



CALL NO. 120

CONTRACT ID. 194401

CLAY COUNTY

FED/STATE PROJECT NUMBER HSIP 5286 (015)

DESCRIPTION STATE HIGHWAY 11 (KY 11)

WORK TYPE ASPHALT SURFACE WITH GRADE & DRAIN

PRIMARY COMPLETION DATE 6/1/2020

LETTING DATE: June 21,2019

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

NO PLANS ASSOCIATED WITH THIS PROJECT.

DBE CERTIFICATION REQUIRED - 6%

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

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CLAY

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PART I
SCOPE OF WORK

ADMINISTRATIVE DISTRICT - 11

CONTRACT ID - 194401

HSIP 5286 (015)

COUNTY - CLAY

PCN - 1102600111901

HSIP 5286015

STATE HIGHWAY 11 (KY 11) (MP 9.4) FROM 0.07 MILE EAST OF REED BR RD EXTENDING EAST TO KY 66 (MP 19.6), A DISTANCE OF 010.20 MILES.ASPHALT SURFACE WITH GRADE & DRAIN SYP NO. 11-09004.00.
GEOGRAPHIC COORDINATES LATITUDE 37:13:27.00 LONGITUDE -83:41:50.00

COMPLETION DATE(S):

COMPLETED BY 11/30/2019

COMPLETED BY 06/01/2020

SEE SPECIAL NOTE FOR
COMPLETION DATES AND
LIQUIDATED DAMAGES
APPLIES TO ENTIRE CONTRACT

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 kyc.projectquestions@ky.gov. The Department will attempt to answer all submitted questions. The Department reserves the right not to answer if the question is not pertinent or does not aid in clarifying the project intent.

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

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

HARDWOOD REMOVAL RESTRICTIONS

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

INSTRUCTIONS FOR EXCESS MATERIAL SITES AND BORROW SITES

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

ACCESS TO RECORDS

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

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

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

April 30, 2018

FEDERAL CONTRACT NOTES

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

102.02 Current Capacity Rating 102.10 Delivery of Proposals
102.8 Irregular Proposals 102.14 Disqualification of Bidders
102.9 Proposal Guaranty

CIVIL RIGHTS ACT OF 1964

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

NOTICE TO ALL BIDDERS

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

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

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

SECOND TIER SUBCONTRACTS

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

DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

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

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

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

DBE GOAL

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

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

OBLIGATION OF CONTRACTORS

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

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

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

CERTIFICATION OF CONTRACT GOAL

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

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

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

DBE PARTICIPATION PLAN

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

The DBE Participation Plan shall include the following:

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

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

UPON AWARD AND BEFORE A WORK ORDER WILL BE ISSUED

Contractors must submit the signed subcontract between the contractor and the DBE contractor, the DBE's certificate of insurance, and an affidavit for bidders, offerors, and contractors from the DBE to the Division of Construction Procurement. The affidavit can be found on the Construction Procurement website. If the DBE is a supplier of materials for the project, a signed purchase order and an affidavit for bidders, offerors, and contractors must be submitted to the Division of Construction Procurement.

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

CONSIDERATION OF GOOD FAITH EFFORTS REQUESTS

If the DBE participation submitted in the bid by the apparent lowest responsive bidder does not meet or exceed the DBE contract goal, the apparent lowest responsive bidder must submit a Good Faith Effort Package to satisfy the Cabinet that sufficient good faith efforts were made to meet the contract goals prior to submission of the bid. Efforts to increase the goal after bid submission will not be considered in justifying the good faith effort, unless the contractor can show that the proposed DBE was solicited prior to the letting date. DBEs utilized in achieving the DBE goal must be certified and prequalified for the work items at the time the bid is submitted. One complete set and nine (9) copies of this information must be received in the office of the Division of Contract Procurement no later than 12:00 noon of the tenth calendar day after receipt of notification that they are the apparent low bidder.

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

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

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

FAILURE TO MEET GOOD FAITH REQUIREMENT

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

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

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

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

SANCTIONS FOR FAILURE TO MEET DBE REQUIREMENTS OF THE PROJECT

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

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

PROMPT PAYMENT

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

CONTRACTOR REPORTING

All contractors must keep detailed records and provide reports to the Cabinet on their progress in meeting the DBE requirement on any highway contract. These records may include, but shall not be limited to payroll, lease agreements, cancelled payroll checks, executed subcontracting agreements, etc. Prime contractors will be required to complete and submit a signed and notarized affidavit (TC 18-7) and copies of checks for any monies paid to each DBE subcontractor or supplier utilized to meet a DBE goal. **These documents must be submitted within 10 days of being paid by the Cabinet.**

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

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

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

The prime contractor should notify the KYTC Office of Civil Rights and Small Business Development seven (7) days prior to DBE contractors commencing work on the project. The contact is Melvin Bynes and the telephone number is (502) 564-3601.

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

DEFAULT OR DECERTIFICATION OF THE DBE

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

1/27/2017

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

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

SECTION 7 is expanded by the following new Article:

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

Pursuant to Title 46CFR Part 381, the Contractor agrees

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

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

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

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.

FUEL AND ASPHALT PAY ADJUSTMENT

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

OPTION A

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

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

CAUTION

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

STATIONING

The contractor is advised that the planned locations of work were established from a beginning station number which is STA 469+92 at the intersection of KY 11 and KY 421. Milepoints were established from a beginning Milepoint which is MP 8.9 at the intersection of KY 11 and KY 421. The existing mile marker signs may not correspond to the proposed work locations.

LIDAR

All survey information was obtained from available KYTC Aerial LIDAR data and should be field verified as appropriate during construction and prior to incorporating the various project work items. Refer to the Special Note for Staking concerning staking operations required to control and construct the work.

ON-SITE INSPECTION

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

RIGHT OF WAY LIMITS

The Department has not established the exact limits of the Right-of-Way. All work as shown on the plans is to be done by consent and release available on file in D11 Project Development. Any staging of materials, equipment, etc., outside of existing KYTC ROW, is the responsibility of the contractor and is not covered by the consent and releases. Unless a consent and release form is obtained from the adjoining property owner, limit work activities to the obvious Right-of-Way and staging areas secured by the Contractor at no additional cost to the Department. In the event that private improvements (i.e. fences, buildings, etc.) encroach upon the Right-of-Way, the contractor shall notify the Engineer and limit work activities in order to NOT disturb the improvements. If they become necessary, the Department will secure consent and releases from property owners through the Engineer. Be responsible for all encroachments onto private lands.

COORDINATION WITH UTILITY COMPANIES

NOTICE: Utility locations shown in the plans are approximate and have not been specifically located by the Department. Locate all underground, above ground and overhead utilities prior to beginning construction. The Contractor shall have the responsibility for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that other utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. Several locations are noted that the Utility Company should be on site as work is performed. Delta Gas will be relocating a section of their gas line in conflict with roadwork at Spot #1. The contractor shall plan to work on other Spot locations

General Notes & Description of Work

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while this relocation is in progress. The Contractor shall be responsible for repairing all utility damage that occurs as a result of his operations. No delay claims will be considered on this project that involve conflicts with utilities. Refer to the utility Special Note.

CONTROL

Perform all work under the absolute control of the Department of Highways. Obtain the Engineer's approval of all designs required to be furnished by the Contractor prior to incorporation into the work. The Department reserves the right to have other work performed by other contractors and its own forces and to permit public utility companies and others to do work during the construction within the limits of, or adjacent to, the project. Conduct operations and cooperate with such other parties so that interference with such other work will be reduced to a minimum. The Department will not honor any claims for money or time extension created by the operations of such other parties. Should a difference of opinion arise as to the rights of the Contractor and others working within the limits of, or adjacent to, the project, the Engineer will decide as to the respective rights of the various parties involved in order to assure the completion of the Department's work in general harmony and in a satisfactory manner, and his/her decision shall be final and binding upon the Contractor.

PROPERTY DAMAGE

Be responsible for all damage to public and/or private property resulting from the work. Repair or replace damaged roadway features in like kind materials and design as directed by the Engineer at no additional cost to the Department. Repair or replace damaged private property in like kind materials and design to the satisfaction of the owner and the Engineer at no additional cost to the Department

DESCRIPTION OF WORK

Except as specified herein, perform all work in accordance with the Department's Standard Specifications, Supplemental Specifications, applicable Special Notes and Special Provisions, and applicable Standard and Sepia Drawings, current editions. The contractor will be responsible for presenting a work plan regarding asphalt lifts, amount of widening requiring longitudinal edge key, etc to the engineer for final approval prior to beginning work on a spot improvement location. Furnish all materials, labor, equipment, and incidentals for the following work:

Superelevation Improvements. There are multiple curves where Superelevation Improvements are being proposed. The intent of this work is to bring a consistent pavement cross slope through the identified curves. Refer to the Pavement Summary, typical sections, and cross-sections for locations, details, and approximate quantities. The Contractor will need to utilize Asphalt Base and Milling and Texturing in order to achieve the desired superelevation improvements at the identified curves. Payment for milling shall include all variable width and depth milling required to prepare for each lift of base for the superelevation improvement. The milling is intended to be constructed immediately prior to the corresponding lift of base. The Pavement Summary lists the estimated quantities of Asphalt Base and milling for each curve; however, the Engineer will make the final determination as to which bid items will be required at each superelevation improvement area, as well as the appropriate lift thicknesses, number of lifts and limits of milling based on the existing conditions encountered at the time of construction. After placement of the Asphalt Base, the identified curves shall be overlaid with a surface course. As a result of these superelevation improvements within the identified curves, the roadside shoulders and fill slopes will have to be modified to match the final pavement elevations and tie in with the existing ground lines. The quantities for these modifications have been included within the Ditching & Shouldering bid item.

General Notes & Description of Work

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NOTE: Some field adjustments of the shoulder, fill slope, and/or superelevation improvement may be required. The resulting shoulder and fill slope grading is intended to occur within disturbed limits as indicated on the plans and cross and NOT disturb any sensitive obstructions (i.e. fences, buildings, utility poles, etc.). Superelevation improvements with sensitive obstructions along the roadside shall still require the roadside shoulder and fill slope to be modified, but the slope may have to be constructed steeper than what is shown on the cross-sections. The desire of the Department is to keep the fill slopes at 3:1 or flatter unless specified otherwise on the cross sections. When slopes need to be constructed steeper than 3:1, and the existing fill slope is steeper than 3:1, the slope can be constructed steeper than 3:1, but the slope shall not be constructed steeper than the existing condition unless approved by the Engineer. Further, if a desired superelevation improvement will result in a fill slope having to be graded steeper than the existing fill slope in order to not impact a sensitive obstruction, then the superelevation rate should be modified (reduced) in order to reduce the final change in pavement edge elevation, thereby reducing the height of the new fill slope grading, and allowing for a flatter fill slope.

Pavement Resurfacing. The existing roadway is to be resurfaced from Station 496+00 to Station 497+00, Station 506+00 to Station 509+50, Station 540+00 to Station 551+00, Station 628+50 to Station 636+40, Station 846+50 to Station 855+00, Station 870+50 to Station 880+50, Station 1018+00 to Station 1032+50. This work will include removal of existing pavement at tie ins by milling and texturing (edge key), placement of an asphalt surface course, installation of rumble strips, and application of pavement markings. Refer to the rumble strip Sepia Drawings for recommended placement of rumble strips.

Pavement Reconstruction. The existing roadway is being removed and new pavement constructed from Station 497+00 to Station 506+00. This work will include removal of the existing pavement and construction of new pavement thru part-width construction using a lane closure and temporary traffic signals, installation of rumble strips, and application of pavement markings.

Edge Key. Construct Edge Keys at the beginning and the end of each spot improvement. The Department will make payment for this work at the Contract unit price per ton for Asphalt Pavement Milling and Texturing, which shall be full compensation for all labor, materials, equipment, and incidentals for removal and disposal of the existing asphalt surface required to construct the edge key.

Ditching and Shouldering. Several areas throughout the project are set up for Ditching & Shouldering. Perform Ditching & Shouldering at the locations identified elsewhere in the Proposal, or the locations as directed by the Engineer. The proposed shoulder, ditch, and/or roadside dimensions are detailed on the Typical Sections. Perform Ditching & Shouldering according to the Special Note for Ditching & Shouldering. For details of the conditions and situations commonly encountered when performing Ditching & Shouldering, refer to the detail sheets titled: DITCHING & SHOULDERING AND EMBANKMENT BENCHING DETAILS.

DGA Wedge & Chip Seal. All sections of "Ditching & Shouldering" are set up to receive a DGA Wedge & Chip Seal after the ditching and shouldering operations are complete. See the Ditching and Shouldering Summary for the approximate locations to receive the DGA Wedge & Chip Seal. The KY 11 Spot #1 is also set up to receive a DGA Wedge & Chip seal after the shoulders and ditches are graded. See the Pavement Summary for the approximate locations to receive the DGA Wedge & Chip Seal. Unless otherwise directed by the Engineer, DO NOT place any DGA Wedge & Chip Seal where it appears the adjoining property owner

General Notes & Description of Work

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is routinely mowing up to the edge of pavement. The Engineer will determine the exact limits of the DGA Wedge & Chip Seal at the time of construction.

Entrance Pipe Replacement & Driveway Surfacing. Due to areas of existing ditch line being re-shaped and relocated further from the edge of pavement, there are areas throughout the project where the existing entrance pipe will have to be removed and relocated to line up with the new ditch line. See the Drainage Structure Summary for the locations and bid items/quantities associated with the entrance pipe replacements. The existing driveway surface is noted on the plan sheet and is to be replaced with like-kind surfacing. The Engineer will make the final determination as to the locations and quantities required to complete the work based on the existing conditions encountered during construction. Refer to the Special Note for Pipe Replacements / Extensions for more information on this item of work.

Pipe Replacements & Extensions. There are locations throughout the project where culvert pipes are being replaced and/or extended. Locations are noted on the Drainage Structure Summary. Other items that may be associated with the pipe replacements and/or extensions include: **Sloped & Mitered Concrete Headwalls, Intermediate Anchor/Collar, Ditching & Shouldering, Channel Lining, Erosion Control Blanket,** etc. Refer to the Special Note for Pipe Replacements / Extensions for more information on this item of work.

Sloped & Mitered Concrete Headwalls. Sloped & Mitered Concrete Headwalls shall be constructed as shown on the detail sheets titled: SLOPED & MITERED CONCRETE HEADWALL DETAILS. This headwall is intended to combine the benefits of a pipe headwall with the advantages of safety and adaptability by allowing the headwall to be custom fit with the surrounding embankment. The Drainage Structure Summary identifies which pipe ends are to receive the Sloped & Mitered Concrete Headwalls. The identified pipe ends shall have the headwall installed at an angle that matches the final embankment slopes at each location. If the pipe is on a skew, install the headwall and miter the pipe so that the concrete slope paving of the new headwall is perpendicular to the roadway. In other words, the headwall should be installed and the pipe should be mitered to match the final embankment slope, so that the roadside fill slope is fairly consistent prior to the pipe, at the pipe, and beyond the pipe. When completed the edges of the Sloped & Mitered Concrete Headwall should be flush with the surrounding ground line. Payment at the Contract unit price Each shall be full compensation for furnishing all labor, materials, equipment, and incidentals necessary to install the headwall and miter the pipe.

NOTE: For pipes that receive the Sloped & Mitered Concrete Headwall, the pipe length will be measured to the furthest point along the mitered end of the pipe.

Intermediate Anchor/Collar. There are quantities of Class A Concrete included in the contract to construct an intermediate anchor, or collar, around the pipes at a pipe extension location. This is so the new pipe can be securely connected to the existing pipe. The intermediate anchors shall be constructed as shown on Standard Drawing RDX-060, current edition.

Channel Lining. A quantity of 21 Tons of Channel Lining Class II has been included in the Drainage Structure Summary for use at the locations indicated on the Channel Lining Summary. An additional 10 Tons of Channel Lining Class II has been included in the contract for potential use around drop box inlets, safety box inlets, inlets and outlets of pipes, along areas of regraded ditch line and/or fill slope, and other areas as directed by the Engineer. The Contractor and Engineer should work together to determine the

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location and best use of Channel Lining throughout this project. The Engineer will make the final determination as to the needed quantities and placement of Channel Lining.

Erosion Control Blanket. A quantity of 5000 **square** yards of Erosion Control Blanket has been included in the contract for potential use along areas of regraded shoulders, ditch lines, fills slopes and/or back slopes, inlets and outlets of pipes, and any other areas as directed by the Engineer. The Contractor and Engineer should work together to determine the location and best use of Erosion Control Blanket throughout this project. The Engineer will make the final determination as to the quantities and placement of Erosion Control Blanket.

Guardrail Replacement. Existing guardrail within the project will be replaced. Refer to the Guardrail Summary for the approximate locations for guardrail replacement. The work will include removal of the existing guardrail, placement of a dense graded aggregate shoulder at a two-foot width (with one foot of depth) and 2:1 side slopes to accommodate installation of the new guardrail and material for constructing end treatments according to standard drawings, double asphalt seal coat, placement of geotextile fabric, roadway excavation, embankment-in-place, and tree removal. See the Special Note for Guardrail for more information on this work.

Installation of Proposed Curve Warning Signs. A quantity of 0.080 SBM Aluminum Sheet Signs and Steel Post Type 1 has been included in the contract for use at the discretion of the District Traffic Engineer for installation of any new horizontal alignment signs that become necessary. Refer to the Special Note for Signing, Special Note for Staking, Special Note for Signage, and the Signing Detail Sheets, found elsewhere in this proposal, for more details on the installation of any new signs.

NOTE: It is possible that not all of the quantities for Steel Post Type 1 and 0.080 SBM Aluminum Sheet Signs will be utilized. Refer to the notes associated with the task **Removal and Relocation of Existing Sign Assemblies** for additional information on how the majority of the curve warning signs will be handled on this project.

Removal and Relocation of Existing Sign Assemblies. A total quantity of 70 "Remove and Relocate Sign Assembly" has been included in the contract for existing sheet signs that may need to be removed and reinstalled in the same general location, or possibly reinstalled in a different location. Therefore, during Staking operations the Contractor shall work with the District Traffic Engineer to determine the best location to relocate any existing signs so the final signing conforms to the preference of the District Traffic Engineer. Once it is determined that an existing sign is to be removed and reinstalled in another location, the sign should be removed and reinstalled as soon as possible. The intent is for the sign to be "down" the minimum length of time necessary.

NOTE: The Department will consider all signs attached to one or more connected posts as a single sign assembly. The Department will measure and pay for "Remove and Relocate Sign Assembly" as each sign assembly removed and relocated; NOT each individual sign removed and relocated.

Prior to actually removing and relocating a sign, the Contractor should review the sheet sign and sign post for damage. It is the Contractor's responsibility to notify the Engineer of any sheet sign or sign post damage prior to removal and relocation of the sign, so that it can be documented that the existing sheet sign and/or sign post had pre-existing damage. If the Contractor does not make the Department aware of pre-existing damage prior to removing the sign from its existing location, the Department will have to

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assume the damage was the result of the Contractor's removal and relocation efforts. The Contractor shall replace any components of a sign that are damaged during removal and relocation. Replacement of the damaged components shall be incidental to the bid item "Remove and Relocate Sign Assembly".

If an existing sign that is being relocated is found to not have an existing soil stabilizer plate, or if the soil stabilizer plate and/or anchor is damaged during removal, then a new soil stabilizer plate and/or anchor shall be provided by the Contractor and shall be incidental to the bid item "Remove & Relocate Sheet Signs".

If any of the existing hardware components (bracing, brackets, bolts, rivets, etc.) are found to have pre-existing damage and/or are missing, the Contractor shall provide the necessary replacement hardware for proper re-installation of the sign. These components shall be incidental to the bid item "Remove and Relocate Sign Assembly".

If the existing sheet sign is found to have pre-existing damage, the Department will NOT utilize the bid item "Remove and Relocate Sign Assembly". Instead, the Department will utilize the bid item "Remove Sign" to cover the removal and disposal of the damaged sign, and the bid items "SBM Aluminum Sheet Signs .080 IN" and "Steel Post Type I" to cover the installation of a new sign.

If the existing sheet sign is found to be in good shaped, but the sign post has pre-existing damage, the Department will NOT utilize the bid item "Remove and Relocate Sign Assembly". Instead, the Department will require the Contractor to install a new sign post(s) at the new location, and pay for the new post(s) under the bid item "Steel Post Type I". Detaching the existing, undamaged sheet sign from the existing, damaged post and attaching the existing, undamaged sheet sign to the new post shall be incidental to the bid item "Steel Post Type I". Any hardware that is needed to complete the installation shall also be incidental to the bid item "Steel Post Type I". Removal of the existing damaged post(s) and any other sign components not needed will be paid under the bid item "Remove Sign".

Disposal of Waste Dispose of all removed concrete, pipe, pavement, debris, excess and unsuitable excavation, and all other waste at approved sites, off the right of way, obtained by the Contractor at no additional cost to the Department.

Final Dressing, Clean Up, Seeding, Protection and Restoration After all work is completed, remove all waste and debris from the job site. Grade all disturbed areas to blend with the adjacent roadway features and to provide a suitable seed bed. Perform Class A Final dressing on all disturbed areas. Seed and protect all disturbed earthen areas according to the Special Note for Erosion Control.

Temporary Striping. A quantity of 26160 linear feet of Pave Striping – Temp Paint – 4 in has been included in the contract for potential use at the Superelevation Improvement areas, and any other areas as directed by the Engineer. The Contractor and Engineer should work together to determine any locations throughout the project requiring temporary pavement striping. The Engineer will make the final determination as to the quantities and placement of temporary pavement striping.

SPECIAL NOTE FOR STAKING

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

1. Contrary to Section 201, perform items 1-3 usually performed by the Engineer.
2. Using the proposed pavement superelevation rates, runout, and runoff lengths, determine the necessary changes in pavement edge elevation along the curves and the transitions leading into and out of the curve to achieve the proposed superelevation improvements. The intent is to provide a consistent superelevation throughout the curves and smooth transitions into and out of the curves. Once the proposed changes in pavement edge elevations are determined and prior to starting paving operations, verify the proposed roadside re-grading along the curve can be constructed so that the new roadside is flush with the new pavement edge elevation and the new toe of slope, or top of cut, will remain within the existing Right-of-Way and/or not impact a sensitive obstruction. If necessary, and with the approval of the Engineer, reduce the proposed superelevation rate of a curve if the new edge of pavement elevation will cause the new roadside grading to extend beyond the Right-of-Way and/or impact a sensitive obstruction. Alternatively, with the approval of the Engineer and to the extent allowable by the "Ditching & Shouldering and Embankment Benching Details" and/or the Special Note for Ditching & Shouldering, the contractor may be allowed to make adjustments to the roadside grading so the proposed roadside re-grading will remain within the existing Right-of-Way and/or not impact a sensitive obstruction. After the final proposed changes in pavement edge elevations are determined and before paving operations begin, submit to the Engineer and obtain approval for the number of asphalt lifts, each asphalt lift's thickness, and the asphalt material type of each lift the contractor plans to use to achieve the superelevation improvement. Ensure positive drainage upon completion of the work.
3. Verify the dimensions, type, and quantities of the culvert pipes, entrance pipes, and/or box culverts as listed and detailed in the proposal, and determine flow line elevations and slopes necessary to provide positive drainage. Revise as necessary to accommodate the existing site conditions; to provide proper alignment of the drainage structures with existing and/or proposed ditches, stream channels, swales, and the roadway lines and grades; and to ensure positive drainage upon completion of the work.
4. Using stakes, paint marks on the pavement, mag nails, and/or any other means approved by the District Traffic Engineer, the Contractor shall mark and/or stake the proposed sign locations in the field. NOTE: During staking operations the Contractor shall review the signing layout and existing field conditions and look for potential conflicts, including but not limited to utilities, driveways, visual obstructions, etc. When conflicts are found, adjust the staked location of signs to mitigate conflicts. Because the sign locations in the proposal are approximate and the location of some signs may need to be adjusted due to conflicts, during staking operations the Contractor shall refer to and utilize the information in the Manual on Uniform on Traffic Control Devices

Staking

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(MUTCD), current edition. The MUTCD cover items such as: appropriate sign location, advance placement distances, and spacing requirements for signing. The intent is for the proposed signs to be consistent with, and meet the requirements of, the MUTCD. Once the proposed sign locations have been staked, notify and coordinate with the District Traffic Engineer, and perform a review of the staked locations. Adjust the staked locations, as directed by the District Traffic Engineer and obtain approval of the final staked locations. This review will also be used to determine if there are any existing signs that require removal and/or relocation. Provide the District Traffic Engineer with 2 weeks of notice when a route will be ready for a review of the staked locations. NOTE: The District Traffic Engineer may determine that the proposed signing, including sign types and messages, needs to be adjusted and/or modified from what is shown in the proposal. Therefore, the Contractor shall not order any sign material for a route until the route has been staked and final sign location approval has been given by the District Traffic Engineer.

5. Produce and furnish to the Engineer "As Built" information for the superelevation improvements and the drainage improvements. For superelevation improvements, as built information will consist of a record of the final pavement cross slopes every 50 feet, for each lane of travel along the curves and the transitions into and out of the curves. Elevation data of the curve improvements is not necessary; simply the cross slope percentage every 50 feet. For the drainage improvements, as built information will consist of a final record of the actual types, sizes, and locations of the drainage structures (i.e. box inlets, headwalls, junction boxes, etc.), culvert pipes, and/or box culverts constructed. Final elevation data of the drainage improvements is not necessary.
6. Using paint marks on the pavement, and/or any other means approved by the Engineer, the Contractor shall layout and pre-mark the proposed striping, pavement markings, etc. Adjust as necessary to accommodate the existing site conditions and to provide proper alignment of the proposed thru and turning lanes. Obtain approval of the pre-marked layout from the Engineer and/or District Traffic Engineer prior to installing the striping and/or pavement markings.
7. Prior to incorporating into the work, obtain the Engineers approval of all revisions determined by the Contractor.
8. Perform any and all other staking operations required to control and construct the work.

SPECIAL NOTE FOR DITCHING & SHOULDERING

I. DESCRIPTION

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

- (1) Maintaining and Controlling Traffic; (2) Site Preparation; (3) Ditching; (4) Shouldering; (5) Constructing Embankments, Embankment Benching, and/or Excavation; (6) Erosion Control; and (7) Any other work as specified in this Contract.

II. MATERIALS

All materials shall be sampled and tested in accordance with the Department's Sampling Manual and the materials shall be available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing unless otherwise specified in these Notes.

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Erosion Control.** See Special Note for Erosion Control.
- C. DGA.** Furnish Dense Graded Aggregate as per Section 805.
- D. Asphalt Seal Coat.** See the Special Note for Double Asphalt Seal Coat.
- E. Asphalt Seal Aggregate.** See the Special Note for Double Asphalt Seal Coat.
- F. Channel Lining, Class II.** When listed as a bid item, furnish Channel Lining, Class II as per Section 805.
- G. Geotextile Fabric Type IV.** When listed as a bid item, furnish Geotextile Fabric Type IV as per Section 843.
- H. Crushed Stone Base.** Furnish Crushed Stone Base as per Section 805.

III. CONSTRUCTION METHODS

- A. Maintain and Control Traffic.** See the Traffic Control Plan.
- B. Erosion Control.** See the Special Note for Erosion Control.

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C. Site Preparation. Be responsible for all site preparation including, but not limited to: staking; clearing, grubbing, and removal of all obstructions or any other items; excavation, embankment benching, compacting embankment in place; temporary pollution and erosion control; disposal of excess, waste, and debris; and final dressing, cleanup, and seeding and protection. Perform all site preparation as approved or directed by the Engineer.

D. Staking. See the Special Note for Staking.

E. Ditching & Shouldering. All work shall be completed according to Section 209, or as specified in the DITCHING & SHOULDERING AND EMBANKMENT BENCHING DETAILS, the Typical Sections, the Plan Sheets, or as directed by the Engineer. Ditching & Shouldering shall consist of any necessary clearing, grubbing, grading, and/or reshaping of the existing shoulder, ditch, and/or roadside to achieve the proposed shoulder, ditch, and/or roadside dimensions detailed on the Typical Sections. Depending on the existing conditions encountered and to achieve the dimensions as detailed in the Typical Sections, Ditching & Shouldering may also include, but is not limited to: embankment benching, excavating and removing excess material, excavation of rock, providing additional earth material suitable for vegetation growth and grading, shaping, and compacting the earth material.

Provide positive drainage of ditches and slopes at all times during and upon completion of construction. When asphalt surfacing or resurfacing is included in the contract, perform all ditching and as much of the shouldering operations as is practical before beginning final surfacing operations.

F. Embankment Benching. Embankment Benching shall be required when the existing groundline has an incline greater than 15%. Any and all required embankment benching shall be incidental to the bid item DITCHING & SHOULDERING. For more information refer to the DITCHING & SHOULDERING AND EMBANKMENT BENCHING DETAILS.

G. DGA Wedge & Chip Seal. Some, or possibly all, areas of Ditching & Shouldering may be set up to receive a 4" thick DGA Wedge & Chip Seal after the ditching and shouldering operations are complete. Other areas of Ditching & Shouldering may NOT be set up to receive the DGA Wedge & Chip Seal. See the Summary Sheets and/or Plan Sheets for the approximate locations to receive the DGA Wedge & Chip Seal. Generally, the existing turf areas that are NOT routinely mowed by the adjacent property owner are the areas to receive the DGA Wedge & Chip Seal. The existing turf areas that are routinely mowed by the adjoining property owner have NOT been set up for the DGA Wedge & Chip Seal, and the earth shoulder should be constructed flush with the edge of pavement. Unless otherwise directed by the Engineer, DO NOT place any DGA Wedge & Chip Seal where it appears the adjoining property owner is routinely mowing up to the edge of pavement. The Engineer will determine the exact limits of the DGA Wedge & Chip Seal at the time of

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construction. Construct and compact the DGA as required by Section 302. Place Chip Seal over the entire width of the DGA Wedge. See the Special Note for Double Asphalt Seal Coat for the Chip Seal requirements.

- H. Channel Lining.** Install Class II Channel Lining along any sections of ditches identified in the Proposal, along any fill or ditch backslopes identified in the Proposal requiring Slope Protection, or any other locations the Engineer directs for slope protection or erosion control. When Channel Lining is proposed to be installed along a steep fill slope in order to establish a width of shoulder (as shown in Figure 5 of the DITCHING & SHOULDERING AND EMBANKMENT BENCHING DETAILS), the Channel Lining is to be capped with Geotextile Fabric Type IV and 4" of Crushed Stone Base. In lieu of 4" of Crushed Stone Base, 4" of DGA and a Double Asphalt Seal Coat may be specified in the Proposal. Install whichever aggregate capping material the Proposal specifies, or as directed by the Engineer.
- I. Right-of-Way Limits.** The Department has not established exact limits of the Right-of-Way. Unless a consent and release form is obtained from the adjoining property owner, limit work activities to the obvious Right-of-Way and staging areas secured by the Contractor at no additional cost to the Department. In the event that private improvements (i.e. fences, buildings, etc.) encroach upon the Right-of-Way, the contractor shall notify the Engineer and limit work activities in order to NOT disturb the improvements. If they become necessary, the Department will secure consent and releases from property owners through the Engineer. Be responsible for all encroachments onto private lands.
- J. Property Damage.** The Contractor shall be responsible for all damage to public and/or private property resulting from the Contractor's activities. Repair or replace damaged roadway features in like kind materials and design as directed by the Engineer at no additional cost to the Department. Repair or replace damaged private property in like kind materials and design to the satisfaction of the owner and the Engineer at no additional cost to the Department.
- K. Coordination with Utility Companies.** Locate all underground, above ground, and overhead utilities prior to beginning construction. Be responsible for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. Be responsible for repairing all utility damage that occurs due to the Contractor's operations at no additional cost to the Department. NOTIFY THE ENGINEER AND THE UTILITY OWNER(S) IMMEDIATELY WHEN IT IS DISCOVERED OR ANTICIPATED THAT ANY UTILITY CONFLICT COULD DELAY THE CONTRACTOR'S OPERATIONS. If the total delay exceeds ten working days, an extension of the specified completion date will be negotiated with the Contractor for delay to the Contractor's work; however, no

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extension will be granted for any delay caused by the Contractor's failure to notify the Engineer and/or the utility company as specified above when a conflict is discovered or anticipated as specified.

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

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

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

N. Clean Up, Disposal of Waste. Clean up the project area as work progresses. Dispose of all removed excess material, debris, and other waste at approved sites off the Right of Way obtained by the Contractor at no additional cost to the Department. See the Special Provision for Waste and Borrow Sites.

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

IV. METHOD OF MEASUREMENT

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

B. Erosion Control. See Special Note for Erosion Control.

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- C. Site Preparation.** Other than the bid items listed, the Department will NOT measure Site Preparation for payment, but shall be incidental to the project bid items.
- D. Staking.** See Special Note for Staking.
- E. Ditching & Shouldering.** Contrary to Section 209.04 the Department will measure the bid item DITCHING & SHOULERING in linear feet along the centerline of the roadway as the length of the actual ditching and/or shouldering work performed. Further, this measurement will only include one side of the roadway. Therefore, for areas where ditching and shouldering occurs on both sides of the road, the Department will measure each side independently. The Department will not measure cleaning pipe structures 36 inches or less in diameter or reshaping any deformed ends on metal entrance pipes that are to remain in place, as these operations are considered incidental to the bid item DITCHING & SHOULERING.
- F. Embankment Benching.** The Department will not measure Embankment Benching for payment. Any and all required embankment benching shall be incidental to the bid item DITCHING & SHOULERING.
- G. DGA, CSB.** When listed as bid items, DGA and Crushed Stone Base shall be measured according to Section 302.04.
- H. Chip Seal.** When specified in the contract, the bid items associated with Chip Seal shall be measured according to the Special Note for Double Asphalt Seal Coat.
- I. Channel Lining, Class II.** When listed as a bid item, Class II Channel Lining shall be measured according to Section 703.04.
- J. Geotextile Fabric, Type IV.** When listed as a bid item, Geotextile Fabric, Type IV shall be measured according to Section 214.04.
- K. Clean Up, Disposal of Waste, Final Dressing, Seeding and Protection.** The Department will NOT measure for payment the following activities: Clean Up, Disposal of Waste, and Final Dressing. These activities shall be incidental to the project bid items. Seeding and Protection shall be measured according to Section 212.

V. BASIS OF PAYMENT

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Erosion Control.** See Special Note for Erosion Control.
- C. Staking.** See Special Note for Staking.

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- D. Ditching & Shouldering.** The Department will make payment for the completed and accepted quantities under the bid item DITCHING & SHOULERING. The Department will consider payment full compensation for furnishing all labor, materials, equipment, and incidentals necessary to preform Ditching & Shouldering as required by these notes, at the locations indicated on the summary sheets, plans, and/or as directed by the Engineer.
- E. DGA, CSB.** When listed as bid items, the Department will make payment for DGA and Crushed Stone Base according to Section 302.05.
- F. Chip Seal.** When specified in the contract, the Department will make payment for the bid items associated with Chip Seal according to the Special Note for Double Asphalt Seal Coat.
- G. Channel Lining, Class II.** When listed as a bid item, the Department will make payment for Class II Channel Lining according to Section 703.05.
- H. Geotextile Fabric, Type IV.** When listed as a bid item, the Department will make payment for Geotextile Fabric, Type IV according to Section 214.05.

SPECIAL NOTE FOR EROSION CONTROL

I. DESCRIPTION

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

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

II. MATERIALS

Furnish materials in accordance with these notes, the Standard Specifications and Interim Supplemental Specifications, applicable Special Provisions and Special Notes, and the Standard and Sepia Drawings, current editions. Provide for all materials to be sampled and tested in accordance with the Department's Sampling Manual. Unless directed otherwise by the Engineer, make the materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing.

III. CONSTRUCTION

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

Erosion Control

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

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

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

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

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

The use of Temporary Mulch is encouraged.

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

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

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

IV. MEASUREMENT

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

V. BASIS OF PAYMENT

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

SPECIAL NOTES FOR PIPE REPLACEMENTS / EXTENSIONS

I. DESCRIPTION

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

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

II. MATERIALS

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

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

B. Culvert Pipe. Furnish pipe meeting the requirements of Section 810. Select pipe for pH range Medium and minimum fill cover height according to the applicable Standard or Sepia Drawings, current editions. Verify maximum and minimum fill cover height required for new pipe prior to construction and obtain the Engineer's approval of the class or gauge of pipe and type of coating prior to delivering pipe to project. Furnish approved connecting bands or pipe anchors and toe walls.

C. Flowable Fill. Furnish Flowable Fill for Pipe Backfill per Section 601.03.03(B).

D. Erosion Control. See Special Note for Erosion Control.

III. CONSTRUCTION METHODS

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

B. Erosion Control. See Special Note for Erosion Control.

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

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

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

IV. METHOD OF MEASUREMENT

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

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

V. BASIS OF PAYMENT

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

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

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

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

SPECIAL NOTE FOR SIGNAGE

The final advisory speeds and some sign types will have to be determined after the curve superelevation improvements and final surfacing operations have been completed. The Contractor shall notify the Engineer and District Traffic Engineer when all of the superelevation improvements and surfacing operations have been completed. Once notified, the Engineer and/or District Traffic Engineer will ball-bank the newly surfaced route to determine which curves require horizontal alignment signing and the appropriate advisory speeds of those curves. The Engineer and/or District Traffic Engineer will provide the Contractor with the final advisory speeds, any changes to proposed sign types, and the final quantities within three (3) weeks of being notified by the Contractor that final surfacing operations are complete. After the Contractor has received this information from the Engineer and/or the District Traffic Engineer, the Contractor shall then proceed to layout and stake the signing according to the Special Note for Staking, included elsewhere in this proposal.

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

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

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

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

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

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

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

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

SPECIAL NOTE FOR SIGNING

I. DESCRIPTION

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

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

II. MATERIALS

All materials shall be sampled and tested in accordance with the Department's Sampling Manual and the materials shall be available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing unless otherwise specified in these Notes.

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Erosion Control.** See Special Note for Erosion Control.

III. CONSTRUCTION METHODS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

IV. METHOD OF MEASUREMENT

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

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

V. BASIS OF PAYMENT

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Signs.** The Department will make payment for the completed and accepted quantities under the bid item SBM ALUM SHEET SIGNS .125 IN or .080 IN. The Department

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will consider payment full compensation for all work and incidentals necessary to install the signs, as required by these notes and the details found elsewhere in the proposal, at the locations indicated on the summary sheets, plans, and/or as directed by the Engineer.

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

SPECIAL NOTE

For Tree Removal

Clay County

**Perform low cost safety improvements on KY 11 from US
421(MP 8.89) extending NE to the Owsley Co. line (MP 26.62).
Item No. 1-9007**

NO CLEARING OF TREES 5 INCHES OR GREATER (DIAMETER BREAST
HEIGHT) FROM JUNE 1 THROUGH JULY 31.

**If there are any questions regarding this note, please contact Danny Peake,
Director, Division of Environmental Analysis, 200 Mero Street, Frankfort, KY
40601; Phone: (502) 564-7250.**

SPECIAL NOTES FOR COMPLETION DATES & LIQUIDATED DAMAGES

The ultimate fixed completion date for this project will be June 1, 2020; however, there will be an intermediate fixed completion date of November 30, 2019 for any spot improvement started in 2019. Once any work begins on a particular spot improvement in 2019 all work on that spot shall be completed through surface course and removal of traffic control items prior to the intermediate fixed completion date of November 30, 2019. Liquidated Damages for failure to complete the project or a particular spot improvement on time will be assessed following Section 108.09.

Trees and/or bushes that are 5 inches or greater (diameter at breast height) shall not be cut or trimmed between June 1ST and July 31ST. Activities that are a part of this contract that do not involve the initial trimming and/or cutting of trees and/or bushes will be permitted under the ultimate fixed completion date.

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

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

All liquidated damages will be applied accumulatively.

All other applicable portions of Section 108 apply.

SPECIAL PROVISION FOR WASTE AND BORROW SITES

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

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

COORDINATION OF WORK WITH OTHER CONTRACTS

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

1-3193 Coordination Contracts
01/02/2012

SPECIAL NOTE FOR DOUBLE ASPHALT SEAL COAT

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

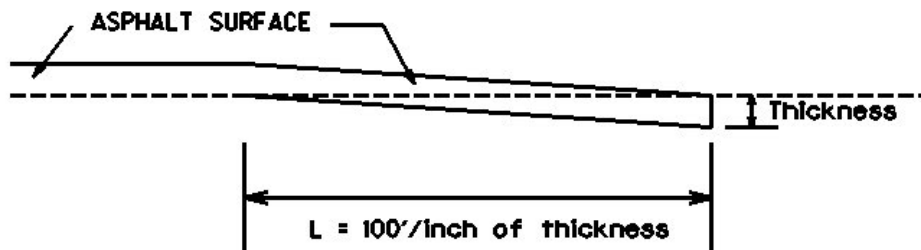
The Department will not measure any surface preparation required prior to applying the asphalt seal coat, but shall be incidental to “Asphalt Material for Asphalt Seal Coat”.

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

SPECIAL NOTE FOR EDGE KEY

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

EDGE KEY



Thickness = 1.50 Inches

L = 150 LF

L = Length of Edge Key

SPECIAL NOTES FOR GUARDRAIL

I. DESCRIPTION

Except as specified herein, perform all work in accordance with the Department's Standard and Supplemental Specifications, Special Notes and Special Provisions, and the Standard and Sepia Drawings, current editions. Article references are to the Standard Specifications.

Furnish all equipment, labor, materials, and incidentals for the following work items:

(1) Site preparation; (2) Remove existing guardrail systems; (3) Construct Guardrail, End Treatments, Bridge End Connectors, and Terminal Sections, as applicable; (4) Delineators for guardrail; (5) Maintain and Control Traffic; and (6) all other work specified as part of this contract.

II. MATERIALS

Except as specified herein, provide for all materials to be sampled and tested in accordance with the Department's Sampling Manual and make the materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing.

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Guardrail.** Furnish guardrail system components according to Section 814 and the Standard and Sepia Drawings; except use steel posts only, no alternates.
- C. Delineators for Guardrail.** Furnish white and/or yellow Delineators for Guardrail according to Standard Drawing RBR-055 – Delineators for Guardrail, current edition.
- D. Erosion Control.** See the Special Note for Erosion Control.

III. CONSTRUCTION METHODS

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Site Preparation.** Remove existing guardrail system, including the guardrail end treatments, Bridge End connectors and all other elements of the existing guardrail system as per Section 719, except that the Contractor will take possession of all concrete posts and all concrete associated with the existing bridge and/or guardrail end treatments. Locate all disposal areas off the Right of Way. Be responsible for all site preparation, including but not limited to, clearing and grubbing, excavation, embankment, and removal of all obstructions or any other items; regrading, reshaping, adding and compacting of suitable materials on the existing shoulders to provide proper template or foundation for the guardrail;

Guardrail Page 2 of 3

filling voids left as the result of removing existing guardrail and guard posts with dry sand; temporary pollution and erosion control; disposal of excess, waste materials, and debris; and final dressing, cleanup, and seeding and protection. Perform all site preparation as approved or directed by the engineer.

- C. Guardrail.** Except as specified herein, construct guardrail system according to Section 719 and the Standard and Sepia Drawings, current editions. Locations listed on the summary and/or shown on the drawings are approximate only. The Engineer will determine the exact termini for individual guardrail installations at the time of construction. Unless directed otherwise by the Engineer, provide a minimum two (2) foot shoulder width. Construct radii at entrances and road intersections as directed by the Engineer.

Erect guardrail to the lines and grades shown on the current Standard and Sepia Drawings, or as directed by the Engineer by any method approved by the Engineer which allows construction of the guardrail to the true grade without apparent sags.

When removing existing guardrail and installing new guardrail, do not leave the blunt end exposed where it would be hazardous to the public. When it is not practical to complete the construction of the guardrail and the permanent end treatments and terminal sections first, provide a temporary end by connecting at least 25 feet of rail to the last post, and by slightly flaring, and burying the end of the rail completely into the existing shoulder. If left overnight, place a drum with bridge panel in advance of the guardrail end and maintain during use.

- D. Delineators for Guardrail.** Construct Delineators for Guardrail according to Standard Drawing RBR-055 – Delineators for Guardrail, current edition.
- E. Property Damage.** Be responsible for all damage to public and/or private property resulting from the work. Restore damaged roadway features and private property at no additional cost to the Department.
- F. Coordination with Utility Companies.** Locate all underground, above ground, and overhead utilities prior to beginning construction. Be responsible for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require utilities to be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. Be responsible for repairing all utility damage that occurs as a result of guardrail operations at no additional cost to the Department.
- G. Right of Way Limits.** The Department has not established the exact limits of the Right-of-Way. Limit work activities to obvious Right-of-Way, permanent or temporary easements, and work areas secured by the Department through consent and release of the adjacent property owners. Be responsible for all encroachments onto private lands.

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- H. Clean Up, Disposal of Waste.** Dispose of all removed concrete, debris, and other waste and debris off the Right-of-Way at sites obtained by the Contractor at no additional cost to the Department. See the Special Provision for Waste and Borrow Sites.
- I. Final Dressing, Seeding and Protection.** Apply Class A Final Dressing to all disturbed areas, both on and off the Right-of-Way. Sow all disturbed earthen areas with the applicable seed mixture(s) according to Section 212.03.03.
- J. Erosion Control.** See the Special Note for Erosion Control.

IV. METHOD OF MEASUREMENT

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Site preparation.** Other than the bid items listed, the Department will not measure Site Preparation for separate payment but shall be incidental to the Guardrail, End Treatments, Bridge End Connectors, and Terminal Sections, as applicable.
- C. Guardrail, End Treatments, Bridge End Connectors, Terminal Sections, and Remove Guardrail.** The Department will measure according to Section 719.04.
- D. Delineators for Guardrail.** See Standard Drawing RBR-055 – Delineators for Guardrail.
- E. Clean Up, Disposal of Waste, Final Dressing, and Seeding and Protection.** The Department will NOT measure for payment the operations of: Clean Up, Disposal of Waste, and Final Dressing. These activities shall be incidental. Seeding and Protection will be measured according to Section 212.
- F. Erosion Control.** See the Special Note for Erosion Control.

V. BASIS OF PAYMENT

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Guardrail, End Treatments, Bridge End Connectors, Terminal Sections, and Remove Guardrail.** The Department will make payment according to Section 719.05.
- C. Delineators for Guardrail.** See Standard Drawing RBR-055 – Delineators for Guardrail.
- D. Erosion Control.** See the Special Note for Erosion Control.

**SPECIAL NOTE FOR
ASPHALT MILLING AND TEXTURING**

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

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

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

SPECIAL NOTE FOR TYPICAL SECTION DIMENSIONS

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

1-3725 Typical Section Dimensions
01/02/2012

TRAFFIC CONTROL PLAN

TRAFFIC CONTROL GENERAL

Except as provided herein, traffic shall be maintained in accordance with the current editions of the Manual on Uniform Traffic Control Devices (MUTCD), Standard Specifications, and the Standard and Sepia Drawings. Except for the roadway and traffic control bid items listed, all items of work necessary to maintain and control traffic will be paid at the lump sum bid price to “Maintain and Control Traffic”.

Contrary to Section 106.01, traffic control devices used on this project may be new, or used in like new condition, at the beginning of the work and maintained in like new condition until completion of the work. Any temporary traffic control items, devices, materials, and incidentals shall remain the property of the contractor unless otherwise addressed, when no longer needed.

PROJECT PHASING & CONSTRUCTION PROCEDURES

All work must be completed at all times utilizing lane closures and maintaining alternating one way traffic during construction operations. This includes using part-width construction when open-cutting the roadway for culvert pipe replacement. This also includes using part-width construction when undercutting pavement, constructing new pavement, or for widening and overlay operations. When lane closures are utilized, the clear lane width shall be 10 feet. Asphalt Leveling & Wedging and Asphalt Base used for Superelevation Improvements shall be placed in lifts to ensure pavement drop offs are not excessive, such that 2-lanes of traffic can be maintained overnight. Leveling & Wedging and Asphalt Base thicknesses shall be approved by the Engineer. With approval of the Engineer, short stoppages of no more than 15 minutes for construction operations can be experienced; however, the contractor shall make provisions for the passage of all emergency vehicles and school buses on an official run as quickly as possible in the 15-minute allowed stoppage time. A diversion is to be constructed using part width construction for the construction of Mill Hollow Pond road approach. After traffic can be shifted to the proposed Mill Hollow Pond Rd approach, the diversion is to be removed using part width construction.

No lane closures will be allowed on the following dates:

Labor Day Weekend,	Friday, August 30, 2019 – Monday, September 2, 2019
Thanksgiving Holiday,	Thursday, November 28, 2019 – Sunday, December 1, 2019
Christmas Holiday,	Tuesday, December 24, 2019 – Wednesday, December 25, 2019
New Year’s Day Holiday	Tuesday, December 31, 2019 – Wednesday, January 1, 2020
Easter Weekend	Friday, April 10, 2020 – Sunday, April 12, 2020
Memorial Day Weekend,	Friday, May 22, 2020 – Monday, May 25, 2020

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

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TEMPORARY SIGNAL 2 PHASE

A Temporary Signal 2 Phase has been included in the project for possible use during the reconstruction of the "Spot 1". This device may be useful for other areas. The Contractor and the Engineer should work together to determine the best use of this device. If used, the Department will measure the Temporary Signal 2 Phase only once for payment, regardless of how many times it is set, reset, removed, and relocated during the duration of the project. The Department will not measure for payment any replacements of the Temporary Signal 2 Phase if it becomes damaged or non-functioning, nor if the Engineer directs that it be replaced due to poor condition or visibility. Retain possession of the Temporary Signal 2 Phase upon completion of construction.

LANE CLOSURES

Contrary to Specifications, lane closures will not be measured for payment and will be considered incidental to Maintain and Control Traffic. Engineer must approve the use of a lane closure at any spot improvement other than Spot #1.

TEMPORARY SIGNS

Temporary sign posts and splices shall be compliant with MASH. Manufacturer's documentation validating this compliance shall be provided to the Engineer prior to installation. Signs, including any splices, shall be installed according to manufacturer's specifications and installation recommendations. Contrary to section 112.04.02, only long-term signs (signs intended to be continuously in place for more than 3 days) will be measured for payment. Short-term signs (signs intended to be left in place for 3 days or less) will not be measured for payment but will be incidental to Maintain and Control Traffic.

CHANGEABLE MESSAGE SIGNS

If deemed necessary by the Engineer, variable message signs will be installed, operated and maintained by the Department. Specifically, signs indicating the insufficient lane width for oversized loads may be required. The Engineer may vary the designated locations as the work progresses. The Engineer will determine the messages to be displayed.

BARRICADES

The Department will not measure barricades used in lieu of barrels and cones for channelization or delineation, but shall be incidental to Maintain and Control Traffic according to Section 112.04.01. The Department will measure barricades used for road closures and to protect pavement removal areas in individual units. Each. The Department will measure for payment the maximum number of barricades in concurrent use at the same time on a single day on all sections of the contract. The Department will measure individual barricades only once for payment, regardless of how many times they are set, reset, removed, and relocated during the duration of the project. The Department will not measure for payment any replacements for damaged barricades, or any barricades the Engineer directs to be replaced due to poor condition or reflectivity. Retain possession of the Barricades upon completion of construction.

PAVEMENT MARKINGS

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

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

PAVEMENT EDGE DROP-OFFS

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

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

Less than 2" - No protection required.

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

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

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

INGRESS AND EGRESS

Reasonable means of ingress and egress shall be maintained to all properties within the project limits. Access to fire hydrants must also be maintained at all times.

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USE AND PLACEMENT OF CHANGEABLE MESSAGE SIGNS

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

Application

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

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

CMS should not be used for:

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

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Messages

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

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

Placement

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

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

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Standard Abbreviations

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

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

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Standard Abbreviations (cont)

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

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

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

Typical Messages

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

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

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Typical Messages (cont)

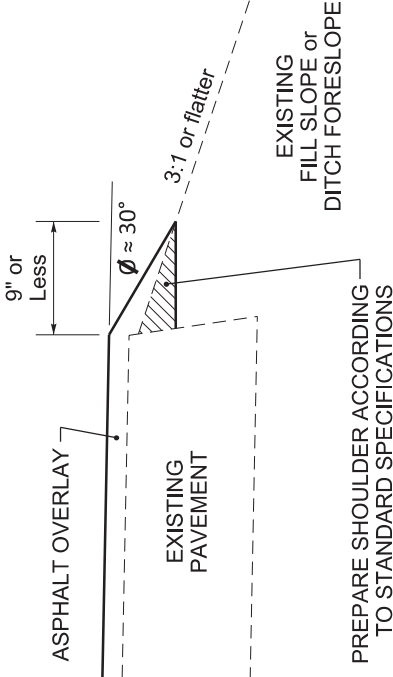
Reason/Problem

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

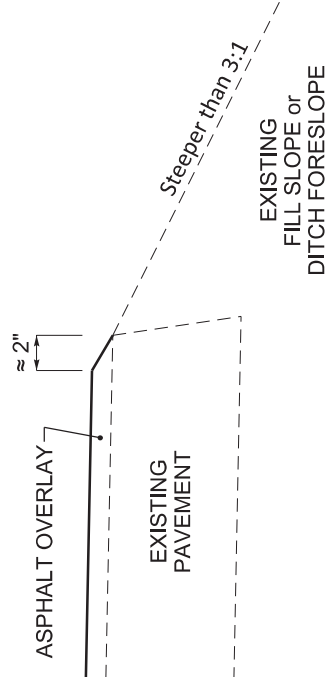
Action

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

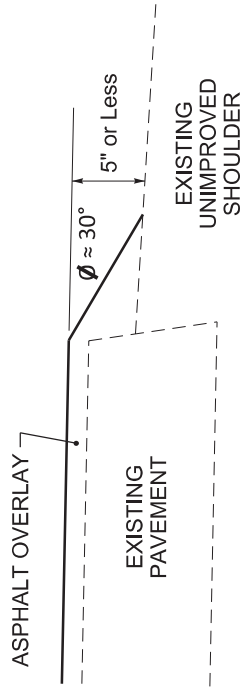
DURABLE PAVEMENT EDGE DETAIL
(Resurfacing adjacent to fill slope or ditch foreslope that is 3:1 or less)



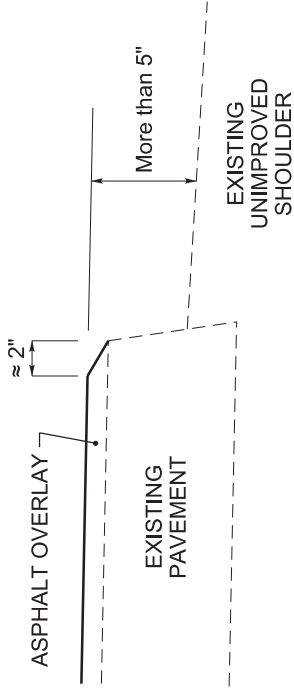
DURABLE PAVEMENT EDGE DETAIL
(Resurfacing adjacent to fill slope or ditch foreslope that is steeper than 3:1)



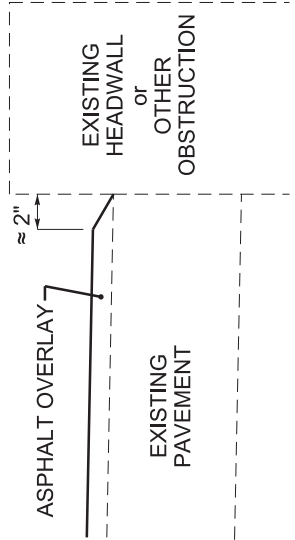
DURABLE PAVEMENT EDGE DETAIL
(Resurfacing adjacent to low shoulder with dropoff of 5 inches or less)



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



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




NOTES

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

DRAWING NOT TO SCALE

DURABLE PAVEMENT EDGE
DETAILS

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

<input checked="" type="checkbox"/> Original	<input type="checkbox"/> Re-Certification	RIGHT OF WAY CERTIFICATION	
ITEM #	COUNTY	PROJECT # (STATE)	PROJECT # (FEDERAL)
11-9004	Clay	FD52 026 0011 008-027	HSIP 5286 (015)
PROJECT DESCRIPTION			
Safety Improvement along KY 11 from MP 8.89 - 26.62			
<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	Greg Combs
Signature		Signature	 2019.04.09 09:02:02
Date		Date	-04'00'
Right of Way Director		FHWA	
Printed Name	Digitally signed by DM	Printed Name	No Signature Required
Signature	DM Loy Loy Date: 2019.04.09	Signature	as per FHWA-KYTC
Date	09:28:02 -04'00'	Date	Current Stewardship Agreement

Consent and Release Notes 11-9004 Clay County-KY 11

Spot #1

Property Owner:

Douglas and Laura Adams

Description and Location of Work:

Perform Highway Safety Improvements to include ditching, drainage work, minor widening within existing Right of Way and/or slope/entrance construction outside of existing Right of Way.

Property Owner:

Lonzo Sizemore

Description and Location of Work:

Perform Highway Safety Improvements to include ditching, drainage work, minor widening within existing Right of Way and/or slope/entrance construction

Property Owner:

Vinland Energy, LLC

Description and Location of Work:

Perform Highway Safety Improvements to include ditching, drainage work, minor widening within existing Right of Way and/or slope/entrance construction outside of existing Right of Way.

It is further understood and agreed, upon proper location of the underground facility by 811 or Vinland Energy, LLC, that the Kentucky Transportation Cabinet (KYTC), or its approved contractors, will reimburse Vinland Energy, LLC for the cost of repairs to the pipeline should it be damaged by KYTC during construction of this highway improvement project, and reasonable damages suffered as a direct result thereof.

Spot #2 and #3

Property Owner:

Bruce and Josephine Morgan

Description and Location of Work:

Perform Highway Safety Improvements to include ditching, drainage work, minor widening within existing Right of Way and/or slope/entrance construction

Property Owner:

Debbie Chesnut

Description and Location of Work:

Perform Highway Safety Improvements to include ditching, drainage work, minor widening within existing Right of Way and/or slope/entrance construction

Spot #6

Property Owner:

Mrs Mary Burns

Description and Location of Work:

Perform Highway Safety Improvements to include ditching, drainage work, minor widening within existing Right of Way and/or slope/entrance construction outside of existing Right of Way.

UTILITIES AND RAIL CERTIFICATION NOTE

**CLAY COUNTY - HSIP 5286 (015)
FD52 026 0011 008-027
Safety Improvements along KY 11 from MP 8.89 – 26.62
Item No. 11-9004.00**

GENERAL PROJECT NOTE ON UTILITY PROTECTION

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.

Utility locations shown in the plans are approximate and have not been specifically located by the Department. Locate all underground, above ground, and overhead utilities prior to beginning construction. The Contractor shall have the responsibility for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted. In the event it is discovered that the work does require utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. The Contractor shall be responsible for repairing all utility damage that occurs as a result of his operations. No delay claims will be considered on this project that involve conflicts with utilities.

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

Vineland Energy has gas mains along some segments along KY 11. **These facilities are to remain in place and are not to be disturbed.**

Somerset Gas has gas mains along some segments along KY 11. **These facilities are to remain in place and are not to be disturbed.**

Delta Gas has natural gas mains along some segments along KY 11. **These facilities are to remain in place and are not to be disturbed.** Specific crossings at Spot 1: STA 500+50, 503+45, 507+13, & 508+20 will require extreme care when installing drain extensions. Depth below finished drains at the latter crossings are expected to be approximately 18" & may require hand digging.

American Energy Partners has utility poles along some segments along KY 11. **These facilities are to remain in place and are not to be disturbed.**

Grayson RECC has utility poles along some segments along KY 11. **These facilities are to remain in place and are not to be disturbed.**

Windstream has utility poles along some segments along KY 11. **These facilities are to remain in place and are not to be disturbed.**

City of Greenup & North Manchester Water have water mains along some segments along KY 11. **These facilities are to remain in place and are not to be disturbed.**

The Contractor is fully responsible for protection of all utilities listed above

UTILITIES AND RAIL CERTIFICATION NOTE

**CLAY COUNTY - HSIP 5286 (015)
FD52 026 0011 008-027
Safety Improvements along KY 11 from MP 8.89 – 26.62
Item No. 11-9004.00**

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

N/A

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

Delta Gas will be relocating a section of their gas line in conflict with roadwork at Spot #1. The contractor should plan to work on other Spots while this relocation is in progress.

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

N/A

THE FOLLOWING RAIL COMPANIES HAVE FACILITIES IN CONJUNCTION WITH THIS PROJECT AS NOTED

No Rail Involved Minimal Rail Involved (See Below) Rail Involved (See Below)

UTILITIES AND RAIL CERTIFICATION NOTE

CLAY COUNTY - HSIP 5286 (015)
FD52 026 0011 008-027
Safety Improvements along KY 11 from MP 8.89 – 26.62
Item No. 11-9004.00

UNDERGROUND FACILITY DAMAGE PROTECTION – BEFORE YOU DIG

The contractor shall make every effort to protect underground facilities from damage as prescribed in the Underground Facility Damage Protection Act of 1994, Kentucky Revised Statute KRS 367.4901 to 367.4917. It is the contractor's responsibility to determine and take steps necessary to be in compliance with federal and state damage prevention directives. The contractor is instructed to contact KY 811 for the location of existing underground utilities. Contact shall be made a minimum of two (2) and no more than ten (10) business days prior to excavation.

The contractor shall submit Excavation Locate Requests to the Kentucky Contact Center (KY 811) via web ticket entry. The submission of this request does not relieve the contractor from the responsibility of contacting non-member facility owners, whom are to be contacted through their individual Protection Notification Center. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area. Non-compliance with these directives can result in the enforcement of penalties.

SPECIAL CAUTION NOTE – PROTECTION OF UTILITIES

The contractor will be responsible for contacting all utility facility owners on the subject project to coordinate his activities. The contractor will coordinate his activities to minimize and, where possible, avoid conflicts with utility facilities. Due to the nature of the work proposed, it is unlikely to conflict with the existing utilities beyond minor facility adjustments. Where conflicts with utility facilities are unavoidable, the contractor will coordinate any necessary relocation work with the facility owner and Resident Engineer. The Kentucky Transportation Cabinet maintains the right to remove or alter portions of this contract if a utility conflict occurs.

The utility facilities as noted in the previous section(s) have been determined using data garnered by varied means and with varying degrees of accuracy: from the facility owners, a result of S.U.E., field inspections, and/or reviews of record drawings. The facilities defined may not be inclusive of all utilities in the project scope and are not Level A quality, unless specified as such. It is the contractor's responsibility to verify all utilities and their respective locations before excavating.

Please Note: The information presented in this Utility Note is informational in nature and the information contained herein is not guaranteed.

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

UTILITIES AND RAIL CERTIFICATION NOTE

CLAY COUNTY - HSIP 5286 (015)
FD52 026 0011 008-027
Safety Improvements along KY 11 from MP 8.89 – 26.62
Item No. 11-9004.00

AREA UTILITIES CONTACT LIST

<u>Utility Company/Agency</u>	<u>Contact Name</u>	<u>Contact Information</u>
1. VINLAND ENERGY 104 FORTRESS PROPERTIES, SUITE 1 LONDON, KY 40741	JEFF HENSLEY JEFF.HENSLEY@VINLANDENERGYLLC.COM	606-231-1550
2. SOMERSET GAS 105 COLLEGE ST. SOMERSET, KY 42501	REGGIE CHANEY	606-678-4466 RCHANEY@CITYOFSOMERSET.COM
3. DELTA GAS 3617 LEXINGTON RD. WINCHESTER, KY 40391	BRIAN SIDWELL	859-744-6171X1234 BSIDWELL@DELTAGAS.COM
4. AMERICAN ENERGY PARTNERS 3249 N. MAYO TRAIL PIKEVILLE KY 41501	BILL JOHNSON	(606)437-3823
5. GRAYSON RECC 109 BAGBY PARK GRAYSON KY 41143	CAROL FRALEY	(606)474-5136
6. CITY OF GREENUP (WATER/SEWER) 1005 WALNUT ST. GREENUP KY 41144	LUNDIE MEADOWS	(606)473-7331
7. WINDSTREAM 719 N MAIN ST. LONDON KY 40741	BRYAN REED	(606)309-6559
8. NORTH MANCHESTER WATER 7362 N US421 MANCHESTER KY 40962	STEPHEN BOWLING	(606)598-5403

CID 194113
Clay County
Highway Safety Improvement Project along KY 11
from MP 9.400– 19.600
Item No.: 11-9004

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

eForm Submittal ID: 150243

KYTC BMP Plan for Project CID **194401**



Kentucky Transportation Cabinet

Highway District **11**

And

_____ **(2), Construction**

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

Groundwater protection plan

For Highway Construction Activities

For

Highway Safety Improvement Project on **KY 11 in
CLAY County**

Project: CID **194401**

KYTC BMP Plan for Project CID **194401**

Project information

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

1. Owner – Kentucky Transportation Cabinet, District **11**
2. Resident Engineer: (2)
3. Contractor name: (2)
Address: (2)

Phone number: (2)
Contact: (2)
Contractors agent responsible for compliance with the KPDES permit requirements (3):
4. Project Control Number: (2)
5. Route (Address): **KY 11**
6. Latitude/Longitude (project mid-point): **37° 13' 27"N, -83° 41' 50"W**
7. County (project mid-point): **CLAY**
8. Project start date (date work will begin): (2)
9. Projected completion date: (2)

KYTC BMP Plan for Project CID **194401**

A. Site description:

1. Nature of Construction Activity (from letting project description): **Statewide Highway Safety Improvement Program Roadside Departure Countermeasures**
2. Order of major soil disturbing activities: **(2) and (3)**
3. Projected volume of material to be moved: *This project does not involve significant cut and fill.*
4. Estimate of total project area (acres): **8.8**
5. Estimate of area to be disturbed (acres): **6.9**
6. Post construction runoff coefficient will be included in the project drainage folder. Persons needing information pertaining to the runoff coefficient will contact the resident engineer to request this information.
7. Data describing existing soil condition: **(1) & (2)**
8. Data describing existing discharge water quality (if any): **(1) & (2)**
9. Receiving water name: **Laurel Creek and Goose Creek**
10. TMDLs and Pollutants of Concern in Receiving Waters: **No TDML's were involved on this project.**
11. Site map – Project layout sheet plus the erosion control sheets in the project plans that depict Disturbed Drainage Areas (DDAs) and related information. These sheets depict the existing project conditions with areas delineated by DDA (drainage area bounded by watershed breaks and right of way limits), the storm water discharge locations (either as a point discharge or as overland flow) and the areas that drain to each discharge point. These plans define the limits of areas to be disturbed and the location of control measures. Controls will be either site specific as designated by the designer or will be annotated by the contractor and resident engineer before disturbance commences. The project layout sheet shows the surface waters and wetlands.
12. Potential sources of pollutants:

The primary source of pollutants is solids that are mobilized during storm events. Other sources of pollutants include oil/fuel/grease from servicing

KYTC BMP Plan for Project CID 194401

and operating construction equipment, concrete washout water, sanitary wastes and trash/debris. (3)

B. Sediment and Erosion Control Measures:

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

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

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

KYTC BMP Plan for Project CID **194401**

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

KYTC BMP Plan for Project CID **194401**

- Removal of Silt Traps Type B from ditches and drainways if they are protected with other BMP's which are sufficient to control erosion, i.e. Erosion Control Blanket or Permanent Seeding and Protection on moderate grades.
 - Permanent Seeding and Protection
 - Placing Sod
 - Planting trees and/or shrubs where they are included in the project
- BMP's including Storm Water Management Devices such as velocity dissipation devices and Karst policy BMP's to be installed during construction to control the pollutants in storm water discharges that will occur after construction has been completed are: *This project does not include storm water BMPs or flow controls for post-construction use.*

C. Other Control Measures

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

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

3. Hazardous Waste

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

4. Spill Prevention

KYTC BMP Plan for Project CID **194401**

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

➤ **Good Housekeeping:**

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

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

➤ **Hazardous Products:**

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

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

The following product-specific practices will be followed onsite:

➤ **Petroleum Products:**

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

KYTC BMP Plan for Project CID 194401

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

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

➤ **Fertilizers:**

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

➤ **Paints:**

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

➤ **Concrete Truck Washout:**

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

➤ **Spill Control Practices**

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

- Manufacturers' recommended methods for spill cleanup will be clearly posted. All personnel will be made aware of procedures and the location of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage area. Equipment and materials will include as appropriate, brooms, dust pans, mops, rags, gloves, oil absorbents, sand, sawdust, and plastic and metal trash containers.

KYTC BMP Plan for Project CID **194401**

- All spills will be cleaned up immediately after discovery.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- Spills of toxic or hazardous material will be reported to the appropriate state/local agency as required by KRS 224 and applicable federal law.
- The spill prevention plan will be adjusted as needed to prevent spills from reoccurring and improve spill response and cleanup.
- Spills of products will be cleaned up promptly. Wastes from spill clean up will be disposed in accordance with appropriate regulations.

D. Other State and Local Plans

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

E. Maintenance

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

F. Inspections

KYTC BMP Plan for Project CID 194401

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

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

G. Non – Storm Water discharges

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

- Water from water line flushings.
- Water from cleaning concrete trucks and equipment.

KYTC BMP Plan for Project CID 194401

- Pavement wash waters (where no spills or leaks of toxic or hazardous materials have occurred).
- Uncontaminated groundwater and rain water (from dewatering during excavation).

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

H. Groundwater Protection Plan (3)

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

- Contractors statement: (3)

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

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

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

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

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

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

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

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

KYTC BMP Plan for Project CID **1944401**

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

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

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

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

KYTC BMP Plan for Project CID 194401

Contractor and Resident Engineer Plan certification

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

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

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

Resident Engineer and Contractor Certification:

(2) Resident Engineer signature

Signed _____, _____
 Typed or printed name² signature

(3) Signed _____, _____
 Typed or printed name¹ signature

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

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

KYTC BMP Plan for Project CID **194401**

Sub-Contractor Certification

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

Subcontractor

Name:
Address:
Address:

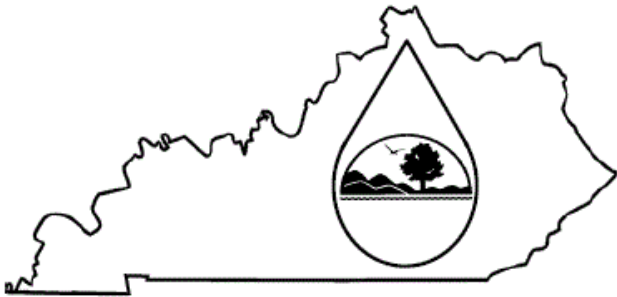
Phone:

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

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

Signed _____ title _____, _____
Typed or printed name¹ signature

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

	<h2 style="margin: 0;">KENTUCKY POLLUTION DISCHARGE ELIMINATION SYSTEM (KPDES)</h2> <p style="margin: 10px 0 0 0;">No ice of In ent (NOI) for coverage of S orm Water Dis harge Associated with Construc ion Activi ies Under the KPDES S orm Wa er General Permit KYR100000</p> <p style="margin: 0 0 0 0;">Click here for Instructions (Controls/KPDES_FormKYR10_Instructions.htm)</p> <p style="margin: 0 0 0 0;">Click here to obtain information and a copy of the KPDES General Permit. (http://dep.ky.gov/formslibrary/Documents/KYR10PermitPage.pdf)</p> <p style="margin: 0 0 0 0;">(*) indicates a required field; (✓) indi ates a field may be req ired based on user input or is an op ionally req ired field</p>
---	---

Reason for S bmittal:(*) <input style="border: none; border-bottom: 1px solid black;" type="text" value="Application for New Permit C"/>	Agency Interest ID: <input style="border: none; border-bottom: 1px solid black;" type="text" value="636 9"/>	Permit Number:(✓) <input style="border: none; border-bottom: 1px solid black;" type="text" value="KPDES Permi Number"/>
---	---	--

If change to existing permit coverage is requested, describe the changes for which modification of coverage is being sought:(✓)

ELIGIBILITY:
S ormwa er discharges associated with construction activities dis urbing individuall one (1) acre or more, incl ding, in the case of a common plan of developmen , contiguous constr c ion a tivities that mulatively equal one (1) acre or more of disturban e.

EXCLUSIONS:
The following are ex luded from coverage nder this general permi :

- 1) Are condu ted at or on properties that have obtained an individual KPDES permi for the dis harge of other wastewa ers which requires the development and implementa ion of a Bes Management Prac i es (BMP) plan;
- 2) Any opera ion hat the DOW determines an individual permi would better address the discharges from that operation;
- 3) Any project tha discharges to an Impaired Water listed in the most recent Integra ed Report, §305(b) as impaired for sedimen and for which an approved TMDL has been developed.

SECTION I -- FACILITY OPERATOR INFORMATION (PERMITTEE)

Compan Name:(✓) <input style="border: none; border-bottom: 1px solid black;" type="text" value="Kentu ky Transportation Cabinet"/>	First Name:(✓) <input style="border: none; border-bottom: 1px solid black;" type="text" value="Tyler"/>	M.I.: <input style="border: none; border-bottom: 1px solid black;" type="text" value="N"/>	Last Name:(✓) <input style="border: none; border-bottom: 1px solid black;" type="text" value="Kirby"/>
Mailing Address:(*) <input style="border: none; border-bottom: 1px solid black;" type="text" value="603 Railroad Avenue"/>	City:(*) <input style="border: none; border-bottom: 1px solid black;" type="text" value="Man hester"/>	State:(*) <input style="border: none; border-bottom: 1px solid black;" type="text" value="Kentucky"/>	Zip:(*) <input style="border: none; border-bottom: 1px solid black;" type="text" value="40962"/>
eMail Address:(*) <input style="border: none; border-bottom: 1px solid black;" type="text" value="tyler.kirby@ky.gov"/>	Business Phone:(*) <input style="border: none; border-bottom: 1px solid black;" type="text" value="606598 145"/>	Alternate Phone: <input style="border: none; border-bottom: 1px solid black;" type="text" value="Phone"/>	

SECTION II -- GENERAL SITE LOCATION INFORMATION			
Project Name:(*) 11-9004.00 KY 11 Spot Improvements		Status of Owner/Operator(*) State Government	SIC Code(*) 1611 Highway and
Company Name:(✓) KYTC District 11	First Name:(✓) Mike	M.I.: M	Last Name:(✓) Calebs
Site Physical Address:(*) KY 11 mile point 9.4 to 19.6			
City:(*) Oneida	State:(*) Kentucky	Zip:(*) 40972	
County:(*) Clay	Latitude(decimal degrees)(*)DMS to DD Converter (https://www.fcc.gov/media/radio/dms-decimal) 37.224167	Longitude(decimal degrees)(*) -83.697222	

SECTION III -- SPECIFIC SITE ACTIVITY INFORMATION

Project Description:(*)
Spot Improvements along KY 11 between mp 9.4 and 19.6 including pipe replacement, cross slope correction, ditch

a. For single projects provide the following information

Total Number of Acres in Project:(✓) 8.8	Total Number of Acres Disturbed:(✓) 6.9
Anticipated Start Date:(✓) 5/1/2019	Anticipated Completion Date:(✓) 10/30/2019

b. For common plans of development provide the following information

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

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

Company Name

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

Discharge Point(s):

Unnamed Tributary?	Latitude	Longitude	Receiving Water Name
No	37.235028	-83.674914	Goose Creek
No	37.235387	-83.654090	Goose Creek
No	37.236820	-83.682025	Goose Creek
No	37.266033	-83.653982	Goose Creek
Yes	37.227391	-83.731004	Laurel Creek
No	37.231024	-83.773208	Laurel Creek
No	37.231094	-83.772188	Laurel Creek
No	37.231204	-83.770586	Laurel Creek
No	37.231236	-83.770947	Laurel Creek
No	37.233529	-83.759173	Laurel Creek
No	37.233833	-83.757913	Laurel Creek

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

Name of MS4:

[Dropdown menu]

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

Date

Discharge Point(s):(*)

Latitude Longitude

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

Will the project require construction activities in a water body or the riparian zone?:(*)

No

If Yes, describe scope of activity: (✓)

describe scope of activity

Is a Clean Water Act 404 permit required?:(*)	Yes ▼
Is a Clean Water Act 401 Water Quality Certification required?:(*)	No ▼

SECTION VII -- NOI PREPARER INFORMATION

First Name:(*) Tyler	M.I.: N	Last Name:(*) Kirby	Company Name:(*) Kentucky Transportation Cabinet	
Mailing Address:(*) 603 Railroad Avenue		City:(*) Manchester	State:(*) Kentucky ▼	Zip:(*) 40962
eMail Address:(*) tyler.kirby@ky.gov		Business Phone:(*) 6065982145	Alternate Phone: Phone	

SECTION VIII -- ATTACHMENTS

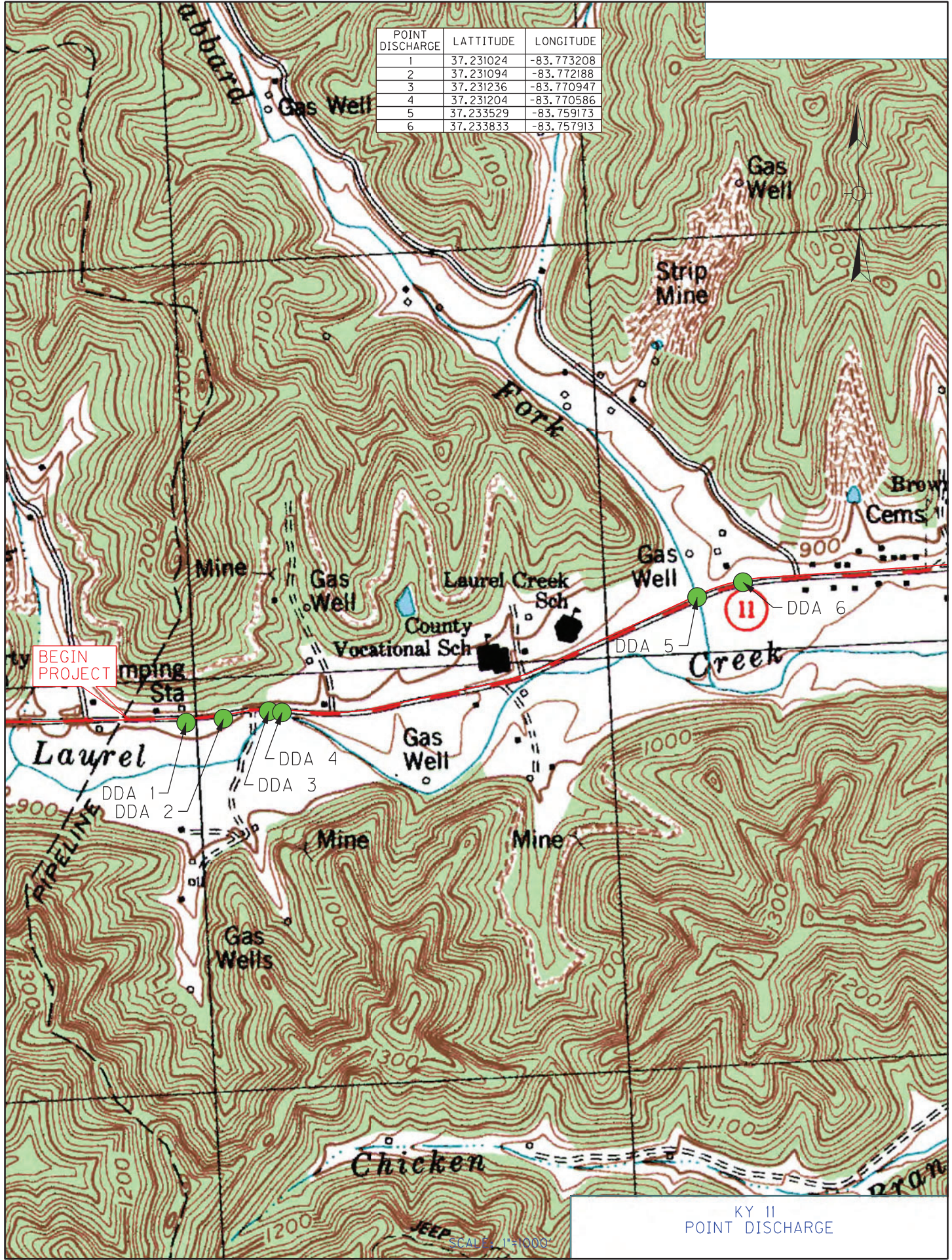
Facility Location Map:(*)	Upload file
Supplemental Information:	Upload file

SECTION IX -- CERTIFICATION

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

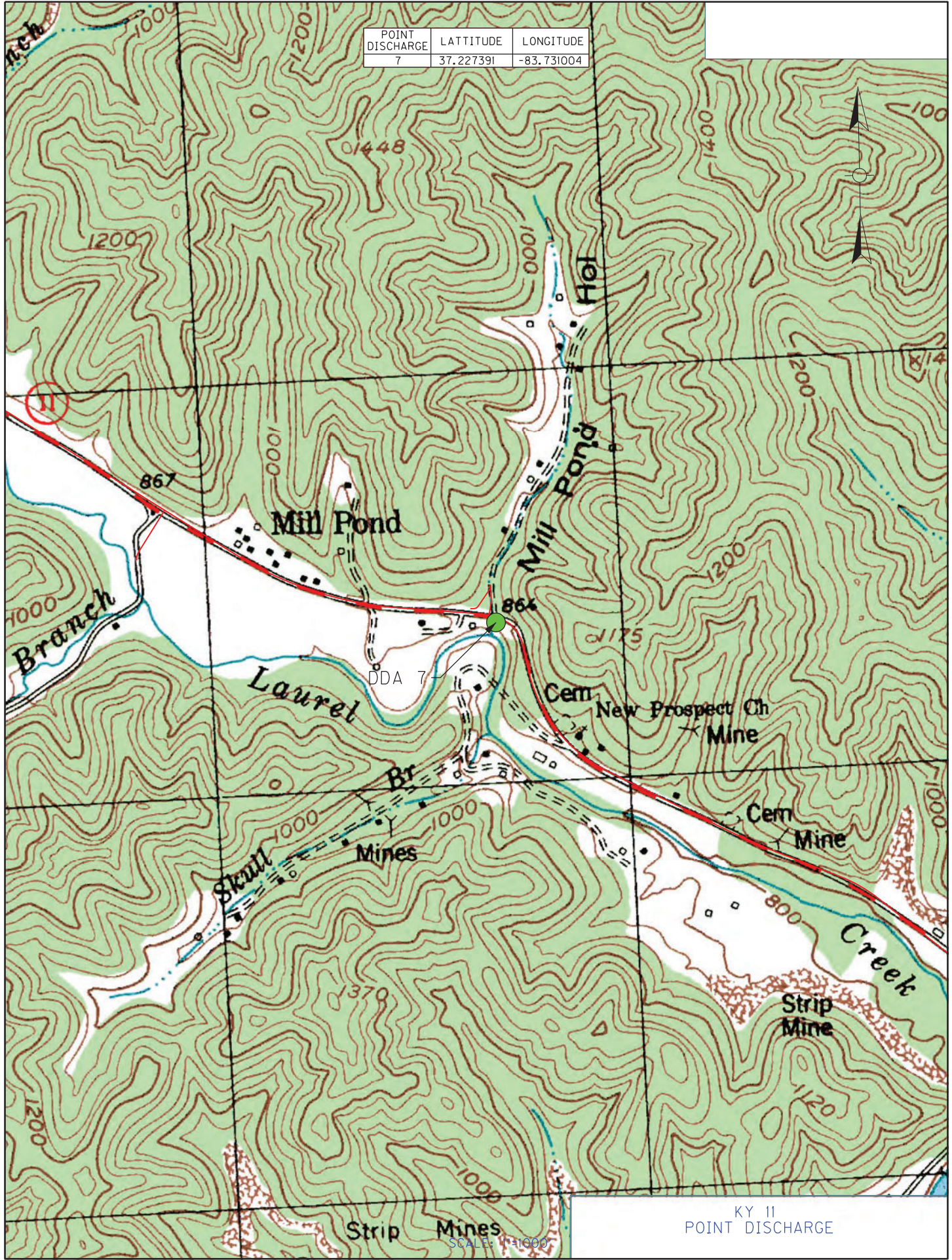
Signature:(*) Tyler Kirby		Title:(*) Engineer-In-Training II & Interim Environme	
First Name:(*) Tyler	M.I.: MI	Last Name:(*) Kirby	
eMail Address:(*) tyler.kirby@ky.gov	Business Phone:(*) 6065982145	Alternate Phone: Phone	Signature Date: (*) 2/20/2019

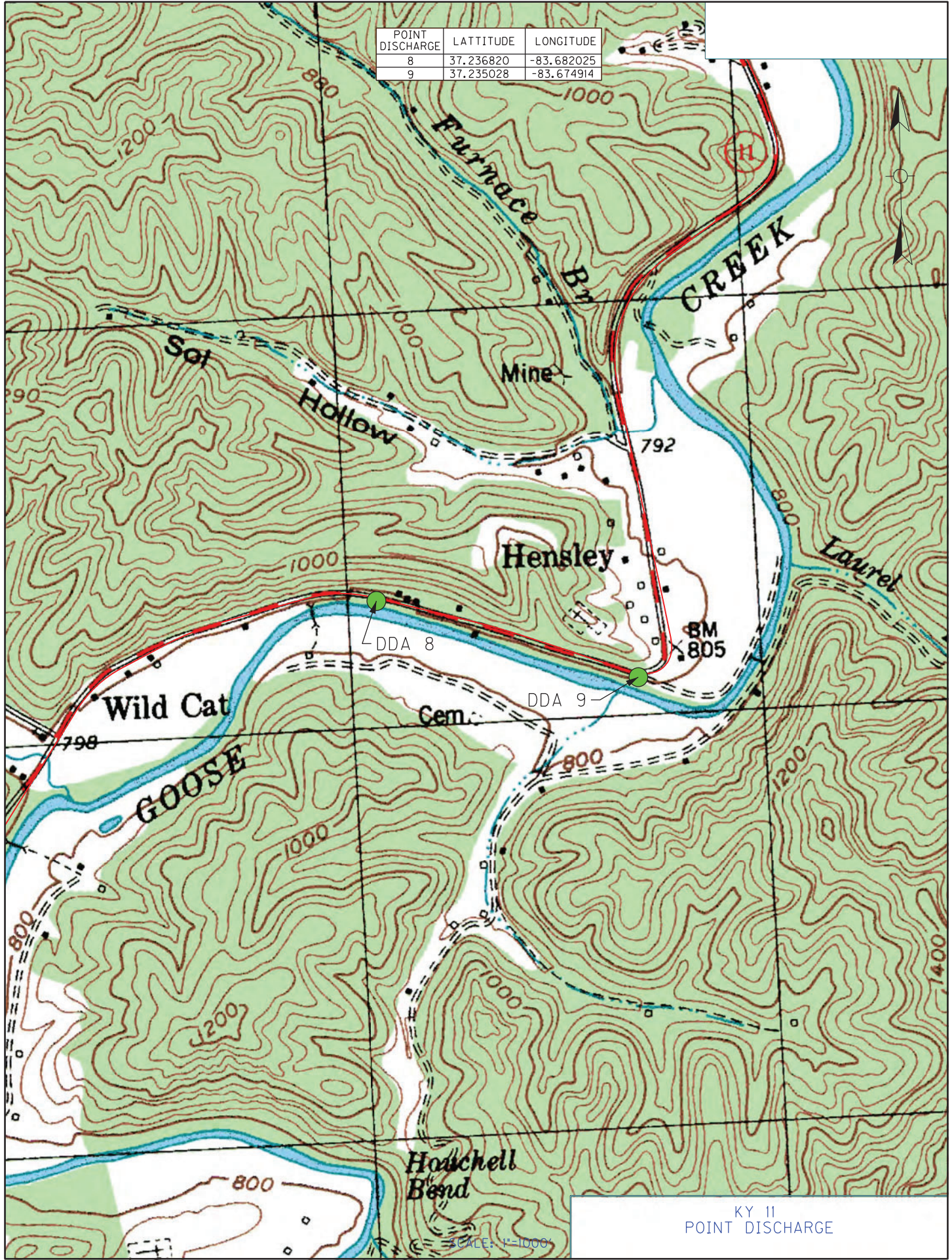
Click to Save Values for Future Retrieval	Click to Submit to EEC
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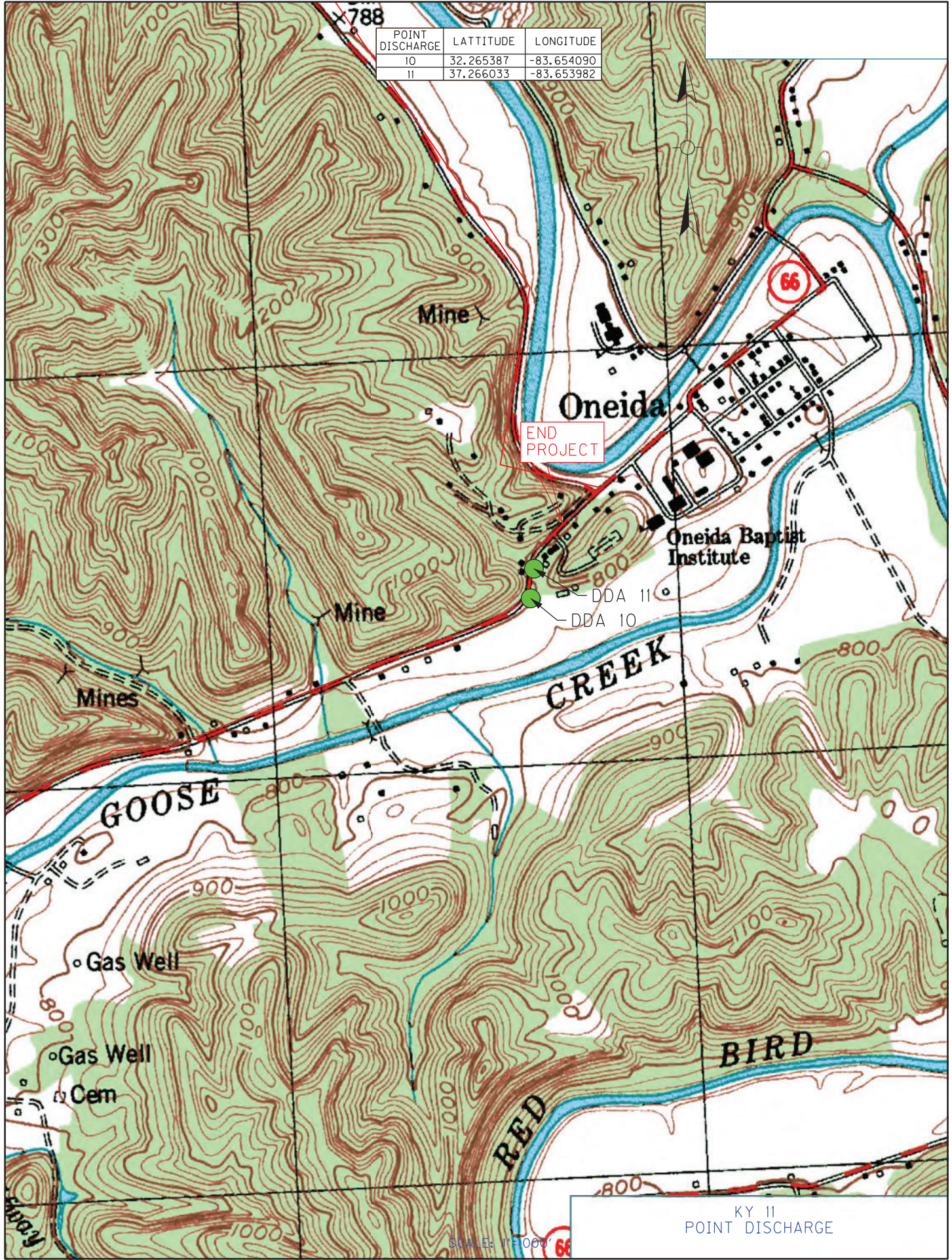


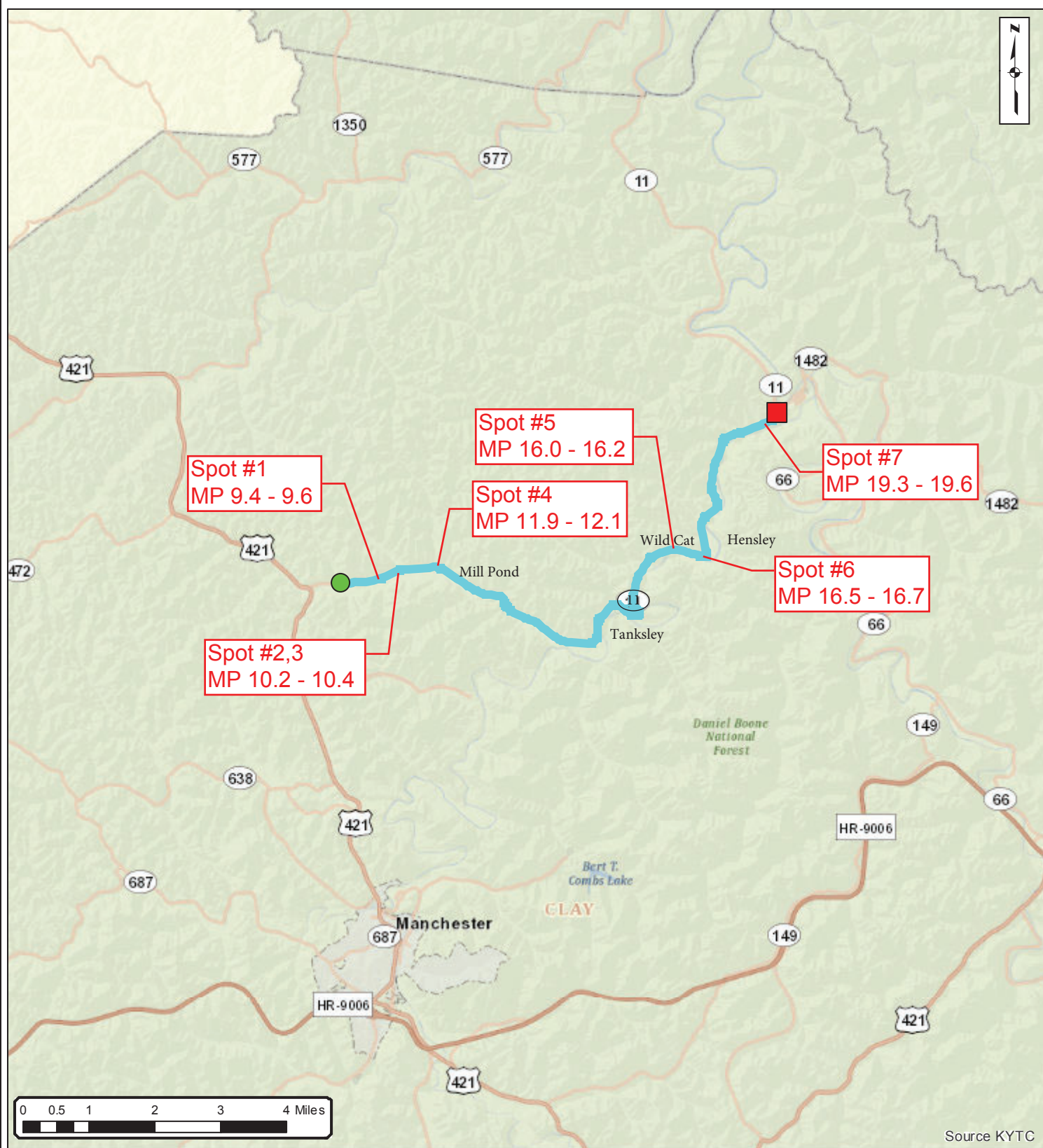
BEGIN PROJECT

KY 11
POINT DISCHARGE









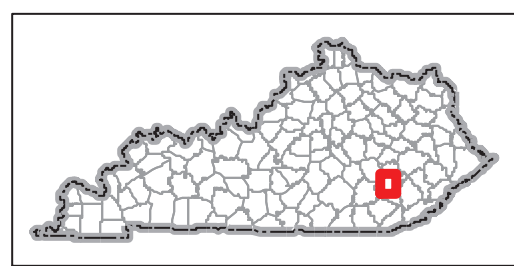
Source KYTC

Clay County KY 11

Date: 8/1/2016



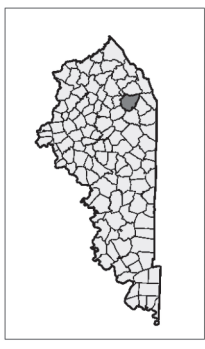
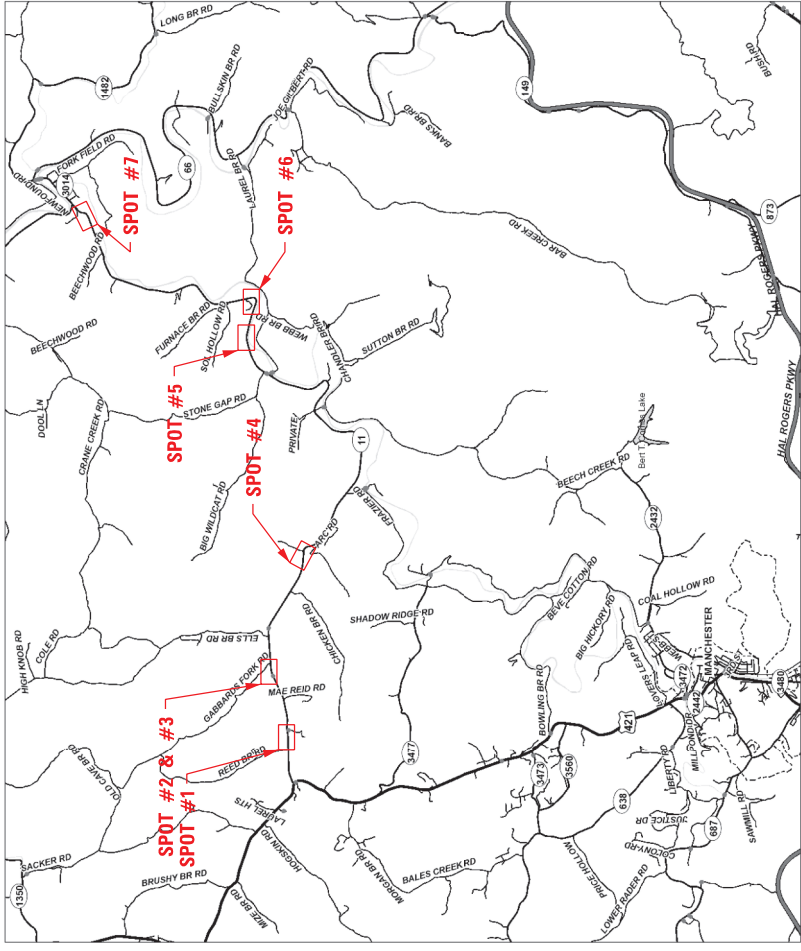
Kentucky Transportation Cabinet
 200 Mero St, Suite W-5
 Frankfort, KY 40601
 Phone: (502) 564-4890



COUNTY OF	CLAY	SHEET NO.	RI
ITEM NO.	11-9004.00		

CLAY COUNTY - KY 11 HSIP PROJECT

- SPOT #1. MP 9.4 - 9.6
- SPOT #2. MP 10.2
- SPOT #3. MP 10.4
- SPOT #4. MP 11.9 - 12.1
- SPOT #5. MP 16.0 - 16.2
- SPOT #6. MP 16.5 - 16.7
- SPOT #7. MP 19.3 - 19.6



LAYOUT SHEET
K1, I
SPOT #1, 2, 3, 4, 5, 6 & 7

NTS



General Summary

Clay County- KY 11



Content:

General Summary

Item No.

11-9004.00

Item	Description	Unit	Qty	Comments
00001	DGA BASE	TON	2819	1304 TONS FROM DITCHING AND SHOULDERING SUMMARY, 1515 TONS FROM PAVEMENT SUMMARY
00020	TRAFFIC BOUND BASE	TON	184	
00100	ASPHALT SEAL AGGREGATE	TON	104	81 TONS FROM DITCHING AND SHOULDERING SUMMARY, 23 TONS FROM PAVEMENT SUMMARY
00103	ASPHALT SEAL COAT	TON	13	10 TONS FROM DITCHING AND SHOULDERING SUMMARY, 3 TONS FROM PAVEMENT SUMMARY
00190	LEVELING & WEDGING PG64-22	TON	500	AS DIRECTED BY THE ENGINEER
00212	CL2 ASPH BASE 1.00D PG64-22	TON	3607	
00301	CL2 ASPH SURF 0.38D PG64-22	TON	1253	
00356	ASPHALT MATERIAL FOR TACK	TON	20	
00440	ENTRANCE PIPE - 15IN	LF	144	
00443	ENTRANCE PIPE - 24IN	LF	46	
00462	CULVERT PIPE-18 IN	LF	179	
00464	CULVERT PIPE-24 IN	LF	35	
01204	PIPE CULVERT HEADWALL-18 IN	EACH	4	
01208	PIPE CULVERT HEADWALL-24 IN	EACH	2	
01310	REMOVE PIPE	LF	281	
01496	DROP BOX INLET TYPE 3	EACH	1	
01726	SAFETY BOX INLET-18 IN SDB-1	EACH	2	
01728	SAFETY BOX INLET-18 IN DBL SDB-5	EACH	2	
01987	DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE	EACH	43	
02014	BARRICADE-TYPE III	EACH	2	
02084	JPC PAVEMENT - 8 IN	SQYD	59	
02230	EMBANKMENT IN PLACE	CUYD	2674	398 CUYD FOR SPOT 1, 2286 CUYD FOR MILL POND HOLLOW RD. APPROACH AND DIVERSION
02351	GUARDRAIL-STEEL W BEAM-S FACE	LF	2062.5	
02360	GUARDRAIL TERMINAL SECTION NO.1	EACH	3	
02367	GUARDRAIL END TREATMENT TYPE 1	EACH	5	
02371	GUARDRAIL END TREATMENT TYPE 7	EACH	2	
02381	REMOVE GUARDRAIL	LF	1350	KYTC RETAINS POSSESSION OF EXISTING GUARDRAIL. DELIVER REMOVED GUARDRAIL TO BAILEY BRIDGE YARD, FRANKFORT KY OR DISTRICT YARD PER ENGINEER
02483	CHANNEL LINING CLASS II	TON	31	21 TONS FROM DRAINAGE STRUCTURE SUMMARY, 10 TONS FOR USE AS DIRECTED BY THE ENGINEER
02545	CLEARING AND GRUBBING	LS	1	APPROX. 0.7 ACRE
02562	TEMPORARY SIGNS	SQFT	400	
02569	DEMobilIZATION	LS	1	
02575	DITCHING & SHOULDERING	LF	10380	
02625	REMOVE HEADWALL	EACH	1	
02650	MAINTAIN AND CONTROL TRAFFIC	LS	1	
02651	DIVERSIONS (BY-PASS DETOURS)	LS	1	MILL POND RD.
02671	PORTABLE CHANGEABLE MESSAGE SIGN	EACH	2	
02676	MOBILIZATION FOR MILL & TEXT	LS	1	
02677	ASPHALT PAVE MILLING & TEXTURING	TON	510	
02697	EDGE LINE RUMBLE STRIPS	LF	13080	
02701	TEMP SILT FENCE	LF	3250	AS DIRECTED BY THE ENGINEER
02704	SILT TRAP TYPE B	EACH	25	AS DIRECTED BY THE ENGINEER
02705	SILT TRAP TYPE C	EACH	17	AS DIRECTED BY THE ENGINEER
02707	CLEAN SILT TRAP TYPE B	EACH	25	AS DIRECTED BY THE ENGINEER
02708	CLEAN SILT TRAP TYPE C	EACH	17	AS DIRECTED BY THE ENGINEER
02726	STAKING	LS	1	
04933	TEMP SIGNAL 2 PHASE	EACH	2	
05950	EROSION CONTROL BLANKET	SQYD	5000	AS DIRECTED BY THE ENGINEER
05952	TEMP MULCH	SQYD	2150	
05963	INITIAL FERTILIZER	TON	0.2	
05964	MAINTENANCE FERTILIZER	TON	0.3	
05985	SEEDING AND PROTECTION	SQYD	1500	
05992	AGRICULTURAL LIMESTONE	TON	1	
6406	SBM ALUMINUM SHEET SIGNS .080 IN	SQFT	144	AS DIRECTED BY THE TRAFFIC ENGINEER
6410	STEEL POST TYPE 1	LF	238	AS DIRECTED BY THE TRAFFIC ENGINEER
06510	PAVE STRIPING-TEMP PAINT-4 IN	LF	26160	
06514	PAVE STRIPING-PERM PAINT-4 IN	LF	26160	
06568	PAVE MARKING-THERMO STOP BAR-24IN	LF	33	
08100	CONCRETE-CLASS "A"	CUYD	1.26	
10020NS	FUEL ADJUSTMENT	DOLL	9815	
10030NS	ASPHALT ADJUSTMENT	DOLL	20025	
21373ND	REMOVE SIGN	EACH	10	AS DIRECTED BY THE TRAFFIC ENGINEER
22400NN	REMOVE & RELOCATE SIGN ASSEMBLY	EACH	70	AS DIRECTED BY THE TRAFFIC ENGINEER
24575ES610	HEADWALL (18 IN SLOPED AND MITERED HEADWALL)	EACH	1	
24631EC	BARCODE SIGN INVENTORY	EACH	42	AS DIRECTED BY THE TRAFFIC ENGINEER



Pavement Summary

Clay County- KY 11



Content:

Pavement Summary

Item No.

11-9004.00

Begin Mile	End Mile Point	Begin Station	End Station	# Spot	Bid Item		00301	00212	00001	02697	02677	00190	00100	00103	00356
					CL 2 ASPH SURF 0.38D PG64-22 (Ton)	CL 2 ASPH BASE 1.00D PG64-22 (Ton)									
9.39	9.65	496+00	509+50	1			248	1166	1282	2700	80	23	3	4	
10.23	10.44	540+00	551+00	2&3			202	127	2200	2200	41			3	
11.90	12.05	628+50	636+40	4			188	622	202	1580	44			3	
16.03	16.19	846+50	855+00	5			156	294		1700	92			2	
16.49	16.68	870+50	880+50	6			183	541		2000	62			3	
19.3	19.6	1018+00	1032+50	7			266	835		2900	192			5	
As directed by the engineer															
TOTAL:							1242	3555	1484	13080	510	500	23	3	20
ENTRANCES															
Mile Point	Station	LT OR RT	CL 2 ASPH SURF 0.38D PG64-22 (Ton)	00301	00212	00001	00020	02084	JPC PAVEMENT - 8 IN (SQYD)	00020	TRAFFIC BOUND BASE (Ton)	00020	DGA BASE 1.00D PG64-22 (Ton)	00001	00020
9.43	497+81	LT													
9.48	500+80	LT					19								
9.50	501+65	LT	6		12	17									
9.58	505+96	RT					25								
9.60	506+91	LT	5		10	14									
9.65	509+33	RT					20								
10.25	541+05	LT					11								
10.31	544+45	LT					15								
11.91	628+65	RT					7								
16.60	876+74	RT					11								
16.66	879+55	RT					14								
19.49	1029+29	RT					29								
19.53	1031+13	RT					33								
TOTAL			11		22	31	184	59							

Note 1: spot #4 MP 11.91 to MP 12.05 includes KY 11, Mill Pond Hollow rd. approach, and approach diversion
Note 2: For Spots #2 thru #7 the DGA wedge and Asphalt seal are estimated with the ditching and shouldering summary.
Note 3: Milling includes 7 tons per tie-in at the beginning and ending of each spot improvement.



Pavement Marking Summary

Clay County- KY 11



Content:	Pavement Marking Summary	Item No.	11-9004.00
-----------------	---------------------------------	-----------------	-------------------

Roadway	Bid Item				06514	06568	Comment On Existing Conditions
	Begin	Begin	End	End	PAVE STRIPING - PERM PAINT - 4 IN	PAVE MARKING- THERMO STOP BAR- 24IN	
	STATION	MP	STATION	MP	LF	LF	
KY 11 SPOT #1	496+00	9.394	509+50	9.650	2700		4 IN WHITE SOLID STRIPE FOR EDGE LINE (LT. & RT.)
KY 11 SPOT #1	496+00	9.394	509+50	9.650	2700		4 IN YELLOW DOUBLE SOLID STRIPE FOR CENTERLINE
KY 11 SPOT #2 & #3	540+00	10.227	551+00	10.436	2200		4 IN WHITE SOLID STRIPE FOR EDGE LINE (LT. & RT.)
KY 11 SPOT #2 & #3	540+00	10.227	551+00	10.436	2200		4 IN YELLOW DOUBLE SOLID STRIPE FOR CENTERLINE
KY 11 SPOT #4	628+50	11.903	636+40	12.053	1580		4 IN WHITE SOLID STRIPE FOR EDGE LINE (LT. & RT.)
KY 11 SPOT #4	628+50	11.903	636+40	12.053	1580		4 IN YELLOW DOUBLE SOLID STRIPE FOR CENTERLINE
KY 11 SPOT #5	846+50	16.032	855+00	16.193	1700		4 IN WHITE SOLID STRIPE FOR EDGE LINE (LT. & RT.)
KY 11 SPOT #5	846+50	16.032	855+00	16.193	1700		4 IN YELLOW DOUBLE SOLID STRIPE FOR CENTERLINE
KY 11 SPOT #6	870+50	16.487	880+50	16.676	2000		4 IN WHITE SOLID STRIPE FOR EDGE LINE (LT. & RT.)
KY 11 SPOT #6	870+50	16.487	880+50	16.676	2000		4 IN YELLOW DOUBLE SOLID STRIPE FOR CENTERLINE
KY 11 SPOT #7	1018+00	19.280	1032+50	19.555	2900		4 IN WHITE SOLID STRIPE FOR EDGE LINE (LT. & RT.)
KY 11 SPOT #7	1018+00	19.280	1032+50	19.555	2900		4 IN YELLOW DOUBLE SOLID STRIPE FOR CENTERLINE
KY 11 SPOT #4	631+11	11.953				33	
				TOTALS	26160	33	ALL STRIPING SHOULD BE CONSTRUCTED ACCORDING TO MUTCD STANDARDS OR BY DIRECTION OF THE ENGINEER.

Ditching & Shouldering Summary **Clay County** **Route KY 11**

Side of Road	LOCATION				Length (LF)	Estimated Excavation Volume** (CU YD)	Estimated Embankment Volume** (CU YD)	Ditching & Shouldering Detail Sheet Figure Ref.*	Include DGA Wedge? (Yes/No)	DGA (TONS)	Asphalt Seal Coat (TON)	Asphalt Seal Aggregate (TON)	Channel Line Ditch, Fill Slope or Cut Slope? (Yes/No)	Channel Lining Class II (TONS)	Geotex. Fabric Type IV (SQ YD)	Remarks
	Approx. BEGIN Milepoint	Approx. END Milepoint	Approx. BEGIN Station	Approx. END Station												
LT	540+00	10.227	551+00	10.436	1,100	20	163	Figure 8	Yes	99	1.29	10.70	No			
RT	540+00	10.227	551+00	10.436	1,100	0	61	Figure 3	Yes	71	0.92	7.64	No			
LT	628+50	11.903	636+40	12.053	790	7	59	Figure 3	Yes	51	0.66	5.49	No			
RT	628+50	11.903	636+40	12.053	790	0	176	Figure 3	Yes	51	0.66	5.49	No			
LT	846+50	16.032	855+00	16.193	850	8	220	Figure 3	Yes	55	0.71	5.91	No			
RT	846+50	16.032	855+00	16.193	850	0	63	Figure 3	Yes	55	0.71	5.91	No			
LT	870+50	16.487	880+50	16.676	1,000	9	148	Figure 3	Yes	52	0.67	5.56	No			
RT	870+50	16.487	880+50	16.676	1,000	0	111	Figure 3	Yes	77	1.00	8.34	No			
LT	1018+00	19.280	1032+50	19.555	1,450	0	107	Figure 3	Yes	93	1.21	10.07	No			
RT	1018+00	19.280	1032+50	19.555	1,450	0	1,611	Figure 6	Yes	700	1.94	16.12	No			

Summary of Items								
Ditching & Shouldering	10,380	LF	Asphalt Seal Coat	10	TONS	Channel Lining Class II	0	TONS
DGA	1,304	TONS	Asphalt Seal Aggregate	81	TONS	Geotextile Fabric Type IV	0	SQ YD

* The "Figure References" noted below refer to the Figure number within the Ditching & Shouldering Detail Sheet that is the closest representation of the intended Ditching & Shouldering
 ** The Estimated Volumes of Excavation and Embankment are provided for informational purposes ONLY. The Department gives no guarantee to the accuracy of the estimated volumes. The Bidder must draw his/her own conclusion. Payment will be based on the Linear Footage of Ditching & Shouldering performed, regardless of the accuracy of the Estimated Volumes of Excavation and Embankment.

KY 11

CLAY County

Guardrail Summary

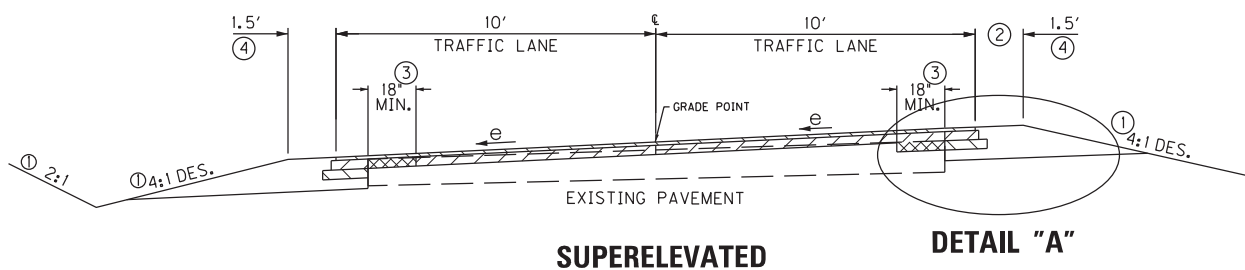
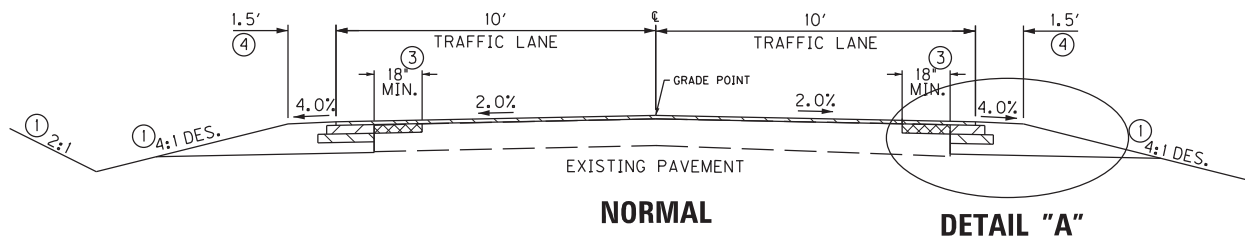
Notes: Begin/End Milepoints are estimated to include the entire length of the Rail AND the End Treatments. The Engineer may adjust the proposed guardrail termini to ensure proper installation of the guardrail system.

Side of Road	Proposed BEGINNING Treatment	Approx. BEGIN Station	Approx. END Milepoint	Proposed Guardrail to be Constructed		Number of Radius Rail	Remarks	Existing Guardrail to be Removed						
				Proposed ENDING Treatment	Proposed Length (LF)			Approx. BEGIN Station	Approx. END Milepoint	Approx. BEGIN Station	Approx. END Milepoint	Existing Length (LF)		
RT	Terminal Section 1	628+76	11.908	636+40	12.053	2		Type 1	737.50	628+76	11.908	636+40	12.053	775.00
LT	Type 1	629+00	11.913	631+00	11.951	6		Type 7	125.00	629+00	11.913	631+47	11.960	250.00
LT	Type 7	631+20	11.955	636+40	12.053	6		Type 1	450.00	631+43	11.959	632+80	11.985	137.50
RT	Type 1	1019+50	19.309	1027+75	19.465	0		Type 1	725.00	1025+68	19.426	1027+50	19.460	187.50
RT	Terminal Section 1	876+75	16.605	877+00	16.610			Terminal Section 1	25.00					

Summary of Items									
Item Description	Quantity	Unit	Material/Type	Notes					
GUARDRAIL-STEEL W/ BEAM-S FACE	2,062.50	LF	Remove Guardrail	DELINATOR FOR GUARDRAIL BI DIRECTIONAL WHITE					
End Treatment Type 1	5	EACH	End Treatment Type 2A	GR Connector to Bridge End Type A					
End Treatment Type 3	0	EACH	End Treatment Type 4A	GR Connector to Bridge End Type A-1					
End Treatment Type 7	2	EACH	Terminal Section No. 1	GR Connector to Bridge End Type C					
Guardrail-Steel W/ Beam-S Face A	0	LF	Terminal Section No. 1	GR Connector to Bridge End Type D					
	0	LF		DGA					
	0.00	TONS		Asphalt Seal Coat					
	0.00	TONS		Asphalt Seal Aggregate					
	0	LF		Guardrail-Bridge Case II					

TYPICAL SECTIONS

**KY 11 SPOT #1
WIDENING AND OVERLAY SECTION
STA. 496 + 00 TO STA. 497 + 00
STA. 506 + 00 TO 509 + 50**



PAVEMENT SCHEDULE

OVERLAY TRAFFIC LANES	1.50" CL2 ASPHALT SURFACE 0.38D PG64-22 CL2 ASPH BASE 1.00D PG64-22(5)
WIDENING TRAFFIC LANES	1.50" CL2 ASPHALT SURFACE 0.38D PG64-22 3.50" CL2 ASPHALT BASE 1.00D PG64-22 3.50" CL2 ASPHALT BASE 1.00D PG64-22 4.00" DENSE GRADED AGGREGATE

NOTE: ASPHALT MATERIAL FOR TACK AS APPLIED AT RATE OF 0.84 LB/SOYD

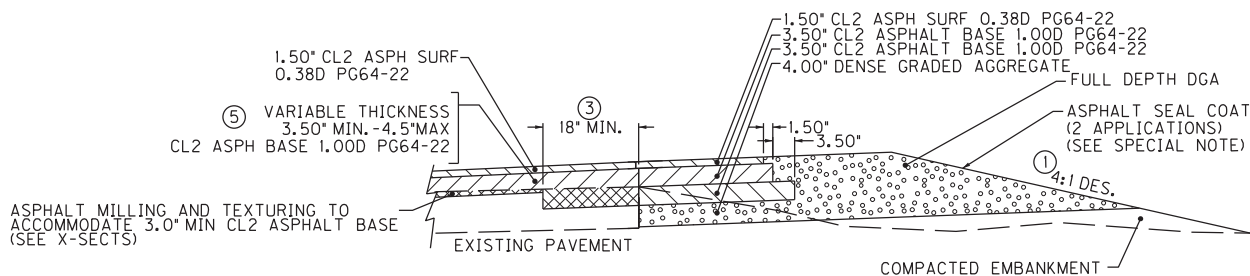
ASPHALT SEAL COAT APPLICATION

FIRST COURSE:
ASPHALT CURING SEAL (APPLY AT A RATE OF 3.2 LBS/SQ.YD.)
ASPHALT SEAL AGGREGATE (APPLY AT A RATE OF 30 LBS/SQ.YD.)

SECOND COURSE:
ASPHALT CURING SEAL (APPLY AT A RATE OF 2.8 LBS/SQ.YD.)
ASPHALT SEAL AGGREGATE (APPLY AT A RATE OF 20 LBS/SQ.YD.)

NOTES:

- ① SEE X-SECTIONS FOR SLOPES OUTSIDE OF SHOULDER.
- ② SUPERELEVATED SHOULDER, CONSTRUCT TO STANDARD SUPERELEVATION EXCEPT NOT FLATTER THAN NORMAL SHOULDER SLOPE
- ③ MILLING (VARIABLE WIDTH, MIN. 18" SO THAT TOTAL PAVING WIDTH IS A MIN. 4.0' AND A MIN. DEPTH THAT MATCHES THE PROPOSED ADJACENT PAVEMENT COURSE) SHALL BE REQUIRED ALONG THE EDGE OF THE EXISTING PAVEMENT ADJACENT TO THE WIDENING. (SEE X-SECTS).
- ④ UNLESS DIRECTED OTHERWISE BY THE ENGINEER, PROVIDE A MINIMUM TWO FOOT SHOULDER WIDTH WHERE PROPOSED GUARDRAIL IS REQUIRED.
- ⑤ PAVEMENT WEDGE: APPLICATION DEPENDANT ON THE THICKNESS OF THE ASPHALT IMPROVEMENT NEEDED TO CORRECT THE PROPOSED SUPERELEVATION OR AS DIRECTED BY THE ENGINEER



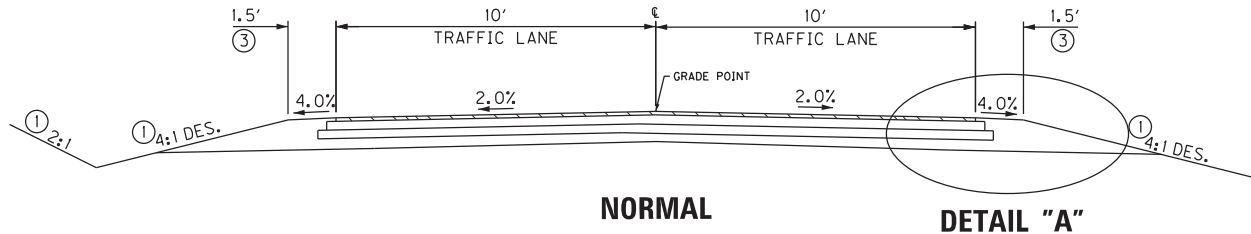
DETAIL "A"

N. T. S.

KY 11
TYPICAL SECTION

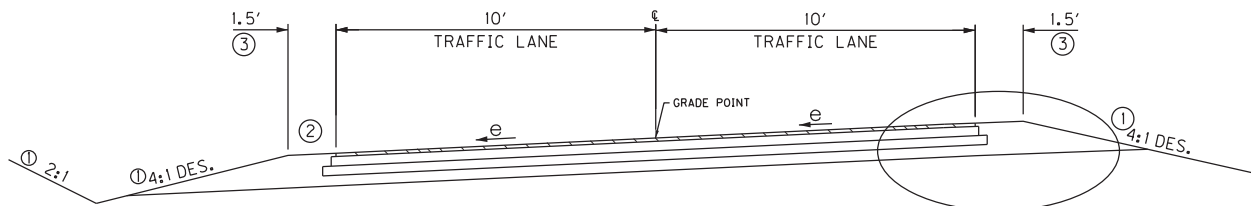
TYPICAL SECTIONS

**KY 11 SPOT #1
NEW CONSTRUCTION SECTION
STA. 497+00 TO STA. 506+00**



NORMAL

DETAIL "A"



SUPERELEVATED

DETAIL "A"

PAVEMENT SCHEDULE

NEW CONSTRUCTION	1.50" CL2 ASPHALT SURFACE 0.38D PG64-22
	3.50" CL2 ASPHALT BASE 1.00D PG64-22
	3.50" CL2 ASPHALT BASE 1.00D PG64-22
	4.00" DENSE GRADED AGGREGATE

NOTE: ASPHALT MATERIAL FOR TACK AS
APPLIED AT RATE OF 0.84 LB/SOYD

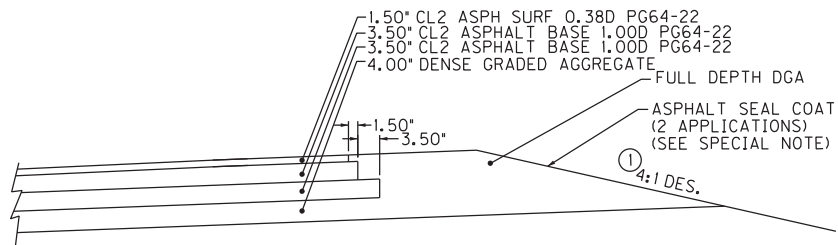
ASPHALT SEAL COAT APPLICATION

FIRST COURSE:
ASPHALT CURING SEAL (APPLY AT A RATE OF 3.2 LBS/SQ.YD.)
ASPHALT SEAL AGGREGATE (APPLY AT A RATE OF 30 LBS/SQ.YD.)

SECOND COURSE:
ASPHALT CURING SEAL (APPLY AT A RATE OF 2.8 LBS/SQ.YD.)
ASPHALT SEAL AGGREGATE (APPLY AT A RATE OF 20 LBS/SQ.YD.)

NOTES:

- ① SEE X-SECTIONS FOR SLOPES OUTSIDE OF SHOULDER.
- ② SUPERELEVATED SHOULDER, CONSTRUCT TO STANDARD SUPERELEVATION EXCEPT NOT FLATTER THAN NORMAL SHOULDER SLOPE
- ③ UNLESS DIRECTED OTHERWISE BY THE ENGINEER, PROVIDE A MINIMUM TWO FOOT SHOULDER WIDTH WHERE PROPOSED GUARDRAIL IS REQUIRED.



DETAIL "A"

N. T. S.

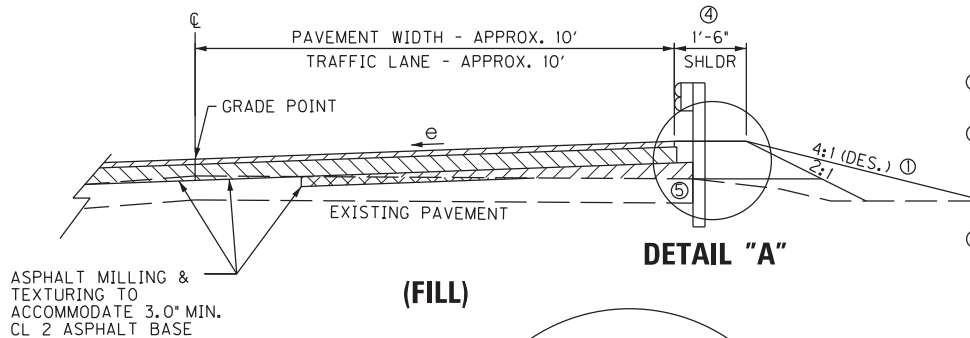
KY 11
TYPICAL SECTION

TYPICAL SECTIONS

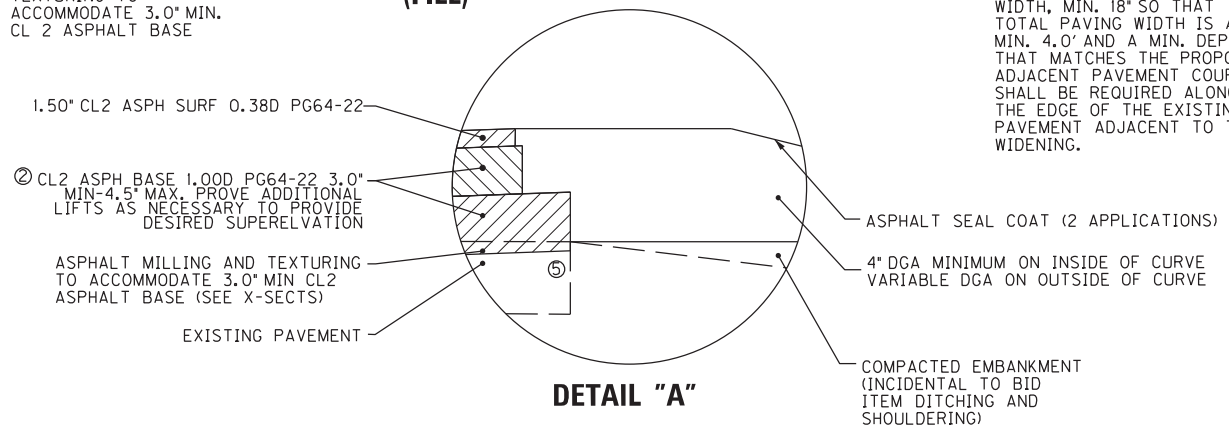
KY 11 SPOT #2,3,4,5,6,7

NOTES:

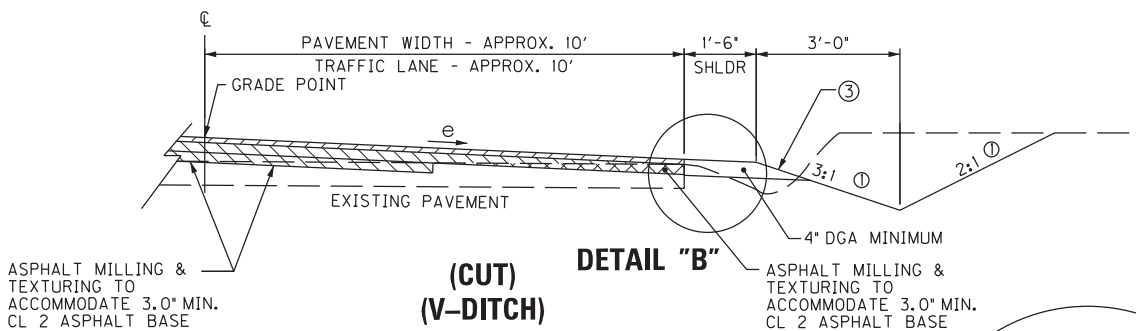
- ① SEE X-SECTIONS FOR DITCH WIDTH AND SLOPES OUTSIDE OF SHOULDER
- ② PAVEMENT WEDGE: APPLICATION DEPENDENT ON THE THICKNESS OF THE ASPHALT IMPROVEMENT NEEDED TO CORRECT THE PROPOSED SUPERELEVATION OR AS DIRECTED BY THE ENGINEER
- ③ DOUBLE ASPHALT SEAL COAT REQUIRED (SEE SPCL. NOTE)
- ④ UNLESS DIRECTED OTHERWISE BY THE ENGINEER, PROVIDE A MINIMUM TWO FOOT SHOULDER WIDTH WHERE PROPOSED GUARDRAIL IS REQUIRED
- ⑤ SPOT #7 MILLING ALONG EASTBOUND WIDENING. SEE CROSS-SECTIONS FOR LOCATION AND WIDTH(VARIABLE WIDTH, MIN. 18" SO THAT TOTAL PAVING WIDTH IS A MIN. 4.0' AND A MIN. DEPTH THAT MATCHES THE PROPOSED ADJACENT PAVEMENT COURSE) SHALL BE REQUIRED ALONG THE EDGE OF THE EXISTING PAVEMENT ADJACENT TO THE WIDENING.



DETAIL "A"

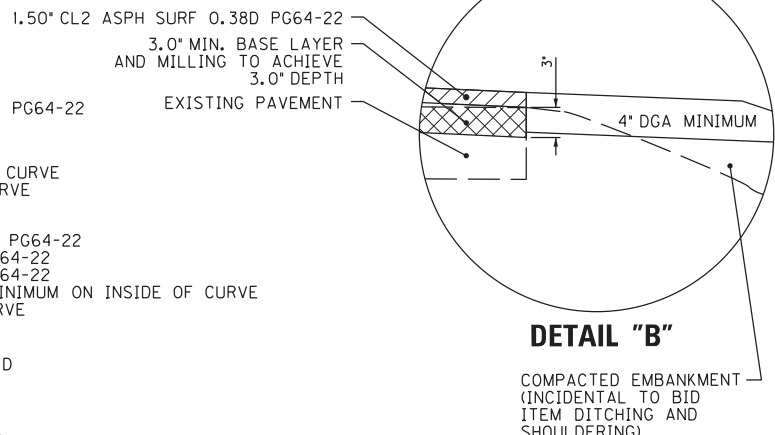


DETAIL "A"



DETAIL "B"

ASPHALT MILLING & TEXTURING TO ACCOMMODATE 3.0" MIN. CL 2 ASPHALT BASE
(CUT)
(V-DITCH)



DETAIL "B"

PAVEMENT SCHEDULE

OVERLAY TRAFFIC LANES	1.50" CL2 ASPHALT SURFACE 0.38D PG64-22 CL2 ASPH BASE 1.00D PG64-22 ②
SHOULDER	4.00" DGA MINIMUM ON INSIDE OF CURVE VARIABLE DGA ON OUTSIDE OF CURVE
SPOT #7 EASTBOUND WIDENING TRAFFIC LANES	1.50" CL2 ASPHALT SURFACE 0.38D PG64-22 3.50" CL2 ASPHALT BASE 1.00D PG64-22 3.50" CL2 ASPHALT BASE 1.00D PG64-22 4.00" DENSE GRADED AGGREGATE MINIMUM ON INSIDE OF CURVE VARIABLE DGA ON OUTSIDE OF CURVE

NOTE: ASPHALT MATERIAL FOR TACK AS APPLIED AT RATE OF 0.84 LB/SQYD

ASPHALT SEAL COAT APPLICATION

FIRST COURSE:
ASPHALT SEAL COAT (APPLY AT A RATE OF 3.2 LBS/SQ.YD.)
ASPHALT SEAL AGGREGATE (APPLY AT A RATE OF 30 LBS/SQ.YD.)

SECOND COURSE:
ASPHALT SEAL COAT (APPLY AT A RATE OF 2.8 LBS/SQ.YD.)
ASPHALT SEAL AGGREGATE (APPLY AT A RATE OF 20 LBS/SQ.YD.)

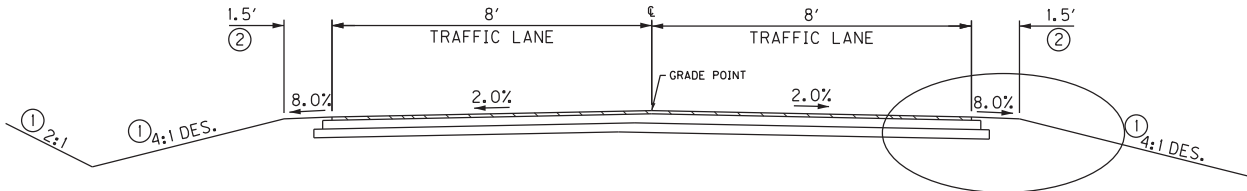
N. T. S.

KY 11
TYPICAL SECTION

TYPICAL SECTIONS

MILL POND HOLLOW RD.

- NOTES:
 ① SEE X-SECTIONS FOR SLOPES OUTSIDE OF SHOULDER.
 ② UNLESS DIRECTED OTHERWISE BY THE ENGINEER, PROVIDE A MINIMUM TWO FOOT SHOULDER WIDTH WHERE PROPOSED GUARDRAIL IS REQUIRED.



NORMAL

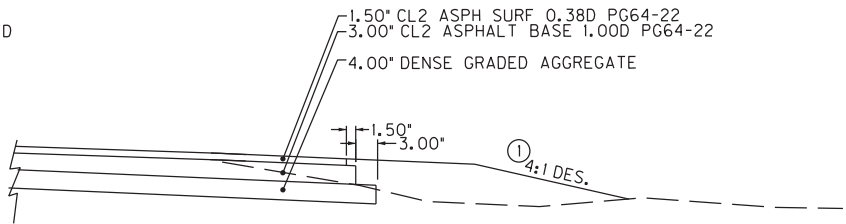
DETAIL "A"

PAVEMENT SCHEDULE

NEW CONSTRUCTION ———— [1.50" CL2 ASPHALT SURFACE 0.38D PG64-22
 3.00" CL2 ASPHALT BASE 1.00D PG64-22
 4.00" DENSE GRADED AGGREGATE

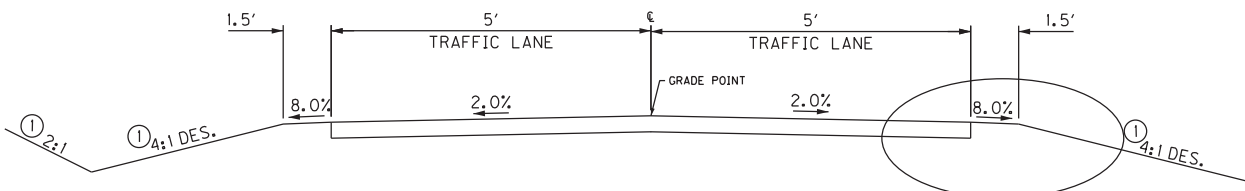
NOTE: ASPHALT MATERIAL FOR TACK AS APPLIED AT RATE OF 0.84 LB/SQYD

ASPHALT SEAL COAT APPLICATION



DETAIL "A"

MILL POND HOLLOW RD. DIVERSION

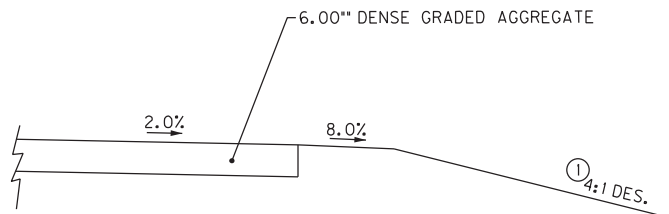


NORMAL

DETAIL "B"

PAVEMENT SCHEDULE

NEW CONSTRUCTION ———— [6.00" DENSE GRADED AGGREGATE



DETAIL "B"

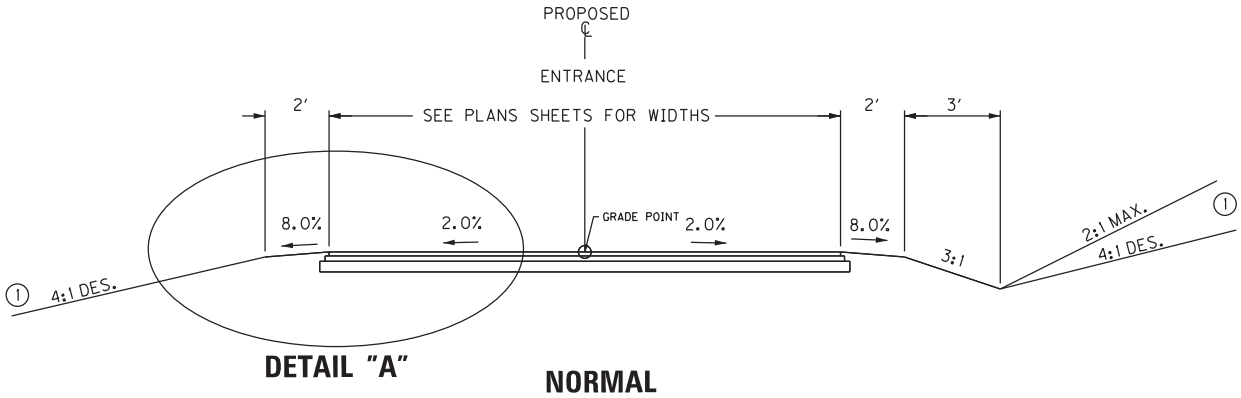
N. T. S.

MILL POND HOLLOW RD.

TYPICAL SECTION

ENTRANCES

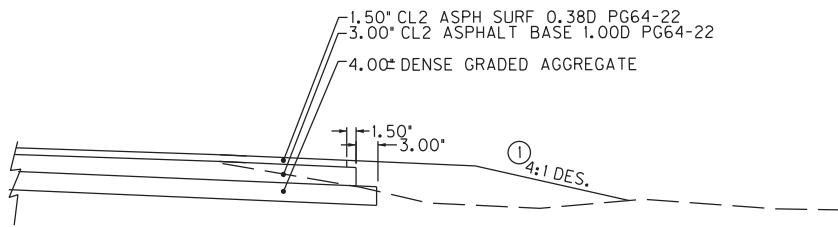
NOTES:
① SEE X-SECTIONS FOR SLOPES OUTSIDE OF SHOULDER.



PAVEMENT SCHEDULE

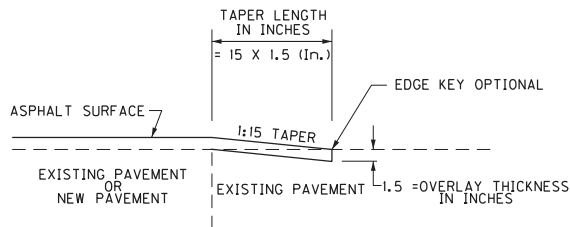
- ENTRANCES (ASPHALT) — 1.50" CL2 ASPHALT SURFACE 0.38D PG64-22
3.00" CL2 ASPHALT BASE 1.00D PG64-22
4.00" DENSE GRADED AGGREGATE
- ENTRANCES (TBB) — 4.00" TRAFFIC BOUND BASE
- ENTRANCES (CONCRETE) — 8.00" JPC PAVEMENT
4.00" CRUSHED STONE BASE

NOTE: ASPHALT MATERIAL FOR TACK AS APPLIED AT RATE OF 0.84 LB/SOYD



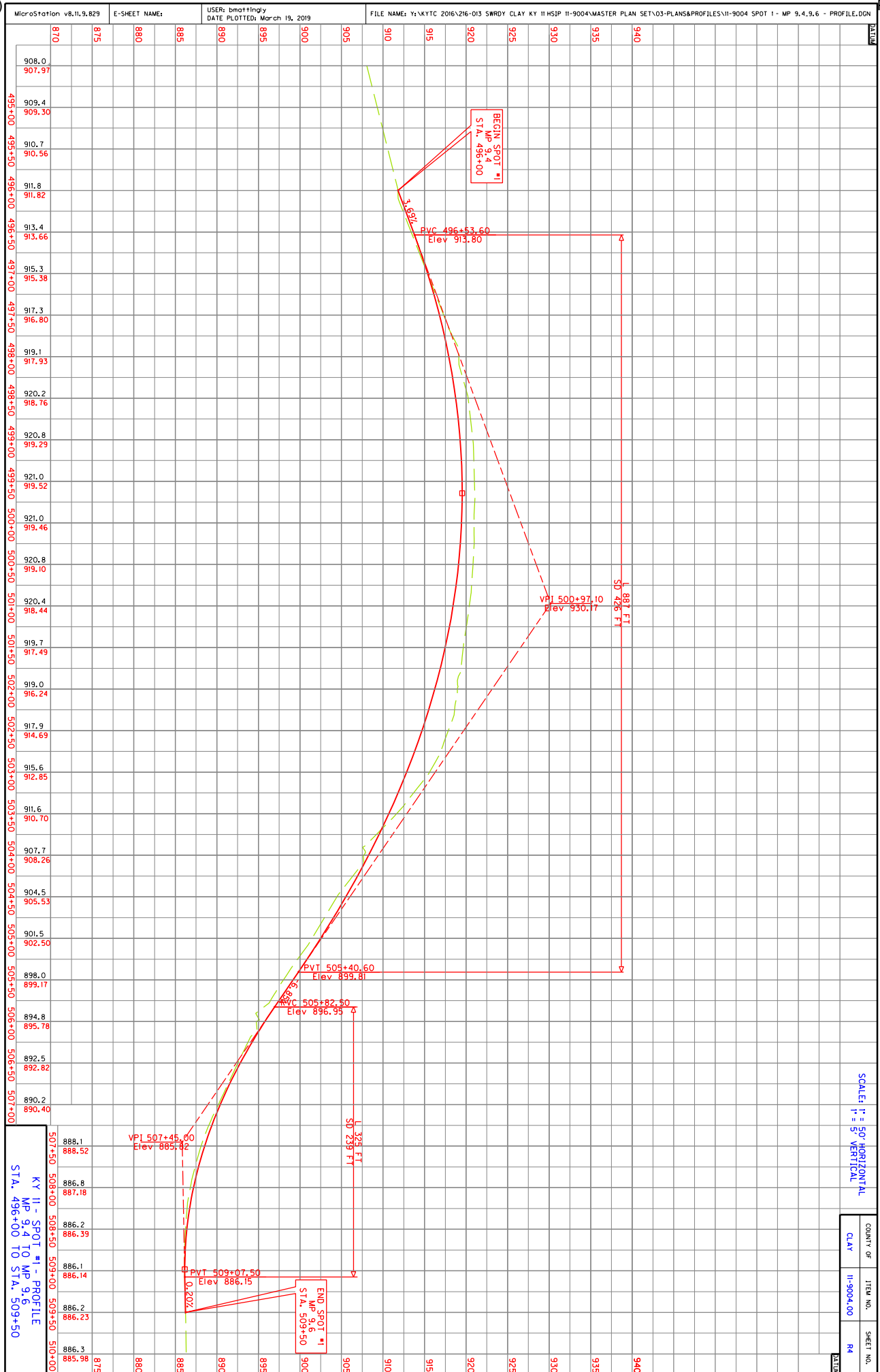
DETAIL "A"

TAPER AT ENTRANCES



N. T. S.

ENTRANCES



MicroStation v8.11.9.829 E-SHEET NAME: USER: bmattingly DATE PLOTTED: March 19, 2019 FILE NAME: Y:\XYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\03-PLANS&PROFILES\II-9004 SPOT 2-3 - MP 10.2,10.4 - PLAN.DGN

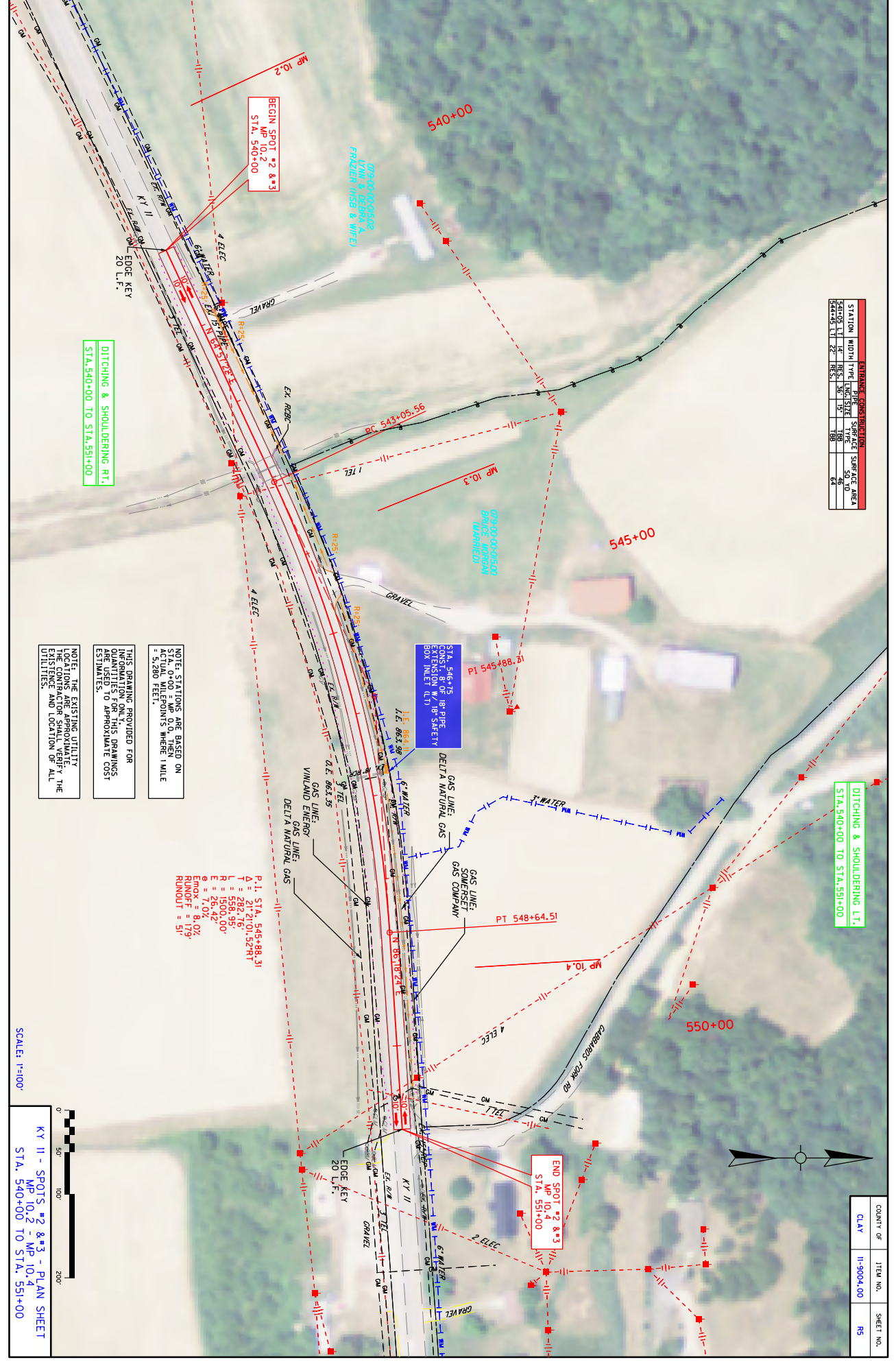


EXHIBIT CONSTRUCTION EXHIBIT AREA			
STATION	WIDTH	TYPE	DATE
540+00	14'	RES.	3/15/18
540+00	22'	RES.	3/15/18
540+00	46'	RES.	3/15/18
540+00	64'	RES.	3/15/18

NOTE: THE EXISTING UTILITIES LOCATIONS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE EXISTENCE AND LOCATION OF ALL UTILITIES.

THIS DRAWING REQUIRED FOR QUANTITIES FOR THIS DRAWINGS ESTIMATED TO APPROXIMATE COST.

NOTES: STATIONS ARE BASED ON STA. 0+00 = MP 0.0, THEN ± 5,280 FEET.

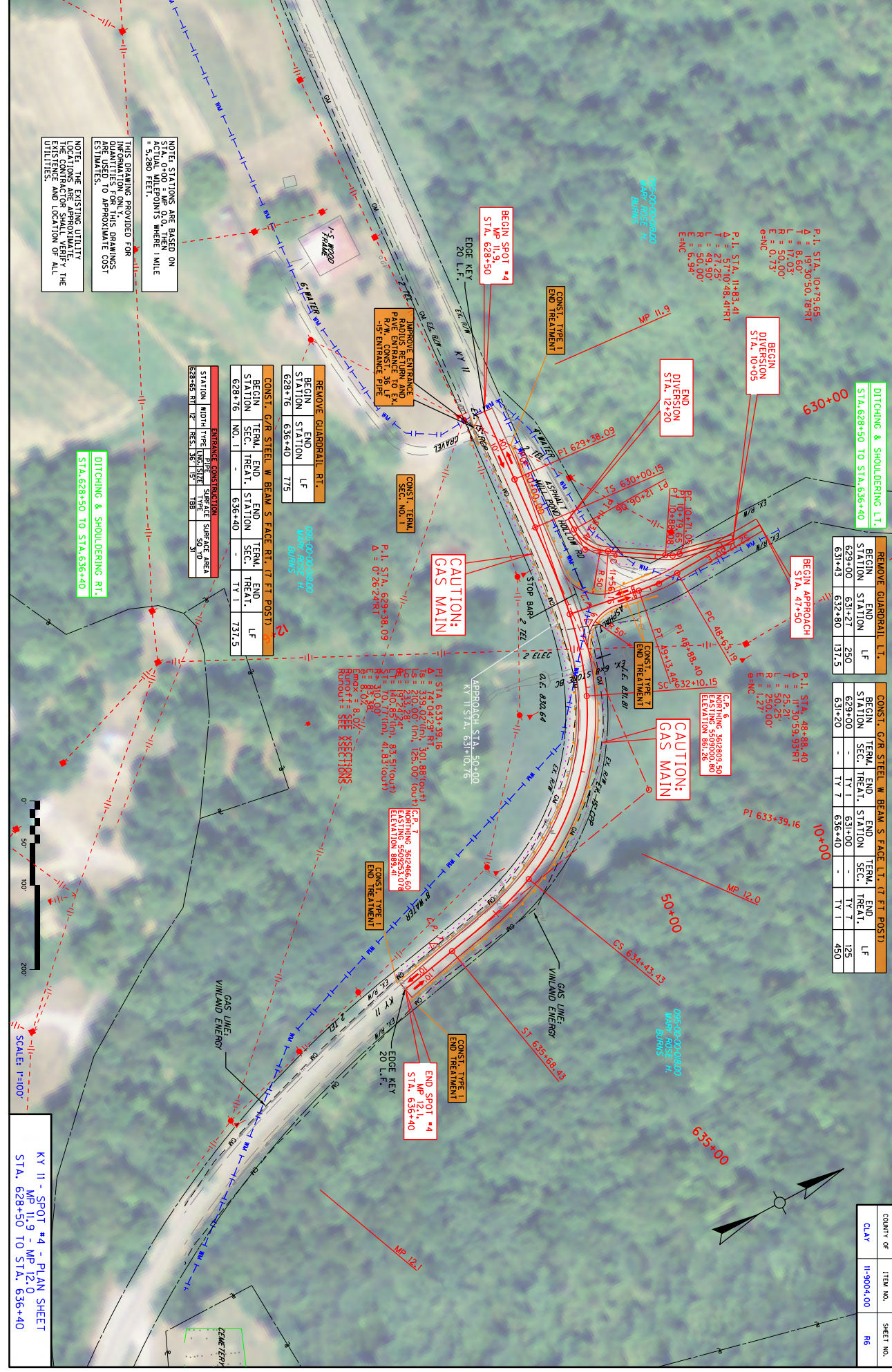
P.I. STA. 545+88.31
 Δ = 212.01, SZTR
 L = 558.95
 R = 1500.00'
 E = 26.42'
 θ = 7.02°
 RUNOFF = 179'
 RUNOUT = 51'

SCALE: 1"=100'

KY II - SPOTS #2 & #3 - PLAN SHEET
 STA. 540+00 TO STA. 551+00

COUNTY OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	85

MicroStation v8.11.9.829 E-SHEET NAME: USER: bmattingly DATE PLOTTED: March 19, 2019 FILE NAME: Y:\XYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\03-PLANS&PROFILES\II-9004 SPOT 4 - MP II.9.12.1 - PLAN.DGN



NOTE: STATIONS ARE BASED ON ACTUAL MILEPOSTS WHERE 1 MILE = 5,280 FEET.

THIS DRAWING PROVIDED FOR QUANTITIES FOR APPROXIMATE COST ESTIMATES.

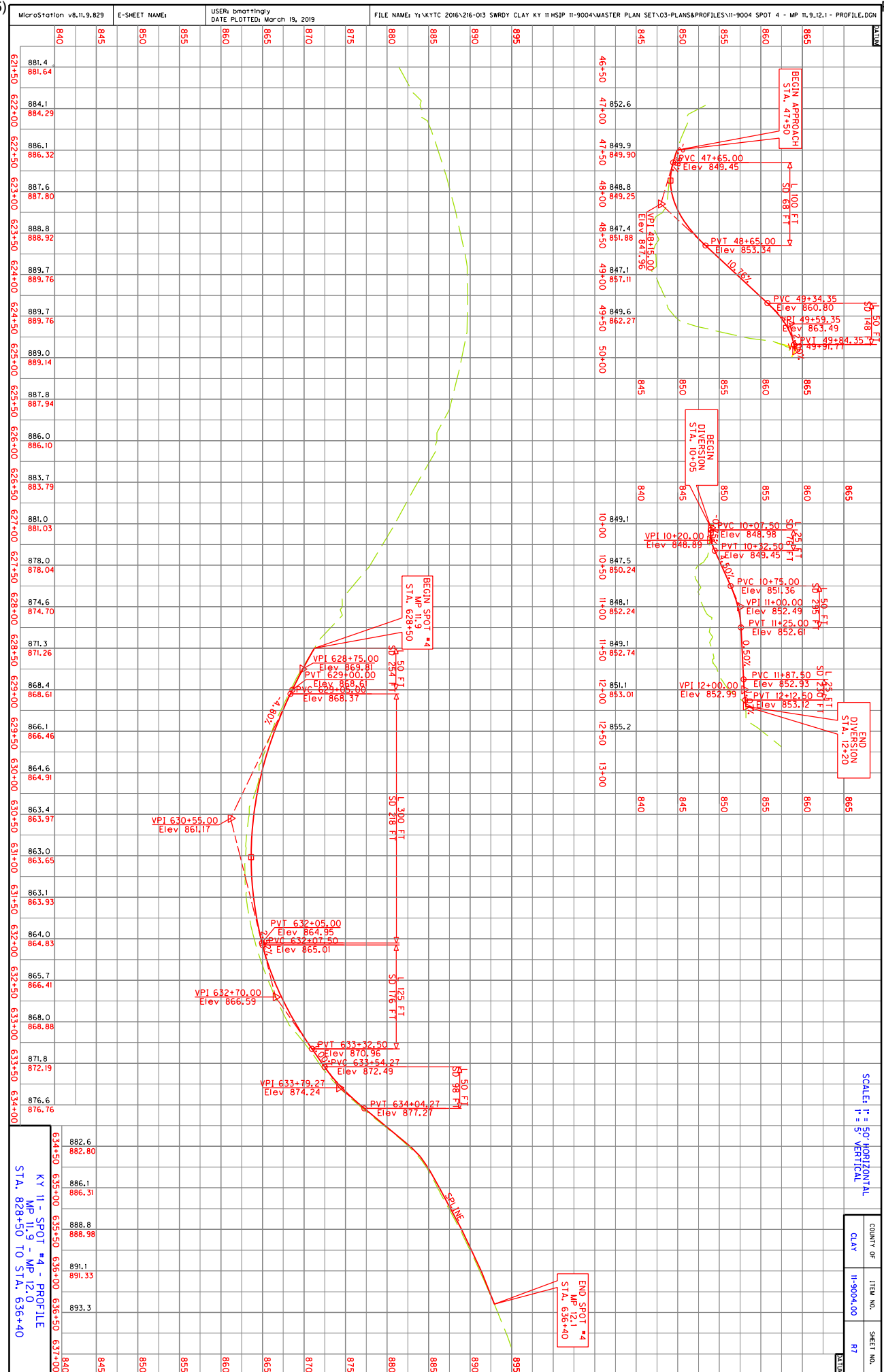
NOTE: THE EXISTING UTILITY LOCATIONS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE EXISTING AND LOCATION OF ALL UTILITIES.

STATION	WIDTH	TYPE	LENGTH	SIZE	SURFACE	SURFACE AREA	AREA
628+65	RT	7'	15'	15"	ASPH	31	31
ENTRANCE CONSTRUCTION							
STATION	NO. 1	NO. 1	NO. 1	NO. 1	NO. 1	NO. 1	NO. 1
BEGIN	628+76	END	636+40	TERM.	TY 1	END	TY 1
STATION	628+76	END	636+40	TERM.	TY 1	END	TY 1

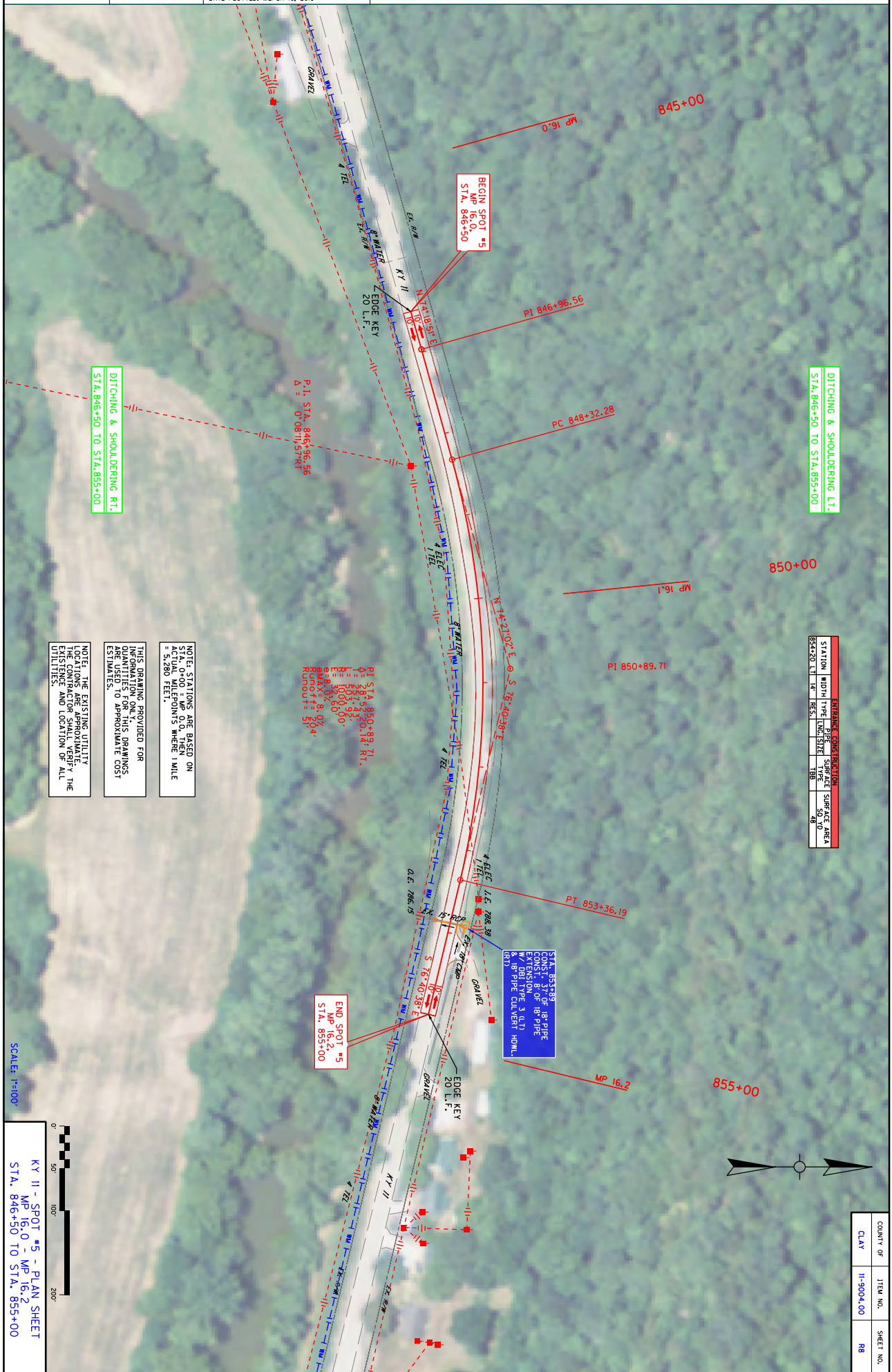
BEGIN STATION	END STATION	LF	BEGIN STATION	END STATION	LF
629+00	631+21	250	629+00	631+00	-
631+43	632+80	137.5	631+20	636+40	520
631+43	632+80	137.5	631+20	636+40	520

COUNTY OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	86

KEY II - SPOT #4 - PLAN SHEET
 MP 11.9 - MP 12.0
 STA. 628+50 TO STA. 636+40



MicroStation v8.11.9.829 E-SHEET NAME: USER: bmattingly DATE PLOTTED: March 19, 2019 FILE NAME: Y:\KYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\03-PLANS&PROFILES\II-9004 SPOT 5 - MP 16.0,16.2 - PLAN.DGN



DITCHING & SHOULDERING LT.
STA. 846+50 TO STA. 855+00

DITCHING & SHOULDERING RT.
STA. 846+50 TO STA. 855+00

DITCHING & SHOULDERING					
STATION	WIDTH	TYPE	PIPE	SURFACE	AREA
START	END	RES.	SIZE	TYPE	SO. AD.

NOTE: STATIONS ARE BASED ON
SURFACE ELEVATIONS WHERE 1 MILE
= 5,280 FEET.

NOTE: STATIONS ARE BASED ON
ACTUAL MILEPOINTS WHERE 1 MILE
= 5,280 FEET.

THIS DRAWING PROVIDED FOR
INFORMATION ONLY. THESE DRAWINGS
ARE NOT TO BE USED FOR APPROXIMATE COST
ESTIMATES.

NOTE: THE EXISTING UTILITY
LOCATIONS ARE APPROXIMATE. THE
EXISTENCE AND LOCATION OF ALL
UTILITIES.

PI STA. 850+89.71
Q = 297.53
L = 687.43
B = 1000.00
R = 833.50
RADIUS = 8.07%
RUNOUT = 59'

STA. 853+89
CONST. 3' OF 18" PIPE
W/ 18" PIPE TIE INTO HOWL
(SEE PLAN)

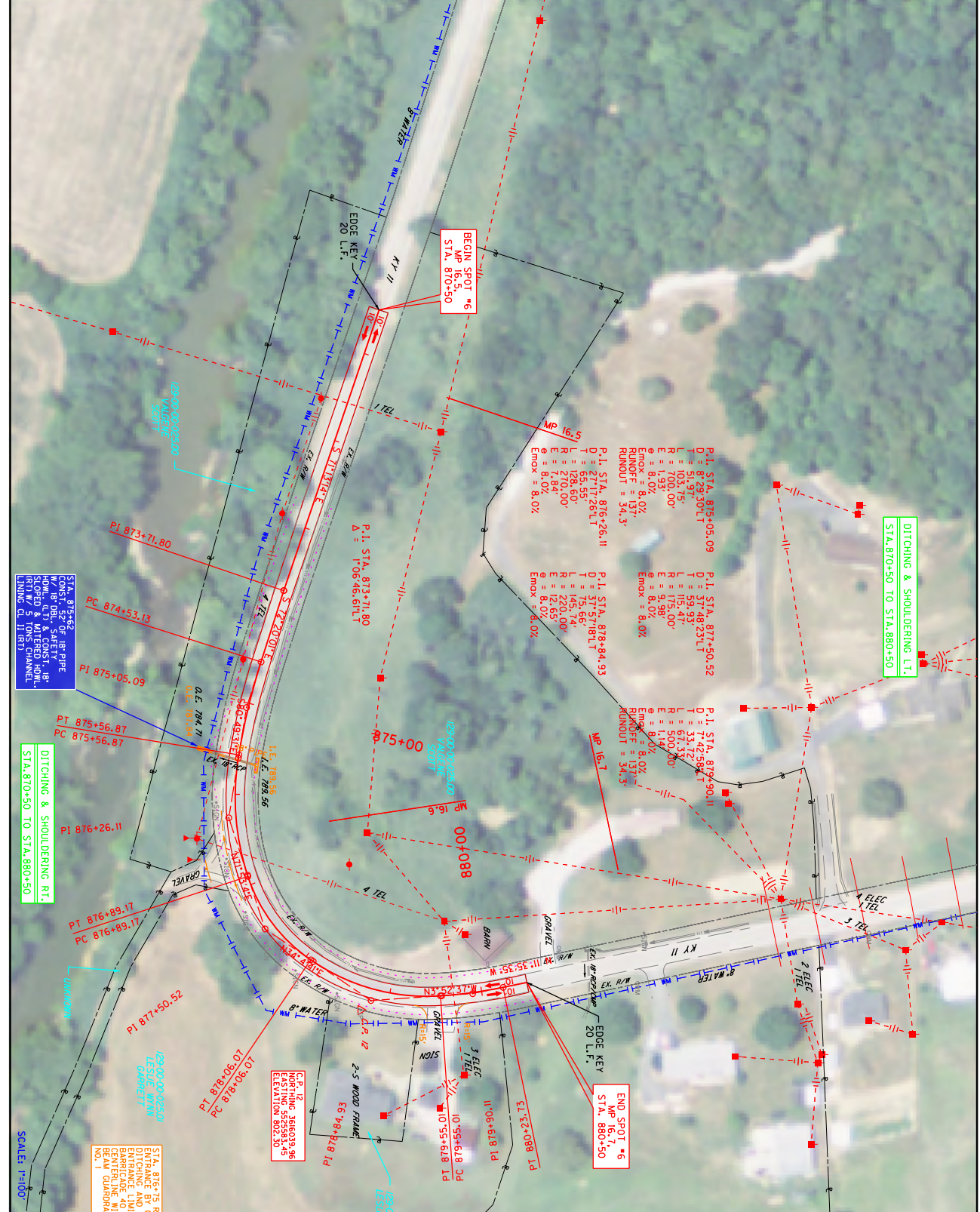
SCALE: 1"=100'



KY II - SPOT #5 - PLAN SHEET
MP 16.0 - MP 16.2
STA. 846+50 TO STA. 855+00

COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	88

MicroStation v8.1i, 9.829 E-SHEET NAME: USER: bmattingly DATE PLOTTED: March 19, 2019 FILE NAME: Y:\XYTC 2016\216-015 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\03-PLANS&PROFILES\II-9004 SPOT 6 - MP 16.5, 16.7 - PLAN.DGN



SCALE 1"=100'

KEY II - SPOT #6 - PLAN SHEET
MP 16.5 - MP 16.6
STA. 870+50 TO STA. 880+50

STA. 876+15 R.T. CLOSE EXISTING ENTRANCE BY CONSTRUCTING DITCHING AND SHOULDERING THRU EXISTING 40 FEET OFF-SET FROM CENTERLINE WITH 25 LF STEEL W. NO. 4W GROUNDWALL AND 2 TERNAL SECT.

CONST. 2\"/>

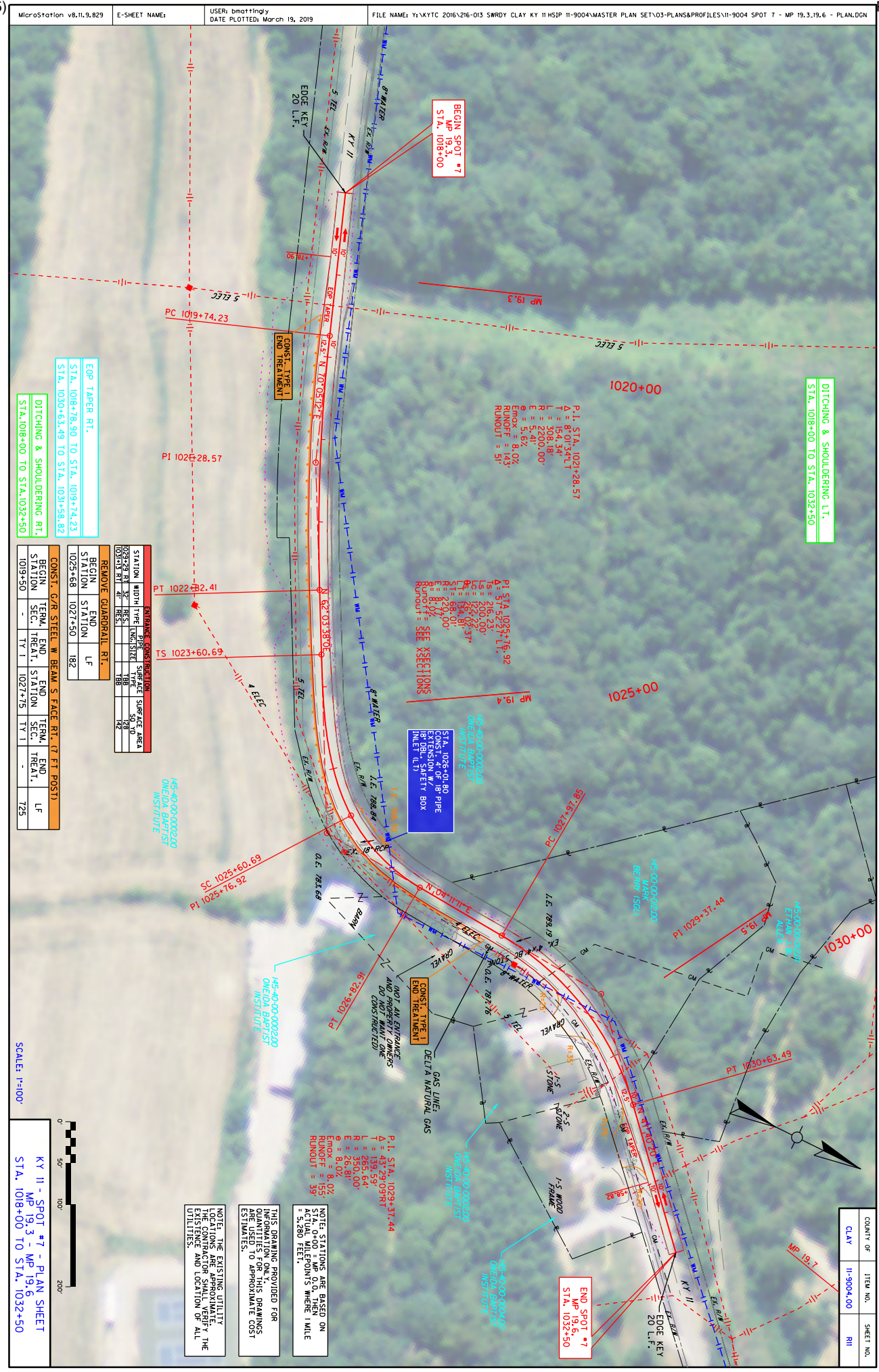
NOTE: STATIONS ARE BASED ON ACTUAL MILEPOINTS WHERE 1 MILE = 5,280 FEET.

NOTE: THE EXISTING UTILITY LOCATIONS ARE APPROXIMATE BY THE EXISTENCE AND LOCATION OF ALL UTILITIES.

THIS DRAWING PROVIDED FOR INFORMATION ONLY. THE DRAWINGS ARE USED TO APPROXIMATE COST ESTIMATES.

STATION WIDTH TYPE PILE SURFACE SURFACE AREA
97955 R1 32' RES. LMC/STE 189 50 YD 6'





MicroStation v8.11.9.829 E-SHEET NAME:

USER: bmattingly DATE PLOTTED: March 19, 2019

FILE NAME: Y:\XYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\03-PLANS&PROFILES\II-9004 SPOT 7 - MP 19.3.19.6 - PLAN.DGN

EOP TAPER RT.

STA. 1018+78.90 TO STA. 1019+74.23
STA. 1030+63.49 TO STA. 1031+58.82

DITCHING & SHOULDERING RT.

STA. 1018+00 TO STA. 1032+50

STATION	WIDTH	TYPE	CONSTR.	START	END	TEMP.	END
CONSTR.	TYPE	START	END	TEMP.	END	TREAT.	TREAT.
1019+50	182	LF	REMOVE	1027+75	1027+75	TY I	TY I
1025+50	182	LF	REMOVE	1027+75	1027+75	TY I	TY I

STATION	WIDTH	TYPE	CONSTR.	START	END	TEMP.	END
CONSTR.	TYPE	START	END	TEMP.	END	TREAT.	TREAT.
1019+50	182	LF	REMOVE	1027+75	1027+75	TY I	TY I
1025+50	182	LF	REMOVE	1027+75	1027+75	TY I	TY I

SCALE: 1"=100'

KY II - SPOT #7 - PLAN SHEET
MP 19.3 MP 19.6
STA. 1018+00 TO STA. 1032+50

NOTE: THE EXISTING UTILITY LOCATIONS ARE APPROXIMATE. THE EXISTENCE AND LOCATION OF ALL UTILITIES.

THIS DRAWING PROVIDED FOR INFORMATION ONLY. THIS DRAWING IS NOT TO BE USED FOR COST ESTIMATES.

NOTE: STATIONS ARE BASED ON ACTUAL MILEPOINTS WHERE 1 MILE = 5,280 FEET.

P.I. STA. 1029+37.44
T = 139.59
L = 265.64
E = 26.91
Emax = 8.0%
R = 155
RUNOUT = 59

P.I. STA. 1021+28.57
T = 154.34
L = 200.00
E = 5.41
Emax = 8.0%
R = 155
RUNOUT = 51

P.I. STA. 1023+16.92
T = 216.23
L = 200.00
E = 8.47
Emax = 8.0%
R = 155
RUNOUT = 59

P.I. STA. 1029+37.44
T = 139.59
L = 265.64
E = 26.91
Emax = 8.0%
R = 155
RUNOUT = 59

COUNT	OF	ITEM NO.	SHEET NO.
1	1	11-9004.00	118

MicroStation v8.11.9.829 E-SHEET NAME: USER: bmattingly DATE PLOTTED: February 22, 2019 FILE NAME: Y:\XYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\05-COORDINATE CONTROL\COORDINATE CONTROL.DGN

COORDINATE CONTROL POINTS

Point	Description	North (Y)	East (X)	Elev. (Z)	Station	Offset
1	POB Spot #1	361891.24	549673.42	0	504+00.00	0
2	PC Spot #1	361828.84	549670.82	0	504+72.49	0
3	PT Spot #1	361881.20	549684.47	0	504+103.8	5.9
4	PC Spot #1	361888.66	549703.83	0	504+44.26	0
5	PC Spot #1	361887.77	549700.09	0	504+13.65	0
6	PT Spot #1	361911.81	549717.14	0	504+70.27	-4.77
7	PT Spot #1	361910.03	549716.68	0	504+68.69	0
8	POB Spot #2A3	361898.09	549717.56	0	504+50.00	0
9	PC Spot #2A3	361885.22	549682.27	0	504+00.00	0
10	PC Spot #2A3	361881.56	549680.6	0	504+05.56	0
11	PT Spot #2A3	361911.26	549685.77	0	504+38.84	-36.42
12	PT Spot #2A3	361925.47	549183.84	0	548+44.83	0
13	POB Spot #2A3	361497.44	549173.94	0	551+00.00	0
14	POB Spot #4	361818.47	549872.57	0	624+20.00	0
15	PT Spot #4	361821.11	549880.42	0	624+28.69	0
16	PC Spot #4	361820.77	549882.27	0	624+30.15	0
17	PT Spot #4	361827.14	549920.14	0	631+43.65	-43.38
18	CS Spot #4	361808.51	549928.41	0	631+48.43	0
19	ST Spot #4	361808.02	549928.62	0	631+48.43	0
20	POB Spot #4	361812.83	549925.74	0	634+40.00	0
21	POB Spot #5	361465.23	552197.78	0	844+20.00	0
22	PT Spot #5	361467.81	552324.26	0	844+76.56	0
23	PC Spot #5	361468.12	552321.53	0	844+72.28	0
24	PT Spot #5	361673.2	552321.56	0	859+44.24	-23.6
25	PT Spot #5	361651.88	552317.86	0	851+36.39	0
26	POB Spot #5	361474.14	552311.26	0	853+00.00	0
27	POB Spot #6	361660.07	552482.38	0	871+20.00	0
28	PT Spot #6	361658.48	552518.94	0	871+138.9	0
29	PC Spot #6	361651.8	552535.54	0	871+53.13	0
30	PT Spot #6	361651.02	552535.96	0	871+45.60	1.93
31	PT Spot #6	361697.74	552536.56	0	871+46.88	0
32	PT Spot #6	361697.15	552538.01	0	871+49.57	0
33	PT Spot #6	361896.7	552574.92	0	874+24.67	7.84
34	PT Spot #6	361897.08	552517.01	0	874+38.84	0
35	PT Spot #6	361897.32	552582.37	0	874+48.60	0
36	PT Spot #6	361898.15	552585.32	0	877+48.34	9.86

COORDINATE CONTROL POINTS

Point	Description	North (Y)	East (X)	Elev. (Z)	Station	Offset
37	PT Spot #6	361985.79	552528.20	0	878+06.07	0
38	PC Spot #6	361985.44	552528.7	0	878+08.28	0
39	PT Spot #6	361691.13	552572.69	0	878+82.18	12.65
40	PT Spot #6	361625.99	552567.97	0	879+58.01	0
41	PC Spot #6	361627.97	552567.88	0	879+58.06	0
42	PT Spot #6	361616.41	552564.66	0	879+50.06	1.14
43	PT Spot #6	361616.44	552558.82	0	880+22.71	0
44	POB Spot #6	361620.37	552553.54	0	880+30.00	0
45	PC Spot #7	362721.48	552086.69	0	1011+00.00	0
46	PC Spot #7	362678.82	552059.9	0	1011+42.3	0
47	PT Spot #7	362688.59	552056.61	0	1021+24.32	5.41
48	PT Spot #7	362686.97	552084.35	0	1021+42.44	0
49	TS Spot #7	362694.59	552090.82	0	1021+60.70	0
50	SC Spot #7	362700.35	552090.64	0	1021+60.70	0
51	PT Spot #7	362706.69	552100.55	0	1021+62.12	3.8
52	PT Spot #7	362717.86	552111.06	0	1021+42.42	0
53	PT Spot #7	362729.49	552110.47	0	1027+27.28	0
54	PT Spot #7	362718.7	552125.66	0	1029+30.67	-26.81
55	PT Spot #7	362752.17	552122.85	0	1031+43.49	0
56	POB Spot #7	362768.29	552137.74	0	1031+30.00	0
57	POB DIVERSION	361507.59	550994.75	0	10+03.00	0
58	PCI DIVERSION	361291.12	550990.27	0	10+71.05	0
59	PT DIVERSION	361291.42	550978.5	0	10+79.57	-4.75
60	PT DIVERSION	361292.44	550973.84	0	10+88.08	0
61	PCI DIVERSION	361269.76	550967.78	0	11+54.86	0
62	PT DIVERSION	361268.67	550923.3	0	11+81.1	-4.94
63	PT DIVERSION	361264.52	550896.66	0	12+46.06	0
64	POE DIVERSION	361264.14	550882.12	0	12+20.00	0
65	POB MILL POND HOLLOW	361501.06	550994.47	0	47+30.00	0
66	PC MILL POND HOLLOW	361292.96	550990.24	0	48+43.19	0
67	PT MILL POND HOLLOW	361294.76	550990.13	0	48+48.51	-1.27
68	PT MILL POND HOLLOW	361297.89	550996.13	0	49+13.44	0
69	POB MILL POND HOLLOW	361294.47	550982.13	0	50+00.00	0

COORDINATE CONTROL POINTS

Point	Description	North (Y)	East (X)	Elev. (Z)	Station	Offset
CP2	CONCRETE MONUMENT	361876.05	549757.57	88.47	510+07.63	18.63
CP3	IRON PIN AND CAP	361400.08	548888.89	882.30	323+27.50	0.27
CP6	CONCRETE MONUMENT	361269.5	550968.8	862.36	611+26.01	-18.29
CP7	IRON PIN AND CAP	361266.6	550253.08	896.41	615+81.88	8.64
CP2	CONCRETE MONUMENT	361693.6	552583.14	862.30	678+74.92	24.68

PROJECT COORDINATE

Coordinates for horizontal control were obtained from GPS methods and adjusted to the National NAD83/FBN System. Coordinates are based on State Plane Coordinate System KY Single Zone and in U.S. Survey Feet.

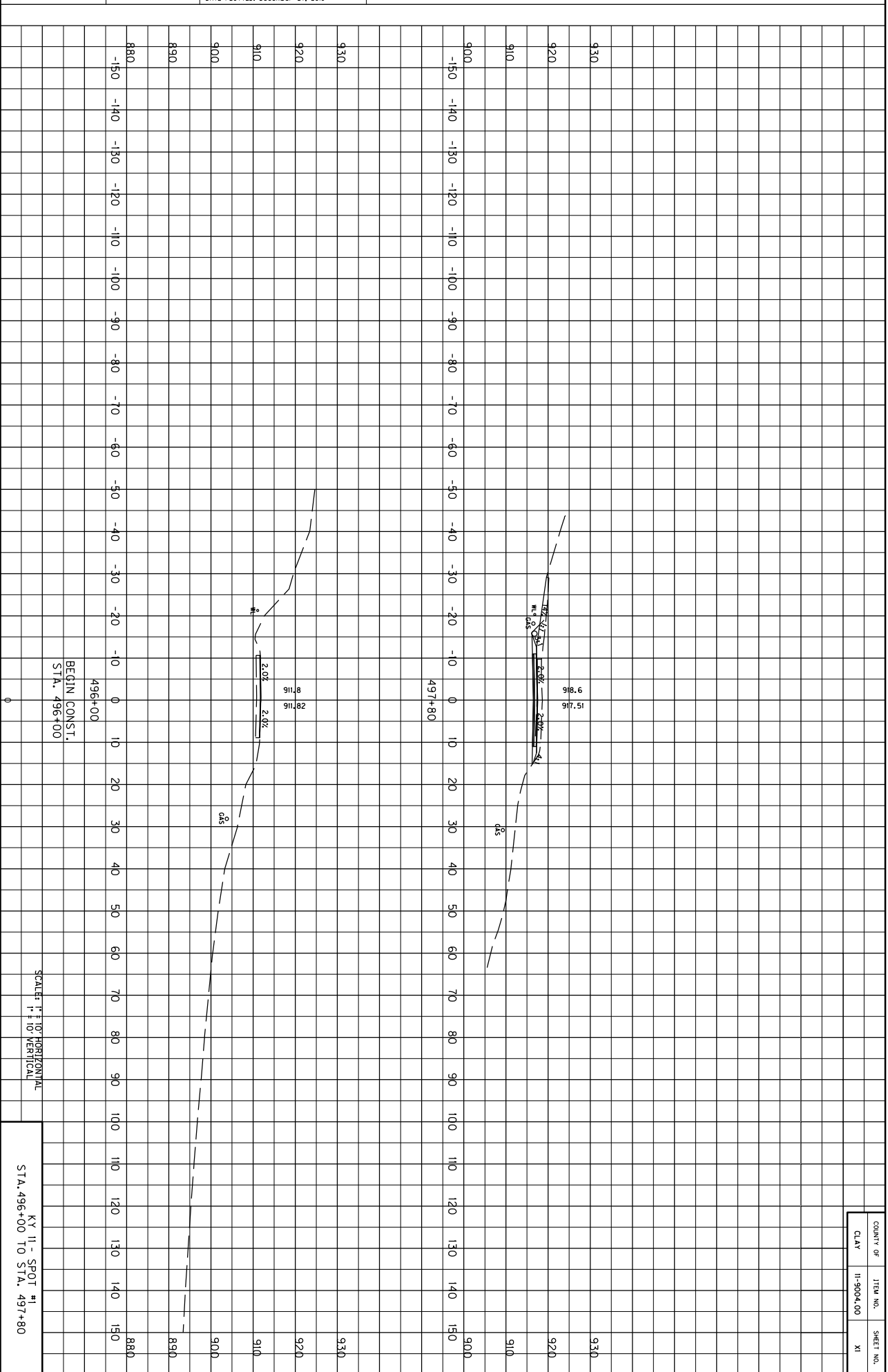
BASIS OF ELEVATIONS

Elevations were derived from GPS methods and are adjusted to the NAVD88 Vertical Datum. Geoid model used was Geoid12A.

COORDINATE CONTROL

COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004	

MicroStation v8.11.9.829 E-SHEET NAME: X00100XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 1.DGN



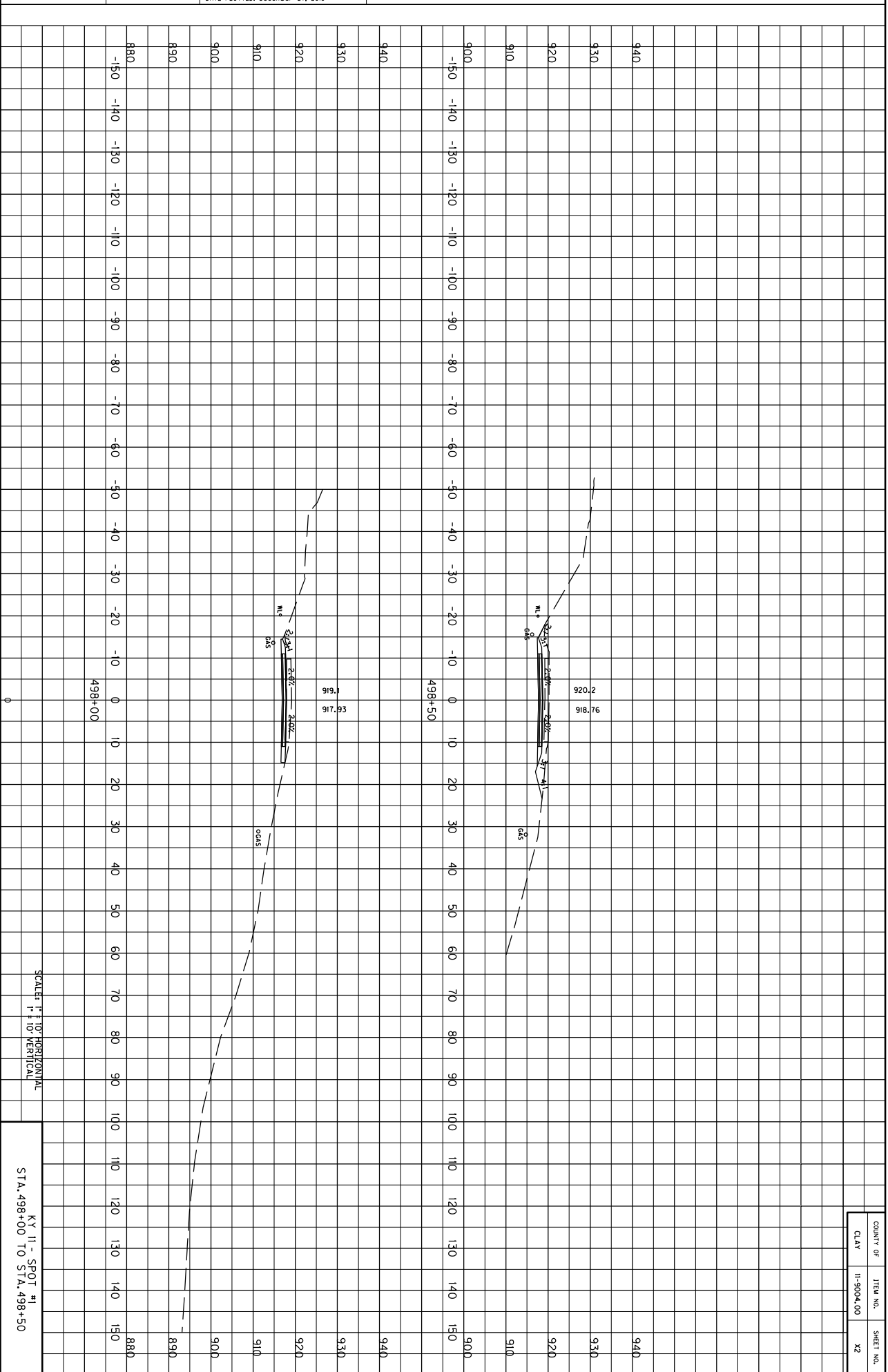
BEGIN CONST.
STA. 496+00

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

KY II - SPOT #1
STA. 496+00 TO STA. 497+80

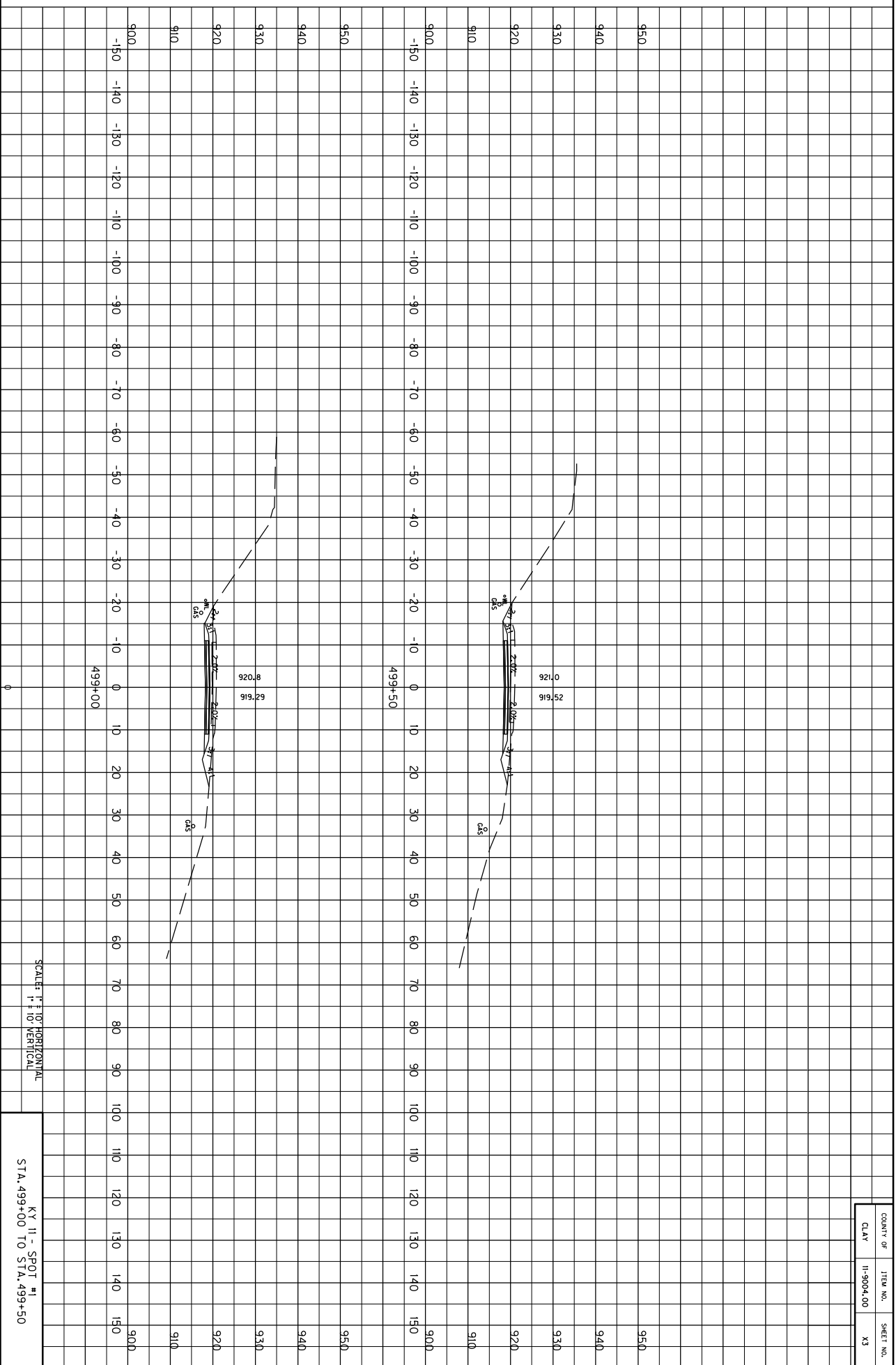
COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	XI

MicroStation v8.11.9.829 E-SHEET NAME: X00200XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SRRD\CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 1.DGN



COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X2

MicroStation v8.11.9.829 E-SHEET NAME: X00300XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\XYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 1.DGN

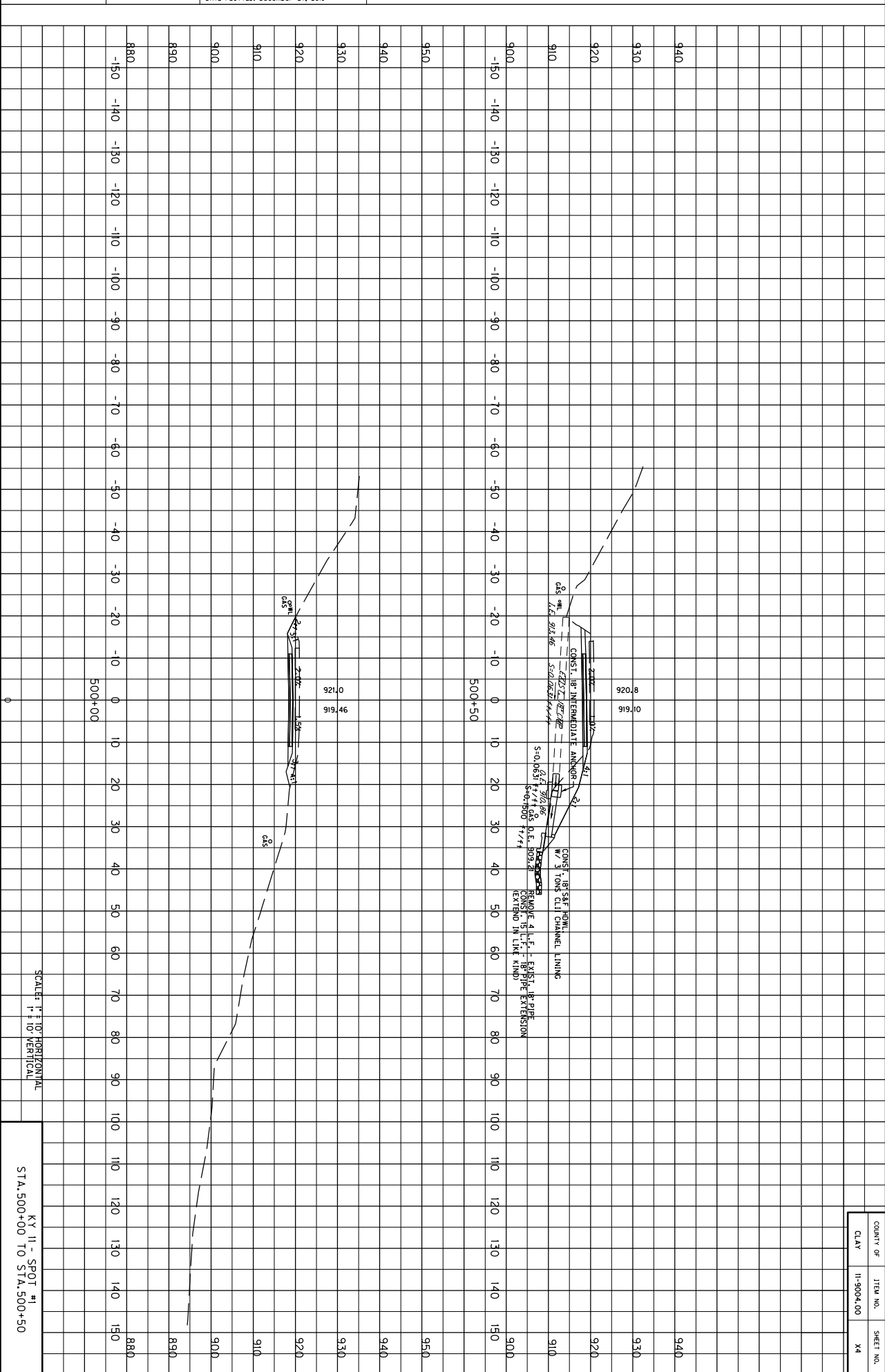


SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

KY II - SPOT #1
STA. 499+00 TO STA. 499+50

COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X3

MicroStation v8.11.9.829 E-SHEET NAME: X00400XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 1.DGN

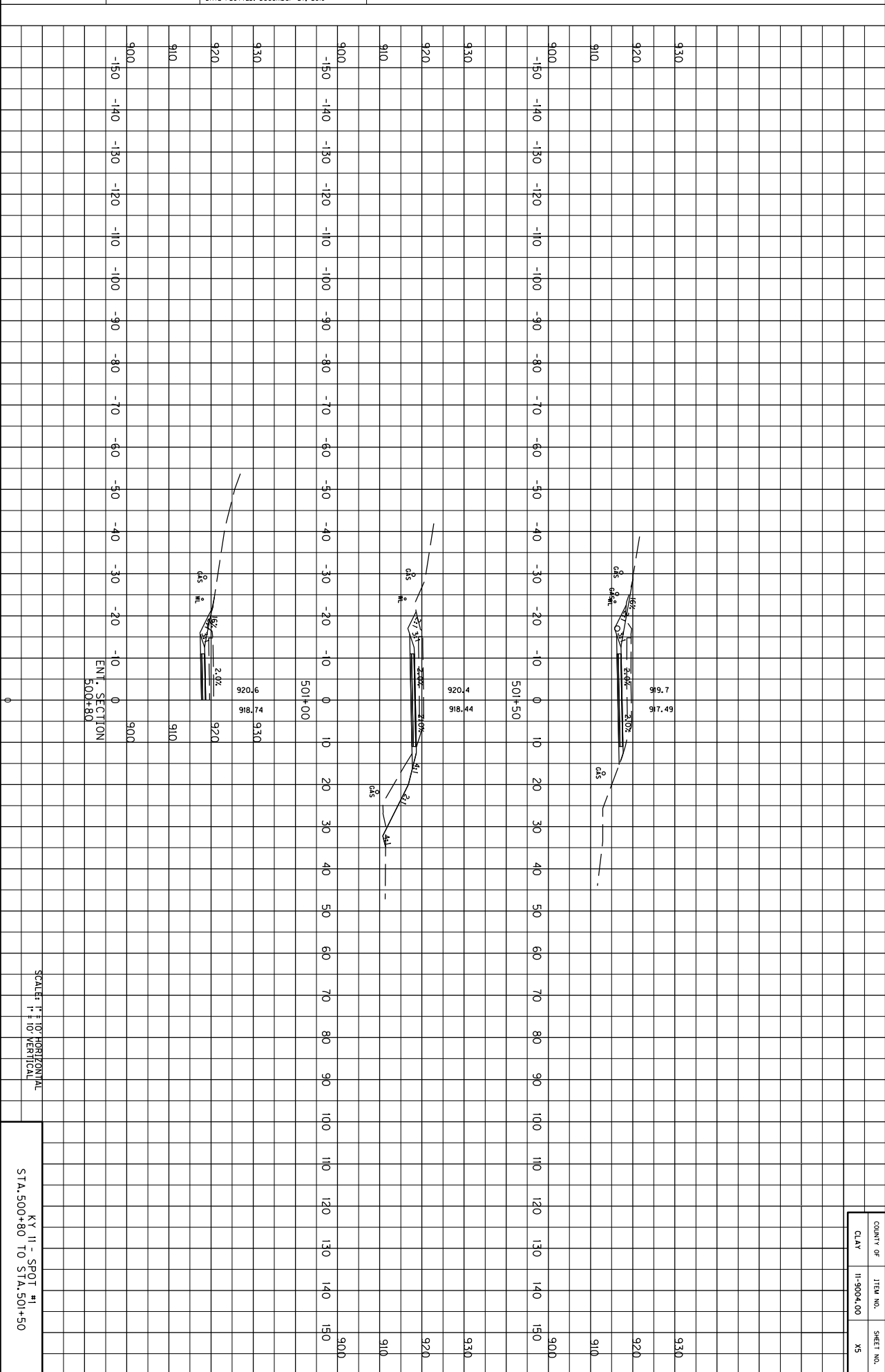


SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

KY II - SPOT #1
STA. 500+00 TO STA. 500+50

COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X4

MicroStation v8.11.9.829 E-SHEET NAME: X00500XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRD\CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 1.DGN

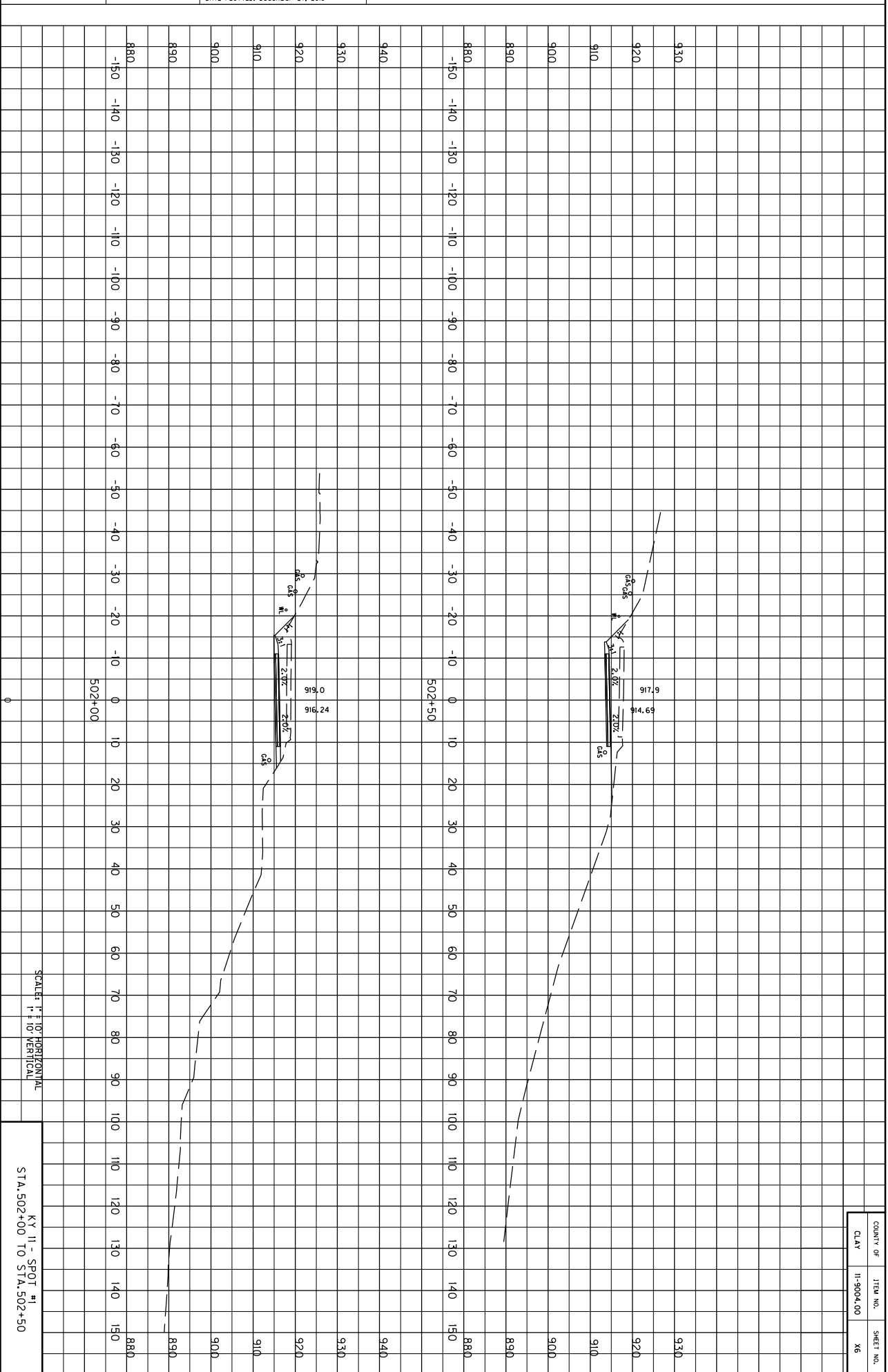


SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

KY II - SPOT #1
STA. 500+80 TO STA. 501+50

COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X3

MicroStation v8.11.9.829 E-SHEET NAME: X00600XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 1.DGN

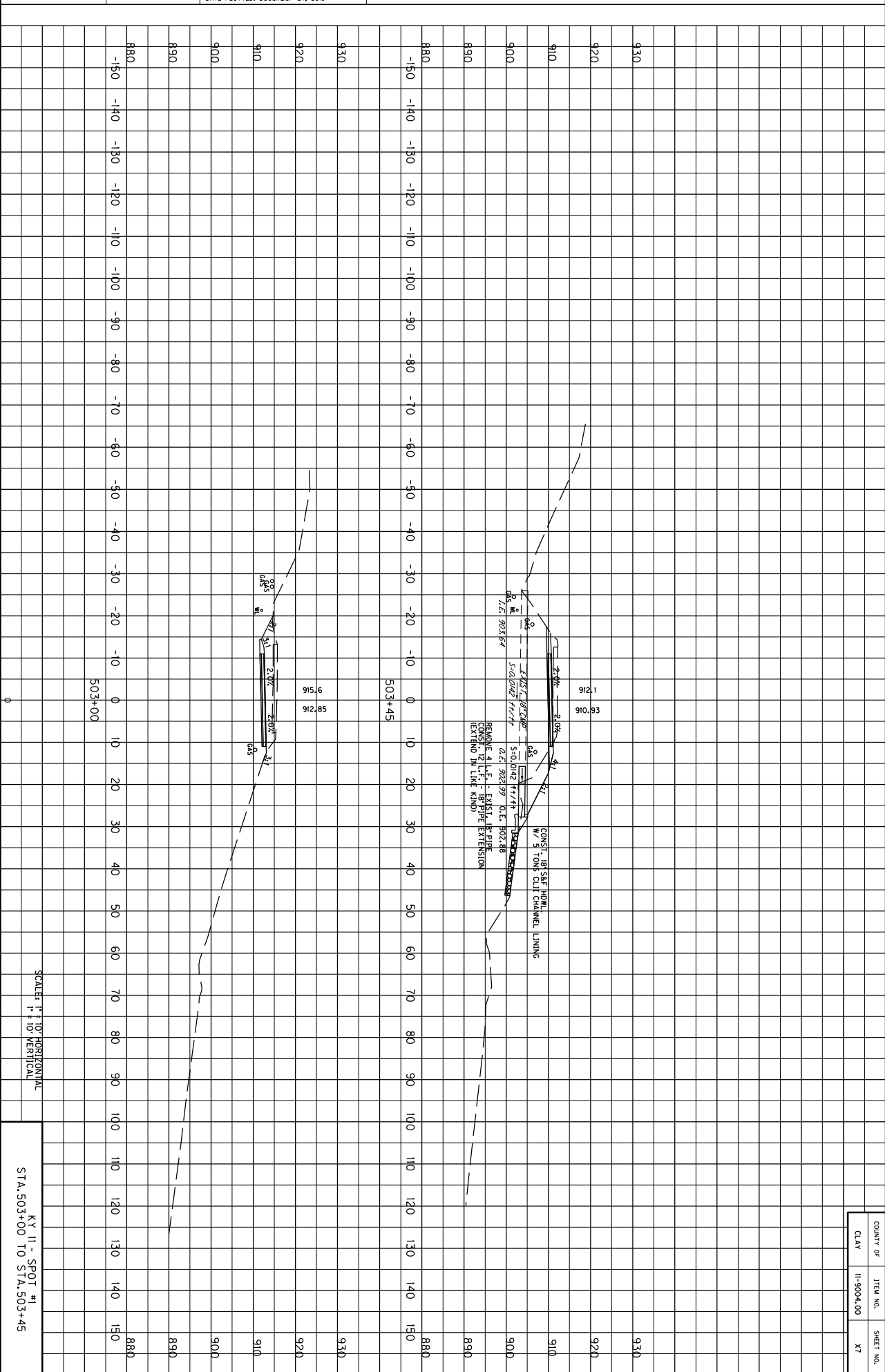


COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X6

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

KY II - SPOT #1
STA. 502+00 TO STA. 502+50

MicroStation v8.11.9.829 E-SHEET NAME: X00700XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\XYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 1.DGN

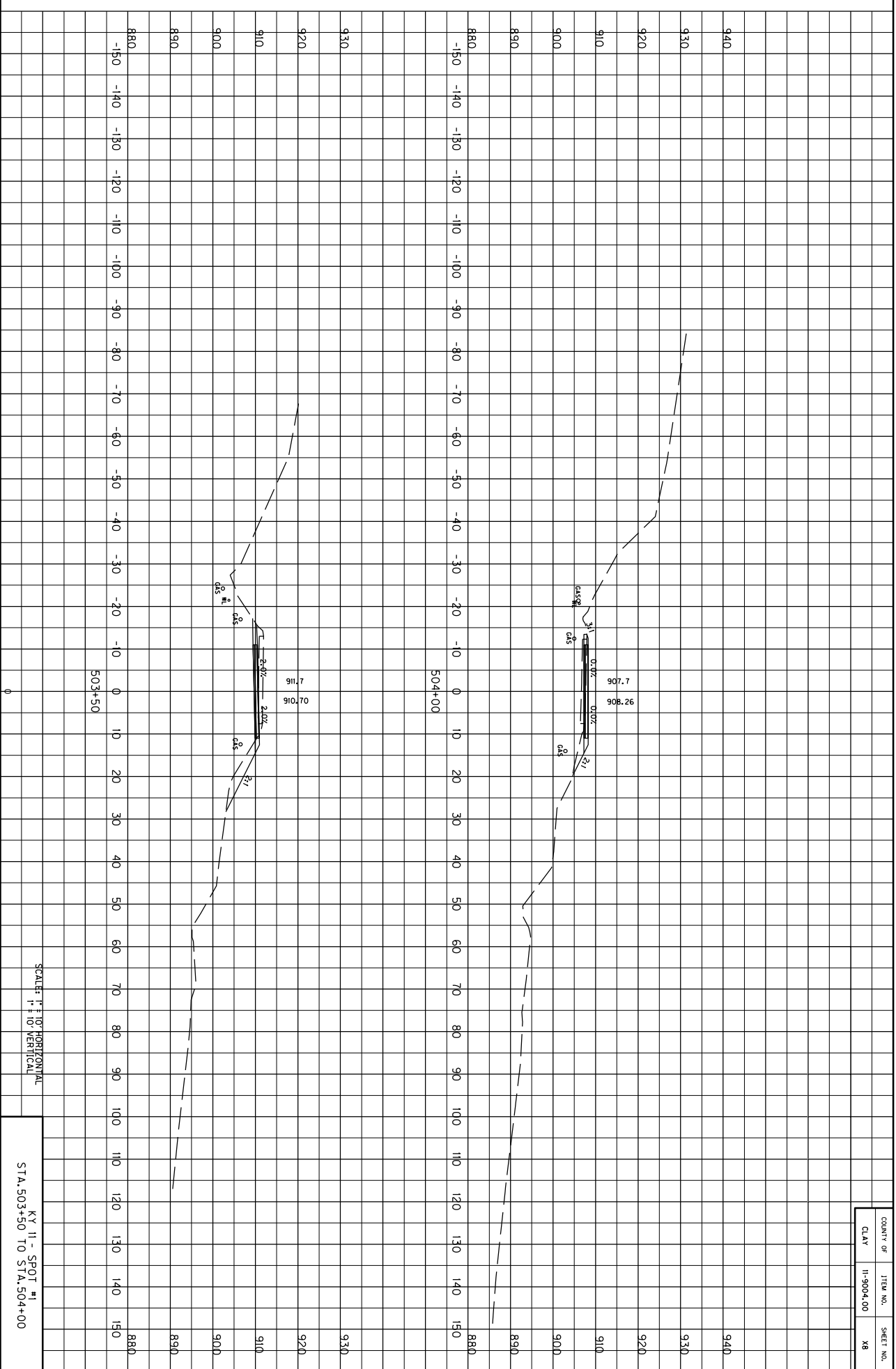


SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

KY II - SPOT #1
STA. 503+00 TO STA. 503+45

COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X7

MicroStation v8.11.9.829 E-SHEET NAME: X00800XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 1.DGN

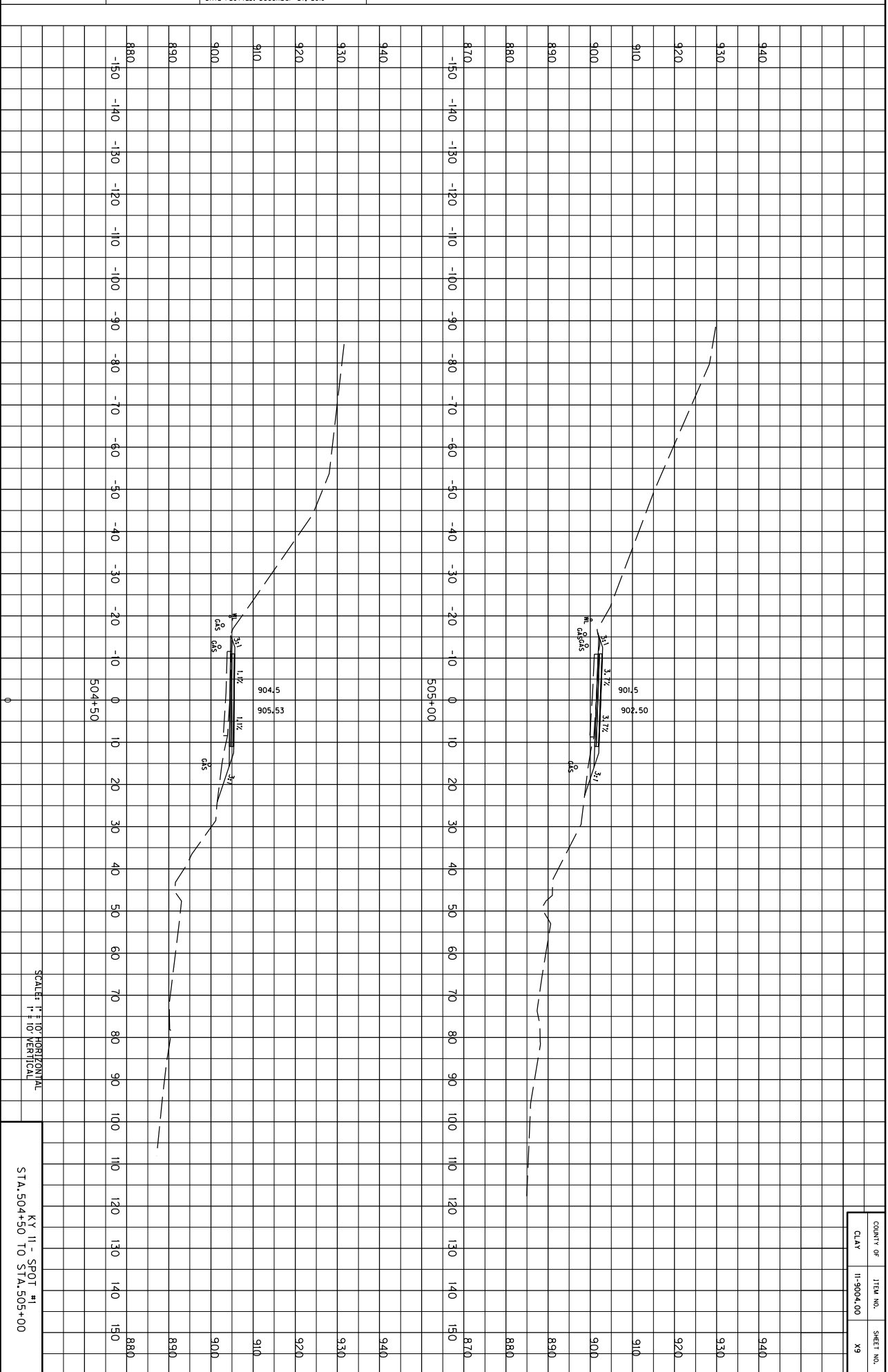


SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

KY II - SPOT #1
STA. 503+50 TO STA. 504+00

COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	XB

MicroStation v8.11.9.829 E-SHEET NAME: X00900XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRD\CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 1.DGN

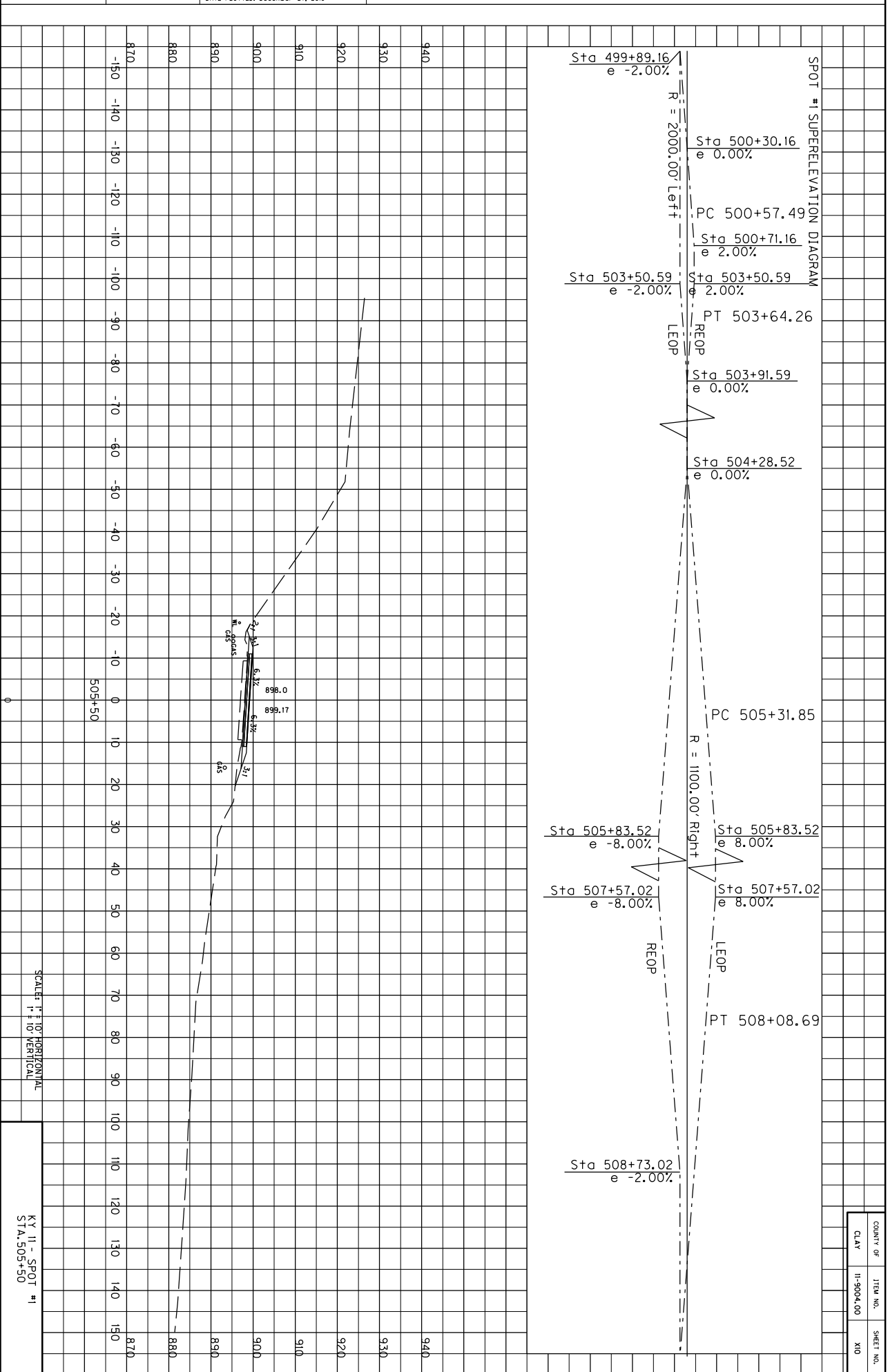


SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

KY II - SPOT #1
STA. 504+50 TO STA. 505+00

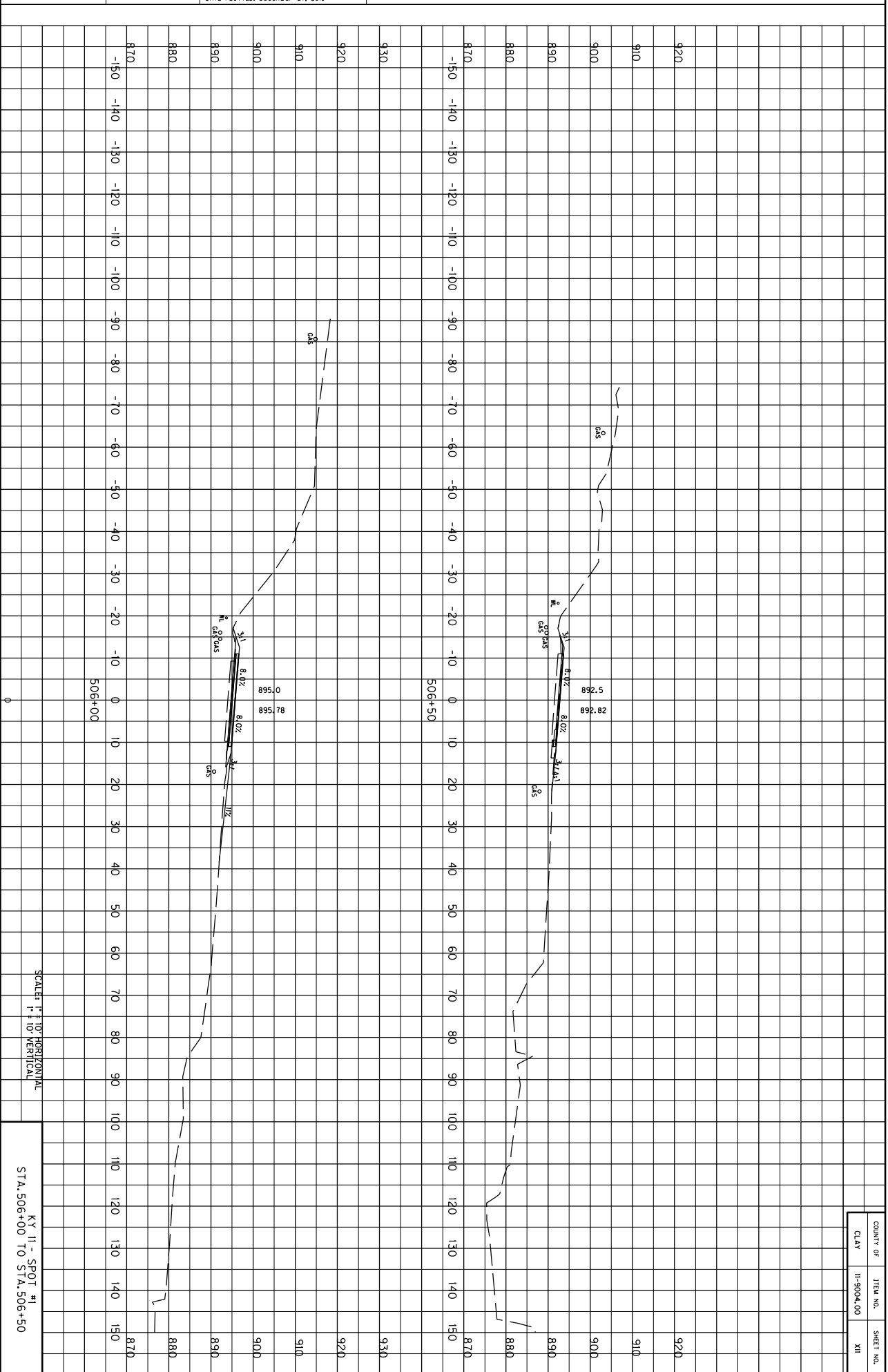
COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X9

MicroStation v8.11.9.829 E-SHEET NAME: X01000XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 1.DGN



COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X10

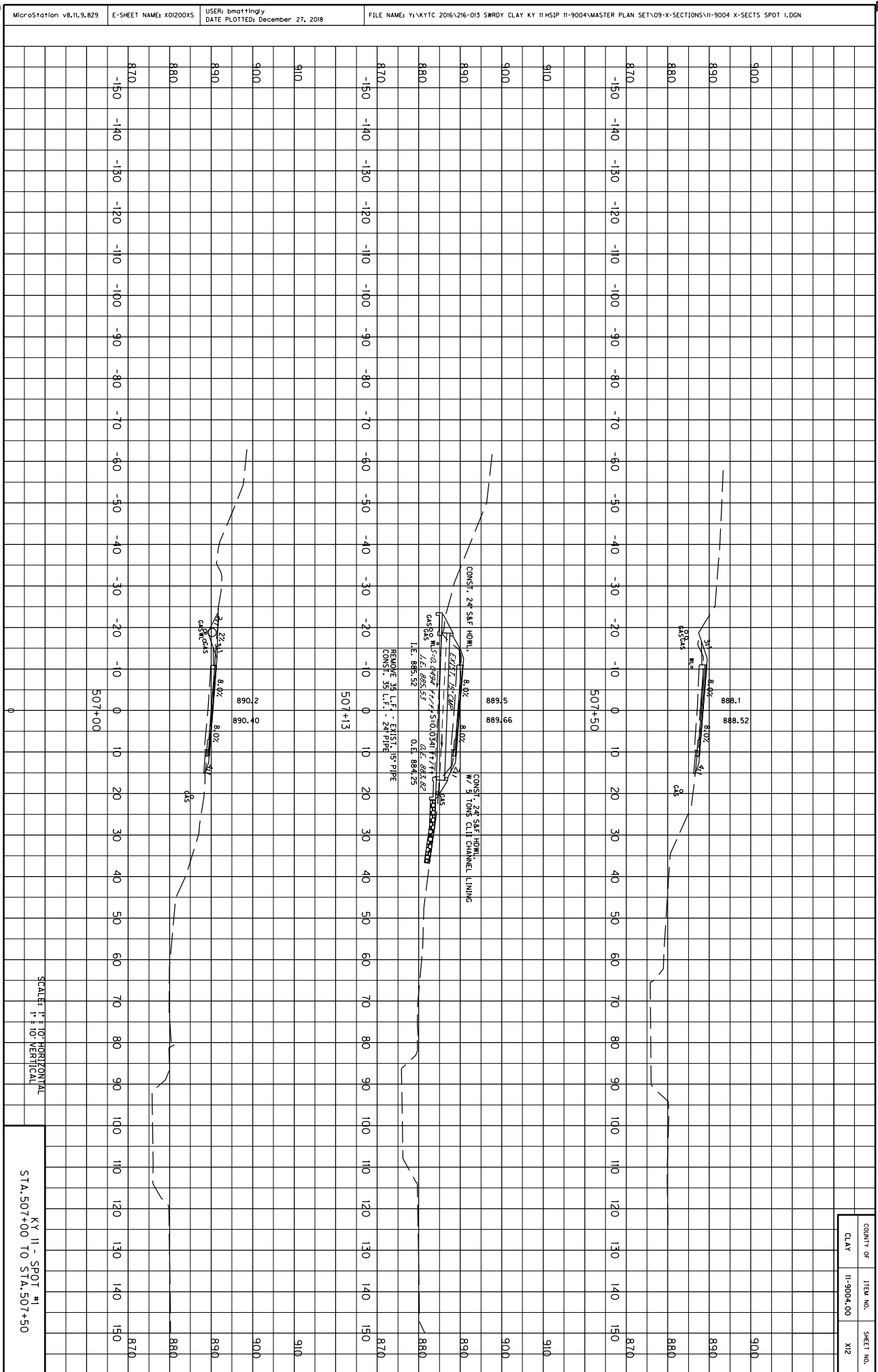
MicroStation v8.11.9.829 E-SHEET NAME: X01100XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SRRD\CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 1.DGN



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

KY II - SPOT #1
STA. 506+00 TO STA. 506+50

COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	XII



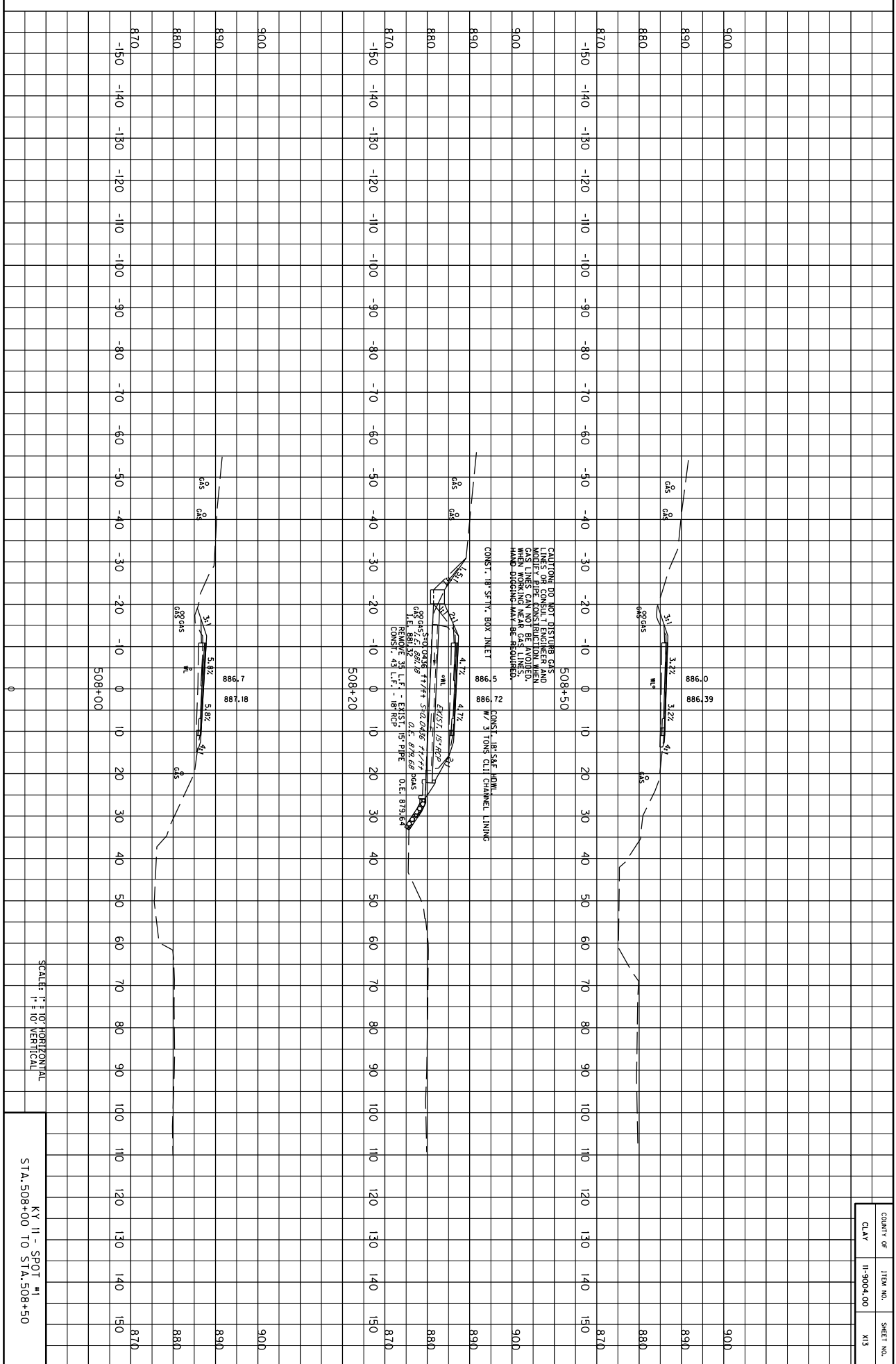
MicroStation v8.11.9.829 E-SHEET NAME: X0200XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\XYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 1.DGN

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

STA. 507+00 TO STA. 507+50

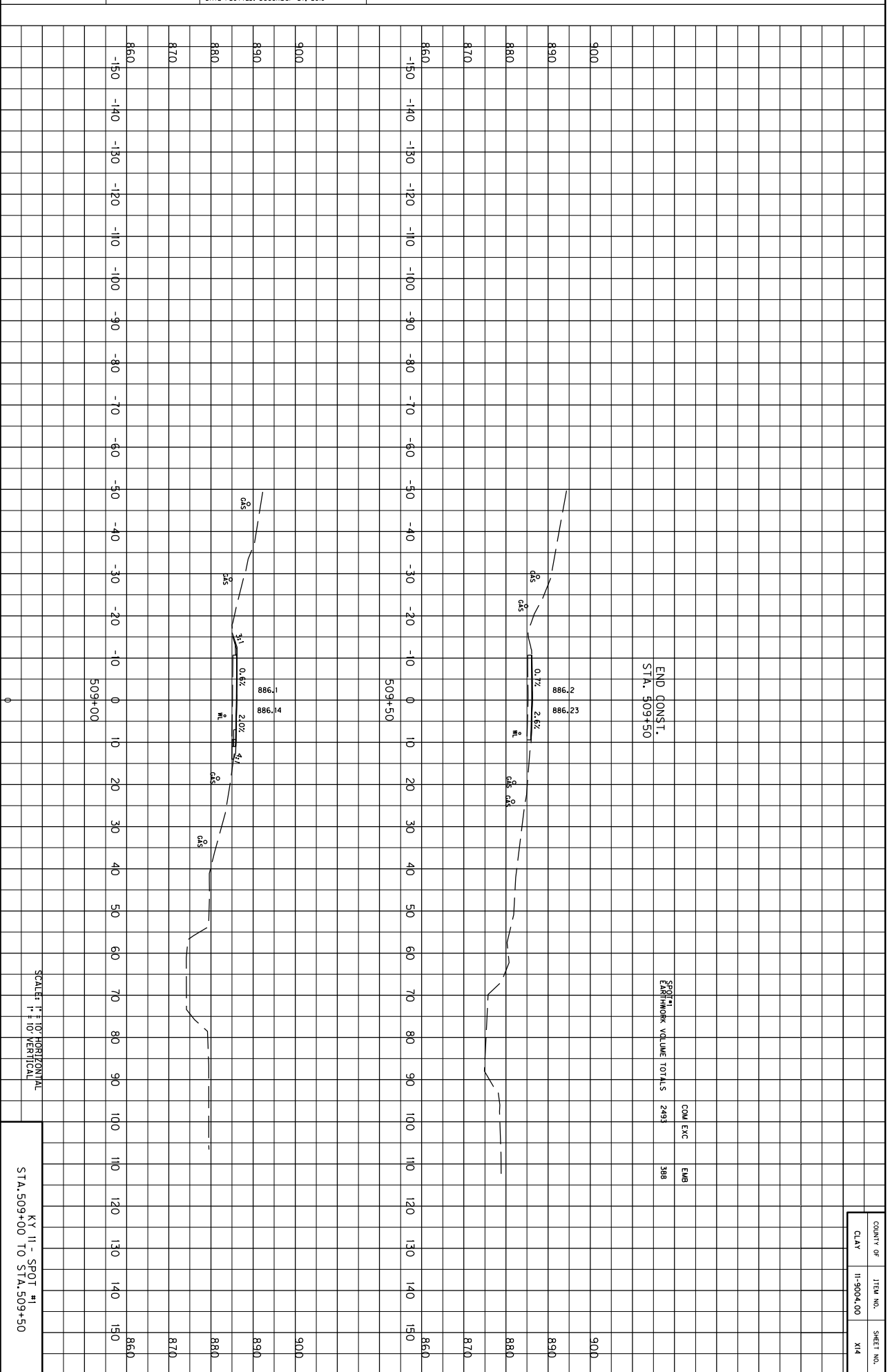
COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X12

MicroStation v8.11.9.829 E-SHEET NAME: X01300X5 USER: bmattingly DATE PLOTTED: March 18, 2019 FILE NAME: Y:\XYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\DELIVERABLES\FINAL ELECTRONIC SUBMITTAL\REVISED INCORPORATED 3-18-19\II-9004



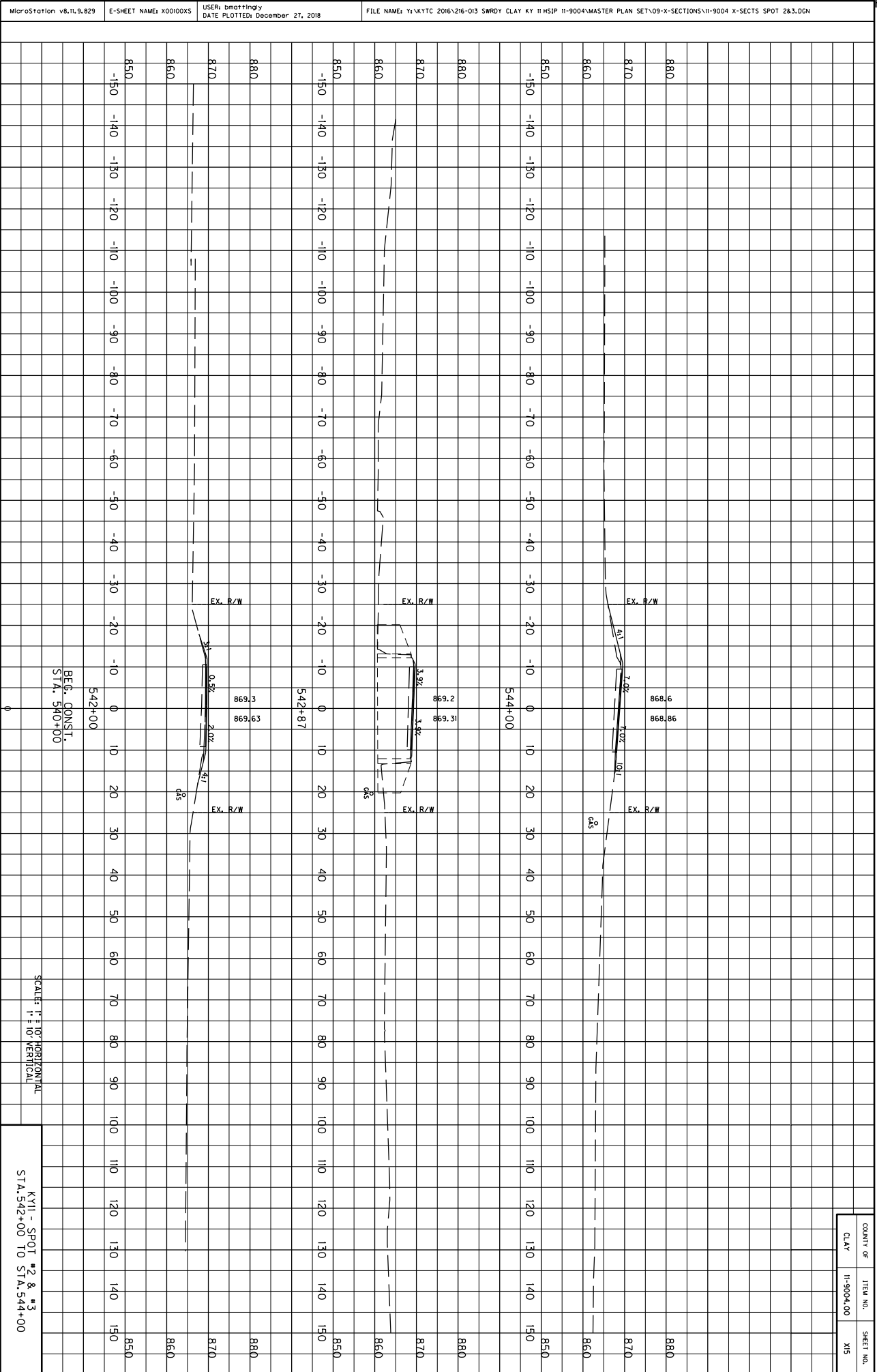
COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X13

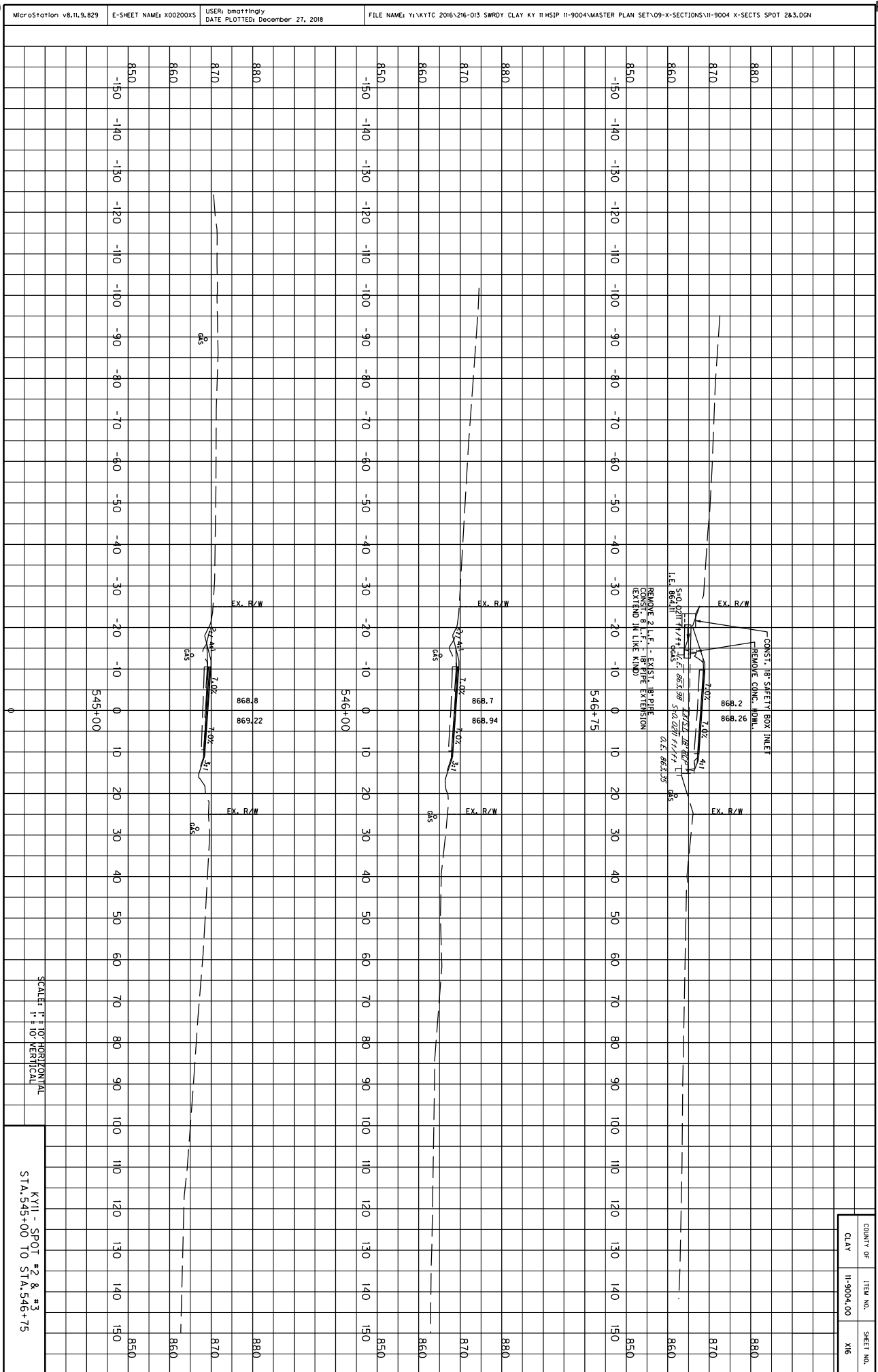
MicroStation v8.11.9.829 E-SHEET NAME: X01400XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\XYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 1.DGN



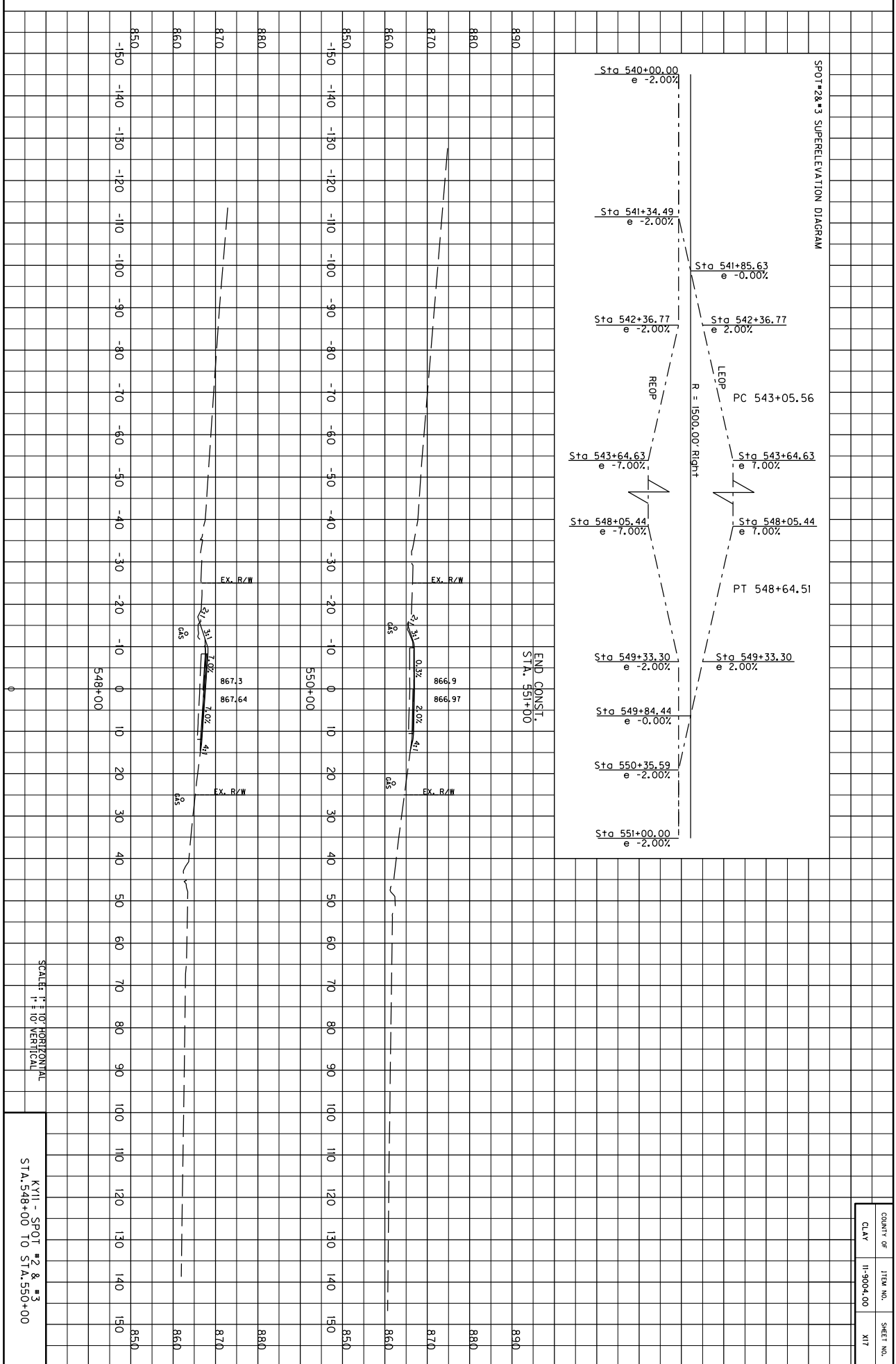
COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X14

CLAY COUNTY
HSIP 5286 (015)





MicroStation v8.11.9.829 E-SHEET NAME: X00200XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 283.DGN



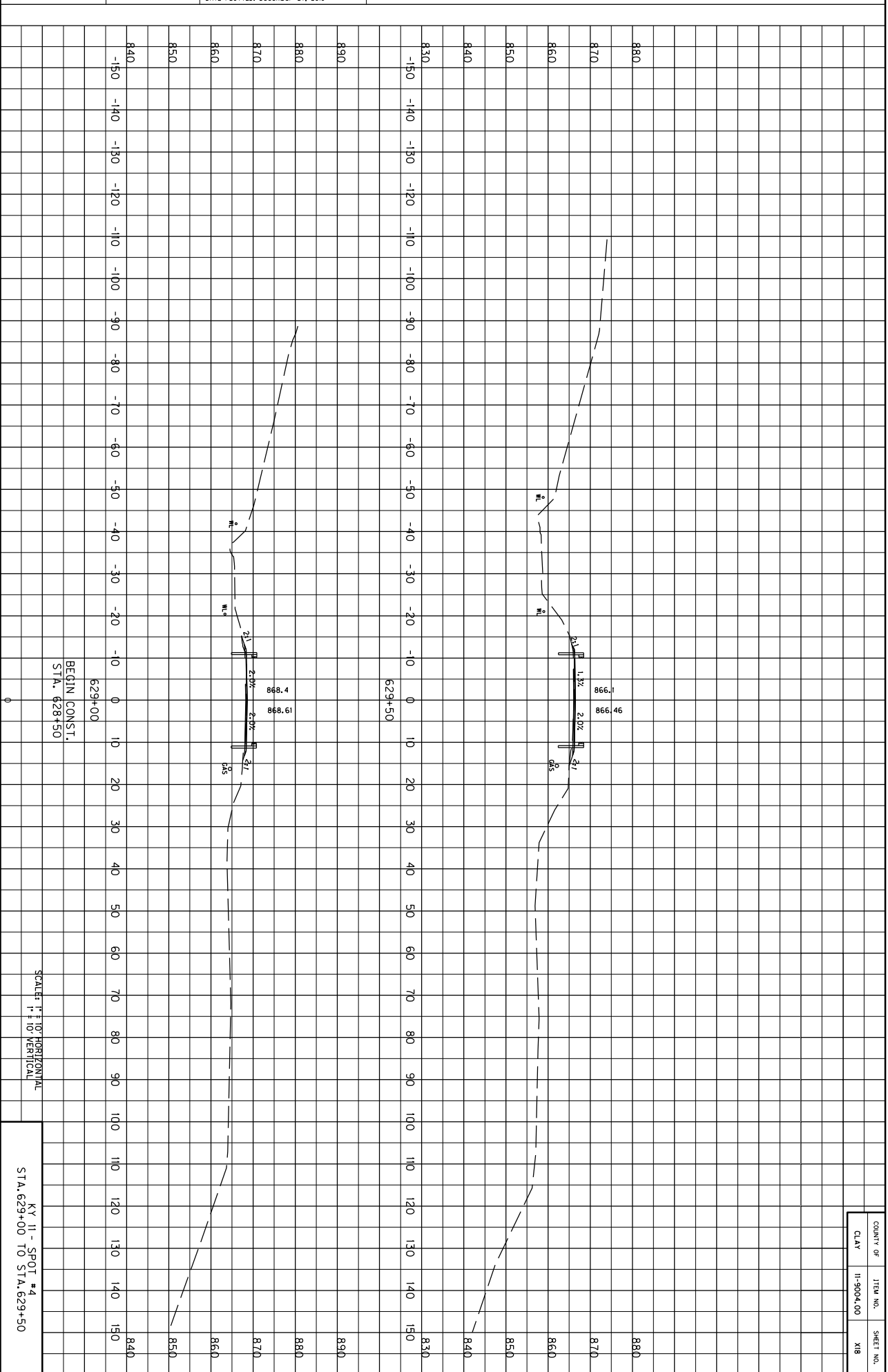
END CONST
STA. 551+00

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

KY11 - SPOT #2 & #3
STA. 548+00 TO STA. 550+00

COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X17

MicroStation v8.11.9.829 E-SHEET NAME: X00100XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\XYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 4.DGN



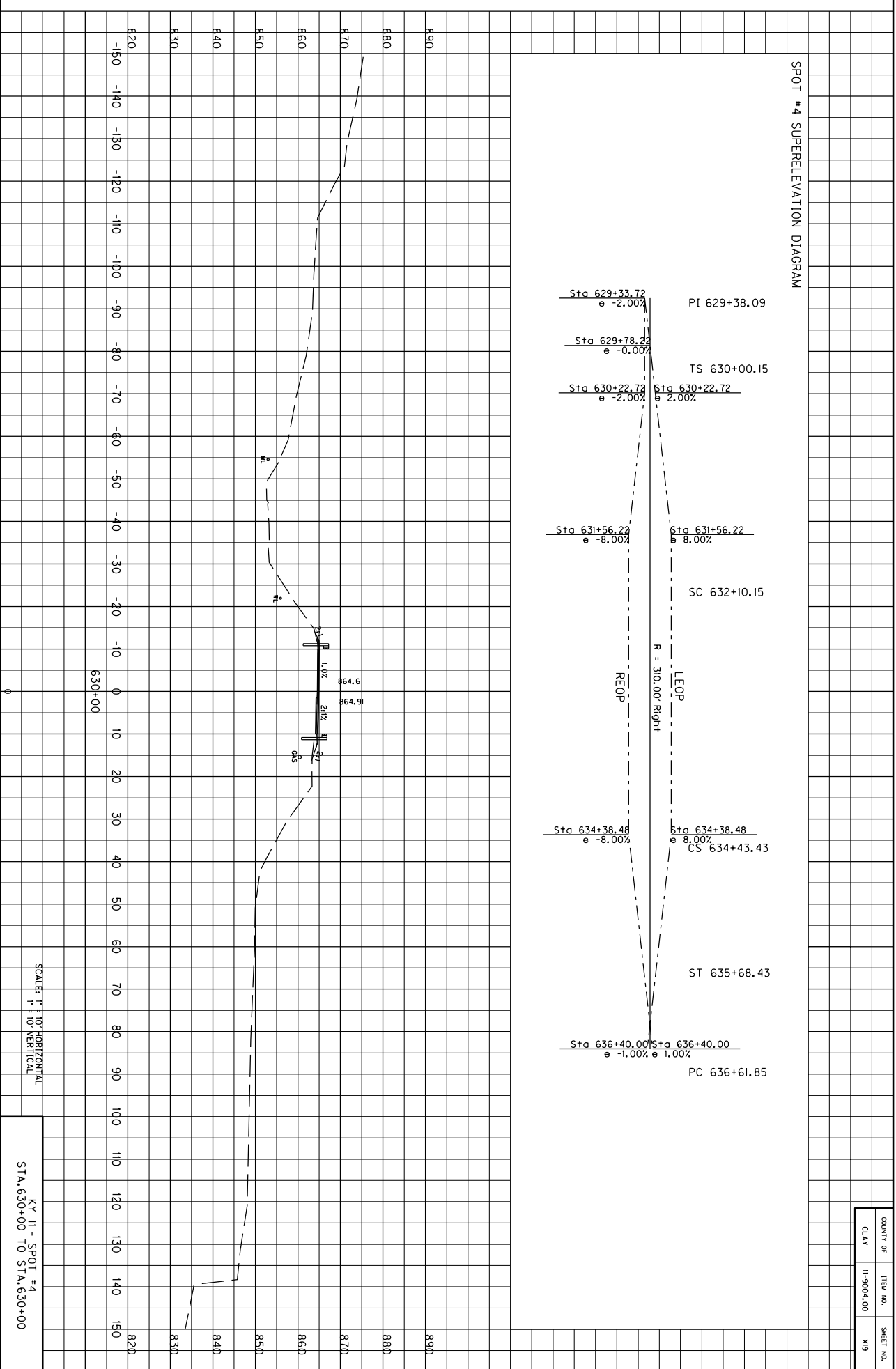
BEGIN CONST.
STA. 628+50

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

KY II - SPOT #4
STA. 629+00 TO STA. 629+50

COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X18

MicroStation v8.11.9.829 E-SHEET NAME: X00200XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 4.DGN

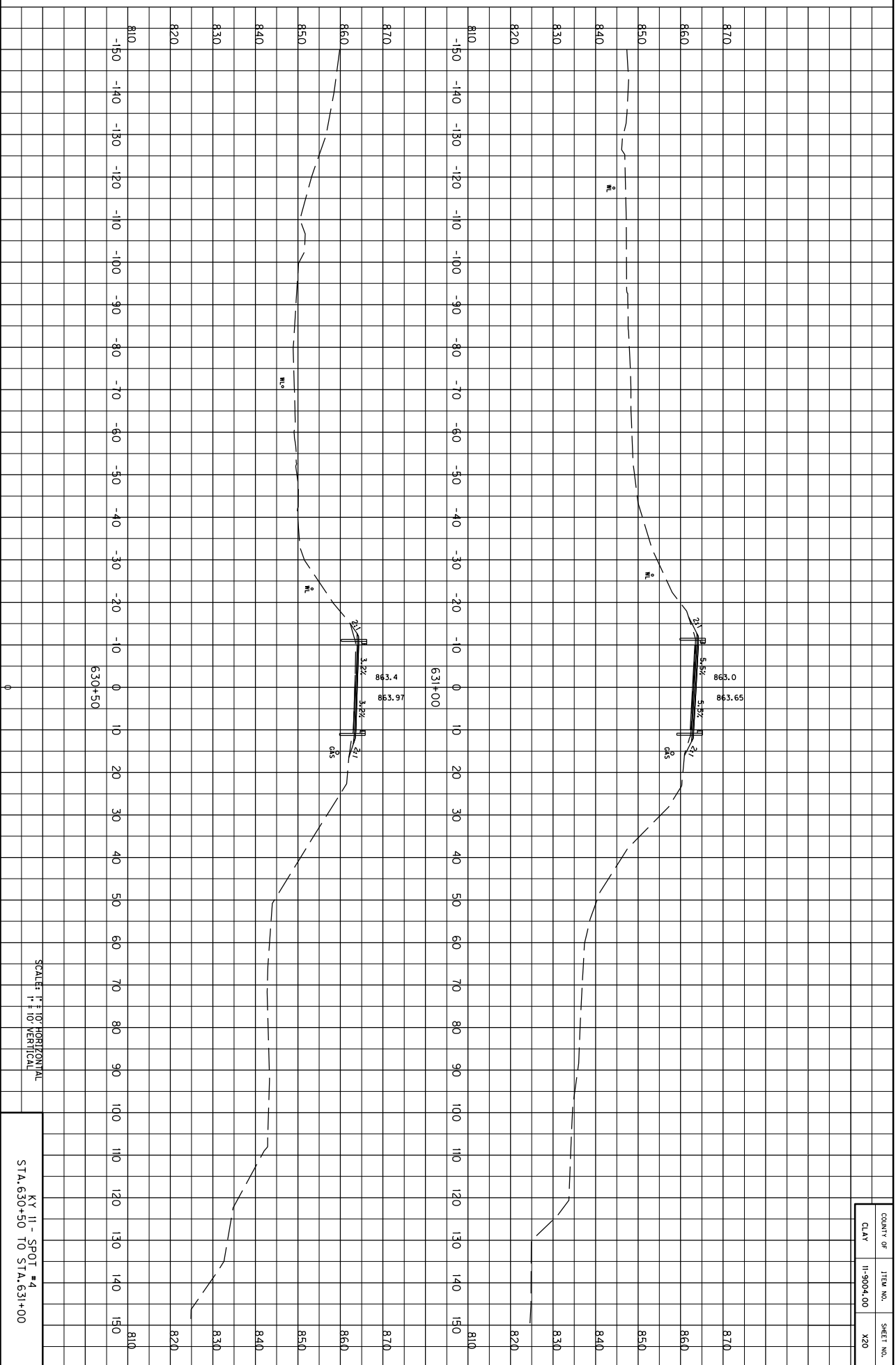


SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

KY II - SPOT #4
STA. 630+00 TO STA. 630+00

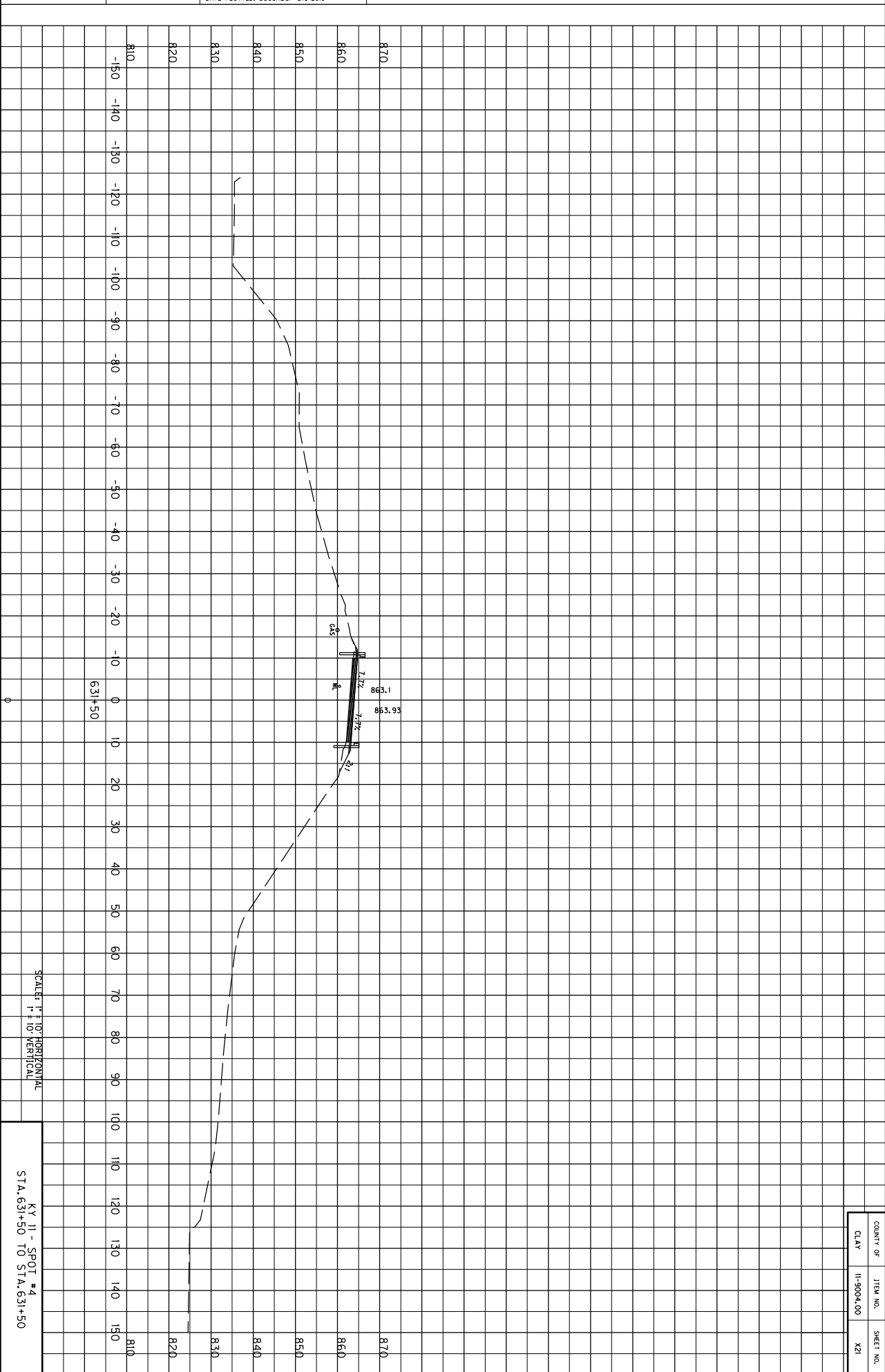
COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X19

MicroStation v8.11.9.829 E-SHEET NAME: X00300XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRD\CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 4.DGN



COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X20

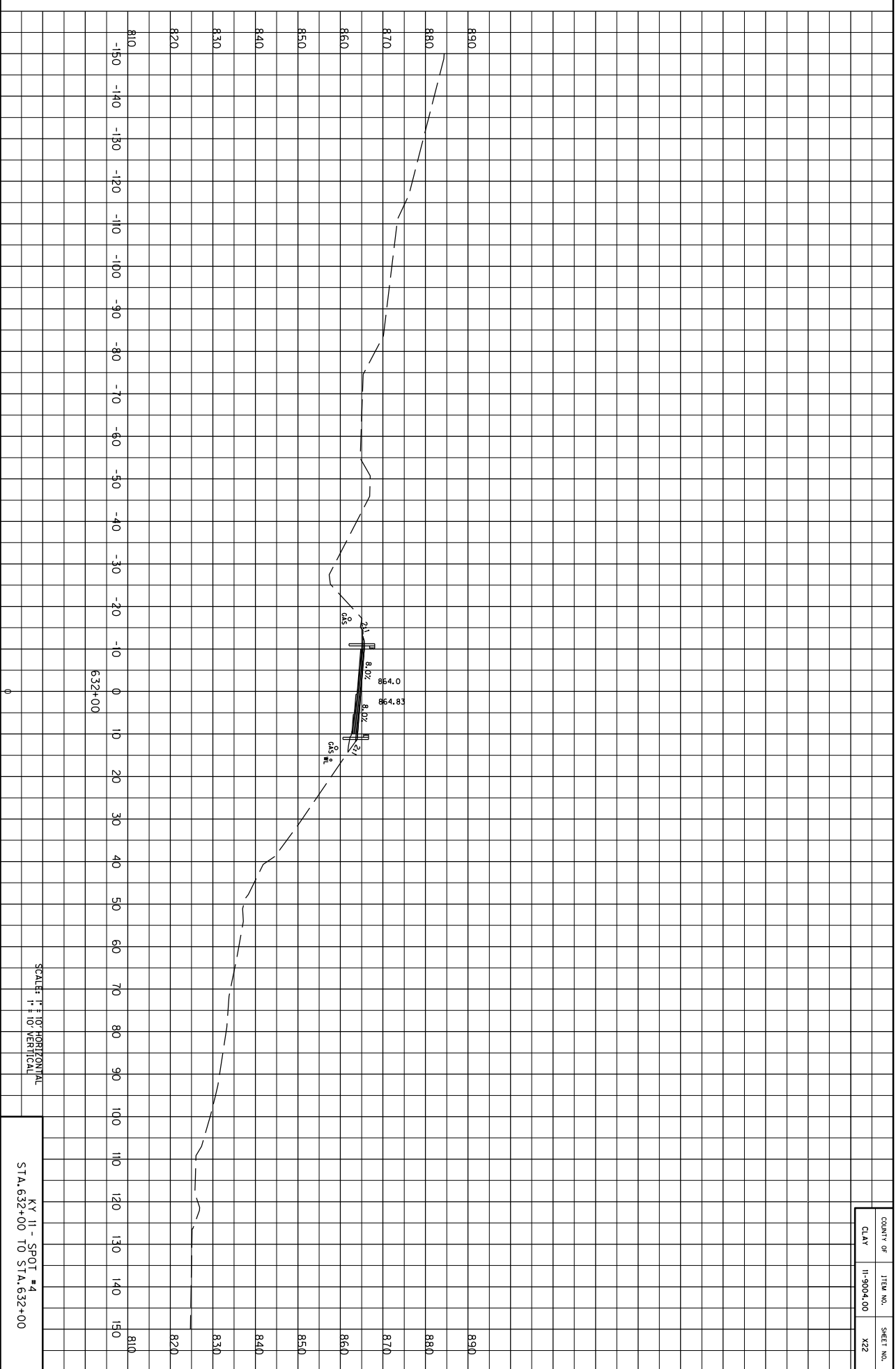
MicroStation v8.11.9.829 E-SHEET NAME: X0040XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 4.DGN



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

KY II - SPOT #4
STA. 631+50 TO STA. 631+50

MicroStation v8.11.9.829 E-SHEET NAME: X00500XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 4.DGN

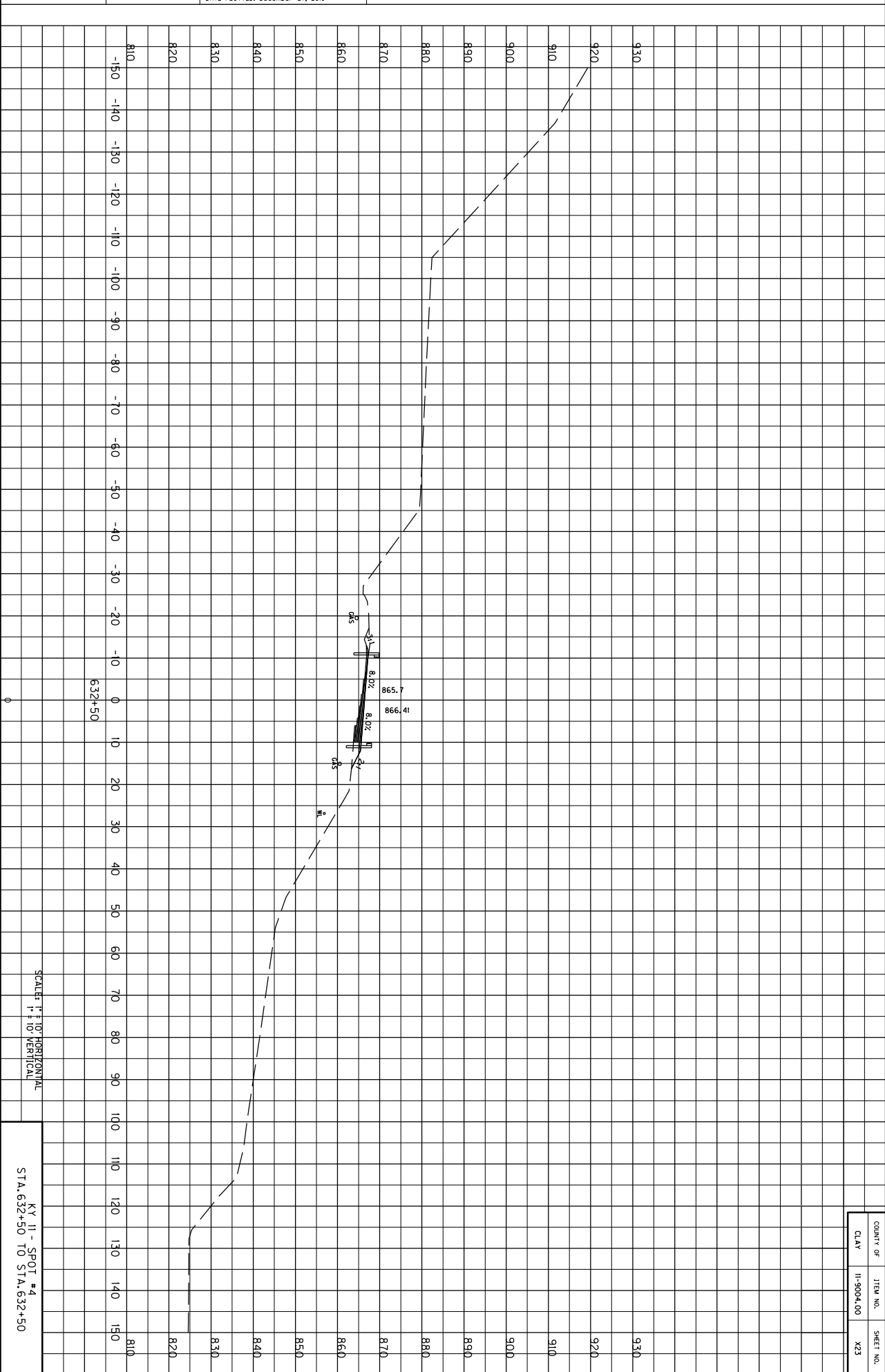


SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

KY II - SPOT #4
STA. 632+00 TO STA. 632+00

COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X22

MicroStation v8.11.9.829 E-SHEET NAME: X00600XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 4.DGN

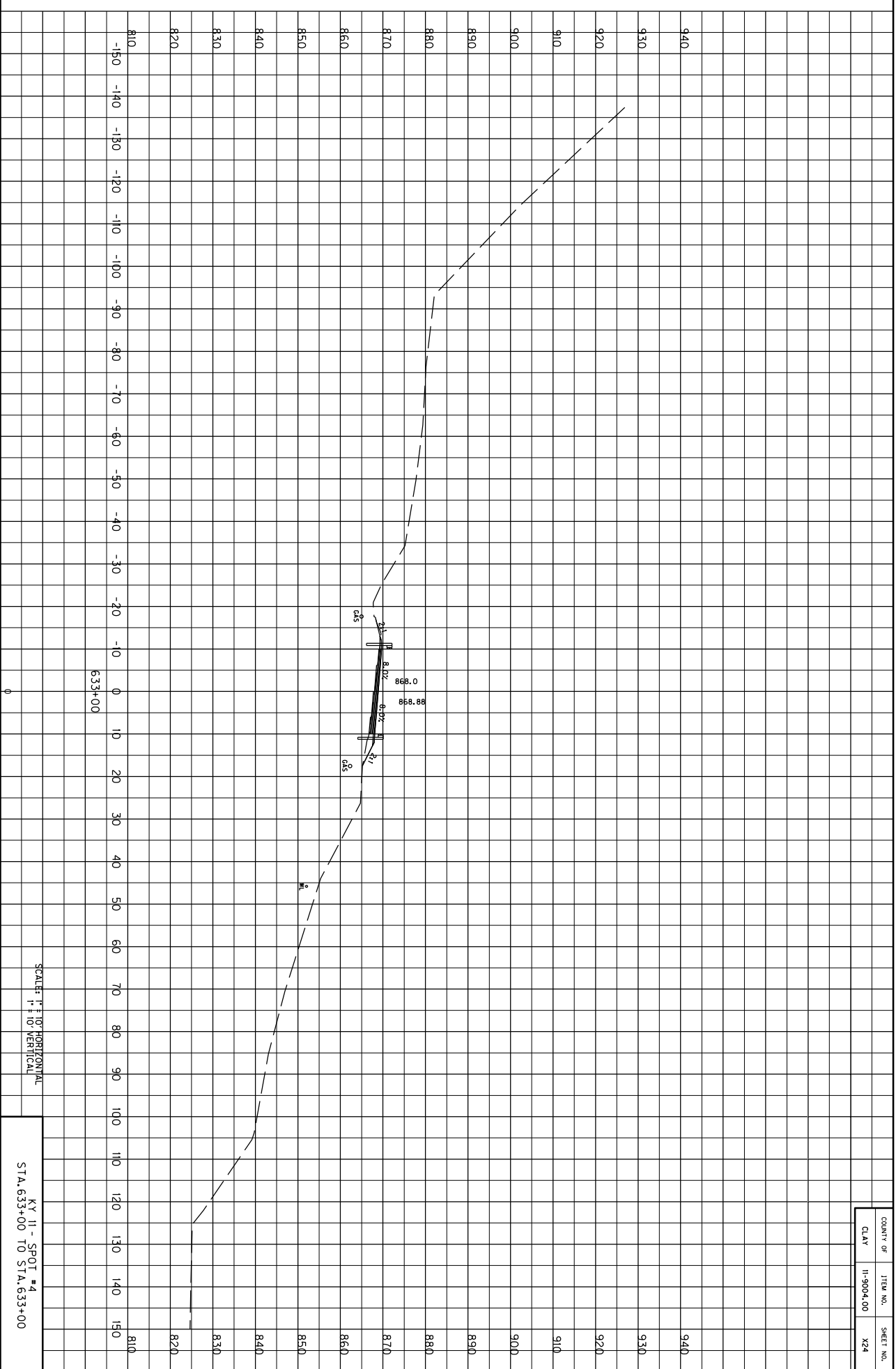


SCALE: 1"=10' HORIZONTAL
1"=10' VERTICAL

KY II - SPOT #4
STA. 652+50 TO STA. 632+50

COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X23

MicroStation v8.11.9.829 E-SHEET NAME: X00700XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 4.DGN

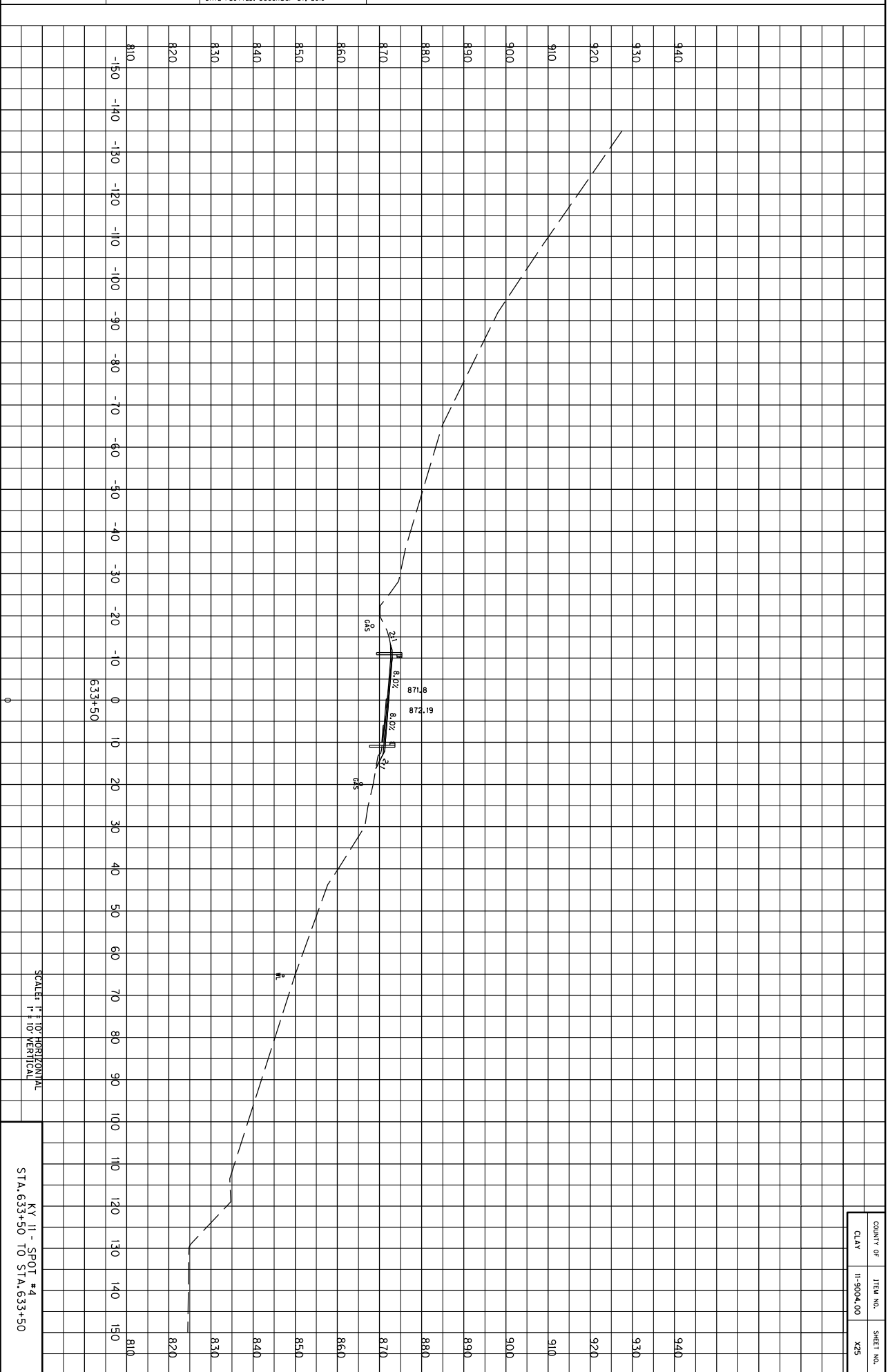


SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

KY II - SPOT #4
STA. 653+00 TO STA. 653+00

COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X24

MicroStation v8.11.9.829 E-SHEET NAME: X00800XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 S\WRD\ CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 4.DGN

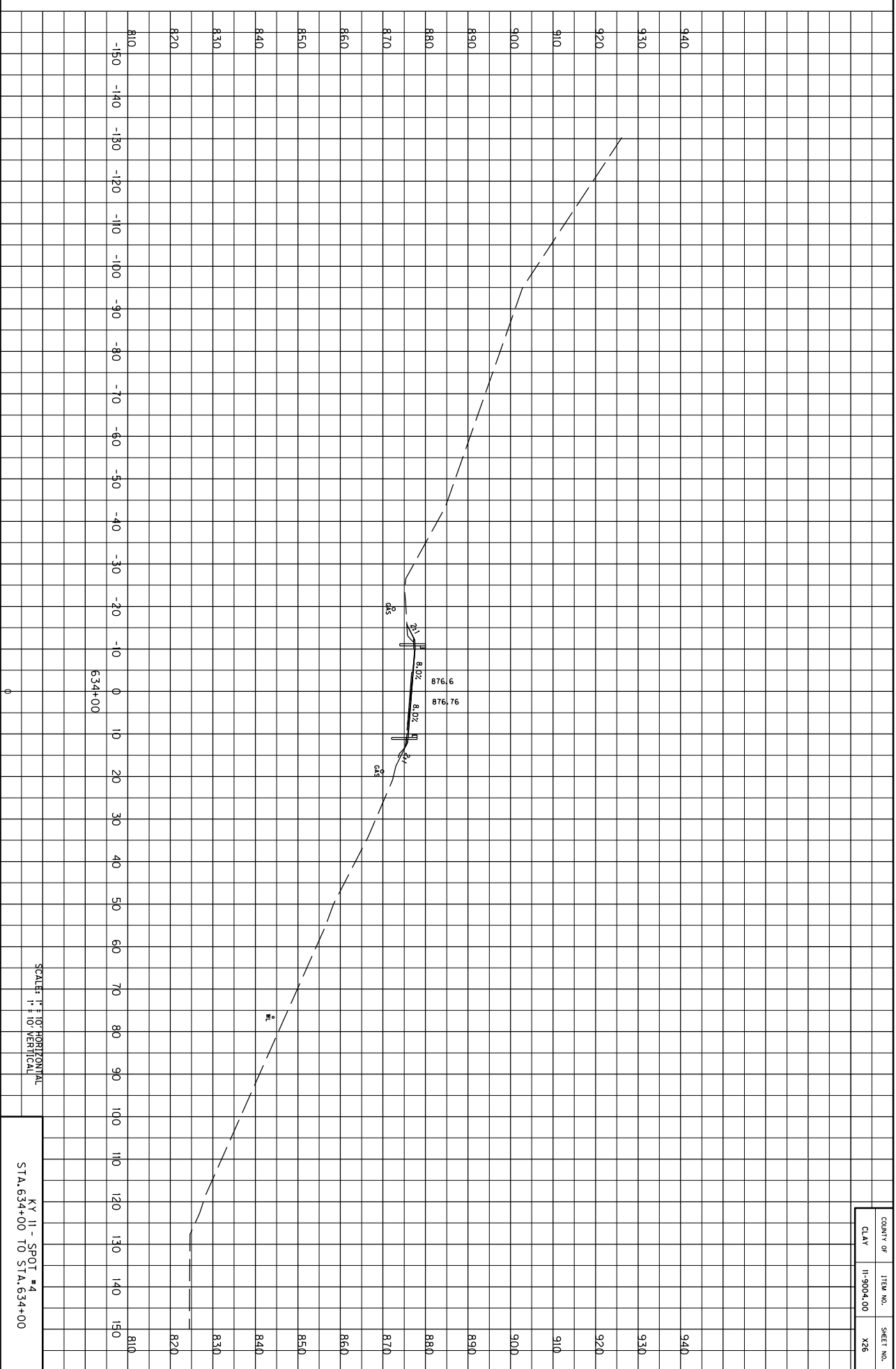


SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

KY II - SPOT #4
STA. 633+50 TO STA. 633+50

COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X25

MicroStation v8.11.9.829 E-SHEET NAME: X00900XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 4.DGN

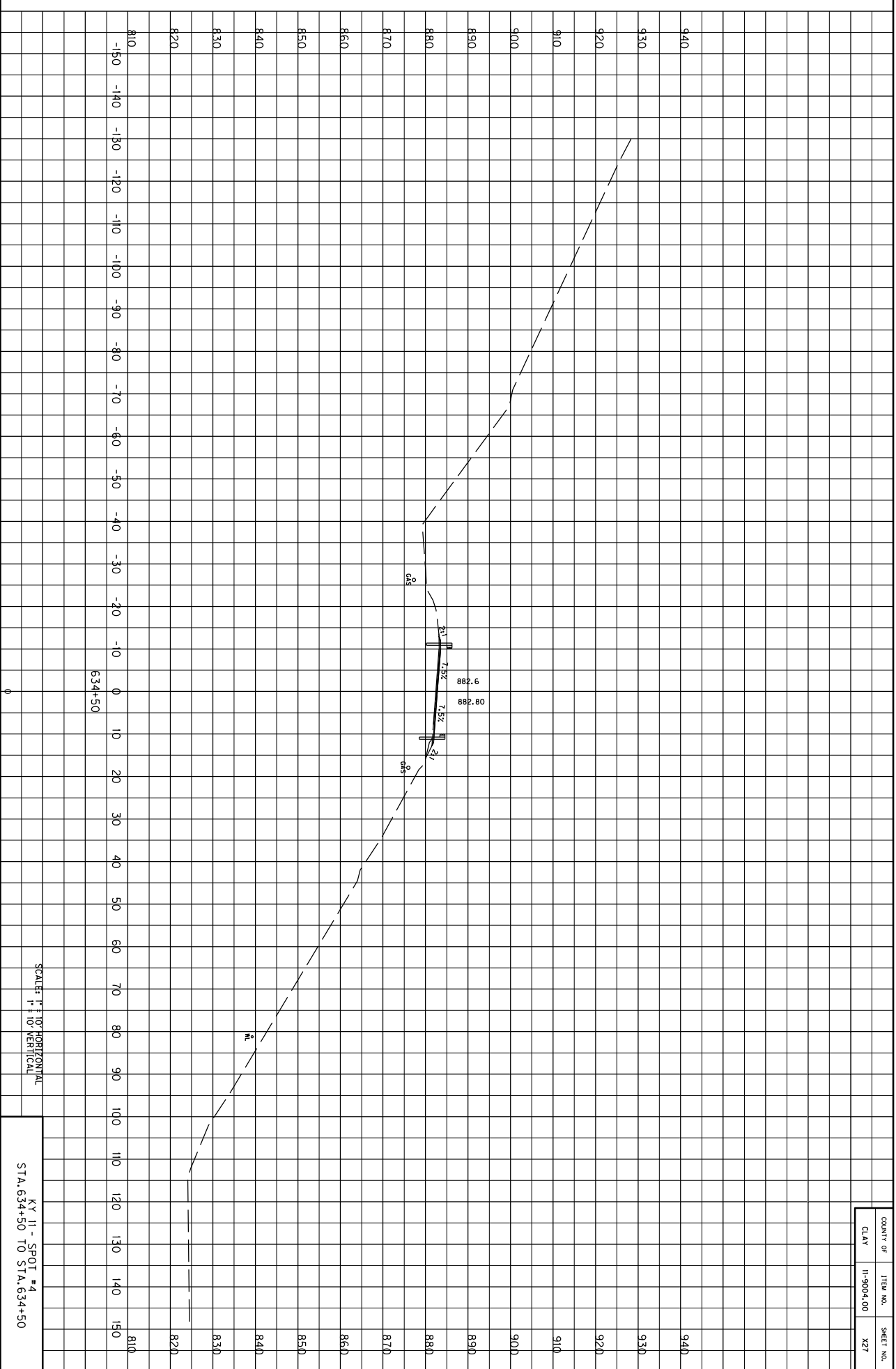


SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

KY II - SPOT #4
STA. 634+00 TO STA. 634+00

COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X26

MicroStation v8.11.9.829 E-SHEET NAME: X01000XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 4.DGN

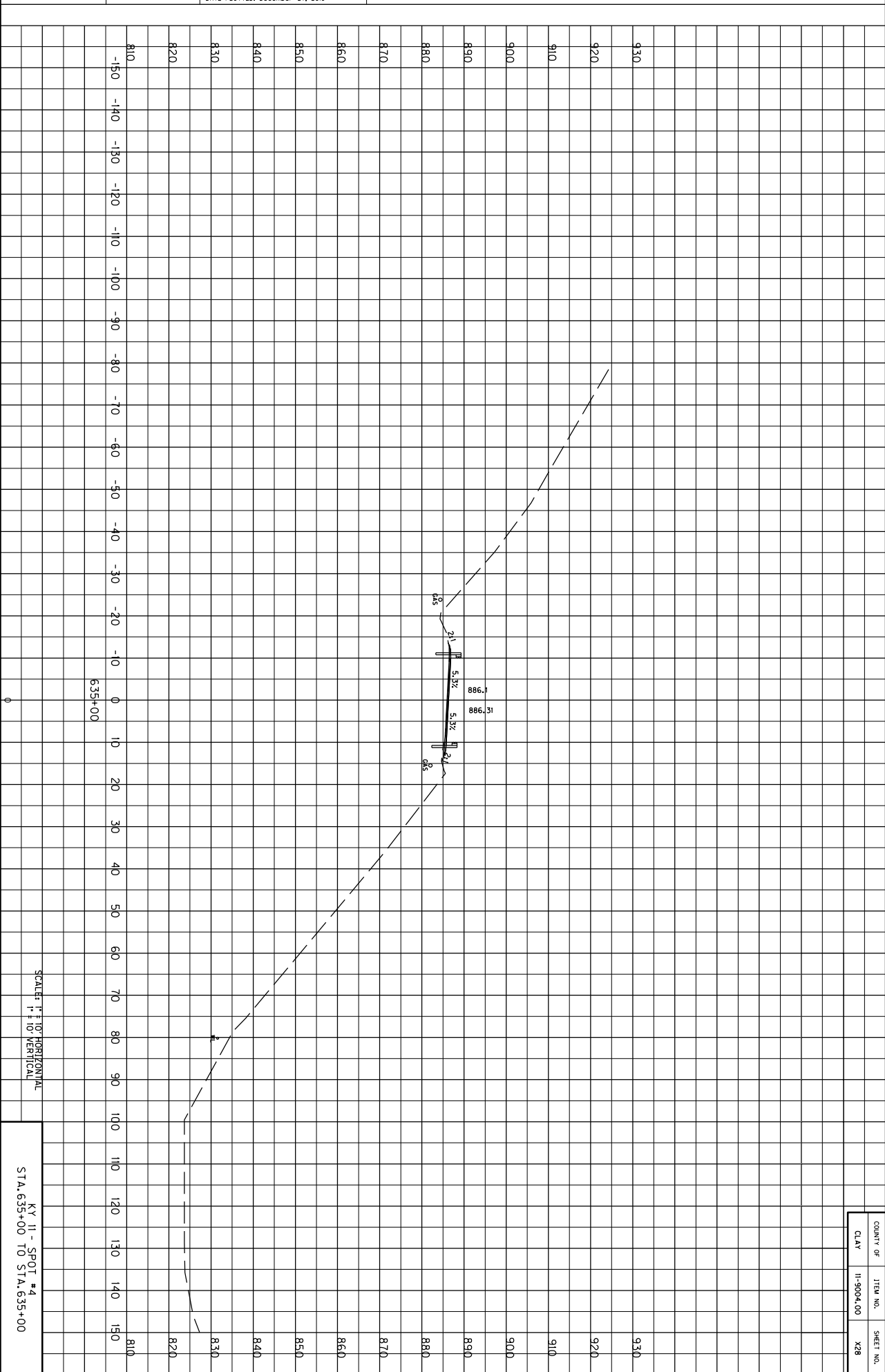


SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

KY II - SPOT #4
STA. 634+50 TO STA. 634+50

COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X27

MicroStation v8.11.9.829 E-SHEET NAME: X01100XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 4.DGN

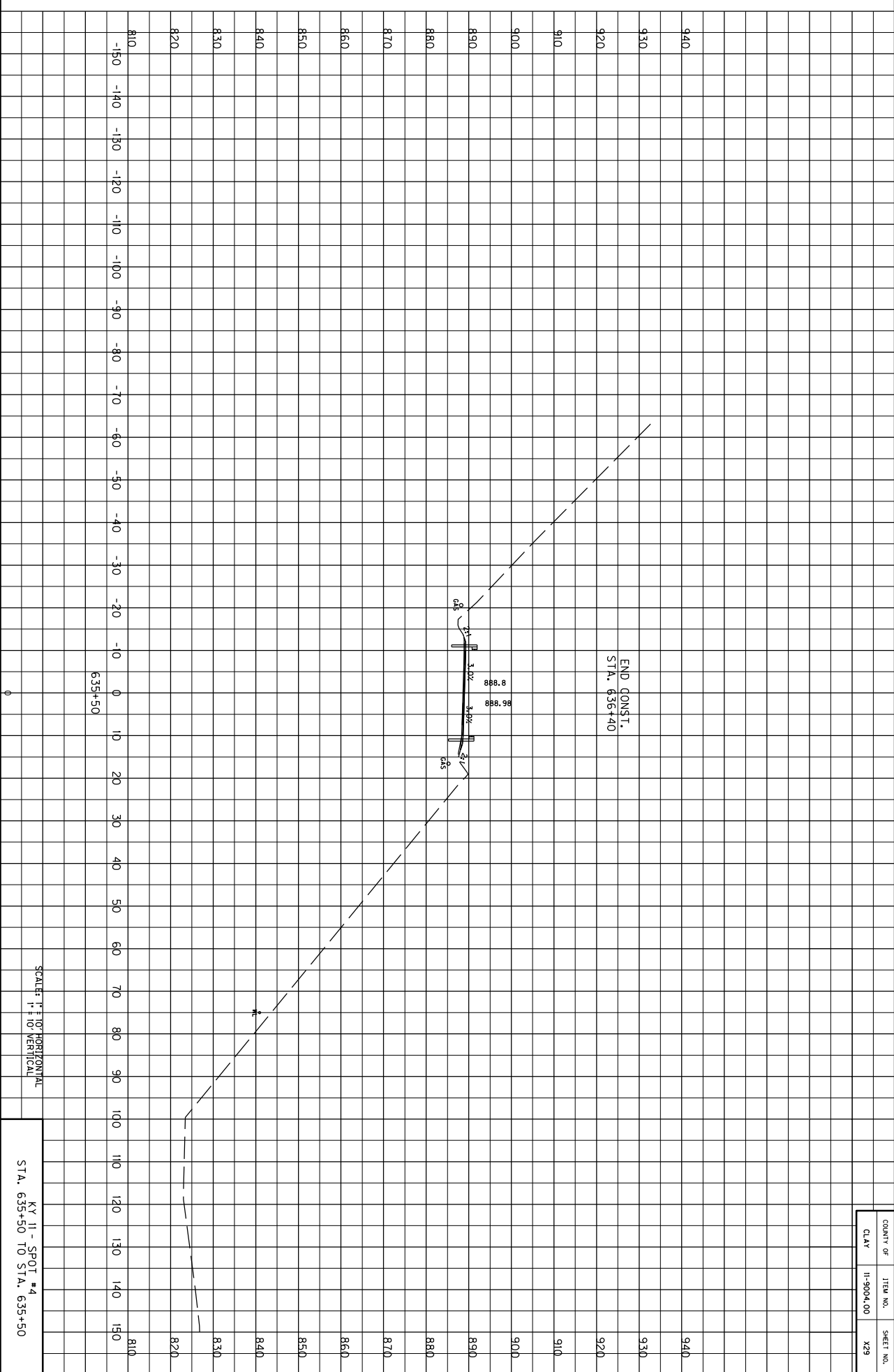


SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

KY II - SPOT #4
STA. 635+00 TO STA. 635+00

COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X28

MicroStation v8.11.9.829 E-SHEET NAME: X0200XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 4.DGN

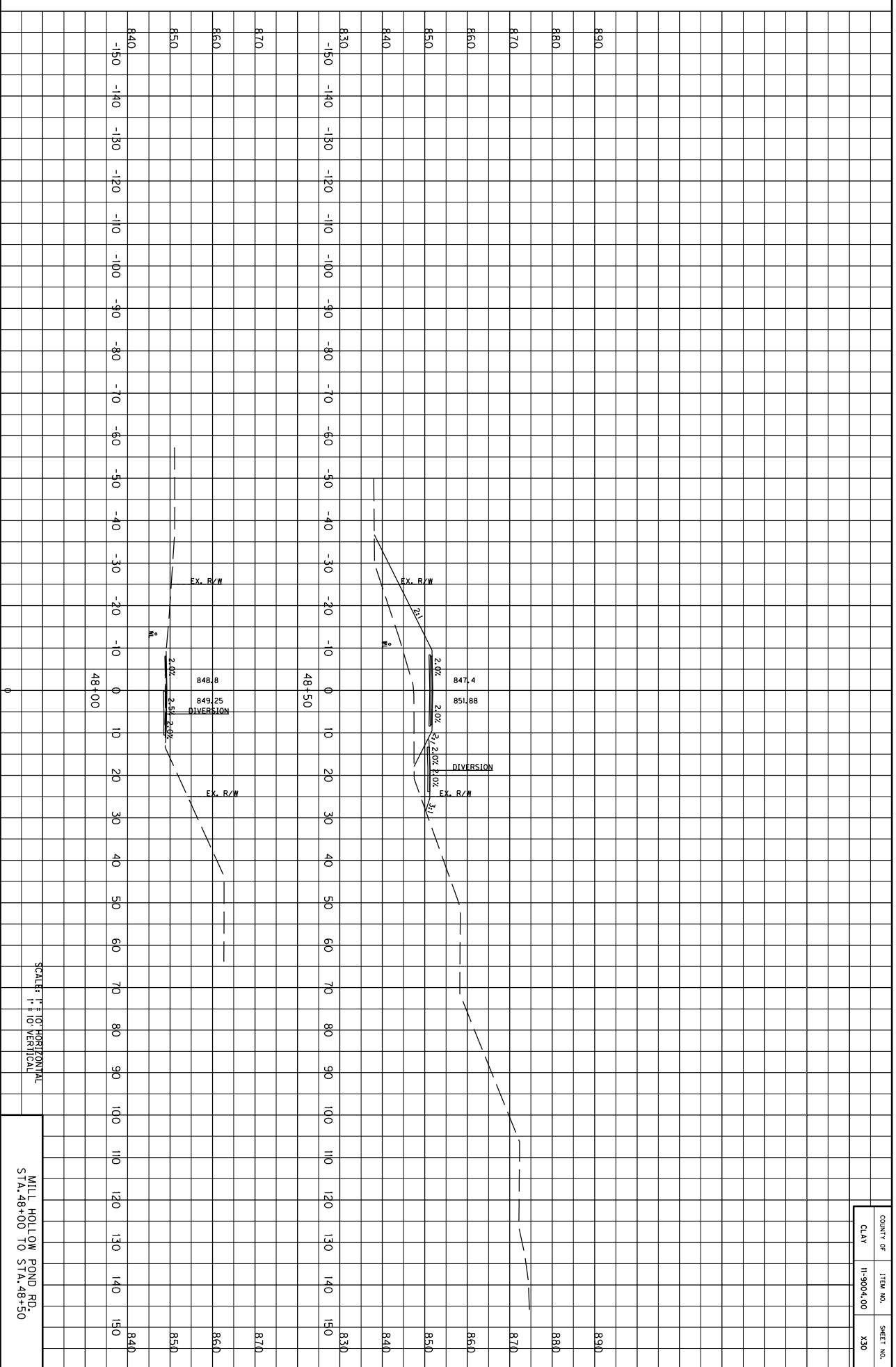


SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

KY II - SPOT #4
STA. 635+50 TO STA. 635+50

COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X29

MicroStation v8.11.9.829 E-SHEET NAME: X00100XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\XYTC 2016\216-013 SWRDY CLAY KY 11 HSIP 11-9004\MASTER PLAN SET\09-X-SECTIONS\11-9004 X-SECTS SPOT 4 - MILL HOLLOW POND RD.

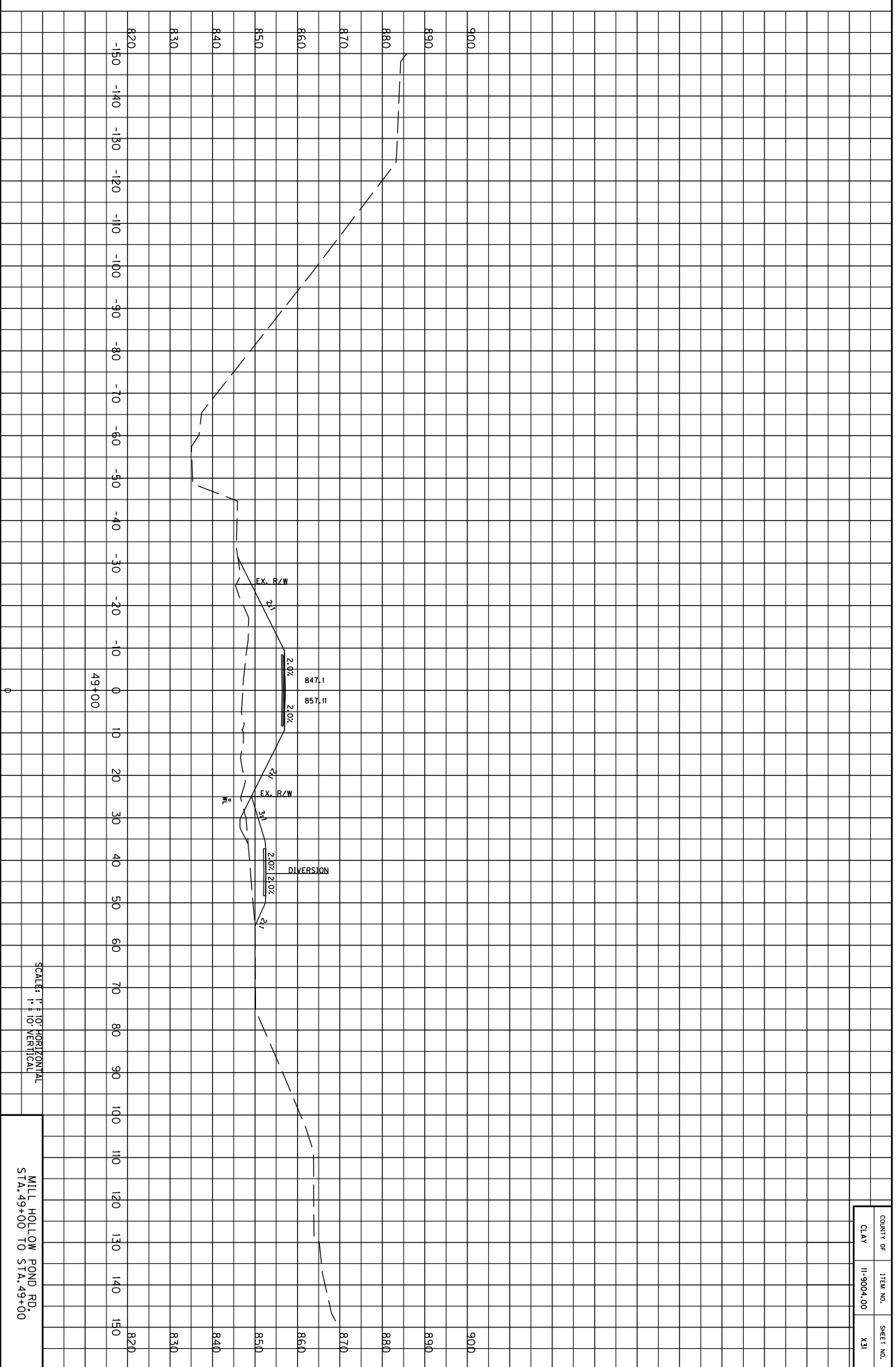


SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MILL HOLLOW POND RD.
STA. 48+00 TO STA. 48+50

COUNT OF	ITEM NO.	SHEET NO.
CLAY	11-9004.00	X30

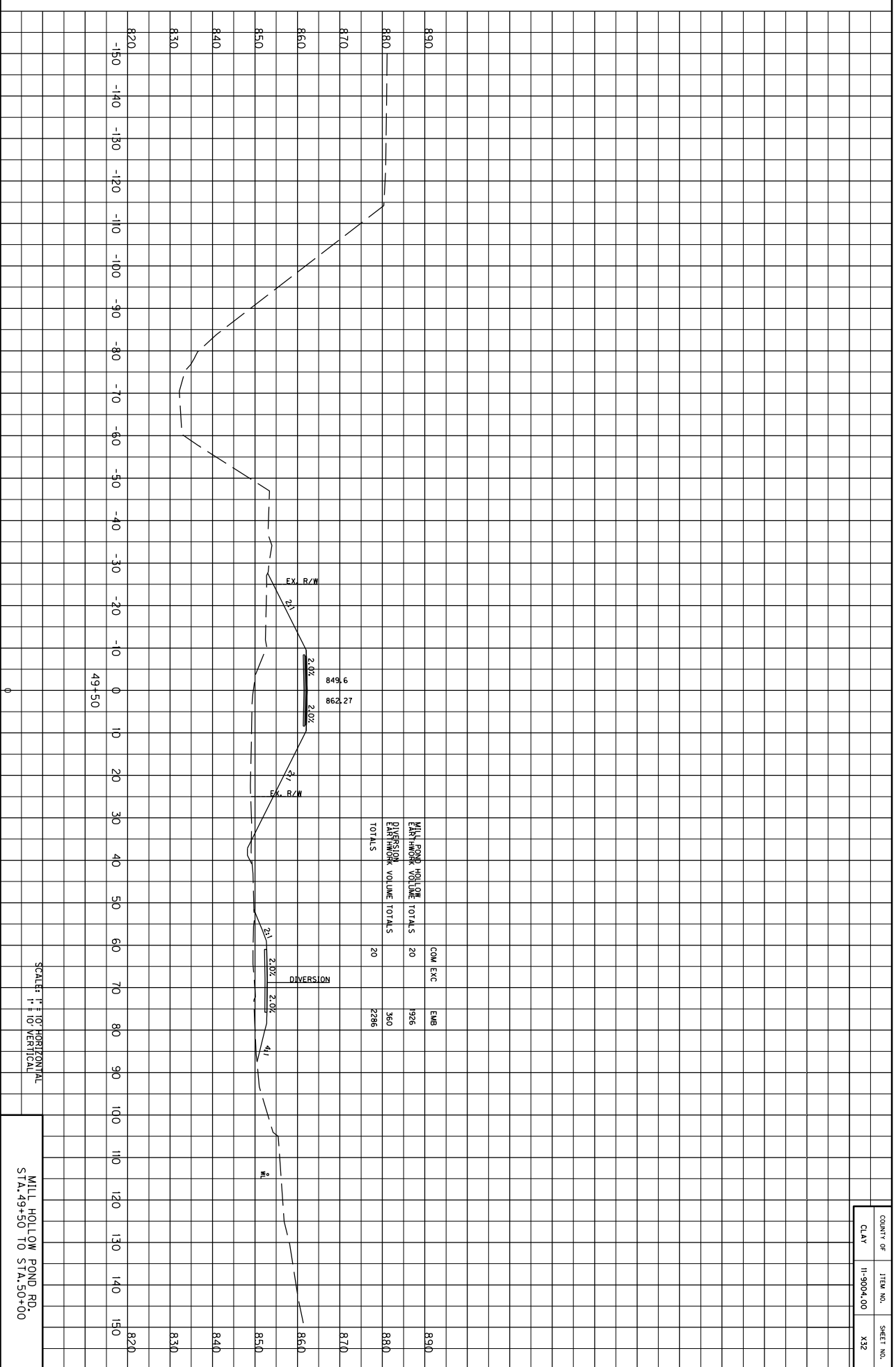
MicroStation v8.11.9.829 E-SHEET NAME: X00200XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\XYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 4 - MILL HOLLOW POND RD.



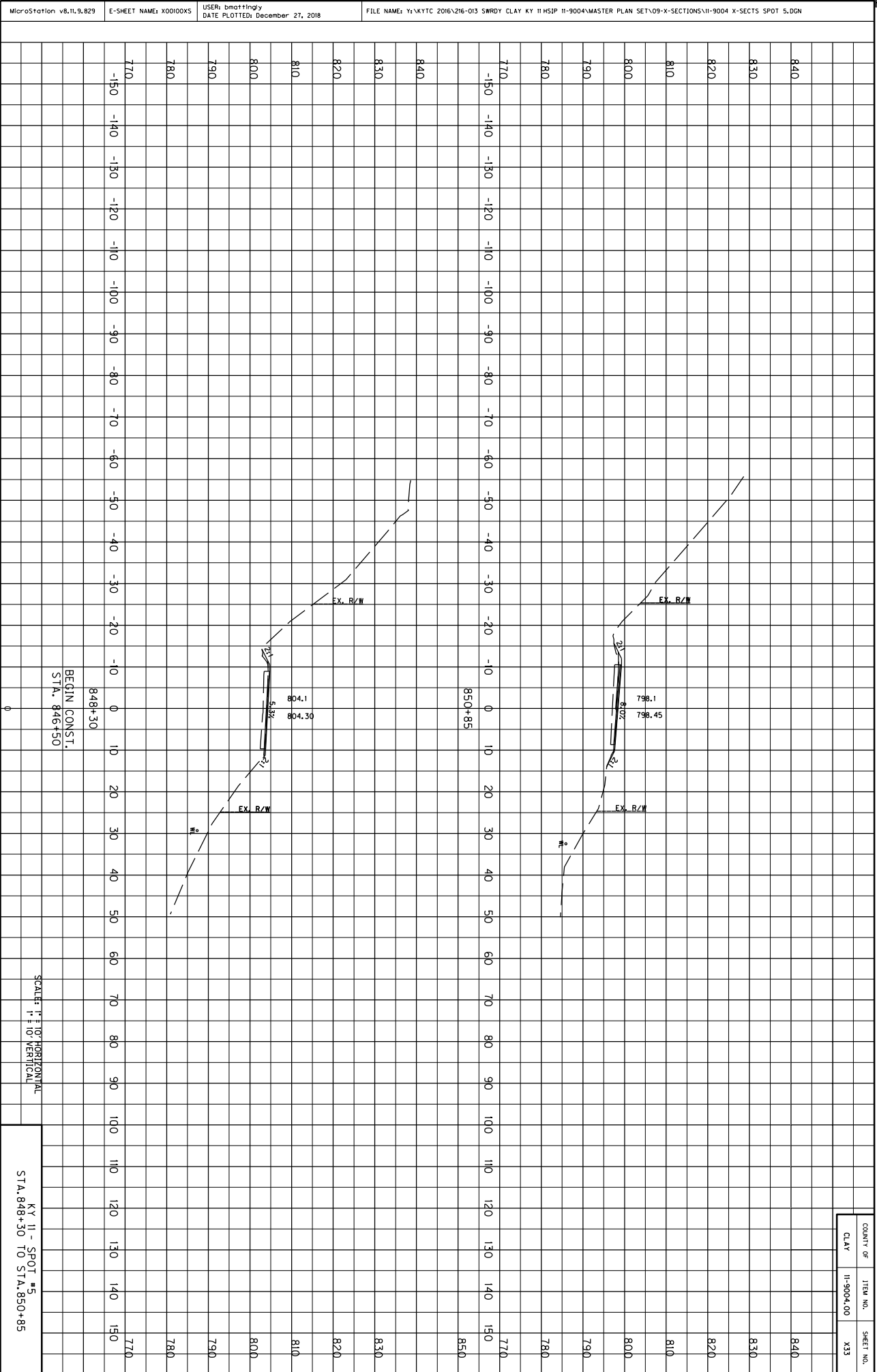
COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X31

MILL HOLLOW POND RD.
STA. 49+00 TO STA. 49+00

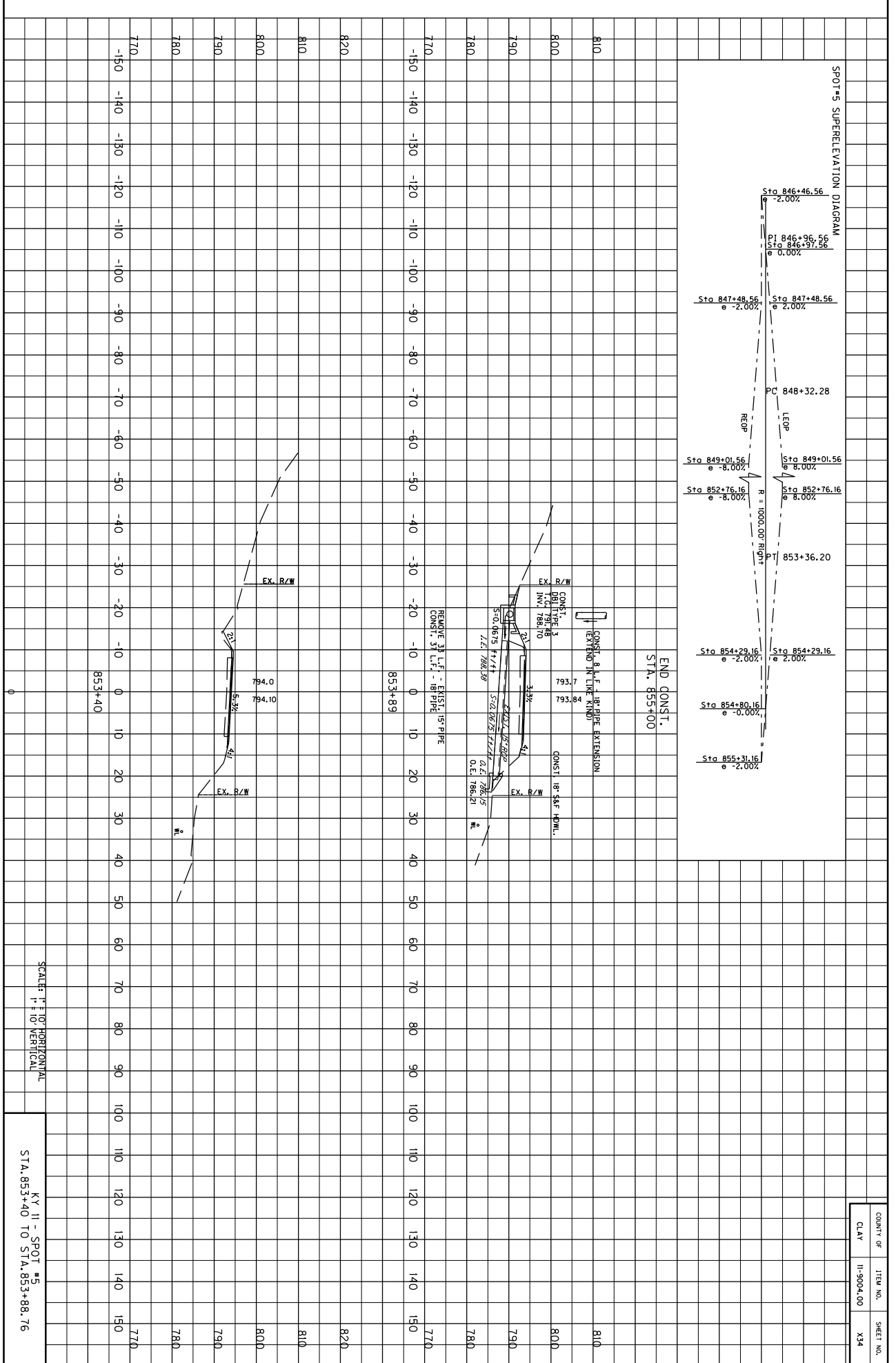
MicroStation v8.11.9.829 E-SHEET NAME: X00300XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 4 - MILL HOLLOW POND RD.



COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X32



MicroStation v8.11.9.829 E-SHEET NAME: X00200XS USER: bmattingly DATE PLOTTED: March 19, 2019 FILE NAME: Y:\XYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\DELIVERABLES\FINAL ELECTRONIC SUBMITTAL\REVISIONS INCORPORATED 3-18-19\II-9004

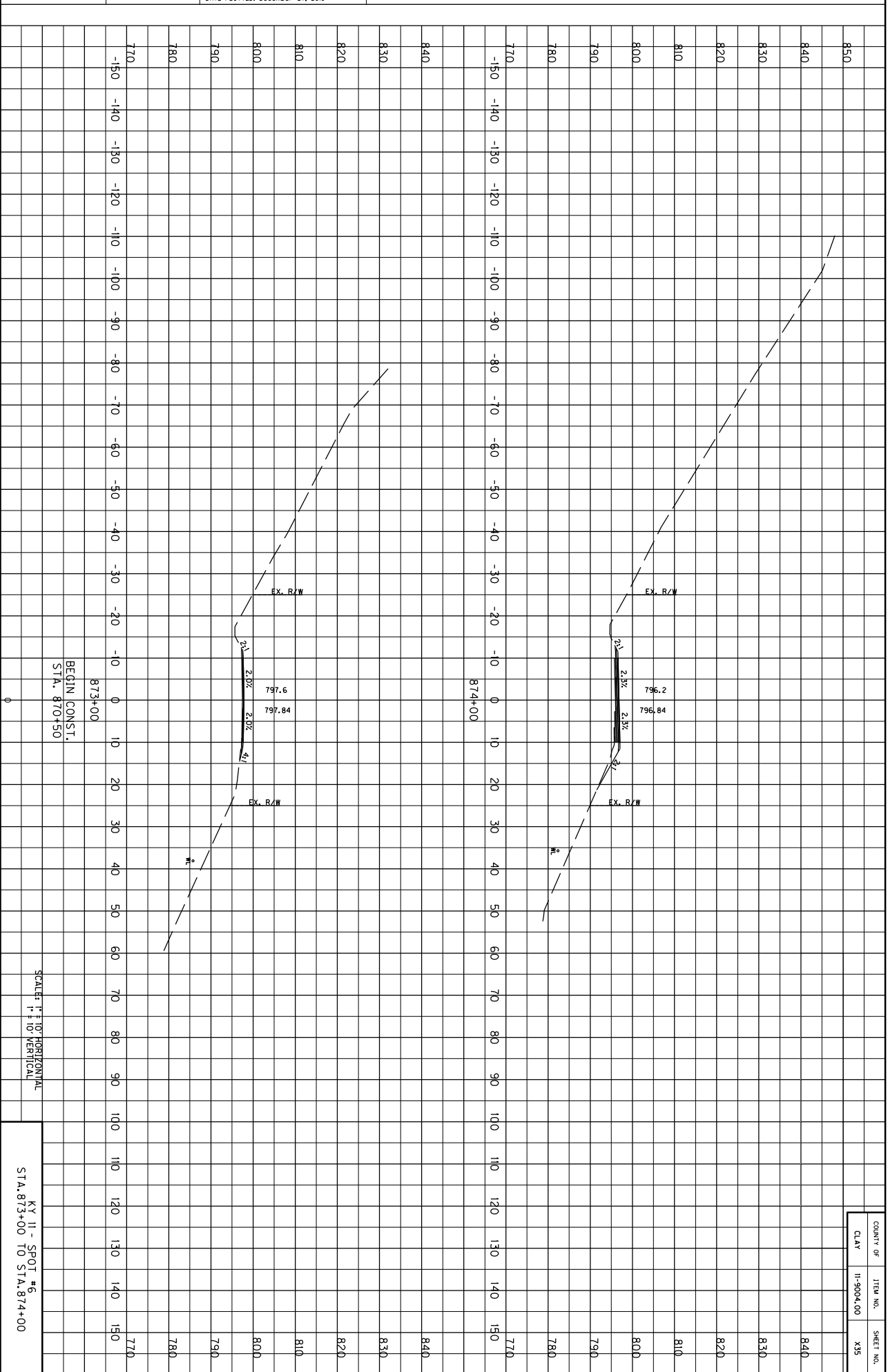


SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

KY II - SPOT #5
STA. 853+40 TO STA. 853+88.76

COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X34

MicroStation v8.11.9.829 E-SHEET NAME: X00100XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 6.DGN

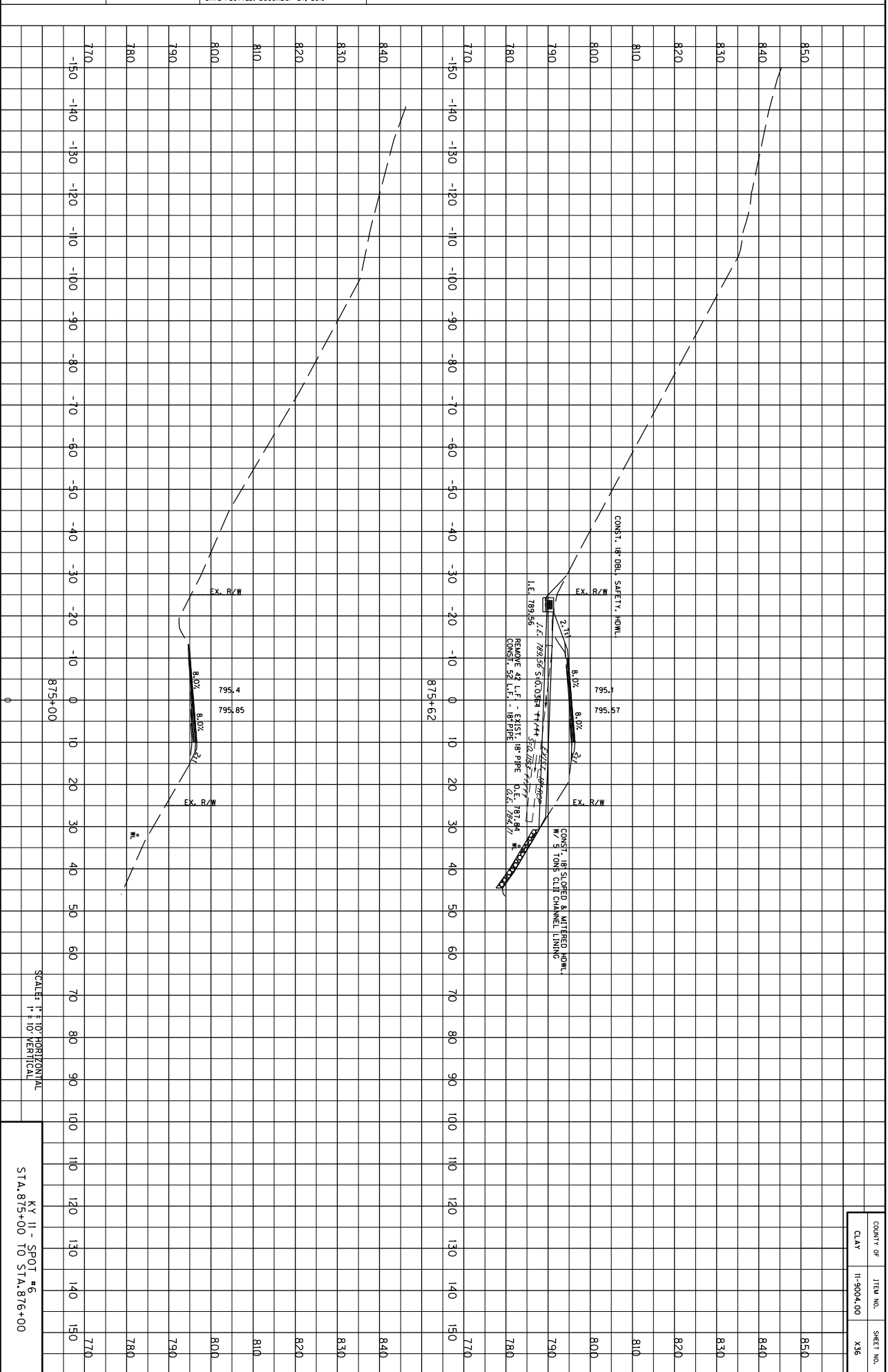


COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X35

KY II - SPOT #6
STA. 873+00 TO STA. 874+00

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

MicroStation v8.11.9.829 E-SHEET NAME: X00200XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SRRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 6.DGN

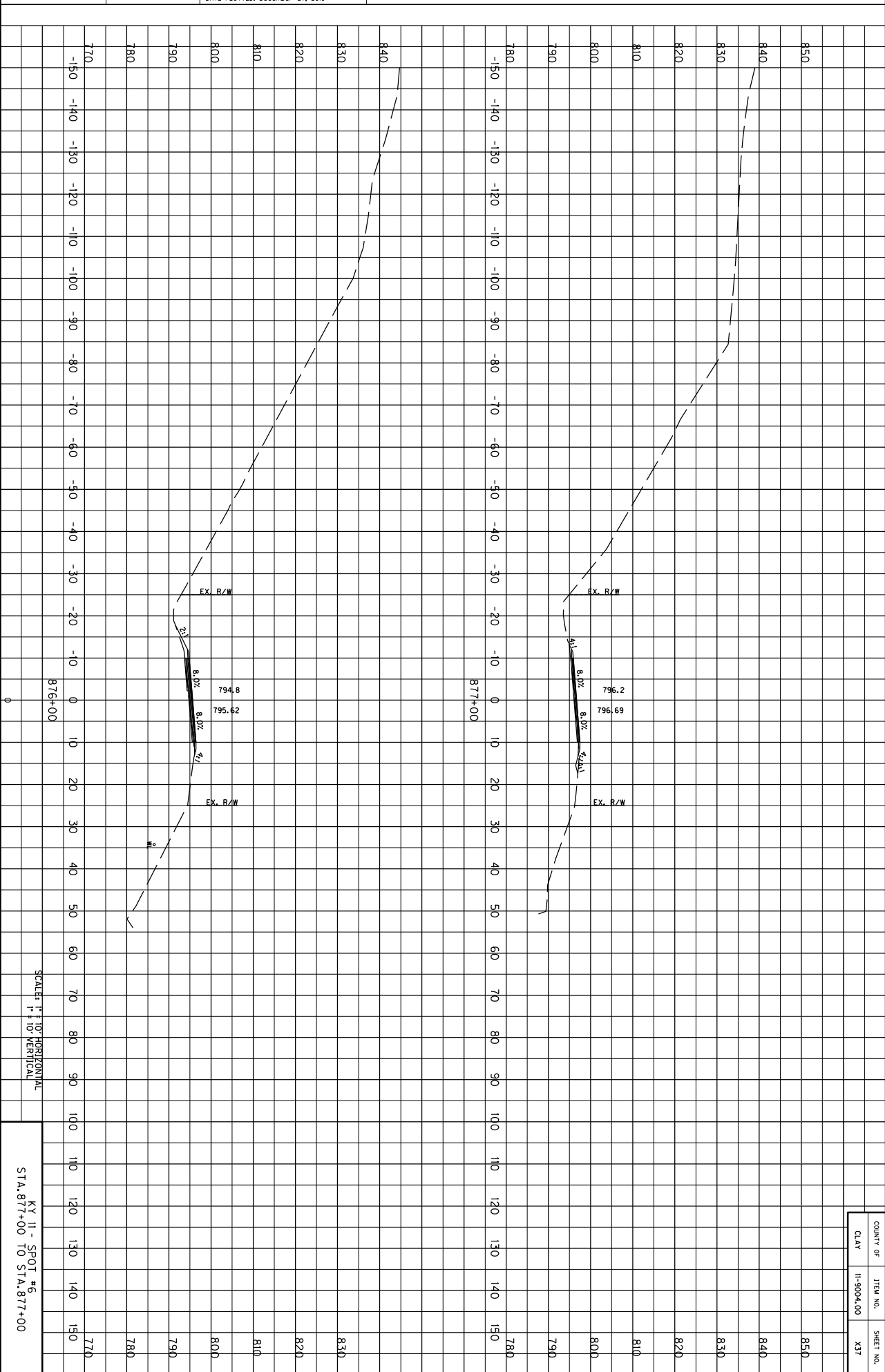


COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X36

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

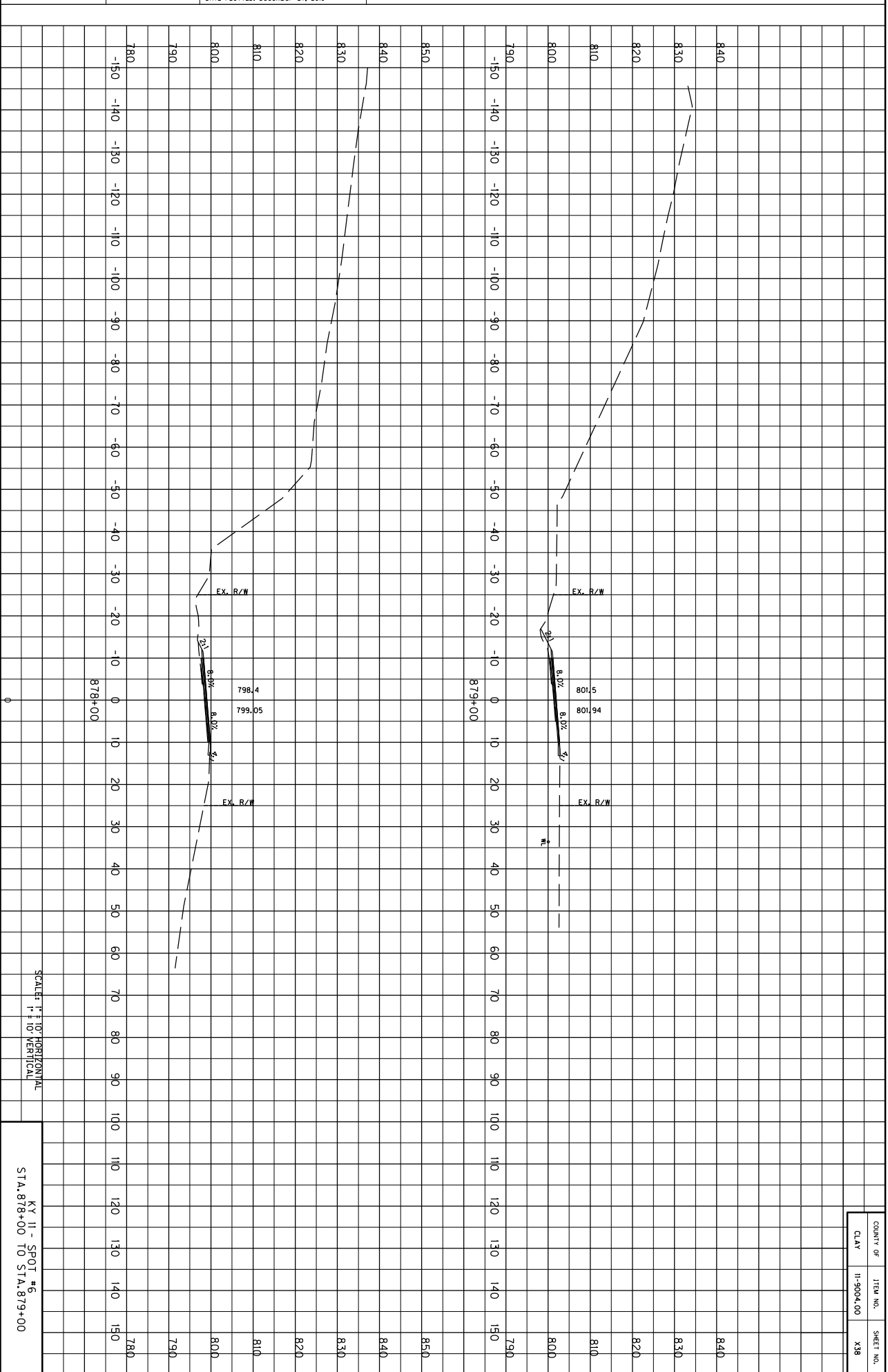
KY II - SPOT #6
STA. 875+00 TO STA. 876+00

MicroStation v8.11.9.829 E-SHEET NAME: X00300XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 6.DGN



COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X37

MicroStation v8.11.9.829 E-SHEET NAME: X00400XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 6.DGN

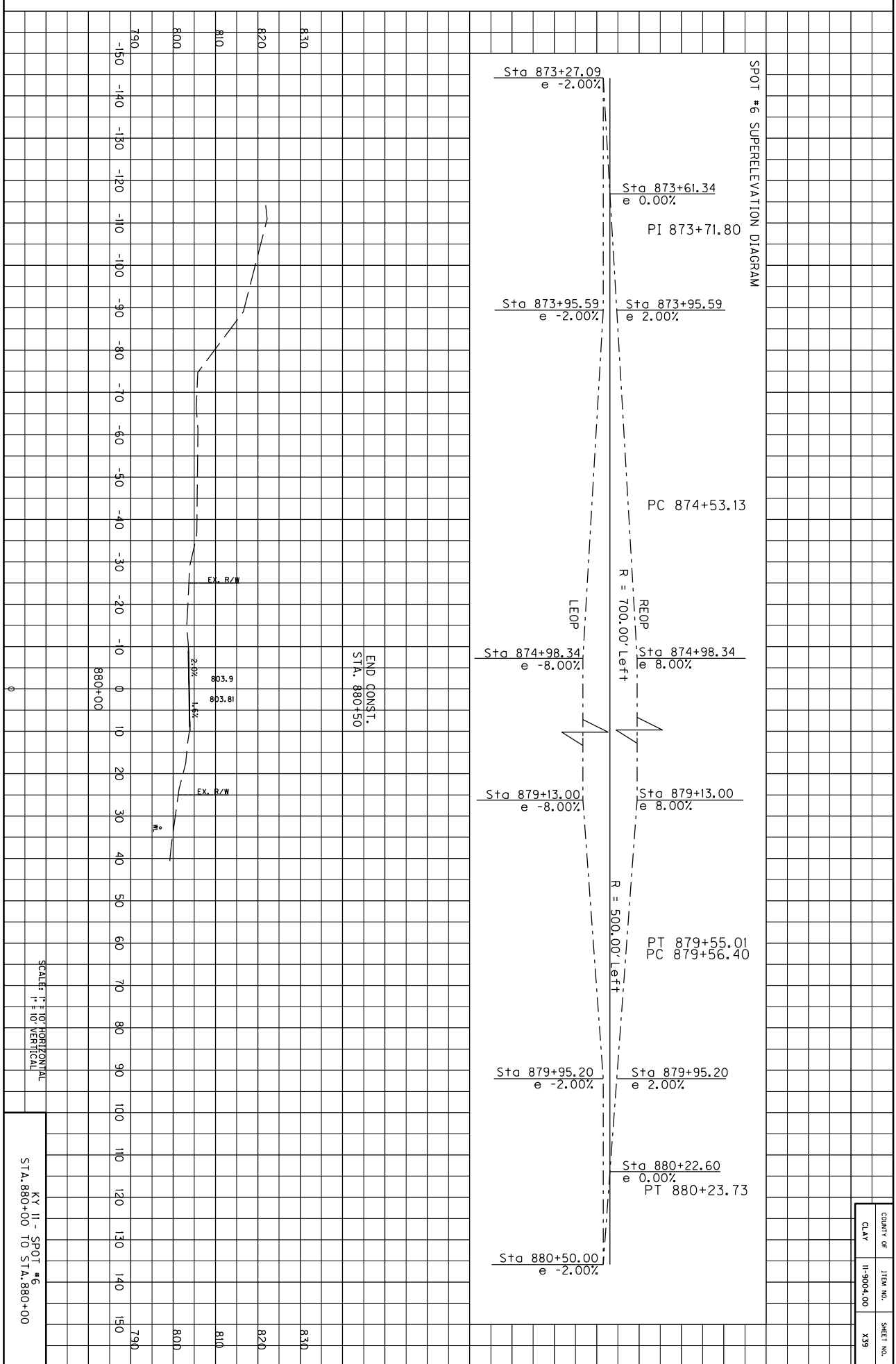


SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

KY II - SPOT #6
STA. 878+00 TO STA. 879+00

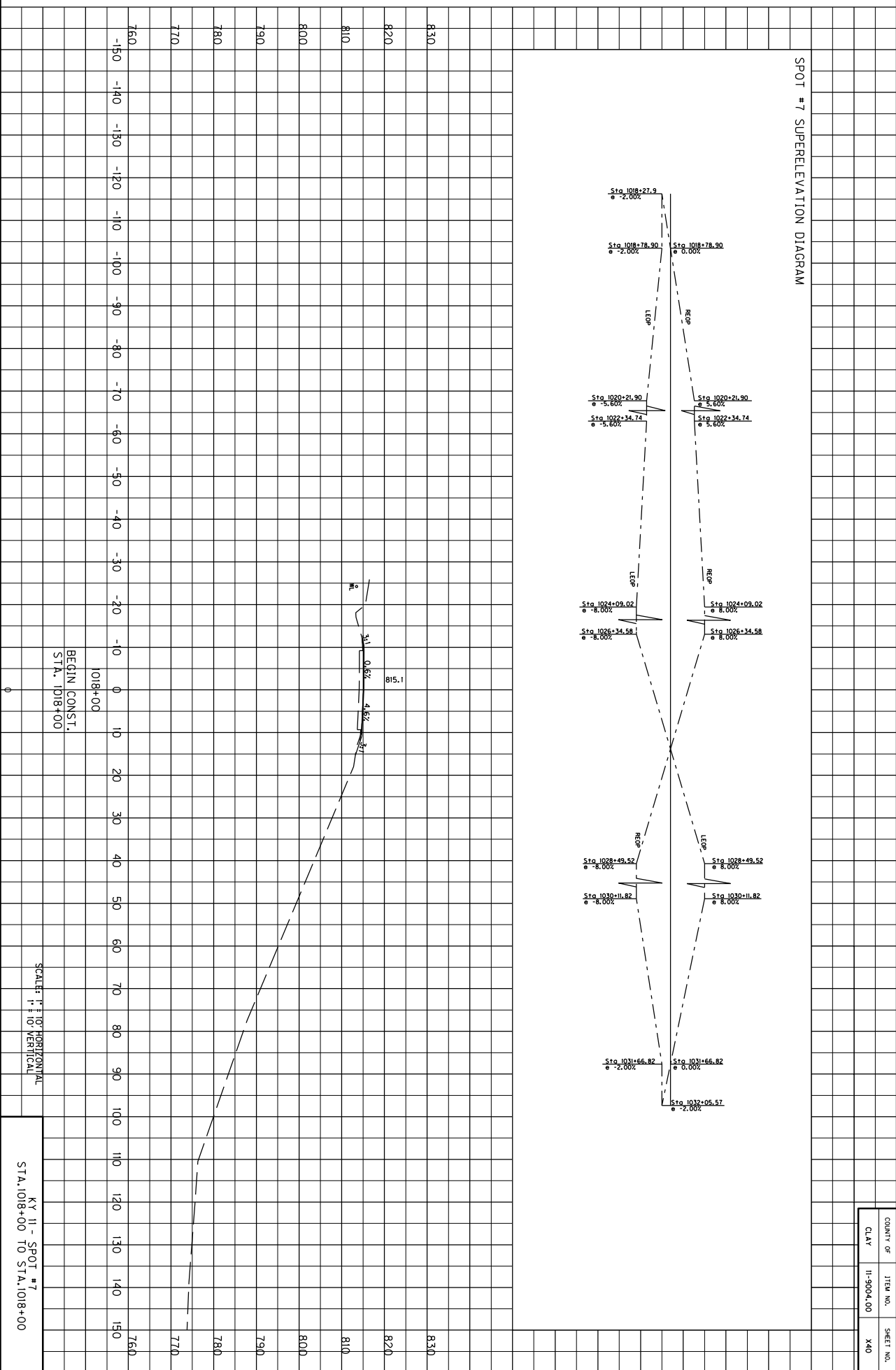
COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X38

MicroStation v8.11.9.829 E-SHEET NAME: X00500XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 6.DGN



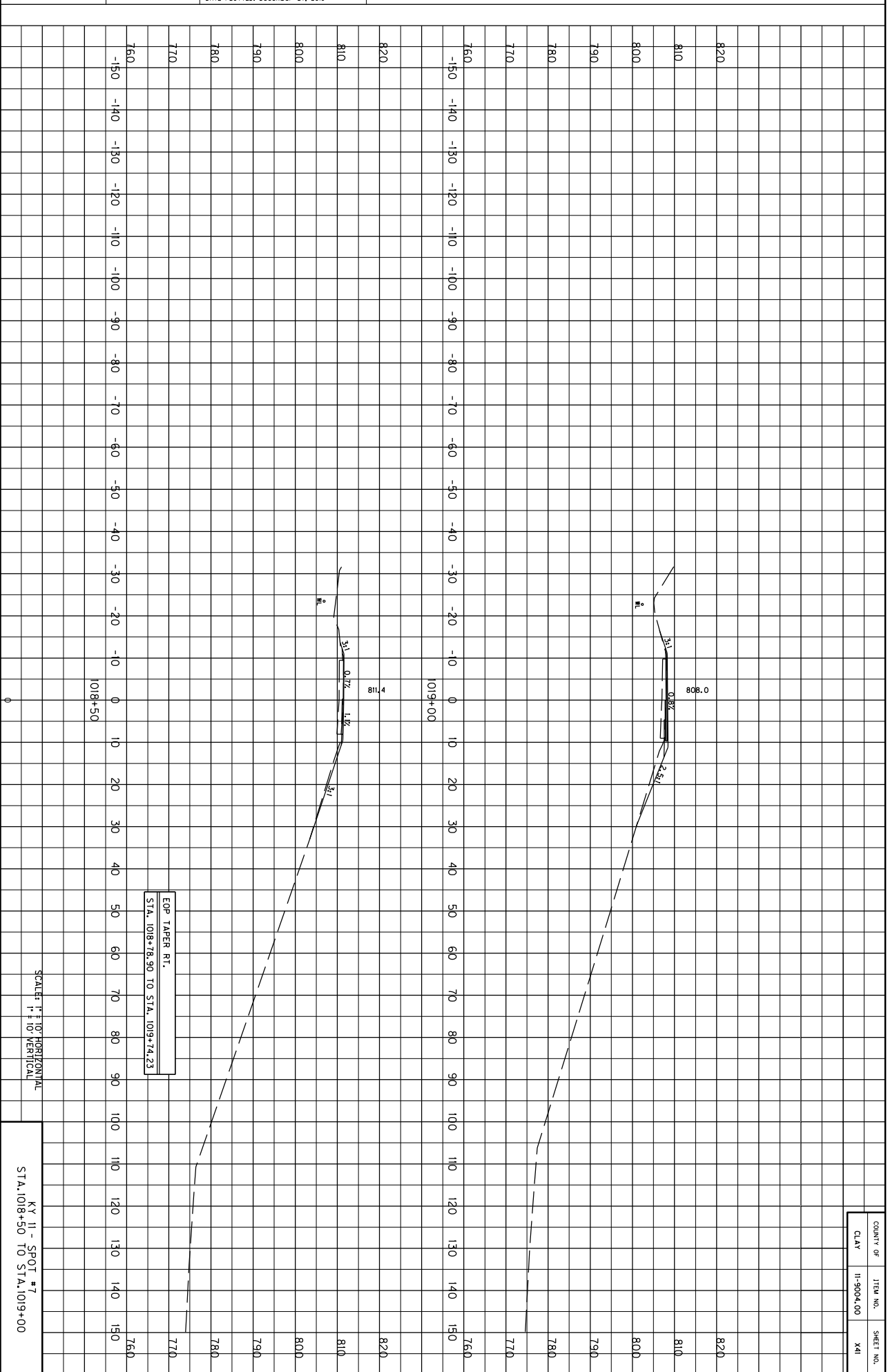
COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X39

MicroStation v8.11.9.829 E-SHEET NAME: X00100XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 7.DGN



COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X40

MicroStation v8.11.9.829 E-SHEET NAME: X00200XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 7.DGN

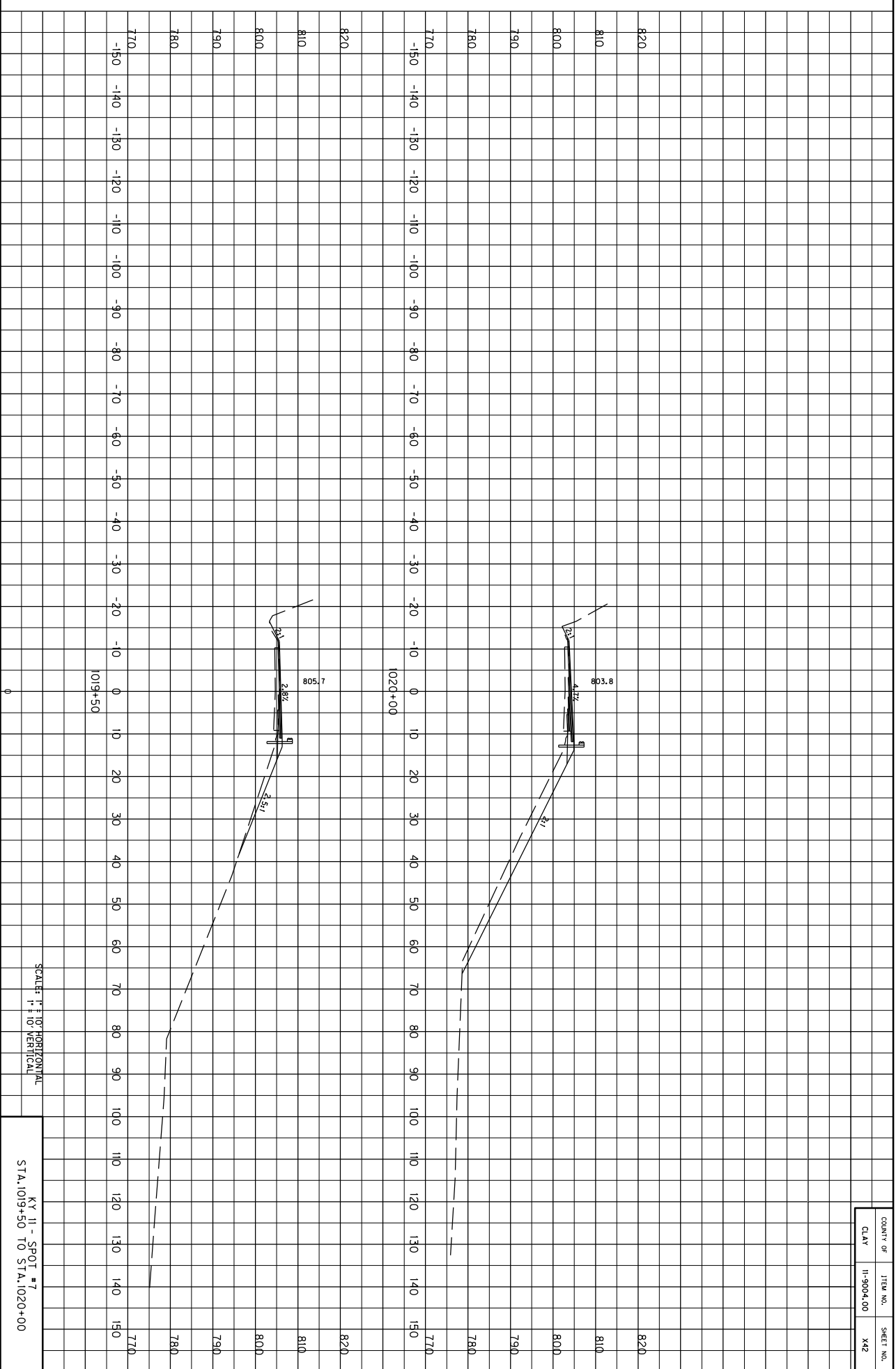


SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

KY II - SPOT #7
STA. 1018+50 TO STA. 1019+00

COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X41

MicroStation v8.11.9.829 E-SHEET NAME: X00300XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\XYTC 2016\216-013 S\WRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 7.DGN

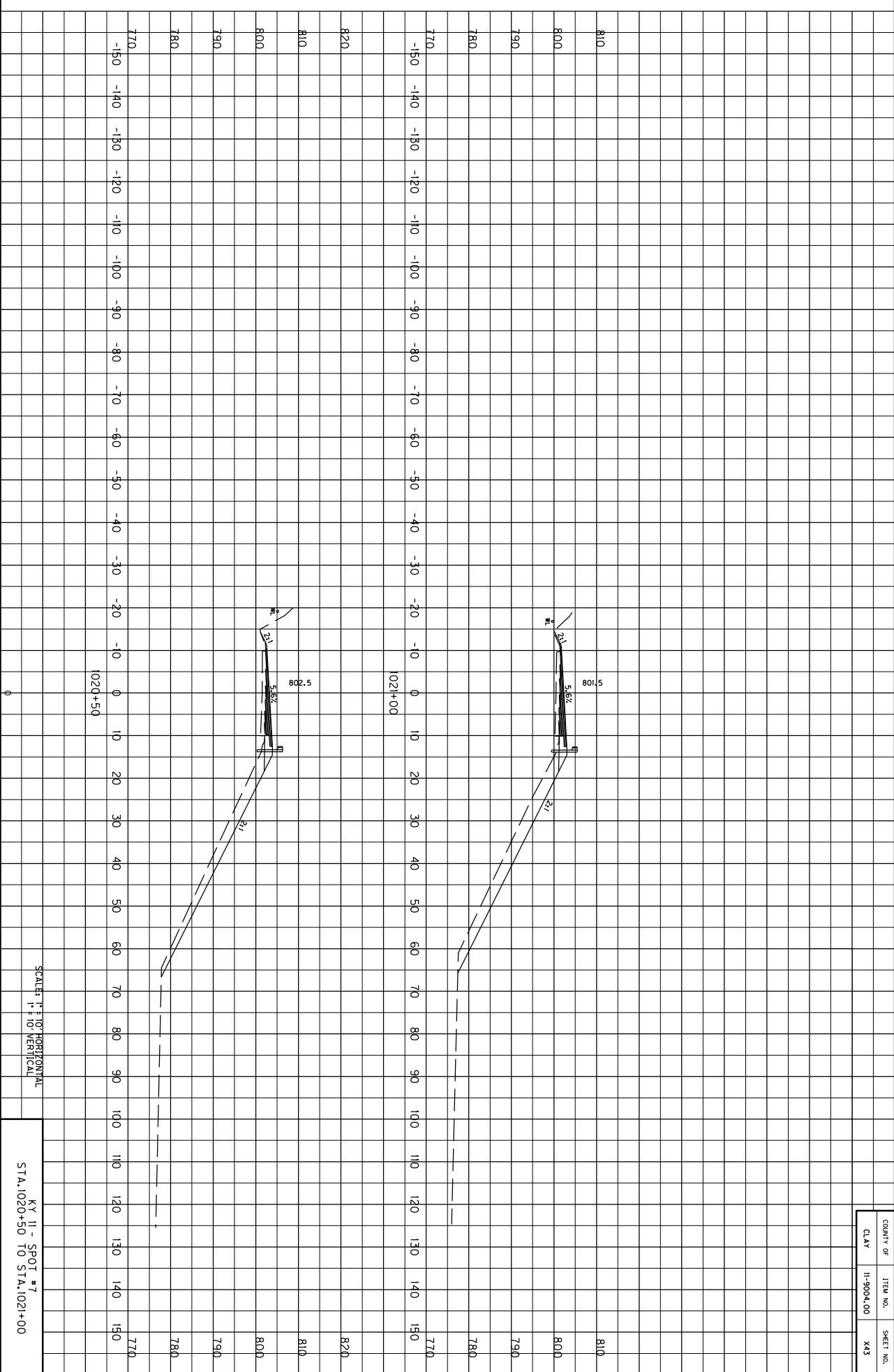


SCALE: 1" = 10'
HORIZONTAL
1" = 10'
VERTICAL

KY II - SPOT #7
STA. 1019+50 TO STA. 1020+00

COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X42

MicroStation v8.11.9.829 E-SHEET NAME: X00400XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\XYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 7.DGN

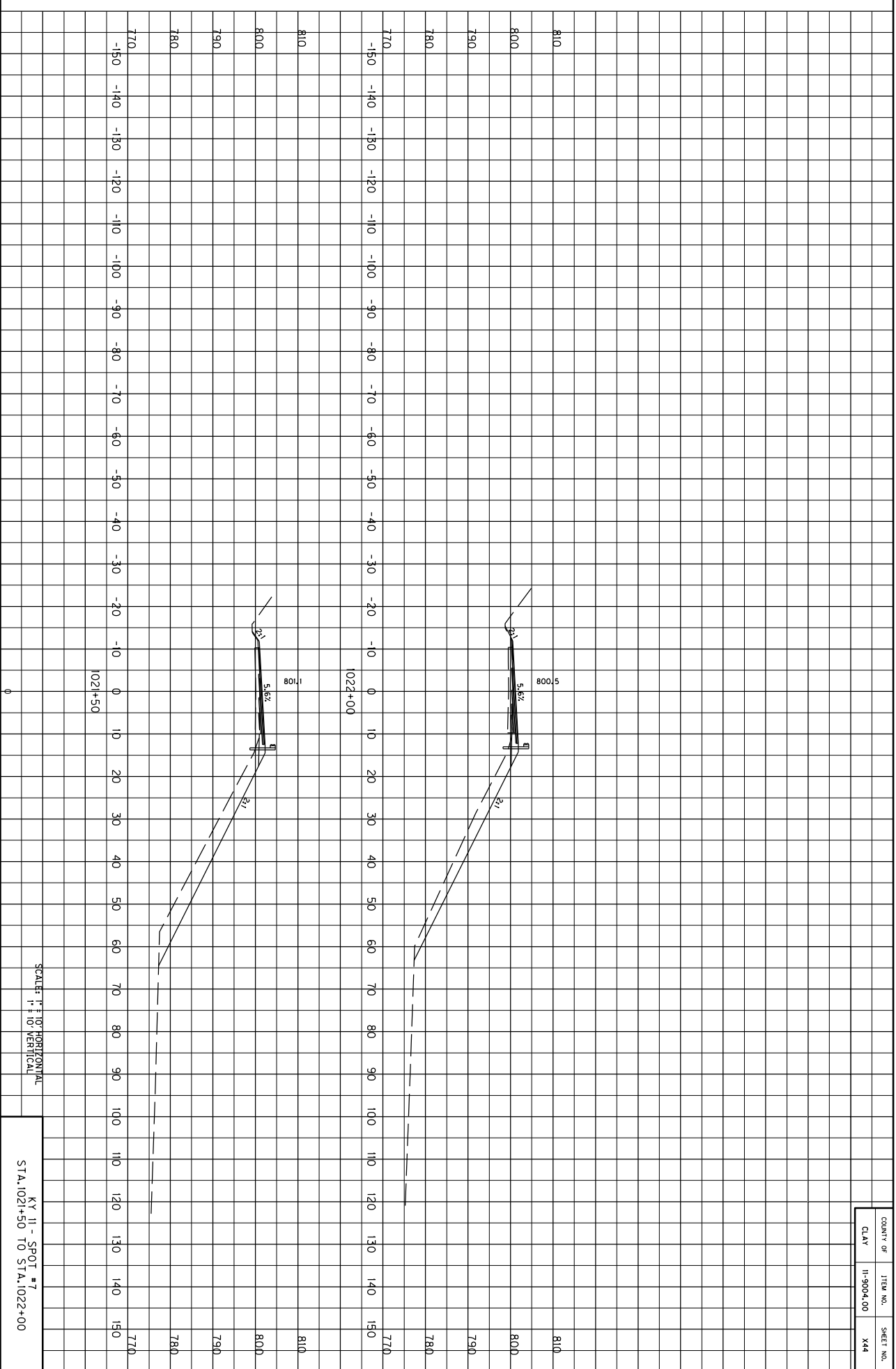


SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

KY II - SPOT #7
STA. 1020+50 TO STA. 1021+00

COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X43

MicroStation v8.11.9.829 E-SHEET NAME: X00500XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 7.DGN

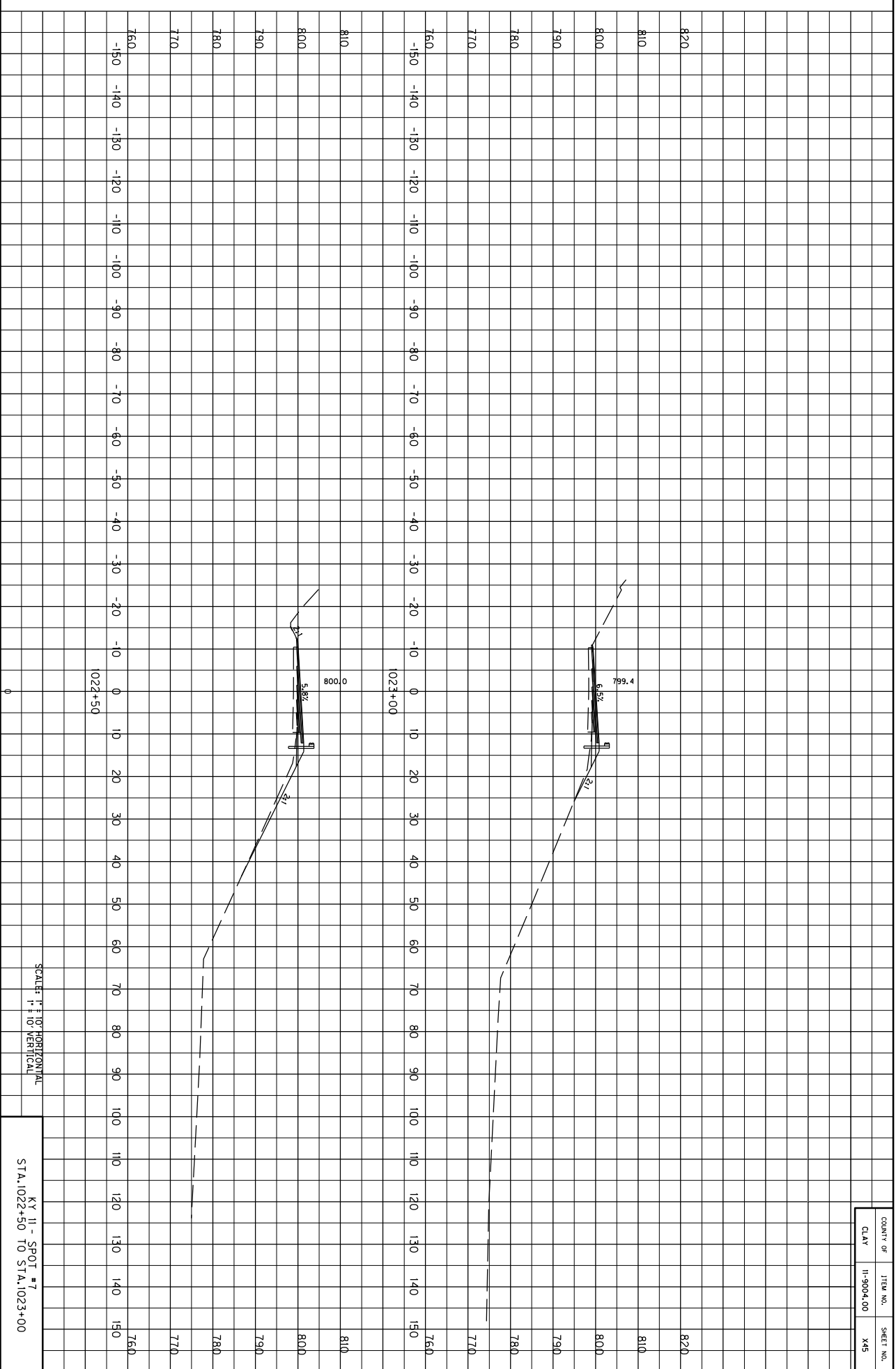


SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

KY II - SPOT #7
STA. 1021+50 TO STA. 1022+00

COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X44

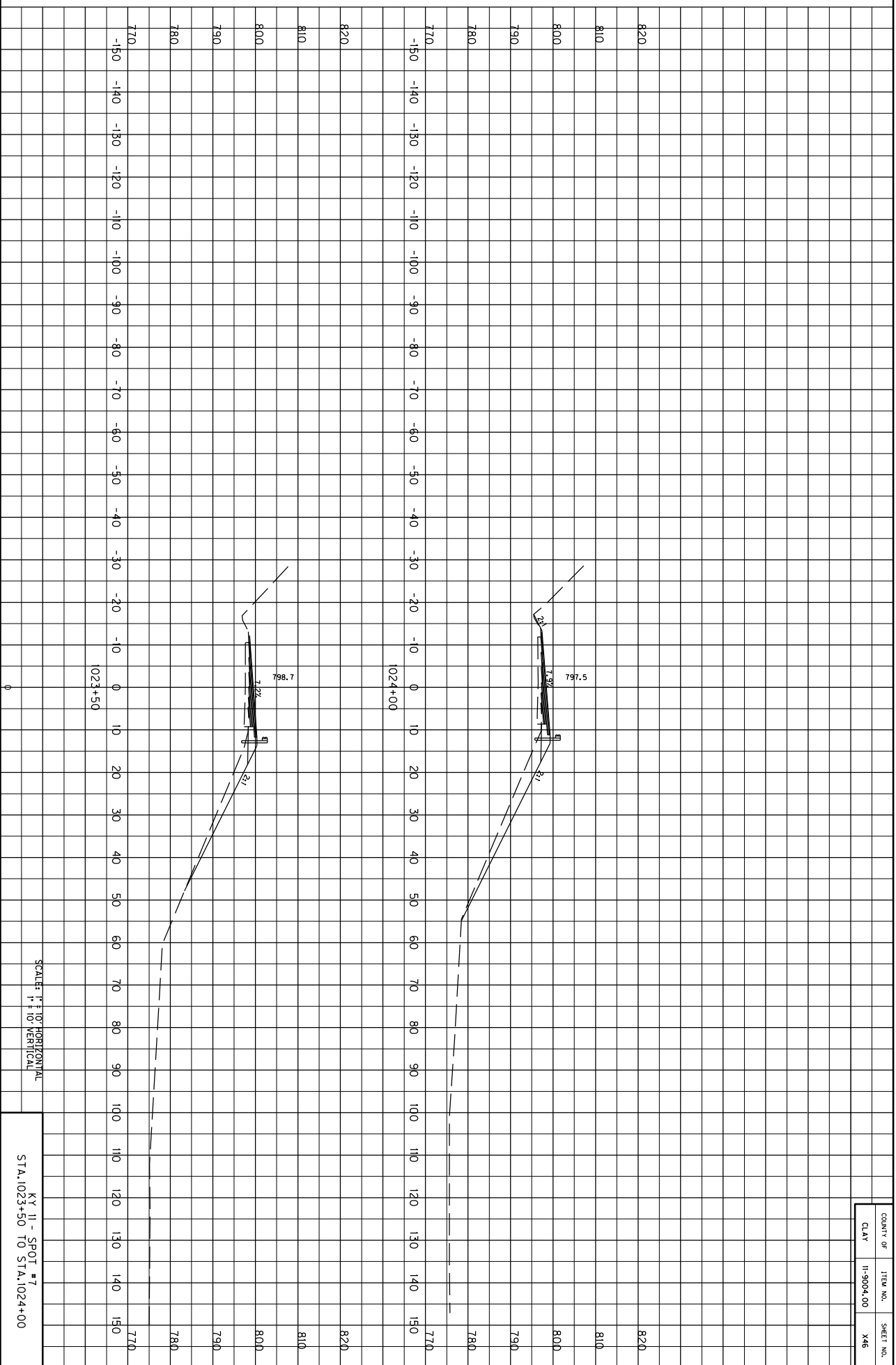
MicroStation v8.11.9.829 E-SHEET NAME: X00600XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\XYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 7.DGN



COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X45

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
KY II - SPOT #7
STA. 1022+50 TO STA. 1023+00

MicroStation v8.11.9.829 E-SHEET NAME: X00700XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\XYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 7.DGN

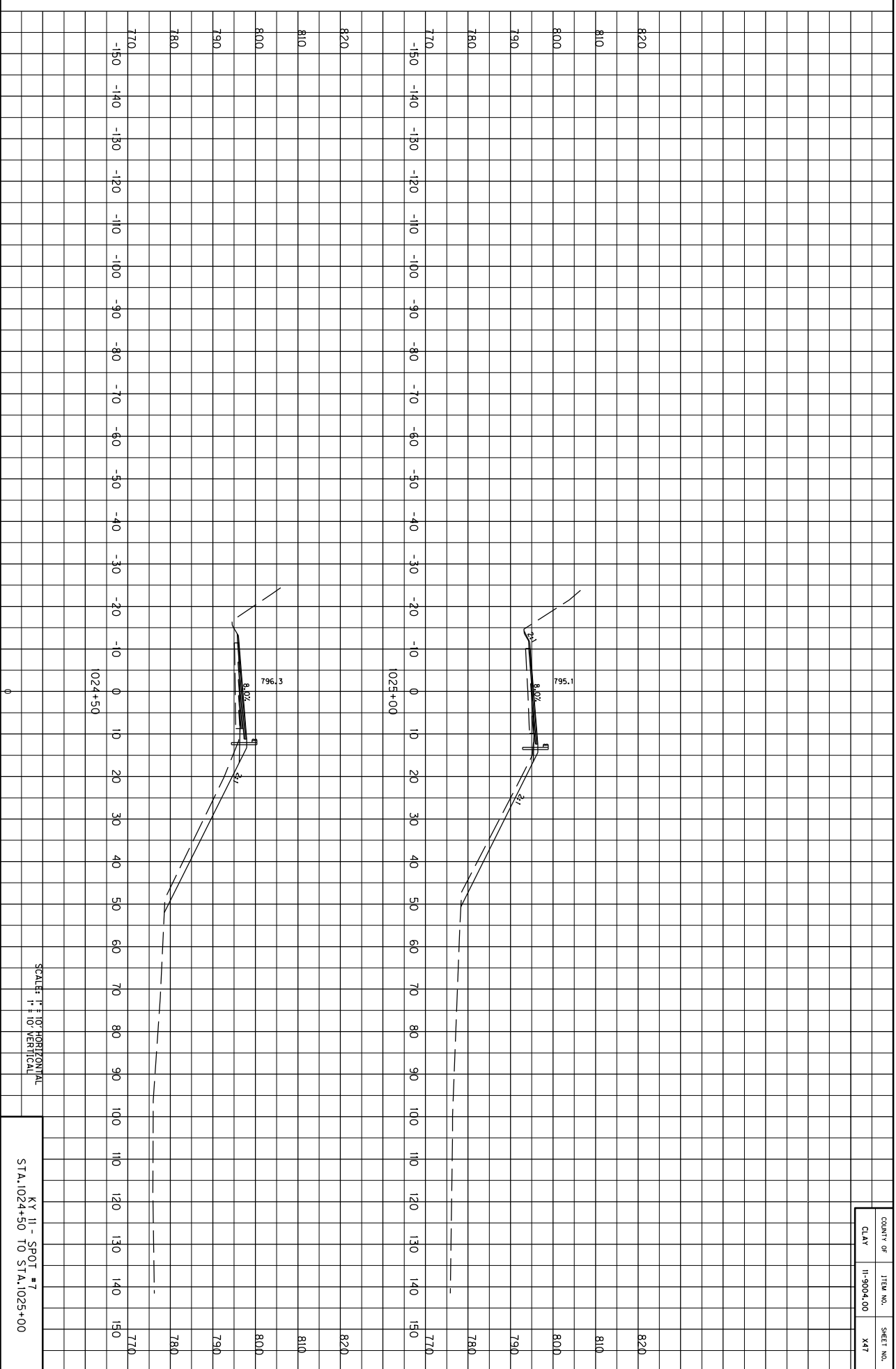


SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

KY II - SPOT #7
STA. 1023+50 TO STA. 1024+00

COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X46

MicroStation v8.11.9.829 E-SHEET NAME: X00800XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\XYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 7.DGN

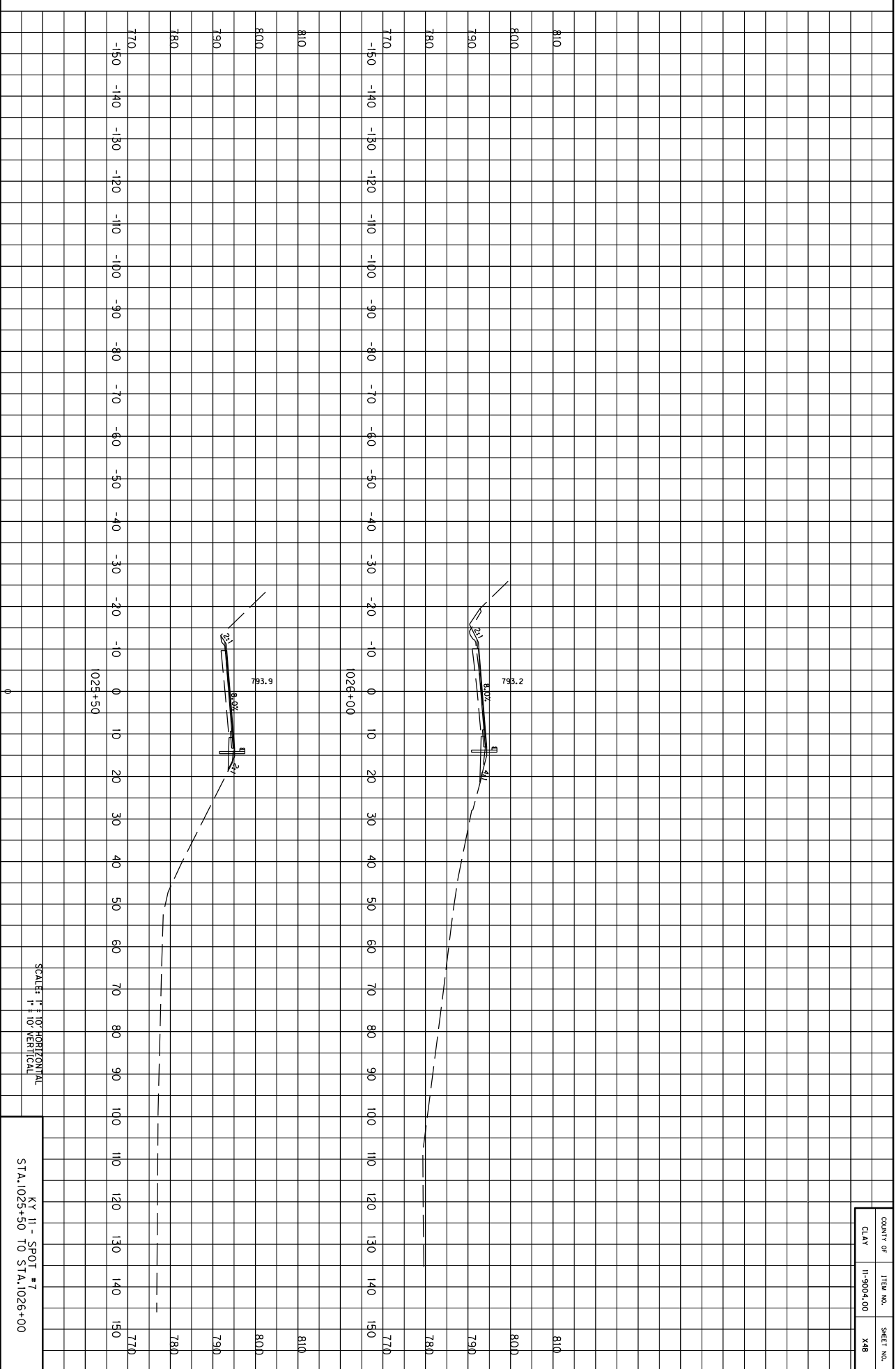


SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

KY II - SPOT #7
STA.1024+50 TO STA.1025+00

COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X47

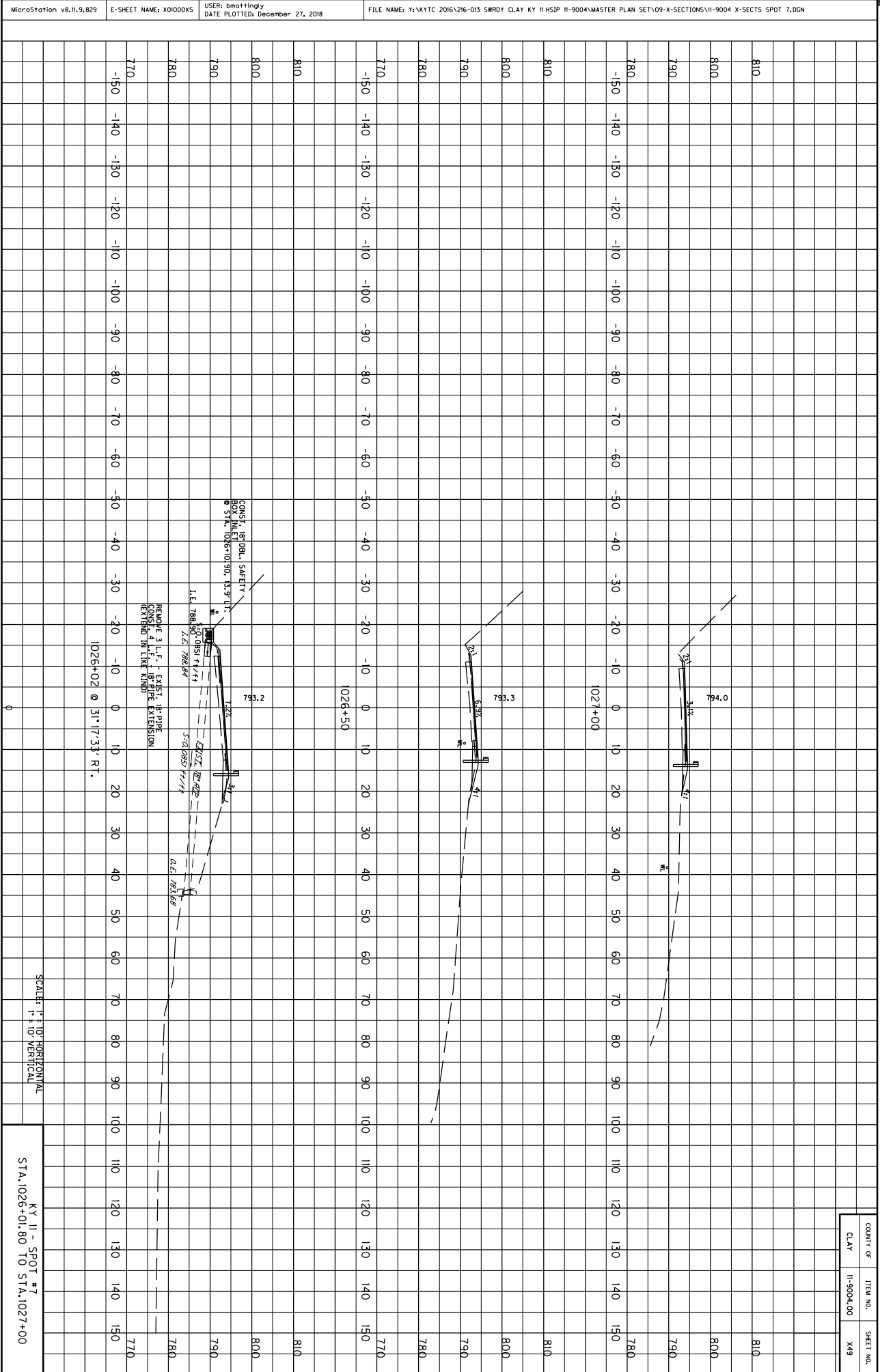
MicroStation v8.11.9.829 E-SHEET NAME: X00900XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 7.DGN



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

KY II - SPOT #7
STA. 1025+50 TO STA. 1026+00

COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X48



MicroStation v8.11.9.829

E-SHEET NAME: X01000XS

USER: bmattingly
DATE PLOTTED: December 27, 2018

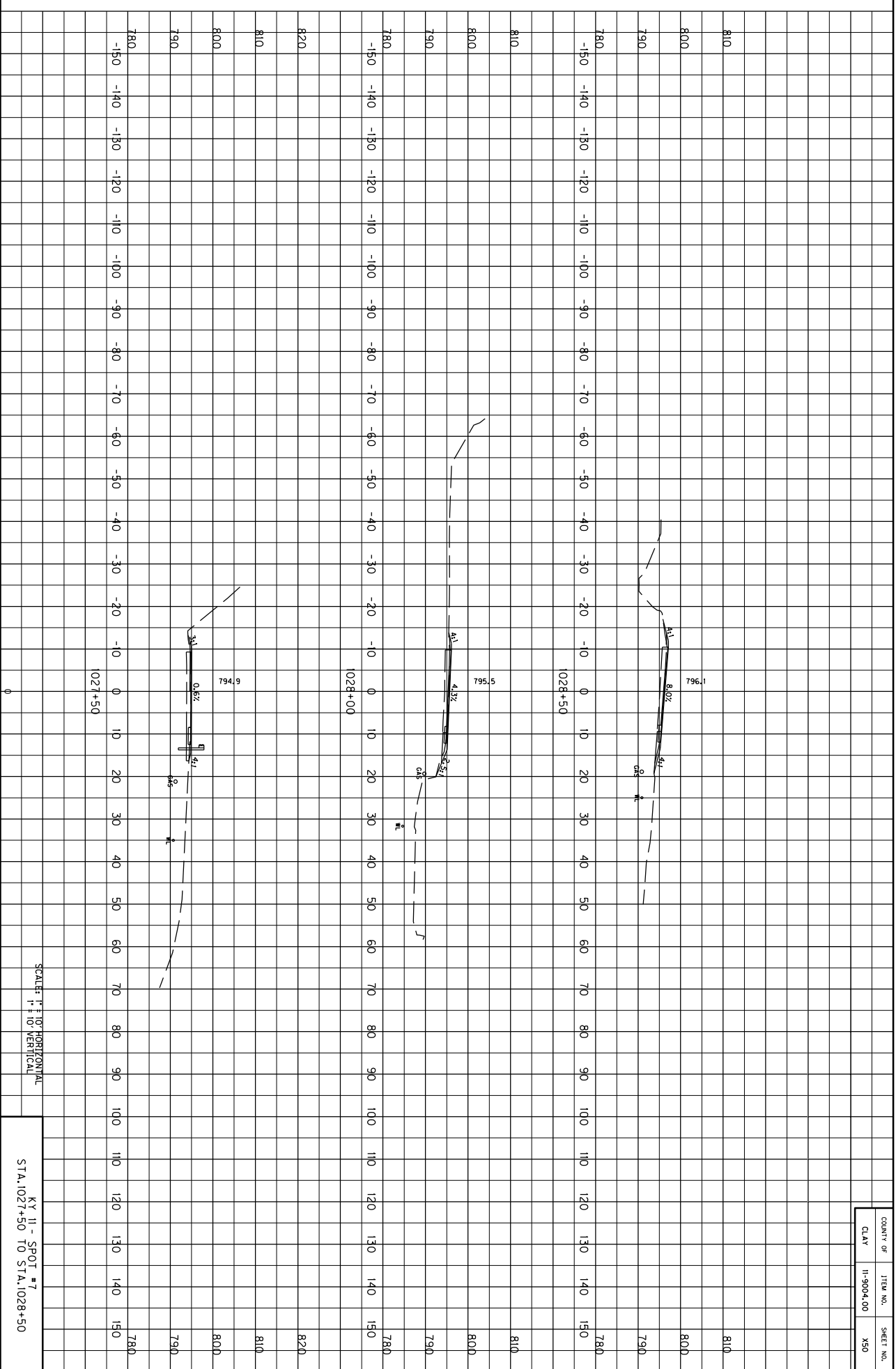
FILE NAME: Y:\KYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 7.DGN

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

KY II - SPOT #7
STA. 1026+01.80 TO STA. 1027+00

COUNTY OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X49

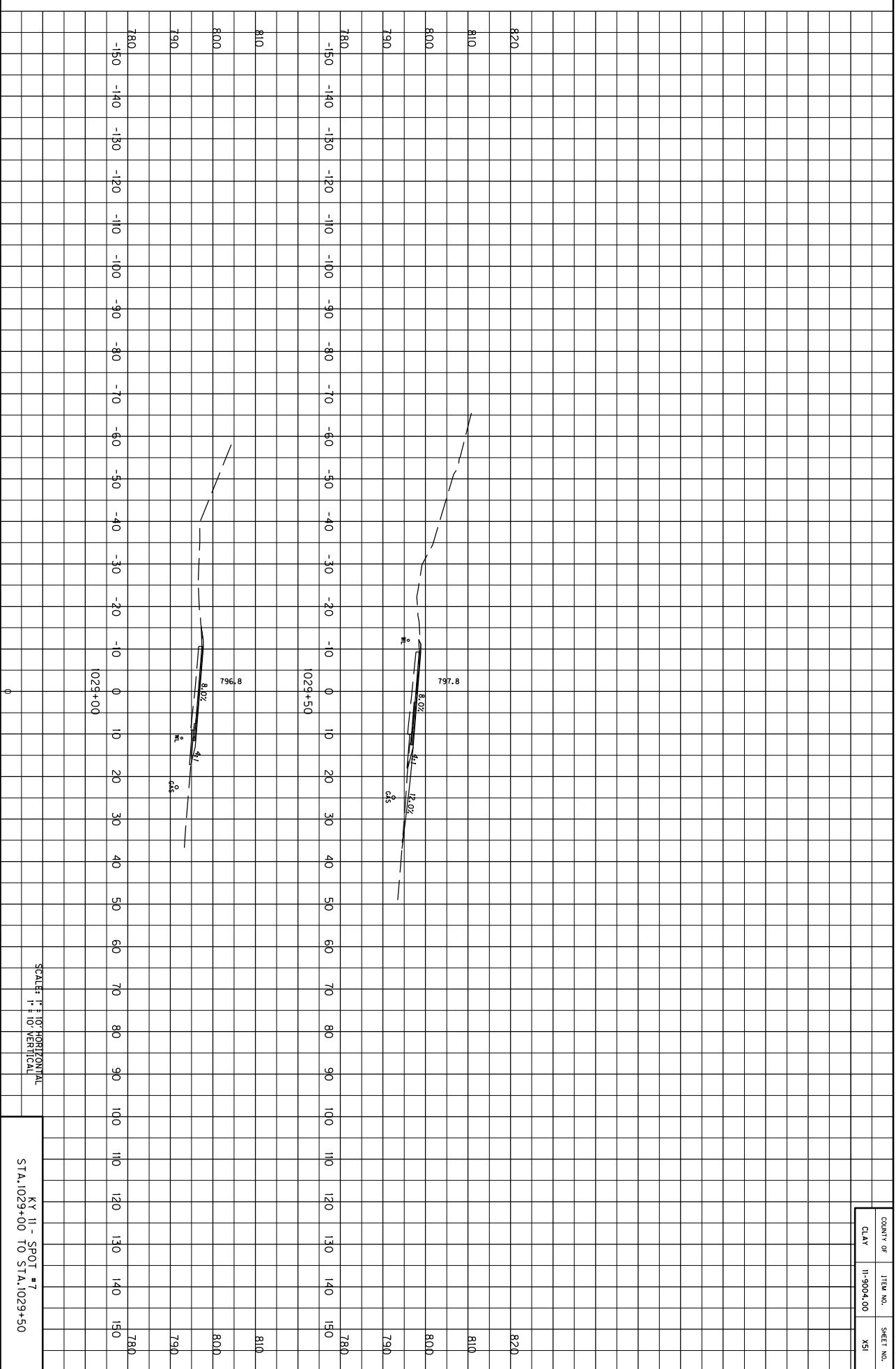
MicroStation v8.11.9.829 E-SHEET NAME: X01100XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 7.DGN



COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X50

SCALE: 1" = 10'
HORIZONTAL
1" = 10'
VERTICAL
KY II - SPOT #7
STA. 1027+50 TO STA. 1028+50

MicroStation v8.11.9.829 E-SHEET NAME: X0200XS USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 7.DGN

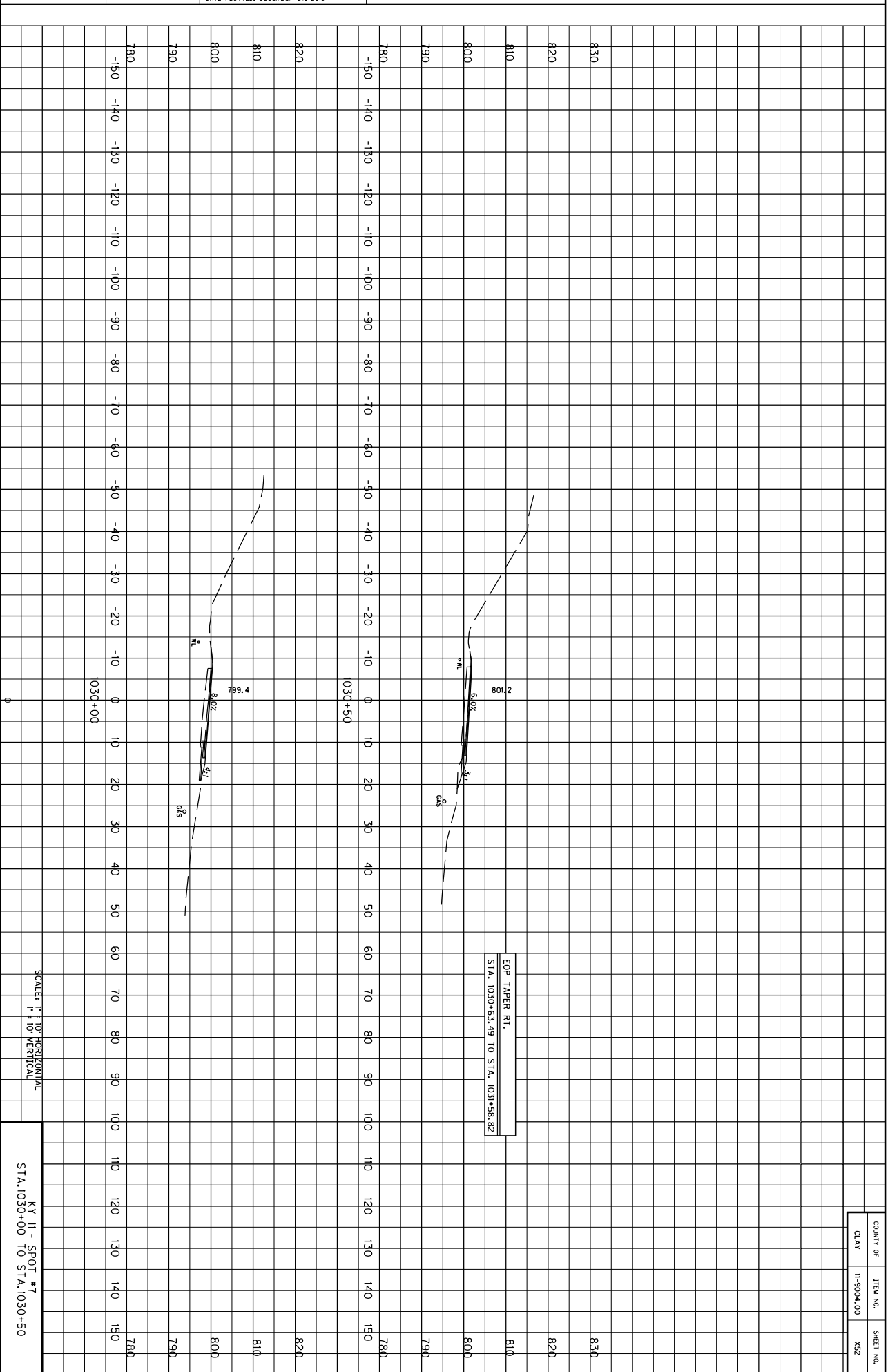


SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

KY II - SPOT #7
STA. 1029+00 TO STA. 1029+50

COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X51

MicroStation v8.11.9.829 E-SHEET NAME: X01300X5 USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 7.DGN

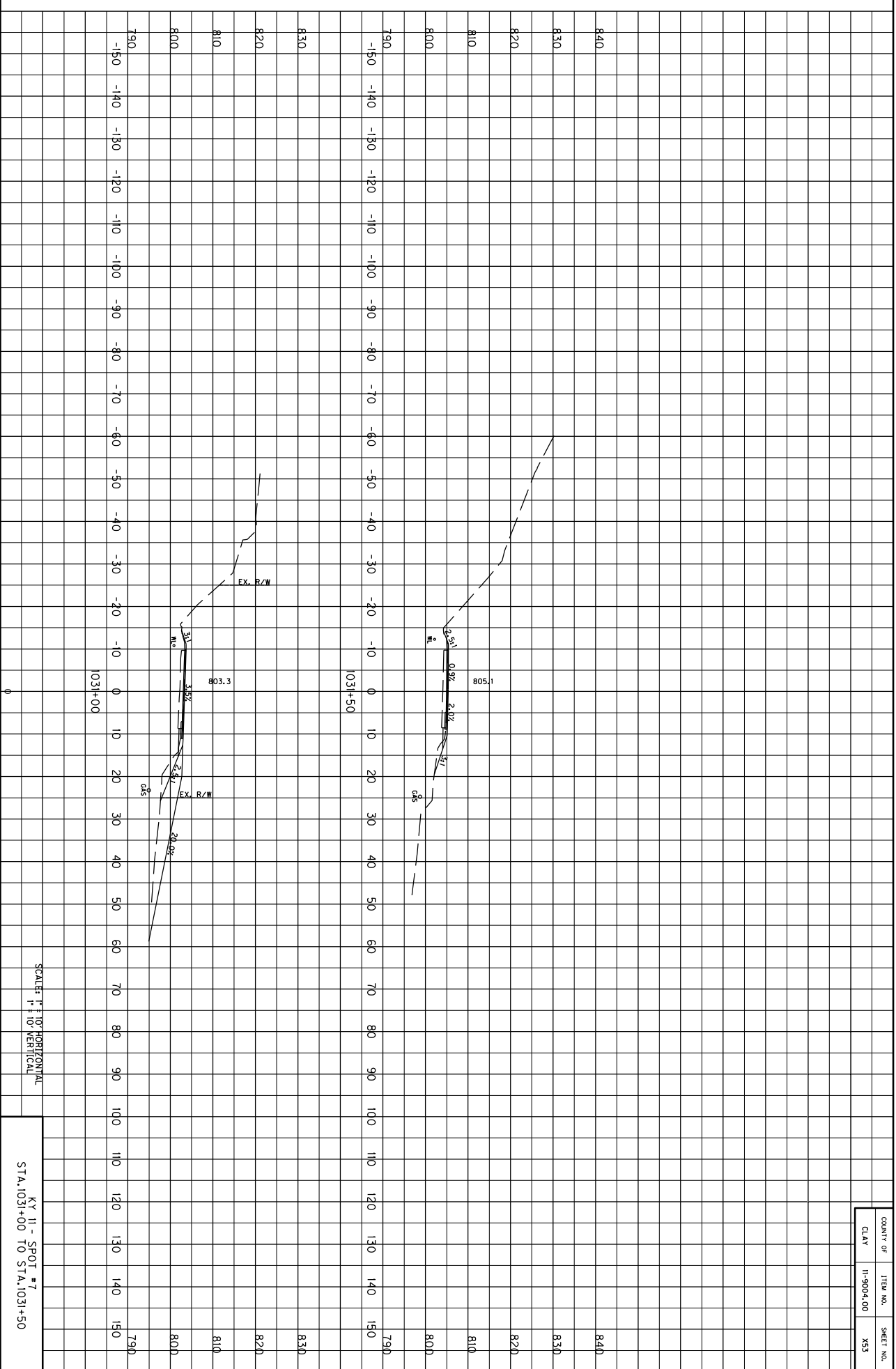


COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X52

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

KY II - SPOT #7
STA. 1030+00 TO STA. 1030+50

MicroStation v8.11.9.829 E-SHEET NAME: X01400X5 USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\KYTC 2016\216-013 SWRD\CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 7.DGN

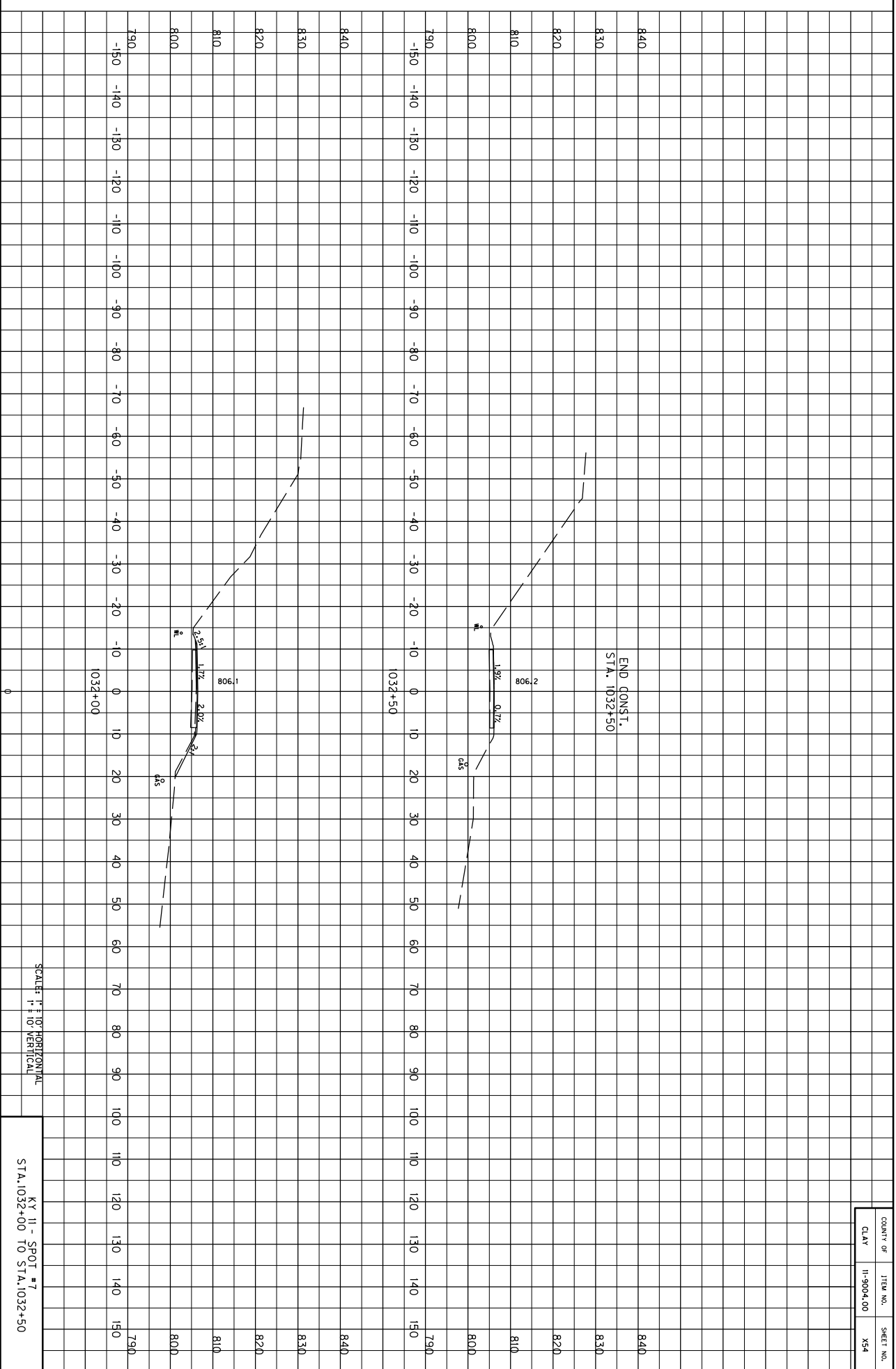


COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X53

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

KY II - SPOT #7
STA. 1031+00 TO STA. 1031+50

MicroStation v8.11.9.829 E-SHEET NAME: X01500X5 USER: bmattingly DATE PLOTTED: December 27, 2018 FILE NAME: Y:\XYTC 2016\216-013 SWRD\CLAY KY II HSIP II-9004\MASTER PLAN SET\09-X-SECTIONS\II-9004 X-SECTS SPOT 7.DGN



COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004.00	X54

CLAY KY II - SPOT #7
STA. 1032+00 TO STA. 1032+50

MicroStation v8.11.9.829 E-SHEET NAME: USER: bmattingly DATE PLOTTED: February 22, 2019 FILE NAME: Y:\XYTC 2016\216-013 SWRDY CLAY KY II HSIP II-9004\MASTER PLAN SET\05-COORDINATE CONTROL\COORDINATE CONTROL.DGN

COORDINATE CONTROL POINTS

Point	Description	North (Y)	East (X)	Elev. (Z)	Station	Offset
1	POB Spot #1	3618914.2	5496273.42	0	508+00.00	0
2	PC Spot #1	3618283.84	5496273.42	0	508+00.00	0
3	PC Spot #1	3618812.03	5496884.47	0	507+80.88	6.9
4	PC Spot #1	3618886.66	5497033.83	0	507+84.26	0
5	PC Spot #1	3618887.77	5497300.09	0	508+13.65	0
6	PC Spot #1	3619141.81	5497173.14	0	508+70.27	-8.77
7	PC Spot #1	3619103.03	5497762.68	0	509+48.69	0
8	PC Spot #1	3618888.22	5497572.56	0	509+50.00	0
9	PC Spot #2&3	3618888.22	5508232.77	0	540+00.00	0
10	PC Spot #2&3	3618814.56	5509080.6	0	541+05.56	0
11	PC Spot #2&3	3618914.26	5501654.77	0	541+85.84	-36.42
12	PC Spot #2&3	3618925.47	5501838.4	0	548+44.83	0
13	PC Spot #2&3	3618974.44	5501733.94	0	551+00.00	0
14	PC Spot #4	3618914.2	5509222.57	0	628+20.00	0
15	PC Spot #4	3618211.11	5508810.42	0	629+28.69	0
16	PC Spot #4	3618287.77	5508872.27	0	628+00.15	0
17	PC Spot #4	3618279.14	5509201.4	0	631+63.65	-43.38
18	PC Spot #4	3618683.51	5509536.41	0	631+68.43	0
19	PC Spot #4	3618683.51	5509536.41	0	631+68.43	0
20	PC Spot #4	3618423	5509252.74	0	638+40.00	0
21	PC Spot #4	3618423	5521977.78	0	644+20.00	0
22	PC Spot #4	3618423	552342.6	0	644+96.56	0
23	PC Spot #4	3618423	5523213.55	0	644+22.28	0
24	PC Spot #4	3618423	5523213.56	0	639+84.24	-23.6
25	PC Spot #4	3618423	5523171.56	0	631+36.39	0
26	PC Spot #4	3618423	5523112.56	0	631+40.00	0
27	PC Spot #4	3618423	5523112.56	0	631+30.00	0
28	PC Spot #4	3618423	5523112.56	0	631+30.00	0
29	PC Spot #4	3618423	5523112.56	0	631+30.00	0
30	PC Spot #4	3618423	5523112.56	0	631+30.00	0
31	PC Spot #4	3618423	5523112.56	0	631+30.00	0
32	PC Spot #4	3618423	5523112.56	0	631+30.00	0
33	PC Spot #4	3618423	5523112.56	0	631+30.00	0
34	PC Spot #4	3618423	5523112.56	0	631+30.00	0
35	PC Spot #4	3618423	5523112.56	0	631+30.00	0
36	PC Spot #4	3618423	5523112.56	0	631+30.00	0

COORDINATE CONTROL POINTS

Point	Description	North (Y)	East (X)	Elev. (Z)	Station	Offset
37	PC Spot #6	3619383.79	5525236.9	0	678+06.07	0
38	PC Spot #6	3619383.79	5525236.9	0	678+06.07	0
39	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
40	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
41	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
42	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
43	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
44	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
45	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
46	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
47	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
48	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
49	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
50	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
51	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
52	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
53	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
54	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
55	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
56	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
57	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
58	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
59	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
60	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
61	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
62	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
63	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
64	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
65	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
66	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
67	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
68	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0
69	PC Spot #6	3618914.2	5525236.9	0	678+06.07	0

COORDINATE CONTROL POINTS

Point	Description	North (Y)	East (X)	Elev. (Z)	Station	Offset
CP1	CONCRETE MONUMENT	3618970.5	5497573.7	88.47	510+07.63	18.63
CP2	IRON PIN AND CAP	3618900.8	549888.89	88.23	523+27.59	19.27
CP3	CONCRETE MONUMENT	3618900.8	549888.89	88.23	611+28.01	-18.29
CP4	IRON PIN AND CAP	3618900.8	549888.89	88.23	611+28.01	18.64
CP5	CONCRETE MONUMENT	3618900.8	549888.89	88.23	678+27.92	25.68

PROJECT COORDINATE

Coordinates for horizontal control were obtained from GPS methods and adjusted to the National NAD83/FBN System. Coordinates are based on State Plane Coordinate System KY Single Zone and in U.S. Survey Feet.

BASIS OF ELEVATIONS

Elevations were derived from GPS methods and are adjusted to the NAVD88 Vertical Datum. Geoid model used was Geoid12A.

COORDINATE CONTROL

COUNT OF	ITEM NO.	SHEET NO.
CLAY	II-9004	

FIGURE 1

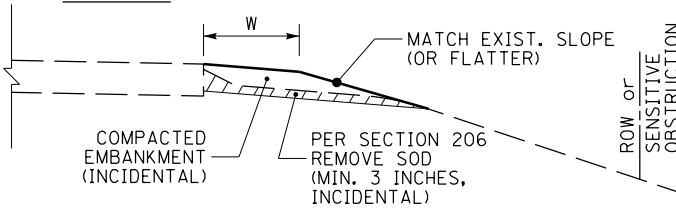


FIGURE 2

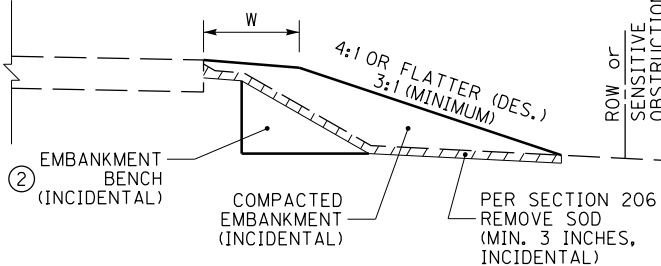


FIGURE 3

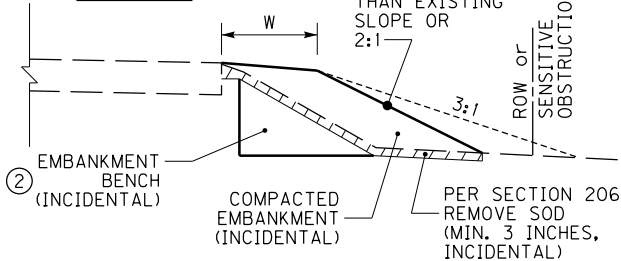


FIGURE 4

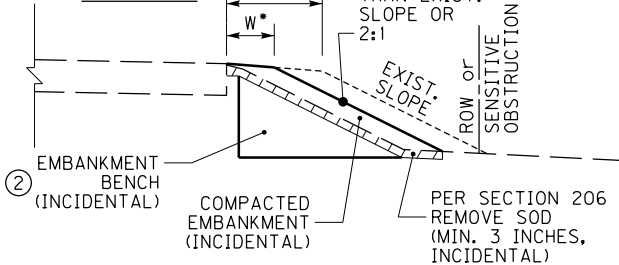


FIGURE 5

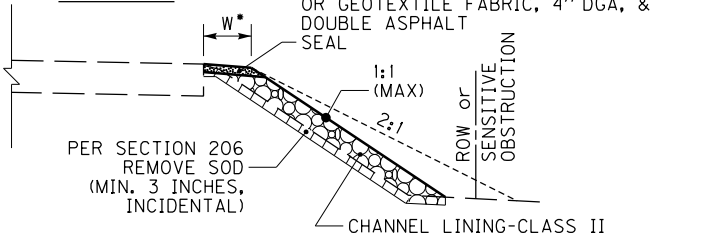
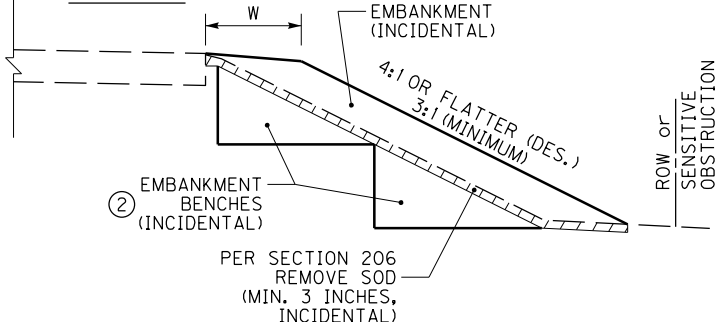


FIGURE 6



~ NOTES ~

BID ITEM AND UNIT TO BID:
2575 - DITCHING & SHOULDERING - LF

1. THE BID ITEM 'DITCHING & SHOULDERING' SHALL CONSIST OF ANY AND ALL NECESSARY CLEARING & GRUBBING, GRADING, AND/OR RESHAPING OF THE EXISTING SHOULDER, DITCH, AND/OR ROADSIDE TO ACHIEVE THE PROPOSED SHOULDER, DITCH, AND/OR ROADSIDE DIMENSIONS, AS DETAILED ON THE TYPICAL SECTIONS. FINAL PAYMENT WILL BE BASED ON THE ACTUAL LINEAR FEET OF DITCHING AND SHOULDERING PERFORMED, AND WILL INCLUDE ALL WORK AND INCIDENTALS NECESSARY TO PERFORM THE DITCHING AND SHOULDERING ACCORDING TO THESE DETAILS, NOTES, AND ANY OTHER INFORMATION FOUND ELSEWHERE IN THE PROPOSAL OR STANDARD SPECIFICATIONS. IN THE CASE OF A DISCREPANCY, REFER TO SECTION 105.05 OF THE STANDARD SPECIFICATIONS. DEPENDING ON THE EXISTING CONDITIONS ENCOUNTERED, DITCHING AND SHOULDERING MAY ALSO INCLUDE, BUT IS NOT LIMITED TO:

- PROVIDING ADDITIONAL EARTH MATERIAL AND GRADING, SHAPING, AND COMPACTING THE EARTH MATERIAL TO ACHIEVE THE DIMENSIONS SHOWN ON THE TYPICAL SECTIONS. COMPACT MATERIAL ACCORDING TO SECTION 206 OF THE STANDARD SPECIFICATIONS.
- NOTE: ADDITIONAL EARTH MATERIAL PROVIDED SHALL BE SUITABLE FOR VEGETATION GROWTH.
- EXCAVATING AND REMOVING EXCESS MATERIAL TO ACHIEVE THE DIMENSIONS SHOWN ON THE TYPICAL SECTIONS
- EMBANKMENT BENCHING

2. EMBANKMENT BENCHING WILL BE REQUIRED WHEN THE EXISTING GROUNDLINE HAS AN INCLINE GREATER THAN 15% (APPROX. 6:1). ANY AND ALL REQUIRED EMBANKMENT BENCHING SHALL BE INCIDENTAL TO THE BID ITEM 'DITCHING AND SHOULDERING'. THE FOLLOWING ARE GUIDELINES FOR EMBANKMENT BENCHING USED IN CONJUNCTION WITH THE BID ITEM 'DITCHING AND SHOULDERING':

- THE TYPICAL HEIGHT (OR RISE) IS 1' TO 6'
- THE TYPICAL WIDTH (OR RUN) WILL VARY BASED ON THE HEIGHT OF THE BENCH
- MULTIPLE SMALL BENCHES MAY BE USED, AND MAY BE MORE ADVANTAGEOUS AS THIS WILL REQUIRE PROCESSING LESS EARTHWORK.

3. AS SHOWN IN FIGURE 1, IN SOME SITUATIONS, MINOR SHOULDERING, WITH MINIMAL ADDITIONAL EARTH MATERIAL, MAY BE ALL THAT IS REQUIRED TO RESHAPE THE EARTH SHOULDER TO THE PROPOSED WIDTH AND BRING IT FLUSH WITH THE EDGE OF PAVEMENT.

4. AS SHOWN IN FIGURE 2, MOST SITUATIONS WILL REQUIRE ADDITIONAL EARTH MATERIAL TO ACHIEVE THE PROPOSED EARTH SHOULDER WIDTH. IT IS DESIRED THAT THE RESULTING FILL SLOPE BE INSTALLED AS FLAT AS POSSIBLE AND REMAIN WITHIN THE RIGHT-OF-WAY AND/OR AVOID SENSITIVE OBSTRUCTIONS.

5. AS SHOWN IN FIGURE 3, IF A 3:1 FILL SLOPE WILL RESULT IN THE TOE OF SLOPE EXTENDING BEYOND THE RIGHT-OF-WAY OR IMPACT A SENSITIVE OBSTRUCTION, THEN THE FILL SLOPE MAY BE INSTALLED STEEPER THAN 3:1, BUT NO STEEPER THAN THE EXISTING FILL SLOPE, OR A 2:1, WHICHEVER IS FLATTER.

6. AS SHOWN IN FIGURE 4, IF MATCHING THE EXISTING FILL SLOPE OR INSTALLING A 2:1 FILL SLOPE (WHICHEVER IS FLATTER) STILL RESULTS IN THE TOE OF SLOPE EXTENDING BEYOND THE RIGHT-OF-WAY OR STILL IMPACTS A SENSITIVE OBSTRUCTION, THEN THE PROPOSED EARTH SHOULDER WIDTH MAY BE REDUCED SO THAT THE RESULTING TOE OF SLOPE WILL REMAIN WITHIN THE RIGHT-OF-WAY AND/OR NOT IMPACT THE SENSITIVE OBSTRUCTION.

7. AS SHOWN IN FIGURE 5, IF THE EXISTING FILL SLOPE IS STEEPER THAN 2:1 AND THERE IS NOT ENOUGH SPACE TO INSTALL A 2:1 FILL SLOPE WITHOUT EXTENDING BEYOND THE RIGHT-OF-WAY AND/OR IMPACTING A SENSITIVE OBSTRUCTION, THEN CLASS II CHANNEL LINING MAY BE INSTALLED ALONG THE STEEP EXISTING SLOPE IN ORDER TO ESTABLISH A WIDTH OF AGGREGATE SHOULDER. THESE LOCATIONS WILL BE NOTED ELSEWHERE IN THE PROPOSAL AS SLOPE PROTECTION. THE CHANNEL LINING IS TO BE CAPPED WITH GEOTEXTILE FABRIC TYPE IV AND 4" OF CRUSHED STONE BASE, OR 4" OF DGA WITH DOUBLE ASPHALT SEAL COAT.

8. AS SHOWN IN FIGURE 6, AS THE HEIGHT OF THE FILL INCREASES, MULTIPLE EMBANKMENT BENCHES MAY BE REQUIRED.

SEE SHEET 2 FOR
NOTES 9 THRU 13

**KENTUCKY
DEPARTMENT OF HIGHWAYS**

DITCHING & SHOULDERING
AND EMBANKMENT
BENCHING DETAILS
(SHEET 1 OF 2)

NOT TO SCALE

FIGURE 7

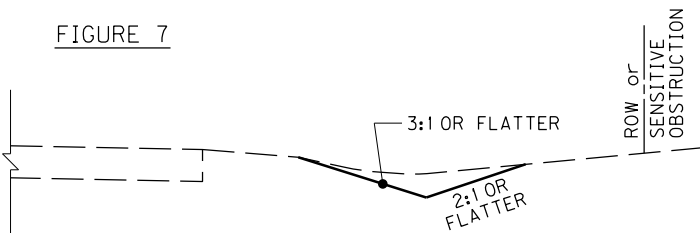


FIGURE 8

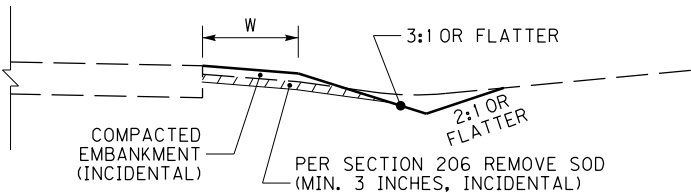


FIGURE 9

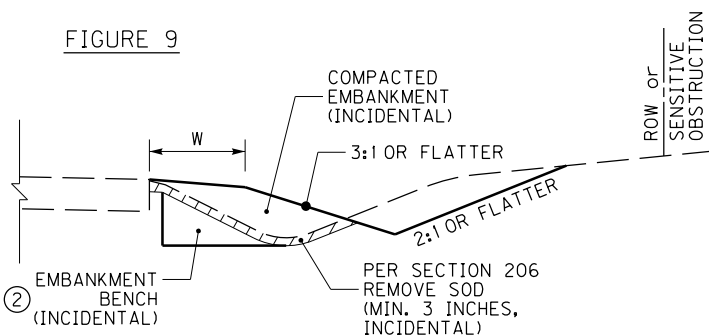


FIGURE 10

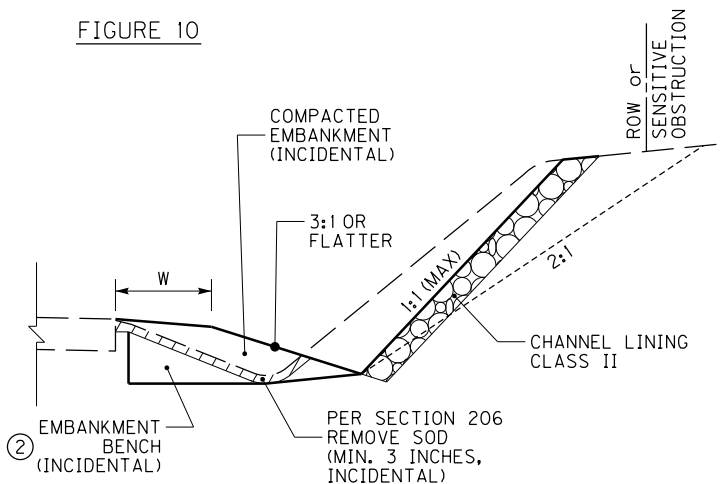
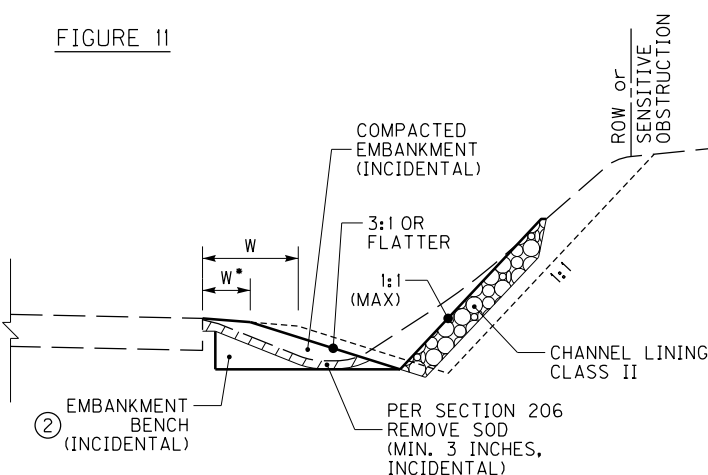


FIGURE 11



~ NOTES ~

BID ITEM AND UNIT TO BID:
2575 - DITCHING & SHOULDERING - LF

1. THE BID ITEM 'DITCHING & SHOULDERING' SHALL CONSIST OF ANY AND ALL NECESSARY CLEARING & GRUBBING, GRADING, AND/OR RESHAPING OF THE EXISTING SHOULDER, DITCH, AND/OR ROADSIDE TO ACHIEVE THE PROPOSED SHOULDER, DITCH, AND/OR ROADSIDE DIMENSIONS, AS DETAILED ON THE TYPICAL SECTIONS. FINAL PAYMENT WILL BE BASED ON THE ACTUAL LINEAR FEET OF DITCHING AND SHOULDERING PERFORMED, AND WILL INCLUDE ALL WORK AND INCIDENTALS NECESSARY TO PERFORM THE DITCHING AND SHOULDERING ACCORDING TO THESE DETAILS, NOTES, AND ANY OTHER INFORMATION FOUND ELSEWHERE IN THE PROPOSAL OR STANDARD SPECIFICATIONS. IN THE CASE OF A DISCREPANCY, REFER TO SECTION 105.05 OF THE STANDARD SPECIFICATIONS. DEPENDING ON THE EXISTING CONDITIONS ENCOUNTERED, DITCHING AND SHOULDERING MAY ALSO INCLUDE, BUT IS NOT LIMITED TO:

- PROVIDING ADDITIONAL EARTH MATERIAL AND GRADING, SHAPING, AND COMPACTING THE EARTH MATERIAL TO ACHIEVE THE DIMENSIONS SHOWN ON THE TYPICAL SECTIONS. COMPACT MATERIAL ACCORDING TO SECTION 206 OF THE STANDARD SPECIFICATIONS.
- NOTE: ADDITIONAL EARTH MATERIAL PROVIDED SHALL BE SUITABLE FOR VEGETATION GROWTH.
- EXCAVATING AND REMOVING EXCESS MATERIAL TO ACHIEVE THE DIMENSIONS SHOWN ON THE TYPICAL SECTIONS
- EMBANKMENT BENCHING

② EMBANKMENT BENCHING WILL BE REQUIRED WHEN THE EXISTING GROUNDLINE HAS AN INCLINE GREATER THAN 15% (APPROX. 6:1). ANY AND ALL REQUIRED EMBANKMENT BENCHING SHALL BE INCIDENTAL TO THE BID ITEM 'DITCHING AND SHOULDERING'. THE FOLLOWING ARE GUIDELINES FOR EMBANKMENT BENCHING USED IN CONJUNCTION WITH THE BID ITEM 'DITCHING AND SHOULDERING':

- THE TYPICAL HEIGHT (OR RISE) IS 1' TO 6'
- THE TYPICAL WIDTH (OR RUN) WILL VARY BASED ON THE HEIGHT OF THE BENCH
- MULTIPLE SMALL BENCHES MAY BE USED, AND MAY BE MORE ADVANTAGEOUS AS THIS WILL REQUIRE PROCESSING LESS EARTHWORK.

SEE SHEET 1 FOR NOTES 3. THRU 8.

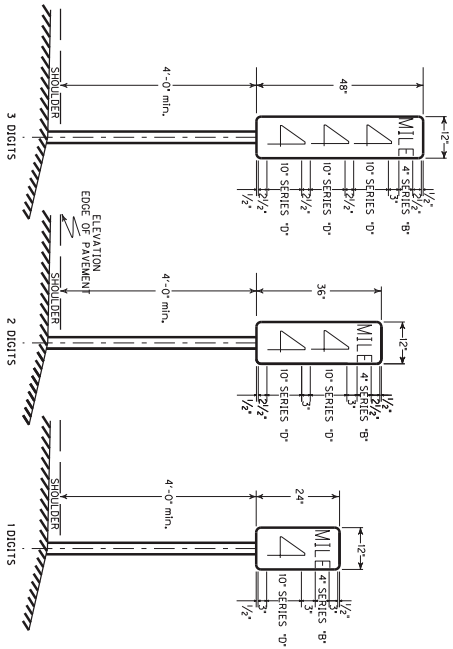
9. AS SHOWN IN FIGURE 7, IN SOME SITUATIONS, ALL THAT MAY BE REQUIRED IS TO CLEAN OUT THE EXISTING DITCH AND RESHAPE IT TO THE PROPOSED DIMENSIONS. THE MATERIAL EXCAVATED FROM THE DITCH MAY BE RE-USED ELSEWHERE ON THE PROJECT, PROVIDED THE ENGINEER DETERMINES THE MATERIAL REMOVED FROM THE DITCH IS SUITABLE FOR THE INTENDED RE-USE.
10. AS SHOWN IN FIGURE 8, IN SOME SITUATIONS, THE DITCH AND SHOULDER MAY ONLY NEED MINOR REGRADING AND/OR RESHAPING. THE MATERIAL EXCAVATED FROM THE DITCH MAY BE USED TO RESHAPE THE EARTH SHOULDER, PROVIDED THE ENGINEER DETERMINES THE MATERIAL REMOVED FROM THE DITCH IS SUITABLE FOR SHOULDERING. IF THE MATERIAL IS NOT SUITABLE, ADDITIONAL EARTH MATERIAL MAY BE REQUIRED.
11. AS SHOWN IN FIGURE 9, IN MOST SITUATIONS, REGRADING AND RESHAPING THE ROADSIDE TO ACHIEVE THE PROPOSED SHOULDER, DITCH, AND/OR ROADSIDE DIMENSIONS WILL RESULT IN MOVING THE DITCH FURTHER AWAY FROM THE ROADWAY. IT IS DESIRED THAT DITCH FORESLOPES BE 3:1 OR FLATTER AND DITCH BACKSLOPES BE 2:1 OR FLATTER.
12. AS SHOWN IN FIGURE 10, IF INSTALLING A 2:1 DITCH BACKSLOPE WILL RESULT IN THE TOP OF CUT EXTENDING BEYOND THE RIGHT-OF-WAY OR IMPACTING A SENSITIVE OBSTRUCTION, THEN THE DITCH BACK SLOPE MAY BE INSTALLED STEEPER THAN 2:1, UP TO 1:1 MAXIMUM. IN THIS SITUATION, THE DITCH BACKSLOPE SHALL HAVE CLASS II CHANNEL LINING INSTALLED FOR SLOPE PROTECTION.
13. AS SHOWN IN FIGURE 11, IF USING A 1:1 DITCH BACKSLOPE STILL RESULTS IN THE TOP OF CUT EXTENDING BEYOND THE RIGHT-OF-WAY OR STILL IMPACTS A SENSITIVE OBSTRUCTION, THEN THE PROPOSED EARTH SHOULDER WIDTH MAY BE REDUCED SO THAT THE STEEP DITCH BACKSLOPE CAN BE INSTALLED WITHIN THE RIGHT-OF-WAY AND/OR TO AVOID A SENSITIVE OBSTRUCTION.

KENTUCKY
DEPARTMENT OF HIGHWAYS

DITCHING & SHOULDERING
AND EMBANKMENT
BENCHING DETAILS
(SHEET 2 OF 2)

NOT TO SCALE

MILEPOST MARKERS

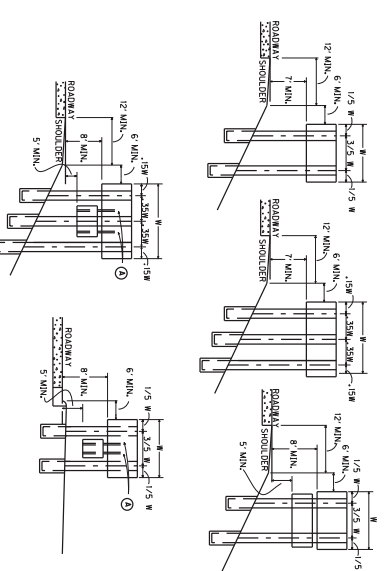


TYPICAL SIGN PANEL DIMENSIONS
AND MILEPOST LOCATIONS

MILE POST NUMBER	STATION NUMBER # ROUND LANE (S)	MILE POST NUMBER	STATION NUMBER # ROUND LANE (S)

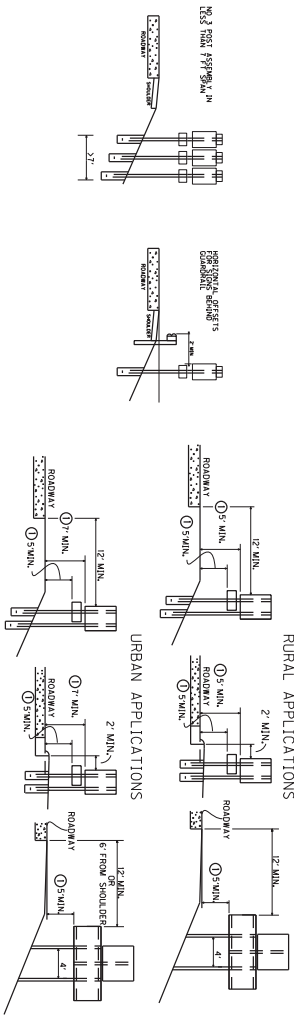
NOTE: STATION NUMBERS ARE GIVEN FOR NOTED DIRECTION OF TRAVEL ONLY. CORRESPONDING MILEPOST MARKERS FOR OTHER DIRECTION SHOULD BE PLACED DIRECTLY OPPOSITE THOSE FOR WHICH STATION NUMBERS ARE GIVEN. IN JEFFERSON COUNTY, FINAL LOCATION OF MILEPOST MARKERS SHALL BE VERIFIED BY TRIANG. NOTIFY TRIANG AT LEAST TWO WEEKS PRIOR TO BEGINNING WORK ON THIS ITEM
901 WEST MAIN STREET
LOUISVILLE, KY 40202
270-507-5256

PANEL SIGNS



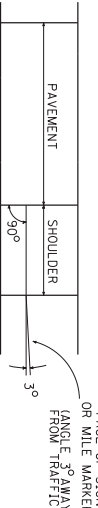
ATTACHMENT OF SECONDARY SIGN TO MAIN SIGN IS TO BE MADE WITH TWO (2) X 3 X 3/8" ANGLES OF SUFFICIENT LENGTH TO EXTEND FROM THE LOWER EDGE OF THE SECONDARY SIGN TO AT LEAST ONE FOOT OF THE BACK OF THE MAIN SIGN. A MINIMUM OF ONE (1) 1/2" CLIP SHALL BE USED IN ATTACHING EXTENSIONS TO EACH ANGLE.

SHEETING SIGNS



NOTE: SHOULD A SIGN BE LOCATED AT A POINT WHERE GUARDRAIL IS CALLED FOR OR EXISTING, ALL SIGN SUPPORTS SHALL BE PLACED BEHIND THE GUARDRAIL AND LATERAL OFFSET SHALL BE MEASURED FROM THE GUARDRAIL.
NOT TO EXCEED 8" IN URBAN AREAS AND 6" IN RURAL AREAS UNLESS SPECIFIED BY THE ENGINEER

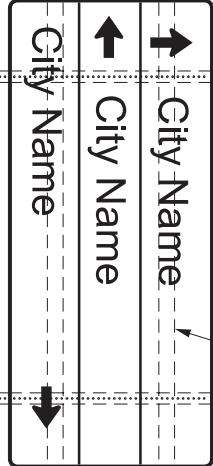
ORIENTATION ANGLE



SIGNING POSITIONING DETAIL SHEET

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

COUNTY OF	ITEM NO.	SHEET NO.



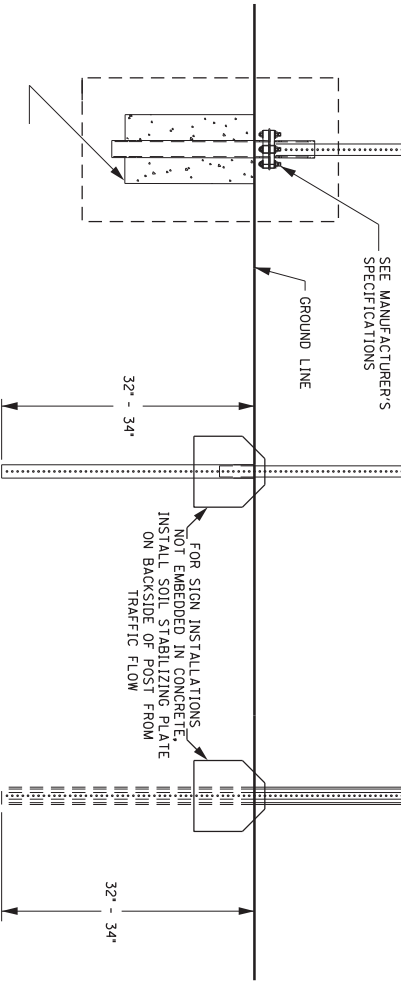
SEE SHEETING SIGN DETAIL SHEET 2 OF 2 FOR BRACING REQUIREMENTS

NOTE: SEE SIGN DETAIL SHEETS FOR QUANTITY, LENGTH, SIZE AND GAUGE OF TYPE I POSTS

PLAN VIEW
NOT TO SCALE

PLAN VIEW
NOT TO SCALE

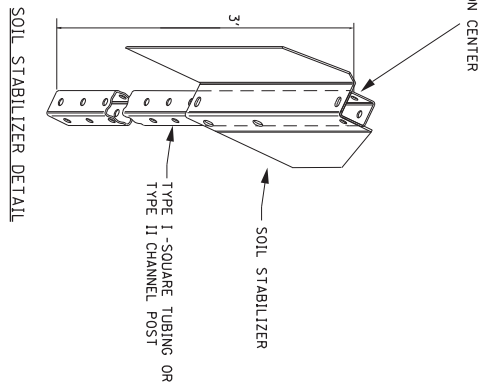
PLAN VIEW
NOT TO SCALE



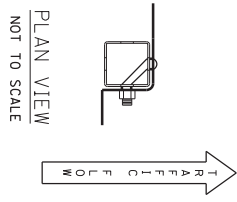
TYPE J
SQUARE TUBING POST
WITH TYPE "D" SUPPORT

TYPE J
SQUARE TUBING POST
WITH SOIL STABILIZER

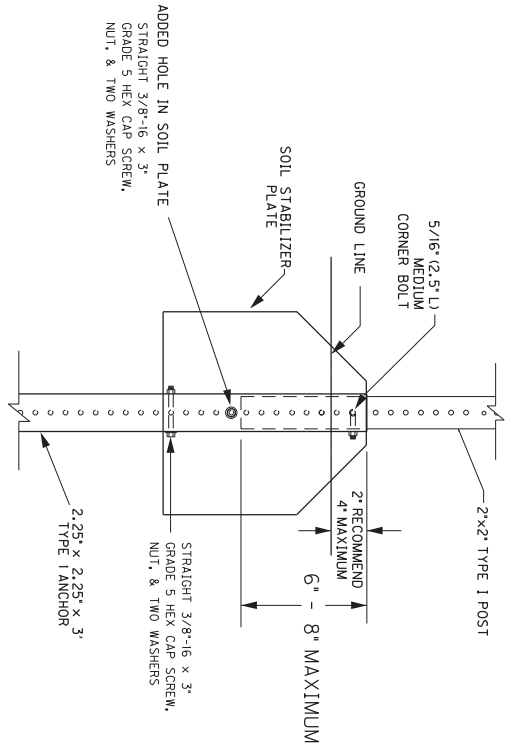
TYPE II
CHANNEL POST
WITH SOIL STABILIZER



SOIL STABILIZER DETAIL



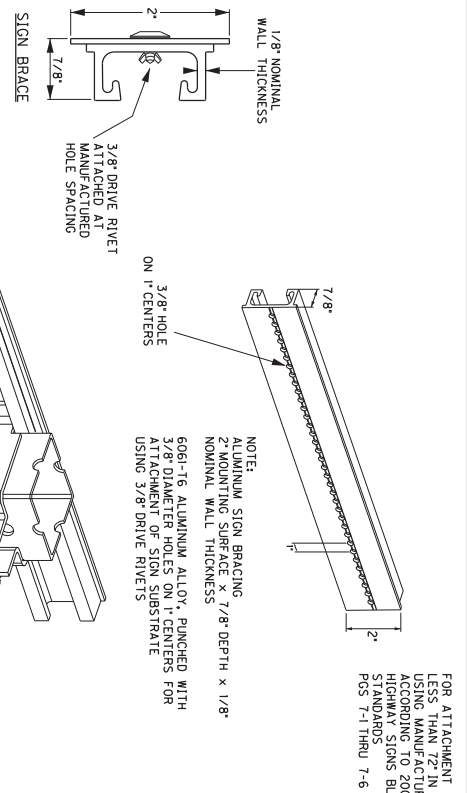
PLAN VIEW
NOT TO SCALE



SOIL STABILIZER DETAIL
FOR TYPE I POST

NOT TO SCALE

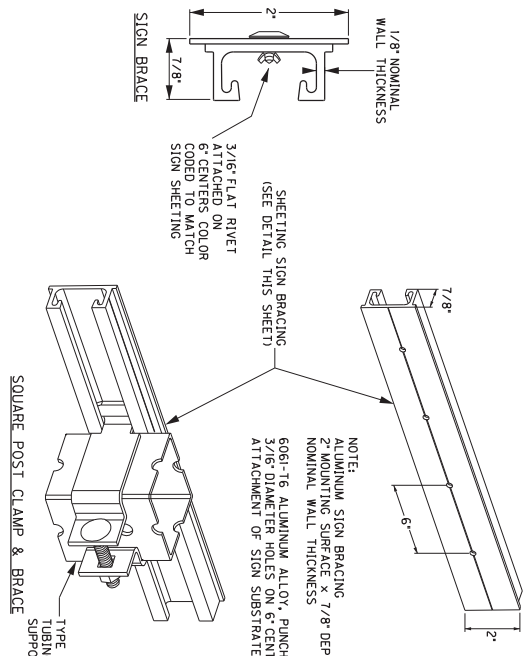
SHEETING SIGN DETAIL
SHEET 1 OF 2



FOR ATTACHMENT OF SIGNS LESS THAN 72" IN WIDTH USING MANUFACTURED 3/8" HOLES ACCORDING TO 2004 STANDARD HIGHWAY SIGNS BLANK STANDARDS POST 7-1 THRU 7-6

NOTE:
ALUMINUM SIGN BRACING 2" MOUNTING SURFACE x NOMINAL WALL THICKNESS
6061-T6 ALUMINUM ALLOY, PUNCHED WITH 3/8" DIAMETER HOLES ON 1" CENTERS FOR ATTACHMENT OF SIGN SUBSTRATE USING 3/8" DRIVE RIVETS

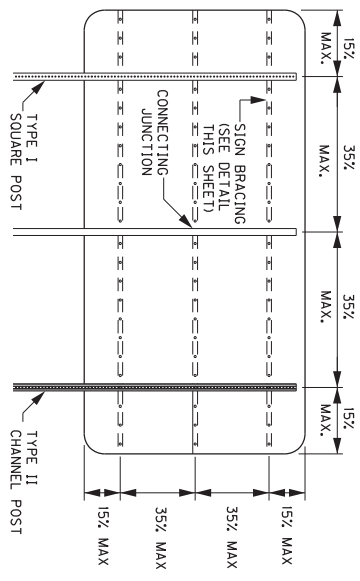
SQUARE POST CLAMP & BRACE
TYPE I SQUARE POST



FOR ATTACHMENT OF SIGNS GREATER THAN, OR EQUAL TO, 72" IN WIDTH,
RIVETS SHALL BE COLOR CODED TO MATCH SHEETING IN ORDER TO MINIMIZE GLARE FROM RIVETS

NOTE:
ALUMINUM SIGN BRACING 2" MOUNTING SURFACE x 7/8" DEPTH x 1/8" NOMINAL WALL THICKNESS
6061-T6 ALUMINUM ALLOY, PUNCHED WITH 3/8" DIAMETER HOLES ON 6" CENTERS FOR ATTACHMENT OF SIGN SUBSTRATE USING RIVETS

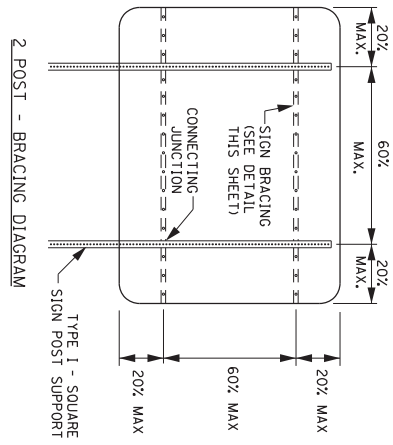
SQUARE POST CLAMP & BRACE
TYPE I SQUARE TUBING SIGN SUPPORT



3 POST - BRACING DIAGRAM

NOTE:
1. MAXIMUM AREA PER CONNECTING JUNCTION = 16 SQ. FT.

2. BRACING SHOULD NOT BE SPLICED WITHIN 6" OF A BRACE TO POST JUNCTION.



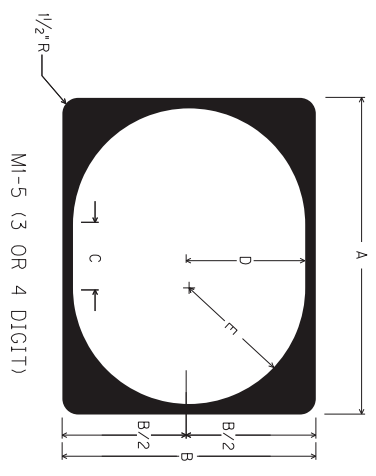
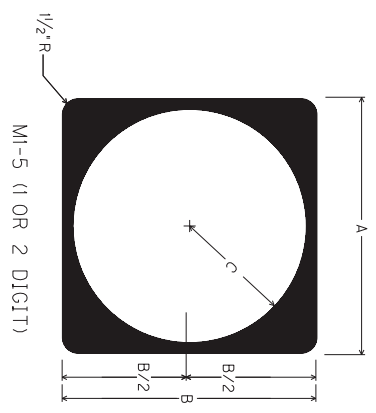
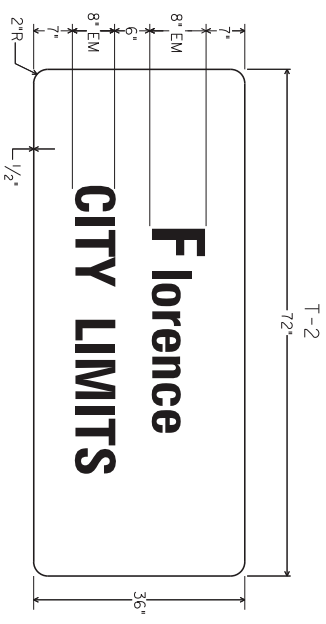
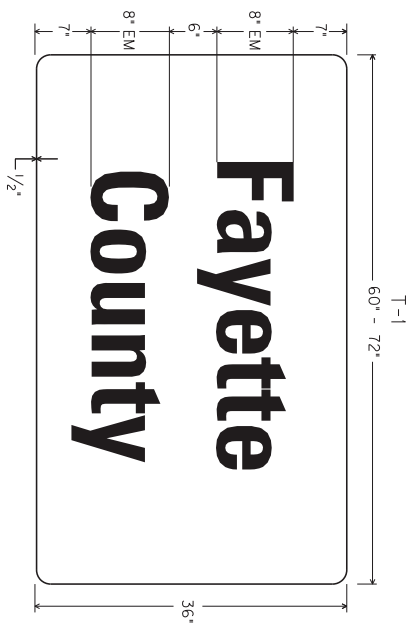
2 POST - BRACING DIAGRAM

NOTE:
USE OF SIGN BRACING NOT SHOWN ON THIS SHEET MAY BE PERMITTED BY PROJECT ENGINEER AND/OR DISTRICT TRAFFIC ENGINEER.

NOT TO SCALE
SHEETING SIGN DETAIL
SHEET 2 OF 2

COUNTY OF	ITEM NO.	SHEET NO.

COUNTY OF	ITEM NO.	SHEET NO.
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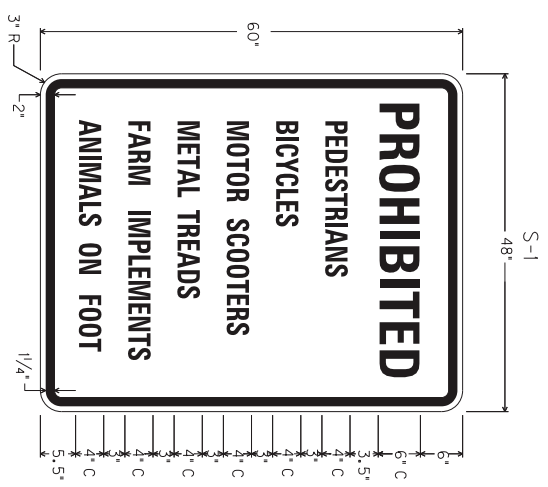


	A	B	C	FONT
CONVENTIONAL	24"	24"	11"	12D
EXPRESSWAY/ FREEWAY	36"	36"	17"	18D

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

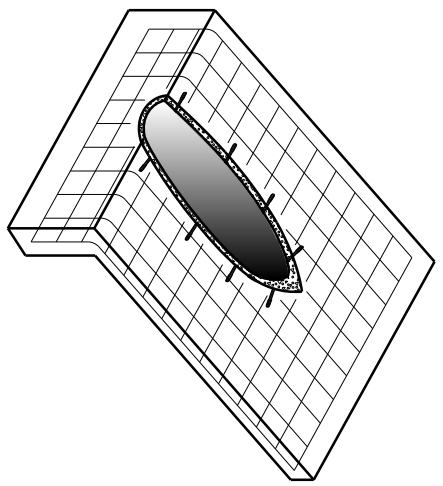
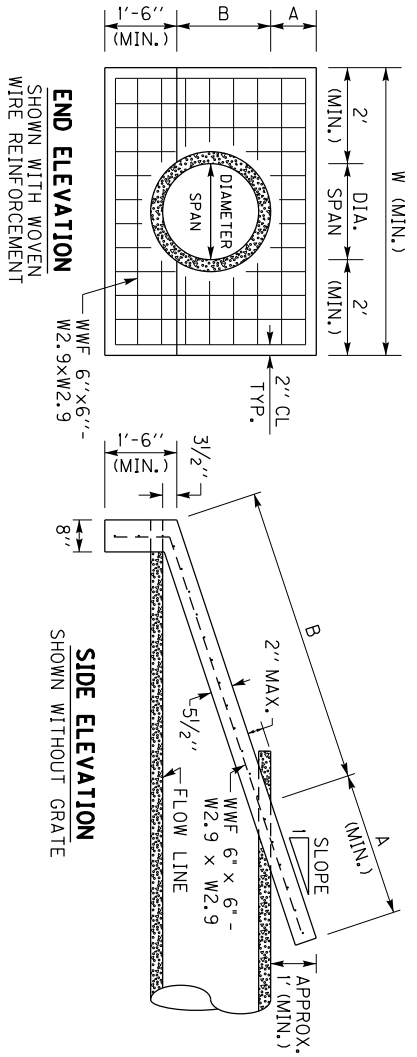
NOTE: FOR ROUTE MARKERS, IF NECESSARY, ADJUSTMENTS TO THE DIGIT LAYOUT AND/OR FONT TYPE MAY BE MADE TO ENSURE VISUAL ACUITY

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



NOT TO SCALE

TYPICAL SIGNS



ISOMETRIC VIEW
SHOWN WITH WOVEN
WIRE REINFORCEMENT
AND WEDGE ANCHORS

DIMENSIONS AND CONCRETE QUANTITIES

PIPE SIZE	3:1 SLOPE			4:1 SLOPE			6:1 SLOPE			GRATE REQUIRED
	A	B	W	A	B	W	A	B	W	
15"	3'-7 1/2"	5'-3"	0.74	4'-8 3/4"	5'-3"	0.93	6'-11 3/4"	5'-3"	1.29	NO
18"	3'-4'-5 3/4"	5'-6"	0.85	4'-5'-10"	5'-6"	1.05	8'-7 1/4"	5'-6"	1.48	NO
24"	3'-6'-2 1/2"	6'-0"	1.05	4'-8'-1"	6'-0"	1.32	11'-11"	6'-0"	1.87	SEE ⑦
30"	3'-7'-10 3/4"	6'-6"	1.43	4'-10'-3 3/4"	6'-6"	1.80	15'-2 1/2"	6'-6"	2.28	SEE ⑦

NOTE: CONCRETE QUANTITIES ARE LISTED FOR INFORMATIONAL PURPOSES ONLY.

NOTES

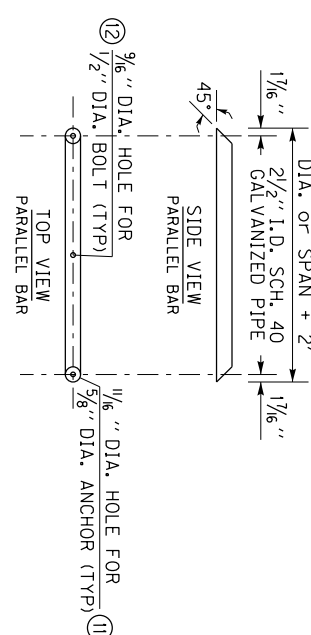
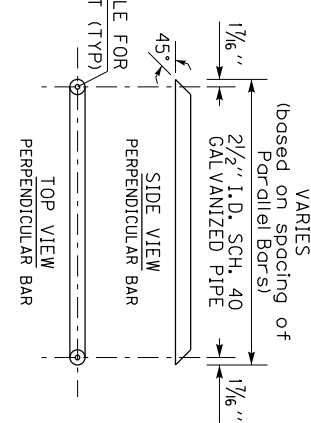
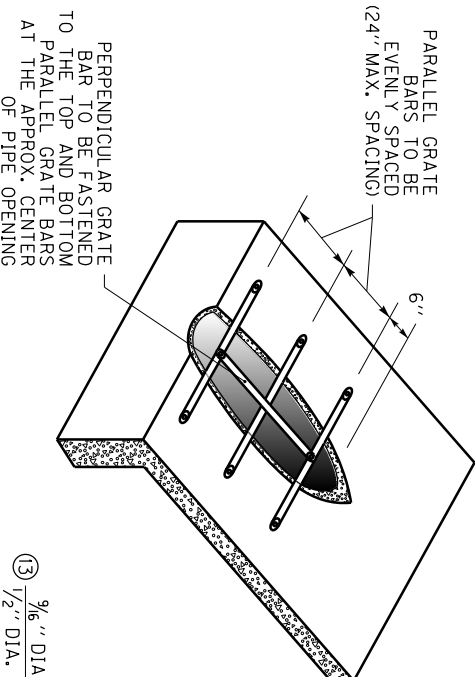
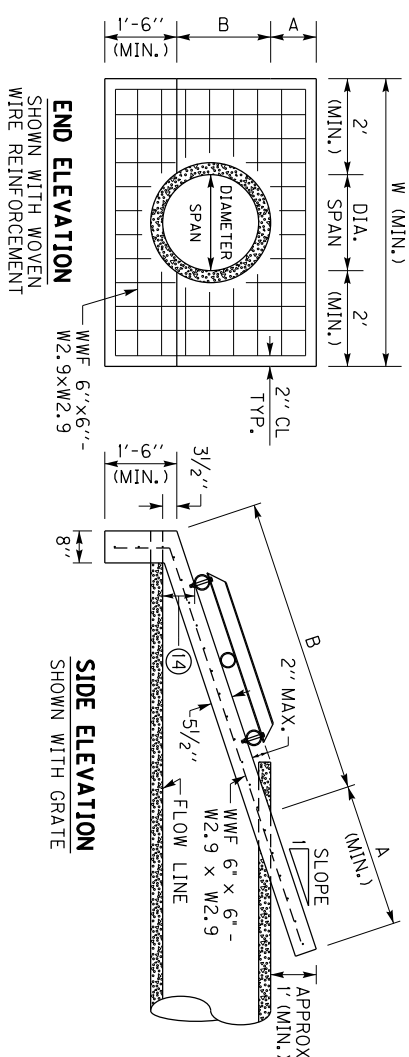
- BID ITEM AND UNIT TO BID: 24575ES610 HEADWALL (SLOPED & MITERED CONCRETE-FOR 1" INCH PIPE) - EACH
- THE EMBANKMENT FILL MATERIAL IS TO BE PLACED, COMPACTED, AND GRADED AROUND THE PIPE BEFORE THE CONCRETE SLOPE PAVING IS PLACED. THE INTENT IS FOR THE SLOPED & MITERED HEADWALL TO MATCH THE FINAL EMBANKMENT SLOPE.
- THE PIPE SHALL BE MITERED AFTER THE CONCRETE SLOPE PAVING HAS BEEN PLACED AND SUFFICIENTLY CURED. THE PIPE SHOULD BE MITERED AS CLOSE TO FLUSH WITH THE SLOPE PAVING AS POSSIBLE, AND NO HIGHER THAN 2" ABOVE THE SLOPE PAVING. HAND FINISHING AND/OR CUTTING MAY BE NECESSARY.
- THE DIMENSION 'A' IS BASED ON THE FINAL GRADED SLOPE. THE DIMENSION 'B' IS BASED ON CIRCULAR REINFORCED CONCRETE PIPE AT 0° SKEW FOR THE LISTED SLOPE. THE DIMENSION 'W' IS BASED ON THE DIAMETER, OR SPAN, OF THE PIPE. NOTE: THE HEADWALL DIMENSIONS AND CONCRETE QUANTITIES MAY VARY BASED ON THE FINAL GRADED SLOPE, PIPE SKEW, AND/OR TYPE OF PIPE.
- WOVEN WIRE REINFORCEMENT (WWF 6"x6" - W2.9xW2.9) IS REQUIRED FOR THE SLOPE PAVING AND TOE WALL. UTILIZE 2" CLEARANCE FROM ALL EDGES.
- CONCRETE QUANTITIES SHOWN ARE FOR ONE (1) HEADWALL.
- AFTER THE PIPE HAS BEEN MITERED, ANCHOR THE PIPE TO THE CONCRETE SLOPE PAVING BY CORE DRILLING AND INSTALLING 1/2" DIAMETER x 7" LENGTH STEEL WEDGE ANCHORS (3" MINIMUM EMBEDMENT) ON 18" CENTERS ALONG THE SIDES OF THE PIPE. HOLE SIZE & DEPTH, TORQUE, & INSTALLATION PROCEDURES PER RECOMMENDATION OF ANCHOR MANUFACTURE. NOTE: STEEL WEDGE ANCHORS ARE NOT REQUIRED FOR REINFORCED CONCRETE PIPE.
- THE FOLLOWING SITUATIONS REQUIRE A HEADWALL WITH A GRATE:
 - 24" DIAMETER PIPE ON GREATER THAN 30° SKEW
 - 30" DIAMETER PIPE ON GREATER THAN 15° SKEW
 - PIPE WITH GREATER THAN 30" DIAMETER.
 - ELLIPTICAL PIPE GREATER THAN 24" EQUIVALENT DIAMETER
- SEE SHEET 2 FOR GRATE DETAILS
- ALL BOLTS AND HARDWARE SHALL BE RUST RESISTANT: ZINC PLATED, STAINLESS STEEL, OR STEEL THAT HAS BEEN GALVANIZED IN ACCORDANCE WITH AASHTO M 232.

NOT TO SCALE

KENTUCKY
DEPARTMENT OF HIGHWAYS
SLOPED & MITERED CONCRETE HEADWALL (SHEET 1 OF 2)

SEE SHEET 2 FOR
DIMENSIONS OF
HEADWALLS FOR PIPE
OVER 30" DIAMETER

COUNTY OF	TOWN NO.	SHEET NO.
-----------	----------	-----------



- ~ NOTES ~
1. BID ITEM AND UNIT TO BID: 24575ES610 HEADWALL (SLOPED & MITERED CONCRETE-FOR 1 INCH PIPE) - EACH SEE SHEET 1 FOR NOTES 1 THRU 5
 2. THE FOLLOWING SITUATIONS REQUIRE A HEADWALL WITH A GRATE:
 7. 24" DIAMETER PIPE ON GREATER THAN 30° SKEW
 8. 30" DIAMETER PIPE ON GREATER THAN 15° SKEW
 9. PIPE WITH GREATER THAN 30" DIAMETER
 10. ELLIPTICAL PIPE GREATER THAN 24" EQUIVALENT DIAMETER
 3. ALL BOLTS AND HARDWARE SHALL BE RUST RESISTANT: ZINC PLATED, STAINLESS STEEL, OR STEEL THAT HAS BEEN GALVANIZED IN ACCORDANCE WITH AASHTO M 232.
 4. THE PIPE USED TO CONSTRUCT THE GRATE SHALL BE STEEL, SCHEDULE 40, CONFORMING TO ASTM A53, AND GALVANIZED IN ACCORDANCE WITH AASHTO M 111 AFTER FABRICATION.
 5. ANY RAW METAL EXPOSED BY FIELD CUTTING AND/OR DRILLING SHALL BE TREATED WITH A COLD GALVANIZING COMPOUND.
 6. FASTEN PARALLEL BARS TO HEADWALL WITH 5/8" DIA. x 4 1/2" LENGTH STEEL WEDGE ANCHORS, MINIMUM EMBEDMENT = 2 3/4" HOLE SIZE AND DEPTH, TORQUE, & INSTALLATION PROCEDURES PER RECOMMENDATION OF ANCHOR MANUFACTURE
 7. CENTER BOLT HOLE SHALL ONLY BE DRILLED IN THE TOP AND BOTTOM PARALLEL BARS.
 8. FASTEN THE PERPENDICULAR BAR TO THE TOP AND BOTTOM PARALLEL BARS WITH 1/2" DIA. x 4" LENGTH HEX HEAD BOLTS, HEX HEAD NUTS, & FLAT WASHERS.
 9. THE BOTTOM PARALLEL BAR IS TO BE PLACED SO THAT IT IS APPROX. 6" ABOVE THE FLOWLINE OF THE PIPE.

DIMENSIONS AND CONCRETE QUANTITIES

PIPE SIZE	3:1 SLOPE		4:1 SLOPE		6:1 SLOPE		GRATE REQUIRED						
	A	B	W	CU. YDS. CONCRETE	A	B		W	CU. YDS. CONCRETE	A	B	W	CU. YDS. CONCRETE
36"	3'	9'-7 1/2"	7'-0"	1.51	4'	12'-6 1/2"	7'-0"	1.91	6'	18'-6"	7'-0"	2.42	YES
42"	3'	11'-4"	7'-6"	1.76	4'	14'-9 1/4"	7'-6"	2.23	6'	21'-9 1/2"	7'-6"	3.19	YES

NOTE: CONCRETE QUANTITIES ARE LISTED FOR INFORMATIONAL PURPOSES ONLY.

PIPE FOR GRATE DETAILS

SEE NOTE 6 TO DETERMINE IF GRATE IS REQUIRED

NOT TO SCALE

KENTUCKY
DEPARTMENT OF HIGHWAYS
SLOPED & MITERED
CONCRETE HEADWALL
(SHEET 2 OF 2)

SEE SHEET 1 FOR DIMENSIONS OF PIPE HEADWALLS FOR 30" DIAMETER & LESS

COUNTY OF	TOWN NO.	SHEET NO.
-----------	----------	-----------

GUARDRAIL DELIVERY VERIFICATION SHEET

Contract Id: _____

Contractor: _____

Section Engineer: _____

District & County: _____

<u>DESCRIPTION</u>	<u>UNIT</u>	<u>QTY LEAVING PROJECT</u>	<u>QTY RECEIVED@BB YARD</u>
GUARDRAIL (Includes End treatments & crash cushions)	LF	_____	_____
STEEL POSTS	EACH	_____	_____
STEEL BLOCKS	EACH	_____	_____
WOOD OFFSET BLOCKS	EACH	_____	_____
BACK UP PLATES	EACH	_____	_____
CRASH CUSHION	EACH	_____	_____
NUTS, BOLTS, WASHERS	BAG/BCKT	_____	_____
DAMAGED RAIL TO MAINT. FACILITY	LF	_____	_____
DAMAGED POSTS TO MAINT. FACILITY	EACH	_____	_____

***Required Signatures before Leaving Project Site**

Printed Section Engineer's Representative _____ & Date _____

Signature Section Engineer's Representative _____ & Date _____

Printed Contractor's Representative _____ & Date _____

Signature Contractor's Representative _____ & Date _____

***Required Signatures after Arrival at Bailey Bridge Yard (All material on truck must be counted & the quantity received column completed before signatures)**

Printed Bailey Bridge Yard Representative _____ & Date _____

Signature Bailey Bridge Yard Representative _____ & Date _____

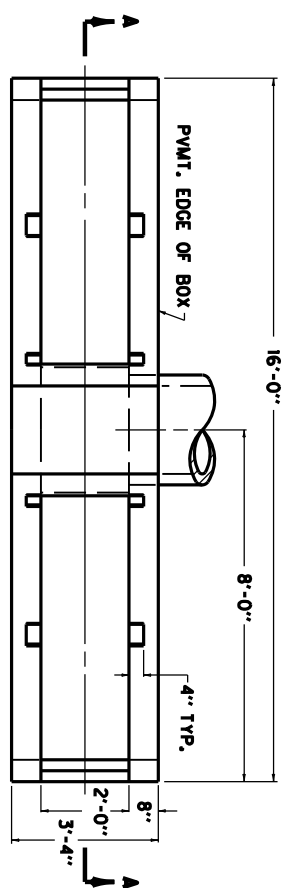
Printed Contractor's Representative _____ & Date _____

Signature Contractor's Representative _____ & Date _____

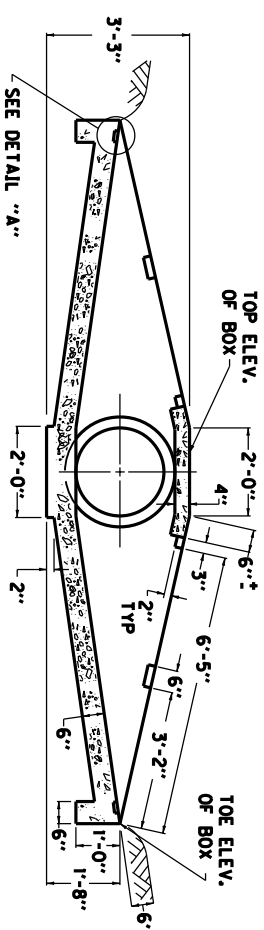
**Payment for the bid item remove guardrail will be based upon the quantities shown in the Bailey Bridge Yard received column. Payment will not be made for guardrail removal until the guardrail verification sheets are electronically submitted to the Section Engineer by the Bailey Bridge Yard Representative.

Completed Form Submitted to Section Engineer Date: _____ By: _____

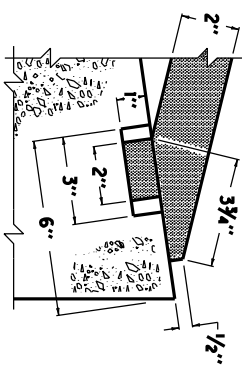
MicroStation v8.11.7.443 E-SHEET NAME: USER: Patrick.Stone DATE PLOTTED: September 24, 2013 FILE NAME: C:\USERS\PATRICK.STONE\APPDATA\LOCAL\MICROSOFT\WINDOWS\TEMPORARY INTERNET FILES\CONTENT.OUTLOOK\Y0843\NA\SAFETY_BOX.DGN



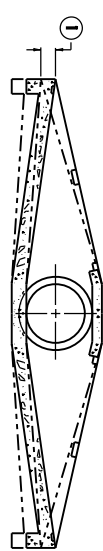
PLAN VIEW



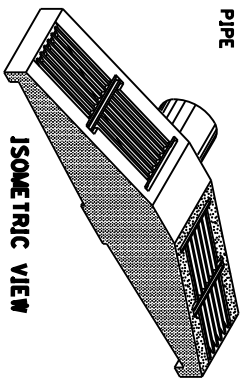
SECTION A-A



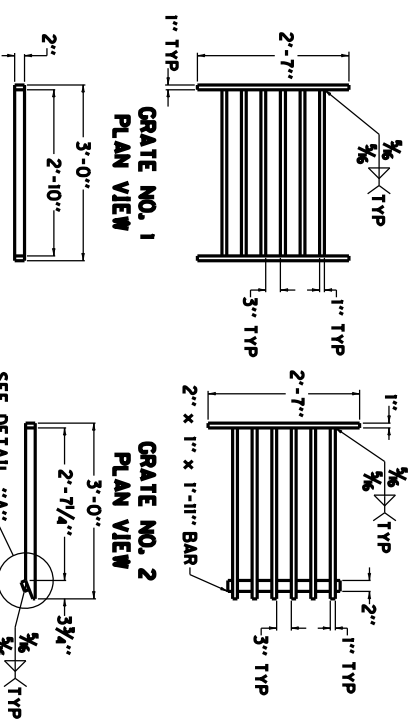
DETAIL "A-A"



SECTIONAL VIEW



ISOMETRIC VIEW



GRATE NO. 1
PLAN VIEW

GRATE NO. 2
PLAN VIEW

APPROXIMATE QUANTITIES			
CLASS "A"	GRATE CONC.	LBS. STRUCTURAL STEEL	TOTAL POUNDS
2.07	1	145	596
	2	153	

M/A

DBL SAFETY BOX INLET DETAIL SHEET

NOTES

- 1728 SAFETY BOX INLET-18 IN DBL SDB-5
- 1729 SAFETY BOX INLET-24 IN DBL SDB-5
- THE UNIT BID FOR EACH STRUCTURE SHALL INCLUDE ALL CONCRETE, STRUCTURAL STEEL GRATING, EXCAVATION, LABOR AND INCIDENTALS NECESSARY FOR ITS CONSTRUCTION AS DETAILED ON THIS SHEET.
- TOE OF BOX SHALL BE RAISED OR LOWERED TO FIT EXISTING FIELD CONDITIONS.
- ANGLE BETWEEN BOX WALLS MAY VARY TO FIT EXISTING FIELD CONDITIONS.

COUNTY OF	ITEM NO.	SHEET NO.

PART II
SPECIFICATIONS AND STANDARD DRAWINGS

SPECIFICATIONS REFERENCE

Any reference in the plans or proposal to previous editions of the *Standard Specifications for Road and Bridge Construction* and *Standard Drawings* are superseded by *Standard Specifications for Road and Bridge Construction, Edition of 2019* and *Standard Drawings, Edition of 2016*.

SUPPLEMENTAL SPECIFICATIONS

The contractor shall use the Supplemental Specifications that are effective at the time of letting.
The Supplemental Specifications can be found at the following link:

<http://transportation.ky.gov/Construction/Pages/Kentucky-Standard-Specifications.aspx>

SPECIAL NOTE FOR BARCODE LABEL ON PERMANENT SIGNS

1.0 DESCRIPTION. Install barcode label on sheeting signs. Section references herein are to the Department’s 2012 Standard Specifications for Road and Bridge Construction.

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

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

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

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

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

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

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

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

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

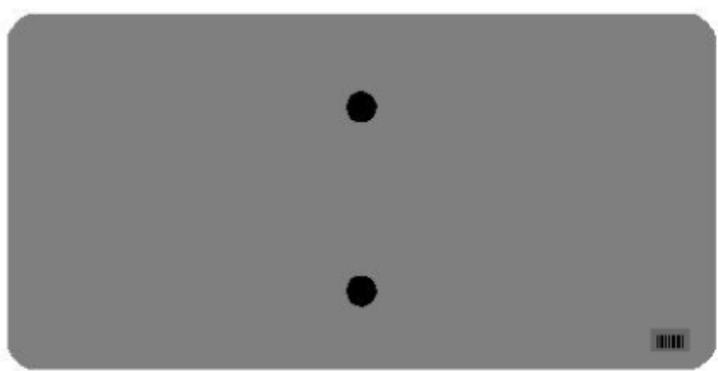
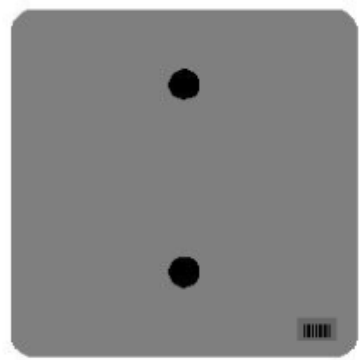
<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
24631EC	Barcode Sign Inventory	Each

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

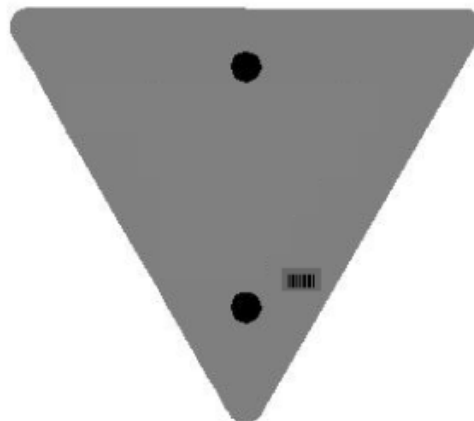
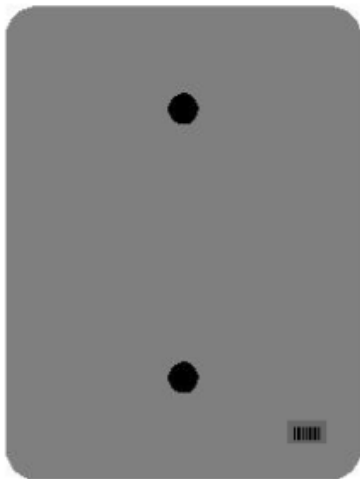
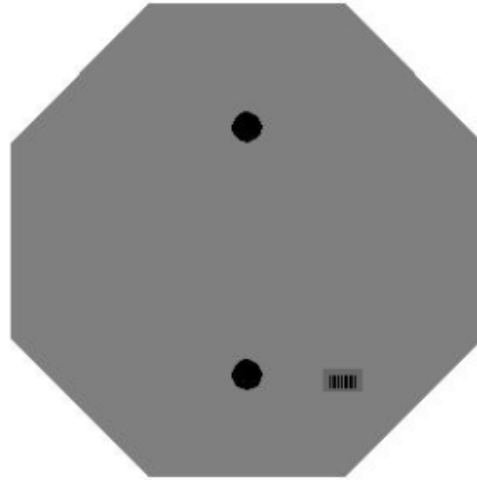
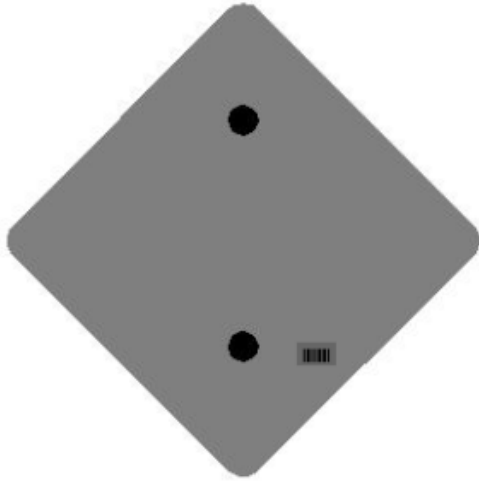
One Sign Post



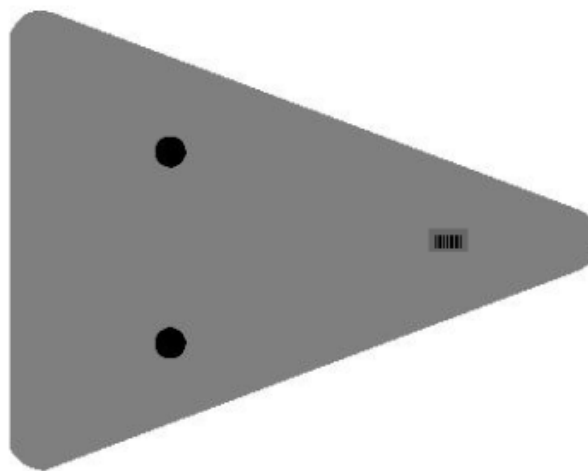
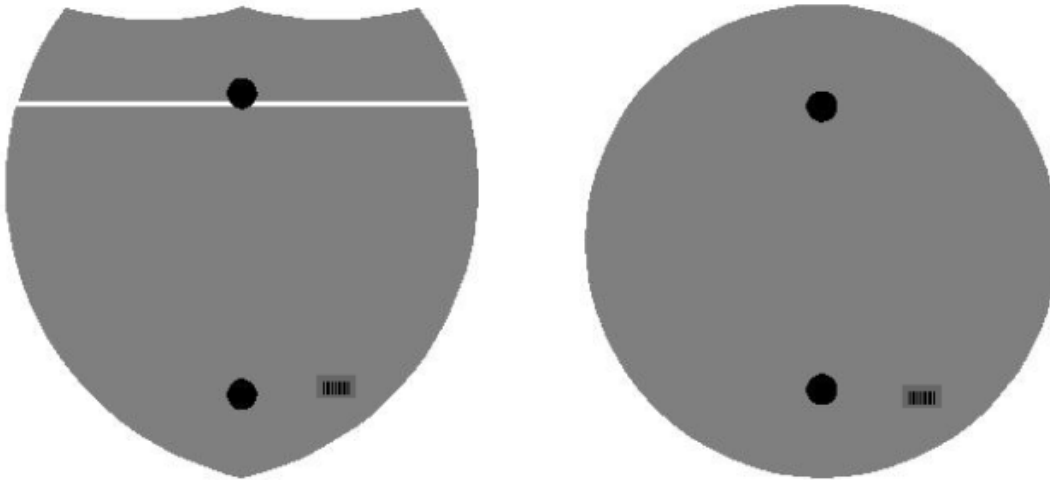
↑
2" Wide Post



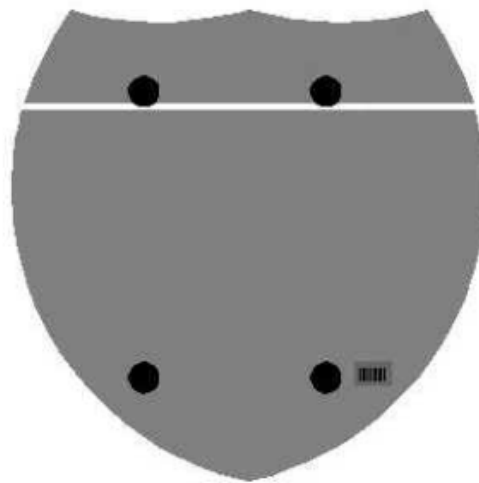
One Sign Post



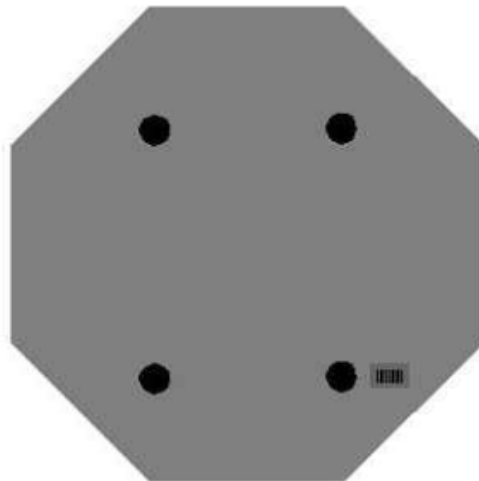
One Sign Post



Double Sign Post



Interstate
Shield

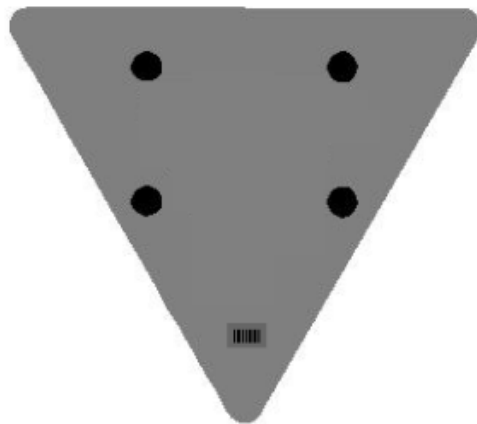


48" Stop

2 Post Signs



↑
2" Wide Post



2016 STANDARD DRAWINGS THAT APPLY

ROADWAY ~ BARRIERS ~

TYPICAL BARRIER INSTALLATIONS

TYPICAL GUARDRAIL INSTALLATIONS	SEPIA-024
TYPICAL GUARDRAIL INSTALLATIONS	RBI-002-07
INSTALLATION OF GUARDRAIL END TREATMENT TYPE 1	SEPIA-025

GUARDRAIL HARDWARE

STEEL BEAM GUARDRAIL (W-BEAM)	SEPIA-027
GUARDRAIL COMPONENTS	RBR-005-11
GUARDRAIL TERMINAL SECTIONS	RBR-010-06
STEEL GUARDRAIL POSTS	SEPIA-028
TIMBER GUARDRAIL POSTS	RBR-016-05
GUARDRAIL END TREATMENT TYPE 1	SEPIA-029
GUARDRAIL END TREATMENT TYPE 2A	RBR-025-05
GUARDRAIL END TREATMENT TYPE 7	SEPIA-034
GUARDRAIL END TREATMENT TYPE 7 ALTERNATE ANCHOR	SEPIA-031
DELINEATORS FOR GUARDRAIL	SEPIA-032

~ DRAINAGE ~

BOX INLETS AND OUTLETS

DROP BOXES

DROP BOX INLET TYPE 1	RDB-001-12
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PAVED DITCHES, FLUME INLETS AND CHANNEL LININGS

CHANNEL LINING CLASS II AND III	RDD-040-05
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TYPICAL DRAINAGE INSTALLATIONS

CULVERT, ENTRANCE & STORM SEWER PIPE TYPES & COVER HEIGHTS (12" – 24" PIPE)	RDI-001-10
PIPE BEDDING FOR CULVERTS, ENTRANCE, AND STORM SEWER PIPE	RDI-020-09
PIPE BEDDING FOR CULVERTS, ENTRANCE, AND STORM SEWER, REINFORCED CONC. PIPE	RDI-021-01
PIPE BEDDING, TRENCH CONDITION	RDI-025-05
PIPE BEDDING, TRENCH CONDITION, REINFORCED CONC. PIPE	RDI-026-01
EROSION CONTROL BLANKET SLOPE INSTALLATION	RDI-040-01
EROSION CONTROL BLANKET CHANNEL INSTALLATION	RDI-041-01

MISCELLANEOUS DRAINAGE

INTERMEDIATE AND END ANCHORS FOR CIRCULAR PIPE	RDX-060-04
TEMPORARY SILT FENCE	RDX-210-03
TEMPORARY SILT FENCE WITH WOVEN WIRE FENCE FABRIC	RDX-215-01
SILT TRAP - TYPE B	RDX-225-01
SILT TRAP - TYPE C	RDX-230-01

~ GENERAL ~

CURVE WIDENING AND SUPERELEVATION

CURVE WIDENING AND SUPERELEVATION TRANSITIONS	RGS-001-07
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Standard Drawings That Apply
Page 2 of 2

MISCELLANEOUS STANDARDS

MISCELLANEOUS STANDARDS PART 1 RGX-001-06

~ PAVEMENT ~

MEDIANS, CURBS, APPROACHES, ENTRANCES, ETC.

APPROACHES, ENTRANCES, AND MAIL BOX TURNOUT RPM-110-07

TRAFFIC

~ PERMANENT ~

RAISED PAVEMENT MARKERS

SHOULDER & EDGELINE RUMBLE STRIP DETAILS **SEPIA-005**

EDGELINE RUMBLE STRIP DETAILS TWO LANE ROADWAYS **SEPIA-006**

~ TEMPORARY ~

TRAFFIC CONTROL

LANE CLOSURE TWO-LANE HIGHWAY TTC-100-04

LANE CLOSURE USING TRAFFIC SIGNALS TTC-110-03

SHOULDER CLOSURE TTC-135-02

ROAD CLOSURE WITH DIVERSION TTC-150-03

DEVICES

DOUBLE FINES ZONE SIGNS TTD-120-02

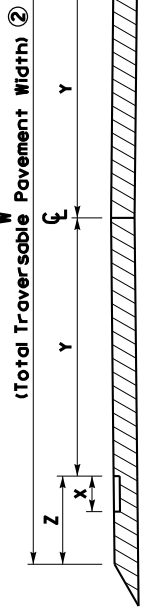
PAVEMENT CONDITION WARNING SIGNS TTD-125-02

STRIPING OPERATIONS

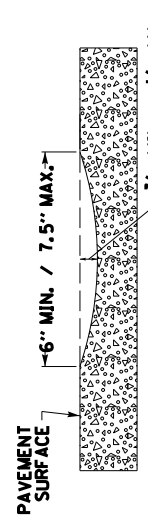
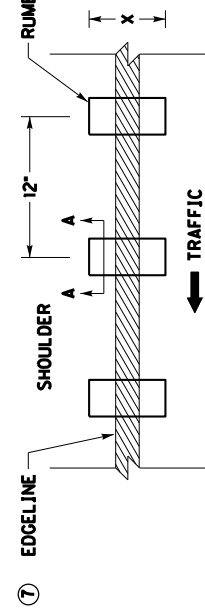
MOBILE OPERATION FOR PAINT STRIPING CASE I TTS-100-02

MOBILE OPERATION FOR PAINT STRIPING CASE II TTS-105-02

COUNTY OF	TERRING	SHEET NO.
-----------	---------	-----------



PAVEMENT CROSS-SECTION



PAVEMENT WIDTH (W) ②	RUMBLE LENGTH (X) ⑤	ELRS ONLY		CLRS & ELRS	
		LANE WIDTH (Y) ③	SHOULDER WIDTH (Z) ④	LANE WIDTH (Y) ③	SHOULDER WIDTH (Z) ④
20'	8"	9'	1'	N/A	N/A
21'	8"	9.5'	1'	N/A	N/A
22'	8"	10'	1'	N/A	N/A
23'	8"	10'	1.5'	N/A	N/A
24'	8"	10.5'	1.5'	N/A	N/A
25'	8"	N/A	N/A	11'	1.5'
26'	8"	N/A	N/A	11'	2'
27'	8"	N/A	N/A	11.5'	2'
28'	8"	N/A	N/A	12'	2'
29'	8"	N/A	N/A	12'	2.5'
30'	8"	N/A	N/A	12'	3'
31'	8"	N/A	N/A	12'	3.5'
32'	8"	N/A	N/A	12'	4'
33'	8"	N/A	N/A	12'	4.5'

NOTES

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

BID ITEM AND UNIT TO BID
EDGELINE RUMBLE STRIPS

LF

DRAWING NOT TO SCALE

USE WITH SEP1A 005

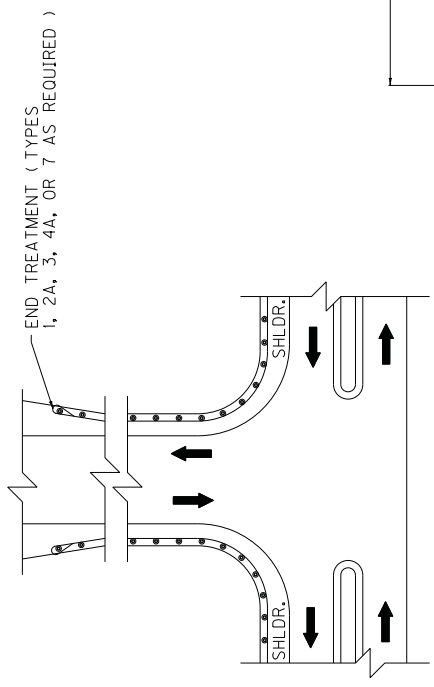
KENTUCKY DEPARTMENT OF HIGHWAYS
EDGELINE RUMBLE STRIP DETAILS
TWO LANE ROADWAYS

SUBMITTED: <i>B. [Signature]</i>	II-23-16 DATE
	006

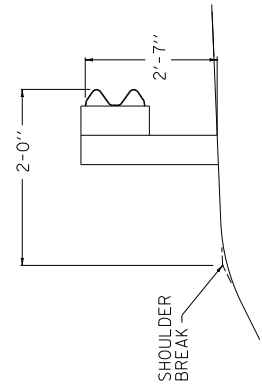
COUNTY OF	TITLING	SHEET NO.

~ NOTES ~

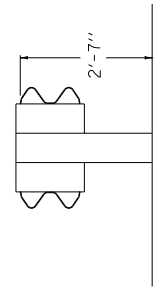
1. FOR END TREATMENT TYPE 4A USE CUR. STD. DWG. RBR-035 FOR OFFSETS.
2. THE MINIMUM LENGTH OF GUARDRAIL, INCLUDING THE END TREATMENT, PRECEDING A FIXED OBJECT IS 200 FEET: (LENGTH MAY BE REDUCED SHOULD FIELD CONDITIONS WARRANT).



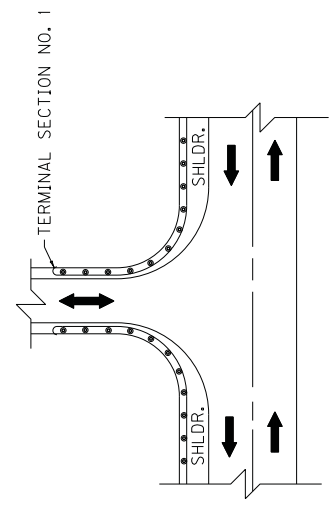
APPROACH ROADS



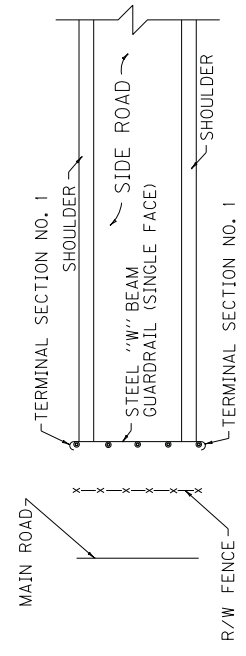
NORMAL GUARDRAIL INSTALLATION



TYPICAL DOUBLE FACE GUARDRAIL INSTALLATION



ENTRANCES



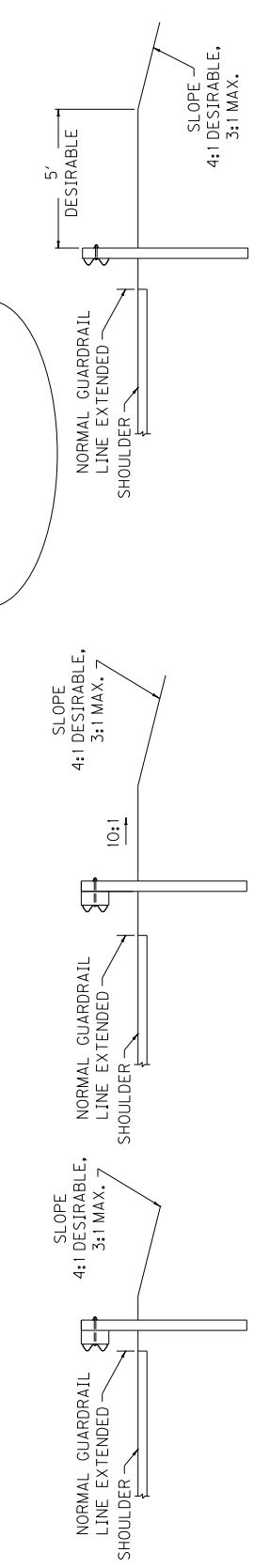
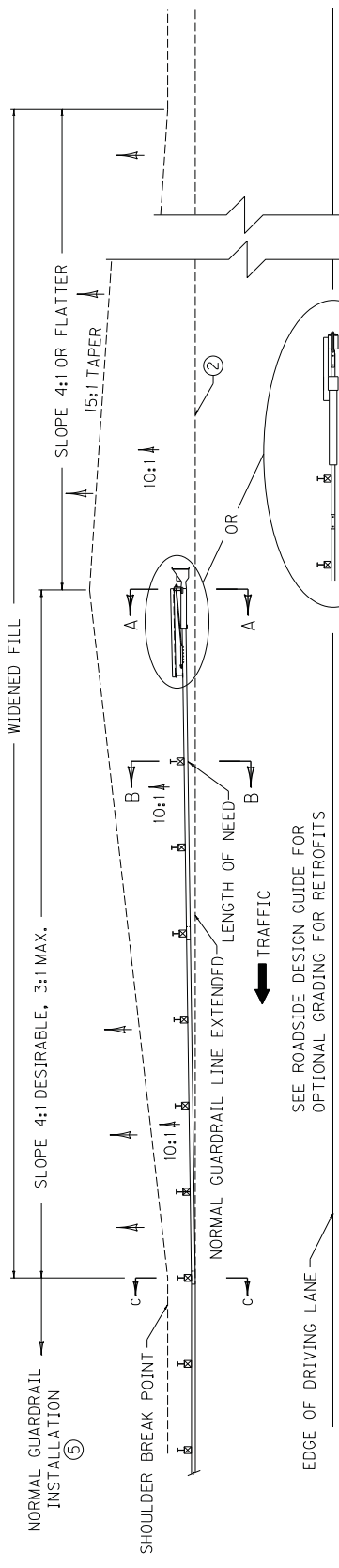
GUARDRAIL USED AS A BARRICADE

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

KENTUCKY
DEPARTMENT OF HIGHWAYS
TYPICAL GUARDRAIL
INSTALLATIONS

SUBMITTED: *[Signature]*
DIRECTOR DIVISION OF DESIGN
DATE: 11-17-17
024

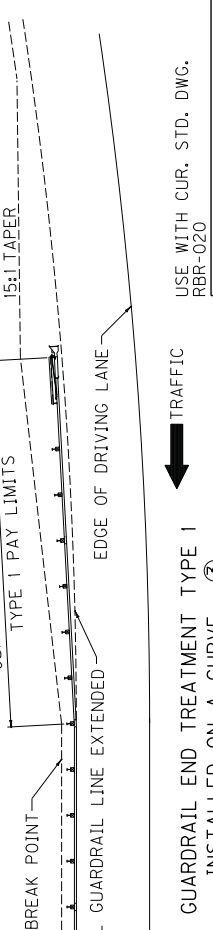
COUNTY OF	SHEET NO.



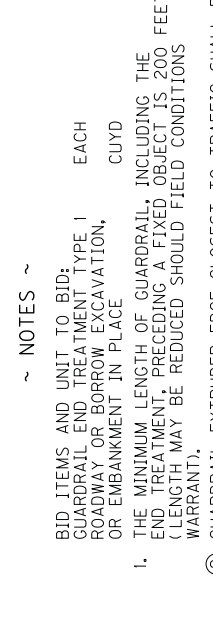
SECTION A-A

SECTION B-B

SECTION C-C



SECTION A-A



SECTION A-A

USE WITH CUR. STD. DWG. RBR-020

KENTUCKY
DEPARTMENT OF HIGHWAYS
INSTALLATION OF
GUARDRAIL
END TREATMENT
TYPE 1

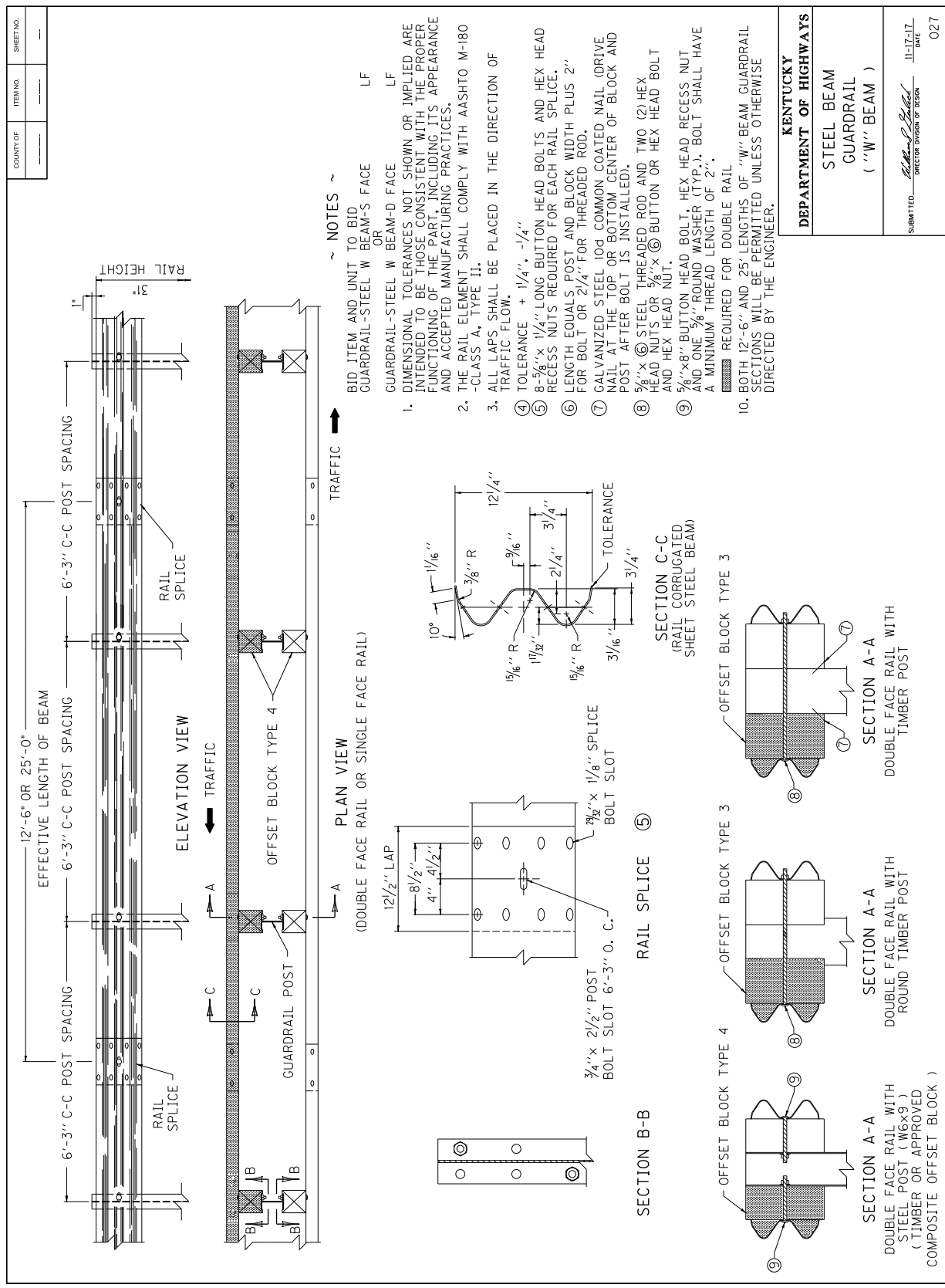
SUBMITTED: *[Signature]*
DIRECTOR IN CHARGE OF DESIGN
DATE: 11-17-17

025

NOTES ~

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

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

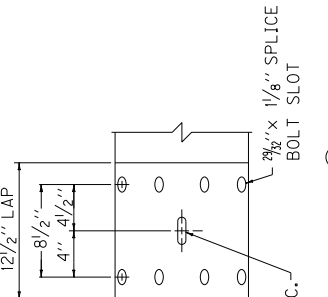
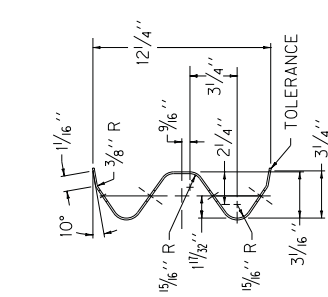


COUNTY OF	ITEM NO.	SHEET NO.

~ NOTES ~

- BID ITEM AND UNIT TO BID
GUARDRAIL-STEEL W BEAM-S FACE LF
- GUARDRAIL-STEEL W BEAM-D FACE LF
- DIMENSIONAL TOLERANCES NOT SHOWN OR IMPLIED ARE INTENDED TO BE THOSE CONSISTENT WITH THE PROPER FUNCTIONING OF THE PART, INCLUDING ITS APPEARANCE AND ACCEPTED MANUFACTURING PRACTICES.
- THE RAIL ELEMENT SHALL COMPLY WITH AASHTO M-180 -CLASS A, TYPE II.
- ALL LAPS SHALL BE PLACED IN THE DIRECTION OF TRAFFIC FLOW.
- TOLERANCE + 1/4", -1/4"
- 8-5/8"x 1/4" LONG BUTTON HEAD BOLTS AND HEX HEAD RECESS NUTS REQUIRED FOR EACH RAIL SPLICE.
- LENGTH EQUALS POST AND BLOCK WIDTH PLUS 2" FOR BOLT OR 2 1/4" FOR THREADED ROD.
- GALVANIZED STEEL 104 COMMON COATED NAIL (DRIVE NAIL AT THE TOP OR BOTTOM CENTER OF BLOCK AND POST AFTER BOLT IS INSTALLED).
- 5/8"x 6" STEEL THREADED ROD AND TWO (2) HEX HEAD NUTS OR 5/8"x 6" BUTTON OR HEX HEAD BOLT AND HEX HEAD NUT.
- 5/8"x 8" BUTTON HEAD BOLT, HEX HEAD RECESS NUT AND ONE 3/8" ROUND WASHER (TYP.). BOLT SHALL HAVE A MINIMUM THREAD LENGTH OF 2".
- REQUIRED FOR DOUBLE RAIL.
- BOTH 12'-6" AND 25' LENGTHS OF "W" BEAM GUARDRAIL SECTIONS WILL BE PERMITTED UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

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

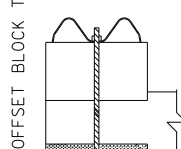


SECTION C-C
(RAIL CORRUGATED SHEET STEEL BEAM)

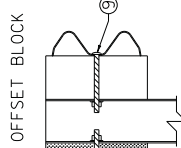
RAIL SPLICE (5)



SECTION A-A
DOUBLE FACE RAIL WITH
TIMBER POST



SECTION A-A
DOUBLE FACE RAIL WITH
ROUND TIMBER POST



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

SECTION B-B
OFFSET BLOCK TYPE 4

SECTION B-B
OFFSET BLOCK TYPE 3

SECTION B-B
OFFSET BLOCK TYPE 3

SECTION B-B
OFFSET BLOCK TYPE 4

SECTION A-A
OFFSET BLOCK TYPE 3

SECTION A-A
OFFSET BLOCK TYPE 3

SECTION A-A
OFFSET BLOCK TYPE 3

SECTION A-A
OFFSET BLOCK TYPE 4

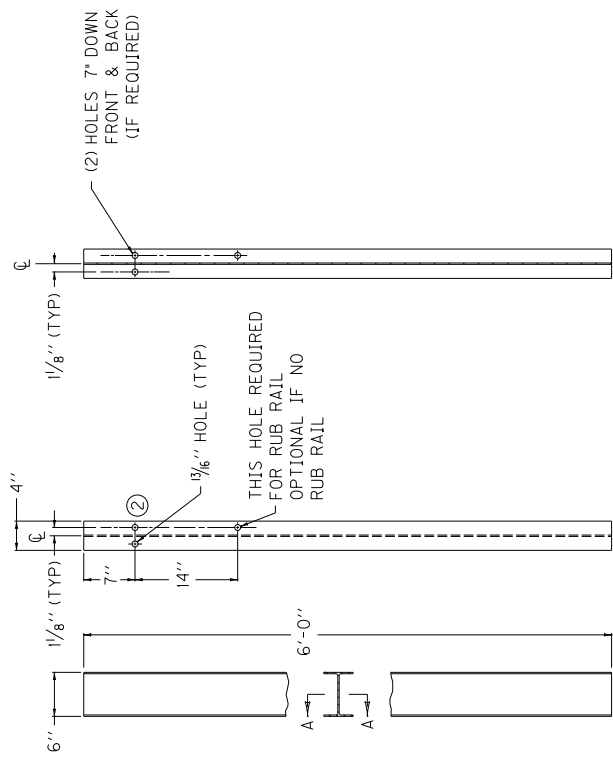
SECTION A-A
OFFSET BLOCK TYPE 3

SECTION A-A
OFFSET BLOCK TYPE 3

SECTION A-A
OFFSET BLOCK TYPE 3

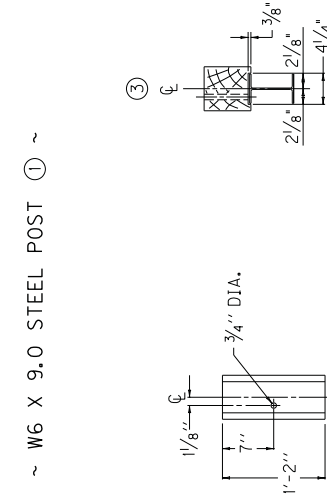
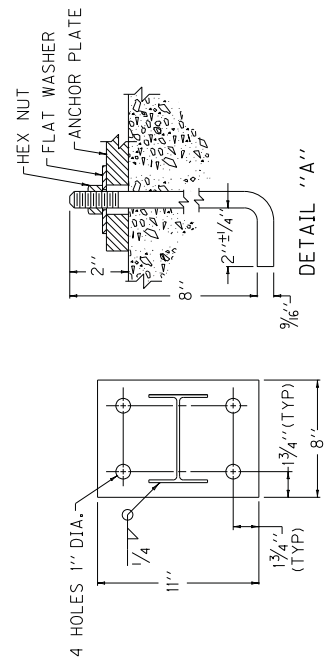
SECTION A-A
OFFSET BLOCK TYPE 4

COUNTY OF	ITEM NO.	SHEET NO.



- ~ NOTES ~
- ① W6 X 8.5 IS AN ACCEPTABLE ALTERNATE.
 - ② THESE HOLES ARE REQUIRED FOR ATTACHING RAIL.
 - ③ TIMBER OR COMPOSITE BLOCKOUTS MAY BE USED WITH STEEL POST.

~ W6 X 9.0 STEEL POST ① ~

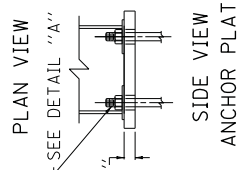


REAR ELEVATION

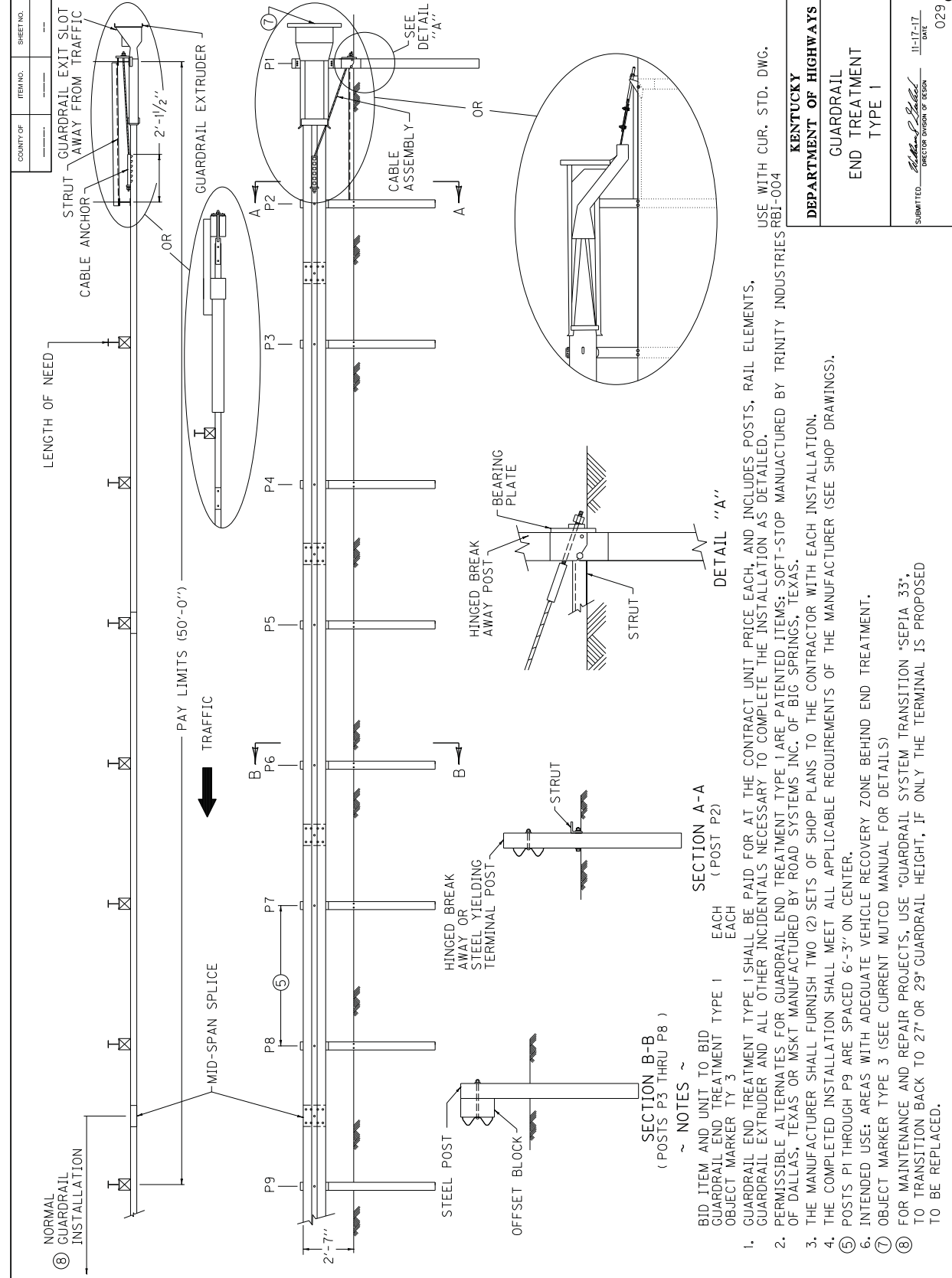
PLAN VIEW

③

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



KENTUCKY DEPARTMENT OF HIGHWAYS
STEEL GUARDRAIL POSTS
SUBMITTED: <i>Mark P. Sells</i> DIRECTOR DIVISION OF DESIGN
DATE: 3-06-18
028



COUNTY OF	SHEET NO.
ITEM NO.	

GUARDRAIL EXIT SLOT
AWAY FROM TRAFFIC

2'-1/2"

STRUT ANCHOR

GUARDRAIL EXTRUDER

OR

LENGTH OF NEED

PAY LIMITS (50'-0")
TRAFFIC

MID-SPAN SPLICE

⑧ NORMAL GUARDRAIL INSTALLATION

P1

P2

P3

P4

P5

P6

P7

P8

P9

⑤

2'-7"

OR

SEE DETAIL "A"

CABLE ASSEMBLY

OR

HINGED BREAK AWAY POST

BEARING PLATE

STRUT

SECTION A-A

(POST P2)

SECTION B-B

(POSTS P3 THRU P8)

~ NOTES ~

BID ITEM AND UNIT TO BID

GUARDRAIL END TREATMENT TYPE 1 EACH

OBJECT MARKER TY 3 EACH

1. GUARDRAIL END TREATMENT TYPE 1 SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH, AND INCLUDES POSTS, RAIL ELEMENTS, GUARDRAIL EXTRUDER AND ALL OTHER INCIDENTALS NECESSARY TO COMPLETE THE INSTALLATION AS DETAILED.

2. PERMISSIBLE ALTERNATES FOR GUARDRAIL END TREATMENT TYPE 1 ARE PATENTED ITEMS: SOFT-STOP MANUFACTURED BY TRINITY INDUSTRIES RBI-004 OF DALLAS, TEXAS OR MSKT MANUFACTURED BY ROAD SYSTEMS INC. OF BIG SPRINGS, TEXAS.

3. THE MANUFACTURER SHALL FURNISH TWO (2) SETS OF SHOP PLANS TO THE CONTRACTOR WITH EACH INSTALLATION.

4. THE COMPLETED INSTALLATION SHALL MEET ALL APPLICABLE REQUIREMENTS OF THE MANUFACTURER (SEE SHOP DRAWINGS).

⑤ POSTS P1 THROUGH P9 ARE SPACED 6'-3" ON CENTER.

⑥ INTENDED USE: AREAS WITH ADEQUATE VEHICLE RECOVERY ZONE BEHIND END TREATMENT.

⑦ OBJECT MARKER TYPE 3 (SEE CURRENT MUTCD MANUAL FOR DETAILS)

⑧ FOR MAINTENANCE AND REPAIR PROJECTS, USE "GUARDRAIL SYSTEM TRANSITION 'SEP1A 33", TO TRANSITION BACK TO 27" OR 29" GUARDRAIL HEIGHT, IF ONLY THE TERMINAL IS PROPOSED TO BE REPLACED.

USE WITH CUR. STD. DWG. RBI-004

KENTUCKY DEPARTMENT OF HIGHWAYS

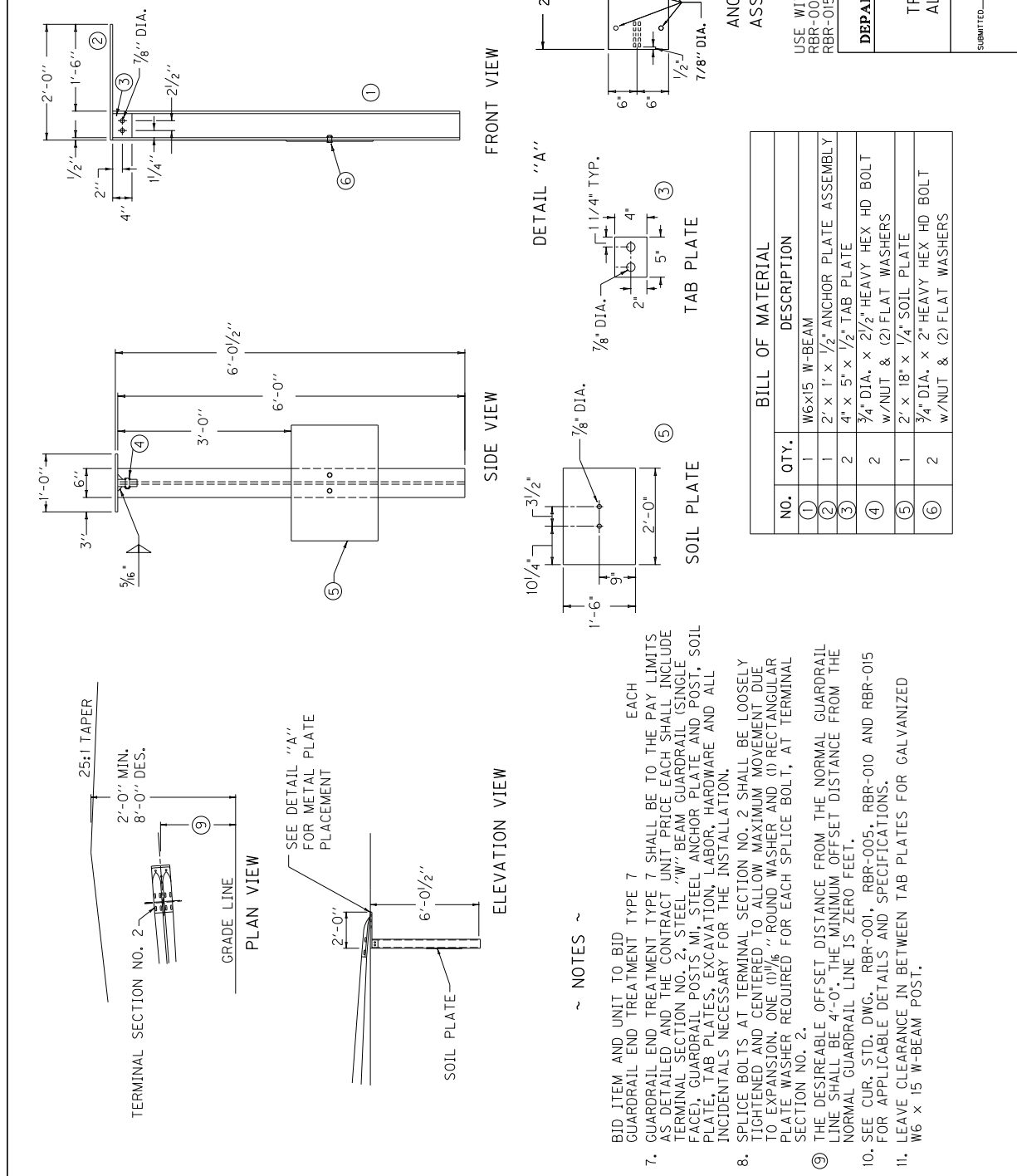
GUARDRAIL END TREATMENT TYPE 1

DATE: 11-17-17

029

Director Division of Design

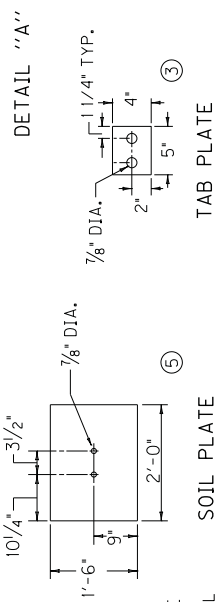
COUNTY OF	ITEM NO.	SHEET NO.



~ NOTES ~

7. GUARDRAIL END TREATMENT TYPE 7 SHALL BE TO THE PAY LIMITS AS DETAILED AND THE CONTRACT UNIT PRICE EACH SHALL INCLUDE TERMINAL SECTION NO. 2, STEEL "W" BEAM GUARDRAIL (SINGLE FACE), GUARDRAIL POSTS, MI, STEEL ANCHOR PLATE AND POST, SOIL PLATE, TAB PLATES, EXCAVATION, LABOR, HARDWARE AND ALL INCIDENTALS NECESSARY FOR THE INSTALLATION.
8. SPLICE BOLTS AT TERMINAL SECTION NO. 2 SHALL BE LOOSELY TIGHTENED AND CENTERED TO ALLOW MAXIMUM MOVEMENT DUE TO EXPANSION. ONE (1) 1/2" ROUND WASHER AND (1) RECTANGULAR PLATE WASHER REQUIRED FOR EACH SPLICE BOLT, AT TERMINAL SECTION NO. 2.
9. THE DESIRABLE OFFSET DISTANCE FROM THE NORMAL GUARDRAIL LINE SHALL BE 4'-0". THE MINIMUM OFFSET DISTANCE FROM THE NORMAL GUARDRAIL LINE IS ZERO FEET.
10. SEE CUR. STD. DWG. RBR-001, RBR-005, RBR-010 AND RBR-015 FOR APPLICABLE DETAILS AND SPECIFICATIONS.
11. LEAVE CLEARANCE IN BETWEEN TAB PLATES FOR GALVANIZED W6 x 15 W-BEAM POST.

BILL OF MATERIAL	
NO.	DESCRIPTION
1	W6x15 W-BEAM
2	2' x 1' x 1/2" ANCHOR PLATE ASSEMBLY
3	4" x 5" x 1/2" TAB PLATE
4	3/4" DIA. x 2 1/2" HEAVY HEX HD BOLT w/ NUT & (2) FLAT WASHERS
5	2' x 18" x 1/4" SOIL PLATE
6	3/4" DIA. x 2" HEAVY HEX HD BOLT w/ NUT & (2) FLAT WASHERS



ANCHOR PLATE
ASSEMBLY ②

USE WITH CUR. STD. DWG.
RBR-001, RBR-005, RBR-010
RBR-015, RBR-050

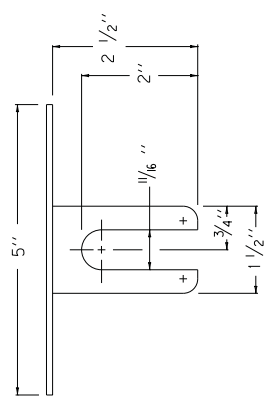
KENTUCKY
DEPARTMENT OF HIGHWAYS
GUARDRAIL END
TREATMENT TYPE 7
ALTERNATE ANCHOR

SUBMITTED: *[Signature]*
DIRECTOR DIVISION OF DESIGN
DATE: 11-17-17
031

COUNTY OF	ITEM NO.	SHEET NO.

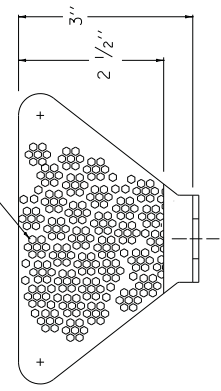
~ NOTES ~

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

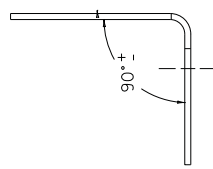


PLAN VIEW

TYPE IX SHEETING,
YELLOW OR WHITE



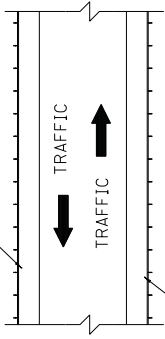
FRONT VIEW



SIDE VIEW

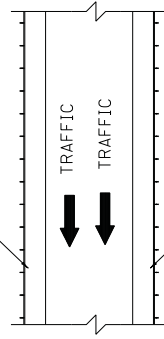
DIMENSIONS SHOWN ARE FOR ONE VERSION OF A WEB-MOUNTED GUARDRAIL DELINEATOR. DELINEATORS WITH ALTERNATE DIMENSIONS MAY BE CONSIDERED FOR INCLUSION ON THE APPROVED PRODUCTS LIST.

BI-DIRECTIONAL WHITE DELINEATOR FOR GUARDRAIL FACING TRAFFIC



BI-DIRECTIONAL WHITE DELINEATOR FOR GUARDRAIL FACING TRAFFIC

MONO-DIRECTIONAL WHITE DELINEATOR FOR GUARDRAIL FACING TRAFFIC



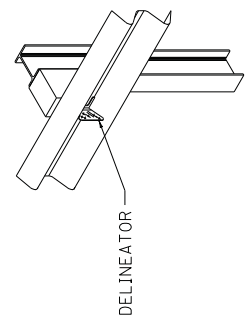
MONO-DIRECTIONAL YELLOW DELINEATOR FOR GUARDRAIL FACING TRAFFIC



PLACEMENT OF DELINEATORS FOR GUARDRAIL

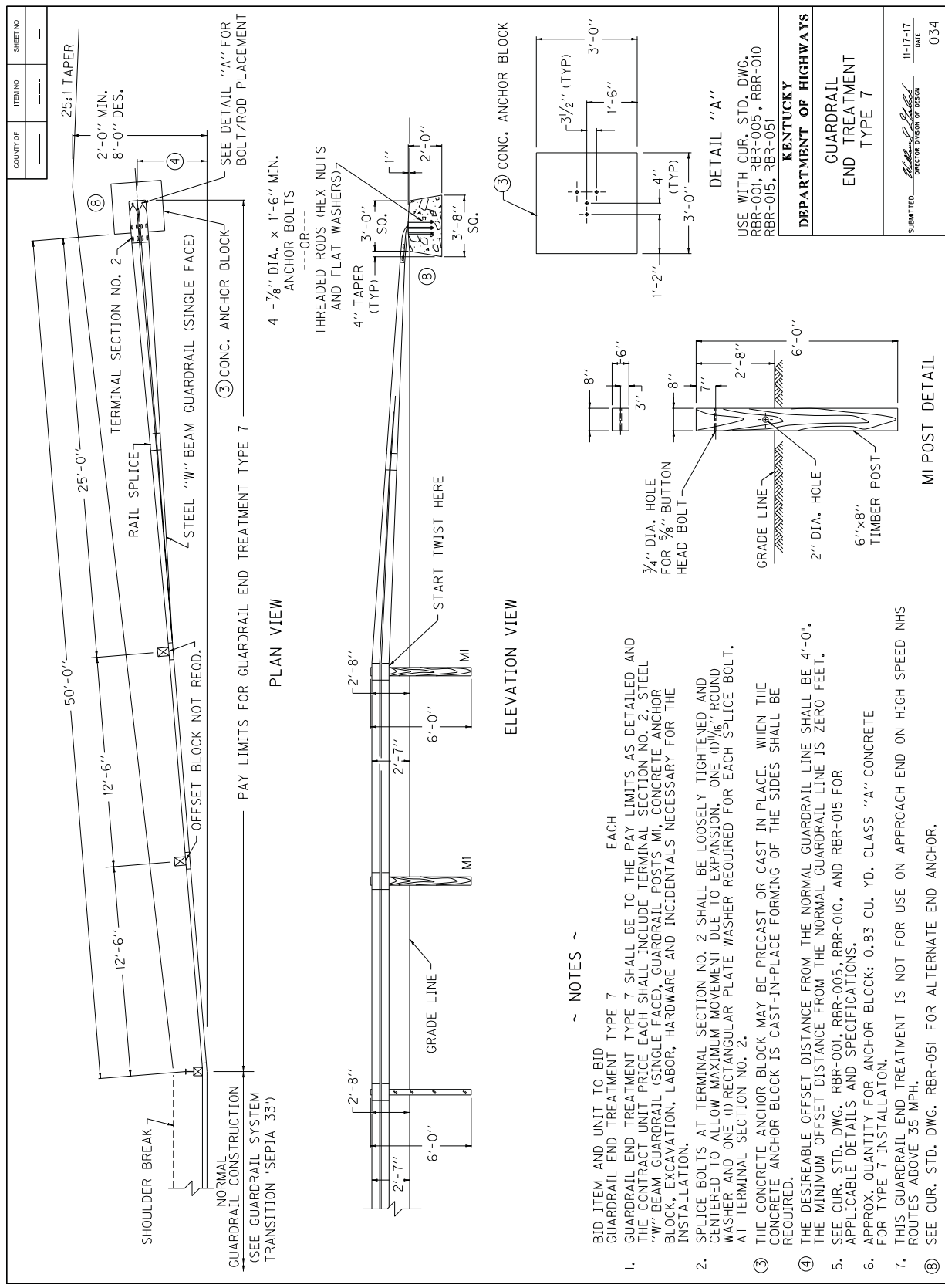
APPROXIMATE DELINEATOR SPACING	
TANGENT	100'
CURVE	50'

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



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

KENTUCKY	
DEPARTMENT OF HIGHWAYS	
DELINEATORS FOR GUARDRAIL	
SUBMITTED: <i>Mark P. Peltier</i> DIRECTOR DIVISION OF DESIGN	JL-17-17 DATE
	032



~ NOTES ~

1. BID ITEM AND UNIT TO BID GUARDRAIL END TREATMENT TYPE 7 EACH GUARDRAIL END TREATMENT TYPE 7 SHALL BE TO THE PAY LIMITS AS DETAILED AND THE CONTRACT UNIT PRICE EACH SHALL INCLUDE TERMINAL SECTION NO. 2, STEEL "W" BEAM GUARDRAIL (SINGLE FACE), GUARDRAIL POSTS MI, CONCRETE ANCHOR BLOCK, EXCAVATION, LABOR, HARDWARE AND INCIDENTALS NECESSARY FOR THE INSTALLATION.
2. SPLICE BOLTS AT TERMINAL SECTION NO. 2 SHALL BE LOOSELY TIGHTENED AND CENTERED TO ALLOW MAXIMUM MOVEMENT DUE TO EXPANSION. ONE (1) 1/8" ROUND WASHER AND ONE (1) RECTANGULAR PLATE WASHER REQUIRED FOR EACH SPLICE BOLT, AT TERMINAL SECTION NO. 2.
- ③ THE CONCRETE ANCHOR BLOCK MAY BE PRECAST OR CAST-IN-PLACE. WHEN THE CONCRETE ANCHOR BLOCK IS CAST-IN-PLACE FORMING OF THE SIDES SHALL BE REQUIRED.
- ④ THE DESIRABLE OFFSET DISTANCE FROM THE NORMAL GUARDRAIL LINE SHALL BE 4'-0". THE MINIMUM OFFSET DISTANCE FROM THE NORMAL GUARDRAIL LINE IS ZERO FEET.
5. SEE CUR. STD. DWG. RBR-001, RBR-005, RBR-010, AND RBR-015 FOR APPLICABLE DETAILS AND SPECIFICATIONS.
6. APPROX. QUANTITY FOR ANCHOR BLOCK: 0.83 CU. YD. CLASS "A" CONCRETE FOR TYPE 7 INSTALLATION.
7. THIS GUARDRAIL END TREATMENT IS NOT FOR USE ON APPROACH END ON HIGH SPEED NHS ROUTES ABOVE 35 MPH.
- ⑧ SEE CUR. STD. DWG. RBR-051 FOR ALTERNATE END ANCHOR.

PART III

EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

FHWA-1273 -- Revised May 1, 2012

**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar

with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions

of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-

Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly

rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is

evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

- (1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;
- (2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and
- (4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

**KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS**

**EMPLOYMENT REQUIREMENTS
RELATING TO
NONDISCRIMINATION OF EMPLOYEES
(APPLICABLE TO FEDERAL-AID SYSTEM CONTRACTS)**

**AN ACT OF THE KENTUCKY GENERAL ASSEMBLY
TO PREVENT DISCRIMINATION IN EMPLOYMENT**

**KRS CHAPTER 344
EFFECTIVE JUNE 16, 1972**

The contract on this project, in accordance with KRS Chapter 344, provides that during the performance of this contract, the contractor agrees as follows:

1. The contractor shall not fail or refuse to hire, or shall not discharge any individual, or otherwise discriminate against an individual with respect to his compensation, terms, conditions, or privileges of employment, because of such individual's race, color, religion, national origin, sex, disability or age (forty and above); or limit, segregate, or classify his employees in any way which would deprive or tend to deprive an individual of employment opportunities or otherwise adversely affect his status as an employee, because of such individual's race, color, religion, national origin, sex, disability or age forty (40) and over. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The contractor shall not print or publish or cause to be printed or published a notice or advertisement relating to employment by such an employer or membership in or any classification or referral for employment by the employment agency, indicating any preference, limitation, specification, or discrimination, based on race, color, religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, except that such a notice or advertisement may indicate a preference, limitation, or specification based on religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, when religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, is a bona fide occupational qualification for employment.

3. If the contractor is in control of apprenticeship or other training or retraining, including on-the-job training programs, he shall not discriminate against an individual because of his race, color, religion, national origin, sex, disability or age forty (40) and over, in admission to, or employment in any program established to provide apprenticeship or other training.

4. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for non-compliance.

Revised: January 25, 2017

Standard Title VI/Non-Discrimination Assurances

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, **Federal Highway Administration**, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the **Federal Highway Administration** to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the **Federal Highway Administration**, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the **Federal Highway Administration** may determine to be appropriate, including, but not limited to:
 - a. withholding payments to the contractor under the contract until the contractor complies; and/or
 - b. cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the **Federal Highway Administration** may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

Standard Title VI/Non-Discrimination Statutes and Authorities

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “contractor”) agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21;
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 *et seq.*), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 -- 12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration’s Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 *et seq.*)

EXECUTIVE BRANCH CODE OF ETHICS

In the 1992 regular legislative session, the General Assembly passed and Governor Brereton Jones signed Senate Bill 63 (codified as KRS 11A), the Executive Branch Code of Ethics, which states, in part:

KRS 11A.040 (7) provides:

No present or former public servant shall, within six (6) months following termination of his office or employment, accept employment, compensation, or other economic benefit from any person or business that contracts or does business with, or is regulated by, the state in matters in which he was directly involved during the last thirty-six (36) months of his tenure. This provision shall not prohibit an individual from returning to the same business, firm, occupation, or profession in which he was involved prior to taking office or beginning his term of employment, or for which he received, prior to his state employment, a professional degree or license, provided that, for a period of six (6) months, he personally refrains from working on any matter in which he was directly involved during the last thirty-six (36) months of his tenure in state government. This subsection shall not prohibit the performance of ministerial functions, including but not limited to filing tax returns, filing applications for permits or licenses, or filing incorporation papers, nor shall it prohibit the former officer or public servant from receiving public funds disbursed through entitlement programs.

KRS 11A.040 (9) states:

A former public servant shall not represent a person or business before a state agency in a matter in which the former public servant was directly involved during the last thirty-six (36) months of his tenure, for a period of one (1) year after the latter of:

- a) The date of leaving office or termination of employment; or
- b) The date the term of office expires to which the public servant was elected.

This law is intended to promote public confidence in the integrity of state government and to declare as public policy the idea that state employees should view their work as a public trust and not as a way to obtain private benefits.

If you have worked for the executive branch of state government within the past six months, you may be subject to the law's prohibitions. The law's applicability may be different if you hold elected office or are contemplating representation of another before a state agency.

Also, if you are affiliated with a firm which does business with the state and which employs former state executive-branch employees, you should be aware that the law may apply to them.

In case of doubt, the law permits you to request an advisory opinion from the Executive Branch Ethics Commission, 3 Fountain Place, Frankfort, Kentucky 40601; telephone (502) 564-7954.

General Decision Number: KY190107 01/04/2019 KY107

Superseded General Decision Number: KY20180187

State: Kentucky

Construction Type: Highway

Counties: Adair, Barren, Bell, Breathitt, Casey, Clay, Clinton, Cumberland, Estill, Floyd, Garrard, Green, Harlan, Hart, Jackson, Johnson, Knott, Knox, Laurel, Lawrence, Lee, Leslie, Letcher, Lincoln, Magoffin, Martin, McCreary, Menifee, Metcalfe, Monroe, Morgan, Owsley, Perry, Pike, Powell, Pulaski, Rockcastle, Russell, Taylor, Wayne, Whitley and Wolfe Counties in Kentucky.

HIGHWAY CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.60 for calendar year 2019 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.60 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2019. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/04/2019

SUKY2015-047 10/20/2015

	Rates	Fringes
BOILERMAKER.....	\$ 24.65	12.94
BRICKLAYER		
Bricklayer.....	\$ 22.90	8.50

Stone Mason.....	\$ 21.50	8.50
CARPENTER		
Carpenter.....	\$ 24.90	14.50
Piledriver.....	\$ 24.55	14.50

CEMENT MASON.....	\$ 21.25	8.50
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ELECTRICIAN		
Electrician.....	\$ 29.36	10.55
Equipment Operator.....	\$ 26.90	10.31
Groundsman.....	\$ 17.79	8.51
Lineman.....	\$ 30.09	10.94

When workmen are required to work from bosum chairs, trusses, stacks, tanks, scaffolds, catwalks, radio and T.V. towers, structural steel (open, unprotected, unfloored raw steel), and bridges or similar hazardous locations where workmen are subject to fall, except where using JLG's and bucket trucks up to 75 feet: Add 25% to workman's base rate for 50 to 75 feet, and add 50% to workman's base rate for over 75 feet.

IRONWORKER.....	\$ 27.56	20.57
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LABORER		
Group 1.....	\$ 21.80	12.36
Group 2.....	\$ 22.05	12.36
Group 3.....	\$ 22.10	12.36
Group 4.....	\$ 22.70	12.36

GROUP 1: Aging and Curing of Concrete (Any Mode or Method), Asbestos Abatement Worker, Asphalt Plant Laborers, Asphalt Laborers, Batch Truck Dumpers, Carpenter Tenders, Cement Mason Tenders, Cleaning of Machines, Concrete Laborers, Demolition Laborers, Dredging Laborers, Drill Tender, Environmental Laborer - Nuclear, Radiation, Toxic and Hazardous Waste - Level D, Flagmen, Grade Checkers, All Hand Digging and Hand Back Filling, Highway Marker Placers, Landscaping Laborers, Mesh Handlers and Placers, Puddler, Railroad Laborers, Rip-rap and Grouters, Right of Way Laborers, Sign, Guard Rail and Fence Installers (All Types), Signalmen, Sound Barrier Installer, Storm and Sanitary Sewer Laborers, Swampers, Truck Spotters and Dumpers, Wrecking of Concrete Forms, General Cleanup

GROUP 2: Batter Board Men (Sanitary and Storm Sewer), Brickmason Tenders, Mortar Mixer Operator, Scaffold Builders, Burner and Welder, Bushammers, Chain Saw Operator, Concrete Saw Operators, Deckhand Scow Man, Dry Cement Handlers, Environmental Laborers - Nuclear, Radiation, Toxic and Hazardous Waste - Level C, Forklift Operators for Masonry, Form Setters, Green Concrete Cutting, Hand Operated Grouter and Grinder Machine Operator, Jack Hammers, Lead Paint Abatement, Pavement Breakers, Paving Joint Machine, Pipe Layers - Laser Operators (Non-metallic), Plastic Pipe Fusion, Power Driven Georgia Buggy and Wheel Barrow, Power Post Hole Diggers, Precast Manhole Setters, Walk-behind Tampers, Walk-behind Trenchers, Sand Blasters, Concrete Chippers, Surface Grinders, Vibrator Operators, Wagon Drillers

GROUP 3: Air Track Driller (All Types), Asphalt Luteman and Rakers, Gunnite Nozzleman, Gunnite Operators and Mixers, Grout

Pump Operator, Powderman and Blaster, Side Rail Setters, Rail Paved Ditches, Screw Operators, Tunnel Laborers (Free Air), Water Blasters

GROUP 4: Caisson Workers (Free Air), Cement Finishers, Environmental Laborer - Nuclear, Radiation, Toxic and Hazardous Waste - Level A and B, miners and Drillers (Free Air), Tunnel Blasters, and Tunnel Mockers (Free Air), Directional and Horizontal Boring, Air Track Drillers (All Types), Powder Man and Blasters, Troxler and Concrete Tester if Laborer is Utilized

PAINTER

All Excluding Bridges.....	\$ 19.92	9.57
Bridges.....	\$ 23.92	10.07

PLUMBER.....\$ 22.52 7.80

POWER EQUIPMENT OPERATOR:

Group 1.....	\$ 29.95	14.40
Group 2.....	\$ 29.95	14.40
Group 3.....	\$ 27.26	14.40
Group 4.....	\$ 26.96	14.40

GROUP 1: Auto Patrol, Batcher Plant, Bituminous Paver, Cable-Way, Clamshell, Concrete Mixer (21 cu ft or over), Concrete Pump, Crane, Crusher Plant, Derrick, Derrick Boat, Ditching and Trenching Machine, Dragline, Dredge Engineer, Elevator (regardless of ownership when used for hoisting any building material), Elevating Grader and all types of Loaders, Hoe-type Machine, Hoisting Engine, Locomotive, LeTourneau or Carry-all Scoop, Bulldozer, Mechanic, Orangepeel Bucket, Piledriver, Power Blade, Roller (Bituminous), Roller (Earth), Roller (Rock), Scarifier, Shovel, Tractor Shovel, Truck Crane, Well Point, Winch Truck, Push Dozer, Grout Pump, High Lift, Fork Lift (regardless of lift height), all types of Boom Cats, Multiple Operator, Core Drill, Tow or Push Boat, A-Frame Winch Truck, Concrete Paver, Grade-All, Hoist, Hyster, Material Pump, Pumpcrete, Ross Carrier, Sheepfoot, Sideboom, Throttle-Valve Man, Rotary Drill, Power Generator, Mucking Machine, Rock Spreader attached to Equipment, Scoopmobile, KeCal Loader, Tower Cranes, (French, German and other types), Hydrocrane, Tugger, Backfiller Gurries, Self-propelled Compactor, Self-Contained Hydraulic Percussion Drill

GROUP 2: All Air Compressors (200 cu ft/min or greater), Bituminous Mixer, Concrete Mixer (21 cu. ft. or over), Welding Machine, Form Grader, Tractor (50 hp and over), Bull Float, Finish Machine, Outboard Motor Boat, Brakeman, Mechanic Tender, Whirly Oiler, Tract-air, Road Widening Trencher, Articulating Trucks

GROUP 3: Greaser on Grease Facilities servicing Heavy Equipment

GROUP 4: Bituminous Distributor, Cement Gun, Conveyor, Mud Jack, Paving Joint Machine, Pump, Tamping Machine, Tractor (under 50 hp), Vibrator, Oiler, Air Compressor (under 200 cu ft per minute), Concrete Saw, Burlap and Curing Machine, Hydro Seeder, Power Form Handling Equipment, Deckhand Oiler, Hydraulic Post Driver

SHEET METAL WORKER.....	\$ 20.40	7.80
TRUCK DRIVER		
Driver (3 Tons and Over), Driver (Truck Mounted Rotary Drill).....	\$ 23.74	14.50
Driver (3 Tons and Under), Tire Changer and Truck Mechanic Tender.....	\$ 23.53	14.50
Driver (Semi-Trailer or Pole Trailer), Driver (Dump Truck, Tandem Axle), Driver of Distributor.....	\$ 23.40	14.50
Driver on Mixer Trucks (All Types).....	\$ 23.45	14.50
Driver on Pavement Breakers.	\$ 23.55	14.50
Driver, Euclid and Other Heavy Earth Moving Equipment and Low Boy.....	\$ 24.31	14.50
Driver, Winch Truck and A- Frame when used in Transporting Materials.....	\$ 23.30	14.50
Greaser on Greasing Facilities.....	\$ 24.40	14.50
Truck Mechanic.....	\$ 23.50	14.50
Truck Tender and Warehouseman.....	\$ 23.20	14.50

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave
for Federal Contractors applies to all contracts subject to the
Davis-Bacon Act for which the contract is awarded (and any
solicitation was issued) on or after January 1, 2017. If this
contract is covered by the EO, the contractor must provide
employees with 1 hour of paid sick leave for every 30 hours
they work, up to 56 hours of paid sick leave each year.
Employees must be permitted to use paid sick leave for their
own illness, injury or other health-related needs, including
preventive care; to assist a family member (or person who is
like family to the employee) who is ill, injured, or has other
health-related needs, including preventive care; or for reasons
resulting from, or to assist a family member (or person who is
like family to the employee) who is a victim of, domestic
violence, sexual assault, or stalking. Additional information
on contractor requirements and worker protections under the EO
is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within
the scope of the classifications listed may be added after
award only as provided in the labor standards contract clauses
(29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage

determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

Fringe benefit amounts are applicable for all hours worked except when otherwise noted.

No laborer, workman or mechanic shall be paid at a rate less than that of a Journeyman except those classified as bona fide apprentices.

Apprentices or trainees shall be permitted to work as such subject to Administrative Regulations adopted by the Commissioner of Workplace Standards. Copies of these regulations will be furnished upon request from any interested person.

Before using apprentices on the job the contractor shall present to the Contracting Officer written evidence of registration of such employees in a program of a State apprenticeship and training agency approved and recognized by the U. S. Bureau of Apprenticeship and Training. In the absence of such a State agency, the contractor shall submit evidence of approval and registration by the U. S. Bureau of Apprenticeship and Training.

The contractor shall submit to the Contracting Officer, written evidence of the established apprenticeship-journeyman ratios and wage rates in the project area, which will be the basis for establishing such ratios and rates for the project under the applicable contract provisions.

TO: EMPLOYERS/EMPLOYEES

PREVAILING WAGE SCHEDULE:

The wages indicated on this wage schedule are the least permitted to be paid for the occupations indicated. When an employee works in more than one classification, the employer must record the number of hours worked in each classification at the prescribed hourly base rate.

OVERTIME:

Overtime is to be paid to an employee at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty (40) hours in such workweek. Wage violations or questions should be directed to the designated Engineer or the undersigned.

Director
Division of Construction Procurement
Frankfort, Kentucky 40622
502-564-3500

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION
TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY
(Executive Order 11246)**

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

GOALS FOR MINORITY PARTICIPATION IN EACH TRADE	GOALS FOR FEMALE PARTICIPATION IN EACH TRADE
7.0%	6.9%

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally-assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4, 3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of \$10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed. The notification shall be mailed to:

**Evelyn Teague, Regional Director
Office of Federal Contract Compliance Programs
61 Forsyth Street, SW, Suite 7B75
Atlanta, Georgia 30303-8609**

4. As used in this Notice, and in the contract resulting from this solicitation, the "**covered area**" is Clay County.

PART IV
INSURANCE

INSURANCE

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

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

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

PART V
BID ITEMS

PROPOSAL BID ITEMS

194401

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Report Date 5/30/19

Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00001		DGA BASE	2,819.00	TON		\$	
0020	00020		TRAFFIC BOUND BASE	184.00	TON		\$	
0030	00100		ASPHALT SEAL AGGREGATE	104.00	TON		\$	
0040	00103		ASPHALT SEAL COAT	13.00	TON		\$	
0050	00190		LEVELING & WEDGING PG64-22	500.00	TON		\$	
0060	00212		CL2 ASPH BASE 1.00D PG64-22	3,607.00	TON		\$	
0070	00301		CL2 ASPH SURF 0.38D PG64-22	1,253.00	TON		\$	
0080	00356		ASPHALT MATERIAL FOR TACK	20.00	TON		\$	
0090	02084		JPC PAVEMENT-8 IN	59.00	SQYD		\$	
0100	02676		MOBILIZATION FOR MILL & TEXT CLAY CO. (KY 11)	1.00	LS		\$	
0110	02677		ASPHALT PAVE MILLING & TEXTURING	510.00	TON		\$	
0120	02697		EDGE LINE RUMBLE STRIPS	13,080.00	LF		\$	
0130	10020NS		FUEL ADJUSTMENT	9,815.00	DOLL	\$1.00	\$	\$9,815.00
0140	10030NS		ASPHALT ADJUSTMENT	20,025.00	DOLL	\$1.00	\$	\$20,025.00

Section: 0002 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0150	01987		DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE	43.00	EACH		\$	
0160	02014		BARRICADE-TYPE III	2.00	EACH		\$	
0170	02230		EMBANKMENT IN PLACE	2,674.00	CUYD		\$	
0180	02351		GUARDRAIL-STEEL W BEAM-S FACE	2,062.50	LF		\$	
0190	02360		GUARDRAIL TERMINAL SECTION NO 1	3.00	EACH		\$	
0200	02367		GUARDRAIL END TREATMENT TYPE 1	5.00	EACH		\$	
0210	02371		GUARDRAIL END TREATMENT TYPE 7	2.00	EACH		\$	
0220	02381		REMOVE GUARDRAIL	1,350.00	LF		\$	
0230	02545		CLEARING AND GRUBBING (APPROX. 0.7 ACRE)	1.00	LS		\$	
0240	02562		TEMPORARY SIGNS	400.00	SQFT		\$	
0250	02575		DITCHING AND SHOULDERING	10,380.00	LF		\$	
0260	02650		MAINTAIN & CONTROL TRAFFIC CLAY CO. (KY 11)	1.00	LS		\$	
0270	02651		DIVERSIONS (BY-PASS DETOURS) (MILL POND RD.)	1.00	LS		\$	
0280	02671		PORTABLE CHANGEABLE MESSAGE SIGN	2.00	EACH		\$	
0290	02701		TEMP SILT FENCE	3,250.00	LF		\$	
0300	02704		SILT TRAP TYPE B	25.00	EACH		\$	
0310	02705		SILT TRAP TYPE C	17.00	EACH		\$	
0320	02707		CLEAN SILT TRAP TYPE B	25.00	EACH		\$	
0330	02708		CLEAN SILT TRAP TYPE C	17.00	EACH		\$	
0340	02726		STAKING CLAY CO. (KY 11)	1.00	LS		\$	
0350	04933		TEMP SIGNAL 2 PHASE	2.00	EACH		\$	
0360	05950		EROSION CONTROL BLANKET	5,000.00	SQYD		\$	
0370	05952		TEMP MULCH	2,150.00	SQYD		\$	

PROPOSAL BID ITEMS

194401

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Report Date 5/30/19

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0380	05963		INITIAL FERTILIZER	.20	TON		\$	
0390	05964		MAINTENANCE FERTILIZER	.30	TON		\$	
0400	05985		SEEDING AND PROTECTION	1,500.00	SQYD		\$	
0410	05992		AGRICULTURAL LIMESTONE	1.00	TON		\$	
0420	06406		SBM ALUM SHEET SIGNS .080 IN	144.00	SQFT		\$	
0430	06410		STEEL POST TYPE 1	238.00	LF		\$	
0440	06510		PAVE STRIPING-TEMP PAINT-4 IN	26,160.00	LF		\$	
0450	06514		PAVE STRIPING-PERM PAINT-4 IN	26,160.00	LF		\$	
0460	06568		PAVE MARKING-THERMO STOP BAR-24IN	33.00	LF		\$	
0470	21373ND		REMOVE SIGN	10.00	EACH		\$	
0480	22400NN		REMOVE AND RELOCATE SIGN ASSEMBLY	70.00	EACH		\$	
0490	24631EC		BARCODE SIGN INVENTORY	42.00	EACH		\$	

Section: 0003 - DRAINAGE

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0500	00440		ENTRANCE PIPE-15 IN	144.00	LF		\$	
0510	00443		ENTRANCE PIPE-24 IN	46.00	LF		\$	
0520	00462		CULVERT PIPE-18 IN	179.00	LF		\$	
0530	00464		CULVERT PIPE-24 IN	35.00	LF		\$	
0540	01204		PIPE CULVERT HEADWALL-18 IN	4.00	EACH		\$	
0550	01208		PIPE CULVERT HEADWALL-24 IN	2.00	EACH		\$	
0560	01310		REMOVE PIPE	281.00	LF		\$	
0570	01496		DROP BOX INLET TYPE 3	1.00	EACH		\$	
0580	01726		SAFETY BOX INLET-18 IN SDB-1	2.00	EACH		\$	
0590	01728		SAFETY BOX INLET-18 IN DBL SDB-5	2.00	EACH		\$	
0600	02483		CHANNEL LINING CLASS II	31.00	TON		\$	
0610	02625		REMOVE HEADWALL	1.00	EACH		\$	
0620	08100		CONCRETE-CLASS A	1.26	CUYD		\$	
0630	24575ES610		HEADWALL (SLOPED & MITERED CONCRETE-FOR 18 INCH PIPE)	1.00	EACH		\$	

Section: 0004 - DEMOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0640	02569		DEMOBILIZATION	1.00	LS		\$	