construction of the new bridge;
- shaping of the channel banks to accommodate the bridge replacement and grade stabilization structure;
- grading and installation of a double broken back culvert to address head-cutting; and
- access for future maintenance.

The Preferred Action also provides beneficial impacts to natural habitats along Little Salt Creek by implementing stabilization measures to reduce bank incision and bank failure which result in loss of habitat and interception of groundwater.

Impacts of the No Action Alternative. With No Action, there would be no disposal of Section 6 and SWG funded property, no modification of WRP easement, no construction of the bridge or stream stabilization features, and no adverse or beneficial direct impacts on protected areas or publicly-owned lands. While there would be no bridge construction disturbances to Helmuth Marsh in the near term, the County could invoke their power of condemnation for matters of ensuring public safety—resulting in a comparable project at some point in the future.

Compliance with WRP. Modification of WRP easement from conservation use to roadway use requires that replacement mitigation lands be of equal or greater size; economic value; and conservation values and functions. It is proposed that impacted 0.59 acres be replaced with 1.25 acres from an adjacent parcel which would be transferred to the WRP easement (**Appendix A: Figure 7**). The proposed WRP mitigation area is also owned by Pheasants Forever but is not under WRP easement. The proposed WRP mitigation area is recommended because it provides adjacent land, with comparable biogeophysical characteristics, but with higher habitat value and in twice the amount as the modification area. Characteristics of the mitigation area are described below.

- Contains 0.425 acres of wetlands with conservation functions and values, including:
 - Groundwater recharge/discharge
 - Floodflow alteration
 - Sediment/toxicant retention
 - Nutrient removal
 - Production export
 - Wildlife habitat
 - Uniqueness/heritage
 - Visual quality/aesthetics
 - Recreation
 - Educational/scientific value
- Situated entirely within the 100-year floodplain of Little Salt Creek

- Contains hydric soils, including saline soils (Judson silt loam and Salmo silty clay loam)
- Includes uplands dominated by smooth brome and weedy annuals with patchy areas of Canada goldenrod or annual sunflower (*Helianthus annuus*)
- Surrounded by undisturbed habitat and a food plot
- Accessible from the Helmuth Marsh public-access parking lot
- Lacks prior restoration efforts
- Situated adjacent to existing WRP easement
- Provides greater size and appraised value than the WRP modification area
- Property owner is supportive of enrollment into WRP easement

Table 2 provides a comparison of wetland types and proposed mitigation ratios similar to those used by USACE for wetland impacts. Assumptions are based on the fact that wetlands in the proposed WRP mitigation area have similar vegetation as wetlands in the WRP modification. Further, the NRCS Easement Program Manager and Easement Restoration Specialist indicated no restoration efforts have been implemented in the WRP modification area, which supports the use of a 1:1 ratio for some of the wetland offset. The proposed ratios to offset conversion impacts are described below:

- 1:1 ratio for in-kind Cowardin wetland; out-of-kind, but greater conservation value, Nebraska sub-class wetland; and greater conservation value saline wetland category
- 1.5:1 ratio for in-kind Cowardin wetland; in-kind Nebraska sub-class wetland; and lesser value saline wetland category
- 2:1 ratio for in-kind Cowardin wetland; out-of-kind Nebraska sub-class wetland; and lesser value saline wetland category
- 4:1 ratio for out-of-kind Cowardin wetland; out-of-kind Nebraska sub-class wetland; and similar value saline wetland category

Overall, the wetland types and sizes found in the existing WRP modification area are more than adequately compensated for in the proposed WRP mitigation area.

Mitigation Measures.

- **Section 6 and SWG Funds.** The County will reimburse Pheasants Forever for the value of the required 0.59 acres. Pheasants Forever will use the County funds to reimburse NGPC, and NGPC will then reimburse Section 6 and SWG funds.
- **WRP.** The County will coordinate with Pheasants Forever and NRCS to enroll the 1.25 acres replacement area into the WRP easement (**Appendix A: Figure 7**). The County will reimburse Pheasants Forever for the change in value from unencumbered to encumbered for the 1.25 acres. Pheasants Forever will use the County funds to reimburse NGPC, and NGPC will then reimburse Section 6 and SWG funds.

With implementation of mitigation, adverse impacts to Helmuth Marsh and the WRP easement would be minor, albeit long-term, and the Preferred Action Alternative would have no significant impact on protected areas or publicly-owned lands.

TABLE 2: COMPARISON OF WETLANDS LOCATED IN THE WRP MODIFICATION AND MITIGATION AREAS

EXISTING WRP MODIFICATION				PROPOSED MITIGATION RATIO (Total acres)	PROPOSED WRP MITIGATION				DIFFERENCE BETWEEN PROPOSED RATIO AND PROPOSED WRP MITIGATION
WETLAND TYPE ¹	NE SUBCLASS ²	SALINE WETLAND CATEGORY ³	ACRES		WETLAND TYPE ¹	NE SUBCLASS ²	SALINE WETLAND CATEGORY ³	ACRES	
PEMC	Floodplain Depression	III	0.066	1:1 (0.066)	PEMC	Saline Depression	I	0.102	+0.036
PEMA	Floodplain Depression	III	0.042	1.5:1 (0.063 acres)	PEMA	Floodplain Depression	IV	0.102	+0.039
PEMA	Riverine Channel	III	0.064	2:1 (0.128 acres)	PEMA	Slope Wetland	IV	0.081	-0.047
PSSA	Riverine Floodplain	III	0.036	4:1 (0.144 acres)	PEMA	Slope Wetland	III	0.140	-0.004
Totals	-	-	0.208	0.401	-	-	-	0.425	0.024

¹ Cowardin classifications as follows: PEMA - Palustrine Emergent Temporarily Flooded; PEMC - Palustrine Emergent Seasonally Flooded; PSSA – Palustrine Scrub-Shrub Temporarily Flooded.

² Nebraska Wetland Subclass category or HGM Subclass Natural Community Crosswalks described in LaGrange (2010).

³ Saline wetland categories as follows: Category I – Saline wetlands; Category III – Freshwater wetlands on saline soils; Category IV – Freshwater wetlands on non-saline soils

3.2.2 Wetlands and Waters of the US (WOUS)

Wetland resources are afforded protection under Section 404 of the Clean Water Act (CWA) as amended, and Executive Order (EO) 11990 of 1977 (Protection of Wetlands). They are also protected, as waters of the state, under Title 117 of the Nebraska Administrative Code (NAC). Wetlands and riparian areas are important because they provide habitat for various species of plants, fish, and wildlife; serve as ground water recharge areas; provide storage areas for storm and flood waters; serve as natural water filtration areas; and provide protection from wave action, erosion, and storm damage.

Existing Conditions. A wetland delineation was conducted by Felsburg Holt and Ullevig on 2 and 27 July 2018 and 7 November 2018. Delineated wetlands present in the project limits and the proposed WRP mitigation area consisted of palustrine emergent temporarily flooded (PEMA), palustrine emergent seasonally flooded (PEMC), and palustrine scrub/shrub temporarily flooded (PSSA) wetlands located on terraces, side slopes, and benches of Little Salt Creek or in floodplain depressions and swales. Delineated channels included only Little Salt Creek.

Saline wetlands in the Little Salt Creek watershed are characterized by saline soils (i.e., Salmo Series with low permeability) and halophytic (salt tolerant) plant species, such as seablite (*Suaeda calceoliformis*), inland salt grass (*Distichlis spicata*), spearscale (*Atriplex patula*), and the state endangered saltwort. Saline soils are mapped within the project limits.

The delineated PEMA and PEMC wetlands included three categories of saline wetland: Category I saline wetland, Category III freshwater wetland on saline soils, and Category IV freshwater wetland on non-saline soils. One PSSA wetland, a Category III freshwater wetland on saline soil, was located on the south side slope and terrace of the creek and was dominated by false indigo (*Amorpha fruticosa*) and reed canarygrass. Category I saline wetlands were located within the floodplain drainage northeast of the bridge (Wetland 19 shown on **Appendix A: Figures 8 and 9**) and in a floodplain depression of the proposed WRP mitigation area (Wetland 3 shown on **Appendix A: Figure 10**). These Category I saline wetlands were dominated by inland saltgrass, foxtail barley, prairie cordgrass, annual marsh elder (*Iva annua*), or reed canarygrass.

Impacts of the Preferred Action Alternative. The Preferred Action would have the following impacts to wetlands:

- Permanent wetland impacts would total 0.385 acres, including 0.340 acres of PEMA wetlands (0.077 acres are Category I saline wetland), 0.041 acres of PEMC wetlands, and 0.004 acres of PSSA wetlands as shown in **Table 3 (Appendix A: Figure 8)**.
- Temporary wetland impacts would total 0.240 acres, including 0.149 acres of PEMA wetlands (0.068 acres are Category I saline wetland), 0.071 acres of PEMC wetlands, and 0.020 acres of PSSA wetlands (**Appendix A: Figure 9**).
- Wetland impacts within the WRP modification area would total 0.104 acres of permanent and 0.053 acres of temporary impacts.

Wetland impacts would occur due to:

- grading and fill activities for removal of the existing bridge and construction of the new bridge;
- installation of silt fencing for erosion control;
- grading, installation of the grade stabilization structure;
- construction of an access drive turn-off;
- installation of a double broken back culvert to address head-cutting; and
- shoulder grading and reconstruction of roadway ditches.

TABLE 3: WETLAND IMPACTS AND PROPOSED COMPENSATORY MITIGATION

WETLAND TYPE	NEBRASKA SUBCLASS ¹	SALINE WETLAND CATEGORY	IMPACTED ACRES	RATIO	MITIGATION CREDITS	TYPE OF MITIGATION CREDIT
PEMA	Floodplain Depression	IV	0.083	1:1	0.083	Category IV Saline Wetland
PEMA	Riverine Channel	III	0.111	2:1	0.222	Category I Saline Wetland
PEMC	Riverine Floodplain	III	0.019	2:1	0.038	Category I Saline Wetland
PEMA/PEMC	Floodplain Depression	III	0.091	1:1	0.091	Category I Saline Wetland
PEMA	Saline Depression	I	0.077	1:1	0.077	Category I Saline Wetland
PSSA	Riverine Floodplain	III	0.004	2:1	0.008	Category I Saline Wetland
Total	-	-	0.385	-	0.519	-

¹ Nebraska Wetland Subclass category or HGM Subclass Natural Community Crosswalks described in LaGrange (2010).

The project would result in approximately 250 linear feet (lf) (0.089 acres) of channel impacts due to shaping of the channel banks to accommodate the bridge replacement and grade stabilization structure. The project would result in no loss of stream channel length.

Temporary cofferdams and de-watering operations may be necessary to accommodate construction of bridge piers; however, no temporary work platforms or channel diversion structures would be allowed in the Little Salt Creek channel.

The Preferred Action would provide beneficial impacts to natural habitats along Little Salt Creek by implementing stabilization measures to reduce bank incision and bank failure which result in loss of habitat and interception of groundwater.

The County has avoided impacts to channels and wetlands where possible through design solutions, such as utilizing the existing highway alignment and minimizing the area of disturbance. Of the 2.55 acres of wetlands delineated in the study area of the Preferred Action, 2.17 acres of wetlands (85%) will be avoided. No impacts to wetlands would occur in the WRP mitigation area.

Impacts of the No Action Alternative. With No Action, there would be no disposal of Section 6 and SWG funded property, no modification of WRP easement, no construction of the bridge or stream stabilization features, and no direct impact on wetlands. While there would be no disturbances to wetlands in the near term, the County could invoke their power of condemnation for matters of ensuring public safety—resulting in a comparable project at some point in the future.

Permitting. A Section 404 Nationwide Permit (NWP) 14 for linear transportation projects was previously issued for this project by the US Army Corps of Engineers (USACE) on November 28, 2012 (Permit No. 2012-02349-WEH) (**Appendix D**) allowing impacts to wetlands and channels. An extension provided for the permit expired on March 18, 2017 with the expiration of all Nationwide permits. As such a new permit application was submitted November 6, 2018. It is assumed that the project will again meet the criteria for NWP 14 which allows up to 0.5 acres of wetland impacts and up to 300 ft of channel impact.

As part of the permit program, the project was also reviewed for compliance with Section 401 Water Quality Certification (WQC) as implemented by the Nebraska Department of Environmental Quality

(NDEQ). NDEQ grants WQC for NWP 14 in Eastern Saline Wetlands so long as there are no discharges into Category I wetlands. Because this project includes 0.077 acres of impact to Category I saline wetlands (Wetland 19), an individual WQC was required. The individual Section 401 WQC was issued 31 December 2018 (**Appendix D**).

Mitigation Measures.

- **Compliance with Section 404, Section 401, and Nebraska Title 117.** The County proposes to mitigate the 0.385 acres of unavoidable permanent wetland impacts at the City of Lincoln/Lancaster County Wetland Mitigation Bank. The bank was created to provide mitigation credits for City of Lincoln and Lancaster County projects. The bank, located in Section 26, Township 11 North, Range 7 East, Lancaster County, is approximately 6.5 miles southeast of the project (**Appendix A: Figure 11**). PSSA (Category IV), PEMA/PEMC (Category IV), and PEMA/PEMC (Category I) credits are available at the bank.

The County will debit a total of 0.519 credits from the bank ledger to mitigate for project impacts using the mitigation ratios presented in **Table 3**. Per Mitigation Guidelines for Nebraska's Eastern Saline Wetlands (1997), impacts to Category III saline wetlands (i.e., freshwater wetlands on saline soil) would be mitigated at a 1:1 ratio with Category I saline wetlands credits from the bank. However, the bank is assigned the Nebraska Wetland Subclass of floodplain depressions; therefore, Category III saline wetland impacts that are out-of-kind for subclass will be mitigated at a 2:1 ratio. Proposed mitigation will fully compensate for the unavoidable wetland and WOUS impacts for Section 404, Section 401, and Nebraska Title 117 requirements.

- **Compliance with EO 11990.** As implemented by NRCS for the WRP easement, the easement modification and replacement must minimize the destruction, loss or degradation of wetlands, and preserve and enhance the natural and beneficial values of wetlands. The County proposes to mitigate conversion from conservation use to transportation use (i.e., conversion impacts) on 0.208 acres of wetlands within the WRP modification area by transferring 0.425 acres of wetlands on 1.25 acres of replacement mitigation land on an adjacent parcel of Helmuth Marsh to the WRP easement. Additionally, the approximate 0.104 acres of wetlands permanently impacted on the WRP modification area is included in the proposed compensatory mitigation required for issuance of the Section 404 permit (see above bullet).
- **Other Mitigation Measures and Best Management Practices (BMPs).** Agency coordination conducted in 2012, 2018, and 2019 with the Service, USACE, NGPC, Lower Platte South Natural Resource District, City of Lincoln Watershed Management Department, and Nebraska State Historical Society indicated support for the project and resulted in the following environmental conservation measures and BMPs to be incorporated into the project to avoid or minimize impacts to natural resources:
 1. The County will include Special Provisions in the Construction Contract for the project prohibiting night time work.
 2. The County will include Special Provisions in the Construction Contract prohibiting the Contractor from using machinery in the waters of Little Salt Creek. No low water stream crossing/work platform will be allowed in the Little Salt Creek channel.
 3. The County will include Special Provisions in the Construction Contract prohibiting demolition/construction debris from entering the waters of Little Salt Creek. In addition, a

note has been added to the plans prohibiting the burial of debris from clearing and grubbing, demolition and construction operations on the project ROW.

4. The County will include Special Provisions in the Construction Contract for the placement of 6 inches of native soil cover on rip rap (with the exception of rip rap downstream of weir) and seeding above the historical ordinary high water mark or approximately three feet above the existing channel flow, whichever is greater.
5. The County will acquire the services of a qualified scientist to survey the project prior to construction. A written report of the findings will be prepared should migratory birds, threatened and endangered species, or bald or golden eagles be discovered. The County will immediately contact the Service and NGPC for further consultation if any of the above are discovered.
6. The County will consult with Nebraska Department of Transportation – Roadside Development and Compliance Division for recommendations for native seed mixtures in upland and wetland areas. Lancaster County will incorporate these recommendations in the Specifications for the Construction Contract.
7. No machinery or construction equipment will be allowed on private property (or wetlands situated thereon) beyond the project ROW or easements. The prime contractor and subcontractors are not allowed to trespass on private property by the Specifications which are part of the construction contract.
8. The County will include Special Provisions in Easement Contracts with private landowners east of the bridge prohibiting the use of permanent easements for channel crossings. Permanent easements are permitted only for (1) construction of this project and (2) access by the Lower Platte South Natural Resource District (LPSNRD) or Lancaster County (and appointed assignors) for future maintenance activities associated with the channel grade stabilization structure.
9. The County will include Special Provisions in the Easement Contract with Pheasants Forever (west of the bridge) prohibiting the use of permanent easements for channel crossings. Permanent easements are permitted only for (1) construction of this project and (2) access by Lancaster County (and appointed assignors) for future maintenance activities associated with channel stabilization and the drop structure.

With implementation of mitigation and BMPs, adverse wetland impacts are considered minor and long-term and the Preferred Action Alternative would have no significant impact on wetlands and WOUS.

3.2.3 Threatened and Endangered Species

Federally listed endangered and threatened species are protected under the Endangered Species Act of 1973 as amended (16 USC 1531 et seq.). Adverse effects to a federally listed species or its habitat would require consultation with the Service under Section 7 of the Endangered Species Act. Section 7 of the Endangered Species Act of 1973, as amended, requires federal agencies to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of proposed, threatened, or endangered species or result in the destruction or adverse modification of their critical habitat. State listed endangered and threatened species are protected under the Nebraska Nongame and Endangered Species Conservation Act, administered by NGPC.

Existing Conditions. Based on an assessment of known ranges for threatened and endangered (T&E) species using Service and NGPC resources, there are four state or federally listed species that could

occur in the project area (**Table 4**). Each species and the potential for suitable habitat is described below. None of the species have known occurrences or potential habitat in the project limits. Effect determinations are summarized in **Table 5** and are explained in the following sections.

TABLE 4: STATE OR FEDERALLY LISTED THREATENED AND ENDANGERED SPECIES

COMMON NAME	SCIENTIFIC NAME	STATE STATUS	FEDERAL STATUS	POTENTIALLY PRESENT?
Saltwort	<i>Salicornia rubra</i>	E	-	No
Western prairie fringed orchid	<i>Platanthera praeclara</i>	T	T	No
Northern long-eared bat (NLEB)	<i>Myotis septentrionalis</i>	T	T	Yes
Salt Creek tiger beetle (SCTB)	<i>Cicindela nevadica lincolniana</i>	E	E	No

T = Threatened, E = Endangered

TABLE 5: THREATENED AND ENDANGERED SPECIES EFFECT DETERMINATIONS

COMMON NAME OR HABITAT	EFFECT DETERMINATION	REASON FOR DETERMINATION
Saltwort	No Effect	No known occurrences. Suitable habitat is not present.
Western prairie fringed orchid	No Effect	No known occurrences. Suitable habitat is not present.
Northern long-eared bat (NLEB)	May affect, Not Likely to Adversely Affect	The presence of individual trees with ≥ 3 inches diameter at breast height (dbh) could provide suitable habitat.
Salt Creek tiger beetle (SCTB)	No Effect	No known occurrences. Suitable habitat is not present.
Critical habitat for SCTB	May affect, Not Likely to Adversely Affect	Modifications to areas of designated critical habitat, as part of this project, would stabilize the depth to the water table, reduce the slope of the channel banks, and benefit potential SCTB habitat in and beyond the project limits.

Saltwort. Saltwort has a narrow habitat range within the saline wetlands of Eastern Nebraska where it occurs on moist, saturated clay mudflats. Saltgrass and seablite are generally the only two species that grow in association with saltwort. In these areas, the water table is generally within 3 feet of the surface. High soil salinity levels and lack of soil aeration due to heavy clay and water content generally inhibits other plants from growing in this wetland association.

The area of saline wetlands identified northeast of the F-88 bridge has very little open habitat. During the July 2018 wetland delineation, a small mudflat (less than a 12 ft² area) with seablite and spearscale was observed within the project limits; however, no saltwort or other mudflats were observed. Furthermore, no saltwort or mudflats were observed adjacent to the project limits. Based on a review of historical aerial imagery and discussion with a board member of the Capital City Horse & Pony Club, the area northeast of the F-88 bridge is hayed annually. Therefore, there is no suitable habitat for saltwort within or adjacent to the project limits.

Western Prairie Fringed Orchid. In eastern Nebraska, suitable habitat for the western prairie fringed orchid consists of wet-mesic prairies and sedge meadows along floodplains, which are generally sub-irrigated by near-surface groundwater that provides a reliable source of water. The mesic prairie located around a drainage swale northwest of the F-88 bridge occurs on saline soils which would not be suitable for the western prairie fringed orchid.

Northern Long-eared Bat. The project limits are within the northern long-eared bat (NLEB) range and White Nose Syndrome (WNS) zone. Winter hibernacula habitat is generally limited to caves and mines;

No habitat for winter hibernacula is present within the project limits. Suitable summer roosting habitat for the NLEB consists of live or dead trees with snags, and crevices or hollows that are within 1,000 feet or adjacent to wooded habitat. There is not suitable wooded habitat within or adjacent to the project limits that could provide summer roosting habitat for NLEB; however, the presence of individual trees with ≥ 3 inches diameter at breast height (dbh) could provide suitable habitat. There are no known hibernacula sites or maternity roost tree(s) within a 1/4 mile of the project area at this time.

Salt Creek Tiger Beetle and Critical Habitat. The Salt Creek tiger beetle (SCTB) is native to saline wetlands in the Salt Creek watershed. Suitable habitat for SCTB consists of remnant saline wetlands on exposed mudflats along the banks of streams and seeps that contain salt deposits. Moist, saline, open flats are necessary for thermoregulation, reproduction, and foraging. Critical habitat for SCTB is designated along several segments of Little Salt Creek from its confluence with Salt Creek to approximately 8 miles upstream. Within the project limits, critical habitat for SCTB is mapped as a 137-foot buffer around the creek (Appendix A: **Figure 12**).

The project area was examined in 2002 by Stephen Spomer (University of Nebraska-Lincoln Department of Entomology) who found no suitable habitat for SCTB (**Appendix E**). The project area was re-examined in late June 2018 by entomologist Jessica Jurzenski, PhD, who also found the area lacking suitable habitat for SCTB and lacking adults or larval burrows of the SCTB. The banks of Little Salt Creek within the project limits are heavily vegetated and do not have “exposed mudflats associated with saline wetlands or exposed banks and islands of streams and seeps that contain adequate soil moisture and soil salinity” which are considered to be the primary constituent elements of the designated critical habitat and core habitat for the SCTB (§17.95 of 50 Code of Federal Regulations [CFR] Part 17, Volume 79, Number 87). Therefore, there is no suitable habitat for SCTB within or adjacent to the project limits.

While identified as critical habitat, the segment of Little Salt Creek within the project limits does not have the primary constituent elements characteristic of designated critical habitat and core habitat for the SCTB. The definition of SCTB critical habitat also indicates that “manmade structures (such as buildings, aqueducts, runways, roads and other paved areas) and the land on which they are located existing within the legal boundaries on June 5, 2014” are not included in critical habitat.

Impacts of the Preferred Action Alternative. The Preferred Action would remove individual trees potentially suitable for NLEB roosting. The Preferred Action would not impact any other threatened or endangered species because there are no known occurrences or suitable habitat within the project limits.

While currently there is no suitable habitat for the SCTB in the area of designated critical habitat within the project limits, construction of the weir and drop structure would stabilize the depth to the water table and benefit potential SCTB habitat in and beyond the project limits. Areas of the channel bank would be cleared of vegetation and graded to reduce the slope to accommodate installation of the new bridge, weir, and drop structure. These activities would create exposed banks, a preferred habitat for SCTB. Overall, project modifications would improve the designated critical habitat to better serve its intended conservation role for SCTB.

Impacts of the No Action Alternative. With No Action, there would be no disposal of Section 6 and SWG funded property, no modification of WRP easement, no construction of the bridge or stream stabilization features, and no improvements to the existing habitat, which is not suitable for SCTB. As such, there would be no direct impacts to threatened and endangered species or their habitat—resulting in a No Effect determination for with the No Action Alternative. While there would be no

bridge construction in the near term, the County could invoke their power of condemnation for matters of ensuring public safety—resulting in a comparable project at some point in the future.

Concurrences from NGPC (25 June 2012 and 28 November 2018) and from the Service (25 June 2012 and 12 June 2019) are found in **Appendix E**.

Mitigation Measures.

- Coordination conducted in 2012 and 2019 with the Service, NGPC, Lower Platte South Natural Resource District, City of Lincoln Watershed Management Department, USACE, and Nebraska State Historical Society indicated support for the project and resulted in concurrence of a list of environmental conservation measures and BMPs to be incorporated into the project to avoid or minimize impacts to natural resources (see **Section 3.2.2**).
- Tree removal will not occur from June 1 through July 31, which corresponds to the maternity roost season for NLEB. If the County proposes tree removal during this time period, the County must submit a request to the USACE Nebraska Regulatory Office (NRO). The NRO will coordinate this request with the Service for concurrence (including a copy to NGPC) and NLEB surveys may be required. For purposes of this conservation measure, "tree removal" is defined as cutting down, harvesting, destroying, trimming, or manipulating in any other way the trees, saplings, snags, or any other form of woody vegetation likely to be used by NLEB, as defined by the Final 4(d) Rule published on February 15, 2016.
- Tree removal will NOT occur within 0.25-mile of known NLEB hibernacula at any time of the year.
- The County will send the proposed post-construction seed mixture list to NGPC for review prior to seeding, as recommended by NGPC for the purposes of habitat management.

With implementation of mitigation and BMPs, the Preferred Action Alternative may affect, but is not likely to adversely affect NLEB or designated critical habitat for the SCTB, and the Preferred Action Alternative would have no effect on any other state or federally listed threatened or endangered species.

3.2.4 Protected Birds

The Service and NGPC regulate compliance relative to the Bald and Golden Eagle Protection Act (BGEPA), Migratory Bird Treaty Act (MBTA), and Nebraska Revised Statute §37-540. Bald and golden eagles have specific protection under the BGEPA, administered by the Service. This act prohibits the "taking" or possession of bald or golden eagles or their parts, feathers, nests, or eggs. The BGEPA also protects bald and golden eagles from disturbances that may interfere with their normal behavior or cause abandonment of nests. MBTA prohibits, unless permitted by regulations, pursuing, hunting, taking, capturing, killing, or attempting to do the same to any migratory bird included in the Service migratory bird list. The Nebraska Revised Statute §37-540 prohibits take and destruction of nests or eggs of protected birds. Construction activities in grassland, wetland, stream, woodland, and river bank habitats that would result in impacts on birds, their nests or eggs protected under these laws should be avoided.

Existing Conditions. An assessment was conducted to determine if there would be potential effects to bald or golden eagles and other protected birds. Birds of particular concern likely to occur within and near the project limits, according to NGPC and Service resources, are red-headed woodpecker (*Melanerpes erythrocephalus*), Henslow's sparrow (*Ammodramus henslowii*), buff-breasted sandpiper (*Tryngites subruficollis*), wood thrush (*Hylocichla mustelina*), loggerhead shrike (*Lanius ludovicianus*), greater prairie-chicken (*Tympanuchus cupido*), American bittern (*Botaurus lentiginosus*), Bell's vireo

(*Vireo bellii*), sedge wren (*Cistothorus platensis*), bobolink (*Dolichonyx oryzivorus*), Hudsonian godwit (*Limosa haemastica*), lesser yellowlegs (*Tringa flavipes*), and bald eagles (*Haliaeetus leucocephalus*).

Bald eagles use mature, forested riparian areas near waterways and wetlands near major river systems or large bodies of water; there is no suitable habitat for bald eagles within 0.5 miles of the project limits. Golden eagles use prairie habitats in the western part of Nebraska; there is no suitable habitat for golden eagles in the project area. Cliff swallows (*Petrochelidon pyrrhonota*) were observed using the bridge substructure for nesting in July 2018. Other protected birds could utilize habitat within the project limits for roosting, nesting, feeding, or perching habitat. The primary nesting season for sedge wrens, cliff swallows, and other migratory birds is from April 1 to September 30.

Impacts of the Preferred Action Alternative. The Preferred Action would have the potential to result in incidental ‘take’ of protected birds. Construction activities that could adversely affect protected birds or their nests consist of clearing and grubbing of herbaceous vegetation and trees, and bridge removal.

Impacts of the No Action Alternative. With No Action, there would be no disposal of Section 6 and SWG funded property, no modification of WRP easement, no construction of the bridge or stream stabilization features, and no direct impacts to protected birds. While there would be no bridge construction disturbances to protected birds in the near term, the County could invoke their power of condemnation for matters of ensuring public safety—resulting in a comparable project at some point in the future.

Mitigation Measures.

- Clearing and grubbing of vegetation in areas of suitable habitat will be avoided during the primary nesting season for sedge wrens, cliff swallows, and other migratory birds (April 1 to September 30). If clearing of vegetation cannot be avoided during these periods, then a qualified biologist will conduct a pre-construction survey to determine the presence or absence of breeding birds and their nests.
- Bridge removal will avoid the primary nesting season to avoid ‘take’ of cliff swallows or will implement avoidance measures, such as exclusion netting, prior to the nesting season to discourage nesting.
- If a survey identifies nesting raptors or migratory birds before or during construction, then the County would halt pending construction operations and contact NGPC and the Service for further consultation.

With implementation of mitigation and BMPs, adverse impacts would be minor and short-term, and the Preferred Action Alternative would have no significant impact on protected birds.

3.2.5 Floodplains

Floodplains consist of the relatively flat land along one or both sides of a stream channel. EO 11988, Floodplain Management Guidelines, 24 May 1977, outlines the responsibilities of Federal agencies in the role of floodplain management. Each agency is required to evaluate the potential effects of actions on floodplains and should avoid undertaking actions that directly or indirectly support floodplain development. Floodplain protection is important because it reduces the risk of flood loss; minimizes the impact of floods on human safety, health and welfare; and restores or preserves the natural and beneficial functions served by floodplains.

Floodways and the base floodplain are generally designated on Federal Emergency Management Agency Flood Insurance Rate Maps. A base flood is defined as a flood which has a 1-percent chance of

occurrence in any given year (also known as a 100-Year flood). The base floodplain corresponds to several Special Flood Hazard Areas, such as zones A, AH, or AE, and includes floodway. Floodways are land areas that must be reserved in an open manner, unconfined or unobstructed either horizontally or vertically to provide for the discharge of the base flood so the cumulative increase in water surface elevation from encroachment does not exceed one foot as set by the National Flood Insurance Program.

Existing Conditions. The 100-year floodplain and floodway of Little Salt Creek occur within the Project Limits (as depicted on floodplain map panel numbers 31109C0179G and 31109C0187G, **Appendix F**). The channel banks are typically incised with steep banks which has disconnected areas of the channel from the floodplain. An erosional feature/head-cut is located northwest of the bridge and there are at least three similar erosional features on the southwest bank of Little Salt Creek. These erosional features are encroaching into the floodplain located on Helmuth Marsh.

Impacts of the Preferred Action. The Preferred Action Alternative would require work in the 100-year floodplain and floodway of Little Salt Creek but would not raise the 100-year water surface elevation (**Appendix F**). Work in the floodplain consists of:

- grading and fill activities for removal of the existing bridge and construction of the new bridge;
- grading, installation of a sheet pile and rip rap weir to stabilize stream grade elevation and prevent channel incision from progressing upstream;
- construction of an access drive turn-off;
- installation of a double broken back culvert to arrest further head cutting in the existing erosional feature northwest of the bridge; and
- shoulder grading and reconstruction of roadway ditches.

The Preferred Action would have beneficial impacts to the floodplain by stabilizing the channel, reducing headcutting and maintaining the connection between the channel and floodplain. The enrollment of the proposed WRP mitigation area into a permanent easement would be compatible with and beneficial to the existing floodplain condition. The project would not induce development in the floodplain.

Impacts of the No Action Alternative. With No Action, there would be no disposal of Section 6 and SWG funded property, no modification of WRP easement, no construction of the bridge or stream stabilization features, and no adverse direct impacts to floodplain. Without stream stabilization measures, floodplain benefits would not be realized.

Permitting. A Floodplain Development Permit will be obtained from Lancaster County/City of Lincoln prior to construction to certify that the project would not raise the 100-year water surface elevation.

Mitigation Measures. None required.

Adverse impacts to the Little Salt Creek floodplain are considered minor and short-term with long-term beneficial impacts (unknown magnitude); the Preferred Action Alternative would have no significant impact on floodplain.

3.2.6 Water Quality

Water Quality is regulated under the Federal Water Pollution Control Act Amendments of 1972. The objective is to restore and maintain the chemical, physical, and biological integrity of the nation's waters by preventing point and non-point pollution sources, providing assistance to publicly owned treatment works for the improvement of wastewater treatment, and maintaining the integrity of wetlands. Protection of water quality is important because of the need for a reliable drinking water supply, for swimming and recreating, for fish and shellfish consumption, for adequate agricultural supply, for

habitat for fish and wildlife, and other beneficial uses. Clean water is pivotal in the protection of human health and the environment.

Each individual state has jurisdiction for managing water quality in its respective state. Section 303(d) of the CWA requires each state to evaluate water quality conditions in designated water bodies and list as impaired any water bodies not meeting water quality standards; this is to be reported every other year. The 2018 NDEQ Water Quality Integrated Report lists five categories to present information on the Section 303(d) finding. Category 5 waterbodies have one or more beneficial uses that are determined to be impaired by one or more pollutants and all of the total maximum daily loads (TMDLs) have not been developed. Category 5 waters constitute the Section 303(d) list subject to US Environmental Protection Agency (EPA) approval/disapproval.

Existing Conditions. Little Salt Creek is listed as Category 5 in the 2018 Water Quality Integrated Report as impaired for aquatic life and overall assessment. The listed impairments for aquatic life are copper and ammonia. Little Salt Creek is listed with 'supported beneficial use' for aesthetics.

Impacts of the Preferred Action Alternative. The Preferred Action Alternative would require clearing and grubbing of vegetation, grading, and soil disturbance in areas of Little Salt Creek within the project limits and along North 14th Street. There would also be work in the channel and floodplain of Little Salt Creek due to shaping of the channel banks to accommodate the bridge replacement and installation of the grade stabilization structure and double broken back culvert. Temporary cofferdams and dewatering operations may be necessary to accommodate construction of bridge piers; however, no temporary work platforms or channel diversion structures would be allowed in the Little Salt Creek channel.

Construction activities can result in water quality impacts from soil erosion and sedimentation from removal of vegetation or from spillage of contaminants into waterways. Construction is not anticipated to introduce a substantial amount of organic material or nutrients because fill material will consist of natural embankment material, geo-textile, and quarried stone.

The Preferred Action will also provide long-term beneficial impacts to the water quality of Little Salt Creek by implementing stabilization measures to reduce bank erosion which can exacerbate turbidity and sedimentation.

Impacts of the No Action Alternative. Under the No Action Alternative, there would be no disposal of Section 6 and SWG funded property, no modification of WRP easement, no construction of the bridge or stream stabilization features, and no adverse direct impacts to water quality. Without stream stabilization measures, water quality benefits would not be realized.

Permitting. The County will acquire a National Pollutant Discharge Elimination System (NPDES) Permit from NDEQ and develop a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP includes both a Temporary and Permanent Erosion Control and Sedimentation Plan. These plans identify how the contractor will address both storm water and non-storm water pollution. The temporary plan will identify the use of spill kits among other techniques to control non-storm water pollution.

As described in **Section 3.2.2**, the County will obtain a USACE Section 404 permit prior to construction. General Conditions stipulated in this permit would be complied with, thereby minimizing adverse effects on water quality. Nationwide Permits are generally pre-certified by NDEQ for Section 401 Water Quality Certification. Because this project includes 0.077 acres of impact to Category I saline wetlands (Wetland 19), an individual WQC was required. The individual Section 401 WQC was issued 31 December 2018 (**Appendix D**).

Mitigation Measures.

- BMPs for erosion and sedimentation control would be applied to all upland soil disturbances and would be designed to avoid or minimize sedimentation. Erosion control measures would be used, including one or more of the following: barriers, erosion checks, inlet/outlet protection, mulching, post-construction erosion control, rolled erosion control, and vegetation. Construction related impacts to water quality would last only until vegetation is re-established. Contractors would be instructed to store all potential hazardous materials (gasoline, hydraulic fluids, etc.) in upland areas within confined berms to contain spills and prevent impacts to the surrounding environment.

The County will include the following special provisions in the construction contracts:

- The contractor will prohibit demolition/construction debris from entering the waters of Little Salt Creek. In addition, a note has been added to the plans prohibiting the burial of debris from clearing and grubbing, demolition and construction operations within the project ROW.
- All riprap placed, except for the bottom of channel downstream of weir, will be covered with 6 inches of native soil cover and seeded above the historical ordinary high water mark or approximately three feet above the existing channel flow, whichever is greater.
- The contractor will be prohibited from using machinery in the waters of Little Salt Creek. No low water stream crossing/work platform will be allowed in the Little Salt Creek channel.

With implementation of mitigation and BMPs, adverse impacts on the water quality of Little Salt Creek are considered minor and short-term with long-term beneficial impacts (unknown magnitude), and the Preferred Action Alternative would have no significant adverse impact on water quality.

3.2.7 Farmland

The Farmland Protection Policy Act of 1981 (FPPA) (7 CFR 658) outlines guidelines for federal agencies to account for any negative effects on farmland and develop alternatives that would avoid or mitigate such negative effects. Farmland is defined as “prime or unique farmlands” or “farmland of statewide or local importance,” and includes land not currently used for farming.

Natural Resources Conservation Service (NRCS) Form CPA-106 (Farmland Conversion Impact Rating) for corridor type projects is used to score the relative value of the site. This Corridor Assessment evaluates a variety of impact categories, including the existing and future farming conditions, the types of surrounding land uses, the comparable size of the farm unit being converted, and the local or state protections provided for farming. For FPPA-regulated farmland, a threshold limit of 160 points determines if further action is necessary.

Existing Conditions. Prime farmland was identified using the NRCS Soil Survey for Lancaster County; all soils classified as prime farmland, farmland of statewide importance, or prime farmland if drained were considered prime farmland. According to the NRCS Soil Survey for Lancaster County, two soils located south of the bridge are designated as prime farmland.

Impacts of the Preferred Action Alternative. The Preferred Action Alternative would convert approximately 2 acres of prime farmland to transportation use and grassed ROW. The Natural Resources Conservation Service has determined that the Preferred Action is cleared of significant concerns under the Farmland Protection Policy Act (**Appendix G**).

Impacts of the No Build Alternative. With the No Build Alternative, there would be no disposal of Section 6 and SWG funded property, no modification of WRP easement, no construction of the bridge or stream stabilization features, and no impact on farmland.

Mitigation Measures. None required.

Adverse impacts to prime farmland would be considered negligible; the Preferred Action Alternative would have no significant impact on floodplain.

3.2.8 Terrestrial Habitats

Terrestrial habitats are protected through Section 906 of the Water Resources Development Act of 1986 and Fish and Wildlife Coordination Act of 1958, as amended. Terrestrial habitat is important for supporting a variety of species of plants and wildlife. In addition, the public places a high priority on its aesthetic, recreational, and commercial values.

Existing Conditions. Terrestrial habitats in the project vicinity include grassed ROW dominated by smooth brome (see **Section 3.1.3**), pasture land and cropland (see **Section 3.2.7**), wetlands (see **Section 3.2.2**), hayed prairies, and a windbreak consisting of double-row of eastern red cedar trees (*Juniperus virginiana*). These habitat types are described in other sections of this document with the exception of hayed prairies and trees. Hayed prairies occur northeast of the F-88 bridge on the Capital City Horse & Pony Club property and south of Helmuth Marsh on private property (see **Section 3.1.3**). The windbreak is located along the west side of North 14th Street beginning approximately 475 feet of south Little Salt Creek and extending south approximately 350 feet. Other scattered trees are found in various habitats west of North 14th Street.

Impacts of the Preferred Action Alternative. Most construction activities would occur on previously disturbed areas within the existing ROW. Approximately 35 eastern red cedar trees occur within the limits of construction and would be removed as part of the clearing and grubbing. Remaining portions of the windbreak would be left intact.

Approximately 0.33 acres of hayed prairie northeast of the bridge and 0.06 acres of upland hayed prairie southwest of the bridge would be impacted by clearing and grubbing.

Impacts of the No Action Alternative. With the No Build Alternative, there would be no disposal of Section 6 and SWG funded property, no modification of WRP easement, no construction of the bridge or stream stabilization features, and no impact on terrestrial habitat.

Mitigation Measures.

- BMPs for erosion control would include revegetation with a native seeding mix. Although the tree removals would have a long-term impact, eastern red cedar is considered an invasive species in Lancaster County.

With implementation of mitigation and BMPs, adverse impacts are considered minor and short-term and the Preferred Action Alternative would have no significant adverse impact on terrestrial habitat.

3.2.9 Invasive Species

Invasive species are defined as non-native species that negatively affect the economy, environment, or human health where they establish. Noxious weeds are invasive plant species that are monitored because of their tendency to degrade natural ecosystems and native plant communities. EO 13112, Invasive Species (64 FR 6183), directs federal agencies to prevent the introduction of invasive species and promote their control to minimize adverse economic, ecological, and human health impacts that

invasive species cause. Lists of invasive species relevant to Nebraska, including established invasive species, can be accessed using the Nebraska Invasive Species Program website (<https://neinvasives.com/species>).

Existing Conditions. No noxious weeds were identified during field investigations conducted in June and July 2018. Established invasive plant species identified in the Project Limits consisted of Russian olive (*Elaeagnus angustifolia*), eastern red cedar, smooth brome, and intermediate wheatgrass. No other invasive species were identified or are thought to be present in the Project Limits.

Impacts of the Preferred Action Alternative. The Preferred Action Alternative would require clearing and grubbing of existing vegetation within the limits of construction. Vehicles and construction equipment brought into the area could potentially facilitate the spread and establishment of invasive species. Cleared land with bare soil may be more susceptible to colonization by invasive or noxious plants.

Impacts of the No Build Alternative. With the No Build Alternative, there would be no disposal of Section 6 and SWG funded property, no modification of WRP easement, no construction of the bridge or stream stabilization features, and no introduction or spread of invasive species.

Mitigation Measures.

- BMPs for weed control would be implemented to minimize introduction of invasive species from construction activities. This would include that all construction equipment be required to be cleaned and free of soil and vegetative debris that may contain invasive species' seeds. Disturbed areas would be seeded with a native seed mixture to minimize the likelihood that invasive plants would become established on disturbed soils.

With implementation of mitigation and BMPs, minor and potentially long-term risks would be reduced to a negligible level and the Preferred Action Alternative would have no significant impact on the introduction and spread of invasive species.

3.2.10 Hazardous Materials

The term hazardous materials is an all-inclusive term for materials regulated as solid waste, hazardous waste, and other wastes contaminated with hazardous substances, radioactive materials, petroleum fuels, toxic substances, and pollutants.

Existing Conditions. Based on a review of the NDEQ and EPA online databases, no regulated sites with spills, leaks or clean-up projects occur in the project area. Additionally, review of Google Earth aerial photography indicated no evidence of hazardous materials concerns. Asbestos containing materials (ACM) are not likely present because the bridge structure is comprised of only steel, concrete, brick, or wood.

Per NRCS requirements for the WRP modification request, FHU performed a Limited Phase I ESA, in general conformance with the scope and limitations of ASTM E1527-13, for the WRP modification and proposed WRP mitigation areas. These areas were evaluated for recognized environmental conditions (RECs) by reviewing maps and literature, environmental records available from local, state, and federal government agencies, and aerial photography. Based on the Limited Phase I ESA findings, no RECs, historical recognized environmental conditions (HRECs), or controlled recognized environmental conditions (CRECs) were identified within the search radius (**Appendix H**).

A visual reconnaissance conducted by FHU on 2 July 2018 identified paint on the bridge which could be lead-based. No obvious evidence of other potential contamination sources was observed.

Impacts of the Preferred Action Alternative. The Preferred Action Alternative would remove the existing steel bridge.

Lead-based paint may potentially be found on the painted components of Structure Number C55-F-88. If found on the bridge, special handling would be required during disposal of the bridge.

Impacts of the No Build Alternative. With the No Build Alternative, there would be no disposal of Section 6 and SWG funded property, no modification of WRP easement, no construction of the bridge or stream stabilization features, and no impact on potentially hazardous materials.

Mitigation Measures. Project specifications would include the following requirements for the contractor:

- If contaminated soils and/or water or hazardous materials are encountered, then all work within the immediate area of the discovered hazardous material would stop until NDEQ is notified and a plan to properly dispose of the contaminated materials has been developed. Additionally, the potential exists for introduction of contaminants from minor spillage during fueling and service associated with construction equipment. Should contamination be found on the project during construction, the NDEQ would be contacted for consultation and appropriate actions be taken. Then, if necessary, a remediation plan would be developed for this project.
- If the contractor's method of removal of the bridge components generates paint debris, the waste shall be handled in accordance with Title 128, Nebraska Hazardous Waste Regulations. Extreme caution shall be taken to minimize the amount of potential lead-based painted material or debris from causing or threatening to pollute the air, land, and waters of the State. The contractor shall recycle any lead plates on Structure Number C55-F-88 at a legitimate recycling facility in accordance with Title 128, Nebraska Hazardous Waste Regulations.
- The contractor shall submit the NESHAP Notification of Demolitions and Renovation to NDEQ at least 10 working days prior to commencement of any demolition activities. The ten-day clock starts with the day the Notification is postmarked, hand delivered (includes submittals by email notification) or picked up by a commercial delivery service, such as UPS, FedEx, etc. Faxing documents is prohibited. The County engineer shall be provided copies of said notifications and their submittal date.

With implementation of mitigation and BMPs, the Preferred Action Alternative would have negligible impacts associated with hazardous materials. Potential adverse impacts from lead-based paint are considered *de minimis*. The Preferred Action Alternative would have no significant impacts associated with hazardous materials.

3.2.11 Cultural Resources

Existing Conditions. Based on a review by the Nebraska State Historical Society (NeSHPO), there no recorded historic resources or historic resource surveys in the project area (letters dated 21 March 2012 and 13 November 2018) (**Appendix I**).

Impacts of the Preferred Action Alternative. The Preferred Action Alternative would have no impact on historic properties or other cultural resources.

Impacts of the No Build Alternative. With the No Build Alternative, there would be no disposal of Section 6 and SWG funded property, no modification of WRP easement, no construction of the bridge or stream stabilization features, and no impact on cultural resources.

Mitigation Measures.

- In the event of an unanticipated discovery of cultural resources or archeological remains, work would be halted immediately, and a qualified archeologist would be notified. The work would not continue until the area is inspected by a qualified archeologist. If he or she determines that the discovery requires further consultation, the NeSHPO Office would be notified.

With implementation of mitigation and BMPs, the Preferred Action Alternative would have no impacts to cultural resources.

3.2.12 Environmental Justice

EO 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations, directs federal agencies to incorporate environmental justice in their decision-making process. Federal agencies are directed to identify and address, as appropriate, any disproportionately high and adverse environmental effects of their programs, policies, and activities on minority or low-income populations.

Existing Conditions. The percentage of minorities or low-income populations within or adjacent to the Project Limits are below the average for Lancaster County as a whole.

Impacts of the Preferred Action Alternative. There are no minority, low-income, or other protected populations within or adjacent to the project limits. The bridge replacement would have positive impacts by equally benefiting people of all socioeconomic conditions and ethnic backgrounds using the road.

Impacts of the No Build Alternative. With the No Build Alternative, there would be no disposal of Section 6 and SWG funded property, no modification of WRP easement, no construction of the bridge or stream stabilization features, and no impact on minority or low-income populations.

Mitigation Measures. None required.

The Preferred Action Alternative would have no impacts on minority or low-income populations.

3.2.13 Air Quality

Air quality is protected under the Clean Air Act of 1963, as amended (CAA). National Ambient Air Quality Standards (NAAQS) developed by the Environmental Protection Agency (EPA) define thresholds of pollutants to protect the environment and public health. Counties where the levels of a particular pollutant exceed EPA standards are considered in “non-attainment”.

The six principal pollutants, also known as “criteria” pollutants, are: ozone, lead, particulate matter (PM), carbon monoxide, nitrogen dioxide, and sulfur dioxide. PM-10 (10 micrometers in size) includes dust, dirt, soot, smoke and liquid droplets directly emitted into the air by sources such as construction activity and natural windblown dust. Mobile Source Air Toxics (MSATs), which are primarily organic chemicals regulated by the EPA, are associated with vehicular emissions.

Existing Conditions. Currently, there are no counties in non-attainment within the State of Nebraska.

Impacts of the Preferred Action Alternative. The Preferred Action Alternative would not increase the roadway capacity nor contribute to increased MSAT emissions; however, temporary increases in PM-10 contributions could result from the operation of heavy machinery, increases in dust in the project area during construction operations, and wind-blown particles stemming from stock-piled construction materials.

Impacts of the No Build Alternative. With the No Build Alternative, there would be no disposal of Section 6 and SWG funded property, no modification of WRP easement, no construction of the bridge or stream stabilization features, and no impact on air quality.

Mitigation Measures.

- BMPs to minimize PM-10 particles would be implemented during construction activities. These techniques may include, but would not be limited to, wetting the construction area to minimize dust, avoid idling of construction machinery when not performing needed tasks, and covering or mulching staging areas during or following construction activities.

With implementation of mitigation and BMPs, there would be a negligible increase in PM-10 contributions, Lancaster County would remain in attainment for all NAAQS, and the Preferred Action Alternative would have no significant impact on air quality.

3.2.14 Noise Pollution

Noise pollution is defined as unwanted sound that interferes with normal activities or in some way reduces the quality of the environment. The magnitude and frequency of ambient noise varies considerably depending on the amount of development in a given area. Noise sources in agricultural areas are predominately wind, wildlife, and agricultural equipment (tractors and combines). In urban areas, most noise comes from transportation, construction, industrial, and human sources.

Existing Conditions. Sources of noise for North 14th Street include traffic and agricultural practices. The most noise sensitive receptors along North 14th Street are residences near the road; however, there are no residences within 0.10 miles of the project limits.

Impacts of the Preferred Action Alternative. The Preferred Action Alternative would not increase the roadway capacity nor increase noise levels after construction is complete. Noise from construction machinery and workers would be temporary and similar to noise generated from agricultural activities. Construction noise may cause temporary displacement of common wildlife species; however, once construction activities are completed, wildlife will move back to the area.

Impacts of the No Build Alternative. With the No Build Alternative, there would be no disposal of Section 6 and SWG funded property, no modification of WRP easement, no construction of the bridge or stream stabilization features, and no impact on noise levels.

Mitigation Measures.

- BMPs for noise control (limiting construction to daylight hours only) would be implemented to reduce construction noise disturbances.

With implementation of mitigation and BMPs, there would be negligible increases in noise levels during construction; the Preferred Action Alternative would have no significant impact on noise.

3.3 INDIRECT AND CUMULATIVE IMPACTS

3.3.1 Indirect Impacts

Indirect impacts are those effects that are caused by the proposed action and are later in time or farther removed in distance, but are still reasonable and/or foreseeable.

Indirect Impacts of the Preferred Action Alternative. The Preferred Action Alternative would have no significant indirect impacts to relevant resources in the area.

Indirect Impacts of the No Action Alternative. With the No Build Alternative, there would be no disposal of Section 6 and SWG funded property, no modification of WRP easement, and no construction of the bridge or stream stabilization features. Erosional features west of the bridge would continue to advance into Helmuth Marsh property, encroaching on the natural floodplain and draining the wetland. Without stream grade elevation stabilization, channel incision would continue to progress upstream, reducing the natural connectivity of the floodplain and creek. Without the implementation of stream stabilization features and channel bank reshaping, no improvements to critical habitat for SCTB would be made.

Indirect impacts from not implementing the stream stabilization measures are expected to adversely affect Helmuth Marsh, a protected area, as well as wetlands and WOUS, floodplains, and water quality by allowing further degradation of the Little Salt Creek channel. These impacts are considered major and long-term.

3.3.2 Cumulative Impacts

Cumulative impacts on a particular resource may result from the incremental impacts that have occurred in the past, are occurring now, and are likely to occur in the future. The combination of these effects, and any resulting environmental degradation, is the focus of the cumulative impact analysis. Cumulative impact analysis is resource-specific and generally performed for environmental resources directly impacted by a federal action under study. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time. It is important to note that if a project has no direct or indirect impacts on a particular resource, then can have no cumulative impacts on the resource.

Cumulative Impact Study Area. This Cumulative Impact Study Area includes the Little Salt Creek Watershed. The watershed drains approximately 46 square miles from the headwaters north of West Ashland Road to the confluence with Salt Creek located southeast of I-80 at North 27th Street. The watershed is approximately 14 miles in length with a maximum width of about 5.5 miles.

Past Actions: The City of Lincoln was founded in 1856 as the Village of Lancaster and became the county seat of the newly created Lancaster County in 1859. The city was originally platted near Salt Creek, adjacent to saline wetlands located along the creek. Settlers and Native Americans, long before them, had gathered salt from the natural deposits for their own use or for barter. Settlers saw the potential wealth to be made from eastern Nebraska's salt basin. Commercial exploitation began in the late 1850s and the 'salt boom' continued into the 1880s. The City of Lincoln's population was 40,000 in 1900; 98,884 in 1950; and 258,379 in 2010. The Lancaster County population was 285,407 in 2010.

Salt Creek and its tributaries were channelized to lessen the probability of flooding, beginning with the Sanitary District Number 1 of Lancaster County in 1891. The adjacent saline wetlands were drained by head-cutting from channelization, ditching for agricultural production, and filling for landfills or development of the growing City of Lincoln.

Eastern saline wetlands were once estimated to be excess of 20,000 acres. Now less than 4,000 acres remain and many of these are degraded. These wetlands form a regionally unique wetlands complex located in the floodplain swales and depressions of the Salt Creek, Little Salt Creek, and Rock Creek drainages in Lancaster and southern Saunders Counties. Two endangered species occur in the saline wetlands: the Salt Creek tiger beetle and saltwort. The Salt Creek tiger beetle's population has been steadily declining over the past decades due largely to loss of habitat; it makes its home exclusively on the salt flats and moist side slopes along stream banks of Salt Creek and its tributaries. The beetle is

often used as an indicator species of a healthy saline wetland. The saltwort grows only in wet, saline or alkaline soils.

In 2003, a group of state and local agencies joined forces to establish the Saline Wetlands Conservation Partnership which has established an implementation plan to address the preservation of this special land and the needs of the community. Over the past decade the partnership has been actively purchasing properties and acquiring easements to protect saline wetlands, and their unique flora and fauna. The Saline Wetlands Conservation Partnership has approximately 3,900 acres of saline wetlands, freshwater wetlands, native prairie, and other associated upland habitat conserved through fee-title acquisitions or conservation easements along Salt Creek, Little Salt Creek, and Rock Creek (**Appendix A: Figure 13**).

Nearby County roadway projects completed in 2017 consist of the following relevant projects:

- Resurfacing North 14th Street from Raymond Road to Agnew Road, approximately 1 mile north of the Project Limits
- Grading on North 27th Street from approximately 1 mile south of Bluff Road to Waverly Road and a culvert replacement on a tributary of Little Salt Creek, approximately 1.5 miles downstream of the Project Limits

North 14th Street has remained a relatively busy County road for over a century as it is one of the few continuous and paved north-south roads connecting Lancaster and Saunders Counties.

Present Actions: In 2017, the population of Lincoln was 284,736 and the population of Lancaster County was 314,358. Land use in the Little Salt Creek watershed is primarily agricultural. However, the 2040 Lincoln/Lancaster County Comprehensive Plan (Comp Plan) identifies sensitive natural resources designated for protection along the Little Salt Creek drainage.

Future Actions: This portion of North 14th Street is shown in the 2040 Lincoln/Lancaster County Comprehensive Plan as Green Space and Environmental Resources (**Appendix J**). These areas occur outside of the future Tier I, II and III Priority Growth Areas included in the Comp Plan (with Tier III growth expected beyond 2060). Sensitive areas along the Little Salt Creek drainage, including Salt creek Tiger Beetle Habitat, are shown in white and are excluded from the identified growth areas. Based on initiatives in the Comp Plan, the presence of Little Salt Creek floodplain and floodway, as well as the presence of protected areas and license agreements to protect wetlands, it is unlikely that development would be permitted within sensitive areas.

The projected 2040 population estimate for Lincoln is over 412,000 persons (Comp Plan). As the city continues to grow, areas south and north of the project are likely to experience additional rural acreage development especially along the east-west section line roads or surrounding the City of Raymond. Average daily travel (ADT) is anticipated to increase from 3,703 vehicles in 2014 to 4,568 vehicles in 2034. The Comp Plan indicates that a four-lane divided road is not needed until a roadway exceeds 6,000 ADT; therefore, the current two-lane road configuration would remain adequate for the foreseeable future.

Nearby County roadway projects identified in the Comp Plan or the One and Six-Year Road and Bridge Construction Program for the County include the following relevant projects:

- resurfacing Raymond Road from North 14th Street to the Village of Raymond and a bridge replacement over Little Salt Creek, approximately 1.9 miles upstream of the Project Limits
- resurfacing North 14th Street from Arbor Road to Raymond Road, north and south of the Project Limits

- paving Waverly Road from Nebraska Highway 79 (N-79) to North 14th Street, approximately 2.5 miles south of the Project Limits
- replacing corrugated metal culverts on two unnamed tributaries of Little Salt Creek at North 14th Street between Waverly Road and Bluff Road.
- bridge improvements on three unnamed tributaries of Little Salt Creek at North 14th Street between Waverly Road and Arbor Road.

Assessed Resources. Although no adverse indirect impacts have been identified, the following resources are being assessed for cumulative impacts based on the minor adverse and long-term direct impacts of the bridge replacement:

- Protected Areas
- Wetlands and WOUS

Cumulative Impacts to Protected Areas: Since the project includes an appropriate ROW width for a 2-lane bridge and the future ADT is not anticipated to exceed 6,000 ADT, no additional ROW would be needed from Helmuth Marsh to widen North 14th Street within the foreseeable future.

Of the past and future roadway projects, the regrading of North 27th Street, paving of Raymond Road, and replacement of the F-88 bridge have impacts to the following protected areas:

- Frank Shoemaker Marsh is located west of North 27th Street and south of Bluff Road. This 160-acre property is owned by the City of Lincoln but was purchased using Service funding through the Wildlife and Sport Fish Restoration program. The North 27th Street project required 1.63 acres of the property for county road ROW. The area was acquired by the County following approval of the FONSI issued by the Service and reimbursement of Wildlife and Sport Fish Restoration funds.
- Little Salt Fork Marsh Preserve is located north of Raymond Road just west of North 1st Street. This 174.2-acre property is owned by LPSNRD. The Raymond Road project requires 0.10 acres of the property for a temporary easement during the proposed resurfacing of Raymond Road.
- Helmuth Marsh would be impacted by the Preferred Action Alternative. Plans include reimbursement of Pheasants Forever for the value of the required 0.59 acres located on the 119-acre property. Pheasants Forever would use the County funds to reimburse NGPC, and NGPC would then reimburse Section 6 and SWG. Conversion impacts from conservation use to transportation use would be mitigated at the WRP modification area by placement of 1.25 acres from an adjacent parcel into the WRP easement. Project plans include stabilization measures to improve wetland hydrology and habitat value on the Helmuth Marsh property, as well as along Little Salt Creek. These rehabilitation measures were identified in the Little Salt Creek Watershed Master Plan (2009) and Upper Little Salt Creek Saline Wetlands Plan (2015), respectively.

Cumulatively, the above roadway projects impact approximately 1.5 percent of the adjacent protected areas (Helmuth Marsh, Frank Shoemaker Marsh and Little Salt Fork Marsh Preserve), and approximately 0.15 percent of all the protected areas within the Little Salt Creek watershed. With reimbursements and other related impacts offset by mitigation, these cumulative impacts would be considered minor, although long-term.

With federal and state regulatory requirements and local land use protections, the Preferred Action Alternative, along with incremental impacts from past and future actions, will not cause significant cumulative impacts to protected areas.

Cumulative Impacts to Wetlands and WOUS: State and federal projects are mandated by law to mitigate wetland impacts to provide for no net loss of wetlands; these laws have been in effect for more than four decades. Nebraska State Title 117 requires mitigation of wetlands even in cases where the affected wetlands are not regulated under the jurisdiction of the USACE Section 404 permit program. Per USACE requirements, the approximately 0.385 acres of permanent wetland impacts on Helmuth Marsh (including the WRP modification area) will be offset by the purchase of 0.519 acres of wetland bank credits.

The proximity of the proposed road to saline wetlands, which are habitats of concern, suggests possible degradation over time from increased traffic and run-off. Since the roadway project includes the construction of grassed ditches and shoulders, all run-off would filter through these features which would serve as buffers to the nearby wetlands. Cumulative impacts to saline wetlands would not occur since the Preferred Action, as well as future construction projects, will utilize appropriate BMPs as required by state and federal regulations for NPDES permits.

With federal and state regulatory requirements and local land use protections, the Preferred Action Alternative, along with incremental impacts from past and future actions, will not cause significant cumulative impacts to wetlands and WOUS.

3.4 SUMMARY OF IMPACTS

Table 6 provides a summary of the resources evaluated for the Preferred Action and No Action Alternatives. Of the environmental resources reviewed, two were found to have minor adverse, long-term impacts (protected areas and wetlands and WOUS) and four were found to have minor adverse, short-term impacts (protected birds, floodplains, water quality, and invasive species). No significant indirect or cumulative impacts are anticipated.

With careful planning and implementation of mitigation and BMPs, adverse impacts would remain insignificant and beneficial impacts could occur for two resources (floodplains and water quality). The project design, as proposed, is the best option for the safety of the traveling public, for improvement of natural resources associated with Little Salt Creek, and for protection of the Helmuth Marsh property.

Table 6: SUMMARY OF IMPACTS AND MITIGATION BY ENVIRONMENTAL RESOURCE

ENVIRONMENTAL RESOURCE	NO ACTION ALTERNATIVE	PREFERRED ACTION ALTERNATIVE
Protected Areas and Publicly-Owned Land	<i>No Impact</i>	<p>No Significant Impact with Mitigation: Section 6 and SWG Funds. The County will reimburse Pheasants Forever for the value of the required 0.59 acres. Pheasants Forever will use the County funds to reimburse NGPC, and NGPC will then reimburse Section 6 and SWG funds. WRP. The County will coordinate with Pheasants Forever and NRCS to enroll the 1.25 acres replacement area into the WRP easement. The County will reimburse Pheasants Forever for the change in value from unencumbered to encumbered for the 1.25 acres. Pheasants Forever will use the County funds to reimburse NGPC, and NGPC will then reimburse Section 6 and SWG funds.</p>
Wetlands and WOUS	<i>No Impact</i>	<p>No Significant Impact with Mitigation: Compliance with Section 404, Section 401, and Nebraska Title 117. The County will mitigate 0.385 acres of unavoidable permanent wetland impacts at the City of Lincoln/Lancaster County Wetland Mitigation Bank. The County will debit 0.519 credits from the bank ledger following Mitigation Guidelines for Nebraska’s Eastern Saline Wetlands. Compliance with EO 11990. The County will transfer 0.425 acres of wetlands (on the 1.25-acre replacement land) to the WRP easement on Helmuth Marsh. Additionally, 0.104 acres of permanent wetland impacts on the WRP modification area will be offset by the purchase of wetland bank credits. Proposed mitigation will fully compensate for the unavoidable wetland and WOUS impacts for Section 404, Section 401, and Nebraska Title 117 requirements. Other Mitigation Measures and Best Management Practices (BMPs). Agency coordination conducted in 2012, 2018, and 2019 with the Service, USACE, NGPC, Lower Platte South Natural Resource District, City of Lincoln Watershed Management Department, and Nebraska State Historical Society indicated support for the project and resulted in the following environmental conservation measures and BMPs to be incorporated into the project to avoid or minimize impacts to natural resources:</p> <ul style="list-style-type: none"> • Lancaster County will include Special Provisions in the Construction Contract for the project prohibiting night time work. • Lancaster County will include Special Provisions in the Construction Contract prohibiting the Contractor from using machinery in the waters of Little Salt Creek. No low water stream crossing/work platform will be allowed in the Little Salt Creek channel. • Lancaster County will include Special Provisions in the Construction Contract prohibiting demolition/construction debris from entering the waters of Little Salt Creek. In addition, a note has been added to the plans prohibiting the burial of debris from clearing and grubbing, demolition and construction operations on the project ROW. • Lancaster County will include Special Provisions in the Construction Contract for the placement of 6 inches of native soil cover on rip rap (with the exception of rip rap downstream of weir) and seeding above the historical ordinary high water mark or approximately three feet above the existing channel flow, whichever is greater. • Lancaster County will acquire the services of a qualified scientist to survey the project prior to construction. A written report of the findings will be prepared should migratory birds, threatened and endangered species, or bald or golden eagles be discovered. Lancaster County will immediately contact the Service and NGPC for further consultation if any of the above are discovered. • Lancaster County will consult with Nebraska Department of Transportation – Roadside Development and Compliance Division for recommendations for native seed mixtures in upland and wetland areas. Lancaster County will incorporate these recommendations in the Specifications for the Construction Contract. • No machinery or construction equipment will be allowed on private property (or wetlands situated thereon) beyond the project ROW or easements. The prime contractor and subcontractors are not allowed to trespass on private property by the Specifications which are part of the construction contract. • Lancaster County will include Special Provisions in Easement Contracts with private landowners east of the bridge prohibiting the use of permanent easements for channel crossings. Permanent easements are permitted only for (1) construction of this project and (2) access by the Lower Platte South Natural Resource District (LPSNRD) or Lancaster County (and appointed assignors) for future maintenance activities associated with the channel grade stabilization structure.

		<ul style="list-style-type: none"> Lancaster County will include Special Provisions in the Easement Contract with Pheasants Forever (west of the bridge) prohibiting the use of permanent easements for channel crossings. Permanent easements are permitted only for (1) construction of this project and (2) access by Lancaster County (and appointed assignors) for future maintenance activities associated with channel stabilization and the drop structure.
Threatened and Endangered Species	No Effect	<p>May Affect, but Not Likely to Adversely Affect Northern Long-Eared Bat or Designated Critical Habitat for Salt Creek Tiger Beetle with Mitigation; No effect for other listed T&E Species:</p> <ul style="list-style-type: none"> Coordination conducted in 2012 and 2019 with the Service, NGPC, Lower Platte South Natural Resource District, City of Lincoln Watershed Management Department, USACE, and Nebraska State Historical Society indicated support for the project and resulted in concurrence on a list of environmental conservation measures and BMPs to be incorporated into the project to avoid or minimize impacts to natural resources (see Wetlands & WOUS above). Tree removal will not occur from June 1 through July 31, which corresponds to the maternity roost season for the northern long-eared bat (NLEB). If the County proposes tree removal during this time period, the County must submit a request to the USACE Nebraska Regulatory Office (NRO). The NRO will coordinate this request with the Service for concurrence (including a copy to NGPC) and NLEB surveys may be required. For purposes of this conservation measure, "tree removal" is defined as cutting down, harvesting, destroying, trimming, or manipulating in any other way the trees, saplings, snags, or any other form of woody vegetation likely to be used by NLEB, as defined by the Final 4(d) Rule published on February 15, 2016. Tree removal will NOT occur within 0.25-mile of known NLEB hibernacula at any time of the year. The County will send the proposed post-construction seed mixture list to NGPC for review prior to seeding, as recommended by NGPC for the purposes of habitat management.
Protected Birds	No Impact	<p>No Significant Impact with Mitigation:</p> <ul style="list-style-type: none"> Clearing and grubbing of vegetation in areas of suitable habitat will be avoided during the primary nesting season for sedge wrens, cliff swallows, and other migratory birds (April 1 to September 30). If clearing of vegetation cannot be avoided during these periods, then a qualified biologist will conduct a pre-construction survey to determine the presence or absence of breeding birds and their nests. Bridge removal will avoid the primary nesting season to avoid 'take' of cliff swallows or will implement avoidance measures, such as exclusion netting, prior to the nesting season to discourage nesting. If a survey identifies nesting raptors or migratory birds before or during construction, then Lancaster County would halt pending construction operations and contact NGPC and the Service for further consultation.
Floodplains	No Impact	No Significant Impact; no mitigation required.
Water Quality	No Impact	<p>No Significant Impact with Mitigation:</p> <ul style="list-style-type: none"> BMPs for erosion and sedimentation control would be applied to all upland soil disturbances and would be designed to avoid or minimize sedimentation. Erosion control measures would be used, including one or more of the following: barriers, erosion checks, inlet/outlet protection, mulching, post-construction erosion control, rolled erosion control, and vegetation. Construction related impacts to water quality would last only until vegetation is re-established. Contractors would be instructed to store all potential hazardous materials (gasoline, hydraulic fluids, etc.) in upland areas within confined berms to contain spills and prevent impacts to the surrounding environment. <p>The County will include the following special provisions in the construction contracts:</p> <ul style="list-style-type: none"> The contractor will prohibit demolition/construction debris from entering the waters of Little Salt Creek. In addition, a note has been added to the plans prohibiting the burial of debris from clearing and grubbing, demolition and construction operations within the project ROW. All riprap placed, except for the bottom of channel downstream of weir, will be covered with 6 inches of native soil cover and seeded above the historical ordinary high water mark or approximately three feet above the existing channel flow, whichever is greater. The contractor will be prohibited from using machinery in the waters of Little Salt Creek. No low water stream crossing/work platform will be allowed in the Little Salt Creek channel.
Prime Farmland	No Impact	No Significant Impact; no mitigation required.
Terrestrial Habitat	No Impact	No Significant Impact with Mitigation: BMPs for erosion control would include revegetation with a native seeding mix.

Invasive Species	No Impact	No Significant Impact with Mitigation: BMPs for weed control would be implemented to minimize introduction of invasive species from construction activities. This would include that all construction equipment be required to be cleaned and free of soil and vegetative debris that may contain invasive species' seeds. Disturbed areas would be seeded with a native seed mixture to minimize the likelihood that invasive plants would become established on disturbed soils.
Hazardous Materials	No Impact	No Significant Impact with Mitigation: Project specifications would include the following requirements for the contractor: <ul style="list-style-type: none"> • If contaminated soils and/or water or hazardous materials are encountered, all work would stop within the immediate area until NDEQ is notified and a plan is developed to properly dispose of the contaminated materials. Should contamination be found on the project during construction, NDEQ would be contacted for consultation and appropriate actions be taken. If necessary, a remediation plan would be developed. • If the contractor's method of removal of the bridge components generates paint debris, the waste shall be handled in accordance with Title 128, Nebraska Hazardous Waste Regulations. Extreme caution shall be taken to minimize the amount of potential lead-based painted material or debris from causing or threatening to pollute the air, land, and waters of the State. The contractor shall recycle any lead plates on Structure Number C55-F-88 at a legitimate recycling facility in accordance with Title 128, Nebraska Hazardous Waste Regulations. • The contractor shall submit the NESHAP Notification of Demolitions and Renovation to NDEQ at least 10 working days prior to commencement of any demolition activities. The ten-day clock starts with the day the Notification is postmarked, hand delivered (includes submittals by email notification) or picked up by a commercial delivery service, such as UPS, FedEx, etc. Faxing documents is prohibited. The Lancaster County engineer shall be provided copies of said notifications and their submittal date.
Cultural Resources	No Impact	No Impact with Mitigation: In the event of an unanticipated discovery of cultural resources or archeological remains, work would be halted. Work would not continue until area is inspected by a qualified archeologist. If determined that the discovery requires further consultation, NeSHPO would be notified.
Environmental Justice	No Impact	No Impact
Air Quality	No Impact	No Significant Impact with Mitigation: BMPs to minimize PM-10 particles would be implemented during construction activities, including but not limited to, wetting the construction area, avoiding idling of construction machinery, and covering or mulching staging areas during or following construction activities.
Noise Pollution	No Impact	No Significant Impact with Mitigation: Limiting construction to daylight hours only would be implemented to reduce construction noise disturbances.
Indirect Impacts	No Impact	No Significant Impact; no mitigation required.
Cumulative Impacts	No Impact	No Significant Impact; no mitigation required.

Impact Definitions: See Section 3.0

4.0 PROJECT COORDINATION

Lead Federal agencies for preparation of this EA and draft Finding of No Significant Impact (FONSI) are:

- ▶ US Fish and Wildlife Service
- ▶ Natural Resources Conservation Service

This document has been developed in coordination with:

- ▶ Nebraska Game and Parks Commission
- ▶ Pheasants Forever
- ▶ Nebraska State Historic Preservation Office
- ▶ Lower Platte South Natural Resource District
- ▶ Saline Wetland Conservation Partnership
- ▶ City of Lincoln Watershed Management Division

5.0 CONCLUSION

Lancaster County has prepared this EA to evaluate the potential impacts of the bridge replacement and stream stabilization features on North 14th Street between Waverly Road and Mill Road, as they relate to the disposal of Section 6 and SWG funded property and modification of WRP easement.

The document has been prepared in accordance with NEPA and the Council on Environmental Quality's Regulations (40 CFR 1500–1508). This EA indicates that the Preferred Action would have no significant impact on the human or natural environment. Therefore, a FONSI is recommended for the property disposal and reimbursement of Section 6 and SWG funds and modification to the WRP easement to allow the bridge replacement by the County.

6.0 EA PREPARATION

Virgil Dearmont
Lancaster County Engineering Department
444 Cherrycreek Road, Building 3
Lincoln, Nebraska 68528
402/441-7681, vdearmont@lancaster.ne.gov

Karen Wilson
Lancaster County Engineering Department
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Lincoln, Nebraska 68528
402/441-7681, cpackard@lancaster.ne.gov

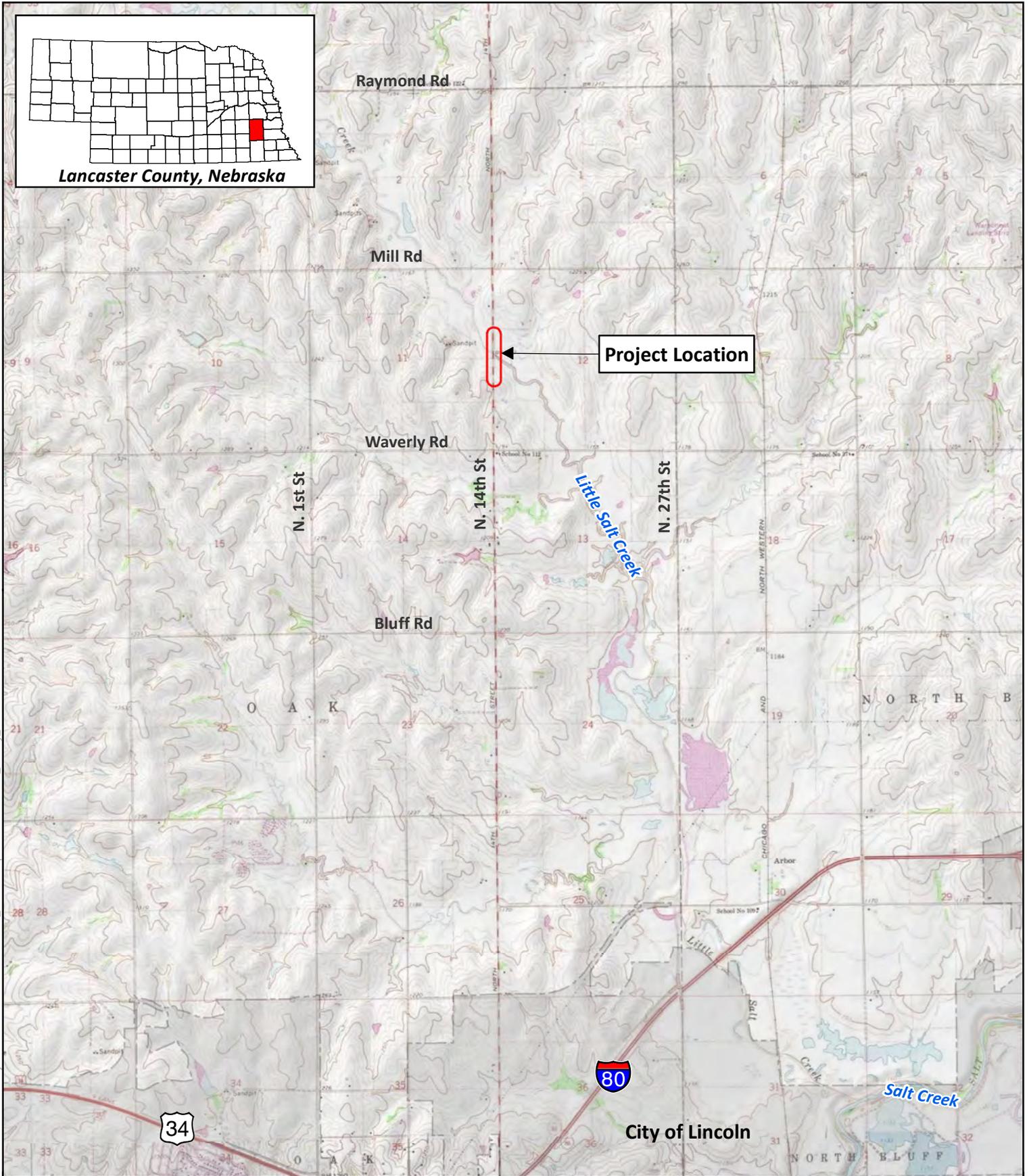
Carey Grell, Environmental Analyst
Planning & Programming Division
Nebraska Game and Parks Commission
2200 North 33rd Street
Lincoln, Nebraska
402/471-5423, carey.grell@nebraska.gov

US FWS, Federal Assistance
134 Union Boulevard
Lakewood, Colorado 80228

Jessica Jurzenski, PhD, Entomologist and T&E Specialist
Felsburg Holt & Ullevig
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Lincoln, Nebraska 68508
402/438-7530, jessica.jurzenski@fhueng.com

Amy Zlotsky, MS, Wetlands and NEPA Specialist
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Lincoln, Nebraska 68508
402/438-7530, amy.zlotsky@fhueng.com

Appendix A
Figures

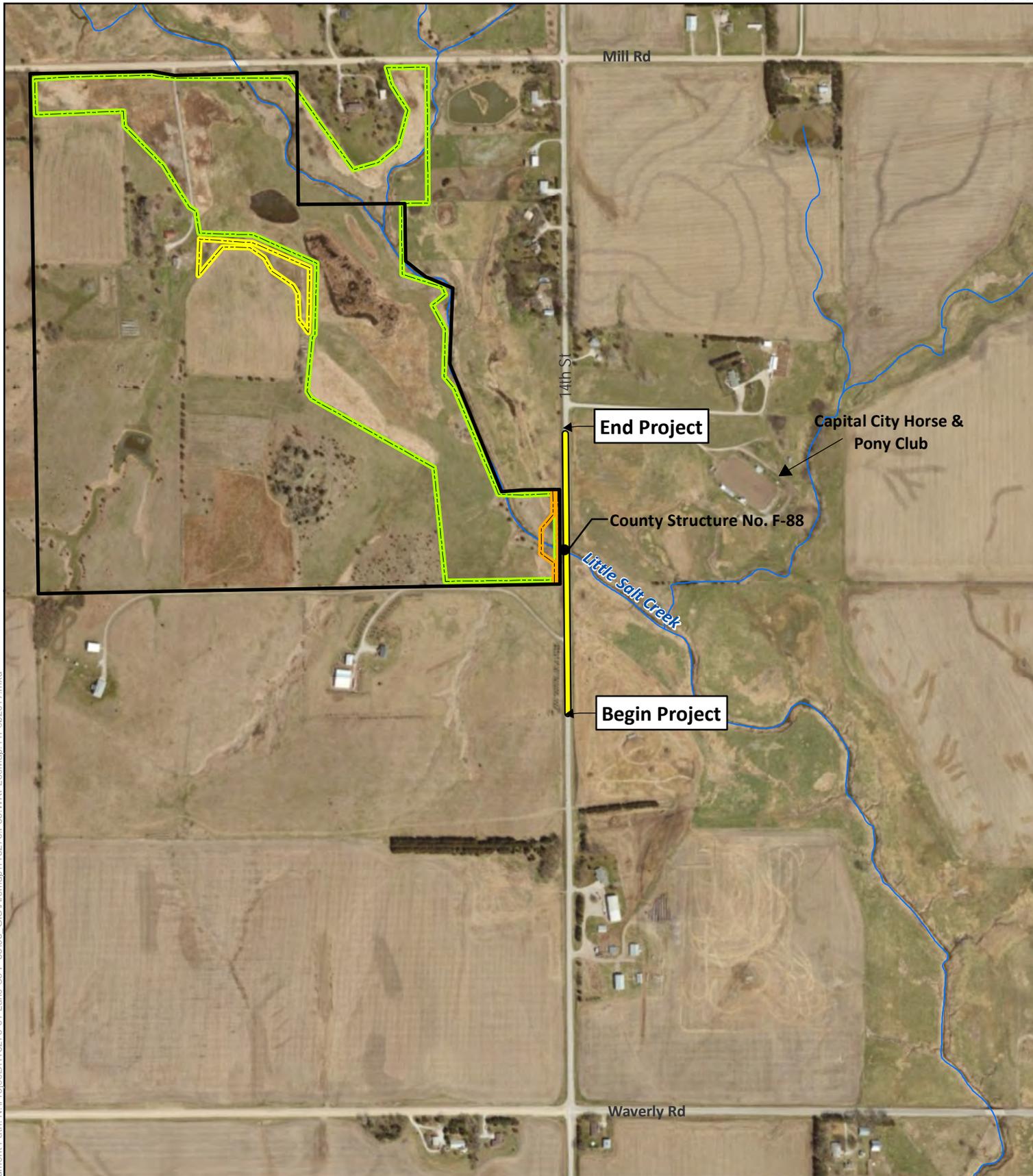


Document Path: N:\Projects\118276-01_Lanc Co.F-88\06_GIS\Arcmap\LancasterCoF-88_Vicinity_arc6.28.18.mxd

Figure 1

Vicinity Map
Raymond Southeast Bridge Replacement
Lancaster County, Nebraska

Topographic Source: 2013 National Geographic Society, i-cubed(Esri 2018); USGS 1:24,000 scale metric Topographic Map; Davey 1978.



Document Path: N:\Projects\118276-01_Lanc_Co_F-88\06_GIS\Arcmap\118276-F88_WRP_LocMap_11Feb2019.mxd

-  Bridge Structure
-  Project Alignment
-  Stream or River
-  Helmuth Marsh Boundary
-  WRP Boundary (46.7 acres)
-  WRP Modification (0.59 acres)
-  WRP Mitigation (1.25 acres)



Figure 2
Location Map
 Raymond Southeast Bridge Replacement
 Lancaster County, Nebraska

Aerial Source: Esri Aerial Imagery Service, Lincoln/Lancaster County 3/11/2016.



Document Path: D:\Projects\118276-01_Lanc.Co.F-88\118276-F88_DetourMap_25Jul18.mxd

-  Project Alignment
-  Detour Route
-  Stream or River



Figure 3
Detour Map
Raymond Southeast Bridge Replacement
Lancaster County, Nebraska

Aerial Source: Esri Aerial Imagery Service, Lincoln/Lancaster County 3/11/2016.



Document Path: N:\Projects\118276-01_Lanc. Co F-88\06_GIS\Arcmap\BW_MapDocs\118276_F88_ROW_allMap_13Sept18.mxd

-  Project Alignment
-  Stream or River
-  Helmuth Marsh Boundary
-  New ROW
-  Temporary Easement
-  Permanent Easement
-  WRP Easement Boundary



Figure 4
ROW and Easements Map
 Raymond Southeast Bridge Replacement
 Lancaster County, Nebraska

Aerial Source: Esri Aerial Imagery Service, 2018



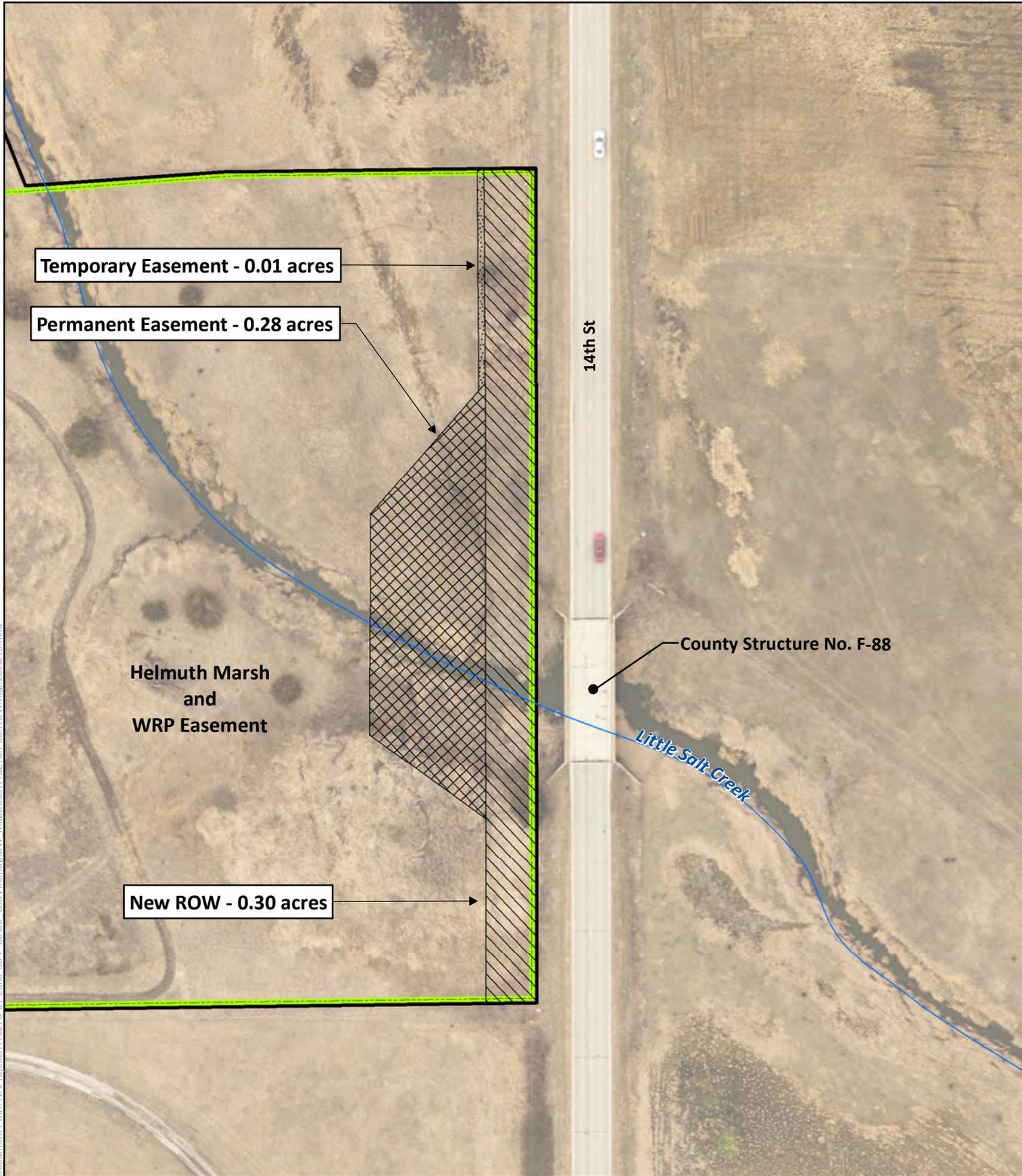
Document Path: N:\Projects\118276-01_Lanc_Co_F-88\06_GIS\Arcmap\118276_F88_ProjLimits_11Feb2019.mxd

-  Project Alignment
-  Stream or River
-  Project Limits
-  Helmuth Marsh Boundary
-  WRP Easement Boundary



Figure 5
Project Limits Map
Raymond Southeast Bridge Replacement
Lancaster County, Nebraska

Aerial Source: Esri Aerial Imagery Service, 2018



Document Path: N:\Projects\118276-01_Lanc. Co. F-88\06_GIS\Arcmap\BW_MapDocs\118276_F88_ROWMap_25.Jul18.mxd

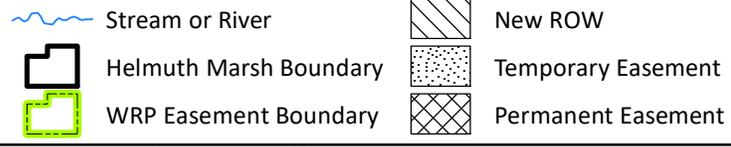
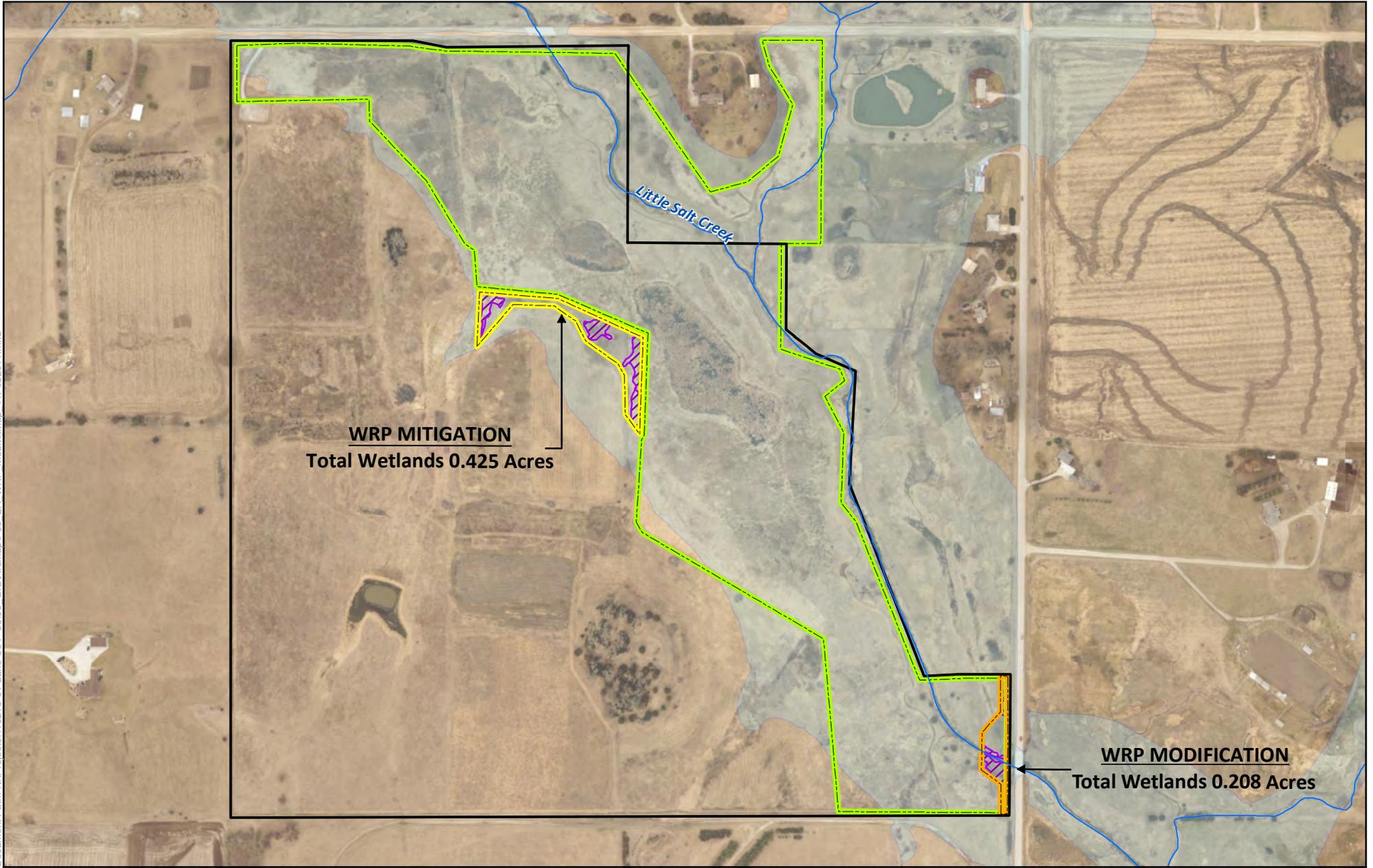


Figure 6
ROW and Easements on Helmut Marsh
Raymond Southeast Bridge Replacement
Lancaster County, Nebraska

Aerial Source: Esri Aerial Imagery Service, 2018



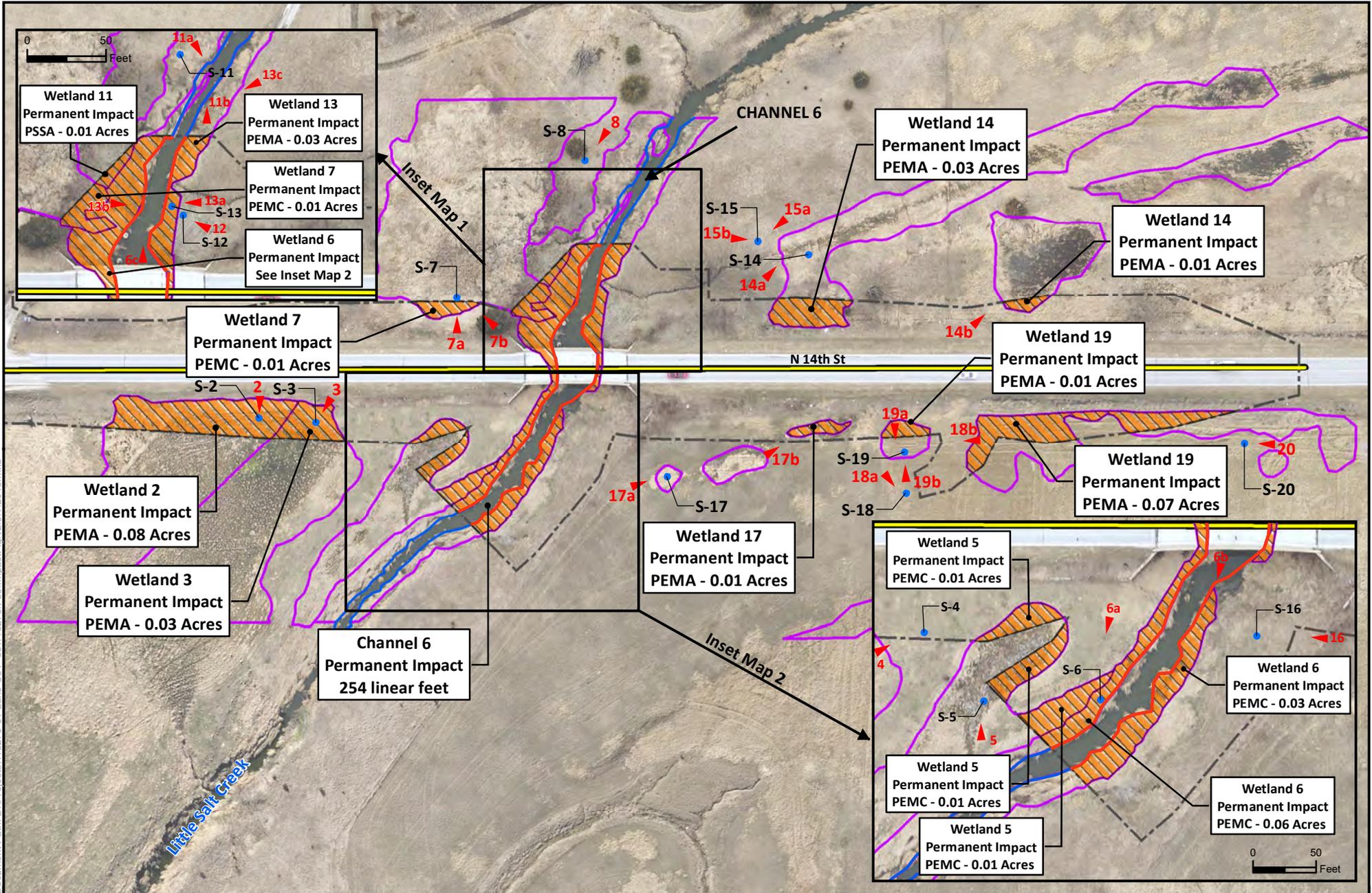
Document Path: N:\Projects\118276-01_Lanc Co.F-88\06_GIS\Arcmap\F88_EA_WRP_Mod\Map_11Feb2019.mxd

- Stream or River
- Wetland
- 100-Year Floodplain
- WRP Boundary (46.7 acres)
- WRP Mitigation (1.25 acres)
- WRP Modification (0.59 acres)
- Helmuth Marsh Boundary



Figure 7
WRP Modification and Mitigation Map
Raymond Southeast Bridge Replacement
Lancaster County, Nebraska

Aerial Source: Esri Aerial Imagery Service, 2018, Lincoln/Lancaster Aerials, 3/21/2018.



Document Path: D:\Projects\118276-01_Lanc_Co_F-88\118276-F88_Impact\Fig.v2.8.9.2018.mxd

- Sample Point
- ▲ Photograph Direction
- Project Alignment
- ~ Channel
- Limits of Construction
- Wetland
- Permanent Wetland Impact
- Permanent Channel Impact

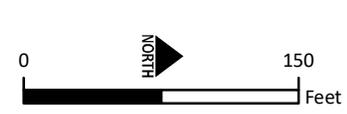
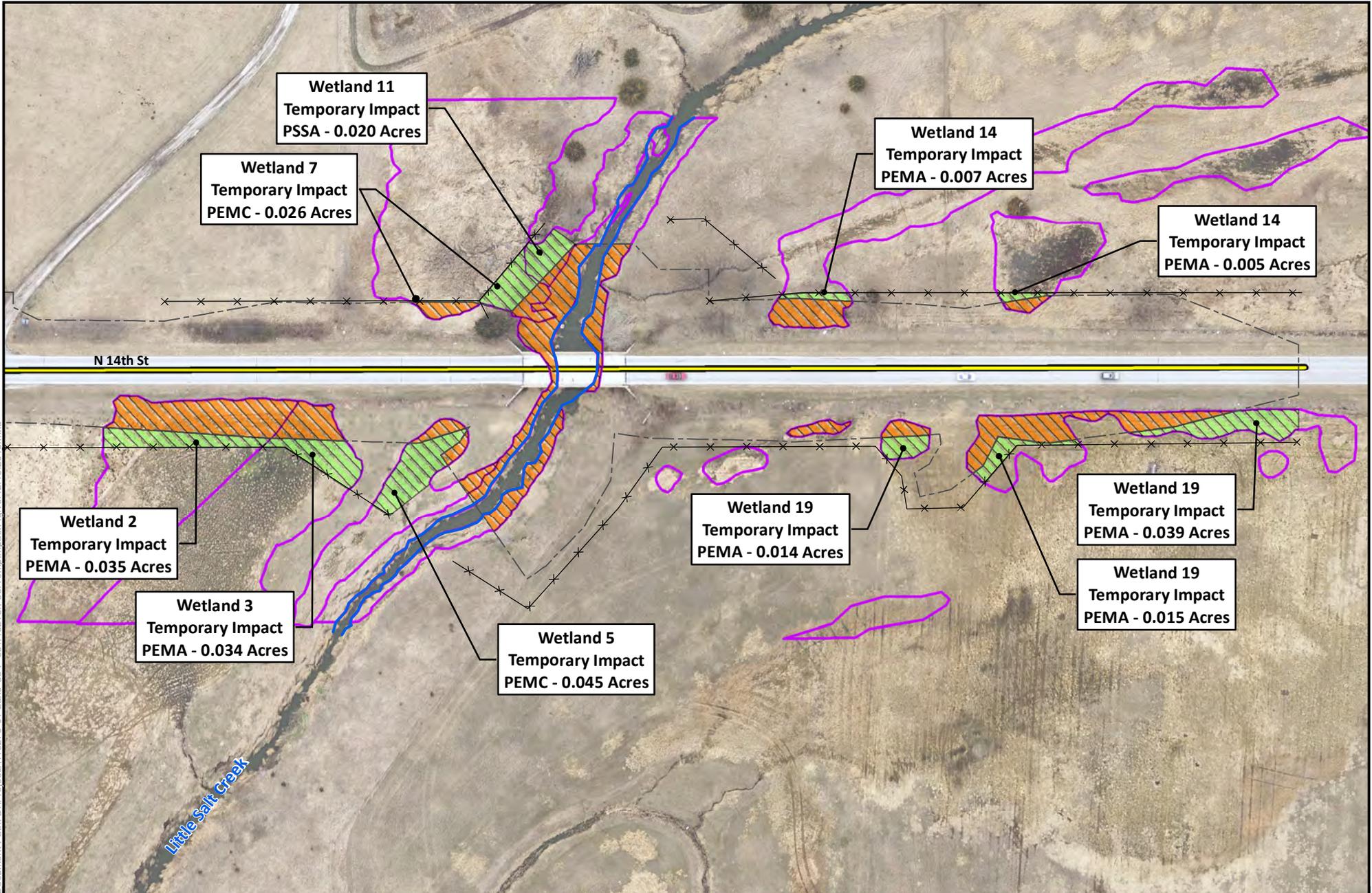


Figure 8
Water Resource Impact Map
 Raymond Southeast Bridge Replacement
 Lancaster County, Nebraska

Aerial Source: Esri Aerial Imagery Service, 2018, Lincoln/Lancaster Aerials, 2018.



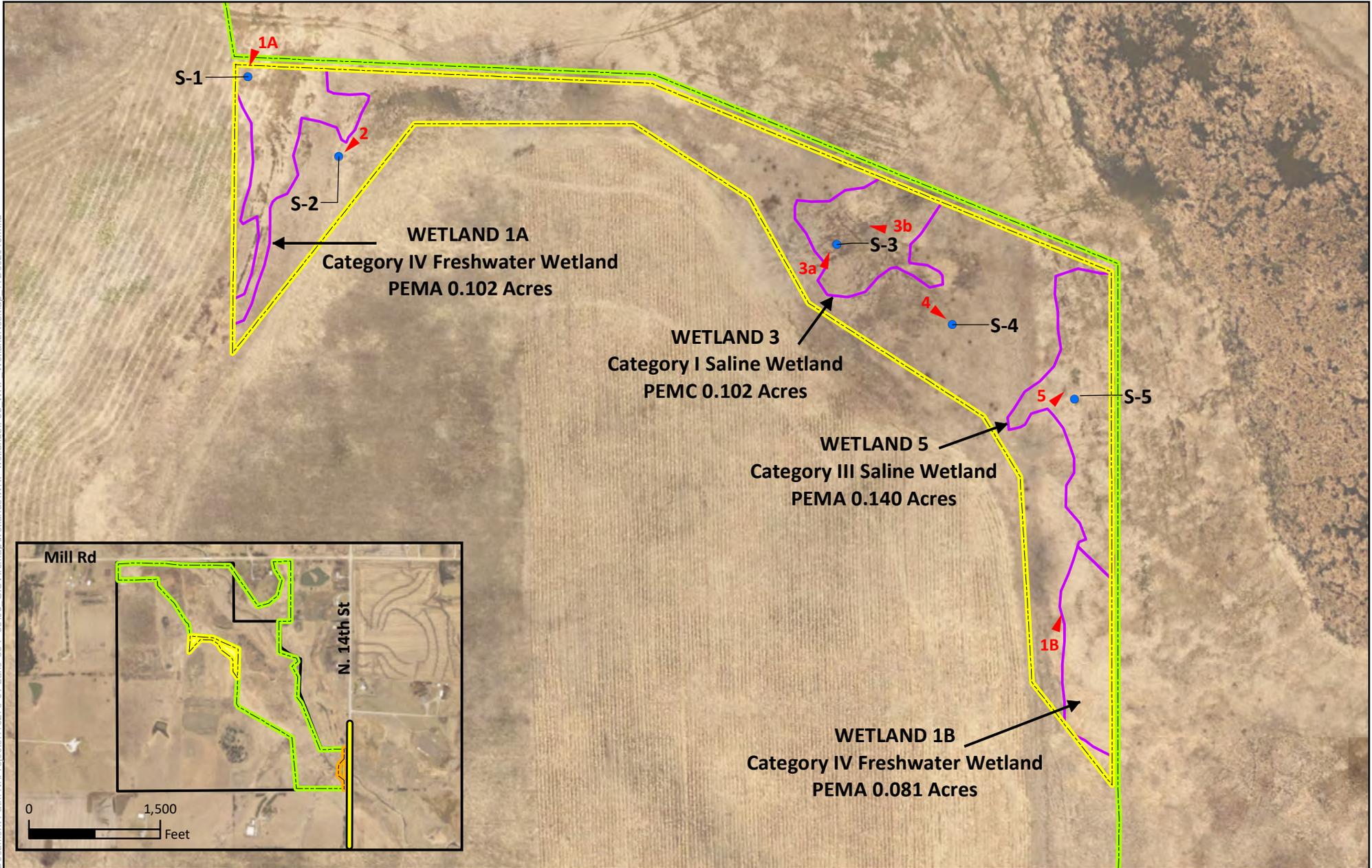
Document Path: D:\Projects\118276-01_Lanc. Co. F-88\118276-F88_TempImpactFig.v3.12.18.2018.mxd

- ~ Channel
- Wetland
- Limits of Construction
- ×—× Silt Fence
- Permanent Wetland Impact
- Temporary Wetland Impact
- Project Alignment



Figure 9
Water Resource Temporary Impact Map
 Raymond Southeast Bridge Replacement
 Lancaster County, Nebraska

Aerial Source: Esri Aerial Imagery Service, 2018, Lincoln/Lancaster Aerials, 2018.



Document Path: N:\Projects\118276-01_Lanc_Co_F-88\06_GIS\Arcmap\wetlands\WRP_wetlands\F88_WRP_WetlandResMap_17Dec2018.mxd

- Sample Point
- ▲ Photograph Direction
- Alignment
- Wetland
- Helmuth Marsh Boundary
- WRP Easement Boundary
- WRP Easement Mitigation
- WRP Easement Modification



Figure 10
WRP Easement Mitigation Wetland Map
 Raymond Southeast Bridge Replacement
 Lancaster County, Nebraska

Aerial Source: Esri Aerial Imagery Service, 2018, Lancaster County 2018, 3/21/2018.

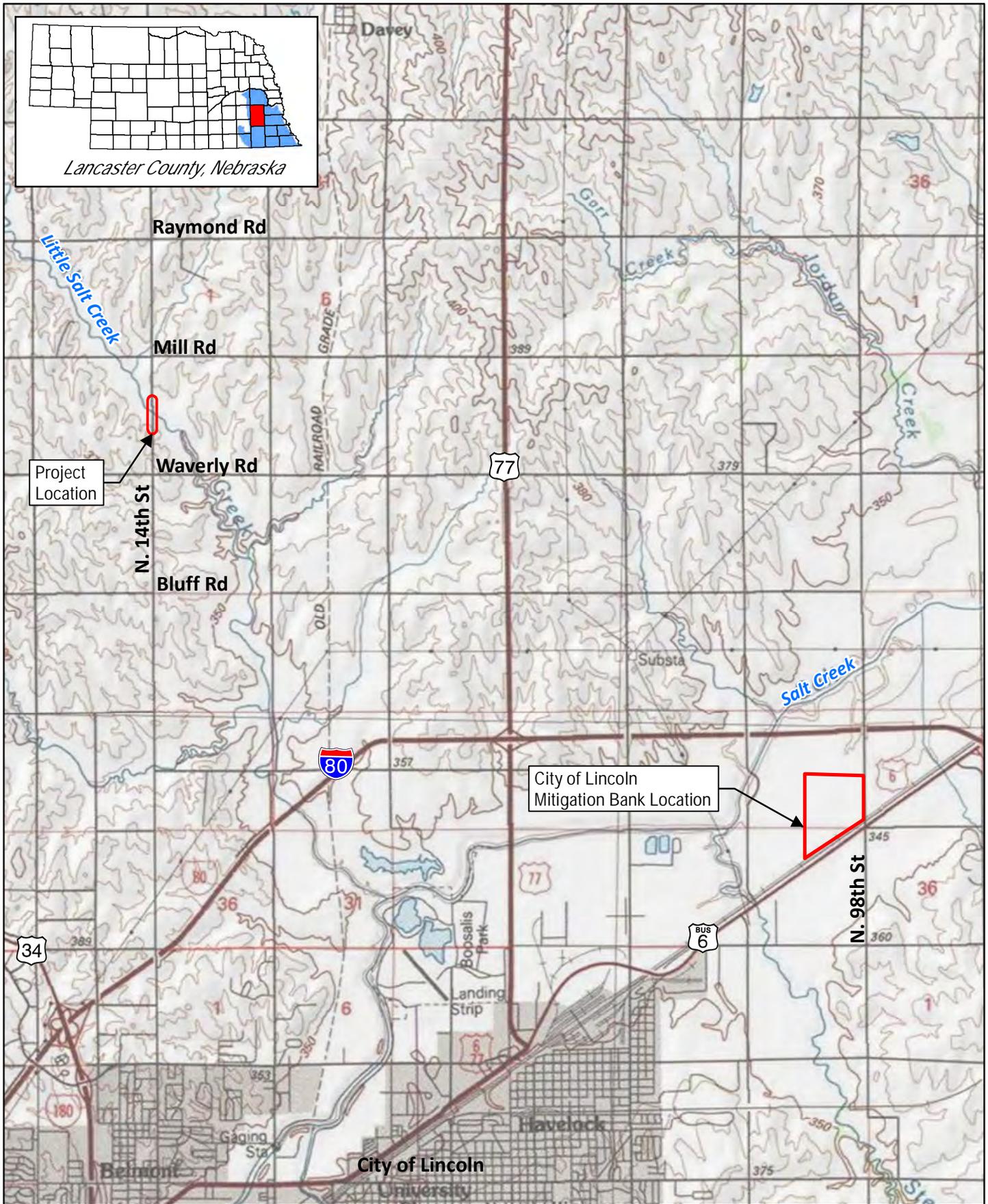


Figure 11

Wetland Mitigation Bank Location Map
Raymond Southeast Bridge Replacement
Lancaster County, Nebraska

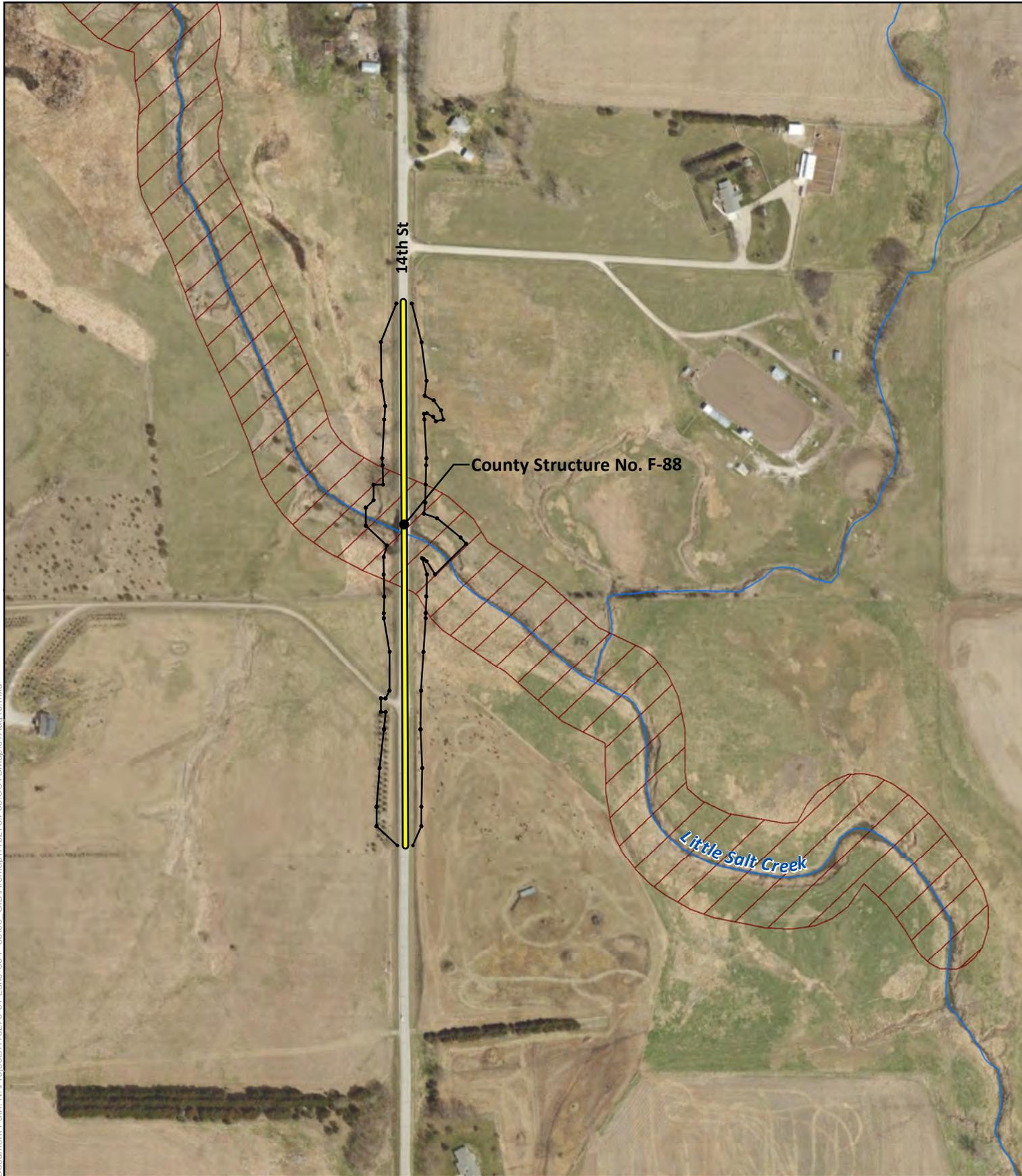


City of Lincoln Wetland
Mitigation Bank Service Area



Source: 2013 National Geographic Society, I-cubed (Esri, 2015); USGS 1:100,000 scale metric Topographic Map, Lincoln 1986.

Last Update: 9/7/2016



Document Path: N:\Projects\118276-01_Lanc. Co. F-88\06_GIS\Arcmap\118276_F88_SCTBMap_31Aug18.mxd



Figure 12
Designated Critical Habitat for Salt Creek Tiger Beetle (SCTB)
Raymond Southeast Bridge Replacement
Lancaster County, Nebraska

Aerial Source: Esri Aerial Imagery Service, Lincoln/Lancaster County Orthos, 3/11/2016.

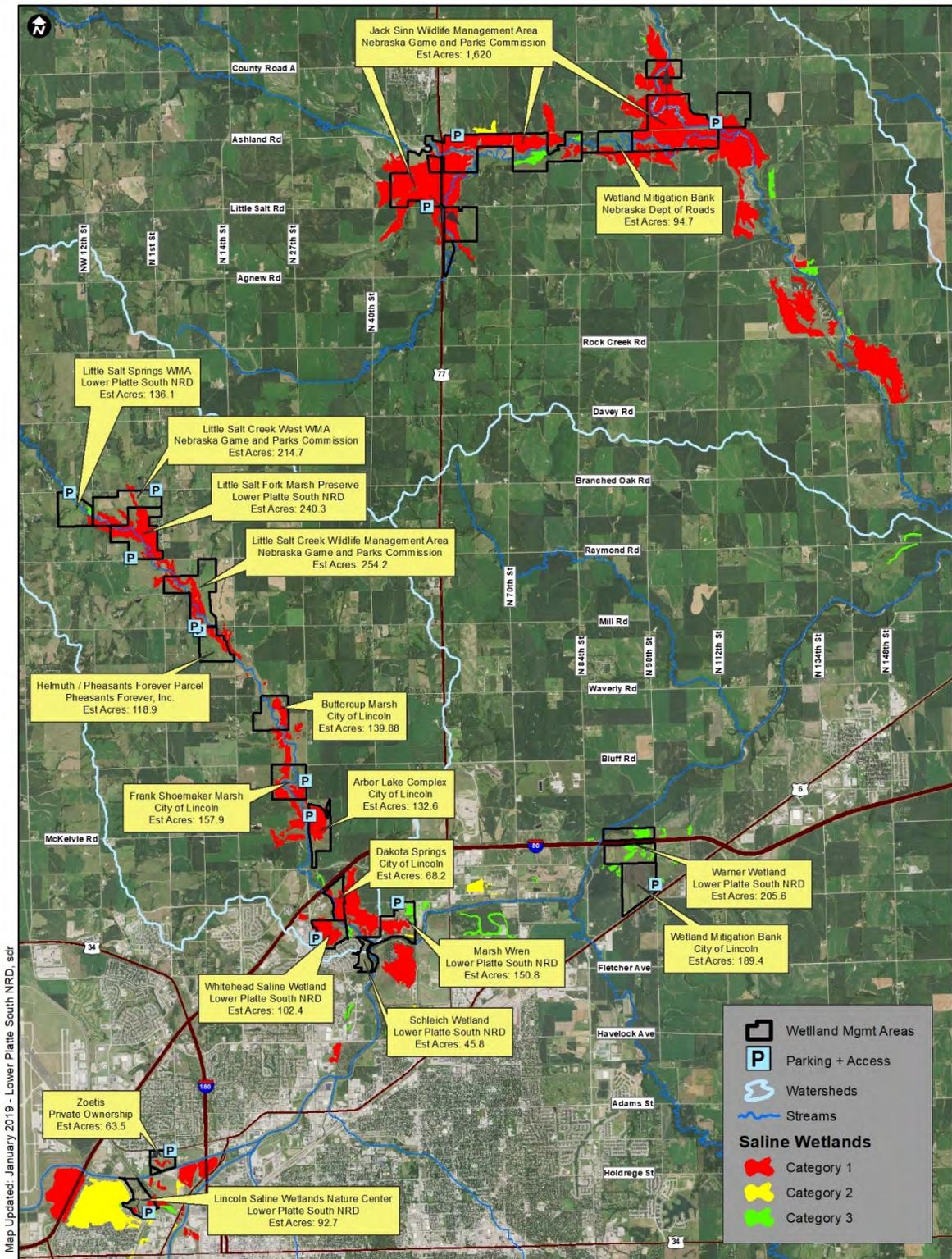


Figure 13: Saline Wetlands and Wetland Management Areas in Lancaster and Saunders Counties (Lincoln Parks and Recreation, Saline Wetlands website, 2019)

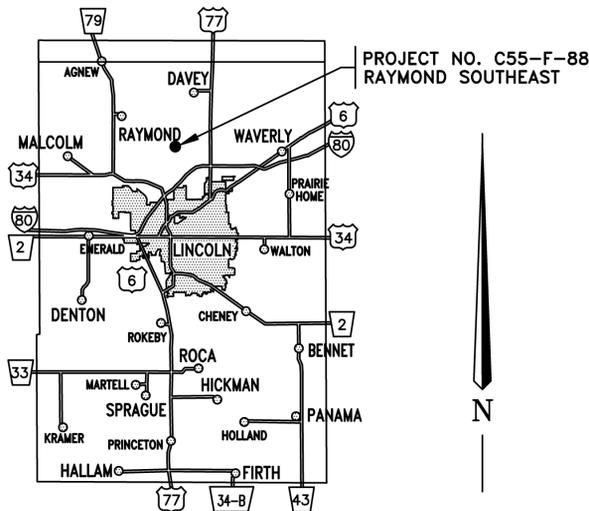
Appendix B
Construction Plan and Profile Sheets

SHEET INDEX

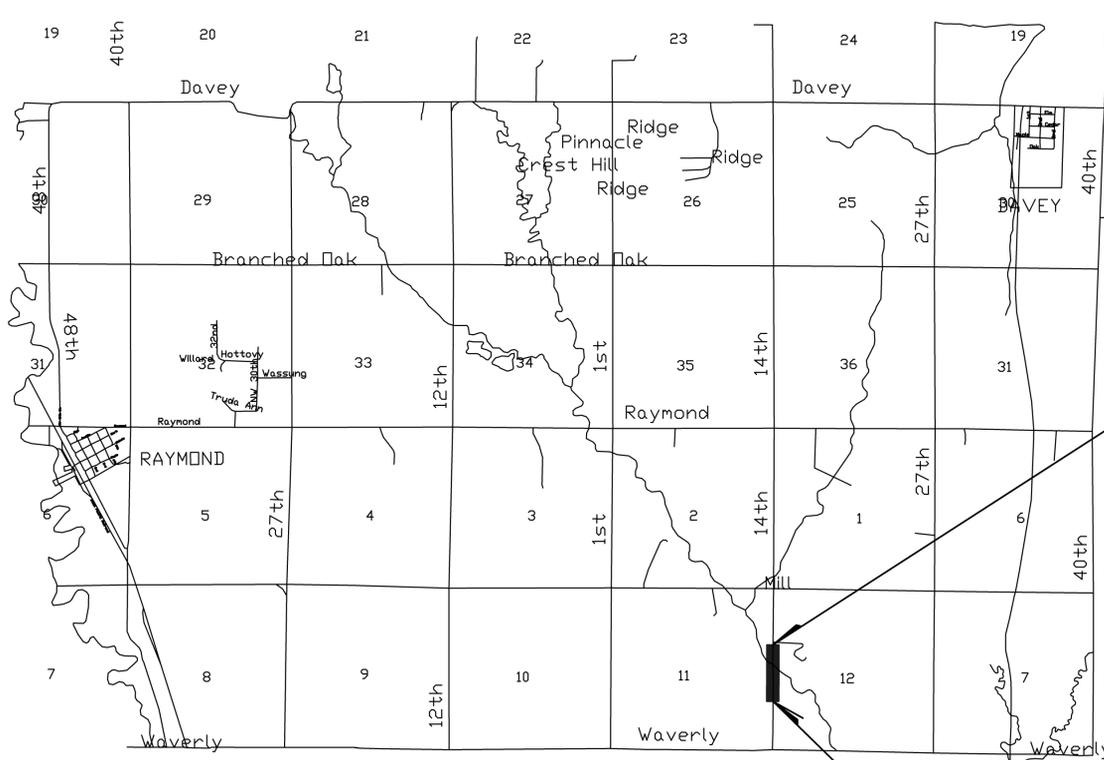
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2-T	TYPICAL CROSS SECTIONS OF IMPROVEMENT
2-S	SUMMARY OF QUANTITIES
2-L1	PAVEMENT AND GUARDRAIL DETAILS
2-L2	SHEET PILE WEIR DETAILS
2-L3	EROSION CONTROL PLAN
2-W	WETLANDS
3	PLAN AND PROFILE STA. 20+50.0 TO STA. 23+00.0
4	PLAN AND PROFILE STA. 23+00.0 TO STA. 33+00.0
5	DRAINAGE STRUCTURE CROSS SECTIONS
6-17	SPECIAL PLAN 1 (12 SHEETS) BRIDGE PLANS STA. 28+15.0
18	SPECIAL PLAN 1-C (1 SHEET) GUARDRAIL TERMINAL END TREATMENT, TYPE 2
19	SPECIAL PLAN 2-C (1 SHEET) CONCRETE HEADWALLS
20	SPECIAL PLAN 3-C (1 SHEET) EROSION CHECKS (ALL TYPES)
X1-X7	ROADWAY CROSS SECTIONS
X8-X10	CHANNEL CROSS SECTIONS
21	RIGHT OF WAY PLAN
22	BARRICADE AND DETOUR PLAN

STANDARD PLANS

STANDARD PLAN NO. 308-R1	LOCAL MAILBOX TURNOUT (1 SHEET)
STANDARD PLAN NO. 501-R6	EROSION CONTROL (3 SHEETS)
STANDARD PLAN NO. 502-R1	SILT FENCE DETAILS (2 SHEET)
STANDARD PLAN NO. 740	MIDWEST GUARDRAIL SYSTEM BRIDGE APPROACH SECTION (1 SHEET)
STANDARD PLAN NO. 743	GUARDRAIL DETAILS (4 SHEETS)



LANCASTER COUNTY ENGINEERING DEPARTMENT
LANCASTER COUNTY, NEBRASKA
PLANS FOR CONSTRUCTION OF
RAYMOND SOUTHEAST
PROJECT NO. C55-F-88



PRIOR TO CONSTRUCTION:

CALL : 1-800-331-5666 OR 811 FOR LOCATION OF UNDERGROUND TELEPHONE, ELECTRIC, GAS MAINS, CABLEVISION AND CITY OF LINCOLN UTILITIES.

NOTE: EXISTING UNDERGROUND AND OVERHEAD UTILITIES AND DRAINAGE STRUCTURES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS THE RESPONSIBILITY OF THE INDIVIDUAL CONTRACTORS TO EXACTLY LOCATE AND PROTECT EACH EXISTING UTILITY BEFORE AND DURING ACTUAL CONSTRUCTION.

STA. 33+00.0
END PROJECT C55-F-88
END 9" ASPHALTIC CONCRETE SURFACE COURSE
END GRADING
END CONSTRUCTION

Work On This Project In The Vicinity Of Sta. 28+15.0 Is Authorized Pursuant To The Conditions Stipulated In The U.S. Army Corps Of Engineers Nationwide Permit No. 2012-02349, Lancaster County Floodplain Permit No. FPC 12-12016 And N.P.D.E.S. Permit No. NER-

STA.20+50.0
BEGIN PROJECT C55-F-88
BEGIN 9" ASPHALTIC CONCRETE SURFACE COURSE
BEGIN GRADING
BEGIN CONSTRUCTION

REFERENCE POST NO. N/A TO REFERENCE POST NO. N/A
EXCEPTIONS: FROM STA. NONE TO STA. NONE
TOTAL LENGTH OF EXCEPTIONS: N/A FEET
EQUATION STA. NONE BK.=STA. NONE AH.
TOTAL NET LENGTH OF PROJECT: 0.237 MILES

CONVENTIONAL SYMBOLS

---	BASE OR SURVEY LINE
---	SECTION LINE
---	FENCE LINE
---	RIGHT OF WAY
---	TRAVELED WAY
---	RAILROAD
---	CULVERT
■	POWER POLE
●	TELEPHONE PEDESTAL
○	TREES
○	HEDGE OR BUSHES
XXXXXXXX	DIKE

RIGHT OF WAY LEGEND

---	LIMITS OF CONSTRUCTION
---	EXISTING RIGHT OF WAY
---	NEW RIGHT OF WAY
---	PERMANENT EASEMENT
---	TEMPORARY EASEMENT
---	NEW RAILROAD PERMANENT EASEMENT
---	NEW RAILROAD TEMPORARY EASEMENT

PROJECT NO.	SHEET NO.
C55-F-88 BB-3485(5)	1
CONTROL NO. 12385	n/a
CONTROL NO.	n/a
CONTROL NO.	n/a

NOT FOR PRELIMINARY CONSTRUCTION

THE 2007 EDITION OF THE NEBRASKA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND THE SPECIAL PROVISIONS APPLY TO THIS PROJECT.

THE WORK ON THIS PROJECT CONSISTS OF GROUPS	
1 GRADING	7 GUARDRAIL
4 CULVERTS	9 BITUMINOUS
6 BRIDGE	10 GENERAL
▲ GROUPS _____ ARE INCLUDED IN THE LETTING OF _____	
▲ GROUPS _____ ARE INCLUDED IN THE LETTING OF _____	
■ GROUPS _____ ARE INCLUDED IN THE LETTING OF _____	

DESIGN DESIGNATION	
YEAR: 2014	2034
ADT: 3703	4568
DHV: 389	482
T= 8 %	
D= n/a %	
Meets Or Exceeds Minimum Design Standards of the Board of Public Roads Classifications and Standards	

GRADING PLANS PREPARED BY
Lancaster County Engineering Deptment
444 Cherrycreek Rd.-Bldg "C"
Lincoln, NE. 68528
(402) 441-7681(v) (402) 441-8692(f)

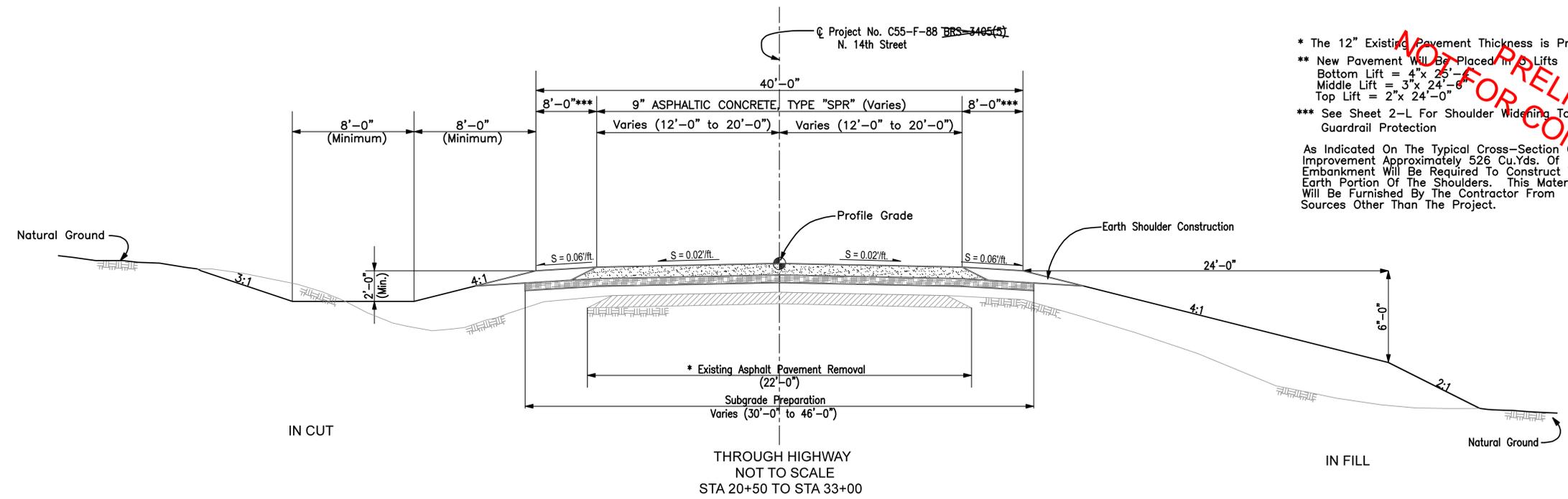
BRIDGE PLANS PREPARED BY
Speece-Lewis Engineers
906 South 26th Street
Lincoln, NE. 68510
(402) 483-5466 (v) (402) 483-1722 (f)



APPROVED: _____
PAMELA L. DINGMAN, P.E.
LANCASTER COUNTY ENGINEER

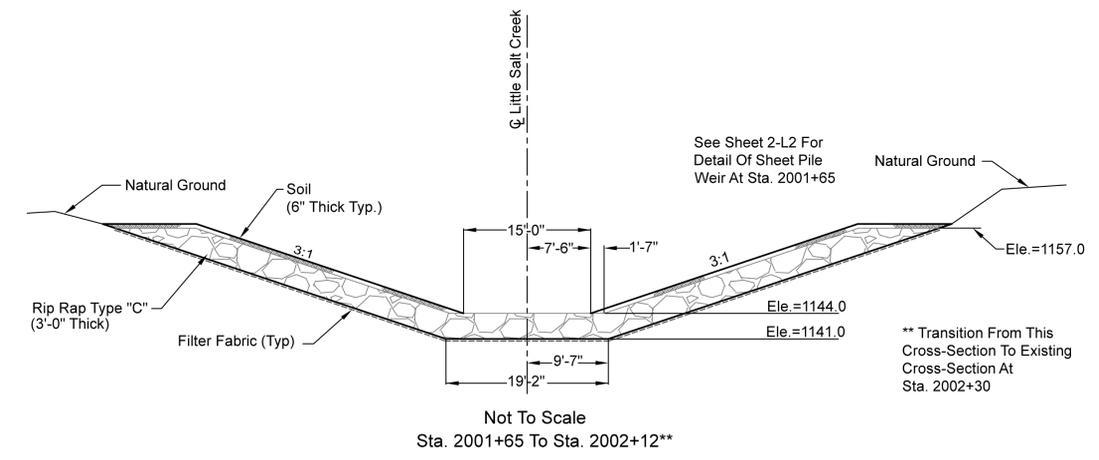
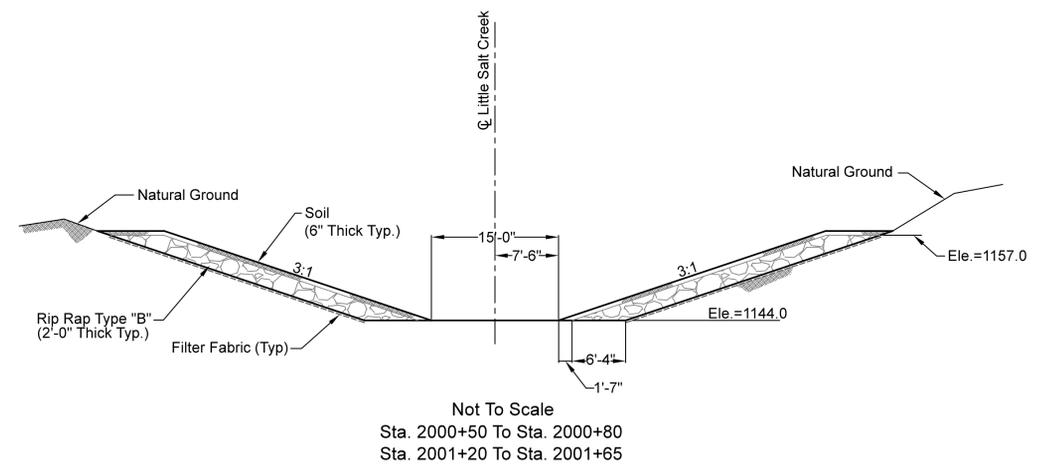
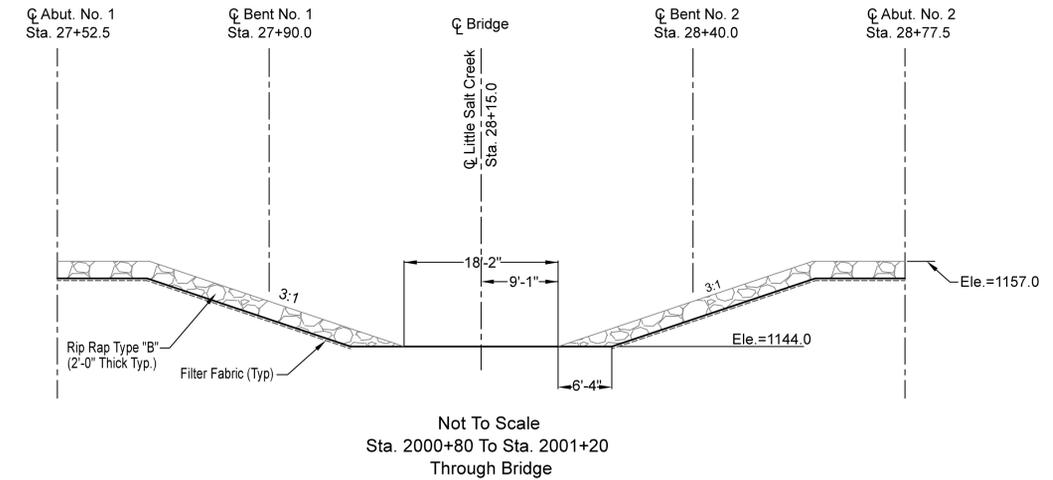
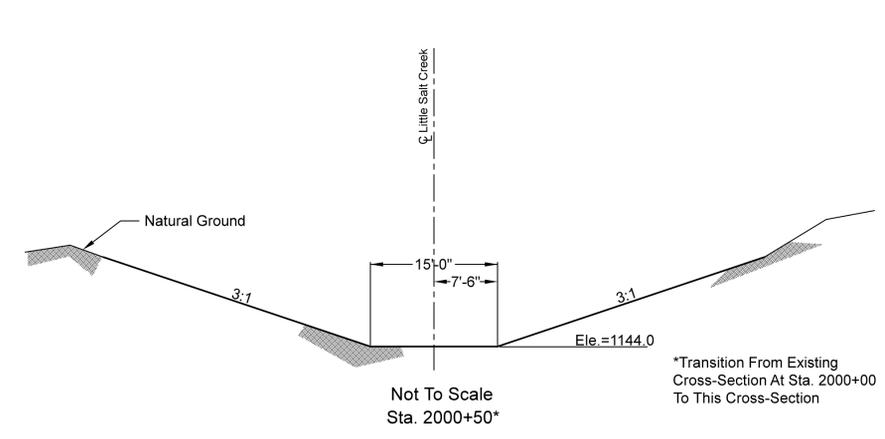
DATE
 BY
 SURVEYED
 PLAN
 NOTE BOOK
 NO. 2009

DATE
 BY
 SURVEYED
 R-O-W
 NOTE BOOK
 NO. 2009



* The 12" Existing Pavement Thickness is Provided For Information Only
 ** New Pavement Will Be Placed in 3 Lifts
 Bottom Lift = 4" x 25'-6"
 Middle Lift = 3" x 24'-6"
 Top Lift = 2" x 24'-0"
 *** See Sheet 2-L For Shoulder Widening To Accommodate Guardrail Protection
 As Indicated On The Typical Cross-Section Of Improvement Approximately 526 Cu.Yds. Of Embankment Will Be Required To Construct The Earth Portion Of The Shoulders. This Material Will Be Furnished By The Contractor From Sources Other Than The Project.

NOT FOR PRELIMINARY CONSTRUCTION



TYPICAL CROSS-SECTIONS OF IMPROVEMENT

NOT FOR CONSTRUCTION

**GROUP 1
GRADING ITEMS**

ITEM	QUANTITY	UNIT
General Clearing And Grubbing	1	LumpSum
Large Tree Removal	3	Each
Excavation (Established Quantity)	xxxx	Cu.Yd.
Water	25	M.Gal.
18" Round Equivalent Driveway Culvert Pipe	34	Lin.Ft.
Rental Of Front-End Loader, Fully Operated	12	Hour
Rental Of Dump Truck, Fully Operated	12	Hour
Rental Of Skid Loader, Fully Operated	16	Hour
Rental Of Crawler- Mounted Hydraulic Excavator, Fully Operated	12	Hour
Erosion Check, Type Wattle	180	Lin. Ft.
Fabric Silt Fence-High Porosity	30	Lin.Ft.
Fabric Silt Fence-Low Porosity	1946	Lin.Ft.
Temporary Silt Check	150	Lin.Ft.
Temporary Silt Fence	400	Lin.Ft.
Covercrop Seeding	3	Acre
Seeding, Type "A"	2	Acre
Mulch	4	Ton
Erosion Control, Type 1-D	3,000	Sq. Yd.
Remove Asphalt Pavement	2,860	Sq. Yd.
Saw Cut Pavement	45	Lin. Ft.
Mobilization	1	LumpSum

**GROUP 6
BRIDGE ITEMS**

ITEM	QUANTITY	UNIT
Remove Existing Structure At Sta. 28+26.15	1	Each
Abutment No. 1 Excavation	1	LumpSum
Bent No. 1 Excavation	1	LumpSum
Bent No. 2 Excavation	1	LumpSum
Abutment No. 2 Excavation	1	LumpSum
Class 47B-3000 Concrete For Bridges	204.6	CuYd.
Class 47BD-4000 Concrete For Bridges	324.8	CuYd.
Epoxy Coated Reinforcing Steel	88,010	Lb.
Structural Steel For Substructure	7,850	Lb.
HP 12"x 53# Steel Piling	2,730	Lin.Ft.
Steel Sheet Piling	7,042	Sq.Ft.
Granular Backfill	495	Cu. Yd.
Rock Rip-Rap, Type "B"	1,200	Ton
Rock Rip-Rap, Type "C"	835	Ton
Rip-Rap Filter Fabric	2,093	Sq.Yd.
Salvaging And Placing Topsoil On Rip-Rap	2,050	Sq. Yd.
Concrete For Pavement Approaches, Class 47BD-4000	190.2	CuYd.
Epoxy Coated Reinforcing Steel For Pavement Approaches	32,845	Lb.
Mobilization	1	LumpSum

**GROUP 9
BITUMINOUS ITEMS**

ITEM	QUANTITY	UNIT
Asphaltic Concrete, Type "SPR"	1,611	Ton
Tack Coat	411	Gal.
Special Surface Course For Mailbox Turnout	4	Sq. Yd.
Subgrade Preparation	3,588	Sq. Yd.
Earth Shoulder Construction	24	Sq.
Water	24	M.Gal.
Asphaltic Concrete Thickness Core	2	Each
Mobilization	1	LumpSum

**GROUP 10
GENERAL ITEMS**

ITEM	QUANTITY	UNIT
Barricades, Type III	2,940	Barr.Day
Construction Signs	8,820	SignDay
Changeable Message Board	14	Day
Mobilization	1	LumpSum

**GROUP 4
CULVERT ITEMS**

ITEM	QUANTITY	UNIT
Excavation For Pipe, Pipe-Arch Culvert And Headwalls	117	CuYd.
Class 47B-3000 Concrete For Headwalls	0.9	CuYd.
Reinforcing Steel For Headwalls	52	Lb.
30" Culvert Pipe, Type 6	68	Lin.Ft.
Mobilization	1	LumpSum

**GROUP 7
GUARDRAIL ITEMS**

ITEM	QUANTITY	UNIT
W-Beam Guardrail	300	Lin.Ft.
Midwest Guardrail System Bridge Approach Section	4	Each
Guardrail Terminal End Treatment, Type 2	4	Each
Mobilization	1	LumpSum

STATION	ITEM	PLAN NO.
28+53 Lt. To 29+06 Lt.	Build 30"x 54' Double Broken Back Culvert With Concrete Headwall On Inlet.	Special Plan No.2-C

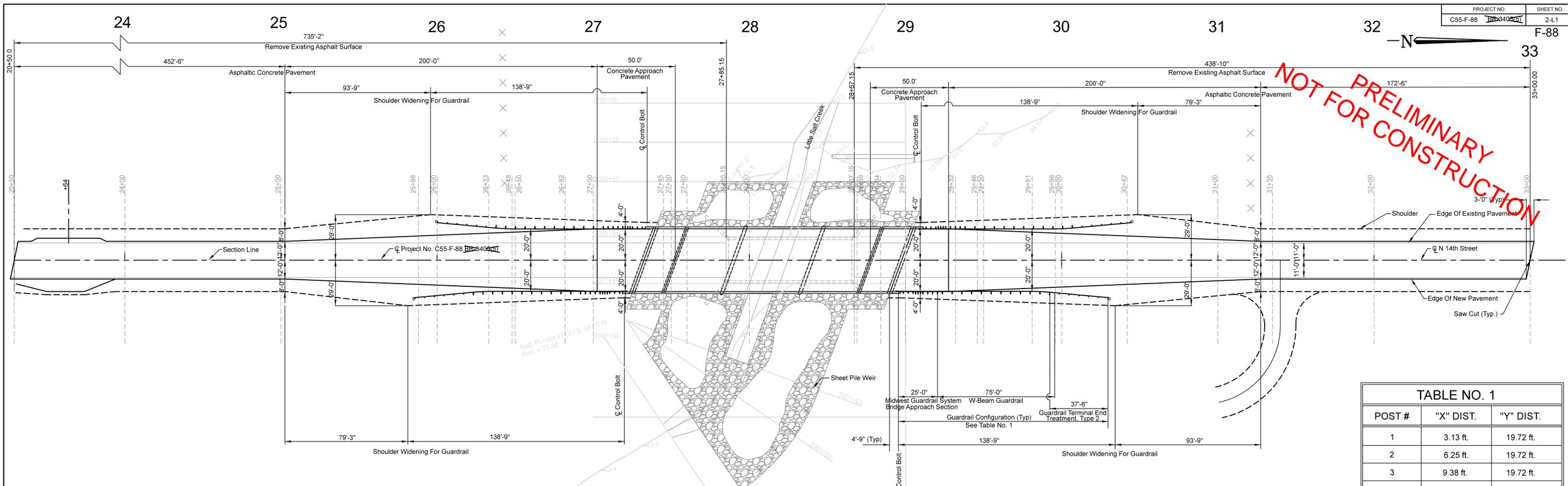
TYPE	DESCRIPTION
1 RCSP	REINFORCED CONCRETE SEWER PIPE
2 RCP	REINFORCED CONCRETE PIPE
3 GCCMP	GALVANIZED (ZINC) COATED CULVERT METAL PIPE
4 ACCMP	ALUMINUM COATED CULVERT METAL PIPE
5 PCCMP	POLYMER COATED CULVERT METAL PIPE
6 HDPE-CI	HIGH DENSITY POLYETHYLENE (CORRUGATED INTERIOR)
7 HDPE-SI	HIGH DENSITY POLYETHYLENE (SMOOTH INTERIOR)
8 PVC	POLYVINYL CHLORIDE PIPE



SUMMARY OF QUANTITIES

PLAN SURVEYED PLOTTED ALIGNMENT CHECKED RIGHT OF WAY CHECKED
 NOTE BOOK NO. DATE BY

R-O-W SURVEYED PLOTTED GRADES CHECKED STRUCTURE NOTATIONS CHKD
 NOTE BOOK NO. DATE BY



NOT FOR CONSTRUCTION

TABLE NO. 1

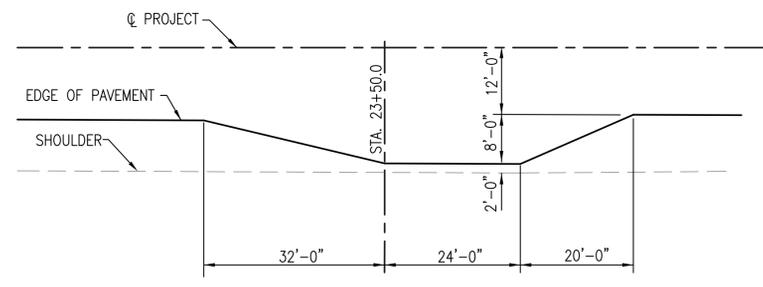
POST #	"X" DIST.	"Y" DIST.
1	3.13 ft.	19.72 ft.
2	6.25 ft.	19.72 ft.
3	9.38 ft.	19.72 ft.
4	10.94 ft.	19.72 ft.
5	12.50 ft.	19.72 ft.
6	14.06 ft.	19.72 ft.
7	15.63 ft.	19.72 ft.
8	18.75 ft.	19.72 ft.
9	21.88 ft.	19.72 ft.
10	25.00 ft.	19.72 ft.
11	28.13 ft.	19.72 ft.
12	34.38 ft.	19.72 ft.
13	40.63 ft.	19.72 ft.
14	46.88 ft.	19.72 ft.
15	53.13 ft.	19.72 ft.
16	59.38 ft.	19.72 ft.
17	65.63 ft.	19.72 ft.
18	71.88 ft.	19.72 ft.
19	78.13 ft.	19.72 ft.
20	84.38 ft.	19.72 ft.
21	90.62 ft.	19.91 ft.
22	96.86 ft.	20.29 ft.
23	103.08 ft.	20.86 ft.
24	109.31 ft.	21.43 ft.
25	115.53 ft.	22.01 ft.
26	121.75 ft.	22.58 ft.
27	127.98 ft.	23.15 ft.
28	134.20 ft.	23.72 ft.

☉ CONTROL BOLT

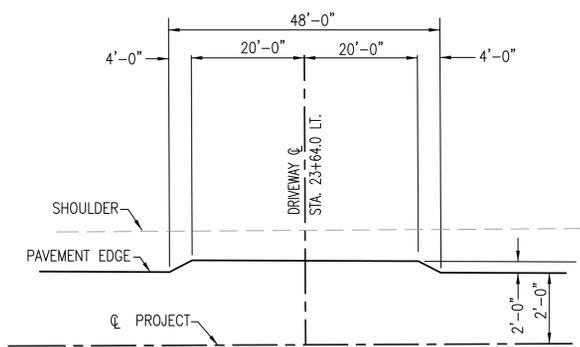
STATION	SIDE
27+20.47	RT.
27+35.03	LT.
28+94.97	RT.
29+09.53	LT.

☉ Little Salt Creek Curve Data

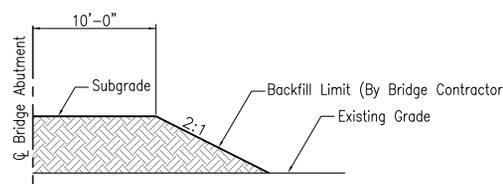
R.P. = Sta. 27+21.3; 38.15' Rt.
 R = 75'
 $\Delta = 35^\circ 53' 38''$
 T = 24.29
 Lc = 46.98



MAILBOX TURN-OUT DETAIL AT STA. 23+62.0 RT.
 NO SCALE



DRIVEWAY LUG OUT AT STA. 23+64.0 LT.
 NO SCALE



BRIDGE BACKFILL DETAIL
 NO SCALE

The Backfill Limits Shown Above Will Be Done By The Bridge Contractor And Is Typical At Both Ends Of The Bridge. The Bridge Contractor Will Place And Compact The Backfill At Each Abutment Between The Wings From 24'-0" Lt. To 24'-0" Rt. Of The Project Center Line.

EARTHWORK QUANTITIES

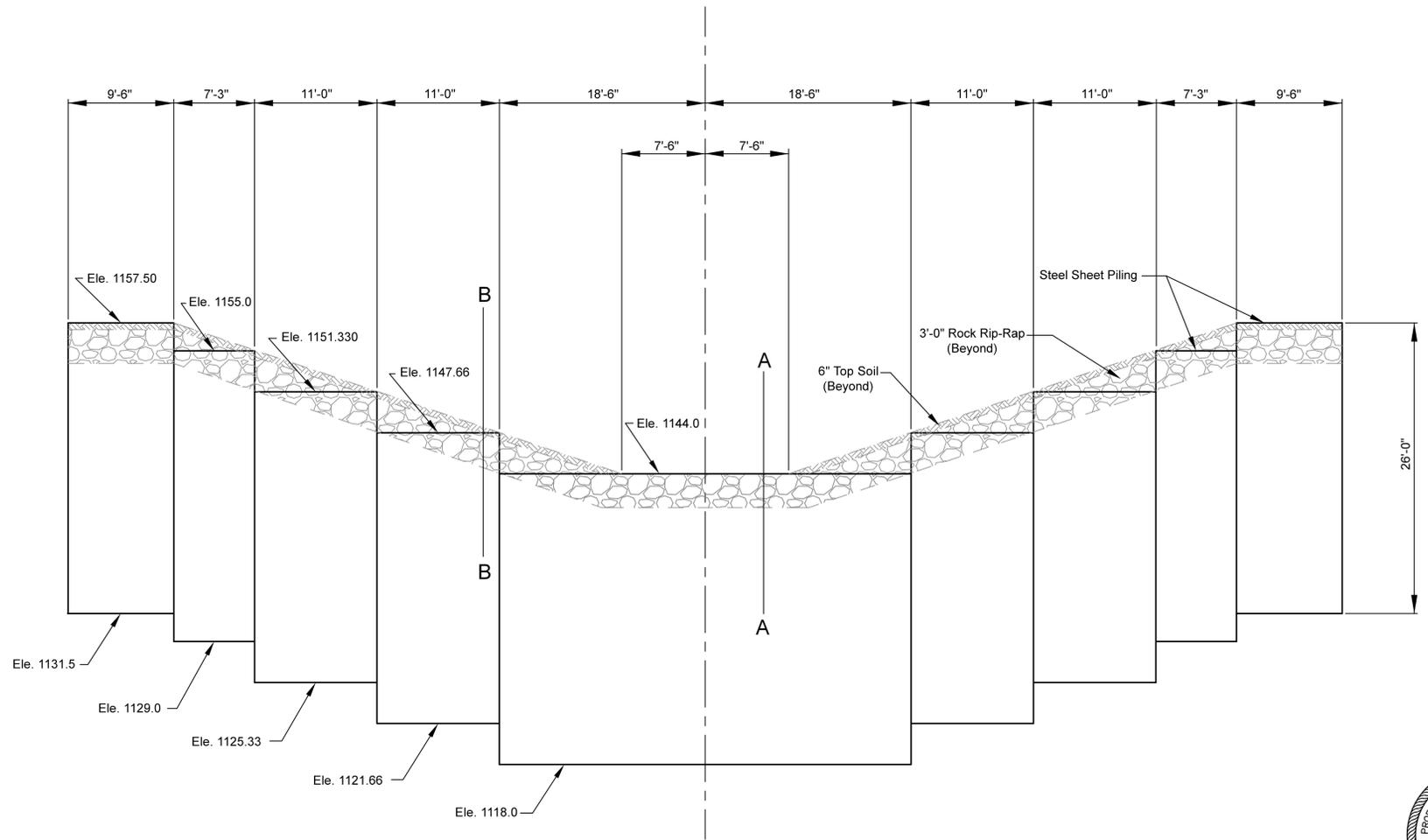
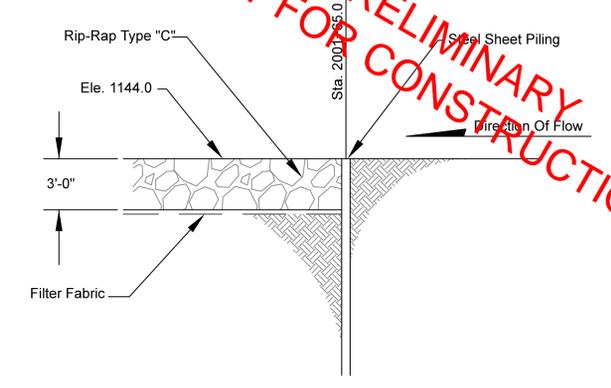
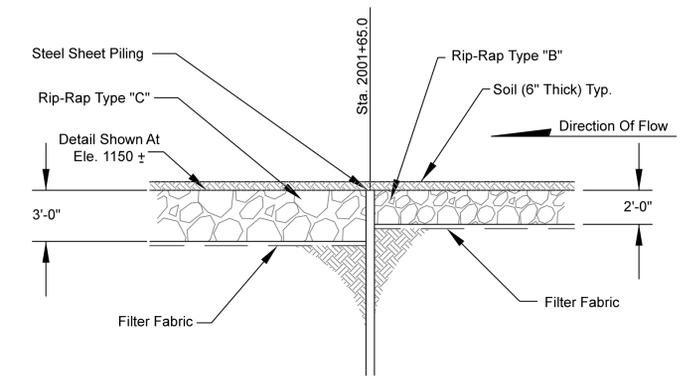
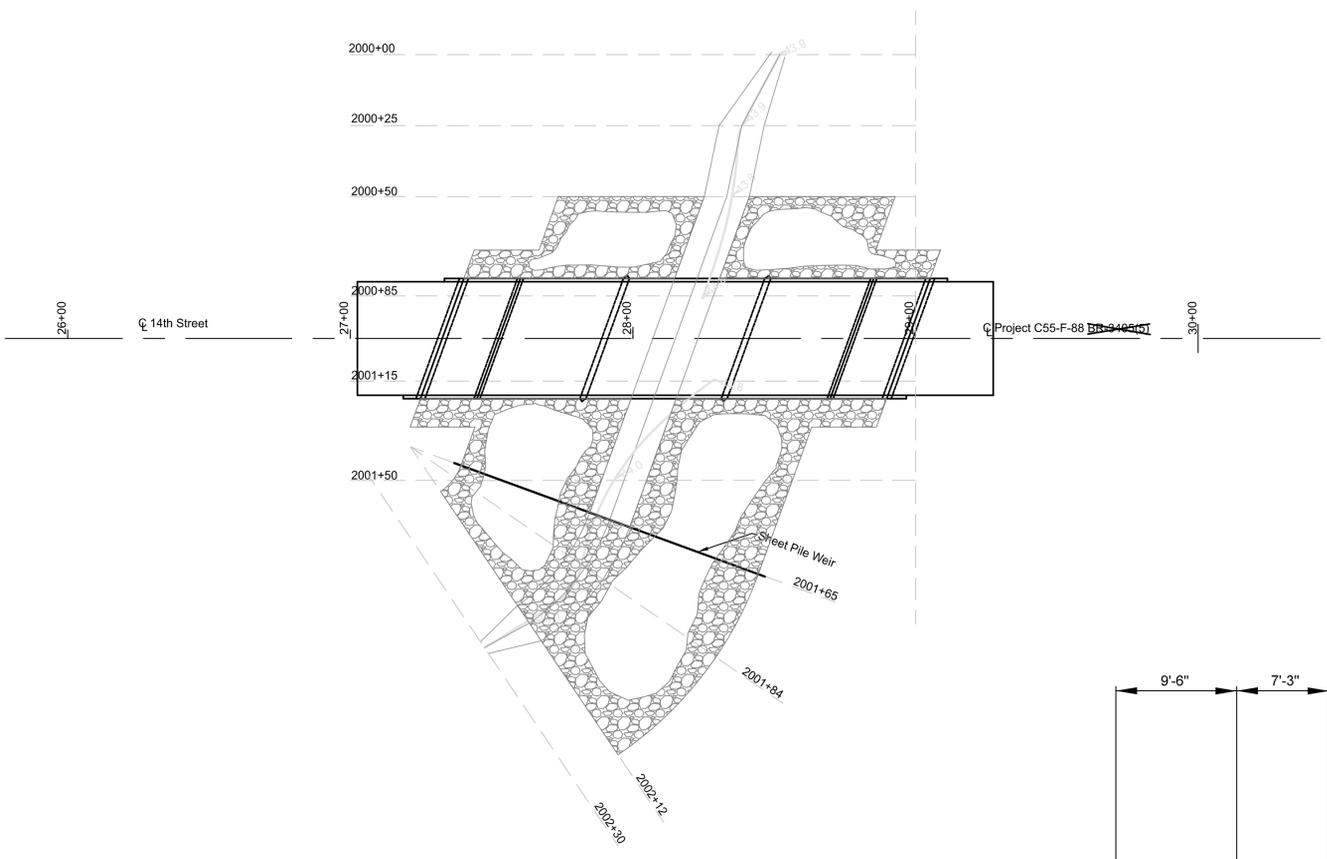
- The Earthwork Quantities For Roadway And Channel Construction Are Broken Down As Follows; And Are Provided For Information Only:
 Excavation (Established Quantity) = xxxx Cu. Yds.
 Embankment = xxxx Cu. Yds.
 Borrow = xxxx Cu. Yds.
- See Sheet 2-T Earth Shouldering Quantity
- The Channel, Berm And Rip-Rap Construction Shown Between Abutments Will Be Done By The Contractor Prior To The Construction Of The Bridge. See Grading Cross-Sections Sta. 2000+00 To Sta. 2002+37
- Excavation Generated As A Result Of The Channel Construction Will Be Used For The Construction Of Roadway Embankments.



"X" measured from ☉ Control Bolt to ☉ Post at Face of Rail.
 "Y" measured perpendicular to ☉ to Face of Rail

PAVEMENT AND GUARDRAIL DETAILS

NOT FOR CONSTRUCTION

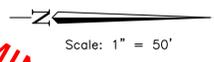


Elevation of Sheet Pile Weir St. 2001+65
Viewed Looking Downstream
NO SCALE



SHEET PILE WEIR DETAILS

NOT FOR CONSTRUCTION



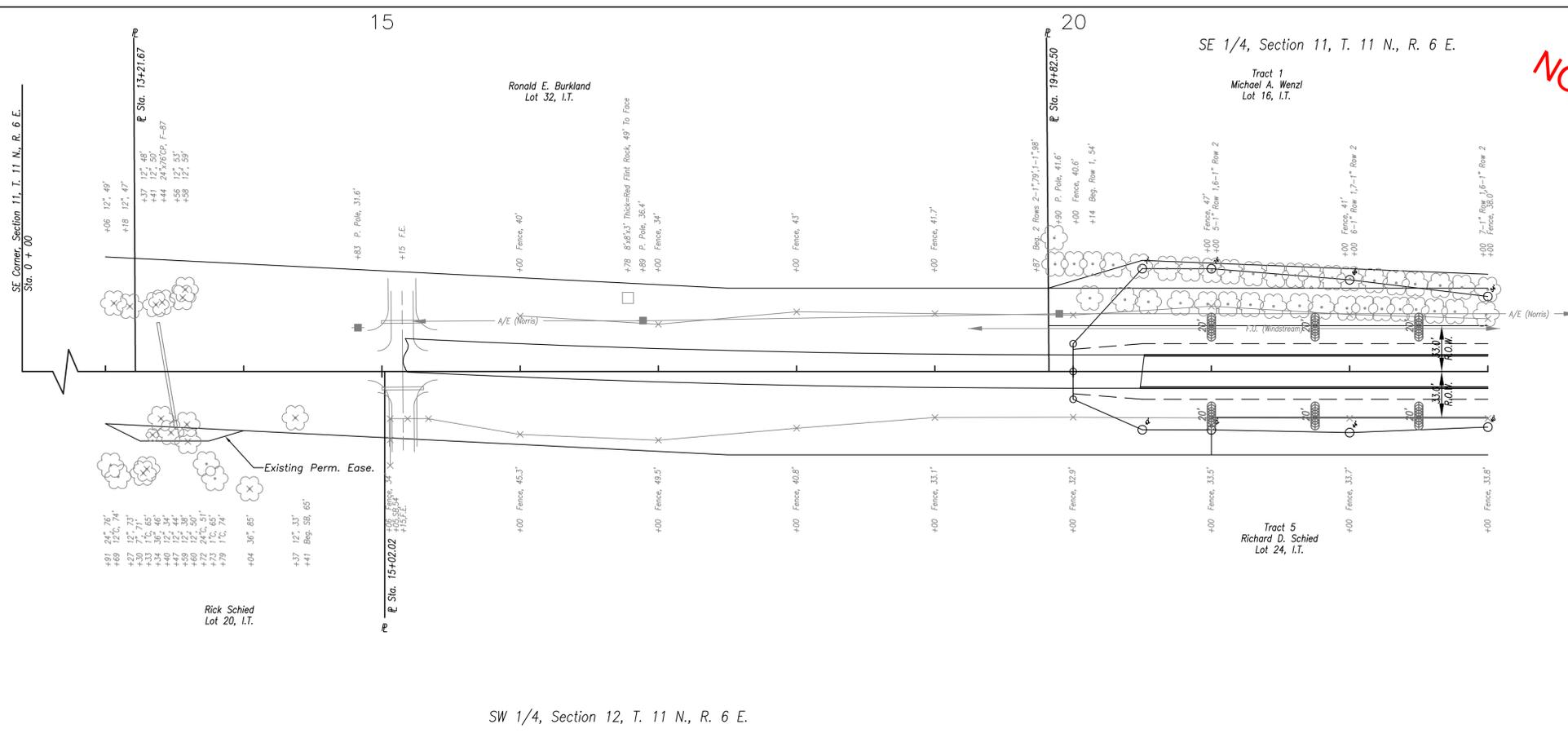
Station	Station	Side	Acres
20+50	23+00	Rt.	0.141
20+50	23+00	Lt.	0.300

Mulch			
Station	Station	Side	Tons
20+50	23+00	Rt.	0.28
20+50	23+00	Lt.	0.60

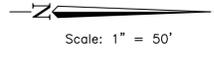
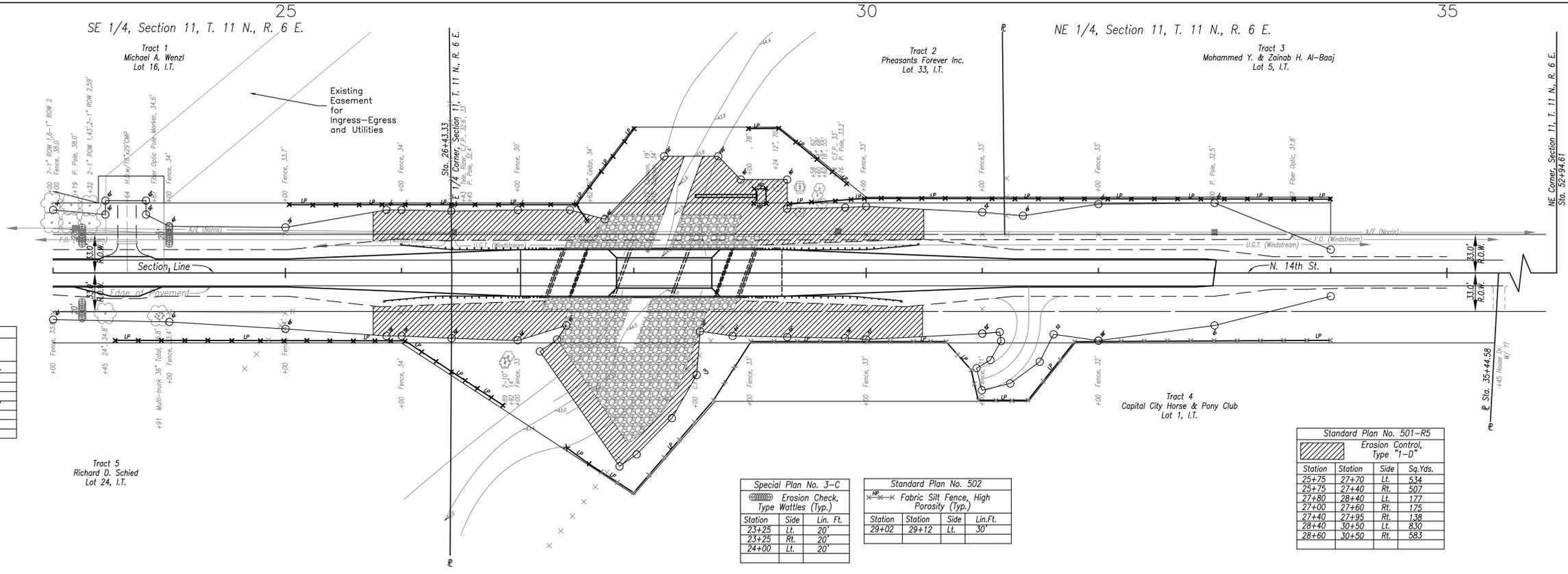
Covercrop Seeding			
Station	Station	Side	Acres
20+50	23+00	Rt.	0.196
20+50	23+00	Lt.	0.355

Special Plan No. 3-C			
Erosion Check, Type Wattles (Typ.)			
Station	Side	Lin. Ft.	
21+00	Rt.	20'	
21+00	Lt.	20'	
21+75	Rt.	20'	
21+75	Lt.	20'	
22+50	Rt.	20'	
22+50	Lt.	20'	

FINAL SURVEY DATE: 1/02
MUE BOX NO. 2057 SURVEYED BY: BRIDGE
PLOTTED BY: MIKE HALL



ORIGINAL SURVEY DATE: 12-3-01
MUE BOX NO. 2057 SURVEYED BY: BRIDGE
PLOTTED BY: MIKE HALL



Seeding, Type "A"			
Station	Station	Side	Acres
23+00	25+75	Rt.	0.150
23+00	25+75	Lt.	0.161
30+50	34+00	Rt.	0.400
30+50	34+00	Lt.	0.248

Mulch			
Station	Station	Side	Tons
23+00	25+75	Rt.	0.30
23+00	25+75	Lt.	0.32
30+50	34+00	Rt.	0.800
30+50	34+00	Lt.	0.50

Covercrop Seeding			
Station	Station	Side	Acres
23+00	27+40	Rt.	0.364
23+00	27+40	Lt.	0.333
27+77	28+43	Lt.	0.037
27+00	27+28	Rt.	0.036
27+40	27+60	Rt.	0.029
28+60	34+00	Lt.	0.514
28+60	34+00	Rt.	0.442

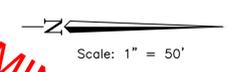
Standard Plan No. 502			
Fabric Silt Fence, Low Porosity (Typ.)			
Station	Station	Side	Lin. Ft.
23+50	25+88	Rt.	238'
25+00	28+00	Lt.	329'
27+42	34+00	Rt.	790'
27+50	27+60	Lt.	17'
29+00	29+84	Lt.	105'
29+35	34+00	Lt.	467'

Special Plan No. 3-C			
Erosion Check, Type Wattles (Typ.)			
Station	Side	Lin. Ft.	
23+25	Lt.	20'	
23+25	Rt.	20'	
24+00	Lt.	20'	

Standard Plan No. 502			
Fabric Silt Fence, High Porosity (Typ.)			
Station	Station	Side	Lin. Ft.
29+02	29+12	Lt.	30'

Standard Plan No. 501-R5			
Erosion Control, Type "1-D"			
Station	Station	Side	Sq. Yds.
29+75	27+70	Lt.	534
25+75	27+40	Rt.	507
27+80	28+40	Lt.	177
27+00	27+60	Rt.	175
27+40	27+95	Rt.	138
28+40	30+50	Lt.	830
28+60	30+50	Rt.	583

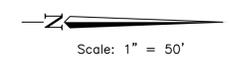
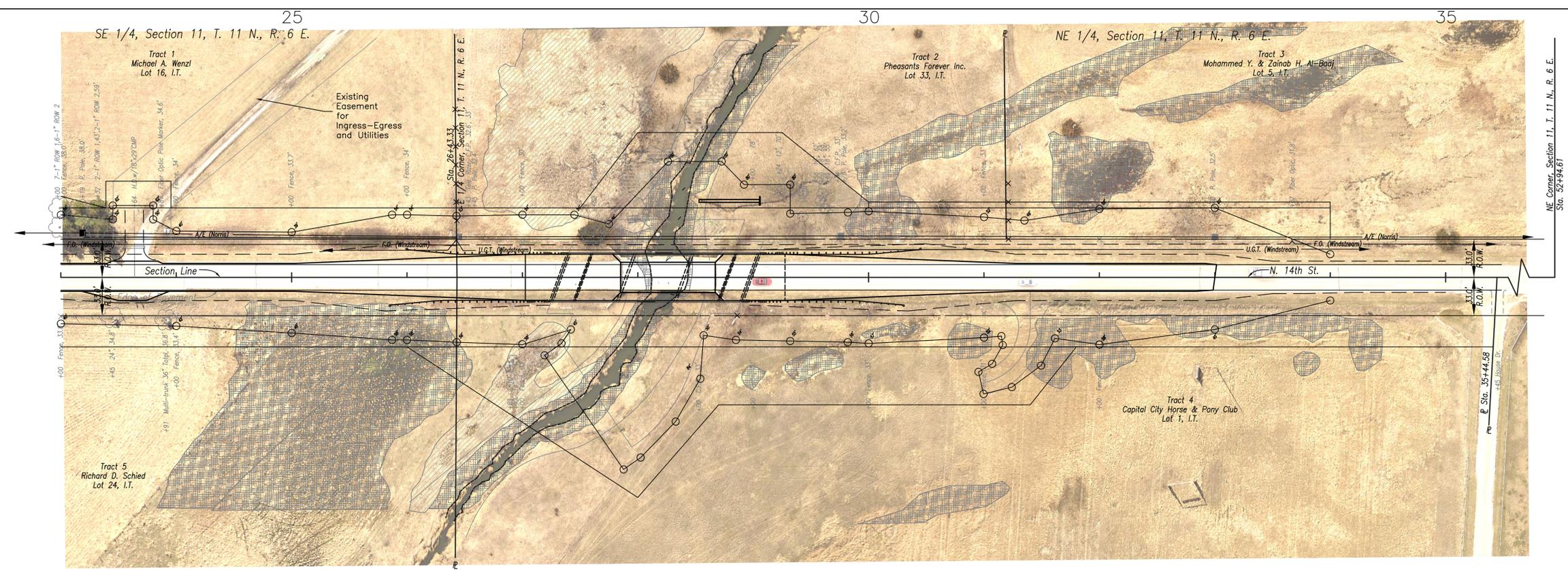




**PRELIMINARY
 NOT FOR CONSTRUCTION**



SW 1/4, Section 12, T. 11 N., R. 6 E.



- PEMA Wetland
- PEMC Wetland
- PSSA Wetland
- Channel



WETLANDS

SW 1/4, Section 12, T. 11 N., R. 6 E.

NW 1/4, Section 12, T. 11 N., R. 6 E.

FINAL SURVEY
 DATE: 1/02
 DATE: 1/02
 SURVEYED BY: BRIDGE
 PLOTTED BY: BRIDGE
 WITE BOOK NO. 2057

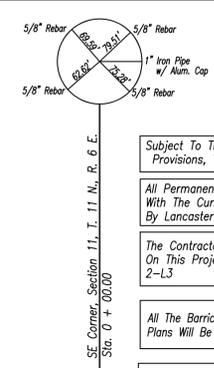
ORIGINAL SURVEY
 DATE: 12-3-01
 DATE: 12-3-01
 SURVEYED BY: MIKE HOLLE
 PLOTTED BY: MIKE HOLLE
 WITE BOOK NO. 2057

SE 1/4, Section 11, T. 11 N., R. 6 E.

NOT FOR CONSTRUCTION

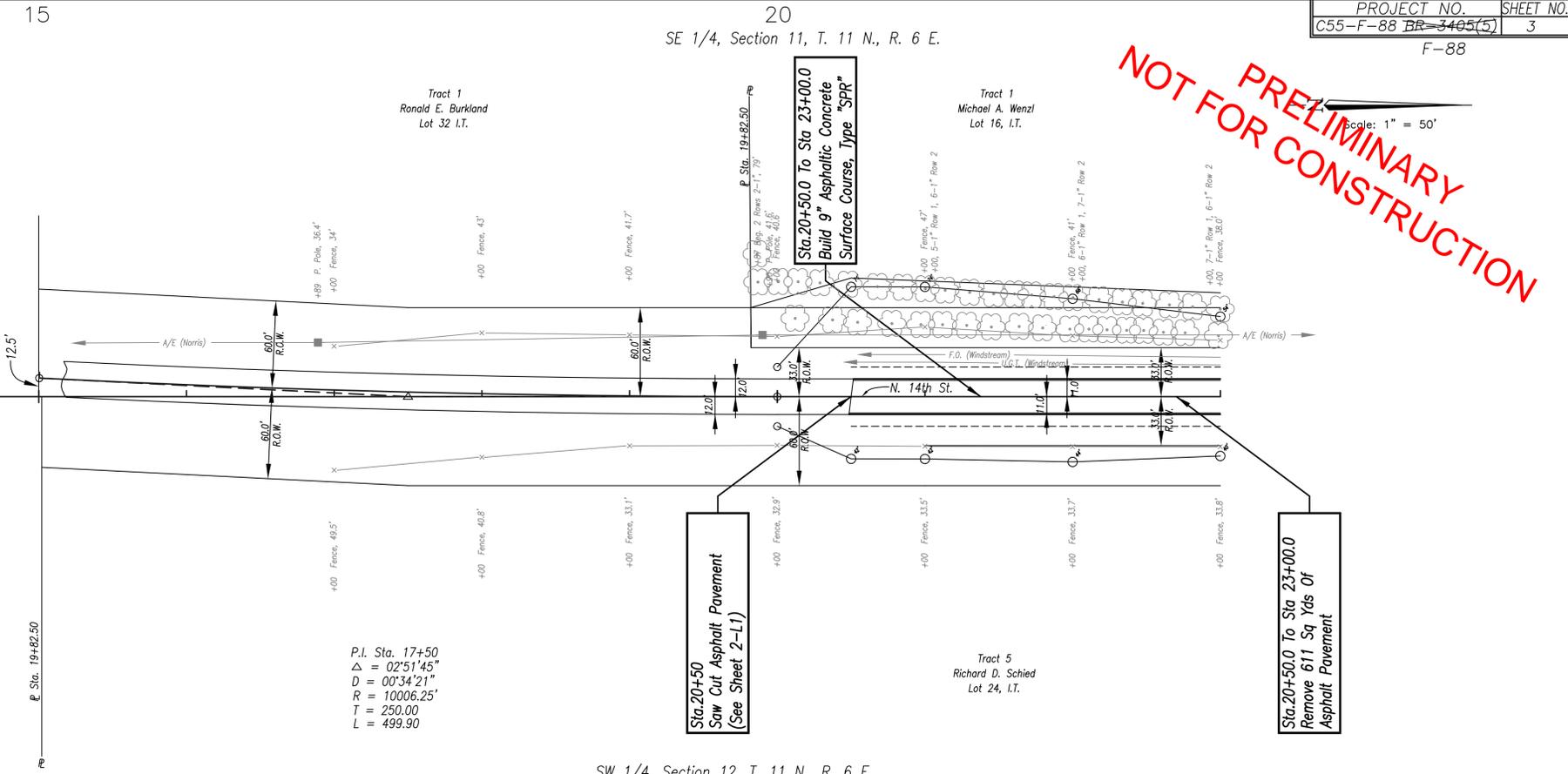
PLAN SURVEYED	DATE
PLOTTED	SEP 09
CHECKED	SEP 09
NO. 1244	BY BRIDGE

PROFILE SURVEYED	DATE
PLOTTED	SEP 09
CHECKED	SEP 09
NO. 2039	BY BRIDGE

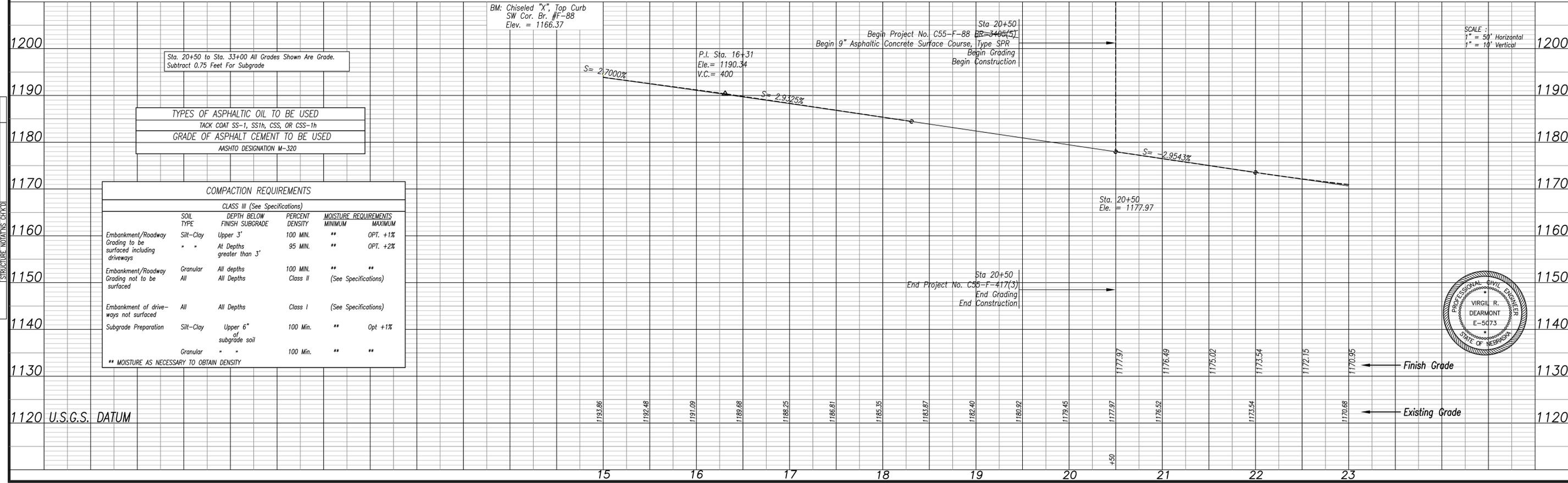


- The Contractor Will Not Be Allowed To Perform Any Work On This Project During Night Time Hours Or Under Artificial Lighting.
- The Contractor Is Prohibited From Using Machinery Of Any Kind In The Waters Of Little Salt Creek. The Contractor Will NOT Be Allowed To Construct A Low-Water Crossing Or Work Platform On This Project.
- The Contractor Will Be Required To Provide Continuous And Uninterrupted Access To All Properties Within The Project Limits Including The Residential Driveway Located At Sta 23+64 LT. Uninterrupted Access Will Be Provided By The Contractor To All Such Properties Throughout The Duration Of The Project. The Expense Of Providing Such Access Will Not Be Paid For Directly. This Work Will Be Considered Subsidiary To Items Of Work For Which Direct Payment Is Made.
- The Contractor Will Adhere To All Conditions And Requirements Of The C.O.E. 404 Permit, Lancaster County Floodplain Permit, And The N.D.E.Q. NPDES Permit During Construction Of The Project. Any Expenses Associated With Such Compliance Will Be Borne By The Contractor. The Contractor Will NOT Be Paid Directly For These Expenses They Will Be Considered Subsidiary To Items Of Work For Which Direct Payment Is Made.

- The Location Of All Aerial And/Or Underground Utility Facilities May Not Be Indicated On These Plans. Underground Utilities Whether Indicated Or Not, Will Be Located And Flagged By The Utilities At The Request Of The Contractor. No Excavation Will Be Permitted In The Area Of Underground Utility Facilities Until such Facilities Have Been Located And Identified To The Satisfaction Of All Parties And Then Only With Extreme Care To Avoid Any Possibility Of Damage To Said Utility Facilities Will Excavation Be Allowed To Proceed. The Diggers Hotline Of Nebraska Telephone No. Is 1-800-331-5666 Or 811.
- The Contractor Will Be Required To Furnish Borrow On This Project. The Contractor Will Obtain A Permit For The Borrow Site(s) From: The U.S. Army Corps Of Engineers - Omaha District Nebraska Regulatory Office - Wehrspang 8901 South 154 th Street - Suite #1 Omaha, Nebraska 68136-3621 Permit No 2012-02349-WEH The Contractor Will Obtain The Permit Prior To Beginning Borrow Operations. Any Expense Associated With Obtaining The Permit Will Be The Contractor's.
- The Contractor Will Remove The Entire Structure At Sta. 28+26.15 The Existing Bridge Will Become The Property Of The Contractor And Will Be Removed From The Site And The Project Right-Of-Way By Him.
- The Contractor Will Not Be Allowed To Dispose Of Trees, Stumps, Logs, Down Timber, Shrubs, Brush, Weeds Or Other Herbaceous Material Resulting From Clearing Or Grubbing Operations On The Project Right-Of-Way Or Easements. The Contractor Will Not Be Allowed To Dispose Of Debris Resulting From Demolition Or Other Construction Operations Of Any Kind On The Project Right-Of-Way Or Easements.



SW 1/4, Section 12, T. 11 N., R. 6 E.

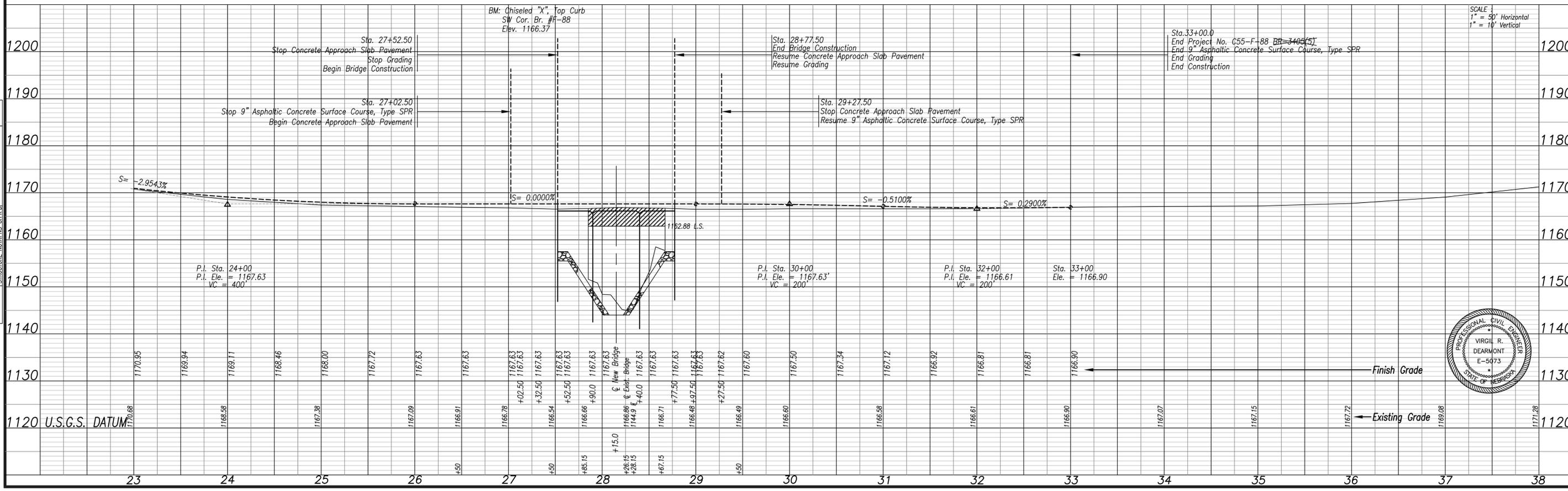
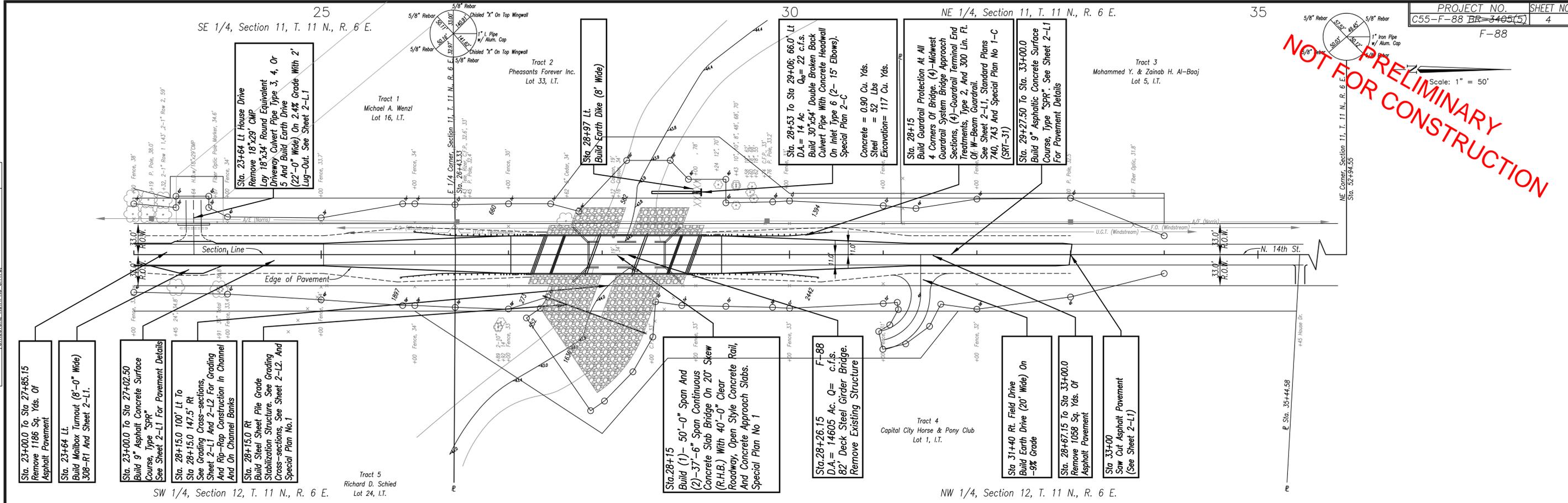


NOT FOR CONSTRUCTION

Scale: 1" = 50'

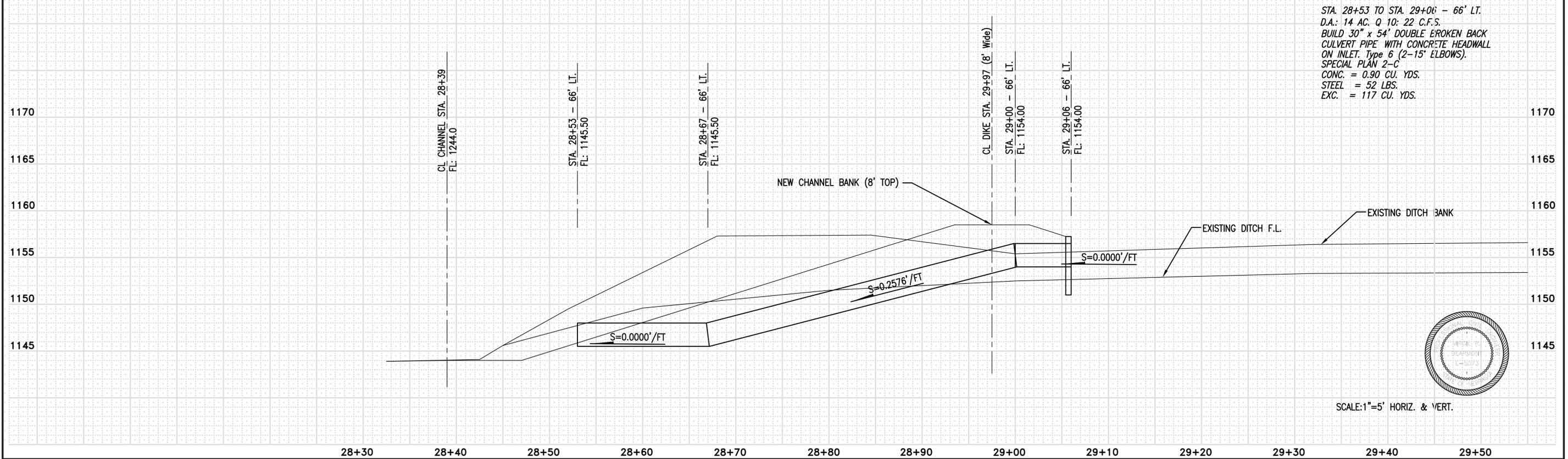
PLAN SURVEYED BY DATE
Sep. 92
CHECKED BY DATE
Sep. 92
NO. 2039 E.M.S. NO. 10
STRUCTURE: MOATINS CRK

PROFILE SURVEYED BY DATE
Sep. 92
CHECKED BY DATE
Sep. 92
NO. 2039 E.M.S. NO. 10
STRUCTURE: MOATINS CRK

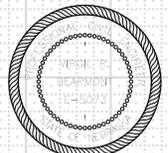


PRELIMINARY
 NOT FOR CONSTRUCTION

DATE: 05-15-10
 COUNTY FORCES: 2010
 SURVEYED BY: PLUMED BR.
 DATE: 05-15-10
 ORIGINAL SURVEY



STA. 28+53 TO STA. 29+06 - 66' LT.
 D.A.: 14 AC. Q 10: 22 C.F.S.
 BUILD 30" x 54' DOUBLE BROKEN BACK
 CULVERT PIPE WITH CONCRETE HEADWALL
 ON INLET. Type 6 (2-15' ELBOWS).
 SPECIAL PLAN 2-C
 CONC. = 0.90 CU. YDS.
 STEEL = 52 LBS.
 EXC. = 117 CU. YDS.



SCALE: 1"=5' HORIZ. & VERT.

THIS DOCUMENT WAS ORIGINALLY ISSUED AND SEALED BY VIRGIL DEARMONT, E-6073, ON 12/15/2017. THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.

C55-F88

PROJECT NUMBER
~~BR-3405(5)~~

SHEET NO.

C.N. ~~33~~

STRUCTURE NUMBER
C005512360

PRELIMINARY
NOT FOR CONSTRUCTION

RAYMOND - SOUTHEAST

~~BR-3405(5)~~

C55 - F88

125'-0" 3-SPAN
CONTINUOUS CONCRETE SLAB BRIDGE
GENERAL NOTES, QUANTITIES AND INDEX

DATE: APRIL 2012

LINCOLN, NEBRASKA

SPEECE-LEWIS ENGINEERS

LOCATION RAYMOND-SOUTHEAST
SKEW 20° RHB

CLEAR ROADWAY 40'-0"
DESIGN LIVE LOAD HL93

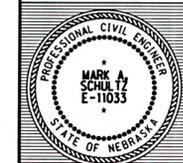
CHECKED BY: MS

COUNTY LANCASTER
HWY. NO.

REF. POST.
STA. 28+15.00

DESIGNED BY: GH

 speece-lewis engineers



SPECIAL PLAN NO.
1 / 12

-NOTES-

This structure is designed in accordance with the AASHTO LRFD Bridge Design Specifications, Fifth Edition and subsequent Interims.

The superstructure of this bridge is designed by the Load and Resistance Factor Design method. The slab is designed for a future wearing surface of 20 psf.

Concrete for slab, approach slabs and rails shall be Class "47BD" concrete, with a 28-day strength of 4,000 psi.

All other cast-in-place concrete shall be Class "47B" concrete, with a 28-day strength of 3,000 psi.

All exposed edges of concrete shall be chamfered.

The minimum clearance, measured from the face of the concrete to the surface of any reinforcing bar, shall be 3", except where otherwise noted.

The Contractor may substitute any one of the alternate designs shown on the plans for the original design. All quantities are based on the original design and no additions or deductions will be allowed for the use of an alternate design.

The item, "Structural Steel for Substructure", shall include tie rods and hardware, turnbuckles, wing wales, sheet pile caps and nose angles.

Tie rods shall conform to ASTM A709, Grade 36 Steel. Turnbuckles shall conform to ASTM A668, Class C.

All structural steel shall conform to the requirements of ASTM A709, Grade 36.

All reinforcing steel shall be epoxy coated and conform to the requirements of ASTM A-615, Grade 60.

All dimensions shown are in horizontal plane only. No allowances have been made for vertical curve or roadway cross slope.

Contractor shall submit the proposed slab pouring sequence to the Project Manager three weeks before placing the slab concrete.

All details are not to scale unless otherwise noted.

As an alternate, after fabrication, nose angles may be galvanized in accordance with ASTM A123/A123M in lieu of painting as per 2007 NDOR Standard Specification 709.03.

Shop plans required for review for Structural Steel for Substructure and Steel Sheet Piling.

-QUANTITIES-

ABUTMENT NO. 1 EXCAVATION	1		Lump Sum
BENT NO. 1 EXCAVATION	1		Lump Sum
BENT NO. 2 EXCAVATION	1		Lump Sum
ABUTMENT NO. 2 EXCAVATION	1		Lump Sum
CLASS 47B-3000 CONCRETE FOR BRIDGE	204.6		Cu. Yds.
ABUTMENTS	48.7	Cu. Yds.	
BENTS	155.9	Cu. Yds.	
CLASS 47BD-4000 CONCRETE FOR BRIDGE	324.8		Cu. Yds.
SLAB	307.9	Cu. Yds.	
CONCRETE RAILS	16.9	Cu. Yds.	
EPOXY COATED REINFORCING STEEL FOR BRIDGE	88010		Lbs.
SLAB	70685	Lbs.	
CONCRETE RAILS	3470	Lbs.	
ABUTMENTS	7705	Lbs.	
BENTS	6150	Lbs.	
STRUCTURAL STEEL FOR SUBSTRUCTURE	7850		Lbs.
HP 12 in. X 53 Lbs. STEEL PILING	2730		Lin. Ft.
STEEL SHEET PILING	7042		Sq. Ft.
ABUTMENTS	4065	Sq. Ft.	
WEIR	2977	Sq. Ft.	
GRANULAR BACKFILL	495		Cu. Yds.
ROCK RIPRAP, TYPE B	1200		Tons
ROCK RIPRAP, TYPE C	835		Tons
RIPRAP FILTER FABRIC	2093		Sq. Yds.
SALVAGING AND PLACING TOPSOIL ON RIPRAP	2050		Sq. Yds.
CONCRETE FOR PAVEMENT APPROACHES, CLASS 47BD-4000	190.2		Cu. Yds.
SLABS	180.8	Cu. Yds.	
CONCRETE RAILS	9.4	Cu. Yds.	
EPOXY COATED REINFORCING STEEL FOR PAVEMENT APPROACHES	32845		Lbs.
SLABS	29900	Lbs.	
CONCRETE RAILS	2945	Lbs.	
<hr style="border-top: 1px solid black;"/>			
ACCESS CROSSING AT STA. 28+15.00	1		Lump Sum

-INDEX-

GENERAL NOTES, QUANTITIES AND INDEX	1
GENERAL PLAN AND ELEVATION	2
GEOLOGY PROFILE AND PILE LAYOUT	3
ABUTMENT PLAN AND ELEVATION	4
ABUTMENT DETAILS	5
BENT PLAN AND ELEVATION	6
ROADWAY CROSS-SECTION AND END OF FLOOR PLAN	7
APPROACH SLAB DETAILS	8
APPROACH SLAB RAIL DETAILS	9
RAIL DETAILS	10
PLAN OF ROCK RIPRAP AND RIPRAP FILTER FABRIC	11
BILL OF BARS	12

Note:
This structure is located across the Little Salt Creek between
Sec. 11-T11N-R6E and Sec. 12-T11N-R6E in Lancaster
County, Nebraska.

Note:
Grade Elevations shown are Profile
Grade Elevations at \odot Project.

C55-F88

PROJECT NUMBER
STRUCTURE NUMBER

C.N. ~~XXXX~~
C005512360

NOT FOR CONSTRUCTION

125'-0" 3-SPAN
CONTINUOUS CONCRETE SLAB BRIDGE
GENERAL PLAN AND ELEVATION

LINCOLN, NEBRASKA

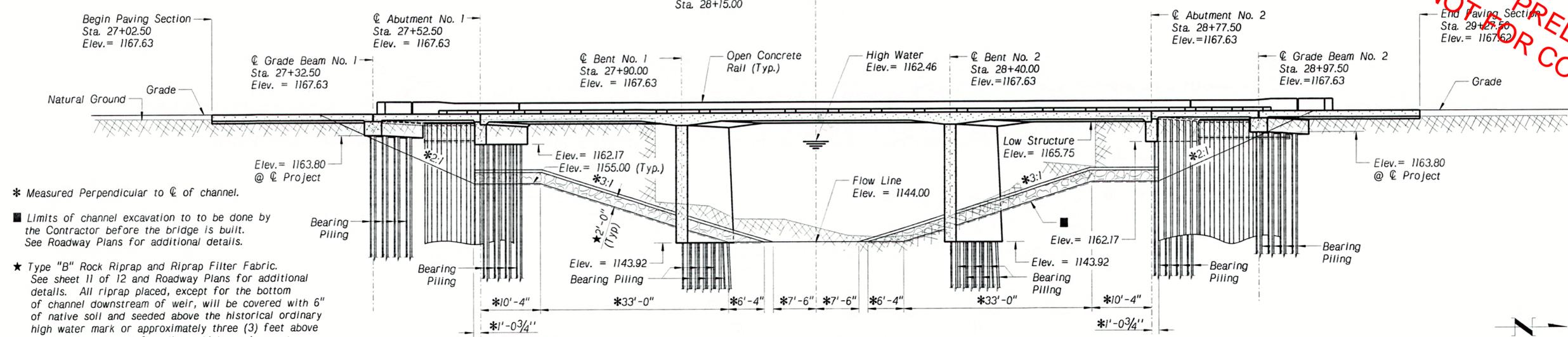
CHECKED BY: MS
SPEECE-LEWIS ENGINEERS

COUNTY LANCASTER
LOCATION RAYMOND-SOUTH-EAST
HWY. NO. 20' RHB
CLEAR ROADWAY 40'-0"
DESIGN LIVE LOAD HL93
STA. 28+15.00
DESIGNED BY: GH
DATE: APRIL 2012

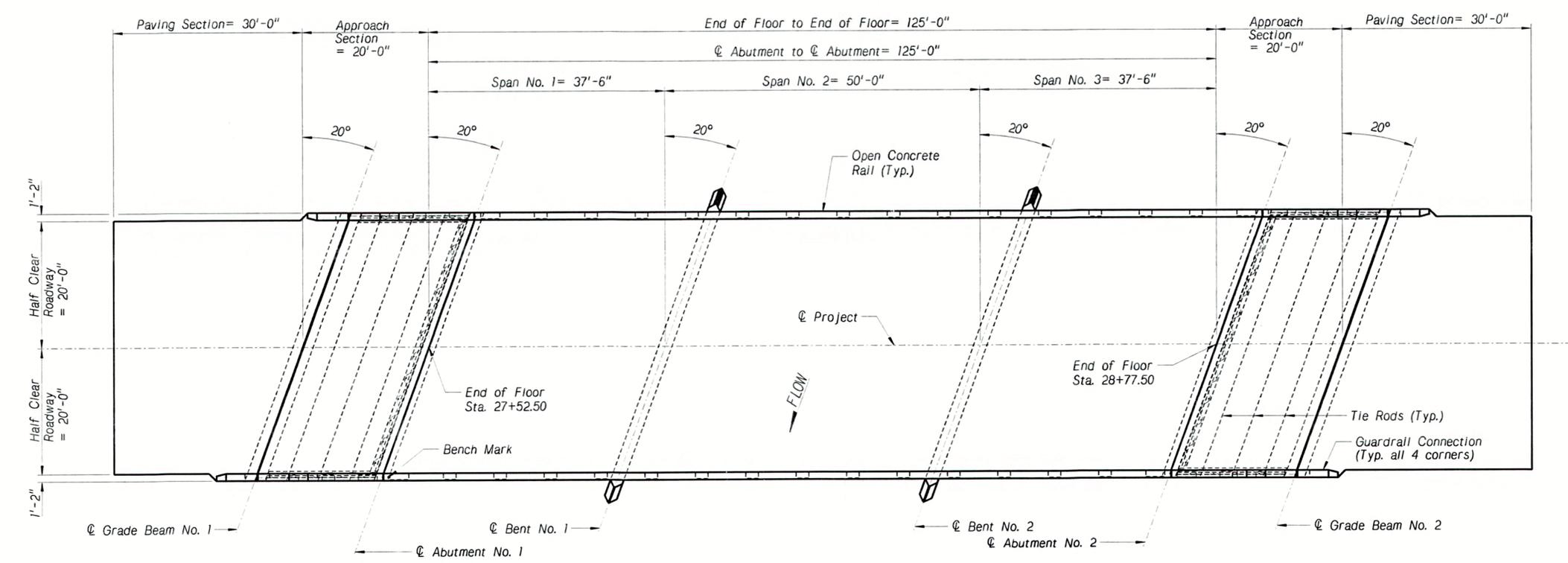
Speece Lewis engineers



SPECIAL PLAN NO. 2
1 / 12

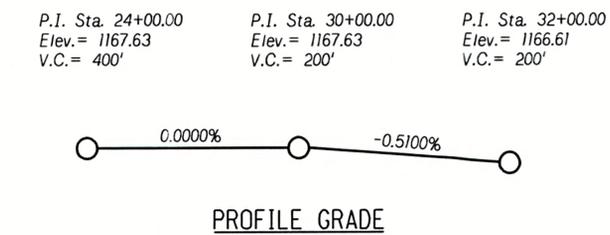


- * Measured Perpendicular to \odot of channel.
 - Limits of channel excavation to be done by the Contractor before the bridge is built. See Roadway Plans for additional details.
 - ★ Type "B" Rock Riprap and Riprap Filter Fabric. See sheet 11 of 12 and Roadway Plans for additional details. All riprap placed, except for the bottom of channel downstream of weir, will be covered with 6" of native soil and seeded above the historical ordinary high water mark or approximately three (3) feet above the existing channel flow line, whichever is greater.
- See Roadway plans for Contractor's Access Crossing.

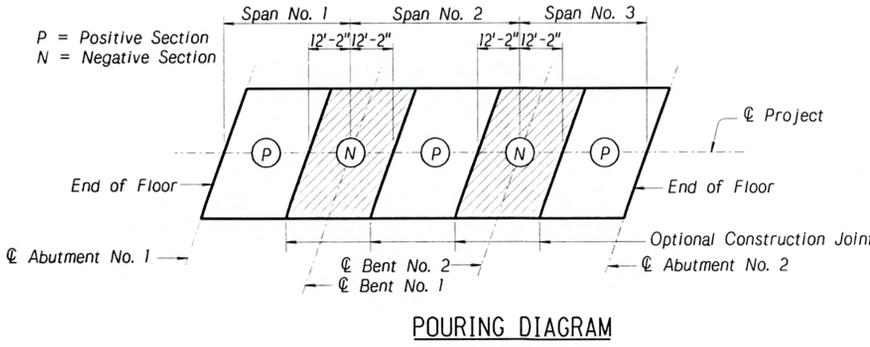


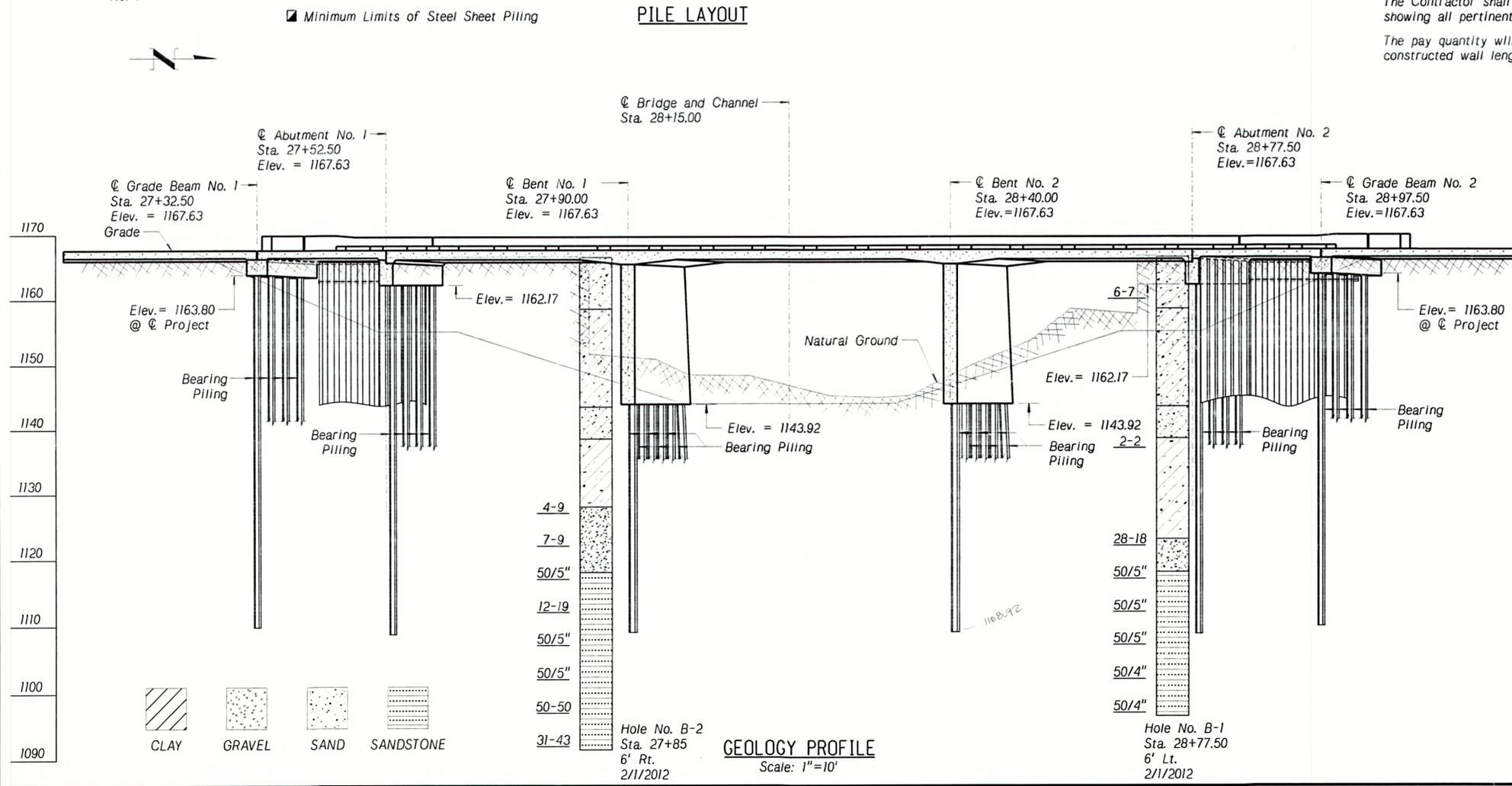
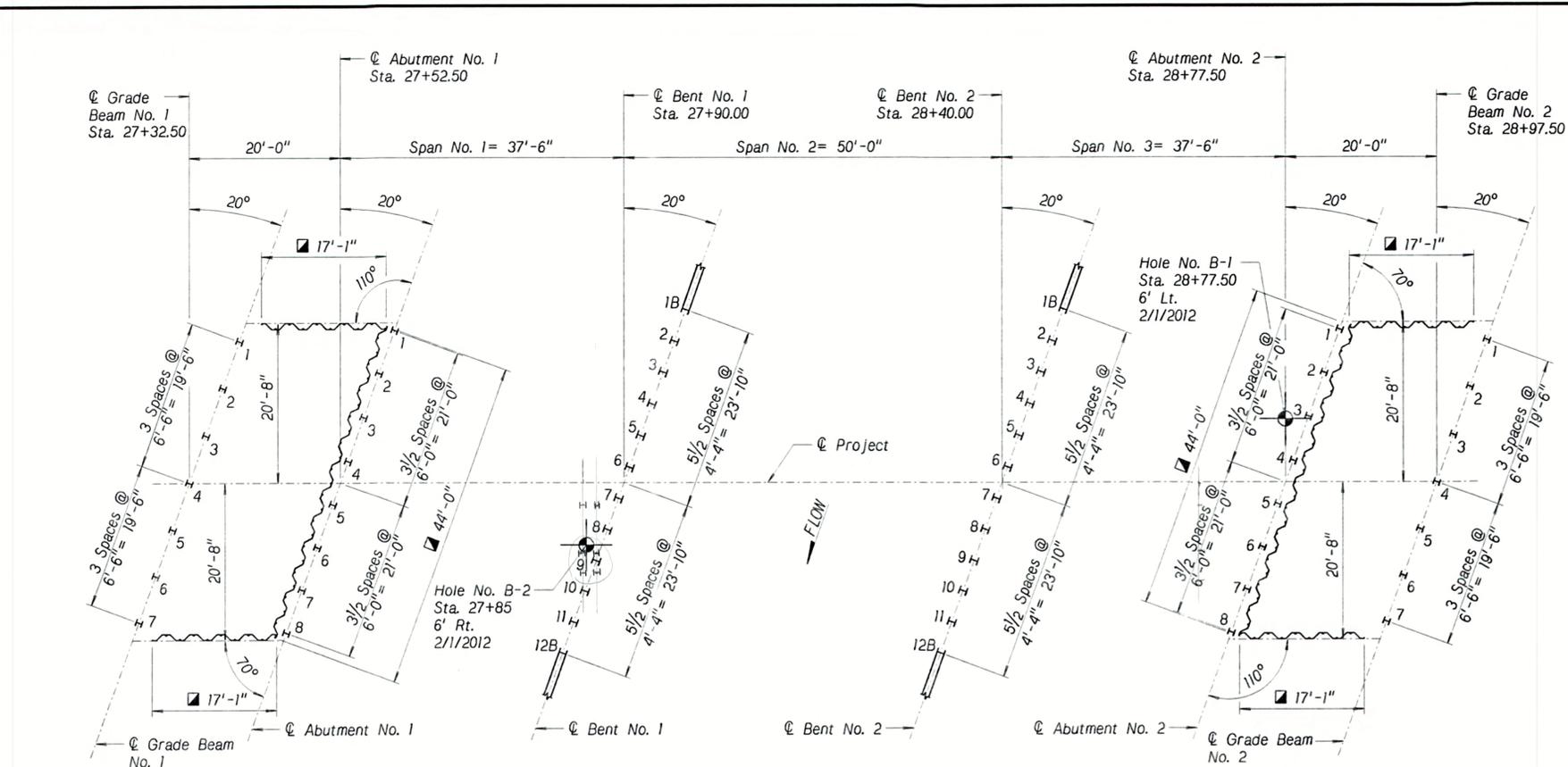
BRIDGE HYDRAULIC INFORMATION
 STREAM: LITTLE SALT CREEK
 D.A. = 23.5 SQ. MI.
 Q100 = 12,500 CFS (DESIGN FLOOD)
 H.W. ELEV. = 1,162.46 (D.S. SIDE)
 W.W.A. BELOW H. W. = 1,306 SQ. FT.
 Q100 GENERAL SCOUR = 3.0 FT.
 Q100 LOCAL SCOUR = 5.9 FT.
 Q500 SCOUR ELEV. = 1,128.0 FT.

TRAFFIC DATA		
YEAR	2009	2029
ADT	2805	3460
DHV	295	365
HEAVY TRUCKS	8 %	8 %



POURING SEQUENCE:
The entire slab shall be poured starting at one end and proceeding to the other end, stopping at the completion of any "P" section.



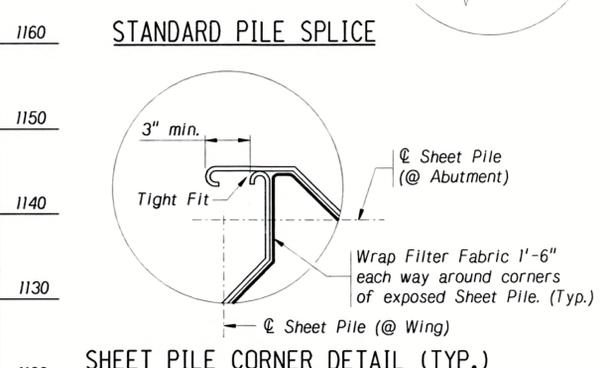
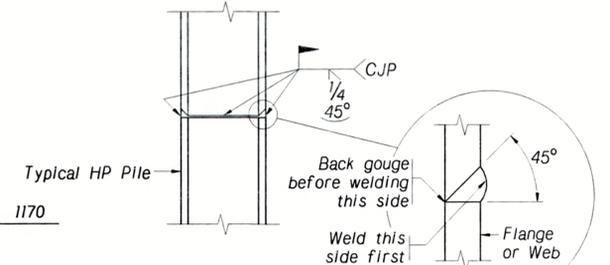


PILE DATA						C55-F88
LOCATION	PILE NUMBER	CUT-OFF ELEVATION	MINIMUM PENETRATION BELOW CUT-OFF (FEET)	PILE ORDER LENGTH (FEET)	DESIGN PILE BEARING (KIPS/PILE)	PILE TYPE
GR.BM. NO. 1	1 thru 7	1164.80	50	55	105	HP12X53
ABUT. NO. 1	1 thru 8	1163.67	50	55	135	HP12X53
BENT NO. 1	1B,4,6,7,9&12B	1158.92	45	50	160	HP12X53
	2,3,5,8,10&11	1148.92	35	40	160	HP12X53
BENT NO. 2	1B,4,6,7,9&12B	1158.92	45	50	160	HP12X53
	2,3,5,8,10&11	1148.92	35	40	160	HP12X53
ABUT. NO. 2	1 thru 8	1163.67	50	55	135	HP12X53
GR.BM. NO. 2	1 thru 7	1164.80	50	55	105	HP12X53

Bent pile lengths are designed for scour to Elevation 1135.10 for 100-year flood. Bent pile lengths are checked for scour to Elevation 1128.00 for 500-year flood. All pile spacing is measured at bottom of concrete. Bent pile followed by the letter "B" shall be battered 1/2 to 12. Structural steel for all "H" piles shall conform to ASTM A709, Grade 36. Prefabricated cast steel points will be required on all HP pile in this structure in accordance with the 2007 NDOR Standard Specifications, Section 703. Approved manufacturers of prefabricated pile points are shown on the NDOR Approved Products List. All steel sheet piling for abutments shall conform to ASTM A328 steel and meet the following minimum requirements:

Section length 26 ft
Maximum section depth 10 in
Minimum section thickness 0.30 in
Section modulus 16.2 in³/ft

The Contractor shall submit for approval a shop plan of the sheet pile layout showing all pertinent dimensions, details and section properties. The pay quantity will be based on the sheet pile wall dimensions shown. The constructed wall length will be within ±24" of the sheet pile wall dimensions shown.



Note: Corner Filter Fabric shall be Subsidiary to the pay item "STEEL SHEET PILING".

Note: The borings, as logged on the plans, represent the character of the subsoil at the location indicated. No guarantee is made that the subsoil conditions vary uniformly between or outside the given location.

Figures beside the column of borings indicate the number of blows required to drive a standard penetrometer of 2" O.D. the second and third six inches using a 140-pound weight falling 30 inches, in accordance with A.S.T.M. D1586 procedures.

PROJECT NUMBER: C55-F88
SHEET NO. 3

C.N. ~~XXXX~~
STRUCTURE NUMBER: C005512360

125'-0", 3-SPAN
CONTINUOUS CONCRETE SLAB BRIDGE
GEOLOGY PROFILE AND PILE LAYOUT

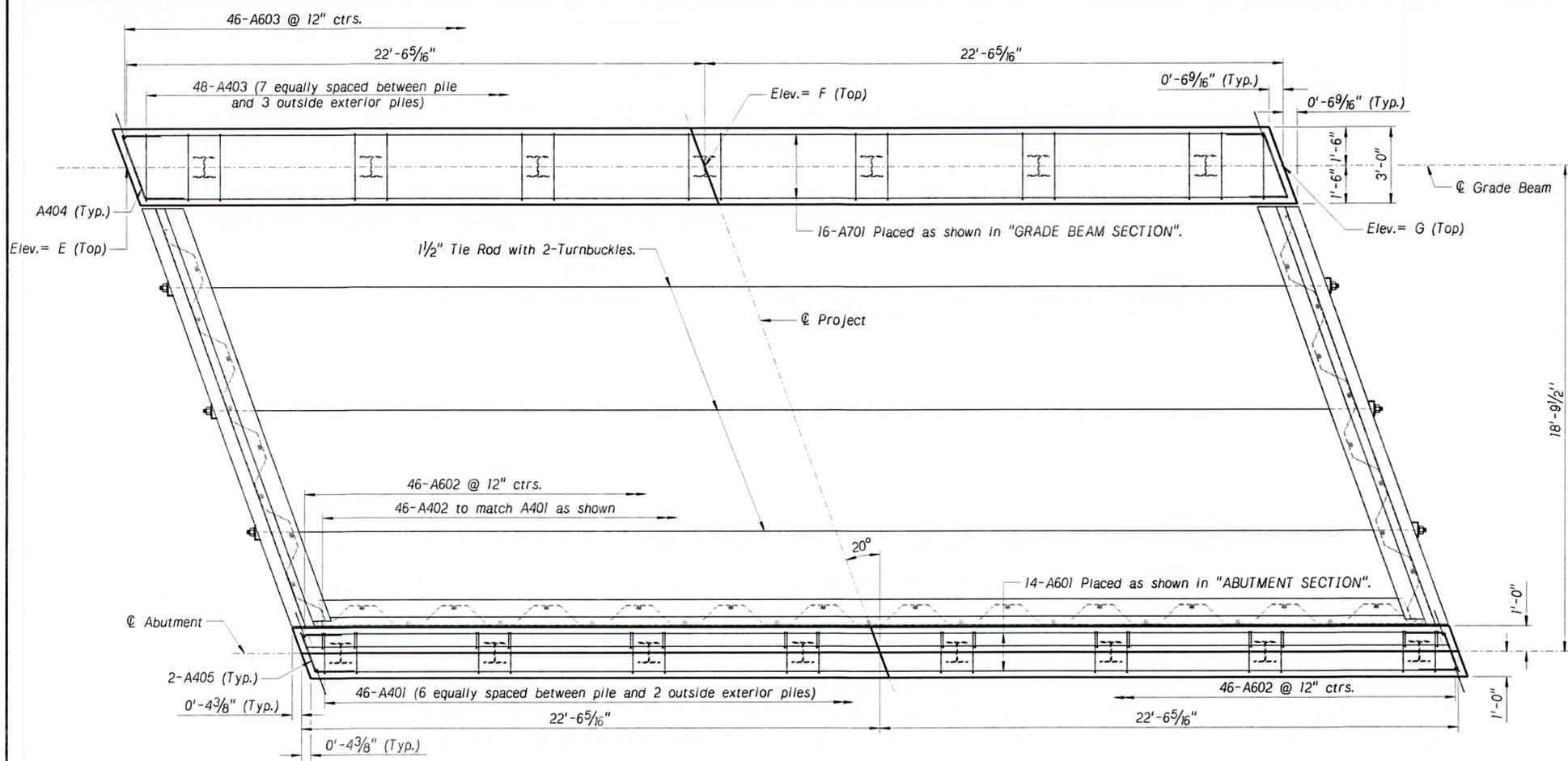
LOCATION: RAYMOND-SOUTHEAST
SKW 20° RHB
CLEAR ROADWAY 40'-0"
DESIGN LIVE LOAD HL93

COUNTY: LANCASTER
HWY. NO. 28
REF. POST STA. 28+15.00
DESIGNED BY: GH

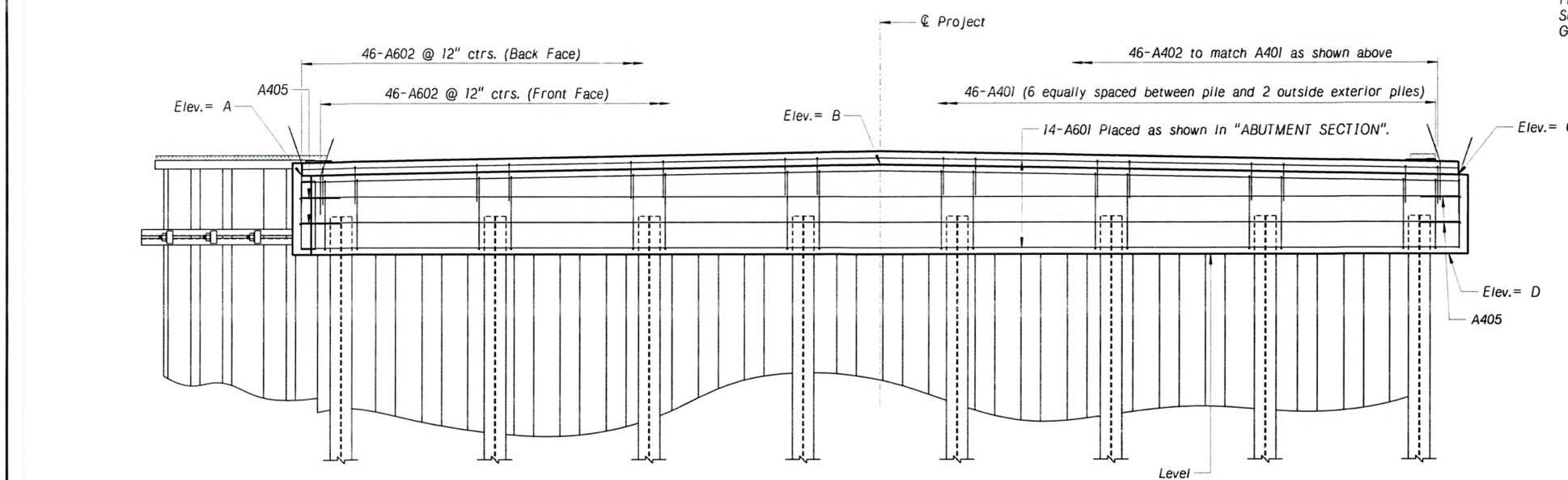
DATE: APRIL 2012
CHECKED BY: MS

SPEECE-LEWIS ENGINEERS
LINCOLN, NEBRASKA

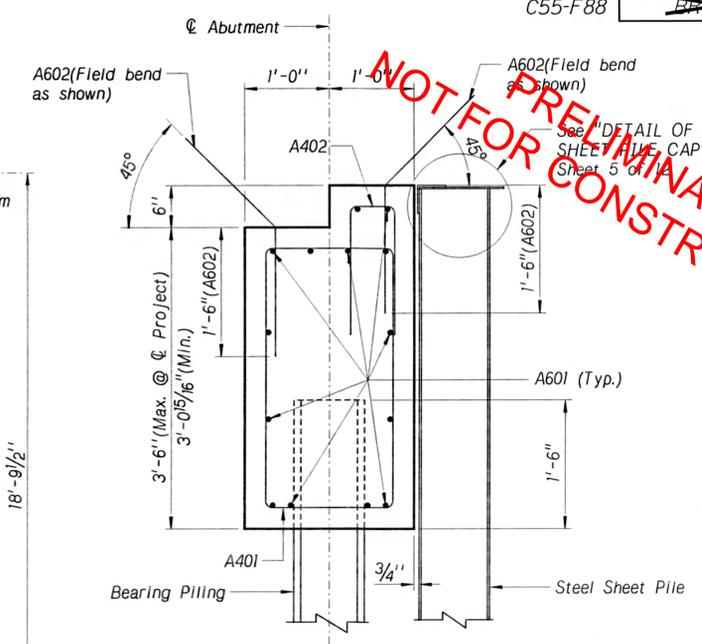
SPECIAL PLAN NO. 1
3
12



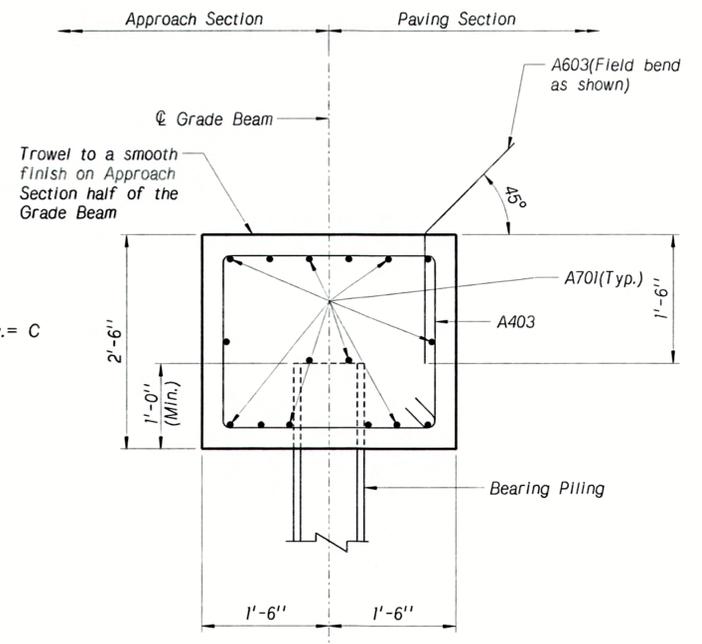
PLAN OF ABUTMENT NO. 2
Abutment No. 1 similar by mirror



ELEVATION OF ABUTMENT NO. 2



ABUTMENT SECTION



GRADE BEAM SECTION

ABUTMENT ELEVATIONS							
LOCATION	A	B	C	D	E	F	G
ABUTMENT NO. 1	1165.25	1165.67	1165.25	1162.17	1165.87	1166.30	1165.87
ABUTMENT NO. 2	1165.25	1165.67	1165.25	1162.17	1165.87	1166.30	1165.87

SPEECE-LEWIS ENGINEERS

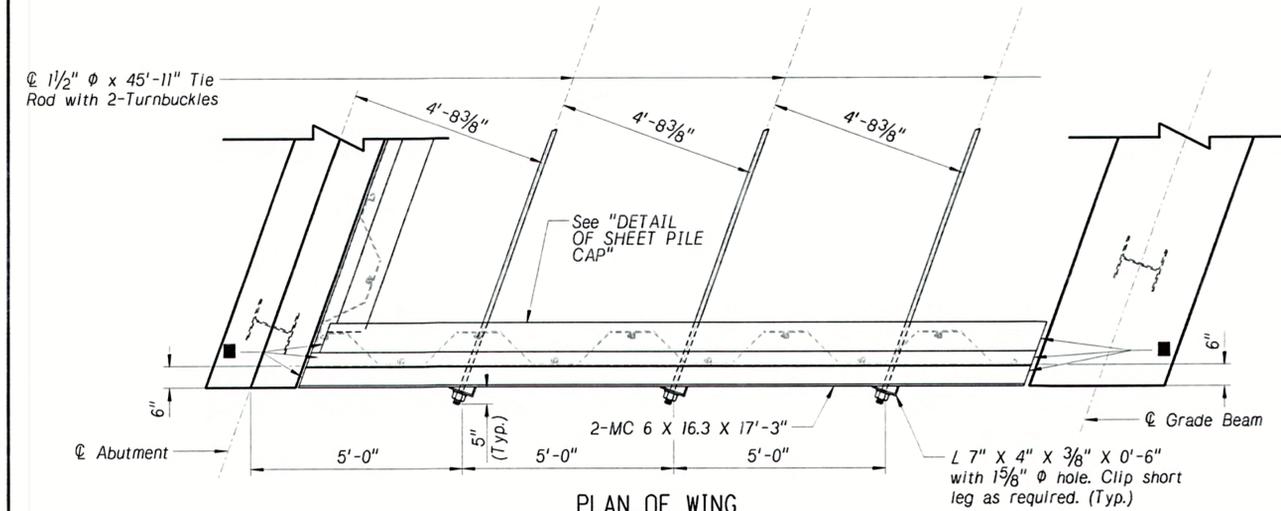
LINCOLN, NEBRASKA

PROFESSIONAL CIVIL ENGINEER
MARK A. SCHULTZ
E-11033
STATE OF NEBRASKA

NOT FOR CONSTRUCTION
PRELIMINARY

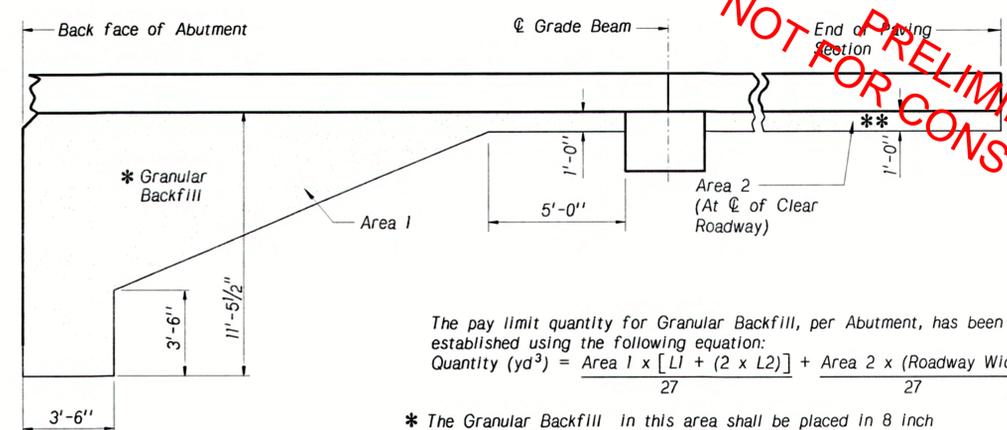
125'-0" 3-SPAN
CONTINUOUS CONCRETE SLAB BRIDGE
ABUTMENT DETAILS
DATE: APRIL 2012
SPEECE-LEWIS ENGINEERS
LINCOLN, NEBRASKA
COUNTY LANCASTER
LOCATION RAYMOND-SOUTHEAST
HWY. NO. 20' RHB
CLEAR ROADWAY 40'-0"
DESIGN LIVE LOAD HL93
STA. 28+15.00
DESIGNED BY: GH
CHECKED BY: TC
SPECIAL PLAN NO. 5
1 / 12

NOT FOR CONSTRUCTION
PRELIMINARY



PLAN OF WING

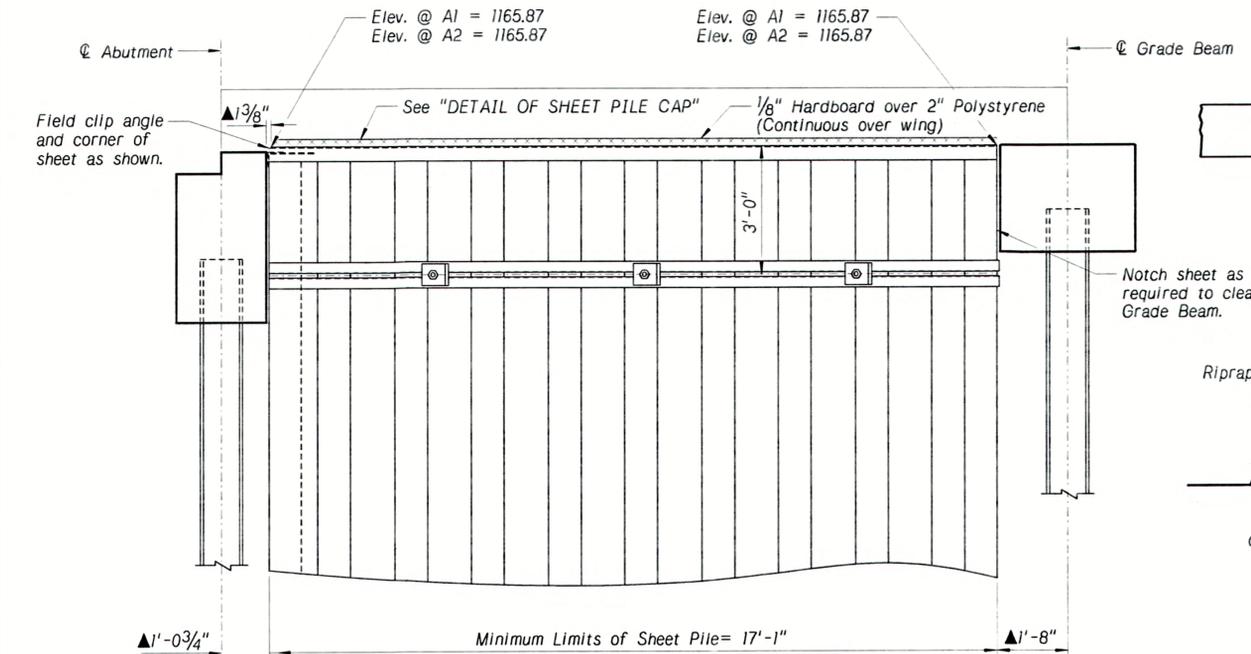
Field clip channels, angle and plate as necessary



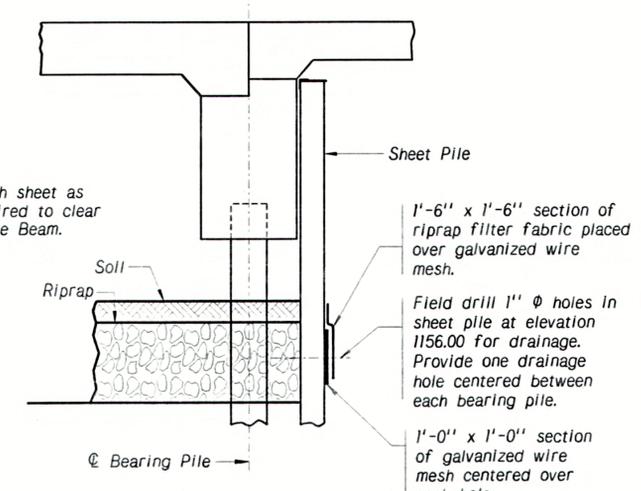
SECTION A - A

The pay limit quantity for Granular Backfill, per Abutment, has been established using the following equation:
Quantity (yd³) = $\frac{\text{Area 1} \times [L1 + (2 \times L2)]}{27} + \frac{\text{Area 2} \times (\text{Roadway Width})}{27}$

- * The Granular Backfill in this area shall be placed in 8 inch layers and compacted by a single pass of a walk-behind, lightweight (approx. 100 lbs.) mechanical tamper, roller, or vibratory compactor. There is no density requirement. Heavy compaction equipment shall not be used in this area. Flooding the granular backfill with water is not allowed.
- ** The Backfill in this area shall be compacted in accordance with the Standard Specifications.

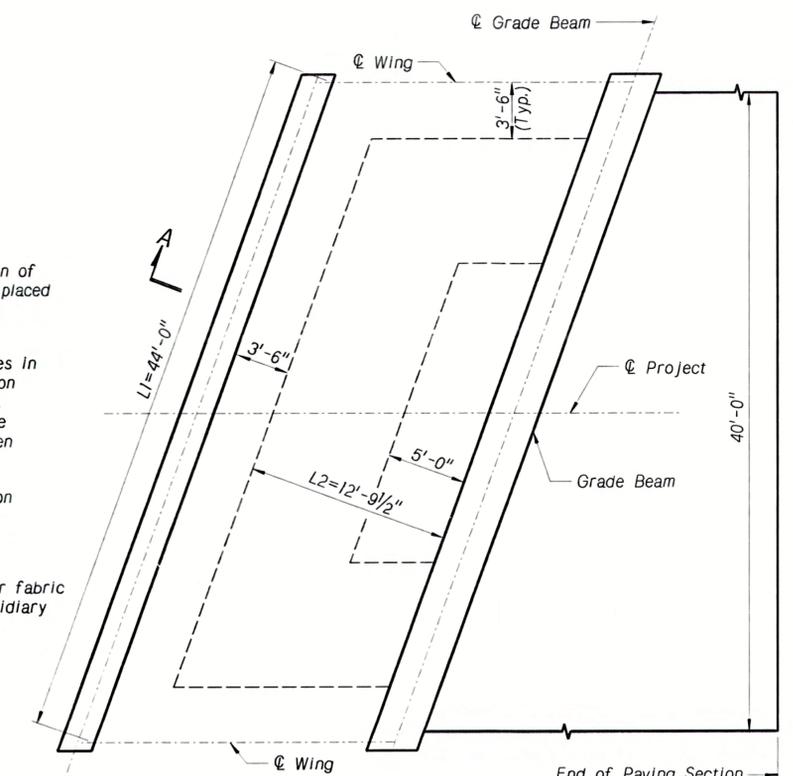


WING ELEVATION



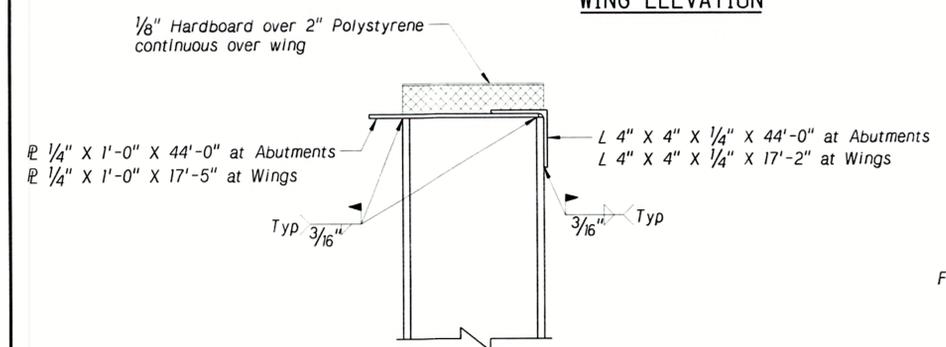
DRAINAGE DETAIL

NOTE: The furnishing and placing of the filter fabric and galvanized wire mesh shall be subsidiary to the Item GRANULAR BACKFILL.

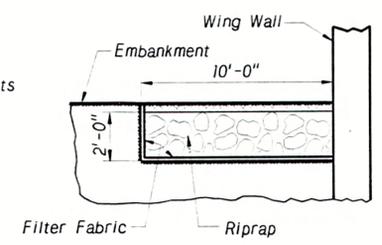


PLAN OF GRANULAR BACKFILL

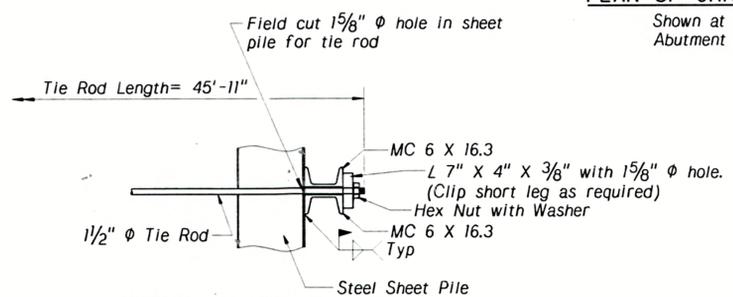
Shown at Abutment No. 2. Abutment No. 1 similar.



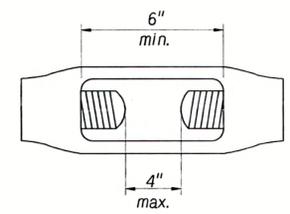
DETAIL OF SHEET PILE CAP



WING RIPRAP DETAIL

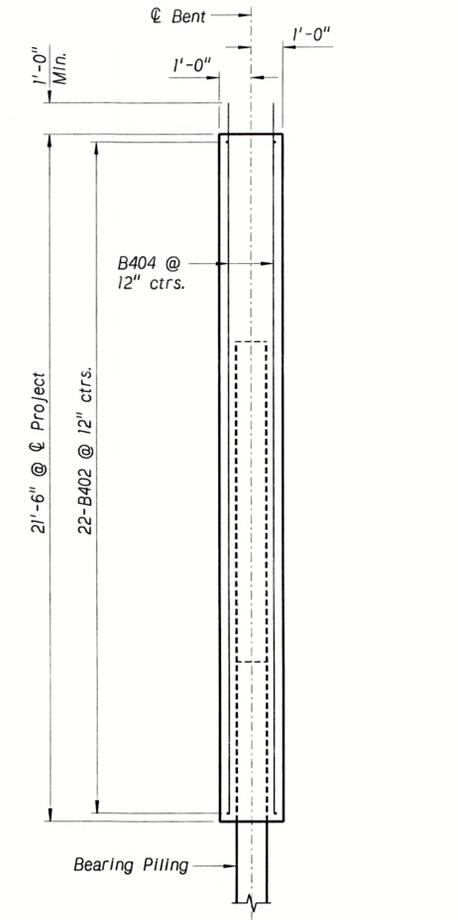
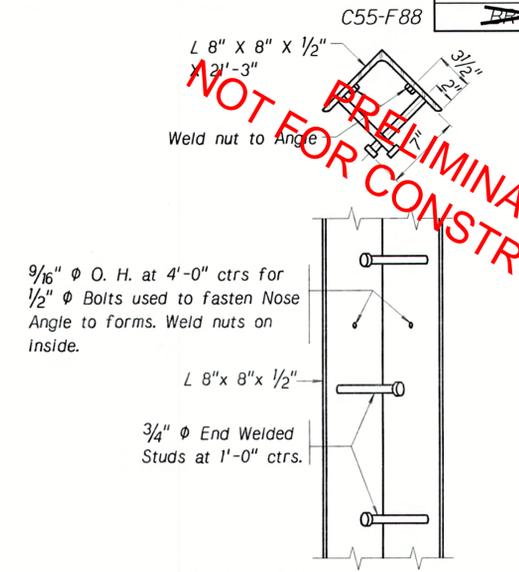


DETAIL AT WINGS

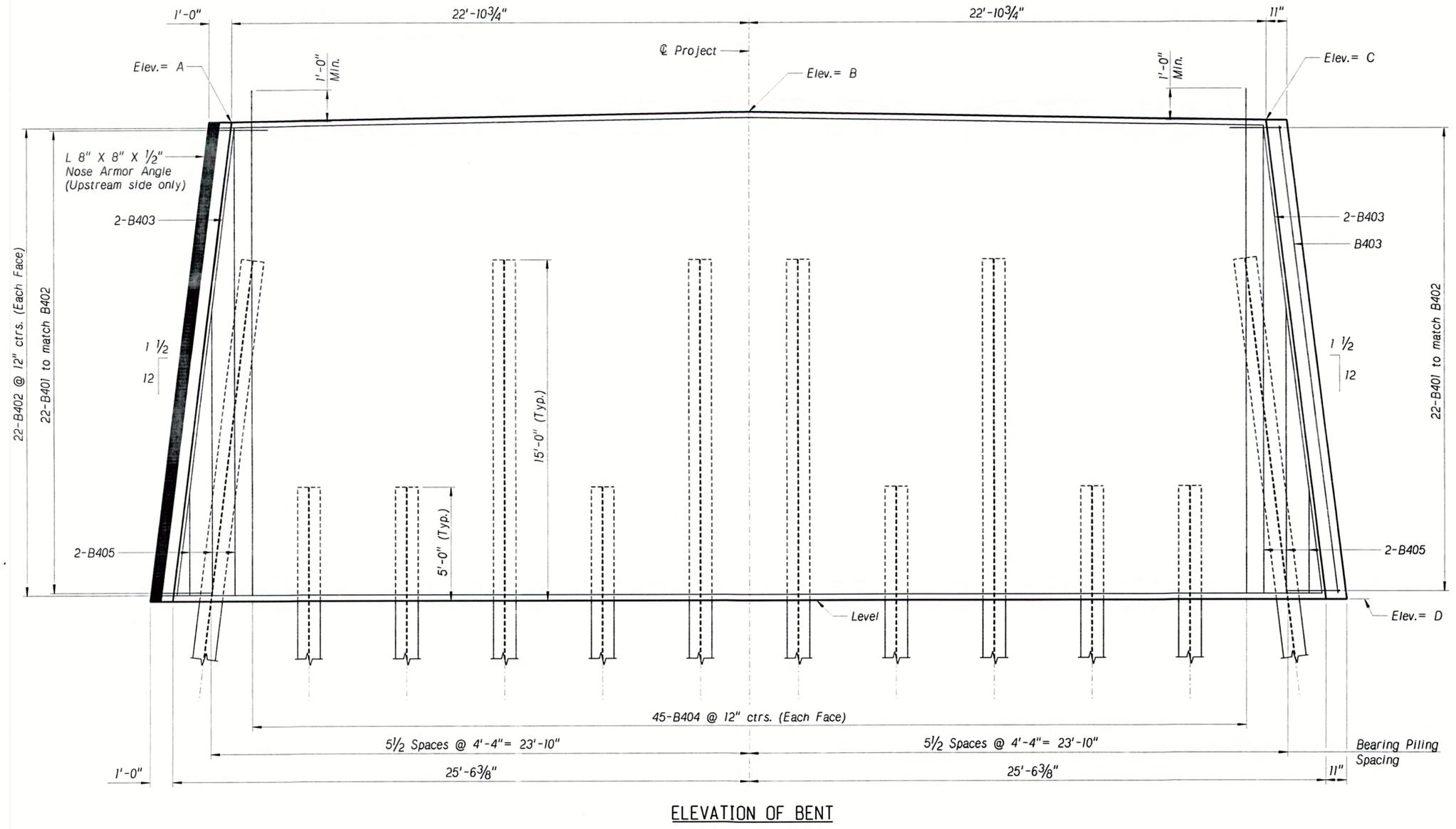
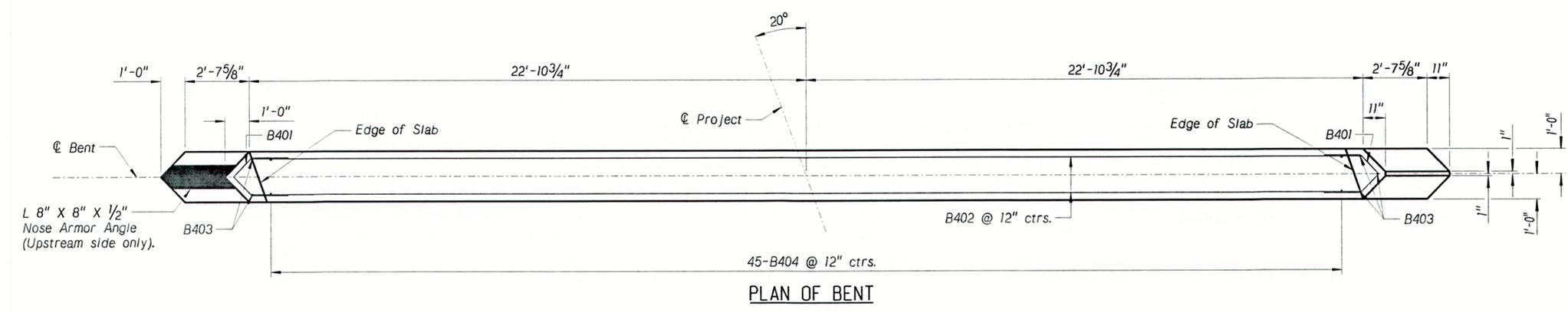


TURNBUCKLE DETAILS

**PRELIMINARY
 NOT FOR CONSTRUCTION**



BENT ELEVATIONS				
LOCATION	A	B	C	D
Bent No. 1	1165.00	1165.42	1165.00	1143.92
Bent No. 2	1165.00	1165.42	1165.00	1143.92



ELEVATION OF BENT

C55-F88

PROJECT NUMBER
SHEET NO.

STRUCTURE NUMBER
C005512360

125'-0" 3-SPAN
CONTINUOUS CONCRETE SLAB BRIDGE
ROADWAY CROSS-SECTION AND END OF FLOOR PLAN
DATE: APRIL 2012

LOCATION RAYMOND-SOUTHEAST
SKEW 20° RHB
CLEAR ROADWAY 40'-0"
DESIGN LIVE LOAD HL93
DESIGNED BY: GH
CHECKED BY: MS

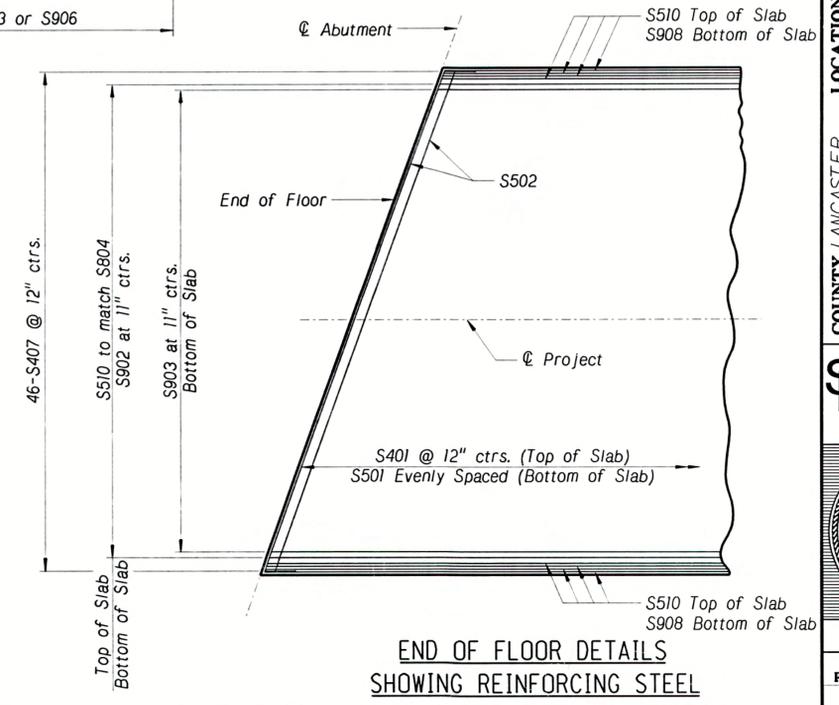
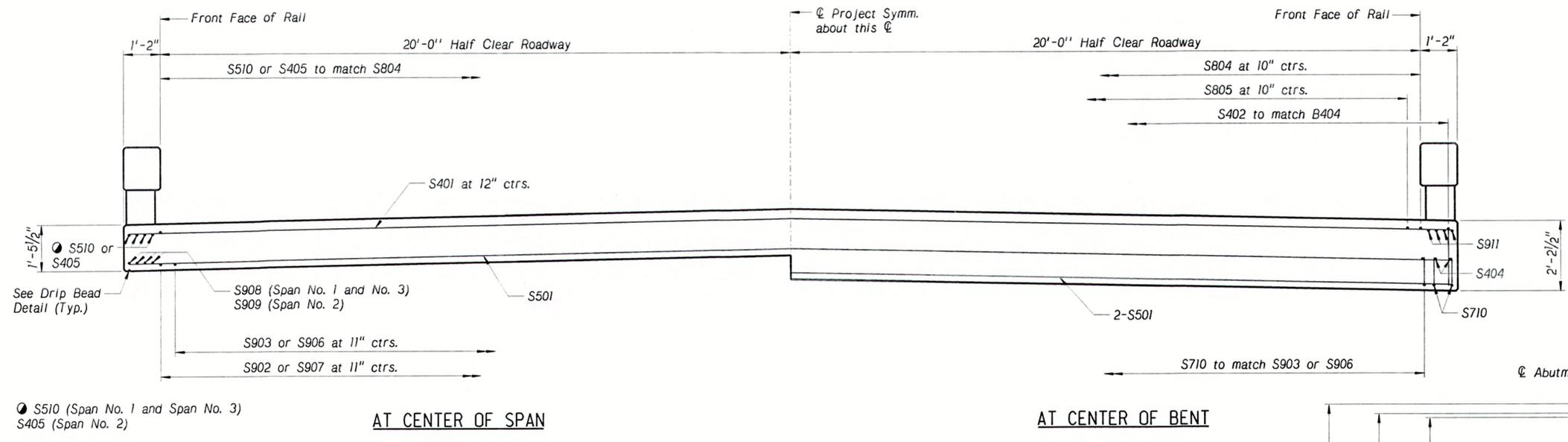
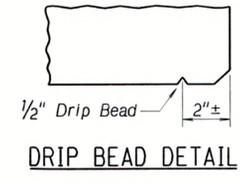
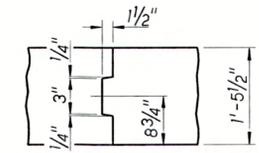
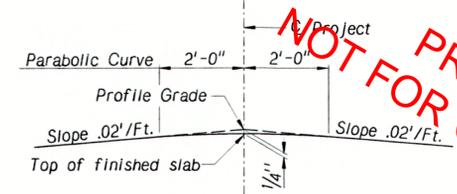
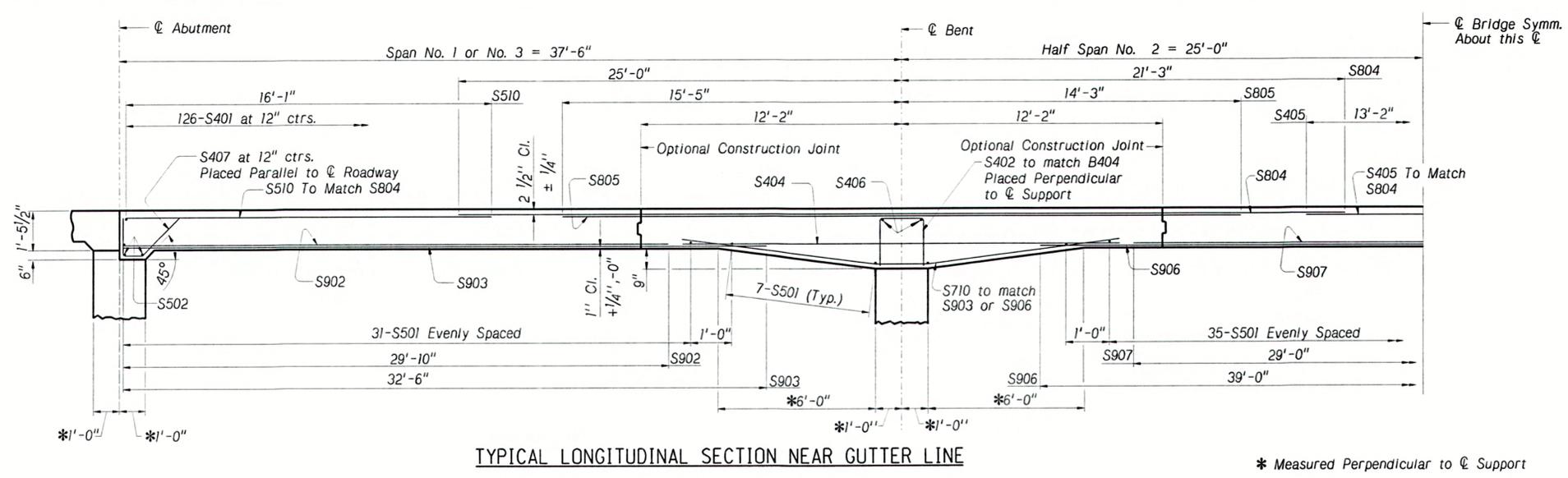
COUNTY LANCASTER
HWY. NO.
REF. POST.
STA. 28+15.00

Speece Lewis engineers

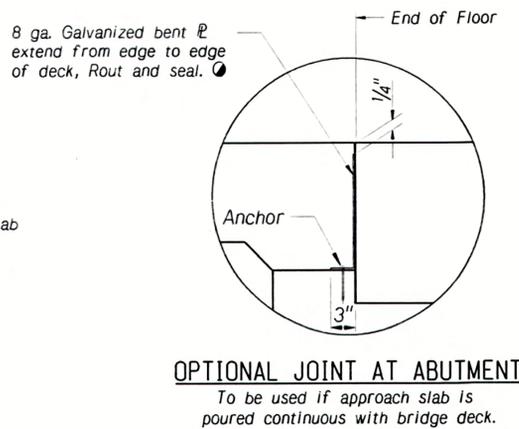
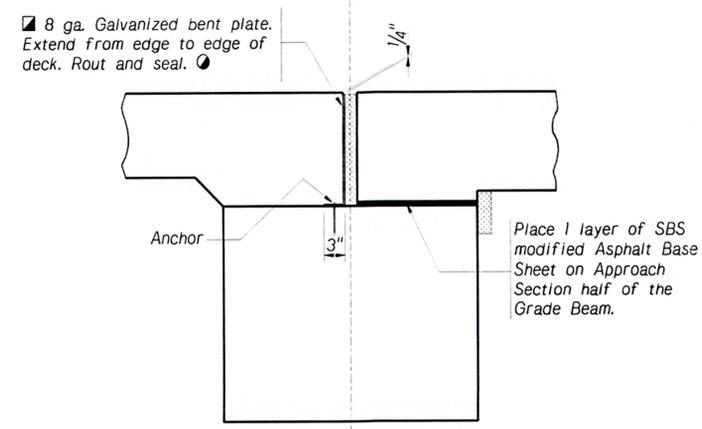
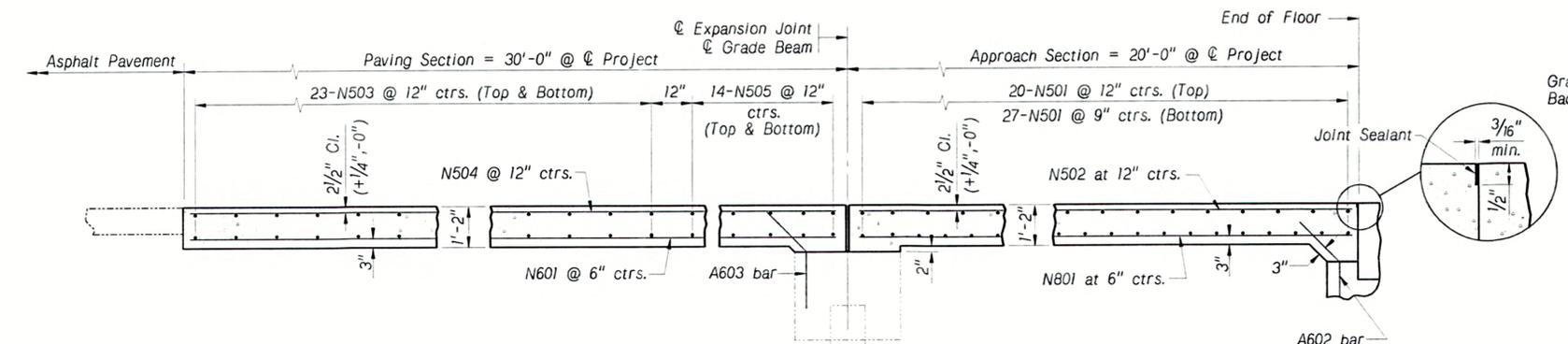
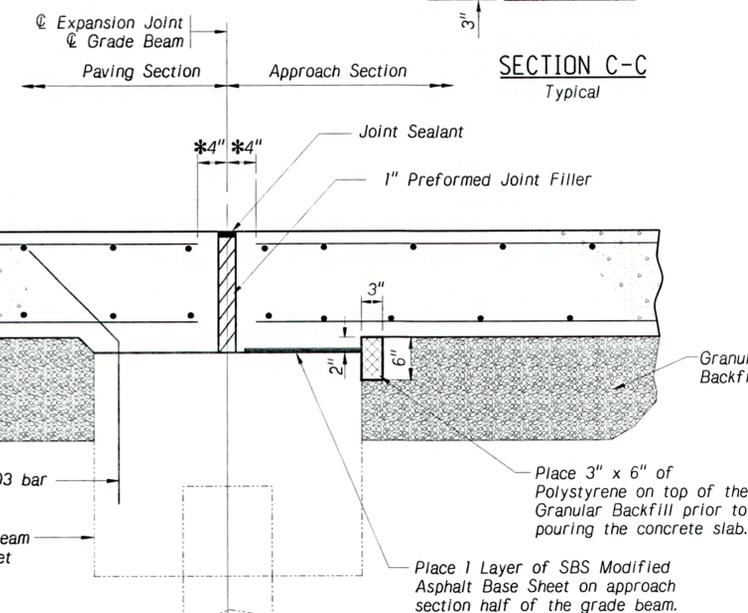
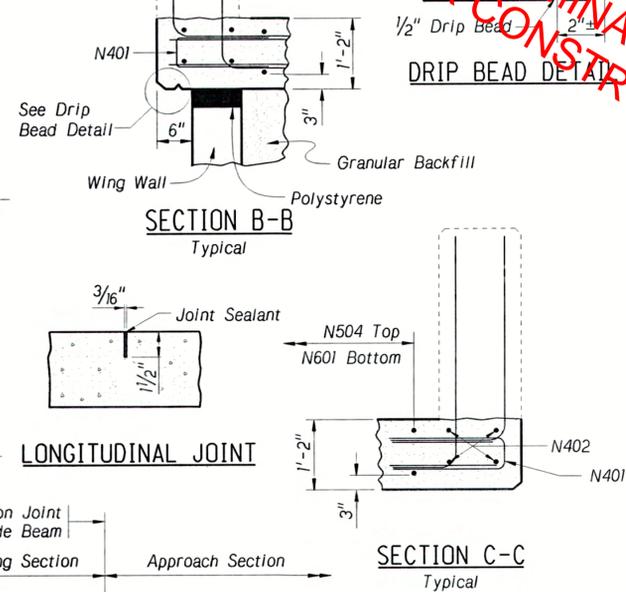
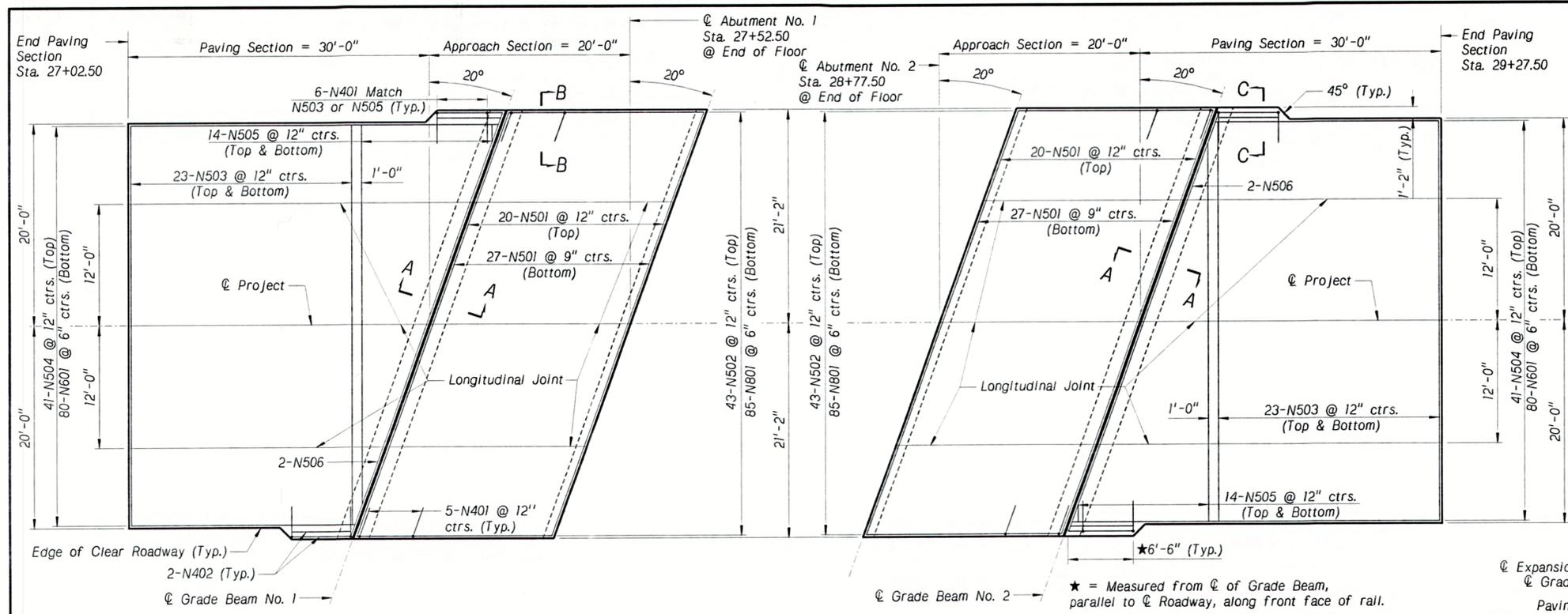
PROFESSIONAL CIVIL ENGINEER
MARK A. SCHULTZ
E-11033
STATE OF NEBRASKA

SPECIAL PLAN NO. 7
1 12

NOT FOR CONSTRUCTION
PRELIMINARY



NOT FOR PRELIMINARY CONSTRUCTION



APPROACH SLAB NOTES

Concrete Rail Width = 1'-2". See Sheet 9 of 12 for placement of approach rail reinforcement.

See Standard Specifications for tining and finishing of approach slabs.

SBS Modified Asphalt Base Sheets, Preformed Joint Filler, Polystyrene and all other miscellaneous items shall be considered subsidiary to the pay item "CONCRETE FOR PAVEMENT APPROACHES, CLASS 47BD-4000".

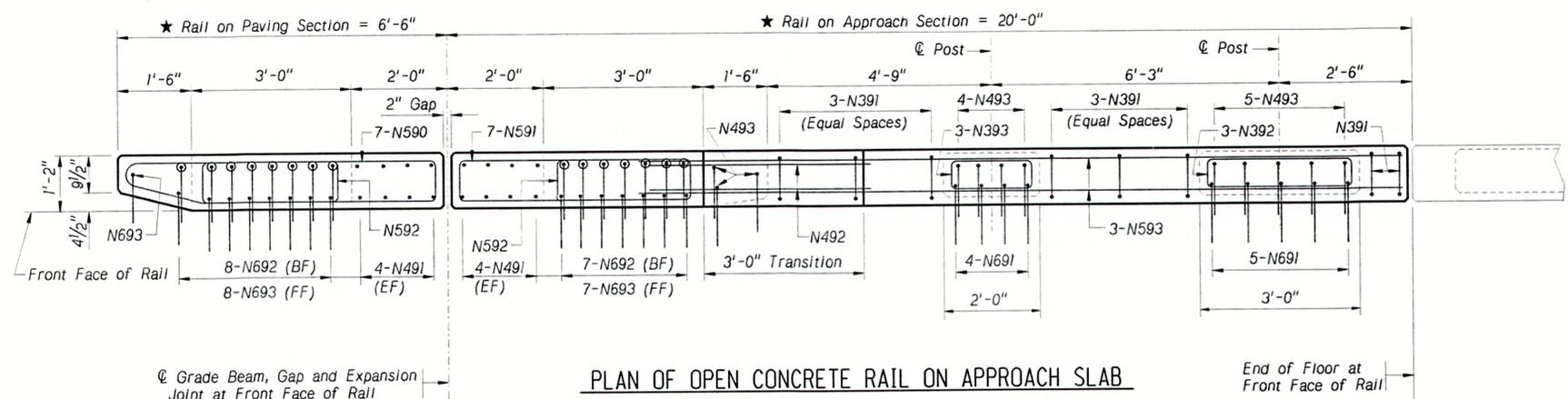
SBS Modified Asphalt Base Sheets shall be modified bitumen roofing material, with a minimum thickness of 0.090 Inch and a minimum weight of 60 lbs. per 100 sq. feet.

Longitudinal joints shall be 1 1/2" deep and placed in the paving and approach slabs in accordance with section 603.03 paragraph 8 of the Standard Specifications. Contractor shall exercise care not to damage reinforcing steel placed in the top layer of the slabs.

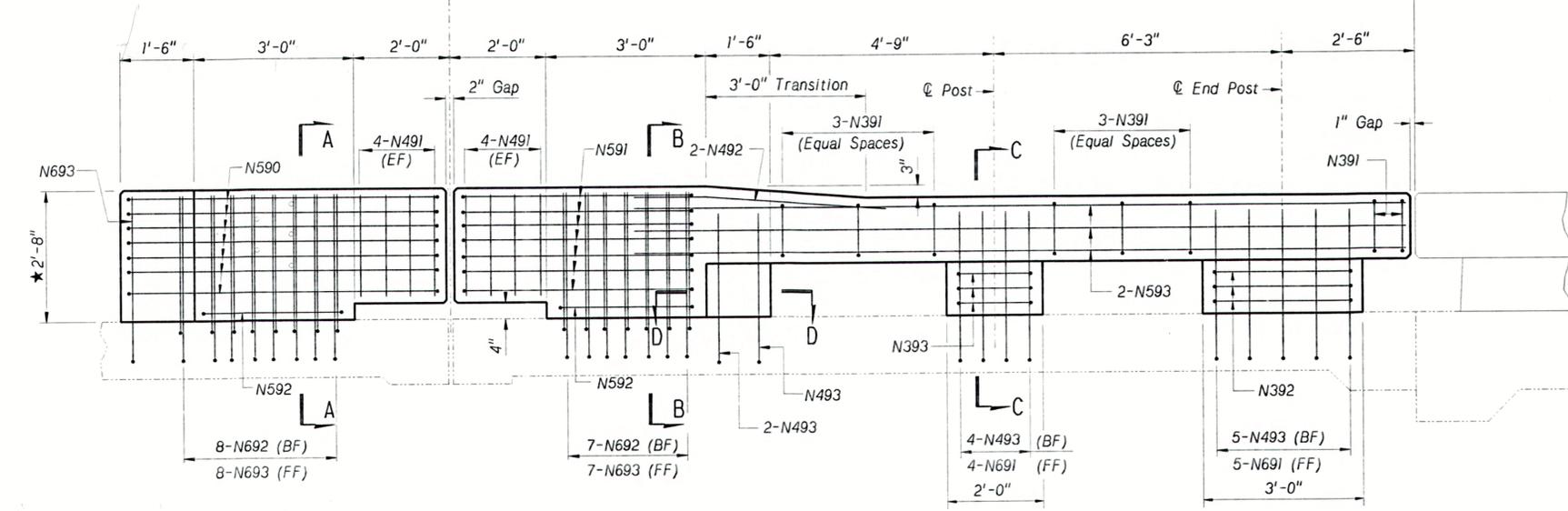
The expansion gap between the approach section and paving section will be cleaned of all foreign matter before the installation of the expansion device or the filler material.

- To be used if the Approach Slab and Paving Section are poured continuous.
- Stabilize Plate during pour.

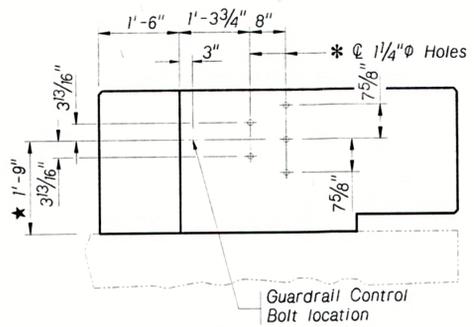
* = Measured from C of Grade Beam, parallel to C Roadway, along front face of rail.



PLAN OF OPEN CONCRETE RAIL ON APPROACH SLAB

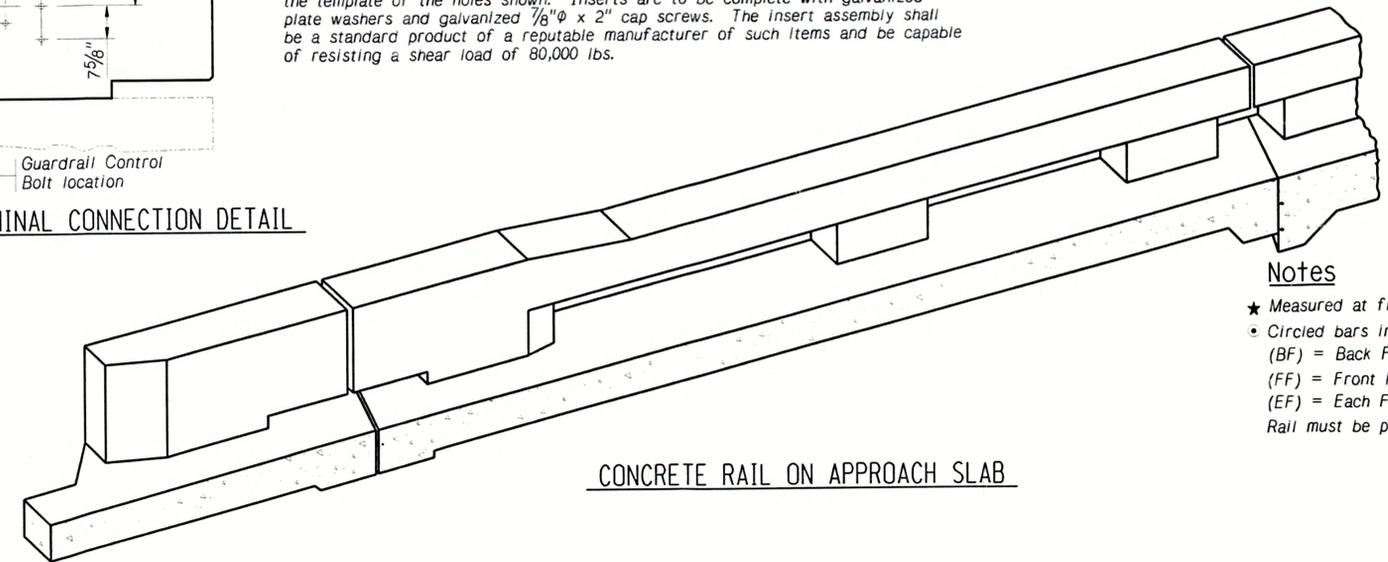


ELEVATION OF OPEN CONCRETE RAIL ON APPROACH SLAB



THREE BEAM TERMINAL CONNECTION DETAIL

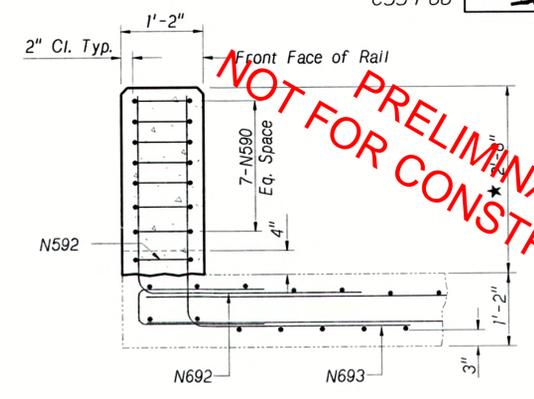
* As an alternate method, the contractor shall furnish and cast into the concrete an approved welded assembly consisting of threaded inserts, held accurately to the template of the holes shown. Inserts are to be complete with galvanized plate washers and galvanized 7/8"φ x 2" cap screws. The insert assembly shall be a standard product of a reputable manufacturer of such items and be capable of resisting a shear load of 80,000 lbs.



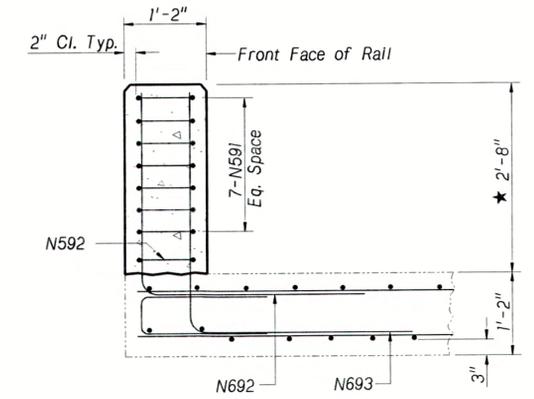
CONCRETE RAIL ON APPROACH SLAB

Notes

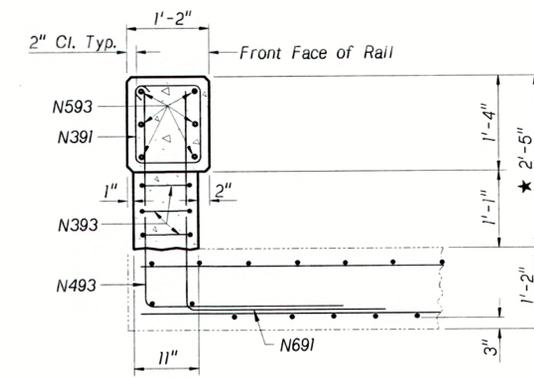
- ★ Measured at front face of rail.
- Circled bars indicate placement in the top layer.
- (BF) = Back Face
- (FF) = Front Face
- (EF) = Each Face
- Rail must be plumb.



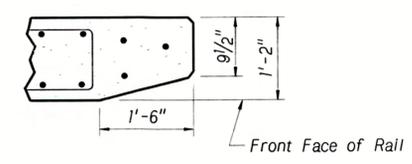
SECTION A-A



SECTION B-B

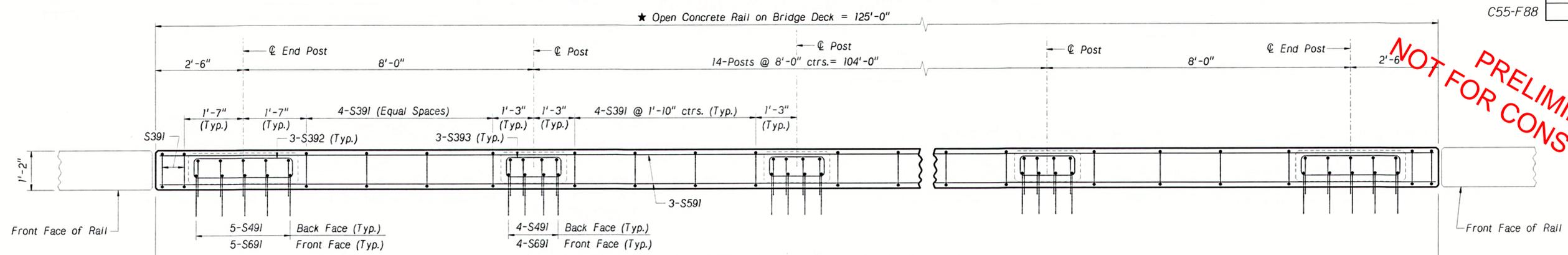


SECTION C-C

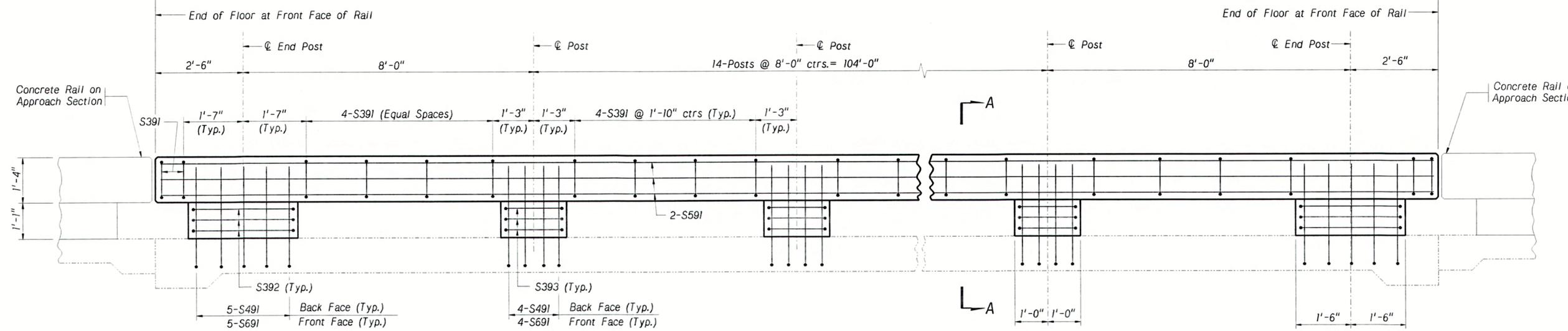


SECTION D-D

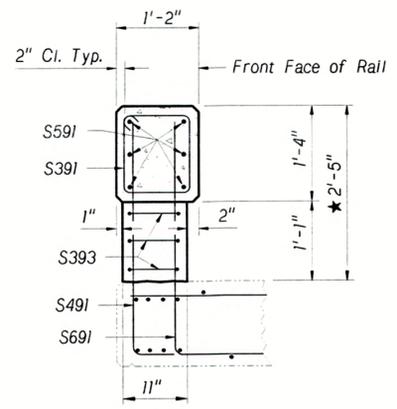
PRELIMINARY
NOT FOR CONSTRUCTION



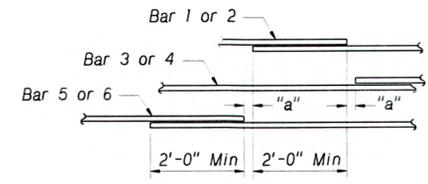
PLAN OF OPEN CONCRETE RAIL ON BRIDGE



ELEVATION OF OPEN CONCRETE RAIL ON BRIDGE

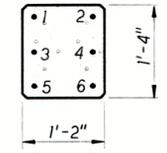


SECTION A-A



LAP DETAIL

▲ Laps for Bars 1 and 5 shall be staggered.
 Laps for Bars 2 and 6 shall be staggered.
 Bar 3 to be continuous through laps for Bars 1 and 5.
 Bar 4 to be continuous through laps for Bars 2 and 6.
 "a" ≥ Zero



RAIL SECTION
 See Lap Detail

NOTES:
 All post reinforcement shall be placed before concrete is poured.
 Posts must be plumb.
 See sheet 7 of 12 for bridge deck reinforcement details.
 ★ Measured @ front face of rail.

NOT FOR CONSTRUCTION
 PRELIMINARY

PROJECT NUMBER C55-F88	SHEET NO. 10	C.N. 333	STRUCTURE NUMBER C005512360
LOCATION LANCASTER COUNTY LANCASTER		DATE APRIL 2012	
HWY. NO. 20' RHB SKEW 20' RHB		DESIGNED BY TC	
REF. POST. STA. 28+15.00		CHECKED BY MS	
DESIGN LIVE LOAD HL93		ENGINEERS SPEECE-LEWIS ENGINEERS	
DETAILS 125'-0" 3-SPAN CONTINUOUS CONCRETE SLAB BRIDGE RAIL DETAILS		LOCATION LINCOLN, NEBRASKA	
DESIGNED BY GH		PROFESSIONAL CIVIL ENGINEER MARK A. SCHULTZ E-11033 STATE OF NEBRASKA	
SPECIAL PLAN NO. 1	NO. 10		

C55-F88

All riprap placed, except for the bottom of channel downstream of weir, will be covered with 6" of native soil and seeded above the historical ordinary high water mark or approximately three feet above the existing channel flow line, whichever is greater.

PRELIMINARY NOT FOR CONSTRUCTION

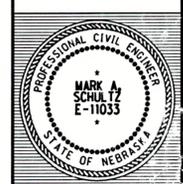
C.N. ~~XXX~~
STRUCTURE NUMBER: C005512360

125'-0" 3-SPAN CONTINUOUS CONCRETE SLAB BRIDGE
PLAN OF ROCK RIPRAP AND RIPRAP FILTER FABRIC
DATE: APRIL 2012

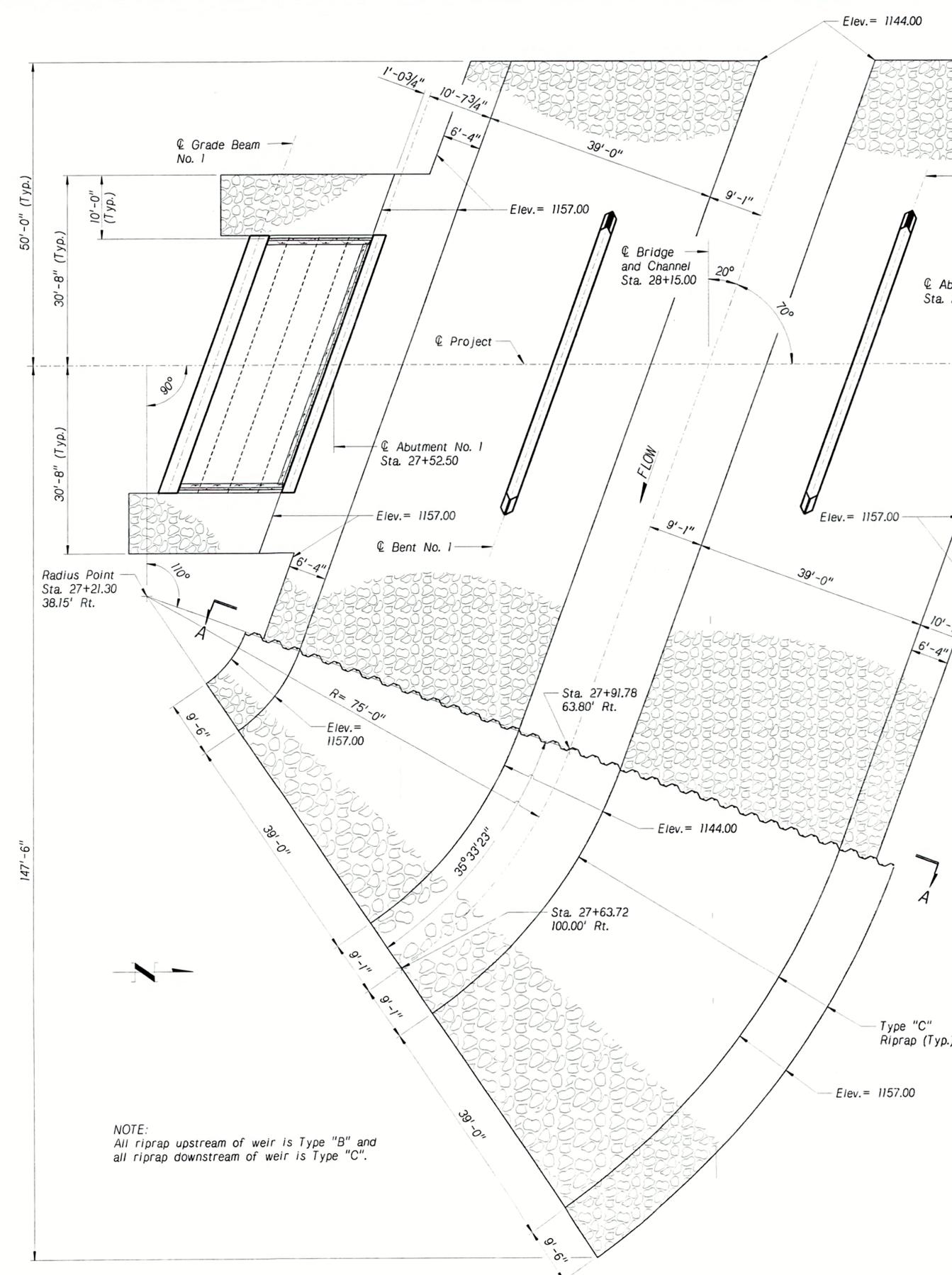
LOCATION: RAYMOND-SOUTHEAST
SKEW: 20° RHB
CLEAR ROADWAY: 40'-0"
DESIGN LIVE LOAD: HL93
CHECKED BY: MS
DATE: APRIL 2012

COUNTY: LANCASTER
HWY. NO.:
REF. POST:
STA. 28+15.00
DESIGNED BY: GH

peece lewis engineers

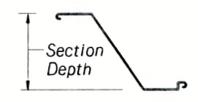


SPECIAL PLAN NO. 1 / 12



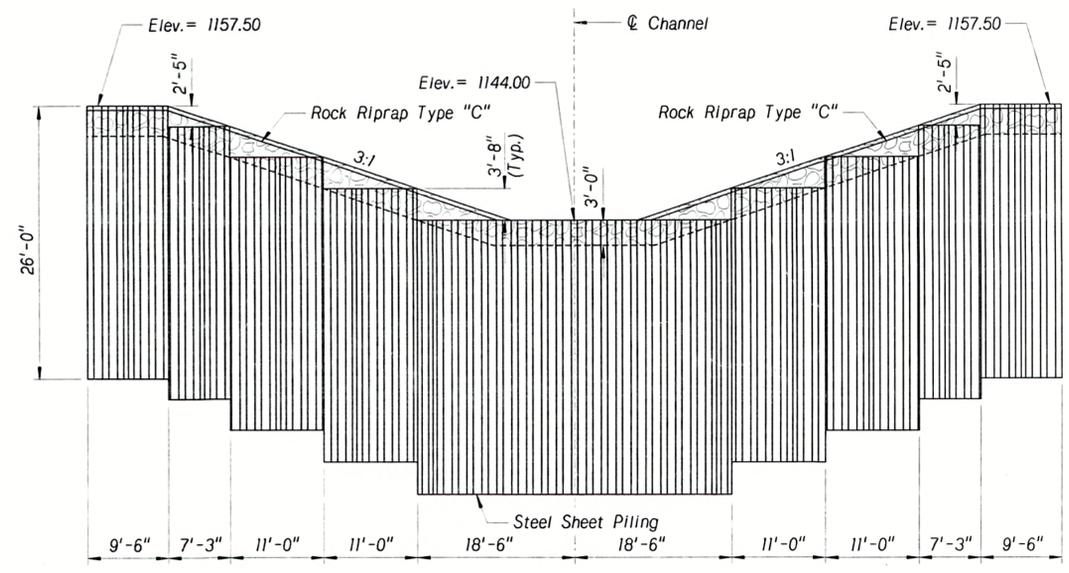
All steel sheet piling for weir shall conform to ASTM A328 steel and meet the following minimum requirements:

Section length	26 ft
Maximum section depth	13 in
Minimum section thickness	0.30 in
Section modulus	26.7 in ³ /ft



The contractor shall submit for approval a shop plan of the sheet pile layout showing all pertinent dimensions, details and section properties.

The pay quantity will be based on the sheet pile wall dimensions shown. The constructed wall length will be within ± 2'-0" of the sheet pile wall dimensions shown.



NOTE:
All riprap upstream of weir is Type "B" and all riprap downstream of weir is Type "C".

PLAN OF ROCK RIPRAP AND RIPRAP FILTER FABRIC

SECTION "A-A"

B I L L O F B A R S

MARK	NO.	LENGTH	TYPE	"A"	"B"	"C"	"D"	"E"	"F"	⊕ PIN	HOOK
A701	32	44'-6"	Str.								
A601	28	44'-6"	Str.								
A602	184	3'-0"	Str.								
A603	92	3'-0"	Str.								
A401	92	13'-0"	108	2'-6"	1'-6"	2'-6"	Varies			2"	
A402	92	3'-6"	103	1'-6"	0'-6"	1'-6"				2"	
A403	96	9'-9"	107	2'-0"	2'-6"					2"	4 1/2"
A404	4	5'-7"	128	1'-6"	2'-7"	1'-6"	0'-10 9/16"	2'-5"		2"	
A405	8	4'-6"	128	1'-6"	1'-6"	1'-6"	0'-6 3/16"	1'-5"		2"	
B401	88	5'-2"	122	1'-6"	1'-1"	1'-1"	0'-9"	0'-9"		2"	
B402	88	48'-2" Avg.	Str.								
B403	10	20'-8"	Str.								
B404	180	22'-3"	Str.								
B405	24	12'-7" Avg.	Str.								
N801	170	19'-5"	Str.								
N601	160	29'-6" Avg.	Str.								
N501	94	44'-6"	Str.								
N502	86	19'-5"	Str.								
N503	92	39'-6"	Str.								
N504	82	29'-6" Avg.	Str.								
N505	56	19'-6" Avg.	Str.								
N506	4	44'-6"	Str.								
N401	44	6'-7"	103	3'-0"	0'-7"	3'-0"				2"	
N402	16	5'-9"	Str.								

BAR SETS					BAR SETS				
MARK	MAX. LENGTH	MIN. LENGTH	NO. OF SETS	BARS PER SET	MARK	MAX. LENGTH	MIN. LENGTH	NO. OF SETS	BARS PER SET
					B402	50'-9"	45'-7"	4	22
					B405	20'-7"	4'-7"	8	3

B I L L O F B A R S

MARK	NO.	LENGTH	TYPE	"A"	"B"	"C"	"D"	"E"	"F"	⊕ PIN	HOOK
S691	132	5'-0"	104	3'-6"	1'-6"					4 1/2"	
S591	12	② 130'-8"	Str.								
S491	132	5'-0"	104	3'-6"	1'-6"					3"	
S391	128	4'-4"	107	1'-0"	0'-10"					1 1/2"	4"
S392	12	7'-2"	107	2'-8"	0'-7"					1 1/2"	4"
S393	84	5'-2"	107	1'-8"	0'-7"					1 1/2"	4"
N691	36	5'-3"	104	3'-0"	2'-3"					4 1/2"	
N692	60	5'-5"	104	2'-9"	2'-8"					4 1/2"	
N693	64	5'-11"	104	3'-3"	2'-8"					4 1/2"	
N590	28	14'-4"	125	4'-8"	1'-6"	6'-1"	0'-10"	1'-5"		2 1/2"	5 1/2"
N591	28	11'-9"	107	4'-7"	0'-10"					2 1/2"	5 1/2"
N592	8	7'-11"	107	2'-8"	0'-10"					2 1/2"	5 1/2"
N593	24	16'-5"	Str.								
N491	64	2'-0"	Str.								
N492	8	6'-2"	105	5'-0"	1'-2"	1'-11 5/16"	0'-1 1/4"			2"	
N493	48	4'-4"	104	3'-0"	1'-4"					3"	
N391	32	4'-4"	107	1'-0"	0'-10"					1 1/2"	4"
N392	12	7'-2"	107	2'-8"	0'-7"					1 1/2"	4"
N393	12	5'-2"	107	1'-8"	0'-7"					1 1/2"	4"

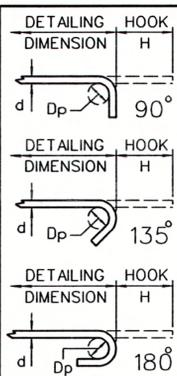
S L A B B I L L O F B A R S											
MARK	NO.	LENGTH	TYPE	"A"	"B"	"C"	"D"	"E"	"F"	⊕ PIN	HOOK
S902	90	29'-10"	Str.								
S903	88	32'-6"	Str.								
S906	44	39'-0"	Str.								
S907	45	29'-0"	Str.								
S908	16	32'-6"	Str.								
S909	8	39'-0"	Str.								
S911	16	46'-3"	Str.								
S804	98	46'-3"	Str.								
S805	96	29'-8"	Str.								
S710	96	18'-0"	106	8'-0"	2'-0"	1'-0"	1'-0"	8'-0"		5 1/4"	
S501	125	44'-6"	Str.								
S502	4	44'-6"	Str.								
S510	114	16'-1"	Str.								
S401	126	44'-6"	Str.								
S402	90	5'-3"	103	1'-11"	1'-5"	1'-11"				2"	
S404	8	18'-0"	Str.								
S405	57	13'-2"	Str.								
S406	4	44'-6"	Str.								
S407	92	4'-11"	101	1'-8"	0'-11"	2'-4"				2"	

② Includes 3-2'-0" Laps.

BAR SETS					BAR SETS				
MARK	MAX. LENGTH	MIN. LENGTH	NO. OF SETS	BARS PER SET	MARK	MAX. LENGTH	MIN. LENGTH	NO. OF SETS	BARS PER SET
N601	36'-8"	22'-4"	2	80	N504	36'-8"	22'-4"	2	41
					N505	37'-4"	1'-8"	4	14

P I N D I A M E T E R

BAR SIZE	Dp	BAR SIZE	Dp
4	3"	3	1 1/2"
5	3 3/4"	4	2"
6	4 1/2"	5	2 1/2"
7	5 1/4"	6	4 1/2"
8	6"	7	5 1/4"
9	9 1/2"	8	6"
10	11"		
11	12"		



S T A N D A R D H O O K L E N G T H

P R I M A R Y S T R E S S B A R S

BAR SIZE	HOOK H 90°	HOOK H 180°
4	8"	6"
5	10"	7"
6	12"	8"
7	15"	10"
8	17"	11"
9	19"	15"
10	23"	17"
11	24"	19"

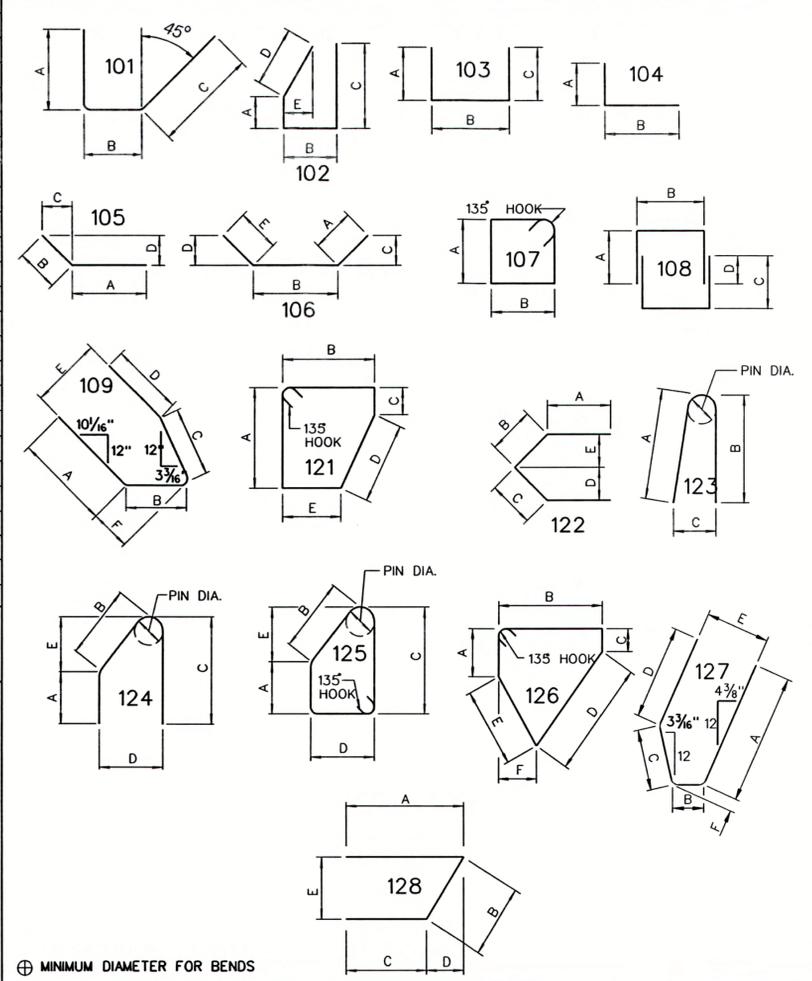
S T I R R U P S A N D T I E S

BAR SIZE	HOOK H 90°	HOOK H 135°
3	4"	4"
4	4 1/2"	4 1/2"
5	6"	5 1/2"
6	12"	8"
7	14"	9"
8	16"	10 1/2"

d = BAR SIZE
Dp = PIN DIAMETER

B E N D I N G D I A G R A M S

ALL DIMENSIONS ARE OUT TO OUT NOT TO SCALE



⊕ MINIMUM DIAMETER FOR BENDS

C55-F88 PROJECT NUMBER SHEET NO.

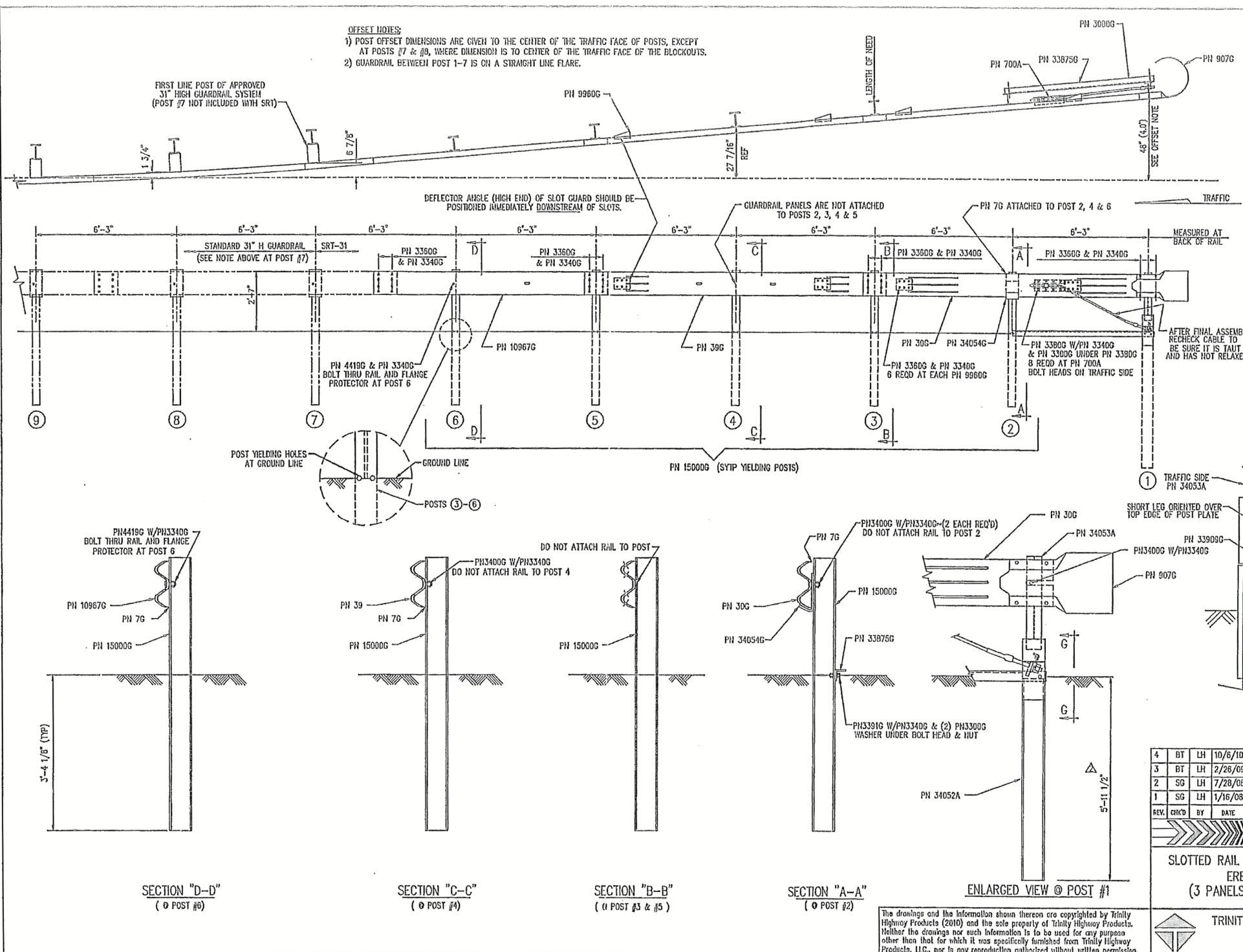
NOT FOR CONSTRUCTION
PRELIMINARY
STRUCTURE NUMBER
C005512360

125'-0" 3-SPAN
CONTINUOUS CONCRETE SLAB BRIDGE
BILL OF BARS
DATE: APRIL 2012
LINCOLN, NEBRASKA

LOCATION RAYMOND-SOUTHEAST
SKW 20' RHB
CLEAR ROADWAY 40'-0"
DESIGN LIVE LOAD HL93
COUNTY LANCASTER
HWY. NO.
REF. POST.
STA. 28+15.00
DESIGNED BY: GH
CHECKED BY: MS
SPEECE-LEWIS ENGINEERS

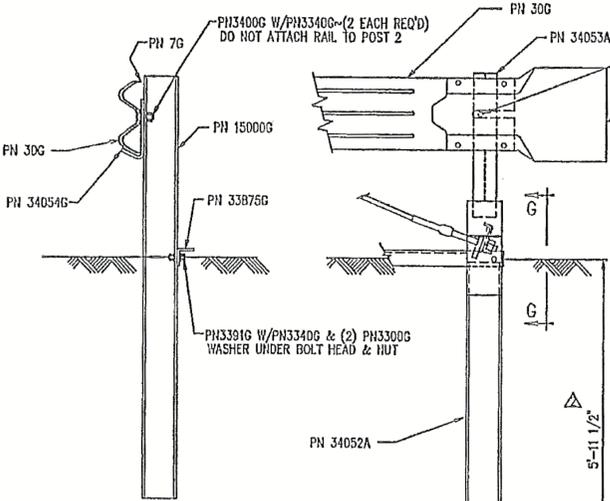
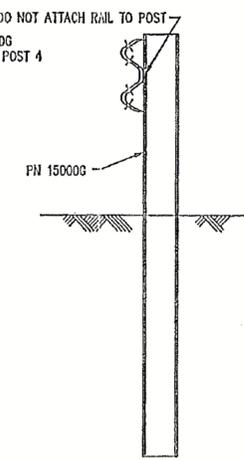
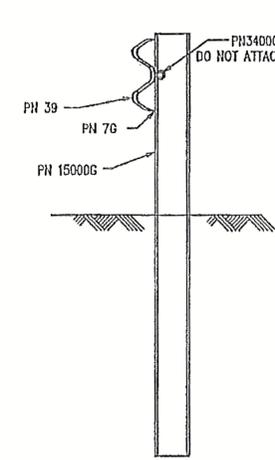
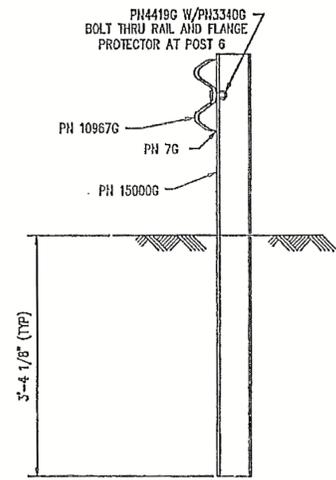
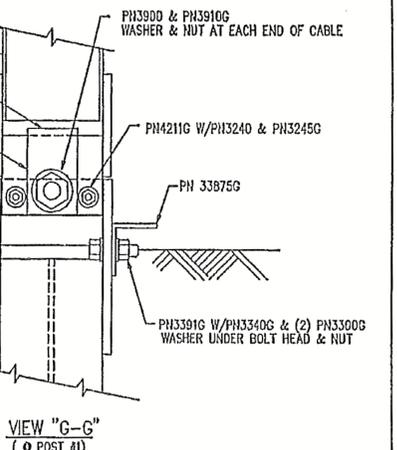
PROFESSIONAL CIVIL ENGINEER
MARK A. SCHULTZ
E-11033
STATE OF NEBRASKA
SPECIAL PLAN NO. 12
1 / 12

PRELIMINARY
NOT FOR CONSTRUCTION



BILL OF MATERIAL		
PN	QTY	DESCRIPTION
7G	3	12/6\"/>

HARDWARE		
PN	QTY	DESCRIPTION
3240G	2	5/16\"/>

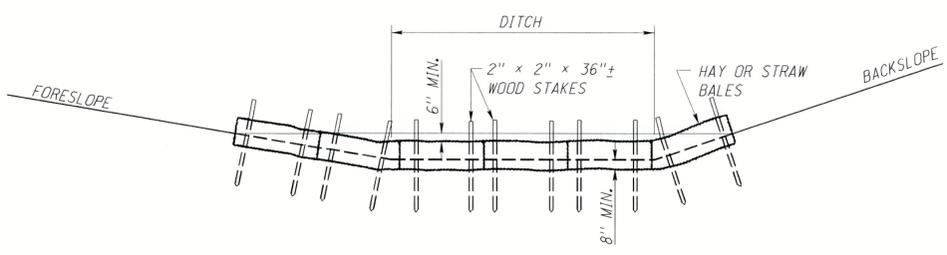


REV.	CHK'D	BY	DATE	REMARKS
4	BT	LH	10/6/10	OFFSET POSTS #7 & #8
3	BT	LH	2/26/09	REVISED HARDWARE
2	SG	LH	7/28/08	REVISED POST #1 LENGTH IN GROUND
1	SG	LH	1/16/08	REVISED HARDWARE QUANTITY IN BILL OF MATERIAL

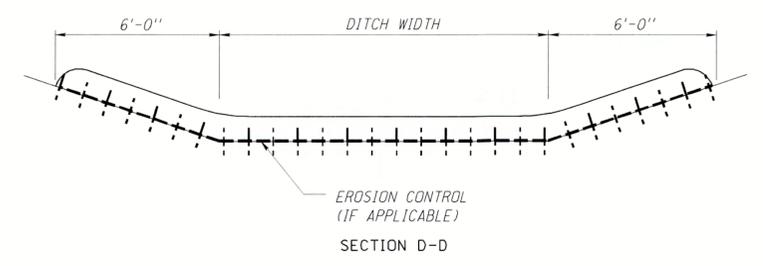
	SRT-31 SLOTTED RAIL TERMINAL SRT-31 (31" H) ERECTION DETAILS (3 PANELS, CR AND SYTP POSTS)	DRAWN BT CHECKED SG SCALE NTS DATE 10/30/07 ENR FILE # SS436-01E SHEET ET OF 1 DRAWING NO. SS 436 REV. 4
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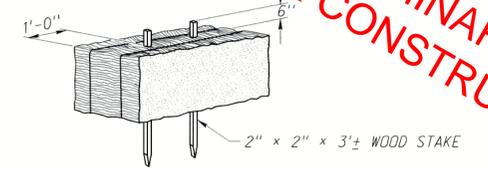
NOT FOR PRELIMINARY CONSTRUCTION



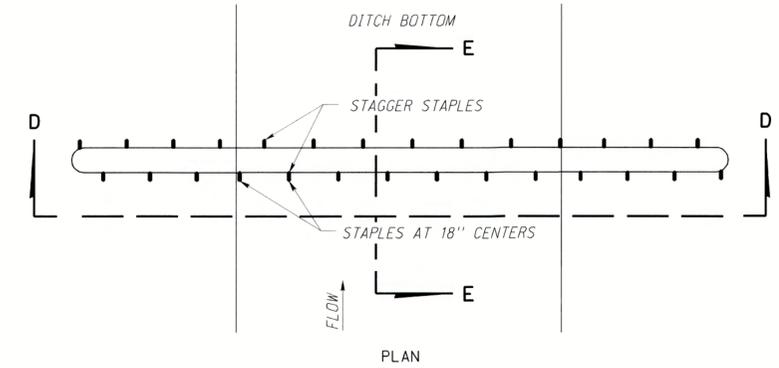
SECTION B-B
EROSION CHECKS (ALL TYPES)



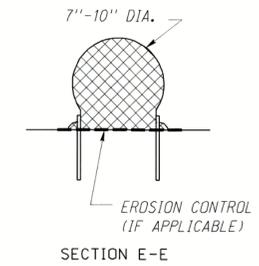
SECTION D-D
EROSION CONTROL (IF APPLICABLE)



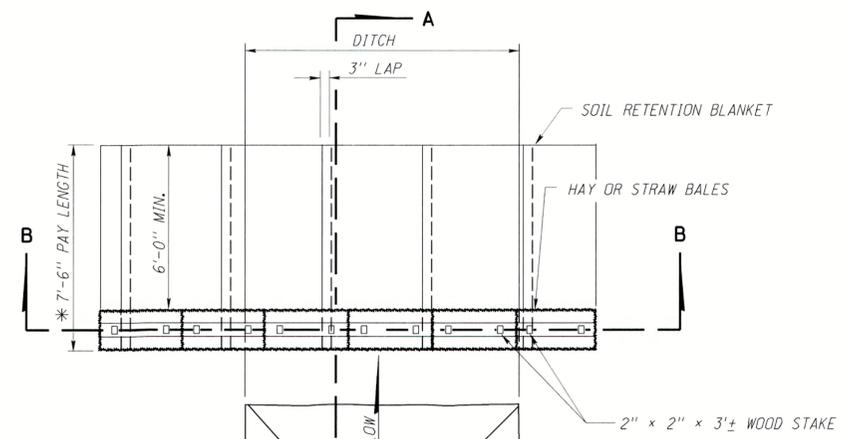
ADDITIONAL BALES MAY BE ADDED TO PREVENT EROSION AT ENDS OF CHECKS.
HAY BALE STAKING DETAIL



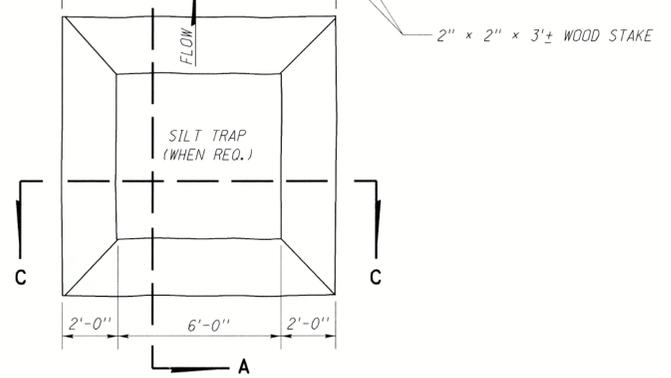
FABRIC SILT CHECKS



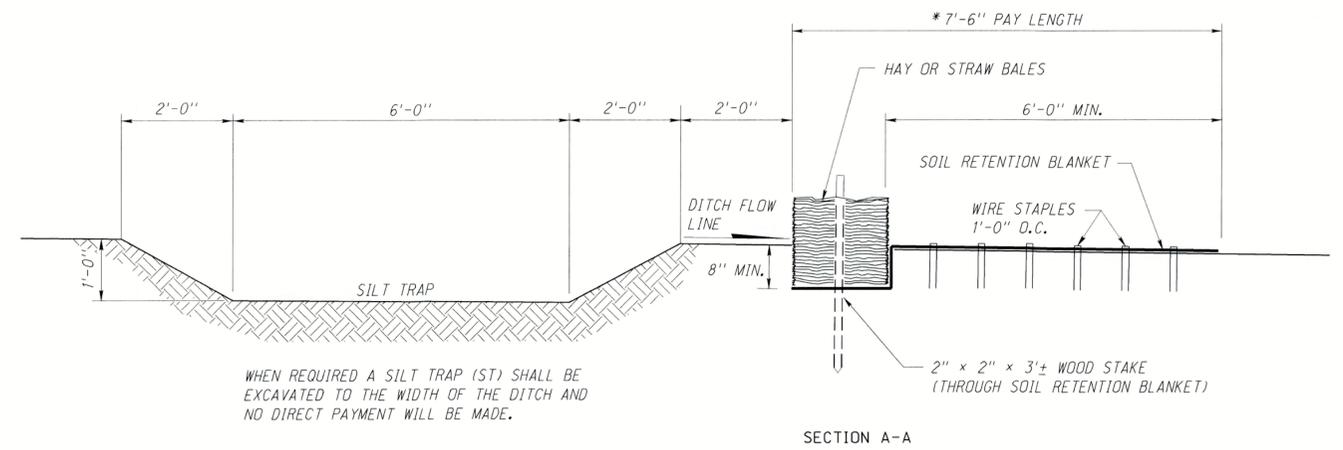
SECTION E-E



* REMOVE 7'-6" OF PAY LENGTH OF EROSION CONTROL FOR EACH EROSION CHECK.

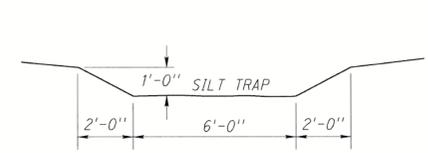


PLAN

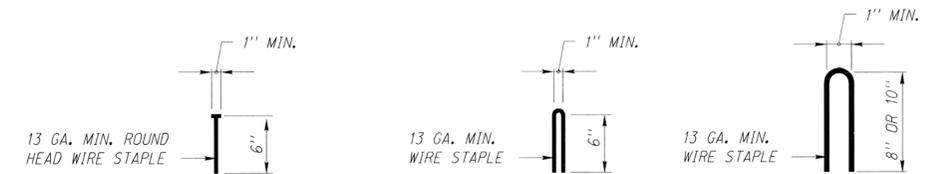


WHEN REQUIRED A SILT TRAP (ST) SHALL BE EXCAVATED TO THE WIDTH OF THE DITCH AND NO DIRECT PAYMENT WILL BE MADE.

SECTION A-A



SECTION C-C

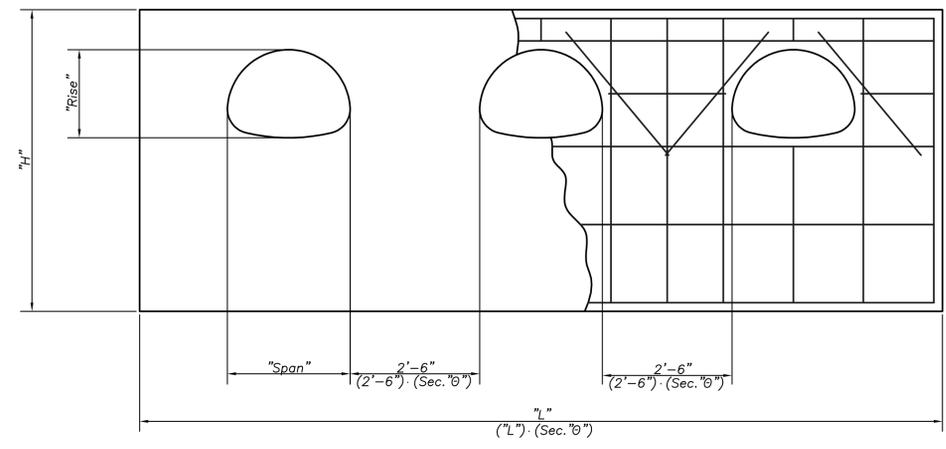


STAPLE DETAIL

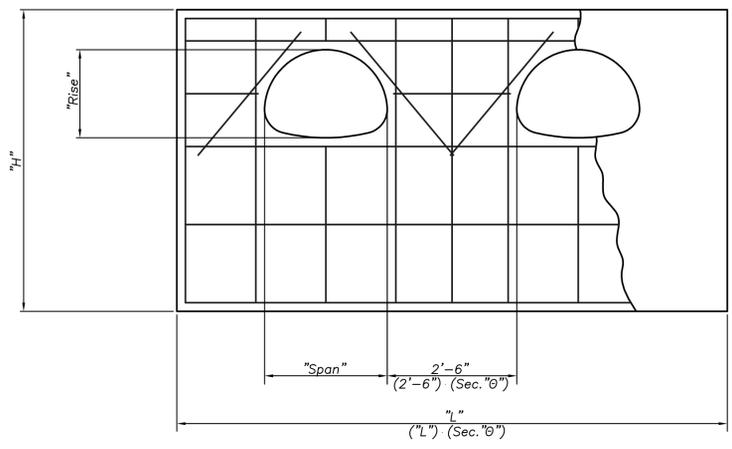


EROSION CHECKS (ALL TYPES) AND FABRIC SILT CHECKS
SHEET 1 OF 1
SPECIAL PLAN 3-C

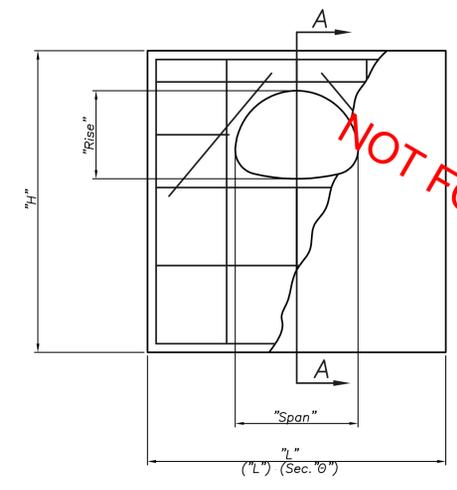
ROADWAY DESIGN DIVISION
Computer: DRDESIGN55
User: dor13017
Date: 30-JUL-2012 13:56
File: 51001e03.dgn
Scale: 1:100
SHEET 1 OF 1
5100-1-E-03



TRIPLE PIPE ARCH HEADWALL ELEVATION



TWIN PIPE ARCH HEADWALL ELEVATION



SINGLE PIPE ARCH HEADWALL ELEVATION

PRELIMINARY NOT FOR CONSTRUCTION

SINGLE PIPE HEADWALL (NO SKEW)							
"D"	"L"	"H"	"K"	"T"	Conc. For 1 Hdw. (Cu Yds)	Steel for 1 Hdw. (Lbs)	
24"	6'-0"	5'-9"	9"	7"	0.67	41	
30"	7'-6"	6'-3"	9"	7"	0.90	52	
36"	9'-0"	6'-9"	9"	7"	1.15	71	
42"	10'-6"	7'-6"	1'-0"	9"	1.92	172	
48"	12'-0"	8'-0"	1'-0"	9"	2.32	201	
54"	13'-6"	8'-6"	1'-0"	9"	2.74	250	
60"	15'-0"	9'-0"	1'-0"	9"	3.21	284	
66"	16'-6"	9'-9"	1'-3"	9"	3.81	323	
72"	18'-0"	10'-3"	1'-3"	9"	4.34	385	

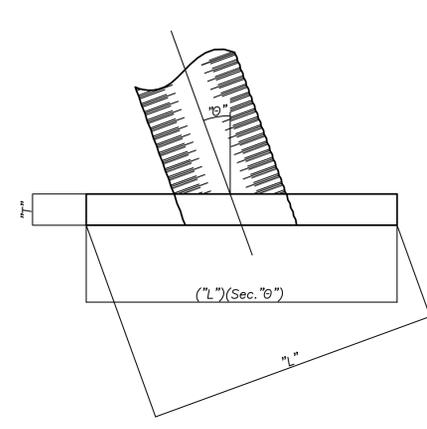
SINGLE PIPE ARCH HEADWALL (NO SKEW)								
"D"	"Span"	"Rise"	"L"	"H"	"K"	"T"	Conc. For 1 Hdw. (Cu Yds)	Steel for 1 Hdw. (Lbs)
24"	28"	20"	5'-5"	5'-5"	9"	7"	.55	40
30"	35"	24"	6'-8"	6'-8"	9"	7"	.70	51
36"	42"	29"	8'-1"	8'-1"	9"	7"	.90	66
42"	49"	33"	9'-4"	6'-6"	9"	7"	1.08	71
48"	57"	38"	11'-1"	7'-2"	1'-0"	9"	1.88	171
54"	64"	43"	12'-1"	7'-7"	1'-0"	9"	2.06	201
60"	71"	47"	13'-4"	7'-11"	1'-0"	9"	2.35	247
66"	77"	52"	14'-9"	8'-4"	1'-0"	9"	2.72	287
72"	83"	57"	16'-1"	8'-9"	1'-0"	9"	3.09	308
78"	87"	63"	17'-9"	9'-3"	1'-0"	10"	4.06	356

TWIN PIPE HEADWALL (NO SKEW)							
"D"	"L"	"H"	"K"	"T"	Conc. For 1 Hdw. (Cu Yds)	Steel for 1 Hdw. (Lbs)	
24"	10'-0"	5'-9"	9"	7"	1.10	79	
30"	12'-0"	6'-3"	9"	7"	1.40	90	
36"	14'-0"	6'-9"	9"	7"	1.72	111	
42"	16'-0"	7'-6"	1'-0"	9"	2.80	290	
48"	18'-0"	8'-0"	1'-0"	9"	3.30	319	
54"	20'-0"	8'-6"	1'-0"	9"	3.83	396	
60"	22'-0"	9'-0"	1'-0"	9"	4.41	452	
66"	24'-0"	9'-9"	1'-3"	9"	5.18	492	
72"	26'-0"	10'-3"	1'-3"	9"	5.83	587	

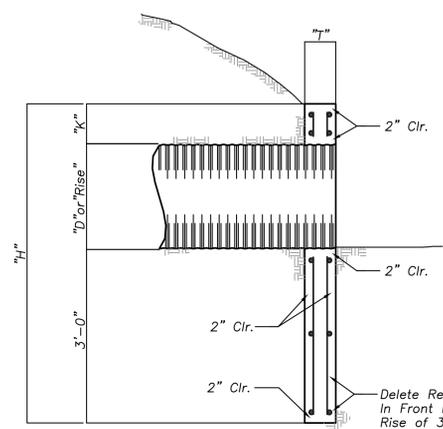
TWIN PIPE ARCH HEADWALL (NO SKEW)								
"D"	"Span"	"Rise"	"L"	"H"	"K"	"T"	Conc. For 1 Hdw. (Cu Yds)	Steel for 1 Hdw. (Lbs)
24"	28"	20"	10'-4"	5'-5"	9"	7"	1.04	77
30"	35"	24"	12'-2"	5'-9"	9"	7"	1.27	94
36"	42"	29"	14'-2"	6'-2"	9"	7"	1.55	114
42"	49"	33"	16'-0"	6'-6"	9"	7"	1.80	119
48"	57"	38"	18'-4"	7'-2"	1'-0"	9"	3.01	284
54"	64"	43"	20'-0"	7'-7"	1'-0"	9"	3.28	338
60"	71"	47"	21'-10"	7'-11"	1'-0"	9"	3.67	402
66"	77"	52"	23'-10"	8'-4"	1'-0"	9"	4.17	465
72"	83"	57"	25'-8"	8'-9"	1'-0"	9"	4.66	529

TRIPLE PIPE HEADWALL (NO SKEW)							
"D"	"L"	"H"	"K"	"T"	Conc. For 1 Hdw. (Cu Yds)	Steel for 1 Hdw. (Lbs)	
24"	14'-0"	5'-9"	9"	7"	1.53	109	
30"	16'-6"	6'-3"	9"	7"	1.90	124	
36"	19'-0"	6'-9"	9"	7"	2.30	165	
42"	21'-6"	7'-6"	1'-0"	9"	3.68	390	
48"	24'-0"	8'-0"	1'-0"	9"	4.28	426	
54"	26'-6"	8'-6"	1'-0"	9"	4.92	530	
60"	29'-0"	9'-0"	1'-0"	9"	5.62	596	
66"	31'-6"	9'-9"	1'-3"	9"	6.56	648	
72"	34'-0"	10'-3"	1'-3"	9"	7.32	776	

TRIPLE PIPE ARCH HEADWALL (NO SKEW)								
"D"	"Span"	"Rise"	"L"	"H"	"K"	"T"	Conc. For 1 Hdw. (Cu Yds)	Steel for 1 Hdw. (Lbs)
24"	28"	20"	15'-3"	5'-5"	9"	7"	1.54	113
30"	35"	24"	17'-8"	5'-9"	9"	7"	1.83	138
36"	42"	29"	20'-3"	6'-2"	9"	7"	2.20	184
42"	49"	33"	22'-8"	6'-6"	9"	7"	2.52	166
48"	57"	38"	25'-7"	7'-2"	1'-0"	9"	4.13	419
54"	64"	43"	27'-11"	7'-7"	1'-0"	9"	4.49	475
60"	71"	47"	30'-4"	7'-11"	1'-0"	9"	5.00	558
66"	77"	52"	32'-11"	8'-4"	1'-0"	9"	5.61	642
72"	83"	57"	35'-3"	8'-9"	1'-0"	9"	6.21	684



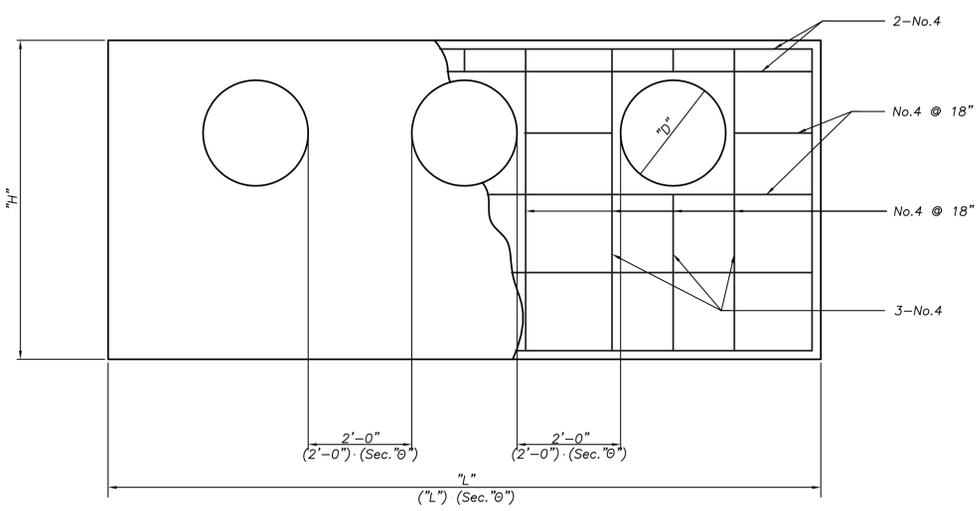
SKewed HEADWALL PLAN



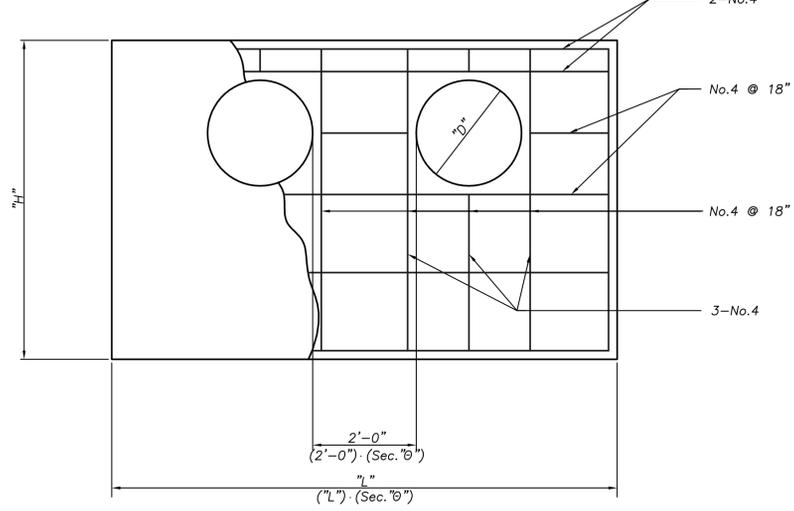
SECTION A-A

Notes:

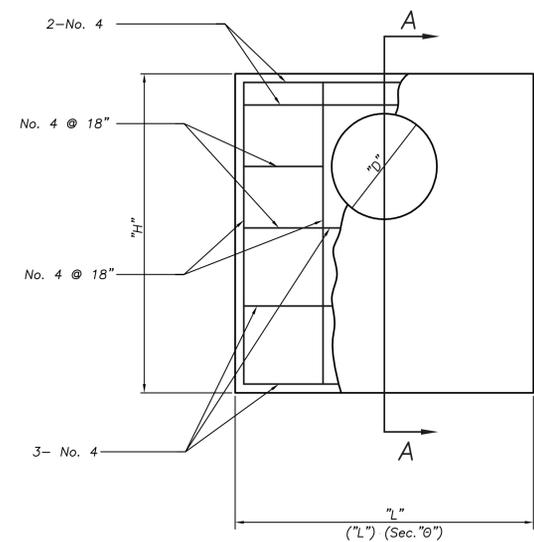
- All Reinforcing Steel Will Be No. 4 Bars.
- A 3/4" Chamfer Is Required On All Exposed Edges Of Headwall.
- For Headwalls With "D or Rise"=36" or Less, Delete Front Row of Reinforcing Steel (Both Horizontal And Vertical).
- All Concrete Will Be Class "47B-3000".
- All Reinforcing Steel Will Meet A.S.T.M. A-615 Or A-617 Requirements For Grade 40 Or Grade 60 Steel.
- Clip Or Field Bend Bars To Provide 2" Clearance.



TRIPLE PIPE HEADWALL ELEVATION



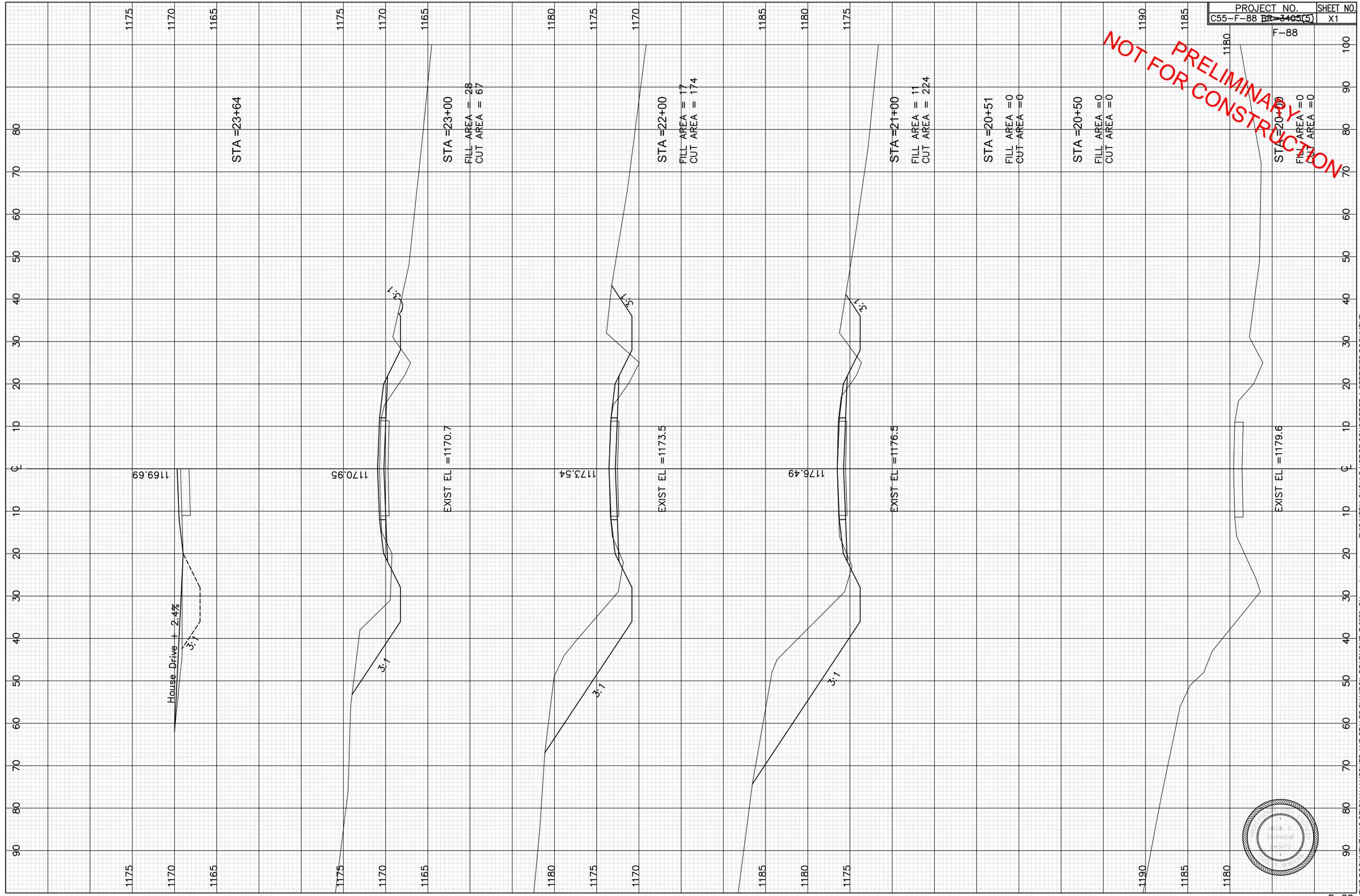
TWIN PIPE HEADWALL ELEVATION



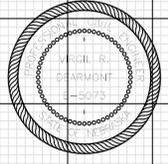
SINGLE PIPE HEADWALL ELEVATION

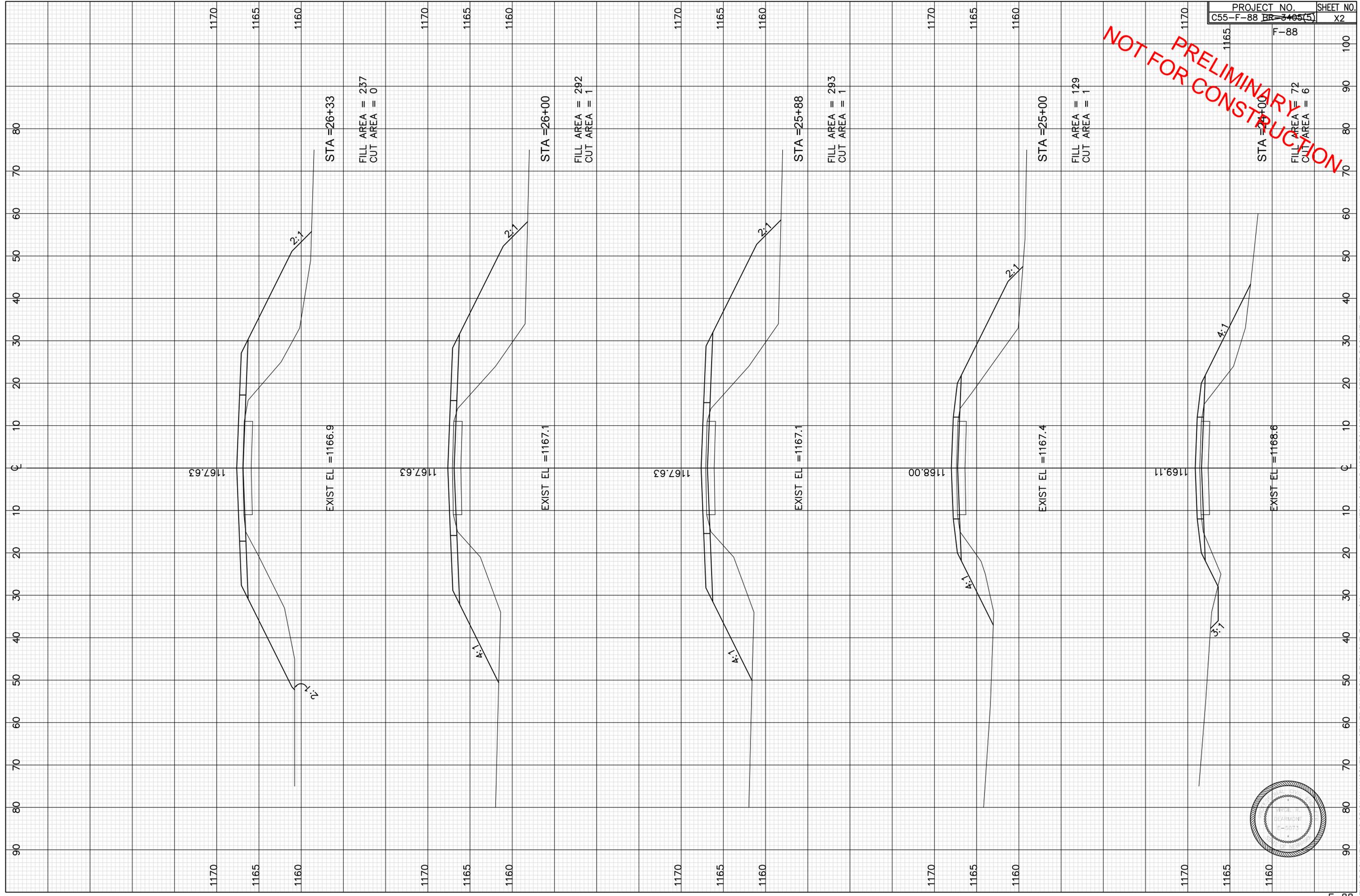
SHEET 1 OF 1
SPECIAL PLAN 2-C
 CONCRETE HEADWALLS FOR PIPE AND PIPE ARCH CULVERTS

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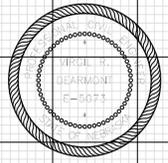


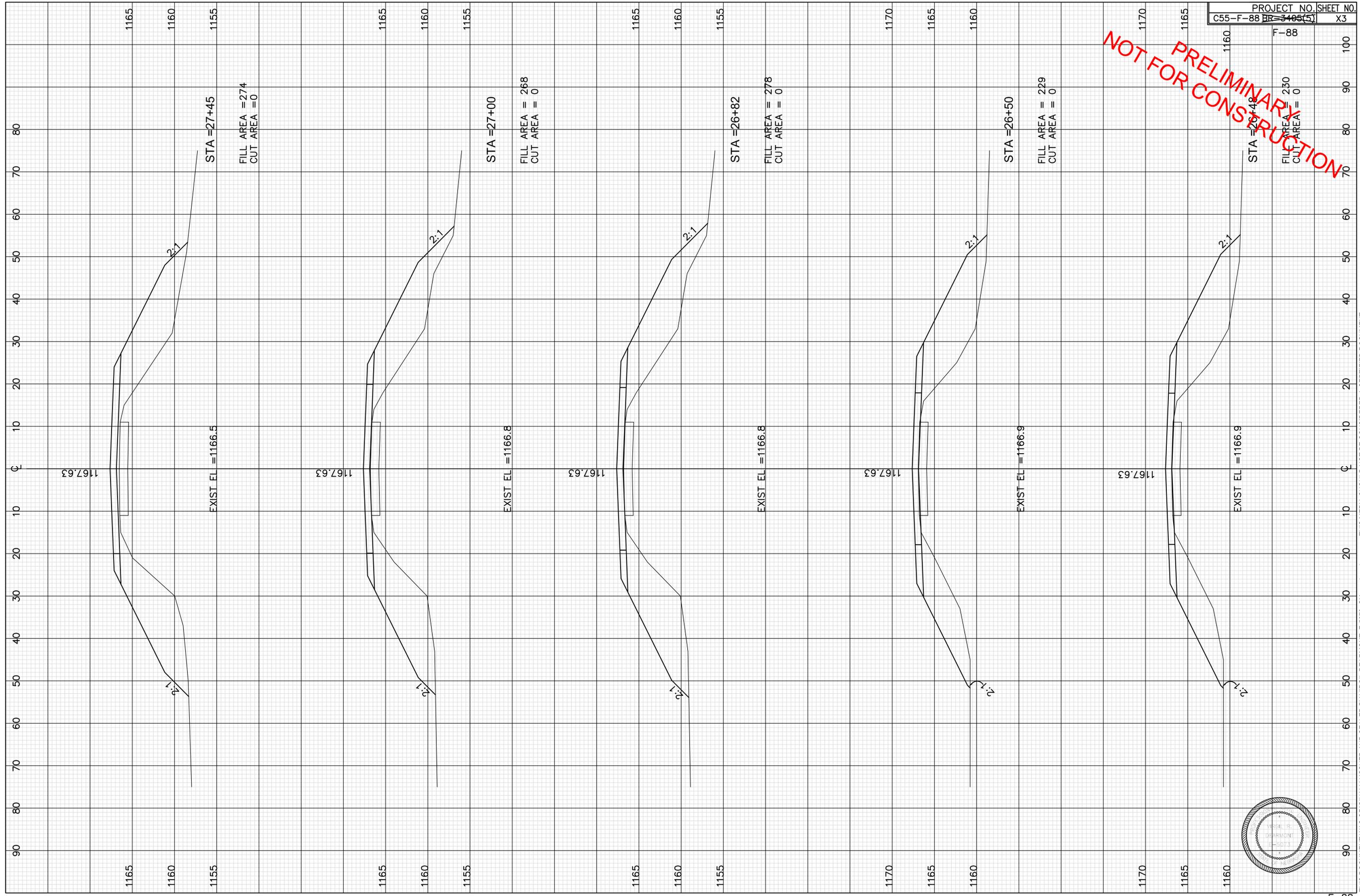
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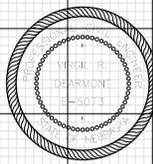


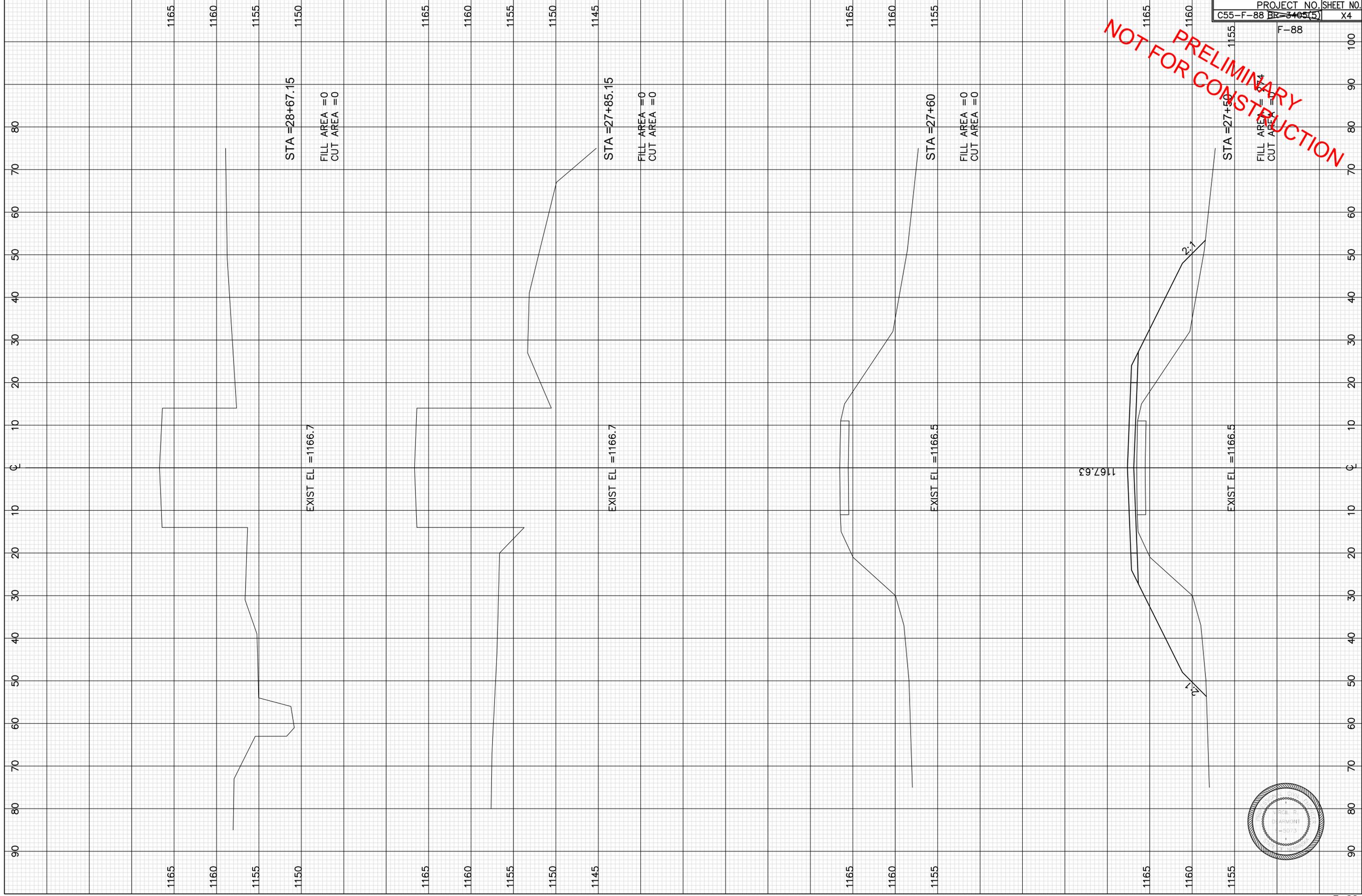
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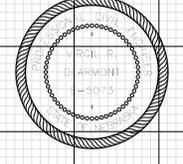


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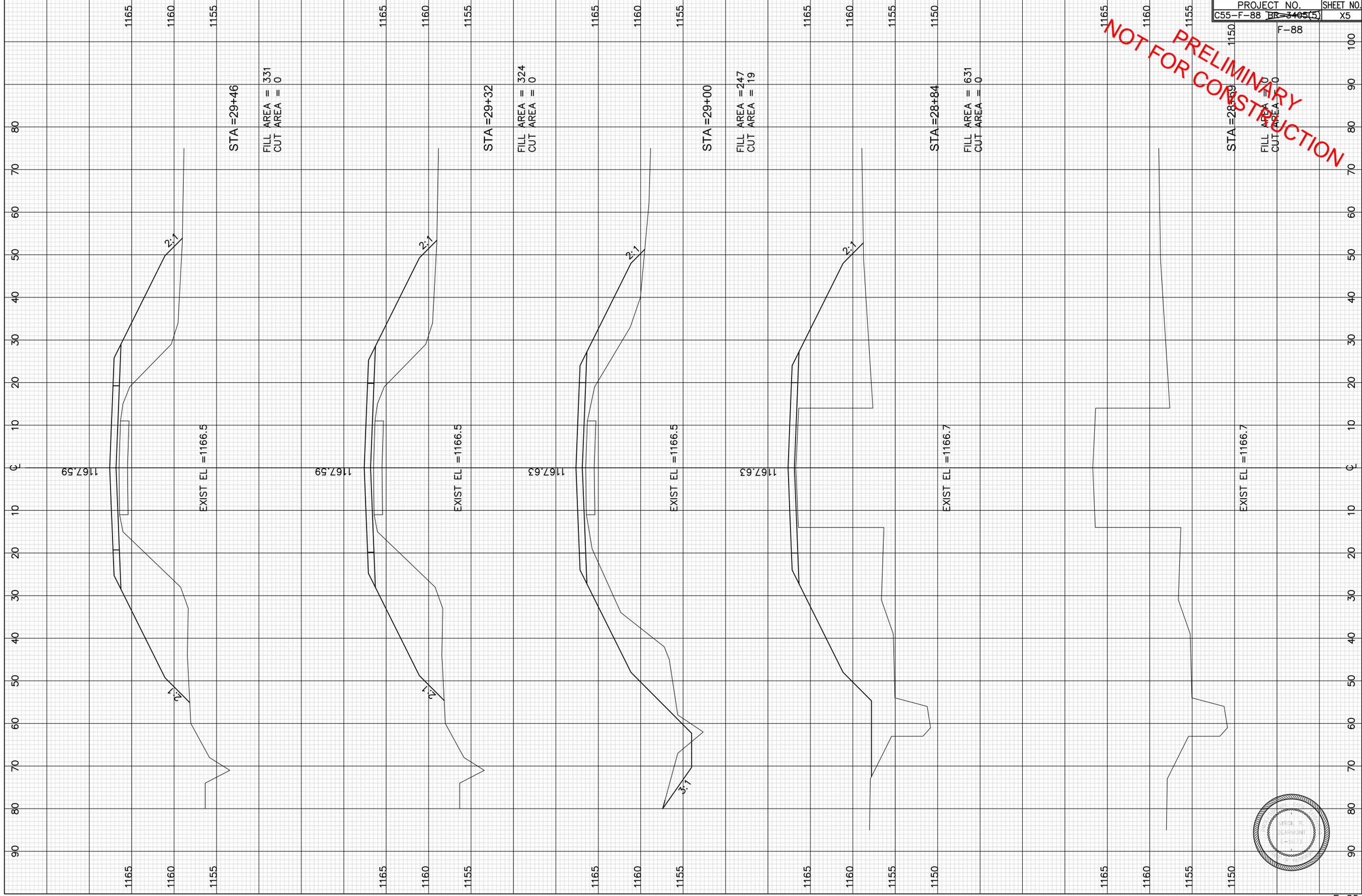




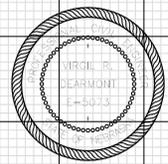
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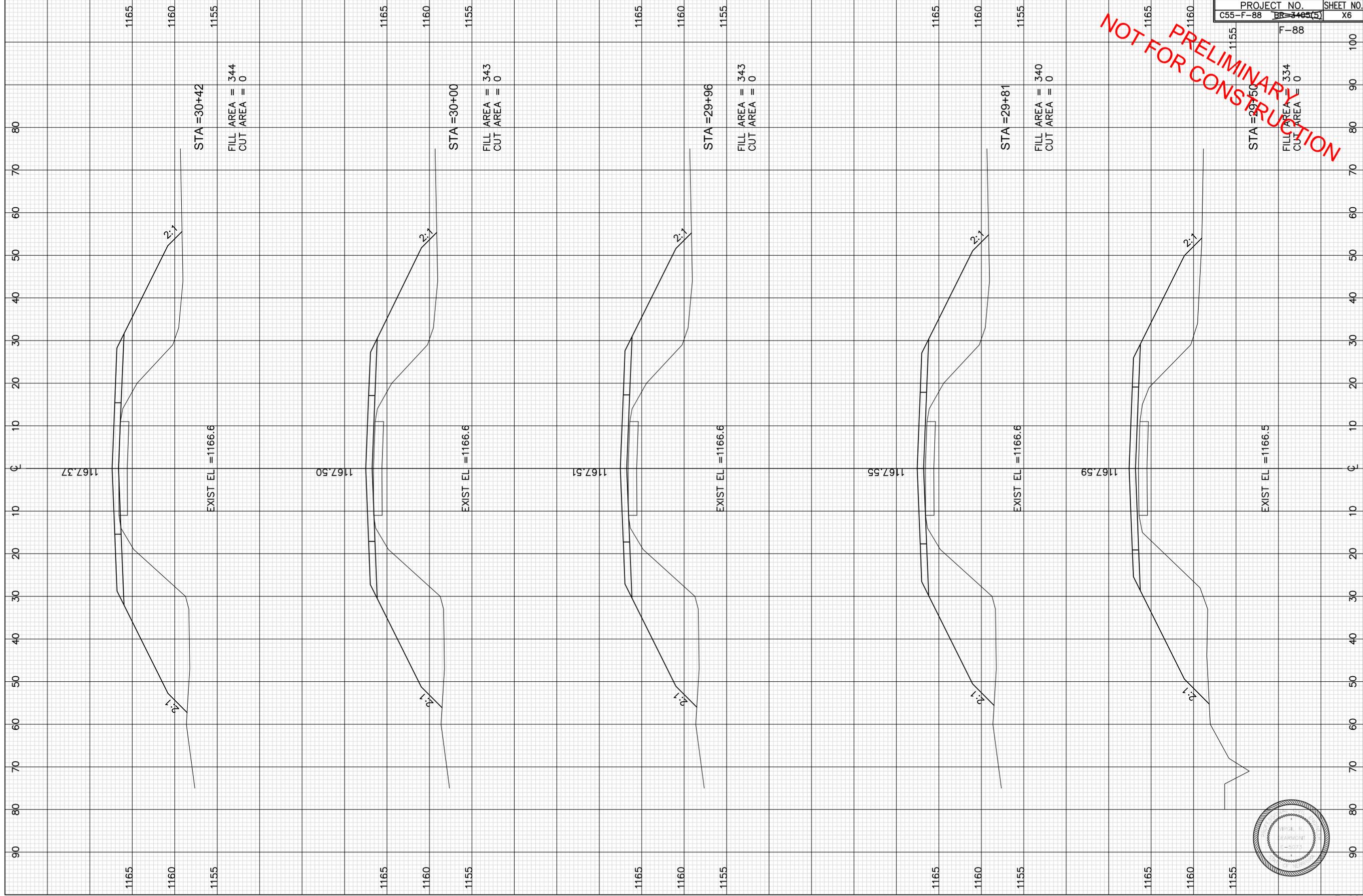


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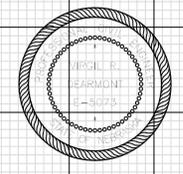
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NOT FOR CONSTRUCTION



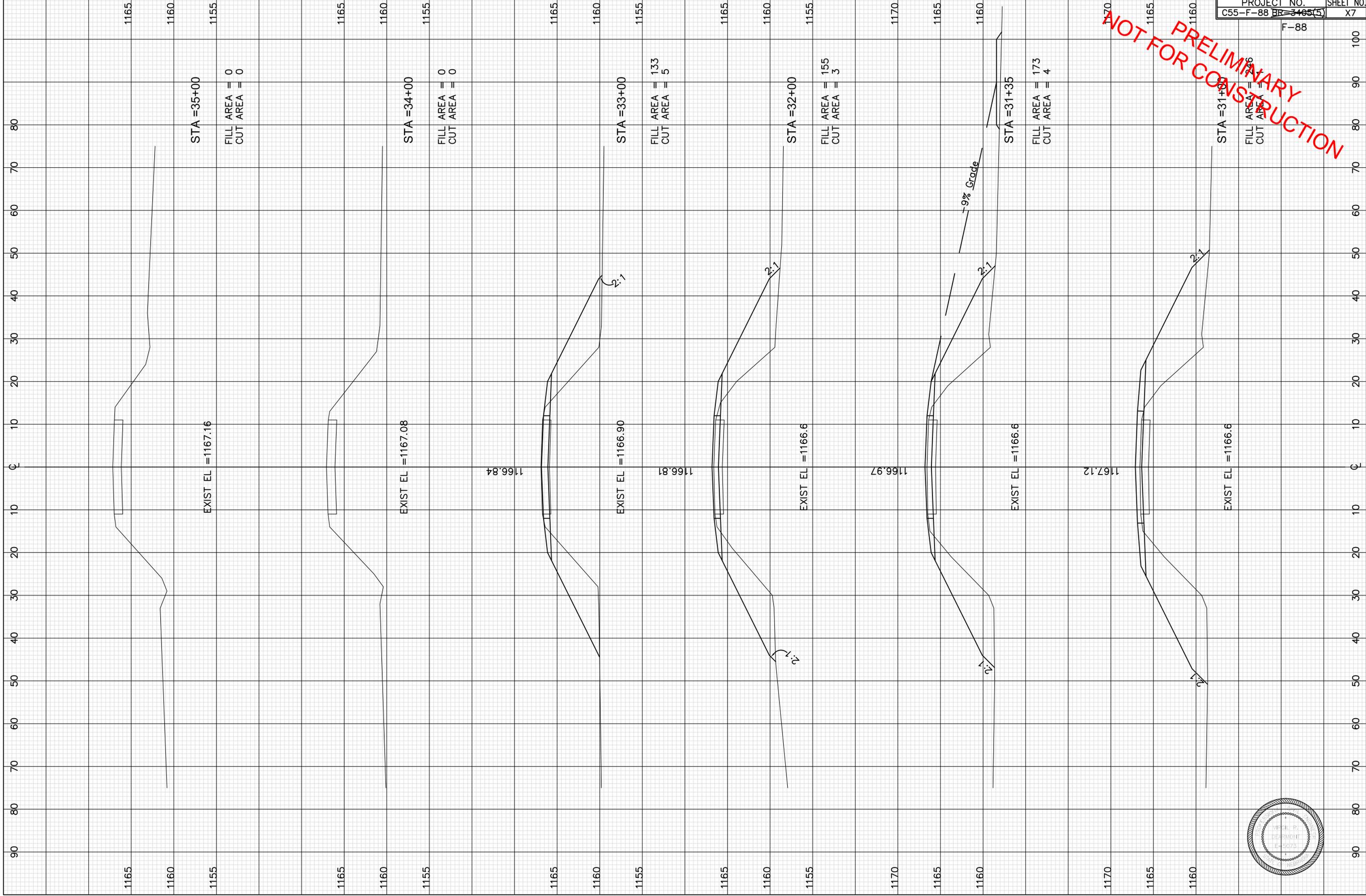


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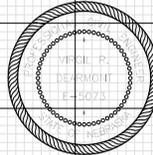
PROJECT NO.	SHEET NO.
C55-F-88	X6

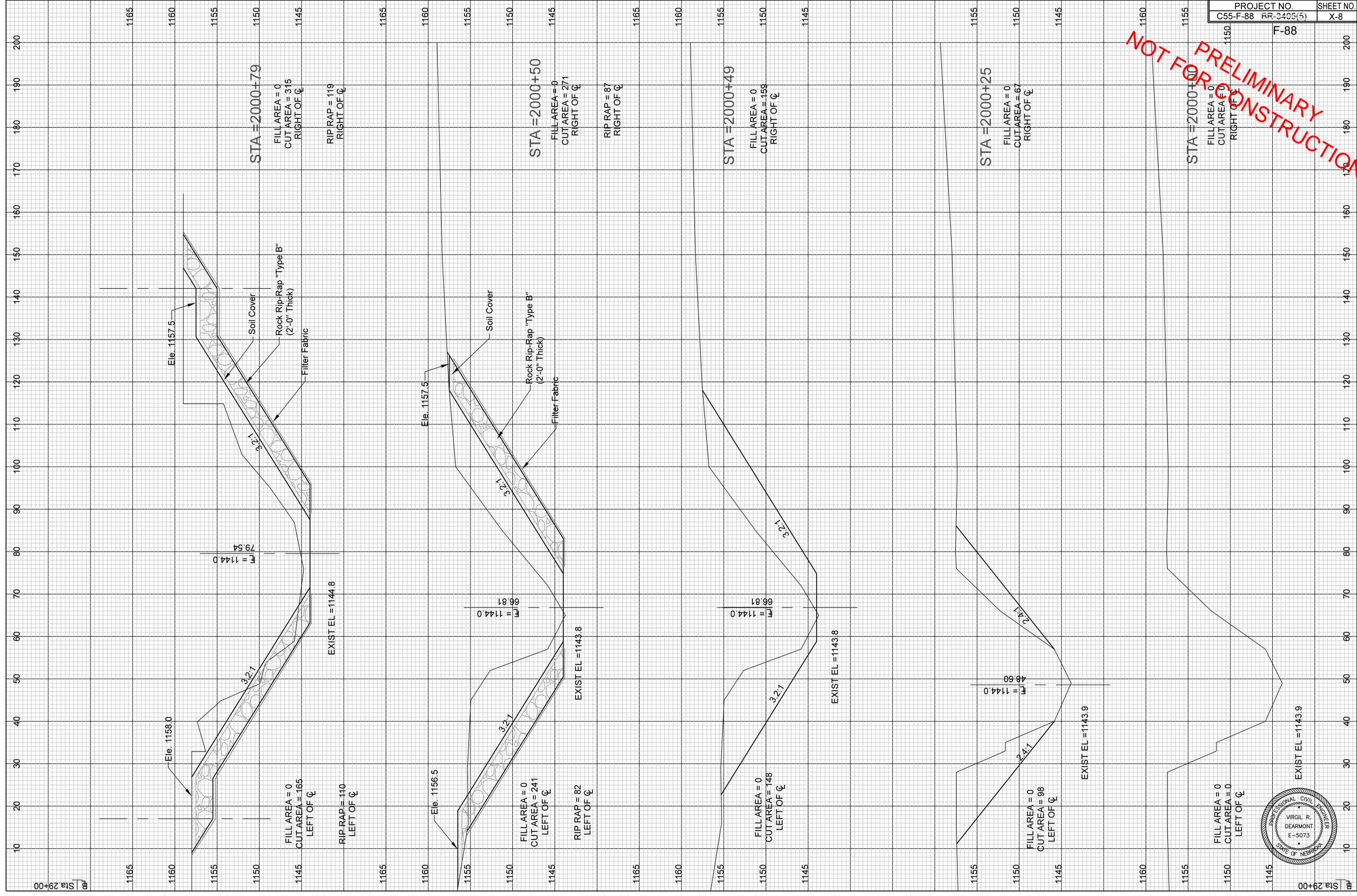


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PRELIMINARY
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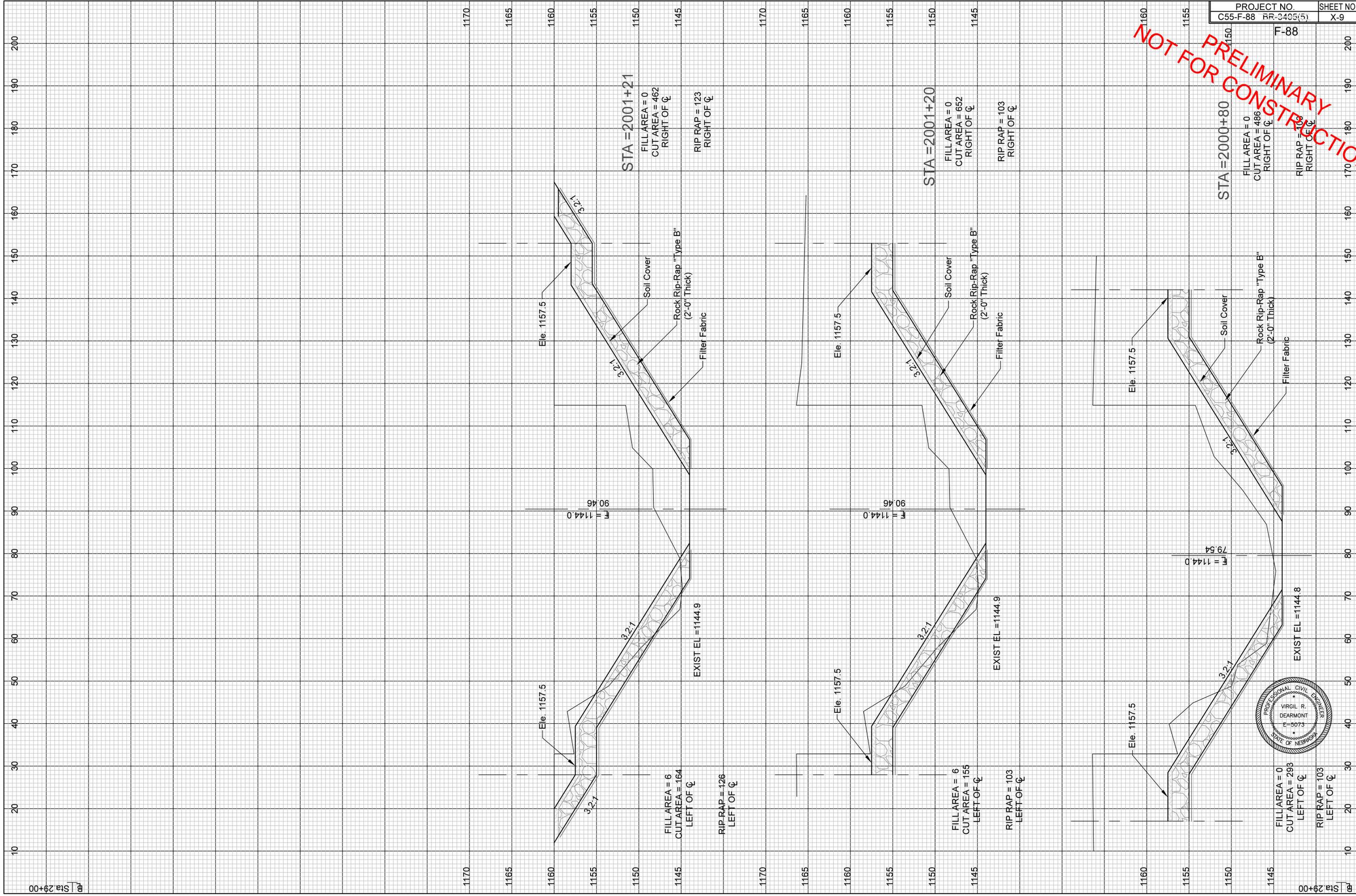


NOT FOR CONSTRUCTION



Sta 29+00

Sta 29+00



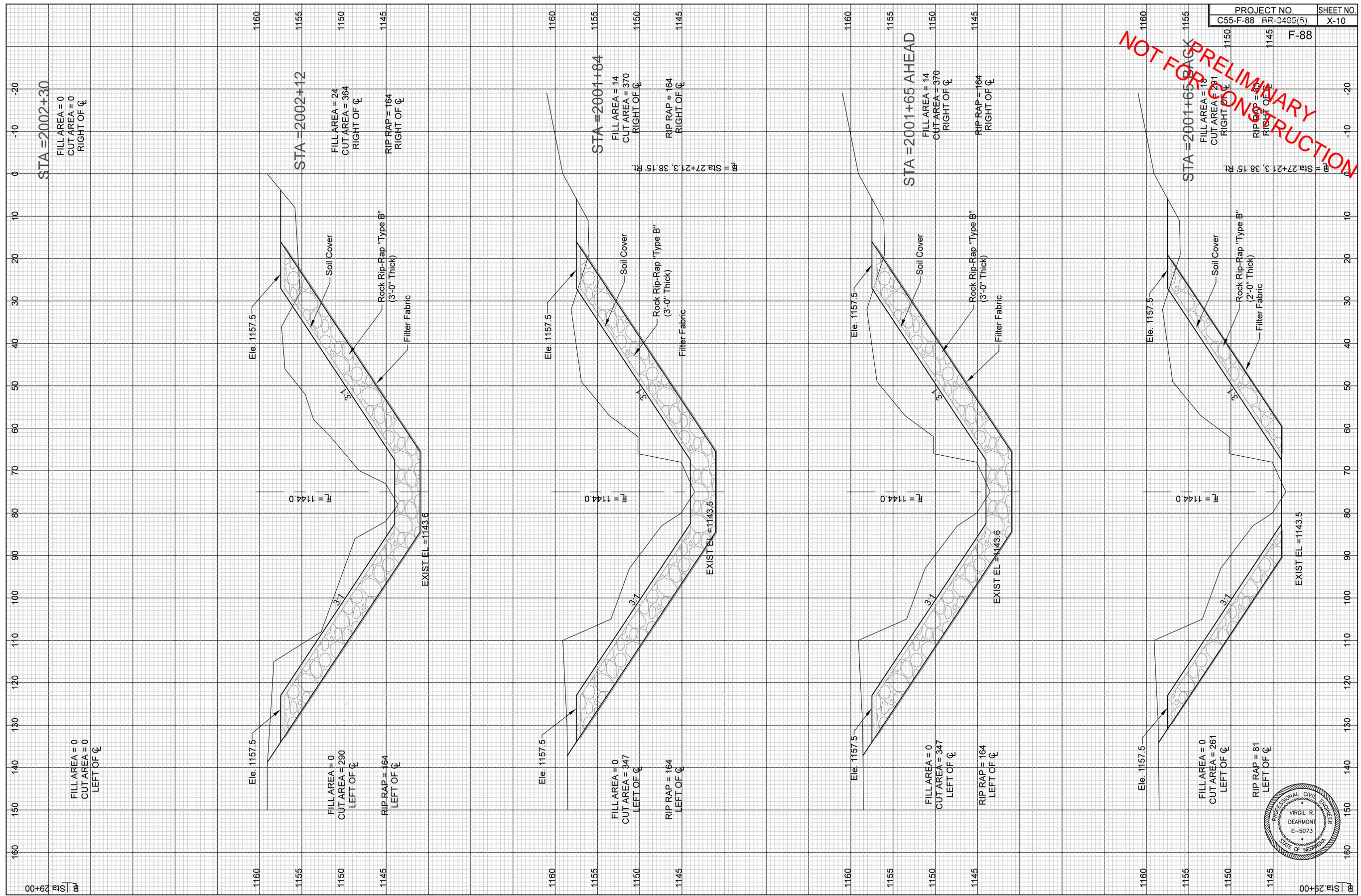
PROJECT NO.	SHEET NO.
C55-F-88 BR-2435(5)	X-9
F-88	

NOT FOR CONSTRUCTION



Sta 29+00

Sta 29+00



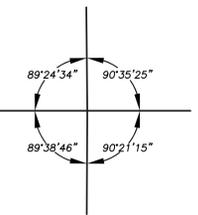
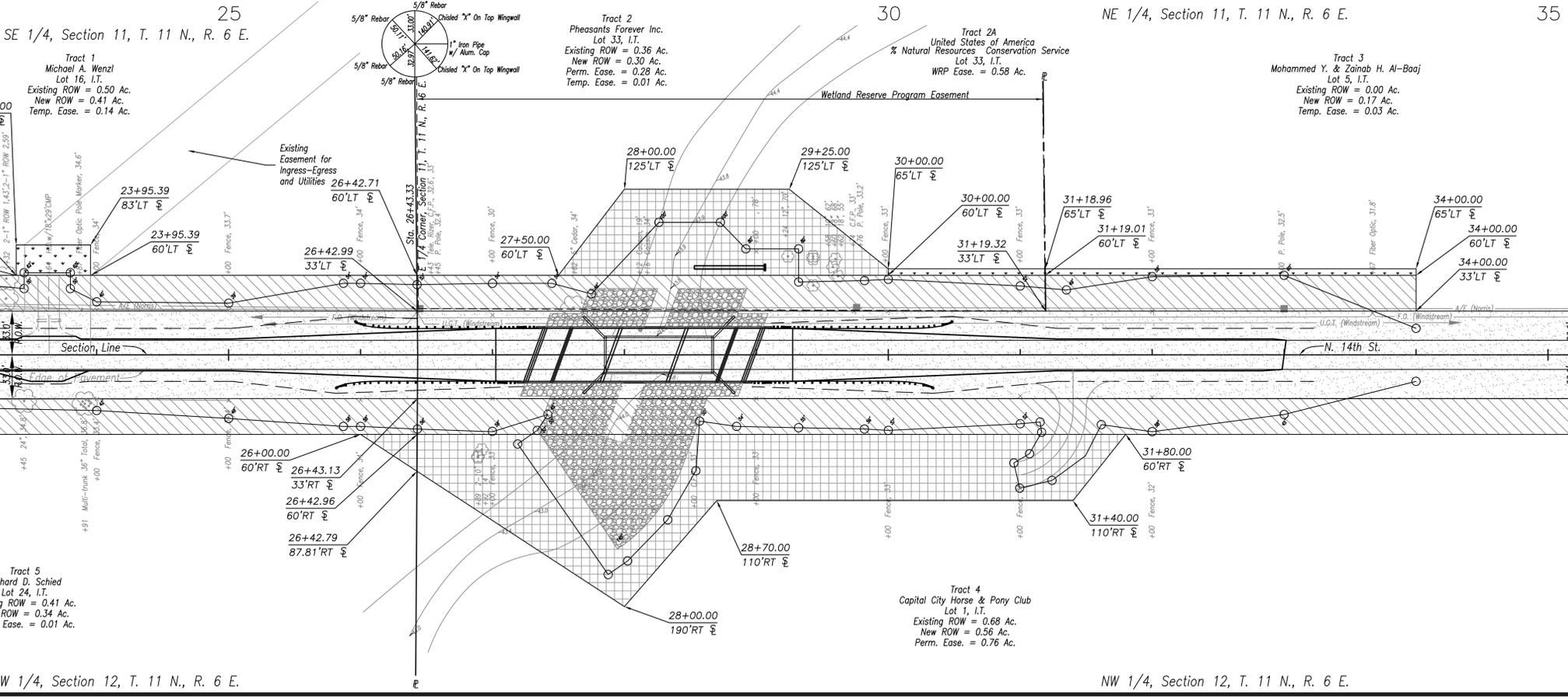
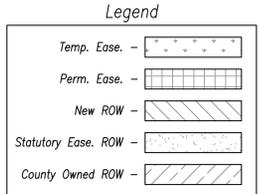
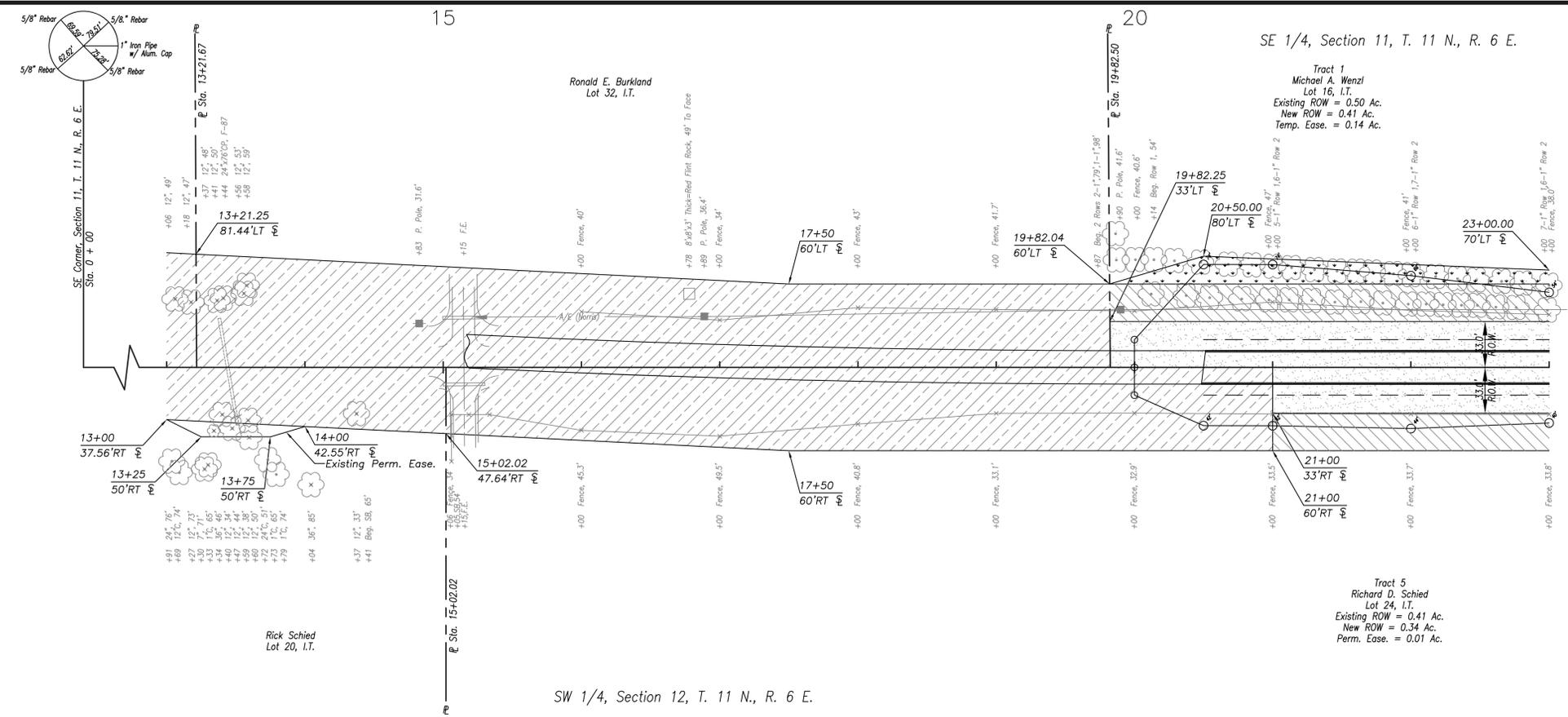
NOT FOR PRELIMINARY CONSTRUCTION



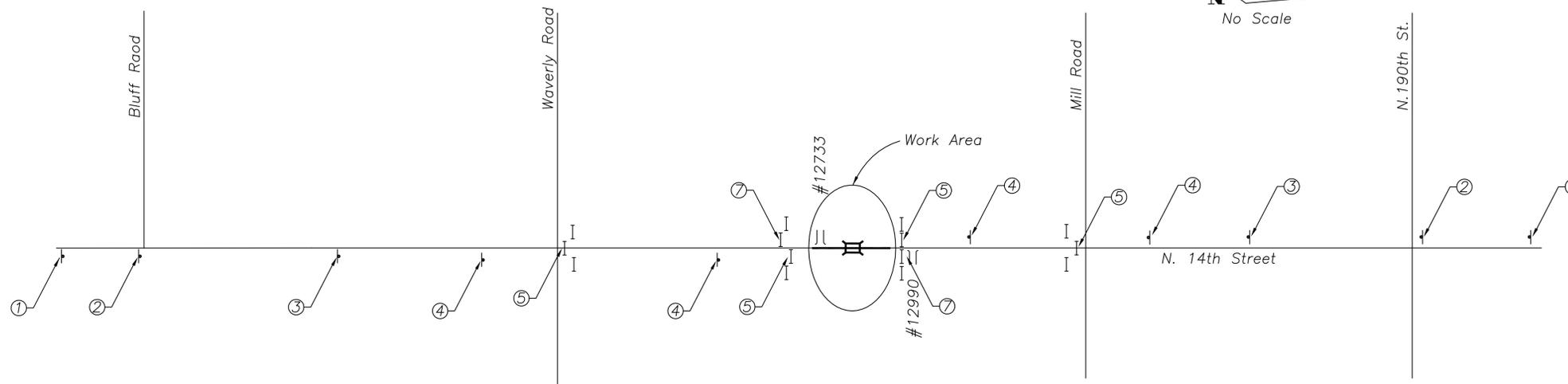
**PRELIMINARY
 NOT FOR CONSTRUCTION**

PLAN	SURVEYED	DATE
	BY	BY
	NOTED	NOTED
	CHECKED	CHECKED
	NO. 2039	NO. 2039
	BY	BY
	DATE	DATE

PROFILE	SURVEYED	DATE
	BY	BY
	NOTED	NOTED
	CHECKED	CHECKED
	NO. 2039	NO. 2039
	BY	BY
	DATE	DATE



**PRELIMINARY
NOT FOR CONSTRUCTION**



Barricade Plan

- ◆ Flagman
 - ⊕ Traffic Drum
 - 42" Reflectorized Cone
 - ⊥ Barricade, Type III; with Type "A" Light
 - ⊥ Barricade, Type II; with Type "A" Light
 - ⊥ Sign Stand or Sign Mounted on Wood Post
- | | | |
|----------------------|----|---------------|
| Barricades, Type III | 14 | Barr.Day/Day |
| Barricades, Type II | 0 | Barr.Day/Day |
| Construction Signs | 42 | Sign Day/Day |
| Non-Standard Signs | 22 | (No Pay Item) |
- * Non-Standard Signs Provided By County

- ① "Road Closed Ahead" - (W20-3)
- ② "Road Closed 1 Mile" - (W20-3f)
- ③ "Road Closed 1/2 Mile" - (W20-3e)
- ④ "Road Closed 500'" - (W20-3b)
- ⑤ "Road Closed" - (R11-2a)
- ⑥ "Road Closed To Thru Traffic" - (R11-4)
- ⑦ "Bridge Out" - (R11-2a)
- ⑧ "Detour Ahead" - (W20-2a)
- ⑨ "Detour 1000 Ft." - (W20-2c)
- ⑩ "Detour" (Right Arrow) - (M4-9R)
- ⑪ "Detour" (Left Arrow) - (M4-9L)
- ⑫ "Detour" (Straight Arrow) - (M4-9S)
- ⑬ "End Detour" - (M4-8A)
- ⑭ "N. 14th St. *

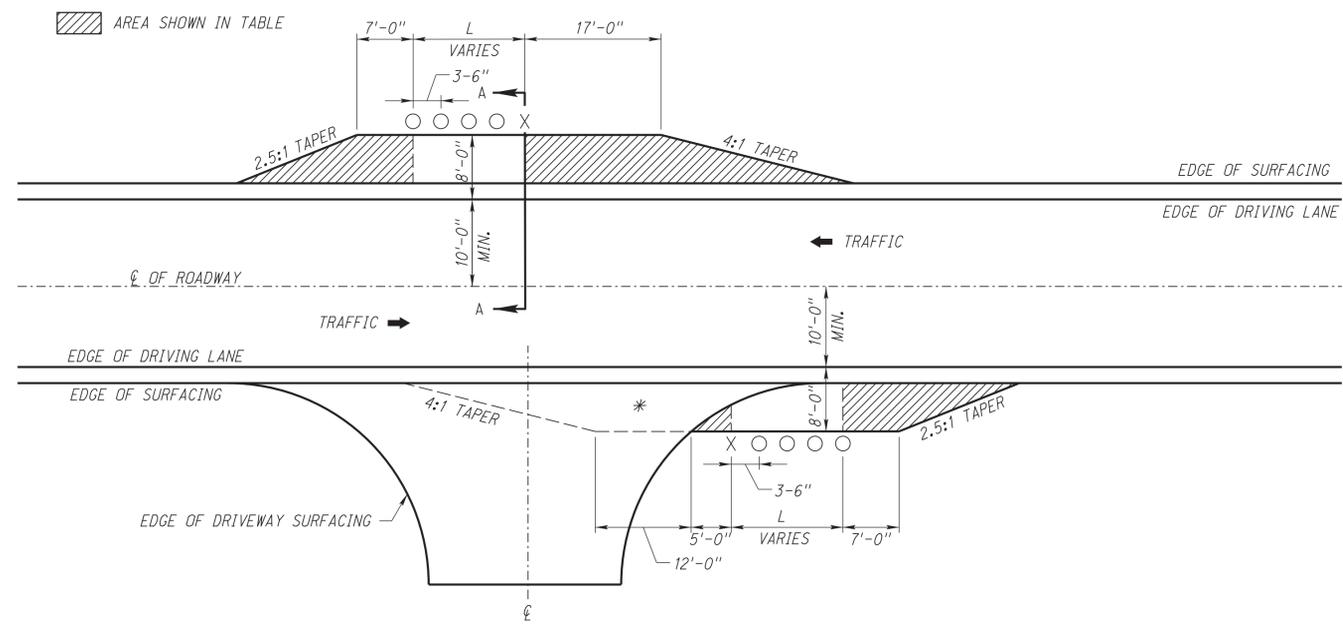


Detour Plan

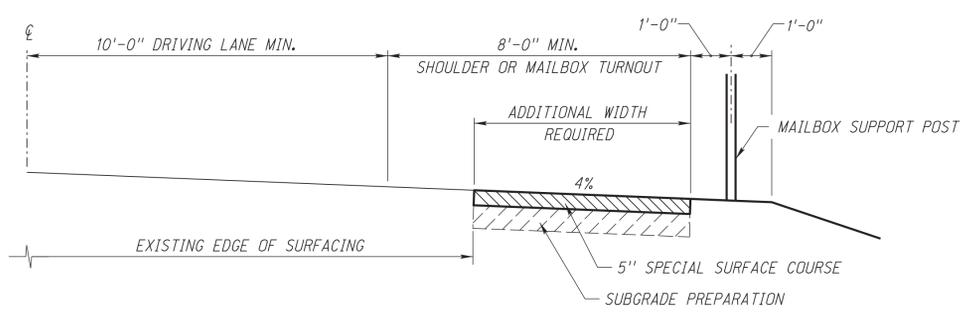
BARRICADE AND DETOUR PLAN



PRELIMINARY
NOT FOR CONSTRUCTION



PLAN
MAILBOX TURNOUT AT DRIVEWAY



SECTION A-A

FOR SPECIAL MAILBOX SURFACING		
ADDED WIDTH FOR 8' TURNOUT (FT.)	WITHOUT DRIVEWAY (SQ. YDS.)	WITH DRIVEWAY (SQ. YDS.)
2	7	1
3	12	2
4	16	4
5	22	7
6	29	10
7	36	13
8	44	16

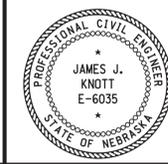
QUANTITIES ARE BASED ON DRIVEWAY WITH 24' WIDTH AND 25' RADII WITH ONE MAILBOX (L = 0).

- NOTES:
- * = FOR EARTH DRIVE, SURFACE THE MAILBOX TURNOUT ACROSS THE DRIVE AREA
 - L = (NUMBER OF SUPPORT POSTS - 1) x 3'-6"
 - X = FIRST OR ONLY POST LOCATION
 - = MULTIPLE BOX LOCATIONS

REV. NO.	DATE	DESCRIPTION OF REVISION
R2	OCT 14	MOVE MAILBOX AND ADD LAYOUT
R1	FEB 09	CHANGE 0.04'/FT TO 4%

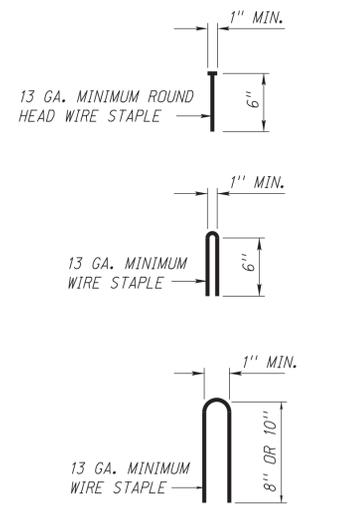
NEBRASKA DEPARTMENT OF ROADS
STANDARD PLAN NO. 308-R2
**LOCAL ROADS
MAILBOX TURNOUT**

ACCEPTED BY FHWA FOR USE ON THE NATIONAL HIGHWAY SYSTEM:

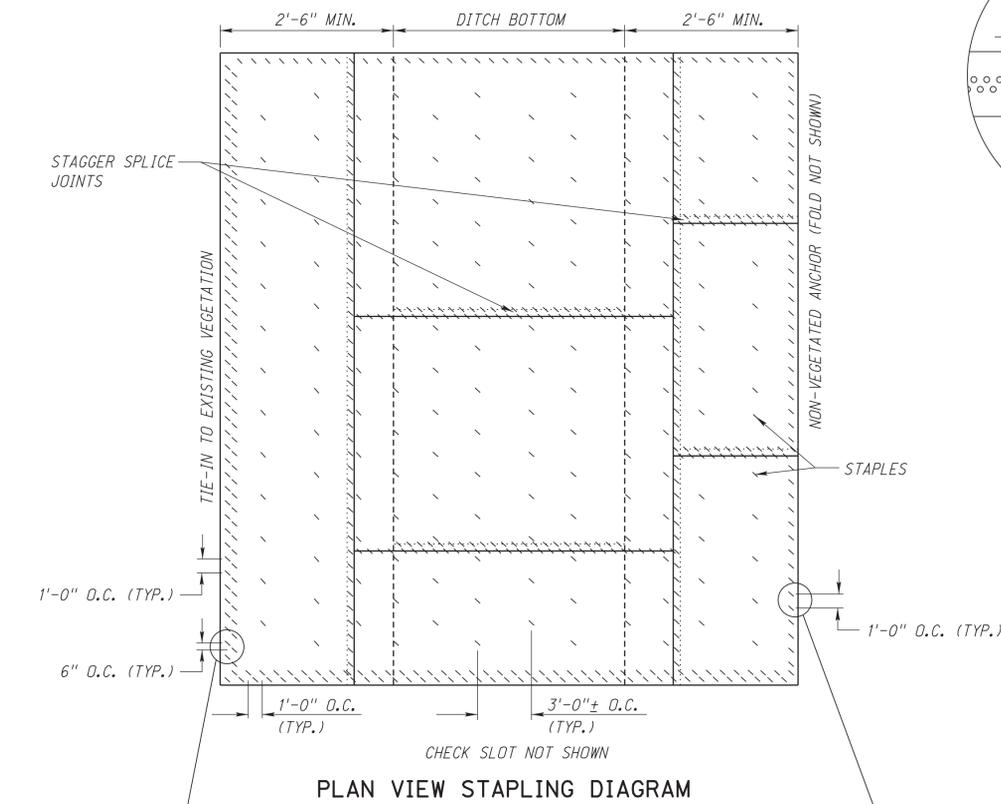


OCT 2014
DATE
ORIGINAL:
JANUARY 23, 2008
DATE

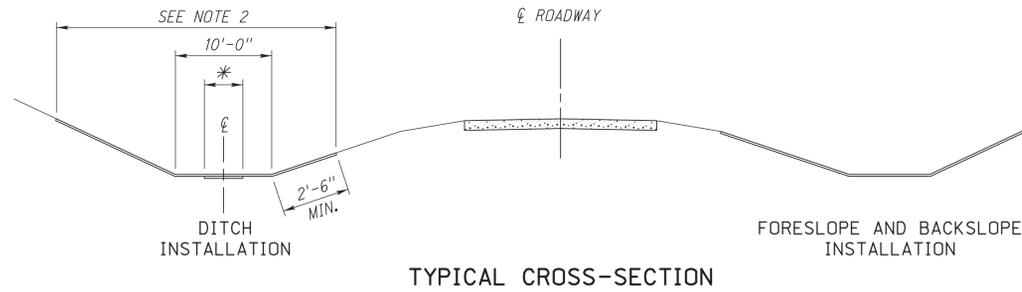
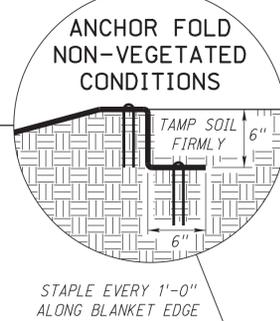
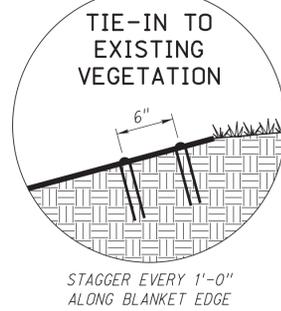
1
1



WIRE STAPLE DETAIL

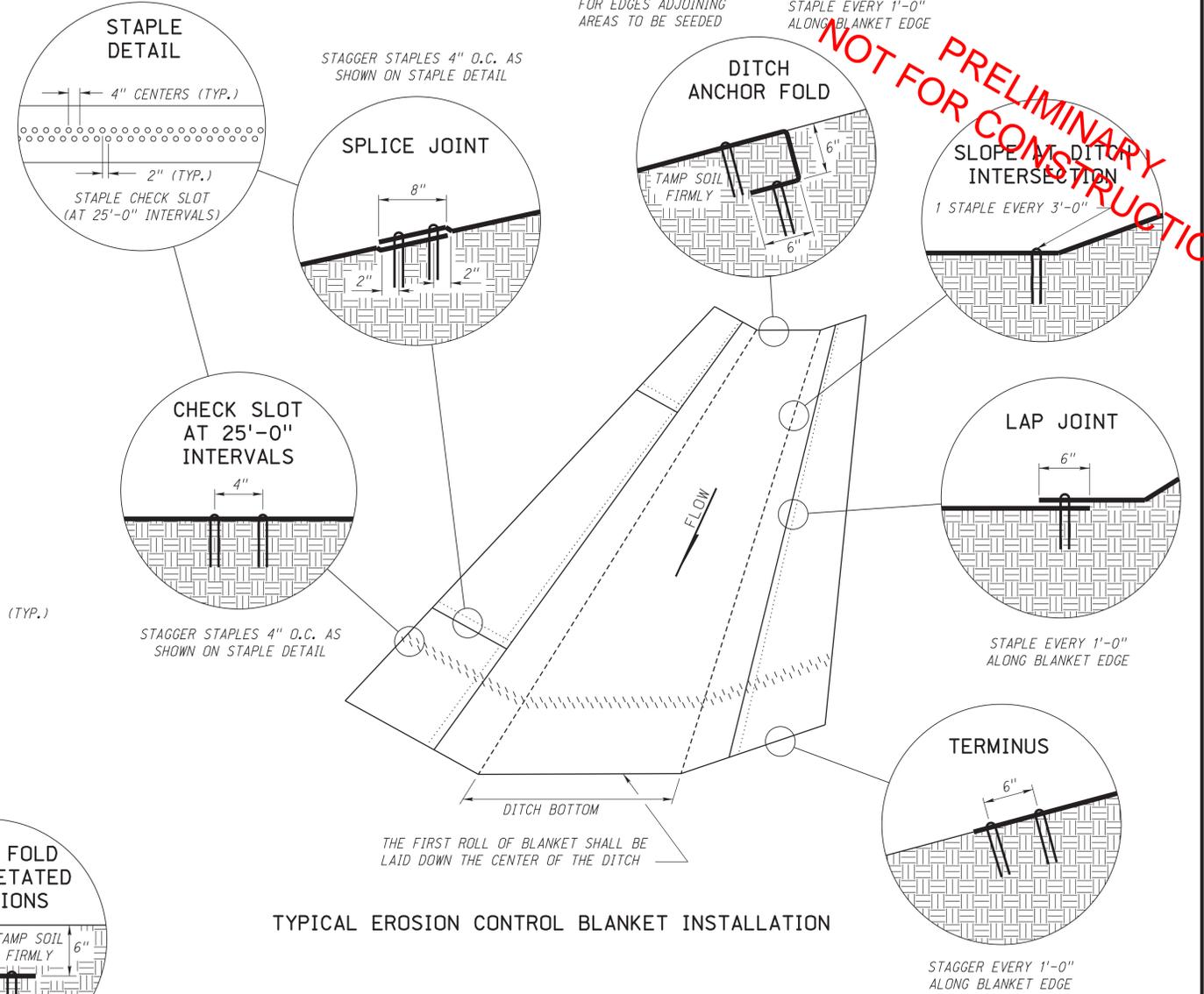


PLAN VIEW STAPLING DIAGRAM



TYPICAL CROSS-SECTION

* THE FIRST ROLL OF BLANKET SHALL BE LAID DOWN THE CENTER OF THE DITCH



TYPICAL EROSION CONTROL BLANKET INSTALLATION

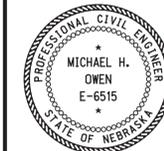
NOTES:

- THIS PLAN IS APPLICABLE FOR THE FOLLOWING: EROSION CONTROL CLASS 1B, 1C, 1D, 1E, 1F, 2A, 2B & 2C.
- SOIL RETENTION BLANKET SHALL BE LAID A MINIMUM OF 2'-6" UP THE BACKSLOPE AND FORESLOPE.
- CHECK SLOTS ARE PLACED PERPENDICULAR TO DITCH CENTER LINE ON 25'-0" INTERVALS.
- THE MANUFACTURERS' RECOMMENDED STAPLING PATTERNS SHALL GOVERN OVER THE PLANS.

R6	APR 14	UPDATE INSTALLATION METHOD
R5	OCT 07	EROSION CONTROL AT SPLASH BASIN
R4	DEC 06	UPDATE INSTALLATION METHOD
REV. NO.	DATE	DESCRIPTION OF REVISION

NEBRASKA DEPARTMENT OF ROADS
STANDARD PLAN NO. 501-R6
EROSION CONTROL

ACCEPTED BY FHWA FOR USE ON THE NATIONAL HIGHWAY SYSTEM:

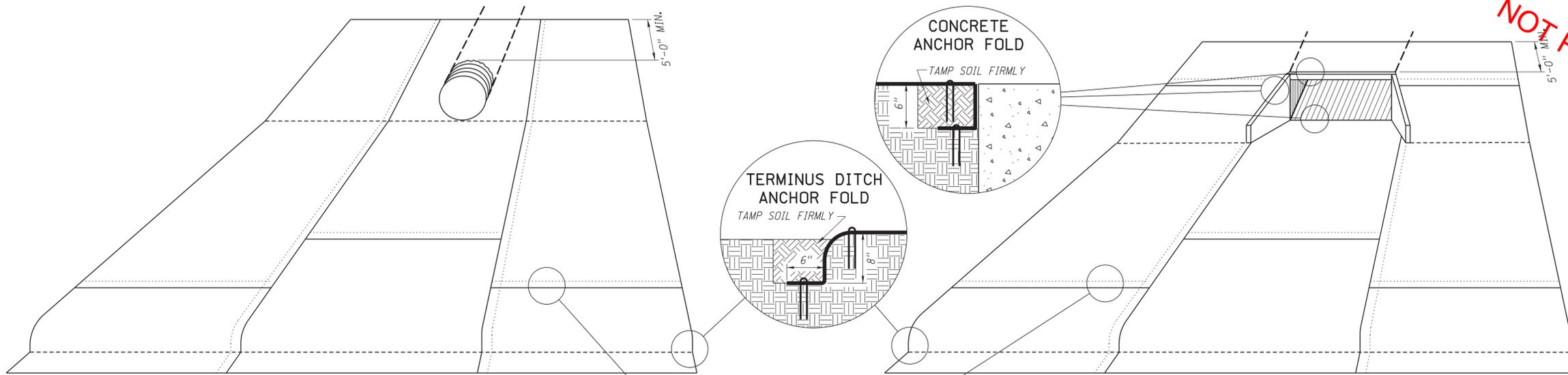


DATE
ORIGINAL:
NOVEMBER 14, 1973
DATE

1
3

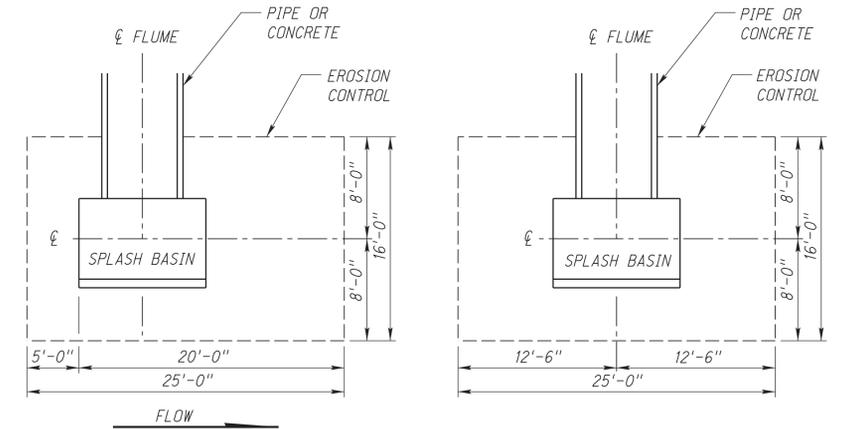
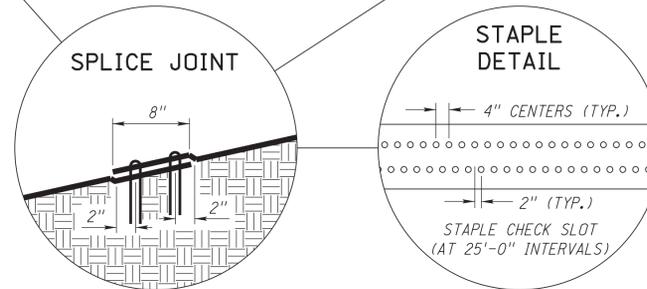
PRELIMINARY
NOT FOR CONSTRUCTION

NOT FOR CONSTRUCTION
PRELIMINARY



TYPICAL INSTALLATION AT PIPE CULVERT
(SHOWING STRAIGHT PIPE)

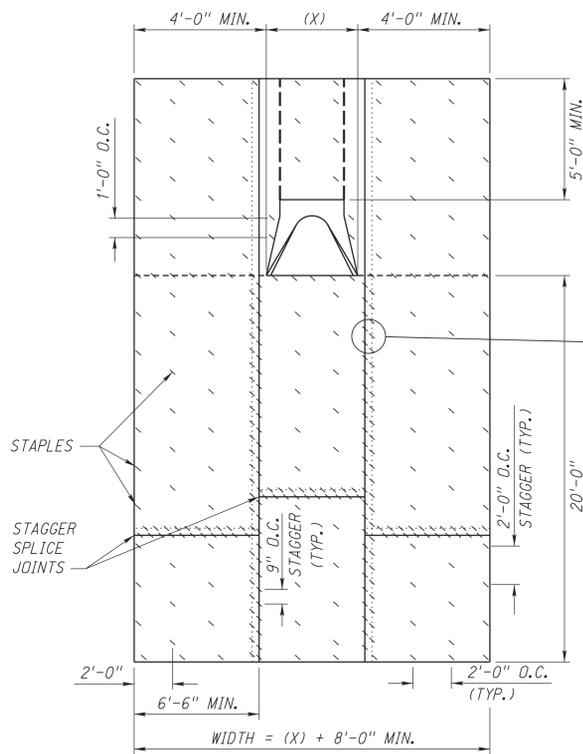
TYPICAL INSTALLATION AT BOX CULVERT



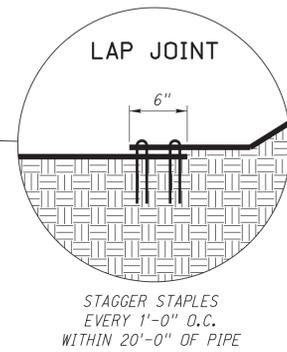
NOTE:
OFFSET EROSION CONTROL PLACEMENT
ALONG THE DRAINAGE PATH

NOTE:
CENTER EROSION CONTROL ON FLUME WHERE
THERE IS NO DEFINED DRAINAGE PATH

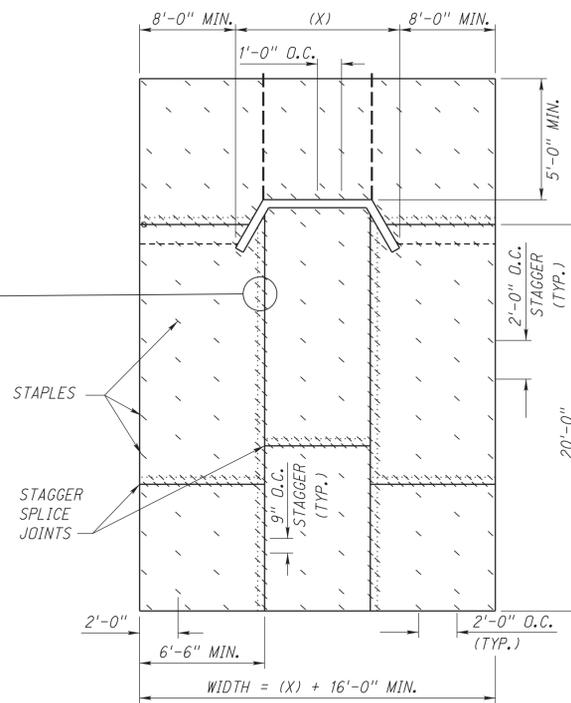
EROSION CONTROL BLANKET PLACEMENT AT SPLASH BASIN



PLAN VIEW STAPLING DIAGRAM
(X) IS EQUAL TO THE OUTSIDE WIDTH
OF THE FLARED END SECTION



STAGGER STAPLES
EVERY 1'-0" O.C.
WITHIN 20'-0" OF PIPE

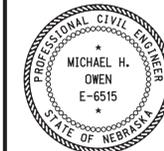


PLAN VIEW STAPLING DIAGRAM
(X) IS EQUAL TO THE OUTSIDE WIDTH
OF THE WING WALLS

R6	APR 14	UPDATE INSTALLATION METHOD
R5	OCT 07	EROSION CONTROL AT SPLASH BASIN
R4	DEC 06	UPDATE INSTALLATION METHOD
REV. NO.	DATE	DESCRIPTION OF REVISION

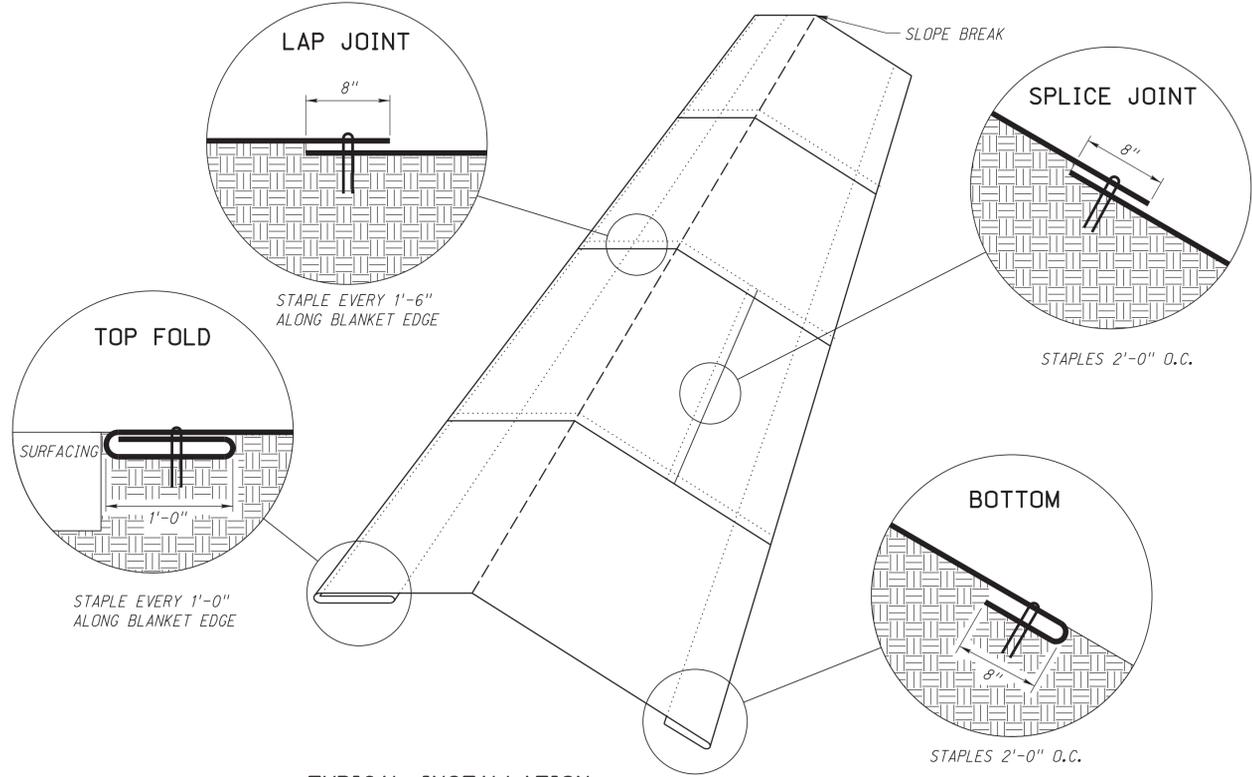
NEBRASKA DEPARTMENT OF ROADS
STANDARD PLAN NO. 501-R6
EROSION CONTROL

ACCEPTED BY FHWA FOR USE ON THE
NATIONAL HIGHWAY SYSTEM:

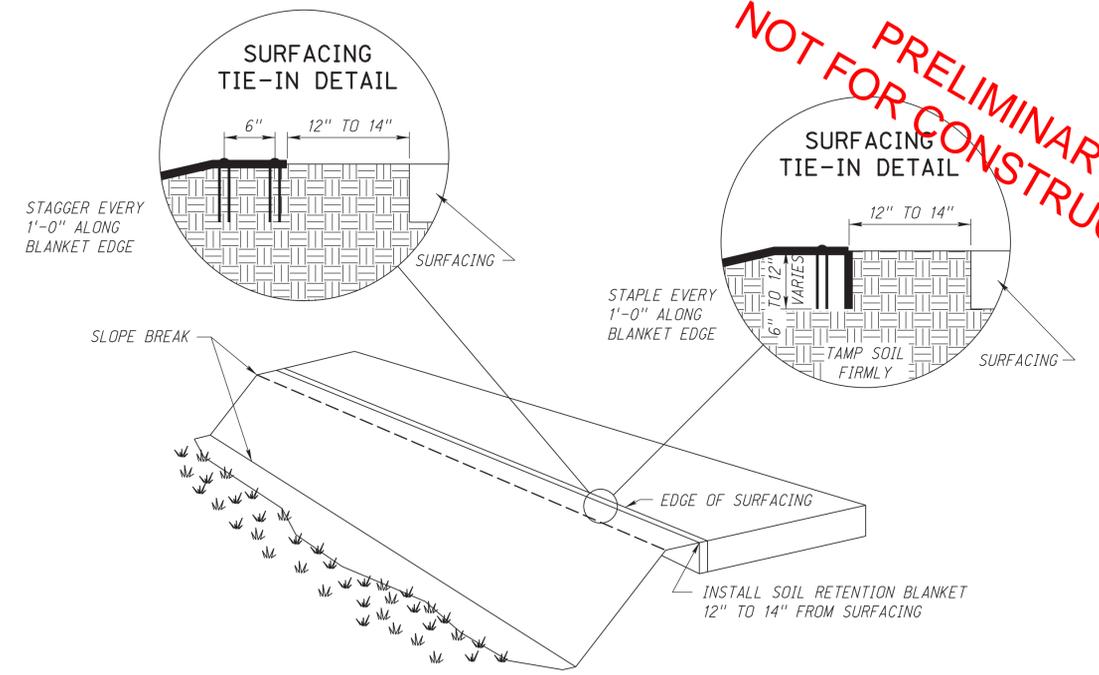


DATE
ORIGINAL:
NOVEMBER 14, 1973
DATE

2
3

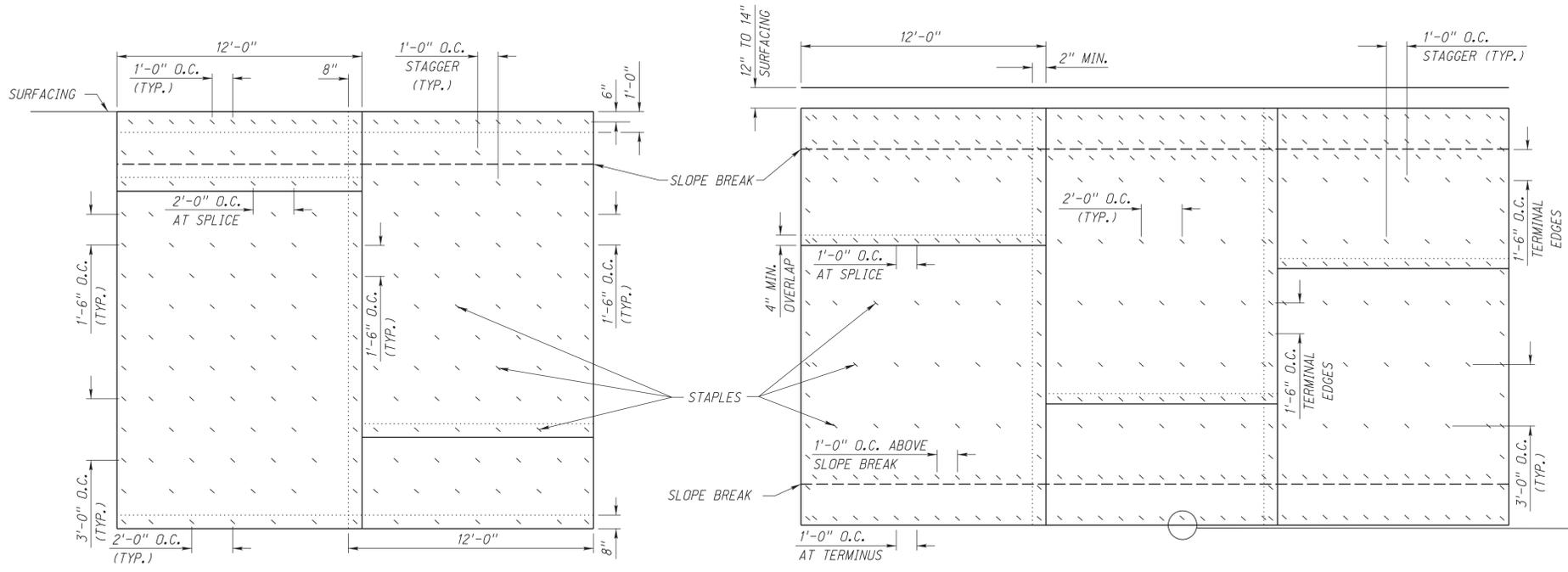


TYPICAL INSTALLATION
CLASS 1A (SLOPE PROTECTION, SAND)



SURFACING INSTALLATION

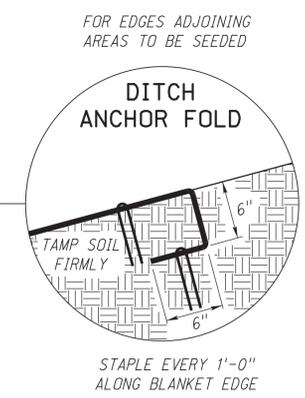
PRELIMINARY
NOT FOR CONSTRUCTION



PLAN VIEW STAPLING DIAGRAM FOR
CLASS 1A (SLOPE PROTECTION, SAND)

PLAN VIEW STAPLING DIAGRAM FOR
CLASS 1B, 1C, 1D, 1E, 1F, 2A, 2B, & 2C

TERMINATE BLANKET AT THE TOE OF SLOPE OR AT UNDISTURBED VEGETATION



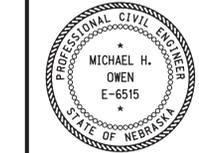
NOTES:

1. THE MANUFACTURERS' RECOMMENDED STAPLING PATTERNS SHALL GOVERN OVER THE PLANS.
2. SURFACING INSTALLATION IS APPLICABLE FOR ASPHALT, CONCRETE, OR BEVELLED EDGE.

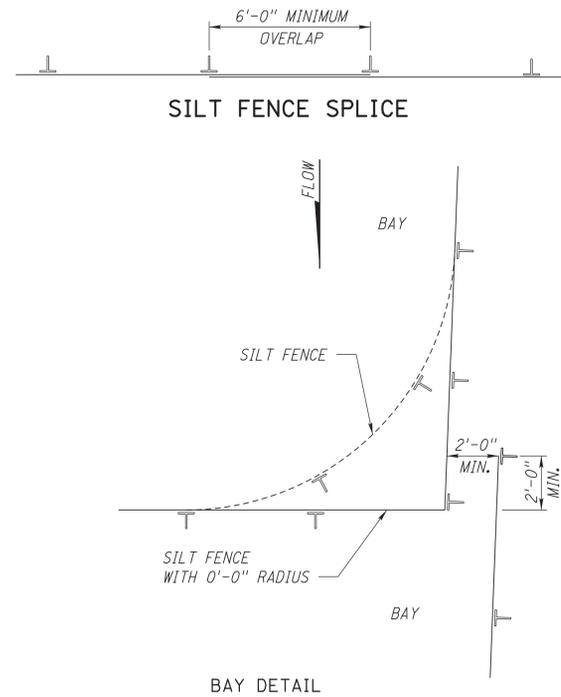
REV. NO.	DATE	DESCRIPTION OF REVISION
R6	APR 14	UPDATE INSTALLATION METHOD
R5	OCT 07	EROSION CONTROL AT SPLASH BASIN
R4	DEC 06	UPDATE INSTALLATION METHOD

NEBRASKA DEPARTMENT OF ROADS
STANDARD PLAN NO. 501-R6
EROSION CONTROL

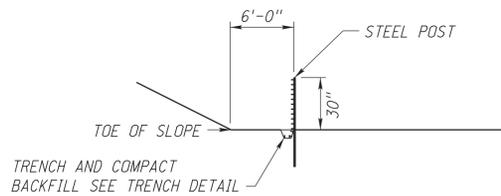
ACCEPTED BY FHWA FOR USE ON THE NATIONAL HIGHWAY SYSTEM:



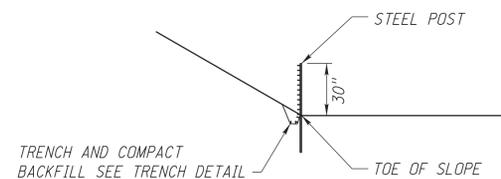
DATE
ORIGINAL:
NOVEMBER 14, 1973
DATE



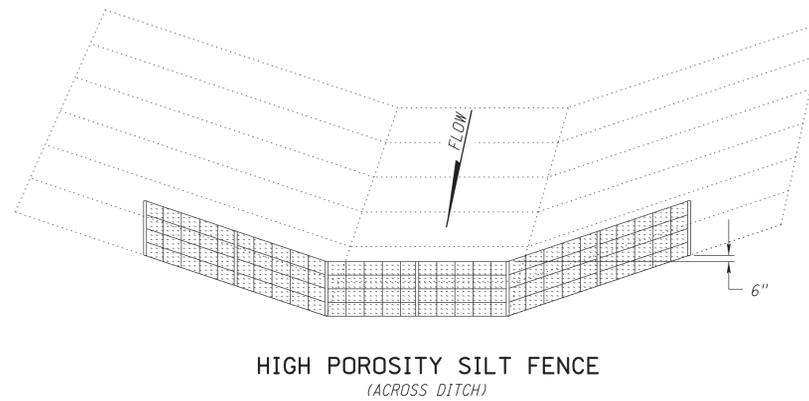
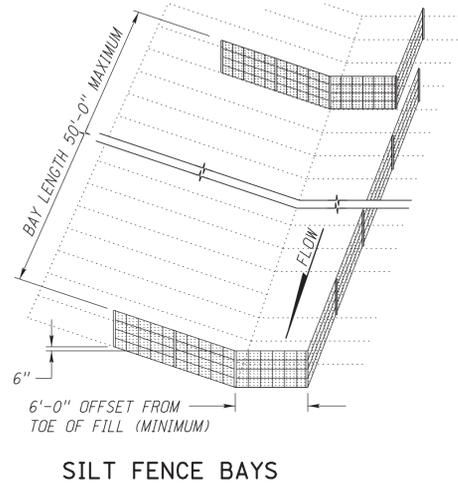
NOTE:
SILT FENCE AT CORNERS SHALL HAVE A RADIUS OF 0'-0" MINIMUM TO 10'-0" MAXIMUM



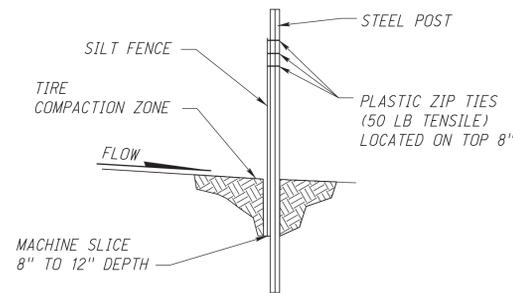
OPTION ONE (PREFERRED)
SILT FENCE
(6'-0" OFFSET FROM TOE OF FILL)



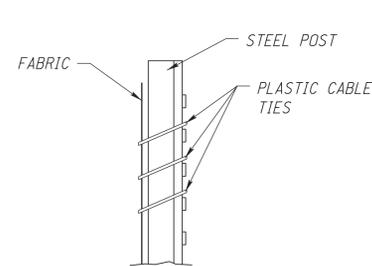
OPTION TWO (WITH LIMITED R.O.W.)
SILT FENCE
(AT TOE OF FILL)



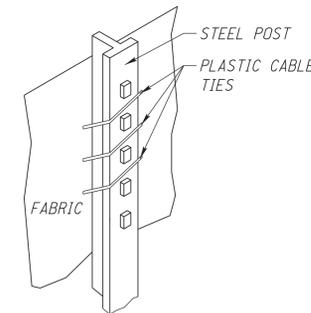
NOTE:
POST SPACING 6'-0" MAXIMUM MULTIPLE BAYS MAY BE USED



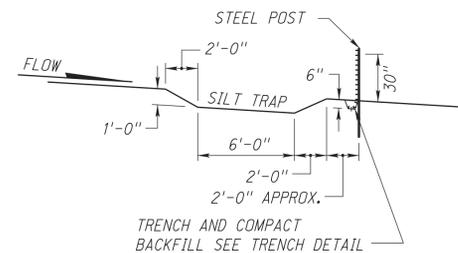
SILT FENCE MACHINE SLICED



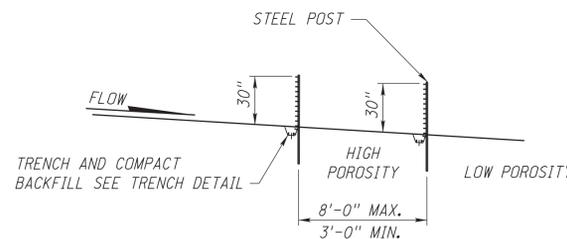
PROFILE VIEW ATTACHMENT TO POST



BACK VIEW ATTACHMENT TO POST



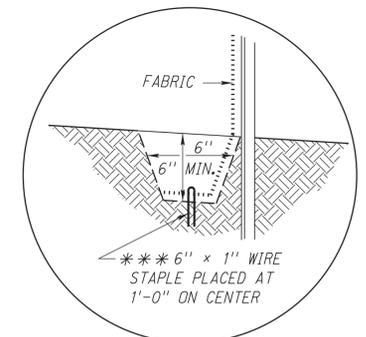
HIGH POROSITY SILT FENCE WITH SILT TRAP
(ACROSS DITCH)



SILT FENCE
(ACROSS DITCH)

NOT FOR PRELIMINARY CONSTRUCTION

SILT FENCE (UNDER BRIDGE)



TRENCH DETAIL

*** SILT FENCE MAY ALSO BE INSTALLED WITH A SILT FENCE PLOW. NO STAPLING IS REQUIRED WHEN THE SILT FENCE PLOW IS USED.

NOTES:

SILT FENCE SHOULD BE 30" ABOVE GRADE (MAY VARY)

SILT FENCE MINIMUM ROLL WIDTH:
LOW POROSITY = 42"
HIGH POROSITY = 42"
LOW PROFILE = 36"
COIR SILT FENCE = 36"

STEEL STUDDED "T" LINE POSTS 5'-6" LENGTH; 6'-0" MAXIMUM SPACING.

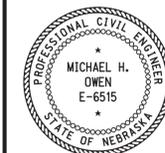
FOR EACH STEEL STUDDED "T" LINE POST, 3 PLASTIC CABLE TIES ARE REQUIRED.

2" x 2" x 6'-0" NOMINAL WOOD STAKES SPACING, 6'-0" MAXIMUM ON CENTER DRIVEN UNTIL FIRM.

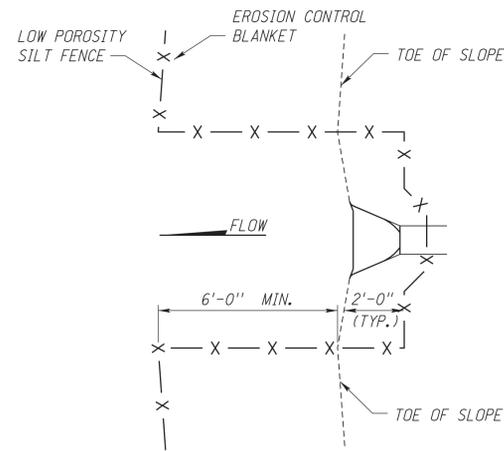
REV. NO.	DATE	DESCRIPTION OF REVISION
R1	APR 14	STEEL POST INSTALLATION

NEBRASKA DEPARTMENT OF ROADS
STANDARD PLAN NO. 502-R1
SILT FENCE DETAILS

ACCEPTED BY FHWA FOR USE ON THE NATIONAL HIGHWAY SYSTEM:



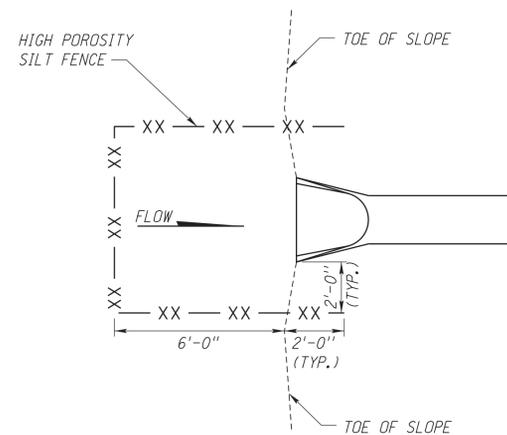
DATE _____
ORIGINAL: DECEMBER 18, 2006
DATE _____



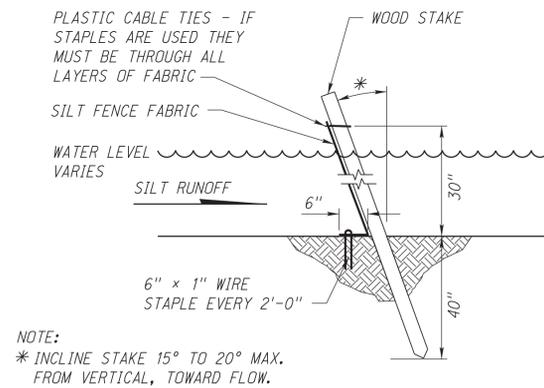
SILT FENCE OUTLET PROTECTION

NOTES:

1. SILT FENCE SHOULD BE BROUGHT FLUSH WITH WING WALLS ON BOX CULVERTS IF IT CAN NOT BE INSTALLED ABOVE THE BOX CULVERT.
2. IF APPLICABLE, SILT FENCE AROUND THE CULVERT SHOULD BE ADJUSTED TO ALLOW FOR THE INSTALLATION OF EROSION CONTROL AS SHOWN IN STANDARD PLAN 501.
3. SILT CHECKS MAY USED IN PLACE OF SILT FENCE ABOVE THE OPENING OF A CULVERT, AS SHOWN IN SPECIAL PLAN C.

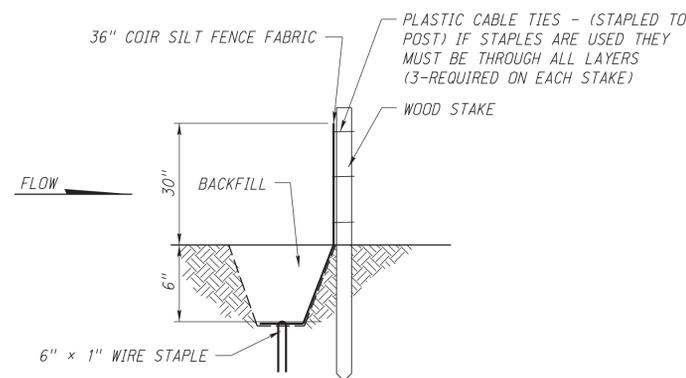


SILT FENCE INLET PROTECTION

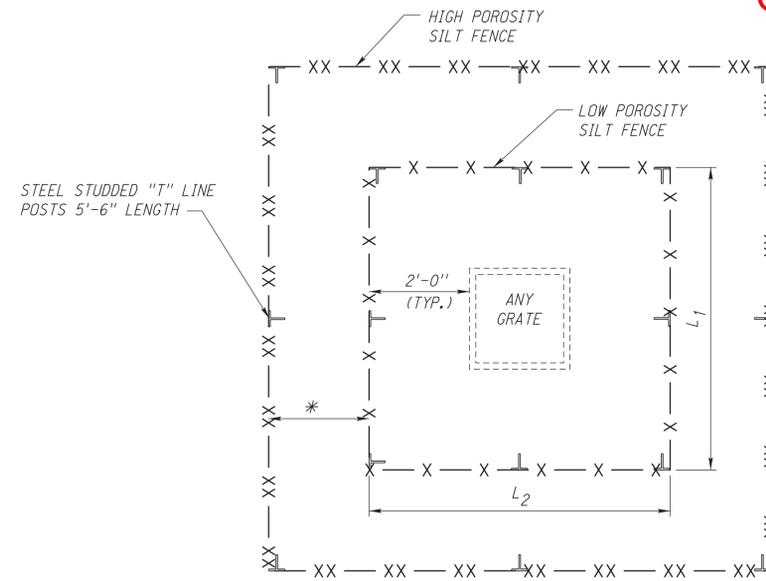


NOTE:
* INCLINE STAKE 15° TO 20° MAX. FROM VERTICAL, TOWARD FLOW.

**SILT FENCE
(WET & BELOW WATER INSTALLATION)**



COIR SILT FENCE - ON WOOD POSTS - DRY INSTALLATION

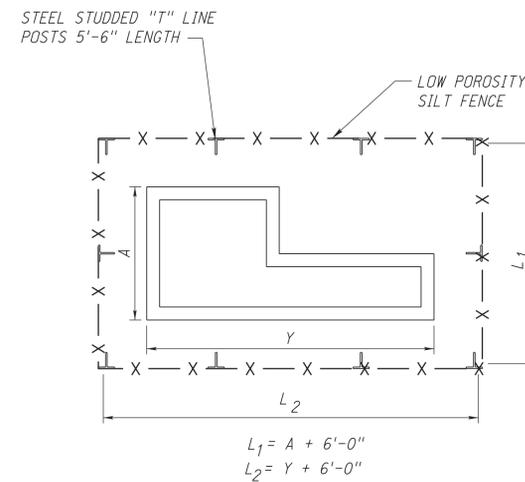


$L_1 \& L_2 = \text{OUTSIDE OF WALL} + 4'-0''$

PLAN VIEW

SILT FENCE FOR GRATE, AREA, MEDIAN INLETS OR JUNCTION BOXES

* 3'-0" IF POSSIBLE (MAY VARY)



$L_1 = A + 6'-0''$
 $L_2 = Y + 6'-0''$

**PLAN VIEW
SILT FENCE CURB INLET**

**PRELIMINARY
NOT FOR CONSTRUCTION**

REV. NO.	DATE	DESCRIPTION OF REVISION
R1	APR 14	STEEL POST INSTALLATION
NEBRASKA DEPARTMENT OF ROADS STANDARD PLAN NO. 502-R1 SILT FENCE DETAILS		
ACCEPTED BY FHWA FOR USE ON THE NATIONAL HIGHWAY SYSTEM:		
DATE		
ORIGINAL: DECEMBER 18, 2006		

ROADWAY DESIGN DIVISION

Computer: DRDESIGN147

User: ddr13017

Date: 19-OCT-2016 12:25

File: 7400e00.dgn
Scale: 1:100

CONNECTION NOTES:

FOR DIVIDED ROADWAY

INSTALL THRIE-BEAM END SHOE,
BETWEEN NESTED GUARDRAIL ELEMENTS.
(SUBSIDIARY TO BRIDGE APPROACH SECTION)

TRAFFIC FLOW →

FOR 2-LANE ROADWAY

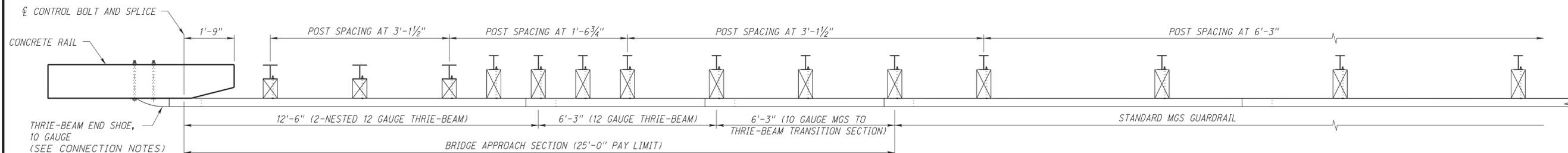
FOR APPROACHING TRAFFIC
INSTALL THRIE-BEAM END SHOE,
BETWEEN NESTED GUARDRAIL ELEMENTS.
(SUBSIDIARY TO BRIDGE APPROACH SECTION)

FOR OFF END CONNECTIONS
INSTALL THRIE-BEAM END SHOE,
OUTSIDE OF THE NESTED GUARDRAIL ELEMENTS.
(SUBSIDIARY TO BRIDGE APPROACH SECTION)

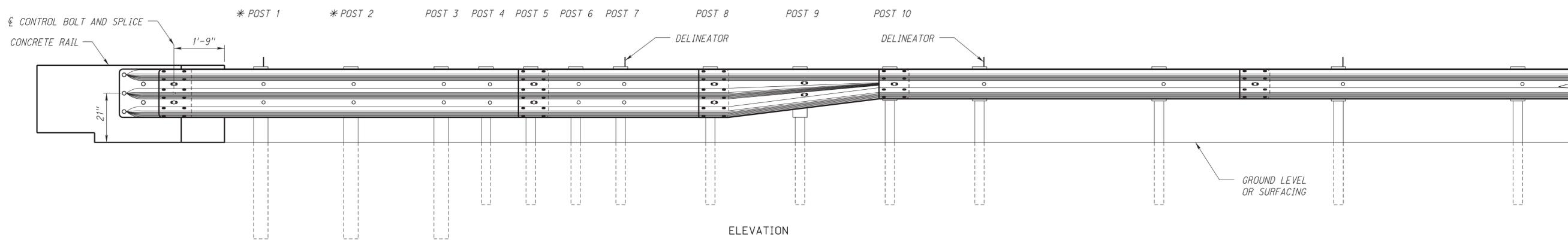
LEGEND

- ① W6 x 15 x 7' POST
- ② W6 x 9 x 6' POST
- ③ 6" x 8" x 19" OFFSET BLOCK
- ④ 6" x 12" x 14 1/4" ± 1/4" OFFSET BLOCK
- ⑤ 6" x 12" x 19" OFFSET BLOCK

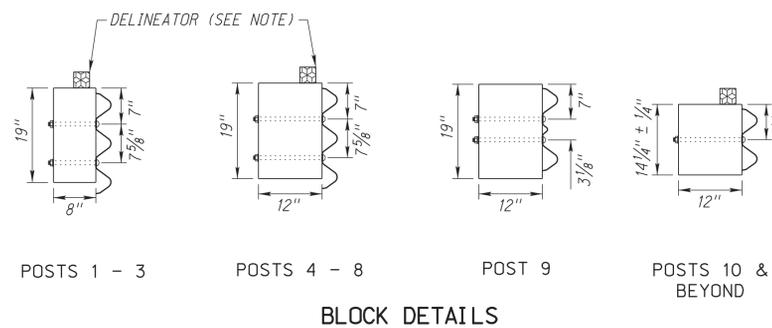
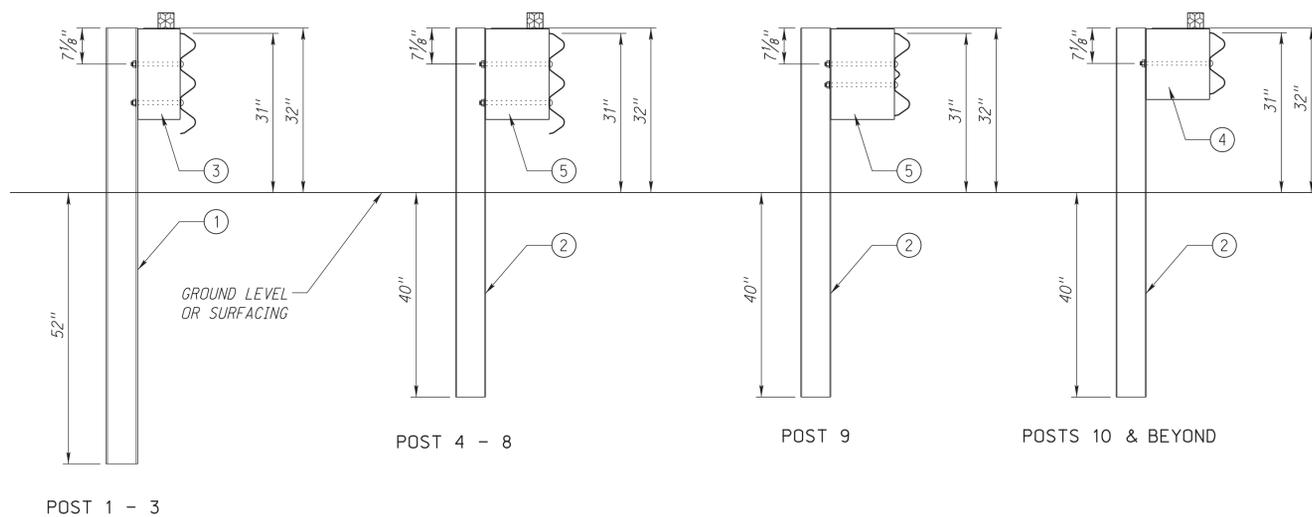
PRELIMINARY
NOT FOR CONSTRUCTION



PLAN VIEW



ELEVATION



BLOCK DETAILS

NOTES:

FOR ADDITIONAL DETAILS SEE PLAN 743.

DELINEATORS SUBSIDIARY TO BRIDGE APPROACH SECTION.

BUTTON HEAD BOLT 5/8" DIA. x LENGTH AS REQUIRED,
SECURED WITH WASHER AND HEX NUT.

ALL STEEL MEMBERS SHALL BE GALVANIZED IN ACCORDANCE
WITH THE STANDARD SPECIFICATIONS.

REV. NO.	DATE	DESCRIPTION OF REVISION
NEBRASKA DEPARTMENT OF ROADS STANDARD PLAN NO. 740 MIDWEST GUARDRAIL SYSTEM BRIDGE APPROACH SECTION		
ACCEPTED BY FHWA FOR USE ON THE NATIONAL HIGHWAY SYSTEM:		
<p style="text-align: center;">DATE _____</p> <p style="text-align: center;">ORIGINAL: AUGUST 25, 2011 DATE _____</p>		
1 1		1 1

Plan 743 is also Required When Using This Plan. NEW 31"

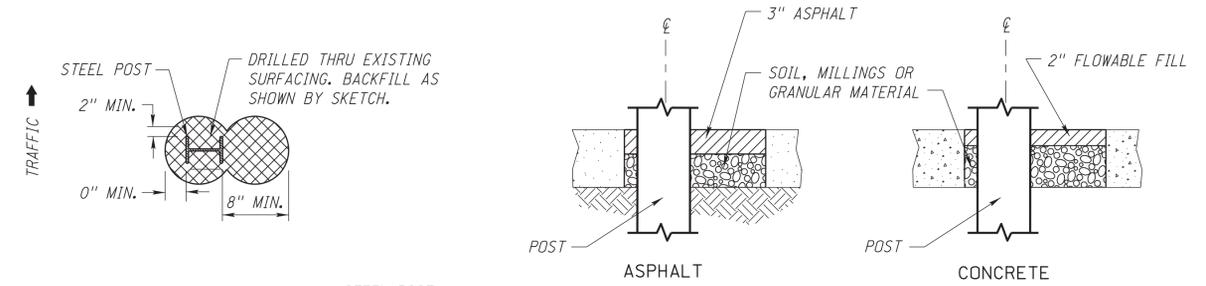
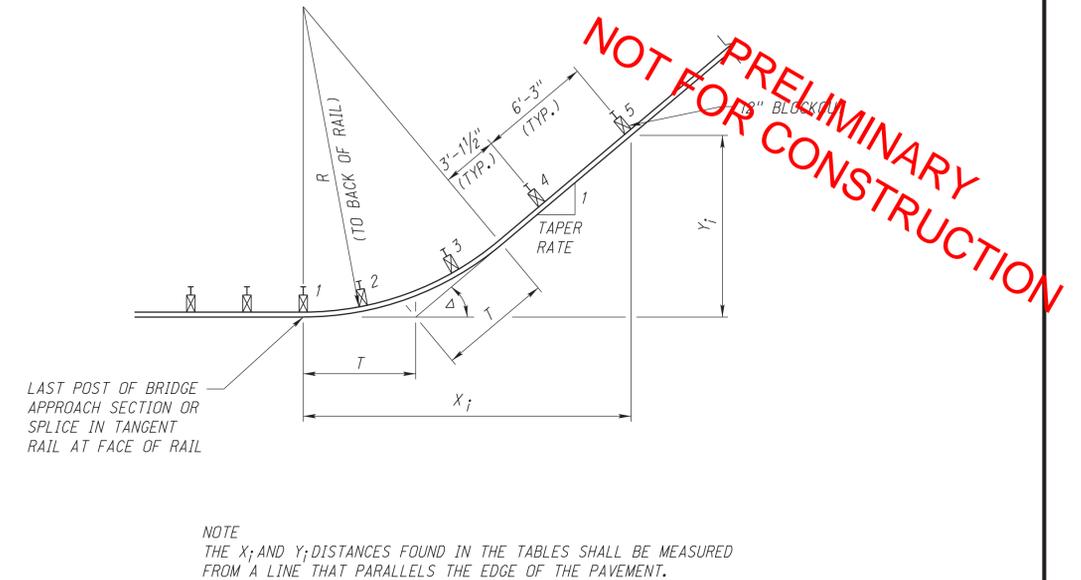
POST SPACING = 6.25'
POST NO. 1: X = 0 & Y = 0

TABLE A		
DEFLECTION, $\Delta = 1^{\circ}54'33''$ TAPER = 30:1 RADIUS, R = 375.10' TANGENT, T = 6.25'		
POST NUMBER	X _i	Y _i
1	0.0	0.0
2	3.1	0.0
3	9.4	0.1
4	15.6	0.3
5	21.8	0.5
6	28.1	0.7
7	34.3	0.9
8	40.6	1.1
9	46.8	1.4
10	53.1	1.6
11	59.3	1.8
12	65.6	2.0
13	71.8	2.2
14	78.1	2.4
15	84.3	2.6
16	90.6	2.8
17	96.8	3.0
18	103.1	3.2
19	109.3	3.4
20	115.6	3.6
21	121.8	3.9
22	128.1	4.1
23	134.3	4.3
24	140.6	4.5
25	146.8	4.7
26	153.1	4.9
27	159.3	5.1
28	165.5	5.3
29	171.8	5.5
30	178.0	5.7
31	184.3	5.9
32	190.5	6.1
33	196.7	6.4
34	203.0	6.6
35	209.3	6.8
36	215.5	7.0
37	221.8	7.2
38	228.0	7.4
39	234.3	7.6
40	240.5	7.8
41	246.8	8.0
42	253.0	8.2
43	259.2	8.4
44	265.5	8.7
45	271.7	8.8
46	278.0	9.1
47	284.2	9.3
48	290.5	9.5
49	296.7	9.7
50	303.0	9.9
51	309.2	10.1
52	315.5	10.3
53	321.7	10.5
54	328.0	10.7
55	334.2	10.9
56	340.4	11.1
57	346.7	11.3
58	352.9	11.6
59	359.2	11.8
60	365.4	12.0

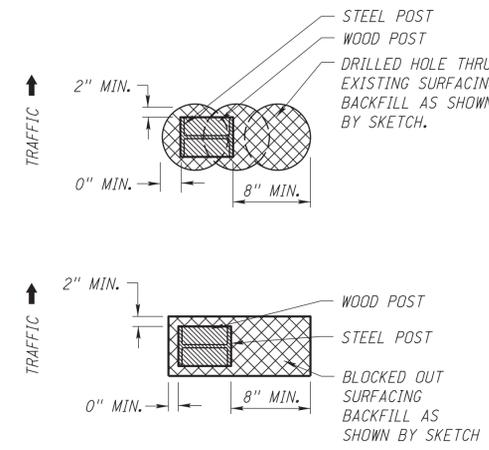
TABLE B		
DEFLECTION, $\Delta = 2^{\circ}17'26''$ TAPER = 25:1 RADIUS, R = 312.67' TANGENT, T = 6.25'		
POST NUMBER	X _i	Y _i
1	0.0	0.0
2	3.1	0.0
3	9.4	0.1
4	15.6	0.4
5	21.9	0.6
6	28.1	0.9
7	34.4	1.1
8	40.6	1.4
9	46.9	1.6
10	53.1	1.9
11	59.3	2.1
12	65.6	2.4
13	71.8	2.6
14	78.1	2.6
15	84.3	3.1
16	90.6	3.4
17	96.8	3.6
18	103.1	3.9
19	109.3	4.1
20	115.6	4.4
21	121.8	4.6
22	128.0	4.9
23	134.3	5.1
24	140.5	5.4
25	146.8	5.6
26	153.0	5.9
27	159.3	6.1
28	165.5	6.4
29	171.8	6.6
30	178.0	6.9
31	184.2	7.1
32	190.5	7.4
33	196.7	7.6
34	202.9	7.9
35	209.2	8.1
36	215.5	8.4
37	221.8	8.6
38	228.0	8.9
39	234.2	9.1
40	240.5	9.4
41	246.7	9.6
42	253.0	9.9
43	259.2	10.1
44	265.4	10.4
45	271.7	10.6
46	278.0	10.9
47	284.2	11.1
48	290.4	11.4
49	296.7	11.6
50	302.9	11.9
51	309.1	12.1
52	315.4	12.4
53	321.6	12.6
54	327.9	12.9
55	334.1	13.1
56	340.4	13.4
57	346.6	13.6
58	352.9	13.9
59	359.1	14.1
60	365.4	14.4

TABLE C		
DEFLECTION, $\Delta = 2^{\circ}51'44''$ TAPER = 20:1 RADIUS, R = 250.20' TANGENT, T = 6.25'		
POST NUMBER	X _i	Y _i
1	0.0	0.0
2	3.1	0.0
3	9.4	0.2
4	15.6	0.5
5	21.9	0.8
6	28.1	1.1
7	34.4	1.4
8	40.6	1.7
9	46.8	2.0
10	53.1	2.3
11	59.3	2.7
12	65.6	3.0
13	71.8	3.3
14	78.1	3.6
15	84.3	3.9
16	90.5	4.2
17	96.8	4.5
18	103.0	4.8
19	109.3	5.1
20	115.6	5.5
21	121.7	5.8
22	128.0	6.1
23	134.2	6.4
24	140.5	6.7
25	146.7	7.0
26	153.0	7.3
27	159.2	7.6
28	165.4	8.0
29	171.7	8.3
30	177.9	8.6
31	184.2	8.9
32	190.4	9.2
33	196.7	9.5
34	202.9	9.8
35	209.1	10.1
36	215.4	10.4
37	221.6	10.8
38	227.9	11.0
39	234.1	11.4
40	240.3	11.7
41	246.6	12.0
42	252.8	12.3
43	259.0	12.6
44	265.3	12.9
45	271.6	13.3
46	277.8	13.6
47	284.0	13.9
48	290.3	14.2
49	296.5	14.5
50	302.8	14.8
51	309.0	15.1
52	315.3	15.4
53	321.5	15.7
54	327.7	16.1
55	334.0	16.4
56	340.2	16.7
57	346.5	17.0
58	352.7	17.3
59	359.0	17.6
60	365.2	17.9

TABLE D		
DEFLECTION, $\Delta = 3^{\circ}48'51''$ TAPER = 15:1 RADIUS, R = 187.77' TANGENT, T = 6.25'		
POST NUMBER	X _i	Y _i
1	0.0	0.0
2	3.1	0.0
3	9.4	0.2
4	15.6	0.6
5	21.9	1.0
6	28.1	1.5
7	34.3	1.9
8	40.6	2.3
9	46.8	2.7
10	53.0	3.1
11	59.3	3.5
12	65.5	4.0
13	71.8	4.4
14	78.0	4.8
15	84.2	5.2
16	90.5	5.6
17	96.7	6.0
18	102.9	6.4
19	109.2	6.9
20	115.4	7.3
21	121.6	7.7
22	127.9	8.1
23	134.1	8.5
24	140.4	8.9
25	146.6	9.3
26	152.8	9.8
27	159.0	10.2
28	165.3	10.6
29	171.5	11.0
30	177.8	11.4
31	184.0	11.8
32	190.2	12.2
33	196.5	12.7
34	202.7	13.1
35	209.0	13.5
36	215.2	13.9
37	221.4	14.3
38	227.7	14.7
39	233.9	15.1
40	240.1	15.6
41	246.4	16.0
42	252.6	16.4
43	258.8	16.8
44	265.0	17.2
45	271.3	17.6
46	277.5	18.1
47	283.8	18.5
48	290.0	18.9
49	296.3	19.3
50	302.5	19.7
51	308.7	20.1
52	315.0	20.5
53	321.2	21.0
54	327.4	21.4
55	333.7	21.8
56	339.9	22.2
57	346.1	22.6
58	352.4	23.0
59	358.6	23.4
60	364.9	23.9

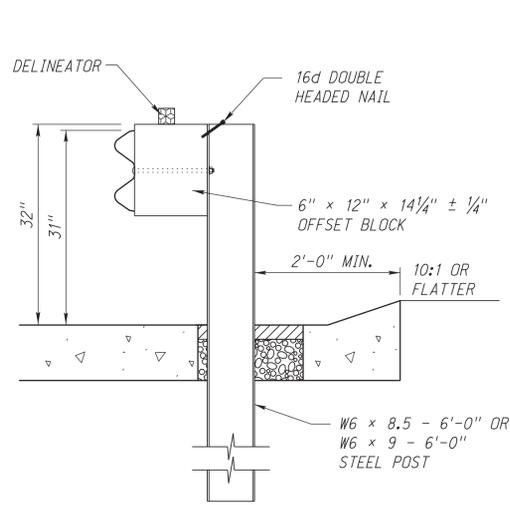


DETAIL OF BACKFILLING AROUND POST

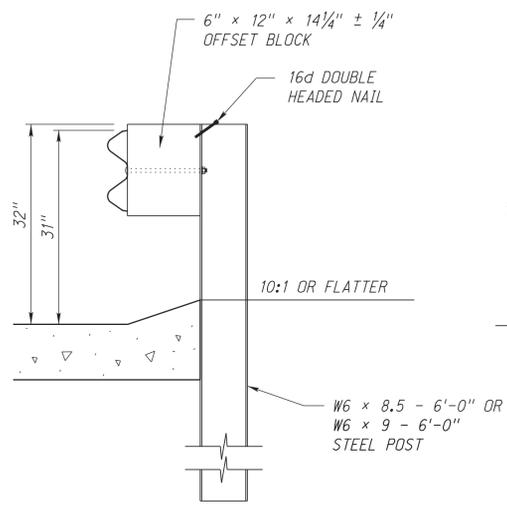


GUARDRAIL POSTS IN SURFACING

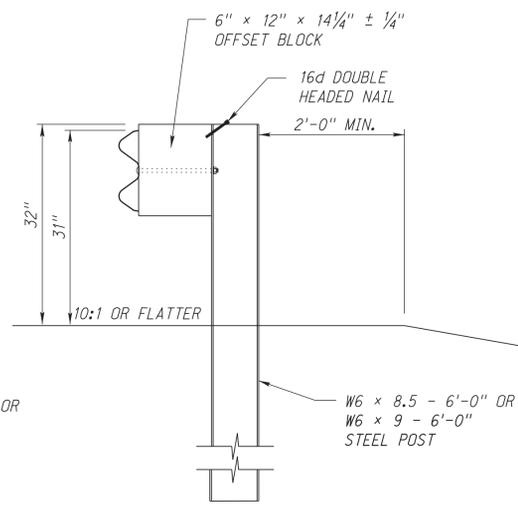
RI	DEC 16	UPDATED GUARDRAIL OFFSET TABLE
REV. NO.	DATE	DESCRIPTION OF REVISION
NEBRASKA DEPARTMENT OF ROADS STANDARD PLAN NO. 743-R1 GUARDRAIL DETAILS		
ACCEPTED BY FHWA FOR USE ON THE NATIONAL HIGHWAY SYSTEM:		
DATE: _____ ORIGINAL: AUGUST 25, 2011 DATE: _____		



SIDE VIEW
CURBED LOCATIONS:



SIDE VIEW



SIDE VIEW
NON-CURBED LOCATIONS:

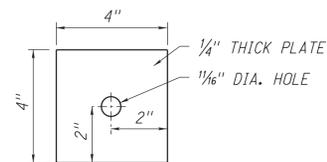
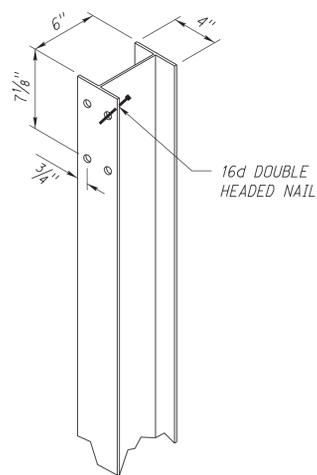
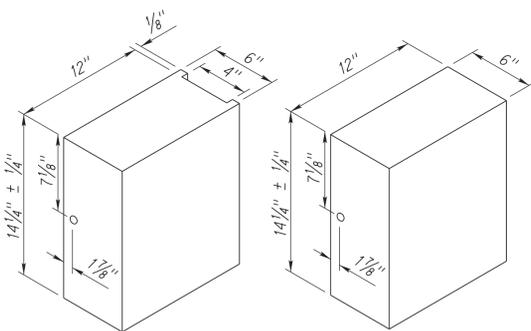
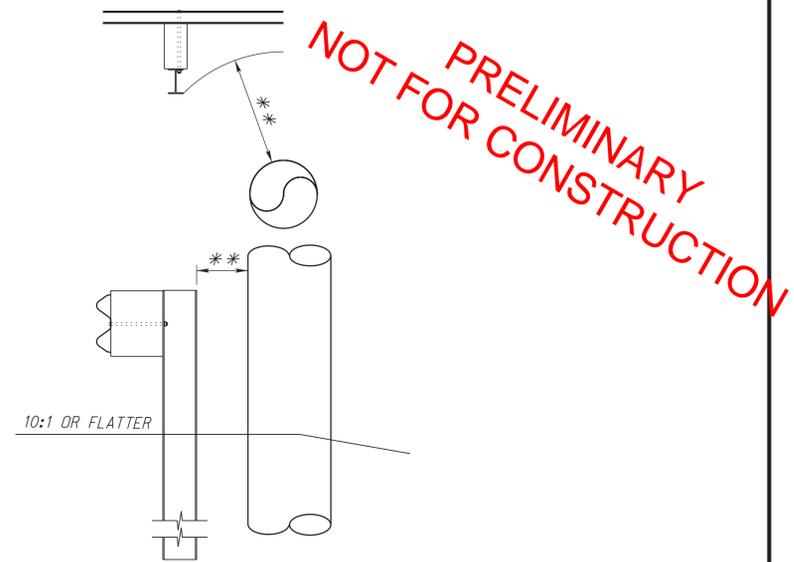
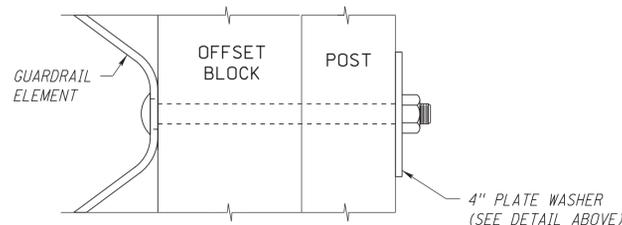
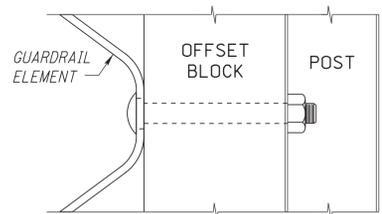


PLATE WASHER



WOOD POST BOLT ASSEMBLY



STEEL POST BOLT ASSEMBLY

MINIMUM REQUIRED GUARDRAIL OFFSET	
FROM BACK OF POST TO A POINT OBSTACLE (e.g. PIER COLUMN)**	
GUARDRAIL INSTALLATION TYPE	MINIMUM OFFSET*
THREE STRAND CABLE GUARDRAIL (LOW-TENSION)	12'-0" (4'-0" AND 16'-0" POST SPACING)
CABLE GUARDRAIL (HIGH-TENSION)	7'-0" TO 12'-0", DEPENDING ON THE SYSTEM
MIDWEST GUARDRAIL SYSTEM (MGS) & W-BEAM GUARDRAIL *	3'-0" 10'-0" FOR NORMAL POST SPACING (6'-3") 3'-5" FOR 1/2 POST SPACING (3'-1 1/2") 2'-6" FOR 1/4 POST SPACING (1'-6 3/4")
THREE-BEAM GUARDRAIL	2'-3" FOR NORMAL POSTS SPACING (6'-3")
FROM BACK OF POST TO A LINEAR OBSTRUCTION (e.g. MSE WALL)	
MGS & W-BEAM GUARDRAIL	4'-1" FROM NORMAL POST SPACING (6'-3") 3'-5" FOR 1/2 POST SPACING (3'-1 1/2") 2'-6" FOR 1/4 POST SPACING (1'-6 3/4")
THREE-BEAM GUARDRAIL	2'-10" FOR NORMAL POST SPACING (6'-3")

* BASED ON THE DYNAMIC DEFLECTIONS FROM THE NCHRP REPORT 350 STANDARD STRENGTH TEST FOR THE 4,400 LB. PICKUP TRUCK IMPACTING A BARRIER AT AN ANGLE OF 25° AT A VELOCITY OF 60 MPH.
**ADJUST THE POSTS LONGITUDINALLY SO THAT THEY WILL NOT BE PLACED DIRECTLY OPPOSITE A POINT OBSTACLE (E.G. PIER COLUMN, TREE). THE MINIMUM OFFSET BETWEEN THE BACK OF THE GUARDRAIL POST AND THE POINT OBSTACLE MAY BE FOUND IN THE TABLE ABOVE.

MINIMUM GUARDRAIL OFFSETS WHEN ADJACENT TO A FIXED OBSTACLE

DELINEATOR NOTES:

4 LANE: YELLOW ON LEFT AND WHITE ON RIGHT.
2 LANE: WHITE ON BOTH SIDES.

DELINEATORS ARE A MINIMUM OF 3" HIGH AND ARE DOUBLE-FACED HIGH INTENSITY DELINEATORS.

WHEN GUARDRAIL IS ATTACHED TO A BRIDGE APPROACH SECTION: GUARDRAIL DELINEATION AT 12'-6" SPACING FOR THE FIRST 50', THEN 25' SPACING WHEN THE REMAINING GUARDRAIL LENGTH IS 150' OR LESS; USE 50' SPACING WHEN THE REMAINING GUARDRAIL LENGTH IS GREATER THAN 150'.

WHEN GUARDRAIL IS INDEPENDENT OF A BRIDGE: GUARDRAIL DELINEATION AT 25' SPACING WHEN THE GUARDRAIL LENGTH IS 200' OR LESS; USE 50' SPACING WHEN THE GUARDRAIL LENGTH IS GREATER THAN 200'.

DELINEATORS SUBSIDIARY TO GUARDRAIL.

NOTES:

BUTTON HEAD BOLD 5/8" DIA. x LENGTH AS REQUIRED, SECURED WITH WASHER AND HEX NUT.

ALL STEEL MEMBERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

POST SPACING SHALL BE 6'-3" UNLESS OTHERWISE NOTED IN THE PLANS.

GUARDRAIL LAPPING PROCEDURE TRAFFIC FLOW →

NOTES:

ALL HOLE DIAMETERS ARE 3/4"

W6 x 8.5 OR W6 x 9 POST & 14 1/4" ± 1/4" OFFSET BLOCKS, TO BE USED WITH MGS INSTALLATIONS.

OFFSET BLOCKS LISTED ON THE APPROVED PRODUCTS LIST MAY ALSO BE USED.

16d NAIL NEEDS TO BE PUT IN OFFSET BLOCK AGAINST POST IN EMPTY HOLE AS NEEDED TO PREVENT ROTATION WHEN NO RIBS ARE PRESENT.

ALTERNATE OFFSET BLOCK & STEEL POST
(FOR MGS)

REV. NO.	DATE	DESCRIPTION OF REVISION
R1	DEC 16	UPDATED GUARDRAIL OFFSET TABLE

NEBRASKA DEPARTMENT OF ROADS
STANDARD PLAN NO. 743-R1
GUARDRAIL DETAILS

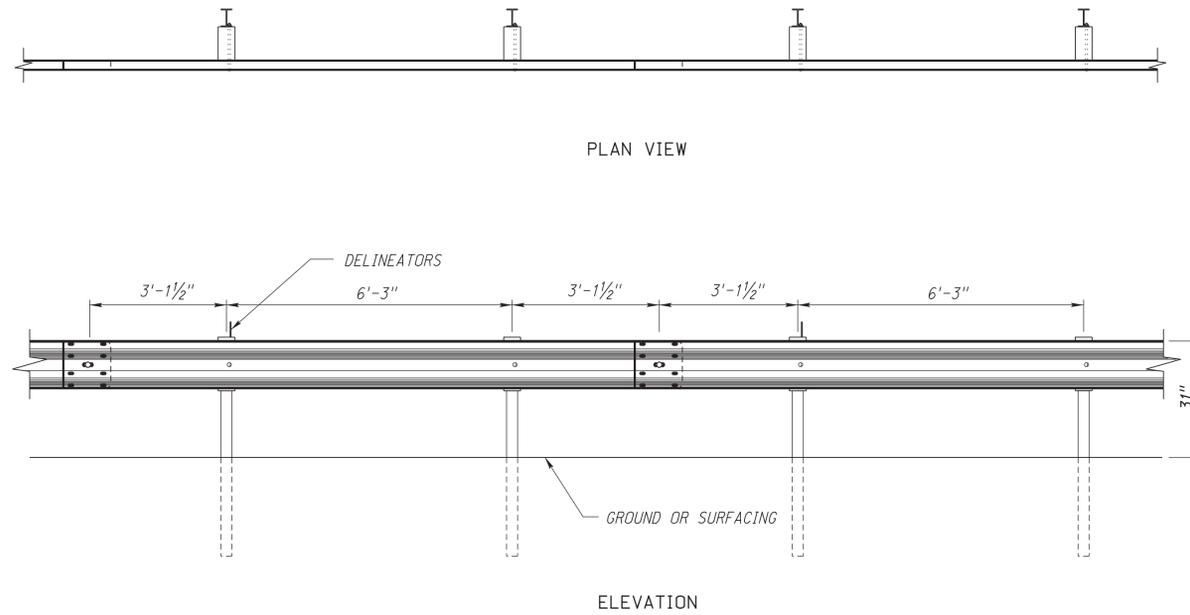
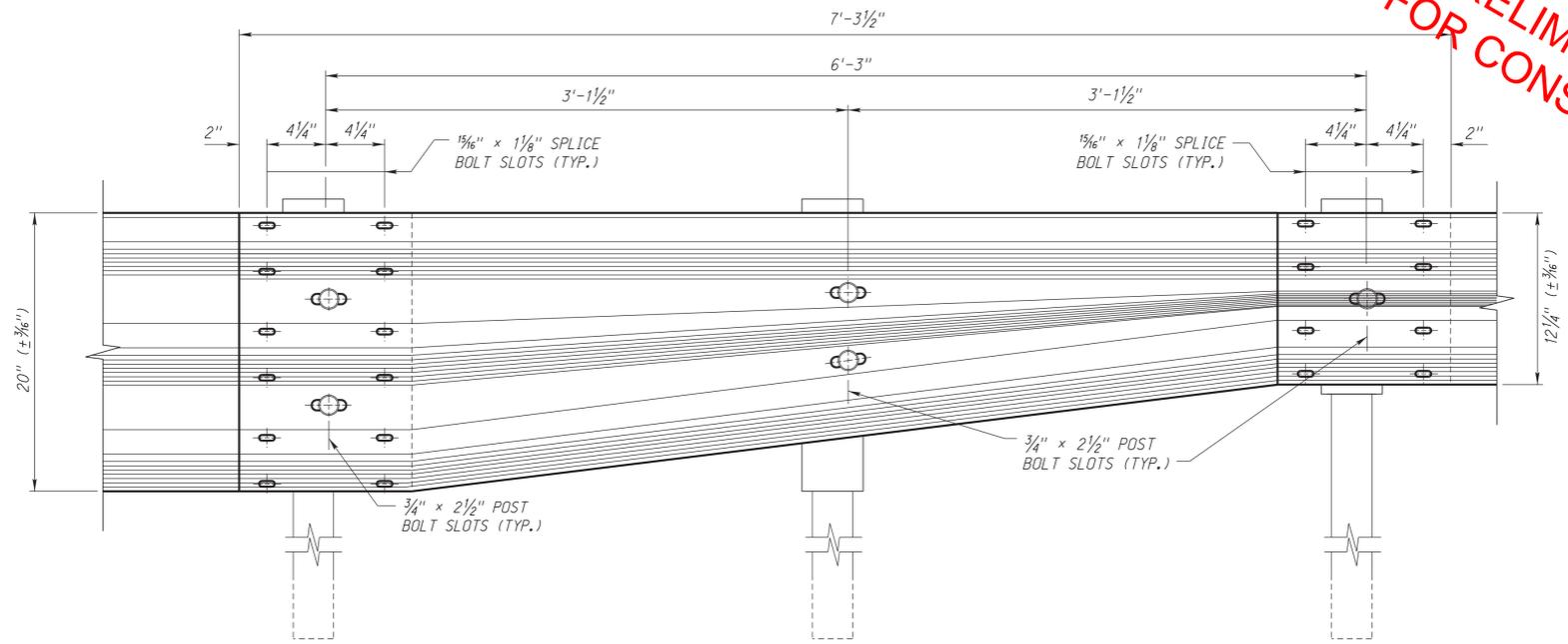
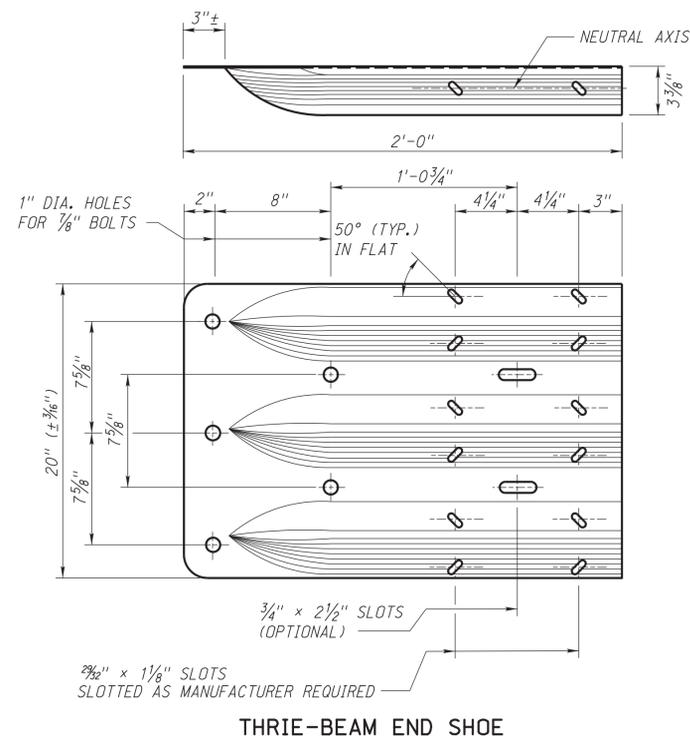
ACCEPTED BY FHWA FOR USE ON THE NATIONAL HIGHWAY SYSTEM:

PROFESSIONAL CIVIL ENGINEER
MICHAEL H. OWEN
E-6515
STATE OF NEBRASKA

DATE _____

ORIGINAL:
AUGUST 25, 2011
DATE _____

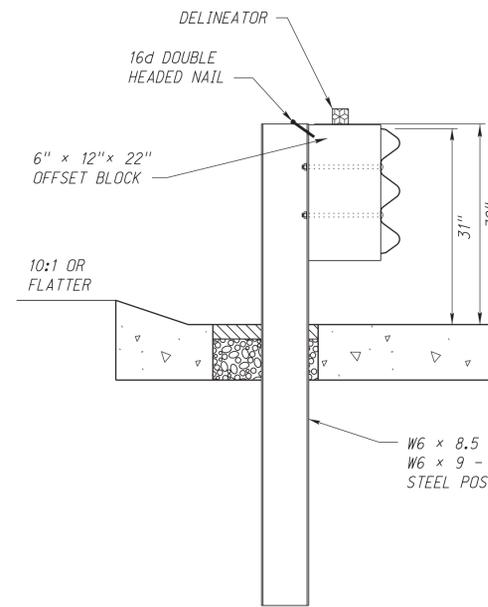
2
4



MIDWEST GUARDRAIL SYSTEM (MGS) INSTALLATION
(PAID FOR AS W-BEAM GUARDRAIL)

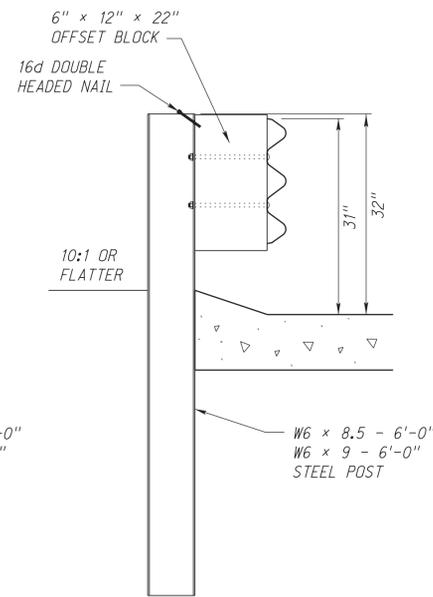
PRELIMINARY
NOT FOR CONSTRUCTION

R1	DEC 16	UPDATED GUARDRAIL OFFSET TABLE		
REV. NO.	DATE	DESCRIPTION OF REVISION		
NEBRASKA DEPARTMENT OF ROADS STANDARD PLAN NO. 743-R1 GUARDRAIL DETAILS				
ACCEPTED BY FHWA FOR USE ON THE NATIONAL HIGHWAY SYSTEM:				
		DATE _____ ORIGINAL: AUGUST 25, 2011 DATE _____		
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3				
4				

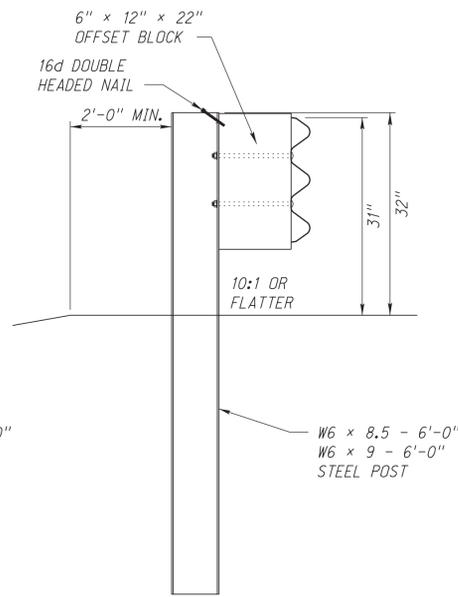


SIDE VIEW

CURBED LOCATIONS

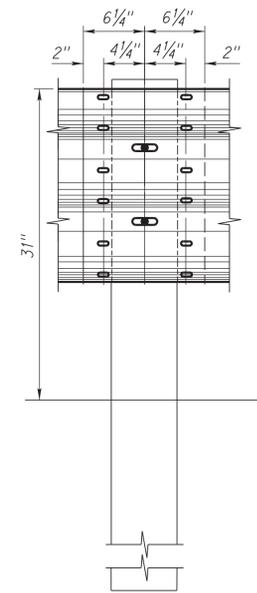


SIDE VIEW

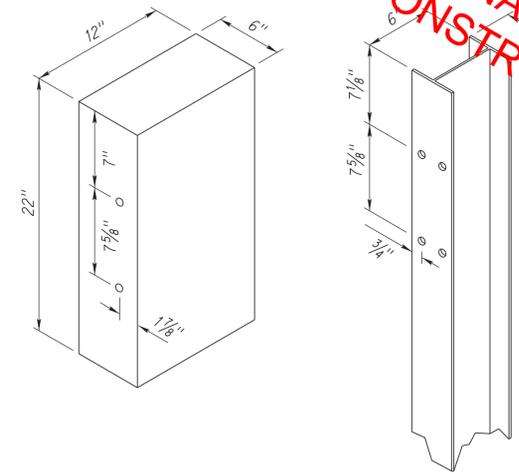


SIDE VIEW

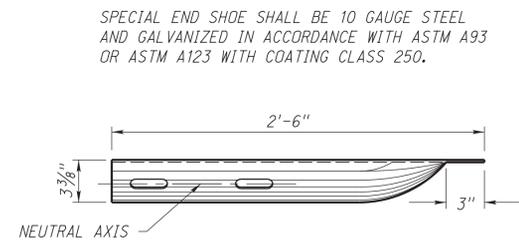
NON-CURBED LOCATIONS



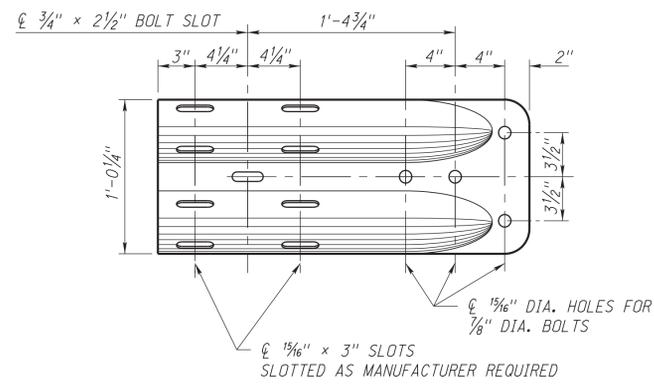
RAIL ELEMENT SPLICING AND POST MOUNTING DETAIL FOR 1/4 OR 1/2 POST SPACING



ALTERNATE OFFSET BLOCK & STEEL POST (FOR THRIE-BEAM)

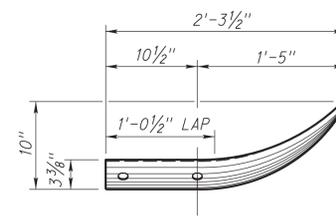


PLAN

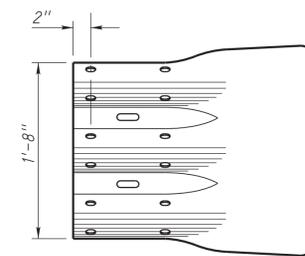


ELEVATION

W-BEAM END SHOE

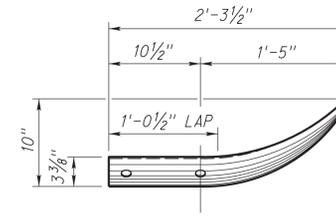


PLAN

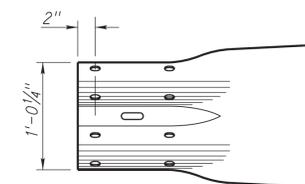


ELEVATION

THRIE-BEAM TERMINAL SECTION



PLAN



ELEVATION

W-BEAM TERMINAL SECTION

PRELIMINARY
NOT FOR CONSTRUCTION

NOTES:

ALL HOLE DIAMETERS ARE 3/4"

W6 x 8.5 POST & W6 x 9 & 22" OFFSET BLOCK, TO BE USED WITH THRIE-BEAM GUARDRAIL INSTALLATIONS.

OFFSET BLOCKS LISTED ON THE APPROVED PRODUCTS LIST MAY ALSO BE USED.

REV. NO.	DATE	DESCRIPTION OF REVISION
R1	DEC 16	UPDATED GUARDRAIL OFFSET TABLE

NEBRASKA DEPARTMENT OF ROADS
STANDARD PLAN NO. 743-R1
GUARDRAIL DETAILS

ACCEPTED BY FHWA FOR USE ON THE NATIONAL HIGHWAY SYSTEM:

PROFESSIONAL CIVIL ENGINEER
MICHAEL H. OWEN
E-6515
STATE OF NEBRASKA

DATE: _____

ORIGINAL: AUGUST 25, 2011
DATE: _____

4 / 4

Appendix C
Project Support Letters



22 October 2018

Paul Zillig
Lower Platte South Natural Resource District
3125 Portia Street
Lincoln, NE 68501

Reference: **Request for Review and Concurrence for Determination of Effect**
Raymond Southeast Bridge Replacement and
Acquisition of Property Rights from Pheasants Forever Helmuth Marsh Property

Lancaster County Project Number: C55-F-88
Sections 11 and 12, Township 11 North, Range 6 East, Lancaster County, Nebraska

Dear Paul:

Felsburg Holt & Ullevig has been contracted by Lancaster County to prepare an Environmental Assessment for compliance with U.S. Fish and Wildlife Service (USFWS) Section 6 (of the Endangered Species Act [ESA]) Cooperative Endangered Species Conservation Fund (CESCF) requirements as implemented by Nebraska Game and Parks Commission (NGPC). On behalf of Lancaster County, our firm is providing this Biological Evaluation to assist the Lower Platte South Natural Resource District (LPSNRD) in reviewing potential impacts of the Raymond Southeast Bridge Replacement project on Little Salt Creek, Helmuth Marsh, and the surrounding environmental resources. This is not a federal project, but it will require a Section 404 permit from the U.S. Army Corps of Engineers. Previous coordination in 2012 with LPSNRD indicated support for the project with the addition of an access drive, which is now included in the design; the City of Lincoln Watershed Management Division also indicated support for the project (see attached Previous Agency Coordination).

This letter also provides documentation of avoidance and minimization efforts relative to impacts to the Pheasants Forever Helmuth Marsh property from disposal of land required for the bridge replacement. This information was provided to NGPC and USFWS on 9 October 2018 to assist in processing the request to dispose of property originally acquired with the CESCF grant. The Helmuth Marsh property is Lot 33 I.T. in the NE $\frac{1}{4}$ of Section 11, Township 11 North, Range 6 East, Lancaster County (**Figures 1 and 2**).

Overview

The Raymond Southeast Bridge Replacement project would remove and replace the existing bridge over Little Salt Creek (County Structure Number F-88) located on North 14th Street between Waverly Road and Mill Road. The project would include construction of a sheet pile and rip rap weir to stabilize the stream grade elevation to prevent channel incision from progressing upstream. An access drive north of the bridge, east of North 14th Street, would be constructed to facilitate periodic maintenance of the weir. An associated drop structure northwest of the bridge would be installed to arrest further development of an erosional feature.

Acquisition of property rights are anticipated, which includes 0.30 acres of right-of-way (ROW), 0.28 acres of permanent easement, and 0.01 acres of temporary easement from the 119-acre Helmuth Marsh

22 October 2018

Paul Zillig

Page 2

property (**Figures 3 and 4**). This portion of the Helmuth Marsh property was acquired through a CESCO grant provided to NGPC through the Recovery Land Acquisition Program, and was distributed from NGPC to Pheasants Forever. NGPC manages the property.

Prior to purchase by Pheasants Forever, the previous owner had placed 46.7 acres of the property in a Wetland Reserve Program (WRP) conservation easement (Natural Resources Conservation Service); the required 0.58 acres is within this easement. Conversion of land from conservation use to roadway use requires that replacement lands be adjacent to, or equivalent to, the impacted land. It is proposed that 0.58 acres from an adjacent parcel be transferred to the WRP easement. The adjacent parcel is also owned by Pheasants Forever, but not under WRP easement. Pheasants Forever has reviewed the project and is supportive of the land conversion (see attached correspondence from Kelsi Wehrman, State Coordinator at Pheasants Forever, Inc).

The County proposes to reimburse NGPC for the value of the 0.30 acres of land required for ROW and an additional 0.28 acres of permanent easement. Also required are 0.01 acres of temporary easement. NGPC will use the County funds to reimburse CESCO.

Project Description

Bridge Replacement. The existing bridge crosses Little Salt Creek in a rural area approximately 3.3 miles north of the City of Lincoln. The project begins approximately 785 feet south of the existing bridge south abutment and ends approximately 540 feet north of the existing bridge north abutment, for a length of approximately 1,407 feet (0.27 miles). The bridge was built in 1959 and is an 82-foot long deck steel girder structure with a 26-foot wide deck. Guardrails do not extend beyond the abutments. The existing roadway is a 22-foot wide paved surface. The old bridge would be replaced with a 125-foot long by 40-foot wide 3-span continuous concrete slab bridge. The roadway would be a 24-foot wide asphalt surface with an 8-foot wide earthen shoulder on each side. A grade raise of approximately 1-foot is anticipated to accommodate the bridge height.

Channel Grade Stabilization Structure and Access Drive. The project would include construction of a sheet pile and rip rap weir to stabilize the stream grade elevation downstream of the bridge to prevent channel incision from progressing upstream. This channel grade stabilization structure is listed as a priority project in the Little Salt Creek Watershed Master Plan (2009). An access drive north of the bridge and east of North 14th Street would be constructed to facilitate periodic maintenance of the weir. The access drive alignment would be a 20-foot wide earthen roadway with a turn-off located approximately 250 feet north of the north abutment of the existing bridge.

Drop Structure. A drop structure consisting of a culvert pipe (30-inch by 54-foot double broken back culvert with concrete headwall on inlet) north of Little Salt Creek and west of North 14th Street would be installed to convey ditch drainage to Little Salt Creek. Construction of the culvert is compatible with the Upper Little Salt Creek Saline Wetlands Plan (2015) to arrest further head-cutting from Little Salt Creek in an existing erosional feature (Priority 2 Saline Wetland Improvement Project, H-22-1).

Construction Schedule. The duration of construction is estimated to be completed in one construction season (over approximately 6-8 months).

Relocations and Construction Access. No residences would require relocation; all existing driveways would be reconstructed. Access to adjacent properties would be maintained during construction.

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Detour Route. North 14th Street would be closed to traffic during construction. The detour route for the project, starting south of the project, would consist of taking Waverly Road east to North 56th Street and heading north to Davey Road, then traveling west to North 14th Street north of the project. The detour for through traffic is approximately 6 miles in length. No improvements would be made to the detour route.

Construction Methods. Temporary cofferdams and de-watering operations may be necessary to accommodate construction of bridge piers; however, no temporary work platforms or channel diversion structures would be allowed in the Little Salt Creek channel. No night work would be allowed.

The proposed project would include the following activities, not already described above:

- Survey and staking
- Removal of pavement
- Milling and/or in-place recycling
- Grading within and outside of the hinge point, including clearing and grubbing of vegetation
- Underground utility conduit installation
- Construction of earth shoulder
- Pile driving (impact and vibratory)
- Pier construction with pile/pier encasement
- Construction of guardrail
- Paving of roadway
- Pavement marking
- Installation of signs with soil disturbance
- Driveway reconstruction with culvert replacement (crushed rock or gravel surfacing)
- Rock or gravel surfacing
- Bank stabilization (rip rap, type "b" and "c")

Erosion Control. Areas disturbed during construction would be stabilized utilizing methods of erosion control as shown in the Storm Water Pollution Prevention Plan (SWPPP) (i.e., erosion checks, inlet/outlet protection, mulching, post-construction erosion control, rolled erosion control, and vegetation).

Project Purpose and Need

Purposes. There are three purposes:

- The purpose of property disposal, reimbursement of CESCFC funds, and replacement of 0.58 acres is to allow replacement of the bridge and construction of channel grade stabilization structure and drop structure by Lancaster County.
- The purpose of the bridge replacement is to preserve the transportation asset, improve the reliability of the transportation system, and perpetuate the mobility of the traveling public.
- The purpose of the channel grade stabilization structure is to prevent channel incision from progressing upstream, and the purpose of the associated drop structure is to arrest further development of an erosional feature/head-cut.

Need. The need for the property disposal and reimbursement is to replace the existing 60-year old bridge which does not meet design standards for current and future traffic volumes and speeds. Incision at North 14th Street and Little Salt Creek is causing erosion which compromises bridge footings and stability. In addition to incising, the Little Salt Creek Master Plan (2009) indicates that the bridge will overtop in a 100-year storm event.

Sediment released from incision and subsequent bank failures could threaten natural resources along the channel, including potential habitat for the federally endangered Salt Creek tiger beetle

(*Cicindela nevadica lincolniana*) and state endangered saltwort (*Salicornia rubra*). Downcutting is also responsible for intercepting the local groundwater which provides a salt source for the adjacent saline wetlands and their protected species. The Little Salt Creek Watershed Master Plan (2009) includes the channel grade stabilization structure as the number 1 priority project in the basin. The erosion control drop structure is also compatible with the Upper Little Salt Creek Saline Wetlands Plan (2015) to arrest further head-cutting (Priority 2 Saline Wetland Improvement Project, H-22-1).

Habitat Description and Existing Resources

Photographs of the project areas are provided in the attached photographic log.

Topography. The project lies within the Rolling Hills Topographic Region of Nebraska which generally consists of hilly land with moderate to steep slopes and rounded ridge crests. This description is consistent with the south end of the project limits; however, the remaining areas of the project limits are situated within the Little Salt Creek floodplain, which is generally flat with gentle slopes or eroded drainage pathways. The channel banks are typically steep and eroded in places.

Hydrology. The project crosses Little Salt Creek within the Salt Creek Watershed. Salt Creek watershed is unique within the state because of the presence of salt marshes which have formed due to saline seeps and upwelling from the underlying sedimentary deposits. These wetlands form a regionally unique wetlands complex located in the floodplain swales and depressions of the Salt Creek, Little Salt Creek, and Rock Creek drainages in Lancaster and southern Saunders Counties. Saline wetland acquisition and restoration projects such as the Helmuth Marsh, Frank Shoemaker Marsh and Arbor Lake Wildlife Management Area have been undertaken to preserve these unusual landscapes and their flora and fauna.

A section of Little Salt Creek west of the F-88 bridge to approximately 1,000 feet upstream was channelized prior to the construction of the F-88 bridge in 1959. A channel scar remains as a drainage swale that terminates in an erosional feature/head-cut northwest of the F-88 bridge (Priority 2 Saline Wetland Improvement Project, H-22-1); there are at least three similar erosional features on the south bank of the channel, west of the F-88 bridge. In addition, there is a floodplain drainage northeast of the F-88 bridge on the Capital City Horse & Pony Club property; this feature is associated with an unnamed tributary of Little Salt Creek.

Saline Wetlands. Saline wetlands in the Little Salt Creek watershed are characterized by saline soils (i.e., Salmo Series with low permeability) and halophytic (salt tolerant) plant species, such as seablite (*Suaeda calceoliformis*), inland salt grass (*Distichlis spicata*), spearscale (*Atriplex patula*), and the state endangered saltwort. Saline soils are mapped in the project limits (Figure 5). According to previous inventories (Gersib and Steinauer, 1991; LaGrange et al., 2003; Lincoln/Lancaster County GIS Rest Services, 2018), Category I Saline Wetlands are mapped surrounding the drainage swale northwest of the F-88 bridge and within the floodplain drainage northeast of the bridge (see Figure 5).

During the wetland delineation conducted in July 2018, a few small areas of Category I Saline Wetlands were identified within the project limits. All of these were located within the floodplain drainage northeast of the bridge (Wetland 19 shown on Figure 6, Sheet 2). These saline wetland areas were dominated by inland saltgrass, foxtail barley, or prairie cordgrass. One small mudflat with scattered seablite and spearscale was identified (Photograph 24). No saltwort was observed, and no other mudflats were found. All other wetlands were Category III or IV Freshwater Wetlands.

Vegetation. The channel terrace south of the F-88 bridge and on both sides of North 14th Street supports freshwater wetlands on saline and non-saline soils; these wetlands are dominated by cattail (*Typha angustifolia* and *T. latifolia*), spikerush (*Eleocharis palustris*), or reed canarygrass (*Phalaris arundinacea*). Scattered areas of upland occur on the terrace and are characterized by a mix of

smooth brome (*Bromus inermis*), Canada goldenrod (*Solidago canadensis*), American plum (*Prunus americanus*), and rough-leaved dogwood (*Cornus drummondii*) (**Photographs 5 and 10**). Within the project limits, the steep creek banks support wetlands dominated by false indigo bush (*Amorpha fruticosa*) and reed canarygrass or prairie cordgrass (*Spartina pectinata*) and reed canarygrass. The channel terrace north of the F-88 bridge and on both sides of North 14th Street is an upland dominated by smooth brome.

Freshwater wetlands on saline soils occur within the drainage swale located northwest of the F-88 bridge. This area is dominated by reed canarygrass, cattail, or spikerush. Mesic prairie surrounds the drainage swale and supports a mix of smooth brome, dogbane hemp (*Apocynum cannabinum*), Maximilian's sunflower (*Helianthus maximiliani*), and prairie cordgrass.

Patches of saline wetlands on saline soils occur northeast of the F-88 bridge within a floodplain drainage. This area is dominated by inland saltgrass, foxtail barley (*Hordeum jubatum*), and prairie cordgrass; however, most of the floodplain, which is hayed periodically (**Photograph 25**), is dominated by intermediate wheatgrass (*Thinopyrum intermedium*) (**Photograph 21**) or smooth brome (**Photograph 20**).

The upland area southwest of the F-88 bridge is a hayed prairie dominated by smooth brome, big bluestem (*Andropogon gerardii*), Kentucky bluegrass (*Poa pratensis*), switchgrass (*Panicum virgatum*), and Canada bluegrass (*Poa compressa*) (**Photograph 2**). The upland area southeast of the F-88 bridge is a row-crop agricultural field.

Land Use. The project occurs in a rural area approximately 3.3 miles north of the City of Lincoln. North 14th Street has been a well-used County road for over a century as it is one of the few continuous north-south roads connecting the City of Lincoln and Lancaster County to Saunders County to the north. Adjacent land uses are agricultural and include rangeland, hay fields, and row-crop fields. Helmuth Marsh, a wildlife habitat conservation area, is adjacent to North 14th Street, west of the F-88 bridge (see **Figure 2**). Capital City Horse & Pony Club, a private riding club, is located northeast of the bridge. Some nearby areas have experienced rural acreage development along North 14th Street and intersecting east-west section line roads.

Impacts

While the project design meets the minimum design standards of the Board of Public Roads Classification and Standards which minimizes the need for ROW and easements, 0.58 acres of ROW and easements are required from the Helmuth Marsh property (and WRP easement). These impacts were unavoidable due to channel shaping and bank stabilization needed to accommodate the bridge structure; installation of the drop structure for erosion control and channel stability; and future maintenance requirements.

Avoidance and Minimization

Alternatives Analysis. To avoid and/or minimize impacts to the Helmuth Marsh property, two alignment alternatives were considered. These were to build the new bridge (1) centered on existing alignment or (2) realigned east of the existing bridge. A third alternative, realignment west of the existing bridge, would require more ROW and easements and therefore, was not evaluated. The following table compares the two alternative alignments and a No Build scenario relative to property rights, wetlands, safety or sustainability of the bridge, and other project considerations (**Table 1**).

TABLE 1: COMPARISON OF IMPACTS BY ALTERNATIVE

EVALUATION CRITERIA	CENTERED ALIGNMENT ALTERNATIVE	REALIGNMENT EAST ALTERNATIVE	NO BUILD ALTERNATIVE
Purpose and Need	Meets project purpose and need	Meets project purpose and need	Does not meet project purpose and need
Safety and Sustainability	Minimum roadway design standards would be met; channel stability would be improved	Minimum roadway design standards would be met; channel stability would be improved	Bridge does not meet design standards for current or future traffic volumes and speeds; creek channel is vulnerable to incision, overtopping and instability
Property Rights/ROW/ Permanent Easements	Maximizes use of the existing ROW on both sides of the roadway; minimizes need for property acquisitions on both sides of road	Requires longer alignment (up to 3,000 feet in length) and more ROW to accommodate horizontal curves in the roadway to bring the alignment back to center	None
ROW from Helmuth Marsh (and WRP easement)	Requires 0.58 acres of permanent ROW or easements	Requires no ROW or easements	None
Wetland Impacts (total)	Approximately 0.42 acres	Approximately 0.84 acres	None
Saline Wetland Impacts (Category I)	Approximately 0.08 acres	Approximately 0.16 acres	None
Little Salt Creek Watershed Master Plan	Includes priority project to construct sheet pile and rip rap weir to stabilize stream grade elevation to prevent channel incision from progressing upstream	Includes priority project to construct sheet pile and rip rap weir to stabilize stream grade elevation to prevent channel incision from progressing upstream	No channel grade stabilization structure
Upper Little Salt Creek Saline Wetlands Plan	Includes priority project to construct erosion control drop structure to arrest further head cutting in an existing erosional feature	Does not include erosion control drop structure; erosional feature/head-cut northwest of bridge may continue to advance into Helmuth Marsh property	Does not include erosion control drop structure; erosional feature/head-cut northwest of bridge may continue to advance into Helmuth Marsh property
Designated Critical Habitat for Salt Creek Tiger Beetle (SCTB)	Installation of weir and drop structure are designed to stabilize water levels in the creek; this would improve creek bank habitat for SCTB	Installation of weir and drop structure are designed to stabilize water levels in the creek; this would improve creek bank habitat for SCTB.	No change; conditions remain unsuitable for SCTB

Preferred Alternative. The centered alignment was chosen as the preferred alternative because it:

- Improves the transportation corridor for local and through traffic
- Avoids the need for additional ROW and easements by maximizing use of the existing ROW
- Avoids the need for additional ROW and easements by minimizing the alignment length needed for pavement transition
- Best supports the Little Salt Creek Watershed Master Plan and Upper Little Salt Creek Saline Wetlands Plan
- Improves available natural habitats along Little Salt Creek by implementing measures to reduce bank incision and bank failure which result in loss of habitat and interception of groundwater
- Minimizes impacts to freshwater and saline wetlands

Protected Birds

Pursuant to the Bald and Golden Eagle Protection Act (BGEPA), Migratory Bird Treaty Act (MBTA), and Nebraska Revised Statute §37-540, an assessment was conducted to determine if there would be any potential effects to bald or golden eagles and other protected birds. Birds of particular concern likely to occur within and near the project limits, according to NGPC and Service resources, are bald eagles (*Haliaeetus leucocephalus*), Henslow's sparrow (*Ammodramus henslowii*), wood thrush (*Hylocichla mustelina*), loggerhead shrike (*Lanius ludovicianus*), buff-breasted sandpiper (*Tryngites subruficollis*), greater prairie-chicken (*Tympanuchus cupido*), Bell's vireo (*Vireo bellii*), sedge wren (*Cistothorus platensis*), American bittern (*Botaurus lentiginosus*), bobolink (*Dolichonyx oryzivorus*), Hudsonian godwit (*Limosa haemastica*), lesser yellowlegs (*Tringa flavipes*), and red-headed woodpecker (*Melanerpes erythrocephalus*).

Bald eagles use mature, forested riparian areas near waterways and wetlands near major river systems or large bodies of water; there is no suitable habitat for bald eagles within 0.5 miles of the project limits. Golden eagles use prairie habitats in the western part of Nebraska; there is no suitable habitat for golden eagles in the project area. Cliff swallows (*Petrochelidon pyrrhonota*) were observed using the bridge substructure for nesting in July 2018. Other protected birds could utilize habitat within the project limits for roosting, nesting, feeding, or perching habitat. The primary nesting season for sedge wrens, cliff swallows, and other migratory birds is from April 1 to September 30.

Project activities in these habitats have the potential to result in incidental 'take' of protected birds. Clearing and grubbing of vegetation in areas of suitable habitat will be avoided during the primary nesting season for sedge wrens, cliff swallows, and other migratory birds (April 1 to September 30). If clearing of vegetation cannot be avoided during these periods, then a qualified biologist will conduct a pre-construction survey to determine the presence or absence of breeding birds and their nests. Bridge removal will avoid the primary nesting season to avoid 'take' of cliff swallows or avoidance measures, such as exclusion netting, would be implemented prior to the nesting season to discourage nesting. If a survey identifies nesting raptors or migratory birds before or during construction, then Lancaster County would halt pending construction operations and contact NGPC and the Service for further consultation.

Habitat Evaluation for Threatened or Endangered Species

Based on an assessment of known ranges and potential habitat for threatened and endangered (T&E) species using USFWS and NGPC resources, there are four state or federally listed species that could occur in the project area (Table 2). Each species and the potential for suitable habitat is described below. None of the species have potential habitat in the project limits.

TABLE 2: STATE OR FEDERALLY LISTED THREATENED AND ENDANGERED SPECIES.

COMMON NAME	SCIENTIFIC NAME	STATE STATUS	FEDERAL STATUS	POTENTIALLY PRESENT?
Saltwort	<i>Salicornia rubra</i>	E	-	No
Western prairie fringed orchid	<i>Platanthera praeclara</i>	T	T	No
Northern long-eared bat	<i>Myotis septentrionalis</i>	T	T	No
Salt Creek tiger beetle (SCTB)	<i>Cicindela nevadica lincolniana</i>	E	E	No

T = Threatened, E = Endangered

Saltwort. Saltwort has a narrow habitat range within the saline wetlands of Eastern Nebraska where it occurs on moist, saturated clay mudflats. Saltgrass and seablite are generally the only two species that grow in association with saltwort (Steinauer and Rolfsmeier 2010). In these areas, the water table is generally within 3 feet of the surface. High soil salinity levels and lack of soil aeration due to heavy clay and water content generally inhibits other plants from growing in this wetland association.

The area of saline wetlands identified northeast of the F-88 bridge has very little open habitat. During the July 2018 wetland delineation, a small mudflat (less than a 12 ft² area) with seablite and spearscale was observed within the project limits; however, no saltwort or other mudflats were observed. Furthermore, no saltwort or mudflats were observed adjacent to the project limits. Based on a review of historical aerial imagery and discussion with a board member of the Capital City Horse & Pony Club, the area northeast of the F-88 bridge is hayed annually. Therefore, there is no suitable habitat for saltwort within or adjacent to the project limits.

Western Prairie Fringed Orchid. In eastern Nebraska, suitable habitat for the western prairie fringed orchid consists of wet-mesic prairies and sedge meadows along floodplains, which are generally sub-irrigated by near-surface groundwater that provides a reliable source of water. The mesic prairie located around a drainage swale northwest of the F-88 bridge occurs on saline soils which would not be suitable for the western prairie fringed orchid.

Northern Long-eared Bat. Winter hibernacula habitat is generally limited to caves and mines; No habitat for winter hibernacula is present within the project limits. Suitable summer roosting habitat for the northern long-eared bat (NLEB) consists of live or dead trees with snags, crevices or hollows and other structures that provide protection, such as bridges and buildings, that are within or adjacent to woodlands over 5 acres in area. There are no suitable woodlands within or adjacent to the project limits that could provide summer roosting habitat for the NLEB.

Salt Creek Tiger Beetle and Critical Habitat. The Salt Creek tiger beetle (SCTB) is native to saline wetlands in the Salt Creek watershed. Suitable habitat for SCTB consists of remnant saline wetlands on exposed mudflats along the banks of streams and seeps that contain salt deposits. Moist, saline, open flats are necessary for thermoregulation, reproduction, and foraging. Critical habitat for SCTB is designated along several segments of Little Salt Creek from its confluence with Salt Creek to approximately 8 miles upstream. Within the project limits, critical habitat for SCTB is mapped as a 137-foot buffer around the creek (Figure 7).

The project area was examined in 2002 by Stephen Spomer (University of Nebraska-Lincoln Department of Entomology) who found no suitable habitat for SCTB. The project area was re-examined in late June 2018 by entomologist Jessica Jurzenski, PhD, who also found the area lacking suitable habitat for SCTB and lacking adults or larval burrows of the SCTB. The banks of Little Salt Creek within the project limits are heavily vegetated and do not have “exposed mudflats associated with saline wetlands or exposed banks and islands of streams and seeps that contain adequate soil moisture and soil salinity” which are

considered to be the primary constituent elements of the designated critical habitat and core habitat for the SCTB (§17.95 of 50 CFR Part 17, Volume 79, Number 87).

Habitat Impacts

Clearing and grubbing of vegetation, grading, and soil disturbance will occur in areas of Little Salt Creek within the project limits and along North 14th Street (**Figure 8**). Based on the preliminary design, wetland impacts are anticipated and will require compliance with Section 404 of the Clean Water Act. Impacted wetlands are expected to include wetlands present on terraces, side slopes, and benches of Little Salt Creek and on floodplain depressions and swales of tributary drainages. A wetland delineation was conducted on July 2 and 27, 2018. A wetland resource map is attached (**Figure 6, Sheets 1 and 2**). The proposed construction activities are anticipated to permanently impact approximately 0.42 acres of wetland. Permanent wetland impacts are to be mitigated through the City of Lincoln Wetland Mitigation Bank. Within the limits of construction (LOC), proposed construction activities are expected to permanently impact 254 linear feet of channel. Channel impacts would not exceed the thresholds for a Section 404 Nationwide Permit from the Corps (300 feet of permanent impacts or 100 feet of channel loss).

Salt Creek Tiger Beetle Critical Habitat. The segment of critical habitat within the project limits does not have the primary constituent elements of the designated critical habitat and core habitat. The definition of SCTB critical habitat also indicates that “manmade structures (such as buildings, aqueducts, runways, roads and other paved areas) and the land on which they are located existing within the legal boundaries on June 5, 2014” are not included in critical habitat.

While currently there is no suitable habitat for the SCTB within the project limits, construction of the weir and drop structure would stabilize the depth to the water table and benefit potential SCTB habitat in and beyond the project limits. Areas of the channel bank would be cleared of vegetation and graded to reduce the slope to accommodate installation of the new bridge, weir, and drop structure. These activities would create exposed banks, a preferred habitat for SCTB. Overall, project modifications would improve the designated critical habitat to better serve its intended conservation role for SCTB.

Conservation Measures

Coordination conducted in 2012 with the USFWS, NGPC, Lower Platte South Natural Resource District, City of Lincoln Watershed Management Department, U.S. Army Corps of Engineers, and Nebraska State Historical Society indicated support for the project and resulted in the following environmental conservation measures and best management practices (BMPs) to be incorporated into the project to avoid or minimize impacts to natural resources:

- Lancaster County will include Special Provisions in the Construction Contract for the project prohibiting night time work.
- Lancaster County will acquire an NPDES Permit and develop a SWPPP. The SWPPP includes both a Temporary and Permanent Erosion Control and Sedimentation Plan. These plans identify how the contractor will address both storm water and non-storm water pollution. The temporary plan will identify the use of spill kits among other techniques to control non-storm water pollution.
- Lancaster County will include Special Provisions in the Construction Contract prohibiting the Contractor from using machinery in the waters of Little Salt Creek. No low water stream crossing/work platform will be allowed in the Little Salt Creek channel.
- Lancaster County will include Special Provisions in the Construction Contract prohibiting demolition/construction debris from entering the waters of Little Salt Creek. In addition, a note has

been added to the plans prohibiting the burial of debris from clearing and grubbing, demolition and construction operations on the project ROW.

- Lancaster County will include Special Provisions in the Construction Contract for the placement of 6 inches of native soil cover on rip rap (with the exception of rip rap downstream of weir) and seeding above the historical ordinary high water mark or approximately three feet above the existing channel flow, whichever is greater.
- Lancaster County will acquire the services of a qualified scientist to survey the project prior to construction. A written report of the findings will be prepared should migratory birds, threatened and endangered species, or bald or golden eagles be discovered. Lancaster County will immediately contact the USFWS and NGPC for further consultation if any of the above are discovered.
- Lancaster County will consult with Nebraska Department of Transportation – Roadside Development and Compliance Division for recommendations for native seed mixtures in upland and wetland areas. Lancaster County will incorporate these recommendations in the Specifications for the Construction Contract.
- No machinery or construction equipment will be allowed on private property (or wetlands situated thereon) beyond the project ROW or easements. The prime contractor and subcontractors are not allowed to trespass on private property by the Specifications which are part of the construction contract.
- Permanent wetland impacts will be mitigated at the City of Lincoln Wetland Mitigation Bank located in Sections 26 and 35, Township 11 North, Range 7 East, Lancaster County.

Follow-up coordination with the afore-mentioned agencies will occur to confirm these commitments. Coordination will also occur with the Saline Wetlands Conservation Partnership, Pheasants Forever and Natural Resources Conservation Service.

Determination of Effect

With the implementation of the proposed conservation measures, the Raymond Southeast Bridge Replacement project is anticipated to have No Effect on all listed species and their habitat, with exception of beneficial modifications to critical habitat designated for SCTB (Table 3).

TABLE 3: THREATENED AND ENDANGERED SPECIES EFFECT DETERMINATIONS

COMMON NAME OR HABITAT	EFFECT DETERMINATION	REASON FOR DETERMINATION
Saltwort	No Effect	Suitable habitat is not present.
Western prairie fringed orchid	No Effect	Suitable habitat is not present.
Northern long-eared bat (NLEB)	No Effect	Suitable habitat is not present.
Salt Creek tiger beetle (SCTB)	No Effect	Suitable habitat is not present.
Critical habitat for SCTB	May affect, Not Likely to Adversely Affect	Modifications to areas of designated critical habitat, as part of this project, would stabilize the depth to the water table, reduce the slope of the channel banks, and benefit potential SCTB habitat in and beyond the project limits.

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Paul Zillig
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With the proposed conservation measures and construction BMPs in place, the project design, as proposed, is the best option for the safety of the traveling public, for improvement of natural resources associated with Little Salt Creek, and for protection of the Helmuth Marsh property.

If you have any questions or require additional information, please feel free to call me at 402.438.7530 or email me at jessica.jurzenski@fhueng.com.

Sincerely,

FELSBURG HOLT & ULLEVIG

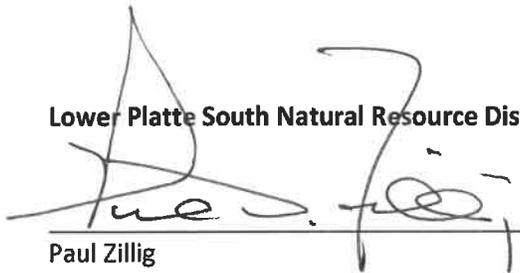


Jessica Jurzenski, Ph.D.
Environmental Scientist

Attachments: Previous Agency Coordination
Project Figures
Photographs
Preliminary Plan and Profile, Sheets 3 and 4

Cc: Dan Schulz, LPSNRD Resource Coordinator
Gordon Coke, Flatwater Group Environmental Planner
Pam Dingman, Lancaster County Engineer
Chad Packard, Lancaster County Engineer
Virgil Dearmont, Lancaster County Engineer
Amy Zlotsky, FHU Senior Environmental Scientist

Lower Platte South Natural Resource District fully supports the project, as proposed.



Paul Zillig
LPSNRD, General Manager

Nov. 5, 2018
Date

Jessica.Jurzenski

From: Ben J. Higgins <watershed@lincoln.ne.gov>
Sent: Wednesday, October 31, 2018 7:46 AM
To: Jessica.Jurzenski
Cc: 'Paul Zillig'; Virgil R. Dearmont; Amy.Zlotsky; Chad S. Packard; Pamela L. Dingman
Subject: RE: Raymond SE Bridge Replacement (C55-F-88) - review request

Follow Up Flag: Follow up
Flag Status: Flagged

Jessica

The City of Lincoln Watershed Management Division would be in favor of the Raymond SE Bridge Replacement (C55-F-88) project with the inclusion of the grade stabilization structure as stated in your letter dated 10/22/18. This is one of the higher priority projects (project #2) noted in the 2009 Little Salt Creek Master Plan. I will include this as an agenda item at the next City/NRD coordination meeting.

On the question on wetland credits, I would recommend filling out the 'Request for Use' form to request the 0.58 acres of credit. Note on the form about rescinding the credits from the 12/18/2012 COE application.

Note: The Wetland Bank [Request for Use](#) form is on line. Click on the hyperlink (it is the second to last item under Permits in the hyperlink).

Once you work with the COE to get their OK on the wetland credits, let me know if you are going to apply for a new COE permit or work under the same permit. Once you have a valid COE permit number and the COE's OK on the wetland credits apply for the 'Certification of Credit'. Note: The Wetland Bank 'Certification of Credit' form is online also at the above hyperlink (it is the third to last item under Permits in the hyperlink).

If any questions/concerns let me know.

thanks
Ben
public works
402-441-7589

From: Jessica.Jurzenski <Jessica.Jurzenski@fhueng.com>
Sent: Monday, October 22, 2018 11:04 AM
To: Ben J. Higgins <watershed@lincoln.ne.gov>
Cc: Virgil R. Dearmont <VDearmont@lancaster.ne.gov>; Chad S. Packard <CPackard@lancaster.ne.gov>; Pamela L. Dingman <PDingman@lancaster.ne.gov>; Amy.Zlotsky <Amy.Zlotsky@FHUENG.COM>
Subject: Raymond SE Bridge Replacement (C55-F-88) - review request

Hi Ben,

On behalf of Lancaster County, our firm is submitting the attached letter, including a biological evaluation, to assist the City of Lincoln Watershed Management Department in completing a follow-up review of the **Raymond Southeast Bridge Replacement (Lancaster County Project No. C55-F-88)**. If in support of the project, then feel free to sign, scan, and return the letter (see end of letter for signature line).

Also, we are preparing the Request for Use form for mitigating wetland impacts for this project using the City of Lincoln/Lancaster County Wetland Bank. I noticed in a February version of the wetland bank ledger (and online on RIBITS) that 0.166 credits of Category IV saline wetlands were already debited for this project in 2012 (see below snip). The project was put on hold after receiving the Section 404 permit in 2012.

8/29/2012	Sprague Southeast, BR-3280(4)	county	saline wetl:
12/18/2012	Raymond Southeast	county	saline wetl:
4/22/2013	Jamaica North Trail, Phase 2B	parks	saline wetl:

Design changes and an updated wetland delineation have changed the anticipated wetland impacts. Currently, we are anticipating the below impacts and mitigation credits. Per the Mitigation Guidelines for Nebraska’s Eastern Saline Wetlands (1997), impacts to Category III saline wetlands (i.e., freshwater wetlands on saline soil) would be mitigated at a 1:1 ratio with Category I saline wetlands credits from the bank. However, the bank is assigned the Nebraska Wetland Subclass of floodplain depressions; therefore, Category III saline wetland impacts that are out-of-kind for subclass would be mitigated at a 2:1 ratio.

Type of Wetland & Category: *PEMA/PEMC (Category IV), PEMA/PEMC (Category III), PEMA/PEMC (Category I), and PSSA (Category III)*

WETLAND TYPE	NE SUBCLASS ¹	SALINE WETLAND CATEGORY	IMPACTED ACRES	RATIO	ESTIMATED MITIGATION CREDITS	TYPE OF MITIGATION CREDIT
PEMA/PEMC	Riverine Channel	III	0.12	2:1	0.24	Category I Saline Wetland
PEMA/PEMC	Riverine Floodplain	III	0.03	2:1	0.06	Category I Saline Wetland
PEMA/PEMC	Floodplain Depression	III	0.10	1:1	0.10	Category I Saline Wetland
PEMA/PEMC	Floodplain Depression	IV	0.08	1:1	0.08	Category IV Saline Wetland
PEMA/PEMC	Saline Depression	I	0.08	1:1	0.08	Category I Saline Wetland
PSSA	Riverine Floodplain	III	0.01	2:1	0.02	Category I Saline Wetland
Total	-	-	0.42	-	0.58	-

Thus, the County would be requesting 0.5 credits of Category I saline wetland and 0.08 of Category IV saline wetlands. Please let me know how you would like to address the previous credit withdrawal since it no longer matches the current impacts.

If you have any questions or require additional information, please feel free to call me using the below contact numbers.

Thank You,
Jess Jurzenski



JESSICA JURZENSKI, PhD
Environmental Scientist
321 S. 9th Street, Lincoln, NE 68508



MAYOR CHRIS BEUTLER
lincoln.ne.gov

Watershed Management
Public Works and Utilities Department
Miki Esposito, Director
555 South 10th Street, Suite 203
Lincoln, Nebraska 68508

May 1, 2012

Virgil Dearmont
Lancaster County Engineering
444 Cherrycreek Road, Bldg. C
Lincoln, NE 68528

RE: North 14th Street Bridge, F-88 (Raymond Southeast project BR-3405)(5)

Dear Virgil:

This letter is in response to your Biological Evaluation of March 19, 2012. The City of Lincoln supports the subject bridge project which is of considerable importance to the City. This stream crossing was identified in the 2009 Little Salt Creek Master Plan as an area where establishing grade control for the stream was needed.

At the North 14th Street Bridge the main stem of Little Salt Creek is incising and is projected to continue to incise an additional six to twelve feet over the next 25 years. The incision will cause erosion at the bridge that could compromise bridge footings and stability. Sediment released from incision and subsequent bank failures could threaten natural resources along the channel. In addition to the incising of the stream the Little Salt Creek Master Plan (2009) shows this bridge will overtop in the 100 year storm. Of all the projects recommended in the Little Salt Creek Master Plan, this project ranked as the highest priority. It is anticipated that the recommended grade control will be included in project BR-3405.

The City very much supports this bridge project and desires that a grade control be constructed immediately downstream of the bridge to maintain the channel grade through the bridge, to protect the bridge and to improve local stream stability. The City, with possibly the Lower Platte South NRD, is planning to fund the grade stabilization portion of the project if funding is available.

Please contact Ed Kouma of my staff with the City Watershed Management Division at (402) 441-7018 or at ekouma@lincoln.ne.gov with any questions or concerns.

Sincerely,

Ben Higgins, Senior Engineer
City of Lincoln - Watershed Management

cc: Ed Kouma, City Watershed Management
Paul Zillig, Lower Platte South NRD

Appendix D
Section 404 Permit and Water Quality Certification



DEC 31 2018

Ms. Pamela Dingman
Lancaster County Engineering Dept.
444 Cherrycreek Rd.
Lincoln, NE 68528

RE: State Water Quality Certification for Section 404 Application NOW-2012-02349-WEH,
Raymond Southeast Bridge Replacement along Little Salt Creek in Lancaster County, NE
(40.937502, -96.700614).

Dear Ms. Dingman:

We have reviewed the information received submitted regarding the above-referenced project. The proposed work involves excavation and filling within wetlands and Little Salt Creek to facilitate the replacement of an existing bridge and other roadway and stream bed improvements. The proposed work would result in impacts to approximately 0.39 acres of wetland, which includes approximately 0.08 acre of Class I Saline Wetland. These wetland impacts would be mitigated at the City of Lincoln Wetland Mitigation Bank.

Based on our review of the information provided, this office has determined that the proposed activity will comply with Section 401 of the Clean Water Act of 1977, as amended by the Water Quality Act of 1987, and Title 117- Nebraska Surface Water quality Standards provided the following recommendations are met:

1. The proposed project will cause unavoidable and permanent loss to 0.39 acres of PEMC wetland. It is recommended that this loss shall be mitigated at minimum ratio of 1.0:1.0 through purchase in the amount of credits from the City of Lincoln/Lancaster County Wetland Mitigation Bank.
2. It is recommended that a copy of the wetland mitigation bank credit application and/or proof of purchase of the required credits shall be submitted, by the permittee or their designated representative, and to this office.
3. It is recommended that all construction activities include the installation and maintenance of Best Management Erosion and Sediment Control Practices in effective operating conditions during construction to insure that sediments or other pollutants do not become adrift in the waterway. These practices should be maintained in proper working order until the site is permanently stabilized.
4. It is also recommended that all road side ditches and basins be seeded with a native grass and forb seed mix to reduce the potential for invasive species to become established.

If the area of disturbance will be greater than 1.0 acre, we remind the applicant that a National Pollution Discharge Elimination System construction stormwater permit may be required under §402 of the Clean Water Act. Additional information can be found at <http://deq.ne.gov/Publica.nsf/pages/WAT012>.

We therefore, by this letter, provide Section 401 Water Quality Certification. This certification does not constitute authorization to conduct your project. It is a statement of compliance with Surface Water Quality Standards only, which is one requirement to gain authorization from the U.S. Army Corps of Engineers in the form of a Section 404 permit. If you have any questions, please feel free to call Kim Copenhaver on my staff, at (402) 471-2875.

Sincerely,



Marty Link
Water Quality Division Administrator

cc: Catherine Blackwell, US Army Corps of Engineers
Robert Harms, US Fish & Wildlife Service
Carey Grell, Nebraska Game & Parks Commission
Eliodora Chamberlain, US Environmental Protection Agency
Jess Jurzenski - FHU

Appendix E
Threatened and Endangered Species Concurrences

From: [Robert Harms](#)
To: Andrew.J.Vlazny@usace.army.mil
Cc: carey.grell@nebraska.gov; [Schleif, Thomas - NRCS, Lincoln, NE](#); [Virgil R. Dearmont](#); [Alex G. Olson](#); [Karen L. Wilson](#); [Pamela L. Dingman](#); [James J. Shotkoski](#); [Tom Kubert](#); [Amy.Zlotsky](#); [Kelsi Wehrman](#); [Euse, Bryan - NRCS, Lincoln, NE](#); [Jessica.Jurzenski](#)
Subject: RE: [EXTERNAL] RE: Raymond SE Bridge Replacement: Corps No. 2012-02349/FWS No. 2012-328 informal consultation
Date: Wednesday, June 12, 2019 7:44:18 AM
Attachments: [image002.png](#)

Drew:

The U.S. Fish and Wildlife Service has completed its review of the proposed project. We concur with the Corps that the proposed project may affect but is not likely to adversely affect the federally endangered Salt Creek tiger beetle or its federally designated critical habitat. We based our concurrence on the willingness of the Corps to include conditions in the permit to avoid impacts to listed species and modifications made to the construction easements to avoid further impacts upstream and downstream of the proposed bridge project site.

We concur with the Corps that the permit action may affect but is not likely to adversely affect the Northern long-eared bat given avoidance of tree clearing from May 1- June 31.

Please contact me if the project changes to the extent that impacts to these species becomes apparent.

Bob

Robert R. Harms
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
9325 S Alda Rd
Wood River, NE 68883
Office: (308) 382-6468, extension 208
Cell: (308) 390-0871

From: Jessica.Jurzenski [mailto:Jessica.Jurzenski@fhueng.com]
Sent: Thursday, May 16, 2019 11:24 AM
To: Robert Harms; Andrew.J.Vlazny@usace.army.mil
Cc: carey.grell@nebraska.gov; [Schleif, Thomas - NRCS, Lincoln, NE](#); [Virgil R. Dearmont](#); [Alex G. Olson](#); [Karen L. Wilson](#); [Pamela L. Dingman](#); [James J. Shotkoski](#); [Tom Kubert](#); [Amy.Zlotsky](#); 'Kelsi Wehrman'; [Euse, Bryan - NRCS, Lincoln, NE](#)
Subject: [EXTERNAL] RE: Raymond SE Bridge Replacement: Corps No. 2012-02349/FWS No. 2012-328 informal consultation

Hello Bob and Drew,

Based on further discussion with Bob, we would like to supplement the letter sent on 5/10/2019 with a revision to the conservation measure 3. Please disregard the qualifier for tree removal relative to greater than or equal to 3 inch dbh. Please use the revised conservation measures as

follows:

“Tree removal will not occur from June 1 through July 31, which corresponds to the maternity roost season for the northern long-eared bat (NLEB). If the County proposes tree removal during this time period, the County must submit a request to the USACE Nebraska Regulatory Office (NRO). The NRO will coordinate this request with the Service for concurrence (including a copy to NGPC) and NLEB surveys may be required. For purposes of this conservation measure, "tree removal" is defined as cutting down, harvesting, destroying, trimming, or manipulating in any other way the trees, saplings, snags, or any other form of woody vegetation likely to be used by NLEB, as defined by the Final 4(d) Rule published on February 15, 2016.”

Thank You,
Jess

Jess Jurzenski
Environmental Scientist
Direct: 402.858.3280 Office: 402.438.7530
www.fhueng.com

From: Jessica.Jurzenski
Sent: Friday, May 10, 2019 12:09 PM
To: Robert Harms <robert_harms@fws.gov>; Andrew.J.Vlazny@usace.army.mil
Cc: carey.grell@nebraska.gov; Schleif, Thomas - NRCS, Lincoln, NE <thomas.schleif@usda.gov>; Virgil R. Dearmont <VDearmont@lancaster.ne.gov>; Alex G. Olson <aolson@lancaster.ne.gov>; Karen L. Wilson <KWilson@lancaster.ne.gov>; Pamela L. Dingman <PDingman@lancaster.ne.gov>; James J. Shotkoski <jshotkoski@lancaster.ne.gov>; Tom Kubert <tkubert@kubertappraisal.com>; Amy.Zlotsky <Amy.Zlotsky@FHUENG.COM>; 'Kelsi Wehrman' <kwehrman@pheasantsforever.org>; Euse, Bryan - NRCS, Lincoln, NE <Bryan.Euse@ne.usda.gov>
Subject: Raymond SE Bridge Replacement: Corps No. 2012-02349/FWS No. 2012-328 informal consultation

Hello Bob and Drew,

Please find the attached letter providing updated conservation measures per the site visit on May 8, 2019 for the Raymond SE Bridge Replacement Project (Corps No. 2012-02349/FWS No. 2012-328). All individuals in attendance, in addition to others, have been copied onto this email to keep everyone in the loop. Please let me know if you have any questions regarding this project.

Thanks,
Jess Jurzenski





2200 N. 33rd St. • P.O. Box 30370 • Lincoln, NE 68503-0370 • Phone: 402-471-0641

November 28, 2018

Jessica Jurzenski
Felsburg, Holt, and Ullevig
321 South 9th Street
Lincoln, NE 68508

RE: Raymond Southeast, Lancaster County Project Number: C55-F-88, Lancaster County

Dear Ms. Jurzenski:

Please make reference to your letter dated October 9, 2018. This letter is in response to your request for a review of this project's potential impacts to endangered and threatened species in Lancaster County, Nebraska. As we understand it, the project involves replacing a bridge over Little Salt Creek, raising and widening the road to accommodate the new bridge, a channel grade stabilization structure (a priority project in the Little Salt Creek Watershed Master Plan (2009)), and a drop structure (project compatible with the Upper Little Salt Creek Saline Wetlands Plan (2015)). The Nebraska Game and Parks Commission (NGPC) has responsibility for protecting endangered and threatened species under authority of the Nongame and Endangered Species Conservation Act (Neb. Rev. Stat. § 37-801 to 37-811) (NESCA). We have reviewed the project and offer the following comments.

This project is within the range of the state-listed endangered Salt Creek tiger beetle (*Cicindela nevadica lincolniiana*) and saltwort (*Salicornia rubra*), and the state-listed threatened western prairie fringed orchid (*Platanthera praeclara*) and northern long-eared bat (*Myotis septentrionalis*). As outlined in the October 9, 2018 letter, Lancaster County has agreed to implement and/or incorporate conservation measures into the contract in order to avoid adverse impacts to state listed endangered or threatened species.

Based on this information, it is unlikely this project will adversely impact state listed endangered or threatened species. If the proposed project is changed or new information regarding endangered or threatened species becomes available, then we recommend resubmitting the project for further review. This information is being provided based on a review of the material you sent, aerial photographs, topographic maps, the Nebraska Natural Heritage Database, and the agreement to implement/incorporate the conservation measures as proposed in the October 9, 2018 letter.

For an assessment of potential impacts to habitats and species protected under federal wildlife laws, including federally listed, candidate or proposed endangered or threatened species, please contact Eliza Hines (eliza_hines@fws.gov), Nebraska Field Office, U.S. Fish and Wildlife Service, 9325 South Alda Road, Wood River, Nebraska 68883.

TIME OUTDOORS IS TIME WELL SPENT

OutdoorNebraska.org

Other Resources of Concern

As outlined in the October 9, 2018 letter, Lancaster County has agreed to implement and/or incorporate conservation measures into the contract in order to avoid adverse impacts to migratory birds and bald and golden eagles. In addition, a wetland delineation has been conducted and Lancaster County will coordinate with the U. S. Army Corps of Engineers (USACE) in order to obtain a 404 Permit and to mitigate impacts to wetlands as required.

The project will impact the Helmuth Marsh property located adjacent west of the bridge. The Helmuth Marsh property is owned by Pheasants Forever, but also involves Federal Aid dollars administered through the NGPC. There are additional steps for approval of impacts for construction and right-of-way to this property due to the Federal Aid. Lancaster County, FHU, and NGPC staff are coordinating on the information needed for addressing impacts to the Helmuth Marsh property.

Since the NGPC does have responsibility for managing habitat on the Helmuth property, we would recommend that any proposed post-construction seed mixtures for the property also be sent to the NGPC for review.

Thank you for the opportunity to review this proposal. If you have any questions regarding these comments, please contact me at (402) 471-5423 or carey.grell@nebraska.gov.

Sincerely,

A handwritten signature in black ink that reads "Carey Grell". The signature is written in a cursive style with a large, looped "C" and "G".

Carey Grell
Environmental Analyst Supervisor
Planning and Programming Division

ec: Bob Harms, USFWS

RECEIVED

JUN 27 2012

LANCASTER COUNTY
ENGINEERING DEPT.



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
Nebraska Field Office
203 West Second Street
Grand Island, Nebraska 68801

June 25, 2012

FWS NE: 2012-328

Mr. Virgil Dearmont
Lancaster County Engineering Department
444 Cherrycreek Road; Bldg. C
Lincoln, NE 68528

RE: Raymond Southeast, Lancaster County, Nebraska

Dear Mr. Dearmont:

This responds to your June 21, 2012, request for comments and concurrence from the U.S. Fish and Wildlife Service (Service) regarding the subject project. The Service has responsibility for the conservation and management of fish and wildlife resources for the benefit of the American public under the following authorities: 1) Endangered Species Act of 1973, 2) Fish and Wildlife Coordination Act, 3) Bald and Golden Eagle Protection Act, and 4) Migratory Bird Treaty Act. The National Environmental Policy Act requires compliance with these statutes, and the project proponent and lead federal agency are responsible for compliance with these federal laws.

The Service has special concerns for endangered and threatened species, migratory birds, and other fish and wildlife and their habitats. Habitats frequently used by fish and wildlife species are wetlands, streams, riparian (streamside) woodlands, and grasslands. Special attention is given to proposed developments that include the modification of wetlands, stream alterations, loss of riparian habitat, or contamination of habitats. When this occurs, the Service recommends ways to avoid, minimize, or compensate for adverse effects to fish and wildlife and their habitats.

ENDANGERED SPECIES ACT

Pursuant to section 7(a)(2) of the Endangered Species Act (ESA), every federal agency, shall in consultation with the Service, ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. If a proposed project may affect federally listed species or designated critical habitat, section 7 consultation is required.

Copies of Concurrence Letters
USFWS, GTP, Hederal, Wetland m, NRD

Based on the information you have provided and due to the project type, size, and location, we do not anticipate any impacts on federally listed species, or their critical habitats.

Should the project design change, or during the term of this action, additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, consultation with the Service should be initiated to assess any potential impacts on listed species.

All federally listed species under ESA are also State-listed under the Nebraska Nongame and Endangered Species Conservation Act. However, there are also State-listed species that are not federally listed. To determine if the proposed project may affect State-listed species, the Service recommends that the project proponent contact Michelle Koch, Nebraska Game and Parks Commission (Commission), 2200 N. 33rd Street, Lincoln, NE 68503-0370.

REVIEW, COMMENTS, AND RECOMMENDATIONS ON THE PROPOSED PROJECT ACTION UNDER OTHER FISH AND WILDLIFE STATUTES

Fish and Wildlife Coordination Act

1. Water Resources

The Fish and Wildlife Coordination Act (FWCA) requires that the project proponent and lead federal agency consult with the Service and State fish and wildlife agency for the purpose of giving equal consideration to fish and wildlife resources in the planning, implementation, and operation of federal and federally funded, permitted, or licensed water resource development projects. FWCA requires that federal agencies take into consideration the effect that water related projects may have on fish and wildlife resources, to take action to avoid impact to these resources, and to provide for the enhancement of these resources.

2. Wetlands, Streams, and Riparian Habitats

If wetlands or streams will be impacted by the proposed project, a Department of the Army permit from the U.S. Army Corps of Engineers may be needed. The Service will provide FWCA comments pursuant to a permit application. The Service recommends that impacts to wetlands, streams, and riparian areas be avoided or minimized, in accordance with the Section 404(B)(1) Guidelines of the Clean Water Act. For projects that do not require access or proximity to, or location within aquatic environments (i.e., non-water dependent project) to fulfill its basic project purpose, it is assumed that practicable alternatives exist that would cause less damage to aquatic resources than projects that are located in aquatic ecosystems. In addition to determining the least environmentally damaging practicable alternative, 40 CFR Part 230.10(a) of the Guidelines also states, “no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences.”

If after an alternatives analysis has been completed in accordance with the Guidelines, and unavoidable impacts are to occur to aquatic habitats, the Service recommends that compensation (i.e., restoration of a degraded wetland or creation) occur.

3. Animal Passage and Aquatic Biota

Culverts should be constructed at elevations so as to not impede animal/fish movement (i.e. either new culvert installation or culverts used in a temporary crossing). The Service further recommends that the project proponent not alter or install culverts in any way that would result in reductions in current channel width. We have also enclosed recommended best management practices to minimize potential impacts to native fish and other aquatic resources, including spawning timeframes for Nebraska fish species.

To determine if the proposed project may affect fish and wildlife resources of the State of Nebraska under FWCA, the Service recommends that the project proponent contact Carey Grell, Nebraska Game and Parks Commission, 2200 N. 33rd Street, Lincoln, NE 68503-0370.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (Eagle Act) provides for the protection of the bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*). The golden eagle is found in arid, open country with grassland for foraging in western Nebraska and usually near buttes or canyons which serve as nesting sites. Golden eagles are often a permanent resident in the Pine Ridge area of Nebraska. Bald eagles utilize mature, forested riparian areas near rivers, streams, lakes, and wetlands and occur along all the major river systems in Nebraska. The bald eagle southward migration begins as early as October and the wintering period extends from December through March. Additionally, many eagles nest in Nebraska from mid-February through mid-July. Disturbances within 0.5-mile of an active nest or within line-of-sight of the nest could cause adult eagles to discontinue nest building or to abandon eggs. Both bald and golden eagles frequent river systems in Nebraska during the winter where open water and forested corridors provide feeding, perching, and roosting habitats, respectively. The frequency and duration of eagle use of these habitats in the winter depends upon ice and weather conditions. Human disturbances and loss of wintering habitat can cause undue stress leading to cessation of feeding and failure to meet winter thermoregulatory requirements. These effects can reduce the carrying capacity of preferred wintering habitat and reproductive success for the species. To comply with the Eagle Act, it is recommended that the project proponent determine whether the proposed project would impact bald or golden eagles. If it is determined that either species could be affected by the proposed project, the Service recommends that the project proponent notify this office as well as the Commission for recommendations to avoid adverse impacts to bald and golden eagles.

Migratory Bird Treaty Act

Under the Migratory Bird Treaty Act (16 U.S.C. 703-712: Ch. 128 *as amended*) (MBTA) construction activities in grassland, roadsides, wetland, riparian (stream), shrubland and woodland habitats, and those that occur on bridges or culverts (e.g., which may affect swallow nests on bridge girders) that would otherwise result in the taking of migratory birds, eggs, young, and/or active nests should be **avoided**. Although the provisions of MBTA are applicable year-round, most migratory bird nesting activity in Nebraska occurs during the period of April 1 to July 15. However, some migratory birds are known to nest outside of the aforementioned primary nesting season period. For example, raptors can be expected to nest in woodland

habitats during February 1 through July 15, whereas sedge wrens, which occur in some wetland habitats, normally nest from July 15 to September 10.

The Service recommends that the project proponent avoid removal or impacts to vegetation during primary nesting season of breeding birds. In the event that construction work cannot be avoided during peak breeding season, the Service recommends that the project manager (or construction contractor) arrange to have a qualified biologist conduct an avian pre-construction risk assessment of the affected habitats (grassed drainages, streamside vegetation) to determine the absence or presence of breeding birds and their nests. Surveys must be conducted during the nesting season. Breeding bird and nesting surveys should use *appropriate* and *defensible* sampling designs and survey methods to assist the proponent in avoiding the unnecessary take of migratory birds. The Service further recommends that field surveys for nesting birds, along with information regarding the qualifications of the biologist(s) performing the surveys, be thoroughly documented and that such documentation be maintained on file by the project proponent (and/or construction contractor) until such time as construction on the proposed project has been completed.

The Service requests that the following be provided to this office prior to the initiation of the proposed project if the above conditions occur.

- a) A copy of any survey(s) for migratory birds done in conjunction with this proposed project, if any. The survey should provide details of the survey methods, date and time of survey, species observed/heard, and location of species observed relative to the proposed project site.
- b) Written description of specific work activities that will take place in all proposed project areas.
- c) Written description of any avoidance measures that can be implemented at the proposed project site to avoid the take of migratory birds.

The Service appreciates the opportunity to review and comment on the subject project. Should you have questions regarding these comments, please contact Mr. Robert Harms within our office at Robert_Harms@fws.gov or (308)382-6468, extension 17.

Sincerely,



Michael D. George
Nebraska Field Supervisor

Enclosure

cc: NGPC; Lincoln, NE (Attn: Michelle Koch)
NGPC; Lincoln, NE (Attn: Carey Grell)

ENCLOSURE

Recommended Best Management Practices for Proposed Construction Activities Associated with Streams/Rivers

- Avoid earth moving activities or fill/bank armoring during native fish spawning periods from May 15 – July 31, construct stream crossings or other associated temporary embankments during low flow periods (usually August – October).
- Minimize work area at stream locations. The majority of the work (including heavy equipment and storage sites) should occur above the high bank line. Avoid driving equipment through the streambed.
- Implement comprehensive and effective erosion and sediment controls. These methods should be implemented and maintained for the duration of the project and considered at all stages of the project planning and design. Close attention is warranted for the placement and maintenance of temporary erosion control measures at the construction site to minimize sediment loading. These erosion/sediment control techniques should keep sediments from entering the stream and remain in place until work areas become re-vegetated and stable. Such erosion control measures may include properly placed sediment/silt screens or curtains and hay bales. Proper techniques are important to the placement of these types of structures and include trenching, staking and backfilling as well as using the appropriate number of bales. These techniques are best used in combination with each other rather than separately.
- Erosion and sediment controls should be monitored daily during construction to ensure effectiveness, particularly after storm events, and only the most effect techniques should be utilized. Clean, repair and replace structures as necessary.
- Exposed stream banks must be stabilized immediately after construction activity. Eroded surfaces should not be left exposed for greater than one day. If rain is predicted, no construction should commence unless eroded surfaces are immediately treated with geotextile fabric, mulch, seeding or some techniques that would stabilize the bank or exposed areas from eroding.
- Erosion repair and stream bank restoration should use appropriate bioengineering solutions.
- Develop and implement a hazardous materials safety protocol. This would include that all temporary storage facilities for petroleum products, other fuels and chemicals must be located and protected to prevent accidental spills from entering streams within the project area.

FISRWG. 1998. Stream Corridor Restoration: Principles, Processes, and Practices. By the Federal Interagency Stream Restoration Working Group (FISRWG) (15 Federal agencies of the U. S. Government). GPO item No. 0120-A; SuDocs No. A 57.6/2:EN 3/PT.653. ISBN-0-934213-59-3.



RECEIVED

JUN 27 2012

LANCASTER COUNTY
ENGINEERING DEPT.

Nebraska Game and Parks Commission

2200 N. 33rd St. • P.O. Box 30370 • Lincoln, NE 68503-0370 • Phone: 402-471-0641 • Fax: 402-471-5528

June 25, 2012

Virgil Dearthmont
Lancaster County Engineering Department
444 Cherrycreek Road, Building C
Lincoln, NE 68528

Re: Raymond Southeast, Project BR-3405(5), C55-F-88, Lancaster County, NE

Dear Mr. Dearthmont:

Please make reference to your correspondences dating from February 27, 2012 to June 21, 2012 and the site visit on April 23, 2012. This letter is in response to your request for a review of this project's potential impacts to endangered and threatened species in Lancaster County, Nebraska. As we understand it, the project involves replacing a bridge, raising and widening the road, and other associated activities as outlined in the documents provided. The Nebraska Game and Parks Commission has responsibility for protecting endangered and threatened species under authority of the Nongame and Endangered Species Conservation Act (Neb. Rev. Stat. § 37-801 to 37-811) (NESCA). We have reviewed the project pursuant to NESCA and offer the following comments.

This project is within the range of the state and federally listed endangered Salt Creek tiger beetle (*Cicindela nevadica lincolniana*); the state listed endangered saltwort (*Salicornia rubra*); and the state and federally listed threatened western prairie fringed orchid (*Platanthera praeclara*). As outlined in the June 21, 2012 letter, Lancaster County has agreed to implement and/or incorporate conservation conditions into the contract in order to avoid adverse impacts to state and federally listed endangered or threatened species, migratory birds, and bald and golden eagles. In addition, a wetland delineation has been conducted and Lancaster County will coordinate with the U. S. Army Corps of Engineers (USACE) in order to obtain a 404 Permit and to mitigate impacts to wetlands as required.

Based on this information, it is unlikely this project will adversely impact state listed endangered or threatened species and we have no objection to the proposal as planned. If the proposed project is changed or new information regarding endangered or threatened species becomes available, then we recommend resubmitting the project for further review. This information is being provided based on a review of the material you sent, the site visit, aerial photographs, topographic maps, the Nebraska Natural Heritage Database, and the agreement to implement/incorporate the conservation conditions as proposed in the June 21, 2012 letter.

See You Out There

www.OutdoorNebraska.org

All federally listed endangered or threatened species are also state listed. As you know, Mr. Robert Harms, Nebraska Field Office, U.S. Fish and Wildlife Service, will provide comments regarding potential impacts on wildlife protected under federal laws, including federally listed, candidate or proposed endangered or threatened species.

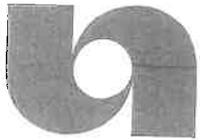
Thank you for the opportunity to comment. If you have any questions or need additional information, please feel free to contact me at (402) 471-5438 or michelle.koch@nebraska.gov.

Sincerely,

A handwritten signature in cursive script that reads "Michelle R Koch".

Michelle R. Koch
Environmental Analyst Supervisor
Environmental Services Division
Nebraska Game and Parks Commission

CC: USFWS (John Cochnar, Robert Harms)
NGPC (Rick Eades, Carey Grell, Ted LaGrange)
USACE (John Moeschen)



University of
Nebraska
Lincoln

Institute of Agriculture and Natural Resources

Department of Entomology
202 Plant Industry Building
East Campus
P.O. Box 830816
Lincoln, NE 68583-0816
(402) 472-2123
Fax (402) 472-4687
Web Site: <http://entomology.unl.edu>



24 May 2002

Virgil Dearthmont
Lancaster Co. Eng. Dept.
444 Cherry Creek Rd.
Lincoln, NE 68528

RECEIVED
MAY 29 2002
LANCASTER COUNTY
ENGINEERING DEPT.

Dear Virgil:

This letter confirms that Stephen Spomer and William Allgeier looked at the two sites where new bridges will be installed (where Little Salt Creek crosses N. 14th St. and where Little Salt Creek crosses Raymond Road). The potential for populations of the Salt Creek tiger beetle at these sites was examined and determined that the Raymond Rd. sites should be re-examined in June when the Salt Creek tiger beetle will be active. The N. 14th St. site did not appear to have potential for Salt Creek tiger beetle populations.

Sincerely,

Stephen Spomer
Dept. of Entomology
University of Nebraska

*C-91 Needs To Be Re-Examined
F-88 OK No Tiger Beetle Habitat.*

Appendix F
Floodplain Map and Permits

Building & Safety Department

City of Lincoln - Lancaster County

402-441-7521

County Flood Plain Permi

APPLICANT LANCASTER COUNTY ENGINEERING 12/10/2012 Phone: 441-7681 VIRGIL
DEARMONT

444 CHERRY CREEK RD BLDG C

LINCOLN NE 68528

License: BC1085

ENGINEER LANCASTER COUNTY ENGINEERING 12/10/2012 Phone: 441-7681 VIRGIL
DEARMONT

444 CHERRY CREEK RD BLDG C

LINCOLN NE 68528

License: BC1085

OWNER LANCASTER COUNTY 12/10/2012

PERMIT #: FPC12016

STATUS: ISSUED

APPLIED: 12/10/2012

APPROVED: 12/18/2012

JOB ADDRESS: 12813 N 14TH ST LC

Location:

LEGAL DESC:

WORK DESCRIPTION:

125' 3-SPAN CONCRETE SLAB BRIDGE W/DOWNSTREAM WEIR AND ROADWAY GRADING

Description	Tot Fee	Paid
-----	-----	-----
All other Dev. & Improve	250.00	250.00

TOTAL FEES: \$250.00

TOTAL PAID: \$250.00

BALANCE DUE: \$0.00

Make payment to:

Building & Safety Department

Rm 203, 555 S 10TH ST

LINCOLN NE 68508-3995



LANCASTER COUNTY
ENGINEERING DEPT.
DEC 10 2012
RECEIVED

906 South 26th Street | Lincoln, NE 68510 | Phone: 402.483.5466 | Fax: 402.483.1722 | www.speecelewis.com

December 7, 2012

Mr. Terry Kathe
Building & Safety
City County Building
555 South 10th Street, Suite 203
Lincoln, NE 68508

RE: Flood Plain Permit for Lancaster County Bridge Replacement Project
Structure F-88 located between Sec. 11/12-T11N-R6E
Raymond Southeast, C55-F-88

Dear Mr. Stertz:

Enclosed is an application for a Floodplain Development Permit. The proposed structure will be a 125' 3-span prestressed concrete slab bridge with a 40' clear roadway. The structure will be located on North 14th Street, between Waverly Road and Mill Road, over Little Salt Creek. The existing structure is a 80' single span bridge. The existing bridge has a 26' clear roadway. The proposed structure has been designed to resist all hydrostatic and hydrodynamic loads and buoyancy. This letter is to certify that the above referenced project will result in no increase in the floodplain water surface elevation.

	<u>Existing</u>	<u>Proposed</u>
Downstream 100 year water surface	1162.89'	1162.84'
Upstream 100 year water surface	1166.85'	1164.39'
Bridge elevation (minimum)	1167.04'	1168.01'

The above elevations are referenced to NAVD 1988, although the plans were designed to NGVD 1929. Enclosed are 3 sets of plans for review, a copy of the Section 404 permit, a copy of the NOI, and the \$250.00 permit fee.

If you have any questions, please give me a call.

Sincerely,

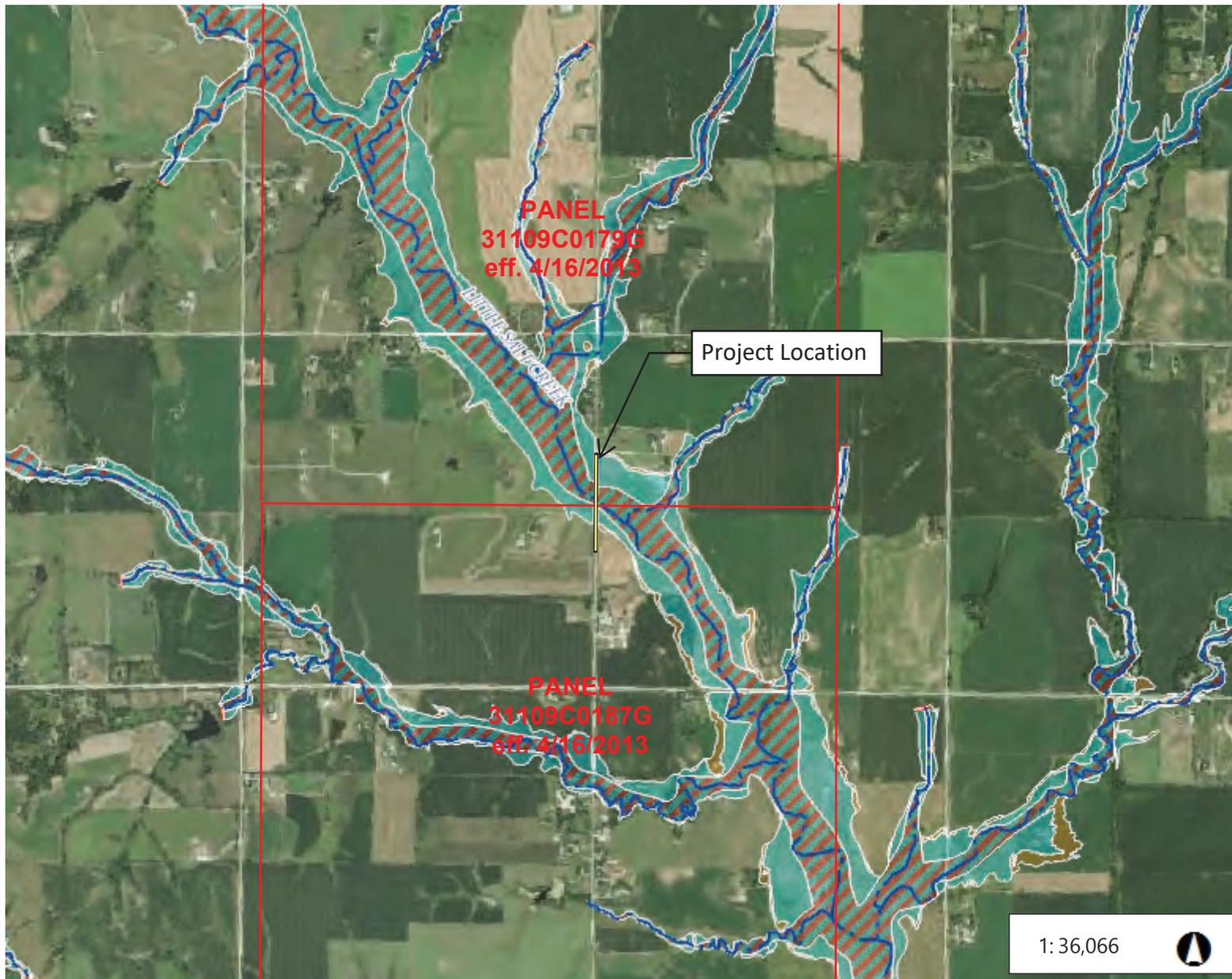
SPEECE-LEWIS ENGINEERS

John J. Dolson, P.E.

TF/la

Cc: Virgil Dearmont, Lancaster County Engineering

LA12-03



Legend

- Streams
- Flood Hazard Zones**
- 1% Annual Chance Flood Hazard
(aka 100-year floodplain)
- Regulatory Floodway
- Special Floodway
- Area of Undetermined Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Future Conditions 1% Annual Chance
Flood Hazard
- Area with Reduced Risk Due to Levee

1.1 0 0.57 1.1 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

World Imagery
World Street Map

Appendix G
Farmland Memo

From: [Dominy, Neil - NRCS, Lincoln, NE](#)
To: [Jessica.Jurzenski](#)
Subject: Raymond Southeast Bridge Replacement - FPPA request
Date: Wednesday, October 24, 2018 3:11:49 PM
Attachments: [F-88_CPA106_NRCScorridor_22Oct2018.pdf](#)

Subject: FPPA response for: Raymond Southeast Bridge Replacement

Date: 10/24/2018

ATTENTION: Jessica Jurzenski – Environmental Scientist Felsburg Holt & Ullevig

I have reviewed the project information regarding the Raymond Southeast Bridge Replacement in Lancaster County, Nebraska for which you requested review of impacts to prime and important farmlands as per the Farmland Protection Policy Act (FPPA). This review only covers FPPA concerns and does not include any other environmental concerns such as wetlands or endangered species. For general conservation concerns or questions relating to wetlands under the jurisdiction of the Food Security Act, contact your county Natural Resources Conservation Service office.

The AD-1006 which you submitted to our office shows that your Part VI section assessment point total is 50. The AD-1006 Farmland Conversion Impact Rating form is based on a point system that has 160 points set as the minimum number of “Total Points” that triggers additional in-depth site reviews. The NRCS evaluation portion Part V is on a scale of 0 to 100 points. In the case with this project, the “Total Points” equate to 127. Thus, NRCS has determined that your project was found to be cleared of FPPA significant concerns. We encourage you to continue to be aware of prime and important farmlands in general and the role they play in current and future projects. I am returning the AD-1006 form to you for your records.

Neil Dominy
USDA -NRCS
State Soil Scientist
402-437-4113

This electronic message contains information generated by the USDA solely for the intended recipients. Any unauthorized interception of this message or the use or disclosure of the information it contains may violate the law and subject the violator to civil or criminal penalties. If you believe you have received this message in error, please notify the sender and delete the email immediately.

**FARMLAND CONVERSION IMPACT RATING
FOR CORRIDOR TYPE PROJECTS**

PART I (To be completed by Federal Agency)	3. Date of Land Evaluation Request 10/22/18	4. Sheet 1 of <u>1</u>
---	--	------------------------

1. Name of Project Raymond Southeast Bridge Replacment	5. Federal Agency Involved U.S. Fish & Wildlife Service
2. Type of Project Bridge Replacment	6. County and State Lancaster County, Nebraska

PART II (To be completed by NRCS)		1. Date Request Received by NRCS 10/22/18	2. Person Completing Form Dominy
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		4. Acres Irrigated 1219	Average Farm Size 239819
5. Major Crop(s) Corn	6. Farmable Land in Government Jurisdiction Acres: _____ % _____	7. Amount of Farmland As Defined in FPPA Acres: _____ % _____	
8. Name Of Land Evaluation System Used National Commodity Crop Productivity Indi	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS	

PART III (To be completed by Federal Agency)	Alternative Corridor For Segment			
	Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly	2			
B. Total Acres To Be Converted Indirectly, Or To Receive Services	2			
C. Total Acres In Corridor	3	0	0	0

PART IV (To be completed by NRCS) Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	1			
B. Total Acres Statewide And Local Important Farmland	1			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value				

PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)	77			
--	----	--	--	--

PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))	Maximum Points				
1. Area in Nonurban Use	15	15			
2. Perimeter in Nonurban Use	10	10			
3. Percent Of Corridor Being Farmed	20	10			
4. Protection Provided By State And Local Government	20	0			
5. Size of Present Farm Unit Compared To Average	10	0			
6. Creation Of Nonfarmable Farmland	25	0			
7. Availability Of Farm Support Services	5	5			
8. On-Farm Investments	20	10			
9. Effects Of Conversion On Farm Support Services	25	0			
10. Compatibility With Existing Agricultural Use	10	0			
TOTAL CORRIDOR ASSESSMENT POINTS	160	50	0	0	0

PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)	100	77			
Total Corridor Assessment (From Part VI above or a local site assessment)	160	50	0	0	0
TOTAL POINTS (Total of above 2 lines)	260	127	0	0	0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>
-----------------------	---	-----------------------	--

5. Reason For Selection:

Signature of Person Completing this Part: Jessica Jurzenski	DATE 10/22/18
---	-------------------------

NOTE: Complete a form for each segment with more than one Alternate Corridor

Appendix H
Hazardous Materials Limited Phase I ESA



Limited Phase I Environmental Site Assessment

Wetland Reserve Program Easement Modification: For Raymond Southeast Bridge Replacement Project

Lancaster County, Nebraska

Prepared For:

Natural Resources Conservation Service
Rm 152, Federal Building
100 Centennial Mall North
Lincoln, NE 68508-3866

and

Lancaster County Engineering
444 Cherrycreek Road, Building C
Lincoln, NE 68528

Prepared By:

Felsburg Holt & Ullevig
321 South 9th Street
Lincoln, NE 68508

FHU Project No.:

118276-01

January 15, 2019

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- APPENDIX A Pertinent file
- APPENDIX B Historical Aerials
- APPENDIX C EDR Radius Map Report

Executive Summary

Felsburg Holt and Ullevig (FHU), acting on behalf of the Client, Lancaster County, completed a Limited Phase I Environmental Site Assessment (ESA) on two sites owned by Pheasants Forever Inc. for the Wetland Reserve Program Easement Modification for the Raymond South Bridge Replacement Project. The bridge replacement project is located along North 14th Street in Lancaster County, Nebraska. The two sites reviewed in this Limited Phase I ESA are located northwest of bridge replacement project on Parcel 1211200017000 (Helmuth Marsh). The easement modification (conversion) site is 0.59 acres. The easement mitigation site (replacement) is 1.25 acres.

FHU evaluated for recognized environmental conditions (RECs) by reviewing maps and literature, environmental records available from local, state, and federal government agencies, and aerial photography.

Based on the Limited Phase I ESA findings, no RECs, historical recognized environmental conditions (HRECs), or controlled recognized environmental conditions (CRECs) were identified within the search radius.

Data Gaps

Conclusions identified within this report are based on the readily available and ascertainable information within the scope, schedule, and budgetary constraints applying to the work at the time it was performed. Data gaps include time gaps of more than five years in the historical data. However, based on the information available and that no considerable changes in land use have occurred, the data gap is not considered significant. Per the project scope of services, a site reconnaissance was not completed specifically for the purposes of this Limited Phase I ESA. Additionally, per the scope of services, no interview with the landowner or operator was conducted.

1.0 Introduction

Felsburg Holt and Ullevig (FHU), acting on behalf of the Client, Lancaster County, completed a Limited Phase I Environmental Site Assessment (ESA) on two sites owned by Pheasants Forever Inc. for the Wetland Reserve Program Easement Modification for the Raymond South Bridge Replacement Project. The bridge replacement project is located along North 14th Street in Lancaster County, Nebraska (**Figure 1**). The two sites reviewed in this Limited Phase I ESA are located northwest of the bridge replacement project on Parcel 1211200017000 (Helmuth Marsh).

The two sites:

- 1) Easement modification (conversion) – 0.59 acres of the 119-acre Helmuth Marsh Pheasants Forever, Inc. property, 0.30 acres for right-of-way (ROW) and 0.29 acres for easements, is required by Lancaster County for the project (**Figure 2**). The easement modification (conversion) site is undeveloped grassland and is in a Wetland Reserve Program (WRP) easement;
- 2) Easement mitigation (replacement) – Easement mitigation (replacement) is needed due to the conversion of the existing WRP easement to a roadway use. Easement mitigation (replacement) must be of equal or greater size; economic value; and conservation values and functions. It is proposed the converted 0.59 acres be replaced with 1.25 acres of the 119-acre Helmuth Marsh and transferred to the WRP easement (**Figure 2**). The 1.25 acres utilized for mitigation is undeveloped grassland.

FHU evaluated for recognized environmental conditions (RECs) by reviewing maps and literature, environmental records available from local, state, and federal government agencies, and aerial photography.

1.1 Purpose

At the request of the Client, FHU conducted a Limited Phase I ESA on the two sites. This Limited Phase I ESA was performed in support of Lancaster County's environmental documentation and completed in general conformance with the American Society for Testing and Materials (ASTM) Practice E1527-13 (ASTM, 2013).

The sites are currently owned by Pheasants Forever, Inc. The work was performed to support the modification and replacement process of a WRP easement, and this report presents the results of the Phase I ESA for those sites.

The purpose of this Phase I ESA was to identify, to the extent feasible, recognized environmental conditions (RECs) in general accordance with ASTM E1527-13.

A REC is defined as: *“The presence or likely presence of any hazardous substances or petroleum products in, on, or at a property; (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not recognized environmental conditions.”*

A Historical REC (HREC) is defined as: *“A past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a historical recognized environmental condition (HREC), the environmental professional must determine whether the past release is a recognized environmental condition at the time the Phase I Environmental Site Assessment is conducted (for example, if there has been a change in the regulatory criteria). If the EP considers the past release to be a recognized environmental condition at the time the Phase I ESA is conducted, the condition shall be included in the conclusions section of the report as a REC.”*

A Controlled REC (CREC) is defined as: “A REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (or example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). A condition considered by the environmental professional to be a CREC shall be listed in the finding section of the Phase I ESA report, and as a REC in the conclusions section of the Phase I ESA.”

REC, HREC, and CREC are not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be subject of an enforcement action if brought to the attention of appropriate government agencies.

Limited Phase I Environmental Site Assessment
WRP Easement Modification

Figure 1. Phase I Vicinity Map

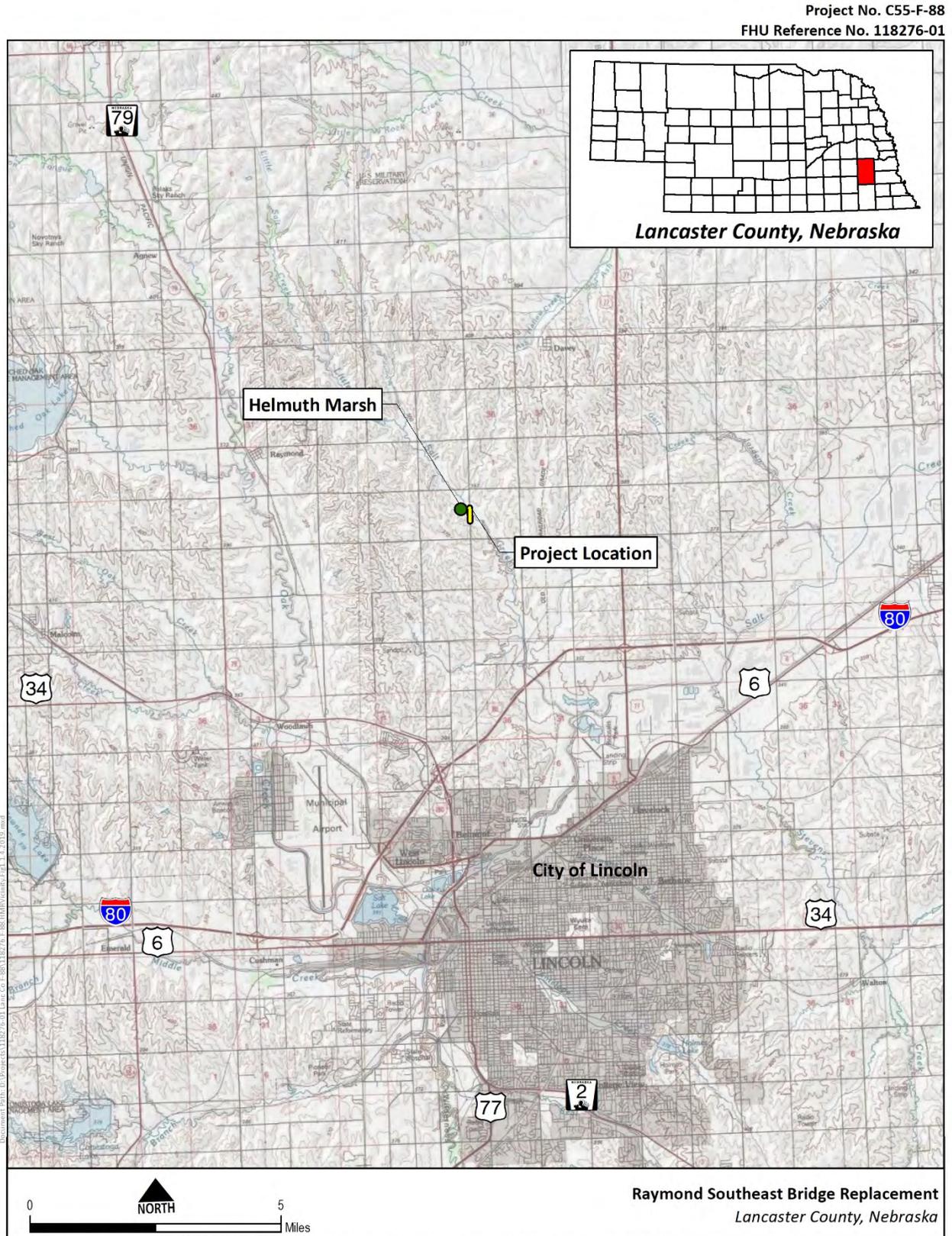


Figure 2. Easement modification and easement mitigation on Helmuth Marsh.

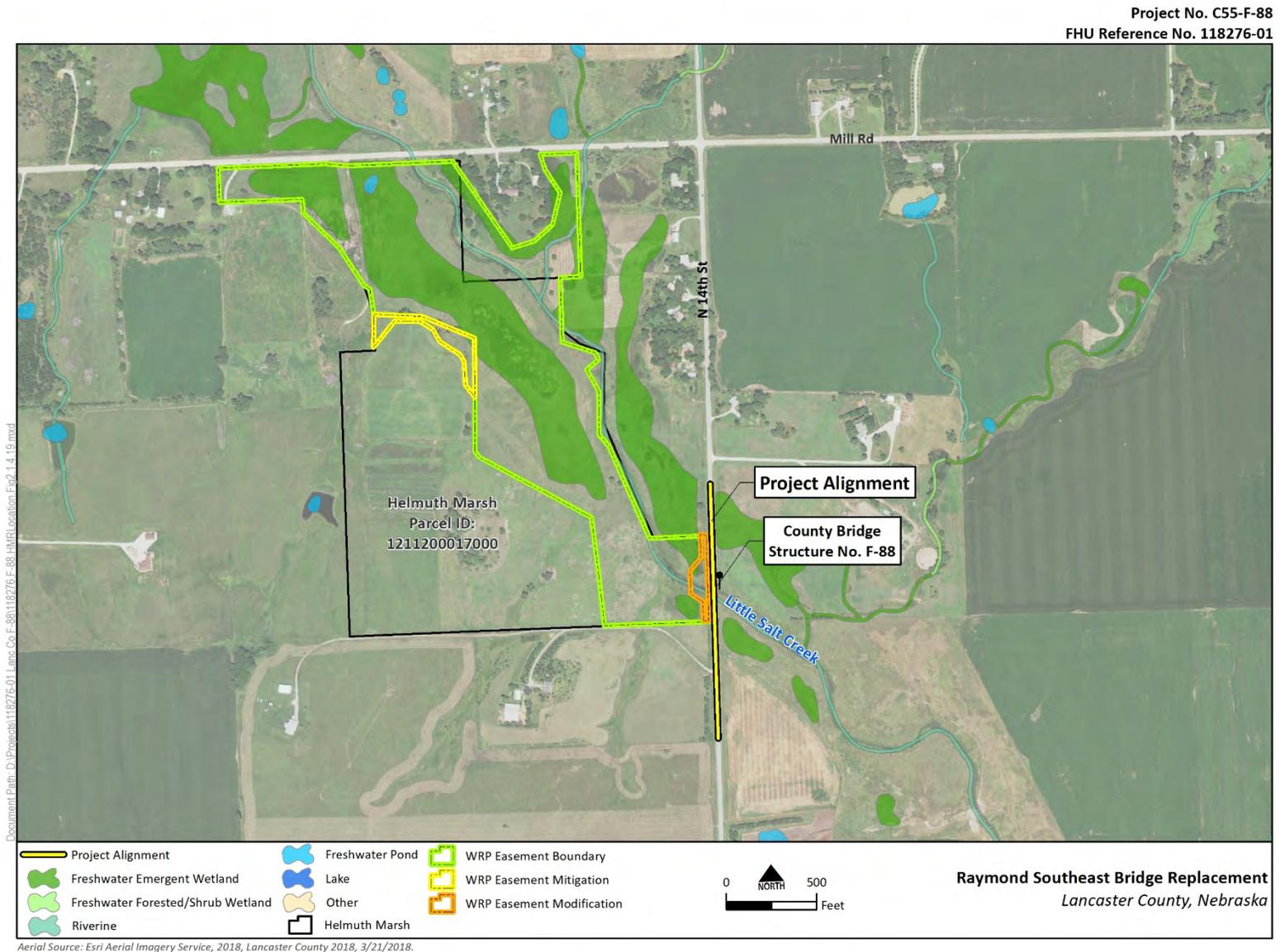
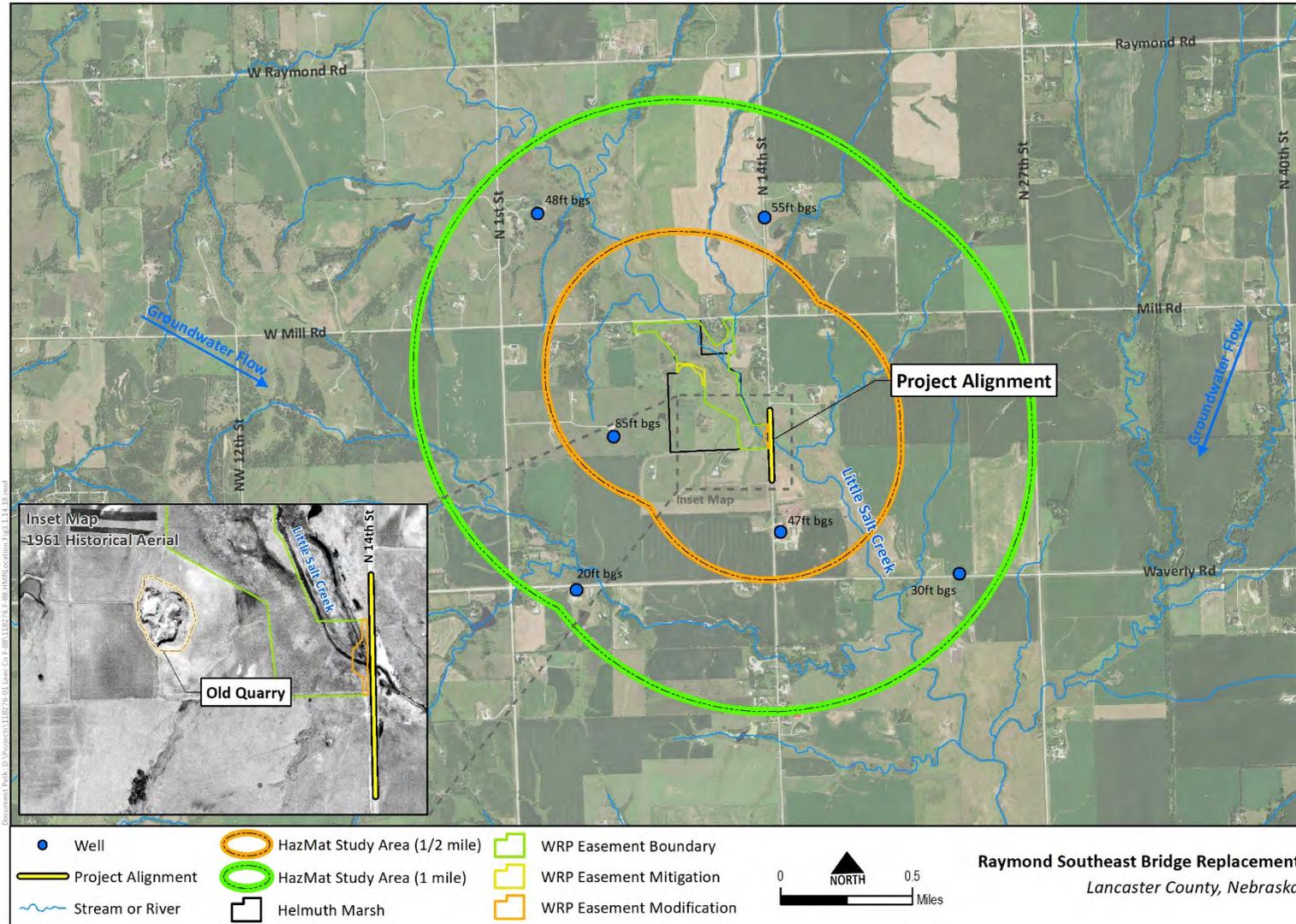


Figure 3. One mile and one-half mile search radii.

Project No. C55-F-88
FHU Reference No. 118276-01



1.2 Detailed Scope of Services

FHU performed this work for the sole purpose of assisting in the identification of RECs associated with the sites (defined above in **Section 1.1**). The scope of work commissioned for this project does not represent an exhaustive study, but rather a reasonable inquiry, consistent with good commercial practice and in general accordance with ASTM E1527-13 and EPA Standards and Practices for All Appropriate Inquiries (AAI) (40 CFR Part 312). Limitations and Exceptions to the ASTM methodology are presented in **Section 1.4**. The ASTM E1527-13 standard “...is intended to permit a user to satisfy one of the requirements to qualify for the innocent landowner defense to Comprehensive Environmental Response Compensation and Liability Act (CERCLA) liability.” Additionally, ASTM standards and AAI indicate the shelf life for certain inquiries to be 180 days prior to the property acquisition date. All appropriate inquiries must be conducted or updated within one year prior to the date of acquisition of a property.

The methodology to assess the presence of RECs included the following steps:

- ▶ Review of readily available standard historical sources, such as aerial photographs and US Geological Survey (USGS) topographic maps to identify historical uses of the sites;
- ▶ Review of readily available local, state, and federal environmental agency databases as dictated by ASTM Standard E1527-13 (ASTM 2013) and AAI (40 CFR Part 312) (EPA 2005);
- ▶ Review of Nebraska Department of Environmental Quality (NDEQ) records, and other readily available records from local, state, and federal agency records for the sites and surrounding areas; and,
- ▶ Identification of properties requiring additional evaluation or investigation to assist in right-of-way acquisition.

FHU conducted its study in a manner consistent with generally accepted industry practice and believes that the information contained in this report is true and accurate, within the limitations and exceptions set out in Section 1.4. All findings, opinions, and conclusion stated in this report are based on facts and circumstances as they existed during the file review in December 2018 – January 2019, and as such, they are not necessarily indicative of future conditions at the site.

1.3 Significant Assumptions

Significant assumptions are made as part of identifying RECs based on the records review (i.e. regulatory file records). Information collected from these sources was assumed to be correct and has not been independently verified by FHU. Where records indicate prior remedial work or tank removals have occurred, there is a risk the work may not have been performed correctly or completely. In these cases, if the regulatory agency has approved the closure of the tank or other work completed, FHU has assumed the work was done correctly and completely.

1.4 Limitations and Exceptions

FHU’s assessment and findings presented herein are based upon a review of reasonably ascertainable standard record resources.

This Limited Phase I ESA was non-intrusive. The sites were not visually inspected and sampling of soils, groundwater, and/or surface waters was beyond the scope of this Limited Phase I ESA. Other environmental liabilities to a property owner, such as the presence of asbestos-containing materials, radon, or lead-based paint were also beyond the scope of investigation for this Limited Phase I ESA. The presence or absence of such conditions cannot be confirmed without additional investigation.

I.5 Disclaimer

This Limited Phase I ESA does not guarantee environmental contamination does not exist on locations adjacent to the sites beyond that described at the time of writing this report. Therefore, conclusions presented herein are not necessarily indicative of future conditions or operating practices surrounding the sites. No warranties, expressed or implied, are made. All conclusions and recommendations represent the professional opinions of the FHU personnel involved with the Limited Phase I ESA and the results should not be considered a legal interpretation of existing environmental conditions.

I.6 User Reliance

This Limited Phase I ESA was prepared for Lancaster County for their sole use and reliance. Reliance on this report by any other person(s) or entity(ies) is strictly at their own risk, and FHU makes no warranties to person(s) or entity(ies) other than Lancaster County, who use the information provided in this report. If any other person(s) or entity(ies) wish to rely on this report, FHU will require such parties agree to our contract terms in writing.

2.0 Site Description

2.1 Location

The two sites are located in Lancaster County, Nebraska. See **Figures 1** and **2**. Both sites are on Parcel 1211200017000.

- a) Easement modification (0.59 acres), SE $\frac{1}{4}$, SE $\frac{1}{4}$ Section 11, Township 11 North, Range 6 East.
- b) Easement mitigation (1.25 acres), SE $\frac{1}{4}$, NW $\frac{1}{4}$ Section 11, Township 11 N, Range 6 East.

2.2 Site Setting and General Vicinity Characteristics

The sites are located on North 14th Street between Waverly Road and Mill Road in Lancaster County, Nebraska.

2.2.1 Topography and Hydrology

The United States Geological Survey (USGS) topographic maps indicate the regional groundwater flow would generally be south southeast parallel to Salt Creek.

Based on the reviewed regulatory records and reported static water levels of registered wells near the sites, the estimated depth to groundwater is 20 – 85 feet (NDNR 2018). Construction excavation near the easement modification site is anticipated to be approximately eight feet.

2.2.2 Geology

Regional geology is characterized by the Dakota Group of the Early Cretaceous (USGS 2018) including shale and sandstone formations. Soil types found on the US Department of Agricultural (USDA) Soil Conservation Service survey maps include Salmo silt loam, Salmo silty clay loam, Aksarben silty clay loam, Judson silt loam, Morrill clay loam, and Pawnee clay loam.

Confirmation of the geology and groundwater flow beneath the sites was beyond the scope of this Limited Phase I ESA.

2.3 Current Use of the Sites

The sites are undeveloped land currently owned by Pheasants Forever, Inc. and operated by Nebraska Game and Parks Commission as a Wildlife Management Area allowing deer, dove, pheasant, quail, rabbit, and squirrel hunting with nontoxic shot only. Target shooting is prohibited.

2.4 Current Uses of Surrounding Areas

The areas surrounding the sites include roadway right-of-way (14th Street and Mill Road), farmland, and rural residences.

3.0 Records Review

The following sections summarize the results of the:

- 1) site history/historical records review and
- 2) regulatory database review.

3.1 Historical Use Information

To evaluate the past uses of the parcels, FHU performed a historical records review of aerial photographs and USGS topographic maps as outlined in **Table 1**.

Table 1 Summary of Historical Records Reviewed

Source of Information	Years Reviewed
Sanborn Fire Insurance Maps	No Coverage
Aerial Photograph(s) (Historical Aerials 2019, Google Earth 2019)	1961, 1972, 1993, 1999, 2004, 2009, 2014, 2018
Aerial Photograph (Upper Little Salt Creek Saline Wetlands Plan)	1949
USGS Topographic Maps	1966, 1978

The general vicinity is farmland and undeveloped land, including the two subject sites, which show no development since 1961. The general vicinity has historically been either farmland or undeveloped land, except for evidence of an old quarry formerly located in the south-central area of the Helmuth property (see **Figure 3**). The quarry is evident on the 1949 aerial photograph and somewhat on the 1961 aerial photograph as being devoid of vegetation. The imprint of the former quarry is evident on the subsequent aerial photographs as a wooded area unused for agricultural purpose. Topographic data of the property also shows evidence of the quarry on the Helmuth property. The 1966 topographic map labeled the area as a “sand pit”. The former quarry is located topographically down-gradient of the mitigation site and cross-gradient of the modification site; and is outside the WRP easement mitigation and modification boundaries. Based on this information, the former quarry does not appear to represent an HREC at this time.

Sometime between 2010 and 2012 the residence (house and barn) west of the easement mitigation was demolished.

3.2 Environmental Database Records Review

FHU contracted Environmental Data Resources, Inc. (EDR) to conduct a database search of local, state, and federal environmental records for information relating to sites extending up to 1.0 mile from the sites, as dictated by the ASTM Standard E1527-13 (**Table 2**). FHU also cross-referenced the EDR Radius Map Report with the NDEQ database. The EDR report is included in **Appendix A**.

Table 2 indicates the required search databases and radii to be evaluated based on the type of site or release, expected groundwater flow, and the proximity of the site or release to the sites.

Table 2 Environmental Database Search

Database	Approximate Minimum Search Distance (mile)	Number of Sites Identified
Federal National Priorities List (NPL) site list	1.00	0
Federal delisted CERCLA NPL site list	0.50	0
Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) and Federal CERCLIS No Further Remedial Action Planned (NFRAP) site list	0.50	0
Federal Resource Conservation and Recovery Act (RCRA) corrective action (CORRACTS) facilities list	1.00	0
Federal RCRA treatment, storage, or disposal (TSD) facilities	0.50	0
Federal RCRA generators list	0.25	0
Federal institutional control/engineering control registries	0.50	0
Federal/State emergency response notification system (ERNS) list	0.25	0
State and tribal landfill (LF) and/or solid waste disposal facility (SWF) site lists	0.50	0
State and tribal leaking storage tank (LUST) site lists	0.50	1
State and tribal registered above ground storage tank (AST) and underground storage tank (UST) site lists	0.25	0
State and tribal institutional control/engineering control registries	0.25	0
State and tribal voluntary cleanup (VCP) sites	0.50	0
Federal, state and tribal Brownfield sites	0.50	0
Methamphetamine labs	0.25	0

A private residence (Marlene Forke) was listed in the EDR report under the leaking underground storage (LUST) database. The EDR report has the address as 1800 S Mill Road, Waverly, NE, and shows the State Fire Marshall (SFM) tank number as 5215. The EDR report describes the facility as discovered in 1992 with its status as No Further Action (incident closed). The SFM lists the address for tank number 5215 as 18005 Mill Road, Waverly, NE, and designates the name as Mar-Bill Farm/Marlene Forke. No details of the tank are shown on the SFM list (in use, out of use, closed-in-place, tanks removed). The NDEQ site lists SFM tank number 5215 as NDEQ file number 76769 at Mill Road, Greenwood, NE, as the Mar-Bill Farm. The NDEQ site lists the LUST designation as inactive. The EDR report listed the tank in the wrong location based on NDEQ records; therefore, based on its distance from the two subject sites (>11 miles) the private residence is not considered an HREC (NDEQ personal communication **Appendix B**).

3.3 Title Records

A title search was conducted back to 1992. The WRP Warranty Easement Deed was executed in 2004. Helmuth Marsh was purchased by Pheasants Forever in 2010 from Don Helmuth. There are no known environmental liens or activity use limitations on either property.

3.4 Local Agency Interviews

Lancaster County Emergency Management was contacted regarding the two subject sites on January 3, 2019. Mr. Davidsaver, Emergency Management Director, responded on January 7th and stated, “Lincoln-Lancaster County Emergency Management has no files concerning any emergency response, responses due to hazardous materials, petroleum products or spills, storage of hazardous materials or petroleum products, septic systems or wastewater treatment facilities, water wells, or any other environmental concern at these locations. My review did not locate any other county or city agency files that would lead me to believe there are other environmental concerns at this location”.

Lancaster County Health Department Director was contacted regarding the two subject sites on January 3, 2019. Mr. Martin, Sr. Environmental Health Specialist, responded January 7th and stated, “The Lincoln-Lancaster County Health Department (LLCHD) has no files related to emergency responses, responses due to hazardous materials, petroleum products or spills, storage of hazardous materials or petroleum products, septic systems or wastewater treatment facilities, water wells, or any other environmental concern at the location provided. I also did not identify any other City agency files that would lead me to believe there are environmental concerns at this site”.

No RECs were identified from the public agency interviews.

4.0 ESA Findings and Opinions

The findings and opinions presented in this section are the result of the Limited Phase I ESA performed by FHU for two sites in Lancaster County. The two sites are anticipated to be included in an easement modification and easement mitigation by Pheasants Forever, Inc. for the Raymond South Bridge Replacement Project in Lancaster County, Nebraska. FHU evaluated for RECs by reviewing maps and literature, environmental records available from local, state, and federal government agencies, and aerial photography.

This section presents the findings and opinions related to the sites and surrounding areas of the known or suspected environmental conditions identified. The information obtained from the database review, records search, and local agency interviews was used to determine whether an environmental condition was considered a REC.

An environmental condition is considered to be a REC if one of the following conditions was met:

- ▶ Documented release that had not been formally closed with the appropriate regulatory authority;
- ▶ Visual evidence of a release or material threat of a potential release;
- ▶ Evidence of a potential release based on the interviews;
- ▶ Potential or suspected release based on typical historical operations.

Specific opinions relative to each potential environmental condition are stated in the preceding sections of this report. Current findings and additional opinions are as follows.

4.1 Current RECs

No RECs were identified within the search radii.

4.2 Historical RECs

No HRECs were identified within the search radii.

4.3 Controlled RECs

No CRECs were identified within the search radii.

4.4 Data Gaps and Deviations

Conclusions identified within this report are based on the readily available and ascertainable information within the scope, schedule, and budgetary constraints applying to the work at the time it was performed. Data gaps include time gaps of more than five years in the historical data. However, based on the information available and that no considerable changes in land use have occurred, the data gap is not considered significant. Per the project scope of services, a site reconnaissance was not completed specifically for the purposes of this Limited Phase I ESA. Additionally, per the scope of services, no interview with the landowner or operator was conducted.

5.0 Conclusions

FHU performed a Limited Phase I ESA, in general conformance with the scope and limitations of ASTM E1527-13, for the two subject sites owned by Pheasants Forever, Inc. in Lancaster County, Nebraska. Any exceptions to or deletions from this practice are described in Section 1.2 through Section 1.5, and Section 3.3. This assessment has revealed no RECs, HRECs, or CRECs with the two subject sites designated for easement modification and easement mitigation.

6.0 References

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EPA. 2005. 40 CFR Part 312. Standards and Practices for All Appropriate Inquiries.

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7.0 Signature of Environmental Professionals

I declare that, to the best of our professional knowledge and belief, I either meet the definition of Environmental Professional or conducted portions of the assessment under the supervision or responsible charge of an Environmental Professional, as defined in Section 312.10 of 40 CFR Part 312.

I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject Property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312, as adjusted by the scope of services for this project.



Carin Richardson
Environmental Professional / Document Preparer



Allison R. Sambol
Environmental Professional / QC Reviewer

8.0 Qualifications of Environmental Professionals

Ms. Sambol is an environmental scientist with fifteen years of experience in environmental site assessment/due diligence, subsurface investigation, environmental management, and impact assessment. She has conducted numerous Phase I ESAs according to ASTM E1527 and All Appropriate Inquiry for a variety of industrial, commercial, and agricultural properties, including heavy & light manufacturing facilities; former manufactured gas plants; former missile silos; agricultural sites – particularly grain storage facilities; automotive and heavy machinery maintenance facilities; office buildings; automotive dealerships; and commercial and residential properties. She has also managed Phase II investigations identifying potential subsurface soil and groundwater contamination.

Ms. Richardson is an environmental scientist with over twenty years in environmental consulting and over five years of experience in environmental site assessment/due diligence, environmental management, and impact assessment. She has conducted numerous limited Phase I ESAs according to ASTM E1527 focusing on linear and transportation projects. She has done file, map, and photo reviews; as well as site reconnaissance and report writing.

APPENDIX A Pertinent file

From: [Dulas, Cindy](#)
To: [Carin.Richardson](#)
Subject: RE: 76769 Mar-Bill Farm
Date: Friday, January 4, 2019 8:24:34 AM

Hi Carin - we do have an affiliation for this site but no information. But this is what we have for site location if this helps. Cindy

Last Revised 2015-10-26 By DEQ214

Facility ID 76769

Facility Name Mar-Bill Farm

Responsible Party Jean Ann Rees

Optional Address demolished

Street Address Mill Rd

Directions N&S Sides Mill Rd, E Jct Mill Rd & Hwy 6 at 176th

City Greenwood ST NE Zip 68366

County Lancaster

Operational Status O Operating

Phone Number 402 423 4434 Ext Phone Type Voice

NAICS Code 111998 All Other Miscellaneous Crop Farming

Legal Description NW Section 12 Township N 11 Range E 08

Subdivision Block Lot 24,27

Latitude 40 ° 56 ' 23 " Longitude - 96 ° 28 ' 33 "

Mailing Address 8544 Echo Ct

Lincoln NE 68520

From: Carin.Richardson <carin.richardson@fhueng.com>

Sent: Friday, January 4, 2019 9:04 AM

To: Dulas, Cindy <cindy.dulas@nebraska.gov>

Subject: 76769 Mar-Bill Farm

Hi Cindy,

Please see if you can dig up the **LST** file on **76769 Mar-Bill Farm** for me.

The tank is listed on the State Fire Marshall site as tank 5215. I'm trying to determine its location. I ordered an EDR and it puts the tank 11 miles from where NDEQ thinks the tank was located. 1800 S Mill Road vs 18005 Mill Road.

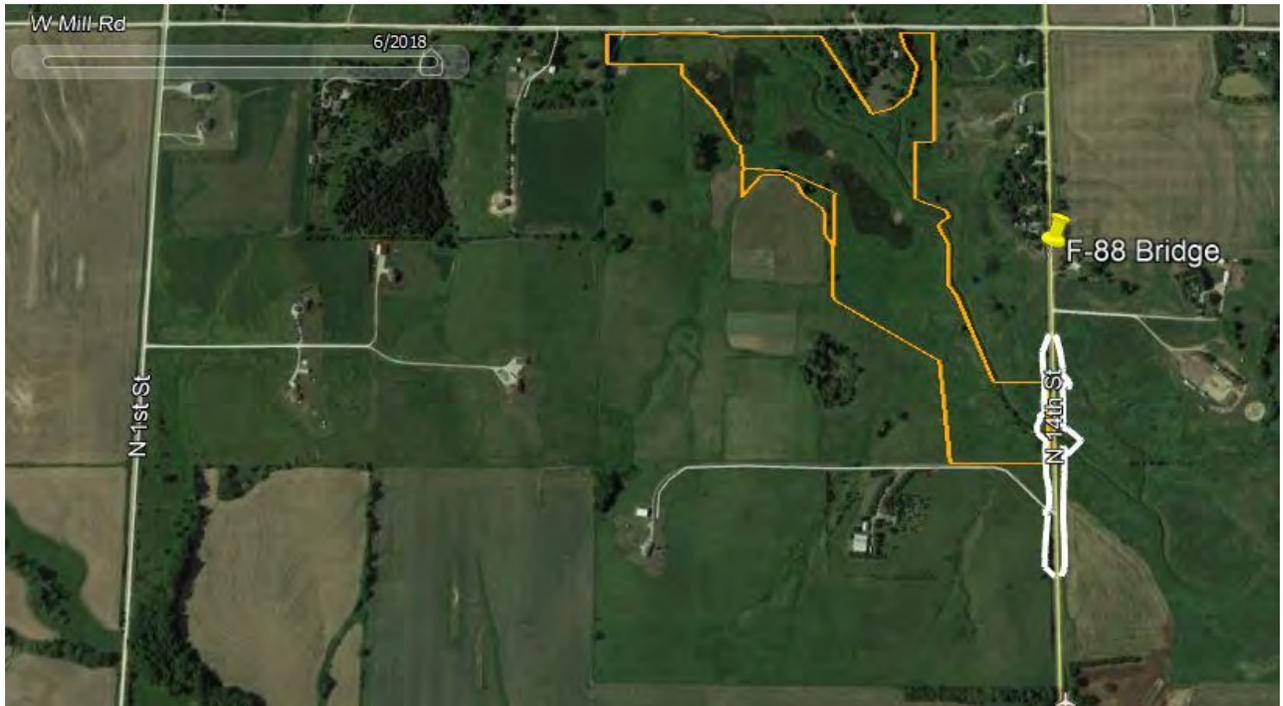
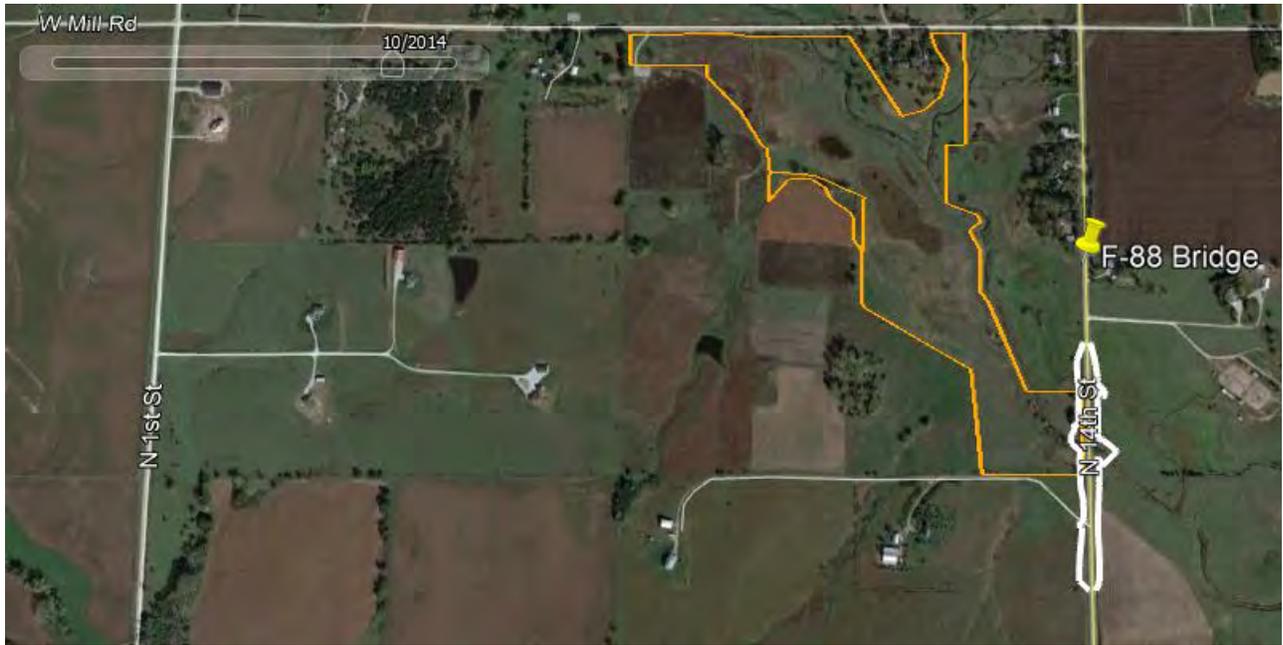
If not too much trouble, I'd like it early next week.

I appreciate the work you do for me!

APPENDIX B Historical Aerials







APPENDIX C EDR Radius Map Report

F-88 Bridge

144th and Mill Rd
Raymond, NE 68428

Inquiry Number: 5520901.2s
December 27, 2018

The EDR Radius Map™ Report



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

GeoCheck - Not Requested

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

144TH AND MILL RD
RAYMOND, NE 68428

COORDINATES

Latitude (North): 40.9400750 - 40° 56' 24.27"
Longitude (West): 96.7052960 - 96° 42' 19.06"
Universal Transverse Mercator: Zone 14
UTM X (Meters): 693175.4
UTM Y (Meters): 4534428.5
Elevation: 1169 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 6716260 DAVEY, NE
Version Date: 2014

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20140904, 20140819
Source: USDA

MAPPED SITES SUMMARY

Target Property Address:
144TH AND MILL RD
RAYMOND, NE 68428

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	FORKE, MARLENE	1800 S. MILL RD.	LUST	Higher	1894, 0.359, ENE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY..... Federal Facility Site Information listing
SEMS..... Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE..... Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-SQG..... RCRA - Small Quantity Generators
RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS..... Land Use Control Information System
US ENG CONTROLS..... Engineering Controls Sites List

EXECUTIVE SUMMARY

US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent CERCLIS

SHWS..... Superfund State Program List

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Licensed Landfill List

State and tribal leaking storage tank lists

LAST..... Leaking Aboveground Storage Tank Sites

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing

UST..... Facility and Tank Data

AST..... Hazardous Chemical AST List

INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

INST CONTROL..... Nebraska's Institutional Control Registry

State and tribal voluntary cleanup sites

VCP..... RAPMA Sites

INDIAN VCP..... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS..... Potential Brownfields Inventory Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY..... Recycling Resource Directory

INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands

ODI..... Open Dump Inventory

DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations

IHS OPEN DUMPS..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... Delisted National Clandestine Laboratory Register

EXECUTIVE SUMMARY

US CDL..... National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

HIST UST..... Underground Storage Tank Database Listing
HIST AST..... Aboveground Storage Tank Database Listing

Local Land Records

LIENS 2..... CERCLA Lien Information

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System
SPILLS..... Surface Spill List
SPILLS 90..... SPILLS 90 data from FirstSearch
SPILLS 80..... SPILLS 80 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR..... RCRA - Non Generators / No Longer Regulated
FUDS..... Formerly Used Defense Sites
DOD..... Department of Defense Sites
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR..... Financial Assurance Information
EPA WATCH LIST..... EPA WATCH LIST
2020 COR ACTION..... 2020 Corrective Action Program List
TSCA..... Toxic Substances Control Act
TRIS..... Toxic Chemical Release Inventory System
SSTS..... Section 7 Tracking Systems
ROD..... Records Of Decision
RMP..... Risk Management Plans
RAATS..... RCRA Administrative Action Tracking System
PRP..... Potentially Responsible Parties
PADS..... PCB Activity Database System
ICIS..... Integrated Compliance Information System
FTTS..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS..... Material Licensing Tracking System
COAL ASH DOE..... Steam-Electric Plant Operation Data
COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER..... PCB Transformer Registration Database
RADINFO..... Radiation Information Database
HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS..... Incident and Accident Data
CONSENT..... Superfund (CERCLA) Consent Decrees
INDIAN RESERV..... Indian Reservations
FUSRAP..... Formerly Utilized Sites Remedial Action Program
UMTRA..... Uranium Mill Tailings Sites
LEAD SMELTERS..... Lead Smelter Sites
US AIRS..... Aerometric Information Retrieval System Facility Subsystem
US MINES..... Mines Master Index File
ABANDONED MINES..... Abandoned Mines
FINDS..... Facility Index System/Facility Registry System
ECHO..... Enforcement & Compliance History Information

EXECUTIVE SUMMARY

UXO.....	Unexploded Ordnance Sites
DOCKET HWC.....	Hazardous Waste Compliance Docket Listing
FUELS PROGRAM.....	EPA Fuels Program Registered Listing
AIRS.....	Air State Program List
ASBESTOS.....	ASBESTOS
DRYCLEANERS.....	Drycleaner Facility Listing
Financial Assurance.....	Financial Assurance Information Listing
NPDES.....	Wastewater Database Listing
TIER 2.....	Tier 2 Facility Listing
UIC.....	Underground Injection Control Database

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP.....	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto.....	EDR Exclusive Historical Auto Stations
EDR Hist Cleaner.....	EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS.....	Recovered Government Archive State Hazardous Waste Facilities List
RGA LUST.....	Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Environmental Control's Spill Tracking Reports.

A review of the LUST list, as provided by EDR, and dated 10/09/2018 has revealed that there is 1 LUST site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
FORKE, MARLENE	1800 S. MILL RD.	ENE 1/4 - 1/2 (0.359 mi.)	1	8

EXECUTIVE SUMMARY

File Number: AP5215

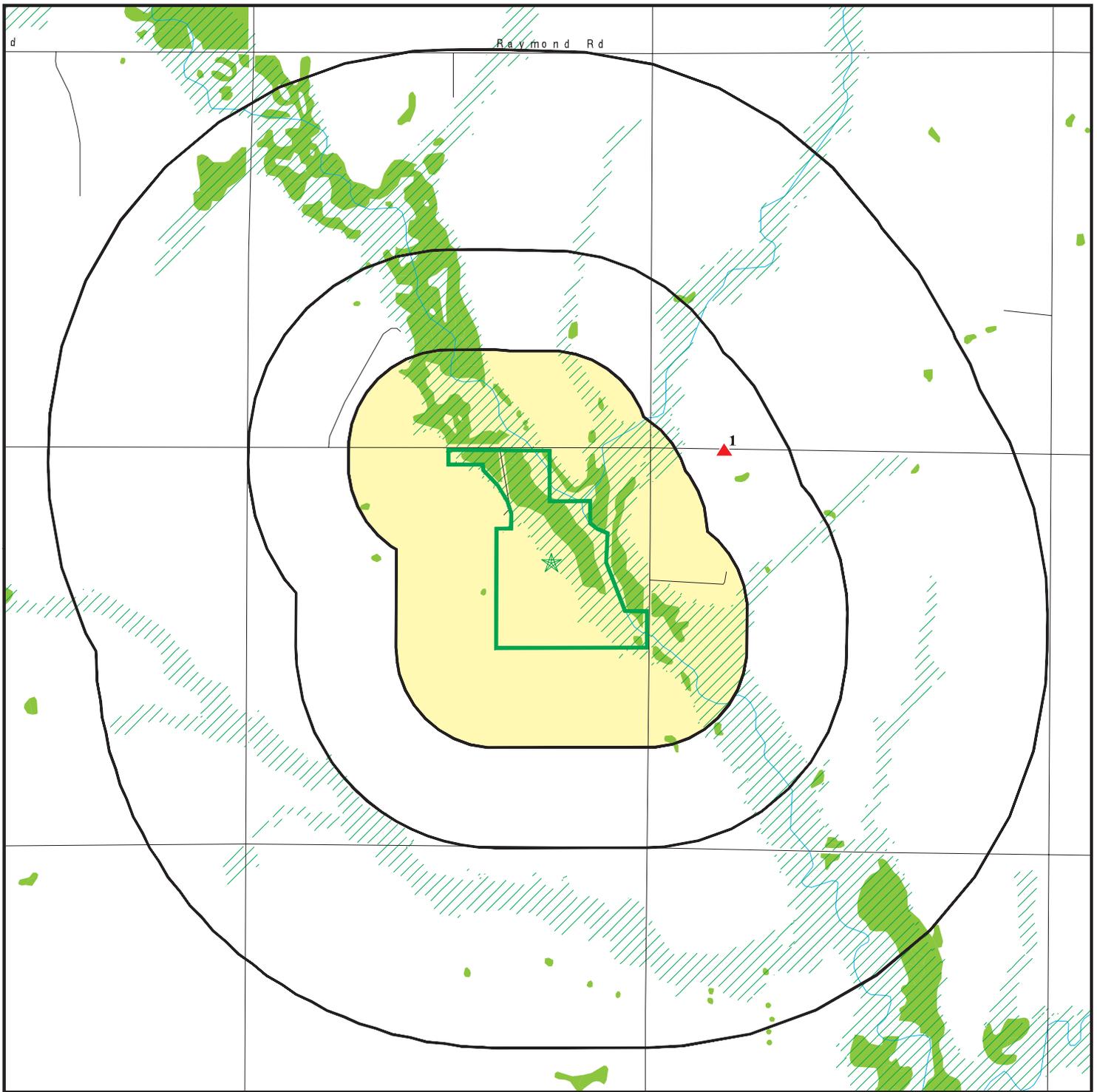
Facility Status: NO FURTHER ACTION (INCIDENT CLOSED)

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 3 records.

<u>Site Name</u>	<u>Database(s)</u>
UNL UTILITY PLANT	LAST
USDA GRAIN BIN	SHWS
14TH & W STREETS PARKING	LUST

OVERVIEW MAP - 5520901.2S



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  National Priority List Sites
-  Dept. Defense Sites

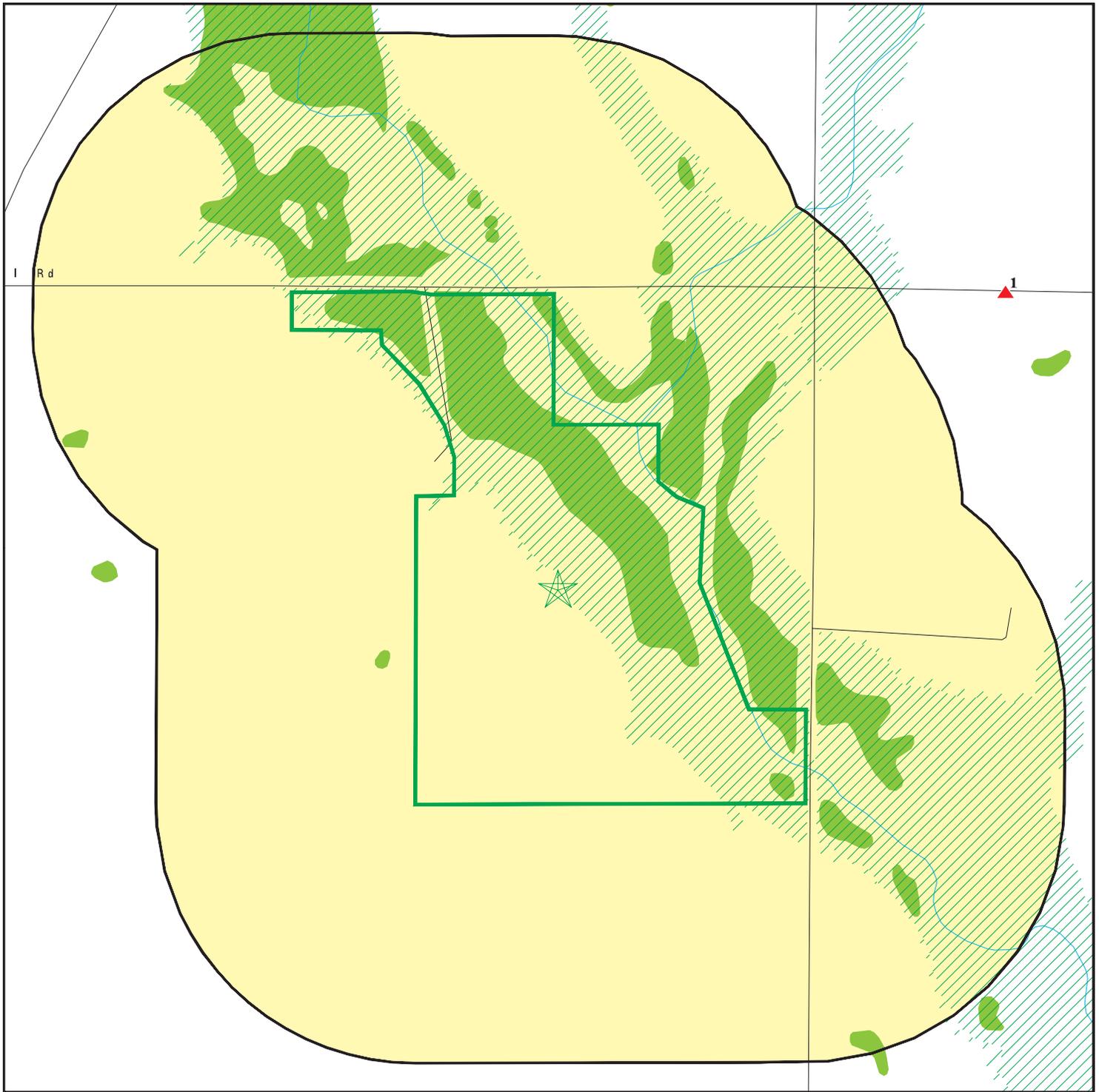
-  Indian Reservations BIA
-  100-year flood zone
-  500-year flood zone
-  National Wetland Inventory
-  State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: F-88 Bridge
 ADDRESS: 144th and Mill Rd
 Raymond NE 68428
 LAT/LONG: 40.940075 / 96.705296

CLIENT: Felsburg Holt & Ullevig
 CONTACT: Adam Behmer
 INQUIRY #: 5520901.2s
 DATE: December 27, 2018 10:46 am

DETAIL MAP - 5520901.2S



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  Sensitive Receptors
-  National Priority List Sites
-  Dept. Defense Sites

-  Indian Reservations BIA
-  100-year flood zone
-  500-year flood zone
-  National Wetland Inventory
-  State Wetlands



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: F-88 Bridge
 ADDRESS: 144th and Mill Rd
 Raymond NE 68428
 LAT/LONG: 40.940075 / 96.705296

CLIENT: Felsburg Holt & Ullevig
 CONTACT: Adam Behmer
 INQUIRY #: 5520901.2s
 DATE: December 27, 2018 10:47 am

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Federal NPL site list</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	0.001		0	NR	NR	NR	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<i>Federal CERCLIS NFRAP site list</i>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.000		0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	0.001		0	NR	NR	NR	NR	0
<i>State- and tribal - equivalent CERCLIS</i>								
SHWS	1.000		0	0	0	0	NR	0
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF	0.500		0	0	0	NR	NR	0
<i>State and tribal leaking storage tank lists</i>								
LUST	0.500		0	0	1	NR	NR	1
LAST	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
<i>State and tribal registered storage tank lists</i>								
FEMA UST	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
INST CONTROL	0.500		0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
SWRCY	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
HIST UST	0.250		0	0	NR	NR	NR	0
HIST AST	0.001		0	NR	NR	NR	NR	0
Local Land Records								
LIENS 2	0.001		0	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
SPILLS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
SPILLS 80	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDES	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	0.001		0	NR	NR	NR	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.001		0	NR	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	0.001		0	NR	NR	NR	NR	0
ASBESTOS	0.001		0	NR	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
TIER 2	0.001		0	NR	NR	NR	NR	0
UIC	0.001		0	NR	NR	NR	NR	0

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS	0.001		0	NR	NR	NR	NR	0
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MAP FINDINGS SUMMARY

<u>Database</u>	<u>Search Distance (Miles)</u>	<u>Target Property</u>	<u>< 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>> 1</u>	<u>Total Plotted</u>
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	0	0	1	0	0	1

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

1
ENE
1/4-1/2
0.359 mi.
1894 ft.

FORKE, MARLENE
1800 S. MILL RD.
WAVERLY, NE

LUST S105173869
N/A

Relative:
Higher
Actual:
1197 ft.

LUST:

Facility Status: **NO FURTHER ACTION (INCIDENT CLOSED)**
Incident Type: UNDERGROUND STORAGE TANK - REGULATED UNDER FEDERAL RULES
File Number: AP5215
Owner/RP: FORKE, MARLENE
SFM Num: 5215
Owner Mailing Address: 2636 HIGH ST.
Owner Mailing City: LINCOLN
Owner Mailing State: NE
Owner Mailing Zip: 68502
Discovery Date: 09/29/1992
Material Released: UNKNOWN

Facility Status: **NO FURTHER ACTION (INCIDENT CLOSED)**
Incident Type: UNDERGROUND STORAGE TANK - REGULATED UNDER FEDERAL RULES
File Number: AP5215
Owner/RP: FORKE, MARLENE
SFM Num: 5215
Owner Mailing Address: 2636 HIGH ST.
Owner Mailing City: LINCOLN
Owner Mailing State: NE
Owner Mailing Zip: 68502
Discovery Date: 09/29/1992
Material Released: UNKNOWN

Count: 3 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
LINCOLN	S117716374	14TH & W STREETS PARKING	NE CORNER, 14TH & W STREETS		LUST
LINCOLN	S114852734	UNL UTILITY PLANT	UTILITY PLANT 14TH & AVERY		LAST
RAYMOND	S108785071	USDA GRAIN BIN	W RAYMOND RD	68428	SHWS

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 11/14/2018	Source: EPA
Date Data Arrived at EDR: 11/27/2018	Telephone: N/A
Date Made Active in Reports: 12/07/2018	Last EDR Contact: 11/27/2018
Number of Days to Update: 10	Next Scheduled EDR Contact: 01/14/2019
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 11/14/2018	Source: EPA
Date Data Arrived at EDR: 11/27/2018	Telephone: N/A
Date Made Active in Reports: 12/07/2018	Last EDR Contact: 11/27/2018
Number of Days to Update: 10	Next Scheduled EDR Contact: 01/14/2019
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 11/14/2018
Date Data Arrived at EDR: 11/27/2018
Date Made Active in Reports: 12/07/2018
Number of Days to Update: 10

Source: EPA
Telephone: N/A
Last EDR Contact: 11/27/2018
Next Scheduled EDR Contact: 01/14/2019
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 92

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 07/06/2018
Next Scheduled EDR Contact: 10/15/2018
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly known as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 11/14/2018
Date Data Arrived at EDR: 11/27/2018
Date Made Active in Reports: 12/07/2018
Number of Days to Update: 10

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 11/27/2018
Next Scheduled EDR Contact: 01/28/2019
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 11/14/2018	Source: EPA
Date Data Arrived at EDR: 11/28/2018	Telephone: 800-424-9346
Date Made Active in Reports: 12/07/2018	Last EDR Contact: 11/28/2018
Number of Days to Update: 9	Next Scheduled EDR Contact: 01/28/2019
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/01/2018	Source: EPA
Date Data Arrived at EDR: 03/28/2018	Telephone: 800-424-9346
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 12/03/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 04/08/2019
	Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/01/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/28/2018	Telephone: 913-551-7003
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 12/03/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 04/08/2019
	Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/01/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/28/2018	Telephone: 913-551-7003
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 12/03/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 04/08/2019
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/01/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/28/2018	Telephone: 913-551-7003
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 12/03/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 04/08/2019
	Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/01/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/28/2018	Telephone: 913-551-7003
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 12/03/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 04/08/2019
	Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 10/17/2018	Source: Department of the Navy
Date Data Arrived at EDR: 10/25/2018	Telephone: 843-820-7326
Date Made Active in Reports: 12/07/2018	Last EDR Contact: 10/15/2018
Number of Days to Update: 43	Next Scheduled EDR Contact: 02/25/2019
	Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 07/31/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/28/2018	Telephone: 703-603-0695
Date Made Active in Reports: 09/14/2018	Last EDR Contact: 11/28/2018
Number of Days to Update: 17	Next Scheduled EDR Contact: 03/11/2019
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 07/31/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/28/2018	Telephone: 703-603-0695
Date Made Active in Reports: 09/14/2018	Last EDR Contact: 11/28/2018
Number of Days to Update: 17	Next Scheduled EDR Contact: 03/11/2019
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/24/2018
Date Data Arrived at EDR: 09/25/2018
Date Made Active in Reports: 11/09/2018
Number of Days to Update: 45

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/21/2018
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

SHWS: Superfund State Program List

The Nebraska Department of Environmental Quality is providing this information from its own database. The data, although not verified to be the most current or accurate for any specific site, is generally based on the contents of the physical documents in the files. You may contact the Records Management Unit at (402) 471-3557 to make arrangements to view or to get a photocopy of the physical file.

Date of Government Version: 09/18/2018
Date Data Arrived at EDR: 09/20/2018
Date Made Active in Reports: 10/18/2018
Number of Days to Update: 28

Source: Dept. of Environmental Quality
Telephone: 402-471-3557
Last EDR Contact: 12/13/2018
Next Scheduled EDR Contact: 04/01/2019
Data Release Frequency: Varies

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Licensed Landfill List

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 08/06/2018
Date Data Arrived at EDR: 08/08/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 37

Source: Department of Environmental Quality
Telephone: 402-471-4210
Last EDR Contact: 12/06/2018
Next Scheduled EDR Contact: 04/01/2019
Data Release Frequency: Varies

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank Sites

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 10/09/2018
Date Data Arrived at EDR: 10/10/2018
Date Made Active in Reports: 10/18/2018
Number of Days to Update: 8

Source: Department of Environmental Quality
Telephone: 402-471-3557
Last EDR Contact: 10/10/2018
Next Scheduled EDR Contact: 01/21/2019
Data Release Frequency: Quarterly

LAST: Leaking Aboveground Storage Tank Sites

Releases from an aboveground storage tank system.

Date of Government Version: 10/09/2018
Date Data Arrived at EDR: 10/10/2018
Date Made Active in Reports: 10/18/2018
Number of Days to Update: 8

Source: Department of Environmental Quality
Telephone: 402-471-3557
Last EDR Contact: 10/10/2018
Next Scheduled EDR Contact: 01/21/2019
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/12/2018	Source: EPA Region 10
Date Data Arrived at EDR: 05/18/2018	Telephone: 206-553-2857
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 10/26/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 02/04/2019
	Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/24/2018	Source: EPA Region 7
Date Data Arrived at EDR: 05/18/2018	Telephone: 913-551-7003
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 10/26/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 02/04/2019
	Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/25/2018	Source: EPA Region 8
Date Data Arrived at EDR: 05/18/2018	Telephone: 303-312-6271
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 10/26/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 02/04/2019
	Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/12/2018	Source: EPA, Region 5
Date Data Arrived at EDR: 05/18/2018	Telephone: 312-886-7439
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 10/26/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 02/04/2019
	Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/10/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/18/2018	Telephone: 415-972-3372
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 10/26/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 02/04/2019
	Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/13/2018	Source: EPA Region 1
Date Data Arrived at EDR: 05/18/2018	Telephone: 617-918-1313
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 10/26/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 02/04/2019
	Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 05/08/2018	Source: EPA Region 4
Date Data Arrived at EDR: 05/18/2018	Telephone: 404-562-8677
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 10/26/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 02/04/2019
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/01/2018	Source: EPA Region 6
Date Data Arrived at EDR: 05/18/2018	Telephone: 214-665-6597
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 10/26/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 02/04/2019
	Data Release Frequency: Varies

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017	Source: FEMA
Date Data Arrived at EDR: 05/30/2017	Telephone: 202-646-5797
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 12/20/2018
Number of Days to Update: 136	Next Scheduled EDR Contact: 01/21/2019
	Data Release Frequency: Varies

UST: Facility and Tank Data

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 10/15/2018	Source: Nebraska State Fire Marshal
Date Data Arrived at EDR: 10/31/2018	Telephone: 402-471-9664
Date Made Active in Reports: 12/10/2018	Last EDR Contact: 10/31/2018
Number of Days to Update: 40	Next Scheduled EDR Contact: 02/11/2019
	Data Release Frequency: Annually

AST: AST Data

A listing of aboveground storage tank site locations. Aboveground storage tanks dispensing hazardous substances must register such tank with this office. Storage tanks of 1000 gallons or less are exempt from this requirement.

Date of Government Version: 05/24/2018	Source: State Fire Marshal
Date Data Arrived at EDR: 05/25/2018	Telephone: 402-471-9465
Date Made Active in Reports: 06/28/2018	Last EDR Contact: 11/26/2018
Number of Days to Update: 34	Next Scheduled EDR Contact: 03/11/2019
	Data Release Frequency: No Update Planned

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/10/2018	Source: EPA Region 9
Date Data Arrived at EDR: 05/18/2018	Telephone: 415-972-3368
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 10/26/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 02/04/2019
	Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 04/25/2018	Source: EPA Region 8
Date Data Arrived at EDR: 05/18/2018	Telephone: 303-312-6137
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 10/26/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 02/04/2019
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/01/2018	Source: EPA Region 6
Date Data Arrived at EDR: 05/18/2018	Telephone: 214-665-7591
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 10/26/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 02/04/2019
	Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 05/08/2018	Source: EPA Region 4
Date Data Arrived at EDR: 05/18/2018	Telephone: 404-562-9424
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 10/26/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 02/04/2019
	Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/24/2018	Source: EPA Region 7
Date Data Arrived at EDR: 05/18/2018	Telephone: 913-551-7003
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 10/26/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 02/04/2019
	Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/12/2018	Source: EPA Region 10
Date Data Arrived at EDR: 05/18/2018	Telephone: 206-553-2857
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 10/26/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 02/04/2019
	Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/13/2018	Source: EPA, Region 1
Date Data Arrived at EDR: 05/18/2018	Telephone: 617-918-1313
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 10/26/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 02/04/2019
	Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/12/2018	Source: EPA Region 5
Date Data Arrived at EDR: 05/18/2018	Telephone: 312-886-6136
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 10/26/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 02/04/2019
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

State and tribal institutional control / engineering control registries

INST CONTROL: Nebraska's Institutional Control Registry

A list of sites within Nebraska that have institutional controls. According to the Environmental Protection Agency (EPA), institutional controls are "non-engineering measures designed to prevent or limit exposure to hazardous substances left in place at a site, or assure effectiveness of the chosen remedy. Institutional controls are usually, but not always, legal controls, such as easements, restrictive covenants, and zoning ordinances." In short, institutional controls are a type of environmental covenant typically used when property is to be cleaned up to a level determined by the potential environmental risks posed by a planned use, rather than to unrestricted use standards. This method of control has proven to be both environmentally and economically beneficial.

Date of Government Version: 03/13/2018	Source: Department of Environmental Quality
Date Data Arrived at EDR: 06/13/2018	Telephone: 402-471-2214
Date Made Active in Reports: 06/28/2018	Last EDR Contact: 12/21/2018
Number of Days to Update: 15	Next Scheduled EDR Contact: 04/01/2019
	Data Release Frequency: Annually

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 04/20/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

VCP: RAPMA Sites

The Remedial Action Plan Monitoring Act (RAPMA), initially created in 1995, provides property owners and parties responsible for contamination with a mechanism for developing voluntary environmental cleanup plans which are reviewed and approved by the Department.

Date of Government Version: 03/13/2018	Source: Department of Environmental Quality
Date Data Arrived at EDR: 06/13/2018	Telephone: 402-471-2186
Date Made Active in Reports: 06/28/2018	Last EDR Contact: 12/21/2018
Number of Days to Update: 15	Next Scheduled EDR Contact: 04/01/2019
	Data Release Frequency: Annually

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 09/29/2015	Telephone: 617-918-1102
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 12/19/2018
Number of Days to Update: 142	Next Scheduled EDR Contact: 04/08/2019
	Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Potential Brownfields Inventory Listing

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

"NDEQ defines a brownfields site as subpart (A) of CERCLA ? 101(39): 'Real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.' This is a broad-based approach to capture all potential brownfields sites. In the event that CERCLA 128(a) State Response Program funds are utilized - for example, conducting a Section 128(a) Assessment - the exclusions, site-by-site determinations, and further definitions as provided by the law would need to be met. This would be done on a site-by-site basis." A preliminary Survey and Inventory of Brownfields Sites in Nebraska was constructed based on previously submitted information including sites named specifically by city representatives. The list was built on facility characteristics, which were founded on previous, broad-based contamination experience. Additions to the inventory were made by looking for other sources of potential brownfields sites using Standard Industrial Classification (SIC) codes. A general sector list was constructed to serve as an inventory guide. This list shows all of the different types of sites that are within the inventory (sorted by SIC code), and the number of sites there are of each type. Color-coated blocks, which group together similar SIC codes and the sites that they encompass also sort the sectors.

Date of Government Version: 09/18/2018
Date Data Arrived at EDR: 09/18/2018
Date Made Active in Reports: 10/18/2018
Number of Days to Update: 30

Source: Department of Environmental Quality
Telephone: 402-471-2186
Last EDR Contact: 12/18/2018
Next Scheduled EDR Contact: 04/01/2019
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 09/18/2018
Date Data Arrived at EDR: 09/18/2018
Date Made Active in Reports: 11/09/2018
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/18/2018
Next Scheduled EDR Contact: 04/01/2019
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: Recycling Resource Directory

A listing of recycling facilities.

Date of Government Version: 05/07/2018
Date Data Arrived at EDR: 05/07/2018
Date Made Active in Reports: 05/14/2018
Number of Days to Update: 7

Source: Department of Environmental Quality
Telephone: 402-471-6974
Last EDR Contact: 12/13/2018
Next Scheduled EDR Contact: 04/01/2019
Data Release Frequency: No Update Planned

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 10/25/2018
Next Scheduled EDR Contact: 02/11/2019
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 10/22/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Services, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 11/02/2018
Next Scheduled EDR Contact: 02/11/2019
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 09/21/2018
Date Data Arrived at EDR: 09/21/2018
Date Made Active in Reports: 11/09/2018
Number of Days to Update: 49

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/26/2018
Next Scheduled EDR Contact: 03/11/2019
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/21/2018
Date Data Arrived at EDR: 09/21/2018
Date Made Active in Reports: 11/09/2018
Number of Days to Update: 49

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/26/2018
Next Scheduled EDR Contact: 03/11/2019
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

HIST UST: Underground Storage Tank Database Listing

A listing of underground storage tank locations. This listing contains detail information that the UST listing does not. It is no longer updated by the agency. For current information see the UST listing.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/28/2005
Date Data Arrived at EDR: 09/01/2006
Date Made Active in Reports: 10/11/2006
Number of Days to Update: 40

Source: State Fire Marshal
Telephone: 402-471-2027
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

HIST AST: Aboveground Storage Tank Database Listing

A listing of aboveground storage tank locations. This listing contains detail information that the AST listing does not. It is no longer updated by the agency. For current information see the AST listing.

Date of Government Version: 10/19/2004
Date Data Arrived at EDR: 09/01/2006
Date Made Active in Reports: 10/11/2006
Number of Days to Update: 40

Source: State Fire Marshal
Telephone: 402-471-2027
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 08/13/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/16/2018
Number of Days to Update: 43

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 11/27/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/26/2018
Date Data Arrived at EDR: 03/27/2018
Date Made Active in Reports: 06/08/2018
Number of Days to Update: 73

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 12/21/2018
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Quarterly

SPILLS: Surface Spill List

Releases of petroleum or hazardous substances to the air, land, or water.

Date of Government Version: 10/09/2018
Date Data Arrived at EDR: 10/10/2018
Date Made Active in Reports: 10/18/2018
Number of Days to Update: 8

Source: Department of Environmental Quality
Telephone: 402-471-2186
Last EDR Contact: 10/10/2018
Next Scheduled EDR Contact: 01/21/2019
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 10/09/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 03/06/2013
Number of Days to Update: 62

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SPILLS 80: SPILLS80 data from FirstSearch

Spills 80 includes those spill and release records available from FirstSearch databases prior to 1990. Typically, they may include chemical, oil and/or hazardous substance spills recorded before 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 80.

Date of Government Version: 04/15/2003	Source: FirstSearch
Date Data Arrived at EDR: 01/03/2013	Telephone: N/A
Date Made Active in Reports: 03/06/2013	Last EDR Contact: 01/03/2013
Number of Days to Update: 62	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/01/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/28/2018	Telephone: 913-551-7003
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 12/03/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 04/08/2019
	Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 07/08/2015	Telephone: 202-528-4285
Date Made Active in Reports: 10/13/2015	Last EDR Contact: 11/19/2018
Number of Days to Update: 97	Next Scheduled EDR Contact: 03/04/2019
	Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 11/10/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 10/12/2018
Number of Days to Update: 62	Next Scheduled EDR Contact: 01/21/2019
	Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005	Source: U.S. Geological Survey
Date Data Arrived at EDR: 02/06/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 10/12/2018
Number of Days to Update: 339	Next Scheduled EDR Contact: 01/21/2019
	Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 11/16/2018
Next Scheduled EDR Contact: 02/25/2019
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 08/31/2018
Date Data Arrived at EDR: 09/25/2018
Date Made Active in Reports: 11/09/2018
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 12/21/2018
Next Scheduled EDR Contact: 04/08/2019
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 11/05/2018
Next Scheduled EDR Contact: 02/18/2019
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 11/09/2018
Next Scheduled EDR Contact: 02/18/2019
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/21/2018
Next Scheduled EDR Contact: 04/01/2019
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 01/10/2018
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 2

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 11/16/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 10/24/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 08/13/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/16/2018
Number of Days to Update: 43

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 11/27/2018
Next Scheduled EDR Contact: 03/18/2019
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 08/01/2018
Date Data Arrived at EDR: 08/22/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 10/23/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 08/13/2018	Source: EPA
Date Data Arrived at EDR: 10/04/2018	Telephone: 202-564-6023
Date Made Active in Reports: 11/09/2018	Last EDR Contact: 10/04/2018
Number of Days to Update: 36	Next Scheduled EDR Contact: 02/18/2019
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 09/14/2018	Source: EPA
Date Data Arrived at EDR: 10/11/2018	Telephone: 202-566-0500
Date Made Active in Reports: 12/07/2018	Last EDR Contact: 10/11/2018
Number of Days to Update: 57	Next Scheduled EDR Contact: 01/21/2019
	Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/23/2016	Telephone: 202-564-2501
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 10/09/2018
Number of Days to Update: 79	Next Scheduled EDR Contact: 01/21/2019
	Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 09/08/2016	Telephone: 301-415-7169
Date Made Active in Reports: 10/21/2016	Last EDR Contact: 10/11/2018
Number of Days to Update: 43	Next Scheduled EDR Contact: 02/04/2019
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005	Source: Department of Energy
Date Data Arrived at EDR: 08/07/2009	Telephone: 202-586-8719
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 12/05/2018
Number of Days to Update: 76	Next Scheduled EDR Contact: 03/18/2019
	Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/10/2014	Telephone: N/A
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 12/03/2018
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/18/2019
	Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/30/2017	Telephone: 202-566-0517
Date Made Active in Reports: 12/15/2017	Last EDR Contact: 10/26/2018
Number of Days to Update: 15	Next Scheduled EDR Contact: 02/04/2019
	Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 10/02/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/03/2018	Telephone: 202-343-9775
Date Made Active in Reports: 11/09/2018	Last EDR Contact: 10/03/2018
Number of Days to Update: 37	Next Scheduled EDR Contact: 01/14/2019
	Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transportation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 10/30/2018
Next Scheduled EDR Contact: 02/11/2019
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/30/2018
Date Data Arrived at EDR: 10/12/2018
Date Made Active in Reports: 12/07/2018
Number of Days to Update: 56

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 12/17/2018
Next Scheduled EDR Contact: 04/01/2019
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 11/21/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/09/2018
Next Scheduled EDR Contact: 01/21/2019
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 11/01/2018
Next Scheduled EDR Contact: 02/18/2019
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 12/14/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 08/13/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/16/2018
Number of Days to Update: 43

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 11/27/2018
Next Scheduled EDR Contact: 01/14/2019
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/01/2018
Date Data Arrived at EDR: 08/29/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 37

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 11/30/2018
Next Scheduled EDR Contact: 03/11/2019
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/30/2018
Next Scheduled EDR Contact: 03/11/2019
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/30/2018
Next Scheduled EDR Contact: 03/11/2019
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/10/2018
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 12/19/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 08/07/2018
Date Data Arrived at EDR: 09/05/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 30

Source: EPA
Telephone: (913) 551-7003
Last EDR Contact: 12/05/2018
Next Scheduled EDR Contact: 03/18/2019
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 06/19/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 87

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 10/15/2018
Next Scheduled EDR Contact: 01/28/2019
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 09/02/2018
Date Data Arrived at EDR: 09/05/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 9

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 12/31/2018
Next Scheduled EDR Contact: 03/18/2019
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/26/2018	Telephone: 202-564-0527
Date Made Active in Reports: 10/05/2018	Last EDR Contact: 11/30/2018
Number of Days to Update: 71	Next Scheduled EDR Contact: 03/11/2019
	Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/22/2018	Source: EPA
Date Data Arrived at EDR: 08/22/2018	Telephone: 800-385-6164
Date Made Active in Reports: 10/05/2018	Last EDR Contact: 11/19/2018
Number of Days to Update: 44	Next Scheduled EDR Contact: 03/04/2019
	Data Release Frequency: Quarterly

AIRS: Air State Program List

A listing of air program facilities.

Date of Government Version: 09/18/2018	Source: Department of Environmental Quality
Date Data Arrived at EDR: 09/20/2018	Telephone: 402-471-3389
Date Made Active in Reports: 10/18/2018	Last EDR Contact: 12/13/2018
Number of Days to Update: 28	Next Scheduled EDR Contact: 04/01/2019
	Data Release Frequency: Quarterly

ASBESTOS: Asbestos Notification Listing

Asbestos notification sites

Date of Government Version: 11/08/2018	Source: Department of Health & Human Services
Date Data Arrived at EDR: 11/14/2018	Telephone: 402-471-0549
Date Made Active in Reports: 12/07/2018	Last EDR Contact: 11/05/2018
Number of Days to Update: 23	Next Scheduled EDR Contact: 02/18/2019
	Data Release Frequency: Varies

DRYCLEANERS: Drycleaner Facility Listing

A listing of drycleaner facilities in Nebraska.

Date of Government Version: 09/17/2018	Source: Department of Environmental Quality
Date Data Arrived at EDR: 09/18/2018	Telephone: 402-471-3557
Date Made Active in Reports: 10/18/2018	Last EDR Contact: 12/13/2018
Number of Days to Update: 30	Next Scheduled EDR Contact: 04/01/2019
	Data Release Frequency: Varies

Financial Assurance: Financial Assurance Information Listing

Financial assurance information for solid and hazardous waste sites.

Date of Government Version: 12/01/2017	Source: Department of Environmental Quality
Date Data Arrived at EDR: 12/20/2017	Telephone: 402-471-2186
Date Made Active in Reports: 01/26/2018	Last EDR Contact: 12/17/2018
Number of Days to Update: 37	Next Scheduled EDR Contact: 04/01/2019
	Data Release Frequency: Annually

NPDES: Wastewater Database Listing

A listing of permitted wastewater facilities.

Date of Government Version: 09/18/2018	Source: Department of Environmental Quality
Date Data Arrived at EDR: 09/20/2018	Telephone: 402-471-3557
Date Made Active in Reports: 10/18/2018	Last EDR Contact: 09/17/2018
Number of Days to Update: 28	Next Scheduled EDR Contact: 12/17/2018
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

TIER 2: Tier 2 Facility Listing

A listing of facilities which store or manufacture hazardous materials that submit a chemical inventory report.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/07/2018
Date Made Active in Reports: 06/28/2018
Number of Days to Update: 21

Source: Department of Environmental Quality
Telephone: 402-471-3557
Last EDR Contact: 11/30/2018
Next Scheduled EDR Contact: 03/18/2019
Data Release Frequency: Varies

UIC: Underground Injection Control Database

A listing of underground injection well locations. The UIC Program is responsible for regulating the construction, operation, permitting, and closure of injection wells that place fluids underground for storage or disposal.

Date of Government Version: 10/29/2018
Date Data Arrived at EDR: 10/30/2018
Date Made Active in Reports: 12/07/2018
Number of Days to Update: 38

Source: Department of Environmental Quality
Telephone: 402-471-2186
Last EDR Contact: 10/29/2018
Next Scheduled EDR Contact: 02/11/2019
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Nebraska.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/03/2014
Number of Days to Update: 186

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Nebraska.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/03/2014
Number of Days to Update: 186

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 11/12/2018
Date Data Arrived at EDR: 11/14/2018
Date Made Active in Reports: 12/04/2018
Number of Days to Update: 20

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/14/2018
Next Scheduled EDR Contact: 02/25/2019
Data Release Frequency: No Update Planned

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 10/01/2018
Date Data Arrived at EDR: 10/31/2018
Date Made Active in Reports: 12/20/2018
Number of Days to Update: 50

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 10/31/2018
Next Scheduled EDR Contact: 02/11/2019
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/15/2018
Date Made Active in Reports: 07/09/2018
Number of Days to Update: 24

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 12/07/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.
Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health
Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Child Care Listing

Source: Department of Health & Human Services
Telephone: 402-471-2306

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: National Wetlands Inventory
Source: Department of Natural Resources
Telephone: 402-471-2363

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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Appendix I
Cultural Resources Memo

Jessica Jurzenski
Environmental Scientist
Felsburg, Holt, & Ullevig
321 South 9th Street
Lincoln, Nebraska 68508

November 13, 2018

RE: HP# 1202-181-01 – Raymond Southeast Bridge Replacement and Acquisition of Property Rights from Pheasants Forever Helmuth Marsh Property, Lancaster County Project# C55-F-88, Sect. 11/12, T11N, R6E, Lancaster County

Dear Ms. Jurzenski:

Thank you for submitting the information for the above referenced project for Nebraska State Historic Preservation Office (NeSHPO) review and comment under Section 106 of the National Historic Preservation Act of 1966, as amended in 2014 (Title 54 U.S.C. § 306108 [formerly 16 U.S.C. § 470f]), and its implementing regulations at 36 CFR§800.

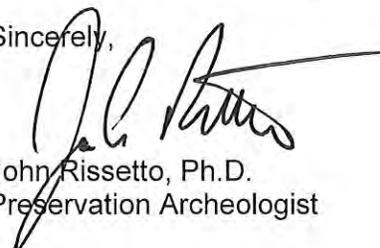
According to the information provided along with a check of NeSHPO records, this Office maintains the concurrence provided in the previous evaluation and determination submitted to Virgil Dearmont by L. Robert Puschendorf on March 21, 2012. Thus, a determination that *no historic properties affected* is still appropriate for the proposed undertaking and the project should continue as planned.

However, it should be noted that there is the possibility that currently buried or otherwise obscured cultural or human remains may be discovered during the undertaking. If any such discovery is made or if the project area becomes expanded in any way, please contact this office immediately for further instruction.

Be advised that this determination does not necessarily reflect the opinion of Native American Tribes that may have an interest in the area, nor does it pertain to Traditional Cultural Properties, if they exist in the area.

Please submit this letter to the project's lead federal agency to fulfill the statutory obligation of Section 106 consultation with the Nebraska State Historic Preservation Office. Should you have any questions regarding this determination, please contact this office by phone (402-471-2609) or email (John.Rissetto@nebraska.gov).

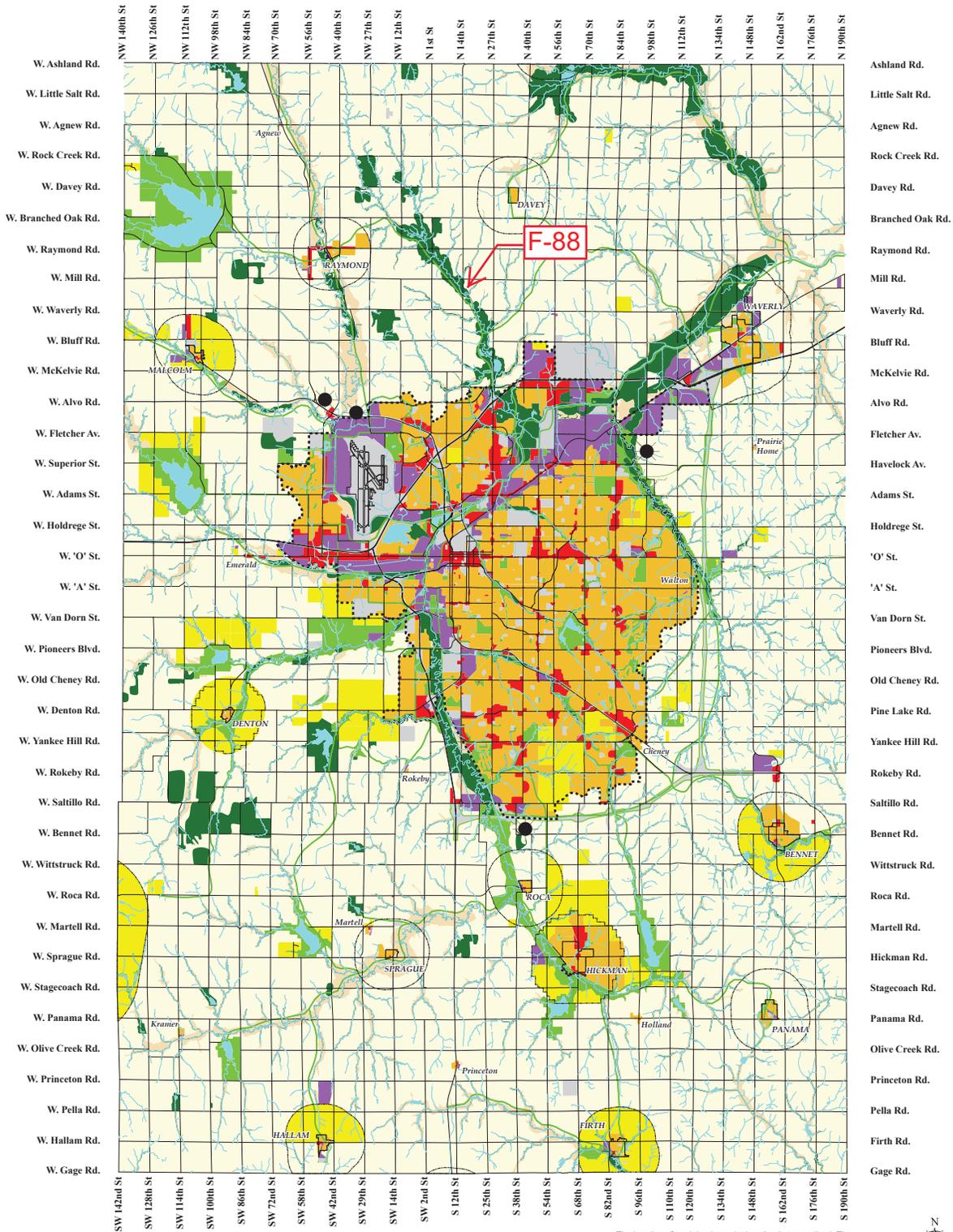
Sincerely,



John Rissetto, Ph.D.
Preservation Archeologist

PLEASE NOTE
ADDRESS CHANGE
1500 R Street
Lincoln, Nebraska
68508-1651
P: 402.471.4787
History.Nebraska.Gov

Appendix J
**LPlan 2040 Lincoln/Lancaster County
Comprehensive Plan Maps**



2040 LANCASTER COUNTY FUTURE LAND USE PLAN

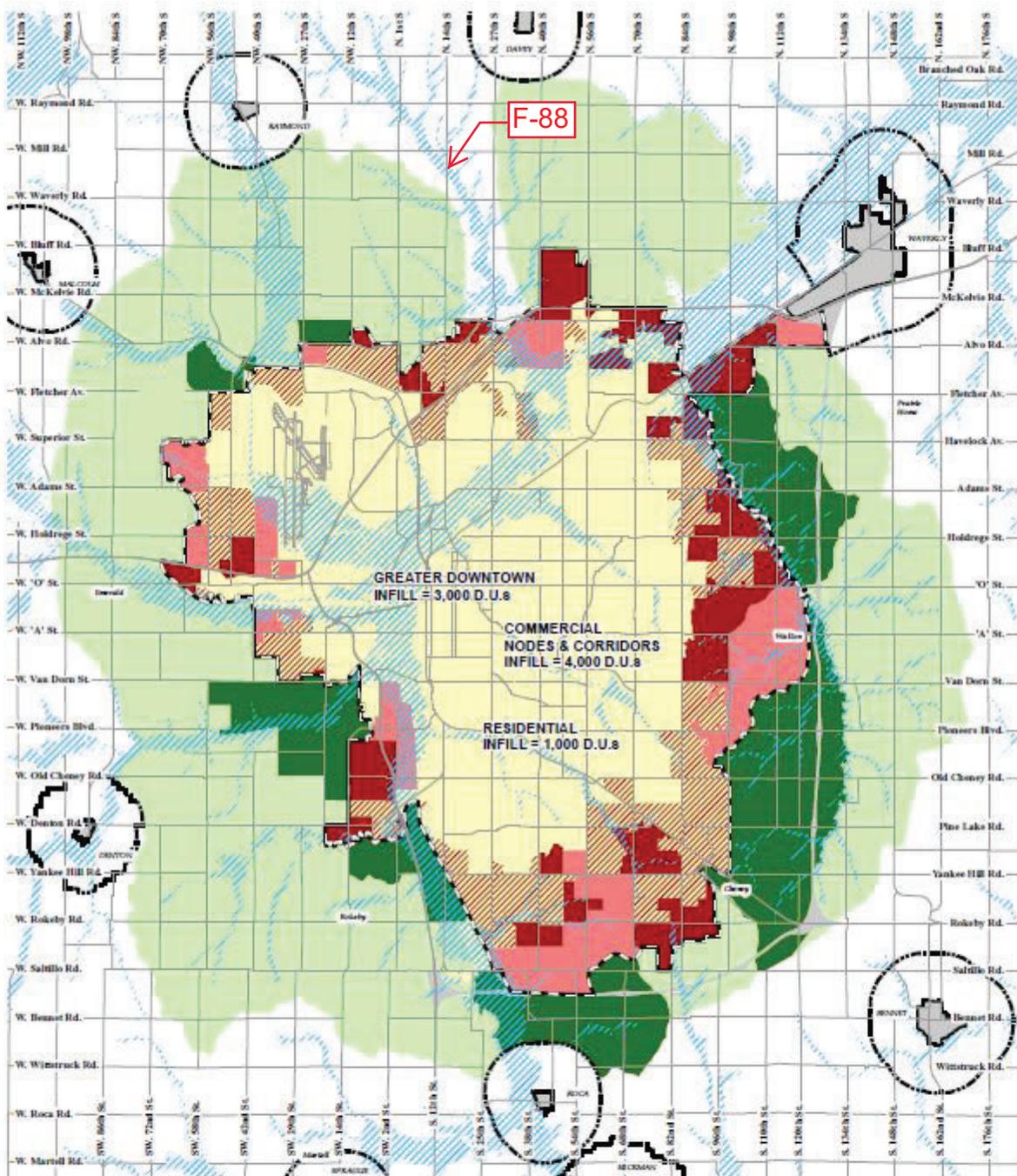
- Agricultural
- Residential - Urban Density
- Residential - Low Density
- Potential Large Employer Opportunity Areas
- Commercial
- Industrial
- Public & Semi-Public
- Agricultural Stream Corridor
- Green Space
- Environmental Resources
- Lakes & Streams
- Future Service Limit

The location of each land use designation is generalized. The appropriateness of a particular zoning district for a particular piece of property will depend on a review of all of the elements of the Comprehensive Plan. Please consult other sources for exact locations of environmental resources such as wetlands, native prairie and floodplain. Not all of these resources are displayed on this figure.

The incorporated town plans are displayed on this figure. In many circumstances the land use categories in the town plans were different from the categories used in the Lincoln Lancaster County Plan, so some adjustments were made for the purposes of this display. These communities and their specific adopted plans should be consulted as the source for decisions within their various jurisdictions.



Map 1.1: Lancaster County Future Land Use Plan



2040 PRIORITY GROWTH AREAS

- Tier I, Priority A (Developing)
- Tier I, Priority B (2025)
- Tier I, Priority C (2040)
- Tier II (2060)
- Tier III

