



CALL NO. 200

CONTRACT ID. 201018

BALLARD COUNTY

FED/STATE PROJECT NUMBER 004GR20D18-NHPP

DESCRIPTION US-51

WORK TYPE ASPHALT PAVEMENT & ROADWAY REHAB

PRIMARY COMPLETION DATE 10/1/2020

LETTING DATE: April 24,2020

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 am EASTERN DAYLIGHT TIME April 24,2020. Bids will be publicly announced at 10:00 am EASTERN DAYLIGHT TIME.

NO PLANS ASSOCIATED WITH THIS PROJECT.

DBE CERTIFICATION REQUIRED - 4.50%

REQUIRED BID PROPOSAL GUARANTY: Not less than 5% of the total bid.

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PART I
SCOPE OF WORK

ADMINISTRATIVE DISTRICT - 01

CONTRACT ID - 201018

004GR20D18-NHPP

COUNTY - BALLARD

PCN - DE00400512018

NHPP 0511 (050)

US-51 (MP 4.873) ADDRESS PAVEMENT CONDITION OF AC PAVEMENT ON US-51 FROM MP 4.873 TO MP 7.300 IN BALLARD COUNTY (MP 7.300), A DISTANCE OF 01.77 MILES.ASPHALT PAVEMENT & ROADWAY REHAB SYP NO. 01-20000.00.

GEOGRAPHIC COORDINATES LATITUDE 36:59:40.00 LONGITUDE 89:07:02.00

PCN - DE00400512019

FE02 004 0051 007-009

US-51 (MP 7.949) BRIDGE REPAIRS ON US-51 CAIRO BRIDGE OVER THE OHIO RIVER (MP 9.000), A DISTANCE OF 01.00 MILES.BRIDGE REPAIRS

GEOGRAPHIC COORDINATES LATITUDE 36:59:41.00 LONGITUDE 89:08:41.00

COMPLETION DATE(S):

COMPLETED BY 10/01/2020

COMPLETED BY 08/01/2020

APPLIES TO ENTIRE CONTRACT
AND BRIDGE REPAIRS

APPLIES TO PAVEMENT REHAB

CONTRACT NOTES

PROPOSAL ADDENDA

All addenda to this proposal must be applied when calculating bid and certified in the bid packet submitted to the Kentucky Department of Highways. Failure to use the correct and most recent addenda may result in the bid being rejected.

BID SUBMITTAL

Bidder must use the Department's electronic bidding software. The Bidder must download the bid file located on the Bid Express website (www.bidx.com) to prepare a bid packet for submission to the Department. The bidder must submit electronically using Bid Express.

JOINT VENTURE BIDDING

Joint venture bidding is permissible. All companies in the joint venture must be prequalified in one of the work types in the Qualifications for Bidders for the project. The bidders must get a vendor ID for the joint venture from the Division of Construction Procurement and register the joint venture as a bidder on the project. Also, the joint venture must obtain a digital ID from Bid Express to submit a bid. A joint bid bond of 5% may be submitted for both companies or each company may submit a separate bond of 5%.

UNDERGROUND FACILITY DAMAGE PROTECTION

The contractor shall make every effort to protect underground facilities from damage as prescribed in the Underground Facility Damage Protection Act of 1994, Kentucky Revised Statute KRS 367.4901 to 367.4917. It is the contractor's responsibility to determine and take steps necessary to be in compliance with federal and state damage prevention directives. When prescribed in said directives, the contractor shall submit Excavation Locate Requests to the Kentucky Contact Center (KY811) via web ticket entry. The submission of this request does not relieve the contractor from the responsibility of contacting non-member facility owners, whom shall be contacted through their individual Protection Notification Center. Non-compliance with these directives can result in the enforcement of penalties.

REGISTRATION WITH THE SECRETARY OF STATE BY A FOREIGN ENTITY

Pursuant to KRS 176.085(1)(b), an agency, department, office, or political subdivision of the Commonwealth of Kentucky shall not award a state contract to a person that is a foreign entity required by [KRS 14A.9-010](#) to obtain a certificate of authority to transact business in the Commonwealth ("certificate") from the Secretary of State under [KRS 14A.9-030](#) unless the person produces the certificate within fourteen (14) days of the bid or proposal opening. If the foreign entity is not required to obtain a certificate as provided in [KRS 14A.9-010](#), the foreign entity should identify the applicable exception. Foreign entity is defined within [KRS 14A.1-070](#).

For all foreign entities required to obtain a certificate of authority to transact business in the Commonwealth, if a copy of the certificate is not received by the contracting agency within the time frame identified above, the foreign entity's solicitation response shall be deemed non-responsive or the awarded contract shall be cancelled.

Businesses can register with the Secretary of State at <https://secure.kentucky.gov/sos/ftbr/welcome.aspx>.

SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT

Questions about projects during the advertisement should be submitted in writing to the Division of Construction Procurement. This may be done by fax (502) 564-7299 or email to kytc.projectquestions@ky.gov. The Department will attempt to answer all submitted questions. The Department reserves the right not to answer if the question is not pertinent or does not aid in clarifying the project intent.

The deadline for posting answers will be 3:00 pm Eastern Daylight Time, the day preceding the Letting. Questions may be submitted until this deadline with the understanding that the later a question is submitted, the less likely an answer will be able to be provided.

The questions and answers will be posted for each Letting under the heading "Questions & Answers" on the Construction Procurement website (www.transportation.ky.gov/contract). The answers provided shall be considered part of this Special Note and, in case of a discrepancy, will govern over all other bidding documents.

HARDWOOD REMOVAL RESTRICTIONS

The US Department of Agriculture has imposed a quarantine in Kentucky and several surrounding states, to prevent the spread of an invasive insect, the emerald ash borer. Hardwood cut in conjunction with the project may not be removed from the state. Chipping or burning on site is the preferred method of disposal.

INSTRUCTIONS FOR EXCESS MATERIAL SITES AND BORROW SITES

Identification of excess material sites and borrow sites shall be the responsibility of the Contractor. The Contractor shall be responsible for compliance with all applicable state and federal laws and may wish to consult with the US Fish and Wildlife Service to seek protection under Section 10 of the Endangered Species Act for these activities.

ACCESS TO RECORDS

The contractor, as defined in KRS 45A.030 (9) agrees that the contracting agency, the Finance and Administration Cabinet, the Auditor of Public Accounts, and the Legislative Research Commission, or their duly authorized representatives, shall have access to any books, documents, papers, records, or other evidence, which are directly pertinent to this contract for the purpose of financial audit or program review. Records and other prequalification information confidentially

disclosed as part of the bid process shall not be deemed as directly pertinent to the contract and shall be exempt from disclosure as provided in KRS 61.878(1)(c). The contractor also recognizes that any books, documents, papers, records, or other evidence, received during a financial audit or program review shall be subject to the Kentucky Open Records Act, KRS 61.870 to 61.884.

In the event of a dispute between the contractor and the contracting agency, Attorney General, or the Auditor of Public Accounts over documents that are eligible for production and review, the Finance and Administration Cabinet shall review the dispute and issue a determination, in accordance with Secretary's Order 11-004.

April 30, 2018

FEDERAL CONTRACT NOTES

The Kentucky Department of Highways, in accordance with the Regulations of the United States Department of Transportation 23 CFR 635.112 (h), hereby notifies all bidders that failure by a bidder to comply with all applicable sections of the current Kentucky Standard Specifications, including, but not limited to the following, may result in a bid not being considered responsive and thus not eligible to be considered for award:

- | | |
|--------------------------------|--|
| 102.02 Current Rating | 102.08 Preparation and Delivery of Proposals |
| 102.13 Irregular Bid Proposals | 102.14 Disqualification of Bidders |
| 102.09 Proposal Guaranty | |

CIVIL RIGHTS ACT OF 1964

The Kentucky Department of Highways, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252) and the Regulations of the Federal Department of Transportation (49 C.F.R., Part 21), issued pursuant to such Act, hereby notifies all bidders that it will affirmatively insure that the contract entered into pursuant to this advertisement will be awarded to the lowest responsible bidder without discrimination on the ground of race, color, or national origin.

NOTICE TO ALL BIDDERS

To report bid rigging activities call: 1-800-424-9071.

The U.S. Department of Transportation (DOT) operates the above toll-free “hotline” Monday through Friday, 8:00 a.m. to 5:00 p.m. eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the “hotline” to report such activities.

The “hotline” is part of the DOT’s continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

SECOND TIER SUBCONTRACTS

Second Tier subcontracts on federally assisted projects shall be permitted. However, in the case of DBE’s, second tier subcontracts will only be permitted where the other subcontractor is also a DBE. All second tier subcontracts shall have the consent of both the Contractor and the Engineer.

DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

It is the policy of the Kentucky Transportation Cabinet (“the Cabinet”) that Disadvantaged Business Enterprises (“DBE”) shall have the opportunity to participate in the performance of highway construction projects financed in whole or in part by Federal Funds in order to create a level playing field for all businesses who wish to contract with the Cabinet. To that end, the Cabinet will comply with the regulations found in 49 CFR Part 26, and the definitions and requirements contained therein shall be adopted as if set out verbatim herein.

The Cabinet, contractors, subcontractors, and sub-recipients shall not discriminate on the basis of race, color, national origin, or sex in the performance of work performed pursuant to Cabinet contracts. The contractor shall carry out applicable requirements of 49 CFR 26 in the award and administration of federally assisted highway construction projects. The contractor will include this provision in all its subcontracts and supply agreements pertaining to contracts with the Cabinet.

Failure by the contractor to carry out these requirements is a material breach of its contract with the Cabinet, which may result in the termination of the contract or such other remedy as the Cabinet deems necessary.

DBE GOAL

The Disadvantaged Business Enterprise (DBE) goal established for this contract, as listed on the front page of the proposal, is the percentage of the total value of the contract.

The contractor shall exercise all necessary and reasonable steps to ensure that Disadvantaged Business Enterprises participate in a least the percent of the contract as set forth above as goals for this contract.

OBLIGATION OF CONTRACTORS

Each contractor prequalified to perform work on Cabinet projects shall designate and make known to the Cabinet a liaison officer who is assigned the responsibility of effectively administering and promoting an active program for utilization of DBEs.

If a formal goal has not been designated for the contract, all contractors are encouraged to consider DBEs for subcontract work as well as for the supply of material and services needed to perform this work.

Contractors are encouraged to use the services of banks owned and controlled by minorities and women.

CERTIFICATION OF CONTRACT GOAL

Contractors shall include the following certification in bids for projects for which a DBE goal has been established. BIDS SUBMITTED WHICH DO NOT INCLUDE CERTIFICATION OF DBE PARTICIPATION WILL NOT BE ACCEPTED. These bids will not be considered for award by the Cabinet and they will be returned to the bidder.

“The bidder certifies that it has secured participation by Disadvantaged Business Enterprises (“DBE”) in the amount of _____ percent of the total value of this contract and that the DBE participation is in compliance with the requirements of 49 CFR 26 and the policies of the Kentucky Transportation Cabinet pertaining to the DBE Program.”

The certification statement is located in the electronic bid file. All contractors must certify their DBE participation on that page. DBEs utilized in achieving the DBE goal must be certified and prequalified for the work items at the time the bid is submitted.

DBE PARTICIPATION PLAN

Lowest responsive bidders must submit the *DBE Plan/ Subcontractor Request*, form TC 14-35 DBE, within **5** days of the letting. This is necessary before the Awards Committee will review and make a recommendation. **The project will not be considered for award prior to submission and approval of the apparent low bidder’s DBE Plan/Subcontractor Request.**

The DBE Participation Plan shall include the following:

1. Name and address of DBE Subcontractor(s) and/or supplier(s) intended to be used in the proposed project;
2. Description of the work each is to perform including the work item, unit, quantity, unit price and total amount of the work to be performed by the individual DBE. The Proposal Line Number, Category Number, and the Project Line Number can be found in the “material listing” on the Construction Procurement website under the specific letting;
3. The dollar value of each proposed DBE subcontract and the percentage of total project contract value this represents. DBE participation may be counted as follows:
 - a. If DBE suppliers and manufactures assume actual and contractual responsibility, the dollar value of materials to be furnished will be counted toward the goal as follows:
 - The entire expenditure paid to a DBE manufacturer;
 - 60 percent of expenditures to DBE suppliers that are not manufacturers provided the supplier is a regular dealer in the product involved. A regular dealer must be engaged in, as its principal business and in its own name, the sale of products to the public, maintain an inventory and own and operate distribution equipment; and
 - The amount of fees or commissions charged by the DBE firms for a bona fide service, such as professional, technical, consultant, or managerial services and assistance in the procurement of essential personnel, facilities, equipment, materials, supplies, delivery of materials and supplies or for furnishing bonds, or insurance, providing such fees or commissions are determined to be reasonable and customary.

- b) The dollar value of services provided by DBEs such as quality control testing, equipment repair and maintenance, engineering, staking, etc.;
 - c) The dollar value of joint ventures. DBE credit for joint ventures will be limited to the dollar amount of the work actually performed by the DBE in the joint venture;
4. Written and signed documentation of the bidder's commitment to use a DBE contractor whose participation is being utilized to meet the DBE goal; and
 5. Written and signed confirmation from the DBE that it is participating in the contract as provided in the prime contractor's commitment.

UPON AWARD AND BEFORE A WORK ORDER WILL BE ISSUED

Contractors must submit the signed subcontract between the contractor and the DBE contractor, along with the DBE's certificate of insurance. If the DBE is a supplier of materials for the project, a signed purchase order must be submitted to the Division of Construction Procurement.

Changes to DBE Participation Plans must be approved by the Cabinet. The Cabinet may consider extenuating circumstances including, but not limited to, changes in the nature or scope of the project, the inability or unwillingness of a DBE to perform the work in accordance with the bid, and/or other circumstances beyond the control of the prime contractor.

CONSIDERATION OF GOOD FAITH EFFORTS REQUESTS

If the DBE participation submitted in the bid by the apparent lowest responsive bidder does not meet or exceed the DBE contract goal, the apparent lowest responsive bidder must submit a Good Faith Effort Package to satisfy the Cabinet that sufficient good faith efforts were made to meet the contract goals prior to submission of the bid. Efforts to increase the goal after bid submission will not be considered in justifying the good faith effort, unless the contractor can show that the proposed DBE was solicited prior to the letting date. DBEs utilized in achieving the DBE goal must be certified and prequalified for the work items at the time the bid is submitted. One complete set (hard copy along with an electronic copy) of this information must be received in the Division of Contract Procurement no later than 12:00 noon of the tenth calendar day after receipt of notification that they are the apparent low bidder.

Where the information submitted includes repetitious solicitation letters it will be acceptable to submit a sample representative letter along with a distribution list of the firms solicited. Documentation of DBE quotations shall be a part of the good faith effort submittal as necessary to demonstrate compliance with the factors listed below which the Cabinet considers in judging good faith efforts. This documentation may include written subcontractors' quotations, telephone log notations of verbal quotations, or other types of quotation documentation.

The Good Faith Effort Package shall include, but may not be limited to information showing evidence of the following:

1. Whether the bidder attended any pre-bid meetings that were scheduled by the Cabinet to inform DBEs of subcontracting opportunities;
2. Whether the bidder provided solicitations through all reasonable and available means;
3. Whether the bidder provided written notice to all DBEs listed in the DBE directory at the time of the letting who are prequalified in the areas of work that the bidder will be subcontracting;
4. Whether the bidder followed up initial solicitations of interest by contacting DBEs to determine with certainty whether they were interested. If a reasonable amount of DBEs within the targeted districts do not provide an intent to quote or no DBEs are prequalified in the subcontracted areas, the bidder must notify the Disadvantaged Enterprise Business Liaison Officer (DEBLO) in the Office of Civil Rights and Small Business Development to give notification of the bidder's inability to get DBE quotes;
5. Whether the bidder selected portions of the work to be performed by DBEs in order to increase the likelihood of meeting the contract goals. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise perform these work items with its own forces;
6. Whether the bidder provided interested DBEs with adequate and timely information about the plans, specifications, and requirements of the contract;
7. Whether the bidder negotiated in good faith with interested DBEs not rejecting them as unqualified without sound reasons based on a thorough investigation of their capabilities. Any rejection should be so noted in writing with a description as to why an agreement could not be reached;
8. Whether quotations were received from interested DBE firms but were rejected as unacceptable without sound reasons why the quotations were considered unacceptable. The fact that the DBE firm's quotation for the work is not the lowest quotation received will not in itself be considered as a sound reason for rejecting the quotation as unacceptable. The fact that the bidder has the ability and/or desire to perform the contract work with its own forces will not be considered a sound reason for rejecting a DBE quote. Nothing in this provision shall be construed to require the bidder to accept unreasonable quotes in order to satisfy DBE goals;
9. Whether the bidder specifically negotiated with subcontractors to assume part of the responsibility to meet the contract DBE goal when the work to be subcontracted includes potential DBE participation;
10. Whether the bidder made any efforts and/or offered assistance to interested DBEs in obtaining the necessary equipment, supplies, materials, insurance and/or bonding to satisfy the work requirements of the bid proposal; and
11. Any other evidence that the bidder submits which may show that the bidder has made reasonable good faith efforts to include DBE participation.

FAILURE TO MEET GOOD FAITH REQUIREMENT

Where the apparent lowest responsive bidder fails to submit sufficient participation by DBE firms to meet the contract goal and upon a determination by the Good Faith Committee based upon the information submitted that the apparent lowest responsive bidder failed to make sufficient reasonable efforts to meet the contract goal, the bidder will be offered the opportunity to meet in person for administrative reconsideration. The bidder will be notified of the Committee's decision within 24 hours of its decision. The bidder will have 24 hours to request reconsideration of the Committee's decision. The reconsideration meeting will be held within two days of the receipt of a request by the bidder for reconsideration.

The request for reconsideration will be heard by the Office of the Secretary. The bidder will have the opportunity to present written documentation or argument concerning the issue of whether it met the goal or made an adequate good faith effort. The bidder will receive a written decision on the reconsideration explaining the basis for the finding that the bidder did or did not meet the goal or made adequate Good Faith efforts to do so.

The result of the reconsideration process is not administratively appealable to the Cabinet or to the United States Department of Transportation.

The Cabinet reserves the right to award the contract to the next lowest responsive bidder or to rebid the contract in the event that the contract is not awarded to the low bidder as the result of a failure to meet the good faith requirement.

SANCTIONS FOR FAILURE TO MEET DBE REQUIREMENTS OF THE PROJECT

Failure by the prime contractor to fulfill the DBE requirements of a project under contract or to demonstrate good faith efforts to meet the goal constitutes a breach of contract. When this occurs, the Cabinet will hold the prime contractor accountable, as would be the case with all other contract provisions. Therefore, the contractor's failure to carry out the DBE contract requirements shall constitute a breach of contract and as such the Cabinet reserves the right to exercise all administrative remedies at its disposal including, but not limited to the following:

- Disallow credit toward the DBE goal;
- Withholding progress payments;
- Withholding payment to the prime in an amount equal to the unmet portion of the contract goal; and/or
- Termination of the contract.

PROMPT PAYMENT

The prime contractor will be required to pay the DBE within seven (7) working days after he or she has received payment from the Kentucky Transportation Cabinet for work performed or materials furnished.

CONTRACTOR REPORTING

All contractors must keep detailed records and provide reports to the Cabinet on their progress in meeting the DBE requirement on any highway contract. These records may include, but shall not be limited to payroll, lease agreements, cancelled payroll checks, executed subcontracting agreements, etc. Prime contractors will be required to complete and submit a **signed and notarized** Affidavit of Subcontractor Payment (TC 18-7) and copies of checks for any monies paid to each DBE subcontractor or supplier utilized to meet a DBE goal. These documents must be completed and signed within 7 days of being paid by the Cabinet.

Payment information that needs to be reported includes date the payment is sent to the DBE, check number, Contract ID, amount of payment and the check date. Before Final Payment is made on this contract, the Prime Contractor will certify that all payments were made to the DBE subcontractor and/or DBE suppliers.

******* IMPORTANT *******

Please mail the original, signed and completed TC (18-7) Affidavit of Subcontractor Payment form and all copies of checks for payments listed above to the following address:

Office of Civil Rights and Small Business Development
6th Floor West 200 Mero Street
Frankfort, KY 40622

The prime contractor should notify the KYTC Office of Civil Rights and Small Business Development seven (7) days prior to DBE contractors commencing work on the project. The contact in this office is Mr. Melvin Bynes. Mr. Bynes' current contact information is email address – melvin.bynes2@ky.gov and the telephone number is (502) 564-3601.

DEFAULT OR DECERTIFICATION OF THE DBE

If the DBE subcontractor or supplier is decertified or defaults in the performance of its work, and the overall goal cannot be credited for the uncompleted work, the prime contractor may utilize a substitute DBE or elect to fulfill the DBE goal with another DBE on a different work item. If after exerting good faith effort in accordance with the Cabinet's Good Faith Effort policies and procedures, the prime contractor is unable to replace the DBE, then the unmet portion of the goal may be waived at the discretion of the Cabinet.

7/19/2019

LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC – CARGO PREFERENCE ACT (CPA).

(REV 12-17-15) (1-16)

SECTION 7 is expanded by the following new Article:

102.10 **Cargo Preference Act – Use of United States-flag vessels.**

Pursuant to Title 46CFR Part 381, the Contractor agrees

- To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

- To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph 1 of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

- To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

ASPHALT MIXTURE

Unless otherwise noted, the Department estimates the rate of application for all asphalt mixtures to be 110 lbs/sy per inch of depth.

DGA BASE

Unless otherwise noted, the Department estimates the rate of application for DGA Base to be 115 lbs/sy per inch of depth.

DGA BASE FOR SHOULDERS

Unless otherwise noted, the Department estimates the rate of application for DGA Base for Shoulders to be 115 lbs/sy per inch of depth. The Department will not measure necessary grading and/or shaping of existing shoulders prior to placing of DGA Base, but shall be incidental to the Contract unit price per ton for DGA Base.

Accept payment at the Contract unit price per ton as full compensation for all labor, materials, equipment, and incidentals for grading and/or shaping of existing shoulders and furnishing, placing, and compacting the DGA Base.

INCIDENTAL SURFACING

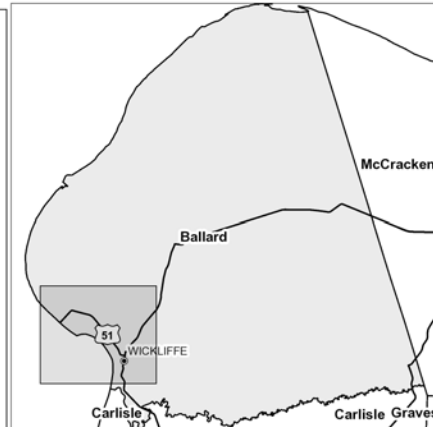
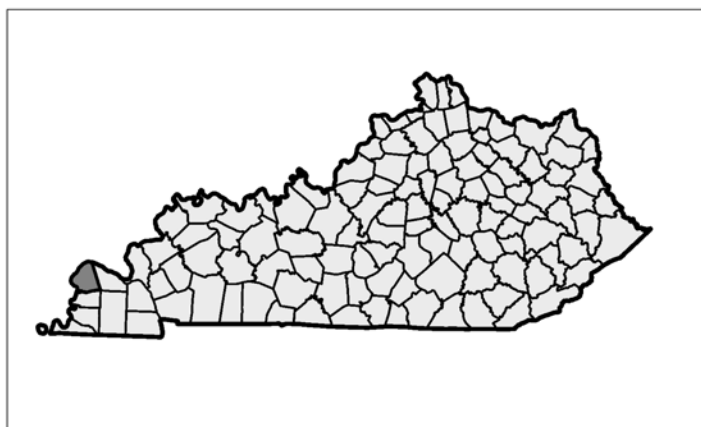
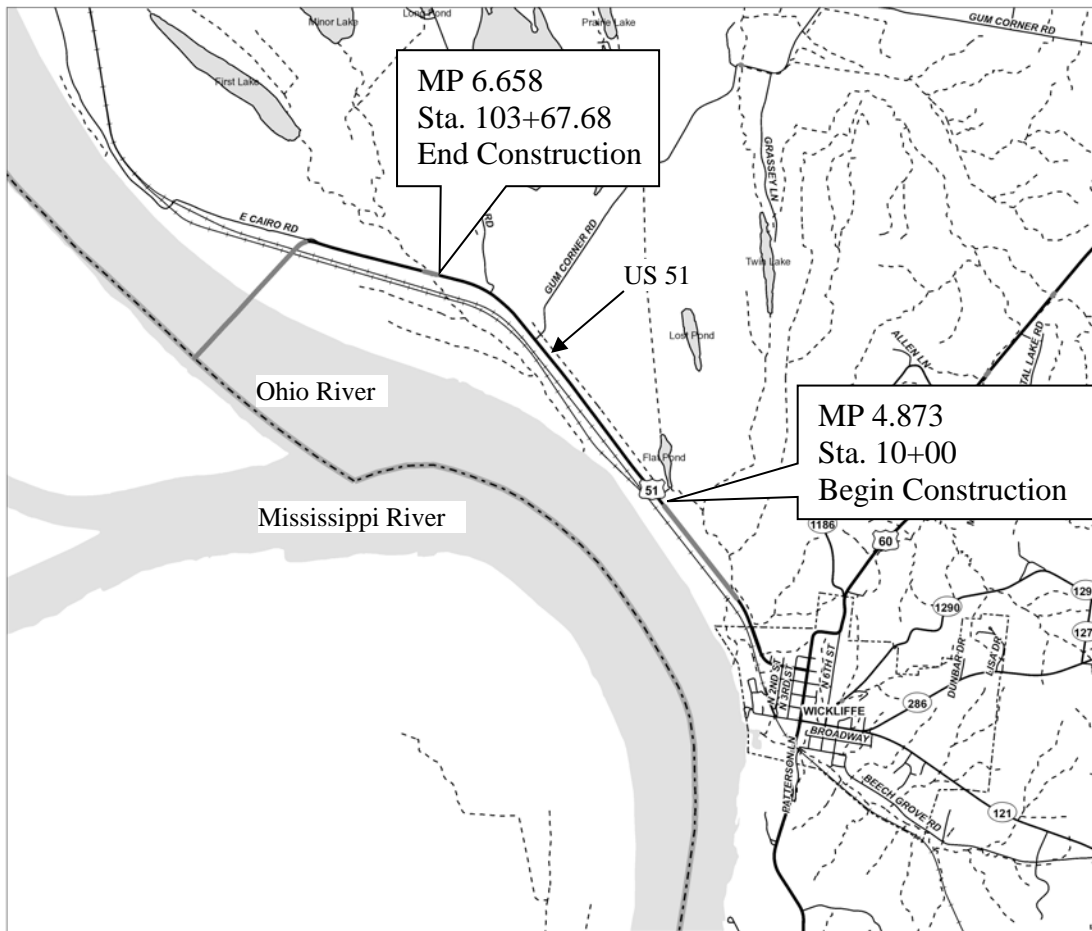
The Department has included in the quantities of asphalt mixtures established in the proposal estimated quantities required for resurfacing or surfacing mailbox turnouts, farm field entrances, residential and commercial entrances, curve widening, ramp gores and tapers, and road and street approaches, as applicable. Pave these areas to the limits as shown on Standard Drawing RPM-110-06 or as directed by the Engineer. In the event signal detectors are present in the intersecting streets or roads, pave the crossroads to the right of way limit or back of the signal detector, whichever is the farthest back of the mainline. Surface or resurface these areas as directed by the Engineer. The Department will not measure placing and compacting for separate payment but shall be incidental to the Contract unit price for the asphalt mixtures.

JPC RIDE QUALITY

The Department will apply JPC Ride Quality requirements on this project in accordance with Section 501.03.19(B).

FUEL AND ASPHALT PAY ADJUSTMENT

The Department has included the Contract items Asphalt Adjustment and Fuel Adjustment for possible future payments at an established Contract unit price of \$1.00. The Department will calculate actual adjustment quantities after work is completed. If existing Contract amount is insufficient to pay all items on the contract with the adjustments, the Department will establish additional monies with a change order.



Not to Scale

Item Number: 1-20000.00

Construction Numbers: NHPP 0511 (050), FD52 004 0051 004-007

Letting Date: March 20, 2020

Recommended By: ANDRE JOHANNES Date: _____
Project Manager

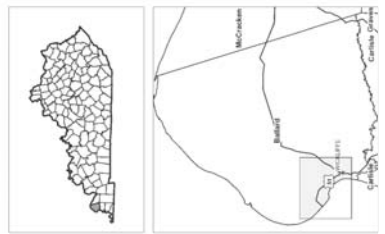
Plan Approved By: _____ Date: _____
State Highway Engineer

COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	RI

Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS

PLANS OF PROPOSED PROJECT BALLARD COUNTY

US 51
NHPP 0511 (050)
FD52 004 0051 004-007



INDEX OF SHEETS

SHEET NO.	DESCRIPTION
RI	LAYOUT SHEET
R2	TYPICAL SECTIONS-SUMMARY OF QUANTITIES
R3	TYPICAL SECTIONS-PILE SHEETS
R4	DETAIL SHEETS
R5	COORDINATE CONTROL SHEETS
R6	TRAFFIC CONTROL SHEETS
X1 - X19	CROSS SECTION SHEETS

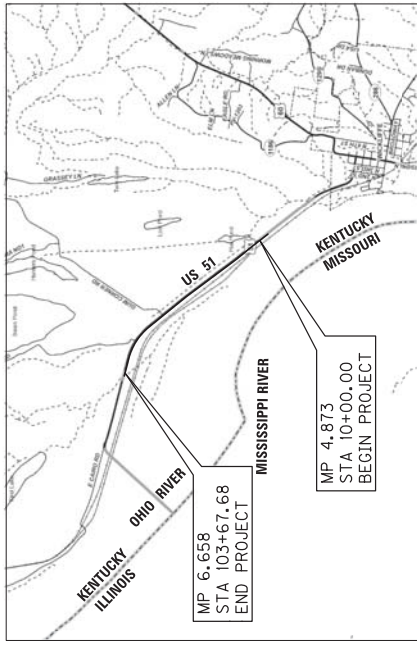
SHEETS NOT INCLUDED IN TOTAL SHEETS

R2a - R2a, R10a - R10k

STANDARD DRAWINGS

NUMBER	DESCRIPTION
RBB-001-08	RRK-001-07
RBC-002-03	RRK-010-07
RBI-002-07	RRK-015-05
RBR-010-06	RPS-000-11
RBS-010-07	RPS-002-14
RBT-002-02	RPS-003-06
RBU-003-08	RPS-004-06
RBV-001-06	RPS-005-04
RBW-001-06	RPS-006-04
RBY-001-07	TRM-HS-03
RBY-001-07	TTC-HO-03

19 STANDARD DRAWINGS



THESE PLANS ARE FOR GRADE, DRAIN & SURFACE

THIS PROJECT IS ON THE NH SYSTEM

THE CONTROL OF ACCESS ON THIS PROJECT SHALL BE BY PERMIT

DESIGN CRITERIA

CLASS OF HIGHWAY PRINCIPAL ARTERIAL

TYPE OF TERRAIN ROLLING

DESIGN SPEED 55 MPH

REQUIRED PSD

LEVEL OF SERVICE

ADT PRESENT ()

ADT FUTURE ()

DIV

T X

GEOGRAPHIC COORDINATES

LATITUDE 36 DEGREES 59 MINUTES 40 SECONDS NORTH

LONGITUDE 89 DEGREES 07 MINUTES 02 SECONDS WEST

DESIGNED

% RESTRICTED SD

LEVEL OF SERVICE

MAX. DISTANCE W/O PASSING

LENGTH 3367.68	LN. FT.	1.77	MILES
FOR EQUALITIES	INCLUDED	N/A	LN. FT.
RAILROAD CROSSINGS NO.	N/A	N/A	LN. FT.
BRIDGES	N/A	N/A	LN. FT.

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS
COUNTY OF
BALLARD

ITEM NO. 1-20000.00
PROJECT NHPP 0511 (050)
NUMBER FD52 004 0051 004-007
LETTING DATE:

RECOMMENDED BY: ANDRE JOHANNES
PROJECT MANAGER

DATE:

PLAN APPROVED BY: _____
STATE HIGHWAY ENGINEER

PREPARED AND SUBMITTED BY
DIZ WMB
EXPIRES FEBRUARY 12, 2020

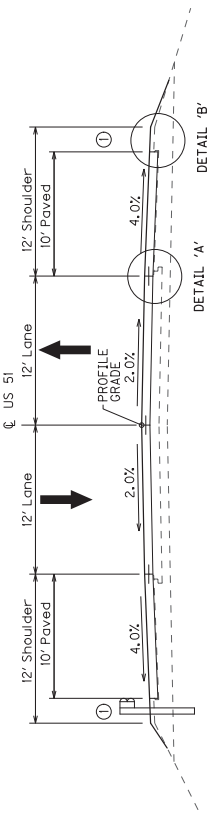
By: James D. Napier
DATE: February 12, 2020
KY REGISTRATION NO.: 10,393



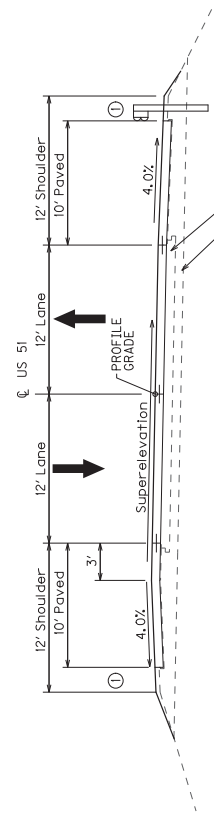
COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	R2

TYPICAL SECTIONS US 51

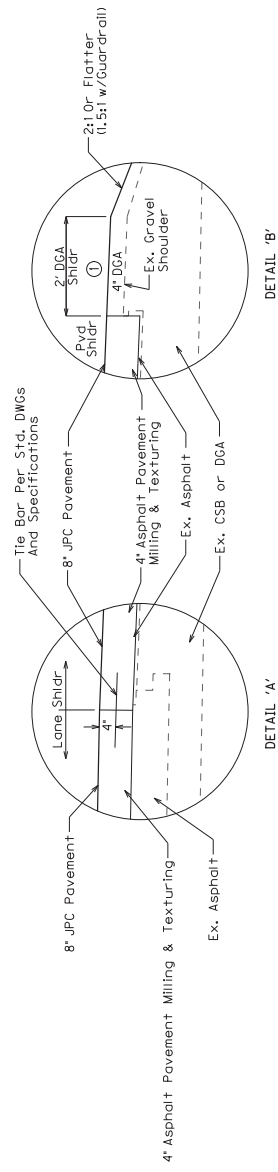
STA 10+00 TO STA 26+00
STA 100+75 TO END PROJECT



NORMAL SECTION



SUPERELEVATED SECTION



PAVEMENT REHABILITATION DRIVING LANES & SHOULDERS

SURFACE --- 8" JPC PAVEMENT
--- 4" ASPHALT PAVEMENT MILLING & TEXTURING

NOTE
The Milling Depth Shown Is Nominal. Actual Depth May Vary From Section To Section Depending On Existing Conditions And Pavement Cross Section. The JPC Pavement Thickness Is 8 To 10 Inches. See The Profile Elevations And Cross Sections For Actual Milling Depth.

- ① Asphalt Seal Coat Required From The Outside Edge Of The Paved Shoulder To A Point 2' Down The Ditch Or Fill Slope 10:1 As Directed By The Engineer.
- Two (2) Applications Required At The Rate Of: 2.40 Lbs/SY Item 103 Asphalt Seal Coat 2.40 Lbs/SY Item 107 Asphalt Seal Aggregate (Size No. 8 OR 3M).
- Nominal 4" Depth Of DGA Shown. The Depth May Vary To Correct Existing Shoulder Settlement And Pavement Cross sections.

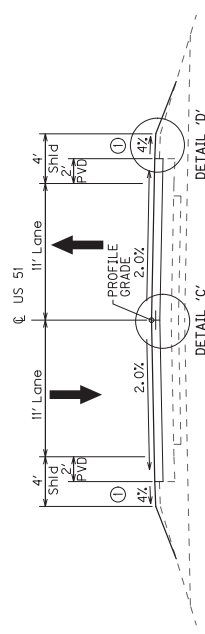
TYPICAL SECTIONS

NTS

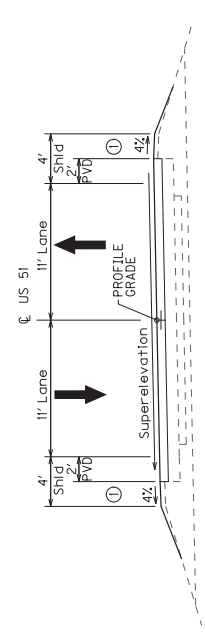
COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	R22

TYPICAL SECTIONS US 51

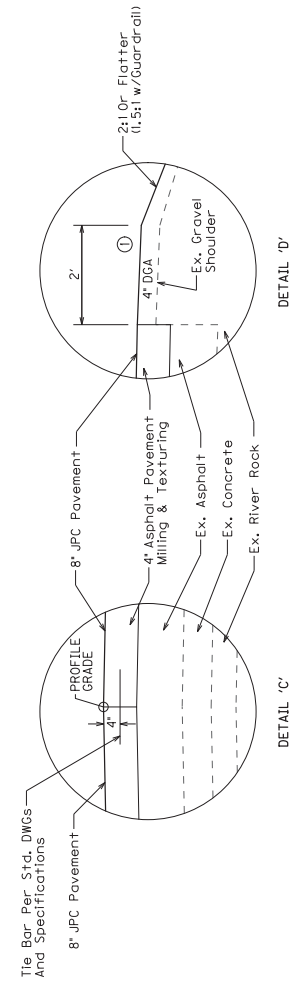
STA 26+00 TO STA 100+75



NORMAL SECTION



SUPERELEVATED SECTION



See Bar Per Std. DWGs And Specifications

PAVEMENT REHABILITATION DRIVING LANES & SHOULDERS

SURFACE --- 8" JPC PAVEMENT
--- 4" ASPHALT PAVEMENT MILLING & TEXTURING

NOTE

The Milling Depth Shown Is Nominal. Actual Depth May Vary To Correct Existing Grade Irregularities And Pavement Cross Sections. The JPC Pavement Depth Is To Be 8 Inches. See The Profile Elevations And Cross Sections For Actual Milling Depth.

- ① Asphalt Seal Coat Required From The Outside Edge Of The Paved Shoulder To A Point 2' Down The Ditch Or Fill Slope 10' As Directed By The Engineer.
- Two (2) Applications Required At The Rate Of: 2.40 Lbs/SY Item 103 Asphalt Seal Coat (Size No. 8 OR 3M).
- 100 Asphalt Seal Aggregate (Size No. 8 OR 3M).

Nominal 4' Depth Of DCA Shown. The Depth May Vary To Correct Existing Shoulder Settlement And Pavement Cross sections.

TYPICAL SECTIONS

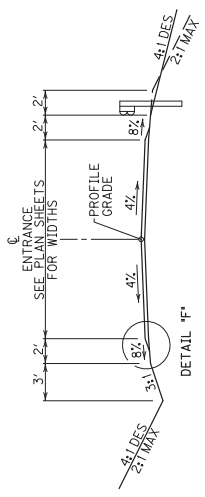
NTS

COUNT OF	ITEM NO.	SHEET
BALLARD	I-20000.00	R22

TYPICAL SECTIONS US 51

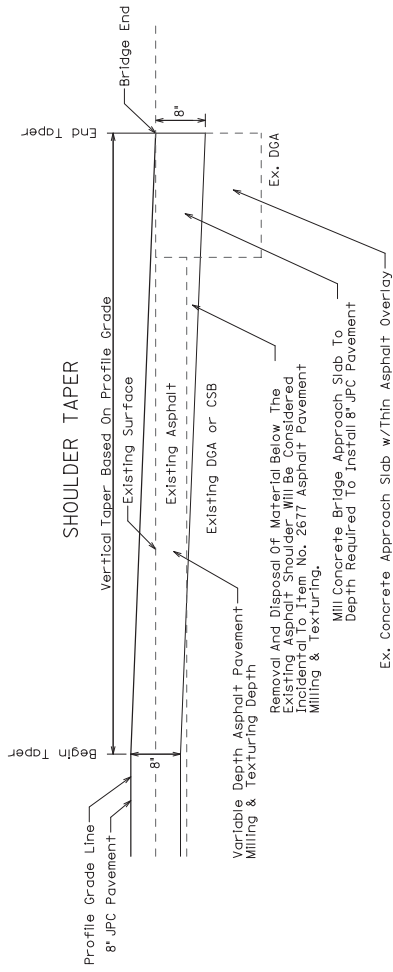
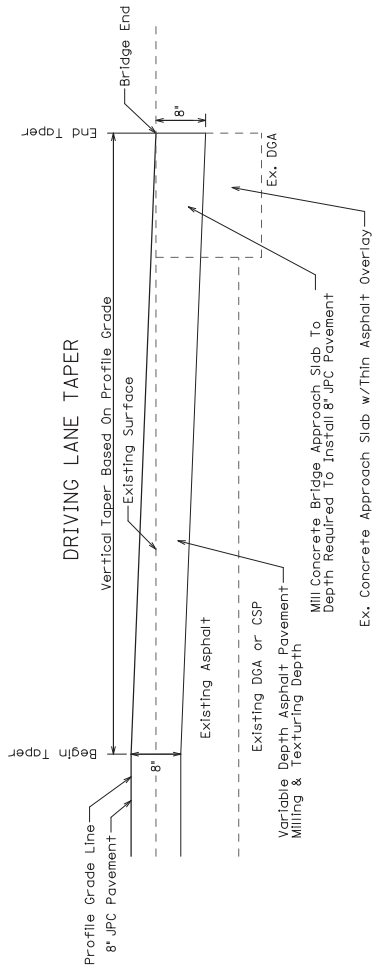
ENTRANCES

GRAVEL



DETAIL "F"
NEW CONSTRUCTION
GRADE, DRAIN & FLEXIBLE PAVEMENT
USING
APPROXIMATELY 4" SURFACE [4" TRAFFIC BOUND BASE

MILLING & OVERLAY TAPERS TO BRIDGE ENDS



DETAIL "E"
NEW CONSTRUCTION
GRADE, DRAIN & RIGID PAVEMENT
USING
APPROXIMATELY 4" BASE [4" COMPACTED DENSE GRADED AGGREGATE
APPROXIMATELY 8" SURFACE [8" JPC PAVEMENT - 8 IN

NOTE
The Milling Depth Shown Is Nominal. Actual Depth May Vary To Correct For Existing Grade Irregularities. The JPC Pavement Depth Is To Be 8 Inches. See The Profile Elevations And Cross Sections For Actual Milling Depth.

TYPICAL SECTIONS

NTS

GENERAL SUMMARY

COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	R22

ITEM	DESCRIPTION	UNIT	TOTAL
1845	ISLAND INTEGRAL CURB	LIN FT	100
1987	DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE	EACH	58
2014	BARRICADE TYPE III	TON	10
2200	ROADWAY EXCAVATION	CU YD	83
2351	GUARDRAIL-STEEL W BEAM-S FACE	LIN FT	3575
2360	GUARDRAIL TERMINAL SECTION NO 1	EACH	3
2363	GUARDRAIL CONNECTOR TO BRIDGE END TY A	EACH	4
2367	GUARDRAIL END TREATMENT TYPE 1	EACH	3
2381	REMOVE GUARDRAIL	LIN FT	3697
2483	CHANNEL LINING CLASS II	TON	100
2562	TEMPORARY SIGNS	SO FT	250
2568	MOBILIZATION	LUMP SUM	1
2569	DEMORILIZATION	LUMP SUM	1
2650	MAINTAIN AND CONTROL TRAFFIC	LUMP SUM	1
2671	PORTABLE CHANGEABLE MESSAGE SIGN	EACH	2
2701	TEMPORARY SILT FENCE	LIN FT	18700
2726	STAKING	LUMP SUM	1
4933	TEMP SIGNAL 2 PHASE	EACH	4
5950	EROSION CONTROL BLANKET	SO YD	5000
6403	FLEXIBLE DELINEATOR POST-B/W	EACH	120
6510	PAVE STRIPING-TEMP PAINT-4 IN	LIN FT	37472
6549	PAVE STRIPING-TEMP REM TAPE-B	LIN FT	3000
6550	PAVE STRIPING-TEMP REM TAPE-W	LIN FT	1000
6551	PAVE STRIPING-TEMP REM TAPE-Y	LIN FT	1500
6556	PAVE STRIPING-DUR TY 1-6 IN W	LIN FT	18692
6557	PAVE STRIPING-DUR TY 1-6 IN Y	LIN FT	6657
10020NS	FUEL ADJUSTMENT	DOLLAR	1291
22664EN	WATER BLASTING EXISTING STRIPE	LIN FT	18692
24489EC	INLAID PAVEMENT MARKER	EACH	117
24894EC	REMOVE (FLIME)	EACH	1

NOTES:

EARTHWORK TOTALS:
COM 83 CU YD
EMB 26 CU YD

- ① TO BE USED AS DIRECTED BY THE ENGINEER.
- ② RT STA 101+20. BID ITEM INCLUDES RE-GRADING THE DISTURBED AREA, INSTALL EROSION CONTROL BLANKET ON DISTURBED AREA (TO BE PAID FOR BY ITEM NO. 5950 "EROSION CONTROL BLANKET").

GENERAL SUMMARY

COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	R22

PAVING AREAS

ITEM	TOTAL PROJECT	SQ YD
VARIABLE DEPTH ASPHALT PAVEMENT MILLING & TEXTURING LEVELING & WEDGING PG64-22	⑦	3949
VARIABLE DEPTH MILLING CONCRETE PAVEMENT	⑦	218
8" JPC PAVEMENT		260
		31487
DENSE GRADED AGGREGATE	⑦	1452
4" TRAFFIC BOUND BASE		35
ASPHALT SEAL AGGREGATE	④	17612
ASPHALT SEAL COAT	④	17612

PAVING SUMMARY

ITEM CODE	ITEM	UNIT	TOTAL PROJECT
1	DENSE GRADED AGGREGATE	① TON	3006
20	TRAFFIC BOUND BASE	③ TON	7
100	ASPHALT SEAL AGGREGATE	⑤ TON	177
103	ASPHALT SEAL COAT	⑥ TON	22
190	LEVELING & WEDGING PG64-22	⑥ TON	662
2084	JPC PAVEMENT-8 IN	SQ YD	31487
2676	MOBILIZATION FOR MILLING & TEXTURING	L.S.	11
2677	ASPHALT PAVEMENT MILLING & TEXTURING	② TON	7819
20362ES403	SHOULDER RUMBLE STRIPS-SAWED	LIN FT	18692
24493EX	MILLING CONCRETE PAVEMENT	③ SQ YD	260

NOTES

- ① ALL ASPHALT MIXTURES SHALL BE ESTIMATED AT 110 LBS. PER SQ. YD. PER INCH OF DEPTH, OR 1.98 TONS PER CU. YD., UNLESS NOTED OTHERWISE.
- ② ESTIMATED AT 115 LBS. PER SQ. YD. PER INCH OF DEPTH, OR 2.07 TONS PER CU. YD.
- ③ ESTIMATED AT 110 LBS. PER SQ. YD. PER INCH OF DEPTH, OR 1.98 TONS PER CU. YD.
- ④ ESTIMATED AT 95 LBS. PER SQ. YD. PER INCH OF DEPTH.
- ⑤ AREA SHOWN IS FOR TWO APPLICATIONS.
- ⑥ ESTIMATED AT 20 LBS. PER SQ. YD.
- ⑦ ESTIMATED AT 2.4 LBS. PER SQ. YD.
- ⑧ QUANTITY SHOWN IN CUBIC YARDS. (SEE CROSS SECTIONS)
- ⑨ INCLUDES 230 TONS TO COVER RUMBLE STRIPS ON NORTHBOUND SHOULDER AND CORRECT PAVEMENT CROSS SLOPES IN THE NORTHBOUND DRIVING LANE PRIOR TO SHIFTING ALL TRAFFIC ONTO THEM IN MOT PHASE I.
- ⑩ FOR MILLING CONCRETE BRIDGE APPROACH SLABS TO DEPTH REQUIRED TO INSTALL 8 INCH JPC PAVEMENT AS SHOWN ON THE TAPER DETAILS ON SHEET R22.

COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	R24

GENERAL NOTES

JPC PAVEMENT RIDE QUALITY
 APPLY JPC PAVEMENT SMOOTHNESS REQUIREMENTS, IN ACCORDANCE WITH SUBSECTION 501.03.19 OF THE STANDARD SPECIFICATIONS, ON THIS PROJECT. CATEGORY 'A' SHALL APPLY.

STANDARD DRAWINGS
 STANDARD DRAWINGS ARE NOT ATTACHED TO THESE PLANS. A STANDARD DRAWING BOOK AND THE HEADWALL SUPPLEMENTAL BOOK MAY BE OBTAINED FROM THE POLICY SUPPORT BRANCH OF THE DEPARTMENT OF ADMINISTRATIVE SERVICES IN FRANKFORT, KY AT (502) 564-3670.

GUARDRAIL REMOVAL
 SALVAGE EXISTING MATERIAL AS PER SECTION 719.03.07, EXCEPT THAT THE CONTRACTOR SHALL DELIVER EXISTING SALVAGED GUARDRAIL SYSTEM MATERIALS TO THE CENTRAL SIGN SHOP AND RECYCLE CENTER AT 1224 WILKINSON BLVD IN FRANKFORT, KY. CONTACT SECTION SUPERVISOR AT (502) 564-8187 TO SCHEDULE THE DELIVERY OF MATERIAL. DELIVER THE MATERIAL BETWEEN THE HOURS OF 8:00 AM AND 3:00 PM, MONDAY THROUGH FRIDAY. REMOVE ANY EXISTING GUARDRAIL WITH A LANE CLOSURE IN PLACE. DO NOT LEAVE UNPROTECTED. AFTER THE GUARDRAIL IS REMOVED, A SHOULDER CLOSURE SHALL REMAIN IN PLACE UNTIL THE GUARDRAIL IS REPLACED IN THAT AREA.

CHANGEABLE MESSAGE BOARDS
 CHANGEABLE MESSAGE BOARDS FURNISHED BY THE CONTRACTOR SHALL BE RETAINED BY THE CONTRACTOR UPON COMPLETION OF THE PROJECT. SEE SPECIAL NOTE II PORTABLE CHANGEABLE MESSAGE SIGNS.

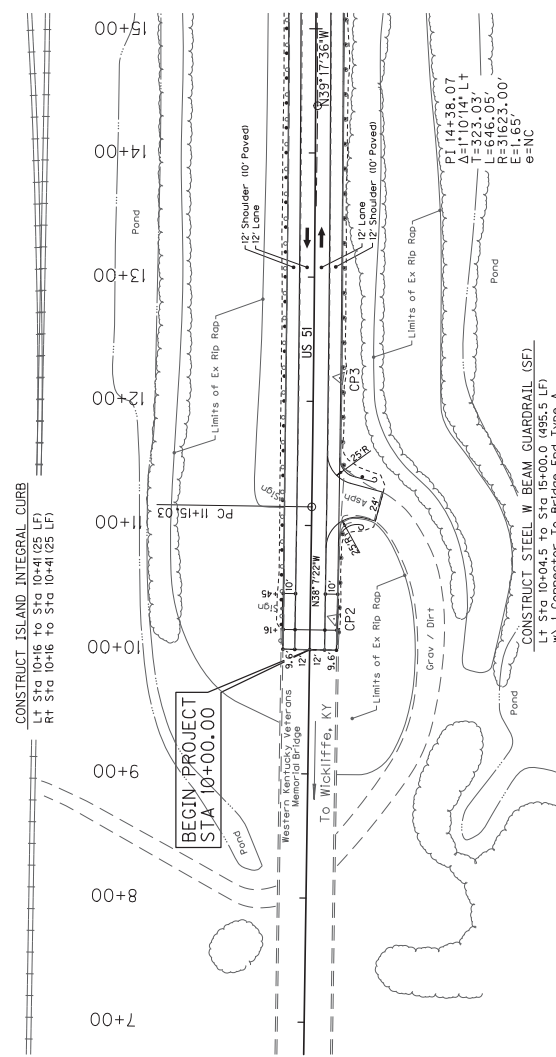
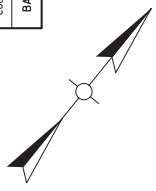
PROPOSAL ATTACHMENTS
 SPECIAL NOTE II PORTABLE CHANGEABLE MESSAGE SIGNS (6/15/12)
 SPECIAL NOTE IOT ACCEPTANCE OF JPC PAVEMENT THICKNESS
 SPECIAL NOTE FOR FIXED COMPLETION DATE AND LIQUIDATED DAMAGES
 SPECIAL NOTE FOR INLAID PAVEMENT MARKERS
 SPECIAL NOTE FOR WASTE AND BORROW SITES
 SPECIAL NOTE FOR TYPICAL SECTION DIMENSIONS
 M.U.T.C.D. - FIGURE 6H-12
 OTHER SPECIAL NOTES APPLICABLE TO THE PROJECT

BEFORE YOU DIG
 THE CONTRACTOR IS INSTRUCTED TO CALL 1-800-752-6007 TO REACH KY 811, THE ONE-CALL SYSTEM FOR INFORMATION ON THE LOCATION OF EXISTING UNDERGROUND UTILITIES. THE CALL IS TO BE PLACED A MINIMUM OF TWO (2) AND NO MORE THAN TEN (10) BUSINESS DAYS PRIOR TO EXCAVATION. THE CONTRACTOR SHOULD BE AWARE THAT OWNERS OF UNDERGROUND FACILITIES ARE NOT REQUIRED TO BE MEMBERS OF THE KY 811 ONE-CALL BEFORE-U-DIG (BUJ) SERVICE. THE CONTRACTOR MUST COORDINATE EXCAVATION WITH THE UTILITY OWNERS, INCLUDING THOSE WHOM DO NOT SUBSCRIBE TO KY 811. IT MAY BE NECESSARY FOR THE CONTRACTOR TO CONTACT THE COUNTY COURT CLERK TO DETERMINE WHAT UTILITY COMPANIES HAVE FACILITIES IN THE AREA.

ASPHALT MILLING AND TEXTURING OPERATION
 ALL ASPHALT MILLINGS FROM THIS PROJECT WILL BE DISPOSED OF ON-SITE AS DIRECTED BY THE ENGINEER.

GENERAL NOTES

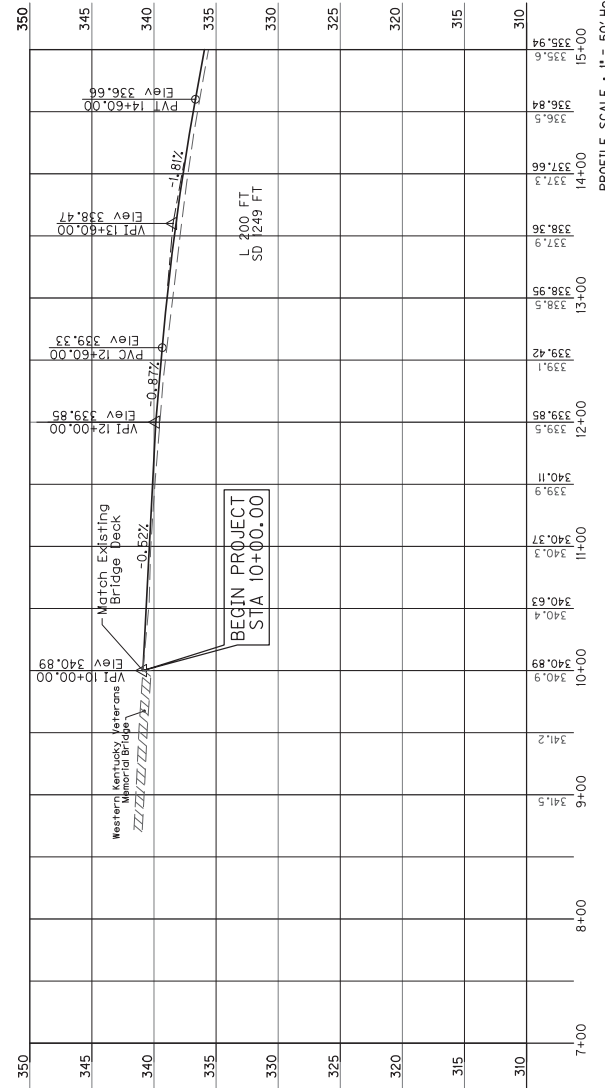
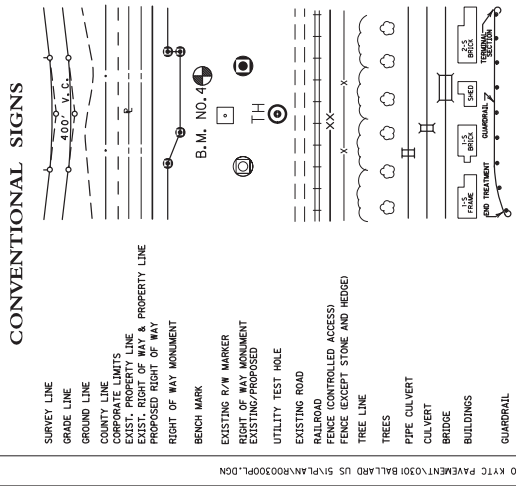
COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	R3



STATION	WIDTH	TYPE	B.P.C.C. PAVING
11+30.0	RT	24'	Field
	LT	24'	Field

REMOVE EXISTING GUARDRAIL
 LT Sta 10+04.5 to Sta 15+00.0 (495.5 LF)
 RT Sta 10+04.5 to Sta 11+02.9 (103.2 LF)
 RT Sta 11+43.7 to Sta 15+00.0 (360.9 LF)

PLAN SCALE : 1" = 50'



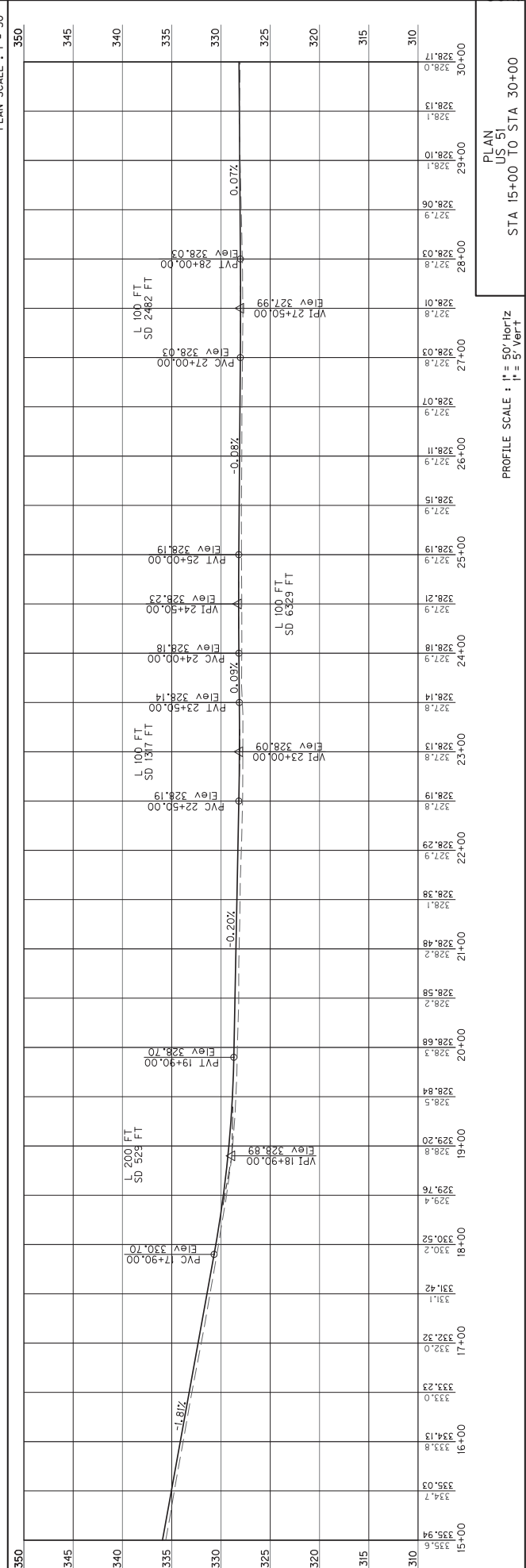
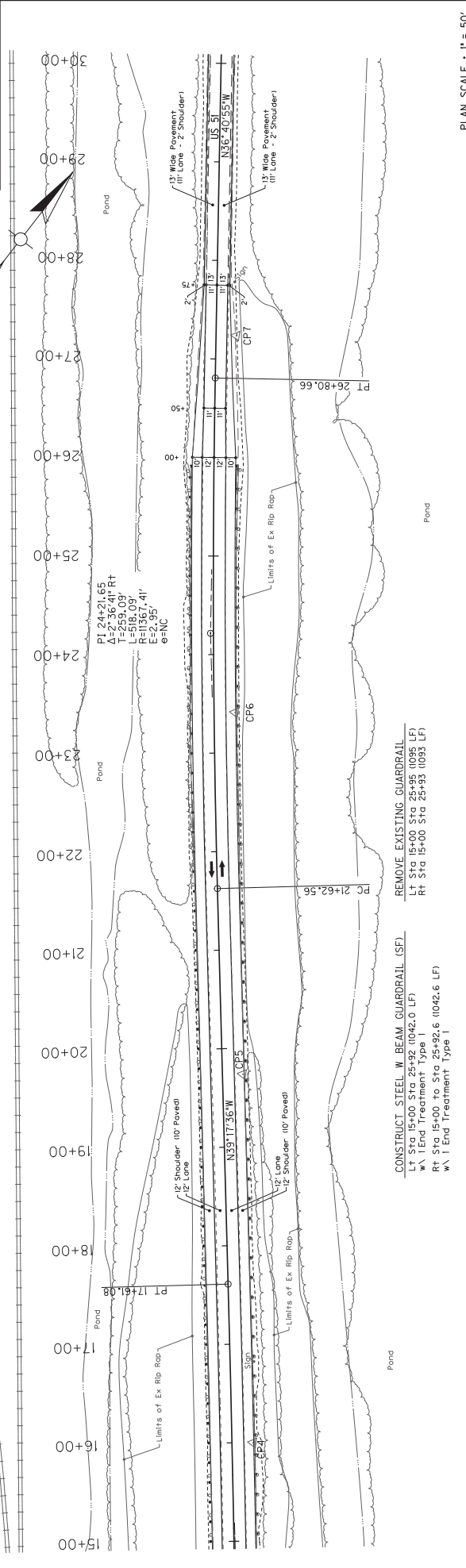
PROFILE SCALE : 1" = 50' Horiz
 1" = 5' Vert

DESIGNED BY:
 DATE SUBMITTED:
Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS
 COUNTY OF
BALLARD

PROJECT: NHPD 05H1 (05E)
 NUMBERS: FD52 004 005H 004-007

US 51
 STA 10+00 TO STA 15+00

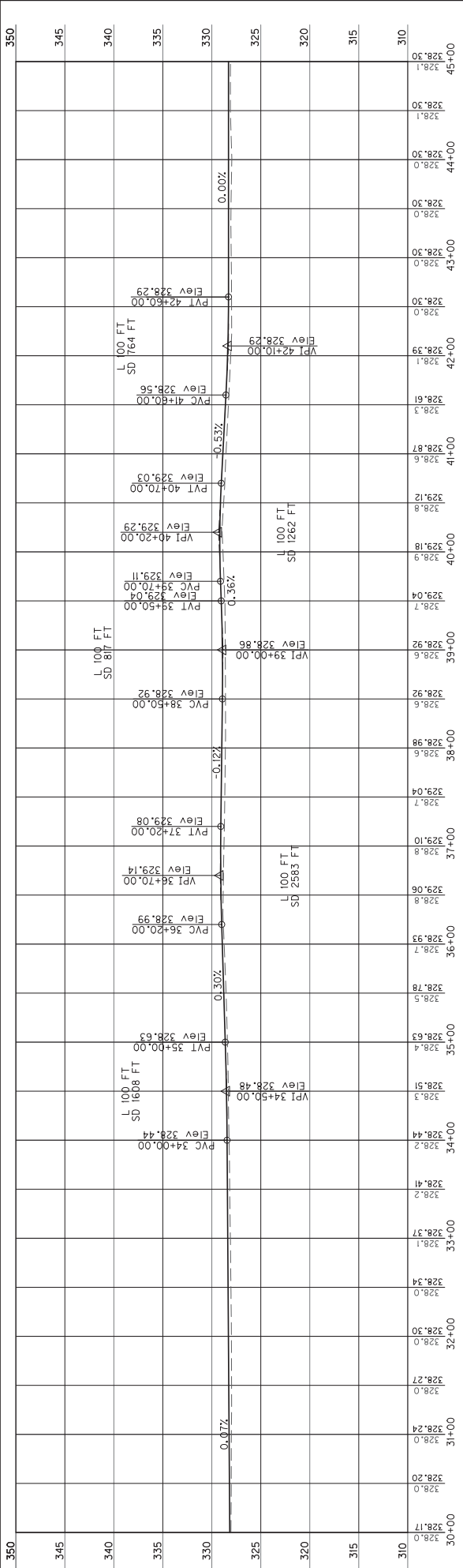
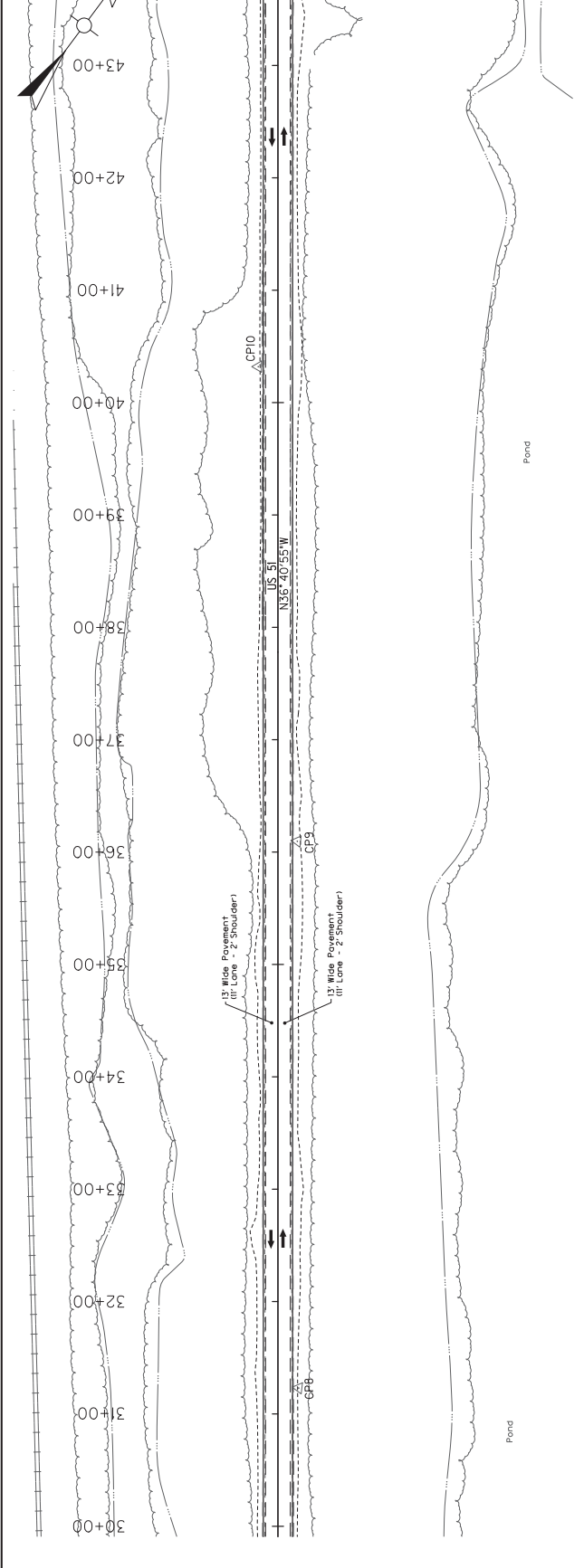
COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	R4



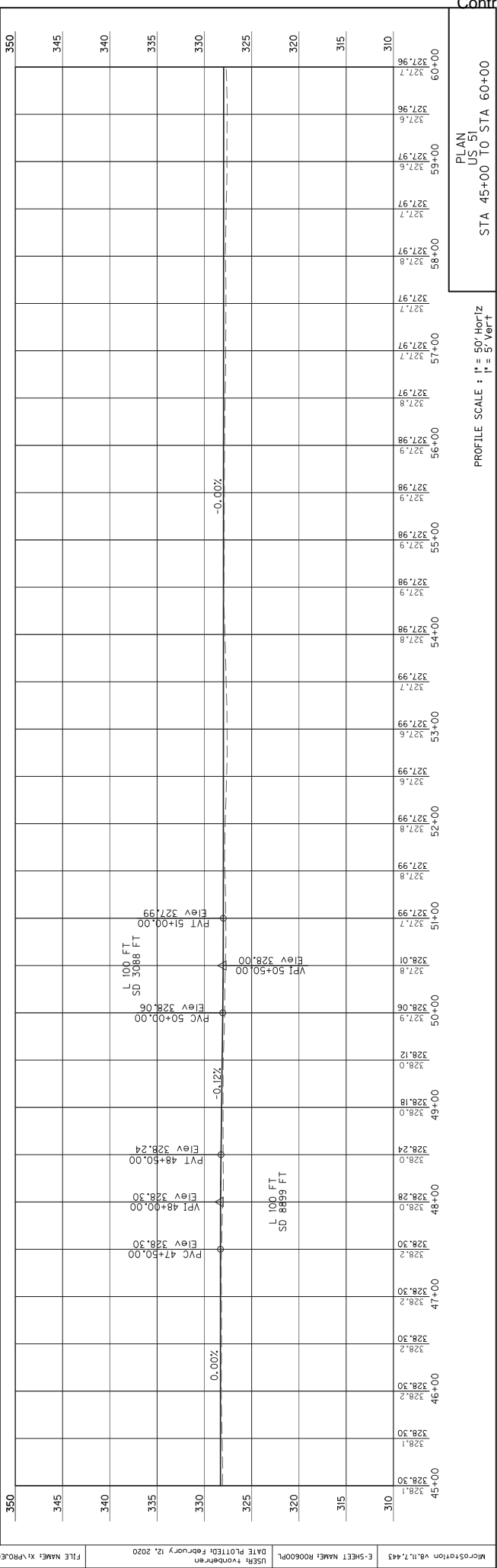
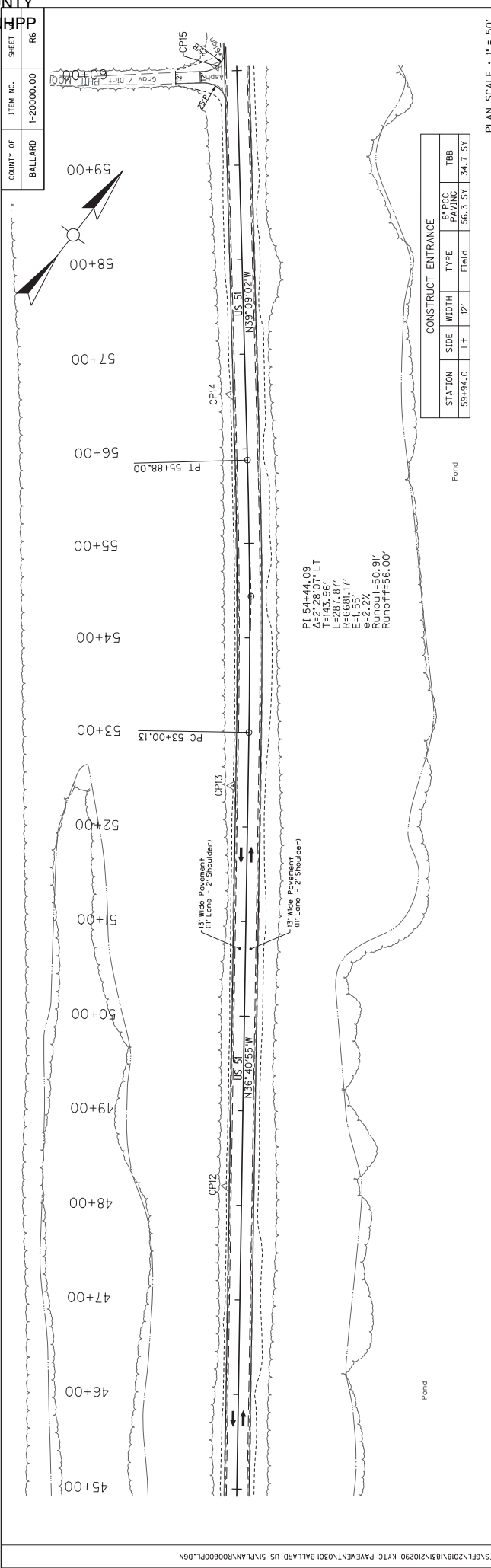
PLAN
US 51
STA 15+00 TO STA 30+00

PROFILE SCALE : 1" = 50' Horiz
1" = 5' Vert

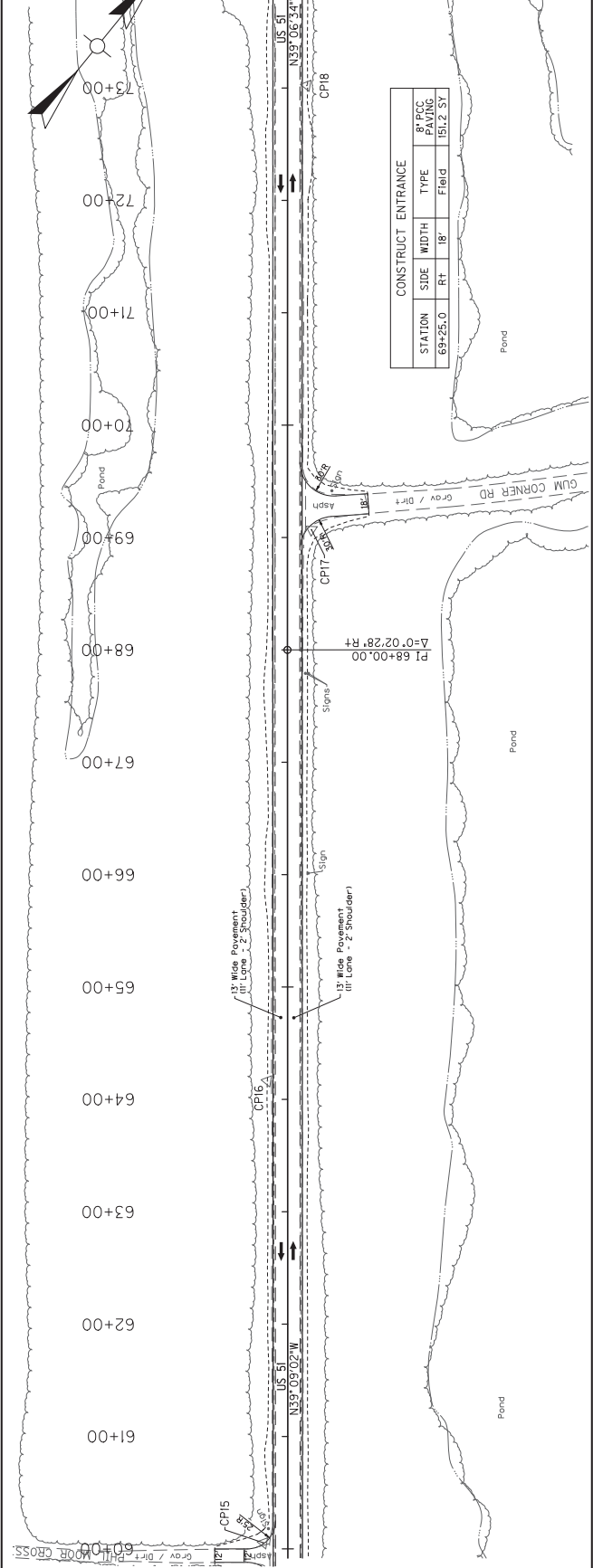
COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	RS



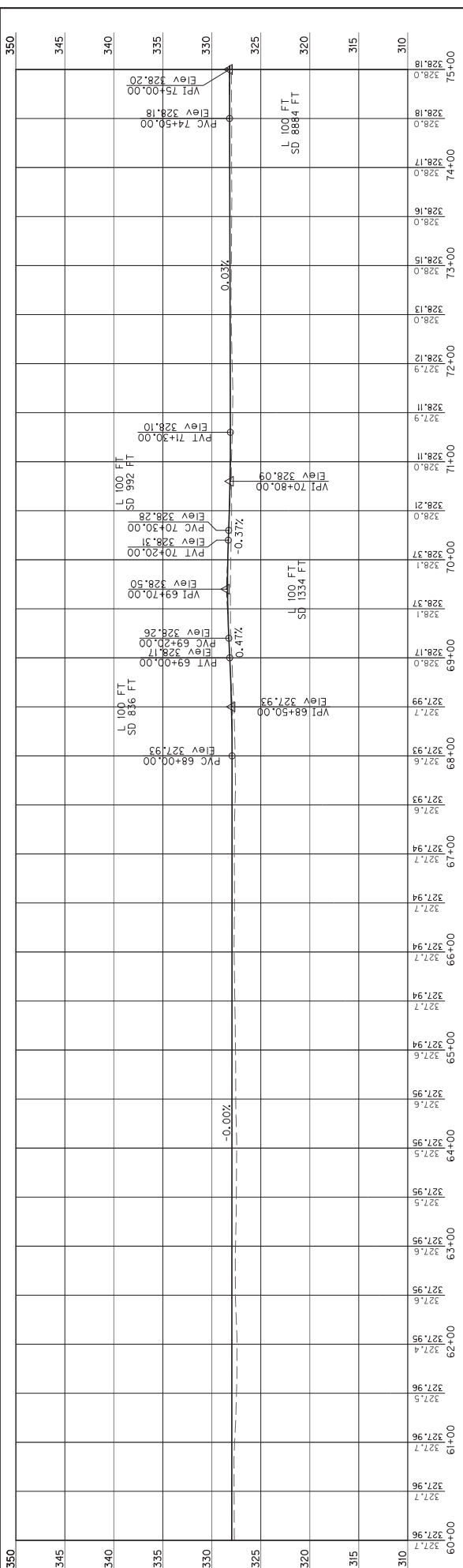
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311	328.0	328.24	31+00
312	328.0	328.37	32+00
313	328.0	328.30	32+00
314	328.0	328.34	33+00
315	328.1	328.37	33+00
316	328.2	328.41	34+00
317	328.2	328.44	34+00
318	328.3	328.51	35+00
319	328.4	328.63	35+00
320	328.5	328.78	36+00
321	328.7	328.93	36+00
322	328.7	328.92	37+00
323	328.8	329.06	37+00
324	328.8	329.10	37+00
325	328.8	329.14	38+00
326	328.8	329.18	38+00
327	328.8	329.22	39+00
328	328.9	329.29	39+00
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332	328.9	329.52	41+00
333	328.9	329.56	42+00
334	328.9	329.59	42+00
335	328.9	329.61	43+00
336	328.9	329.63	43+00
337	328.9	329.66	44+00
338	328.9	329.68	44+00
339	328.9	329.70	45+00
340	328.9	329.71	45+00



COUNTY OF	ITEM NO.	SHEET
BALLARD	I-20000.00	RT

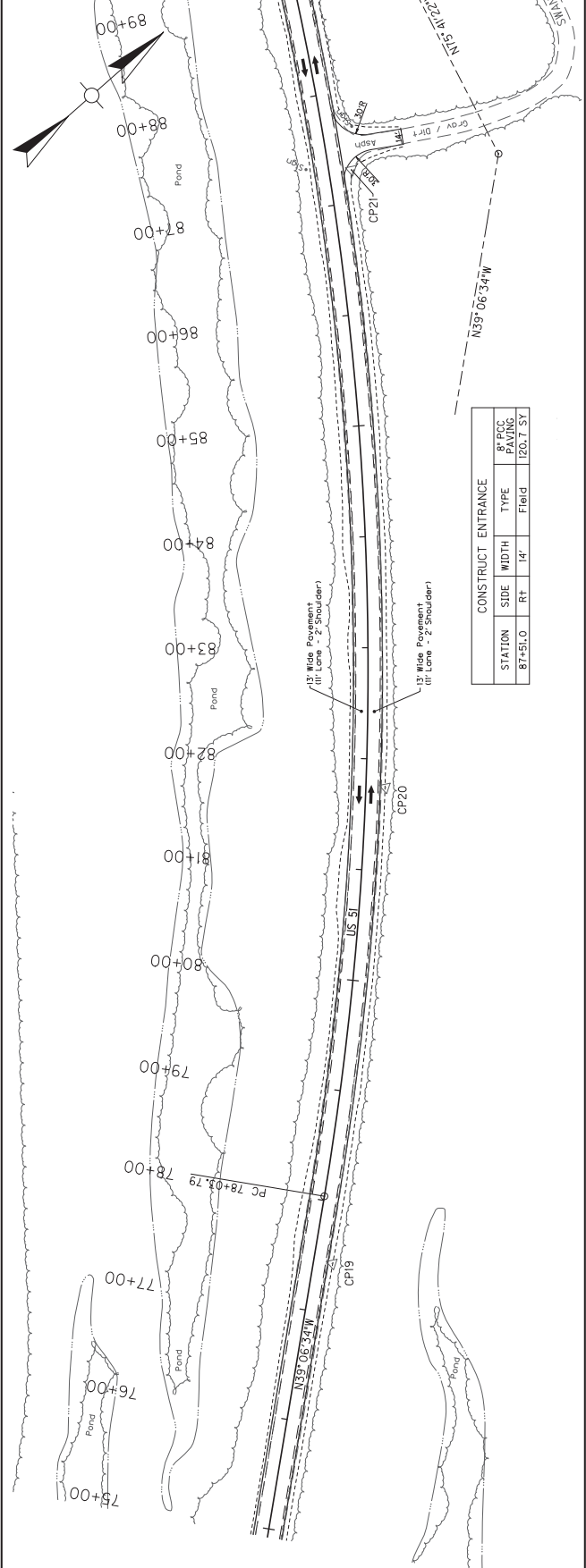


PLAN SCALE : 1" = 50'

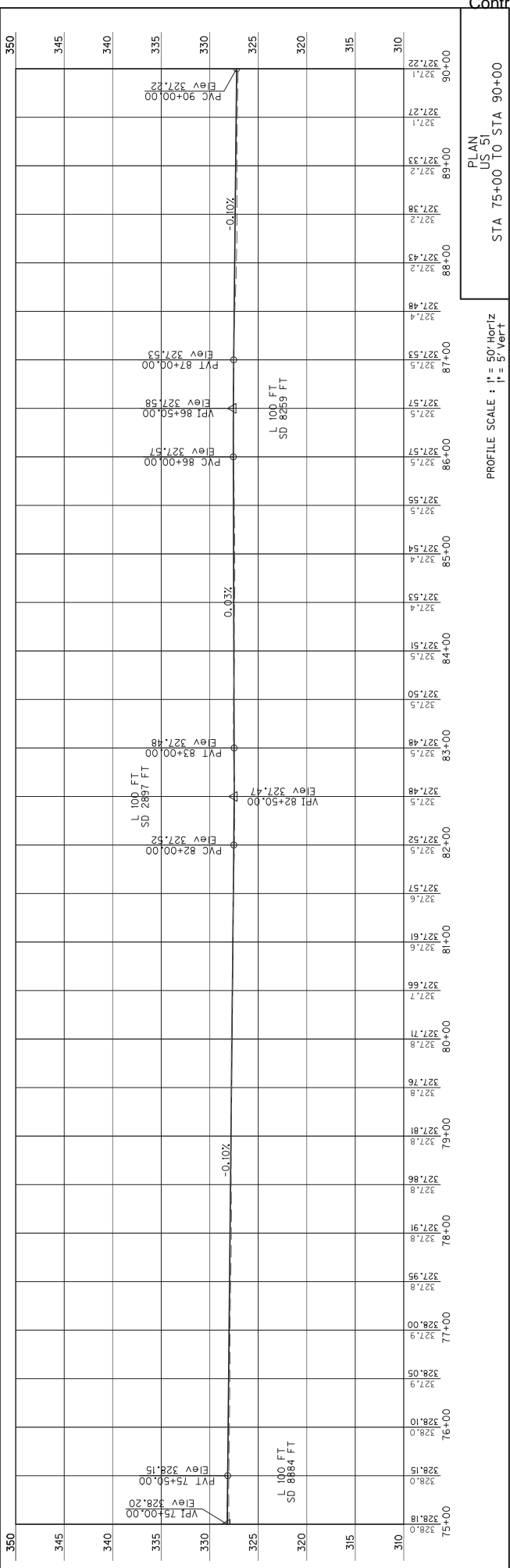


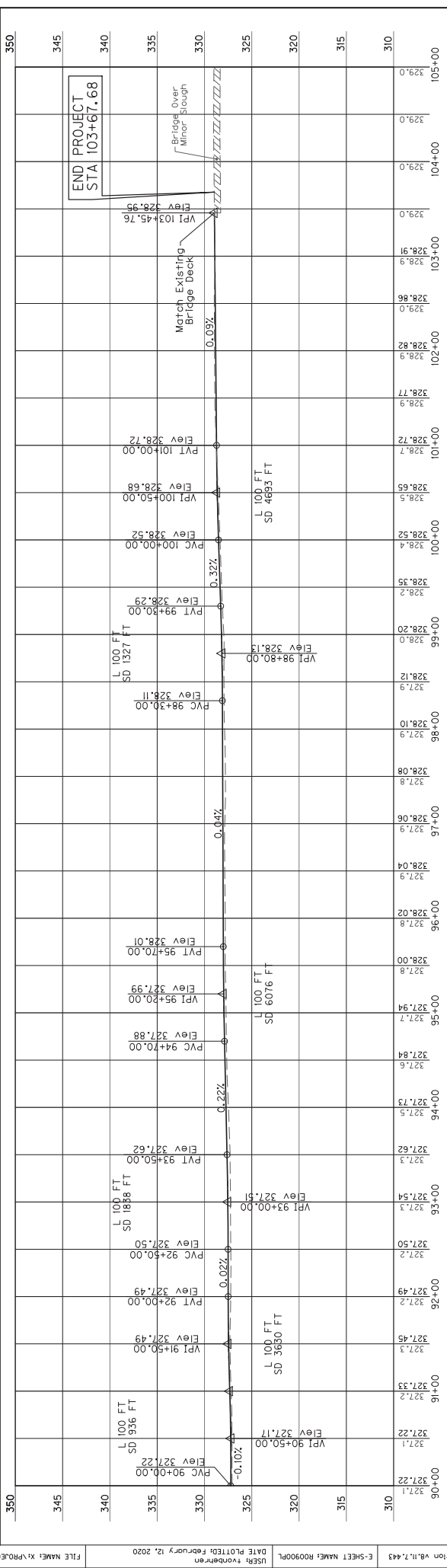
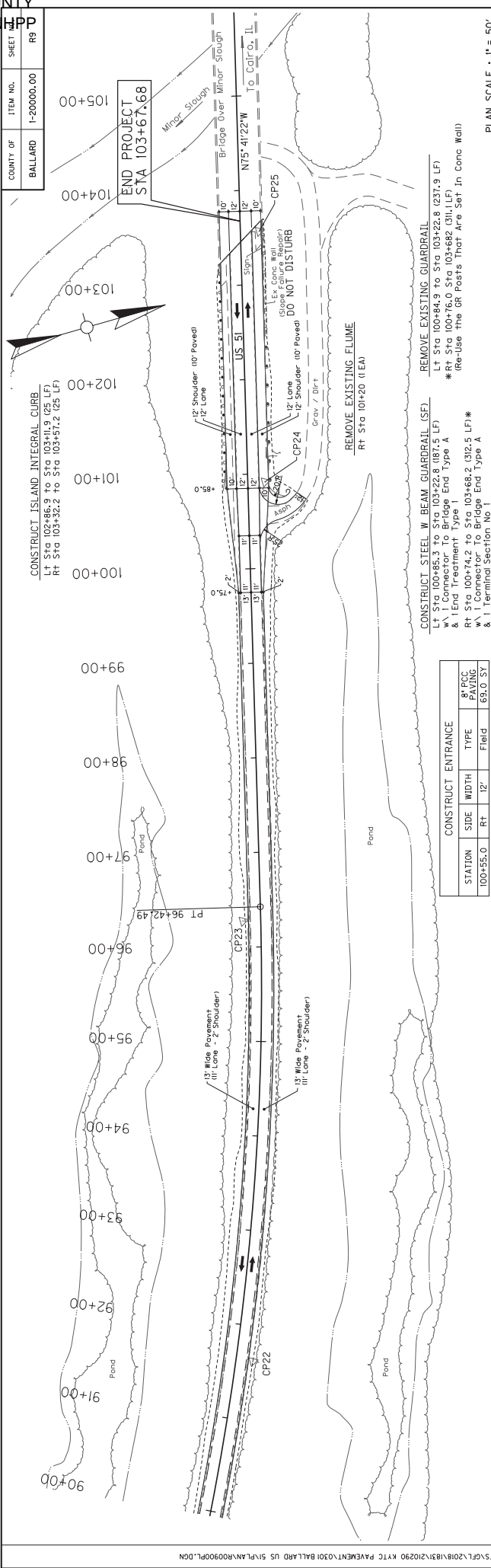
PROFILE SCALE : 1" = 50' Horiz
1" = 5' Vert

COUNTY OF	ITEM NO.	SHEET
BALLARD	I-20000.00	RB

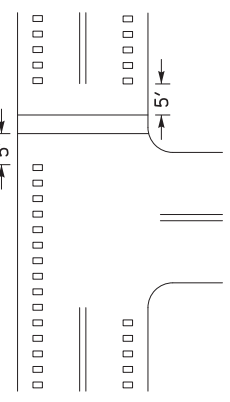
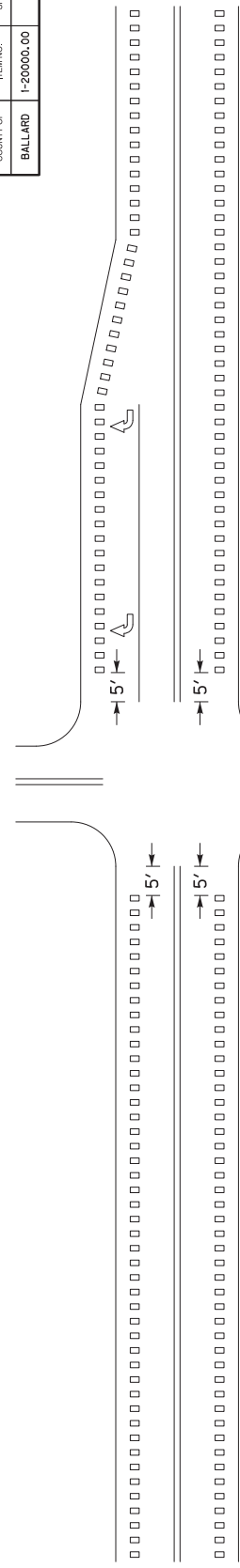


CONSTRUCT ENTRANCE			
STATION	SIDE	WIDTH	TYPE
87+51.0	Rt	14'	Field
			120.7 SY





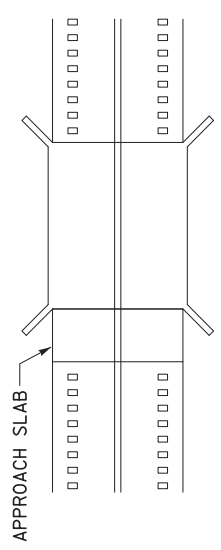
COUNTY OF	ITEM NO.	SHEET
BALLARD	I-20000.00	RIC



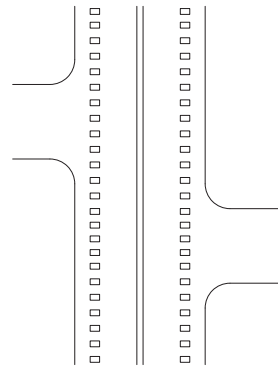
MARKED CROSSWALK ②

INTERSECTIONS WITH OR WITHOUT
RIGHT TURN LANES ①

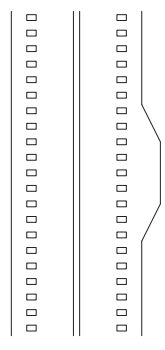
HIGHWAY-RAIL GRADE CROSSINGS ③



BRIDGE DECK/APPROACH SLAB ④



DRIVEWAYS/MINOR
COMMERCIAL ENTRANCES ⑤



MAILBOX TURNOUTS ⑥

~ NOTES ~

- ① RUMBLE STRIPS SHALL BE OMITTED THROUGH MAJOR INTERSECTIONS WITH, OR WITHOUT, RIGHT-TURN LANES. OMIT RUMBLE STRIPS APPROXIMATELY 5' IN ADVANCE OF THE AREA WHERE EDGE LINE PAVEMENT MARKINGS HAVE BEEN OMITTED (NORMALLY WHERE SIDE STREET RADIUS INTERSECTS MAINLINE).
- ② RUMBLE STRIPS SHALL NOT BE INSTALLED THROUGH MARKED CROSSWALKS. OMIT RUMBLE STRIPS APPROXIMATELY 5' IN ADVANCE OF MARKED CROSSWALKS.
- ③ RUMBLE STRIPS SHALL NOT BE INSTALLED ACROSS HIGHWAY-RAIL GRADE CROSSINGS.
- ④ RUMBLE STRIPS SHALL NOT BE INSTALLED ON BRIDGE DECKS OR APPROACH SLABS.
- ⑤ RUMBLE STRIPS SHALL BE INSTALLED THROUGH DRIVEWAYS & MINOR COMMERCIAL ENTRANCES.
- ⑥ RUMBLE STRIPS SHALL BE INSTALLED THROUGH MAILBOX TURNOUTS.
7. RUMBLE STRIPS SHOULD BE OMITTED WHERE THE POSTED SPEED LIMIT IS 45 MPH OR LESS.

DRAWING NOT TO SCALE

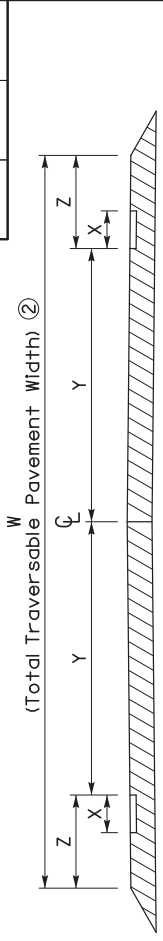
USE WITH SEPIA 006, 007,
AND 008

KENTUCKY
DEPARTMENT OF HIGHWAYS
SHOULDER & EDGE LINE
RUMBLE STRIP DETAILS

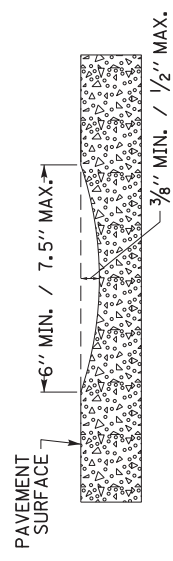
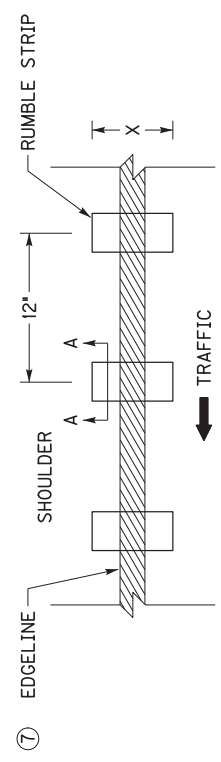
005
SUBMITTED: *B. [Signature]*
DATE: 11-23-16

BID ITEMS AND UNIT TO BID
EDGE LINE RUMBLE STRIPS
SHOULDER RUMBLE STRIPS
LF
LF

COUNTY OF BALLARD	ITEM NO. 1-20000.00	SHEET R102
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PAVEMENT CROSS-SECTION



PAVEMENT WIDTH (W) ②	RUMBLE LENGTH (X) ⑥	ELRS ONLY		CLRS & ELRS	
		LANE WIDTH (Y) ③	SHOULDER WIDTH (Z) ④	LANE WIDTH (Y) ③	SHOULDER WIDTH (Z) ④
20'	8"	9'	1'	N/A	N/A
21'	8"	9.5'	1'	N/A	N/A
22'	8"	10'	1'	N/A	N/A
23'	8"	10'	1.5'	N/A	N/A
24'	8"	10.5'	1.5'	N/A	N/A
25'	8"	N/A	N/A	11'	1.5'
26'	8"	N/A	N/A	11'	2'
27'	8"	N/A	N/A	11.5'	2'
28'	8"	N/A	N/A	12'	2'
29'	8"	N/A	N/A	12'	2.5'
30'	8"	N/A	N/A	12'	3'
31'	8"	N/A	N/A	12'	3.5'
32'	8"	N/A	N/A	12'	4'
33'	8"	N/A	N/A	12'	4.5'

~ NOTES ~

- EDGELINE RUMBLE STRIPS SHOULD BE INSTALLED ACCORDING TO THE DIMENSIONS PROPOSED ABOVE UNLESS THERE IS AN ENGINEERING BASIS THAT SUPPORTS A CHANGE IN DIMENSION. FOR EXAMPLE, IF THE EXISTING LANE WIDTH IS NARROWER THAN THE LANE WIDTH PROPOSED IN THIS DRAWING AND THE EXISTING SHOULDER PAVEMENT DEPTH IS NOT SUITABLE TO BE CONVERTED INTO A PORTION OF THE PROPOSED LANE WIDTH, THEN THE EXISTING LANE WIDTH SHOULD BE USED INSTEAD OF THE WIDTH PROPOSED IN THIS DRAWING.
- PAVEMENT WIDTH (W) IS THE TOTAL WIDTH OF TRAVERSABLE PAVEMENT. DO NOT INCLUDE THE WIDTH OF ANY NON-TRAVERSABLE PAVEMENT, SUCH AS PAVEMENT WEDGES, WHEN MEASURING THE PAVEMENT WIDTH (W).
- LANE WIDTH (Y) TO BE MEASURED FROM CENTER OF ROAD TO LANE SIDE EDGE OF RUMBLE STRIP.
- PAVED SHOULDER WIDTH (Z) TO BE MEASURED FROM LANE SIDE EDGE OF RUMBLE STRIP TO OUTSIDE EDGE OF TRAVERSABLE PAVEMENT. DISTANCES SHOWN ARE APPROXIMATE. MAINTAIN RUMBLE STRIP DIMENSIONS AND SPACING AS MUCH AS POSSIBLE. IF THE TYPICAL SECTION SHOWS A LANE WIDTH (Y) AND/OR SHOULDER WIDTH (Z) THAT DIFFERS FROM THE WIDTHS LISTED IN THIS DRAWING, THE ENGINEER SHALL DETERMINE THE LANE WIDTH (Y) AND/OR SHOULDER WIDTH (Z) AT THE TIME OF CONSTRUCTION.
- CENTERLINE RUMBLE STRIPS SHOULD BE OMITTED WHEN THE LANE WIDTH (Y) IS LESS THAN 11 FT.
- RUMBLE LENGTH (X) MAY BE MODIFIED AS THE ENGINEER DIRECTS, IF THE SHOULDER WIDTH (Z) IS EQUAL TO OR LESS THAN THE PROPOSED RUMBLE LENGTH (X).
- PLACE THE EDGELINE MARKING IN THE CENTER OF THE RUMBLE STRIP.
- EDGELINE RUMBLE STRIPS SHOULD BE OMITTED WHERE THE POSTED SPEED LIMIT IS 45 MPH OR LESS.

BID ITEM AND UNIT TO BID
EDGELINE RUMBLE STRIPS

LF

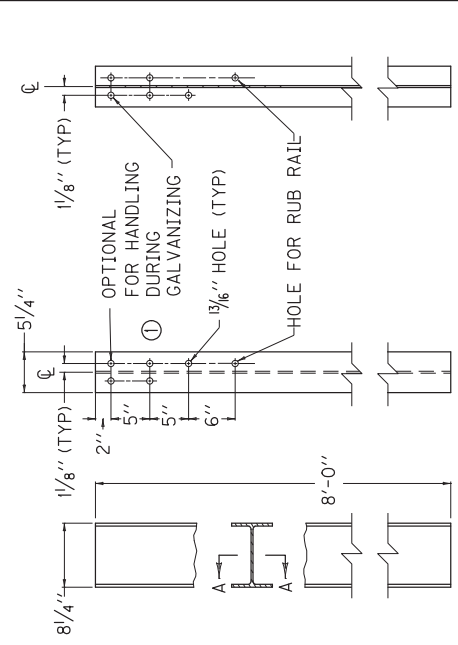
DRAWING NOT TO SCALE

USE WITH SEPIA 005

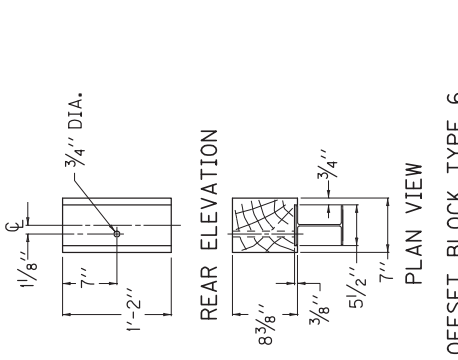
KENTUCKY
DEPARTMENT OF HIGHWAYS
EDGELINE RUMBLE STRIP
DETAILS
TWO LANE ROADWAYS

SUBMITTED: *B. Offenberg*
DATE: 11-23-16
006

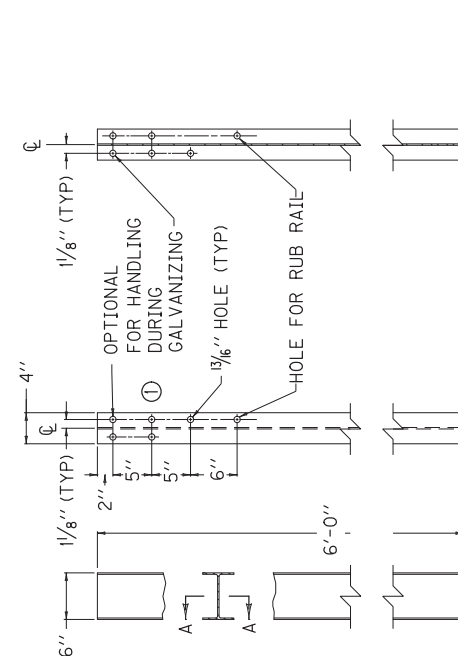
COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	R103



SECTION A-A
FRONT VIEW
SIDE VIEW
~ W8 X 21 STEEL GUARDRAIL POST ~

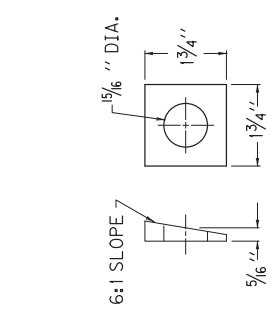


REAR ELEVATION
PLAN VIEW
OFFSET BLOCK TYPE 6
(TIMBER OR APPROVED COMPOSITE)
(FOR USE WITH W8 X 21 STEEL POST ONLY)

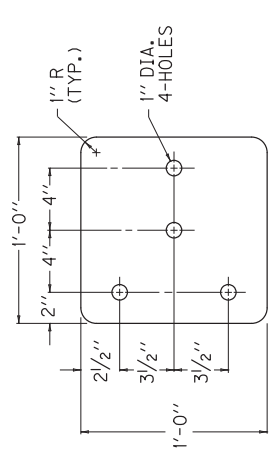


SECTION A-A
FRONT VIEW
SIDE VIEW
~ W6 X 9.0 STEEL GUARDRAIL POST ~
(USED WITH C6 X 8.2 RUB RAIL)

~ NOTES ~
Ⓢ THESE HOLES ARE REQUIRED FOR ATTACHING RAIL.



BEVELED WASHER

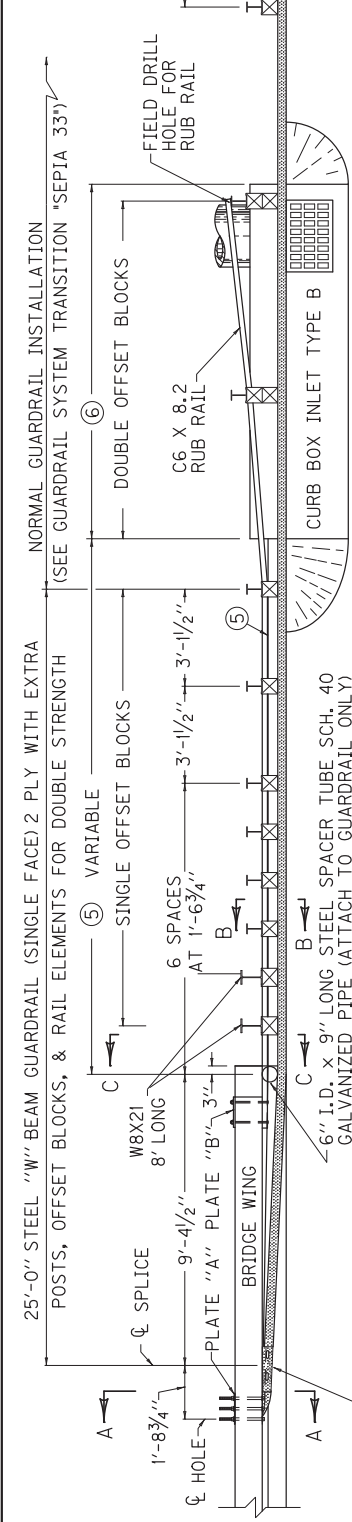


5/8" STEEL PLATE "A"

USE WITH CUR. STD. DWGS.
RBC-002, RBC-005, RBC-006
KENTUCKY
DEPARTMENT OF HIGHWAYS
GUARDRAIL CONNECTOR
TO BRIDGE END
TYPE A AND A-1
COMPONENTS

SUBMITTED: *Michael S. Shultz*
DIRECTOR DIVISION OF DESIGN
DATE: 11-17-17
013

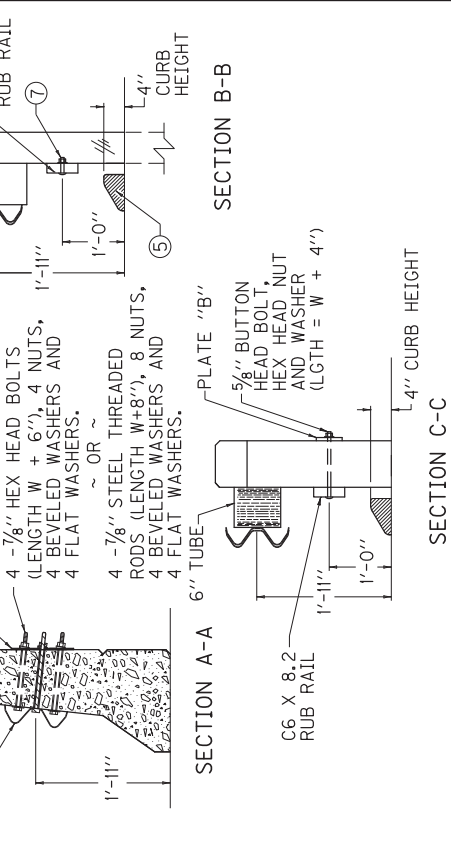
COUNTY OF	SHEET
BALLARD	R102
ITEM NO.	1-20000.00



PLAN VIEW

1. GENERAL
- SEE CUR. STD. DWGS. IN THE RBB, RBI, RBR, AND RPM-SERIES FOR OTHER RELATED GUARDRAIL DETAILS AND BRIDGE PLANS FOR BRIDGE WING DETAIL.
 - SEE CUR. STD. DWG. RDB-SERIES FOR CURB BOX INLET TYPE B.
 - GUARDRAIL CONNECTOR TO BRIDGE END TYPE A IS FOR USE ON BOTH BRIDGE ENDS OF AN UNDIVIDED HIGHWAY AND ON THE APPROACH BRIDGE ENDS OF A DIVIDED HIGHWAY.
2. MATERIAL REQUIREMENTS
- ALL HARDWARE SHALL BE GALVANIZED. (AASHTO M-232)
 - 5/8" STEEL PLATE "A" AND "B" (AASHTO M-270)
 - 7/8" HEX HEAD BOLTS OR STEEL THREADED RODS (LENGTH AS SHOWN)
 - 7/8" HEAVY HEX NUTS (7/8" THICK) (AASHTO M-291)
 - 7/8" FLAT WASHERS (3/16" THICK) (AASHTO M-293)
 - 7/8" BEVELED WASHERS (5/16" MEAN THICKNESS) (AASHTO M-293)
3. CONSTRUCTION METHODS
- ELIMINATE EXTRA OFFSET BLOCKS WHEN CURB BOX INLET TYPE B IS NOT REQUIRED.
 - HOLES TO BE FORMED THROUGH BRIDGE WING WITH 1" I.D. PLASTIC PIPE FOR 7/8" BOLTS AND 5/4" I.D. PLASTIC PIPE FOR 3/8" BOLTS, PIPE SHALL REMAIN IN PLACE.
 - METHOD OF MEASUREMENT AND BASIS OF PAYMENT
 - GUARDRAIL CONNECTOR TO BRIDGE END TYPE A SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH, AND INCLUDES: TERMINAL SECTION NO. 2; ALL ITEMS WHICH ARE IN ADDITION TO THE NORMAL INSTALLATION OF STEEL BEAM GUARDRAIL (EXTRA POSTS, OFFSET BLOCKS, RAIL ELEMENTS, SPACER TUBE, HARDWARE, RUB RAIL, ETC.) AND OTHER INCIDENTALS NECESSARY TO COMPLETE THE INSTALLATION AS DETAILED. STEEL "W" BEAM GUARDRAIL (SINGLE FACE) AND ISLAND HEADER CURB ARE SEPARATE BID ITEMS WHICH ARE ALWAYS REQUIRED. CURB BOX INLET TYPE B IS A SEPARATE BID ITEM THAT WILL BE USED WHEN REQUIRED FOR BRIDGE END DRAINAGE.
 - BID ITEMS AND UNIT TO BID

GUARDRAIL CONNECTOR TO BRIDGE END TY A	EACH
GUARDRAIL-STEEL "W" BEAM-S FACE	LF
ISLAND HEADER CURB TYPE 1 OR 2	LF
CURB BOX INLET TYPE B (AS REQUIRED)	EACH
 - THE PLASTIC PIPE AND COST OF FORMING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR BRIDGE SUPERSTRUCTURE CONCRETE.



ISLAND HEADER CURB. TRANSITION FROM ISLAND CURB SHAPE TO SHAPE ON BRIDGE WING WITHIN 7'-3". LENGTH OF CURB VARIABLE (22'-3" WHEN L=5'-0" (17'-3" WHEN L=10'-0") (12'-3" WHEN L=15'-0") (7'-3" WHEN L=20'-0"). ON APPROACH END CONSTRUCT 25'-0" OF ISLAND HEADER CURB EVEN WHEN CURB BOX INLET TYPE B IS NOT REQUIRED.

6. 6'-4" WHEN L=5'-0"
11'-4" WHEN L=10'-0"
15'-4" WHEN L=15'-0"
21'-4" WHEN L=20'-0"

7. 5/8" X 3/2" BUTTON HEAD BOLT, HEX HEAD NUT.

8. CURB BOX NOT REQUIRED UNLESS NEEDED FOR DRAINAGE.
★ 10'-0" LENGTH IS REQUIRED UNLESS OTHERWISE NOTED.
L EQUALS THROAT LENGTH OF BOX.

USE WITH CUR. STD. DWGS.
BHS-008, RBC-002, RBC-003
RBR-010

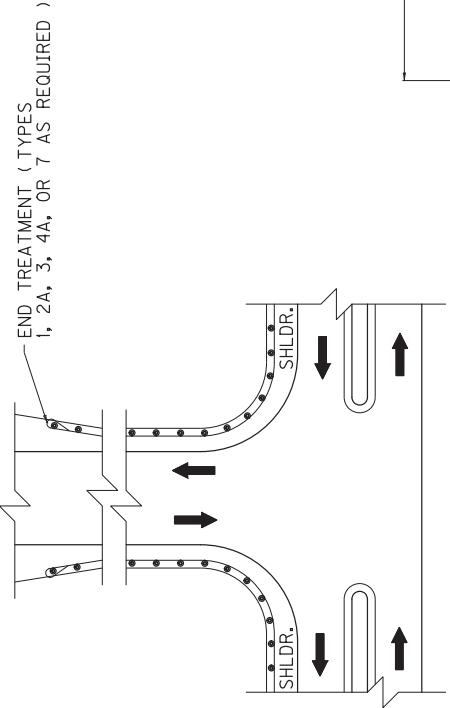
KENTUCKY	
DEPARTMENT OF HIGHWAYS	
GUARDRAIL CONNECTOR TO BRIDGE END TYPE A	

SUBMITTED	DATE
	4-04-18
015	

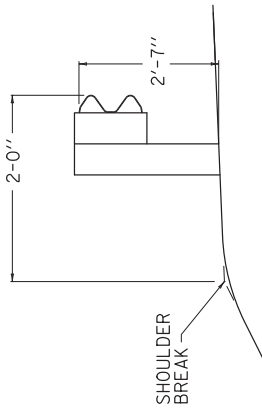
COUNTY OF BALLARD	ITEM NO. 1-20000.00	SHEET R102
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~ NOTES ~

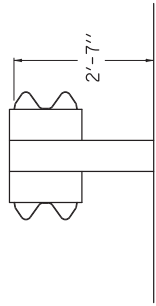
- FOR END TREATMENT TYPE 4A USE CUR. STD. DWG. RBR-035 FOR OFFSETS.
- THE MINIMUM LENGTH OF GUARDRAIL, INCLUDING THE END TREATMENT, PRECEDING A FIXED OBJECT IS 200 FEET: (LENGTH MAY BE REDUCED SHOULD FIELD CONDITIONS WARRANT).



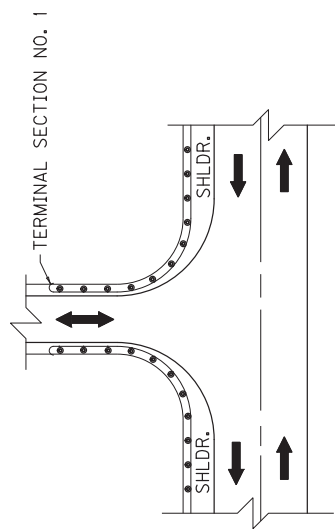
APPROACH ROADS



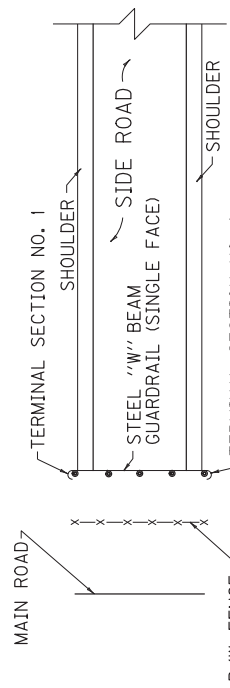
NORMAL GUARDRAIL INSTALLATION



TYPICAL DOUBLE FACE GUARDRAIL INSTALLATION



ENTRANCES



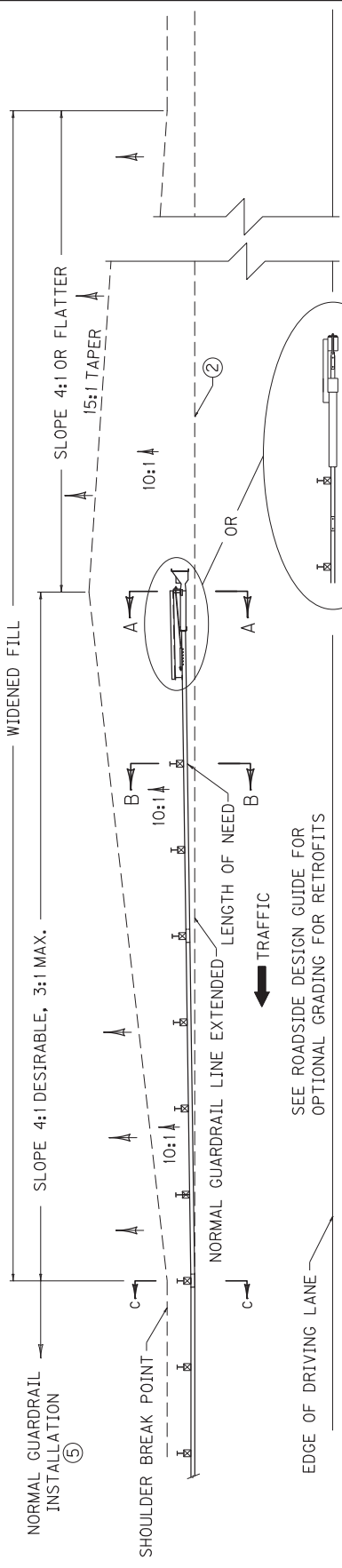
GUARDRAIL USED AS A BARRICADE

USE WITH CUR. STD. DWG.
RBI-002, RBR-035

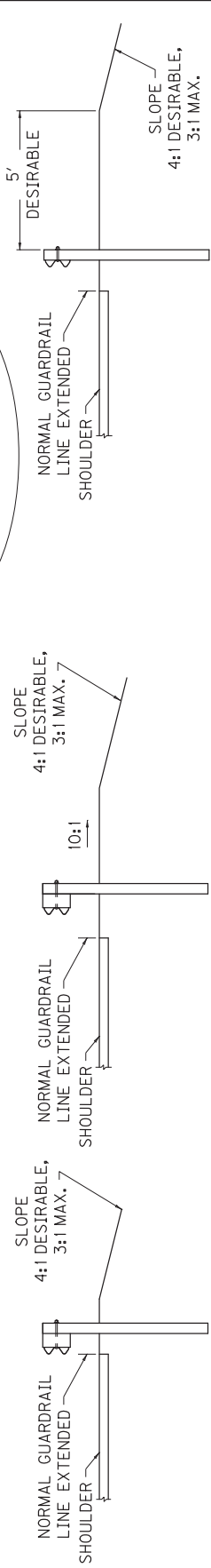
KENTUCKY
DEPARTMENT OF HIGHWAYS
TYPICAL GUARDRAIL
INSTALLATIONS

SUBMITTED: *Richard S. Seibert*
DIRECTOR, DIVISION OF DESIGN
11-17-17
DATE
024

COUNTY OF BALLARD	ITEM NO. 1-20000.00	SHEET R103
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SEE ROADSIDE DESIGN GUIDE FOR
OPTIONAL GRADING FOR RETROFITS



SECTION A-A

SECTION B-B

SECTION C-C

~ NOTES ~

BID ITEMS AND UNIT TO BID:
GUARDRAIL END TREATMENT TYPE 1
ROADWAY OR BORROW EXCAVATION,
OR EMBANKMENT IN PLACE
EACH
CUYD

1. THE MINIMUM LENGTH OF GUARDRAIL, INCLUDING THE END TREATMENT, PRECEDING A FIXED OBJECT IS 200 FEET (LENGTH MAY BE REDUCED SHOULD FIELD CONDITIONS WARRANT).
2. GUARDRAIL EXTRUDER EDGE CLOSEST TO TRAFFIC SHALL BE PLACED ON NORMAL GUARDRAIL LINE EXTENDED.
3. END TREATMENT TYPE 1 MAY BE ATTACHED TO CURVED GUARDRAIL PROVIDED CURVE IS A 550' RADIUS OR MORE. END TREATMENT TYPE 1 SHALL BE INSTALLED ON A STRAIGHT LINE TAPER WITHIN THE PAY LIMITS.
4. INTENDED USE: FILLS WITH ADEQUATE VEHICLE RECOVERY ZONE BEHIND GUARDRAIL.
5. FOR MAINTENANCE AND REPAIR PROJECTS, USE *GUARDRAIL SYSTEM TRANSITION "SEPIA 33", TO TRANSITION BACK TO 27" OR 29" GUARDRAIL HEIGHT, IF ONLY THE TERMINAL IS PROPOSED TO BE REPLACED.

TRAFFIC
↓
GUARDRAIL END TREATMENT TYPE 1
INSTALLED ON A CURVE
③

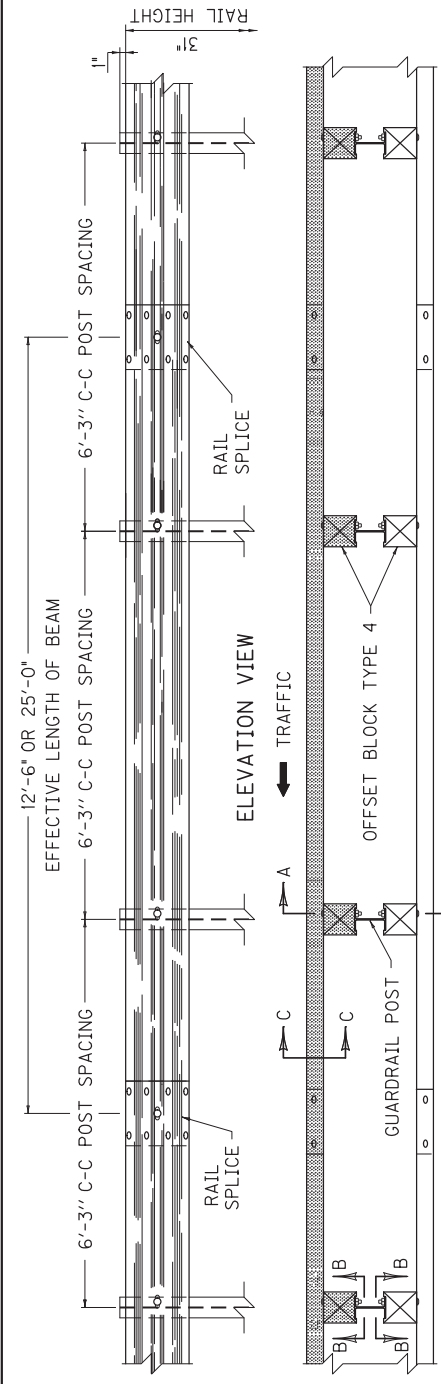
USE WITH CUR. STD. DWG.
RBR-020

KENTUCKY
DEPARTMENT OF HIGHWAYS
INSTALLATION OF
GUARDRAIL
END TREATMENT
TYPE 1

SUBMITTED: *[Signature]*
DIRECTOR DIVISION OF DESIGN
DATE: 11-17-17

025

SHEET	ITEM NO.	COUNTY OF
R107	1-20000.00	BALLARD

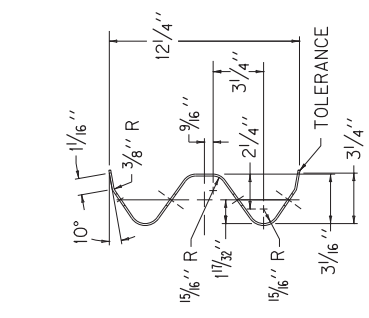


TRAFFIC →

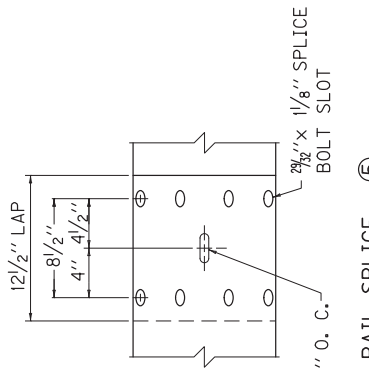
← TRAFFIC

PLAN VIEW
(DOUBLE FACE RAIL OR SINGLE FACE RAIL)

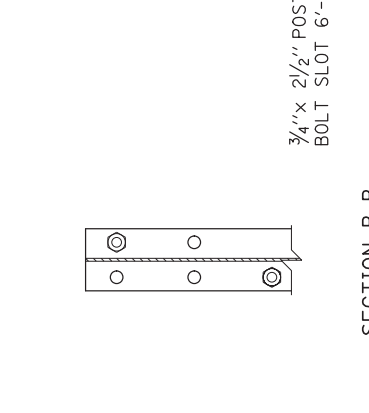
- ~ NOTES ~
- BID ITEM AND UNIT TO BID
GUARDRAIL-STEEL W BEAM-S FACE LF
OR
GUARDRAIL-STEEL W BEAM-D FACE LF
- DIMENSIONAL TOLERANCES NOT SHOWN OR IMPLIED ARE INTENDED TO BE THOSE CONSISTENT WITH THE PROPER FUNCTIONING OF THE PART, INCLUDING ITS APPEARANCE AND ACCEPTED MANUFACTURING PRACTICES.
 - THE RAIL ELEMENT SHALL COMPLY WITH AASHTO M-180 -CLASS A, TYPE II.
 - ALL LAPS SHALL BE PLACED IN THE DIRECTION OF TRAFFIC FLOW.
 - TOLERANCE + 1/4", -1/4"
 - 8-5/8"x 1/4" LONG BUTTON HEAD BOLTS AND HEX HEAD RECESS NUTS REQUIRED FOR EACH RAIL SPLICE.
 - LENGTH EQUALS POST AND BLOCK WIDTH PLUS 2" FOR BOLT OR 2 1/4" FOR THREADED ROD.
 - GALVANIZED STEEL 100 COMMON COATED NAIL (DRIVE NAIL AT THE TOP OR BOTTOM CENTER OF BLOCK AND POST AFTER BOLT IS INSTALLED).
 - 5/8"x 6" STEEL THREADED ROD AND TWO (2) HEX HEAD NUTS OR 5/8"x 6" BUTTON OR HEX HEAD BOLT AND HEX HEAD NUT.
 - 5/8"x 8" BUTTON HEAD BOLT, HEX HEAD RECESS NUT AND ONE 5/8" ROUND WASHER (TYP.), BOLT SHALL HAVE A MINIMUM THREAD LENGTH OF 2".
 - REQUIRED FOR DOUBLE RAIL
 - BOTH 12'-6" AND 25' LENGTHS OF "W" BEAM GUARDRAIL SECTIONS WILL BE PERMITTED UNLESS OTHERWISE DIRECTED BY THE ENGINEER.



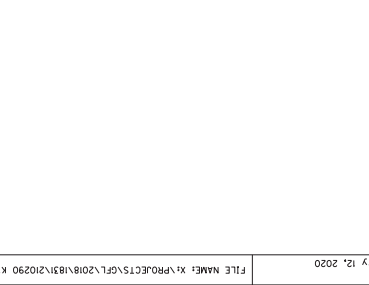
SECTION C-C
(RAIL CORRUGATED SHEET STEEL BEAM)



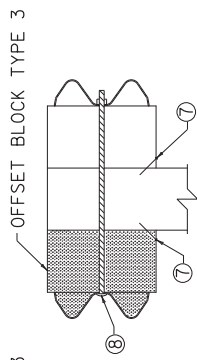
SECTION B-B
RAIL SPLICE



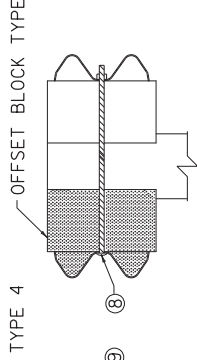
SECTION A-A
DOUBLE FACE RAIL WITH ROUND TIMBER POST



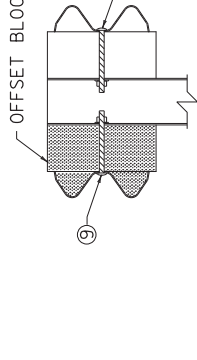
SECTION A-A
DOUBLE FACE RAIL WITH STEEL POST (W6x9) (TIMBER OR APPROVED COMPOSITE OFFSET BLOCK)



SECTION A-A
DOUBLE FACE RAIL WITH TIMBER POST



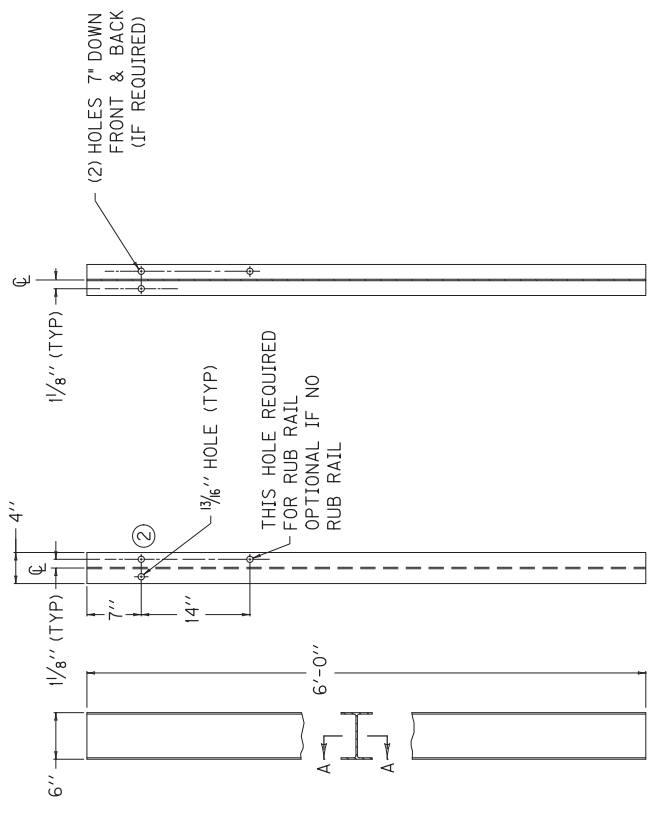
SECTION A-A
DOUBLE FACE RAIL WITH ROUND TIMBER POST



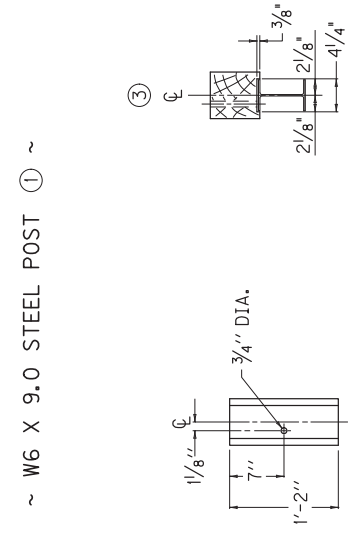
SECTION A-A
DOUBLE FACE RAIL WITH STEEL POST (W6x9) (TIMBER OR APPROVED COMPOSITE OFFSET BLOCK)

KENTUCKY	
DEPARTMENT OF HIGHWAYS	
STEEL BEAM GUARDRAIL ("W" BEAM)	
SUBMITTED:	DATE
<i>William J. Peltier</i>	11-17-17
DIRECTOR DIVISION OF DESIGN	027

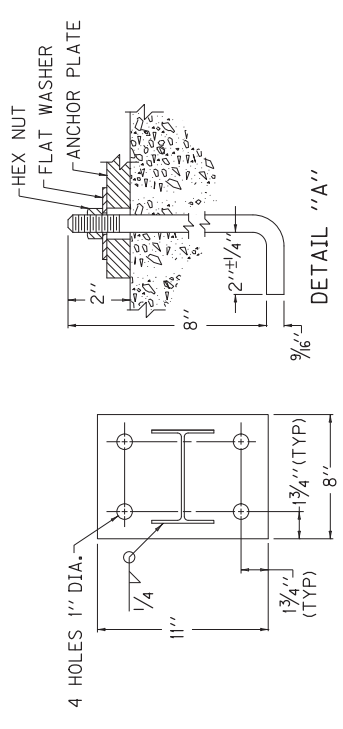
COUNTY OF BALLARD	ITEM NO. 1-20000.00	SHEET R100
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- ~ NOTES ~
- ① W6 X 8.5 IS AN ACCEPTABLE ALTERNATE.
 - ② THESE HOLES ARE REQUIRED FOR ATTACHING RAIL.
 - ③ TIMBER OR COMPOSITE BLOCKOUTS MAY BE USED WITH STEEL POST.

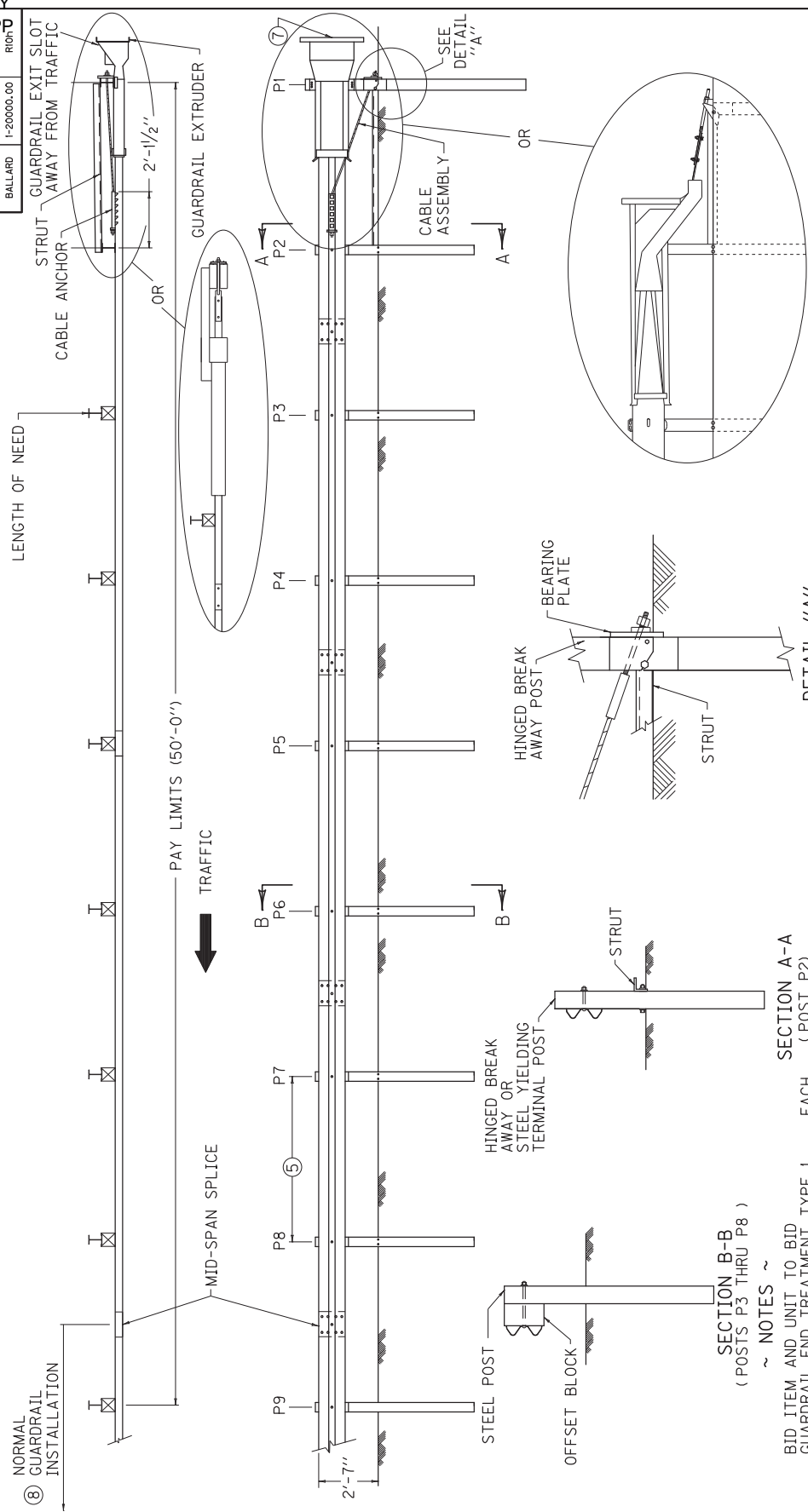


OFFSET BLOCK TYPE 4
6" X 8" (Nominal Size)
(TIMBER OR APPROVED COMPOSITE)
(FOR USE WITH STEEL POST ONLY)



KENTUCKY DEPARTMENT OF HIGHWAYS	STEEL GUARDRAIL POSTS	SUBMITTED: <i>Michael S. Sheldahl</i> DIRECTOR DIVISION OF DESIGN DATE: 3-06-18 028
--	--	--

COUNTY OF	ITEM NO.	SHEET
BALLARD	I-20000.00	R101



SECTION B-B
(POSTS P3 THRU P8)

SECTION A-A
(POST P2)

BID ITEM AND UNIT TO BID
GUARDRAIL END TREATMENT TYPE 1 EACH
OBJECT MARKER TY 3 EACH

1. GUARDRAIL END TREATMENT TYPE 1 SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH, AND INCLUDES POSTS, RAIL ELEMENTS, GUARDRAIL EXTRUDER AND ALL OTHER INCIDENTALS NECESSARY TO COMPLETE THE INSTALLATION AS DETAILED.
2. PERMISSIBLE ALTERNATES FOR GUARDRAIL END TREATMENT TYPE 1 ARE PATENTED ITEMS: SOFT-STOP MANUFACTURED BY TRINITY INDUSTRIES RBI-004 OF DALLAS, TEXAS OR MSKT MANUFACTURED BY ROAD SYSTEMS INC. OF BIG SPRINGS, TEXAS.
3. THE MANUFACTURER SHALL FURNISH TWO (2) SETS OF SHOP PLANS TO THE CONTRACTOR WITH EACH INSTALLATION.
4. THE COMPLETED INSTALLATION SHALL MEET ALL APPLICABLE REQUIREMENTS OF THE MANUFACTURER (SEE SHOP DRAWINGS).
5. POSTS P1 THROUGH P9 ARE SPACED 6'-3" ON CENTER.
6. INTENDED USE: AREAS WITH ADEQUATE VEHICLE RECOVERY ZONE BEHIND END TREATMENT.
8. FOR MAINTENANCE AND REPAIR PROJECTS, USE "GUARDRAIL SYSTEM TRANSITION "SEPIA 33", TO TRANSITION BACK TO 27" OR 29" GUARDRAIL HEIGHT, IF ONLY THE TERMINAL IS PROPOSED TO BE REPLACED.

NOTES

USE WITH CUR. STD. DWG.
RBI-004
TRINITY INDUSTRIES

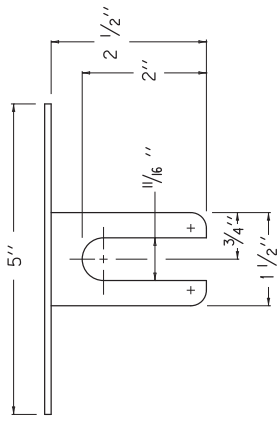
KENTUCKY
DEPARTMENT OF HIGHWAYS
GUARDRAIL
END TREATMENT
TYPE 1

SUBMITTED: *[Signature]*
DIRECTOR DIVISION OF DESIGN
11-17-17
DATE
029

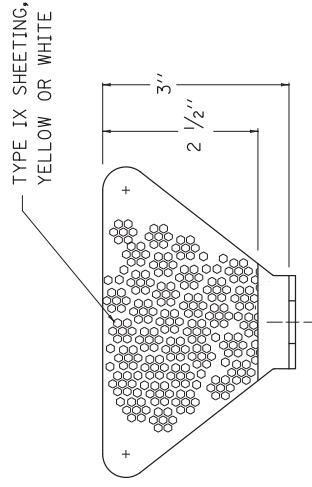
COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	R01

~ NOTES ~

- BID ITEMS AND UNIT TO BID
 DELINEATOR FOR GUARDRAIL B/W EACH
 DELINEATOR FOR GUARDRAIL M/W EACH
 DELINEATOR FOR GUARDRAIL M/Y EACH
1. DELINEATORS SHALL BE MEASURED AND PAID FOR AT THE CONTRACT UNIT PRICE EACH AND SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR ONE COMPLETE INSTALLATION.
 2. DELINEATOR SHAPE AND DIMENSIONS ARE SHOWN FOR ILLUSTRATION PURPOSES ONLY. TYPES OF DELINEATORS PERMITTED SHALL BE FROM THE LIST OF APPROVED MATERIALS.
 3. GUARDRAIL DELINEATORS SHALL BE REQUIRED ON ALL GUARDRAIL.
 4. DELINEATORS SHALL NOT BE INSTALLED WITHIN THE PAY LIMITS OF THE END TREATMENT.
 5. DELINEATORS SHALL BE MANUFACTURED FROM 12 GA. GALVANIZED STEEL.
 6. DIMENSIONS SHOWN ARE APPROXIMATE AND ARE SUBJECT TO MANUFACTURER'S TOLERANCES.
 7. WHEN CONCRETE BARRIERS EXTEND ACROSS BRIDGE STRUCTURES IN LIEU OF STEEL BEAM GUARDRAIL, DELINEATORS SHALL BE INSTALLED AT SAME VERTICAL ALIGNMENT AS ON THE GUARDRAIL, AND DELINEATORS SHALL COMPLY WITH CURRENT STANDARD DRAWING RBM-020.
 8. DELINEATORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.



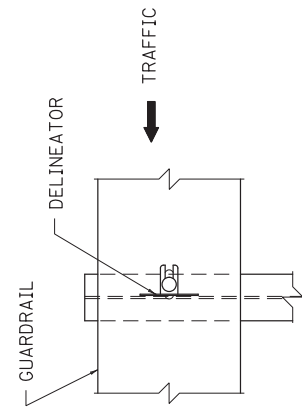
PLAN VIEW



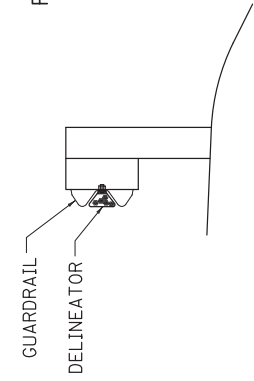
FRONT VIEW

SIDE VIEW

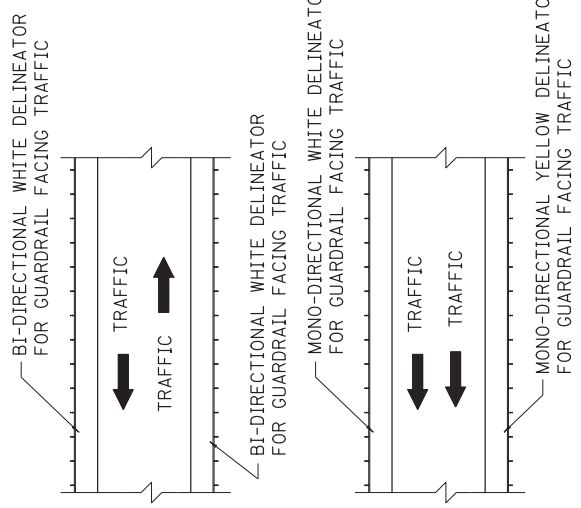
DIMENSIONS SHOWN ARE FOR ONE VERSION OF A WEB-MOUNTED GUARDRAIL DELINEATOR. DELINEATORS WITH ALTERNATE DIMENSIONS MAY BE CONSIDERED FOR INCLUSION ON THE APPROVED PRODUCTS LIST.



FRONT VIEW



SIDE VIEW

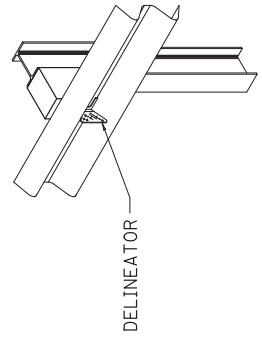


PLACEMENT OF DELINEATORS FOR GUARDRAIL

APPROXIMATE DELINEATOR SPACING

TANGENT	100'
CURVE	50'

SPACING SHOULD BE ADJUSTED IN CURVES SO THAT SEVERAL DELINEATORS ARE ALWAYS SIMULTANEOUSLY VISIBLE TO THE ROAD USER.

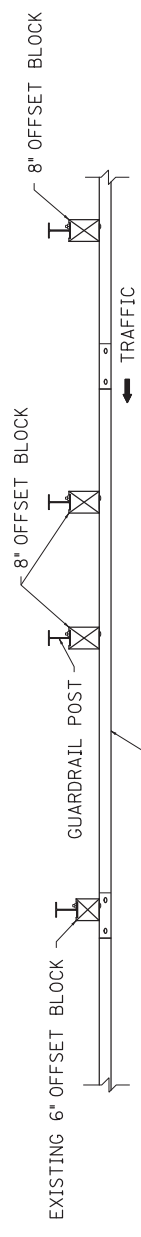


ISOMETRIC VIEW
 USE WITH CUR. STD. DWGS.
 RBM-020, RBR-060

KENTUCKY
 DEPARTMENT OF HIGHWAYS
 DELINEATORS FOR GUARDRAIL

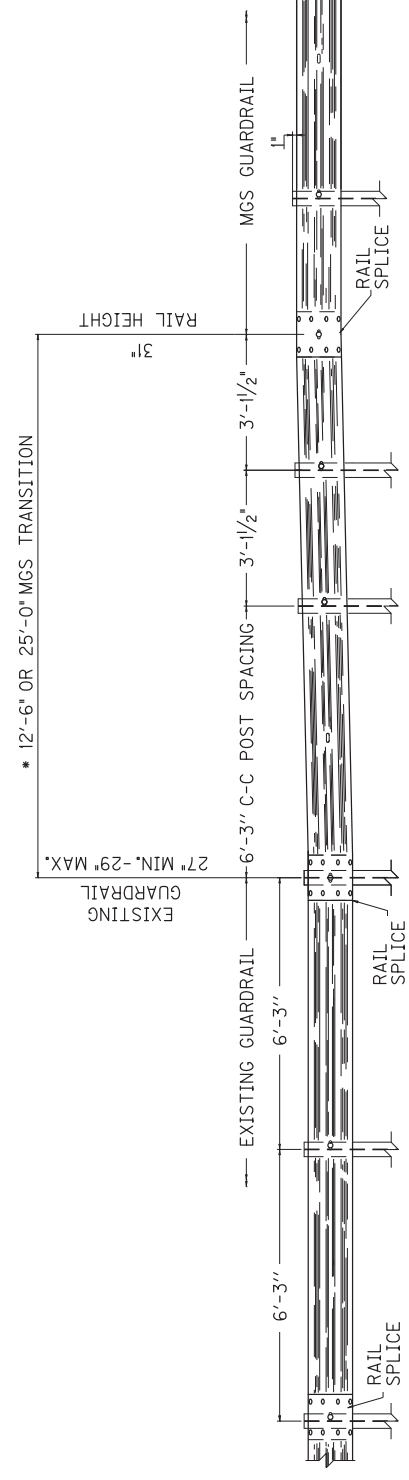
SUBMITTED: *[Signature]*
 DIRECTOR, DIVISION OF DESIGN
 11-17-17
 DATE
 032

COUNTY OF BALLARD	ITEM NO. 1-20000.00	SHEET R1017
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PLAN VIEW

* 12'-6" TRANSITION FROM 29" TO 31" SHOWN,
25'-0" REQUIRED FOR 27" TO 31" TRANSITION.



ELEVATION VIEW

~ NOTES ~

- 1) WHERE POST OFFSET IS CONSTRAINED, AND WHEN THE EXISTING SHOULDER IS WIDER THAN 4 FEET, THE EXISTING SHOULDER MAY BE REDUCED UP TO 2 INCHES TO ACCOMMODATE THE 8 INCH BLOCKS OF THE MGS GUARDRAIL. WHERE SITE CONSTRAINTS PROHIBIT THE POST FROM BEING PLACED AT LEAST 6 INCHES IN FRONT OF THE SLOPE BREAK POINT, USE 7 FOOT POSTS.
- 2) MGS TRANSITION FROM EXISTING GUARDRAIL SHALL BE COMPLETED OUTSIDE THE 50 FEET MGS END TERMINAL LIMITS.

KENTUCKY
DEPARTMENT OF HIGHWAYS
GUARDRAIL SYSTEM
TRANSITION

SUBMITTED: *[Signature]*
DIRECTOR DIVISION OF DESIGN
DATE: 4-04-18
033

COUNTY OF BALLARD	ITEM NO. 1-20000.00	SHEET RI00
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<p>STANDARD CURB & GUTTER</p>	<p>ISLAND CURB & GUTTER</p>	<p>LIP CURB & GUTTER</p>	<p>BARRIER CURB & GUTTER</p>	<p>BARRIER INTEGRAL CURB</p>	<p>BARRIER HEADER CURB</p>	<p>STANDARD INTEGRAL CURB</p>	<p>STANDARD HEADER CURB & GUTTER</p>	<p>ISLAND INTEGRAL CURB</p>	<p>LIP INTEGRAL CURB</p>	<p>ISLAND HEADER CURB</p>	<p>ISLAND INTEGRAL CURB</p>	<p>ISLAND HEADER CURB</p>	<p>STANDARD INTEGRAL CURB</p>	<p>ISLAND HEADER CURB TYPE 2 NEW CONSTRUCTION</p>	<p>ISLAND HEADER CURB TYPE 1 EXISTING PAVEMENT</p>	<p>STANDARD HEADER CURB TYPE 2 NEW CONSTRUCTION</p>	<p>VALLEY GUTTER</p>	<p>STANDARD HEADER CURB TYPE 2 NEW CONSTRUCTION</p>	<p>VALLEY GUTTER</p>	<p>ASPHALT WEDGE CURB</p>
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KENTUCKY
DEPARTMENT OF HIGHWAYS
CURB AND GUTTER,
CURBS AND
VALLEY GUTTER

SUBMITTED: DIRECTOR DIVISION OF DESIGN
DATE: 4-30-19
060

NOTES

- ALL INTEGRAL CURBS SHOWING REINFORCING STEEL SHALL BE CAST SEPARATELY FROM THE PAVEMENT AND THE REINFORCEMENT SHALL CONSIST SOLELY OF NO. 4 BARS AS DETAILED ON THIS DRAWING. ON CONSTRUCTION CARE SHOULD BE TAKEN SO THAT NO REINFORCEMENT BARS ARE CLOSER THAN 3" TO THE CENTER OF THE SAWED TRANSVERSE JOINT.
- THE CONTRACTOR HAS THE OPTION OF CONSTRUCTING THE STANDARD INTEGRAL CURB AS DETAILED IN EITHER ① OR ②. IF ② IS CHOSEN A LONGITUDINAL CONSTRUCTION JOINT SHALL BE REQUIRED AND THE REMAINING PAVEMENT AND CURB SHALL BE CONSTRUCTED MONOLITHIC WITHOUT A HORIZONTAL CONSTRUCTION JOINT AND ACCOMPANYING REINFORCING STEEL.



COUNTY OF	ITEM NO.	SHEET
BALLARD	I-20000.00	RII

US 51 ALIGNMENT INFORMATION

STATION	NORTHING	EASTING	STATION	NORTHING	EASTING
POB 5+00.00	3533870.4794	3942309.8020	PI 24+21.65	3535369.6773	3941107.7783
PC 11+15.03	3534354.3136	3941930.1128	CC	3542368.0296	3950069.2647
TANGENT DIRECTION: N 38°07'22" W					
TANGENT LENGTH: 615.03'					
PI 14+38.07	3534606.4478	3941730.6880			
RADIUS: 31623.00'					
DELTA: 1°10'14"					
CHORD: 548.05'					
TANGENT: 323.03'					
CHORD: 646.04'					
MIDDLE ORDINATE: 1.65'					
TANGENT DIRECTION: N 53°07'22" W					
RADIAL DIRECTION: N 51°52'38" E					
CHORD DIRECTION: N 38°42'24" E					
RADIAL DIRECTION: N 50°42'24" E					
TANGENT DIRECTION: N 39°17'36" W					
PT 17+61.08	3534858.4491	3941526.1134			
PC 21+62.56	3535165.1631	3941271.8579			
TANGENT DIRECTION: N 39°17'36" W					
TANGENT LENGTH: 401.48'					

BASIS OF ELEVATIONS

Elevations were derived from the GNSS observed elevation for control monument 2. This elevation was obtained by a GNSS RTK observation with a Trimble R10 Receiver utilizing the Kentucky Transportation Cabinet's CORS stations and Geoid12B. It is based on the NAVD 88 datum.

The elevations of all other monuments are based on a closed differential level loop from control monument 1 through each of them. A Trimble DINI digital level was used for the level loop. All elevations are shown in U.S. Survey Feet.

COORDINATE CONTROL POINTS

POINT	DESCRIPTION	State Plane Coordinates			STATION and OFFSET
		NORTH (Y)	EAST (X)	ELEV. (Z)	
CP2	PK Nail	35344395.494	3942000.645	340.27	10 + 25.21, 15.17 Right
CP3	PK Nail	35344449.156	3941882.301	338.82	12 + 19.09, 21.11 Right
CP4	PK Nail	3534746.699	3941644.715	333.14	15 + 99.59, 21.43 Right
CP5	PK Nail	3535035.944	3941407.566	327.76	19 + 73.52, 20.66 Right
CP6	PK Nail	3535321.353	3941176.660	327.18	23 + 40.97, 21.31 Right
CP7	Rebar and Cap	3535524.367	3940943.652	326.62	27 + 23.86, 20.52 Right

COORDINATE SYSTEM

Coordinates for horizontal control are based on the coordinates for control monuments 2 and 3 which were derived by RTK GNSS observations with a Trimble R10 Receiver utilizing the Kentucky Transportation Cabinet's CORS stations. A closed total station conventional traverse was then run through all other control monuments to check closure. The closure for the baseline traverse was 1 in 25518.

Coordinates for this project are based on the Kentucky Single Zone State Plane Coordinate System and are on the grid. All coordinates are shown in U.S. Survey Feet.

SCALE: 1"=100'

COORDINATE CONTROL SHEET
US 51
STA 10+00 TO STA 30+00

COUNTY OF	ITEM NO.	SHEET
BALLARD	I-20000.00	R12



US 51 ALIGNMENT INFORMATION

STATION	NORTHING	EASTING
PT 26+80.66	3535577.4590	3940953.0048
PC 53+00.13	3537678.1836	3939388.2053
TANGENT DIRECTION:	N 36°40'55" W	
TANGENT LENGTH:	2619.47'	
PI 54+44.09	3537793.6335	3939302.2083
CC 3533687.0438	3934030.1478	
RADIUS:	6581.17'	
CHORD:	143.96'	
DEGREE OF CURVE:	2°28'07" LEFT	
TANGENT LENGTH:	287.87'	
MIDDLE CHORD:	143.96'	
EXTENSION:	1.55'	
TANGENT DIRECTION:	N 36°40'55" W	
RADIAL DIRECTION:	N 53°19'05" E	
CHORD DIRECTION:	N 37°54'59" W	
RADIAL DIRECTION:	N 50°50'59" E	
TANGENT DIRECTION:	N 39°09'02" W	
PI 55+88.00	3537905.2721	3939211.3183
PI 68+00.00	3538845.1632	3938446.1098
TANGENT DIRECTION:	N 39°08'02" W	
TANGENT LENGTH:	1212.00'	

COORDINATE CONTROL POINTS

POINT	DESCRIPTION	State Plane Coordinates			STATION and OFFSET
		NORTH (Y)	EAST (X)	ELEV. (Z)	
CP8	Rebar and Cap	3535943.268	3940703.436	326.71	31 + 23.11, 18.38 Rt
CP9	Rebar and Cap	3536332.765	3940411.841	326.91	36 + 09.66, 17.20 Rt
CP10	Rebar and Cap	3536650.685	3940131.722	328.12	40 + 31.96, 17.52 Lt
CP11	Rebar and Cap	3537010.865	3939862.641	327.40	44 + 81.55, 18.16 Lt
CP12	Rebar and Cap	3537283.367	3939662.302	327.73	48 + 19.76, 16.04 Lt
CP13	Rebar and Cap	3537622.597	3939408.494	327.13	52 + 43.43, 16.94 Lt
CP14	Rebar and Cap	3537949.333	3939155.054	327.43	56 + 57.69, 15.81 Lt

COORDINATE CONTROL SHEET
US 51
STA 30+00 TO STA 60+00
SCALE: 1"=100'



US 51 ALIGNMENT INFORMATION

STATION NORTHING EASTING
 PI 55+88.00 3537905.2721 3939211.3183
 PT 68+00.00 3538845.1632 3938446.1098
 TANGENT DIRECTION: N 39°09'02" W
 TANGENT LENGTH: 1212.00
 PI 68+00.00 3538845.1632 3938446.1098
 PC 78+03.79 3539624.0417 3937812.9172
 TANGENT DIRECTION: N 39°06'34" W
 TANGENT LENGTH: 1003.79
 PI 87+55.70 3540362.6684 3937212.4473
 CC 3537807.3233 3935578.2059
 PT 96+42.49 3540597.9583 3936290.0741
 RADIUS: 2880.00
 DELTA: 36°34'48" LEFT
 DEGREE OF CURVE: 1.83872
 TANGENT: 951.91
 CHORD: 1807.64
 MIDDLE ORDINATE: 145.50
 EXTERNAL: 153.27
 TANGENT DIRECTION: N 50°06'34" W
 RADIAL DIRECTION: N 50°53'28" E
 CHORD DIRECTION: N 57°23'58" W
 RADIAL DIRECTION: N 14°18'38" E
 TANGENT DIRECTION: N 75°41'22" W

COORDINATE CONTROL POINTS

POINT	DESCRIPTION	State Plane Coordinates			STATION and OFFSET
		NORTH (Y)	EAST (X)	ELEV. (Z)	
CP15	Rebar and Cap	3538215.240	3938931.002	326.19	60 + 05.36, 21.68 Lt
CP16	Rebar and Cap	3538536.403	3938674.336	326.44	64 + 16.47, 17.95 Lt
CP17	Rebar and Cap	3538941.613	3938395.178	326.21	69 + 06.97, 21.32 Rt
CP18	Rebar and Cap	3539245.660	3938142.455	326.72	73 + 02.31, 17.02 Rt
CP19	Rebar and Cap	3539589.307	3937863.043	326.81	77 + 45.21, 16.98 Rt
CP20	Rebar and Cap	3539908.739	3937573.104	327.03	81 + 74.74, 17.51 Rt
CP21	PK Nail	3540253.828	3937135.708	326.65	87 + 29.11, 20.21 Rt

COORDINATE CONTROL SHEET
 US 51
 STA 60+00 TO STA 90+00
 SCALE: 1"=100'



COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	RI-4

PI 87+55.70
 $\Delta = 36^\circ 34' 48''$ L +
 $L = 193.91'$
 $R = 2880.00'$
 $E = 153.24'$
 $\theta = 4.6\%$
 Runout = 50.87'
 Runoff = 1117'

US 51 ALIGNMENT INFORMATION

STATION NORTHING EASTING
 PI 87+55.70 3540362.6684 3937212.4473
 CC 3537807.3233 3935578.2059
 PT 96+42.49 3540597.9583 3936290.0741
 RADIUS: 2880.00
 DELTA: $36^\circ 34' 48''$ LEFT
 DEGREE OF CURVE: $1^\circ 59' 22''$
 LENGTH: 1838.71
 TANGENT: 1807.64
 MIDDLE ORDINATE: 145.50
 EXTERNAL: 153.24
 TANGENT DIRECTION: N $39^\circ 06' 34''$ W
 RADIAL DIRECTION: N $50^\circ 33' 28''$ E
 RADIAL DIRECTION: N $14^\circ 18' 38''$ E
 TANGENT DIRECTION: N $75^\circ 41' 22''$ W
 PT 96+42.49 3540597.9583 3936290.0741
 POE 111+06.28 3540560.2664 3934663.7637
 TANGENT DIRECTION: N $75^\circ 41' 22''$ W
 TANGENT LENGTH: 1465.79

COORDINATE CONTROL POINTS

POINT	DESCRIPTION	State Plane Coordinates			STATION and OFFSET
		NORTH (Y)	EAST (X)	ELEV. (Z)	
CP22	Rebar and Cap	3540457.699	3936749.891	326.61	91 + 63.02, 17.82 Rt
CP23	Rebar and Cap	3540576.137	3936299.572	326.70	96 + 27.80, 18.76 Lt
CP24	PK Nail	3540726.660	3935859.556	328.02	100 + 91.47, 18.29 Rt
CP25	PK Nail	3540793.799	3935603.130	328.44	109 + 56.53, 19.57 Rt
CP26	PK Nail	3540888.501	3935200.742	327.90	107 + 40.77, 19.69 Rt

COORDINATE CONTROL SHEET
 US 51
 STA 90+00 TO STA 110+00
 SCALE: 1"=100'

COUNTY OF	ITEM NO.	SHEET
BALLARD	I-20000.00	RIE 1

MAINTENANCE OF TRAFFIC NOTES

TRAFFIC CONTROL GENERAL

Except as provided herein, maintain and control traffic in accordance with the 2010 Standard Specifications, the Standard Drawings and the Manual on Uniform Traffic Control Devices (MUTCD), current editions. Except for the roadway and traffic control bid items listed, all items of work necessary to maintain and control traffic will be paid at the lump sum bid price to Maintain And Control Traffic. All lane closures used on the project will be in compliance with the appropriate Standard drawings.

Contrary to Section 106.01, Traffic control devices used on this project may be new or used in like new condition, or conform to current MUTCD specifications. In like new condition until completion of the work, Traffic control devices will be replaced with new devices that meet or exceed the minimum specifications of the MUTCD.

During construction, signs and portable changeable message signs will be installed at locations specified by the Engineer. See the Maintenance Of Traffic construction phasing plan for Traffic control details during each phase of construction. The minimum lane width for this project shall be 9.5 feet. The speed limit is to be reduced to 45 mph throughout the work area.

No payment will be awarded for value engineering the maintenance of traffic plans.

CONSTRUCTION PHASING AND SEQUENCE OF CONSTRUCTION

Obtain the Engineer's approval of the method of lighting prior to performing night work.

Construction phasing and the sequence of construction will be maintained as shown in the plans and the Maintenance Of Traffic Notes unless otherwise approved by the Engineer. Guard-rail placement will be as directed by the Engineer.

The Contractor must notify the Engineer 14 days prior to beginning work.

CONSTRUCTION PHASING

Each lane will be permitted to be closed a total of four (4) weeks throughout the life of the project.

Prior to Phase 1 the Contractor is to fill in existing rumble strips and correct pavement deficiencies with leveling and wedging on the northbound lane where will be open to traffic in Phase 1. Pavers are to be used to maintain traffic during this work. A quantity of Leveling & Wedging P664-22 has been included on the paving Summary for this work.

Phase 1
Install construction signing and temporary traffic signals at each end of the project. Close the southbound traffic lane using the traffic control devices as shown on the Maintenance of Traffic Plans and Typical Sections. Use the temporary traffic signals to maintain one lane of traffic in alternating directions on the northbound lane.

Perform the asphalt milling shown in the plans for the southbound lane. Place a DCA wedge at 3:1 adjacent to the un-milled northbound lanes where the milling depth exceeds 2 inches. Adjust milling depth at bridge ends to achieve a 50 percent reduction in depth. Milling shall be completed on the southbound lanes. The remaining depth is to be milled in Phase 3 when traffic is no longer on the southbound lanes.

Phase 2
Adjust the traffic control devices as well as the temporary traffic signals and related striping to allow the southbound lane to be opened to traffic. Close the northbound lane and open the southbound lane to alternating one lane of traffic on the milled southbound lane as shown on the Maintenance of Traffic Plans and Typical Sections.

Perform the asphalt milling, JPC Pavement Installation, approach slab work at bridge ends, saw and seal concrete joints, DCA shoulder, guard-rail, and drainage work as shown in the plans for the northbound lane. Adjust the DCA wedge placed in Phase 1 to maintain the 3:1 slope where the difference in elevation between the two lanes exceeds 2 inches.

Phase 3

Adjust the traffic control devices as well as the temporary traffic signals and related striping to allow the northbound lane to be opened to traffic. Close the southbound lane and open the northbound lane to alternating one lane of traffic on the newly constructed northbound lane as shown on the Maintenance of Traffic Plans and Typical Sections.

Perform any additional milling required that was not performed in Phase 1, JPC Pavement Installation, approach slab work at bridge ends, saw and seal concrete joints, DCA shoulder, guard-rail, and drainage work as shown in the plans for the southbound lane.

Phase 4

Phase final striping, final pavement markers, and any other work not completed in prior phases.

FIXED COMPLETION DATE AND LIQUIDATED DAMAGES

This project has a fixed completion date.

The Department will assess liquidated damages for each day, or part of a day, work is not complete after the specified completion date or a lane closure remains in place during hours prohibited by the Maintenance Of Traffic Notes or the Engineer.

See the special note for Fixed Completion Date And Liquidated Damages for further details concerning liquidated damages to be charged to the Contractor for failure to complete any work by the specified completion date.

RESTRICTED WORK DAYS

No restrictions apply on work days for this project.

CONTRACTOR'S VEHICLES

The Contractor's vehicles shall always move with and not against the flow of traffic. Vehicles shall enter and leave work areas in a safe manner and shall not interfere with normal traffic flow. Vehicles shall not park or stop except within work areas designated by the Engineer.

PAVEMENT EDGE DROP-OFF

Pavement edges that traffic is not expected to cross, except accidentally, shall be treated as follows:

- Less than 2' - No protection required. Uneven lanes signs W8-11 should be placed in advance and throughout the drop-off area.
- 2' to 4' - Protect with a lane closure. Place plastic drums, vertical panels, or barricades every 20 feet. Construct a wedge with compacted cuttings from milling, trenching, or asphalt mixtures with a 3:1 or flatter slope when work is not active in the drop-off area. Place Type III Barricades at the beginning of the lane closures.
- 4' and Greater - Drop-offs 4' or greater will be allowed during duration of the project. Protect with a lane or shoulder closure using plastic drums or barricades. Place drums or barricades with spacing to exceed the wheelbase of the vehicle. Place drums or barricades at the drop-off area. If the drop-off is not actively in progress in the drop-off area, the drop-off wedge with DCA with 3:1 or flatter slope when work is not actively in progress in the drop-off area. Drop-offs greater than 4 inches within 8 feet of traffic will not be allowed during non-working hours.

TRUCK MOUNTED ATTENUATORS

Furnish and install MUTOP approved truck mounted attenuators (TMA) in advance of work areas when workers are present less than 12 feet from traffic. If there is less than 500 feet between work sites, only a single TMA will be required at a location directed by the Engineer. Locate the TMAs at the individual work sites and move them as the work zone moves within the project limits. All details and installations shall be approved by the Engineer. TMA will not be used in the maintenance of traffic, maintenance of traffic, and control traffic, lump sum. The Department WILL NOT take possession of the TMAs upon completion of the work.

COORDINATION OF WORK

The Contractor is advised that other projects may be in progress within or in the near vicinity of this project. The traffic control of those projects may affect this project and the traffic control of this project may affect those projects. The Contractor will coordinate the work on this project with the work of the other contractors. In case of conflict, the Engineer will determine the relative priority to give to work phasing on the various projects.

MAINTENANCE OF TRAFFIC NOTES

COUNTY OF	ITEM NO.	SHEET
BALLARD	I-20000.00	RIE 7

MAINTENANCE OF TRAFFIC NOTES

LANE CLOSURES AND LANE SHIFTS

All lane closures, lane shifts, and tapers shall be in accordance with the Standard Drawings and the MUTCD. Any lane closure or lane shift must be approved by the Engineer prior to the closure or lane shift. The Contractor must notify the Engineer at least five (5) days prior to any proposed lane closure or traffic pattern change. Contrary to Section 112, lane closures will not be measured for payment, but are considered incidental to Maintain And Control Traffic. Lump sum.

SHOULDER CLOSURE

In open construction areas within 30 feet of the edge of a traveled roadway, the shoulder shall be closed unless the Contractor can demonstrate that the closure will be necessary for the safety of the work. Barricades Type II may be required by the Engineer regardless of the time of shoulder closure.

TEMPORARY STRIPING AND PAVEMENT MARKINGS, REMOVAL OF PAVEMENT MARKINGS, AND RAISED PAVEMENT MARKERS

The Contractor will remove all pavement markings and the lanes of raised pavement markers that do not apply to the traffic operation in use, in areas where the pavement markings will conform to the final marking scheme or for other reasons will not be removed, pavement markings shall be of a permanent type pavement marking material. All temporary pavement markings, which must be subsequently removed, shall be temporary bid items. Estimated quantities for temporary paint and removable striping tape are included as bid items.

All lane marking removal shall be performed by Waterblasting and paid for under bid item 25664EN Water Blasting Existing Striping.

- 1) Place temporary striping in accordance with Section 112, except that:
 - 1) Temporary striping will be four (4) inches wide.
 - 2) Edge lines will be required for temporary striping except for short term durations approved by the Engineer.
 - 3) Existing, temporary, or permanent striping, will be in place before a lane is opened to traffic.
 - 4) Temporary 24-Step Bars Are Incidental To The Temporary Paint Bid Item.

PORTABLE CHANGEABLE MESSAGE SIGN

The contractor shall furnish and maintain Portable Changeable Message Signs. The contractor shall install, operate and maintain the Portable Changeable Message Signs through the completion of the project. They shall be placed in a location designated or approved by the Engineer. The Engineer will designate which messages are required. The Portable Changeable Message Signs will be accordance with Special Note for Changeable Message Sign. The Portable Changeable Message Signs will remain the property of the Contractor after construction is finished.

TEMPORARY SIGNS

Bid Item No. 2562 Temporary Signs will be paid for on a square foot basis and includes all costs necessary to furnish the signs, placement of the signs in the first location, relocating the signs from one location to another, according to the project requirements, and removal of the signs from the job site. See Section 112.04.02 of the 2012 Standard Specifications for additional details.

PERMANENT SIGNING MODIFICATIONS

Existing ground mounted and overhead panel signs will be covered as construction phasing requires. The Engineer will use permanent damage to the sign face, porous cloth covers which are folded over the sign edges and secured on the back of the sign may be used or thin gauge sheeting material may be used. The use of tape, paper, plastic or sheer metal for pavement marking striping is prohibited. The Contractor is covering or existing panel signs shall be incidental to Maintain And Control Traffic. The cost for covering, removing, relocating, or stored as directed by the Engineer during construction to Maintain And Control Traffic.

BARRICADES

Barricades used in lieu of barrels and cones for channelization or delineation will be incidental to Maintain And Control Traffic according to Section 112.04.01. Barricades used to protect pavement removal areas will be bid as each according to the project requirements. Barricades shall be removed and replaced within the duration of the project. Replacements for damaged barricades or they are set, reset, removed and relocated within the duration of the project. Replacements for damaged barricades or barricades directed to be replaced by the Engineer due to poor condition or reflectivity will not be measured for payment. Payment will be for the maximum number of barricades in use at any one time.

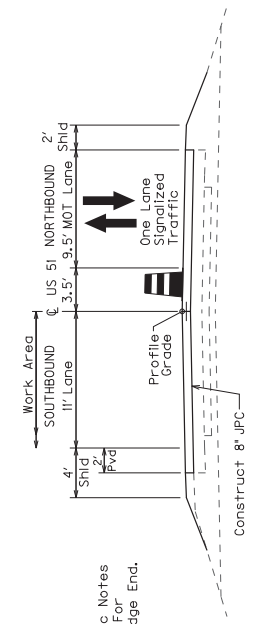
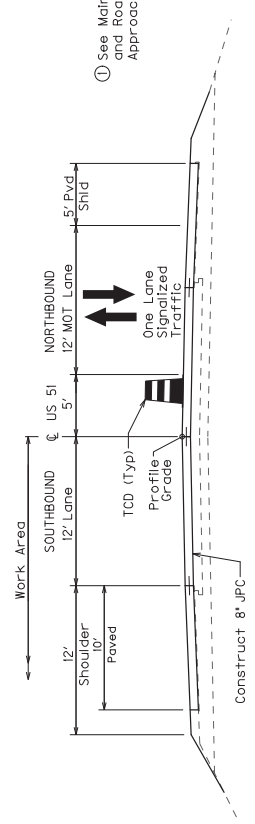
MAINTENANCE OF TRAFFIC NOTES

COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	R17

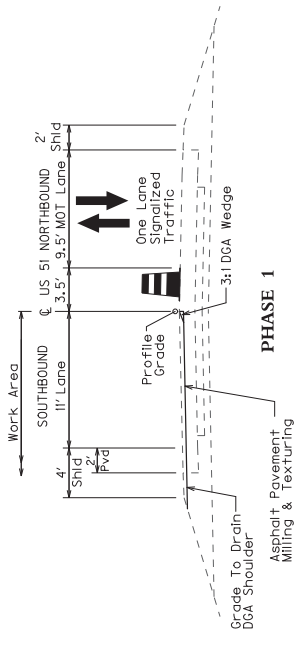
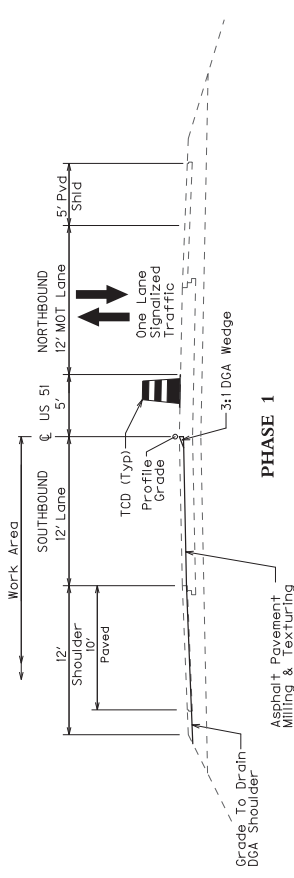
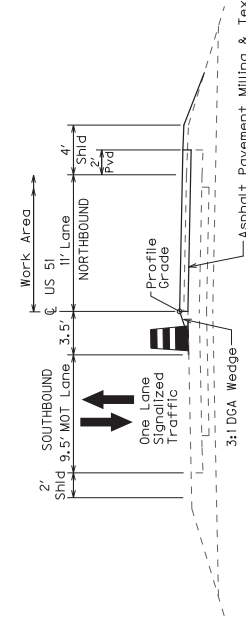
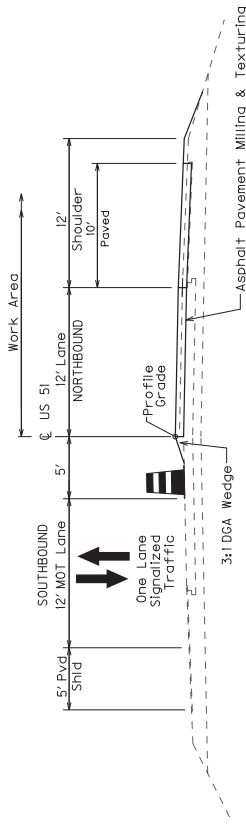
TYPICAL SECTIONS US 51

STA 10+00 TO STA 26+00
STA 100+75 TO END PROJECT

STA 26+00 TO STA 100+75



① See Maintenance of Traffic Notes and Roadway Plans Details For Approach Slab Work At Bridge End.



MAINTENANCE OF TRAFFIC
TYPICAL SECTIONS

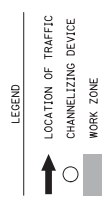
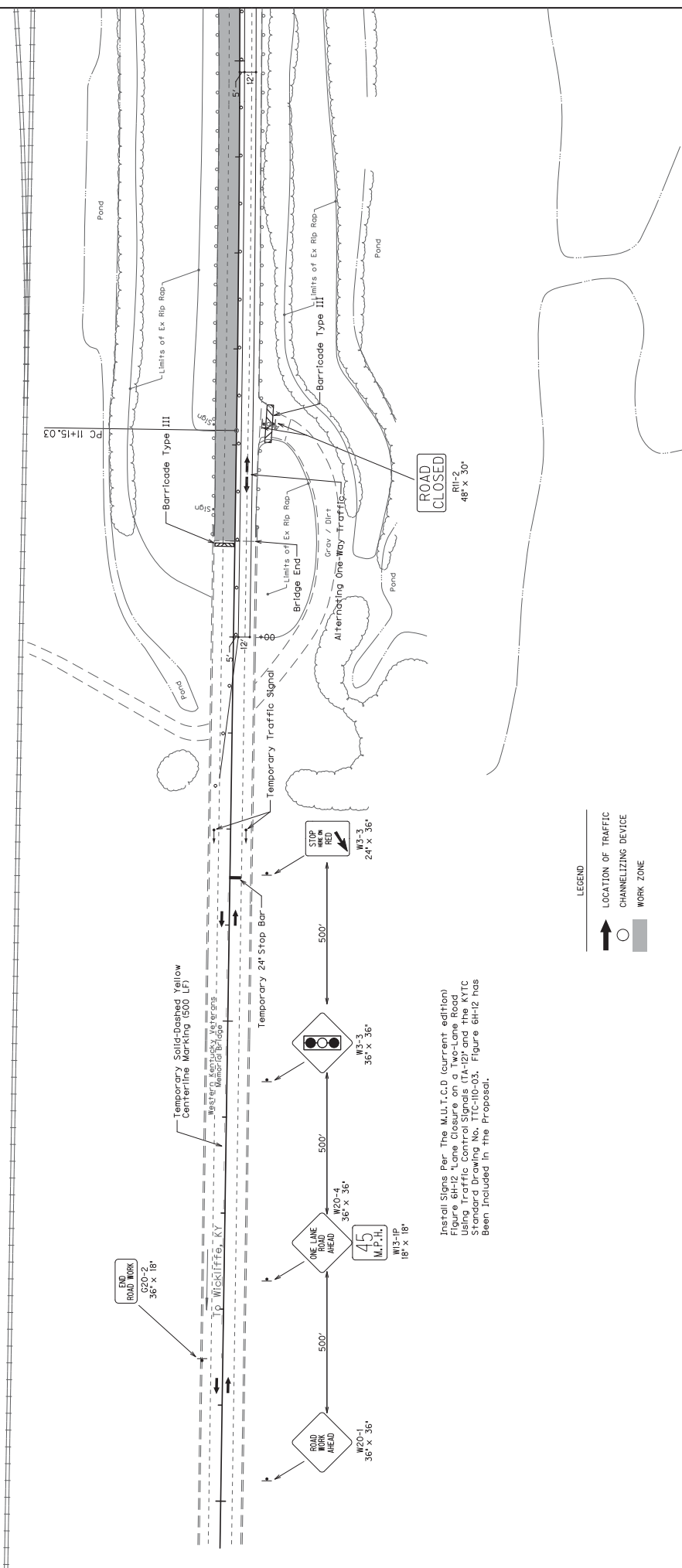
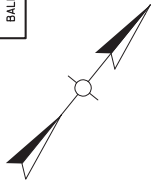
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COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	R18

00+15

00+10

5+00



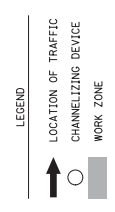
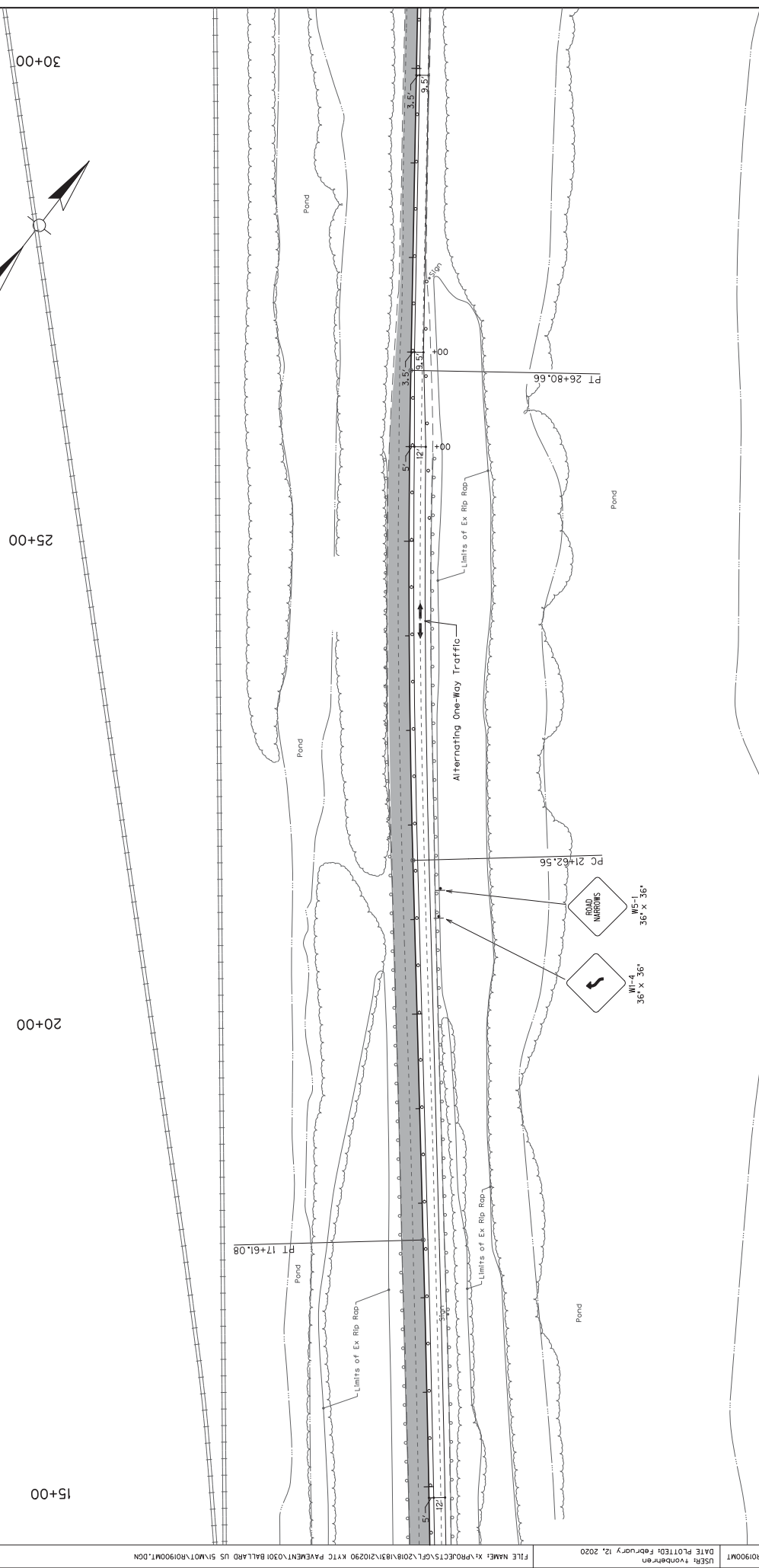
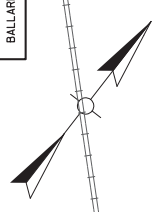
Install Signs Per The M.U.T.C.D (current edition) Figure 6H12 Lane Closure on a Two-Lane Road Using Traffic Control Signals 6A-12 and the XTTC Signs Per Figure 6C. Figure 6H12 has been included in the Proposal.

MAINTENANCE OF TRAFFIC PLAN
PHASE I
0+00 TO STA 15+00

SCALE: 1"=50'

COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	R197D

15+00 20+00 25+00 30+00



MAINTENANCE OF TRAFFIC PLAN
PHASE 1
15+00 TO STA 30+00
SCALE: 1"=50'

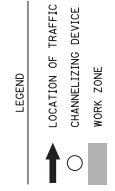
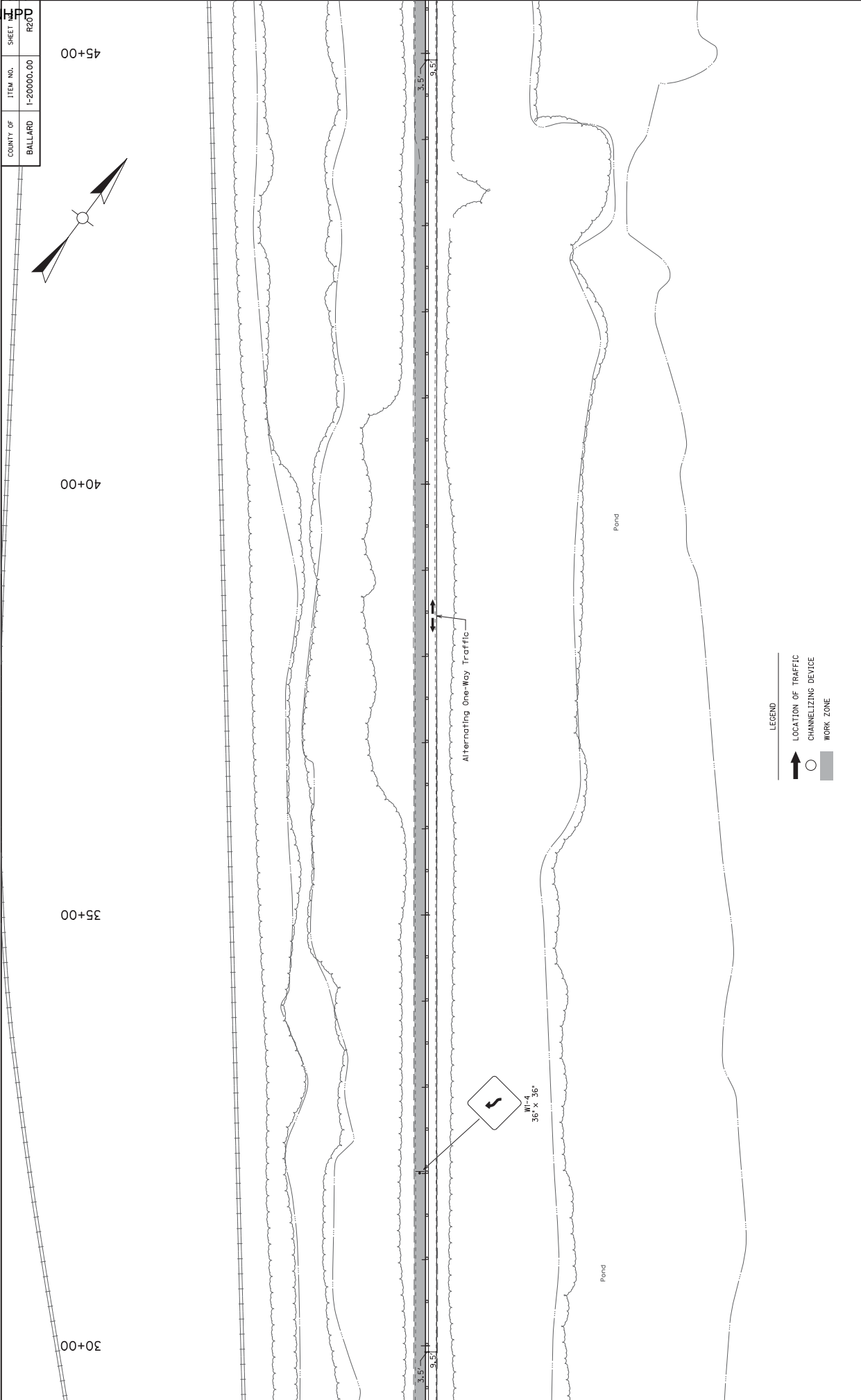
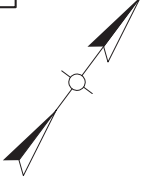
COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	R200

45+00

40+00

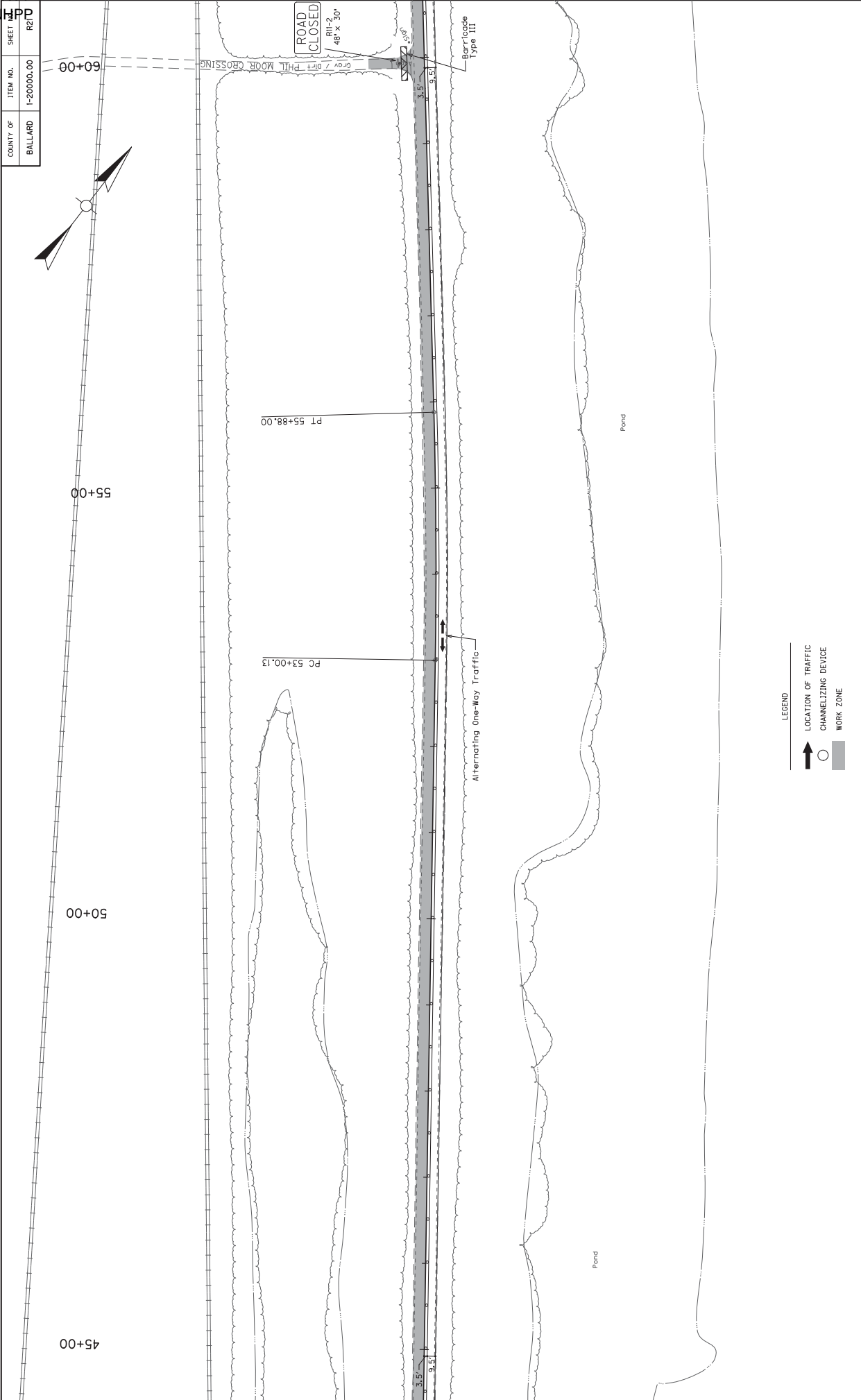
35+00

30+00



MAINTENANCE OF TRAFFIC PLAN
PHASE I
30+00 TO STA 45+00

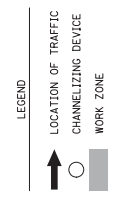
SCALE: 1"=50'

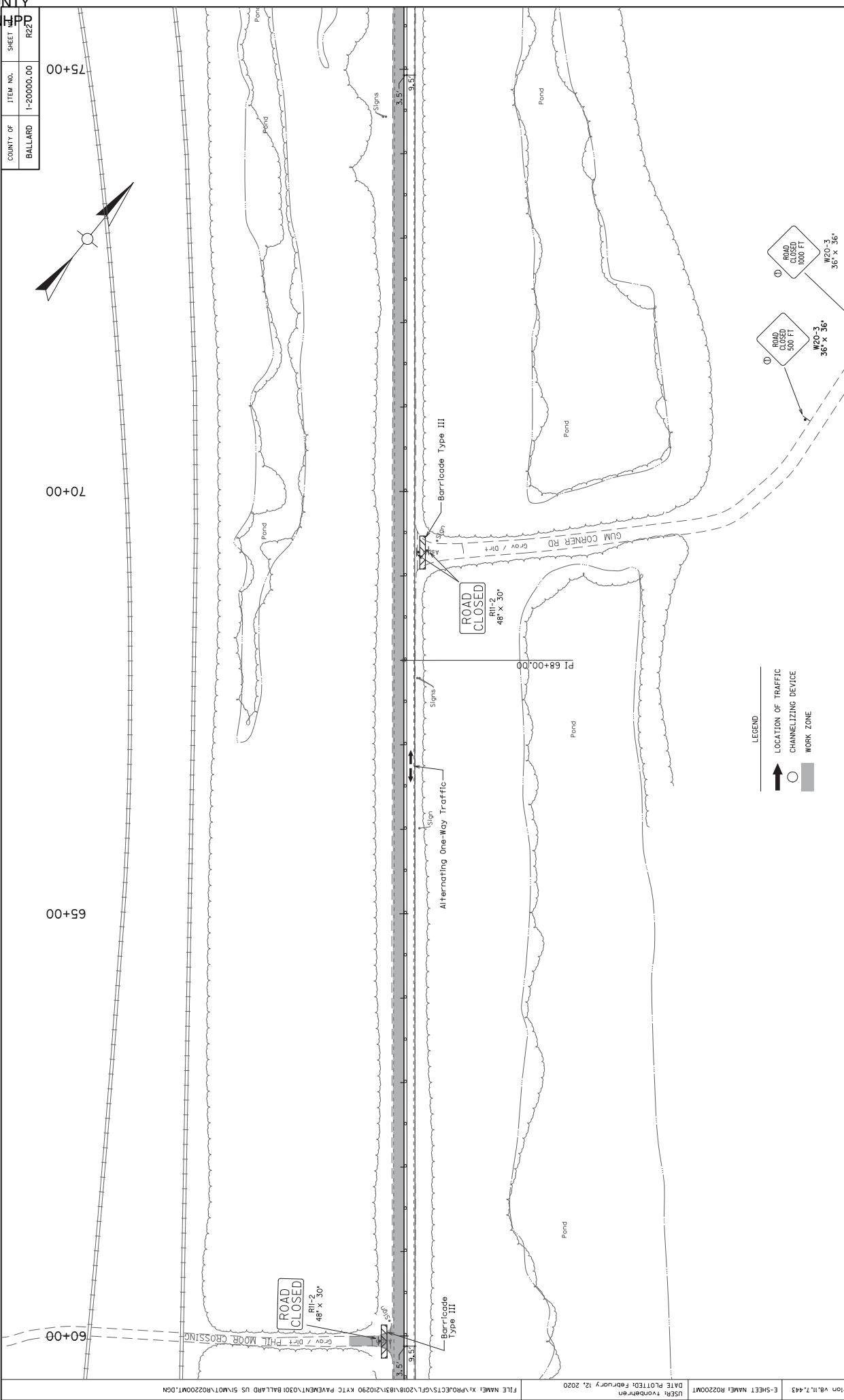


COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	R21C

MAINTENANCE OF TRAFFIC PLAN
PHASE I
45+00 TO STA 60+00

SCALE: 1"=50'



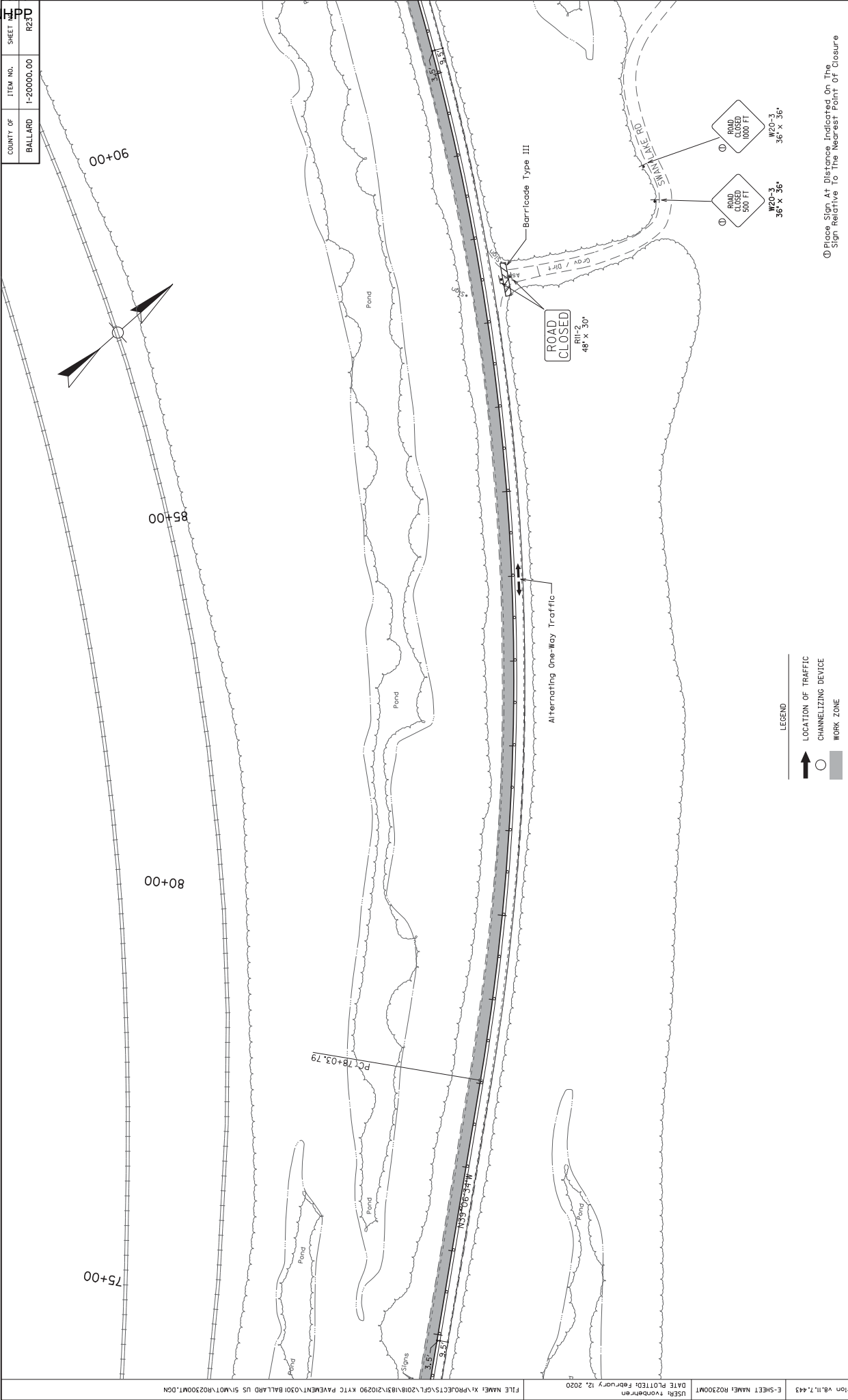


COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	RZ2D

75+00
70+00
65+00
60+00

MAINTENANCE OF TRAFFIC PLAN
PHASE I
60+00 TO STA 75+00

COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	RZ37D



LEGEND

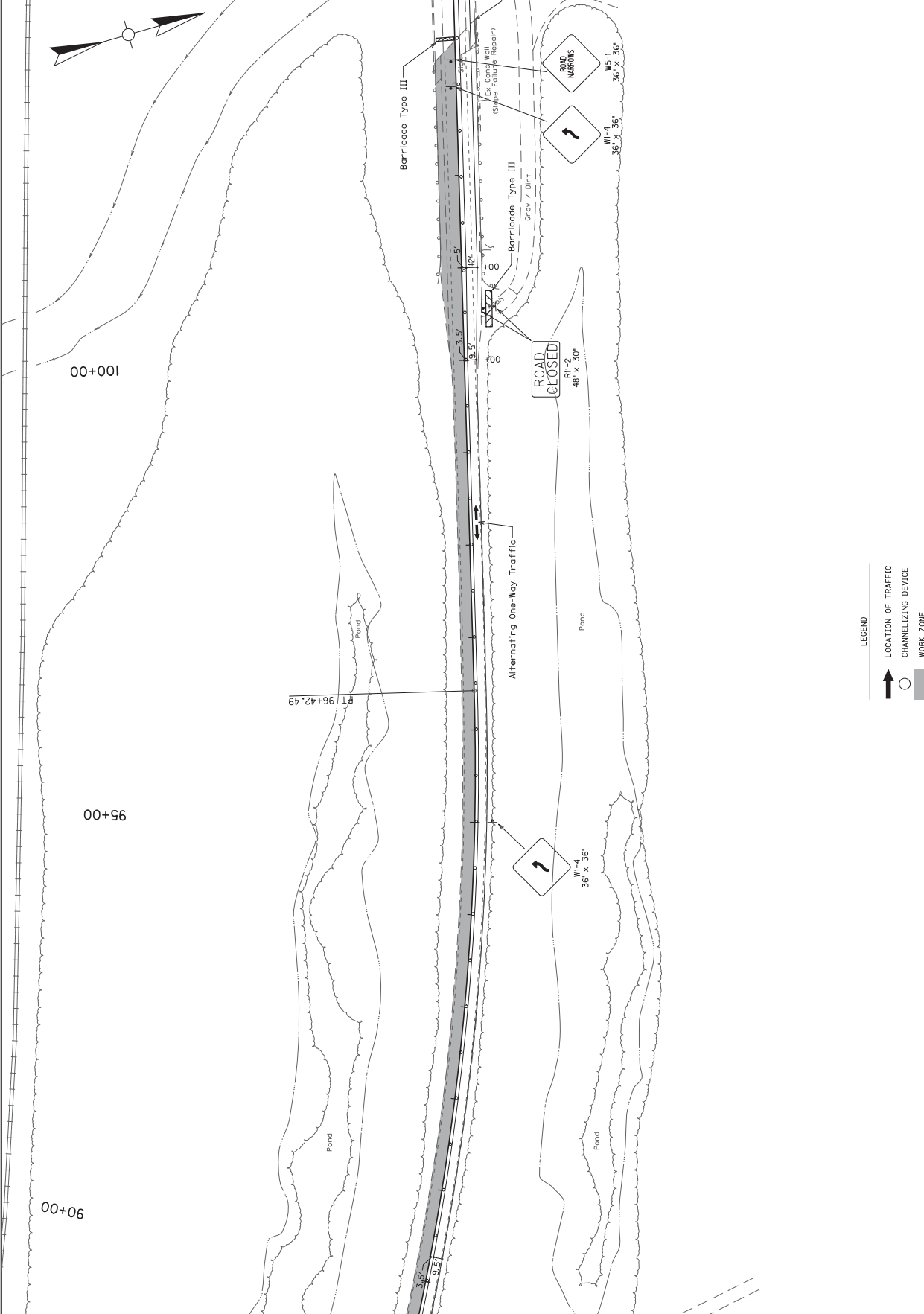
↑	LOCATION OF TRAFFIC
○	CHANNELIZING DEVICE
■	WORK ZONE

Place Sign At Distance Indicated On The Sign Relative To The Nearest Point Of Closure

MAINTENANCE OF TRAFFIC PLAN
PHASE I
75+00 TO STA 90+00

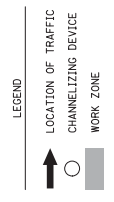
SCALE: 1"=50'

COUNTY OF	ITEM NO.	SHEET
BALLARD	I-20000.00	R247

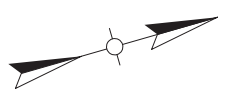


MAINTENANCE OF TRAFFIC PLAN
PHASE 1
90+00 TO STA 105+00

SCALE: 1"=50'



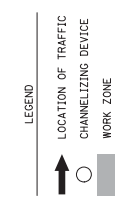
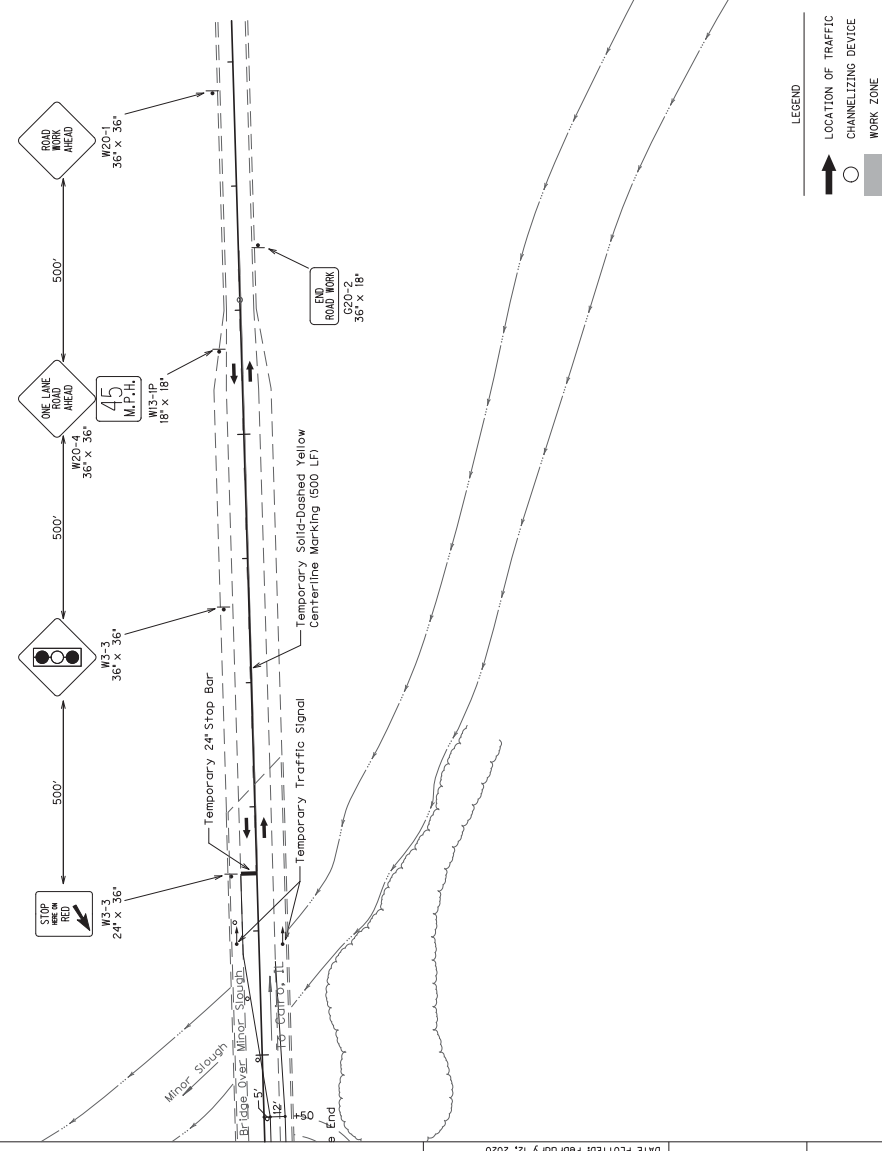
COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	R25



00+011

105+00

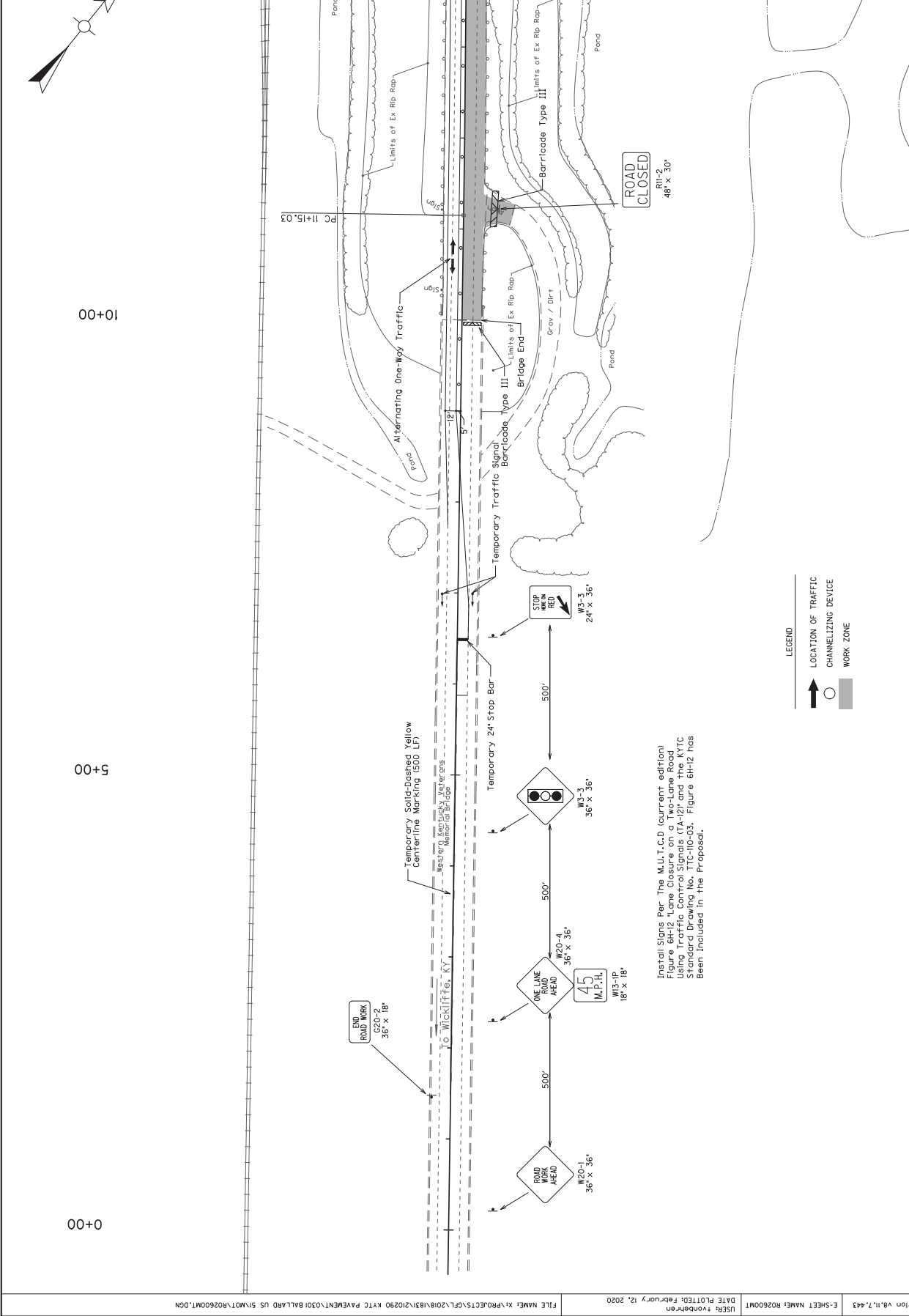
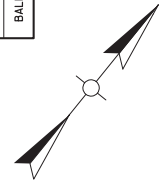
Install Signs Per The M.U.T.C.D (current edition) Figure 6H-12 "Lane Closure on a Two-Lane Road Using Traffic Control Signals (TA-2)" and The KYTC Standard Plans, Figure 605. Figure 6H-12 has been included in the Proposal.



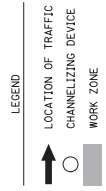
MAINTENANCE OF TRAFFIC PLAN
PHASE 1
105+00 TO STA 110+00

SCALE: 1"=50'

COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	R25



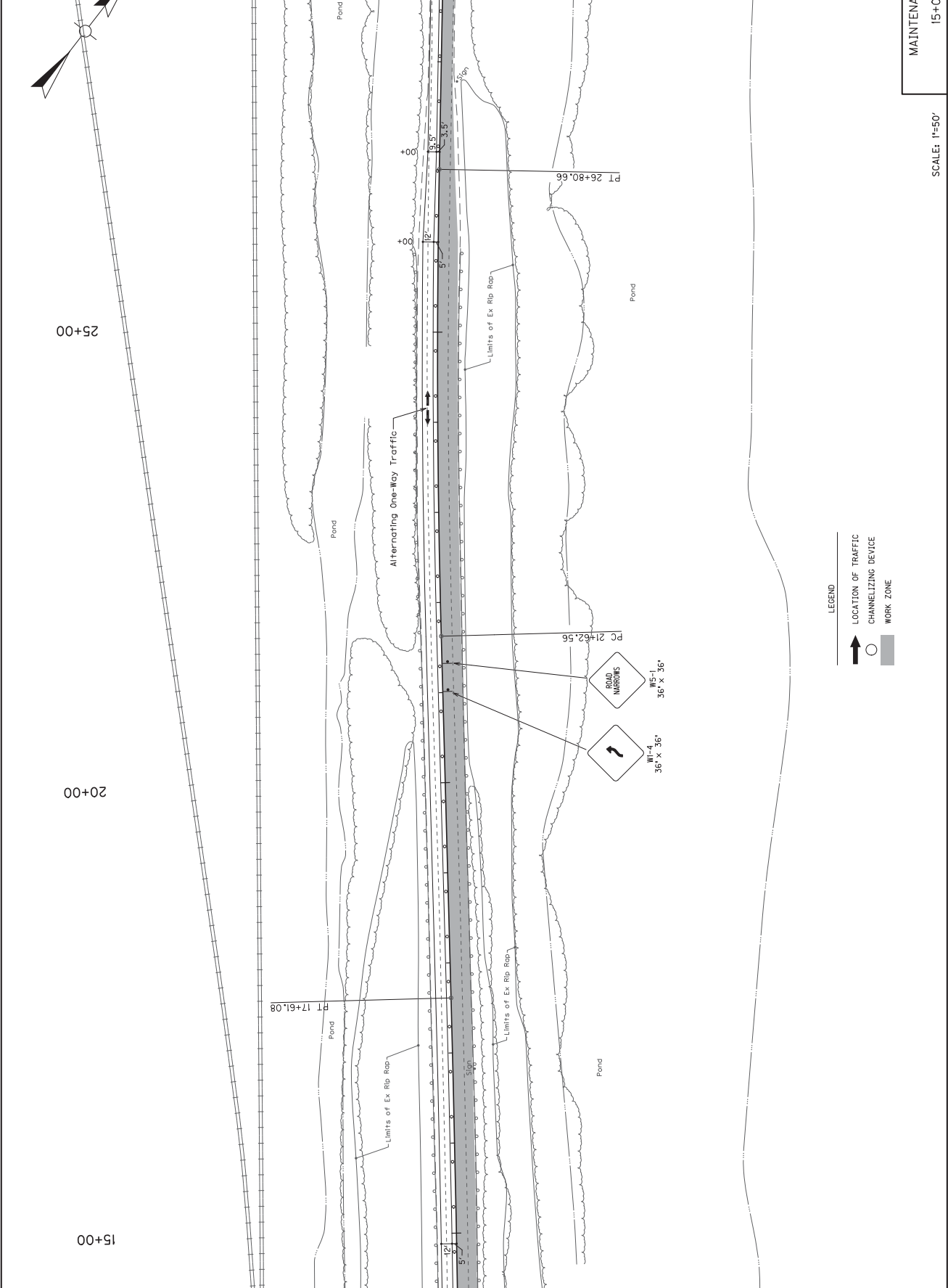
Install Signs Per The M.U.T.C.D (current edition) Figure 6H-12 "Lane Closure on a Two-Lane Road Using Traffic Control Signals (A-12)" and the KYTC Manual for Traffic Signs (A-12) and the KYTC Manual for Traffic Signs (A-12). Figure 6H-12 has been included in the Proposal.



MAINTENANCE OF TRAFFIC PLAN
PHASE 2
I+00 TO STA 15+00

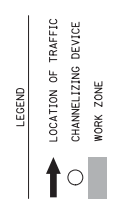
SCALE: 1"=50'

COUNTY OF	ITEM NO.	SHEET
BALLARD	I-20000.00	RZ7C



MAINTENANCE OF TRAFFIC PLAN
PHASE 2
15+00 TO STA 30+00

SCALE: 1"=50'



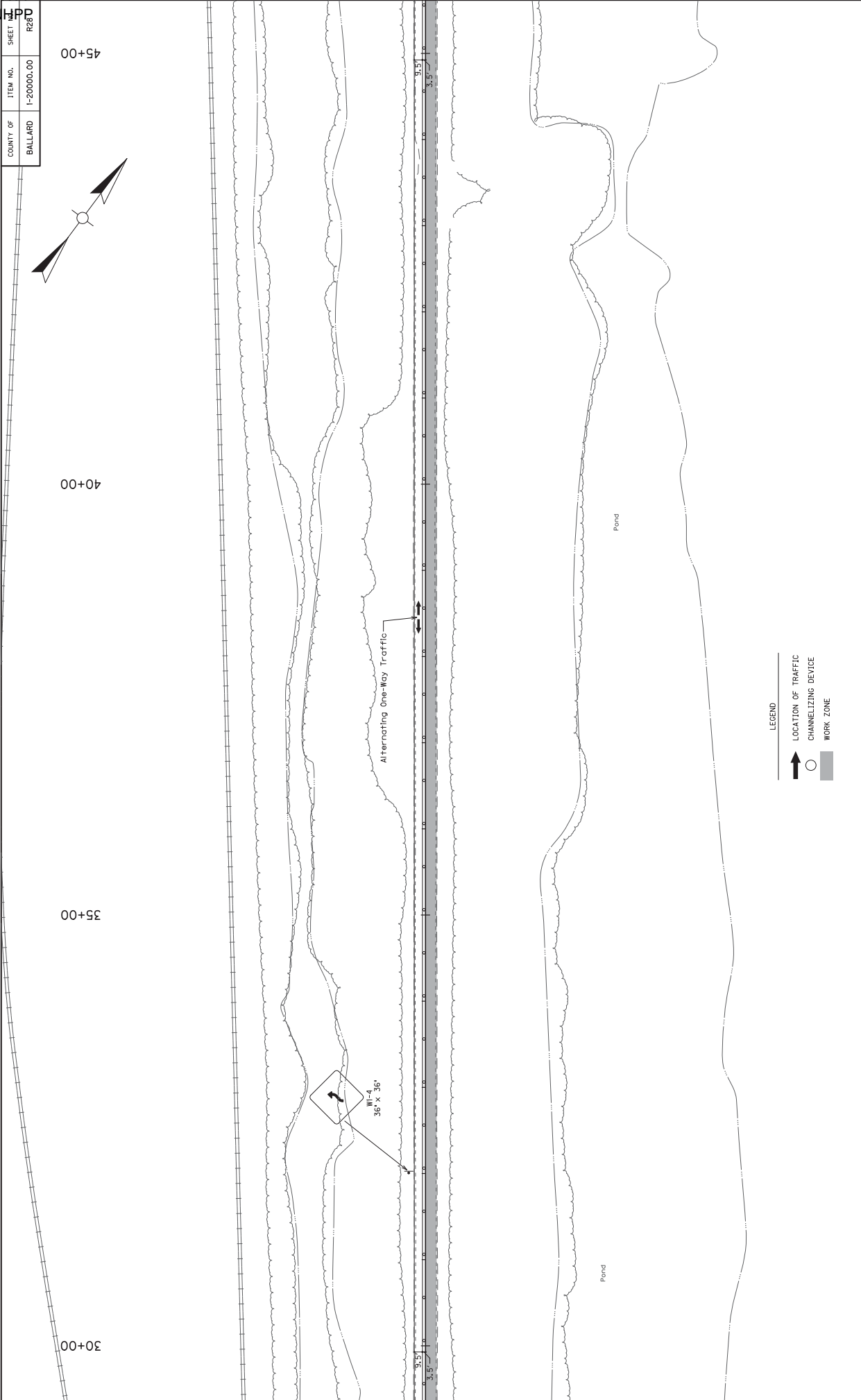
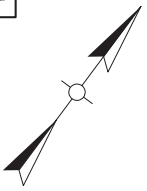
COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	R287P

45+00

40+00

35+00

30+00

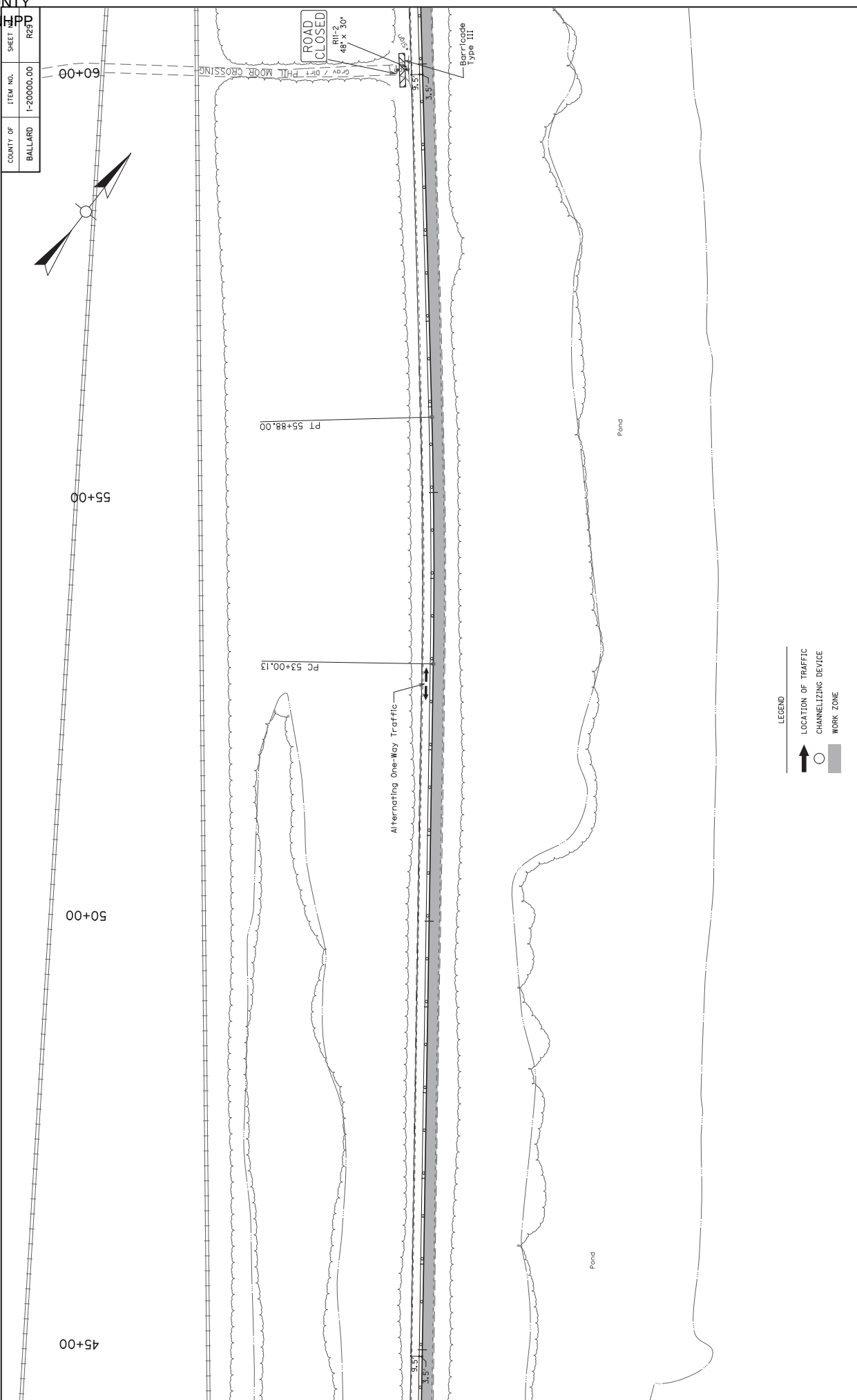


LEGEND

↑	LOCATION OF TRAFFIC
○	CHANNELIZING DEVICE
■	WORK ZONE

MAINTENANCE OF TRAFFIC PLAN
PHASE 2
30+00 TO STA 45+00

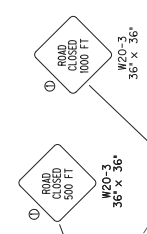
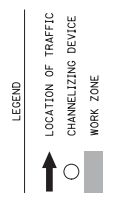
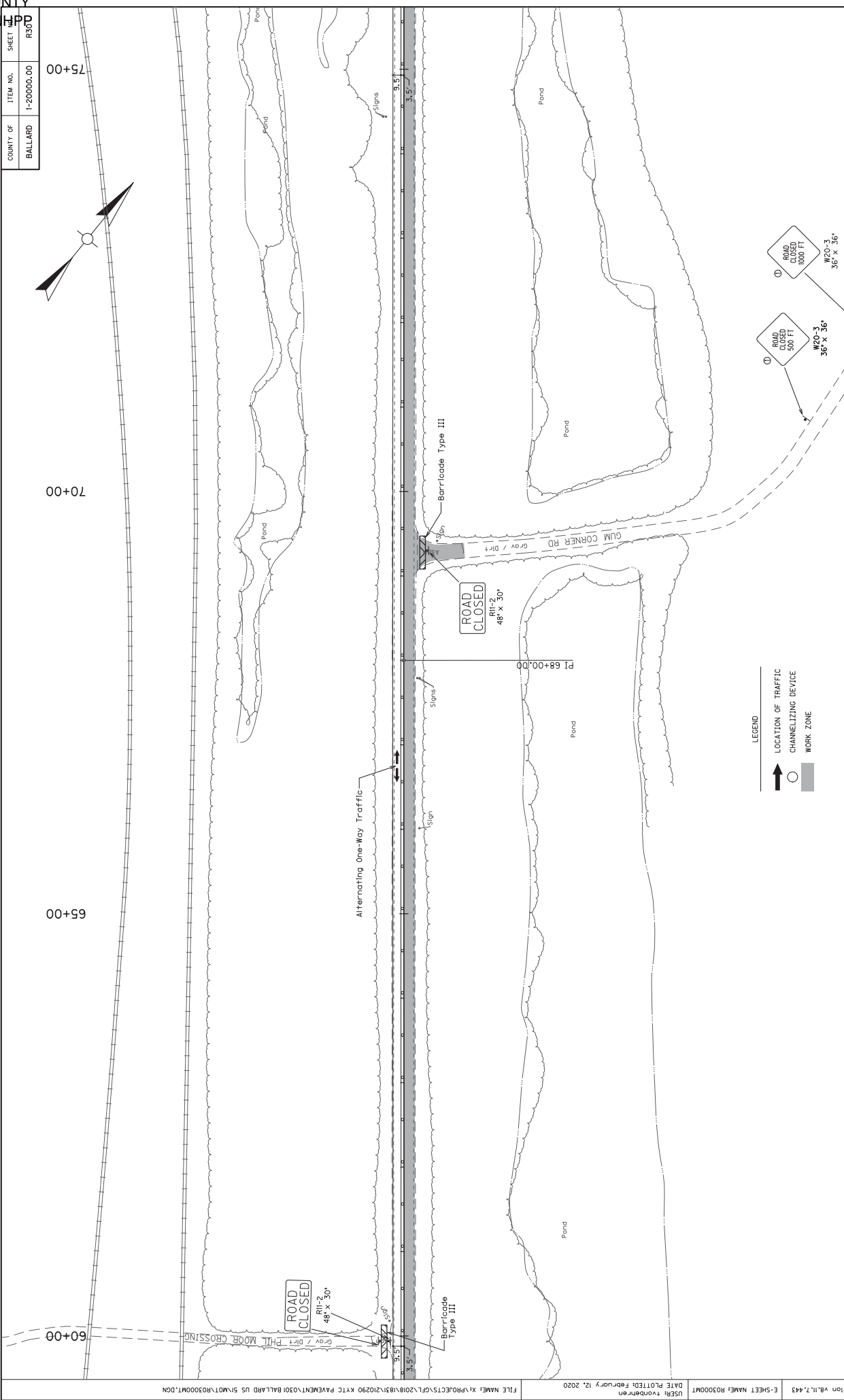
SCALE: 1"=50'



COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	R25TD

MAINTENANCE OF TRAFFIC PLAN
PHASE 2
45+00 TO STA 60+00

SCALE: 1"=50'



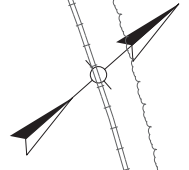
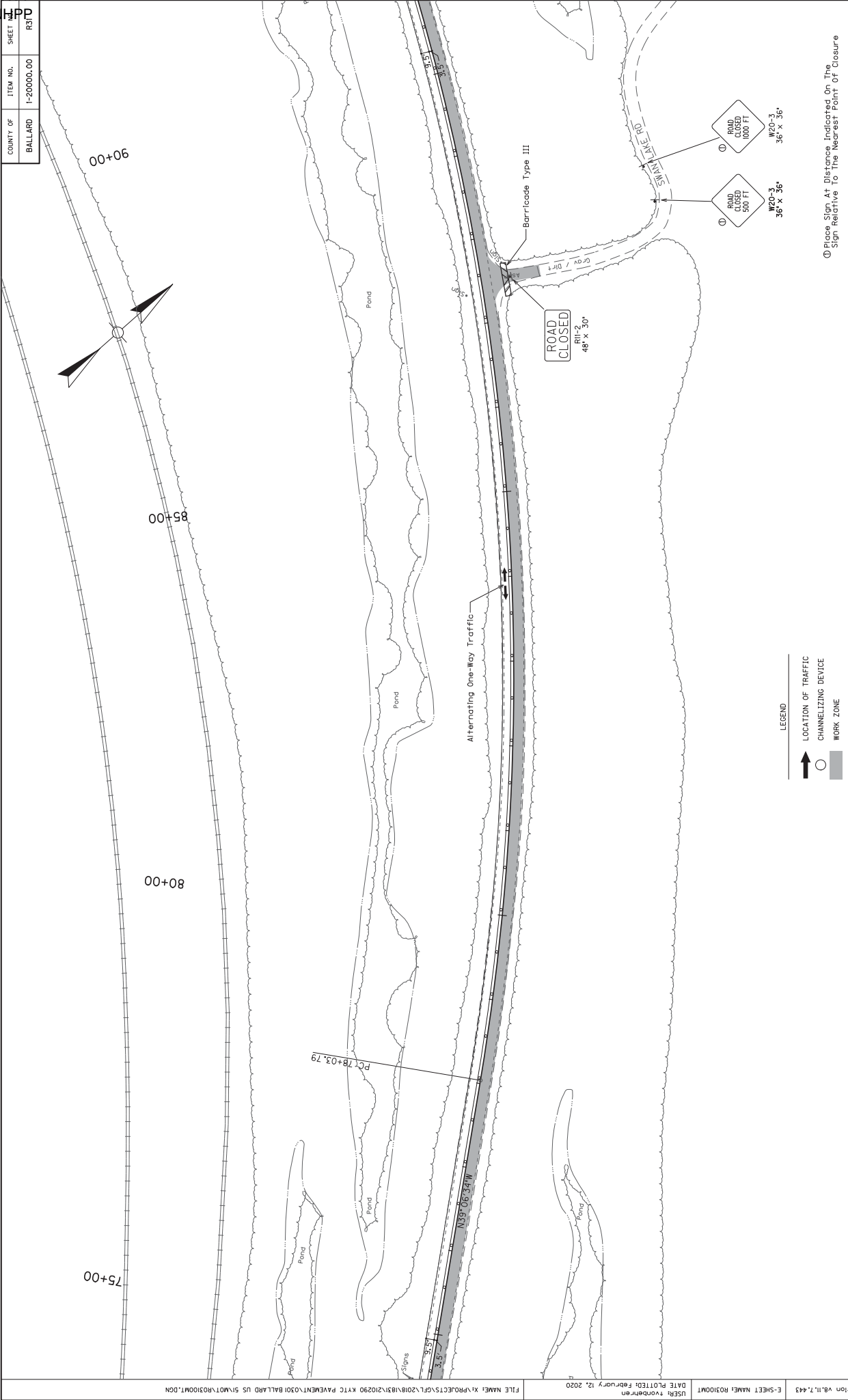
Place Sign At Distances Indicated On The Sign Relative To The Nearest Point Of Closure
SCALE: 1"=50'

MAINTENANCE OF TRAFFIC PLAN
PHASE 2
60+00 TO STA 75+00

COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	R3000

75+00
70+00
65+00
60+00

COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	R31



LEGEND

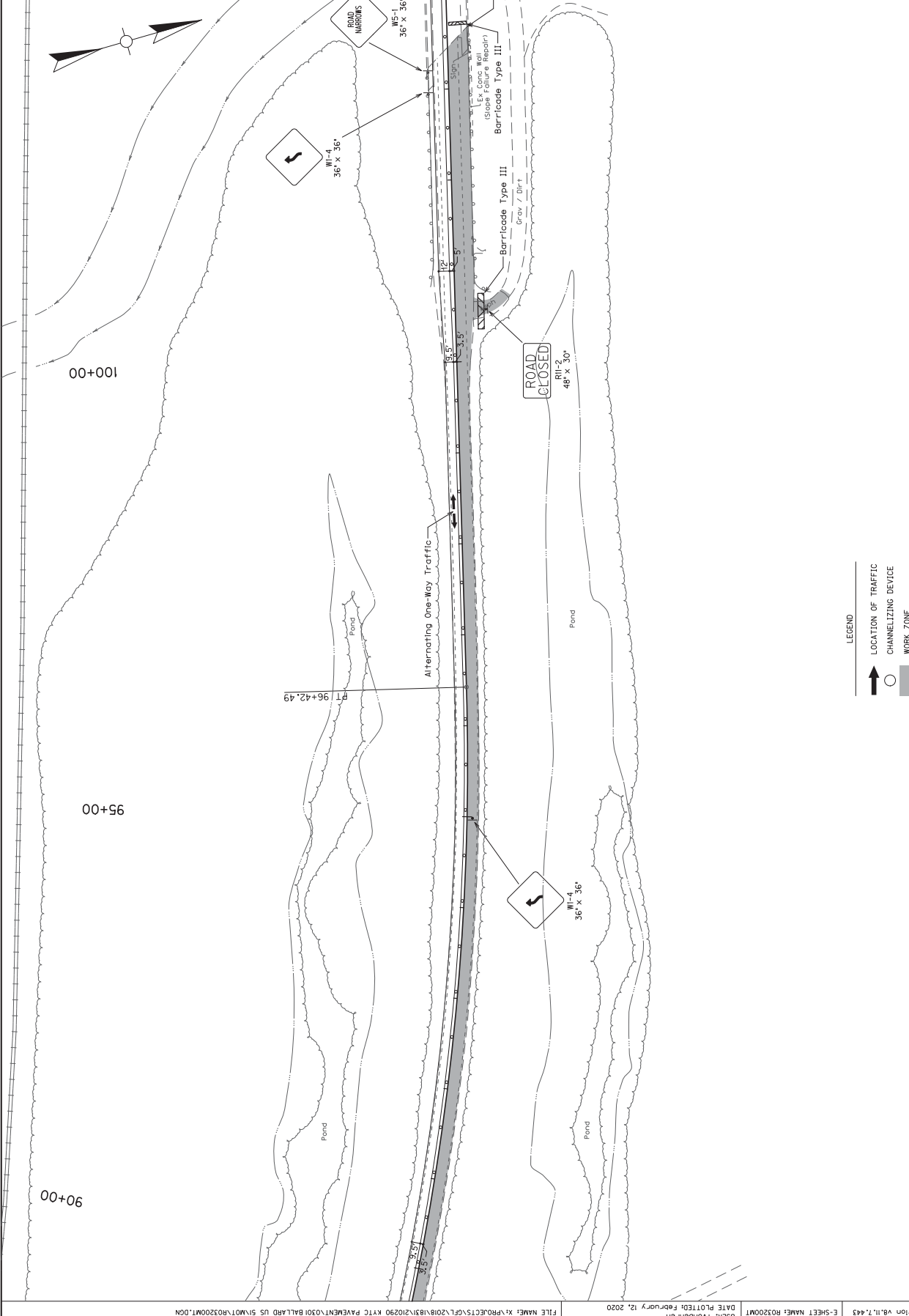
↑	LOCATION OF TRAFFIC CHANNELIZING DEVICE
○	WORK ZONE

Place Sign At Distance Indicated On The Sign Relative To The Nearest Point Of Closure

MAINTENANCE OF TRAFFIC PLAN
PHASE 2
75+00 TO STA 90+00

SCALE: 1"=50'

COUNTY OF BALLARD	ITEM NO. 1-20000.00	SHEET R32
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LEGEND

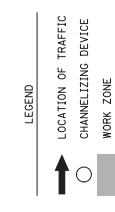
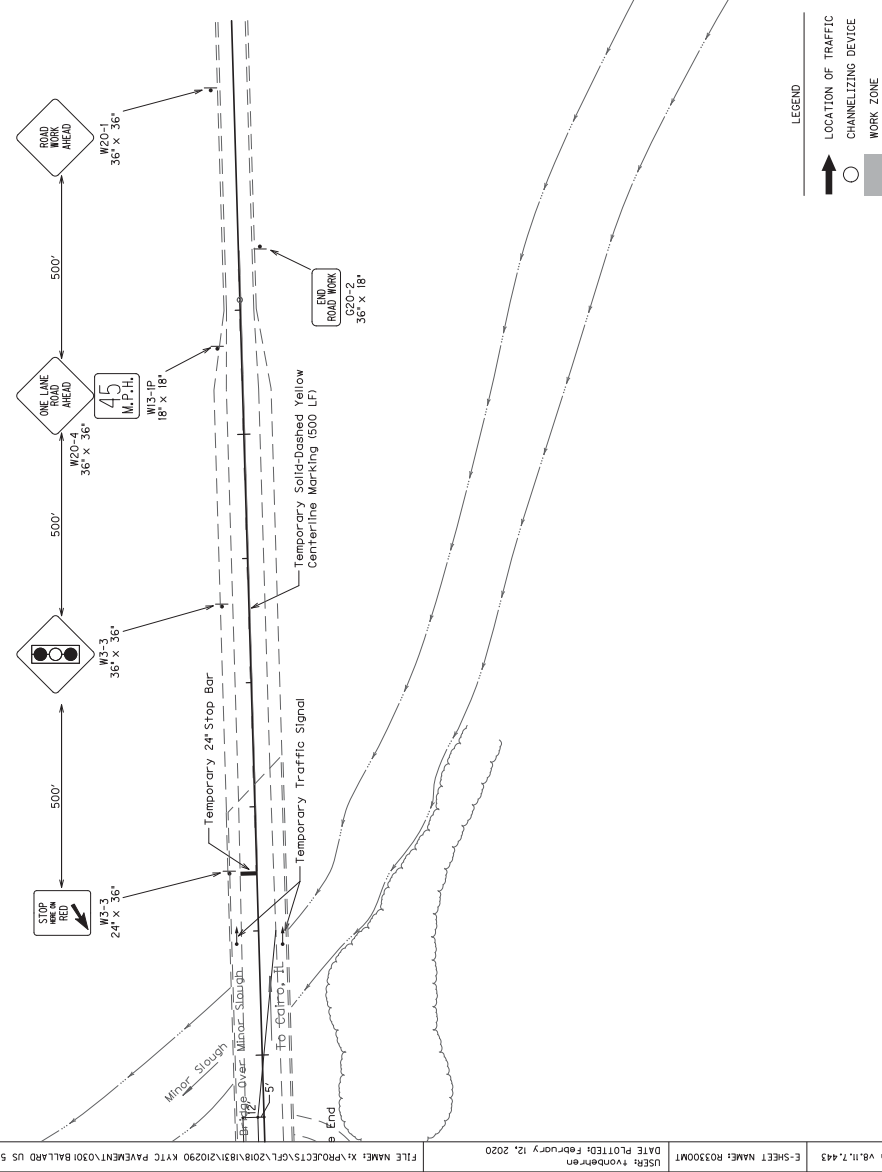
	LOCATION OF TRAFFIC
	CHANNELIZING DEVICE
	WORK ZONE

MAINTENANCE OF TRAFFIC PLAN
PHASE 2
90+00 TO STA 105+00
SCALE: 1"=50'

COUNTY OF	ITEM NO.	SHEET
BALLARD	I-20000.00	R33

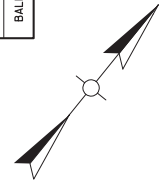


Install Signs Per The M.U.T.C.D (current edition) Figure 6H-12 Lane Closure on a Two-Lane Road. Signs to be installed are: Stop (R1-1) and Advance Stop (R1-2) and Standard Directional No. T1C-10-03. Figure 6H-12 has been included in the Proposal.



MAINTENANCE OF TRAFFIC PLAN
PHASE 2
105+00 TO STA 110+00
SCALE: 1"=50'

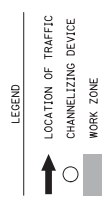
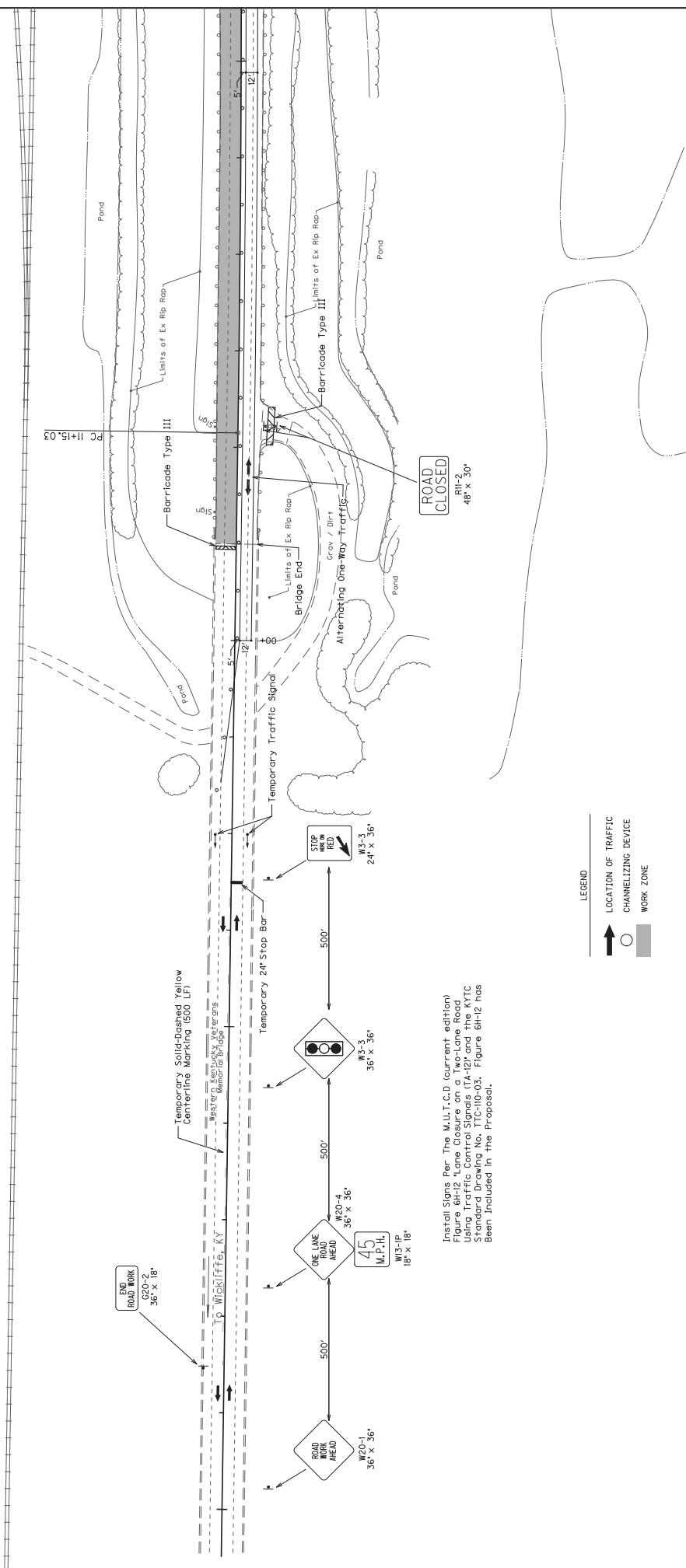
COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	R34TP



00+15

00+10

5+00



Install Signs Per The M.U.T.C.D (current edition)
Figure 6H12, Lane Closure on a Two-Lane Road
Using Traffic Control Signals 6A-12H and the XTTC
Signs 6H12, 6H13, 6H14, 6H15, 6H16, 6H17, 6H18, 6H19,
6H20, 6H21, 6H22, 6H23, 6H24, 6H25, 6H26, 6H27, 6H28,
6H29, 6H30, 6H31, 6H32, 6H33, 6H34, 6H35, 6H36, 6H37,
6H38, 6H39, 6H40, 6H41, 6H42, 6H43, 6H44, 6H45,
6H46, 6H47, 6H48, 6H49, 6H50, 6H51, 6H52, 6H53,
6H54, 6H55, 6H56, 6H57, 6H58, 6H59, 6H60, 6H61,
6H62, 6H63, 6H64, 6H65, 6H66, 6H67, 6H68, 6H69,
6H70, 6H71, 6H72, 6H73, 6H74, 6H75, 6H76, 6H77,
6H78, 6H79, 6H80, 6H81, 6H82, 6H83, 6H84, 6H85,
6H86, 6H87, 6H88, 6H89, 6H90, 6H91, 6H92, 6H93,
6H94, 6H95, 6H96, 6H97, 6H98, 6H99, 6H100.
Figure 6H12 has
Been Included in the Proposal.

END ROAD WORK
W20-2
36" X 18"

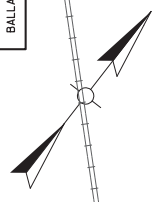
ONE LANE ROAD AHEAD
W20-4
36" X 36"
45 M.P.H.
W13-1P
18" X 18"

STOP AHEAD
W3-3
24" X 36"

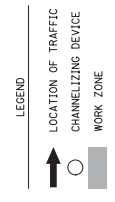
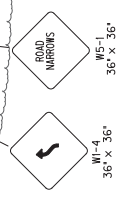
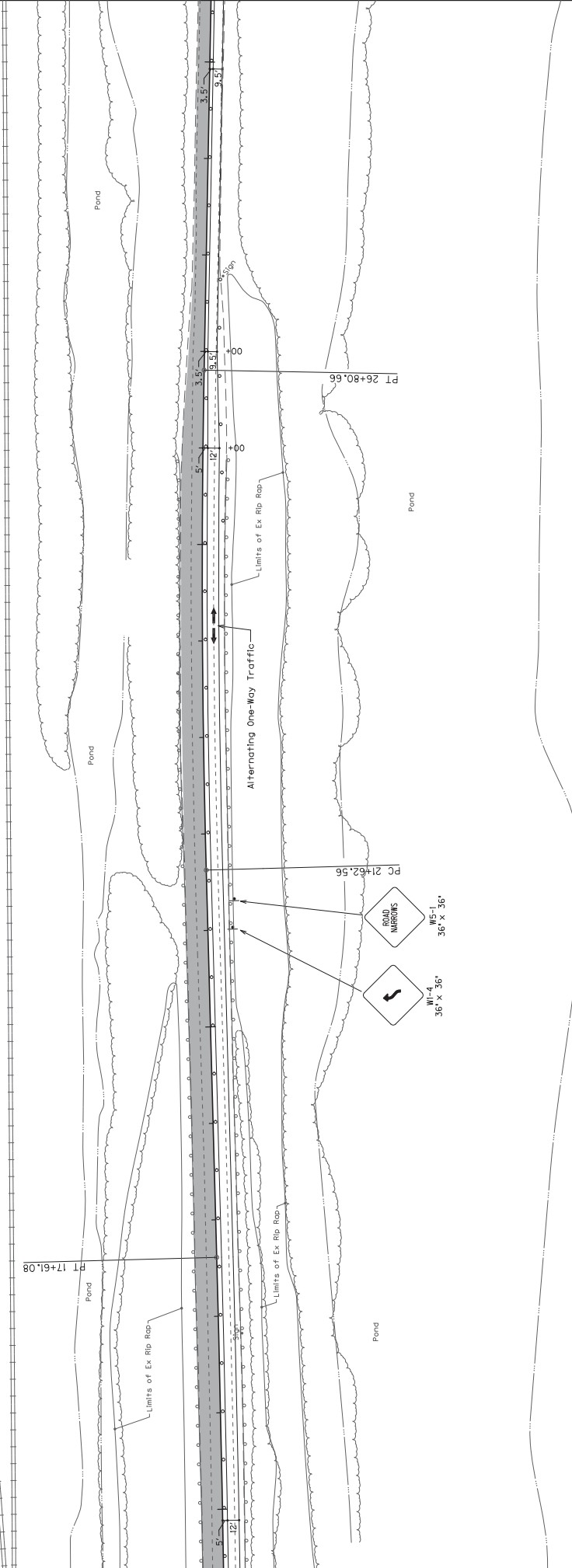
ROAD CLOSED
R11-2
48" X 30"

SCALE: 1"=50'
MAINTENANCE OF TRAFFIC PLAN
PHASE 3
0+00 TO STA 15+00

COUNTY OF	ITEM NO.	SHEET
BALLARD	I-20000.00	R35D



00+00
25+00
00+00
15+00



MAINTENANCE OF TRAFFIC PLAN
PHASE 3
15+00 TO STA 30+00

SCALE: 1"=50'

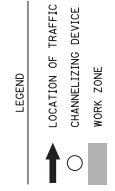
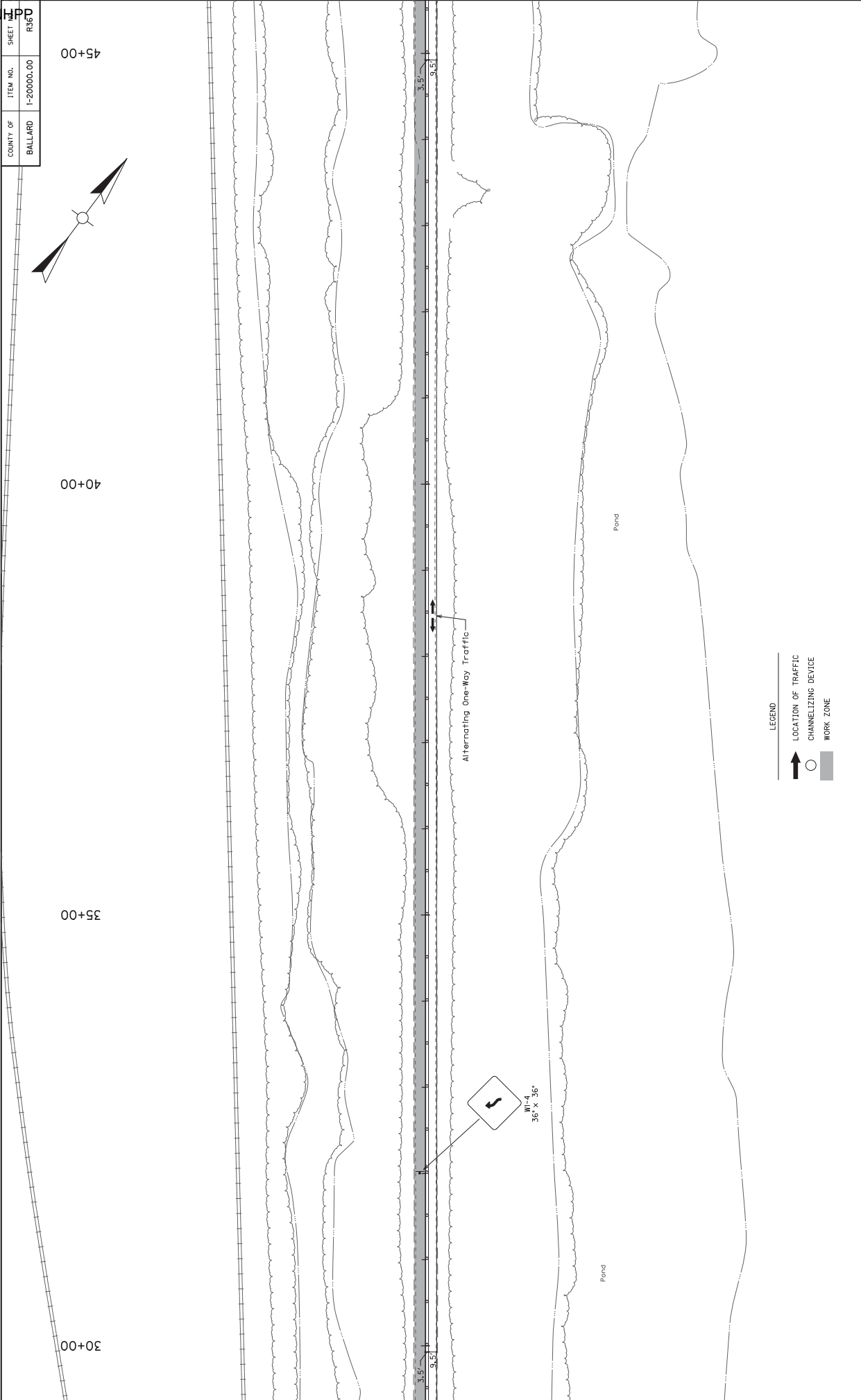
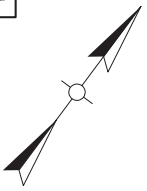
COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	R35

45+00

40+00

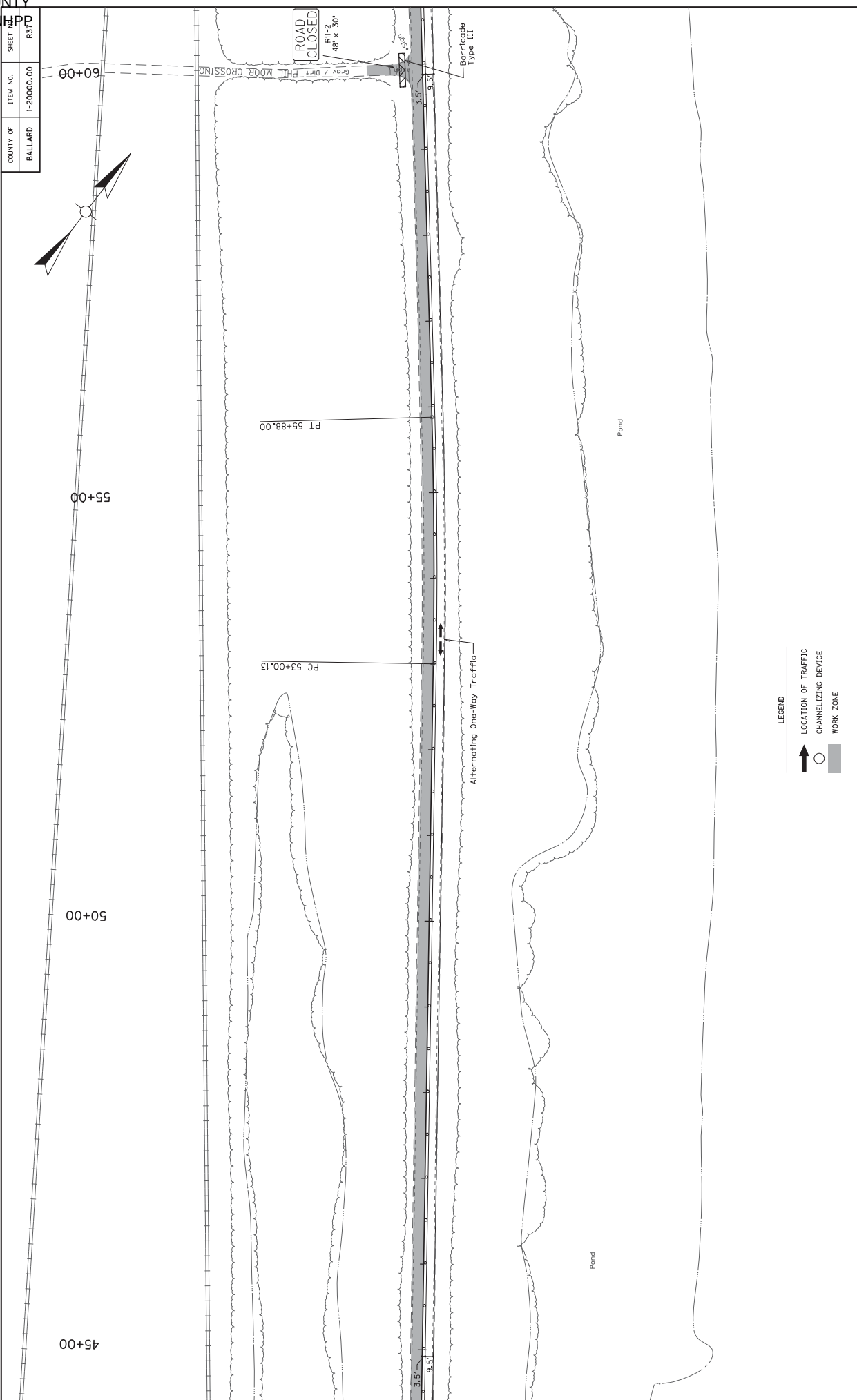
35+00

30+00



MAINTENANCE OF TRAFFIC PLAN
PHASE 3
30+00 TO STA 45+00

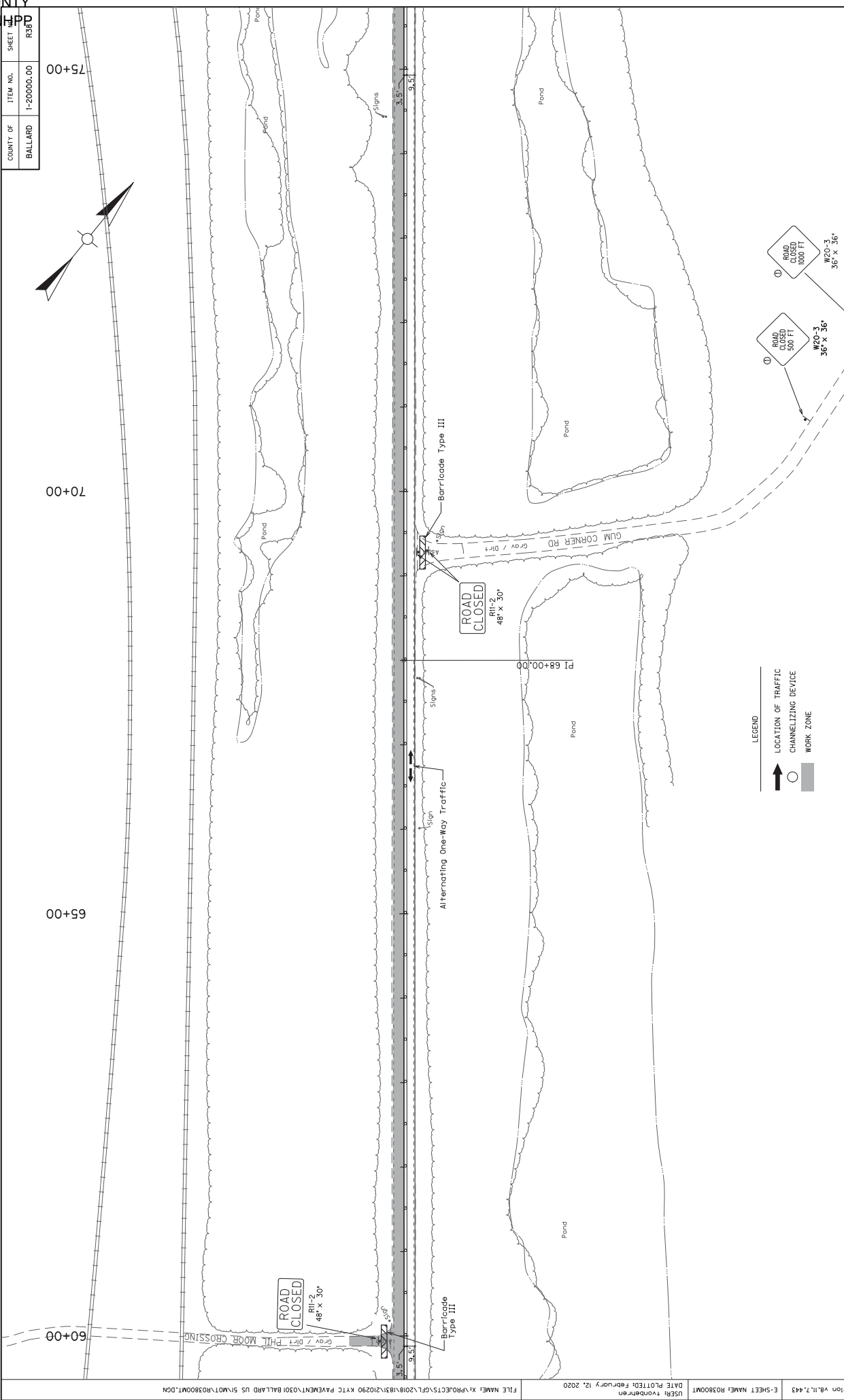
SCALE: 1"=50'



COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	R37D

MAINTENANCE OF TRAFFIC PLAN
PHASE 3
45+00 TO STA 60+00

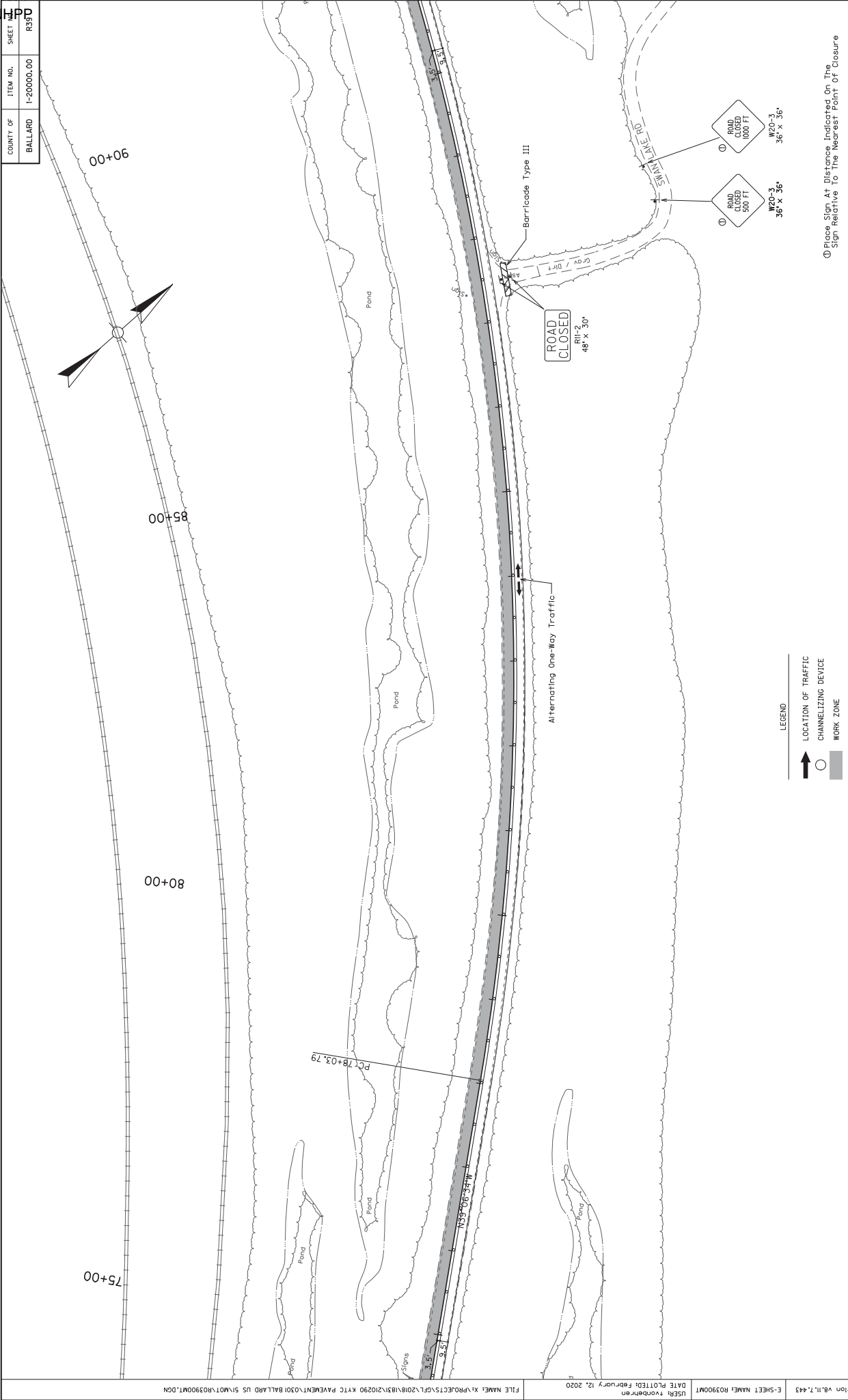
SCALE: 1"=50'



MAINTENANCE OF TRAFFIC PLAN
PHASE 3
60+00 TO STA 75+00

Place Sign At Distances Indicated On The Sign Relative To The Nearest Point Of Closure

COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	R35P



LEGEND

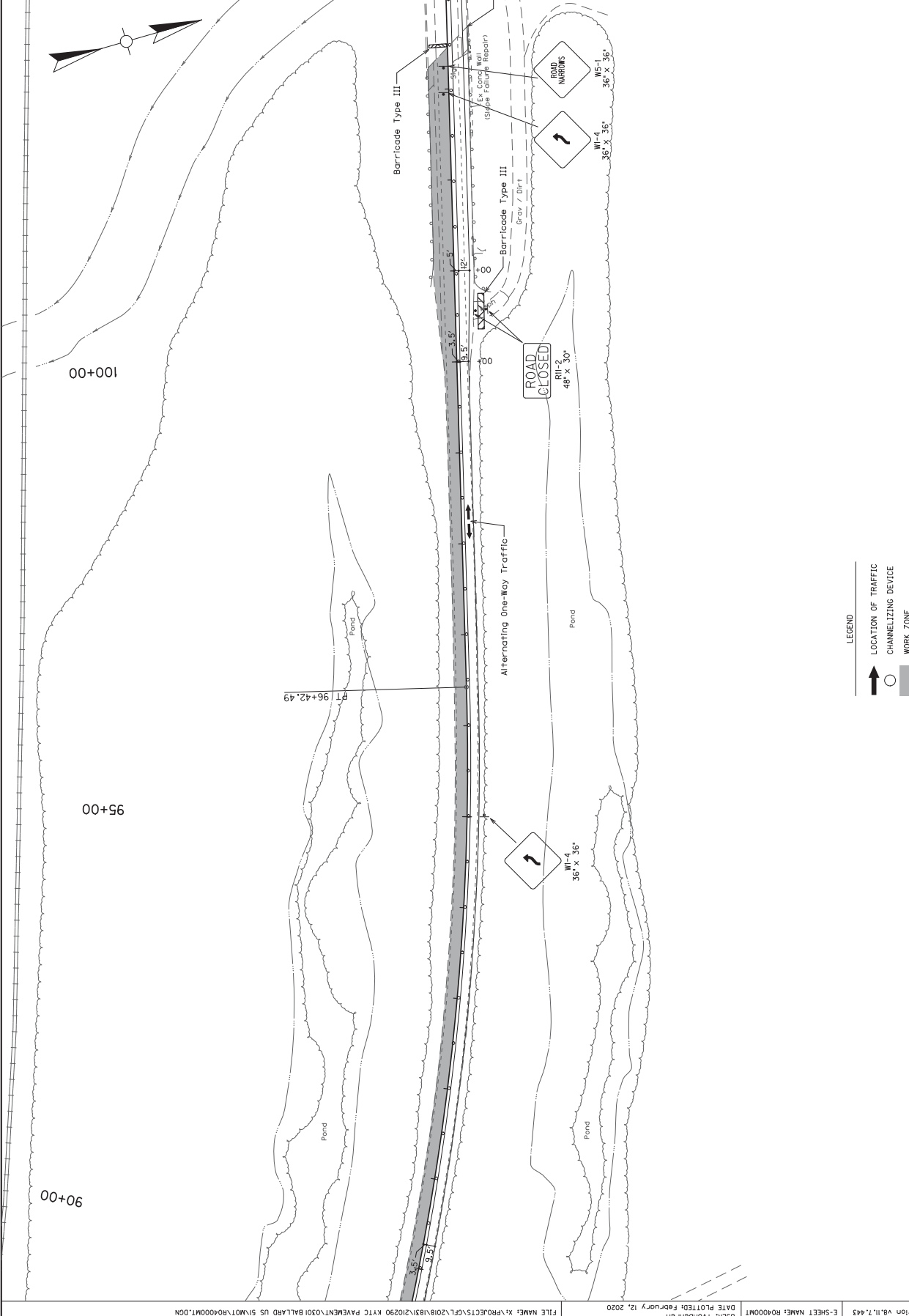
↑	LOCATION OF TRAFFIC CHANNELIZING DEVICE
○	WORK ZONE

Place Sign At Distance Indicated On The Sign Relative To The Nearest Point Of Closure

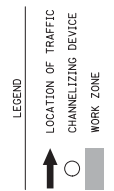
MAINTENANCE OF TRAFFIC PLAN
PHASE 3
75+00 TO STA 90+00

SCALE: 1"=50'

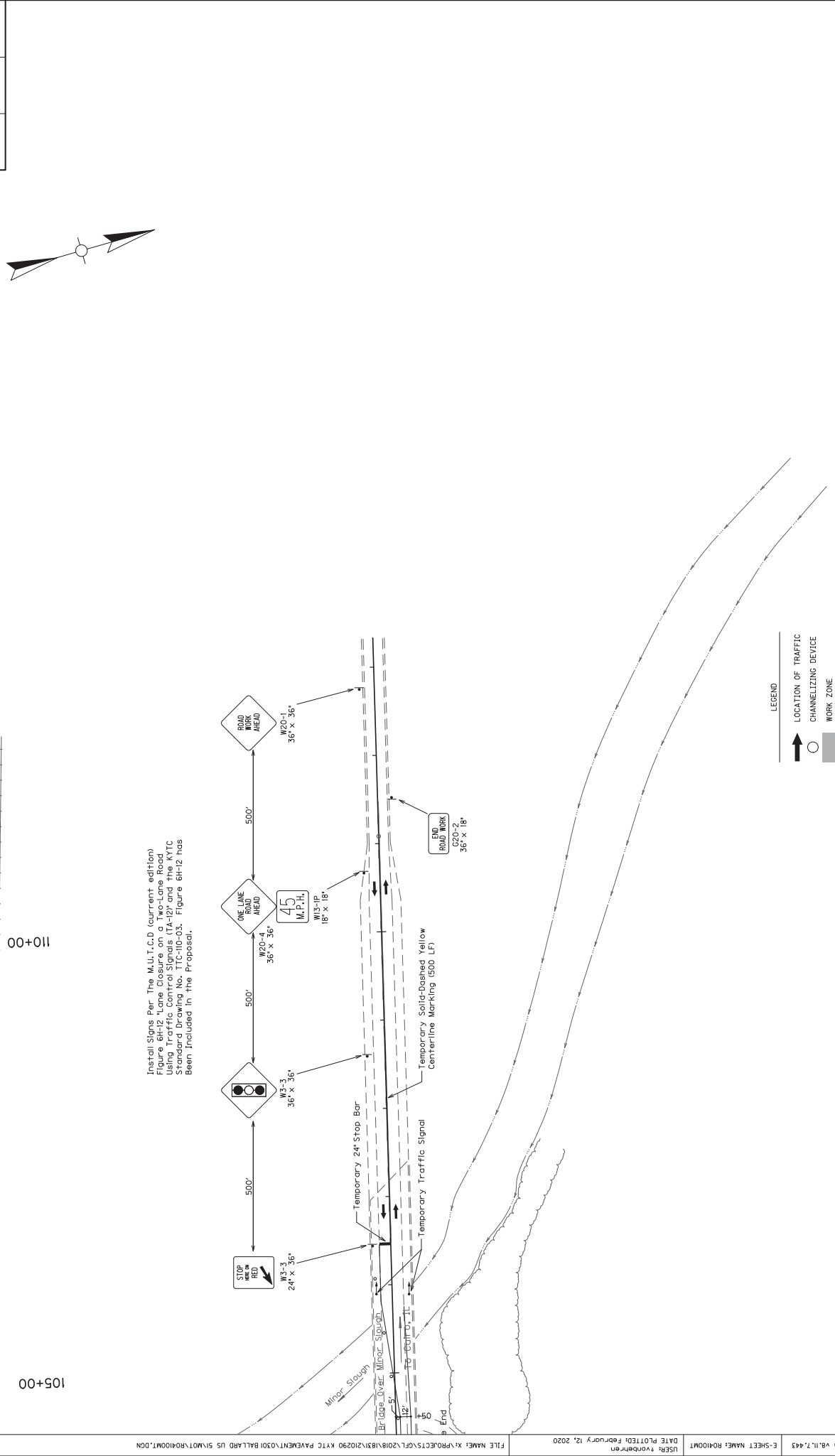
COUNTY OF	ITEM NO.	SHEET
BALLARD	I-20000.00	R407



MAINTENANCE OF TRAFFIC PLAN
PHASE 3
90+00 TO STA 105+00
SCALE: 1"=50'



COUNTY OF	ITEM NO.	SHEET
BALLARD	I-20000.00	R41C

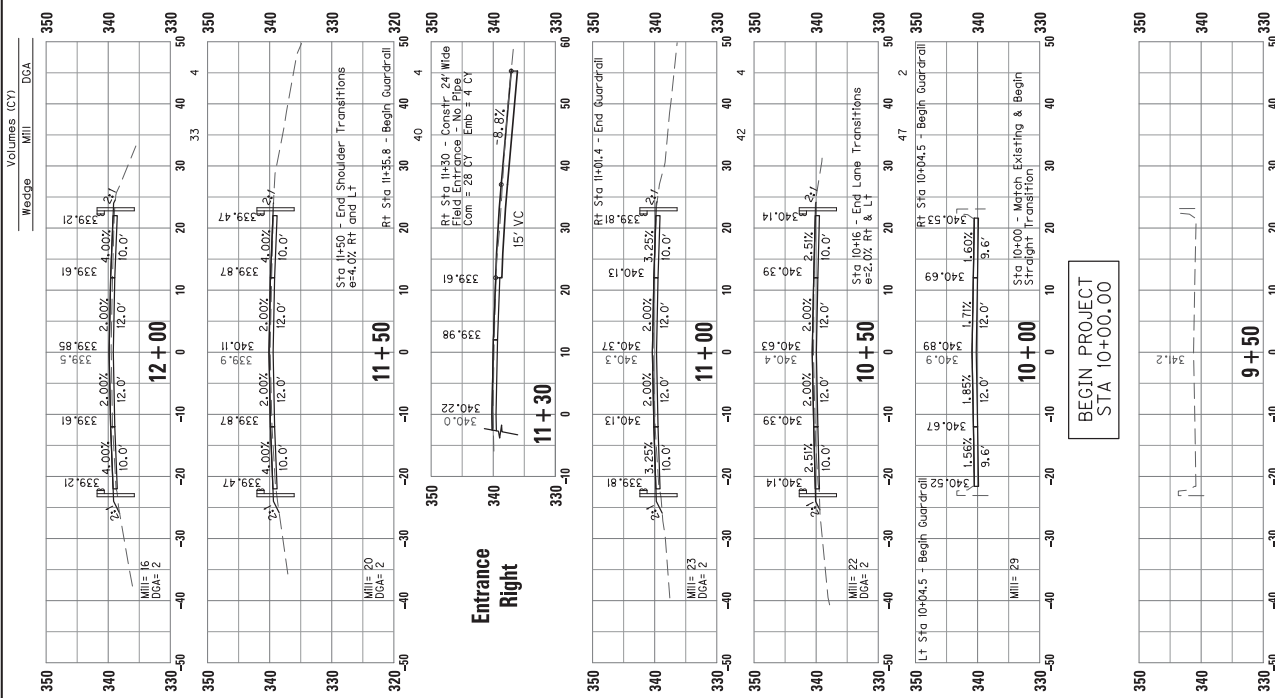
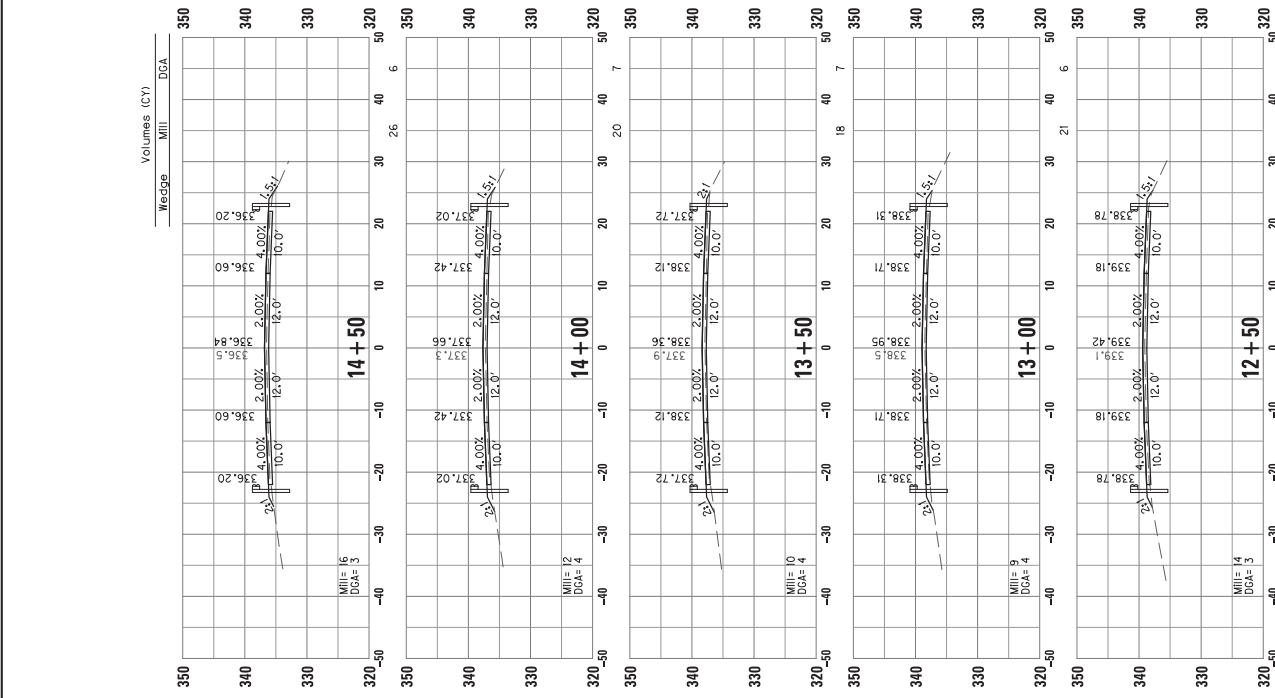


Install Signs Per The M.U.T.C.D (current edition) Figure 6H-12 "Lane Closure on a Two-Lane Road Using Traffic Control Signals (TA-2)" and The KYTC Standard Plans, Figure 6B-05. Figure 6H-12 has been included in the Proposal.

MAINTENANCE OF TRAFFIC PLAN
PHASE 3
105+00 TO STA 110+00

SCALE: 1"=50'

COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	XI

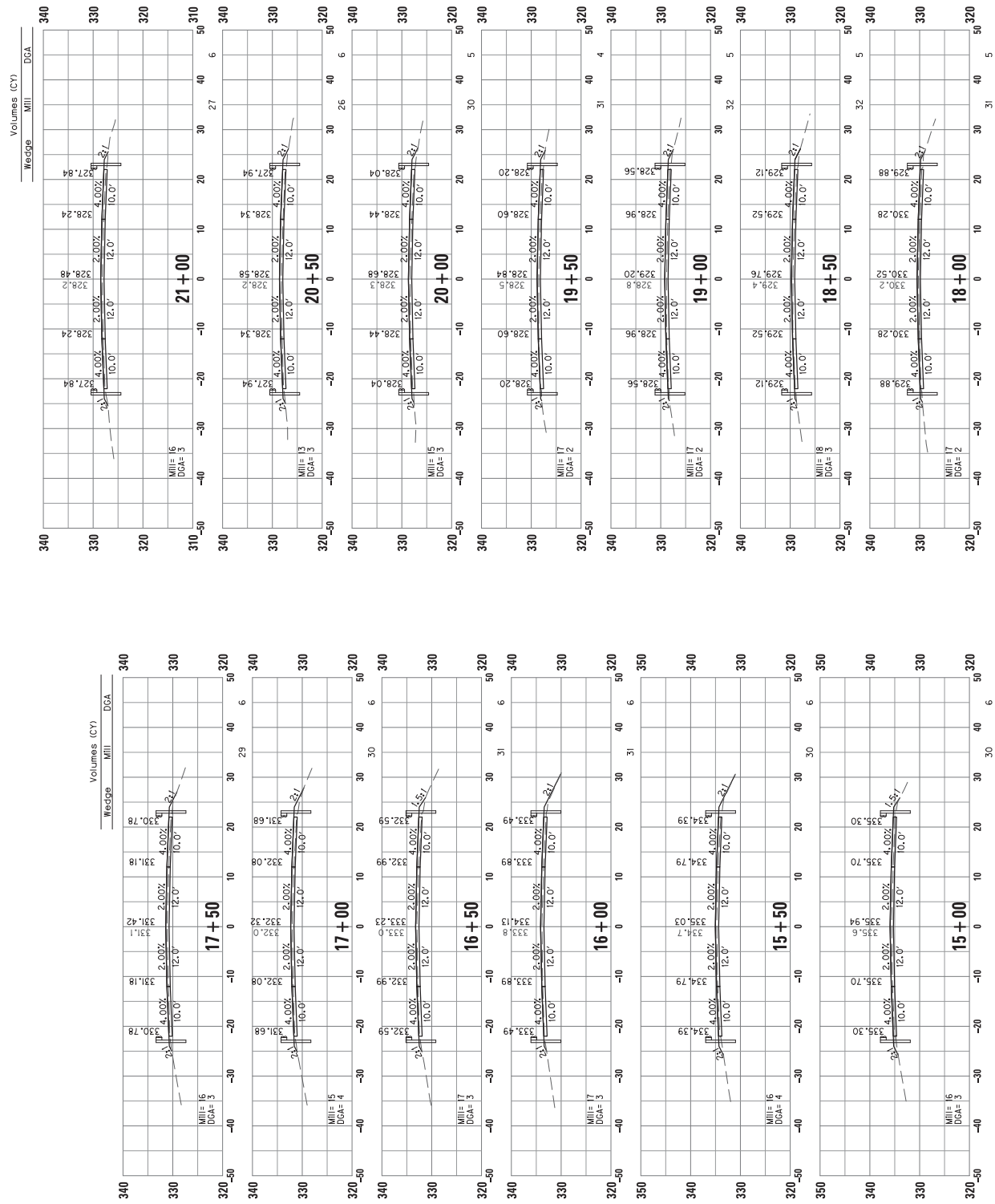


USR: Jpoker DATE PLOTTED: February 12, 2020
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 MicroStation v8.11.9.832 E-SHEET NAME: BEGIN PROJECT STA 10+00.00

CROSS SECTIONS
US 51
STA 9+50 TO STA 14+50

SCALE: 1"=10'

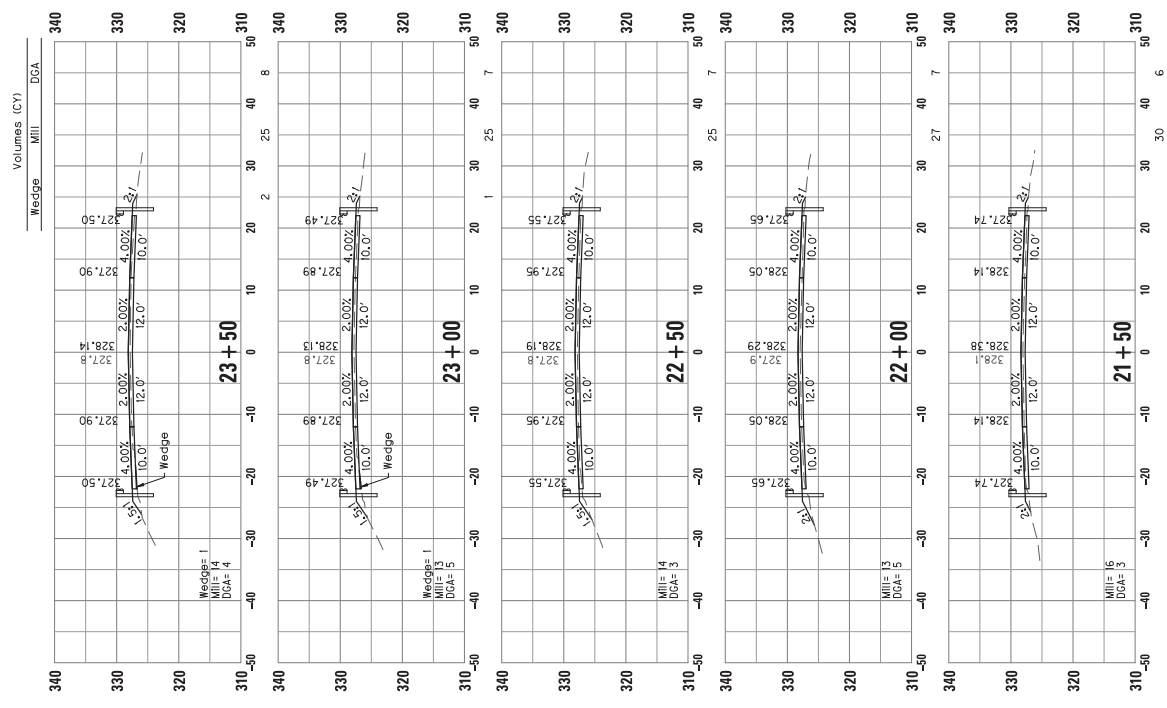
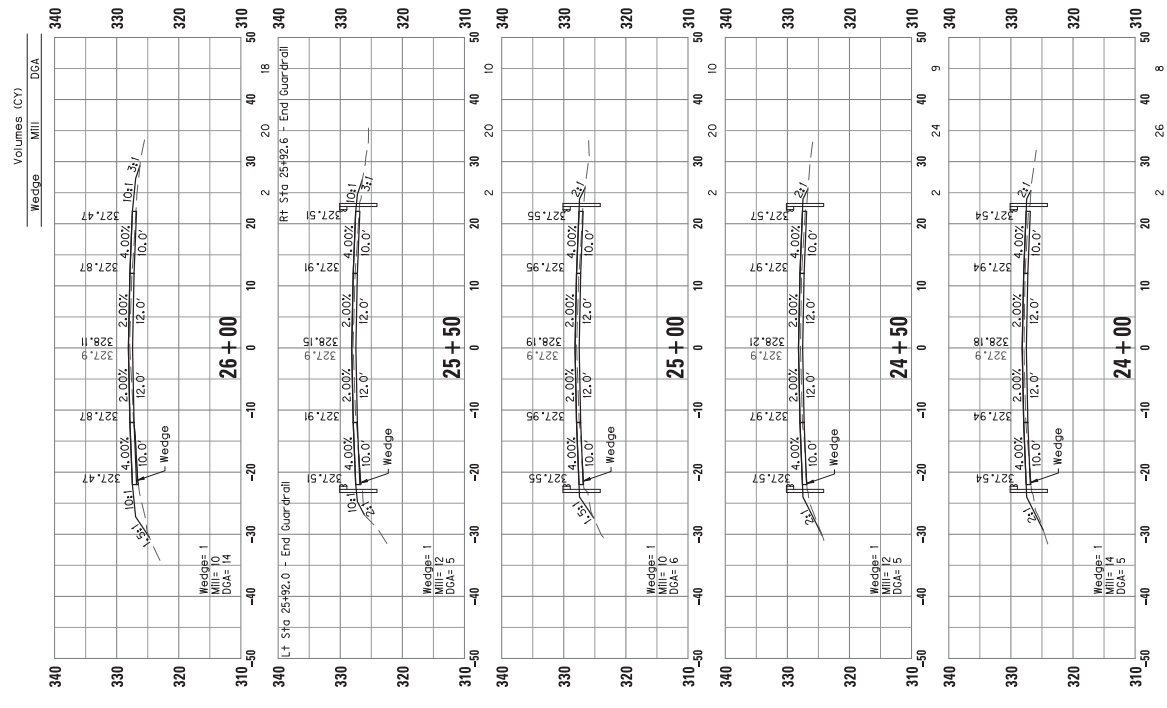
COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	X2



SCALE: 1"=10'

CROSS SECTIONS
US 51
STA 15+00 TO STA 21+00

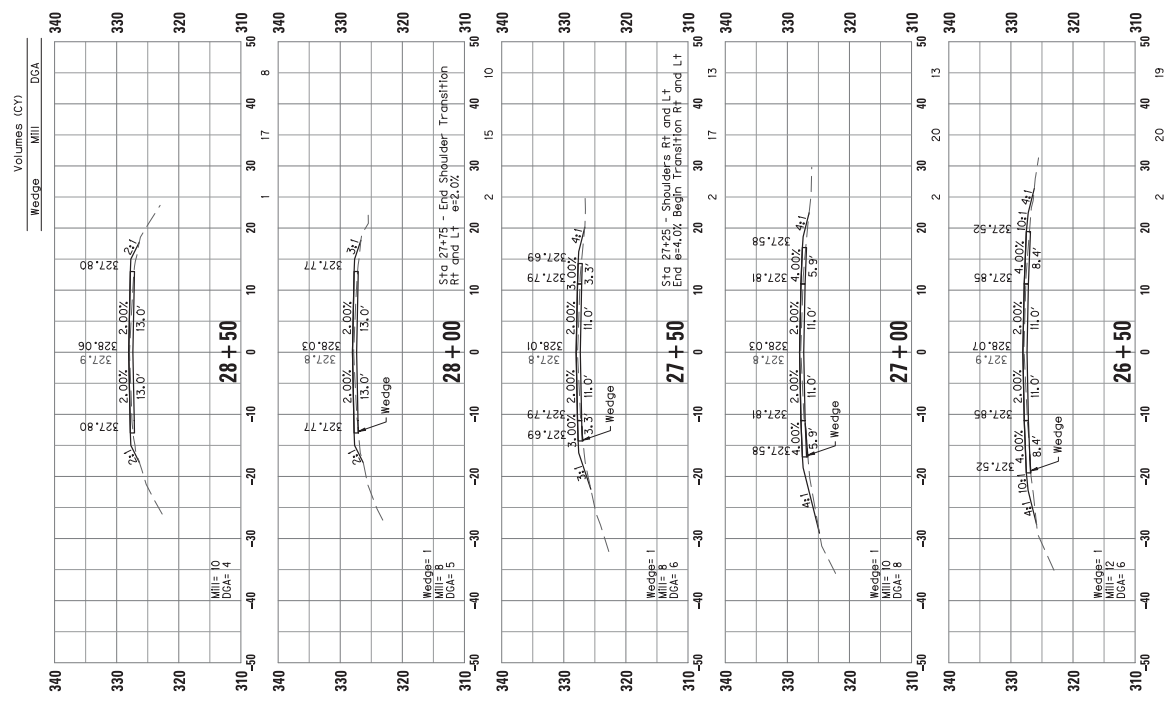
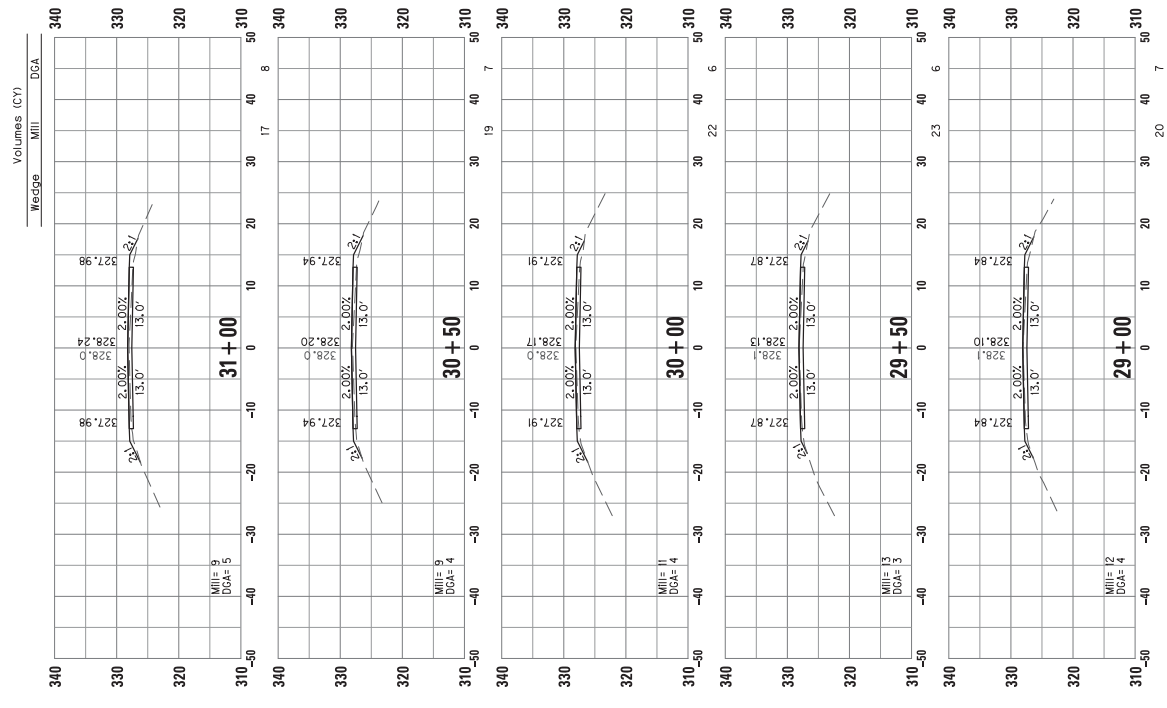
COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	X3



SCALE: 1"=10'

CROSS SECTIONS
US 51
STA 21+50 TO STA 26+00

COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	X4

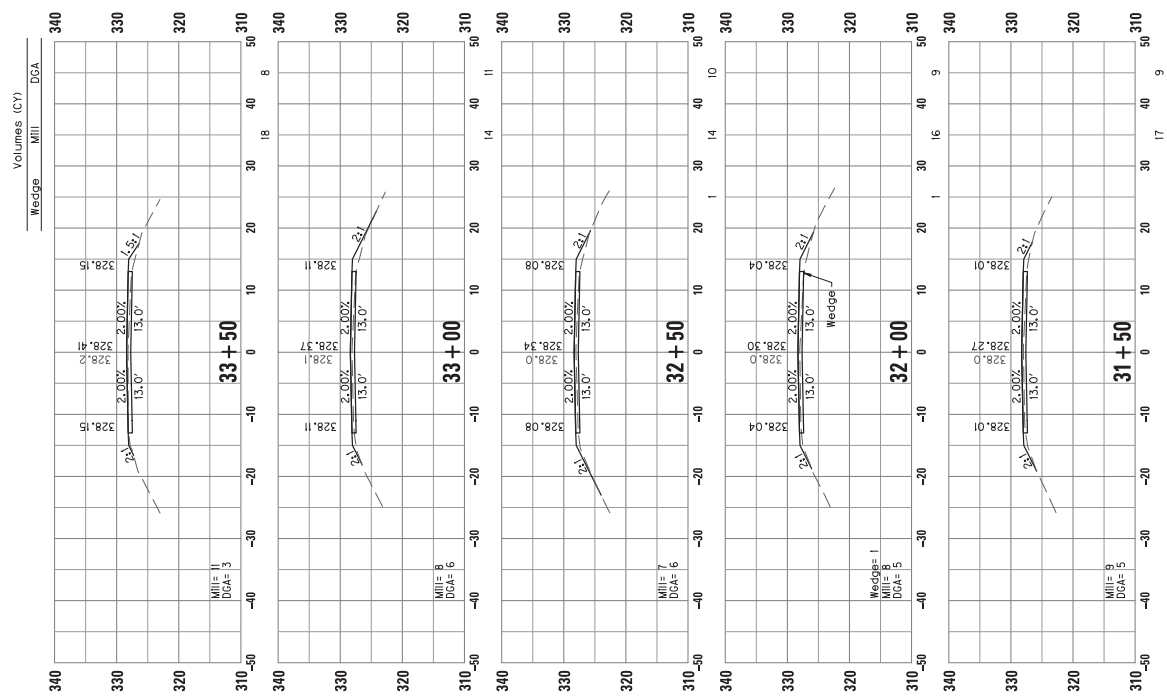
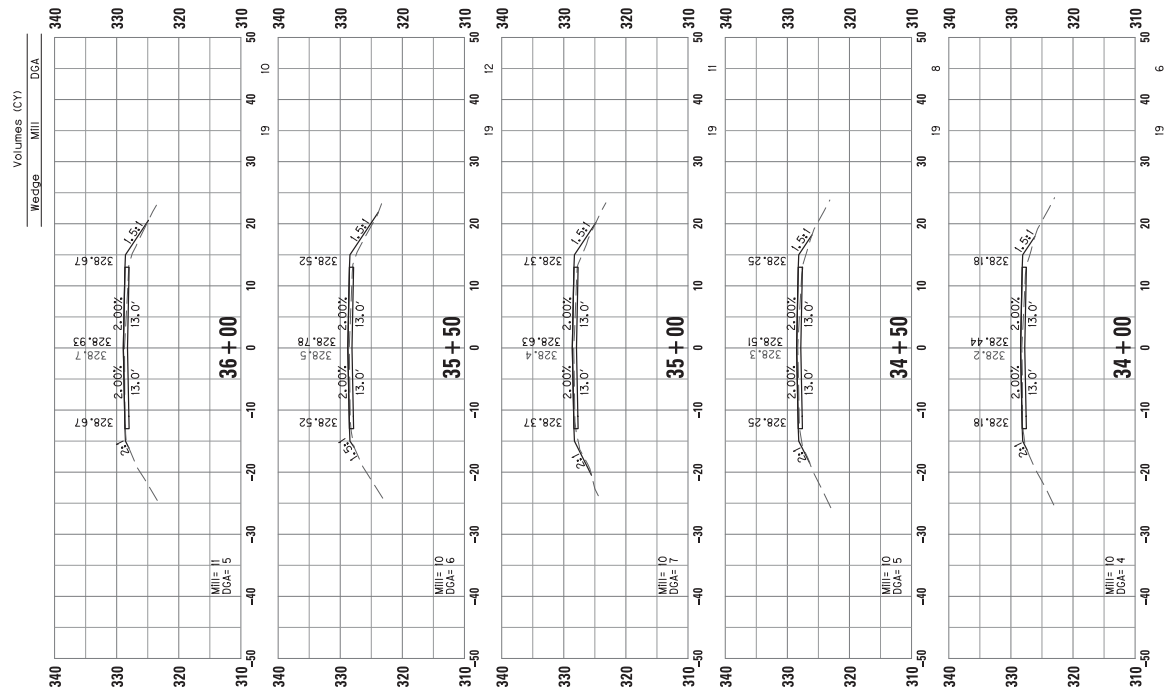


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CROSS SECTIONS
US 51
STA 26+50 TO STA 31+00

SCALE: 1"=10'

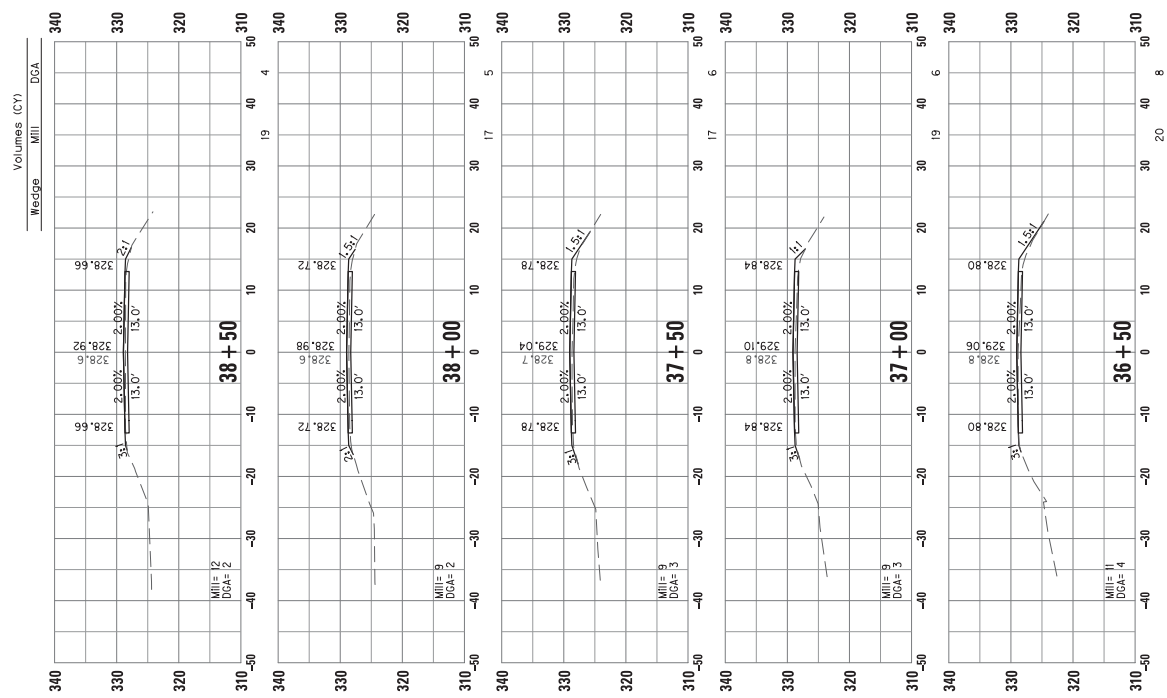
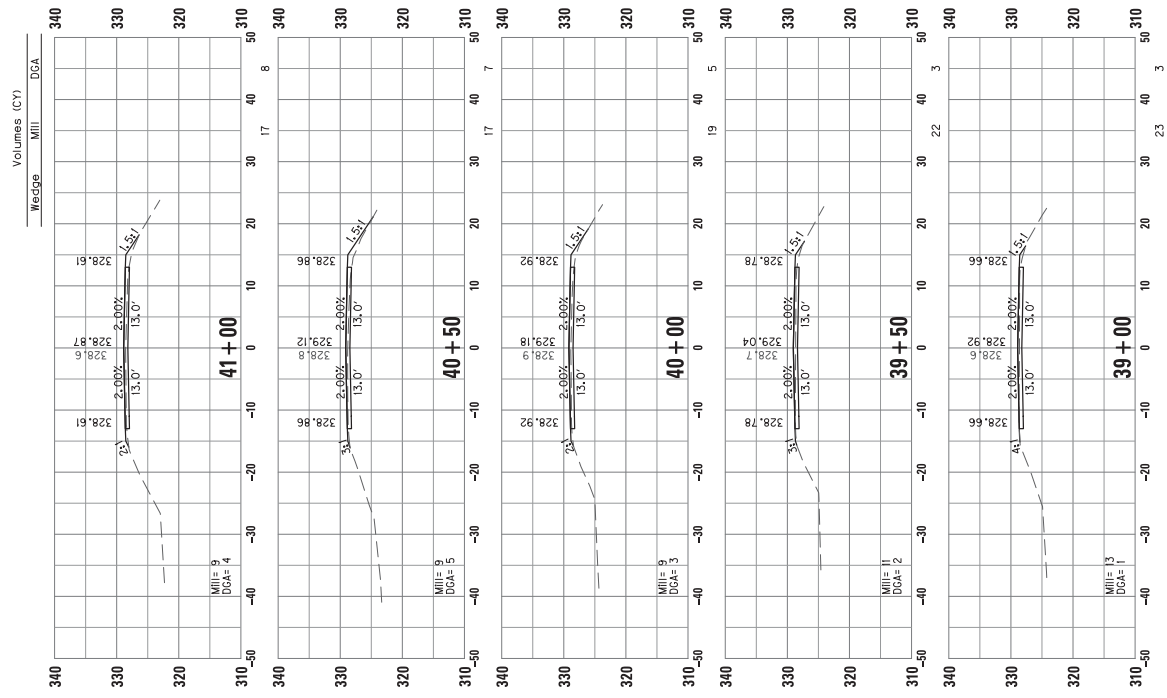
COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	55



SCALE: 1"=10'

CROSS SECTIONS
US 51
STA 31+50 TO STA 36+00

COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	36



USFR: Jpoker DATE PLOTTED: February 12, 2020 FILE NAME: X:\PROJECTS\GFL\2018\183\20290 KYC PAVEMENT\0301 BALLARD US S\PLAN\X00100XS.DGN

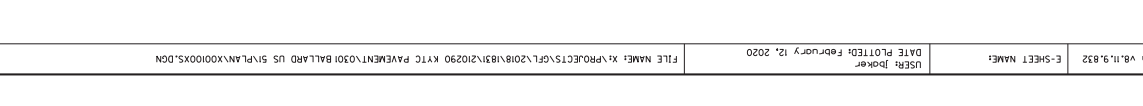
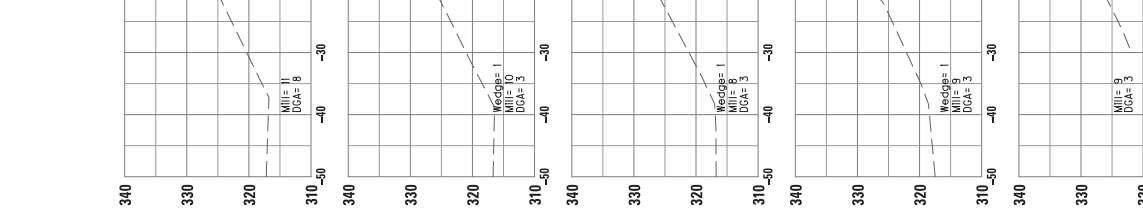
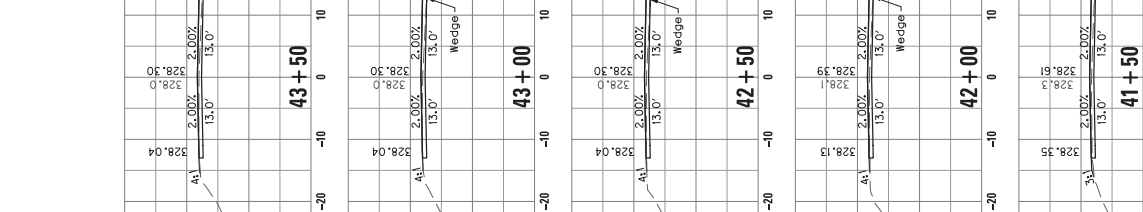
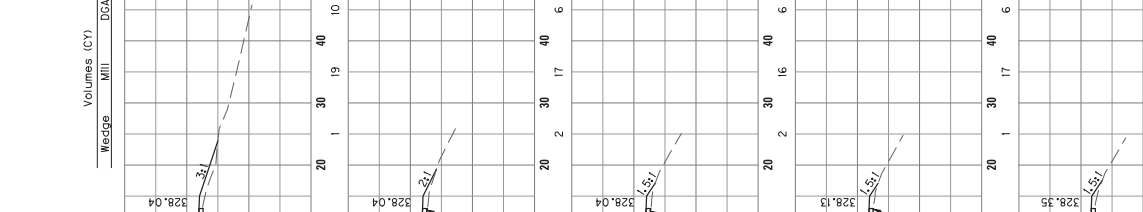
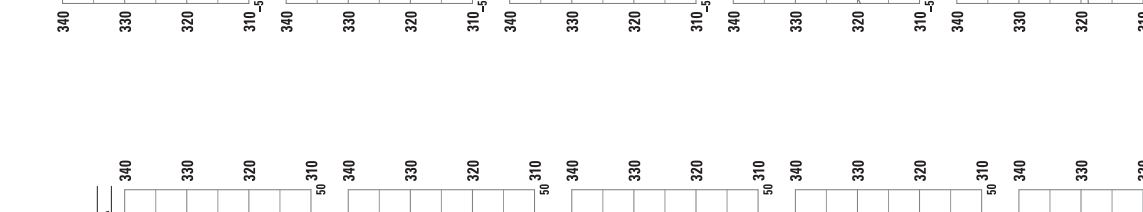
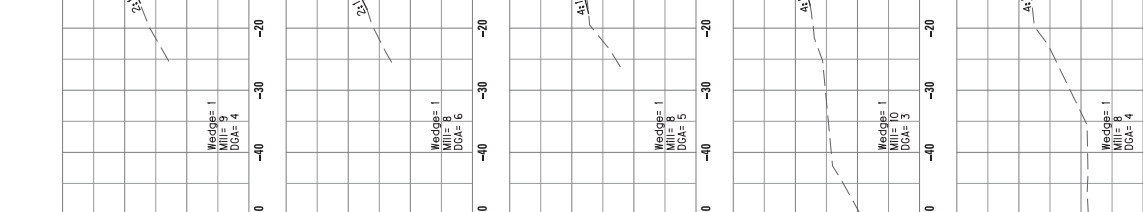
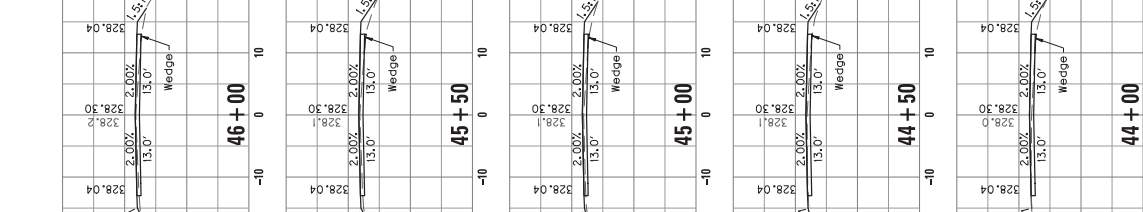
CROSS SECTIONS
US 51
STA 36+50 TO STA 41+00

SCALE: 1"=10'

COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	XT

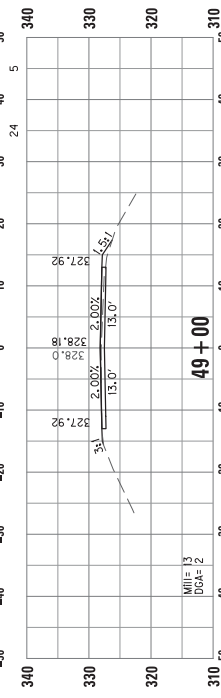
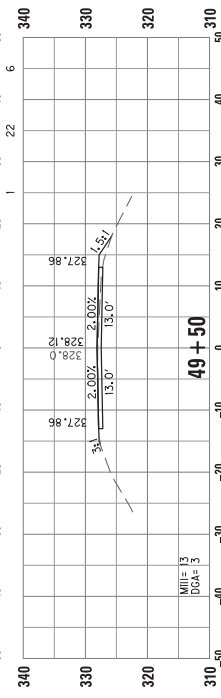
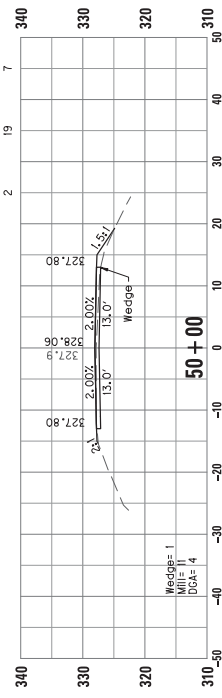
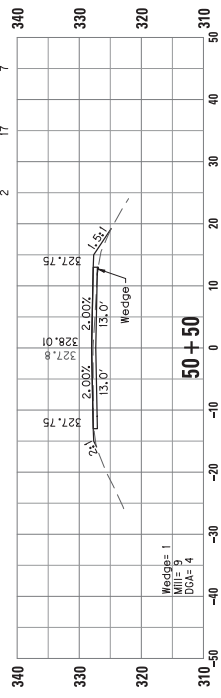
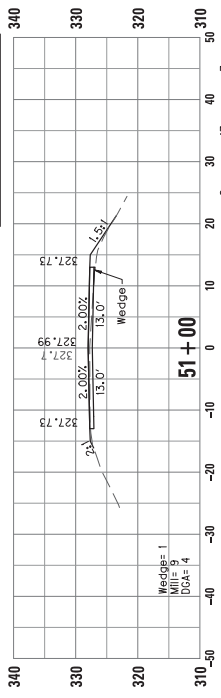
USF: Jpoker
DATE PLOTTED: February 12, 2020
FILE NAME: X:\PROJECTS\GFL\2018\183\20290 KYTC PAVEMENT\0301 BALLARD US 51\PLAN\X00100XS.00A
MicroStation v8.11.9.832
E-SHEET NAME:

SCALE: 1"=10'
CROSS SECTIONS
US 51
STA 41+50 TO STA 46+00

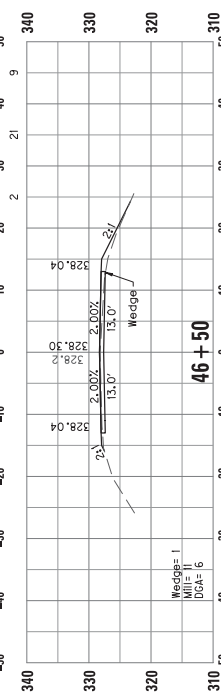
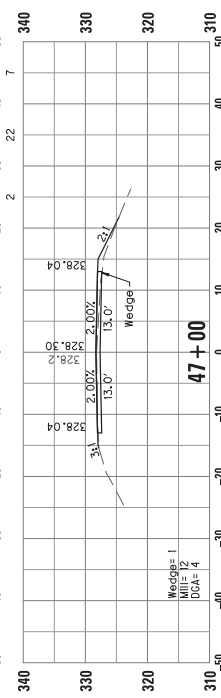
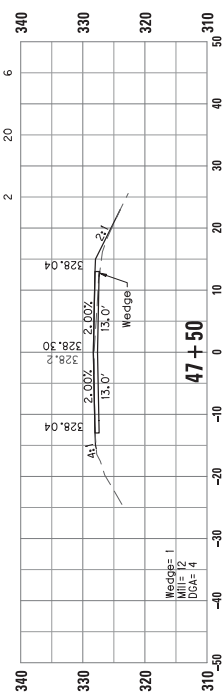
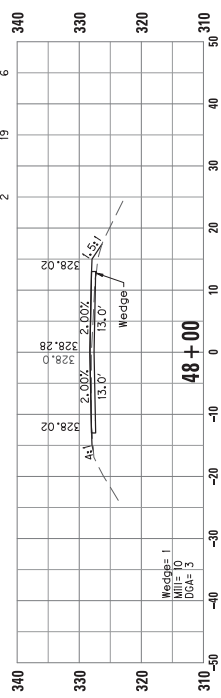
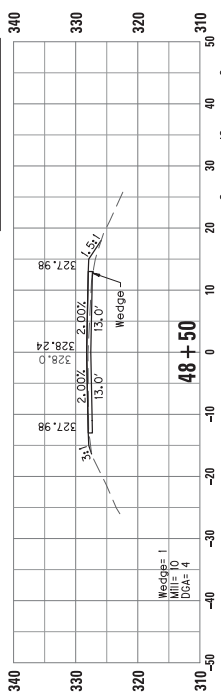


COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	X8

Volumes (CY)
Wedge Mill DGA



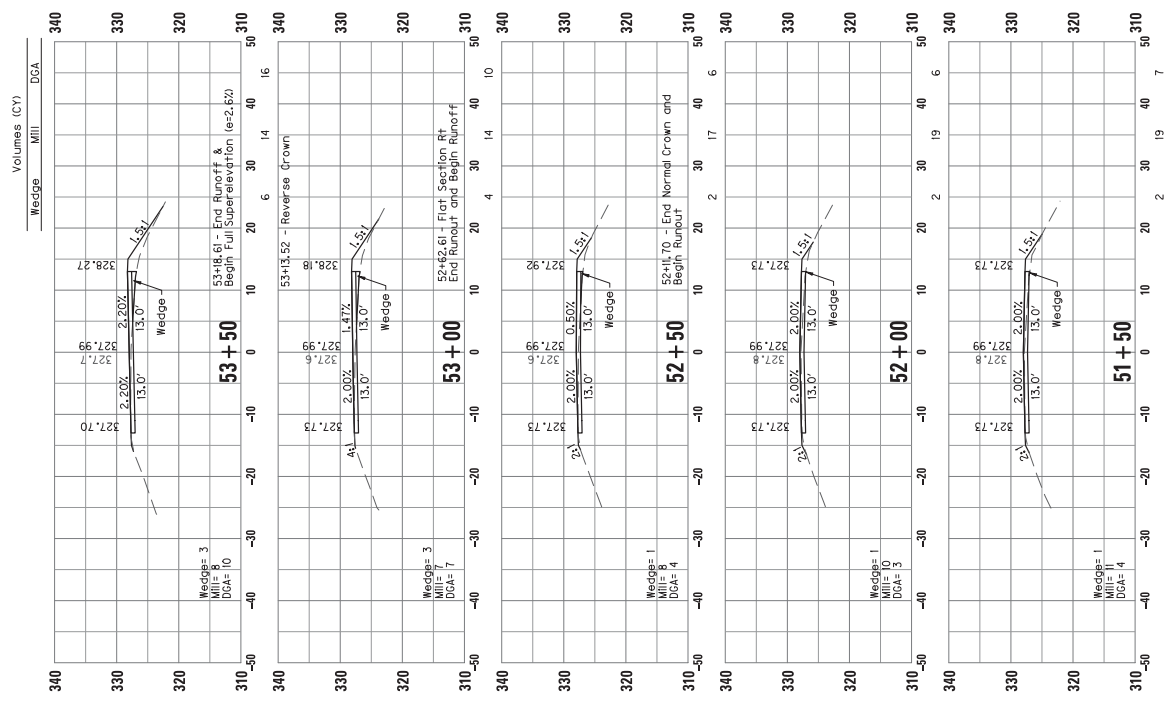
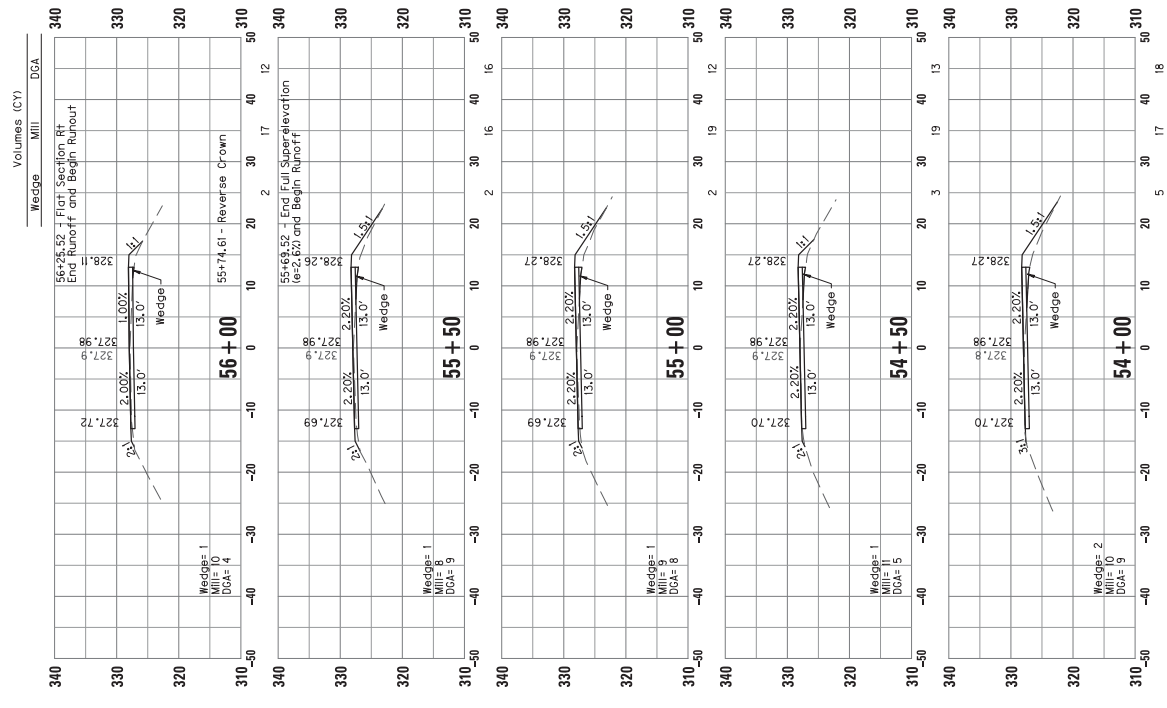
Volumes (CY)
Wedge Mill DGA



SCALE: 1"=10'

CROSS SECTIONS
US 51
STA 46+50 TO STA 51+00

COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	X9



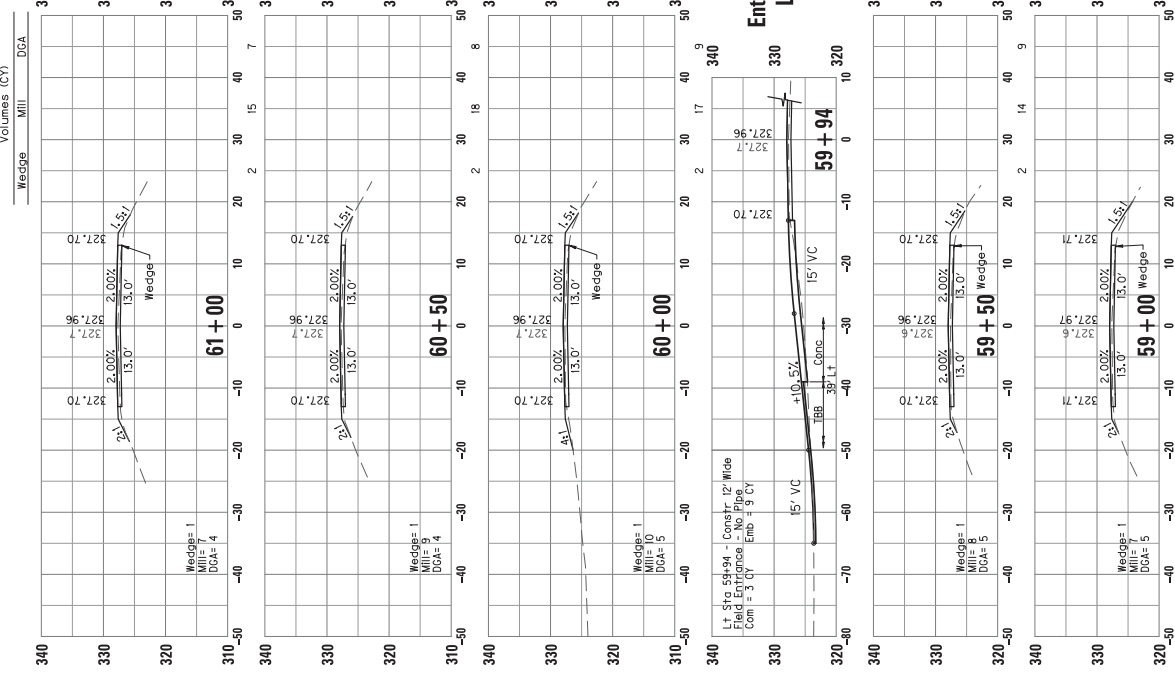
USFR: Jpoker DATE PLOTTED: February 12, 2020 FILE NAME: X:\PROJECTS\G12\2018\183\20290 KYTC PAYMENT\0301 BALLARD US 51\PLAN\X00100X.SCH

MicroStation v8.11.9.832 E-SHEET NAME:

COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	XIC

CROSS SECTIONS
US 51
STA 56+50 TO STA 61+00

VOLUMES (CY)
Wedge Mill DGA



SCALE: 1"=10'

USF: Jaker
DATE PLOTTED: February 12, 2020

E-SHEET NAME: MicroStation v8.11.9.832

FILE NAME: X:\PROJECTS\GTL\2018\183\2020\K920 KYTC PAYEMENT\0301 BALLARD US 51\PLAN\X001000X.DGN

56+16.43 = End Rundout and
Begin Normal Crown

58+50
Mill = 9
DGA = 4

57+00
Wedge = 1
DGA = 5

56+50
Wedge = 1
DGA = 5

59+50
Wedge = 1
DGA = 5

60+00
Wedge = 1
DGA = 5

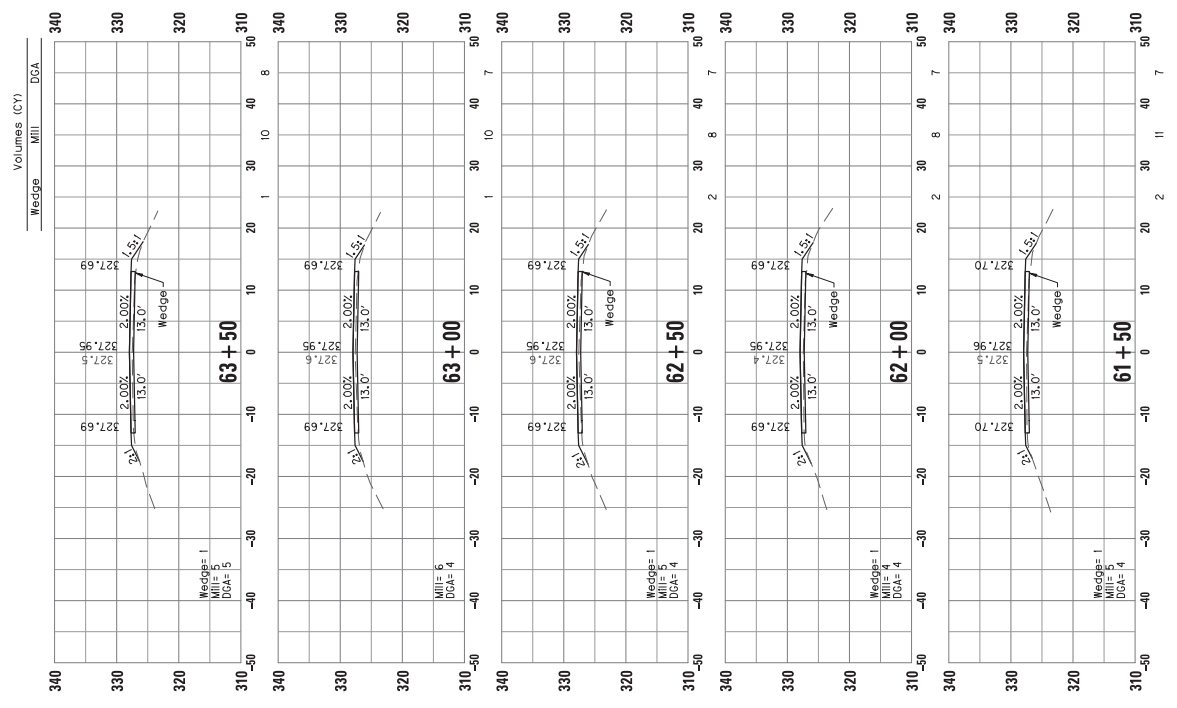
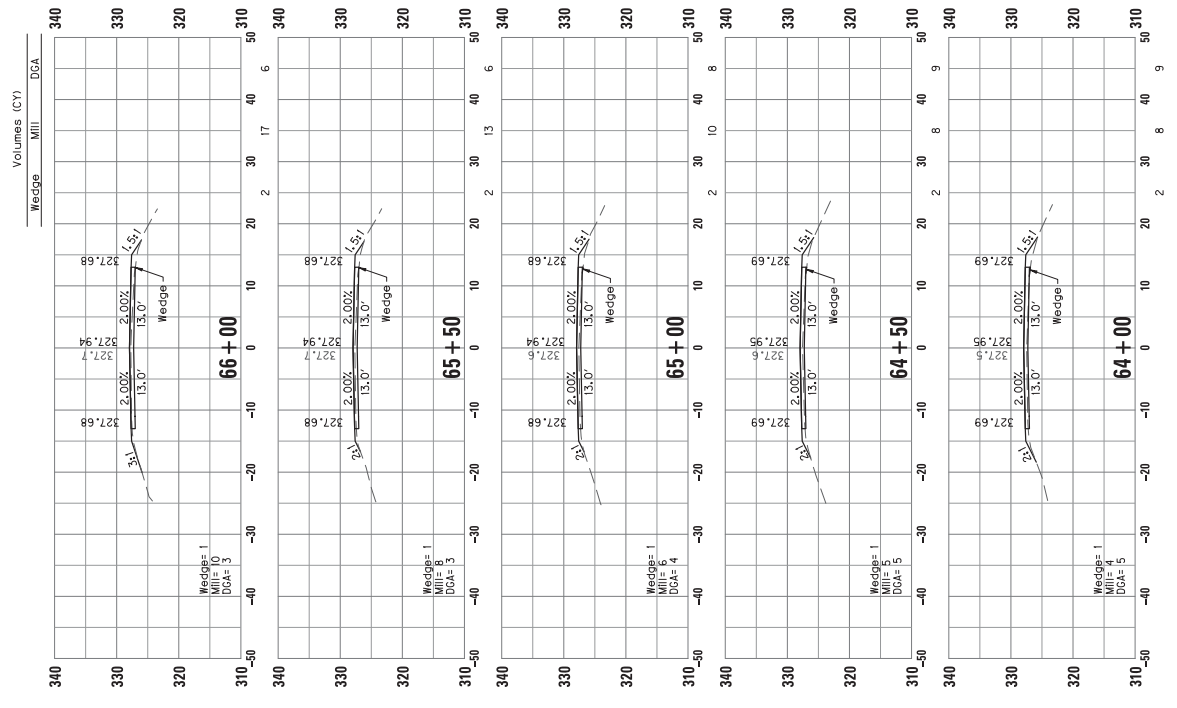
60+50
Wedge = 1
DGA = 4

61+00
Wedge = 1
DGA = 4

VOLUMES (CY)
Wedge Mill DGA

340
330
320
310
50
40
30
20
10
0
-10
-20
-30
-40
-50

COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	XII

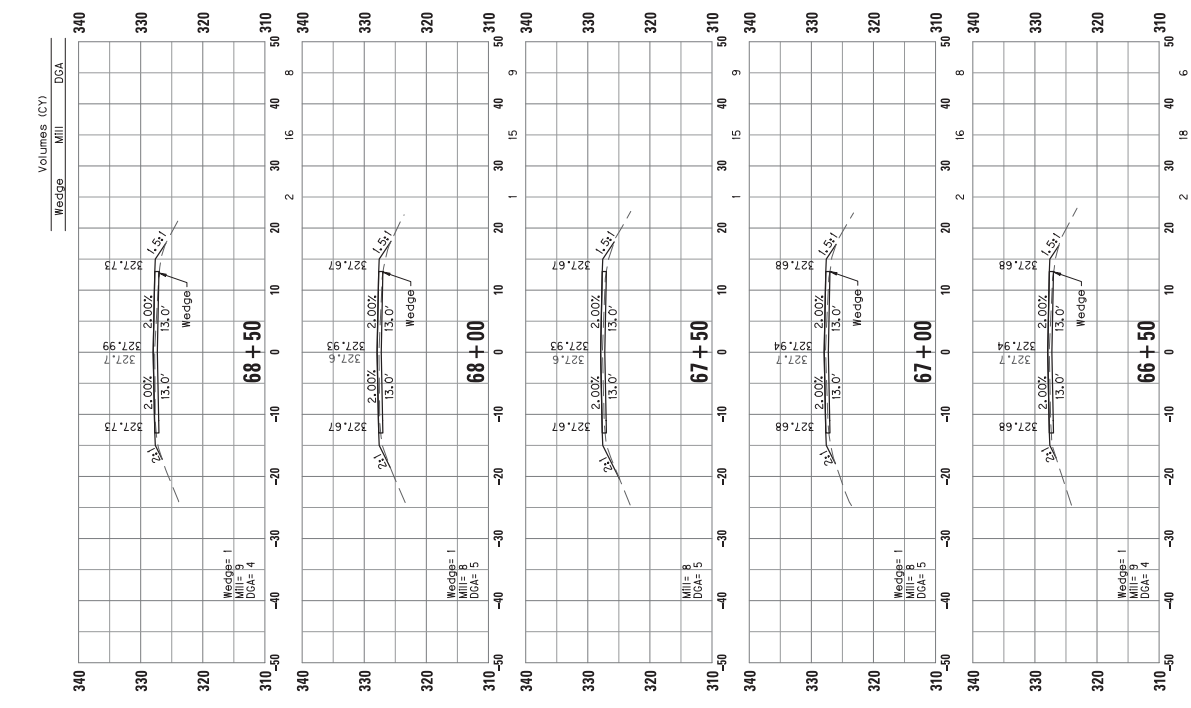
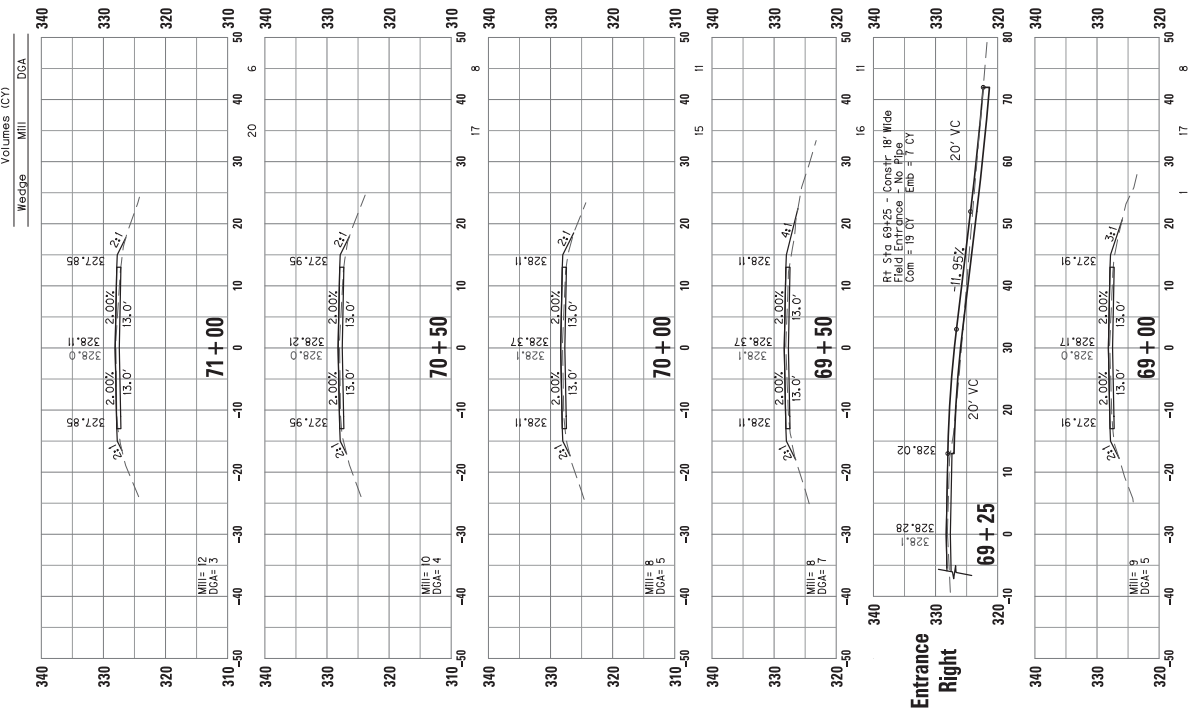


USFR: Jpoker DATE PLOTTED: February 12, 2020 FILE NAME: X:\PROJECTS\GFL\2018\183\20290 KYTC PAYEMENT\0301 BALLARD US SP\LAN\X00100XS.CM E-SHEET NAME: MicroStation v8.1i.9.832

CROSS SECTIONS
US 51
STA 61+50 TO STA 66+00

SCALE: 1"=10'

COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	X12

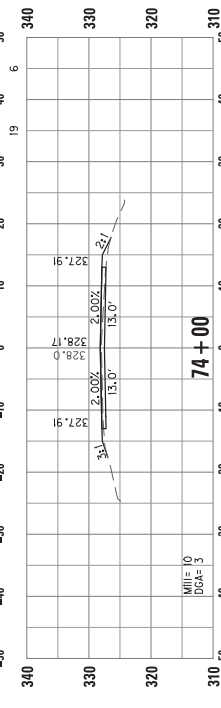
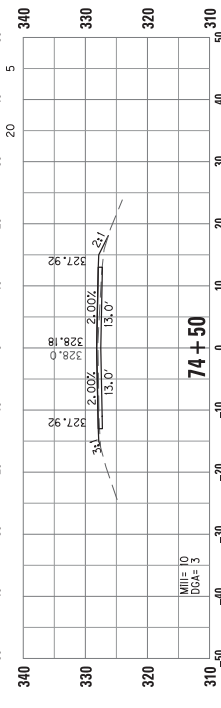
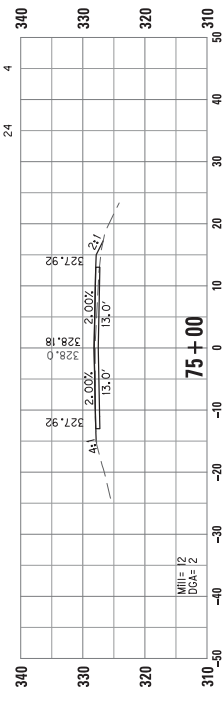
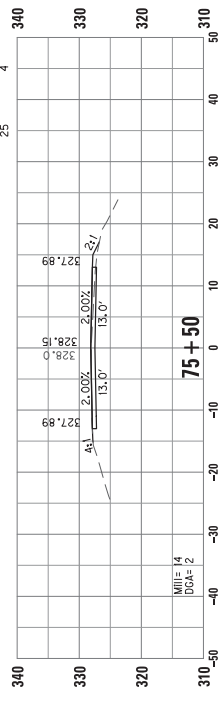
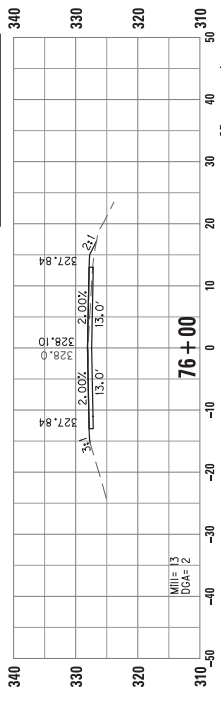


SCALE: 1"=10'

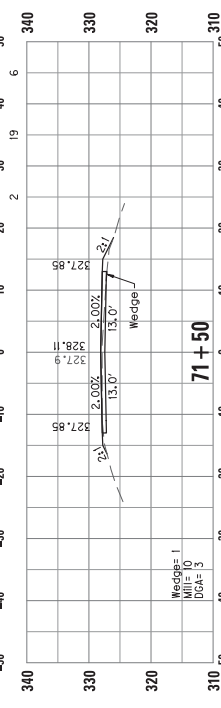
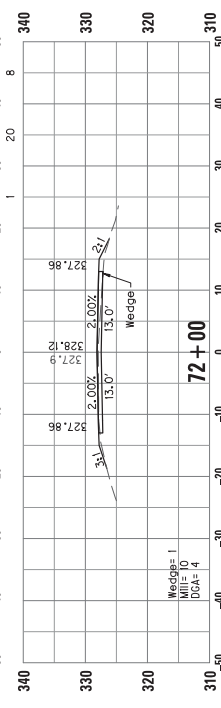
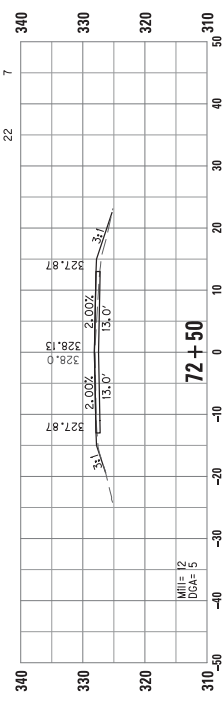
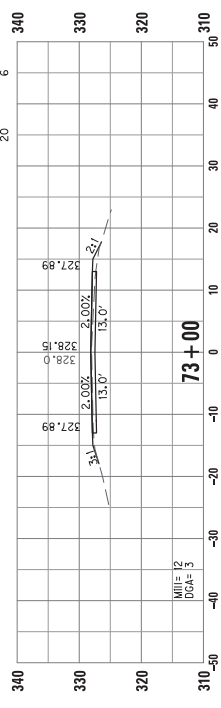
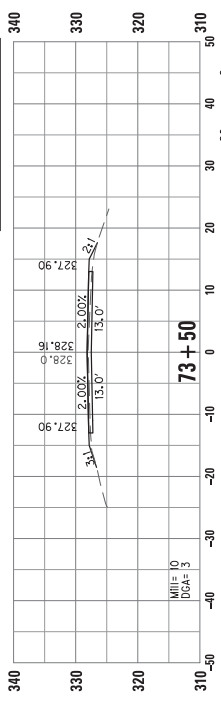
CROSS SECTIONS
US 51
STA 66+50 TO STA 71+00

COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	X13

Volumes (CY)
Wedge Mill DGA



Volumes (CY)
Wedge Mill DGA

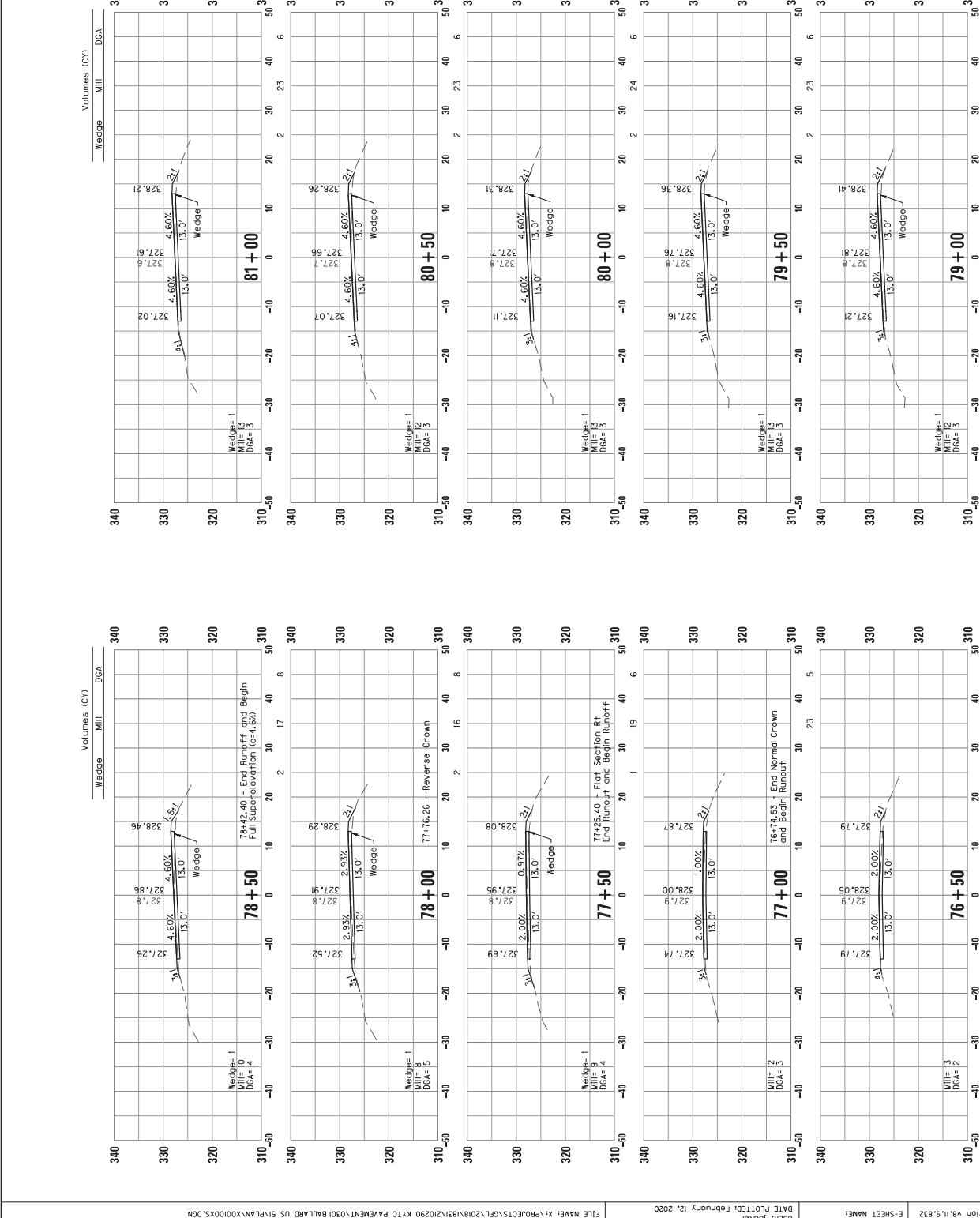


SCALE: 1"=10'

CROSS SECTIONS
US 51
STA 71+50 TO STA 76+00

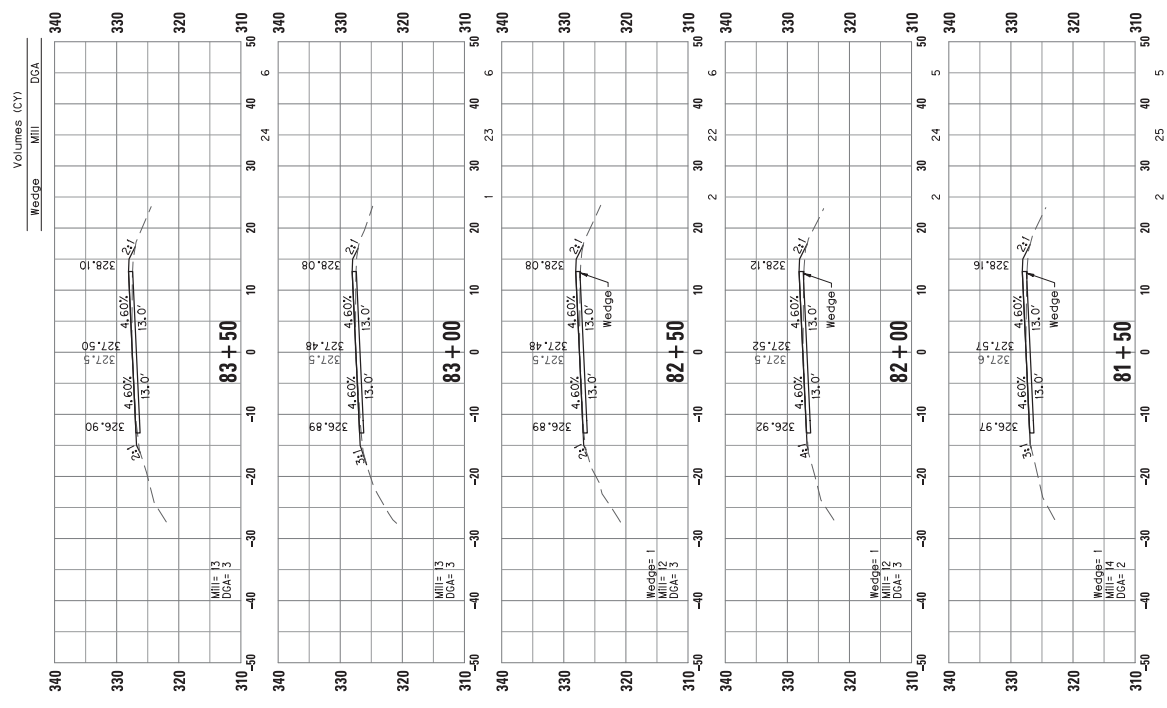
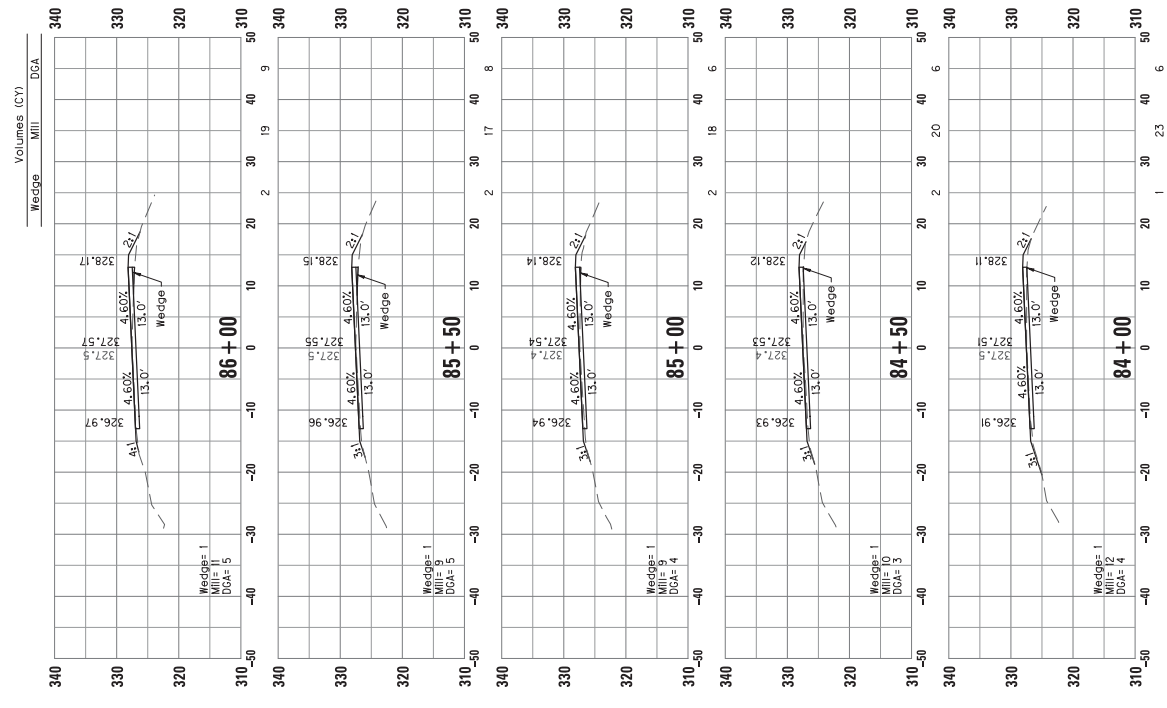
COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	X14

USF: Jocker
DATE PLOTTED: February 12, 2020
FILE NAME: X:\PROJECTS\G1L2018\183\2020 KYTC PAYCMENT\0301 BALLARD US SP\PLAN\X00100XS.CM



CROSS SECTIONS
US 51
STA 76+50 TO STA 81+00
SCALE: 1"=10'

COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	X18



USF: Jpoker DATE PLOTTED: February 12, 2020 FILE NAME: X:\PROJECTS\G12018\183\202920 KYTC PAYEMENT\0301 BALLARD US SP\LAN\X00100XS.DGN E-SHEET NAME: MicroStation v8.1i.9.832

SCALE: 1"=10'

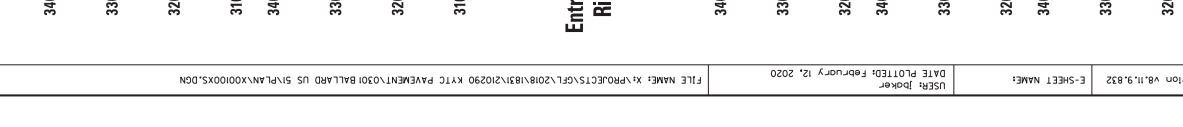
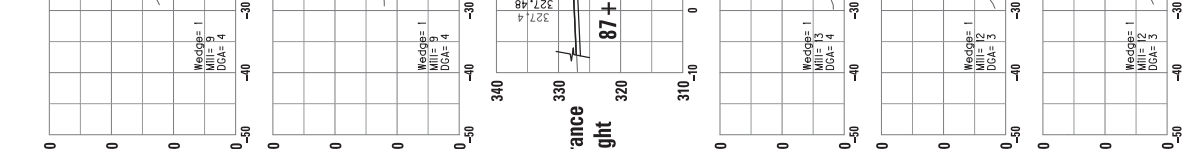
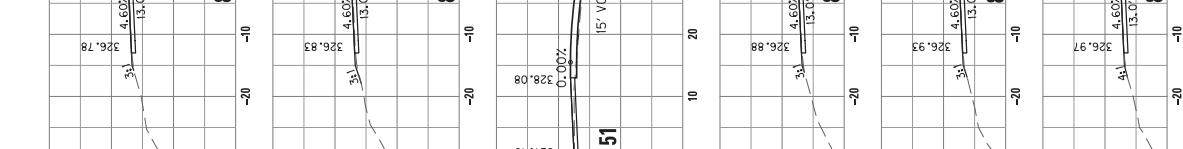
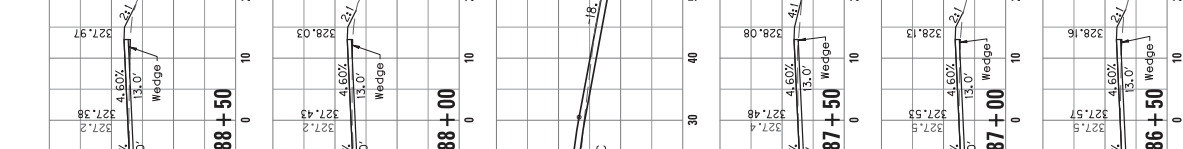
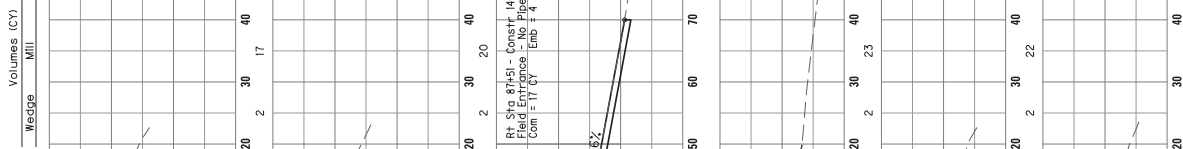
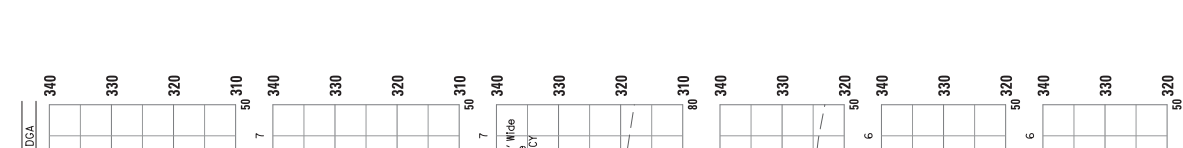
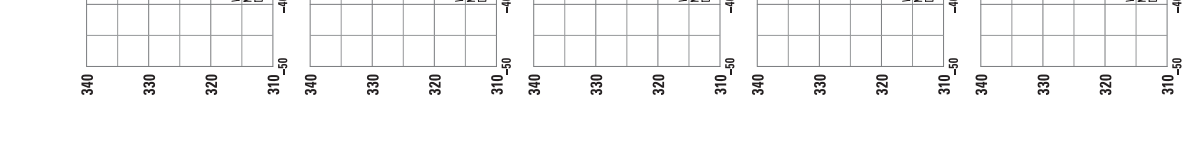
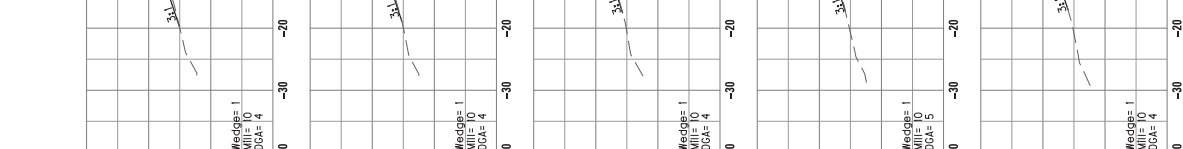
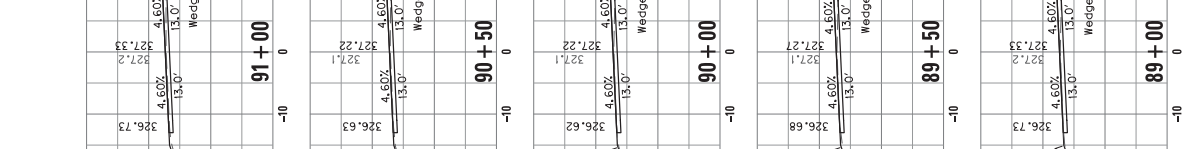
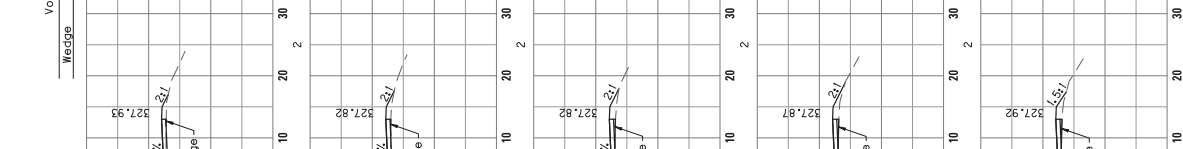
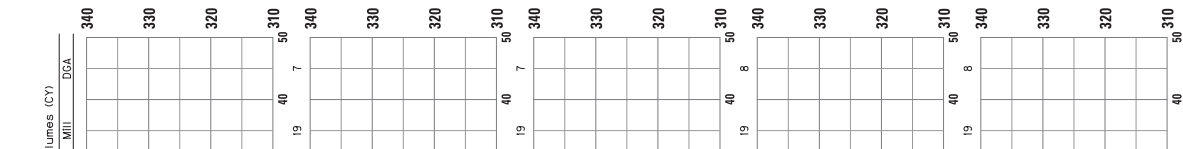
CROSS SECTIONS
US 51
STA 81+50 TO STA 86+00

COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	XI-E

CROSS SECTIONS
US 51
STA 86+50 TO STA 91+00

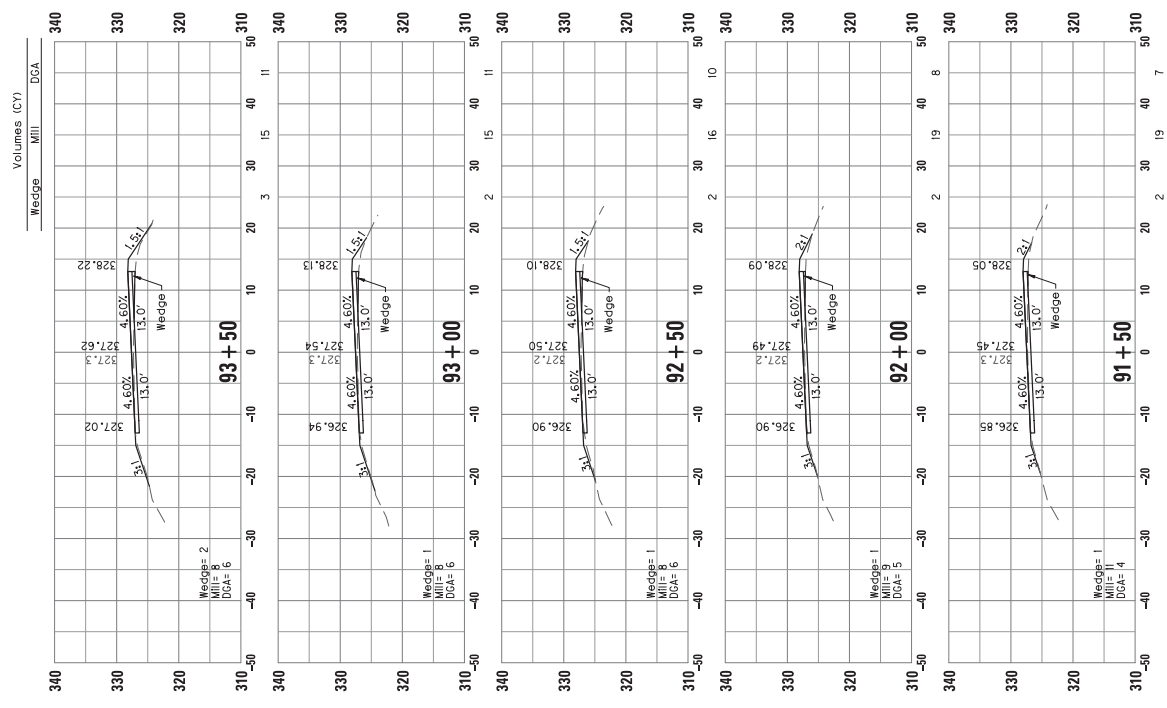
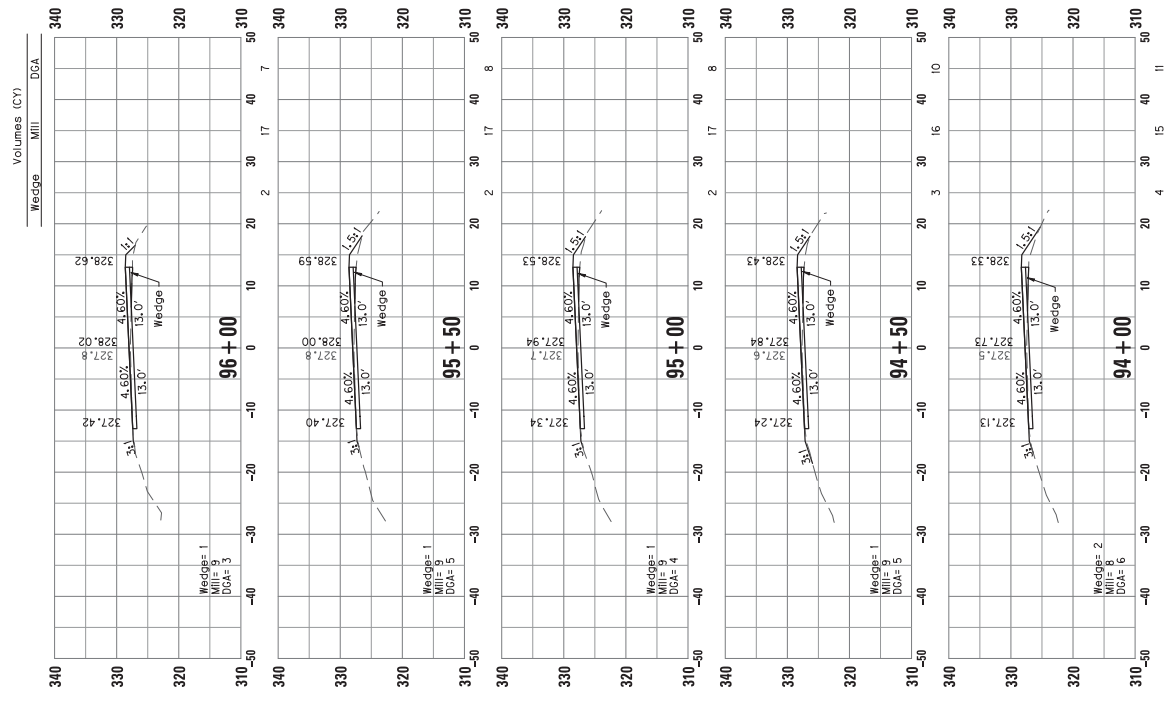
SCALE: 1"=10'

Volumes (CY)
Wedge Mill DGA



USR: Jpoker DATE PLOTTED: February 12, 2020
 FILE NAME: X:\PROJECTS\GFL\2018\183\2019\2020\K92C PAYMENT\0301 BALLARD US 51\PLAN\X01000X.DWG
 MicroStation v8.1i.832 E-SHEET NAME:

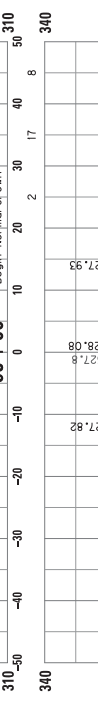
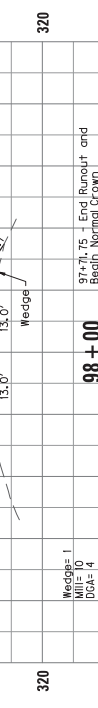
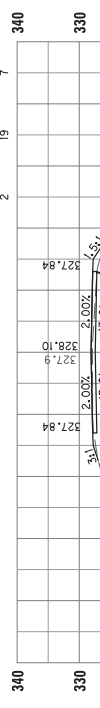
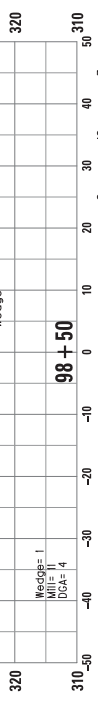
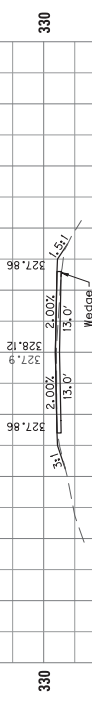
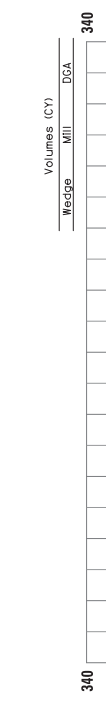
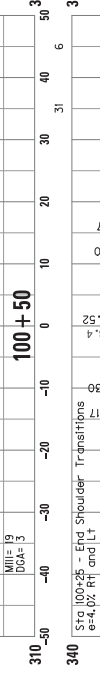
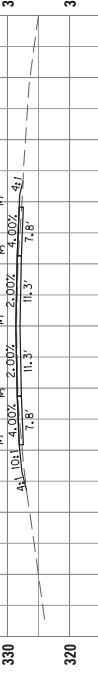
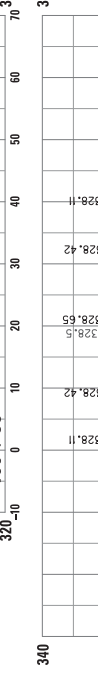
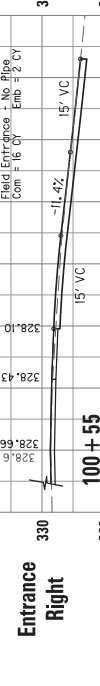
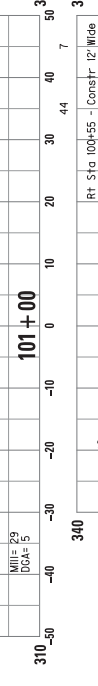
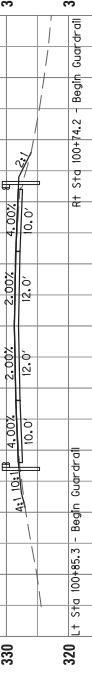
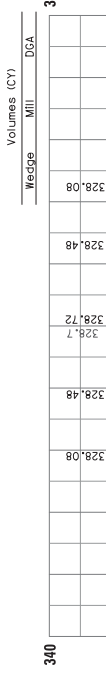
COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	X17



SCALE: 1"=10'

CROSS SECTIONS
US 51
STA 91+50 TO STA 96+00

COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	X18

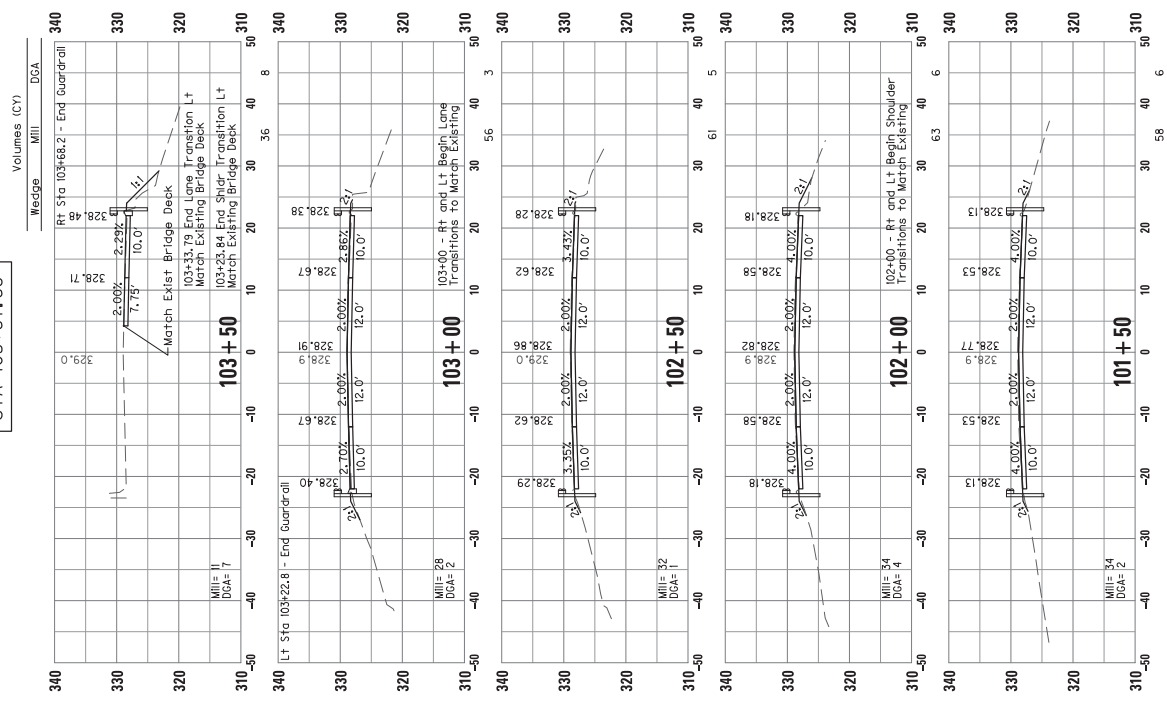


USFR: Jpoker DATE PLOTTED: February 12, 2020 FILE NAME: X:\PROJECTS\G12\2018\183\2019\K9TC PAYMENT\0301 BALLARD US SPV\LAN\X01000\X.DGN E-SHEET NAME: MicroStation v8.11.8.32

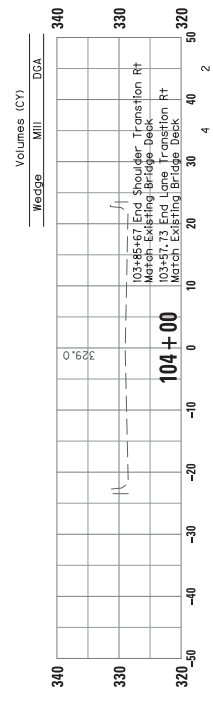
CROSS SECTIONS
US 51
STA 96+50 TO STA 101+00
SCALE: 1"=10'

COUNTY OF	ITEM NO.	SHEET
BALLARD	1-20000.00	XIS

**END PROJECT
STA 103+67.68**



Wedge	Mill	DGA
PROJECT TOTALS	218 CY	3949 CY
EARTHWORK TOTALS ENTRANCES		
Com	Emb	
83 CY	26 CY	



CROSS SECTIONS
US 51
STA 101+50 TO STA 104+00

SCALE: 1"=10'

**Special Note for Fixed Completion Date
And Liquidated Damages
US 51 Rehabilitation Project
Ballard County
Item No. 1-20000.00**

This project will have a fixed completion date of **August 1, 2020** for completion of all work associated with this project. An additional requirement is once the first lane closure utilizing temporary traffic signals is in place, the Contractor must complete all remaining work required for the project within eight (8) calendar weeks.

Liquidated damages per the Standard Specifications will be charged for each calendar day for any work completed after **August 1, 2020**.

Contrary to Section 108.09 of the Standard Specifications, Liquidated Damages per the Standard Specifications will be charged during the months of December through March for all work that is not completed.

All liquidated damages will be applied cumulatively.

All other applicable portions of Section 108 apply.

10T

SPECIAL NOTE FOR ACCEPTANCE OF JPC PAVEMENT THICKNESS

This Special Note will apply where indicated on the plans or in the proposal. Section references herein are to the Department's 2008 Standard Specifications for Road and Bridge Construction.

1.0 DESCRIPTION. This Special Note covers the requirements for thickness of JPC pavement. Contrary to Subsection 501.03.21 and 501.05.01, the Department will accept JPC pavement thickness from cores based on a percent within limits (PWL) per lot. The PWL will not apply for projects involving less than 2,500 square yards of pavement per bid item. For quantities less than 2,500 square yards of pavement per bid item, acceptance will be in accordance with 3.1.2 of this note.

2.0 MATERIALS. Reserved

3.0 CONSTRUCTION.

3.1 Pavement Thickness. The Engineer will determine random sampling locations according to KM 64-113. Obtain 8 cores per lot at the randomly selected locations under the observance of the Engineer. Cut cores with a nominal diameter of not less than 4 inches. Take all cores after any corrective grinding. Provide the cores to the Engineer immediately. The Department will measure cores according to KM 64-308, taking 5 measurements for all cores. Furnish all tools, labor, and materials for cutting samples and filling the cored hole. Fill core holes with a non-shrink grout approved by the Engineer within one day after sampling.

When a core thickness is deficient by one inch or more, the Department will not accept the pavement. Remove and replace the deficient pavement. Take another random core from the subplot as the Engineer directs to determine the PWL.

3.1.1 Lot Size. The Department will divide each pavement bid item into lots of 6,000 linear feet of paved width. The lot will be divided into 8 sublots of equal length (750 feet). Take a core from each subplot for determination of pavement thickness.

For bid items with over 2,500 square yards and less than 6,000 linear feet of paved width, project area will be divided into 4 equal sublots for determination of PWL.

For a remainder lot of less than 3,000 feet, the Department will add the quantity of pavement to the previous lot and the 8 sublots will be equally divided over the increased length. For a remainder lot of 3,000 feet or greater, the Department will divide the remainder lot into 8 equal sublots for acceptance.

3.1.2 Small Quantities and Miscellaneous Areas. For quantities less than 2,500 square yards per bid item and for miscellaneous areas, the acceptance may be based on either of the following:

- 1) Engineer's inspection of the base grade elevation in relation to the forms, or
- 2) Engineer's monitoring of the yield rate and visual inspection of the placement,

Miscellaneous areas are entrances and tapers less than 10 feet wide. Furnish cores for areas where there are indications of deficient thickness as the Engineer directs. Replace areas found deficient by one inch or more at no cost. The Engineer will evaluate areas found deficient by 0.50 to 0.99 inches according to Subsection 105.04 for acceptance.

10T

3.1.3 Statistical Evaluation. The Department will use the Variability-Unknown/Standard Deviation Method to determine the estimate percentage of the lot that is within the specification limits (PWL). The Engineer will calculate the lower quality index (QL)

$$QL = \frac{\text{Average} - LSL}{s}$$

- Where: Average = the arithmetic mean of the test values. The average will be determined to the nearest tenth of an inch.
- LSL = the specified thickness minus 0.20 inch.
- s = Standard Deviation = $[\text{Sum (Individual Measurement - Average)}^2 / (n-1)]^{1/2}$, determined to 2 decimal places.
- N = Number of measurements.

QL will be determined to 2 decimal places.

For calculation of PWL, core thickness greater than 0.75 inches more than the specified thickness will be rounded down to the specified thickness plus 0.75 inch.

Percent Within Limits (PWL) will be determined by the attached tables with QL, for n = the number of tests for the Lot. PWL will be determined to 2 decimal places.

For all calculations round down when the last significant digit is followed by a number less than 5 and round up when the last significant digit is followed by a number equal to or greater than 5.

4.0 MEASUREMENT. The Department will not measure for payment any work or materials required to supply the cores or grout the holes and will consider it incidental to JPC Pavement.

5.0 PAYMENT. The Department will base acceptance of each lot of material on the percentage of material within specification limits (PWL). The following equation will determine the pay factor for thickness: $PF \% = 52.5 + 0.5 \text{ PWL}$. The Department will round the Pay Factor to 2 decimal places as noted above.

January 1, 2008

10T

PERCENT WITHIN LIMITS ESTIMATION TABLE
Variability - Unknown Procedure
Standard Deviation Method
Sample Size 4

Q	0	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.0	50.00	50.33	50.67	51.00	51.33	51.67	52.00	52.33	52.67	53.00
0.1	53.33	53.67	54.00	54.33	54.67	55.00	55.33	55.67	56.00	56.33
0.2	56.67	57.00	57.33	57.67	58.00	58.33	58.67	59.00	59.33	59.67
0.3	60.00	60.33	60.67	61.00	61.33	61.67	62.00	62.33	62.67	63.00
0.4	63.33	63.67	64.00	64.33	64.67	65.00	65.33	65.67	66.00	66.33
0.5	66.67	67.00	67.33	67.67	68.00	68.33	68.67	69.00	69.33	69.67
0.6	70.00	70.33	70.67	71.00	71.33	71.67	72.00	72.33	72.67	73.00
0.7	73.33	73.67	74.00	74.33	74.67	75.00	75.33	75.67	76.00	76.33
0.8	76.67	77.00	77.33	77.67	78.00	78.33	78.67	79.00	79.33	79.67
0.9	80.00	80.33	80.67	81.00	81.33	81.67	82.00	82.33	82.67	83.00
1.0	83.33	83.67	84.00	84.33	84.67	85.00	85.33	85.67	86.00	86.33
1.1	86.67	87.00	87.33	87.67	88.00	88.33	88.67	89.00	89.33	89.67
1.2	90.00	90.33	91.67	91.00	91.33	91.67	92.00	92.33	92.67	93.00
1.3	93.33	93.67	94.00	94.33	94.67	95.00	95.33	95.67	96.00	96.33
1.4	96.67	97.00	97.33	97.67	98.00	98.33	98.67	99.00	99.33	99.67
1.5	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

10T

PERCENT WITHIN LIMITS ESTIMATION TABLE
Variability - Unknown Procedure
Standard Deviation Method
Sample Size 8

Q	0	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.0	50.00	50.38	50.76	51.14	51.51	51.89	52.27	52.65	53.03	53.41
0.1	53.78	54.16	54.54	54.92	55.29	55.67	56.04	56.42	56.79	57.17
0.2	57.54	57.92	58.29	58.66	59.03	59.41	59.78	60.15	60.52	60.89
0.3	61.25	61.62	61.99	62.35	62.72	63.08	63.45	63.81	64.17	64.53
0.4	64.89	65.25	65.61	65.96	66.32	66.67	67.03	67.38	67.73	68.08
0.5	68.43	68.78	69.13	69.47	69.82	70.16	70.50	70.84	71.18	71.52
0.6	71.85	72.19	72.52	72.85	73.18	73.51	73.84	74.17	74.49	74.81
0.7	75.14	75.46	75.77	76.09	76.41	76.72	77.03	77.34	77.65	77.96
0.8	78.26	78.56	78.86	79.16	79.46	79.76	80.05	80.34	80.63	80.92
0.9	81.21	81.49	81.77	82.05	82.33	82.61	82.88	83.15	83.43	83.69
1.0	83.96	84.22	84.49	84.75	85.00	85.26	85.51	85.76	86.01	86.26
1.1	86.51	86.75	86.99	87.23	87.46	87.70	87.93	88.16	88.39	88.61
1.2	88.83	89.06	89.27	89.49	89.70	89.91	90.12	90.33	90.53	90.74
1.3	90.94	91.13	91.33	91.52	91.71	91.9	92.09	92.27	92.45	92.63
1.4	92.81	92.98	93.15	93.32	93.49	93.65	93.81	93.97	94.13	94.29
1.5	94.44	94.59	94.74	94.88	95.03	95.17	95.31	95.44	95.58	95.71
1.6	95.84	95.97	96.09	96.21	96.33	96.45	96.57	96.68	96.79	96.90
1.7	97.01	97.11	97.21	97.31	97.41	97.51	97.60	97.69	97.78	97.87
1.8	97.96	98.04	98.12	98.20	98.28	98.35	98.42	98.49	98.56	98.63
1.9	98.69	98.76	98.82	98.88	98.93	98.99	99.04	99.09	99.14	99.19
2.0	99.24	99.28	99.33	99.37	99.41	99.45	99.48	99.52	99.55	99.58
2.1	99.61	99.64	99.67	99.7	99.72	99.74	99.77	99.79	99.81	99.83
2.2	99.84	99.86	99.87	99.89	99.90	99.91	99.92	99.93	99.94	99.95
2.3	99.96	99.96	99.97	99.98	99.98	99.98	99.99	99.99	99.99	100.00

SPECIAL NOTE FOR INLAID PAVEMENT MARKERS

I. DESCRIPTION

Except as provided herein, perform all work in accordance with the Department's Standard and Supplemental Specifications and applicable Standard and Sepia Drawings, current editions. Article references are to the Standard Specifications. This work shall consist of:

- (1) Maintain and Control Traffic; and (2) Furnish and install Inlaid Pavement Markers (IPMs) in recessed grooves; and (3) Any other work as specified by these notes and the Contract.

II. MATERIALS

The Department will sample all materials in accordance with the Department's Sampling Manual. Make the materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing unless otherwise specified in these Notes.

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Markers. Provide reflective lenses with depth control breakaway positioning tabs. Before furnishing the markers, provide to the Engineer the manufacturer's current recommendations for adhesives and installation procedures. Use one brand and design throughout the project. Use markers meeting the specifications in the table below.

SPECIFICATIONS FOR HOUSING AND REFLECTOR	
Material:	Polycarbonate Plastic
Weight:	Housing 2.00 oz.
	Reflector 2.00oz.
Housing Size:	5.00" x 3.00" x 0.70" high
Specific Intensity of Reflectivity at 0.2° Observation Angle	
White:	3.0 at 0°entrance angle
	1.2 at 20°entrance angle
Yellow:	60% of white values
Red:	25% of white values

C. Adhesives. Use adhesives that conform to the manufacturer's recommendations.

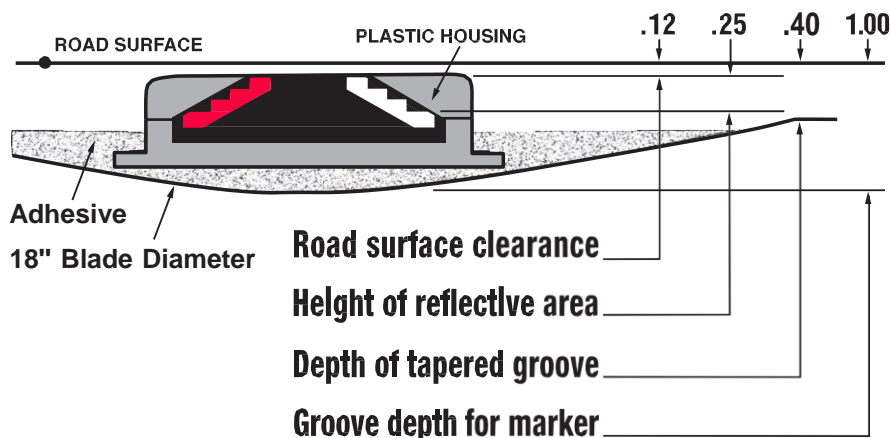
III. CONSTRUCTION

A. Experimental Evaluation. The University of Kentucky Transportation Center will be evaluating this installation of IPMs. Notify the Engineer a minimum of 14 calendar days prior to beginning work. The Engineer will coordinate the University's activities with the Contractor's work.

B. Maintain and Control Traffic. See Traffic Control Plan.

C. Installation. Install IPMs in recessed grooves cut into the final course of pavement according to the manufacturer's recommendations. Do not cut the grooves until the pavement has cured sufficiently to prevent damaging the pavement. Cut installation grooves using diamond blades on saws that accurately control groove dimensions. Remove all dirt, grease, oil, loose or unsound layers, and any other material from the marker area which would reduce the bond of the adhesive. Maintain pavement surfaces in a clean condition until placing markers.

Prepare the pavement surfaces, and install the markers in the recessed groove according to the drawing below. Use an approved snowplowable epoxy adhesive. Ensure that the adhesive bed area is equal to the bottom area of the marker, and apply adhesive in sufficient quantity to force excess out around the entire perimeter of the marker. Use materials, equipment, and construction procedures that ensure proper adhesion of the markers to the pavement surface according to the manufacturer's recommendations. Remove all excess adhesive from in front of the reflective faces. If any adhesive or foreign matter cannot be removed from the reflective faces, or if any marker fails to properly adhere to the pavement surface, remove and replace the marker at no additional cost to the Department.

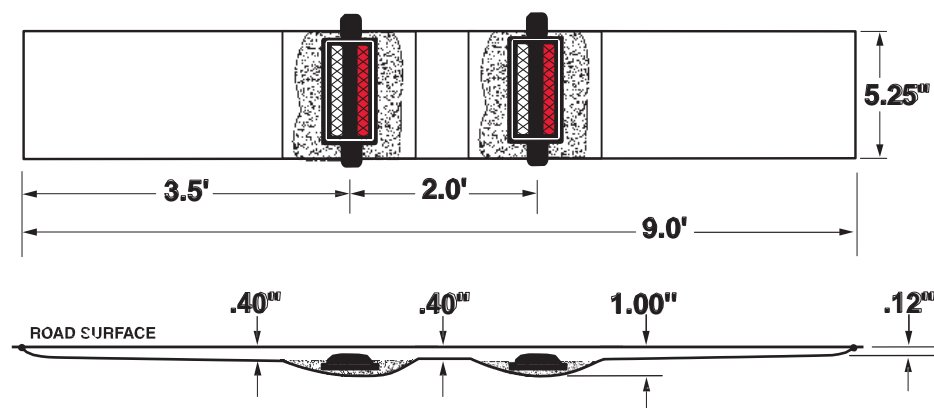


D. Location and Spacing. Install the markers in the pattern for high reflectivity with two (2) IPMs per groove. Locate and space markers as shown in the current standard drawings or sepias (note: use Inlaid Pavement Markers wherever Type V Pavement Markers are called for). Do not install markers on bridge decks. Do not install a marker

Inlaid Pavement Markers

Page 3 of 4

on top of a pavement joint or crack. Offset the recessed groove a minimum of 2 inches from any longitudinal pavement joint or crack and at least one inch from the painted stripe, ensuring that the finished line of markers is straight with minimal lateral deviation. Give preference to maintaining the 2-inch offset between recessed groove and joint as opposed to keeping the line of markers straight.



Place inlaid markers as much in line with existing pavement striping as possible. Place markers installed along an edge line or channelizing line so that the near edge of the plastic housing is no more than one inch from the near edge of the line. Place markers installed along a lane line between and in line with the dashes. Do not place markers over the lines except where the lines deviate visibly from their correct alignment, and then only after obtaining the Engineer's prior approval of the location.

If conflicts between recessed groove placement in relation to pavement joint and striping cannot be resolved, obtain the Engineer's approval to eliminate the marker or revise the alignment.

E. Disposal of Waste. Dispose of all removed pavement, debris, and other waste at sites off the right of way obtained by the Contractor at no additional cost to the Department. See Special Note for waste and Borrow.

F. Restoration. Be responsible for all damage to public and/or private property resulting from the work. Restore all damaged features in like kind materials and design at no additional cost to the Department.

G. On-Site Inspection. Make a thorough inspection of the site prior to submitting a bid and be thoroughly familiar with existing conditions so that the work can be expeditiously performed after a contract is awarded. The Department will consider submission of a bid as evidence of this inspection having been made and will not honor any claims for money or grant Contract time extensions resulting from site conditions.

H. Caution. Do not take information shown on the drawings and in this proposal and the types and quantities of work listed as an accurate or complete evaluation of the

Inlaid Pavement Markers
Page 4 of 4

material and conditions to be encountered during construction, but consider the types and quantities of work listed as approximate only. The bidder must draw his own conclusion as to the conditions encountered. The Department does not give any guarantee as to the accuracy of the data and no claim will be considered for additional compensation or extension of Contract time if the conditions encountered are not in accordance with the information shown.

IV. MEASUREMENT

A. Maintain and Control Traffic. See Traffic Control Plan.

B. "INLAID PAYMENT MARKER" shall be measured as each. One (1) installation of "INLAID PAVEMENT MARKER" will consist of grooving the pavement, removing cuttings and debris, preheating pavement to remove moisture, adhesives, and installation of two (2) markers with all lenses in accordance with this note.

Note: Each pay item of Inlaid Pavement Marker will require two markers.

V. PAYMENT

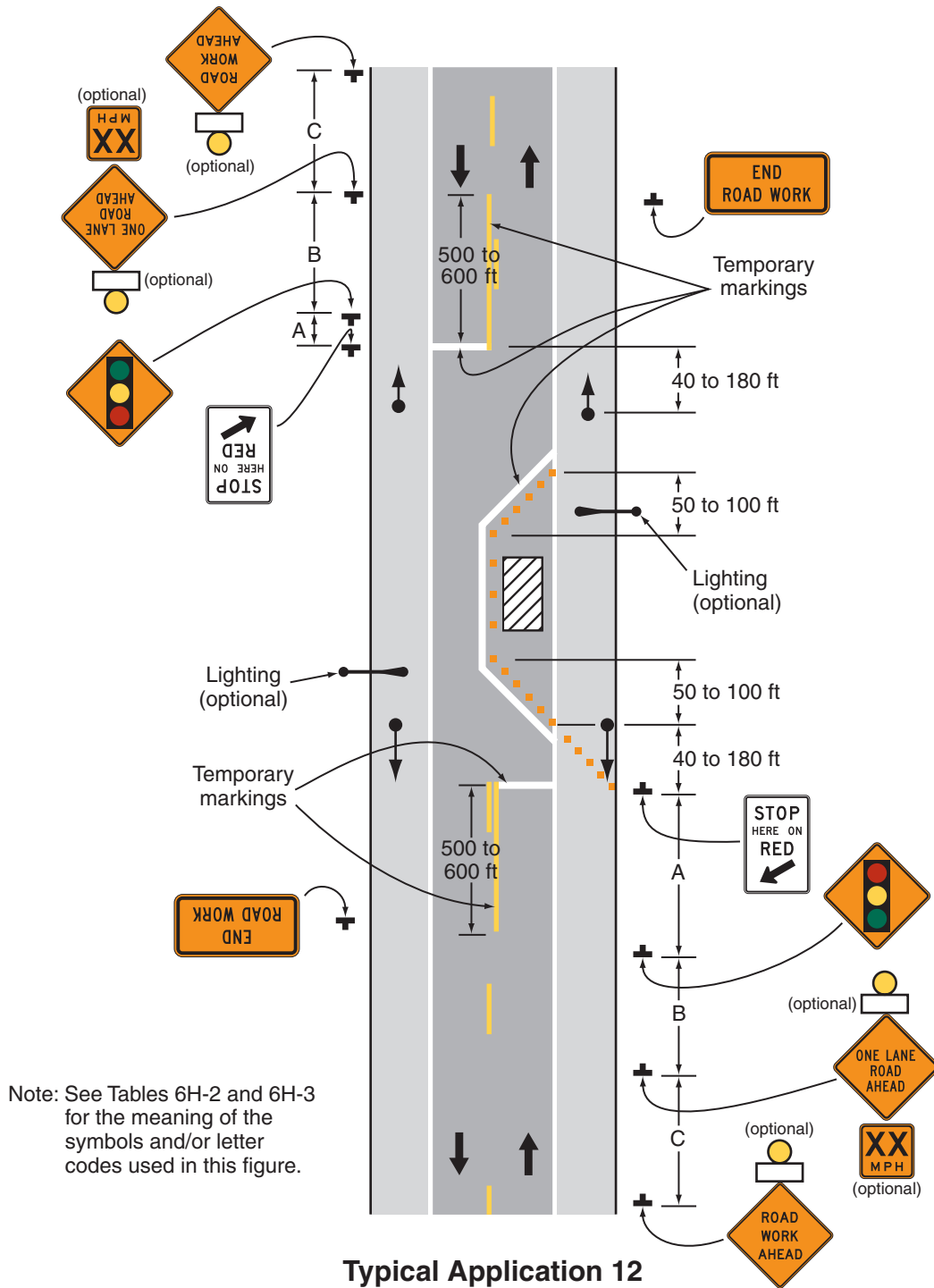
A. Maintain and Control Traffic. See Traffic Control Plan.

B. Inlaid Pavement Markers. The Department will make payment for the completed and accepted quantity of completely installed "INLAID PAVEMENT MARKERS" at the Contract unit price, each. Accept payment as full compensation for all labor, equipment, materials, and incidentals to accomplish this work to the satisfaction of the Engineer. A system of one (1) groove and two (2) markers shall be paid as one "INLAID PAVEMENT MARKER". The bid item "INLAID PAVEMENT MARKER" shall be used regardless of the color and type of lenses required.

SPECIAL NOTE FOR TYPICAL SECTION DIMENSIONS

The dimensions shown on the typical sections for pavement and shoulder widths are nominal or typical dimensions. The actual dimensions to be constructed or diamond ground may be varied to fit existing conditions as directed or approved by the Engineer. It is not intended that existing pavement or shoulders be widened unless specified elsewhere in the Proposal.

Figure 6H-12. Lane Closure on a Two-Lane Road Using Traffic Control Signals (TA-12)



TRANSPORTATION CABINET DEPARTMENT OF HIGHWAYS DISTRICT 1 BALLARD CO., KY. / ALEXANDER CO., IL. CAIRO, OHIO RIVER BRIDGE REPAIR PLANS

Sheet No.	Title	Description
S01	TITLE SHEET	
S02	GENERAL NOTES	
S03	LAYOUT - REPAIR LOCATIONS	
S04	FINGER DAMS - PHASE A	
S05	FINGER DAMS - PHASE B	
S06-S07	FINGER DAM REPLACEMENT	
S08	POURABLE JOINT REPLACEMENT	
S09-S10	STEEL BRIDGE RAIL REPAIR	
S11	DECK OVERLAY & MOT TYPICAL SECTION	
M01-M05	MOT ZONE 1 SIGNING	
M07-M13	MOT ZONE 2 SIGNING	
M14-M19	MOT ZONE 3 SIGNING	
M20-M21	MOT PHASE 1A CONSTRUCTION	
M22-M23	MOT PHASE 1B CONSTRUCTION	
M24-M25	MOT PHASE 2A CONSTRUCTION	
M26-M27	MOT PHASE 2B CONSTRUCTION	
M28-M29	MOT PHASE 2C CONSTRUCTION	
M30-M31	MOT PHASE 3A CONSTRUCTION	
M32-M33	MOT PHASE 3B CONSTRUCTION	

SPECIAL NOTES
Replacing Finger Joints with Modular Joints
Replacing Pourable Joints and/or Installing Armored Edges for Concrete on Bridges
Steel Bridge Railing Repairs
Bridge Restoration and Waterproofing with Concrete Overlays
Use of the Hydrodemolition Method
Bearing Lubrication
Painting Structural Steel Repairs
Traffic Control on Bridge Repair Contracts

SPECIAL PROVISIONS
4 Welding Steel Bridges

STANDARD DRAWINGS
804-009-04 Bridge Restoration and Waterproofing with Concrete Overlays
816-001-03 Reseprene Expansion Joints and Armored Edges
816-110-03 Lane Closure using Traffic Signals

SPECIFICATIONS
2019 Standard Specifications for Road and Bridge Construction with current Supplemental Specifications
2002 ASHTO Standard Specifications for Highway Bridges with current Interims.

DATE: FEBRUARY, 2020	CHECKED BY: R.M. DAMON
DESIGNED BY: D.E. RUST	D.E. RUST
DETAILED BY: J.A. ROSE	D.E. RUST

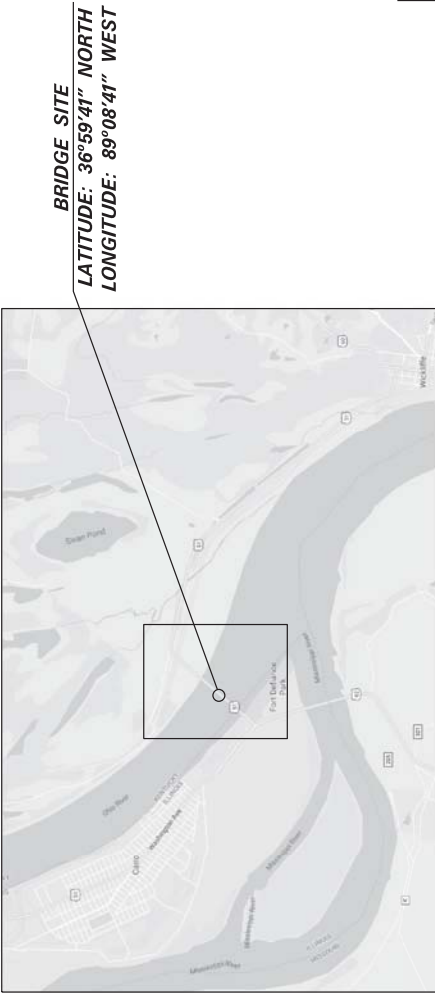
Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: **BALLARD**
ROUTE: **OHIO RIVER**
US 51

TITLE SHEET

SHEET NO. **28288**
OF TOTAL SHEETS **28288**

ESTIMATE OF BRIDGE QUANTITIES	MAINTENANCE OF TRAFFIC QUANTITIES																												
	02069	02568	08510	08534	24094EC	03304	08504	08549	08550	24988EC	03299	24030EC	03294	08153	24879EC	08106	08140	02004	02005	02014	02062	02050	02054	09033	06510	06568	25072EC		
DEMOLITION	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
MOBILIZATION	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
REPAIR 1: REMOVE FINGER JOINTS AND INSTALL MODULAR JOINTS																													
REPAIR 2: REMOVE AND REPLACE EXPANSION JOINTS																													
REPAIR 3A: INDIVIDUAL REPAIRS																													
REPAIR 3B: FULL DEPTH REPAIRS																													
REPAIR 4: LATEX CONCRETE DECK OVERLAY																													
REPAIR 5: CLEAN AND GREASE BEARINGS																													
BRIDGE TOTALS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	



LOCATION MAP

11x17 DRAWINGS CAN BE FOUND ON THE CONSTRUCTION PROCUREMENT WEBSITE UNDER PROJECT RELATED INFORMATION

GENERAL NOTES

REINFORCEMENT: DIMENSIONS SHOWN FROM THE FACE OF CONCRETE TO BARS ARE TO CENTER OF BARS UNLESS OTHERWISE SHOWN. SPACING OF BARS IS FROM CENTER TO CENTER OF BARS. CLEAR DISTANCE TO FACE OF CONCRETE SHALL BE AS SPECIFIED OTHERWISE NOTED. USE STIRRUP BEND DIMENSIONS FOR BARS DESIGNATED BY SUFFIX (S) IN A BILL OF REINFORCEMENT.

EPOXY COATED REINFORCING STEEL: ALL PROPOSED REINFORCING BARS IN THE PLANS SHALL BE EPOXY COATED IN ACCORDANCE WITH SECTION 610.0 OF THE SPECIFICATIONS.

EXISTING STEEL REINFORCEMENT: THE COST OF CUTTING, BENDING, AND CLEANING EXISTING STEEL REINFORCEMENT SHALL BE INCIDENTAL TO THE REPAIR ITEM BEING COMPLETED.

BEVELED EDGES: BEVEL ALL EXPOSED EDGES 3/4", UNLESS OTHERWISE NOTED.

WELD TEST REPORTS: NOTARIZED WELD TEST REPORTS SHALL BE FURNISHED IN TOPIC DATE TO THE DEPARTMENT SHOWING THAT ALL STRUCTURAL STEEL CONFORMS TO THE REQUIREMENTS OF THE SPECIFICATIONS.

WELDING PROCEDURES: ALL WELDING AND WELDING MATERIALS EXCEPT FOR REINFORCEMENT, SHALL CONFORM TO AASHTO M 323. WELDING SHALL BE IN ACCORDANCE WITH THE WELDING CODES. MODIFICATION AND ADDITIONS AS STATED ON THE PLANS SHALL SUPERSEDE THE JOINT SPECIFICATIONS.

PROHIBITED FIELD WELDING: EXCEPT WHERE SHOWN IN THE PLANS, NO WELDING OF ANY NATURE SHALL BE PERMITTED IN THE FIELD OF BRIDGE STRUCTURE. WELDING SHALL BE LIMITED TO THE DIVISION OF BRIDGE MAINTENANCE, AND ONLY IN THE MANNER AND AT THE LOCATIONS DESIGNATED IN THE PLANS WITH THE AUTHORIZATION OF THE DIVISION OF BRIDGE MAINTENANCE.

WELDING REINFORCEMENT: THE WELDING AND WELD MATERIAL SHALL CONFORM TO THE RECOMMENDED PRACTICES FOR WELDING REINFORCING STEEL: AMERICAN WELDING SOCIETY SPECIFICATIONS, CURRENT EDITION, NO DIRECT PAYMENT SHALL BE MADE FOR WELDING OR WELD MATERIAL, BUT THE COST OF THESE ITEMS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE REPAIR BEING COMPLETED.

WELDING PROCEDURES: QUALIFICATION TEST OF ALL WELDING PROCEDURES, WHEN REQUIRED BY AWS, SHALL BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO THE FINAL APPROVAL OF THE SHOP DRAWINGS AND THE START OF THE FABRICATION.

WELD SIZES: UNLESS SPECIFIED OTHERWISE, USE THE FOLLOWING FILLET WELD SIZES:

MATERIAL THICKNESS OF THICKER PART JOINED (IN.)	MINIMUM SIZE OF FILLET WELD (IN.)
TO 1/4" INCLUSIVE	3/8"
OVER 1/4" TO 1/2"	1/2"
OVER 1/2" TO 3/4"	5/8"
OVER 3/4"	3/4"

REMOVE OF EXISTING RIVETS AND BOLTS: THE CONTRACTOR WILL BE PERMITTED TO REMOVE RIVETS IN ANY MANNER THAT DOES NOT DAMAGE ADJACENT STRUCTURAL STEEL. THIS MAY INCLUDE MECHANICAL REMOVAL OR OTHER METHODS APPROVED BY THE ENGINEER. USE OF CUTTING TORCHES WILL NOT BE PERMITTED.

HIGH STRENGTH BOLT CONNECTIONS: UNLESS OTHERWISE SPECIFIED ON THE PLANS, ALL BOLTED CONNECTIONS SHALL BE ASTM F325 GRADE A325 HIGH STRENGTH BOLTS, A563HQ NUTS, AND F436 FLAT WASHERS. OPEN HOLES SHALL BE DRILLED TO THE FULL DEPTH OF THE BOLT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING UTILITIES AND THE SHEAR PLATES SHALL BE BOLTED CONNECTIONS. OTHERS SHALL BE IDENTIFIED FROM ANNOTATIONS ON THE DRAWING INFORMATION. THE EXISTING RIVET SIZES BELOW ARE ANTICIPATED AND SHALL BE REPLACED WHERE NOTED WITH HIGH STRENGTH BOLTS OF EQUAL SIZE. CONTRACTOR TO VERIFY PRIOR TO ORDERING MATERIALS. 3/8" DIA. IN STEEL BOLTS, FLOORS, AND CONNECTIONS; 1/2" DIA. IN STEEL BOLTS, FLOORS, AND CONNECTIONS; 5/8" DIA. IN STEEL BOLTS, FLOORS, AND CONNECTIONS; 3/4" DIA. IN STEEL BOLTS, FLOORS, AND CONNECTIONS; 1" DIA. IN GIRDERS, PLATES, AND CONNECTIONS RIVETED TO GIRDERS.

ANY HOLES IN STEEL MEMBERS THAT ARE NOT SPECIFIED TO RECEIVE ANY OTHER CONNECTED PART SHALL BE FILLED WITH A HIGH STRENGTH BOLT THAT IS TENSIONED PER THE SPECIFICATIONS.

TYPE 1 MECHANICALLY GALVANIZED BOLTS SHALL BE USED AS DESCRIBED IN AASHTO M 164. ALL HIGH STRENGTH BOLTED CONNECTIONS ARE TO BE INSTALLED USING "DIRECT TENSION INDICATORS" (DTI-9) IN ACCORDANCE WITH THE SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING UTILITIES. INSTALLATION DETAILS OF THE DTI'S SHALL BE SHOWN ON THE SHOP PLANS.

SHOP DRAWINGS: SUBMIT SHOP DRAWINGS DIRECTLY TO THE CONSULTANT. WHEN ANY CHANGES IN THE DESIGN PLANS ARE PROPOSED BY THE FABRICATOR OR SUPPLIER, SUBMIT THOSE CHANGES TO THE CONSULTANT.

SUBMIT FINAL APPROVED SHOP DRAWINGS TO THE ENGINEER.

CLEANING AND PAINTING: REFER TO THE SPECIAL NOTE FOR PAINTING STRUCTURAL STEEL REPAIRS.

PAINTING DAMAGED AREAS: ALL AREAS OF NEW OR EXISTING STRUCTURAL STEEL ON WHICH THE PAINT HAS BEEN DAMAGED BY THE CONTRACTOR SHALL BE CLEANED AND SPOT PAINTED TO THE ORIGINAL FINISH. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING UTILITIES. STRUCTURAL STEEL REPAIRS: THE COST OF THIS TOUCH-UP PAINTING IS TO BE INCIDENTAL TO THE CONTRACT.

REINFORCEMENT: DIMENSIONS SHOWN FROM THE FACE OF CONCRETE TO BARS ARE TO CENTER OF BARS UNLESS OTHERWISE SHOWN. SPACING OF BARS IS FROM CENTER TO CENTER OF BARS. CLEAR DISTANCE TO FACE OF CONCRETE SHALL BE AS SPECIFIED OTHERWISE NOTED. USE STIRRUP BEND DIMENSIONS FOR BARS DESIGNATED BY SUFFIX (S) IN A BILL OF REINFORCEMENT.

EPOXY COATED REINFORCING STEEL: ALL PROPOSED REINFORCING BARS IN THE PLANS SHALL BE EPOXY COATED IN ACCORDANCE WITH SECTION 610.0 OF THE SPECIFICATIONS.

EXISTING STEEL REINFORCEMENT: THE COST OF CUTTING, BENDING, AND CLEANING EXISTING STEEL REINFORCEMENT SHALL BE INCIDENTAL TO THE REPAIR ITEM BEING COMPLETED.

BEVELED EDGES: BEVEL ALL EXPOSED EDGES 3/4", UNLESS OTHERWISE NOTED.

WELD TEST REPORTS: NOTARIZED WELD TEST REPORTS SHALL BE FURNISHED IN TOPIC DATE TO THE DEPARTMENT SHOWING THAT ALL STRUCTURAL STEEL CONFORMS TO THE REQUIREMENTS OF THE SPECIFICATIONS.

WELDING PROCEDURES: ALL WELDING AND WELDING MATERIALS EXCEPT FOR REINFORCEMENT, SHALL CONFORM TO AASHTO M 323. WELDING SHALL BE IN ACCORDANCE WITH THE WELDING CODES. MODIFICATION AND ADDITIONS AS STATED ON THE PLANS SHALL SUPERSEDE THE JOINT SPECIFICATIONS.

PROHIBITED FIELD WELDING: EXCEPT WHERE SHOWN IN THE PLANS, NO WELDING OF ANY NATURE SHALL BE PERMITTED IN THE FIELD OF BRIDGE STRUCTURE. WELDING SHALL BE LIMITED TO THE DIVISION OF BRIDGE MAINTENANCE, AND ONLY IN THE MANNER AND AT THE LOCATIONS DESIGNATED IN THE PLANS WITH THE AUTHORIZATION OF THE DIVISION OF BRIDGE MAINTENANCE.

WELDING REINFORCEMENT: THE WELDING AND WELD MATERIAL SHALL CONFORM TO THE RECOMMENDED PRACTICES FOR WELDING REINFORCING STEEL: AMERICAN WELDING SOCIETY SPECIFICATIONS, CURRENT EDITION, NO DIRECT PAYMENT SHALL BE MADE FOR WELDING OR WELD MATERIAL, BUT THE COST OF THESE ITEMS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE REPAIR BEING COMPLETED.

WELDING PROCEDURES: QUALIFICATION TEST OF ALL WELDING PROCEDURES, WHEN REQUIRED BY AWS, SHALL BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO THE FINAL APPROVAL OF THE SHOP DRAWINGS AND THE START OF THE FABRICATION.

WELD SIZES: UNLESS SPECIFIED OTHERWISE, USE THE FOLLOWING FILLET WELD SIZES:

MATERIAL THICKNESS OF THICKER PART JOINED (IN.)	MINIMUM SIZE OF FILLET WELD (IN.)
TO 1/4" INCLUSIVE	3/8"
OVER 1/4" TO 1/2"	1/2"
OVER 1/2" TO 3/4"	5/8"
OVER 3/4"	3/4"

REMOVE OF EXISTING RIVETS AND BOLTS: THE CONTRACTOR WILL BE PERMITTED TO REMOVE RIVETS IN ANY MANNER THAT DOES NOT DAMAGE ADJACENT STRUCTURAL STEEL. THIS MAY INCLUDE MECHANICAL REMOVAL OR OTHER METHODS APPROVED BY THE ENGINEER. USE OF CUTTING TORCHES WILL NOT BE PERMITTED.

HIGH STRENGTH BOLT CONNECTIONS: UNLESS OTHERWISE SPECIFIED ON THE PLANS, ALL BOLTED CONNECTIONS SHALL BE ASTM F325 GRADE A325 HIGH STRENGTH BOLTS, A563HQ NUTS, AND F436 FLAT WASHERS. OPEN HOLES SHALL BE DRILLED TO THE FULL DEPTH OF THE BOLT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING UTILITIES AND THE SHEAR PLATES SHALL BE BOLTED CONNECTIONS. OTHERS SHALL BE IDENTIFIED FROM ANNOTATIONS ON THE DRAWING INFORMATION. THE EXISTING RIVET SIZES BELOW ARE ANTICIPATED AND SHALL BE REPLACED WHERE NOTED WITH HIGH STRENGTH BOLTS OF EQUAL SIZE. CONTRACTOR TO VERIFY PRIOR TO ORDERING MATERIALS. 3/8" DIA. IN STEEL BOLTS, FLOORS, AND CONNECTIONS; 1/2" DIA. IN STEEL BOLTS, FLOORS, AND CONNECTIONS; 5/8" DIA. IN STEEL BOLTS, FLOORS, AND CONNECTIONS; 3/4" DIA. IN STEEL BOLTS, FLOORS, AND CONNECTIONS; 1" DIA. IN GIRDERS, PLATES, AND CONNECTIONS RIVETED TO GIRDERS.

ANY HOLES IN STEEL MEMBERS THAT ARE NOT SPECIFIED TO RECEIVE ANY OTHER CONNECTED PART SHALL BE FILLED WITH A HIGH STRENGTH BOLT THAT IS TENSIONED PER THE SPECIFICATIONS.

TYPE 1 MECHANICALLY GALVANIZED BOLTS SHALL BE USED AS DESCRIBED IN AASHTO M 164. ALL HIGH STRENGTH BOLTED CONNECTIONS ARE TO BE INSTALLED USING "DIRECT TENSION INDICATORS" (DTI-9) IN ACCORDANCE WITH THE SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING UTILITIES. INSTALLATION DETAILS OF THE DTI'S SHALL BE SHOWN ON THE SHOP PLANS.

SHOP DRAWINGS: SUBMIT SHOP DRAWINGS DIRECTLY TO THE CONSULTANT. WHEN ANY CHANGES IN THE DESIGN PLANS ARE PROPOSED BY THE FABRICATOR OR SUPPLIER, SUBMIT THOSE CHANGES TO THE CONSULTANT.

SUBMIT FINAL APPROVED SHOP DRAWINGS TO THE ENGINEER.

CLEANING AND PAINTING: REFER TO THE SPECIAL NOTE FOR PAINTING STRUCTURAL STEEL REPAIRS.

PAINTING DAMAGED AREAS: ALL AREAS OF NEW OR EXISTING STRUCTURAL STEEL ON WHICH THE PAINT HAS BEEN DAMAGED BY THE CONTRACTOR SHALL BE CLEANED AND SPOT PAINTED TO THE ORIGINAL FINISH. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING UTILITIES. STRUCTURAL STEEL REPAIRS: THE COST OF THIS TOUCH-UP PAINTING IS TO BE INCIDENTAL TO THE CONTRACT.

REINFORCEMENT: DIMENSIONS SHOWN FROM THE FACE OF CONCRETE TO BARS ARE TO CENTER OF BARS UNLESS OTHERWISE SHOWN. SPACING OF BARS IS FROM CENTER TO CENTER OF BARS. CLEAR DISTANCE TO FACE OF CONCRETE SHALL BE AS SPECIFIED OTHERWISE NOTED. USE STIRRUP BEND DIMENSIONS FOR BARS DESIGNATED BY SUFFIX (S) IN A BILL OF REINFORCEMENT.

EPOXY COATED REINFORCING STEEL: ALL PROPOSED REINFORCING BARS IN THE PLANS SHALL BE EPOXY COATED IN ACCORDANCE WITH SECTION 610.0 OF THE SPECIFICATIONS.

EXISTING STEEL REINFORCEMENT: THE COST OF CUTTING, BENDING, AND CLEANING EXISTING STEEL REINFORCEMENT SHALL BE INCIDENTAL TO THE REPAIR ITEM BEING COMPLETED.

BEVELED EDGES: BEVEL ALL EXPOSED EDGES 3/4", UNLESS OTHERWISE NOTED.

WELD TEST REPORTS: NOTARIZED WELD TEST REPORTS SHALL BE FURNISHED IN TOPIC DATE TO THE DEPARTMENT SHOWING THAT ALL STRUCTURAL STEEL CONFORMS TO THE REQUIREMENTS OF THE SPECIFICATIONS.

WELDING PROCEDURES: ALL WELDING AND WELDING MATERIALS EXCEPT FOR REINFORCEMENT, SHALL CONFORM TO AASHTO M 323. WELDING SHALL BE IN ACCORDANCE WITH THE WELDING CODES. MODIFICATION AND ADDITIONS AS STATED ON THE PLANS SHALL SUPERSEDE THE JOINT SPECIFICATIONS.

PROHIBITED FIELD WELDING: EXCEPT WHERE SHOWN IN THE PLANS, NO WELDING OF ANY NATURE SHALL BE PERMITTED IN THE FIELD OF BRIDGE STRUCTURE. WELDING SHALL BE LIMITED TO THE DIVISION OF BRIDGE MAINTENANCE, AND ONLY IN THE MANNER AND AT THE LOCATIONS DESIGNATED IN THE PLANS WITH THE AUTHORIZATION OF THE DIVISION OF BRIDGE MAINTENANCE.

WELDING REINFORCEMENT: THE WELDING AND WELD MATERIAL SHALL CONFORM TO THE RECOMMENDED PRACTICES FOR WELDING REINFORCING STEEL: AMERICAN WELDING SOCIETY SPECIFICATIONS, CURRENT EDITION, NO DIRECT PAYMENT SHALL BE MADE FOR WELDING OR WELD MATERIAL, BUT THE COST OF THESE ITEMS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE REPAIR BEING COMPLETED.

WELDING PROCEDURES: QUALIFICATION TEST OF ALL WELDING PROCEDURES, WHEN REQUIRED BY AWS, SHALL BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO THE FINAL APPROVAL OF THE SHOP DRAWINGS AND THE START OF THE FABRICATION.

WELD SIZES: UNLESS SPECIFIED OTHERWISE, USE THE FOLLOWING FILLET WELD SIZES:

MATERIAL THICKNESS OF THICKER PART JOINED (IN.)	MINIMUM SIZE OF FILLET WELD (IN.)
TO 1/4" INCLUSIVE	3/8"
OVER 1/4" TO 1/2"	1/2"
OVER 1/2" TO 3/4"	5/8"
OVER 3/4"	3/4"

REMOVE OF EXISTING RIVETS AND BOLTS: THE CONTRACTOR WILL BE PERMITTED TO REMOVE RIVETS IN ANY MANNER THAT DOES NOT DAMAGE ADJACENT STRUCTURAL STEEL. THIS MAY INCLUDE MECHANICAL REMOVAL OR OTHER METHODS APPROVED BY THE ENGINEER. USE OF CUTTING TORCHES WILL NOT BE PERMITTED.

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GENERAL NOTES

REINFORCEMENT: DIMENSIONS SHOWN FROM THE FACE OF CONCRETE TO BARS ARE TO CENTER OF BARS UNLESS OTHERWISE SHOWN. SPACING OF BARS IS FROM CENTER TO CENTER OF BARS. CLEAR DISTANCE TO FACE OF CONCRETE SHALL BE AS SPECIFIED OTHERWISE NOTED. USE STIRRUP BEND DIMENSIONS FOR BARS DESIGNATED BY SUFFIX (S) IN A BILL OF REINFORCEMENT.

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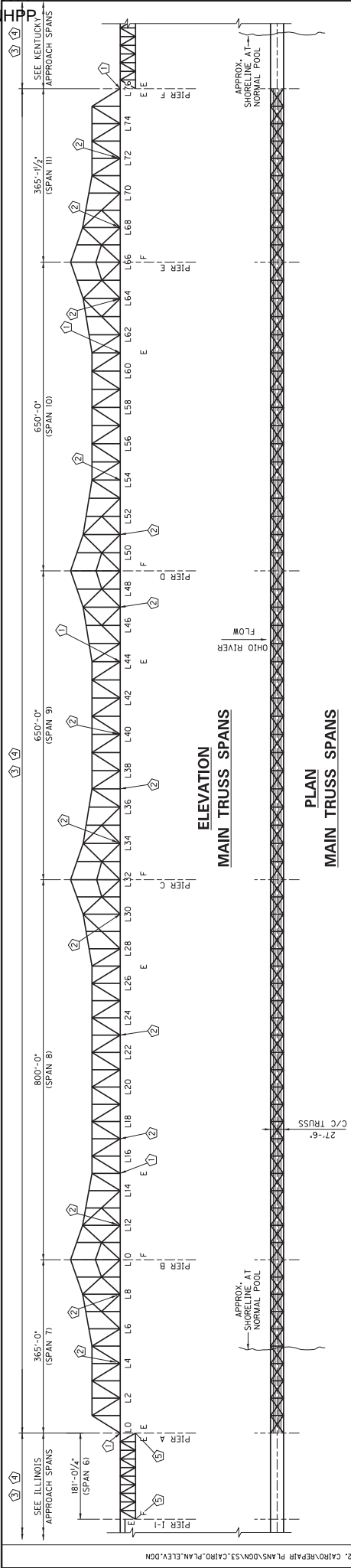
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DATE: FEBRUARY, 2020	CHECKED BY:
DESIGNED BY: D.E. RUST	R.M. DAMON
DETAILED BY: J.A. ROSE	D.E. RUST
Commonwealth of Kentucky	
DEPARTMENT OF HIGHWAYS	
BY: BALLARD	
ROUTE OHIO RIVER	
US 51	
PREPARED BY: PALMER ENGINEERING CO.	
SHEET NO. 28288	

BRIDGE NUMBER	004B00021N
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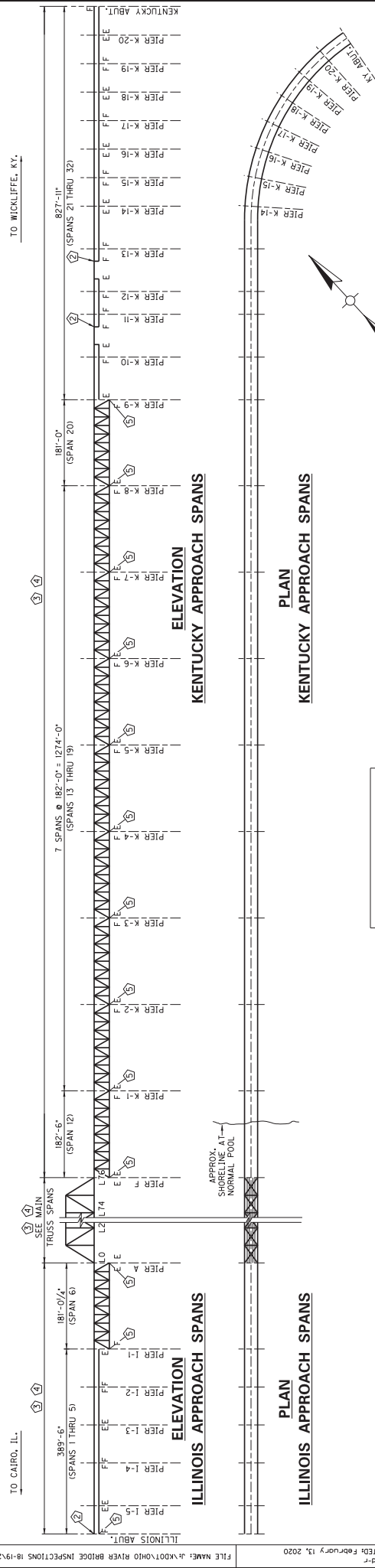
DATE	REVISION
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11x17 DRAWINGS CAN BE FOUND ON THE CONSTRUCTION PROCUREMENT WEBSITE UNDER PROJECT RELATED INFORMATION



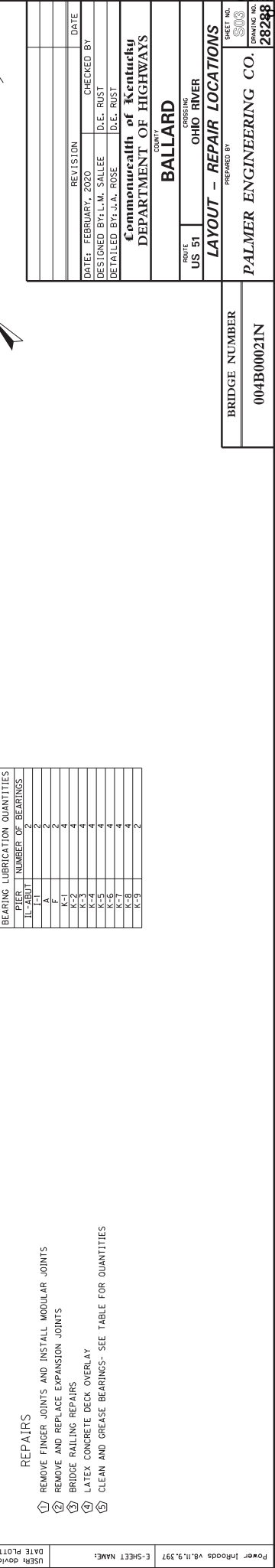
**ELEVATION
MAIN TRUSS SPANS**

**PLAN
MAIN TRUSS SPANS**



**ELEVATION
KENTUCKY APPROACH SPANS**

**PLAN
KENTUCKY APPROACH SPANS**



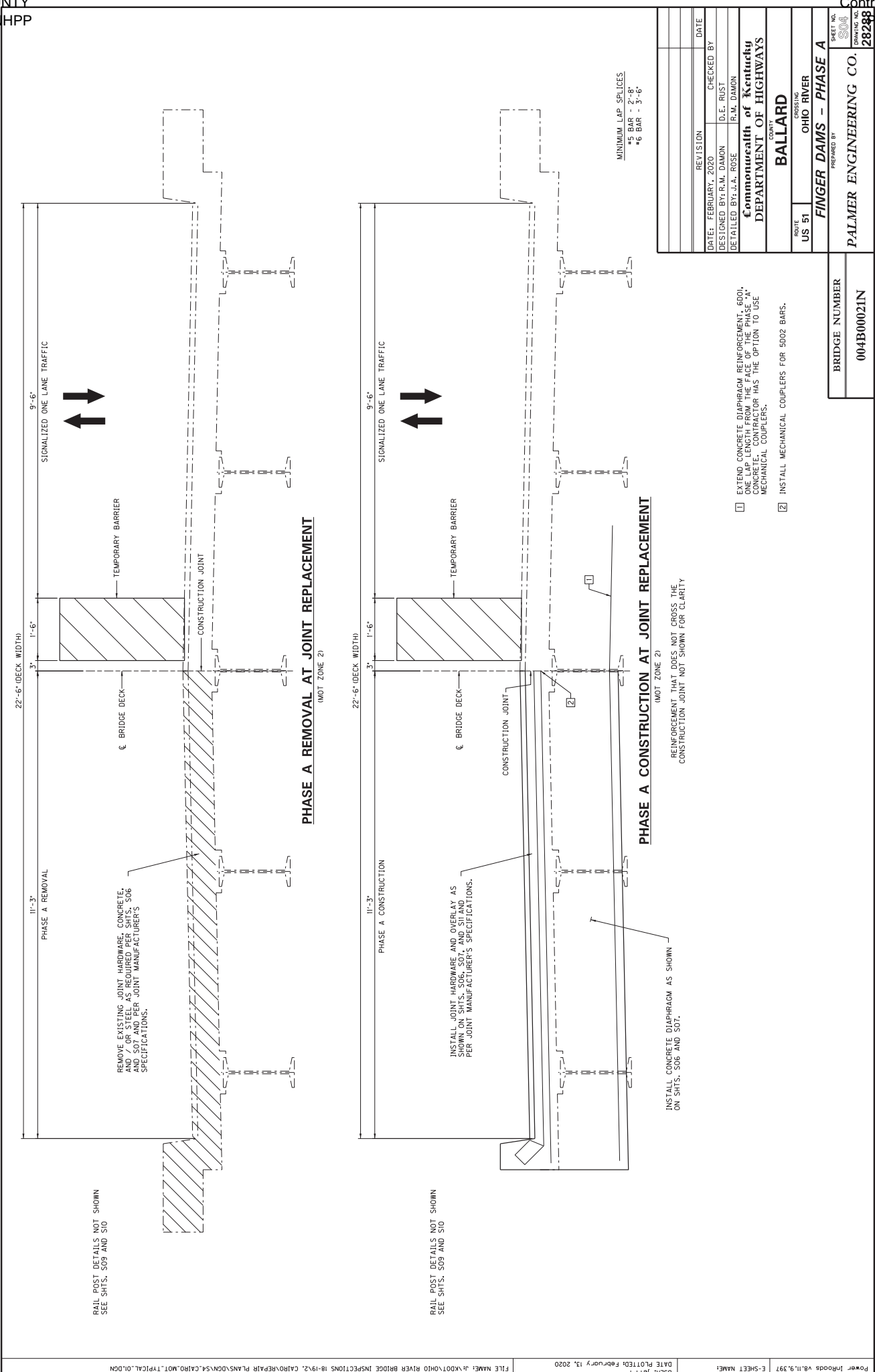
**ELEVATION
ILLINOIS APPROACH SPANS**

**PLAN
ILLINOIS APPROACH SPANS**

BEARING LUBRICATION QUANTITIES	
PIER	NUMBER OF BEARINGS
I-1	2
I-2	2
I-3	2
I-4	2
I-5	2
K-1	4
K-2	4
K-3	4
K-4	4
K-5	4
K-6	4
K-7	4
K-8	4
K-9	2

- REPAIRS**
- ① REMOVE FINGER JOINTS AND INSTALL MODULAR JOINTS
 - ② REMOVE AND REPLACE EXPANSION JOINTS
 - ③ BRIDGE RAILING REPAIRS
 - ④ LATEX CONCRETE DECK OVERLAY
 - ⑤ CLEAN AND GREASE BEARINGS- SEE TABLE FOR QUANTITIES

DATE	REVISION
DESIGNED BY: L.M. SALLEE	CHECKED BY: D.E. RUST
DATE: FEBRUARY, 2020	DATE: FEBRUARY, 2020
DETAILED BY: J.A. ROSE	DATE: FEBRUARY, 2020
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS	
COUNTY BALLARD	
CROSSING OHIO RIVER	
ROUTE US 51	
LAYOUT - REPAIR LOCATIONS	
BRIDGE NUMBER	004B00021N
PREPARED BY:	PALMER ENGINEERING CO.
SHEET NO.	28288



RAIL POST DETAILS NOT SHOWN
SEE SHTS. S09 AND S10

RAIL POST DETAILS NOT SHOWN
SEE SHTS. S09 AND S10

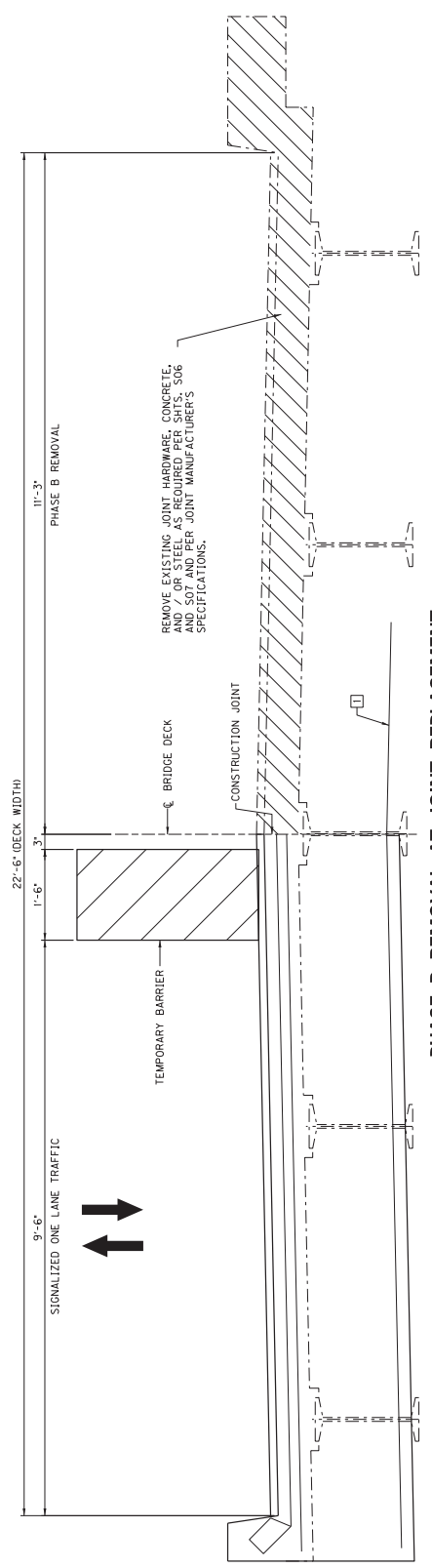
MINIMUM LAP SPLICES
#5 BAR - 2'-0"
#6 BAR - 3'-0"

REVISION	DATE
DESIGNED BY: R.M. DAMON	CHECKED BY: D.E. RUST
DETAILED BY: J.A. ROSE	DRAWN BY: R.M. DAMON
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS	
BY: BALLARD	
ROUTE US 51 FINGER DAMS - PHASE A	
CROSSING OHIO RIVER	
PREPARED BY: PALMER ENGINEERING CO.	
SHEET NO. 28248	

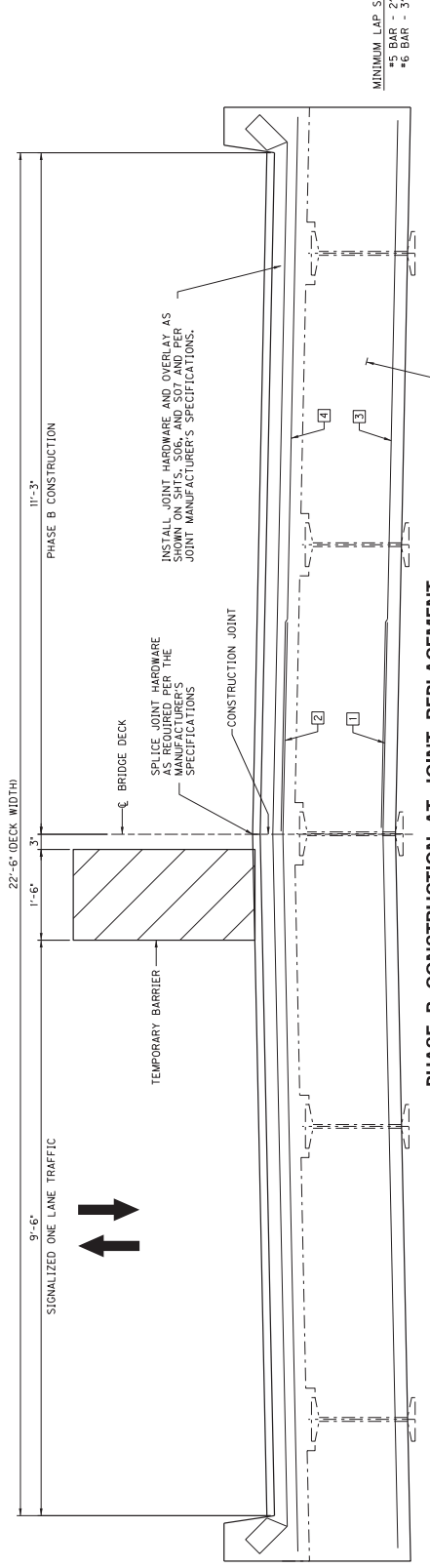
- EXTEND CONCRETE DIAPHRAGM REINFORCEMENT 600L ONE (1) FEET FROM MAINLINE JOINT TO NEAREST CONCRETE REINFORCEMENT. THE CONTRACTOR HAS THE OPTION TO USE MECHANICAL COUPLERS.
- INSTALL MECHANICAL COUPLERS FOR 5002 BARS.

BRIDGE NUMBER	004B00021N
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11x17 DRAWINGS CAN BE FOUND ON THE CONSTRUCTION PROCUREMENT WEBSITE UNDER PROJECT RELATED INFORMATION



PHASE B REMOVAL AT JOINT REPLACEMENT
(MOT ZONE 2)



PHASE B CONSTRUCTION AT JOINT REPLACEMENT
(MOT ZONE 2)

REINFORCEMENT THAT DOES NOT CROSS THE CONSTRUCTION JOINT SHALL BE INSTALLED IN THE JOINT THAT CROSSES THE CONSTRUCTION JOINT. NOT SHOWN FOR CLARITY.

- 1 6001 EXTENDED LAP FROM PHASE A
- 2 5002 EXTENDED LAP FROM PHASE A
- 3 6001 SPLICE WITH PHASE A BARS
- 3 5002 SPLICE WITH PHASE A BARS

MINIMUM LAP SPLICES
#5 BAR - 2'-0"
#6 BAR - 3'-0"

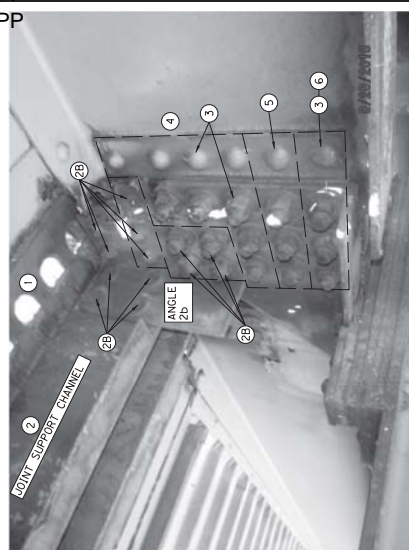
REVISION	DATE
DESIGNED BY: R.M. DAMON	CHECKED BY: D.E. RUST
DATE: FEBRUARY, 2020	D.E. RUST
DETAILED BY: J.A. ROSE	R.M. DAMON
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS	
COUNTY BALLARD	
ROUTE OHIO RIVER	
US 51	
PROJECT NO. FINGER DAMS - PHASE B	
PREPARED BY: PALMER ENGINEERING CO.	
SHEET NO. 28248	

BRIDGE NUMBER	004B00021N
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RAIL POST DETAILS NOT SHOWN
SEE SHTS. S09 AND S10

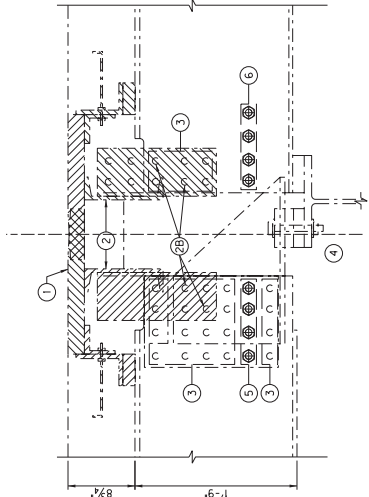
RAIL POST DETAILS NOT SHOWN
SEE SHTS. S09 AND S10

- 1 REMOVE CONCRETE TO THE EXTENT OF THE BLOCKOUTS SHOWN ON THIS SHEET AND SHIMS. 504-505 CONCRETE SHALL BE NEAT AND SQUARE. REMOVE DEBRIS AND RUST. REMOVE FINGER PLATES.
- 2 REMOVE CHANNELS BY REMOVING RIVETS ON CONNECTION ANGLE 2b
- 2b REMOVE RIVETS ATTACHING ANGLE 2b TO STRINGER AND REMOVE ANGLE 2b
- 2c REMOVE CONNECTION ANGLES AND SPACERS
- 3 REPLACE BOLTS IN-KIND. REPLACE RIVETS WITH EQUIVALENT DIAMETER RIVETS PER THE STANDARD SPECIFICATIONS. REMOVE AND REPLACE ONE BOLT AT A TIME.
- 4 CLEAN RUST AT STRINGER ENDS WITHIN THE EXTENTS OF THE CONCRETE DIAPHRAGM.
- 5 REMOVE RIVETS AND REPLACE WITH 3/4" x 24" ALL THREAD WITH NUTS AND WASHERS PER THE STANDARD SPECIFICATIONS ON EACH FACE OF THE STRINGER PER DETAIL THIS SHEET.
- 6 CONTRACTOR'S OPTION. DRILL 1/8" DIA. HOLES AND INSTALL ALL THREAD ANCHORS PER DETAIL THIS SHEET. 6 HEADED STUDS AT SAME SPACING AND LOCATION AS IN NOTE 5.

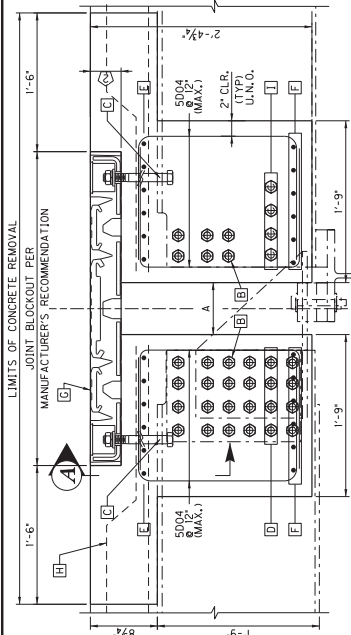


NOTES:
1. CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE ANY MEMBERS TO REMAIN. ANY DAMAGE SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
2. SEE SPECIAL NOTE FOR REPLACING FINGER JOINTS WITH MODULAR JOINTS FOR PAINTING REQUIREMENTS AND ADDITIONAL INFORMATION.

FINGER JOINT REMOVAL AND STRINGER PREPARATION

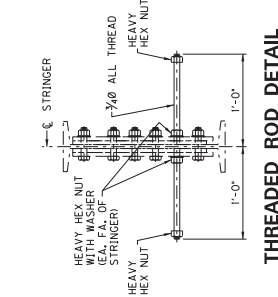


**EXISTING SECTION FOR JOINT
AT L15, L44, L61**

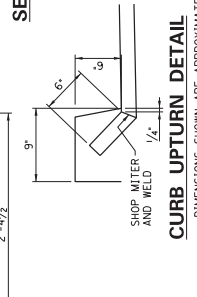


**PROPOSED SECTION FOR JOINT
AT L15, L44, L61**

- A SEE JOINT SETTING TABLE
- B NEW H.S. BOLTS TO REPLACE RIVETS (TYP)
- C ANCHOR BOLTS OVER STRINGER TOP FLANGES SHALL BE BOLTED TO TOP FLANGE
- D REMOVE RIVETS AND REPLACE WITH 3/4" x 24" ALL THREAD WITH NUTS, TENSIONED PER THE STANDARD SPECIFICATIONS ON EACH FACE OF THE STRINGER.
- E 5002 8/w 5002 SPACED AT 3' C/C.
- F 6003 OR 6005 BETWEEN STRINGERS
- G WATSON BOWMAN ACME OR EQUIVALENT SYSTEM. INSTALL PER MANUFACTURER'S SPECIFICATIONS
- H FIELD BEND EXISTING SLAB REINFORCEMENT AS REQ'D.
- I CONTRACTOR'S OPTION. DRILL 1/8" DIA. HOLES AND INSTALL ALL THREAD ANCHORS PER DETAIL THIS SHEET. 6 HEADED STUDS IN THE SAME SPACING AND LOCATION AS IN NOTE D.

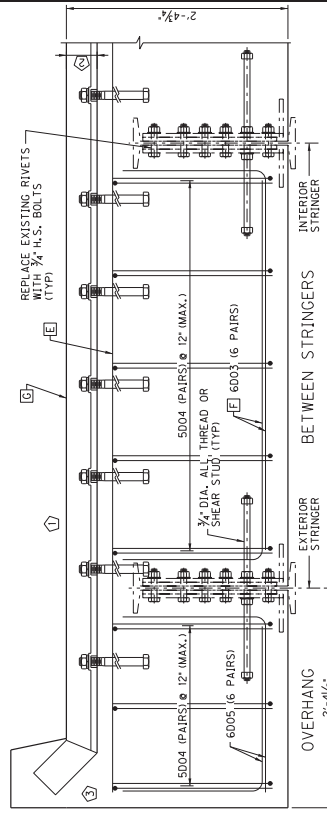


THREADED ROD DETAIL



CURB UPTURN DETAIL

DIMENSIONS SHOWN ARE APPROXIMATE.



SECTION "A"

- 1 ANCHOR SPACING SHOWN IS APPROXIMATE. INSTALL ANCHORS PER MANUFACTURER'S SPECIFICATIONS.
- 2 BLOCKOUT PER MANUFACTURER'S RECOMMENDATIONS
- 3 GUARDRAIL ANCHORAGE NOT SHOWN. SEE SHEETS 503 AND 510 FOR DETAILS.

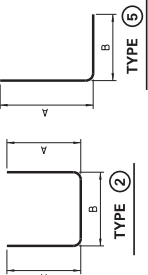
TEMPERATURE (DEGREES F)	L35	L44	L61
30	7-3/8"	8-1/16"	8-1/16"
40	7"	7-7/16"	7-7/16"
50	6-5/8"	6-7/8"	6-7/8"
60	6-1/4"	6-3/4"	6-1/4"
70	5-7/8"	5-9/8"	5-9/8"
80	5-1/2"	5-1/16"	5-1/16"
90	5-1/8"	4-7/16"	4-7/16"
100	4-3/4"	3-13/16"	3-13/16"

BRIDGE NUMBER

004B00021N

MINIMUM LAP SPLICES
#5 BAR - 2'-8"

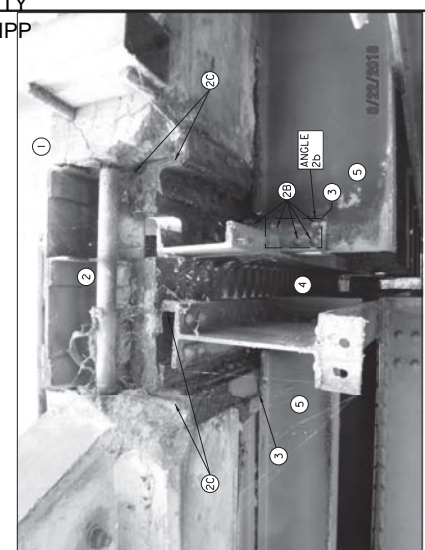
MARK	TYPE	NUMBER	SIZE	LENGTH FT	IN	BEND DIMENSIONS	
						A ft./in.	B ft./in.
6D01(E)	not used						
5D02(E)	STR.	72	# 5	13	3	1'-8"	4'-0"
6D03(S)(E)	5	144	# 6	5	4	1'-4-1/2"	1'-8"
5D04(S)(E)	2	144	# 5	4	5	1'-4-1/2"	1'-8"
6D05(S)(E)	5	72	# 6	3	6	1'-8"	1'-10"



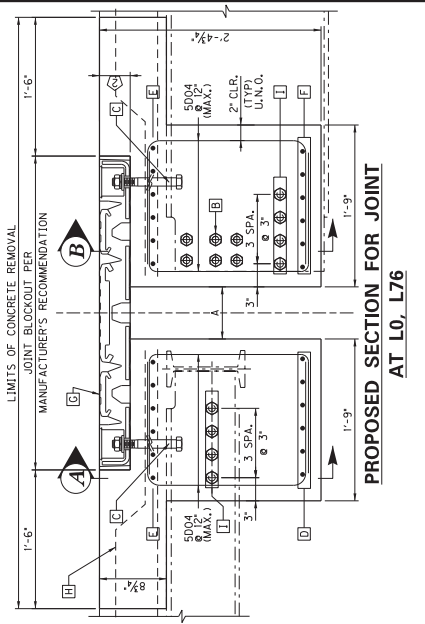
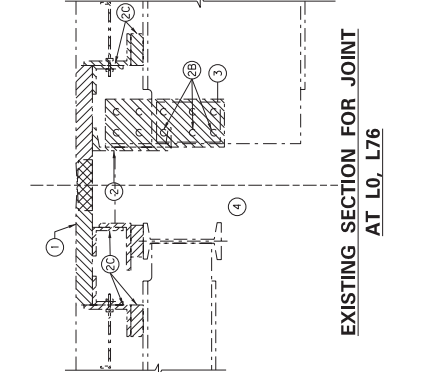
OVERLAY AT EXPANSION JOINTS

DATE: FEBRUARY, 2020	DESIGNED BY: R.M. DAMON	CHECKED BY: D.E. RUST
REVISION	DATE	
DETAILED BY: J.A. ROSE		R.M. DAMON
Commonwealth of Kentucky		
DEPARTMENT OF HIGHWAYS		
COUNTY: BALLARD		
ROUTE: US 51	CROSSING: OHIO RIVER	
PREPARED BY: FINGER DAM REPLACEMENT		
SHEET NO. 28288		
PROJECT NO. PALMER ENGINEERING CO.		

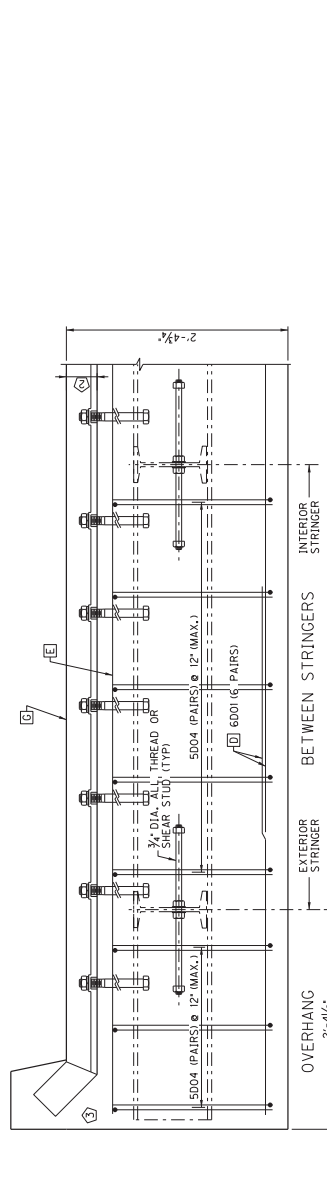
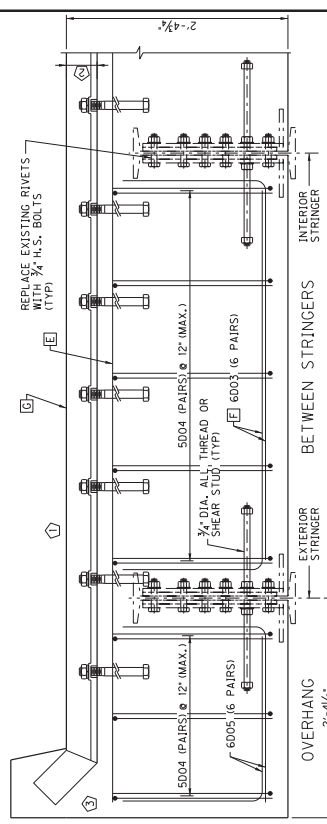
11x17 DRAWINGS CAN BE FOUND ON THE CONSTRUCTION PROCUREMENT WEBSITE UNDER PROJECT RELATED INFORMATION



- 1 REMOVE CONCRETE TO THE EXTENT OF THE BLOCKOUTS SHOWN ON THIS SHEET AND SHISL 504-505. EDGES OF CONCRETE SHALL BE NEAT AND FINISHED. ALL DEBRIS AND RUST SHALL BE REMOVED FROM JOINTS AND BE CLEANED FREE OF DEBRIS AND RUST. REMOVE FINGER PLATES.
 - 2 REMOVE CHANNELS BY REMOVING RIVETS ON CONNECTION ANGLE 2b.
 - 3 REMOVE CONNECTION ANGLES AND SPACERS
 - 4 REPLACE BOLTS IN-KIND, REPLACE RIVETS WITH EQUIVALENT DIAMETER HIGH STRENGTH BOLTS TENSIONED PER THE STANDARD SPECIFICATIONS. REMOVE AND REPLACE ONE BOLT AT A TIME.
 - 5 CLEAN RUST AT STRINGER ENDS WITHIN THE EXTENTS OF THE CONCRETE DIAPHRAGM.
- CONTRACTOR'S OPTION, DRILL 7/8" DIA. HOLES AND INSTALL ALL THREAD AS SHOWN IN JOINT SECTION AND DETAIL ON SHEET 506 OR INSTALL 7/8" x 6" HEADED STUDS AS SHOWN IN JOINT SECTION.
- NOTES:
1. CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE ANY MEMBERS TO REMAIN. ANY DAMAGE SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
2. SEE SPECIAL NOTE FOR REPLACING FINGER JOINTS WITH MODULAR JOINTS FOR PAINTING REQUIREMENTS AND ADDITIONAL INFORMATION.



FINGER JOINT REMOVAL AND STRINGER PREPARATION



- SEE JOINT SETTING TABLE
NEW H.S. BOLTS TO REPLACE RIVETS (TYP.)
ANCHOR BOLTS OVER STRINGER TOP FLANGES SHALL BE BOLTED TO TOP FLANGE
6001 5/8" 6001 SPACED AT 3' C/C.
5002 5/8" 5002 SPACED AT 3' C/C.
6003 OR 6005 BETWEEN STRINGERS
WATSON BOWMAN ACME OR EQUIVALENT SYSTEM.
INSTALL PER MANUFACTURER'S SPECIFICATIONS
FIELD BEND EXISTING SLAB REINFORCEMENT AS REQ'D.
CONTRACTOR'S OPTION, DRILL 7/8" DIA. HOLES AND INSTALL ALL THREAD AS SHOWN IN JOINT SECTION AND DETAIL ON SHEET 506 OR INSTALL 7/8" x 6" HEADED STUDS AT 3' C/C SPACING.

- REPLACE EXISTING RIVETS (TYP.)
5004 (PAIRS) Ø 12" (MAX.)
6005 (6 PAIRS)
5004 (PAIRS) Ø 12" (MAX.)
6005 (6 PAIRS)
3/4" DIA. ALL THREAD OR SHEAR STUD (TYP.)
6001 (6 PAIRS)
9'
OVERHANG 2'-4 1/2"
EXTERIOR STRINGER
BETWEEN STRINGERS
INTERIOR STRINGER



ANCHOR SPACING SHOWN IS APPROXIMATE.
INSTALL ANCHORS PER MANUFACTURER'S SPECIFICATIONS.
BLOCKOUT PER MANUFACTURER'S RECOMMENDATIONS
GUARDRAIL ANCHORAGE NOT SHOWN.
SEE SHEETS 503 AND 510 FOR DETAILS.

DATE: FEBRUARY, 2020
DESIGNED BY: R.M. DAMON
CHECKED BY: D.E. RUST
DETAILED BY: J.A. ROSE
R.M. DAMON
COMMUNALITY OF KENTUCKY
DEPARTMENT OF HIGHWAYS
ROUTE US 51
OHIO RIVER
CROSSING
BALLARD
FINGER DAM REPLACEMENT
REPRESENTED BY:
PALMER ENGINEERING CO.
SHEET NO. 28248

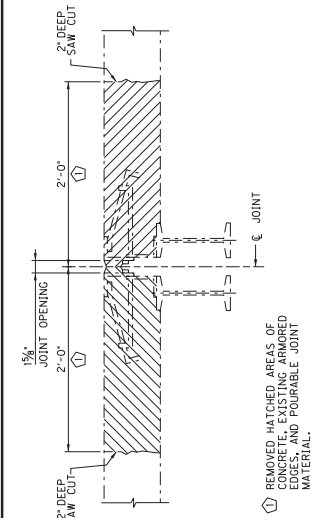
TEMPERATURE (DEGREES F)	LD	L76
30	7-13/16"	7-13/16"
40	7-3/4"	7-1/4"
50	6-3/4"	6-3/4"
60	6-3/4"	6-1/4"
70	5-3/4"	5-3/4"
80	5-1/4"	5-1/4"
90	4-11/16"	4-11/16"
100	4-3/16"	4-3/16"

MARK	TYPE	NUMBER	SIZE	LENGTH	LOCATION	BEND DIMENSIONS
6001(E)	STR	24	# 6	13	Bottom Diaphragm Bar	A: 1'-8" B: 1'-8"
6002(E)	STR	48	# 5	13	Top Diaphragm Bar	A: 1'-8" B: 1'-8"
6003(S)(E)	5	48	# 6	5	Diaphragm Bars in Bays	A: 1'-8" B: 1'-8"
6004(S)(E)	2	96	# 5	4	Diaphragm Stirrups	A: 1'-4-1/2" B: 1'-8"
6005(S)(E)	5	24	# 6	3	Overhang diaphragm bars	A: 1'-8" B: 1'-10"

MINIMUM LAP SPLICES
#5 BAR - 2'-9"
#6 BAR - 3'-6"

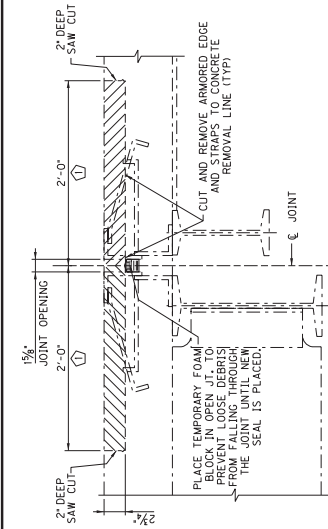
BRIDGE NUMBER
004B00021N

11x17 DRAWINGS CAN BE FOUND ON THE CONSTRUCTION PROCUREMENT WEBSITE UNDER PROJECT RELATED INFORMATION

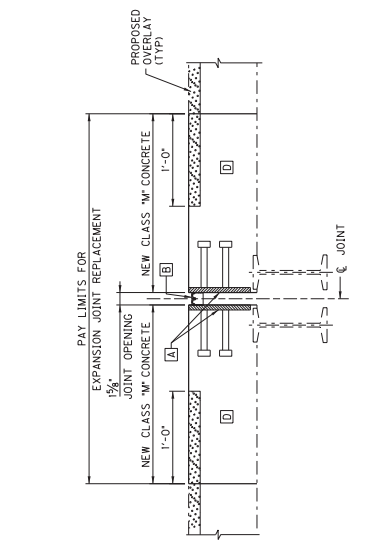


**EXISTING SECTION AT POURABLE JOINT
MAIN TRUSS SPANS**

TRUSS PANEL POINTS - 4, 8, 12, 17, 23, 30, 34, 37, 40, 47, 51, 54, 64, 68, 72

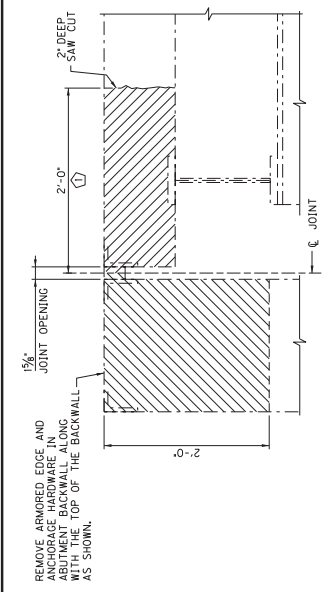


**EXISTING SECTION AT POURABLE JOINT
NORTH END OF SPANS 22 AND 24**

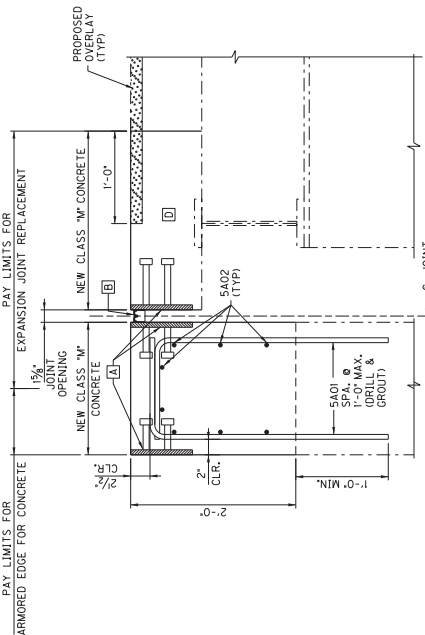


**PROPOSED SECTION AT POURABLE JOINT
MAIN TRUSS SPANS**

TRUSS PANEL POINTS - 4, 8, 12, 17, 23, 30, 34, 37, 40, 47, 51, 54, 64, 68, 72



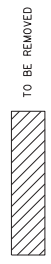
**EXISTING SECTION AT POURABLE JOINT
ILLINOIS ABUTMENT**



**PROPOSED SECTION AT POURABLE JOINT
ILLINOIS ABUTMENT**

SEE SPECIAL NOTE FOR REPLACING POURABLE JOINTS AND/OR INSTALLING ARMORED EDGES FOR CONCRETE ON BRIDGES FOR ADDITIONAL INFORMATION.

A ARMORED EDGE. SEE STD. DWG. BJE-001, C-6.
 B USE ENSEAL-BE'S OR EQUIVALENT SYSTEM. THE JOINT OPENING IS 1 1/2" AT 60°.
 C USE CORNER TRANSITIONS PER THE MANUFACTURER'S SPECIFICATIONS
 D EMCRETE ELASTOMERIC NOSING OR APPROVED EQUAL
 E CLEAN AND LEAVE EXISTING DECK REINFORCEMENT IN PLACE



BAR BILL - ILLINOIS ABUTMENT JOINT REPLACEMENT

MARK	TYPE	NUMBER	SIZE	LENGTH		LOCATION	
				FT	IN	FT./IN.	FT./IN.
5A01(E)	STR.	46	#5	4	8	BACKWALL	2'-10"
5A02(E)	STR.	16	#5	11	3	BACKWALL	0'-8"

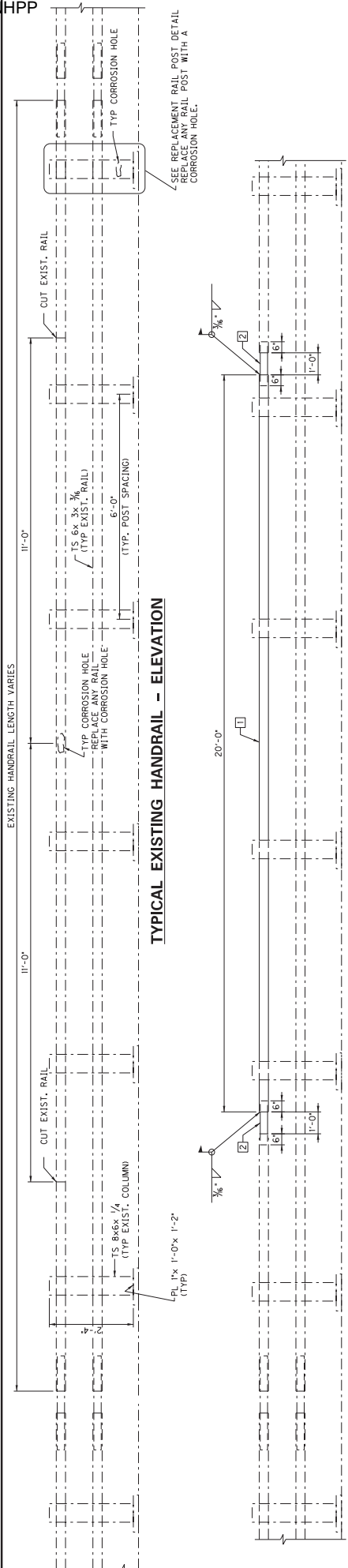
*5 MECHANICAL COUPLERS REQUIRED = 16

NOTE: FIELD VERIFY ALL BAR DIMENSIONS PRIOR TO PLACING REINFORCEMENT ORDER

DATE: FEBRUARY, 2020	CHECKED BY: D.E. RUST
DESIGNED BY: L.M. SALLEE	D.E. RUST
DETAILED BY: J.A. ROSE	D.E. RUST
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS	
COUNTY BALLARD	
ROUTE US 51	CROSSING OHIO RIVER
PROJECT NO. POURABLE JOINT REPLACEMENT	
PREPARED BY: PALMER ENGINEERING CO.	
SHEET NO. 28248	

BRIDGE NUMBER
004B00021N

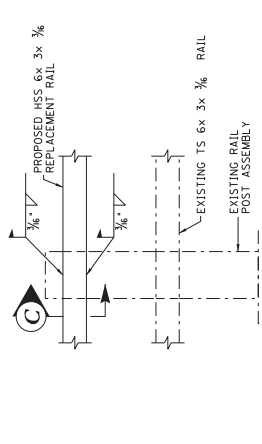
11x17 DRAWINGS CAN BE FOUND ON THE CONSTRUCTION PROCUREMENT WEBSITE UNDER PROJECT RELATED INFORMATION



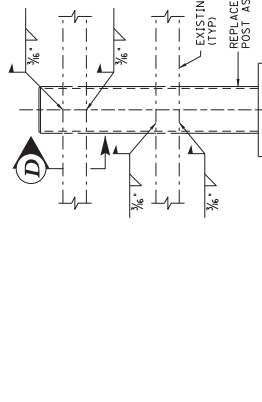
TYPICAL EXISTING HANDRAIL - ELEVATION

TYPICAL HANDRAIL REPAIR - ELEVATION

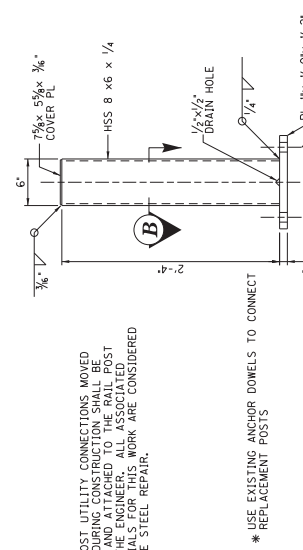
- 1] REPLACEMENT RAIL SECTION
20'-0" LONG HSS 6x 3x 3/8
- 2] ADJUSTABLE RAIL CONNECTION
FIELD WELD ONCE REPLACEMENT
RAIL IS IN PLACE



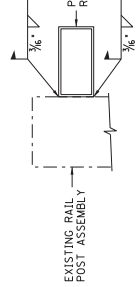
EXISTING RAIL POST CONNECTION DETAIL



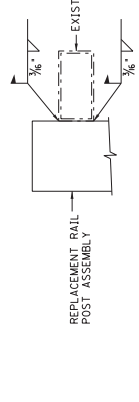
REPLACEMENT RAIL POST CONNECTION DETAIL



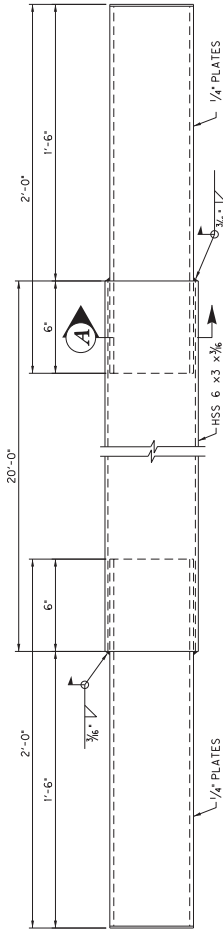
RAIL POST DETAIL



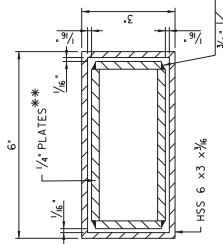
SECTION C



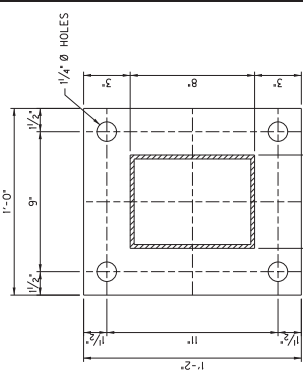
SECTION D



REPLACEMENT RAIL DETAIL



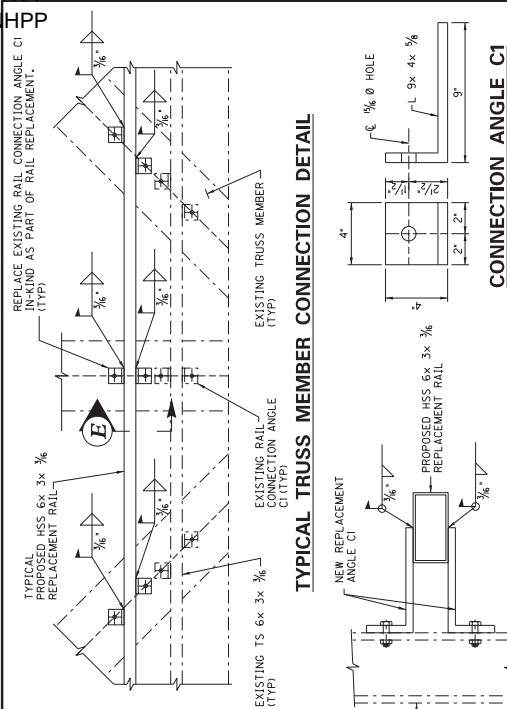
SECTION A



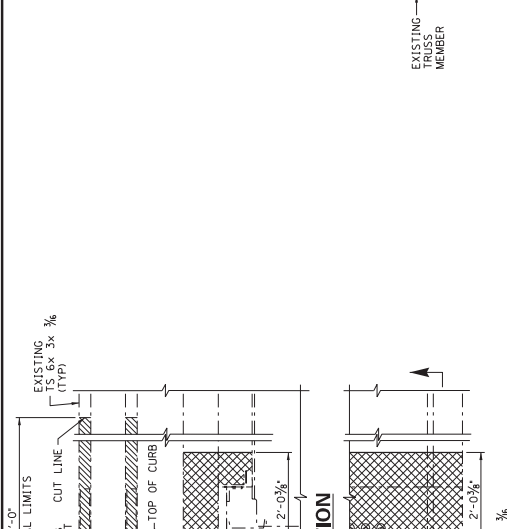
SECTION B

SEE SPECIAL NOTE FOR STEEL BRIDGE RAILING REPAIRS* FOR ADDITIONAL INFORMATION

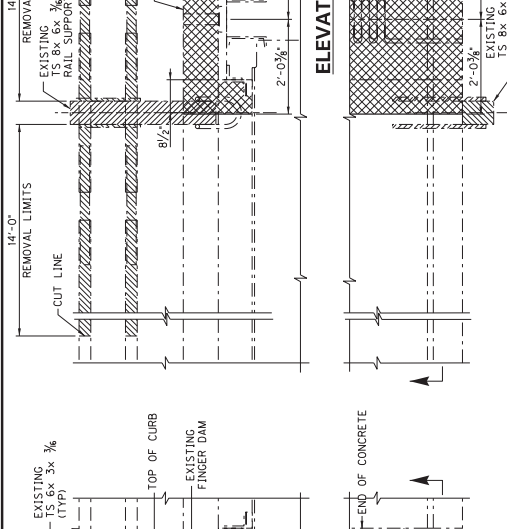
REVISION	DATE
DESIGNED BY: L.M. SALLEE	CHECKED BY: D.H. DEITZ
DATE: FEBRUARY, 2020	DESIGNED BY: L.M. SALLEE
DETAILED BY: J.A. ROSE	L.M. SALLEE
Commonwealth of Kentucky	
DEPARTMENT OF HIGHWAYS	
ROUTE US 51	
OHIO RIVER	
STEEL BRIDGE RAIL REPAIR	
PREPARED BY: PALMER ENGINEERING CO.	
BRIDGE NUMBER: 004B00021N	
SHEET NO. 28248	



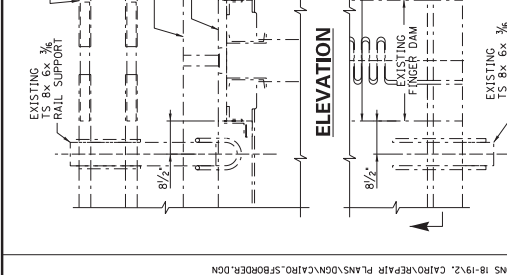
CONNECTION ANGLE C1



SECTION E



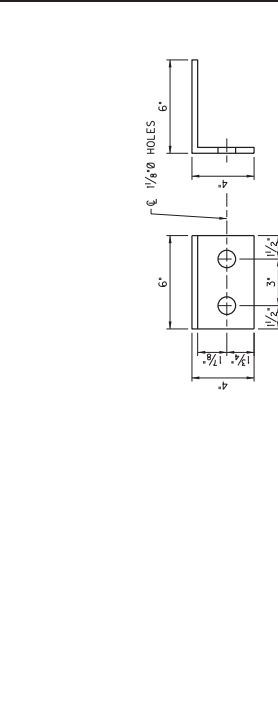
CONNECTION ANGLE - C2



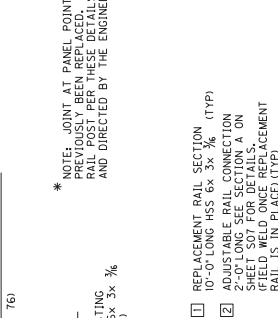
DETAIL "B"



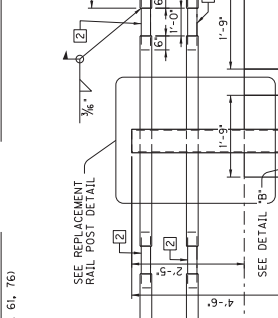
DETAIL "A"



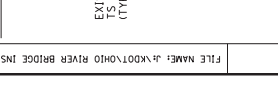
PLAN - EXISTING RAIL AND SUPPORT REMOVAL
(PANEL POINTS - 0, 19, 27, 44, 61, 76)



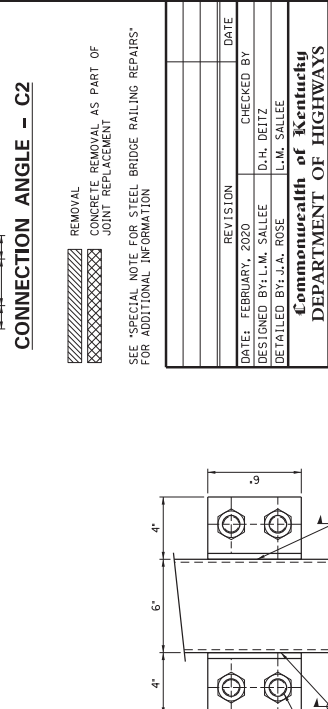
PLAN - EXISTING RAIL SUPPORT
(PANEL POINTS - 0, 19, 27, 44, 61, 76)



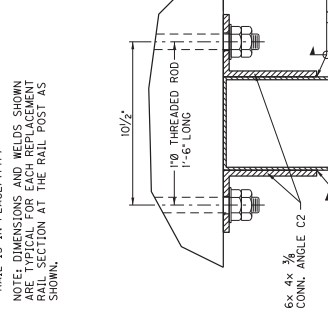
PLAN - NEW RAIL POST AND RAIL REPLACEMENT
(PANEL POINTS - 0, 19, 27, 44, 61, 76)



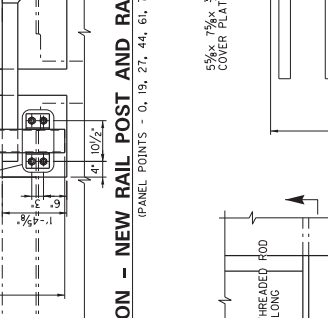
PLAN - NEW RAIL POST ANCHORAGE
(PANEL POINTS - 0, 19, 27, 44, 61, 76)



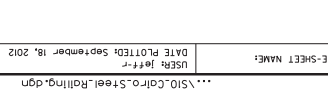
ELEVATION



ELEVATION



ELEVATION



REPLACEMENT RAIL POST

* NOTE: JOINT AT PANEL POINT 27 HAS PREVIOUSLY BEEN REPLACED. ONLY REPLACE RAIL POST FOR THESE DETAILS IF DAMAGED AND DIRECTED BY THE ENGINEER.

- 1 REPLACEMENT RAIL SECTION (TYP.)
- 2 ADJUSTABLE RAIL CONNECTION 2'-0\"/>

NOTE: DIMENSIONS AND WELDS SHOWN ARE FOR THE RAIL SECTION AT THE RAIL POST AS SHOWN.

SEE REPLACEMENT RAIL POST DETAIL

SEE DETAIL "B"

ELEVATION - NEW RAIL POST AND RAIL REPLACEMENT
(PANEL POINTS - 0, 19, 27, 44, 61, 76)

ELEVATION - NEW RAIL POST ANCHORAGE
(PANEL POINTS - 0, 19, 27, 44, 61, 76)

REVISION	DATE

DESIGNED BY: L.M. SALLEE
CHECKED BY: D.H. DEITZ
DATE: FEBRUARY, 2020
DETAILED BY: J.A. ROSE
L.M. SALLEE

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

ROUTE US 51
BRIDGE NUMBER 004B00021N

STEEL BRIDGE RAIL REPAIR
PREPARED BY: BALLARD ENGINEERING CO.
28288

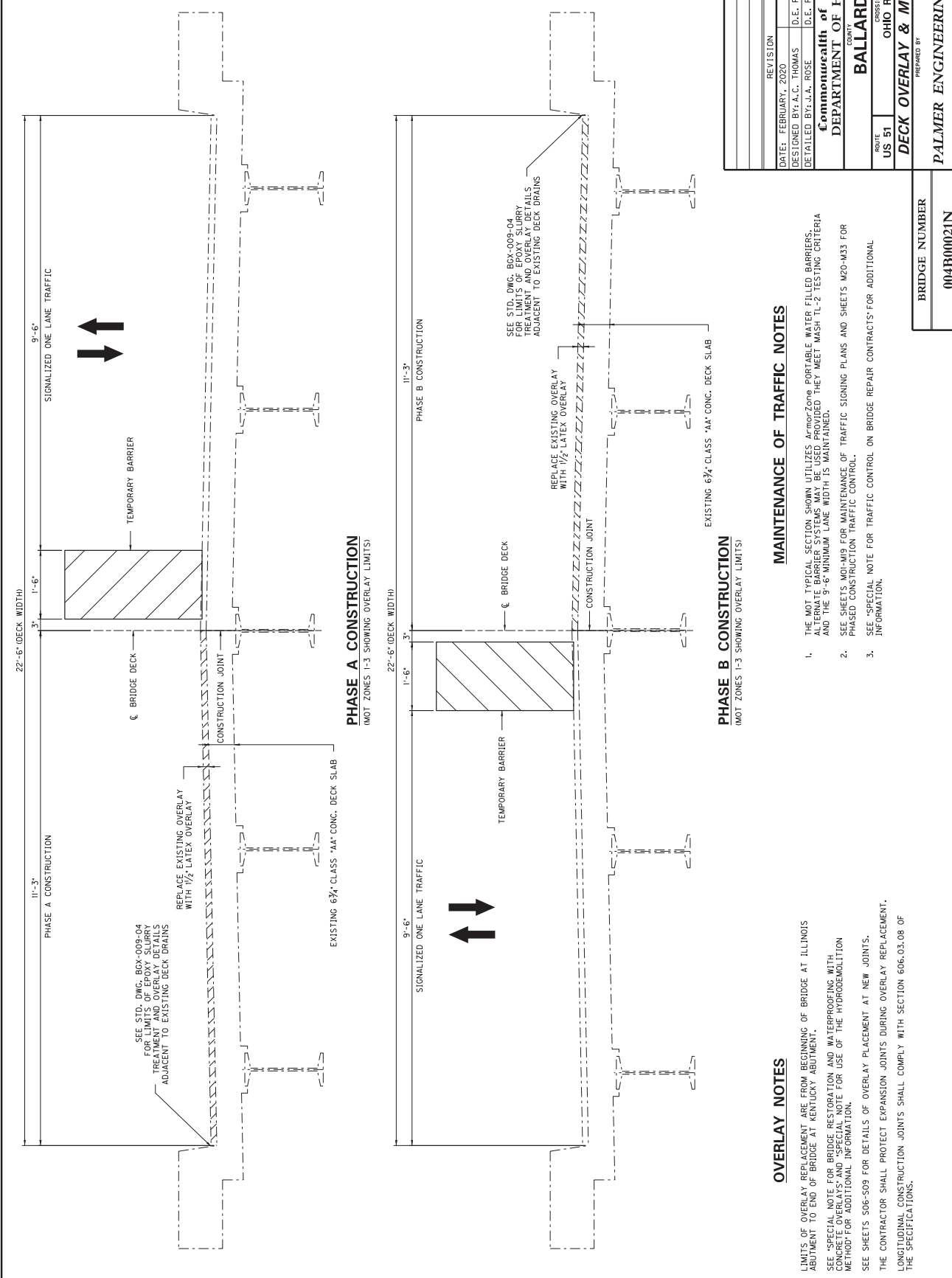
CONTRACTOR SHALL VERIFY THAT CONTRACTOR SHALL NOT BE RESPONSIBLE FOR DETERMINING THE PROPER LOCATION OF THE RAIL CONNECTION TO THE RAIL SUPPORT.

REMOVAL
CONCRETE REMOVAL AS PART OF JOINT REPLACEMENT

SEE *SPECIAL NOTE FOR STEEL BRIDGE RAIL REPAIRS* FOR ADDITIONAL INFORMATION

REPLACEMENT RAIL POST

REPLACEMENT RAIL POST



PHASE A CONSTRUCTION
(MOT ZONES 1-3 SHOWING OVERLAY LIMITS)

PHASE B CONSTRUCTION
(MOT ZONES 1-3 SHOWING OVERLAY LIMITS)

OVERLAY NOTES

1. LIMITS OF OVERLAY REPLACEMENT ARE FROM BEGINNING OF BRIDGE AT ILLINOIS ABUTMENT TO END OF BRIDGE AT KENTUCKY ABUTMENT.
2. SEE "SPECIAL NOTE FOR BRIDGE RESTORATION AND WATERPROOFING WITH CONCRETE OVERLAYS" AND "SPECIAL NOTE FOR USE OF THE HYDRODEMOLITION METHOD FOR ADDITIONAL INFORMATION.
3. SEE SHEETS 506-509 FOR DETAILS OF OVERLAY PLACEMENT AT NEW JOINTS.
4. THE CONTRACTOR SHALL PROTECT EXPANSION JOINTS DURING OVERLAY REPLACEMENT.
5. LONGITUDINAL CONSTRUCTION JOINTS SHALL COMPLY WITH SECTION 606.03.08 OF THE SPECIFICATIONS.

MAINTENANCE OF TRAFFIC NOTES

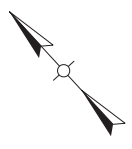
1. THE MOT TYPICAL SECTION SHOWN UTILIZES ArmorZone® PORTABLE WATER FILLED BARRIERS. ALTERNATE BARRIER SYSTEMS MAY BE USED PROVIDED THEY MEET MASH TL-2 TESTING CRITERIA AND THE 9'-6" MINIMUM LANE WIDTH IS MAINTAINED.
2. SEE SHEETS M0-M9 FOR MAINTENANCE OF TRAFFIC SIGNING PLANS AND SHEETS M20-M33 FOR PHASED CONSTRUCTION TRAFFIC CONTROL.
3. SEE "SPECIAL NOTE FOR TRAFFIC CONTROL ON BRIDGE REPAIR CONTRACTS" FOR ADDITIONAL INFORMATION.

REVISION	DATE
DESIGNED BY: A.C. THOMAS	CHECKED BY: D.E. RUST
DETAILED BY: J.A. ROSE	D.E. RUST
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS	
COUNTY BALLARD	
ROUTE US 51	CROSSING OHIO RIVER
PREPARED BY: DECK OVERLAY & MOT TYPICAL	
SHEET NO. 51	
PROJECT NO. 28248	
ENGINEERING CO. PALMER ENGINEERING CO.	

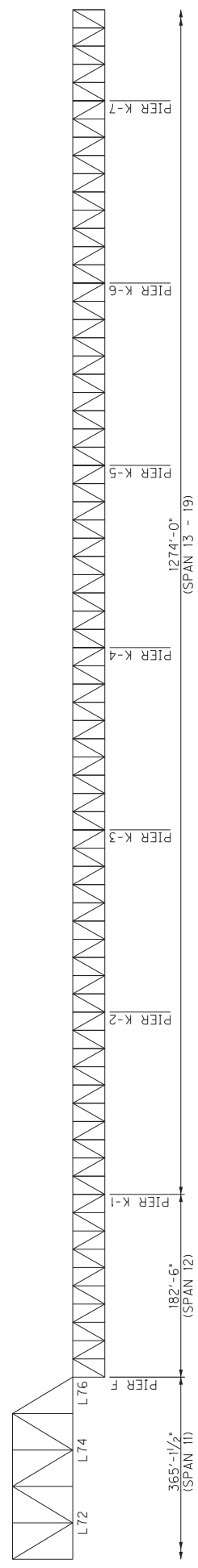
BRIDGE NUMBER	004B00021N
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Power InRoads v8.11.5.197
E-SHEET NAME:
DATE PLOTTED: September 18, 2012
USER: joffr

FILE NAME: J:\MOT\OHIO RIVER BRIDGE INSPECTIONS 18-19\2_CAD\REPAIR PLANS\CONC\CAPO_SFORDER.DGN
2/13/2020
4:12:37 PM



KENTUCKY

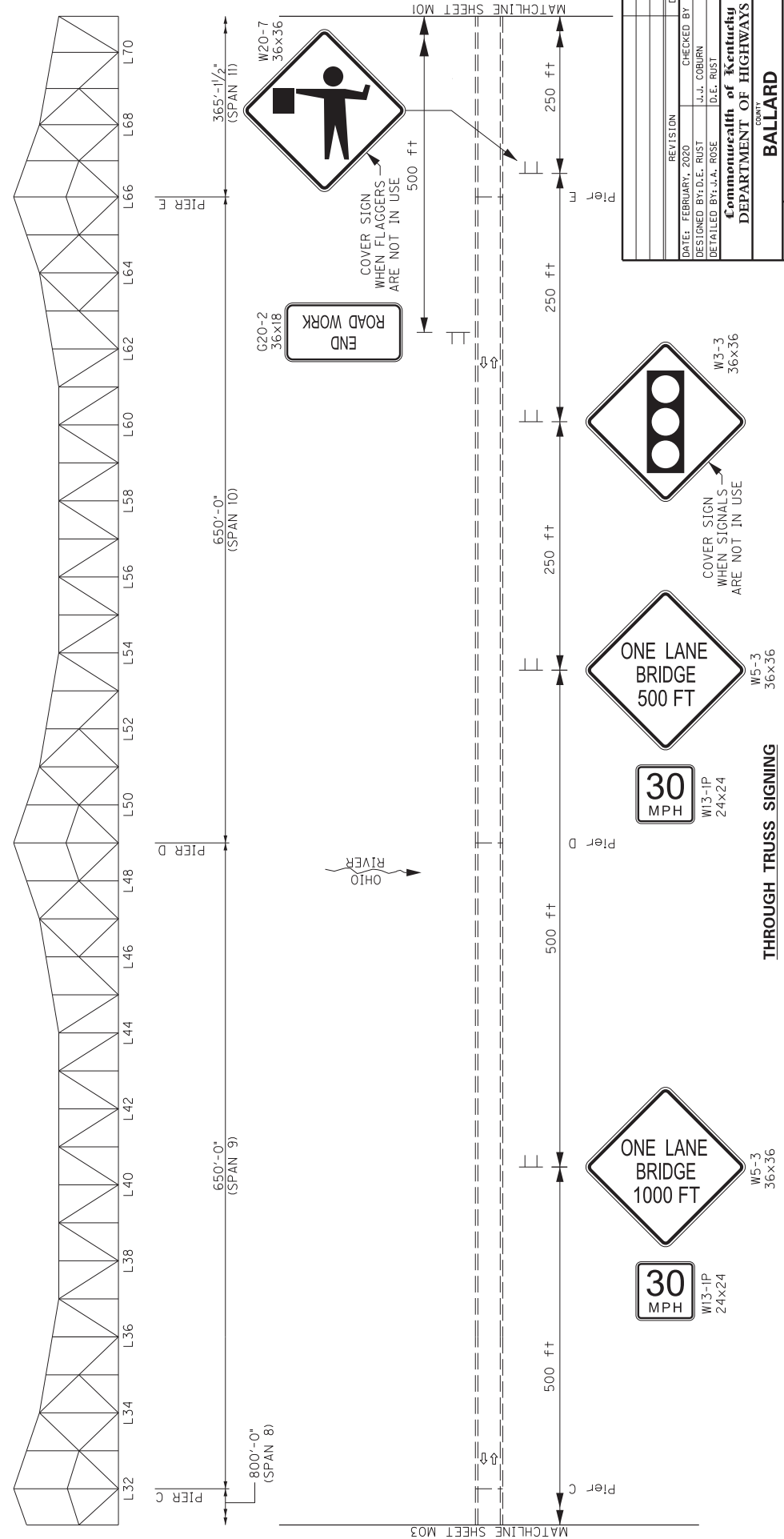
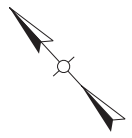


THROUGH TRUSS SIGNING

REVISION	DATE	CHECKED BY
FEBRUARY, 2020	FEBRUARY, 2020	J.J. COBURN
DESIGNED BY: D.E. RUST	DETAILED BY: J.A. ROSE	D.E. RUST
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY BALLARD CROSSING OHIO RIVER		
ROUTE US 51		
MOT ZONE 1 SIGNING PREPARED BY PALMER ENGINEERING CO.		
SHEET NO.		28288
PROJECT NO.		004B00021N

BRIDGE NUMBER	004B00021N
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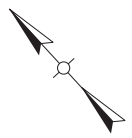
MOT ZONE 1 CONSTRUCTION AND TRAFFIC CONTROL
(SEE SHEETS M20-M21 FOR PHASE A AND SHEETS M22-M23 FOR PHASE B)



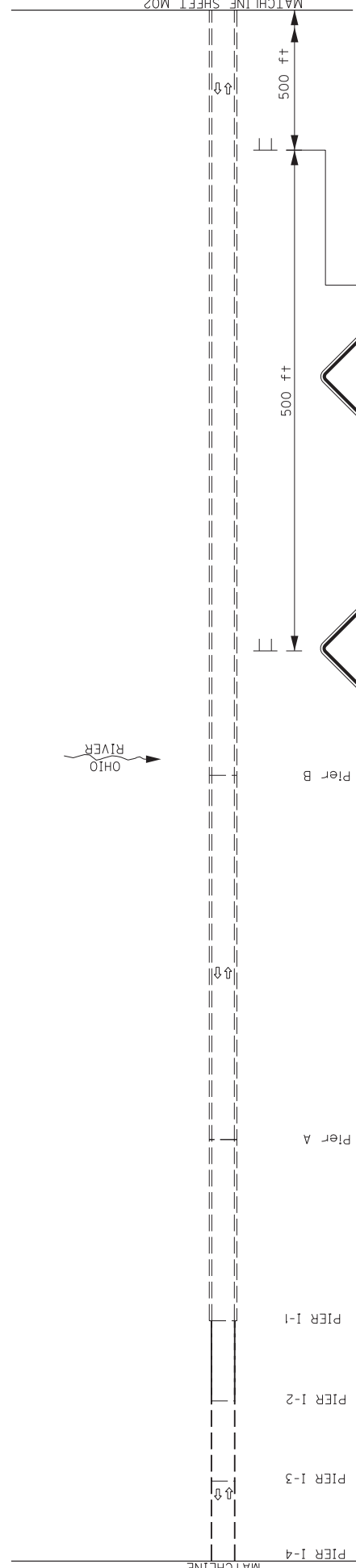
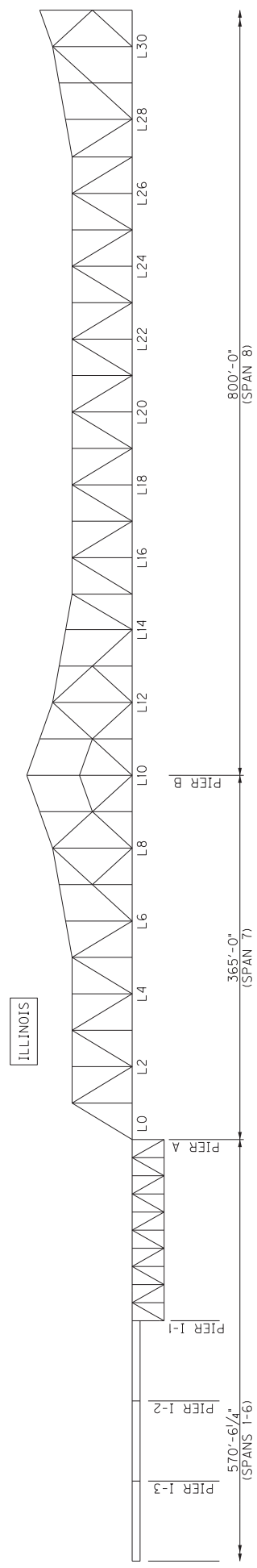
REVISION	DATE	CHECKED BY
DESIGNED BY: D.E. RUST	FEBRUARY, 2020	J.J. COBURN
DETAILED BY: J.A. ROSE		D.E. RUST
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY BALLARD		
ROUTE US 51		
CROSSING OHIO RIVER		
MOT ZONE 1 SIGNING		
PREPARED BY: PALMER ENGINEERING CO.		
SHEET NO. 28248		

BRIDGE NUMBER 004B00021N

11x17 DRAWINGS CAN BE FOUND ON THE CONSTRUCTION PROCUREMENT WEBSITE UNDER PROJECT RELATED INFORMATION



2-020

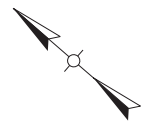


THROUGH TRUSS SIGNING

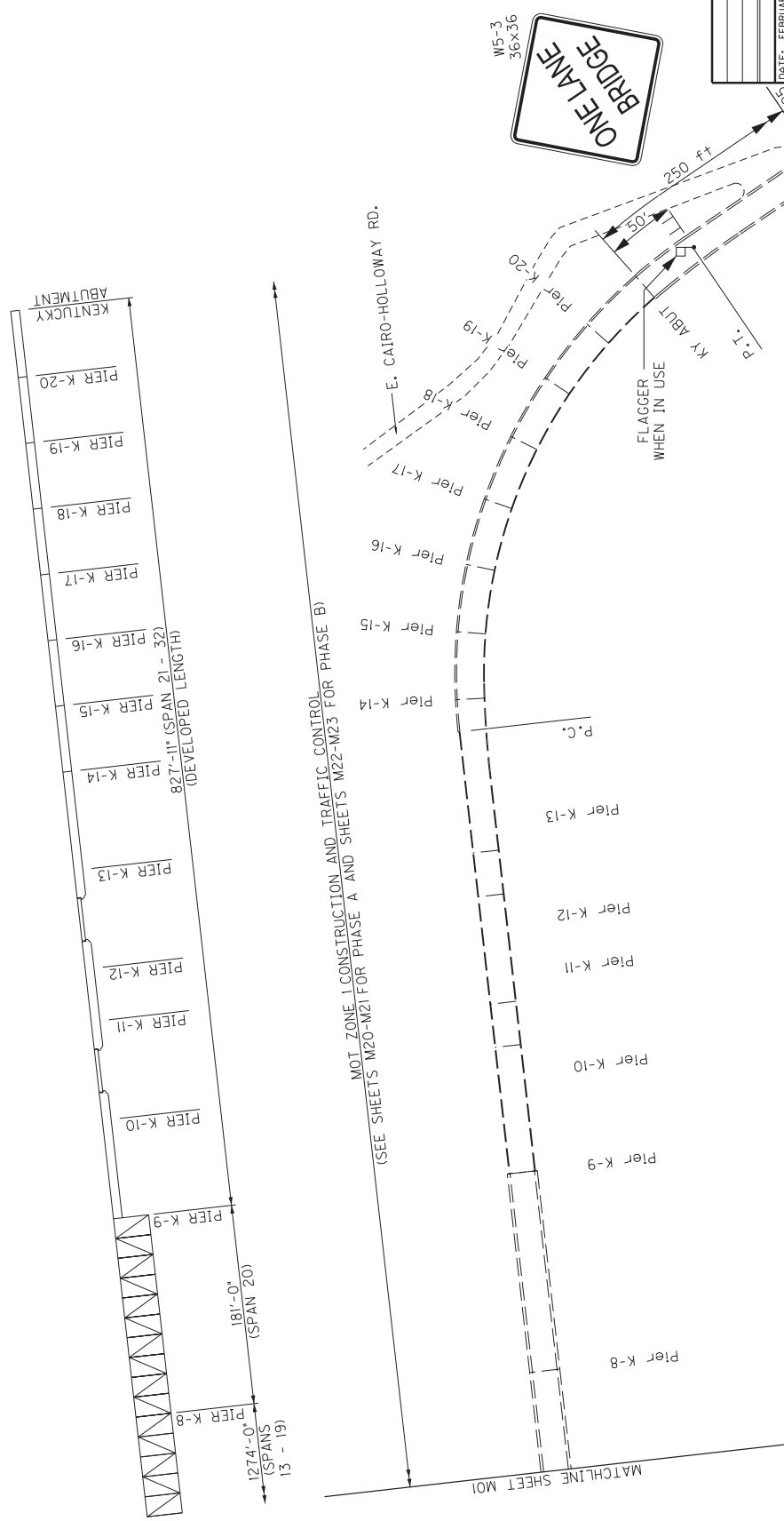
REVISION	DATE	CHECKED BY
DESIGNED BY: D.E. RUST	FEBRUARY, 2020	J.J. COBURN
DETAILED BY: J.A. ROSE		D.E. RUST
Commonwealth of Kentucky		
DEPARTMENT OF HIGHWAYS		
COUNTY BALLARD		
CROSSING OHIO RIVER		
ROUTE US 51		
MOT ZONE 1 SIGNING		
PREPARED BY PALMER ENGINEERING CO.		
SHEET NO. MO3		
PROJECT NO. 28248		

BRIDGE NUMBER	004B00021N
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11x17 DRAWINGS CAN BE FOUND ON THE CONSTRUCTION PROCUREMENT WEBSITE UNDER PROJECT RELATED INFORMATION



TO WICKLIFFE
KENTUCKY



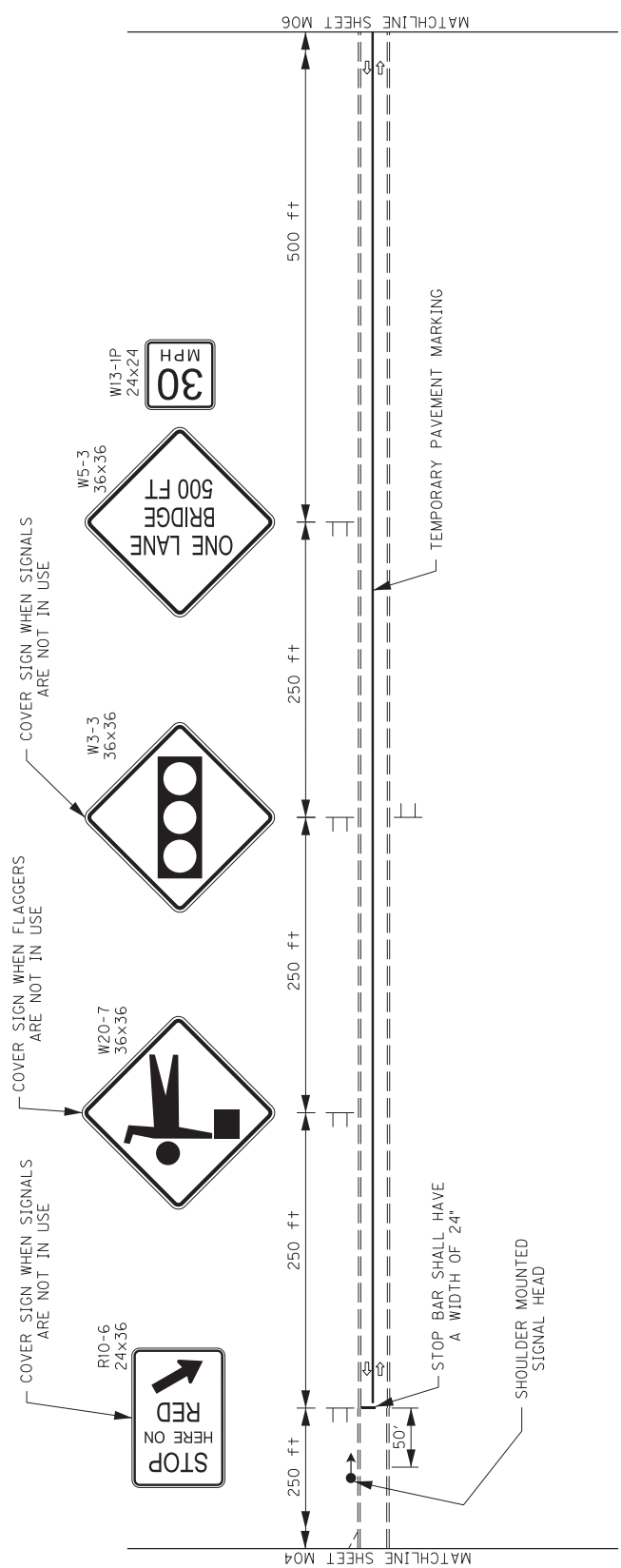
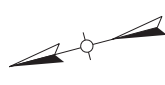
MOT. ZONE 1 CONSTRUCTION AND TRAFFIC CONTROL
(SEE SHEETS M20-M21 FOR PHASE A AND SHEETS M22-M23 FOR PHASE B)

KENTUCKY APPROACH SIGNING



REVISION	DATE	CHECKED BY
DESIGNED BY: D.E. RUST	FEBRUARY, 2020	J.J. COBURN
DETAILED BY: J.A. ROSE		D.E. RUST
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY BALLARD		
CROSSING OHIO RIVER		
ROUTE US 51		
MOT. ZONE 1 SIGNING		
PREPARED BY: PALMER ENGINEERING CO.		
SHEET NO. M04		
TOTAL SHEETS 282		

BRIDGE NUMBER	004B00021N
---------------	------------

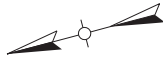


KENTUCKY APPROACH SIGNING

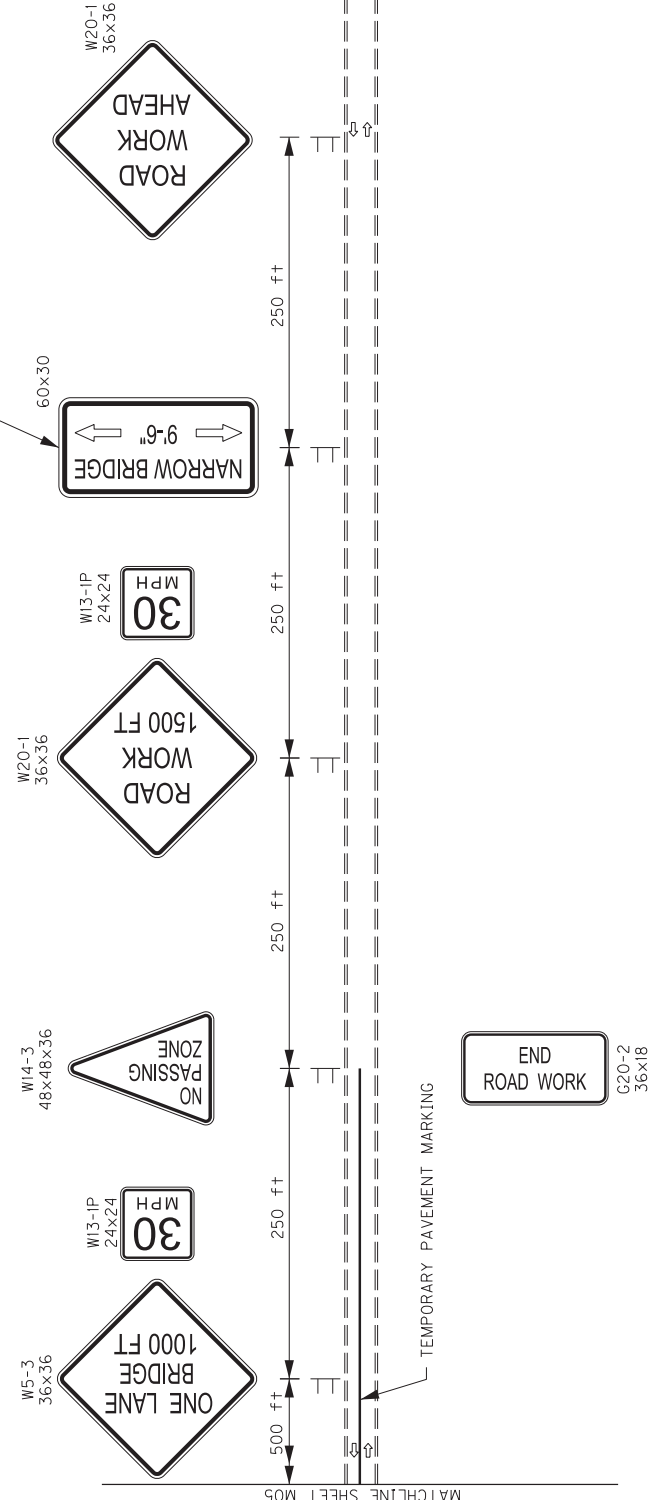
REVISION	DATE	CHECKED BY
	FEBRUARY, 2020	J.J. COBURN
DESIGNED BY: D.E. RUST	DETAILED BY: J.A. ROSE	D.E. RUST
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY BALLARD		
ROUTE US 51	CROSSING OHIO RIVER	
PROJECT NO. MOT ZONE 1 SIGNING		
PREPARED BY PALMER ENGINEERING CO.		
SHEET NO. 282		

BRIDGE NUMBER 004B00021N

11x17 DRAWINGS CAN BE FOUND ON THE CONSTRUCTION PROCUREMENT WEBSITE UNDER PROJECT RELATED INFORMATION



LEAVE THIS SIGN IN PLACE
FOR MOT ZONE 2 AND MOT
ZONE 3 CONSTRUCTION

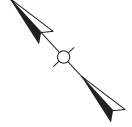


KENTUCKY APPROACH SIGNING

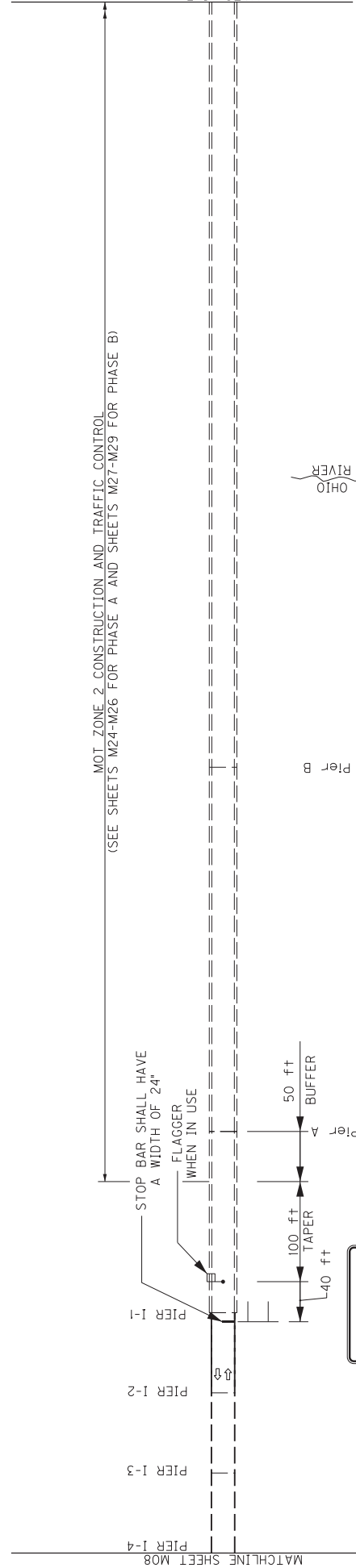
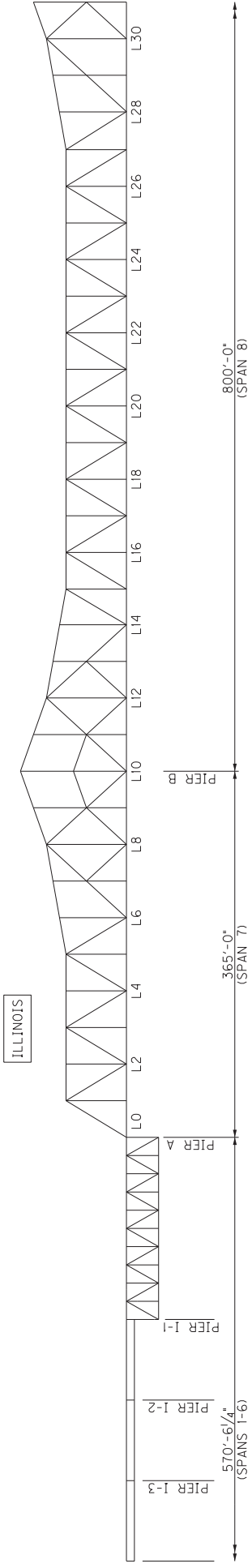
REVISION	DATE
DESIGNED BY: D.E. RUST	CHECKED BY: J.J. COBURN
DETAILED BY: J.A. ROSE	D.E. RUST
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS	
COUNTY BALLARD	
ROUTE US 51	CROSSING OHIO RIVER
PROJECT NO. MOT ZONE 1 SIGNING	
PREPARED BY: PALMER ENGINEERING CO.	
SHEET NO. 28248	

BRIDGE NUMBER 004B00021N

11x17 DRAWINGS CAN BE FOUND ON THE CONSTRUCTION PROCUREMENT WEBSITE UNDER PROJECT RELATED INFORMATION



2-020



REVISION	DATE
FEBRUARY, 2020	

DESIGNED BY: D.E. RUST
CHECKED BY: J.J. COBURN
DETAILED BY: J.A. ROSE
D.E. RUST

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

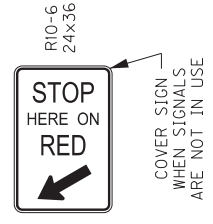
ROUTE US 51
OHIO RIVER

BALLARD
COUNTY

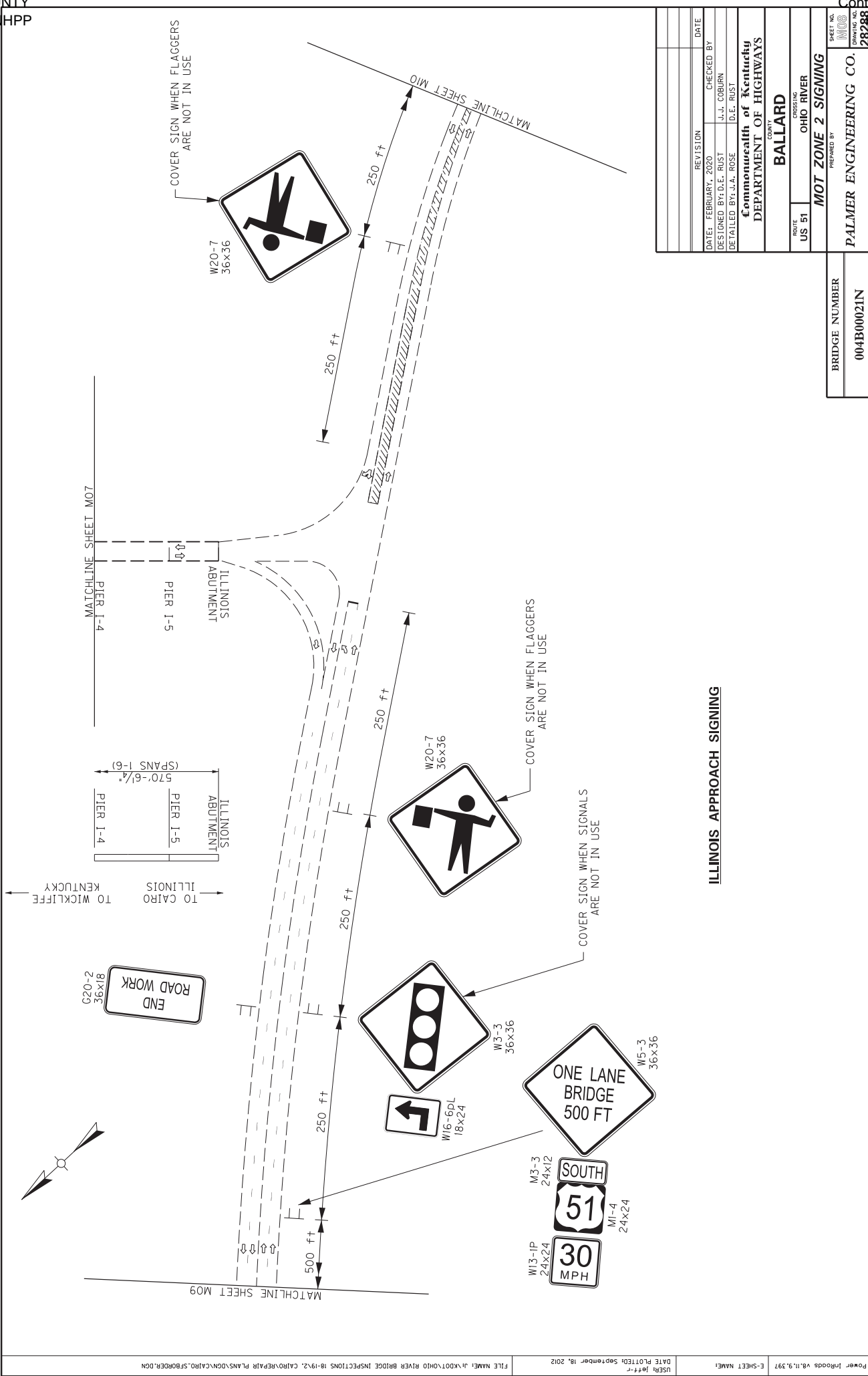
MOT_ZONE 2 SIGNING
PREPARED BY: PALMER ENGINEERING CO. 28248

SHEET NO. 107
PROJECT NO. 28248

ILLINOIS APPROACH SIGNING



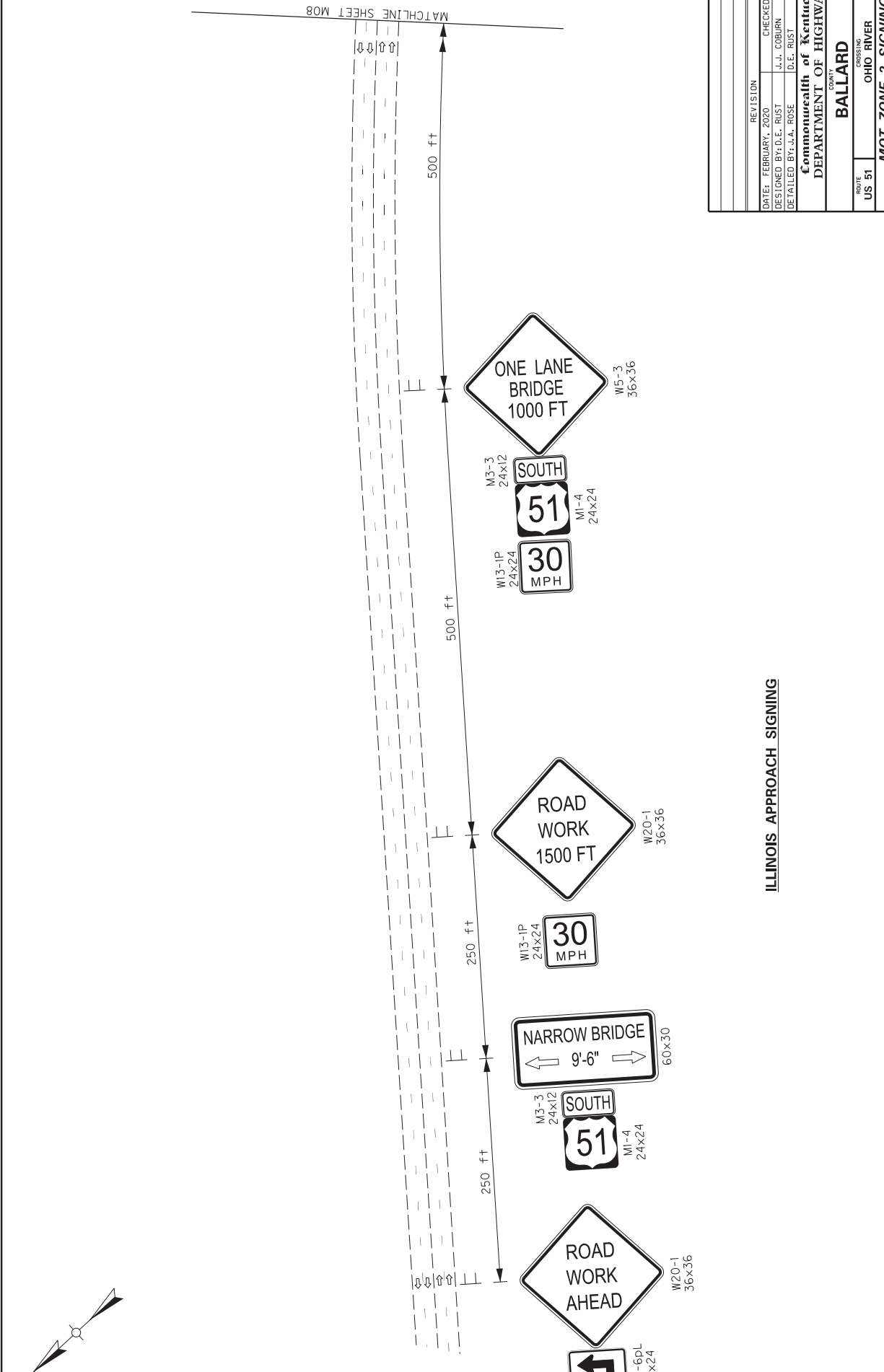
11x17 DRAWINGS CAN BE FOUND ON THE CONSTRUCTION PROCUREMENT WEBSITE UNDER PROJECT RELATED INFORMATION



ILLINOIS APPROACH SIGNING

REVISION	DATE
DESIGNED BY: D.E. RUST	CHECKED BY: J.J. COBURN
DETAILED BY: J.A. ROSE	D.E. RUST
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS	
COUNTY: BALLARD	
ROUTE: US 51	CROSSING: OHIO RIVER
MOT ZONE 2 SIGNING	
PREPARED BY: PALMER ENGINEERING CO.	
SHEET NO. 28248	PROJECT NO. 004B00021N

11x17 DRAWINGS CAN BE FOUND ON THE CONSTRUCTION PROCUREMENT WEBSITE UNDER PROJECT RELATED INFORMATION

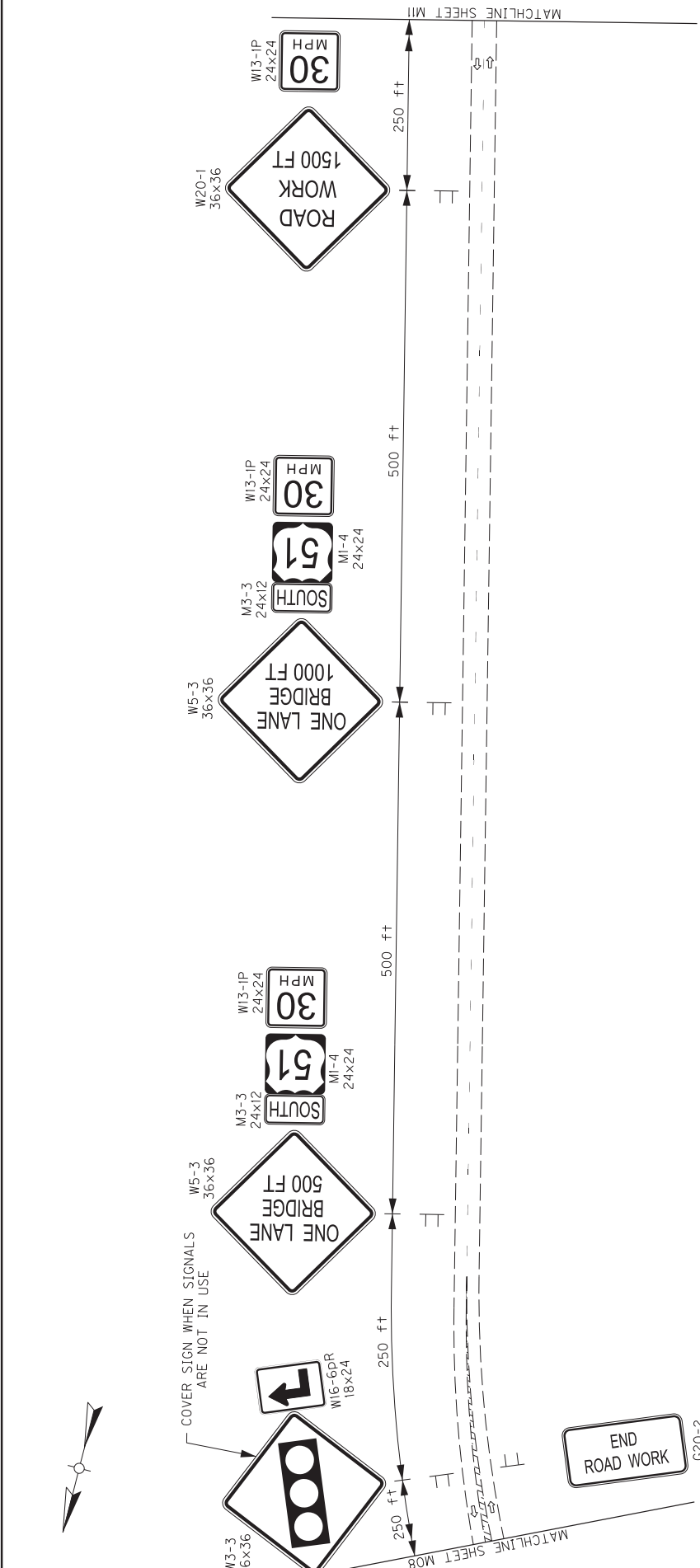


ILLINOIS APPROACH SIGNING

REVISION	DATE
DESIGNED BY: D.E. RUST	CHECKED BY: J.J. COBURN
DETAILED BY: J.A. ROSE	D.E. RUST
Commonwealth of Kentucky	
DEPARTMENT OF HIGHWAYS	
COUNTY	
BALLARD	
CROSSING	
OHIO RIVER	
ROUTE	
US 51	
PROJECT	
MOT ZONE 2 SIGNING	
PREPARED BY:	
PALMER ENGINEERING CO.	
PROJECT NO.	
28248	

BRIDGE NUMBER	004B00021N
SHEET NO.	124

11x17 DRAWINGS CAN BE FOUND ON THE CONSTRUCTION PROCUREMENT WEBSITE UNDER PROJECT RELATED INFORMATION

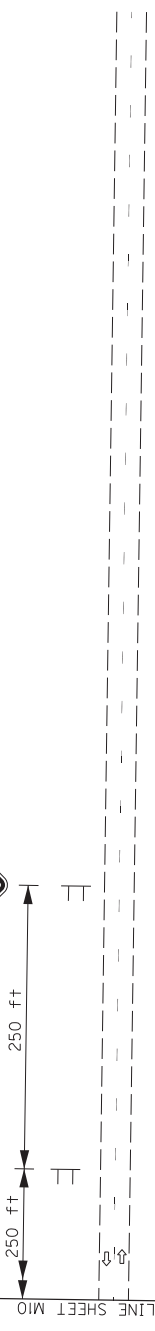
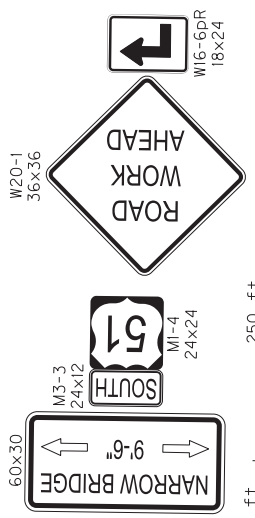
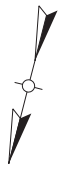


ILLINOIS APPROACH SIGNING

REVISION	DATE
DESIGNED BY: D.E. RUST	CHECKED BY: J.J. COBURN
DETAILED BY: J.A. ROSE	D.E. RUST
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS	
COUNTY: BALLARD	
ROUTE: US 51	CROSSING: OHIO RIVER
MOT ZONE 2 SIGNING	
PREPARED BY: PALMER ENGINEERING CO.	
SHEET NO. 110	TOTAL SHEETS 282

BRIDGE NUMBER	004B00021N
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11x17 DRAWINGS CAN BE FOUND ON THE CONSTRUCTION PROCUREMENT WEBSITE UNDER PROJECT RELATED INFORMATION

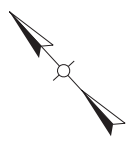


ILLINOIS APPROACH SIGNING

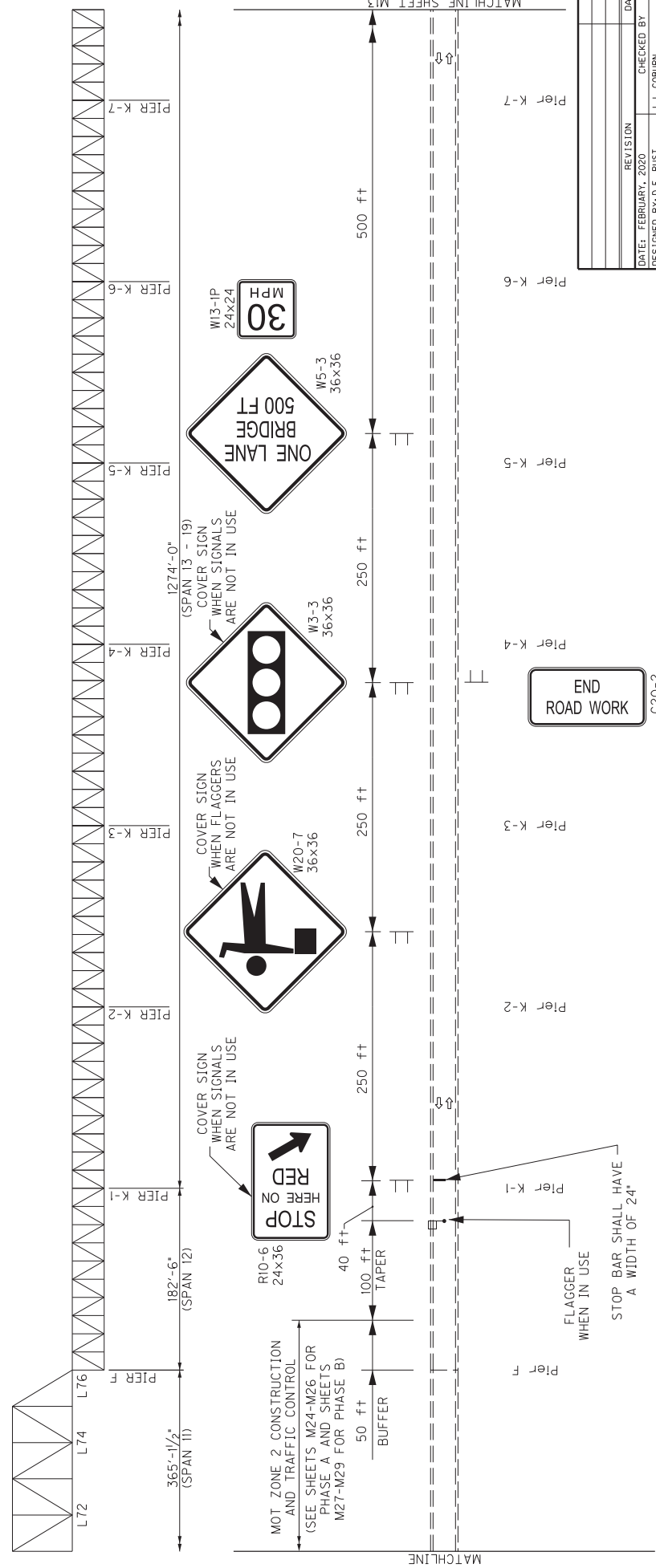
REVISION	DATE
DESIGNED BY: D.E. RUST	CHECKED BY: J.J. COBURN
DETAILED BY: J.A. ROSE	D.E. RUST
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS	
COUNTY BALLARD	
ROUTE US 51	CROSSING OHIO RIVER
PROJECT MOT ZONE 2 SIGNING	
PREPARED BY: PALMER ENGINEERING CO.	
SHEET NO. MOT RESULTS 28248	

BRIDGE NUMBER 004B00021N

11x17 DRAWINGS CAN BE FOUND ON THE CONSTRUCTION PROCUREMENT WEBSITE UNDER PROJECT RELATED INFORMATION



KENTUCKY



MATCHLINE

MATCHLINE SHEET M13

REVISION	DATE
DATE: FEBRUARY, 2020	
DESIGNED BY: D.E. RUST	CHECKED BY: J.J. COBURN
DETAILED BY: J.A. ROSE	D.E. RUST
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS	
<small>COUNTY</small> BALLARD	
<small>ROUTE</small> US 51	
<small>CROSSING</small> OHIO RIVER	
MOT ZONE 2 SIGNING	
PREPARED BY: PALMER ENGINEERING CO.	
SHEET NO.	28288
TOTAL SHEETS	102

KENTUCKY APPROACH SIGNING

BRIDGE NUMBER	004B00021N
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END ROAD WORK
G20-2
36x18

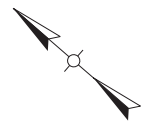
FLAGGER WHEN IN USE
STOP BAR SHALL HAVE A WIDTH OF 24"

COVER SIGN WHEN SIGNALS ARE NOT IN USE

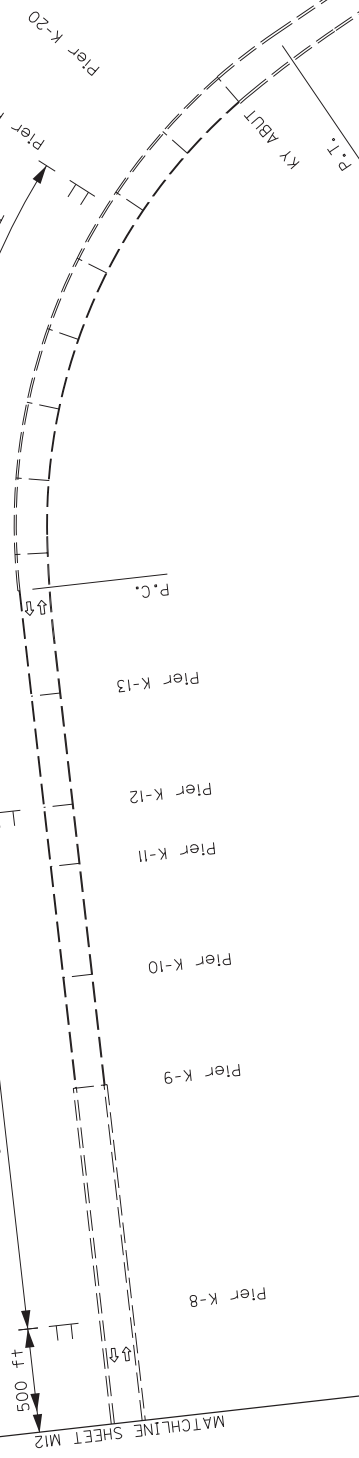
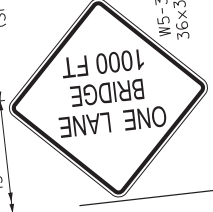
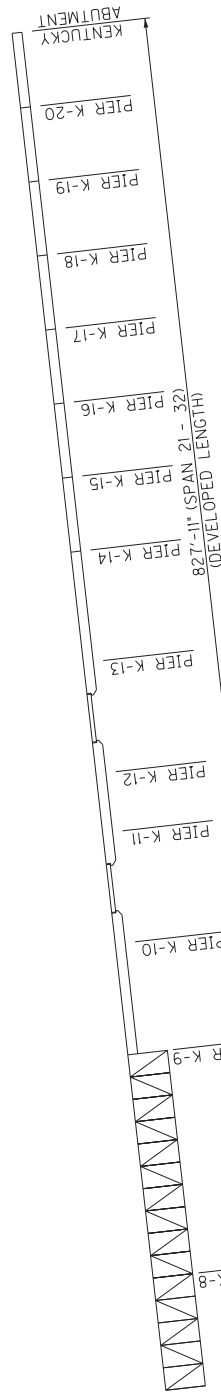
COVER SIGN WHEN FLAGGERS ARE NOT IN USE

COVER SIGN WHEN SIGNALS ARE NOT IN USE

MOT_ZONE 2 CONSTRUCTION AND TRAFFIC CONTROL (SEE SHEETS M24-M26 FOR PHASE A AND SHEETS M27-M29 FOR PHASE B)



TO WICKLIFFE
KENTUCKY

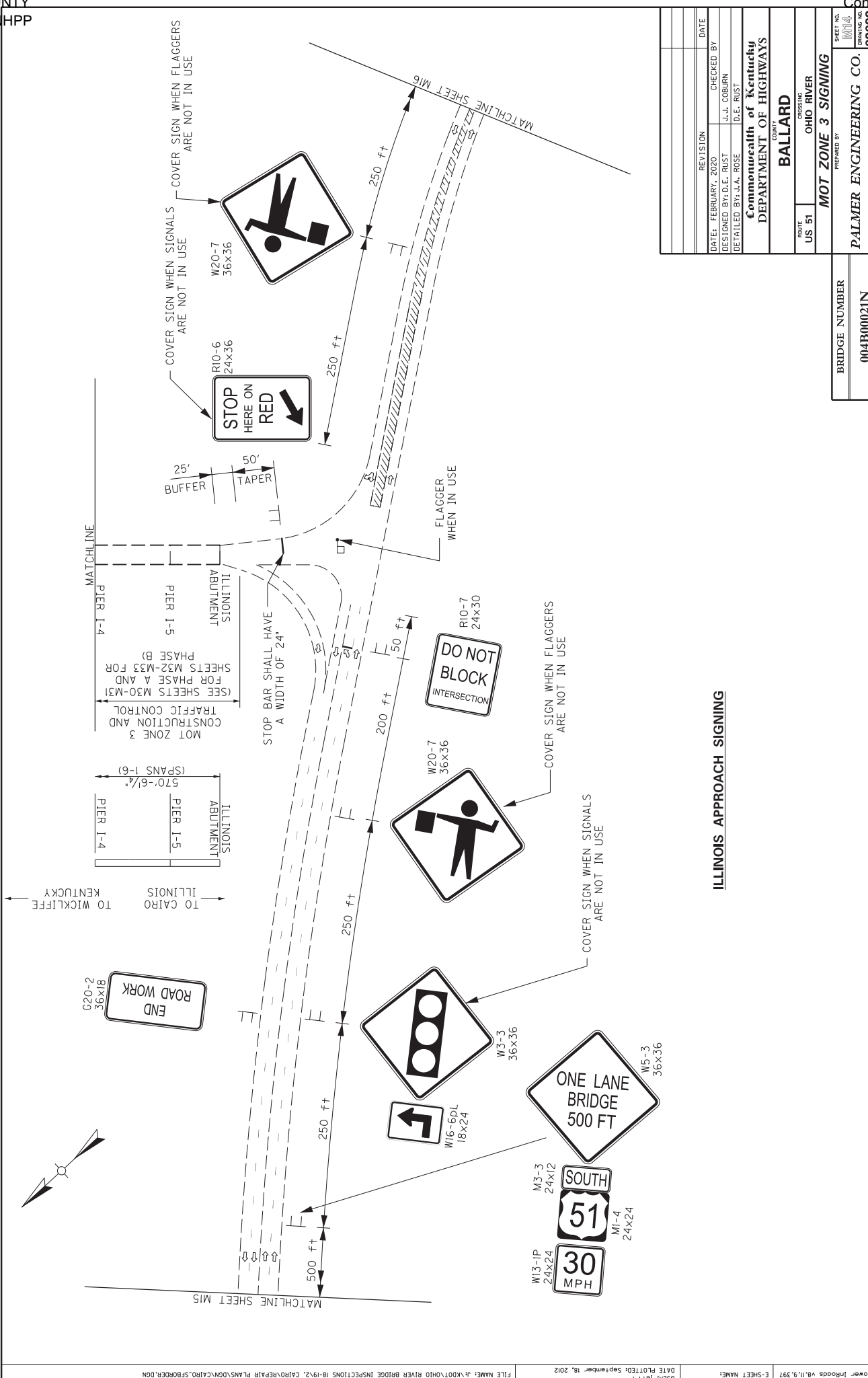


KENTUCKY APPROACH SIGNING

REVISION	DATE
DESIGNED BY: J.J. COBURN	CHECKED BY: J.J. COBURN
DETAILED BY: J.A. ROSE	D.E. RUST
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS	
COUNTY: BALLARD	
ROUTE: OHIO RIVER	
US 51	
PROJECT: MOT ZONE 2 SIGNING	
PREPARED BY: PALMER ENGINEERING CO.	
SHEET NO. 28288	
TOTAL SHEETS 28288	

BRIDGE NUMBER	004B00021N
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11x17 DRAWINGS CAN BE FOUND ON THE CONSTRUCTION PROCUREMENT WEBSITE UNDER PROJECT RELATED INFORMATION

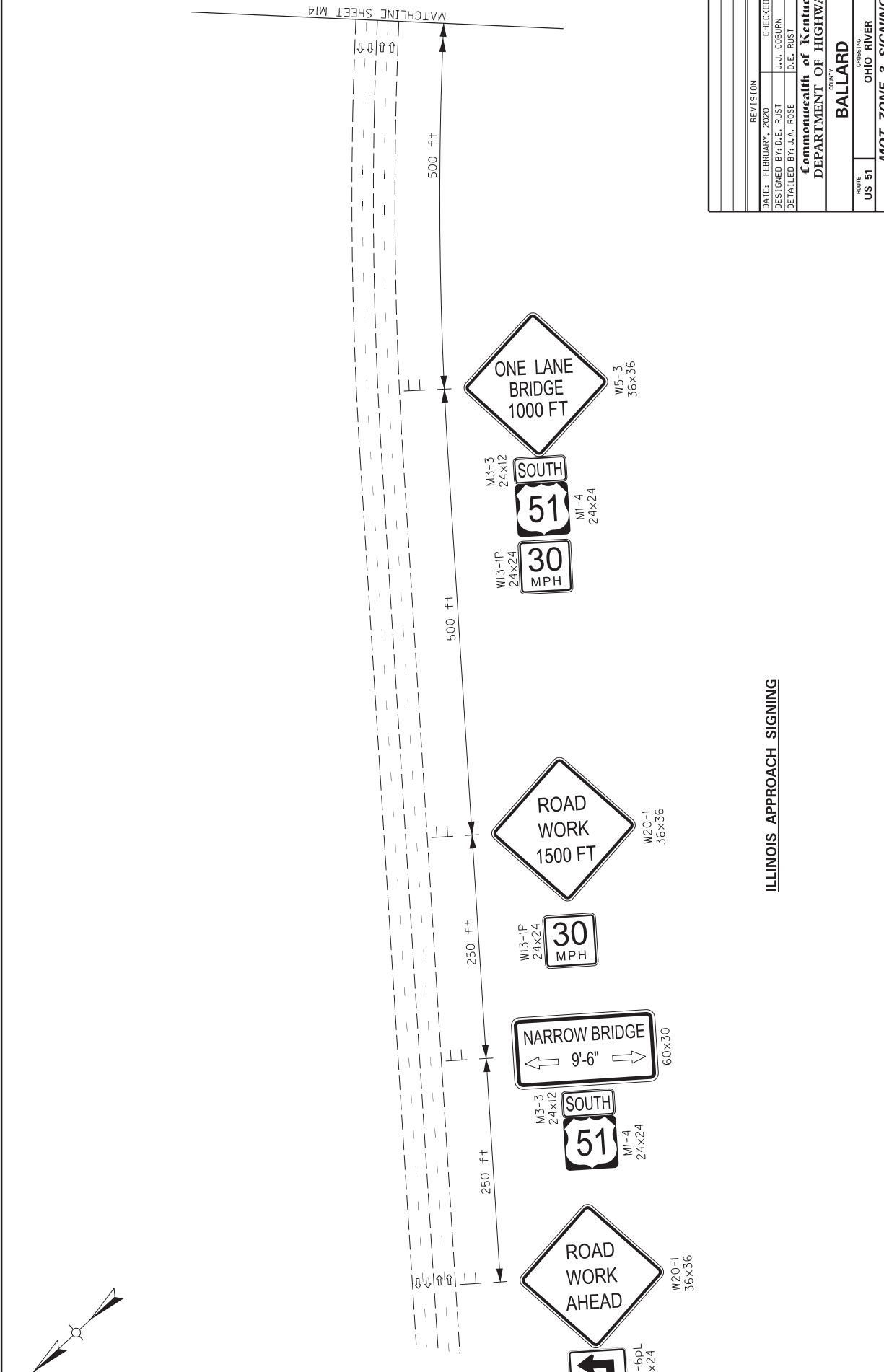


ILLINOIS APPROACH SIGNING

REVISION	DATE
DESIGNED BY: D.E. RUST	CHECKED BY: J.J. COBURN
DETAILED BY: J.A. ROSE	D.E. RUST
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS	
COUNTY: BALLARD	
ROUTE: US 51	CROSSING: OHIO RIVER
MOT ZONE 3 SIGNING	
PREPARED BY: PALMER ENGINEERING CO.	
SHEET NO. 004B00021N	TOTAL SHEETS 282/288

BRIDGE NUMBER	004B00021N
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11x17 DRAWINGS CAN BE FOUND ON THE CONSTRUCTION PROCUREMENT WEBSITE UNDER PROJECT RELATED INFORMATION

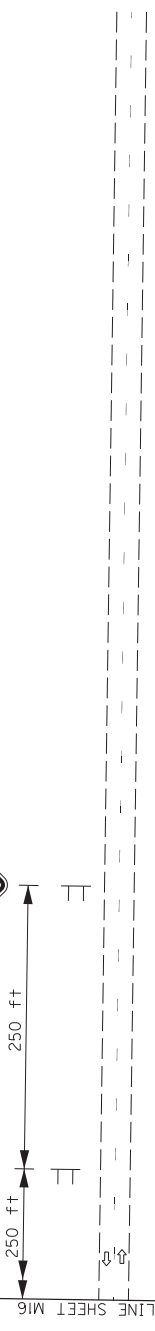
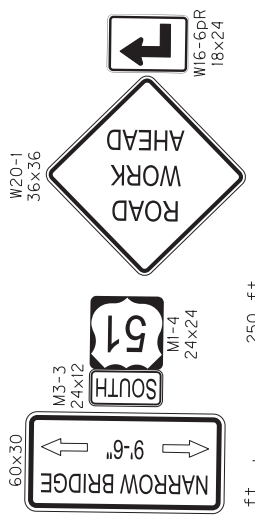
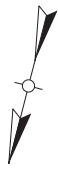


ILLINOIS APPROACH SIGNING

REVISION	DATE
DESIGNED BY: D.E. RUST	CHECKED BY: J.J. COBURN
DETAILED BY: J.A. ROSE	D.E. RUST
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS	
COUNTY: BALLARD	
ROUTE: US 51	CROSSING: OHIO RIVER
MOT ZONE 3 SIGNING	
PREPARED BY: PALMER ENGINEERING CO.	
SHEET NO. 28248	

BRIDGE NUMBER	004B00021N
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11x17 DRAWINGS CAN BE FOUND ON THE CONSTRUCTION PROCUREMENT WEBSITE UNDER PROJECT RELATED INFORMATION



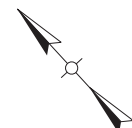
ILLINOIS APPROACH SIGNING

REVISION	DATE	CHECKED BY
	FEBRUARY, 2020	J.J. COBURN
	DESIGNED BY: D.E. RUST	D.E. RUST
	DETAILED BY: J.A. ROSE	J.A. ROSE

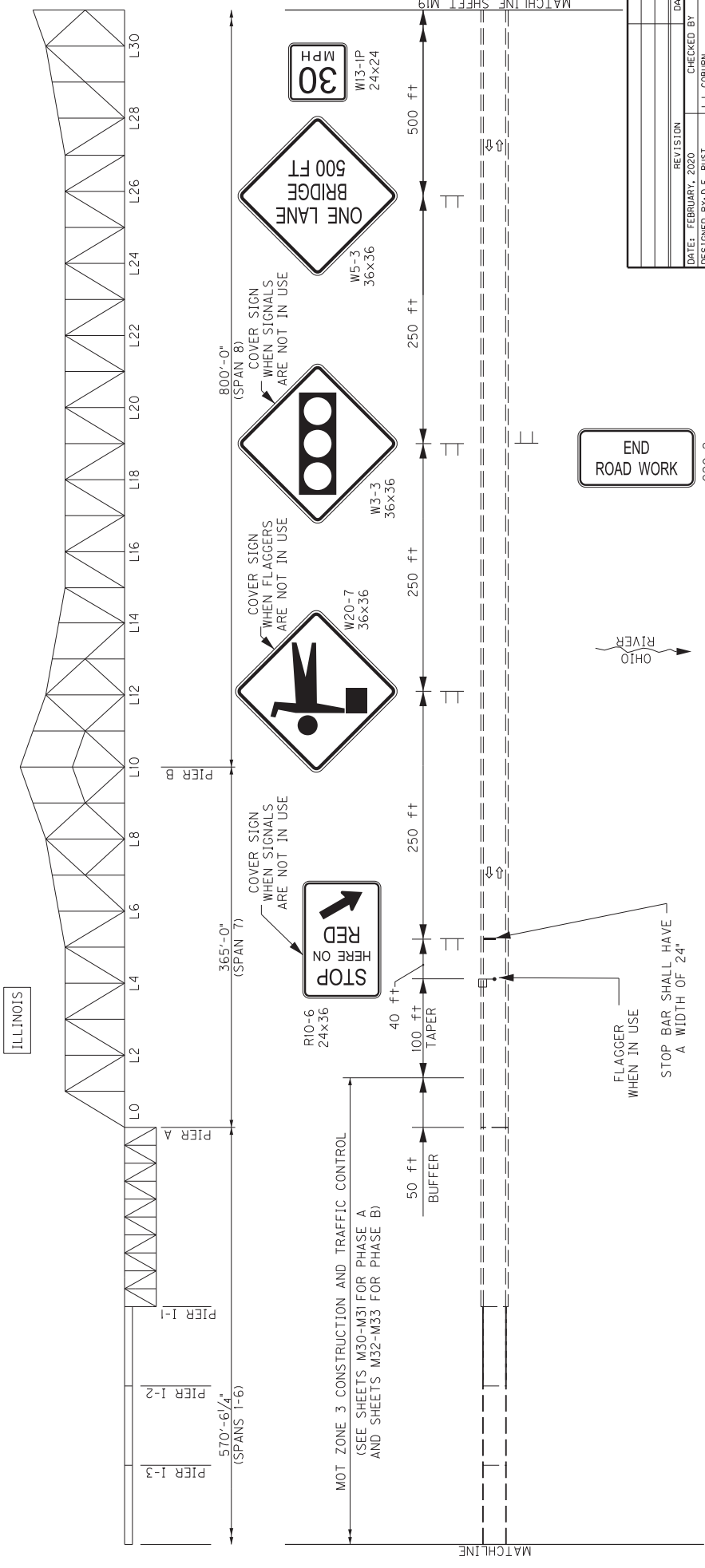
Commonwealth of Kentucky
 DEPARTMENT OF HIGHWAYS
 COUNTY: **BALLARD**
 ROUTE: **US 51**
 CROSSING: **OHIO RIVER**
 PREPARED BY: **MOT ZONE 3 SIGNING**
 SHEET NO. **117**
 TOTAL SHEETS **282**

BRIDGE NUMBER	004B00021N
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11x17 DRAWINGS CAN BE FOUND ON THE CONSTRUCTION PROCUREMENT WEBSITE UNDER PROJECT RELATED INFORMATION



2-020

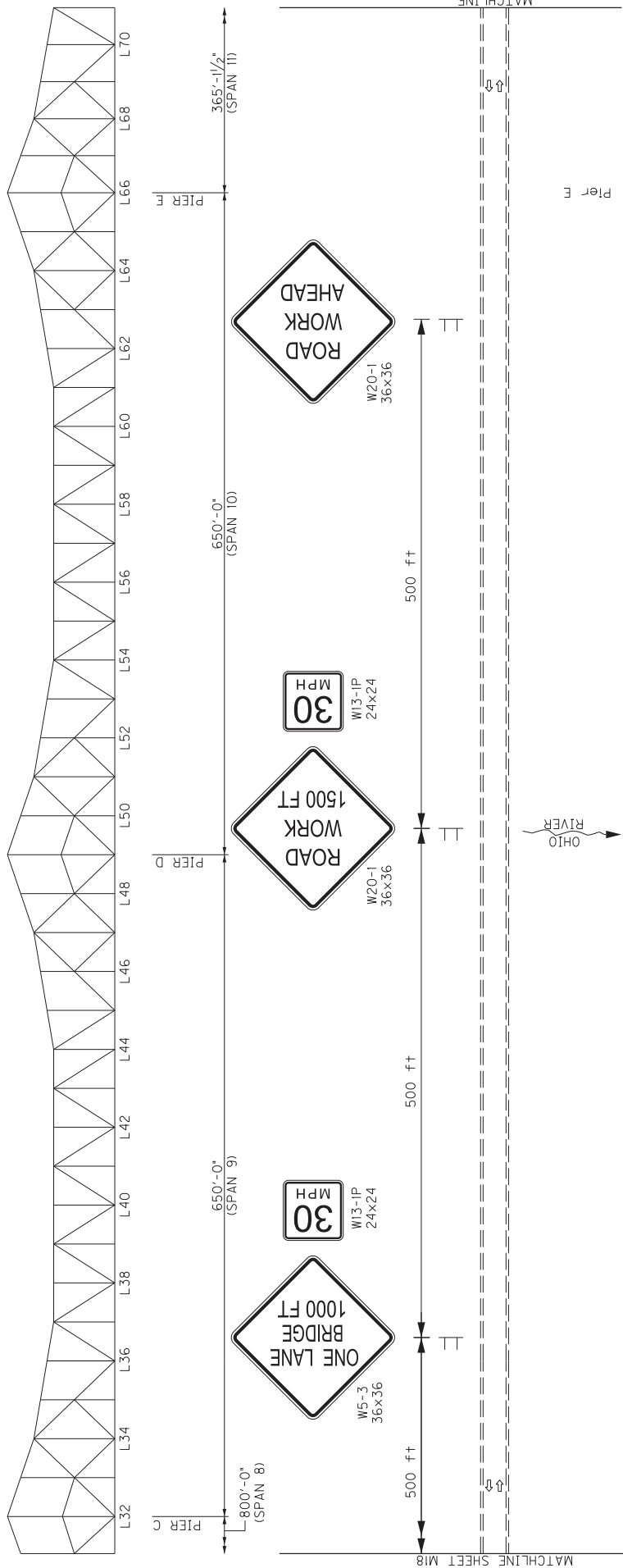
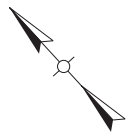


REVISION	DATE	CHECKED BY
	FEBRUARY, 2020	J.J. COBURN
DESIGNED BY: D.E. RUST		
DETAILED BY: J.A. ROSE		
D.E. RUST		
Commonwealth of Kentucky		
DEPARTMENT OF HIGHWAYS		
COUNTY		
BALLARD		
CROSSING		
OHIO RIVER		
ROUTE		
US 51		
MOT ZONE 3 SIGNING		
PREPARED BY:		
PALMER ENGINEERING CO.		
SHEET NO.		
28248		

BRIDGE NUMBER	004B00021N
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THROUGH TRUSS SIGNING

11x17 DRAWINGS CAN BE FOUND ON THE CONSTRUCTION PROCUREMENT WEBSITE UNDER PROJECT RELATED INFORMATION

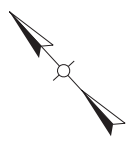


REVISION	DATE
DESIGNED BY: D.E. RUST	CHECKED BY: J.J. COBURN
DETAILED BY: J.A. ROSE	D.E. RUST
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS	
COUNTY BALLARD	
ROUTE US 51	CROSSING OHIO RIVER
MOT ZONE 3 SIGNING	
PREPARED BY: PALMER ENGINEERING CO.	
SHEET NO. 28248	

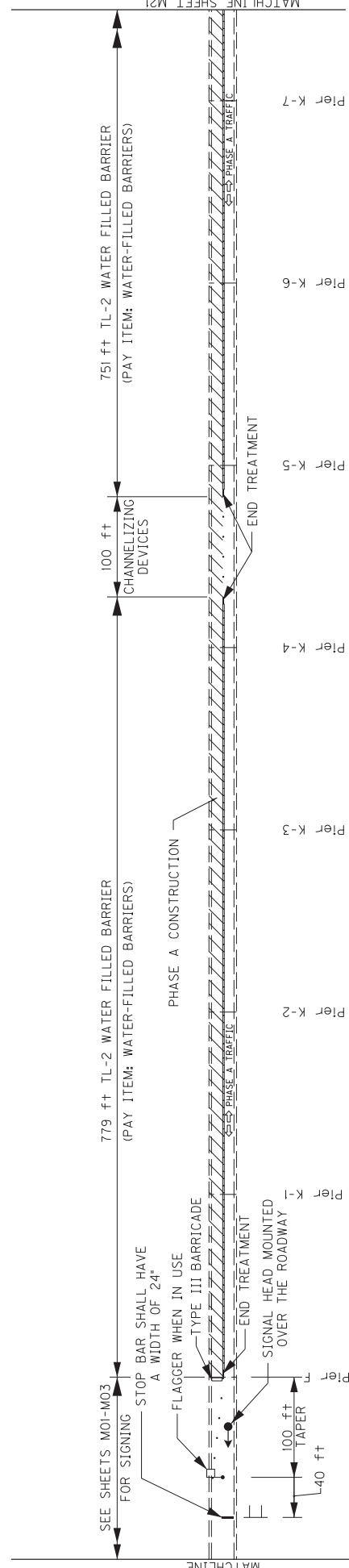
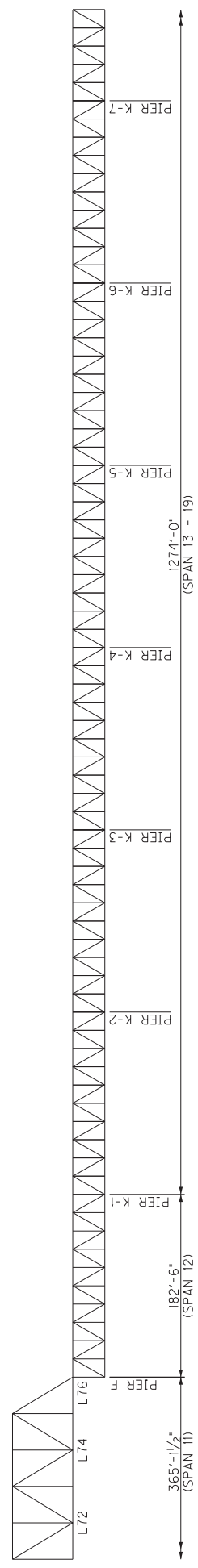
THROUGH TRUSS SIGNING

BRIDGE NUMBER 004B00021N

11x17 DRAWINGS CAN BE FOUND ON THE CONSTRUCTION PROCUREMENT WEBSITE UNDER PROJECT RELATED INFORMATION



KENTUCKY



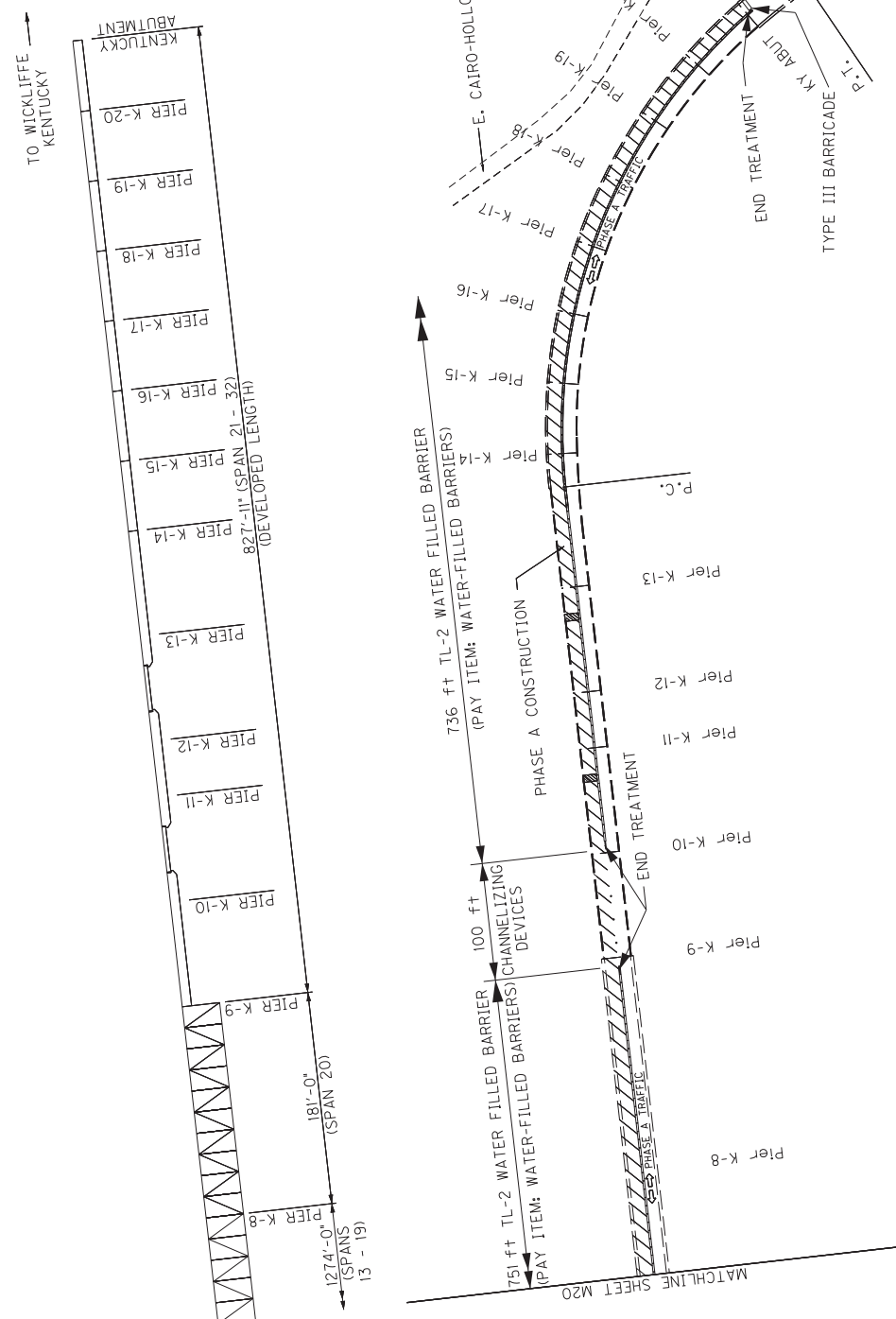
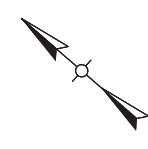
ZONE 1 PHASE A CONSTRUCTION AND TRAFFIC CONTROL

- NOTES:
- MOT TYPICAL SECTION IS SHOWN ON SHEET S11.
 - SEE SPECIAL NOTE FOR TRAFFIC CONTROL ON BRIDGE REPAIR CONTRACTS FOR ADDITIONAL INFORMATION.
 - SEE STD. DWG. TTC-110, RBE-100, RBM-100, RBM-115, AND RBM-120 FOR NOTES AND ADDITIONAL DETAILS.
 - CHANNELIZING DEVICES SHALL ONLY BE USED AT LOCATIONS SHOWN IN THESE PLANS UNLESS OTHERWISE APPROVED BY THE ENGINEER.

REVISION	DATE	CHECKED BY
	FEBRUARY, 2020	J.J. COBURN
DESIGNED BY: D.E. RUST		
DETAILED BY: J.A. ROSE		
D.E. RUST		
Commonwealth of Kentucky		
DEPARTMENT OF HIGHWAYS		
COUNTY		
BALLARD		
CROSSING		
OHIO RIVER		
ROUTE		
US 51		
MOT PHASE 1A CONSTRUCTION		
PREPARED BY		
PALMER ENGINEERING CO.		
SHEET NO.		
M20		
TOTAL SHEETS		
282		

BRIDGE NUMBER	004B00021N
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11x17 DRAWINGS CAN BE FOUND ON THE CONSTRUCTION PROCUREMENT WEBSITE UNDER PROJECT RELATED INFORMATION



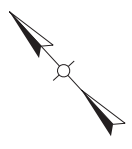
ZONE 1 PHASE A CONSTRUCTION AND TRAFFIC CONTROL

- NOTES:
- MOT TYPICAL SECTION IS SHOWN ON SHEET S11.
 - SEE SPECIAL NOTE FOR TRAFFIC CONTROL ON BRIDGE REPAIR CONTRACTS FOR ADDITIONAL INFORMATION.
 - SEE STD. DWG. TTC-110, RBE-100, RBM-100, RBM-105, AND RBM-120 FOR NOTES AND ADDITIONAL DETAILS.
 - CHANNELIZING DEVICES SHALL ONLY BE USED AT LOCATIONS SHOWN IN THESE PLANS UNLESS OTHERWISE APPROVED BY THE ENGINEER.

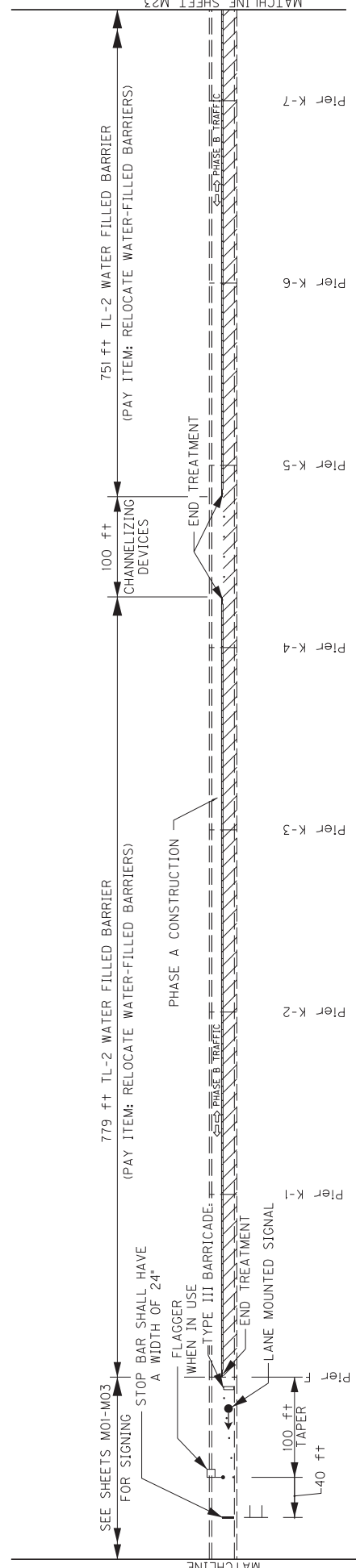
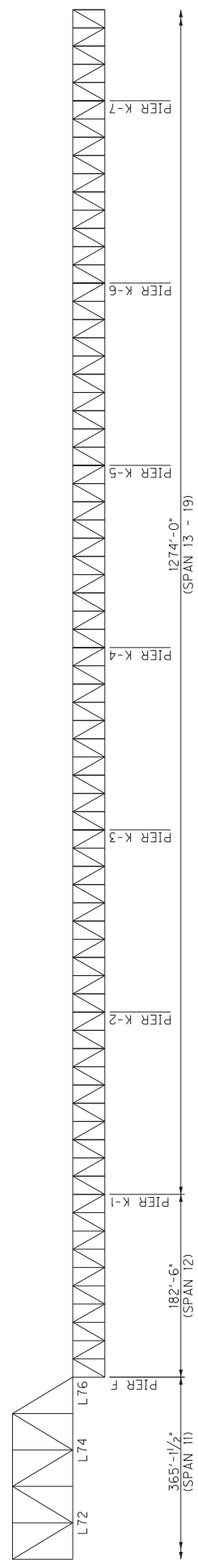
REVISION	DATE	CHECKED BY
FEBRUARY, 2020		J.J. COBURN
DESIGNED BY: J.A. ROSE		D.E. RUST
DETAILED BY: J.A. ROSE		D.E. RUST
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY BALLARD		
CROSSING OHIO RIVER		
ROUTE US 51		
PROJECT NO. MOT PHASE 1A CONSTRUCTION		
PREPARED BY PALMER ENGINEERING CO.		
SHEET NO. 282		

BRIDGE NUMBER	004B00021N
---------------	------------

11x17 DRAWINGS CAN BE FOUND ON THE CONSTRUCTION PROCUREMENT WEBSITE UNDER PROJECT RELATED INFORMATION



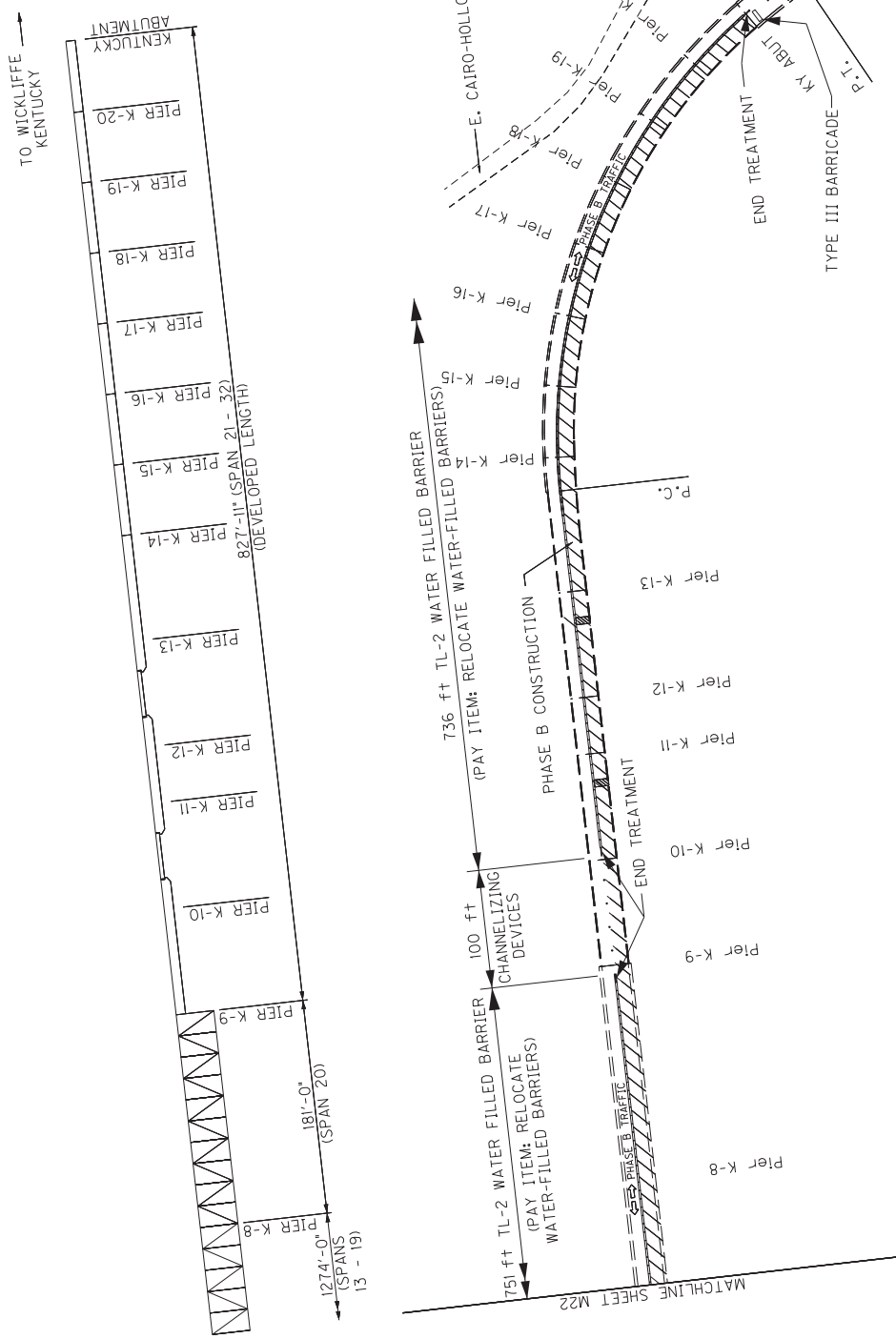
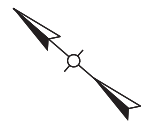
KENTUCKY



ZONE 1 PHASE B CONSTRUCTION AND TRAFFIC CONTROL

- NOTES:
1. MOT TYPICAL SECTION IS SHOWN ON SHEET S11.
 2. SEE SPECIAL NOTE FOR TRAFFIC CONTROL ON BRIDGE REPAIR CONTRACTS FOR ADDITIONAL INFORMATION.
 3. SEE STD. DWG. TTC-110, RBE-100, RBM-105, AND RBM-120 FOR NOTES AND ADDITIONAL DETAILS.
 4. CHANNELIZING DEVICES SHALL ONLY BE USED AT LOCATIONS SHOWN IN THESE PLANS UNLESS OTHERWISE APPROVED BY THE ENGINEER.

REVISION	DATE	CHECKED BY
	FEBRUARY, 2020	J.J. COBURN
DESIGNED BY: D.E. RUST		D.E. RUST
DETAILED BY: J.A. ROSE		J.A. ROSE
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY BALLARD		
CROSSING OHIO RIVER		
ROUTE US 51		
MOT PHASE 1B CONSTRUCTION		
PREPARED BY PALMER ENGINEERING CO.		
SHEET NO. M22		
TOTAL SHEETS 282/288		
BRIDGE NUMBER		004B00021N

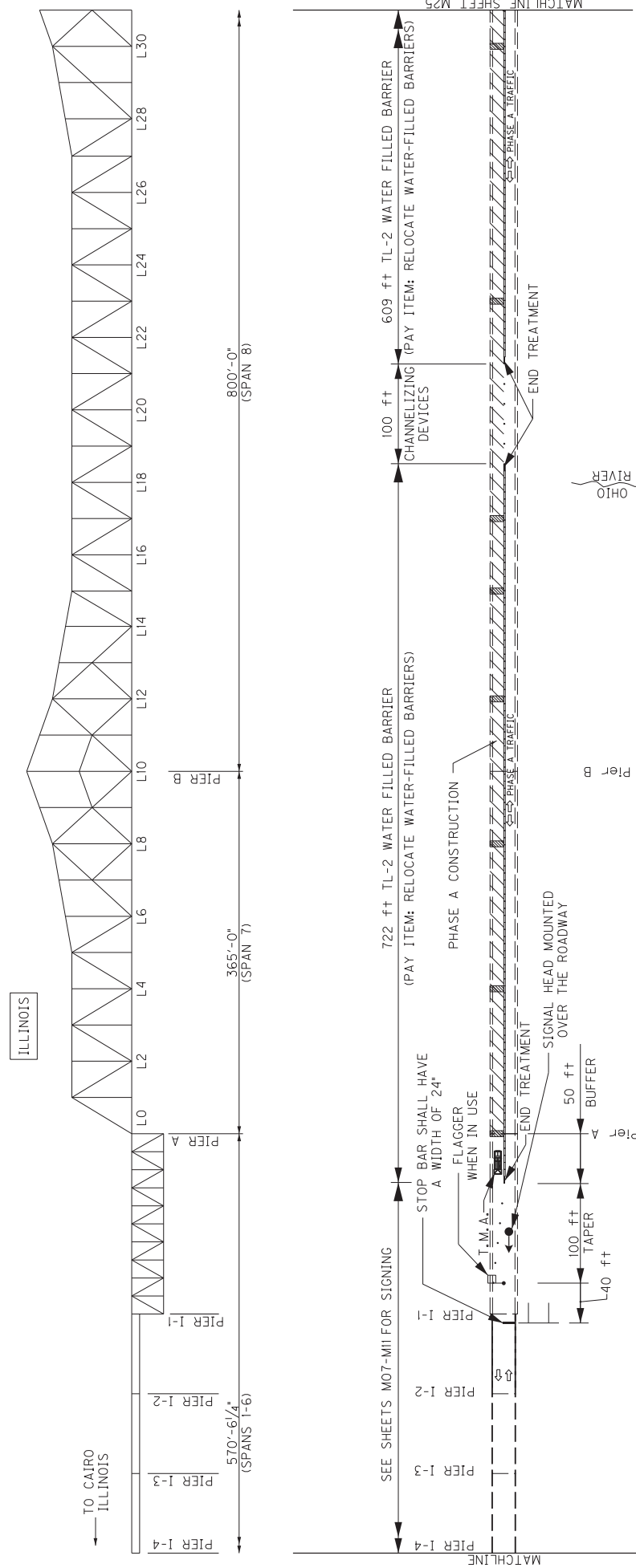
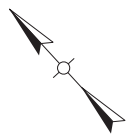


ZONE 1 PHASE B CONSTRUCTION AND TRAFFIC CONTROL

- NOTES:
1. MOT TYPICAL SECTION IS SHOWN ON SHEET S11.
 2. SEE SPECIAL NOTE FOR TRAFFIC CONTROL ON BRIDGE REPAIR CONTRACTS FOR ADDITIONAL INFORMATION.
 3. SEE STD. DWG. TTC-110, RBE-100, RBM-105, AND RBM-120 FOR NOTES AND ADDITIONAL DETAILS.
 4. CHANNELIZING DEVICES SHALL ONLY BE USED AT LOCATIONS SHOWN IN THESE PLANS UNLESS OTHERWISE APPROVED BY THE ENGINEER.

REVISION	DATE
DESIGNED BY: D.E. RUST	CHECKED BY: J.J. COBURN
DETAILED BY: J.A. ROSE	D.E. RUST
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS	
COUNTY BALLARD	
ROUTE US 51	CROSSING OHIO RIVER
PROJECT MOT PHASE B CONSTRUCTION	
PREPARED BY PALMER ENGINEERING CO.	
SHEET NO. M23	
TOTAL SHEETS 282/288	

BRIDGE NUMBER 004B00021N

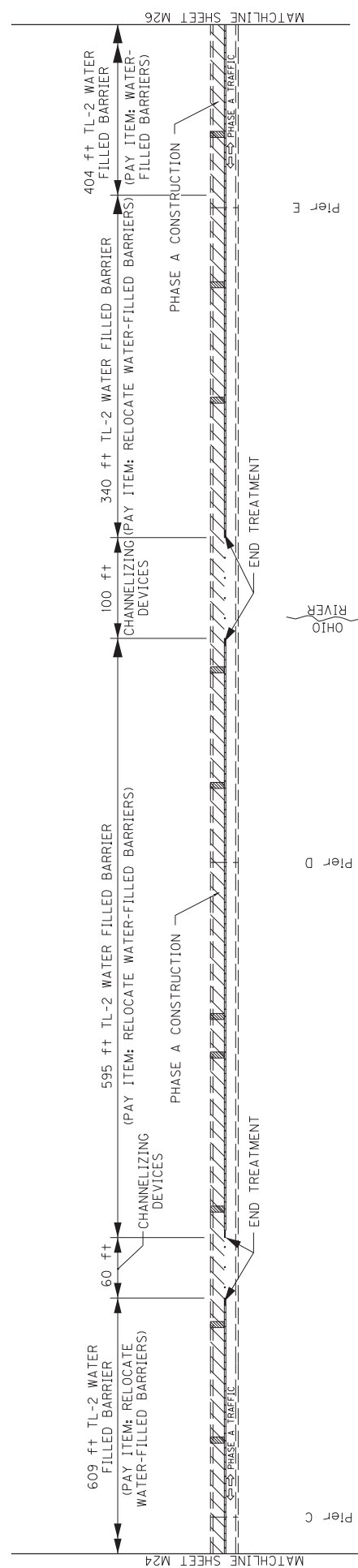
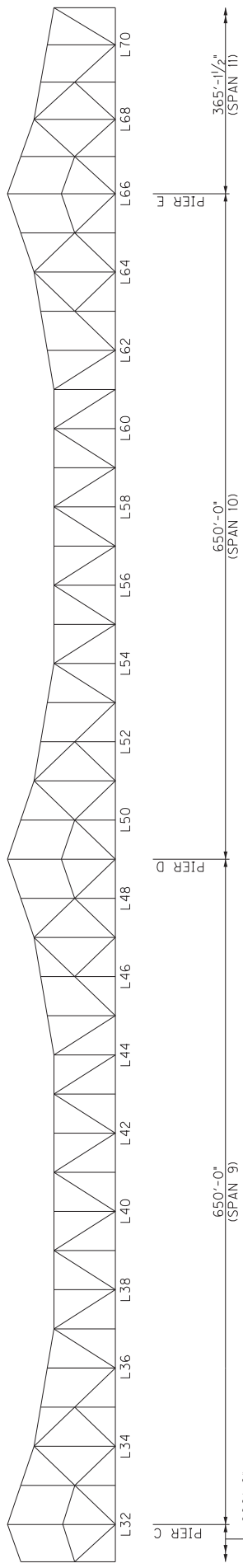
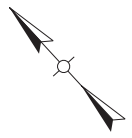


ZONE 2 PHASE A CONSTRUCTION AND TRAFFIC CONTROL

- NOTES:
1. MOT TYPICAL SECTION IS SHOWN ON SHEET S11.
 2. SEE SPECIAL NOTE FOR TRAFFIC CONTROL ON BRIDGE REPAIR CONTRACTS FOR ADDITIONAL INFORMATION.
 3. SEE STD. DWG. TTC-110, RBE-100, RBM-100, RBM-115, AND RBM-120 FOR NOTES AND ADDITIONAL DETAILS.
 4. CHANNELIZING DEVICES SHALL ONLY BE USED AT LOCATIONS SHOWN IN THESE PLANS UNLESS OTHERWISE APPROVED BY THE ENGINEER.

REVISION	DATE
DESIGNED BY: D.E. RUST	CHECKED BY: J.J. COBURN
DETAILED BY: J.A. ROSE	D.E. RUST
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS	
COUNTY BALLARD	
ROUTE US 51	
CROSSING OHIO RIVER	
PROJECT MOT PHASE 2A CONSTRUCTION	
PREPARED BY PALMER ENGINEERING CO.	
SHEET NO. 28288	

BRIDGE NUMBER	004B00021N
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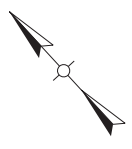


ZONE 2 PHASE A CONSTRUCTION AND TRAFFIC CONTROL

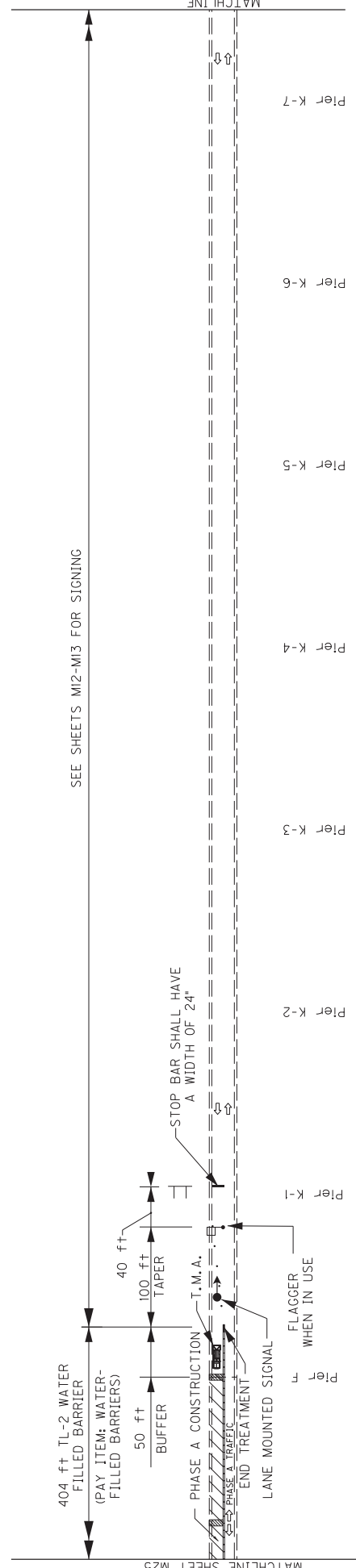
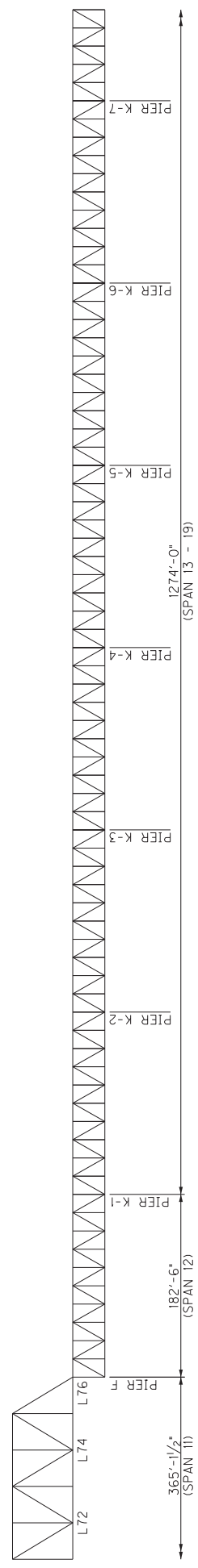
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REVISION	DATE
CHECKED BY	DATE: FEBRUARY, 2020
DESIGNED BY: D.E. RUST	CHECKED BY: J.J. COBURN
DETAILED BY: J.A. ROSE	D.E. RUST
Commonwealth of Kentucky	
DEPARTMENT OF HIGHWAYS	
COUNTY	
BALLARD	
CROSSING	
OHIO RIVER	
ROUTE	
US 51	
MOT PHASE 2A CONSTRUCTION	
PREPARED BY:	
PALMER ENGINEERING CO.	
SHEET NO. 28288	

BRIDGE NUMBER	004B00021N
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KENTUCKY



SEE SHEETS M12-M13 FOR SIGNING

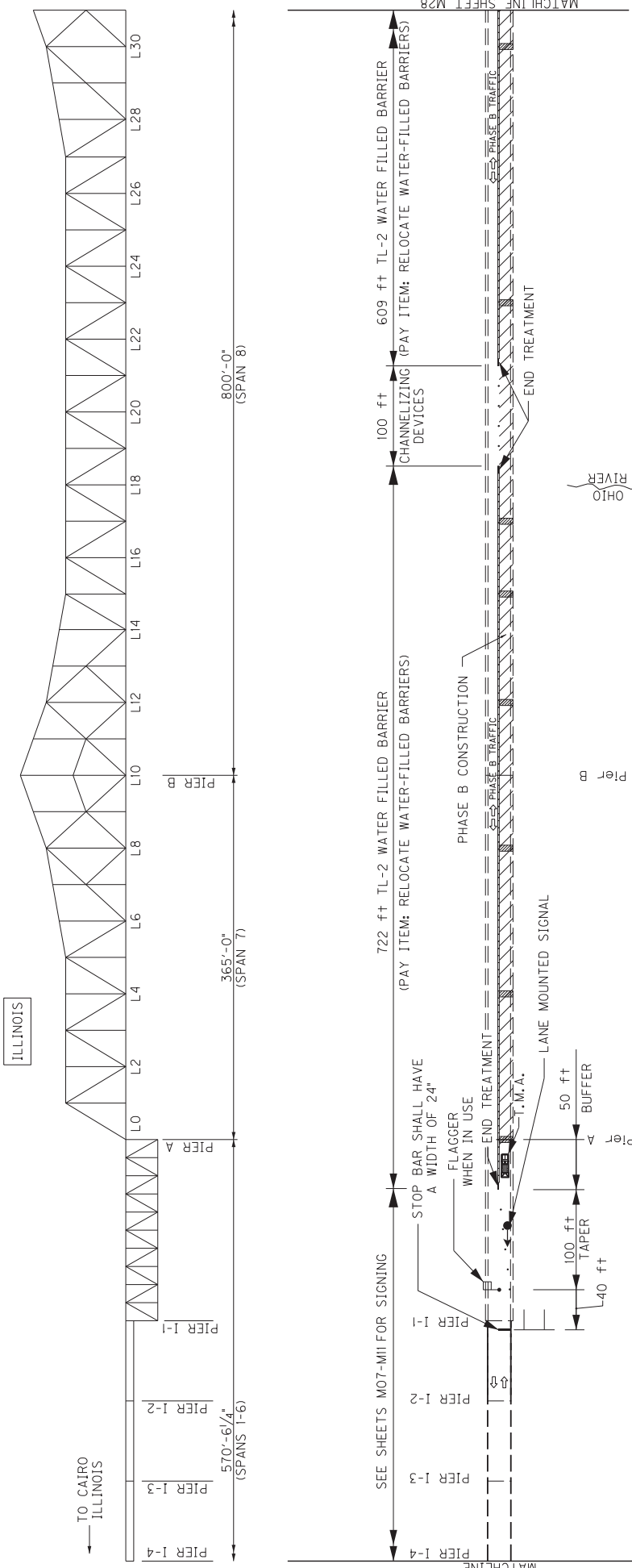
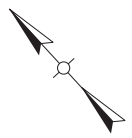
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DETAILED BY: J.A. ROSE	D.E. RUST
Commonwealth of Kentucky	
DEPARTMENT OF HIGHWAYS	
COUNTY	
BALLARD	
CROSSING	
OHIO RIVER	
ROUTE	US 51
MOT PHASE 2A CONSTRUCTION	
PREPARED BY	
PALMER ENGINEERING CO.	
SHEET NO.	28248
TOTAL SHEETS	28248

BRIDGE NUMBER	004B00021N
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11x17 DRAWINGS CAN BE FOUND ON THE CONSTRUCTION PROCUREMENT WEBSITE UNDER PROJECT RELATED INFORMATION

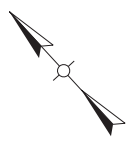


ZONE 2 PHASE B CONSTRUCTION AND TRAFFIC CONTROL

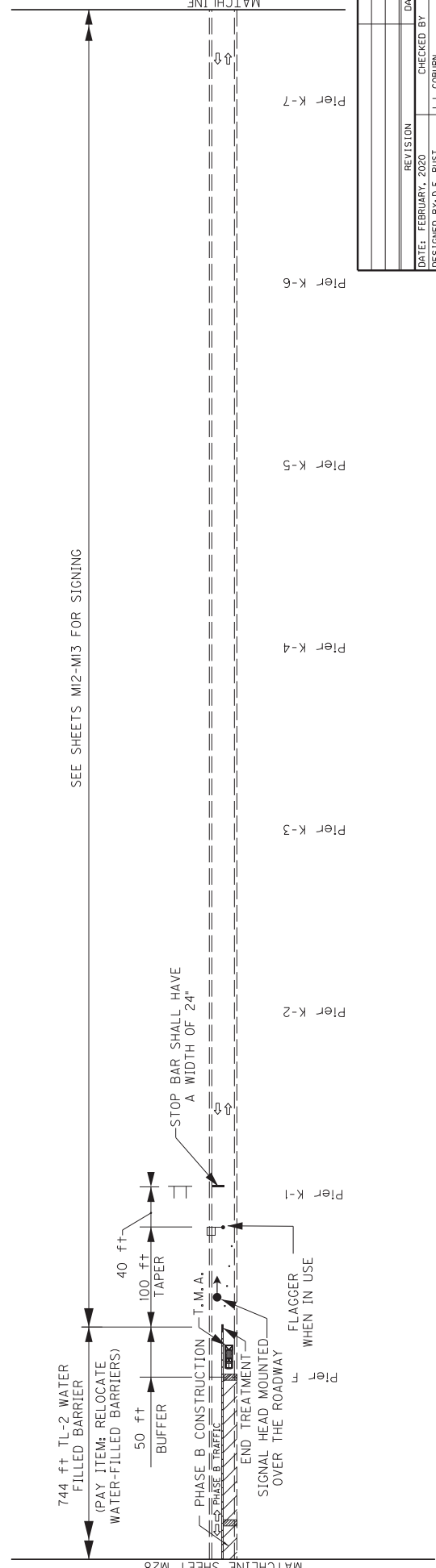
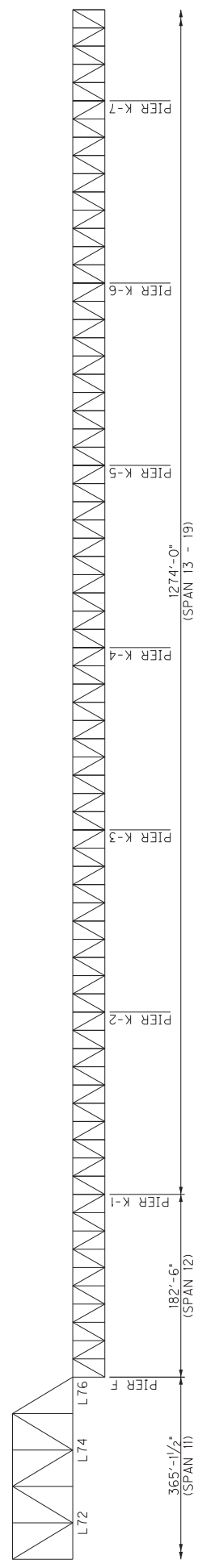
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REVISION	DATE	CHECKED BY
DESIGNED BY: D.E. RUST	FEBRUARY, 2020	J.J. COBURN
DETAILED BY: J.A. ROSE		D.E. RUST
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY BALLARD		
ROUTE US 51		
CROSSING OHIO RIVER		
PROJECT MOT PHASE 2B CONSTRUCTION		
PREPARED BY PALMER ENGINEERING CO.		
SHEET NO. M27		
TOTAL SHEETS 282/288		

BRIDGE NUMBER	004B00021N
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KENTUCKY



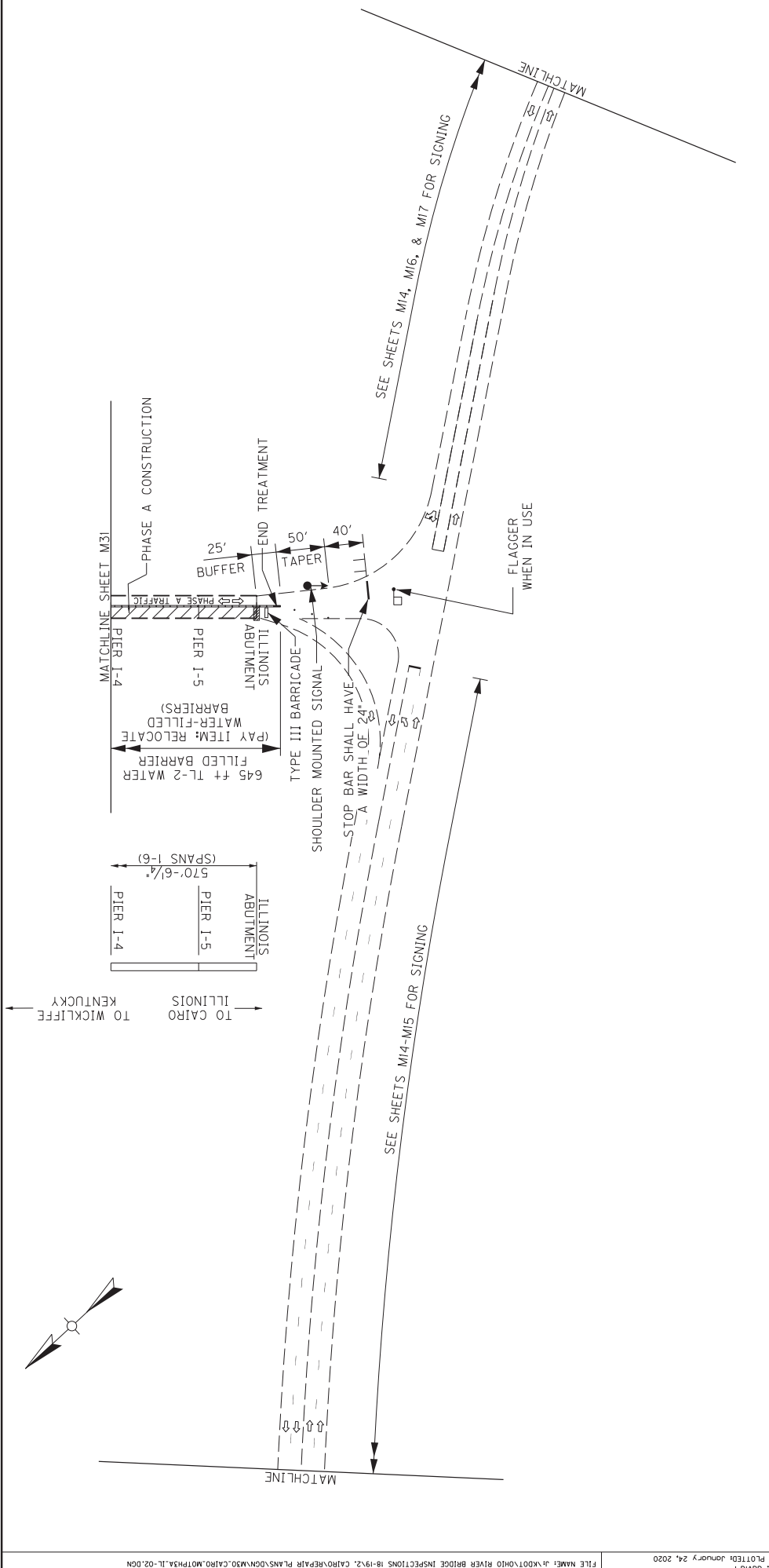
SEE SHEETS M12-M13 FOR SIGNING

ZONE 2 PHASE B CONSTRUCTION AND TRAFFIC CONTROL

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REVISION	DATE
CHECKED BY	
DESIGNED BY: D.E. RUST	J.J. COBURN
DETAILED BY: J.A. ROSE	D.E. RUST
Commonwealth of Kentucky	
DEPARTMENT OF HIGHWAYS	
COUNTY BALLARD	
ROUTE	CROSSING
US 51	OHIO RIVER
MOT PHASE 2B CONSTRUCTION	
PREPARED BY PALMER ENGINEERING CO.	
SHEET NO. 28288	

BRIDGE NUMBER	004B00021N
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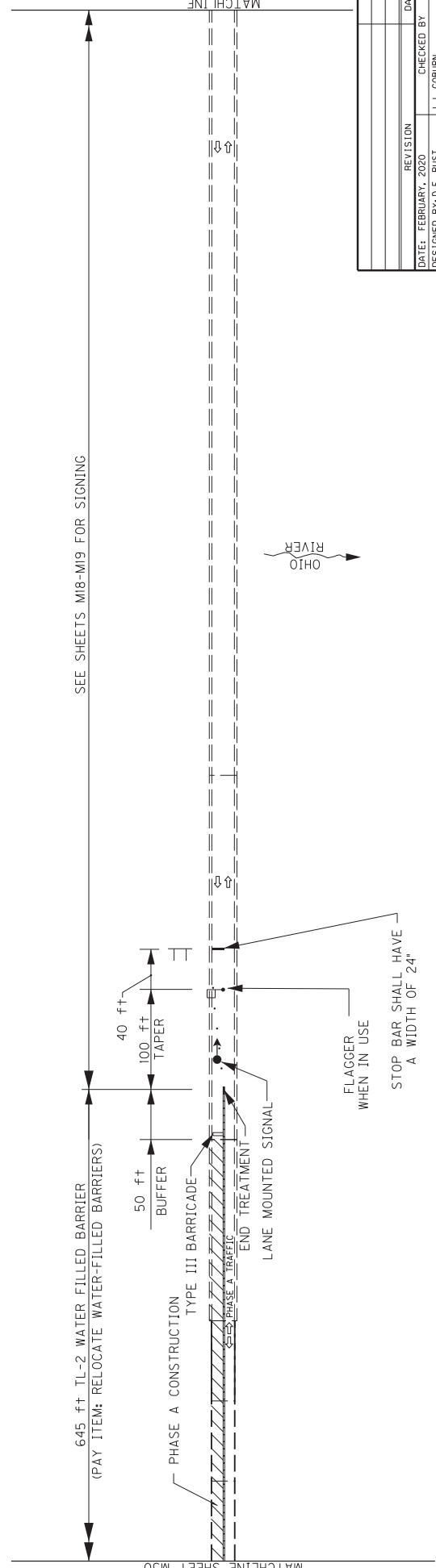
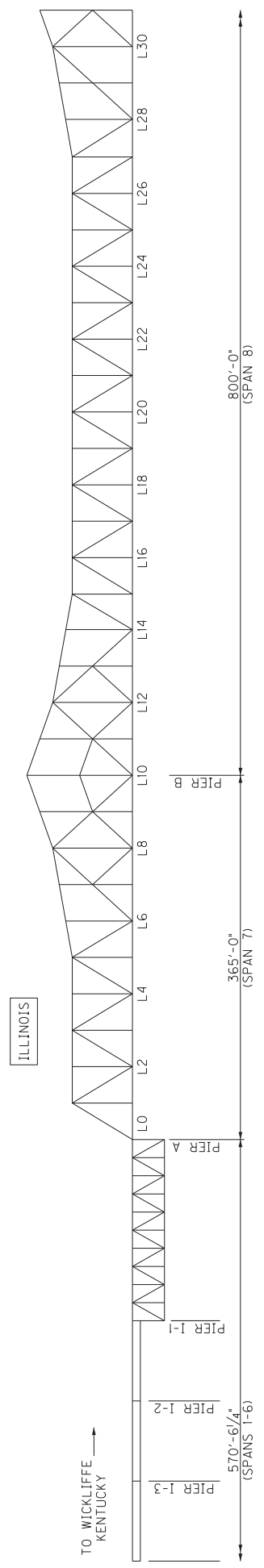
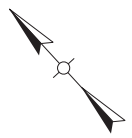


ZONE 3 PHASE A CONSTRUCTION AND TRAFFIC CONTROL

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REVISION	DATE
DESIGNED BY: D.E. RUST	CHECKED BY: J.J. COBURN
DETAILED BY: J.A. ROSE	D.E. RUST
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS	
COUNTY BALLARD	
ROUTE OHIO RIVER	
US 51	
PROJECT NO. MOT PHASE 3A CONSTRUCTION	
PREPARED BY PALMER ENGINEERING CO.	
SHEET NO. 282	

BRIDGE NUMBER 004B00021N



SEE SHEETS M18-M19 FOR SIGNING

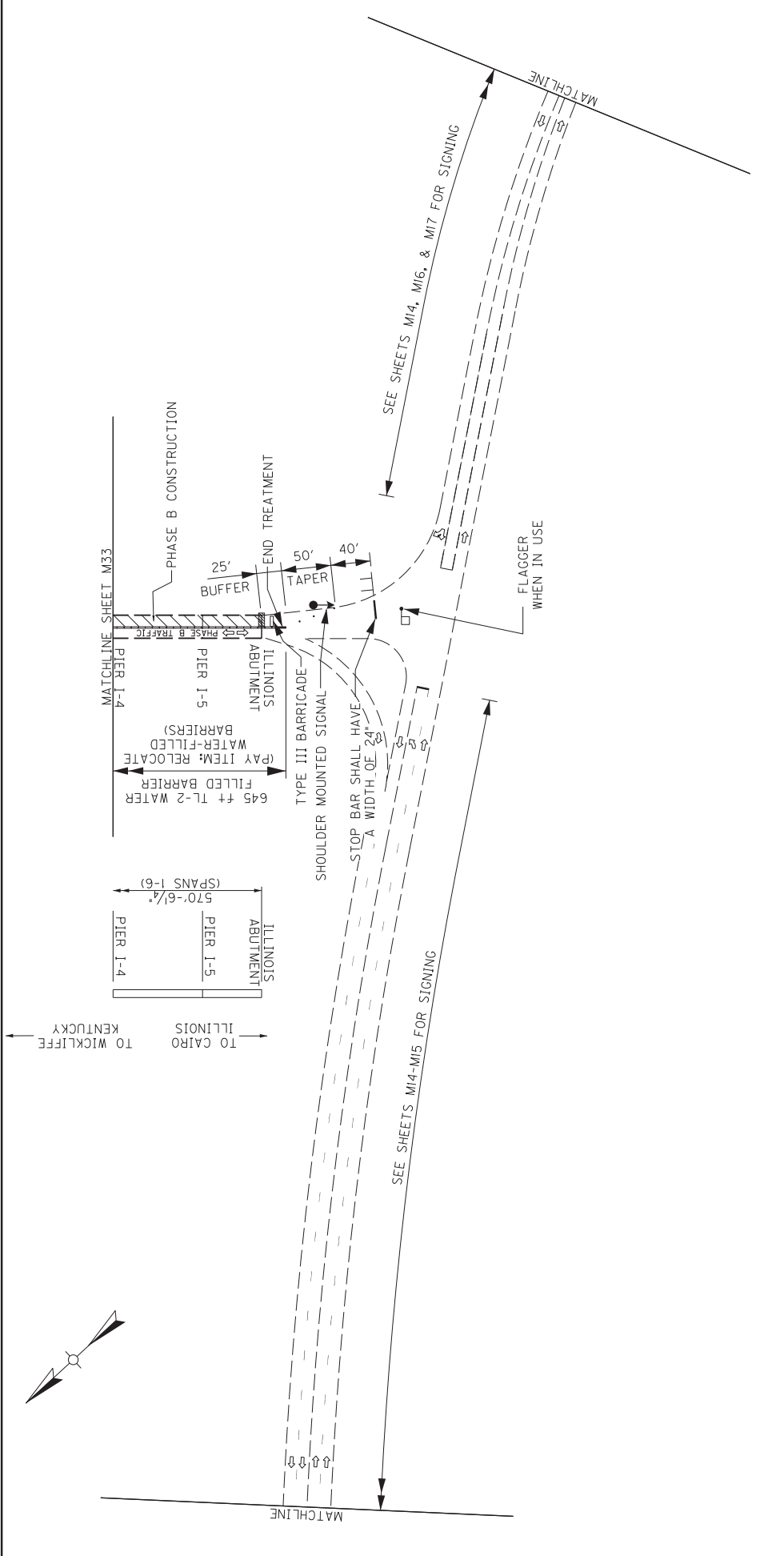
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REVISION	DATE	CHECKED BY
FEBRUARY, 2020		J.J. COBURN
DESIGNED BY: D.E. RUST		D.E. RUST
DETAILED BY: J.A. ROSE		
Commonwealth of Kentucky		
DEPARTMENT OF HIGHWAYS		
COUNTY BALLARD		
ROUTE US 51		
CROSSING OHIO RIVER		
PROJECT MOT PHASE 3A CONSTRUCTION		
PREPARED BY PALMER ENGINEERING CO.		
SHEET NO. 28288		

BRIDGE NUMBER	004B00021N
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11x17 DRAWINGS CAN BE FOUND ON THE CONSTRUCTION PROCUREMENT WEBSITE UNDER PROJECT RELATED INFORMATION

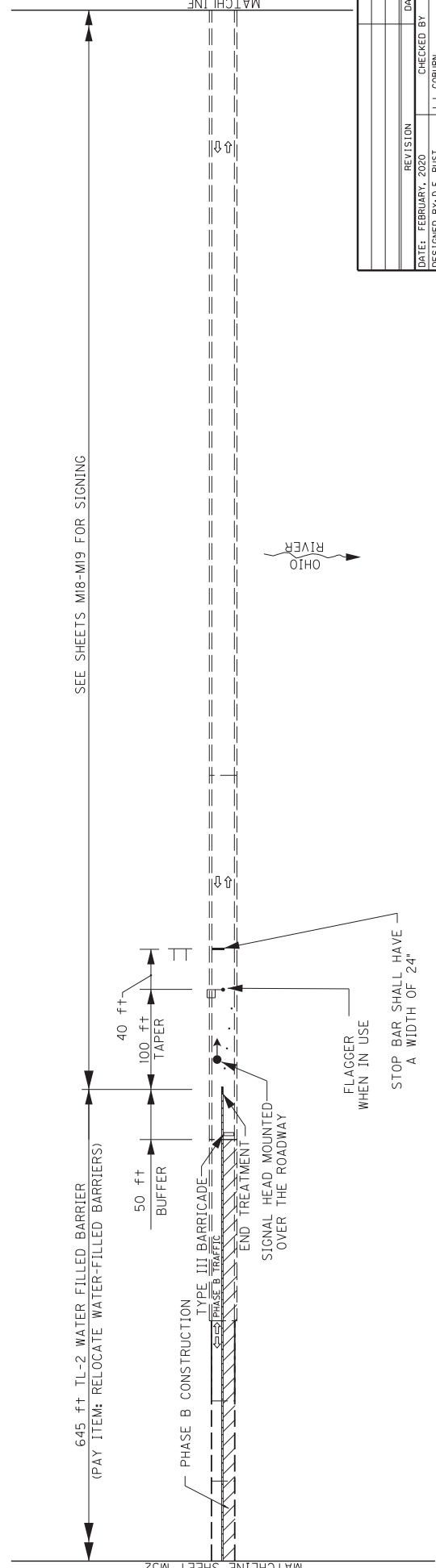
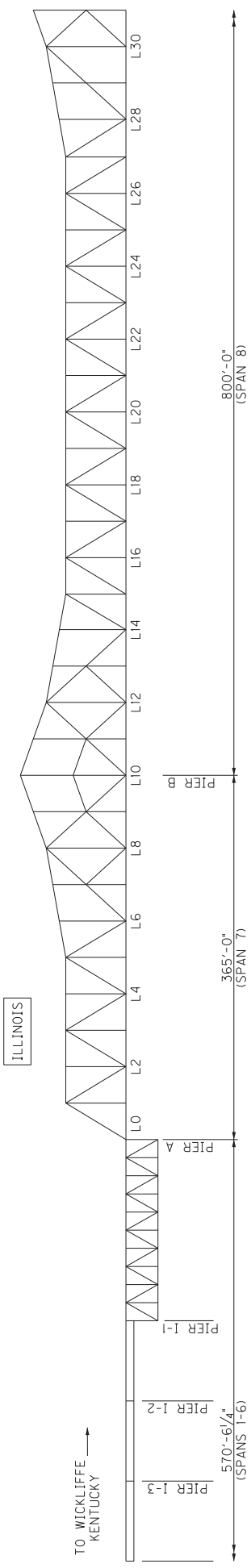
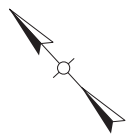


ZONE 3 PHASE B CONSTRUCTION AND TRAFFIC CONTROL

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REVISION	DATE
DESIGNED BY: D.E. RUST	CHECKED BY: J.J. COBURN
DETAILED BY: J.A. ROSE	D.E. RUST
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS	
COUNTY BALLARD	
ROUTE US 51	CROSSING OHIO RIVER
MOT PHASE 3B CONSTRUCTION	
PREPARED BY: PALMER ENGINEERING CO.	
SHEET NO. M32	PROJECT NO. 28288

BRIDGE NUMBER 004B00021N



ZONE 3 PHASE B CONSTRUCTION AND TRAFFIC CONTROL

- NOTES:
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REVISION	DATE	CHECKED BY
DESIGNED BY: D.E. RUST	FEBRUARY, 2020	J.J. COBURN
DETAILED BY: J.A. ROSE		D.E. RUST
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
COUNTY BALLARD		
CROSSING OHIO RIVER		
ROUTE US 51		
PROJECT MOT PHASE 3B CONSTRUCTION		
PREPARED BY PALMER ENGINEERING CO.		
SHEET NO. 282		

BRIDGE NUMBER	004B00021N
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11x17 DRAWINGS CAN BE FOUND ON THE CONSTRUCTION PROCUREMENT WEBSITE UNDER PROJECT RELATED INFORMATION

SPECIAL NOTE FOR BEARING LUBRICATION

1. **DESCRIPTION.** Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2019 Standard Specification for Road and Bridge Construction applicable Supplemental Specifications, Standard Drawings, this Note and Attached Detailed Drawings. Section references are to the Standard Specifications. This work consists of the following: (1) Furnish all labor, materials, tools, and equipment; (2) All items included in Bearing Lubrication (3) Maintain and control traffic; (4) All other work required for this contract.

2. **MATERIALS.**

A. **Wash Water.** Use clean potable water for all pressure washing.

B. **Bearing Lubricant.** Use one of the lubricants from the following manufactures:

Manufacture	Lubricant
Bostik Inc.,	Never Seez - Mariner's Choice
Mobil Oil	Mobil Centaur Moly NLGI Grades 1 or 2
Certified Labs	Premalube #1 WG

3. **CONSTRUCTION.**

A. **Stratified and Pack Rust Removal.**

Stratified and pack rust shall be removed from all bearing devices. All existing bearing lubrication shall be removed. See detailed drawings showing location and quantity of the bearing devices. Hand tools including wire brushes, scrapers or impact devices (hand hammers or power chisels) are to be used for removing stratified and pack rust. All surfaces to have stratified and pack rust removed shall be cleaned to an SSPC SP-2 level. All debris collected shall be disposed of in a suitable off-site disposal facility. **All cost to complete Stratified, Pack Rust Removal and removal of existing bearing lubricant shall be considered incidental to the unit price bid for "Lubricate Bearing".**

B. **Pressure Washing.**

Bearing devices shall be pressure washed as specified after all stratified rust and pack rust is removed. All surfaces of the bearing including bearing plates and points of movement shall be pressure washed prior to placement of lubricant. See detailed drawings showing location and quantity of the bearing devices. All equipment for pressure washing shall be operated at a minimum pressure of up 4,000 psi with 0 degree spinner tip and/or fan tips as determined by the engineer at the working location with a minimum flow rate of 3.5 gal/minute provided that these pressures do not damage any components of the structure. Pressure and flow rates shall be reduced to a level satisfactory to the Engineer should any damage occur due to power washing procedures. Pressure washing shall be operated at distance of approximately six inches from and perpendicular to the surface. All pressure washing wands shall be equipped with a gauge to accurately determine the amount pressure used. Pressure washing of any bridge element will proceed from top of wash area to bottom of wash area. Wash

water will not be released to a bridge element previously washed. Perform all pressure washing at temperatures above 40 degrees Fahrenheit. **All cost to complete Pressure Washing as specified shall be considered incidental to the unit price bid for “Lubricate Bearing”.**

C. Bearing Lubrication Application.

Bearing devices shall be lubricated as specified after all stratified rust and pack rust is removed and power washing is complete, bearing devices shall have lubricant applied to all surfaces of the bearing including bearing plates and points of movement. See detailed drawings showing location and quantity of the bearing devices. Allow bearing devices to dry before lubricant is applied. Perform all bearing lubrication application at temperatures above 40 degrees Fahrenheit or in accordance with manufactures specifications. All cost to complete Bearing Lubrication Application as specified shall be included in the unit price Each for “Lubricate Bearing”

D. Sequence of Work.

Complete work in the sequence listed below:

1. Stratified Rust Removal
2. Pressure Washing
3. Bearing Lubrication Application

E. Inspection.

The Cabinet will provide inspection for all items required in this contract. Visual inspection will be required upon completion of each work item for each structure component or at the discretion of the Engineer at any time. All visual inspection shall be performed within arm’s length distance.

1. **Stratified Rust or Pack Rust Removal:** Visual Inspection and Scraper
Test any surface cleaned to SSPC SP2 will be inspected by a dull scraper test to ascertain adherence of existing coating and a hammer test for tightness of pact rust.
2. **Power Washing:** Visual Inspection.
3. **Bearing Greasing:** Visual Inspection.

F. Verifying Field Conditions.

The Contractor shall be familiar with all conditions at bridge site. The Cabinet will not consider any claims due to the Contractor having not familiarized themselves with requirements of this work.

G. Residual Lead.

Residual lead paint may still be on bridge. The Contractor is advised to take all necessary protective measures including worker safety and environmental regulations when performing surface preparation. The Department will not consider any claims based on residual lead paint.

H. Damage to the structure.

The Contractor shall bear all responsibility and expense for any and all damage to the structure during the repair work, even to the removal and replacement of a fallen span, should the fallen span result from the Contractors actions.

4. MEASUREMENT.

Bearing Lubrication: The Cabinet will measure this item by Each, completed and accepted.

5. PAYMENT.

Bearing Lubrication (24983EC): Payment at the contract unit price “Each” is full compensation for applying bearing lubrication and all incidental items required to complete this work as specified in this note and attached detailed drawings.

SPECIAL NOTE FOR BRIDGE RESTORATION AND WATERPROOFING WITH CONCRETE OVERLAYS

- I. DESCRIPTION.** Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2019 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

This work consists of the following: (1) Furnish all labor, materials, tools, and equipment; (2) Remove the existing overlay by milling; (3) Remove residual overlay and partial depth areas by hydrodemolition; (4) Complete full-depth and partial depth repairs as directed by the Engineer; (5) Repair/replace damaged and corroded reinforcing bars; (6) Place new concrete overlay and epoxy-sand slurry in accordance with Section 606; (7) Complete asphalt approach pavement; (8) Maintain and control traffic; and (9) Any other work specified as part of this contract.

All construction will be in accordance with Section 606 unless otherwise specified.

II. MATERIALS.

- A. Latex Concrete.** See Section 606.03.17.
- B. Class "M" Concrete.** Use either "M1" or "M2". See Section 601.
- C. Bituminous Asphalt.** Use CL2 ASPH SURF 0.38D PG64-22.
- D. Epoxy-Sand Slurry.** See Section 606.03.10.

III. CONSTRUCTION.

- A. Remove Existing Overlay.** In addition to Section 606.03.03, totally remove the existing concrete overlay by milling.
- B. Partial Depth Slab Repair and Latex Overlay.** After removing the existing overlay by milling, calibrate the hydrodemolition equipment to remove as much unsound material and residual existing overlay as possible without removing any areas completely through the deck. See the Special Note for Use of the Hydrodemolition Method. It is anticipated that no additional partial depth areas will remain after hydrodemolition. In the unlikely event that partial depth areas do remain, the Contractor shall remove them with hand held jackhammers weighing less than 45lbs in accordance with Section 606.02.10 D. Repair/Replace all damaged or severely corroded reinforcing bars prior to partial depth repair operation. The Department will not measure material removal and will consider this work incidental to the bid item "PARTIAL DEPTH PATCHING". Mix and place Latex Modified Concrete Overlay in accordance with Sections 606.03.08 and 606.03.17.
- C. Asphalt Approach Pavement.** Mill each existing asphalt approach for a distance of 20' from the Illinois bridge end to the rigid approach and 50' from the Kentucky bridge end. Remove the bituminous material uniformly by making an edge key, so as to provide a smooth transition to the finished bridge when a new bituminous overlay of compacted depth of approximately 1½" is added to the approaches. The grinding

depth may vary depending of the condition of the existing approach and final elevation of bridge end. Dispose of all removed material away from the site.

- D. Surface Texturing.** Texture the concrete surface of the overlay in accordance with Section 609.03.10.

IV. MEASUREMENT. See Section 606 and the following:

- A. Latex Modified Concrete for Overlay.** The Department will measure the quantity in cubic yards using the theoretical volume as follows:

$$004B00021N \quad (5866' - 0 \frac{3}{4}" \times 22' - 6" \times 1 \frac{1}{2}") \quad = \quad 611.0 \text{ cuyd}$$

- B. Latex Modified Concrete for Partial Depth Patching and variable thickness of Overlay.** The Department will measure the quantity in cubic yards by deducting the theoretical volume of bridge deck overlay (LMC) from the total volume (as indicated by the batch quantity tickets) of Concrete required to obtain the finished grade shown on the Plans or established by the Engineer.
- C. Remove Existing Overlay.** The Department will measure the removal of the existing overlay in square yards, which shall include all labor, equipment, and material needed to complete this work.
- D. Steel Reinforcement.** The Department will measure any reinforcing steel necessary for the partial or full depth patch in pounds, which shall include all labor, equipment, and material needed to complete this work.
- E. Asphalt Approach Pavement.** The Department will measure the quantity in square yards, which shall include all labor, equipment, and material needed to complete this work.

V. PAYMENT. See Section 606 and the following:

- A. Latex Modified Concrete for Overlay.** The Department will make payment for the Latex Modified Concrete under bid item #08534 "CONCRETE OVERLAY – LATEX" for the theoretical quantity.
- B. Latex Modified Concrete for Partial Depth Patching and variable thickness of Overlay.** The Department will make payment for the Partial Depth Patching under bid item #24094EC "PARTIAL DEPTH PATCHING". Payment will be for the quantity per cubic yard complete in place.
- C. Remove Existing Overlay.** The Department will make payment for the removal of the existing overlay under the bid item #08510 "REM EPOXY BIT FOREIGN OVERLAY". Payment will be for the square yard complete.
- D. Steel Reinforcement.** The Department will make payment for steel reinforcement, if necessary, under bid item #08151 "STEEL REINFORCEMENT-EPOXY COATED". Payment will be at the unit price per pound.
- E. Asphalt Approach Pavement.** The Department will make payment for the completed and accepted quantity of this work under the bid item #03304 "BRIDGE OVERLAY APPROACH PAVEMENT".

SPECIAL NOTE FOR PAINTING STRUCTURAL STEEL REPAIRS

I. DESCRIPTION

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highways 2012 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the Contract Documents. Section references are to the Standard Specifications.

This work consists of the following:

1. Furnish all labor, materials, tools, equipment, and incidental items necessary to complete the work.
2. Provide safe access to the bridge, in accordance with Section 107.01.01, for the Engineer to sound possible repair areas and for workers to complete the construction.
3. Clean and prime the existing structural steel in accordance with this note and the attached detail drawings.
4. Prepare and prime the new structural steel in accordance with this note and the attached detail drawings.
5. Any other work specified as part of this contract.

Residual lead paint may still be on bridge. The Contractor is advised to take all necessary protective measures including worker safety and environmental regulations when performing surface preparation. The Department will not consider any claims based on residual lead paint.

II. MATERIALS

- A. Paint.** Conform to Section 607.

III. CONSTRUCTION

- A. Clean and Prime existing structural steel.** All existing faying surfaces where new steel is to be installed shall be cleaned and receive the prime coat as specified in Section 607.03.23 of the Standard Specifications before any new steel is installed. Level of cleaning shall be to an **SSPC-SP 15** (Commercial Grade Power Tool Cleaning). All Power tools shall be equipped with vacuum shrouds and fitted with HEPA filters at their air exhausts. Maintain and operate all vacuum shrouded power tools to collect generated debris.
- B. Prepare and Prime new structural steel.** New structural steel shall receive shop surface preparation and shop applied prime coat in accordance with Section 607. Faying surfaces shall receive only the prime coat specified. Necessary touch up/repair of the shop applied prime coat on the new steel may be performed in the field. Finish coatings will be field applied by others as part of a separate contract.

IV. MEASUREMENT

All items of work necessary to complete cleaning and painting as specified in this Note shall be considered incidental to the unit prices bid for the repairs being completed.

V. PAYMENT

The Department will make payment for the completed and accepted quantities of cleaning and painting structural steel repairs as part of the unit prices bid for the repairs being completed. The Department will consider payment as full compensation for all work required.

Special Note for Railroad Involvement

The Contractor will be responsible for acquiring a Right of Entry agreement from the Railroad and meeting all requirements set forth in it. An example Right of Entry agreement is attached. The Contractor shall adhere to the Special Provisions listed in the example agreement. Also attached is a Right of Entry (ROE) License Agreement Information packet, including a blank application form that is to be completed by the Contractor and submitted to the Railroad contact listed in the packet.

The Department will pay for the Right of Entry application fee and Flagging costs as a lump sum. This will constitute full compensation for all costs associated with the Railroad involvement including, but not limited to the Right of Entry application fee, insurance costs, flagging, and any delays that may occur. The ROE application fee is \$1,000.00. Flagging is estimated at \$1,300.00 per day for an 8-hour work day plus 1 hour before and after Contractor's work for the flagger to initiate and conclude his or her activities. Overtime, weekend, and holiday rates are provided in the information packet. The Contractor will be required to prepay for flagging and unused funds will be returned by the Railroad at the conclusion of the ROE.

It is estimated all work on the span directly above the railroad will take 14 working days. This information is provided so the contractor can estimate his cost for railroad flagging.

CODE	PAY ITEM	PAY UNIT
24665EX	Railroad Coordination	Lump Sum



Kentucky Transportation Cabinet
Division of Right of Way & Utilities

TC 69-008
08/2010
Page 1 of 2

SUMMARY FOR KYTC PROJECTS THAT INVOLVE A RAILROAD

Date: 2/26/2020 (enter using M/d/yyyy format)

This project actively involves the below listed railroad company. This Project Summary provides an abbreviated listing of project specific railroad data. The detailed needs of the specified railroad company are included in the Special Notes for Protection of Railroad Interest in the proposal package. By submitting a bid, the contractor attests that they have dutifully considered and accepted the provisions as defined in both documents.

GENERAL ROAD PROJECT INFORMATION (This section must be provided by KYTC)

County: Ballard
Federal Number: NHPP 0511 (050)
State Number: FD52 004 0051 004-007
Route: US 51
Project Description: US 51 over Illinois Central Railroad
Item Number: 01-20000.00 **Highway Milepost:** 4.873-6.650

GENERAL RAIL INFORMATION (The below sections must be provided by Railroad Company)

Rail Company Name: Illinois Central Railroad
AAR-DOT# (if applicable): 299076J **Railroad Milepost:** 366.170
Freight: Train Count (6am to 6pm): 5 **Train Count (6pm to 6am):** 5 **Train Count (24 hr total):** 10 **Max Speed:** 70 mph
Passenger: Train Cnt. (6am to 6pm): 1 **Train Cnt. (6pm to 6am):** 1 **Train Cnt. (24 hr total):** 2 **Max Speed:** 70 mph
(This information is necessary to acquire the necessary insurances when working with Railroad Right of Way)

INSURANCE REQUIREMENTS

The named insured, description of the work and designation of the job site to be shown on the Policy are as follows:

- (a) Named Insured: Illinois Central Railroad
- (b) The project description should be as indicated in the General Road Project Information section.
- (c) The designation of the jobsite is the route, Milepost, and AAR-DOT# listed above.

FLAGGING INFORMATION

Flagging Estimate:

Flagging will be paid for and coordinated by Contractor. It will require prepayment in accordance with the Right of Entry agreement executed between the Contractor and Railroad.

Hourly Rate:

\$1300.00 per day based on a 10 hour day effective as of the date of this document.

Work by a flagman in excess of 8 hours per day or 40 hours per week, but not more than 12 hours a day will result in overtime pay at 1 ½ times the appropriate rate. Work by a flagman in excess of 12 hours per day will result in overtime pay at 2 times the appropriate rate. If work is performed on a holiday, the flagging rate is 2 ½ times the normal rate.

Forecasted Rate Increases:

Rates will increase to \$0.00 per hour based on a 0 hour day effective _____ (enter using M/d/yyyy format).

RAILROAD CONTACTS

(to be provided by Railroad Company)

General Railroad Contact:

John Dinning
Illinois Central Railroad
2151 North Mill Street
Jackson, MS 39202

(Phone) 601-592-1815

(Email) John.Dinning@cn.ca

Regional Representative (Roadmaster):

To be provided by RR upon insurance approval

(Phone) _____

(Email) _____

Insurance contact:

John Dinning
Illinois Central Railroad
2151 North Mill Street
Jackson, MS 39202

(Phone) 601-592-1815

(Email) John.Dinning@cn.ca

Railroad Designer Contact:

Contractor or In-House Employee? Consultant

John Dinning
Illinois Central Railroad
2151 North Mill Street
Jackson, MS 39202

(Phone) 601-592-1815

(Email) John.Dinning@cn.ca

Railroad Construction Contact:

Contractor or In-House Employee?

In-House Employee

Michelle Erb
CN Flagging Desk
Canadian National
17641 South Ashland Ave.
Homewood, IL 60430

(Phone) 682-316-5097

(Email) Flagging_US@CN.ca

KENTUCKY TRANSPORTATION CABINET CONTACTS

(to be provided by KYTC)

KYTC Railroad Coordinator:

Allen Rust, PE
Div. of Right of Way & Utilities
Kentucky Transportation Cabinet
200 Mero Street, 5th Floor East
Frankfort, Kentucky 40622

(Phone) 502-782-4950

(Email) allen.rust@ky.gov

KYTC Construction Procurement Director:

Rachel Mills, Director
Div. of Construction Procurement
Kentucky Transportation Cabinet
200 Mero Street, 3rd Floor West
Frankfort, Kentucky 40622

(Phone) 502-782-5152

(Email) Rachel.Mills@ky.gov

KYTC Construction Director:

Matt Simpson, Director
Division of Construction
Kentucky Transportation Cabinet
200 Mero Street, 3rd Floor West
Frankfort, Kentucky 40622

(Phone) 502-564-4780

(Email) Matt.Simpson@ky.gov



The project specific information provided herein is valid as of the date indicated. However, the specific information may be subject to change due to the normal business operations of all parties. The terms and conditions defined here, and in the bid proposal in its entirety, are inclusive and constant.

IMPORTANT NOTICE

CORPORATIONS

License must be signed by the President or a Vice President of the Corporation or Company, or be accompanied by a certified resolution of the Board of Directors authorizing execution by a lesser official.

PARTNERSHIP

License must be signed by all of the partners.

MUNICIPALITIES OR GOVERNMENTAL AGENCIES

License must be accompanied by a certified resolution authorizing the official signing the License to execute on behalf of the Governmental Body. The resolution should not be certified by the same official who executed the License.

RIGHT OF ENTRY LICENSE AGREEMENT

Illinois Central Railroad Company (hereinafter called Railroad Company) hereby grants pursuant to this Right of Entry License Agreement (hereinafter called License) to **UNK, UNK, UNK, XX XXXXX, Telephone XXX-XXX-XXXX** (hereinafter called the Licensee) license and permission, at the Licensee's sole cost, risk and expense, to enter the Railroad Company's property in the vicinity of **US 60 overhead bridge, Wickliffe, KY, Railroad Milepost 366.17, CAIRO Subdivision, DOT# 299076J for repair deck and handrails on US 60 overpass** on, over and near Railroad Company's tracks and right-of-way, as generally shown on Location Exhibit, attached hereto and made a part hereof.

This License does not include the right to perform any utility work in the Railroad Company's right of way. Contact Joe Wojcik at 708-332-4739 to obtain a utility permit/maintenance number for any utility work.

Licensee shall pay to Railroad Company upon execution of this License the sum of **\$1000.00** for the privileges granted by this License. The aforesaid sum is not refundable in the event Licensee elects not to enter upon Railroad Company's property or in the event Railroad Company elects to terminate this License for any reason whatsoever.

Licensee shall not enter Railroad Company's premises for the purpose as set forth above without having first given Railroad Company's Engineering Manager or their authorized representative at least five (5) working days advance notice of the date Licensee plans to commence the work.

Railroad Company shall have the right, but not the duty, to require Licensee to furnish detailed plans prior to entry upon the premises and to view and inspect any activity or work on or above Railroad Company's property. If in the sole opinion of the authorized representative of Railroad Company any said activity or work is undesirable for any reason, Railroad Company shall have the right to terminate this License at once.

Railroad Company shall have the right, but not the duty, to restrict Licensee's activity on Railroad Company's property in any way that Railroad Company may, in its sole opinion, deem necessary from time to time and shall also have the right, but not the duty, to require Licensee to adopt and take any safety precautions that Railroad Company may, in its sole opinion, deem necessary from time to time. No work shall be performed or equipment located within twenty-five feet (25') of the centerline of the nearest railroad track without the expressed permission of Railroad Company's Engineering Manager or their duly authorized representative and then only when either the track has been removed from service or Railroad Company flag protection is provided.

Railroad Company may, at Licensee's sole cost, risk and expense, furnish whatever protective services it considers necessary, including, but not limited to, flag protection, and inspectors.

Licensee shall at all times conduct its work in accordance with any and all "Special Provisions" which may be appended hereto which, by reference hereto, are hereby made a part hereof.

AS A CONSIDERATION AND AS A CONDITION, WITHOUT WHICH THIS LICENSE WOULD NOT HAVE BEEN GRANTED, LICENSEE AGREES TO INDEMNIFY AND SAVE HARMLESS RAILROAD COMPANY, ITS PARENTS, AFFILIATES, AND THEIR DIRECTORS, OFFICERS, EMPLOYEES AND AGENTS AND TO ASSUME ALL LIABILITY FOR DEATH

OR INJURY TO ANY PERSONS, INCLUDING, BUT NOT LIMITED TO, OFFICERS, EMPLOYEES, AGENTS, PATRONS AND LICENSEES OF THE PARTIES HERETO, AND FOR ALL LOSS, DAMAGE OR INJURY TO ANY PROPERTY, INCLUDING, BUT NOT LIMITED TO, THAT BELONGING TO THE PARTIES HERETO, TOGETHER WITH ALL EXPENSES, ATTORNEYS' FEES AND COSTS INCURRED OR SUSTAINED BY RAILROAD COMPANY, WHETHER IN DEFENSE OF ANY SUCH CLAIMS, DEMANDS, ACTIONS AND CAUSES OF ACTION OR IN THE ENFORCEMENT OF THE INDEMNIFICATION RIGHTS HEREBY CONFERRED, IN ANY MANNER OR DEGREE CAUSED BY, ATTRIBUTABLE TO OR RESULTING FROM THE EXERCISE OF THE RIGHTS HEREIN GRANTED, OR THE FAILURE OF LICENSEE TO CONFORM TO CONDITIONS OF THIS LICENSE, WORK PERFORMED BY RAILROAD COMPANY FOR LICENSEE UNDER THE TERMS OF THIS LICENSE OR THE CONSTRUCTION, MAINTENANCE, REPAIR, RENEWAL, ALTERATION, CHANGE, RELOCATION, EXISTENCE, PRESENCE, USE, OPERATION OR REMOVAL OF ANY STRUCTURE INCIDENT THERETO, OR FROM ANY ACTIVITY CONDUCTED ON OR OCCURRENCE ORIGINATING ON THE AREA COVERED BY THIS LICENSE, REGARDLESS OF ANY NEGLIGENCE OF RAILROAD COMPANY, ITS OFFICERS, EMPLOYEES AND AGENTS. SAID LICENSEE AGREES ALSO TO RELEASE, INDEMNIFY AND SAVE HARMLESS RAILROAD COMPANY, ITS OFFICERS, EMPLOYEES AND AGENTS FROM ALL LIABILITY TO LICENSEE, ITS OFFICERS, EMPLOYEES, AGENTS OR PATRONS, RESULTING FROM RAILROAD OPERATIONS AT OR NEAR THE AREA IN WHICH LICENSE IS TO BE EXERCISED, WHETHER OR NOT THE DEATH, INJURY OR DAMAGE RESULTING THEREFROM MAY BE DUE TO WHOLE OR IN PART TO THE NEGLIGENCE OF RAILROAD COMPANY, ITS OFFICERS, EMPLOYEES OR AGENTS. AT THE ELECTION OF RAILROAD COMPANY, LICENSEE, UPON NOTICE TO THAT EFFECT, SHALL ASSUME OR JOIN IN THE DEFENSE OF ANY CLAIM BASED UPON ALLEGATIONS PURPORTING TO BRING SAID CLAIM WITHIN THE COVERAGE OF THIS SECTION.

Before commencing work and until this License shall be terminated, Licensee shall provide and maintain the following insurance in form and amount with companies satisfactory to and as approved by Railroad Company.

- a. Statutory Workers Compensation and Employer's Liability insurance.
- b. Automobile Liability in an amount not less than \$1,000,000 dollars combined single limit.
- c. Commercial General Liability (occurrence form) in an amount not less than \$5,000,000 dollars per occurrence, with an aggregate limit of not less than \$10,000,000 dollars. The Policy must name Railroad Company and its Parents as additional insured in the following form:

Illinois Central Railroad Company and its Parents
Attn: John Dinning
2151 North Mill St
Jackson, MS 39202
601-914-2658 (Office)
john.dinning@cn.ca

If the commercial general liability policy required herein contains any exclusions related to doing business or undertaking construction or demolition on, near, or adjacent to railroad facilities; such exclusion must be removed through issuance of endorsement CG 24 17, or a similar endorsement approved by Railroad Company in its sole discretion prior to the commencement of work hereunder.

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- d. In the event the privileges provided herein to Licensee involve any work that could result in the discharge, spillage, disposal, release or escape of any Hazardous Material or petroleum product onto the Railroad Company's property, Licensee shall purchase and maintain in effect at all times during the term of this License a Contractor's Pollution Liability policy in an amount not less than two million dollars (\$2,000,000) combined single limit (and with a deductible not to exceed \$50,000) insuring Railroad against any and all damages, costs, liabilities and expenses resulting from on- or off-site bodily injury (including death to any person), on or off-site loss, damage or destruction of property (including that belonging to the parties hereto), and on-or off-site cleanup costs (including expenses incurred in the investigation, removal, remediation, neutralization, or immobilization of contaminated soils, surface water, groundwater or any other contamination) growing out of or incidental to any discharge, spillage, disposal, release, or escape of any Hazardous Material or petroleum product arising therefrom. For purposes of this Agreement, the term "Hazardous Material" shall include, without limit, any flammable explosives, radioactive materials, hazardous materials, hazardous wastes, hazardous or toxic substances, or related materials defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. §§ 9601, et seq.), the Hazardous Material Transportation Act, as amended (49 U.S.C. §§ 1801, et seq.), the Resource Conservation and Recovery Act, as amended (42 U.S.C. §§ 6901 et seq.), the Toxic Substances Control Act, as amended (15 U.S.C. §§ 2601, et seq.), similar laws or ordinances enacted by any state, county or municipality in which the Property is located, or in the regulations adopted and publications promulgated pursuant to any of the above, as such laws or regulations now exist or may exist in the future.

Licensee is required to advise Railroad Company by thirty (30) day advance written notice when any work to be performed under this License may require Pollution Liability Insurance pursuant to the previous paragraph.

Before commencing work, Licensee shall deliver to Railroad Company a certificate of insurance evidencing the foregoing coverage, and upon request, Licensee shall deliver a certified, true and complete copy of the policy or policies at its sole cost and expense. The policies shall provide for not less than thirty (30) days prior written notice to Railroad Company of cancellation of or any material change in, the policies, and shall contain the waiver of right of subrogation.

It is understood and agreed that the foregoing insurance coverage is not intended to, and shall not, relieve Licensee from or serve to limit Licensee's liability under the indemnity provisions of this License or any applicable agreement.

It is further understood and agreed that, so long as this License shall remain in force or until the Licensee's work is complete and Licensee shall have vacated the Railroad Company's property (whichever shall be later), Railroad Company shall have the right, from time to time, to revise the amount or form of insurance coverage provided as circumstances or changing economic conditions may require. Railroad Company shall give Licensee written notice of any such requested change at least thirty (30) days prior to the date of expiration of the then existing policy or policies; and Licensee agrees to, and shall, thereupon provide Railroad Company with certificates reflecting such revised policy or policies thereof.

If a contractor is to be employed by Licensee, then, before any work is commenced hereunder, Licensee shall establish, to the reasonable satisfaction of Railroad Company, that either (i) the contractor has in place insurance policies covering its own work that comply with

the required insurance coverages, limits and terms applicable to Licensee, or (ii) the contractor is fully covered under Licensee's insurance policies.

Railroad Company's exercise or failure to exercise any rights under this License shall not relieve Licensee of any responsibility under this License, including, but not limited to, the obligation to indemnify Railroad Company as herein provided.

Cost and expense for work performed by Railroad Company, as referred to in this License, shall consist of the actual cost of labor, materials, equipment and other plus Railroad Company's standard additives in effect at the time the work is performed.

This License is revocable at the option and discretion of Railroad Company upon notice to Licensee, and shall not be transferred or assigned. Unless sooner revoked by Railroad Company, extended at request of Licensee and granted by Railroad Company in writing, or relinquished by act of Licensee, this License shall terminate on **Wednesday, July 29, 2020**.

Upon termination of this License, Licensee shall remove all of its property, leaving Railroad Company's premises in a neat and safe condition satisfactory to Railroad Company's Engineering Manager or their authorized representative, failing which Railroad Company may remove said materials from its premises at Licensee's sole cost, risk and expense, or at its option, may deem such property as abandoned and henceforth owned by Railroad Company, with no compensation for Licensee whatsoever.

Illinois Central Railroad Company

By: _____

Print Name: John Dinning

Title: Manager of Public Works

ACCEPTED:

UNK

By: _____

Print Name: _____

Title: _____

Date: _____

SPECIAL PROVISIONS

RELATIVE TO FLAGGING AND OTHER PROTECTION OF RAILROAD COMPANY TRAFFIC AND FACILITIES DURING CONSTRUCTION ADJACENT AND ABOVE, ON OR ACROSS, THE PROPERTY OF, OR ON, ABOVE AND BENEATH THE TRACKS OF THE CN

The Licensee shall, before entering upon the property of Railroad Company for performance of any work, secure a fully executed right of entry license from Railroad Company's Engineering Manager or their authorized representative for the occupancy and use of Railroad Company's property. Licensee shall confer with Railroad Company relative to requirements for railroad clearances, operation and general safety regulations.

Prior to any entry onto Railroad Company's property, employees and/or contractor(s) of Licensee doing work shall determine by the guidelines hereinafter provided and by the work to be performed the level of safety training to be required.

All employees and/or contractor(s) of Licensee not hired by Railroad Company that will work on CN property are required to have minimum www.contractororientation.com.

- a. EXCEPTION: Railroad Company has exempted those it classifies as "Delivery Persons" from this training. This will include contractors such as UPS, FedEx, trucking companies, etc. who merely access the property to supply materials or equipment.

All employees and/or contractor(s) of Licensee hired by Railroad Company which will work on Railroad Company property are required to have minimum CN Safety and Security Awareness training, in addition to undergoing a background check. This training and background check must be obtained through the eRailSafe.com website. If not done before, the contractor must contact e-RailSafe at 855-383-7434 to be issued either a vendor number or issued instructions on obtaining a non –railroad contractor vendor number prior to accessing the noted website. Minimum information required of the Licensee and/or their contractor when contacting e-Rail Safe is Name, Address, Telephone, Contact Person for State Projects, DOT Contract Number, and the AAR/DOT Number. This training is good for a period of two years.

- a. EXCEPTION: Railroad Company has exempted those employees of contractors providing paving services at a road crossing under construction or repair from this requirement.
- b. EXCEPTION: Railroad Company has exempted those it classifies as "Delivery Persons" from this training. This will include contractors such as UPS, FedEx, trucking companies, etc. who merely access the property to supply materials or equipment.

All employees and/or contractor(s) of Licensee hired by Railroad Company, whose duties include and who are engaged in the inspection, construction, maintenance, or repair of railroad track, bridges, roadway, signal and communication systems, roadway facilities, or roadway machinery that will work foul of or have the potential to foul a live track are considered Roadway Workers under FRA regulations and CN Policy. They must complete the On-Track Safety Training course approved by Railroad Company and provided by R.R. Safety – AMR, P.O. Box 75, Lomira, WI 53048, telephone (920) 517-1677, email rrsafetytraining@yahoo.com. This training must be repeated at least once each calendar year.

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- a. EXCEPTION: Railroad Company has exempted those employees of contractors providing paving services at a road crossing under construction or repair from this requirement.
- b. EXCEPTION: Railroad Company has exempted those it classifies as "Delivery Persons" from this training. This will include contractors such as UPS, FedEx, trucking companies, etc. who merely access the property to supply materials or equipment.
- c. All the employees and/or contractor(s) of Licensee who will operate on-track machinery or those who will provide protection for other employees and/or contractor(s) of Licensee must also be trained on CN US Operating Rules pertaining to their duties. They must take and pass the required examination. This training is good for a period of two years.
- d. "Potential to foul a live track" is considered, at a minimum, to be working within twenty-five feet of the track; or as otherwise to be determined by CN Design & Construction Department.

The employees, contractor(s), and/or agents of the Licensee and/or its contractor shall qualify for, and make available for inspection to Railroad Company's employees or other authorized personnel at all times while on Railroad Company property, a photo identification issued by www.e-railsafe.com, along with at least one other government-issued form of identification. Licensee and/or their contractor shall bear all costs of compliance with the requirements of this Section. Railroad Company reserves the right to bar any of employees or agents of Licensee and/or their contractor from Railroad Company's property at any time for any reason.

Licensee and/or any contractor engaged on their behalf, shall at all times conduct work in a manner satisfactory to the Engineering Manager of Railroad Company, or their authorized representative, and shall exercise care so as to not damage the property of Railroad Company, or that belonging to any other grantees, licensees, permittees or tenants of Railroad Company, or to interfere with railroad operations.

Engineering Manager of Railroad Company, or their authorized representative, will at all times have jurisdiction over the safety of railroad operations. The decision of the Engineering Manager or their authorized representative as to procedures which may affect the safety of railroad operations shall be final, and Licensee and/or their contractor shall be governed by such decision.

All work shall be conducted in such a manner as will assure the safety of Railroad Company. Railroad Company's authorized representative shall have the right, but not the duty, to require certain procedures to be used or to supervise the work on Railroad Company's property.

Should any damage occur to Railroad Company property as a result of the authorized or unauthorized operations of Licensee and/or their contractor and Railroad Company deems it necessary to repair such damage or perform any work for the protection of its property or operations, the Licensee and/or their contractor, as the case may be, shall promptly reimburse Railroad Company for the actual cost of such repairs or work. For the purpose of these Special Provisions, actual cost shall be deemed to include the direct cost of any labor, materials, equipment, or contract expense plus Railroad Company's current standard additives in each instance.

If the work requires the construction of a temporary grade crossing across the track(s) of Railroad Company, Licensee and/or their contractor shall make the necessary arrangements

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and execute Railroad Company's temporary grade crossing agreement for the construction, protection, maintenance, and later removal of such temporary grade crossing. The cost of such temporary grade crossing construction and later removal shall be prepaid to Railroad Company. Additional costs for repairs, maintenance or protection will be paid within thirty (30) days upon receipt of bill(s) therefore.

Licensee and/or their contractor shall at no time cross Railroad Company's property or tracks with vehicles or equipment of any kind or character, except at such temporary grade crossing as may be constructed as outlined herein, or at any existing and open public grade crossing. Operation over such crossing shall be at the direction and method of Railroad Company's Engineering Manager or their authorized representative.

Railroad Company may, at Licensee's and/or their contractor's sole cost, risk and expense, furnish whatever protective services it considers necessary, including, but not limited to, flagger(s), inspector(s), and stand-by personnel. Flagging protection, inspection services, or standby personnel required by Railroad Company for the safety of railroad operations because of work being conducted by Licensee and/or their contractor, or in connection therewith, will be provided by Railroad Company and the cost of Licensee and shall be prepaid to Railroad Company by Licensee and/or their contractor. Flagging protection, inspection services, or standby personnel, necessary or provided in excess of prepayment amounts will be billed at the proper rates and will be promptly paid by overnight delivery.

In the event Railroad Company is unable to furnish protective services at the desired time or on the desired date(s), or if Licensee's prepayment for such services is exhausted and not replenished by Licensee and/or their contractor, Licensee and/or their contractor shall not perform any work on Railroad Company's property until such time and date(s) that appropriate Railroad Company services can be made available and/or appropriate prepayment is received. It is understood that Railroad Company shall not be liable for any delay or increased costs incurred by Licensee and/or their contractor owing to Railroad Company's inability or failure to have appropriate protective services available at the time or on the date requested.

Licensee and/or their contractor shall request and secure flagging protection by written notice to Railroad Company using CN's "Request for Flagging Services" form. This form must be submitted at least ten (10) working days in advance of proposed performance of any work or access to Railroad Company's property.

Flagging protection will be required during any operation involving direct and potential interference with Railroad Company's tracks or traffic. This may include but is not limited to fouling of railroad operating clearances, reasonable proximity of accidental hazard to railroad traffic, work within twenty-five (25) feet horizontally of the nearest centerline of any railroad track, any work over any railroad track, or in any other condition that Railroad Company deems protective services necessary, which may include work on or off Railroad Company's property more than twenty-five (25) feet from the nearest centerline of any railroad track, such as any equipment extension (including but not limited to a crane boom) that will reach or has the potential to reach within twenty-five (25) feet of any track.

Licensee and/or their contractor shall request, prepay, and secure Railroad Company signal facility locates by written notice to Railroad Company along with submission of CN's "Request for Flagging Services" form at least ten (10) working days in advance of proposed performance of any work or access to Railroad Company property. Notice to Railroad Company does not fulfill or satisfy any other notification requirements for utility locates for non-railroad facilities.

Railroad Company may require that prior to digging, trenching, or boring activities on or near Railroad Company property, or beneath any railroad track, an on-site meeting be

conducted with Railroad Company's Signal Department representative. No digging, trenching or boring activities shall be conducted in the proximity of any known buried Railroad Company signal cables without Railroad Company's Signal Department representative being present.

The rate of pay for Railroad Company employees will be the prevailing hourly rate for not less than eight (8) hours for the class of labor at regular rates during regularly assigned work hours, and at overtime rates outside of regular hours and in accordance with Labor Agreements or Schedules plus Railroad Company's current standard additives in each instance.

Wage rates are subject to change, at any time, by law or agreement between Railroad Company and employees, and may be retroactive because of negotiations or a ruling by an authorized Governmental Agent. If the wage rates are changed, Licensee and/or their contractor shall pay on the basis of the new rates and/or additives.

No digging, trenching, or boring on Railroad Company property shall be conducted without Railroad Company's written approval of the plans that were furnished to Railroad Company's Engineering Manager at least thirty (30) in advance of the excavation.

The following temporary clearances are the minimum that must be maintained at all times during any operation on or adjacent to Railroad Company property:

- Vertical: 22'-0" (7.00 m) above top of highest rail within 12'-0" (3.81 m) of the centerline of any track
- Horizontal: 12'-0" (3.81 m) from centerline of the nearest track, measured at right angles thereto

If lesser clearances than the above are required for any part of the work, Licensee and/or their contractor shall secure written authorization from Railroad Company's Engineering Manager for such lesser clearances in advance of the start of that portion of the work.

No materials, supplies, or equipment will be stored within twenty-five (25) feet from the centerline of any railroad track, measured at right angles thereto.

Licensee and/or their contractor will be required upon the completion of the work to remove from within the limits of Railroad Company's property all machinery, equipment, surplus materials, false work, rubbish or temporary buildings, and to leave said property in a condition satisfactory to the Engineering Manager of Railroad Company or their authorized representative.

Nothing in these Special Provisions shall be construed to place any responsibility on Railroad Company for the quality or conduct of the work performed by Licensee and/or their contractor hereunder. Any approval given or supervision exercised by Railroad Company hereunder, or failure of Railroad Company to object to any work done, material used, or method of operation shall not be construed to relieve Licensee and/or their contractor of any obligations pursuant hereto or under the License these Special Provisions are appended to.

Accepted: _____

Print Name: _____

Date: _____

UNK

Example Railroad
Right of Entry

REQUIREMENTS TO PROVIDE FLAGGING PROTECTION AND CABLE LOCATION FOR PROJECTS ON OR IN THE VICINITY OF CN PROPERTY

**(Hereinafter called "Railroad")
(Revised: Effective December 4th, 2018)**

NOTE: Flagging and/or Cable Locate fees may apply

A utility or contractor shall not commence, or carry on, any work for installation, maintenance, repair, changing or renewal of any FACILITY, under, over, on, or near RAILROAD property at any location without giving notice to the RAILROAD authorized representative at the RAILROAD's office located at Homewood, IL. If in the opinion of the RAILROAD the presence of an authorized representative of the RAILROAD is required to supervise the same, the RAILROAD shall render bills to the utility or contractor for all expenses incurred by it for such supervision. This includes all labor costs for flagmen or cable locate supplied by the RAILROAD to protect RAILROAD operation, and for the full cost of furnishing, installation and later removal of any temporary supports for said tracks, as the RAILROAD's Chief Engineer's Office may deem necessary.

A flagman is required any time any work is performed (i) under or across any Railroad track, regardless of whether said work involves a physical presence on the surface of the Railroad property; (ii) on the surface of the Railroad property within twenty-five (25) feet horizontally of the centerline of any railroad track; or (iii) on, near, or over Railroad property if the work may potentially encroach (intentionally or unintentionally) within twenty-five (25) feet from the centerline of any railroad track. Causes of potential encroachment include but are not limited to equipment that has the potential to swing, pivot, extend or mechanically fail. Potential encroachment must also account for a distance of one-half the length of the largest load that any equipment may lift. Additionally, Railroad reserves the right to require a flagman for work on Railroad property not meeting the above criteria when there are other conditions or considerations that would indicate the need for a flagman to safeguard Railroad's operations, property and safety of any person.

Cable Location

A cable location of RAILROAD owned facilities may be required prior to the start of any work based on the RAILROAD's review of the proposed project. The purpose of cable location is to identify and protect Signal & Communication cables that have been installed to provide power, signal control, and wayside communications. These cables are vital to a safe and reliable railway operation. The cable locate will be performed by a qualified RAILROAD employee.

The cost for a cable location is \$350.00, and must be prepaid by check before RAILROAD will undertake the cable locate work.

Outside contractors are prohibited from driving on, along, or across any track that does not have a CN installed crossing. They may utilize an existing public crossing. The practice of allowing rubber tired equipment to operate over track with no crossing is strictly prohibited. Exceptions to this rule will require the express approval from CN Engineering.

Prior to any project being started, the RAILROAD requires a "Request for Flagging Services and Cable Location" form to be completed and submitted, including check for prepayment based on the number of days and hours flagging protection will be required and also prepayment for cable location as necessary. Separate checks must be issued for flagging protection and cable location. You must have an agreement with a CN railroad subsidiary, such as a Right of Entry, Permit, License, or Formal Agreement in addition to any necessary flagging before you may enter CN property.

Request for Flagging Services and Cable Location

U.S.

Requests and inquiries must be directed to:
Flagging-US
17641 South Ashland Ave.
Homewood, IL 60430
Flagging_US@CN.CA

Is this a continuation of an existing project? Yes No
If YES, please provide your Service Order # _____

All blanks below must be completely filled in before any flagman request will be honored.

Work Authorization:
Right of Entry/License/Permit No.: _____

Dated: _____ Railroad: _____

Does your Right of Entry/License/Permit require a Railroad Cable Locate? Yes No

You must have an agreement with a CN railroad subsidiary, such as a Right of Entry, Permit, License or Formal Agreement in addition to any necessary flagging before you may enter CN property.

Project Information: *Please submit a detailed map of the location where protection is being requested.*

Street Location/Intersection _____ City/State _____

Railroad Milepost _____ Railroad Subdivision _____

Description of work being performed: _____

Location for flagman to report: _____

Name of Site Contact: _____ Site Contact Phone: () - Alt: () -

Requested Dates/Times: *Dates requested are subject to flagman availability. Minimum 5 business days advance notice required.*

Requested Dates for Flagging Protection: _____, _____, _____, _____, _____, _____

Project Starting time: _____ Anticipated Ending Time: _____ Anticipated # Hours per Day: _____ *Flagmen start and end time may vary based on type of protection required.

Billing Information: *All blanks spaces must be filled out*

Company Name: _____ Requestor Name: _____

Billing Address: _____

City: _____ State: _____ Zip: _____

CN required online training must be completed before Flagman Protection will be scheduled.

Prepayment must be received before Flagging Protection will be scheduled. There is an 8 hour minimum per day. The base rate per day for Flagman Protection is \$1,300.00 for 10 hours; this includes 2 overtime hours for flagman to set up/take down protection if needed. Additional overtime hours must be prepaid at the rate of \$150.00 per hour. Weekends and Holidays must be prepaid at the overtime rate with a \$1,500.00 / 10 hour minimum. Any prepayment for additional days or overtime not used can be refunded.

Railroad Cable Location must be prepaid, the cost is \$350.00 per locate.

Separate Checks must be issued for Flagging Protection and Cable Location. Checks should be made payable to the railroad subsidiary listed on your Right of Entry/Permit/License or, Formal Agreement.

Company Phone: _____ Company Fax: _____ E-Mail: _____

**THIS COMPLETED FORM MUST BE SENT WITH A MAP, PREPAYMENT CHECK(S), AND PROOF OF INSURANCE TO:
US-FLAGGING / 17641 SOUTH ASHLAND AVE. HOMEWOOD, IL 60430**

I agree to pay for flagging services as requested: _____
(SIGN AND PRINT NAME)

Example Railroad
Right of Entry



John W. Dinning
Manager Public Works

2151 North Mill Street
Jackson MS 39202

T 601.914.2658
F 601.592.1815
Email: john.dinning@cn.ca

Right of Entry (ROE) License Agreement Information

Cost is \$1,000.00*for application

Railroad Company requires everyone (contractor, consultants, etc.) working on Railroad Company property to have a Right-of-Entry (ROE) License Agreement. ROE license agreement applications are handled by email. Once Railroad Company receives the information requested below, and if application is approved, Railroad Company will draw up a ROE License Agreement, and will forward electronic copy by email for applicant's execution. Applicant must return one (1) executed original copy, a check for \$1,000.00*, and proof of insurance, together in one package to the address above. Application and ROE License Agreement will be delayed if Railroad Company receives the required documents separately, incomplete, or inaccurate. Railroad Company will return a fully executed digital copy of the ROE License Agreement by email for Applicant's files and records. No work may occur on Railroad Company property nor will flagging protection be provided until ROE License Agreement has been fully executed by both parties and returned. * Fee may be increased for special handling.

Please use this form and return by email to submit application request for a Right of Entry agreement.

Contact name –

Name of Applicant/contractor -

Street Address –

City, State, Zip –

Telephone –

Reason for ROE –

Duration of ROE –

Public Agency's Project No. –

Public agency Easement No. (if known) –

Location of project –

FRA/AAR/DOT Crossing No. –

If unable to locate this number at jobsite, please use following links to obtain:

<http://safetydata.fra.dot.gov/officeofsafety/publicsite/crossing/xingqryloc.aspx>

In Illinois

<http://www.icc.illinois.gov/railroad/advanced.aspx?>

If project job site does not have a FRA/AAR/DOT Crossing Number, please attach an aerial snapshot to help identify specific location.

ROE may take up to 4+ weeks to obtain

FAQ

What are the insurance requirements?

Railroad Company allows outside parties to come onto Railroad Company property to perform work, such as survey or inspection work, installation of pipelines and wirelines, and other work for projects necessitating the occupancy of Railroad Company. Before commencing work, and until the license of allowing such occupancy ends or is terminated, outside parties shall provide and maintain the following insurance in form and amount with companies satisfactory to and as approved by Railroad Company.

1. Minimum insurance required of outside party:
 - A. Statutory Workers Compensation and Employer's Liability Insurance.
 - B. Automobile Liability Insurance in an amount not less than \$1,000,000 combined single limit.
 - C. Commercial General Liability Insurance (Occurrence Form) in an amount not less than \$5,000,000 per occurrence, with an aggregate limit of not less than \$10,000,000. The policy must name "All Operating Subsidiaries of North American Railways, Inc." as additional insureds in the following form:

All Operating Subsidiaries of North American Railways, Inc.
Attn: Mgr Insurance, Insurance Department
935 de La Gauchetiere St W
Montreal, Quebec H3B 2M9, Canada
514-399-6411 (office); 514-399-4296 (FAX)

The policy must remove any provisions excluding coverage for injury, loss or damage arising out of or resulting from doing business or undertaking construction or demolition on, near, or adjacent to railroad track or facilities using endorsement CG 2417 10 01 or equivalent approved by Railroad Company.

- D. When outside party is required by Railroad Company or Governing Authority to purchase Railroad Protective Liability Insurance to cover work on, near or adjacent to railroad track or facilities, and outside party is not being hired for this project by Railroad Company, outside party must procure Railroad Protective Liability Insurance in the following form;

This coverage shall be written on an Occurrence Form with limits of not less than \$5,000,000 per occurrence for Bodily Injury, Personal Injury and Physical Damage to Property, with an aggregate limit of not less than \$10,000,000. The policy must name:

Name of site specific Railroad Company (applicant must contact CN to determine)
Attn: Mgr Insurance, Insurance Department
935 de La Gauchetiere St W
Montreal, Quebec H3B 2M9, Canada
514-399-6411 (office); 514-399-4296 (FAX)

- E. In the event the privileges provided herein to Applicant involve any work that could result in the discharge, spillage, disposal, release or escape of any Hazardous Material or petroleum product onto the Railroad Company's property, Applicant shall purchase and maintain in effect at all times during the term of this License a Contractor's Pollution Liability policy in an amount not less than two million dollars (\$2,000,000) combined single limit (and with a deductible not to exceed \$50,000) insuring Railroad against any and all damages, costs, liabilities and expenses resulting from on- or off-site bodily injury (including death to any person), on or off-site loss, damage or destruction of property (including that belonging to the parties hereto), and on-or off-site cleanup costs (including expenses incurred in the investigation, removal, remediation, neutralization, or immobilization of contaminated soils, surface water, groundwater or any other contamination) growing out of or incidental to any discharge, spillage, disposal, release, or escape of any Hazardous Material or petroleum product arising therefrom. For purposes of this Agreement, the term "Hazardous Material" shall include, without limit, any flammable explosives, radioactive materials, hazardous materials, hazardous

wastes, hazardous or toxic substances, or related materials defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. §§ 9601, et seq.), the Hazardous Material Transportation Act, as amended (49 U.S.C. §§ 1801, et seq.), the Resource Conservation and Recovery Act, as amended (42 U.S.C. §§ 6901 et seq.), the Toxic Substances Control Act, as amended (15 U.S.C. §§ 2601, et seq.), similar laws or ordinances enacted by any state, county or municipality in which the Property is located, or in the regulations adopted and publications promulgated pursuant to any of the above, as such laws or regulations now exist or may exist in the future.

Applicant is required to advise Railroad Company by thirty (30) day advance written notice when any work to be performed under this License may require Pollution Liability Insurance pursuant to the previous paragraph.

- F. All policies described above must include description of operations, Railroad Company milepost, highway or street name, city and state of location, project number, and Railroad Company contact person on the certificate.
2. Before commencing work, outside party shall deliver to Railroad Company a certificate of insurance evidencing the foregoing coverages and, if requested by Railroad Company, true and complete copies of the policies described above. If the policy is being issued in conjunction with, or as a result of, a city, county or state contract, the policy should be initially submitted to the respective city, county or state agency that will review it first and then forward it to Railroad Company.
3. Common Policy Provisions. Each policy described in paragraph 1, parts A through E above, must include the following provisions:
 - A. Each policy shall include a waiver by the insurer of any right of subrogation against any recovery by or on behalf of any insured.
 - B. Each policy shall provide for not less than thirty (30) days prior written notice to Railroad Company at the address listed above of cancellation of or any material change in that policy.
4. It is understood and agreed that the foregoing insurance coverage requirements, and outside party's compliance with those requirements, is not intended to, and shall not, relieve outside party from, or serve to limit, outside party's liability and indemnity obligations under the provisions herein.
5. Railroad Company shall have the right, from time to time, to revise the amount or form of insurance coverage required as circumstances or changing economic conditions may require. Railroad Company shall give outside party written notice of any such requested change at least thirty (30) days before the date of expiration of the then-existing policy or policies, outside party agrees to, and shall, thereupon provide Railroad Company with such revised policy or policies.
6. Insurance required of SUBCONTRACTOR:
 - A. If a SUBCONTRACTOR is to be employed by outside party to perform work on Railroad Company under or by the permission for occupancy granted to outside party by Railroad Company, before commencing work, the SUBCONTRACTOR shall provide and thereafter maintain all of the insurance described in paragraph 1, parts A through E, above, in the same forms and amounts as provided for above and subject to the other terms and conditions provided for in paragraphs 2 through 4 above.
 - B. In the alternative, before the SUBCONTRACTOR commences work for outside party on Railroad Company, outside party may provide and thereafter maintain all of the insurance described in paragraph 1, parts A through E, above, in the same forms and amounts as provided for above and subject to the other terms and conditions provided for in paragraphs 2 through 5 above, provided that all such insurance names SUBCONTRACTOR as an additional insured and all such insurance provides coverage to all additional insureds, including Railroad Company, for any liability arising out of work performed by all other additional insureds, including SUBCONTRACTOR.

Is safety training required?

Prior to any entry onto Railroad Company's property, the employees and/or subcontractors of a Contractor, Grantee, Licensee, or Permittee shall determine by the guidelines hereinafter provided and by the work to be performed the level of safety training to be required.

All employees and/or subcontractors of a Contractor, Grantee, Licensee, or Permittee not hired by Railroad Company that will work on CN property are required to have minimum www.contractororientation.com.

- a. EXCEPTION: Railroad Company has exempted those it classifies as "Delivery Persons" from this training. This will include contractors such as UPS, FedEx, trucking companies, etc. who merely access the property to supply materials or equipment.

All employees and/or subcontractors of a Contractor, Grantee, Licensee, or Permittee hired by Railroad Company which will work on Railroad Company property are required to have minimum CN Safety and Security Awareness training, in addition to undergoing a background check. This training and background check must be obtained through the eRailSafe.com website. If not done before, the contractor must contact e-RailSafe at 855-383-7434 to be issued a vendor number prior to accessing the noted website. Minimum information required of a Contractor, Grantee, Licensee, or Permittee and/or their contractor when contacting e-RailSafe is Name, Address, Telephone, Contact Person for State Projects, DOT Contract Number, and the AAR/DOT Number. This training is good for a period of two years.

- a. EXCEPTION: Railroad Company has exempted those employees of contractors providing paving services at a road crossing under construction or repair from this requirement.
- b. EXCEPTION: Railroad Company has exempted those it classifies as "Delivery Persons" from this training. This will include contractors such as UPS, FedEx, trucking companies, etc. who merely access the property to supply materials or equipment.

All employees and/or subcontractors of a Contractor, Grantee, Licensee, or Permittee hired by Railroad Company, whose duties include and who are engaged in the inspection, construction, maintenance, or repair of railroad track, bridges, roadway, signal and communication systems, roadway facilities, or roadway machinery that will work foul of or have the potential to foul a live track are considered Roadway Workers under FRA regulations and CN Policy. They must complete the On-Track Safety Training course approved by Railroad Company and provided by R.R. Safety – AMR, P.O. Box 75, Lomira, WI 53048, telephone (920) 517-1677, email rrsafetytraining@yahoo.com. This training must be repeated at least once each calendar year.

- a. EXCEPTION: Railroad Company has exempted those employees of contractors providing paving services at a road crossing under construction or repair from this requirement.
- b. EXCEPTION: Railroad Company has exempted those it classifies as "Delivery Persons" from this training. This will include contractors such as UPS, FedEx, trucking companies, etc. who merely access the property to supply materials or equipment.
- c. All the employees and/or subcontractors of a Contractor, Grantee, Licensee, or Permittee who will operate on-track machinery or those who will provide protection for other employees and/or subcontractors of a Contractor, Grantee, Licensee, or Permittee must also be trained on CN US Operating Rules pertaining to their duties. They must take and pass the required examination. This training is good for a period of two years.
- d. "Potential to foul a live track" is considered, at a minimum, to be working within twenty-five (25) feet of the track; or as otherwise to be determined by CN Design & Construction Department.

The employees, subcontractors, and/or agents of the Licensee and/or its contractor shall qualify for, and make available for inspection to Railroad Company's employees or other authorized personnel at all times while on Railroad Company property, a photo identification issued by www.e-railsafe.com, along with at least one other government-issued form of identification. Licensee and/or their contractor shall bear all costs of compliance with the requirements of this Section. Railroad Company reserves the right to bar any of employees or agents of a Contractor, Grantee, Licensee, or Permittee and/or their contractor from Railroad Company's property at any time for any reason.

What are the flagging protection rates?

Flagging protection Rates:

Basic rate - 10 hour minimum = \$1,300.00 – Monday thru Friday regular business hours

Overtime rate - hours in excess of 8 hours = \$150.00/hr non regular business hours

Weekend or holiday rate = \$150.00 per hour with a 10 hour minimum or \$1,500.00

Email the above back to john.dinning@cn.ca

Revised 2016-11-01

SPECIAL NOTE FOR REPLACING FINGER JOINTS WITH MODULAR JOINTS

- I. DESCRIPTION.** Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2019 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

This work consists of the following: (1) Furnish all labor, materials, tools, and equipment; (2) Remove existing concrete and expansion device(s) and/or bridge ends; (3) Install modular joint per the manufacturer's specifications and new concrete as specified and in accordance with the attached detail drawings; and (4) Any other work specified as part of this contract.

II. MATERIALS.

- A. Class "M" Concrete.** Use either "M1" or "M2". See Section 601.
- B. Structural Steel.** Use new, commercial grade steel suitable for welding. The Engineer will base acceptance on visual inspection.
- C. Epoxy Coated Steel Reinforcement.** Use Grade 60. See Section 602.
- D. Bolts, Threaded Rods and Shear Studs.** Use Grade A325 bolts conforming to ASTM F3125, ASTM A449 Type 1 threaded rods, and ASTM A 108 Grade 1015 Shear studs conforming to AASHTO M 169. See Section 813.
- E. Epoxy Bond Coat.** See Section 511.
- F. Watson and Bowman Acme Waboflex SR9 or approved equivalent.**

III. EQUIPMENT.

- A. Hammers.** See Section 606.02.10 B.
- B. Sawing Equipment.** See Section 606.02.10 C.
- C. Hydraulic Impact Equipment.** See Section 606.02.10 D.
- D. Paint.** See Section 607.02.01.
- E. Wrenches.** See Section 607.02.04.
- F. Direct Tension Indicators.** See Section 607.02.05.

IV. CONSTRUCTION.

- A. Remove Existing Materials.** Remove existing Finger Plates, Bridge End, and specified areas of concrete and steel as shown on the attached sketches. Clean and leave all existing steel reinforcement encountered in place. Damaged steel reinforcement will be repaired/replaced as directed by the Engineer at no additional cost to the Department. All concrete edges shall be neat and square.

Dispose of all removed material entirely away from the job site. This work is incidental to the contract unit price for "Modular Expansion Joint."

- B. Place New Concrete.** After all specified existing materials have been removed; block out for the modular joint per the manufacturer's specifications. Place the new Class "M" concrete and epoxy coated reinforcement as specified in the plans and to the scarified grade and finish to receive the new overlay or place the new Class "M" concrete to the original grade

and finish with broom strokes drawn transversely from curb to curb.

Blast clean all areas of existing concrete and structural steel to come in contact with new concrete until free of all laitance and deleterious substances immediately prior to the placement of the Class "M" Concrete. The surface areas of existing concrete to come in contact with the new Class "M" Concrete are to be coated with an epoxy bond coat immediately prior to placing new concrete in accordance with Section 511. The interfaces of the new and old concrete shall be as nearly vertical and horizontal as possible.

See Special Note for Painting Structural Steel Repairs for painting requirements.

- C. Additional Steel Reinforcement.** Furnish for replacement, as directed by the Engineer, 500 linear feet of #4 epoxy coated steel reinforcing bars in 20' lengths per joint location. Place these bars in areas deemed by the Engineer to require additional reinforcement. Field cutting and bending is permitted. Ensure that all exposed steel reinforcement is tied in accordance with Section 602.03.04 prior to pouring the new Class "M" concrete. Deliver unused bars to the Local County Maintenance Barn. Payment will be made in accordance with Section 602.
- D. Modular Joint Expansion System.** System shall be installed in accordance with manufacturer's recommendations concerning approved adhesives, welds between sticks and appurtenances, and adhesion to concrete deck or armored edges.
- E. Shop Plans.** Shop plans will be required. The Contractor is responsible for obtaining field measurements and supplying properly sized materials to complete the work.

V. MEASUREMENT.

- A. Modular Expansion Joint.** The Department will measure the quantity in linear feet from gutterline to gutterline along the centerline of the joint.
- B. Concrete, Class "M"** The Department will measure the quantity in cubic yards according to dimensions in the Plans and Shop Drawings. See Section 601.
- C. Steel Reinforcement, Epoxy Coated.** See Section 602.

VI. PAYMENT.

- A. Modular Joint System.** Payment at the contract unit price per linear foot is full compensation for removing specified existing materials, furnishing and installing the new modular joint system, studs, threaded rods, structural steel, and all incidental items necessary to complete the work (except the overlay material) within the specified pay limits as specified by this note and as shown on the attached detail drawings.
- B. Concrete, Class "M".** See Section 601.
- C. Steel Reinforcement, Epoxy Coated.** See Section 602.

SPECIAL NOTE FOR REPLACING POURABLE JOINTS AND/OR INSTALLING ARMORED EDGES FOR CONCRETE ON BRIDGES

- I. DESCRIPTION.** Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2019 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

This work consists of the following: (1) Furnish all labor, materials, tools, and equipment; (2) Remove existing concrete and expansion device(s) and/or bridge ends; (3) Install armored edges and new concrete as specified and in accordance with the attached detail drawings; (4) Install new joint seals (where required); (5) Maintain and control traffic; and (6) Any other work specified as part of this contract.

II. MATERIALS.

- A. Class "M" Concrete.** Use either "M1" or "M2". See Section 601.
- B. Structural Steel.** Use new, commercial grade steel suitable for welding. The Engineer will base acceptance on visual inspection. To be approved, armored edge extrusions must be embedded.
- C. Stud Anchors.** The armored edge stud anchors are 3/4" x 6" embedded stud shear connectors conforming to ASTM A108, Grade 1015 (Nelson Studs or equal).
- D. Steel Reinforcement.** Use Grade 60. See Section 602.
- E. Epoxy Bond Coat.** See Section 511.
- F. Pre-Compressed Horizontal Expansion Joint System.** For replacement of the 1 5/8" pourable joint, use EMSEAL Bridge Expansion Joint System by Sika, or approved equal. Install per the manufacturers specifications. See attached detail drawings.
- G. Neoprene Strip Seals.** See Section 807.

III. EQUIPMENT.

- A. Hammers.** See Section 606.02.10 B.
- B. Sawing Equipment.** See Section 606.02.10 C.
- C. Hydraulic Impact Equipment.** See Section 606.02.10 D.

IV. CONSTRUCTION.

- A. Remove Existing Materials.** Remove existing joints, armored edges, specified areas of concrete, and other miscellaneous joint hardware as shown on the attached detail drawings. Remove debris and/or expansion joint filler as directed by the Engineer. Unless shown otherwise, clean and leave all existing steel reinforcement encountered in place. Damaged steel reinforcement will be repaired/replaced as directed by the Engineer at no additional cost to the Department.

Dispose of all removed material entirely away from the job site. This work is incidental to the contract unit price for "Expansion Joint Replacement" or "Armored Edge for Concrete".

- B. Place New Concrete and Armored Edges.** After all specified existing materials have been removed; place new armored edges to match the grade of the proposed overlay or to match the original grade (See attached detail drawings). Place the new Class "M" concrete to the scarified grade and finish to receive the new overlay or place the new Class "M" concrete to the original grade and finish with broom strokes drawn transversely from curb to curb.

All new structural steel shall be cleaned and painted in accordance with requirements of Section 607.03.23, except that surfaces to come in contact with concrete are not to be painted.

Blast clean all areas of existing concrete and structural steel to come in contact with new concrete until free of all laitance and deleterious substances immediately prior to the placement of the Class "M" Concrete. The surface areas of existing concrete to come in contact with the new Class "M" Concrete are to be coated with an epoxy bond coat immediately prior to placing new concrete in accordance with Section 511. The interfaces of the new and old concrete shall be as nearly vertical and horizontal as possible.

- C. Additional Steel Reinforcement.** Furnish for replacement, as directed by the Engineer, 160 linear feet of #4 steel reinforcing bars in 20' lengths per pourable joint replacement location. Place these bars in areas deemed by the Engineer to require additional reinforcement. Field cutting and bending is permitted. Note that due to staged construction, bars may need to be drilled and grouted and/or mechanical couplers may be used. Do not place any additional steel reinforcement above the height of the top row of Nelson Studs on the armored edges. Ensure that all exposed steel reinforcement is tied in accordance with Section 602.03.04 prior to pouring the new Class "M" concrete. Deliver unused bars to the Local County Maintenance Barn. Payment will be made in accordance with Section 602.
- D. Stage Construction.** Installation of concrete and armored edges in two (or more if specified) stages is necessary. Join the armored edges at or near the centerline of the roadway or lane line, field weld and grind smooth.
- E. Pre-Compressed Horizontal Expansion Joint System.** System shall be supplied in pre-compressed sticks for easy installation. System shall be installed in accordance with manufacturer's recommendations concerning approved adhesives, welds between sticks and appurtenances, and adhesion to concrete deck or armored edges. Joint seal is to be installed 1/2" recessed from the surface.
- G. Preformed Neoprene Strip Seal.** Place the preformed joint seal in one continuous, unbroken length. Place neoprene strip seals as recommended by the manufacturer and in accordance with Section 609.03.04
- F. Shop Plans.** Shop plans will not be required. The Contractor is responsible for obtaining field measurements and supplying properly sized materials to complete the work.

V. MEASUREMENT.

- A. Expansion Joint Replacement.** The Department will measure the quantity in linear feet from gutterline to gutterline along the centerline of the joint.
- B. Armored Edge for Concrete.** The Department will measure the quantity in linear feet from gutterline to gutterline along the face of the bridge end.
- C. Steel Reinforcement.** See Section 602.

VI. PAYMENT.

- A. Expansion Joint Replacement.** Payment at the contract unit price per linear foot is full compensation for removing specified existing materials, furnishing and installing the new armored edges, concrete, pre-compressed horizontal expansion joint system or neoprene strip seal, and all incidental items necessary to complete the work (except the overlay material) within the specified pay limits as specified by this note and as shown on the attached detail drawings.
- B. Armored Edge for Concrete.** Payment at the contract unit price per linear foot is full compensation for removing specified existing materials, furnishing and installing the new armored edges, concrete and all incidental items necessary to complete the work (except the overlay material) within the specified pay limits as specified by this note and as shown on the attached detail drawings.
- C. Steel Reinforcement.** See Section 602.

SPECIAL NOTE FOR STEEL BRIDGE RAILING REPAIRS

- I. DESCRIPTION.** Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2019 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

This work consists of the following: (1) Furnish all labor, materials, tools, and equipment; (2) Remove existing handrail sections and posts as specified and in accordance with the attached detail drawings; (3) Install new handrail sections and posts as specified and in accordance with the attached detail drawings; (4) Maintain and control traffic; and (5) Any other work specified as part of this contract.

II. MATERIALS.

- A. Structural Steel.** Use ASTM A500 Grade 46 and ASTM A572 Grade 50.
- B. Threaded Rod.** Use ASTM A449 Type 1.
- C. Nuts.** Use ASTM A563 C Galvanized.
- D. Washers.** Use ASTM F436 Galvanized.
- E. Paint.** See Paint note below.

III. CONSTRUCTION.

- A. Remove Existing Materials.** Remove existing handrail sections and posts as shown on the attached detail drawings. Dispose of all removed material entirely away from the job site. This work is incidental to the contract unit price for "Expansion Joint Replacement" or "Armored Edge for Concrete".
- B. Install Rail Posts.** Install rail posts and rail supports as specified in the attached detail drawings and in accordance with the Specifications. Touch up painted areas damaged during repair operations in accordance with the paint note below and as directed by the Engineer. All new structural steel shall be cleaned and painted in accordance with requirements of Section 607.03.23.
- C. Install Handrail.** Install handrail as specified in the attached detail drawings and in accordance with the Specifications. Touch up painted areas damaged during repair operations in accordance with the paint note below and as directed by the Engineer. All new structural steel shall be cleaned and painted in accordance with requirements of Section 607.03.23.
- D. Cleaning and Painting.** All existing faying surfaces where new steel is to be installed shall be cleaned and receive the prime coat as specified in Section 607.03.23 of the Standard Specifications before any new steel is installed. Level of cleaning shall be to an SSPC-SP 15 (Commercial Grade Power Tool Cleaning). All Power tools shall be equipped with vacuum shrouds and fitted with HEPA filters at their air exhausts. Maintain and operate all vacuum shrouded power tools to collect generated debris. New structural steel

shall receive shop surface preparation and shop applied prime coat in accordance with Section 607.

- E. Contain Debris.** Care shall be taken to contain and collect all debris so that the Ohio River is strictly protected. The Engineer shall approve the Contractor’s containment/collection plan before work commences.

V. MEASUREMENT.

- A. Steel Repair.** The Department will measure the quantity as the number of Rail Post Repairs, Rail and Post Repairs at Finger Joints, and Handrail Repairs. The total estimated quantity of repairs is shown in the ESTIMATE OF BRIDGE QUANTITIES. This estimate has been derived from the following information included as part of the 2018 Fracture Critical Bridge Inspection Report:

Span	Fascia	Truss Panel Point	Rail Post Repair Locations	Handrail Repair Locations	
1	Upstream			2	
2	Downstream		2		
3	Upstream			3	
4	Upstream		1	2	
	Downstream			1	
5	Upstream		5	2	
6	Upstream		3		
7	Upstream	4-5	1		
		6-7	1		
		7-8	3		
		8-9	1		
	Downstream	@ 0			2
		@ 1			2
		@ 2			2
		@ 3			1
		5-6			2
		@ 7			1
		8-9		2	
8	Upstream	10-11	1		
		13-14		2	
	Downstream	@ 15			2
		15-16			2
		19-20			2
		20-21			1
		@ 27			2
		@ 32			1

Span	Fascia	Truss Panel Point	Rail Post Repair Locations	Handrail Repair Locations
9	Upstream	@36		1
		@45		1
	Downstream	@ 32		1
		36-37	1	
		38-39		
		40-41	1	2
		@ 42		2
		43-44	1	
		45-46		1
		46-47	2	
		47-48	1	1
		48-49		2
		10	Upstream	49-50
58-59				1
Downstream	49-50		1	
	50-51			2
	52-53			2
	58-59			1
	60-61			4
	@ 62		1	1
11	Downstream	66-67	2	
		71-72	1	
		72-73		2
		73-74	1	4
		74-75	1	
		@ 76		2
13	Upstream			1
	Downstream		3	2
15	US & DS		5	10
16	US & DS		5	13
17	US & DS		2	6
18	US & DS		4	10
19	US & DS		6	4

Span	Fascia	Truss Panel Point	Rail Post Repair Locations	Handrail Repair Locations
20	US & DS		6	6
21	US & DS		3	7
22	US & DS		1	3
23	US & DS		1	1
25	US & DS		1	2
26	Downstream		1	3
27	Downstream		1	1
Total			71	131

The totals shown in the tables above do not include the 10 additional rail and post repairs at finger joint replacements. This results in the total estimated quantity of steel repairs to be 212.

VI. PAYMENT.

- A. Steel Repair.** Payment at the contract unit price per each completed and accepted repair is full compensation for all work specified by this note and as shown on the attached detail drawings.

SPECIAL NOTE FOR TRAFFIC CONTROL ON BRIDGE REPAIR CONTRACTS

I. DESCRIPTION

Traffic shall be maintained in accordance with the Kentucky Transportation Cabinet, Department of Highways 2019 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the Contract Documents. Section references are to the Standard Specifications. Except for the roadway and traffic control bid items listed in the Contract Documents, all items of work necessary to maintain and control traffic will be paid at the lump sum bid price to "Maintain and Control Traffic".

Contrary to Section 106.01, traffic control devices used on this project may be new, or used in like new condition, at the beginning of the work and maintained in like new condition until completion of the work.

Any temporary traffic control items, devices, materials, and incidentals shall remain the property of the contractor unless otherwise addressed, when no longer needed.

II. MAINTAIN & CONTROL TRAFFIC

The Contractor is responsible for maintaining traffic 24 hours per day and 7 days per week throughout the project duration. "Maintain and Control Traffic" will be measured only once for payment. See Section 112.04.01 for additional information.

The Department will make payment for the completed and accepted quantities under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
02650	Maintain and Control Traffic	Lump Sum

The Department will consider payment as full compensation for all work required.

III. TEMPORARY SIGNS

Contrary to Section 112.04.02, only long term signs (signs intended to be continuously in place for more than 3 days) will be measured for payment; short term signs (signs intended to be left in place for 3 days or less) will not be measured for payment and will be incidental to "Maintain and Control Traffic."

The Department will make payment for the installed and accepted quantities under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
02562	Temporary Signs	Square Feet

The Department will consider payment as full compensation for all work required.

IV. TEMPORARY WATER-FILLED BARRIER

Furnish, install, maintain, relocate, and remove temporary water filled barriers in accordance with the Contract Documents, this Note, and section 509 of the Standard Specifications. Where the Standard Specifications differ from the Contract Documents and this Note, the Contract Documents and Note shall prevail.

A. CONSTRUCTION

1. Do not use any unit which has been cracked, chipped, scarred, or otherwise damaged or disfigured unless the Engineer approves.
2. Install the units at the locations specified in the Plans, and connect them in the manner specified by the barrier manufacturer or standard drawings.
3. End treatments shall be installed per the manufacturer's specifications.
4. Keep delineators clean and provide replacement delineators when necessary.
5. For all units in a continuous run, use units of the same type and height, and provide a smooth transition.
6. Provide for an approved monitoring schedule with a person on call and available 24 hours a day, each day of the week to realign barrier which has been struck. Initiate within one hour of notification of need.
7. Replace all units damaged after installation with an undamaged unit.
8. When the units are no longer needed, remove the units from the project. Take ownership of all units except Department furnished units. Transport Department furnished units to the location specified in the Contract.

B. MEASUREMENT

1. **WATER-FILLED BARRIERS.** The Department will measure the quantity of water filled barriers furnished, installed, maintained, and removed by multiplying the nominal length of each unit in linear feet by the number of units. The Department will measure units installed to replace units damaged by traffic. The Department will not measure the disposal of units or units installed to replace units damaged by construction operations for payment and will consider them incidental to this item of work. The Department will not measure furnishing, installing, or maintaining lifting devices for payment and will consider them incidental to this item of work.

End treatments will not also not be measured as they are specific to each water filled barrier manufacturer. They shall be incidental to this item of work.

2. **RELOCATE WATER-FILLED BARRIERS.** The Department will measure the quantity of water filled barriers relocated by multiplying the nominal length of each unit in linear feet by the number of units. The Department will not measure furnishing, installing, or maintaining lifting devices for payment and will consider them incidental to this item of work.

End treatments will not also not be measured as they are specific to each water filled barrier manufacturer. They shall be incidental to this item of work.

C. PAYMENT. The Department will make payment for the completed and accepted quantities of the Temporary Barrier Rail under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
02005	Water-Filled Barriers	Linear Feet
02004	Relocate Water-Filled Barriers	Linear Feet

The Department will consider payment as full compensation for all work required.

V. ROADWAY CLOSURES

The contractor is allowed 15 minute roadway closures, subject to approval by the Engineer, to facilitate construction activities. Provisions shall be made for the timely passage of emergency vehicles through the roadway closure. The Department will not measure roadway closures. They will be incidental to “Maintain and Control Traffic.”

VI. PROJECT PHASING & CONSTRUCTION PROCEDURES

Except for roadway closures as specified above, maintain one lane of traffic at all times in accordance with the Contract Documents and Standard Drawing No. TTC-110. Provide additional traffic control or flaggers as directed by the engineer. The clear lane width required is 9’-6”.

VII. PORTABLE CHANGEABLE MESSAGE BOARDS

The contractor will be responsible for supplying all flashing arrow panels and changeable message signs necessary to maintain traffic for the project. Upon completion of the project, the flashing arrow panels and changeable message signs shall remain the property of the contractor. The location and use of arrow panels and portable changeable message signs will be at the direction of the Engineer.

The Department will make payment for the installed and accepted quantities under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
02671	Portable Changeable Message Sign	Each
02775	Arrow Panel	Each

The Department will consider payment as full compensation for all work required.

SPECIAL NOTE FOR USE OF THE HYDRODEMOLITION METHOD

1. **DESCRIPTION.** Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2019 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings.

This work consists of the following to provide a uniform depth, highly bondable surface for placement of a new latex concrete overlay: (1) Furnish all labor, materials, tools, and equipment; (2) Use hydrodemolition to remove residual existing latex overlay following milling of the existing overlay; (3) Use hydrodemolition to remove unsound patches and unsound concrete in the original deck; (4) Remove and dispose of all concrete and debris (5) Provide vacuuming, shield, and water control; (5) Protect traffic on the bridge deck and below the bridge; and (6) Any other work specified as part of this contract.

2. **EQUIPMENT.**

- A. **Hydrodemolition Equipment.** The hydrodemolition equipment shall consist of a filtering and pumping unit operating with a self-propelled computerized robot that utilizes a high pressure water jet capable of removing concrete to the depth specified on the plans or as directed by the Engineer and be capable of removing rust and concrete particles from reinforcing steel. The equipment shall provide a rough and bondable surface and remove all unsound concrete during the initial pass. The minimum water usage shall be 43 gal/min operating at 13,000 psi minimum. The pressure and water usage shall be calibrated to remove as much deteriorated concrete without removing any areas of the deck completely to the satisfaction of the Engineer.

- B. **Vacuum Cleanup Equipment.** The vacuum cleanup equipment shall be equipped with fugitive dust control devices and be capable of removing wet debris and water all in the same pass. Provide equipment capable of washing the deck with pressurized water prior to the vacuum operation to dislodge all debris and slurry from the deck surface.

- C. **Hand Held Blast Cleaning Equipment.** Hand held blast shall be either sand or water as necessary to expose fine and coarse aggregates; thoroughly clean all exposed reinforcing steel; and remove any unsound concrete or laitance layers from the proposed concrete overlay surface. If sand blasting equipment is utilized, the equipment shall have oil traps. If water blasting equipment is utilized, the equipment must be capable of delivering a minimum of 5,000 psi.

3. **CONSTRUCTION.**

- A. **General.** Following removal of the existing overlay by milling, perform

hydrodemolition surface preparation over the entire top surface of the reinforced concrete bridge deck to provide a rough and bondable surface and to remove all unsound concrete during the initial hydrodemolition surface preparation pass.

- B. Description.** This work shall consist of furnishing the necessary labor, materials and equipment to completely remove the any residual latex concrete overlay that remains on the top surface of the bridge deck following milling in accordance with this Note and in reasonably close conformity with the grades, thickness, or sections shown on the attached detail drawings or as directed by the Engineer. This work shall include the removal of patches other than sound Portland cement concrete and all loose and unsound concrete by hydrodemolition; protection of traffic on the bridge deck and on the river below; preparation of the sound existing concrete surface; removal, forming, and concrete for full depth repairs; blast cleaning or high pressure water cleaning the existing deck prior to placement of the modified concrete overlay; and all other operations necessary to complete this work according to this Note and to the satisfaction of the Engineer.

C. Concrete Removal by Hydrodemolition

- i. **General.** The total surface area of the reinforced concrete bridge deck shall be completely prepared by hydrodemolition as necessary to provide a highly roughened and bondable surface prior to placement of the proposed bridge deck overlay while removing any deteriorated and unsound concrete in the initial pass. Unsound concrete is defined as existing bridge deck concrete that is deteriorated, spalled, or determined by the Engineer to be unsound.

With the use of hydrodemolition surface preparation, the requirement to provide a minimum 1/4" clearance around all reinforcing bars that are more than 1/2" diameter exposed is waived, providing that the existing concrete is sound. The amount of steel exposed shall be kept to a minimum.

Calibration shall be required on each structure, each time Hydrodemolition is performed, and as required to achieve the results specified by the plan.

- ii. **Debris and Fluid Containment.** Prior to commencement of the hydrodemolition operation, the Contractor shall submit a plan for approval to the Engineer for control and filtering of all water discharged during operation. The Contractor, at a minimum, shall block all drains on the deck and install aggregate dams every 150 feet; 6 inches high by 1 foot wide minimum, to strain runoff. The deck shall be used as a settlement

basin within itself unless an alternate method of water control, satisfactory to the Engineer and meeting the environmental requirements of any associated Regulatory Agency, is required.

The Contractor shall provide shielding, as necessary, to ensure containment of all dislodged concrete within the removal area in order to protect the public from flying debris both on and under the work site.

Cleaning shall be performed with a vacuum system capable of removing wet debris and water all in the same pass. The vacuum equipment shall be capable of washing the deck with pressurized water prior to the vacuum operation to dislodge all debris and slurry from the deck surface. Cleaning shall be done in a timely manner, before debris and water is allowed to dry on the deck surface.

4. MEASUREMENT.

Hydrodemolition. The Department will measure the quantity hydrodemolition in square yards. This includes furnishing all material, labor, and equipment necessary to perform the work as described in this Note and shown in the attached detail drawings.

5. PAYMENT. The Department will make payment for the completed and accepted quantities under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
08550	HYDRODEMOLITION	SQ YD

The Department will consider payment as full compensation for all work required in this provision.

SPECIAL PROVISION FOR WASTE AND BORROW SITES

Obtain U.S. Army Corps of Engineer's approval before utilizing a waste or borrow site that involves "Waters of the United States". The Corps of Engineers defines "Waters of the United States" as perennial or intermittent streams, ponds or wetlands. The Corps of Engineers also considers ephemeral streams, typically dry except during rainfall but having a defined drainage channel, to be jurisdictional waters. Direct questions concerning any potential impacts to "Waters of the United States" to the attention of the appropriate District Office for the Corps of Engineers for a determination prior to disturbance. Be responsible for any fees associated with obtaining approval for waste and borrow sites from the U.S. Army Corps of Engineer or other appropriate regulatory agencies.

1-296 Waste & Borrow Sites
01/02/2012

SPECIAL NOTE FOR CONCRETE SLURRY

If diamond grinding, grooving or any other process which produces slurry is required on roadways or bridges, the contractor shall ensure that all concrete slurry associated with these processes is collected, managed, and disposed of appropriately. The waste material shall be disposed of at a permitted disposal facility, in accordance with the Kentucky Standard Specifications for Road and Bridge Construction and the Environmental Performance Standards outlined in 401 KAR 47:030, or managed as a material for beneficial reuse. Any fines or remediation related to improper disposal shall be the sole responsibility of the contractor.

Disposal of concrete slurry will not be paid separately and shall be considered incidental to other bid items.

8/20/2019

	KENTUCKY TRANSPORTATION CABINET Department of Highways DIVISION OF RIGHT OF WAY & UTILITIES	TC 62-226 Rev. 01/2016 Page 1 of 1
RIGHT OF WAY CERTIFICATION		

<input checked="" type="checkbox"/> Original	<input type="checkbox"/> Re-Certification	RIGHT OF WAY CERTIFICATION	
ITEM #	COUNTY	PROJECT # (STATE)	PROJECT # (FEDERAL)
01-20000.00	BALLARD	FD52 004 0051 004-007	NHPP 0511 (050)

PROJECT DESCRIPTION

ADDRESS PAVEMENT CONDITION OF AC PAVEMENT.

No Additional Right of Way Required

Construction will be within the limits of the existing right of way. The right of way was acquired in accordance to FHWA regulations under the Uniform Relocation Assistance and Real Property Acquisitions Policy Act of 1970, as amended. No additional right of way or relocation assistance were required for this project.

Condition # 1 (Additional Right of Way Required and Cleared)

All necessary right of way, including control of access rights when applicable, have been acquired including legal and physical possession. Trial or appeal of cases may be pending in court but legal possession has been obtained. There may be some improvements remaining on the right-of-way, but all occupants have vacated the lands and improvements, and KYTC has physical possession and the rights to remove, salvage, or demolish all improvements and enter on all land. Just Compensation has been paid or deposited with the court. All relocations have been relocated to decent, safe, and sanitary housing or that KYTC has made available to displaced persons adequate replacement housing in accordance with the provisions of the current FHWA directive.

Condition # 2 (Additional Right of Way Required with Exception)

The right of way has not been fully acquired, the right to occupy and to use all rights-of-way required for the proper execution of the project has been acquired. Some parcels may be pending in court and on other parcels full legal possession has not been obtained, but right of entry has been obtained, the occupants of all lands and improvements have vacated, and KYTC has physical possession and right to remove, salvage, or demolish all improvements. Just Compensation has been paid or deposited with the court for most parcels. Just Compensation for all pending parcels will be paid or deposited with the court prior to AWARD of construction contract

Condition # 3 (Additional Right of Way Required with Exception)

The acquisition or right of occupancy and use of a few remaining parcels are not complete and/or some parcels still have occupants. All remaining occupants have had replacement housing made available to them in accordance with 49 CFR 24.204. KYTC is hereby requesting authorization to advertise this project for bids and to proceed with bid letting even though the necessary right of way will not be fully acquired, and/or some occupants will not be relocated, and/or the just compensation will not be paid or deposited with the court for some parcels until after bid letting. KYTC will fully meet all the requirements outlined in 23 CFR 635.309(c)(3) and 49 CFR 24.102(j) and will expedite completion of all acquisitions, relocations, and full payments after bid letting and prior to AWARD of the construction contract or force account construction.

Total Number of Parcels on Project	0	EXCEPTION (S) Parcel #	ANTICIPATED DATE OF POSSESSION WITH EXPLANATION
Number of Parcels That Have Been Acquired			
Signed Deed			
Condemnation			
Signed ROE			

Notes/ Comments (Use Additional Sheet if necessary)

LPA RW Project Manager		Right of Way Supervisor	
Printed Name		Printed Name	Greg L. Morgan
Signature		Signature	Digitally signed by Greg L. Morgan Date: 2020.01.29 08:55:11
Date		Date	-06'00'
Right of Way Director		FHWA	
Printed Name		Printed Name	No Signature Required
Signature		Signature	as per FHWA-KYTC
Date	2020.01.30 <i>[Signature]</i>	Date	Current Stewardship Agreement
	07:03:55 -06'00'		

UTILITIES AND RAIL CERTIFICATION NOTE

Ballard County
NHPP 0511 (050) FD52 004 0051 004-007
US 51 Pavement Rehab
1-20000.00

Utility coordination efforts conducted by the project sponsor have determined that no significant utility relocation work is required to complete the project. Any work pertaining to these utility facilities is defined in the bid package and is to be carried out as instructed by the Kentucky Transportation Cabinet. The contractor will be responsible for any coordination or adjustments that are discussed or quantified in the proposal.

THE FOLLOWING RAIL COMPANIES HAVE FACILITIES IN CONJUNCTION WITH THIS PROJECT AS NOTED

- No Rail Involved Minimal Rail Involved (See Below) Rail Involved (See Below)

UNDERGROUND FACILITY DAMAGE PROTECTION – BEFORE YOU DIG

The contractor shall make every effort to protect underground facilities from damage as prescribed in the Underground Facility Damage Protection Act of 1994, Kentucky Revised Statute KRS 367.4901 to 367.4917. It is the contractor’s responsibility to determine and take steps necessary to be in compliance with federal and state damage prevention directives. The contractor is instructed to contact KY 811 for the location of existing underground utilities. Contact shall be made a minimum of two (2) and no more than ten (10) business days prior to excavation.

The contractor shall submit Excavation Locate Requests to the Kentucky Contact Center (KY 811) via web ticket entry. The submission of this request does not relieve the contractor from the responsibility of contacting non-member facility owners, whom are to be contacted through their individual Protection Notification Center. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area. Non-compliance with these directives can result in the enforcement of penalties.

SPECIAL CAUTION NOTE – PROTECTION OF UTILITIES

The contractor will be responsible for contacting all utility facility owners on the subject project to coordinate his activities. The contractor will coordinate his activities to minimize and, where possible, avoid conflicts with utility facilities. Due to the nature of the work proposed, it is unlikely to conflict with the existing utilities beyond minor facility adjustments. Where conflicts with utility facilities are unavoidable, the contractor will coordinate any necessary relocation work with the facility owner and Resident Engineer. The

Kentucky Transportation Cabinet maintains the right to remove or alter portions of this contract if a utility conflict occurs.

UTILITIES AND RAIL CERTIFICATION NOTE

Ballard County
NHPP 0511 (050) FD52 004 0051 004-007
US 51 Pavement Rehab
1-20000.00

The utility facilities as noted in the previous section(s) have been determined using data garnered by varied means and with varying degrees of accuracy: from the facility owners, a result of S.U.E., field inspections, and/or reviews of record drawings. The facilities defined may not be inclusive of all utilities in the project scope and are not Level A quality, unless specified as such. It is the contractor's responsibility to verify all utilities and their respective locations before excavating.

Please Note: The information presented in this Utility Note is informational in nature and the information contained herein is not guaranteed.

AREA UTILITIES CONTACT LIST AS PROVIDED BY KY 811

<u>Utility Company/Agency</u>	<u>Contact Name</u>	<u>Contact Information</u>
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MATERIAL SUMMARY

CONTRACT ID: 201018

004GR20D18-NHPP

DE00400512018

US-51 ADDRESS PAVEMENT CONDITION OF AC PAVEMENT ON US-51 FROM MP 4.873 TO MP 7.300 IN BALLARD COUNTY ASPHALT PAVEMENT & ROADWAY REHAB, A DISTANCE OF 1.77 MILES.

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0005	00001	DGA BASE	3,006.00	TON
0010	00020	TRAFFIC BOUND BASE	7.00	TON
0015	00100	ASPHALT SEAL AGGREGATE	177.00	TON
0020	00103	ASPHALT SEAL COAT	22.00	TON
0025	00190	LEVELING & WEDGING PG64-22	432.00	TON
0030	02084	JPC PAVEMENT-8 IN	31,487.00	SQYD
0035	02676	MOBILIZATION FOR MILL & TEXT	1.00	LS
0040	02677	ASPHALT PAVE MILLING & TEXTURING	7,819.00	TON
0045	20362ES403	SHOULDER RUMBLE STRIPS-SAWED	18,692.00	LF
0050	24493EX	MILLING CONCRETE PAVEMENT	260.00	SQYD
0055	01845	ISLAND INTEGRAL CURB	100.00	LF
0060	01987	DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE	58.00	EACH
0065	02014	BARRICADE-TYPE III	10.00	EACH
0070	02200	ROADWAY EXCAVATION	83.00	CUYD
0075	02351	GUARDRAIL-STEEL W BEAM-S FACE	3,575.00	LF
0080	02360	GUARDRAIL TERMINAL SECTION NO 1	3.00	EACH
0085	02363	GUARDRAIL CONNECTOR TO BRIDGE END TY A	4.00	EACH
0090	02367	GUARDRAIL END TREATMENT TYPE 1	3.00	EACH
0095	02381	REMOVE GUARDRAIL	3,697.00	LF
0100	02483	CHANNEL LINING CLASS II	100.00	TON
0105	02562	TEMPORARY SIGNS	250.00	SQFT
0110	02650	MAINTAIN & CONTROL TRAFFIC	1.00	LS
0115	02671	PORTABLE CHANGEABLE MESSAGE SIGN	2.00	EACH
0120	02701	TEMP SILT FENCE	18,700.00	LF
0125	02726	STAKING	1.00	LS
0130	04933	TEMP SIGNAL 2 PHASE	4.00	EACH
0135	05950	EROSION CONTROL BLANKET	5,000.00	SQYD
0140	06403	FLEXIBLE DELINEATOR POST-B/W	120.00	EACH
0145	06510	PAVE STRIPING-TEMP PAINT-4 IN	37,472.00	LF
0150	06549	PAVE STRIPING-TEMP REM TAPE-B	3,000.00	LF
0155	06550	PAVE STRIPING-TEMP REM TAPE-W	1,000.00	LF
0160	06551	PAVE STRIPING-TEMP REM TAPE-Y	1,500.00	LF
0165	06556	PAVE STRIPING-DUR TY 1-6 IN W	18,692.00	LF
0170	06557	PAVE STRIPING-DUR TY 1-6 IN Y	6,657.00	LF
0175	10020NS	FUEL ADJUSTMENT	1,291.00	DOLL
0180	22664EN	WATER BLASTING EXISTING STRIPE	18,692.00	LF
0185	24489EC	INLAID PAVEMENT MARKER	117.00	EACH
0190	24894EC	REMOVE - FLUME	1.00	EACH
0195	02568	MOBILIZATION	1.00	LS
0200	02569	DEMOBILIZATION	1.00	LS

MATERIAL SUMMARY

CONTRACT ID: 201018

004GR20D18-NHPP

DE00400512019

US-51 BRIDGE REPAIRS ON US-51 CAIRO BRIDGE OVER THE OHIO RIVER BRIDGE REPAIRS, A DISTANCE OF 1 MILES.

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0205	02004	RELOCATE WATER-FILLED BARRIERS	8,492.00	LF
0210	02005	WATER-FILLED BARRIERS	2,670.00	LF
0215	02014	BARRICADE-TYPE III	8.00	EACH
0220	02562	TEMPORARY SIGNS	1,136.00	SQFT
0225	02650	MAINTAIN & CONTROL TRAFFIC	1.00	LS
0230	02654	TRUCK MOUNTED ATTENUATOR	2.00	EACH
0235	04933	TEMP SIGNAL 2 PHASE	2.00	EACH
0240	06510	PAVE STRIPING-TEMP PAINT-4 IN	5,892.00	LF
0245	06568	PAVE MARKING-THERMO STOP BAR-24IN	144.00	LF
0250	25072EC	RELOCATE TEMPORARY SIGNALS	1.00	L S
0255	03294	EXPAN JOINT REPLACE 1 1/2 IN	405.00	LF
0260	03299	ARMORED EDGE FOR CONCRETE	23.00	LF
0265	03304	BRIDGE OVERLAY APPROACH PAVEMENT	191.00	SQYD
0270	08106	CONCRETE-CLASS M 1	41.00	CUYD
0275	08140	MECHANICAL REINF COUPLER #5 EPOXY COATED	76.00	EACH
0280	08151	STEEL REINFORCEMENT-EPOXY COATED	9,930.00	LB
0285	08504	EPOXY SAND SLURRY	3,217.00	SQYD
0290	08510	REM EPOXY BIT FOREIGN OVERLAY	14,665.00	SQYD
0295	08534	CONCRETE OVERLAY-LATEX	611.00	CUYD
0300	08549	BLAST CLEANING	3,217.00	SQYD
0305	08550	HYDRODEMOLITION	14,665.00	SQYD
0310	24094EC	PARTIAL DEPTH PATCHING	261.00	CUYD
0315	24610EC	MODULAR EXPANSION JOINT	113.00	LF
0320	24879EC	STEEL REPAIR	212.00	EACH
0325	24983EC	BEARING LUBRICATION	42.00	EACH
0330	02568	MOBILIZATION	1.00	LS
0335	02569	DEMOBILIZATION	1.00	LS

GUARDRAIL DELIVERY VERIFICATION SHEET

Contract Id: _____

Contractor: _____

Section Engineer: _____

District & County: _____

<u>DESCRIPTION</u>	<u>UNIT</u>	<u>QTY LEAVING PROJECT</u>	<u>QTY RECEIVED@BB YARD</u>
GUARDRAIL (Includes End treatments & crash cushions)	LF	_____	_____
STEEL POSTS	EACH	_____	_____
STEEL BLOCKS	EACH	_____	_____
WOOD OFFSET BLOCKS	EACH	_____	_____
BACK UP PLATES	EACH	_____	_____
CRASH CUSHION	EACH	_____	_____
NUTS, BOLTS, WASHERS	BAG/BCKT	_____	_____
DAMAGED RAIL TO MAINT. FACILITY	LF	_____	_____
DAMAGED POSTS TO MAINT. FACILITY	EACH	_____	_____

***Required Signatures before Leaving Project Site**

Printed Section Engineer's Representative _____ & Date _____

Signature Section Engineer's Representative _____ & Date _____

Printed Contractor's Representative _____ & Date _____

Signature Contractor's Representative _____ & Date _____

***Required Signatures after Arrival at Bailey Bridge Yard (All material on truck must be counted & the quantity received column completed before signatures)**

Printed Bailey Bridge Yard Representative _____ & Date _____

Signature Bailey Bridge Yard Representative _____ & Date _____

Printed Contractor's Representative _____ & Date _____

Signature Contractor's Representative _____ & Date _____

**Payment for the bid item remove guardrail will be based upon the quantities shown in the Bailey Bridge Yard received column. Payment will not be made for guardrail removal until the guardrail verification sheets are electronically submitted to the Section Engineer by the Bailey Bridge Yard Representative.

Completed Form Submitted to Section Engineer Date: _____ By: _____

PART II
SPECIFICATIONS AND STANDARD DRAWINGS

SPECIFICATIONS REFERENCE

Any reference in the plans or proposal to previous editions of the *Standard Specifications for Road and Bridge Construction* and *Standard Drawings* are superseded by *Standard Specifications for Road and Bridge Construction, Edition of 2019* and *Standard Drawings, Edition of 2016*.

SUPPLEMENTAL SPECIFICATIONS

The contractor shall use the Supplemental Specifications that are effective at the time of letting.
The Supplemental Specifications can be found at the following link:

<http://transportation.ky.gov/Construction/Pages/Kentucky-Standard-Specifications.aspx>

SPECIAL NOTE FOR PORTABLE CHANGEABLE MESSAGE SIGNS

This Special Note will apply when indicated on the plans or in the proposal.

1.0 DESCRIPTION. Furnish, install, operate, and maintain variable message signs at the locations shown on the plans or designated by the Engineer. Remove and retain possession of variable message signs when they are no longer needed on the project.

2.0 MATERIALS.

2.1 General. Use LED Variable Message Signs Class I, II, or III, as appropriate, from the Department's List of Approved Materials.

Unclassified signs may be submitted for approval by the Engineer. The Engineer may require a daytime and nighttime demonstration. The Engineer will make a final decision within 30 days after all required information is received.

2.2 Sign and Controls. All signs must:

- 1) Provide 3-line messages with each line being 8 characters long and at least 18 inches tall. Each character comprises 35 pixels.
- 2) Provide at least 40 preprogrammed messages available for use at any time. Provide for quick and easy change of the displayed message; editing of the message; and additions of new messages.
- 3) Provide a controller consisting of:
 - a) Keyboard or keypad.
 - b) Readout that mimics the actual sign display. (When LCD or LCD type readout is used, include backlighting and heating or otherwise arrange for viewing in cold temperatures.)
 - c) Non-volatile memory or suitable memory with battery backup for storing pre-programmed messages.
 - d) Logic circuitry to control the sequence of messages and flash rate.
- 4) Provide a serial interface that is capable of supporting complete remote control ability through land line and cellular telephone operation. Include communication software capable of immediately updating the message, providing complete sign status, and allowing message library queries and updates.
- 5) Allow a single person easily to raise the sign to a satisfactory height above the pavement during use, and lower the sign during travel.
- 6) Be Highway Orange on all exterior surfaces of the trailer, supports, and controller cabinet.
- 7) Provide operation in ambient temperatures from -30 to + 120 degrees Fahrenheit during snow, rain and other inclement weather.
- 8) Provide the driver board as part of a module. All modules are interchangeable, and have plug and socket arrangements for disconnection and reconnection. Printed circuit boards associated with driver boards have a conformable coating to protect against moisture.
- 9) Provide a sign case sealed against rain, snow, dust, insects, etc. The lens is UV stabilized clear plastic (polycarbonate, acrylic, or other approved material) angled to prevent glare.
- 10) Provide a flat black UV protected coating on the sign hardware, character PCB, and appropriate lens areas.
- 11) Provide a photocell control to provide automatic dimming.

- 12) Allow an on-off flashing sequence at an adjustable rate.
- 13) Provide a sight to aim the message.
- 14) Provide a LED display color of approximately 590 nm amber.
- 15) Provide a controller that is password protected.
- 16) Provide a security device that prevents unauthorized individuals from accessing the controller.
- 17) Provide the following 3-line messages preprogrammed and available for use when the sign unit begins operation:

/KEEP/RIGHT/=>=>=>/	/MIN/SPEED/**MPH/
/KEEP/LEFT/<=<=</	/ICY/BRIDGE/AHEAD/ /ONE
/LOOSE/GRAVEL/AHEAD/	LANE/BRIDGE/AHEAD/
/RD WORK/NEXT/**MILES/	/ROUGH/ROAD/AHEAD/
/TWO WAY/TRAFFIC/AHEAD/	/MERGING/TRAFFIC/AHEAD/
/PAINT/CREW/AHEAD/	/NEXT/***/MILES/
/REDUCE/SPEED/**MPH/	/HEAVY/TRAFFIC/AHEAD/
/BRIDGE/WORK/***0 FT/	/SPEED/LIMIT/**MPH/
/MAX/SPEED/**MPH/	/BUMP/AHEAD/
/SURVEY/PARTY/AHEAD/	/TWO/WAY/TRAFFIC/

*Insert numerals as directed by the Engineer.
Add other messages during the project when required by the Engineer.

2.3 Power.

- 1) Design solar panels to yield 10 percent or greater additional charge than sign consumption. Provide direct wiring for operation of the sign or arrow board from an external power source to provide energy backup for 21 days without sunlight and an on-board system charger with the ability to recharge completely discharged batteries in 24 hours.

3.0 CONSTRUCTION. Furnish and operate the variable message signs as designated on the plans or by the Engineer. Ensure the bottom of the message panel is a minimum of 7 feet above the roadway in urban areas and 5 feet above in rural areas when operating. Use Class I, II, or III signs on roads with a speed limit less than 55 mph. Use Class I or II signs on roads with speed limits 55 mph or greater.

Maintain the sign in proper working order, including repair of any damage done by others, until completion of the project. When the sign becomes inoperative, immediately repair or replace the sign. Repetitive problems with the same unit will be cause for rejection and replacement.

Use only project related messages and messages directed by the Engineer, unnecessary messages lessen the impact of the sign. Ensure the message is displayed in either one or 2 phases with each phase having no more than 3 lines of text. When no message is needed, but it is necessary to know if the sign is operable, flash only a pixel.

When the sign is not needed, move it outside the clear zone or where the Engineer directs. Variable Message Signs are the property of the Contractor and shall be removed from the project when no longer needed. The Department will not assume ownership of these signs.

4.0 MEASUREMENT. The final quantity of Variable Message Sign will be

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the actual number of individual signs acceptably furnished and operated during the project. The Department will not measure signs replaced due to damage or rejection.

5.0 PAYMENT. The Department will pay for the Variable Message Signs at the unit price each. The Department will not pay for signs replaced due to damage or rejection. Payment is full compensation for furnishing all materials, labor, equipment, and service necessary to, operate, move, repair, and maintain or replace the variable message signs. The Department will make payment for the completed and accepted quantities under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
02671	Portable Changeable Message Sign	Each

Effective June 15, 2012

PART III

EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

FHWA-1273 -- Revised May 1, 2012

**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar

with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions

of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

- (i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
- (ii) The classification is utilized in the area by the construction industry; and
- (iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-

Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly

rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;
- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is

evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

- 1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
- 2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

- a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.
- b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

- (1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;
- (2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and
- (4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

**KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS**

**EMPLOYMENT REQUIREMENTS
RELATING TO
NONDISCRIMINATION OF EMPLOYEES
(APPLICABLE TO FEDERAL-AID SYSTEM CONTRACTS)**

**AN ACT OF THE KENTUCKY GENERAL ASSEMBLY
TO PREVENT DISCRIMINATION IN EMPLOYMENT**

**KRS CHAPTER 344
EFFECTIVE JUNE 16, 1972**

The contract on this project, in accordance with KRS Chapter 344, provides that during the performance of this contract, the contractor agrees as follows:

1. The contractor shall not fail or refuse to hire, or shall not discharge any individual, or otherwise discriminate against an individual with respect to his compensation, terms, conditions, or privileges of employment, because of such individual's race, color, religion, national origin, sex, disability or age (forty and above); or limit, segregate, or classify his employees in any way which would deprive or tend to deprive an individual of employment opportunities or otherwise adversely affect his status as an employee, because of such individual's race, color, religion, national origin, sex, disability or age forty (40) and over. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The contractor shall not print or publish or cause to be printed or published a notice or advertisement relating to employment by such an employer or membership in or any classification or referral for employment by the employment agency, indicating any preference, limitation, specification, or discrimination, based on race, color, religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, except that such a notice or advertisement may indicate a preference, limitation, or specification based on religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, when religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, is a bona fide occupational qualification for employment.

3. If the contractor is in control of apprenticeship or other training or retraining, including on-the-job training programs, he shall not discriminate against an individual because of his race, color, religion, national origin, sex, disability or age forty (40) and over, in admission to, or employment in any program established to provide apprenticeship or other training.

4. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for non-compliance.

Revised: January 25, 2017

Standard Title VI/Non-Discrimination Assurances

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, **Federal Highway Administration**, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the **Federal Highway Administration** to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the **Federal Highway Administration**, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the **Federal Highway Administration** may determine to be appropriate, including, but not limited to:
 - a. withholding payments to the contractor under the contract until the contractor complies; and/or
 - b. cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the **Federal Highway Administration** may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

Standard Title VI/Non-Discrimination Statutes and Authorities

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “contractor”) agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21;
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 *et seq.*), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 -- 12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration’s Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 *et seq.*)

EXECUTIVE BRANCH CODE OF ETHICS

In the 1992 regular legislative session, the General Assembly passed and Governor Brereton Jones signed Senate Bill 63 (codified as KRS 11A), the Executive Branch Code of Ethics, which states, in part:

KRS 11A.040 (7) provides:

No present or former public servant shall, within six (6) months following termination of his office or employment, accept employment, compensation, or other economic benefit from any person or business that contracts or does business with, or is regulated by, the state in matters in which he was directly involved during the last thirty-six (36) months of his tenure. This provision shall not prohibit an individual from returning to the same business, firm, occupation, or profession in which he was involved prior to taking office or beginning his term of employment, or for which he received, prior to his state employment, a professional degree or license, provided that, for a period of six (6) months, he personally refrains from working on any matter in which he was directly involved during the last thirty-six (36) months of his tenure in state government. This subsection shall not prohibit the performance of ministerial functions, including but not limited to filing tax returns, filing applications for permits or licenses, or filing incorporation papers, nor shall it prohibit the former officer or public servant from receiving public funds disbursed through entitlement programs.

KRS 11A.040 (9) states:

A former public servant shall not represent a person or business before a state agency in a matter in which the former public servant was directly involved during the last thirty-six (36) months of his tenure, for a period of one (1) year after the latter of:

- a) The date of leaving office or termination of employment; or
- b) The date the term of office expires to which the public servant was elected.

This law is intended to promote public confidence in the integrity of state government and to declare as public policy the idea that state employees should view their work as a public trust and not as a way to obtain private benefits.

If you have worked for the executive branch of state government within the past six months, you may be subject to the law's prohibitions. The law's applicability may be different if you hold elected office or are contemplating representation of another before a state agency.

Also, if you are affiliated with a firm which does business with the state and which employs former state executive-branch employees, you should be aware that the law may apply to them.

In case of doubt, the law permits you to request an advisory opinion from the Executive Branch Ethics Commission, 3 Fountain Place, Frankfort, Kentucky 40601; telephone (502) 564-7954.

Revised: January 27, 2017

"General Decision Number: KY20200040 01/31/2020

Superseded General Decision Number: KY20190040

State: Kentucky

Construction Type: Highway

Counties: Allen, Ballard, Butler, Caldwell, Calloway, Carlisle, Christian, Crittenden, Daviess, Edmonson, Fulton, Graves, Hancock, Henderson, Hickman, Hopkins, Livingston, Logan, Lyon, Marshall, McCracken, McLean, Muhlenberg, Ohio, Simpson, Todd, Trigg, Union, Warren and Webster Counties in Kentucky.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.80 for calendar year 2020 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.80 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2020. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/03/2020
1	01/10/2020
2	01/31/2020

BRIN0004-002 06/01/2017

BALLARD, BUTLER, CALDWELL, CARLISLE, CRITTENDEN, DAVIESS, EDMONSON, FULTON, GRAVES, HANCOCK, HENDERSON, HICKMAN, HOPKINS, LIVINGSTON, LYON, MARSHALL, MCCRACKEN, MCLEAN, MUHLENBERG, OHIO, UNION, and WEBSTER COUNTIES

Rates Fringes

BRICKLAYER

Ballard, Caldwell, Carlisle, Crittenden, Fulton, Graves, Hickman, Livingston, Lyon, Marshall, and McCracken Counties.....	\$ 30.50	15.16
Butler, Edmonson, Hopkins, Muhlenberg, and Ohio Counties.....	\$ 26.80	12.38
Daviess, Hancock, Henderson, McLean, Union, and Webster Counties.....	\$ 30.00	15.16

BRTN0004-005 06/01/2017

ALLEN, CALLOWAY, CHRISTIAN, LOGAN, SIMPSON, TODD, TRIGG, and
WARREN COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 26.80	12.38

CARP0357-002 04/01/2019

	Rates	Fringes
CARPENTER.....	\$ 29.25	19.23
Diver.....	\$ 44.25	19.23
PILEDRIVERMAN.....	\$ 29.50	19.23

ELEC0369-006 05/28/2019

BUTLER, EDMONSON, LOGAN, TODD & WARREN COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 32.44	17.22

* ELEC0429-001 01/01/2020

ALLEN & SIMPSON COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 27.72	13.48

ELEC0816-002 01/01/2020

BALLARD, CALDWELL, CALLOWAY, CARLISLE, CHRISTIAN, CRITTENDEN,
FULTON (Except a 5 mile radius of City Hall in Fulton), GRAVES,
HICKMAN, LIVINGSTON, LYON, MARSHALL, MCCRACKEN & TRIGG COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 33.58	25.5%+7.25

Cable spicers receive \$.25 per hour additional.

ELEC1701-003 06/01/2018

DAVISS, HANCOCK, HENDERSON, HOPKINS, MCLEAN, MUHLENBERG, OHIO,
UNION & WEBSTER COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 31.04	15.74

Cable spicers receive \$.25 per hour additional.

ELEC1925-002 01/01/2019

FULTON COUNTY (Up to a 5 mile radius of City Hall in Fulton):

	Rates	Fringes
CABLE SPLICER.....	\$ 25.80	12.16
ELECTRICIAN.....	\$ 25.20	13.74

ENGI0181-017 07/01/2019

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 33.30	16.50
GROUP 2.....	\$ 30.44	16.50
GROUP 3.....	\$ 30.89	16.50
GROUP 4.....	\$ 30.12	16.50

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - A-Frame Winch Truck; Auto Patrol; Backfiller; Batcher Plant; Bituminous Paver; Bituminous Transfer Machine; Boom Cat; Bulldozer; Mechanic; Cableway; Carry-All Scoop; Carry Deck Crane; Central Compressor Plant; Cherry Picker; Clamshell; Concrete Mixer (21 cu. ft. or Over); Concrete Paver; Truck-Mounted Concrete Pump; Core Drill; Crane; Crusher Plant; Derrick; Derrick Boat; Ditching & Trenching Machine; Dragline; Dredge Operator; Dredge Engineer; Elevating Grader & Loaders; Grade-All; Gurries; Heavy Equipment Robotics Operator/Mechanic; High Lift; Hoe-Type Machine; Hoist (Two or More Drums); Hoisting Engine (Two or More Drums); Horizontal Directional Drill Operator; Hydrocrane; Hyster; KeCal Loader; LeTourneau; Locomotive; Mechanic; Mechanically Operated Laser Screed; Mechanic Welder; Mucking Machine; Motor Scraper; Orangepeel Bucket; Overhead Crane; Piledriver; Power Blade; Pumpcrete; Push Dozer; Rock Spreader, attached to equipment; Rotary Drill; Roller (Bituminous); Rough Terrain Crane; Scarifier; Scoopmobile; Shovel; Side Boom; Subgrader; Tailboom; Telescoping Type Forklift; Tow or Push Boat; Tower Crane (French, German & other types); Tractor Shovel; Truck Crane; Tunnel Mining Machines, including Moles, Shields or similar types of Tunnel Mining Equipment

GROUP 2 - Air Compressor (Over 900 cu. ft. per min.); Bituminous Mixer; Boom Type Tamping Machine; Bull Float; Concrete Mixer (Under 21 cu. ft.); Dredge Engineer; Electric Vibrator; Compactor/Self-Propelled Compactor; Elevator (One Drum or Buck Hoist); Elevator (When used to Hoist Building Material); Finish Machine; Firemen & Hoist (One Drum); Flexplane; Forklift (Regardless of Lift Height); Form Grader; Joint Sealing Machine; Outboard Motor Boat; Power Sweeper (Riding Type); Roller (Rock); Ross Carrier; Skid Mounted or Trailer Mounted Concrete Pump; Skid Steer Machine with all Attachments; Switchman or Brakeman;

Throttle Valve Person; Tractair & Road Widening Trencher;
Tractor (50 H.P. or Over); Truck Crane Oiler; Tugger;
Welding Machine; Well Points;& Whirley Oiler

GROUP 3 -All Off Road Material Handling Equipment, including
Articulating Dump Trucks; Greaser on Grease Facilities
servicing Heavy Equipment

GROUP 4 - Bituminous Distributor; Burlap & Curing Machine;
Cement Gun; Concrete Saw; Conveyor; Deckhand Oiler; Grout
Pump; Hydraulic Post Driver; Hydro Seeder; Mud Jack; Oiler;
Paving Joint Machine; Power Form Handling Equipment; Pump;
Roller (Earth); Steerman; Tamping Machine; Tractor (Under
50 H.P.); & Vibrator

CRANES - with booms 150 ft. & Over (Including JIB), and where
the length of the boom in combination with the length of
the piling equals or exceeds 150 ft. - \$1.00 above Group 1
rate

EMPLOYEES ASSIGNED TO WORK BELOW GROUND LEVEL ARE TO BE PAID
10% ABOVE BASIC WAGE RATE. THIS DOES NOT APPLY TO OPEN CUT
WORK.

IRON0070-005 06/01/2019

BUTLER COUNTY (Eastern eighth, including the Townships of
Decker, Lee & Tilford);
EDMONSON COUNTY (Northern three-fourths, including the
Townships of Asphalt, Bee Spring, Brownsville, Grassland, Huff,
Kyrock, Lindseyville, Mammoth Cave, Ollie, Prosperity, Rhoda,
Sunfish & Sweden)

	Rates	Fringes
IRONWORKER		
Structural; Ornamental;		
Reinforcing; Precast		
Concrete Erectors.....	\$ 29.68	22.75

IRON0103-004 08/01/2018

DAVISS, HANCOCK, HENDERSON, HOPKINS, MCLEAN, OHIO, UNION &
WEBSTER COUNTIES
BUTLER COUNTY (Townships of Aberdeen, Bancock, Casey,
Dexterville, Dunbar, Elfie, Gilstrap, Huntsville, Logansport,
Monford, Morgantown, Provo, Rochester, South Hill & Welchs
Creek);
CALDWELL COUNTY (Northeastern third, including the Township of
Creswell);
CHRISTIAN COUNTY (Northern third, including the Townships of
Apex, Crofton, Kelly, Mannington & Wynns);
CRITTENDEN COUNTY (Northeastern half, including the Townships
of Grove, Mattoon, Repton, Shady Grove & Tribune);
MUHLENBERG COUNTY (Townships of Bavier, Beech Creek Junction,
Benton, Brennen, Browder, Central City, Cleaton, Depoy,
Drakesboro, Eunis, Graham, Hillside, Luzerne, Lynn City,
Martwick, McNary, Millport, Moorman, Nelson, Paradise,
Powderly, South Carrollton, Tarina & Weir)

Rates	Fringes
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Ironworkers:.....\$ 28.66 22.435

IRON0492-003 05/01/2018

ALLEN, LOGAN, SIMPSON, TODD & WARREN COUNTIES
BUTLER COUNTY (Southern third, including the Townships of Boston, Berrys Lick, Dimple, Jetson, Quality, Sharer, Sugar Grove & Woodbury);
CHRISTIAN COUNTY (Eastern two-thirds, including the Townships of Bennettstown, Casky, Herndon, Hopkinsville, Howell, Masonville, Pembroke & Thompsonville);
EDMONSON COUNTY (Southern fourth, including the Townships of Chalybeate & Rocky Hill);
MUHLENBERG COUNTY (Southern eighth, including the Townships of Dunnior, Penrod & Rosewood)

Rates Fringes

Ironworkers:.....\$ 26.11 14.02

IRON0782-006 05/01/2018

BALLARD, CALLOWAY, CARLISLE, FULTON, GRAVES, HICKMAN, LIVINGSTON, LYON, MARSHALL, MCCRACKEN & TRIGG COUNTIES
CALDWELL COUNTY (Southwestern two-thirds, including the Townships of Cedar Bluff, Cider, Claxton, Cobb, Crowtown, Dulaney, Farmersville, Fredonia, McGowan, Otter Pond & Princeton);
CHRISTIAN COUNTY (Western third, Excluding the Townships of Apex, Crofton, Kelly, Mannington, Wynns, Bennettstown, Casky, Herndon, Hopkinsville, Howell, Masonville, Pembroke & Thompsonville);
CRITTENDEN COUNTY (Southwestern half, including the Townships of Crayne, Dycusburg, Frances, Marion, Mexico, Midway, Sheridan & Told)

Rates Fringes

Ironworkers:
Projects with a total contract cost of \$20,000,000.00 or above.....\$ 28.79 24.17
All Other Work.....\$ 27.20 22.75

LABO0189-005 07/01/2018

BALLARD, CALLOWAY, CARLISLE, FULTON, GRAVES, HICKMAN, LIVINGSTON, LYON, MARSHALL & MCCRACKEN COUNTIES

Rates Fringes

Laborers:
GROUP 1.....\$ 23.07 14.21
GROUP 2.....\$ 23.32 14.21
GROUP 3.....\$ 23.37 14.21
GROUP 4.....\$ 23.97 14.21

LABORER CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement

Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter Tender; Cement Mason Tender; Cleaning of Machines; Concrete; Demolition; Dredging; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level D; Flagperson; Grade Checker; Hand Digging & Hand Back Filling; Highway Marker Placer; Landscaping, Mesh Handler & Placer; Puddler; Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail & Fence Installer; Signal Person; Sound Barrier Installer; Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper; Wrecking of Concrete Forms; General Cleanup

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer); Brickmason Tender; Mortar Mixer Operator; Scaffold Builder; Burner & Welder; Bushhammer; Chain Saw Operator; Concrete Saw Operator; Deckhand Scow Man; Dry Cement Handler; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level C; Forklift Operator for Masonary; Form Setter; Green Concrete Cutting; Hand Operated Grouter & Grinder Machine Operator; Jackhammer; Pavement Breaker; Paving Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; Wagon Driller

GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman; Gunnite Operator & Mixer; Grout Pump Operator; Blaster; Side Rail Setter; Rail Paved Ditches; Screw Operator; Tunnel (Free Air); Water Blaster

GROUP 4 - Caisson Worker (Free Air); Cement Finisher; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Levels A & B; Miner & Driller (Free Air); Tunnel Blaster; & Tunnel Mucker (Free Air); Directional & Horizontal Boring; Air Track Drillers (All Types); Powdermen & Blasters; Troxler & Concrete Tester if Laborer is Utilized

LABO0189-006 07/01/2018

ALLEN, BUTLER, CALDWELL, CHRISTIAN, DAVIESS, EDMONSON, HANCOCK, HOPKINS, LOGAN, MCLEAN, MUHLENBERG, OHIO, SIMPSON, TODD, TRIGG & WARREN COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 23.07	14.21
GROUP 2.....	\$ 23.32	14.21
GROUP 3.....	\$ 23.37	14.21
GROUP 4.....	\$ 23.97	14.21

LABORER CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter Tender; Cement Mason Tender; Cleaning of Machines; Concrete; Demolition; Dredging; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level D; Flagperson; Grade Checker; Hand Digging & Hand Back Filling; Highway Marker Placer; Landscaping, Mesh Handler & Placer; Puddler; Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail & Fence Installer; Signal Person; Sound Barrier Installer;

Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper;
Wrecking of Concrete Forms; General Cleanup

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer);
Brickmason Tender; Mortar Mixer Operator; Scaffold Builder;
Burner & Welder; Bushhammer; Chain Saw Operator; Concrete
Saw Operator; Deckhand Scow Man; Dry Cement Handler;
Environmental - Nuclear, Radiation, Toxic & Hazardous Waste
- Level C; Forklift Operator for Masonary; Form Setter;
Green Concrete Cutting; Hand Operated Grouter & Grinder
Machine Operator; Jackhammer; Pavement Breaker; Paving
Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven
Georgia Buggy & Wheel Barrow; Power Post Hole Digger;
Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind
Trencher; Sand Blaster; Concrete Chipper; Surface
Grinder; Vibrator Operator; Wagon Driller

GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman; Gunnite
Operator & Mixer; Grout Pump Operator; Blaster; Side Rail
Setter; Rail Paved Ditches; Screw Operator; Tunnel (Free
Air); Water Blaster

GROUP 4 - Caisson Worker (Free Air); Cement Finisher;
Environmental - Nuclear, Radiation, Toxic & Hazardous Waste
- Levels A & B; Miner & Driller (Free Air); Tunnel Blaster;
& Tunnel Mucker (Free Air); Directional & Horizontal
Boring; Air Track Drillers (All Types); Powdermen &
Blasters; Troxler & Concrete Tester if Laborer is Utilized

LABO0561-001 07/01/2018

CRITTENDEN, HENDERSON, UNION & WEBSTER COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 22.71	15.00
GROUP 2.....	\$ 22.96	15.00
GROUP 3.....	\$ 23.01	15.00
GROUP 4.....	\$ 23.61	15.00

LABORER CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement
Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter
Tender; Cement Mason Tender; Cleaning of Machines;
Concrete; Demolition; Dredging; Environmental - Nuclear,
Radiation, Toxic & Hazardous Waste - Level D; Flagperson;
Grade Checker; Hand Digging & Hand Back Filling; Highway
Marker Placer; Landscaping, Mesh Handler & Placer; Puddler;
Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail
& Fence Installer; Signal Person; Sound Barrier Installer;
Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper;
Wrecking of Concrete Forms; General Cleanup

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer);
Brickmason Tender; Mortar Mixer Operator; Scaffold Builder;
Burner & Welder; Bushhammer; Chain Saw Operator; Concrete
Saw Operator; Deckhand Scow Man; Dry Cement Handler;
Environmental - Nuclear, Radiation, Toxic & Hazardous Waste
- Level C; Forklift Operator for Masonary; Form Setter;
Green Concrete Cutting; Hand Operated Grouter & Grinder
Machine Operator; Jackhammer; Pavement Breaker; Paving

Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; Wagon Driller

GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman; Gunnite Operator & Mixer; Grout Pump Operator; Blaster; Side Rail Setter; Rail Paved Ditches; Screw Operator; Tunnel (Free Air); Water Blaster

GROUP 4 - Caisson Worker (Free Air); Cement Finisher; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Levels A & B; Miner & Driller (Free Air); Tunnel Blaster; & Tunnel Mucker (Free Air); Directional & Horizontal Boring; Air Track Drillers (All Types); Powdermen & Blasters; Troxler & Concrete Tester if Laborer is Utilized

PAIN0032-002 09/01/2018

BALLARD COUNTY

	Rates	Fringes
Painters:		
Bridges.....	\$ 33.56	16.13
All Other Work.....	\$ 31.86	16.13

Spray, Blast, Steam, High & Hazardous (Including Lead Abatement) and All Epoxy - \$1.00 Premium

PAIN0118-003 06/01/2014

EDMONSON COUNTY:

	Rates	Fringes
Painters:		
Brush & Roller.....	\$ 18.50	11.97
Spray, Sandblast, Power Tools, Waterblast & Steam Cleaning.....	\$ 19.50	11.97

PAIN0156-006 04/01/2015

DAVISS, HANCOCK, HENDERSON, MCLEAN, OHIO, UNION & WEBSTER COUNTIES

	Rates	Fringes
Painters:		
BRIDGES		
GROUP 1.....	\$ 27.60	12.85
GROUP 2.....	\$ 27.85	12.85
GROUP 3.....	\$ 28.60	12.85
GROUP 4.....	\$ 29.60	12.85
ALL OTHER WORK:		
GROUP 1.....	\$ 26.45	12.85
GROUP 2.....	\$ 26.70	12.85
GROUP 3.....	\$ 27.45	12.85
GROUP 4.....	\$ 28.45	12.85

PAINTER CLASSIFICATIONS

GROUP 1 - Brush & Roller

GROUP 2 - Plasterers

GROUP 3 - Spray; Sandblast; Power Tools; Waterblast;
Steamcleaning; Brush & Roller of Mastics, Creosotes, Kwinch
Koate & Coal Tar Epoxy

GROUP 4 - Spray of Mastics, Creosotes, Kwinch Koate & Coal
Tar Epoxy

PAIN0500-002 06/01/2018

CALDWELL, CALLOWAY, CARLISLE, CHRISTIAN, CRITTENDEN, FULTON,
GRAVES, HICKMAN, HOPKINS, LIVINGSTON, LYON, MARSHALL, MCCRACKEN
& TRIGG COUNTIES:

	Rates	Fringes
Painters:		
Bridges.....	\$ 27.75	13.60
All Other Work.....	\$ 21.50	13.60

Waterblasting units with 3500 PSI and above - \$.50 premium
Spraypainting and all abrasive blasting - \$1.00 premium
Work 40 ft. and above ground level - \$1.00 premium

PLUM0184-002 07/01/2018

BALLARD, CALDWELL, CALLOWAY, CARLISLE, CHRISTIAN, CRITTENDEN,
FULTON, GRAVES, HICKMAN, LIVINGSTON, LYON, MARSHALL, MCCRACKEN
and TRIGG COUNTIES

	Rates	Fringes
Plumber; Steamfitter.....	\$ 35.06	18.18

PLUM0502-004 08/01/2019

ALLEN, BUTLER, EDMONSON, SIMPSON & WARREN

	Rates	Fringes
Plumber; Steamfitter.....	\$ 35.77	20.78

PLUM0633-002 07/01/2017

DAVISS, HANCOCK, HENDERSON, HOPKINS, LOGAN, MCLEAN,
MUHLENBERG, OHIO, TODD, UNION & WEBSTER COUNTIES:

	Rates	Fringes
PLUMBER/PIPEFITTER.....	\$ 31.47	16.80

TEAM0089-003 04/01/2019

ALLEN, BUTLER, EDMONSON, LOGAN, SIMPSON & WARREN COUNTIES

	Rates	Fringes
Truck drivers:		
Zone 1:		
Group 1.....	\$ 20.82	21.96
Group 2.....	\$ 21.00	21.96
Group 3.....	\$ 21.08	21.96
Group 4.....	\$ 21.10	21.96

GROUP 1 - Greaser; Tire Changer

GROUP 2 - Truck Mechanic; Single Axle Dump; Flat Bed; All Terrain Vehicles when used to haul materials; Semi Trailer or Pole Trailer when used to pull building materials and equipment; Tandem Axle Dump; Driver of Distributors

GROUP 3 - Mixer All Types

GROUP 4 - Winch and A-Frame when used in transporting materials; Ross Carrier; Fork Lift when used to transport building materials; Driver on Pavement Breaker; Euclid and Other Heavy Earth Moving Equipment; Low Boy; Articulator Cat; Five Axle Vehicle

TEAM0215-003 04/01/2019

DAVIESS, HANCOCK, HENDERSON, HOPKINS, MCLEAN, MUHLENBERG, OHIO & WEBSTER COUNTIES

	Rates	Fringes
TRUCK DRIVER		
Group 1.....	\$ 22.45	21.96
Group 2.....	\$ 22.68	21.96
Group 3.....	\$ 22.75	21.96
Group 4.....	\$ 22.76	21.96

GROUP 1: Greaser, Tire Changer

GROUP 2: Truck Mechanic

GROUP 3: Single Axle Dump; Flat Bed; All Terrain Vehicle when used to haul materials; Semi Trailer or Pole Trailer when used to pull building materials and equipment; Tandem Axle Dump; Driver of Distributors; Mixer All Types

GROUP 4: Euclid and other heavy earth moving equipment; Low Boy; Articulator Cat; 5 Axle Vehicle; Winch and A- Frame when used in transporting materials; Ross Carrier; Fork Lift when used to transport building materials; Driver on Pavement Breaker

TEAM0236-001 04/01/2019

BALLARD, CALDWELL, CALLOWAY, CARLISLE, CHRISTIAN, CRITTENDEN, FULTON, GRAVES, HICKMAN, LIVINGSTON, LYON, MARSHALL, MCCracken, TODD & TRIGG COUNTIES

	Rates	Fringes
TRUCK DRIVER		
Group 1.....	\$ 20.82	21.96
Group 2.....	\$ 21.00	21.96
Group 3.....	\$ 21.00	21.96
Group 4.....	\$ 20.10	21.96
Group 5.....	\$ 21.08	21.96

GROUP 1: Greaser, Tire Changer

GROUP 2: Truck Mechanic

GROUP 3: Single Axle Dump; Flat Bed; All Terrain Vehicle when used to haul materials; Semi Trailer or Pole Trailer when used to pull building materials and equipment; Tandem Axle Dump; Drivers of Distributors

GROUP 4: Euclid and other heavy earth moving equipment; Low Boy; Articulator Cat; Five Axle Vehicle; Winch and A-Frame when used in transporting materials; Ross Carrier

GROUP 5: Mixer All Types

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local),

a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
 Wage and Hour Division
 U.S. Department of Labor
 200 Constitution Avenue, N.W.
 Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
 U.S. Department of Labor
 200 Constitution Avenue, N.W.
 Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
 U.S. Department of Labor
 200 Constitution Avenue, N.W.
 Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

Fringe benefit amounts are applicable for all hours worked except when otherwise noted.

No laborer, workman or mechanic shall be paid at a rate less than that of a Journeyman except those classified as bona fide apprentices.

Apprentices or trainees shall be permitted to work as such subject to Administrative Regulations adopted by the Commissioner of Workplace Standards. Copies of these regulations will be furnished upon request from any interested person.

Before using apprentices on the job the contractor shall present to the Contracting Officer written evidence of registration of such employees in a program of a State apprenticeship and training agency approved and recognized by the U. S. Bureau of Apprenticeship and Training. In the absence of such a State agency, the contractor shall submit evidence of approval and registration by the U. S. Bureau of Apprenticeship and Training.

The contractor shall submit to the Contracting Officer, written evidence of the established apprenticeship-journeyman ratios and wage rates in the project area, which will be the basis for establishing such ratios and rates for the project under the applicable contract provisions.

TO: EMPLOYERS/EMPLOYEES

PREVAILING WAGE SCHEDULE:

The wages indicated on this wage schedule are the least permitted to be paid for the occupations indicated. When an employee works in more than one classification, the employer must record the number of hours worked in each classification at the prescribed hourly base rate.

OVERTIME:

Overtime is to be paid to an employee at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty (40) hours in such workweek. Wage violations or questions should be directed to the designated Engineer or the undersigned.

Director
Division of Construction Procurement
Frankfort, Kentucky 40622
502-564-3500

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION
TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY
(Executive Order 11246)**

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

GOALS FOR MINORITY PARTICIPATION IN EACH TRADE	GOALS FOR FEMALE PARTICIPATION IN EACH TRADE
5.2%	6.9%

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally-assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4, 3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of \$10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed. The notification shall be mailed to:

**Evelyn Teague, Regional Director
Office of Federal Contract Compliance Programs
61 Forsyth Street, SW, Suite 7B75
Atlanta, Georgia 30303-8609**

4. As used in this Notice, and in the contract resulting from this solicitation, the "**covered area**" is Ballard County.

PART IV
INSURANCE

Refer to
Kentucky Standard Specifications for Road and Bridge Construction,
current edition

PART V
BID ITEMS

PROPOSAL BID ITEMS

201018

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Report Date 3/27/20

Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00001		DGA BASE	3,006.00	TON		\$	
0020	00020		TRAFFIC BOUND BASE	7.00	TON		\$	
0030	00100		ASPHALT SEAL AGGREGATE	177.00	TON		\$	
0040	00103		ASPHALT SEAL COAT	22.00	TON		\$	
0050	00190		LEVELING & WEDGING PG64-22	432.00	TON		\$	
0060	02084		JPC PAVEMENT-8 IN	31,487.00	SQYD		\$	
0070	02676		MOBILIZATION FOR MILL & TEXT	1.00	LS		\$	
0080	02677		ASPHALT PAVE MILLING & TEXTURING	7,819.00	TON		\$	
0090	20362ES403		SHOULDER RUMBLE STRIPS-SAWED	18,692.00	LF		\$	
0100	24493EX		MILLING CONCRETE PAVEMENT	260.00	SQYD		\$	

Section: 0002 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0110	01845		ISLAND INTEGRAL CURB	100.00	LF		\$	
0120	01987		DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE	58.00	EACH		\$	
0130	02014		BARRICADE-TYPE III	10.00	EACH		\$	
0140	02200		ROADWAY EXCAVATION	83.00	CUYD		\$	
0150	02351		GUARDRAIL-STEEL W BEAM-S FACE	3,575.00	LF		\$	
0160	02360		GUARDRAIL TERMINAL SECTION NO 1	3.00	EACH		\$	
0170	02363		GUARDRAIL CONNECTOR TO BRIDGE END TY A	4.00	EACH		\$	
0180	02367		GUARDRAIL END TREATMENT TYPE 1	3.00	EACH		\$	
0190	02381		REMOVE GUARDRAIL	3,697.00	LF		\$	
0200	02483		CHANNEL LINING CLASS II	100.00	TON		\$	
0210	02562		TEMPORARY SIGNS	250.00	SQFT		\$	
0220	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
0230	02671		PORTABLE CHANGEABLE MESSAGE SIGN	2.00	EACH		\$	
0240	02701		TEMP SILT FENCE	18,700.00	LF		\$	
0250	02726		STAKING	1.00	LS		\$	
0260	04933		TEMP SIGNAL 2 PHASE	4.00	EACH		\$	
0270	05950		EROSION CONTROL BLANKET	5,000.00	SQYD		\$	
0280	06403		FLEXIBLE DELINEATOR POST-B/W	120.00	EACH		\$	
0290	06510		PAVE STRIPING-TEMP PAINT-4 IN	37,472.00	LF		\$	
0300	06549		PAVE STRIPING-TEMP REM TAPE-B	3,000.00	LF		\$	
0310	06550		PAVE STRIPING-TEMP REM TAPE-W	1,000.00	LF		\$	
0320	06551		PAVE STRIPING-TEMP REM TAPE-Y	1,500.00	LF		\$	
0330	06556		PAVE STRIPING-DUR TY 1-6 IN W	18,692.00	LF		\$	
0340	06557		PAVE STRIPING-DUR TY 1-6 IN Y	6,657.00	LF		\$	
0350	10020NS		FUEL ADJUSTMENT	1,291.00	DOLL	\$1.00	\$	\$1,291.00
0360	22664EN		WATER BLASTING EXISTING STRIPE	18,692.00	LF		\$	
0370	24489EC		INLAID PAVEMENT MARKER	117.00	EACH		\$	
0380	24894EC		REMOVE FLUME	1.00	EACH		\$	

PROPOSAL BID ITEMS

201018

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Report Date 3/27/20

Section: 0003 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0390	02004		RELOCATE WATER-FILLED BARRIERS	8,492.00	LF		\$	
0400	02005		WATER-FILLED BARRIERS	2,670.00	LF		\$	
0410	02014		BARRICADE-TYPE III	8.00	EACH		\$	
0420	02562		TEMPORARY SIGNS	1,136.00	SQFT		\$	
0430	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
0440	02654		TRUCK MOUNTED ATTENUATOR	2.00	EACH		\$	
0450	04933		TEMP SIGNAL 2 PHASE	2.00	EACH		\$	
0460	06510		PAVE STRIPING-TEMP PAINT-4 IN	5,892.00	LF		\$	
0470	06568		PAVE MARKING-THERMO STOP BAR-24IN	144.00	LF		\$	
0480	25072EC		RELOCATE TEMPORARY SIGNALS	1.00	L S		\$	

Section: 0004 - BRIDGE- US-51 OVER OHIO RIVER - DRAWING NO 28288

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0490	03294		EXPAN JOINT REPLACE 1 1/2 IN	405.00	LF		\$	
0500	03299		ARMORED EDGE FOR CONCRETE	23.00	LF		\$	
0510	03304		BRIDGE OVERLAY APPROACH PAVEMENT	191.00	SQYD		\$	
0520	08106		CONCRETE-CLASS M 1	41.00	CUYD		\$	
0530	08140		MECHANICAL REINF COUPLER #5 EPOXY COATED	76.00	EACH		\$	
0540	08151		STEEL REINFORCEMENT-EPOXY COATED	9,930.00	LB		\$	
0550	08504		EPOXY SAND SLURRY	3,217.00	SQYD		\$	
0560	08510		REM EPOXY BIT FOREIGN OVERLAY	14,665.00	SQYD		\$	
0570	08534		CONCRETE OVERLAY-LATEX	611.00	CUYD		\$	
0580	08549		BLAST CLEANING	3,217.00	SQYD		\$	
0590	08550		HYDRODEMOLITION	14,665.00	SQYD		\$	
0600	24094EC		PARTIAL DEPTH PATCHING	261.00	CUYD		\$	
0610	24610EC		MODULAR EXPANSION JOINT	113.00	LF		\$	
0620	24879EC		STEEL REPAIR	212.00	EACH		\$	
0630	24983EC		BEARING LUBRICATION	42.00	EACH		\$	

Section: 0005 - DEMOBILIZATION &/OR MOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0640	02568		MOBILIZATION	1.00	LS		\$	
0650	02569		DEMOBILIZATION	1.00	LS		\$	