



**CALL NO. 112**

**CONTRACT ID. 194217**

**LOGAN COUNTY**

**FED/STATE PROJECT NUMBER HSIP 0801 (112)**

**DESCRIPTION US HIGHWAY 68 (US 68)**

**WORK TYPE ASPHALT SURFACE WITH GRADE & DRAIN**

**PRIMARY COMPLETION DATE 11/1/2019**

**LETTING DATE: June 21,2019**

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN DAYLIGHT TIME June 21,2019. Bids will be publicly announced at 10:00 AM EASTERN DAYLIGHT TIME.

**NO PLANS ASSOCIATED WITH THIS PROJECT.**

**DBE CERTIFICATION REQUIRED - 10.50%**

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

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**PART I**  
**SCOPE OF WORK**

## ADMINISTRATIVE DISTRICT - 03

**CONTRACT ID - 194217**

**HSIP 0801 (112)**

**COUNTY - LOGAN**

**PCN - 0307100681901**

**HSIP 0801 (112)**

US HIGHWAY 68 (US 68) (MP 26.200) CONSTRUCTION OF A J-TURN AT THE INTERSECTION OF US 68 & KY 73 (MP 26.800), A DISTANCE OF 0.60 MILES.ASPHALT SURFACE WITH GRADE & DRAIN SYP NO. 03-09017.00.  
GEOGRAPHIC COORDINATES LATITUDE 36:53:05.90 LONGITUDE -86:39:40.30

**COMPLETION DATE(S):**

COMPLETED BY 11/01/2019

APPLIES TO ENTIRE PROJECT

## **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](http://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](mailto: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](http://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 Capacity Rating 102.10 Delivery of Proposals  
102.8 Irregular Proposals 102.14 Disqualification of Bidders  
102.9 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 Project Code Number (PCN), 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, the DBE's certificate of insurance, and an affidavit for bidders, offerors, and contractors from the DBE to the Division of Construction Procurement. The affidavit can be found on the Construction Procurement website. If the DBE is a supplier of materials for the project, a signed purchase order and an affidavit for bidders, offerors, and contractors 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 and nine (9) copies of this information must be received in the office of 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 DBE Liaison in the Office of Minority Affairs 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 (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 submitted within 10 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.

The Prime Contractor should supply the payment information at the time the DBE is compensated for their work. Form to use is located at:

<http://transportation.ky.gov/Construction/Pages/Subcontracts.aspx>

**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 is Melvin Bynes and the telephone number is (502) 564-3601.**

Photocopied payments and completed, signed and notarized affidavit must be submitted by the Prime Contractor to: Office of Civil Rights and Small Business Development  
6<sup>th</sup> Floor West 200 Mero Street  
Frankfort, KY 40622

### **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.

1/27/2017

**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.



### **EXPEDITE PROJECT WORK ORDER**

The Contractor may request that the Department expedite the work order for this project to allow for maximization of time to complete the work. In order for the Department to accomplish this task, the Contractor may be required to “hand carry” all required project documentation to facilitate the process. Immediately UPON NOTIFICATION OF AWARD OF THE CONTRACT, deliver required project documentation to:

Division of Construction Procurement  
200 Mero St.  
Frankfort, KY 40602

### **NATIONAL HIGHWAY**

Be advised this project is on the NATIONAL HIGHWAY SYSTEM.

### **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.

### **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.

### **OPTION A**

Be advised that the Department will accept compaction of asphalt mixtures furnished for driving lanes and ramps, at 1 inch (25mm) or greater, on this project according to OPTION A in accordance with Section 402 and Section 403 of the current Standard Specifications. The Department will require joint cores as described in Section 402.03.02 for surface mixtures only. The Department will accept compaction of all other asphalt mixtures according to OPTION B.

### **MATERIAL TRANSFER VEHICLE (MTV)**

Provide and use a MTV in accordance with Sections 403.02.10 and 403.03.05.

## Special Notes Applicable to Project – General Notes & Description of Work

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### **CAUTION**

The information in this proposal and the type of work listed herein are approximate only and are not to be taken as an exact evaluation of the materials and conditions to be encountered during construction; the bidder must draw his/her own conclusions. The Department does not give any guarantee as to the accuracy of the data and no claim for money or time extension will be considered if the conditions encountered are not in accordance with the information shown.

### **EXISTING MAPPING AND CONTROL**

All survey information was obtained by field survey and should be field verified prior to beginning work. Refer to the Special Note for Staking concerning staking operations required to control and construct the work.

### **ON-SITE INSPECTION**

Before submitting a bid for the work, make a thorough inspection of the site and determine existing conditions so that the work can be expeditiously performed after a contract is awarded. The Department will consider submission of a bid to be evidence of this inspection having been made. The Department will not honor any claims for money or time extension resulting from site conditions.

### **RIGHT OF WAY LIMITS**

The Department has not established the exact limits of the Right-of-Way. Unless a consent and release form is obtained from the adjoining property owner, limit work activities to the obvious Right-of-Way and staging areas secured by the Contractor at no additional cost to the Department. In the event that private improvements (i.e. fences, buildings, etc.) encroach upon the Right-of-Way, the contractor shall notify the Engineer and limit work activities in order to NOT disturb the improvements. If they become necessary, the Department will secure consent and releases from property owners through the Engineer. Be responsible for all encroachments onto private lands.

### **UTILITY COORDINATION**

**Coordination with Utility Companies.** Locate all underground, above ground, and overhead utilities prior to beginning construction. Be responsible for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. Be responsible for repairing all utility damage that occurs as a result of pipe replacement and pipe extension operations at no additional cost to the Department. NOTIFY THE ENGINEER AND THE UTILITY OWNER(S) IMMEDIATELY WHEN IT IS DISCOVERED OR ANTICIPATED THAT ANY UTILITY CONFLICT COULD DELAY THE CONTRACTOR'S OPERATIONS. If the total delay exceeds ten working days, an extension of the specified completion date will be negotiated with the Contractor for delay to the Contractor's work; however, no extension will be granted for any delay caused by the Contractor's failure to notify the Engineer and/or the utility company as specified above when a conflict is discovered or anticipated as specified.

### **CONTROL**

Perform all work under the absolute control of the Department of Highways. Obtain the Engineer's approval of all designs required to be furnished by the Contractor prior to incorporation into the work. The Department reserves the right to have other work performed by other contractors and its own forces and to permit public

## General Notes & Description of Work

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utility companies and others to do work during the construction within the limits of, or adjacent to, the project. Conduct operations and cooperate with such other parties so that interference with such other work will be reduced to a minimum. The Department will not honor any claims for money or time extension created by the operations of such other parties. Should a difference of opinion arise as to the rights of the Contractor and others working within the limits of, or adjacent to, the project, the Engineer will decide as to the respective rights of the various parties involved in order to assure the completion of the Department's work in general harmony and in a satisfactory manner, and his/her decision shall be final and binding upon the Contractor.

### **DESCRIPTION OF WORK**

Except as specified herein, perform all work in accordance with the Department's Standard Specifications, Supplemental Specifications, applicable Special Notes and Special Provisions, and applicable Standard and Sepia Drawings, current editions. Furnish all materials, labor, equipment, and incidentals for the following work:

**Construction of a J-Turn Intersection.** The intent of this project is to construct a J-Turn Intersection. This will be accomplished by constructing a Standard Barrier Median in the middle of the US 68 & KY 73 intersection, turn lanes, U-Turn crossovers (a short distance upstream and downstream from the main US 68 & KY 73 intersection), and Loons across from the U-Turn Crossovers.

**Standard Barrier Median.** Standard Barrier Median has been designed to prevent the thru and left turning movements from KY 73 onto US 68, but still allow left turning movements from US 68 onto KY 73. Details within the Proposal show the design and layout for the Standard Barrier Median.

**Turn Lanes and U-Turn Crossovers.** Since the thru and left turning movements from KY 73 onto US 68 are prohibited with this design, left-turn lanes and U-turns are being provided. Details within the Proposal show the design and layout for the turn lanes and U-turn crossovers.

**Loons.** To accommodate vehicles that have a large turning radius at the U-Turns, Loons are to be constructed along US 68 across from the U-Turn locations. Details within the Proposal show the design and layout for the Loons.

**Asphalt Pavement and Roadway Widening.** The existing roadway is to be resurfaced and widened (for turn lanes) from Station 91+00 to Station 109+00. This work will include earthwork, milling and texturing, placement of crushed stone base, placement of asphalt base, placement of an asphalt surface course, installation of edge line rumble strips, and the application/installation of pavement markings.

**Drainage.** There are locations throughout the project where culvert pipes are being added, replaced and/or extended. Locations are noted on the Drainage Summary. Other items that may be associated with the pipe replacements and/or extensions include: Drop Boxes, Man Holes, Headwalls, Ditching, Channel Lining etc. Refer to the Special Note for Pipe Replacements / Extensions for more information on this item of work.

**Signing.** There are locations along the project where new signing is proposed. Refer to the Proposed Signing Summary for locations and approximate quantities. The District Traffic Engineer will make the final determination as to the placement of all signs. Refer to the Special Notes for Signing and Signage for additional information.

## SPECIAL NOTE FOR STAKING

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Perform Contractor Staking according to Section 201; except, in addition to the requirements of Section 201, perform the following:

1. Contrary to Section 201, perform items 1-3 usually performed by the Engineer.
2. Verify the dimensions, type, and quantities of the culvert pipes, entrance pipes, and/or box culverts as listed and detailed in the proposal, and determine flow line elevations and slopes necessary to provide positive drainage. Revise as necessary to accommodate the existing site conditions; to provide proper alignment of the drainage structures with existing and/or proposed ditches, stream channels, swales, and the roadway lines and grades; and to ensure positive drainage upon completion of the work.
3. Using stakes, paint marks on the pavement, mag nails, and/or any other means approved by the Engineer, the Contractor shall mark and/or stake the proposed sign locations in the field. NOTE: The proposed signs are listed in the proposal by approximate location and are NOT to be taken as the exact location for the signs. During staking operations the Contractor shall review the signing layout and existing field conditions and look for potential conflicts, including but not limited to utilities, driveways, visual obstructions, etc. When conflicts are found, adjust the staked location of signs to mitigate conflicts. Because the sign locations in the proposal are approximate and the location of some signs may need to be adjusted due to conflicts, during staking operations the Contractor shall refer to and utilize the information in the Manual on Uniform on Traffic Control Devices (MUTCD), current edition. The MUTCD cover items such as: appropriate sign location, advance placement distances, and spacing requirements for signing. The intent is for the proposed signs to be consistent with, and meet the requirements of, the MUTCD. Once the proposed sign locations have been staked, notify and coordinate with the District Traffic Engineer, and perform a review of the staked locations. Adjust the staked locations, as directed by the District Traffic Engineer and obtain approval of the final staked locations. This review will also be used to determine if there are any existing signs that require removal and/or relocation. Provide the District Traffic Engineer with 2 weeks of notice when a route will be ready for a review of the staked locations. NOTE: The District Traffic Engineer may determine that the proposed signing, including sign types and messages, needs to be adjusted and/or modified from what is shown in the proposal. Therefore, the Contractor shall not order any sign material for a route until the route has been staked and final sign location approval has been given by the District Traffic Engineer.
4. Using paint marks on the pavement, and/or any other means approved by the Engineer, the Contractor shall layout and pre-mark the proposed striping, pavement markings, etc. Adjust as necessary to accommodate the existing site conditions and to provide proper alignment of the proposed thru and turning lanes. Obtain approval of the pre-marked layout from the Engineer and/or District Traffic Engineer prior to installing the striping and/or pavement markings.
5. Prior to incorporating into the work, obtain the Engineer's approval of all revisions determined by the Contractor.
6. Perform any and all other staking operations required to control and construct the work.

## **SPECIAL NOTE FOR EROSION CONTROL**

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### **I. DESCRIPTION**

Perform all erosion and water pollution control work in accordance with any other notes in the Proposal, the Department's Standard and Interim Supplemental Specifications, the Special Provisions and Special Notes, and the Standard and Sepia Drawings, current editions, or as directed by the Engineer. Section references are to the Standard Specifications. This work shall consist of:

(1) Developing and preparing a Best Management Practices Plan (BMP) tailored to suit the specific construction phasing for each site within the project; (2) Preparing the project site for construction, including locating, furnishing, installing, and maintaining temporary and/or permanent erosion and water pollution control measures as required by the BMP prior to beginning any earth disturbing activity on the project site; (3) Clearing and grubbing and removal of all obstructions as required for construction; (4) Removing all erosion control devices when no longer needed; (5) Restoring all disturbed areas as nearly as possible to their original condition; (6) Preparing seedbeds and permanently seeding all disturbed areas; (7) Providing a Kentucky Erosion Prevention and Sediment Control Program (KEPSC) qualified inspector; and (8) Performing any other work to prevent erosion and/or water pollution as specified by this contract, required by the BMP, or as directed by the Engineer.

### **II. MATERIALS**

Furnish materials in accordance with these notes, the Standard Specifications and Interim Supplemental Specifications, applicable Special Provisions and Special Notes, and the Standard and Sepia Drawings, current editions. Provide for all materials to be sampled and tested in accordance with the Department's Sampling Manual. Unless directed otherwise by the Engineer, 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.

### **III. CONSTRUCTION**

Be advised, these Erosion Control Notes do not constitute a BMP plan for the project. Jointly with the Engineer, prepare a site specific BMP plan for each drainage area within the project in accordance with Section 213. Provide a unique BMP at each project site using good engineering practices taking into account existing site conditions, the type of work to be performed, the construction phasing, methods, and the techniques to be utilized to complete the work. Be responsible for all erosion prevention, sediment control, and water pollution prevention measures required by the BMP for each site. Represent and warrant compliance with the Clean Water Act (33 USC Section 1251 et seq.), the 404 Permit, the 401 Water Quality Certification, and applicable state and local government agency laws, regulations, rules, specifications, and permits. Contrary to Section 105.05, in case of discrepancy between these notes, the Standard Specifications, Interim Supplemental Specifications, Special Provisions and Special Notes, Standard and Sepia Drawings, and such state and local government agency requirements, adhere to the most restrictive requirement.

## Erosion Control

### Page 2 of 3

Conduct operations in such a manner as to minimize the amount of disturbed ground during each phase of the construction and limit the haul roads to the minimum required to perform the work. Preserve existing vegetation not required to be removed by the work or the contract. Seed and/or mulch disturbed areas at the earliest opportunity. Use silt fence, silt traps, temporary ditches, brush barriers, erosion control blankets, sodding, channel lining, and other erosion control measures in a timely manner as required by the BMP and as directed or approved by the Engineer. Prevent sediment laden water from leaving the project, entering an existing drainage structure, or entering a stream.

Provide for erosion control measures to be in place and functioning prior to any earth disturbance within a drainage area. Compute the volume and size of silt control devices necessary to control sediment during each phase of construction. All silt control devices shall be sized to retain a volume of 3,600 cubic feet per disturbed contributing acre. Remove sediment from silt traps before they become a maximum of ½ full. Maintain silt fence by removing accumulated trappings and/or replacing the geotextile fabric when it becomes clogged, damaged, or deteriorated, or when directed by the Engineer. Properly dispose of all materials trapped by erosion control devices at approved sites off the right of way obtained by the Contractor at no additional cost to the Department. See the Special Provision for Waste and Borrow Sites.

As work progresses, add or remove erosion control measures as required by the BMP, applicable to the Contractor's project phasing, construction methods, and techniques. Update the volume calculations and modify the BMP as necessary throughout the duration of the project. Ensure that an updated BMP is kept on site and available for public inspection throughout the life of the project.

The required volume at each Silt Trap shall be computed based on the Up Gradient Contributing Areas that are disturbed and/or stabilized to the satisfaction of the Engineer. The required volume calculation for each Silt Trap shall be determined by the Contractor and verified by the Engineer. The required volume at each Silt Trap may be reduced by the following amounts:

- Up Gradient Areas not disturbed (acres)
- Up Gradient Areas that have been reclaimed and protected by Erosion Control Blanket or other ground protection material such as Temporary Mulch (acres)
- Up Gradient Areas that have been protected by Silt Fence (acres) – Areas protected by Silt Fence shall be computed at a maximum rate of 100 square feet per linear foot of Silt Fence
- Up Gradient Areas that have been protected by Silt Traps (acres)

The use of Temporary Mulch is encouraged.

Silt Trap Type B shall always be placed at the collection point prior to discharging into a Blue Line Stream or onto an adjacent Property Owner. Where overland flow exists, a Silt Fence or other filter devices may be used.

After all construction is complete, restore all disturbed areas in accordance with Section 212. Completely remove all temporary erosion control devices not required as part of the permanent erosion control from the construction site. Prior to removal, obtain the Engineer's concurrence of items to be removed. Grade the remaining exposed earth (both on and off the Right-of-Way) as nearly

Erosion Control  
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as possible to its original condition, or as directed by the Engineer. Prepare the seed bed areas and sow all exposed earthen areas with the applicable seed mixture(s) according to Section 212.03.03.

**IV. MEASUREMENT**

The Department will measure the various erosion control items according to Section 212.04 and Section 213.04, as applicable.

**V. BASIS OF PAYMENT**

The Department will make payment for the various erosion control items according to Section 212.04 and Section 213.04, as applicable.

## SPECIAL NOTES FOR PIPE REPLACEMENTS / EXTENSIONS

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### I. DESCRIPTION

Except as provided herein, perform all work in accordance with the Department's Standard Specifications, interim Supplemental Specifications, Standard and Sepia Drawings, and Special Notes and Special Provisions, current editions. Article references are to the Standard Specifications. This project shall consist of furnishing all labor, equipment, materials, and incidentals for the following:

- (1) Maintaining and Controlling Traffic; (2) Constructing pipe replacements and/or pipe extensions; (3) Embankment and/or Excavation; (4) Erosion Control; and (6) Any other work as specified by this contract.

### II. MATERIALS

Provide for sampling and testing of all materials in accordance with the Department's Sampling Manual. Make 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. Culvert Pipe.** Furnish pipe meeting the requirements of Section 810. Select pipe for pH range Medium and minimum fill cover height according to the applicable Standard or Sepia Drawings, current editions. Verify maximum and minimum fill cover height required for new pipe prior to construction and obtain the Engineer's approval of the class or gauge of pipe and type of coating prior to delivering pipe to project. Furnish approved connecting bands or pipe anchors and toe walls.
- C. Flowable Fill.** Furnish Flowable Fill for Pipe Backfill per Section 601.03.03(B).
- D. Erosion Control.** See Special Note for Erosion Control.

### III. CONSTRUCTION METHODS

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Erosion Control.** See Special Note for Erosion Control.
- C. Site Preparation.** Be responsible for all site preparation including, but not limited to, saw cutting and removing pavement; clearing and grubbing; staking; incidental excavation and backfilling; common and solid rock excavation; embankment in place; removal of obstructions, or any other items; restoration of pavements, slopes, and all disturbed areas; final dressing and cleanup; and disposal of materials. Limit clearing and grubbing to the absolute minimum required to construct the drainage features. Perform all site preparation only as approved or directed by the Engineer.



Pipe Replacements/Extensions  
Page 2 of 5

- D. Removing Headwalls, Pipe, and Excavation.** Remove existing headwalls and lengths of culvert and/or entrance pipes at the approximate locations noted on the summary. The Engineer will determine the exact locations and lengths of pipe to be removed at the time of construction. When removing pipe, or any portion of pipe under the roadway, saw cut the existing asphalt pavement and base to a neat edge prior to excavation and removal of the existing pipe. NOTE: Saw cutting the pavement shall be incidental. Obtain the Engineer's approval of trench width and/or saw cutting limits prior to saw cutting the pavement. Excavate the trench and remove the pipe as directed, or approved, by the Engineer without disturbing existing underground utilities.
- E. Constructing Pipe, Headwalls, and Drainage Boxes.** Construct culvert and/or entrance pipes, pipe extensions, headwalls, drainage boxes, and other drainage structures at the locations shown in the proposal or as designated by the Engineer. The contractor will establish, with the approval of the Engineer, the final centerlines, flow lines, and skews to obtain the best fit with the existing and/or proposed ditches and other proposed improvements. (See the Special Note for Staking.) Construct pipe bedding according to Section 701 and the applicable Standard or Sepia Drawings, current editions. Use approved connecting bands or concrete anchors as required. Prior to backfilling pipe, obtain the Engineer's approval of the pipe installation. Provide Positive drainage upon completion of pipe installation.
- F. Pipe Backfill.** Backfill entrance pipes according to Section 701.03.06. Contrary to Section 701.03.06, backfill culvert pipes with flowable fill for the width of the roadway and as shown on the Pipe Replacement Detail. Steel plates may be required to maintain traffic while the flowable fill cures. Once the flowable fill has sufficiently cured, place the Asphalt Base in lifts with thicknesses of 3-4 inches, up to the surface of the existing pavement. Seal with Leveling & Wedging. Allow the asphalt base and leveling & wedging to be exposed to traffic for a minimum of 14 days to allow for settlement. During the waiting period, level & wedge any settlement as directed by the Engineer. After the waiting period has been met for the last pipe replacement constructed, the final milling and/or surfacing operations can begin, unless directed otherwise by the Engineer.
- G. Embankments.** Backfill pipe and culvert extensions, and construct shoulder embankments as directed by the Engineer. The contractor shall bench into the existing slope and apply proper compaction according to Section 206. For more information and details on benching, refer to Note 2 on the detail sheet titled: DITCHING & SHOULDERING AND EMBANKMENT BENCHING DETAILS, found elsewhere in the Proposal. Provide positive drainage of ditches, shoulders, and slopes at all times during, and upon completion of construction.
- H. Property Damage.** Be responsible for all damage to public and/or private property resulting from the work. Repair or replace damaged roadway features in like kind materials and design, as directed by the Engineer at no additional cost to the Department. Repair or replace damaged private property in like kind materials and design to the satisfaction of the owner and the Engineer at no additional cost to the Department.

Pipe Replacements/Extensions  
Page 3 of 5

- I. Coordination with Utility Companies.** Locate all underground, above ground, and overhead utilities prior to beginning construction. Be responsible for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. Be responsible for repairing all utility damage that occurs as a result of pipe replacement and pipe extension operations at no additional cost to the Department. NOTIFY THE ENGINEER AND THE UTILITY OWNER(S) IMMEDIATELY WHEN IT IS DISCOVERED OR ANTICIPATED THAT ANY UTILITY CONFLICT COULD DELAY THE CONTRACTOR'S OPERATIONS. If the total delay exceeds ten working days, an extension of the specified completion date will be negotiated with the Contractor for delay to the Contractor's work; however, no extension will be granted for any delay caused by the Contractor's failure to notify the Engineer and/or the utility company as specified above when a conflict is discovered or anticipated as specified.
- J. Right-of-Way Limits.** The Department has not established exact limits of the Right-of-Way. Unless a consent and release form is obtained from the adjoining property owner, limit work activities to the obvious Right-of-Way and staging areas secured by the Contractor at no additional cost to the Department. In the event that private improvements (i.e. fences, buildings, etc.) encroach upon the Right-of-Way, the contractor shall notify the Engineer and limit work activities in order to NOT disturb the improvements. If they become necessary, the Department will secure consent and releases from property owners through the Engineer. Be responsible for all encroachments onto private lands.
- K. Clean Up, Disposal of Waste.** Clean up the project area as work progresses. Dispose of all removed concrete, pipe, pavement, debris, excess and unsuitable excavation, and all other waste at approved sites off the Right of Way obtained by the Contractor at no additional cost to the Department. See the Special Provision for Waste and Borrow Sites.
- L. Final Dressing, Seeding and Protection.** Grade all disturbed areas to blend with the adjacent roadways features and to provide a suitable seed bed. Apply Class A Final Dressing to all disturbed areas, both on and off the Right-of-Way. Sow all disturbed earthen areas with the applicable seed mixture(s) according to Section 212.03.03.
- M. Erosion Control.** See the Special Note for Erosion Control.

**IV. METHOD OF MEASUREMENT**

- A. Maintain and Control Traffic.** See the Traffic Control Plan.
- B. Site Preparation.** Other than the bid items listed, site preparation will NOT be measured for payment, but shall be incidental to culvert and/or entrance pipe bid items, as applicable.

Pipe Replacements/Extensions  
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- C. Remove Headwall.** The Department will measure the removal of existing headwalls as Each. Any excavation, including rock excavation, necessary to remove existing headwalls will NOT be measured for payment, but shall be incidental to the bid item "Remove Headwall".
- D. Remove Pipe.** Removal of existing culvert and entrance pipe shall be measured according to Section 701.04.14. Any excavation, including rock excavation, necessary to remove existing pipe will NOT be measured for payment, but shall be incidental to the bid item "Remove Pipe".
- E. Culvert and Entrance Pipe.** The Department will measure the quantities according to Section 701.04. Any excavation, including rock excavation, necessary to install culvert or entrance pipe shall be incidental to the corresponding pipe bid items.
- F. Headwalls, Drainage Boxes.** The Department will measure according to Section 710. Any excavation, including rock excavation, necessary to construct headwalls and/or drainage boxes will NOT be measured for payment, but shall be incidental to the applicable bid item.
- G. Excavation, Pipe Backfill, Embankments.** The Department will NOT measure for payment the following items: any excavation, including rock excavation, necessary to remove the existing pipe and/or install the proposed culvert or entrance pipe, pipe backfill material, flowable fill, and re-constructing shoulder embankments, but shall considered these items incidental to the bid items for culvert and entrance pipe.
- H. Clean Up, Disposal of Waste, Final Dressing, Seeding and Protection.** The Department will NOT measure for payment the following activities: Clean Up, Disposal of Waste, and Final Dressing. These activities shall be incidental to the project bid items. Seeding and Protection shall be measured according to Section 212.
- I. Erosion Control.** See the Special Note for Erosion Control.

**V. BASIS OF PAYMENT**

- A. Maintain and Control Traffic.** See the Traffic Control Plan.
- B. Remove Headwall.** The Department will make payment for the completed and accepted quantities of Each headwall removed. Payment at the Contract unit price per Each shall be full compensation for furnishing all labor, materials, equipment, and incidentals for removing the existing headwall.
- C. Remove Pipe.** The Department will make payment according to Section 701.05. Payment at the Contract unit price per linear foot shall be full compensation for furnishing all labor, materials, equipment, and incidentals for removing the existing pipe.
- D. Culvert and Entrance Pipe.** The Department will make payment according to Section

Pipe Replacements/Extensions  
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701.05. Payment at the Contract unit price per linear foot shall be full compensation for furnishing all labor, materials, equipment, and incidentals necessary for installing and backfilling new culvert and entrance pipe.

**E. Headwalls, Drainage Boxes.** The Department will make payment according to Section 710.

**F. Erosion Control.** See the Special Note for Erosion Control.

### SPECIAL NOTE FOR NON-TRACKING TACK COAT

1. DESCRIPTION AND USEAGE. This specification covers the requirements and practices for applying a non-tracking tack asphalt coating. Place this material on the existing pavement course, prior to placement of a new asphalt pavement layer. Use when expedited paving is necessary or when asphalt tracking would negatively impact the surrounding area. This material is not suitable for other uses. Ensure material can “break” within 15 minutes under conditions listed in 3.2.

2. MATERIALS, EQUIPMENT, AND PERSONNEL.

2.1 Non-Tracking Tack. Provide material conforming to Subsection 2.1.1.

2.1.1 Provide a tack conforming to the following material requirements:

Property	Specification	Test Procedure
Viscosity, SFS, 77 ° F	20 – 100	AASHTO T 72
Sieve, %	0.3 max.	AASHTO T 59
Asphalt Residue <sup>1</sup> , %	50 min.	AASHTO T 59
Oil Distillate, %	1.0 max.	AASHTO T 59
Residue Penetration, 77 ° F	20 max.	AASHTO T 49
Original Dynamic Shear (G*/sin δ), 82 ° C	1.0 min.	AASHTO T 315
Softening Point, ° F	149 min.	AASHTO T 53
Solubility, %	97.5 min.	AASHTO T 44

<sup>1</sup> Bring sample to 212 °F over a 10-15 minute period. Maintain 212 °F for 15-20 minutes or until 30-40 mL of water has distilled. Continue distillation as specified in T59.

2.2. Equipment. Provide a distributor truck capable of heating, circulating, and spraying the tack between 170 °F and 180 °F. Do not exceed 180 °F. Circulate the material while heating. As required by the manufacturer, ensure the spray bar is equipped with #1 or #2 ¼” V-slot Etnyre nozzles. Other nozzles are not acceptable. Arrange the nozzles in the following patterns from left to right:

Nozzle number(s)	Activity	Orientation
1	On	Vertical
2	Off	-
3	On	Horizontal
4 & 5	Off	-
6	On	Horizontal
Continue 2 off and 1 on pattern through rest of spray bar system.		

Ensure the bar can be raised to between 14 and 18” from the roadway.

2.3 Personnel. Ensure the tack supplier has provided training to the contractor on the installation procedures for this product. Make a technical representative from the supplier available at the request of the Engineer.

3. CONSTRUCTION.

3.1 Surface Preparation. Prior to the application of the non-tracking tack, ensure the pavement surface is thoroughly dry and free from dust or any other debris that would inhibit adhesion. Clean the surface by scraping, sweeping, and the use of compressed air. Ensure this preparation process occurs shortly before application to prevent the return of debris pavement. If rain is expected within one hour after application, do not apply material. Apply material only when the surface is dry, and no precipitation is expected.

3.2 Non-tracking Tack Application. Ensure the roadway temperature is a minimum of 40 °F and rising during the application of the tack. This material is not suitable for use in colder temperatures. Prior to applying the tack, demonstrate competence in applying the tack according to this note to the satisfaction of the Engineer. Heat the tack in the distributor to between 170 – 180 °F. After initial heating to between 170 – 180 °F, the material may be sprayed between 165 °F and 180 °F. Do not apply outside this temperature range. Apply material at a rate of 0.50 pounds (0.06 gallons) per square yard. Ensure full coverage of the material on the pavement surface. Full coverage of this material is critical. If full coverage is not achieved, material application rate may be increased to ensure full coverage. Do not heat material more than twice in one day.

3.3 Non-tracking Tack Certification. Furnish the tacks certification to the Engineer stating the material conforms to all requirements herein prior to use.

3.4 Sampling and Testing. The Department will require a sample of non-tracking tack be taken from the distributor at a rate of one sample per 15,000 tons of mix. Take two 1 gallon samples of the heated material and forward the sample to the Division of Materials for testing within 7 days. Ensure the product temperature is between 170 and 180 °F at the time of sampling.

4. MEASUREMENT. The Department will measure the quantity of non-tracking tack in tons. The Department will not measure for payment any extra materials, labor, methods, equipment, or construction techniques used to satisfy the requirements of this note. The Department will not measure for payment any trial applications of non-tracking tack, the cleaning of the pavement surface, or furnishing and placing the adhesive. The Department will consider all such items incidental to the non-tracking tack.

5. PAYMENT. The Department will pay for the non-tracking tack at the Contract unit bid price and apply an adjustment for each manufacturer's lot of material based on the degree of compliance as defined in the following schedule. When a sample fails on two or more tests, the Department may add the deductions, but the total deduction will not exceed 100 percent.

Non-Tracking Tack Price Adjustment Schedule						
Test	Specification	100% Pay	90% Pay	80% Pay	50% Pay	0% Pay
Viscosity, SFS, 77 ° F	20 – 100	19 - 102	17 - 18	15 - 16	14	≤13
			103 - 105	106 - 107	108 - 109	≥ 110
Sieve, %	0.30 max.	≤ 0.40	0.41 - 0.50	0.51 - 0.60	0.61 - 0.70	≥ 0.71
Asphalt Residue, %	50 min.	≥49.0	48.5 – 48.9	48.0 – 48.4	47.5-47.9	≤ 47.4
Oil Distillate, %	1.0 max.	≤1.0	1.1-1.5	1.6 - 1.7	1.8-1.9	>2.0
Residue Penetration, 77 ° F	20 max.	≤ 21	22 - 23	24 - 25	26 - 27	≥ 28
Original Dynamic Shear (G*/sin δ), 82 ° C	1.0 min.	≥0.95	0.92 – 0.94	0.90 – 0.91	0.85 - 0.89	≤ 0.84
Softening Point, ° F	149 min.	≥145	142 - 144	140 - 141	138 - 139	≤ 137
Solubility, %	97.5 min.	≥ 97.0	96.8 – 96.9	96.6 – 96.7	96.4 – 96.5	≤ 96.3

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
24970EC	Asphalt Material for Tack Non-Tracking	Ton

April 30, 2018

## SPECIAL NOTE FOR SIGNAGE

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All sign sheeting shall be from the Cabinet's List of Approved Materials.

The following signs and sign components shall be fabricated using Type IX sheeting:

- White sign legends on panel signs
- STOP (R1-1) signs
- ALL WAY (R1-3P) signs
- YIELD (R1-2) signs
- DO NOT ENTER (R5-1) signs
- WRONG WAY (R5-1a) signs

The following signs and sign components shall be fabricated using Type IX fluorescent yellow sheeting:

- Horizontal Alignment Signs and Plaques, including signs shown in Figure 2C-1 of the MUTCD
- All Advisory Speed (W13-1P) plaques

The following signs shall be fabricated using Type IX fluorescent yellow-green sheeting:

- School and school bus warning signs, including the fluorescent yellow-green signs shown in Figures 7B-1 and 7B-6 of the MUTCD and other school-related warning signs that are not included in the MUTCD.
- Bicycle Warning (W11-1) signs and SHARE THE ROAD (W16-1P) plaques or diagonal downward point arrow (W16-7P) plaques that supplement Bicycle Warning signs.
- In-Street Pedestrian Crossing (R1-6) signs and Overhead pedestrian Crossing (R1-9) signs
- Supplemental plaques to any of the previously listed signs

All other permanent signs shall be fabricated using Type III or Type IV sheeting.



## SPECIAL NOTE FOR SIGNING

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### I. DESCRIPTION

Except as provided herein, this work shall be performed in accordance with the current edition of the Manual on Uniform Traffic Control Devices (MUTCD), the Department's current Standard Specifications and Interim Supplemental Specifications, applicable Standard and Sepia Drawings, and applicable Special Provisions. Article references are to the Standard Specifications. This project shall consist of furnishing all labor, equipment, materials, and incidentals for the following:

- (1) Maintaining and Controlling Traffic; (2) Furnish, Fabricate, and Erect Signs; and (3) All other work specified in the Contract.

### II. MATERIALS

All materials shall be sampled and tested in accordance with the Department's Sampling Manual and the materials shall be 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. Erosion Control.** See Special Note for Erosion Control.

### III. CONSTRUCTION METHODS

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Site Preparation.** Be responsible for all site preparation including, but not limited to: clearing and grubbing, staking, excavation, backfill, and removal of obstructions or any other material not covered by other items. Perform all site preparation only as approved, or directed, by the Engineer.
- C. Staking.** See Special Note for Staking.
- D. Signs and Posts.** Before beginning installation, the Contractor shall furnish to the Engineer drawings, descriptions, manufacturer's cuts, etc. covering all material to be used. Mill test reports for beams, steel panels, and each different gauge of aluminum or steel sheeting used must be submitted to the Division of Construction and approved prior to erection.

Fabricate sheet signs from .080 or .125 gauge aluminum alloy 5052-H38 or 6061-T6, in accordance with ASTM B-209, and to the size and shape specified. Prepare the side of

## Signing

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the sheet to be used as the sign face to receive the retroreflective background material according to the recommendations of the sheeting and retroreflective material manufacturer(s). Sheeting used as background material for sign faces is to be the color specified and visually in accordance with the standard requirements of ASTM D-4956, and meet the requirements of Section 830 of the Standard Specifications. Contrary to Section 830.02.06, only the types and colors of sheeting as specified in the proposal will be accepted. All retroreflective material shall be fabricated and assembled in accordance with the specifications and/or recommendations of the manufacturer(s).

All hardware for the erection of sheeting signs shall be rust resistant: stainless steel, zinc coated, aluminum, or an Engineer approved material. All beams and posts shall be of sufficient lengths to extend from the top of the sign to the required embedment in the anchor. Splicing of the sign post shall NOT be allowed. For installations in soil, Type I steel posts shall be mounted on either a standard anchor, with soil stabilizer plate, or on a Type D breakaway sign support. Refer to Sheeting Sign Detail Sheet 1 of 2 for installation details for a standard anchor with soil stabilizer plate. When installing a standard anchor with soil stabilizer plate, if solid rock is encountered, the Contractor shall drill a hole to the required depth into the rock, install the anchor into the hole, and backfill the anchor post with concrete, or other method approved by the Engineer. The cost shall be incidental to Type I steel post, and a soil stabilizer plate will not be required. Refer to Standard Drawing RGX-065, current edition, for installation details of Type D breakaway sign supports. Approved manufacturers for Type D breakaway sign supports have been placed on the list of approved materials. For installations on existing concrete, such as a sidewalk, concrete median, etc., Type I steel posts shall be mounted on a Type D surface mount. For Type D surface mounts there are two permissible alternatives: Kleen Break Model 425 for Surface Mount Concrete Installations by Xcessories Squared of Auburn, IL or Snap n Safe Model S200s for 2" Sign Post by Designovations Inc. of Stilman Valley, IL. Prior to installation, the Contractor shall submit to the Engineer shop drawings of the Type D surface mount(s). Install the Type D surface mount(s) according to all the applicable requirements of the manufacturer (see shop drawings). All steel post shall meet the requirements of Section 832. All hardware including, but not limited to, sign post anchors, soil stabilizer plates, nuts, bolts, washers, fasteners, fittings, and bracing, or any other incidentals necessary to erect the signs shall be furnished by the Contractor and will be incidental to the work.

New concrete bases, posts, support anchors, signs, etc. are to be installed prior to dismantling any existing sign(s). The removal of existing signs, posts, and support anchors is to be performed concurrently with the installation of new signs, posts, and support anchors, under the same lane closure during the same work shift. Completely remove existing sign support anchors or remove them to a minimum depth of six (6) inches below existing ground line and backfill the disturbed area to the existing ground line.

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When listed in the summaries, Reflective Sign Post Panels shall be 2" wide x 60" tall (or 84" tall for urban installations) and shall have three 3/8" holes (one hole in the top 3", one hole near the center, and one hole in the bottom 3") that align with the holes on the Type I steel post. Sheeting for the Reflective Sign Post Panels shall be the same Type and color as the sign installed on the post. Examples include:

- Red, fluorescent yellow, and fluorescent yellow-green (Type IX Sheeting)
- White and yellow (Type III and/or IV Sheeting).

All manufactured sheeting signs shall be free of visual defects including, but not limited to: cracks, tears, ridges, humps, discoloration, etc., and defective signs shall be replaced at no additional cost to the Department.

All sign blanks shall be hole punched by the manufacturer for either horizontal or vertical installation. Attach all aluminum sheeting signs to square post with 3/8" all steel rivets and nylon washers.

Post will be attached to the anchor with 5/16" corner bolts and 5/16" flanged nuts, and all post and anchor cuts shall be treated with a Cold Galvanizing Compound spray.

Sign posts shall be erected vertically by using a bubble level. The tolerance shall be a two (2) degree angle in any direction. For locations where there are more than one sign is mounted beside each other, the posts shall be spaced to provide approximately six inches (6") of spacing between signs.

- E. Property Damage.** The Contractor shall be responsible for all damage to public and/or private property resulting from the Contractor's activities. Repair or replace damaged roadway features in like kind materials and design as directed by the Engineer at no additional cost to the Department. Repair or replace damaged private property in like kind materials and design to the satisfaction of the owner and the Engineer at no additional cost to the Department.
- F. Coordination with Utility Companies.** Locate all underground, above ground, and overhead utilities prior to beginning construction. Be responsible for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. Be responsible for repairing all utility damage that occurs due to the Contractor's operations at no additional cost to the Department. NOTIFY THE ENGINEER AND THE UTILITY OWNER(S) IMMEDIATELY WHEN IT IS DISCOVERED OR ANTICIPATED THAT ANY UTILITY CONFLICT COULD DELAY THE CONTRACTOR'S OPERATIONS. If the total delay exceeds ten working days, an extension of the specified completion date will be negotiated with the Contractor

Signing  
Page 4 of 6

for delay to the Contractor's work; however, no extension will be granted for any delay caused by the Contractor's failure to notify the Engineer and/or the utility company as specified above when a conflict is discovered or anticipated as specified.

**G. Caution.** The information in this proposal and the type of work listed herein are approximate only and are not to be taken as an exact evaluation of the materials and conditions to be encountered during construction; the bidder must draw his/her own conclusions when developing the Unit Bid Prices for each bid item. As such, if the conditions encountered are not in accordance with the information shown, the Department does not guarantee any changes to the Unit Bid Prices nor extension of the contract will be considered. The Department will pay for bid item quantity overruns, but only if pre-approved by the Engineer.

**H. Control.** Perform all work under the absolute control of the Department. Obtain the Engineer's approval of all designs required to be furnished by the Contractor prior to incorporation into the work. The Department reserves the right to have other work performed by other contractors and its own forces, and to permit public utility companies and others to do work during the construction within the limits of, or adjacent to, the project. Conduct operations and cooperate with such other parties so that interference with such other work will be reduced to a minimum. The Department will not honor any claims for money or time extension created by the operations of such other parties.

Should a difference of opinion arise as to the rights of the Contractor and others working within the limits of, or adjacent to, the project, the Engineer will decide as to the respective rights of the various parties involved in order to assure the completion of the Department's work in general harmony and in a satisfactory manner, and the Engineer's decision shall be final and binding upon the Contractor.

**I. Clean Up, Disposal of Waste.** Clean up the project area as work progresses. Dispose of all removed concrete, debris, and other waste as per Section 204.03.08. The Department will incur no cost to obtain the disposal sites. The Department will NOT make direct payment for disposal of waste and debris from the project. Existing anchors, signs, posts, and any other hardware or material removed from the site are to become the property of the Contractor. See Special Provision for Waste and Borrow Sites.

**J. Final Dressing, Seeding and Protection.** Grade all disturbed areas to blend with the adjacent roadways features and to provide a suitable seed bed. Apply Class A Final Dressing to all disturbed areas, both on and off the Right-of-Way. Sow all disturbed earthen areas with the applicable seed mixture(s) according to Section 212.03.03.

**K. Erosion Control.** See Special Note for Erosion Control.

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#### IV. METHOD OF MEASUREMENT

- A. **Maintain and Control Traffic.** See Traffic Control Plan.
- B. **Site Preparation.** Other than the bid items listed, the Department will NOT measure Site Preparation for payment, but shall be incidental to the project bid items.
- C. **Signs.** The Department will measure the finished in-place area of signs in Square Feet.
- D. **Sign Posts.** The Department will measure the finished in-place length of sign posts in Linear Feet, from the top of the anchor, or top of the sign support, to the top of the sign post. Laps, cutoffs, excess, and waste will NOT be measured for payment.
- E. **Type D Breakaway Sign Supports.** The Department will measure Type D sign supports as Each support installed.
- F. **Type D Surface Mounts.** The Department will measure Type D Surface Mounts as Each surface mount installed.
- G. **Class A Concrete for Signs.** The Department will measure the Class A Concrete used in conjunction with Type D breakaway sign support installations in Cubic Yards. Any concrete that is required as backfill due to hitting rock during a standard installation shall be incidental to the bid item STEEL POST TYPE I, and soil stabilizers will not be required.
- H. **Clean Up, Disposal of Waste, Final Dressing, Seeding and Protection.** The Department will NOT measure for payment the following activities: Clean Up, Disposal of Waste, and Final Dressing. These activities shall be incidental. Seeding and Protection shall be measured according to Section 212.
- I. **Erosion Control.** See Special Note for Erosion Control.
- J. **Remove Sign.** The Department will consider all signs attached to one or more connected posts as a single sign. The Department will measure as Each sign assembly removed and NOT each individual sign removed.
- K. **Items Provided by KYTC.** The Department will NOT measure for payment the installation of signs and/or surface mounts provided by KYTC. These activities shall be incidental to the bid item STEEL POST TYPE I.

#### V. BASIS OF PAYMENT

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

Signing  
Page 6 of 6

- B. Signs.** The Department will make payment for the completed and accepted quantities under the bid item SBM ALUM SHEET SIGNS .125 IN or .080 IN. The Department will consider payment full compensation for all work and incidentals necessary to install the signs, as required by these notes and the details found elsewhere in the proposal, at the locations indicated on the summary sheets, plans, and/or as directed by the Engineer.
- C. Sign Posts.** The Department will make payment for the completed and accepted quantities under the bid item STEEL POST TYPE I. The Department will consider payment full compensation for all work and incidentals necessary to install the sign posts as required by these notes and the details found elsewhere in the proposal.
- D. Type D Breakaway Sign Supports.** The Department will make payment for the completed and accepted quantities under the bid item GMSS TYPE D. The Department will consider payment full compensation for all work and incidentals necessary to install the Type D breakaway sign supports as required by Standard Drawing RGX-065, current edition.
- E. Type D Surface Mounts.** The Department will make payment for the completed and accepted quantities under the bid item GMSS TYPE D Surface Mount. The Department will consider payment full compensation for all work and incidentals necessary to install the Type D surface mounts according to all applicable manufacturer requirements.  
NOTE: There are two permissible Type D Surface Mount alternatives: Kleen Break Model 425 for Surface Mount Concrete Installations by Xcessories Squared of Auburn, IL or Snap n Safe Model S200s for 2" Sign Post by Designovations Inc. of Stilman, Valley, IL.
- F. Class A Concrete for Signs.** The Department will make payment for the completed and accepted quantities, used in conjunction with Type D breakaway sign support installations, under the bid item CLASS A CONCRETE FOR SIGNS. The Department will consider payment full compensation for all work and incidentals necessary to install the concrete as required by Standard Drawing RGX-065, current edition.
- G. Remove Sign.** The Department will make payment for the completed and accepted quantities under the bid item REMOVE SIGN. The Department will consider payment full compensation for all work and incidentals necessary to remove the existing signs, posts, anchors, and any other sign material or hardware, from the locations indicated on the summary sheets, plans, and/or as directed by the Engineer.
- H. Erosion Control.** See Special Note for Erosion Control.

## SPECIAL NOTE FOR SPRAY APPLIED THERMOPLASTIC PAVEMENT MARKING MATERIALS

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### I. DESCRIPTION

Except as provided herein, all work shall be performed in accordance with the Department’s Standard Specifications, Interim Supplemental Specifications, applicable Standard and Sepia Drawings, applicable Special Provisions and Special Notes, current editions. Article references are to the Standard Specifications. This project shall consist of furnishing all labor, equipment, materials and incidentals for the following:

- (1) Spray applied thermoplastic pavement marking materials with reflectorized glass beads for permanent applications

### II. MATERIALS

- A. **DROP ON BEADS.** Use beads that will ensure the pavement marking material will meet retroreflectivity requirements. The Department will evaluate the beads as part of the marking system through retroreflectivity readings.
- B. **APPROVAL.** Select materials that conform to the composition and physical characteristic requirements below when evaluated in accordance with AASHTO T-250 or other test methods as cited. The Department will sample and evaluate for approval each lot of thermoplastic material delivered for use per contract prior to installation of the thermoplastic material. Do not allow the installation of thermoplastic material until it has been approved by the Division of Materials. Allow the Department a minimum of 10 working days to evaluate and approve thermoplastic material from the date sampled.
- C. **Composition.** Use a maleic-modified glycerol ester resin (alkyd binder) to formulate the thermoplastic material. Ensure the pigment, pre-mix beads, and filler are uniformly dispersed in the resin. Use material that is free from all dirt and foreign material. Provide independent analysis data and certification for each formulation stating the total concentration of each heavy metal present, the test method used for each determination, and compliance to 40 CFR 261 for leachable heavy metals content.

<b>COMPOSITION</b> (Percentage by Weight)		
Component	White	Yellow
Binder, <sup>(1)</sup>	26.0 min.	26.0 min.
Glass Beads (Premixed)	30 - 40	30 - 40
Titanium Dioxide (Rutile, Type II)	10.0 min.	—
Calcium Carbonate & Inert Fillers <sup>(2)</sup>	42.0 max.	50.0 max.
Heavy Metals Content	Comply with 40 CFR 261	Comply with 40 CFR 261

<sup>(1)</sup>Use a binder that consists of a mixture of synthetic resins, at least one being solid at room temperature, and high boiling point plasticizers. Ensure that at least one-third of the binder composition is solid maleic-modified glycerol ester resin and is not less than 8 percent by weight of the entire material formulation. Do not use alkyd binder that contains petroleum based hydrocarbon resins.

<sup>(2)</sup>The manufacturer may choose the amount of calcium carbonate and inert fillers, providing all other requirements of this section are met.

Spray Applied Thermoplastic  
 Page 2 of 3

**D. Physical Characteristics.** For thermoplastic material heated for 4 hours at 425°F under agitation, conform to the following requirements.

a) **Color.** As determined with a spectrophotometer using D65 illuminant with a 45 degree entrance angle and 0 degree observation angle geometry.

CIELAB Color Coordinates		
	Yellow	White
Daytime Color (CIELAB) Spectrophotometer using illuminant D65 at 45° illumination and 0° viewing with a 2° observer	L* 81.76 a* 19.79 b* 89.89 Maximum allowable variation 6.0ΔE*	L* 93.51 a* -1.01 b* 0.70 Maximum allowable variation 6.0ΔE*
Nighttime Color (CIELAB) Spectrophotometer using illuminant A at 45° illumination and 0° viewing with a 2° observer	L* 86.90 a* 24.80 b* 95.45 Maximum allowable variation 6.0ΔE*	L* 93.45 a* -0.79 b* 0.43 Maximum allowable variation 6.0ΔE*

b) **Set Time.** Use material that, when applied at a temperature range of 375 ± 25 °F and thickness of 60 ± 10 mils, sets to bear traffic in not more than 2 minutes when the air and road surface temperature is approximately ≥ 50 ± 3 °F, and not more than 10 minutes when the air and road surface temperature is approximately < 50 ± 3 °F.

c) **Softening Point.** Ensure that the thermoplastic material has a softening point of 180 ± 15 °F.

d) **Bond Strength.** Ensure that the bond strength of the thermoplastic material to concrete exceeds 180 psi.

e) **Cracking Resistance at Low Temperature.** Ensure that the thermoplastic material shows no cracks when observed from a distance exceeding one foot.

f) **Impact Resistance.** Ensure the impact resistance of the thermoplastic material is a minimum of 50 inch-pounds.

g) **Flash Point.** Use thermoplastic material that has a flash point not less than 475 °F.

**E. PACKAGING.** Package thermoplastic material in suitable 50 pound containers to which the material shall not adhere during shipment or storage. Include a label stating that the thermoplastic material is to be maintained with a temperature range of 350 – 400°F during application. Provide the thermoplastic material in granular form.

**F. SHELF LIFE.** Ensure that the thermoplastic material conforms to this section for a period of one year. Replace any thermoplastic material not conforming to the above requirements.

**G. MANUFACTURER’S TESTING.** Perform testing in accordance with AASHTO T-250 on a minimum of one composite sample per 10,000 pounds, or portion thereof, per lot of thermoplastic produced.

**H. CERTIFICATION.** Submit manufacturer’s certification stating conformance to the requirements of this section for each lot of extruded thermoplastic delivered for use on projects. Clearly state the manufacture, formulation identification, product name, color, date of manufacturer, total quantity of lot produced, actual quantity of thermoplastic material represented, sampling method utilized to obtain the samples, and required manufacturer’s testing data for each composite sample tested to represent each lot produced.



### III. CONSTRUCTION METHODS

- A. **SURFACE PREPARATION.** Contrary to Section 714.03.02 the removal of existing pavement markings will not be required for installation of thermoplastic markings. The contractor will be required to sweep all pavement surfaces prior to striping and maintain the cleaning operation far enough in advance of the striping operation to prevent any dust from the cleaning operation from mixing with the paint. The sweeper must maintain contact with the roadway. When the Engineer determines abnormal amounts of debris or other material have accumulated beyond the capability of the required sweeping unit which will require shoveling or other means to remove, the Engineer will make arrangements, prior to painting, to have the material removed by the Department.
- B. **INSTALLATION.** Install thermoplastic materials in accordance with Section 714, Durable Pavement Striping, and the following exceptions:
  - Install the thermoplastic materials at a minimum thickness of 60 mils.
  - Ensure the material temperature is maintained between 350 and 400°F.
  - Do not allow the material temperature to exceed 400°F.
- C. **RETROREFLECTIVITY.** The Department will evaluate installed markings in accordance with Section 714.03.06, Proving Period for Durable Markings.

### IV. METHOD OF MEASUREMENT

- A. **ACCEPTANCE AND PAYMENT.** The Department will accept spray applied thermoplastic materials based on compliance of the manufacturer’s certification and conformance of test results obtained by the Department to the requirements of this special note.

Contrary to Section 714.03.08, Acceptance of Non-Specification Thermoplastic Markings, the Department will not accept non-specification compliant markings. Remove non-specification compliant markings by water blasting. The Department will perform random thickness tests on applied markings to determine compliance to thickness requirements

### IV. BASIS OF 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>
24995EC	PAVE STRIPING-SPRAY THERMO-6 IN W	LF
24996EC	PAVE STRIPING-SPRAY THERMO-6 IN Y	LF

The Department will consider payment as full compensation for furnishing all labor, materials, equipment, and incidentals required to construct spray applied thermoplastic pavement markings.

## SPECIAL NOTE FOR INLAID PAVEMENT MARKERS

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### 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 the 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.

<b>SPECIFICATIONS FOR HOUSING AND REFLECTOR</b>	
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

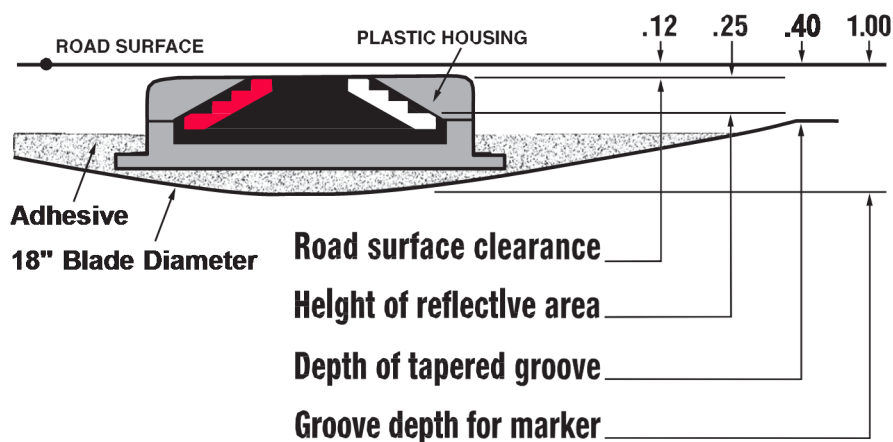
- C. Adhesives.** Use adhesives that conform to the manufacturer's recommendations.

Inlaid Pavement Markers  
 Page 2 of 4

**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 the Traffic Control Plan.
- C. Installation.** Install IPMs in recessed grooves cut into the final course of asphalt pavement according to the manufacturer’s recommendations. Do not cut the grooves until the pavement has cured sufficiently to prevent tearing or raveling. 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.

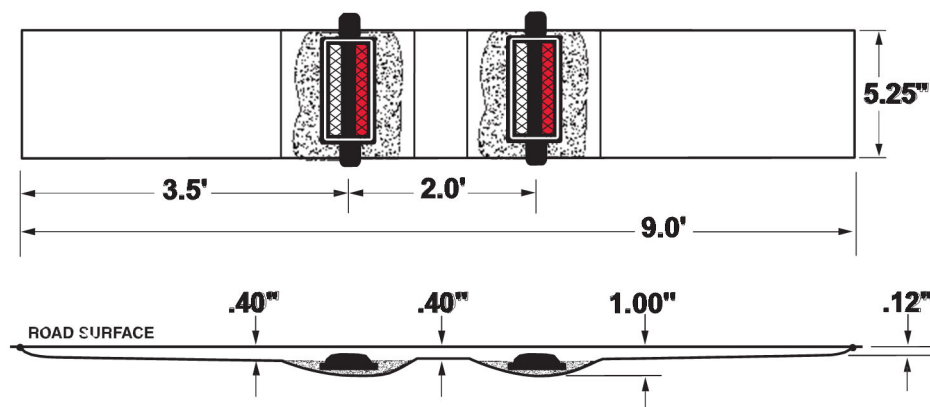
Prepare the pavement surfaces, and install the markers in the recessed groove according to the drawing below. Ensure that the adhesive bed area is equal to the bottom area of the marker, and apply adhesive in sufficient quantity to force excess out around the entire perimeter of the marker. Use materials, 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 asphalt pavement, debris, and other waste at sites off the right of way obtained by the Contractor at no additional cost to the Department. See the Special Provision for Waste and Borrow Sites.
- 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.

Inlaid Pavement Markers  
Page 4 of 4

**H. Caution.** The information in this proposal and the type of work listed herein are approximate only and are not to be taken as an exact evaluation of the materials and conditions to be encountered during construction; the bidder must draw his/her own conclusions when developing the Unit Bid Prices for each bid item. As such, if the conditions encountered are not in accordance with the information shown, the Department does not guarantee any changes to the Unit Bid Prices nor extension of the contract will be considered. The Department will pay for bid item quantity overruns, but only if pre-approved by the Engineer

**IV. MEASUREMENT**

- A. Maintain and Control Traffic.** See the Traffic Control Plan.
- B. Inlaid Pavement Markers.** The Department shall measure as Each. One (1) installation of "INLAID PAVEMENT MARKER" will consist of grooving the pavement, removing asphalt 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 the Traffic Control Plan.
- B. Inlaid Pavement Markers.** The Department will make payment for the completed and accepted quantities of completely installed "INLAID PAVEMENT MARKERS" at the Contract unit price, Each. Accept payment as full compensation for all labor, equipment, materials, and incidentals necessary 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 NOTES FOR COMPLETION DATES & LIQUIDATED DAMAGES**

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The ultimate fixed completion date for this project will be November 1, 2019. Liquidated Damages for failure to complete the project on time will be assessed following Section 108.09.

In addition to the requirements of Section 108.09, the Department will assess Liquidated Damages in the amount of **\$1,000** per hour for each hour, or fraction of an hour, for any and all road closures that are in place beyond the time frame(s) noted in the Traffic Control Plan and approved by the Engineer.

In addition to the requirements of Section 108.09, the Department will assess Liquidated Damages in the amount of **\$4,000** per day for each day, or fraction of a day, for the US 68 to KY 73 left-turn closure that is in place beyond the time frame(s) noted in the Traffic Control Plan and approved by the Engineer.

Contrary to Section 108.09, Liquidated Damages will be assessed for the months of December through March.

Contrary to Section 108.09, Liquidated Damages will be assessed regardless of whether seasonal limitations prohibit the Contractor from performing work on the controlling operation.

All liquidated damages will be applied accumulatively.

All other applicable portions of Section 108 apply.

## **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

## **COORDINATION OF WORK WITH OTHER CONTRACTS**

Be advised, there may be an active project(s) adjacent to or within this project. The Engineer will coordinate the work of the Contractors. See Section 105.06.

1-3193 Coordination Contracts  
01/02/2012



### **SPECIAL NOTE FOR DOUBLE ASPHALT SEAL COAT**

Use RS-2 or RS-2C asphalt material that is compatible with the seal aggregate. Apply the first course of asphalt seal coat at the rate of 3.2 lbs/sy of asphalt and 30 lbs/sy of size #78 seal coat aggregate. Apply the second course at 2.8 lbs/sy of asphalt and 20 lbs/sy of size #9M seal coat aggregate. The Engineer may adjust the rate of application as conditions warrant. Use caution in applying liquid asphalt material to avoid over spray getting on curbs, gutter, barrier walls, bridges, guardrail, and other roadway appurtenances.

The Department will not measure any surface preparation required prior to applying the asphalt seal coat, but shall be incidental to “Asphalt Material for Asphalt Seal Coat”.

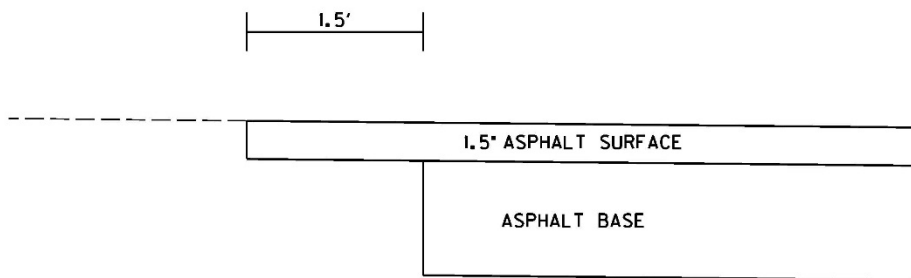
1-3215 Double Asphalt Seal Coat  
01/02/2012

### SPECIAL NOTE FOR EDGE KEY

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Construct Edge Keys at the beginning of project, end of project, at railroad crossings, and at ramps, as applicable. Unless specified in the Contract or directed by the Engineer, do not construct edge keys at intersecting streets, roads, alleys, or entrances. Cut out the existing asphalt surface to the required depth and width shown on the drawing and heel the new surface into the existing surface. The Department will make payment for this work at the Contract unit price per ton for Asphalt Pavement Milling and Texturing, which shall be full compensation for all labor, materials, equipment, and incidentals for removal and disposal of the existing asphalt surface required to construct the edge key.

## EDGE KEY



**Thickness = 1.5 Inches**

**L = 1.5 LF**

**L= Length of Edge Key**

**SPECIAL NOTE FOR  
ASPHALT MILLING AND TEXTURING**

Begin paving operations within **48 hours** of commencement of the milling operation. Continue paving operations continuously until completed. If paving operations are not begun within this time period, the Department will assess liquidated damages at the rate prescribed by Section 108.09 until such time as paving operations are begun.

Take possession of the millings and recycle the millings or dispose of the millings off the Right-of-Way at sites obtained by the Contractor at no additional cost to the Department.

1-3520 48 hours Contractor keeps millings  
01/2/2012

### **SPECIAL NOTE FOR TYPICAL SECTION DIMENSIONS**

Consider the dimensions shown on the typical sections for pavement and shoulder widths and thickness' to be nominal or typical dimensions. The Engineer may direct or approve varying the actual dimensions to be constructed to fit existing conditions. Do not widen existing pavement or shoulders unless specified elsewhere in this proposal or directed by the engineer.

1-3725 Typical Section Dimensions  
01/02/2012

## TRAFFIC CONTROL PLAN

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### TRAFFIC CONTROL GENERAL

Except as provided herein, traffic shall be maintained in accordance with the current editions of the Manual on Uniform Traffic Control Devices (MUTCD), Standard Specifications, and the Standard and Sepia Drawings. 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”.

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.

### PROJECT PHASING & CONSTRUCTION PROCEDURES

Project maintenance of traffic and construction phasing are illustrated in the plans. In general, construction operations shall proceed as follows:

- Phase 1: Construction to the outside of US 68 and the KY 73 approach;
- Phase 2: Construction in the median of US 68;
- Phase 3: Milling of existing US 68 and KY 73 through lanes and the final surface course for all lanes (old and new).

For all construction activities, maintain one 12 ft. lane of traffic on US 68 in each direction at all times and one 10 ft. lane of traffic on KY 73 (flagman must be present to close a lane on KY 73). This may require part-width construction of certain elements. If approved by the Engineer, steel plates may be used to span trenches while flowable fill cures. If traffic should be stopped due to construction operations, and a school bus or emergency vehicle on an official run arrives on the scene, make provisions for the passage of the school bus or emergency vehicle as quickly as possible.

### LANE CLOSURES

Contrary to the Standard Specifications, long-term lane closures will not be measured for payment, but will be incidental to the Bid Item for Maintain and Control Traffic.

No lane closures will be allowed on the following dates:

Memorial Day Weekend	Friday, May 24, 2019 – Monday, May 27, 2019
Independence Day	Thursday, July 4, 2019
Labor Day Weekend	Friday, August 30, 2019 – Monday, September 2, 2019
Thanksgiving Holiday	Thursday, November 28, 2019 – Sunday, December 1, 2019
Christmas Holiday	Tuesday, December 24, 2019 – Wednesday, December 25, 2019
New Year’s Holiday	Tuesday, December 31, 2019 – Wednesday, January 1, 2020
Easter Weekend	Friday, April 10, 2020 – Sunday, April 12, 2020

At the discretion of the Engineer, additional days and hours may be specified when lane closures will not be allowed.

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### **ROAD CLOSURES**

When changing from one temporary traffic pattern to another, traffic may be halted for up to 15 minutes. Prior approval by the Engineer will be required for all road closures. It is the intent that all road closures be kept to a minimum time. The contractor is to schedule operations involving road closures so that all work proceeds in an expeditious manner. Liquidated Damages will be assessed at \$1,000 per hour (or prorated portion thereof), for each occurrence, of road closures exceeding 15 minutes.

A 20 calendar day limit will be imposed for the closure and construction of the US 68 standard barrier median and subsequent work required to complete the US 68 to KY 73 left turns and open them to traffic. Liquidated Damages will be assessed at \$4,000 per day for each day (or prorated portion thereof), that the US 68 to KY 73 left turns remain closed.

### **SIGNS**

Sign posts and splices shall be compliant with NCHRP 350 or MASH. Manufacturer's documentation validating this compliance shall be provided to the Engineer prior to installation. Signs, including any splices, shall be installed according to manufacturer's specifications and installation recommendations. 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 but will be incidental to Maintain and Control Traffic. **A quantity of 500 sq. ft. of Temporary Signs has been included for bidding purposes.**

### **CHANGEABLE MESSAGE SIGNS**

Provide changeable message signs at locations determined by the Engineer. The Engineer may vary the designated locations as the work progresses. The Engineer will determine the messages to be displayed. In the event of damage or mechanical/electrical failure, repair or replace the Changeable Message Sign within 24 hours. The Department will measure for payment the maximum number of Changeable Message Signs in concurrent use at the same time on a single day on all sections of the contract. The Department will measure individual Changeable Message Signs only once for payment, regardless of how many times they are set, reset, removed, and relocated during the duration of the project. The Department will not measure replacements for damaged Changeable Message Signs or for signs the Engineer directs be replaced due to poor condition or readability. Retain possession of the Changeable Message Signs upon completion of the work. **A quantity of 2 (each) Portable Changeable Message Signs has been included for bidding purposes.**

### **BARRICADES**

The Department will not measure barricades used in lieu of barrels and cones for channelization or delineation, but shall be incidental to Maintain and Control Traffic according to Section 112.04.01.

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### **TEMPORARY ENTRANCES**

The Engineer will not require the Contractor to provide continuous access to farms, single family, duplex, or triplex residential properties during working hours; however, provide reasonable egress and ingress to each such property when actual operations are not in progress at that location. Limit the time during which a farm or residential entrance is blocked to the minimum length of time required for actual operations, not extended for the Contractor's convenience, and in no case exceeding six (6) hours. Notify all residents twenty-four hours in advance of any driveway or entrance closings and make any accommodations necessary to meet the access needs of disabled residents.

Except as allowed by the Phasing as specified in the plans, maintain direct access to all side streets and roads, schools, churches, commercial properties, and apartments or apartment complexes of four or more units at all times. Access to fire hydrants must also be maintained at all times

The Department will measure asphalt materials required to construct and maintain any temporary entrances which may be necessary to provide temporary access; however, the Department will not measure aggregates, excavation, and/or embankment, but shall be incidental to Maintain and Control Traffic. The Engineer will determine the type of surfacing material, asphalt or aggregate, to be used at each entrance.

### **PAVEMENT EDGE DROP-OFFS**

Do not allow a pavement edge between opposing directions of traffic or lanes that traffic is expected to cross in a lane change situation with an elevation difference greater than 1½". Place Warning signs (MUTCD W8-11 or W8-9A) in advance of and at 1500' intervals throughout the drop-off area. Dual post the signs on both sides of the traveled way. Wedge all transverse transitions between resurfaced and un-resurfaced areas which traffic may cross with asphalt mixture for leveling and wedging. Remove the wedges prior to placement of the final surface course.

Protect pavement edges that traffic is not expected to cross, except accidentally, as follows:

Less than 2" - No protection required.

2" to 4" - Place plastic drums, vertical panels, or barricades every 50 feet. During daylight working hours only, the Engineer will allow the Contractor to use cones in lieu of plastic drums, panels, and barricades. Wedge the drop-off with DGA or asphalt mixture for leveling and wedging with a 1:1 or flatter slope in daylight hours, or 3:1 or flatter slope during nighttime hours, when work is not active in the drop-off area.

Greater than 4" - Protect drop-offs greater than 4 inches within 10 feet of traffic by placing drums, vertical panels, or barricades every 25 feet. The Engineer will not allow the use of cones in lieu of drums, vertical panels, or barricades for drop-offs greater than 4". Place Type III Barricades directly in front of the drop-off facing oncoming traffic in both directions of travel. Provide warning signs as shown on the Standard Drawings or as directed by the Engineer.

Pedestrians & Bicycles - Protect pedestrian and bicycle traffic as directed by the Engineer.

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**PAVEMENT MARKINGS**

If there is to be a deviation from the existing striping plan and/or the proposed striping plan, the Engineer will furnish the Contractor an updated striping plan prior to placement of the final surface course. Install Temporary Striping according to Section 112 with the following exception:

If the Contractor's operations or phasing requires temporary markings that must subsequently be removed from the final surface course, use an approved removable lane tape; however, the Department will not measure removable lane tape for separate payment, but will measure and pay for removable lane tape as temporary striping.

**A quantity of 14,000 LF of Temporary Striping (4 in), 64 LF of Temporary Stop Bar, 26 Each of Paint Arrows, and 14,000 LF of Water Blasting have been included for bidding purposes.** The Contractor and Engineer should work together to determine any locations throughout the project requiring temporary pavement markings. The Engineer will make the final determination as to the quantities and placement of temporary pavement striping.



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## USE AND PLACEMENT OF CHANGEABLE MESSAGE SIGNS

The following policy is based upon current Changeable Message Signs (CMS) standards and practice from many sources, including the Federal Highway Administration (FHWA), other State Departments of Transportation, and Traffic Safety Associations. It is understood that each CMS installation or use requires individual consideration due to the specific location or purpose. However, there will be elements that are constant in nearly all applications. Accordingly these recommended guidelines bring a level of uniformity, while still being open to regional experience and engineering judgment.

### Application

The primary purpose of CMS is to advise the driver of unexpected traffic and routing situations. Examples of applications where CMS can be effective include:

- Closures (road, lane, bridge, ramp, shoulder, interstate)
- Changes in alignment or surface conditions
- Significant delays, congestion
- Construction/maintenance activities (delays, future activities)
- Detours/alternative routes
- Special events with traffic and safety implications
- Crash/incidents
- Vehicle restrictions (width, height, weight, flammable)
- Advance notice of new traffic control devices
- Real-time traffic conditions (must be kept up to date)
- Weather /driving conditions, environmental conditions, Roadway Weather Information Systems
- Emergency Situations
- Referral to Highway Advisory Radio (if available)
- Messages as approved by the County Engineer's Office

### **CMS should not be used for:**

- Replacement of static signs (e.g. road work ahead), regulatory signage (e.g. speed limits), pavement markings, standard traffic control devices, conventional warning or guide signs.
- Replacement of lighted arrow board
- Advertising (Don't advertise the event unless clarifying "action" to be taken by driver – e.g. Speedway traffic next exit)
- Generic messages
- Test messages (portable signs only)
- Describe recurrent congestion (e.g. rush hour)
- Public service announcements (not traffic related)

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### Messages

Basic principles that are important to providing proper messages and insuring the proper operation of a CMS are:

- Visible for at least ½ mile under ideal daytime and nighttime conditions
- Legible from all lanes a minimum of 650 feet
- Entire message readable twice while traveling at the posted speed
- No more than two message panels should be used (three panels may be used on roadways where vehicles are traveling less than 45 mph). A panel is the message that fits on the face of the sign without flipping or scrolling.
- Each panel should convey a single thought; short and concise
- Do not use two unrelated panels on a sign
- Do not use the sign for two unrelated messages
- Should not scroll text horizontally or vertically
- Should not contain both the words left and right
- Use standardized abbreviations and messages
- Should be accurate and timely
- Avoid filler/unnecessary words and periods (hazardous, a, an, the)
- Avoid use of speed limits
- Use words (not numbers) for dates

### Placement

Placement of the CMS is important to insure that the sign is visible to the driver and provides ample time to take any necessary action. Some of the following principles may only be applicable to controlled access roadways. The basic principles of placement for a CMS are:

- When 2 signs are needed, place on same side of roadway and at least 1,000 feet apart
- Place behind semi-rigid/rigid protection (guardrail, barrier) or outside of the clear zone
- Place 1,000 feet in advance of work zone; at least one mile ahead of decision point
- Normally place on right side of roadway; but should be placed closest to the affected lane so that either side is acceptable
- Signs should not be dual mounted (one on each side of roadway facing same direction)
- Point trailer hitch downstream
- Secure to immovable object to prevent theft (if necessary)
- Do not place in sags or just beyond crest
- Check for reflection of sun to prevent the blinding of motorist
- Should be turned ~3 degrees outward from perpendicular to the edge of pavement
- Bottom of sign should be 7 feet above the elevation of edge of roadway
- Should be removed when not in use

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**Standard Abbreviations**

The following is a list of standard abbreviations to be used on CMS:

<b><u>Word</u></b>	<b><u>Abbrev</u></b>	<b><u>Example</u></b>
Access	ACCS	ACCIDENT AHEAD/ USE ACCS RD NEXT RIGHT
Alternate	ALT	ACCIDENT AHEAD/ USE ALT RTE NEXT RIGHT
Avenue	AVE	FIFTH AVE CLOSED/ DETOUR NEXT LEFT
Blocked	BLKD	FIFTH AVE BLKD/ MERGE LEFT
Boulevard	BLVD	MAIN BLVD CLOSED/ USE ALT RTE
Bridge	BRDG	SMITH BRDG CLOSED/ USE ALT RTE
Cardinal Directions	N, S, E, W	N I75 CLOSED/ DETOUR EXIT 30
Center	CNTR	CNTR LANE CLOSED/ MERGE LEFT
Commercial	COMM	OVRSZ COMM VEH/ USE I275
Condition	COND	ICY COND POSSIBLE
Congested	CONG	HVY CONG NEXT 3 MI
Construction	CONST	CONST WORK AHEAD/ EXPECT DELAYS
Downtown	DWNTN	DWNTN TRAF USE EX 40
Eastbound	E-BND	E-BND I64 CLOSED/ DETOUR EXIT 20
Emergency	EMER	EMER VEH AHEAD/ PREPARE TO STOP
Entrance, Enter	EX, EXT	DWNTN TRAF USE EX 40
Expressway	EXPWY	WTRSN EXPWY CLOSED/ DETOUR EXIT 10
Freeway	FRWY, FWY	GN SYNDR FWY CLOSED/ DETOUR EXIT 15
Hazardous Materials	HAZMAT	HAZMAT IN ROADWAY/ ALL TRAF EXIT 25
Highway	HWY	ACCIDENT ON AA HWY/ EXPECT DELAYS
Hour	HR	ACCIDENT ON AA HWY/ 2 HR DELAY
Information	INFO	TRAF INFO TUNE TO 1240 AM
Interstate	I	E-BND I64 CLOSED/ DETOUR EXIT 20
Lane	LN	LN CLOSED MERGE LEFT
Left	LFT	LANE CLOSED MERGE LFT
Local	LOC	LOC TRAF USE ALT RTE
Maintenance	MAINT	MAINT WRK ON BRDG/ SLOW
Major	MAJ	MAJ DELAYS I75/ USE ALT RTE
Mile	MI	ACCIDENT 3 MI AHEAD/ USE ALT RTE
Minor	MNR	ACCIDENT 3 MI MNR DELAY
Minutes	MIN	ACCIDENT 3 MI/ 30 MIN DELAY
Northbound	N-BND	N-BND I75 CLOSED/ DETOUR EXIT 50
Oversized	OVRSZ	OVRSZ COMM VEH/ USE I275 NEXT RIGHT
Parking	PKING	EVENT PKING NEXT RGT
Parkway	PKWY	CUM PKWAY TRAF/ DETOUR EXIT 60
Prepare	PREP	ACCIDENT 3 MI/ PREP TO STOP
Right	RGT	EVENT PKING NEXT RGT
Road	RD	HAZMAT IN RD/ ALL TRAF EXIT 25
Roadwork	RDWK	RDWK NEXT 4 MI/ POSSIBLE DELAYS
Route	RTE	MAJ DELAYS I75/ USE ALT RTE
Shoulder	SHLDR	SHLDR CLOSED NEXT 5 MI
Slippery	SLIP	SLIP COND POSSIBLE/ SLOW SPD
Southbound	S-BND	S-BND I75 CLOSED/ DETOUR EXIT 50
Speed	SPD	SLIP COND POSSIBLE/ SLOW SPD

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**Standard Abbreviations** (cont)

<b><u>Word</u></b>	<b><u>Abbrev</u></b>	<b><u>Example</u></b>
Street	ST	MAIN ST CLOSED/ USE ALT RTE
Traffic	TRAF	CUM PKWAY TRAF/ DETOUR EXIT 60
Vehicle	VEH	OVSZ COMM VEH/ USE I275 NEXT RIGHT
Westbound	W-BND	W-BND I64 CLOSED/ DETOUR EXIT 50
Work	WRK	CONST WRK 2MI/ POSSIBLE DELAYS

Certain abbreviations are prone to inviting confusion because another word is abbreviated or could be abbreviated in the same way. DO NO USE THESE ABBREVIATIONS:

<b><u>Abbrev</u></b>	<b><u>Intended Word</u></b>	<b><u>Word Erroneously Given</u></b>
ACC	Accident	Access (Road)
CLRS	Clears	Colors
DLY	Delay	Daily
FDR	Feeder	Federal
L	Left	Lane (merge)
LOC	Local	Location
LT	Light (traffic)	Left
PARK	Parking	Park
POLL	Pollution (index)	Poll
RED	Reduce	Red
STAD	Stadium	Standard
TEMP	Temporary	Temperature
WRNG	Warning	Wrong

**Typical Messages**

The following is a list of typical messages used on CMS. The list consists of the reason or problem that you want the driver to be aware of and the action that you want the driver to take.

<b><u>Reason/Problem</u></b>	<b><u>Action</u></b>
ACCIDENT	ALL TRAFFIC EXIT RT
ACCIDENT/XX MILES	AVOID DELAY USE XX
XX ROAD CLOSED	CONSIDER ALT ROUTE
XX EXIT CLOSED	DETOUR
BRIDGE CLOSED	DETOUR XX MILES
BRIDGE/(SLIPPERY, ICE, ETC.)	DO NOT PASS
CENTER/LANE/CLOSED	EXPECT DELAYS
DELAY(S), MAJOR/DELAYS	FOLLOW ALT ROUTE
DEBRIS AHEAD	KEEP LEFT
DENSE FOG	KEEP RIGHT
DISABLED/VEHICLE	MERGE XX MILES
EMER/VEHICLES/ONLY	MERGE LEFT
EVENT PARKING	MERGE RIGHT
EXIT XX CLOSED	ONE-WAY TRAFFIC
FLAGGER XX MILES	PASS TO LEFT
FOG XX MILES	PASS TO RIGHT

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**Typical Messages** (cont)

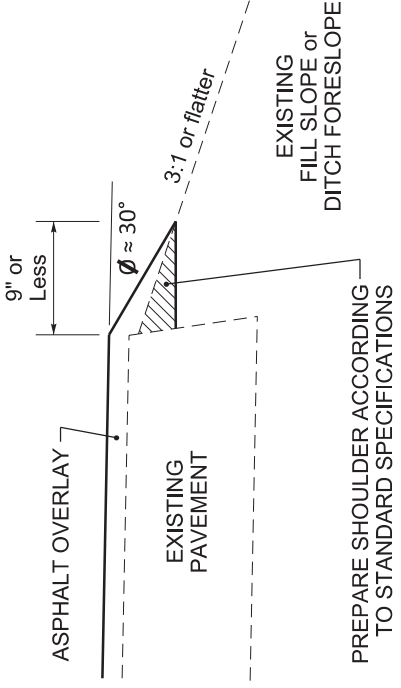
**Reason/Problem**

FREEWAY CLOSED  
FRESH OIL  
HAZMAT SPILL  
ICE  
INCIDENT AHEAD  
LANES (NARROW, SHIFT, MERGE, ETC.)  
LEFT LANE CLOSED  
LEFT LANE NARROWS  
LEFT 2 LANES CLOSED  
LEFT SHOULDER CLOSED  
LOOSE GRAVEL  
MEDIAN WORK XX MILES  
MOVING WORK ZONE, WORKERS IN ROADWAY  
NEXT EXIT CLOSED  
NO OVERSIZED LOADS  
NO PASSING  
NO SHOULDER  
ONE LANE BRIDGE  
PEOPLE CROSSING  
RAMP CLOSED  
RAMP (SLIPPERY, ICE, ETC.)  
RIGHT LANE CLOSED  
RIGHT LANE NARROWS  
RIGHT SHOULDER CLOSED  
ROAD CLOSED  
ROAD CLOSED XX MILES  
ROAD (SLIPPERY, ICE, ETC.)  
ROAD WORK  
ROAD WORK (OR CONSTRUCTION) (TONIGHT, TODAY, TOMORROW, DATE)  
ROAD WORK XX MILES  
SHOULDER (SLIPPERY, ICE, SOFT, BLOCKED, ETC.)  
NEW SIGNAL XX MILES  
SLOW 1 (OR 2) - WAY TRAFFIC  
SOFT SHOULDER  
STALLED VEHICLES AHEAD  
TRAFFIC BACKUP  
TRAFFIC SLOWS  
TRUCK CROSSING  
TRUCKS ENTERING  
TOW TRUCK AHEAD  
UNEVEN LANES  
WATER ON ROAD  
WET PAINT  
WORK ZONE XX MILES  
WORKERS AHEAD

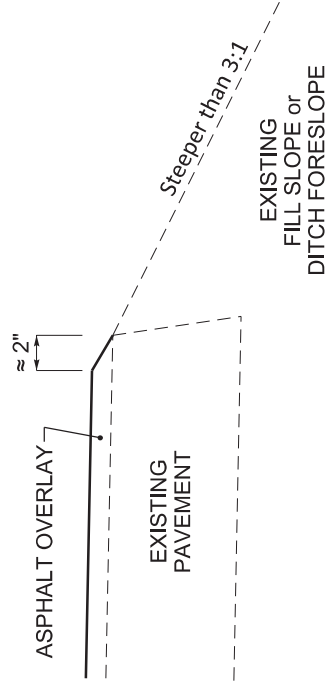
**Action**

PREPARE TO STOP  
REDUCE SPEED  
SLOW  
SLOW DOWN  
STAY IN LANE  
STOP AHEAD  
STOP XX MILES  
TUNE RADIO 1610 AM  
USE NN ROAD  
USE CENTER LANE  
USE DETOUR ROUTE  
USE LEFT TURN LANE  
USE NEXT EXIT  
USE RIGHT LANE  
WATCH FOR FLAGGER

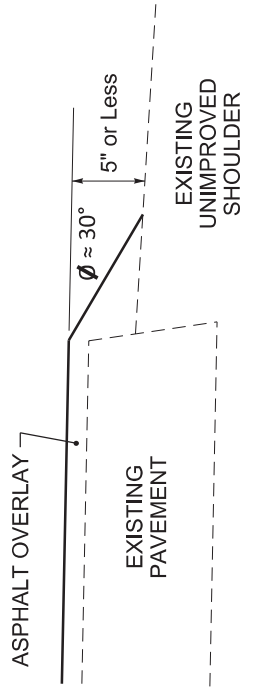
DURABLE PAVEMENT EDGE DETAIL  
(Resurfacing adjacent to fill slope or ditch foreslope that is 3:1 or less)



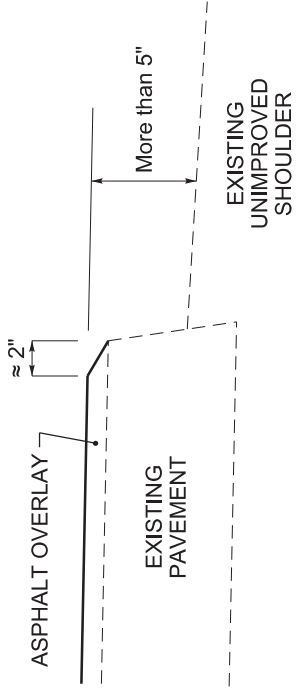
DURABLE PAVEMENT EDGE DETAIL  
(Resurfacing adjacent to fill slope or ditch foreslope that is steeper than 3:1)



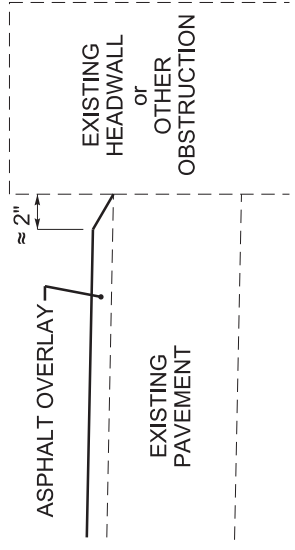
DURABLE PAVEMENT EDGE DETAIL  
(Resurfacing adjacent to low shoulder with dropoff of 5 inches or less)



DURABLE PAVEMENT EDGE DETAIL  
(Resurfacing adjacent to low shoulder with dropoff of more than 5 inches)



DURABLE PAVEMENT EDGE DETAIL  
(Resurfacing adjacent to an obstruction, such as an existing headwall)




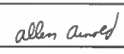

NOTES

1. DETAILS DO NOT APPLY TO OVERLAYS LESS THAN 1 INCH THICK.
2. THE DURABLE PAVEMENT EDGE DEVICE MAY BE DISENGAGED AT DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT, AS APPROVED BY THE ENGINEER.

DRAWING NOT TO SCALE

DURABLE PAVEMENT EDGE  
DETAILS

	KENTUCKY TRANSPORTATION CABINET Department of Highways <b>DIVISION OF RIGHT OF WAY &amp; UTILITIES</b>	TC 62-226 Rev. 01/2016 Page 1 of 1
<b>RIGHT OF WAY CERTIFICATION</b>		

<input checked="" type="checkbox"/>	<b>Original</b>	<input type="checkbox"/>	<b>Re-Certification</b>	<b>RIGHT OF WAY CERTIFICATION</b>	
<b>ITEM #</b>	<b>COUNTY</b>	<b>PROJECT # (STATE)</b>	<b>PROJECT # (FEDERAL)</b>		
3-9017.00	Logan	FD52 071 0068 026-027	HSIP 0801 112		
<b>PROJECT DESCRIPTION</b>					
CONSTRUCTION OF A J-TURN AT THE INTERSECTION OF US 68 AND KY 73. (2018BOP)					
<input checked="" type="checkbox"/>	<b>No Additional Right of Way Required</b>				
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.					
<input type="checkbox"/>	<b>Condition # 1 (Additional Right of Way Required and Cleared)</b>				
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.					
<input type="checkbox"/>	<b>Condition # 2 (Additional Right of Way Required with Exception)</b>				
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					
<input type="checkbox"/>	<b>Condition # 3 (Additional Right of Way Required with Exception)</b>				
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		<b>EXCEPTION (S) Parcel #</b>	<b>ANTICIPATED DATE OF POSSESSION WITH EXPLANATION</b>		
Number of Parcels That Have Been Acquired					
Signed Deed					
Condemnation					
Signed ROE					
<b>Notes/ Comments (Use Additional Sheet if necessary)</b>					
<b>LPA RW Project Manager</b>			<b>Right of Way Supervisor</b>		
Printed Name			Printed Name	Allen Arnold	
Signature			Signature	 Digitally signed by Allen Arnold Date: 2019.05.16 14:20:01 -05'00'	
Date			Date	05/16/2019	
<b>Right of Way Director</b>			<b>FHWA</b>		
Printed Name	Kelly Divine		Printed Name	No Signature Required	
Signature	 2019.05.16 15:10:35 -05'00'		Signature	as per FHWA-KYTC	
Date	05/16/2019		Date	Current Stewardship Agreement	

## UTILITIES AND RAIL CERTIFICATION NOTE

**Logan County - HSIP 0801 (112); FD52 071 0068 026-027  
Construction of a J-Turn at the intersection of US68 and KY-73  
Item No. 3-9017.00**

### GENERAL PROJECT NOTE ON UTILITY PROTECTION

*Utility coordination efforts determined that no significant utility relocation work is required to complete the project.*

### NOTE: DO NOT DISTURB THE FOLLOWING UTILITIES LOCATED WITHIN THE PROJECT DISTURB LIMITS

**Power distribution facility crossing US68** adjacent to the western right-of-way line for KY-73, crossing at approximate station 101+00, from the north quadrant to the south quadrant. These facilities are to remain in place and are not to be disturbed.

**A four-inch Water facility** is located adjacent to, and outside of, the northern right-of-way line for US-68 extending to KY-73, where it then parallels the western right-of-way line for KY-73, leaving the project area. Additionally, adjacent to, and outside of, the eastern right-of-way line of KY-73 there is a six-inch water facility which extends to the northern right-of-way line of US-68, then extends easterly, adjacent to, and outside of, the northern right-of-way line through the project. There is also a twelve-inch facility located adjacent to, and inside of, the southern right-of-way line of US-68, extending through the project, with a crossing of KY-73 at approximate station 51+15. There is also a one and one-half inch facility crossing US-68 at approximate station 103+00. These facilities are to remain in place and are not to be disturbed.

**A two-inch natural gas facility** is located adjacent to the eastern right-of-way line for KY-73, with a crossing of US-68 at approximate station 101+50. These facilities are to remain in place and are not to be disturbed.

There is a buried **fiber optic facility** located adjacent to, and inside of, the northern right-of-way line of US-68, crossing KY-73 at approximate station 48+50, then extending east adjacent to, and outside of, the northern right-of-way line of US-68 through the project. There are also, two underground fiber facilities adjacent to the southern right-of-way line of US-68 extending to the western right-of-way line for KY-73 (one inside, and one outside of the right-of-way line) where they appear to join with two underground fiber facilities extending adjacent to, and outside of, the western right-of-way line for KY-73, then crossing US-68 at approximate station 99+50, then crossing KY-73 at approximate station 48+50. In addition to, two underground fiber optic facilities extending adjacent to the eastern right-of-way line (one inside, and one outside of the right-of-way line) then crossing US-68 at approximate station 101+75, to an apparent junction with the previously mentioned fiber optic facilities from the western right-of-way line of KY-73. From this apparent junction, two fiber optic facilities extend northerly adjacent to the eastern right-of-way line of KY-73 (one inside and one outside of the right-of-way line). These facilities are to remain in place and are not to be disturbed.

**\*The Contractor is fully responsible for protection of all utilities on the project, listed or not\***



## UTILITIES AND RAIL CERTIFICATION NOTE

**Logan County - HSIP 0801 (112); FD52 071 0068 026-027  
Construction of a J-Turn at the intersection of US68 and KY-73  
Item No. 3-9017.00**

**THE FOLLOWING COMPANIES ARE RELOCATING/ADJUSTING THEIR UTILITIES WITHIN THE PROJECT LIMITS  
AND WILL BE COMPLETE PRIOR TO CONSTRUCTION**

N/A

**THE FOLLOWING COMPANIES HAVE FACILITIES TO BE RELOCATED/ADJUSTED BY THE COMPANY OR THE  
COMPANY'S SUBCONTRACTOR AND IS TO BE COORDINATED WITH THE ROAD CONTRACT**

N/A

**THE FOLLOWING COMPANIES HAVE FACILITIES TO BE RELOCATED/ADJUSTED BY THE ROAD  
CONTRACTOR AS INCLUDED IN THIS CONTRACT**

N/A

**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)

## UTILITIES AND RAIL CERTIFICATION NOTE

**Logan County - HSIP 0801 (112); FD52 071 0068 026-027  
Construction of a J-Turn at the intersection of US68 and KY-73  
Item No. 3-9017.00**

### **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.

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.***

## UTILITIES AND RAIL CERTIFICATION NOTE

**Logan County - HSIP 0801 (112); FD52 071 0068 026-027  
Construction of a J-Turn at the intersection of US68 and KY-73  
Item No. 3-9017.00**

### AREA UTILITIES CONTACT LIST

<u>Utility Company/Agency</u>	<u>Contact Name</u>	<u>Contact Information</u>
1. Warren Rural Electric Co-Op	Jonathan Lindsey	951 Fairview Avenue Bowling Green, KY 42101 270-842-6541
2. East Logan Water District	Charles Hanks	399 East Main Street Auburn, KY 42206 270-542-6894
3. ATMOS Energy	Ryne White	3275 Highland Point Drive Owensboro, KY 42303 270-685-8140
4. Midwestern Gas	Cayse Sircy	220 TGT Road Portland, TN 37148 615-325-2001
5. Texas Gas Transmission	Scott Hundley	113 Brookwood Drive Bowling Green, KY 42101 270-843-4214
6. Logan Telephone Co-Op	Harlan Hess	10725 Bowling Green Road Auburn, KY 42206 (270) 542-4121

***NOTE: The Utilities Contact List is provided as informational only, and may not be a complete list of all Utility Companies with facilities in the project area.***

KYTC BMP Plan for Project CID 19 - 4217



**Kentucky Transportation Cabinet**

**Highway District 3**

**And**

\_\_\_\_\_ **(2), Construction**

**Kentucky Pollutant Discharge Elimination System  
Permit KYR10  
Best Management Practices (BMP) plan**

**Groundwater protection plan**

**For Highway Construction Activities**

**For**

**Construction of a J-Turn at the intersection of US  
68 @ KY 73 in Logan County**

**Project: CID 19 - 4217**

## KYTC BMP Plan for Project CID 19 - 4217

### Project information

Note – (1) = Design (2) = Construction (3) = Contractor

1. Owner – Kentucky Transportation Cabinet, District 3
2. Resident Engineer: (2)
3. Contractor name: (2)  
Address: (2)  
  
Phone number: (2)  
Contact: (2)  
Contractors agent responsible for compliance with the KPDES permit requirements (3):
4. Project Control Number: (2)
5. Route (Address): US 68
6. Latitude/Longitude (project mid-point): 36° 53' 05.9", -86° 39' 40.2"
7. County (project mid-point): Logan
8. Project start date (date work will begin): (2)
9. Projected completion date: (2)

## KYTC BMP Plan for Project CID 19 - 4217

### A. Site description:

1. Nature of Construction Activity (from letting project description): Asphalt Surface with Grade & Drain
2. Order of major soil disturbing activities: (2) and (3)
3. Projected volume of material to be moved: 3,206 CY (Cut) & 740 CY (Fill);
4. Estimate of total project area (acres): 6.3
5. Estimate of area to be disturbed (acres): 1.9
6. Post construction runoff coefficient will be included in the project drainage folder. Persons needing information pertaining to the runoff coefficient will contact the resident engineer to request this information.
7. Data describing existing soil condition: (1) & (2)
8. Data describing existing discharge water quality (if any): (1) & (2)
9. Receiving water name: Clear Fork Creek
10. TMDLs and Pollutants of Concern in Receiving Waters: *No TDML's were involved on this project.*
11. Site map – Project layout sheet plus the erosion control sheets in the project plans that depict Disturbed Drainage Areas (DDAs) and related information. These sheets depict the existing project conditions with areas delineated by DDA (drainage area bounded by watershed breaks and right of way limits), the storm water discharge locations (either as a point discharge or as overland flow) and the areas that drain to each discharge point. These plans define the limits of areas to be disturbed and the location of control measures. Controls will be either site specific as designated by the designer or will be annotated by the contractor and resident engineer before disturbance commences. The project layout sheet shows the surface waters and wetlands.
12. Potential sources of pollutants:  
  
The primary source of pollutants is solids that are mobilized during storm events. Other sources of pollutants include oil/fuel/grease from servicing and operating construction equipment, concrete washout water, sanitary wastes and trash/debris. (3)

## KYTC BMP Plan for Project CID 19 - 4217

### **B. Sediment and Erosion Control Measures:**

1. Plans for highway construction projects will include erosion control sheets that depict Disturbed Drainage Areas (DDAs) and related information. These plan sheets will show the existing project conditions with areas delineated by DDA within the right of way limits, the discharge points and the areas that drain to each discharge point. Project managers and designers will analyze the DDAs and identify Best Management Practices (BMPs) that are site specific. The balance of the BMPs for the project will be listed in the bid documents for selection and use by the contractor on the project with approval by the resident engineer.

Projects that do not have DDAs annotated on the erosion control sheets will employ the same concepts for development and managing BMP plans.

2. Following award of the contract, the contractor and resident engineer will annotate the erosion control sheets showing location and type of BMPs for each of the DDAs that will be disturbed at the outset of the project. This annotation will be accompanied by an order of work that reflects the order or sequence of major soil moving activities. The remaining DDAs are to be designated as "Do Not Disturb" until the contractor and resident engineer prepare the plan for BMPs to be employed. The initial BMP's shall be for the first phase (generally Clearing and Grubbing) and shall be modified as needed as the project changes phases. The BMP Plan will be modified to reflect disturbance in additional DDA's as the work progresses. All DDA's will have adequate BMP's in place before being disturbed.
3. As DDAs are prepared for construction, the following will be addressed for the project as a whole or for each DDA as appropriate:
  - Construction Access – This is the first land-disturbing activity. As soon as construction begins, bare areas will be stabilized with gravel and temporary mulch and/or vegetation.
  - At the beginning of the project, all DDAs for the project will be inspected for areas that are a source of storm water pollutants. Areas that are a source of pollutants will receive appropriate cover or BMPs to arrest the introduction of pollutants into storm water. Areas that have not been opened by the contractor will be inspected periodically (once per month) to determine if there is a need to employ BMPs to keep pollutants from entering storm water.
  - Clearing and Grubbing – The following BMP's will be considered and used where appropriate.

## KYTC BMP Plan for Project CID 19 - 4217

- Leaving areas undisturbed when possible.
- Silt basins to provide silt volume for large areas.
- Silt Traps Type A for small areas.
- Silt Traps Type C in front of existing pipes and drop inlets which are to be saved
- Diversion ditches to catch sheet runoff and carry it to basins or traps or to divert it around areas to be disturbed.
- Brush and/or other barriers to slow and/or divert runoff.
- Silt fences to catch sheet runoff on short slopes. For longer slopes, multiple rows of silt fence may be considered.
- Temporary Mulch for areas which are not feasible for the fore mentioned types of protections.
- Non-standard or innovative methods.
- Cut & Fill and placement of drainage structures - The BMP Plan will be modified to show additional BMP's such as:
  - Silt Traps Type B in ditches and/or drainways as they are completed
  - Silt Traps Type C in front of pipes and drop inlets after they are placed
  - Channel Lining
  - Erosion Control Blanket
  - Temporary mulch and/or seeding for areas where construction activities will be ceased for 21 days or more.
  - Non-standard or innovative methods
- Profile and X-Section in place – The BMP Plan will be modified to show elimination of BMP's which had to be removed and the addition of new BMP's as the roadway was shaped. Probable changes include:
  - Silt Trap Type A, Brush and/or other barriers, Temporary Mulch, and any other BMP which had to be removed for final grading to take place.
  - Additional Silt Traps Type B and Type C to be placed as final drainage patterns are put in place.
  - Additional Channel Lining and/or Erosion Control Blanket.
  - Temporary Mulch for areas where Permanent Seeding and Protection cannot be done within 21 days.
  - Special BMP's such as Karst Policy
- Finish Work (Paving, Seeding, Protect, etc.) – A final BMP Plan will result from modifications during this phase of construction. Probable changes include:
  - Removal of Silt Traps Type B from ditches and drainways if they are protected with other BMP's which are sufficient to control erosion, i.e. Erosion Control Blanket or Permanent Seeding and Protection on moderate grades.
  - Permanent Seeding and Protection



## KYTC BMP Plan for Project CID 19 - 4217

- Placing Sod
- Planting trees and/or shrubs where they are included in the project
- BMP's including Storm Water Management Devices such as velocity dissipation devices and Karst policy BMP's to be installed during construction to control the pollutants in storm water discharges that will occur after construction has been completed are: *This project does not include storm water BMPs or flow controls for post-construction use.*

### C. Other Control Measures

1. No solid materials, including building materials, shall be discharged to waters of the commonwealth, except as authorized by a Section 404 permit.
2. Waste Materials

All waste materials that may leach pollutants (paint and paint containers, caulk tubes, oil/grease containers, liquids of any kind, soluble materials, etc.) will be collected and stored in appropriate covered waste containers. Waste containers shall be removed from the project site on a sufficiently frequent basis as to not allow wastes to become a source of pollution. All personnel will be instructed regarding the correct procedure for waste disposal. Wastes will be disposed in accordance with appropriate regulations. Notices stating these practices will be posted in the office.

3. Hazardous Waste

All hazardous waste materials will be managed and disposed of in the manner specified by local or state regulation. The contractor shall notify the Section Engineer if there any hazardous wastes being generated at the project site and how these wastes are being managed. Site personnel will be instructed with regard to proper storage and handling of hazardous wastes when required. The Transportation Cabinet will file for generator, registration when appropriate, with the Division of Waste Management and advise the contractor regarding waste management requirements.

4. Spill Prevention

The following material management practices will be used to reduce the risk of spills or other exposure of materials and substances to the weather and/or runoff.

- **Good Housekeeping:**

## KYTC BMP Plan for Project CID 19 - 4217

The following good housekeeping practices will be followed onsite during the construction project.

- An effort will be made to store only enough product required to do the job
- All materials stored onsite will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure
- Products will be kept in their original containers with the original manufacturer's label
- Substances will not be mixed with one another unless recommended by the manufacturer
- Whenever possible, all of the product will be used up before disposing of the container
- Manufacturers' recommendations for proper use and disposal will be followed
- The site contractor will inspect daily to ensure proper use and disposal of materials onsite

### ➤ **Hazardous Products:**

These practices will be used to reduce the risks associated with any and all hazardous materials.

- Products will be kept in original containers unless they are not resealable
- Original labels and material safety data sheets (MSDS) will be reviewed and retained
- Contractor will follow procedures recommended by the manufacturer when handling hazardous materials
- If surplus product must be disposed of, manufacturers' or state/local recommended methods for proper disposal will be followed

**The following product-specific practices will be followed onsite:**

### ➤ **Petroleum Products:**

Vehicles and equipment that are fueled and maintained on site will be monitored for leaks, and receive regular preventative maintenance to reduce the chance of leakage. Petroleum products onsite will be stored in tightly sealed containers, which are clearly labeled and will be protected from exposure to weather.

The contractor shall prepare an Oil Pollution Spill Prevention Control and Countermeasure plan when the project that involves the storage of petroleum products in 55 gallon or larger containers with a total combined storage capacity of 1,320 gallons. This is a requirement of 40 CFR 112.

## KYTC BMP Plan for Project CID 19 - 4217

This project (will / will not) (3) have over 1,320 gallons of petroleum products with a total capacity, sum of all containers 55 gallon capacity and larger.

### ➤ **Fertilizers:**

Fertilizers will be applied at rates prescribed by the contract, standard specifications or as directed by the resident engineer. Once applied, fertilizer will be covered with mulch or blankets or worked into the soil to limit exposure to storm water. Storage will be in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

### ➤ **Paints:**

All containers will be tightly sealed and stored indoors or under roof when not being used. Excess paint or paint wash water will not be discharged to the drainage or storm sewer system but will be properly disposed of according to manufacturers' instructions or state and local regulations.

### ➤ **Concrete Truck Washout:**

Concrete truck mixers and chutes will not be washed on pavement, near storm drain inlets, or within 75 feet of any ditch, stream, wetland, lake, or sinkhole. Where possible, excess concrete and wash water will be discharged to areas prepared for pouring new concrete, flat areas to be paved that are away from ditches or drainage system features, or other locations that will not drain off site. Where this approach is not possible, a shallow earthen wash basin will be excavated away from ditches to receive the wash water

### ➤ **Spill Control Practices**

In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and cleanup:

- Manufacturers' recommended methods for spill cleanup will be clearly posted. All personnel will be made aware of procedures and the location of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage area. Equipment and materials will include as appropriate, brooms, dust pans, mops, rags, gloves, oil absorbents, sand, sawdust, and plastic and metal trash containers.
- All spills will be cleaned up immediately after discovery.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.

## KYTC BMP Plan for Project CID 19 - 4217

- Spills of toxic or hazardous material will be reported to the appropriate state/local agency as required by KRS 224 and applicable federal law.
- The spill prevention plan will be adjusted as needed to prevent spills from reoccurring and improve spill response and cleanup.
- Spills of products will be cleaned up promptly. Wastes from spill cleanup will be disposed in accordance with appropriate regulations.

### **D. Other State and Local Plans**

This BMP plan shall include any requirements specified in sediment and erosion control plans, storm water management plans or permits that have been approved by other state or local officials. Upon submittal of the NOI, other requirements for surface water protection are incorporated by reference into and are enforceable under this permit (even if they are not specifically included in this BMP plan). This provision does not apply to master or comprehensive plans, non-enforceable guidelines or technical guidance documents that are not identified in a specific plan or permit issued for the construction site by state or local officials. *There are no other local (MS4) requirements that are expected to be necessary for this project.*

### **E. Maintenance**

1. The BMP plan shall include a clear description of the maintenance procedures necessary to keep the control measures in good and effective operating condition.
- Maintenance of BMPs during construction shall be a result of weekly and post rain event inspections with action being taken by the contractor to correct deficiencies.
  - Post Construction maintenance will be a function of normal highway maintenance operations. Following final project acceptance by the cabinet, district highway crews will be responsible for identification and correction of deficiencies regarding ground cover and cleaning of storm water BMPs. The project manager shall identify any BMPs that will be for the purpose of post construction storm water management with specific guidance for any non-routine maintenance. *There are no such BMP's for this project.*

### **F. Inspections**

Inspection and maintenance practices that will be used to maintain erosion and sediment controls:

## KYTC BMP Plan for Project CID 19 - 4217

- All erosion prevention and sediment control measures will be inspected at least once each week and following any rain of one-half inch or more.
- Inspections will be conducted by individuals that have successfully completed the KEPSC-RI course as required by Section 213.02.02 of the Standard Specifications for Road and Bridge Construction, current edition.
- Inspection reports will be written, signed, dated, and kept on file.
- Areas at final grade will be seeded and mulched within 14 days.
- Areas that are not at final grade where construction has ceased for a period of 21 days or longer and soil stock piles shall receive temporary mulch no later than 14 days from the last construction activity in that area.
- All measures will be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours of being reported.
- Built-up sediment will be removed from behind the silt fence before it has reached halfway up the height of the fence.
- Silt fences will be inspected for bypassing, overtopping, undercutting, depth of sediment, tears, and to ensure attachment to secure posts.
- Sediment basins will be inspected for depth of sediment, and built-up sediment will be removed when it reaches 50 percent of the design capacity and at the end of the job.
- Diversion dikes and berms will be inspected and any breaches promptly repaired. Areas that are eroding or scouring will be repaired and re-seeded / mulched as needed.
- Temporary and permanent seeding and mulching will be inspected for bare spots, washouts, and healthy growth. Bare or eroded areas will be repaired as needed.
- All material storage and equipment servicing areas that involve the management of bulk liquids, fuels, and bulk solids will be inspected weekly for conditions that represent a release or possible release of pollutants to the environment.

## G. Non – Storm Water discharges

It is expected that non-storm water discharges may occur from the site during the construction period. Examples of non-storm water discharges include:

- Water from water line flushings.
- Water from cleaning concrete trucks and equipment.
- Pavement wash waters (where no spills or leaks of toxic or hazardous materials have occurred).

### KYTC BMP Plan for Project CID 19 - 4217

- Uncontaminated groundwater and rain water (from dewatering during excavation).

All non-storm water discharges will be directed to the sediment basin or to a filter fence enclosure in a flat vegetated infiltration area or be filtered via another approved commercial product.

## H. Groundwater Protection Plan (3)

This plan serves as the groundwater protection plan as required by 401 KAR 5:037.

- Contractors statement: (3)

The following activities, as enumerated by 401 KAR 5:037 Section 2 that require the preparation and implementation of a groundwater protection plan, will or may be conducted as part of this construction project:

\_\_\_\_\_ 2. (e) land treatment or land disposal of a pollutant;

\_\_\_\_\_ 2. (f) Storing, ..., or related handling of hazardous waste, solid waste or special waste, ..., in tanks, drums, or other containers, or in piles, (This does not include wastes managed in a container placed for collection and removal of municipal solid waste for disposal off site);

\_\_\_\_\_ 2. (g) .... Handling of materials in bulk quantities (equal or greater than 55 gallons or 100 pounds net dry weight transported held in an individual container) that, if released to the environment, would be a pollutant;

\_\_\_\_\_ 2. (j) Storing or related handling of road oils, dust suppressants, ....., at a central location;

\_\_\_\_\_ 2. (k) Application or related handling of road oils, dust suppressants or deicing materials, (does not include use of chloride-based deicing materials applied to roads or parking lots);

\_\_\_\_\_ 2. (m) Installation, construction, operation, or abandonment of wells, bore holes, or core holes, (this does not include bore holes for the purpose of explosive demolition);

Or, check the following only if there are no qualifying activities

\_\_\_\_\_ There are no activities for this project as listed in 401 KAR 5:037 Section 2 that require the preparation and implementation of a groundwater protection plan.

## KYTC BMP Plan for Project CID **19 - 4217**

The contractor is responsible for the preparation of a plan that addresses the

401 KAR 5:037 Section 3. (3) Elements of site specific groundwater protection plan:

- (a) General information about this project is covered in the Project information;
- (b) Activities that require a groundwater protection plan have been identified above;
- (c) Practices that will protect groundwater from pollution are addressed in section C. Other control measures.
- (d) Implementation schedule – all practices required to prevent pollution of groundwater are to be in place prior to conducting the activity;
- (e) Training is required as a part of the ground water protection plan. All employees of the contractor, sub-contractor and resident engineer personnel will be trained to understand the nature and requirements of this plan as they pertain to their job function(s). Training will be accomplished within one week of employment and annually thereafter. A record of training will be maintained by the contractor with a copy provide to the resident engineer.
- (f) Areas of the project and groundwater plan activities will be inspected as part of the weekly sediment and erosion control inspections
- (g) Certification (see signature page.)

### KYTC BMP Plan for Project CID **19 - 4217**

#### Contractor and Resident Engineer Plan certification

The contractor that is responsible for implementing this BMP plan is identified in the Project Information section of this plan.

The following certification applies to all parties that are signatory to this BMP plan:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Further, this plan complies with the requirements of 401 KAR 5:037. By this certification, the undersigned state that the individuals signing the plan have reviewed the terms of the plan and will implement its provisions as they pertain to ground water protection.

#### Resident Engineer and Contractor Certification:

(2) Resident Engineer signature

Signed \_\_\_\_\_ title \_\_\_\_\_, \_\_\_\_\_ signature  
                            Typed or printed name<sup>2</sup>

(3) Signed \_\_\_\_\_ title \_\_\_\_\_, \_\_\_\_\_ signature  
                            Typed or printed name<sup>1</sup>

1. Contractors Note: to be signed by a person who is the owner, a responsible corporate officer, a general partner or the proprietor or a person designated to have the authority to sign reports by such a person in accordance with 401 KAR 5:060 Section 9. This delegation shall be in writing to: Manager, KPDES Branch, Division of Water, 14 Reilly Road, Frankfort Kentucky 40601. Reference the Project Control Number (PCN) and KPDES number when one has been issued.

2. KyTC note: to be signed by the Chief District Engineer or a person designated to have the authority to sign reports by such a person (usually the resident engineer) in accordance with 401 KAR 5:060 Section 9. This delegation shall be in writing to: Manager, KPDES Branch, Division of Water, 14 Reilly Road, Frankfort Kentucky 40601 Reference the Project Control Number (PCN) and KPDES number when one has been issued.



KYTC BMP Plan for Project CID **19 - 4217**

**Sub-Contractor Certification**

The following sub-contractor shall be made aware of the BMP plan and responsible for implementation of BMPs identified in this plan as follows:

Subcontractor

Name:  
Address:  
Address:

Phone:

The part of BMP plan this subcontractor is responsible to implement is:

I certify under penalty of law that I understand the terms and conditions of the general Kentucky Pollutant Discharge Elimination System permit that authorizes the storm water discharges, the BMP plan that has been developed to manage the quality of water to be discharged as a result of storm events associated with the construction site activity and management of non-storm water pollutant sources identified as part of this certification.

Signed \_\_\_\_\_ title \_\_\_\_\_,  
Typed or printed name<sup>1</sup> signature

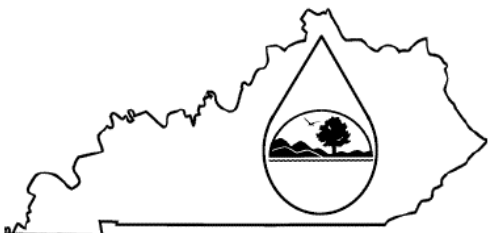
1. Sub Contractor Note: to be signed by a person who is the owner, a responsible corporate officer, a general partner or the proprietor or a person designated to have the authority to sign reports by such a person in accordance with 401 KAR 5:060 Section 9. This delegation shall be in writing to: Manager, KPDES Branch, Division of Water, 14 Reilly Road, Frankfort Kentucky 40601. Reference the Project Control Number (PCN) and KPDES number when one has been issued.

**CID 194217**  
**Logan County**  
**Construction of a J-Turn at the Intersection of US 68 @ KY 73**  
**Item No.: 3-9017.00**

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An electronic Notice of Intent (eNOI) for obtaining coverage under the Kentucky Pollutant Discharge Elimination System (KPDES) General Permit for Stormwater Discharges Associated with Construction Activities (KYR10) has been drafted, a copy of which is attached. Upon award, the Contractor will be identified in Section III of the form as the "Building Contractor" and the eNOI will be submitted for approval to the Kentucky Division of Water. The Contractor shall be responsible for advancing the work within this contract in a manner that is compliant with all applicable and appropriate KYTC specifications for sediment and erosion control, as well as meeting the requirements of the KYR10 permit and the KDOW.

**eForm Submittal ID: 156980**

	<h2 style="margin: 0;">KENTUCKY POLLUTION DISCHARGE ELIMINATION SYSTEM (KPDES)</h2> <p style="margin: 5px 0;">Notice of Intent (NOI) for coverage of Storm Water Discharge Associated with Construction Activities Under the KPDES Storm Water General Permit KYR100000</p> <p style="margin: 5px 0;"><a href="#">Click here for Instructions (Controls/KPDES_FormKYR10_Instructions.htm)</a></p> <p style="margin: 5px 0; font-size: small;">Click here to obtain information and a copy of the KPDES General Permit. (<a href="http://dep.ky.gov/formslibrary/Documents/KYR10PermitPage.pdf">http://dep.ky.gov/formslibrary/Documents/KYR10PermitPage.pdf</a>)</p> <p style="margin: 5px 0; font-size: x-small;">(*) indicates a required field; (✓) indicates a field may be required based on user input or is an optionally required field</p>
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Reason for Submittal:(*) <input style="width: 95%;" type="text" value="Application for New Permit Coverage"/>	Agency Interest ID: <input style="width: 95%;" type="text" value="Agency Interest ID"/>	Permit Number:(✓) <input style="width: 95%;" type="text" value="KPDES Permit Number"/>
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If change to existing permit coverage is requested, describe the changes for which modification of coverage is being sought:(✓)

**ELIGIBILITY:**  
Stormwater discharges associated with construction activities disturbing individually one (1) acre or more, including, in the case of a common plan of development, contiguous construction activities that cumulatively equal one (1) acre or more of disturbance.

**EXCLUSIONS:**  
The following are excluded from coverage under this general permit:

- 1) Are conducted at or on properties that have obtained an individual KPDES permit for the discharge of other wastewaters which requires the development and implementation of a Best Management Practices (BMP) plan;
- 2) Any operation that the DOW determines an individual permit would better address the discharges from that operation;
- 3) Any project that discharges to an Impaired Water listed in the most recent Integrated Report, §305(b) as impaired for sediment and for which an approved TMDL has been developed.

**SECTION I -- FACILITY OPERATOR INFORMATION (PERMITTEE)**

Company Name:(✓) <input style="width: 95%;" type="text" value="Kentucky Transportation Cabinet, District 3"/>	First Name:(✓) <input style="width: 95%;" type="text" value="Joe"/>	M.I.: <input style="width: 95%;" type="text" value="MI"/>	Last Name:(✓) <input style="width: 95%;" type="text" value="Plunk"/>
Mailing Address:(*) <input style="width: 95%;" type="text" value="900 Morgantown Road"/>	City:(*) <input style="width: 95%;" type="text" value="Bowling Green"/>	State:(*) <input style="width: 95%;" type="text" value="Kentucky"/>	Zip:(*) <input style="width: 95%;" type="text" value="42101"/>
eMail Address:(*) <input style="width: 95%;" type="text" value="Joseph.Plunk@ky.gov"/>	Business Phone:(*) <input style="width: 95%;" type="text" value="270-746-7898"/>	Alternate Phone: <input style="width: 95%;" type="text" value="Phone"/>	

**SECTION II -- GENERAL SITE LOCATION INFORMATION**

Project Name:(*) <input style="width: 95%;" type="text" value="KYTC Project: CID 194217"/>	Status of Owner/Operator(*) <input style="width: 95%;" type="text" value="State Government"/>	SIC Code(*) <input style="width: 95%;" type="text" value="1611 Highway and Street Constr"/>
Company Name:(✓) <input style="width: 95%;" type="text" value="Company Name"/>	First Name:(✓) <input style="width: 95%;" type="text" value="First Name"/>	M.I.: <input style="width: 95%;" type="text" value="MI"/>
Site Physical Address:(*) <input style="width: 95%;" type="text" value="US 68"/>		
City:(*) <input style="width: 95%;" type="text" value="Auburn"/>	State:(*) <input style="width: 95%;" type="text" value="Kentucky"/>	Zip:(*) <input style="width: 95%;" type="text" value="42206"/>
County:(*) <input style="width: 95%;" type="text" value="Logan"/>	Latitude(decimal degrees)(*)DMS to DD Converter ( <a href="https://www.fcc.gov/media/radio/dms-decimal">https://www.fcc.gov/media/radio/dms-decimal</a> ) <input style="width: 95%;" type="text" value="36.884973"/>	Longitude(decimal degrees)(*) <input style="width: 95%;" type="text" value="-86.661185"/>

**SECTION III -- SPECIFIC SITE ACTIVITY INFORMATION (?)**

Project Description:(\*)

Highway Safety Improvement Project consisting of roadway excavation and earthwork, placing concrete, replacing/extending pipes, ditching, asphalt paving, signing, and pla

a. For single projects provide the following information

Total Number of Acres in Project:(✓)	Total Number of Acres Disturbed:(✓)
--------------------------------------	-------------------------------------

6.3	1.9
Anticipated Start Date:(✓)	Anticipated Completion Date:(✓)
<input type="text"/>	<input type="text"/>

b. For common plans of development provide the following information

Total Number of Acres in Project:(✓)	Total Number of Acres Disturbed:(✓)
# Acre(s)	# Acre(s)
<input type="text"/>	<input type="text"/>
Number of individual lots in development, if applicable:(✓)	Number of lots in development:(✓)
# lot(s)	# lot(s)
<input type="text"/>	<input type="text"/>
Total acreage of lots intended to be developed:(✓)	Number of acres intended to be disturbed at any one time:(✓)
Project Acres	Disturbed Acres
<input type="text"/>	<input type="text"/>
Anticipated Start Date:(✓)	Anticipated Completion Date:(✓)
<input type="text"/>	<input type="text"/>

List Building Contractor(s) at the time of Application:(\*)

+	Company Name

SECTION IV -- IF THE PERMITTED SITE DISCHARGES TO A WATER BODY THE FOLLOWING INFORMATION IS REQUIRED ?

Discharge Point(s):

	Unnamed Tributary?	Latitude	Longitude	Receiving Water Name	
1	Yes	36.883110	86.662996	Clear Fork	Delete
2	Yes	36.883258	86.662748	Clear Fork	Delete
3	Yes	36.884545	86.661224	Clear Fork	Delete
4	Yes	36.884552	86.661140	Clear Fork	Delete
5	Yes	36.885007	86.660791	Clear Fork	Delete
6	Yes	36.885066	86.661443	Clear Fork	Delete
7	Yes	36.886692	86.659171	Clear Fork	Delete
+					

SECTION V -- IF THE PERMITTED SITE DISCHARGES TO A MS4 THE FOLLOWING INFORMATION IS REQUIRED ?

Name of MS4:

Date of application/notification to the MS4 for construction site permit coverage:

Discharge Point(s):(\*)

+	Latitude	Longitude	

SECTION VI -- WILL THE PROJECT REQUIRE CONSTRUCTION ACTIVITIES IN A WATER BODY OR THE RIPARIAN ZONE?

Will the project require construction activities in a water body or the riparian zone?:(*)	No
If Yes, describe scope of activity: (✓)	describe scope of activity
Is a Clean Water Act 404 permit required?:(*)	No
Is a Clean Water Act 401 Water Quality Certification required?:(*)	No

SECTION VII -- NOI PREPARER INFORMATION

First Name:(*) <input type="text" value="First Name"/>	M.I.: <input type="text" value="MI"/>	Last Name:(*) <input type="text" value="Last Name"/>	Company Name:(*) <input type="text" value="Company Name"/>	
Mailing Address:(*) <input type="text" value="Mailing Address"/>		City:(*) <input type="text" value="City"/>	State:(*) <input type="text" value="State"/>	Zip:(*) <input type="text" value="Zip"/>
eMail Address:(*) <input type="text" value="eMail Address"/>		Business Phone:(*) <input type="text" value="Phone"/>		Alternate Phone: <input type="text" value="Phone"/>

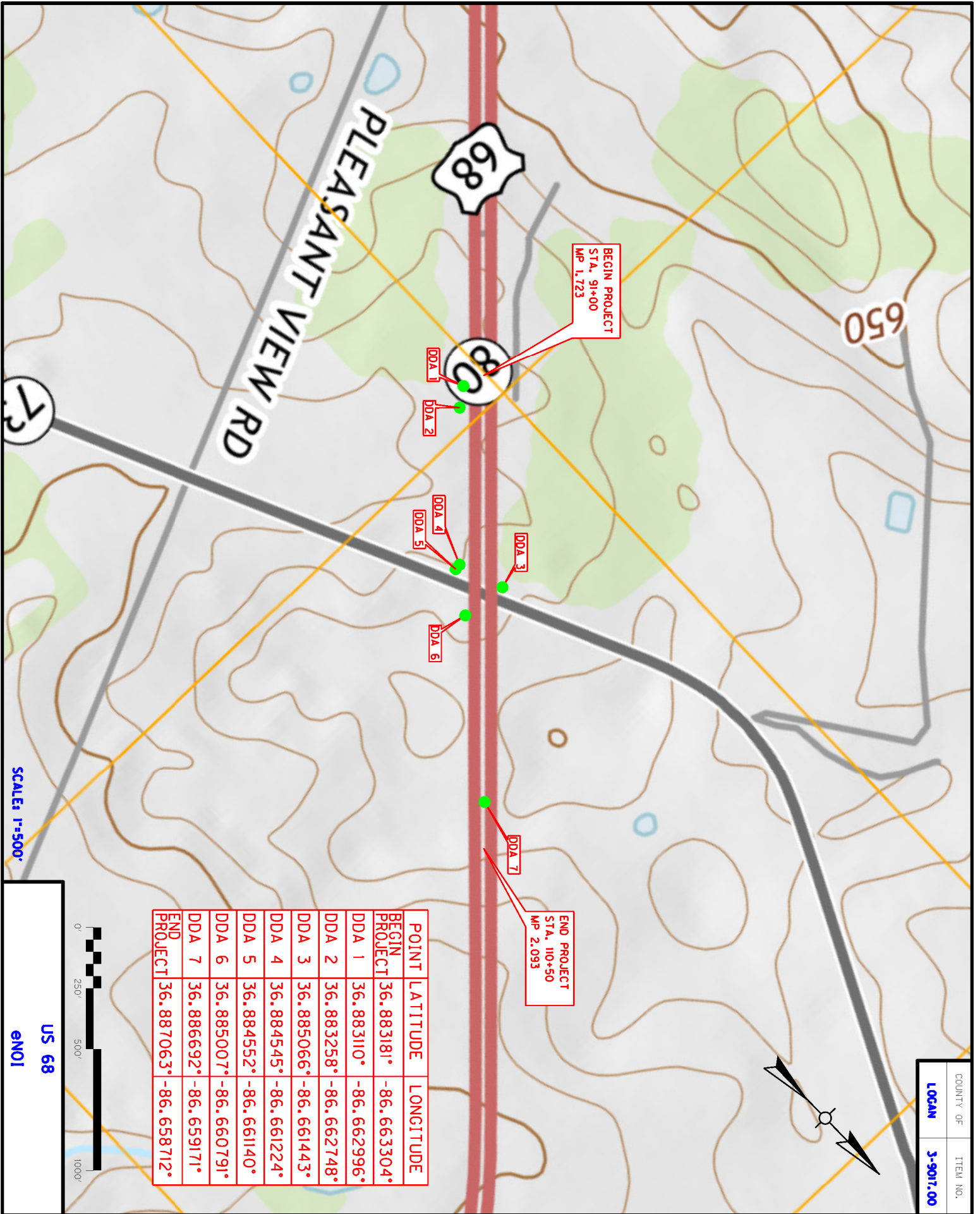
SECTION VIII -- ATTACHMENTS

Facility Location Map:(*)	<input type="button" value="Upload file"/>
Supplemental Information:	<input type="button" value="Upload file"/>

SECTION IX -- CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:(*) <input type="text" value="Signature"/>		Title:(*) <input type="text" value="Title"/>	
First Name:(*) <input type="text" value="First Name"/>	M.I.: <input type="text" value="MI"/>	Last Name:(*) <input type="text" value="Last Name"/>	
eMail Address:(*) <input type="text" value="eMail Address"/>	Business Phone:(*) <input type="text" value="Phone"/>	Alternate Phone: <input type="text" value="Phone"/>	Signature Date:(*) <input type="text" value="Date"/>



POINT	LATITUDE	LONGITUDE
BEGIN PROJECT	36.883181°	-86.663304°
DDA 1	36.883110°	-86.662996°
DDA 2	36.883258°	-86.662748°
DDA 3	36.885066°	-86.661443°
DDA 4	36.884545°	-86.661224°
DDA 5	36.884552°	-86.661140°
DDA 6	36.885007°	-86.660791°
DDA 7	36.886692°	-86.659171°
END PROJECT	36.887063°	-86.658712°

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LOGAN	3-9017.00

SCALE: 1"=500'

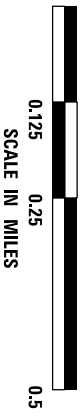
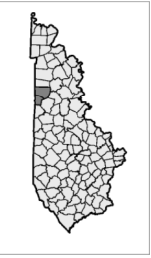
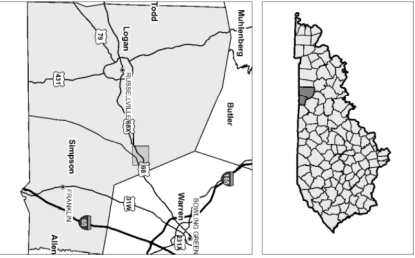
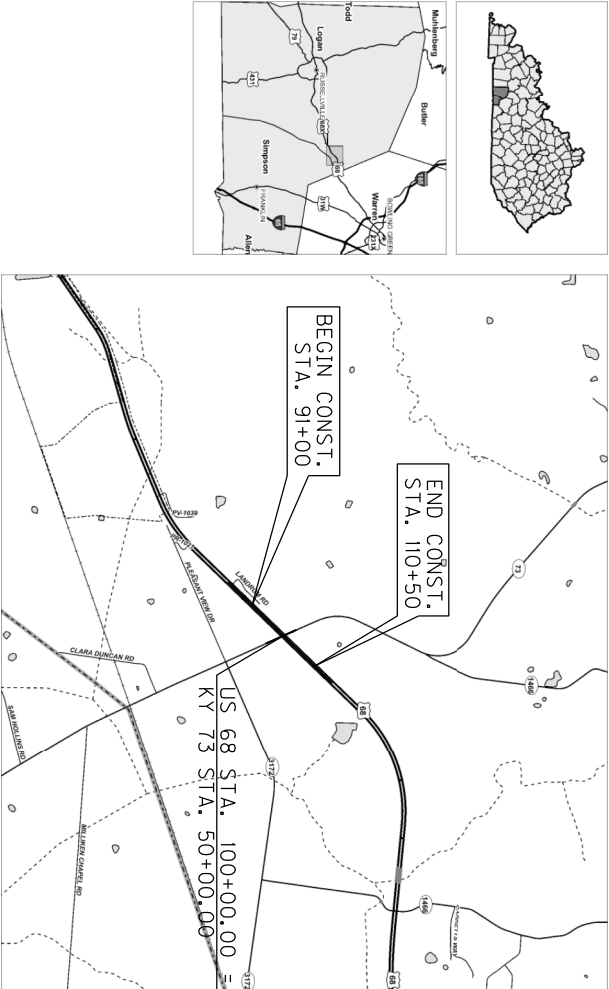


US 68  
eN01

# Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS LOGAN COUNTY

US 68  
3-9017.00  
HSIP 0801 (112)

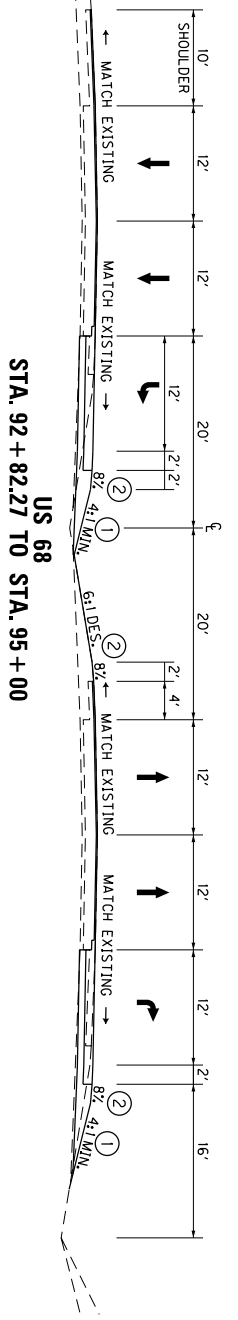
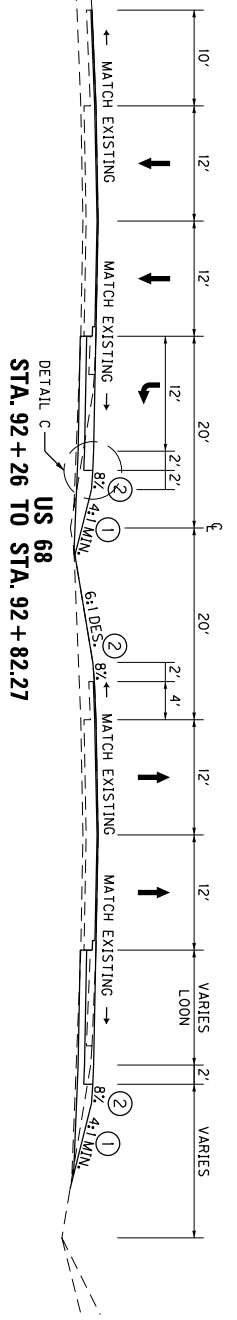
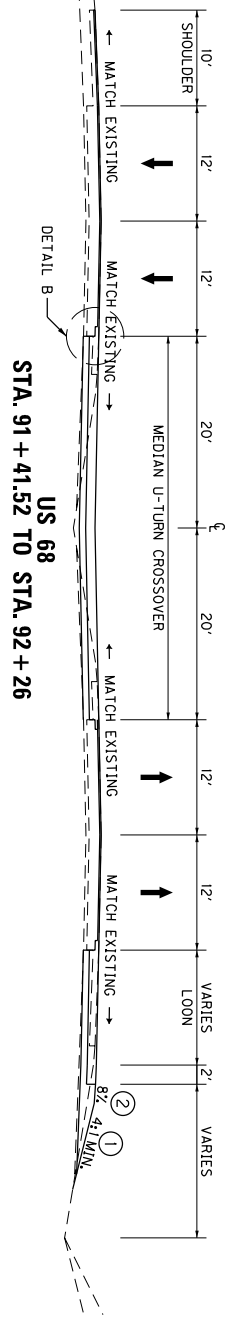
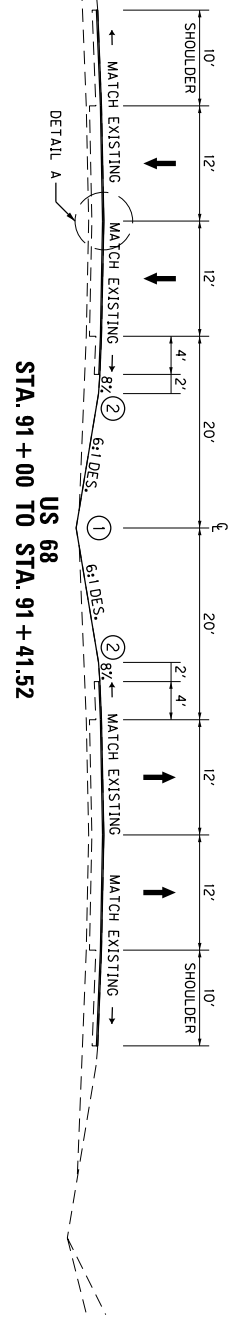
COUNTY OF	ITEM NO.
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LAYOUT SHEET

# TYPICAL SECTIONS

COUNTY OF	ITEM NO.
LOGAN	3-9017.00



## GENERAL NOTES

- ① SEE CROSS SECTIONS FOR SLOPES OUTSIDE THE LIMITS OF THE SHOULDER.
- ② ASPHALT SEAL REQUIRED FROM EDGE OF PAVED SHOULDER TO A POINT 2 FEET DOWN THE DITCH OR FILL SLOPE.

## WIDENING & FULL DEPTH SHOULDERS

- 1.5" CL3 ASPH SURF 0.388 PG76-22
- 3" CL3 ASPH BASE 1.00 PG76-22
- 3" CL3 ASPH BASE 1.00 PG64-22
- 4" CL3 ASPH BASE 1.00 PG64-22
- 8" CRUSHED STONE BASE

## MILL & OVERLAY

- 1.5" MILLING & TEXTURING
- 1.5" CL3 ASPH SURF 0.388 PG76-22

## ASPHALT SEAL (2 COATS)

- ASPHALT SEAL COAT 2.40 LBS/SQYD
- ASPHALT SEAL AGGREGATE 20 LBS/SQYD

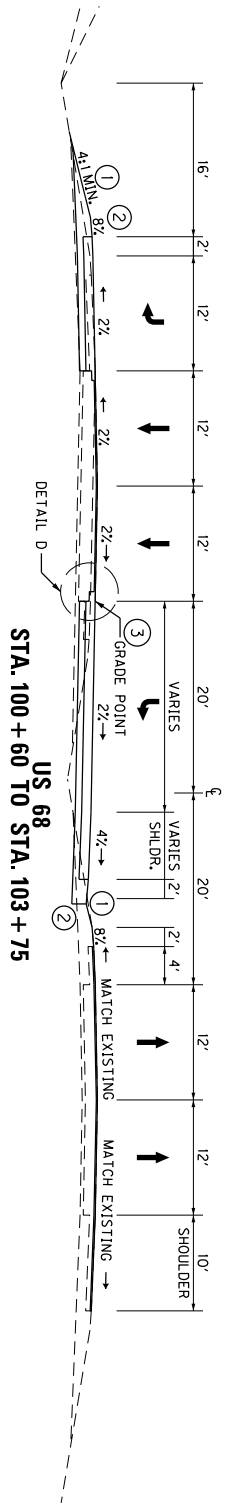
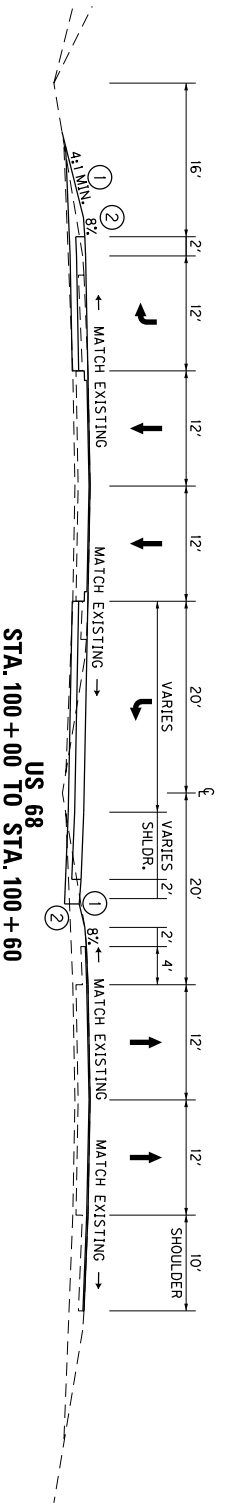
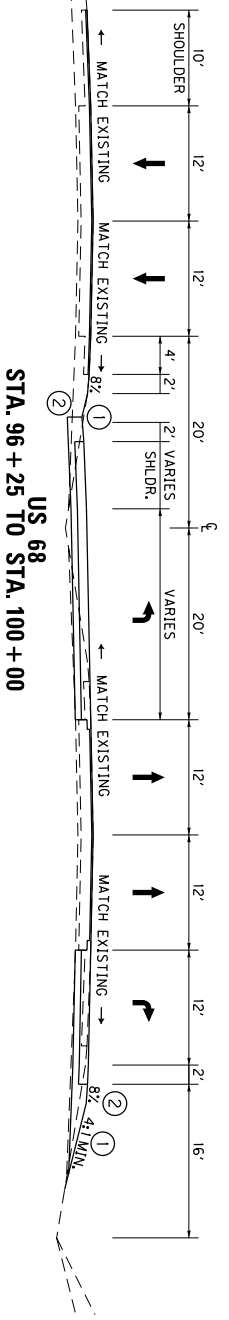
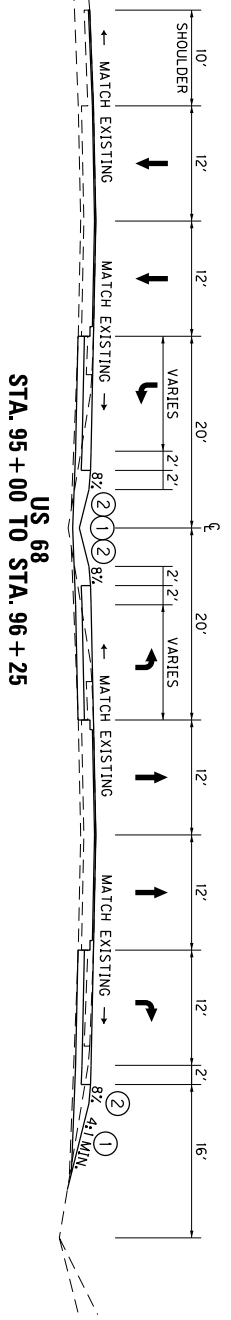
N.T.S.

TYPICAL SECTIONS



# TYPICAL SECTIONS

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LOGAN	3-9017.00



## GENERAL NOTES

- ① SEE CROSS SECTIONS FOR SLOPES OUTSIDE THE LIMITS OF THE SHOULDER.
- ② ASPHALT SEAL REQUIRED FROM EDGE OF THE DITCH OR FILL SLOPE.
- ③ PAVEMENT CORRECTION STA. 100+60 TO STA. 104+18

## WIDENING & FULL DEPTH SHOULDERS

- 1.5" CL3 ASPH SURF 0.388 PG76-22
- 3" CL3 ASPH BASE 1.00 PG76-22
- 3" CL3 ASPH BASE 1.00 PG64-22
- 4" CL3 ASPH BASE 1.00 PG64-22
- 8" CRUSHED STONE BASE

## MILL & OVERLAY

- 1.5" MILLING & TEXTURING
- 1.5" CL3 ASPH SURF 0.388 PG76-22

## ASPHALT SEAL (2 COATS)

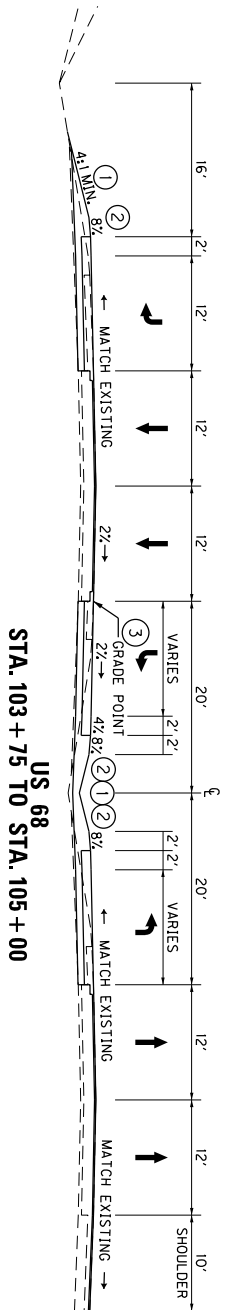
- ASPHALT SEAL COAT 2.40 LBS/SQYD
- ASPHALT SEAL AGGREGATE 20 LBS/SQYD

N.T.S.

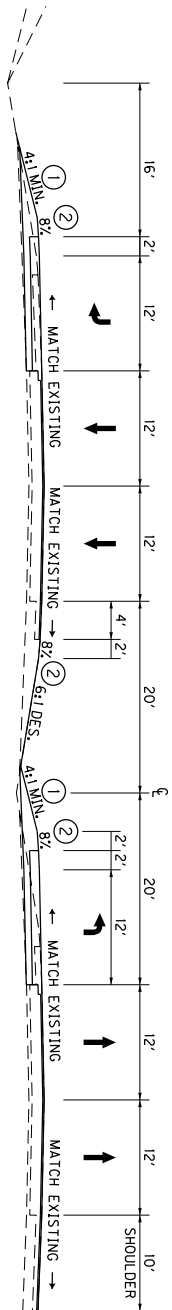
TYPICAL SECTIONS

# TYPICAL SECTIONS

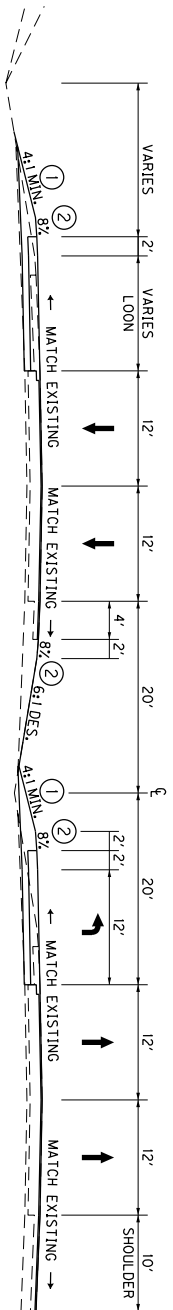
COUNTY OF	ITEM NO.
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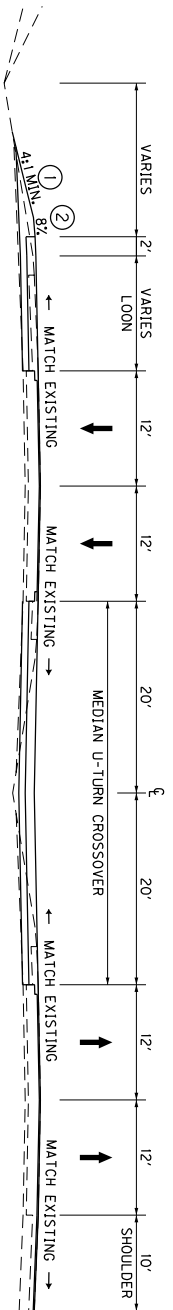
US 68  
STA. 103 + 75 TO STA. 105 + 00



US 68  
STA. 105 + 00 TO STA. 107 + 17.73



US 68  
STA. 107 + 17.73 TO STA. 107 + 74



US 68  
STA. 107 + 74 TO STA. 108 + 54.48

### GENERAL NOTES

- ① SEE CROSS SECTIONS FOR SLOPES OUTSIDE THE LIMITS OF THE SHOULDER.
- ② ASPHALT SEAL REQUIRED FROM EDGE OF THE DITCH OR FILL SLOPE.
- ③ PAVEMENT CORRECTION STA. 100+60 TO STA. 104+18

### WIDENING & FULL DEPTH SHOULDERS

- 1.5" CL3 ASPH SURF 0.388 PG76-22
- 3" CL3 ASPH BASE 1.00 PG76-22
- 3" CL3 ASPH BASE 1.00 PG64-22
- 4" CL3 ASPH BASE 1.00 PG64-22
- 8" CRUSHED STONE BASE

### MILL & OVERLAY

- 1.5" MILLING & TEXTURING
- 1.5" CL3 ASPH SURF 0.388 PG76-22

### ASPHALT SEAL (2 COATS)

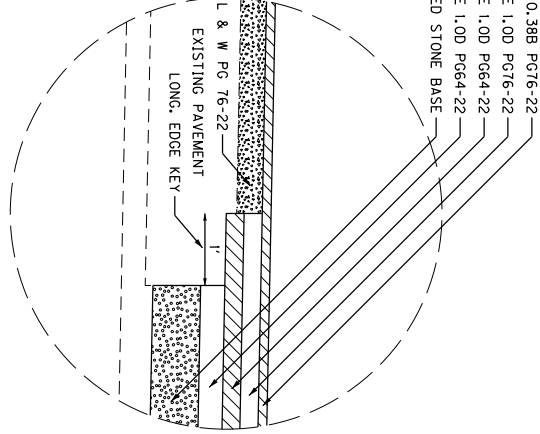
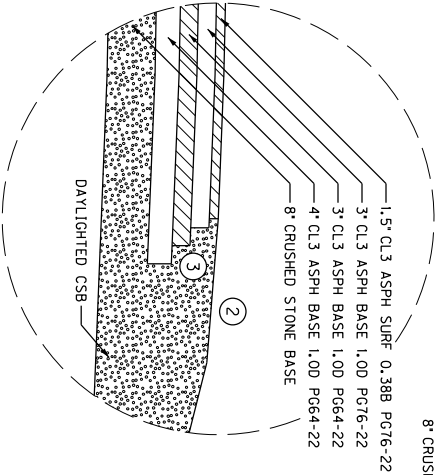
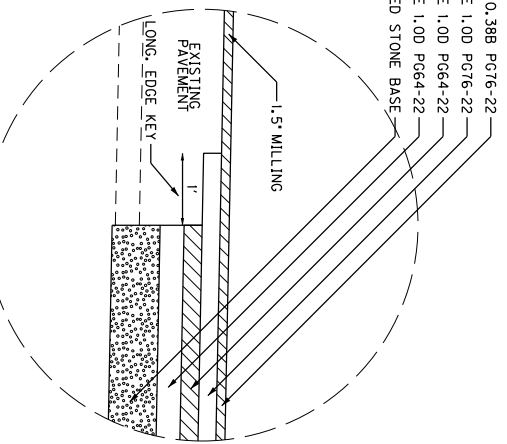
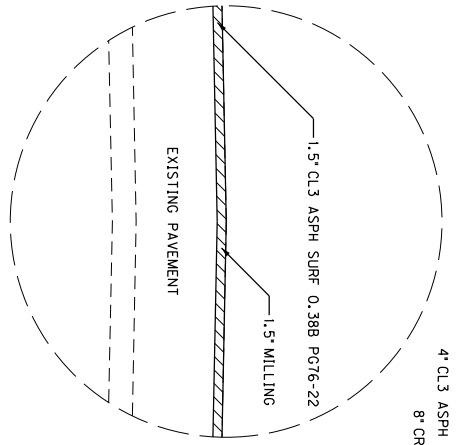
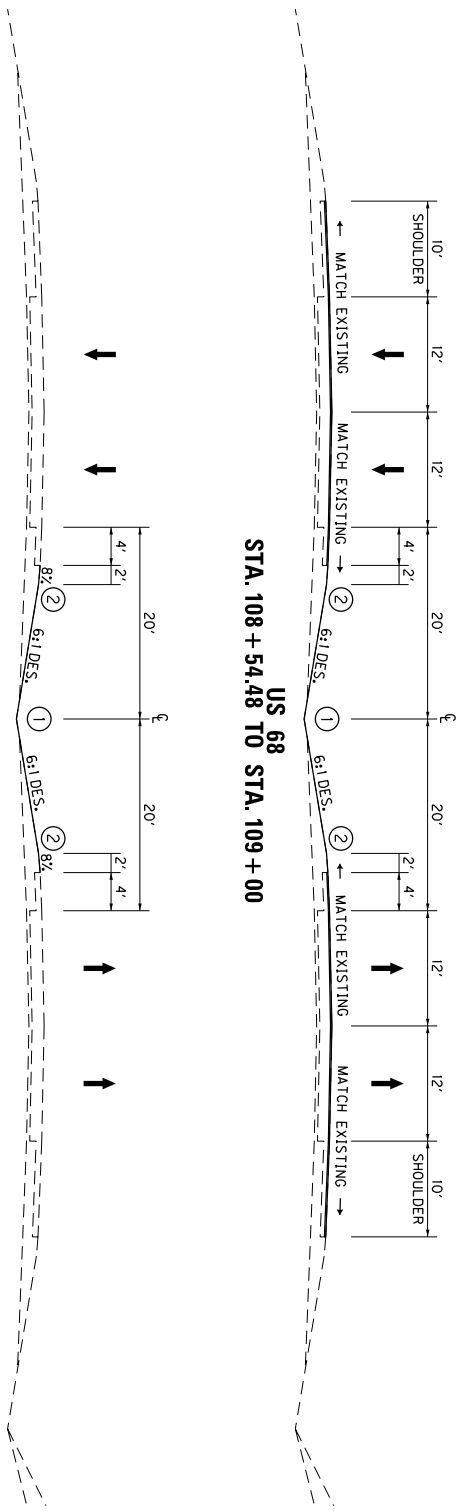
- ASPHALT SEAL COAT 2.40 LBS/SQYD
- ASPHALT SEAL AGGREGATE 20 LBS/SQYD

N.T.S.

TYPICAL SECTIONS

# TYPICAL SECTIONS

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## GENERAL NOTES

- SEE CROSS SECTIONS FOR SLOPES OUTSIDE THE LIMITS OF THE SHOULDER.
- ASPHALT SEAL REQUIRED FROM EDGE OF PAVED SHOULDER TO A POINT 2 FEET DOWN THE DITCH OR FILL SLOPE.
- STEP ALL ASPHALT LIFTS OUT A DISTANCE EQUAL TO THE THICKNESS OF THE LIFT ABOVE.

## WIDENING & FULL DEPTH SHOULDERS

- 1.5" CL3 ASPH SURF 0.388 PG76-22
- 3" CL3 ASPH BASE 1.00 PG76-22
- 3" CL3 ASPH BASE 1.00 PG64-22
- 4" CL3 ASPH BASE 1.00 PG64-22
- 8" CRUSHED STONE BASE

## MILL & OVERLAY

- 1.5" MILLING & TEXTURING
- 1.5" CL3 ASPH SURF 0.388 PG76-22

## ASPHALT SEAL (2 COATS)

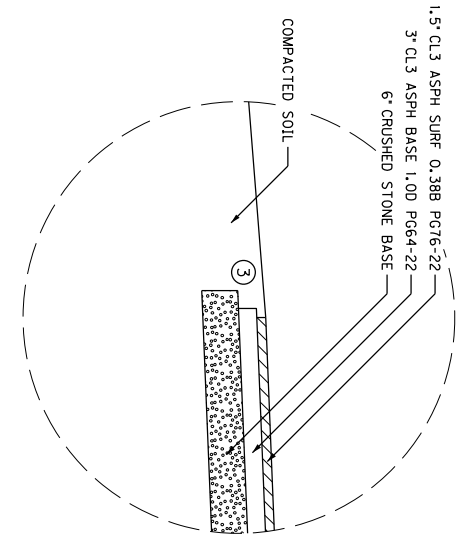
- ASPHALT SEAL COAT 2.40 LBS/SQYD
- ASPHALT SEAL AGGREGATE 20 LBS/SQYD

TYPICAL SECTIONS

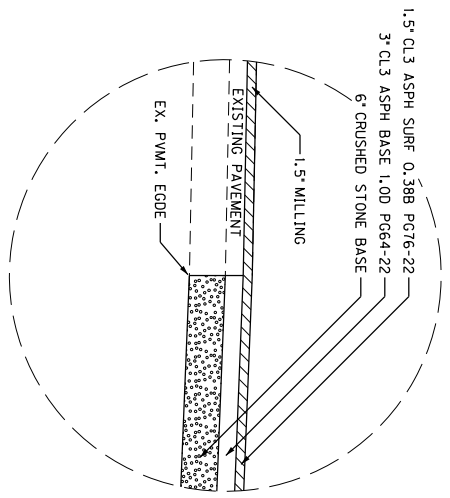
N.T.S.

# TYPICAL SECTIONS

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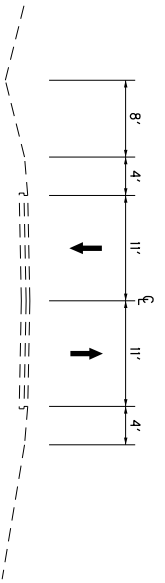


**DETAIL E**

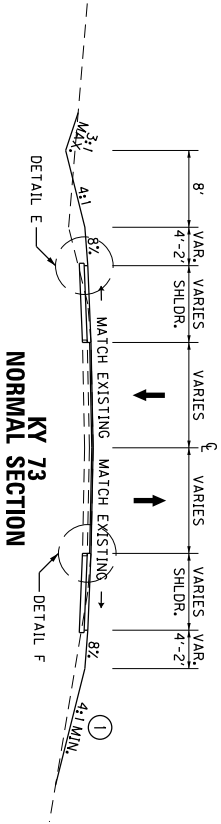


**DETAIL F**

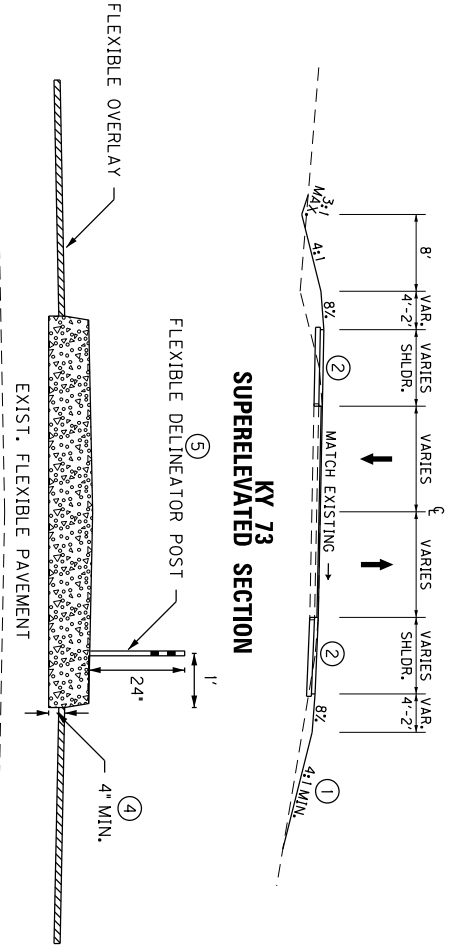
- GENERAL NOTES**
- SEE CROSS SECTIONS FOR SLOPES OUTSIDE THE LIMITS OF THE SHOULDER.
  - CONSTRUCT SUPERELEVATED SHOULDERS TO STANDARD SUPERELEVATION, EXCEPT NOT FLATTER THAN 4%.
  - STEP ALL ASPHALT LIFTS OUT A DISTANCE EQUAL TO THE THICKNESS OF THE LIFT ABOVE.
  - MILLING FOR EMBEDMENT SHALL BE INCIDENTAL TO THE BID ITEM FOR STANDARD BARRIER MEDIAN TY. 4
  - 20' POST SPACING ALONG THROUGH LANE EDGE



**KY 73 EXISTING**



**KY 73 NORMAL SECTION**



**KY 73 SUPERELEVATED SECTION**

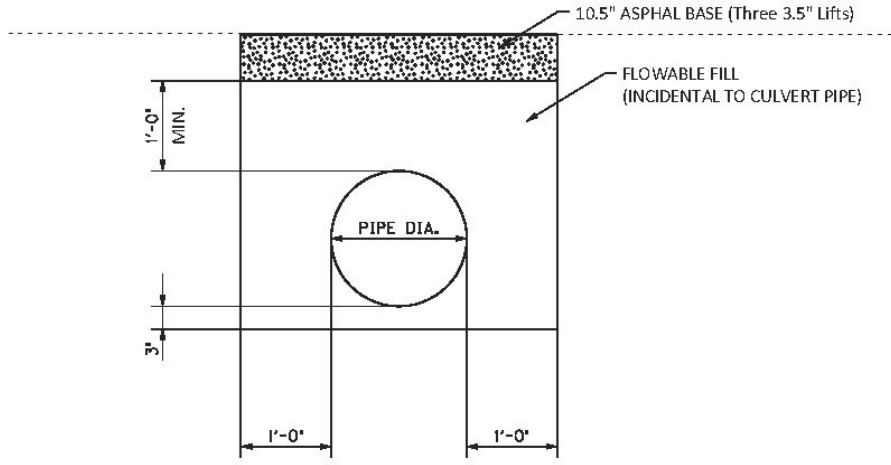
- WIDENING & FULL DEPTH SHOULDERS**
- 1.5" CL3 ASPH SURF 0.388 PG76-22
  - 3" CL3 ASPH BASE 1.00 PG64-22
  - 6" CRUSHED STONE BASE
- MILL & OVERLAY**
- 1.5" MILLING & TEXTURING
  - 1.5" CL3 ASPH SURF 0.388 PG76-22

**STANDARD BARRIER MEDIAN TY. 4 MODIFIED DETAIL**

N.T.S.

TYPICAL SECTIONS

### CULVERT PIPE REPLACEMENT DETAIL



CULVERT PIPE REPLACEMENTS - INITIAL BACKFILL

Culvert Pipe Replacements shall be constructed according to the Initial Backfill Detail shown above, or as directed by the Engineer. Allow the asphalt to be exposed to traffic a minimum of 30 days to allow for settlement. After the 30 day waiting period, asphalt resurfacing may begin.

**GENERAL SUMMARY**

ITEM	DESCRIPTION	UNIT	TOTAL PROJECT
1921	STANDARD BARRIER MEDIAN TYPE 4 (MOD)	SOYD	150
2159	TEMP DITCH	LF	975
2160	CLEAN TEMP DITCH	LF	488
2200	ROADWAY EXCAVATION	CY	3,206
2242	WATER FOR DUST CONTROL	MGAL	21
2545	CLEARING AND GRUBBING	LS	1
2562	TEMP. SIGNS	SOFT	500
2569	DEMOLIALIZATION	LS	1
2585	EDGE KEY	LF	196
2600	GEOTEXTILE FABRIC TYPE 4 FOR PIPE	SOYD	1,086
2650	MAINTAIN AND CONTROL TRAFFIC	LS	1
2671	PORTABLE CHANGEABLE MESSAGE SIGN	EACH	2
2696	SHOULDER RUMBLE STRIP	LF	5,650
2701	TEMP SILT FENCE	LF	975
2703	SILT TRAP TYPE A	EACH	4
2704	SILT TRAP TYPE B	EACH	4
2705	SILT TRAP TYPE C	EACH	4
2706	CLEAN SILT TRAP A	EACH	4
2707	CLEAN SILT TRAP B	EACH	4
2708	CLEAN SILT TRAP C	EACH	4
2726	STAKING	LS	1
5990	EROSION CONTROL BLANKET	SOYD	2,563
5952	TEMP MULCH	SOYD	11,856
5953	TEMP SEEDING AND PROTECTION	SOYD	8,848
5963	INITIAL FERTILIZER	TON	1
5964	20-10-10 FERTILIZER	TON	0.9
5985	SEEDING AND PROTECTION	SOYD	17,695
5992	AGRICULTURAL LIMESTONE	TON	11
6403	FLEXIBLE DELINEATOR POST B/W (24 INCH)	EACH	11
6406	SBM ALUM SHEET SIGNS .080 IN	SOFT	529.75
6407	SBM ALUM SHEET SIGNS .125 IN	SOFT	79.4
6410	STEEL POST TYPE 1	LF	533
6490	CLASS A CONCRETE FOR SIGNS	CUYD	5.75
6511	PAVE STRIPING-TEMP PAINT - 4 IN	LF	14,000
24995EC	PAVE STRIPING-SPRAY THERMO 6 IN W	LF	8,034
24996EC	PAVE STRIPING-SPRAY THERMO 6 IN Y	LF	5,130
6546	PAVE STRIPING-THERMO 12 IN - W	LF	676
6568	PAVE MARKING-THERMO STOP BAR-24 IN	LF	64
6569	PAVE MARKING-THERMO CROSS-HATCH	SOFT	9,609
6574	PAVE MARKING-THERMO CURV ARROW	EACH	18
6576	PAVE MARKING-THERMO ONLY	EACH	4
10020NS	FUEL ADJUSTMENT	DOLL	9,587
10030NS	ASPHALT ADJUSTMENT	DOLL	19,450
20099E5842	TEMP PAINT STOP BAR	LF	64
2010E5842	TEMP PAINT ARROWS	EACH	26
20550ND	SAUCUT PAYEMENT	LF	775
21289ED	LONGITUDINAL EDGE KEY	LF	3,345
21373ND	REMOVE SIGNS	EACH	25
21596ND	CMSS TYPE D	EACH	23
22664EN	WATER BLASTING	LF	14,000
23608EC	YELLOW PAINT FOR MEDIAN NOSE ①	SOFT	13
24489EC	INLAID PAYEMENT MARKER	EACH	129
24631EC	BARCODE SIGN INVENTORY	EACH	102
24880EC	REMOVE PAYEMENT MARKER	EACH	45
24899EC	PAVE MARKING-THERMO U-TURN	EACH	8

**PAVING SUMMARY**

ITEM	DESCRIPTION	UNIT	US 68	KY 73	TOTAL PROJECT
3	CRUSHED STONE BASE ①②	TON	2,489	414	5,122
100	ASPHALT SEAL AGGREGATE ②	TON	35		35
103	ASPHALT SEAL COAT ②	TON	4.1		4.1
194	LEVELING & WEDGING PG76-22	TON	300		300
214	CL 3 ASPH BASE 1.00 PG 64-22	TON	1,958	188	2,146
216	CL 3 ASPH BASE 1.00 PG 76-22	TON	792		792
387	CL 3 ASPH SURF 0.388 PG 76-22	TON	1,521	216	1,737
2676	MOBILIALIZATION FOR MILL & TEXT	LS			1
2677	ASPHALT PAVEMENT MILLING & TEXTURING	TON	1,133	124	1,257
2007IEC	JOINT ADHESIVE	LF	5,454	225	5,679
24970EC	ASPHALT MATERIAL FOR TACK NON-TRACKING ③	TON	12	1	13

**PAVING AREAS**

DESCRIPTION	UNIT	US 68	KY 73	TOTAL PROJECT
1.5' CL 3 ASPH SURF 0.388 PG 76-22	SOYD	18,439	2,613	21,052
3' CL 3 ASPH BASE 1.00 PG 76-22	SOYD	4,796	4,796	9,592
3' CL 3 ASPH BASE 1.00 PG 64-22	SOYD	4,980	1,138	6,118
4' CL 3 ASPH BASE 1.00 PG 64-22	SOYD	5,164		5,164
6" CRUSHED STONE BASE	SOYD		1,199	1,199
8" CRUSHED STONE BASE	SOYD	5,410		5,410
1.5' ASPHALT PAVE MILLING & TEXTURING	SOYD	13,733	1,498	15,231
ASPHALT SEAL AGGREGATE	SOYD	1,718		1,718
ASPHALT SEAL COAT	SOYD	1,718		1,718
ASPHALT MATERIAL FOR TACK NON-TRACKING	SOYD	28,217	2,613	30,830

**NOTES**

ALL ASPHALT MIXTURES SHALL BE ESTIMATED AT 110 LBS. PER SQ. YD. PER INCH OF DEPTH, UNLESS NOTED OTHERWISE.

- ① 2,219 TON ADDED FOR DAYLIGHTED SHOULDER
- ② TWO APPLICATIONS
- ③ 20 LBS/SOYD ASPHALT SEAL AGGREGATE
- ④ 2.4 LBS/SOYD ASPHALT SEAL COAT
- ⑤ ESTIMATED AT 115 LBS/SOYD/IN
- ⑥ TO BE APPLIED TO STANDARD BARRIER MEDIAN TYP. 4
- ⑦ FOR DUST CONTROL CAUSED BY TRAFFIC.
- ⑧ ESTIMATED AT 50 MGAL/MILE.

EARTHWORK VOLUMES	
2,947 CU YD COMMON	
239 CU YD EMBANKMENT	
3,206 CU YD TOTAL EXC	
450 CU YD EMBANKMENT	
239 CU YD EMBANKMENT	
740 CU YD TOTAL EMB	
FOR BIDDING	
3,206 CU YD ROADWAY EXC TOTAL	

ASSUMPTIONS FOR SHRINKAGE AND SWELL FACTORS ARE THE RESPONSIBILITY OF THE CONTRACTOR.

**SUMMARY SHEET**

COUNTY OF	LOGAN	ITEM NO.	3-9017.00
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**PIPE DRAINAGE SUMMARY**

COUNTY OF	ITEM NO.
LOGAN	3-9017.00

ITEM CODE	SKEW	DESIGN pH LEVEL	461	462	464	466	521	522	1310	1433	1434	1450	1451	1505	1508	1511	1514	1559	1756	REMARKS
UNIT TO BID			LF	LF	LF	LF	LF	LF	LF	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	
US 68																				
91+43		M				8			8					1						CMP
92+32		M			16				8		1					1				CMP
99+09	17° RT	M					79	74			1							1		
99+96	50° RT	M					39											1		NO APRON, CMP
100+89		M	4						9											
107+85		M		63						1										
KY 73																				
49+08	29° LT	M			41				8				1							CMP
51+25	20° LT	M		23					8	1		1								CMP
PROJECT TOTAL			4	86	57	8	118	74	41	3	2	1	1	1	1	1	1	2	1	

PIPE DRAINAGE SUMMARY

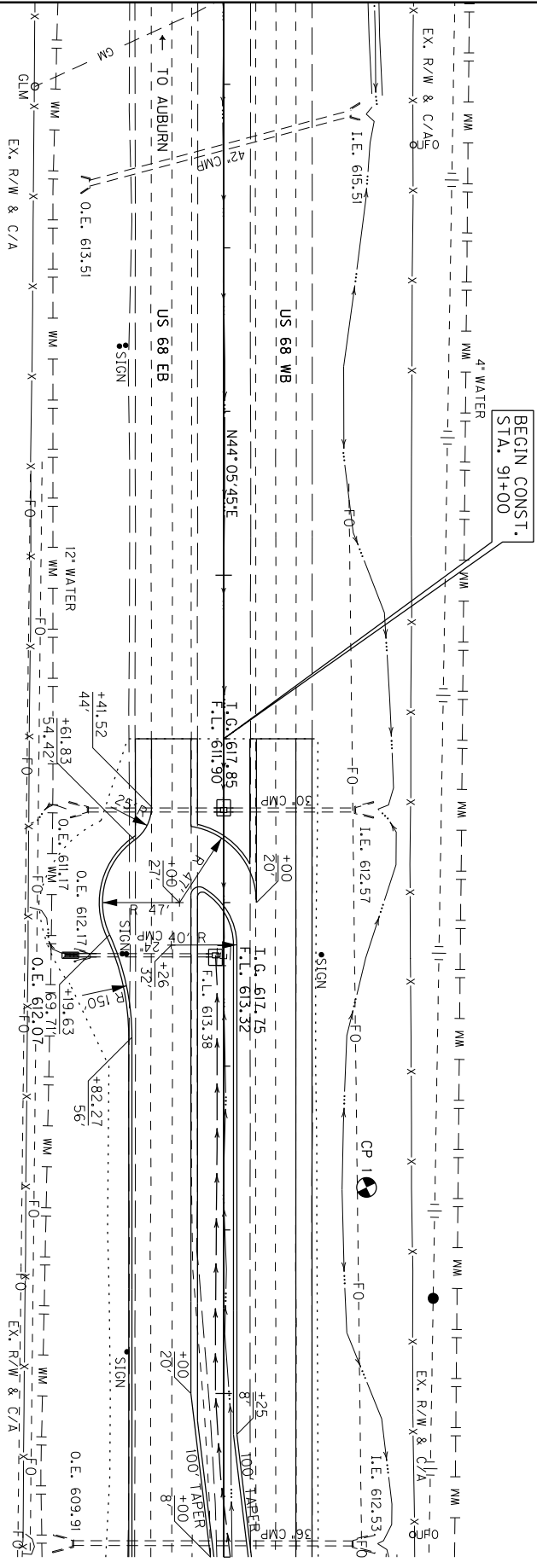
MEDIAN DITCH CONSTRUCTION			
STA. TO STA.	DESCRIPTION	CHANNEL LINING TYPE	DEPTH QUANTITY
91+00 - 91+43	SPEC. "V"	ECB	1' 68 SOYD
91+43 - 91+50	SPEC. "V"	ECB	1' 11 SOYD
92+50 - 96+00	SPEC. "V"	ECB	1' 473 SOYD

DESCRIPTION	NORTH (Y)	EAST (X)	ELEVATION
P.O.B. STA. 91+00.00	3482356.79	4654117.87	N/A
CONTROL POINT 1 (CPC)	3482614.33	4654245.97	619.52

COUNTY OF	ITEM NO.
LOGAN	3-9017.00

**ORIGIN OF LEVELS**  
ELEVATIONS WERE DERIVED FROM GPS METHODS AND ARE ADJUSTED TO NAVD88 VERTICAL DATUM, GEOID MODEL USED WAS GEOID 12B.

**COORDINATE SYSTEM**  
COORDINATES ARE BASED ON KENTUCKY STATE PLANE COORDINATE SYSTEM SINGLE ZONE NAD83 AND IN US SURVEY FEET.



OUTLET DITCH CONSTRUCTION			
STA. TO STA.	DESCRIPTION	CHANNEL LINING TYPE	DEPTH QUANTITY
92+32	2' F.B. OUTLET DI	ECB	1' 32 SOYD

**BEFORE YOU DIG**

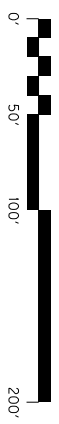
The contractor is instructed to call 1-800-752-6007 to reach KY 811, the one-call system for information on the location of existing underground utilities. The call is to be placed a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor should be aware that owners of underground facilities are not required to be members of the KY 811 one-call Before-Dig (BD) 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.

- GAS**
  - ATMOS ENERGY 3275 HIGH AND POINT DRIVE OWENSBORO, KENTUCKY 42303
  - RYNE WHITE (270) 685-8140
  - MIDWESTERN GAS 220 LIGHT ROAD FORTLAND, TENNESSEE 37148
  - CAYSE SIRCY (615) 325-2001
- POWER**
  - WARREN RURAL ELECTRIC CO-OP 951 FAIRVIEW AVENUE BOWLING GREEN, KENTUCKY 42101
  - JONATHAN LINDSEY (270) 842-6541
- WATER & SEWER**
  - EAST LOGAN WATER DISTRICT 399 EAST MAIN STREET AUBURN, KENTUCKY 42206
  - CHARLES HANKS -- MANAGER (270) 542-6894
- TELEPHONE**
  - LOGAN TELEPHONE CO-OP 10725 BOWLING GREEN ROAD AUBURN, KENTUCKY 42206
  - HARAN HESS (270) 542-4121

SCALE: 1"=100'

STA. 91+00 TO STA. 96+00

US 68





MEDIAN DITCH CONSTRUCTION			
STA. TO STA.	DESCRIPTION	CHANNEL LINING	DEPTH QUANTITY
96+00 - 98+00	SPEC. 'V'	ECB	1' 270 SOYD
100+88 - 105+00	SPEC. 'V'	ECB	1' 467 SOYD
105+00 - 106+00	SPEC. 'V'	ECB	1' 135 SOYD

DESCRIPTION	NORTH (Y)	EAST (X)	ELEVATION
CONTROL POINT 2 (IPCI)	3483075.47	4654669.17	626.24

COUNTY OF	ITEM NO.
LOGAN	3-9017.00

96+00

STA. 99+09 @ 17° SKEW RT  
CONST. 74 LF OF  
18" S.S. PIPE  
W/ DBI TY. 13G  
& SLOPED BOX OUTLET TY. 1-18 IN

STA. 99+96 @ 50° SKEW RT  
CONST. 1.39 LF OF  
15" S.S. PIPE  
W/ DBI TY. 13G  
& MANHOLE TY. A

STA. 99+32 TO STA. 99+73 LT  
SAWCUT 75 LF OF PAVEMENT

STA. 99+95 TO 100+30 LT  
CONST. 41 SOYD OF  
CONCRETE ISLAND

100+00

STA. 99+00 TO 101+00  
CONST. 150 SOYD OF  
STANDARD BARRIER MEDIAN TY. 4

STA. 100+89  
CONST. 4 LF OF  
15" CMP  
W/ DBI TY. 5E (NO APRON)

STA. 100+47+45  
CONST. 22 LF OF  
EDGE KEY

STA. 100+27 TO STA. 100+67 RT  
SAWCUT 75 LF OF PAVEMENT

STA. 99+70 TO 100+04 RT  
CONST. 41 SOYD OF  
CONCRETE ISLAND

STA. 99+52+55  
CONST. 22 LF OF  
EDGE KEY

STA. 99+51+25 @ 20° SKEW LT  
EXTEND EXISTING 18" CMP  
W/ 23 LF OF 18" CMP  
1- S&F BOX INLET-OUTLET - 18 IN  
& 1- SLOPED BOX OUTLET TY. 1-18 IN

STA. 100+00 US 68 =  
STA. 50+00 KY 73

STA. 100+27 TO STA. 100+67 RT  
SAWCUT 75 LF OF PAVEMENT

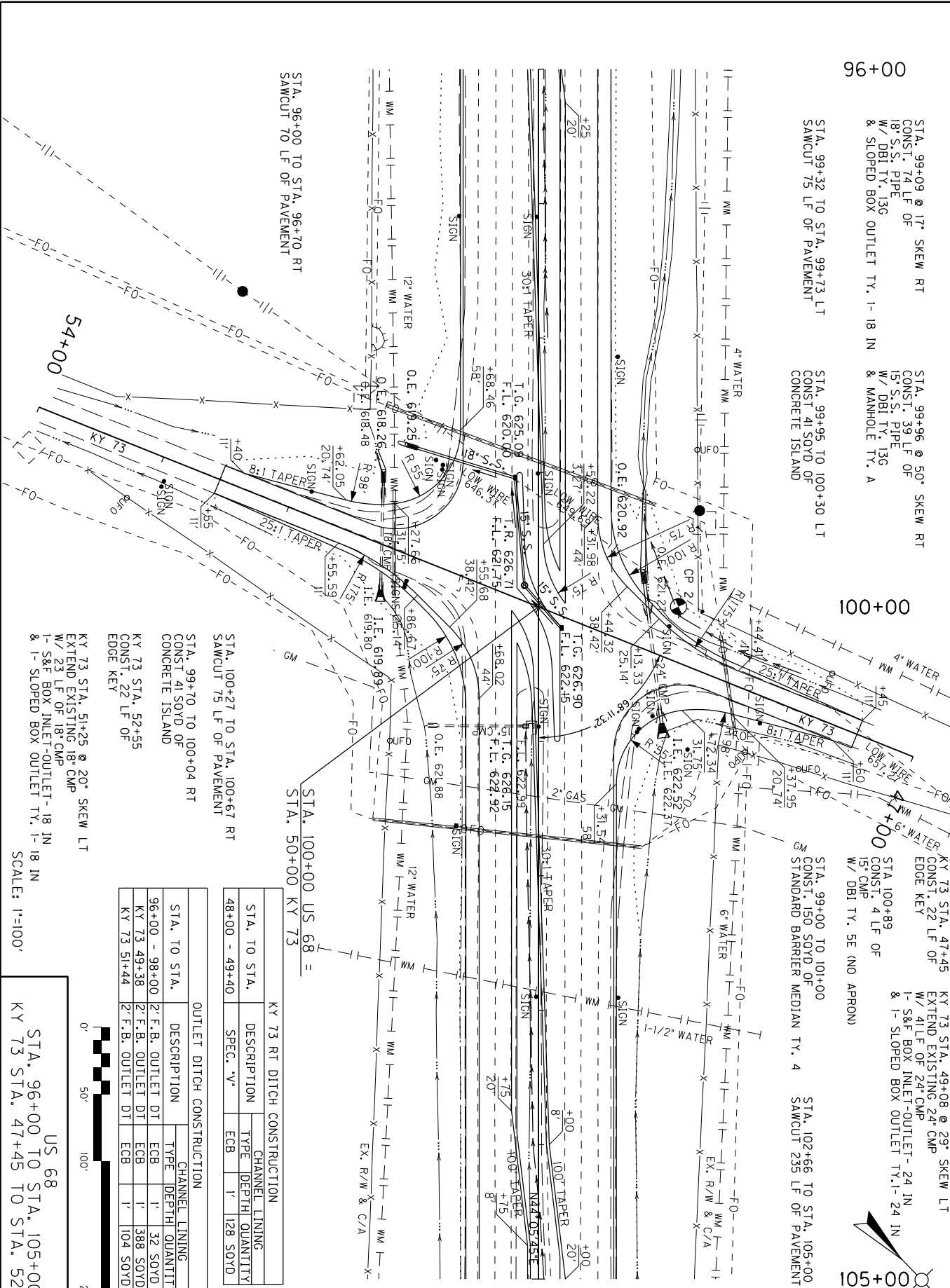
STA. 99+70 TO 100+04 RT  
CONST. 41 SOYD OF  
CONCRETE ISLAND

STA. 99+52+55  
CONST. 22 LF OF  
EDGE KEY

STA. 99+51+25 @ 20° SKEW LT  
EXTEND EXISTING 18" CMP  
W/ 23 LF OF 18" CMP  
1- S&F BOX INLET-OUTLET - 18 IN  
& 1- SLOPED BOX OUTLET TY. 1-18 IN

105+00

STA. 102+66 TO STA. 105+00 LT  
SAWCUT 235 LF OF PAVEMENT



OUTLET DITCH CONSTRUCTION			
STA. TO STA.	DESCRIPTION	CHANNEL LINING	DEPTH QUANTITY
96+00 - 98+00	2' F.B. OUTLET DT	ECB	1' 32 SOYD
KY 73 49+38	2' F.B. OUTLET DT	ECB	1' 388 SOYD
KY 73 51+44	2' F.B. OUTLET DT	ECB	1' 104 SOYD

US 68  
STA. 96+00 TO STA. 105+00  
KY 73 STA. 47+45 TO STA. 52+55



SCALE: 1"=100'

LT DITCH CONSTRUCTION			
STA. TO STA.	DESCRIPTION	CHANNEL LINING TYPE	DEPTH QUANTITY
107+50 - 108+00	SPEC. 'V'	ECB	1' 35 SOYD

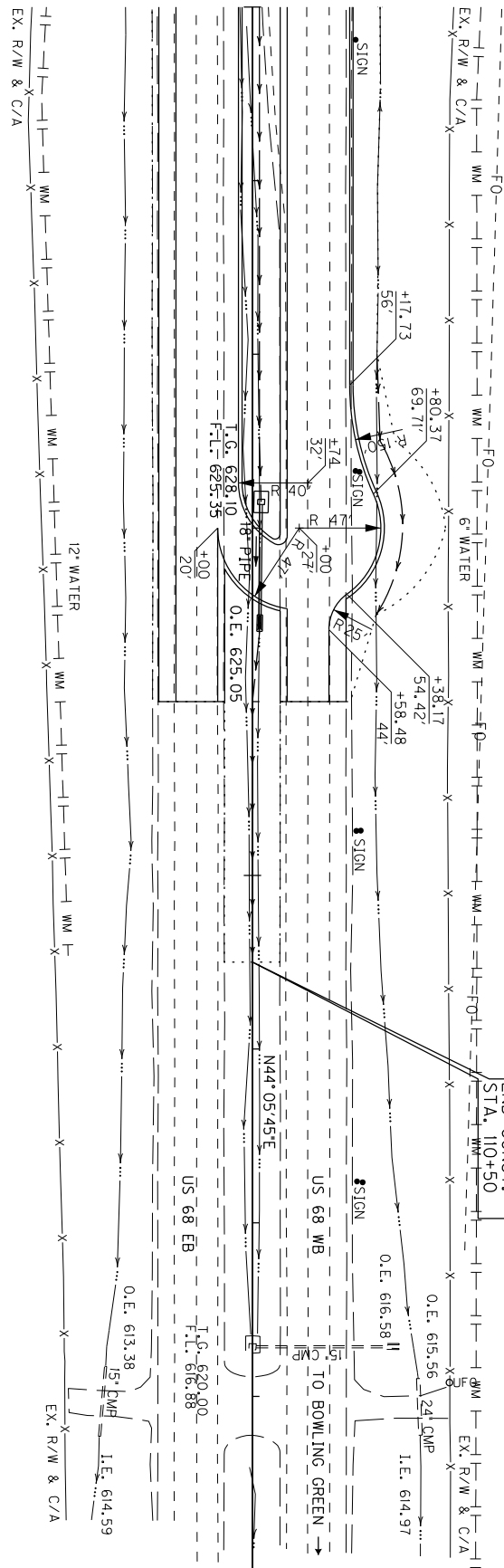
DESCRIPTION	NORTH (Y)	EAST (X)	ELEVATION
P.O.E. STA. 110+50.00	3483757.24	4655474.80	N/A

COUNTY OF	ITEM NO.
LOGAN	3-9017.00

105+00 STA. 105+00 TO STA. 106+35 LT SAWCUT 135 LF OF PAVEMENT

107+50 STA. 107+85 TO STA. 108+50 CONST. 63 LF OF 18" CULVERT PIPE W/ DBI TY. 5C & SLOPED BOX OUTLET TY. 1- 18 IN

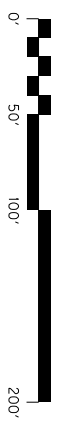
109+00 STA. 109+00 LT CONST. 38 LF OF EDGE KEY



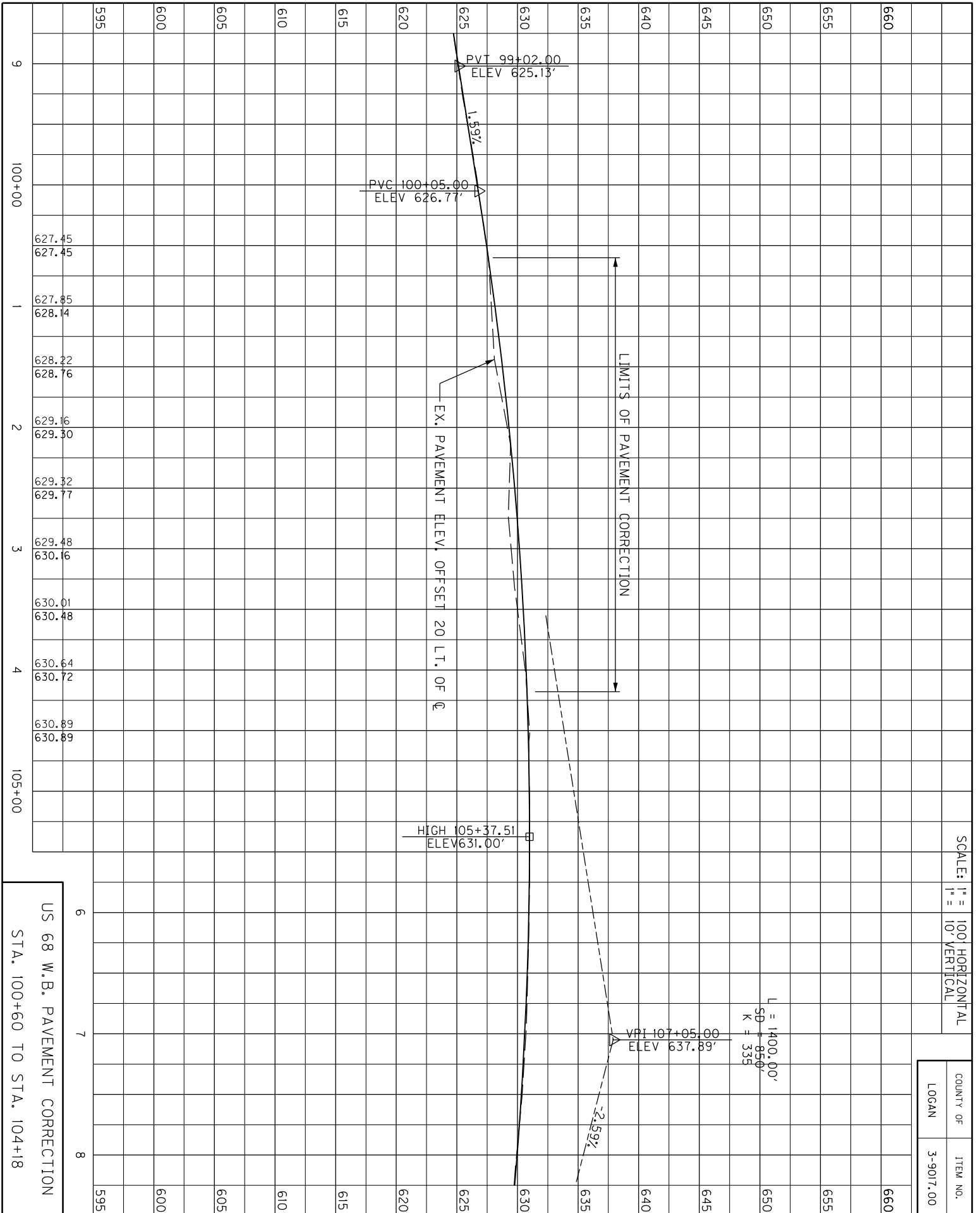
MEDIAN DITCH CONSTRUCTION			
STA. TO STA.	DESCRIPTION	CHANNEL LINING TYPE	DEPTH QUANTITY
106+00 - 107+85	SPEC. 'V'	ECB	1' 210 SOYD
108+60 - 110+50	SPEC. 'V'	ECB	1' 210 SOYD

STA. 109+00 RT  
CONST. 38 LF OF  
EDGE KEY

SCALE: 1"=100'



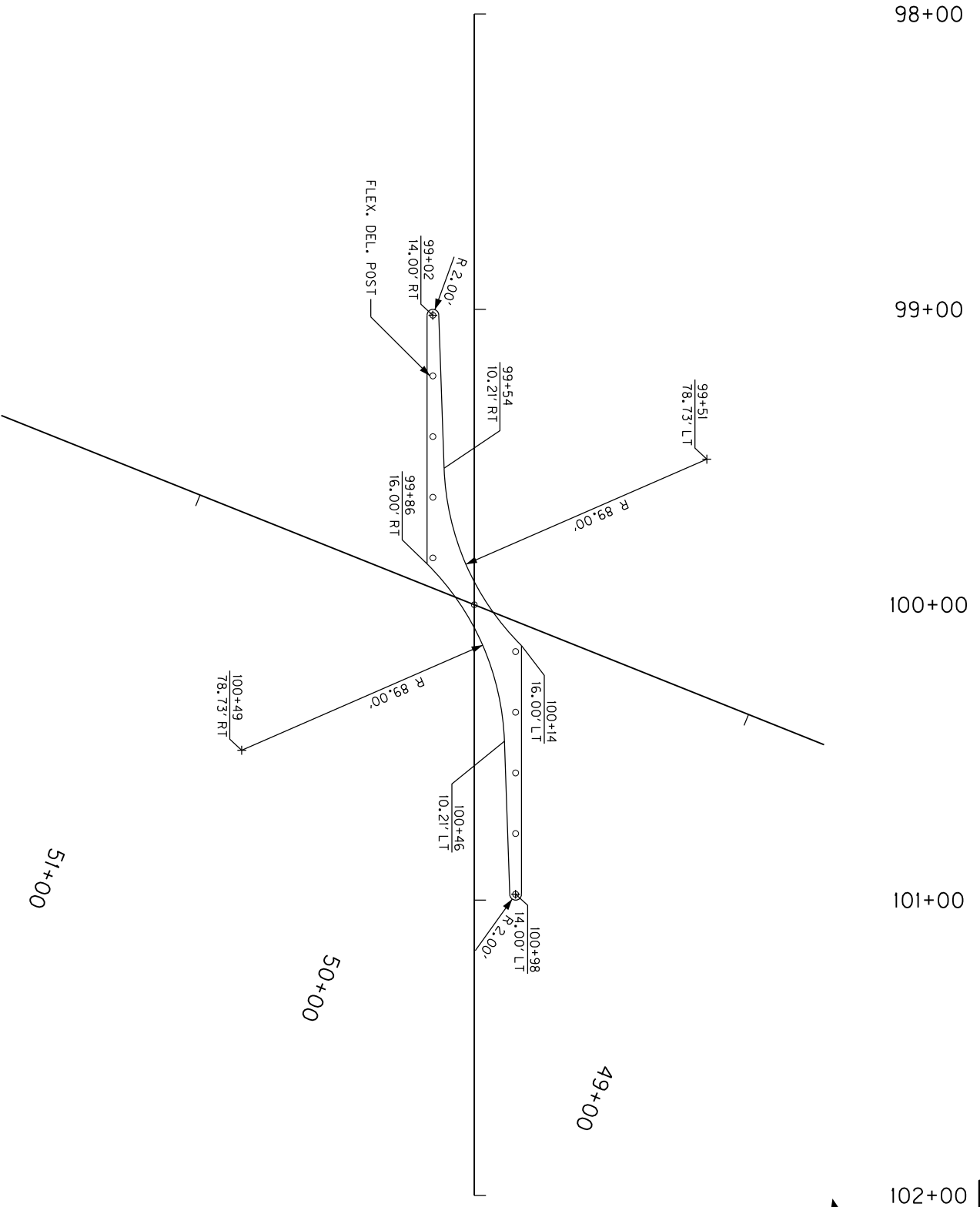
US 68  
STA. 105+00 TO STA. 110+50



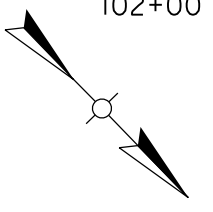
US 68 W.B. PAVEMENT CORRECTION  
STA. 100+60 TO STA. 104+18

EX. PAVEMENT ELEV. OFFSET 20 LT. OF C

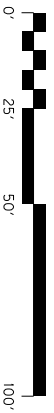
LIMITS OF PAVEMENT CORRECTION



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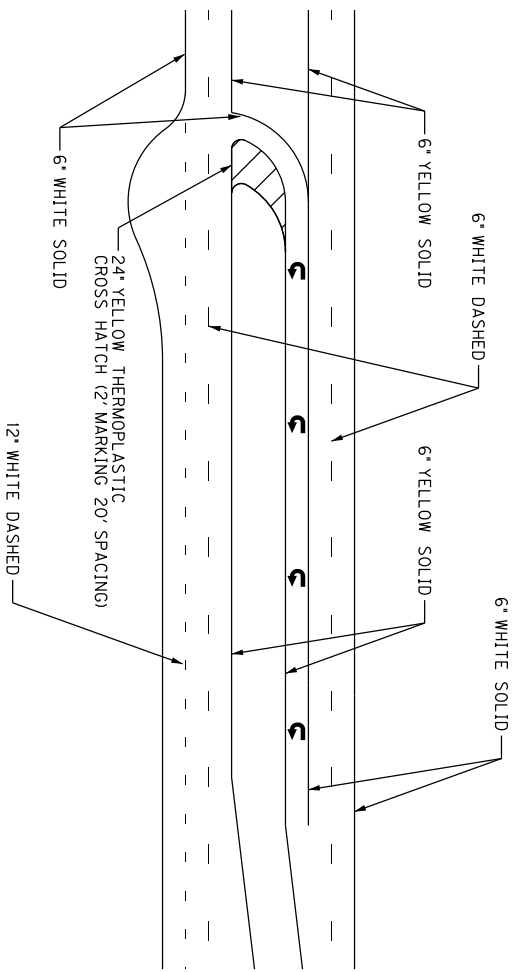
SCALE: 1"=50'



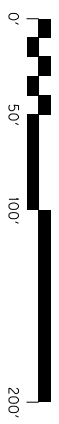
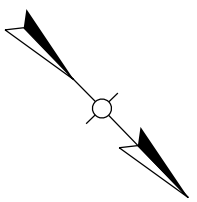
ISLAND DETAIL SHEET

STRIPING QUANTITY SUMMARY	
6" YELLOW SOLID	1,086 LF
6" YELLOW DOUBLE	
6" WHITE SOLID	1,404 LF
6" WHITE DASHED	250 LF
12" WHITE SOLID	
12" WHITE DASHED	115 LF
24" WHITE CROSS HATCH	
24" YELLOW CROSS HATCH	666 SOFT
U-TURN ARROW	4 EA
CURVE ARROW	
TONLY" MARKING	
24" STOP BAR	
INLAID PAVEMENT MARKERS	27 EA
REMOVE PAVEMENT MARKERS	13 EA

QUANTITIES CARRIED OVER TO GENERAL SUMMARY



COUNTY OF	ITEM NO.
LOGAN	3-9017.00

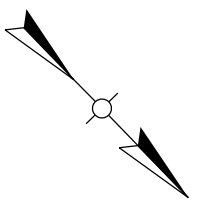
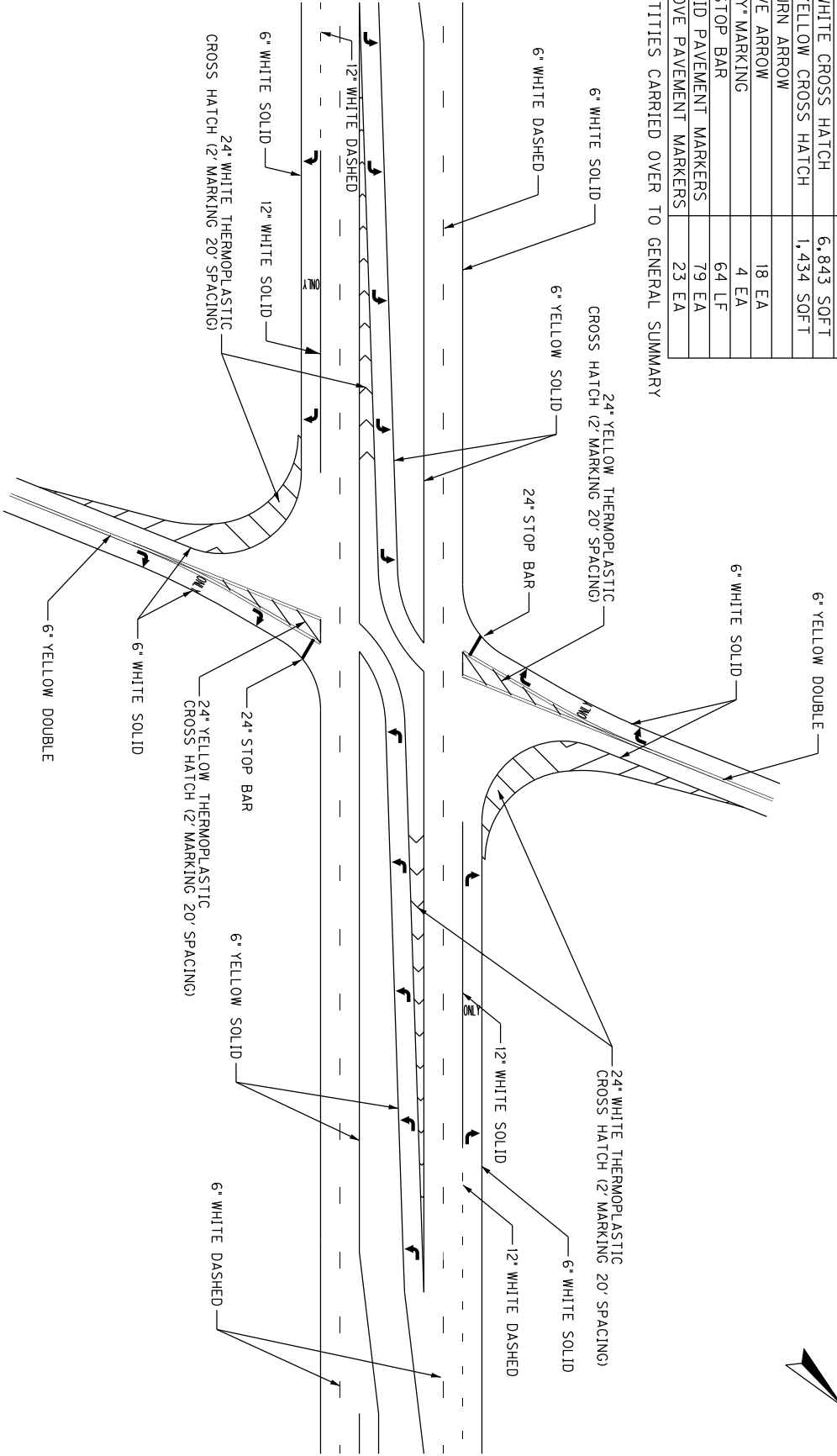


SCALE: 1"=100'

STRIPING PLAN  
STA. 91+00 TO STA. 96+00

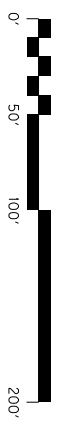
STRIPING QUANTITY SUMMARY	
6" YELLOW SOLID	1,799 LF
6" YELLOW DOUBLE	1,360 LF
6" WHITE SOLID	4,551 LF
6" WHITE DASHED	450 LF
12" WHITE SOLID	400 LF
12" WHITE DASHED	71 LF
24" WHITE CROSS HATCH	6,843 SQFT
24" YELLOW CROSS HATCH	1,434 SQFT
U-TURN ARROW	
CURVE ARROW	18 EA
TONLY MARKING	4 EA
24" STOP BAR	64 LF
INLAID PAVEMENT MARKERS	79 EA
REMOVE PAVEMENT MARKERS	23 EA

QUANTITIES CARRIED OVER TO GENERAL SUMMARY



COUNTY OF	LOGAN	ITEM NO.	3-9017.00
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SCALE: 1"=100'



STRIPING PLAN

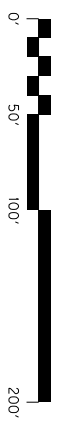
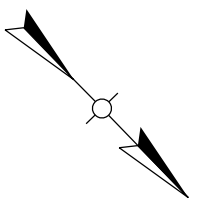
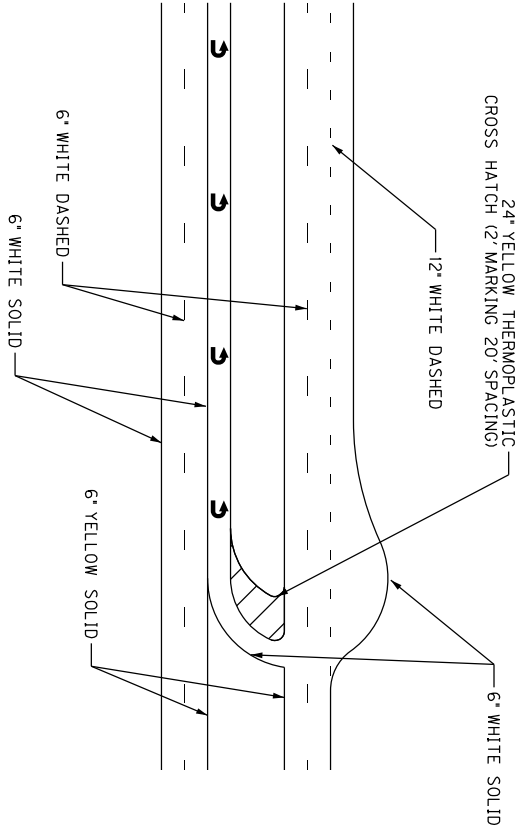
STA. 96+00 TO STA. 105+00

COUNTY OF	LOGAN	ITEM NO.	3-9017.00
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STRIPING QUANTITY SUMMARY

6" YELLOW SOLID	885 LF
6" YELLOW DOUBLE	
6" WHITE SOLID	1,179 LF
6" WHITE DASHED	200 LF
12" WHITE SOLID	
12" WHITE DASHED	90 LF
24" WHITE CROSS HATCH	
24" YELLOW CROSS HATCH	666 SOFT
U-TURN ARROW	4 EA
CURVE ARROW	
TONLY" MARKING	
24" STOP BAR	
INLAID PAVEMENT MARKERS	23 EA
REMOVE PAVEMENT MARKERS	9 EA

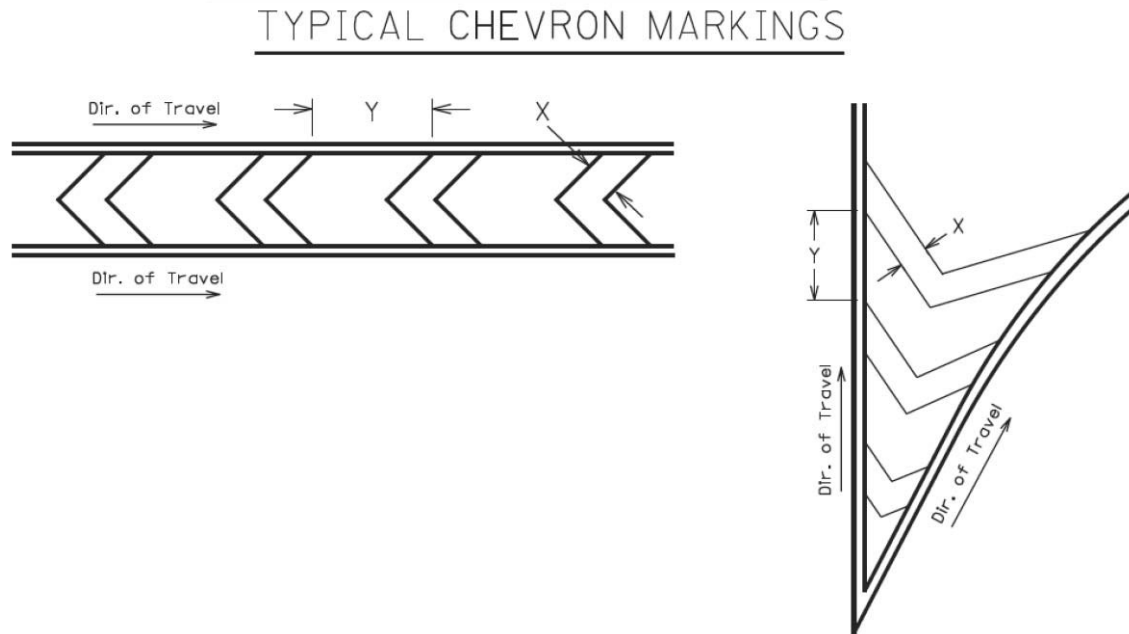
QUANTITIES CARRIED OVER TO GENERAL SUMMARY



STRIPING PLAN

SCALE: 1"=100'  
STA. 105+00 TO STA. 110+50

## CHEVRON PAVEMENT MARKINGS DETAIL



The chevron pavement marking width (X) and spacing (Y) will usually be specified in the plans. The width to spacing values usually have a ratio of 1:10. If the plans do not specify the width (X) and spacing (Y) the Engineer will provide the contractor with the X and Y values for each chevron installation. If necessary, the Engineer may obtain guidance from the District Traffic Engineer and/or the Division of Traffic Operations.

NOTE: Adjust the width and spacing of the chevron pavement markings as necessary so that a minimum of three (3) chevron markings are placed within the area being marked. The 1:10 ratio between width and spacing values should be maintained as much as possible.

Refer to Section 717 of the Standard Specifications for Road and Bridge Construction, current edition, for more information concerning Material and Construction specifications.

The Department will measure the finished in-place area of Chevron Pavement Markings in Square Feet. The Department will NOT measure overlaps or the void space between the chevrons. See Section 717.04 for additional measurement information.

When listed as a bid item, the Department will make payment for the completed and accepted quantities of Chevron Pavement Markings under the following:

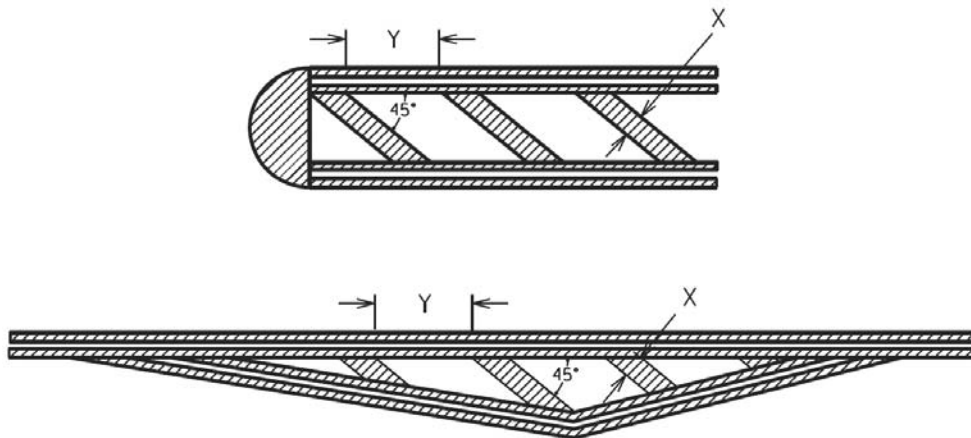
<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
24679ED	Pave Mark Thermo Chevron	Square Foot



## CROSS-HATCH PAVEMENT MARKINGS DETAIL

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### TYPICAL CROSS-HATCH MARKINGS



The cross-hatch pavement marking width (X) and spacing (Y) will usually be specified in the plans. The width to spacing values usually have a ratio of 1:10. If the plans do not specify the width (X) and spacing (Y) the Engineer will provide the contractor with the X and Y values for each cross-hatch installation. If necessary, the Engineer may obtain guidance from the District Traffic Engineer and/or the Division of Traffic Operations.

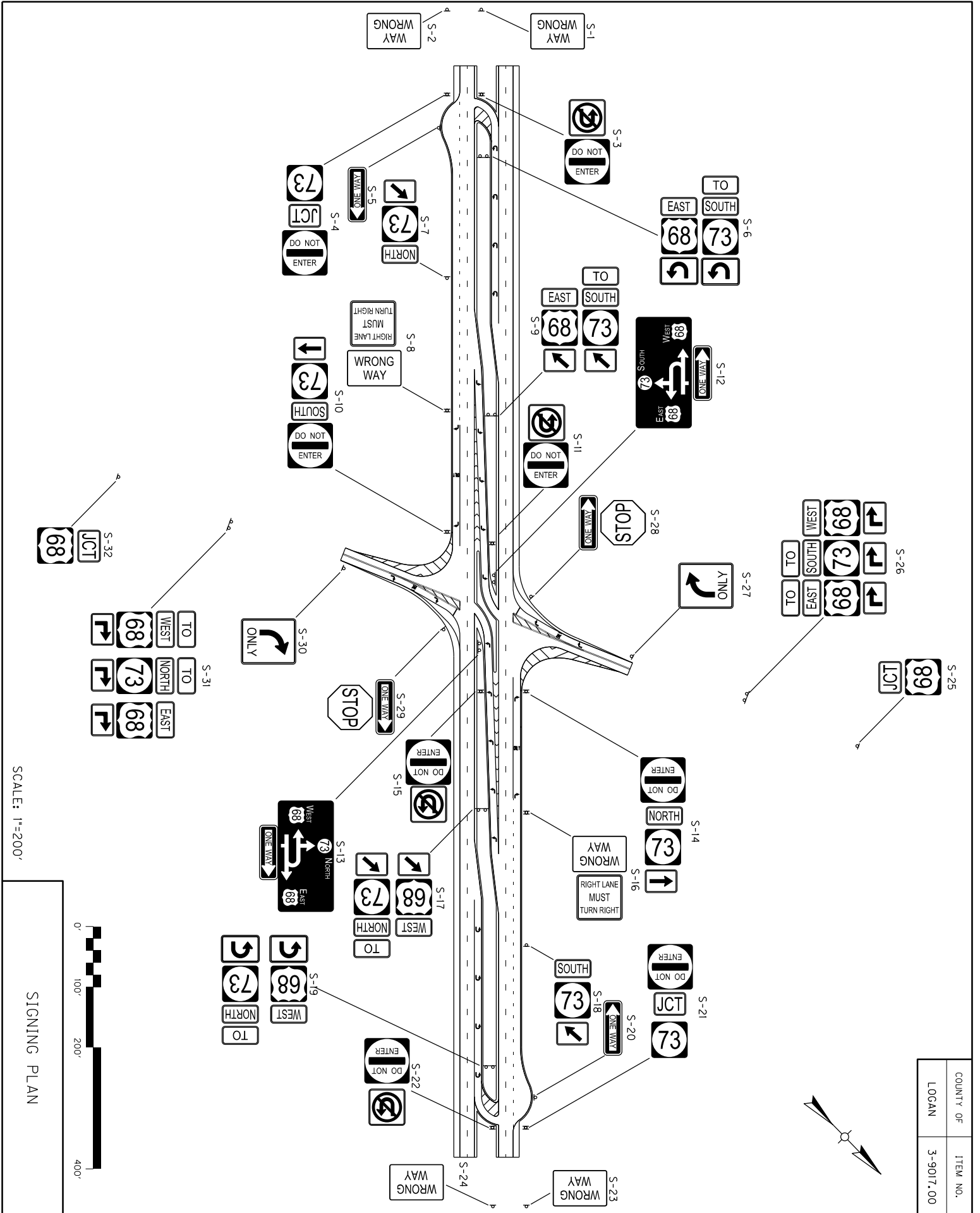
NOTE: Adjust the width and spacing of the cross-hatch pavement markings as necessary so that a minimum of three (3) cross-hatch markings are placed within the area being marked. The 1:10 ratio between width and spacing values should be maintained as much as possible.

Refer to Section 717 of the Standard Specifications for Road and Bridge Construction, current edition, for more information concerning Material and Construction specifications.

The Department will measure the finished in-place area of Cross-Hatch Pavement Markings in Square Feet. The Department will NOT measure overlaps or the void space between cross-hatching. See Section 717.04 for additional measurement information.

When listed in the bid items, the Department will make payment for the completed and accepted quantities of Cross-Hatch Pavement Markings under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
06569	Pave Marking-Thermo Cross-Hatch	Square Foot
23253ES717	Pave Mark TY 1 Tape Cross Hatch	Square Foot



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LOGAN	3-9017.00

SCALE: 1"=200'

SIGNING PLAN

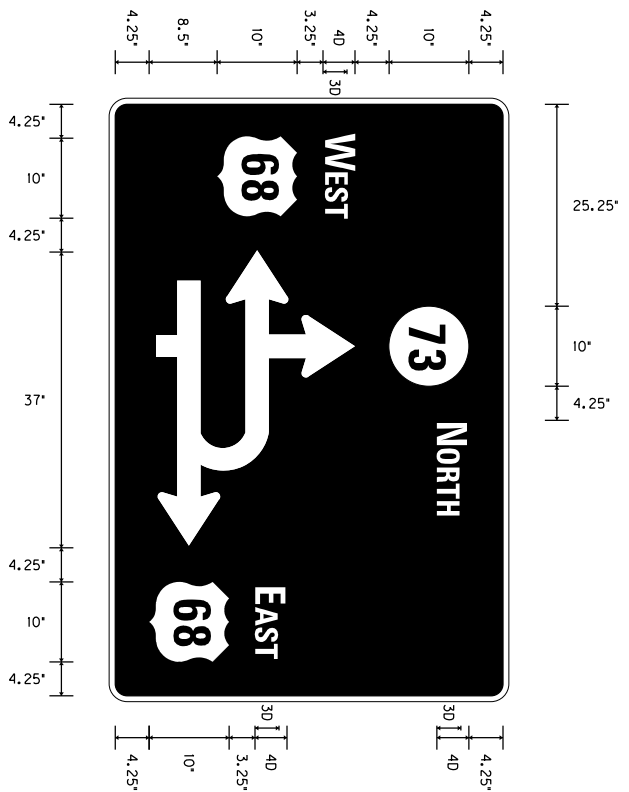
Assembly ID	Side of Road	SIGN LOCATION			Fading Traffic Traveling	MUTCD Code	Sign Description	Sign Text / Remarks	Sign Dimensions (in x in)	SHEETING			SMB Alum Sheet Signs (SQ FT)	SMB Alum Sheet Signs (SQ FT)	Installation Type	Bracing Req'd	# of Sign Posts	Estimated Length of 2" Post (ft)	Estimated Length of 2-1/2" Post (ft)	Stiffener Req'd (incent to post)	TOTAL Estimated Sign Post Length (LF)	Barcode Sign Inv. (EACH)
		Approx Station	Approx Offset (ft)	Approx. Mile Point						Sheet Signs 0.080 IN	Sheet Signs 0.125 IN	Sheeting Type										
1	MD		90+10	1.706	WB	R5-1a	Wrong Way		36 x 24	White	Red	IX	6.00		Std w/ Soil Plate		1	10			10	1
						R5-1a	Wrong Way		36 x 24	White	Red	IX	6.00		Std w/ Soil Plate		1	10				
2	RT		90+10	1.706	WB	R5-1a	Wrong Way		36 x 24	White	Red	IX	6.00		Std w/ Soil Plate		1	10			10	1
						R3-4	No U-Turn		36 x 36	Red & Black	White	III or IV	9.00		Std w/ Soil Plate		1	11				11
3	MD		91+50	1.733	WB	R5-1	Do Not Enter		30 x 36	White	Red	IX	9.00		Std w/ Soil Plate		1	11			11	2
						M2-1	Junction		36 x 21	Black	White	III or IV	4.38									
4	RT		91+50	1.733	WB	M1-5	State Route Sign (1 or 2 digit)	"73"	36 x 36	Black	White	III or IV	9.00		Type D		1	13			13	3
						R5-1	Do Not Enter		36 x 36	White	Red	IX	9.00		Std w/ Soil Plate		1	10				10
5	RT		92+00	1.742	SB	R6-1L	One Way		54 x 18	Black	White	III or IV	4.50				1	10			10	1
						M3-2	East		36 x 18	Black	White	III or IV	4.50									
6	MD		92+20	1.746	WB	M6-3	US Route Sign (1 or 2 digit)	"68"	36 x 36	Black	White	III or IV	9.00		Type D	Yes	1	16			16	7
						M6-3	Straight Arrow	(U-Turn)	30 x 21	Black	White	III or IV	4.38									
7	RT		94+50	1.790	EB	M1-5	State Route Sign (1 or 2 digit)	"73"	36 x 36	Black	White	III or IV	9.00		Type D		1	16			16	3
						M6-2L	Upward Left Diagonal Arrow		30 x 21	Black	White	III or IV	4.38									
8	RT		96+70	1.831	WB	R3-7R	Right Lane Must Turn Right		36 x 36	Black	White	III or IV	9.00		Std w/ Soil Plate		1	11			11	2
						R5-1A	Wrong Way		36 x 24	White	Red	IX	6.00									
9	MD		96+75	1.832	WB	M3-2	East		36 x 18	Black	White	III or IV	4.50								4.50	7
						M1-4	US Route sign (1 or 2 digit)	"68"	36 x 36	Black	White	III or IV	9.00		Type D	Yes	1	16			16	16
10	RT		98+70	1.869	EB	M6-2L	Upward left Diagonal Arrow		30 x 21	Black	White	III or IV	4.38								4.38	4
						M4-5	To South		36 x 18	Black	White	III or IV	4.50									
11	MD		98+90	1.873	WB	M1-5	State Route Sign (1 or 2 digit)	"73"	36 x 36	Black	White	III or IV	9.00		Type D		1	16			16	4
						M6-1R	Right Arrow		30 x 21	Black	White	III or IV	4.38									
12	MD		99+50	1.884	SB	R3-4	No U-Turn		36 x 36	Red & Black	White	III or IV	9.00		Std w/ Soil Plate		1	11			11	2
						D1-5	Custom Destination	(See detail sheet)	75.5 x 50	White	Green	III or IV	26.20		Type D	Yes	2	11			11	22
13	MD		100+50	1.903	NB	R6-1R	One Way	(attached to panel sign)	54 x 18	Black	White	III or IV	6.75		Type D	Yes	2	11			11	2
						D1-5	Custom Destination	(See detail sheet)	75.5 x 50	White	Green	III or IV	26.20									

Assembly ID	Side of Road	Approx Offset (ft)	Approx Station	Approx. Mile Point	SIGN LOCATION		Fading Traffic Traveling	MUTCD Code	Sign Description	Sign Text / Remarks	Sign Dimensions (in x in)	SHEETING			SMM Alum Sheet Signs 0.080 IN (SQ FT)	SBM Alum Sheet Signs 0.125 IN (SQ FT)	Installation Type	Bracing Req'd	# of Sign Posts	Estimated Length of 2" Post (ft)	Estimated Length of 2-1/2" Post (ft)	Stiffener Req'd (incent to post)	TOTAL Estimated Sign Post Length (LF)	Barcode Sign Inv. (EACH)
					Text/ Symbol Color	Background Color						Sheeting Type												
					Code	Sign Description						Sign Text / Remarks												
14	LT		101+30	1,919	WB	R5-1	Do Not Enter	North	"73"	36 x 36	White	Red	IX	9.00		Snd w/ Soil Plate		1	11	16	Yes	16	11	4
											Black	White	III or IV	4.50										
											Black	White	III or IV	9.00										
											Black	White	III or IV	4.38										
											Red & Black	White	III or IV	9.00										
											White	Red	IX	9.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
15	MD		101+30	1,919	WB	R5-1	Do Not Enter	North	"73"	36 x 36	White	Red	IX	9.00		Snd w/ Soil Plate		1	11	16	Yes	16	11	4
											Black	White	III or IV	4.50										
											Black	White	III or IV	9.00										
											Red & Black	White	III or IV	9.00										
											White	Red	IX	9.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
16	LT		103+30	1,956	WB	R3-7R	Right Lane Must-Turn Right	West	"68"	36 x 36	Black	White	III or IV	4.50		Snd w/ Soil Plate		1	11	16	Yes	16	11	4
											Black	White	III or IV	4.50										
											Black	White	III or IV	9.00										
											Black	White	III or IV	4.38										
											White	Red	IX	9.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
17	MD		103+30	1,956	EB	M3-1	Upward Left Diagonal Arrow	North	"73"	36 x 36	Black	White	III or IV	4.50		Type D	Yes	1	17	Yes	16	17	4	
											Black	White	III or IV	4.50										
											Black	White	III or IV	9.00										
											Black	White	III or IV	4.38										
											White	Red	IX	9.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
18	LT		105+50	1,998	WB	M3-3	State Route Sign (1 or 2 digit)	South	"73"	36 x 36	Black	White	III or IV	4.50		Type D	Yes	1	16	Yes	16	16	3	
											Black	White	III or IV	4.50										
											Black	White	III or IV	9.00										
											Black	White	III or IV	4.38										
											White	Red	IX	9.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
19	MD		107+50	2,036	EB	M1-5	State Route Sign (1 or 2 digit)	North	"73"	36 x 36	Black	White	III or IV	4.50		Type D	Yes	1	17	Yes	17	17	4	
											Black	White	III or IV	4.50										
											Black	White	III or IV	9.00										
											Black	White	III or IV	4.38										
											White	Red	IX	9.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
20	LT		108+00	2,045	NB	M6-3	Straight Arrow	(U-Turn)	"73"	30 x 21	Black	White	III or IV	4.38		Snd w/ Soil Plate		1	10				10	1
											Black	White	III or IV	4.38										
											Black	White	III or IV	9.00										
											Black	White	III or IV	4.38										
											White	Red	IX	9.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
21	LT		108+50	2,055	WB	M2-1	Junction	"73"	"73"	36 x 36	Black	White	III or IV	4.38		Type D		1	13				13	3
											Black	White	III or IV	4.38										
											Black	White	III or IV	9.00										
											Black	White	III or IV	4.38										
											White	Red	IX	9.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
22	MD		108+50	2,055	EB	R5-1	Do Not Enter	North	"73"	36 x 36	White	Red	IX	9.00		Snd w/ Soil Plate		1	11				11	2
											White	Red	IX	9.00										
											White	Red	IX	9.00										
											White	Red	IX	9.00										
											White	Red	IX	9.00										
											White	Red	IX	9.00										
											White	Red	IX	9.00										
											White	Red	IX	9.00										
											White	Red	IX	9.00										
											White	Red	IX	9.00										
23	LT		109+80	2,080	EB	R3-4	No U-Turn	North	"73"	36 x 36	Red & Black	White	III or IV	9.00		Snd w/ Soil Plate		1	10				10	1
											Red & Black	White	III or IV	9.00										
											Red & Black	White	III or IV	9.00										
											Red & Black	White	III or IV	9.00										
											Red & Black	White	III or IV	9.00										
											Red & Black	White	III or IV	9.00										
											Red & Black	White	III or IV	9.00										
											Red & Black	White	III or IV	9.00										
											Red & Black	White	III or IV	9.00										
											Red & Black	White	III or IV	9.00										
24	MD		109+80	2,080	EB	R5-1A	Wrong Way	North	"73"	36 x 24	White	Red	IX	6.00		Snd w/ Soil Plate		1	10				10	1
											White	Red	IX	6.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
											White	Red	IX	6.00										
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											White	Red	IX	6.00										
											White	Red	IX	6.00										

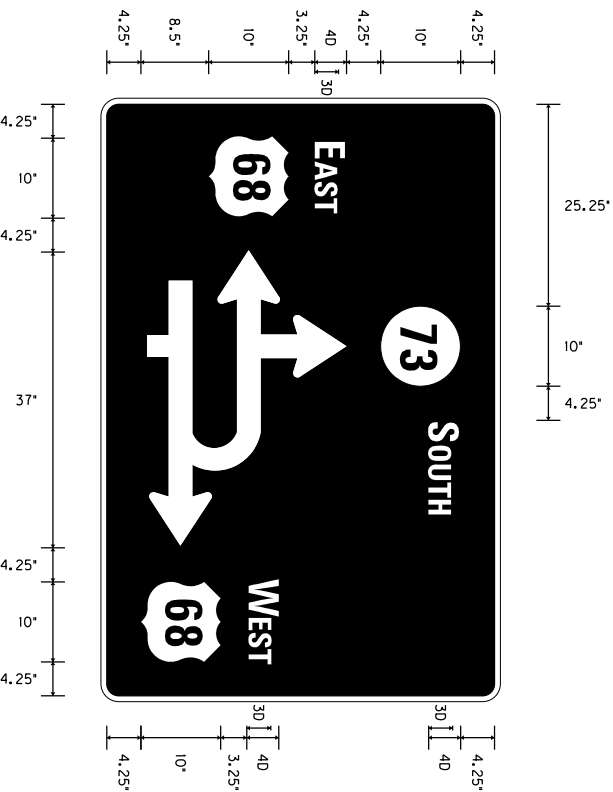
Assembly ID	Side of Road	SIGN LOCATION			Fading Traffic Traveling	MUTCD Code	Sign Description	Sign Text / Remarks	Sign Dimensions (in x in)	SHEETING			SMB Alum Sheet Signs 0.080 IN (SQ FT)	SBM Alum Sheet Signs 0.125 IN (SQ FT)	Installation Type	Bracing Req'd	# of Sign Posts	Estimated Length of 2" Post (ft)	Estimated Length of 2-1/2" Post (ft)	2-1/4" Stiffener Req'd (incent to post)	TOTAL Estimated Sign Post Length (LF)	Barcode Sign Inv. (EACH)			
		Approx Station	Approx Offset (ft)	Approx. Mile Point						Text/ Symbol Color	Background Color	Sheeting Type													
25	RT				N/A	M1-4	US Route Sign (1 or 2 digit)	"68"	24 x 24	Black	White	III or IV	4.00		Std w/ Soil Plate		1	12				12	2		
										M2-1	Junction	Black												White	III or IV
										M4-5	To	Black												White	III or IV
										M3-2	East	Black												White	III or IV
										M1-4	US Route Sign (1 or 2 digit)	Black												White	III or IV
26	RT				N/A	M1-5	State Route Sign (1 or 2 digit)	"73"	24 x 24	Black	White	III or IV	4.00		Type D	Yes	1	17	Yes	17	11	11			
										M5-1R	Advance Right Turn Arrow	Black											White	III or IV	
										M3-3	South	Black											White	III or IV	
										M4-5	To	Black											White	III or IV	
										M5-1R	Advance Right Turn Arrow	Black											White	III or IV	
										M3-4	West	Black											White	III or IV	
										M1-4	US Route Sign (1 or 2 digit)	Black											White	III or IV	
										M5-1R	Advance Right Turn Arrow	Black											White	III or IV	
										M3-5R	Right Turn ONLY	Black											White	III or IV	
										R6-1R	One Way	Black											White	IX	
										R6-1R	One Way	Black											White	IX	
27	RT				0.900	M5-1R	Advance Right Turn Arrow	"68"	21 x 15	Black	White	III or IV	2.19	Std w/ Soil Plate		1	11				11	1			
										M3-5R	Right Turn ONLY	Black											White	III or IV	
28	RT				0.936	R6-1R	One Way	"68"	30 x 36	Black	White	III or IV	7.50	Std w/ Soil Plate		1	14				14	2			
										R6-1R	One Way	Black											White	IX	
29	LT				0.957	R6-1R	One Way	"68"	36 x 36	Black	White	III or IV	3.00	Type D		1	14				14	2			
										R6-1R	One Way	Black											White	IX	
30	LT				0.993	R3-5R	Right Turn ONLY	"68"	30 x 36	Black	White	III or IV	7.50	Std w/ Soil Plate		1	11				11	1			
										M4-5	To	Black											White	III or IV	
31	LT				N/A	M1-5	State Route Sign (1 or 2 digit)	"73"	24 x 24	Black	White	III or IV	4.00		Type D	Yes	1	17	Yes	17	11	11	11		
										M3-1	North	Black												White	III or IV
										M4-5	To	Black												White	III or IV
										M5-1R	Advance Right Turn Arrow	Black												White	III or IV
										M3-2	East	Black												White	III or IV
										M1-4	US Route Sign (1 or 2 digit)	Black												White	III or IV
										M5-1R	Advance Right Turn Arrow	Black												White	III or IV
										M3-1	North	Black												White	III or IV
										M4-5	To	Black												White	III or IV
										M5-1R	Advance Right Turn Arrow	Black												White	III or IV
										M3-2	East	Black												White	III or IV
32	LT				N/A	M2-1	Junction	"68"	21 x 15	Black	White	III or IV	2.19	Std w/ Soil Plate		1	12				12	2			
										M1-4	US Route Sign (1 or 2 digit)	Black											White	III or IV	

Summary of Items			
SBM Alum Sheet Signs 0.080 INCH	529.75	SQ FT	
SBM Alum Sheet Signs 0.125 INCH	79.40	SQ FT	
Barcode Sign Inventory	102	EACH	

Summary of Items			
Steel Post - Type 1	533	LF	
GMSS Type D (Surface Mount)	23	EACH	
GMSS Type D (Surface Mount)	0	EACH	
Class A Concrete for Signs	5.75	CU YD	



SIGN INFORMATION	
QUANTITY	1
WIDTH	6'-3.5"
HEIGHT	4'-2"
AREA (Sq. Ft.)	26.2 SQ. FT.
BORDER WIDTH	0.75"
BORDER RADIUS	2.25"
PANEL COLOR	GREEN
LEGEND/BORDER COLOR	WHITE
PANEL MATERIAL	REFLECTIVE
LEGEND MATERIAL	REFLECTIVE
SUPPORT INFORMATION	
SUPPORT TYPE	D
MOUNTING STYLE	TY, 1 - 2.5" - 12 GA.
BEAM/POST LENGTH	1. = 11'-0"
BEAM/POST LENGTH	2. = 11'-0"
CONC *C* =	1'-6"
CONC *P* =	3'-6"
	0.5 CU YDS.

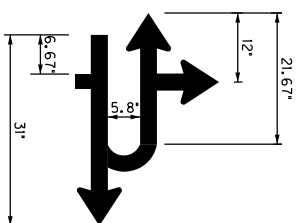


SIGN INFORMATION	
QUANTITY	1
WIDTH	6'-3.5"
HEIGHT	4'-2"
AREA (Sq. Ft.)	26.2 SQ. FT.
BORDER WIDTH	0.75"
BORDER RADIUS	2.25"
PANEL COLOR	GREEN
LEGEND/BORDER COLOR	WHITE
PANEL MATERIAL	REFLECTIVE
LEGEND MATERIAL	REFLECTIVE
SUPPORT INFORMATION	
SUPPORT TYPE	D
MOUNTING STYLE	TY, 1 - 2.5" - 12 GA.
BEAM/POST LENGTH	1. = 11'-0"
BEAM/POST LENGTH	2. = 11'-0"
CONC *C* =	1'-6"
CONC *P* =	3'-6"
	0.5 CU YDS.

COUNTY OF	LOGAN	ITEM NO.	3-9017.00
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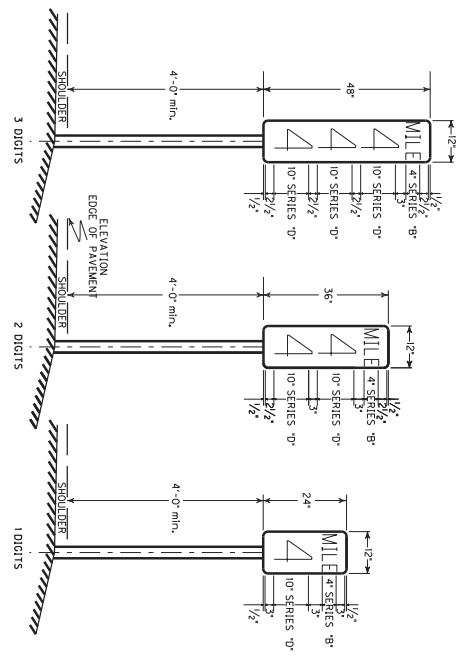
GENERAL NOTES:  
 ROUTE SHIELDS:  
 10" HEIGHT  
 DIRECTIONS:  
 4" FIRST LETTER  
 3" REST OF LETTERS  
 ARROW SHAFTS:  
 2.75"  
 ARROW HEAD WIDTHS:  
 0.125 SBM ALUM SHEET  
 BRACING REQUIRED AND  
 INCIDENTAL TO STEEL POST

ARROW GRAPHIC DETAIL:



SIGN DETAIL SHEET

### MILEPOST MARKERS



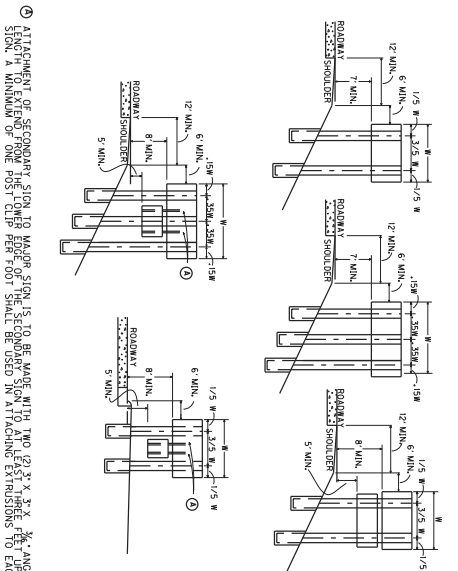
TYPICAL SIGN PANEL DIMENSIONS  
AND MILEPOST LOCATIONS

MILE POST NUMBER	STATION NUMBER * — ROUND LANE (S)	MILE POST NUMBER	STATION NUMBER * — ROUND LANE (S)

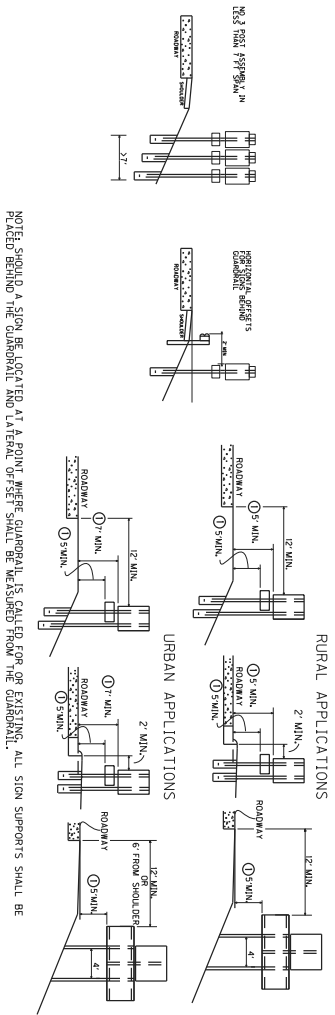
NOTE: STATION NUMBERS ARE GIVEN FOR NOTED DIRECTION OF TRAVEL ONLY. CORRESPONDING MILEPOST MARKERS FOR OTHER DIRECTION SHOULD BE PLACED DIRECTLY OPPOSITE THOSE FOR WHICH STATION NUMBERS ARE GIVEN. IN JEFFERSON COUNTY, FINAL LOCATION OF MILEPOST MARKERS SHALL BE VERIFIED BY TRIANG. NOTIFY TRIANG. AT LEAST TWO WEEKS PRIOR TO BEGINNING WORK ON THIS ITEM.

901 WEST MAIN STREET  
LOUISVILLE, KY 40202  
270-507-7456

### PANEL SIGNS



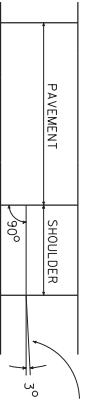
SHEETING SIGNS



NOTE: SHOULD A SIGN BE LOCATED AT A POINT WHERE GUARDRAIL IS CALLED FOR OR EXISTING, ALL SIGN SUPPORTS SHALL BE PLACED BEHIND THE GUARDRAIL AND LATERAL OFFSET SHALL BE MEASURED FROM THE GUARDRAIL.

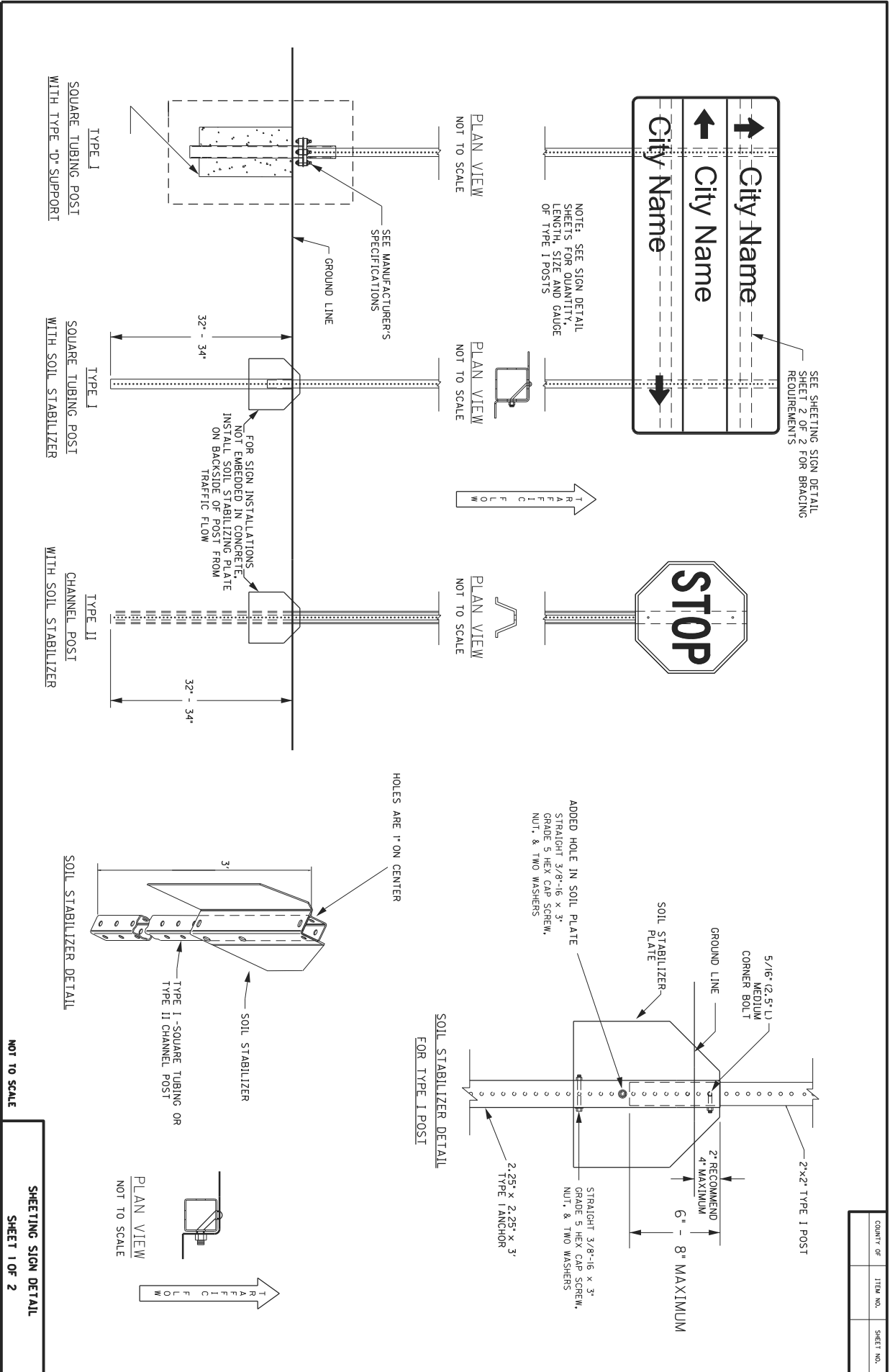
Ⓞ NOT TO EXCEED 8' IN URBAN AREAS AND 6' IN RURAL AREAS UNLESS SPECIFIED BY THE ENGINEER

### ORIENTATION ANGLE



SIGNING POSITIONING DETAIL SHEET

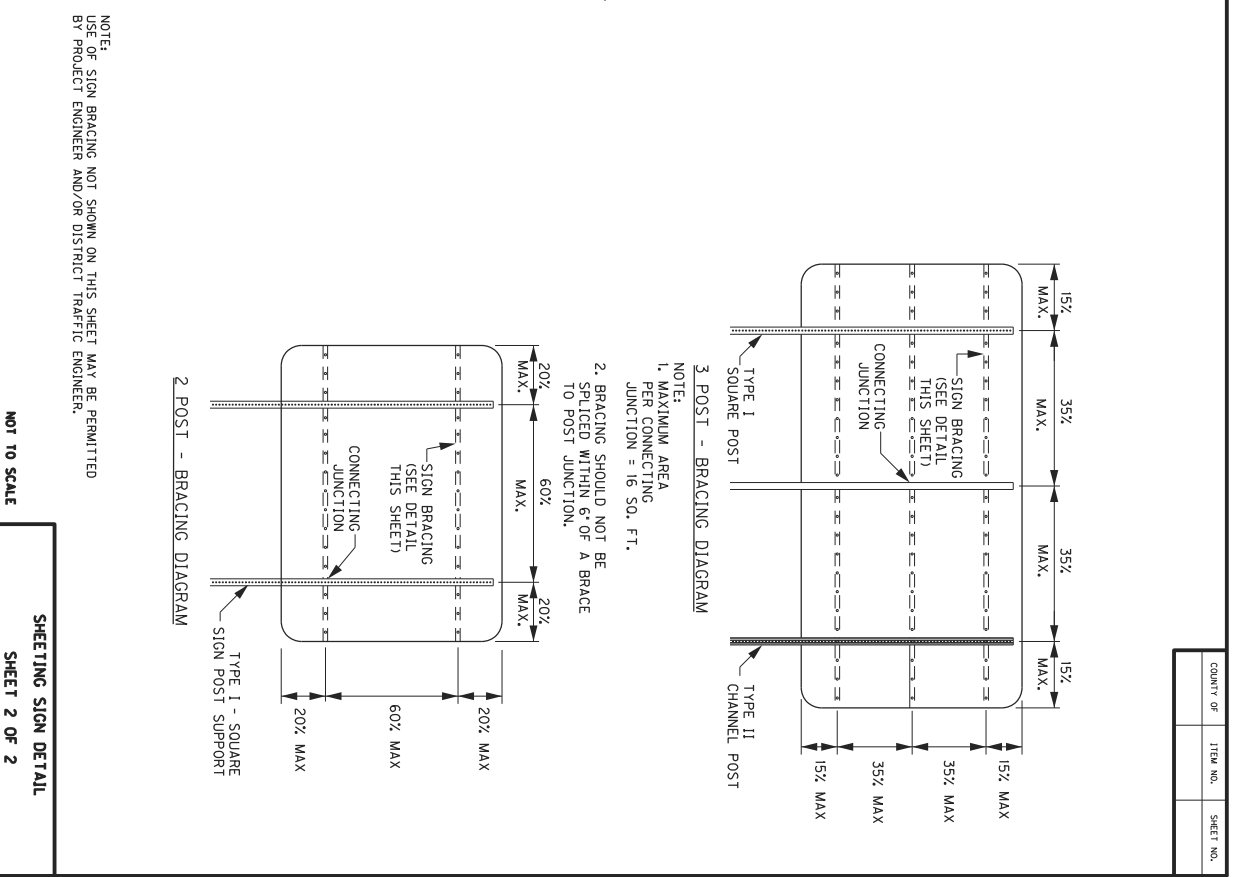
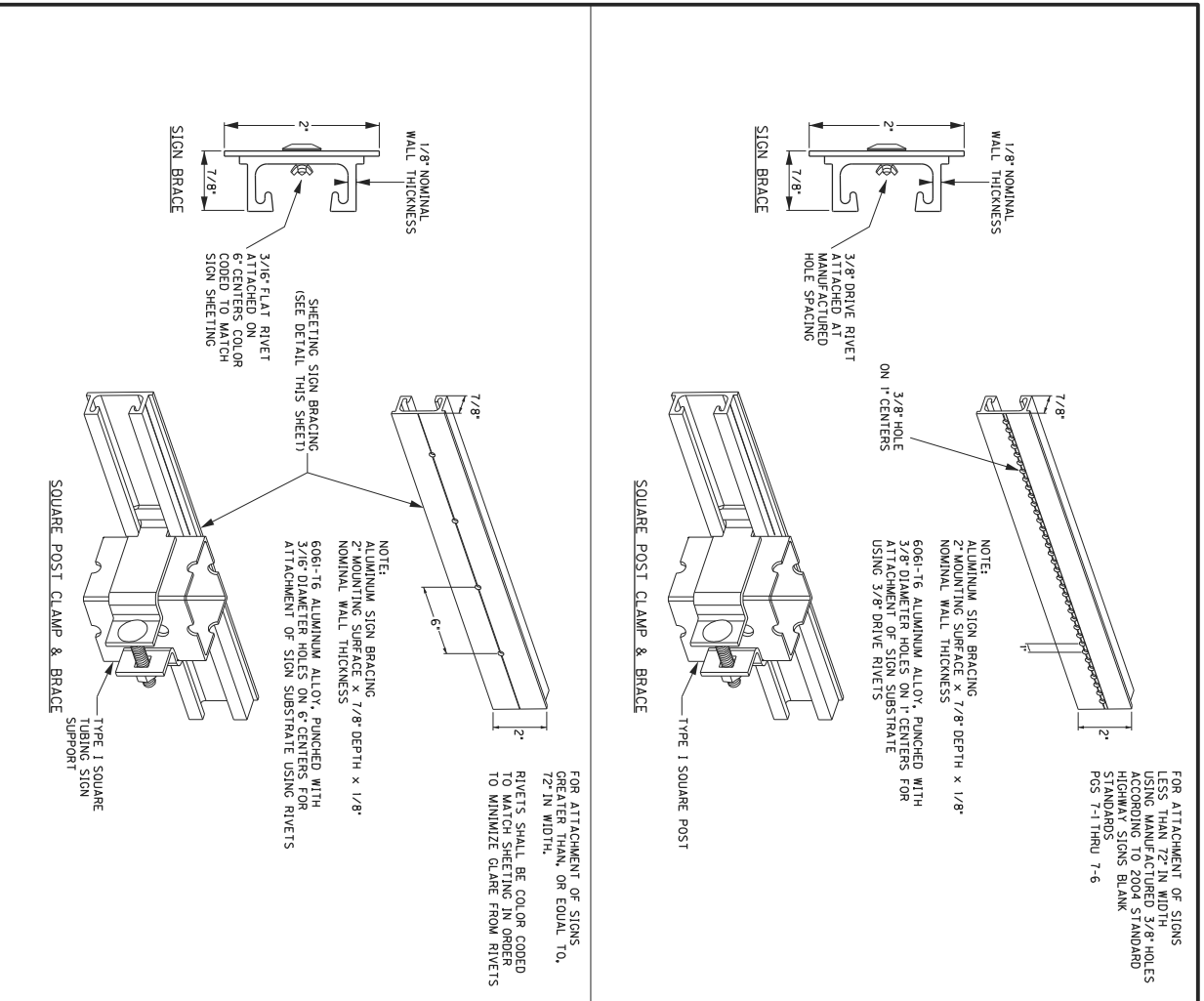
COUNTY OF	ITEM NO.	SHEET NO.
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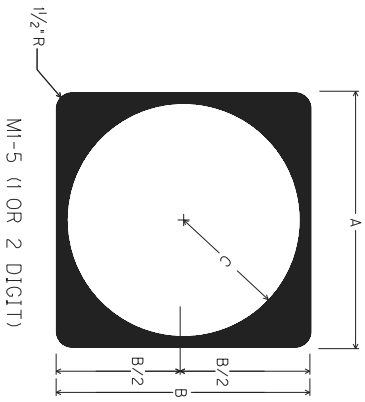
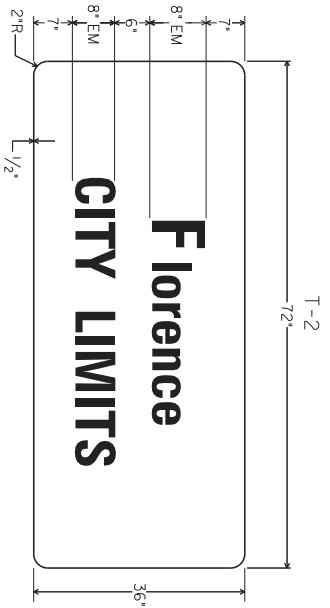
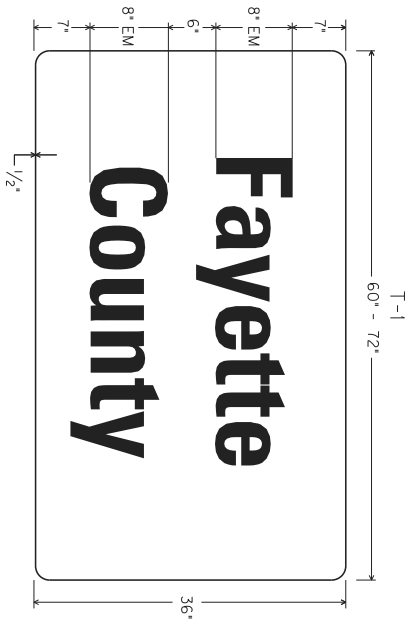
COUNTY OF	ITEM NO.	SHEET NO.

**SHEETING SIGN DETAIL**  
**SHEET 1 OF 2**

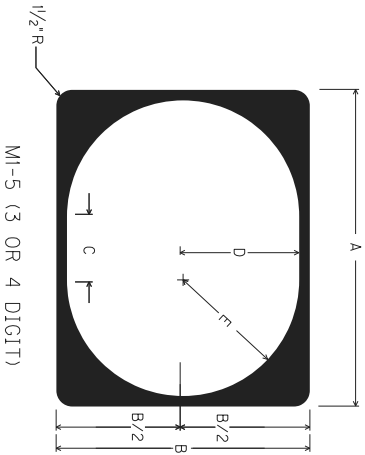




COUNTY OF	ITEM NO.	SHEET NO.



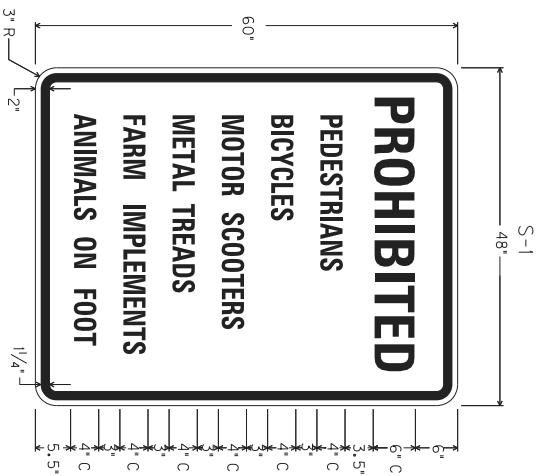
	A	B	C	FONT
CONVENTIONAL	24"	24"	11"	12D
EXPRESSWAY/ FREEWAY	36"	36"	17"	18D



	A	B	C	D	E	FONT	
						3 DIGIT	4 DIGIT
CONVENTIONAL	30"	24"	6"	11"	11"	12D	12B
EXPRESSWAY/ FREEWAY	45"	36"	9"	16.5"	16.5"	18D	18B




NOTE: FOR ROUTE MARKERS, IF NECESSARY, ADJUSTMENTS TO THE DIGIT LAYOUT AND/OR FONT TYPE MAY BE MADE TO ENSURE VISUAL ACUITY

NOTE: EXPRESSWAY/FREEWAY DEFINED AS A DIVIDED HIGHWAY WITH PARTIAL OR FULL CONTROL OF ACCESS



NOT TO SCALE

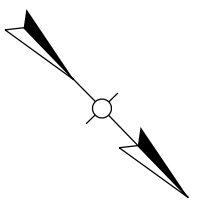
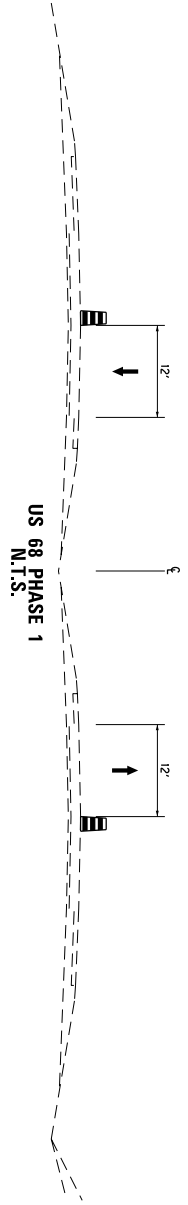
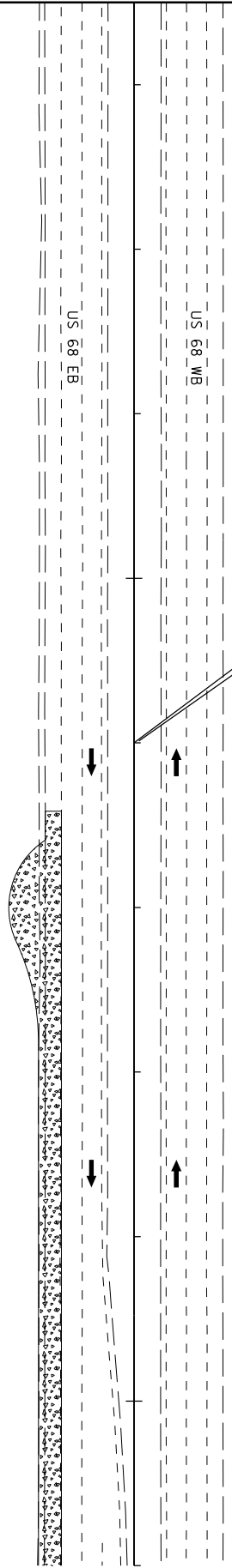
TYPICAL SIGNS

-  PREVIOUSLY CONSTRUCTED
-  NEW CONSTRUCTION
-  MILL & OVERLAY

90+00

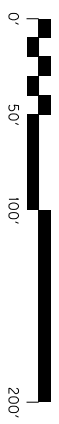
95+00

BEGIN CONST.  
STA. 91+00






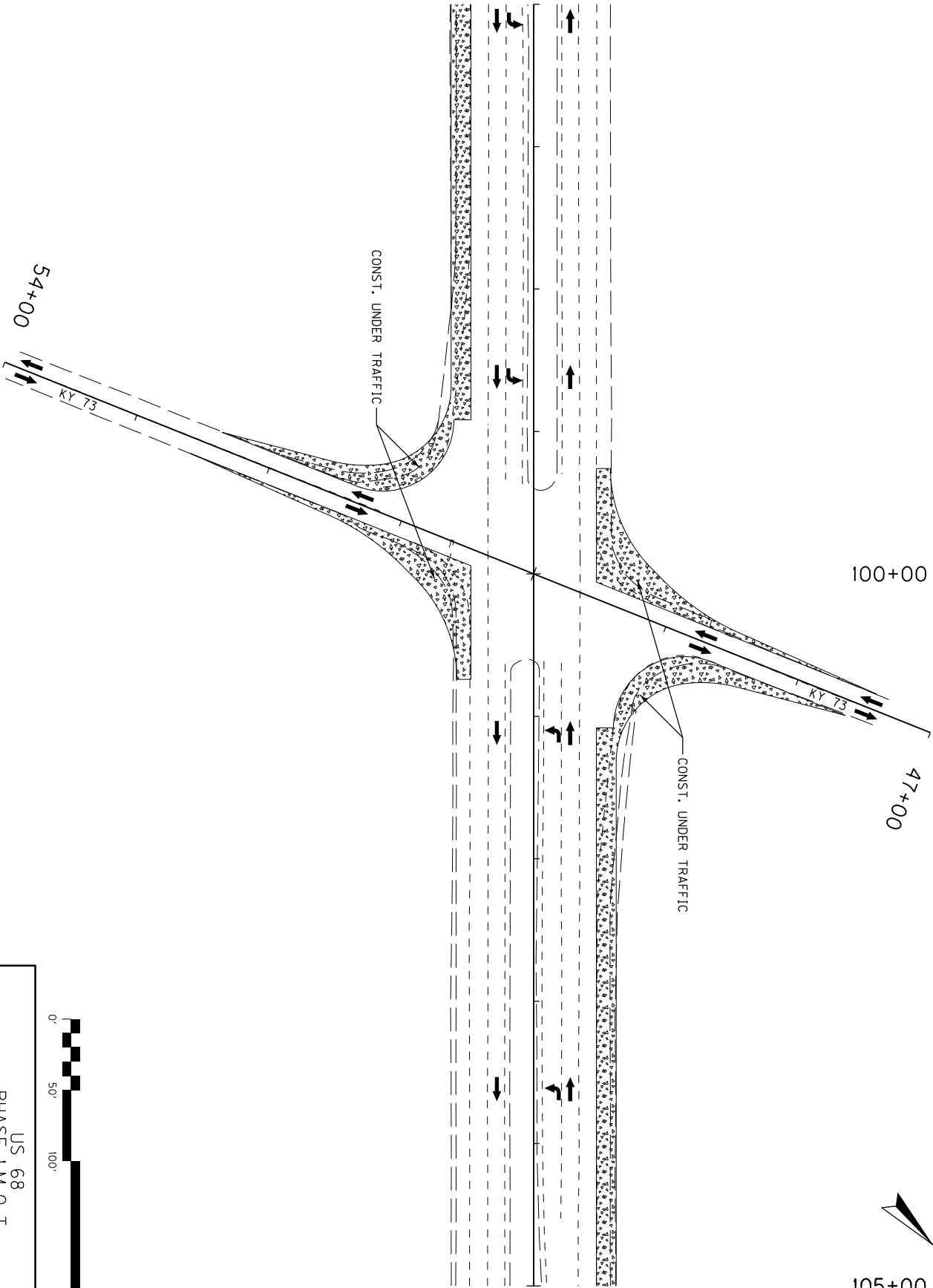
COUNTY OF	ITEM NO.
LOGAN	3-9017.00

SCALE: 1"=100'

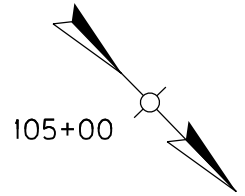


US 68  
PHASE 1 M.O.T.  
STA. 91+00 TO STA. 96+00

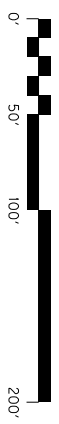
-  PREVIOUSLY CONSTRUCTED
-  NEW CONSTRUCTION
-  MILL & OVERLAY



COUNTY OF	ITEM NO.
LOGAN	3-9017.00



SCALE: 1"=100'

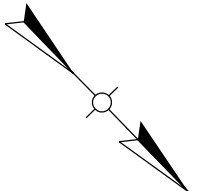
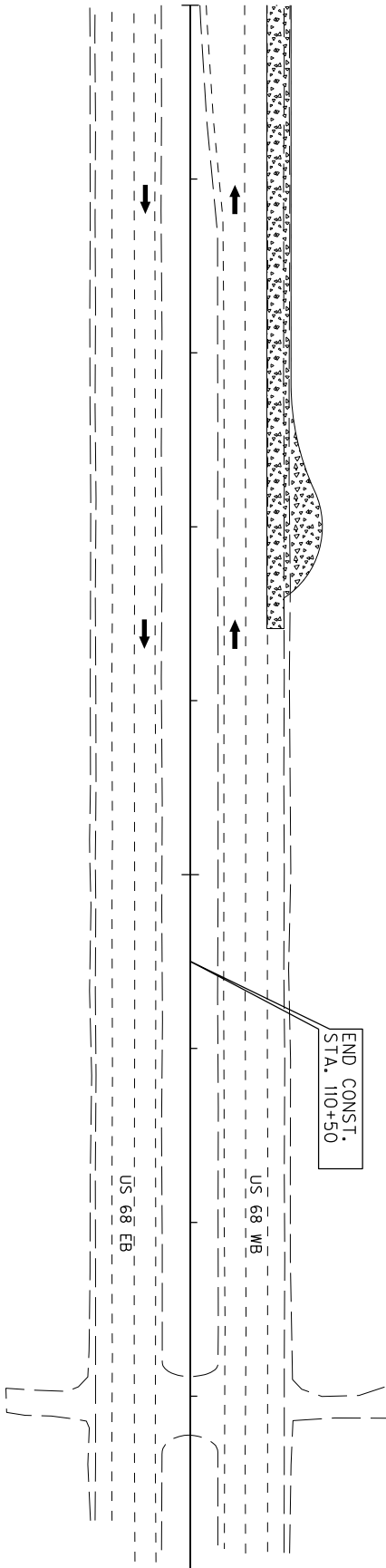


US 68  
PHASE 1 M.O.T.  
STA. 96+00 TO STA. 105+00

- PREVIOUSLY CONSTRUCTED
- NEW CONSTRUCTION
- MILL & OVERLAY

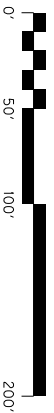
105+00

110+00






COUNTY OF	ITEM NO.
LOGAN	3-9017.00

SCALE: 1"=100'



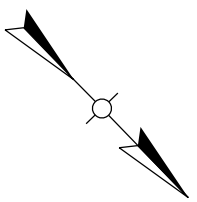
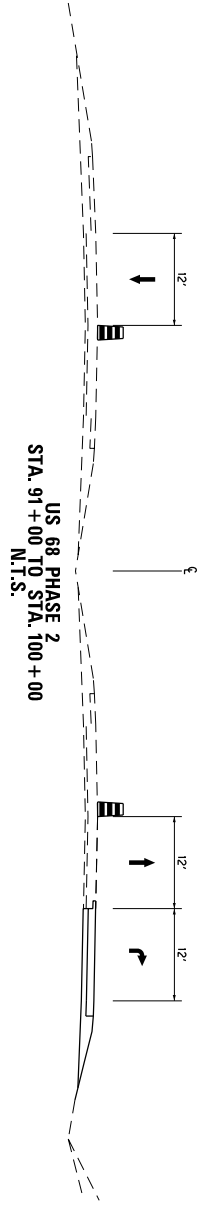
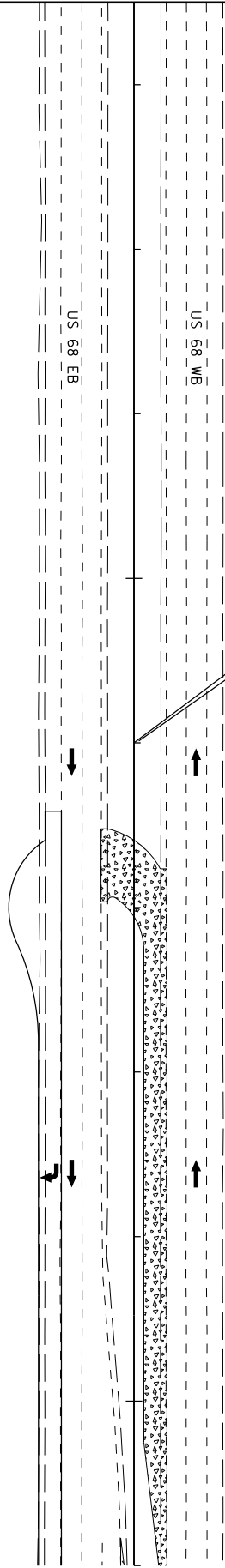
US 68  
PHASE 1 M.O.T.  
STA. 105+00 TO STA. 110+50

-  PREVIOUSLY CONSTRUCTED
-  NEW CONSTRUCTION
-  MILL & OVERLAY

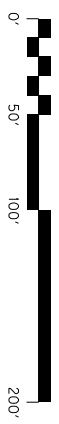
90+00

95+00

BEGIN CONST.  
STA. 91+00






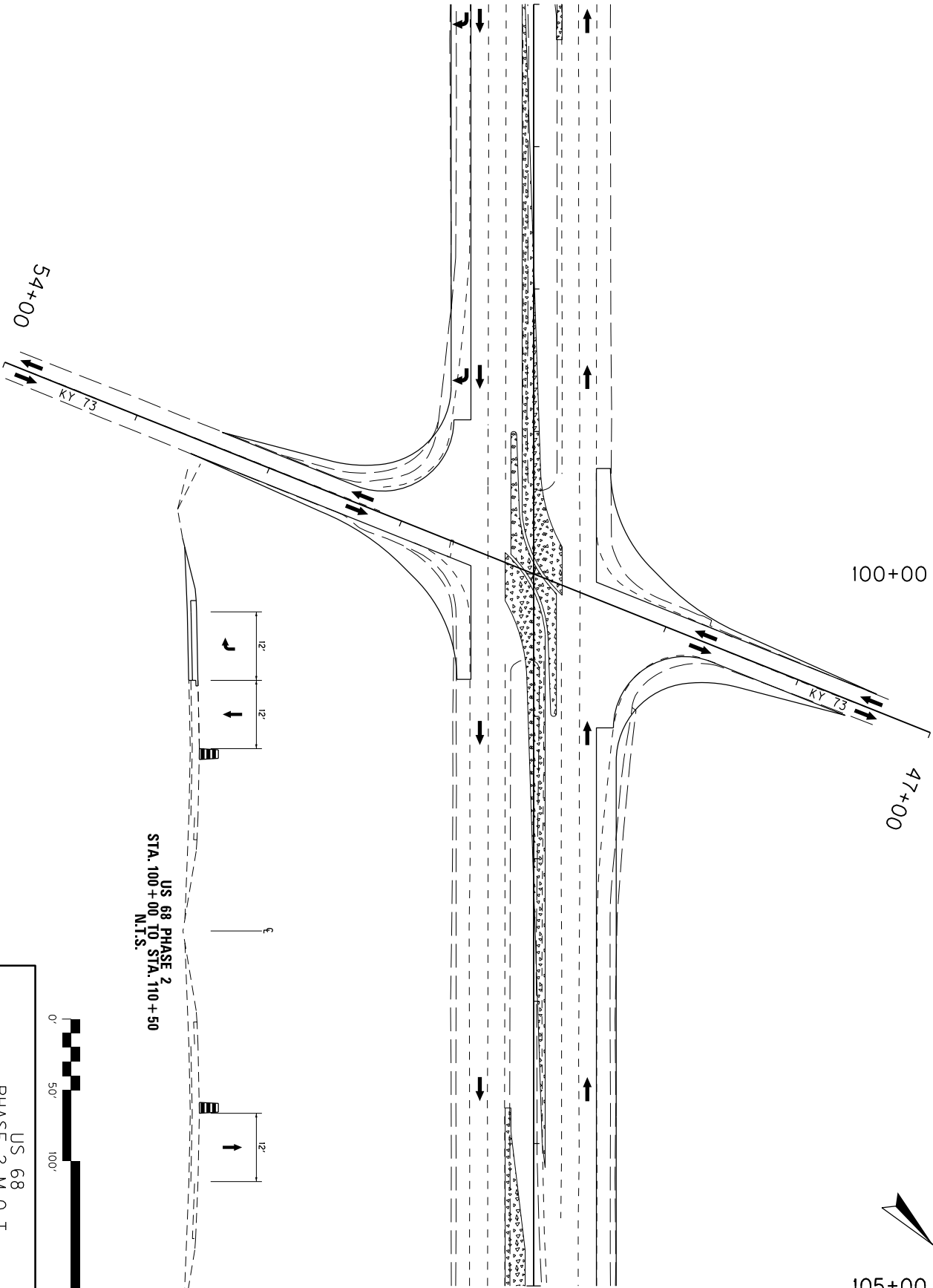
COUNTY OF	ITEM NO.
LOGAN	3-9017.00



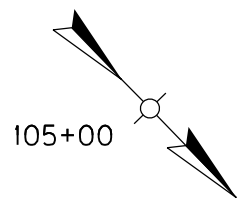
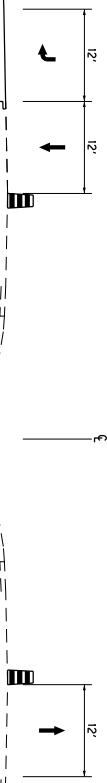
SCALE: 1"=100'

US 68  
PHASE 2 M.O.T.  
STA. 91+00 TO STA. 96+00

-  PREVIOUSLY CONSTRUCTED
-  NEW CONSTRUCTION
-  MILL & OVERLAY

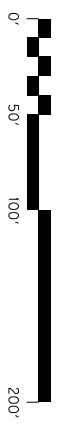


US 68 PHASE 2  
STA. 100+00 TO STA. 110+50  
N.T.S.



COUNTY OF	ITEM NO.
LOGAN	3-9017.00

SCALE: 1"=100'

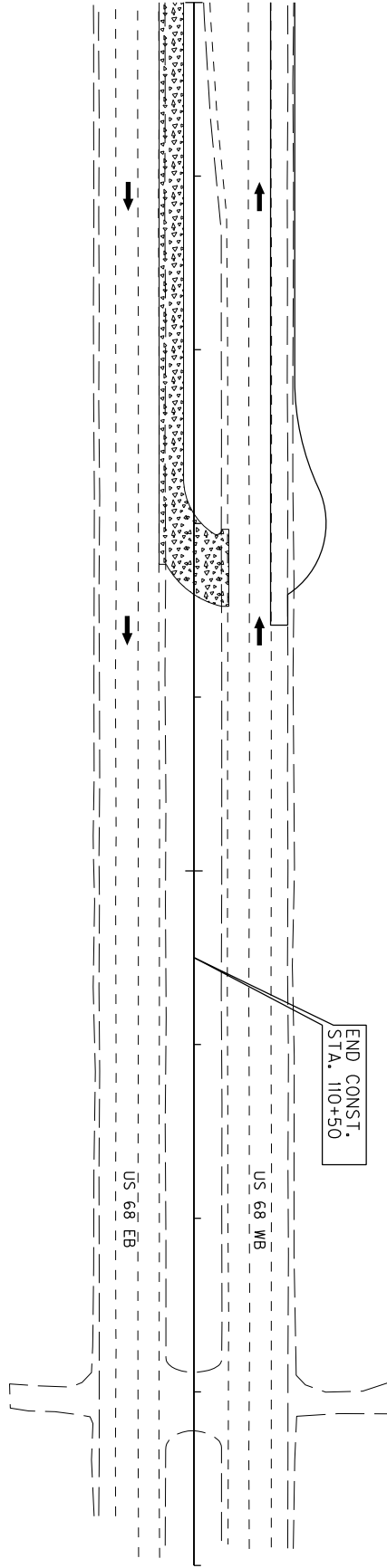


US 68  
PHASE 2 M.O.T.  
STA. 96+00 TO STA. 105+00

- PREVIOUSLY CONSTRUCTED
- NEW CONSTRUCTION
- MILL & OVERLAY

105+00

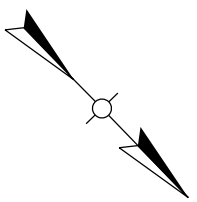
110+00



END CONST.  
STA. 110+50

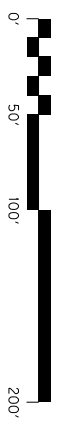
US 68 EB

US 68 WB






COUNTY OF	ITEM NO.
LOGAN	3-9017.00

SCALE: 1"=100'



US 68  
PHASE 2 M.O.T.  
STA. 105+00 TO STA. 110+50

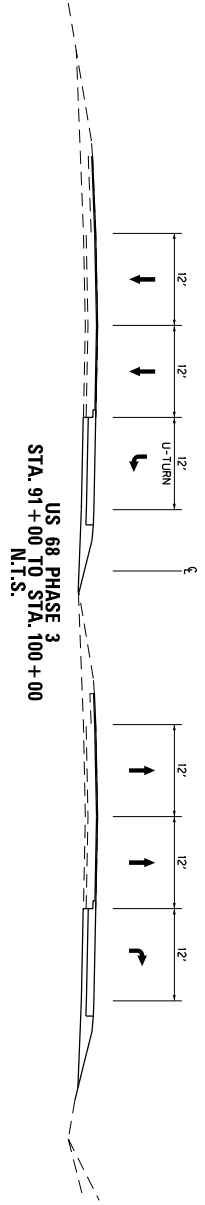
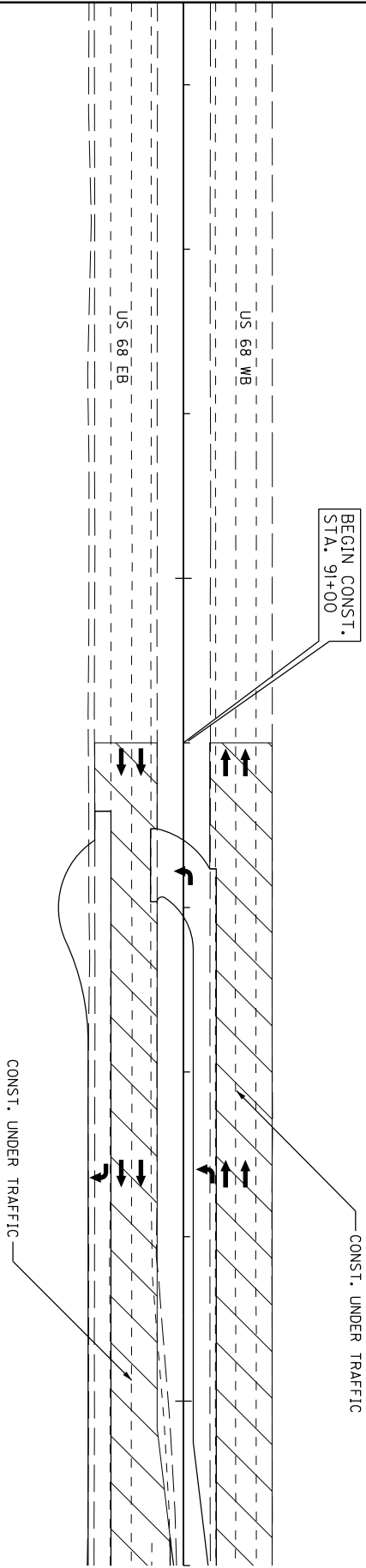
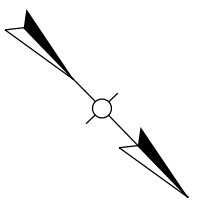


-  PREVIOUSLY CONSTRUCTED
-  NEW CONSTRUCTION
-  MILL & OVERLAY

90+00




95+00

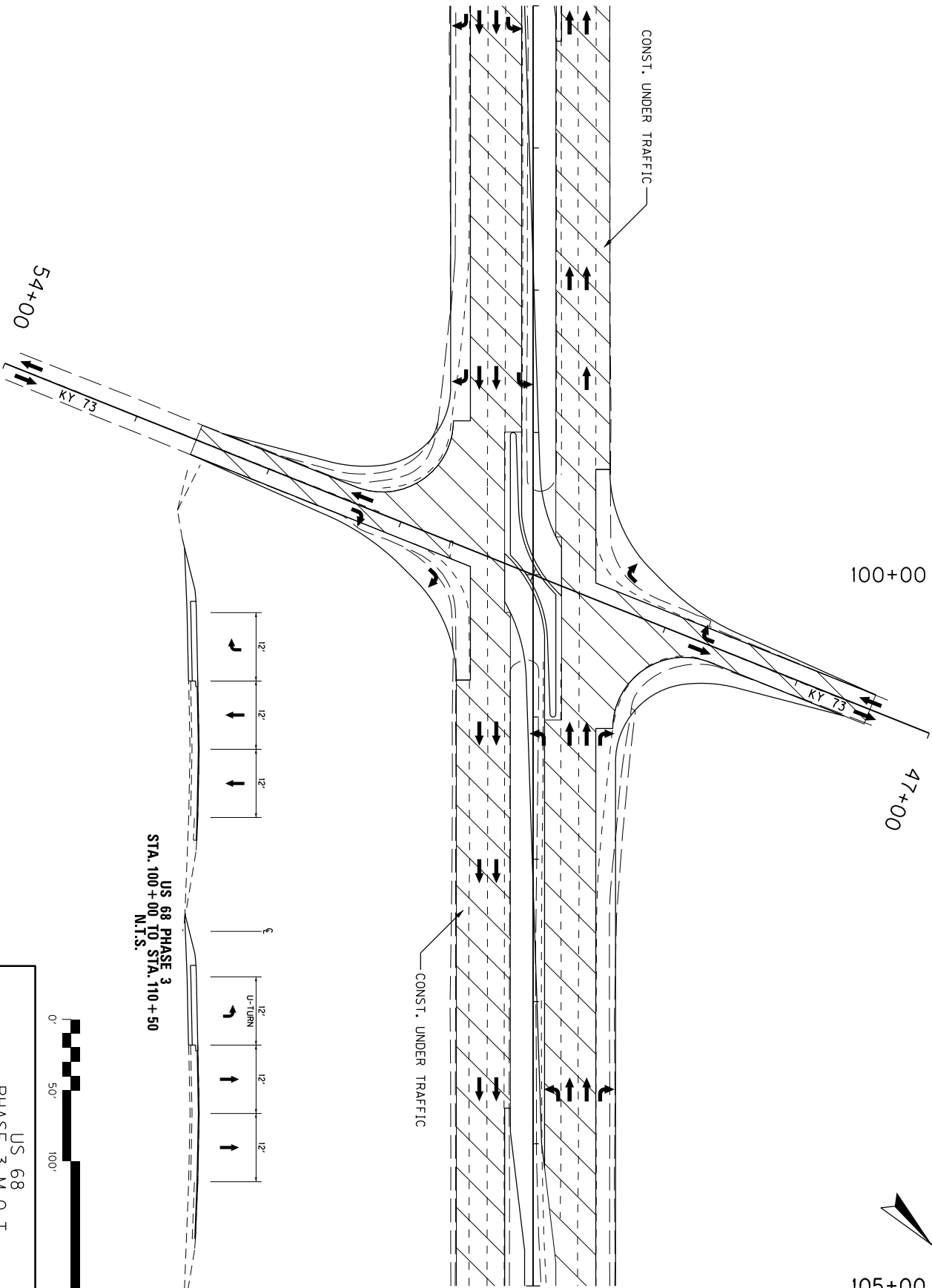
COUNTY OF	ITEM NO.
LOGAN	3-9017.00



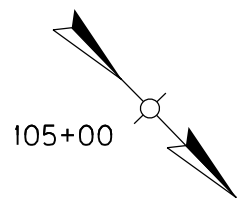
SCALE: 1"=100'

US 68  
PHASE 3 M.O.T.  
STA. 91+00 TO STA. 96+00

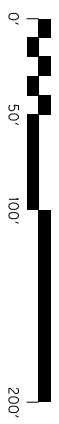
-  PREVIOUSLY CONSTRUCTED
-  NEW CONSTRUCTION
-  MILL & OVERLAY



COUNTY OF	ITEM NO.
LOGAN	3-9017.00



US 68 PHASE 3  
STA. 100+00 TO STA. 110+50  
N.T.S.



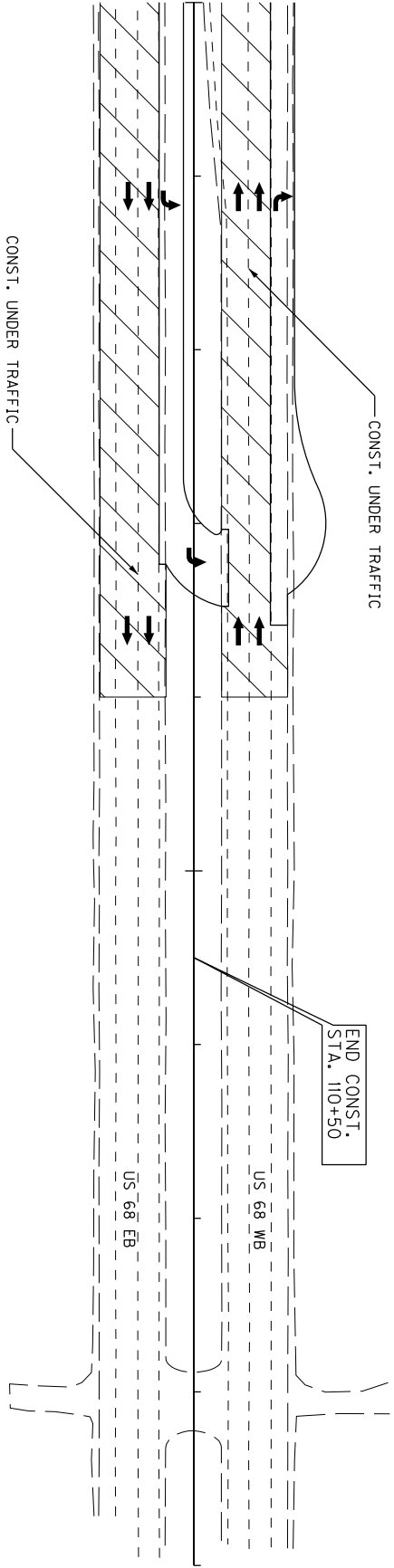
SCALE: 1"=100'

US 68  
PHASE 3 M.O.T.  
STA. 96+00 TO STA. 105+00

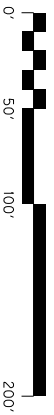
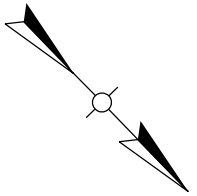
- PREVIOUSLY CONSTRUCTED
- NEW CONSTRUCTION
- MILL & OVERLAY

105+00

110+00

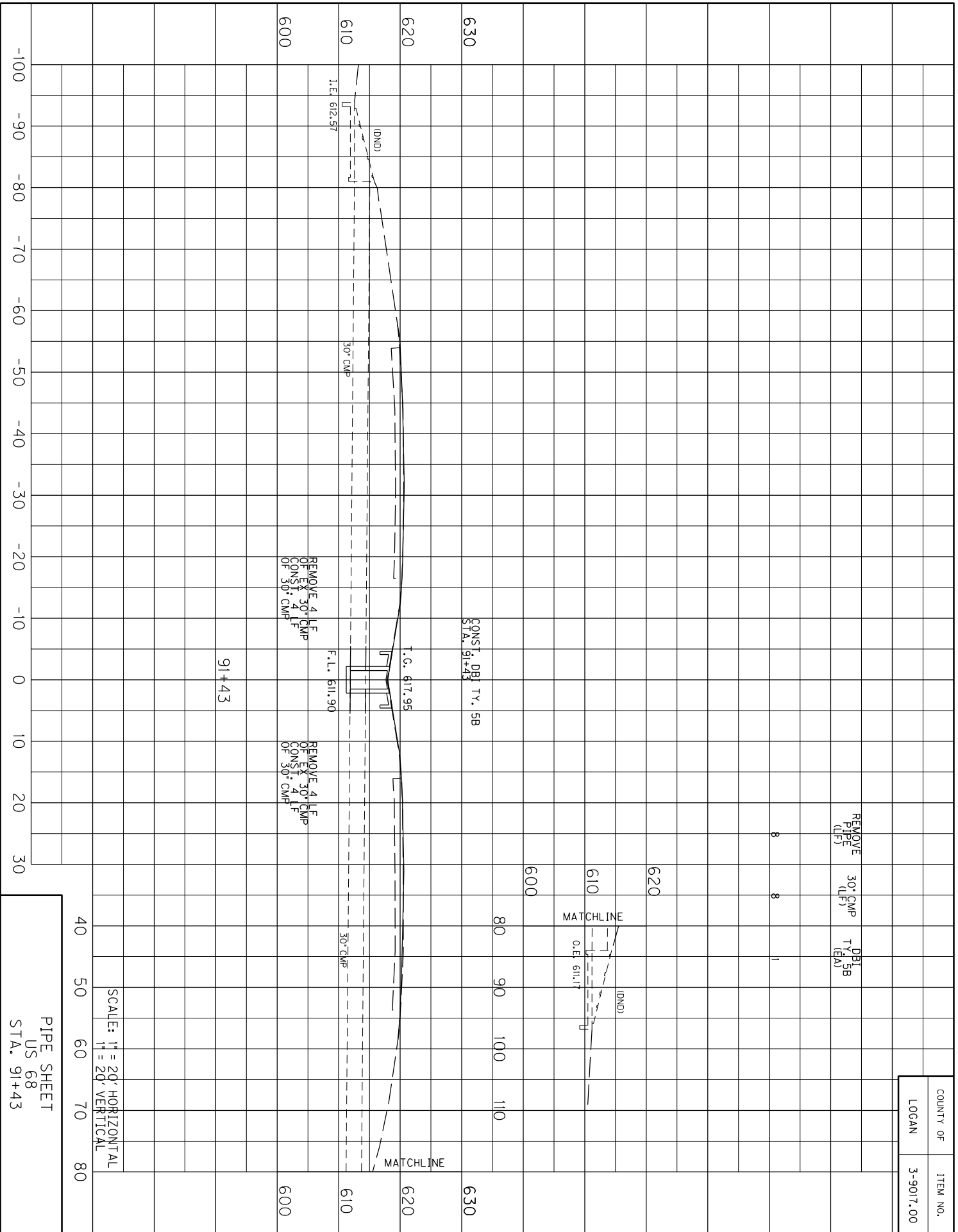


COUNTY OF	ITEM NO.
LOGAN	3-9017.00



SCALE: 1"=100'

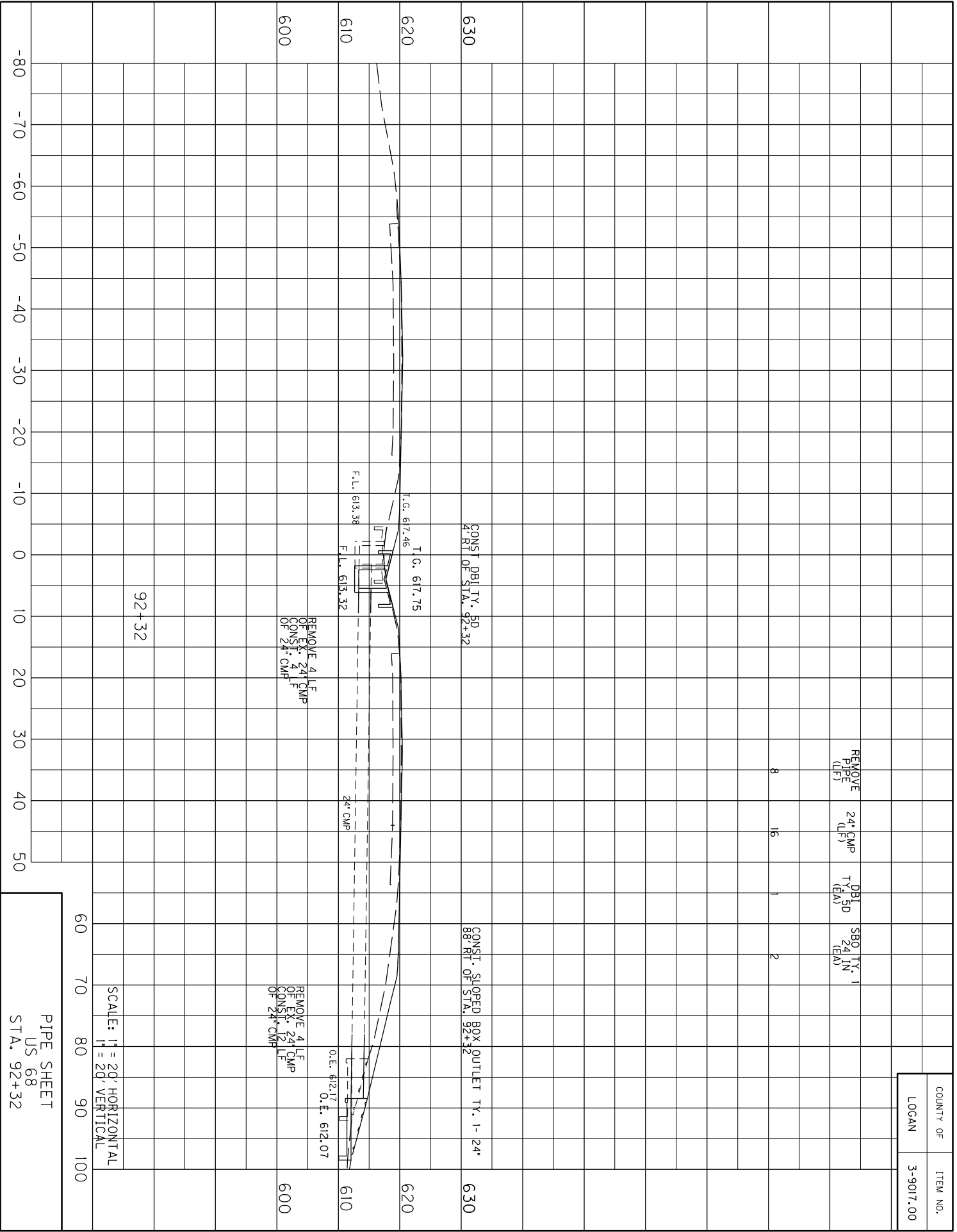
US 68  
PHASE 3 M.O.T.  
STA. 105+00 TO STA. 110+50



COUNTY OF	ITEM NO.
LOGAN	3-9017.00

SCALE: 1" = 20' HORIZONTAL  
1" = 20' VERTICAL

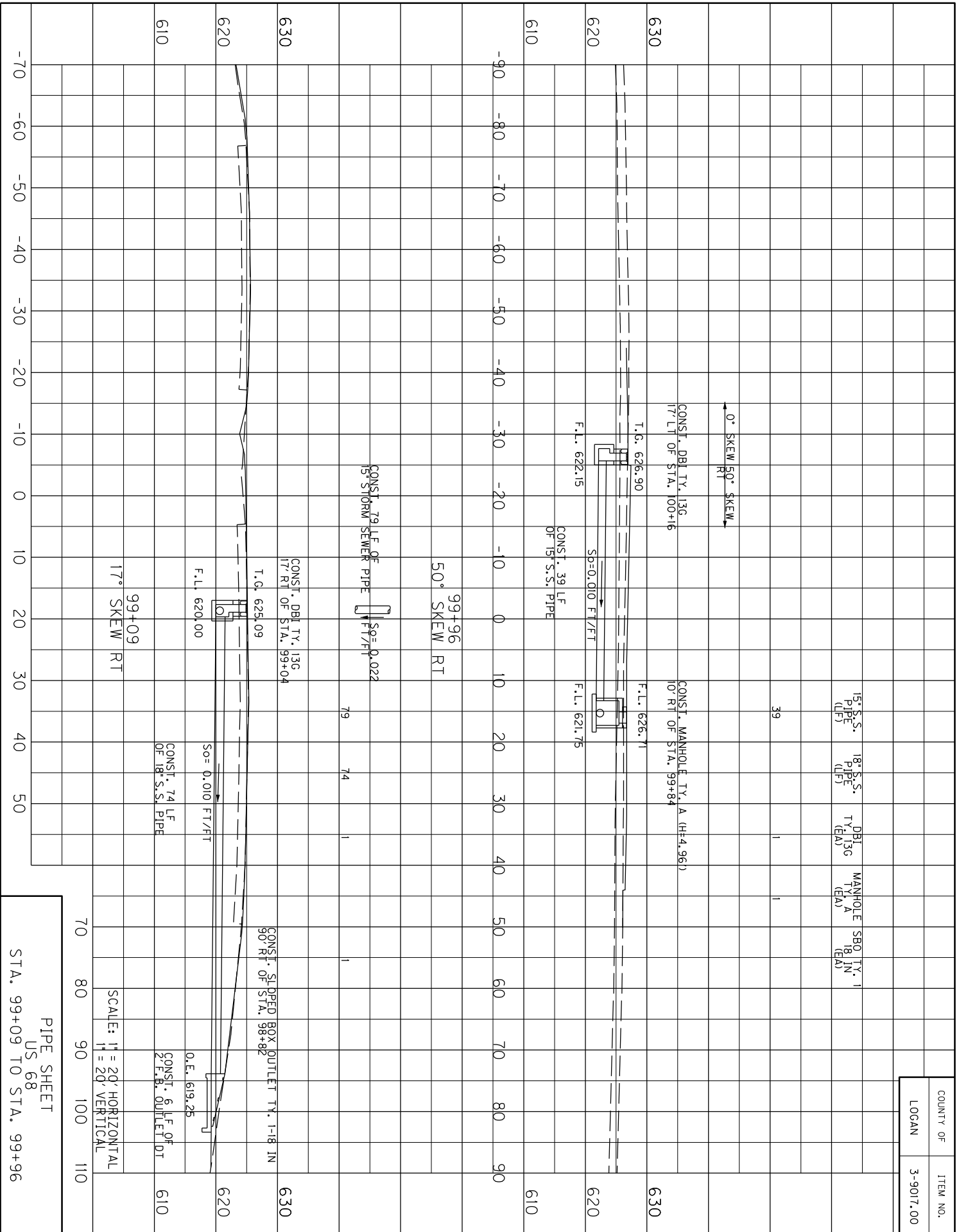
PIPE SHEET  
US 68  
STA. 91+43



COUNTY OF	ITEM NO.
LOGAN	3-9017.00

SCALE: 1" = 20' HORIZONTAL  
1" = 20' VERTICAL

PIPE SHEET  
US 68  
STA. 92+32



COUNTY OF	LOGAN	ITEM NO.	3-9017.00
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PIPE SHEET  
US 68  
STA. 99+09 TO STA. 99+96

SCALE: 1" = 20' HORIZONTAL  
1" = 20' VERTICAL

O.E. 619.25  
CONST. 6 LF OF  
2" F.B. OUTLET IDT

CONST. SLIPED BOX OUTLET TY. 1-18 IN  
90° RT OF STA. 98+82

99+09  
17° SKEW RT

CONST. 74 LF  
OF 18" S.S. PIPE

F.L. 620.00

T.G. 625.09  
CONST. DBI TY. 13G  
17° RT OF STA. 99+04

CONST. 79 LF OF  
15" STORM SEWER PIPE  
S<sub>9</sub> = 0.022  
FT/FT

99+96  
50° SKEW RT

CONST. 39 LF  
OF 15" S.S. PIPE

F.L. 622.15

S<sub>9</sub> = 0.010 FT/FT

F.L. 621.75

T.G. 626.90

CONST. DBI TY. 13G  
17° LT OF STA. 100+16

F.L. 626.71

CONST. MANHOLE TY. A (H=4.961)  
10° RT OF STA. 99+84

0° SKEW 50° SKEW  
RT

15" S.S. PIPE (LF)

18" S.S. PIPE (LF)

DBI TY. 13G (EAB)

MANHOLE TY. A (EAB)

SBO TY. 11 18 IN (EAB)

39

1

1

79

74

1

1

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50

70 80 90 100 110

610

620

630

610

620

630

610

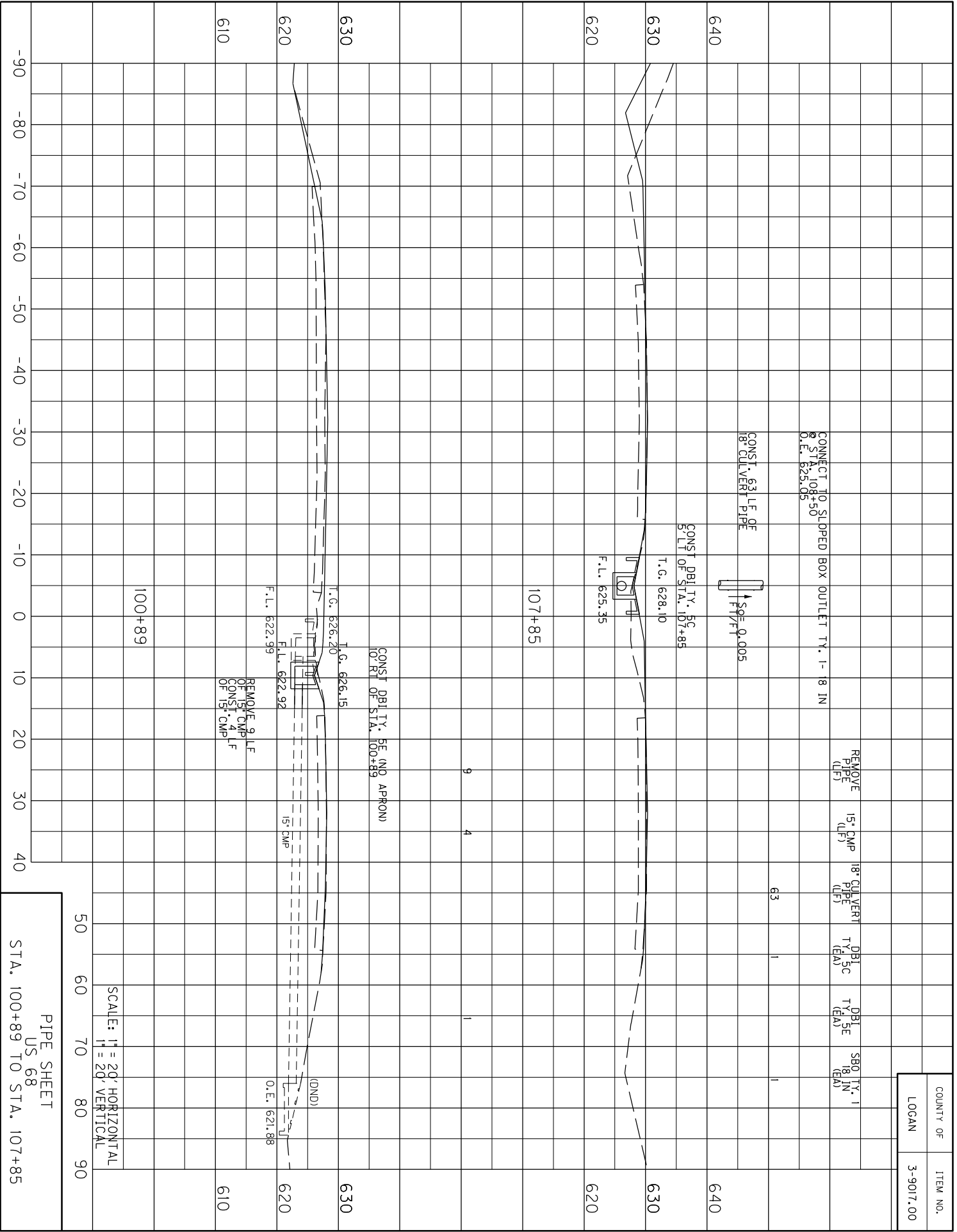
620

630

620

630

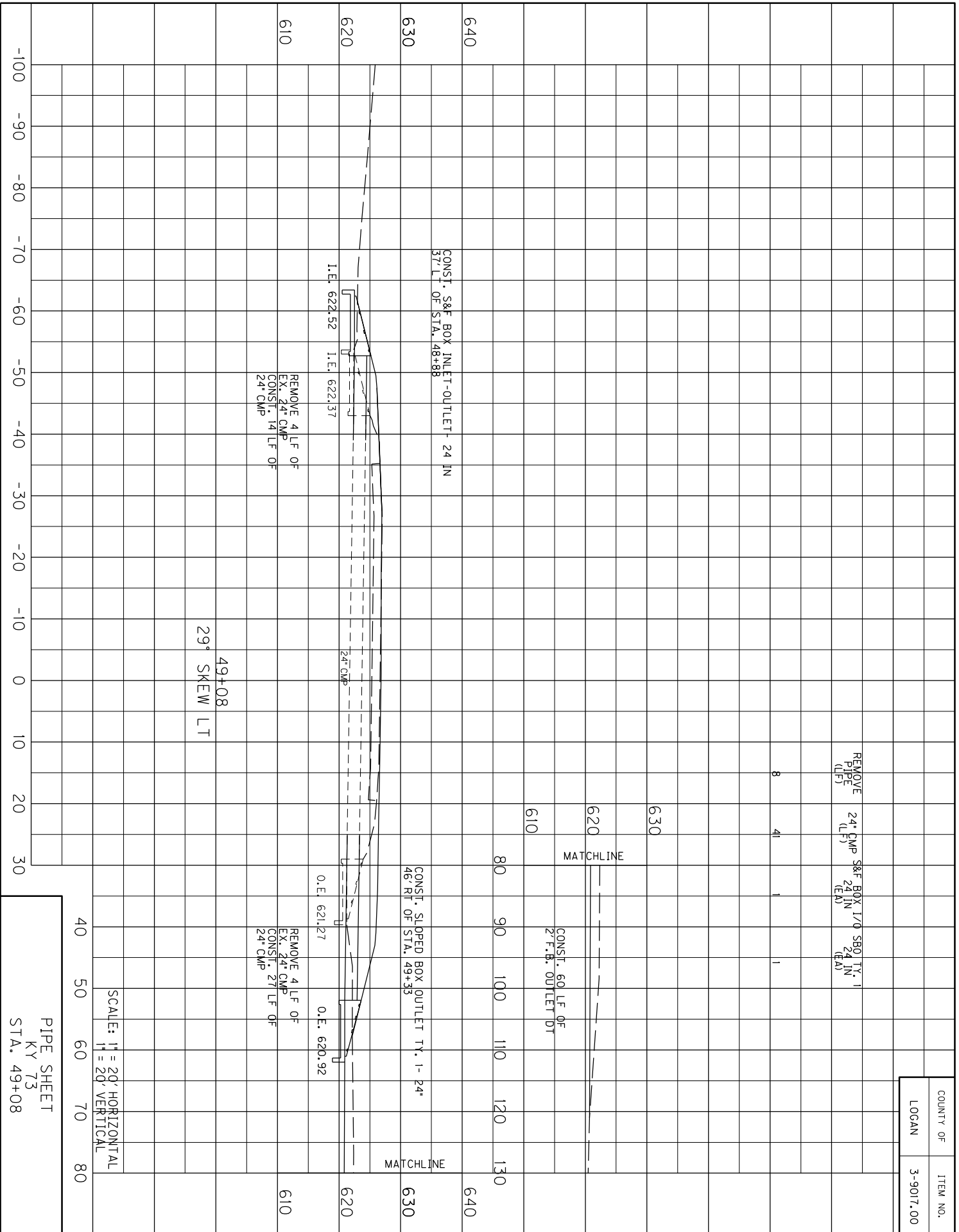
610



COUNTY OF	LOGAN
ITEM NO.	3-9017.00

SCALE: 1" = 20' HORIZONTAL  
1" = 20' VERTICAL

PIPE SHEET  
US 68  
STA. 100+89 TO STA. 107+85

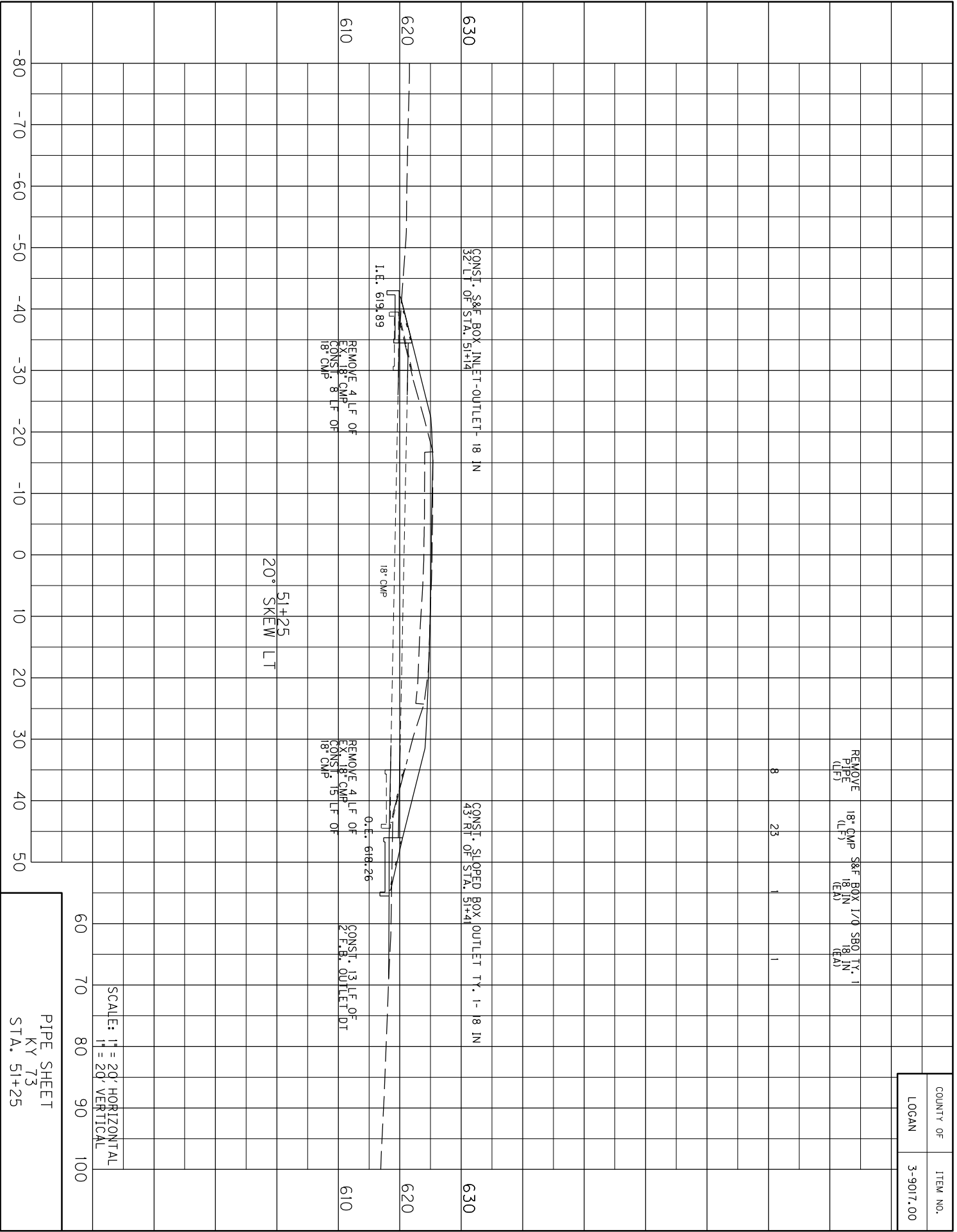


COUNTY OF	ITEM NO.
LOGAN	3-9017.00

SCALE: 1" = 20' HORIZONTAL  
1" = 20' VERTICAL

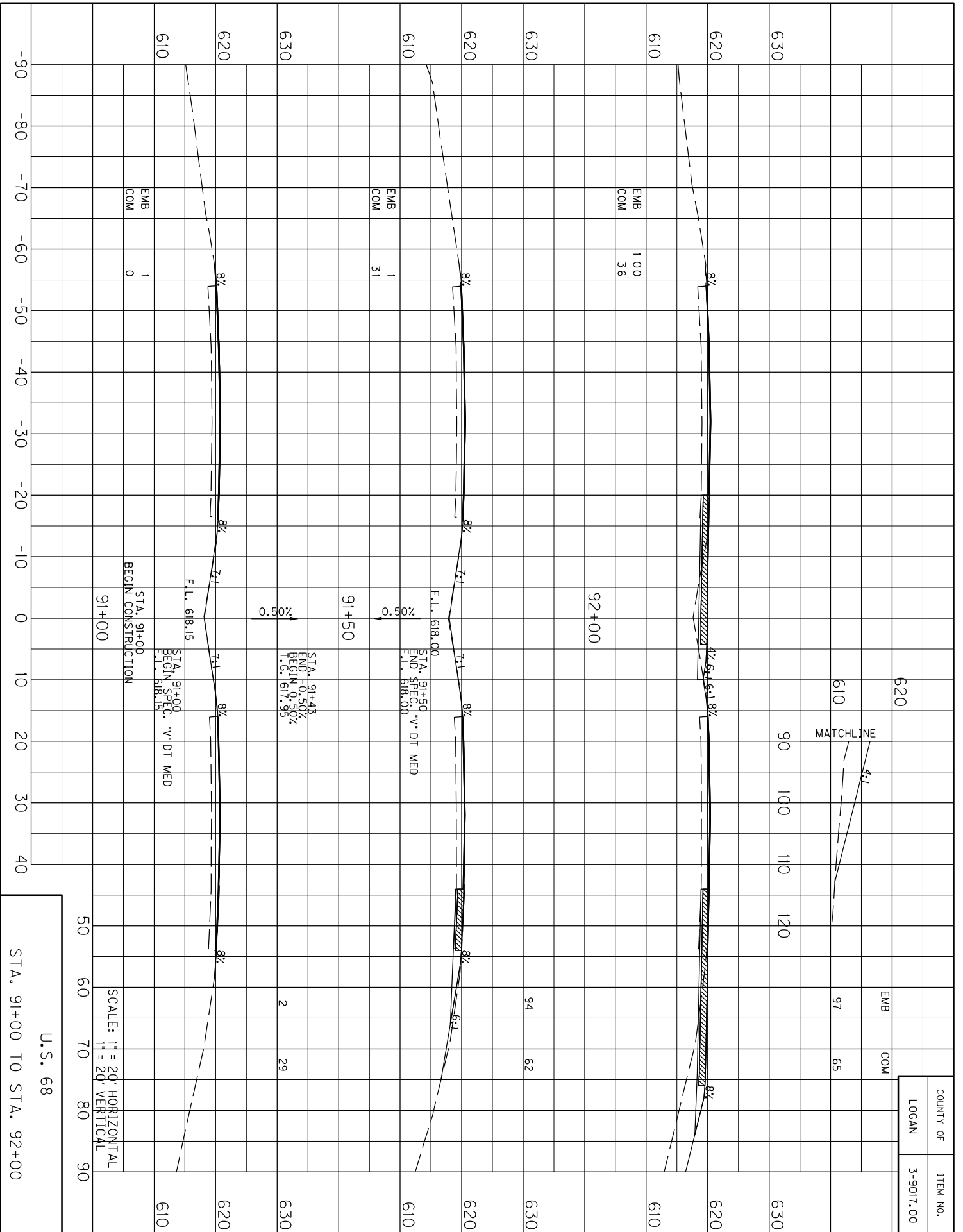
PIPE SHEET  
KY 73  
STA. 49+08

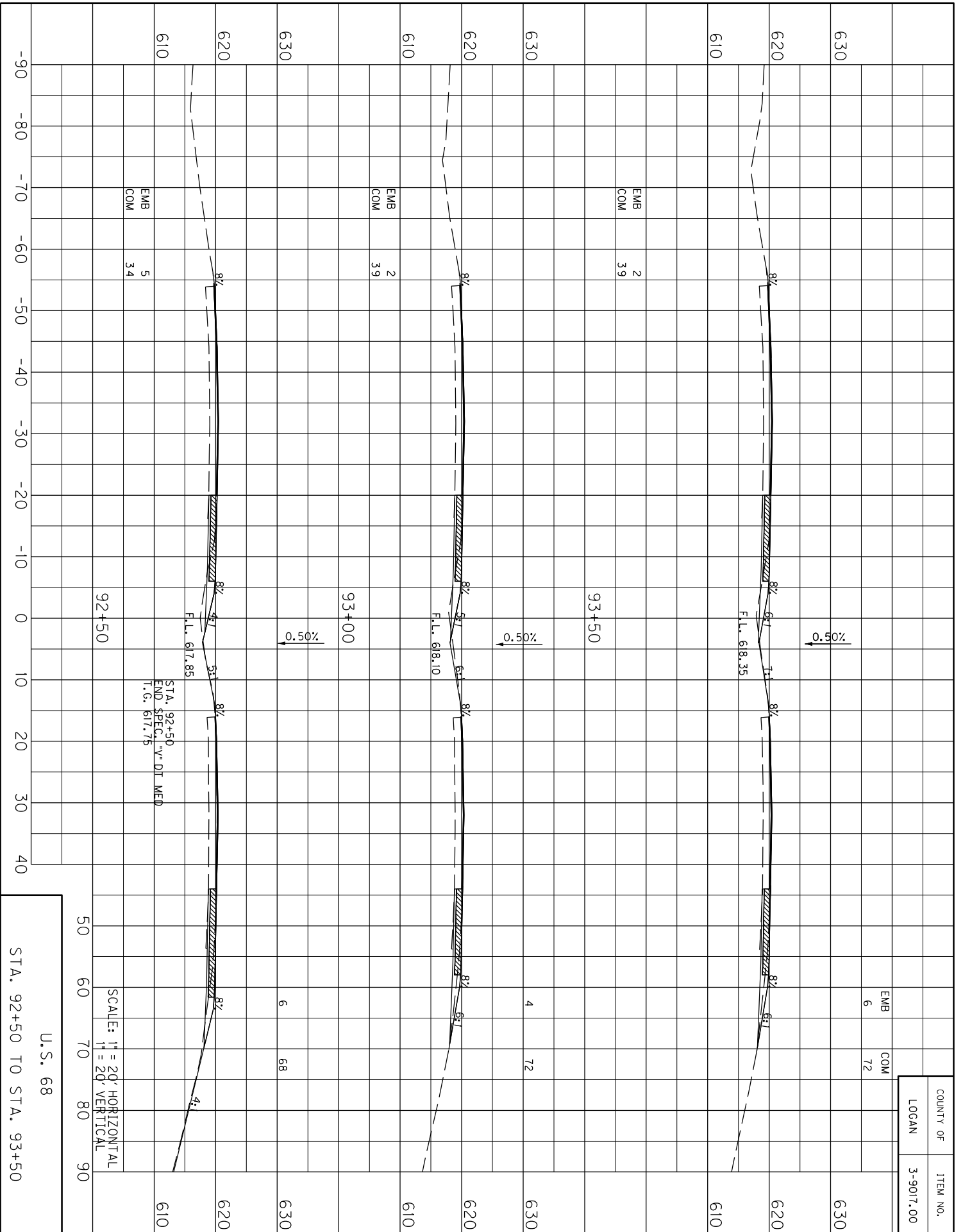


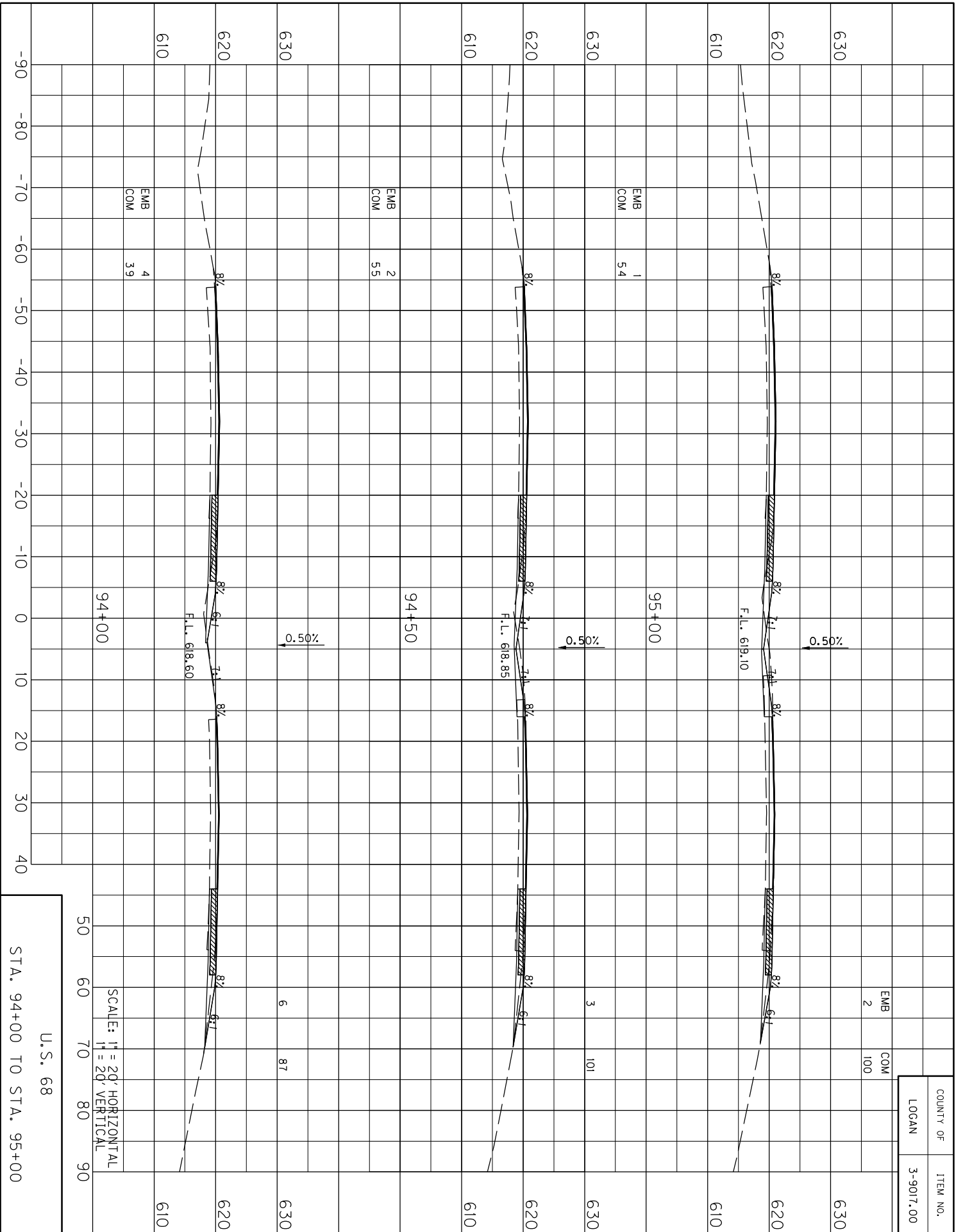


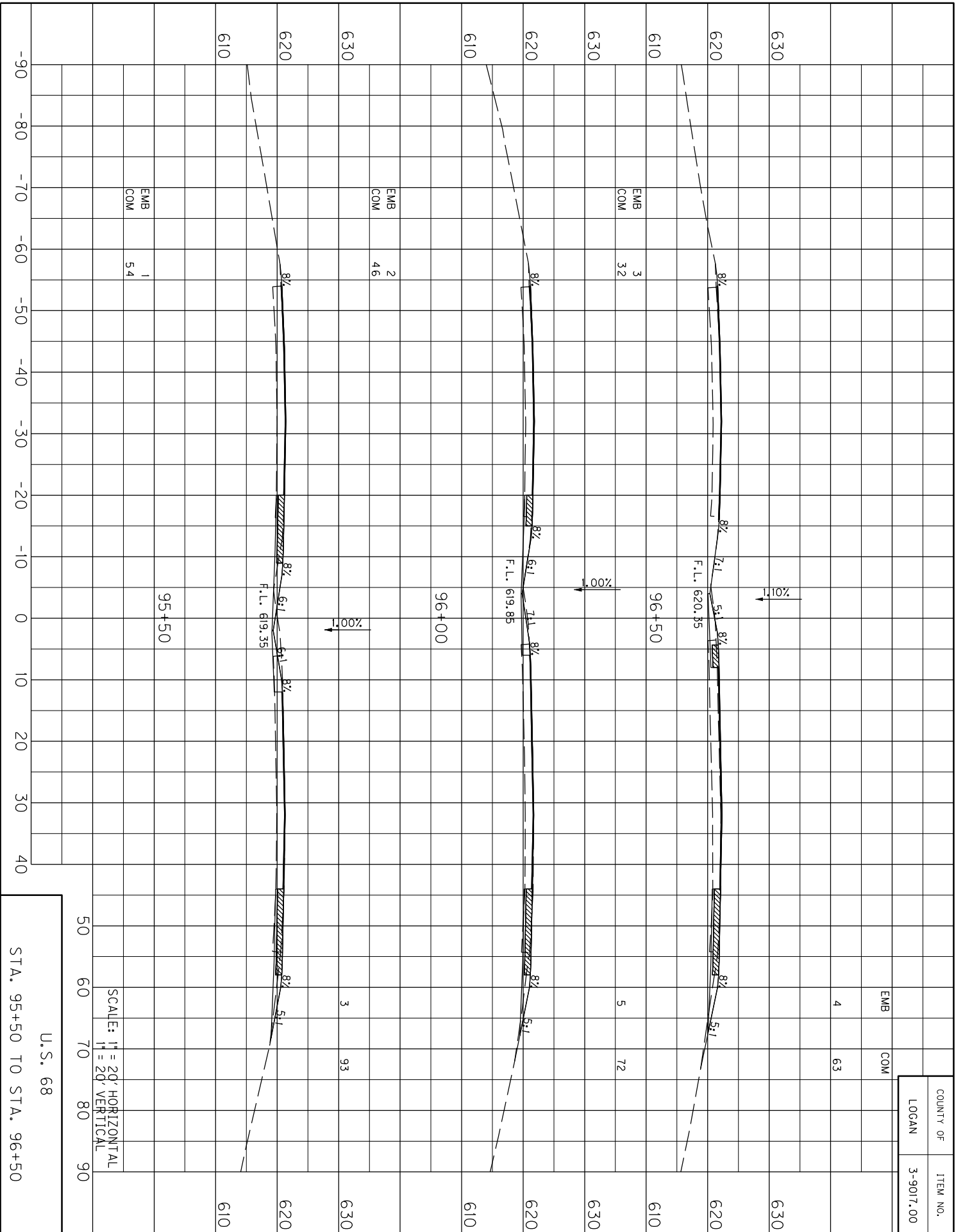
COUNTY OF	ITEM NO.
LOGAN	3-9017.00

PIPE SHEET  
KY 73  
STA. 51+25







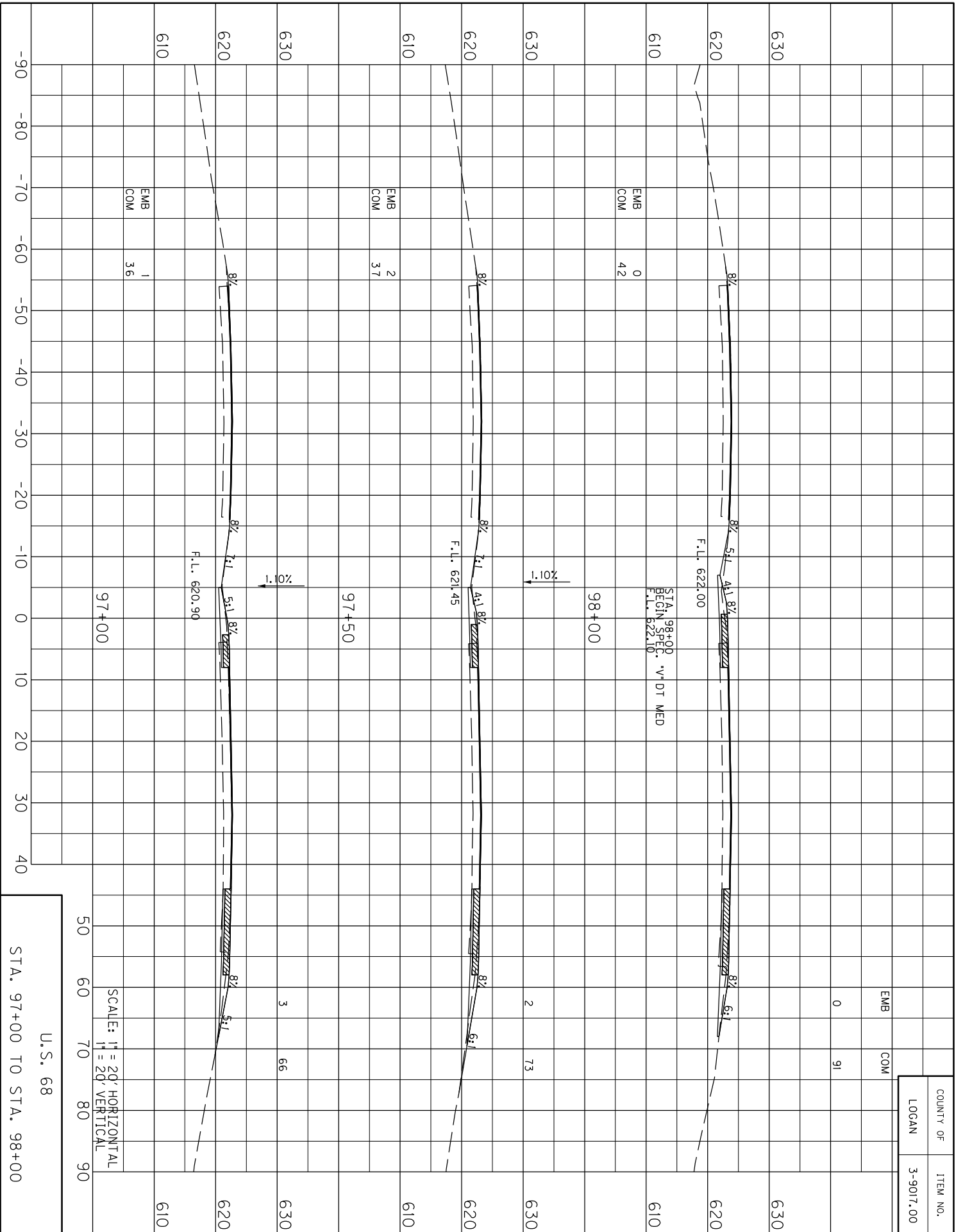


COUNTY OF	ITEM NO.
LOGAN	3-9017.00

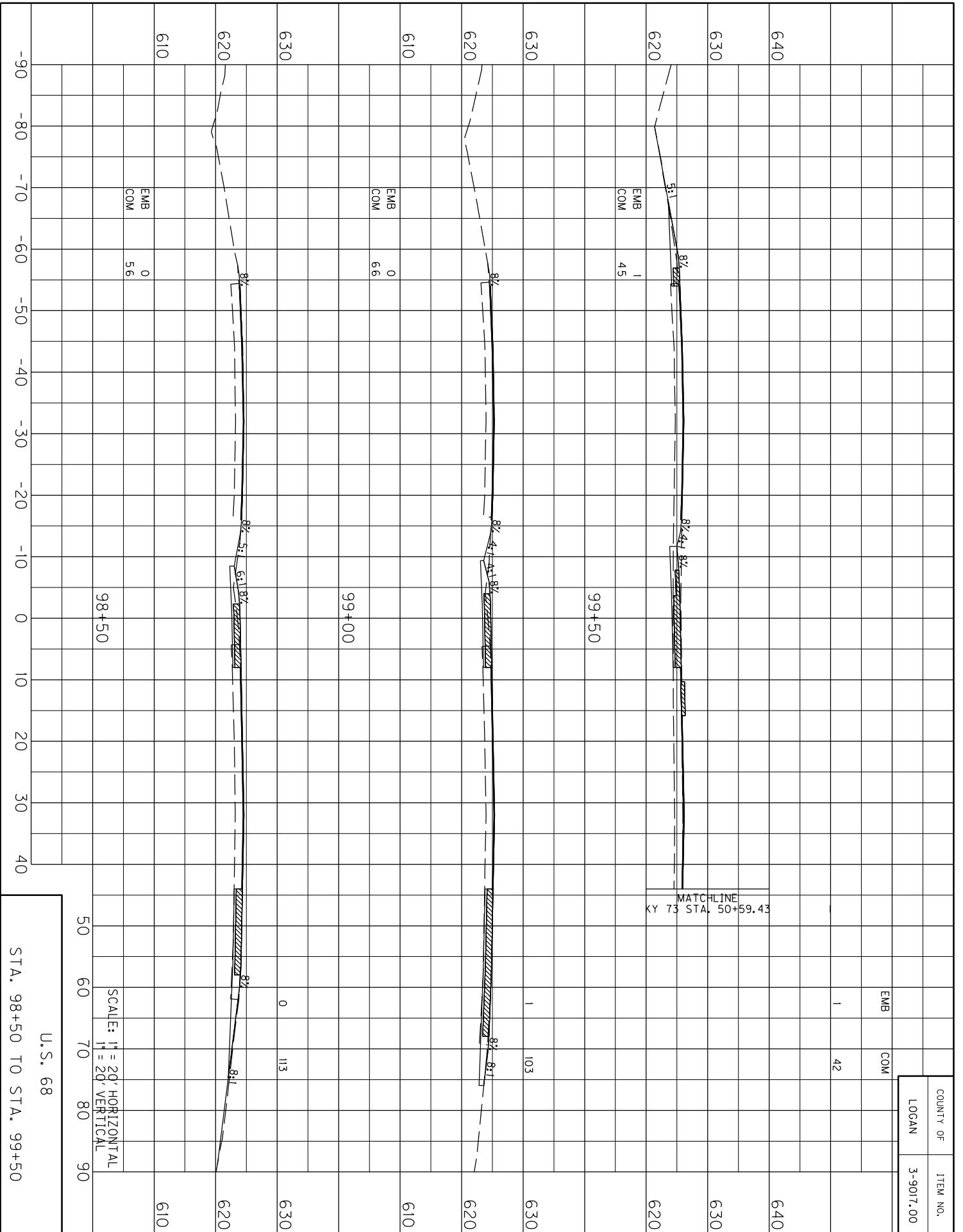
SCALE: 1" = 20' HORIZONTAL  
1" = 20' VERTICAL

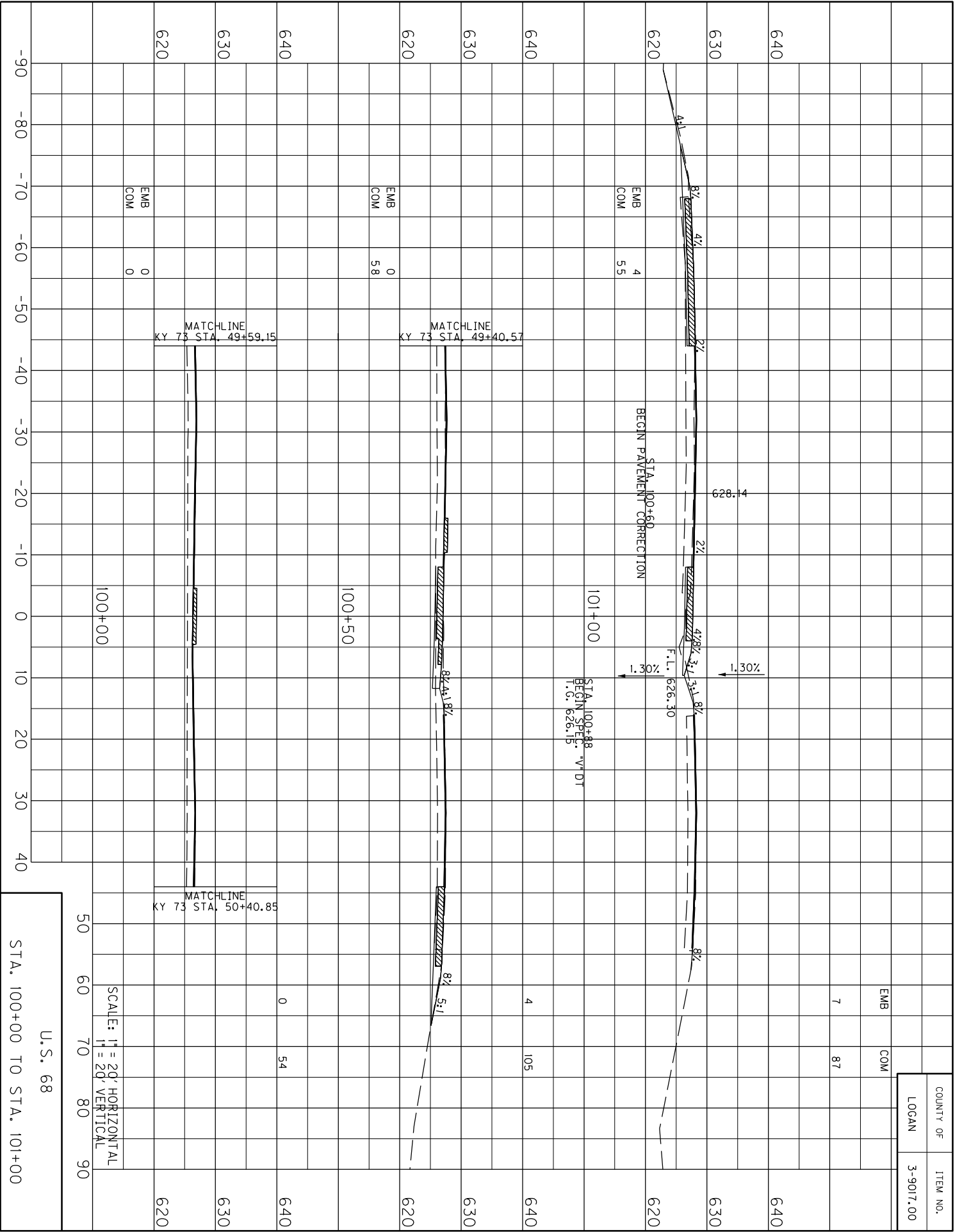
U.S. 68

STA. 95+50 TO STA. 96+50



COUNTY OF	ITEM NO.
LOGAN	3-9017.00





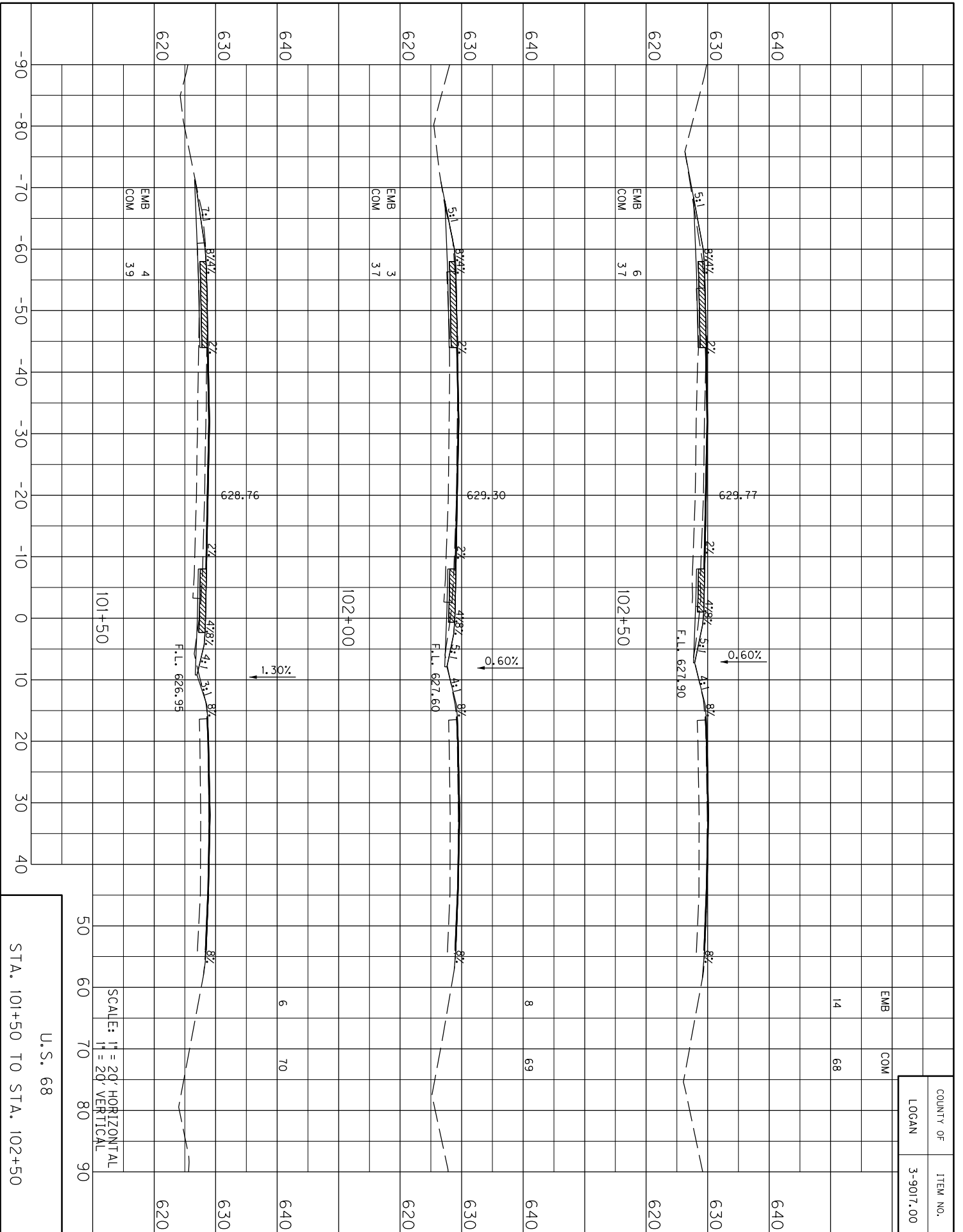
COUNTY OF	LOGAN
ITEM NO.	3-9017.00

SCALE: 1" = 20' HORIZONTAL  
1" = 20' VERTICAL

U.S. 68

STA. 100+00 TO STA. 101+00



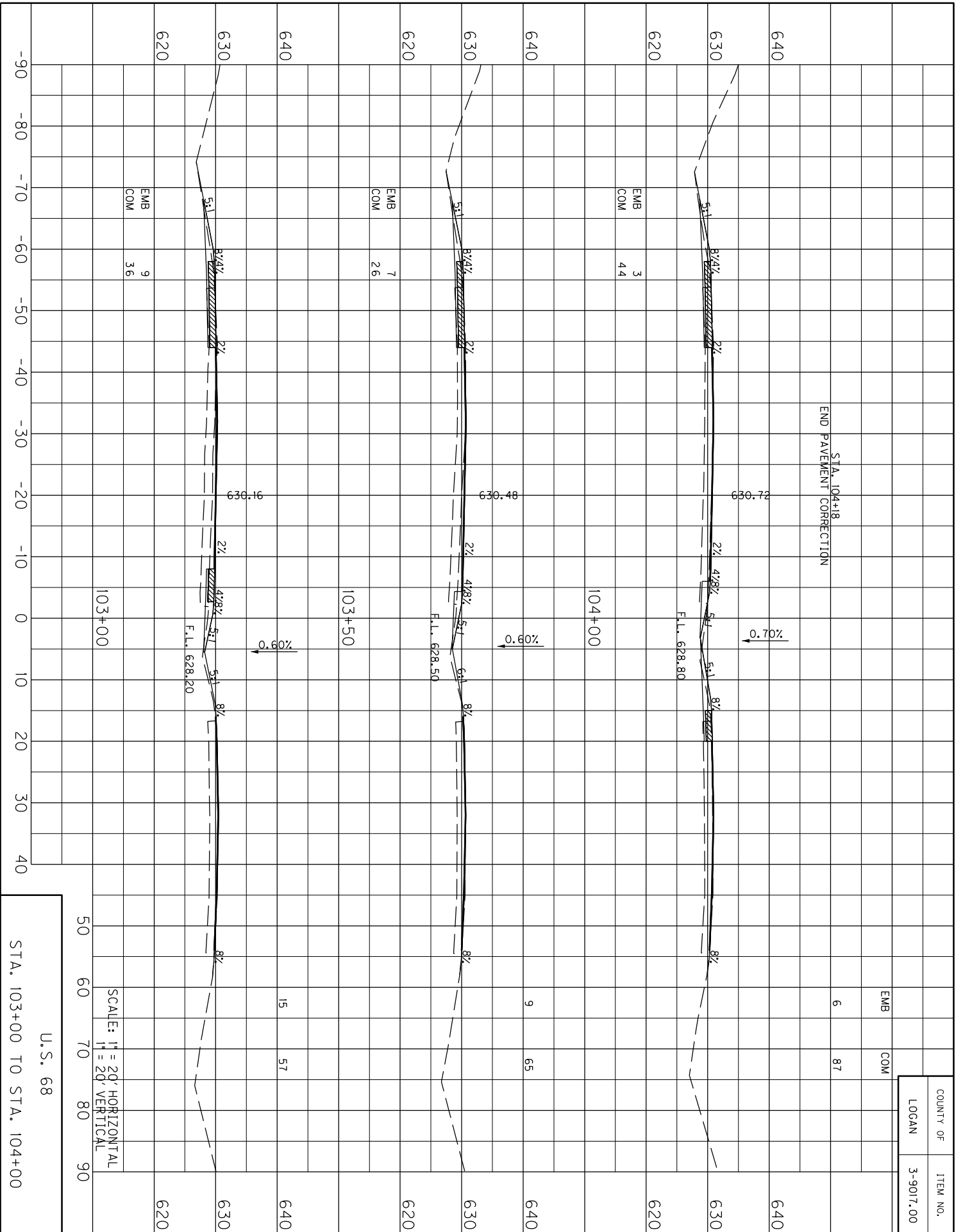


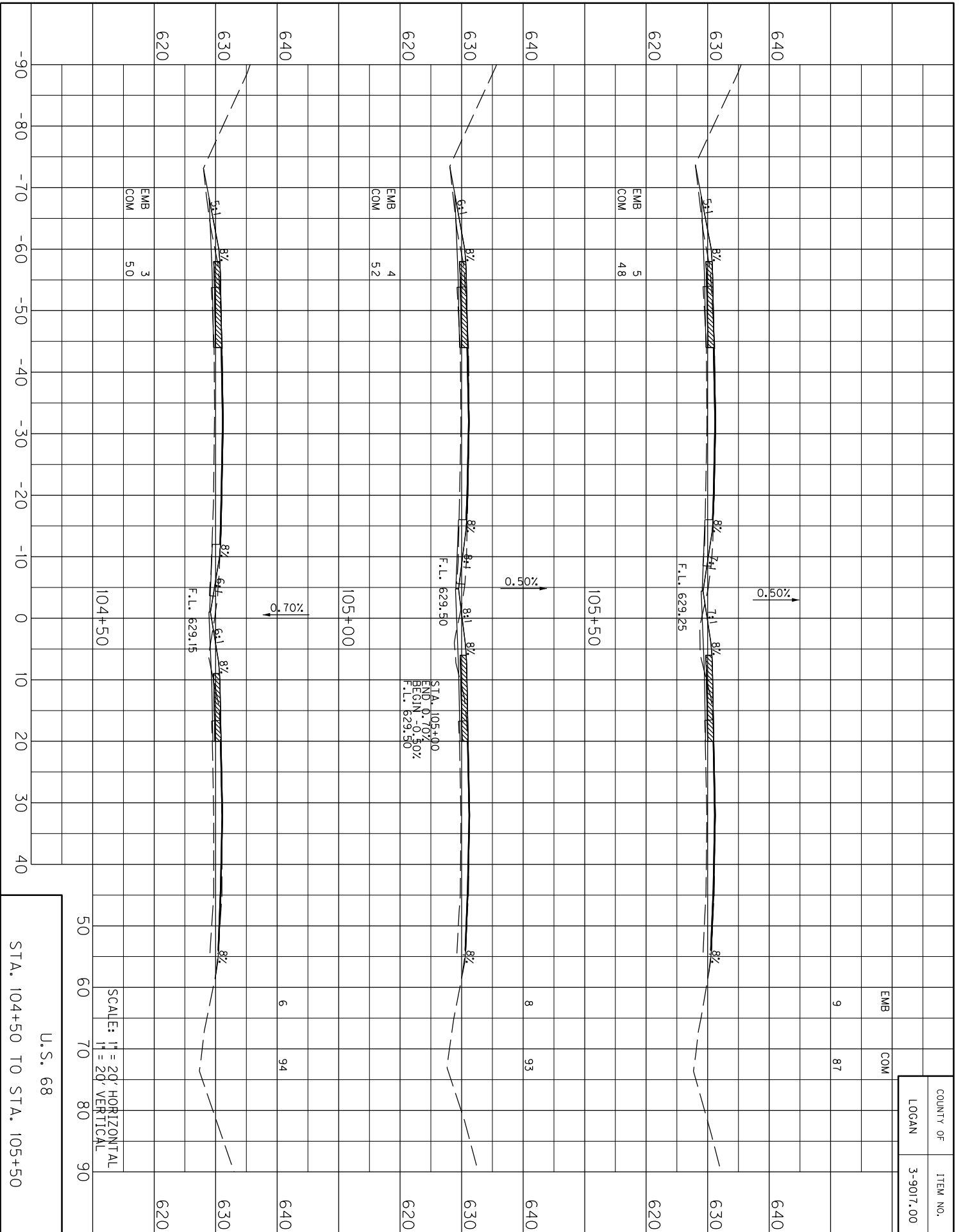
COUNTY OF	ITEM NO.
LOGAN	3-9017.00

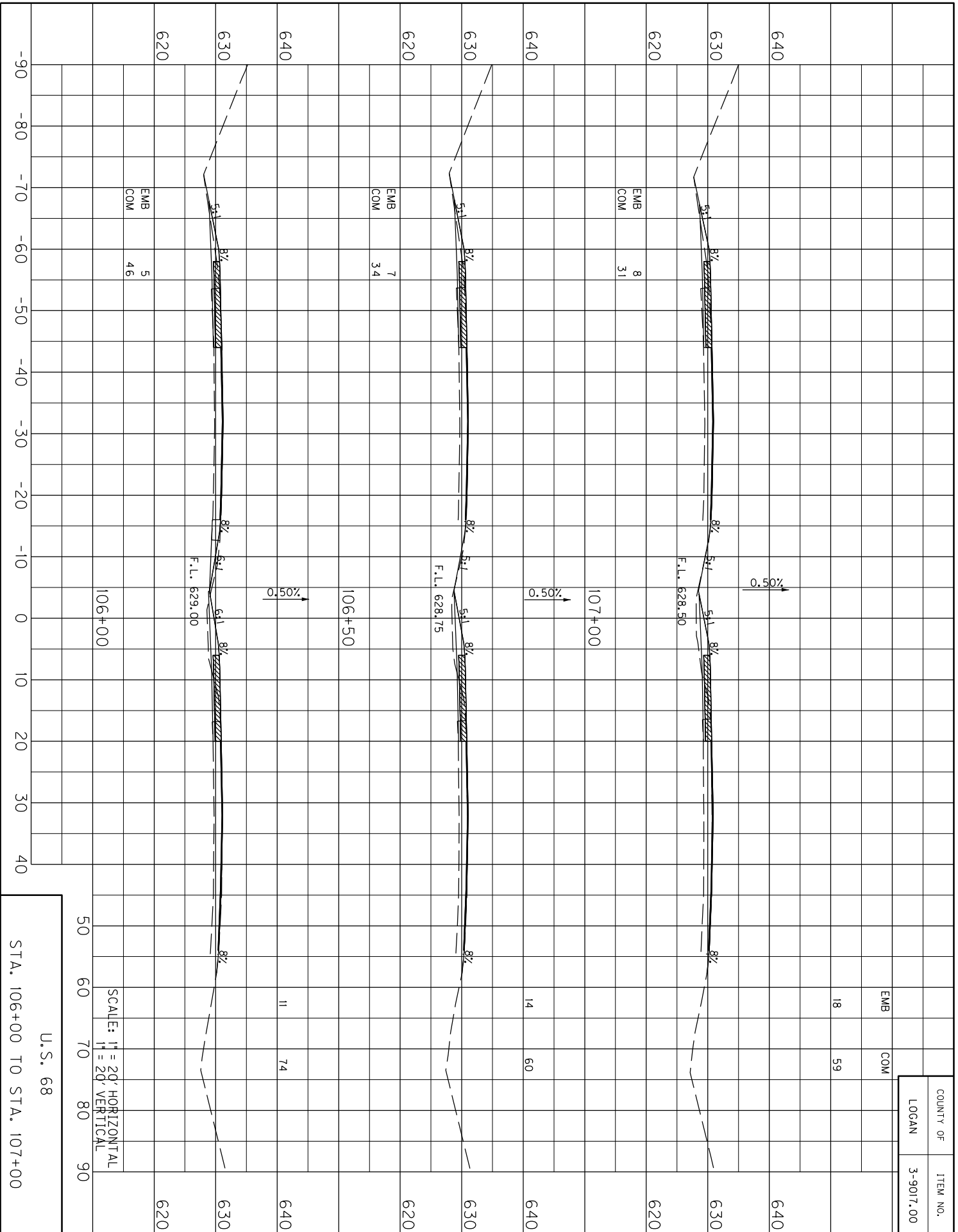
EMB  
COM  
14  
68

SCALE: 1" = 20' HORIZONTAL  
1" = 20' VERTICAL

U.S. 68  
STA. 101+50 TO STA. 102+50







COUNTY OF	ITEM NO.
LOGAN	3-9017.00

EMB COM

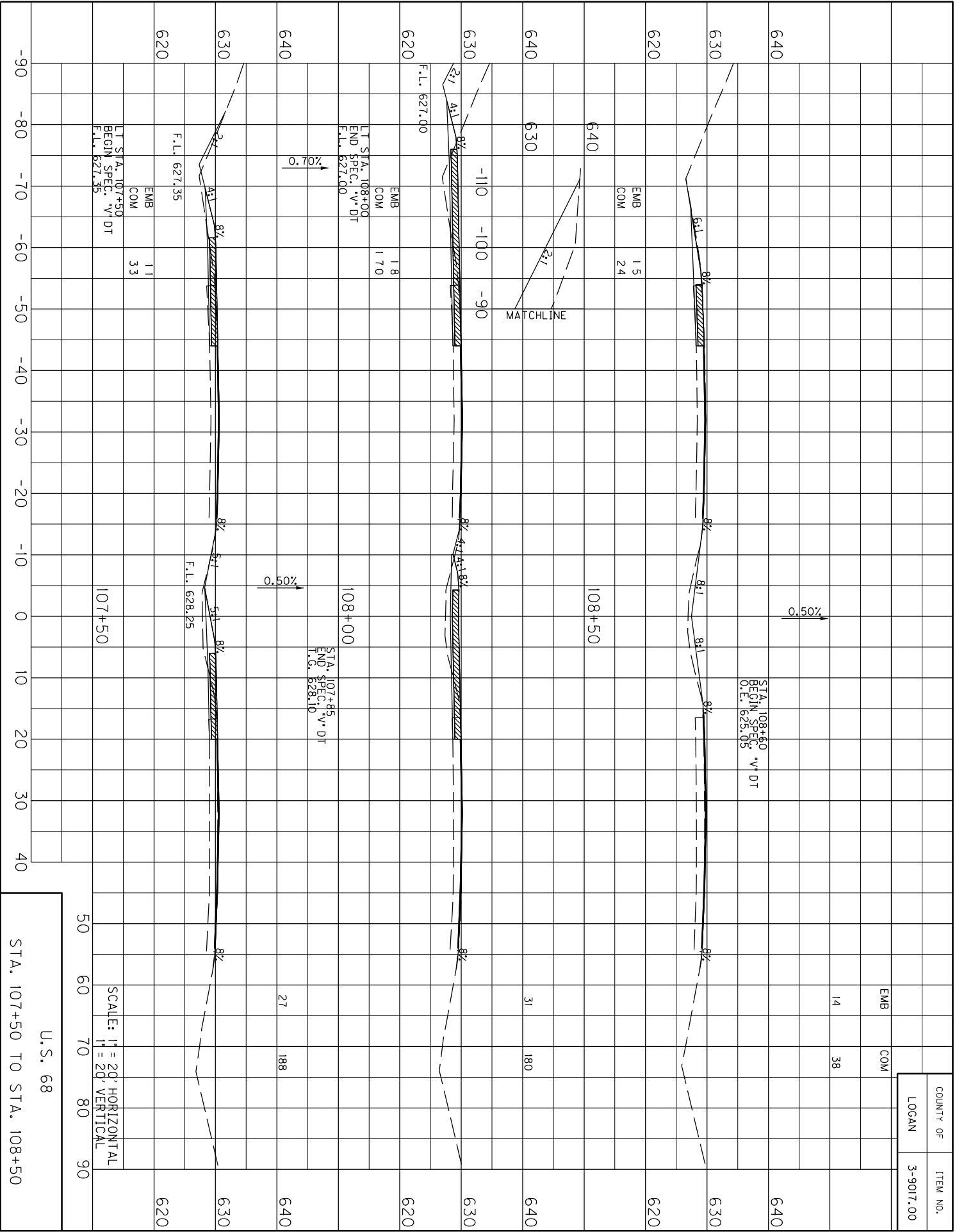
18 59

14 60

11 74

50 60 70 80 90

STA. 106+00 TO STA. 107+00

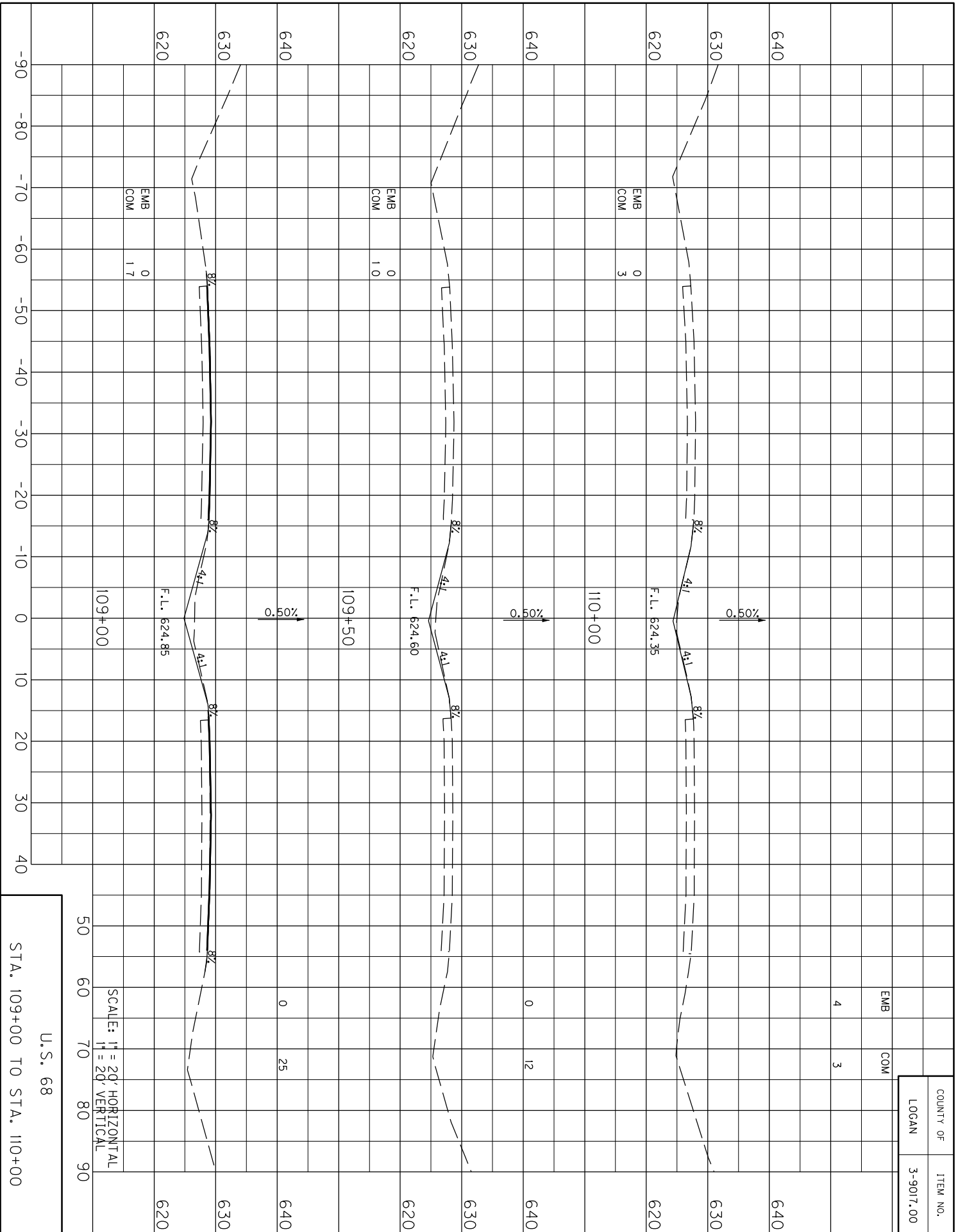


COUNTY OF	ITEM NO.
LOGAN	3-9017.00

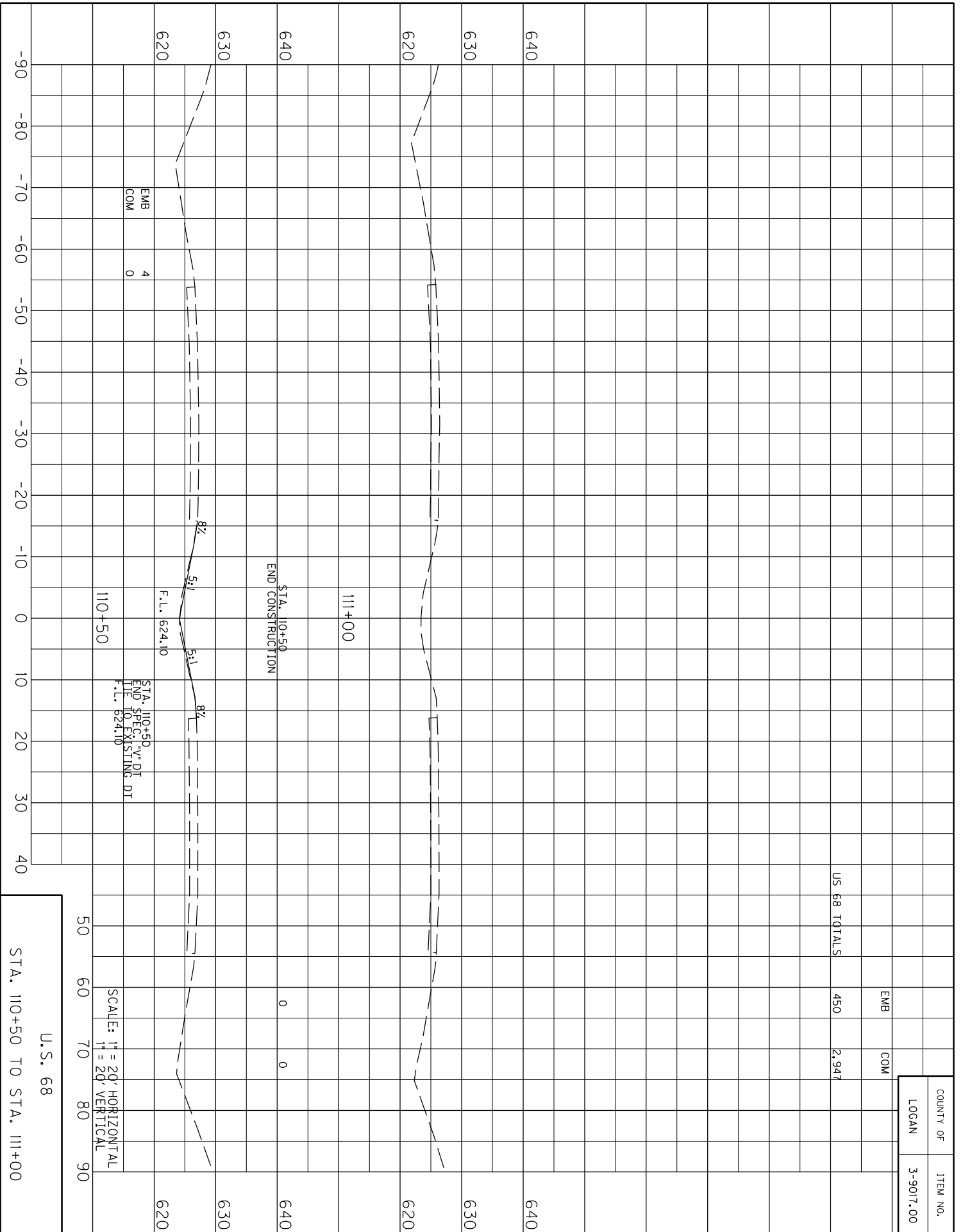
SCALE: 1" = 20' HORIZONTAL  
1" = 20' VERTICAL

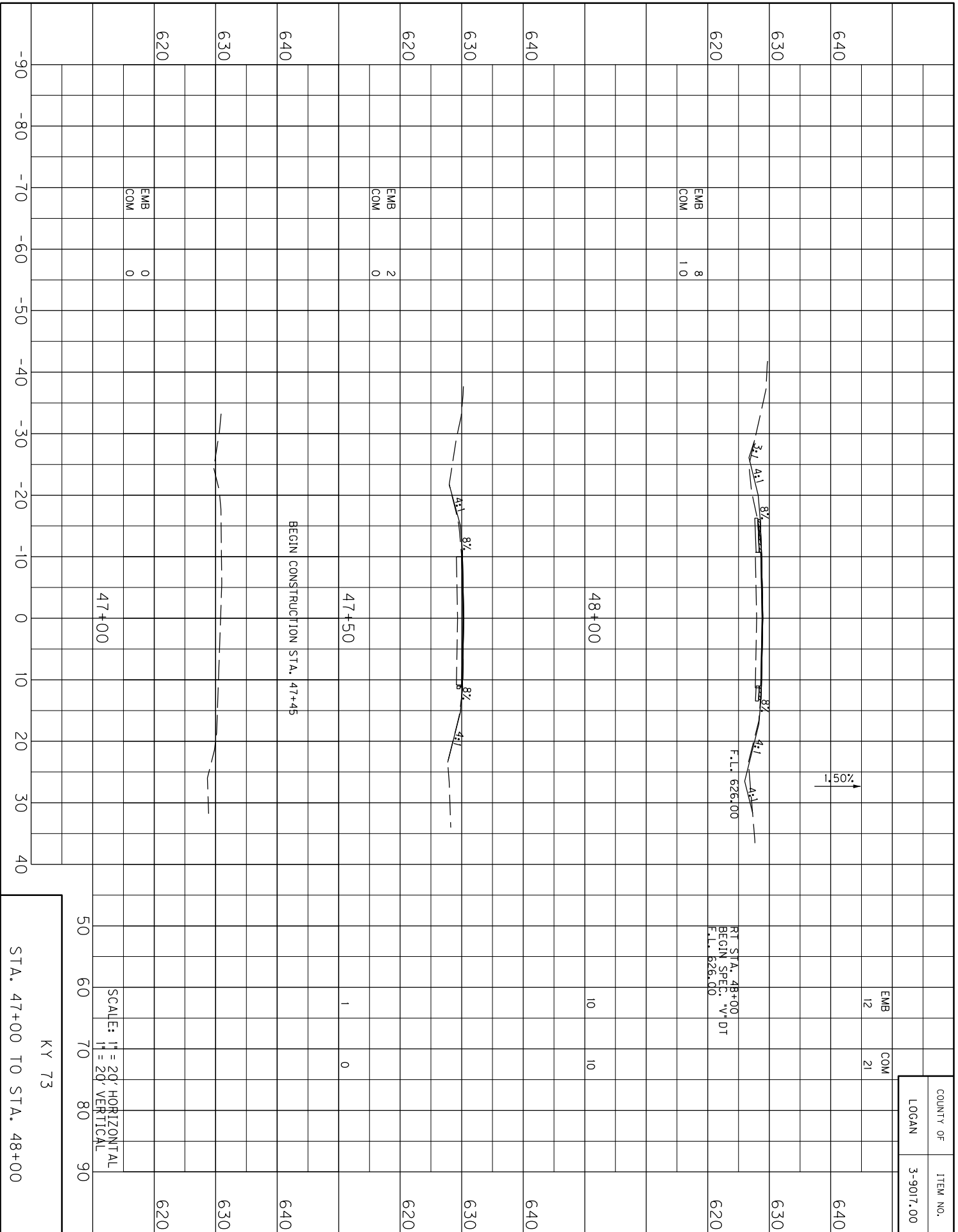
U.S. 68

STA. 107+50 TO STA. 108+50



COUNTY OF	ITEM NO.
LOGAN	3-9017.00



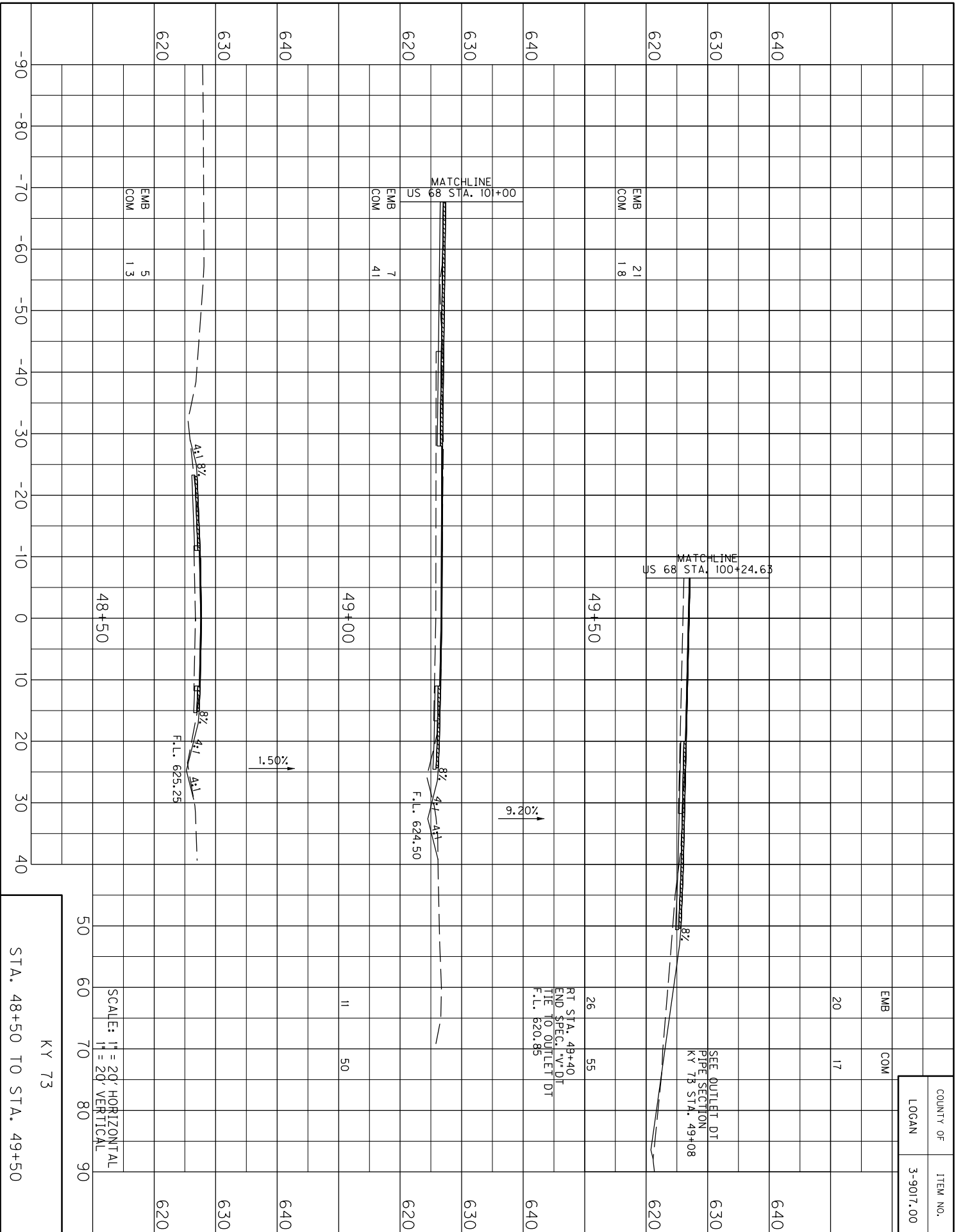


COUNTY OF	ITEM NO.
LOGAN	3-9017.00

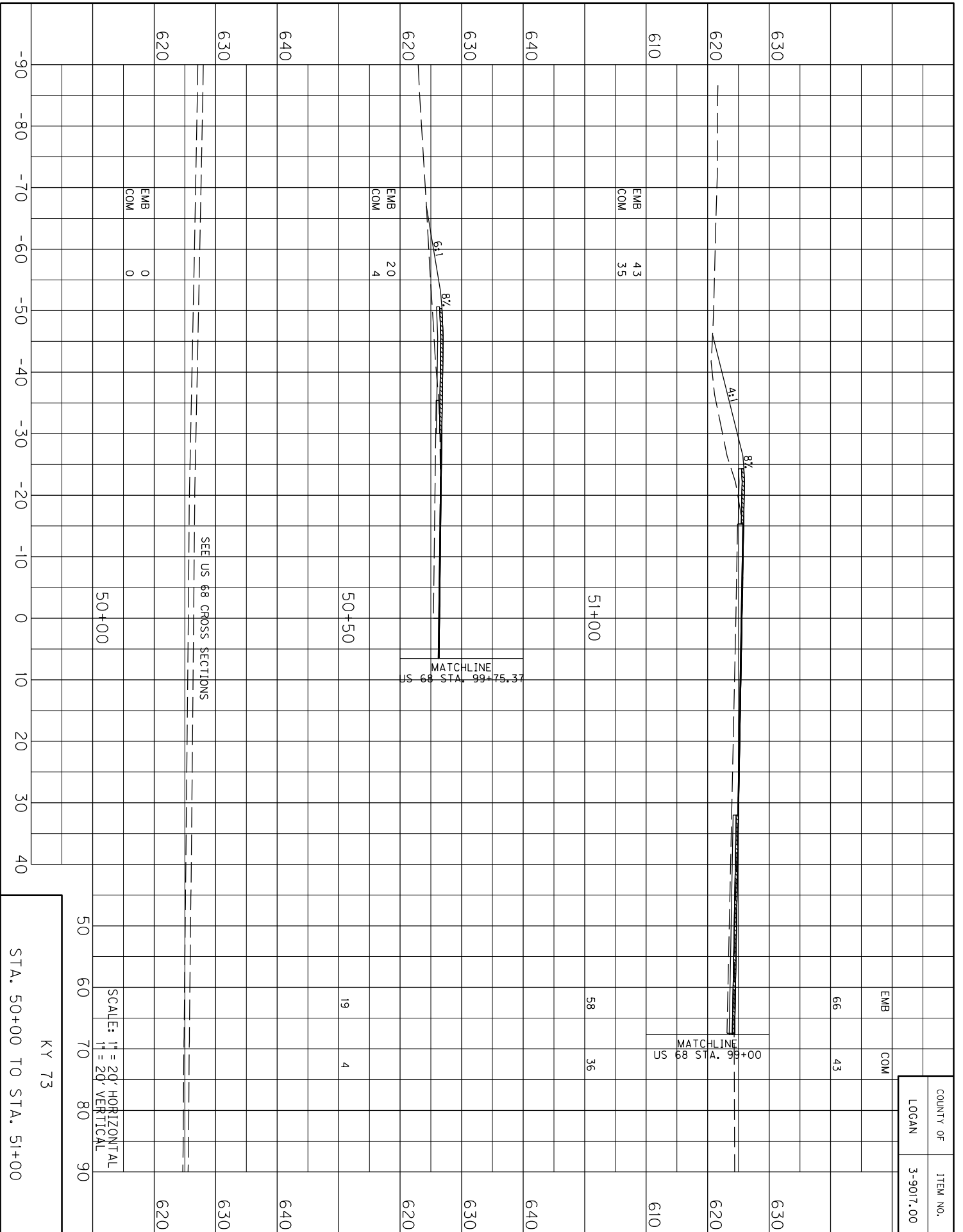
SCALE: 1" = 20' HORIZONTAL  
1" = 20' VERTICAL

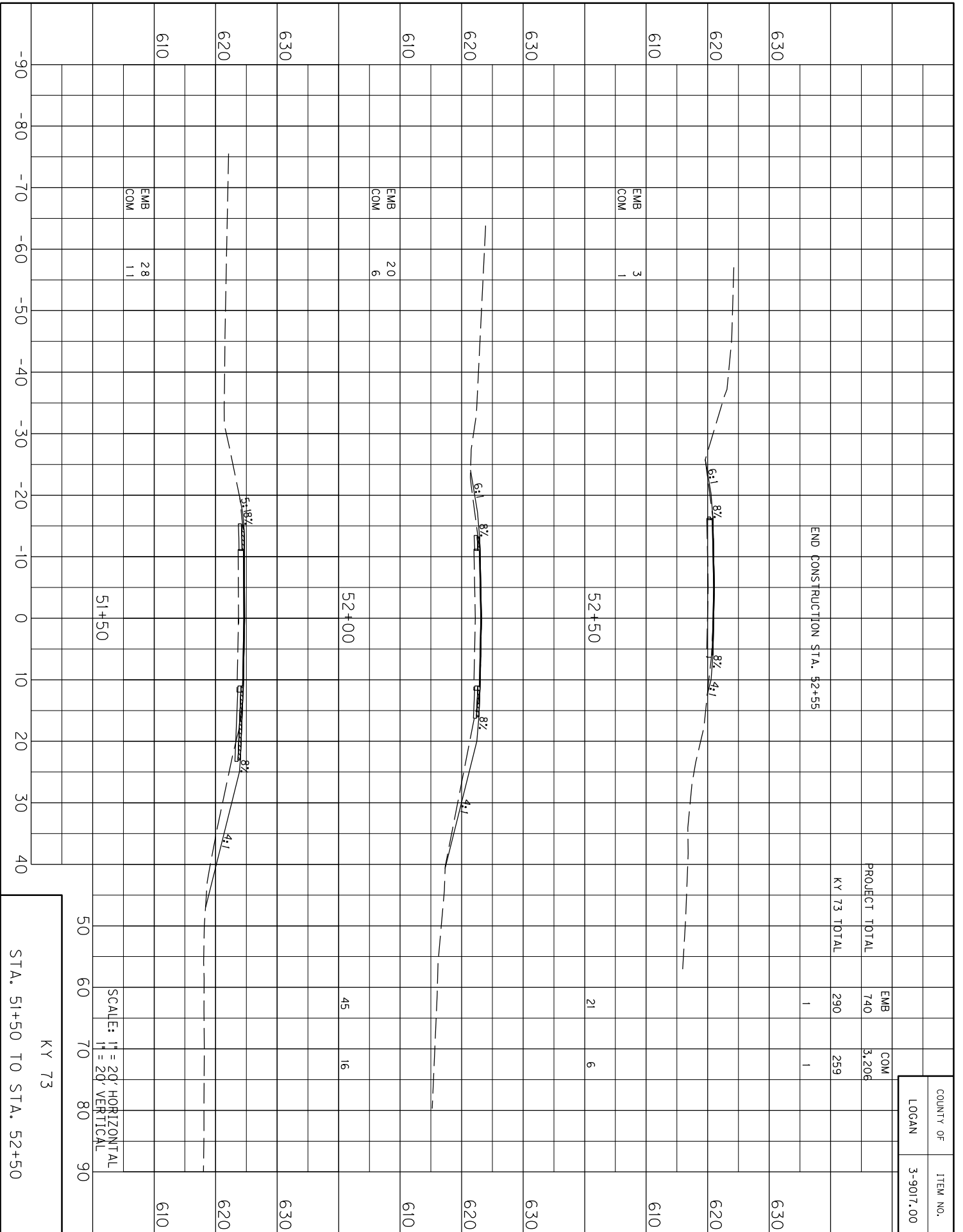
KY 73  
STA. 47+00 TO STA. 48+00





COUNTY OF	ITEM NO.
LOGAN	3-9017.00





**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 BARCODE LABEL ON PERMANENT SIGNS

**1.0 DESCRIPTION.** Install barcode label on sheeting signs. Section references herein are to the Department’s 2019 Standard Specifications for Road and Bridge Construction.

**2.0 MATERIALS.** The Department will provide the Contractor with a 2 inch x 1 inch foil barcode label for each permanent sheeting sign. A unique number will be assigned to each barcode label.

The Contractor shall contact the Operations and Pavement Management Branch in the Division of Maintenance at (502) 564-4556 to obtain the barcode labels.

**3.0 CONSTRUCTION.** Apply foil barcode label in the lower right quadrant of the sign back. Signs where the bottom edge is not parallel to the ground, the lowest corner of the sign shall serve as the location to place the barcode label. The barcode label shall be placed no less than one-inch and no more than three inches from any edge of the sign. The barcode must be placed so that the sign post does not cover the barcode label.

Barcodes shall be applied in an indoor setting with a minimum air temperature of 50°F or higher. Prior to application of the barcode label, the back of the sign must be clean and free of dust, oil, etc. If the sign is not clean, an alcohol swab shall be used to clean the area. The area must be allowed to dry prior to placement of the barcode label.

Data for each sign shall include the barcode number, MUTCD reference number, sheeting manufacturer, sheeting type, manufacture date, color of primary reflective surface, installation date, latitude and longitude using the North American Datum of 1983 (NAD83) or the State Plane Coordinates using an x and y ordinate of the installed location.

Data should be provided electronically on the TC 71-229 Sign Details Information and TC 71-230 Sign Assembly Information forms. The Contractor may choose to present the data in a different format provided that the information submitted to the Department is equivalent to the information required on the Department TC forms. The forms must be submitted in electronic format regardless of which type of form is used. The Department will not accept PDF or handwritten forms. These completed forms must be submitted to the Department prior to final inspection of the signs. The Department will not issue formal acceptance for the project until the TC 71-229 and TC-230 electronic forms are completed for all signs and sign assemblies on the project.

**4.0 MEASUREMENT.** The Department will measure all work required for the installation of the barcode label and all work associated with completion and submission of the sign inventory data (TC 71-229 and TC 71-230).

The installation of the permanent sign will be measured in accordance to Section 715.

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

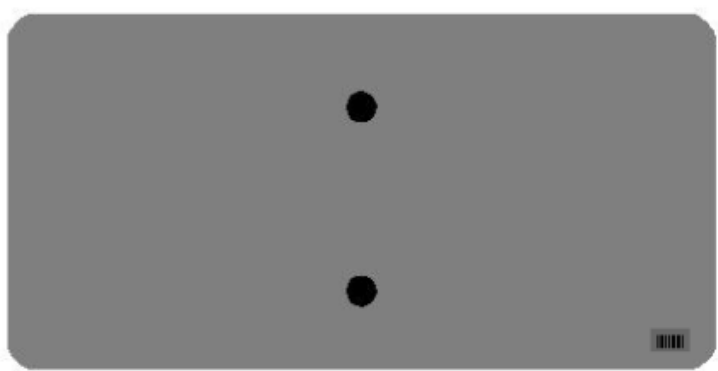
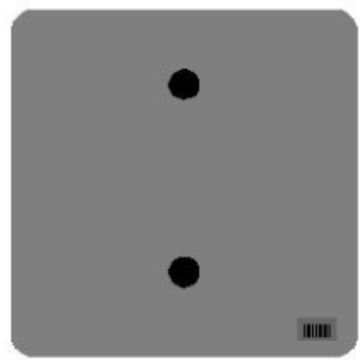
<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
24631EC	Barcode Sign Inventory	Each

The Department will not make payment for this item until all barcodes are installed and sign inventory is complete on every permanent sign installed on the project. The Department will make payment for installation of the permanent sign in accordance to Section 715. The Department will consider payment as full compensation for all work required under this special note.

### One Sign Post

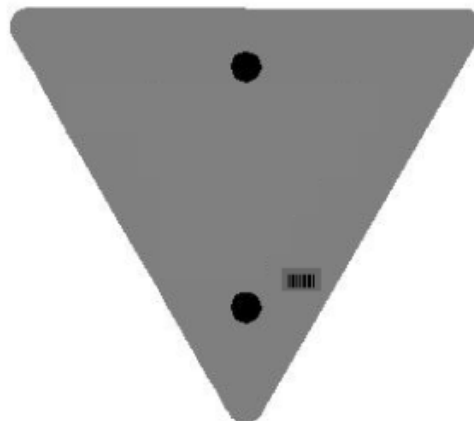
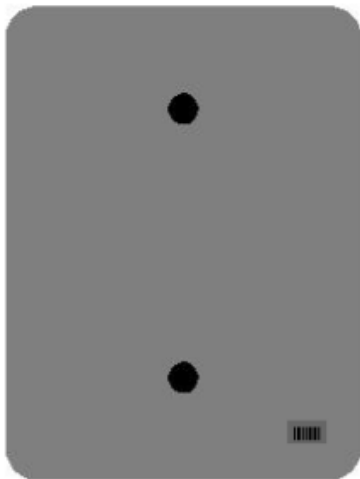
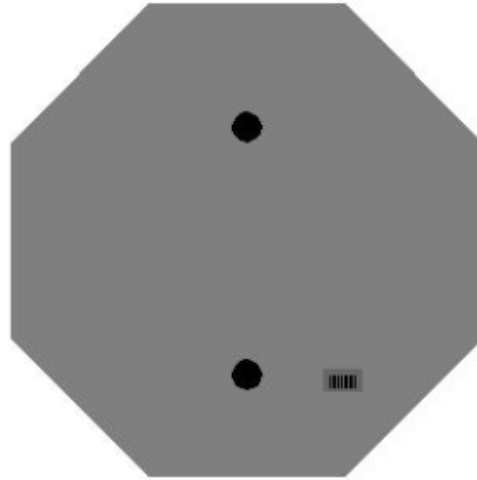
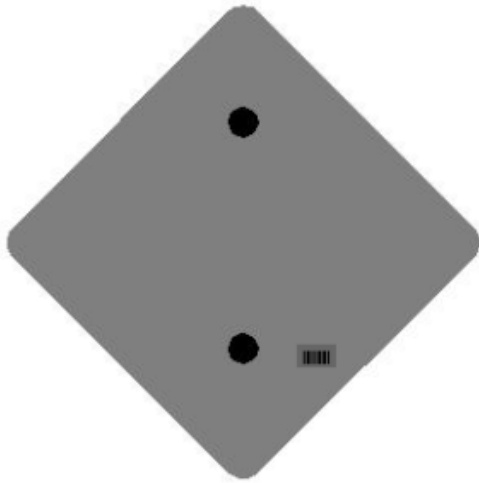


↑  
2" Wide Post

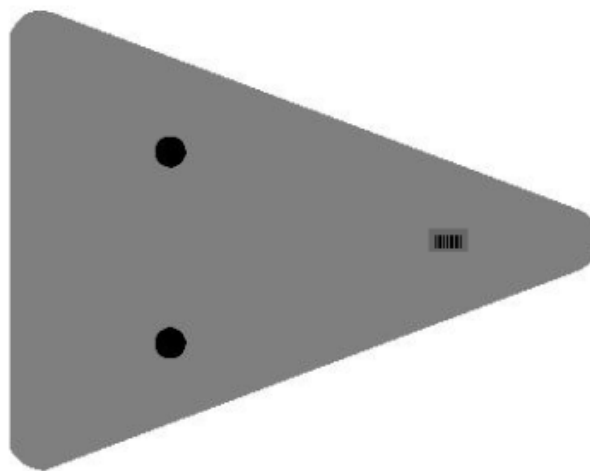
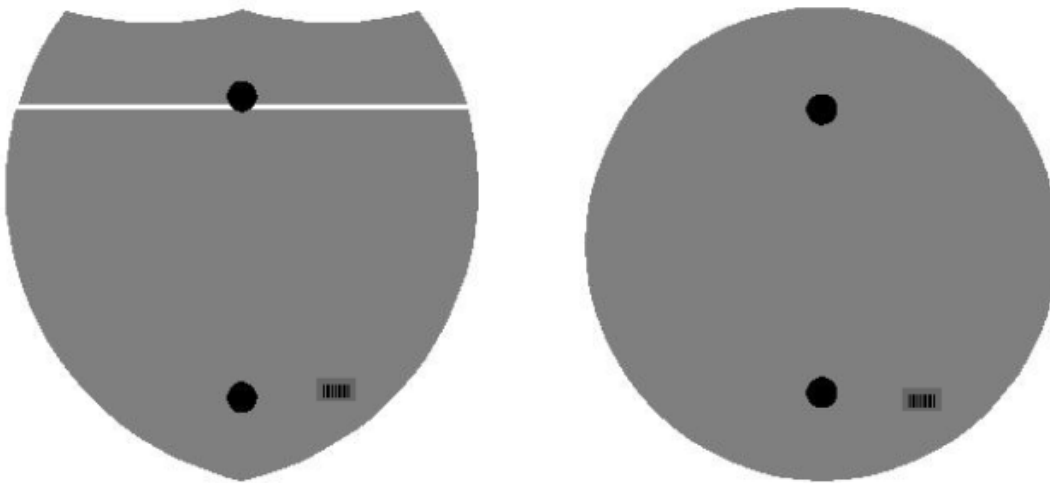




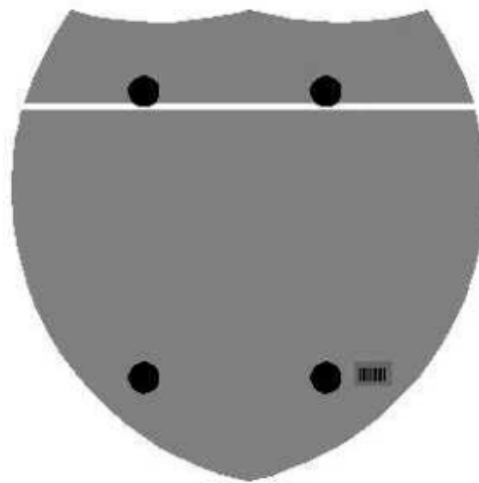
### One Sign Post



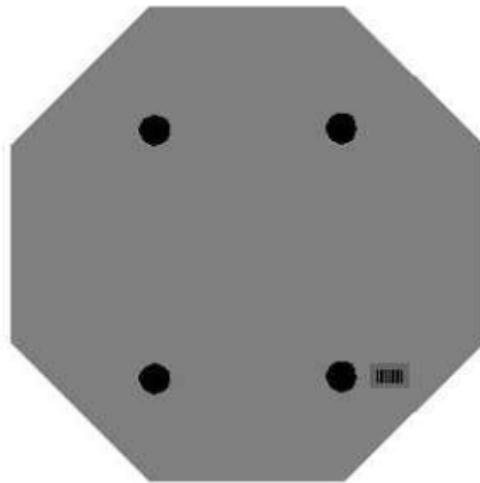
### One Sign Post



### Double Sign Post



Interstate  
Shield

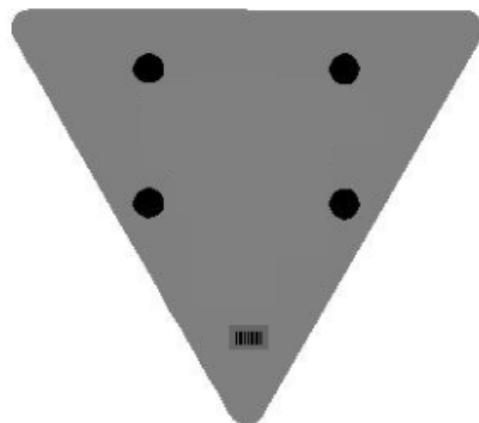


48" Stop

### 2 Post Signs



↑  
2" Wide Post



**SPECIAL NOTE FOR LONGITUDINAL PAVEMENT JOINT ADHESIVE**

1. DESCRIPTION. This specification covers the requirements and practices for applying an asphalt adhesive material to the longitudinal joint of the surface course of an asphalt pavement. Apply the adhesive to the face of longitudinal joint between driving lanes for the first lane paved. Then, place and compact the adjacent lane against the treated face to produce a strong, durable, waterproof longitudinal joint.
2. MATERIALS, EQUIPMENT, AND PERSONNEL.

2.1 Joint Adhesive. Provide material conforming to Subsection 2.1.1.

2.1.1 Provide an adhesive conforming to the following requirements:

Property	Specification	Test Procedure
Viscosity, 400 ° F (Pa·s)	4.0 – 10.0	ASTM D 4402
Cone Penetration, 77 ° F	60 – 100	ASTM D 5329
Flow, 140 ° F (mm)	5.0 max.	ASTM D 5329
Resilience, 77 ° F (%)	30 min.	ASTM D 5329
Ductility, 77 ° F (cm)	30.0 min.	ASTM D 113
Ductility, 39 ° F (cm)	30.0 min.	ASTM D 113
Tensile Adhesion, 77 ° F (%)	500 min.	ASTM D 5329, Type II
Softening Point, ° F	171 min.	AASHTO T 53
Asphalt Compatibility	Pass	ASTM D 5329

Ensure the temperature of the pavement joint adhesive is between 380 and 410 °F when the material is extruded in a 0.125-inch-thick band over the entire face of the longitudinal joint.

2.2. Equipment.

2.2.1 Melter Kettle. Provide an oil-jacketed, double-boiler, melter kettle equipped with any needed agitation and recirculating systems.

2.2.2 Applicator System. Provide a pressure-feed-wand applicator system with an applicator shoe attached.

2.3 Personnel. Ensure a technical representative from the manufacturer of the pavement joint adhesive is present during the initial construction activities and available upon the request of the Engineer.

3. CONSTRUCTION.

3.1 Surface Preparation. Prior to the application of the pavement joint adhesive, ensure the face of the longitudinal joint is thoroughly dry and free from dust or any other debris that would inhibit adhesion. Clean the joint face by the use of compressed air.

Ensure this preparation process occurs shortly before application to prevent the return of debris on the joint face.

3.2 Pavement Joint Adhesive Application. Ensure the ambient temperature is a minimum of 40 ° F during the application of the pavement joint adhesive. Prior to applying the adhesive, demonstrate competence in applying the adhesive according to this note to the satisfaction of the Engineer. Heat the adhesive in the melter kettle to the specified temperature range. Pump the adhesive from the melter kettle through the wand onto the vertical face of the cold joint. Apply the adhesive in a continuous band over the entire face of the longitudinal joint. Do not use excessive material in either thickness or location. Ensure the edge of the extruded adhesive material is flush with the surface of the pavement. Then, place and compact the adjacent lane against the joint face. Remove any excessive material extruded from the joint after compaction (a small line of material may remain).

3.3 Pavement Joint Adhesive Certification. Furnish the joint adhesive's certification to the Engineer stating the material conforms to all requirements herein prior to use.

3.4 Sampling and Testing. The Department will require a random sample of pavement joint adhesive from each manufacturer's lot of material. Extrude two 5 lb. samples of the heated material and forward the sample to the Division of Materials for testing. Reynolds oven bags, turkey size, placed inside small cardboard boxes or cement cylinder molds have been found suitable. Ensure the product temperature is 400°F or below at the time of sampling.

4. MEASUREMENT. The Department will measure the quantity of Pavement Joint Adhesive in linear feet. The Department will not measure for payment any extra materials, labor, methods, equipment, or construction techniques used to satisfy the requirements of this note. The Department will not measure for payment any trial applications of Pavement Joint Adhesive, the cleaning of the joint face, or furnishing and placing the adhesive. The Department will consider all such items incidental to the Pavement Joint Adhesive.
5. PAYMENT. The Department will pay for the Pavement Joint Adhesive at the Contract unit bid price and apply an adjustment for each manufacturer's lot of material based on the degree of compliance as defined in the following schedule. When a sample fails on two or more tests, the Department may add the deductions, but the total deduction will not exceed 100 percent.

11N

Pavement Joint Adhesive Price Adjustment Schedule						
Test	Specification	100% Pay	90% Pay	80% Pay	50% Pay	0% Pay
Joint Adhesive Referenced in Subsection 2.1.1						
Viscosity, 400 ° F (Pa•s) ASTM D 3236	4.0-10.0	3.5-10.5	3.0-3.4 10.6-11.0	2.5-2.9 11.1-11.5	2.0-2.4 11.6-12.0	≤1.9 ≥ 12.1
Cone Penetration, 77 ° F ASTM D 5329	60-100	57-103	54-56 104-106	51-53 107-109	48-50 110-112	≤ 47 ≥ 113
Flow, 140 ° F (mm) ASTM D 5329	≤ 5.0	≤ 5.5	5.6-6.0	6.1-6.5	6.6-7.0	≥ 7.1
Resilience, 77 ° F (%) ASTM D 5329	≥ 30	≥ 28	26-27	24-25	22-23	≤ 21
Tensile Adhesion, 77 ° F (%) ASTM D 5329	≥ 500	≥ 490	480-489	470-479	460-469	≤ 459
Softening Point, ° F AASHTO T 53	≥ 171	≥ 169	166-168	163-165	160-162	≤ 159
Ductility, 77 ° F (cm) ASTM D 113	≥ 30.0	≥ 29.0	28.0-28.9	27.0-27.9	26.0-26.9	≤ 25.9
Ductility, 39 ° F (cm) ASTM D 113	≥ 30.0	≥ 29.0	28.0-28.9	27.0-27.9	26.0-26.9	≤ 25.9

Code  
20071EC

Pay Item  
Joint Adhesive

Pay Unit  
Linear Foot

May 7, 2014

**2016 STANDARD DRAWINGS THAT APPLY**

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**ROADWAY**

**~ DRAINAGE ~**

**BOX INLETS AND OUTLETS**

**DROP BOXES**

DROP BOX INLET TYPE 5A-5B-5C-5D-5E & 5F .....	RDB-005-09
DROP BOX INLET TYPE 13 (DETAIL SHEET).....	RDB-013-07
DROP BOX INLET TYPE 13 AND TYPE 16 (FRAME & GRATE DETAILS) .....	RDB-014-06
DROP BOX INLET TYPE 13 (DETAIL & BAR CHART FOR LID).....	RDB-015-04
DROP BOX INLET TYPE 13 (PIPE CHAMBER - GRADE CONDITION) .....	RDB-016-03
DROP BOX INLET TYPE 13 (PIPE CHAMBER - SAG CONDITION) .....	RDB-017-03
DROP BOX INLET TYPE 13 (ADDITIONAL STEEL - RISER).....	RDB-018-04
DROP BOX INLET TYPE 13 (ADDITIONAL STEEL - CHAMBER).....	RDB-019-04

**SLOPED BOXES**

SLOPED BOX OUTLET TYPE 1 .....	RDB-100-05
GRATES FOR SLOPED BOX OUTLET TYPE 1 .....	RDB-101-05
SLOPED AND FLARED BOX INLET-OUTLET 18"-24"-30"-36" ALL SKEWS.....	RDB-105-06
GRATES FOR SLOPED AND FLARED BOX INLET-OUTLET .....	RDB-106-05
SLOPED BOX INLET OR OUTLET TYPE 1 .....	RDB-110-08

**TYPICAL DRAINAGE INSTALLATIONS**

CULVERT, ENTRANCE & STORM SEWER PIPE TYPES & COVER HEIGHTS (12" – 24" PIPE) .....	RDI-001-10
CULVERT, ENTRANCE & STORM SEWER PIPE TYPES & COVER HEIGHTS (27" – 42" PIPE) .....	RDI-002-05
PIPE BEDDING FOR CULVERTS, ENTRANCE, AND STORM SEWER PIPE .....	RDI-020-09
PIPE BEDDING FOR CULVERTS, ENTRANCE, AND STORM SEWER, REINFORCED CONC. PIPE .....	RDI-021-01
PIPE BEDDING, TRENCH CONDITION .....	RDI-025-05
PIPE BEDDING, TRENCH CONDITION, REINFORCED CONC. PIPE .....	RDI-026-01
COATINGS, LININGS AND PAVINGS FOR NON-STRUCTURAL PLATE PIPE .....	RDI-035-02
EROSION CONTROL BLANKET SLOPE INSTALLATION.....	RDI-040-01
EROSION CONTROL BLANKET CHANNEL INSTALLATION.....	RDI-041-01
TYPICAL MEDIAN DRAIN INSTALLATIONS .....	RDI-045-02

**MANHOLES**

MANHOLE TYPE A .....	RDM-001-07
MANHOLE STEPS.....	RDM-055
FRAME AND LID TYPE 1 .....	RDM-100-03
FRAME AND LID TYPE 2 .....	RDM-105-03

**MISCELLANEOUS DRAINAGE**

INTERMEDIATE AND END ANCHORS FOR CIRCULAR PIPE .....	RDX-060-04
SECURITY DEVICES FOR FRAMES, GRATES AND LIDS.....	RDX-160-06
TEMPORARY SILT FENCE.....	RDX-210-03
SILT TRAP - TYPE A .....	RDX-220-05
SILT TRAP - TYPE B.....	RDX-225-01
SILT TRAP - TYPE C.....	RDX-230-01



Standard Drawings That Apply  
Page 2 of 2

*~ GENERAL ~*

CURVE WIDENING AND SUPERELEVATION

CURVE WIDENING AND SUPERELEVATION TRANSITIONS .....	RGS-001-07
SUPERELEVATION FOR MULTILANE PAVEMENTS .....	RGS-002-06

MISCELLANEOUS STANDARDS

MISCELLANEOUS STANDARDS PART 1 .....	RGX-001-06
TYPICAL EMBANKMENT FOUNDATION BENCHES .....	RGX-010-04
TYPE D BREAKAWAY SIGN SUPPORT .....	RGX-065-02

*~ PAVEMENT ~*

MEDIANS, CURBS, APPROACHES, ENTRANCES, ETC.

STANDARD BARRIER MEDIAN .....	RPM-010-06
APPROACHES, ENTRANCES, AND MAIL BOX TURNOUT .....	RPM-110-07

**TRAFFIC**

*~ PERMANENT ~*

RAISED PAVEMENT MARKERS

PAVEMENT MARKER ARRANGEMENTS MULTI-LANE ROADWAYS .....	TPM-100-03
PAVEMENT MARKER ARRANGEMENTS MULTI-LANE ROADWAYS .....	TPM-105-03
PAVEMENT MARKER ARRANGEMENTS MULTI-LANE ROADWAYS .....	TPM-110-03
PAVEMENT MARKER ARRANGEMENT CHANNELIZED INTERSECTION .....	TPM-145-03
SHOULDER & EDGELINE RUMBLE STRIP DETAILS .....	SEPIA-005
SHOULDER RUMBLE STRIP DETAILS TWO LANE ROADWAYS .....	SEPIA-007
RUMBLE STRIP DETAILS MULTI-LANE ROADWAYS AND RAMPS .....	SEPIA-008

*~ TEMPORARY ~*

TRAFFIC CONTROL

LANE CLOSURE TWO-LANE HIGHWAY .....	TTC-100-04
LANE CLOSURE MULTI-LANE HIGHWAY CASE I .....	TTC-115-03
LANE CLOSURE MULTI-LANE HIGHWAY CASE II .....	TTC-120-03
SHOULDER CLOSURE .....	TTC-135-02

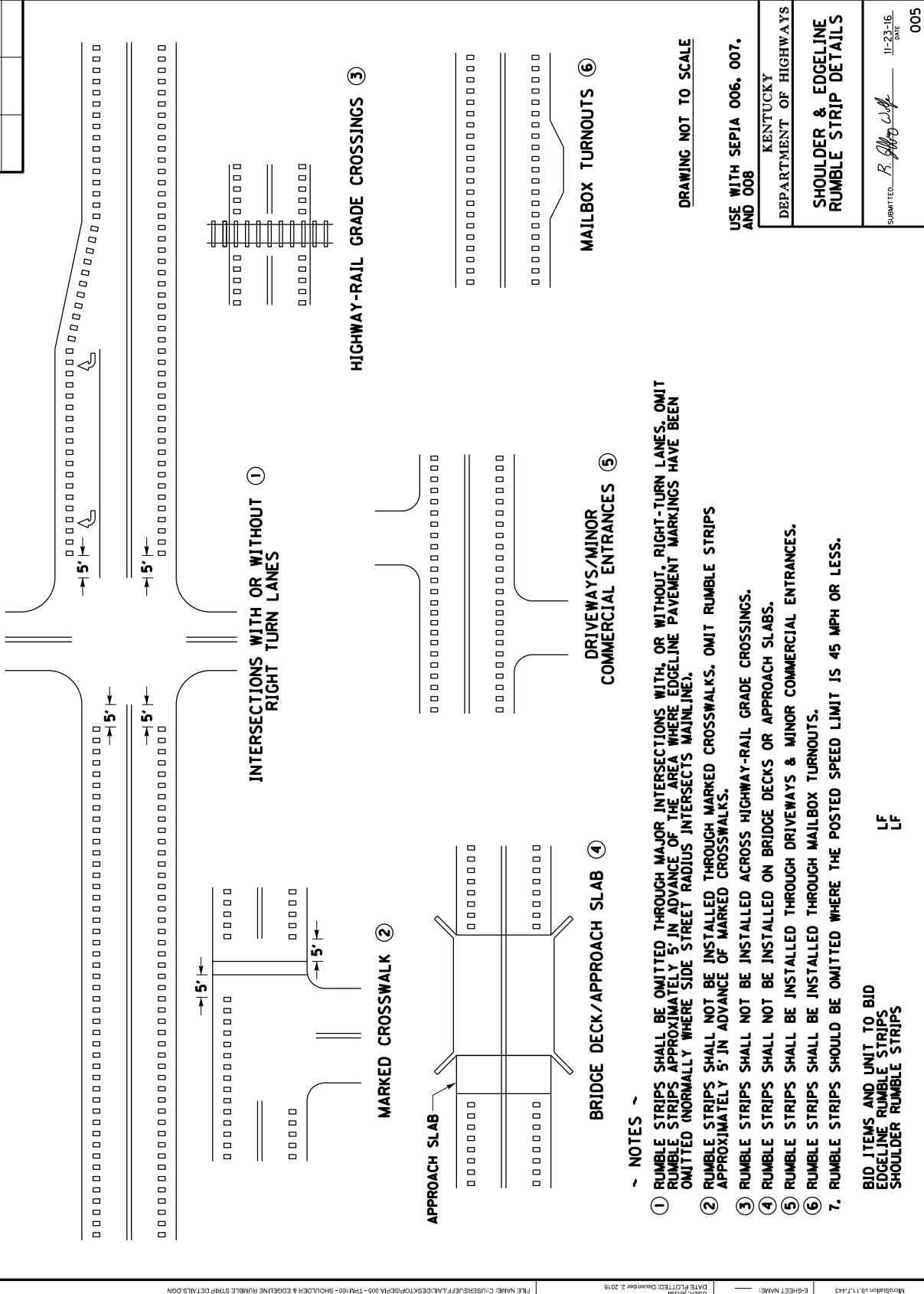
DEVICES

DOUBLE FINES ZONE SIGNS .....	TTD-120-02
PAVEMENT CONDITION WARNING SIGNS .....	TTD-125-02

STRIPING OPERATIONS

MOBILE OPERATION FOR PAINT STRIPING CASE I .....	TTS-100-02
MOBILE OPERATION FOR PAINT STRIPING CASE II .....	TTS-105-02
MOBILE OPERATION FOR PAINT STRIPING CASE III .....	TTS-110-02
MOBILE OPERATION FOR PAINT STRIPING CASE IV .....	TTS-115-02
MOBILE OPERATION FOR DURABLE STRIPING CASE I .....	TTS-120-02
MOBILE OPERATION FOR DURABLE STRIPING CASE III .....	TTS-130-02
MOBILE OPERATION FOR DURABLE STRIPING CASE IV .....	TTS-135-02

COUNTY OF	TERRITORY	SHEET NO.



- ~ 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 EDGELINE 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.

BID ITEMS AND UNIT TO BID  
EDGELINE RUMBLE STRIPS  
SHOULDER RUMBLE STRIPS

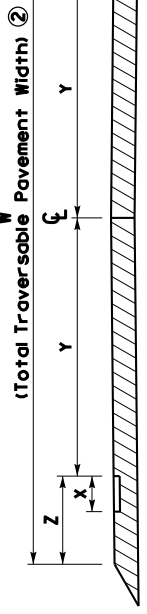
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USE WITH SEPIA 006, 007,  
AND 008

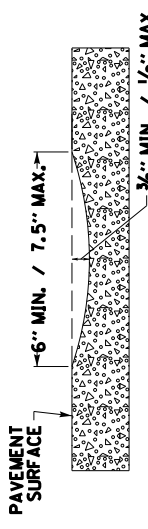
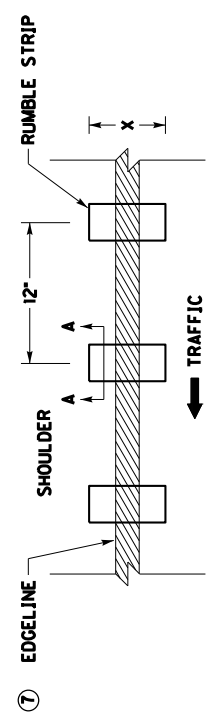
KENTUCKY  
DEPARTMENT OF HIGHWAYS  
SHOULDER & EDGELINE  
RUMBLE STRIP DETAILS

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

COUNTY OF	TIERING	SHEET NO.
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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.  
NOTE: 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

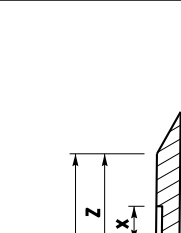
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KENTUCKY  
DEPARTMENT OF HIGHWAYS  
EDGELINE RUMBLE STRIP  
DETAILS  
TWO LANE ROADWAYS

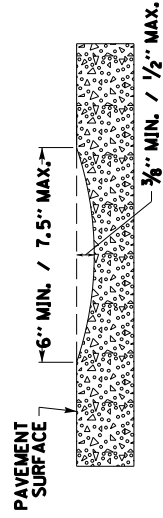
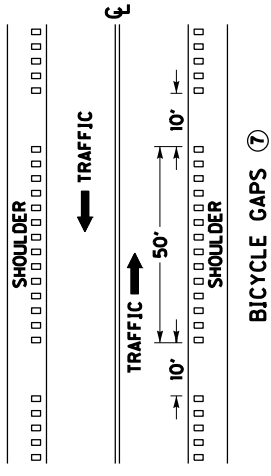
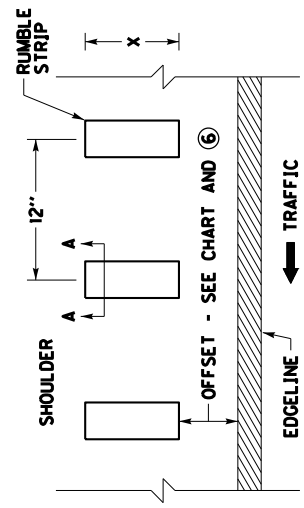
SUBMITTED: *B. [Signature]*  
DATE: 11-23-16  
006

COUNTY OF	TERMIN	SHEET NO.
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PAVEMENT CROSS-SECTION

PAVEMENT WIDTH (W) ②	RUMBLE LENGTH (X) ⑤	OFFSET ⑥	CLRS & SRS	
			LANE WIDTH (Y) ③	SHOULDER WIDTH (Z) ④
34'	8"	6"	12'	5'
35'	8"	6"	12'	5.5'
36'	8"	6"	12'	6'
37'	12"	12"	12'	6.5'
38'	12"	12"	12'	7'
39'	12"	12"	12'	7.5'
>=40'	16"	12"	12'	>=8'



~ NOTES ~

- SHOULDER 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 CENTER OF EDGE LINE STRIPE.
- PAVED SHOULDER WIDTH (Z) TO BE MEASURED FROM CENTER OF EDGE LINE STRIPE 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.
- NOTE: CENTERLINE RUMBLE STRIPS SHOULD BE OMITTED WHEN THE LANE WIDTH (Y) IS LESS THAN 11 FT.
- RUMBLE LENGTH (X) AND/OR OFFSET DISTANCE MAY BE MODIFIED AS THE ENGINEER DIRECTS, IF THE SHOULDER WIDTH (Z) IS EQUAL TO OR LESS THAN THE COMBINED WIDTH OF THE PROPOSED RUMBLE LENGTH (X) AND OFFSET DISTANCE.
- ALL SHOULDER RUMBLE STRIPS ALONG SHOULDERS THAT ARE 5' OR WIDER SHOULD INCLUDE BICYCLE GAPS AS DETAILED.
- SHOULDER RUMBLE STRIPS SHOULD BE OMITTED WHERE THE POSTED SPEED LIMIT IS 45 MPH OR LESS.

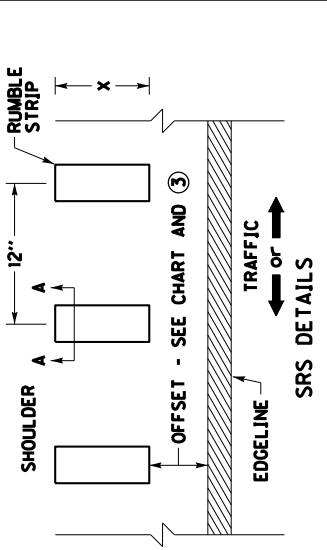
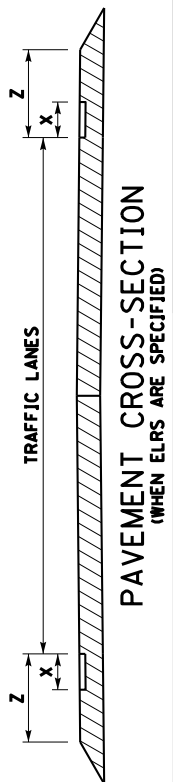
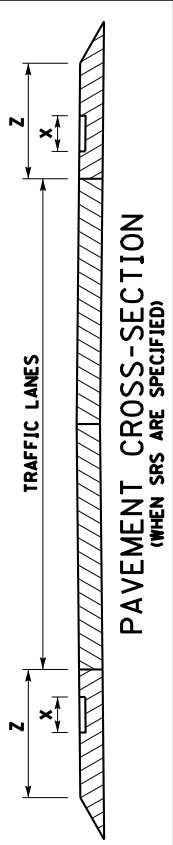
DRAWING NOT TO SCALE

USE WITH SEPIA 005  
KENTUCKY  
DEPARTMENT OF HIGHWAYS  
SHOULDER RUMBLE STRIP  
DETAILS  
TWO LANE ROADWAYS

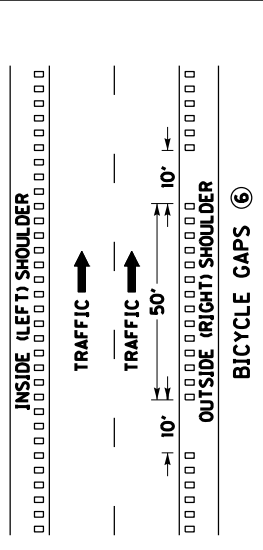
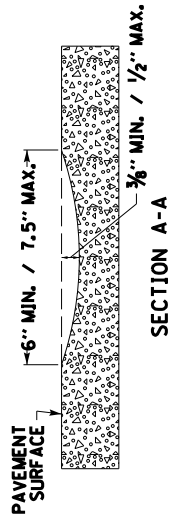
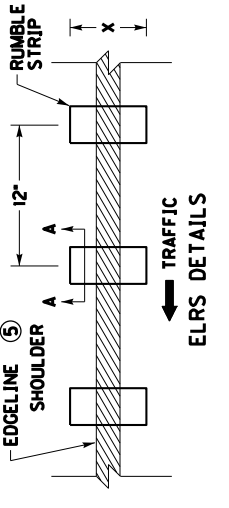
SUBMITTED: *B. [Signature]*  
DATE: 11-23-16  
007

BID ITEM AND UNIT TO BID  
SHOULDER RUMBLE STRIPS  
LF

COUNTY OF	TERRITORY	SHEET NO.



SHOULDER WIDTH (Z) ②	RUMBLE TYPE ①	RUMBLE LENGTH (X) ③	OFFSET ④
>1'	ELRS	8"	N/A
2'	ELRS OR SRS	8"	ELRS-N/A SRS-6"
3'	ELRS OR SRS	8"	ELRS-N/A SRS-6"
4'	ELRS OR SRS	8"	ELRS-N/A SRS-6"
5'	SRS ⑥	8"	6"
6'	SRS ⑥	8"	6"
7'	SRS ⑥	12"	12"
>8'	SRS ⑥	16"	12"



- NOTES ~**
- FOR MULTI-LANE ROADWAYS, THE RUMBLE TYPE TO BE INSTALLED IS BASED ON SHOULDER WIDTH (Z), FOR SHOULDER WIDTHS OF 2', 3', AND 4' THE RUMBLE TYPE MAY BE SPECIFIED AS EITHER EDGE LINE RUMBLE STRIPS (ELRS) OR SHOULDER RUMBLE STRIPS (SRS). IN THESE SITUATIONS, THE RUMBLE TYPE TO BE INSTALLED WILL BE SPECIFIED IN THE PLANS, PROPOSAL, AND/OR BID ITEMS, OR AS DIRECTED BY THE ENGINEER.
  - WHEN ELRS ARE SPECIFIED, SHOULDER WIDTH (Z) IS FROM LANE SIDE EDGE OF RUMBLE STRIP TO OUTSIDE EDGE OF TRAVERSABLE PAVEMENT.
  - WHEN SRS ARE SPECIFIED, SHOULDER WIDTH (Z) IS FROM CENTER OF EDGE LINE STRIPE TO OUTSIDE EDGE OF TRAVERSABLE PAVEMENT.
  - RUMBLE LENGTH (X) AND/OR OFFSET DISTANCE MAY BE MODIFIED AS THE ENGINEER DIRECTS. IF THE SHOULDER WIDTH (Z) IS EQUAL TO OR LESS THAN THE COMBINED WIDTH OF THE PROPOSED RUMBLE LENGTH (X) AND OFFSET DISTANCE.
  - DISTANCES SHOWN ARE APPROXIMATE. MAINTAIN RUMBLE STRIP DIMENSIONS AND SPACING AS MUCH AS POSSIBLE.
  - WHEN ELRS ARE SPECIFIED, THE EDGE LINE MARKING SHALL BE PLACED IN THE CENTER OF THE RUMBLE STRIP.
  - SHOULDER RUMBLE STRIPS (SRS) ALONG OUTSIDE (RIGHT) SHOULDERS THAT ARE 5' OR WIDER SHOULD INCLUDE BICYCLE GAPS AS DETAILED. BICYCLE GAPS ARE NOT REQUIRED ON INSIDE (LEFT) SHOULDERS. BICYCLE GAPS SHALL NOT BE USED ON INTERSTATES AND PARKWAYS.
  - RUMBLE STRIPS SHOULD BE OMITTED WHERE THE POSTED SPEED LIMIT IS 45 MPH OR LESS, OR WHEN THE SHOULDER WIDTH IS LESS THAN 1 FT.

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

LF  
LF

USE WITH SEP1A 005

KENTUCKY  
DEPARTMENT OF HIGHWAYS

**RUMBLE STRIP DETAILS**  
**MULTI-LANE ROADWAYS**  
**AND RAMP**

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

008

COUNTY OF	SHEET NO.
ITEM NO.	

**STRIPING NOTES:**

- ARROWS SHALL BE USED IN ANY EXCLUSIVE TURN LANES.
- IN A SINGLE TURN LANE, DOTTED WHITE LINE EXTENSIONS MAY BE USED THROUGH THE TAPER OF THE TURN LANE.
- IF USED, DOTTED WHITE LANE LINE EXTENSIONS SHALL BE NORMAL WIDTH, AND SHOULD BE 2' LONG, WITH A GAP OF 2-6' BETWEEN EACH LINE.
- IN DUAL TURN LANES, DOTTED WHITE LANE LINE EXTENSIONS SHOULD BE USED THROUGH THE TAPER OF THE TURN LANE. BOTH SOLID LINES FORMING THE TURN LANES SHALL BEGIN AT THE DOWNSTREAM END OF THE TAPER.

**ARROW SPACING NOTES:**

- IN SINGLE-DIRECTION TURN LANES, ARROWS SHOULD BE SPACED AS FOLLOWS:
- AT LEAST TWO ARROWS SHOULD BE USED IN EACH TURN LANE. HOWEVER, IF A TURN LANE IS LESS THAN 80' IN LENGTH, THE DOWNSTREAM ARROW MAY BE ELIMINATED.
- THE FIRST UPSTREAM ARROW SHALL BE PLACED AT THE BEGINNING OF THE SOLID LINE FOR THE TURN LANE.
- THE LAST DOWNSTREAM ARROW SHOULD BE PLACED 40' FROM THE STOP BAR.
- ANY ADDITIONAL ARROWS SHOULD BE EVENLY SPACED. SPACING SHOULD NOT EXCEED 80'.
- ARROW SPACING AND NUMBER OF ARROWS MAY VARY BASED ON SITE CONDITIONS.

**DOTTED EXTENSION DIMENSIONS:**



Dotted extensions shall be normal width.

**KENTUCKY DEPARTMENT OF HIGHWAYS**

**TYPICAL MARKINGS FOR TURN LANES**

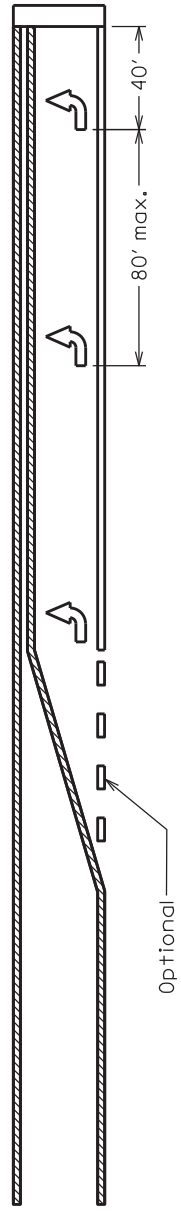
SUBMITTED: *R. [Signature]* DATE: 11-30-18 **042**

**DRAWING NOT TO SCALE**

**LEGEND**

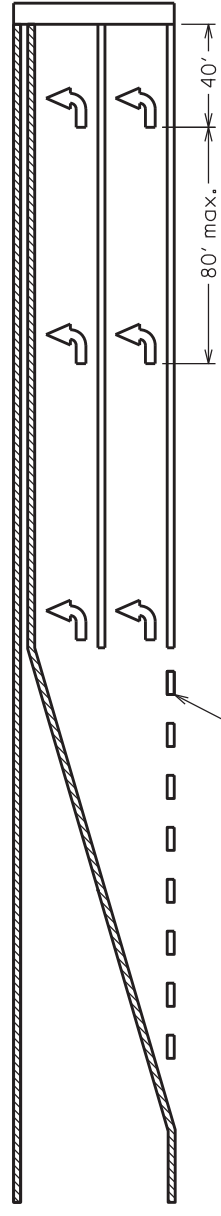
MARKINGS	WHITE
	YELLOW

Single turn lane



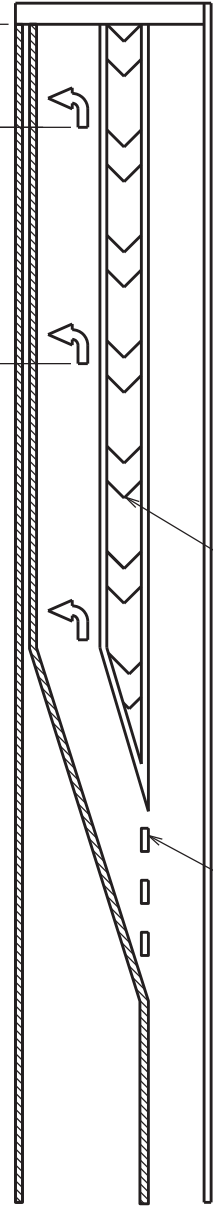
Optional

Dual turn lane



Recommended for dual turn lanes

Offset turn lane



Optional for offset left-turn lanes

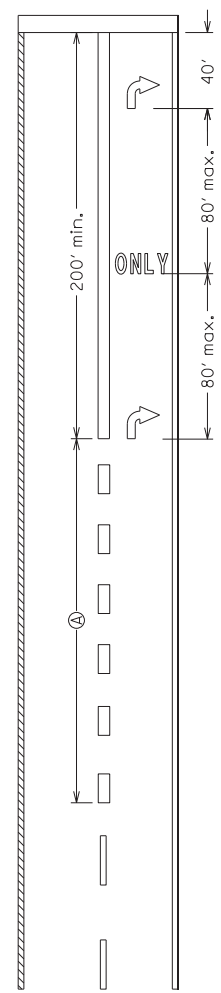
Chevron markings shall be used for offsets greater than 6'. Follow crosshatching guidelines shown in Sepia 046 for dimensions and spacing.

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ITEM NO.	

**LANE\_DROP\_MARKINGS\_NOTES:**

- IN SITUATIONS WHERE A THROUGH LANE BECOMES A MANDATORY TURN LANE, THE FOLLOWING GUIDELINES APPLY:
  - A WIDE SOLID LINE SHOULD EXTEND BACK A MINIMUM OF 200' FROM THE STOP BAR.
  - A WIDE, DOTTED LINE SHALL EXTEND FROM THE END OF THE SOLID LINE BACK A MINIMUM OF THE DISTANCE SHOWN IN THE CHART (A). THESE LINES SHALL BE 3' LONG, WITH A SPACE OF 9' BETWEEN LINES.
  - ALTERNATING ARROWS AND "ONLY" WORD MESSAGES SHALL BE USED, WITH THE FIRST AND LAST MARKING BEING AN ARROW.
  - ALTERNATING ARROWS AND "ONLY" WORD MESSAGES SHOULD BE SPACED EVENLY, FOLLOWING GUIDELINES FOR ARROW SPACING. THESE SYMBOLS SHALL EXTEND BACK AT LEAST TO THE END OF THE SOLID STRIPE, BUT MAY BE EXTENDED BACK FARTHER IF ADDITIONAL GUIDANCE IS NEEDED.

Lane drop scenario



Speed Limit	(A)
25	125'
35	245'
45	540'
55	660'
65	780'

**WIDE DOTTED LANE LINE DIMENSIONS:**

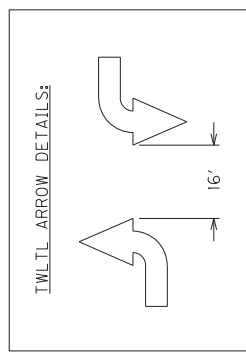
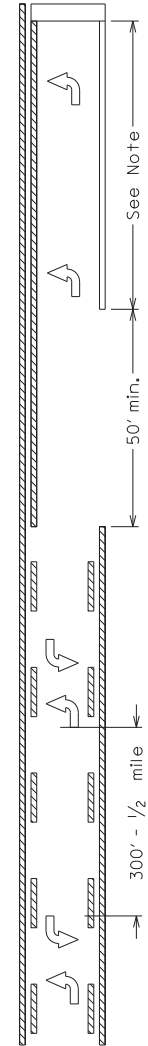
3' → | → 9'

Dotted lane lines shall be twice the normal width in lane drop scenarios.

**TWO-WAY LEFT-TURN LANE NOTES:**

- IN A TWO-WAY LEFT-TURN LANE, THE FOLLOWING GUIDELINES APPLY:
  - ONE SET OF ARROWS SHOULD BE PLACED AT OR NEAR THE BEGINNING OF THE TWO-WAY LEFT-TURN LANE.
  - ADDITIONAL SETS OF ARROWS SHOULD BE PLACED THROUGHOUT THE TWO-WAY LEFT-TURN LANE IF LEFT TURN MOVEMENTS ARE EXPECTED. THEY SHOULD BE SPACED NO LESS THAN 300' AND NO MORE THAN 1/2 MILE.
  - THE SPACING BETWEEN EACH ARROW IN A SINGLE ARROW SET SHOULD BE 16 FEET.
  - TWO-WAY LEFT-TURN LANES SHALL TERMINATE IN A DEDICATED LEFT-TURN LANE AT A SIGNALIZED INTERSECTION. THEY MAY TERMINATE IN A DEDICATED LEFT-TURN LANE AT OTHER LOCATIONS IF DEEMED NECESSARY.
  - CONTACT TRAFFIC ENGINEER FOR RECOMMENDED DISTANCE FOR LEFT TURN STORAGE AT INTERSECTIONS.
  - REFER TO THE TRAFFIC OPERATIONS GUIDANCE MANUAL SECTION TO-504 FOR MORE GUIDANCE ON TWO-WAY LEFT-TURN LANES.

Two-way left-turn lane



DRAWING NOT TO SCALE

**LEGEND**

MARKINGS	WHITE
	YELLOW

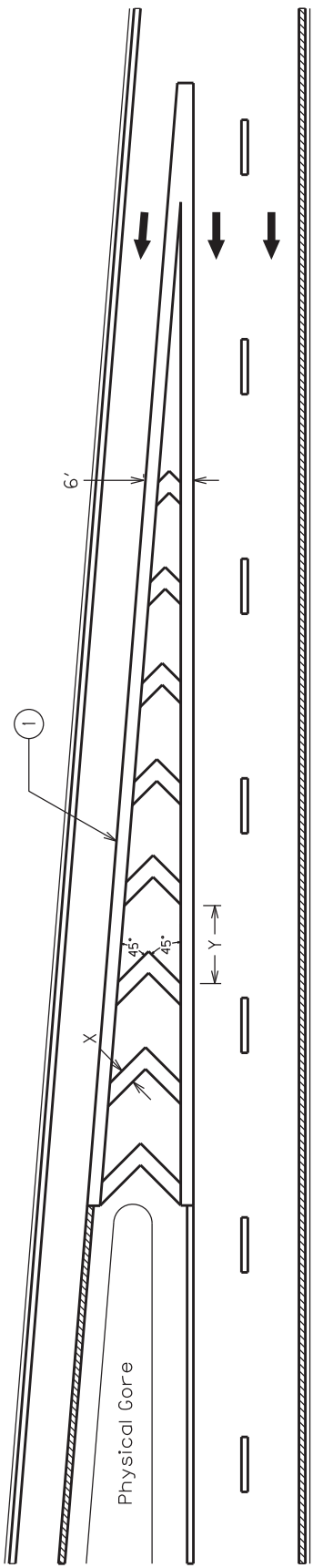
**KENTUCKY DEPARTMENT OF HIGHWAYS**

TYPICAL MARKINGS FOR TURN LANES

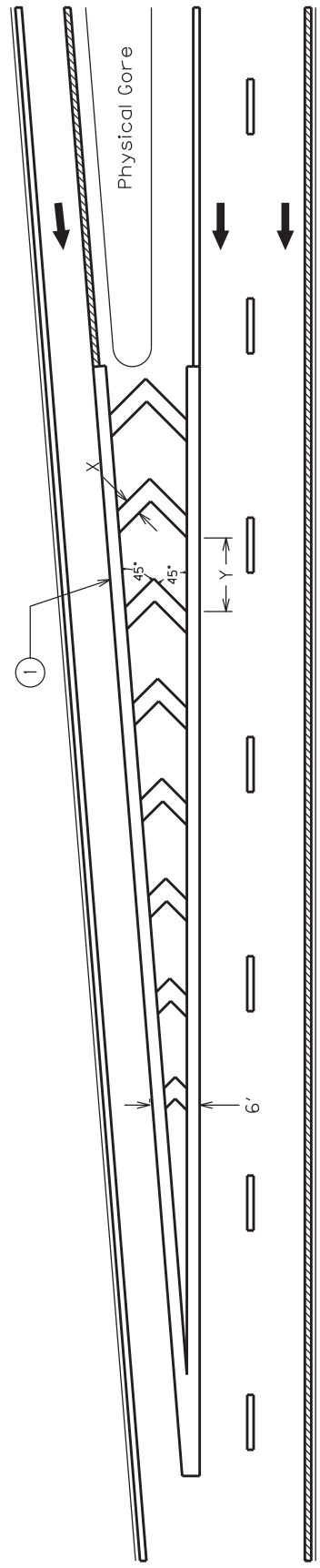
SUBMITTED: *R. Offenberg* DATE: 4-22-19  
043

COUNTY OF	ITEM NO.	SHEET NO.

TYPICAL EXIT RAMP GORE MARKINGS



TYPICAL ENTRANCE RAMP GORE MARKINGS



- 1 12" SOLID WHITE LINE TO BE INSTALLED AS SHOWN. THIS LINE SHOULD TERMINATE AT THE PHYSICAL GORE.
- 2 CHEVRON MARKINGS SHOULD BEGIN WHEN THE 12" WHITE CHANNELIZING LINES ARE APPROXIMATELY 6' APART.
- 3 A MINIMUM OF THREE CHEVRON MARKINGS SHOULD BE USED. IF AT LEAST THREE MARKINGS WILL NOT FIT INTO THE GORE AREA, NO CHEVRON MARKINGS SHOULD BE PLACED.
- 4 THE MINIMUM CHEVRON MARKING WIDTH (X) SHOULD BE 2'. THE MINIMUM SPACING BETWEEN CHEVRON MARKINGS (Y) SHOULD BE 20". THESE DIMENSIONS MAY BE INCREASED. FOR EACH ADDITIONAL 1' OF WIDTH (X), INCREASE THE SPACING (Y) BY 10'.
- 5 GORE AREA CHEVRON MARKINGS SHALL BE THERMOPLASTIC.

DRAWING NOT TO SCALE

LEGEND	
MARKINGS	
	WHITE
	YELLOW

**KENTUCKY**  
**DEPARTMENT OF HIGHWAYS**

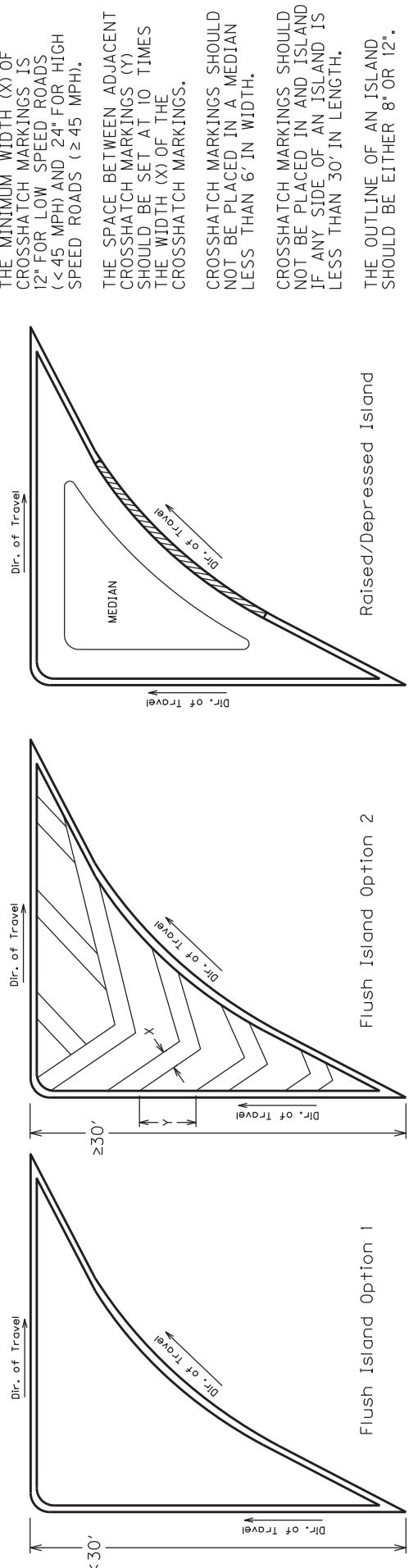
**TYPICAL MARKINGS FOR GORE AREAS**

SUBMITTED: *R. [Signature]* 11-30-18 DATE **045**



COUNTY OF	ITEM NO.	SHEET NO.
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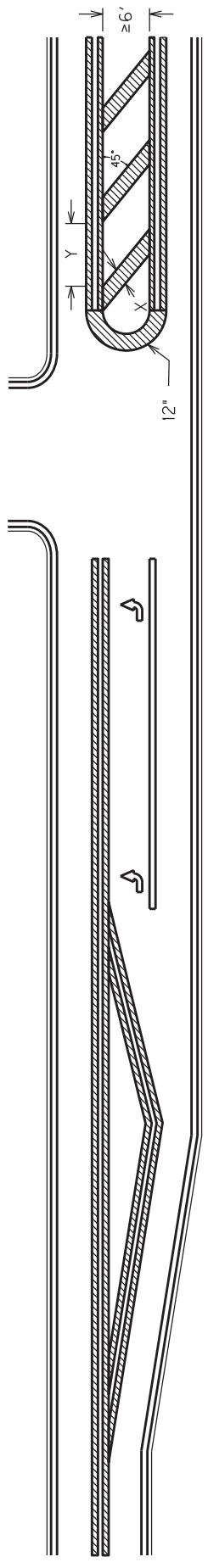
### TYPICAL RIGHT-TURN CHANNELIZING ISLAND MARKINGS



### GENERAL NOTES

- THE MINIMUM WIDTH (X) OF CROSSHATCH MARKINGS IS 12" FOR LOW SPEED ROADS (<45 MPH) AND 24" FOR HIGH SPEED ROADS ( $\ge 45$  MPH).
- THE SPACE BETWEEN ADJACENT CROSSHATCH MARKINGS (Y) SHOULD BE SET AT 10 TIMES THE WIDTH (X) OF THE CROSSHATCH MARKINGS.
- CROSSHATCH MARKINGS SHOULD NOT BE PLACED IN A MEDIAN LESS THAN 6' IN WIDTH.
- CROSSHATCH MARKINGS SHOULD NOT BE PLACED IN AND ISLAND IF ANY SIDE OF AN ISLAND IS LESS THAN 30' IN LENGTH.
- THE OUTLINE OF AN ISLAND SHOULD BE EITHER 8" OR 12".
- MEDIAN NOSES MAY BE EITHER A SINGLE 12" LINE OR A SOLID SEMI-CIRCLE.
- CROSSHATCH AND CHEVRON MARKINGS SHOULD BE THERMOPLASTIC.

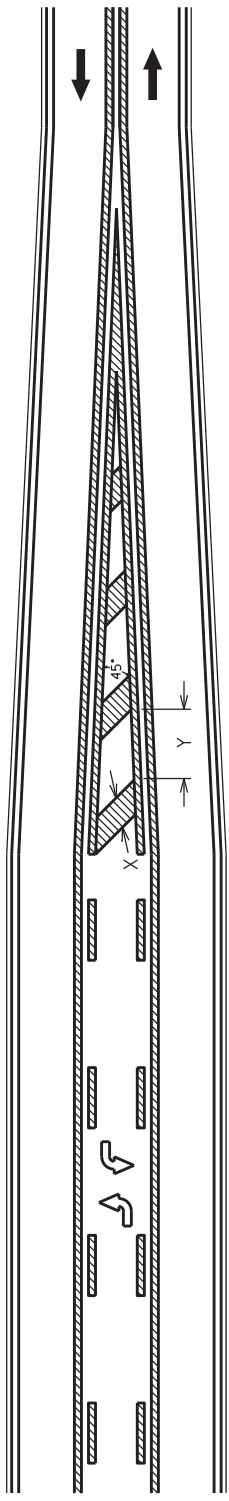
### TYPICAL LEFT-TURN LANE / FLUSH MEDIAN CROSSHATCH MARKINGS



LEGEND	
MARKINGS	WHITE
	YELLOW

**DRAWING NOT TO SCALE**

### TYPICAL TWO-WAY LEFT-TURN LANE (TWLTL) TRANSITION MARKINGS



Note: Crosshatch markings shall be placed in the transition area of a TWLTL.

KENTUCKY  
DEPARTMENT OF HIGHWAYS

**TYPICAL MARKINGS FOR ISLANDS AND MEDIANS**

SUBMITTED: *R. [Signature]* DATE: 11-30-18  
046

**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.

General Decision Number: KY190040 05/17/2019 KY40

Superseded General Decision Number: KY20180102

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 \$10.60 for calendar year 2019 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 \$10.60 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 2019. 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](http://www.dol.gov/whd/govcontracts).

Modification Number	Publication Date
0	01/04/2019
1	02/01/2019
2	02/15/2019
3	05/17/2019

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

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 BRTN0004-005 06/01/2017

ALLEN, CALLOWAY, CHRISTIAN, LOGAN, SIMPSON, TODD, TRIGG, and  
 WARREN COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 26.80	12.38

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 CARP0357-002 04/01/2016

	Rates	Fringes
CARPENTER.....	\$ 27.70	17.03
Diver.....	\$ 41.93	17.03
PILEDRIVERMAN.....	\$ 27.95	17.03

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 ELEC0369-006 05/30/2018

BUTLER, EDMONSON, LOGAN, TODD & WARREN COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 31.66	17.01

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 ELEC0429-001 06/01/2018

ALLEN & SIMPSON COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 26.77	12.94

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 ELEC0816-002 05/28/2018

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.....	\$ 32.87	25.5%+7.05

Cable spicers receive \$.25 per hour additional.

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ELEC1701-003 06/01/2018

DAVIESS, HANCOCK, HENDERSON, HOPKINS, MCLEAN, MUHLENBERG, OHIO,  
UNION & WEBSTER COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 31.04	15.74

Cable spicers receive \$.25 per hour additional.

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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

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ENGI0181-017 07/01/2017

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 31.95	15.15
GROUP 2.....	\$ 29.09	15.15
GROUP 3.....	\$ 29.54	15.15
GROUP 4.....	\$ 28.77	15.15

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



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
Ironworkers:.....	\$ 28.66	22.435
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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
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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

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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

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 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

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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

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PAIN0156-006 04/01/2015

DAVIESS, 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

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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

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 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

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 PLUM0502-004 08/01/2018

ALLEN, BUTLER, EDMONSON, SIMPSON & WARREN

	Rates	Fringes
Plumber; Steamfitter.....	\$ 34.62	20.78

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 PLUM0633-002 07/01/2017

DAVIESS, 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

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 \* TEAM0215-003 04/01/2019

DAVISS, 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

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 \* 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

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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](http://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)).

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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.

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#### 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:

<b>GOALS FOR MINORITY PARTICIPATION IN EACH TRADE</b>	<b>GOALS FOR FEMALE PARTICIPATION IN EACH TRADE</b>
12.0%	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 Logan County.

**PART IV**  
**INSURANCE**

## INSURANCE

The Contractor shall procure and maintain the following insurance in addition to the insurance required by law:

- 1) Commercial General Liability-Occurrence form – not less than \$2,000,000 General aggregate, \$2,000,000 Products & Completed Aggregate, \$1,000,000 Personal & Advertising, \$1,000,000 each occurrence.
- 2) Automobile Liability- \$1,000,000 per accident
- 3) Employers Liability:
  - a) \$100,000 Each Accident Bodily Injury
  - b) \$500,000 Policy limit Bodily Injury by Disease
  - c) \$100,000 Each Employee Bodily Injury by Disease
- 4) The insurance required above must be evidenced by a Certificate of Insurance and this Certificate of Insurance must contain one of the following statements:
  - a) "policy contains no deductible clauses."
  - b) "policy contains \_\_\_\_\_ (amount) deductible property damage clause but company will pay claim and collect the deductible from the insured."
- 5) **KENTUCKY WORKMEN'S COMPENSATION INSURANCE.** The contractor shall furnish evidence of coverage of all his employees or give evidence of self-insurance by submitting a copy of a certificate issued by the Workmen's Compensation Board.

The cost of insurance is incidental to all contract items. All subcontractors must meet the same minimum insurance requirements.

**PART V**  
**BID ITEMS**

### PROPOSAL BID ITEMS

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Report Date 5/30/19

#### Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00003		CRUSHED STONE BASE	5,122.00	TON		\$	
0020	00100		ASPHALT SEAL AGGREGATE	35.00	TON		\$	
0030	00103		ASPHALT SEAL COAT	4.10	TON		\$	
0040	00194		LEVELING & WEDGING PG76-22	300.00	TON		\$	
0050	00214		CL3 ASPH BASE 1.00D PG64-22	2,146.00	TON		\$	
0060	00216		CL3 ASPH BASE 1.00D PG76-22	792.00	TON		\$	
0070	00387		CL3 ASPH SURF 0.38B PG76-22	1,737.00	TON		\$	
0080	02676		MOBILIZATION FOR MILL & TEXT (LOGAN CO. US 68 J-TURN)	1.00	LS		\$	
0090	02677		ASPHALT PAVE MILLING & TEXTURING	1,257.00	TON		\$	
0100	20071EC		JOINT ADHESIVE	5,679.00	LF		\$	
0110	24970EC		ASPHALT MATERIAL FOR TACK NON- TRACKING	13.00	TON		\$	

#### Section: 0002 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0120	01921		STANDARD BARRIER MEDIAN TYPE 4	150.00	SQYD		\$	
0130	02159		TEMP DITCH	975.00	LF		\$	
0140	02160		CLEAN TEMP DITCH	488.00	LF		\$	
0150	02200		ROADWAY EXCAVATION	3,206.00	CUYD		\$	
0160	02242		WATER	21.00	MGAL		\$	
0170	02545		CLEARING AND GRUBBING (LOGAN CO. US 68 J-TURN)	1.00	LS		\$	
0180	02562		TEMPORARY SIGNS	500.00	SQFT		\$	
0190	02585		EDGE KEY	196.00	LF		\$	
0200	02600		FABRIC GEOTEXTILE TY IV FOR PIPE	1,086.00	SQYD	\$2.00	\$	\$2,172.00
0210	02650		MAINTAIN & CONTROL TRAFFIC (LOGAN CO. US 68 J-TURN)	1.00	LS		\$	
0220	02671		PORTABLE CHANGEABLE MESSAGE SIGN	2.00	EACH		\$	
0230	02696		SHOULDER RUMBLE STRIPS	5,650.00	LF		\$	
0240	02701		TEMP SILT FENCE	975.00	LF		\$	
0250	02703		SILT TRAP TYPE A	4.00	EACH		\$	
0260	02704		SILT TRAP TYPE B	4.00	EACH		\$	
0270	02705		SILT TRAP TYPE C	4.00	EACH		\$	
0280	02706		CLEAN SILT TRAP TYPE A	4.00	EACH		\$	
0290	02707		CLEAN SILT TRAP TYPE B	4.00	EACH		\$	
0300	02708		CLEAN SILT TRAP TYPE C	4.00	EACH		\$	
0310	02726		STAKING (LOGAN CO. US 68 J-TURN)	1.00	LS		\$	
0320	05950		EROSION CONTROL BLANKET	2,563.00	SQYD		\$	
0330	05952		TEMP MULCH	11,856.00	SQYD		\$	
0340	05953		TEMP SEEDING AND PROTECTION	8,848.00	SQYD		\$	
0350	05963		INITIAL FERTILIZER	1.00	TON		\$	
0360	05964		MAINTENANCE FERTILIZER	.90	TON		\$	
0370	05985		SEEDING AND PROTECTION	17,695.00	SQYD		\$	
0380	05992		AGRICULTURAL LIMESTONE	11.00	TON		\$	

**PROPOSAL BID ITEMS**

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0390	06403		FLEXIBLE DELINEATOR POST-B/W	11.00	EACH		\$	
0400	06406		SBM ALUM SHEET SIGNS .080 IN	529.75	SQFT		\$	
0410	06407		SBM ALUM SHEET SIGNS .125 IN	79.40	SQFT		\$	
0420	06410		STEEL POST TYPE 1	533.00	LF		\$	
0430	06490		CLASS A CONCRETE FOR SIGNS	5.75	CUYD		\$	
0440	06511		PAVE STRIPING-TEMP PAINT-6 IN	14,000.00	LF		\$	
0450	06546		PAVE STRIPING-THERMO-12 IN W	676.00	LF		\$	
0460	06568		PAVE MARKING-THERMO STOP BAR-24IN	64.00	LF		\$	
0470	06569		PAVE MARKING-THERMO CROSS-HATCH	9,609.00	SQFT		\$	
0480	06574		PAVE MARKING-THERMO CURV ARROW	18.00	EACH		\$	
0490	06576		PAVE MARKING-THERMO ONLY	4.00	EACH		\$	
0500	10020NS		FUEL ADJUSTMENT	9,587.00	DOLL	\$1.00	\$	\$9,587.00
0510	10030NS		ASPHALT ADJUSTMENT	19,450.00	DOLL	\$1.00	\$	\$19,450.00
0520	20099ES842		PAVE MARK TEMP PAINT STOP BAR	64.00	LF		\$	
0530	20100ES842		PAVE MARK TEMP PAINT LINE ARROW	26.00	EACH		\$	
0540	20550ND		SAWCUT PAVEMENT	775.00	LF		\$	
0550	21289ED		LONGITUDINAL EDGE KEY	3,345.00	LF		\$	
0560	21373ND		REMOVE SIGN	25.00	EACH		\$	
0570	21596ND		GMSS TYPE D	23.00	EACH		\$	
0580	22664EN		WATER BLASTING EXISTING STRIPE	14,000.00	LF		\$	
0590	23608EC		YELLOW PAINT FOR MEDIAN SAFETY NOSE	13.00	SQFT		\$	
0600	24489EC		INLAID PAVEMENT MARKER	129.00	EACH		\$	
0610	24631EC		BARCODE SIGN INVENTORY	102.00	EACH		\$	
0620	24880EC		REMOVE PAVEMENT MARKER	45.00	EACH		\$	
0630	24889EC		PAVE MARKING-THERMO U-TURN	8.00	EACH		\$	
0640	24995EC		PAVE STRIPING-SPRAY THERMO-6 IN W	8,034.00	LF		\$	
0650	24996EC		PAVE STRIPING-SPRAY THERMO-6 IN Y	5,130.00	LF		\$	

**Section: 0003 - DRAINAGE**

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0660	00461		CULVERT PIPE-15 IN	4.00	LF		\$	
0670	00462		CULVERT PIPE-18 IN	86.00	LF		\$	
0680	00464		CULVERT PIPE-24 IN	57.00	LF		\$	
0690	00466		CULVERT PIPE-30 IN	8.00	LF		\$	
0700	00521		STORM SEWER PIPE-15 IN	118.00	LF		\$	
0710	00522		STORM SEWER PIPE-18 IN	74.00	LF		\$	
0720	01310		REMOVE PIPE	41.00	LF		\$	
0730	01433		SLOPED BOX OUTLET TYPE 1-18 IN	3.00	EACH		\$	
0740	01434		SLOPED BOX OUTLET TYPE 1-24 IN	2.00	EACH		\$	
0750	01450		S & F BOX INLET-OUTLET-18 IN	1.00	EACH		\$	
0760	01451		S & F BOX INLET-OUTLET-24 IN	1.00	EACH		\$	
0770	01505		DROP BOX INLET TYPE 5B	1.00	EACH		\$	
0780	01508		DROP BOX INLET TYPE 5C	1.00	EACH		\$	
0790	01511		DROP BOX INLET TYPE 5D	1.00	EACH		\$	
0800	01514		DROP BOX INLET TYPE 5E	1.00	EACH		\$	
0810	01559		DROP BOX INLET TYPE 13G	2.00	EACH		\$	
0820	01756		MANHOLE TYPE A	1.00	EACH		\$	

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### PROPOSAL BID ITEMS

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#### Section: 0004 - DEMOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0830	02569		DEMOBILIZATION	1.00	LS		\$	