



CALL NO. 202

CONTRACT ID. 221363

GRAYSON COUNTY

FED/STATE PROJECT NUMBER 043GR22D063

DESCRIPTION WESTERN KY PARKWAY (PW 9001)

WORK TYPE ASPHALT REHAB INTERSTATE/PARKWAY

PRIMARY COMPLETION DATE 11/15/2023

LETTING DATE: December 08,2022

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN STANDARD TIME December 08,2022. Bids will be publicly announced at 10:00 AM EASTERN STANDARD TIME.

NO PLANS ASSOCIATED WITH THIS PROJECT.

DBE CERTIFICATION REQUIRED - 12.50%

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

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PART I
SCOPE OF WORK

ADMINISTRATIVE DISTRICT - 04

CONTRACT ID - 221363
043GR22D063
COUNTY - GRAYSON
PCN - DE04390012206
NHPP 9001 (014)

WESTERN KY PARKWAY (PW 9001) FROM MP 111.25 TO MP 114.882, A DISTANCE OF 03.63 MILES.ASPHALT
REHAB INTERSTATE/PARKWAY SYP NO. 04-20001.00.
GEOGRAPHIC COORDINATES LATITUDE 37:29:39.00 LONGITUDE 86:11:16.00
ADT 13,879

PCN - DE04390012214
NHPP 9001 (015)

WESTERN KY PARKWAY (PW 9001) FROM MILEPOINT 114.882 TO MILEPOINT 116.949, A DISTANCE OF 02.07
MILES.ASPHALT REHAB INTERSTATE/PARKWAY SYP NO. 04-20003.00.
GEOGRAPHIC COORDINATES LATITUDE 37:31:16.00 LONGITUDE 86:08:52.00
ADT 13,879

COMPLETION DATE(S):
COMPLETED BY 11/15/2023 APPLIES TO ENTIRE CONTRACT-SEE SPECIAL NOTES

CONTRACT NOTES

PROPOSAL ADDENDA

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

BID SUBMITTAL

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

JOINT VENTURE BIDDING

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

UNDERGROUND FACILITY DAMAGE PROTECTION

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

REGISTRATION WITH THE SECRETARY OF STATE BY A FOREIGN ENTITY

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

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

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

SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT

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

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

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

HARDWOOD REMOVAL RESTRICTIONS

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

INSTRUCTIONS FOR EXCESS MATERIAL SITES AND BORROW SITES

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

ACCESS TO RECORDS

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

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

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

BUILD AMERICA, BUY AMERICA ACT (BABA)

On November 15, 2021, President Biden signed into law the Infrastructure Investment and Jobs Act (IIJA), Pub. L. No. 117-58, includes the Build America, Buy America Act (“the Act”). Pub. L. No. 117-58, §§70901-52. The Act strengthens the Buy America preference to include “construction materials.” The current temporary waiver for **“construction materials”** will expire on November 10, 2022.

The Act will apply to construction materials as outlined in the guidance issued in OMB [M-22-11](#).

Construction Materials – Includes an article, material, or supply – other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives – that is or consists primarily of:

- Non-ferrous metals
- Plastic/polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
- Glass (including optic glass);
- Lumber; or
- Drywall.

Construction Materials only applies to items, materials, and supplies that are consumed in, incorporated into, or affixed to an infrastructure project.

Construction Materials does not apply to tools, equipment or supplies brought to the jobsite and removed before completion.

October 14, 2022

FEDERAL CONTRACT NOTES

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

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

CIVIL RIGHTS ACT OF 1964

The Kentucky Transportation Cabinet, Department of Highways, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, national origin, sex, age (over 40), religion, sexual orientation, gender identity, veteran status, disability, income- level, or Limited English Proficiency (LEP) in consideration for an award.

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 are acceptable per Section 108.01 of the Standard Specifications for Road and Bridge Construction. Sub-Contractors fulfilling a disadvantaged business enterprise goal on a project may enter into a 2nd tier subcontract with a Non-DBE Subcontractor. However, in this instance, none of the work subcontracted to the Non-DBE Contractor will count toward fulfilling the established Disadvantaged Goal for the project.

DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

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

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

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

DBE GOAL

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

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

OBLIGATION OF CONTRACTORS

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

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

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

CERTIFICATION OF CONTRACT GOAL

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

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

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

DBE PARTICIPATION PLAN

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

The DBE Participation Plan shall include the following:

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

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

UPON AWARD AND BEFORE A WORK ORDER WILL BE ISSUED

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

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

CONSIDERATION OF GOOD FAITH EFFORTS REQUESTS

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

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

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

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

FAILURE TO MEET GOOD FAITH REQUIREMENT

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

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

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

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

SANCTIONS FOR FAILURE TO MEET DBE REQUIREMENTS OF THE PROJECT

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

- Suspension of Prequalification;
- 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 and Non-DBE Subcontractors within seven (7) working days after he or she has received payment from the Kentucky Transportation Cabinet for work performed or materials furnished.

CONTRACTOR REPORTING

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

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

***** IMPORTANT *****

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

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

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

DEFAULT OR DECERTIFICATION OF THE DBE

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

PROHIBITION ON TELECOMMUNICATIONS EQUIPMENT OR SERVICES

In accordance with the FY 2019 National Defense Authorization Act (NDAA), 2 CFR 200.216, and 2 CFR 200.471, Federal agencies are prohibited, after August 13, 2020, from obligating or expending financial assistance to obtain certain telecommunications and video surveillance services and equipment from specific producers. As a result of these regulations, contractors and subcontractors are prohibited, on projects with federal funding participation, from providing telecommunication or video surveillance equipment, services, or systems produced by:

- Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities)
- Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities)

Revised: 5/3/2022

**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.

NATIONAL HIGHWAY

Be advised this project is on the NATIONAL HIGHWAY SYSTEM.

PROJECT TRAFFIC COORDINATOR (PTC)

Be advised this project is a significant project pursuant to section 112.03.12.

ASPHALT MIXTURE

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

DGA BASE

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

DGA BASE FOR SHOULDERS

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

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

FUEL AND ASPHALT PAY ADJUSTMENT

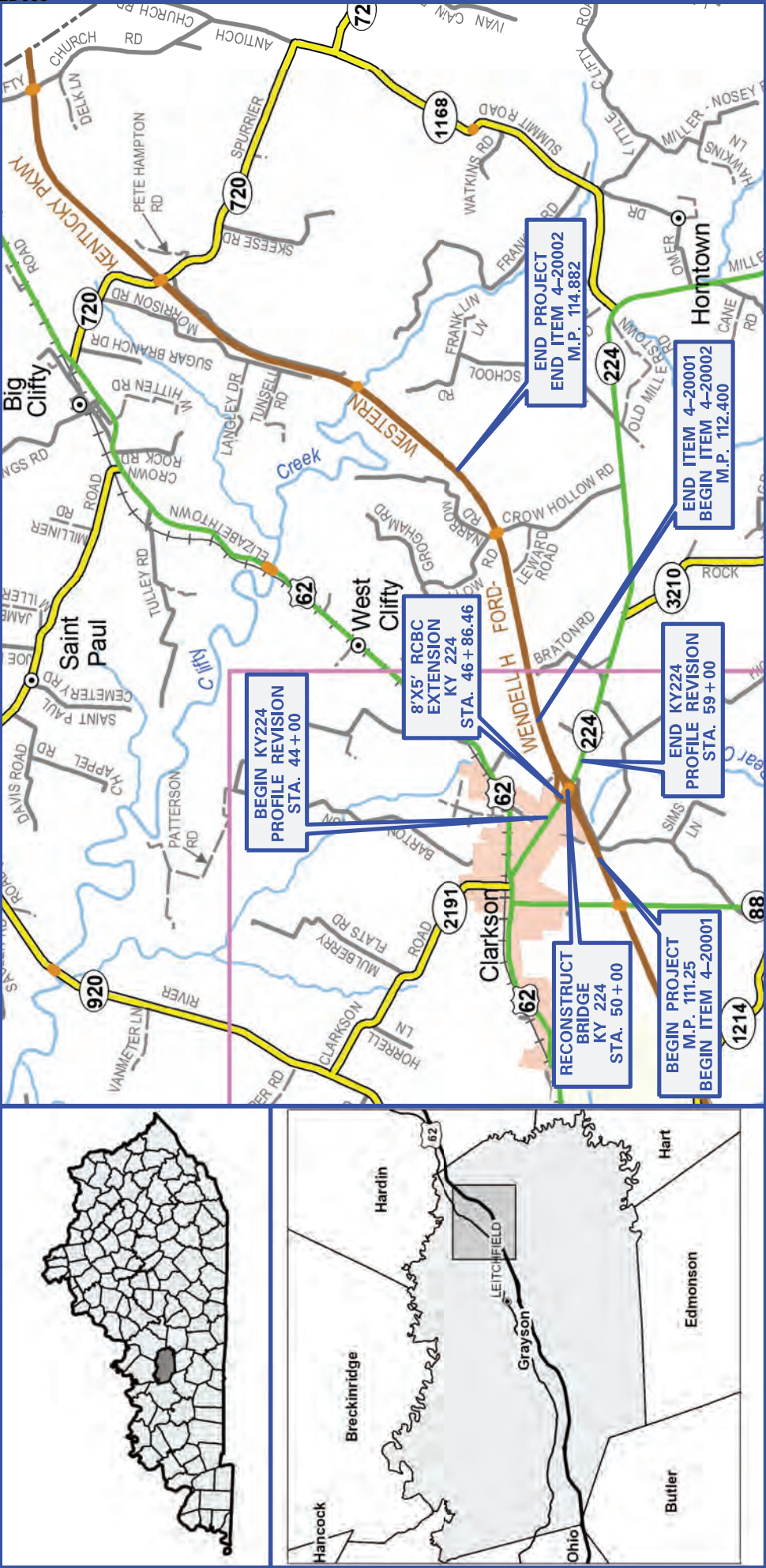
The Department has included the Contract items Asphalt Adjustment and Fuel Adjustment for possible future payments at an established Contract unit price of \$1.00. The Department will calculate actual adjustment quantities after work is completed. If existing Contract amount is insufficient to pay all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

ASPHALT PAVEMENT RIDE QUALITY CATEGORY A

The Department will apply Pavement Rideability Requirements on this project in accordance with Section 410, Category A.

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.



PROJECT LENGTH: 3.632 MI.
AADT: 11,769 (2020)



3100D Circle, U.S. 460
Franklin, KY 40601
502-695-9800

PROJECT NUMBER: FD52 043 9001 111-115, NHPP 9001 (014)

ITEM NUMBER: 4-20001, 4-20002

LETTING DATE: DECEMBER 8, 2022

RECOMMENDED BY: ANDRE JOHANNES, P.E. DATE:

Project Manager

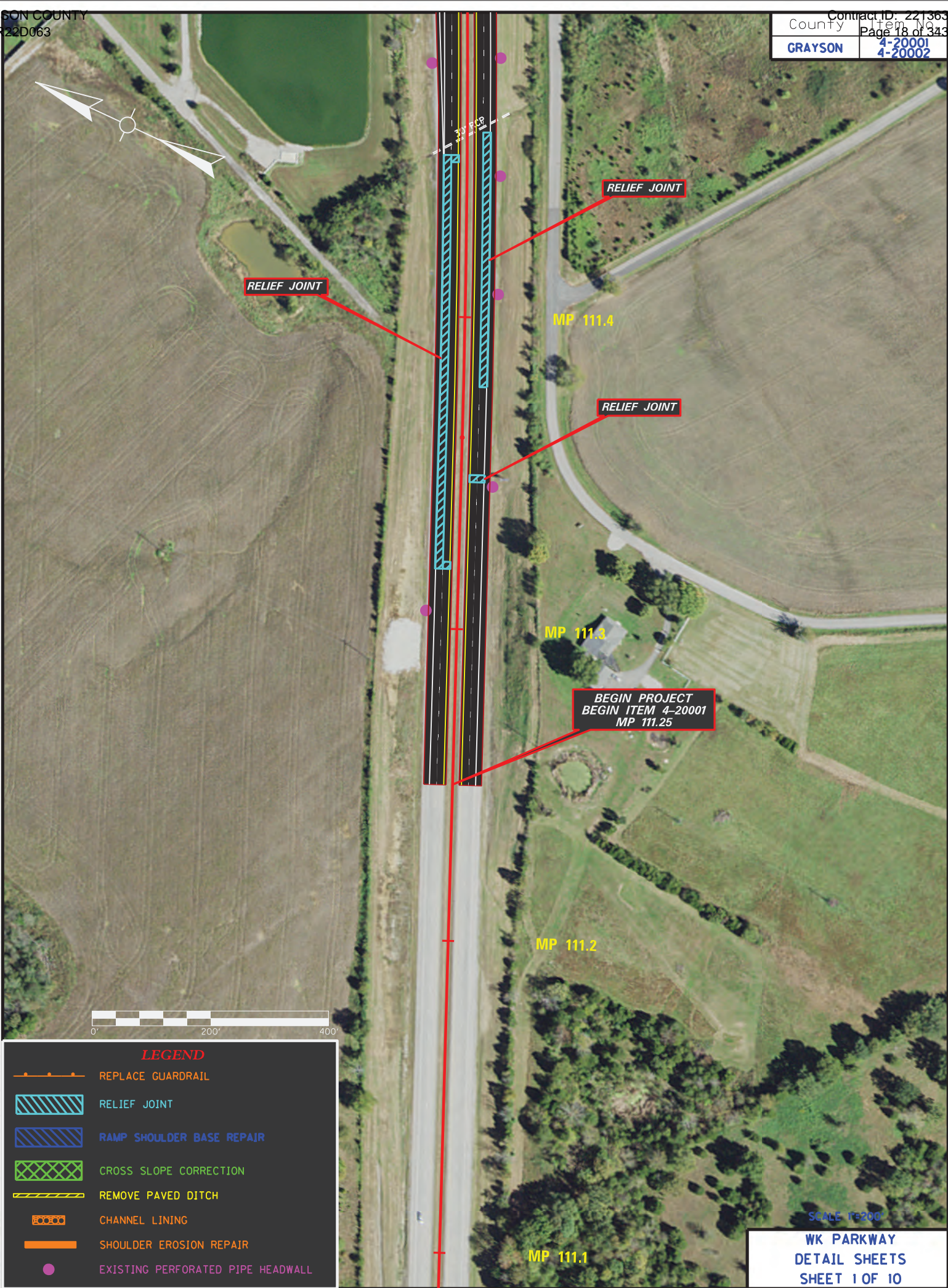
PLAN APPROVED BY:

State Highway Engineer

DATE:

FHWA APPROVED BY:

DATE:

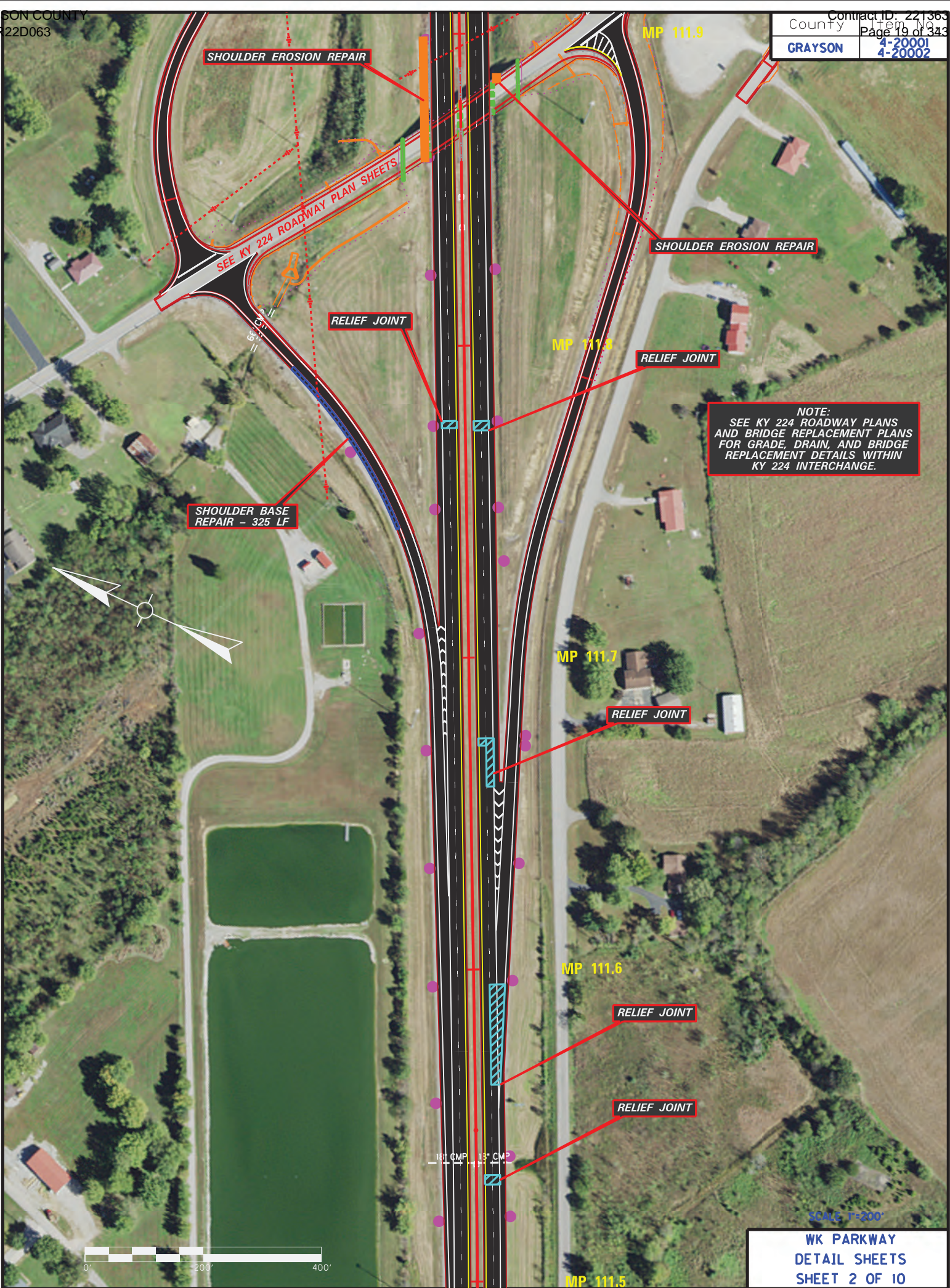


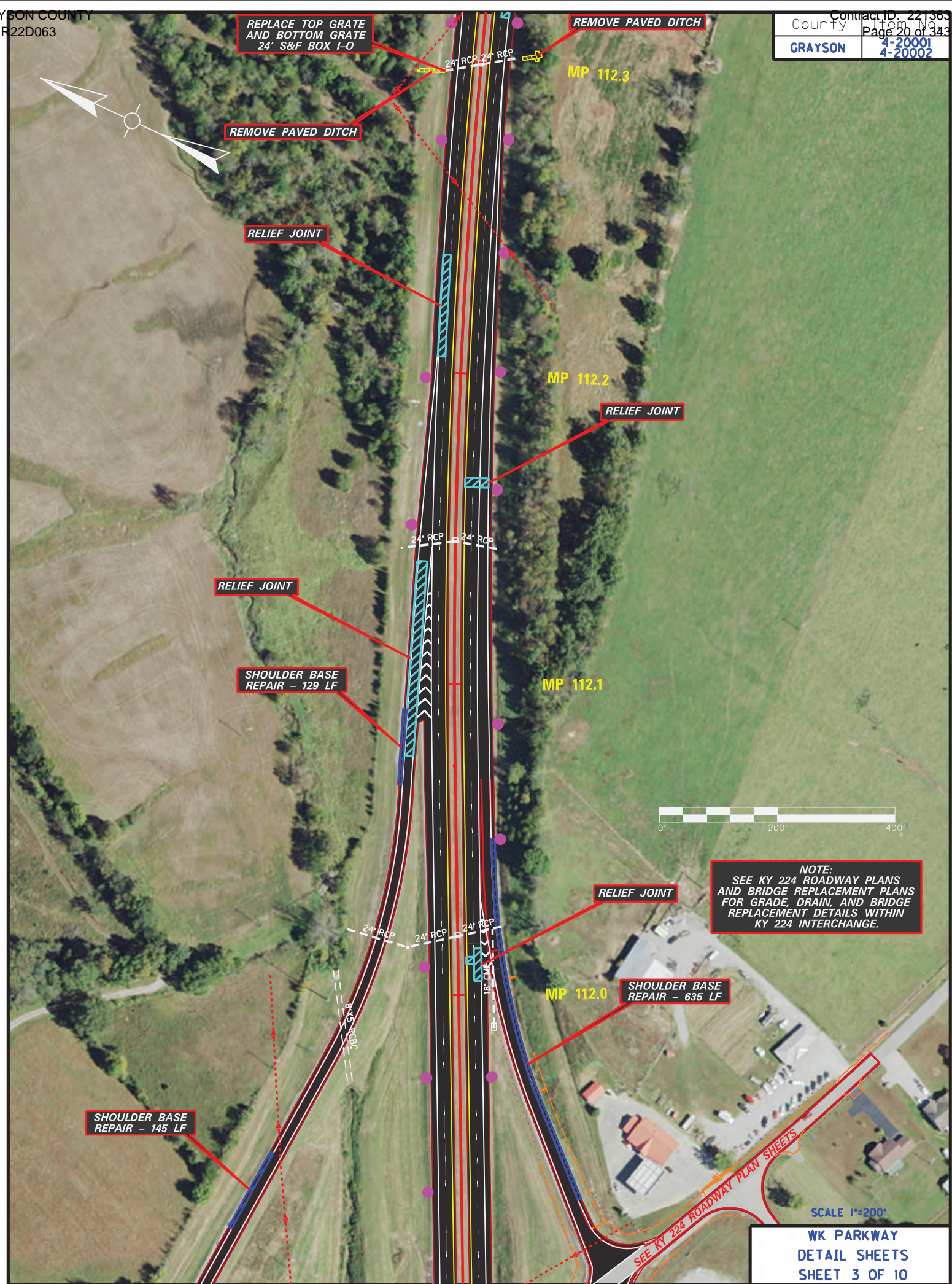
LEGEND

- REPLACE GUARDRAIL
- RELIEF JOINT
- RAMP SHOULDER BASE REPAIR
- CROSS SLOPE CORRECTION
- REMOVE PAVED DITCH
- CHANNEL LINING
- SHOULDER EROSION REPAIR
- EXISTING PERFORATED PIPE HEADWALL

SCALE 1"=200'

WK PARKWAY
DETAIL SHEETS
SHEET 1 OF 10

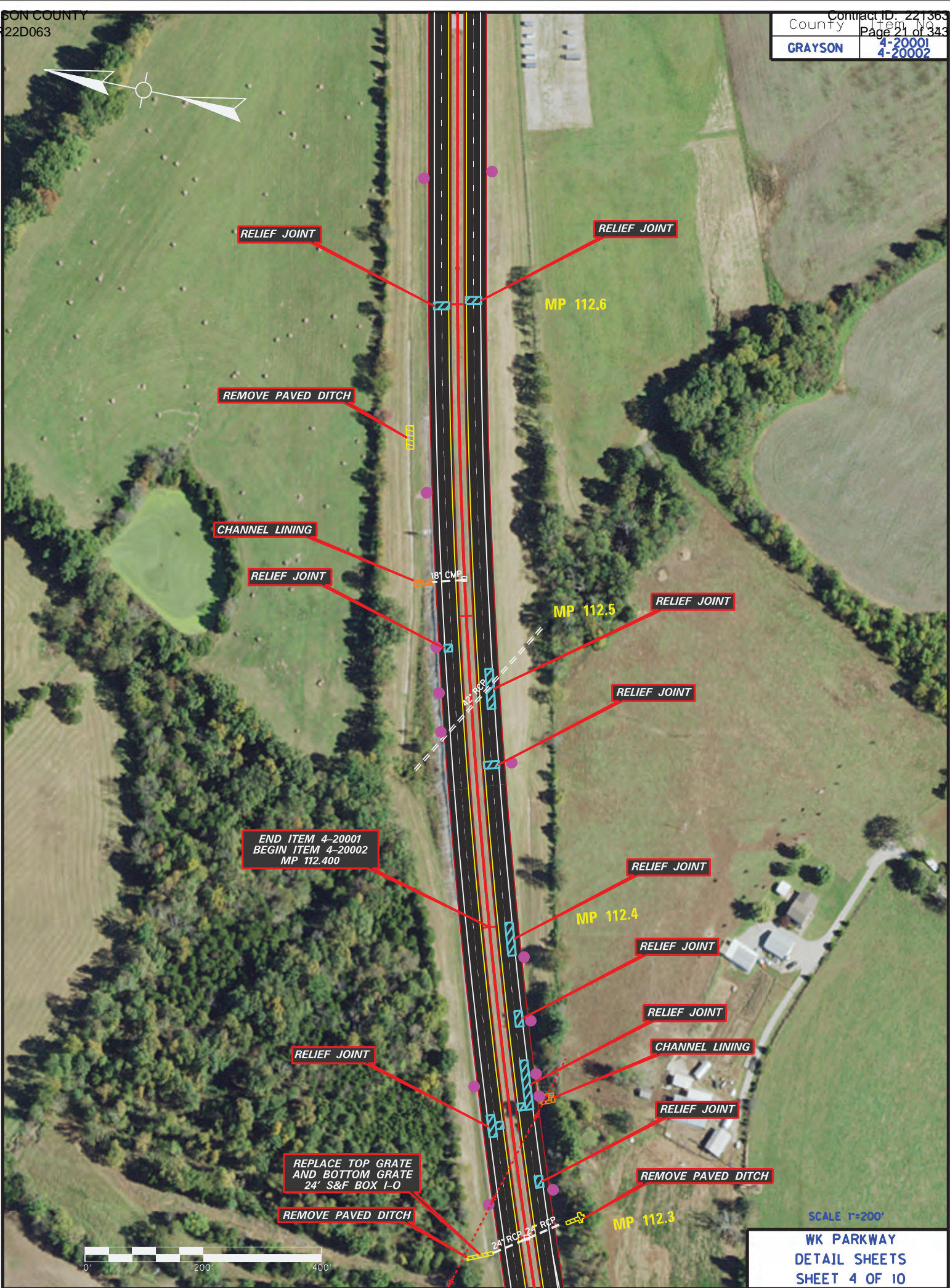


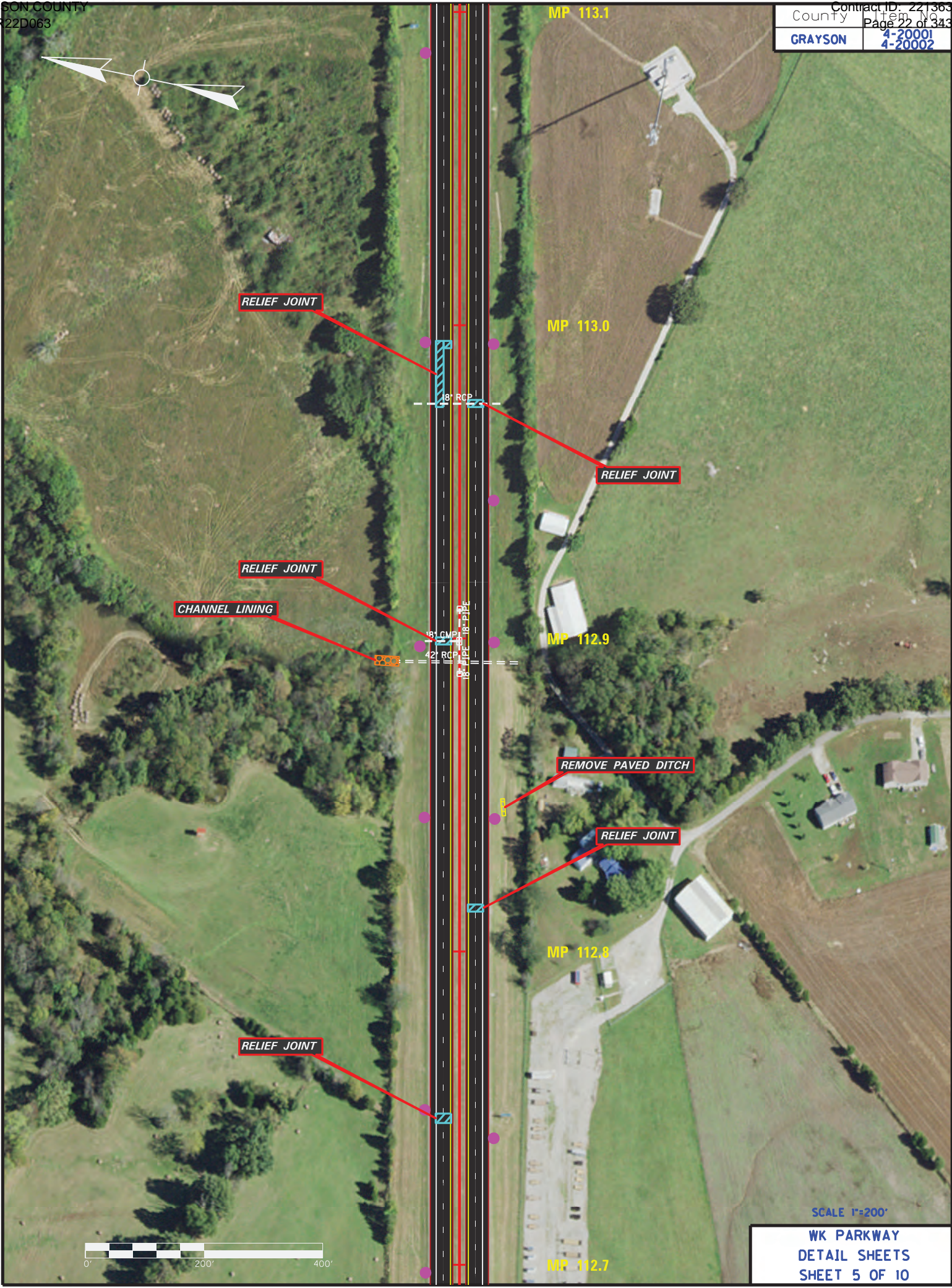


NOTE:
SEE KY 224 ROADWAY PLANS
AND BRIDGE REPLACEMENT PLANS
FOR GRADE, DRAIN, AND BRIDGE
REPLACEMENT DETAILS WITHIN
KY 224 INTERCHANGE.

SCALE 1"=200'

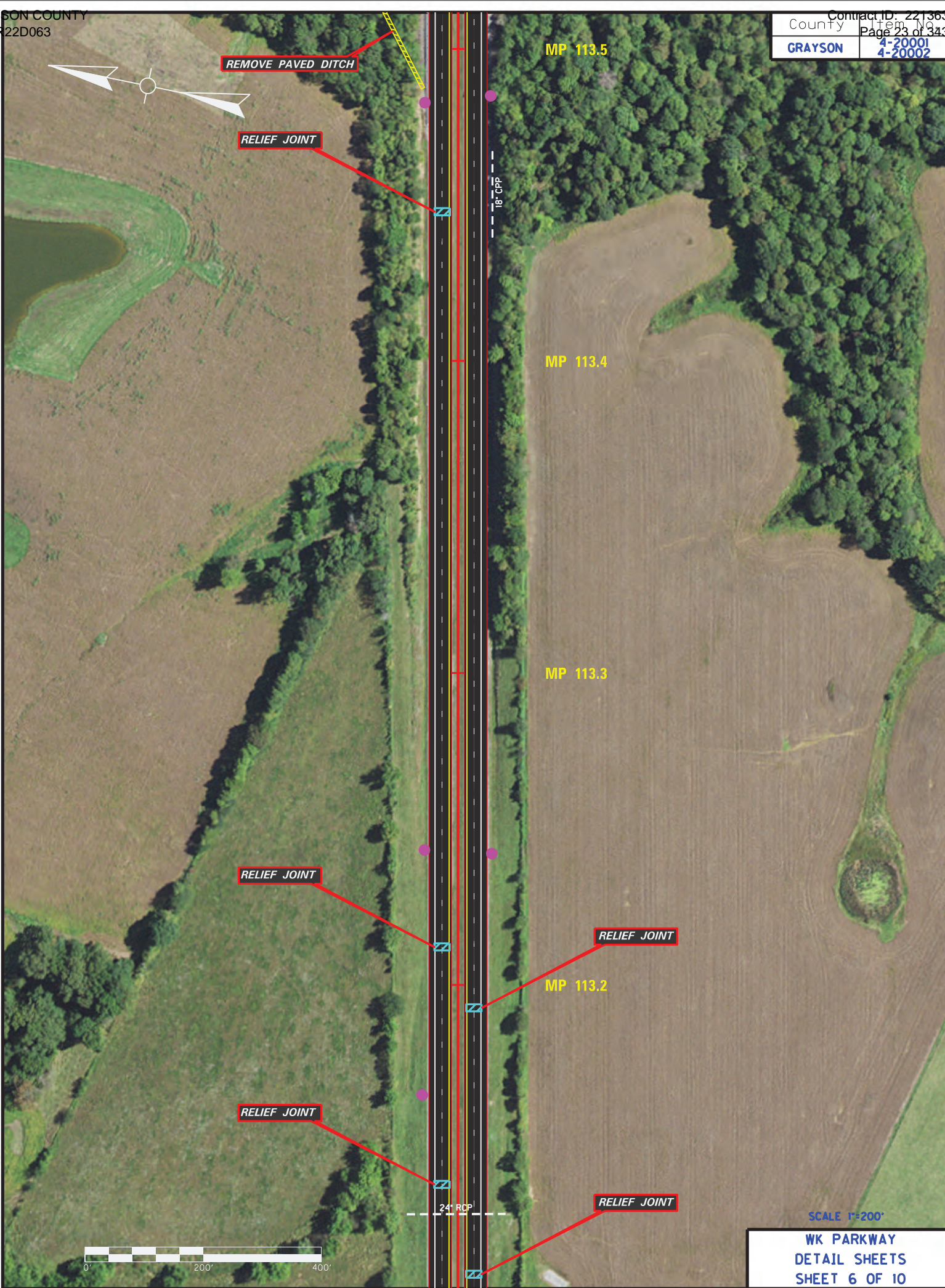
WK PARKWAY
DETAIL SHEETS
SHEET 3 OF 10





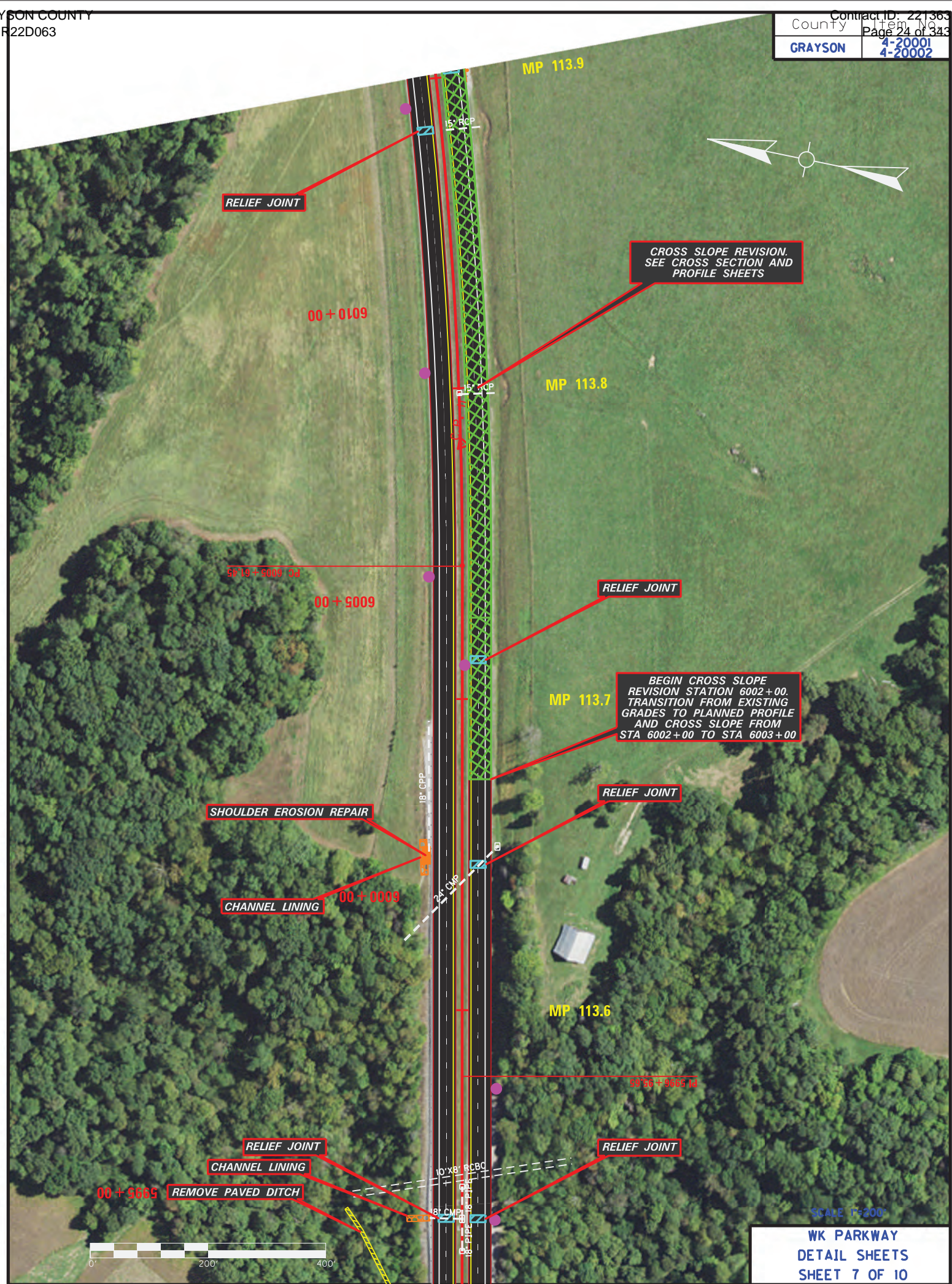
SCALE 1"=200'

County	GRAYSON
Item No.	4-20001 4-20002



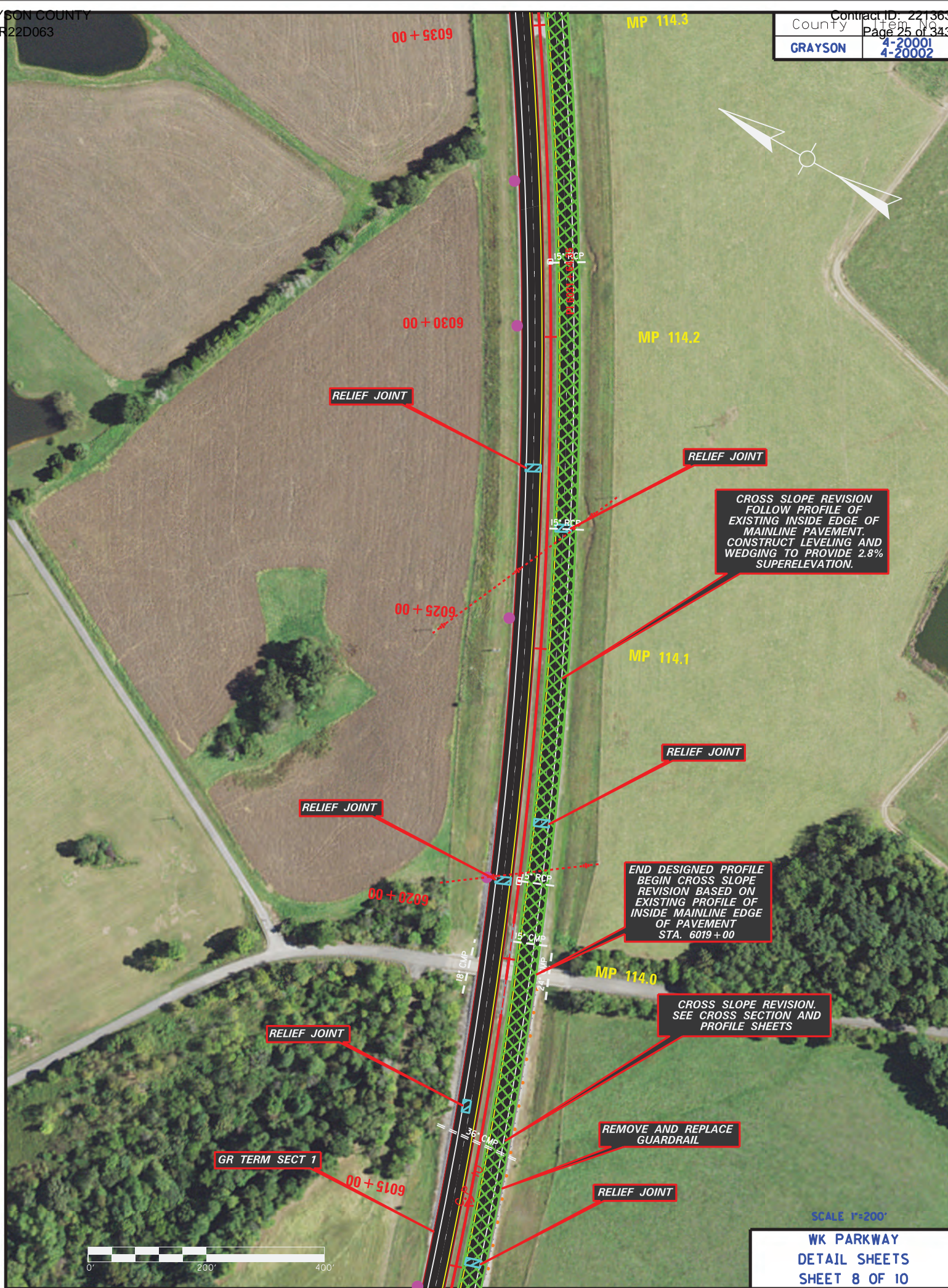
SCALE 1"=200'

WK PARKWAY
DETAIL SHEETS
SHEET 6 OF 10

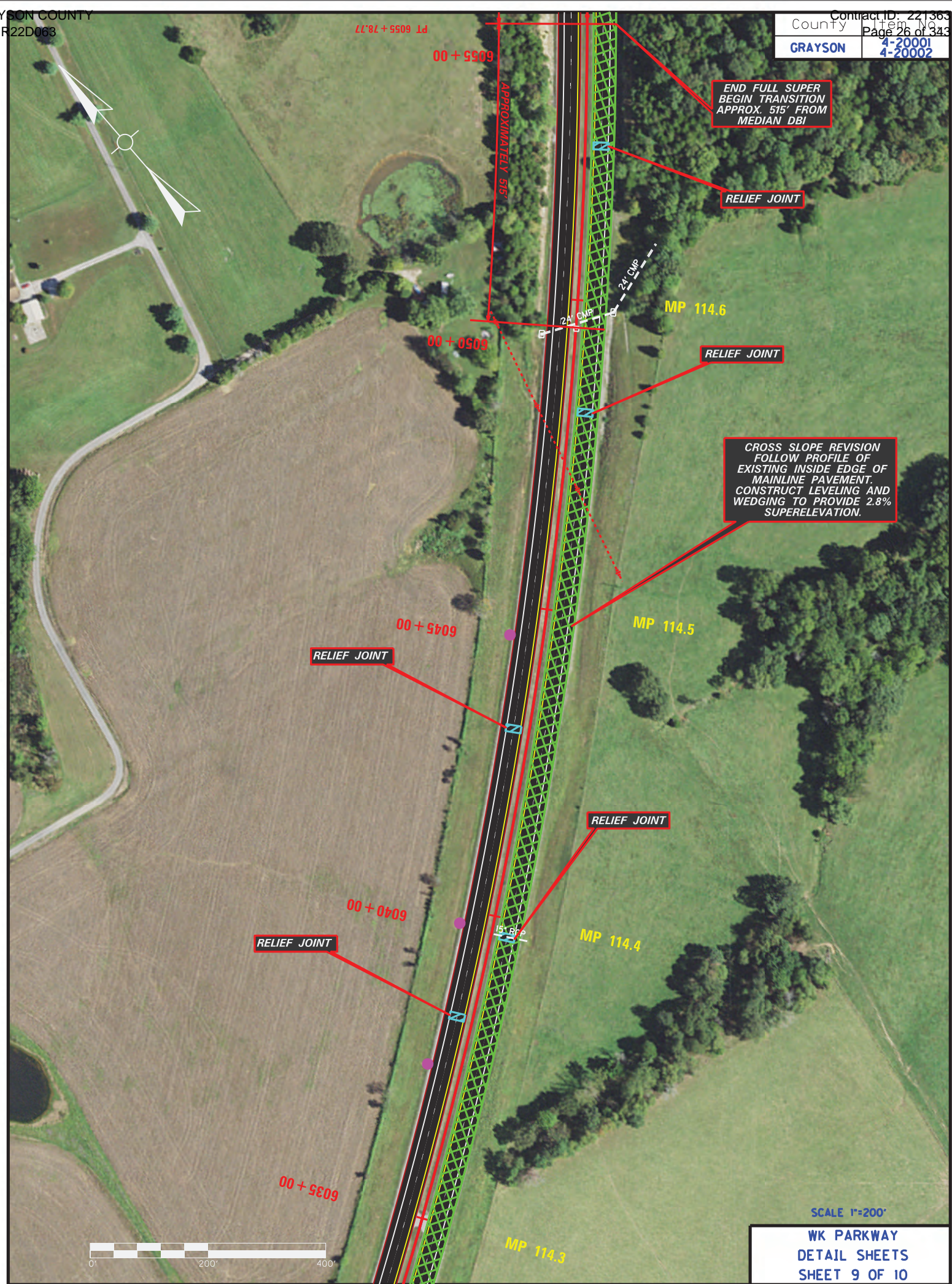


CROSS SLOPE REVISION.
SEE CROSS SECTION AND
PROFILE SHEETS

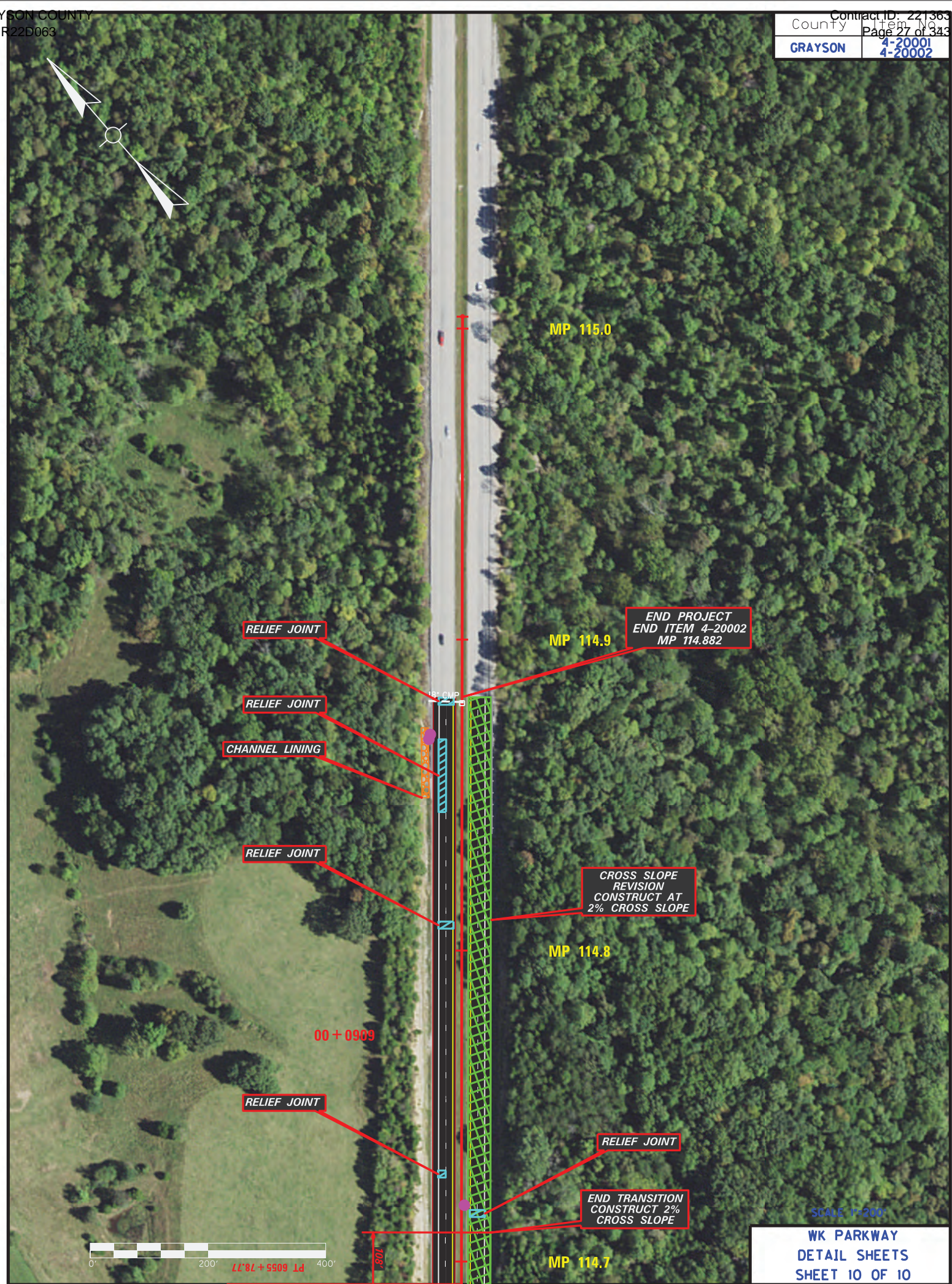
BEGIN CROSS SLOPE
REVISION STATION 6002+00.
TRANSITION FROM EXISTING
GRADES TO PLANNED PROFILE
AND CROSS SLOPE FROM
STA 6002+00 TO STA 6003+00



County	GRAYSON
Item No	4-20001 4-20002

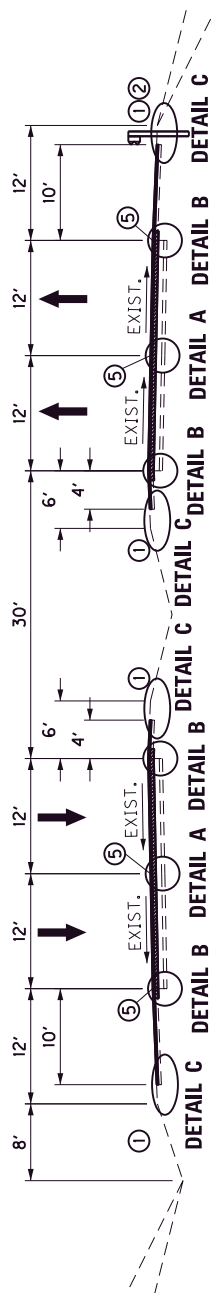


County	GRAYSON
Item No	4-20001 4-20002

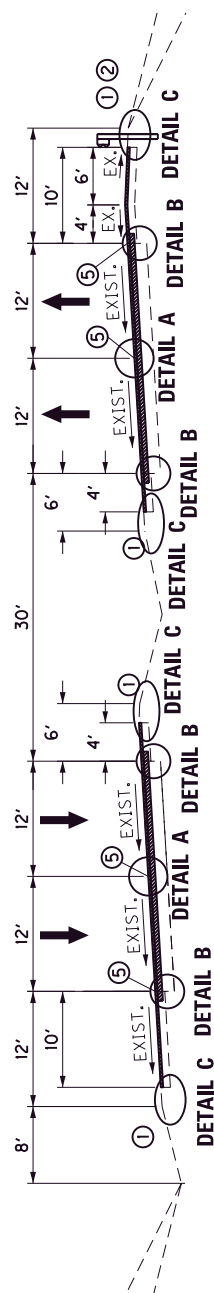


SCALE 1"=200'

County	Item No.	Sheet
GRAYSON	4-20001 4-20002	063



MAINLINE (NON-SUPERELEVATED)



MAINLINE SUPERELEVATED SECTION

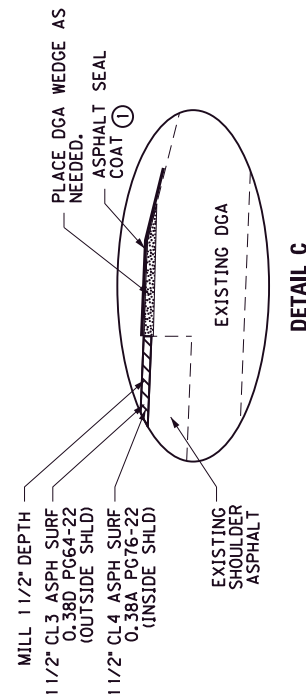
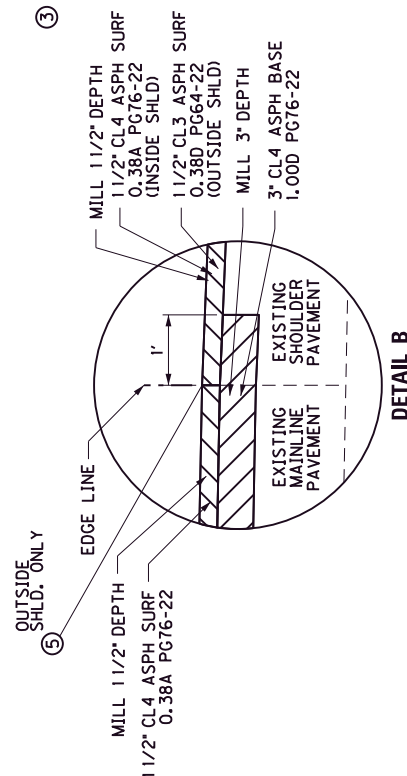
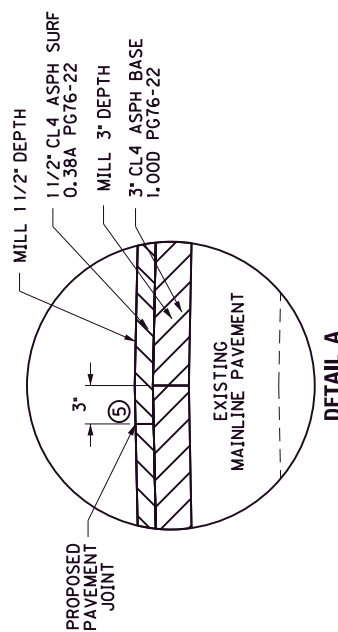
SURFACING SCHEDULE

- | | |
|--|---|
| ASPHALT PAVEMENT MILLING AND TEXTURING..... 4 1/2" DEPTH | |
| ③ LEVELING AND WEDGING PG76-22.....AS DIRECTED | |
| CL4 ASPH BASE 1,000 PG76-22.....3" DEPTH | |
| CL4 ASPH SURFACE 0.38A PG76-22.....1 1/2" DEPTH | ④ |

<i>INSIDE SHOULDER</i>	
ASPHALT PAVEMENT MILLING AND TEXTURING.....1 1/2" DEPTH	
③ LEVELING AND WEDGING PG76-22.....AS DIRECTED	
CL4 ASPH SURFACE 0.38A PG76-22.....1 1/2" DEPTH	④

<i>OUTSIDE SHOULDER</i>	
ASPHALT PAVEMENT MILLING AND TEXTURING.....1 1/2" DEPTH	
③ LEVELING AND WEDGING PG76-22.....AS DIRECTED	
CL3 ASPH SURFACE 0.38D PG64-22.....1 1/2" DEPTH	

①	ASPHALT SEAL REQUIRED FROM OUTSIDE EDGE OF PAVED SHOULDER TO A POINT 2 FOOT DOWN THE DITCH OR FILL SLOPE (Where Applicable). TWO APPLICATIONS OF THE FOLLOWING : ASPHALT SEAL COAT 2.4 lbs. / S. Y. ASPHALT SEAL AGGREGATE 20 lbs. / S. Y.
②	USE 7" GUARDRAIL POSTS.
③	TO BE USED AS DIRECTED BY THE ENGINEER FOR PAVEMENT IRREGULARITIES.
④	APPLY ASPHALT MATERIAL FOR TACK AT A RATE OF 0.7 LBS/SY BETWEEN EACH LAYER OF ASPH. CONCRETE.
⑤	JOINT ADHESIVE



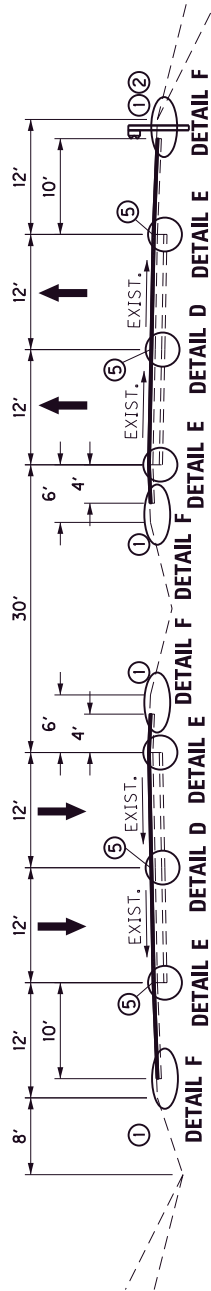
NOT TO SCALE

WK 9001
TYPICAL SECTIONS

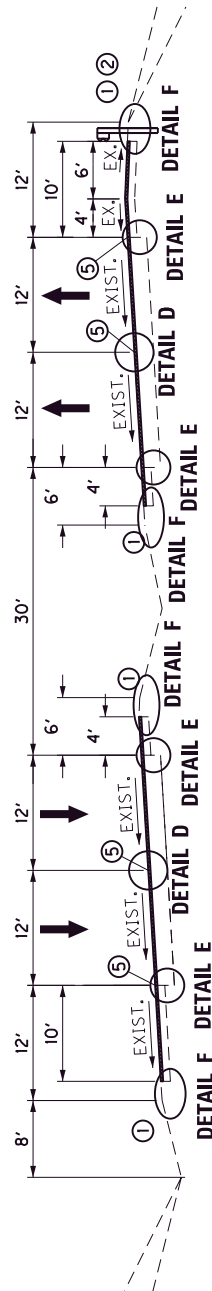
PROPOSED TYPICAL SECTIONS

WK 9001
MP 112.4 - MP 114.882

County	Item No.	Sheet
GRAYSON	4-20001 4-20002	



MAINLINE (NON-SUPERELEVATED)



MAINLINE SUPERELEVATED SECTION

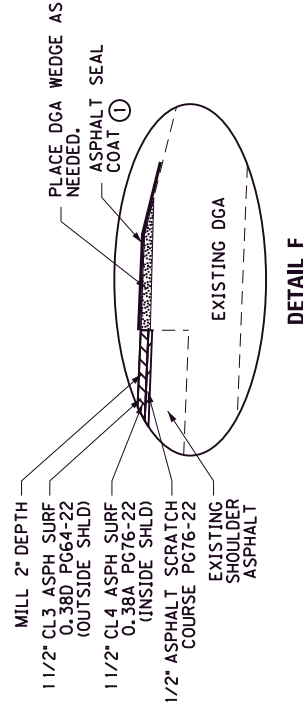
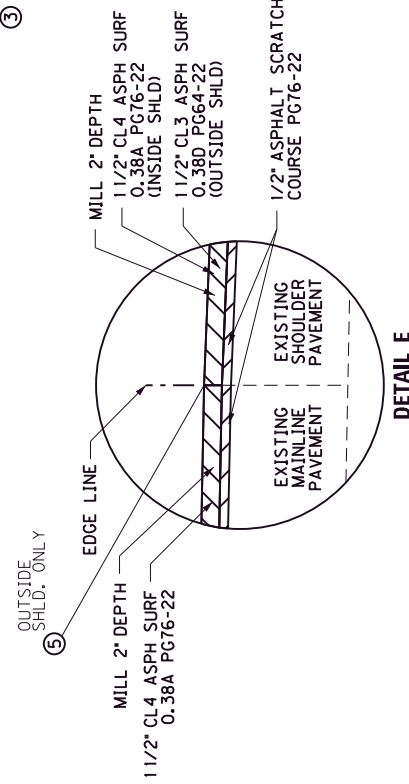
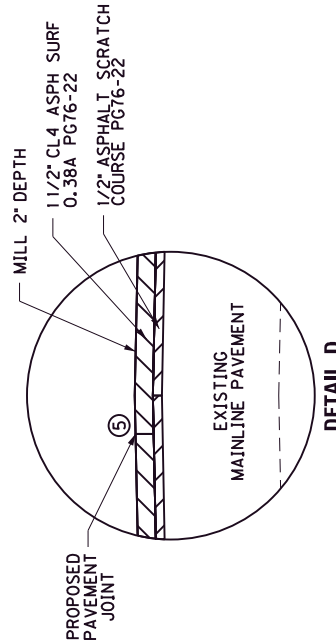
SURFACING SCHEDULE

MAINLINE & INSIDE SHOULDER

- ① ASPHALT SEAL REQUIRED FROM OUTSIDE EDGE OF PAVED SHOULDER TO A POINT 2 FOOT DOWN THE DITCH OR FILL SLOPE (Where Applicable), TWO APPLICATIONS OF THE FOLLOWING :
ASPHALT SEAL COAT 2.4 lbs. / S.Y.
ASPHALT SEAL AGGREGATE 20 lbs. / S.Y.
- ② USE 7" GUARDRAIL POSTS.
- ③ TO BE USED AS DIRECTED BY THE ENGINEER FOR PAVEMENT IRREGULARITIES.
- ④ APPLY ASPHALT MATERIAL FOR TACK AT A RATE OF 0.7 LBS/SY BETWEEN EACH LAYER OF ASPH. CONCRETE. JOINT ADHESIVE

OUTSIDE SHOULDER

- ① ASPHALT PAVEMENT MILLING AND TEXTURING.....2" DEPTH
LEVELING AND WEDGING PG76-22.....AS DIRECTED
ASPHALT SCRATCH COURSE PG76-22.....1/2" DEPTH
CL4 ASPH SURFACE 0.38A PG76-22.....1/2" DEPTH
- ② ASPHALT PAVEMENT MILLING AND TEXTURING.....2" DEPTH
LEVELING AND WEDGING PG76-22.....AS DIRECTED
ASPHALT SCRATCH COURSE PG76-22.....1/2" DEPTH
CL3 ASPH SURFACE 0.38D PG64-22.....1/2" DEPTH



NOT TO SCALE

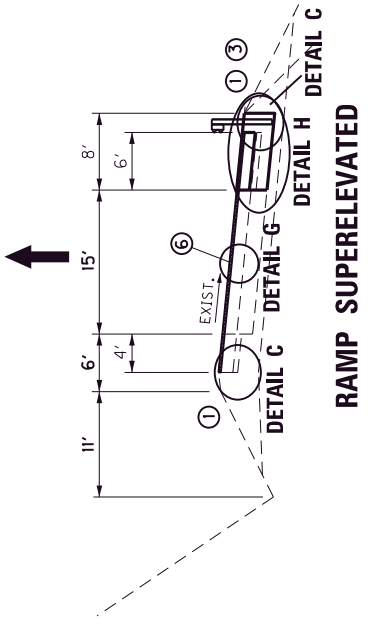
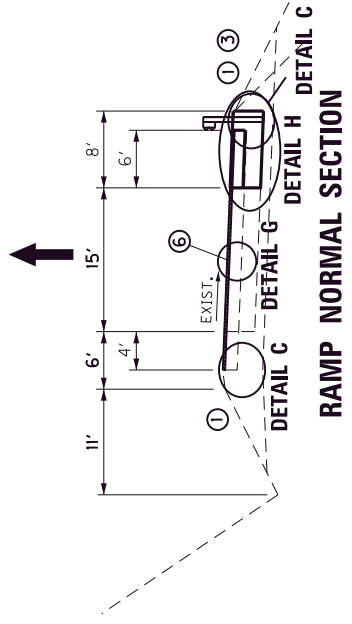
WK 9001
TYPICAL SECTIONS

PROPOSED TYPICAL SECTIONS

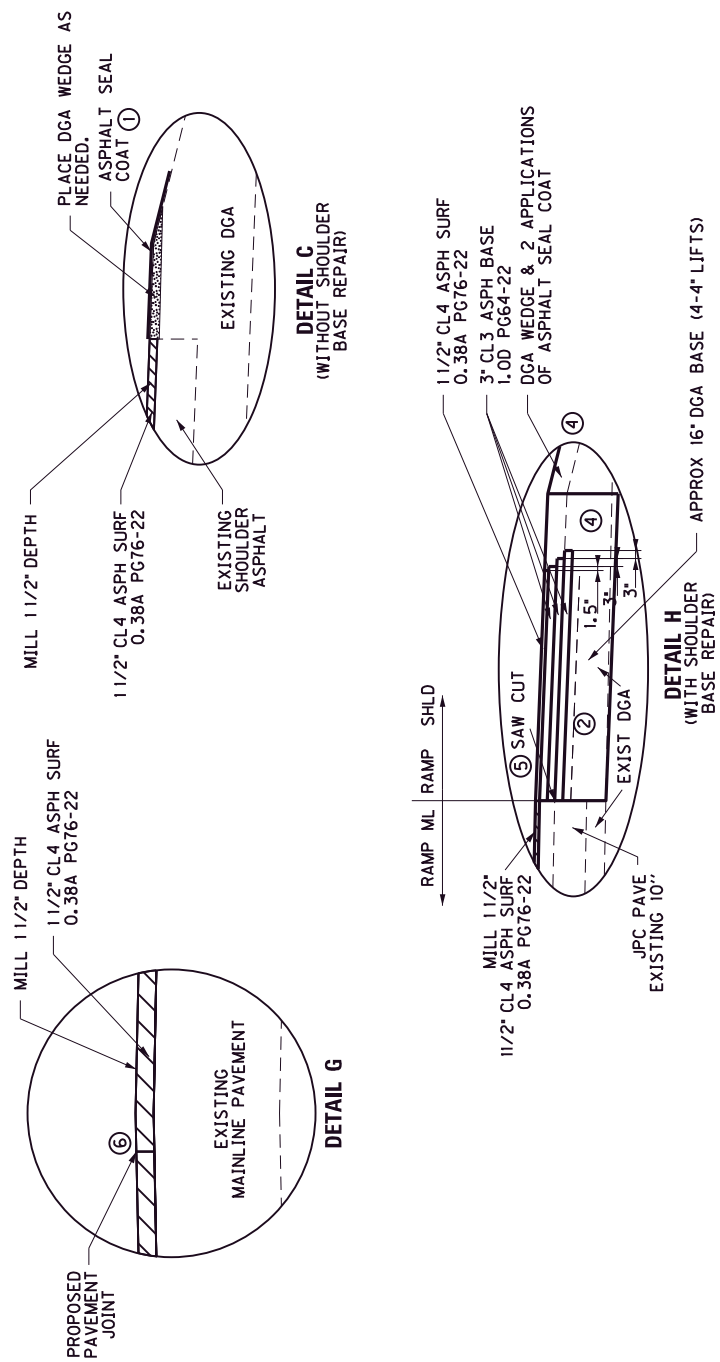
WK 9001

RAMPS

SHOULDER BASE REPAIR DETAIL



- SURFACING SCHEDULE ②**
- RAMP TRAFFIC LANES AND SHOULDER**
- ASPHALT PAVEMENT MILLING AND TEXTURING.....1 1/2" DEPTH
LEVELING AND WEDGING PG76-22.....AS NEEDED
CL4 ASPH SURFACE 0.38A PG76-22.....1 1/2" DEPTH
- RAMP SHOULDER BASE REPAIR ②**
- DGA BASE.....16" DEPTH
CL3 ASPH BASE 1.00D PG64-22.....3" DEPTH
CL3 ASPH BASE 1.00D PG64-22.....3" DEPTH
CL3 ASPH BASE 1.00D PG64-22.....3" DEPTH
- ① ASPHALT SEAL REQUIRED FROM OUTSIDE EDGE OF PAVED SHOULDER TO A POINT 2 FOOT DOWN THE DITCH OR FILL SLOPE (Where Applicable). TWO APPLICATIONS OF THE FOLLOWING :
ASPHALT SEAL COAT 2.4 lbs. / S.Y.
ASPHALT SEAL AGGREGATE 20 lbs. / S.Y.
APPLY ASPHALT MATERIAL FOR TACK AT A RATE OF 0.7 LBS/SY BETWEEN EACH LAYER OF ASPH CONCRETE.
- ② USE 7' GUARDRAIL POSTS
- ③ CONTAIN EXCAVATION WITHIN LIMITS OF EXISTING LIGHTING CONDUIT. EXCAVATION TO BE MEASURED AS TRENCHING (SHOULDER)
- ④ SAW CUT FULL DEPTH OF EXISTING PAVEMENT INCIDENTAL TO OTHER ITEMS IN THE CONTRACT.
- ⑤ JOINT ADHESIVE (SURFACE ONLY)



WARNING
DO NOT DISTURB EXISTING
LIGHTING OR EXISTING
LIGHTING CONDUIT

NOT TO SCALE

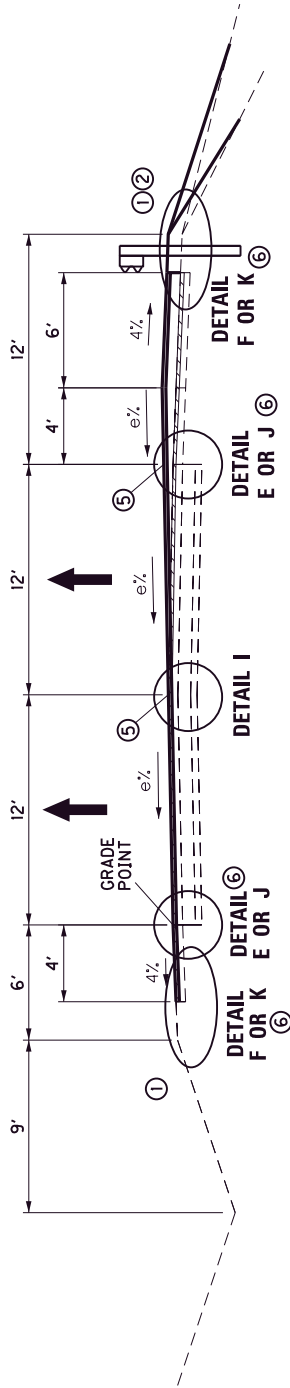
WK 9001

TYPICAL SECTIONS

PROPOSED TYPICAL SECTIONS

WK 9001
CROSS SLOPE CORRECTION
MP 113.674 E.B. TO 114.882 E.B.

County	Item No.	Sheet
GRAYSON	4-20001 4-20002	



CROSS SLOPE CORRECTION

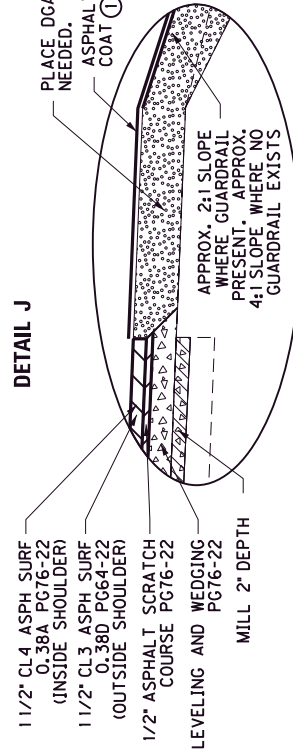
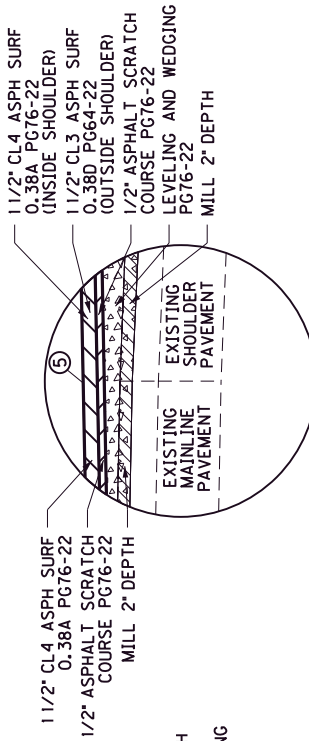
SURFACING SCHEDULE MAINLINE & INSIDE SHOULDER

- ④ ASPHALT PAVEMENT MILLING AND TEXTURING.....2" DEPTH
- ③ LEVELING AND WEDGING PG76-22.....AS DIRECTED
- ASPHALT SCRATCH COURSE PG76-22.....1/2" DEPTH
- CL4 ASPH SURFACE 0.38A PG76-22.....1 1/2" DEPTH

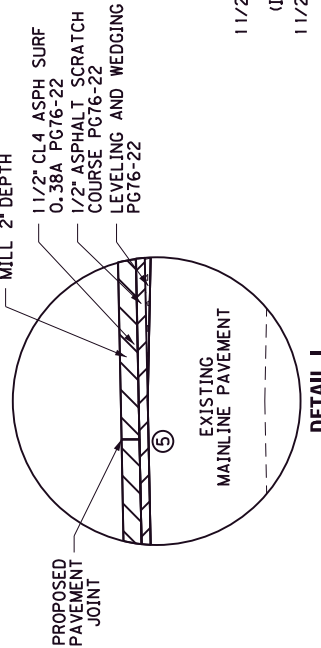
SURFACING SCHEDULE OUTSIDE SHOULDER

- ④ ASPHALT PAVEMENT MILLING AND TEXTURING.....2" DEPTH
- ③ LEVELING AND WEDGING PG76-22.....AS DIRECTED
- ASPHALT SCRATCH COURSE PG76-22.....1/2" DEPTH
- CL3 ASPH SURFACE 0.38D PG64-22.....1 1/2" DEPTH

- ① ASPHALT SEAL REQUIRED FROM OUTSIDE EDGE OF PAVED SHOULDER TO A POINT 2 FOOT DOWN THE DITCH OR FILL SLOPE (Where Applicable). TWO APPLICATIONS OF THE FOLLOWING :
 - ASPHALT SEAL COAT 2.4 lbs. / S.Y.
 - ASPHALT SEAL AGGREGATE 20 lbs. / S.Y.
- USE 7" GUARDRAIL POSTS
- TO BE USED AS DIRECTED BY THE ENGINEER FOR PAVEMENT IRREGULARITIES AND CROSS SLOPE CORRECTION. USE ASPHALT BASE MIXES FOR THICKNESSES GREATER THAN 2".
- ④ APPLY ASPHALT MATERIAL FOR TACK AT A RATE OF 0.7 LBS/SY BETWEEN EACH LAYER OF ASPH, CONCRETE.
- ⑤ JOINT ADHESIVE
- ⑥ USE DETAIL E AT MAINLINE EDGE AND DETAIL F AT SHOULDER EDGE AT LOCATIONS THAT LITTLE OR NO LEVELING AND WEDGING IS NEEDED. CROSS SECTIONS AND DESIGNED GRADE PROVIDED FOR CROSS SLOPE REVISION BETWEEN MP 113.674 AND MP 113.996. FROM MP 113.996 TO MP 114.882 USE EXISTING LEFT EDGE OF MAINLINE PAVEMENT TO ESTABLISH PROFILE GRADE AND CONTINUALLY MONITOR AND CONTROL CROSS SLOPE OF LEVELING AND WEDGING DURING PLACEMENT TO MODIFY THE GRADE OF THIS PORTION OF THE HORIZ. CURVE.



DETAIL K



DETAIL E & DETAIL F ⑥
SEE NORMAL TYPICAL SECTION SHEETS.

NOTE: COMPLETE RELIEF JOINT REPAIRS PRIOR TO THIS OPERATION

MILL TYPICAL 2" THICKNESS TO REMOVE EXISTING SURFACE COURSE PRIOR TO APPLICATION OF LEVELING AND WEDGING.

MP 113.674 (STA 6002+00) TO MP 113.996 (STA 6019+00) SEE PROFILE SHEETS AND CROSS SECTIONS.

MP 113.996 (STA 6019+00) TO MP 114.882 (STA 6065+77)

ALLOW THE EXISTING YELLOW LINE ELEVATION TO CONTROL THE PROPOSED PROFILE GRADE. BY USE OF GRADE CONTROL EQUIPMENT ON THE PAVEMENT AND BY CHECKING CROSS SLOPES WITH A LEVEL, SMART LEVEL, OR OTHER APPROVED METHODS, PLACE LEVELING AND WEDGING TO THE DESIRED PAVEMENT CROSS SLOPE. USE 0.75 NOMINAL SIZE AGGREGATE BASE FOR LEVELING OVER 2" IN THICKNESS. PLACE LEVELING IN MULTIPLE PASSES WHERE REQUIRED BY SPECIFICATION TO NOT EXCEED ALLOWABLE LAY DOWN THICKNESSES. LEVELING SHOULD RESULT IN A WEDGE OF 0" THICKNESS AT THE EXISTING EASTBOUND YELLOW LINE, RANGING TO A DEPTH REQUIRED AT THE OUTSIDE OF THE OUTSIDE SHOULDER NEEDED TO ACHIEVE A 2.8% CROSS SLOPE. ROTATE FROM EXISTING PAVEMENT ELEVATIONS TO THE DESIRED CROSS SLOPES AT THE STATIONS DESIGNATED ON THE PLAN SHEETS.

WK 9001
TYPICAL SECTIONS
CROSS SLOPE CORRECTION

WK 9001
GRAYSON COUNTY
ITEM NO. 4-20001 & 4-20002 , PAVEMENT REHABILITATION
MILEPOINT 111.250 TO 114.882
GENERAL SUMMARY

ITEM NUMBER	ITEM	UNIT	QUANTITY
00001	DGA BASE (1)	TON	8,603
00100	ASPHALT SEAL AGGREGATE (1)	TON	412
00103	ASPHALT SEAL COAT (1)	TON	49
00193	ASPHALT SCRATCH COURSE PG76-22 (1)	TON	3,043
00194	LEVELING & WEDGING PG76-22 (1)	TON	2,956
00214	CL3 ASPH BASE 1.00D PG64-22 (1)	TON	8,830
00219	CL4 ASPH BASE 1.00D PG76-22 (1)	TON	5,789
00339	CL3 ASPH SURF 0.38D PG64-22 (1)	TON	3,714
00342	CL4 ASPH SURF 0.38A PG76-22 (1)	TON	11,596
02101	CEM CONC ENT PAVEMENT-8 IN (1)	SQYD	93
02676	MOBILIZATION FOR MILL & TEXT (1)	LS	1
02677	ASPHALT PAVE MILLING & TEXTURING (1)	TON	24,164
20071EC	JOINT ADHESIVE (1)	LF	87,009
20509ED	BLOW UP/RELIEF JOINT (1)	SQYD	5,350
24970EC	ASPHALT MATERIAL FOR TACK NON-TRACKING (1)	TON	128
02165	REMOVE PAVED DITCH (2)	SQYD	326
02484	CHANNEL LINING CLASS III (2)	TON	940
22660EN	REPLACE GRATE (2)	LB	454
00440	ENTRANCE PIPE-15 IN (2)	LF	75
22045NN	FLUME INLET TY 2-MOD (2)	EACH	2
22766ED	TRENCH DRAIN (2)	LF	207
24585EC	SECURITY PLATE ASSEMBLY (2)	EACH	2
21802EN	G/R STEEL W BEAM-S FACE (7 FT POST) (3)	LF	1,950
02381	REMOVE GUARDRAIL (3)	LF	2,350
01982	DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE (3)	EACH	35
02360	GUARDRAIL TERMINAL SECTION NO 1 (3)	EACH	1
23979EC	CRASH CUSHION TY VI CLASS C TL3 (3)	EACH	2
02391	GUARDRAIL END TREATMENT TYPE 4A (3)	EACH	2
20191ED	OBJECT MARKER TY 3 (3)	EACH	4
02369	GUARDRAIL END TREATMENT TYPE 2A (3)	EACH	2
08100	CONCRETE-CLASS A (3)	CUYD	12.16
08150	STEEL REINFORCEMENT (3)	LB	368
25078ED	THRIE BEAM GUARDRAIL TRANSITION TL-3 (3)	EACH	3
02159	TEMP DITCH	LF	11,251
02160	CLEAN TEMP DITCH	LF	5,626
02703	SILT TRAP TYPE A	EACH	4

- (1) CARRIED OVER FROM PAVING SUMMARY
(2) CARRIED OVER FROM PIPE DRAINAGE SUMMARY
(3) CARRIED OVER FROM GUARDRAIL SUMMARY

WK 9001
GRAYSON COUNTY
ITEM NO. 4-20001 & 4-20002 , PAVEMENT REHABILITATION
MILEPOINT 111.250 TO 114.882
GENERAL SUMMARY

ITEM NUMBER	ITEM	UNIT	QUANTITY
02704	SILT TRAP TYPE B	EACH	4
02705	SILT TRAP TYPE C	EACH	4
02706	CLEAN SILT TRAP TYPE A	EACH	4
02707	CLEAN SILT TRAP TYPE B	EACH	4
02708	CLEAN SILT TRAP TYPE C	EACH	4
02575	DITCHING AND SHOULDERING	LF	19,177
05950	EROSION CONTROL BLANKET	SQYD	18,505
05952	TEMP MULCH	SQYD	12,337
05953	TEMP SEEDING AND PROTECTION	SQYD	9,253
05963	INITIAL FERTILIZER	TON	1
05964	MAINTENANCE FERTILIZER	TON	0.6
05989	SPECIAL SEEDING CROWN VETCH	SQYD	2,221
05992	AGRICULTURAL LIMESTONE	TON	11.5
40030	TEMPORARY SILT FENCE	LF	11,251
01990	DELINEATOR FOR BARRIER WALL-B/W	EACH	96
02562	TEMPORARY SIGNS	SQFT	1,200
02650	MAINTAIN & CONTROL TRAFFIC	LS	1
02671	PORTABLE CHANGEABLE MESSAGE SIGN	EACH	4
02775	ARROW PANEL	EACH	2
06511	PAVE STRIPING-TEMP PAINT-6 IN	LF	174,316
06549	PAVE STRIPING-TEMP REM TAPE-B	LF	9,000
06550	PAVE STRIPING-TEMP REM TAPE-W	LF	3,600
06551	PAVE STRIPING-TEMP REM TAPE-Y	LF	3,600
02003	RELOCATE TEMP CONC BARRIER	LF	2,960
02898	RELOCATE CRASH CUSHION	EACH	7
03171	CONCRETE BARRIER WALL TYPE 9T	LF	1,360
04934	TEMP SIGNAL MULTI PHASE	EACH	1
08903	CRASH CUSHION TY VI CLASS BT TL3	EACH	3
06510	PAVE STRIPING-TEMP PAINT-4 IN	LF	18,000
24432EC	TEMP WORKSITE SPEED LIMIT SIGN ASSEMBLY	EACH	2
02696	SHOULDER RUMBLE STRIPS	LF	84,798
06401	FLEXIBLE DELINEATOR POST-M/W	EACH	553
06404	FLEXIBLE DELINEATOR POST-M/Y	EACH	81
06542	PAVE STRIPING-THERMO-6 IN W	LF	52,188
06543	PAVE STRIPING-THERMO-6 IN Y	LF	42,399
06546	PAVE STRIPING-THERMO-12 IN W	LF	2,464
06547	PAVE STRIPING-THERMO-12 IN Y	LF	120
06568	PAVE MARKING-THERMO STOP BAR-24IN	LF	163

WK 9001
GRAYSON COUNTY
ITEM NO. 4-20001 & 4-20002 , PAVEMENT REHABILITATION
MILEPOINT 111.250 TO 114.882
GENERAL SUMMARY

ITEM NUMBER	ITEM	UNIT	QUANTITY
06569	PAVE MARKING-THERMO CROSS-HATCH	SQFT	152
06613	INLAID PAVEMENT MARKER-B W/R	EACH	536
06614	INLAID PAVEMENT MARKER-B Y/R	EACH	51
24679ED	PAVE MARK THERMO CHEVRON	SQFT	922
24189ER	DURABLE WATERBORNE MARKING-6 IN W	LF	3,200
24190ER	DURABLE WATERBORNE MARKING-6 IN Y	LF	3,200
00078	CRUSHED AGGREGATE SIZE NO 2 (4)	TON	1,157
02230	EMBANKMENT IN PLACE (5)	CUYD	6,828
02603	FABRIC-GEOTEXTILE CLASS 2 (5)	SQYD	3,700
01015	INSPECT & CERTIFY EDGE DRAIN SYSTEM	LS	1
00071	CRUSHED AGGREGATE SIZE NO 57 (6)	TON	46
02545	CLEARING AND GRUBBING (7)	LS	1
02726	STAKING	LS	1
06427	TRENCHING (8)	LF	1,234
00020	TRAFFIC BOUND BASE	TON	50
20756ED	RESHAPE MEDIAN (6)	LF	225
24891EC	PAVE MOUNT INFRARED TEMP EQUIPMENT	SQFT	1,367,033
26136EC	PORTABLE QUEUE WARNING ALERT SYSTEM	MONTH	12
26137EC	QUEUE WARNING PCMS	MONTH	48
26138EC	QUEUE WARNING PORTABLE RADAR SENSORS	MONTH	48
04798	CONDUIT-3 1/2 IN (9)	LF	90
04800	MARKER (9)	EACH	1
04820	TRENCHING AND BACKFILLING (9)	LF	515
04860	CABLE-NO. 8/3C DUCTED (9)	LF	825
04940	REMOVE LIGHTING (9)	LS	1
20391NS835	ELECTRICAL JUNCTION BOX TYPE A (9)	EACH	3
21543EN	BORE AND JACK CONDUIT (9)	LF	90
21579EN	FLEX CONDUIT-1 1/4 IN (9)	LF	50
06585	PAVEMENT MARKER TY IVA-MW TEMP	EACH	180
06586	PAVEMENT MARKER TY IVA-MY TEMP	EACH	180
02568	MOBILIZATION	LS	1
02569	DEMOBILIZATION	LS	1
10020NS	FUEL ADJUSTMENT	DOLL	59,019
10030NS	ASPHALT ADJUSTMENT	DOLL	140,464

(4) INCLUDES 127 TONS FROM SHOULDER EROSION REPAIR DETAIL AND 1,030 TONS FROM EARTHWORK SUMMARY.

(5) SEE EARTHWORK SUMMARY.

(6) FOR PREPARATION OF MEDIAN PIER TRANSITION AND CRASH CUSHION INSTALLATION.

(7) APPROXIMATELY 2 ACRES

(8) FOR RAMP SHOULDER REPAIRS.

(9) CARRIED OVER FROM LIGHTING SUMMARY.
*STRUCTURE QUANTITIES NOT INCLUDED. SEE STRUCTURE PLANS.

WK 9001 GRAYSON COUNTY ITEM NO. 4-20001 & 4-20002 , PAVEMENT REHABILITIATION MILEPOINT 111.250 TO 114.882 EARTHWORK SUMMARY				
EXCAVATION ITEMS				
ROADWAY	EXC	EMB BENCH	UNDERCUT	TOTALS
WK 9001 CROSS SLOPE REVISION	0	0	0	0
KY 224	616	2277	691	3584
RAMP A	73	0	0	73
RAMP B	72	0	0	72
RAMP C	4	0	0	4
RAMP D	5	162	0	167
HICKORY FLATS	22	0	0	22
ROADWAY EXCAVATION TOTAL				3922
EMBANKMENT ITEMS				
ROADWAY	EMB	EMB BENCH	UNDERCUT	
WK 9001 CROSS SLOPE REVISION	842	0	0	842
KY 224	2314	2277	691	5282
RAMP A	254	0	0	254
RAMP B	173	0	0	173
RAMP C	0	0	0	0
RAMP D	101	162	0	263
HICKORY FLATS	14	0	0	14
EMBANKMENT IN PLACE TOTAL				6828
<p>NOTES:</p> <p>PROPOSED UNDERCUT LOCATIONS ESTIMATED TO REMOVE SOFT OR SATURATED AREAS AS IDENTIFIED BY THE ENGINEER DURING CONSTRUCTION. POTENTIAL AREAS ARE IDENTIFIED ON THE CROSS SECTIONS HOWEVER, LOCATIONS AND LIMITS OF EXCAVATION ARE TO BE DETERMINED AT THE AT THE TIME OF CONSTRUCTION BY THE ENGINEER. A QUANTITY OF CRUSHED AGGREGATE #2 STONE OF 1,030 TONS AND A QUANTITY OF 3,700 SY OF GEOTEXTILE FABRIC CLASS 2 HAS BEEN ESTABLISHED TO REFILL THE UNDERCUT AREAS WITH FABRIC WRAPPED #2 CRUSHED AGGREGATE. FINAL PAYMENT OF UNDERCUT QUANTITIES WILL BE BASED ON FIELD MEASUREMENT OF ACTUAL ITEMS USED.</p> <p>FINAL PAYMENT OF THE ITEM EMBANKMENT IN PLACE WILL BE BASED ON PLAN QUANTITY PLUS OR MINUS AUTHORIZED ADJUSTMENTS (INCLUDING ADDITIONS OR SUBTRACTIONS IN UNDERCUT QUANTITY).</p>				

WK 9001
GRAYSON COUNTY
ITEM NO. 4-20001 & 4-20002 , PAVEMENT REHABILITATION
MILEPOINT 111.250 TO 114.882
PAVING SUMMARY (WK 9001 PAVEMENT REHABILITATION)

PAVING AREAS (SY) - SHEET 1

ITEM	TOTAL	ITEM	TOTAL
MP 111.25 - MP 112.4		MP 112.4 - MP 114.882	
MAINLINE AND 1' INTO SHOULDERS		MAINLINE AND INSIDE SHOULDERS	
3" MILLING AND TEXTURING	35,083	2" MILLING AND TEXTURING	81,542
3" CL4 ASPH BASE 1.00D PG76-22	35,083	.5" ASPHALT SCRATCH COURSE PG76-22	81,542
		1.5" CL4 ASPH SURF 0.38A PG76-22	81,542
MAINLINE AND INSIDE SHOULDER		OUTSIDE SHOULDERS	
1.5" MILLING AND TEXTURING	37,329	2" MILLING AND TEXTURING	29,122
1.5" CL4 ASPH SURF 0.38A PG76-22	37,329	.5 ASPHALT SCRATCH COURSE PG76-22	29,122
OUTSIDE SHOULDER		1.5" CL3 ASPH SURF 0.38D PG64-22	29,122
1.5" MILLING AND TEXTURING	10,128	CROSS SLOPE REVISION	
1.5" CL3 ASPH SURF 0.38D PG64-22	10,128	DGA BASE (WEDGE) (CY)	613
RAMPS		LEVELING AND WEDGING PG76-22 (CY)	929
1.5" MILLING AND TEXTURING	21,689		
1.5" CL4 ASPH SURF 0.38A PG76-22	21,689		
		MP 111.25 - MP 114.882 ALL SHOULDERS	
RAMP SHOULDER REPAIRS		PROJECT SHOULDERS 50% COVERAGE	
16" DGA BASE (CY)	640	ASPHALT SEAL AGGREGATE	18,844
3" CL3 ASPH BASE 1.00D PG64-22	2,622	ASPHALT SEAL COAT	18,844

PAVING SUMMARY

ITEM CODE	ITEM	UNIT	QUANTITY
00001	DGA BASE (1)	TON	8,603
00100	ASPHALT SEAL AGGREGATE (2)	TON	412
00103	ASPHALT SEAL COAT (3)	TON	49
00193	ASPHALT SCRATCH COURSE PG76-22	TON	3,043
00194	LEVELING & WEDGING PG76-22 (4)	TON	2,956
00214	CL3 ASPH BASE 1.00D PG64-22 (6)	TON	8,830
00219	CL4 ASPH BASE 1.00D PG76-22	TON	5,789
00339	CL3 ASPH SURF 0.38D PG64-22 (5)	TON	3,714
00342	CL4 ASPH SURF 0.38A PG76-22	TON	11,596
02101	CEM CONC ENT PAVEMENT-8 IN	SQYD	93
02676	MOBILIZATION FOR MILL & TEXT	LS	1
02677	ASPHALT PAVE MILLING & TEXTURING (7)	TON	24,164
20071EC	JOINT ADHESIVE (8)	LF	87,009
20509ED	BLOW UP/RELIEF JOINT (9)	SQYD	5,350
24970EC	ASPHALT MATERIAL FOR TACK NON-TRACKING (10)	TON	128

- (1) INCL. 542 TONS FOR SHLD DROPOFFS, 29 TONS FROM EROSION REPAIR DETAIL, & 5,441 TONS FOR KY 224, RAMPS & HICK. FLATS.

(2) BASED ON COVERAGE OF 50% OF SHOULDERS & 2 APPLICATION OF 20 LBS/SY. INCL. 35 TONS FOR KY 224 & HICKORY FLATS.

(3) BASED ON COVERAGE OF 50% OF SHOULDERS & 2 APPLICATION OF 2.4 LBS/SY. INCL. 4 TONS FOR KY 224 & HICKORY FLATS.

(4) INCL. 250 TONS TO BE USED AS DIRECTED AND 867 TONS FOR KY 224, RAMPS, AND HICKORY FLATS CONSTRUCTION.

(5) INC. 480 TONS FOR KY 224 AND HICKORY FLATS & ENTRANCES.
- (6) INCL. 8,397 TONS KY 224, RAMPS & HICKORY FLATS CONSTRUCTION.

(7) INCL. 497 TONS FOR KY224, RAMPS, HICK. FLATS KEY INS.

(8) INCL. 2,256 LF FOR KY 224 AND HICKORY FLATS.

(9) FROM RELIEF JOINT DETAIL.

(10) BASED ON 0.7 LBS/SY. INCL 15 TONS FOR KY 224 & HICK. FLATS. ALL ITEMS CARRIED OVER TO THE GENERAL SUMMARY. DGA BASE CALC AT 115 LBS/SY/IN OR 2.07 TONS/CY. ASPH. MIXES CALC. BASED ON 110 LBS/SY/IN OR 1.98 TONS/CY.

WK 9001
GRAYSON COUNTY
ITEM NO. 4-20001 & 4-20002 , PAVEMENT REHABILITATION
MILEPOINT 111.250 TO 114.882
PAVING SUMMARY (KY 224 RECONSTRUCTION)

PAVING AREAS (SY) - SHEET 2

ITEM	TOTAL	ITEM	TOTAL
KY 224, RAMPS, HICKORY FLATS ML & SHLD		KY 224, RAMPS, HICKORY FLATS WIDENING	
4" CL3 ASPH BASE 1.00D PG64-22 TOTAL		AND SHOULDER WEDGE	
DEPTH AND NO. OF LIFTS VARY	38,164	DGA BASE (CY)	2,627
LEVELING AND WEDGING PG76-22 (CY)	438		
		KY224 AND HICKORY FLATS SHOULDERS	
KY 224 AND HICKORY FLATS ML & SHLD		ASPHALT SEAL AGGREGATE	1,750
1.5" CL3 ASPH SURF 0.38D PG64-22	5,588	ASPHALT SEAL COAT	1,750
ENTRANCES (KY 224 AND HICKORY FLATS)			
1.5" CL3 ASPH SURF 0.38D PG64-22	182		
8" CEM CONC ENT PAVEMENT-8 IN	93		

PAVING SUMMARY

ITEM CODE	ITEM	UNIT	QUANTITY
00001	DGA BASE (1)	TON	SEE SH. 1
00100	ASPHALT SEAL AGGREGATE (1)	TON	SEE SH. 1
00103	ASPHALT SEAL COAT (1)	TON	SEE SH. 1
			-
00194	LEVELING & WEDGING PG76-22 (1)	TON	SEE SH. 1
00214	CL3 ASPH BASE 1.00D PG64-22 (1)	TON	SEE SH. 1
			-
00339	CL3 ASPH SURF 0.38D PG64-22 (1)	TON	SEE SH. 1
			-
02101	CEM CONC ENT PAVEMENT-8 IN (1)	SQYD	SEE SH. 1
02676	MOBILIZATION FOR MILL & TEXT (1)	LS	SEE SH. 1
02677	ASPHALT PAVE MILLING & TEXTURING	TON	SEE SH. 1
20071EC	JOINT ADHESIVE (1)	LF	SEE SH. 1
			-
24970EC	ASPHALT MATERIAL FOR TACK NON-TRACKING (1)	TON	SEE SH. 1

(1) QUANTITIES INCLUDED IN SHEET 1 QUANTITIES

NOTE: ALL RAMP SURFACE INCLUDED IN MAINLINE
WKY PARKWAY REHAB AREAS ON SHEET 1.

DGA BASE CALCULATED AT 115 LBS/SY/IN OR AT
2.07 TONS PER CUBIC YARD
ASPH. MIXES CALCULATED BASED ON 110 LBS/SY/IN.

**GRAYSON COUNTY
ITEM NO. 4-20001 & 4-20002 , PAVEMENT REHABILITATION
MILEPOINT 111.250 TO 114.882
PIPE SUMMARY**

MILEPOINT	REMOVE PAVED DITCH	CHANNEL LINING CLASS III	REPLACE GRATE	ENTRANCE PIPE-15 IN					FLUME INLET TY 2-MOD	TRENCH DRAIN	SECURITY PLATE ASSEMBLY								REMARKS
ITEM CODE	02165	02484	22660EN	00440					22045NN	22766ED	24585EC								
UNIT	SQYD	TON	LB	LF					EACH	LF	EACH								
112.296	30	30	454								2								W.B. OUTSIDE, 24" S&F ALL GRATES
112.303	29	29																	E.B. OUTSIDE
112.343		43																	E.B. OUTSIDE
112.511		35																	W.B. OUTSIDE
112.558	53	53																	W.B. OUTSIDE
112.846	19	19																	E.B. OUTSIDE
112.893		73																	W.B. OUTSIDE
113.521	195	195																	W.B. OUTSIDE
113.533		44																	W.B. OUTSIDE
113.649		81																	W.B. OUTSIDE
114.860		159																	W.B. OUTSIDE
STA 55+59 KY 224				75															ENTRANCE LT KY224
		179							2	207									KY 224, RAMP A, RAMP B, RAMP D
PROJECT TOTAL	326	940	454	75					2	207	2								

ALL ITEMS CARRIED OVER TO THE GENERAL SUMMARY.

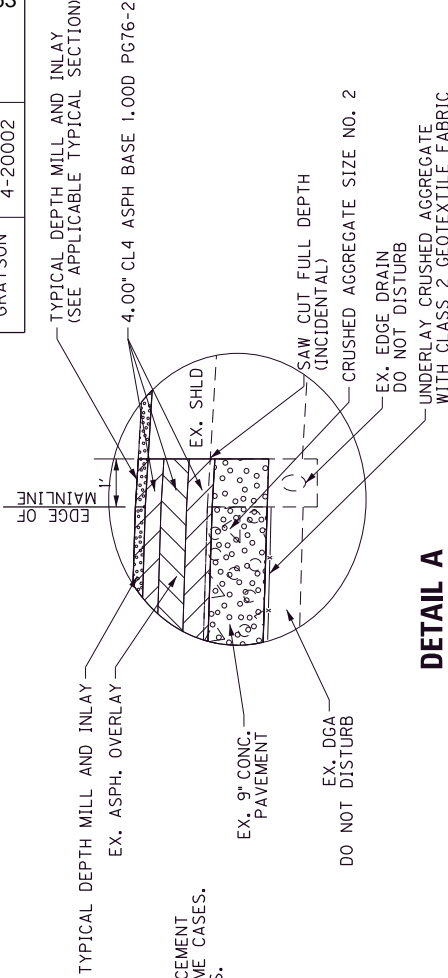
WK 9001
GRAYSON COUNTY
ITEM NO. 4-20001 & 4-20002 , PAVEMENT REHABILITATION
MILEPOINT 111.250 TO 114.882
GUARDRAIL SUMMARY

[illegible]

ALL ITEMS CARRIED OVER TO GENERAL SUMMARY.

RELIEF JOINT DETAIL

County	Item No.	Sheet
GRAYSON	4-20001 4-20002	



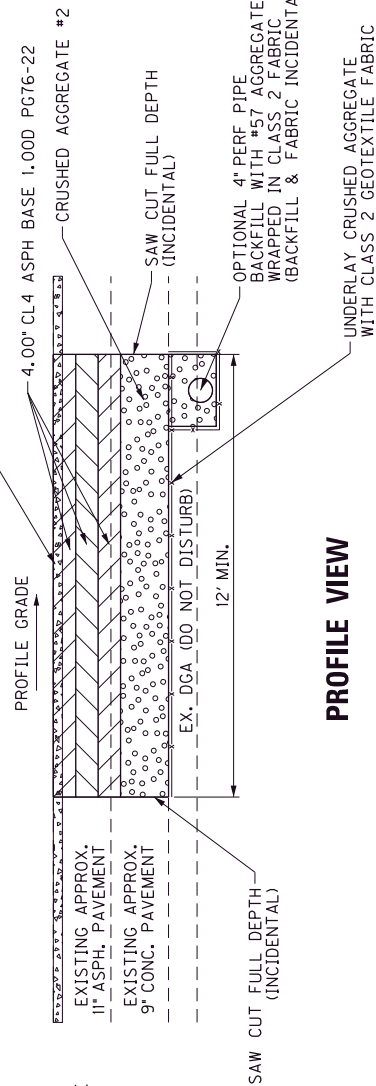
DETAIL A

PLAN VIEW

IF OUTLET IS ADDED, TIE EXISTING UPSTREAM LONGITUDINAL EDGE DRAIN AND NEW PERF PIPE TO OUTLET. CAP EXISTING LONGITUDINAL EDGE DRAIN DOWNSTREAM. (ALL TIES AND FITTINGS ARE INCIDENTAL)

SAW CUT PERIMETER INCIDENTAL (FULL DEPTH)

OPTIONAL 4" NON-PERF PIPE AND PERF PIPE HEADWALL OUTLET



PROFILE VIEW

CROSS SECTION VIEW

CONSTRUCT RELIEF JOINTS AT LOCATIONS LISTED OR AT LOCATIONS AS DIRECTED BY THE ENGINEER.

RELIEF JOINTS ARE GENERALLY INTENDED TO COINCIDE WITH AN EXISTING REFLECTIVE CRACK AND/OR PAVEMENT JOINT BLOWUP FAILURE. LOCATIONS CHOSEN WERE INTENDED TO PROVIDE RELIEF AT INTERVALS OF 500' TO 2500'. PRIMARILY WITH SPACINGS LESS THAN 2000'. THIS DETAIL HAS ALSO BEEN USED TO PERFORM FULL DEPTH PAVEMENT REPAIRS (IN ONE OR BOTH LANES) AT LOCATIONS NOT DESIGNED TO ACHIEVE RELIEF OF STRESSES. THE ENGINEER RESERVES THE RIGHT TO ADJUST LOCATIONS OF RELIEF JOINTS AS FIELD CONDITIONS WARRANT. ATTENTION: MILEPOINT'S LISTED WERE DERIVED FROM AN ESTABLISHED CENTERLINE AND DO NOT MATCH THE LOCATION OF THE EXISTING REFERENCE MARKERS (MILE POST SIGNS).

SAW CUT, FULL DEPTH, TO THE BOTTOM OF EXISTING CONCRETE ELEVATION THE PERIMETER OF THE PROPOSED RELIEF JOINT. SAW CUT WILL BE CONSIDERED INCIDENTAL TO 'BLOW UP/RELIEF JOINT'. REMOVE EXISTING PAVEMENT TO THE TOP OF DGA LAYER EXERCISING CAUTION TO NOT DAMAGE SURROUNDING PAVEMENT. IF DGA IS DISTURBED IN THE REMOVAL PROCESS, RESHAPE AND COMPACT PRIOR TO CRUSHED STONE PLACEMENT. PLACE ASPHALT BASE IN LAYERS AT THE PRESCRIBED COMPACTED DEPTHS, AND IN ACCORDANCE WITH THE SPECIFICATIONS.

CONSTRUCT RELIEF JOINTS 12' MIN. IN LENGTH LONGITUDINALLY ALONG MAINLINE CENTERLINE AND EXTENDING APPROXIMATELY 1' INTO SHOULDERS OR TO CENTER OF LANES (FOR 1 LANE REPAIR).

THE CONTRACT UNIT PRICE FOR "BLOW UP/RELIEF JOINT" WILL INCLUDE AND BE CONSIDERED FULL COMPENSATION FOR ALL ITEMS OF WORK REQUIRED TO SAW CUT EXISTING PAVEMENT, REMOVE EXISTING PAVEMENT, PREPARE STONE BASE, CRUSHED AGGREGATE #2 BACKFILL, ASPHALT MATERIAL FOR TACK BETWEEN LAYERS, PLACEMENT OF AND COMPACTION OF ASPHALT BASE, AND ANY OTHER ITEM REQUIRED TO COMPLETE THE RELIEF JOINT.

DO NOT BEGIN MILL AND INLAY OF FINAL SURFACING UNTIL TRAFFIC HAS BEEN ALLOWED TO RUN ON THE RELIEF JOINT ASPHALT BASE FOR A MINIMUM OF 14 DAYS.

EXERCISE CAUTION TO NOT DAMAGE THE EXISTING EDGE DRAIN SYSTEM. IF THE ENGINEER DETERMINES CONDITIONS WARRANT, A 4 INCH NON-PERFORATED PIPE OUTLET MAY BE ADDED AND A 4 INCH NON-PERFORATED PIPE HEADWALL ADDED AT THE LOW POINT IN THE RELIEF JOINT EXCAVATION. IF AN OUTLET IS ADDED, GRADE STONE AND OUTLET PIPE TO DRAIN AT 4% GRADE (3% MINIMUM). MEASUREMENT AND PAYMENT FOR ADDED PERFORATED PIPE, NON-PERFORATED PIPE, ASPHALT TRENCH CAP MATERIALS AND PERFORATED PIPE HEADWALLS WILL BE MADE WITH A SUPPLEMENTAL AGREEMENT.

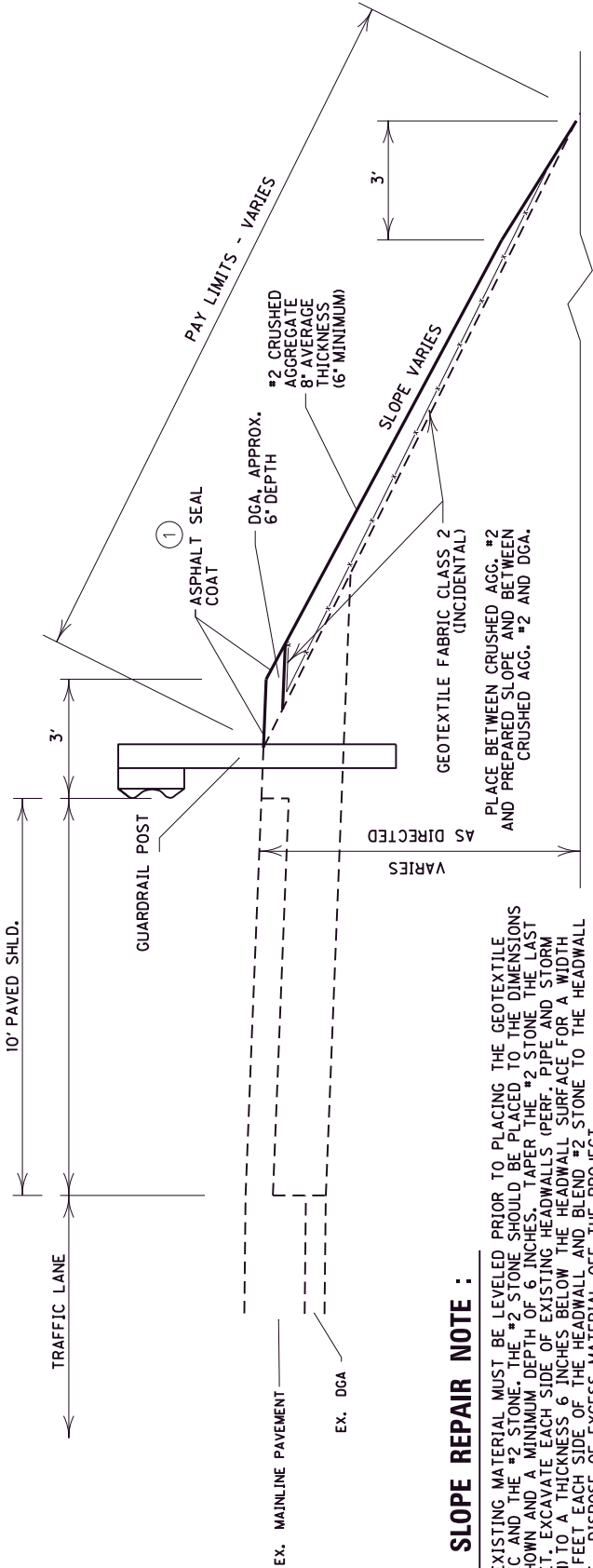
REFILL TRENCHES TO THE EXISTING SURFACE LEVEL. THE TOP 2" OR 4.5" WILL BE CONSIDERED SACRIFICIAL, TO BE MILLED AND REPLACED WITH THE TYPICAL MILL AND INLAY OPERATIONS.

LOCATIONS				BEGIN MP	END MP	LENGTH	WIDTH	BID ITEM		REMARKS
OUTSIDE LANE	INSIDE LANE	EASTBOUND	OUTSIDE LANE					20509ED	BLOW UP / RELIEF JOINT (SY)	
	X			111.319	111.321	12	13	18	18	STAGGERED
X				111.319	111.452	701	13	1013	1013	STAGGERED
			X	111.347	111.349	12	26	35	35	
			X	111.378	111.459	431	13	623	623	
	X			111.450	111.452	12	13	18	18	STAGGERED
			X	111.531	111.534	16	26	47	47	
			X	111.563	111.595	170	VARIES	391	391	LANE AND EB OFF RAMP
			X	111.659	111.674	81	13	117	117	STAGGERED
			X	111.672	111.674	12	13	18	18	STAGGERED
			X	111.773	111.776	16	26	47	47	
X	X			111.774	111.776	12	26	35	35	
			X	112.004	112.015	55	13	80	80	STAGGERED
			X	112.010	112.012	12	13	18	18	STAGGERED
X				112.077	112.139	329	17	622	622	WB OFF RAMP
			X	112.163	112.166	16	40	72	72	LANE AND EB ON RAMP
X				112.205	112.238	173	13	250	250	
			X	112.315	112.319	20	13	29	29	
X				112.333	112.340	37	13	54	54	STAGGERED
	X			112.335	112.338	12	13	18	18	STAGGERED
			X	112.340	112.343	12	13	18	18	STAGGERED
			X	112.340	112.356	84	13	122	122	STAGGERED
			X	112.367	112.372	27	13	39	39	
			X	112.390	112.401	56	13	81	81	
			X	112.451	112.453	12	26	35	35	
			X	112.470	112.483	68	13	99	99	
X				112.489	112.491	12	13	18	18	
X	X			112.598	112.601	12	26	35	35	
			X	112.600	112.602	12	26	35	35	
X	X			112.745	112.748	16	26	47	47	
			X	112.813	112.815	12	26	35	35	
X	X			112.898	112.900	12	26	35	35	
X				112.974	112.995	111	13	161	161	STAGGERED
			X	112.974	112.976	12	26	35	35	
	X			112.993	112.995	12	13	18	18	STAGGERED
			X	113.106	113.108	12	26	35	35	
X	X			113.135	113.137	12	26	35	35	
			X	113.192	113.194	12	26	35	35	
X	X			113.211	113.213	12	26	35	35	
X	X			113.447	113.449	12	26	35	35	
			X	113.532	113.534	12	26	35	35	
X	X			113.532	113.534	12	26	35	35	
SHEET TOTAL								4563	4563	

QUANTITIES CARRIED OVER TO THE PAVING SUMMARY

SHOULDER EROSION REPAIR DETAIL

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-20001 4-20002	



SLOPE REPAIR NOTE :

THE EXISTING MATERIAL MUST BE LEVELLED PRIOR TO PLACING THE GEOTEXTILE FABRIC AND THE #2 STONE. THE #2 STONE SHOULD BE PLACED TO THE DIMENSIONS AS SHOWN AND A MINIMUM DEPTH OF 6 INCHES. TAPER THE #2 STONE THE LAST 3 FEET. EXCAVATE EACH SIDE OF EXISTING HEADWALLS (PERF. PIPE AND STORM DRAIN) TO A THICKNESS 6 INCHES BELOW THE HEADWALL SURFACE FOR A WIDTH OF 5 FEET EACH SIDE OF THE HEADWALL AND BLEND #2 STONE TO THE HEADWALL WINGS. DISPOSE OF EXCESS MATERIAL OFF THE PROJECT.

THE BID ITEM "CRUSHED AGGREGATE, SIZE NO. 2" INCLUDES ALL LABOR AND EQUIPMENT NECESSARY TO GRADE THE EXISTING SLOPE, FURNISH AND INSTALL GEOTEXTILE FABRIC CLASS 2, AND CAP THE SLOPE WITH A MINIMUM OF 6 INCHES OF #2 STONE. NO DIRECT MEASUREMENT OR PAYMENT WILL BE MADE FOR GEOTEXTILE FABRIC CLASS 2.

EXTEND THE REPAIRS ONLY THROUGH THE WASH AREA. DO NOT DISTURB AREAS WITH ESTABLISHED VEGETATION.

REMOVE GUARDRAIL WHERE NECESSARY TO PERFORM SHOULDER REPAIRS. PIN ENDS DOWN TO ELIMINATE EXPOSURE TO BLUNT ENDS AND PLACE TRAFFIC DRUMS ON SHOULDER AT 20' SPACING UNTIL GUARDRAIL IS RE-ESTABLISHED. QUANTITIES HAVE BEEN ESTABLISHED FOR PAYMENT OF GUARDRAIL REMOVAL AND INSTALLATION OF NEW RAIL FOR AREAS NOT RECEIVING NEW GUARDRAIL DUE TO DAMAGE.

LOCATIONS:

	BEGIN MP	END MP	LENGTH	CRUSHED AGG.	DGA	GUARDRAIL
W.B. OUT. SHLD	111.859	111.899	213'	103	23	225'
E.B. OUT. SHLD	111.884	111.887	18'	9	2	0'
W.B. OUT. SHLD	113.647	113.653	31'	15	4	37.5'

TOTAL: 262' 127 29 262.5'

THE ENGINEER MAY INCLUDE ADDITIONAL LOCATIONS AND ADDITIONAL QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY.

BID ITEM

	0078	CRUSHED AGGREGATE NO. 2	127	TONS
**	2381	REMOVE GUARDRAIL	262.5	LF
**	21802EN	G/R STEEL W BEAM S-FACE (7 FT POST)	262.5	LF
***	0001	DGA BASE	29	TONS

ASPHALT SEAL COAT QUANTITIES ESTABLISHED IN THE PAVING SUMMARY

- ① ASPHALT SEAL REQUIRED FROM OUTSIDE EDGE OF PAVED SHOULDER TO A POINT 2 FOOT DOWN THE DITCH OR FILL SLOPE OR BOTTOM OF DGA LAYER.
TWO APPLICATIONS OF THE FOLLOWING :
ASPHALT SEAL COAT..... 2.4 lbs. / S.Y.
ASPHALT SEAL AGGREGATE 20 lbs. / S.Y.

* (CARRIED ON GENERAL SUMMARY)
** (CARRIED ON GUARDRAIL SUMMARY)
*** (CARRIED ON PAVING SUMMARY)

NOT TO SCALE

County	Item No.	Sheet
GRAYSON	4-20001 4-20002	-

PROPOSED MAINLINE ALIGNMENT			
POINT	STATION	NORTHING (Y)	EASTING (X)
P. I.	5996 + 95.65	3704375.3427	4796711.4967
P. C.	6005 + 61.45	3704549.0709	4797559.6825
P. I.	6031 + 64.35	3705071.3632	4800109.6470
P. T.	6055 + 78.77	3707041.9068	4801810.2544
P. O. E.	6072 + 20.80	3708285.0145	4802883.0741

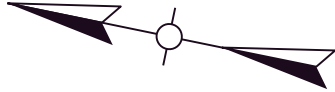
BEGIN CROSS SLOPE REVISION
TRANSITION STATION
STA 6002 + 00

BEGIN DESIGNED
ELEVATIONS
STA 6003 + 00

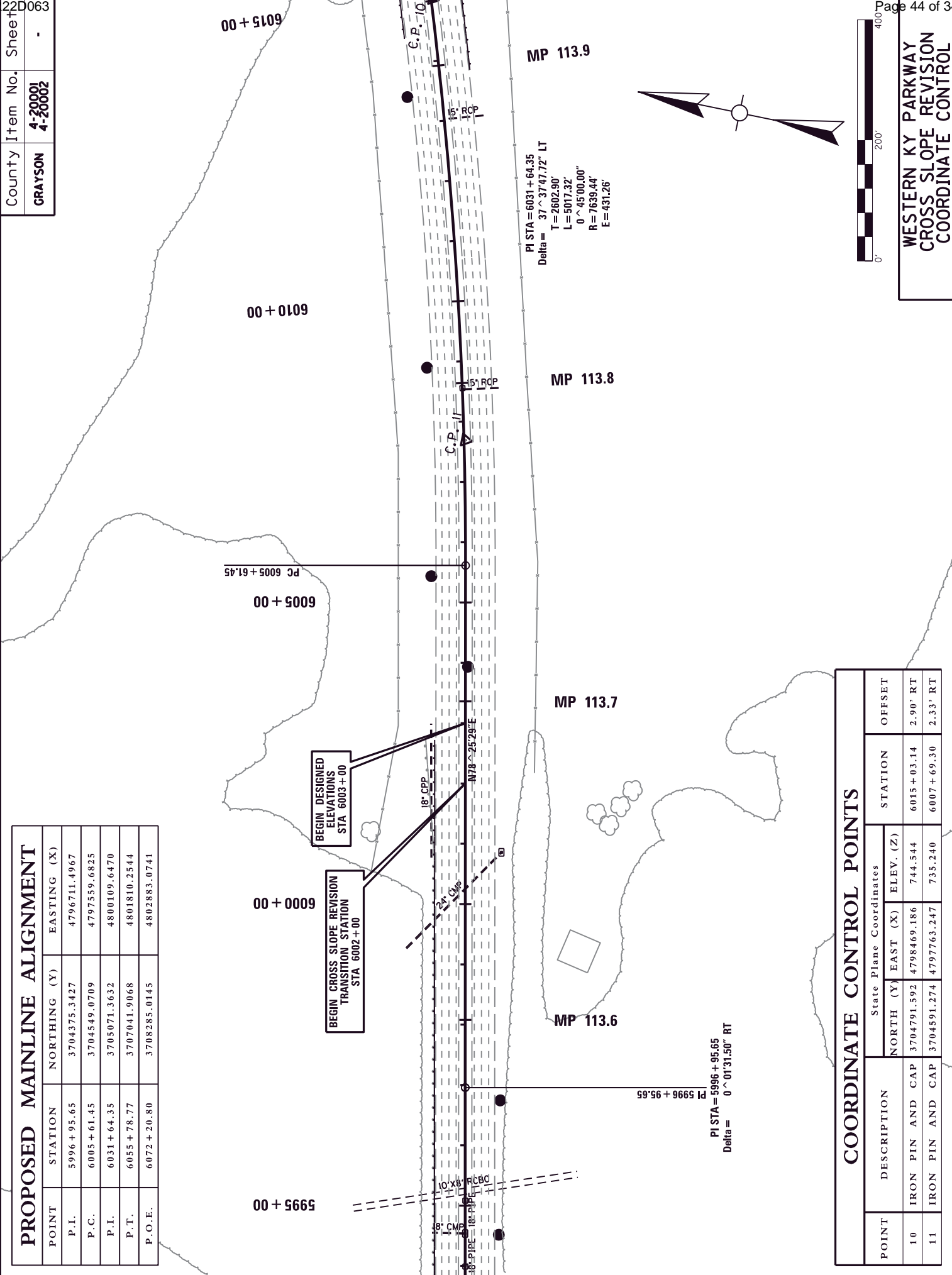
PI STA = 6031 + 64.35
Delta = 37 ^ 37'47.72" LT
T = 2602.90'
L = 5017.32'
O ^ 45'00.00"
R = 7639.44'
E = 431.26'

PI STA = 5996 + 95.65
Delta = 0 ^ 01'31.50" RT

COORDINATE CONTROL POINTS						
POINT	DESCRIPTION	State Plane Coordinates			STATION	OFFSET
		NORTH (Y)	EAST (X)	ELEV. (Z)		
10	IRON PIN AND CAP	3704791.592	4798469.186	744.544	6015 + 03.14	2.90' RT
11	IRON PIN AND CAP	3704591.274	4797763.247	735.240	6007 + 69.30	2.33' RT



WESTERN KY PARKWAY
CROSS SLOPE REVISION
COORDINATE CONTROL



County	Item No.	Sheet
GRAYSON	4-20001 4-20002	-

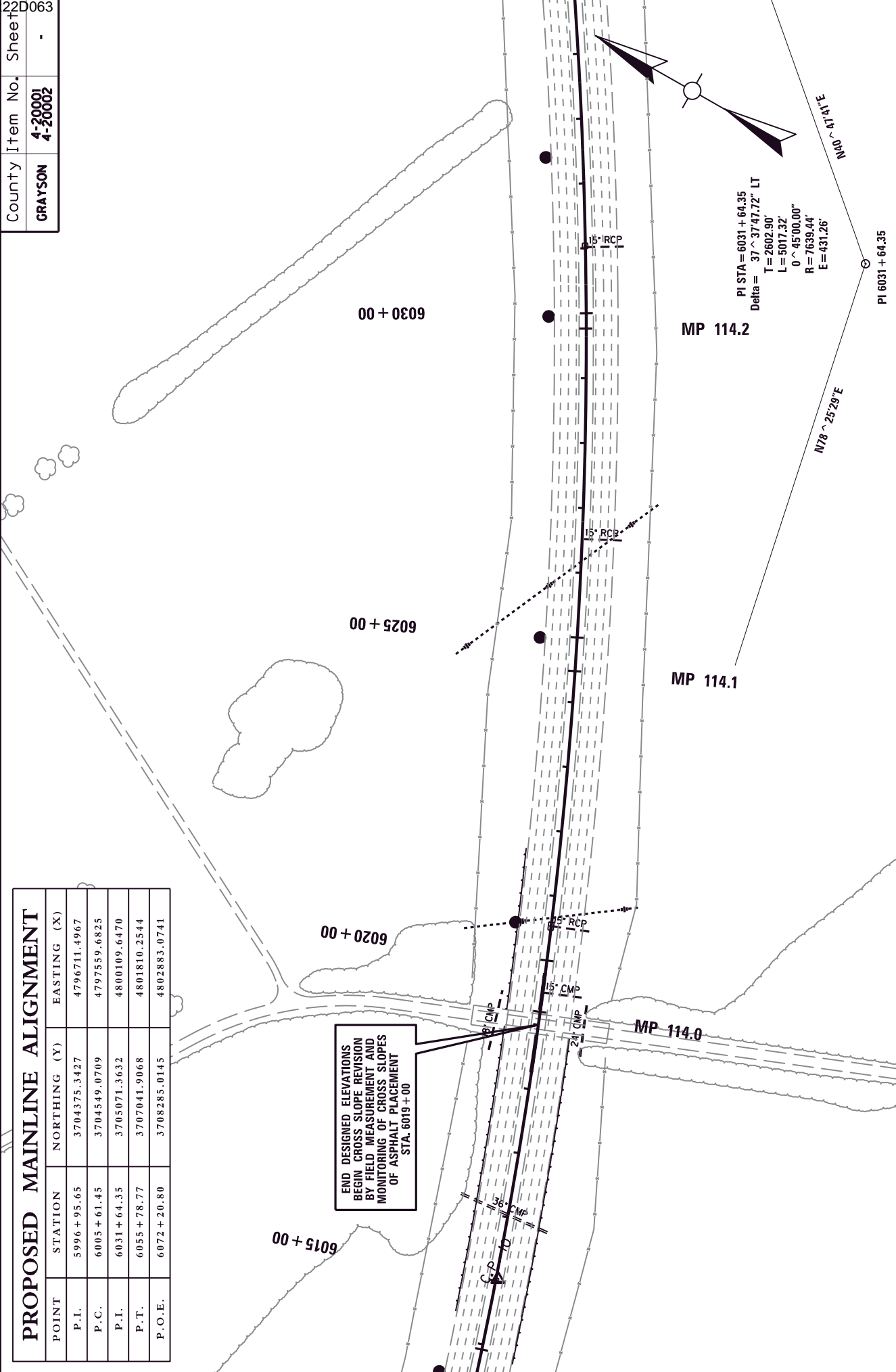
PROPOSED MAINLINE ALIGNMENT

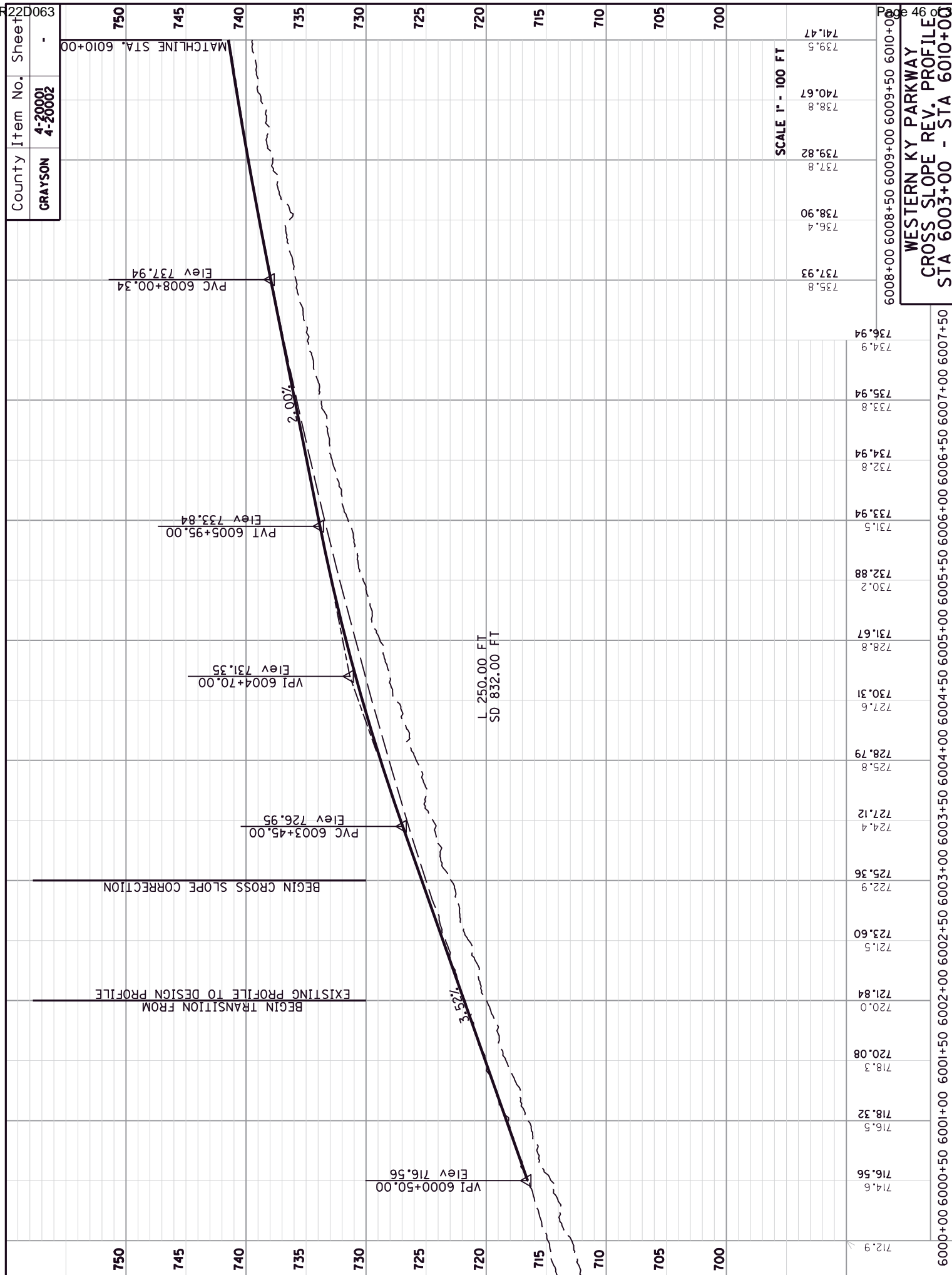
POINT	STATION	NORTHING (Y)	EASTING (X)
P.I.	5996 + 95.65	3704375.3427	4796711.4967
P.C.	6005 + 61.45	3704549.0709	4797559.6825
P.I.	6031 + 64.35	3705071.3632	4800109.6470
P.T.	6055 + 78.77	3707041.9068	4801810.2544
P.O.E.	6072 + 20.80	3708285.0145	4802883.0741

END DESIGNED ELEVATIONS
BEGIN CROSS SLOPE REVISION
BY FIELD MEASUREMENT AND
MONITORING OF CROSS SLOPES
OF ASPHALT PLACEMENT
STA. 6019 + 00

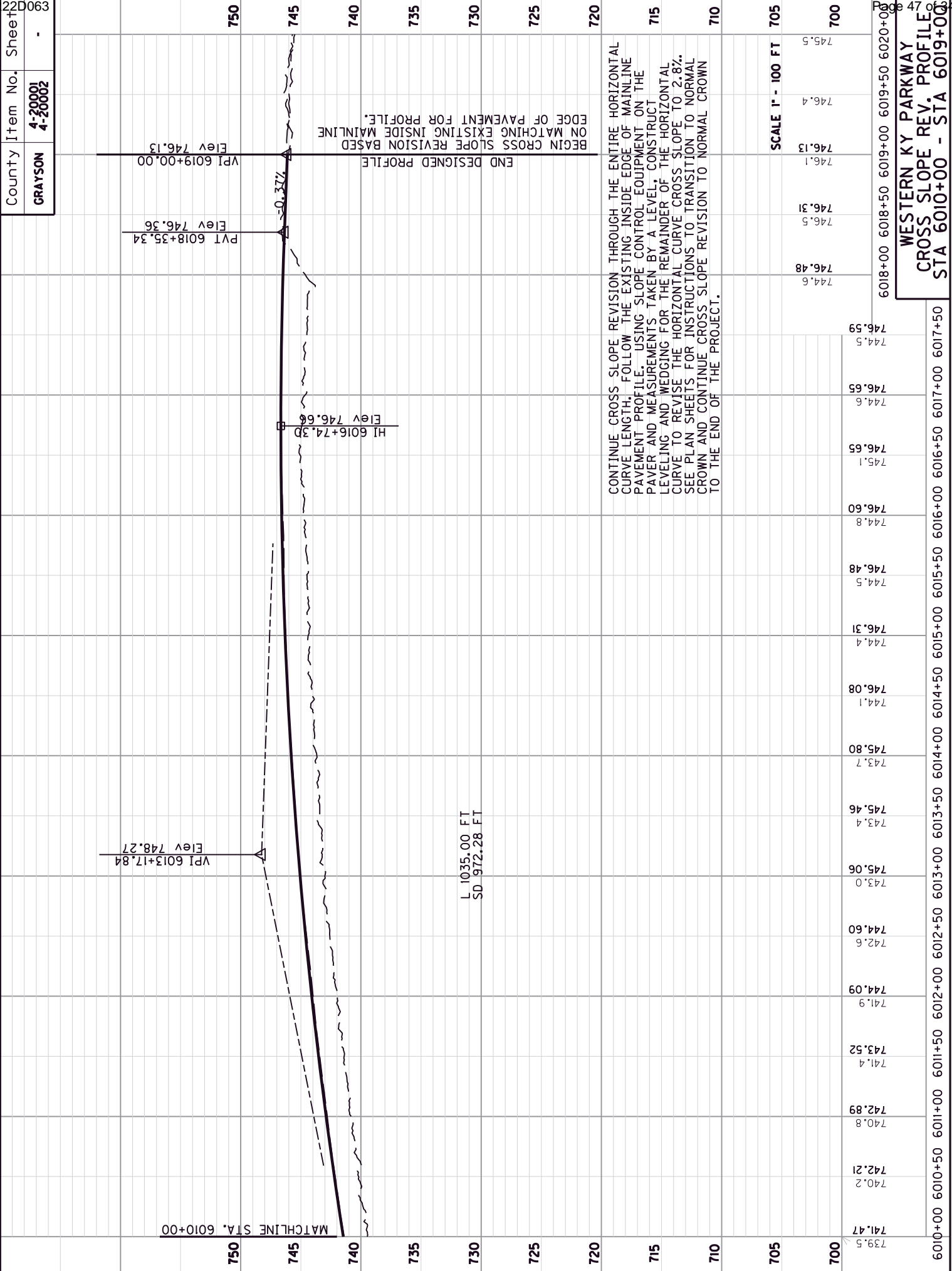
POINT	DESCRIPTION	State Plane Coordinates			STATION	OFFSET
		NORTH (Y)	EAST (X)	ELEV. (Z)		
10	IRON PIN AND CAP	3704791.592	4798469.186	744.544	6015 + 03.14	2.90' RT
11	IRON PIN AND CAP	3704591.274	4797763.247	735.240	6007 + 69.30	2.33' RT

COORDINATE CONTROL POINTS





County	Item No.	Sheet
GRAYSON	4-20001 4-20002	-



WESTERN KY PARKWAY
CROSS SLOPE REV. PROFILE
STA 6010+00 - STA 6019+00

COUNTY OF	ITEM NO.	SHEET NO.
CRAYSON	4-20001 4-20002	XI

STA.	EMB	LEVELING	DGA	WEDGE
730	18	10	9	

Station	6004+74.75 BEGIN SUPERELEVATION RUNOUT	EMB	LEVELING	DGA WEDGE
735	730.15'			
730	730.31'	24	22	12
725	729.5'			
6004+50	728.63'			
730	728.79'	24	20	11
725	728.55'			
6004+00	726.96'			
730	727.12'	23	19	10
725	726.88'			
6003+50	726.24'			
720	726.40'			
6003+50	726.40'			
720	726.24'			

FILE NAME: G:\ENGR\HD1365.10 AND 1365.11 GRAYSON WK\CAD\PLAN\CROSS SECT

DATE PLOTTED: March 9, 2022

USER: phoward

E-SHEET NAME:

MicroStation v8.11.9.459

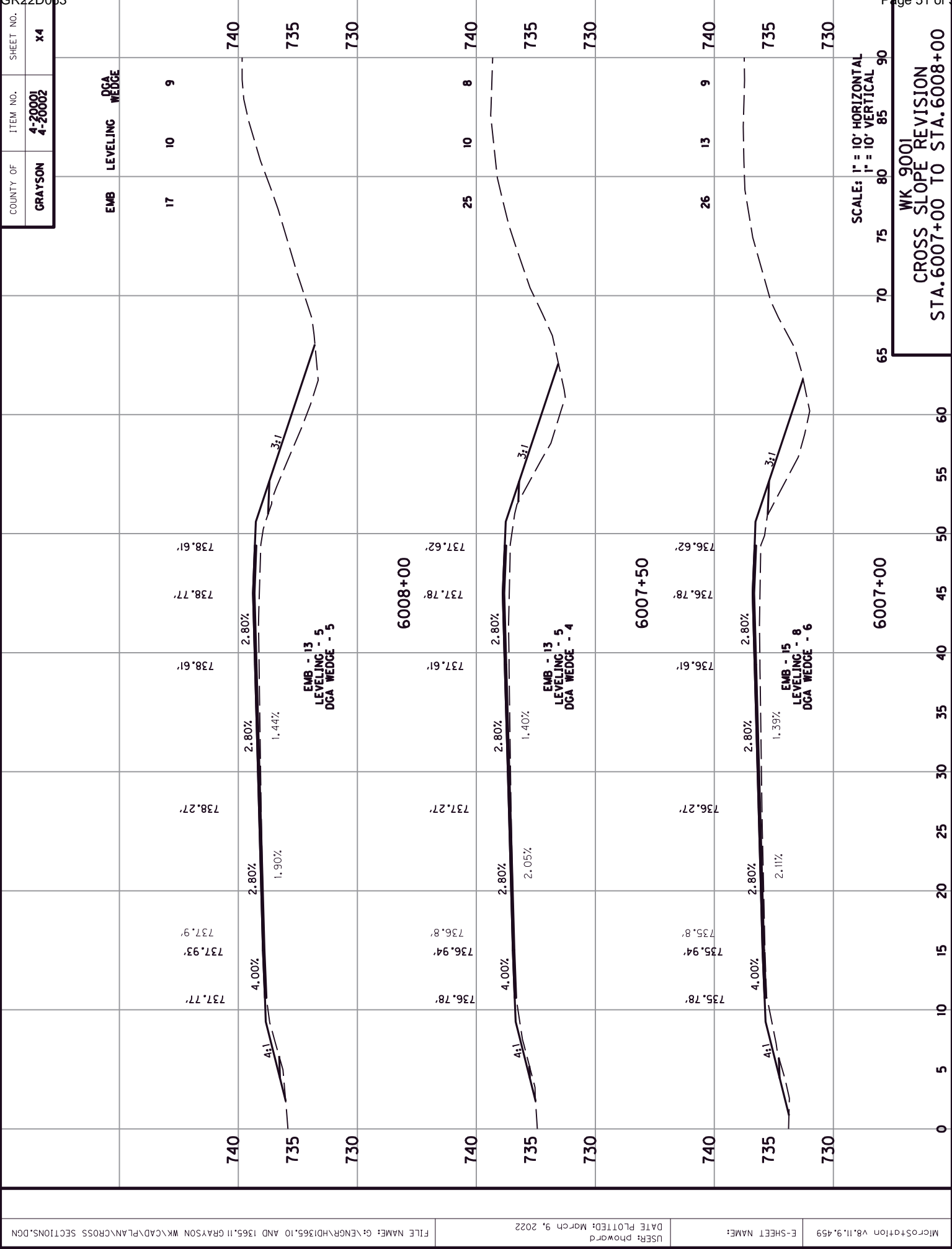
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

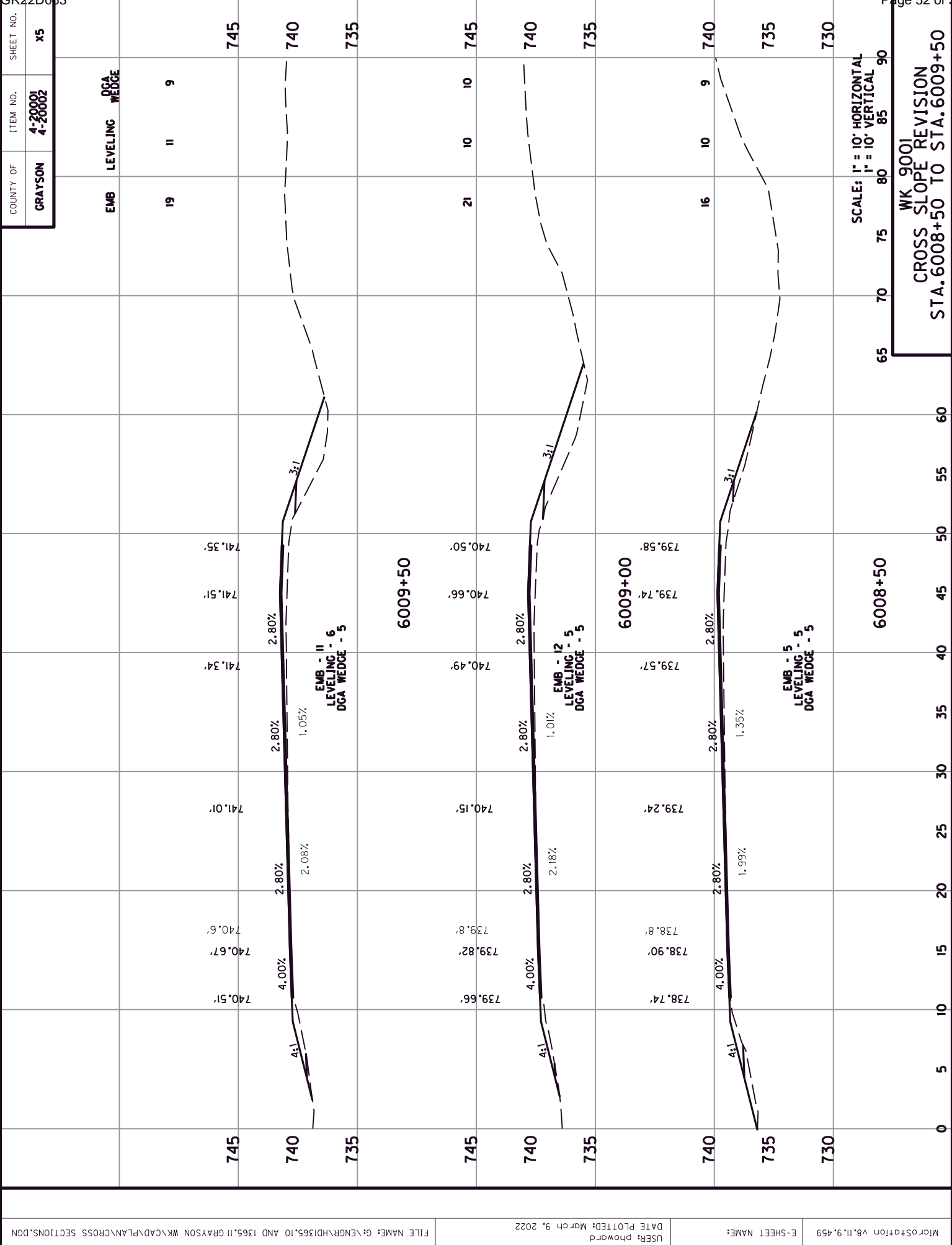
WK 9001

CROSS SLOPE REVISION

STA.6003+50 TO STA.6004+50

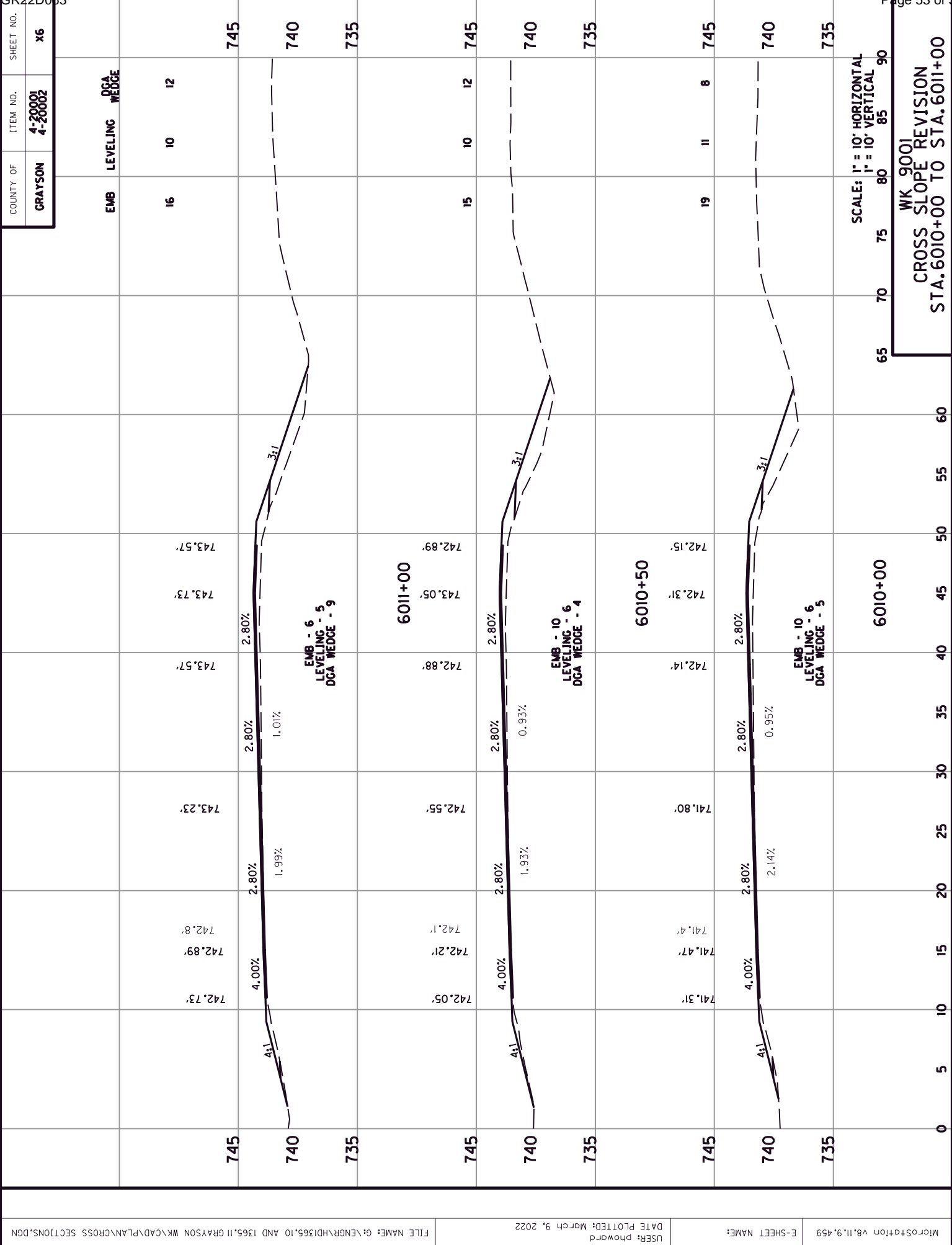


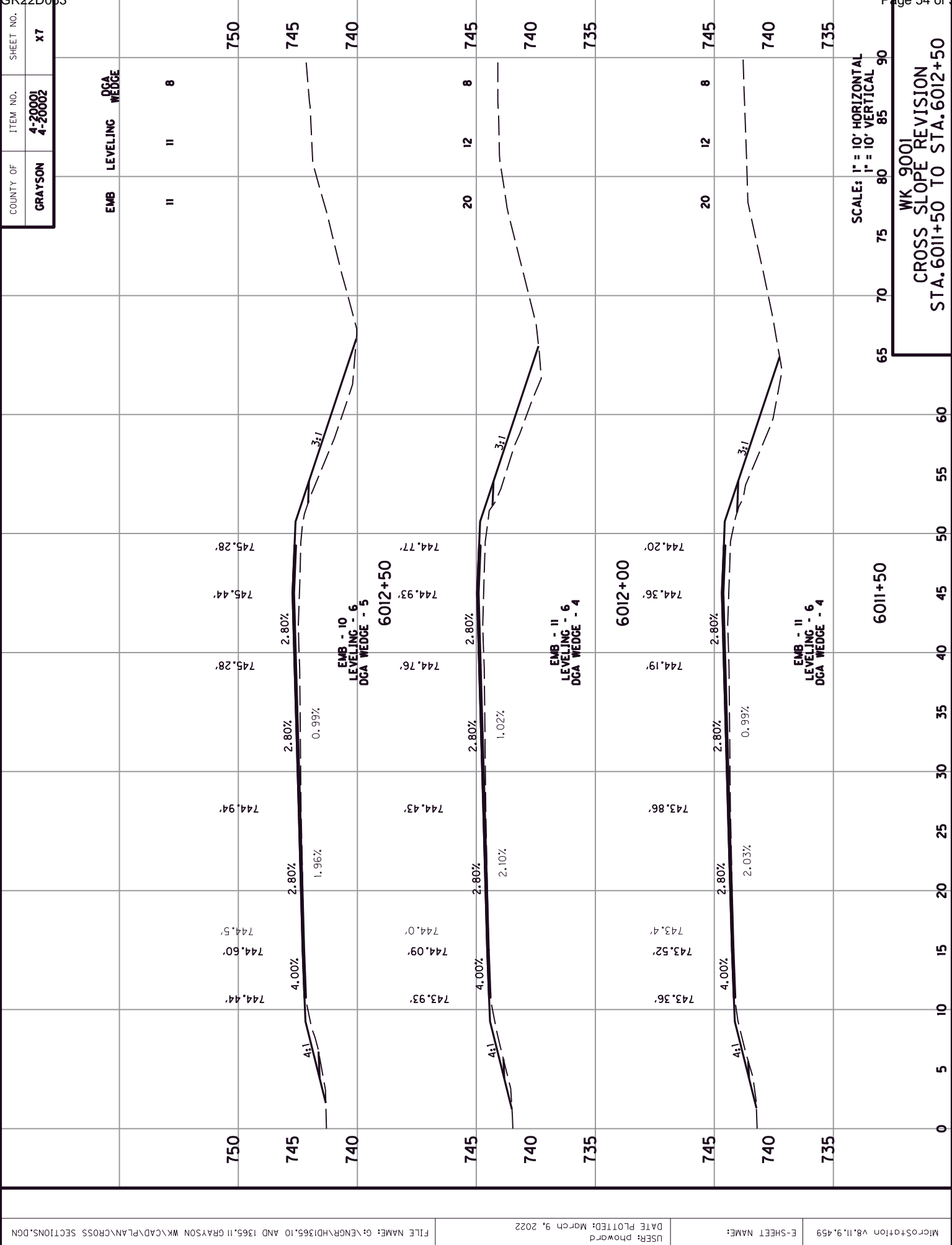


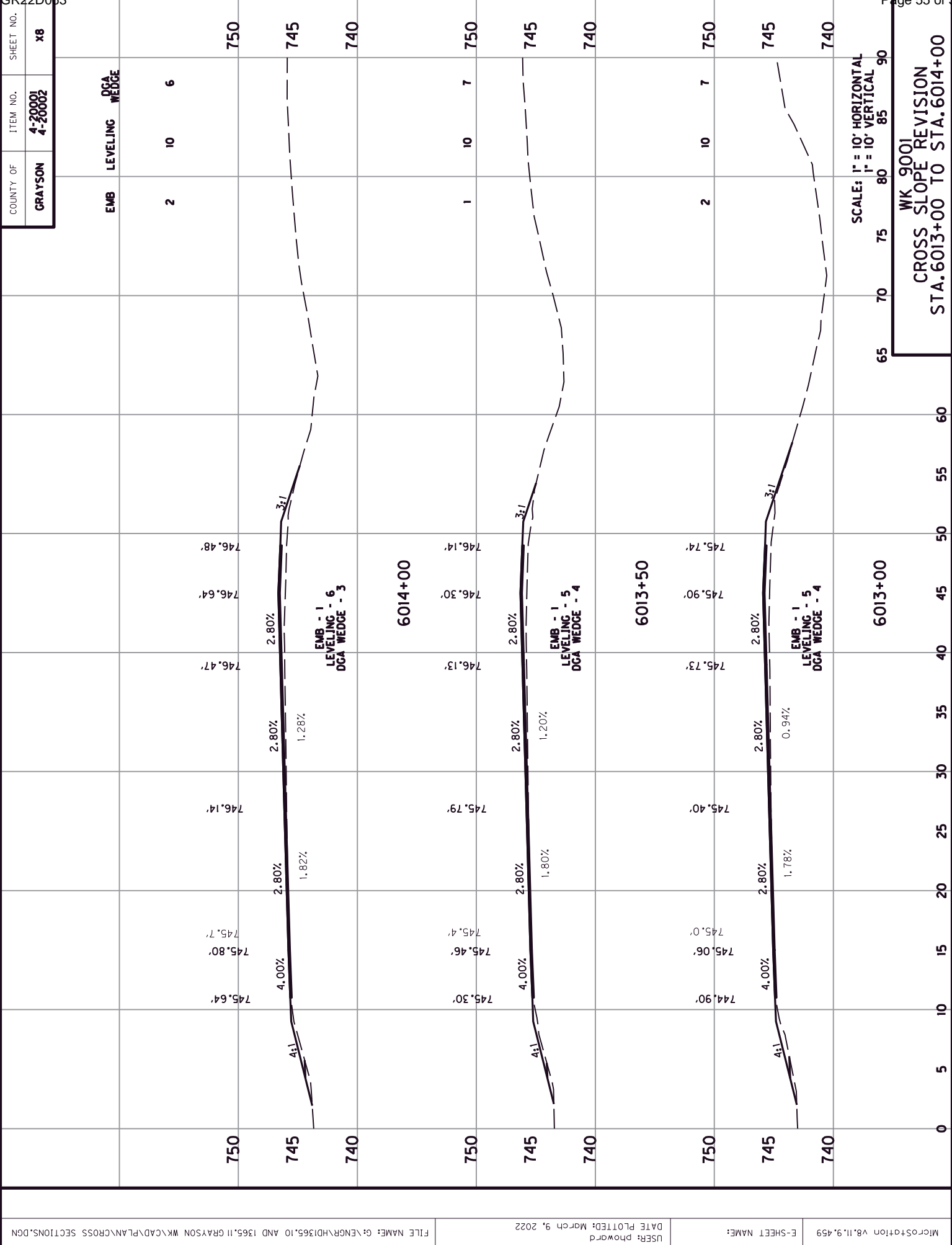


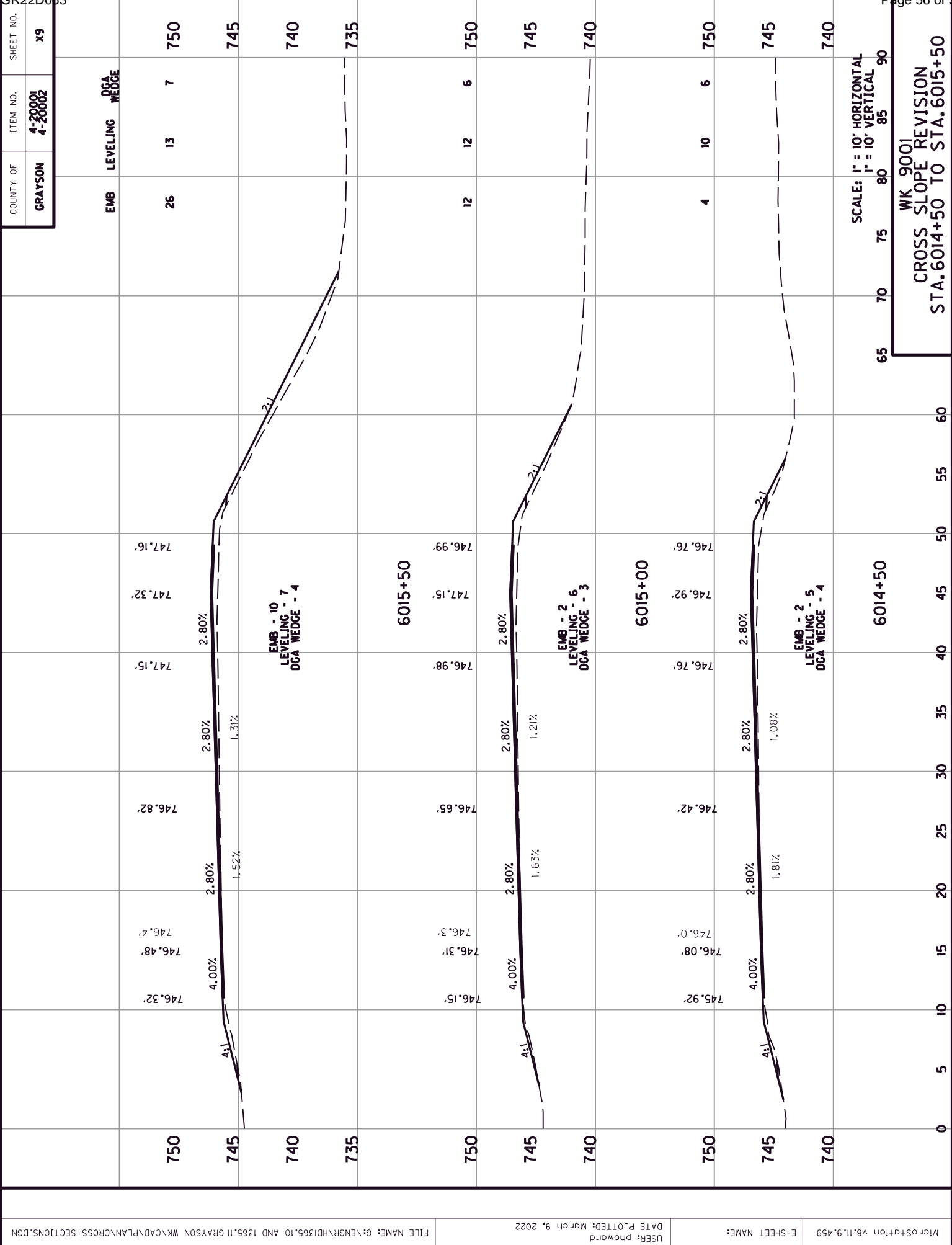
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1" = 10' VERTICAL

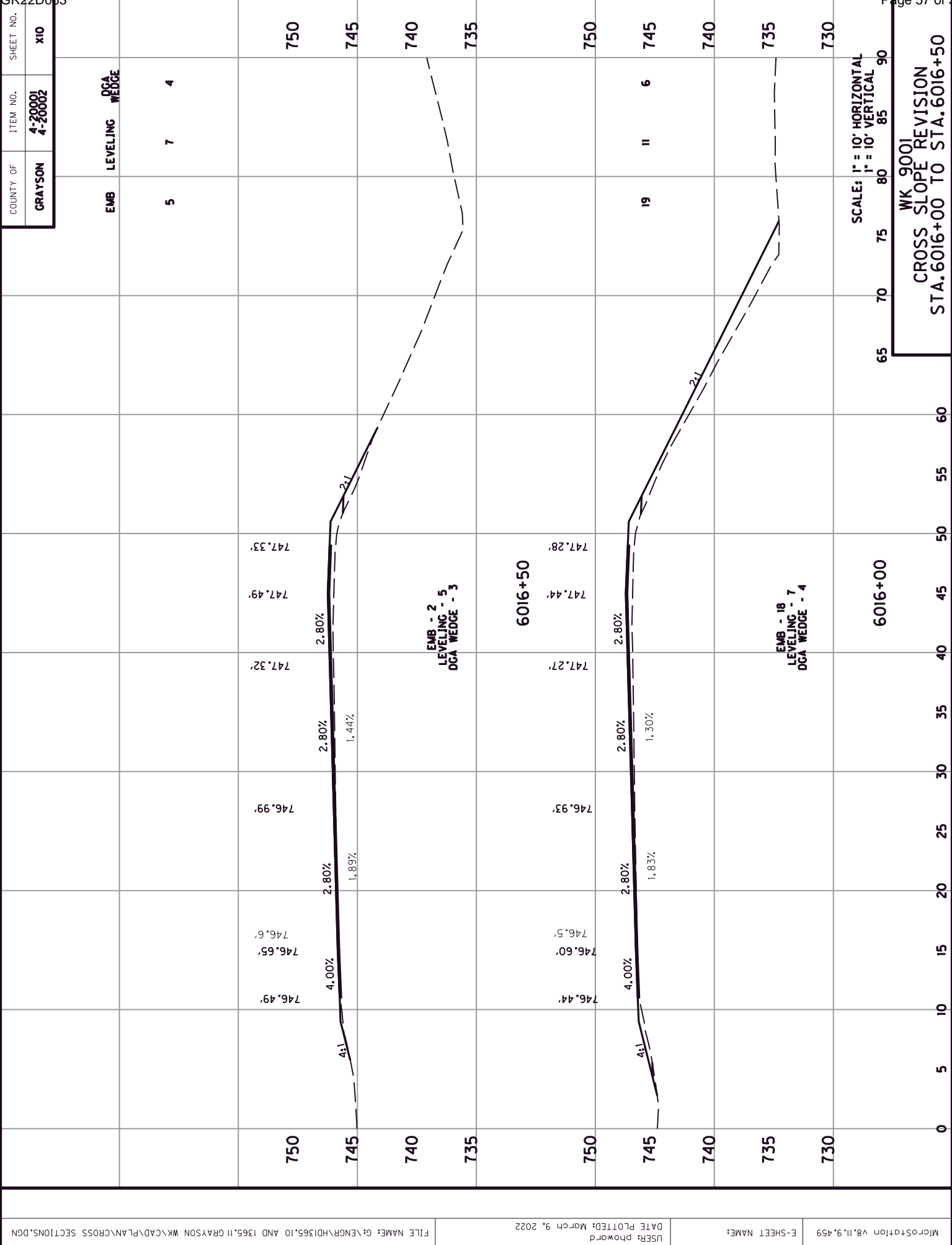
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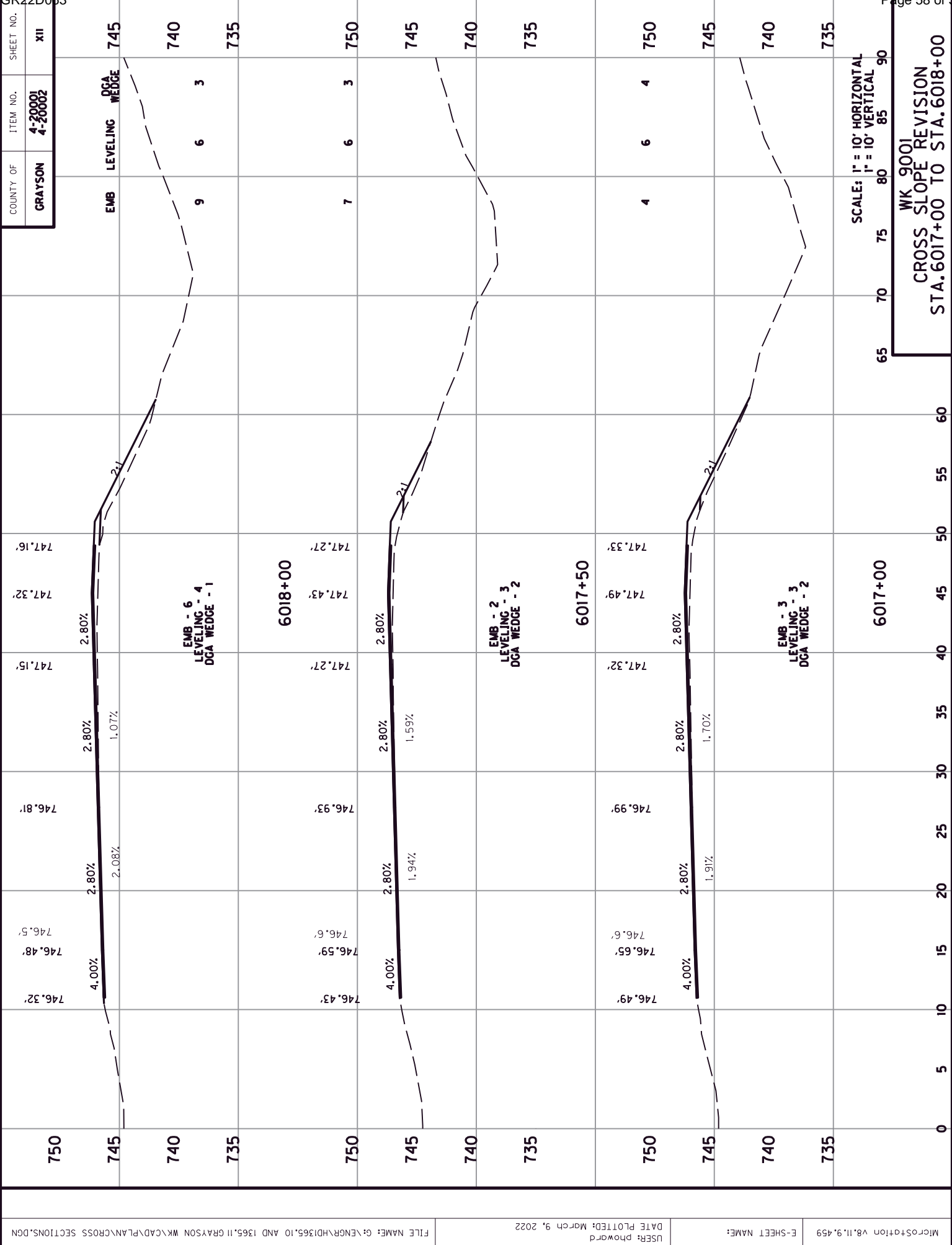
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FILE NAME: G:\ENGR\HD1365.10 AND 1365.11 GRAYSON WK\CAD\PLAN\CROSS SECTIONS.DGN

DATE PLOTTED: March 9, 2022

USER: phoward

E-SHEET NAME:

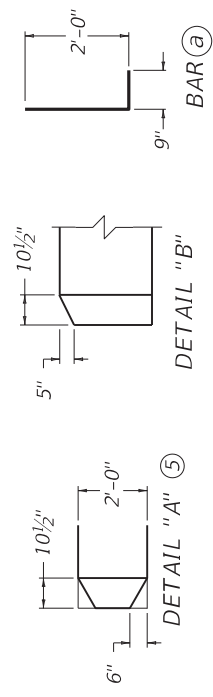
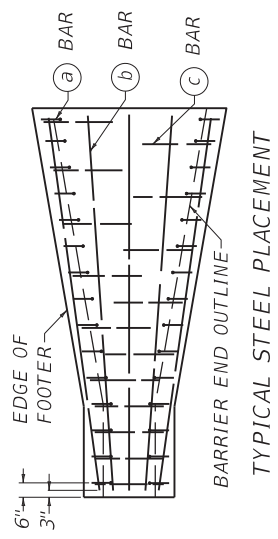
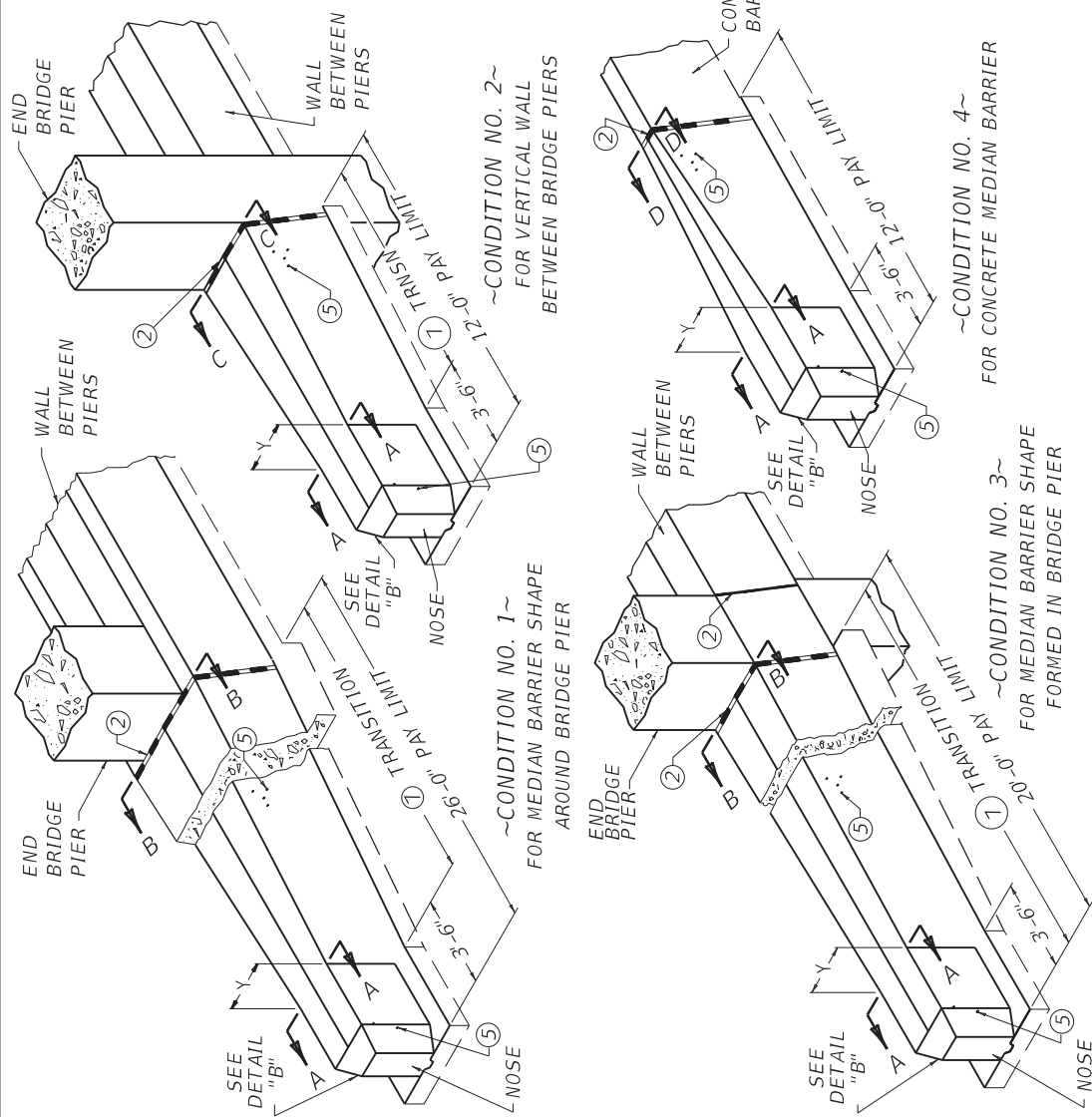


COUNTY OF		ITEM NO.	SHEET NO.
GRAYSON		4-20001 4-20002	X12

ELEVATION	CROSS SLOPE REVISION TOTALS (CY)	EMB		LEVELING		DCA WEDGE	ELEVATION
		842	929	613	745		
745							
740	ESTIMATED FROM STATION 6019+00 TO MP 114.882	279	488	321			
740		1	4	2			740

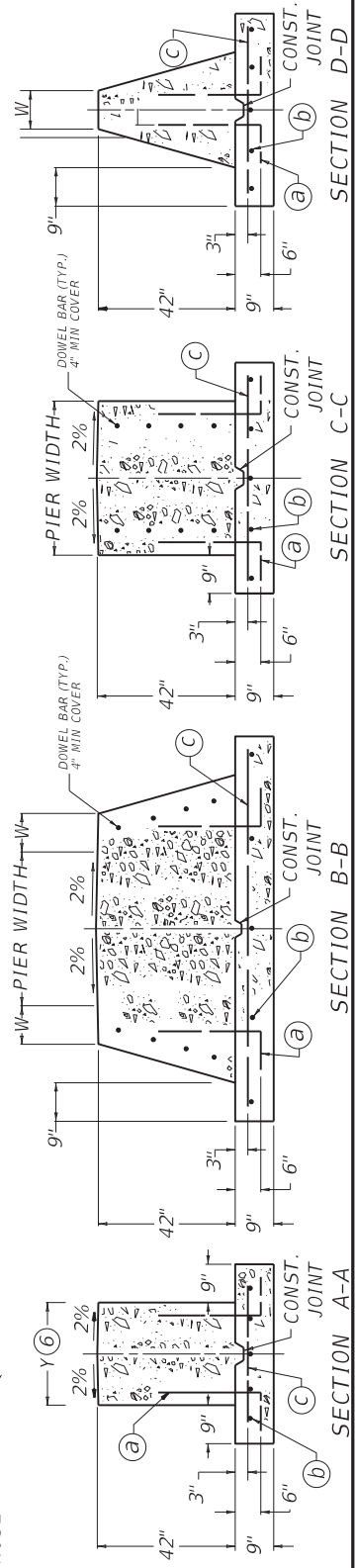
CONTINUE CROSS SLOPE REVISION THROUGH THE ENTIRE HORIZONTAL CURVE LENGTH AND TO THE END OF PROJECT AT MP 114.882. FOLLOW THE EXISTING INSIDE EDGE OF MAINLINE PAVEMENT PROFILE USING SLOPE CONTROL EQUIPMENT ON THE PAYER AND MEASUREMENTS TAKEN BY A LEVEL. CONSTRUCT LEVELING AND WEDGING FOR THE REMAINDER OF THE HORIZONTAL CURVE TO REVISE THE PAVEMENT CROSS SLOPE TO 2.8%. SEE PLAN SHEETS FOR INSTRUCTIONS TO TRANSITION TO NORMAL CROWN. CONTINUE CROSS SLOPE REVISION TO NORMAL CROWN (2%) BY METHODS APPROVED BY THE ENGINEER FROM THE END OF THE SUPERELEVATION TRANSITION TO THE END OF THE PROJECT (MP 114.882).

~ NOTES ~
SEE CURRENT SEPIA, SEPIA 005N, FOR ALL NOTES.



CONDITION NO.	NO. 5 STEEL REINFORCEMENT BARS				CUBIC YARD (4)	
	W	BAR (a) QTY, LGTH.	BAR (b) QTY, LGTH.	BAR (c) QTY, LGTH.	LBS.	CLASS "A" CONC. Y=2'-0" Y=1'-6"
1	6"	52	25'-6"	26	354	11.56
2	-	24	11'-6"	12	163	4.07
3	-	40	19'-6"	20	272	7.70
4	12"	24	11'-6"	12	163	3.38
						3.51
						3.03

SEE NOTE 7 ON SEPIA 005N FOR LONGITUDINAL DOWELS



KENTUCKY
DEPARTMENT OF HIGHWAYS

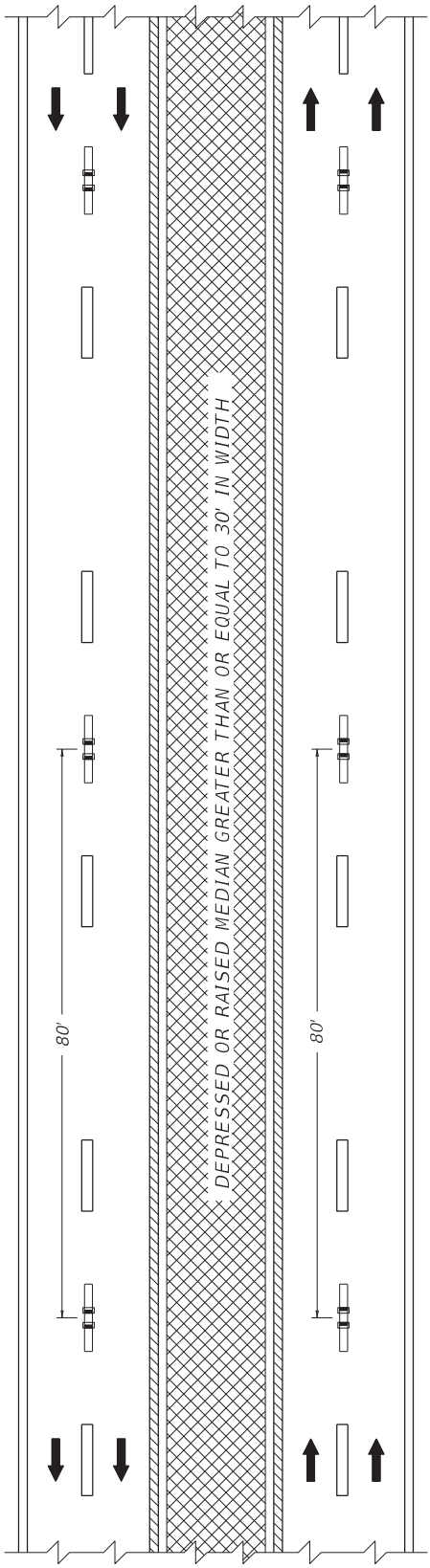
CONCRETE BARRIER
END SECTIONS
(TL3 42" TALL WALL)

SUBMITTED *W. J. Seaton* 10-26-2020
DIVISION DIRECTOR DATE

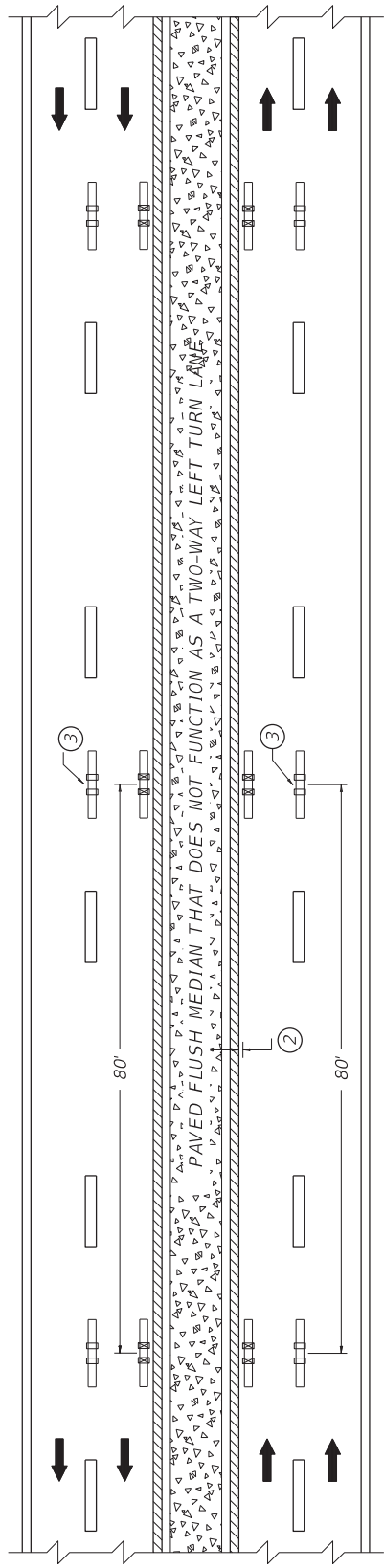
005

- ~ NOTES ~
- 1. THE CONTRACT UNIT PRICE SHALL INCLUDE ALL MATERIALS, TOOLS, FORMS, LABOR, EXCAVATION, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN ACCORDANCE WITH THIS DRAWING.
 - ② 1/2" PREMOLED EXPANSION JOINT MATERIAL REQUIRED.
 - 3. STEEL REINFORCING BARS SHALL BE EVENLY SPACED AS SHOWN AND SHALL BE GRADE 40 MINIMUM.
 - ④ CONCRETE QUANTITIES FOR CONDITION NO.'S. 1, 2, AND 3 ARE BASED ON A BRIDGE PIER WIDTH OF 3'-0".
 - ⑤ USE DETAIL "A" FOR ENERGY ABSORPTION SYSTEM'S QUADGUARD CRASH CUSHION ALTERNATE. ALL OTHER CONNECTIONS REQUIRE A SQUARE NOSE.
 - ⑥ Y=2'-0" FOR CRASH CUSHION TYPE VI, AND Y=1'-6" FOR GUARDRAIL CONNECTOR TO CONCRETE MEDIAN BARRIER END.
WHEN THE CONCRETE MEDIAN BARRIER END IS PLACED AT A PIER WIDER THAN 3'-0" THE BARRIER END TRANSITION SHALL BE CONSTRUCTED ON A 12:1 MIN. TAPER AND ADDITIONAL CONCRETE AND STEEL QUANTITIES SHALL BE CALCULATED.
BID ITEMS AND UNIT TO BID:
STEEL REINFORCEMENT LB
CONCRETE-CLASS AA CUYD
 - ⑦ BARRIER RUNS WITH ABUTTING VERTICAL SURFACES AT EITHER REQUIRED OR PERMISSIBLE CONSTRUCTION JOINTS ARE TO BE DOWELED TO EACH OTHER BY USE OF 3/4" DIAMETER BY 18" LONG EPOXY COATED DEFORMED DOWEL BARS. BARS ARE TO BE PLACED AS SHOWN ON THE DOWEL BAR PLACEMENT DETAIL ON [SEPIA.003](#). PROVIDE A 4" CLEARANCE TO BARRIER SURFACES AND TO ANY RACEWAYS.

KENTUCKY
DEPARTMENT OF HIGHWAYS
CONCRETE BARRIER END SECTIONS (TL3 42" TALL WALL)
NOTES
SUBMITTED <i>W. J. Lapan</i> 10-26-2020 DIVISION DIRECTOR DATE
005N



ARRANGEMENT "C" (DIVIDED HIGHWAY WITH DEPRESSED OR RAISED MEDIAN GREATER THAN OR EQUAL TO 30' IN WIDTH)



ARRANGEMENT "D" (DIVIDED HIGHWAY WITH PAVED FLUSH MEDIAN THAT DOES NOT FUNCTION AS A TWO-WAY LEFT TURN LANE)

- ~ NOTES ~
- 1. MARKERS INSTALLED ALONG LANE LINES SHOULD BE PLACED BETWEEN AND IN LINE WITH THE SKIPS.
 - 2. MARKERS INSTALLED ALONG EDGE LINES SHOULD BE PLACED SO THAT THE NEAR EDGE OF THE GROOVE IS NO MORE THAN 1" FROM THE NEAR EDGE OF THE LINE.
 - 3. IF WIDTH OF PAVED FLUSH MEDIAN IS GREATER THAN OR EQUAL TO 30', BI-DIRECTIONAL (WHITE-RED) MARKERS SHALL BE USED ALONG THE LANE LINES IN LIEU OF MONO-DIRECTIONAL (WHITE) MARKERS.
 - 4. MARKERS SHALL NOT BE INSTALLED ON TOP OF THE PAVEMENT JOINT. OFFSET MARKERS A MINIMUM OF 2" FROM THE PAVEMENT JOINT. ENSURE THAT THE FINISHED LINE OF MARKERS IS STRAIGHT WITH MINIMAL LATERAL DEVIATION. MARKERS MAY BE ELIMINATED OR PLACEMENT ADJUSTED AT THE DISCRETION OF THE ENGINEER.
 - 5. MARKERS SHALL BE INSTALLED AT 40' SPACING ALONG SOLID WHITE AUXILIARY LANES. MARKER COLOR SHALL MATCH THE MARKERS INSTALLED ALONG THE WHITE LANE LINES.
- BID ITEMS
06610 - INLAID PAVEMENT MARKER - MW
06612 - INLAID PAVEMENT MARKER - BY
06613 - INLAID PAVEMENT MARKER - B W/R

LEGEND

BI-DIRECTIONAL PAVEMENT MARKER (YELLOW)

BI-DIRECTIONAL PAVEMENT MARKER (WHITE-RED)

MONO-DIRECTIONAL PAVEMENT MARKER (WHITE)

MARKINGS (YELLOW)

MARKINGS (WHITE)

FLUSH MEDIAN

DEPRESSED OR RAISED MEDIAN

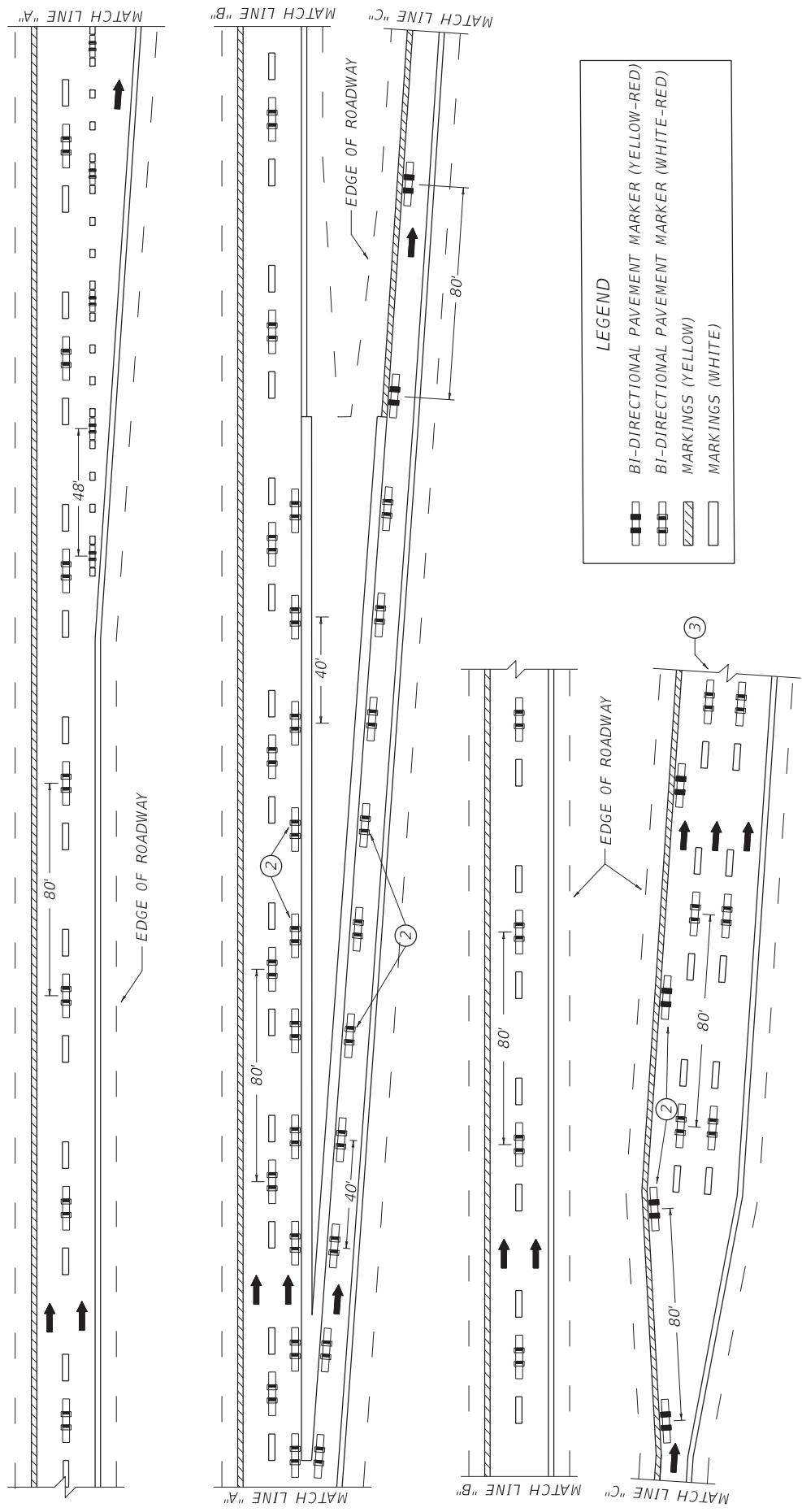
DRAWING NOT TO SCALE

KENTUCKY
DEPARTMENT OF HIGHWAYS
INLAID PAVEMENT MARKER ARRANGEMENTS
MULTI-LANE ROADWAYS

SUBMITTED
[Signature]
DIVISION DIRECTOR

06-09-21
DATE

007



~ NOTES ~

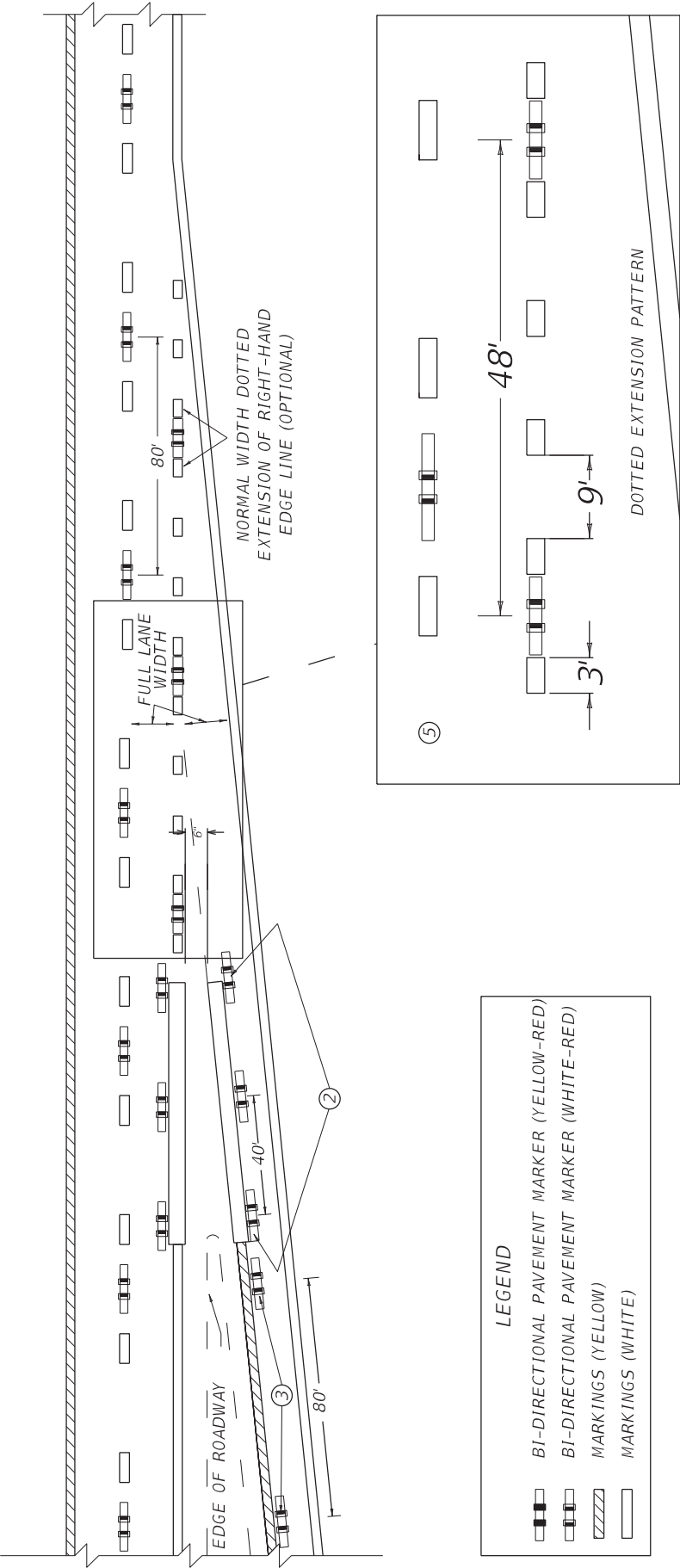
- 1. MARKERS INSTALLED ALONG LANE LINES SHALL BE PLACED BETWEEN AND IN LINE WITH THE SKIPS.
- 2. MARKERS INSTALLED ALONG EDGE LINES SHALL BE PLACED SO THAT THE NEAR EDGE OF THE GROOVE IS NO MORE THAN 1" FROM THE NEAR EDGE OF THE LINE.
- 3. MARKERS SHALL BE CONTINUED ALONG THE ENTIRE LENGTH OF THE RAMP UNTIL THE INTERSECTION WITH THE CROSS-STREET.
- 4. MARKERS SHALL NOT BE INSTALLED ON TOP OF THE PAVEMENT JOINT. OFFSET MARKERS A MINIMUM OF 2" FROM THE PAVEMENT JOINT. ENSURE THAT THE FINISHED LINE OF MARKERS IS STRAIGHT WITH MINIMAL LATERAL DEVIATION. MARKERS MAY BE ELIMINATED OR PLACEMENT ADJUSTED AT THE DISCRETION OF THE ENGINEER.

BID ITEMS
06613 - INLAID PAVEMENT MARKER - B-W/R
06614 - INLAID PAVEMENT MARKER - B-Y/R

UNIT TO BID
EACH
EACH

DRAWING NOT TO SCALE
USE WITH CUR. STD. DWG.
TPM-201

KENTUCKY	
DEPARTMENT OF HIGHWAYS	INLAID PAVEMENT MARKER
ARRANGEMENT	
EXIT GORE AND OFF-RAMP	
SUBMITTED <i>[Signature]</i> 06-09-21 DIVISION DIRECTOR DATE	011



~ NOTES ~

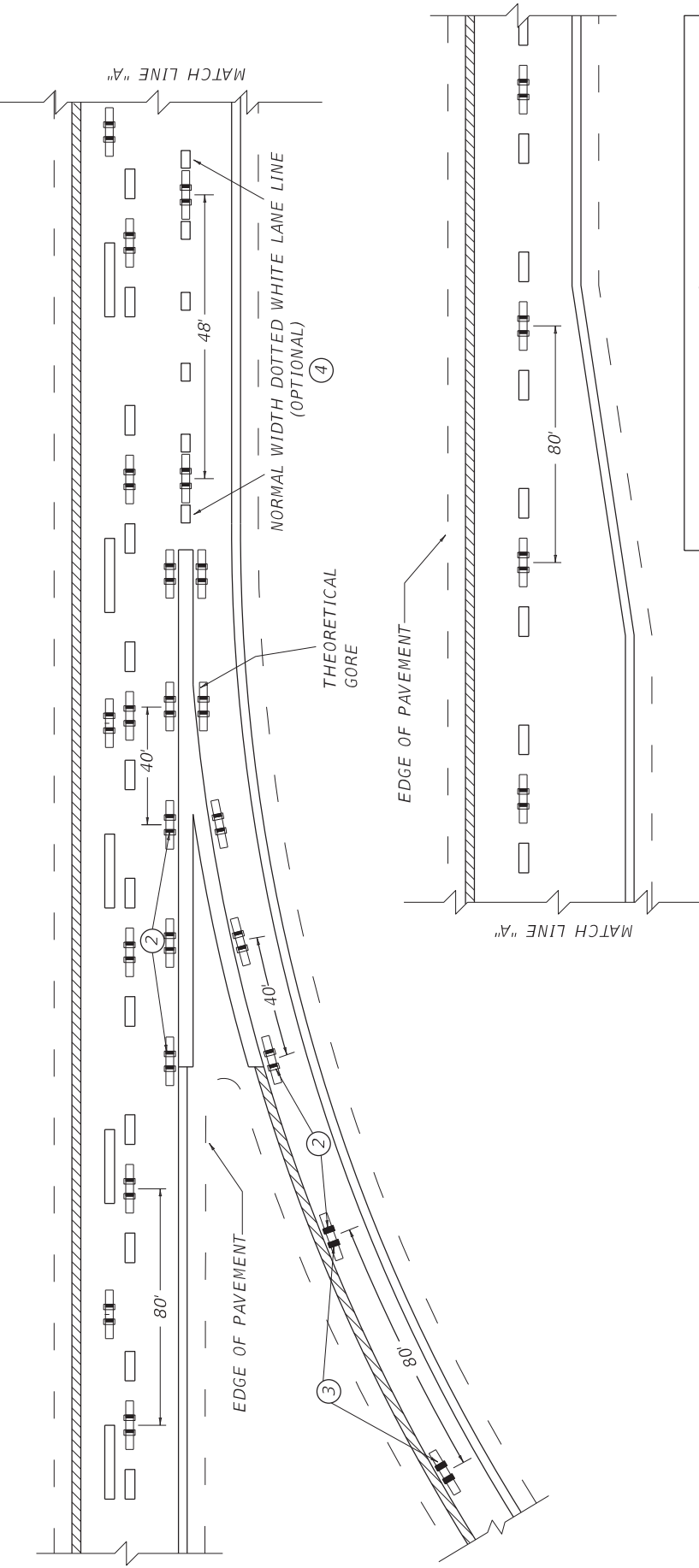
1. MARKERS INSTALLED ALONG LANE LINES SHALL BE PLACED BETWEEN AND IN LINE WITH THE SKIPS.
2. MARKERS INSTALLED ALONG EDGE LINES SHALL BE PLACED SO THAT THE NEAR EDGE OF THE GROOVE IS NO MORE THAN 1" FROM THE NEAR EDGE OF THE LINE.
3. BI-DIRECTIONAL (YELLOW-RED) MARKERS ARE TO BE PLACED ALONG THE ENTIRE LENGTH OF THE YELLOW EDGE LINE FROM THE INTERSECTION OF THE CROSS-STREET TO THE BEGINNING OF THE GORE AREA.
4. ON TWO-LANE, TWO-WAY HIGHWAYS, MARKERS INSTALLED ALONG GORE MARKINGS SHALL BE MONO-DIRECTIONAL (WHITE).
5. IF DOTTED EXTENSIONS ARE USED IN THE TAPERED ACCELERATION LANE, MARKERS SHALL BE INSTALLED AS DEPICTED. MARKERS SHALL NOT BE INSTALLED ON TOP OF THE PAVEMENT JOINT. OFFSET MARKERS A MINIMUM OF 2" FROM THE PAVEMENT JOINT. ENSURE THAT THE FINISHED LINE OF MARKERS IS STRAIGHT WITH MINIMAL LATERAL DEVIATION. MARKERS MAY BE ELIMINATED OR PLACEMENT ADJUSTED AT THE DISCRETION OF THE ENGINEER.
- 6.

DRAWING NOT TO SCALE
USE WITH CUR. STD. DWG.
TPM-200

KENTUCKY
DEPARTMENT OF HIGHWAYS
INLAID PAVEMENT MARKER
ARRANGEMENT
ON-RAMP WITH TAPERED
ACCELERATION LANE

SUBMITTED	DATE
06-09-21	013

BID ITEMS	UNIT TO BID
06613 - INLAID PAVEMENT MARKER - B-W/R	EACH
06614 - INLAID PAVEMENT MARKER - B-Y/R	EACH



LEGEND

BI-DIRECTIONAL PAVEMENT MARKER (YELLOW-RED)

BI-DIRECTIONAL PAVEMENT MARKER (WHITE-RED)

MARKINGS (YELLOW)

MARKINGS (WHITE)

~ NOTES ~

1. MARKERS INSTALLED ALONG LANE LINES SHALL BE PLACED BETWEEN AND IN LINE WITH THE SKIPS.
2. MARKERS INSTALLED ALONG EDGE LINES SHALL BE PLACED SO THAT THE NEAR EDGE OF THE GROOVE IS NO MORE THAN 1" FROM THE NEAR EDGE OF THE LINE.
3. BI-DIRECTIONAL (YELLOW-RED) MARKERS ARE TO BE PLACED ALONG THE ENTIRE LENGTH OF THE YELLOW EDGE LINE FROM THE INTERSECTION OF THE CROSS-STREET TO THE BEGINNING OF THE GORE AREA.
4. IF DOTTED EXTENSIONS ARE USED IN THE TAPERED ACCELERATION LANE, MARKERS SHALL BE INSTALLED AS DEPICTED.
5. MARKERS SHALL NOT BE INSTALLED ON TOP OF THE PAVEMENT JOINT. OFFSET MARKERS A MINIMUM OF 2" FROM THE PAVEMENT JOINT. ENSURE THAT THE FINISHED LINE OF MARKERS IS STRAIGHT WITH MINIMAL LATERAL DEVIATION. MARKERS MAY BE ELIMINATED OR PLACEMENT ADJUSTED AT THE DISCRETION OF THE ENGINEER.
6. THE NORMAL WIDTH DOTTED WHITE LANE LINE SHALL EXTEND FOR AT LEAST HALF THE LENGTH OF THE FULL-WIDTH ACCELERATION LANE PLUS TAPER MEASURED FROM THE THEORETICAL GORE.

BID ITEMS AND UNIT TO BID
INLAID PAVEMENT MARKER (B-W/R, B-Y/R, BY, MW, MY)

EACH

DRAWING NOT TO SCALE
USE WITH CUR. STD. DWG.
TPM-200

KENTUCKY
DEPARTMENT OF HIGHWAYS
INLAID PAVEMENT MARKER ARRANGEMENT ON-RAMP WITH PARALLEL ACCELERATION LANE

SUBMITTED		06-09-21
	DIVISION DIRECTOR	DATE
		014



TWO LANE ROADWAY
PAVEMENT CROSS-SECTION

TRAVELED WAY	TYPE OF PAVEMENT STRIPING	NON-STATE PRIMARY ROUTES			STATE PRIMARY ROUTES	
		< 1000 ADT		>= 1000 ADT	ANY ADT	
		WIDTH	MATERIAL	WIDTH	MATERIAL	MATERIAL*
< 16' ④	EDGE LINE STRIPES ONLY	4"	PAINT	4"	PAINT	THERMO (ASHPALT) TYPE I TAPE (CONCRETE)
16' TO < 20'	EDGE LINE STRIPES ONLY OR CENTERLINE STRIPE ONLY	4"	PAINT	4"	PAINT	THERMO (ASHPALT) TYPE I TAPE (CONCRETE)
>=20' ③	CENTERLINE AND EDGE LINE STRIPES	4" ⑤	PAINT	6"	PAINT	THERMO (ASHPALT) TYPE I TAPE (CONCRETE)

*OTHER DURABLE NON-WATERBORNE MARKINGS MAY BE USED WITH APPROVAL FROM THE DIVISION OF TRAFFIC OPERATIONS.

~ NOTES ~

1. INSTALL PAVEMENT STRIPING ON TWO LANE, TWO WAY ROADWAYS AS DETAILED IN THE ABOVE TABLE AND IN ACCORDANCE WITH THE PAVEMENT MARKINGS AND DELINEATION CHAPTER OF THE TRAFFIC OPERATIONS GUIDANCE MANUAL. CONTACT THE DIVISION OF TRAFFIC OPERATIONS FOR ADDITIONAL GUIDANCE IF NECESSARY.
- ② THE TRAVELED WAY IS THE PORTION OF ROADWAY FOR THE MOVEMENT OF VEHICLES, EXCLUSIVE OF THE SHOULDERS.
- ③ ON TWO LANE, TWO WAY ROADWAYS THAT HAVE A TOTAL PAVEMENT WIDTH (W) THAT IS 20 FT OR GREATER, BUT LESS THAN 22 FT, EDGE LINE RUMBLE STRIPS ARE NOT A STANDARD APPLICATION, BUT THEY MAY BE INSTALLED. THE DIVISION OF TRAFFIC OPERATIONS IS AVAILABLE TO ASSIST WITH THE DETERMINATION OF WHETHER OR NOT TO INSTALL EDGE LINE RUMBLE STRIPS ON PAVEMENT WIDTHS LESS THAN 22 FT, AS WELL AS THE DIMENSION AND PLACEMENT DETAILS OF THE RUMBLE STRIPS AND PAVEMENT STRIPING.
- ON TWO LANE, TWO WAY ROADWAYS THAT HAVE A TOTAL PAVEMENT WIDTH (W) THAT IS 22 FT OR GREATER, BUT LESS THAN 34 FT, INSTALL PAVEMENT STRIPING AS DETAILED IN THE ABOVE TABLE AND IN CONJUNCTION WITH CENTERLINE AND EDGE LINE RUMBLE STRIPS AS DETAILED ON [TPR-120](#).
- ON TWO LANE, TWO WAY ROADWAYS THAT HAVE A TOTAL PAVEMENT WIDTH (W) THAT IS 34 FT OR GREATER, INSTALL PAVEMENT STRIPING AS DETAILED IN THE ABOVE TABLE AND IN CONJUNCTION WITH CENTERLINE AND SHOULDER RUMBLE STRIPS AS DETAILED ON [TPR-125](#).
- ④ EDGE LINES MAY BE OMITTED FROM ROADWAYS WITH A TRAVELED WAY WIDTH LESS THAN 16 FEET WITH THE APPROVAL OF THE DIVISION OF TRAFFIC OPERATIONS.
- ⑤ EDGE LINES MAY BE OMITTED ON NON-STATE PRIMARY ROUTES WITH A TRAVELED WAY WIDTH GREATER THAN OR EQUAL TO 20 FEET AND AN ADT LESS THAN 1,000.
6. EDGE LINES MAY BE OMITTED, BASED ON ENGINEERING JUDGMENT, IN AREAS WHERE THE PAVEMENT EDGE IS DELINEATED BY PHYSICAL OBJECTS SUCH AS CURBS, PARKING SPACES, OR OTHER MARKINGS. EDGE LINES SHOULD BE INSTALLED ON ROADWAYS WITH CURB AND GUTTER IF THE POSTED SPEED LIMIT IS 45 MPH OR GREATER.

DRAWING NOT TO SCALE
USE WITH CUR. STD. DWGS.
[TPR-120](#) & [TPR-125](#)

KENTUCKY

DEPARTMENT OF HIGHWAYS

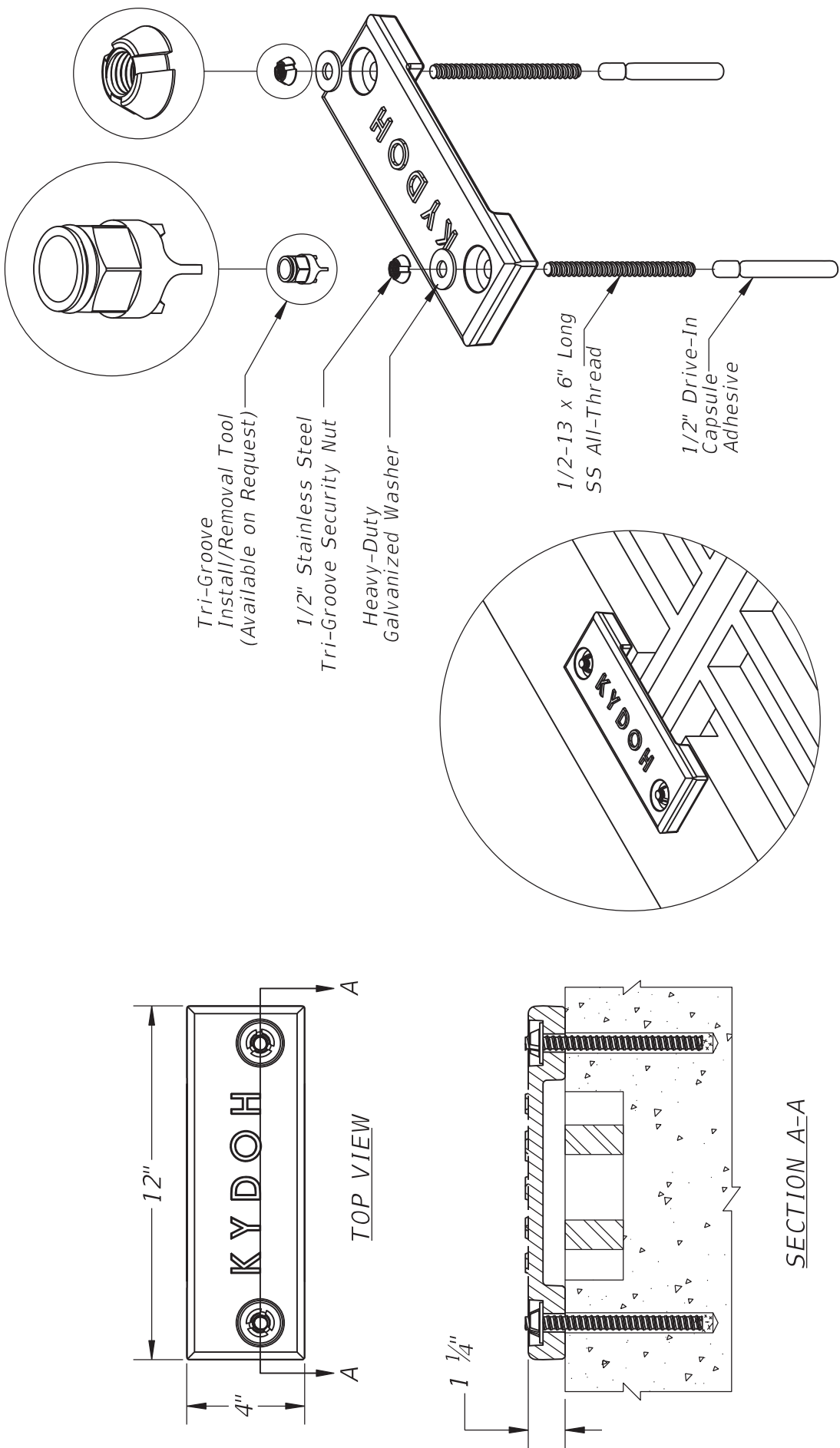
PAVEMENT STRIPING
DETAILS FOR TWO LANE
TWO WAY ROADWAYS

SUBMITTED

06-09-21

DATE

017



KENTUCKY DEPARTMENT OF HIGHWAYS	SECURITY PLATE ASSEMBLY	SUBMITTED <i>W. J. Saylor</i> 02-26-2021 DIVISION DIRECTOR DATE
		(20)

MOUNTED

EACH

BID ITEMS AND UNITS TO BID
24585EC SECURITY PLATE ASSEMBLY

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-20002	RI

Commonwealth of Kentucky

DEPARTMENT OF HIGHWAYS

PLANS OF

PROPOSED PROJECT

GRAYSON COUNTY

KY 224 BRIDGE REPLACEMENT

FD52 043 9001 111-115

NHPP 9001 (014)

THESE PLANS ARE FOR GRADE, DRAIN, AND SURFACING



INDEX OF SHEETS

SHEET NO.	DESCRIPTION
RI	LAYOUT SHEET
R2 - R28	TYPICAL SECTIONS
R3 - R5	UTILITY REFERENCE SHEETS
R6 - R15	RIGHT OF WAY STRIP MAP SHEETS
R16 - R28	TRAFFIC CONTROL SHEETS
R29	EROSION CONTROL SHEETS
R30 - R31	COORDINATE CONTROL SHEETS
R32	PIPE DRAINAGE SHEETS
R33 - R34	STRUCTURE PLANS - BRIDGE OVER WK 9001
S1 - S24	DRAINAGE PLANS - BRIDGE OVER WK 9001
S1 - S5	SYMBOLS
T1 - T3	TRAFFIC PLANS
U	UTILITY RELOCATION PLANS
X1 - X30	CROSS SECTION SHEETS

SHEETS NOT INCLUDED IN TOTAL SHEETS

R2A

STANDARD DRAWINGS

NUMBER

SEE PROJECT PROPOSAL FOR LIST OF ROADWAY STANDARD

DRAWINGS AND APPLICABLE SECTIONS.

DESIGN CRITERIA

CLASS OF HIGHWAY	MAJOR COLLECTOR
TYPE OF TERRAIN	ROLLING
DESIGN SPEED	50 MPH
REQUIRED PSD	425'
REQUIRED PSD	N/A
LEVEL OF SERVICE	N/A
ADT PRESENT (2020)	14050
ADT FUTURE ()	
DIV	
D %	11.06%

GEOGRAPHIC COORDINATES

LATITUDE 37 DEGREES 29 MINUTES 21 SECONDS NORTH

LONGITUDE 86 DEGREES 12 MINUTES 32 SECONDS WEST

DESIGNED

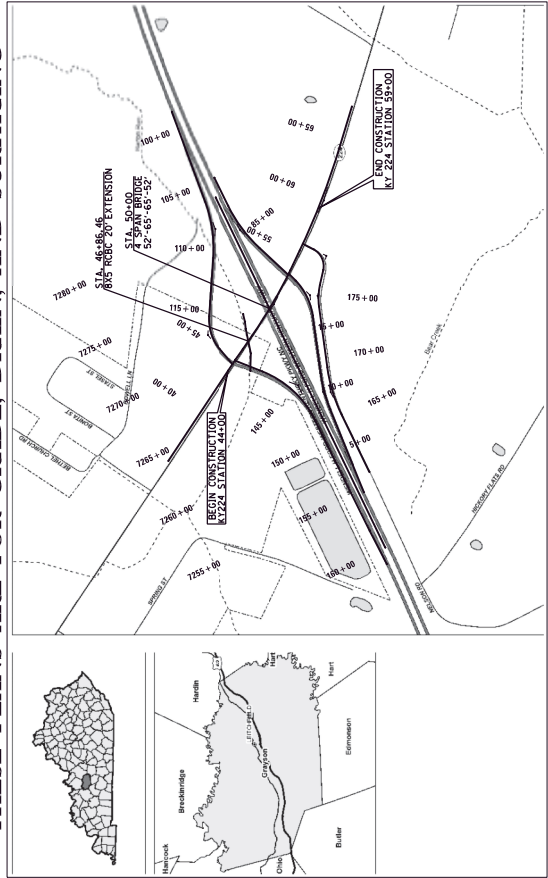
% RESTRICTED SD

LEVEL OF SERVICE

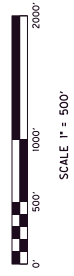
MAX. DISTANCE W/O PASSING

KY 224

LENGTH 1.500	LIN. FT. 0.284	MILES
FOR EQUALITIES	INCLUDED	
RAILROAD CROSSINGS NO.		
BRIDGES 239		



LAYOUT MAP



Commonwealth of Kentucky

DEPARTMENT OF HIGHWAYS

COUNTY OF

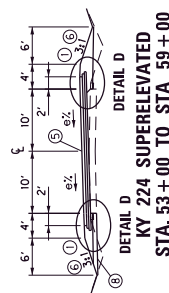
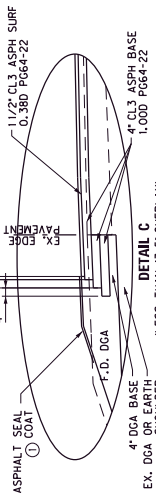
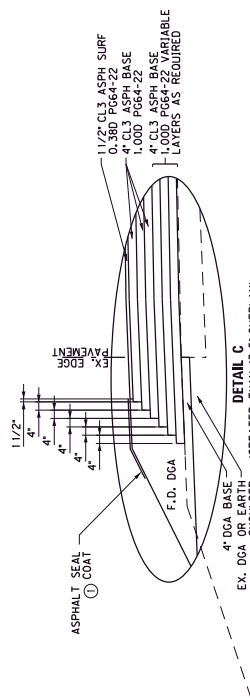
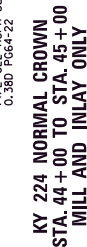
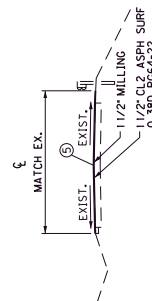
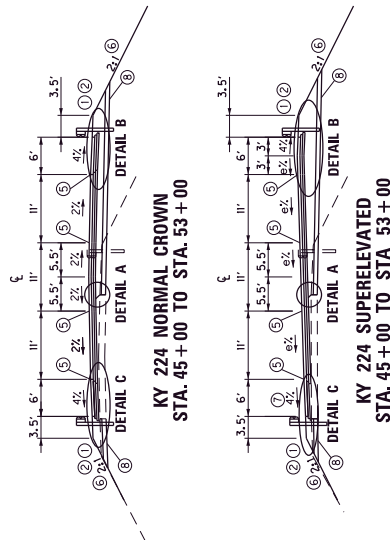
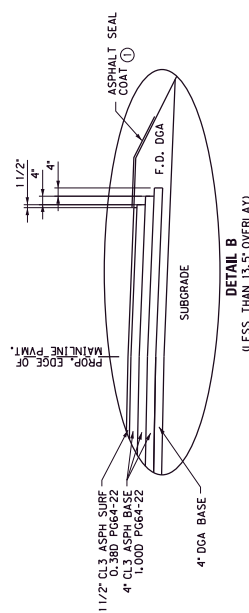
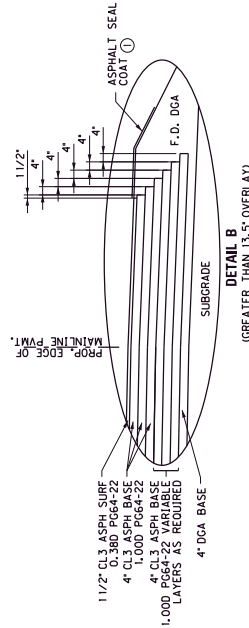
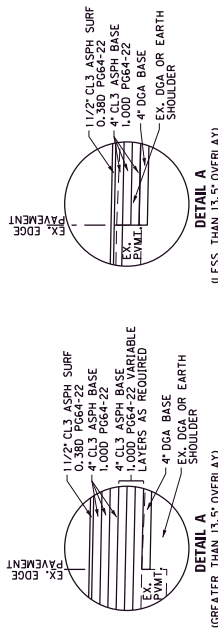
GRAYSON

ITEM NO. 4-20001 & 4-20002	
PROJECT NHPP 9001 (014)	
NUMBER FD52 043 9001 111-115	
LETTING DATE: DECEMBER 8, 2022	
RECOMMENDED BY: ANDRE JOHANNES, PE	DATE:
PROJECT MANAGER	
PLAN APPROVED BY: STATE HIGHWAY ENGINEER	DATE:



KY 224

- ① ASPHALT SEAL REQUIRED FROM OUTSIDE EDGE OF PAVED SHOULDER TO 2 POINT DOWN THE DITCH OR FILL SLOPE (where applicable). TWO APPLICATIONS OF THE FOLLOWING: ASPHALT SEAL AGGREGATE 10 lbs. / S.Y. ASPHALT SEAL AGGREGATE 20 lbs. / S.Y.
- ② SHOULDER WIDENED 3.5' WHERE GUARDRAIL IS PRESENT
- ③ TO BE USED AS DIRECTED BY THE ENGINEER FOR PROFILE AND CROSS SLOPE REVISION.
- ④ APPLY ASPHALT MATERIAL FOR TACK AT A RATE OF 0.7 LBS/SY² BETWEEN EACH LAYER OF ASPHALT CONCRETE.
- ⑤ JOINT ADHESIVE
- ⑥ SEE CROSS SECTIONS FOR SLOPES OUTSIDE OF SHOULDER
- ⑦ SUPERELEVATED SHOULDER CONSTRUCT TO STANDARD SUPERELEVATION REQUIREMENTS NOT FLATTER THAN SLOPES INDICATED ON NORMAL SHOULDER.
- ⑧ 24" WIDE TRENCH DRAIN. SEE PLANS FOR LOCATIONS.



<p><i>SURFACING SCHEDULE</i></p> <p><i>KY 224 WIDENING MAINLINE AND SHOULDERS</i></p>	<p>OGA BASE.....4" DEPTH</p> <p>CL3 ASPH BASE 1.000 P664-22.....4" DEPTH</p> <p>CL3 ASPH BASE 1.000 P664-22.....4" DEPTH</p> <p>CL3 ASPH BASE 1.000 P664-22.....4" DEPTH</p> <p>CL3 ASPH BASE 1.000 P664-22.....4" DEPTH</p> <p>CL3 ASPH SURFACE 0.380 P664-22.....1/2" DEPTH</p>
<p><i>KY224 MAINLINE OVERLAY</i></p>	<p>ASPHALT PAVEMENT MILLING AND TEXTURING.....0"-4" TRANSVERSE KEYS</p> <p>LEVELING AND WEDGING P676-22.....AS NEEDED</p> <p>CL3 ASPH BASE 1.000 P664-22.....4" DEPTH</p> <p>CL3 ASPH SURFACE 0.380 P664-22.....1/2" DEPTH</p>

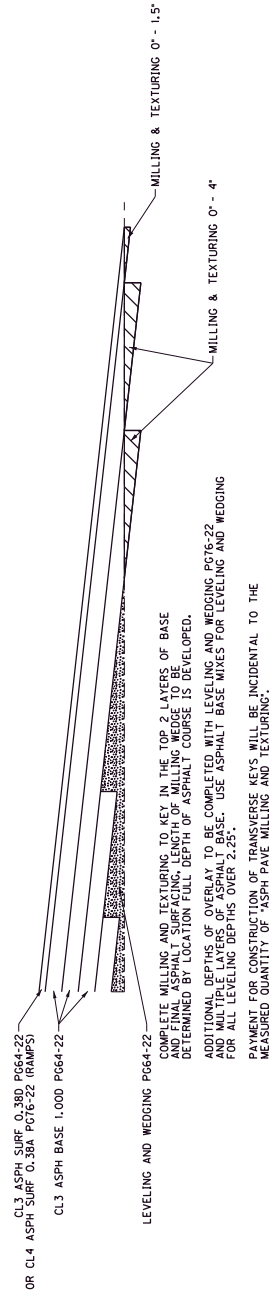
SCALE: 1"= N.T.S.

KY 224
 TYPICAL SECTIONS

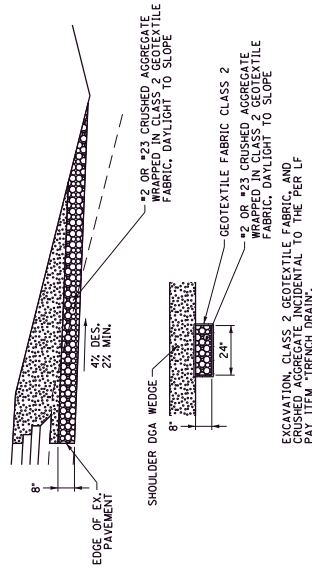
SCALE: 1"= N.T.S.

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-20001 4-20002	R2B

TYPICAL SECTIONS DETAILS



MILLING & TEXTURING FOR TRANSVERSE KEY OF PAVEMENT LAYERS DETAIL



TRENCH DRAIN DETAIL

SCALE: 1"= N.T.S.

KY 224
TYPICAL SECTIONS
DETAILS

CON

REGULATED FLOODWAY

NORTH POINT

RT/LT	KY 224 STA. TO STA.	DITCH CONSTRUCTION		CHANNEL LINING	
		DESCRIPTION	TYPE	D	QUANTITY
RT	45+67 - 46+18	B.T.F.B.	C.L. III	2'-0"	122' TONS
RT	46+10 - 48+50	2' F.B.	E.C.B.	2'	274 SY
RT	48+50 - 49+50	2' F.B.	C.L. III	2'	48' TONS
RT	51-75 - 51+78	2' F.B.	C.L. III	1'	2' 8' TONS
RT	51+50 - 52+00	SPECIAL V.	E.C.B.	2'	61 SY

PI 145 + 76.00
100' ± S99L 0°

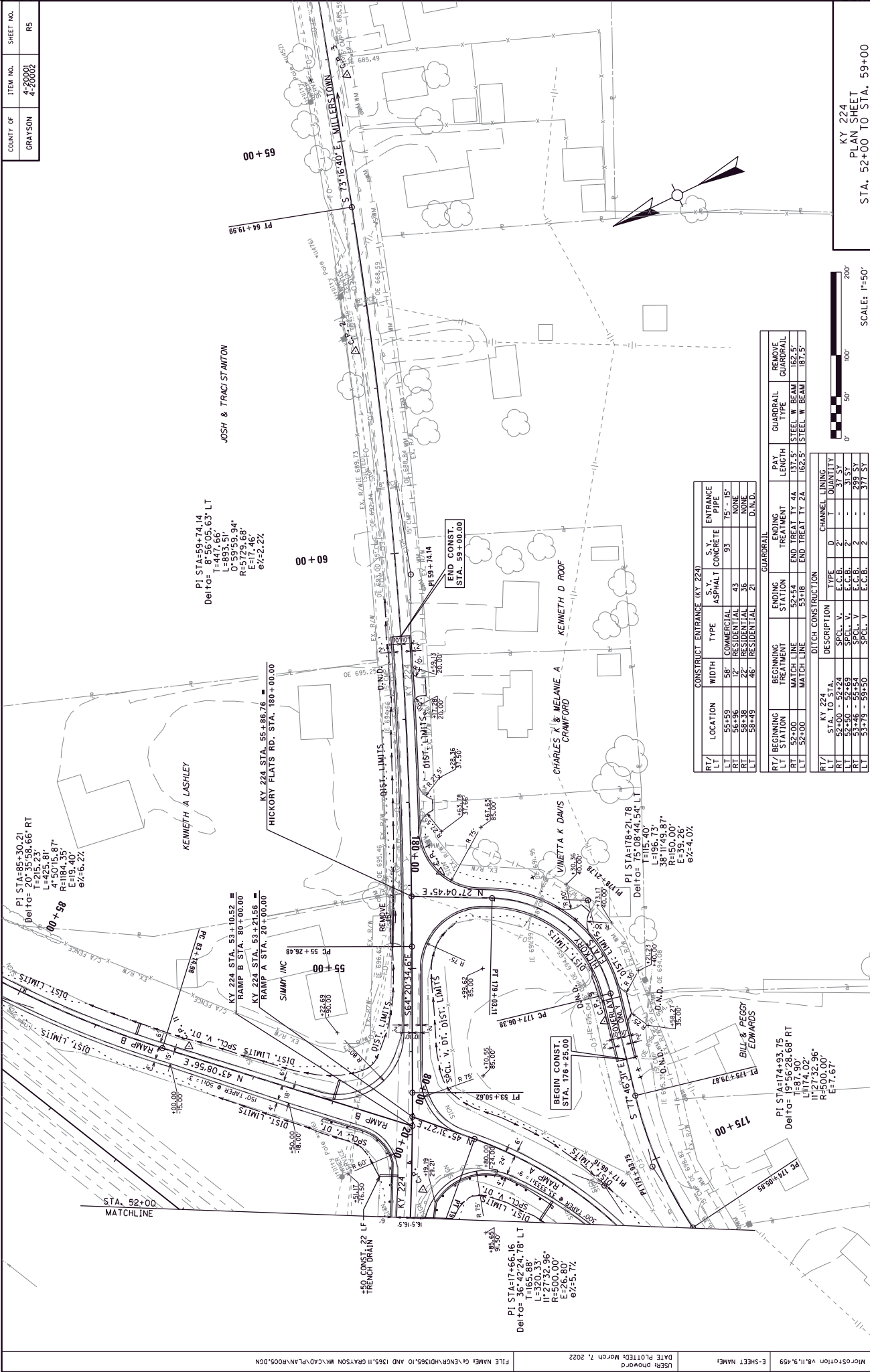
PLAN VIEW

Scale: 0' 50' 100' 200'

Project Information:
NHP# 9001 (04)
PROJECT FD52 043 9001 III-115
NUMBERS:
KY 224 PLAN SHEET
STA. 44+00 TO STA. 52+00

KY 224
PROFILE
STA. 44+00 TO STA. 52+00

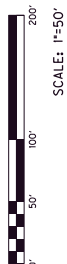
COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-20001 4-20002	85



CONSTRUCT ENTRANCE (KY 224)			
RT/	LOCATION	WIDTH	TYPE
LT	55+59	58'	COMMERCIAL
RT	56+36	12'	RESIDENTIAL
RT	58+38	22'	RESIDENTIAL
LT	58+49	46'	RESIDENTIAL

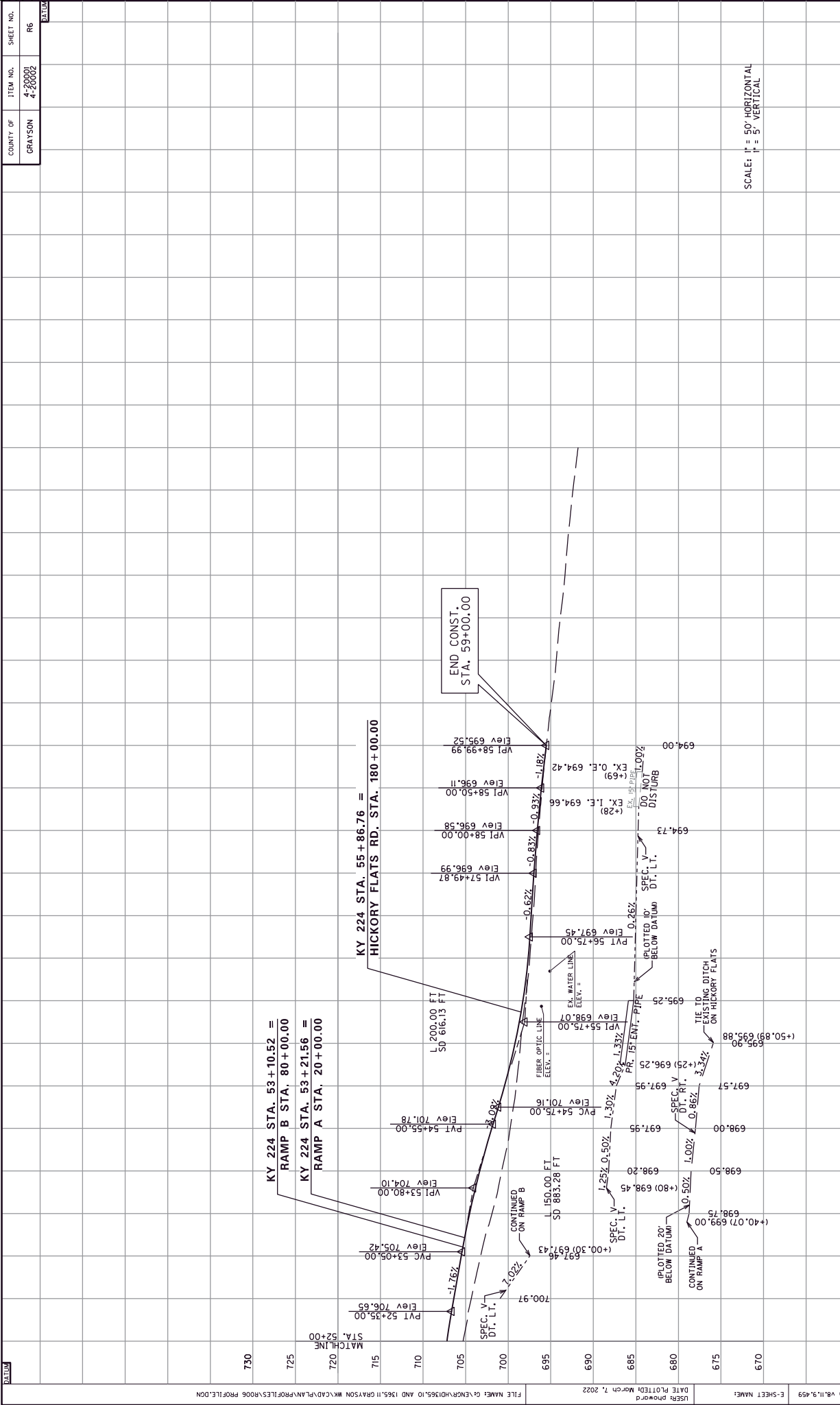
GUARDRAIL			
RT/	BEGINNING	ENDING	PAY LENGTH
LT	52+00	52+54	54'
LT	52+00	52+54	54'

DITCH CONSTRUCTION			
RT/	STATION	DESCRIPTION	QUANTITY
LT	52+00 - 52+24	SPCL. V. E.C.B.	2
LT	52+24 - 52+54	SPCL. V. E.C.B.	30
LT	52+54 - 53+19	SPCL. V. E.C.B.	65



KY 224
PLAN SHEET
STA. 52+00 TO STA. 59+00

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-20001 4-20002	R6



KY 224 PROFILE STA. 52+00 TO STA. 59+00

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-20001 4-20002	R7



CONSTRUCT ENTRANCE (HICKORY FLATS)									
RT/	LOCATION	WIDTH	TYPE	S.Y.	S.Y.	ENTRANCE			
RT				ASPHALT	CONCRETE				
LT	176-90	12'	RESIDENTIAL	25		D.N.D.			
LT	177-20	12'	SPEC. USE	10		D.N.D.			
LT	178-02	12'	RESIDENTIAL	46		NONE			

DITCH CONSTRUCTION									
RT/	RAMP A	STA. TO STA.	DESCRIPTION	TYPE	D	T	CHANNEL	LINKING	
LT				E.C.B.	V.	E.C.B.			
LT	175-65	19-04	SPEC. V.				2'	-	296
LT	175-80	19-16	SPEC. V.				2'	-	

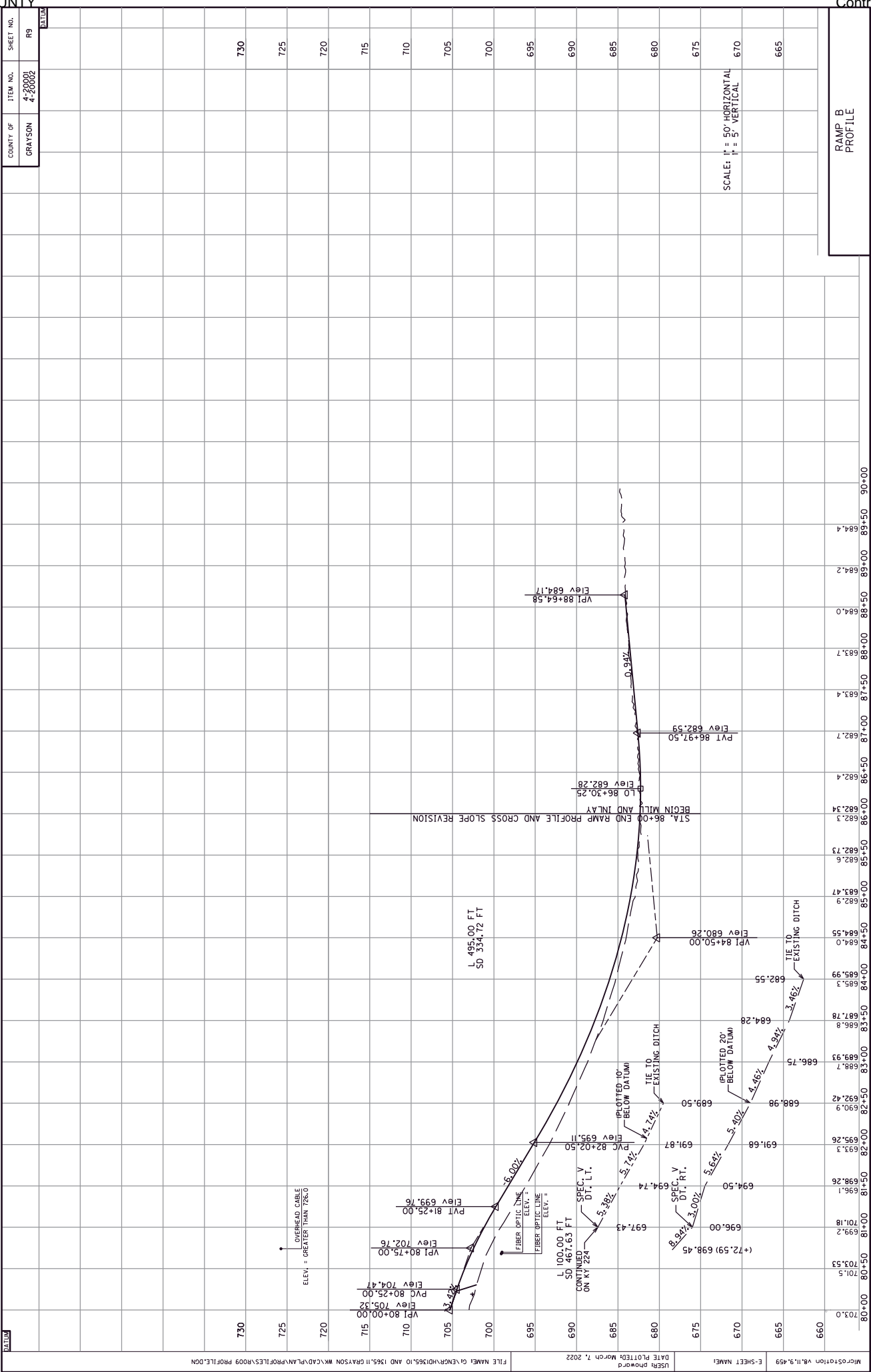
DITCH CONSTRUCTION									
RT/	RAMP B	STA. TO STA.	DESCRIPTION	TYPE	D	T	CHANNEL	LINKING	
LT				E.C.B.	V.	E.C.B.			
LT	80-75	-82-47	SPEC. V.				2'	-	461
LT	80-39	-84-17	SPEC. V.				2'	-	212

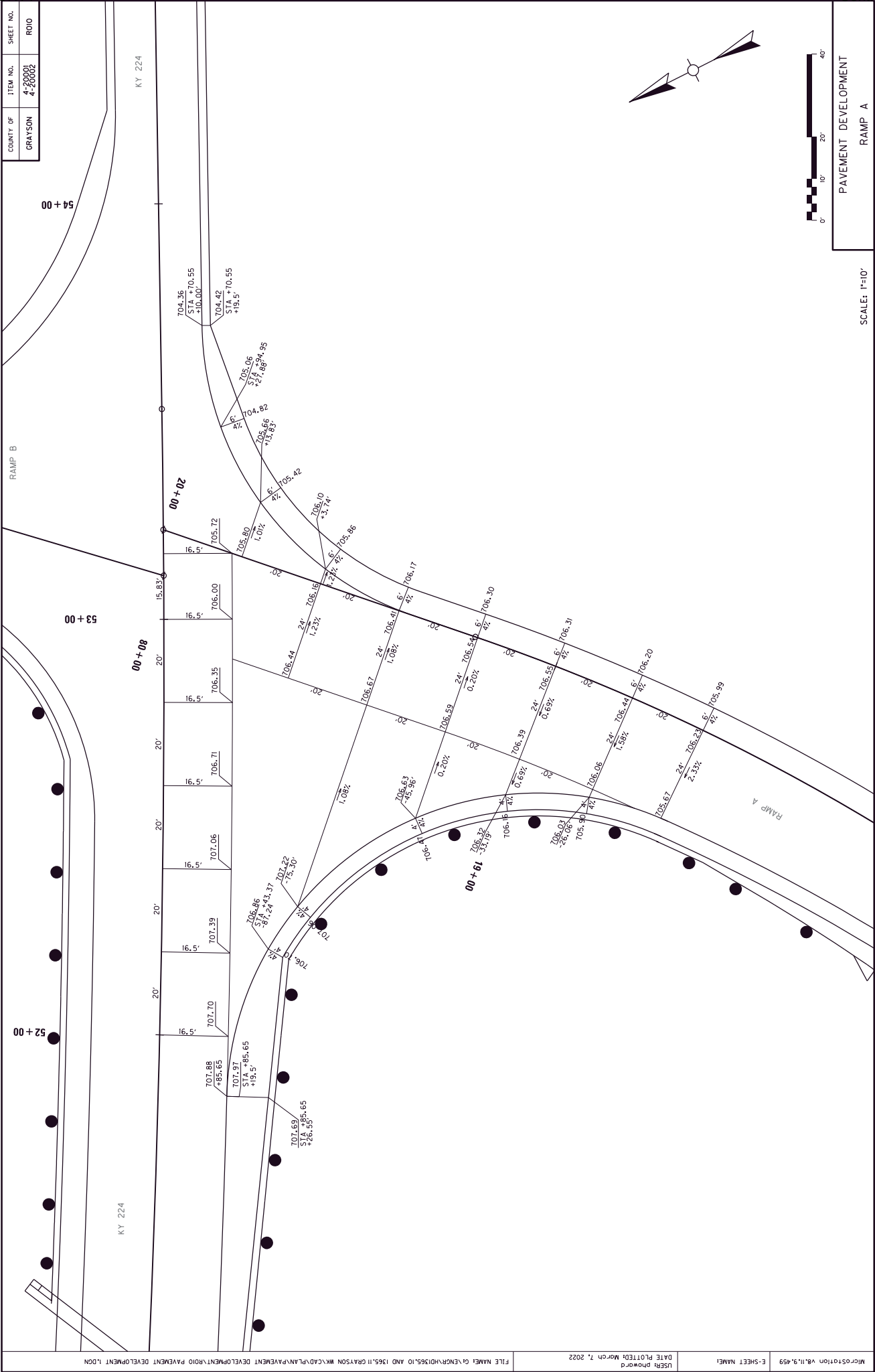
KY 224
APPROACHES AND RAMPS
PLAN SHEET

SCALE: 1"=50'

SCALE: 1"=50'

Page 77 of 343





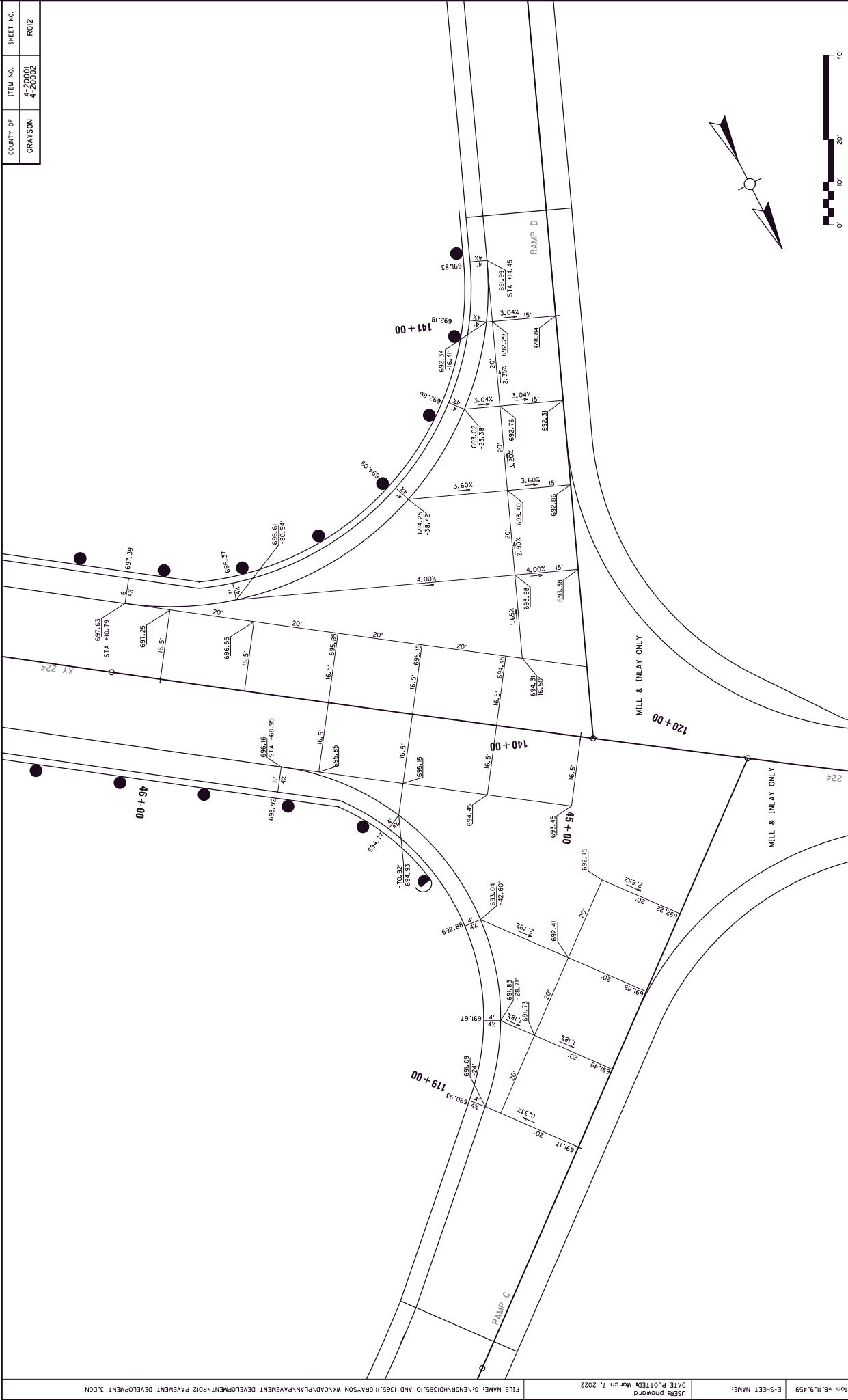
COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-20002	4-20002



PAVEMENT DEVELOPMENT
RAMP A

SCALE: 1"=10'

MicroStation v8.11.9.459	E-SHEET NAME:	USER: phoward DATE PLOTTED: March 7, 2022	FILE NAME: G:\ENG\HDI\365.10 AND 1365.11 GRAYSON WK\CAD\PLAN\PAVEMENT DEVELOPMENT 2.DGN
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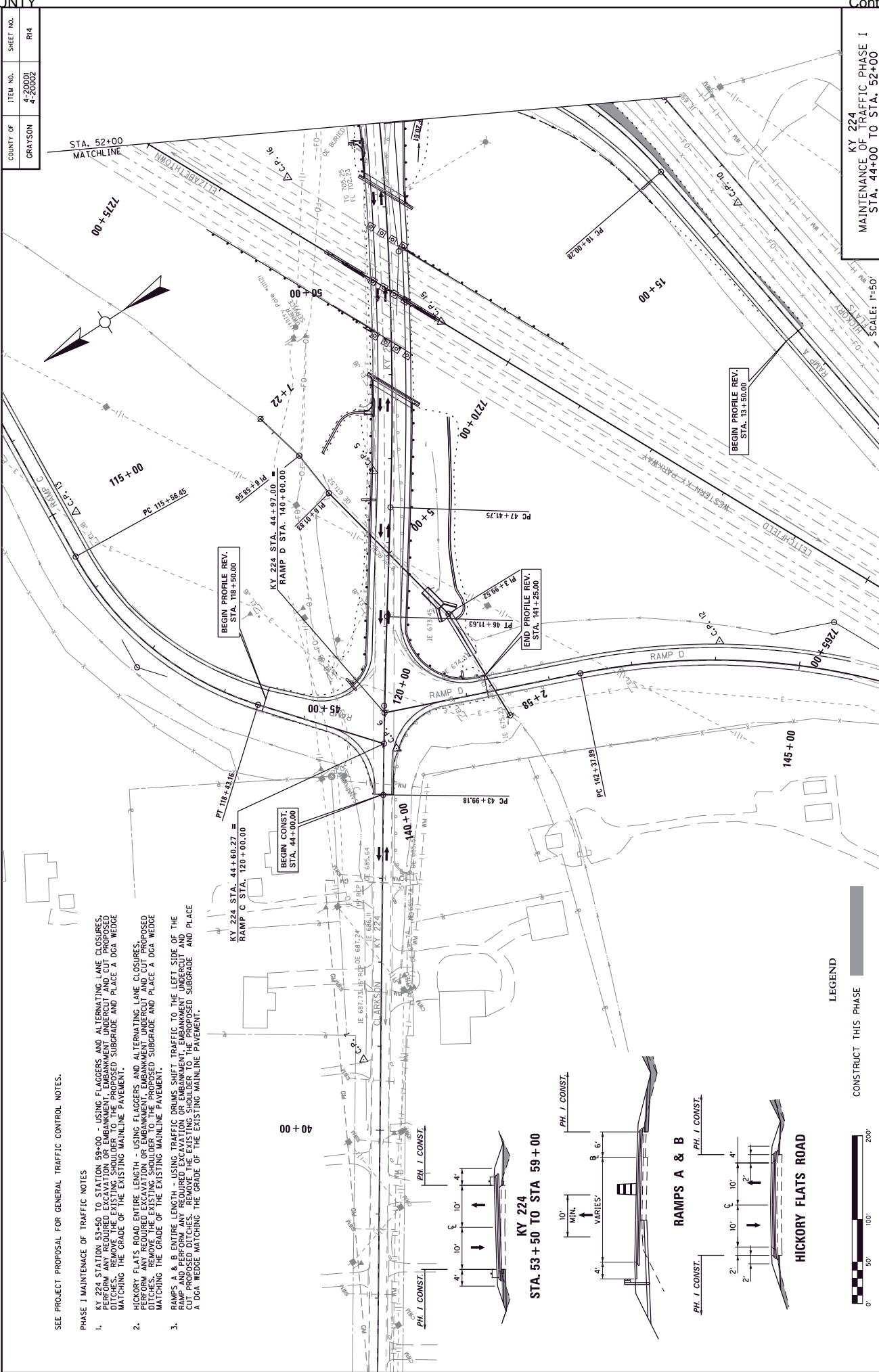
COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-20001 4-20002	R012

MicroStation v8.11.9.459	E-SHEET NAME:	USER: phoward DATE PLOTTED: March 7, 2022	FILE NAME: G:\ENG\HDI\365.10 AND 1365.11 GRAYSON WK\CAD\PLAN\PAVEMENT DEVELOPMENT\ROI3 PAVEMENT DEVELOPMENT 4.DGN
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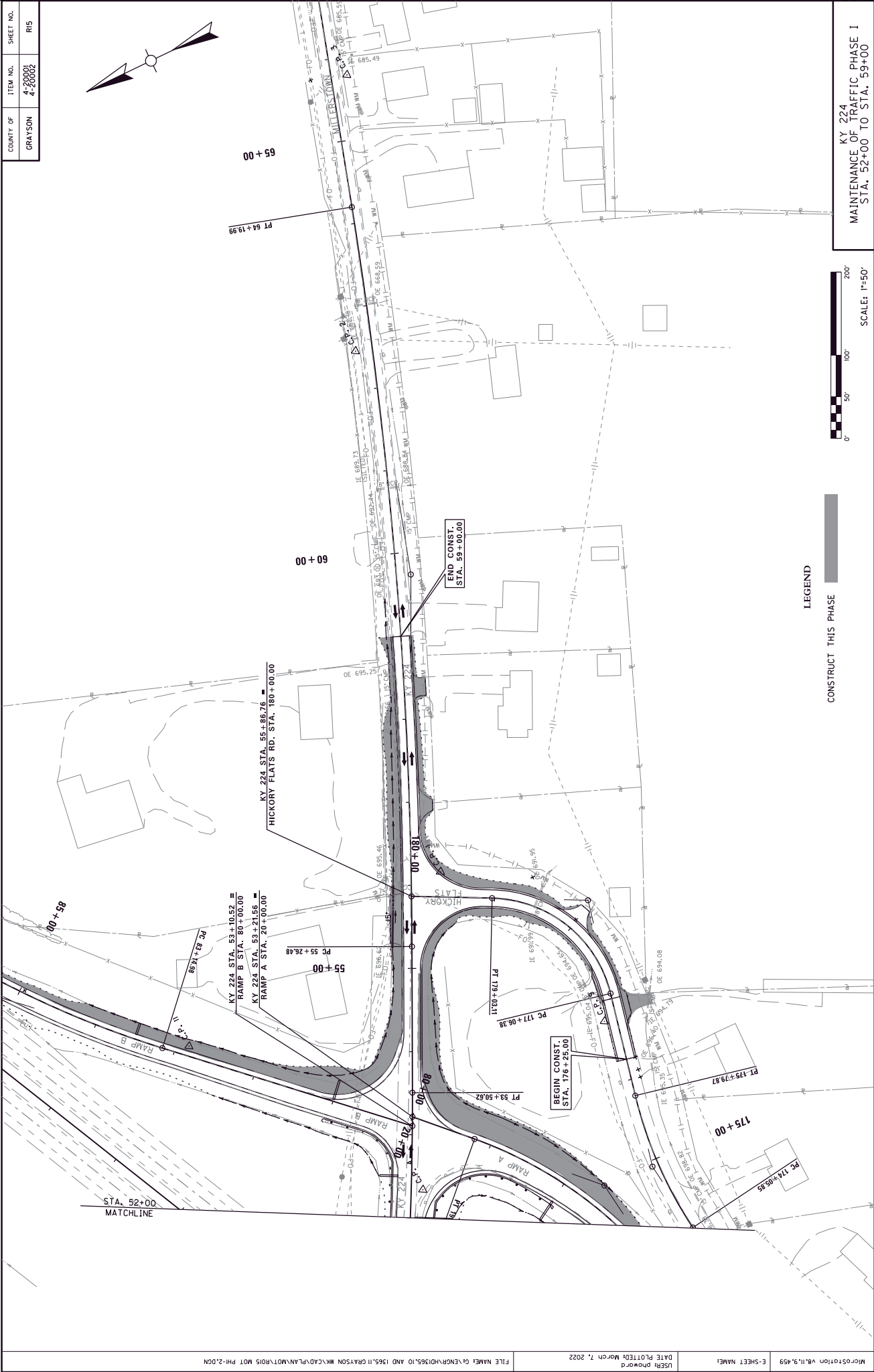
MicroStation v8.11.9.459	USER: phoword DATE PLOTTED: March 7, 2022	FILE NAME: C:\ENGR\HDI365.IO AND 1365.II\GRAYSON WK\CAD\PLAN\MOT\ROI4.MOT PH1.DGN
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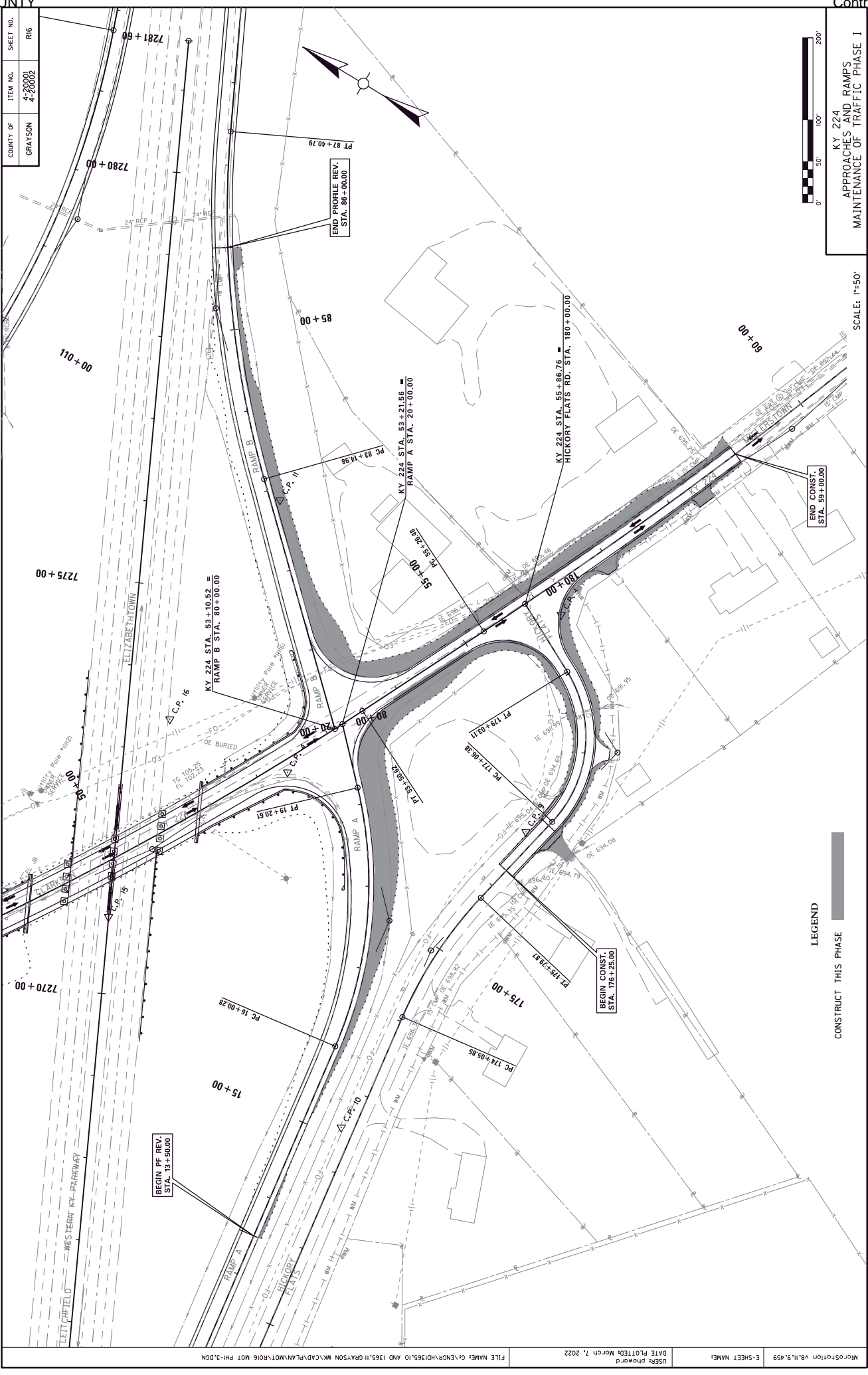
PHASE 1 MAINTENANCE OF TRAFFIC NOTES

1. KY 224 STATION 53+50 TO STATION 59+00 – USING FLAGGERS AND ALTERNATING LAID CLOSURES, PERFORM ANTH REQUIRED EXCAVATION OF EMBANKMENT, EMBANKMENT UNDERCUT, AND CUT PROPOSED SUBGRADE TO MATCHING THE GRADE OF THE EXISTING MAINLINE PAVEMENT.
2. HIGHWAY FLATS, ROAD ENTIRE LENGTH – USING FLAGGERS AND ALTERNATING LAID CLOSURES, PERFORM ANTH REQUIRED EXCAVATION OF EMBANKMENT, EMBANKMENT UNDERCUT, AND CUT PROPOSED SUBGRADE TO MATCHING THE GRADE OF THE EXISTING MAINLINE PAVEMENT.
3. RAMP A & B ENTIRE LENGTH – USING TRAFFIC DRUMS SHIFIT TRAFFIC TO THE LEFT SIDE OF THE EXISTING MAINLINE PAVEMENT, REMOVE THE EXISTING SHOULDER TO THE PROPOSED SUBGRADE, AND PLACE A DGA WEDGE MATCHING THE GRADE OF THE EXISTING MAINLINE PAVEMENT.

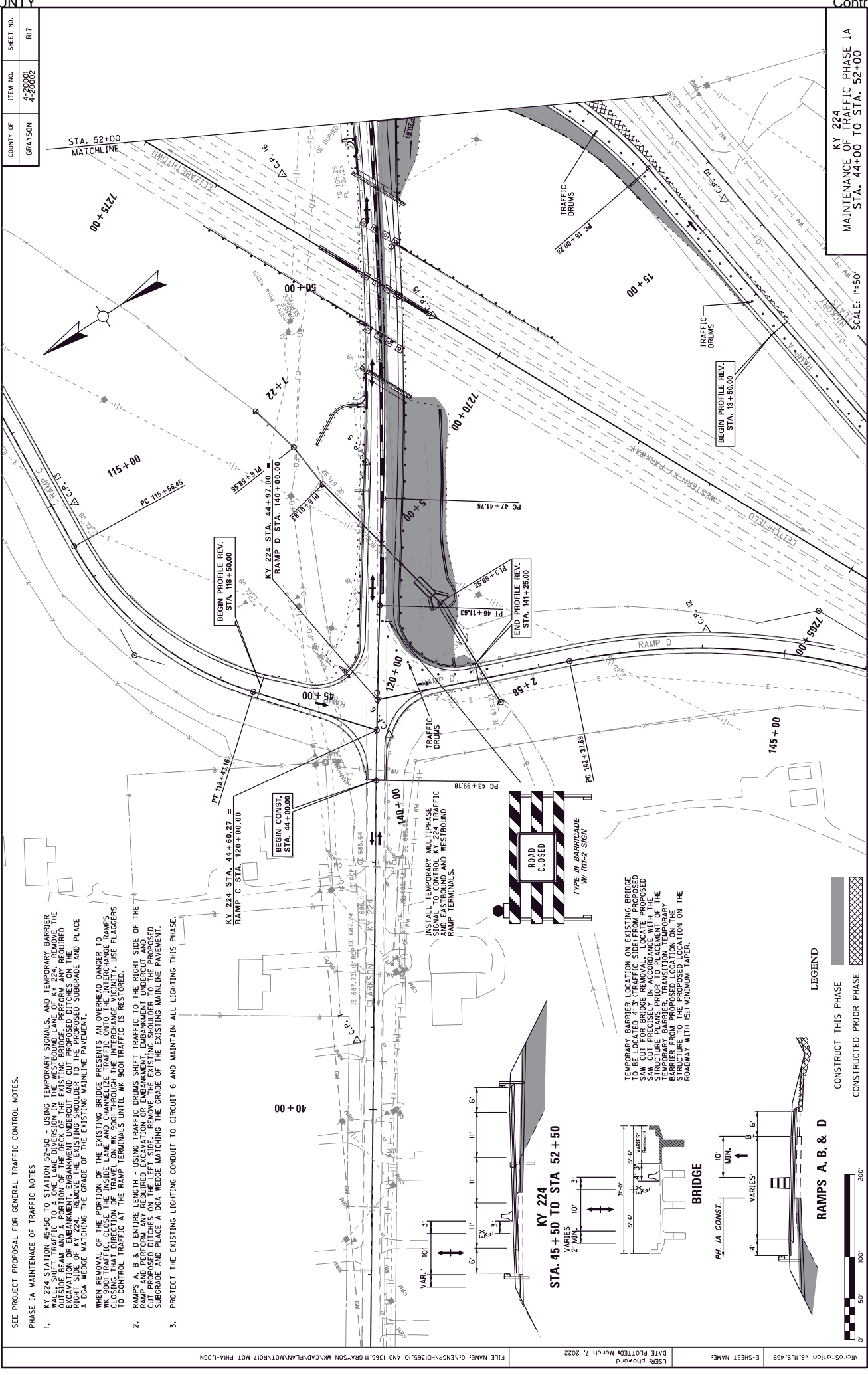


KY 224
 MAINTENANCE OF TRAFFIC PHASE I
 STA. 44+00 TO STA. 52+00





COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-20001 4-20002	RIG

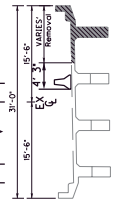


SEE PROJECT PROPOSAL FOR GENERAL TRAFFIC CONTROL NOTES.

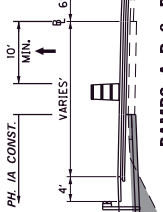
PHASE 1A MAINTENANCE OF TRAFFIC NOTES

1. KY 224 STATION 45+50 TO STATION 52+50 - USING TEMPORARY SIGNALS, AND TEMPORARY BARRIER TO MAINTAIN TRAFFIC TO THE WESTBOUND LANE OF KY 224. REMOVE THE EXISTING BARRIER TO THE EASTBOUND LANE OF KY 224. PERFORM THE REQUIRED EXCAVATION OR EMBANKMENT UNDERCUT AND CUT PROPOSED DITCHES ON THE RIGHT SIDE OF KY 224. REMOVE THE EXISTING SHOULDER TO THE PROPOSED SUBGRADE AND PLACE A DGA WEDGE MATCHING THE GRADE OF THE EXISTING MAINLINE PAVEMENT.
2. WHEN REMOVAL OF THE PORTION OF THE EXISTING BRIDGE PRESENTS AN OVERHEAD DANGER TO TRAVEL ON KY 224, INSTALL TEMPORARY TRAFFIC BARRIERS AND TRAFFIC SIGNALS TO MAINTAIN TRAFFIC TO THE WESTBOUND LANE OF KY 224. CLOSING THAT DIRECTION OF TRAVEL ON WK 9001 THROUGH THE INTERCHANGE VICINITY. USE FLAGGERS TO CONTROL TRAFFIC AT THE RAMP TERMINALS UNTIL WK 9001 TRAFFIC IS RESTORED.
3. RAMP A, B, & D ENTIRE LENGTH - USING TRAFFIC DRUMS SHIFT TRAFFIC TO THE RIGHT SIDE OF THE RAMP AND PERFORM ANY REQUIRED EXCAVATION OR EMBANKMENT, EMBANKMENT UNDERCUT AND CUT PROPOSED DITCHES ON THE LEFT SIDE. REMOVE THE EXISTING SHOULDER TO THE PROPOSED SUBGRADE AND PLACE A DGA WEDGE MATCHING THE GRADE OF THE EXISTING MAINLINE PAVEMENT.
3. PROTECT THE EXISTING LIGHTING CONDUIT TO CIRCUIT 6 AND MAINTAIN ALL LIGHTING THIS PHASE.

KY 224
STA. 45 + 50 TO STA 52 + 50
VARIES
2' MIN.



BRIDGE

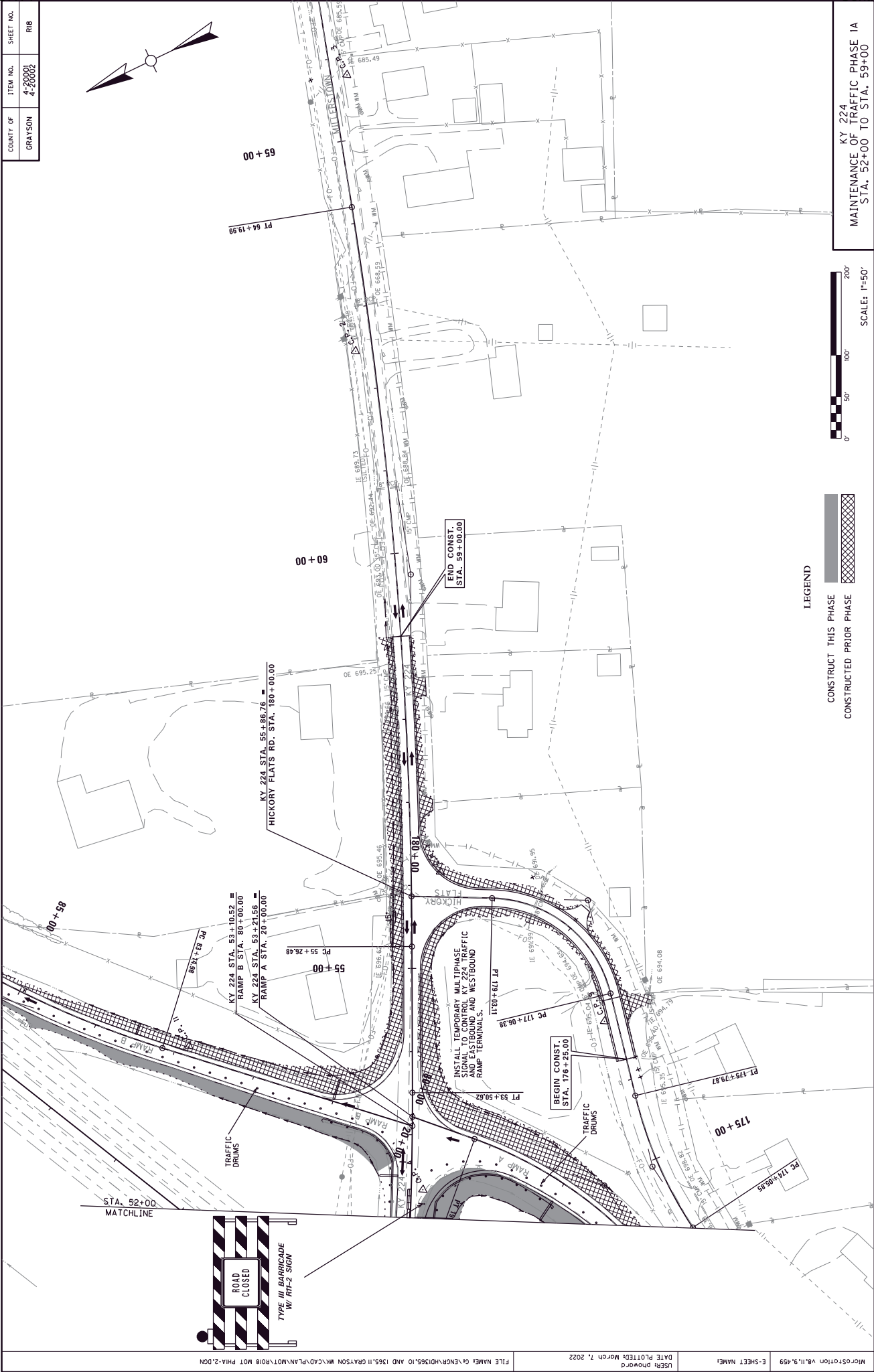


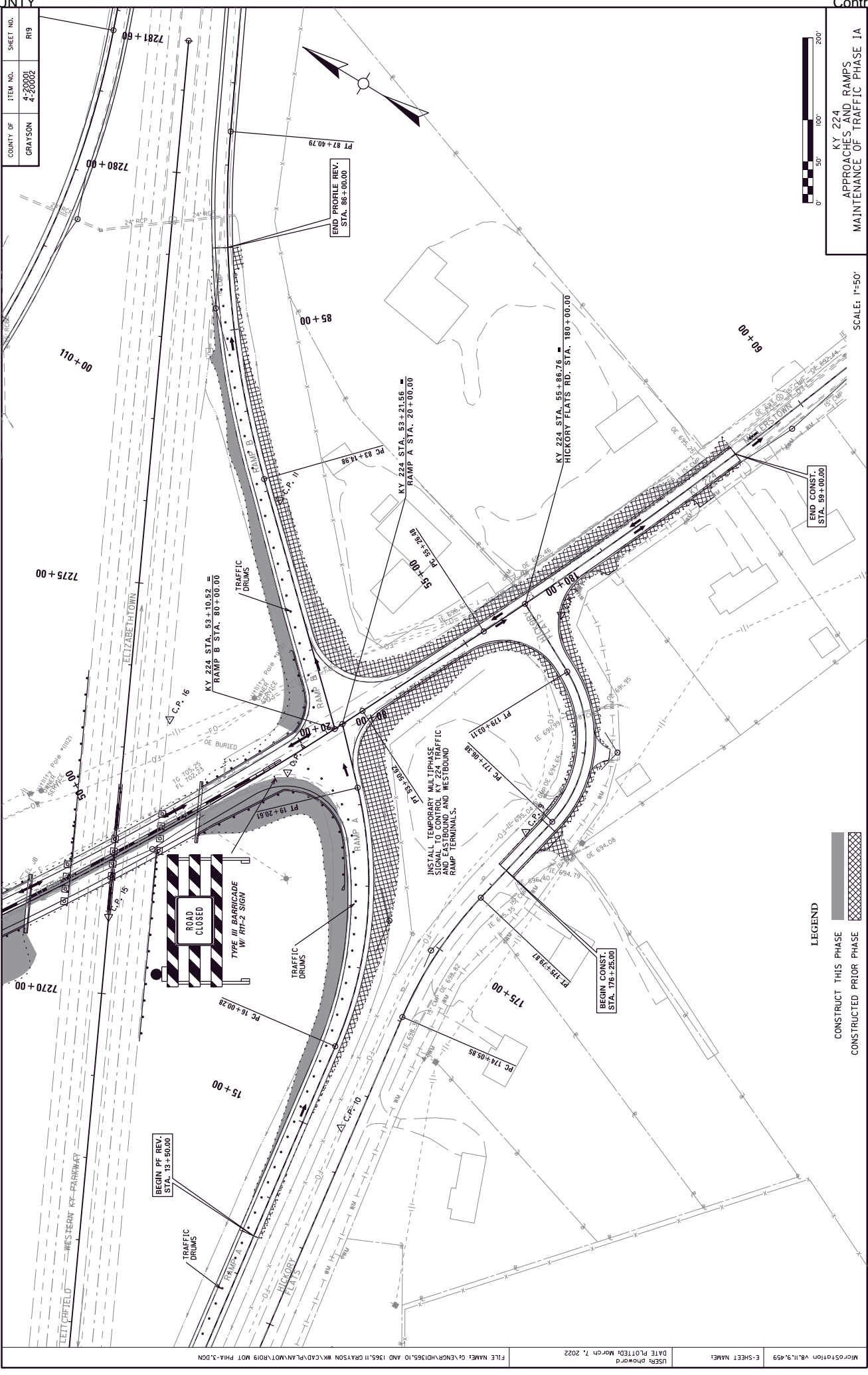
RAMP A, B, & D

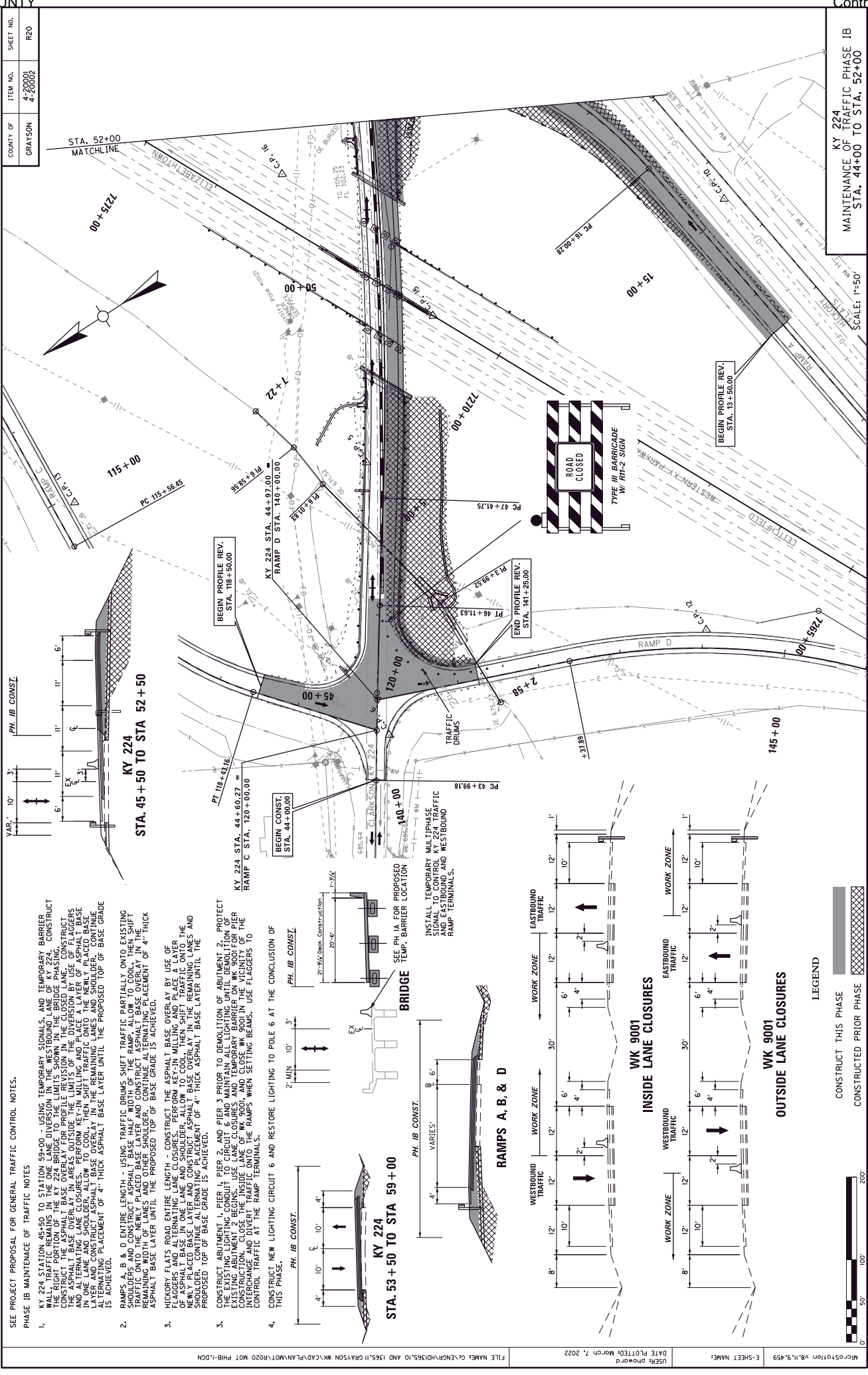
LEGEND
CONSTRUCT THIS PHASE
CONSTRUCTED PRIOR PHASE



KY 224
MAINTENANCE OF TRAFFIC PHASE 1A
STA. 44+00 TO STA. 52+00
SCALE: 1"=50'

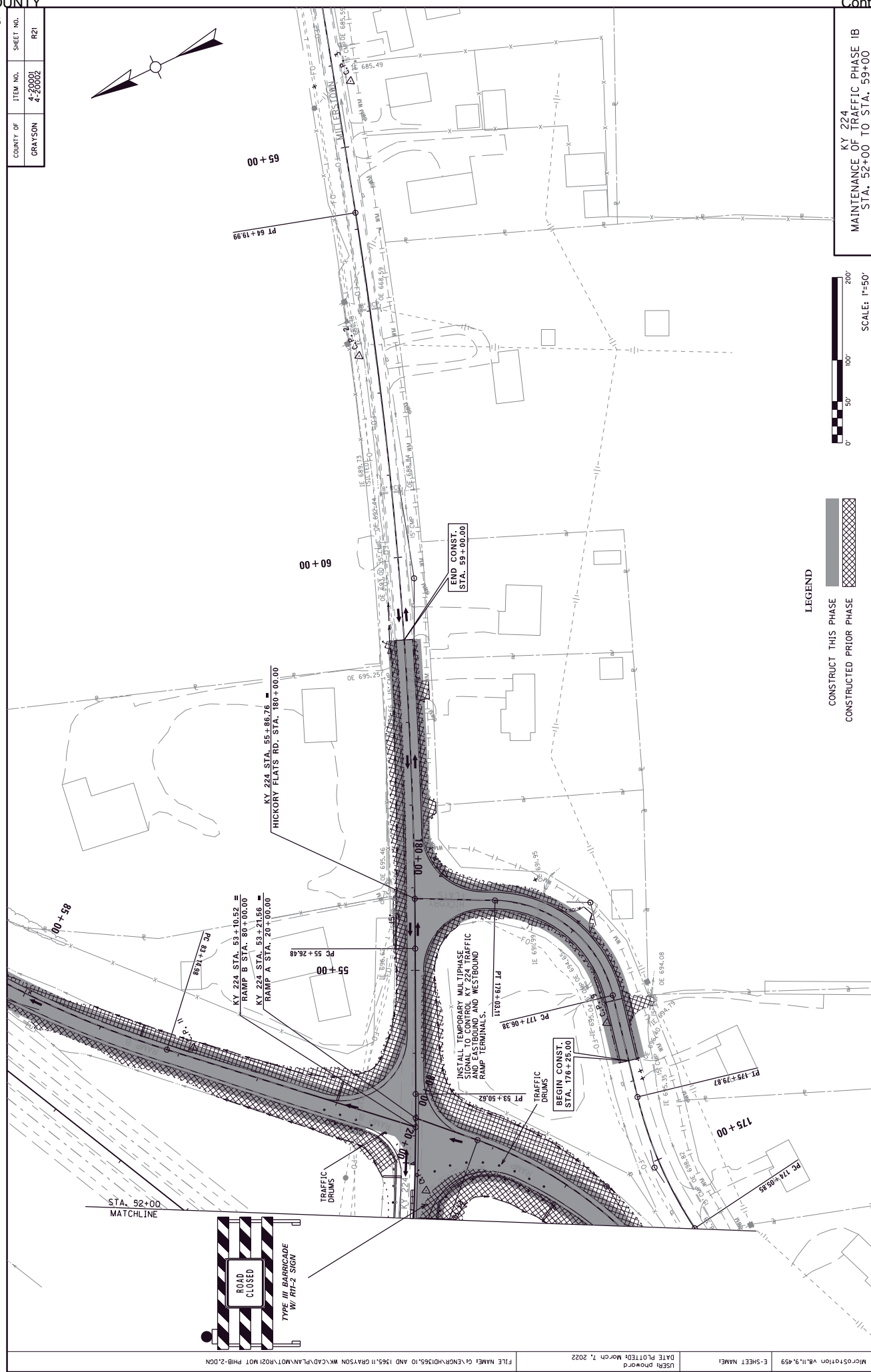




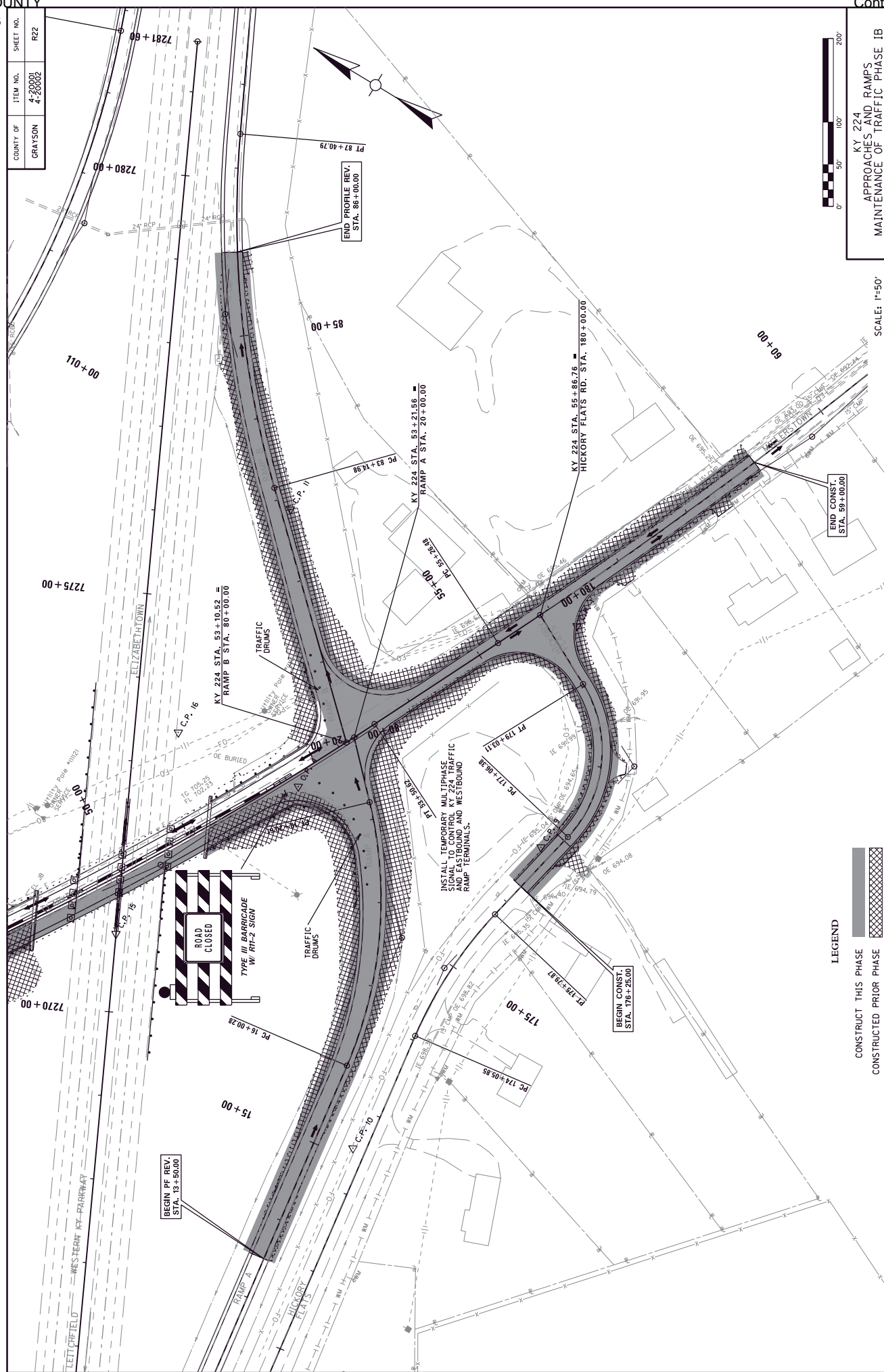


- SEE PROJECT PROPOSAL FOR GENERAL TRAFFIC CONTROL NOTES.
- PHASE IB MAINTENANCE OF TRAFFIC NOTES
- KY 224 STATION 45+50 TO STATION 52+50 - USING TEMPORARY SIGNALS, AND TEMPORARY BARRIER WALL - TRAFFIC REMAINS IN THE ONE LANE DIVERSION IN THE WESTBOUND LANE OF KY 224. CONSTRUCT THE RIGHT PORTION OF THE KY 224 BRIDGE TO THE LIMITS SHOWN IN THE BRIDGE PHASING. CONSTRUCT THE BRIDGE PHASING IN THE WESTBOUND LANE OF KY 224. CONSTRUCT THE BRIDGE PHASING IN THE WESTBOUND LANE OF KY 224. CONSTRUCT THE BRIDGE PHASING IN THE WESTBOUND LANE OF KY 224.
1. KY 224 STATION 45+50 TO STATION 52+50 - USING TEMPORARY SIGNALS, AND TEMPORARY BARRIER WALL - TRAFFIC REMAINS IN THE ONE LANE DIVERSION IN THE WESTBOUND LANE OF KY 224. CONSTRUCT THE RIGHT PORTION OF THE KY 224 BRIDGE TO THE LIMITS SHOWN IN THE BRIDGE PHASING. CONSTRUCT THE BRIDGE PHASING IN THE WESTBOUND LANE OF KY 224. CONSTRUCT THE BRIDGE PHASING IN THE WESTBOUND LANE OF KY 224.
2. KY 224 STATION 45+50 TO STATION 52+50 - USING TEMPORARY SIGNALS, AND TEMPORARY BARRIER WALL - TRAFFIC REMAINS IN THE ONE LANE DIVERSION IN THE WESTBOUND LANE OF KY 224. CONSTRUCT THE RIGHT PORTION OF THE KY 224 BRIDGE TO THE LIMITS SHOWN IN THE BRIDGE PHASING. CONSTRUCT THE BRIDGE PHASING IN THE WESTBOUND LANE OF KY 224. CONSTRUCT THE BRIDGE PHASING IN THE WESTBOUND LANE OF KY 224.
3. KY 224 STATION 45+50 TO STATION 52+50 - USING TEMPORARY SIGNALS, AND TEMPORARY BARRIER WALL - TRAFFIC REMAINS IN THE ONE LANE DIVERSION IN THE WESTBOUND LANE OF KY 224. CONSTRUCT THE RIGHT PORTION OF THE KY 224 BRIDGE TO THE LIMITS SHOWN IN THE BRIDGE PHASING. CONSTRUCT THE BRIDGE PHASING IN THE WESTBOUND LANE OF KY 224. CONSTRUCT THE BRIDGE PHASING IN THE WESTBOUND LANE OF KY 224.
4. KY 224 STATION 45+50 TO STATION 52+50 - USING TEMPORARY SIGNALS, AND TEMPORARY BARRIER WALL - TRAFFIC REMAINS IN THE ONE LANE DIVERSION IN THE WESTBOUND LANE OF KY 224. CONSTRUCT THE RIGHT PORTION OF THE KY 224 BRIDGE TO THE LIMITS SHOWN IN THE BRIDGE PHASING. CONSTRUCT THE BRIDGE PHASING IN THE WESTBOUND LANE OF KY 224. CONSTRUCT THE BRIDGE PHASING IN THE WESTBOUND LANE OF KY 224.

FILE NAME: G:\ENGR\HDI\365.10 AND 1365.11 GRAYSON WK\CAD\PLAN\MOT\ROZI.MOT PHIB-2.DGN



MicroStation v8.11.9.459	E-SHEET NAME:	USER: phoword DATE PLOTTED: March 7, 2022	FILE NAME: C:\ENGR\HDI365.IO AND 1365.HI\GRAYSON WK\CAD\PLAN\MOT\ROZZ.MOT PHIB-3.DGN
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SEE PROJECT PROPOSAL FOR GENERAL TRAFFIC CONTROL NOTES.

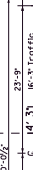
PHASE II MAINTENANCE OF TRAFFIC NOTES

- KY 224 STATION 45+00 TO STATION 42+50 - USING TEMPORARY SIGNALS, AND TEMPORARY BARRIER WALL, SHIFT TRAFFIC TO ONE LANE DIVERSION IN THE EASTBOUND LANE OF KY 224, CONSTRUCT THE ASPHALT BASE OVERLAY FOR PROFILE REVISION IN THE CLOSED LANE.
 USE LANE CLOSURES AND TEMPORARY BARRIER ON KY 900 FOR PIER CONSTRUCTION. CLOSE THE INSIDE LANE OF KY 900, AND CLOSE MK 900 IN THE VICINITY OF THE INTERCHANGE AND DIVERGE TRAFFIC SIGNALS.
 RAMP C - USING TRAFFIC DOWNSHIFT TRAFFIC TO THE RIGHT AND PARTIALLY ONTO THE EXISTING SHOULDER AND CONSTRUCT ALL ENHANCEMENT, EXCAVATION, PREPARE SUBGRADE FOR WIDENING AND PLACE ASPHALT BASE AND ASPHALT BASE OVERLAY.
 PHASE III MAINTENANCE OF TRAFFIC NOTES

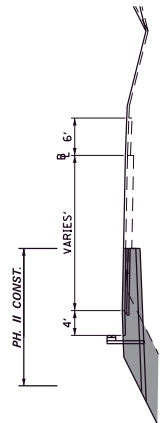
PHASE III MAINTENANCE OF TRAFFIC NOTES

- REMOVE THE BARRIER WALL, USING ALTERNATING LANE CLOSURES AND FLAGGERS PLACE FINAL ASPHALT SURFACING ON KY 224 AND HICKORY FLATS ROAD, COMPLETE FINAL SURFACING OF THE RAMPS AS PART OF THE MAINLINE WESTERN KY PARKWAY PAVEMENT REHABILITATION PORTION OF THE PROJECT.

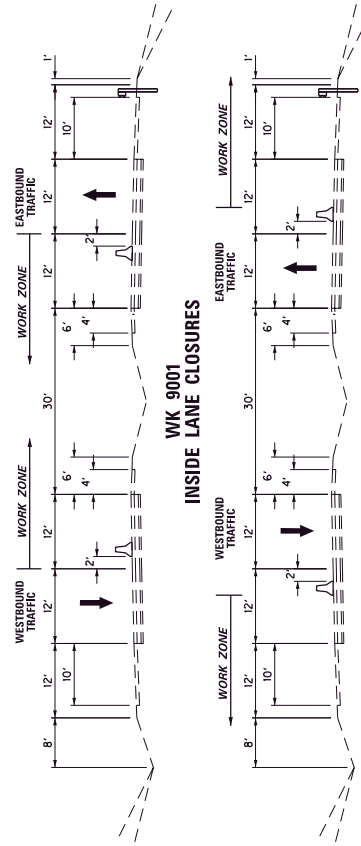
PH IIA & PH IIB CONST.



LOCATE TEMPORARY BARRIER
4'-3" FROM PHASE I CONSTRUCTION
JOINT (TRAFFIC SIDE). TRANSITION
TEMPORARY BARRIER FROM STRUCTURE
LOCATION TO ROADWAY OFFSET
LOCATION OVER 15:1 MIN TAPER.

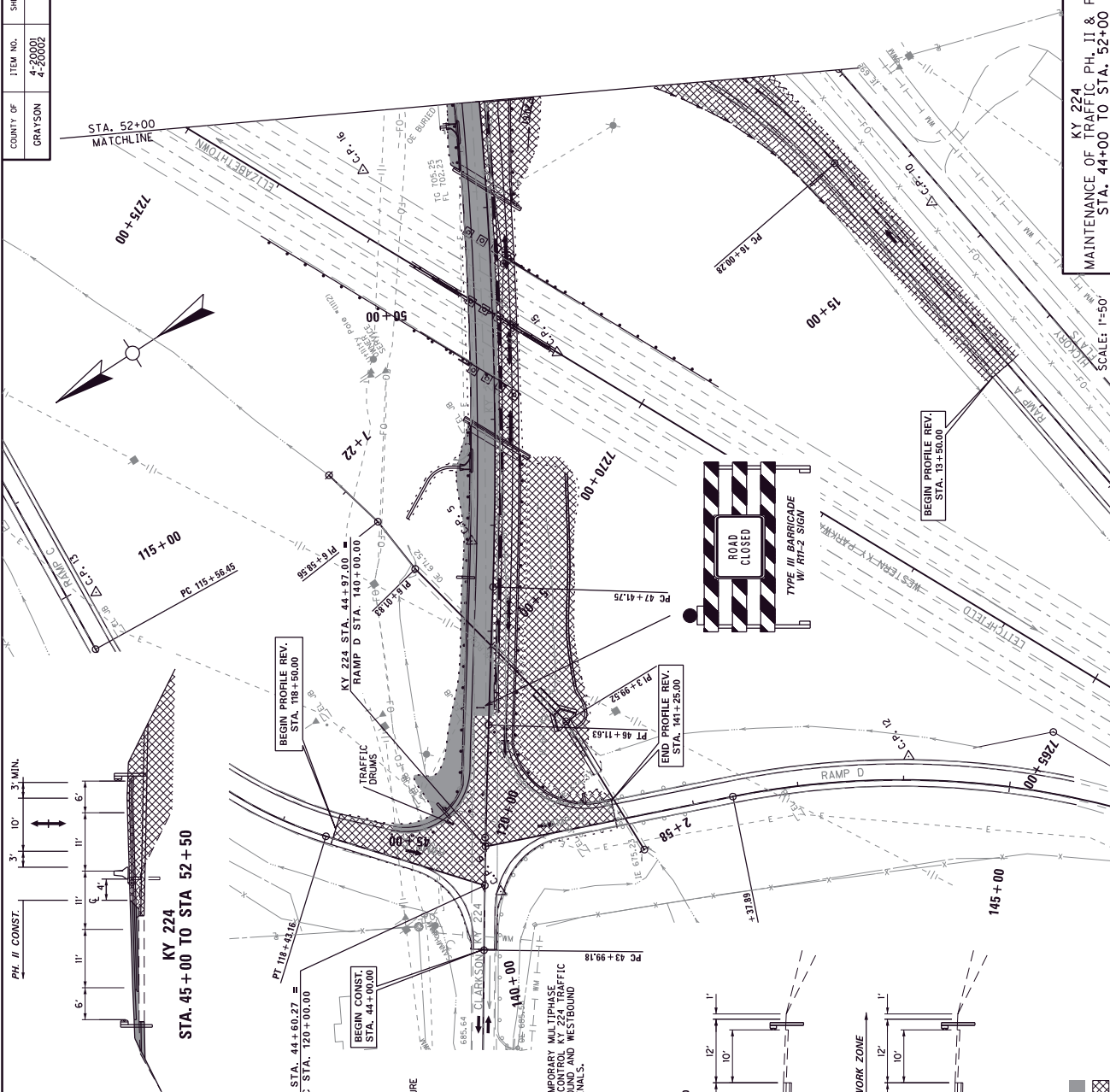


INSTALL TEMPORARY MULTIPHASE SIGNAL TO CONTROL KY 224 TRAIL AND EASTBOUND AND WESTBOUND RAMP TERMINALS.

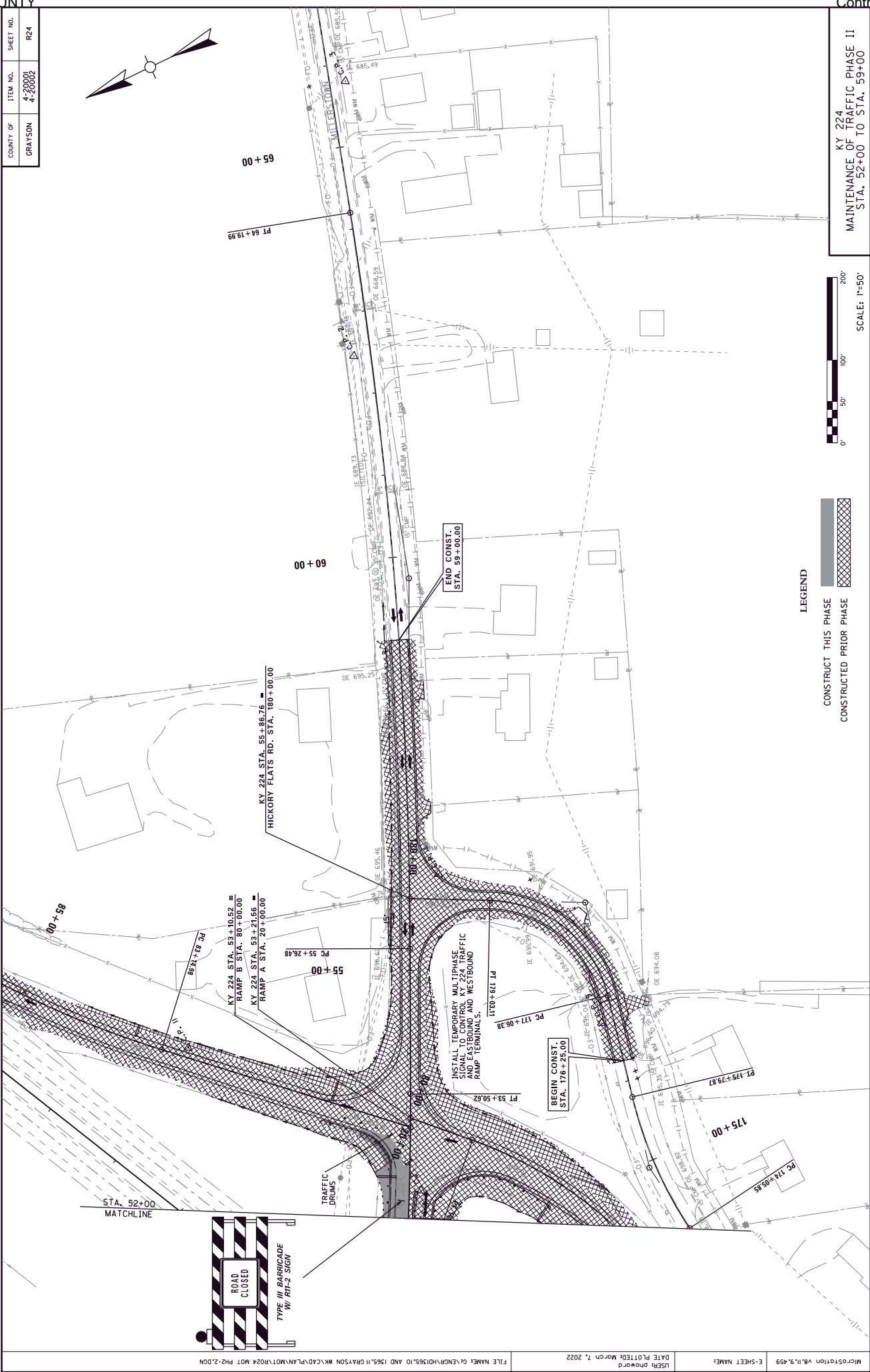


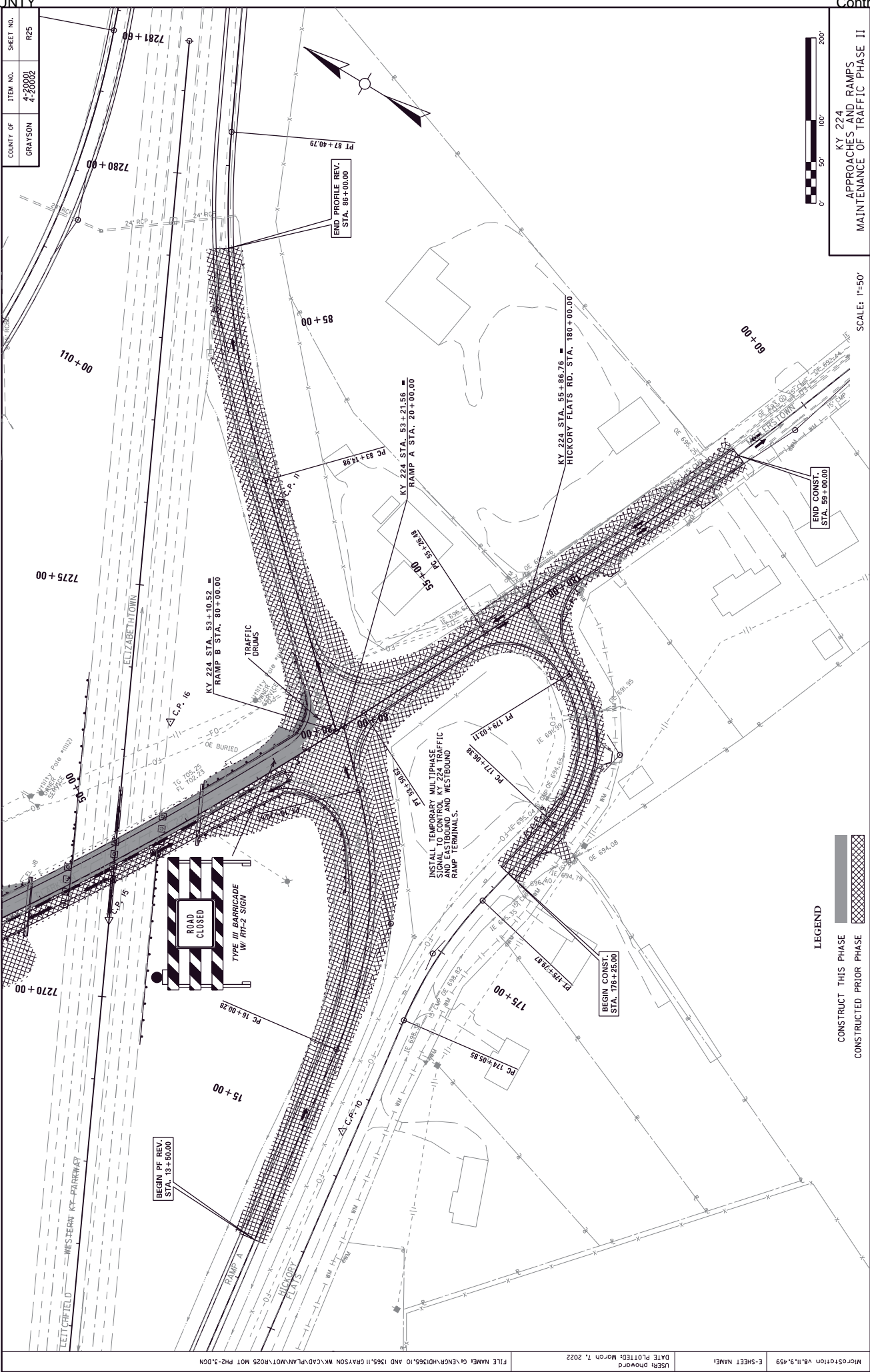
LEGEND

	CONSTRUCT THIS PHASE	CONSTRUCTED PRIOR PHASE
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100	100	100





















MAINTENANCE OF TRAFFIC PH. II & PH. III
KY 224
STA. 44+00 TO STA. 52+00





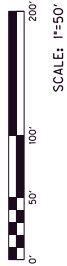
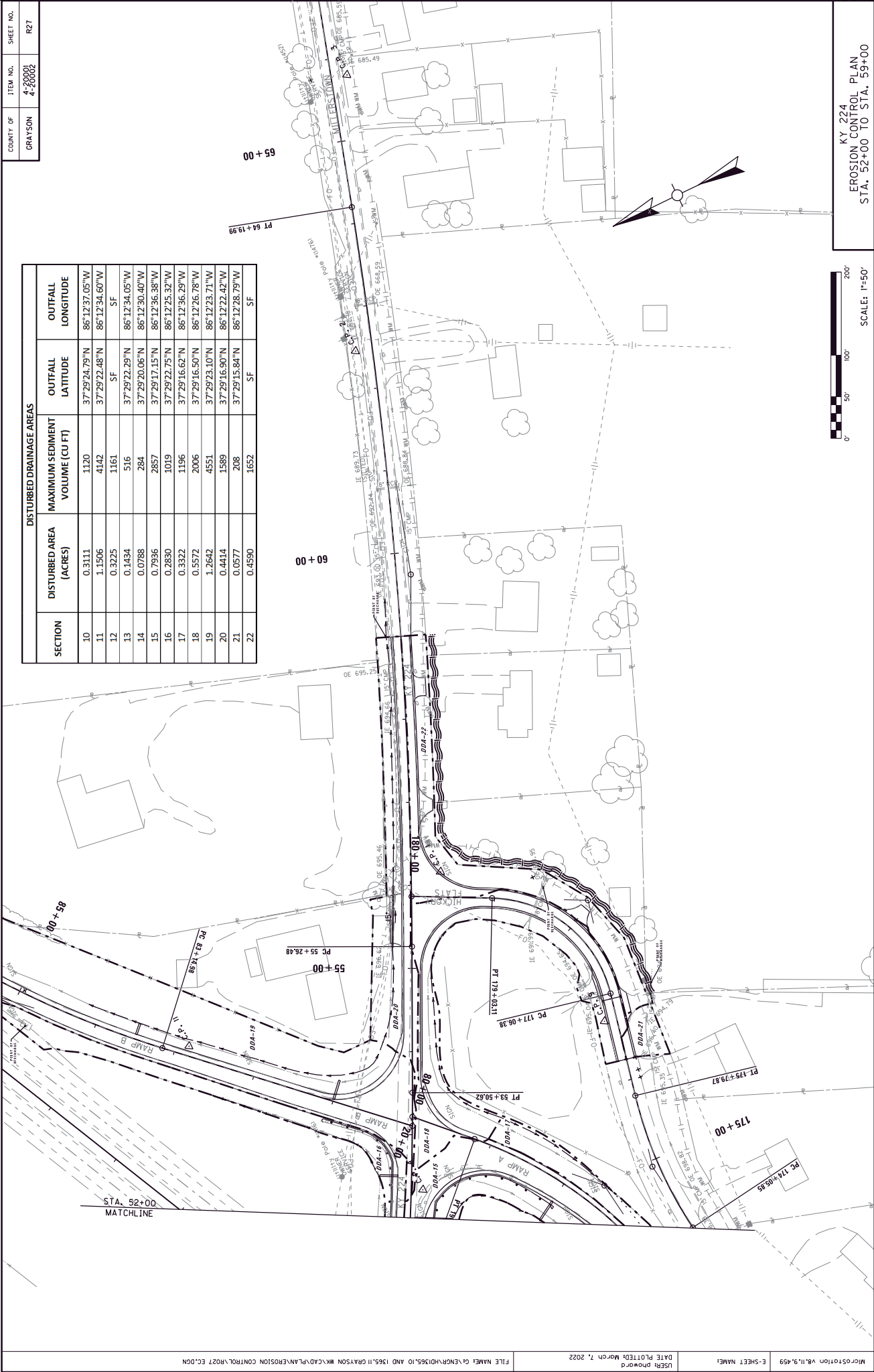
SECTION	DISTURBED DRAINAGE AREAS			
	DISTURBED AREA (ACRES)	MAXIMUM SEDIMENT VOLUME (CU FT)	OUTFALL LATITUDE	OUTFALL LONGITUDE
10	0.3111	1120	37°29'24.79"N	86°12'37.05"W
11	1.1506	4142	37°29'22.48"N	86°12'34.60"W
12	0.3225	1161	SF	SF
13	0.1434	516	37°29'22.29"N	86°12'34.05"W
14	0.0788	284	37°29'20.06"N	86°12'30.40"W
15	0.7936	2857	37°29'17.15"N	86°12'36.38"W
16	0.2830	1019	37°29'22.75"N	86°12'25.32"W
17	0.3322	1196	37°29'16.62"N	86°12'36.29"W
18	0.5572	2006	37°29'16.50"N	86°12'26.78"W
19	1.2642	4551	37°29'23.10"N	86°12'23.71"W
20	0.4414	1589	37°29'16.90"N	86°12'22.42"W
21	0.0577	208	37°29'15.84"N	86°12'28.79"W
22	0.4590	1652	SF	SF



EROSION CONTROL LEGEND	
SILT TRAP TYPE A	
SILT TRAP TYPE B	
SILT TRAP TYPE C	
SILT FENCE	
TEMPORARY SILT DITCH	
TEMPORARY SILT DITCH	
TEMPORARY SILT DITCH	
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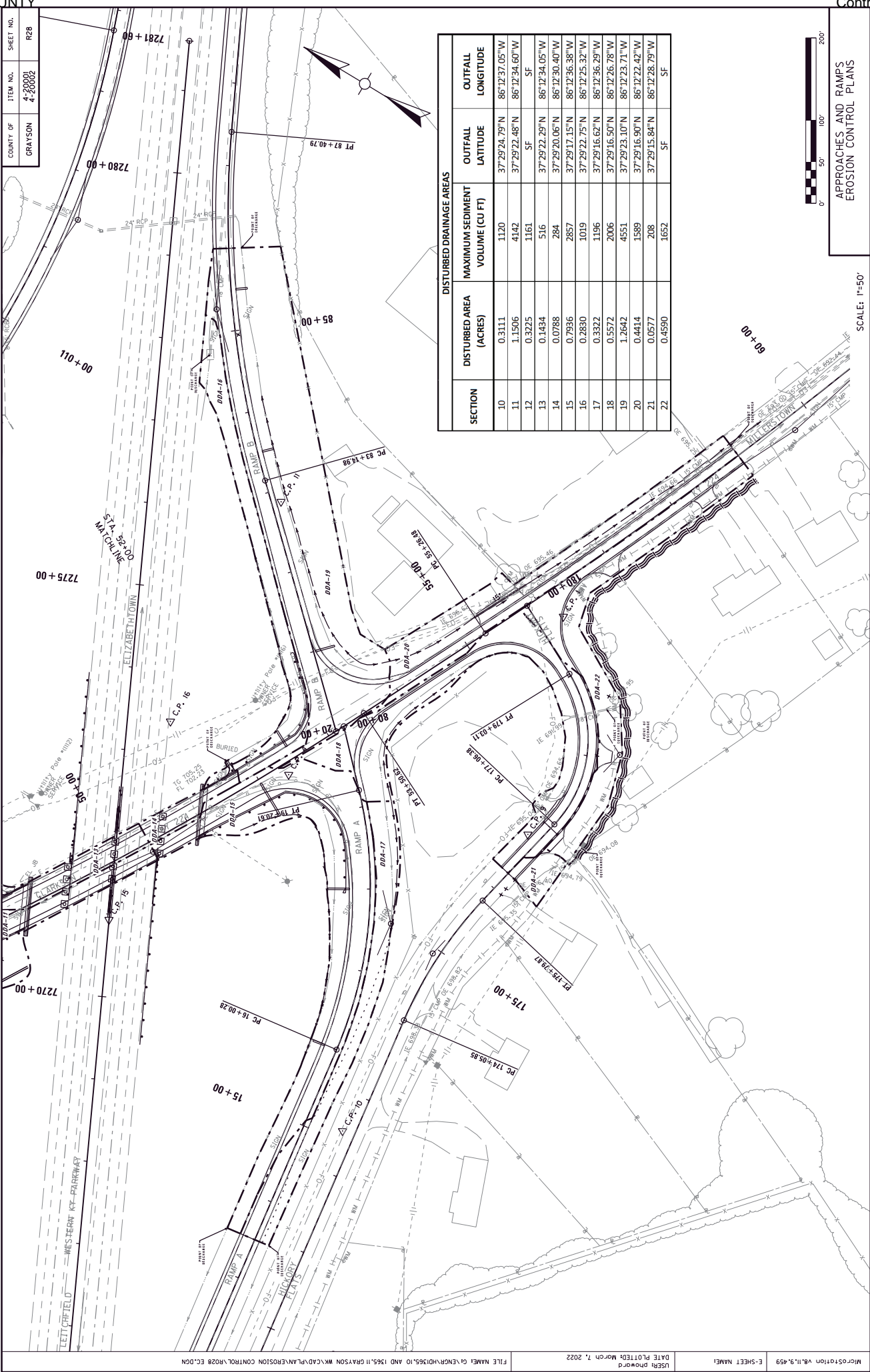
COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-20001 4-20002	R27

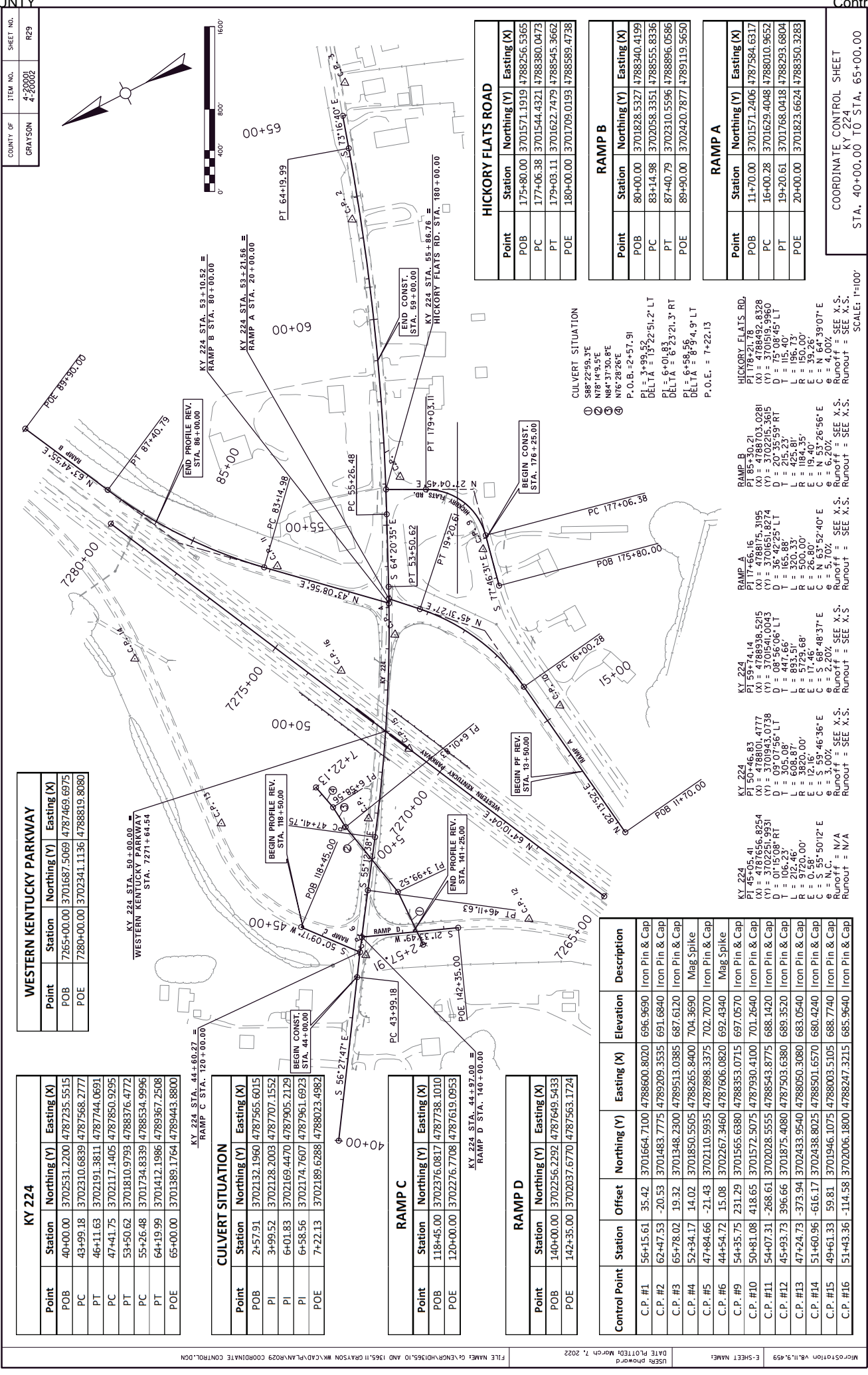
DISTURBED DRAINAGE AREAS				
SECTION	DISTURBED AREA (ACRES)	MAXIMUM SEDIMENT VOLUME (CU FT)	OUTFALL LATITUDE	OUTFALL LONGITUDE
10	0.3111	1120	37°29'24.79"N	86°12'37.05"W
11	1.1506	4142	37°29'22.48"N	86°12'34.60"W
12	0.3225	1161	SF	SF
13	0.1434	516	37°29'22.29"N	86°12'34.05"W
14	0.0788	284	37°29'20.06"N	86°12'30.40"W
15	0.7936	2857	37°29'17.15"N	86°12'36.38"W
16	0.2830	1019	37°29'22.75"N	86°12'25.32"W
17	0.3322	1196	37°29'16.62"N	86°12'36.29"W
18	0.5572	2006	37°29'16.50"N	86°12'26.78"W
19	1.2642	4551	37°29'23.10"N	86°12'23.71"W
20	0.4414	1589	37°29'16.90"N	86°12'22.42"W
21	0.0577	208	37°29'15.84"N	86°12'28.79"W
22	0.4590	1652	SF	SF



SCALE: 1"=50'

KY 224
EROSION CONTROL PLAN
STA. 52+00 TO STA. 59+00





COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-20002	R23

WESTERN KENTUCKY PARKWAY			
Point	Station	Northing (Y)	Easting (X)
POB	7265+00.00	3701687.5069	4787469.6975
POE	7280+00.00	3702341.1136	4788881.8080

KY 224			
Point	Station	Northing (Y)	Easting (X)
POB	40+00.00	3702531.2200	4787235.5515
PC	43+99.18	3702310.6839	4787568.2777
PT	46+11.63	3702191.3811	4787744.0691
PC	47+41.75	3702117.1405	4787850.9295
PT	53+50.62	3701810.9793	4788376.4772
PC	55+26.48	3701734.8339	4788534.9996
PT	64+19.99	3701412.1986	4789367.2508
POE	65+00.00	3701389.1764	4789443.8800

CULVERT SITUATION			
Point	Station	Northing (Y)	Easting (X)
POB	2+57.91	3702132.1960	4787565.6015
PI	3+99.52	3702128.2003	4787707.1552
PI	6+01.83	3702169.4470	4787905.2129
PI	6+58.56	3702174.7607	4787961.6923
POE	7+22.13	3702189.6288	4788023.4982

RAMP C			
Point	Station	Northing (Y)	Easting (X)
POB	118+45.00	3702376.0817	4787738.1010
POE	120+00.00	3702276.7708	4787619.0953

RAMP D			
Point	Station	Northing (Y)	Easting (X)
POB	140+00.00	3702256.2292	4787649.5433
POE	142+35.00	3702037.6770	4787563.1724

Control Point	Station	Offset	Northing (Y)	Easting (X)	Elevation	Description
C.P. #1	56+15.61	35.42	3701664.7100	4788600.8020	696.9690	Iron Pin & Cap
C.P. #2	62+47.53	-20.53	3701483.7775	4789209.3535	691.6840	Iron Pin & Cap
C.P. #3	65+78.02	19.32	3701348.2300	4789513.0385	687.6120	Iron Pin & Cap
C.P. #4	52+34.17	14.02	3701850.5505	4788265.8400	704.3690	Mag Spike
C.P. #5	47+84.66	-21.43	3702110.5935	4787898.3375	702.7070	Iron Pin & Cap
C.P. #6	44+54.72	15.08	3702267.3460	4787606.0820	692.4340	Mag Spike
C.P. #9	54+35.75	231.29	3701565.6380	4788353.0715	697.0570	Iron Pin & Cap
C.P. #10	50+81.08	418.65	3701572.5075	4787930.4100	701.2640	Iron Pin & Cap
C.P. #11	54+07.31	-268.61	3702028.5555	4788543.8775	688.1420	Iron Pin & Cap
C.P. #12	45+93.73	396.66	3701875.4080	4787503.6380	689.3520	Iron Pin & Cap
C.P. #13	47+24.73	-373.94	3702433.9540	4788050.3080	683.0540	Iron Pin & Cap
C.P. #14	51+60.96	-616.17	3702438.8025	4788501.6570	680.4240	Iron Pin & Cap
C.P. #15	49+61.33	59.81	3701946.1075	4788003.5105	688.7740	Iron Pin & Cap
C.P. #16	51+43.36	-114.58	3702006.1800	4788247.3215	685.9640	Iron Pin & Cap

HICKORY FLATS ROAD			
Point	Station	Northing (Y)	Easting (X)
POB	175+80.00	3701571.1919	4788256.5365
PC	177+06.38	3701544.4321	4788380.0473
PT	179+03.11	3701622.7479	4788545.3662
POE	180+00.00	3701709.0193	4788589.4738

RAMP B			
Point	Station	Northing (Y)	Easting (X)
POB	80+00.00	3701828.5327	4788340.4199
PC	83+14.98	3701828.3351	4788555.8336
PT	87+40.79	3702310.5596	4788896.0586
POE	89+90.00	3702420.7877	4789119.5650

RAMP A			
Point	Station	Northing (Y)	Easting (X)
POB	11+70.00	3701571.2406	4787584.6317
PC	16+00.28	3701629.4048	4788010.9652
PT	19+20.61	3701768.0418	4788293.6804
POE	20+00.00	3701823.6624	4788350.3283

COORDINATE CONTROL SHEET	
STA. 40+00.00 TO STA. 65+00.00	

CULVERT SITUATION

① S88°22'59.3"E
② N84°37'30.8"E
③ N76°28'26"E
④ P.O.B. = 2+57.91
PI = 3+99.52
DELTA = 13°22'51.2" LT
PI = 6+01.83
DELTA = 6°23'21.3" RT
PI = 6+58.56
DELTA = 8°9'4.9" LT
P.O.E. = 7+22.13

KY 224
PI 50+46.83
(X) = 4787656.8254
(Y) = 3702251.9931
D = 0°15'08" RT
L = 202.46'
R = 9720.00'
E = 0.58'
C = S 55°50'12" E
Runoff = N/A
Runout = N/A

KY 224
PI 59+74.14
(X) = 4788010.4777
(Y) = 3701943.0738
D = 0°15'08" RT
L = 202.46'
R = 9720.00'
E = 0.58'
C = S 55°50'12" E
Runoff = N/A
Runout = N/A

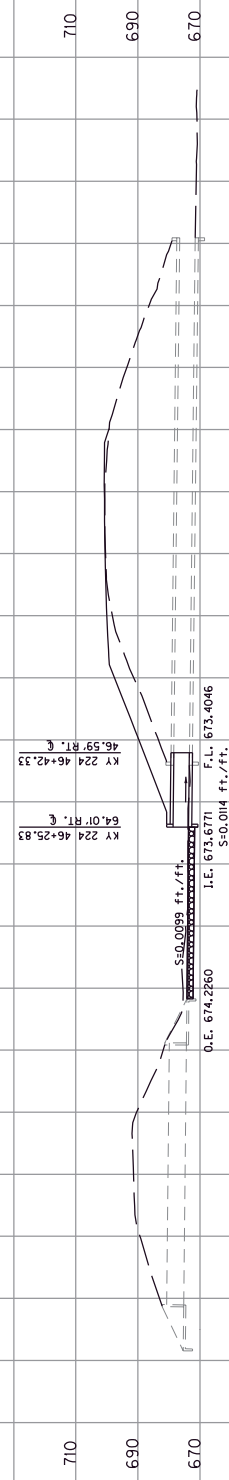
KY 224
PI 17+66.16
(X) = 4788175.3195
(Y) = 3701651.8274
D = 36°46'25" LT
L = 320.33'
R = 500.00'
E = 26.80'
C = N 63°52'40" E
Runoff = SEE X.S.
Runout = SEE X.S.

KY 224
PI 85+30.21
(X) = 4788703.0281
(Y) = 3702215.3615
D = 50°35'59" RT
L = 425.81'
R = 184.35'
E = 39.26'
C = N 64°39'07" E
Runoff = SEE X.S.
Runout = SEE X.S.

HICKORY FLATS RD.
PI 178+21.78
(X) = 4788492.8328
(Y) = 3701519.9960
D = 15°08'45" LT
L = 196.73'
R = 150.00'
E = 39.26'
C = N 64°39'07" E
Runoff = SEE X.S.
Runout = SEE X.S.

STORM SEWER PIPE

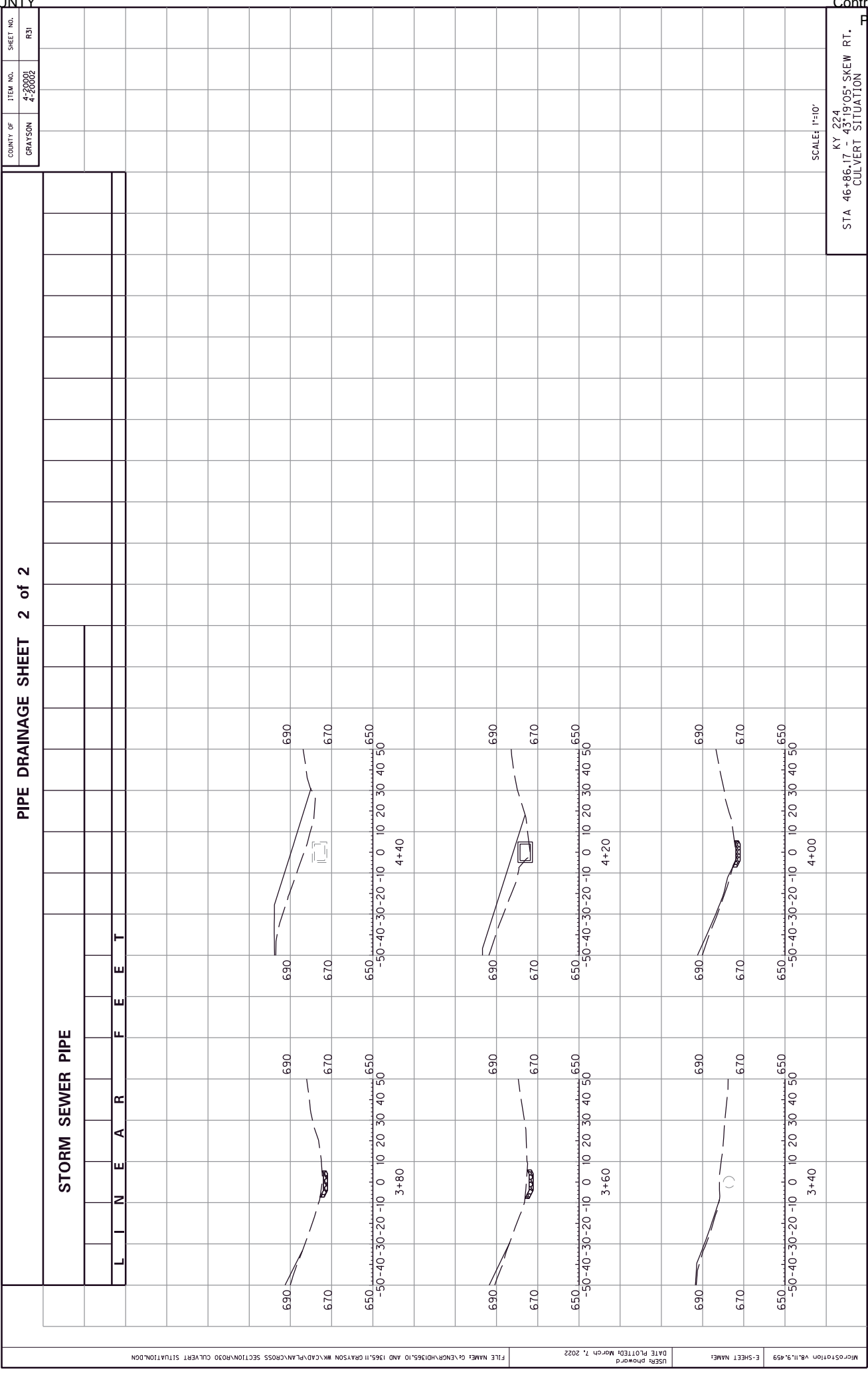
L	I	N	E	A	R	F	E	E	T
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		KY 224	46+86.46	
CONST. 24	L.F. - 8'x5' RCBC @ 43°19'05" SKEW	RT.		

SCALE: 1"=10'

STA 46+86.17 - 43°19'05" SKEW RT.
CULVERT SITUATION



COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-20002	TI

ROADWAY LIGHTING ESTIMATE OF QUANTITIES

ITEM CODE	ITEM	UNIT	TOTAL
4798	CONDUIT - 3 1/2 INCH	LIN FT	90
4800	MARKER	EACH	1
4820	TRENCHING AND BACKFILLING	LIN FT	515
4860	CABLE - NO. 8/3C DUCTED	LIN FT	825
4940	REMOVE LIGHTING	LP SUM	1
2039INS835	ELECTRICAL JUNCTION BOX TYPE A	EACH	3
21543EN	BORE AND JACK CONDUIT	LIN FT	90
21579EN	FLEX CONDUIT - 1/4 INCH	LIN FT	50

THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION, AND OTHER SPECIAL NOTES AND SPECIFICATIONS WILL APPLY ON THIS PROJECT. SEE SECTION 716 FOR MEASUREMENT AND OTHER DETAILS. SEE SECTION 602 FOR SPIRAL REINFORCEMENT SPLICING

THE CONTRACTOR SHALL MAKE AN INSPECTION OF THE PROJECT SITE PRIOR TO SUBMITTING A BID AND SHALL BE THOROUGHLY FAMILIARIZED WITH EXISTING CONDITIONS. SUBMISSIONS OF A BID WILL BE CONSIDERED AN AFFIRMATION OF THIS INSPECTION HAVING BEEN COMPLETED.

ADD SENTENCE TO SECTION 834.06: ALL WIRE SHALL HAVE WORDING ADDED TO THE OUTER JACKET THAT STATES : "PROPERTY OF KENTUCKY TRANSPORTATION CABINET 502 564 0501".

ADD SENTENCE TO SECTION 834.10: ALL WIRE SHALL HAVE WORDING ADDED TO THE OUTER JACKET THAT STATES: "PROPERTY OF KENTUCKY TRANSPORTATION CABINET 502 564 0501".

CONSTRUCTION AND MEASUREMENT NOTES THAT ARE CONTRARY TO SECTION 834

SUBSECTION: 834.15.03 TRANSFORMER BASES.
REMOVE SENTENCE: CONSTRUCT THE DOOR OF A HIGH DENSITY POLYETHYLENE MATERIAL IN COLOR THAT MATCHES THE BASE.
REPLACE THE FOLLOWING SENTENCE WITH THE FOLLOWING:

REVISION: CONSTRUCT THE DOOR OF AN ALUMINUM MATERIAL IN A COLOR THAT MATCHES THE BASE. THE DOOR SHOULD HAVE A THEFT DETERRANT DEVICE THAT IS EQUAL TO THE LOCKDOWN LIGHTLOCK DOOR ASSEMBLY. THE DOOR LOCK WILL HAVE A LOCKING DEVICE WITH A KYTC CUSTOM KEY THAT WILL BE SEND TO CENTRAL OFFICE TRAFFIC OPERATIONS FROM THE MANUFACTURER AND BE ISSUED TO THE CONTRACTOR FOR THE INSTALLATION OF THE FINAL DOOR DEVICE. THE KEY FOR THE DOOR SHALL BE RETURNED TO CENTRAL OFFICE TRAFFIC OPERATIONS AFTER THE CLOSURE OF THE CONTRACT. THERE SHALL BE A 4" BY 6" ARC FLASH WARNING STICKER INSTALLED CENTER TOP OF EACH DOOR. THE STICKER SHALL BE METALCRAFT PL695 PREM STYLEMARK LABEL WITH .007 THICKNESS, WITH UV WHITE POLYCARBONATE MATERIAL, AND WITH MC53FL PRESSURE SENSITIVE ADHESIVE. THE STICKER SHALL HAVE TWO COLORS OF BLACK AND CUSTOM COLOR ORANGE. THE WORDING FOR THE ARC FLASH STICKER SHALL BE THE FOLLOWING: "WARNING ARC FLASH HAZARD. APPROPRIATE PPE REQUIRED. FAILURE TO COMPLY CAN RESULT IN DEATH OR INJURY. REFER TO NEPA 70E."

SECTION: 834.15 LIGHTING POLES.

REVISION: ADD THE FOLLOWING TO THE FIRST PARAGRAPH: "THE CABINET WILL HAVE THE REQUIREMENT STATED IN THE FIRST SENTENCE OF SECTION 5.14.6.2 - REINFORCED HOLES AND CUTOUT FOR HIGH MAST POLES (ONLY)".

SECTION: 834.33 WARNING TAPE.

REVISION: REPLACE FIRST SENTENCE WITH THE FOLLOWING:
PROVIDE DETECTABLE TYPE TAPE THAT IS 6 INCHES WIDE AND 7.0 MILS (NOMINAL)THICK.

NOTE: CLARIFICATION OF REQUIREMENTS IN LIGHTING PLANS, STRUCTURE PLANS, AND STANDARD DRAWINGS.

IN ACCORDANCE WITH THE STRUCTURE PLANS, USE RIGID STEEL CONDUIT IN THE BRIDGE BARRIER. STANDARD DRAWING BGX-019 DETAILS THE USE OF THE "JUNCTION BOX-24" REQUIRED IN THE BRIDGE BARRIERS. IN ACCORDANCE WITH STANDARD DRAWING BGX-021, A 24" JUNCTION BOX (IN BARRIER) WILL BE REQUIRED AT EACH END OF THE PROPOSED BRIDGE BARRIER OR AS DIRECTED BY THE ENGINEER NEAR THE END OF EACH BARRIER. AN EXPANSION FITTING WILL BE REQUIRED AT EACH END OF THE PROPOSED BARRIER IN ACCORDANCE WITH STANDARD DRAWING BGX-021. FOR THE FUTURE USE CONDUIT (NOT USED FOR THE PROPOSED REPLACEMENT OF CIRCUIT 6) CONSTRUCT AN ADDITIONAL 6" OF CONDUIT UNDERGROUND AND BEYOND THE EXPANSION FITTING ON EACH WING AND CAP AND PLACE A MARKER IN ACCORDANCE WITH BGX-021. THE LUMP SUM BID OF THE STRUCTURE ITEM "ELECTRICAL CONDUIT" WILL INCLUDE THE 3" RIGID STEEL CONDUIT IN EACH BRIDGE BARRIER, THE 12' OF 3" RIGID STEEL CONDUIT OUTSIDE THE LIMITS OF THE BARRIER, 4-EACH JUNCTION BOXES (IN BARRIER), 4-EACH EXPANSION FITTINGS, 2-EACH COPPER GROUNDING BUSHINGS, 2-EACH CAPS, 2-EACH MARKERS AND ANY OTHER FITTINGS OR EQUIPMENT REQUIRED, INCLUDING REDUCER AND CONNECTION TO THE 1 1/4" FLEXIBLE CONDUIT DETAILED IN THE LIGHTING PLANS.

THE BRIDGE CONDUIT IN THE WEST BARRIER WILL BE USED FOR THE RACEWAY FOR THE REPLACEMENT OF LIGHTING CIRCUITS. SEE LIGHTING PLANS FOR ALL WORK ITEMS AND PAY ITEMS FOR REPLACEMENT OF LIGHTING CIRCUIT 6 (EXCLUDING THE ITEMS INCLUDED IN THE LS STRUCTURE ITEM "ELECTRICAL CONDUIT"). PAYMENT FOR JUNCTION BOXES TYPE A IS INCLUDED IN THE LIGHTING PLANS.

MEASUREMENT NOTE THAT ARE IN ADDITION TO SECTION 716:
REMOVE, STORE AND REINSTALL POLE- DEPARTMENT WILL MEASURE THE QUANTITY AS EACH INDIVIDUAL UNIT REMOVED, STORE AND REINSTALLED. THE DEPARTMENT WILL NOT MEASURE WORK AND MATERIAL NECESSARY TO RELOCATE AN EXISTING LIGHTING STANDARD AND WILL CONSIDERED THIS INCIDENTAL TO THIS ITEM OF WORK.

WOOD POLE- DEPARTMENT WILL MEASURE THE QUANTITY AS EACH INDIVIDUAL UNIT FURNISHED AND INSTALLED. THE DEPARTMENT WILL NOT MEASURE EXCAVATION, BACKFILLING, AND RESTORING DISTURBED AREAS.

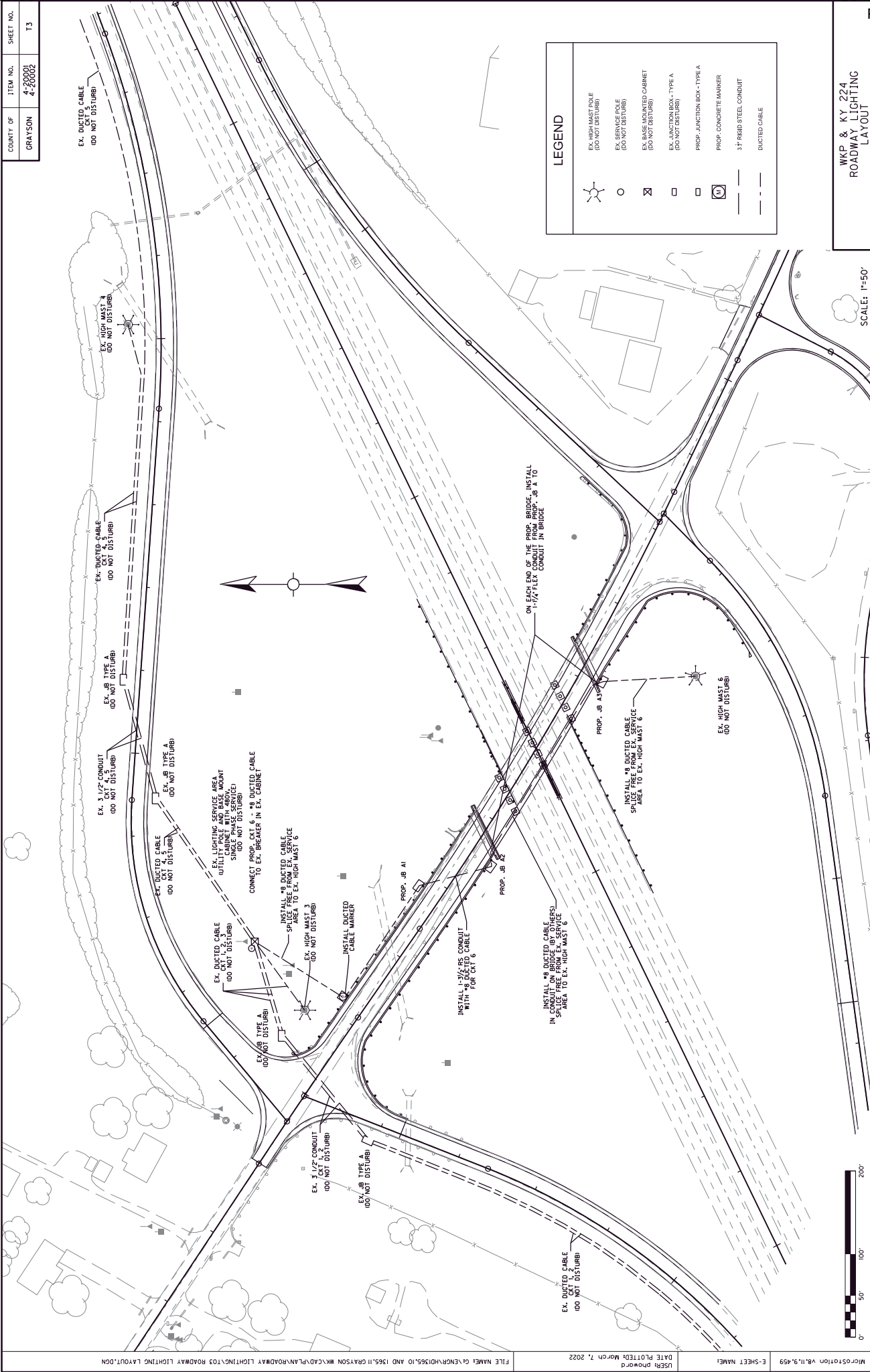
ANCHOR- DEPARTMENT WILL MEASURE THE QUANTITY AS EACH INDIVIDUAL UNIT FURNISHED AND INSTALLED. THE DEPARTMENT WILL NOT MEASURE FURNISHING AND INSTALLING SPECIFIED ANCHOR, DOWN-GUT, MESSENGER, CLAMPS, GUT GUARD, AND INSULATORS (IF REQUIRED).

WIRE OR CABLE SHALL INCLUDE INSTALLING SPECIFIED WIRE OR CABLE WITHIN CONDUIT AS INDICATED ON THE PLAN SHEETS. INCIDENTAL TO THIS ITEM SHALL BE THE FURNISHING AND INSTALLING OF SPLICE BOOTS OR ANY OTHER HARDWARE REQUIRED FOR INSTALLING CABLE. THE CONTRACTOR SHALL INSTALL ALL CABLE OR WIRE RUNS SPLICE-FREE FROM THE CONTROLLER TO EACH POLE THE CABLE OR WIRE IS FEEDING. EXCEPTIONS TO THIS MUST BE APPROVED BY THE ENGINEER OR AS SPECIFIED ON THE PLANS. THE CONTRACTOR WILL RECEIVE WIRE IN 1000 FOOT ROLLS FROM OUR WAREHOUSE. IF THE WIRE SUPPLIED DOES NOT EQUAL ENOUGH SUITABLE TO INSTALL ALL RUNS SPLICE FREE, THE CONTRACTOR CAN ASK FOR MORE WIRE TO BE SUPPLIED BY THE DIVISION OF TRAFFIC OPERATIONS. THIS REQUEST SHALL GO THROUGH THE RESIDENT ENGINEER TO CENTRAL OFFICE DIVISION OF TRAFFIC OPERATIONS. EACH RUN OF WIRE FROM POLE TO POLE (UP EACH POLE) SHALL BE THE FOLLOWING COLOR CODED: 2-BLACK (HOT) AND GREEN (GROUND). THIS NOTE ONLY APPLIES TO BID CODES 23675EC AND 24474ED.

"REMOVE LIGHTING" SHALL INCLUDE THE REMOVAL OF ALL VISIBLE CONDUIT, WIRING, JUNCTION BOXES, OR OTHER EQUIPMENT THAT ARE NOT INTENDED TO BE RE-USED. ARD ARE REQUIRED TO BE REMOVED AS PART OF THE BRIDGE DEMOLITION OR CONSTRUCTION OF THE NEW CIRCUIT. OTHER UNDERGROUND CONDUIT OR WIRING MAY BE ABANDONED IN PLACE WHERE NOT IN CONFLICT WITH THE PROPOSED NEW CONDUIT AND WIRING.

WKP & KY 224
ROADWAY LIGHTING
JUNCTION_BOX_AND_CONDUIT_DETAILS

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-20001 4-20002	T3

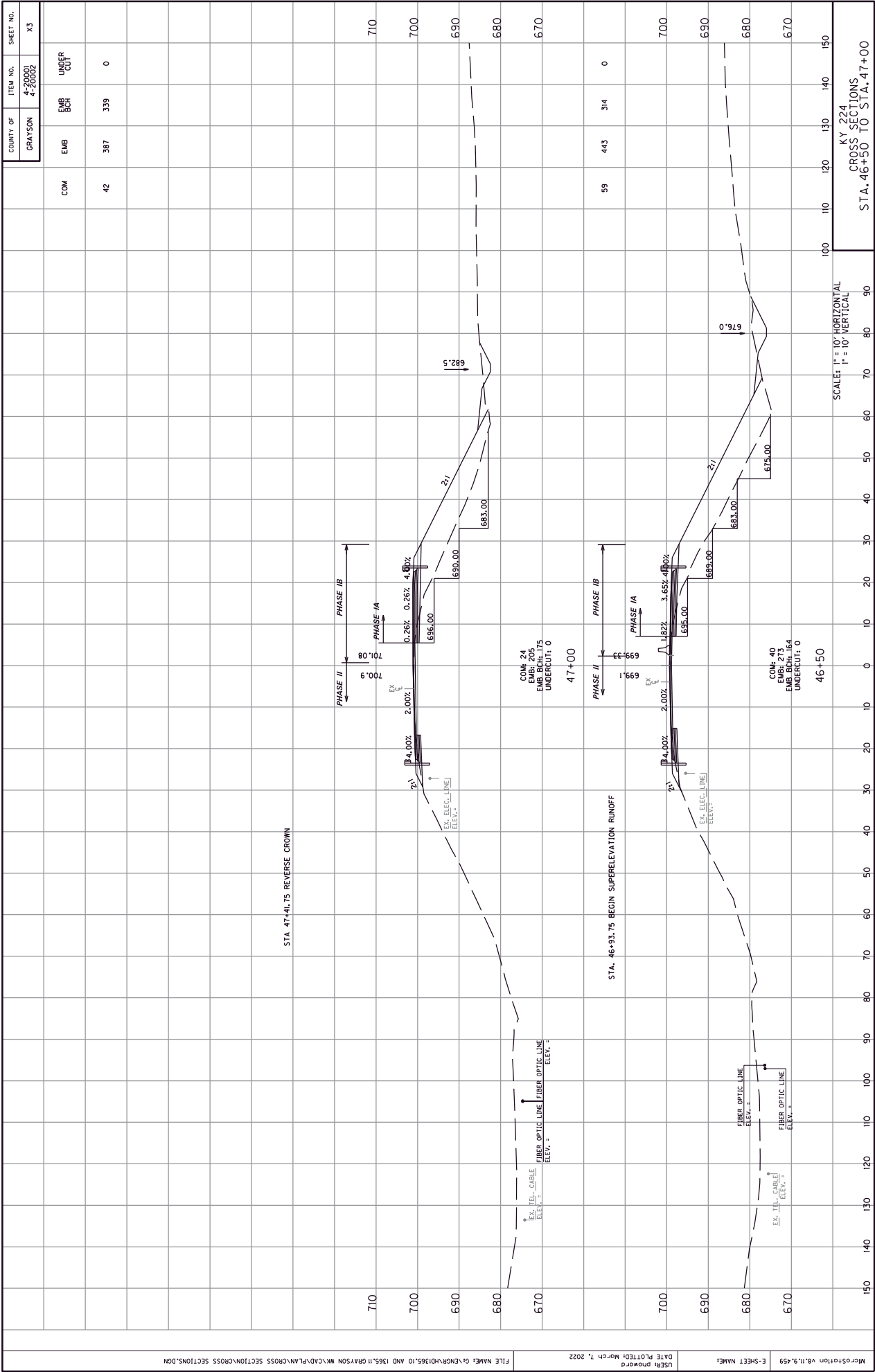


WKP & KY 224
ROADWAY LIGHTING
LAYOUT

SCALE: 1"=50'

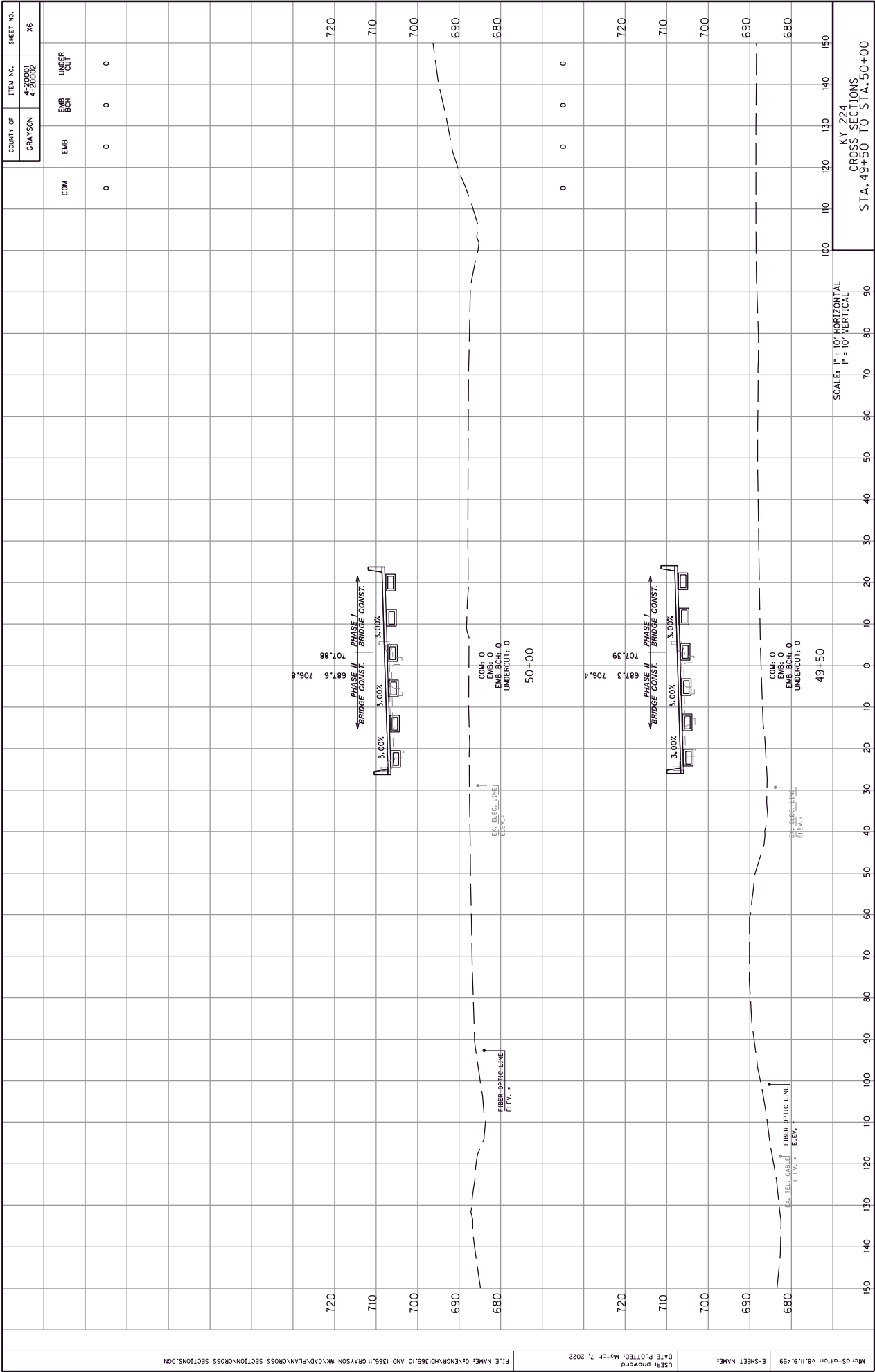


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DATE PLOTTED: March 7, 2022
USER: snowd

E-SHEET NAME: KY 224
CROSS SECTIONS
STA. 49+50 TO STA. 50+00

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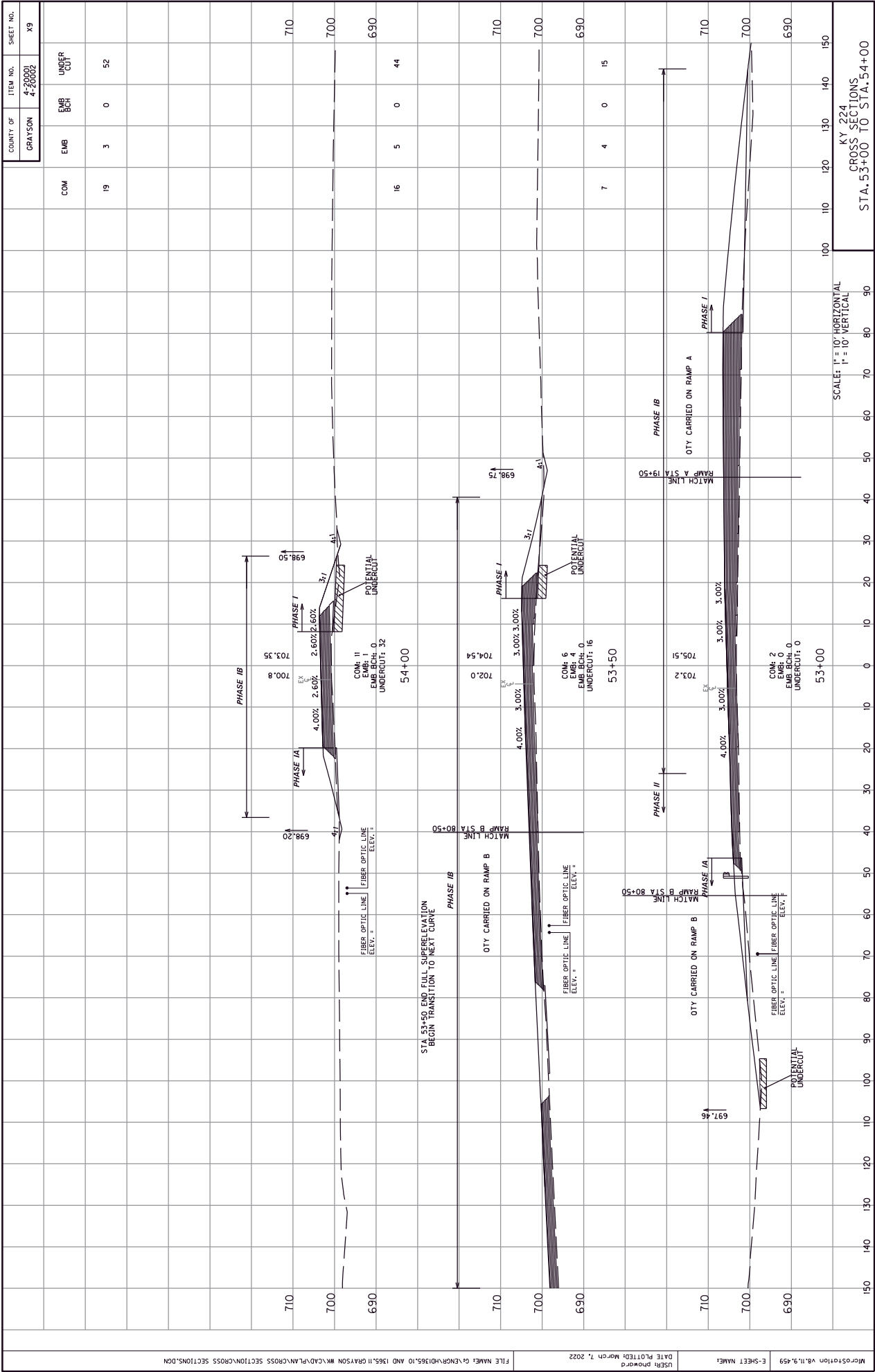
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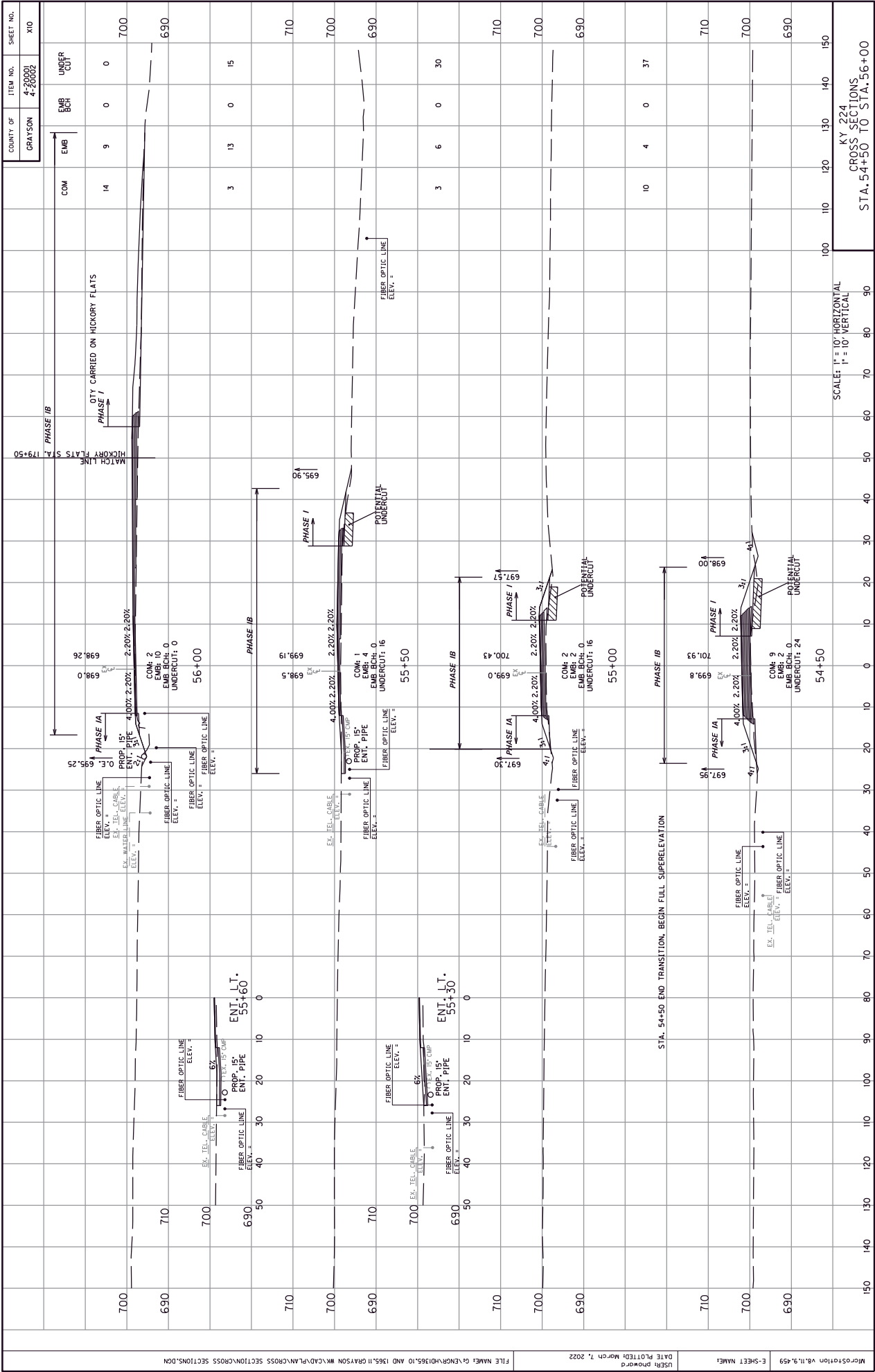
COM	EMB	EMB BCH	UNDERCUT
4	1	0	168
16	7	0	212
42	10	0	81

SCALE: H = 10' HORIZONTAL
V = 10' VERTICAL

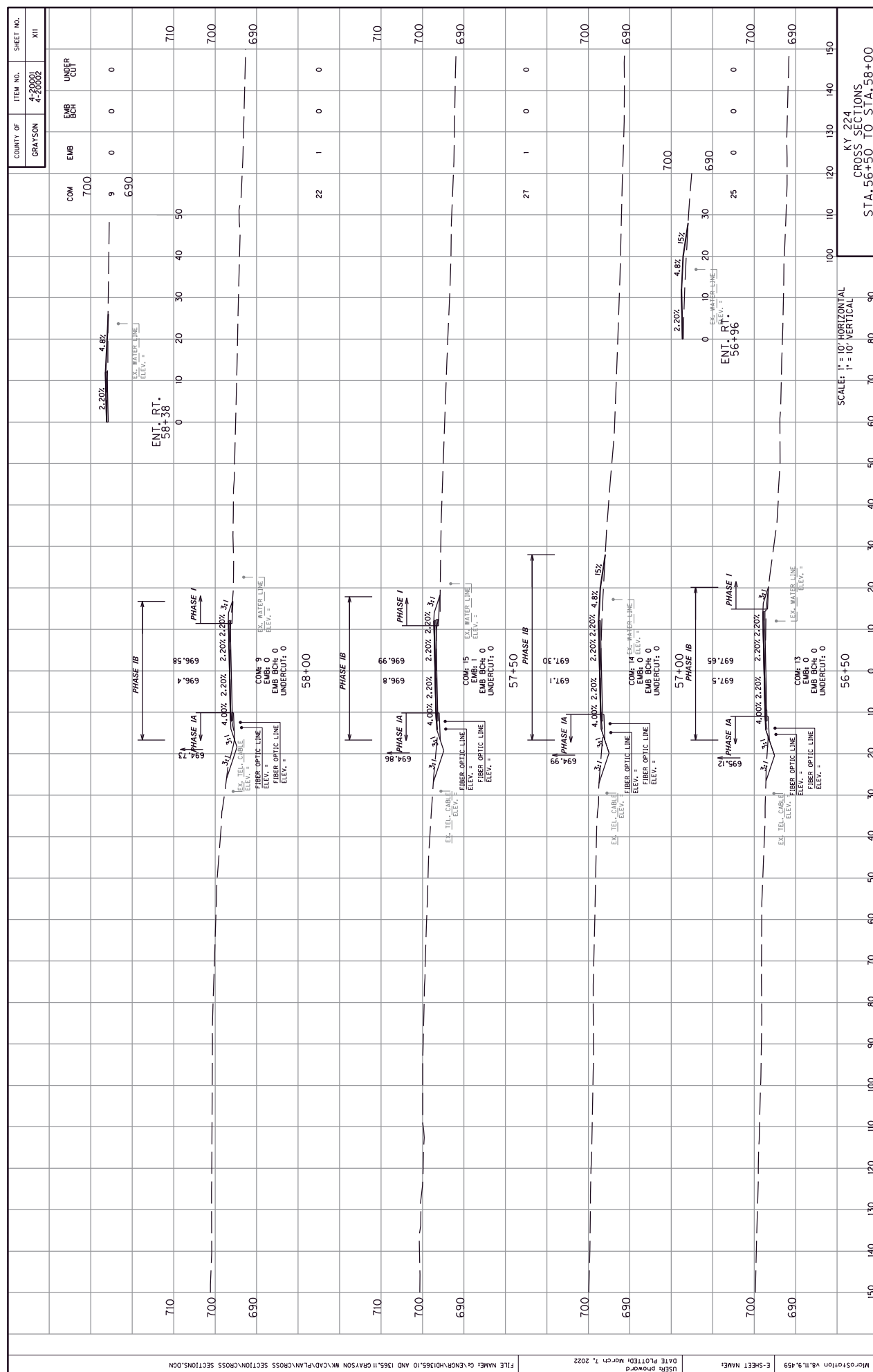
CROSS SECTIONS
STA-51+50 TO STA-52+50



COM	EMB	EMB BOH	UNDER CUT
19	3	0	52
16	5	0	44
7	4	0	15

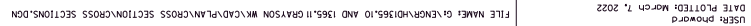


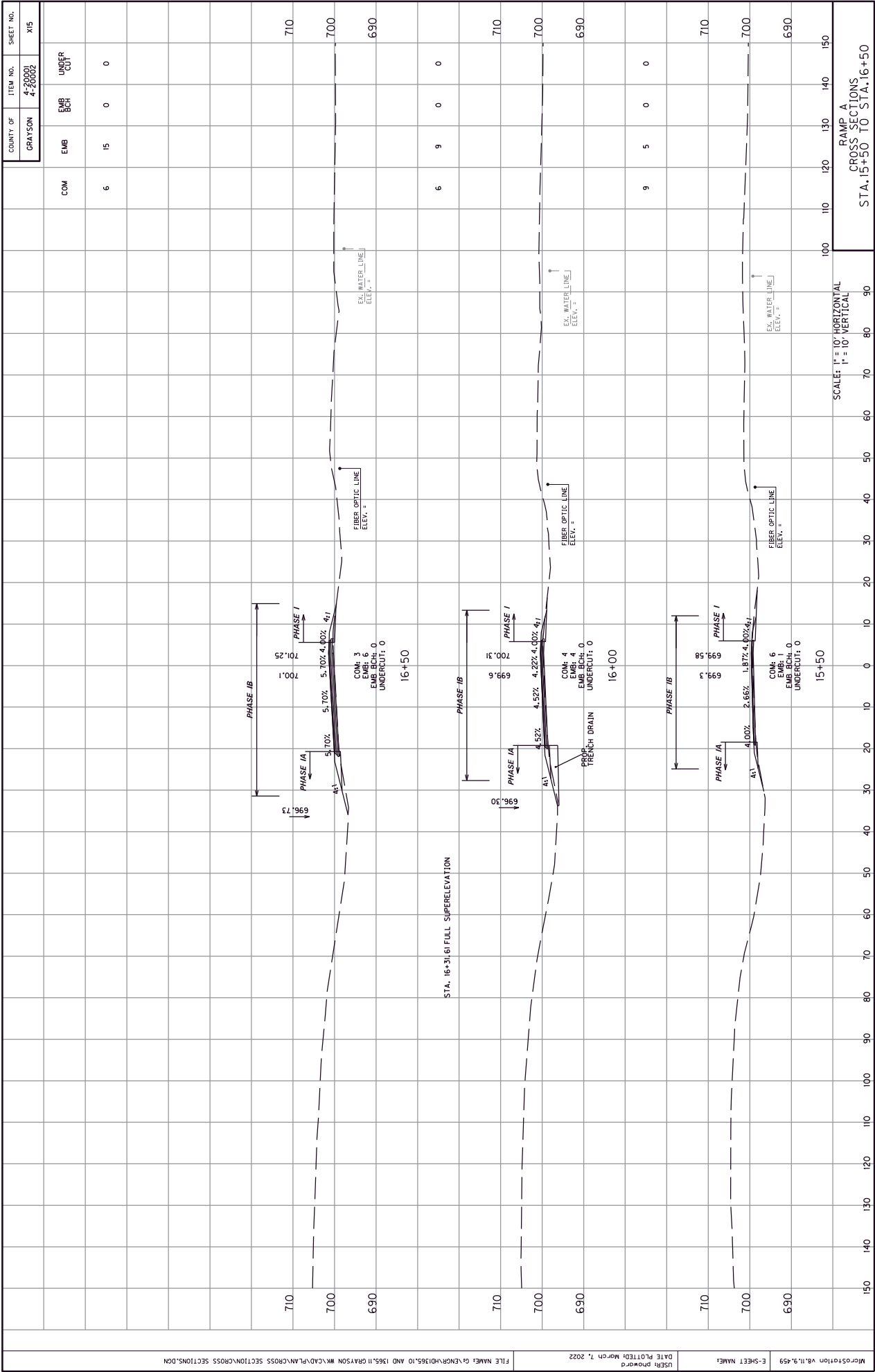
SECTION 1: STA. 54+00 TO 54+10, ELEV. 697.50 TO 698.25, 4.00% 2.20%
SECTION 2: STA. 54+10 TO 54+20, ELEV. 698.25 TO 699.00, 4.00% 2.20%
SECTION 3: STA. 54+20 TO 54+30, ELEV. 699.00 TO 699.75, 4.00% 2.20%
SECTION 4: STA. 54+30 TO 54+40, ELEV. 699.75 TO 700.50, 4.00% 2.20%
SECTION 5: STA. 54+40 TO 54+50, ELEV. 700.50 TO 701.25, 4.00% 2.20%
SECTION 6: STA. 54+50 TO 54+60, ELEV. 701.25 TO 702.00, 4.00% 2.20%
SECTION 7: STA. 54+60 TO 54+70, ELEV. 702.00 TO 702.75, 4.00% 2.20%
SECTION 8: STA. 54+70 TO 54+80, ELEV. 702.75 TO 703.50, 4.00% 2.20%
SECTION 9: STA. 54+80 TO 54+90, ELEV. 703.50 TO 704.25, 4.00% 2.20%
SECTION 10: STA. 54+90 TO 55+00, ELEV. 704.25 TO 705.00, 4.00% 2.20%
SECTION 11: STA. 55+00 TO 55+10, ELEV. 705.00 TO 705.75, 4.00% 2.20%
SECTION 12: STA. 55+10 TO 55+20, ELEV. 705.75 TO 706.50, 4.00% 2.20%
SECTION 13: STA. 55+20 TO 55+30, ELEV. 706.50 TO 707.25, 4.00% 2.20%
SECTION 14: STA. 55+30 TO 55+40, ELEV. 707.25 TO 708.00, 4.00% 2.20%
SECTION 15: STA. 55+40 TO 55+50, ELEV. 708.00 TO 708.75, 4.00% 2.20%
SECTION 16: STA. 55+50 TO 55+60, ELEV. 708.75 TO 709.50, 4.00% 2.20%
SECTION 17: STA. 55+60 TO 55+70, ELEV. 709.50 TO 710.25, 4.00% 2.20%
SECTION 18: STA. 55+70 TO 55+80, ELEV. 710.25 TO 711.00, 4.00% 2.20%
SECTION 19: STA. 55+80 TO 55+90, ELEV. 711.00 TO 711.75, 4.00% 2.20%
SECTION 20: STA. 55+90 TO 56+00, ELEV. 711.75 TO 712.50, 4.00% 2.20%

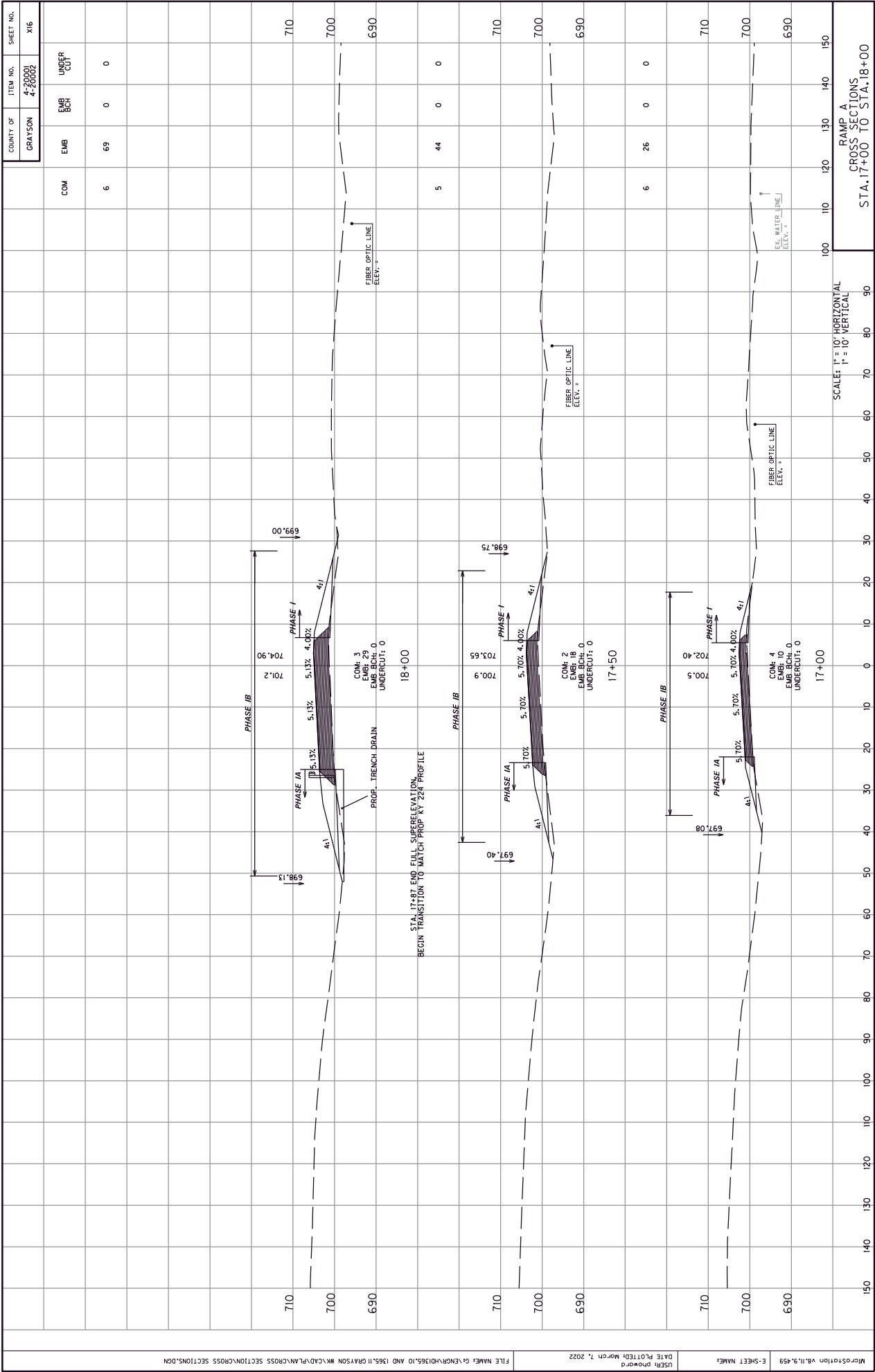


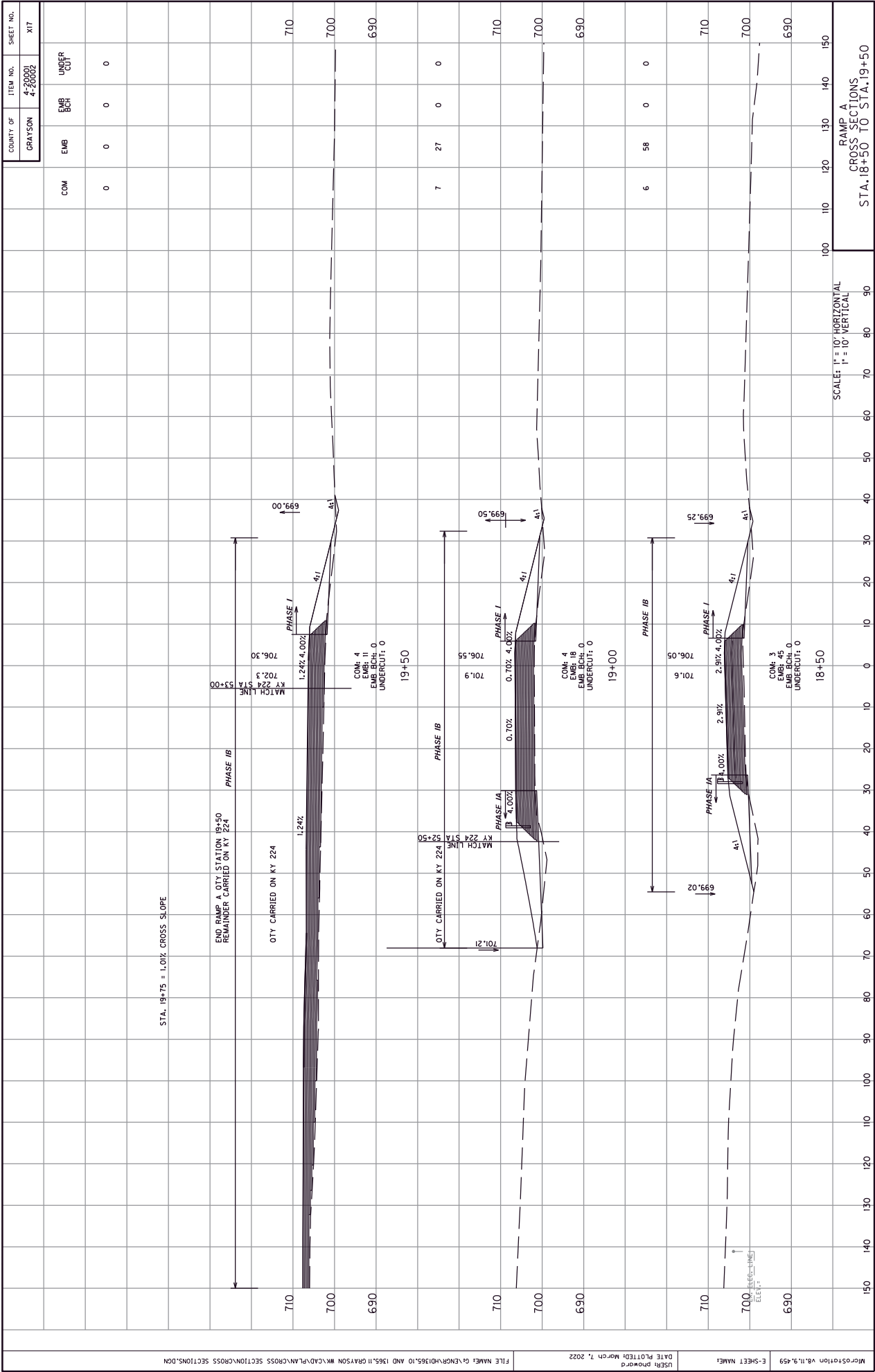


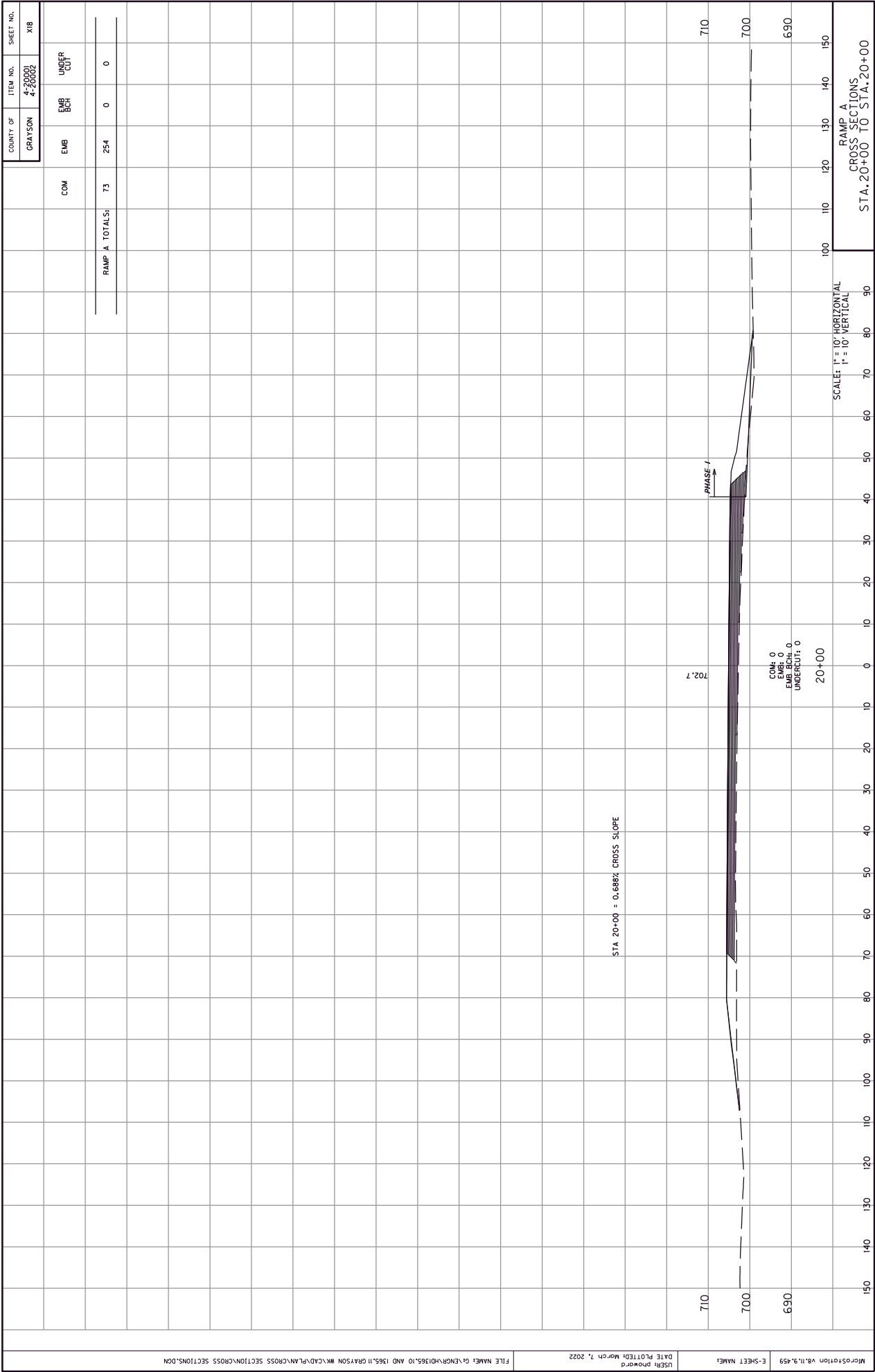
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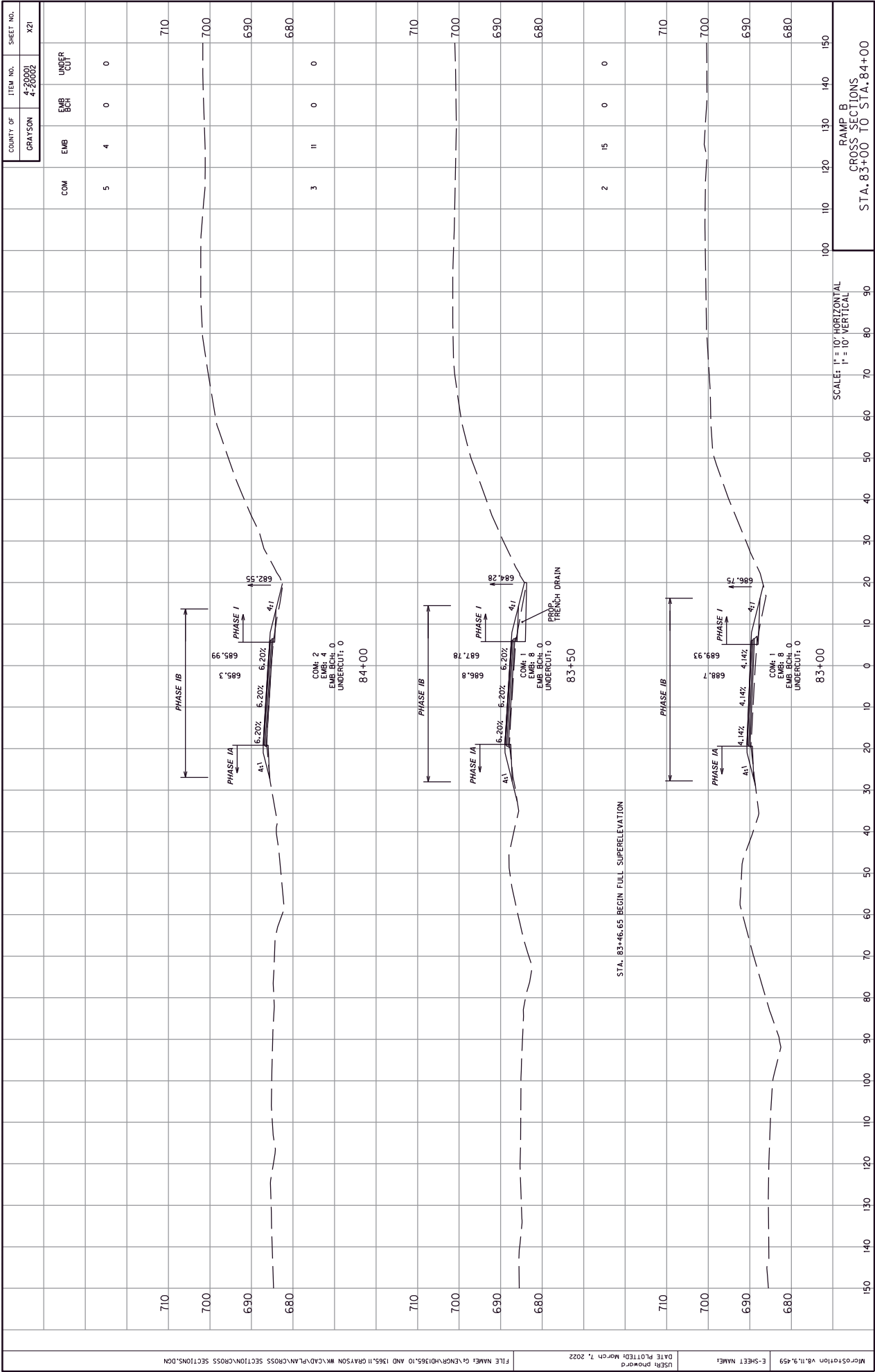


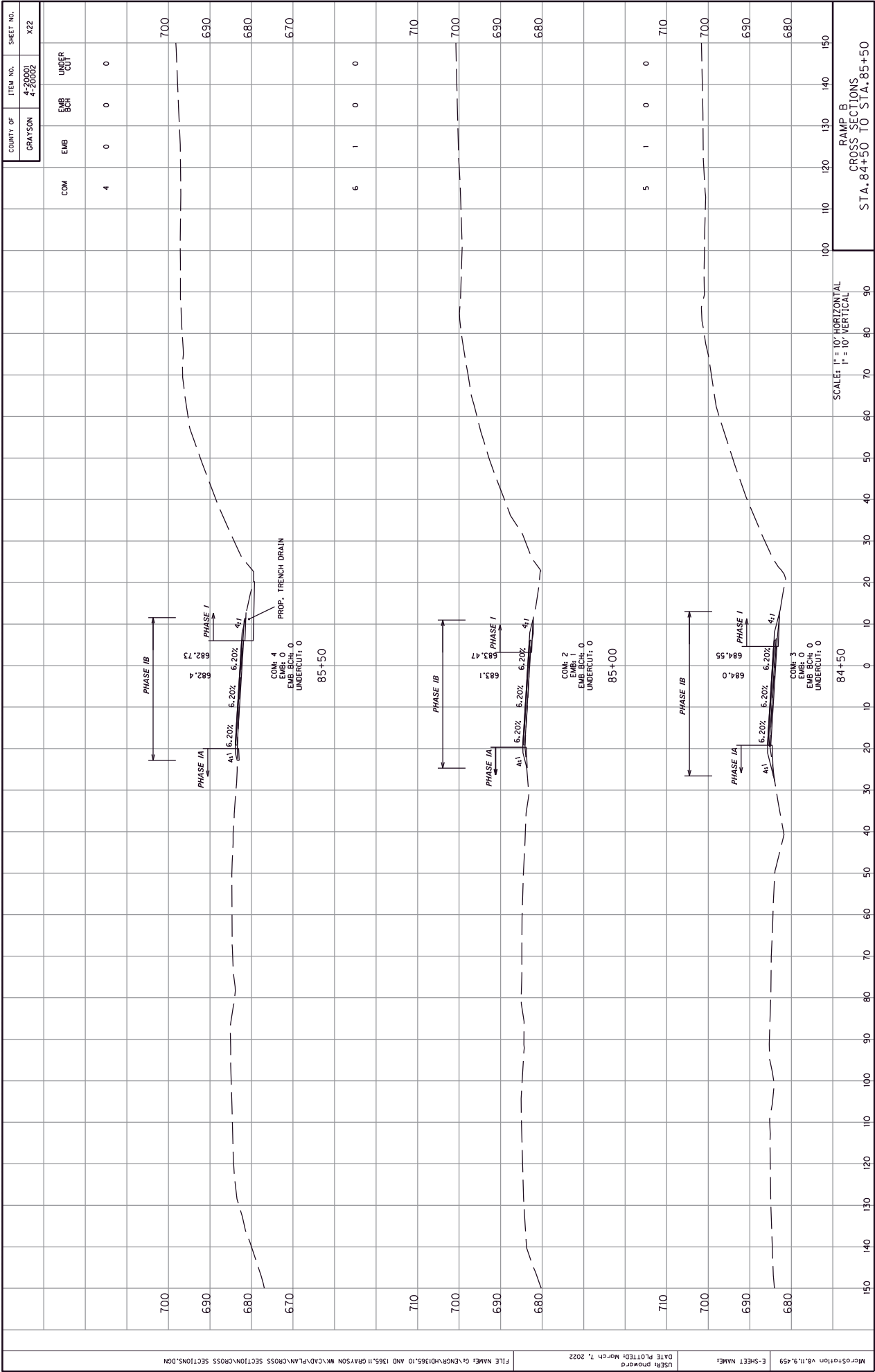


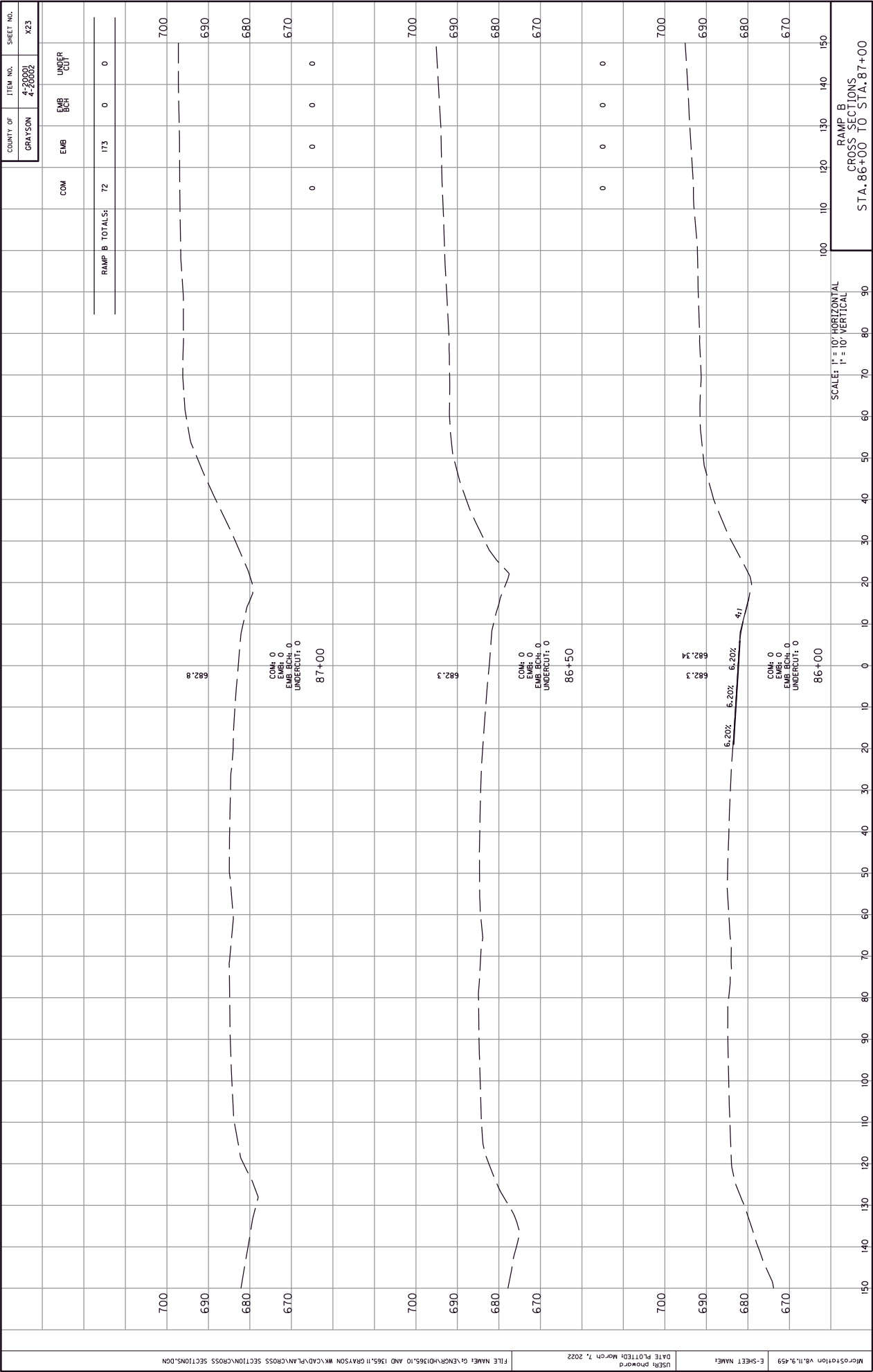


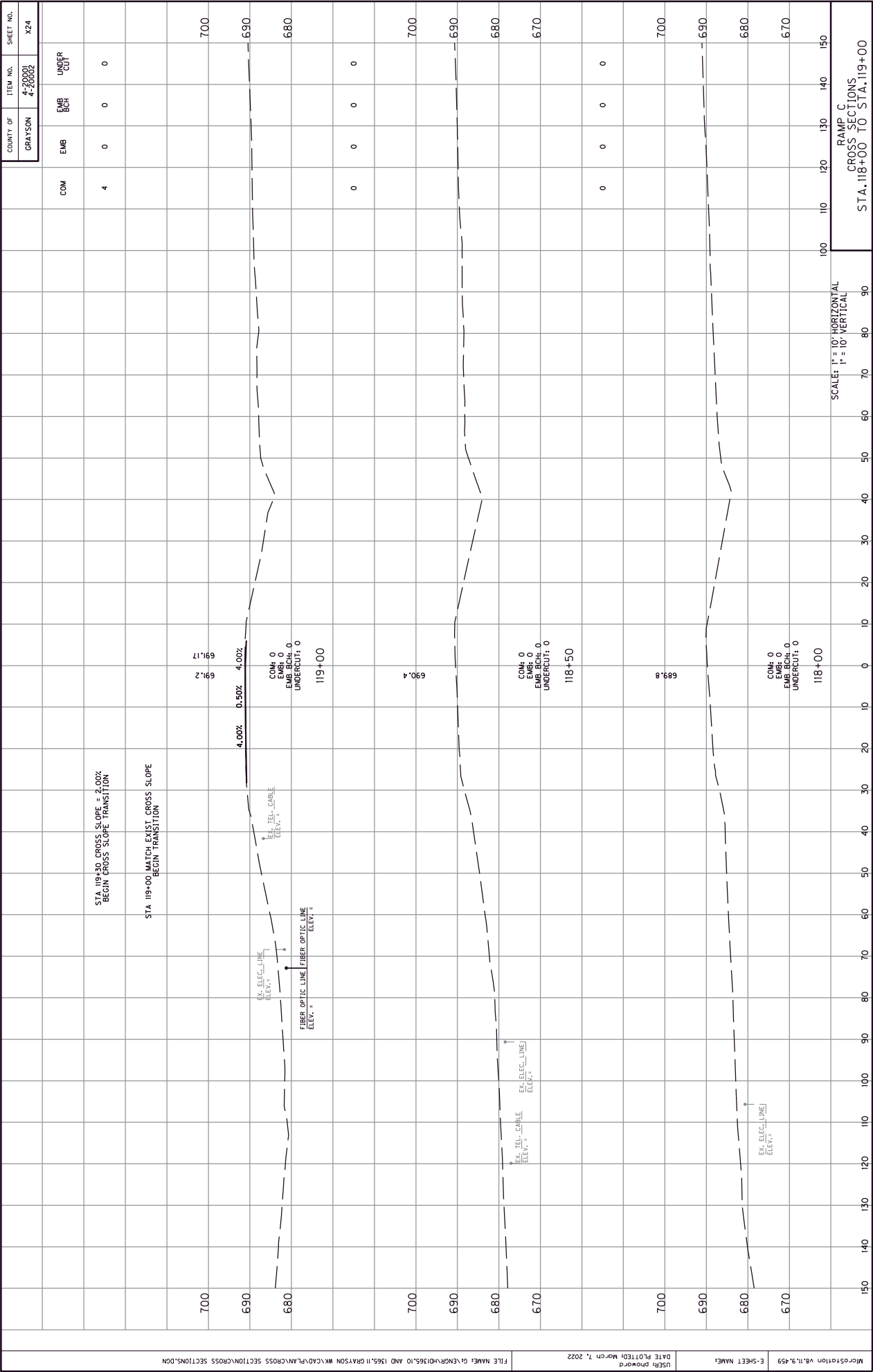
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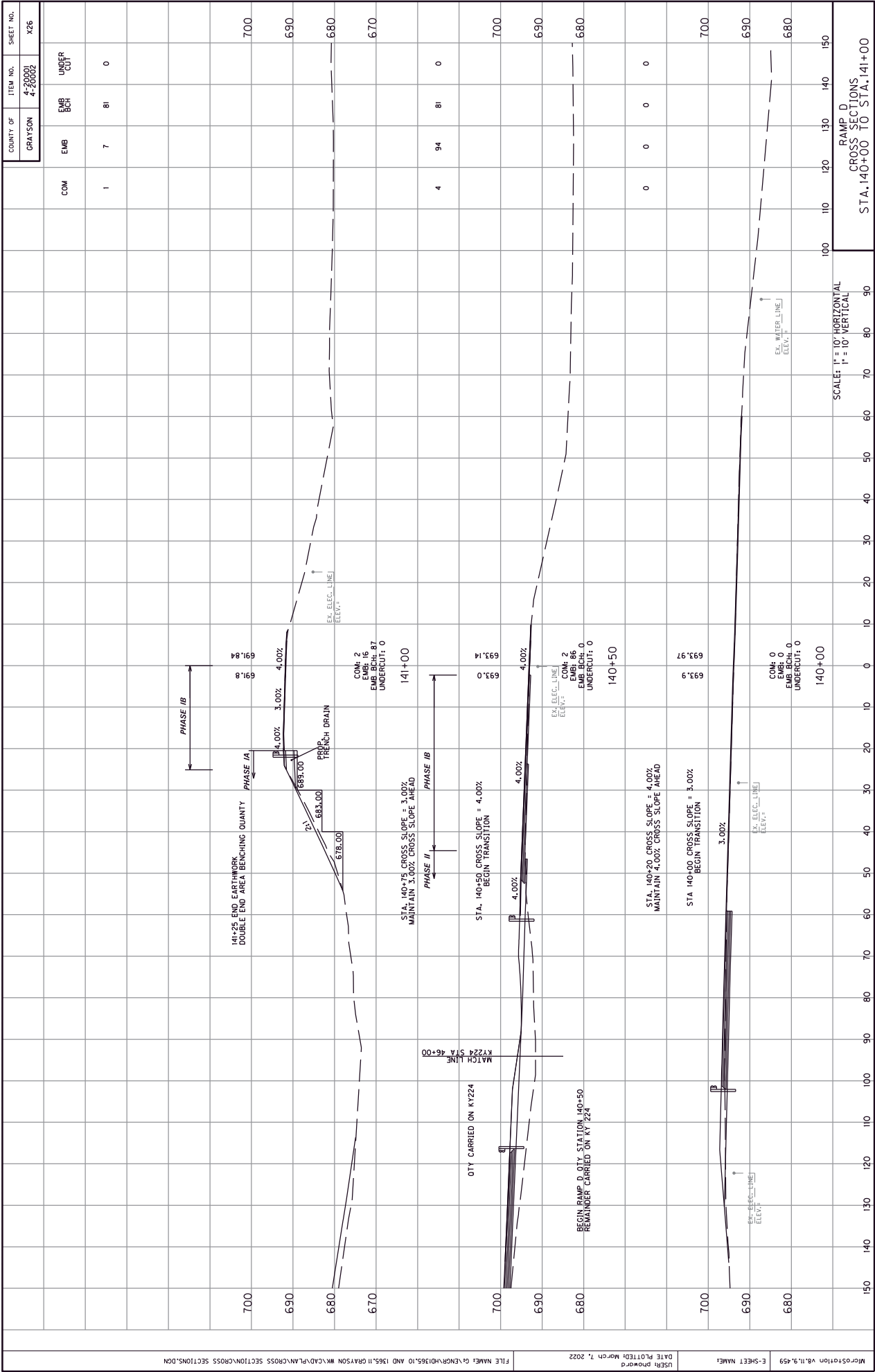












FILE NAME: G:\ENGR\HD1365.10 AND 1365.11 GRAYSON WK\CAD\PLAN\CROSS SECTION\CROSS SECTIONS.DGN

USER: pnoward
DATE PLOTTED: March 7, 2022

E-SHEET NAME: 141+50

CROSS SECTION: STA. 141+50 TO STA. 142+00

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

RAMP D

COM: 0
EMB: 0
EMB BCH: 0
UNDERCUT: 0
142+00

COM: 0
EMB: 0
EMB BCH: 0
UNDERCUT: 0
141+50

EX. ELEV. LINE
ELEV. 7.0

EX. ELEV. LINE
ELEV. 7.0

0'069

6'069

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690
680
670

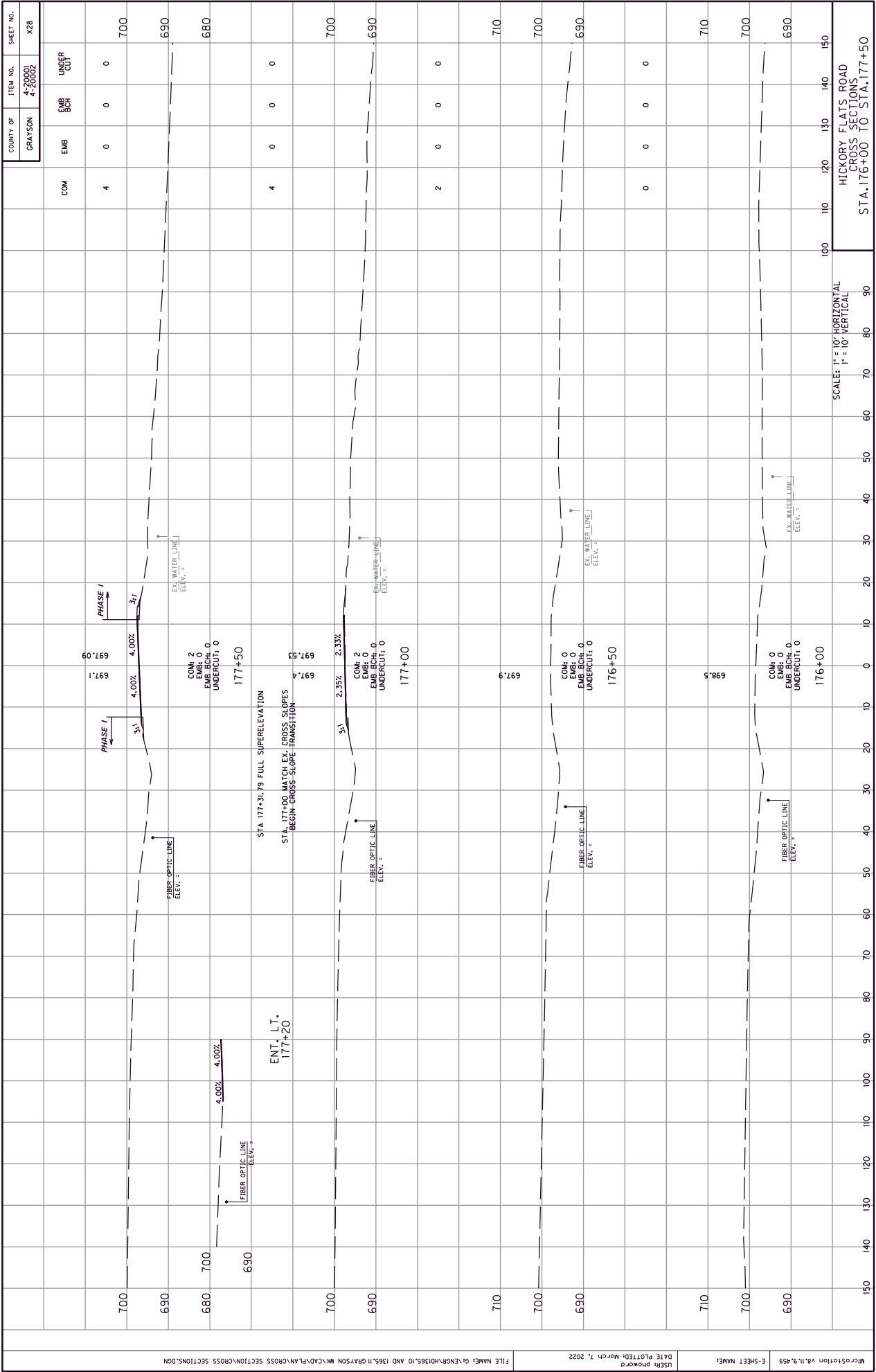
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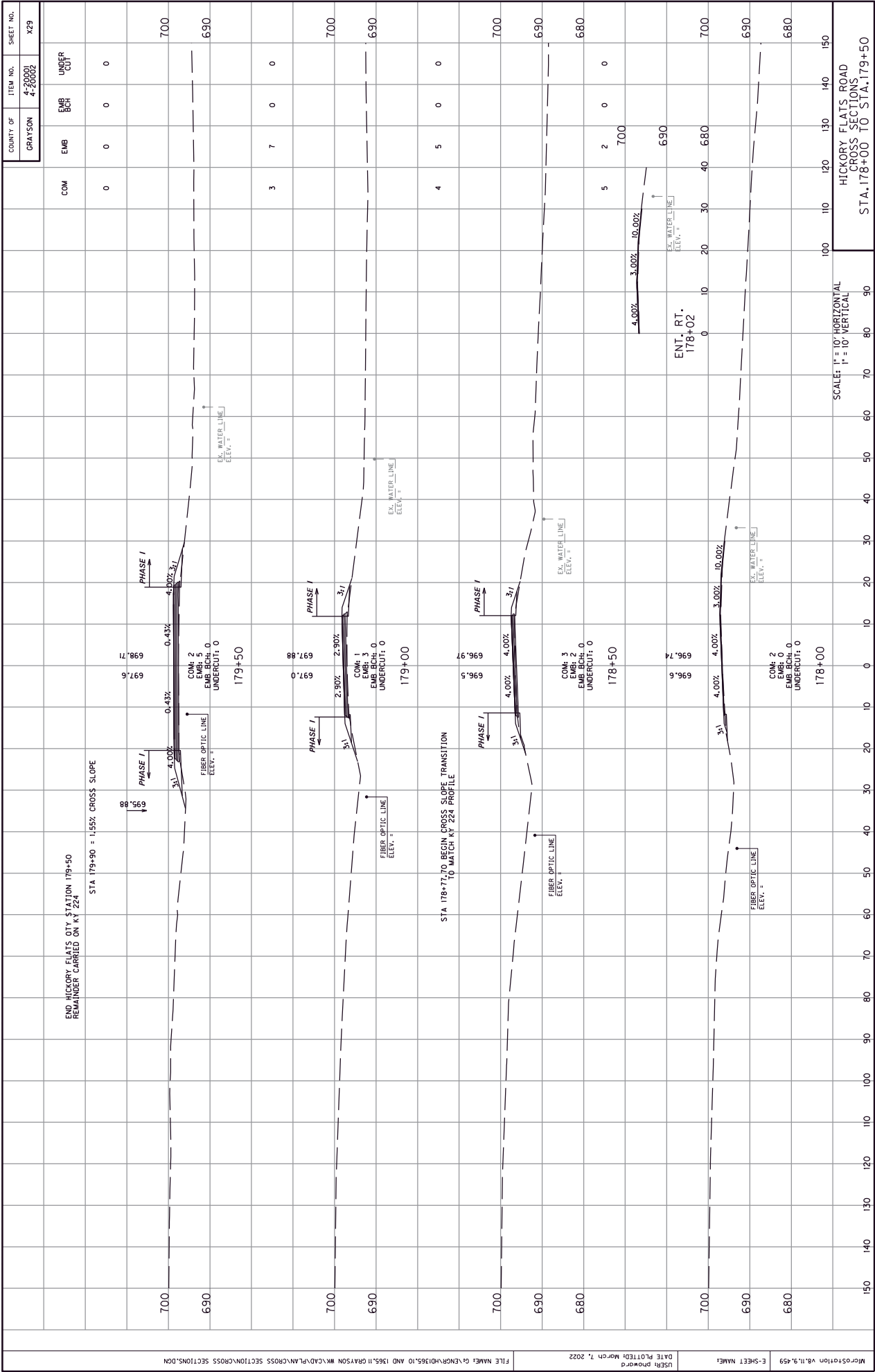
COUNTY OF: GRAYSON
ITEM NO.: 4-20001
SHEET NO.: X27

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-20001	X27

COM	EMB	EMB BCH	UNDERCUT
5	101	162	0

RAMP D TOTALS:






[illegible]

GRAYSON COUNTY
KY-224 over WESTERN KENTUCKY PARKWAY
STA. 50+00.00

PLANS PREPARED BY:



Brandon Pulliam, PE
KY No. 36761

 COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS	 KENTUCKY DEPARTMENT OF TRANSPORTATION	REVISION		DATE	 HMB	PREPARED BY HMB PROFESSIONAL ENGINEERS, INC.	DATE: 12/20/2021		CHECKED BY L. Butler	ROUTE KY-224	ITEM NO. 4-20001	COUNTY OF GRAYSON
		DATE PLOTTED: 12/20/2022 5:55:49 AM		FILE: G:\E\proj\1035.10 and 1365.11 Grayson W\BRODIES\CA\T116 Sheet 1 & Quantities.dgn			DESIGNED BY: B. Reid				B. Reid	SHEET NO. S1

GENERAL NOTES

SLOPE PROTECTION

SECTION 805.13 OF THE SPECIFICATIONS, GEOTEXTILE FABRIC UNDER THE SLOPE PROTECTION SHALL BE CONSIDERED INCIDENTAL TO THE UNIT PRICE BID FOR CRUSHED AGGREGATE SLOPE PROTECTION.

REINFORCEMENT

DIMENSIONS SHOWN FROM THE FACE OF CONCRETE TO BARS ARE TO CENTER OF BARS UNLESS OTHERWISE NOTED. REINFORCING BARS SHALL BE EPOXY COATED IN ACCORDANCE WITH SECTION 801.02 OF THE SPECIFICATIONS. ANY REINFORCING BARS DESIGNATED BY THE SUFFIX (E) IN THE PLANS SHALL BE EPOXY COATED IN ACCORDANCE WITH SECTION 801.02 OF THE STANDARD SPECIFICATIONS. ANY REINFORCING BARS DESIGNATED BY THE SUFFIX (S) IN THE BENDING DIAGRAM SHALL BE CONSIDERED A STIRRUP FOR PURPOSES OF BEND DIAMETERS.

CONTRACTOR VERIFY DIMENSIONS

CONTRACTOR SHALL VERIFY DIMENSION AND ELEVATIONS SHOWN IN THE PLANS BEFORE AND DURING CONSTRUCTION AND ADJUST BAR LENGTHS AND OR BEAM LENGTHS TO ENSURE PROPER FIT AND FINISH IN THE FINAL PRODUCT. DIMENSIONS ARE FOR A NORMAL TEMPERATURE OF 60 DEGREES FAHRENHEIT. LAYOUT DIMENSIONS ARE HORIZONTAL DIMENSIONS.

BEVELED EDGES

ALL EXPOSED EDGES SHALL BE BEVELED ¾ UNLESS OTHERWISE NOTED.

COMPLETION OF THE STRUCTURE

THE CONTRACTOR IS REQUIRED TO COMPLETE THE STRUCTURE IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. MATERIAL, LABOR OR CONSTRUCTION OPERATIONS, NOT OTHERWISE SPECIFIED, ARE TO BE INCLUDED IN THE BID ITEM MOST APPROPRIATE TO THE WORK INVOLVED. THIS MAY INCLUDE COTERFAMS, SHORING, EXCAVATIONS, BACKFILLING, REMOVAL OF ALL OR PARTS OF EXISTING STRUCTURE, INCIDENTAL MATERIALS, LABOR, OR ANYTHING ELSE REQUIRED TO COMPLETE THE STRUCTURE.

BEFORE YOU DIG

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIREMENTS AND CONFORMANCE WITH THE UNDERGROUND FACILITY DAMAGE PREVENTION ACT OF 1994. THE CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING ANY UTILITIES ON THIS PROJECT. ALL UNDERGROUND UTILITIES SHALL BE LOCATED PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TWO WORKING DAYS PRIOR TO EXCAVATION FOR INFORMATION ON THE LOCATION OF SOME BUT NOT NECESSARILY ALL UNDERGROUND UTILITIES.

STAY-IN-PLACE METAL FORMS

THE USE OF STAY-IN-PLACE FORMWORK FOR THE BRIDGE DECK IS PERMITTED PROVIDED THE CORRUGATIONS ARE FILLED WITH EXPANDED POLYSTYRENE.

EXISTING REINFORCING STEEL

THE COST OF CUTTING, BRACING AND CLEANING EXISTING REINFORCING STEEL IS TO BE INCIDENTAL TO THE LUMP SUM BID FOR REMOVE CONCRETE MASONRY.

FOUNDATION PREPARATION

IN THE LUMP SUM BID THE COST OF ANY REQUIRED COMMON EXCAVATION (INCLUDING MATERIALS, LABOR, EQUIPMENT, ETC.) IN ACCORDANCE WITH SECTION 603 OF THE SPECIFICATIONS, CONTRARY TO THE SPECIFICATIONS, BACKFILLING BEHIND THE ABUTMENTS SHALL BE PAID FOR IN THE UNIT PRICE BID FOR STRUCTURE GRANULAR BACKFILL.

CONCRETE SEALER

SUPERSTRUCTURE AREAS DETAILED IN THE SPECIFICATIONS AS REQUIRING MASONRY COATING SHALL BE SEALED IN ACCORDANCE WITH THE SPECIAL NOTE FOR CONCRETE SEALING AND IN THE AREAS SHOWN IN THE DETAIL ON S21. CONCRETE SURFACES (EXCEPT THE DECK) SHALL RECEIVE THE ORDINARY SURFACE FINISH AS DESCRIBED IN SECTION 601.03.18(A) PRIOR TO BEING SEALED.

EXISTING HANDRAIL

REMOVE AND RELOCATE THE EXISTING ALUMINUM HANDRAIL AS DIRECTED BY THE ENGINEER. ALL EXISTING HANDRAIL SHALL BE RELOCATED TO THE SAME LOCATION. THE ENGINEER OR DISPOSAL FEES SHALL BE INCIDENTAL TO THE BID FOR REMOVE CONCRETE MASONRY.

ELECTRICAL CONDUIT

THE LUMP SUM BID FOR THIS ITEM SHALL INCLUDE FURNISHING ALL CONDUIT, JUNCTION BOXES, ANCHOR BOLTS, OTHER RELATED MATERIALS, AND ALL LABOR NECESSARY FOR PLACEMENT IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS, AND STANDARD DRAWINGS. ALL CONDUIT SHALL BE EPOXY COATED IN ACCORDANCE WITH SECTION 801.02 OF THE STANDARD SPECIFICATIONS. MARK END LOCATION WITH CONCRETE MARKER. 4 REQUIRED. LOCATION OF JUNCTION BOXES SHALL BE AS DIRECTED BY THE ENGINEER.

REMOVE REINFORCED CONCRETE

THE LUMP SUM BID FOR THIS ITEM SHALL INCLUDE ALL LABOR, MATERIALS, AND DISPOSAL COSTS ASSOCIATED WITH THE REMOVAL OF THE EXISTING PAVED CONCRETE SLOPEWALLS AT EACH ABUTMENT. THE ESTIMATED QUANTITY FOR THIS REMOVAL IS 88 CY AT ABUTMENT 1 AND 90 CY AT ABUTMENT 2.

SPECIFICATIONS

ALL REFERENCES TO THE STANDARD SPECIFICATIONS ARE TO THE 2019 EDITION OF THE KENTUCKY DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION WITH CURRENT SUPPLEMENTAL SPECIFICATIONS. ALL REFERENCES TO THE AASHTO SPECIFICATIONS ARE TO THE 9TH EDITION OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS WITH INTERIMS.

DESIGN LOAD

THIS BRIDGE IS DESIGNED FOR A MODIFIED HL-93 (KY HL-93) LIVE LOAD OBTAINED BY INCREASING THE AASHTO LOADING BY 25%. SEE EXISTING PLANS FOR THE DESIGN LOAD USED FOR THE SUBSTRUCTURE THAT WILL REMAIN IN-PLACE.

FUTURE WEARING SURFACE

THIS BRIDGE IS DESIGNED FOR A 15 PSF FUTURE WEARING SURFACE LOAD.

DESIGN METHOD

ALL REINFORCED CONCRETE MEMBERS ARE DESIGNED BY THE LOAD AND RESISTANCE FACTOR METHOD AS SPECIFIED IN THE CURRENT AASHTO SPECIFICATIONS. SEE EXISTING PLANS FOR THE DESIGN METHOD USED FOR THE SUBSTRUCTURE THAT WILL REMAIN IN-PLACE.

MATERIALS DESIGN SPECIFICATIONS

F_c = 3500 PSI FOR CLASS "A" REINFORCED CONCRETE
F_c = 4000 PSI FOR CLASS "AA" REINFORCED CONCRETE
F_y = 60000 PSI FOR STEEL REINFORCEMENT

FOR PRESTRESSED BEAM MATERIAL SPECIFICATIONS, SEE BEAM SHEET.

MATERIAL SPECIFICATIONS

ASTM OR AASHTO SPECIFICATIONS, CURRENT EDITION, AS DESIGNATED BELOW SHALL GOVERN THE MATERIALS FURNISHED.

STRUCTURAL STEEL, 36,000 PSI MIN. YIELD

AASHTO M-270, GRADE 36

UNCOATED SEVEN-WIRE LOW-RELAXATION STRAND

AASHTO M-203, GRADE 270

STEEL REINFORCEMENT, GRADE 60

ASTM A615/A615M-96a

CONCRETE

CLASS "AA" CONCRETE IS TO BE USED IN THE SUPERSTRUCTURE. CLASS "A" CONCRETE IS TO BE USED IN THE SUBSTRUCTURE. PRESTRESSED BEAM CONCRETE SHALL BE IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

STRUCTURE GRANULAR BACKFILL

EXCAVATION INTO EXISTING PAVEMENT OR GROUND BEHIND THE ABUTMENTS THAT MAY BE REQUIRED FOR ABUTMENT CONSTRUCTION SHALL BE BACKFILLED WITH STRUCTURE GRANULAR BACKFILL IN ACCORDANCE WITH SPECIAL PROVISION 603. WRAP ALL ROCK IN GEOTEXTILE FABRIC. THE STRUCTURE GRANULAR BACKFILL SHALL BE INCIDENTAL TO THE UNIT PRICE BID FOR STRUCTURE GRANULAR BACKFILL.

MASONRY COATING

CONTRARY TO THE SPECIFICATIONS, ONLY APPLY MASONRY COATING TO THE SUBSTRUCTURES. THE ENTIRE EXPOSED SUBSTRUCTURE INCLUDING THE FINISHED PORTIONS OF THE ABUTMENTS SHALL RECEIVE MASONRY COATING TO 6" BELOW THE EXISTING GROUND LINE.

ON-SITE INSPECTION

EACH CONTRACTOR SUBMITTING A BID FOR THIS WORK SHALL MAKE A THOROUGH INSPECTION OF THE PROJECT SITE PRIOR TO SUBMITTING A BID AND SHALL BE THOROUGHLY FAMILIARIZED WITH EXISTING CONDITIONS SO THAT WORK CAN BE EXPEDITIOUSLY PERFORMED AFTER A CONTRACT IS AWARDED. SUBMISSION OF A BID WILL BE CONSIDERED EVIDENCE OF THIS INSPECTION HAVING BEEN MADE. ANY CLAIMS RESULTING FROM SITE CONDITIONS WILL NOT BE HONORED BY THE DEPARTMENT OF HIGHWAYS.

DAMAGE TO THE SUBSTRUCTURES

THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES TO THE EXISTING SUBSTRUCTURES DURING RECONSTRUCTION EVEN TO THE REPLACEMENT OF THE ENTIRE SUBSTRUCTURE, SHOULD THEY BE DAMAGED DUE TO HIS ACTIONS.

PILING

PILING SHALL BE DRIVEN TO PRACTICAL REFUSAL. TEST PILES SHALL BE DRIVEN WHERE DESIGNATED ON THE PLANS TO DETERMINE THE LENGTH OF PILE REQUIRED. ALL TEST PILES SHALL BE ACCURATELY LOCATED SO THAT THEY MAY BE USED IN THE FINISHED STRUCTURE.

PILE POINTS

PILE POINTS ARE REQUIRED. THE POINTS SHALL BE THE TYPE FOR KEYING INTO A SLOPING ROCK SURFACE. SEE SECTION 604.03.04(C) OF THE STANDARD SPECIFICATIONS.

TEMPORARY SUPPORTS

TEMPORARY SUPPORTS OR SHORING WILL NOT BE PERMITTED UNDER THE BEAMS WHEN POURING THE CONCRETE DECK SLAB OR WHEN TAKING TOP OF BEAM ELEVATIONS.

STRUCTURE EXCAVATION

SHEETING OR SHORING MAY BE NECESSARY FOR CONSTRUCTION. THE COST OF ANY SUCH WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR FOUNDATION PREPARATION OR REMOVE CONCRETE MASONRY, AS APPROPRIATE.

CONSTRUCTION IDENTIFICATION

THE NAMES OF THE PRIME CONTRACTOR AND THE SUBCONTRACTOR SHALL BE IMPRINTED IN THE CONCRETE WITH ONE INCH LETTERS AT A LOCATION DESIGNATED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ALL PLANS, EQUIPMENT AND LABOR NECESSARY TO DO THE WORK FOR WHICH NO DIRECT PAYMENT WILL BE MADE. SEE STD. DWG. BOX-006, C.E.

DISCLAIMER

ACCEPTANCE OF ANY CONTRACTOR'S SUBMISSION REQUIRED ON THIS PROJECT DOES NOT CONSTITUTE AN ENDORSEMENT OF THE QUALITY OF THE WORK OR THE DESIGN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE QUALITY OF THE WORK PERFORMED AND AUTHORIZATION FOR THE CONTRACTOR TO PROCEED. THE DEPARTMENT IS NOT BOUND BY ACCEPTANCE OF ANY SUBMISSIONS REQUIRED. FINAL ACCEPTANCE OR APPROVAL WILL BE CONTINGENT ON THE SATISFACTORY COMPLETION OF THE PROJECT.

SHOP DRAWINGS

WHEN CHANGES IN THE SHOP DRAWINGS ARE PROPOSED BY THE FABRICATOR OR SUPPLIER, THE CONTRACTOR SHALL SUBMIT THE CHANGES TO THE ENGINEER FOR REVIEW AND APPROVAL THROUGH THE CONTRACTOR. THE CONSULTANT SHALL PROVIDE THE DIVISION OF STRUCTURAL DESIGN ONE COPY OF THE FINAL APPROVED SHOP PLANS.

SLAB POURING SEQUENCE

SLAB SHALL BE POURED CONTINUOUSLY OUT TO OUT.

EXISTING PLANS

EXISTING PLANS CAN BE FOUND UNDER DRAWING NUMBER 14991.

BONDED CONSTRUCTION JOINT

WHERE A BONDED CONSTRUCTION JOINT IS CALLED FOR IN THE PLANS, BOND NEW PLASTIC CONCRETE TO HARDENED CONCRETE USING A TYPE V EPOXY RESIN OR OTHER APPROVED STRUCTURAL ADHESIVE AS PRESCRIBED IN SECTION 826 OF THE SPECIFICATIONS. FOLLOW THE MANUFACTURER'S RECOMMENDED APPLICATION INSTRUCTIONS. THIS WORK AND MATERIAL IS INCIDENTAL TO THE UNIT PRICE BIDS FOR CLASS "A" OR CLASS "AA" CONCRETE.

DRILLING AND GROUTING

IN ACCORDANCE WITH SECTION 826 OF THE SPECIFICATIONS, DRILL HOLES TO A DEPTH AS SPECIFIED IN THESE PLANS AND APPLY A TYPE IV EPOXY BONDING ADHESIVE IN THE HOLES. ALSO, APPLY A TYPE V EPOXY BONDING MATERIAL TO THE INTERFACE BETWEEN THE EXISTING CONCRETE AND THE NEW CONCRETE PRIOR TO PLACING THE NEW CONCRETE. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE INCIDENTAL TO THE UNIT PRICE BID FOR CLASS "A" CONCRETE.

REMOVE CONCRETE MASONRY

THE CONTRACTOR SHALL USE HAND HELD JACK HAMMERS OR HYDRO-DEMOLITION TECHNIQUES TO REMOVE CONCRETE WITHOUT DAMAGING THE EXISTING REINFORCEMENT THAT IS TO REMAIN IN PLACE. ANY CONCRETE REMOVAL OUTSIDE THE DETAILED LIMITS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL MAKE A RECORD OF THE REMOVAL OF CONCRETE AND MASONRY. THIS RECORD SHALL BE PART OF THIS PROCEDURE ARE INCLUDED IN THE PRICE BID FOR REMOVE CONCRETE MASONRY.

MECHANICAL COUPLERS

MECHANICAL COUPLERS SHALL BE IN ACCORDANCE WITH SECTION 602.03.05 OF THE SPECIFICATIONS. CONTRACTOR SHALL FURNISH TWO ADDITIONAL TEST SPECIMENS TO THE DIVISION OF MATERIALS FOR APPROVAL.

BONDING NEW CONCRETE TO OLD CONCRETE

ALL NEW CONCRETE SHALL BE BONDED TO THE OLD CONCRETE WITH A TYPE V EPOXY RESIN CONFORMING TO SECTION 826 OF THE SPECIFICATIONS. THE CONTRACTOR SHALL MAKE A RECORD OF THE BONDING OF MATERIALS IS TO BE INCIDENTAL TO THE UNIT PRICE BIDS FOR CLASS "A" OR CLASS "AA" CONCRETE.

SPIRAL COLUMN TIES

SPLICES FOR SPIRALS WHERE DESIRED BY THE CONTRACTOR SHALL BE MADE WITH A MINIMUM OF ONE AND ONE-HALF TURNS OF SPIRAL. NO ADDITIONAL PAYMENT WILL BE MADE FOR THESE SPLICES, AND THE COST WILL BE CONSIDERED INCIDENTAL TO THE COST OF THE DEVELOPED-LENGTH OF SPIRAL SHOWN ON THE PLANS. SPIRAL REINFORCEMENT SHALL MEET THE REQUIREMENTS OF SECTION 801 OF THE SPECIFICATIONS.



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ENGINEERS, INC.

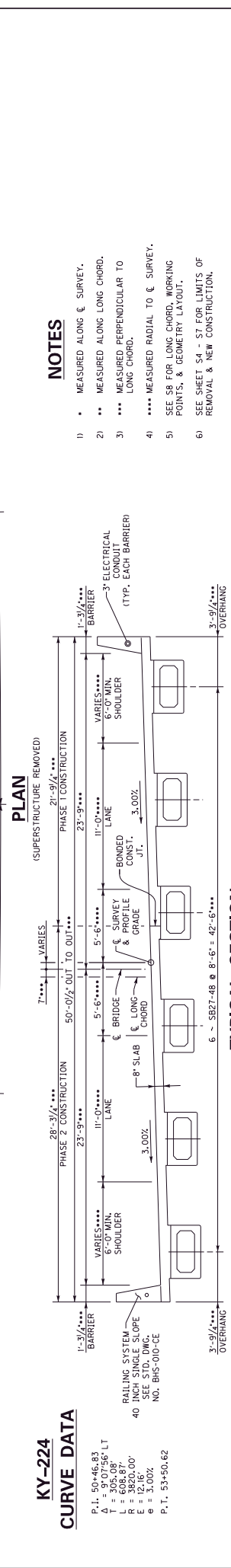
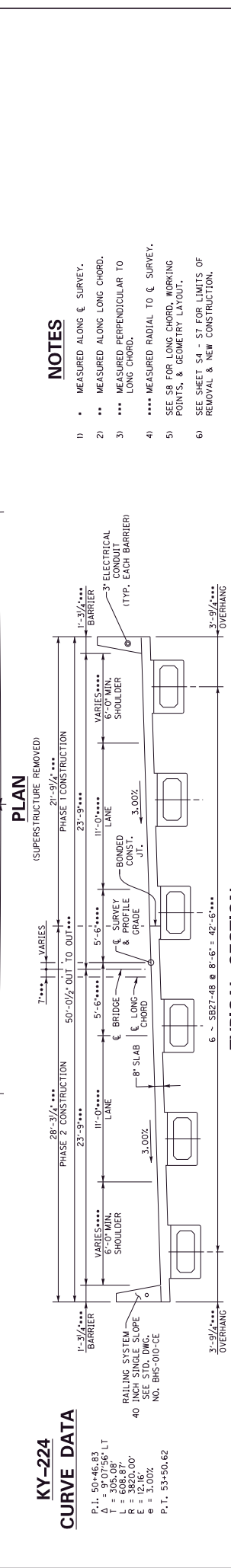
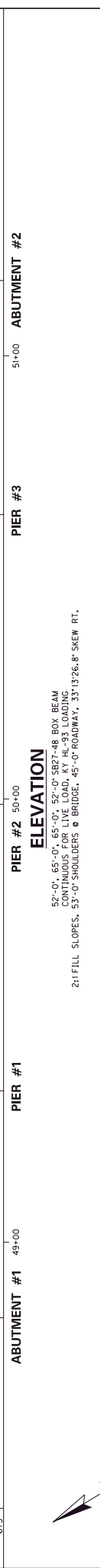
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DESIGNED BY: B. Palfi
CHECKED BY: B. Palfi
B. Palfi

GENERAL NOTES
CROSSING
WESTERN KENTUCKY PARKWAY

ROUTE
KY-224

ITEM NO.
4-20001

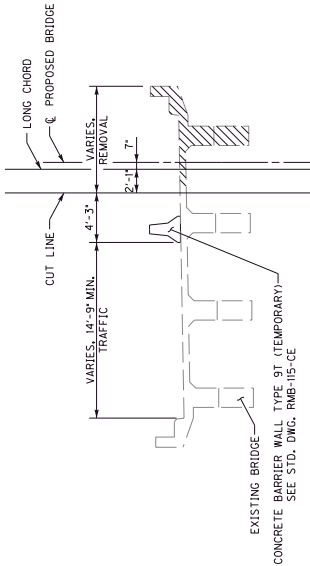
COUNTY OF
GRAYSON
DRAWING NUMBER
28464



<div><div><div>COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS</div></div><div><div>KENTUCKY DEPARTMENT OF TRANSPORTATION</div></div></div> <div>TYPICAL SECTION</div> <div>(LOOKING AHEAD)</div>										REVISION		DATE	PREPARED BY  HMB PROFESSIONAL ENGINEERS, INC.		DATE: 12/26/2021	CHECKED BY:		ROUTE	ITEM NO.	COUNTY OF
					DESIGNED BY: B. P. Ham		B. Reid	LAYOUT CROSSING WESTERN KENTUCKY PARKWAY	4-20001	GRAYSON										
					DETAILED BY: B. P. Ham		B. Reid							DRAWING NUMBER 28464						

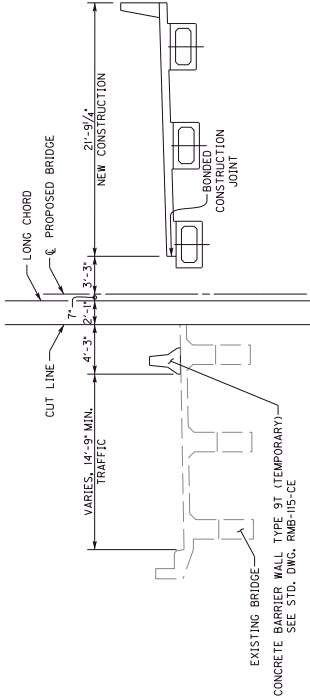
PHASE 1 CONSTRUCTION

PHASE 1A



TYPICAL SECTION
(LOOKING AHEAD)

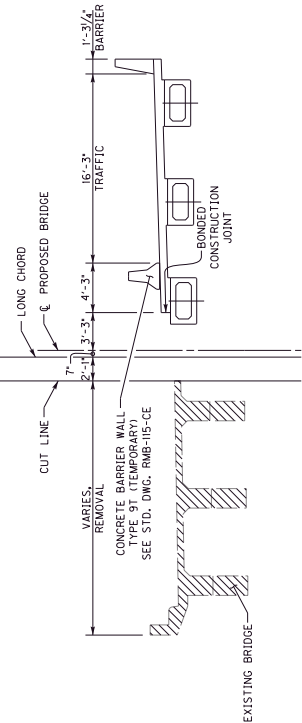
PHASE 1B



TYPICAL SECTION
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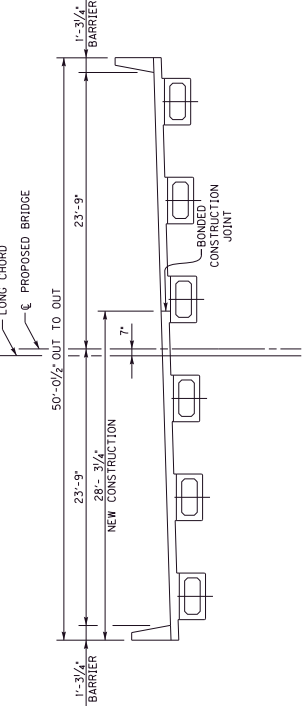
PHASE 2 CONSTRUCTION

PHASE 2A



TYPICAL SECTION
(LOOKING AHEAD)

PHASE 2B



TYPICAL SECTION
(LOOKING AHEAD)



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS



HMB PROFESSIONAL
ENGINEERS, INC.

DATE: 12/30/2021
DESIGNED BY: B. Palf
CHECKED BY: B. Palf

FILE: G:\Eng\H01365.10 and 1365.11\Grayson W\Bridges\CAD\Construction Phasing 1.dgn

ROUTE
KY-224

CROSSING
WESTERN KENTUCKY PARKWAY

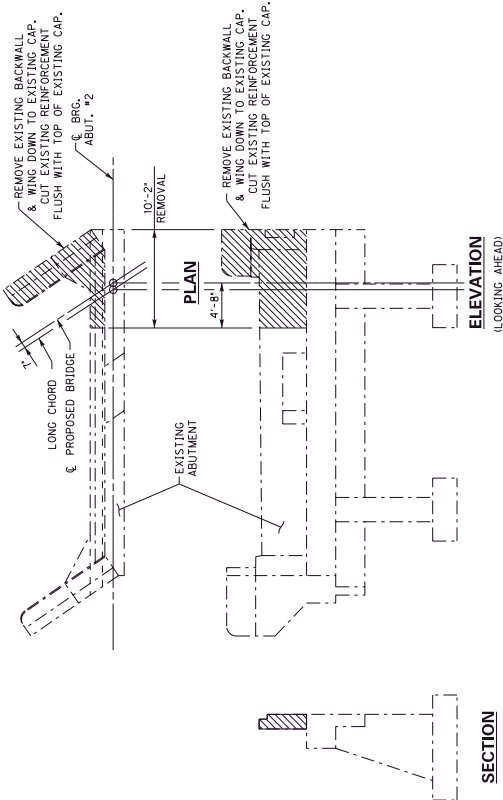
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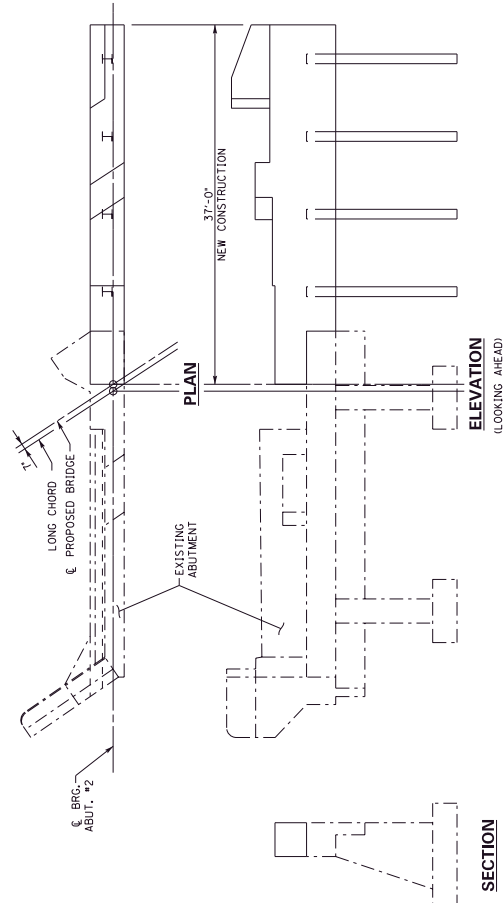
COUNTY OF
GRAYSON
DRAWING NUMBER
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PHASE 1 CONSTRUCTION

PHASE 1A

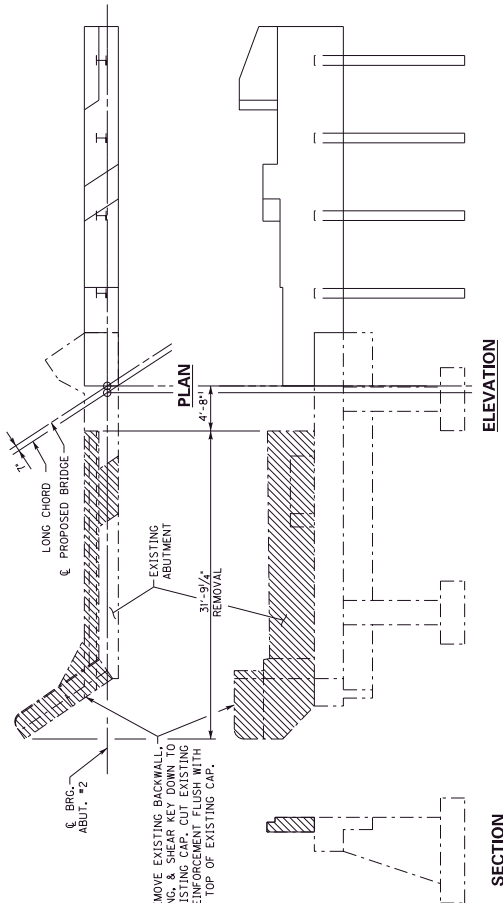


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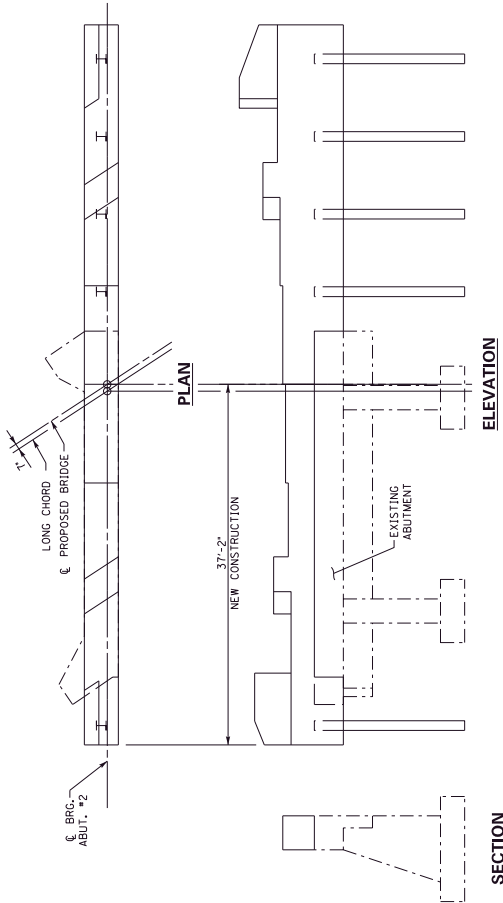


PHASE 2 CONSTRUCTION

PHASE 2A






PHASE 2B

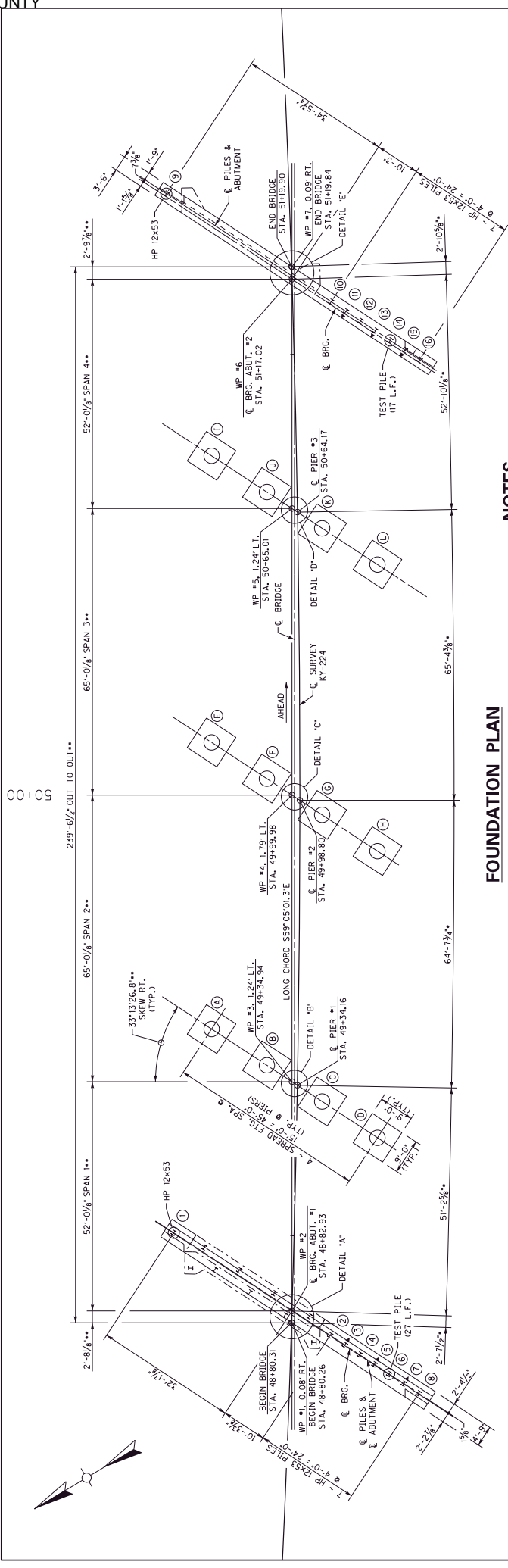


	COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS	USER: bpd@dm	DATE PLOTTED: 1/7/2022 9:48:30 AM		PREPARED BY HMB PROFESSIONAL ENGINEERS, INC.	FILE: G:\Eng\HD\1365.10 and 1365.11 Grayson WABRIDGES\CAD\Construction Phasing 3.dgn	DATE: 12/30/2021 DESIGNED BY: B. Palf CHECKED BY: B. Palf	CONSTRUCTION PHASING ABUTMENT #2 WESTERN KENTUCKY PARKWAY	ROUTE KY-224	ITEM NO. 4-20001 SHEET NO. 58	COUNTY OF GRAYSON DRAWING NUMBER 28464

PHASE 1B



 COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS		REVISION	DATE	 HMB PROFESSIONAL ENGINEERS, INC.	PREPARED BY FILE: G:\eng\HD1965.10 and 1965.11 Grayson WKBRIDGES\CAD\Construction Plotting 4.dgn	CHECKED BY DESIGNED BY: B. Ridd DETAILED BY: B. Ridd	ROUTE KY-224	ITEM NO. 4-20001 DRAWING NUMBER 28464	COUNTY OF GRAYSON
		DATE PLOTTED: 1/7/2022	9:48:31 AM						
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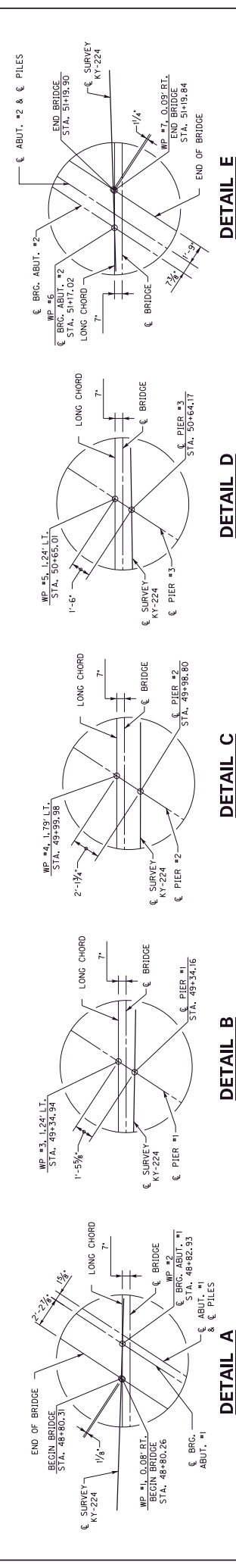
FOUNDATION PLAN

NOTES

1) • MEASURED ALONG ϵ SURVEY.

2) ** MEASURED ALONG LONG CHORD.

3) ▲ INDICATES DIRECTION OF 4:12 BATTER



PILE RECORD FOR POINT BEARING PILES				
PILE NO.	PILE CUT-OFF ELEVATION (FEET)	TIP OF PILE AS DRIVEN (FEET)	LENGTH OF PILE IN PLACE (FEET)	DESIGN AXIAL LOAD (TONS)
1	697.990			72
2				
3				
4				
5				
6				
7				
8	697.990			
9	697.550			
10				
11				
12				
13				
14				
15				
16	697.550			72

FIELD DATA

FOR EACH PILE, THE PROJECT ENGINEER SHALL RECORD THE FOLLOWING ON THIS SHEET AND SIGN IN PLACE AND POINT OF PILE ELEVATION AS DRIVEN. SUBMIT THIS RECORD TO:

DIRECTOR, DIVISION OF STRUCTURAL DESIGN
KENTUCKY HIGHWAY DEPARTMENT
200 MERIT STREET
FRANKFORT, KY 40622-0001

THIS PILE RECORD DOES NOT REPLACE OTHER PILE RECORDS THE PROJECT ENGINEER IS REQUIRED TO KEEP AND SUBMIT.

AFTER PIER FOUNDATIONS HAVE BEEN PLACED, THE PROJECT RESIDENT ENGINEER SHALL RECORD THE BOTTOM OF FOOTING ELEVATION "AS-BUILT" AND SHALL SUBMIT ONE COPY OF THIS SHEET WITH THIS DATA TO THE DIRECTOR, DIVISION OF BRIDGES.

USE HP 12X53 IN ACCORDANCE WITH BPS-003, C.E.
USE GRADE 50 STEEL H-PILES WITH PILE POINTS FOR END BEARING PILES.

DEFINITIONS OF TERMS

PILE CUT-OFF ELEVATION: Elevation of the top of pile in the finished structure. PILE LENGTH IN PLACE: Actual pile length below the Pile Cut-Off Elevation in the finished structure.

POINT OF PILE ELEVATION AS DRIVEN: Actual point of pile elevation in the finished structure.
DESIGN AXIAL LOAD: Load carried by each pile as estimated from structural design calculations for factored UFD Loadings.

CALCULATED FIELD BEARING: Contrary to Section 604.03.07 of the Standard Specifications, in place bearing values are not required for piles bearing on rock when driven to practical refusal.

DRIVING CRITERIA: Drive point bearing piles to practical refusal.

PRACTICAL REFUSAL: FOR THIS PROJECT MINIMUM BLOW REQUIREMENTS ARE REACHED WHEN THE PILE BEARS ON ROCK. PRACTICAL REFUSAL IS OBTAINED AFTER THE PILE IS STRUCTURALLY ADDITIONAL BLOWS WITH TOTAL PENETRATION OF 1/2" OR LESS. IMMEDIATELY CEASE DRIVING OPERATIONS IF THE PILE VISIBLY YIELDS OR BECOMES DAMAGED DURING DRIVING. DRIVE ADDITIONAL PRODUCTION AND TEST PILES IF DIRECTED BY THE ENGINEER.

SPREAD FOOTING RECORD

PIER #1		PIER #2		PIER #3	
POINT	BOTTOM FTG. ELEV.	AS-BUILT FTG. ELEVATION	POINT	BOTTOM FTG. ELEV.	AS-BUILT FTG. ELEVATION
A	677.939	E	677.860	I	679.781
B	677.939	F	677.860	J	679.781
C	677.939	G	677.860	K	679.781
D	677.939	H	677.860	L	679.781

FOOTINGS ARE DESIGNED FOR A MAXIMUM SERVICE LIMIT BEARING PRESSURE OF 12 ksf.



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

REVISION

DATE

USER: bps@dm

DATE PLOTTED: 1/7/2022 9:48:52 AM



HMB PROFESSIONAL
ENGINEERS, INC.

PREPARED BY

DATE: 12/30/2021

DESIGNED BY: B. Pallam

DESIGNED BY: B. Pallam

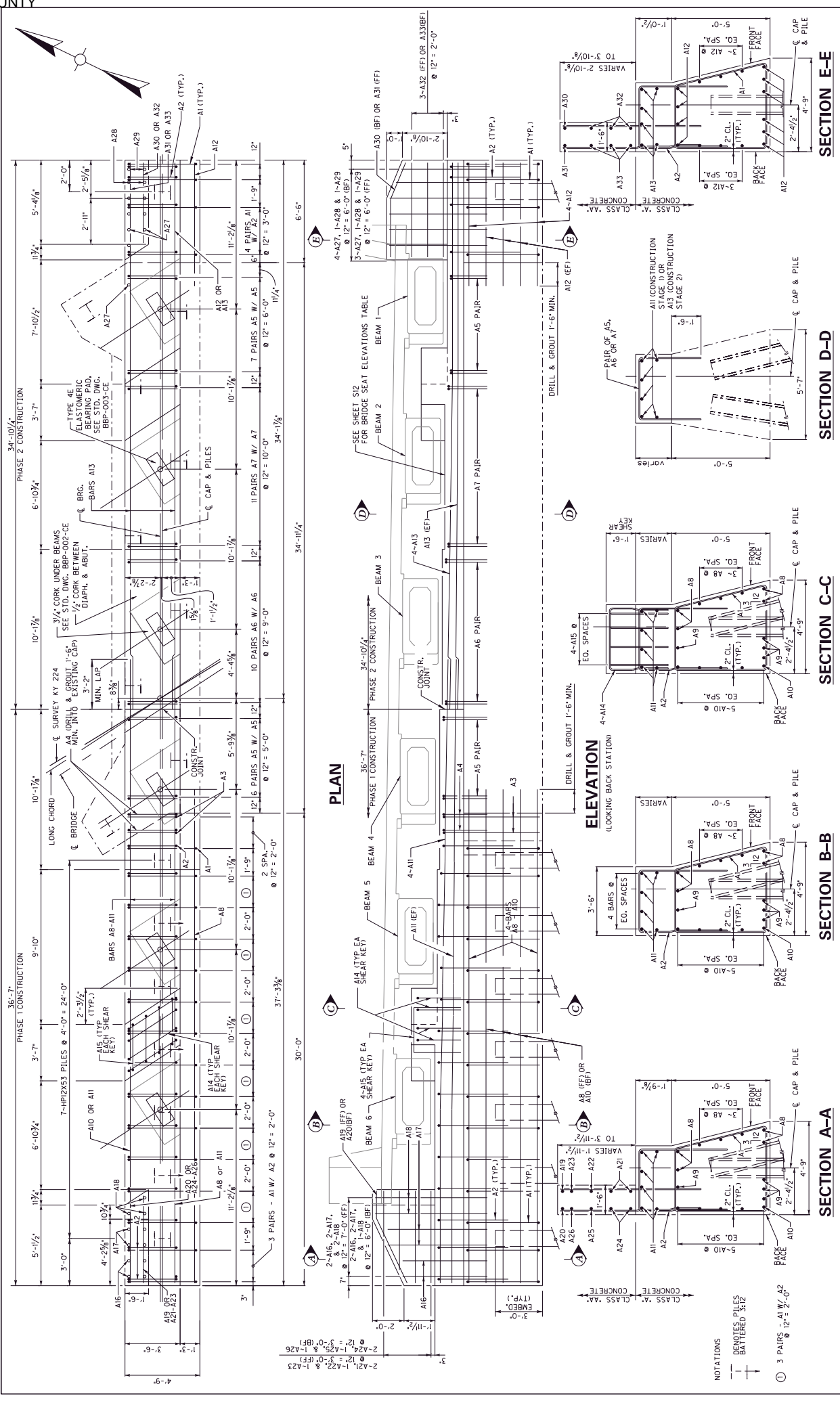
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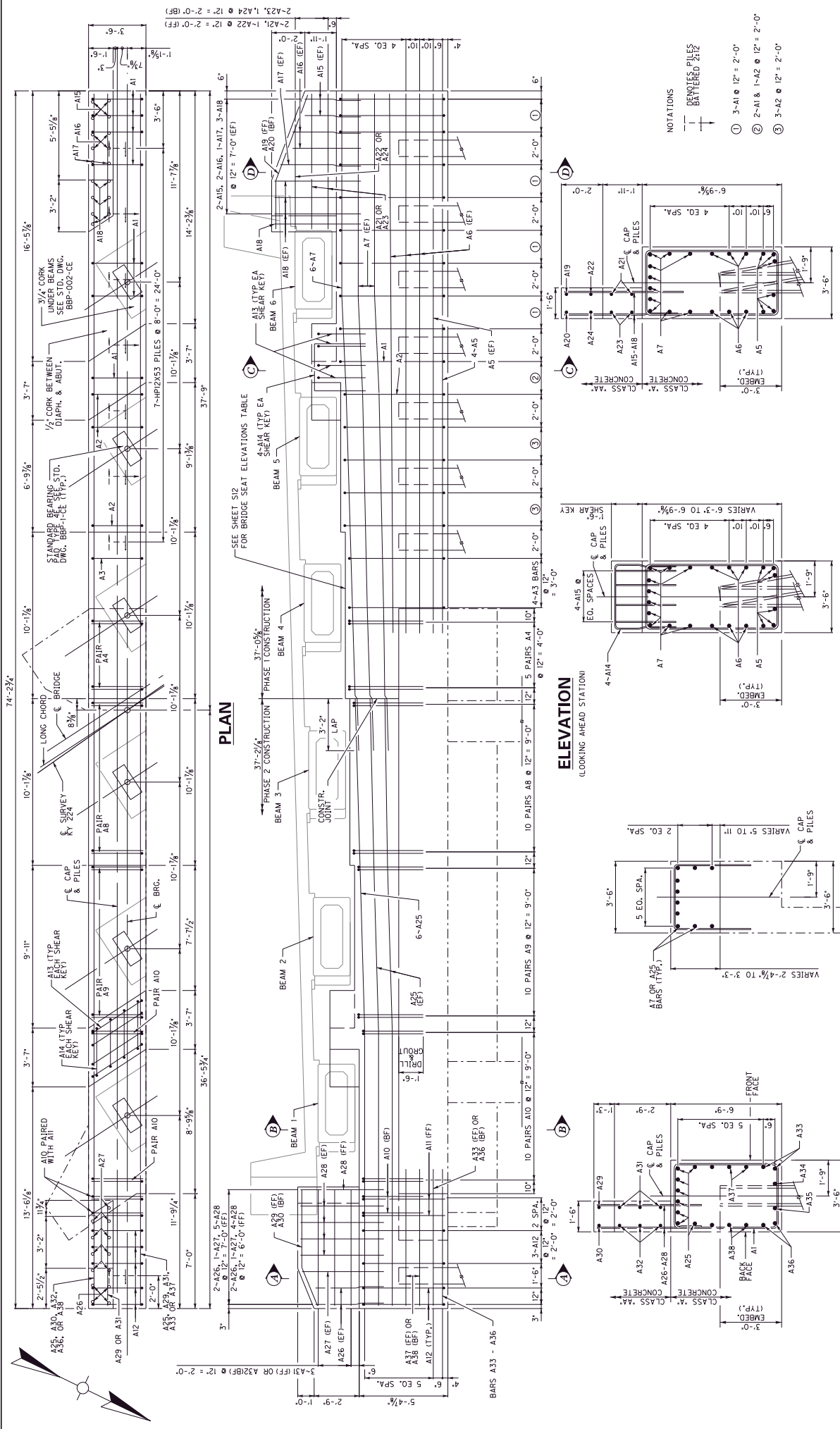
COUNTY OF GRAYSON
DRAWING NUMBER 28464

ITEM NO. 4-20001
SHEET NO. 59

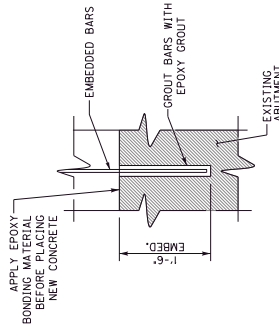
ROUTE KY-224

CROSSING WESTERN KENTUCKY PARKWAY





COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS		SECTION A-A		SECTION B-B		SECTION C-C		SECTION D-D						
	DATE: 12/20/2021	REVISION	PREPARED BY HMB PROFESSIONAL ENGINEERS, INC.	CHECKED BY B. P. J. J.	DESIGNED BY B. P. J. J.	DETAILED BY B. P. J. J.	ABUTMENT #2	ROUTE KY-224	COUNTY OF GRAYSON DRAWING NUMBER 28464					
DATE PLOTTED: 1/7/2022 9:48:34 AM		FILE: G:\Engineering\1365.10 and 1365.11 Grayson WB\Bridges\CAD\Autocad\2d.dgn		WESTERN KENTUCKY PARKWAY		ITEM NO. 4-20001		SHEET NO. S11						
MacroStation 18.11.7.403		USER: topdmm		CROSSING WESTERN KENTUCKY PARKWAY		ITEM NO. 4-20001		SHEET NO. S11						



DRILL & GROUT DETAIL

BEAM SEAT ELEVATIONS	
ABUTMENT #2	
BEAM 1	703.954
BEAM 2	704.241
BEAM 3	704.524
BEAM 4	704.803
BEAM 5	705.080
BEAM 6	705.352

BEAM SEAT ELEVATIONS	
ABUTMENT #1	
BEAM 1	702.589
BEAM 2	702.750
BEAM 3	702.909
BEAM 4	703.066
BEAM 5	703.220
BEAM 6	703.373

ABUTMENT #1 BILL OF REINFORCEMENT														
MARK	TYPE	NO.	SIZE	LENGTH FT IN	LOCATION	A FT IN	B FT IN	C FT IN	D FT IN	E FT IN	F FT IN			
A1	STR	1	#5	17	CAP	4	8	4	8	2	12	1	2	
A2	STR	2	#5	10	CAP	4	8	3	2					
A3	STR	3	#5	9	CAP	6	2	3	2					
A4	STR	4	#5	6	CAP	3	2	2	10					
A5	STR	5	#5	6	CAP	3	2	2	10					
A6	STR	6	#5	10	CAP	3	2	2	8					
A7	STR	7	#5	5	CAP	3	2	2	7					
A8	STR	8	#5	30	CAP	4	8	3	4					
A9	STR	9	#5	29	CAP	4	8	3	4					
A10	STR	10	#5	39	CAP	4	8	3	4					
A11	STR	11	#5	39	BEARING SEAT	4	8	3	4					
A12	STR	12	#5	7	CAP	4	8	3	4					
A13	STR	13	#5	34	BEARING SEAT	4	8	3	4					
A14	STR	14	#5	8	SHEAR KEY	2	6	3	9					
A15	STR	15	#5	8	SHEAR KEY	2	6	3	3					
A16	STR	16	#5	6	WING	4	8	3	4					
A17	STR	17	#5	6	WING	4	8	3	4					
A18	STR	18	#5	7	WING	4	8	3	4					
A19	STR	19	#5	6	WING	4	8	3	4					
A20	STR	20	#5	4	WING	4	8	3	4					
A21	STR	21	#5	5	WING	4	8	3	4					
A22	STR	22	#5	5	WING	4	8	3	4					
A23	STR	23	#5	4	WING	4	8	3	4					
A24	STR	24	#5	4	WING	4	8	3	4					
A25	STR	25	#5	2	WING	4	8	3	4					
A26	STR	26	#5	6	WING	4	8	3	4					
A27	STR	27	#5	5	WING	4	8	3	4					
A28	STR	28	#5	5	WING	4	8	3	4					
A29	STR	29	#5	5	WING	4	8	3	4					
A30	STR	30	#5	2	WING	4	8	3	4					
A31	STR	31	#5	2	WING	4	8	3	4					
A32	STR	32	#5	2	WING	4	8	3	4					
A33	STR	33	#5	2	WING	4	8	3	4					

BAR TYPES

COMMONWEALTH OF KENTUCKY

DEPARTMENT OF HIGHWAYS

REVISION

DATE

DATE PLOTTED: 1/7/2022

9:48:34 AM

PREPARED BY: HMB

DESIGNED BY: B. Reid

DETAILED BY: B. Reid

DATE: 12/30/2021

CHECKED BY: B. Reid

FILE: G:\Eng\H0385.10 and 1385.11 Grayson W&B\DCS-CAD\Abutment Item.dgn

ABUTMENT DETAILS

WESTERN KENTUCKY PARKWAY

CROSSING

ROUTE

ITEM NO.

SHEET NO.

COUNTY OF

ABUTMENT #2

703.954

704.241

704.524

704.803

705.080

705.352

ABUTMENT #1

702.589

702.750

702.909

703.066

703.220

703.373

BAR TYPES

ABUTMENT #2 BILL OF REINFORCEMENT

MARK	TYPE	NO.	SIZE	LENGTH FT IN	LOCATION	A FT IN	B FT IN	C FT IN	D FT IN	E FT IN	F FT IN
A1	STR	1	#5	19	CAP	6	5	3	2		
A2	STR	2	#5	19	CAP	6	5	3	2		
A3	STR	3	#5	18	CAP	5	11	3	2		
A4	STR	4	#5	7	CAP	4	7	3	2		
A5	STR	5	#5	32	CAP						
A6	STR	6	#5	32	CAP						
A7	STR	7	#5	40	CAP						
A8	STR	8	#5	40	CAP						
A9	STR	9	#5	7	CAP	4	1	3	2		
A10	STR	10	#5	6	CAP	3	9	3	2		
A11	STR	11	#5	17	CAP	5	1	3	2		
A12	STR	12	#5	10	CAP	3	2	3	9		
A13	STR	13	#5	9	SHEAR KEY	3	2	3	3		
A14	STR	14	#5	3	SHEAR KEY						
A15	STR	15	#5	4	WING						
A16	STR	16	#5	4	WING						
A17	STR	17	#5	5	WING						
A18	STR	18	#5	5	WING						
A19	STR	19	#5	7	WING	5	7	2	0	8	3/8
A20	STR	20	#5	8	WING	5	7	2	10	0	11
A21	STR	21	#5	7	WING	5	7	2	10	0	11
A22	STR	22	#5	5	WING						
A23	STR	23	#5	5	WING						
A24	STR	24	#5	8	WING						
A25	STR	25	#5	4	WING						
A26	STR	26	#5	4	WING						
A27	STR	27	#5	0	WING						
A28	STR	28	#5	2	WING						
A29	STR	29	#5	5	WING						
A30	STR	30	#5	7	WING	4	9	2	6	0	11
A31	STR	31	#5	6	WING	3	9	2	6	0	11
A32	STR	32	#5	6	WING						
A33	STR	33	#5	6	WING						
A34	STR	34	#5	6	WING						
A35	STR	35	#5	7	CAP						
A36	STR	36	#5	7	CAP						
A37	STR	37	#5	8	CAP						
A38	STR	38	#5	7	CAP						

ABUTMENT #1

702.589

702.750

702.909

703.066

703.220

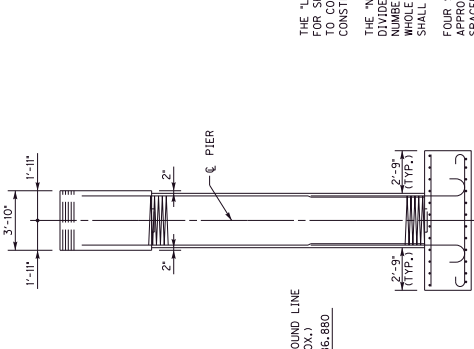
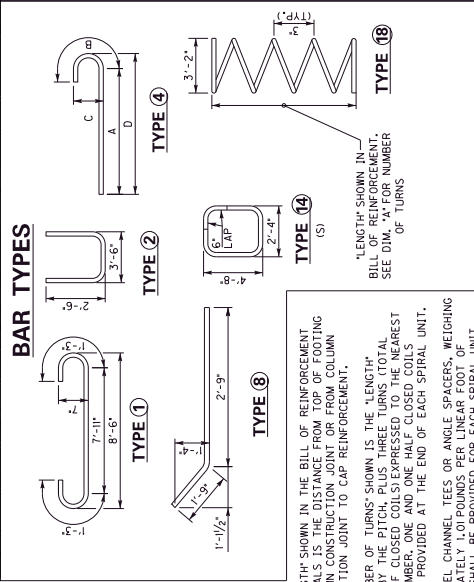
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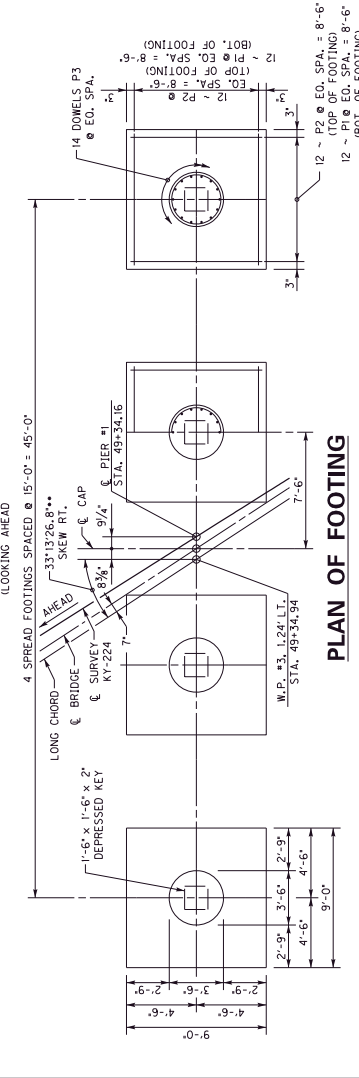
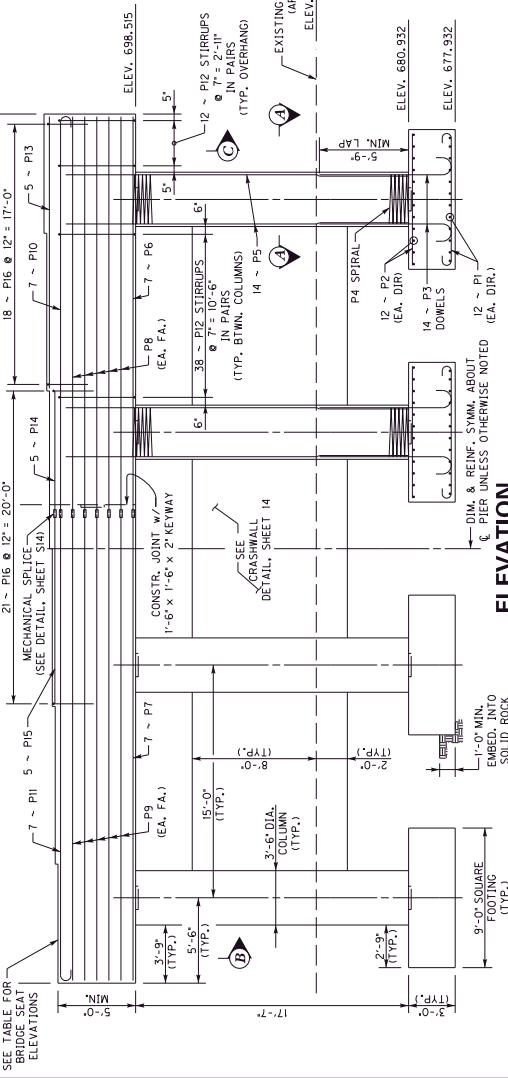
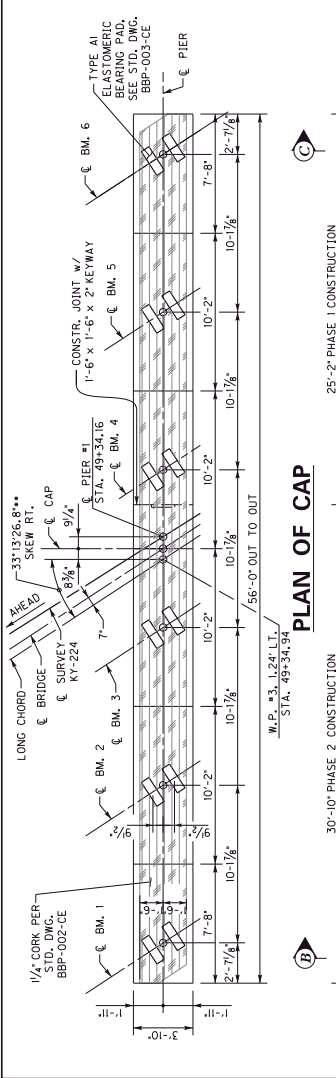
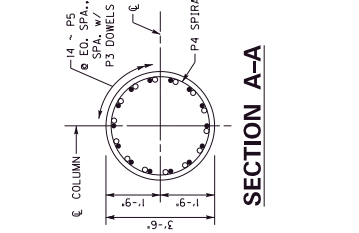
PIER #1 BILL OF REINFORCEMENT											
MARK	TYPE	NO.	SIZE	LENGTH		LOCATION		A		B	
				FT	IN	FT	IN	FT	IN	FT	IN
P1	①	28	Ø 10	27	0	FOOTING	BO	8	1	11	0
P2	②	56	Ø 10	46	8	FOOTING	DO	8	1	11	0
P3	③	56	Ø 10	46	8	FOOTING	DO	8	1	11	0
P4	④	44	Ø 17	9	0	COLUMN	SP	74	1	11	0
P5	⑤	56	Ø 17	22	1	COLUMN	SP	74	1	11	0
P6	⑥	56	Ø 17	22	1	COLUMN	SP	74	1	11	0
P7	⑦	56	Ø 17	22	1	COLUMN	SP	74	1	11	0
P8	⑧	10	Ø 17	46	8	CAP	BO	29	4	1	5
P9	⑨	10	Ø 17	46	8	CAP	DO	29	4	1	5
P10	⑩	7	Ø 17	27	1	CAP	SP	29	4	1	5
P11	⑪	7	Ø 17	27	1	CAP	SP	29	4	1	5
P12	⑫	138	Ø 15	13	0	CAP	SP	29	4	1	5
P13	⑬	56	Ø 17	22	1	CAP	SP	29	4	1	5
P14	⑭	5	Ø 17	46	8	CAP	SP	29	4	1	5
P15	⑮	5	Ø 17	46	8	CAP	SP	29	4	1	5
P16	⑯	39	Ø 15	6	0	CAP	SP	29	4	1	5
P17	⑰	33	Ø 15	13	0	CRASHWALL	BO	29	4	1	5
P18	⑱	33	Ø 15	13	0	CRASHWALL	DO	29	4	1	5
P19	⑲	72	Ø 15	1	2	CRASHWALL	SP	29	4	1	5
P20	⑳	66	Ø 15	4	6	CRASHWALL	SP	29	4	1	5
P21	㉑	66	Ø 15	4	6	CRASHWALL	SP	29	4	1	5

BRIDGE SEAT ELEVATIONS	
BEAM	ELEVATION
BEAM 1	204.515
BEAM 2	203.702
BEAM 3	203.887
BEAM 4	204.069
BEAM 5	204.246
BEAM 6	204.425

BAR CLEARANCE	
LOCATION	CLEARANCE
CAP	2"
FOOTING	3"



END ELEVATION



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

PROJECT NO. 4-20001
SHEET NO. S13

ROUTE KY-224

PIER #1
CROSSING
WESTERN KENTUCKY PARKWAY

DATE: 12/20/2021
DESIGNED BY: B. Pallam
CHECKED BY: B. Pallam
FILE: G:\Eng\H01385.10 and 1385.11 Grayson W&B\Bridges\CAD\Plan 1.sgn

DATE PLOTTED: 1/7/2022 9:48:39 AM
USER: top@dm

PIER #1
CROSSING
WESTERN KENTUCKY PARKWAY

DATE: 12/20/2021
DESIGNED BY: B. Pallam
CHECKED BY: B. Pallam
FILE: G:\Eng\H01385.10 and 1385.11 Grayson W&B\Bridges\CAD\Plan 1.sgn

DATE PLOTTED: 1/7/2022 9:48:39 AM
USER: top@dm

PIER #1
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FILE: G:\Eng\H01385.10 and 1385.11 Grayson W&B\Bridges\CAD\Plan 1.sgn

DATE PLOTTED: 1/7/2022 9:48:39 AM
USER: top@dm

PIER #1
CROSSING
WESTERN KENTUCKY PARKWAY

DATE: 12/20/2021
DESIGNED BY: B. Pallam
CHECKED BY: B. Pallam
FILE: G:\Eng\H01385.10 and 1385.11 Grayson W&B\Bridges\CAD\Plan 1.sgn

DATE PLOTTED: 1/7/2022 9:48:39 AM
USER: top@dm



COUNTY OF	GRAYSON	DRAWING NUMBER	28464
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33°13'26.8" SKEW RT.

LONG CHORD

PIER #1

PIER #2

PIER #3

PIER #4

PIER #5

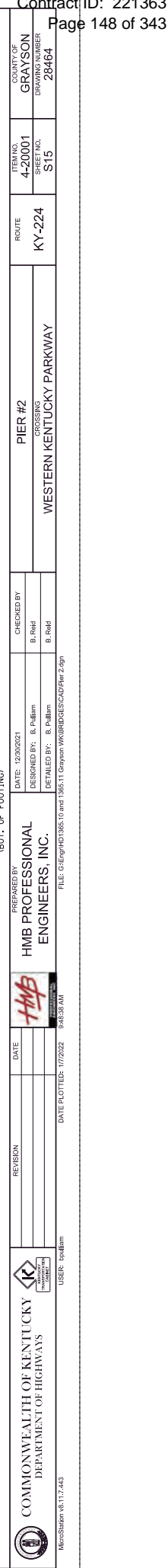
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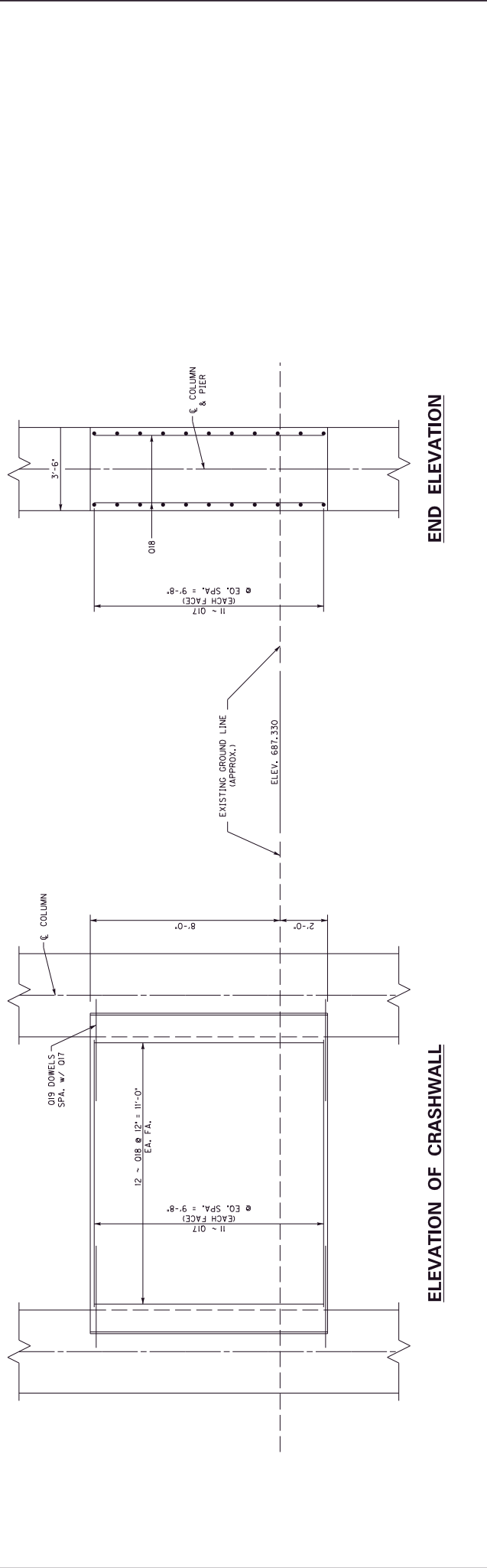
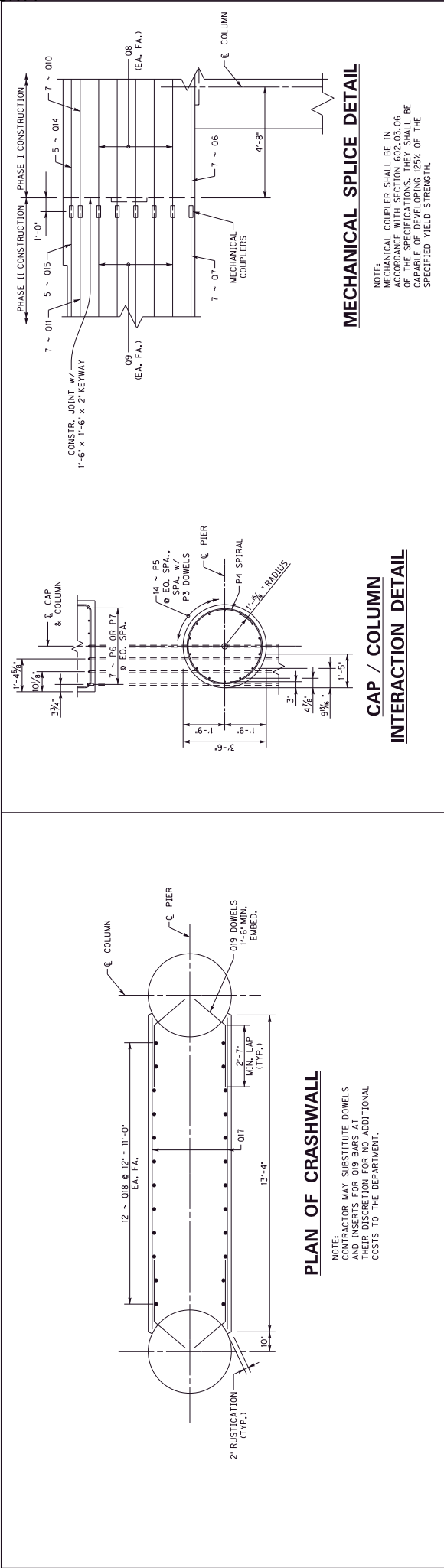
CONST. JOINT w/ 1'-6" x 1'-6" x 2'-KEYWAY



TYPE AI ELASTOMERIC BEARING PAD, SEE STD. DWG. BBP-003-CE

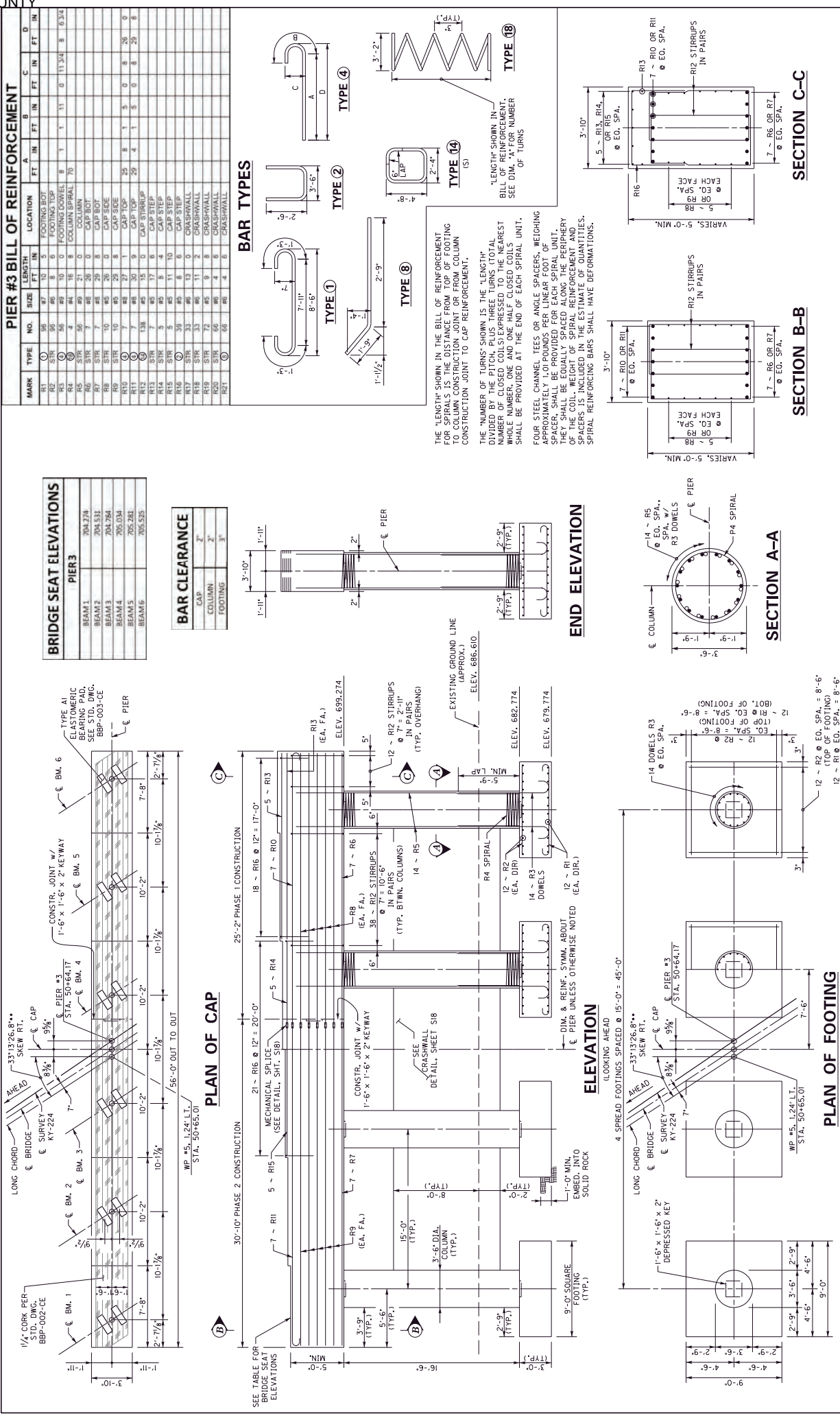
W.P. #4, 1.791 L.T. STA. 49+99.98

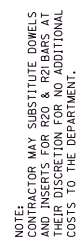
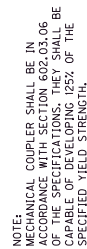
PLAN OF CAP





 COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS	 HMB PROFESSIONAL ENGINEERS, INC.	DATE: 12/30/2021	CHECKED BY: B. Pallam	PIER #2 DETAILS	ROUTE KY-224	ITEM NO. 4-20001	COUNTY OF GRAYSON
REVISION		DATE					
DATE PLOTTED: 1/7/2022		8:48:39 AM		FILE: G:\eng\H01365.10 and 1365.11 Grayson WK\BRIDGES\CA01Pier 2 Detail.dgn			
USER: bpallam							







- 1) • MEASURED ALONG ζ SURVEY.
- 2) •• MEASURED ALONG LONG CHORD.
- 3) ••• MEASURED PERPENDICULAR TO LONG CHORD.
- 4) SEE SHEET S8 FOR GEOMETRY LAYOUT.



DETAIL C

 COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS	 KENTUCKY DEPARTMENT OF TRANSPORTATION	REVISION	DATE	 HMB PROFESSIONAL ENGINEERS, INC.	PREPARED BY	DESIGNED BY: B. Pulliam CHECKED BY: B. Pulliam DATE: 12/30/2021	ROUTE KY-224	ITEM NO. 4-20001 SHEET NO. DRAWING NUMBER 28464	COUNTY OF GRAYSON
		DATE PLOTTED: 1/7/2022	9:48:41 AM		FILE: C:\Length\1365.10 and 1365.11 Grayson WK\BRIDGES\CAD\Framing Plans.dwg				

CONCRETE: Ensure prestressed girder concrete is in accordance with these plans and the Specifications.

$F_Y = 60,000 \text{ psi}$
 $F'_S = 270,000 \text{ psi}$

if an alternate strand arrangement or strand type is preferred by the Contractor, the designer that developed the original plans shall provide the design and also revise the original plans to reflect the changes. These design and plan modifications shall be done at the Contractor's expense.

CONSTRUCTION METHOD. No bond stress shall be transferred to the concrete, nor shall anchors be released until the concrete has attained a minimum compressive strength of f'_c (shown in table) as determined by standard cylinders made and cured identically with the test cylinders. Cylinders in table shall be of the proper size and age, and shall be stressed in compression or pulled in tension for 28 days, after which the stress shall be released. The anchors shall be tested to develop a stress of 43,931 psi shall be applied. Beams with one-half inch of concrete cover shall be tested. The length of the neomycob of such extent as to affect the strength of resistance to deterioration will not be accepted. An allowance of .00051 length shall be made for shortening of beams due to shrinkage and elastic deformation. The test shall show a deteriorating plan by uniform sequences of the stir and pattern.

BEVELED EDGES: All exposed edges shall be beveled $\frac{3}{4}$ ".

REINFORCEMENT: Dimensions shown from the face of concrete to reinforcement are clear distances. Spacing of reinforcement is from center to center of reinforcement. Epoxy Coated Reinforcement shall be in accordance with Section 811.0. The Specifications, All Bars marked "c" shall be considered a stirrup for purpose of bend diameters.

BEARING DEVICES: The cost of preformed cork and bearing pads shall be included in the price bid for per linear foot of beam.

FABRICATION: The "Maximum Allowable Camber" shown on the beam sheet is the amount of camber, measured prior to casting the deck, above which the contractor is required to correct the camber. If the camber is less than the "Maximum Allowable Camber," the contractor is not responsible for any necessary adjustments to assure a minimum slab thickness of eight (8) inches as shown in the plans. This work will be considered incidental to the completion of the structure and have the approval of the Engineer.



STRAND SPLICING DETAIL

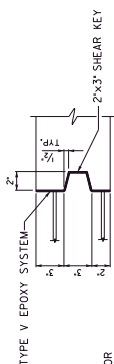
~Typical at Fixed Pier~

Note: A2 Bars are to be lapped 2'-2" when necessary

MicroStation v8.11.7.443

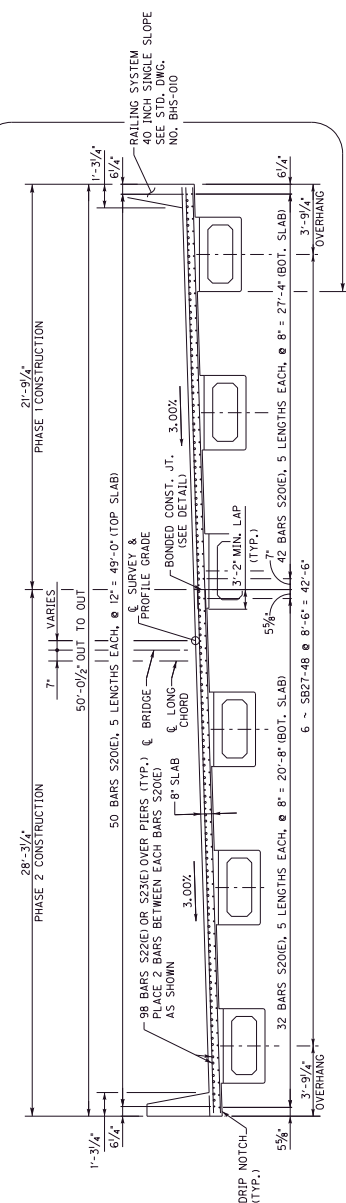


ALL DIMENSIONS MEASURED PERPENDICULAR OR PARALLEL TO LONG CHORD.



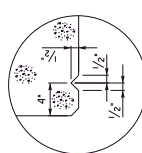
BONDED CONST. JOINT

SEAL ENTIRE DECK AND EACH OVERHANG
TO LIMITS SHOWN. SEE SPECIAL NOTE FOR
CONCRETE SEALING.

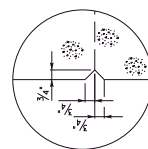


SECTION

ALL DIMENSIONS MEASURED PERPENDICULAR TO LONG CHORD.



DRIP NOTCH

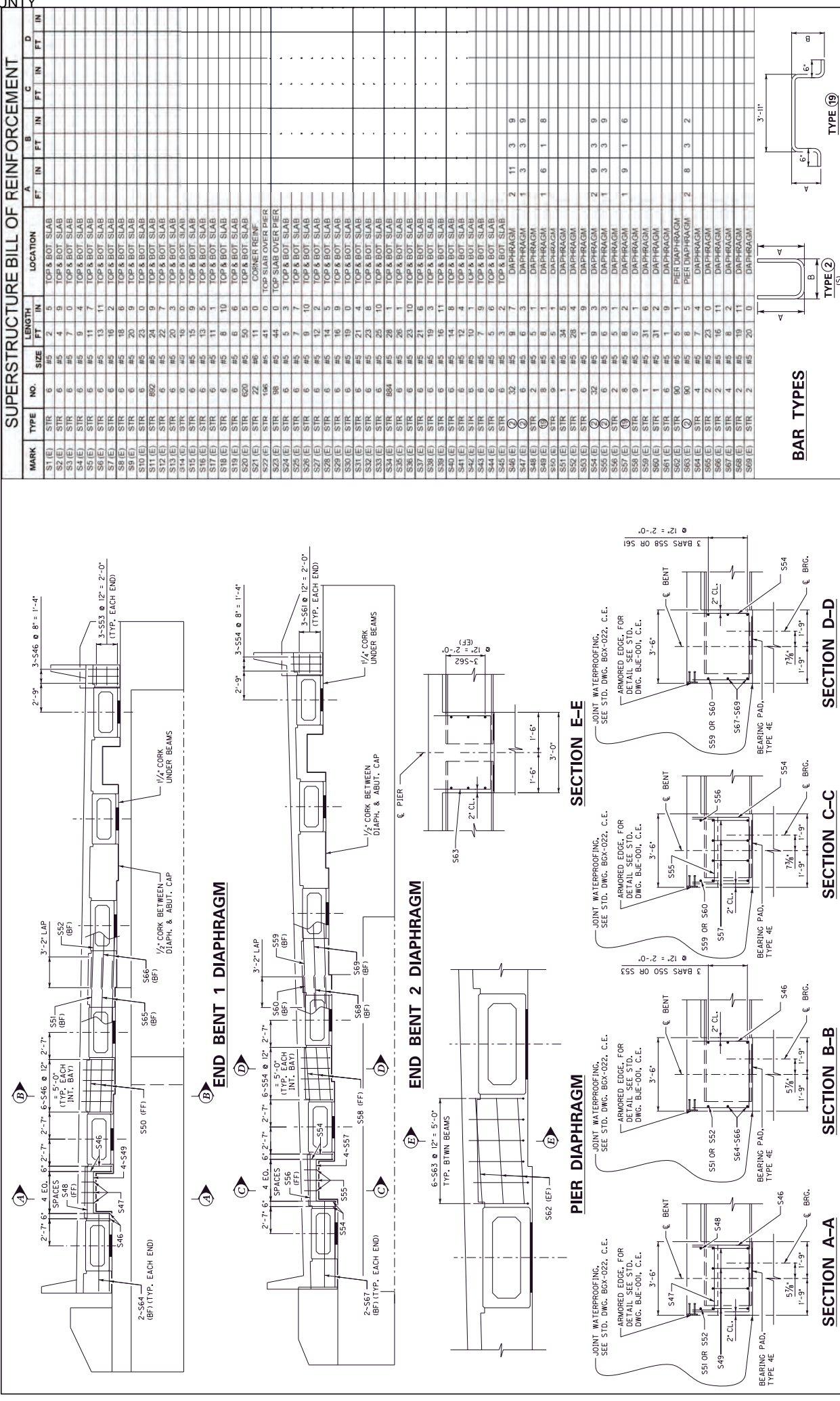


CORNER REINFORCEMENT

NOTE: PLACE THE CORNER REINFORCEMENT BENEATH THE LONGITUDINAL & TRANSVERSE REINFORCEMENT IN THE TOP OF THE SLAB AT BOTH ACUTE CORNERS.

RUSTICATION GROOVE

 COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS		 KENTUCKY DEPARTMENT OF TRANSPORTATION		 HMB PROFESSIONAL ENGINEERS, INC.		PREPARED BY HMB PROFESSIONAL ENGINEERS, INC.		CHECKED BY B. Pullam		ROUTE KY-224		ITEM NO. 4-20001 COUNTY OF GRAYSON	
						DESIGNED BY: B. Rold DETAILED BY: B. Rold		DATE: 12/30/2021		SUPERSTRUCTURE CROSSING WESTERN KENTUCKY PARKWAY		DRAWING NUMBER 28464 SHEET NO. S21	
DATE PLOTTED: 1/7/2022 9:48:43 AM		USER: tpullam		FILE: G:\Eng\H011965.0 and 1365.11 Grayson WK\BRIDGE\CAD\Superstructure.dgn									



SUPERSTRUCTURE BILL OF REINFORCEMENT									
MARK	TYPE	NO.	SIZE	LENGTH FT	IN	LOCATION	A		D
							FT	IN	
S1 (E)	STR	6	#5	2	5	TOP & BOT SLAB			
S2 (E)	STR	6	#5	4	9	TOP & BOT SLAB			
S3 (E)	STR	6	#5	7	0	TOP & BOT SLAB			
S4 (E)	STR	6	#5	9	4	TOP & BOT SLAB			
S5 (E)	STR	6	#5	11	7	TOP & BOT SLAB			
S6 (E)	STR	6	#5	13	11	TOP & BOT SLAB			
S7 (E)	STR	6	#5	16	2	TOP & BOT SLAB			
S8 (E)	STR	6	#5	18	6	TOP & BOT SLAB			
S9 (E)	STR	6	#5	20	9	TOP & BOT SLAB			
S10 (E)	STR	6	#5	23	0	TOP & BOT SLAB			
S11 (E)	STR	6	#5	24	9	TOP & BOT SLAB			
S12 (E)	STR	6	#5	22	7	TOP & BOT SLAB			
S13 (E)	STR	6	#5	20	8	TOP & BOT SLAB			
S14 (E)	STR	6	#5	15	9	TOP & BOT SLAB			
S15 (E)	STR	6	#5	13	5	TOP & BOT SLAB			
S16 (E)	STR	6	#5	11	1	TOP & BOT SLAB			
S17 (E)	STR	6	#5	8	6	TOP & BOT SLAB			
S18 (E)	STR	6	#5	6	6	TOP & BOT SLAB			
S19 (E)	STR	6	#5	5	5	TOP & BOT SLAB			
S20 (E)	STR	6	#5	5	5	TOP & BOT SLAB			
S21 (E)	STR	22	#6	11	0	CORNER REIN			
S22 (E)	STR	196	#5	41	0	TOP SLAB OVER PIER			
S23 (E)	STR	98	#5	44	0	TOP SLAB OVER PIER			
S24 (E)	STR	6	#5	5	3	TOP & BOT SLAB			
S25 (E)	STR	6	#5	7	7	TOP & BOT SLAB			
S26 (E)	STR	6	#5	9	10	TOP & BOT SLAB			
S27 (E)	STR	6	#5	12	2	TOP & BOT SLAB			
S28 (E)	STR	6	#5	14	5	TOP & BOT SLAB			
S29 (E)	STR	6	#5	16	9	TOP & BOT SLAB			
S30 (E)	STR	6	#5	19	0	TOP & BOT SLAB			
S31 (E)	STR	6	#5	21	4	TOP & BOT SLAB			
S32 (E)	STR	6	#5	23	8	TOP & BOT SLAB			
S33 (E)	STR	6	#5	25	10	TOP & BOT SLAB			
S34 (E)	STR	6	#5	28	1	TOP & BOT SLAB			
S35 (E)	STR	6	#5	26	1	TOP & BOT SLAB			
S36 (E)	STR	6	#5	21	10	TOP & BOT SLAB			
S37 (E)	STR	6	#5	21	6	TOP & BOT SLAB			
S38 (E)	STR	6	#5	19	3	TOP & BOT SLAB			
S39 (E)	STR	6	#5	16	11	TOP & BOT SLAB			
S40 (E)	STR	6	#5	14	4	TOP & BOT SLAB			
S41 (E)	STR	6	#5	12	4	TOP & BOT SLAB			
S42 (E)	STR	6	#5	10	1	TOP & BOT SLAB			
S43 (E)	STR	6	#5	7	9	TOP & BOT SLAB			
S44 (E)	STR	6	#5	5	6	TOP & BOT SLAB			
S45 (E)	STR	6	#5	3	2	TOP & BOT SLAB			
S46 (E)	STR	32	#5	9	7	DIAPHRAGM	2	11	3
S47 (E)	STR	2	#5	6	3	DIAPHRAGM	1	3	3
S48 (E)	STR	2	#5	5	1	DIAPHRAGM	1	6	1
S49 (E)	STR	8	#5	8	1	DIAPHRAGM			
S50 (E)	STR	9	#5	5	1	DIAPHRAGM			
S51 (E)	STR	1	#5	54	5	DIAPHRAGM			
S52 (E)	STR	6	#5	18	6	DIAPHRAGM			
S53 (E)	STR	32	#5	9	3	DIAPHRAGM	2	9	3
S54 (E)	STR	2	#5	6	3	DIAPHRAGM	1	3	3
S55 (E)	STR	8	#5	5	1	DIAPHRAGM			
S56 (E)	STR	1	#5	31	6	DIAPHRAGM			
S57 (E)	STR	1	#5	31	2	DIAPHRAGM			
S58 (E)	STR	1	#5	31	2	DIAPHRAGM			
S59 (E)	STR	1	#5	31	2	DIAPHRAGM			
S60 (E)	STR	1	#5	31	2	DIAPHRAGM			
S61 (E)	STR	1	#5	31	2	DIAPHRAGM			
S62 (E)	STR	90	#5	5	1	PIER DIAPHRAGM	2	8	3
S63 (E)	STR	2	#5	7	4	DIAPHRAGM			
S64 (E)	STR	2	#5	23	0	DIAPHRAGM			
S65 (E)	STR	2	#5	16	11	DIAPHRAGM			
S66 (E)	STR	2	#5	8	2	DIAPHRAGM			
S67 (E)	STR	2	#5	19	11	DIAPHRAGM			
S68 (E)	STR	2	#5	20	0	DIAPHRAGM			
S69 (E)	STR	2	#5	20	0	DIAPHRAGM			

COMMONWEALTH OF KENTUCKY

DEPARTMENT OF HIGHWAYS

DATE: 12/20/2021

DESIGNED BY: B. Ruff

DATE PLOTTED: 1/7/2022

REVISION

USER: topdmm

PREPARED BY

HMB PROFESSIONAL ENGINEERS, INC.

CHECKED BY

L. Ruff

CROSSING

WESTERN KENTUCKY PARKWAY

ROUTE

KY-224

ITEM NO.

4-20001

COUNTY OF

GRAYSON

SHEET NO.

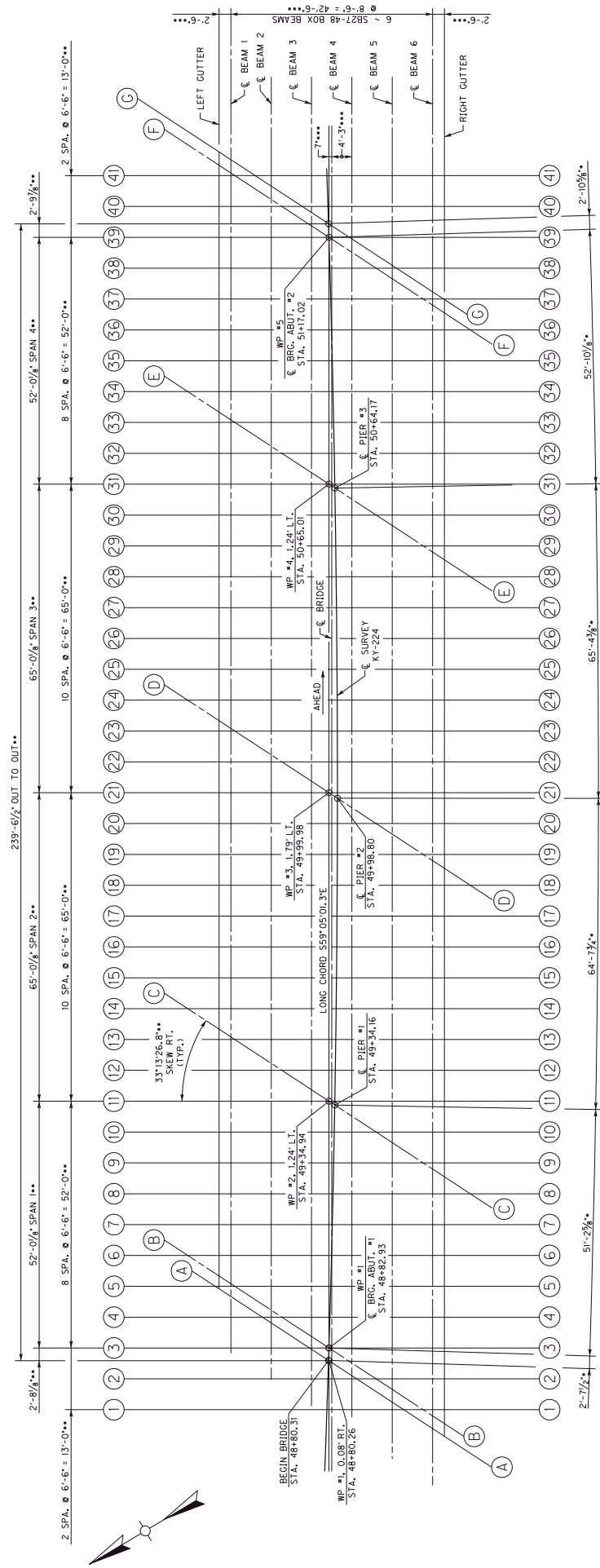
S22

DRAWING NUMBER

28464

Contract ID: 221363

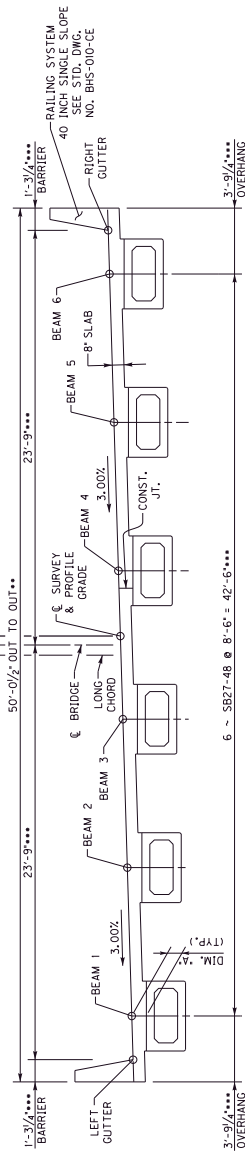
Page 155 of 343



NOTES

- 1) * MEASURED ALONG & SURVEY.
- 2) ** MEASURED ALONG LONG CHORD.
- 3) *** MEASURED PERPENDICULAR TO LONG CHORD.
- 4) SEE FOUNDATION LAYOUT FOR GEOMETRY LAYOUT.

GRID LAYOUT



TYPICAL SECTION
(LOOKING AHEAD)

COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS	REVISION	DATE	PREPARED BY HMB PROFESSIONAL ENGINEERS, INC.	DESIGNED BY: B. Pallam CHECKED BY: L. Baller	CONSTRUCTION ELEVATIONS GRID CROSSING WESTERN KENTUCKY PARKWAY	ROUTE KY-224	ITEM NO. 4-20001 SHEET NO. S23	COUNTY OF GRAYSON DRAWING NUMBER 28464



MicroStation 18.11.7.443

KY-224 CONSTRUCTION ELEVATIONS

LOCATION	LT. GUTTER	BEAM 1	BEAM 2	BEAM 3	PROFILE GRADE	BEAM 4	BEAM 5	BEAM 6	RT. GUTTER
AA	705.842	705.890	706.050	706.208	706.274	706.363	706.517	706.668	706.712
BB	705.889	705.937	706.096	706.257	706.325	706.414	706.568	706.721	706.765
CC	706.650	706.705	706.862	707.027	707.182	707.259	707.438	707.615	707.667
DD	707.227	707.293	707.354	707.422	707.490	707.547	707.615	707.683	707.750
EE	707.388	707.464	707.541	707.618	707.695	707.772	707.849	707.926	707.993
FF	707.549	707.625	707.702	707.779	707.856	707.933	708.010	708.087	708.164
GA	707.200	707.265	707.330	707.395	707.460	707.525	707.590	707.655	707.720
1									
2									
3									
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41									

NOTES

TAKE ELEVATIONS ON TOP OF BEAM AT POINTS INDICATED BY THE DECIMALS AND ENTERED IN TABLE UNDER "TOP OF BEAM" ELEVATIONS. COMPUTE DIMENSION "A" AS FOLLOWS:
"CONSTRUCTION ELEVATION" MINUS "TOP OF BEAM ELEVATION" EQUALS DIMENSION "A". CONSTRUCTION ELEVATIONS INCLUDE CAMBER DUE TO WEIGHT OF CONCRETE SLAB AND BARRIER. MEASURING OF DIMENSION "A" SHOULD BE DONE AFTER THE CONCRETE CURING PROCESS IS COMPLETE TO AVOID SAGS AND UNSIGHTLY FASCIA BEAMS.
FOR SETTING TEMPLATES, MEASURE DIMENSION "A" ABOVE TOP OF BEAMS FOR TOP OF TEMPLATE. DO NOT SET TEMPLATE BY ELEVATIONS.
TEMPORARY SUPPORTS OR SHORING WILL NOT BE PERMITTED UNDER THE BEAMS WHEN POURING THE CONCRETE FLOOR SLAB OR WHEN TAKING PARAPET.
CONSTRUCT BARRIER TO ROADWAY GRADE. DO NOT ADD CAMBER TO PARAPET.
NOTE TO RESIDENTS: THE "MAXIMUM ALLOWABLE CAMBER" SHOWN ON THE BEAM SHEET IS THE AMOUNT OF CAMBER, MEASURED PRIOR TO CASTING THE CONCRETE FLOOR SLAB, WHICH MUST BE MAINTAINED THROUGHOUT THE LIFE OF THE MEASURED CAMBER. THE CONTRACTOR SHALL MAINTAIN ALLOWABLE CAMBER. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY NECESSARY ADJUSTMENTS TO ASSURE A MINIMUM SLAB THICKNESS OF 4 INCHES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETION OF THE STRUCTURE AND HAVE THE APPROVAL OF THE ENGINEER.



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS



REVISION



HMB PROFESSIONAL
ENGINEERS, INC.

PREPARED BY
DESIGNED BY: B. Pallen
DATE: 12/30/2021

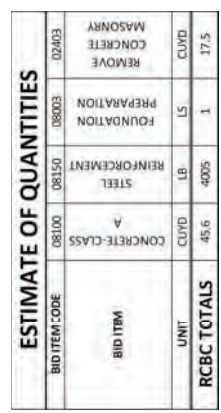
CHECKED BY
L. Boller

CROSSING
WESTERN KENTUCKY PARKWAY

ROUTE
KY-224

ITEM NO.
4-20001
SHEET NO.
S24

COUNTY OF
GRAYSON
DRAWING NUMBER
28464



SPECIFICATIONS

THIS STRUCTURE IS DESIGNED FOR HL-93 LIVE LOAD INCREASED 25%.

WEIGHT OF FILL MATERIAL

THE ASSUMED WEIGHT OF FILL MATERIAL IS 120 LBS PER CUBIC FOOT.

DESIGN STRESSES
 $F_y = 60,000$ psi
 $f_c = 3,500$ psi
CONCRETE

CONCRETE
CLASS "A" CONCRETE SHALL BE USED THROUGHOUT.

REINFORCEMENT

DIMENSIONS SHOWN FROM THE FACE OF CONCRETE TO BARS ARE CLEAR DISTANCES UNLESS OTHERWISE SHOWN. SPACING OF BARS IS FROM CENTER TO CENTER.

OPERATIONS, NOT OTHERWISE SPECIFIED, ARE TO BE INCLUDED IN THE BID ITEM MOST APPROPRIATE TO THE WORK INVOLVED. THIS MAY INCLUDE COFFERDAMS, SHORING, EXCAVATIONS, BACKFILLING, REMOVAL OF ALL OR PARTS OF EXISTING STRUCTURES, PHASE CONSTRUCTION, INCIDENTAL MATERIALS, LABOR, OR ANYTHING ELSE REQUIRED TO COMPLETE THE STRUCTURE.

STRUCTURES, PHASE CONSTRUCTION, INCIDENTAL MATERIALS, LABOUR, OR ANYTHING ELSE REQUIRED TO COMPLETE THE STRUCTURE.


COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS


 KENTUCKY
 DEPARTMENT OF
 TRANSPORTATION

REVISION _____

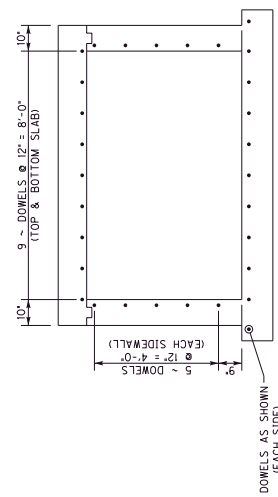
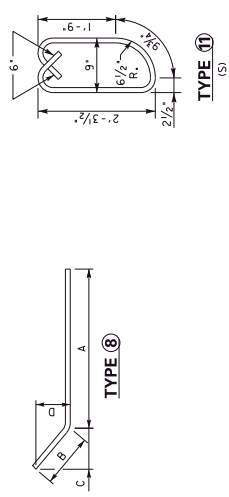
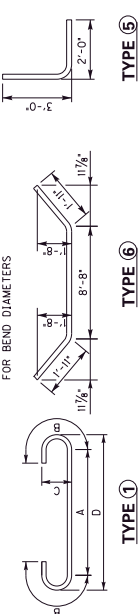
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USER: bptlham



BILL OF REINFORCEMENT														
MARK	TYPE	NO.	SIZE	LENGTH		LOCATION	A		B		C		D	
				FT	IN		FT	IN	FT	IN	FT	IN		
A	Ø	G5	#5	10	7	TOP SLAB	8	11	0	10	0	5	9	4
B	Ø	S1R	#6	11	7	BOTTOM SLAB	9	11	0	10	0	5	10	4
C	Ø	S1R	#6	4	0	WING STEAM VERTICAL	3	0	2	0				
D	Ø	S30	#5	4	0	WING DOWELS								
E	S1R	30	#5	28	0	BARREL LONGITUDINAL								
F	G1	S1R	#6	5	4	WING STEAM VERTICAL								
G2	S1R	4	#5	5	0	WING STEAM VERTICAL								
G3	S1R	4	#5	5	10	WING STEAM VERTICAL								
G4	S1R	4	#5	5	10	WING STEAM VERTICAL								
G5	S1R	4	#5	6	4	WING STEAM VERTICAL								
G6	S1R	4	#5	6	4	WING STEAM VERTICAL								
G7	S1R	4	#5	7	3	WING STEAM VERTICAL								
H	S1R	30	#5	4	0	WING FOOTING TRANSVERSE								
K	S1R	16	#5	16	11	WING FOOTING LONGITUDINAL								
M1	Ø	8	#5	17	8	WING STEAM LONGITUDINAL	15	6	2	2	1	10/12	1	1
M2	Ø	2	#5	15	8	WING STEAM LONGITUDINAL	13	5	2	2	1	10/12	1	1
M3	Ø	2	#5	11	1	WING STEAM LONGITUDINAL	8	11	2	2	1	10/12	1	1
P1	Ø	2	#6	12	6	PARAPET								
P2	Ø	2	#6	12	6	PARAPET								
P3	Ø	2	#5	12	6	PARAPET								
P4	S1R	1	#5	9	2	PARAPET								
R	Ø	8	#5	5	11	PARAPET								
T	Ø	4	#6	15	0	WING STEAM TOP	13	8	1	4	1	3/14	0	3/38

BAR TYPES

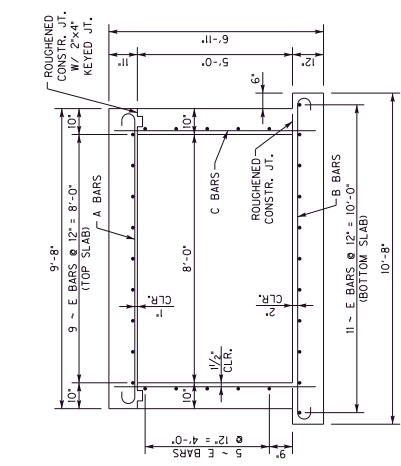
NOTE: BARS WITH SUBSCRIPT (S) ARE CONSIDERED STIRRUP BARS FOR BEND DIAMETERS



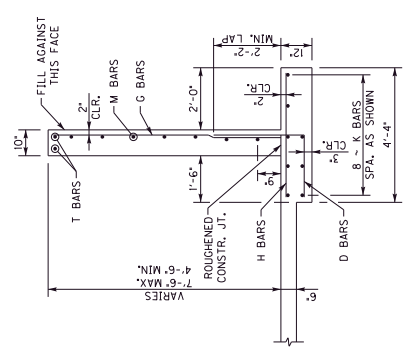
DOWEL LOCATIONS

(=IF USED)

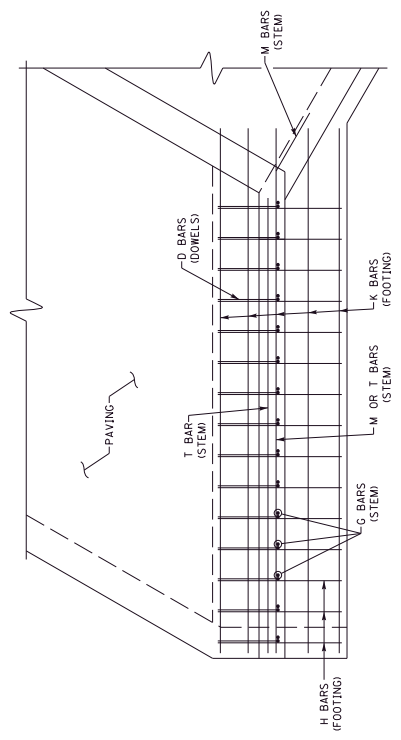
 COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS	 KENTUCKY DEPARTMENT OF TRANSPORTATION KDOT	REVISION		DATE	 HMB PROFESSIONAL ENGINEERS, INC.	PREPARED BY HMB PROFESSIONAL ENGINEERS, INC.	DATE: 12/30/2021 DESIGNED BY: B. PULLIAM DETAILED BY: B. PULLIAM	CHECKED BY: B. RED	ROUTE KY-224	8' x 5' RCBC STA. 46+86.46 CROSSING DITCH	ITEM NO. 4-20001 SHEET NO. S3	COUNTY OF GRAYSON DRAWING NUMBER 28465



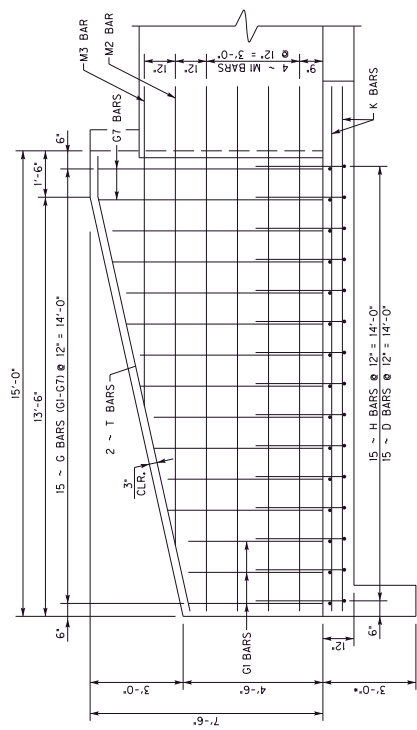
TYPICAL BARREL SECTION



WING SECTION



WING PLAN



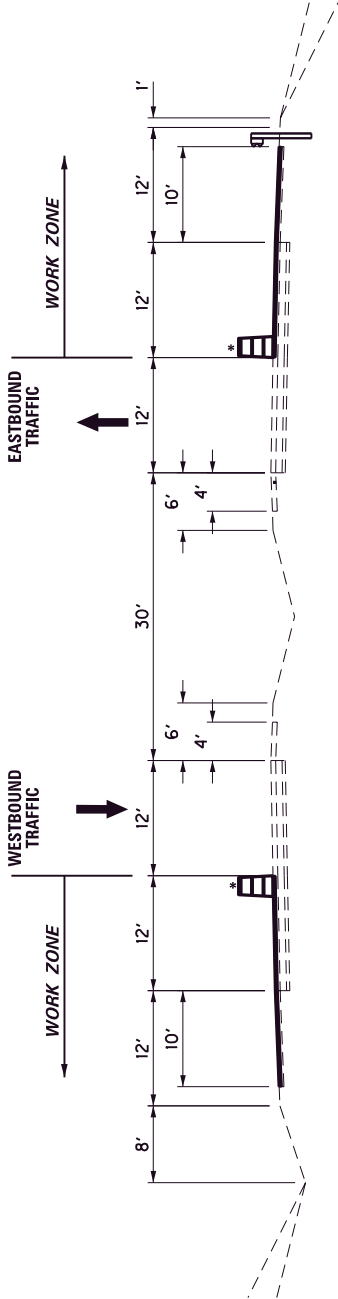
WING ELEVATION

• MAY BE TERMINATED
6" INTO ROCK

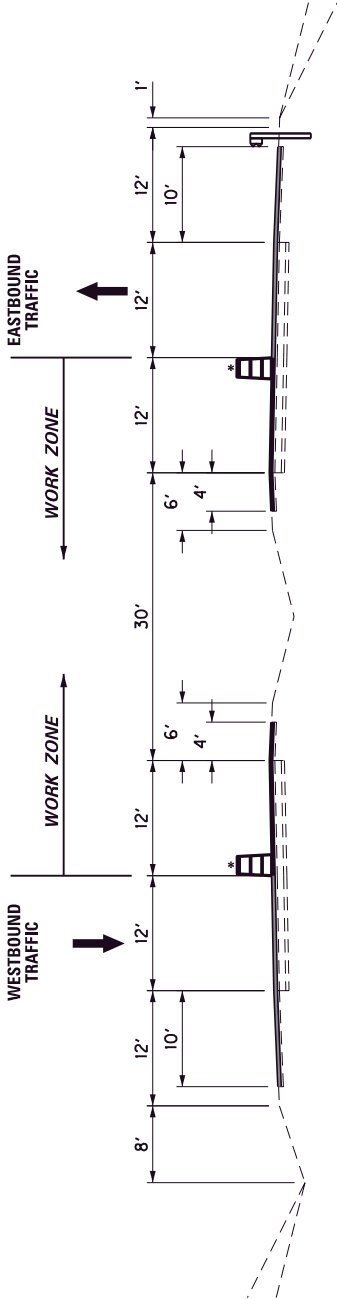
MAINTENANCE OF TRAFFIC

WK 9001
MP 111.25 TO MP 114.882

County	Item No.	Sheet
GRAYSON	4-20001 4-20002	



OUTSIDE LANE CLOSURES



INSIDE LANE CLOSURES

- MOVE DRUM TEMPORARILY WHEN NECESSARY TO ALLOW PAYING EQUIPMENT TO PASS. IMMEDIATELY MOVE DRUMS AS SOON AS PRACTICAL TO RESTORE LANE WIDTHS.

LEGEND

	CONSTRUCTED IN PREVIOUS PHASE
	MILL AND INLAY

**TRAFFIC CONTROL PLAN
GRAYSON COUNTY
WK 9001
NHPP 9001 (014)
FD52 043 9001 111-115
Item No. 4-20001 & Item 4-20002**

<p>THIS PROJECT IS A FULLY CONTROLLED ACCESS HIGHWAY</p>

TRAFFIC CONTROL GENERAL

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

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

Reduce the speed limit in work areas to 55 miles per hour (35 miles per hour for ramps if applicable) and establish double fines for work zone speeding violations. The extent of these areas within the project limits will be restricted to the proximity of actual work areas as determined by the Engineer. Notify the Engineer a minimum of 12 hours prior to using the double fine signs. At the beginning of the work zone, the "BEGIN DOUBLE FINES ZONE" signs will be dual mounted. At the end of the work zone, the "END DOUBLE FINES ZONE" signs will be dual mounted as well. Remove or cover the signs or turn off flashers when the highway work zone does not have workers present for more than a two-hour period of time. Payment for the signs will be at the unit bid price for Temporary Signs. Any relocation or covering of the signs or operation of flashers will be incidental to "Maintain and Control Traffic", lump sum.

Night work will be allowed on this project. Obtain approval from the Engineer for the method of lighting prior to its use.

TRAFFIC PHASING OVERVIEW

This project generally consists of pavement rehabilitation of the Western KY Parkway (WK 9001) including the Clarkson interchange ramps and a profile revision of KY 224 including replacement of the KY 224 bridge over WK 9001 which is required to attain the desired vertical clearance over WK 9001 and to attain the desired sight distance on KY 224.

Construction of the KY 224 roadway and bridge replacement plans may not begin prior to March 1, 2023.

Maintenance of Traffic phasing for the pavement rehabilitation portion of the project (both Item 4-20001 and Item 4-20002) is described in detail within this document. See KY 224 roadway plans for Maintenance of Traffic phasing for the KY 224 profile revision and bridge replacement.

Bridge pier replacement and other bridge construction activities adjacent WK 9001 will be required to be ongoing concurrently with the WK 9001 pavement rehabilitation activities. The contractor will be responsible for the scheduling of pavement rehabilitation activities during times that complement and do not conflict with phasing and lane closures required by the bridge construction. Obtain the engineer's approval prior to any changes in phasing.

Generally, for the pavement rehabilitation portion of the project, Phase I is intended to perform all work required prior to the typical mill and inlay operations. Phase II is intended to complete the mill and inlay depicted on the typical sections through final surfacing. Phase III is intended to complete final pavement markings and final cleanup. Phases I, II, and III may or may not coincide with phases of the same nomenclature of the KY 224 plans depending on the contractor's management of activities on the project.

Project Phasing:

KY 224 PROFILE REVISION AND BRIDGE REPLACEMENT – See KY 224 Roadway Plans.

PAVEMENT REHABILITATION

PHASE IA

In this phase, close the outside lanes and complete Relief Joint Repairs, Perforated Pipe Inspection and repairs, Drainage Repairs located in or adjacent the mainline outside lanes. Complete Erosion Remedial Measures, Paved Ditch Removal, Guardrail Repairs, and all other items of work, located in or adjacent the mainline outside lanes, required prior to the typical mill and inlay operations.

Remove lane closures and restore traffic to two lanes on the mainline for any period of time more than 3 days that no work will be performed requiring a lane closure.

PHASE IB

In this phase, close the inside lanes and complete Relief Joint Repairs, Perforated Pipe Inspection and repairs located in or adjacent the mainline inside lanes. Complete Erosion Remedial Measures, Paved Ditch Removal, Guardrail Repairs, and all other items of work, located in or adjacent the mainline inside lanes, required prior to the typical mill and inlay operations.

Remove lane closures and restore traffic to two lanes on the mainline for any period of time more than 3 days that no work will be performed requiring a lane closure.

PHASE IIA – Eastbound Cross Slope Revision Inside Lane (Item 4-20002)

Shift traffic to the outside lane eastbound, closing the inside eastbound mainline lane to traffic.

Complete the 2" milling of inside lane and shoulder and place Leveling and Wedging from MP 113.67 to MP 114.882 to revise cross slope to the bottom of proposed scratch course grade as calculated from the cross sections where provided, or as determined by monitoring of cross slope during placement where cross sections have not been provided. Construct a temporary 3:1 longitudinal wedge of leveling and wedging at the center of lanes from the top of leveling to eliminate pavement edge drop-offs of greater than 1". Provide a temporary wedge of leveling and wedging of approximately 25' length at each end of the cross slope revision to provide a temporary transition from the existing surface to the newly constructed leveling and wedging course. This temporary wedge will be removed as part of the final surfacing operation. **Attention:** This segment and activity has been intentionally isolated as a separate phase in order to reduce the duration that traffic in the outside lane will be subjected to an adjacent step up in pavement and

potential drainage impacts. Complete the required leveling and wedging and shift traffic to the inside lane as soon as practical.

PHASE IIB – Eastbound Cross Slope Revision and Final Surfacing Outside Lane

Shift traffic to the inside lane eastbound, closing the outside eastbound mainline lane to traffic. Traffic will be required to travel on the leveling and wedging course through the cross slope revision area.

Complete the 2" milling in the outside lane and shoulder and place Leveling and Wedging from MP 113.67 to MP 114.882 to revise cross slope to the bottom of proposed scratch course grade as calculated from the cross sections where provided, or as determined by monitoring of cross slope during placement where cross sections have not been provided. Remove guardrail and widen outside embankment as necessary and place DGA wedge outside of the leveling and wedging course.

MP 111.25 to MP 112.4, complete the 1.5" milling of the outside lane and adjacent shoulder. Complete the additional 3" milling and placement of asphalt base in the outside lane as a continuous operation in order to reduce the resulting drop-off to approximately 1.5" at the end of each production shift. Plan each day's production rate to ensure placement of the asphalt base can be completed to the daily limits of the 3" depth milling by the end of each production shift. Place final asphalt surfacing on the mainline lane and adjacent shoulder upon completion of all asphalt base in the mainline lane.

Place 0.5" Scratch course and final asphalt surface on the outside lane and shoulder between MP 112.4 and MP 114.882. Complete DGA shoulder wedge and asphalt seal coat and restore guardrail.

Complete milling and inlay of the asphalt surface course on the Clarkson Interchange Ramps in conjunction with the placement of the asphalt surfacing on the outside lanes. Maintain traffic on the ramps at all times by half width construction.

PHASE IIC – Final Surfacing Inside Lane Eastbound

Shift traffic to the eastbound outside lane, closing the eastbound inside mainline lane to traffic.

MP 111.25 to MP 112.4, complete the 1.5" milling of the inside lane and adjacent shoulder. Complete the additional 3" milling and placement of asphalt base in the inside lane as a continuous operation in order to reduce the resulting drop-off to approximately 1.5" at the end of each production shift. Plan each day's production rate to ensure placement of the asphalt base can be completed to the daily limits of the 3" depth milling by the end of each production shift. Place final asphalt surfacing on the mainline lane and adjacent shoulder upon completion of all asphalt base in the mainline lane.

Complete remaining 2" milling of inside lane and shoulder between MP 112.4 and MP 113.67. Place 0.5" Scratch course and final asphalt surface on the inside lane and shoulder between MP 112.4 and MP 114.882. Place DGA wedge as needed and asphalt seal coat.

PHASE IID – Final Surfacing Inside Lane Westbound

Shift traffic to the outside lane, closing the inside mainline lane to traffic.

MP 111.25 to MP 112.4, complete the 1.5” milling of the inside lane and adjacent shoulder. Complete the additional 3” milling and placement of asphalt base in the inside lane as a continuous operation in order to reduce the resulting drop-off to approximately 1.5” at the end of each production shift. Plan each day’s production rate to ensure placement of the asphalt base can be completed to the daily limits of the 3” depth milling by the end of each production shift. Place final asphalt surfacing on the mainline lane and adjacent shoulder upon completion of all asphalt base in the mainline lane.

Complete 2” milling of inside lane and shoulder and place scratch course and final asphalt surface on the inside lane and shoulder between MP 112.4 and MP 114.882. Place DGA wedge as needed and asphalt seal coat.

PHASE IIE – Final Surfacing Outside Lane Westbound

Shift traffic to the inside lane, closing the outside mainline lane to traffic.

MP 111.25 to MP 112.4, complete the 1.5” milling of the outside lane and adjacent shoulder. Complete the additional 3” milling and placement of asphalt base in the outside lane as a continuous operation in order to reduce the resulting drop-off to approximately 1.5” at the end of each production shift. Plan each day’s production rate to ensure placement of the asphalt base can be completed to the daily limits of the 3” depth milling by the end of each production shift. Place final asphalt surfacing on the mainline lane and adjacent shoulder upon completion of all asphalt base in the mainline lane.

Complete 2” milling of the outside lane and shoulder and place scratch course and final asphalt surface on the outside lane and shoulder between MP 112.4 and MP 114.882. Place DGA wedge as needed and asphalt seal coat.

Complete milling and inlay of the asphalt surface course on the Clarkson Interchange Ramps in conjunction with the placement of the asphalt surfacing on the outside lanes. Maintain traffic on the ramps at all times by half width construction.

PHASE III

Using alternating lane closures, complete any remaining work including installation of final pavement markings, inlaid pavement markers, flexible delineators, shoulder rumble strips and final cleanup, etc.

PAVEMENT REHABILITATION SPECIFIC NOTES

RELIEF JOINT/PAVEMENT REPAIR LOCATIONS

Approximate Blowup/Relief Joint repair locations are listed elsewhere in the proposal. The Engineer will determine the exact location at the time of construction. Once removal of pavement at a particular repair location has begun, the contractor shall work continuously to complete the work required to bring the pavement up within 4 inches of the existing adjacent surface grade. Type III Barricades shall be placed immediately in front of all pavement removal areas.

MILL AND INLAY OF ASPHALT BASE

Inlay of asphalt base must be completed by the end of each day's shift for all areas milled for asphalt base placement, in order to eliminate the pavement edge drop-off created by the milling operation.

SHOULDER PREPARATION AND RESTORATION

Wide loads, errant vehicles, or traffic shying away from equipment or workers may inadvertently tend to travel for short distances on the shoulders. Clean any debris from the shoulders prior to beginning any work on the project and periodically when debris accumulates throughout the duration of the project. Monitor shoulder conditions and perform repairs as necessary if damage develops. Repairs to shoulders are to be paid by the tons of milling measured, asphalt material for tack, and the measured tons of the asphalt mixture used. Use asphalt base, asphalt surface or leveling and wedging for repairs as directed by the engineer. No direct payment for these repairs will be made other than measurement and payment of established contract work items necessary to make the repairs. No additional mobilization or traffic control will be considered for payment for these potential repairs.

LANE CLOSURES

Contrary to Section 112.04.17, Lane closures, whether long term or short term, will not be measured for payment and will be incidental to the bid item "Maintain and Control Traffic". Lane closures must be installed on both inside lanes while work is being performed in the common median.

LANE WIDTHS

The minimum clear lane width will be 12'. Lane widths may be reduced for short durations in the local vicinity of paving operations or other operations that equipment or personnel is required to work in close proximity of adjacent traffic. Restore lane widths to 12' as soon as practical after the paving equipment has passed. Make provisions for the passage of wide loads up to 16'. Use a lane closure all times when work is performed in the lane or adjacent shoulder.

Maintain minimum 9' lane widths for ramps during active construction operations.

RAMPS

Maintain access to ramps at all times and conduct ramp work half width. Temporary shifts in the ramp gore locations required to maintain access to the ramps are to be approved by the engineer. Restore ramps to the original travel pattern as soon as is practical upon completion of the work.

ROAD CLOSURE

Mainline WK 9001 closures will be allowed for certain KY 224 bridge construction items. Traffic will be reduced to 1 lane in advance of the interchange and transitioned to the ramps by use of drums on 50' spacing. Flaggers at each ramp terminal will be required when diversion of WK 9001 traffic onto ramps is in place.

Closure of WK 9001 will only be allowed for the following activities: Demolition of existing structure and setting beams.

Closure of WK 9001 will only be permitted on the following times:

Nightly from 8:00 pm to 6:00 am the following morning.

SIGNS

Additional traffic control signs in addition to normal lane closure signing detailed on the Standard Drawings may be required by the Engineer. Additional signs needed for lane closures may include, but are not limited to, dual mounted LEFT/RIGHT LANE CLOSED 1 MILE, LEFT/RIGHT LANE CLOSED 2 MILE, LEFT/RIGHT LANE CLOSED 3 MILE, SLOWED/STOPPED TRAFFIC AHEAD, KEEP LEFT/RIGHT. Signage for reduced speed limits and double fine work zones will be furnished, relocated, and maintained by the Contractor.

Contrary to section 112, individual signs will be measured only once for payment, regardless of how many times they are set, reset, removed and relocated during the duration of the project. Replacements for damaged signs or signs directed to be replaced by the Engineer due to poor legibility or reflectivity will not be measured for payment.

A quantity of signs has been included for "Roadwork Ahead" signs on entrance ramps, extra double fine signs, keep left/keep right and speed limit signs between interchanges. These are to be paid for only once regardless of how many times they are moved or relocated.

SPEED LIMIT REDUCTIONS AND DOUBLE FINE ZONES

Install all signing for speed zone reductions in accordance with Standard Drawing TTD-130. Use Option A sign assembly (speed reduction when beacons are flashing).

Reduce the speed limit to 55 MPH at times approved by the engineer.

Utilize double fine zone signs in strict accordance with Standard Drawing TTD-120-03.

Restore speed limits to 70 MPH for any extended periods of inactivity on the project.

FLASHING ARROWS

Flashing arrows will be paid for once, regardless of how many times they are moved or relocated. The Department **WILL NOT** take possession of the flashing arrows upon completion of the work.

PORTABLE CHANGEABLE MESSAGE SIGNS

Provide portable changeable message signs (PCMS) in advance of and within the project at locations to be determined by the Engineer. PCMS being bid independently of the Queue Warning System shall be used as directed by the engineer. The PCMS will be in operation at all times. In the event of damage or mechanical/electrical failure, the contractor will repair or replace the PCMS immediately. PCMS will be paid for once, no matter how many times they are moved or relocated. The Department **WILL NOT** take possession of the signs upon completion of the work.

TYPE III BARRICADES

Place Type III Barricades in advance of each area of pavement removal required by "Blow Up/Relief Joint" repairs. Utilize Type III Barricades at all other locations required by the Standard Drawings or MUTCD. Contrary to the specifications, no direct payment will be made for Type III Barricades and will be considered incidental to "Maintain and Control Traffic".

GUARDRAIL

Guardrail may be removed and later reinstalled at the contractor's expense to access the work areas. Reinstall guardrail that has been temporarily removed for access as soon as practical after completion of the activity necessitating the guardrail removal. Reinstall guardrail that has been removed for replacement of damaged guardrail, shoulder erosion repairs, or other scheduled removal activities as soon as possible and upon completion of the activity necessitating the guardrail removal.

A lane closure or shoulder closure will be required at all times guardrail is not in place. All blunt ends will be eliminated by removal of additional posts and pinning the blunt end to the ground and covering the end with soil or DGA. Maintain drums at 20' spacing in any area in which guardrail has been removed until such time it is replaced.

PAVEMENT MARKINGS

Remove or cover the lenses of pavement markers that do not conform to the traffic control scheme in use, or as directed by the Engineer. Replace or uncover lenses before a closed lane is reopened to traffic. No direct payment will be made for removing or covering and uncovering the lenses but will be incidental to "Maintain and Control Traffic," lump sum.

Place temporary and permanent striping in accordance with Section 112 and Section 714, except that:

1. Temporary striping will be 6" in width.
2. Edge lines will be required for temporary striping during the lane closures.
3. Existing, temporary, or permanent striping will be in place before a lane is opened to traffic
4. Permanent striping will be extruded Thermoplastic Markings.
5. Striping removal will be performed by water blasting methods only in a non-destructive manner. The Contractor will be required to adjust his operations to ensure no damage results to ultimate pavement due to striping removal efforts. Temporary removable tape will be used to mask lines and for temporary striping on permanent pavement that is not to be replaced.

Should the Contractor change the existing striping pattern, the Contractor is to restripe the roadway back to its original configuration at his own expense if no work is anticipated for a period of time.

PAVEMENT EDGE DROP-OFFS

Pavement edge drop-offs will be protected by a lane or shoulder closure. Lane closures will be protected with plastic drums, vertical panels, or barricades as shown on the Standard Drawings.

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

Less than 2" – Protect with a lane closure.

2" to 4" – Protect with a lane closure. Place plastic drums, vertical panels, or barricades every 50 feet. Cones may not be used in place of plastic drums, panels, and barricades at any time. Place Type III Barricades at the beginning of the lane closures, and place additional Type III Barricades spaced at 2,500 feet during the time the lane closure is in place.

Greater than 4" – Relief Joint – In areas where pavement is to be removed, work should proceed continuously so that traffic is exposed to a drop-off for the minimum amount of time necessary to bring the pavement back up to existing grade or within 4 inches of existing grade. Barrel spacing should be 20 feet and appropriate lighting should be utilized to illuminate the area during nighttime operations.

Other than Relief Joint – If less than 6 feet from traffic, construct positive separation or construct a wedge with 3:1 or flatter slope of soil, DGA or asphalt millings. If there is 6 feet or more distance between the edge of pavement and drop-off, bridge panels or traffic drums will be placed every 50 feet throughout the drop-off area. Payment for CSB or DGA used for wedging will be allowed.

TRAFFIC COORDINATOR

Designate an employee to be traffic coordinator. The designated Traffic Coordinator must meet the requirements of section 112.03.12 of the Standard Specifications. Contrary to the specifications, the Traffic Coordinator will inspect, or supervise the inspection, of the project maintenance of traffic once every two hours during the Contractor's operations and at any time a lane closure is in place. The Traffic Coordinator will report all incidents throughout the work zone to the Engineer on the project. The Contractor will furnish the name and telephone number where the Traffic Coordinator can be contacted at all times.

During any period when a lane closure is in place, the Traffic Coordinator will arrange for personnel to be present on the project at all times to inspect the traffic control, maintain the signing and devices, and relocate portable changeable message boards as queue lengths change. The personnel will have access on the project to a radio or telephone to be used in case of emergencies or accidents.

This project is designated a "Significant Project" and subject to the requirements of section 112.03.12 of the Specifications for projects of that designation.

COORDINATION OF WORK

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

CONTRACTOR'S AND CONTRACTOR'S EMPLOYEES' VEHICLES

Do not use or allow employees to use median crossovers at any time except when inside lanes are closed for construction. In all other phases of construction, change vehicular direction of travel only at interchanges.

Remove all contractor vehicles and equipment from the clear zone when not in use. Store all materials outside the clear zone.

WIDE LOADS

Wide load detours will not be established on this project. Provide for passage of wide loads up to 16 feet. Wide loads may use a portion of the shoulder to allow for passage. Temporarily shift traffic drums to allow for passage of wide loads when necessary.

KY224 SPECIFIC NOTES

LANE CLOSURES

Contrary to Section 112.04.17, Lane closures, whether long term or short term, will not be measured for payment and will be incidental to the bid item "Maintain and Control Traffic".

SIGNS

Contrary to section 112, individual signs will be measured only once for payment, regardless of how many times they are set, reset, removed and relocated during the duration of the project. Replacements for damaged signs or signs directed to be replaced by the Engineer due to poor legibility or reflectivity will not be measured for payment. Sign placement will be in accordance with the applicable Standard Drawings and MUTCD. All signing is to be approved by the engineer.

Contrary to the specifications "LOW SHOULDER" signs will not be measured for payment but will be considered incidental to "Maintain and Control Traffic".

Cover all existing signs that may be in conflict with traffic scheme employed.

PAVEMENT MARKINGS

Either permanent or temporary pavement markings will be required to be in place prior to any changes in traffic patterns. Removal of conflicting existing markings will be required prior to any traffic phase changes. Permanent pavement markings for KY 224 will be Durable Waterborne Paint.

TEMPORARY SIGNALS

A multiphase signal will be employed for control of one lane traffic during KY 224 construction and including bridge construction activities. Control of the mainline KY 224 traffic will be required as well as control of the exit ramps in the signal system. A temporary stop bar will be required on KY 224 in advance of each ramp terminal. The contractor shall develop a signal plan detailing the layout and the type of equipment to be used, for approval by the engineer and will work with District 4 Traffic to develop signal timing.

The temporary signal operation may need to be taken out of operation periodically during activities such as paving and while WK 9001 mainline traffic is diverted onto ramps. The contractor shall provide flaggers at each conflict point to control traffic until operation of the temporary signal system can be re-established.

The contractor shall provide a 24-hour contact person to be responsible for responding to signal malfunction. In the event of a malfunction, the contractor is to respond immediately to the notification and make repairs. If repairs cannot be made expediently, flaggers shall be provided by the contractor until such time that repairs can be made.

ALTERNATIVE PLANS

If the contractor wishes to deviate from the traffic phasing and schemes outlined in this document and in the KY 224 Roadway plans, he shall prepare an alternate plan and present it in writing to the engineer and obtain approval prior to implementation.

CONTRACTOR VEHICLES

Contractor vehicles and equipment shall move with and not against the flow of traffic. Construction traffic will only enter and exit at designated locations. Flaggers will be required at locations construction traffic enters or cross traffic. The contractor shall clean all debris or tracking of soil from paved surfaces and will place crushed aggregate at vehicle access points to prevent tracking onto paved surfaces if necessary and at the contractor's expense.

ROAD CLOSURE

Road Closures for KY 224, WK 9001 Ramps, and Hickory Flats will not be allowed. Maintain a minimum of one lane of traffic open for all roadways at all times. Traffic may be held for up to 15 minutes during times of low traffic volumes for traffic pattern changes or other activities as approved by the engineer.

An unusually thick asphalt overlay of KY 224, Ramps and Hickory Flats is required for profile correction. This thick overlay will be accomplished by placement of the asphalt overlay in layers, half width while maintaining one lane traffic. Pavements will be tapered at each access point to maintain continual access to all approaches and properties. The contractor will be allowed to place only the number of layers daily that can be compacted, cooled, and traffic applied without damage or rutting to the newly placed asphalt.

LOCAL ACCESS

Maintain access to local properties and approach roads at all times. Construct entrance and approach pavements part width and ramp pavements down to provide access during paving operations.

SCHOOL BUS AND EMERGENCY VEHICLES

If traffic is stopped due to construction and an emergency vehicle on an emergency run or a school bus arrives at the project site, the contractor shall make provisions for the passage of that vehicle as soon as possible.

BLASTING

No blasting will be allowed on the project.

PAVEMENT EDGE DROP-OFFS

Pavement edge drop-offs will be protected by a lane or shoulder closure. Lane closures will be protected with plastic drums, vertical panels, or barricades as shown on the Standard Drawings.

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

Less than 2" – Protect with a lane closure or shoulder closure.

2" to 4" – Protect with a lane closure or shoulder closure. Place plastic drums, vertical panels, or barricades every 50 feet. Cones may not be used in place of plastic drums, panels, and barricades at any time. Place Type III Barricades at the beginning of the lane closures, and place additional Type III Barricades spaced at 500 feet during the time the lane closure is in place if temporary barrier is not in place.

Greater than 2" – If less than 6 feet from traffic, construct positive separation (temporary barrier) or construct a wedge with 3:1 or flatter slope of soil, DGA or asphalt millings. If there is 6 feet or more distance between the edge of pavement and drop-off, bridge panels or traffic drums will be placed every 50 feet throughout the drop-off area. Payment for CSB or DGA used for wedging will be allowed.

**WK 9001
Grayson County
NHPP 9001 (014)
FD52 043 9001 111-115
Item No. 4-20001 & 4-20002
MP 111.25 TO MP 114.882**

**THIS PROJECT IS A FULLY
CONTROLLED ACCESS HIGHWAY**

I. DESCRIPTION

Perform all work in accordance with the Department's 2019 Standard Specifications, Supplemental Specifications, Applicable Special Provisions, and Applicable Standard and Sepia Drawings, except as hereafter specified. Article references are to the Standard Specifications. Furnish all materials, labor, equipment, and incidentals for the following work:

(1) Maintain and Control Traffic; (2) Drainage structure work; (3) Relief Joint Repairs (4) Guardrail Repairs (5) Edge Drain Inspection (6) Cross Slope Revision (7) Asphalt Pavement and Milling and Texturing; (8) Pavement markers and markings; (9) Erosion Repairs and Grading Slopes and (10) Approach bridge replacement and profile revision (11) All other work specified as part of this contract.

II. MATERIALS

Except as specified in these notes or on the drawings, all materials will be according to the Standard Specifications and applicable Special Provisions and Special Notes. The Department will sample and test all materials according to Department's Sampling Manual and the Contractor will have the materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing, unless otherwise specified in these notes.

- A. **Maintain and Control Traffic.** See Traffic Control Plan.
- B. **Pavement Markings - 6 inch.** Use extruded Thermoplastic Pavement Markings for permanent striping.
- C. **Pavement Markings – 6 inch.** Use durable waterborne paint for 6” wide markings for KY224 and for the KY 224 bridge surface.

- D. **Channel Lining Class II & III.** Channel lining will be limestone and is to be placed at pipe outlets, ditch repair and eroded locations as directed by the Engineer.
- E. **Asphalt Material for Tack Non-Tracking.** See “Special Note for Non Tracking Tack Coat”.
- F. **Joint Adhesive.** See “Special Note for Longitudinal Pavement Joint Adhesive”
- G. **Guardrail.** Use 7’ posts for all guardrail installations, both pavement rehabilitation and KY 224 profile revision and bridge replacement.
- H. **Seeding and Protection.** Use erosion control blanket for all seeding applications.
- I. **Asphalt Seal Aggregate.** Use crushed aggregate #8 or #9m for asphalt seal coat applications.

III. CONSTRUCTION METHODS

- A. **Maintain and Control Traffic.** See Traffic Control Plan. Use waterblasting methods only for striping removal when necessary in lieu of abrasive or other methods.
- B. **Site Preparation.** Be responsible for all site preparation. Do not disturb existing signs. This item will include, but is not limited to, incidental excavation and backfilling; removal of all obstructions or any other items; disposal of materials; sweeping and removal of debris; shoulder preparation and restoration, temporary and permanent erosion and pollution control; and all incidentals. Site preparation will be only as approved or directed by the Engineer.
- C. **Disposal of Waste.** Dispose of all cuttings, debris, and other waste off the right-of-way at approved sites obtained by the Contractor. The contractor will be responsible for obtaining any necessary permits for this work. Temporary openings in the right of way fence for direct access to waste sites off the right of way or for access to other public roads will not be allowed. No separate payment will be made for obtaining the necessary permits, but will be incidental to the other items of the work. Disposal of existing cuttings and brush shall adhere to Section 202 of the current Standard Specifications.
- D. **Final Dressing, Clean Up, and Seeding and Protection.** After all work is completed, completely remove all debris from the job site. Perform Class A Final Dressing on all disturbed areas. Sow disturbed earthen areas with Seed Mixture No. I or Seed Mixture No. II as applicable and use erosion control blanket in lieu of “Seeding and Protection” in all seeding applications. Install erosion control blanket in all ditching areas not receiving aggregate channel lining.

- E. **Guardrail.** Remove guardrail where necessary to perform erosion repairs, cross slope revision, or other activities necessary requiring removal of guardrail for access. Replace guardrail as soon as practical at the conclusion of the work requiring the removal of the guardrail.
- F. **Pavement Striping and Inlaid Pavement Markers.** Permanent striping will be in accordance with Section 112 for temporary striping, Section 713 for Waterborne Paint, and Section 714 for Thermoplastic Markings, except that:
- (1). Striping will be 6" in width on WK 9001 applications and 6" in width on KY 224.
 - (2). Permanent striping or temporary striping will be in place before a lane is opened to traffic.
 - (3). Pavement Markers shall be installed per Sepia 7, 11, 13 or 14.
- G. **On-Site Inspection.** In accordance with section 102.06, each Contractor submitting a bid for this work will make a thorough inspection of the site prior to submitting a bid and will thoroughly familiarize himself with existing conditions so that the work can be expeditiously performed after a contract is awarded. Submission of a bid will be considered evidence of this inspection having been made. Any claims resulting from site conditions will not be honored by the Department.
- H. **Caution:** Information shown on the drawings and in this proposal, and the types and quantities of work listed are not to be taken as an accurate or complete evaluation of the material and conditions to be encountered during construction. The bidder must draw his own conclusions as to the conditions encountered. The Department does not give any guarantee as to the accuracy of the data and no claim will be considered for additional compensation if the conditions encountered are not in accordance with the information above.
- I. **Utility Clearance.** It is not anticipated that 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.
- J. **Joint Adhesive.** See "Special Note for Longitudinal Pavement Joint Adhesive".
- K. **Crushed Aggregate No. 2.** Crushed Aggregate No. 2 will be used to refill undercut areas for KY 224 construction and for slope protection at shoulder erosion repair areas.

- L. **Remove Paved Ditch.** As individually approved by the engineer, paved ditches that are required to be removed due to failure or damage, may be broken into fragments no greater than 1 foot diameter and reshaped and allowed to remain in place. The ditches must be regraded, filling any voids, and the broken concrete used in the same manner as channel lining. The broken concrete will be supplemented by a 1 – 2 feet thick application of Channel Lining Class III as directed by the engineer.
- M. **Relief Joint.** See Relief Joint Detail. It is intended that the relief joint crushed stone backfill empty into the existing edge drain system. If the engineer determines that conditions warrant, a 4 inch non-perforated pipe outlet may be added and 4 inch perforated pipe headwall added at the low point in the relief joint excavation.
- N. **Trenching.** The item “Trenching” was established to excavate failing shoulder materials adjacent various ramps in preparation for ramp shoulder repairs. Excavate the existing shoulder materials to the depths and widths indicated on the Shoulder Base Repair Detail and prepare and cut subgrade in preparation for the proposed paving materials.
- O. **Trenching and Backfilling.** The item “Trenching and Backfilling” was established to trench and backfill for placement of lighting conduit/ducted cable.
- P. **Trench Drain.** Construct trench drains in accordance with the Trench Drain Detail to provide a drainage outlet for existing pavement. Construct Trench Drains at locations designated on the plans or as directed by the engineer.
- Q. **Security Plate Assembly.** Install security plate assemblies for any newly constructed drainage structures with metal grates or at locations that grates are proposed to be replaced.
- R. **Reshape Median.** The item “Reshape Median” was established to regrade the WK 9001 median in the vicinity of the KY 224 Bridge Replacement in accordance with RBI-007-09 to restore and prepare the median for the installation of Crash Cushion Type VI. Use Crushed Aggregate Size No. 57 for surface protection under the proposed bridge per the Standard Drawing. Conform to grading in accordance with RBI-007-09 except Crash Cushion Type VI will be used in lieu of Crash Cushion Type XI. Minor modification to berm grading at the location of the crash cushion will be necessary to accommodate the concrete pad for Crash Cushion Type VI.
- S. **Inspect and Certify Edge Drain System.** Complete the initial edge drain camera inspection prior to the initiation of other construction activities. Complete the final camera inspection after all construction activities have been completed and include all edge drain repair areas and locations joint/pavement repairs were performed.

- T. **Flume Inlet Ty 2-Mod.** Construct Flume Inlet Type 2 in accordance with RDD-021-07 except truncate construction at Section A-A of the Standard Drawing.
- U. **Temp Worksite Speed Limit Sign Assembly.** Erect speed limit reduction sign assemblies in accordance with TTD 130, Option A at locations approved by the engineer. Monitor the operation of the signs as part of the Project Traffic Coordinator's duties.

IV. METHOD OF MEASUREMENT

- A. **Maintain and Control Traffic.** See Traffic Control Plan. Only the bid items listed will be measured for payment. No measurement or payment for striping removal or removal or covering of existing pavement marker lenses will be made and will be considered incidental to "Maintain and Control Traffic".
- B. **Site Preparation.** Other than the bid items listed, site preparation will not be measured for payment, but will be incidental to the other items of work.
- C. **Clearing and Grubbing.** The item of Clearing and Grubbing will be measured for the KY224 bridge replacement and profile revision portion of the project. All other items of clearing, brush or sod removal, or removal of obstruction required at other locations on the project will be considered incidental to Site Preparation and will not be measured for payment.
- D. **Erosion Control.** Erosion control items will be measured and paid in accordance with the Standard Specifications for Road and Bridge Construction. No direct measurement for seeding in locations that erosion control blanket is used will be made as the seeding is incidental to the erosion control blanket in accordance with the specifications.
- E. **Relief Joint.** See Relief Joint Detail. Relief Joints will be measured by the square yard of pavement removed and replaced as specified in the Relief Joint Detail. Locations and quantities will be determined in the field by the engineer. Quantities for this item may be increased, reduced or eliminated at the discretion of the engineer.

If the engineer directs the addition of a drainage outlet, measurement of the linear feet of perforated and non-perforated pipe installed and measurement of the perforated pipe headwall installed will be made and paid as a supplemental item. All other items of work required for installation of the relief joint repairs and pipe outlets will be considered incidental to the item "Relief Joint".

- F. **Remove Existing Paved Ditch.** Removal of paved ditches will be measured by the square yard and will include the measured quantity that are broken, reshaped, supplemented by channel lining and allowed to remain on the project as approved by the engineer. Channel lining used will be measured separately for payment.

- G. **Joint Adhesive.** See “Special Note for Longitudinal Pavement Joint Adhesive”.
- H. **Pavement Markers Removal.** No direct payment will be made for the removal of the existing pavement markers prior to the milling operation and shall be considered incidental to milling and texturing.
- I. **Trench Drain.** Trench Drain will be measured along the bottom of the trench from the beginning of the trench at the edge of pavement to the point the trench daylights into the slope. No direct measurement or payment will be made for the excavation, geotextile fabric, stone backfill or disposal of waste.
- J. **Temporary Signal Multi Phase.** The Temporary Signal Multi Phase will be measured once for payment only and will include a signal system capable of controlling one lane traffic on KY 224 and also the exit ramp terminals. Reconfiguration, relocation, or work required to take the system out of service and restore service will not be measured for payment.
- K. **Pave Marking-Thermo Cross-Hatch.** Pave Marking-Thermo Cross-Hatch will be measured as the actual area of paint applied to construct the Chevron and not the total area of island.
- L. **Pave Mark Thermo Chevron.** Pave Mark Thermo Chevron will be measured as the actual area of paint applied to construct the Chevron and not the total area of gore or island.
- M. **Fabric-Geotextile Class 2.** No direct measurement or payment will be made for Fabric-Geotextile Class 2 used in conjunction with the placement of channel lining in channel lined ditches, Relief Joints, Trench Drain Backfill, or other incidental applications. Only applications of Fabric-Geotextile Class 2 with established contract quantities will be measured and paid.
- N. **Roadway Excavation, Borrow Excavation and Embankment in Place.** Except for KY 224 Roadway Plan Earthwork and Cross Slope Revision Earthwork, no direct payment will be made for the items “Roadway Excavation” or “Borrow Excavation” or “Embankment in Place”. All excavation, borrow, embankment or grading and dressing necessary to complete the work, such as excavating or dressing slopes, erosion repairs, regrading median, etc., will be considered incidental to the item of work requiring the grading.

A quantity of Embankment in Place has been established and will be measured for payment in accordance with the Specifications for the KY 224 bridge replacement and profile revision work and for the widening required for the WK 9001 cross slope revision. Only items of work included in the Earthwork Summary will be measured for payment.

- O. **Trenching.** Trenching will be measured longitudinally along the centerline (baseline) of the ramp for the distance excavated regardless of the width or depth of the excavation.
- P. **Reshape Median.** Reshape median will be measured longitudinally along the centerline of WK 9001 for the distance required to grade the median in preparation for the Crash Cushion Type VI installation in accordance with RBI 007-09. No direct measurement will be made for excavation or embankment, clearing or disposal of waste. Crushed Aggregate #57 for surface protection will be measured for payment.
- Q. **Temp Worksite Speed Limit Sign Assembly.** Temp Worksite Speed Limit Sign Assembly will be measured per each sign assembly used on the project.

V. BASIS OF PAYMENT

No direct payment will be made other than for the bid items listed. All other items required to complete the construction will be incidental to the bid items listed. Existing signs damaged by the Contractor will be replaced by the Contractor at his expense. Payment will be made in accordance with the KYTC Standard Specifications, current edition with supplemental specifications and current Standard Drawings unless otherwise specified herein.

- A. **Maintain and Control Traffic.** See Traffic Control Plan.
- B. **Site Preparation.** Other than the bid items listed, no direct payment will be allowed for site preparation, but will be incidental to the other items of work.
- C. **Pavement Marker Removal.** No direct payment will be made for the removal of the existing pavement markers prior to the milling operation and shall be considered incidental to milling and texturing.
- D. **Temporary Striping.** In accordance with Section 714.04.01, the Department will **NOT** measure temporary paint used for interim markings for Thermoplastic Paint applications.
- E. **Lane Closures.** Contrary to Section 112, lane closures will not be measured for payment but will be incidental to the bid item "Maintain and Control Traffic". Arrow boards, portable message boards, and signs shall be paid for one time regardless of how many times they are moved.
- F. **Barricade Type III** – Contrary to the specifications, no direct measurement or payment will be made for Barricade Type III.

- G. **Ditching and Shouldering.** In accordance with Section 209 of the Standard Specifications, the bid item “Ditching and shouldering” includes ditching on both sides of the roadway and the median for the entire length of the project. Cleaning of all drainage structures, including perforated pipe headwalls and pipe structures 36 inches in diameter or less is also included in this bid item. In addition to Section 209.04.06 shouldering shall include all materials required to complete the shoulder repairs as shown in the shoulder repair detail except the bid items listed for payment on the shoulder repair detail. Approximate locations for this repair is shown on the shoulder repair detail. Plan quantity of “Ditching and Shouldering” will be paid upon the completion of all items of work required.
- H. **Remove Existing Paved Ditch.** The removal of the existing paved ditch shall be paid for as “square yards” and shall include the breaking and reshaping of the existing concrete in preparation for installation of the Class III Channel Lining.
- I. **Milling and Texturing.** Milling and texturing will be paid for per section 408.05 of the 2019 Standard Specifications. No direct payment will be made for disposal of millings. Additional and variable thickness of milling is required for profile and cross slope revisions. Payment per measured ton of “Asphalt Pave Milling and Texturing” will be considered full compensation for any work required to measure, control, and carry out the additional or variable depth of milling required to modify profile grade or cross slope.
- J. **Waterblasting Striping Removal.** Waterblasting Striping Removal will be required for all striping removal applications and will be considered incidental to “Maintain and Control Traffic”.
- K. **Joint Adhesive.** See “Special Note for Longitudinal Pavement Joint Adhesive”
- L. **Asphalt Material for Tack Non-Tracking.** See Special Note for Non Tracking Tack Coat.
- M. **Crushed Aggregate Size No 2.** No direct measurement or payment will be made for Crushed Aggregate Size No. 2 used in “Relief Joint” or “Trench Drain” construction. All other applications of Crushed Aggregate Size No. 2 will be measured and paid in accordance with the Standard Specifications.
- N. **Fabric-Geotextile Class 2.** No direct measurement or payment will be made for Fabric-Geotextile Class 2 used in conjunction with the placement of channel lining in channel lined ditches, Relief Joints, Trench Drain Backfill, or other incidental applications. Only applications of Fabric-Geotextile Class 2 with established contract quantities will be measured and paid.

- O. **Relief Joint.** See Relief Joint Detail. Relief Joints will be measured by the square yard of pavement removed and replaced as specified in the Relief Joint Detail.

If the engineer directs the addition of a drainage outlet, payment will be made by supplemental agreement of the linear feet of perforated and non-perforated pipe installed and for the perforated pipe headwall installed. All other items of work required for installation of the relief joint repairs and pipe outlets will be considered incidental to the item "Relief Joint".

- P. **Inspect and Certify Edge Drain System.** One payment for "Inspect and Certify Edge Drain System" will include both the initial camera inspection of the entire existing system which is required to identify damaged and nonfunctional areas in the existing system requiring replacement, and also includes the second inspection required for certification of the newly installed replacement areas.

- Q. **Guardrail.** The Department will only measure and pay for the removal of guardrail and placement of new guardrail for items of work that have an established contract quantity of guardrail items. Removal of guardrail may be allowed for other work items for access to the work area, however the removal and reinstallation of guardrail for these applications will be at the contractor's expense.

- R. **Temp Worksite Speed Limit Sign Assembly.** Only one payment for each sign assembly used on the project will be made regardless of how many times it is moved or relocated on the project. Payment for each sign assembly will include all signs, posts, flashers, and any other hardware and appurtenances required to complete a functional assembly and will include monitoring and operating the flashers when speed limit reductions are required.

**WK 9001
Grayson County
NHPP 9001 (014)
FD52 043 9001 111-115
Item No. 4-20001 & Item 4-20002
MP 111.25 to MP 114.882**

This project is intended to provide an intermediate mill and inlay from MP 111.25 to MP 112.4 (Item 4-20001) and a thin mill and inlay from MP 112.4 to MP 114.882 (Item 4-20002). The KY 224 overhead structure will be replaced to attain the required vertical clearance over the Western KY Parkway (WK 9001) and the profile of KY 224 revised to improve stopping sight distance and intersection sight distance. This project will include the resurfacing of both the inside and outside shoulder.

1. The dimensions shown on the typical section for pavement and shoulder widths and thickness are nominal or typical dimensions. The actual dimensions to be constructed may be varied to fit existing conditions as directed or approved by the Engineer. It is not intended that existing pavement or shoulders be widened unless otherwise specified in the Proposal.
2. The contractor is to be advised of the locations of overhead utility wires on the project. The following locations are approximate:

Mile 111.248	KY 224 STA. 46+95
Mile 112.26	RAMP A STA. 80+74
Mile 112.33	
Mile 114.13	
Mile 114.57	

CAUTION: Other overhead utility locations may exist. These and all other utilities should be avoided on this project. If any utility is impacted, it will be the contractor's responsibility to contact the affected utility and cover any costs associated with the impact.

3. The contractor is advised that the planned locations of work established by milepoints are referenced from the Kentucky Transportation Cabinet's Official Route Log. The existing reference markers may not correspond to the established work locations.
4. Quantities of guardrail removal and installation of new guardrail have been established for areas requiring removal for access for shoulder erosion repair work, cross slope repair, etc. The contractor will place traffic drums on 20' spacing in the areas and pin down exposed blunt ends until such time that guardrail is re-established. Either a lane closure or shoulder closure shall be in place at any time that a section of guardrail is not in place.

5. The Contractor shall deliver existing salvaged guardrail system materials to the Central Sign Shop and Recycle center at 1224 Wilkinson Blvd in Frankfort, KY. Contact Section Supervisor at (502) 564-8187 to schedule the delivery of material. Deliver the material between the hours of 8:00AM and 3:30PM, Monday through Friday. There is a Guardrail Delivery Verification Sheet which must be completed and signed by the Contractor, Engineer and a representative of the Central Sign Shop and Recycle Center. A copy of this sheet is included elsewhere in the proposal.
6. Flexible Delineators shall meet the requirements of Section 830 and 838 of the Standard Specifications, and be placed in accordance with Section 3D of the M.U.T.C.D., current edition and current Standard Drawing.
7. This project requires the use of a Material Transfer Vehicle. In accordance with Section A of 403.03.05.
8. The speed limit on the project will be reduced to 55 mph while lane closures are in place. Any time work is suspended the speed limit will revert back to 70 mph. Also, double fine signs are set up in the project to be installed while workers are present in the work zone.
9. Areas throughout the project have slopes that are eroding significantly. These areas shall be repaired in accordance with the "Shoulder Erosion Repair Detail" as shown elsewhere in the proposal. The repair locations listed may be lengthened, shortened, or eliminated by the Engineer. Locations and quantities for this item of work is shown on the "Shoulder Erosion Repair Detail".
10. The existing paved median U-turns within the project limits will be resurfaced.
11. The contractor will be allowed to access median U-turns and cross the median provided proper lane closures of the inside lanes are utilized at the entry and exit locations at the contractor's expense. Use only short duration lane closures and remove lane closures when median U-turn access is not needed.
12. Quantities of Channel Lining Class III have been included for use in KY 224 Roadway Plans and also to be used in eroded areas around pipe inlet/outlets or in ditches to be repaired as directed and/or approved by the Engineer. The actual limits of the channel lining will be as directed and/or approved by the Engineer. Geotextile Fabric Class 2, as outlined in Section 214 of the Standard Specifications, will not be measured for payment and will be considered incidental to channel lining.

13. The contractor is to take care not to damage any existing roadway signs. Any roadway signs that are damaged during construction are to be replaced at the contractor's expense in accordance with section 105.08 of the standard specifications.
14. The cleaning of existing pipe culvert inlets and outlets 36 inches or less in diameter are incidental to the bid item for "Ditching and Shouldering" in accordance with Section 209 of the 2019 Edition of the Standard Specifications for Road and Bridge Construction. This includes the cleaning of existing perforated pipe headwalls. Cleaning of all drainage structures and perforated pipe headwalls will be required whether or not they are identified on the plan sheets. Locations of existing drainage structures and perforated pipe headwalls are for informational purposes only and are not to be considered to consist of all possible structures.
15. Areas established as relief joint locations will be repaired as directed by the Engineer. After the contractor has closed the roadway the Engineer will mark the areas to be repaired. The engineer reserves the right to increase, decrease, or eliminate this item of work based on the field conditions encountered.
16. Quantities of Asphalt Seal Coat and Seal Aggregate, and DGA base have been established to wedge and eliminate greater than 1 inch drop offs. Due to the inconsistent nature of the slopes outside the paved shoulder, and due to the existence of existing guardrail, application of asphalt seal coat will not be practical in all locations. The intent is to provide a DGA wedge to eliminate dropoff situations and to re-establish the typical stone shoulder width where needed and where practical to do so. Place asphalt seal coat on all shoulders reconstructed as part of the KY 224 Roadway Plan work.
17. Approximate Right of Way limits are shown on the KY 224 Roadway Plans. All work is to be contained on existing Right of Way. The contractor shall be responsible to obtain a written agreement with any adjacent property owner if he chooses to perform activities that will encroach on property other than existing Right of Way.
18. Coordinate activities of any adjacent contracts with this contract. The engineer will decide the relative priority concerning phasing and maintenance of traffic when conflicts arise with projects in close proximity with this project.

19. Preserve the existing edge drain system unless otherwise directed by the engineer. Any damage to the existing system caused by construction activities on the project will be required to be repaired at the contractor's expense.

A bid item for INSPECT AND CERTIFY EDGE DRAIN SYSTEM has been included for this project. Camera inspections shall be performed in accordance with Section 704 of the Kentucky Standard Specifications for Road and Bridge Construction.

DITCHING or DITCHING AND SHOULDERING shall be completed prior to the initial camera inspection. The initial camera inspection shall be used to determine the condition of the existing system. The Engineer shall determine the extent of locations that require repair/replacement based on the initial camera inspection. A camera re-inspection shall be required at the location of the repairs/replacements to certify the work. The camera re-inspection shall be considered incidental to the item INSPECT AND CERTIFY EDGE DRAIN SYSTEM.

It is anticipated that approximately 19,000 linear feet of existing edge drain system will need repaired/replaced. If edge drain repairs/replacements are required, the additional work items will be added in accordance with Section 104.03 of the Kentucky Standard Specifications for Road and Bridge Construction. However, contrary to Section 104.03, contract time will not be extended for the anticipated work required to repair/replace the edge drain system.

20. Lighting quantities have been established for the replacement of circuit # 6. The contractor shall follow the bridge construction phasing as outlined in the Maintenance of Traffic in order to maintain power to pole #6 as long as possible. Circuit #6 may only be out of service the minimal amount of time required to construct end bent 2 and construct phase 1 of the bridge. The contractor shall install the replacement cabling to pole #6 immediately upon completion of phase 1 bridge construction.
21. A quantity of Traffic Bound Base has been established for temporary maintenance of traffic for entrances.
22. Crash Cushion Type VI will be used in lieu of Crash Cushion Type IX at the KY 224 median pier. Regrade median in accordance with RBI 007-09, except minor flattening or modification to the berm will be required for placement of the concrete pad required for the Crash Cushion Type VI. All reference to Crash Cushion Type IX in RBI-005-08 will be considered to mean Crash Cushion Type VI. Construct median pier transitions for Crash Cushion Type VI in accordance with Sepia 5 and Sepia 5N.

**SPECIAL NOTE FOR
ASPHALT MILLING AND TEXTURING
WK 9001
GRAYSON COUNTY
ITEM NO. 4-20001 & 4-20002**

Do not allow public traffic to drive on the milled surface on mainline WK 9001. Traffic may be allowed to travel on milled surfaces for up to 7 days on each ramp.

The Contractor will take possession and dispose of the millings at a location off the right of way.

Removal of the existing pavement markers prior to the milling operation is considered incidental to the bid item "Asphalt Pavement Milling and Texturing".

Milling to key in the top 2 base courses on KY224, Hickory Flats, and Ramps, and final asphalt surface course on KY 224 and Hickory Flats will be measured and paid in tons of "Asphalt Pave Milling & Texturing". Any reference to a key or keying in of the proposed asphalt pavement will be considered to be milling and texturing. Preparation for placement of all other base layers below the 2nd course will be accomplished by leveling and wedging the existing surface to prepare for placement of each course and by ramping up to the top of the proposed course with leveling and wedging.

Partial depth and variable depth milling will be required on the KY 224 profile correction portion of the project to prepare the existing surface grade to receive the proposed thickness of the top course of asphalt base at various locations. The contractor shall provide adequate staking and process control measures to ensure existing pavements are milled to the depths required to accept the proposed thickness of asphalt and at the proposed grade.

SPECIAL NOTE FOR CONCRETE SEALING

These Notes or designated portions thereof, apply where so indicated on the plans, proposals or bidding instruction.

I. **DESCRIPTION.** Perform all work in accordance with the Department's 2019 Standard Specifications, and applicable Supplemental Specifications, the attached sketches, and these Notes. Section references are to the Standard Specifications.
This work consists of: (1) Furnish all labor, materials, tools, and equipment; (2) Clean the bridge deck; (3) Seal the bridge deck; (4) Maintain & control traffic; and, (5) Any other work specified as part of this contract.

II. **MATERIALS.**

A. **Sealer.** Use one of the following:

Product	Supplier
Protectosil BHN	Evonik Industries
Protectosil 300S	Evonik Industries
TK-590-40 Tri-Silane 40%	TK Products
SW-244-100	Chemical Products Industries, Inc.
TK-590-1 MS Tri-Silane	TK Products
MasterProtect H1000	BASF
Aquanil Plus 40	ChemMasters
SIL-ACT ATS-100	Advanced Chemical Technologies
Certivex Penseal BTS 100%	Vexcon
Pentreat 244-40	W.R. Meadows
Aquanil Plus 40A	ChemMasters

B. Coverage Rate: Follow all manufacturers recommendations for coverage rates except the application rate must not exceed the square footage coverage rate per gallon of sealer as given in the chart below. If the manufacturer recommends a coverage rate greater than given in the table below, apply sealer at the rate given in the table below for the chosen sealers silane percentage.

% Silane	Coverage rate (ft ² /gallon)
100	300
40	120
20	60

III. CONSTRUCTION.

- A. Curing Compound.** Contrary to Section 609.03.12 of the specifications, curing compound is not to be used on this deck due to potentially causing issues with the concrete sealer. During the deck pour, finishing, and tining operations the Class AA concrete shall be kept continuously moist with the use of a mister until burlap or curing blankets are applied to the surface. At no point should water be pooling or running off the surface or the surface of the concrete be allowed to become dry. After the burlap or curing blankets are installed, cure in accordance with the specifications. Include all costs in the unit price bid for Class AA concrete. Failure to properly cure the concrete in accordance with this note and the specifications may result in weakened or cracked concrete. If the concrete is weakened or cracked due to improper curing, the contractor will be responsible for providing alternates to fix the issues to the Engineer for review and the contractor will be solely responsible for all costs to do so, up to complete replacement. Do not begin any construction on fixing any issues without approval of the Engineer.
- B. Cleaning the Deck.** Dry clean the deck to remove all loose debris. Remove all visible hydrocarbons from the surface with detergent approved by the manufacturer of the deck sealant. Pressure wash all surfaces to be sealed at 2000 to 3000 psi. Install pressure gauges at each wand to verify pressure. Use 30° fan tip or as recommended by the manufacturer of the deck sealant. Hold pressure washing wand a minimum of 45° from the deck with a maximum stand-off distance of 12 inches.
- C. Sealing the Deck.** Allow new concrete to cure a minimum 28 days prior to application of sealer. Monitor weather conditions prior to sealer application. Refer to manufacturer’s recommendations for proper ambient conditions. Do not apply sealer if precipitation is anticipated within the time stated by the manufacturer. Allow the deck to dry 24 hours (after washing or rain event) before sealer application. The deck can be reopened to traffic while drying. Sealer must be applied within 48 hours of washing or the deck must be rewashed. Divide the deck into predefined areas of specific square footage to aid in determining usage. Comply with manufacturer’s usage recommendation. Using a low

pressure pump, apply sealer and spread evenly with broom or squeegee; do not allow pooling to remain. When each predefined area is complete, measure the amount of sealer used to verify proper usage. After sealing, follow manufacturer's recommended cure time before opening to traffic. On vertical surfaces, apply the sealer in a flooding application from the bottom up, so the material runs down 6 to 8 inches below the spray pattern.

D. Inspection: Monitor all aspects of the project to assure compliance to this specification. Observe and document general conditions during the entirety of the project. Verify that each phase of work has been satisfactorily completed prior to beginning the next phase. Phases are described as follows:

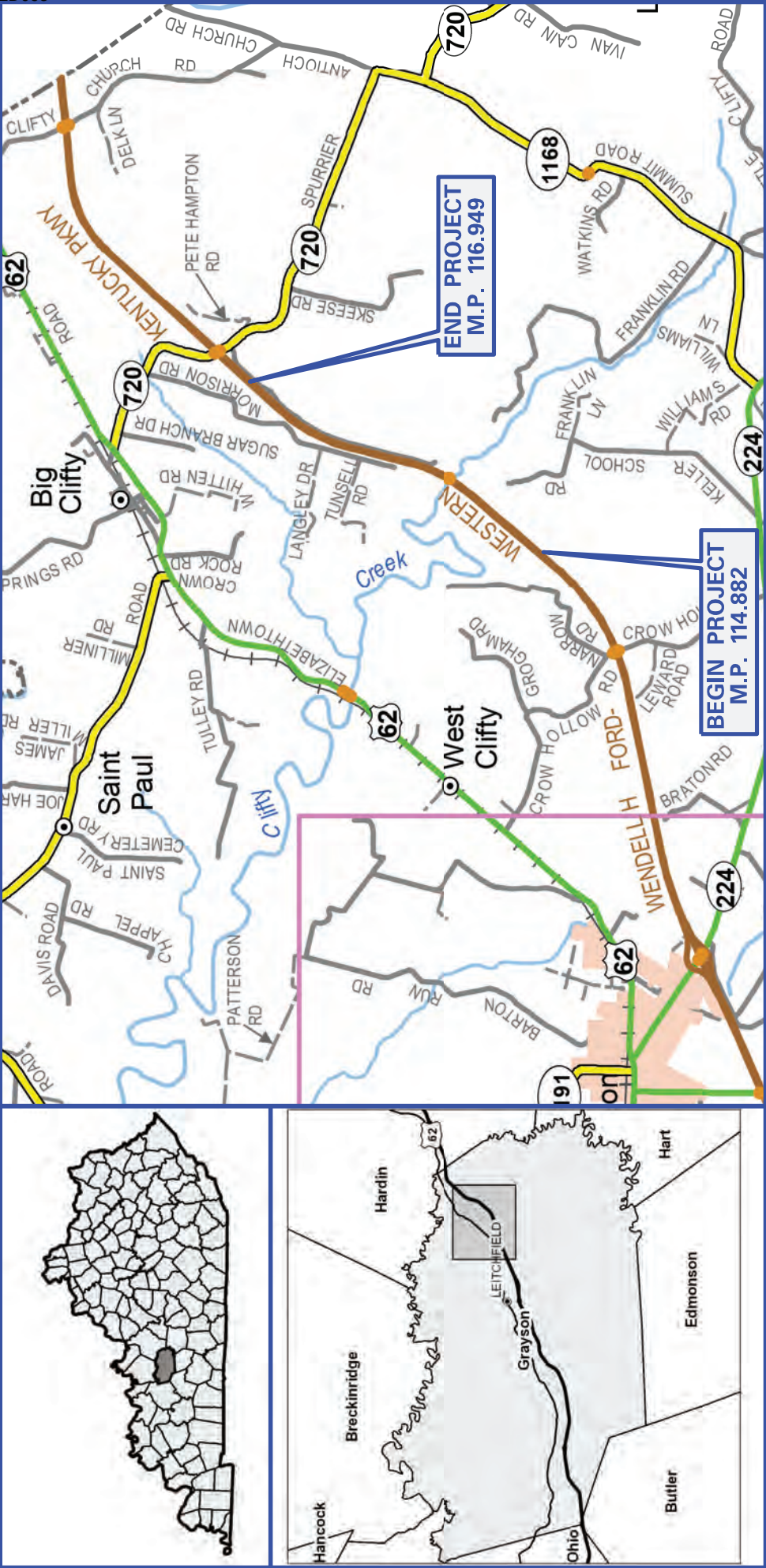
1. Dry cleaning to remove loose debris, verify and document:
 - a. All debris has been removed and disposed of properly.
2. Removal of hydrocarbons, verify and document:
 - a. The manufacturer's recommended detergent is used for removal.
 - b. Hydrocarbons have been satisfactorily removed.
3. Pressure washing, verify and document:
 - a. Washing pressure at the wand.
 - b. Tip size used.
 - c. Wash angle and stand-off distance.
 - d. The deck is satisfactorily cleaned.
4. Sealer application, verify and document:
 - a. Proper cure time for new concrete.
 - b. Deck surface is dry.
 1. Document time since washed.
 2. Was deck opened to traffic after washing?
 - c. Ambient conditions.
 1. Document ambient temperature, surface temperature, relative humidity, and dew point.
 - d. Application and distribution method.
 - e. Coverage to be complete and even.
 - f. Material is not allowed to remain pooled.
 - g. Monitor material usage.
 - h. No traffic until proper cure time is allowed.

IV. MEASUREMENT

- A. Concrete Sealing.** The Department will measure the quantity per square feet of each area sealed.

V. PAYMENT

- A. Concrete Sealing.** Payment at the contract unit price per square feet is full compensation for the following: (1) Furnish all labor, materials, tools, and equipment; (2) Clean the bridge deck; (3) Seal the bridge deck; (4) Maintain & control traffic; and, (5) Any other work specified as part of this contract.



PROJECT LENGTH: 2.067 MI.
AADT: 11,769 (2020)



3 JMD Circle, U.S. 460
Franklin, KY 40601
502-695-9800

PROJECT NUMBER: FD52 043 9001 114-117, NHPP 9001(015)

ITEM NUMBER: 4-20003

LETTING DATE: DECEMBER 8, 2022

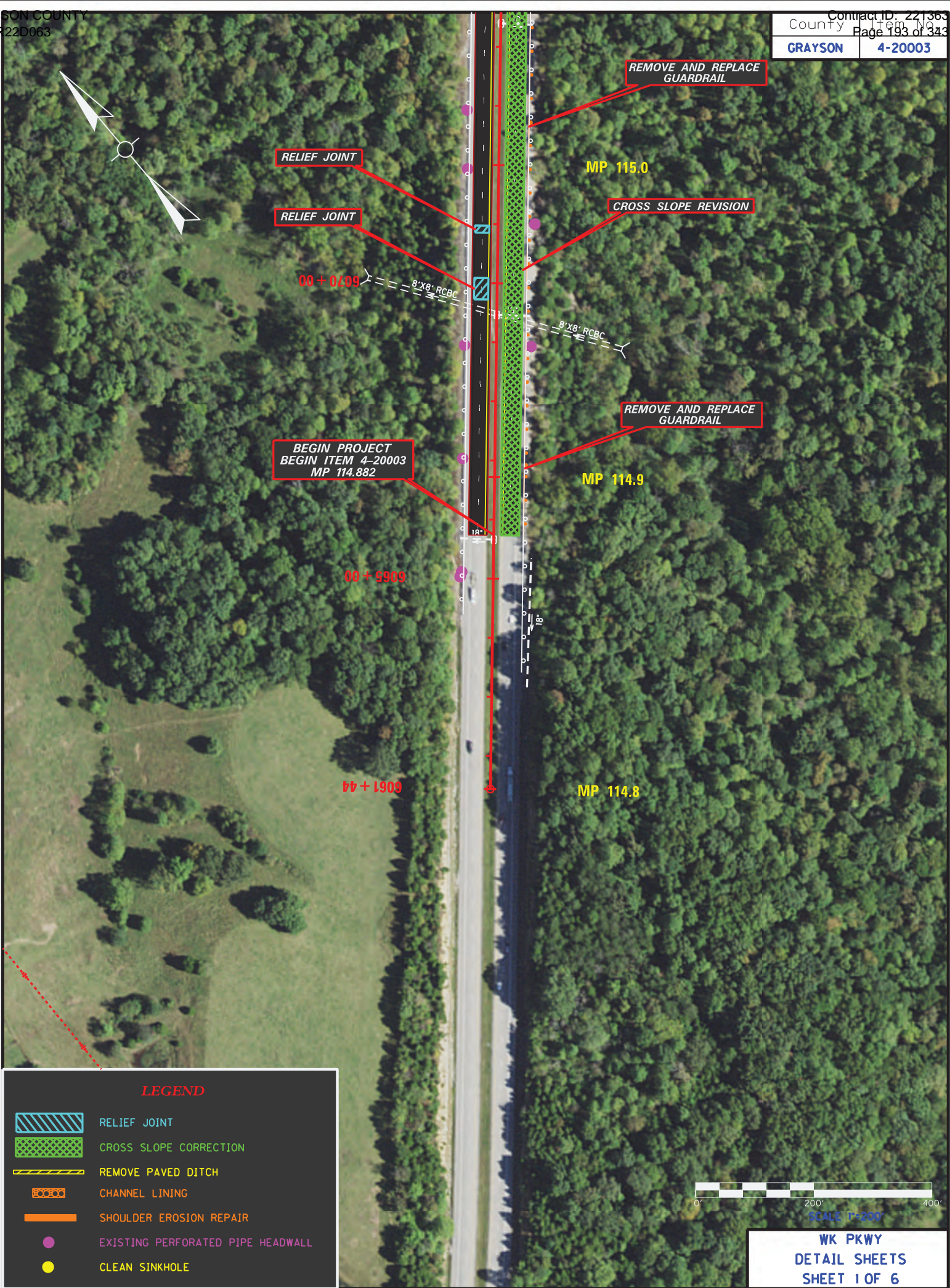
RECOMMENDED BY: ANDRE JOHANNES, P.E. DATE:

Project Manager

PLAN APPROVED BY: DATE:

State Highway Engineer

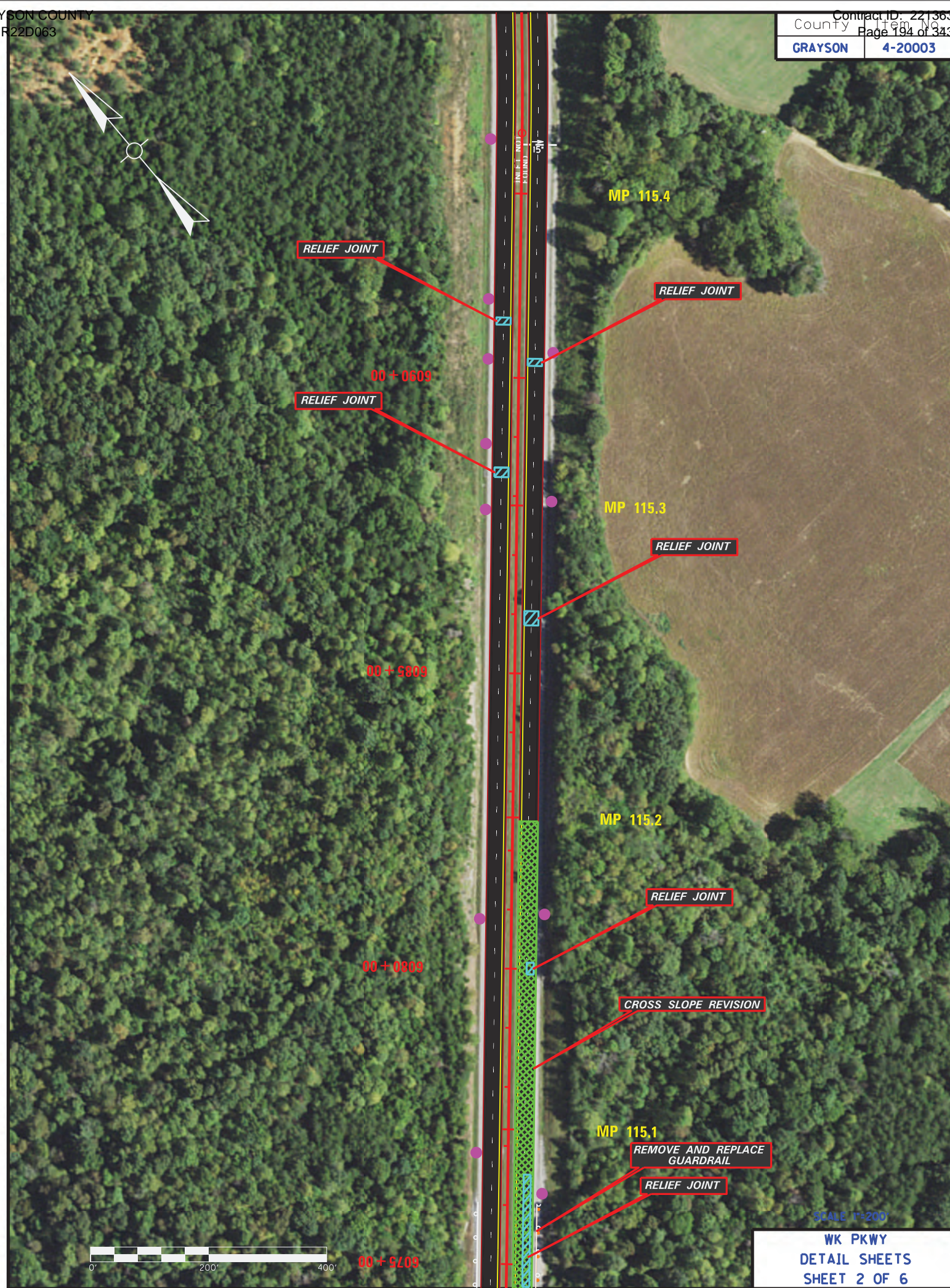
FHWA APPROVED BY: DATE:



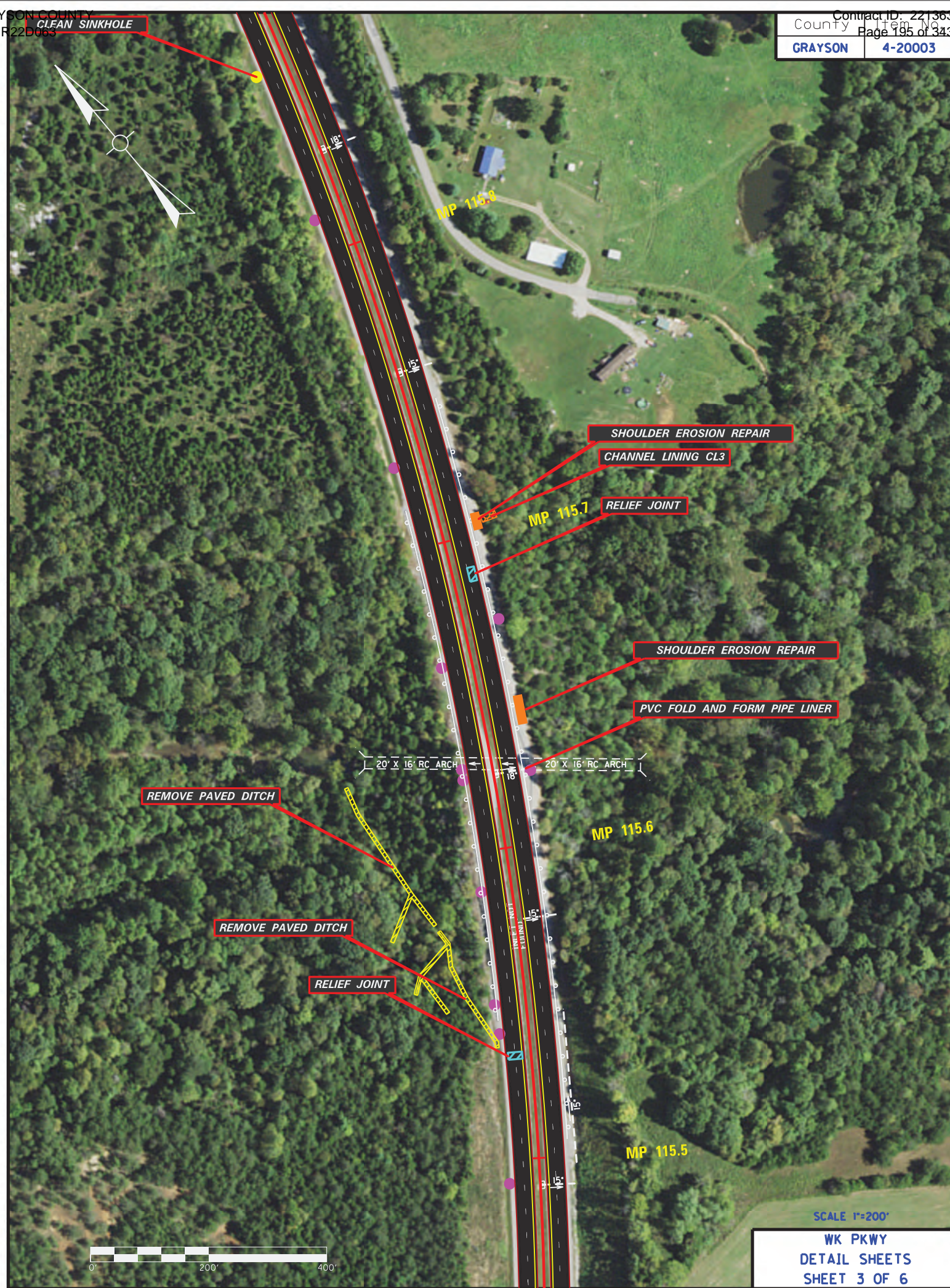
LEGEND

- RELIEF JOINT
- CROSS SLOPE CORRECTION
- REMOVE PAVED DITCH
- CHANNEL LINING
- SHOULDER EROSION REPAIR
- EXISTING PERFORATED PIPE HEADWALL
- CLEAN SINKHOLE



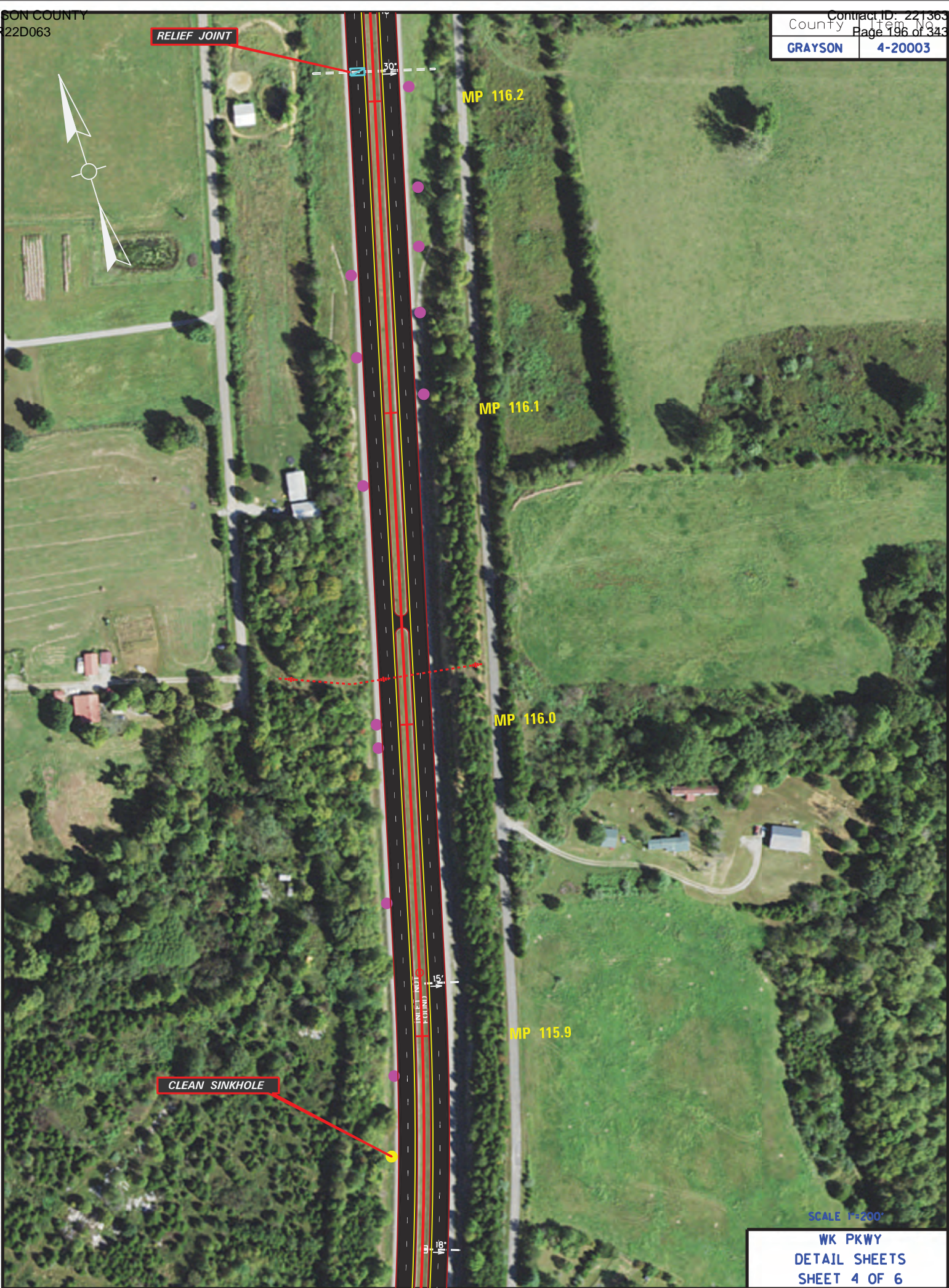


SCALE 1"=200'



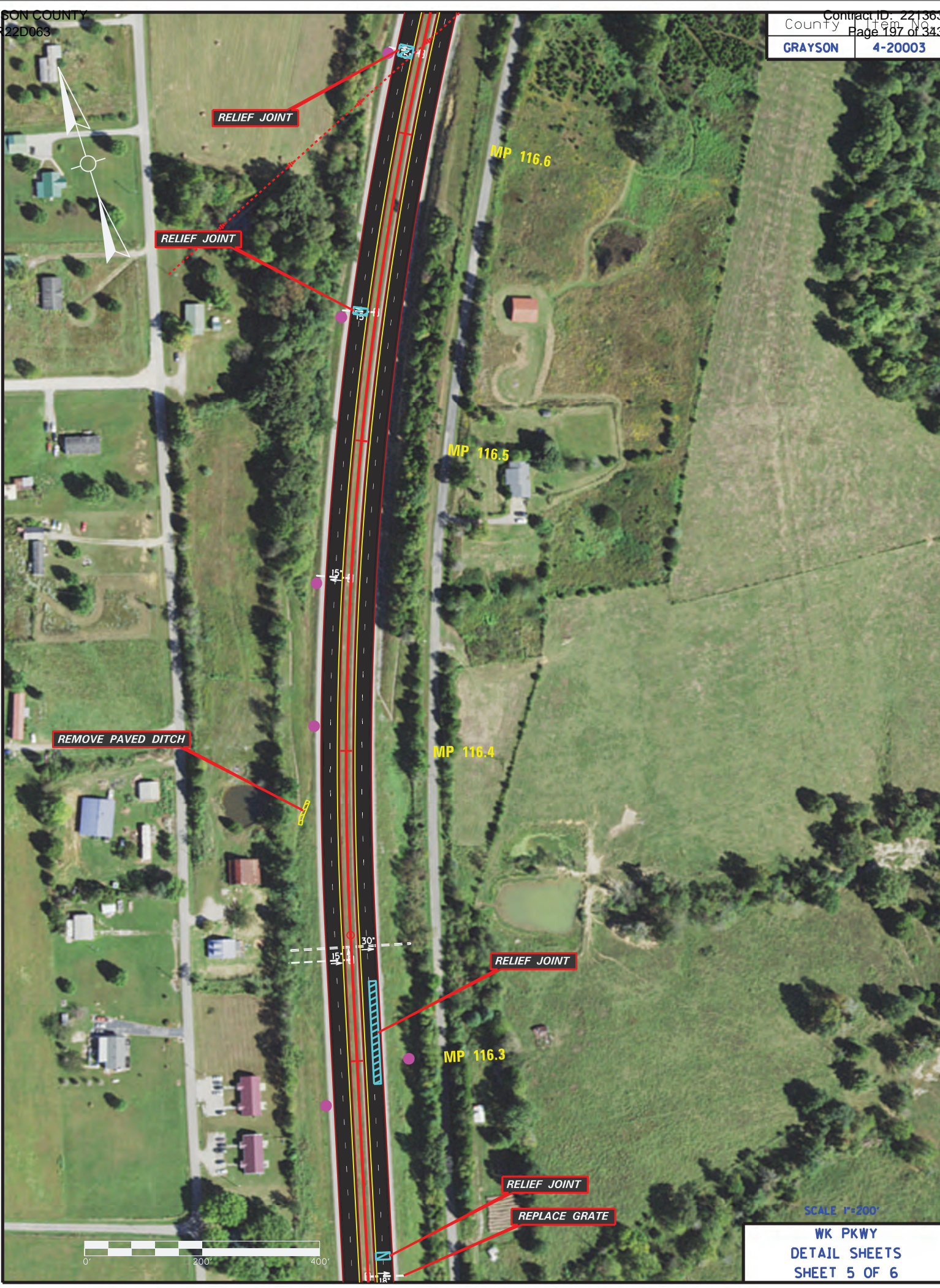
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WK PKWY
DETAIL SHEETS
SHEET 3 OF 6



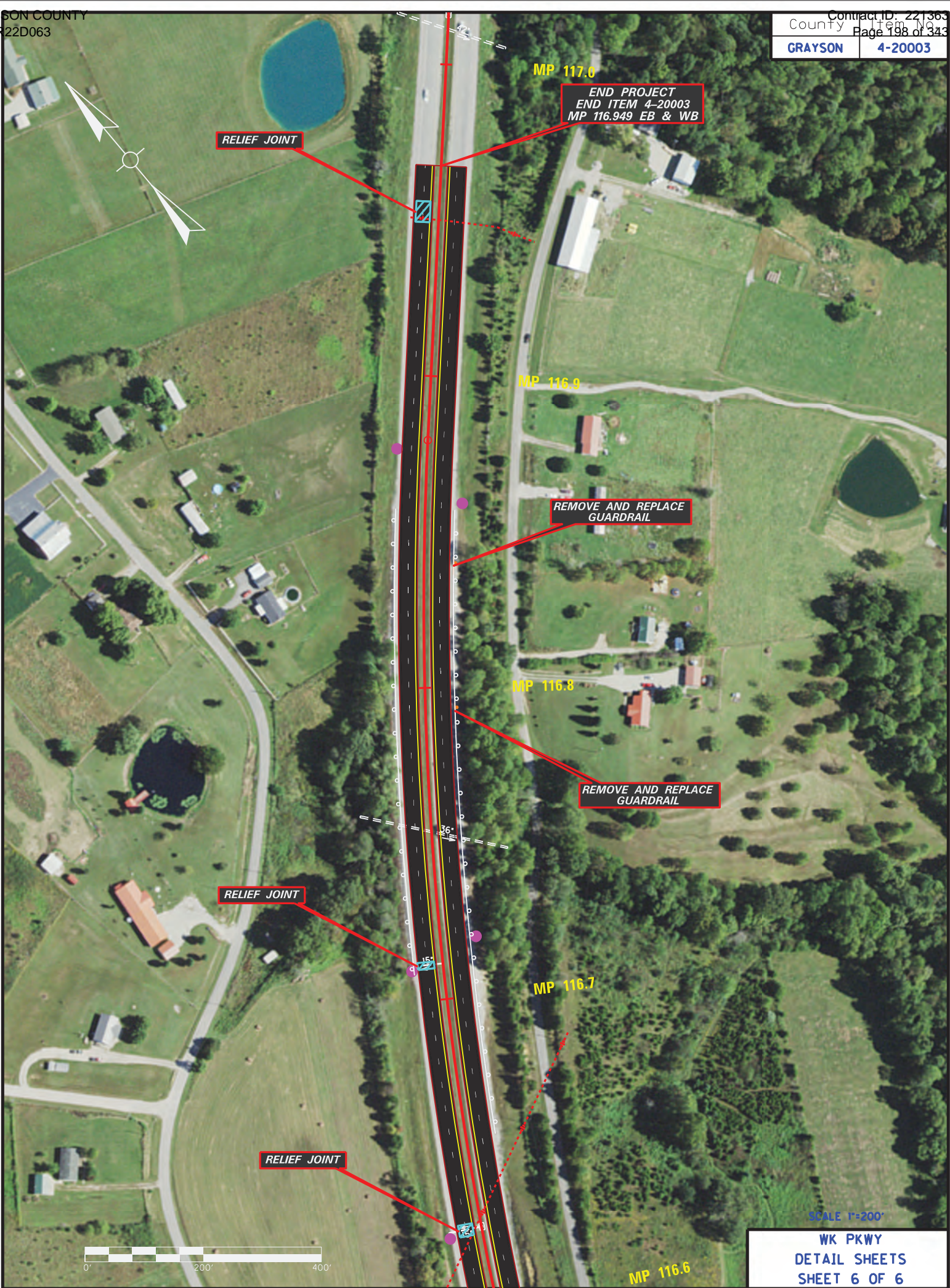
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WK PKWY
DETAIL SHEETS
SHEET 4 OF 6



SCALE 1"=200'

WK PKWY
DETAIL SHEETS
SHEET 5 OF 6



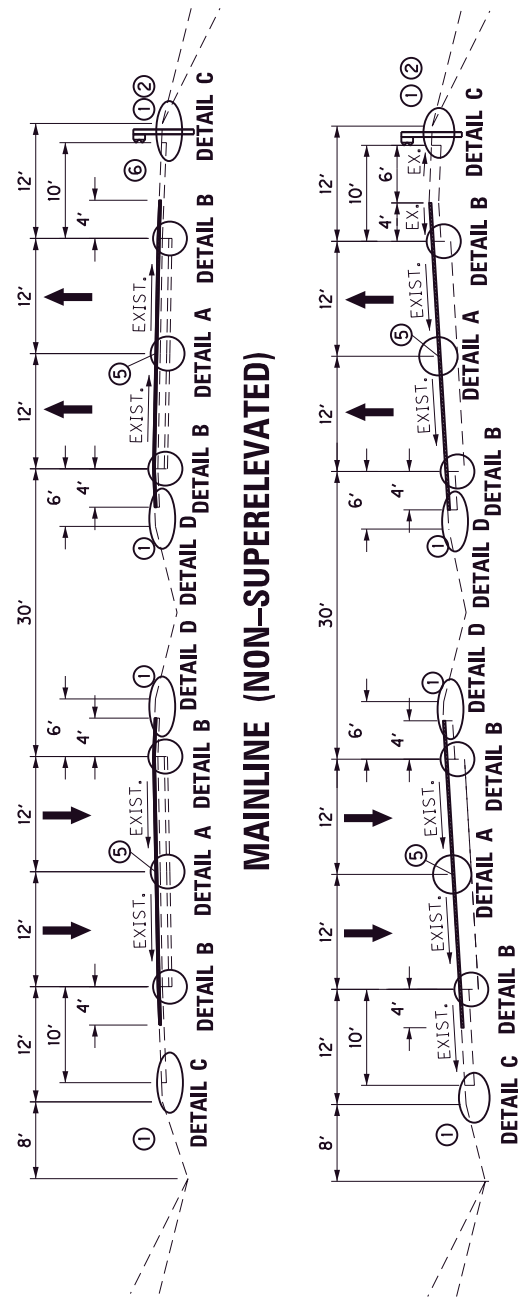
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WK PKWY
DETAIL SHEETS
SHEET 6 OF 6

PROPOSED TYPICAL SECTIONS

County	Item No.	Sheet
GRAYSON	4-20003	

WK 9001
MP 114.882 – MP 116.949



MAINLINE (NON-SUPERELEVATED)

MAINLINE SUPERELEVATED SECTION

DETAIL A

EXISTING MAINLINE PAVEMENT

PROPOSED PAVEMENT JOINT

MILL 2" DEPTH 1 1/2" CL4 ASPH SURF 0.38A PG76-22

1/2" ASPHALT SCRATCH COURSE PG76-22

DETAIL B

EXISTING SHOULDER PAVEMENT

EXISTING SHOULDER ASPHALT

MILL 2" DEPTH 1 1/2" CL4 ASPH SURF 0.38A PG76-22

1/2" ASPHALT SCRATCH COURSE PG76-22

EDGE LINE

DETAIL C

EXISTING DGA

EXISTING SHOULDER ASPHALT

PLACE DGA WEDGE AS NEEDED.

ASPHALT SEAL COAT ①

DETAIL D

EXISTING DGA

EXISTING SHOULDER ASPHALT

1 1/2" CL4 ASPH SURF 0.38A PG76-22

1/2" ASPHALT SCRATCH COURSE PG76-22

MILL 2" DEPTH

PLACE DGA WEDGE AS NEEDED.

ASPHALT SEAL COAT ①

SURFACING SCHEDULE

MAINLINE & BOTH SHOULDERS

① ASPHALT SEAL REQUIRED FROM OUTSIDE EDGE OF PAVED SHOULDER TO A POINT 2 FOOT DOWN THE DITCH OR FILL SLOPE (Where Applicable). TWO APPLICATIONS OF THE FOLLOWING : ASPHALT SEAL COAT 2.4 lbs. / S.Y. ASPHALT SEAL AGGREGATE 20 lbs. / S.Y.

② USE 7" GUARDRAIL POSTS.

③ TO BE USED AS DIRECTED BY THE ENGINEER FOR PAVEMENT IRREGULARITIES.

④ APPLY ASPHALT MATERIAL FOR TACK AT A RATE OF 0.7 LBS/SY BETWEEN EACH LAYER OF ASPH. CONCRETE.

⑤ JOINT ADHESIVE

⑥ MILL & INLAY FULL WIDTH OF OUTSIDE SHOULDER IN CROSS SLOPE CORRECTION AREA ONLY.

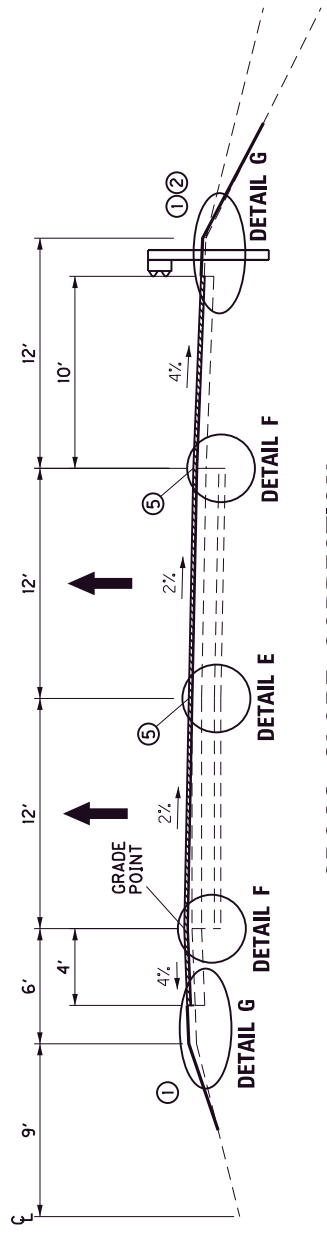
WK 9001
TYPICAL SECTIONS

NOT TO SCALE

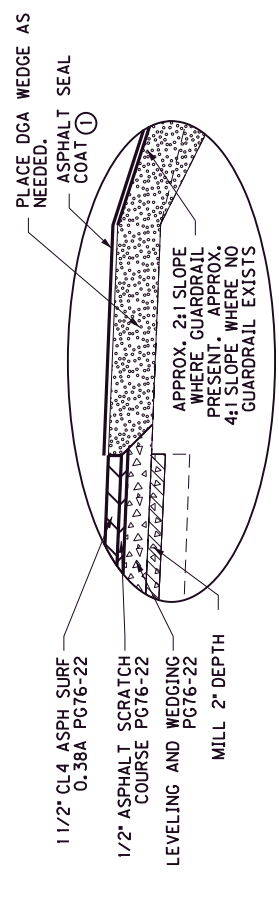
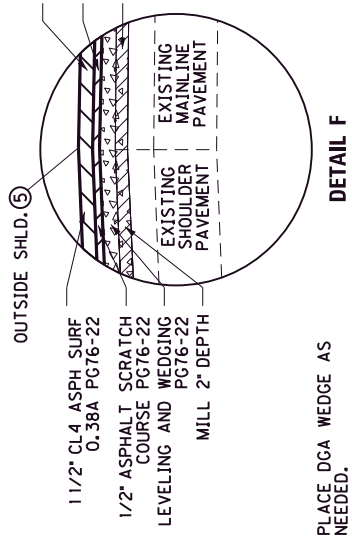
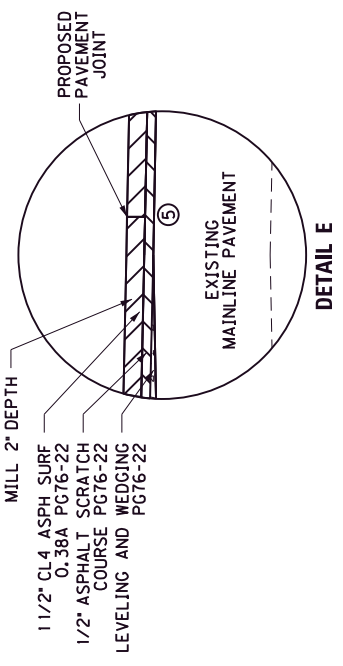
PROPOSED TYPICAL SECTIONS

WK 9001
CROSS SLOPE CORRECTION
MP 114.882 E.B. TO 115.199 E.B.

County	Item No.	Sheet
GRAYSON	4-20003	



CROSS SLOPE CORRECTION



SURFACING SCHEDULE

MAINLINE & BOTH SHOULDERS

- ASPHALT PAVEMENT MILLING AND TEXTURING.....2" DEPTH
- LEVELING AND WEDGING PG76-22.....AS DIRECTED
- ASPHALT SCRATCH COURSE PG76-22.....1/2" DEPTH
- CL4 ASPH SURFACE 0.38A PG76-22.....1/2" DEPTH
- ASPHALT SEAL REQUIRED FROM OUTSIDE EDGE OF PAVED SHOULDER TO A POINT 2 FOOT DOWN THE DITCH OR FILL SLOPE (Where Applicable). TWO APPLICATIONS OF THE FOLLOWING :
ASPHALT SEAL COAT 2.4 lbs. / S.Y.
ASPHALT SEAL AGGREGATE 20 lbs. / S.Y.
- USE 7" GUARDRAIL POSTS
- TO BE USED AS DIRECTED BY THE ENGINEER FOR PAVEMENT IRREGULARITIES AND CROSS SLOPE CORRECTION. USE ASPHALT BASE MIXES FOR THICKNESSES GREATER THAN 2".
- APPLY ASPHALT MATERIAL FOR TACK AT A RATE OF 0.7 LBS/SY BETWEEN EACH LAYER OF ASPH. CONCRETE.
- JOINT ADHESIVE
- CROSS SECTIONS AND DESIGNED GRADE PROVIDED FOR CROSS SLOPE REVISION BETWEEN MP 114.896 AND MP 115.180. FROM MP 114.882 TO MP 114.896 USE EXISTING PROFILE TO ESTABLISH PROFILE GRADE AND CONTINUALLY MONITOR AND CONTROL CROSS SLOPE OF LEVELING AND WEDGING DURING PLACEMENT

NOTE: COMPLETE RELIEF JOINT REPAIRS PRIOR TO THIS OPERATION

MILL TYPICAL 2" THICKNESS TO REMOVE EXISTING OXIDIZED SURFACE COURSE PRIOR TO APPLICATION OF LEVELING AND WEDGING.

MP 114.896 (STA 6066+50) TO MP 115.180 (STA 6082+50) SEE PROFILE SHEETS AND CROSS SECTIONS.

MP 114.882 (STA 6065+77) TO MP 114.896 (STA 6066+50) ALLOW THE EXISTING LANE LINE ELEVATION TO CONTROL THE PROPOSED PROFILE GRADE. BY USE OF GRADE CONTROL EQUIPMENT ON THE PAVEMENT AND BY CHECKING CROSS SLOPES WITH A LEVEL, SMART LEVEL, OR OTHER APPROVED METHODS, PLACE LEVELING AND WEDGING TO THE DESIRED PAVEMENT CROSS SLOPE.

USE 0.75 NOMINAL SIZE AGGREGATE BASE FOR LEVELING OVER 2" IN THICKNESS. PLACE LEVELING IN MULTIPLE PASSES WHERE REQUIRED BY SPECIFICATION TO NOT EXCEED ALLOWABLE LAY DOWN THICKNESSES. LEVELING SHOULD RESULT IN A WEDGE OF APPROXIMATELY 0" THICKNESS AT THE EXISTING EASTBOUND SKIP LINE, RANGING TO A DEPTH REQUIRED AT EDGES OF MAINLINE NEEDED TO ACHIEVE A TYPICAL 2.0% CROSS SLOPE. ROTATE FROM EXISTING PAVEMENT ELEVATIONS TO THE DESIRED SLOPES AT THE STATIONS DESIGNATED ON THE PLAN SHEETS.

WK 9001
GRAYSON COUNTY
ITEM NO. 4-20003 , PAVEMENT REHABILITATION
MILEPOINT 114.882 TO 116.949
GENERAL SUMMARY

ITEM NUMBER	ITEM	UNIT	QUANTITY
00001	DGA BASE ①	TON	863
00100	ASPHALT SEAL AGGREGATE ①	TON	196
00103	ASPHALT SEAL COAT ①	TON	23
00193	ASPHALT SCRATCH COURSE PG76-22 ①	TON	2,186
00194	LEVELING & WEDGING PG76-22 ①	TON	750
00219	CL4 ASPH BASE 1.00D PG76-22 ①	TON	200
00342	CL4 ASPH SURF 0.38A PG76-22 ①	TON	6,558
02676	MOBILIZATION FOR MILL & TEXT ①	LS	1
02677	ASPHALT PAVE MILLING & TEXTURING ①	TON	8,945
20071EC	JOINT ADHESIVE ①	LF	23,691
20509ED	BLOW UP/RELIEF JOINT ①	SQYD	1,258
24970EC	ASPHALT MATERIAL FOR TACK NON-TRACKING ①	TON	56
02165	REMOVE PAVED DITCH ②	SQYD	514
02484	CHANNEL LINING CLASS III ②	TON	748
02469	CLEAN SINKHOLE ②	EACH	1
02603	FABRIC-GEOTEXTILE CLASS 2 ②	SQYD	30
22660EN	REPLACE GRATE ②	LB	70
23484EC	PIPE LINER ACCEPTANCE TESTING ②	LS	1
23956EC	PIPE REPAIR ②	EACH	1
24585EC	SECURITY PLATE ASSEMBLY ②	EACH	2
24862EC	PVC FOLD AND FORM PIPE LINER-18 IN ②	LF	67
01982	DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE ③	EACH	27
02369	GUARDRAIL END TREATMENT TYPE 2A ③	EACH	1
02381	REMOVE GUARDRAIL ③	LF	1,287.5
21802EN	G/R STEEL W BEAM-S FACE (7 FT POST) ③	LF	1,287.5
02159	TEMP DITCH	LF	5,457
02160	CLEAN TEMP DITCH	LF	2,729
02703	SILT TRAP TYPE A	EACH	2
02704	SILT TRAP TYPE B	EACH	2
02705	SILT TRAP TYPE C	EACH	2
02706	CLEAN SILT TRAP TYPE A	EACH	2
02707	CLEAN SILT TRAP TYPE B	EACH	2
02708	CLEAN SILT TRAP TYPE C	EACH	2
02575	DITCHING AND SHOULDERING	LF	10,914
05950	EROSION CONTROL BLANKET	SQYD	9,680
05952	TEMP MULCH	SQYD	6,453

- ① CARRIED OVER FROM PAVING SUMMARY.
② CARRIED OVER FROM PIPE DRAINAGE SUMMARY.
③ CARRIED OVER FROM GUARDRAIL SUMMARY

WK 9001

GRAYSON COUNTY

ITEM NO. 4-20003 , PAVEMENT REHABILITATION

MILEPOINT 114.882 TO 116.949

GENERAL SUMMARY

ITEM NUMBER	ITEM	UNIT	QUANTITY
05953	TEMP SEEDING AND PROTECTION	SQYD	4,840
05963	INITIAL FERTILIZER	TON	0.5
05964	MAINTENANCE FERTILIZER	TON	0.3
05989	SPECIAL SEEDING CROWN VETCH	SQYD	1,162
05992	AGRICULTURAL LIMESTONE	TON	6
40030	TEMPORARY SILT FENCE	LF	5,457
02562	TEMPORARY SIGNS	SQFT	1,000
02650	MAINTAIN & CONTROL TRAFFIC	LS	1
02671	PORTABLE CHANGEABLE MESSAGE SIGN	EACH	4
02775	ARROW PANEL	EACH	2
06511	PAVE STRIPING-TEMP PAINT-6 IN	LF	66,054
06549	PAVE STRIPING-TEMP REM TAPE-B	LF	6,750
06550	PAVE STRIPING-TEMP REM TAPE-W	LF	3,600
06551	PAVE STRIPING-TEMP REM TAPE-Y	LF	1,800
06585	PAVEMENT MARKER TY IVA-MW TEMP	EACH	180
06586	PAVEMENT MARKER TY IVA-MY TEMP	EACH	90
24432EC	TEMP WORKSITE SPEED LIMIT SIGN ASSEMBLY	EACH	2
26136EC	PORTABLE QUEUE WARNING ALERT SYSTEM	MONT	5
26137EC	QUEUE WARNING PCMS	MONT	20
26138EC	QUEUE WARNING PORTABLE RADAR SENSORS	MONT	20
02696	SHOULDER RUMBLE STRIPS	LF	44,036
06401	FLEXIBLE DELINEATOR POST-M/W	EACH	244
06542	PAVE STRIPING-THERMO-6 IN W	LF	27,523
06543	PAVE STRIPING-THERMO-6 IN Y	LF	22,018
06613	INLAID PAVEMENT MARKER-B W/R	EACH	275
00078	CRUSHED AGGREGATE SIZE NO 2	④ TON	213
01015	INSPECT & CERTIFY EDGE DRAIN SYSTEM	LS	1
02726	STAKING	LS	1
24891EC	PAVE MOUNT INFRARED TEMP EQUIPMENT	SQFT	528,432
02568	MOBILIZATION	LS	1
02569	DEMOBILIZATION	LS	1
10020NS	FUEL ADJUSTMENT	DOLL	15,089
10030NS	ASPHALT ADJUSTMENT	DOLL	37,900

④ INCLUDES 200 TONS FROM SHOULDER EROSION REPAIR DETAIL AND 13 TONS FROM CLEAN SINKHOLE DETAIL.

PAVING AREAS (SY)

PAVING SUMMARY

<p>① FOR ELIMINATION OF SHOULDER DROP-OFFS. INCLUDES 50 TONS FROM SHOULDER EROSION DETAIL AND 250 TONS FOR CROSS SLOPE REVISION.</p> <p>② BASED ON COVERAGE OF 50% OF SHOULDERS AND BASED ON 2 APPLICATIONS OF 20 LBS/SY.</p> <p>③ BASED ON COVERAGE OF 50% OF SHOULDERS AND BASED ON 2 APPLICATIONS OF 2.4 LBS/SY.</p> <p>④ INCLUDES 500 TONS FOR THE CROSS SLOPE REVISION AREA AND 250 TONS TO BE USED AS DIRECTED.</p>	<p>⑤ FROM ASPHALT PAVEMENT REPAIR DETAIL.</p> <p>⑥ INCLUDES 200 TONS FROM ASPH. PAVE. REPAIR DETAIL.</p> <p>⑦ FROM BLOWUP/RELIEF JOINT DETAIL.</p> <p>⑧ BASED ON APPLICATION RATE OF 0.7 LBS/SY</p> <p>ALL TIMES CARRIED OVER TO GENERAL SUMMARY ASPHALT MIXES CALC. BASED ON 110 LBS/SY/IN</p>
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**GRAYSON COUNTY
ITEM NO. 4-20003, PAVEMENT REHABILITATION
MILEPOINT 114.882 TO 116.949
PIPE SUMMARY**

[illegible]

ALL ITEMS CARRIED OVER TO THE GENERAL SUMMARY.

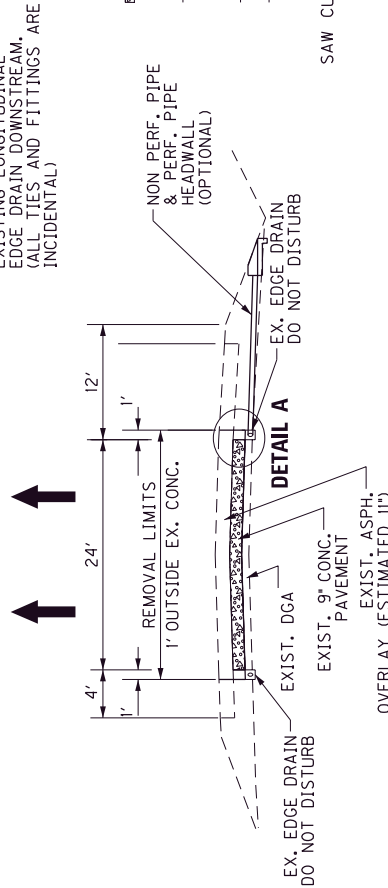
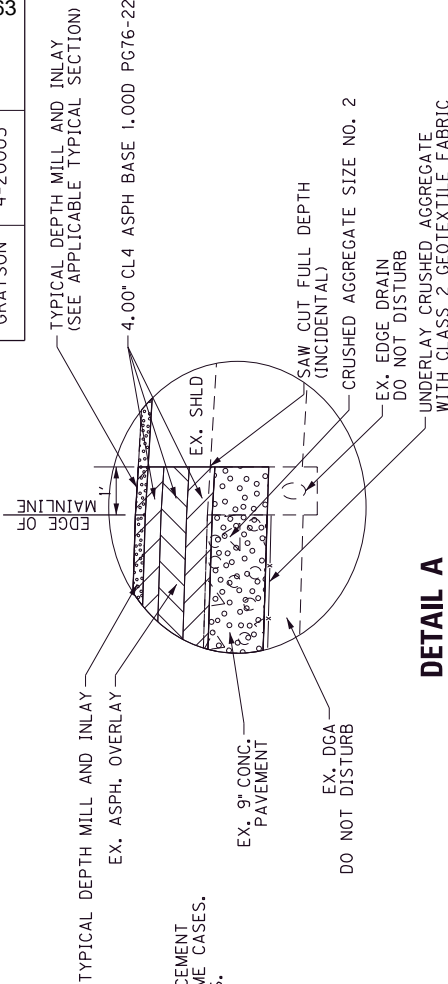
GRAYSON COUNTY
ITEM NO. 4-20003 , PAVEMENT REHABILITATION
MILEPOINT 114.882 TO 116.949
GUARDRAIL SUMMARY

[illegible]

ALL ITEMS CARRIED OVER TO GENERAL SUMMARY.

RELIEF JOINT DETAIL

County	Item No.	Sheet
GRAYSON	4-20003	



CROSS SECTION VIEW

CONSTRUCT RELIEF JOINTS AT LOCATIONS LISTED OR AT LOCATIONS AS DIRECTED BY THE ENGINEER.

RELIEF JOINTS ARE GENERALLY INTENDED TO COINCIDE WITH AN EXISTING REFLECTIVE CRACK AND/OR PAVEMENT JOINT BLOWUP FAILURE. LOCATIONS CHOSEN WERE INTENDED TO PROVIDE RELIEF AT INTERVALS OF 500' TO 2500', PRIMARILY WITH SPACINGS LESS THAN 2000'. THIS DETAIL HAS ALSO BEEN USED TO PERFORM FULL DEPTH PAVEMENT REPAIRS (IN ONE OR BOTH LANES) AT LOCATIONS NOT DESIGNED TO ACHIEVE RELIEF OF STRESSES. THE ENGINEER RESERVES THE RIGHT TO ADJUST LOCATIONS OF RELIEF JOINTS AS FIELD CONDITIONS WARRANT. ATTENTION: MILEPOINT'S LISTED WERE DERIVED FROM AN ESTABLISHED CENTERLINE AND DO NOT MATCH THE LOCATION OF THE EXISTING REFERENCE MARKERS (MILE POST SIGNS).

SAW CUT, FULL DEPTH, TO THE BOTTOM OF EXISTING CONCRETE ELEVATION THE PERIMETER OF THE PROPOSED RELIEF JOINT. SAW CUT WILL BE CONSIDERED INCIDENTAL TO 'BLOW UP/RELIEF JOINT'. REMOVE EXISTING PAVEMENT TO THE TOP OF DGA LAYER EXERCISING CAUTION TO NOT DAMAGE SURROUNDING PAVEMENT. IF DGA IS DISTURBED IN THE REMOVAL PROCESS, RESHAPE AND COMPACT PRIOR TO CRUSHED STONE PLACEMENT. PLACE ASPHALT BASE IN LAYERS AT THE PRESCRIBED COMPACTED DEPTHS, AND IN ACCORDANCE WITH THE SPECIFICATIONS.

CONSTRUCT RELIEF JOINTS 12' MIN. IN LENGTH LONGITUDINALLY ALONG MAINLINE CENTERLINE AND EXTENDING APPROXIMATELY 1' INTO SHOULDERS OR TO CENTER OF LANES (FOR 1 LANE REPAIR).

THE CONTRACT UNIT PRICE FOR "BLOW UP/RELIEF JOINT" WILL INCLUDE AND BE CONSIDERED FULL COMPENSATION FOR ALL ITEMS OF WORK REQUIRED TO SAW CUT EXISTING PAVEMENT, REMOVE EXISTING PAVEMENT, PREPARE STONE BASE, CRUSHED AGGREGATE #2 BACKFILL, ASPHALT MATERIAL FOR TACK BETWEEN LAYERS, PLACEMENT OF AND COMPACTION OF ASPHALT BASE, AND ANY OTHER ITEM REQUIRED TO COMPLETE THE RELIEF JOINT.

DO NOT BEGIN MILL AND INLAY OF FINAL SURFACING UNTIL TRAFFIC HAS BEEN ALLOWED TO RUN ON THE RELIEF JOINT ASPHALT BASE FOR A MINIMUM OF 14 DAYS.

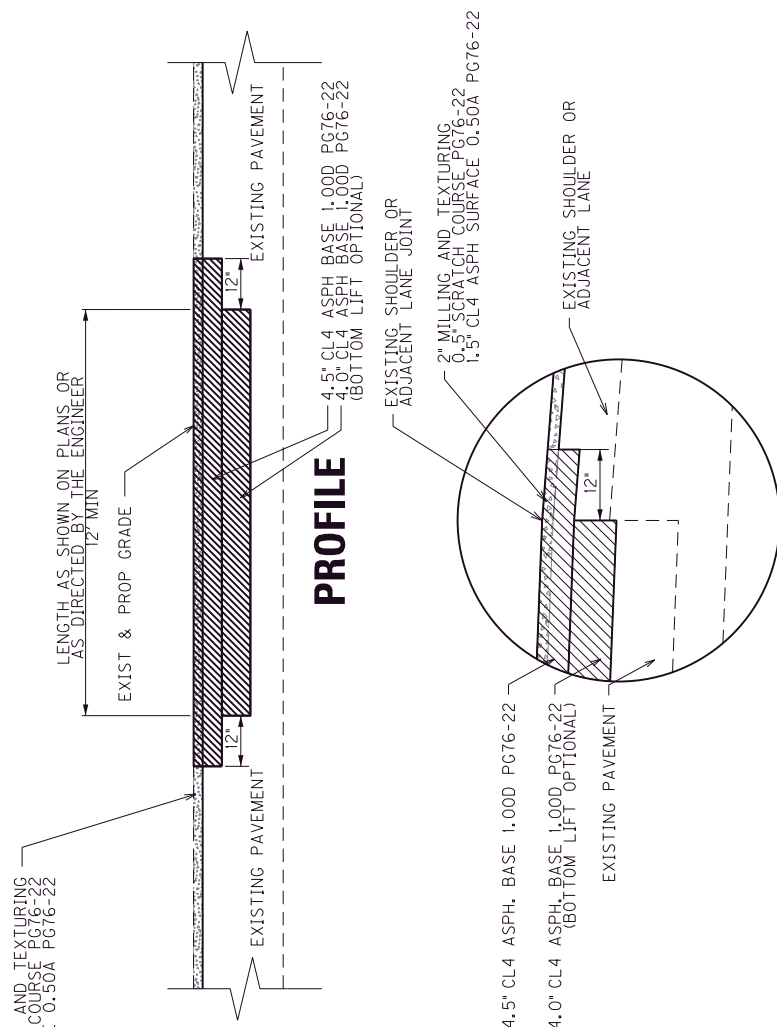
EXERCISE CAUTION TO NOT DAMAGE THE EXISTING EDGE DRAIN SYSTEM. IF THE ENGINEER DETERMINES CONDITIONS WARRANT, A 4 INCH NON-PERFORATED PIPE OUTLET MAY BE ADDED AND A 4 INCH NON-PERFORATED PIPE HEADWALL ADDED AT THE LOW POINT IN THE RELIEF JOINT EXCAVATION. IF AN OUTLET IS ADDED, GRADE STONE AND OUTLET PIPE TO DRAIN AT 4% GRADE (3% MINIMUM). MEASUREMENT AND PAYMENT FOR ADDED PERFORATED PIPE, NON-PERFORATED PIPE, ASPHALT TRENCH CAP MATERIALS AND PERFORATED PIPE HEADWALLS WILL BE MADE WITH A SUPPLEMENTAL AGREEMENT.

REFILL TRENCHES TO THE EXISTING SURFACE LEVEL. THE TOP 2" WILL BE CONSIDERED SACRIFICIAL, TO BE MILLED AND REPLACED WITH THE TYPICAL MILL AND INLAY OPERATIONS.

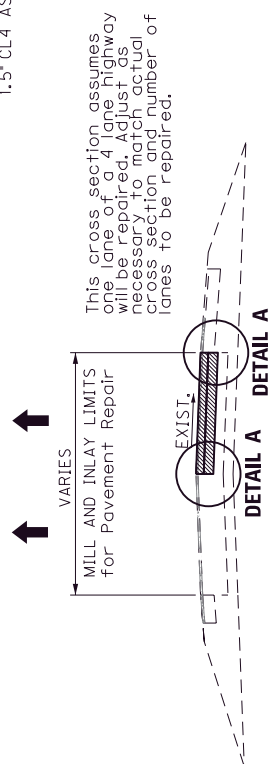
WK 9001

ASPHALT PAVEMENT REPAIR DETAIL

County	Item No.	Sheet
GRAYSON	4-20003	



CROSS SECTION



PLAN VIEW

DETAIL A

BID ITEM

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
* 2677	ASPHALT PAVE MILLING AND TEXTURING	200	TONS
* 219	CL4 ASPH BASE 1,000 PG76-22	200	TONS

NOTES

1. Caution: Existing concrete pavement may exist below the asphalt pavement.
2. Pavement repairs shall be performed at locations selected by and as directed by the Engineer. The Engineer will assess, select, and mark areas for treatment. The full lane width will be removed and replaced. The Engineer may elect to perform repairs on one lane or multiple lanes. The engineer may elect to only remove and replace the top lift of base. An edge key 12" into the adjacent lane/shoulder is required for the top course of base. For estimate purposes, a quantity of 200 tons has been established to be used as directed by the engineer for repairs to the asphalt pavement at a depth below the typical 2" mill and inlay.
3. Complete pavement repair operations in one continuous operation or protect with barrier wall. Do not leave an unprotected hole with no workers present. If barrier wall must be used for pavement repairs, it will be considered incidental to other items of work and not be considered for payment.
4. The item ASPHALT PAVE MILLING AND TEXTURING includes removal of asphalt to the required depth.
5. Traffic shall be required to travel on the asphalt pavement repairs for a minimum of 14 day prior to placement of final asphalt surfacing. Perform the typical mill and inlay operations with resurfacing items subject to payment as part of the resurfacing operation.

- Only items listed will be considered for payment and will considered full compensation for the work required. Any other items of work not listed for payment will be considered incidental to other items of work.

Asph base course class and binder grade to be chosen by designer based on current asphalt warrants and/or to remain consistent with mainline asphalt surface used on the project.

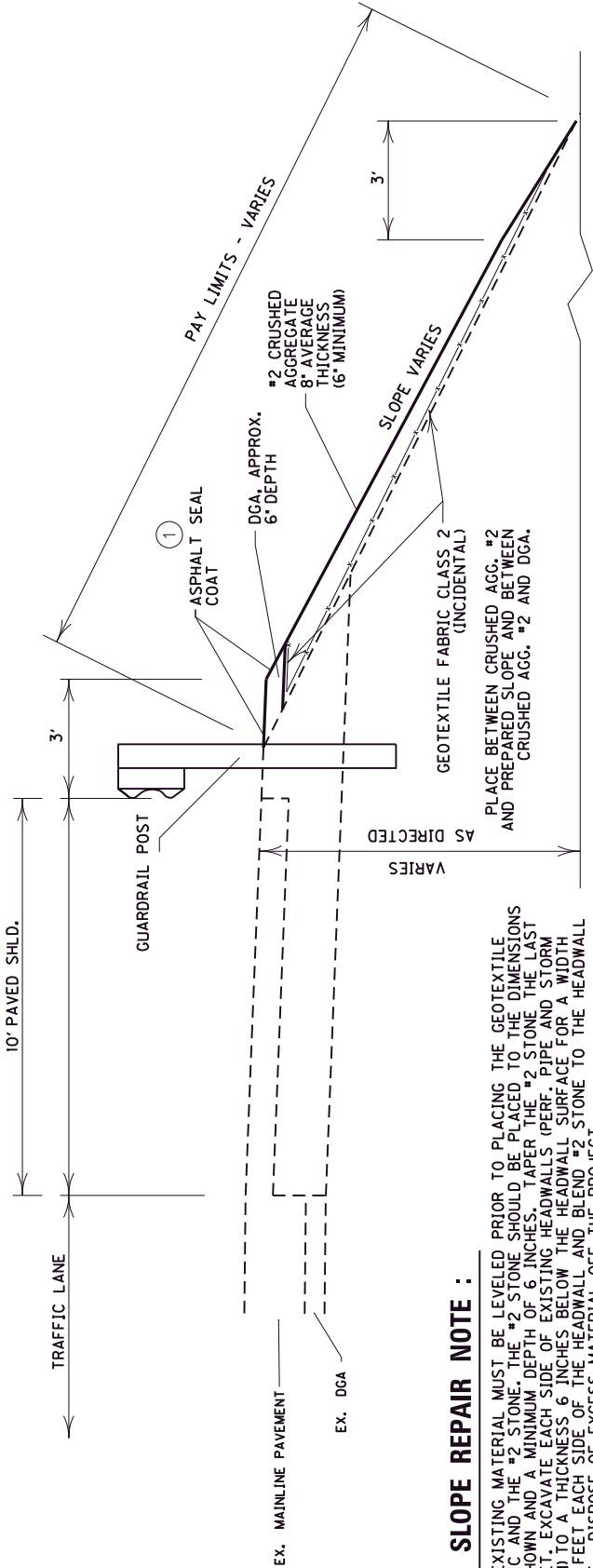
* (CARRIED ON PAVING SUMMARY)

NOT TO SCALE

WK 9001
ASPHALT PAVEMENT REPAIR

SHOULDER EROSION REPAIR DETAIL

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-20003	



SLOPE REPAIR NOTE :

THE EXISTING MATERIAL MUST BE LEVELLED PRIOR TO PLACING THE GEOTEXTILE FABRIC AND THE #2 STONE. THE #2 STONE SHOULD BE PLACED TO THE DIMENSIONS AS SHOWN AND A MINIMUM DEPTH OF 6 INCHES. TAPER THE #2 STONE THE LAST 3 FEET. EXCAVATE EACH SIDE OF EXISTING HEADWALLS (PERF. PIPE AND STORM DRAIN) TO A THICKNESS 6 INCHES BELOW THE HEADWALL SURFACE FOR A WIDTH OF 5 FEET EACH SIDE OF THE HEADWALL AND BLEND #2 STONE TO THE HEADWALL WINGS. DISPOSE OF EXCESS MATERIAL OFF THE PROJECT.

THE BID ITEM "CRUSHED AGGREGATE, SIZE NO. 2" INCLUDES ALL LABOR AND EQUIPMENT NECESSARY TO GRADE THE EXISTING SLOPE, FURNISH AND INSTALL GEOTEXTILE FABRIC CLASS 2, AND CAP THE SLOPE WITH A MINIMUM OF 6 INCHES OF #2 STONE. NO DIRECT MEASUREMENT OR PAYMENT WILL BE MADE FOR GEOTEXTILE FABRIC CLASS 2.

EXTEND THE REPAIRS ONLY THROUGH THE WASH AREA. DO NOT DISTURB AREAS WITH ESTABLISHED VEGETATION.

REMOVE GUARDRAIL WHERE NECESSARY TO PERFORM SHOULDER REPAIRS. PIN ENDS DOWN TO ELIMINATE EXPOSURE TO BLUNT ENDS AND PLACE TRAFFIC DRUMS ON SHOULDER AT 20' SPACING UNTIL GUARDRAIL IS RE-ESTABLISHED. QUANTITIES HAVE BEEN ESTABLISHED FOR PAYMENT OF GUARDRAIL REMOVAL AND INSTALLATION OF NEW RAIL FOR AREAS NOT RECEIVING NEW GUARDRAIL DUE TO DAMAGE.

BID ITEM

* 0078	CRUSHED AGGREGATE NO. 2	200	TONS
** 2381	REMOVE GUARDRAIL	200	LF
** 21802EN	G/R STEEL W BEAM S-FACE (7 FT POST)	200	LF
*** 0001	DGA BASE	50	TONS

ASPHALT SEAL COAT QUANTITIES ESTABLISHED IN THE PAVING SUMMARY

LOCATIONS:

	BEGIN MP	END MP	LENGTH	CRUSHED AGG.	DGA	GUARDRAIL
E.B. OUT. SHLD	115.638	115.647	50'	25	6	50
E.B. OUT. SHLD	115.701	115.707	30'	15	4	37.5
LOC. TO BE DETERMINED AS DIRECTED				160	40	112.5
TOTAL:				200	50	200'

- ① ASPHALT SEAL REQUIRED FROM OUTSIDE EDGE OF PAVED SHOULDER TO A POINT 2 FOOT DOWN THE DITCH OR FILL SLOPE OR BOTTOM OF DGA LAYER.
TWO APPLICATIONS OF THE FOLLOWING :
ASPHALT SEAL COAT..... 2.4 lbs. / S.Y.
ASPHALT SEAL AGGREGATE 20 lbs. / S.Y.

ADDITIONAL QUANTITIES HAVE BEEN INCLUDED TO BE USED AS DIRECTED BY THE ENGINEER.

* (CARRIED ON GENERAL SUMMARY)
** (CARRIED ON GUARDRAIL SUMMARY)
*** (CARRIED ON PAVING SUMMARY)

NOT TO SCALE

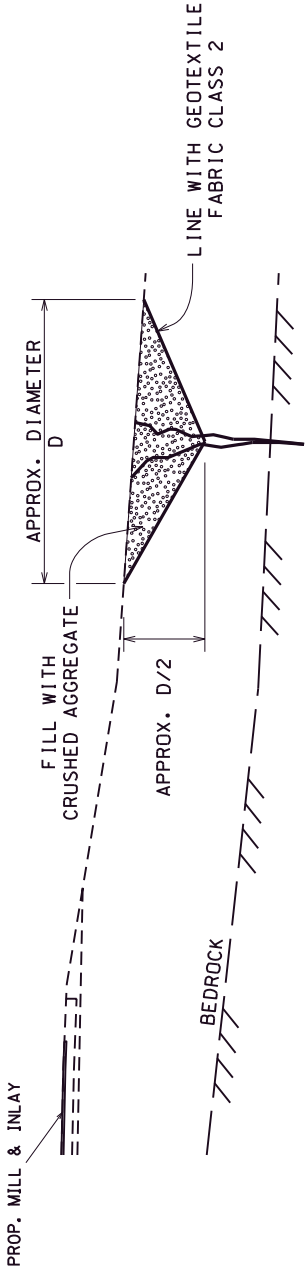
WK 9001
WEST KENTUCKY PARKWAY
EROSION REPAIR DETAIL

SINKHOLE DETAIL

WK 9001

GRAYSON COUNTY

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-20003	



SINKHOLE NOTE :

CLEAN SINKHOLES

SINKHOLES HAVE BEEN ENCOUNTERED AND IDENTIFIED ON THE RIGHT OF WAY WITHIN THE PROJECT LIMITS. PAY ITEMS HAVE BEEN CREATED TO ADDRESS SINKHOLES WHERE DEEMED NECESSARY BY THE ENGINEER. THE ENGINEER WILL DETERMINE IN THE FIELD WHICH SINKHOLES WILL BE TREATED AND WHICH SINKHOLES TO NOT DISTURB.

THE INTENT OF TREATMENT IS NOT TO PLUG THE SINKHOLE OR RESTRICT ITS ABILITY TO ACCEPT SURFACE WATER, BUT IS TO CLEAN DEBRIS FROM THE INLET, REMOVE ENOUGH OVERBURDEN TO INSTALL A PLUG OF GRANULAR MATERIAL TO ELIMINATE OR REDUCE THE POSSIBILITY OF DEVELOPMENT OF A LARGE OPEN HOLE.

SUGGESTED LOCATIONS OF SINKHOLES TO BE TREATED ARE LISTED. SUGGESTED DIAMETERS OF EXCAVATION AND REFILL ARE LISTED. THE ENGINEER WILL ASSESS THE NEED FOR TREATMENT AND MAY MODIFY, DELETE OR ADD TREATMENT AT ANY LOCATION WITHIN THE PROJECT LIMITS OR MAY MODIFY THE AMOUNT OF EXCAVATION AND BACKFILL REQUIRED BASED ON ACTUAL FIELD CONDITIONS.

CLEAN SINKHOLE: EXCAVATE SOIL, ROCK, VEGETATION OR OTHER DEBRIS FROM THE INLET IN A CONICAL SHAPE AS DETAILED TO THE APPROXIMATE DIAMETER AND DEPTHS DETAILED OR AS DIRECTED BY THE ENGINEER. PAYMENT FOR CLEAN SINKHOLE WILL INCLUDE ALL EXCAVATION OF SOIL, ROCK OR DEBRIS AND DISPOSAL OFF THE PROJECT LIMITS.

GEOTEXTILE FABRIC: PLACE GEOTEXTILE FABRIC AT THE INTERFACE OF THE EXCAVATED SURFACE AND THE GRANULAR BACKFILL.

CRUSHED AGGREGATE #2: BACKFILL THE SINKHOLE EXCAVATION AREA WITH #2 CRUSHED AGGREGATE LEVEL WITH SURROUNDING GROUND ELEVATION.

PAYMENT FOR THE ITEMS 'CLEAN SINKHOLE', 'GEOTEXTILE FABRIC CLASS 2', AND 'CRUSHED AGGREGATE SIZE NO. 2' WILL BE FULL COMPENSATION FOR ALL WORK REQUIRED TO CLEAN SINKHOLES AND CAP WITH NO. 2 STONE. NO DIRECT PAYMENT WILL BE MADE FOR CLEARING AND GRUBBING, DISPOSAL OF WASTE OR ANY OTHER ITEMS OF WORK REQUIRED TO COMPLETE THE SINKHOLE CLEANING OPERATION.

MILE POST	DIRECTION	APPROX. DIA.	CLEAN SINKHOLE	AGGREGATE (TONS)	FABRIC (SY)
115.861 (W.B. OUT.)	W.B.	12	1	13	30

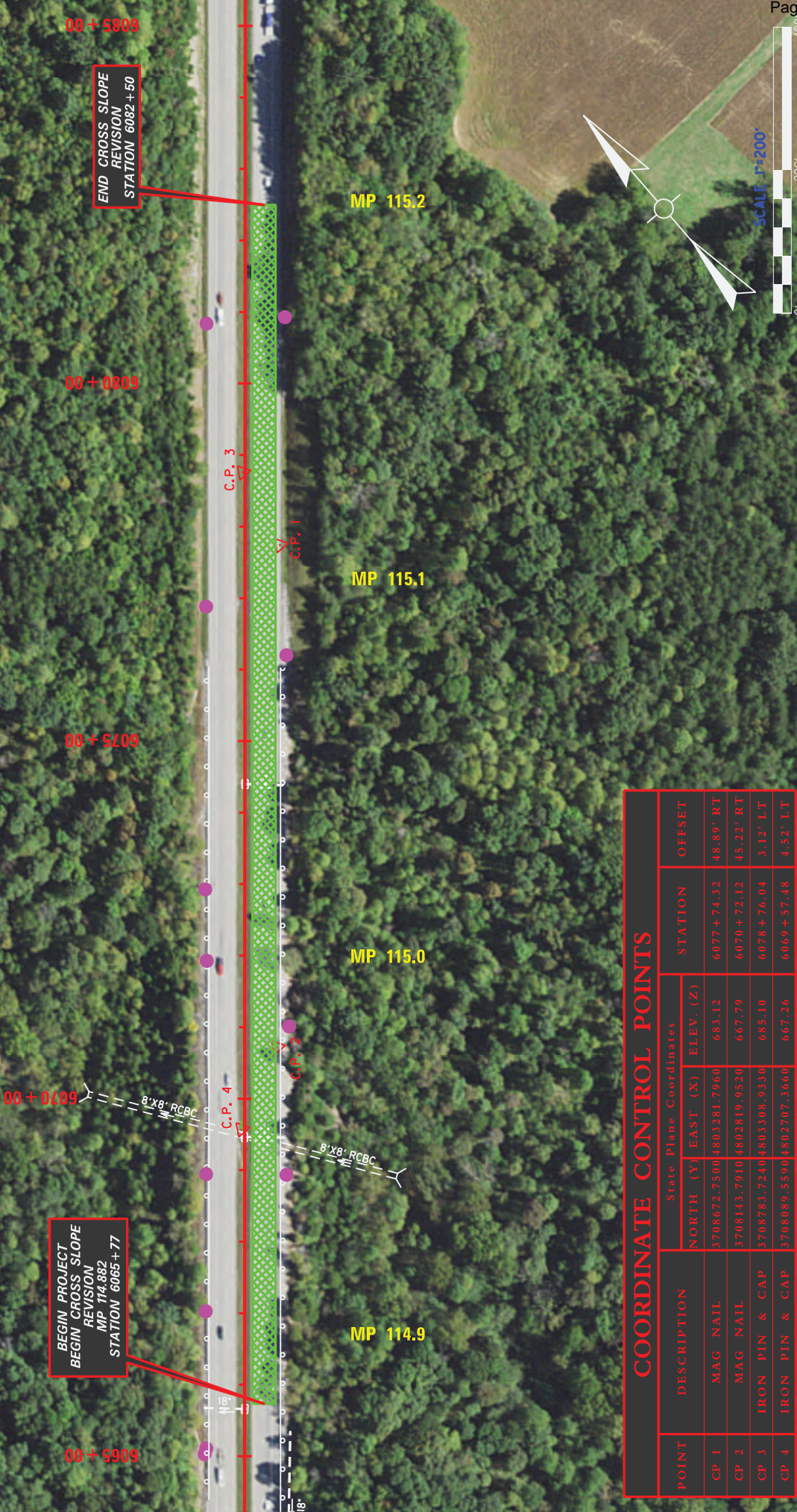
QUANTITIES*			
CLEAN SINKHOLE	CRUSHED AGG.	GEOT. FABRIC	
1 EA.	13 TONS	30 SY	
*CARRIED ON GENERAL SUMMARY)			

NOT TO SCALE

WK 9001
SINKHOLE DETAIL

PROPOSED MAINLINE ALIGNMENT			
POINT	STATION	NORTHING (Y)	EASTING (X)
P.O.T.	6065+00	3707740.4241	4802411.7060
P.O.T.	6085+00	3709253.8406	4803719.2115

County	Item No.	Sheet
GRAYSON	4-20003	-



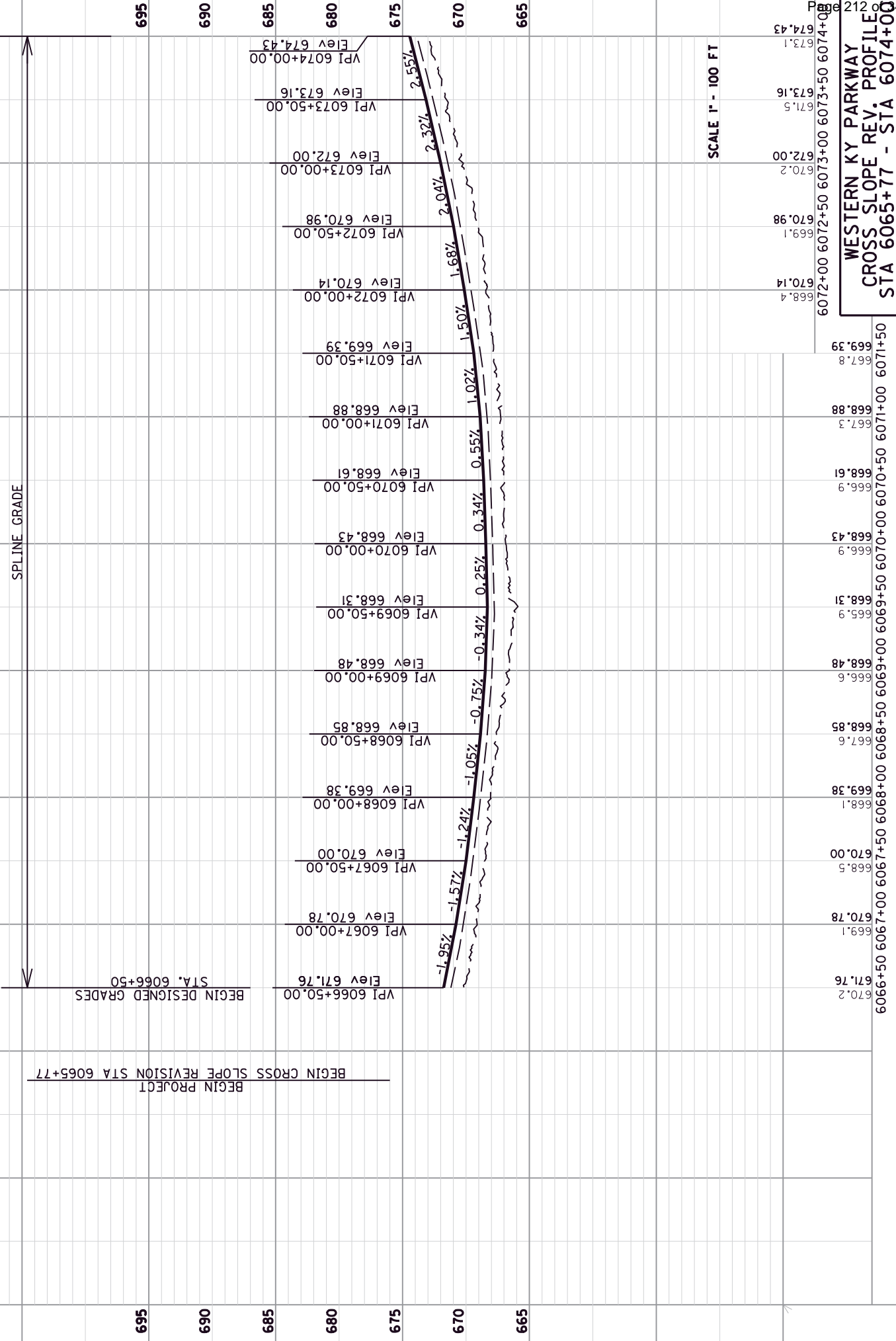
COORDINATE CONTROL POINTS						
POINT	DESCRIPTION	State Plane Coordinates			STATION	OFFSET
		NORTH (Y)	EAST (X)	ELEV. (Z)		
CP 1	MAG NAIL	3708672.7500	4803281.7960	683.12	6077 + 74.32	48.89' RT
CP 2	MAG NAIL	3708143.7910	4802819.9520	667.79	6070 + 72.12	45.22' RT
CP 3	IRON PIN & CAP	3708783.7240	4803308.9330	685.10	6078 + 76.04	3.12' LT
CP 4	IRON PIN & CAP	3708089.5590	4802707.3660	667.26	6069 + 57.48	4.52' LT

CROSS SLOPE CORRECTION AREA

WESTERN KY PARKWAY
CROSS SLOPE REVISION
COORDINATE CONTROL

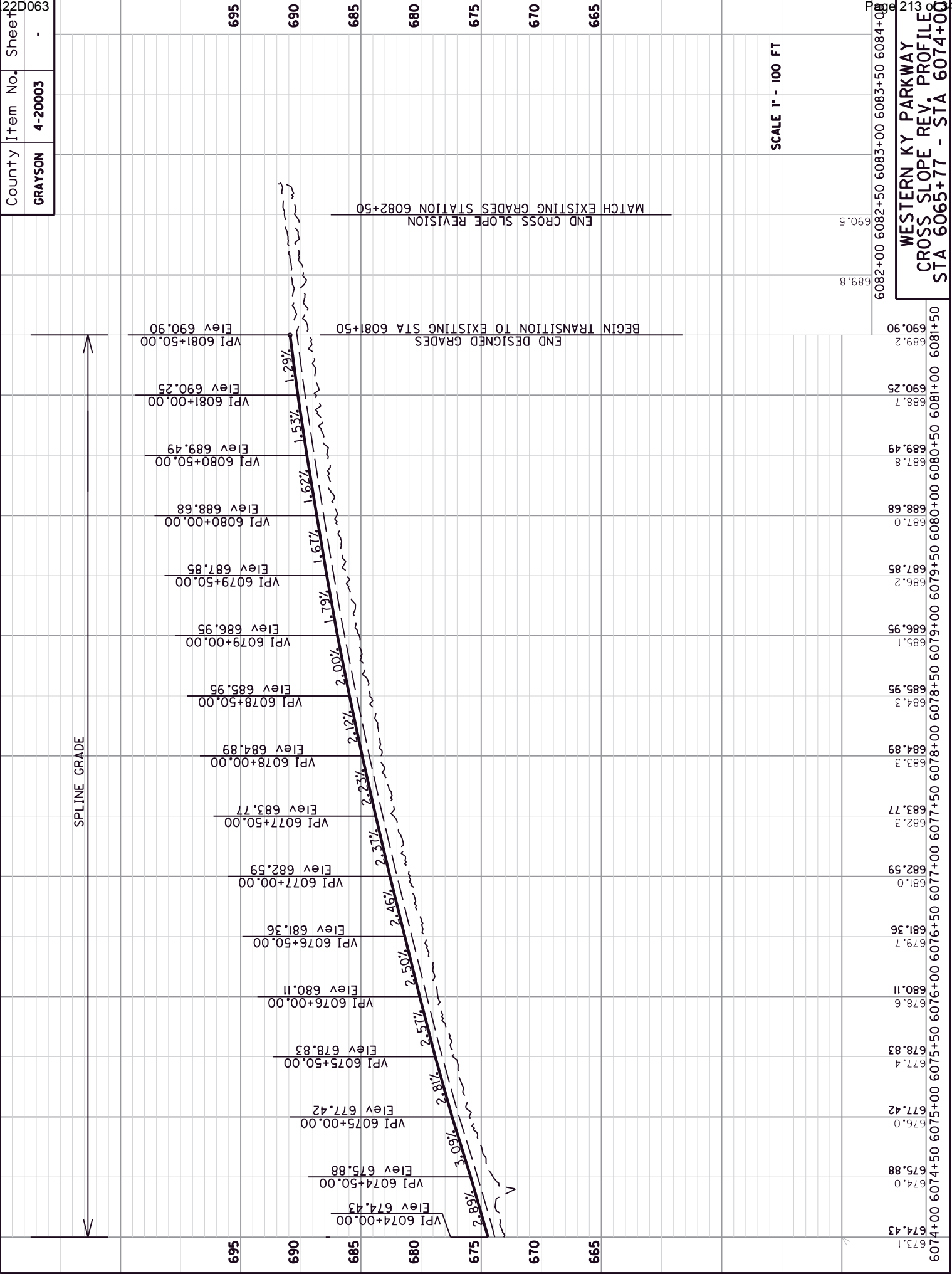
County	Item No.	Sheet
GRAYSON	4-20003	-

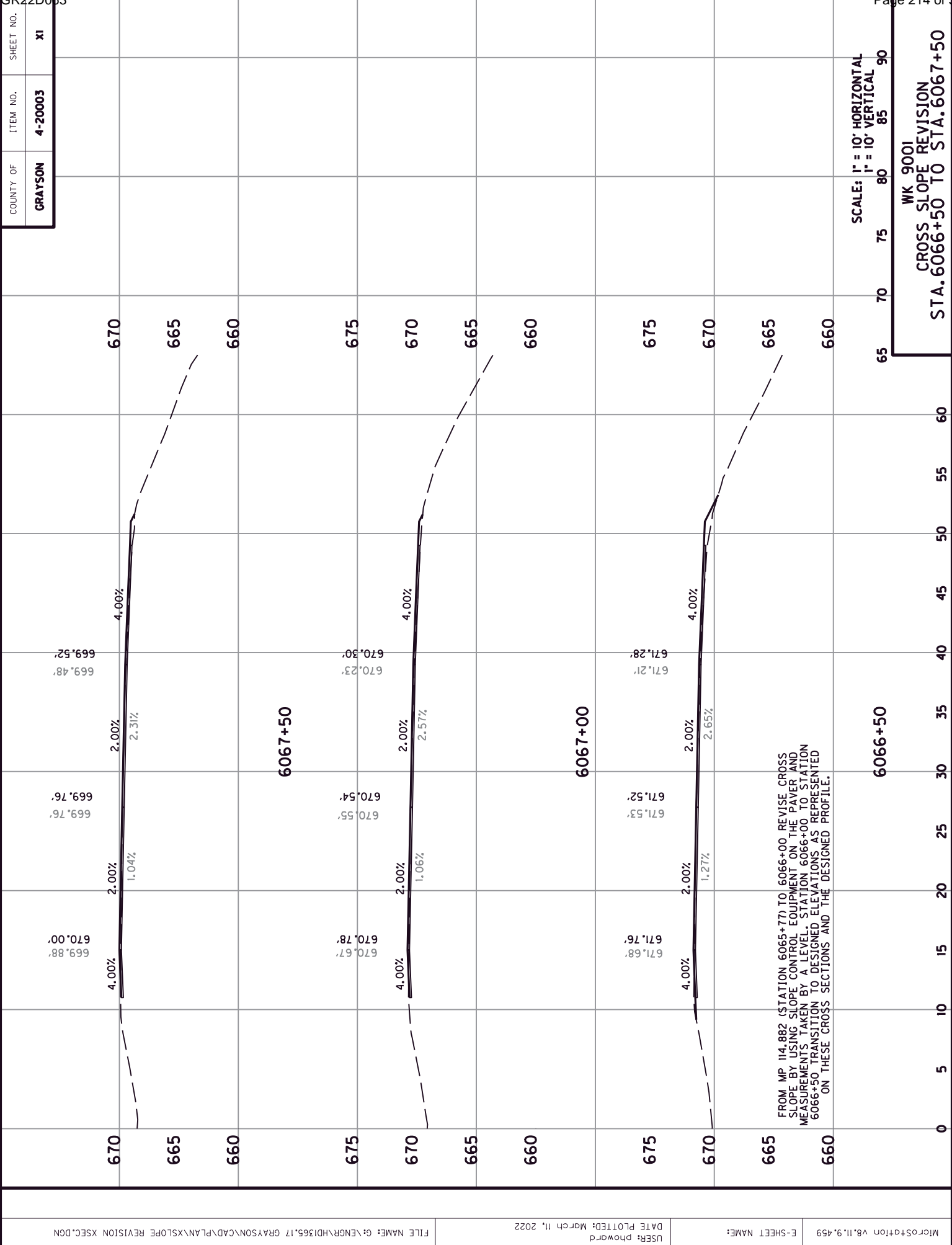
FROM MP 114.882 (STATION 6065+77) TO 6066+00 REVISE CROSS SLOPE BY USING SLOPE CONTROL EQUIPMENT ON THE PAVEMENT AND MEASUREMENTS TAKEN BY A LEVEL. STATION 6066+00 TO STATION 6066+50 TRANSITION TO DESIGNED ELEVATIONS AS REPRESENTED ON THE CROSS SECTIONS AND THE DESIGNED PROFILE.



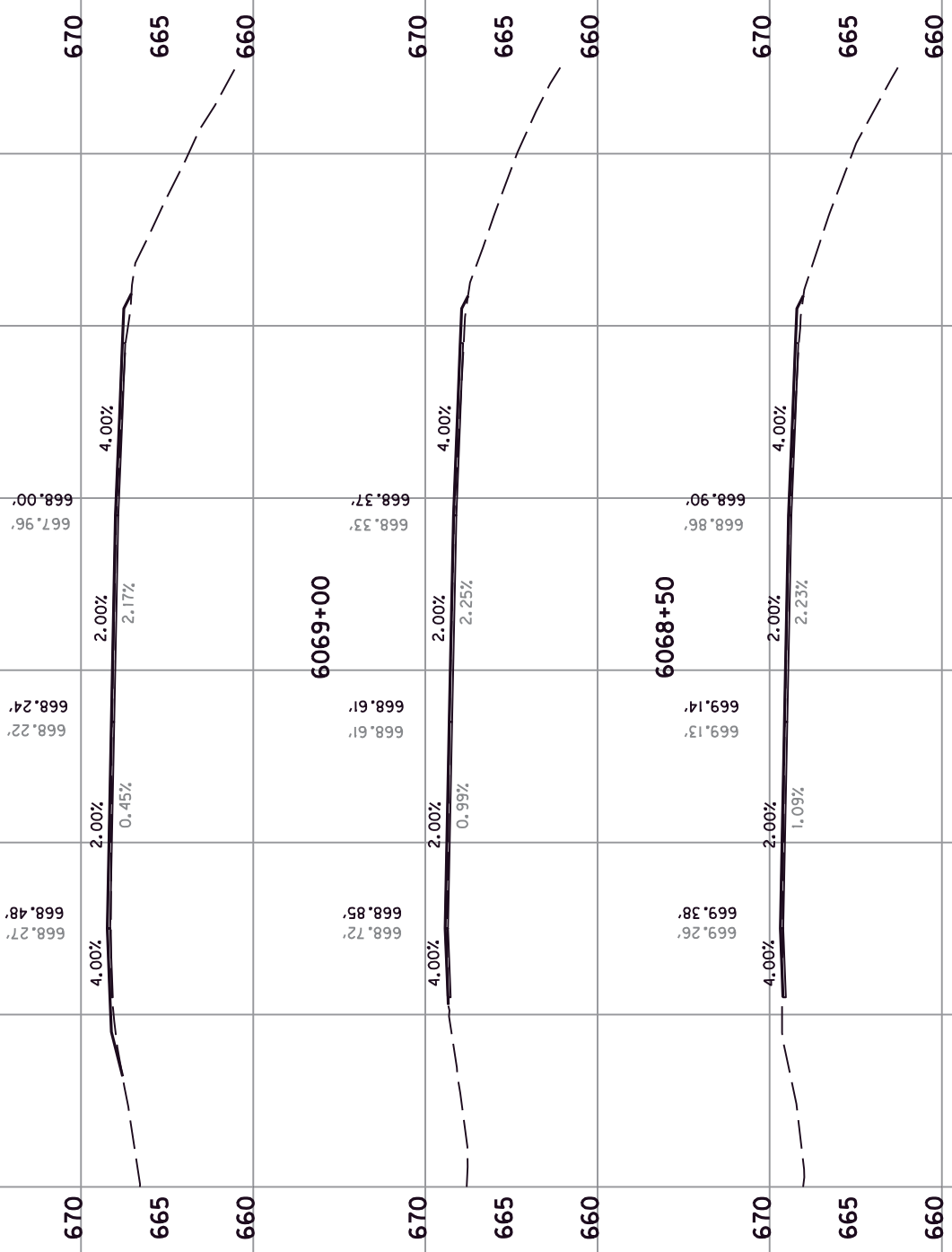
WESTERN KY PARKWAY
CROSS SLOPE REV. PROFILE
STA 6065+77 - STA 6074+00

County	Item No.	Sheet
GRAYSON	4-20003	-





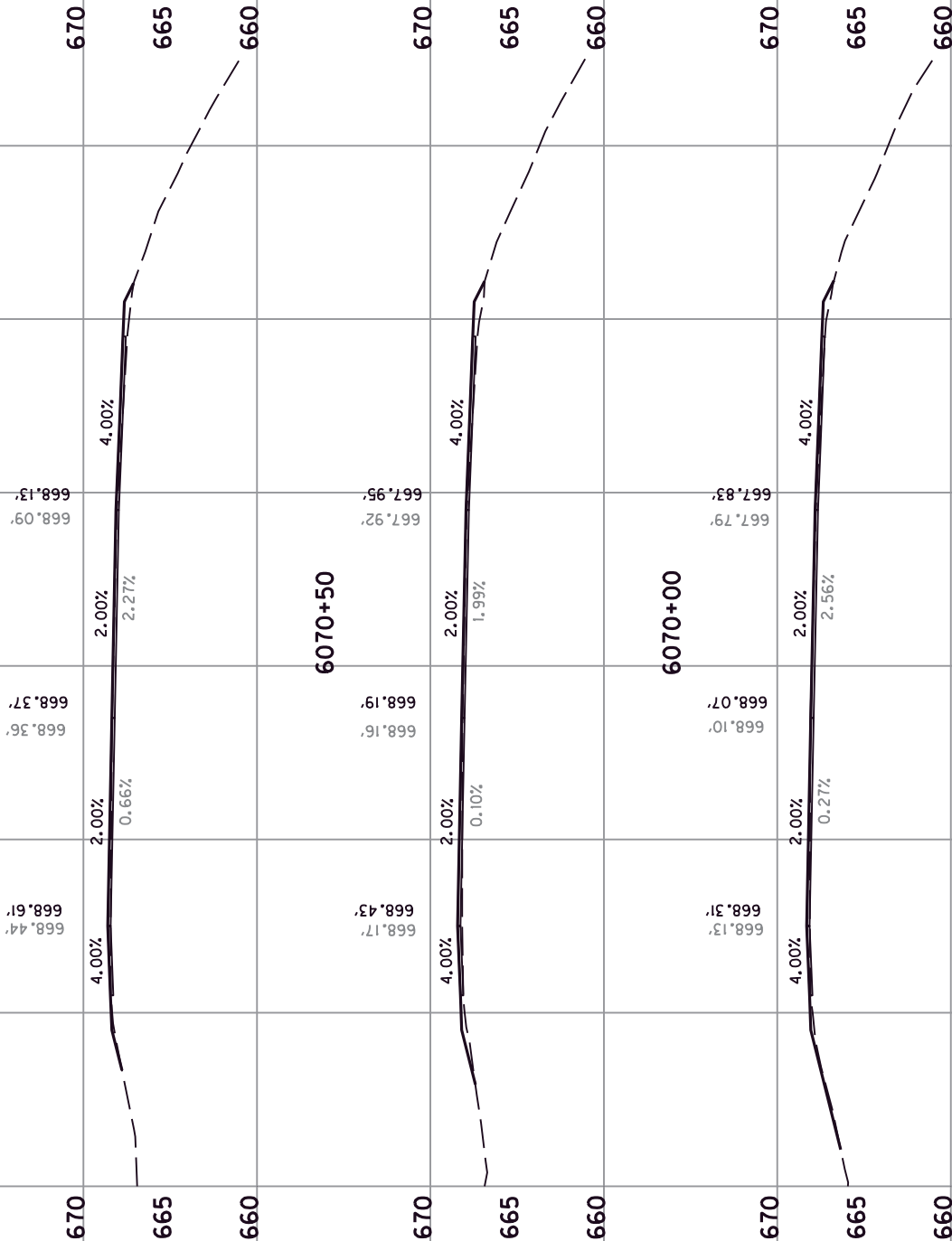
COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-20003	X2



SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

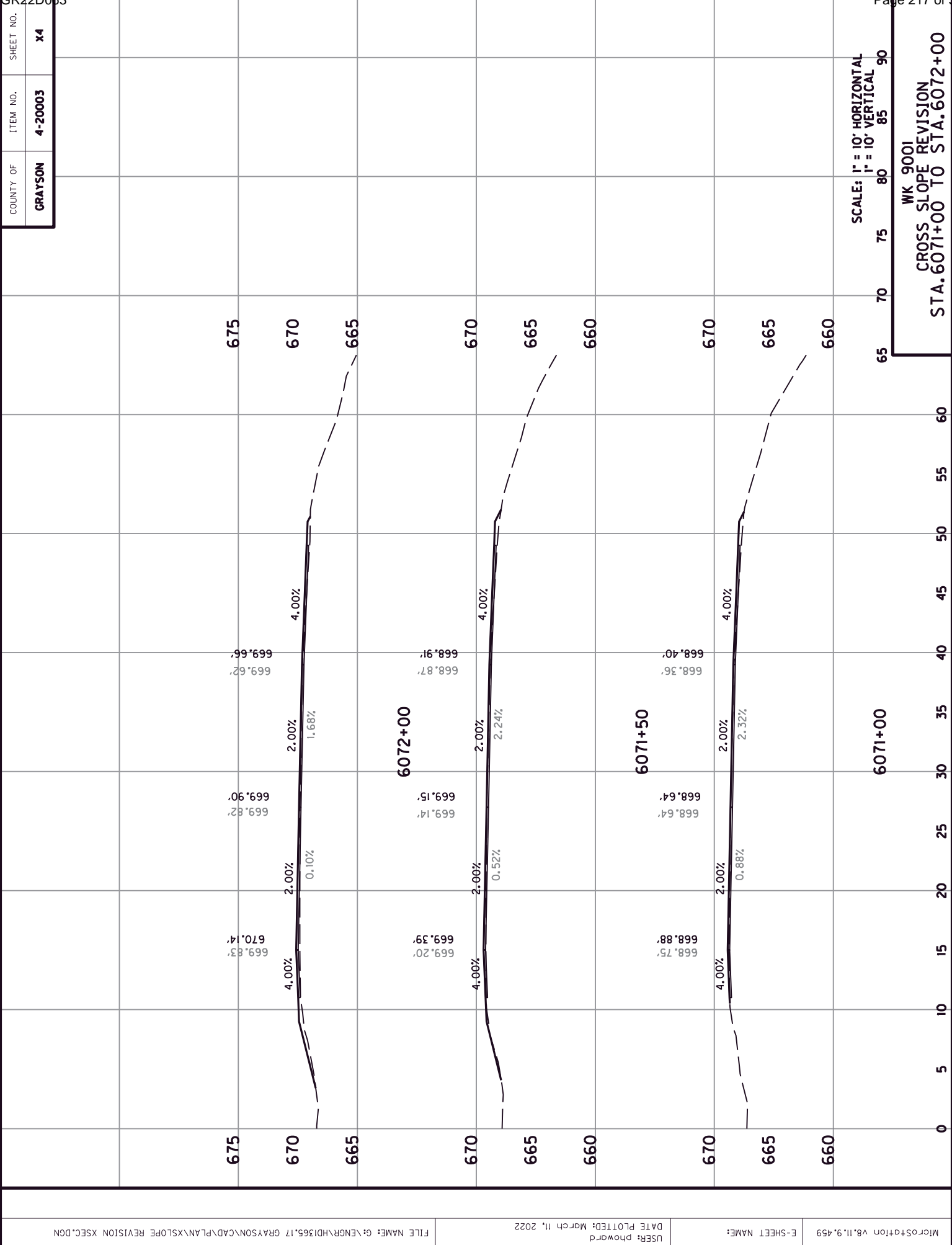
WK 9001
CROSS SLOPE REVISION
STA. 6068+00 TO STA. 6069+00

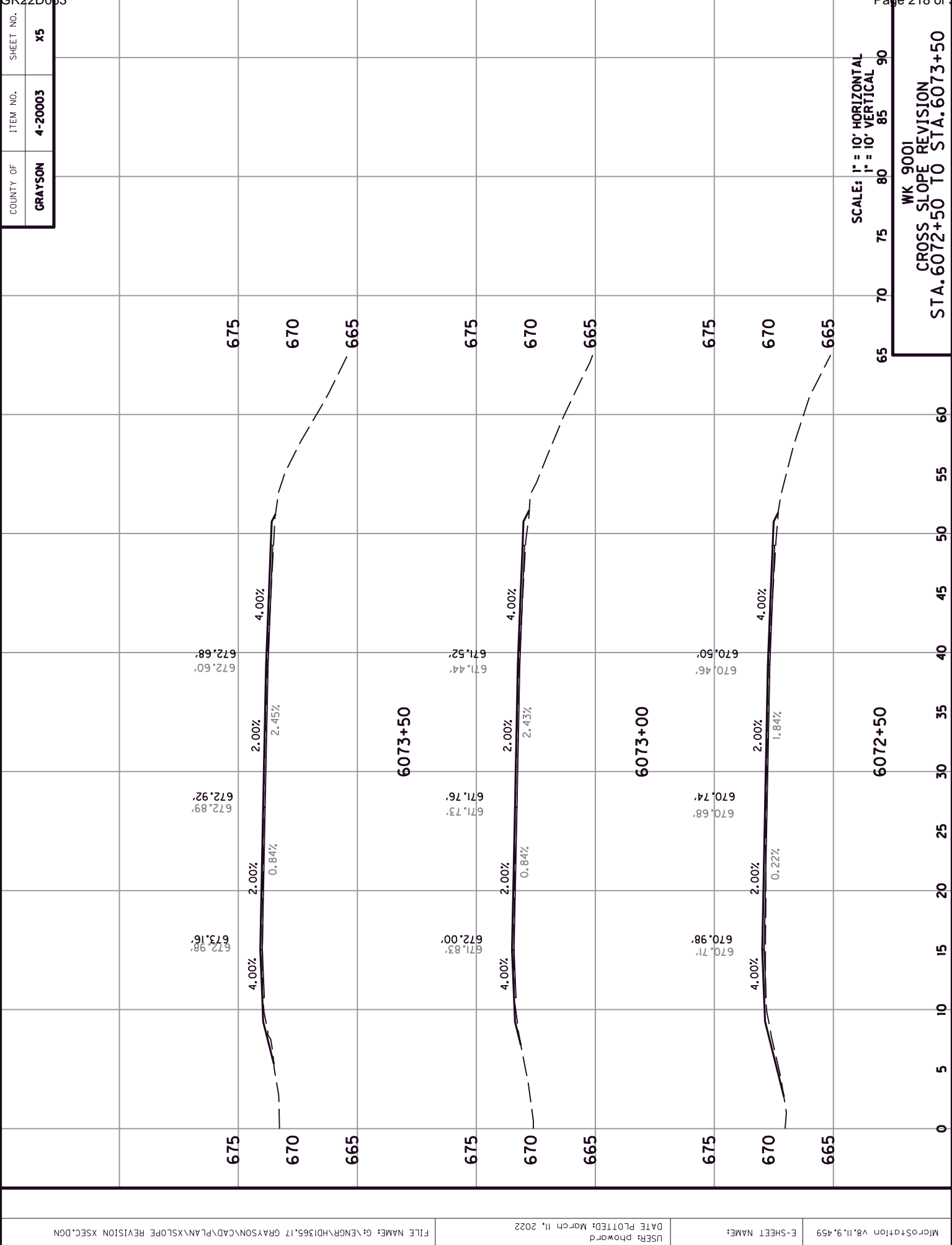
COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-20003	X3

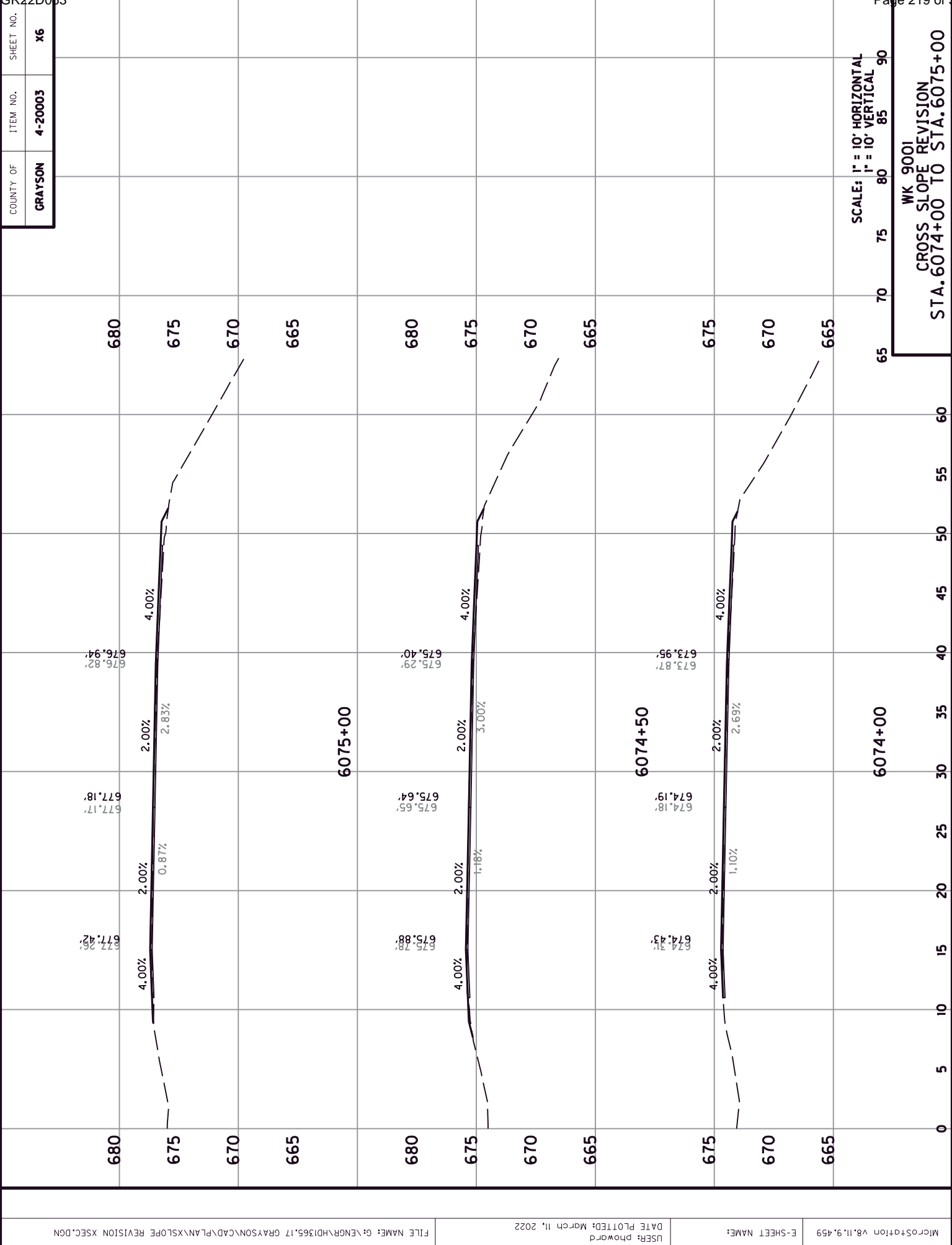


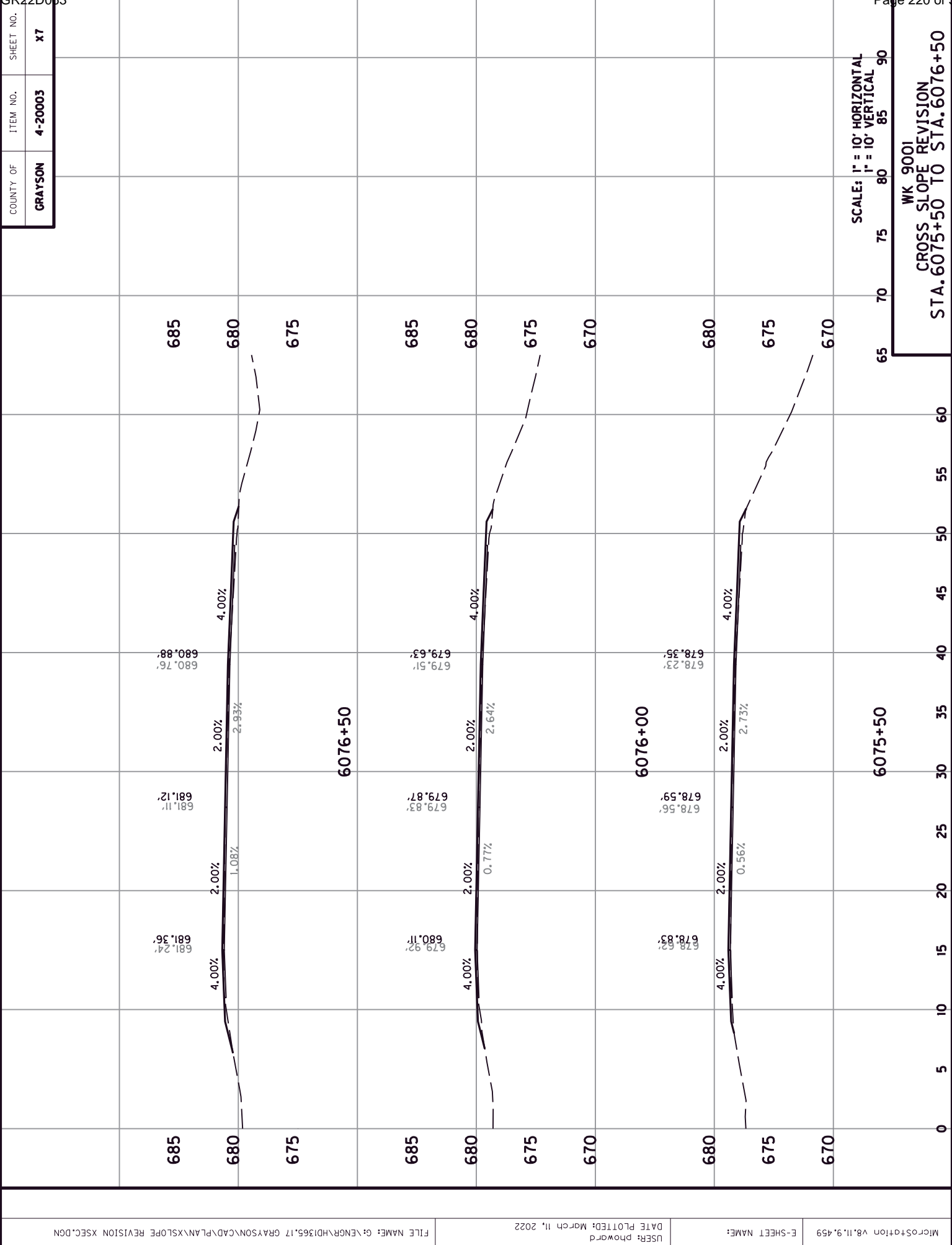
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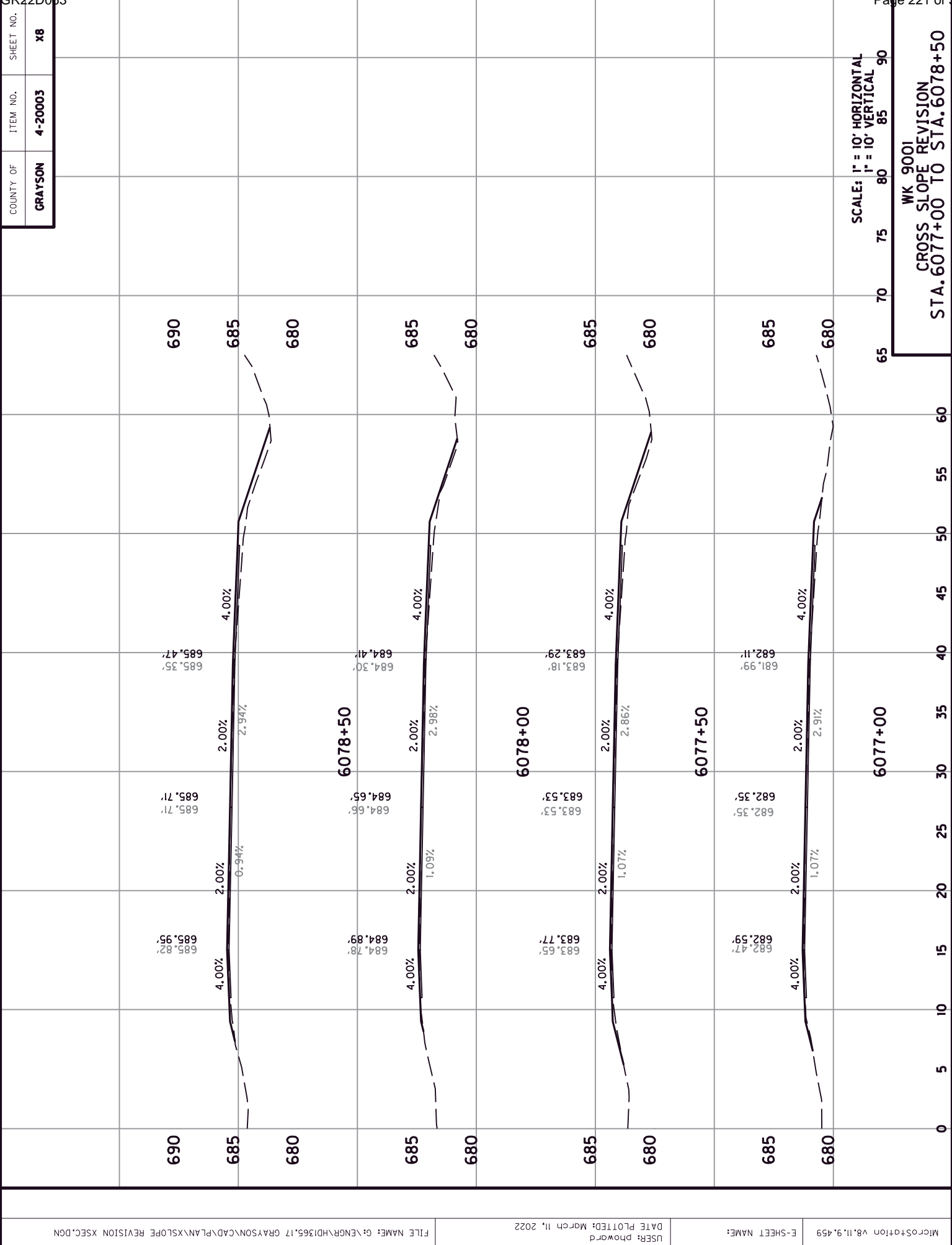
WK 9001
CROSS SLOPE REVISION
STA. 6069+50 TO STA. 6070+50

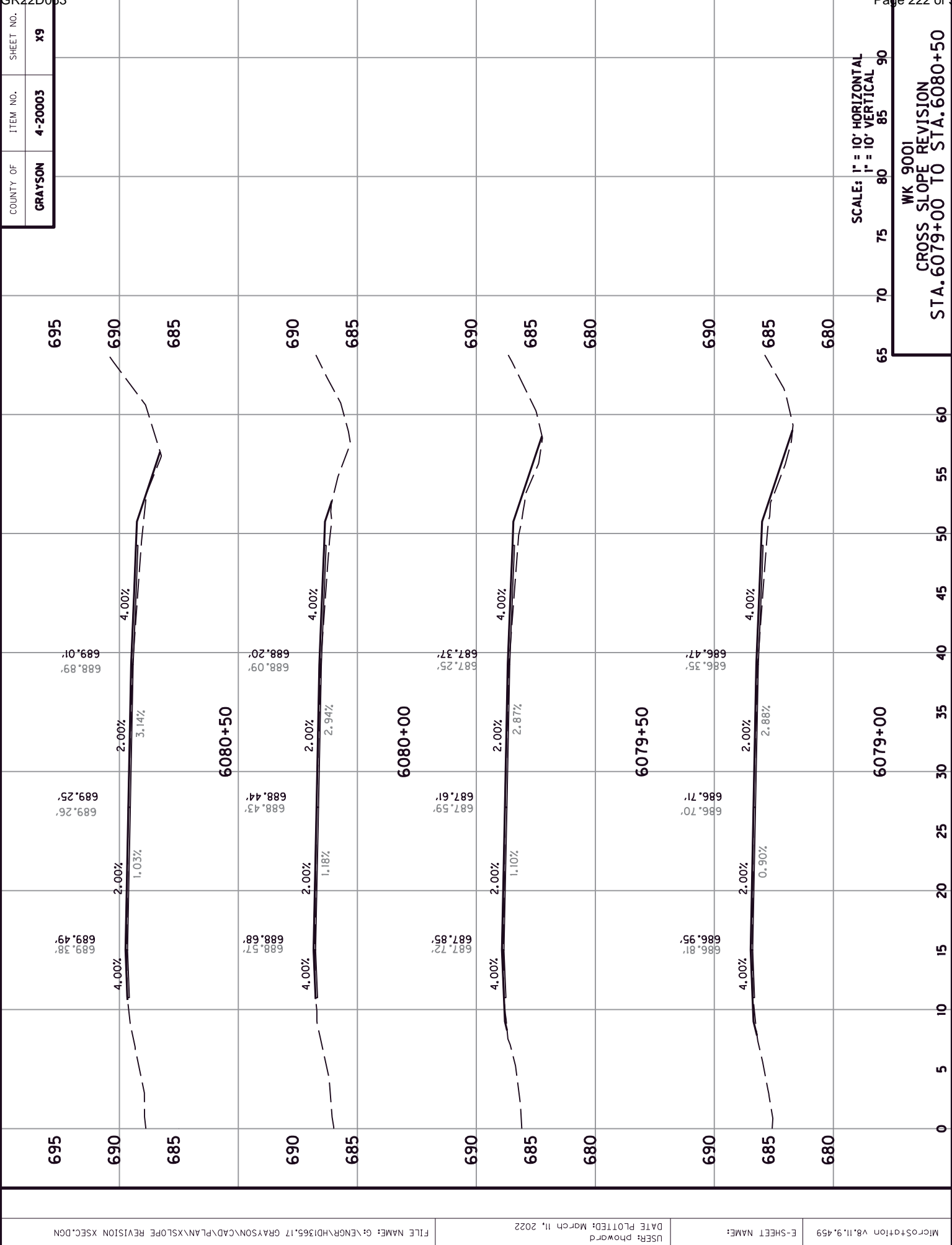






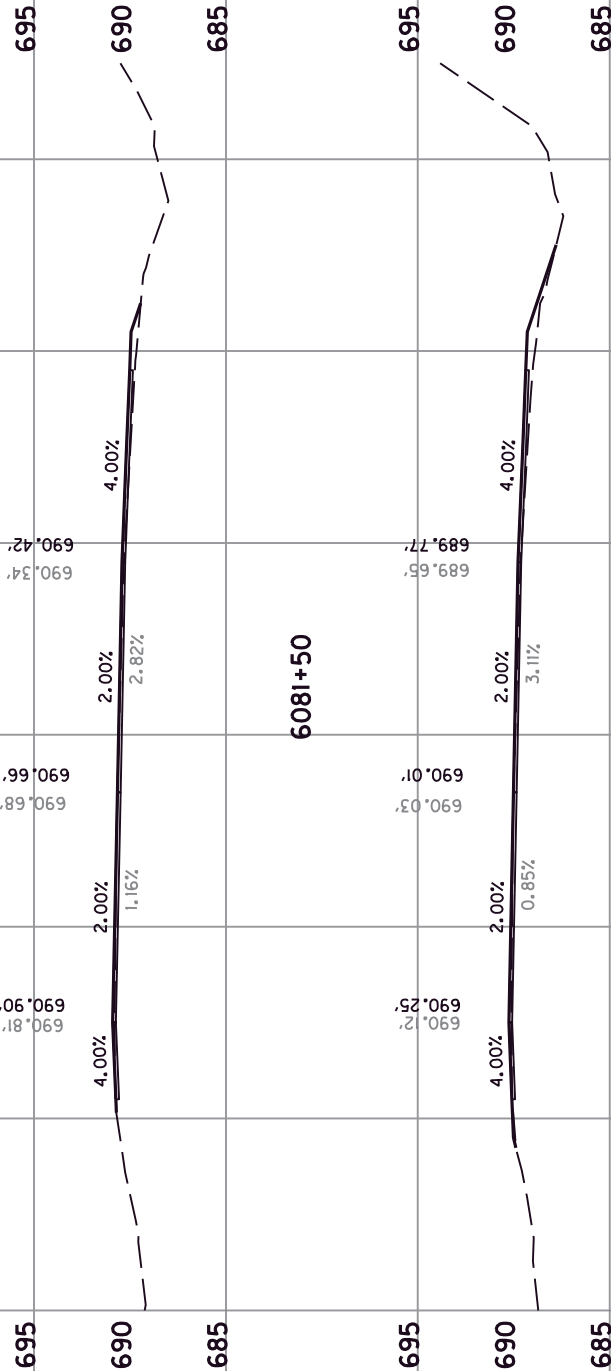






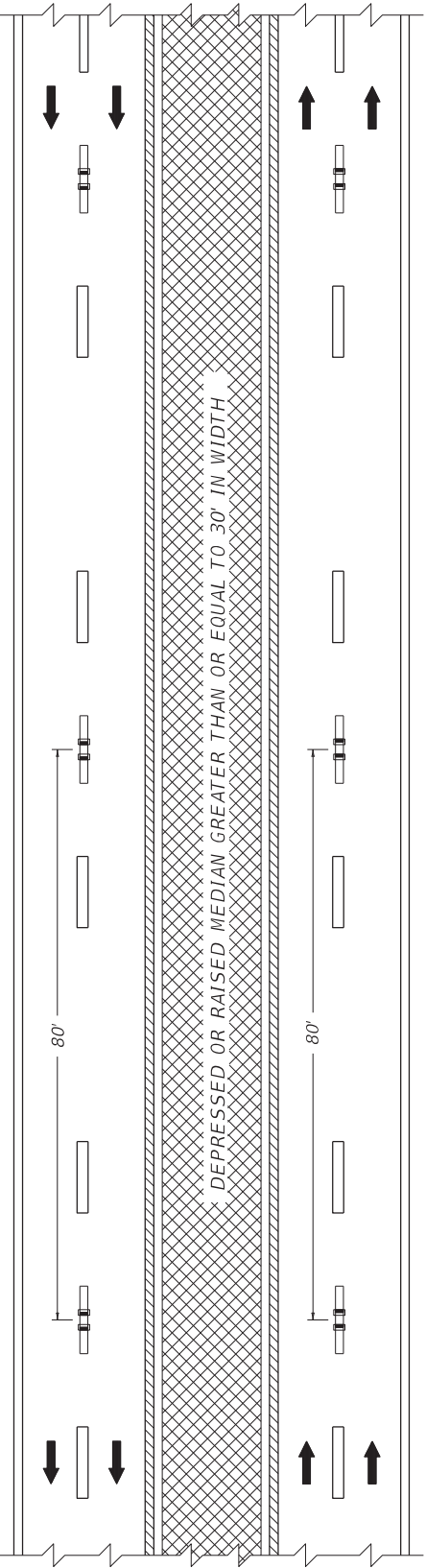
COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-20003	X10

STATION 6081+50 TO STATION 6082+50, TRANSITION
TO MATCH EXISTING GRADES.

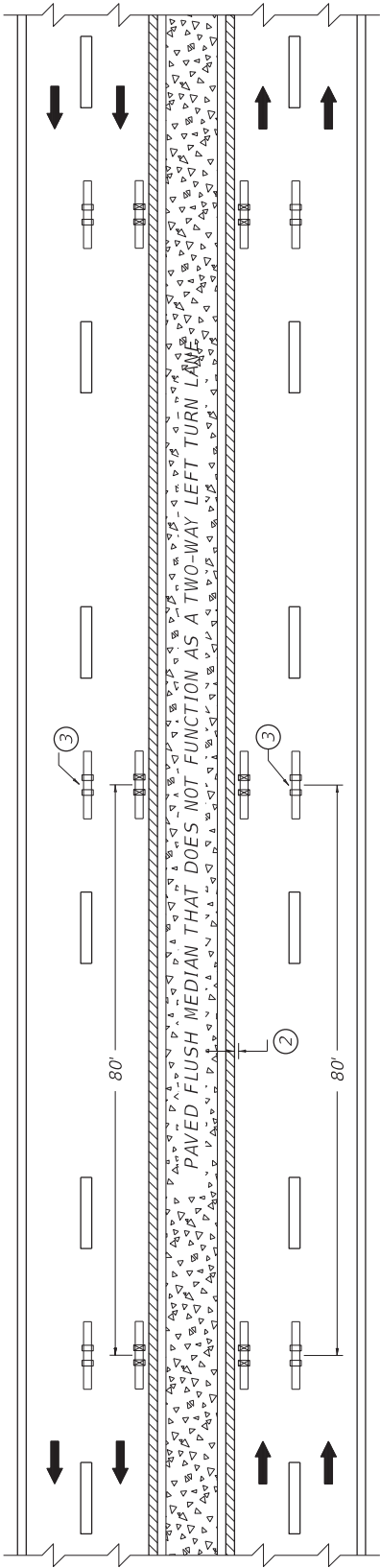


SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

WK 9001
CROSS SLOPE REVISION
STA. 6081+00 TO STA. 6081+50



ARRANGEMENT "C" (DIVIDED HIGHWAY WITH DEPRESSED OR RAISED MEDIAN GREATER THAN OR EQUAL TO 30' IN WIDTH)



ARRANGEMENT "D" (DIVIDED HIGHWAY WITH PAVED FLUSH MEDIAN THAT DOES NOT FUNCTION AS A TWO-WAY LEFT TURN LANE)

- ~ NOTES ~
1. MARKERS INSTALLED ALONG LANE LINES SHOULD BE PLACED BETWEEN AND IN LINE WITH THE SKIPS.
 2. MARKERS INSTALLED ALONG EDGE LINES SHOULD BE PLACED SO THAT THE NEAR EDGE OF THE GROOVE IS NO MORE THAN 1" FROM THE NEAR EDGE OF THE LINE.
 3. IF WIDTH OF PAVED FLUSH MEDIAN IS GREATER THAN OR EQUAL TO 30', BI-DIRECTIONAL (WHITE-RED) MARKERS SHALL BE USED ALONG THE LANE LINES IN LIEU OF MONO-DIRECTIONAL (WHITE) MARKERS.
 4. MARKERS SHALL NOT BE INSTALLED ON TOP OF THE PAVEMENT JOINT. OFFSET MARKERS A MINIMUM OF 2" FROM THE PAVEMENT JOINT. ENSURE THAT THE FINISHED LINE OF MARKERS IS STRAIGHT WITH MINIMAL LATERAL DEVIATION. MARKERS MAY BE ELIMINATED OR PLACEMENT ADJUSTED AT THE DISCRETION OF THE ENGINEER.
 5. MARKERS SHALL BE INSTALLED AT 40' SPACING ALONG SOLID WHITE AUXILIARY LANES. MARKER COLOR SHALL MATCH THE MARKERS INSTALLED ALONG THE WHITE LANE LINES.
- BID ITEMS
06610 - INLAID PAVEMENT MARKER - MW
06612 - INLAID PAVEMENT MARKER - BY
06613 - INLAID PAVEMENT MARKER - B W/R

LEGEND

BI-DIRECTIONAL PAVEMENT MARKER (YELLOW)

BI-DIRECTIONAL PAVEMENT MARKER (WHITE-RED)

MONO-DIRECTIONAL PAVEMENT MARKER (WHITE)

MARKINGS (YELLOW)

MARKINGS (WHITE)

FLUSH MEDIAN

DEPRESSED OR RAISED MEDIAN

DRAWING NOT TO SCALE

KENTUCKY
DEPARTMENT OF HIGHWAYS
INLAID PAVEMENT MARKER ARRANGEMENTS
MULTI-LANE ROADWAYS

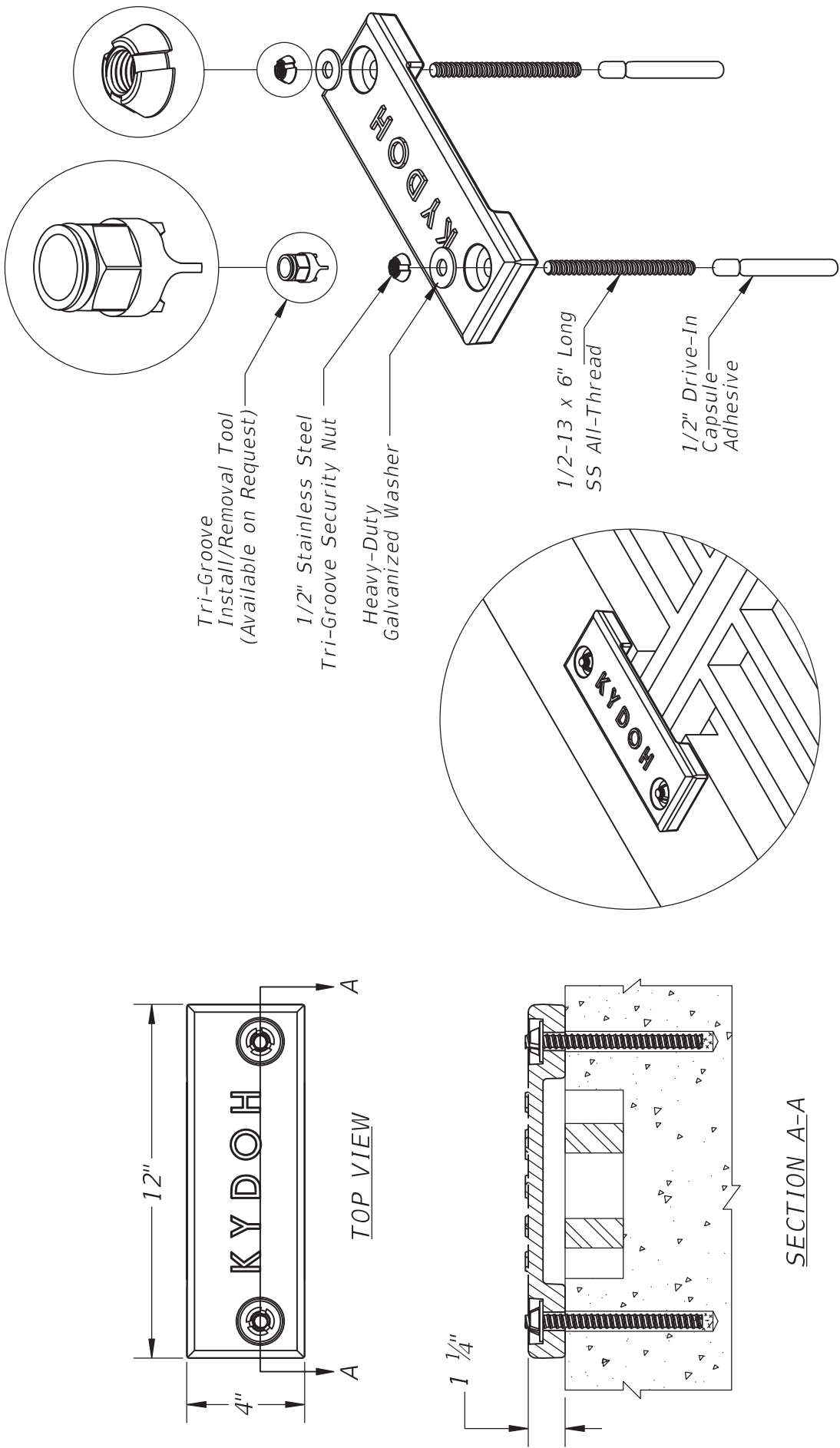
SUBMITTED

DIVISION DIRECTOR

06-09-21

DATE

007



KENTUCKY DEPARTMENT OF HIGHWAYS	SECURITY PLATE ASSEMBLY	SUBMITTED <i>W. J. Saylor</i> 02-26-2021 DIVISION DIRECTOR DATE
		(20)

MOUNTED

EACH

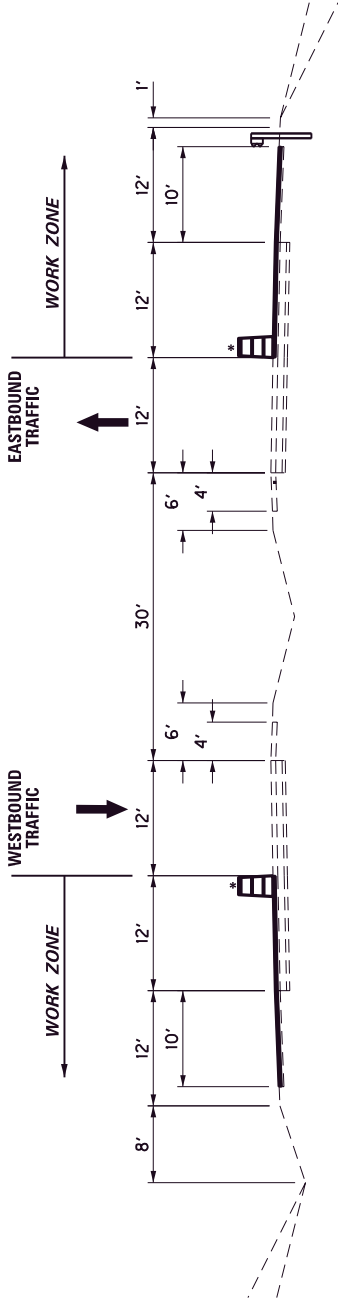
BID ITEMS AND UNITS TO BID
24585EC SECURITY PLATE ASSEMBLY

MAINTENANCE OF TRAFFIC

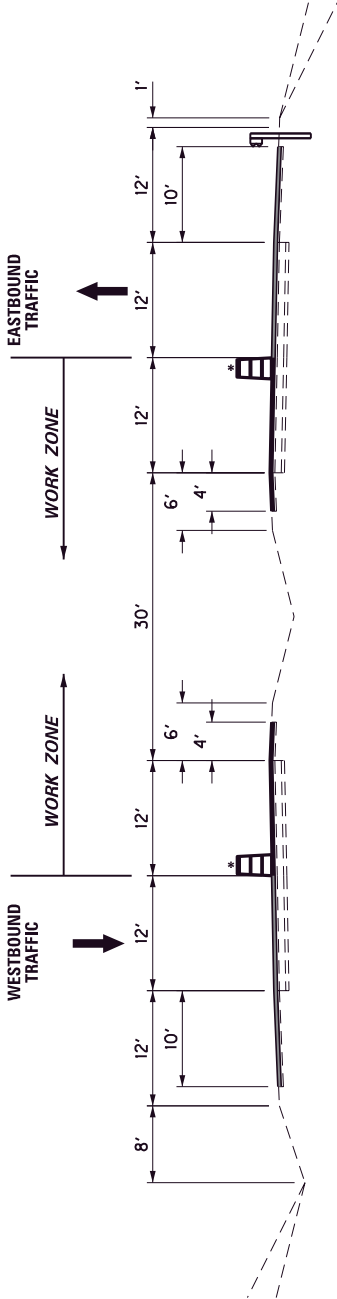
WK 9001

MP 114.882 TO MP 116.949

County	Item No.	Sheet
GRAYSON	4-20003	



OUTSIDE LANE CLOSURES



INSIDE LANE CLOSURES

- MOVE DRUM TEMPORARILY WHEN NECESSARY TO ALLOW PAYING EQUIPMENT TO PASS. IMMEDIATELY MOVE DRUMS AS SOON AS PRACTICAL TO RESTORE LANE WIDTHS.

LEGEND

	CONSTRUCTED IN PREVIOUS PHASE
	MILL AND INLAY

**TRAFFIC CONTROL PLAN
GRAYSON COUNTY
WK 9001
NHPP 9001 (015)
FD52 043 9001 114-117
Item No. 4-20003**

<p>THIS PROJECT IS A FULLY CONTROLLED ACCESS HIGHWAY</p>

TRAFFIC CONTROL GENERAL

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

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

Reduce the speed limit in work areas to 55 miles per hour (35 miles per hour for ramps if applicable) and establish double fines for work zone speeding violations. The extent of these areas within the project limits will be restricted to the proximity of actual work areas as determined by the Engineer. Notify the Engineer a minimum of 12 hours prior to using the double fine signs. At the beginning of the work zone, the "BEGIN DOUBLE FINES ZONE" signs will be dual mounted. At the end of the work zone, the "END DOUBLE FINES ZONE" signs will be dual mounted as well. Remove or cover the signs or turn off flashers when the highway work zone does not have workers present for more than a two-hour period of time. Payment for the signs will be at the unit bid price for Temporary Signs. Any relocation or covering of the signs or operation of flashers will be incidental to "Maintain and Control Traffic", lump sum.

Night work will be allowed on this project. Obtain approval from the Engineer for the method of lighting prior to its use.

TRAFFIC PHASING OVERVIEW

Phase I is intended to perform all work required prior to the typical mill and inlay operations. Phase II is intended to complete the mill and inlay depicted on the typical sections through final surfacing. Phase III is intended to complete final pavement markings and final cleanup.

Project Phasing:

PHASE IA

In this phase, close the outside lanes and complete Relief Joint Repairs, Perforated Pipe Inspection and Repairs, Drainage Repairs located in or adjacent the mainline outside lanes. Complete Erosion Remedial Measures, Paved Ditch Removal, Guardrail Repairs, and all other items of work, located in or adjacent the mainline outside lanes, required prior to the typical mill and inlay operations.

Remove lane closures and restore traffic to two lanes on the mainline for any period of time more than 3 days that no work will be performed requiring a lane closure.

PHASE IB

In this phase, close the inside lanes and complete Relief Joint Repairs, Perforated Pipe Inspection and Repairs located in or adjacent the mainline inside lanes. Complete Erosion Remedial Measures, and all other items of work, located in or adjacent the mainline inside lanes, required prior to the typical mill and inlay operations.

Remove lane closures and restore traffic to two lanes on the mainline for any period of time more than 3 days that no work will be performed requiring a lane closure.

PHASE IIA – Eastbound Cross Slope Revision Inside Lane

Shift traffic to the outside lane eastbound, closing the inside eastbound mainline lane to traffic.

Complete the 2" milling of inside lane and shoulder and place Leveling and Wedging from MP 114.882 to MP 115.199 to revise cross slope to the bottom of proposed scratch course grade as calculated from the cross sections where provided, or as determined by monitoring of cross slope during placement where cross sections have not been provided. Construct a temporary 3:1 longitudinal wedge of leveling and wedging at the center of lanes from the top of leveling to eliminate pavement edge drop-offs of greater than 1" (if needed). Provide a temporary wedge of leveling and wedging of approximately 25' length at each end of the cross slope revision to provide a temporary transition from the existing surface to the newly constructed leveling and wedging course. This temporary wedge will be removed as part of the final surfacing operation.

PHASE IIB – Eastbound Cross Slope Revision and Final Surfacing Outside Lane

Shift traffic to the inside lane eastbound, closing the outside eastbound mainline lane to traffic. Traffic will be required to travel on the leveling and wedging course through the cross slope revision area.

Complete the 2" milling in the outside lane and shoulder from MP 114.882 to MP 116.949 and place Leveling and Wedging from MP 114.882 to MP 115.199 to revise cross slope to the bottom of proposed scratch course grade as calculated from the cross sections where provided, or as determined by monitoring of cross slope during placement where cross sections have not been provided. Remove guardrail and place DGA wedge outside of the leveling and wedging course.

Place 0.5" Scratch course and final asphalt surface on outside lane. Complete DGA shoulder wedge and asphalt seal coat and restore guardrail.

PHASE IIC – Final Surfacing Inside Lane Eastbound

Shift traffic to the eastbound outside lane, closing the eastbound inside mainline lane to traffic.

Complete 2" milling of inside lane and shoulder between MP 115.199 and MP 116.949.

Place 0.5" scratch course and final asphalt surface on the inside lane and shoulder. Place DGA wedge as needed and asphalt seal coat.

PHASE IID – Final Surfacing Inside Lane Westbound

Shift traffic to the outside lane, closing the inside mainline lane to traffic. Complete milling and inlay of the scratch course and final asphalt surface in the inside lane and inside shoulder. Place DGA wedge as needed and asphalt seal coat.

PHASE IIE – Final Surfacing Outside Lane Eastbound

Shift traffic to the inside lane, closing the outside mainline lane to traffic. Complete milling and inlay of the scratch course and final asphalt surface in the outside lane and outside shoulder. Place DGA wedge as needed and asphalt seal coat.

PHASE III

Using alternating lane closures, complete any remaining work including installation of final pavement markings, inlaid pavement markers, flexible delineators, shoulder rumble strips and final cleanup, etc.

BLOWUP/RELIEF JOINT REPAIR LOCATIONS

Approximate Blowup/Relief Joint repair locations are listed elsewhere in the proposal. The Engineer will determine the exact location at the time of construction. Once removal of pavement at a particular repair location has begun, the contractor shall work continuously to complete the work required to bring the pavement up within 4 inches of the existing adjacent surface grade. Type III Barricades shall be placed immediately in front of all pavement removal areas.

MILL AND INLAY OF ASPHALT BASE

Mill and inlay of asphalt base must be completed by the end of each day's shift for all areas milled for asphalt pavement repairs, in order to eliminate the pavement edge drop-off created by the milling operation.

SHOULDER PREPARATION AND RESTORATION

Wide loads, errant vehicles, or traffic shying away from equipment or workers may inadvertently tend to travel for short distances on the shoulders. Clean any debris from the shoulders prior to beginning any work on the project and periodically when debris accumulates throughout the duration of the project. Monitor shoulder conditions and perform repairs as necessary if damage develops. Repairs to shoulders are to be paid by the tons of milling measured, asphalt material for tack, and the measured tons of the asphalt mixture used. Use asphalt base, asphalt surface or leveling and wedging for repairs as directed by the engineer. No direct payment for these repairs will be made other than measurement and payment of established contract work items necessary to make the repairs. No additional mobilization or traffic control will be considered for payment for these potential repairs.

LANE CLOSURES

Contrary to Section 112.04.17, Lane closures, whether long term or short term, will not be measured for payment and will be incidental to the bid item "Maintain and Control Traffic". Lane closures must be installed on both inside lanes while work is being performed in the common median.

LANE WIDTHS

The minimum clear lane width will be 12'. Lane widths may be reduced for short durations in the local vicinity of paving operations or other operations that equipment or personnel is required to work in close proximity of adjacent traffic. Restore lane widths to 12' as soon as practical after the paving equipment has passed. Make provisions for the passage of wide loads up to 16'. Use a lane closure all times when work is performed in the lane or adjacent shoulder.

SIGNS

Additional traffic control signs in addition to normal lane closure signing detailed on the Standard Drawings may be required by the Engineer. Additional signs needed for lane closures may include, but are not limited to, dual mounted LEFT/RIGHT LANE CLOSED 1 MILE, LEFT/RIGHT LANE CLOSED 2 MILE, LEFT/RIGHT LANE CLOSED 3 MILE, SLOWED/STOPPED TRAFFIC AHEAD, KEEP LEFT/RIGHT. Signage for reduced speed limits and double fine work zones will be furnished, relocated, and maintained by the Contractor.

Contrary to section 112, individual signs will be measured only once for payment, regardless of how many times they are set, reset, removed and relocated during the duration of the project. Replacements for damaged signs or signs directed to be replaced by the Engineer due to poor legibility or reflectivity will not be measured for payment.

A quantity of signs has been included for extra double fine signs, keep left/keep right and speed limit signs between interchanges. These are to be paid for only once regardless of how many times they are moved or relocated.

SPEED LIMIT REDUCTIONS AND DOUBLE FINE ZONES

Install all signing for speed zone reductions in accordance with Standard Drawing TTD-130. Use Option A sign assembly (speed reduction when beacons are flashing).

Reduce the speed limit to 55 MPH for the duration of the project.

Utilize double fine zone signs in strict accordance with Standard Drawing TTD-120-03.

Restore speed limits to 70 MPH for any extended periods of inactivity on the project.

FLASHING ARROWS

Flashing arrows will be paid for once, regardless of how many times they are moved or relocated. The Department **WILL NOT** take possession of the flashing arrows upon completion of the work.

PORTABLE CHANGEABLE MESSAGE SIGNS

Provide portable changeable message signs (PCMS) in advance of and within the project at locations to be determined by the Engineer. PCMS being bid independently of the Queue Warning System shall be used as directed by the engineer. The PCMS will be in operation at all times. In the event of damage or mechanical/electrical failure, the contractor will repair or replace the PCMS immediately. PCMS will be paid for once, no matter how many times they are moved or relocated. The Department **WILL NOT** take possession of the signs upon completion of the work.

TYPE III BARRICADES

Place Type III Barricades in advance of each area of pavement removal required by “Blow Up/Relief Joint” repairs. Utilize Type III Barricades at all other locations required by the Standard Drawings or MUTCD. Contrary to the specifications, no direct payment will be made for Type III Barricades and will be considered incidental to “Maintain and Control Traffic”.

GUARDRAIL

Guardrail may be removed and later reinstalled at the contractor’s expense to access the work areas. Reinstall guardrail that has been temporarily removed for access as soon as practical after completion of the activity necessitating the guardrail removal. Reinstall guardrail that has been removed for replacement of damaged guardrail, shoulder erosion repairs, or other scheduled removal activities as soon as possible and upon completion of the activity necessitating the guardrail removal.

A lane closure or shoulder closure will be required at all times guardrail is not in place. All blunt ends will be eliminated by removal of additional posts and pinning the blunt end to the ground and covering the end with soil or DGA. Maintain drums at 20' spacing in any area in which guardrail has been removed until such time it is replaced.

PAVEMENT MARKINGS

Remove or cover the lenses of pavement markers that do not conform to the traffic control scheme in use, or as directed by the Engineer. Replace or uncover lenses before a closed lane is reopened to traffic. No direct payment will be made for removing or covering and uncovering the lenses but will be incidental to "Maintain and Control Traffic," lump sum.

Place temporary and permanent striping in accordance with Section 112 and Section 714, except that:

1. Temporary striping will be 6" in width.
2. Edge lines will be required for temporary striping during the lane closures.
3. Existing, temporary, or permanent striping will be in place before a lane is opened to traffic
4. Permanent striping will be extruded Thermoplastic Markings.
5. Striping removal will be performed by water blasting methods only in a non-destructive manner. The Contractor will be required to adjust his operations to ensure no damage results to ultimate pavement due to striping removal efforts. Temporary removable tape will be used to mask lines and for temporary striping on permanent pavement that is not to be replaced.

Should the Contractor change the existing striping pattern, the Contractor is to restripe the roadway back to its original configuration at his own expense if no work is anticipated for a period of time.

PAVEMENT EDGE DROP-OFFS

Pavement edge drop-offs will be protected by a lane or shoulder closure. Lane closures will be protected with plastic drums, vertical panels, or barricades as shown on the Standard Drawings.

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

Less than 2" – Protect with a lane closure.

2" to 4" – Protect with a lane closure. Place plastic drums, vertical panels, or barricades every 50 feet. Cones may not be used in place of plastic drums, panels, and barricades at any time. Place Type III Barricades at the beginning of the lane closures, and place additional Type III Barricades spaced at 2,500 feet during the time the lane closure is in place.

Greater than 4" – Relief Joint or Pavement Repairs – In areas where pavement is to be removed, work should proceed continuously so that traffic is exposed to a drop-off for the minimum amount of time necessary to bring the pavement back up to existing grade or within 4 inches of existing grade. Barrel spacing should be 20 feet and appropriate lighting

should be utilized to illuminate the area during nighttime operations.

Other than Relief Joint – If less than 6 feet from traffic, construct positive separation or construct a wedge with 3:1 or flatter slope of soil, DGA or asphalt millings. If there is 6 feet or more distance between the edge of pavement and drop-off, bridge panels or traffic drums will be placed every 50 feet throughout the drop-off area. Payment for CSB or DGA used for wedging will be allowed.

TRAFFIC COORDINATOR

Designate an employee to be traffic coordinator. The designated Traffic Coordinator must meet the requirements of section 112.03.12 of the Standard Specifications. Contrary to the specifications, the Traffic Coordinator will inspect, or supervise the inspection, of the project maintenance of traffic once every two hours during the Contractor's operations and at any time a lane closure is in place. The Traffic Coordinator will report all incidents throughout the work zone to the Engineer on the project. The Contractor will furnish the name and telephone number where the Traffic Coordinator can be contacted at all times.

During any period when a lane closure is in place, the Traffic Coordinator will arrange for personnel to be present on the project at all times to inspect the traffic control, maintain the signing and devices, and relocate portable changeable message boards as queue lengths change. The personnel will have access on the project to a radio or telephone to be used in case of emergencies or accidents.

This project is designated a “Significant Project” and subject to the requirements of section 112.03.12 of the Specifications for projects of that designation.

COORDINATION OF WORK

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

CONTRACTOR’S AND CONTRACTOR’S EMPLOYEES’ VEHICLES

Do not use or allow employees to use median crossovers at any time except when inside lanes are closed for construction. In all other phases of construction, change vehicular direction of travel only at interchanges. Remove all contractor vehicles and equipment from the clear zone when not in use. Store all materials outside the clear zone.

WIDE LOADS

Wide load detours will not be established on this project. Provide for passage of wide loads up to 16 feet. Wide loads may use a portion of the shoulder to allow for passage. Temporarily shift traffic drums to allow for passage of wide loads when necessary.

**WK 9001
Grayson County
NHPP 9001 (015)
FD52 043 9001 114-117
Item No. 4-20003
MP 114.882 TO MP 116.949**

**THIS PROJECT IS A FULLY
CONTROLLED ACCESS HIGHWAY**

I. DESCRIPTION

Perform all work in accordance with the Department's 2019 Standard Specifications, Supplemental Specifications, Applicable Special Provisions, and Applicable Standard and Sepia Drawings, except as hereafter specified. Article references are to the Standard Specifications. Furnish all materials, labor, equipment, and incidentals for the following work:

(1) Maintain and Control Traffic; (2) Drainage structure work; (3) Relief Joint Repairs; (4) Asphalt Pavement Repairs; (5) Guardrail Repairs; (6) Edge Drain Inspection; (7) Cross Slope Revision; (8) Asphalt Pavement and Milling and Texturing; (9) Pavement markers and markings; (10) Erosion Repairs, Sinkhole Repairs, and Grading Slopes; (11) All other work specified as part of this contract.

II. MATERIALS

Except as specified in these notes or on the drawings, all materials will be according to the Standard Specifications and applicable Special Provisions and Special Notes. The Department will sample and test all materials according to Department's Sampling Manual and the Contractor will have the materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing, unless otherwise specified in these notes.

- A. **Maintain and Control Traffic.** See Traffic Control Plan.
- B. **Pavement Markings - 6 inch.** Use extruded Thermoplastic Pavement Markings for permanent striping.
- C. **Channel Lining Class II & III.** Channel lining will be limestone and is to be placed at pipe outlets, ditch repair and eroded locations as directed by the Engineer.

- D. **Asphalt Material for Tack Non-Tracking.** See “Special Note for Non Tracking Tack Coat”.
- E. **Joint Adhesive.** See “Special Note for Longitudinal Pavement Joint Adhesive”
- F. **Guardrail.** Use 7’ posts for all guardrail installations, both pavement rehabilitation and KY 224 profile revision and bridge replacement.
- G. **Seeding and Protection.** Use erosion control blanket for all seeding applications.
- H. **PVC Fold and Form Pipeliner.** See Special Note for PVC Fold-and Form Pipe Liner and see Special Note for Pipe Liner Acceptance Testing.
- I. **Clean Sinkhole.** See Clean Sinkhole detail.
- J. **Asphalt Pavement Repairs.** See Asphalt Pavement Repair detail.
- K. **Asphalt Seal Aggregate.** Use crushed aggregate #8 or #9m for asphalt seal coat applications.

III. CONSTRUCTION METHODS

- A. **Maintain and Control Traffic.** See Traffic Control Plan. Use waterblasting methods only for striping removal when necessary in lieu of abrasive or other methods.
- B. **Site Preparation.** Be responsible for all site preparation. Do not disturb existing signs. This item will include, but is not limited to, incidental excavation and backfilling; removal of all obstructions or any other items; disposal of materials; sweeping and removal of debris; shoulder preparation and restoration, temporary and permanent erosion and pollution control; and all incidentals. Site preparation will be only as approved or directed by the Engineer.
- C. **Disposal of Waste.** Dispose of all cuttings, debris, and other waste off the right-of-way at approved sites obtained by the Contractor. The contractor will be responsible for obtaining any necessary permits for this work. Temporary openings in the right of way fence for direct access to waste sites off the right of way or for access to other public roads will not be allowed. No separate payment will be made for obtaining the necessary permits, but will be incidental to the other items of the work. Disposal of existing cuttings and brush shall adhere to Section 202 of the current Standard Specifications.

- D. **Final Dressing, Clean Up, and Seeding and Protection.** After all work is completed, completely remove all debris from the job site. Perform Class A Final Dressing on all disturbed areas. Sow disturbed earthen areas with Seed Mixture No. I or Seed Mixture No. II as applicable and use erosion control blanket in lieu of “Seeding and Protection” in all seeding applications. Install erosion control blanket in all ditching areas not receiving aggregate channel lining.
- E. **Guardrail.** Remove guardrail where necessary to perform erosion repairs, cross slope revision, or other activities necessary requiring removal of guardrail for access. Replace guardrail as soon as practical at the conclusion of the work requiring the removal of the guardrail.
- F. **Pavement Striping and Inlaid Pavement Markers.** Permanent striping will be in accordance with Section 112 for temporary striping and Section 714 for Thermoplastic Markings, except that:
- (1). Striping will be 6" in width.
 - (2). Permanent striping or temporary striping will be in place before a lane is opened to traffic.
 - (3). Pavement Markers shall be installed per Sepia 7.
- G. **On-Site Inspection.** In accordance with section 102.06, each Contractor submitting a bid for this work will make a thorough inspection of the site prior to submitting a bid and will thoroughly familiarize himself with existing conditions so that the work can be expeditiously performed after a contract is awarded. Submission of a bid will be considered evidence of this inspection having been made. Any claims resulting from site conditions will not be honored by the Department.
- H. **Caution:** Information shown on the drawings and in this proposal, and the types and quantities of work listed are not to be taken as an accurate or complete evaluation of the material and conditions to be encountered during construction. The bidder must draw his own conclusions as to the conditions encountered. The Department does not give any guarantee as to the accuracy of the data and no claim will be considered for additional compensation if the conditions encountered are not in accordance with the information above.
- I. **Utility Clearance.** It is not anticipated that 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.
- J. **Joint Adhesive.** See “Special Note for Longitudinal Pavement Joint Adhesive”.

- K. **Crushed Aggregate No. 2.** Crushed Aggregate No. 2 will be used to refill excavation for sinkhole cleaning and for slope protection at shoulder erosion repair areas.
- L. **Remove Paved Ditch.** As individually approved by the engineer, paved ditches that are required to be removed due to failure or damage, may be broken into fragments no greater than 1 foot diameter and reshaped and allowed to remain in place. The ditches must be regraded, filling any voids, and the broken concrete used in the same manner as channel lining. The broken concrete will be supplemented by a 1 – 2 feet thick application of Channel Lining Class III as directed by the engineer.
- M. **Relief Joint.** See Relief Joint Detail. It is intended that the relief joint crushed stone backfill empty into the existing edge drain system. If the engineer determines that conditions warrant, a 4 inch non-perforated pipe outlet may be added and 4 inch perforated pipe headwall added at the low point in the relief joint excavation.
- N. **Security Plate Assembly.** Install security plate assemblies for any newly constructed drainage structures with metal grates or at locations that grates are proposed to be replaced.
- O. **Inspect and Certify Edge Drain System.** Complete the initial edge drain camera inspection prior to the initiation of other construction activities. Complete the final camera inspection after all construction activities have been completed and include all edge drain repair areas and locations joint/pavement repairs were performed.
- P. **PVC Fold and Form Pipeliner.** See Special Note for PVC Fold-and Form Pipe Liner and see Special Note for Pipe Liner Acceptance Testing.
- Q. **Clean Sinkhole.** See Clean Sinkhole detail.
- R. **Asphalt Pavement Repairs.** See Asphalt Pavement Repair detail.
- S. **Temp Worksite Speed Limit Sign Assembly.** Erect speed limit reduction sign assemblies in accordance with TTD 130, Option A at locations approved by the engineer. Monitor the operation of the signs as part of the Project Traffic Coordinator's duties.

IV. METHOD OF MEASUREMENT

- A. **Maintain and Control Traffic.** See Traffic Control Plan. Only the bid items listed will be measured for payment. No measurement or payment for striping removal or removal or covering of existing pavement marker lenses will be made and will be considered incidental to "Maintain and Control Traffic".

- B. **Site Preparation.** Other than the bid items listed, site preparation will not be measured for payment, but will be incidental to the other items of work.
- C. **Clearing and Grubbing.** No direct measurement will be made for Clearing and Grubbing and any cleaning, clearing, or removal of brush or sod will be considered to be a Site Preparation activity.
- D. **Erosion Control.** Erosion control items will be measured and paid in accordance with the Standard Specifications for Road and Bridge Construction. No direct measurement for seeding in locations that erosion control blanket is used will be made as the seeding is incidental to the erosion control blanket in accordance with the specifications.
- E. **Relief Joint.** See Relief Joint Detail. Relief Joints will be measured by the square yard of pavement removed and replaced as specified in the Relief Joint Detail. Locations and quantities will be determined in the field by the engineer. Quantities for this item may be increased, reduced or eliminated at the discretion of the engineer.

If the engineer directs the addition of a drainage outlet, measurement of the linear feet of perforated and non-perforated pipe installed and measurement of the perforated pipe headwall installed will be made and paid as a supplemental item. All other items of work required for installation of the relief joint repairs and pipe outlets will be considered incidental to the item "Relief Joint".

- F. **Remove Existing Paved Ditch.** Removal of paved ditches will be measured by the square yard and will include the measured quantity that are broken, reshaped, supplemented by channel lining and allowed to remain on the project as approved by the engineer. Channel lining used will be measured separately for payment.
- G. **Joint Adhesive.** See "Special Note for Longitudinal Pavement Joint Adhesive".
- H. **Pavement Markers Removal.** No direct payment will be made for the removal of the existing pavement markers prior to the milling operation and shall be considered incidental to milling and texturing.
- I. **Fabric-Geotextile Class 2.** No direct measurement or payment will be made for Fabric-Geotextile Class 2 used in conjunction with the placement of channel lining in channel lined ditches, Relief Joints, Edge Drain backfill or other incidental applications. Only applications of Fabric-Geotextile Class 2 with established contract quantities will be measured and paid.
- J. **PVC Fold and Form Pipeliner.** See Special Note for PVC Fold-and Form Pipe Liner and see Special Note for Pipe Liner Acceptance Testing.

- K. **Clean Sinkhole.** See Clean Sinkhole detail.
- L. **Asphalt Pavement Repairs.** See Asphalt Pavement Repair detail.
- M. **Temp Worksite Speed Limit Sign Assembly.** Temp Worksite Speed Limit Sign Assembly will be measured per each sign assembly used on the project.

V. BASIS OF PAYMENT

No direct payment will be made other than for the bid items listed. All other items required to complete the construction will be incidental to the bid items listed. Existing signs damaged by the Contractor will be replaced by the Contractor at his expense. Payment will be made in accordance with the KYTC Standard Specifications, current edition with supplemental specifications and current Standard Drawings unless otherwise specified herein.

- A. **Maintain and Control Traffic.** See Traffic Control Plan.
- B. **Site Preparation.** Other than the bid items listed, no direct payment will be allowed for site preparation, but will be incidental to the other items of work.
- C. **Roadway Excavation, Borrow Excavation and Embankment in Place.** No direct measurement or payment will be made for the items "Roadway Excavation" or "Borrow Excavation" or "Embankment in Place". All excavation, borrow, embankment or grading and dressing necessary to complete the work, such as excavating or dressing slopes, erosion repairs, etc., will be considered incidental to the item of work requiring the grading or will be considered as of Site Preparation.
- D. **Pavement Marker Removal.** No direct payment will be made for the removal of the existing pavement markers prior to the milling operation and shall be considered incidental to milling and texturing.
- E. **Temporary Striping.** In accordance with Section 714.04.01, the Department will NOT measure temporary paint used for interim markings for Thermoplastic Paint applications.
- F. **Lane Closures.** Contrary to Section 112, lane closures will not be measured for payment but will be incidental to the bid item "Maintain and Control Traffic". Arrow boards, portable message boards, and signs shall be paid for one time regardless of how many times they are moved.
- G. **Barricade Type III** – Contrary to the specifications, no direct measurement or payment will be made for Barricade Type III.

- H. **Ditching and Shouldering.** In accordance with Section 209 of the Standard Specifications, the bid item “Ditching and shouldering” includes ditching on both sides of the roadway and the median for the entire length of the project. Cleaning of all drainage structures, including perforated pipe headwalls and pipe structures 36 inches in diameter or less is also included in this bid item. In addition to Section 209.04.06 shouldering shall include all materials required to complete the shoulder repairs as shown in the shoulder repair detail except the bid items listed for payment on the shoulder repair detail. Approximate locations for this repair are shown on the shoulder repair detail. Plan quantity of “Ditching and Shouldering” will be paid upon the completion of all items of work required.
- I. **Remove Existing Paved Ditch.** The removal of the existing paved ditch shall be paid for as “square yards” and shall include the breaking and reshaping of the existing concrete in preparation for installation of the Class III Channel Lining.
- J. **Milling and Texturing.** Milling and texturing will be paid for per section 408.05 of the 2019 Standard Specifications. No direct payment will be made for disposal of millings. Additional and variable thickness of milling may be required for profile and cross slope revisions. Payment per measured ton of “Asphalt Pave Milling and Texturing” will be considered full compensation for any work required to measure, control, and carry out the additional or variable depth of milling required to modify profile grade or cross slope.
- K. **Waterblasting Striping Removal.** Waterblasting Striping Removal will be required for all striping removal applications and will be considered incidental to “Maintain and Control Traffic”.
- L. **Joint Adhesive.** See “Special Note for Longitudinal Pavement Joint Adhesive”
- M. **Asphalt Material for Tack Non-Tracking.** See Special Note for Non Tracking Tack Coat.
- N. **Crushed Aggregate Size No 2.** No direct measurement or payment will be made for Crushed Aggregate Size No. 2 used in “Relief Joint” construction. All other applications of Crushed Aggregate Size No. 2 will be measured and paid in accordance with the Standard Specifications.
- O. **Fabric-Geotextile Class 2.** No direct measurement or payment will be made for Fabric-Geotextile Class 2 used in conjunction with the placement of channel lining in channel lined ditches, Relief Joints, or other incidental applications. Only applications of Fabric-Geotextile Class 2 with established contract quantities will be measured and paid.

- P. **Relief Joint.** See Relief Joint Detail. Relief Joints will be measured by the square yard of pavement removed and replaced as specified in the Relief Joint Detail.

If the engineer directs the addition of a drainage outlet, payment will be made by supplemental agreement of the linear feet of perforated and non-perforated pipe installed and for the perforated pipe headwall installed. All other items of work required for installation of the relief joint repairs and pipe outlets will be considered incidental to the item "Relief Joint".

- Q. **Inspect and Certify Edge Drain System.** One payment for "Inspect and Certify Edge Drain System" will include both the initial camera inspection of the entire existing system which is required to identify damaged and nonfunctional areas in the existing system requiring replacement, and also includes the second inspection required for certification of the newly installed replacement areas.

- R. **Guardrail.** The Department will only measure and pay for the removal of guardrail and placement of new guardrail for items of work that have an established contract quantity of guardrail items. Removal of guardrail may be allowed for other work items for access to the work area, however the removal and reinstallation of guardrail for these applications will be at the contractor's expense.

- S. **PVC Fold and Form Pipeliner.** See Special Note for PVC Fold-and Form Pipe Liner and see Special Note for Pipe Liner Acceptance Testing.

- T. **Clean Sinkhole.** See Clean Sinkhole detail.

- U. **Asphalt Pavement Repairs.** See Asphalt Pavement Repair detail.

- V. **Temp Worksite Speed Limit Sign Assembly.** Only one payment for each sign assembly used on the project will be made regardless of how many times it is moved or relocated on the project. Payment for each sign assembly will include all signs, posts, flashers, and any other hardware and appurtenances required to complete a functional assembly and will include monitoring and operating the flashers when speed limit reductions are required.

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Item No. 4-20003

MP 114.882 TO MP 116.949

This project is intended to provide a thin asphalt mill and inlay and provide a new riding surface. The full width of the inside shoulders will be milled and inlaid and 4' width of the outside shoulders will be milled and inlaid, except full width of the eastbound shoulder will be milled and inlaid in the cross slope revision area.

1. The dimensions shown on the typical section for pavement and shoulder widths and thickness are nominal or typical dimensions. The actual dimensions to be constructed may be varied to fit existing conditions as directed or approved by the Engineer. It is not intended that existing pavement or shoulders be widened unless otherwise specified in the Proposal.
2. The contractor is to be advised of the locations of overhead utility wires on the project. The following locations are approximate:

Mile 116.02
Mile 116.63
Mile 116.95

CAUTION: Other overhead utility locations may exist. These and all other utilities should be avoided on this project. If any utility is impacted, it will be the contractor's responsibility to contact the affected utility and cover any costs associated with the impact.

3. The contractor is advised that the planned locations of work established by milepoints are referenced from the Kentucky Transportation Cabinet's Official Route Log. The existing reference markers may not correspond to the established work locations.
4. Quantities of guardrail removal and installation of new guardrail have been established for areas requiring removal for access for shoulder erosion repair work, cross slope repair, etc. The contractor will place traffic drums on 20' spacing in the areas and pin down exposed blunt ends until such time that guardrail is re-established. Either a lane closure or shoulder closure shall be in place at any time that a section of guardrail is not in place.
5. The Contractor shall deliver existing salvaged guardrail system materials to the Central Sign Shop and Recycle center at 1224 Wilkinson Blvd in Frankfort, KY. Contact Section Supervisor at (502) 564-8187 to schedule the delivery of material. Deliver the material between the hours of 8:00AM and 3:30PM, Monday through Friday. There is a Guardrail Delivery Verification Sheet which must be completed and signed by the Contractor, Engineer and a representative of the Central Sign

Shop and Recycle Center. A copy of this sheet is included elsewhere in the proposal.

6. Flexible Delineators shall meet the requirements of Section 830 and 838 of the Standard Specifications, and be placed in accordance with Section 3D of the M.U.T.C.D., current edition and current Standard Drawing.
7. This project requires the use of a Material Transfer Vehicle. In accordance with Section A of 403.03.05.
8. The speed limit on the project will be reduced to 55 mph while lane closures are in place. Any time work is suspended the speed limit will revert back to 70 mph. Also, double fine signs are set up in the project to be installed while workers are present in the work zone.
9. Areas throughout the project have slopes that are eroding significantly. These areas shall be repaired in accordance with the "Shoulder Erosion Repair Detail" as shown elsewhere in the proposal. The repair locations listed may be lengthened, shortened, or eliminated by the Engineer. Locations and quantities for this item of work is shown on the "Shoulder Erosion Repair Detail".
10. The existing paved median U-turns within the project limits will be resurfaced.
11. The contractor will be allowed to access median U-turns and cross the median provided proper lane closures of the inside lanes are utilized at the entry and exit locations at the contractor's expense. Use only short duration lane closures and remove lane closures when median U-turn access is not needed.
12. Quantities of Channel Lining Class III have been included to be used in eroded areas around pipe inlet/outlets or in ditches to be repaired as directed and/or approved by the Engineer. The actual limits of the channel lining will be as directed and/or approved by the Engineer. Geotextile Fabric Class 2, as outlined in Section 214 of the Standard Specifications, will not be measured for payment and will be considered incidental to channel lining.
13. The contractor is to take care not to damage any existing roadway signs. Any roadway signs that are damaged during construction are to be replaced at the contractor's expense in accordance with section 105.08 of the standard specifications.
14. The cleaning of existing pipe culvert inlets and outlets 36 inches or less in diameter are incidental to the bid item for "Ditching and Shouldering" in accordance with Section 209 of the 2019 Edition of the Standard Specifications for Road and Bridge Construction. This includes the cleaning of existing perforated pipe headwalls. Cleaning of all drainage structures and perforated pipe headwalls will be required whether or not they are identified on the plan sheets. Locations of existing drainage

structures and perforated pipe headwalls are for informational purposes only and are not to be considered to consist of all possible structures.

15. Areas established as relief joint locations will be repaired as directed by the Engineer. After the contractor has closed the roadway the Engineer will mark the areas to be repaired. The engineer reserves the right to increase, decrease, or eliminate this item of work based on the field conditions encountered.
16. Quantities of Asphalt Seal Coat and Seal Aggregate, and DGA base have been established to wedge and eliminate greater than 1 inch drop offs. Due to the inconsistent nature of the slopes outside the paved shoulder, and due to the existence of existing guardrail, application of asphalt seal coat will not be practical in all locations. The intent is to provide a DGA wedge to eliminate dropoff situations and to re-establish the typical stone shoulder width where needed and where practical to do so.
17. Coordinate activities of any adjacent contracts with this contract. The engineer will decide the relative priority concerning phasing and maintenance of traffic when conflicts arise with projects in close proximity with this project.
18. Preserve the existing edge drain system unless otherwise directed by the engineer. Any damage to the existing system caused by construction activities on the project will be required to be repaired at the contractor's expense.

A bid item for INSPECT AND CERTIFY EDGE DRAIN SYSTEM has been included for this project. Camera inspections shall be performed in accordance with Section 704 of the Kentucky Standard Specifications for Road and Bridge Construction.

DITCHING or DITCHING AND SHOULDERING shall be completed prior to the initial camera inspection. The initial camera inspection shall be used to determine the condition of the existing system. The Engineer shall determine the extent of locations that require repair/replacement based on the initial camera inspection. A camera re-inspection shall be required at the location of the repairs/replacements to certify the work. The camera re-inspection shall be considered incidental to the item INSPECT AND CERTIFY EDGE DRAIN SYSTEM.

It is anticipated that approximately 11,000 linear feet of existing edge drain system will need repaired/replaced. If edge drain repairs/replacements are required, the additional work items will be added in accordance with Section 104.03 of the Kentucky Standard Specifications for Road and Bridge Construction. However, contrary to Section 104.03, contract time will not be extended for the anticipated work required to repair/replace the edge drain system.

**SPECIAL NOTE FOR
ASPHALT MILLING AND TEXTURING
WK 9001
GRAYSON COUNTY
ITEM NO. 4-20003**

Do not allow public traffic to drive on the milled surface on mainline WK 9001.

The Contractor will take possession and dispose of the millings at a location off the right of way.

Removal of the existing pavement markers prior to the milling operation is considered incidental to the bid item "Asphalt Pavement Milling and Texturing".

The contractor shall provide adequate staking and process control measures to ensure existing pavements are milled to the depths required to accept the proposed thickness of asphalt and at the proposed grade or cross slope within the cross slope revision area.

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SPECIAL NOTE FOR PVC FOLD-AND-FORM PIPE LINER

I. GENERAL

A. SUMMARY

1. Section Includes: Definition of the approved methods and materials to rehabilitate gravity pipelines by the insertion of a continuously extruded, folded, PVC Fold-and-Form Pipe Liner into a conduit (host pipe), and the “blow-molding” (thermoforming) of the pipe liner to conform to the shape of the existing pipe. The pipe liner shall:

- a) Extend continuously from one access point to the next access point with no joints.
- b) Provide a tightly conforming fit against the inner wall of the host pipe.
- c) Definitions:
 - (1) PVC Fold-and-Form Pipe Liner: A continuously extruded (joint-less), polyvinyl chloride (PVC) Pipe Liner that is shaped into a reduced form to facilitate insertion into existing pipelines or conduits. The Pipe Liner shall return to its extruded, round memory upon application of heat and pressure and form tightly against the host pipe by “blow molding” (thermoforming) techniques.
 - (2) Host Pipe: An existing gravity pipeline or conduit to be internally rehabilitated by installation of the PVC Fold-and-Form Pipe Liner.

B. REFERENCES

1. Codes and standards referred to in this Special Note are:
- a) ASTM D 256: Standard Test Methods for Determining the Pendulum Impact Resistance of Notched Specimens of Plastics.
 - b) ASTM D 638: Standard Test Method for Tensile Properties of Plastics
 - c) ASTM D 790: Standard Test Method for Flexural Properties of Unreinforced and Reinforced Plastics
 - d) ASTM D 1784: Standard Specification for Rigid Polyvinyl Chloride (PVC) Compounds and Chlorinated Polyvinyl Chloride (CPVC) Compounds
 - e) ASTM D 2122: Standard Test Method for Determining Dimensions of Thermoplastic Pipe and Fittings
 - f) ASTM D 2152: Standard Test Method for Extrusion Quality using Acetone Immersion
 - g) ASTM D 2444: Standard Test Method for Impact Strength
 - h) ASTM F 1057: Standard Test Method for Extrusion Quality using Heat Reversion
 - i) ASTM F 1504: Standard Specification for Folded/Formed Poly (Vinyl Chloride) Pipe for Existing Sewer and Conduit rehabilitation

C. PIPE DESIGN AND DIMENSION

1. Submittals: The Contractor shall furnish engineering data covering materials and installation procedures.

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2. Unless otherwise specified, the Contractor shall determine the minimum and maximum length of liner to effectively span the distance from the inlet to the outlet of the respective pipelines.

3. The pipe liner shall have a nominal outside diameter and minimum wall thickness based upon project parameters and the condition of the host pipe.

D. SAFETY

1. The CONTRACTOR shall conform to all safety requirements of pertinent regulatory agencies, and shall secure the site for the working conditions in compliance with the same. The CONTRACTOR shall erect signs and devices as are necessary for the safety of the work site.

2. The CONTRACTOR shall also provide all of the WORK in accordance with applicable OSHA standards. Emphasis shall be placed upon the requirements for entering confined spaces and working with steam.

II. PRODUCTS

A. MATERIAL SPECIFICATIONS:

1. The PVC Fold-and-Form Pipe Liner will be manufactured from virgin PVC Fold-and-Form Pipe Liner compound, containing no fillers, and meet or exceed the following minimum physical properties:

- a) COMBUSTIBILITY: Self-Extinguishing
- b) FLEXURAL MODULUS: ASTM D 790 280,000 PSI @73F
- c) FLEXURAL STRENGTH: ASTM D 790 5,000 PSI @73F
- d) IZOD IMPACT: ASTM D 256 1.5 FT-LB/IN
- e) CHEMICAL RESISTANCE: suitable under general sanitary sewer conditions

2. CHARACTERISTICS: The PVC Fold-and-Form Pipe Liner shall be designed to meet the following installation performance requirements:

- a) The Pipe Liner shall be capable of expanding a full pipe size larger than the nominal diameter (ex: 8" to 10") without splitting, or rupturing with the understanding that the pipe liner dimension ratio will increase when so expanded.
- b) After being expanded by "blow-molding", the installed Pipe Liner will match the configuration of the host pipe.
- c) The Pipe Liner shall be capable of negotiating pipe line bends in the host pipe without splitting, rupturing, or wrinkling of the pipe liner material.
- d) The pipe liner shall be dimensionally stable after cool-down.
- e) Processing of the pipe liner shall cause no degradation of the pipe liner physical properties.

3. MARKINGS: The pipe liner shall be marked at maximum five (5) foot intervals indicating ASTM D 1784 cell classification, manufacturer, and size (diameter and SDR). Each production lot will be uniquely coded.

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4. DIMENSIONS:

a) The Pipe Liner outside diameter will be manufactured substantially smaller than the inside diameter of the host pipe. The pipe liner shall be manufactured with sufficient excess wall thickness to allow the pipe liner to meet or exceed the DR requirements after being expanded by “blow-molding” within the host pipe.

b) Unless otherwise specified, the Standard Dimension Ratio (SDR) of 4” to 15” diameter Pipe Liner will be SDR 35. 18” to 36” Pipe Liner will be specified by wall thickness. The Pipe Liner will be continuously extruded (no joints) at the factory to the minimum length required to effectively span the distance between access points, in accordance with actual distances which shall be field verified by the Contractor prior to manufacturing.

B. MATERIAL TESTING: Each production lot of Pipe Liner will be inspected and tested at the time of manufacture for defects in accordance with ASTM D 2444, and ASTM D 2152. All pipe liners shall conform to the specified dimensions. Material design properties shall be confirmed in accordance with ASTM D 790.

III. EXECUTION

A. HOST PIPE PREPARATION

1. The existing pipeline shall be cleaned of any obstructions and televised using CCTV immediately prior to installation of the pipe liner. The host pipe condition shall be acceptable to the ENGINEER as appropriate for lining prior to the insertion of the pipe Liner.

2. Prior to beginning the insertion of the pipe liner, the CONTRACTOR shall confirm that the host pipe is adequately cleaned.

B. INSTALLATION PROCEDURES:

1. The pipe liner manufacturer’s installation instructions and procedures shall be followed during installation.

2. Point Repairs

a) Point repairs and obstruction removals shall be completed, as necessary, in order to enable lining.

3. Liner Insertion

a) The entrance to the host pipe shall be covered so as to provide a smooth surface to prevent damage to the Pipe Liner.

b) The Pipe Liner shall be positioned to enable it to naturally curve into the access point and the host pipe.

c) The insertion end of the Pipe Liner shall be sealed to inhibit fluids and solids from entering the lumen of the Pipe Liner.

d) Insert the Pipe Liner into the entry access point. Slowly feed the Pipe Liner from the supply reel, while simultaneously pulling the Pipe Liner at the exit access point, to minimize tension on the Pipe Liner. Maintain two-way communication between personnel at entry and exit access points to coordinate the rate of Pipe Liner supply and pulling operations.

e) Use a power winch and a steel cable connected to the pulling head as recommended by the manufacturer to advance the Pipe Liner.

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4. Pipe Liner Processing and “Blow-Molding”:
 - a) Process and “blow-mold” the PVC Fold and-Form Pipe Liner in accordance with the manufacturer’s instructions for heating and expanding the Pipe Liner. Upon completion of processing and “blow-molding”, the Pipe Liner shall fit tightly against the inside wall of the host pipe and be locked into the joints of the host pipe, if possible.
 - b) Temperature and pressure gauges shall be used at the insertion and termination access points to monitor internal conditions during Pipe Liner processing and “blow-molding”.
 - c) Introduce pressurized steam to heat and relax the Pipe Liner in strict accordance with the recommendations of the Pipe Liner manufacturer.
 - d) Continue the application of steam while introducing compressed air to increase internal pressure on the Pipe Liner as recommended by the manufacturer. DO NOT ALLOW PRESSURE TO EXCEED 12 PSI, AS DAMAGE MAY OCCUR TO HOST PIPE.
 - e) Discontinue the use of steam while continuing the use of compressed air to maintain the internal pressure. Allow the Pipe Liner to cool below 100 F before releasing pressure.
5. Liner Termination:
 - a) During the pulling in place and “blow-molding” process, the PVC liner shall form a bell shape at each end effectively locking the liner in place.

IV. PAYMENT

- A. Payment for PVC Fold and Form Pipe Liners will be made per linear foot as
 1. PVC FOLD AND FORM PIPE LINER – 12 IN - ITEM 24860EC
 2. PVC FOLD AND FORM PIPE LINER – 15 IN - ITEM 24861EC
 3. PVC FOLD AND FORM PIPE LINER – 18 IN - ITEM 24862EC
 4. PVC FOLD AND FORM PIPE LINER – 24 IN - ITEM 24863EC
 5. PVC FOLD AND FORM PIPE LINER – 30 IN - ITEM 24864EC
 6. PVC FOLD AND FORM PIPE LINER – 36 IN - ITEM 24865EC
- B. Payment will be considered full compensation for all work, equipment, and incidentals necessary to install the pipe liners in accordance with this note.

SPECIAL NOTE FOR PIPE LINER ACCEPTANCE TESTING

PART 1 -- GENERAL

1.01 SCOPE OF WORK

- A. Furnish all necessary labor, materials, equipment, services and incidentals required to visually inspect by means of closed-circuit television (CCTV) designated pipe sections including, but not limited to, recording and playback equipment, materials and supplies.
- B. The inspection shall be performed on one section (i.e. curb box inlet to curb box inlet) at a time. The section being inspected shall be suitably isolated from the remainder of the system.
- C. Video recordings shall be made of the television inspections and copies of both the recordings and printed inspection logs shall be supplied to the Engineer.
- D. Contractor may have to perform point repairs, remove obstructions or remove protruding service connections to complete pre-rehabilitation TV inspection.

PART 2 -- PRODUCTS

2.01 EQUIPMENT

- A. The television camera used for inspection shall be one specifically designed and constructed for such inspection. Lighting for the camera shall be suitable to allow a clear picture for the entire periphery of the pipe. The camera shall be operative in 100 percent humidity conditions. The camera, television monitor and other components of the video system shall be capable of producing a minimum 500-line resolution color video picture. Picture quality and definition shall be to the satisfaction of the Engineer and if unsatisfactory, inspection shall be performed again with the appropriate changes made as designated by the Engineer at no additional cost to the Engineer. The television inspection equipment shall have an accurate footage counter that shall display on the monitor, the exact distance of the camera from the centerline of the starting manhole.

PART 3 -- EXECUTION

3.01 PROCEDURE

- A. The camera shall be moved through the pipe in either direction at a uniform rate, stopping when necessary to ensure proper documentation of the pipe's condition but in no case will the television camera be pulled at a speed greater than 30 fpm. Manual winches, power winches, TV cable and powered rewinds or other devices that do not obstruct the camera view or interfere with proper documentation of the pipe conditions shall be used to move the camera through the line. If, during the inspection operation, the television camera will not pass through the entire section, the equipment shall be removed and repositioned in a manner so that the inspection can be performed from the opposite opening. All set-up costs for the inspection shall be included in the unit prices bid. If the camera fails to pass through the entire section, the Contractor shall perform point repairs as required or approved by the Engineer. Point repairs will be paid as each at the bid price for "PIPE REPAIR". The Contractor shall re-clean or further remove blockage after the point repairs at no additional cost to the Engineer.
- B. Whenever non-remote powered and controlled winches are used to pull the television camera

through the line, telephones, radios, or other suitable means of communication shall be set up between the two openings of the line being inspected to ensure that good communications exist between members of the crew.

The camera height shall be adjusted such that the camera lens is always centered in the pipe being televised. Flow shall be controlled such that depth of flow shall not exceed 20% of pipe's diameter.

Lighting system shall be adequate for quality pictures.

3.02 RECORDING OF FIELD OBSERVATIONS

A. Television Inspection logs

1. Printed location records shall be kept which shall clearly show the location. In addition, other data of significance including joints, unusual conditions, roots, collapsed sections, or presence of scale and corrosion that the camera failed to pass through and reasons for the failure and other discernible features shall be recorded and annotated using the PACP system and a copy of such records shall be supplied to the Engineer.

B. Digital Recordings

1. The purpose of digital recording shall be to supply a visual and audio record of areas of interests of the pipe segments that may be replayed by the Engineer. Digital recording playback shall be at the same speed that it was recorded and shall be made in color. The Contractor shall be required to have all digital media and necessary playback equipment readily accessible for review by the Engineer during the project.
2. The Contractor shall perform CCTV inspection of each newly installed or rehabilitated pipe segment after testing and before re-introducing any flow into the pipe. Each test shall be witnessed by the Engineer.
3. The Contractor shall record each CCTV inspection on a DVD and submit such recordings to the Engineer as a prerequisite for Partial Utilization/Substantial Completion.
4. CCTV inspections shall be performed by a PACP certified and trained person.
5. Inspections shall include narration that notes the location and type of defects, if any.
6. At the completion of the project, the Contractor shall furnish all of the original digital recordings to the Engineer. Each disc shall be labeled as to its contents. Labels shall include the disc number, date televised, sewer segment reach designation, street location, and structure numbers on the disc. The Contractor shall keep a copy of the discs for 30 days after the final payment for the project, at which time the discs may be erased at the Contractor's option.

PART 4 – PAYMENT

Payment for both the video inspection prior to and after the Pipe Liners have been installed will be made as one lump sum payment as PIPE LINER ACCEPTANCE TESTING. Payment for PIPE LINER ACCEPTANCE TESTING will be considered full compensation for all work, equipment, and incidentals necessary to perform the video inspection in accordance with this note.

Payment for pipe point repairs will be made as each at the bid price for PIPE REPAIR. Payment for PIPE REPAIR will be considered full compensation for all work, equipment, and incidentals necessary to make point repairs as required and approved by the Engineer.

REFERENCES

- 1. Kentucky Transportation Cabinet, Department of Highways, Standard Specifications for Road and Bridge Construction, Edition of 2019.
- 2. FHWA Manual on Uniform Traffic Control Devices – 2009 Edition.
- 3. Kentucky Department of Highways Standard Drawings, Current Edition, as applicable:

BHS-014	THRIE-BEAM GUARDRAIL TRANSITION
RBE-060-15	CRASH CUSHION TYPE VI
RBI-001-12	TYPICAL GUARDRAIL INSTALLATIONS
RBI-002-07	TYPICAL GUARDRAIL INSTALLATIONS
RBI-005-08	GUARDRAIL INSTALLATION AT BRIDGE COLUMNS
RBI-007-09	CRASH CUSHION TYPE IX INSTALLATION AT MEDIAN PIERS (DEPRESSED MEDIAN)
RBM-020-09	DELINEATORS FOR CONCRETE BARRIERS
RBM-115-10	CONCRETE BARRIER WALL TYPE 9T (TEMPORARY)
RBM-120-02	BOX BEAM STIFFENING PF TEMPORARY CONCRETE BARRIER
RBR-001-13	STEEL BEAM GUARDRAIL (“W” BEAM)
RBR-005-11	GUARDRAIL COMPONENTS
RBR-010-06	GUARDRAIL TERMINAL SECTIONS
RBR-015-06	STEEL GUARDRAIL POSTS
RBR-018	GUARDRAIL SYSTEM TRANSITION
RBR-025-06	GUARDRAIL END TREATMENT TYPE 2A
RBR-035-12	GUARDRAIL END TREATMENT TYPE 4A
RBR-055-01	DELINEATORS FOR GUARDRAIL
RDB-106-05	GRATES FOR SLOPED AND FLARED BOX INLET-OUTLET
RDD-021-07	FLUME INLET TYPE 2
RDD-040-05	CHANNEL LINING CLASS II AND III
RDI-011-03	CULVERT, ENTRANCE, AND STORM SEWER PIPE TYPES AND COVER HEIGHTS
RDI-020-10	PIPE BEDDING FOR CULVERTS, ENTRANCE PIPES AND STORM SEWER PIPE
RDI-021-01	PIPE BEDDING FOR CULVERTS, ENTRANCE, AND STORM SEWER REINFORCED CONC. PIPE
RDI-025-06	PIPE BEDDING TRENCH CONDITION
RDI-026-01	PIPE BEDDING TRENCH CONDITION REINFORCED CONC. PIPE
RDI-035-02	COATINGS, LININGS AND PAVINGS FOR NON-STRUCTURAL PLATE PIPE
RDI-040-01	EROSION CONTROL BLANKET SLOPE INSTALLATION
RDI-041-01	EROSION CONTROL BLANKET CHANNEL INSTALLATION
RDP-001-06	PERFORATED PIPE TYPES AND COVER HEIGHTS
RDP-010-09	PERFORATED PIPE HEADWALLS
RDX-210-03	TEMPORARY SILT FENCE
RDX-220-05	SILT TRAP - TYPE A
RDX-225-01	SILT TRAP - TYPE B
RDX-230-01	SILT TRAP - TYPE C
RGS-001-07	CURVE WIDENING AND SUPERELEVATION TRANSITIONS
RGS-002-06	SUPERELEVATION FOR MULTI-LANE PAVEMENT

RGX-001-06	MISCELLANEOUS STANDARDS
RGX-010-04	TYPICAL EMBANKMENT FOUNDATION BENCHES
RGX-200-01	ONE POINT PROCTOR FAMILY OF CURES
RPM-001-04	PERMANENT U-TURN MEDIAN OPENING
RPM-100-11	CURB AND GUTTER CURBS AND VALLEY GUTTER
RPM-110-07	APPROACHES, ENTRANCES, AND MAIL BOX TURNOUT
RPX-015-04	HOT-POURED ELASTIC JOINT SEALS FOR CONCRETE PAVEMENT
TPM-170-01	FLEXIBLE DELINEATOR POST ARRANGEMENTS FOR HORIZONTAL CURVES
TPM-171-01	FLEXIBLE DELINEATOR POST ARRANGEMENTS FOR INTERCHANGE RAMPS AND CROSSTRAVERS
TPM-200	TYPICAL ENTRANCE RAMP MARKINGS FOR INTERSTATES AND PARKWAYS
TPM-201	TYPICAL EXIT RAMP MARKINGS FOR INTERSTATES AND PARKWAYS
TPM-204	TYPICAL MARKINGS FOR GORE AREAS
TPM-205	TYPICAL MARKINGS FOR ISLANDS AND MEDIANS
TPR-130	RUMBLE STRIP DETAILS MULTI-LANE ROADWAYS
TTC-100-05	LANE CLOSURE TWO-LANE HIGHWAY
TTC 110-04	LANE CLOSURE USING TRAFFIC SIGNALS
TTC-115-04	LANE CLOSURE MULTI-LANE HIGHWAY CASE I
TTC-120-04	LANE CLOSURE MULTI-LANE HIGHWAY CASE II
TTC-135-03	SHOULDER CLOSURE
TTD-120-03	DOUBLE FINES ZONE SIGNS
TTD-125-03	PAVEMENT CONDITION WARNING SIGNS
TTD-130	SPEED ZONE SIGNING FOR WORK ZONES
TTS-105-02	MOBILE OPERATION FOR PAINT STRIPING CASE II
TTS-110-02	MOBILE OPERATION FOR PAINT STRIPING CASE III
TTS-115-02	MOBILE OPERATION FOR PAINT STRIPING CASE IV
TTS-120-02	MOBILE OPERATION FOR DURABLE STRIPING CASE I
RDB-100-05	SLOPED BOX OUTLET TYPE 1
RDB-101-05	GRATES FOR SLOPED BOX OUTLET TYPE 1
TTC-160-02	TEMPORARY PAVEMENT MARKER ARRANGEMENTS FOR LANE CLOSURES

4.
- Kentucky Transportation Cabinet, Department of Highways, Standard Specifications for Road and Bridge Construction, Edition of 2019, Including - Supplemental Specifications, as applicable:

SPECIAL NOTE FOR TYPICAL SECTION DIMENSIONS
WK 9001
GRAYSON COUNTY
ITEM NO. 4-20001 & 4-20002 & 4-20003

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

SPECIAL NOTE FOR BEFORE YOU DIG

**WK 9001
GRAYSON COUNTY
ITEM NO. 4-20001 & 4-20002 & 4-20003**

Call 1-800-752-6007 toll free a minimum of two and no more than ten business days prior to excavation for information on the location of existing under-ground utilities which subscribe to the before-u-dig (BUD) service. Coordinate excavation with all utility owners, including those who do not subscribe to BUD.

Rev 8/2021

Special Note for Portable Queue Warning Alert System

1.0 Description

This item shall consist of furnishing, installing, relocating, operating, servicing, and removing various components of a portable, quickly deployable, real-time automated ITS queue warning alert system (PQWAS), in accordance with the standard specifications and this special provision. The Contractor shall also provide the maintenance of the complete system for the duration of the project or as directed by the Project Engineer. The Department is willing to look at different technologies (i.e. allow the use of crowd sourcing data to be used in lieu of the portable radar sensors). Any changes to the below requirements must be submitted and approved by the Engineer.

2.0 Materials

Materials shall be in accordance as follows:

All materials used shall meet the manufacturer's specifications and recommendations.

All PQWAS materials installed on the project shall be provided by the Contractor in excellent quality condition, shall be corrosion resistant and in strict accordance with all of the details shown within Contractor's Plans approved by KYTC. The Contractor shall maintain an adequate inventory of parts and replacement units to support maintenance and repair of the PQWAS. Pre-deployment is a condition of the system's acceptance and is based on the successful performance demonstration for a (5) day continuous period in accordance to this specification and as set forth in the plans. Ensure compliance to all FCC and Department specifications.

The Contractor shall maintain this system and shall be locally available to service and maintain system components, move portable devices as necessary and respond to emergency situations. The Contractor has oversight responsibility for directing placement of devices in the project area. The Contractor is to be accessible seven (7) days a week and twenty-four (24) hours a day while the system is deployed. The Contractor shall provide contact information for the system's coordinator and others responsible for maintenance of the system prior to installation of the system. Furnish a System Coordinator for monitoring the PQWAS throughout all periods of deployment.

A. General Capabilities and Performance Requirements

1. Overall PQWAS capabilities and performance requirements include the following:
 - a. Furnish a system capable of providing advance traffic information to motorists when there is a queueing of traffic due to congestion resulting from lane reductions, emergency events or other conditions. The condition-responsive notification to the motorist occurs with the use of Portable Changeable Message Signs (PCMS) in accordance to the below capabilities and performance requirements, activated through real-time traffic data collected downstream of the PCMS locations. This equipment must

be a packaged system, pre-programmed and operates as a stand-alone PQWAS meeting this specification. Conditions might exist that require relocation of the portable sensors at any given time, the sensors shall be portable and shall not require re-calibration in the field for fast deployments. Due to the potential need to replace damaged sensors or to change the position of one or more sensors at any given time, sensors must be interchangeable and relocatable by an unskilled laborer. The system must continue to function if as many as half the sensors fail to function.

- b. Provide a PQWAS that consists of the following field equipment: portable radar sensors and portable changeable message signs (PCMS). Provide a system capable of withstanding inclement weather conditions while continuing to provide adequate battery power. The portable radar sensor battery, in a stand-alone state and without a solar panel for recharging, shall be capable of keeping power and capable of sending data for (10) consecutive days or longer. The system shall notify drivers of real-time queue events via specifically placed PCMS units up stream of the work zone. All predetermined/preprogrammed messages are to be approved by KYTC. The number and location of portable radar sensors and PCMS units shall be as directed by the Project Engineer. The decision to deploy or relocate field equipment is made by the Project Engineer and instrumented through the System Coordinator. The decision for equipment removal is made by the Project Engineer after work is complete. The sensors and PCMS units shall be identifiable via global positioning system (GPS) and shall contain an accelerometer to detect and alert of unauthorized movement.
- c. The portable radar sensor shall be capable of collecting traffic speed data. The processed data is used to remotely control PCMS units to display user definable, Engineer approved and locally stored messages. The message trigger state thresholds for slow and stopped speeds shall be user configurable and revisable in less than {1} hour from the Project Engineer's request. Weekly Traffic Data Reports shall be presented to the Project Engineer and shall include speed data per sensor location, travel times, and queue lengths in graphical and numerical formats. In the event the Project Engineer requires a report, other than a weekly report, for any reason; then the Contractor shall provide report within (48) hours of request. Unlimited data reports shall be included within price of system. Sensors shall require no calibration adjustments in the field. Sensor should begin transmitting data within (30) seconds of being turned on. Satellite (SAT) communications will be required when cellular service does not provide continuous communications. Contractor shall identify the most trustworthy cellular provider within the project area.
- d. Data shall be accessible through a website and the Contractor shall provide a username and password for protection. The website shall be accessible seven (7) days a week and twenty - four (24) hours a day. The website shall provide historical & real-time data in graphical and numerical formats and shall have the capability of being integrated within the Department's Traffic Management Center (if requested). The website should be compatible to most hand held devices. Data shall be saved on the manufacturer's network for up to (5) years from the deployment date of system and shall be provided at the request

of the Department at any time within the (5) year window. The use of the website shall be included within the price of system.

- e. Warning Alerts: queue events, low battery voltage warnings, sensor movement alerts, high and low speed alerts shall be provided via cellular text messaging and/or via email messaging at the request of select Contractor personnel and KYTC officials.
- f. The PQWAS system shall have the capabilities to provide alternate route messaging on specifically placed portable changeable message units and/or fixed Variable Message Systems (VMS). The intent of this service is to provide alternate route messaging to motorists before entering the project limits from all directions and giving them appropriate time to adjust their routes. Alternative routes shall be predefined and approved by KYTC. Additional PCMS units may be required for alternate route messaging and will be as per Section 5.0 of this note. KYTC's Traffic Management Center will provide detour messages via fixed VMS units during the term of the project.

B. Portable Radar Sensor Capabilities and Performance Requirements

The PQWAS shall include portable radar sensors (PRD) to monitor and detect queue events.

1. The Radar Sensor shall be FHWA accepted to meet NCHRP 350 test requirements
2. The Radar Sensor shall be locatable at all times via an internal Global Positioning System (GPS) and shall be capable of Cellular or SAT Communications.
3. The Radar Sensor shall have a dry-cell battery capable of powering the system for (10) consecutive days or longer
4. The Radar sensor shall be K-Band technology and have a line of sight up to 200 linear feet without obstruction
5. The Radar sensor shall have the ability to be charged in the field through adaptable solar recharging technology in the case the sensor is utilized for more than 10 consecutive days

C. PCMS Capabilities and Performance Requirements

The PQWAS shall include portable changeable message signs (PCMS) designated to relay automated messaging of queue events, alternate route messages, and caution for the work area defined by the project limits. PCMS placements shall meet the requirements set forth by the Cabinet in each direction of the National Highway System (NHS).

1. The PCMS unit shall be a Full Matrix 24 rows x 50 columns and shall be capable of 1 line, 2line or 3 line messages
2. The PCMS unit shall be legible from a distance over twelve hundred feet (1200')
3. The height and size of characters shall be 18" to 58"
4. The PCMS shall be capable of storing up to 199 pre-programmed messages and up to 199 user-defined messages
5. The PCMS shall have a weather tight control cabinet with back lit LCD handheld controller.
6. The PCMS shall utilize a hydraulic lift to raise the unit to display height
7. The PCMS unit shall include solar recharging ports to allow for recharging of the portable radar sensors when they are not deployed.
8. The PCMS shall be NTCIP compliant and shall have an active Modem with active cellular service.

9. The user shall have the ability to communicate and override the PCMS remotely in the event of an emergency, Amber Alert, etc.
10. The PCMS unit shall have a docking station to include safety rails that allow a commercial safety strap to tie down the portable radar sensors while in transport. The docking station shall hold-up to (4) sensors safely and securely at all times

3.0 Construction Requirements

All communication costs include cellular telephone services, FCC licensing, wireless data networks, satellite and internet subscription charges, and battery charging and maintenance. Additional to these requirements, the Contractor shall assume all responsibility for any and all damaged equipment due to crashes, vandalism, and adverse weather that may occur during the contract period.

The PQWAS shall operate continuously (24 hours/ 7 Days) when deployed on the project. The system is in a constant "data collection" mode when deployed. The Contractor shall provide technical support for the PQWAS for all periods of operation.

In the event communication is lost with any component of the PQWAS, provide a means and staff to manually program a PCMS message. If communication is lost for more the 10 consecutive minutes, the system shall revert to a fail-safe ROADWORK/# MILES/AHEAD message displayed on the PCMS units until communication is restored.

System Operator, local control function and remote management operation must be password protected.

The PQWAS shall be capable of acquiring traffic information and selecting messages automatically without operator intervention after system utilization. The lag time between changes in threshold ranges and the posting of the appropriate PCMS message(s) shall be no greater than (60) seconds. The system operation and accuracy must not be appreciably degraded by inclement weather or degraded visibility conditions including precipitation, fog, darkness, excessive dust, and road debris.

The system shall be capable of storing ad-hoc messages created by the System Coordinator and logging this action when overriding any default or automatic advisory message.

The PQWAS communication system shall incorporate an error detection/correction mechanism to insure the integrity of all traffic conditions data and motorists information messages. Any required configuration of the PQWAS communication system shall be performed automatically during system initialization.

The system's acceptance is based on the successful performance demonstration of PQWAS for a (5) day continuous period in accordance to this specification and as set forth in the plans. Ensure compliance to all FCC and Department specifications.

4.0 Equipment Maintenance.

Maintain system components in good working condition at all times. Repair or replace damaged or malfunctioning components, at no cost to the Department, as soon as possible and within (12) hours of notification by the Engineer. Periodically clean PCMS units if necessary.

5.0 Measurement. The Department will measure each item below in Months. For partial months the Department will pay in 0.25 increments based on the number of calendar days in the below table.

Partial Month Payment Schedule	
Days	Increment
0-7 days	0.25
8-14 days	0.50
15-21 days	0.75
22-31 days	1.00

5.1 Portable Queue Warning Alert System includes cellular (SAT communications will be required if cellular is not available), all supporting field equipment, website, and unlimited data reports accessible by the Engineer. It will be measured by the number of months authorized by the Engineer for use on the project.

5.2 Queue Warning PCMS will be measured by each individual unit multiplied by the number of months authorized by the Engineer for use on the project.

5.3 Queue Warning Portable Radar Sensors will be measured by each individual unit multiplied by the number of months authorized by the Engineer for use on the project. Queue Warning Portable Radar Sensors will not be measured for payment if the Contractor utilizes a system operating on crowd sourcing data. Crowd sourcing data systems will only be allowed as approved by the engineer and will be considered incidental to Portable Queue Warning Alert System.

6.0 Payment.

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
26136EC	Portable Queue Warning Alert System	Month
26137EC	Queue Warning PCMS	Month
26138EC	Queue Warning Portable Radar Sensors	Month

Rev 9/2021

SPECIAL NOTE FOR PAVER MOUNTED TEMPERATURE PROFILES

This Special Note will apply when indicated on the plans or in the proposal. Section references herein are to the Department’s Standard Specifications for Road and Bridge Construction current edition.

- 1.0 **DESCRIPTION.** Provide a paver mounted infrared temperature equipment to continually monitor the temperature of the asphalt mat immediately behind all paver(s) during the placement operations for all mainline pavements (including ramps for Interstates and Parkways) within the project limits. Provide thermal profiles that include material temperature and measurement locations.
- 2.0 **MATERIALS AND EQUIPMENT.** In addition to the equipment specified in Subsection 403.02 Utilize a thermal equipment supplier that can provide a qualified representative for on-site technical assistance during the initial setup, pre-construction verification, and data management and processing as needed during the Project to maintain equipment within specifications and requirements.

Provide operator settings, user manuals, required viewing/export software for analysis. Ensure the temperature equipment will meet the following:

- (A) A device with one or more infrared sensors that is capable of measuring in at least 1 foot intervals across the paving width, with a minimum width of 12 feet, or extending to the recording limits of the equipment, whichever is greater. A **Maximum of two (2)** brackets are allowed in the influence area under the sensors. A temperature profile must be made on at least 1 foot intervals longitudinally down the road:
- (B) Infrared sensor(s):

(1) Measuring from 32°F to 400°F with an accuracy of ± 2.0% of the sensor reading.
- (C) Ability to measure the following:

(1) The placement distance using a Global Positioning System (GPS) or a Distance Measuring Instrument (DMI) and a Global Positioning System (GPS).

(2) Stationing
- (D) GPS: Accuracy ± 4 feet in the X and Y Direction
- (E) Latest version of software to collect, display, retain and analyze the mat temperature readings during placement. The software must have the ability to create and analyze:

(1) Full collected width of the thermal profiles,

(2) Paver speed and

(3) Paver stops and duration for the entire Project.
- (F) Ability to export data automatically to a remote data server (“the cloud”).

At the preconstruction meeting, provide the Cabinet with rights to allow for web access to the data file location. Access to the data is not to be hindered in any way. The Contractor will provide the Cabinet with any vendor specific software, user id, passwords, etc. needed to access the data through this service, cost of this access is incidental to the thermal profile bid item. The Cabinet is to have access to all data as it is being collected. If a third party is used for collecting and distributing the data the Cabinet is to have the same access rights and time as the Contractor.

This web-based software must also provide the Department with the ability to download the raw files and software and to convert them into the correct format.

- (G) The thermal profile data files must provide the following data in a neat easy to read table format.
- (1) Project information including Road Name and Number, PCN, Beginning and Ending MPs.
- (2) IR Bar Manufacturer and Model number
- (3) Number of Temperature Sensors (N)
- (4) Spacing between sensors and height of sensors above the asphalt mat
- (5) Total number of individual records taken each day (DATA BLOCK)

- (a) Date and Time reading taken
- (b) Latitude and Longitude
- (c) Distance paver has moved from last test location
- (d) Direction and speed of the paver
- (e) Surface temperature of each of the sensors

3.0 CONSTRUCTION. Provide the Engineer with all required documentation at the pre-construction conference.

- (A) Install and operate equipment in accordance with the manufacturer’s specifications.
- (B) Verify that the temperature sensors are within ± 2.0% using an independent temperature device on a material of known temperature. Collect and compare the GPS coordinates from the equipment with an independent measuring device.
 - (1) Ensure the independent survey grade GPS measurement device is calibrated to the correct coordinate system (using a control point), prior to using these coordinates to validate the equipment GPS.
 - (2) The comparison is considered acceptable if the coordinates are within 4 feet of each other in the X and Y direction.
- (C) Collect thermal profiles on all Driving Lanes during the paving operation and transfer the data to the “cloud” network or if automatic data transmission is not available, transfer the data to the Engineer at the end of daily paving.
- (D) Contact the Department immediately when System Failure occurs. Daily Percent Coverage will be considered zero when the repairs are not completed within two (2) working days of System Failure. The start of this two (2) working day period begins the next working day after System Failure.
- (E) Evaluate thermal profile segments, every 150 feet, and summarize the segregation of temperature results. Results are to be labeled as Minimal 0°-25°F, Moderate 25.1°-50°F and Severe >50°. Severe readings over 3 consecutive segments or over 4 or more segments in a day warrant investigation on the cause of the differential temperature distribution.

4.0 MEASUREMENT. The Department will measure the total area of the pavement lanes mapped by the infrared scanners. Full payment will be provided for all lanes with greater than 85% coverage. Partial payment will be made for all areas covered from 50% coverage to 85% coverage at the following rate Coverage area percentage X Total bid amount. And area with less than 50% coverage will not be measured for payment.

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

- 1. Payment is full compensation for all work associated with providing all required equipment, training, and documentation.
- 2. Delays due to GPS satellite reception of signals or equipment breakdowns will not be considered justification for contract modifications or contract extensions.

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
24891EC	PAVE MOUNT INFRARED TEMP EQUIPMENT	SQFT

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 ¹ , %	50 min.	AASHTO T 59
Oil Distillate, %	1.0 max.	AASHTO T 59
Residue Penetration, 77 ° F	0 - 30	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

¹ 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. Provide the correct nozzles that is recommend by the producer to ensure proper coverage of tack is obtained. 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 on to the 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. Placement of non-tracking tack is not permitted from October 1st to May 15th. When applying material, ensure the roadway temperature is a minimum of 40°F and rising. Prior to application, 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 the initial heating, 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 minimum rate of 0.70 pounds (0.08 gallons) per square yard. Ensure full coverage of the material on the pavement surface. Full coverage of this material is critical. Increase material application rate if needed to achieve full coverage. Schedule the work so that, at the end of the day's production, all non-tracking tack is covered with the asphalt mixture. If for some reason the non-tracking tack cannot be covered by an asphalt mixture, ensure the non-tracking tack material is clean and reapply the non-tracking tack prior to placing the asphalt mixture. Do not heat material more than twice in one day.

3.3 Non-tracking Tack Certification. Furnish the tack 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 non-tracking tack. 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. Non-tracking tack will not be permitted for use from October 1st to May 15th. During this timeframe, the department will allow the use of an approved asphalt emulsion in lieu of a non-tracking tack product but will not adjust the unit bid price of the material. 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.	30 max.	≤ 31	32 - 33	34 - 35	36 - 37	≥ 38
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

Code
24970EC

Pay Item
Asphalt Material for Tack Non-Tracking

Pay Unit
Ton

Revised: May 23, 2022

SPECIAL NOTE FOR EXPERIMENTAL KYCT AND HAMBURG TESTING

1.0 General

1.1 Description. The KYCT (Kentucky Method for Cracking Test) and the Hamburg test results will help determine if the mixture is susceptible to cracking and rutting. During the experimental phase, data will be gathered and analyzed by the Department to determine the durability of the bituminous mixes. Additionally, the data will help the Department to create future performance-based specifications which will include the KYCT and Hamburg test methods.

2.0 Equipment

2.1 KYCT Testing Equipment. The Department will require a Marshall Test Press with digital recordation capabilities. Other CT testing equipment may be used for testing with prior approval by the Department.

2.2 Water Baths. One or more water baths will be required that can maintain a temperature of 77° +/- 1.8° F with a digital thermometer showing the water bath temperature. Also, one water bath shall have the ability to suspend gyratory specimen fully submerged in water in accordance with AASHTO T-166, current edition.

2.3 Hamburg Wheel Track Testing. The department encourages the use of the PTI APA/Hamburg Jr. test equipment to perform the loaded wheel testing. The Department will allow different equipment for the Hamburg testing, but the testing device must be approved by the Department prior to testing.

2.4 Gyratory Molds. Gyratory molds will be required to assist in the production of gyratory specimens in accordance with AASHTO T-312, current edition.

2.5 Ovens. Adequate (minimum of two ovens) will be required to accommodate the additional molds and asphalt mixture necessary to perform the acceptance testing as outlined in Section 402 of the Kentucky Standard Specifications for Road and Bridge Construction, current edition.

2.6 Department Equipment. The Department will provide gyratory molds, PINE 850 Test Press with digital recordation, and CT testing equipment to assist during this experimental phase so data can be gathered. Hamburg test specimens will be submitted to the Division of Materials for testing on the PTI APA/Hamburg Jr if the asphalt contractor or district materials office does not have an approved Hamburg testing device.

3.0 Testing Requirements

3.1 Acceptance Testing. Perform all acceptance testing and aggregate gradation as according with Section 402 and Section 403 of the Kentucky Standard Specifications for Road and Bridge Construction, current edition.

3.2 KYCT Testing. Perform crack resistance analysis (KYCT) in accordance with the current Kentucky Method for KYCT Index Testing during the mix design phase and during the plant production of all surface mixtures. For mix design approvals, submit KYCT results on the Department MixPack. For Class 4 mixtures, submit ingredient materials to the Division of Materials for verification.

3.2.1 KYCT Frequency. Obtain an adequate sample of hot mix asphalt to ensure the acceptance testing, gradation, and KYCT gyratory samples can be fabricated and is representative of the bituminous mixture. Acceptance specimens shall be fabricated first, then immediately after, fabricate the KYCT samples with the gyratory compactor in accordance with Section 2.4 of this Special Note. Analysis of the KYCT specimens and gradation will be required one per subplot produced from the same asphalt material and at the same time as the acceptance specimen is sampled and tested.

3.2.2 Number of Specimens and Conditioning. Fabricate specimens in accordance with the Kentucky Method for KYCT Index Testing. Contrary to the method, for field specimens, fabricate a minimum of 3 and up to 6 test specimens. The specimens shall be compacted at the temperature in accordance with KM 64-411. KYCT mix design specimens shall be short-term conditioned uncovered for four hours at compaction temperature in accordance with KM 64-411. Contrary to the Kentucky Method, plant produced bituminous material shall be short-term conditioned immediately after sampling for two hours uncovered in the oven at compaction temperature in accordance with KM 64-411. Additionally, fabricated specimens shall be allowed to cool in air (fan is permissible) for 30 minutes +/- 5 minutes and conditioned in a 77 °F water bath for 30 minutes +/- 5 minutes. To ensure confidence and reliability of the test results provided by KYCT testing and Hamburg testing, reheating of the asphalt mixture is prohibited.

3.2.3 Record Times. For each subplot, record the time required between drying aggregates in the plant to KYCT specimen fabrication. The production time may vary due to the time that the bituminous material is held in the silo. Record the preconditioning time when the time exceeds the one-hour specimen cool down time as required in accordance with The Kentucky Method for KYCT Index Testing. The preconditioning time may exceed an hour if the technician is unable to complete the test on the same day or within the specified times as outlined in The Kentucky Method for KYCT Index Testing. The production time and the preconditioning time shall be recorded on the AMAW.

3.2.4 File Name. As according to section 7.12 of The Kentucky Method for KYCT Index Testing, save the filename with the following format: "CID_Approved Mix Number_Lot Number_Sublot Number_Date"

3.3 Hamburg Testing. Perform the rut resistance analysis (Hamburg) in accordance with AASTHO T-324, not to exceed 20,000 passes for all bituminous mixtures during the mix design phase and production. For mix design approvals, submit Hamburg results on the Department MixPack. For Class 4 mixtures, submit ingredient materials to the Division of Materials for informational verification.

3.3.1 Hamburg Testing Frequency. Perform testing and analysis per lot of material. The plant produced bituminous material sampled for the Hamburg test does not have to be obtained at the same time as the acceptance and KYCT sample. If the Hamburg test sample is not obtained at the same time as the KYCT sample, determine the Maximum Specific Gravity of the KYCT sample in accordance with AASHTO T-209 coinciding with the Hamburg specimens.

3.3.2 Record Times. Record the production time as according to section 3.2.3 in this special note. Also record the time that the specimens were fabricated and the time the Hamburg testing was started. All times shall be recorded on the AMAW.

3.3.3 File Name. Save the Excel spreadsheet with the following file name; “Hamburg_CID_Approved Mix Number_Lot Number_Sublot Number_Date” and upload the file into the AMAW.

4.0 Data

Submit the AMAW and all test data that was obtained for acceptance, gradation, KYCT, and Hamburg testing within five working days once all testing has been completed for a lot to Central Materials Lab and the District Materials Engineer. Also, any data and or comments that the asphalt contractor or district personnel deem informational during this experimental phase, shall also be submitted to the Central Materials Lab and the District Materials Engineer. Any questions or comments regarding any item in this Special Note can be directed to the Central Office, Division of Materials, Asphalt Branch.

5.0 Payment

Any additional labor and testing equipment that is required to fabricate and test the KYCT and Hamburg specimens shall be considered incidental to the asphalt surface line item. The Department will perform the testing for the KYCT and Hamburg specimens if a producer does not possess the proper equipment.

June 15th, 2022

Special Note for Bridge Demolition, Renovation and Asbestos Abatement

If the project includes any bridge demolition or renovation, the successful bidder is required to notify Kentucky Division for Air Quality (KDAQ) via filing of form (DEP 7036) a minimum of 10 working days prior to commencement of any bridge demolition or renovation work.

Any available information regarding possible asbestos containing materials (ACM) on or within bridges to be affected by the project has been included in the bid documents. These are to be included with the Contractor's notification filed with the KDAQ. If not included in the bid documents, the Department will provide that information to the successful bidder for inclusion in the KDAQ notice as soon as possible. If there are no documents stating otherwise, the bidders should assume there are no asbestos containing materials that will in any way affect the work.



COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
transportation.ky.gov

Andy Beshear
GOVERNOR

Jim Gray
SECRETARY

Asbestos Inspection Report

To: Ross Mills
District: Central Office
Date: November 4, 2021
Conducted By: O'Dail Lawson
Report Prepared By: O'Dail Lawson

Project and Structure Identification

Project Number: Grayson 04-20001.00
Structure ID: Grayson 043B00003N
Structure Location: KY-224 over Western Kentucky Parkway
Sample Description: Any suspect materials collected were negative for asbestos.
Inspection Date: November 2, 2021

Results and Recommendations

The results of the samples collected were negative for the presence of asbestos above 1%.
No abatement is required at this time.

It is recommended that this report accompany the 10-Day Notice of Intent for Demolition ([Notification Form DEP 7036](#)) which is to be submitted to the Kentucky Division of Air Quality prior to abatement, demolition, or renovation of any building or structure in the Commonwealth.

PLEASE REMIT TO:
MRS., Inc.
P.O. Box 19424
Louisville, Kentucky 40259-0424
(502) 495-1212

Date: November 03, 2021
Invoice Number: # 3111033

KY Transportation Cabinet
200 Mero Street, Frankfort, KY - 40601
KY Contract # MA - 785 1300000018 2

DATE		CHARGES	PAYMENT CREDITS
11/3/2021	Analyzed The Following Samples From : Grayson County - 043B00003N For The Presence Of Asbestos Following The EPA Method : 600/R-93-116 Rate/Sample = \$ 12.00 \$ 12 X 3 = \$ 36.00	3 Samples \$36.00	
			Please Pay This Amount \$ 36.00 Thanks !!!


Terms : Net (30) Days

MRS, Inc. Analytical Laboratory Division

332 West Broadway, S Suite # 902
Louisville, Kentucky 40202

Phone # : (502) 495-1212
E-Mail Address : CEOMRSInc@AOL.Com

Client:	KYTC	Project No:	# 3111033
Address:	200 Mero Street	Sample ID:	# G 1
	Frankfort, KY	Sampled:	2-Nov-21
	40601	Received:	2-Nov-21
		Analyzed:	3-Nov-21 - Point Count -
	Attention : O'Dail Lawson		


Bulk Sample Analysis	
Sampled By :	O'Dail Lawson
Facility/Location:	Grayson County - Item # 043 B00003N (KY 224 Over WKY Parkway)
Field Description:	Guard Rail Mastic
Laboratory Description:	Gray Material
Asbestos Materials:	Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative
Non-Asbestos Fibrous Materials :	
	Cellulose 0.25 %
	Binders 99.50 %
Remarks: The sample was analyzed for asbestos content following the EPA Methodology (600/R-93/116). The test relates only to the items tested. This report does not represent endorsement by NVLAP or any agency of the U.S. Government.	
Analyst:	Winterford Mensah
Reviewed By:	 Signature

MRS, Inc. Analytical Laboratory Division

332 West Broadway, S Suite # 902
Louisville, Kentucky 40202

Phone # : (502) 495-1212
E-Mail Address : CEOMRSInc@AOL.Com

Client:	KYTC	Project No:	# 3111033
Address:	200 Mero Street	Sample ID:	# G 2
	Frankfort, KY	Sampled:	2-Nov-21
	40601	Received:	2-Nov-21
		Analyzed:	3-Nov-21 - Point Count -
	Attention : O'Dail Lawson		

Bulk Sample Analysis	
Sampled By :	O'Dail Lawson
Facility/Location:	Grayson County - Item # 043 B00003N (KY 224 Over WKY Parkway)
Field Description:	Trowel On Sealant
Laboratory Description:	Thick Brown Material
Asbestos Materials:	Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative
Non-Asbestos Fibrous Materials :	Cellulose 0.25 % Binders 99.50 %
Remarks: The sample was analyzed for asbestos content following the EPA Methodology (600/R-93/116). The test relates only to the items tested. This report does not represent endorsement by NVLAP or any agency of the U.S. Government.	
Analyst:	Winterford Mensah
Reviewed By:	 Signature

200 Mero Street, 5th Floor West
Frankfort, Kentucky 40622
(502) 564-7250 fax (502) 564-5

[illegible]



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855.60.CERTIFY

Colorado State Approval No. 22651

1775 W. 55th Avenue
Denver, Colorado 80221
United States of America

CERTIFICATE OF ACHIEVEMENT

This certificate is awarded to:

O'DAIL LAWSON

In recognition of satisfactory completion of the EPA-approved annual asbestos refresher training in accordance with the Model Accreditation Plan (MAP) (40 CFR Part 763, Subpart E, Appendix C), AHERA of the Toxic Substances Control Act (TSCA), and Colorado Regulation No. 8 entitled:

BUILDING INSPECTOR

COURSE COMPLETION:

FEBRUARY 11, 2021

EXAMINATION DATE:

FEBRUARY 11, 2021

EXPIRATION DATE:

FEBRUARY 11, 2022

COURSE HOURS:

4.0



Verify this Certificate

Danaya N. Wilson
CEO & Training Program Manager

Credential License ID:
28699399



Matthew Valdez
Instructor

CHC Training Certificate No.:
R21-0204-AI



Renew this Certificate

Special Note for Fixed Completion Date and

Liquidated Damages

WK 9001

**GRAYSON COUNTY
ITEM NO. 4-20001 & 4-20002**

Liquidated Damages in the amount specified in the Standard Specifications, per calendar day, will be assessed for each day work remains incomplete beyond the Specified Project Completion Date. This project has a Fixed Project Completion Date of November 15, 2023.

Additionally, all Relief Joint repairs, all work required prior to the paving operations, and all asphalt paving including the final asphalt surface course shall be required to be completed by October 15, 2023. Failure to complete the work described for this required milestone specified completion date of October 15, 2023, will result in charges of liquidated damages in the amount specified in the Standard Specifications.

No work may begin on the KY 224 bridge replacement, widening and profile revision of KY 224, and profile revision of the Clarkson interchange ramps prior to March 1, 2023.

All penalties or Liquidated Damages will be assessed cumulatively and charged concurrently when applicable.

Also contrary to Section 108, liquidated damages will be charged during the months of December through March.

Special Note for Fixed Completion Date and

Liquidated Damages

WK 9001

GRAYSON COUNTY

ITEM NO. 4-20003

Liquidated Damages in the amount specified in the Standard Specifications, per calendar day, will be assessed for each day work remains incomplete beyond the Specified Project Completion Date. This project has a Fixed Project Completion Date of November 15, 2023.

Additionally, all Relief Joint repairs, all work required prior to the paving operations, and all asphalt paving including the final asphalt surface course shall be required to be completed by October 15, 2023. Failure to complete the work described for this required milestone specified completion date of October 15, 2023, will result in charges of liquidated damages in the amount specified in the Standard Specifications.

All penalties or Liquidated Damages will be assessed cumulatively and charged concurrently when applicable.


Also contrary to Section 108, liquidated damages will be charged during the months of December through March.



KENTUCKY TRANSPORTATION CABINET
Department of Highways
DIVISION OF RIGHT OF WAY & UTILITIES

TC 62-226
Rev. 01/2016
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RIGHT OF WAY CERTIFICATION

<input checked="" type="checkbox"/>	Original	<input type="checkbox"/>	Re-Certification	RIGHT OF WAY CERTIFICATION	
ITEM #		COUNTY		PROJECT # (STATE)	PROJECT # (FEDERAL)
4-20001		Grayson		FD52 043 9001 111-115	NHPP 9001 (014)
PROJECT DESCRIPTION					
Asphalt pavement rehab with a bridge replacement on KY-224.					
<input checked="" type="checkbox"/>	No Additional Right of Way Required				
Construction will be within the limits of the existing right of way. The right of way was acquired in accordance to FHWA regulations under the Uniform Relocation Assistance and Real Property Acquisitions Policy Act of 1970, as amended. No additional right of way or relocation assistance were required for this project.					
<input type="checkbox"/>	Condition # 1 (Additional Right of Way Required and Cleared)				
All necessary right of way, including control of access rights when applicable, have been acquired including legal and physical possession. Trial or appeal of cases may be pending in court but legal possession has been obtained. There may be some improvements remaining on the right-of-way, but all occupants have vacated the lands and improvements, and KYTC has physical possession and the rights to remove, salvage, or demolish all improvements and enter on all land. Just Compensation has been paid or deposited with the court. All relocations have been relocated to decent, safe, and sanitary housing or that KYTC has made available to displaced persons adequate replacement housing in accordance with the provisions of the current FHWA directive.					
<input type="checkbox"/>	Condition # 2 (Additional Right of Way Required with Exception)				
The right of way has not been fully acquired, the right to occupy and to use all rights-of-way required for the proper execution of the project has been acquired. Some parcels may be pending in court and on other parcels full legal possession has not been obtained, but right of entry has been obtained, the occupants of all lands and improvements have vacated, and KYTC has physical possession and right to remove, salvage, or demolish all improvements. Just Compensation has been paid or deposited with the court for most parcels. Just Compensation for all pending parcels will be paid or deposited with the court prior to AWARD of construction contract					
<input type="checkbox"/>	Condition # 3 (Additional Right of Way Required with Exception)				
The acquisition or right of occupancy and use of a few remaining parcels are not complete and/or some parcels still have occupants. All remaining occupants have had replacement housing made available to them in accordance with 49 CFR 24.204. KYTC is hereby requesting authorization to advertise this project for bids and to proceed with bid letting even though the necessary right of way will not be fully acquired, and/or some occupants will not be relocated, and/or the just compensation will not be paid or deposited with the court for some parcels until after bid letting. KYTC will fully meet all the requirements outlined in 23 CFR 635.309(c)(3) and 49 CFR 24.102(j) and will expedite completion of all acquisitions, relocations, and full payments after bid letting and prior to AWARD of the construction contract or force account construction.					
Total Number of Parcels on Project		0	EXCEPTION (S) Parcel #	ANTICIPATED DATE OF POSSESSION WITH EXPLANATION	
Number of Parcels That Have Been Acquired					
Signed Deed					
Condemnation					
Signed ROE					
Notes/ Comments (Use Additional Sheet if necessary)					
LPA RW Project Manager			Right of Way Supervisor		
Printed Name			Printed Name		Michael H Price
Signature			Signature		2022.01.03
Date			Date		Michael H Price 11:23:05 -05'00'
Right of Way Director			FHWA		
Printed Name			Printed Name		
Signature			Signature		No Signature Required as per FHWA-KYTC Current Stewardship Agreement
Date		Digitally signed by Kelly R. Divine Date: 2022.01.03 11:15:21 -06'00'	Date		

KENTUCKY TRANSPORTATION CABINET
Department of Highways
DIVISION OF RIGHT OF WAY & UTILITIESTC 62-226
Rev. 01/2016
Page 1 of 1

RIGHT OF WAY CERTIFICATION

<input checked="" type="checkbox"/> Original	<input type="checkbox"/> Re-Certification	RIGHT OF WAY CERTIFICATION	
ITEM #	COUNTY	PROJECT # (STATE)	PROJECT # (FEDERAL)
4-20003	Grayson	FD52 043 9001 014-017	NHPP 9001(015)
PROJECT DESCRIPTION			
Asphalt thin mill/fill pavement rehab project.			
<input checked="" type="checkbox"/> No Additional Right of Way Required			
Construction will be within the limits of the existing right of way. The right of way was acquired in accordance to FHWA regulations under the Uniform Relocation Assistance and Real Property Acquisitions Policy Act of 1970, as amended. No additional right of way or relocation assistance were required for this project.			
<input type="checkbox"/> Condition # 1 (Additional Right of Way Required and Cleared)			
All necessary right of way, including control of access rights when applicable, have been acquired including legal and physical possession. Trial or appeal of cases may be pending in court but legal possession has been obtained. There may be some improvements remaining on the right-of-way, but all occupants have vacated the lands and improvements, and KYTC has physical possession and the rights to remove, salvage, or demolish all improvements and enter on all land. Just Compensation has been paid or deposited with the court. All relocations have been relocated to decent, safe, and sanitary housing or that KYTC has made available to displaced persons adequate replacement housing in accordance with the provisions of the current FHWA directive.			
<input type="checkbox"/> Condition # 2 (Additional Right of Way Required with Exception)			
The right of way has not been fully acquired, the right to occupy and to use all rights-of-way required for the proper execution of the project has been acquired. Some parcels may be pending in court and on other parcels full legal possession has not been obtained, but right of entry has been obtained, the occupants of all lands and improvements have vacated, and KYTC has physical possession and right to remove, salvage, or demolish all improvements. Just Compensation has been paid or deposited with the court for most parcels. Just Compensation for all pending parcels will be paid or deposited with the court prior to AWARD of construction contract			
<input type="checkbox"/> Condition # 3 (Additional Right of Way Required with Exception)			
The acquisition or right of occupancy and use of a few remaining parcels are not complete and/or some parcels still have occupants. All remaining occupants have had replacement housing made available to them in accordance with 49 CFR 24.204. KYTC is hereby requesting authorization to advertise this project for bids and to proceed with bid letting even though the necessary right of way will not be fully acquired, and/or some occupants will not be relocated, and/or the just compensation will not be paid or deposited with the court for some parcels until after bid letting. KYTC will fully meet all the requirements outlined in 23 CFR 635.309(c)(3) and 49 CFR 24.102(j) and will expedite completion of all acquisitions, relocations, and full payments after bid letting and prior to AWARD of the construction contract or force account construction.			
Total Number of Parcels on Project	0	EXCEPTION (S) Parcel #	ANTICIPATED DATE OF POSSESSION WITH EXPLANATION
Number of Parcels That Have Been Acquired			
Signed Deed	0		
Condemnation	0		
Signed ROE	0		
Notes/ Comments (Use Additional Sheet if necessary)			
LPA RW Project Manager		Right of Way Supervisor	
Printed Name		Printed Name	Michael H Price
Signature		Signature	2022.03.04
Date		Date	Michael H Price 09:57:42 -05'00'
Right of Way Director		FHWA	
Printed Name		Printed Name	
Signature		Signature	No Signature Required as per FHWA-KYTC Current Stewardship Agreement
Date	Digitally signed by Kelly R. Divine Date: 2022.03.04 14:56:06 -06'00'	Date	

UTILITIES AND RAIL CERTIFICATION NOTE

<p>Grayson County NHPP 9001(014) FD52 043 9001 111-115 Mile point: 111.250 TO 114.800 ADDRESS PAVEMENT CONDITION OF WENDELL H. FORD WESTERN KY PARKWAY BOTH DIRECTION(S) FROM MILEPOINT 111.25 TO MILEPOINT 114.800. (COMBINED W/ 4-20002) ITEM NUMBER: 04-20001.00</p>

PROJECT NOTES ON UTILITIES

Utility coordination efforts determined that no significant utility relocation work is required to complete the project. Any work pertaining to these utility facilities is defined in the bid package and is to be carried out as instructed by the Kentucky Transportation Cabinet. The contractor will be responsible for any coordination or adjustments that are discussed or quantified in the proposal.

NOTE: DO NOT DISTURB THE FOLLOWING FACILITIES LOCATED WITHIN THE PROJECT DISTURB LIMITS

- City of Clarkson - Sewer
- Grayson County Water District - Water
- Kentucky Utilities - Electric
- Windstream Holdings II, LLC - Communication
- Comcast Communications - CATV
- City of Leitchfield - Natural Gas
- Brandenburg Telephone Co. - Telephone
- Warren Rural Electric Cooperative Corporation - Electric

The Contractor is fully responsible for protection of all utilities listed above

THE FOLLOWING FACILITY OWNERS ARE RELOCATING/ADJUSTING THEIR FACILITIES WITHIN THE PROJECT LIMITS AND WILL BE COMPLETE PRIOR TO CONSTRUCTION

Not Applicable

THE FOLLOWING FACILITY OWNERS HAVE FACILITIES TO BE RELOCATED/ADJUSTED BY THE OWNER OR THEIR SUBCONTRACTOR AND IS TO BE COORDINATED WITH THE ROAD CONTRACT

Not Applicable

UTILITIES AND RAIL CERTIFICATION NOTE

Grayson County
NHPP 9001(014)
FD52 043 9001 111-115
Mile point: 111.250 TO 114.800
ADDRESS PAVEMENT CONDITION OF WENDELL H. FORD WESTERN KY PARKWAY BOTH DIRECTION(S)
FROM MILEPOINT 111.25 TO MILEPOINT 114.800. (COMBINED W/ 4-20002)
ITEM NUMBER: 04-20001.00

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

Not Applicable

RAIL COMPANIES HAVE FACILITIES IN CONJUNCTION WITH THIS PROJECT AS NOTED

☒ No Rail Involvement ☐ Rail Involved ☐ Rail Adjacent

AREA FACILITY OWNER CONTACT LIST

Facility Owner	Address	Contact Name	Phone	Email
Brandenburg Telephone Co. - Telephone	502 West Dixie Ave Elizabethtown KY 42702	Kyle Dalton	2709824466	kyle.dalton@brandenburgtel.com
City of Clarkson - Sewer	213 Millerstown Street Clarkson KY 42726	Bonnie Henderson	2702422841	clerk@clarksonky.com
City of Leitchfield - Natural Gas	314 W. White Oak St., P.O. Box 398 Leitchfield KY 42755	Dwight Embry	2702594034	dwight.embry@leitchfield.org
Comcast Communications - CATV	2919 Ring Road Elizabethtown KY 42701	Stephen Gaddie	2704011543	Stephen_Gaddie@comcast.com
Grayson County Water District - Water	21 Shull White Road Leitchfield KY 42754	Jeremy Woosley	2702592917	jwoosley@graysonwater.com
Kentucky Utilities - Electric	820 West Broadway Louisville KY 40202	Caroline Justice	5026273708	caroline.justice@lge-ku.com

UTILITIES AND RAIL CERTIFICATION NOTE

<p>Grayson County NHPP 9001(014) FD52 043 9001 111-115 Mile point: 111.250 TO 114.800 ADDRESS PAVEMENT CONDITION OF WENDELL H. FORD WESTERN KY PARKWAY BOTH DIRECTION(S) FROM MILEPOINT 111.25 TO MILEPOINT 114.800. (COMBINED W/ 4-20002) ITEM NUMBER: 04-20001.00</p>

Warren Rural Electric Cooperative Corporation - Electric	P.O. Box 1118 Bowling Green KY 42102	Jonathan Lindsey	2708426541	jonathanl@wrecc.com
Windstream Holdings II, LLC - Communication	130 West New Circle Road Lexington KY 40505	Steve Johnson	8593576209	steve.johnson@windstream.com

UTILITIES AND RAIL CERTIFICATION NOTE

<p>Grayson County NHPP 9001(015) FD52 043 9001 014-017 Mile point: 114.800 TO 116.950 ADDRESS PAVEMENT CONDITION OF WENDELL H. FORD WESTERN KY PARKWAY CARDINAL DIRECTION(S) FROM MILEPOINT 114.8 TO MILEPOINT 116.95 ITEM NUMBER: 04-20003.00</p>
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PROJECT NOTES ON UTILITIES

Utility coordination efforts determined that no significant utility relocation work is required to complete the project. Any work pertaining to these utility facilities is defined in the bid package and is to be carried out as instructed by the Kentucky Transportation Cabinet. The contractor will be responsible for any coordination or adjustments that are discussed or quantified in the proposal.

NOTE: DO NOT DISTURB THE FOLLOWING FACILITIES LOCATED WITHIN THE PROJECT DISTURB LIMITS

- Warren Rural Electric Cooperative Corporation - Electric Distribution
- City of Leitchfield - Natural Gas
- Comcast Communications - CATV
- Kentucky Utilities - Electric Distribution
- Windstream Holdings II, LLC - Communication
- Grayson County Water District - Water
- Brandenburg Telephone Co. - Telephone

The Contractor is fully responsible for protection of all utilities listed above

THE FOLLOWING FACILITY OWNERS ARE RELOCATING/ADJUSTING THEIR FACILITIES WITHIN THE PROJECT LIMITS AND WILL BE COMPLETE PRIOR TO CONSTRUCTION

Not Applicable

THE FOLLOWING FACILITY OWNERS HAVE FACILITIES TO BE RELOCATED/ADJUSTED BY THE OWNER OR THEIR SUBCONTRACTOR AND IS TO BE COORDINATED WITH THE ROAD CONTRACT

Not Applicable

UTILITIES AND RAIL CERTIFICATION NOTE

Grayson County
NHPP 9001(015)
FD52 043 9001 014-017
Mile point: 114.800 TO 116.950
ADDRESS PAVEMENT CONDITION OF WENDELL H. FORD WESTERN KY PARKWAY CARDINAL
DIRECTION(S) FROM MILEPOINT 114.8 TO MILEPOINT 116.95
ITEM NUMBER: 04-20003.00

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

Not Applicable

RAIL COMPANIES HAVE FACILITIES IN CONJUNCTION WITH THIS PROJECT AS NOTED

☐ No Rail Involvement ☐ Rail Involved ☐ Rail Adjacent

AREA FACILITY OWNER CONTACT LIST

Facility Owner	Address	Contact Name	Phone	Email
Brandenburg Telephone Co. - Telephone	502 West Dixie Ave Elizabethtown KY 42702	Kyle Dalton	2709824466	kyle.dalton@brandenburgtel.com
City of Leitchfield - Natural Gas	314 W. White Oak St., P.O. Box 398 Leitchfield KY 42755	Dwight Embry	2702594034	dwight.embry@leitchfield.org
Comcast Communications - CATV	2919 Ring Road Elizabethtown KY 42701	Stephen Gaddie	2704011543	Stephen_Gaddie@comcast.com
Grayson County Water District - Water	21 Shull White Road Leitchfield KY 42754	Jeremy Woosley	2702592917	jwoosley@graysonwater.com
Kentucky Utilities - Electric Distrib	820 West Broadway Louisville KY 40202	Caroline Justice	5026273708	caroline.justice@lge-ku.com
Warren Rural Electric Cooperative Corporation - Electric Distrib	P.O. Box 1118 Bowling Green KY 42102	Jonathan Lindsey	2708426541	jonathanl@wrecc.com
Windstream Holdings II, LLC - Communication	111 South Main Street Elizabethtown KY 42701	Steve Johnson	8593576209	steve.johnson@windstream.com

MATERIAL SUMMARY

CONTRACT ID: 221363

043GR22D063

DE04390012206

WESTERN KY PARKWAY (PW 9001) FROM MP 111.25 TO MP 114.882 ASPHALT REHAB INTERSTATE/
PARKWAY, A DISTANCE OF 3.63 MILES.

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0350	00001	DGA BASE	8,603.00	TON
0355	00100	ASPHALT SEAL AGGREGATE	412.00	TON
0360	00103	ASPHALT SEAL COAT	49.00	TON
0365	00193	ASPHALT SCRATCH COURSE PG76-22	3,043.00	TON
0370	00194	LEVELING & WEDGING PG76-22	2,956.00	TON
0375	00214	CL3 ASPH BASE 1.00D PG64-22	8,830.00	TON
0380	00219	CL4 ASPH BASE 1.00D PG76-22	5,789.00	TON
0385	00339	CL3 ASPH SURF 0.38D PG64-22	3,714.00	TON
0390	00342	CL4 ASPH SURF 0.38A PG76-22	11,596.00	TON
0395	02101	CEM CONC ENT PAVEMENT-8 IN	93.00	SQYD
0400	02676	MOBILIZATION FOR MILL & TEXT - (NHPP 9001 014)	1.00	LS
0405	02677	ASPHALT PAVE MILLING & TEXTURING	24,164.00	TON
0410	20071EC	JOINT ADHESIVE	87,009.00	LF
0415	20509ED	BLOW UP/RELIEF JOINT	5,350.00	SQYD
0420	24970EC	ASPHALT MATERIAL FOR TACK NON-TRACKING	128.00	TON
0425	00020	TRAFFIC BOUND BASE	50.00	TON
0430	00071	CRUSHED AGGREGATE SIZE NO 57	46.00	TON
0435	00078	CRUSHED AGGREGATE SIZE NO 2	1,157.00	TON
0440	01015	INSPECT & CERTIFY EDGE DRAIN SYSTEM - (NHPP 9001 014)	1.00	LS
0445	01982	DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	35.00	EACH
0450	01990	DELINEATOR FOR BARRIER WALL-B/W	96.00	EACH
0455	02003	RELOCATE TEMP CONC BARRIER	2,960.00	LF
0460	02159	TEMP DITCH	11,251.00	LF
0465	02160	CLEAN TEMP DITCH	5,626.00	LF
0470	02230	EMBANKMENT IN PLACE	6,828.00	CUYD
0475	02360	GUARDRAIL TERMINAL SECTION NO 1	1.00	EACH
0480	02369	GUARDRAIL END TREATMENT TYPE 2A	2.00	EACH
0485	02381	REMOVE GUARDRAIL	2,350.00	LF
0490	02391	GUARDRAIL END TREATMENT TYPE 4A	2.00	EACH
0495	02545	CLEARING AND GRUBBING - (NHPP 9001 014-2 ACRES)	1.00	LS
0500	02562	TEMPORARY SIGNS	1,200.00	SQFT
0505	02575	DITCHING AND SHOULDERING	19,177.00	LF
0510	02603	FABRIC-GEOTEXTILE CLASS 2	3,700.00	SQYD
0515	02650	MAINTAIN & CONTROL TRAFFIC - (NHPP 9001 014)	1.00	LS
0520	02671	PORTABLE CHANGEABLE MESSAGE SIGN	4.00	EACH
0525	02696	SHOULDER RUMBLE STRIPS	84,798.00	LF
0530	02703	SILT TRAP TYPE A	4.00	EACH
0535	02704	SILT TRAP TYPE B	4.00	EACH
0540	02705	SILT TRAP TYPE C	4.00	EACH
0545	02706	CLEAN SILT TRAP TYPE A	4.00	EACH
0550	02707	CLEAN SILT TRAP TYPE B	4.00	EACH
0555	02708	CLEAN SILT TRAP TYPE C	4.00	EACH

MATERIAL SUMMARY

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0560	02726	STAKING - (NHPP 9001 014)	1.00	LS
0565	02775	ARROW PANEL	2.00	EACH
0570	02898	RELOCATE CRASH CUSHION	7.00	EACH
0575	03171	CONCRETE BARRIER WALL TYPE 9T	1,360.00	LF
0580	04934	TEMP SIGNAL MULTI PHASE	1.00	EACH
0585	05950	EROSION CONTROL BLANKET	18,505.00	SQYD
0590	05952	TEMP MULCH	12,337.00	SQYD
0595	05953	TEMP SEEDING AND PROTECTION	9,253.00	SQYD
0600	05963	INITIAL FERTILIZER	1.00	TON
0605	05964	MAINTENANCE FERTILIZER	.60	TON
0610	05989	SPECIAL SEEDING CROWN VETCH	2,221.00	SQYD
0615	05992	AGRICULTURAL LIMESTONE	11.50	TON
0620	06401	FLEXIBLE DELINEATOR POST-M/W	553.00	EACH
0625	06404	FLEXIBLE DELINEATOR POST-M/Y	81.00	EACH
0630	06427	TRENCHING	1,234.00	LF
0635	06510	PAVE STRIPING-TEMP PAINT-4 IN	18,000.00	LF
0640	06511	PAVE STRIPING-TEMP PAINT-6 IN	174,316.00	LF
0645	06542	PAVE STRIPING-THERMO-6 IN W	52,188.00	LF
0650	06543	PAVE STRIPING-THERMO-6 IN Y	42,399.00	LF
0655	06546	PAVE STRIPING-THERMO-12 IN W	2,464.00	LF
0660	06547	PAVE STRIPING-THERMO-12 IN Y	120.00	LF
0665	06549	PAVE STRIPING-TEMP REM TAPE-B	9,000.00	LF
0670	06550	PAVE STRIPING-TEMP REM TAPE-W	3,600.00	LF
0675	06551	PAVE STRIPING-TEMP REM TAPE-Y	3,600.00	LF
0680	06568	PAVE MARKING-THERMO STOP BAR-24IN	163.00	LF
0685	06569	PAVE MARKING-THERMO CROSS-HATCH	152.00	SQFT
0690	06585	PAVEMENT MARKER TY IVA-MW TEMP	180.00	EACH
0695	06586	PAVEMENT MARKER TY IVA-MY TEMP	180.00	EACH
0700	06613	INLAID PAVEMENT MARKER-B W/R	536.00	EACH
0705	06614	INLAID PAVEMENT MARKER-B Y/R	51.00	EACH
0710	08100	CONCRETE-CLASS A	12.16	CUYD
0715	08150	STEEL REINFORCEMENT	368.00	LB
0720	08903	CRASH CUSHION TY VI CLASS BT TL3	3.00	EACH
0725	10020NS	FUEL ADJUSTMENT	59,019.00	DOLL
0730	10030NS	ASPHALT ADJUSTMENT	140,464.00	DOLL
0735	20191ED	OBJECT MARKER TY 3	4.00	EACH
0740	20756ED	RESHAPE MEDIAN	225.00	LF
0745	21802EN	G/R STEEL W BEAM-S FACE (7 FT POST)	1,950.00	LF
0750	23979EC	CRASH CUSHION TY VI CLASS C TL3	2.00	EACH
0755	24189ER	DURABLE WATERBORNE MARKING-6 IN W	3,200.00	LF
0760	24190ER	DURABLE WATERBORNE MARKING-6 IN Y	3,200.00	LF
0765	24432EC	TEMP WORKSITE SPEED LIMIT SIGN ASSEMBLY	2.00	EACH
0770	24679ED	PAVE MARK THERMO CHEVRON	922.00	SQFT
0775	24891EC	PAVE MOUNT INFRARED TEMP EQUIPMENT	1,367,033.00	SF
0780	25078ED	THRIE BEAM GUARDRAIL TRANSITION TL-3	3.00	EACH
0785	26136EC	PORTABLE QUEUE WARNING ALERT SYSTEM	12.00	MONT
0790	26137EC	QUEUE WARNING PCMS	48.00	MONT
0795	26138EC	QUEUE WARNING PORTABLE RADAR SENSORS	48.00	MONT
0800	40030	TEMPORARY SILT FENCE	11,251.00	LF
0805	00440	ENTRANCE PIPE-15 IN	75.00	LF

MATERIAL SUMMARY

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0810	02165	REMOVE PAVED DITCH	326.00	SQYD
0815	02484	CHANNEL LINING CLASS III	940.00	TON
0820	22045NN	FLUME INLET TY 2-MOD	2.00	EACH
0825	22660EN	REPLACE GRATE	454.00	LB
0830	22766ED	TRENCH DRAIN	207.00	LF
0835	24585EC	SECURITY PLATE ASSEMBLY	2.00	EACH
0840	02231	STRUCTURE GRANULAR BACKFILL	331.00	CUYD
0845	02403	REMOVE CONCRETE MASONRY	561.80	CUYD
0850	02998	MASONRY COATING	1,108.00	SQYD
0855	03299	ARMORED EDGE FOR CONCRETE	113.60	LF
0860	08002	STRUCTURE EXCAV-SOLID ROCK	45.00	CUYD
0865	08003	FOUNDATION PREPARATION - (#28464)	1.00	LS
0870	08020	CRUSHED AGGREGATE SLOPE PROT	266.00	TON
0875	08033	TEST PILES	44.00	LF
0880	08046	PILES-STEEL HP12X53	235.00	LF
0885	08094	PILE POINTS-12 IN	16.00	EACH
0890	08100	CONCRETE-CLASS A	499.50	CUYD
0895	08104	CONCRETE-CLASS AA	387.90	CUYD
0900	08130	MECHANICAL REINF COUPLER #5	45.00	EACH
0905	08133	MECHANICAL REINF COUPLER #8	42.00	EACH
0910	08150	STEEL REINFORCEMENT	65,065.00	LB
0915	08151	STEEL REINFORCEMENT-EPOXY COATED	101,004.00	LB
0920	08269	ELECTRICAL CONDUIT - (#28464)	1.00	LS
0925	08305	REMOVE REINF CONCRETE - (#28464)	1.00	LS
0930	08670	PRECAST PC BOX BEAM SB27	1,401.00	LF
0935	23378EC	CONCRETE SEALING	19,012.00	SQFT
0940	25028ED	RAIL SYSTEM SINGLE SLOPE - 40 IN	479.00	LF
0945	25078ED	THRIE BEAM GUARDRAIL TRANSITION TL-3	4.00	EACH
0950	02403	REMOVE CONCRETE MASONRY	17.50	CUYD
0955	08003	FOUNDATION PREPARATION - (#28465)	1.00	LS
0960	08100	CONCRETE-CLASS A	45.60	CUYD
0965	08150	STEEL REINFORCEMENT	4,005.00	LB
0970	04798	CONDUIT-3 1/2 IN	90.00	LF
0975	04800	MARKER	1.00	EACH
0980	04820	TRENCHING AND BACKFILLING	515.00	LF
0985	04860	CABLE-NO. 8/3C DUCTED	825.00	LF
0990	04940	REMOVE LIGHTING - (NHPP 9001 014)	1.00	LS
0995	20391NS835	ELECTRICAL JUNCTION BOX TYPE A	3.00	EACH
1000	21543EN	BORE AND JACK CONDUIT	90.00	LF
1005	21579EN	FLEX CONDUIT-1 1/4 IN	50.00	LF
1010	02568	MOBILIZATION	1.00	LS
1015	02569	DEMOBILIZATION	1.00	LS

CONTRACT ID: 221363

043GR22D063

DE04390012214

WESTERN KY PARKWAY (PW 9001) FROM MILEPOINT 114.882 TO MILEPOINT 116.949 ASPHALT REHAB
INTERSTATE/PARKWAY, A DISTANCE OF 2.07 MILES.

MATERIAL SUMMARY

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0005	00001	DGA BASE	863.00	TON
0010	00100	ASPHALT SEAL AGGREGATE	196.00	TON
0015	00103	ASPHALT SEAL COAT	23.00	TON
0020	00193	ASPHALT SCRATCH COURSE PG76-22	2,186.00	TON
0025	00194	LEVELING & WEDGING PG76-22	750.00	TON
0030	00219	CL4 ASPH BASE 1.00D PG76-22	200.00	TON
0035	00342	CL4 ASPH SURF 0.38A PG76-22	6,558.00	TON
0040	02676	MOBILIZATION FOR MILL & TEXT - (NHPP 9001 015)	1.00	LS
0045	02677	ASPHALT PAVE MILLING & TEXTURING	8,945.00	TON
0050	20071EC	JOINT ADHESIVE	23,691.00	LF
0055	20509ED	BLOW UP/RELIEF JOINT	1,258.00	SQYD
0060	24970EC	ASPHALT MATERIAL FOR TACK NON-TRACKING	56.00	TON
0065	00078	CRUSHED AGGREGATE SIZE NO 2	213.00	TON
0070	01015	INSPECT & CERTIFY EDGE DRAIN SYSTEM - (NHPP 9001 015)	1.00	LS
0075	01982	DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	27.00	EACH
0080	02159	TEMP DITCH	5,457.00	LF
0085	02160	CLEAN TEMP DITCH	2,729.00	LF
0090	02369	GUARDRAIL END TREATMENT TYPE 2A	1.00	EACH
0095	02381	REMOVE GUARDRAIL	1,287.50	LF
0100	02562	TEMPORARY SIGNS	1,000.00	SQFT
0105	02575	DITCHING AND SHOULDERING	10,914.00	LF
0110	02650	MAINTAIN & CONTROL TRAFFIC - (NHPP 9001 015)	1.00	LS
0115	02671	PORTABLE CHANGEABLE MESSAGE SIGN	4.00	EACH
0120	02696	SHOULDER RUMBLE STRIPS	44,036.00	LF
0125	02703	SILT TRAP TYPE A	2.00	EACH
0130	02704	SILT TRAP TYPE B	2.00	EACH
0135	02705	SILT TRAP TYPE C	2.00	EACH
0140	02706	CLEAN SILT TRAP TYPE A	2.00	EACH
0145	02707	CLEAN SILT TRAP TYPE B	2.00	EACH
0150	02708	CLEAN SILT TRAP TYPE C	2.00	EACH
0155	02726	STAKING - (NHPP 9001 015)	1.00	LS
0160	02775	ARROW PANEL	2.00	EACH
0165	05950	EROSION CONTROL BLANKET	9,680.00	SQYD
0170	05952	TEMP MULCH	6,453.00	SQYD
0175	05953	TEMP SEEDING AND PROTECTION	4,840.00	SQYD
0180	05963	INITIAL FERTILIZER	.50	TON
0185	05964	MAINTENANCE FERTILIZER	.30	TON
0190	05989	SPECIAL SEEDING CROWN VETCH	1,162.00	SQYD
0195	05992	AGRICULTURAL LIMESTONE	6.00	TON
0200	06401	FLEXIBLE DELINEATOR POST-M/W	244.00	EACH
0205	06511	PAVE STRIPING-TEMP PAINT-6 IN	66,054.00	LF
0210	06542	PAVE STRIPING-THERMO-6 IN W	27,523.00	LF
0215	06543	PAVE STRIPING-THERMO-6 IN Y	22,018.00	LF
0220	06549	PAVE STRIPING-TEMP REM TAPE-B	6,750.00	LF
0225	06550	PAVE STRIPING-TEMP REM TAPE-W	3,600.00	LF
0230	06551	PAVE STRIPING-TEMP REM TAPE-Y	1,800.00	LF
0235	06585	PAVEMENT MARKER TY IVA-MW TEMP	180.00	EACH
0240	06586	PAVEMENT MARKER TY IVA-MY TEMP	90.00	EACH
0245	06613	INLAID PAVEMENT MARKER-B W/R	275.00	EACH

MATERIAL SUMMARY

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0250	10020NS	FUEL ADJUSTMENT	15,089.00	DOLL
0255	10030NS	ASPHALT ADJUSTMENT	37,900.00	DOLL
0260	21802EN	G/R STEEL W BEAM-S FACE (7 FT POST)	1,287.50	LF
0265	24432EC	TEMP WORKSITE SPEED LIMIT SIGN ASSEMBLY	2.00	EACH
0270	24891EC	PAVE MOUNT INFRARED TEMP EQUIPMENT	528,432.00	SF
0275	26136EC	PORTABLE QUEUE WARNING ALERT SYSTEM	5.00	MONT
0280	26137EC	QUEUE WARNING PCMS	20.00	MONT
0285	26138EC	QUEUE WARNING PORTABLE RADAR SENSORS	20.00	MONT
0290	40030	TEMPORARY SILT FENCE	5,457.00	LF
0295	02165	REMOVE PAVED DITCH	514.00	SQYD
0300	02469	CLEAN SINKHOLE	1.00	EACH
0305	02484	CHANNEL LINING CLASS III	748.00	TON
0310	02603	FABRIC-GEOTEXTILE CLASS 2	30.00	SQYD
0315	22660EN	REPLACE GRATE	70.00	LB
0320	23484EC	PIPE LINER ACCEPTANCE TESTING - (NHPP 9001 015)	1.00	LS
0325	23956EC	PIPE REPAIR	1.00	EACH
0330	24585EC	SECURITY PLATE ASSEMBLY	2.00	EACH
0335	24862EC	PVC FOLD AND FORM PIPE LINER-18 IN	67.00	LF
0340	02568	MOBILIZATION	1.00	LS
0345	02569	DEMOBILIZATION	1.00	LS

Contract Id: _____ Contractor: _____

Section Engineer: _____ District & County: _____

DESCRIPTION	UNIT	QTY LEAVING PROJECT	QTY RECEIVED@BB YARD
GUARDRAIL (Includes End treatments & crash cushions)	LF	_____	_____
STEEL POSTS	EACH	_____	_____
STEEL BLOCKS	EACH	_____	_____
WOOD OFFSET BLOCKS	EACH	_____	_____
BACK UP PLATES	EACH	_____	_____
CRASH CUSHION	EACH	_____	_____
NUTS, BOLTS, WASHERS	BAG/BCKT	_____	_____
DAMAGED RAIL TO MAINT. FACILITY	LF	_____	_____
DAMAGED POSTS TO MAINT. FACILITY	EACH	_____	_____

***Required Signatures before Leaving Project Site**

Printed Section Engineer’s Representative_____ & Date_____

Signature Section Engineer’s Representative_____ & Date_____

Printed Contractor’s Representative_____ & Date_____

Signature Contractor’s Representative_____ & Date_____

***Required Signatures after Arrival at Bailey Bridge Yard (All material on truck must be counted & the quantity received column completed before signatures)**

Printed Bailey Bridge Yard Representative_____ & Date_____

Signature Bailey Bridge Yard Representative_____ & Date_____

Printed Contractor’s Representative_____ & Date_____

Signature Contractor’s Representative_____ & Date_____

**Payment for the bid item remove guardrail will be based upon the quantities shown in the Bailey Bridge Yard received column. Payment will not be made for guardrail removal until the guardrail verification sheets are electronically submitted to the Section Engineer by the Bailey Bridge Yard Representative.

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 2020*.

SUPPLEMENTAL SPECIFICATIONS

The contractor shall use the Supplemental Specifications that are effective at the time of letting.
The Supplemental Specifications can be found at the following link:

<http://transportation.ky.gov/Construction/Pages/Kentucky-Standard-Specifications.aspx>

SPECIAL NOTE FOR PORTABLE CHANGEABLE MESSAGE SIGNS

This Special Note will apply when indicated on the plans or in the proposal.

1.0 DESCRIPTION. Furnish, install, operate, and maintain variable message signs at the locations shown on the plans or designated by the Engineer. Remove and retain possession of variable message signs when they are no longer needed on the project.

2.0 MATERIALS.

2.1 General. Use LED Variable Message Signs Class I, II, or III, as appropriate, from the Department's List of Approved Materials.

Unclassified signs may be submitted for approval by the Engineer. The Engineer may require a daytime and nighttime demonstration. The Engineer will make a final decision within 30 days after all required information is received.

2.2 Sign and Controls. All signs must:

- 1) Provide 3-line messages with each line being 8 characters long and at least 18 inches tall. Each character comprises 35 pixels.
- 2) Provide at least 40 preprogrammed messages available for use at any time. Provide for quick and easy change of the displayed message; editing of the message; and additions of new messages.
- 3) Provide a controller consisting of:
 - a) Keyboard or keypad.
 - b) Readout that mimics the actual sign display. (When LCD or LCD type readout is used, include backlighting and heating or otherwise arrange for viewing in cold temperatures.)
 - c) Non-volatile memory or suitable memory with battery backup for storing pre-programmed messages.
 - d) Logic circuitry to control the sequence of messages and flash rate.
- 4) Provide a serial interface that is capable of supporting complete remote control ability through land line and cellular telephone operation. Include communication software capable of immediately updating the message, providing complete sign status, and allowing message library queries and updates.
- 5) Allow a single person easily to raise the sign to a satisfactory height above the pavement during use, and lower the sign during travel.
- 6) Be Highway Orange on all exterior surfaces of the trailer, supports, and controller cabinet.
- 7) Provide operation in ambient temperatures from -30 to + 120 degrees Fahrenheit during snow, rain and other inclement weather.
- 8) Provide the driver board as part of a module. All modules are interchangeable, and have plug and socket arrangements for disconnection and reconnection. Printed circuit boards associated with driver boards have a conformable coating to protect against moisture.
- 9) Provide a sign case sealed against rain, snow, dust, insects, etc. The lens is UV stabilized clear plastic (polycarbonate, acrylic, or other approved material) angled to prevent glare.
- 10) Provide a flat black UV protected coating on the sign hardware, character PCB, and appropriate lens areas.
- 11) Provide a photocell control to provide automatic dimming.

- 12) Allow an on-off flashing sequence at an adjustable rate.
- 13) Provide a sight to aim the message.
- 14) Provide a LED display color of approximately 590 nm amber.
- 15) Provide a controller that is password protected.
- 16) Provide a security device that prevents unauthorized individuals from accessing the controller.
- 17) Provide the following 3-line messages preprogrammed and available for use when the sign unit begins operation:

/KEEP/RIGHT/⇒⇒⇒/	/MIN/SPEED/**MPH/
/KEEP/LEFT/⇐⇐⇐/	/ICY/BRIDGE/AHEAD/ /ONE
/LOOSE/GRAVEL/AHEAD/	LANE/BRIDGE/AHEAD/
/RD WORK/NEXT/**MILES/	/ROUGH/ROAD/AHEAD/
/TWO WAY/TRAFFIC/AHEAD/	/MERGING/TRAFFIC/AHEAD/
/PAINT/CREW/AHEAD/	/NEXT/***/MILES/
/REDUCE/SPEED/**MPH/	/HEAVY/TRAFFIC/AHEAD/
/BRIDGE/WORK/***() FT/	/SPEED/LIMIT/**MPH/
/MAX/SPEED/**MPH/	/BUMP/AHEAD/
/SURVEY/PARTY/AHEAD/	/TWO/WAY/TRAFFIC/

*Insert numerals as directed by the Engineer.
Add other messages during the project when required by the Engineer.

2.3 Power.

- 1) Design solar panels to yield 10 percent or greater additional charge than sign consumption. Provide direct wiring for operation of the sign or arrow board from an external power source to provide energy backup for 21 days without sunlight and an on-board system charger with the ability to recharge completely discharged batteries in 24 hours.

3.0 CONSTRUCTION. Furnish and operate the variable message signs as designated on the plans or by the Engineer. Ensure the bottom of the message panel is a minimum of 7 feet above the roadway in urban areas and 5 feet above in rural areas when operating. Use Class I, II, or III signs on roads with a speed limit less than 55 mph. Use Class I or II signs on roads with speed limits 55 mph or greater.

Maintain the sign in proper working order, including repair of any damage done by others, until completion of the project. When the sign becomes inoperative, immediately repair or replace the sign. Repetitive problems with the same unit will be cause for rejection and replacement.

Use only project related messages and messages directed by the Engineer, unnecessary messages lessen the impact of the sign. Ensure the message is displayed in either one or 2 phases with each phase having no more than 3 lines of text. When no message is needed, but it is necessary to know if the sign is operable, flash only a pixel.

When the sign is not needed, move it outside the clear zone or where the Engineer directs. Variable Message Signs are the property of the Contractor and shall be removed from the project when no longer needed. The Department will not assume ownership of these signs.

4.0 MEASUREMENT. The final quantity of Variable Message Sign will be

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the actual number of individual signs acceptably furnished and operated during the project. The Department will not measure signs replaced due to damage or rejection.

5.0 PAYMENT. The Department will pay for the Variable Message Signs at the unit price each. The Department will not pay for signs replaced due to damage or rejection. Payment is full compensation for furnishing all materials, labor, equipment, and service necessary to, operate, move, repair, and maintain or replace the variable message signs. The Department will make payment for the completed and accepted quantities under the following:

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

Effective June 15, 2012

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.

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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.

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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)			3.0-3.4	2.5-2.9	2.0-2.4	≤1.9
ASTM D 3236	4.0-10.0	3.5-10.5	10.6-11.0	11.1-11.5	11.6-12.0	≥ 12.1
Cone Penetration, 77 ° F			54-56	51-53	48-50	≤ 47
ASTM D 5329	60-100	57-103	104-106	107-109	110-112	≥ 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

**SPECIAL PROVISION FOR EMBANKMENT AT
BRIDGE END BENT STRUCTURES**

This Special Provision will apply when indicated on the plans or in the proposal. Section references herein are to the Department’s Standard Specifications for Road and Bridge Construction, Current Edition.

1.0 DESCRIPTION. Construct a soil, granular, or rock embankment with soil, granular or cohesive pile core and place structure granular backfill, as the Plans require. Construct the embankment according to the requirements of this Special Provision, the Plans, Standard Drawing RGX 100 and 105, and the Standard Specifications, Current Edition.

2.0 MATERIALS.

2.1 Granular Embankment. Conform to Subsection 805.10. When Granular Embankment materials are erodible or unstable according to Subsection 805.03.04, use the Special Construction Methods found in 3.2 of the Special Provision.

2.2 Rock Embankment. Provide durable rock from roadway excavation that consists principally of Unweathered Limestone, Durable Shale (SDI equal to or greater than 95 according to KM 64-513), or Durable Sandstone.

2.3 Pile Core. Provide a pile core in the area of the embankments where deep foundations are to be installed unless otherwise specified. The Pile Core is the zone indicated on Standard Drawings RGX 100 and 105 designated as Pile Core. Material control of the pile core area during embankment construction is always required. Proper Pile Core construction is required for installation of foundation elements such as drilled or driven piles or drilled shafts. The type of material used to construct the pile core is as directed in the plans or below. Typically, the pile core area will be constructed from the same material used to construct the surrounding embankment. Pile Core can be classified as one of three types:

A) Pile Core - Conform to Section 206 of the Standard Specifications. Provide pile core material consisting of the same material as the adjacent embankment except the material in the pile core area shall be free of boulders or particle sizes larger than 4 inches in any dimension or any other obstructions that may hinder pile driving operations. If the pile core material hinders pile driving operations, take the appropriate means necessary to reach the required pile tip elevation, at no expense to the Department.

B) Granular Pile Core. Granular pile core is required only when specified in the plans. Select a gradation of durable rock to facilitate pile driving that conforms to Subsection 805.11. If granular pile core material hinders pile driving operations, take appropriate means necessary to reach the required pile tip elevation, at no expense to the Department.

C) Cohesive Pile Core. Cohesive Pile Core is required only when specified in the plans. Conform to Section 206 of the Standard Specifications and use soil with at least 50 percent passing a No. 4 sieve having a minimum Plasticity Index (PI) of 10. In addition, keep the cohesive pile core free of boulders, larger than 4 inches in any dimension, or any other obstructions, which would interfere with drilling operations. If cohesive pile core material interferes with drilling operations, take appropriate means necessary to maintain

excavation stability, at no expense to the Department.

2.4 Structure Granular Backfill. Conform to Subsection 805.11

2.5 Geotextile Fabric. Conform to Type I or Type IV in Section 214 and 843.

3.0 CONSTRUCTION.

3.1 General. Construct roadway embankments at end bents according to Section 206 and in accordance with the Special Provision, the Plans, and Standard Drawings for the full embankment section. In some instances, granular or rock embankment will be required for embankment construction for stability purposes, but this special provision does not prevent the use of soil when appropriate. Refer to the plans for specific details regarding material requirements for embankment construction.

Place and compact the pile core and structure granular backfill according to the applicable density requirements for the project. If the embankment and pile core are dissimilar materials (i.e., a granular pile core is used with a soil embankment or a cohesive pile core is used with a granular embankment), a Geotextile Fabric, Type IV, will be required between the pile core and embankment in accordance with Sections 214 and 843 of the Standard Specifications.

When granular or rock embankment is required for embankment construction, conform to the general requirements of Subsection 206.03.02 B. In addition, place the material in no greater than 2-foot loose lifts and compact with a vibrating smooth wheel roller capable of producing a minimum centrifugal force of 15 tons. Apply these requirements to the full width of the embankment for a distance of half the embankment height or 50 feet, whichever is greater, as shown on Standard Drawing RGX-105.

When using granular pile core, install 8-inch perforated underdrain pipe at or near the elevation of the original ground in the approximate locations depicted on the standard drawing, and as the Engineer directs, to ensure positive drainage of the embankment. Wrap the perforated pipe with a fabric of a type recommended by the pipe manufacturer.

After constructing the embankment, excavate for the end bent cap, drive piling, install shafts or other foundation elements, place the mortar bed, construct the end bent, and complete the embankment to finish grade according to the construction sequence shown on the Plans or Standard Drawings and as specified hereinafter.

Certain projects may require widening of existing embankments and the removal of substructures. Construct embankment according to the plans. Substructure removal shall be completed according to the plans and Section 203. Excavation may be required at the existing embankment in order to place the structure granular backfill as shown in the Standard Drawings.

After piles are driven or shafts installed (see design drawings), slope the bottom of the excavation towards the ends of the trench as noted on the plans for drainage. Using a separate pour, place concrete mortar, or any class concrete, to provide a base for forming and placing the cap. Place side forms for the end bent after the mortar has set sufficiently to support workmen and forms without being disturbed.

Install 4-inch perforated pipe in accordance with the plans and Standard Drawings. In the event slope protection extends above the elevation of the perforated pipe, extend the pipe through the slope protection.

After placing the end bent cap and achieving required concrete cylinder strengths, remove adjacent forms and fill the excavation with compacted structure granular backfill material (maximum 1' loose lifts) to the level of the berm prior to placing beams for the bridge. Place Type IV geotextile fabric between embankment material and structure granular backfill. After completing the end bent backwall, or after completing the span end

wall, place the compacted structure granular backfill (maximum 1' loose lifts) to subgrade elevation. If the original excavation is enlarged, fill the entire volume with compacted structure granular backfill (maximum 1' loose lifts) at no expense to the Department. Do not place backfill before removing adjacent form work. Place structure granular backfill material in trench ditches at the ends of the excavation. Place Geotextile Fabric, Type IV over the surface of the compacted structure granular backfill prior to placing aggregate base course.

Tamp the backfill with hand tampers, pneumatic tampers, or other means approved by the Engineer. Thoroughly compact the backfill under the overhanging portions of the structure to ensure that the backfill is in intimate contact with the sides of the structure.

Do not apply seeding, sodding, or other vegetation to the exposed granular embankment.

3.2 Special Construction Methods. Erodible or unstable materials may erode even when protected by riprap or channel lining; use the special construction method described below when using these materials.

Use fine aggregates or friable sandstone granular embankment at "dry land" structures only. Do not use them at stream crossings or locations subject to flood waters.

For erodible or unstable materials having 50 percent or more passing the No. 4 sieve, protect with geotextile fabric. Extend the fabric from the original ground to the top of slope over the entire area of the embankment slopes on each side of, and in front of, the end bent. Cover the fabric with at least 12 inches of non-erodible material.

For erodible or unstable materials having less than 50 percent passing a No. 4 sieve, cover with at least 12 inches of non-erodible material.

Where erodible or unstable granular embankment will be protected by riprap or channel lining, place Type IV geotextile fabric between the embankment and the specified slope protection.

4.0 MEASUREMENT.

4.1 Granular Embankment. The Department will measure the quantity in cubic yards using the plan quantity, increased or decreased by authorized adjustments as specified in Section 204. The Department will not measure for payment any Granular Embankment that is not called for in the plans.

The Department will not measure for payment any special construction caused by using erodible or unstable materials and will consider it incidental to the Granular Embankment regardless of whether the erodible or unstable material was specified or permitted.

4.2 Rock Embankment. The Department will not measure for payment any rock embankment and will consider it incidental to roadway excavation or embankment in place, as applicable. Rock embankments will be constructed using granular embankment on projects where there is no available rock present within the excavation limits of the project.

4.3 Pile Core. Pile core will be measured and paid under roadway excavation or embankment in place, as applicable. The Department will not measure the pile core for separate payment. The Department will not measure for payment the 8-inch perforated underdrain pipe and will consider it incidental to the Pile Core.

4.4 Structure Granular Backfill. The Department will measure the quantity in cubic yards using the plan quantity, increased or decreased by authorized adjustments as specified in Section 204. The Department will not measure any additional material required for backfill outside the limits shown on the Plans and Standard Drawings for payment and will

consider it incidental to the work.

The Department will not measure for payment the 4-inch perforated underdrain pipe and will consider it incidental to the Structure Granular Backfill.

4.5 Geotextile Fabric. The Department will not measure the quantity of fabric used for separating dissimilar materials when constructing the embankment and pile core and will consider it incidental to embankment construction.

The Department will not measure for payment the Geotextile Fabric used to separate the Structure Granular Backfill from the embankment and aggregate base course and will consider it incidental to Structure Granular Backfill.

The Department will not measure for payment the Geotextile Fabric required for construction with erodible or unstable materials and will consider it incidental to embankment construction.

4.6 End Bent. The Department will measure the quantities according to the Contract. The Department will not measure furnishing and placing the 2-inch mortar or concrete bed for payment and will consider it incidental to the end bent construction.

4.7 Structure Excavation. The Department will not measure structure excavation on new embankments for payment and will consider it incidental to the Structure Granular Backfill or Concrete as applicable.

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>
02223	Granular Embankment	Cubic Yards
02231	Structure Granular Backfill	Cubic Yards

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

September 16, 2016

PART III

EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Non-segregated 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. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- XI. Certification Regarding Use of Contract Funds for Lobbying
- XII. Use of United States-Flag Vessels:

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (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). 23 CFR 633.102(e).

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. 23 CFR 633.102(e).

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) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals 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). 23 CFR 633.102(b).

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. 23 CFR 633.102(d).

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. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A 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.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

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.

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 Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

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 (see 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 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 Part 35 and 29 CFR Part 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. 23 CFR 230.409 (g)(4) & (5).

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, sexual orientation, gender identity, 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 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 or other knowledgeable company official.

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, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure 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. 23 CFR 230.409. 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, sexual orientation, gender identity, 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, sexual orientation, gender identity, 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 thereunder. 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, sexual orientation, gender identity, 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, 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. Assurances Required:

- a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.
- b. The contractor, subrecipient 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 recipient deems appropriate, which may include, but is not limited to:
 - (1) Withholding monthly progress payments;
 - (2) Assessing sanctions;
 - (3) Liquidated damages; and/or
 - (4) Disqualifying the contractor from future bidding as non-responsible.
- c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

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 more than \$10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, 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, sexual orientation, gender identity, 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), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway

Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

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 (29 CFR 5.5)

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, 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 Administrator for determination. The 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 (29 CFR 5.5)

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 (29 CFR 5.5)

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. 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 29 CFR 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), 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 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 18 U.S.C. 1001 and 31 U.S.C. 231.

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 (29 CFR 5.5)

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. 23 CFR 230.111(e)(2). 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 as provided in 29 CFR 5.5.

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 as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, 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 (29 CFR 5.5)

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

Pursuant to 29 CFR 5.5(b), 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. 29 CFR 5.5.

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 currently provided in 29 CFR 5.5(b)(2)* 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. 29 CFR 5.5.

* \$27 as of January 23, 2019 (See 84 FR 213-01, 218) as may be adjusted annually by the Department of Labor; pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990).

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. 29 CFR 5.5.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs 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. 29 CFR 5.5.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

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" in paragraph 1 of Section VI 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: (based on longstanding interpretation)

- (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. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), 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. Pursuant to 23 CFR 635.116(c), 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. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

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 Part 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. 23 CFR 635.108.

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 Part 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). 29 CFR 1926.10.

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 Part 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 11, 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 (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of \$150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.326.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders

or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.326.

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. 2 CFR 180.220 and 1200.220.

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. 2 CFR 180.320.

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. 2 CFR 180.325.

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. 2 CFR 180.345 and 180.350.

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, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient 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 recipient or subrecipient 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. 2 CFR 180.330.

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. 2 CFR 180.220 and 180.300.

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. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. 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 System for Award Management website (<https://www.sam.gov/>). 2 CFR 180.300, 180.320, and 180.325.

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 CFR 180.325.

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 CFR 180.335;.

(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, 2 CFR 180.800;

(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, 2 CFR 180.700 and 180.800; 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. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

3. 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). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant 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. 2 CFR 180.365.

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, Subpart I, 180.900 – 180.1020, 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 recipient or subrecipient 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 recipient or subrecipient 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. 2 CFR 1200.220 and 1200.332.

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. 2 CFR 180.220 and 1200.220.

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 System for Award Management website (<https://www.sam.gov/>), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

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. 2 CFR 180.325.

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:

(a) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(b) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(c) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should 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 Part 20, App. A.

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.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. 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. 46 CFR 381.7.

2. 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 (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B)**

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, 1025 Capital Center Drive, Suite 104, Frankfort, Kentucky 40601; telephone (502) 564-7954.

Revised: May 23, 2022

"General Decision Number: KY20220038 11/04/2022

Superseded General Decision Number: KY20210038

State: Kentucky

Construction Type: Highway

Counties: Anderson, Bath, Bourbon, Boyd, Boyle, Bracken, Breckinridge, Bullitt, Carroll, Carter, Clark, Elliott, Fayette, Fleming, Franklin, Gallatin, Grant, Grayson, Greenup, Hardin, Harrison, Henry, Jefferson, Jessamine, Larue, Lewis, Madison, Marion, Mason, Meade, Mercer, Montgomery, Nelson, Nicholas, Oldham, Owen, Robertson, Rowan, Scott, Shelby, Spencer, Trimble, Washington and Woodford 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: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	<ul style="list-style-type: none">. Executive Order 14026 generally applies to the contract.. The contractor must pay all covered workers at least \$15.00 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 2022.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	<ul style="list-style-type: none">. Executive Order 13658 generally applies to the contract.. The contractor must pay all covered workers at least \$11.25 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2022.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a

conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Modification Number	Publication Date
0	01/07/2022
1	02/11/2022
2	02/18/2022
3	02/25/2022
4	05/06/2022
5	06/10/2022
6	06/24/2022
7	07/01/2022
8	08/05/2022
9	08/12/2022
10	11/04/2022

BRIN0004-003 06/01/2021

BRECKENRIDGE COUNTY

	Rates	Fringes
BRICKLAYER.....	\$ 29.57	14.75

BRKY0001-005 06/01/2021		

BULLITT, CARROLL, GRAYSON, HARDIN, HENRY, JEFFERSON, LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, & TRIMBLE COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 29.57	15.10

BRKY0002-006 06/01/2021		

BRACKEN, GALLATIN, GRANT, MASON & ROBERTSON COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 30.87	15.87

BRKY0007-004 06/01/2021		

BOYD, CARTER, ELLIOT, FLEMING, GREENUP, LEWIS & ROWAN COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 36.19	19.54

BRKY0017-004 06/01/2021		

ANDERSON, BATH, BOURBON, BOYLE, CLARK, FAYETTE, FRANKLIN, HARRISON, JESSAMINE, MADISON, MERCER, MONTGOMERY, NICHOLAS, OWEN, SCOTT, WASHINGTON & WOODFORD COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 30.87	15.87

CARP0064-001 04/01/2022

	Rates	Fringes
CARPENTER.....	\$ 30.84	22.19
Diver.....	\$ 46.64	22.19
PILEDRIVERMAN.....	\$ 31.09	22.19

ELEC0212-008 06/07/2022

BRACKEN, GALLATIN and GRANT COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 33.29	20.05

ELEC0212-014 11/25/2019

BRACKEN, GALLATIN & GRANT COUNTIES:

	Rates	Fringes
Sound & Communication Technician.....	\$ 24.35	12.09

ELEC0317-012 05/30/2022

BOYD, CARTER, ELLIOT & ROWAN COUNTIES:

	Rates	Fringes
ELECTRICIAN (Wiremen).....	\$ 35.85	28.25

ELEC0369-007 06/01/2022

ANDERSON, BATH, BOURBON, BOYLE, BRECKINRIDGE, BULLITT, CARROLL,
CLARK, FAYETTE, FRAONKLIN, GRAYSON, HARDIN, HARRISON, HENRY,
JEFFERSON, JESSAMINE, LARUE, MADISON, MARION, MEADE, MERCER,
MONTGOMERY, NELSON, NICHOLAS, OLDHAM, OWEN, ROBERTSON, SCOTT,
SHELBY, SPENCER, TRIMBLE, WASHINGTON, & WOODFORD COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 34.60	19.57

* ELEC0575-002 05/30/2022

FLEMING, GREENUP, LEWIS & MASON COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 35.50	20.63

ENGI0181-018 07/01/2021

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 34.80	17.85
GROUP 2.....	\$ 31.94	17.85
GROUP 3.....	\$ 32.39	17.85
GROUP 4.....	\$ 31.62	17.85

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - A-Frame Winch Truck; Auto Patrol; Backfiller; Batch Plant; Bituminous Paver; Bituminous Transfer Machine; Boom Cat; Bulldozer; Mechanic; Cableway; Carry-All Scoop; Carry Deck Crane; Central Compressor Plant; Cherry Picker; Clamshell; Concrete Mixer (21 cu. ft. or Over); Concrete Paver; Truck-Mounted Concrete Pump; Core Drill; Crane; Crusher Plant; Derrick; Derrick Boat; Ditching & Trenching Machine; Dragline; Dredge Operator; Dredge Engineer; Elevating Grader & Loaders; Grade-All; Gurries; Heavy Equipment Robotics Operator/Mechanic; High Lift; Hoe-Type Machine; Hoist (Two or More Drums); Hoisting Engine (Two or More Drums); Horizontal Directional Drill Operator; Hydrocrane; Hyster; KeCal Loader; LeTourneau; Locomotive; Mechanic; Mechanically Operated Laser Screed; Mechanic Welder; Mucking Machine; Motor Scraper; Orangepeel Bucket; Overhead Crane; Piledriver; Power Blade; Pumpcrete; Push Dozer; Rock Spreader, attached to equipment; Rotary Drill; Roller (Bituminous); Rough Terrain Crane; Scarifier; Scoopmobile; Shovel; Side Boom; Subgrader; Tailboom; Telescoping Type Forklift; Tow or Push Boat; Tower Crane (French, German & other types); Tractor Shovel; Truck Crane; Tunnel Mining Machines, including Moles, Shields or similar types of Tunnel Mining Equipment

GROUP 2 - Air Compressor (Over 900 cu. ft. per min.); Bituminous Mixer; Boom Type Tamping Machine; Bull Float; Concrete Mixer (Under 21 cu. ft.); Dredge Engineer; Electric Vibrator; Compactor/Self-Propelled Compactor; Elevator (One Drum or Buck Hoist); Elevator (When used to Hoist Building Material); Finish Machine; Firemen & Hoist (One Drum); Flexplane; Forklift (Regardless of Lift Height); Form Grader; Joint Sealing Machine; Outboard Motor Boat; Power Sweeper (Riding Type); Roller (Rock); Ross Carrier; Skid Mounted or Trailer Mounted Concrete Pump; Skid Steer Machine with all Attachments; Switchman or Brakeman; Throttle Valve Person; Tractair & Road Widening Trencher; Tractor (50 H.P. or Over); Truck Crane Oiler; Tugger; Welding Machine; Well Points; & Whirley Oiler

GROUP 3 - All Off Road Material Handling Equipment, including Articulating Dump Trucks; Greaser on Grease Facilities servicing Heavy Equipment

GROUP 4 - Bituminous Distributor; Burlap & Curing Machine; Cement Gun; Concrete Saw; Conveyor; Deckhand Oiler; Grout Pump; Hydraulic Post Driver; Hydro Seeder; Mud Jack; Oiler; Paving Joint Machine; Power Form Handling Equipment; Pump; Roller (Earth); Steerman; Tamping Machine; Tractor (Under 50 H.P.); & Vibrator

CRANES - with booms 150 ft. & Over (Including JIB), and where the length of the boom in combination with the length of the piling leads equals or exceeds 150 ft. - \$1.00 over Group 1 rate

EMPLOYEES ASSIGNED TO WORK BELOW GROUND LEVEL ARE TO BE PAID 10%

ABOVE BASIC WAGE RATE. THIS DOES NOT APPLY TO OPEN CUT WORK.

IRON0044-009 06/01/2022

BRACKEN, GALLATIN, GRANT, HARRISON, ROBERTSON,

BOURBON (Northern third, including Townships of Jackson, Millersburg, Ruddel Mills & Shawhan);
CARROLL (Eastern third, including the Township of Ghent);
FLEMING (Western part, excluding Townships of Beechburg, Colfax, Elizaville, Flemingsburg, Flemingsburg Junction, Foxport, Grange City, Hillsboro, Hilltop, Mount Carmel, Muses Mills, Nepton, Pecksridge, Plummers Landing, Plummers Mill, Poplar Plains, Ringos Mills, Tilton & Wallingford);
MASON (Western two-thirds, including Townships of Dover, Lewisburg, Mays Lick, Maysville, Minerva, Moranburg, Murphysville, Ripley, Sardis, Shannon, South Ripley & Washington);
NICHOLAS (Townships of Barefoot, Barterville, Carlisle, Ellisville, Headquarters, Henryville, Morningglory, Myers & Oakland Mills);
OWEN (Townships of Beechwood, Bromley, Fairbanks, Holbrook, Jonesville, Long Ridge, Lusby's Mill, New, New Columbus, New Liberty, Owenton, Poplar Grove, Rockdale, Sanders, Teresita & Wheatley);
SCOTT (Northern two-thirds, including Townships of Biddle, Davis, Delaplain, Elmville, Longlick, Muddy Ford, Oxford, Rogers Gap, Sadieville, Skinnersburg & Stonewall)

	Rates	Fringes
IRONWORKER		
Fence Erector.....	\$ 30.28	22.30
Structural.....	\$ 31.87	22.30

IRON0070-006 06/01/2022		

ANDERSON, BOYLE, BRECKINRIDGE, BULLITT, FAYETTE, FRANKLIN, GRAYSON, HARDIN, HENRY, JEFFERSON, JESSAMINE, LARUE, MADISON, MARION, MEADE, MERCER, NELSON, OLDHAM, SHELBY, SPENCER, TRIMBLE, WASHINGTON & WOODFORD
BOURBON (Southern two-thirds, including Townships of Austerlity, Centerville, Clintonville, Elizabeth, Hutchison, Littlerock, North Middletown & Paris);
CARROLL (Western two-thirds, including Townships of Carrollton, Easterday, English, Locust, Louis, Prestonville & Worthville);
CLARK (Western two-thirds, including Townships of Becknerville, Flanagan, Ford, Pine Grove, Winchester & Wyandotte);
OWEN (Eastern eighth, including Townships of Glenmary, Gratz, Monterey, Perry Park & Tacketts Mill);
SCOTT (Southern third, including Townships of Georgetown, Great Crossing, Newtown, Stampling Ground & Woodlake);

	Rates	Fringes
IRONWORKER.....	\$ 31.79	24.30

IRON0769-007 06/01/2022		

BATH, BOYD, CARTER, ELLIOTT, GREENUP, LEWIS, MONTGOMERY & ROWAN
CLARK (Eastern third, including townships of Bloomingdale, Hunt, Indian Fields, Kiddville, Loglick, Rightangele & Thomson);
FLEMING (Townships of Beechburg, Colfax, Elizaville, Flemingsburg, Flemingsburg Junction, Foxport, Grange City, Hillsboro, Hilltop, Mount Carmel, Muses Mills, Nepton, Pecksridge, Plummers Landing, Plummers Mill, Poplar Plains, Ringos Mills, Tilton & Wallingford);
MASON (Eastern third, including Townships of Helena, Marshall, Orangeburg, Plumville & Springdale);

NICHOLAS (Eastern eighth, including the Township of Moorefield Sprout)

	Rates	Fringes
IRONWORKER		
ZONE 1.....	\$ 33.71	27.69
ZONE 2.....	\$ 34.11	27.69
ZONE 3.....	\$ 35.71	27.69

ZONE 1 - (no base rate increase) Up to 10 mile radius of Union Hall, 1643 Greenup Ave, Ashland, KY.

ZONE 2 - (add \$0.40 per hour to base rate) 10 to 50 mile radius of Union Hall, 1643 Greenup Ave, Ashland, KY.

ZONE 3 - (add \$2.00 per hour to base rate) 50 mile radius & over of Union Hall, 1643 Greenup Ave, Ashland, KY.

LAB00189-003 07/01/2022

BATH, BOURBON, BOYD, BOYLE, BRACKEN, CARTER, CLARK, ELLIOTT, FAYETTE, FLEMING, FRANKLIN, GALLATIN, GRANT, GREENUP, HARRISON, JESSAMINE, LEWIS, MADISON, MASON, MERCER, MONTGOMERY, NICHOLAS, OWEN, ROBERTSON, ROWAN, SCOTT, & WOOLFORD COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 23.76	17.12
GROUP 2.....	\$ 24.01	17.12
GROUP 3.....	\$ 24.06	17.12
GROUP 4.....	\$ 24.66	17.12

LABORERS 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; 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

LAB00189-008 07/01/2022

ANDERSON, BULLITT, CARROLL, HARDIN, HENRY, JEFFERSON, LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, TRIMBLE & WASHINGTON COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 23.76	17.12
GROUP 2.....	\$ 24.01	17.12
GROUP 3.....	\$ 24.06	17.12
GROUP 4.....	\$ 24.66	17.12

LABORERS 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; 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

LAB00189-009 07/01/2022

BRECKINRIDGE & GRAYSON COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 23.76	17.12
GROUP 2.....	\$ 24.01	17.12
GROUP 3.....	\$ 24.06	17.12
GROUP 4.....	\$ 24.66	17.12

LABORERS 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; 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

PAIN0012-005 06/11/2005

BATH, BOURBON, BOYLE, CLARK, FAYETTE, FLEMING, FRANKLIN,
HARRISON, JESSAMINE, MADISON, MERCER, MONTGOMERY, NICHOLAS,
ROBERTSON, SCOTT & WOODFORD COUNTIES:

Rates	Fringes
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PAINTER		
Bridge/Equipment Tender and/or Containment Builder..	\$ 18.90	5.90
Brush & Roller.....	\$ 21.30	5.90
Elevated Tanks; Steeplejack Work; Bridge & Lead Abatement.....		
	\$ 22.30	5.90
Sandblasting & Waterblasting.....		
	\$ 22.05	5.90
Spray.....	\$ 21.80	5.90

PAIN0012-017 05/01/2015		

BRACKEN, GALLATIN, GRANT, MASON & OWEN COUNTIES:

	Rates	Fringes
PAINTER (Heavy & Highway Bridges - Guardrails - Lightpoles - Striping)		
Bridge Equipment Tender and Containment Builder.....	\$ 20.73	9.06
Brush & Roller.....	\$ 23.39	9.06
Elevated Tanks; Steeplejack Work; Bridge & Lead Abatement.....		
	\$ 24.39	9.06
Sandblasting & Water Blasting.....		
	\$ 24.14	9.06
Spray.....	\$ 23.89	9.06

PAIN0118-004 06/01/2018		

ANDERSON, BRECKINRIDGE, BULLITT, CARROLL, GRAYSON, HARDIN,
HENRY, JEFFERSON, LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY,
SPENCER, TRIMBLE & WASHINGTON COUNTIES:

	Rates	Fringes
PAINTER		
Brush & Roller.....	\$ 22.00	12.52
Spray, Sandblast, Power Tools, Waterblast & Steam Cleaning.....		
	\$ 23.00	12.52

PAIN1072-003 12/01/2021		

BOYD, CARTER, ELLIOTT, GREENUP, LEWIS and ROWAN COUNTIES

	Rates	Fringes
Painters:		
Bridges; Locks; Dams; Tension Towers & Energized Substations.....		
	\$ 35.06	21.15
Power Generating Facilities..		
	\$ 31.82	21.15

PLUM0248-003 06/01/2022		

BOYD, CARTER, ELLIOTT, GREENUP, LEWIS & ROWAN COUNTIES:

	Rates	Fringes
Plumber and Steamfitter.....	\$ 38.50	22.40

* PLUM0392-007 06/01/2022

BRACKEN, CARROLL (Eastern Half), GALLATIN, GRANT, MASON, OWEN &
ROBERTSON COUNTIES:

	Rates	Fringes
Plumbers and Pipefitters.....	\$ 36.81	27.35

PLUM0502-003 08/01/2021

BRECKINRIDGE, BULLITT, CARROLL (Western Half), FRANKLIN
(Western three-fourths), GRAYSON, HARDIN, HENRY, JEFFERSON,
LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, TRIMBLE &
WASHINGTON COUNTIES

	Rates	Fringes
PLUMBER.....	\$ 38.07	20.78

SUKY2010-160 10/08/2001

	Rates	Fringes
Truck drivers:		
GROUP 1.....	\$ 16.57	7.34
GROUP 2.....	\$ 16.68	7.34
GROUP 3.....	\$ 16.86	7.34
GROUP 4.....	\$ 16.96	7.34

TRUCK DRIVER CLASSIFICATIONS

- GROUP 1 - Mobile Batch Truck Tender
- GROUP 2 - Greaser; Tire Changer; & Mechanic Tender
- GROUP 3 - Single Axle Dump; Flatbed; Semi-trailer or Pole
Trailer when used to pull building materials and equipment;
Tandem Axle Dump; Distributor; Mixer; & Truck Mechanic
- GROUP 4 - Euclid & Other Heavy Earthmoving Equipment &
Lowboy; Articulator Cat; 5-Axle Vehicle; Winch & A-Frame
when used in transporting materials; Ross Carrier; Forklift
when used to transport building materials; & Pavement
Breaker

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 <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has 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 DECISIO"

Fringe benefit amounts are applicable for all hours worked except when otherwise noted.

No laborer, workman or mechanic shall be paid at a rate less than that of a Journeyman except those classified as bona fide apprentices.

Apprentices or trainees shall be permitted to work as such subject to Administrative Regulations adopted by the Commissioner of Workplace Standards. Copies of these regulations will be furnished upon request from any interested person.

Before using apprentices on the job the contractor shall present to the Contracting Officer written evidence of registration of such employees in a program of a State apprenticeship and training agency approved and recognized by the U. S. Bureau of Apprenticeship and Training. In the absence of such a State agency, the contractor shall submit evidence of approval and registration by the U. S. Bureau of Apprenticeship and Training.

The contractor shall submit to the Contracting Officer, written evidence of the established apprenticeship-journeyman ratios and wage rates in the project area, which will be the basis for establishing such ratios and rates for the project under the applicable contract provisions.

TO: EMPLOYERS/EMPLOYEES

PREVAILING WAGE SCHEDULE:

The wages indicated on this wage schedule are the least permitted to be paid for the occupations indicated. When an employee works in more than one classification, the employer must record the number of hours worked in each classification at the prescribed hourly base rate.

OVERTIME:

Overtime is to be paid to an employee at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty (40) hours in such workweek. Wage violations or questions should be directed to the designated Engineer or the undersigned.

Director
Division of Construction Procurement
Frankfort, Kentucky 40622
502-564-3500

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION
TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY
(Executive Order 11246)**

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

GOALS FOR MINORITY PARTICIPATION IN EACH TRADE	GOALS FOR FEMALE PARTICIPATION IN EACH TRADE
9.6%	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 Grayson County.

PART IV

INSURANCE

Refer to
Kentucky Standard Specifications for Road and Bridge Construction,
current edition

PART V

BID ITEMS

Report Date 11/15/22

Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00001		DGA BASE	9,466.00	TON		\$	
0020	00100		ASPHALT SEAL AGGREGATE	608.00	TON		\$	
0030	00103		ASPHALT SEAL COAT	72.00	TON		\$	
0040	00193		ASPHALT SCRATCH COURSE PG76-22	5,229.00	TON		\$	
0050	00194		LEVELING & WEDGING PG76-22	3,706.00	TON		\$	
0060	00214		CL3 ASPH BASE 1.00D PG64-22	8,830.00	TON		\$	
0070	00219		CL4 ASPH BASE 1.00D PG76-22	5,989.00	TON		\$	
0080	00339		CL3 ASPH SURF 0.38D PG64-22	3,714.00	TON		\$	
0090	00342		CL4 ASPH SURF 0.38A PG76-22	18,154.00	TON		\$	
0100	02101		CEM CONC ENT PAVEMENT-8 IN	93.00	SQYD		\$	
0110	02676		MOBILIZATION FOR MILL & TEXT (NHPP 9001 014)	1.00	LS		\$	
0120	02676		MOBILIZATION FOR MILL & TEXT (NHPP 9001 015)	1.00	LS		\$	
0130	02677		ASPHALT PAVE MILLING & TEXTURING	33,109.00	TON		\$	
0140	20071EC		JOINT ADHESIVE	110,700.00	LF		\$	
0150	20509ED		BLOW UP/RELIEF JOINT	6,608.00	SQYD		\$	
0160	24970EC		ASPHALT MATERIAL FOR TACK NON- TRACKING	184.00	TON		\$	

Section: 0002 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0170	00020		TRAFFIC BOUND BASE	50.00	TON		\$	
0180	00071		CRUSHED AGGREGATE SIZE NO 57	46.00	TON		\$	
0190	00078		CRUSHED AGGREGATE SIZE NO 2	1,370.00	TON		\$	
0200	01015		INSPECT & CERTIFY EDGE DRAIN SYSTEM (NHPP 9001 014)	1.00	LS		\$	
0210	01015		INSPECT & CERTIFY EDGE DRAIN SYSTEM (NHPP 9001 015)	1.00	LS		\$	
0220	01982		DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	62.00	EACH		\$	
0230	01990		DELINEATOR FOR BARRIER WALL-B/W	96.00	EACH		\$	
0240	02003		RELOCATE TEMP CONC BARRIER	2,960.00	LF		\$	
0250	02159		TEMP DITCH	16,708.00	LF		\$	
0260	02160		CLEAN TEMP DITCH	8,355.00	LF		\$	
0270	02230		EMBANKMENT IN PLACE	6,828.00	CUYD		\$	
0280	02360		GUARDRAIL TERMINAL SECTION NO 1	1.00	EACH		\$	
0290	02369		GUARDRAIL END TREATMENT TYPE 2A	3.00	EACH		\$	
0300	02381		REMOVE GUARDRAIL	3,637.50	LF		\$	
0310	02391		GUARDRAIL END TREATMENT TYPE 4A	2.00	EACH		\$	
0320	02545		CLEARING AND GRUBBING (NHPP 9001 014-2 ACRES)	1.00	LS		\$	
0330	02562		TEMPORARY SIGNS	2,200.00	SQFT		\$	
0340	02575		DITCHING AND SHOULDERING	30,091.00	LF		\$	
0350	02603		FABRIC-GEOTEXTILE CLASS 2	3,700.00	SQYD		\$	
0360	02650		MAINTAIN & CONTROL TRAFFIC (NHPP 9001 014)	1.00	LS		\$	

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0370	02650		MAINTAIN & CONTROL TRAFFIC (NHPP 9001 015)	1.00	LS		\$	
0380	02671		PORTABLE CHANGEABLE MESSAGE SIGN	8.00	EACH		\$	
0390	02696		SHOULDER RUMBLE STRIPS	128,834.00	LF		\$	
0400	02703		SILT TRAP TYPE A	6.00	EACH		\$	
0410	02704		SILT TRAP TYPE B	6.00	EACH		\$	
0420	02705		SILT TRAP TYPE C	6.00	EACH		\$	
0430	02706		CLEAN SILT TRAP TYPE A	6.00	EACH		\$	
0440	02707		CLEAN SILT TRAP TYPE B	6.00	EACH		\$	
0450	02708		CLEAN SILT TRAP TYPE C	6.00	EACH		\$	
0460	02726		STAKING (NHPP 9001 014)	1.00	LS		\$	
0470	02726		STAKING (NHPP 9001 015)	1.00	LS		\$	
0480	02775		ARROW PANEL	4.00	EACH		\$	
0490	02898		RELOCATE CRASH CUSHION	7.00	EACH		\$	
0500	03171		CONCRETE BARRIER WALL TYPE 9T	1,360.00	LF		\$	
0510	04934		TEMP SIGNAL MULTI PHASE	1.00	EACH		\$	
0520	05950		EROSION CONTROL BLANKET	28,185.00	SQYD		\$	
0530	05952		TEMP MULCH	18,790.00	SQYD		\$	
0540	05953		TEMP SEEDING AND PROTECTION	14,093.00	SQYD		\$	
0550	05963		INITIAL FERTILIZER	1.50	TON		\$	
0560	05964		MAINTENANCE FERTILIZER	.90	TON		\$	
0570	05989		SPECIAL SEEDING CROWN VETCH	3,383.00	SQYD		\$	
0580	05992		AGRICULTURAL LIMESTONE	17.50	TON		\$	
0590	06401		FLEXIBLE DELINEATOR POST-M/W	797.00	EACH		\$	
0600	06404		FLEXIBLE DELINEATOR POST-M/Y	81.00	EACH		\$	
0610	06427		TRENCHING	1,234.00	LF		\$	
0620	06510		PAVE STRIPING-TEMP PAINT-4 IN	18,000.00	LF		\$	
0630	06511		PAVE STRIPING-TEMP PAINT-6 IN	240,370.00	LF		\$	
0640	06542		PAVE STRIPING-THERMO-6 IN W	79,711.00	LF		\$	
0650	06543		PAVE STRIPING-THERMO-6 IN Y	64,417.00	LF		\$	
0660	06546		PAVE STRIPING-THERMO-12 IN W	2,464.00	LF		\$	
0670	06547		PAVE STRIPING-THERMO-12 IN Y	120.00	LF		\$	
0680	06549		PAVE STRIPING-TEMP REM TAPE-B	15,750.00	LF		\$	
0690	06550		PAVE STRIPING-TEMP REM TAPE-W	7,200.00	LF		\$	
0700	06551		PAVE STRIPING-TEMP REM TAPE-Y	5,400.00	LF		\$	
0710	06568		PAVE MARKING-THERMO STOP BAR-24IN	163.00	LF		\$	
0720	06569		PAVE MARKING-THERMO CROSS-HATCH	152.00	SQFT		\$	
0730	06585		PAVEMENT MARKER TY IVA-MW TEMP	360.00	EACH		\$	
0740	06586		PAVEMENT MARKER TY IVA-MY TEMP	270.00	EACH		\$	
0750	06613		INLAID PAVEMENT MARKER-B W/R	811.00	EACH		\$	
0760	06614		INLAID PAVEMENT MARKER-B Y/R	51.00	EACH		\$	
0770	08100		CONCRETE-CLASS A	12.16	CUYD		\$	
0780	08150		STEEL REINFORCEMENT	368.00	LB		\$	
0790	08903		CRASH CUSHION TY VI CLASS BT TL3	3.00	EACH		\$	
0800	10020NS		FUEL ADJUSTMENT	74,108.00	DOLL	\$1.00	\$	\$74,108.00
0810	10030NS		ASPHALT ADJUSTMENT	178,364.00	DOLL	\$1.00	\$	\$178,364.00
0820	20191ED		OBJECT MARKER TY 3	4.00	EACH		\$	
0830	20756ED		RESHAPE MEDIAN	225.00	LF		\$	

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0840	21802EN		G/R STEEL W BEAM-S FACE (7 FT POST)	3,237.50	LF		\$	
0850	23979EC		CRASH CUSHION TY VI CLASS C TL3	2.00	EACH		\$	
0860	24189ER		DURABLE WATERBORNE MARKING-6 IN W	3,200.00	LF		\$	
0870	24190ER		DURABLE WATERBORNE MARKING-6 IN Y	3,200.00	LF		\$	
0880	24432EC		TEMP WORKSITE SPEED LIMIT SIGN ASSEMBLY	4.00	EACH		\$	
0890	24679ED		PAVE MARK THERMO CHEVRON	922.00	SQFT		\$	
0900	24891EC		PAVE MOUNT INFRARED TEMP EQUIPMENT	1,895,465.00	SF		\$	
0910	25078ED		THRIE BEAM GUARDRAIL TRANSITION TL-3	3.00	EACH		\$	
0920	26136EC		PORTABLE QUEUE WARNING ALERT SYSTEM	17.00	MONT		\$	
0930	26137EC		QUEUE WARNING PCMS	68.00	MONT		\$	
0940	26138EC		QUEUE WARNING PORTABLE RADAR SENSORS	68.00	MONT		\$	
0950	40030		TEMPORARY SILT FENCE	16,708.00	LF		\$	

Section: 0003 - DRAINAGE

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0960	00440		ENTRANCE PIPE-15 IN	75.00	LF		\$	
0970	02165		REMOVE PAVED DITCH	840.00	SQYD		\$	
0980	02469		CLEAN SINKHOLE	1.00	EACH		\$	
0990	02484		CHANNEL LINING CLASS III	1,688.00	TON		\$	
1000	02603		FABRIC-GEOTEXTILE CLASS 2	30.00	SQYD		\$	
1010	22045NN		FLUME INLET TY 2-MOD	2.00	EACH		\$	
1020	22660EN		REPLACE GRATE	524.00	LB		\$	
1030	22766ED		TRENCH DRAIN	207.00	LF		\$	
1040	23484EC		PIPE LINER ACCEPTANCE TESTING (NHPP 9001 015)	1.00	LS		\$	
1050	23956EC		PIPE REPAIR	1.00	EACH		\$	
1060	24585EC		SECURITY PLATE ASSEMBLY	4.00	EACH		\$	
1070	24862EC		PVC FOLD AND FORM PIPE LINER-18 IN	67.00	LF		\$	

Section: 0004 - BRIDGE - #28464

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1080	02231		STRUCTURE GRANULAR BACKFILL	331.00	CUYD		\$	
1090	02403		REMOVE CONCRETE MASONRY	561.80	CUYD		\$	
1100	02998		MASONRY COATING	1,108.00	SQYD		\$	
1110	03299		ARMORED EDGE FOR CONCRETE	113.60	LF		\$	
1120	08002		STRUCTURE EXCAV-SOLID ROCK	45.00	CUYD		\$	
1130	08003		FOUNDATION PREPARATION (#28464)	1.00	LS		\$	
1140	08020		CRUSHED AGGREGATE SLOPE PROT	266.00	TON		\$	
1150	08033		TEST PILES	44.00	LF		\$	
1160	08046		PILES-STEEL HP12X53	235.00	LF		\$	
1170	08094		PILE POINTS-12 IN	16.00	EACH		\$	
1180	08100		CONCRETE-CLASS A	499.50	CUYD		\$	

Report Date 11/15/22

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1190	08104		CONCRETE-CLASS AA	387.90	CUYD		\$	
1200	08130		MECHANICAL REINF COUPLER #5	45.00	EACH		\$	
1210	08133		MECHANICAL REINF COUPLER #8	42.00	EACH		\$	
1220	08150		STEEL REINFORCEMENT	65,065.00	LB		\$	
1230	08151		STEEL REINFORCEMENT-EPOXY COATED	101,004.00	LB		\$	
1240	08269		ELECTRICAL CONDUIT (#28464)	1.00	LS		\$	
1250	08305		REMOVE REINF CONCRETE (#28464)	1.00	LS		\$	
1260	08670		PRECAST PC BOX BEAM SB27	1,401.00	LF		\$	
1270	23378EC		CONCRETE SEALING	19,012.00	SQFT		\$	
1280	25028ED		RAIL SYSTEM SINGLE SLOPE - 40 IN	479.00	LF		\$	
1290	25078ED		THRIE BEAM GUARDRAIL TRANSITION TL-3	4.00	EACH		\$	

Section: 0005 - BRIDGE - #28465

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1300	02403		REMOVE CONCRETE MASONRY	17.50	CUYD		\$	
1310	08003		FOUNDATION PREPARATION (#28465)	1.00	LS		\$	
1320	08100		CONCRETE-CLASS A	45.60	CUYD		\$	
1330	08150		STEEL REINFORCEMENT	4,005.00	LB		\$	

Section: 0006 - LIGHTING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1340	04798		CONDUIT-3 1/2 IN	90.00	LF		\$	
1350	04800		MARKER	1.00	EACH		\$	
1360	04820		TRENCHING AND BACKFILLING	515.00	LF		\$	
1370	04860		CABLE-NO. 8/3C DUCTED	825.00	LF		\$	
1380	04940		REMOVE LIGHTING (NHPP 9001 014)	1.00	LS		\$	
1390	20391NS835		ELECTRICAL JUNCTION BOX TYPE A	3.00	EACH		\$	
1400	21543EN		BORE AND JACK CONDUIT	90.00	LF		\$	
1410	21579EN		FLEX CONDUIT-1 1/4 IN	50.00	LF		\$	

Section: 0007 - DEMOBILIZATION &/OR MOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1420	02568		MOBILIZATION	1.00	LS		\$	
1430	02569		DEMOBILIZATION	1.00	LS		\$	