CALL NO. 101

CONTRACT ID. 171216

HARDIN COUNTY

FED/STATE PROJECT NUMBER NHPP IM 0654 (054)

DESCRIPTION I-65 (HARDIN COUNTY) ASPHALT OVERLAY

WORK TYPE ASPHALT REHAB INTERSTATE/PARKWAY

PRIMARY COMPLETION DATE 9/1/2018

LETTING DATE: May 26,2017

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN DAYLIGHT TIME May 26,2017. Bids will be publicly announced at 10:00 AM EASTERN DAYLIGHT TIME.

NO PLANS ASSOCIATED WITH THIS PROJECT.

DBE CERTIFICATION REQUIRED - 11%

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

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PART I

SCOPE OF WORK

ADMINISTRATIVE DISTRICT - 04

CONTRACT ID - 171216

NHPP IM 0654 (054)

COUNTY - HARDIN

PCN - DE04500651716
NHPP IM 0654 (054)

I-65 (HARDIN COUNTY) ASPHALT OVERLAY (MP 90.530) MILL AND INTERMEDIATE ASPHALT OVERLAY ON I-65 NORTH AND SOUTHBOUND LANES BEGINNING 0.556 MI S OF WESTERN KENTUCKY PARKWAY (9001) IN HARDIN COUNTY (MP 97.500), A DISTANCE OF 06.97 MILES.ASPHALT REHAB INTERSTATE/PARKWAY SYP NO. 04-02060.00.

GEOGRAPHIC COORDINATES LATITUDE 37:42:48.00 LONGITUDE 85:49:44.00

COMPLETION DATE(S):

COMPLETED BY 10/15/2017	INTERMEDIATE MILESTONE
COMPLETED BY 09/01/2018	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 Expedite Bidding Program available on the Internet web site of the Department of Highways, Division of Construction Procurement. (www.transportation.ky.gov/construction-procurement)

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.

SPECIAL NOTE FOR COMPOSITE OFFSET BLOCKS

Contrary to the Standard Drawings (2016 edition) the Cabinet will allow 6" composite offset blocks in lieu of wooden offset blocks, except as specified on proprietary end treatments and crash cushions. The composite blocks shall be selected from the Cabinet's List of Approved Materials.

REGISTRATION WITH THE SECRETARY OF STATE BY A FOREIGN ENTITY

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

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

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

SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT

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

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

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

HARDWOOD REMOVAL RESTRICTIONS

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

INSTRUCTIONS FOR EXCESS MATERIAL SITES AND BORROW SITES

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

ACCESS TO RECORDS

The contractor, as defined in KRS 45A.030 (9) agrees that the contracting agency, the Finance and Administration Cabinet, the Auditor of Public Accounts, and the Legislative Research Commission, or their duly authorized representatives, shall have access to any books, documents, papers, records, or other evidence, which are directly pertinent to this contract for the purpose of financial audit or program review. Records and other prequalification information confidentially disclosed as part of the bid process shall not be deemed as directly pertinent to the contract and shall be exempt from disclosure as provided in KRS 61.878(1)(c). The contractor also recognizes that any books, documents, papers, records, or other evidence, received during a financial audit or program review shall be subject to the Kentucky Open Records Act, KRS 61.870 to 61.884.

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

06/01/16

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 certainly 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 our 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.

DGA BASE FOR SHOULDERS

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

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

INCIDENTAL SURFACING

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

FUEL AND ASPHALT PAY ADJUSTMENT

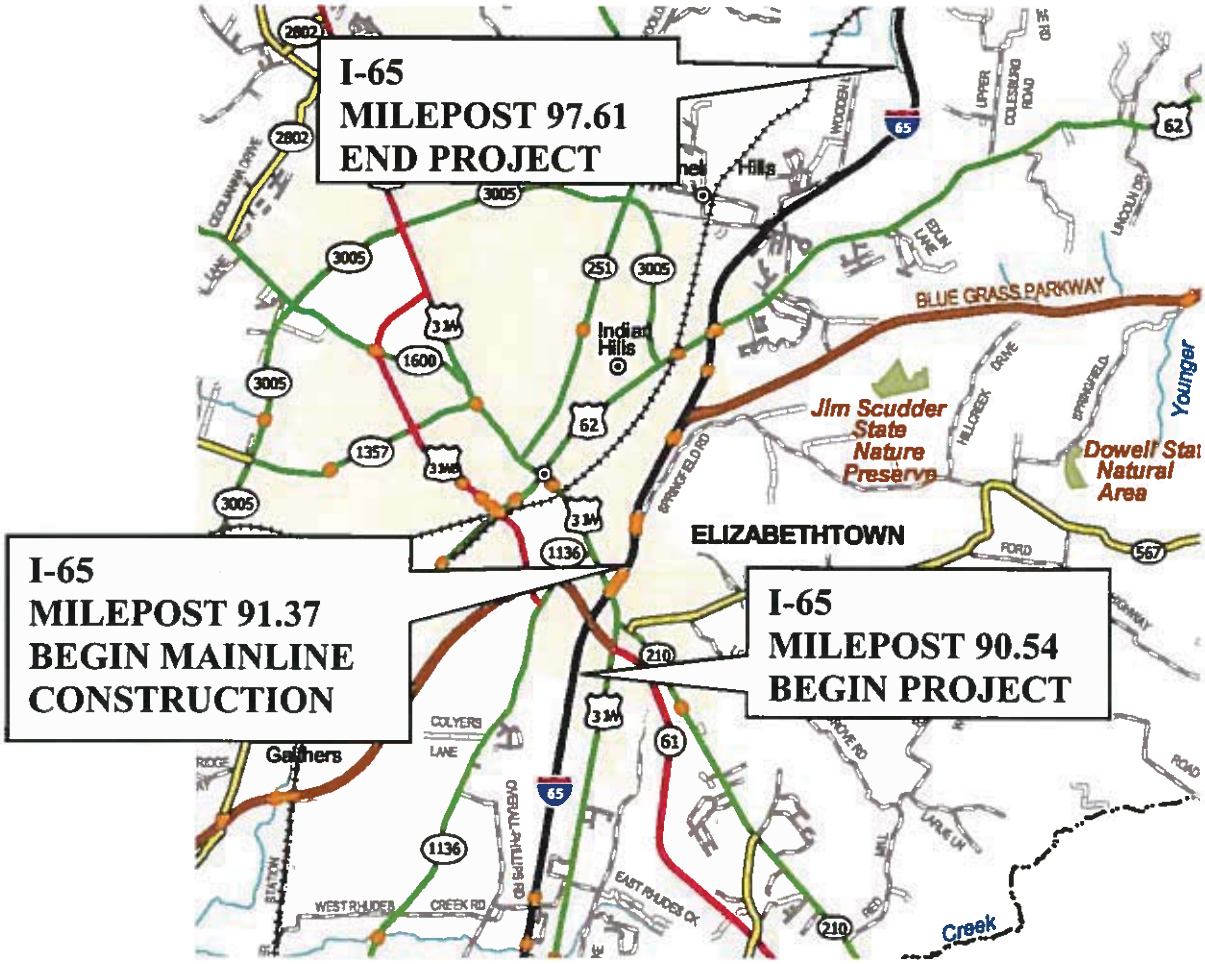
The Department has included the Contract items Asphalt Adjustment and Fuel Adjustment for possible future payments at an established Contract unit price of $1.00. The Department will calculate actual adjustment quantities after work is completed. If existing Contract amount is insufficient to pay all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

ASPHALT PAVEMENT RIDE QUALITY CATEGORY A

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

OPTION A

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



COUNTY: HARDIN

ITEM NUMBER: 4-2060.00

PROJECT NUMBER: FD52 047 0065 090-098

CONSTRUCTION NUMBER: NHPP IM 0654 (054)

LETTING DATE: May 26, 2017

RECOMMENDED BY: _____ DATE: 4-17-17
Project Manager

PLAN APPROVED BY: _____ DATE: 4-17-17
State Highway Engineer

FHWA APPROVED BY: _____ DATE: _____

I–65
STATIONING INFORMATION SHEETS
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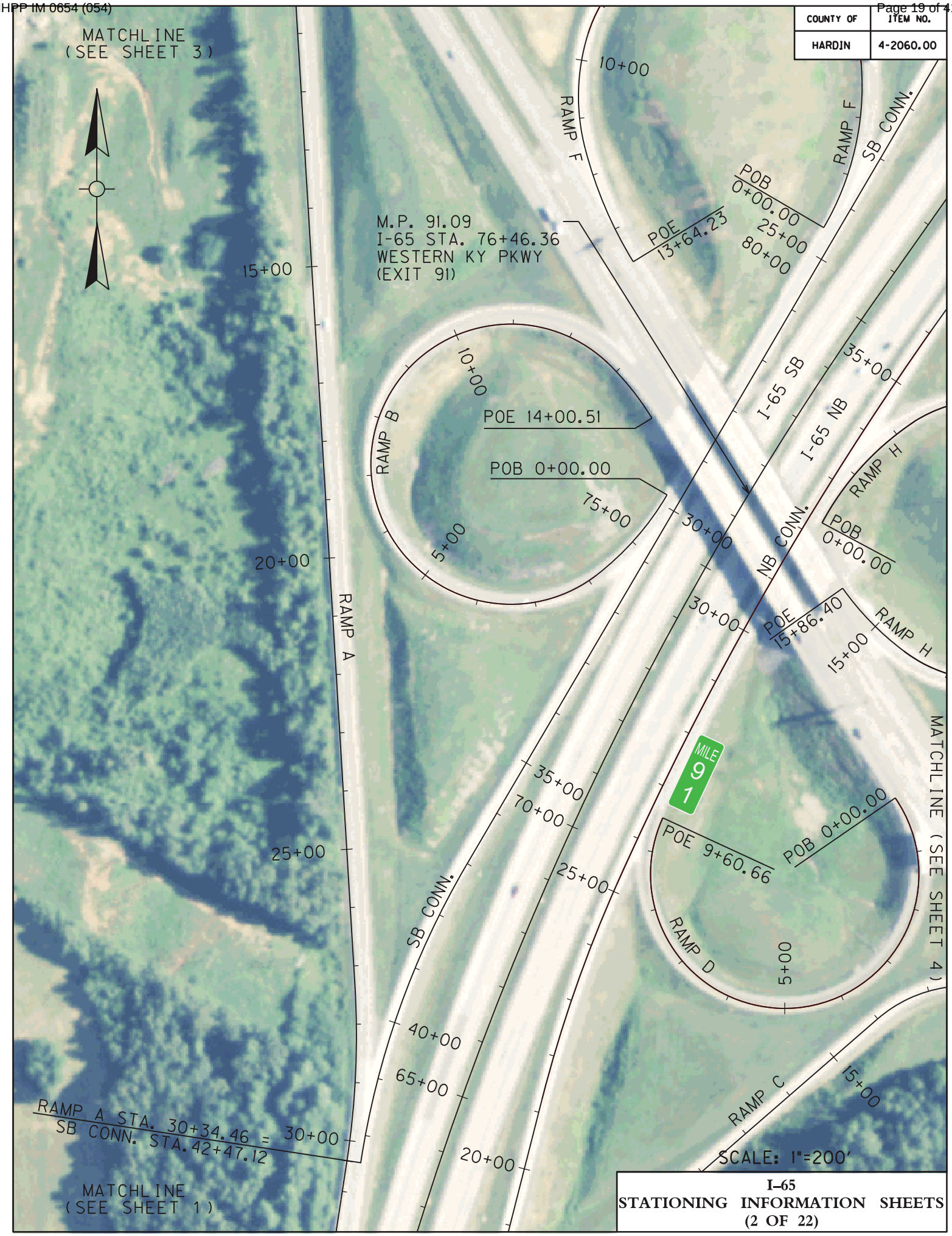

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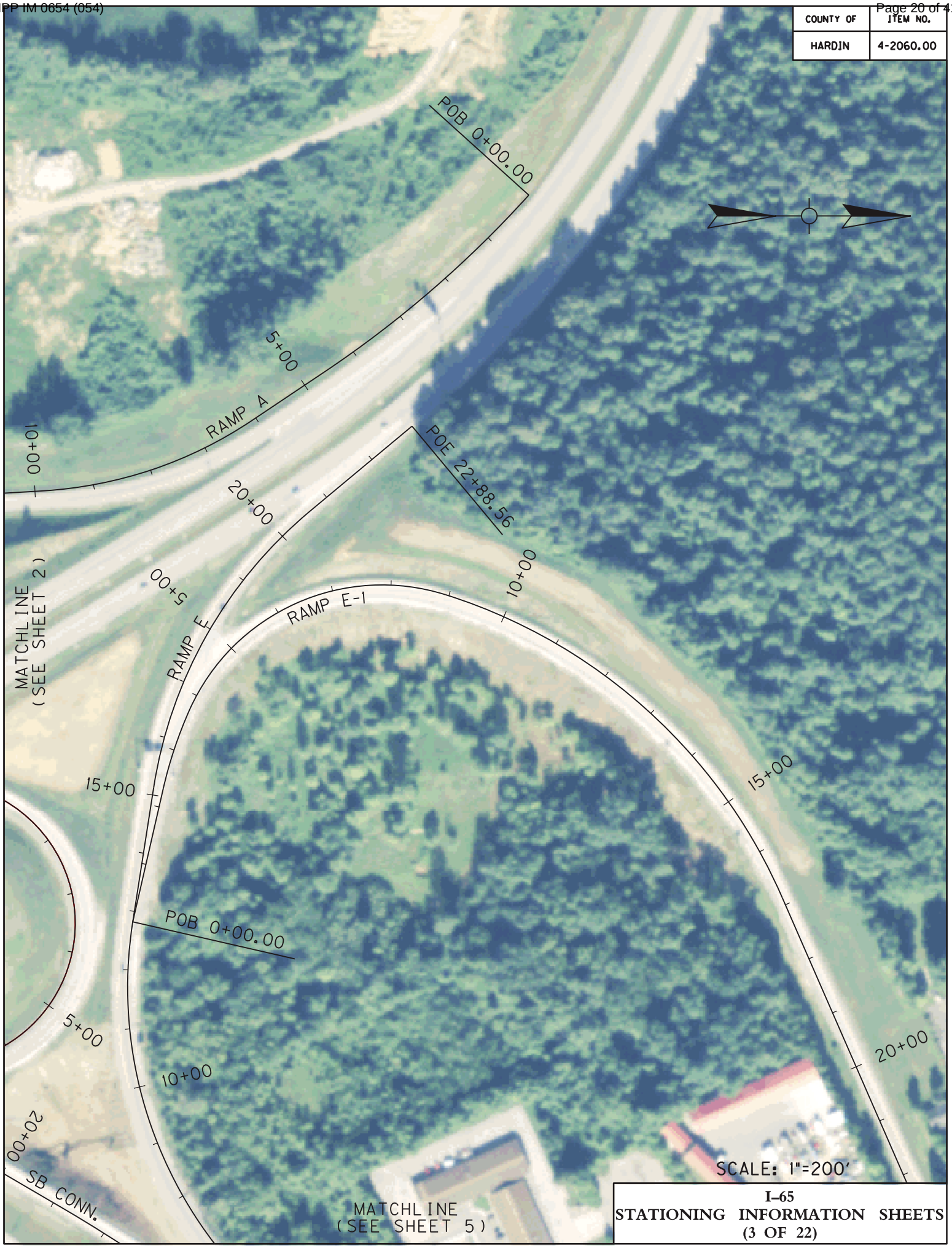

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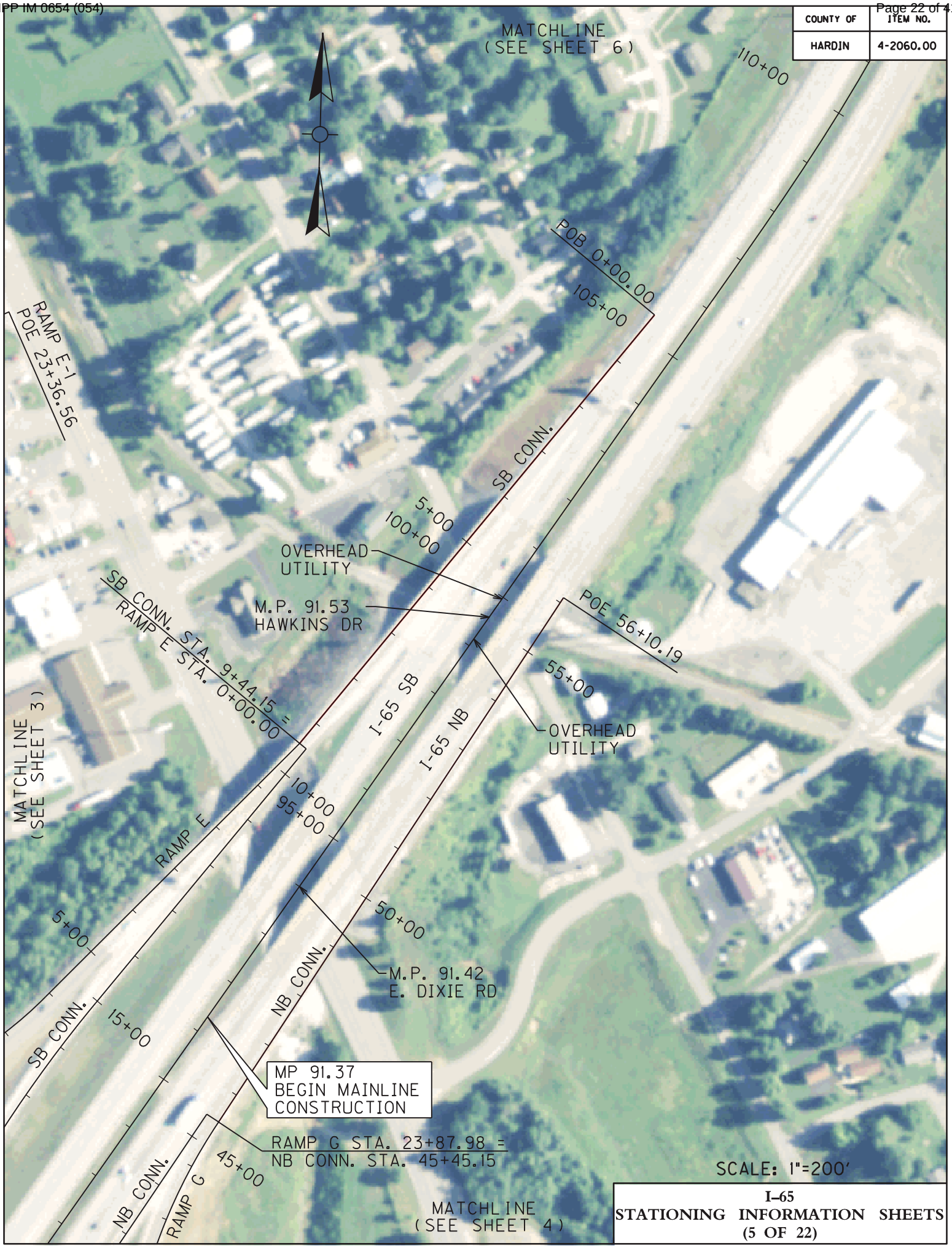

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COUNTY OF	ITEM NO.
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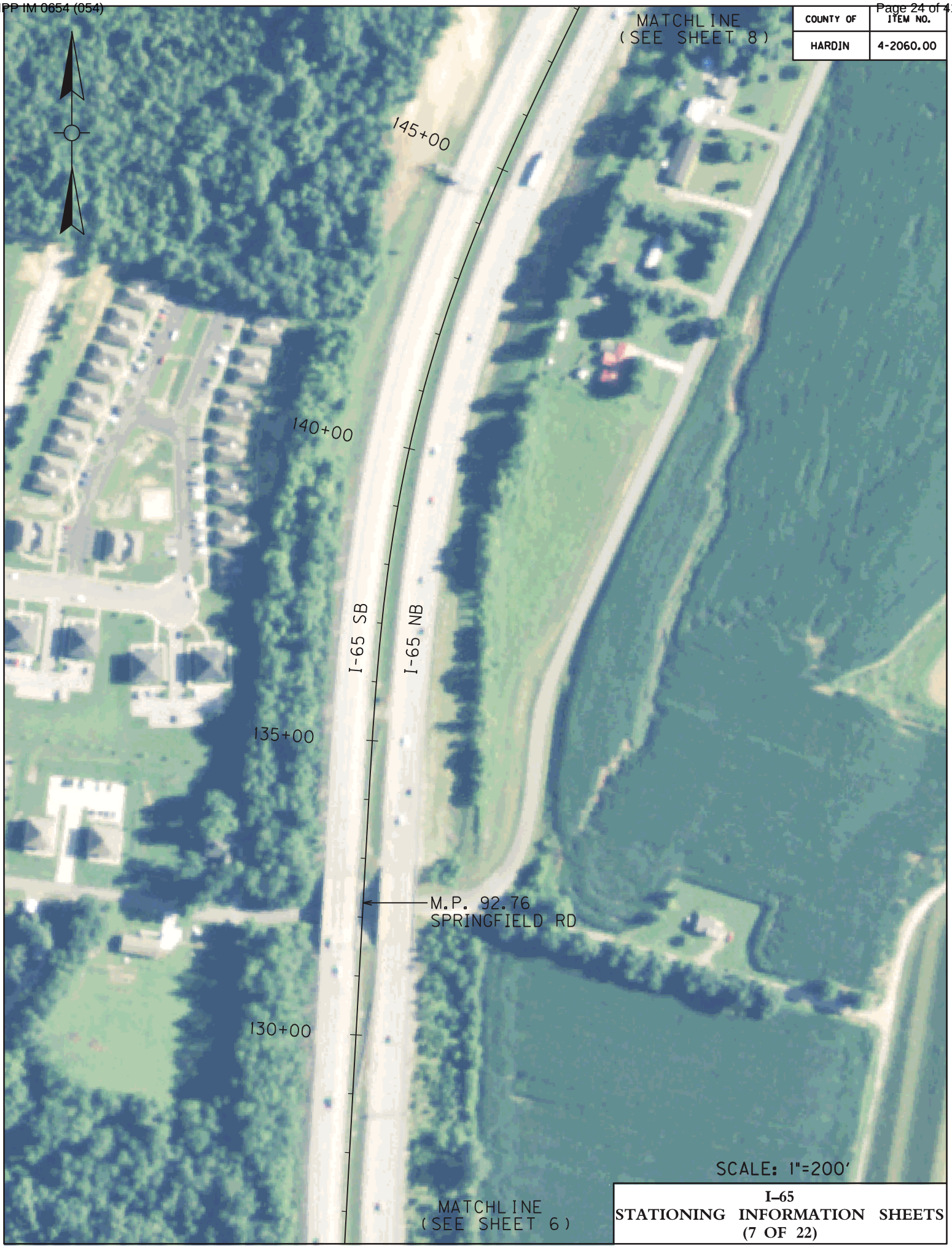

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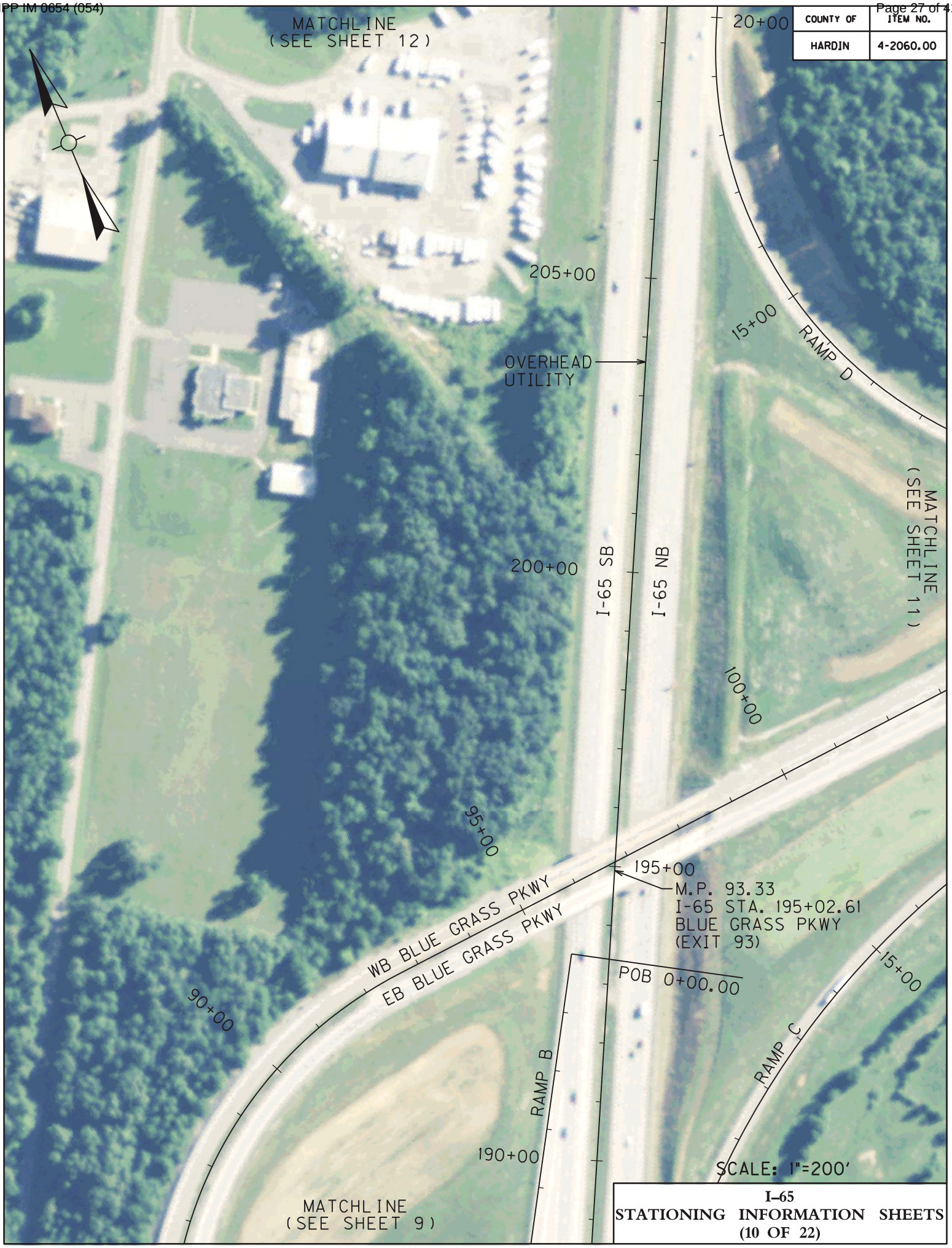

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SCALE: 1"=200'

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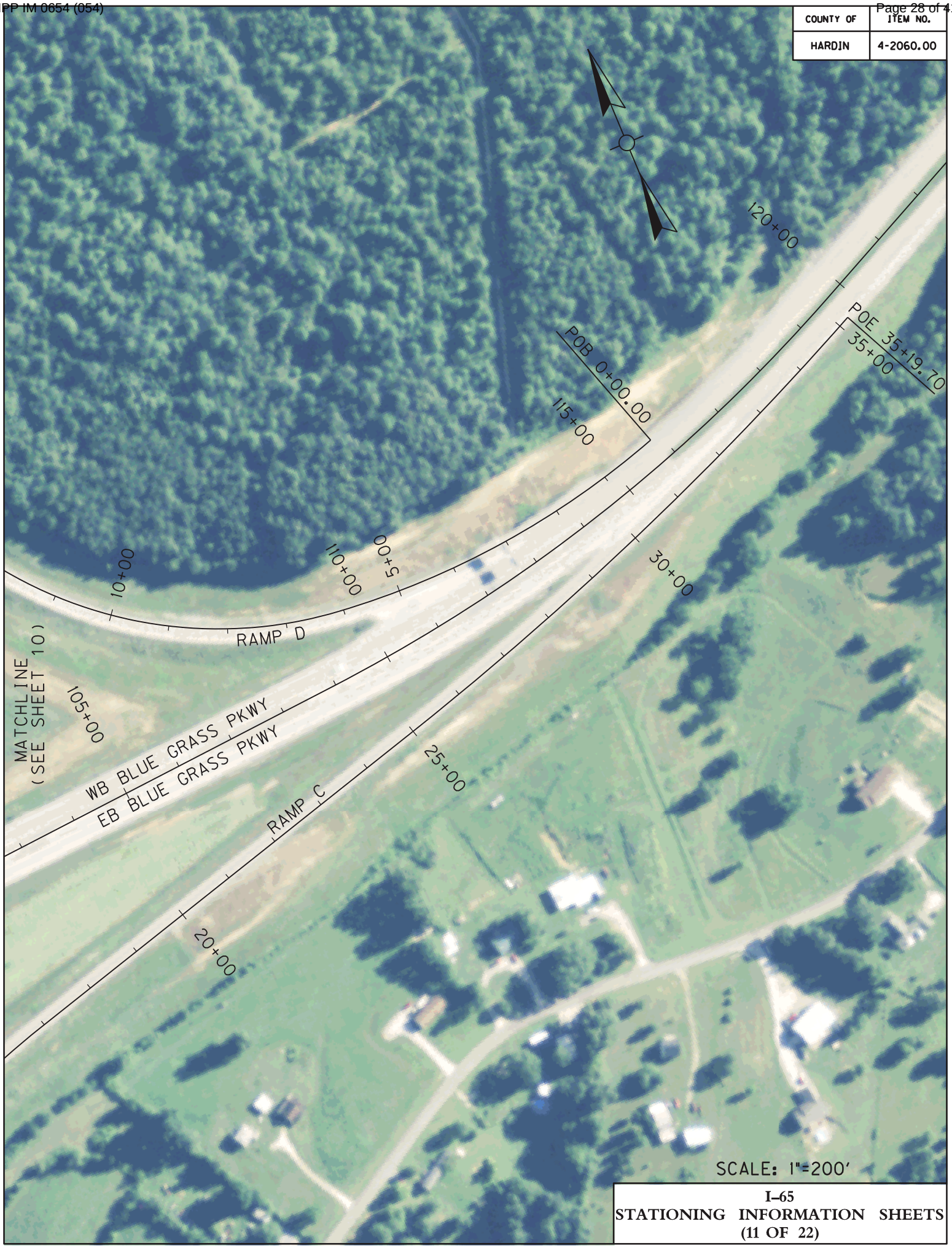

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STATIONING INFORMATION SHEETS
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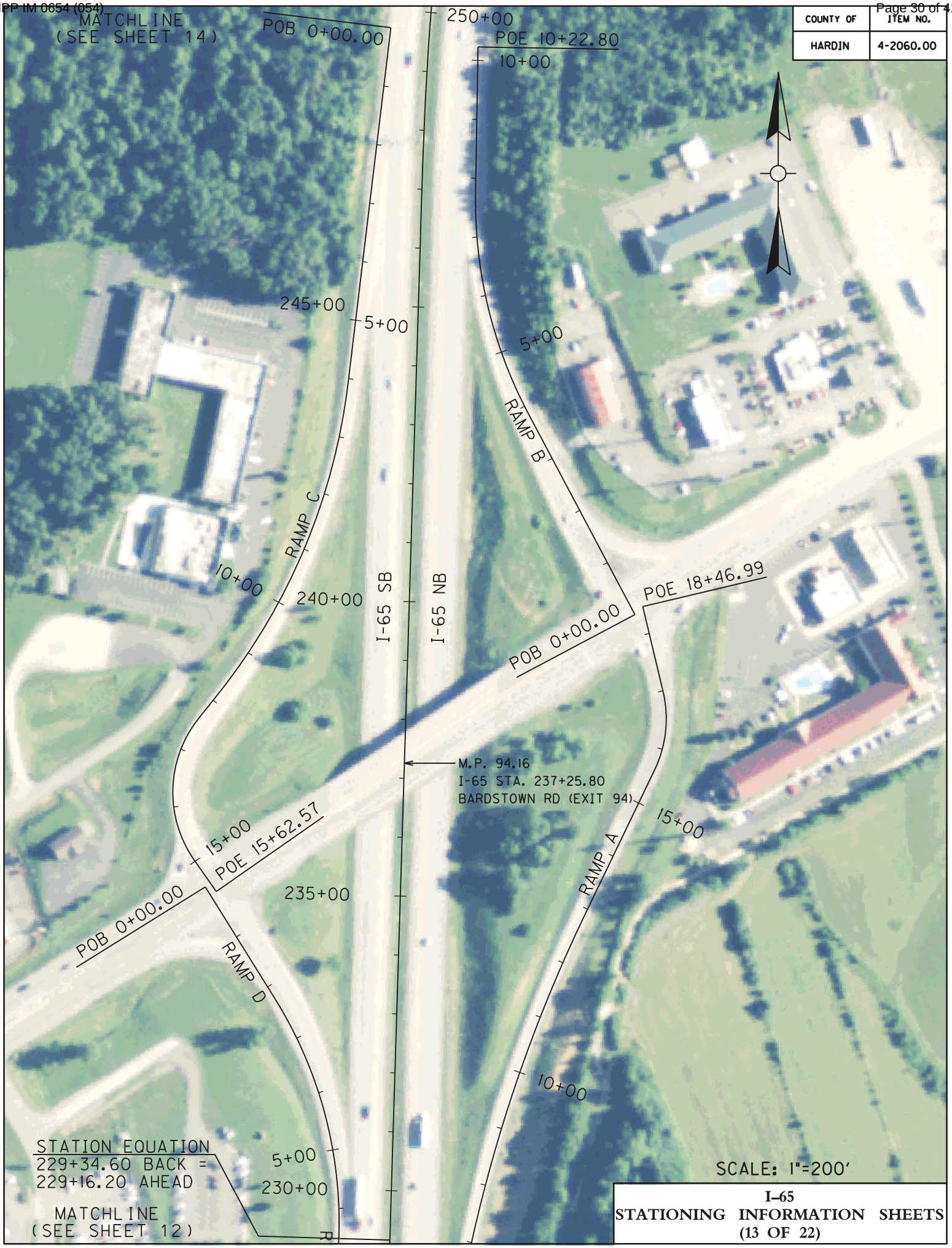
COUNTY OF
HARDIN
ITEM NO.
4-2060.00
MATCHLINE
(SEE SHEET 13)
MILE
9
4
5+00
230+00
STATION EQUATION
229+34.60 BACK
229+16.20 AHEAD
RAMP D
5+00
OVERHEAD
UTILITY
POE 8+90.13
OVERHEAD
UTILITY
RAMP A
225+00
POB 0+00.00
I-65 SB
I-65 NB
220+00
215+00
POE 21+26.82
RAMP D
210+00
20+00
MATCHLINE
(SEE SHEET 10)
SCALE: 1"=200'
I–65
STATIONING INFORMATION SHEETS
(12 OF 22)



COUNTY OF	ITEM NO.
HARDIN	4-2060.00

I–65
STATIONING INFORMATION SHEETS
(13 OF 22)

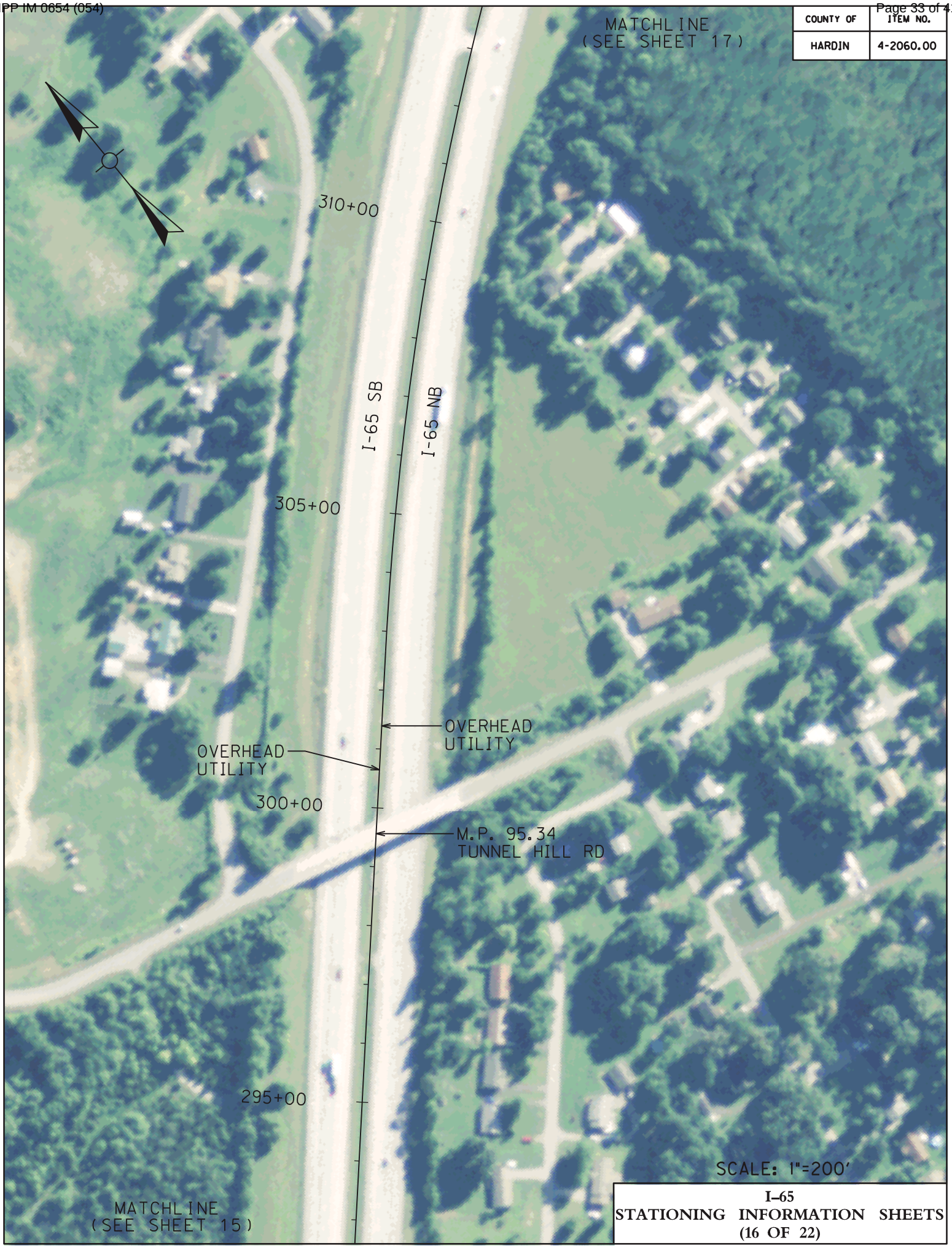
COUNTY OF	ITEM NO.
HARDIN	4-2060.00

I–65
STATIONING INFORMATION SHEETS
(14 OF 22)

COUNTY OF	ITEM NO.
HARDIN	4-2060.00

SCALE: 1"=200'

I–65
STATIONING INFORMATION SHEETS
(15 OF 22)



I–65
STATIONING INFORMATION SHEETS
(16 OF 22)

COUNTY OF	ITEM NO.
HARDIN	4-2060.00

I–65
STATIONING INFORMATION SHEETS
(17 OF 22)

COUNTY OF	ITEM NO.
HARDIN	4-2060.00

SCALE: 1"=200'

I–65
STATIONING INFORMATION SHEETS
(18 OF 22)

COUNTY OF	ITEM NO.
HARDIN	4-2060.00

SCALE: 1"=200'

I–65
STATIONING INFORMATION SHEETS
(19 OF 22)

COUNTY OF	ITEM NO.
HARDIN	4-2060.00

SCALE: 1"=200'

I–65
STATIONING INFORMATION SHEETS
(20 OF 22)

COUNTY OF	ITEM NO.
HARDIN	4-2060.00

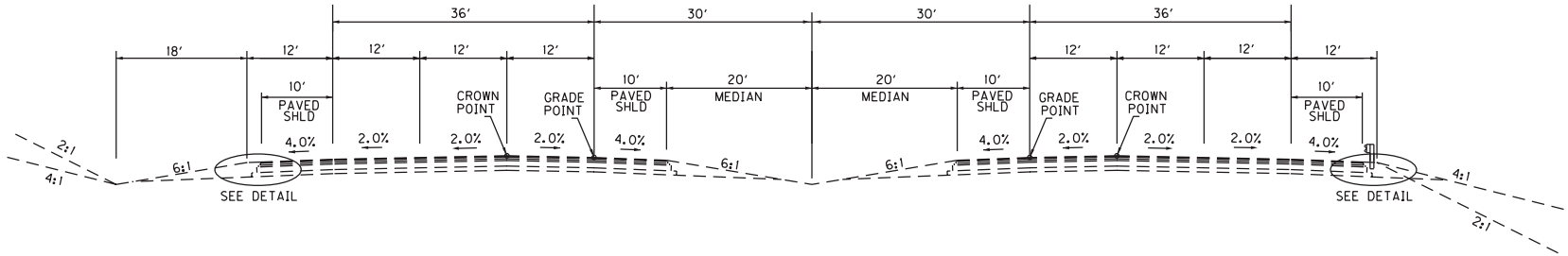
I–65
STATIONING INFORMATION SHEETS
(21 OF 22)

COUNTY OF	ITEM NO.
HARDIN	4-2060.00

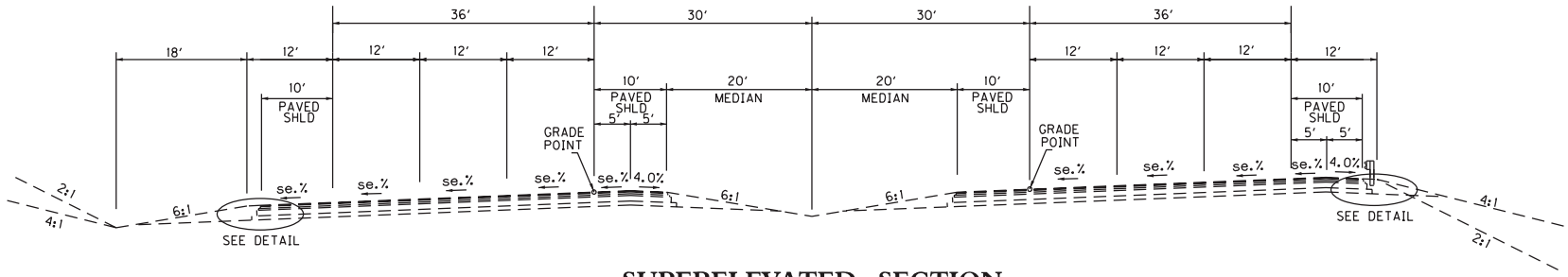
I–65
STATIONING INFORMATION SHEETS
(22 OF 22)

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-2060.00	

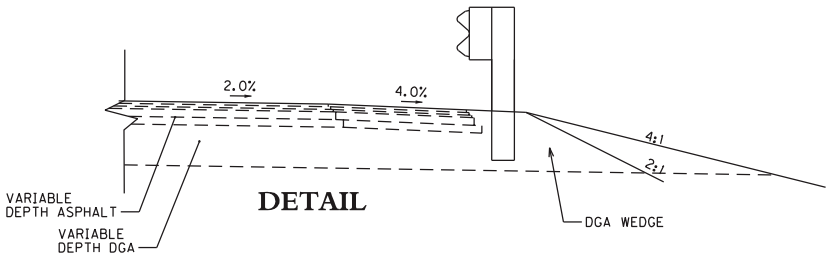
EXISTING TYPICAL SECTIONS
I–65
(6 LANE)



NORMAL SECTION



SUPERELEVATED SECTION



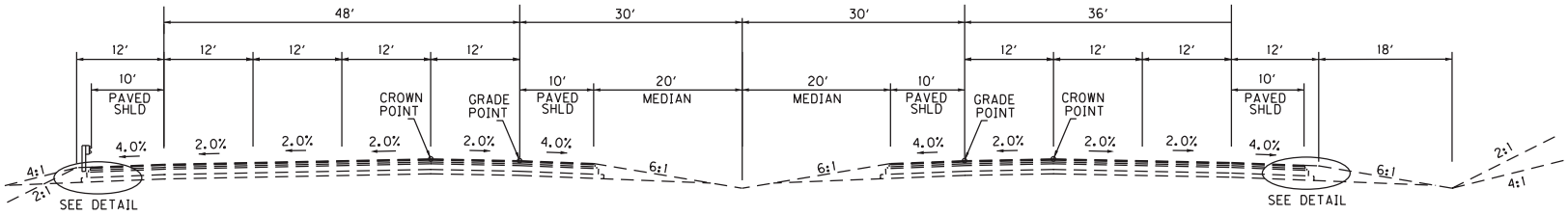
DETAIL

NOT TO SCALE

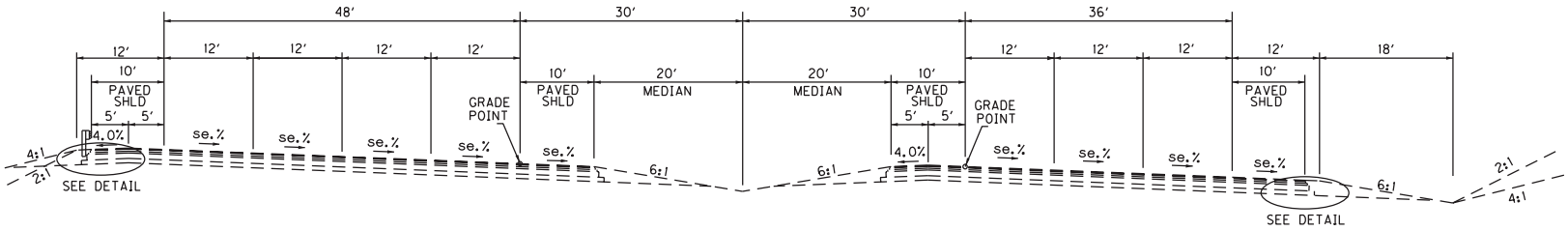
I-65
EXISTING TYPICAL SECTION

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-2060.00	

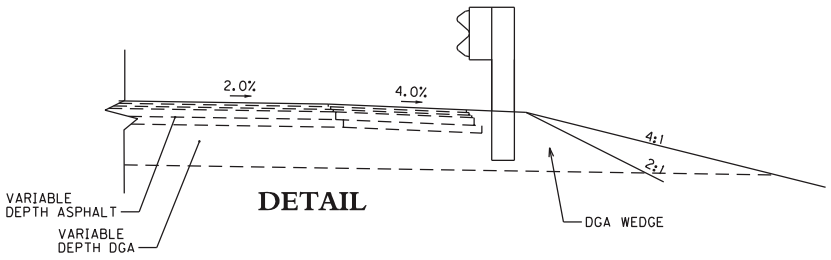
EXISTING TYPICAL SECTIONS
I–65
(6 LANE WITH TRUCK CLIMBING LANE)



NORMAL SECTION



SUPERELEVATED SECTION



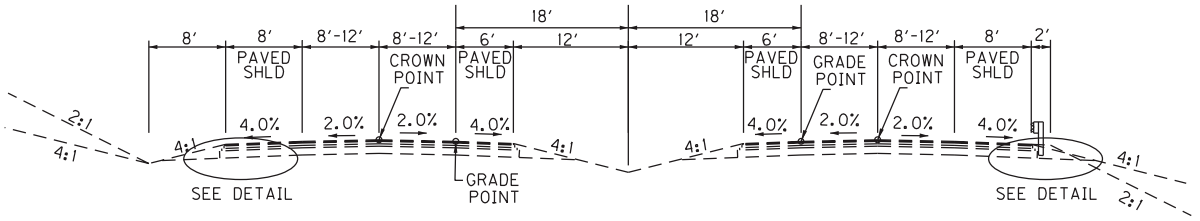
DETAIL

NOT TO SCALE

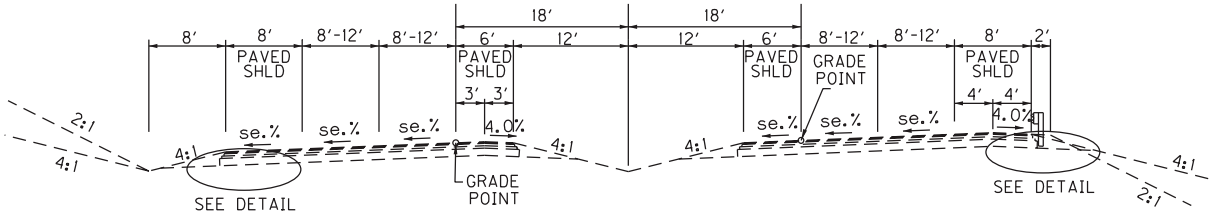
I-65
EXISTING TYPICAL SECTION

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-2060.00	

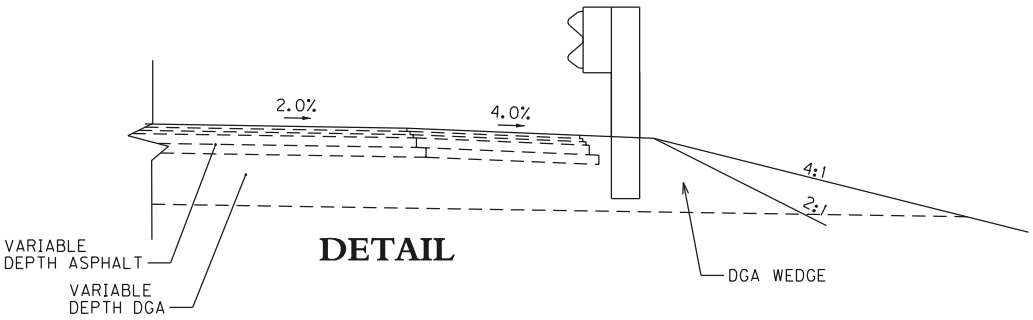
EXISTING TYPICAL SECTIONS
BLUEGRASS PKWY



NORMAL SECTION



SUPERELEVATED SECTION



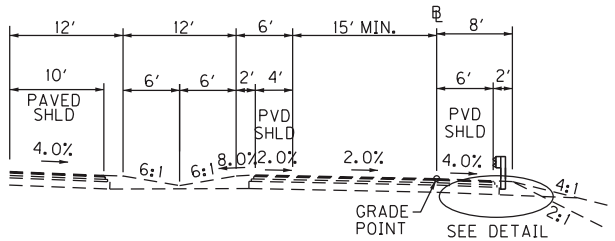
DETAIL

NOT TO SCALE

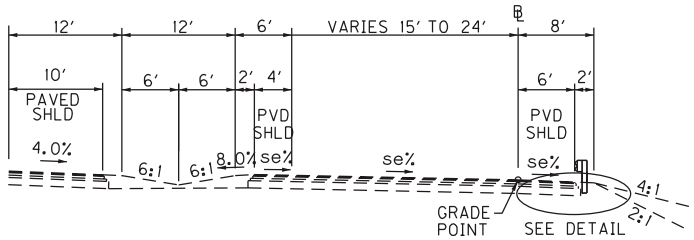
BLUEGRASS PARKWAY
EXISTING TYPICAL SECTIONS

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-2060.00	

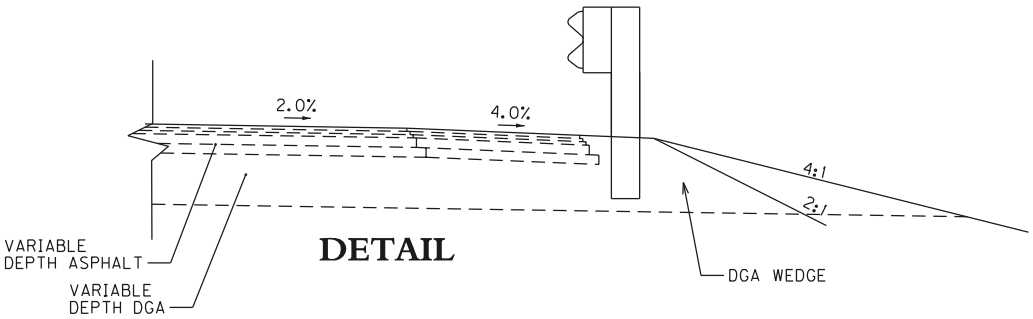
EXISTING TYPICAL SECTIONS
WESTERN KENTUCKY PARKWAY



NORTHBOUND COLLECTOR
NORMAL



NORTHBOUND COLLECTOR
SUPERELEVATED

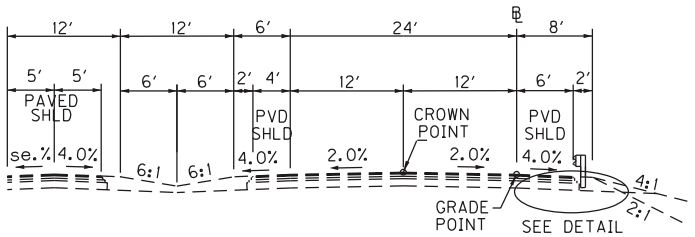


DETAIL

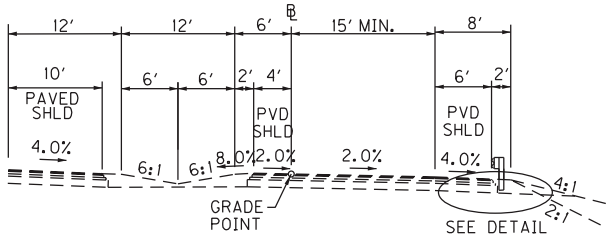
NOT TO SCALE

WESTERN KENTUCKY PARKWAY
EXISTING TYPICAL SECTION

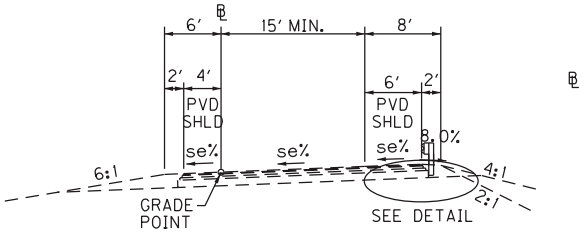
EXISTING TYPICAL SECTIONS
WESTERN KENTUCKY PARKWAY



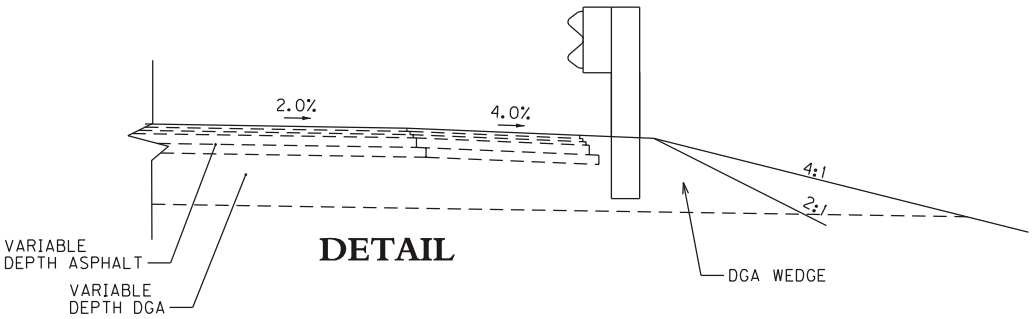
SOUTHBOUND COLLECTOR
2 LANE NORMAL



SOUTHBOUND COLLECTOR
1 LANE NORMAL



SOUTHBOUND COLLECTOR
SUPERELEVATED

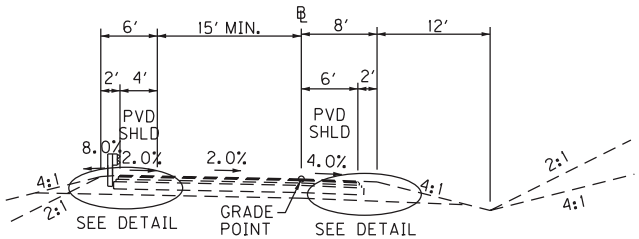


DETAIL

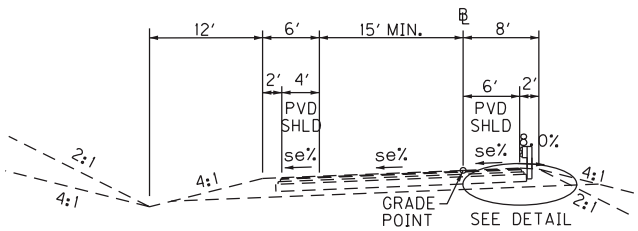
NOT TO SCALE

WESTERN KENTUCKY PARKWAY
EXISTING TYPICAL SECTION

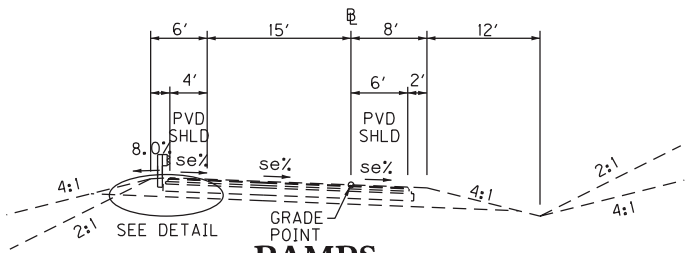
EXISTING TYPICAL SECTIONS
WESTERN KENTUCKY PARKWAY



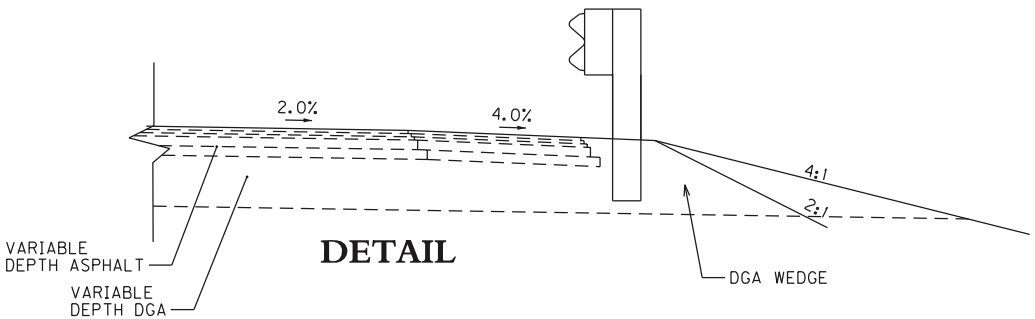
RAMPS
NORMAL



RAMPS
SUPERELEVATED LEFT



RAMPS
SUPERELEVATED RIGHT



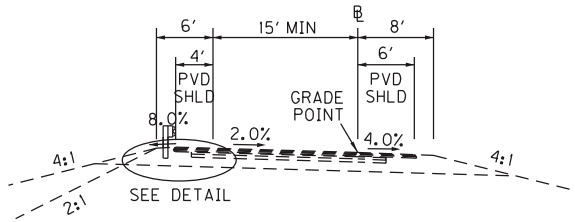
DETAIL

NOT TO SCALE

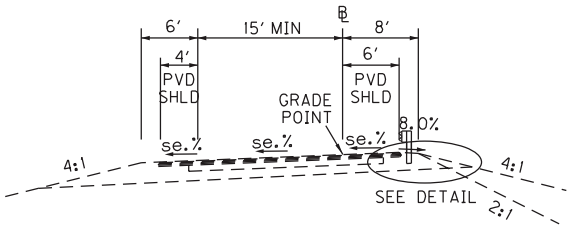
WESTERN KENTUCKY PARKWAY
EXISTING TYPICAL SECTION

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-2060.00	

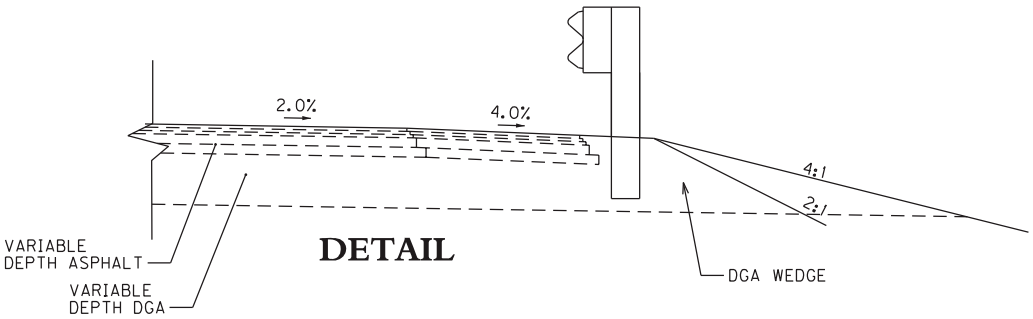
EXISTING TYPICAL SECTIONS
BLUEGRASS PKWY RAMPS



NORMAL SECTION



SUPERELEVATED SECTION



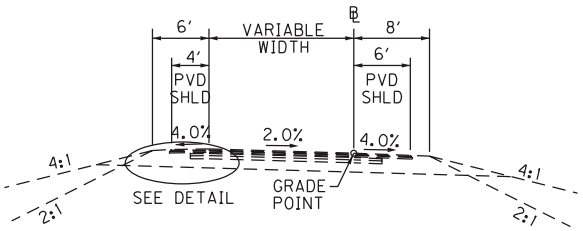
DETAIL

NOT TO SCALE

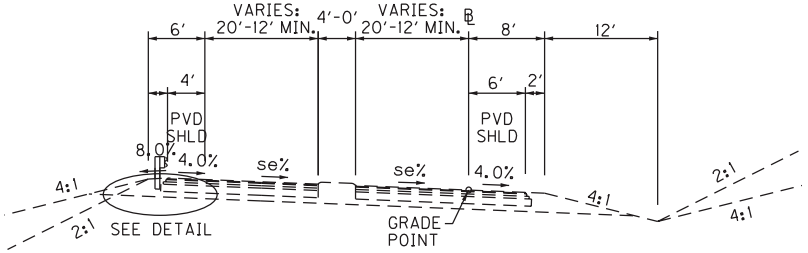
EXISTING TYPICAL BLUEGRASS PARKWAY RAMP SECTIONS

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-2060.00	

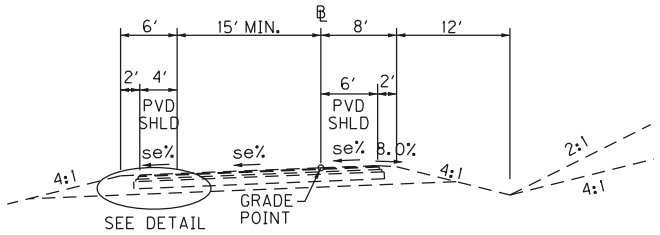
EXISTING TYPICAL SECTIONS
US 62 RAMPS



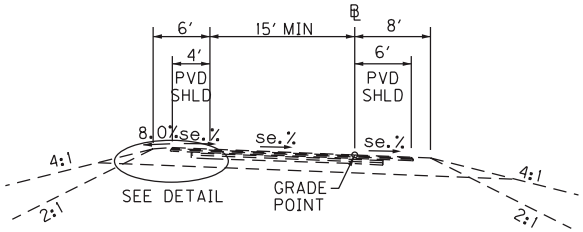
NORMAL SECTION



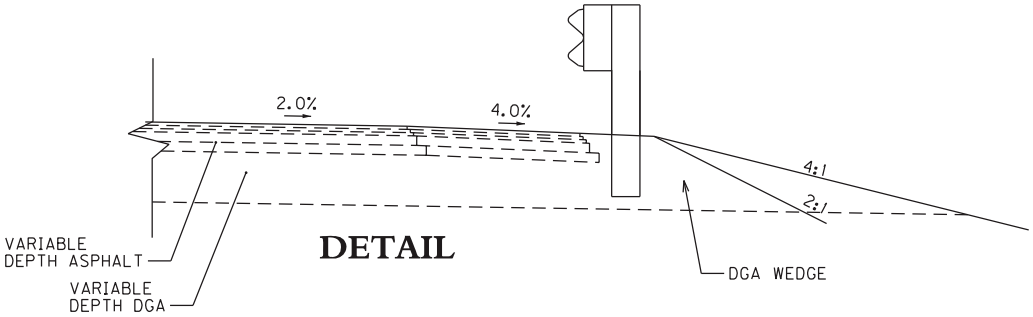
SUPERELEVATED SECTION WITH MOUNTABLE MEDIAN



SUPERELEVATED LEFT



SUPERELEVATED RIGHT

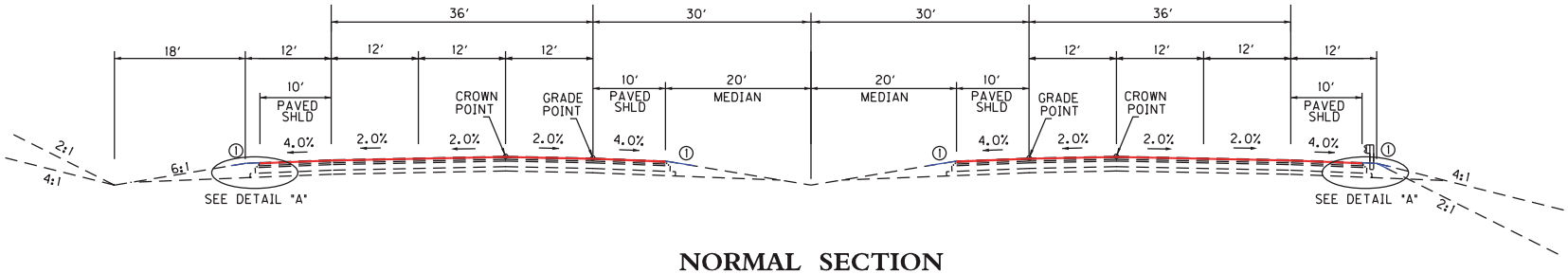


DETAIL

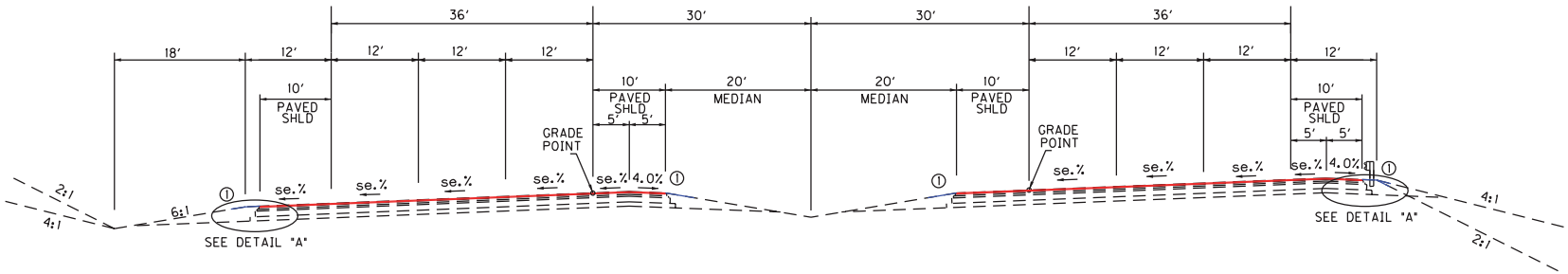
NOT TO SCALE

EXISTING TYPICAL
US 62 RAMP SECTIONS

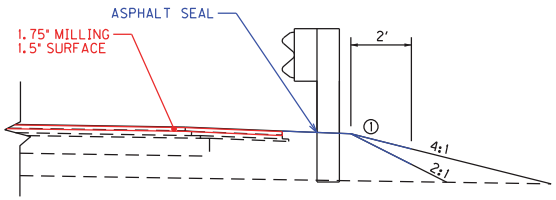
PROPOSED TYPICAL SECTIONS
I–65
(6 LANE)
MP 91.37 – MP 94.01



NORMAL SECTION



SUPERELEVATED SECTION



DETAIL A

① ASPHALT SEAL IS REQUIRED FROM OUTSIDE EDGE OF PAVED SHOULDER TO A POINT 2' DOWN THE DITCH OR FILL SLOPE, TWO APPLICATIONS OF THE FOLLOWING:

ASPHALT SEAL AGGREGATE - 20 LB/SY
ASPHALT SEAL COAT - 2.4 LB/SY

PAVEMENT REHABILITATION

DRIVING LANES

1.75" ASPHALT MILLING
SURFACE -- 1.5" CL4 ASPHALT SURFACE 0.38A PG76-22

INSIDE AND OUTSIDE SHOULDERS

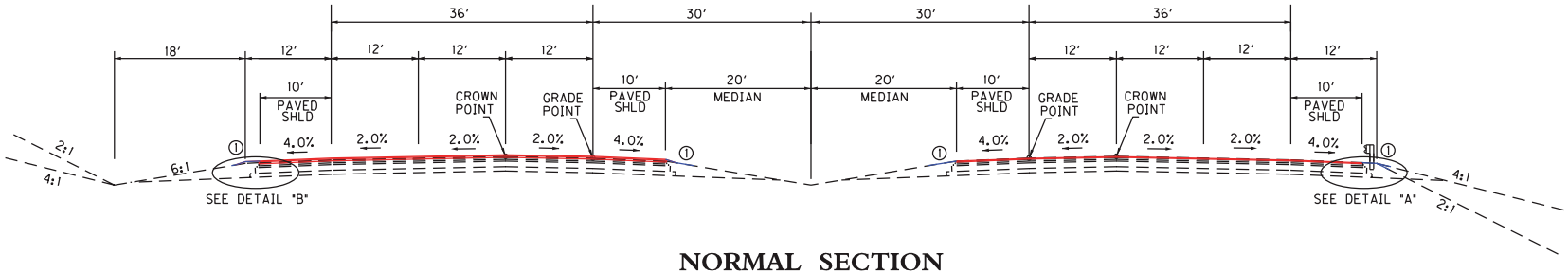
1.75" ASPHALT MILLING
SURFACE -- 1.5" CL3 ASPHALT SURFACE 0.38D PG64-22

NOT TO SCALE

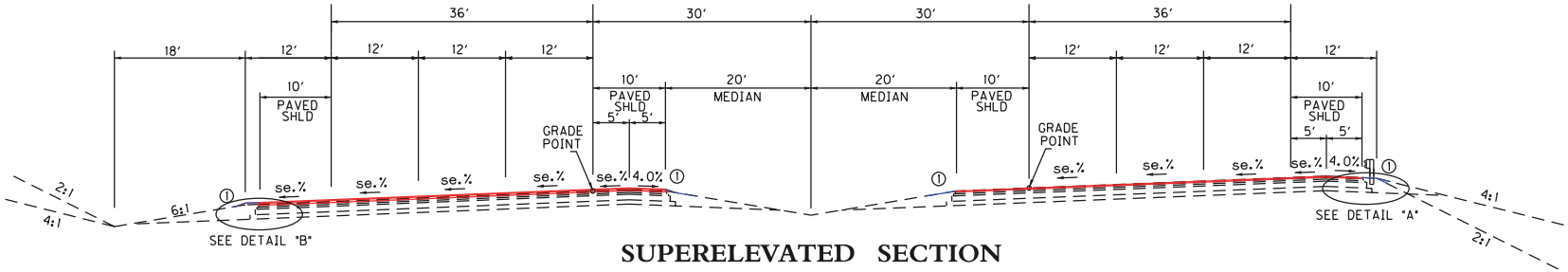
I-65
PROPOSED TYPICAL SECTION

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-2060.00	

PROPOSED TYPICAL SECTIONS
I–65
(6 LANE)
MP 94.01 – MP 95.12



NORMAL SECTION



SUPERELEVATED SECTION

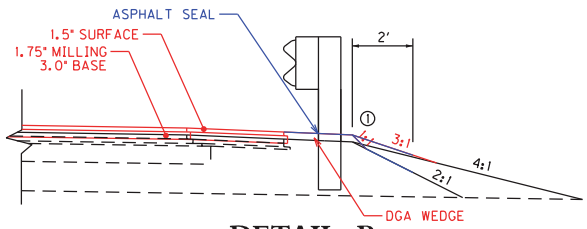
PAVEMENT REHABILITATION (SOUTHBOUND)

DRIVING LANES

1.75" ASPHALT MILLING
SURFACE -- 1.5" CL4 ASPHALT SURFACE 0.38A PG76-22
BASE -- 3.0" CL4 ASPHALT BASE 1.0D PG76-22

INSIDE AND OUTSIDE SHOULDERS

1.75" ASPHALT MILLING
SURFACE -- 1.5" CL3 ASPHALT SURFACE 0.38D PG64-22
BASE -- 3.0" CL3 ASPHALT BASE 1.0D PG64-22



DETAIL B

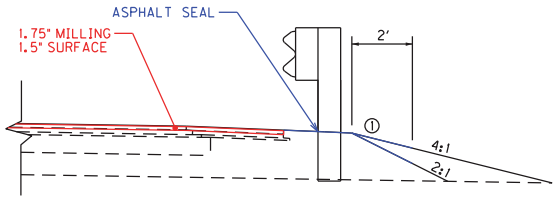
PAVEMENT REHABILITATION (NORTHBOUND)

DRIVING LANES

1.75" ASPHALT MILLING
SURFACE -- 1.5" CL4 ASPHALT SURFACE 0.38A PG76-22

INSIDE AND OUTSIDE SHOULDERS

1.75" ASPHALT MILLING
SURFACE -- 1.5" CL3 ASPHALT SURFACE 0.38D PG64-22



DETAIL A

① ASPHALT SEAL IS REQUIRED FROM OUTSIDE EDGE OF PAVED SHOULDER TO A POINT 2' DOWN THE DITCH OR FILL SLOPE. TWO APPLICATIONS OF THE FOLLOWING:

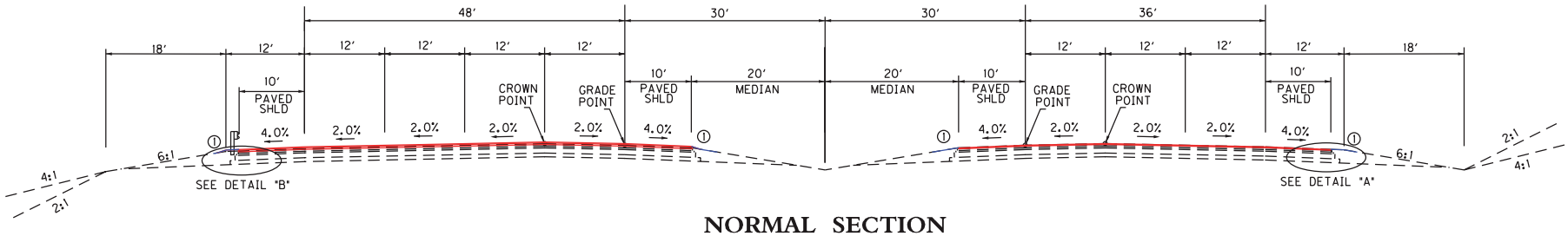
ASPHALT SEAL AGGREGATE - 20 LB/SY
ASPHALT SEAL COAT - 2.4 LB/SY

NOT TO SCALE

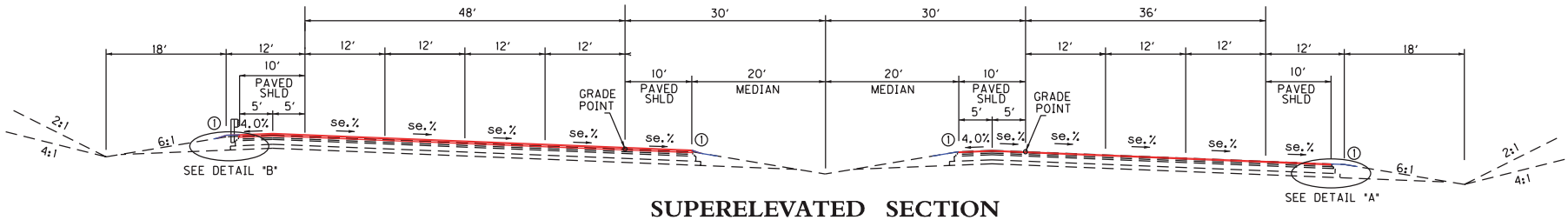
I-65
PROPOSED TYPICAL SECTION

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-2060.00	

PROPOSED TYPICAL SECTIONS
I–65
(6 LANE WITH TRUCK CLIMBING LANE)
MP 95.12 – MP 97.61



NORMAL SECTION



SUPERELEVATED SECTION

PAVEMENT REHABILITATION (SOUTHBOUND)

DRIVING LANES

1.75" ASPHALT MILLING
SURFACE -- 1.5" CL4 ASPHALT SURFACE 0.38A PG76-22
BASE -- 3.0" CL4 ASPHALT BASE 1.0D PG76-22

INSIDE AND OUTSIDE SHOULDERS

1.75" ASPHALT MILLING
SURFACE -- 1.5" CL3 ASPHALT SURFACE 0.38D PG64-22
BASE -- 3.0" CL3 ASPHALT BASE 1.0D PG64-22

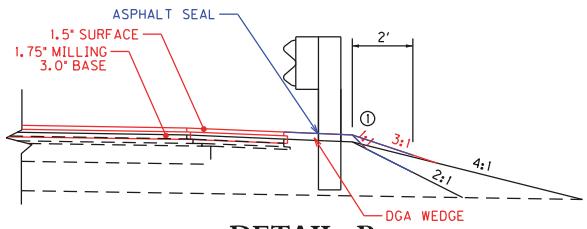
PAVEMENT REHABILITATION (NORTHBOUND)

DRIVING LANES

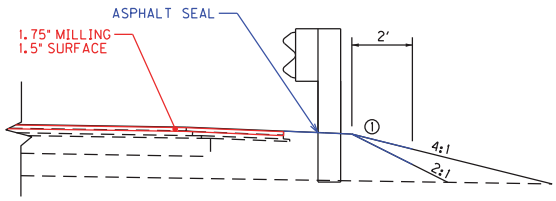
1.75" ASPHALT MILLING
SURFACE -- 1.5" CL4 ASPHALT SURFACE 0.38A PG76-22

INSIDE AND OUTSIDE SHOULDERS

1.75" ASPHALT MILLING
SURFACE -- 1.5" CL3 ASPHALT SURFACE 0.38D PG64-22



DETAIL B



DETAIL A

① ASPHALT SEAL IS REQUIRED FROM OUTSIDE EDGE OF PAVED SHOULDER TO A POINT 2' DOWN THE DITCH OR FILL SLOPE. TWO APPLICATIONS OF THE FOLLOWING:

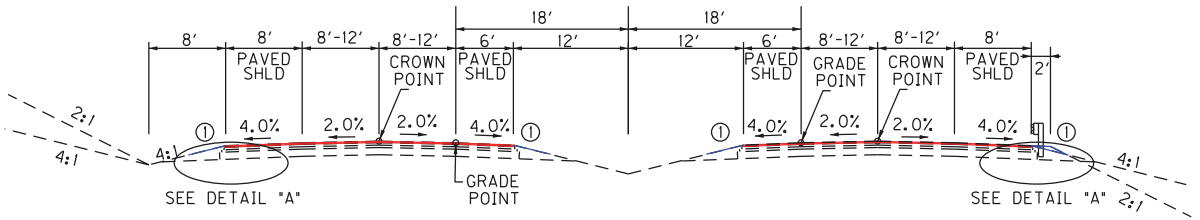
ASPHALT SEAL AGGREGATE - 20 LB/SY
ASPHALT SEAL COAT - 2.4 LB/SY

NOT TO SCALE

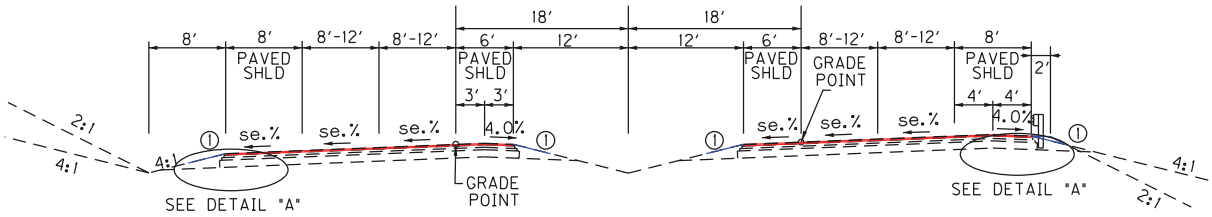
I-65
PROPOSED TYPICAL SECTION

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-2060.00	

PROPOSED TYPICAL SECTIONS
BLUEGRASS PKWY



NORMAL SECTION



SUPERELEVATED SECTION

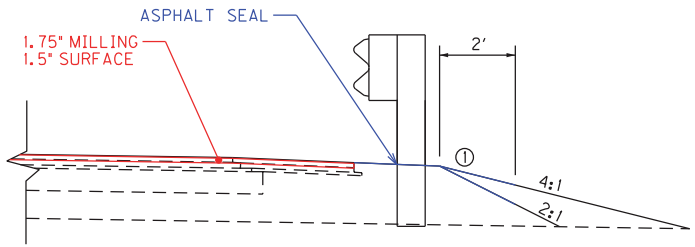
PAVEMENT REHABILITATION

DRIVING LANES

1.75" ASPHALT MILLING
SURFACE -- 1.5" CL4 ASPHALT SURFACE 0.38A PG76-22

INSIDE AND OUTSIDE SHOULDERS

1.75" ASPHALT MILLING
SURFACE -- 1.5" CL3 ASPHALT SURFACE 0.38D PG64-22



DETAIL A

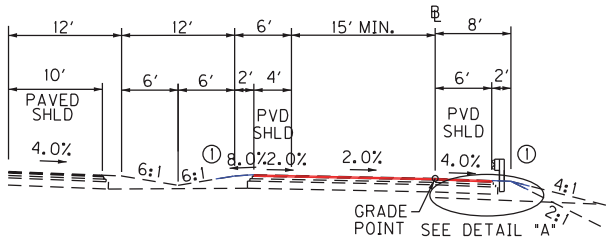
① ASPHALT SEAL IS REQUIRED FROM OUTSIDE EDGE OF PAVED SHOULDER TO A POINT 2' DOWN THE DITCH OR FILL SLOPE, TWO APPLICATIONS OF THE FOLLOWING:

ASPHALT SEAL AGGREGATE - 20 LB/SY
ASPHALT SEAL COAT - 2.4 LB/SY

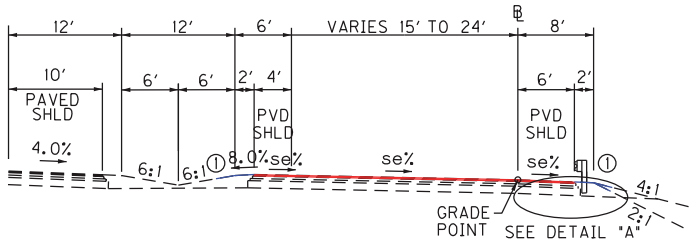
NOT TO SCALE

BLUEGRASS PARKWAY
PROPOSED TYPICAL SECTIONS

PROPOSED TYPICAL SECTIONS
WESTERN KENTUCKY PARKWAY



NORTHBOUND COLLECTOR
NORMAL



NORTHBOUND COLLECTOR
SUPERELEVATED

PAVEMENT REHABILITATION

DRIVING LANES

1.75" ASPHALT MILLING
SURFACE -- 1.5" CL4 ASPHALT SURFACE 0.38A PG76-22

INSIDE AND OUTSIDE SHOULDERS

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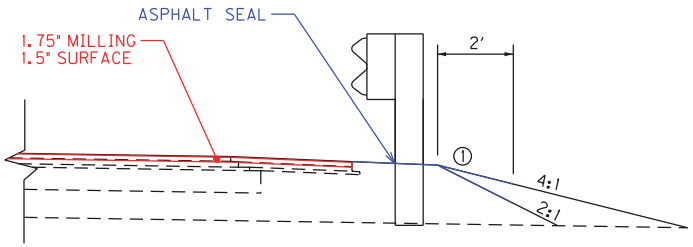
SURFACE -- 1.5" CL3 ASPHALT SURFACE 0.38D PG64-22



DETAIL A

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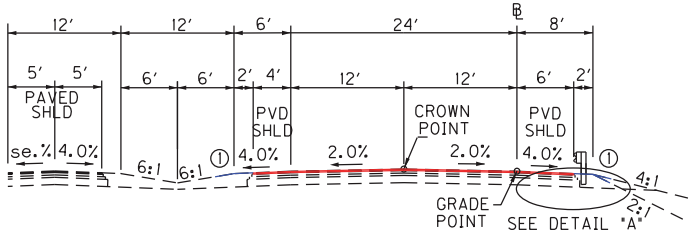
ASPHALT SEAL AGGREGATE - 20 LB/SY
ASPHALT SEAL COAT - 2.4 LB/SY

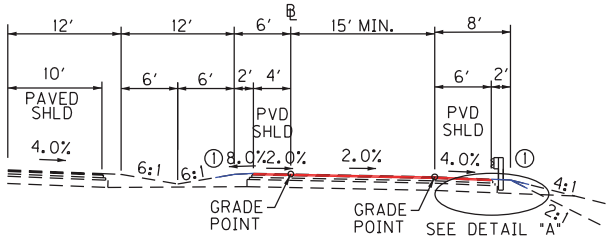
NOT TO SCALE

WESTERN KENTUCKY PARKWAY
PROPOSED TYPICAL SECTION

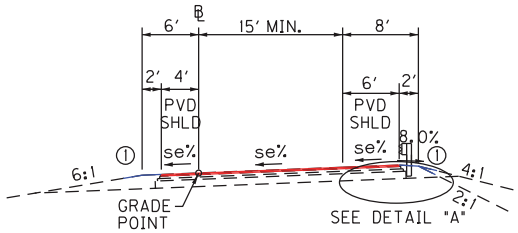
PROPOSED TYPICAL SECTIONS
WESTERN KENTUCKY PARKWAY



SOUTHBOUND COLLECTOR
2 LANE NORMAL



SOUTHBOUND COLLECTOR
1 LANE NORMAL



SOUTHBOUND COLLECTOR
SUPERELEVATED

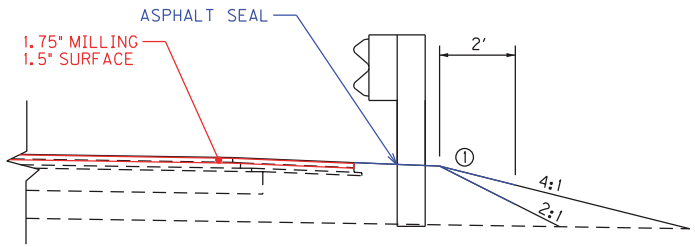
PAVEMENT REHABILITATION

DRIVING LANES

1.75" ASPHALT MILLING
SURFACE -- 1.5" CL4 ASPHALT SURFACE 0.38A PG76-22

INSIDE AND OUTSIDE SHOULDERS

1.75" ASPHALT MILLING
SURFACE -- 1.5" CL3 ASPHALT SURFACE 0.38D PG64-22



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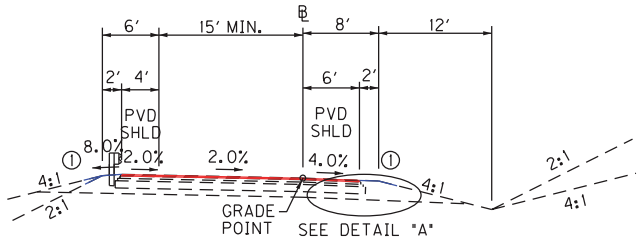
ASPHALT SEAL COAT - 2.4 LB/SY

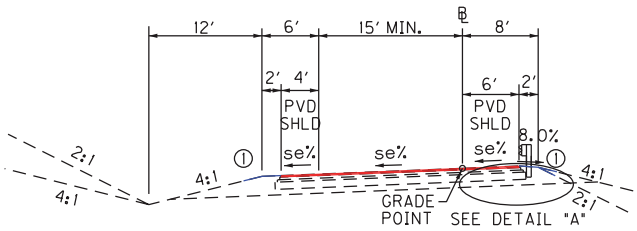
NOT TO SCALE

WESTERN KENTUCKY PARKWAY
PROPOSED TYPICAL SECTION

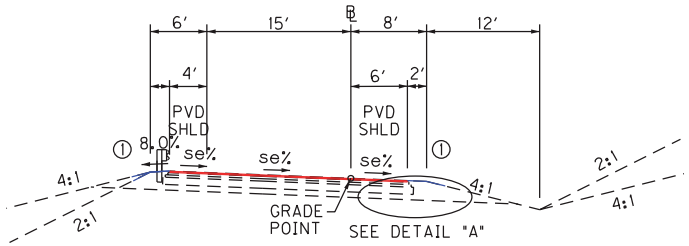
PROPOSED TYPICAL SECTIONS
WESTERN KENTUCKY PARKWAY



RAMPS
NORMAL



RAMPS
SUPERELEVATED LEFT



RAMPS
SUPERELEVATED RIGHT

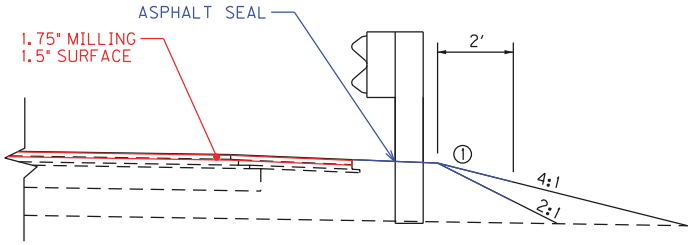
PAVEMENT REHABILITATION

DRIVING LANES

1.75" ASPHALT MILLING
SURFACE -- 1.5" CL4 ASPHALT SURFACE 0.38A PG76-22

INSIDE AND OUTSIDE SHOULDERS

1.75" ASPHALT MILLING
SURFACE -- 1.5" CL3 ASPHALT SURFACE 0.38D PG64-22



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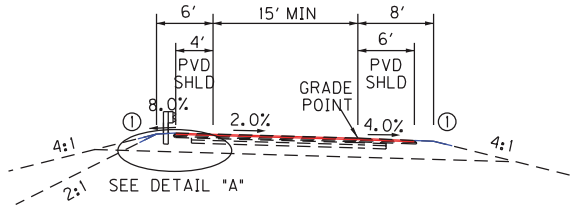
ASPHALT SEAL COAT - 2.4 LB/SY

NOT TO SCALE

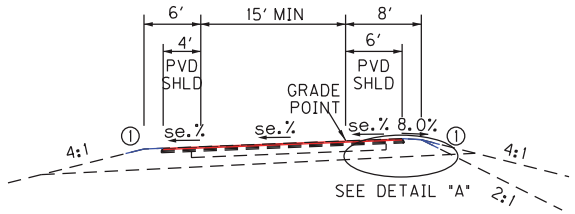
WESTERN KENTUCKY PARKWAY
PROPOSED TYPICAL SECTION

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-2060.00	

PROPOSED TYPICAL SECTIONS
BLUEGRASS PKWY RAMPS



NORMAL SECTION



SUPERELEVATED SECTION

PAVEMENT REHABILITATION

DRIVING LANES

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SURFACE -- 1.5" CL4 ASPHALT SURFACE 0.38A PG76-22

INSIDE AND OUTSIDE SHOULDERS

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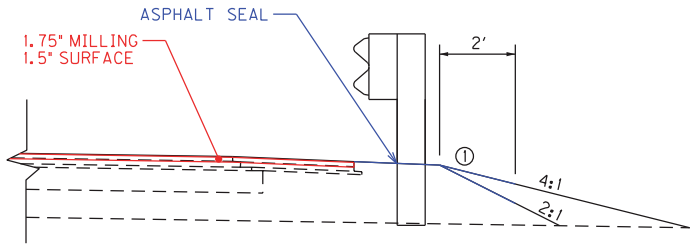

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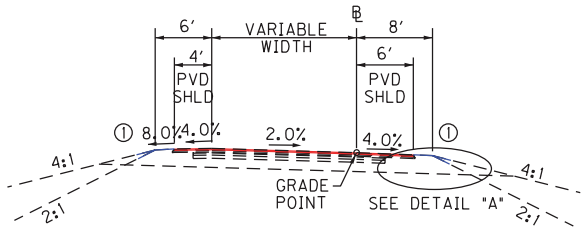
ASPHALT SEAL COAT - 2.4 LB/SY

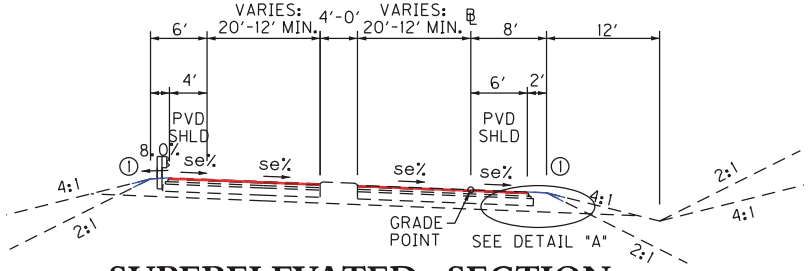
NOT TO SCALE

PROPOSED TYPICAL BLUEGRASS PARKWAY RAMP SECTIONS

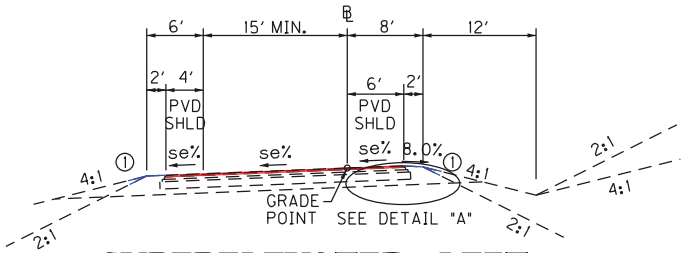
PROPOSED TYPICAL SECTIONS
US 62 RAMPS



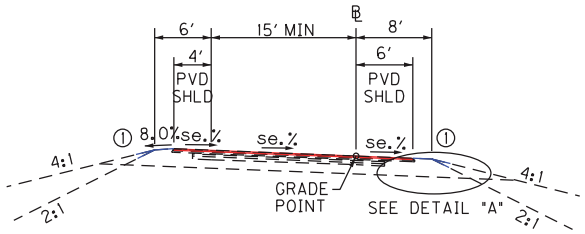
NORMAL SECTION



SUPERELEVATED SECTION WITH MOUNTABLE MEDIAN



SUPERELEVATED LEFT



SUPERELEVATED RIGHT

PAVEMENT REHABILITATION

DRIVING LANES

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SURFACE -- 1.5" CL4 ASPHALT SURFACE 0.38A PG76-22

INSIDE AND OUTSIDE SHOULDERS

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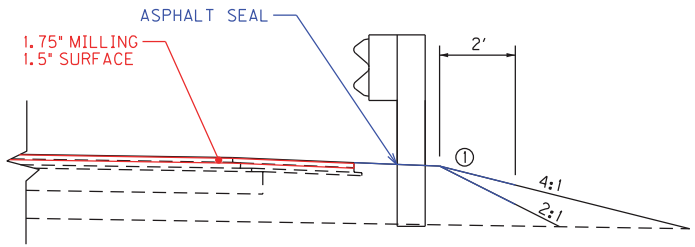

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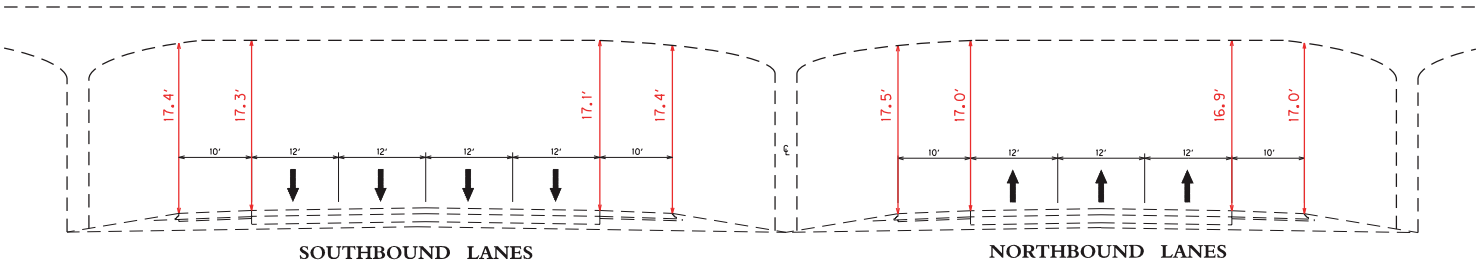
ASPHALT SEAL AGGREGATE - 20 LB/SY
ASPHALT SEAL COAT - 2.4 LB/SY

NOT TO SCALE

PROPOSED TYPICAL
US 62 RAMP SECTIONS

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-2060.00	

EXISTING BRIDGE CLEARANCE
TUNNEL HILL ROAD BRIDGE – M.P. 95.34

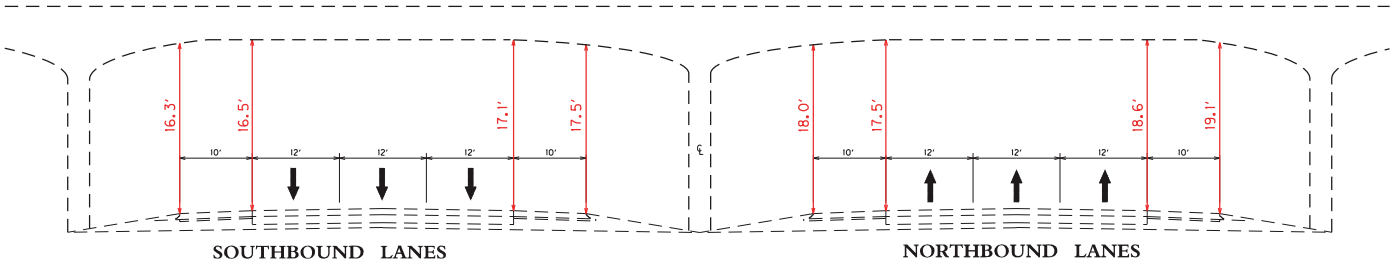


NOT TO SCALE

I-65
EXISTING BRIDGE TYPICAL SECTION

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-2060.00	

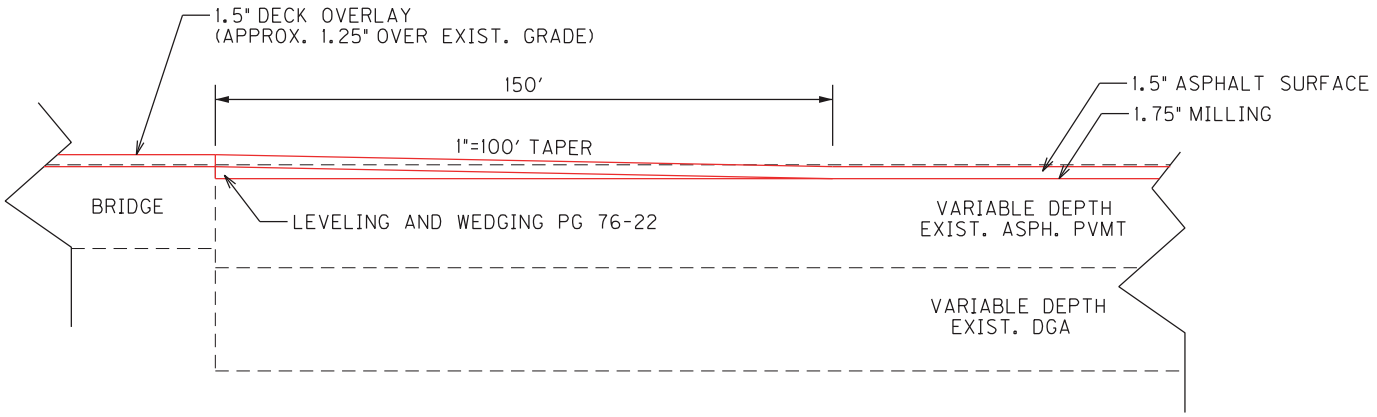
EXISTING BRIDGE CLEARANCE
US 62 BRIDGE OVERPASS – M.P. 94.16



NOT TO SCALE

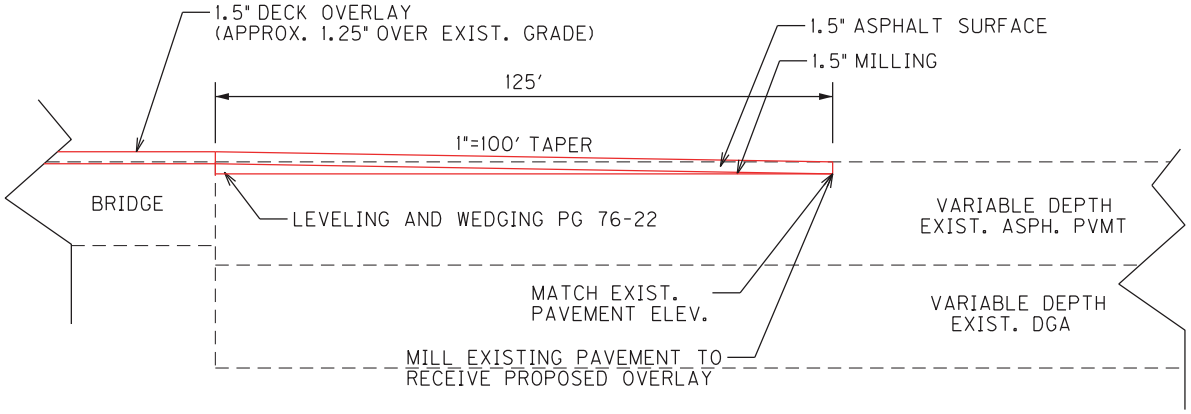
I-65
EXISTING BRIDGE TYPICAL SECTION

COUNTY OF	ITEM NO.
HARDIN	4-2060.00



TAPERING AT PROPOSED BRIDGE OVERLAYS

-NORTH END OF ALL I-65 BRIDGES OVER E. DIXIE ROAD
-BOTH I-65 BRIDGES OVER HAWKINS DRIVE
-BOTH I-65 BRIDGES OVER SPRINGFIELD ROAD
-BOTH BLUEGRASS PARKWAY BRIDGES OVER I-65

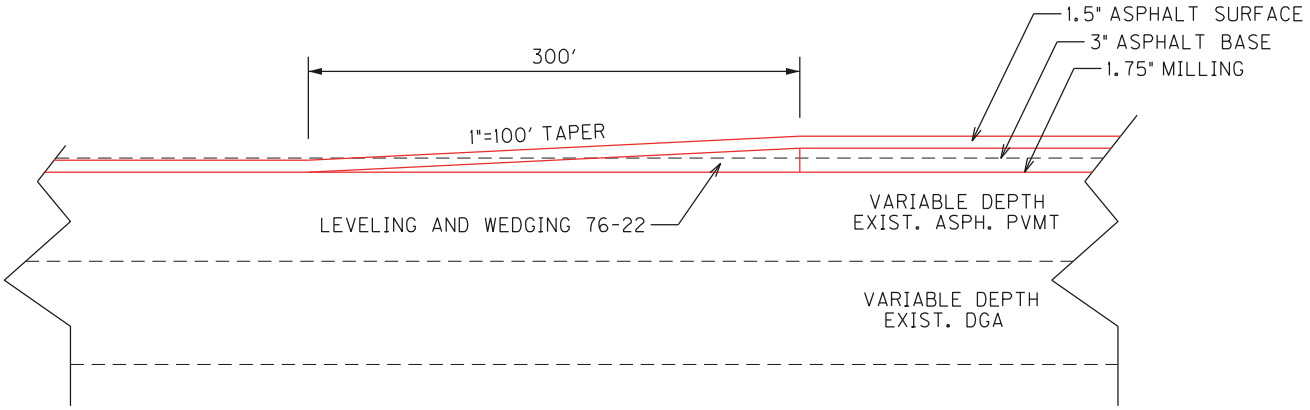


TAPERING AT PROPOSED BRIDGE OVERLAYS AT PROJECT END

-SOUTH END OF ALL I-65 BRIDGES OVER E. DIXIE ROAD

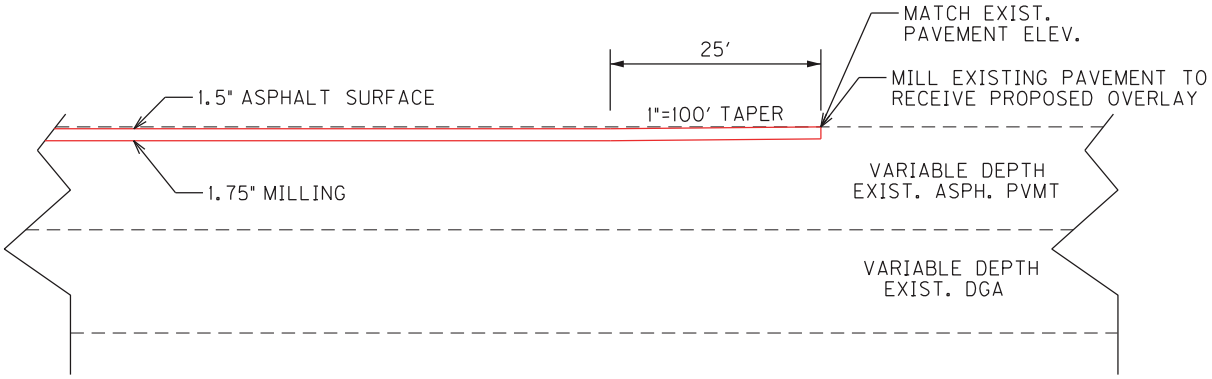
I-65
DETAIL SHEET

COUNTY OF	ITEM NO.
HARDIN	4-2060.00



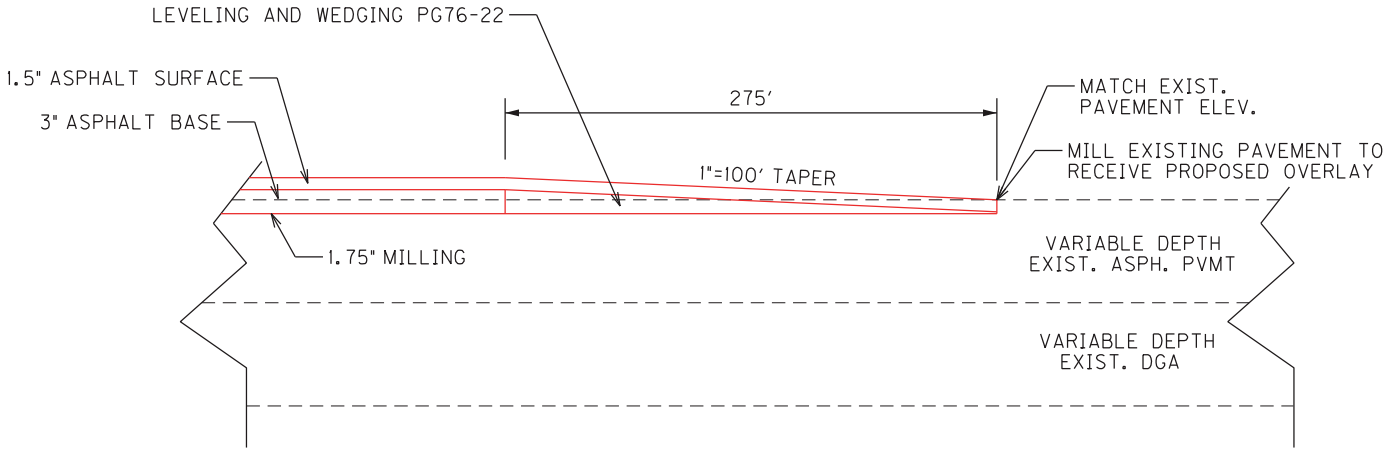
TAPERING OF ASPHALT BASE LAYER

-AT I-65 SOUTHBOUND LANE MP 94.04



TAPERING OF OVERLAY AT PROJECT END

-AT NORTH END OF THE I-65 NORTHBOUND LANE MP 97.50
-AT RAMP ENDS MEETING EXISTING PAVEMENT



TAPERING OF OVERLAY AT PROJECT END

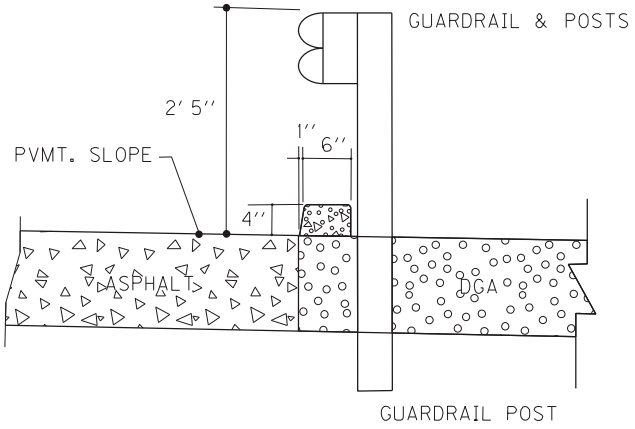
-AT NORTH END OF THE I-65 SOUTHBOUND LANE MP 97.50

I-65
DETAIL SHEET

COUNTY OF	ITEM NO.
HARDIN	4-2060.00

CROSS SECTION VIEW

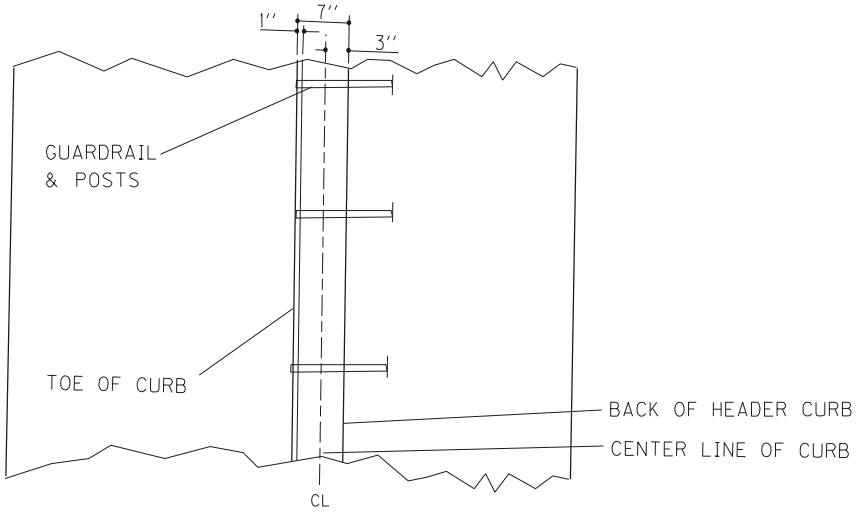
SPECIAL CONCRETE HEADER CURB



NOT TO SCALE

PLAN VIEW

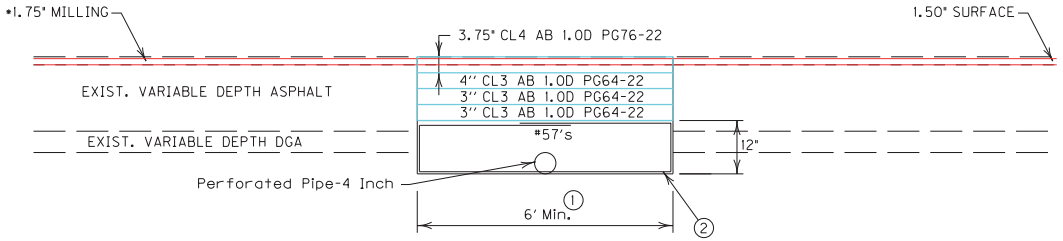
SPECIAL CONCRETE HEADER CURB



NOT TO SCALE

DETAIL SHEET

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-2060.00	



MAJOR PAVEMENT REPAIR DETAIL

HARDIN COUNTY

(1) APPROXIMATE LOCATIONS ARE NOTED IN THE PROPOSAL. SPECIFIC LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD. BEFORE REMOVAL OF THE EXISTING MATERIAL, SAW CUTS SHALL BE MADE ON EACH SIDE OF THE AREA TO BE REMOVED. THIS OPERATION SHALL BE PERFORMED ON THE OUTSIDE SHOULDER AND DRIVING LANES WHERE DIRECTED.

AFTER ALL EXISTING MATERIAL HAS BEEN REMOVED THEN EACH COURSE OF BACKFILL MATERIAL SHALL BE COMPACTED TO THE PROPER DENSITY FOR THE MATERIAL BEING PLACED AS REQUIRED IN THE STANDARD SPECIFICATIONS. THE 4" PERFORATED PIPE SHALL NOT BE WRAPPED AND ONLY COARSE AGGREGATE SHALL BE USED.

THE CONTRACT UNIT BID PRICE PER SQ YD FOR PAVEMENT REPAIR (MAJOR) SHALL INCLUDE ROADWAY EXCAVATION, REMOVING PAVEMENT, SAW CUTTING, PERFORATED PIPE-4 INCH, CRUSHED AGGREGATE SIZE NO. 57, ASPHALT BASE, FABRIC-GEOTEXTILE TYPE IV AND ALL INCIDENTALS NECESSARY TO COMPLETE THE INSTALLATION AS DETAILED.

PLACE THE PERFORATED PIPE AT THE LOW POINT OF THE DIGOUT.

THE NON-PERFORATED OUTLET PIPE AND HEADWALL WILL BE PAID FOR SEPARATELY. ANY EXCAVATION OR BACKFILL REQUIRED WILL BE INCIDENTAL TO THE LENGTH OF NON-PERFORATED PIPE.

TRAFFIC SHALL BE ALLOWED TO TRAVEL ON REPAIRS FOR A MINIMUM OF 7 DAYS PRIOR TO MILLING AND RESURFACING.

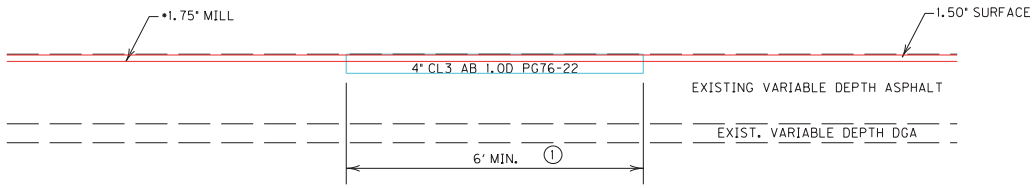
(2) FABRIC-GEOTEXTILE TYPE IV REQUIRED AROUND COARSE AGGREGATE. OVERLAP FABRIC ONE FOOT.

NOT TO SCALE

DETAIL SHEET

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-2060.00	

• DIFFERENT CONSTRUCTION PHASE



MINOR PAVEMENT REPAIR DETAIL

HARDIN COUNTY

(1) APPROXIMATE LOCATIONS ARE NOTED IN THE PROPOSAL. SPECIFIC LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD. BEFORE REMOVAL OF THE EXISTING MATERIAL, SAW CUTS SHALL BE MADE ON EACH SIDE OF THE AREA TO BE REMOVED. THIS OPERATION SHALL BE PERFORMED ON THE SHOULDER AND DRIVING LANES WHERE DIRECTED.

AFTER ALL EXISTING MATERIAL HAS BEEN REMOVED THEN EACH COURSE OF BACKFILL MATERIAL SHALL BE COMPACTED TO THE PROPER DENSITY FOR THE MATERIAL BEING PLACED AS REQUIRED IN THE STANDARD SPECIFICATIONS.

TRAFFIC SHALL BE ALLOWED TO TRAVEL ON REPAIRS FOR A MINIMUM OF 7 DAYS PRIOR TO MILLING AND RESURFACING.

THE CONTRACT UNIT BID PRICE PER SQ YD FOR PAVEMENT REPAIR SHALL INCLUDE ROADWAY EXCAVATION, REMOVING PAVEMENT, SAW CUTTING, ASPHALT BASE AND ALL INCIDENTALS NECESSARY TO COMPLETE THE INSTALLATION AS DETAILED.

NOT TO SCALE

DETAIL SHEET

PAVEMENT REHABILITATION SUMMARY
I-65 HARDIN COUNTY
MILEPOST 90.54 TO 97.61
ITEM NUMBER 4-2060.00

ITEM NUMBER	ITEM		QUANTITY	UNIT
1	DGA BASE	(1)	2,758	TON
100	ASPHALT SEAL AGGREGATE		1,902	TON
103	ASPHALT SEAL COAT		229	TON
194	LEVELING AND WEDGING PG76-22	(8)	11,344	TON
214	CL3 ASPH BASE 1.00D PG64-22		6,597	TON
219	CL4 ASPH BASE 1.00D PG76-22		14,744	TON
339	CL3 ASPH SURF 0.38D PG64-22		11,141	TON
342	CL4 ASPH SURF 0.38A PG76-22		34,609	TON
462	CULVERT PIPE- 18 IN		4	LF
1010	NON-PERFORATED PIPE - 4 IN	(9)	675	LF
1020	PERFORATED PIPE HEADWALL TYPE 1 - 4 IN	(9)	2	EACH
1021	PERFORATED PIPE HEADWALL TYPE 1 - 6 IN		1	EACH
1028	PERFORATED PIPE HEADWALL TYPE 3 - 4 IN	(9)	15	EACH
1030	PERFORATED PIPE HEADWALL TYPE 3 - 8 IN		1	EACH
1032	PERFORATED PIPE HEADWALL TYPE 4 - 4 IN	(9)	10	EACH
1432	SLOPED BOX OUTLET TY 1 - 15 IN		1	EACH
1453	SLOPED & FLARED BOX INLET - OUTLET - 36 IN		1	EACH
1484	CURB BOX INLET TYPE B - T		17	EACH
1487	CURB BOX INLET TYPE F		1	EACH
1565	DROP BOX INLET TYPE 13GT		1	EACH
1690	FLUME INLET TYPE 1		5	EACH
1691	FLUME INLET TYPE 2		13	EACH
1877	SPECIAL CONCRETE HEADER CURB		8,407	LF
1891	ISLAND HEADER CURB TYPE 2		197	LF
-	REGRADE SLOPE		13,725	SQYD
1982	DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL- WHITE		348	EACH
1983	DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL- YELLOW		47	EACH
2165	REMOVE PAVED DITCH		45	SQYD
2220	FLOWABLE FILL		5	CUYD
2223	GRANULAR EMBANKMENT		119	CUYD
2237	DITCHING		48,074	LF
2352	GUARDRAIL STEELW BEAM-D FACE		662.5	LF
2360	TERMINAL SECTION NO. 1		3	EACH
2363	GUARDRAIL CONNECTOR TO BRIDGE END TYPE A		15	EACH
2365	CRASH CUSHION TYPE IX-A		7	EACH
2367	GUARDRAIL END TREATMENT TYPE 1		6	EACH
2369	GUARDRAIL END TREATMENT TYPE 2A		24	EACH
2373	GUARDRAIL END TREATMENT TYPE 3		1	EACH
2381	REMOVE GUARDRAIL		31,112.5	LF
2387	GUARDRAIL CONNECTOR TO BRIDGE END TYPE A-1		10	EACH
2391	GUARDRAIL END TREATMENT TYPE 4A		16	EACH
2484	CHANNEL LINING CLASS III		944	TON
2562	TEMPORARY SIGNS		2500	SQFT
2568	MOBILIZATION		1	LS
2569	DEMOBILIZATION		1	LS
2599	FABRIC-GEOTEXTILE TYPE IV		75	SQYD
2650	MAINTAIN AND CONTROL TRAFFIC		1	LS
2671	PORTABLE CHANGEABLE MESSAGE SIGN		8	EACH
2676	MOBILIZATION FOR MILLING & TEXTURING		1	LS
2677	ASPHALT PAVE MILLING & TEXTURING		52,750	TON
2696	SHOULDER RUMBLE STRIPS		213,924	LF
2704	SILT TRAP TYPE B		23	EACH
2707	CLEAN SILT TRAP TYPE B		23	EACH
2714	SHOULDERING		74,659	LF
2775	ARROW PANEL		6	EACH
2929	CRASH CUSHION TYPE IX		6	EACH
5950	EROSION CONTROL BLANKET		12,444	SQYD
5963	INITIAL FERTILIZER		4	TON
5964	20-10-10 FERTILIZER		4	TON
5985	SEEDING AND PROTECTION		54,032	SQ YD
6401	FLEXIBLE DELINEATOR POST-M/W		918	EACH
6404	FLEXIBLE DELINEATOR POST-M/Y		622	EACH
6412	STEEL POST MILE MARKERS		14	EACH
6427	TRENCHING	(2)	31,864	LF
6511	PAVEMENT STRIPING-TEMP PAINT -6 IN		461,822	LF
6542	PAVE STRIPING-THERMO-6 IN W		153,228	LF

PAVEMENT REHABILITATION SUMMARY
I-65 HARDIN COUNTY
MILEPOST 90.54 TO 97.61
ITEM NUMBER 4-2060.00

ITEM NUMBER	ITEM		QUANTITY	UNIT
6543	PAVE STRIPING-THERMO-6 IN Y		109,011	LF
6546	PAVE STRIPING-THERMO-12 IN W		6,080	LF
6556	PAVE STRIPING-DUR TY 1-6 IN W		3,728	LF
6557	PAVE STRIPING-DUR TY 1-6 IN Y		2,124	LF
6568	PAVE MARKING-THERMO STOP BAR-24 IN		80	LF
6574	PAVE MARKING - THERMO CURVE ARROW		9	EACH
10020NS	FUEL ADJUSTMENT		122,088	DOLL
10030NS	ASPHALT ADJUSTMENT		306,650	DOLL
20366NN	REPLACE GRATE		12	EACH
20432ES112	REMOVE CRASH CUSHION		13	EACH
20757ED	PAVEMENT REPAIR (MAJOR)		1462	SQYD
20757ED	PAVEMENT REPAIR (MINOR)		6006	SQYD
21802EN	GUARDRAIL-STEEL W BEAM-S FACE (7 FT POST)		29,562.5	LF
22415EN	CONCRETE CLASS A FOR PAD	(3)	14,162	SQYD
23147EN	HIGH TENSION CABLE-ROPE	(4) (5) (6)	31,864	LF
23148EN	END ANCHOR	(7) (5) (6)	6	EACH
23229EC	HIGH FRICTION SURFACE TREATMENT		1,569	SQYD
23970NC	RESET GRATE		10	EACH
24489EC	INLAID PAVEMENT MARKER		3,038	EACH
24781EC	INTELLIGENT COMPACTION FOR ASPHALT		49,353	TON
24891EC	PAVE MOUNT INFRARED TEMP EQUIP		3,708,738	SQFT

(1) 2255 tons carried over from the paving summary, 162 tons carried over from the drainage summary, 101 tons to be used for shoulder repair as directed by the Engineer, and 240 tons to be used for reshaping the Bluegrass Parkway median.

(2) The bid item "Trenching" is for the trenching and disposal of the material removed for the Concrete Class A Pad under the HTC Median Barrier system. Provided this material meets geotechnical requirements it may be used where median fill is needed. Waste area will be pre-approved by the Engineer.

(3) Construct per the Section 505 of the *Standard Specifications for Road and Bridge Construction (current edition)* for concrete sidewalks.

(4) The HTC Median Barrier system includes all hardware, post, cables, labor, and incidentals within the End Anchors

(5) Excavation for the posts and anchors is incidental to the HTC Median Barrier. This material may also be used where median fill is needed provided that requirements listed in note (2) above are followed.

(6) The Contractor shall select and install only one manufacturer's high tension cable barrier system for the entire project. Terminal sections and high tension cable barrier shall be produced by the same manufacturer.

(7) The HTC Median Barrier End Anchors includes all hardware, post, cables, labor, and incidentals.

(8) 5304 tons carried over from the paving summary and 6040 tons to be used for superelevation correction.

(9) To be used for major pavement repairs.

PAVEMENT SUMMARY
I-65 HARDIN COUNTY
MP 90.54 to MP 97.61
ITEM NUMBER 4-2060.00
PAVING AREAS

ITEM	TOTAL
MAINLINE	
I-65	**SQYD**
SURFACE DRIVING LANES	
1.5" CL4 ASPH SURF 0.38A PG76-22	277043
3.0" CL4 ASPH BASE 1.0D PG76-22	89357
SURFACE INSIDE AND OUTSIDE SHOULDERS	
1.5" CL3 ASPH SURF 0.38D PG64-22	135039
3.0" CL3 ASPH BASE 1.0D PG64-22	39981
LEVELING AND WEDGING 76-22 FOR SUPERELEVATION CORRECTION (CU YD)	2020
LEVELING AND WEDGING 76-22 FOR OVERLAY TAPERS (CU YD)	659
DGA WEDGE (CU YD)	1089
RAMPS	
WESTERN KY. PKWY - RAMP A (SB ENTRANCE)	**SQYD**
SURFACE DRIVING LANES	
1.5" CL4 ASPH SURF 0.38A PG76-22	7095
SURFACE INSIDE AND OUTSIDE SHOULDERS	
1.5" CL4 ASPH SURF 0.38A PG76-22	4010
WESTERN KY. PKWY - RAMP B (SB EXIT)	**SQYD**
SURFACE DRIVING LANES	
1.5" CL4 ASPH SURF 0.38A PG76-22	2370
SURFACE INSIDE AND OUTSIDE SHOULDERS	
1.5" CL4 ASPH SURF 0.38A PG76-22	1566
WESTERN KY. PKWY - RAMP C (NB EXIT)	**SQYD**
SURFACE DRIVING LANES	
1.5" CL4 ASPH SURF 0.38A PG76-22	3588
SURFACE INSIDE AND OUTSIDE SHOULDERS	
1.5" CL4 ASPH SURF 0.38A PG76-22	2777
WESTERN KY. PKWY - RAMP D (NB ENTRANCE)	**SQYD**
SURFACE DRIVING LANES	
1.5" CL4 ASPH SURF 0.38A PG76-22	2113
HIGH FRICTION SURFACE TREATMENT	1569
SURFACE INSIDE AND OUTSIDE SHOULDERS	
1.5" CL4 ASPH SURF 0.38A PG76-22	1377
WESTERN KY. PKWY - RAMP E (SB EXIT)	**SQYD**
SURFACE DRIVING LANES	
1.5" CL4 ASPH SURF 0.38A PG76-22	3726
SURFACE INSIDE AND OUTSIDE SHOULDERS	
1.5" CL4 ASPH SURF 0.38A PG76-22	2209
WESTERN KY. PKWY - RAMP E-1 (SB EXIT)	**SQYD**
SURFACE DRIVING LANES	
1.5" CL4 ASPH SURF 0.38A PG76-22	3894
SURFACE INSIDE AND OUTSIDE SHOULDERS	
1.5" CL4 ASPH SURF 0.38A PG76-22	2596
WESTERN KY. PKWY - RAMP F (SB ENTRANCE)	**SQYD**
SURFACE DRIVING LANES	
1.5" CL4 ASPH SURF 0.38A PG76-22	2683
SURFACE INSIDE AND OUTSIDE SHOULDERS	
1.5" CL4 ASPH SURF 0.38A PG76-22	1750
WESTERN KY. PKWY - RAMP G (NB ENTRANCE)	**SQYD**
SURFACE DRIVING LANES	
1.5" CL4 ASPH SURF 0.38A PG76-22	4275
SURFACE INSIDE AND OUTSIDE SHOULDERS	
1.5" CL4 ASPH SURF 0.38A PG76-22	2756

WESTERN KY. PKWY - RAMP H (NB EXIT)	**SQYD**
SURFACE DRIVING LANES	
1.5" CL4 ASPH SURF 0.38A PG76-22	2483
SURFACE INSIDE AND OUTSIDE SHOULDERS	
1.5" CL4 ASPH SURF 0.38A PG76-22	1619

WESTERN KY. PKWY - NORTHBOUND COLLECTOR	**SQYD**
SURFACE DRIVING LANES	
1.5" CL4 ASPH SURF 0.38A PG76-22	7210
SURFACE INSIDE AND OUTSIDE SHOULDERS	
1.5" CL4 ASPH SURF 0.38A PG76-22	3410

WESTERN KY. PKWY - SOUTHBOUND COLLECTOR	**SQYD**
SURFACE DRIVING LANES	
1.5" CL4 ASPH SURF 0.38A PG76-22	2483
SURFACE INSIDE AND OUTSIDE SHOULDERS	
1.5" CL4 ASPH SURF 0.38A PG76-22	1619

BLUEGRASS KY. PKWY - RAMP A (SB ENTRANCE)	**SQYD**
SURFACE DRIVING LANES	
1.5" CL4 ASPH SURF 0.38A PG76-22	9849
SURFACE INSIDE AND OUTSIDE SHOULDERS	
1.5" CL4 ASPH SURF 0.38A PG76-22	7115

BLUEGRASS KY. PKWY - RAMP B (SB EXIT)	**SQYD**
SURFACE DRIVING LANES	
1.5" CL4 ASPH SURF 0.38A PG76-22	7839
SURFACE INSIDE AND OUTSIDE SHOULDERS	
1.5" CL4 ASPH SURF 0.38A PG76-22	6477

BLUEGRASS KY. PKWY - RAMP C (NB EXIT)	**SQYD**
SURFACE DRIVING LANES	
1.5" CL4 ASPH SURF 0.38A PG76-22	6101
SURFACE INSIDE AND OUTSIDE SHOULDERS	
1.5" CL4 ASPH SURF 0.38A PG76-22	5353

BLUEGRASS KY. PKWY - RAMP D (NB ENTRANCE)	**SQYD**
SURFACE DRIVING LANES	
1.5" CL4 ASPH SURF 0.38A PG76-22	4150
SURFACE INSIDE AND OUTSIDE SHOULDERS	
1.5" CL4 ASPH SURF 0.38A PG76-22	3619

US 62 - RAMP A (NB EXIT)	**SQYD**
SURFACE DRIVING LANES	
1.5" CL4 ASPH SURF 0.38A PG76-22	3682
SURFACE INSIDE AND OUTSIDE SHOULDERS	
1.5" CL4 ASPH SURF 0.38A PG76-22	1922

US 62 - RAMP B (NB ENTRANCE)	**SQYD**
SURFACE DRIVING LANES	
1.5" CL4 ASPH SURF 0.38A PG76-22	4384
SURFACE INSIDE AND OUTSIDE SHOULDERS	
1.5" CL4 ASPH SURF 0.38A PG76-22	2952

US 62 - RAMP C (SB EXIT)	**SQYD**
SURFACE DRIVING LANES	
1.5" CL4 ASPH SURF 0.38A PG76-22	3023
SURFACE INSIDE AND OUTSIDE SHOULDERS	
1.5" CL4 ASPH SURF 0.38A PG76-22	1826

US 62 - RAMP D (SB ENTRANCE)	**SQYD**
SURFACE DRIVING LANES	
1.5" CL4 ASPH SURF 0.38A PG76-22	4056
SURFACE INSIDE AND OUTSIDE SHOULDERS	
1.5" CL4 ASPH SURF 0.38A PG76-22	2496

ASPHALT PAVE MILLING & TEXTURING	**SQYD**
MAINLINE TOTAL (1.75")	412082
RAMP TOTAL (1.75")	135963
PROJECT TOTAL (1.75")	548045

PAVING SUMMARY

CODE	ITEM		UNITS	TOTAL
1	DGA BASE		TON	2255
100	ASPHALT SEAL AGGREGATE	(1)	TON	1902
103	ASPHALT SEAL COAT	(2)	TON	229
194	LEVELING & WEDGING PG76-22		TON	5304
214	CL3 ASPH BASE 1.0D PG64-22		TON	6597
219	CL4 ASPH BASE 1.0D PG76-22		TON	14744
339	CL3 ASPH SURF 0.38D PG64-22		TON	11141
342	CL4 ASPH SURF 0.38A PG76-22		TON	34609
2677	ASPHALT PAVE MILLING & TEXTURING		TON	52750
23229EC	HIGH FRICTION SURFACE TREATMENT		SQYD	1569

NOTES

ALL ASPHALT MIXTURES ESTIMATED AT 110 LBS. PER SQ. YD. PER INCH OF DEPTH

(1) TWO APPLICATIONS AT 20 LB/SY

(2) TWO APPLICATIONS AT 2.4 LB/SY

QUANTITIES HAVE BEEN CARRIED OVER AND INCLUDED IN THE GENERAL SUMMARY

I-65 HARDIN COUNTY
PAVEMENT REHABILITATION
MILEPOSTS 90.54 TO 97.61
ITEM NO. 4-2060.00
PAVEMENT REPAIR LOCATIONS

BEGIN MILEPOST	END MILEPOST	LANE SHOULDER RAMP	WIDTH OF REPLACEMENT (FT)	LENGTH OF REPLACEMENT (FT)	MINOR REPAIR (SQ YD)	MAJOR REPAIR (SQ YD)	
NORTHBOUND LANES							
91.80	91.80	2	12	10	13	0	MINOR PVMT REPAIR
92.17	92.20	OUTSIDE SHOULDER	10	155	172	0	MINOR PVMT REPAIR OUTSIDE SHOULDER
92.26	92.26	OUTSIDE SHOULDER	10	23	26	0	MINOR PVMT REPAIR OUTSIDE SHOULDER
92.30	92.30	2	12	10	0	13	MAJOR PVMT REPAIR
92.64	92.64	3	12	10	0	13	MAJOR PVMT REPAIR
93.02	93.03	OUTSIDE SHOULDER	10	34	0	37	MAJOR PVMT REPAIR
93.26	93.26	2	12	10	0	13	MAJOR PVMT REPAIR
93.32	93.33	2	12	18	0	25	MAJOR PVMT REPAIR
93.55	93.55	2	12	13	0	18	MAJOR PVMT REPAIR
93.59	93.60	2	12	21	0	27	MAJOR PVMT REPAIR
94.03	94.04	OUTSIDE SHOULDER	10	95	105	0	MINOR PVMT REPAIR OUTSIDE SHOULDER
94.16	94.18	OUTSIDE SHOULDER	10	124	138	0	MINOR PVMT REPAIR OUTSIDE SHOULDER
94.31	94.31	2	12	10	0	13	MAJOR PVMT REPAIR
94.39	94.39	3	12	10	13	0	MINOR PVMT REPAIR
94.41	94.42	3	12	10	13	0	MINOR PVMT REPAIR
94.51	94.51	3	12	10	0	13	MAJOR PVMT REPAIR
94.56	94.56	3	12	10	0	13	MAJOR PVMT REPAIR
94.56	94.57	3	12	10	0	13	MAJOR PVMT REPAIR
94.65	94.65	3	12	10	0	13	MAJOR PVMT REPAIR
94.79	94.79	3	12	10	0	13	MAJOR PVMT REPAIR
94.98	94.98	3	12	10	0	13	MAJOR PVMT REPAIR
94.90	95.04	OUTSIDE SHOULDER	10	774	860	0	MINOR PVMT REPAIR OUTSIDE SHOULDER
95.26	95.26	OUTSIDE SHOULDER	10	10	11	0	MINOR PVMT REPAIR OUTSIDE SHOULDER
95.34	95.35	OUTSIDE SHOULDER	10	46	51	0	MINOR PVMT REPAIR OUTSIDE SHOULDER
96.38	96.38	3	12	17	23	0	MINOR PVMT REPAIR
96.90	97.45	INSIDE SHOULDER	10	2875	3194	0	MINOR PVMT REPAIR INSIDE SHOULDER
96.95	96.95	3	12	10	13	0	MINOR PVMT REPAIR
96.97	96.97	4	12	10	13	0	MINOR PVMT REPAIR

I-65 HARDIN COUNTY
PAVEMENT REHABILITATION
MILEPOSTS 90.54 TO 97.61
ITEM NO. 4-2060.00
PAVEMENT REPAIR LOCATIONS

BEGIN MILEPOST	END MILEPOST	LANE SHOULDER RAMP	WIDTH OF REPLACEMENT (FT)	LENGTH OF REPLACEMENT (FT)	MINOR REPAIR (SQ YD)	MAJOR REPAIR (SQ YD)	
SOUTHBOUND LANES							
91.46	91.46	2, 3	24	10	0	27	MAJOR PVMT REPAIR
95.05	95.06	3	12	26	0	35	MAJOR PVMT REPAIR
95.12	95.14	3	12	133	0	178	MAJOR PVMT REPAIR
96.10	96.17	4	12	367	0	489	MAJOR PVMT REPAIR
96.21	96.21	4	12	10	0	13	MAJOR PVMT REPAIR
97.01	97.01	4	12	13	0	18	MAJOR PVMT REPAIR
97.10	97.11	4	12	43	0	57	MAJOR PVMT REPAIR
97.22	97.25	4	12	167	0	223	MAJOR PVMT REPAIR
97.40	97.40	4	12	13	0	17	MAJOR PVMT REPAIR
97.46	97.46	3	12	10	0	13	MAJOR PVMT REPAIR
97.52	97.54	4	12	92	0	123	MAJOR PVMT REPAIR
RAMPS							
0+00	6+87	WKY RAMP D	15	687	1145	0	MINOR PVMT REPAIR
7+21	8+51	WKY SB COLLECTOR	15	130	216	0	LEFT SIDE OF SOUTHBOUND COLLECTOR
15+12	15+50	BG RAMP C	10	28	0	32	RIGHT SIDE OF BG RAMP C

TOTAL NORTHBOUND MINOR REPAIR (SQ. YD.)		**4645**
TOTAL SOUTHBOUND MINOR REPAIR (SQ. YD.)		**0**
TOTAL RAMP MINOR REPAIR (SQ. YD.)		**1361**
TOTAL MINOR REPAIR (SQ. YD.)		**6006**
TOTAL NORTHBOUND MAJOR REPAIR (SQ. YD.)		**237**
TOTAL WESTBOUND MAJOR REPAIR (SQ. YD.)		**1193**
TOTAL RAMP MAJOR REPAIR (SQ. YD.)		**32**
TOTAL MAJOR REPAIR (SQ. YD.)		**1462**

QUANTITIES HAVE BEEN CARRIED OVER AND INCLUDED IN GENERAL SUMMARY

PIPE AND DRAINAGE SUMMARY
I-65 HARDIN COUNTY
MP 90.54 TO MP 97.61
ITEM NUMBER 4-2060.00

LOCATION	SIDE	BEGIN MILE POST	END MILE POST	EXISTING TYPE (3)	CLEAN INLET/OUTLET (1)	DGA	CULVERT PIPE - 18 IN (2)	PERF PIPE HEADWALL TY I-6 IN	PERF PIPE HEADWALL TY 3-8 IN	DROP BOX INLET TY 13GT	CURB BOX INLET TY B - T	CURB BOX INLET TY F	SLOPED BOX OUTLET TY I - 15 IN	S & F BOX INLET-OUTLET - 36IN	FLUME INLET TYPE 1	FLUME INLET TYPE 2	REMOVE PAVED DITCH	FLOWABLE FILL	GRANULAR EMBANKMENT (4)	CHANNEL LINING CL III (2)	FABRIC - GEOTEXTILE TYPE IV (4)	RESET GRATE	REPLACE GRATE	SPECIAL CONCRETE HEADER CURB	ISLAND HEADER CURB TY 2	REGRADE SLOPE	COMMENTS
Units					EACH	TON	LF	EACH									SQ YD	CU YD		TON	SQ YD	EACH		LF		SQ YD	
Item Number					---	0001	0462	1021	1030	1565	1484	1487	1432	1453	1690	1691	2165	2220	2223	2484	2599	23970NC	20366NN	1877	1891		
NORTHBOUND																											
I-65	RT	91.44	91.51	CURB																				365			
I-65	RT	91.44	91.44	WASHOUT		3																					4'W x 18"D x 15'L
I-65	RT	91.47	91.50	SLOPE REGRADE																						1940	
I-65	RT	91.50	91.50	CBI							1																
I-65	RT	91.50	91.51	CURB																					23		
I-65	RT	91.89	91.89	HEADWALL	1																		1				15" - SLOPED & PARALLEL SAFETY
I-65	RT	91.94	91.94	SINKHOLE															10		10						
I-65	RT	91.96	91.96	HEADWALL	1																	1					15" - SLOPED & PARALLEL SAFETY
I-65	RT	91.99	92.13	SLOPE REGRADE																						6278	
I-65	RT	91.99	91.99	EROSION																83							5' x 10' x 30'
I-65	RT	92.08	92.08	EROSION																13							3'W x 2'D x 40'L
I-65	RT	92.13	92.13	HEADWALL	1																						15" - CULVERT PIPE HEADWALL
I-65	RT	92.13	92.13	CBI							1																
I-65	RT	92.13	92.14	CURB																					19		
I-65	RT	92.22	92.22	HEADWALL																			1				15" - SLOPED & PARALLEL SAFETY
I-65	RT	92.37	92.37	HEADWALL	1																						15" - SLOPED & FLARED SAFETY
I-65	RT	92.41	92.41	WASHOUT																2							
I-65	RT	92.51	92.51	HEADWALL	1																						15" - CULVERT PIPE HEADWALL
I-65	RT	92.58	92.58	WASHOUT		3																					
I-65	RT	92.63	92.63	HEADWALL	1																						15" - SLOPED & PARALLEL SAFETY
I-65	RT	92.74	92.74	HEADWALL	1																						15" - SLOPED & PARALLEL HEADWALL
I-65	RT	92.90	92.90	HEADWALL																			1				24" - SLOPED & FLARED SAFETY
I-65	RT	92.98	92.98	HEADWALL	1																						15" - SLOPED & PARALLEL SAFETY
I-65	RT	93.07	93.07	HEADWALL					1																		
I-65	RT	93.30	93.30	HEADWALL	1																		1				15" - SLOPED & PARALLEL SAFETY
I-65	RT	93.38	93.38	HEADWALL	1																						24" - SLOPED & FLARED SAFETY
I-65	RT	93.42	93.42	HEADWALL	1																						15" - SLOPPED & PARALLEL SAFETY
I-65	RT	93.66	93.66	HEADWALL	1																						15" - SLOPED & FLARED HEADWALL
I-65	RT	93.69	93.69	HEADWALL	1																						15" - SLOPED & FLARED HEADWALL
I-65	RT	93.71	93.71	EROSION																3							15" - SLOPED & FLARED HEADWALL
I-65	RT	94.11	94.11	HEADWALL									1														15" - SLOPED & PARALLEL
I-65	RT	94.23	94.23	HEADWALL																		1					30" - SLOPED & FLARED SAFETY
I-65	RT	94.41	94.41	FLUME												1				8							WASHOUT AT FLUME (5CUYD)
I-65	RT	94.41	94.52	CURB																				569			
I-65	RT	94.48	94.48	WASHOUT																13							7'W x 2.5'D x 16'L
I-65	RT	94.59	94.59	HEADWALL	1																						15" - SLOPED & PARALLEL SAFETY
I-65	RT	94.70	94.70	HEADWALL	1																		1				30" - SLOPED & FLARED SAFETY
I-65	RT	94.81	94.81	HEADWALL	1																						15" - SLOPED & PARALLEL SAFETY
I-65	RT	95.19	95.19	HEADWALL	1																						15" - SLOPED & PARALLEL SAFETY
I-65	RT	95.29	95.29	HEADWALL	1																						15" - SLOPED & PARALLEL SAFETY
I-65	RT	95.39	95.39	HEADWALL	1																						24" - SLOPED & FLARED SAFETY
I-65	RT	95.47	95.47	HEADWALL	1																		1				15" - SLOPED & PARALLEL SAFETY
I-65	RT	95.66	95.66	WASHOUT		1																					4'W x 6"D x 11'L
I-65	RT	95.73	95.73	HEADWALL	1																		1				15" - SLOPED & PARALLEL SAFETY
I-65	RT	95.79	95.79	WASHOUT		3																					1'D
I-65	RT	95.81	95.82	WASHOUT		9																					10"D
I-65	RT	95.82	95.83	WASHOUT		5																					8"D
I-65	RT	95.86	95.86	HEADWALL	1																						30" - SLOPED & FLARED SAFETY
I-65	RT	95.90	95.91	WASHOUT		8																					10"D

PIPE AND DRAINAGE SUMMARY
I-65 HARDIN COUNTY
MP 90.54 TO MP 97.61
ITEM NUMBER 4-2060.00

LOCATION	SIDE	BEGIN MILE POST	END MILE POST	EXISTING TYPE (3)	CLEAN INLET/OUTLET (1)	DGA	CULVERT PIPE - 18 IN (2)	PERF PIPE HEADWALL TY 1-6 IN	PERF PIPE HEADWALL TY 3-8 IN	DROP BOX INLET TY 13GT	CURB BOX INLET TY B - T	CURB BOX INLET TY F	SLOPED BOX OUTLET TY 1 - 15 IN	S & F BOX INLET-OUTLET - 36IN	FLUME INLET TYPE 1	FLUME INLET TYPE 2	REMOVE PAVED DITCH	FLOWABLE FILL	GRANULAR EMBANKMENT (4)	CHANNEL LINING CL III (2)	FABRIC - GEOTEXTILE TYPE IV (4)	RESET GRATE	REPLACE GRATE	SPECIAL CONCRETE HEADER CURB	ISLAND HEADER CURB TY 2	REGRADE SLOPE	COMMENTS
Units					EACH	TON	LF	EACH									SQ YD	CU YD		TON	SQ YD	EACH		LF		SQ YD	
Item Number					---	0001	0462	1021	1030	1565	1484	1487	1432	1453	1690	1691	2165	2220	2223	2484	2599	23970NC	20366NN	1877	1891		
I-65	RT	**95.94**	**95.95**	WASHOUT		8																					7"D
I-65	RT	**96.03**	**96.09**	EROSION																2							SLOPE EROSION
I-65	RT	**96.03**	**96.04**	EROSION		5																					SLOPE EROSION - 2'W x 1'D x 32'L
I-65	RT	**96.05**	**96.05**	HEADWALL	1																						15" - SLOPED & PARALLEL SAFETY
I-65	RT	**96.13**	**96.13**	WASHOUT		2																					3'W x 4"D x 30'L
I-65	RT	**96.15**	**96.15**	WASHOUT		1																					2'W x 3"D x 25'L
I-65	RT	**96.18**	**96.20**	WASHOUT		7																					3'W x 4"D x 90'L
I-65	RT	**96.23**	**96.23**	HEADWALL	1																						36" SLOPED & PARALLEL SAFETY
I-65	RT	**96.23**	**96.24**	WASHOUT		1																					2'W x 3"D x 25'L
I-65	RT	**96.24**	**96.25**	WASHOUT		2																					2'W x 4"D x 35'L
I-65	RT	**96.29**	**96.30**	WASHOUT		2																					4'W x 3"D x 25'L
I-65	RT	**96.32**	**96.33**	WASHOUT		4																					4'W x 4"D
I-65	RT	**96.35**	**96.35**	HEADWALL	1																						15" - SLOPED & PARALLEL SAFETY
I-65	RT	**96.50**	**96.50**	HEADWALL																1							36" - CMP HEADWALL (ERROSION)
I-65	RT	**96.56**	**96.56**	HEADWALL	1																						18" - SLOPPED & FLARED HEADWALL
I-65	RT	**96.60**	**96.60**	EROSION																1							
I-65	RT	**96.60**	**96.67**	CURB																				349			
I-65	RT	**96.67**	**96.67**	FLUME												1											
I-65	RT	**96.67**	**96.74**	CURB																				320			
I-65	RT	**96.67**	**96.67**	WASHOUT																50							3' x 15' x 20'
I-65	RT	**96.74**	**96.74**	FLUME												1											
I-65	RT	**96.74**	**96.85**	CURB																				561			
I-65	RT	**96.85**	**96.85**	FLUME												1											
I-65	RT	**96.85**	**96.87**	WASHOUT		35																					6'W x 1'D x 75'L
I-65	RT	**96.98**	**96.98**	HEADWALL	1																						15" - SLOPED & PARALLEL HEADWALL
I-65	RT	**97.09**	**97.09**	HEADWALL																2							18" - SLOPED & FLARED HEADWALL (ERROSION)
I-65	RT	**97.42**	**97.42**	HEADWALL	1																						15" - SLOPED & PARALLEL SAFETY
NORTHBOUND TOTAL					28	99	0	0	1	0	2	0	1	0	0	4	0	0	10	178	10	2	7	2,164	42	8,218	

PIPE AND DRAINAGE SUMMARY
I-65 HARDIN COUNTY
MP 90.54 TO MP 97.61
ITEM NUMBER 4-2060.00

LOCATION	SIDE	BEGIN MILE POST	END MILE POST	EXISTING TYPE (3)	CLEAN INLET/OUTLET (1)	DGA	CULVERT PIPE - 18 IN (2)	PERF PIPE HEADWALL TY 1-6 IN	PERF PIPE HEADWALL TY 3-8 IN	DROP BOX INLET TY 13GT	CURB BOX INLET TY B - T	CURB BOX INLET TY F	SLOPED BOX OUTLET TY 1 - 15 IN	S & F BOX INLET-OUTLET - 36IN	FLUME INLET TYPE 1	FLUME INLET TYPE 2	REMOVE PAVED DITCH	FLOWABLE FILL	GRANULAR EMBANKMENT (4)	CHANNEL LINING CL III (2)	FABRIC - GEOTEXTILE TYPE IV (4)	RESET GRATE	REPLACE GRATE	SPECIAL CONCRETE HEADER CURB	ISLAND HEADER CURB TY 2	REGRADE SLOPE	COMMENTS
Units					EACH	TON	LF	EACH									SQ YD	CU YD		TON	SQ YD	EACH		LF		SQ YD	
Item Number					---	0001	0462	1021	1030	1565	1484	1487	1432	1453	1690	1691	2165	2220	2223	2484	2599	23970NC	20366NN	1877	1891		
SOUTHBOUND																											
I-65	RT	**91.28**	**91.28**	HEADWALL	1																						15" - SLOPED & FLARED SAFETY
I-65	RT	**91.40**	**91.40**	CBI							1																
I-65	RT	**91.41**	**91.41**	CURB																					17		
I-65	RT	**91.50**	**91.51**	CURB																					27		
I-65	RT	**91.56**	**91.66**	CURB																				513			
I-65	RT	**91.66**	**91.66**	FLUME												1											
I-65	RT	**91.66**	**91.75**	SLOPE REGRADE																						1618	
I-65	RT	**91.76**	**91.77**	WASHOUT		3																					4'W x 8"D x 16'L
I-65	RT	**91.82**	**91.82**	WASHOUT		2																					4'W x 8"D x 9'L
I-65	RT	**91.94**	**91.94**	HEADWALL	1																						15" - HEADWALL
I-65	RT	**92.01**	**92.10**	CURB																				475			
I-65	RT	**92.10**	**92.11**	FLUME											1												
I-65	RT	**92.11**	**92.13**	CURB																				100			
I-65	RT	**92.13**	**92.13**	CBI							1																
I-65	RT	**92.13**	**92.13**	HEADWALL	1																						15" - SLOPED & FLARED HDWL
I-65	RT	**92.13**	**92.13**	CURB																					20		
I-65	RT	**92.44**	**92.44**	HEADWALL	1																		1				30" - SLOPED & FLARED SAFETY
I-65	RT	**92.90**	**92.90**	HEADWALL	1																						PERF PIPE HEADWALL
I-65	RT	**93.33**	**93.33**	WASHOUT		2																					4'W x 8"D x 9'L
I-65	RT	**93.34**	**93.34**	WASHOUT		2																					4'W x 8"D x 9'L
I-65	RT	**93.65**	**93.69**	CURB																				205			
I-65	RT	**93.69**	**93.69**	WASHOUT		5																					
I-65	RT	**93.69**	**93.70**	FLUME											1												
I-65	RT	**93.70**	**93.79**	CURB																				494			
I-65	RT	**94.14**	**94.14**	WASHOUT		5																					CORRECT WITH DGA AND SEAL
I-65	RT	**94.71**	**94.71**	DBI																			1				30" - DBI TY 2 -- NO APRON
I-65	RT	**96.34**	**96.34**	WASHOUT		6																					SHOULDER DROP OFF - 3'W x 5"D x 30'L
I-65	RT	**96.36**	**96.38**	DITCH													25			76							114LF - CONCRETE DITCH REMOVAL
I-65	RT	**96.34**	**96.46**	SLOPE REGRADE																						2476	
I-65	RT	**96.35**	**96.46**	CURB																				564			
I-65	RT	**96.56**	**96.56**	DBI	1																						DBI TY-1
I-65	RT	**96.68**	**96.68**	DBI	1																						DBI TY-1
I-65	RT	**96.77**	**96.77**	HEADWALL	1																						PERF PIPE HEADWALL
I-65	RT	**96.77**	**96.77**	PAVED DITCH													20			20							PAVED DITCH - 30'
I-65	RT	**96.92**	**96.92**	SHLDR DROP OFF		9																					4'W x 2'D x 15'L
I-65	RT	**96.95**	**96.99**	DITCH																136							PAVED DITCH
I-65	RT	**96.98**	**96.99**	DITCH																29							PAVED DITCH
I-65	RT	**96.99**	**96.99**	HEADWALL										1													(HEADWALL GONE) 36" - SLOPED & FLARED SAFETY
I-65	RT	**97.09**	**97.09**	DBI	1																						DBI TY-1
I-65	RT	**97.18**	**97.18**	DBI	1																						DBI TY-1
I-65	RT	**97.27**	**97.30**	SLOPE REGRADE																						331	
I-65	RT	**97.37**	**97.30**	CURB																				378			
I-65	RT	**97.40**	**97.40**	WASHOUT																25							30'W x 5'D x 3'L
I-65	RT	**97.40**	**97.42**	CURB																				123			
I-65	RT	**97.40**	**97.40**	WASHOUT																25							30'W x 5'D x 3'L
I-65	RT	**97.42**	**97.42**	PERF PIPE				1																			PERF PIPE (MISSING HEADWALL)
I-65	RT	**97.42**	**97.42**	FLUME												1											
I-65	RT	**97.43**	**97.50**	CURB																				426			
I-65	RT	**97.43**	**97.43**	WASHOUT																167							30'W x 10'D x 10'L

PIPE AND DRAINAGE SUMMARY
I-65 HARDIN COUNTY
MP 90.54 TO MP 97.61
ITEM NUMBER 4-2060.00

LOCATION	SIDE	BEGIN MILE POST	END MILE POST	EXISTING TYPE (3)	CLEAN INLET/OUTLET (1)	DGA	CULVERT PIPE - 18 IN (2)	PERF PIPE HEADWALL TY 1-6 IN	PERF PIPE HEADWALL TY 3-8 IN	DROP BOX INLET TY 13GT	CURB BOX INLET TY B - T	CURB BOX INLET TY F	SLOPED BOX OUTLET TY 1 - 15 IN	S & F BOX INLET-OUTLET - 36IN	FLUME INLET TYPE 1	FLUME INLET TYPE 2	REMOVE PAVED DITCH	FLOWABLE FILL	GRANULAR EMBANKMENT (4)	CHANNEL LINING CL III (2)	FABRIC - GEOTEXTILE TYPE IV (4)	RESET GRATE	REPLACE GRATE	SPECIAL CONCRETE HEADER CURB	ISLAND HEADER CURB TY 2	REGRADE SLOPE	COMMENTS
Units					EACH	TON	LF	EACH									SQ YD	CU YD		TON	SQ YD	EACH		LF		SQ YD	
Item Number					---	0001	0462	1021	1030	1565	1484	1487	1432	1453	1690	1691	2165	2220	2223	2484	2599	23970NC	20366NN	1877	1891		
I-65	RT	**97.51**	**97.51**	FLUME											1												
I-65	RT	**97.51**	**97.57**	CURB																				335			
I-65	RT	**97.57**	**97.57**	WASHOUT												1				10							CONSTRUCT FLUME
I-65	RT	**97.57**	**97.61**	CURB																				164			
I-65	RT	**97.61**	**97.61**	FLUME												1											
SOUTHBOUND TOTAL					10	34	0	1	0	0	2	0	0	1	3	4	45	0	0	488	0	0	2	3,777	64	4,425	
MEDIAN																											
I-65 MEDIAN	MED	**91.28**	**91.31**	DITCH EROSION (1)																							2'W x 0.5'D x 147'L
I-65 MEDIAN	MED	**91.39**	**91.39**	CBI							1																
I-65 MEDIAN	MED	**91.40**	**91.40**	CBI							1																
I-65 MEDIAN	MED	**91.50**	**91.50**	CBI							1																
I-65 MEDIAN	MED	**91.50**	**91.50**	CBI							1																
I-65 MEDIAN	MED	**91.72**	**91.74**	DITCH EROSION (1)																							2'W x 0.5'D x 70'L
I-65 MEDIAN	MED	**91.82**	**91.86**	DITCH EROSION (1)																							2'W x 2'D x 248'L
I-65 MEDIAN	MED	**91.89**	**91.89**	DBI														1									DBI - TY 5F
I-65 MEDIAN	MED	**92.08**	**92.08**	DBI	1																						DBI - TY 5B
I-65 MEDIAN	MED	**92.13**	**92.13**	CBI							1																
I-65 MEDIAN	MED	**92.51**	**92.51**	DBI	1																						DBI - TY 5B
I-65 MEDIAN	MED	**92.74**	**92.74**	DBI														1									DBI - TY 5B
I-65 MEDIAN	MED	**92.98**	**92.98**	DBI																		1					DBI - TY 5B
I-65 MEDIAN	MED	**93.71**	**93.71**	DITCH EROSION (1)																3							CHANNEL LINNING 2 CUYD
I-65 MEDIAN	MED	**93.88**	**93.88**	DBI														1									DBI - TY 5F
I-65 MEDIAN	MED	**93.89**	**93.89**	DITCH EROSION (1)																5							CHANNEL LINNING 3 CUYD
I-65 MEDIAN	MED	**94.71**	**94.71**	DITCH EROSION (1)																3							
I-65 MEDIAN	MED	**95.29**	**95.29**	DBI														1									DBI - TY 5B
I-65 MEDIAN	MED	**95.29**	**95.29**	HOLE															1								
I-65 MEDIAN	MED	**95.72**	**95.72**	DITCH EROSION (1)																3							CHANNEL LINNING - 2 CUYD
I-65 MEDIAN	MED	**96.01**	**96.01**	SINKHOLE															1		1						
I-65 MEDIAN	MED	**96.18**	**96.18**	DITCH EROSION (1)																2							CHANNEL LINNING - 1 CUYD
I-65 MEDIAN	MED	**96.34**	**96.34**	DITCH EROSION (1)																2							CHANNEL LINNING - 1 CUYD
I-65 MEDIAN	MED	**96.71**	**96.71**	SINKHOLE															1		1						
I-65 MEDIAN	MED	**96.98**	**96.99**	DITCH EROSION (1)																5							CHANNEL LINNIG - 2 CUYD
I-65 MEDIAN	MED	**97.28**	**97.28**	DBI														1									DBI - TY 5F
I-65 MEDIAN	MED	**97.38**	**97.38**	SINKHOLE															1		1						
MEDIAN TOTAL					2	0	0	0	0	0	5	0	0	0	0	0	0	5	4	23	3	1	0	0	0	0	

PIPE AND DRAINAGE SUMMARY
I-65 HARDIN COUNTY
MP 90.54 TO MP 97.61
ITEM NUMBER 4-2060.00

LOCATION	SIDE	BEGIN MILE POST	END MILE POST	EXISTING TYPE (3)	CLEAN INLET/OUTLET (1)	DGA	CULVERT PIPE - 18 IN (2)	PERF PIPE HEADWALL TY 1-6 IN	PERF PIPE HEADWALL TY 3-8 IN	DROP BOX INLET TY 13GT	CURB BOX INLET TY B - T	CURB BOX INLET TY F	SLOPED BOX OUTLET TY 1 - 15 IN	S & F BOX INLET-OUTLET - 36IN	FLUME INLET TYPE 1	FLUME INLET TYPE 2	REMOVE PAVED DITCH	FLOWABLE FILL	GRANULAR EMBANKMENT (4)	CHANNEL LINING CL III (2)	FABRIC - GEOTEXTILE TYPE IV (4)	RESET GRATE	REPLACE GRATE	SPECIAL CONCRETE HEADER CURB	ISLAND HEADER CURB TY 2	REGRADE SLOPE	COMMENTS
Units					EACH	TON	LF	EACH									SQ YD	CU YD		TON	SQ YD	EACH		LF		SQ YD	
Item Number					---	0001	0462	1021	1030	1565	1484	1487	1432	1453	1690	1691	2165	2220	2223	2484	2599	23970NC	20366NN	1877	1891		
RAMPS																											
WKY NBC (EXIT 91)	RT	4+59	4+59	WASHOUT		2																					4'W x 8"D x 10'L
WKY NBC (EXIT 91)	RT	19+04	19+04	HEADWALL																5							
WKY NBC (EXIT 91)	RT	20+64	20+64	HOLE															3		3						5'W x 3'W x 5'L
WKY NBC (EXIT 91)	RT	20+75	20+75	HOLE															8		6						10'W x 4'W x 5'L
WKY NBC (EXIT 91)	RT	21+02	21+02	HOLE															15		11						10'W x 4'W x 10'L
WKY NBC (EXIT 91)	LT	28+16	28+16	HEADWALL	1																						15" - SLOPED & FLARED SAFETY
WKY NBC (EXIT 91)	LT	28+84	28+84	HEADWALL																			1				15" - SLOPED & FLARED SAFETY
WKY NBC (EXIT 91)	RT	45+45	47+41	CURB																				196			
WKY NBC (EXIT 91)	RT	47+73	47+73	WASHOUT		4																					
WKY NBC (EXIT 91)	RT	50+26	53+59	CURB																				334			
WKY NBC (EXIT 91)	RT	50+61	50+61	WASHOUT		3																					
WKY NBC (EXIT 91)	RT	47+41	47+51	CBI							1																10' THROAT
WKY NBC (EXIT 91)	RT	47+51	47+70	CURB																					20		
WKY RAMP D (EXIT 91)	RT	0+00	2+02	ERROSION																40							2'x2' to 3'x3'
WKY RAMP D (EXIT 91)	RT	0+00	3+36	CURB																				43			
WKY RAMP D (EXIT 91)	RT	2+10	2+10	HEADWALL	1																						18" - SLOPED & FLARED SAFETY
WKY RAMP D (EXIT 91)	RT	2+88	2+88	WASHOUT												1											CONSTRUCT FLUME
WKY RAMP D (EXIT 91)	RT	3+21	3+37	ERROSION																9							3'x2' to 1'x1'
WKY RAMP D (EXIT 91)	RT	7+22	7+22	HEADWALL	1																						48" - SLOPED & FLARED HEADWALL
WKY RAMP E (EXIT 91)	RT	2+22	2+34	CURB																					13		
WKY RAMP E (EXIT 91)	RT	2+34	2+49	CBI							1																
WKY RAMP E (EXIT 91)	RT	2+43	2+43	HEADWALL	1																						15" - SLOPPED & FLARED HEADWALL
WKY RAMP E (EXIT 91)	RT	2+49	9+82	CURB																				740			
WKY RAMP E (EXIT 91)	RT	9+82	10+12	FLUME											1												
WKY RAMP E (EXIT 91)	RT	10+12	10+12	WASHOUT		6																					
WKY RAMP E (EXIT 91)	RT	10+12	11+00	CURB																				95			
WKY RAMP E (EXIT 91)	RT	11+00	11+30	FLUME											1												
WKY RAMP E (EXIT 91)	RT	11+30	12+64	CURB																				140			
WKY RAMP E-1 (EXIT 91)	RT	5+02	5+02	WASHOUT		5																					7'W x 1'D x 10'L
WKY RAMP E-1 (EXIT 91)	RT	13+78	13+78	WASHOUT		1																					
WKY RAMP F (EXIT 91)	RT	4+27	4+27	HEADWALL																		1					18" - SLOPED & FLARED SAFETY
WKY RAMP H (EXIT 91)	RT	2+10	2+10	HEADWALL	1																						18" - SLOPED & FLARED SAFETY
WKY RAMP H (EXIT 91)	RT	3+05	3+05	HEADWALL	1																		1				18" - SLOPED & FLARED SAFETY
WKY RAMP H (EXIT 91)	LT	3+99	3+99	SINKHOLE															5		5						
WKY RAMP H (EXIT 91)	RT	7+08	7+08	WASHOUT		1																					
WKY RAMP H (EXIT 91)	RT	11+76	11+94	FLUME												1											
WKY RAMP H (EXIT 91)	RT	15+63	15+63	HEADWALL	1																						18" - CULVERT PIPE HEADWALL
WKY RAMP G (EXIT 91)	RT	3+94	4+59	DITCH EROSION (1)																36							5'W x 1'D x 64'L
WKY RAMP G (EXIT 91)	RT	4+50	5+09	SLOPE FAILURE																							
WKY RAMP G (EXIT 91)	RT	10+76	10+76	HEADWALL	1																						18" - SLOPED & FLARED SAFETY
WKY RAMP G (EXIT 91)	RT	11+92	15+27	DITCH EROSION (1)																114							3'W x 1'D x 344'L
WKY RAMP G (EXIT 91)	RT	18+30	18+49	FLUME												1				3							
WKY RAMP G (EXIT 91)	RT	18+49	23+88	CURB																				539			
WKY RAMP G (EXIT 91)	RT	18+78	18+78	HEADWALL	1																						18" - SLOPED & FLARED SAFETY
WKY RAMP G (EXIT 91)	RT	20+91	20+91	WASHOUT		5																					
WKY RAMP G (EXIT 91)	RT	21+83	21+83	WASHOUT		2																					
WKY RAMP A (EXIT 91)	RT	16+75	16+75	HEADWALL	1																						24" - SLOPED & FLARED SAFETY
WKY RAMP A (EXIT 91)	RT	17+32	17+32	HEADWALL																3							24" - SLOPED & FLARED HEADWALL
WKY RAMP A (EXIT 91)	LT	17+81	17+81	WASHOUT												1								50			

PIPE AND DRAINAGE SUMMARY
I-65 HARDIN COUNTY
MP 90.54 TO MP 97.61
ITEM NUMBER 4-2060.00

LOCATION	SIDE	BEGIN MILE POST	END MILE POST	EXISTING TYPE (3)	CLEAN INLET/OUTLET (1)	DGA	CULVERT PIPE - 18 IN (2)	PERF PIPE HEADWALL TY 1-6 IN	PERF PIPE HEADWALL TY 3-8 IN	DROP BOX INLET TY 13GT	CURB BOX INLET TY B - T	CURB BOX INLET TY F	SLOPED BOX OUTLET TY 1 - 15 IN	S & F BOX INLET-OUTLET - 36IN	FLUME INLET TYPE 1	FLUME INLET TYPE 2	REMOVE PAVED DITCH	FLOWABLE FILL	GRANULAR EMBANKMENT (4)	CHANNEL LINING CL III (2)	FABRIC - GEOTEXTILE TYPE IV (4)	RESET GRATE	REPLACE GRATE	SPECIAL CONCRETE HEADER CURB	ISLAND HEADER CURB TY 2	REGRADE SLOPE	COMMENTS
Units					EACH	TON	LF	EACH									SQ YD	CU YD		TON	SQ YD	EACH		LF		SQ YD	
Item Number					---	0001	0462	1021	1030	1565	1484	1487	1432	1453	1690	1691	2165	2220	2223	2484	2599	23970NC	20366NN	1877	1891		
WKY RAMP A (EXIT 91)	RT	20+25	20+25	HEADWALL																3							24" - SLOPED & FLARED HEADWALL
WKY RAMP B (EXIT 91)	RT	10+61	10+76	FLUME												1											
WKY RAMP B (EXIT 91)	RT	13+63	13+63	CRUB																				302			
WKY RAMP B (EXIT 91)	RT	13+63	13+73	CBI							1																
WKY RAMP B (EXIT 91)	RT	13+73	13+93	CURB																					21		
WKY RAMP C (EXIT 91)	RT	9+01	9+01	HEADWALL	1																						30" - SLOPED & FLARED SAFETY
WKY RAMP C (EXIT 91)	LT	9+82	9+82	HEADWALL																		1					30" - SLOPED & FLARED SAFETY
WKY SBC (EXIT 91)	RT	2+54	2+54	WASHOUT																17							5'W x 3'D x 20'L
WKY SBC (EXIT 91)	RT	2+81	2+81	WASHOUT																14							6'W x 2'D x 20'L
WKY SBC (EXIT 91)	LT	7+02	7+29	CURB																				27			
WKY SBC (EXIT 91)	RT	7+29	7+37	CBI							1																
WKY SBC (EXIT 91)	LT	19+10	19+10	HEADWALL	1																						15" - SLOPED BOX OUTLET
WKY SBC (EXIT 91)	LT	19+30	19+30	HEADWALL	1																	1					15" - SLOPED & FLARED SAFETY
BG PKWY RAMP A (EXIT 93)	LT	14+53	14+53	HEADWALL																		1					24" - SLOPED & FLARED SAFETY
BG PKWY RAMP C (EXIT 93)	RT	7+37	7+37	SINKHOLE															60		25						15'W x 7'D x 15'L
BG PKWY RAMP C (EXIT 93)	RT	7+98	7+98	DBI	1																						DBI - TY 2
BG PKWY RAMP C (EXIT 93)	LT	9+01	9+01	SINKHOLE															12		12						10'W x 3'D x 10'L
BG PKWY EASTBOUND (EXIT 93)	RT	94+36	94+44	CBI							1																
BG PKWY EASTBOUND (EXIT 93)	RT	94+44	94+62	CURB																					18		
BG PKWY EASTBOUND (EXIT 93)	LT	94+52	94+61	CBI							1																
BG PKWY WESTBOUND (EXIT 93)	LT	94+68	94+80	CBI							1																
BG PKWY WESTBOUND (EXIT 93)	RT	93+60	95+04	SLOPE REGRADE																						1,082	
BG PKWY WESTBOUND (EXIT 93)	RT	94+84	94+92	CBI							1																
BG PKWY WESTBOUND (EXIT 93)	LT	94+92	95+10	CURB																					19		
US 62 RAMP A (EXIT 94)	RT	5+02	5+02	HEADWALL	1																						15" - SLOPED & FLARED SAFETY
US 62 RAMP A (EXIT 94)	RT	7+09	7+09	HOLE															2								
US 62 RAMP A (EXIT 94)	RT	8+56	8+56	HEADWALL	1																	1					24" - SLOPED & FLARED SAFETY
US 62 RAMP A (EXIT 94)	LT	9+03	9+03	HEADWALL	1																						24" - SLOPED & FLARED SAFETY
US 62 RAMP D (EXIT 94)	LT	1+90	1+90	HEADWALL	1																						18" - SLOPED & FLARED SAFETY
US 62 RAMP D (EXIT 94)	LT	1+95	1+95	DBI			4			1																	
US 62 RAMP D (EXIT 94)	RT	4+21	4+21	WASHOUT																11							SHOULDER WASHOUT - 25'L
US 62 RAMP C (EXIT 94)	RT	3+96	3+96	HEADWALL	1																	1					36" - SLOPED & FLARED SAFETY
US 62 RAMP C (EXIT 94)	LT	10+30	10+30	HEADWALL	1																		1				30" - SLOPED & FLARED SAFETY
US 62 RAMP C (EXIT 94)	LT	11+46	11+46	HEADWALL	1																						36" - SLOPED & FLARED SAFETY
US 62 RAMP B (EXIT 94)	LT	2+12	2+12	HEADWALL	1																						15" - CULVERT PIPE HEADWALL
US 62 RAMP B (EXIT 94)	RT	2+13	2+13	CBI								1															CBI TY F - 15" PIPE
US 62 RAMP B (EXIT 94)	RT	5+81	5+81	HEADWALL																		1					36" - SLOPED & FLARED SAFETY
RAMP TOTAL					22	29	4	0	0	1	8	1	0	0	2	5	0	0	105	255	62	7	3	2,466	91	1,082	
NORTHBOUND TOTAL					28	99	0	0	1	0	2	0	1	0	0	4	0	0	10	178	10	2	7	2,164	42	8,218	
SOUTHBOUND TOTAL					10	34	0	1	0	0	2	0	0	1	3	4	45	0	0	488	0	0	2	3,777	64	4,425	
MEDIAN TOTAL					2	0	0	0	0	0	5	0	0	0	0	0	0	5	4	23	3	1	0	0	0	0	
RAMP TOTAL					22	29	4	0	0	1	8	1	0	0	2	5	0	0	105	255	62	7	3	2,466	91	1,082	
PROJECT TOTAL					62	162	4	1	1	1	17	1	1	1	5	13	45	5	119	944	75	10	12	8,407	197	13,725	

(1) - INCIDENTAL TO BID ITEM "DITCHING"
(2) - REMOVAL OF PIPE, STRUCTURE, PAVED DITCH AND/OR CURB IS CONSIDERED INCIDENTAL TO CONSTRUCTION OF NEW BID ITEM
(3) - EXISTING STRUCTURES NEED TO BE VERIFIED IN THE FIELD.
(4) - QUANTITIES TO BE USED FOR TREATMENT OF SINKHOLE AS FIELD VERIFIED AND DIRECTED BY THE ENGINEER
QUANTITIES HAVE BEEN CARRIED OVER AND INCLUDED IN THE GENERAL SUMMARY.

GUARDRAIL SUMMARY
I-65 HARDIN COUNTY
MILEPOSTS 90.54 TO MP 97.61
ITEM NUMBER 4-2060.00

LOCATION	SIDE	BEGIN MP	END MP	GUARDRAIL STEEL W BEAM-S FACE (7 FT POST)	GUARDRAIL STEEL W BEAM-D FACE	TERMINAL SECTION NO. 1	CRASH CUSHION TYPE IX	CRASH CUSHION TYPE IX-A	GUARDRAIL END TREATMENT TYPE 1	GUARDRAIL END TREATMENT TYPE 2A	GUARDRAIL END TREATMENT TYPE 3	GUARDRAIL END TREATMENT TYPE 4A	REMOVE GUARDRAIL	GUARDRAIL CONNECTOR TO BRIDGE END TY A	GUARDRAIL CONNECTOR TO BRIDGE END TY A-I	REMOVE CRASH CUSHION	COMMENTS
Units				LF		EACH							LF	EACH			
Item Number				21802EN	2352	2360	2929	2365	2367	2369	2373	2391	2381	2363	2387	20432ES112	
Northbound																	
I-65	RT	91.43	91.51	387.5									387.5	1	1		
I-65	LT	91.45	91.51	312.5									312.5	1	1		
I-65	RT	91.55	91.76	1075.0						1			1075.0		1		
I-65	RT	91.93	92.14	1125.0								1	1125.0	1			
I-65	LT	92.09	92.14	100.0	137.5	1		1					212.5			1	
I-65	RT	92.16	92.20	237.5						1			237.5		1		
I-65	RT	92.58	92.62	225.0						1		1	225.0				
I-65	RT	92.72	92.77	225.0						1		1	262.5				
I-65	RT	93.04	93.09	200.0						1		1	237.5				
I-65	LT	93.04	93.09	200.0					1	1			250.0				
I-65	LT	93.32	93.33				1									1	
I-65	RT	93.64	93.92	1450.0						1		1	1487.5				
I-65	LT	94.14	94.15				1						62.5			1	
I-65	RT	94.34	94.52	912.5						1	1		950.0				
I-65	LT	95.32	95.33				1						50.0			1	
I-65	RT	96.39	97.32	4837.5					1	1			4925.0				
Southbound																	
I-65	LT	91.45	91.51	300.0									300.0	1	1		
I-65	RT	91.46	91.51	225.0				1					225.0	1		1	
I-65	RT	91.46	91.51	200.0				1					200.0	1		1	
I-65	RT	91.46	91.51	250.0									250.0	1	1		
I-65	LT	91.56	91.65	100.0	137.5	1		1					475.0	1		1	
I-65	RT	91.56	91.75	950.0					1				1000.0	1			
I-65	RT	91.88	92.13	1325.0						1			1362.5		1		
I-65	RT	92.16	92.33	925.0								1	925.0	1			
I-65	LT	92.16	92.21	100.0	137.5	1		1					200.0			1	
I-65	LT	92.38	92.41	175.0						1		1	175.0				
I-65	RT	92.58	92.65	337.5						1		1	375.0				
I-65	LT	93.35	93.36				1						62.5			1	
I-65	RT	93.54	93.79	1325.0						1		1	1325.0				
I-65	LT	94.18	94.19				1						75.0			1	
I-65	RT	94.35	94.53	950.0						1		1	987.5				
I-65	LT	94.36	94.43	287.5					1	1			375.0				
I-65	LT	95.35	95.35				1						50.0			1	

GUARDRAIL SUMMARY
I-65 HARDIN COUNTY
MILEPOSTS 90.54 TO MP 97.61
ITEM NUMBER 4-2060.00

LOCATION	SIDE	BEGIN MP	END MP	GUARDRAIL STEEL W BEAM-S FACE (7 FT POST)	GUARDRAIL STEEL W BEAM-D FACE	TERMINAL SECTION NO. 1	CRASH CUSHION TYPE IX	CRASH CUSHION TYPE IX-A	GUARDRAIL END TREATMENT TYPE 1	GUARDRAIL END TREATMENT TYPE 2A	GUARDRAIL END TREATMENT TYPE 3	GUARDRAIL END TREATMENT TYPE 4A	REMOVE GUARDRAIL	GUARDRAIL CONNECTOR TO BRIDGE END TY A	GUARDRAIL CONNECTOR TO BRIDGE END TY A-I	REMOVE CRASH CUSHION	COMMENTS
Units				LF		EACH							LF	EACH			
Item Number				21802EN	2352	2360	2929	2365	2367	2369	2373	2391	2381	2363	2387	20432ES112	
WESTERN KY PARKWAY																	
RAMP A	RT	15+65	30+35	1425.0					1				1475.0				
RAMP B	LT	8+78	13+93	487.5								1	525.0	1			
RAMP C	RT	0+81	3+03	187.5						1		1	225.0				
RAMP C	LT	0+81	3+03	187.5						1		1	225.0				
RAMP E	RT	2+11	12+80	1075.0									1075.0		1		
RAMP E	LT	2+27	4+22	200.0						1			200.0		1		
RAMP E	RT	5+22	15+60	1050.0						1			1050.0				
RAMP E-1	RT	0+00	18+23	1825.0						1			1825.0				
RAMP F	RT	3+33	6+56	287.5						1		1	325.0				
RAMP G	RT	17+66	23+88	575.0					1				625.0				
RAMP H	RT	10+33	15+86	525.0								1	562.5	1			
NORTHBOUND COLLECTOR	RT	45+45	47+81	237.5									237.5	1			
SOUTHBOUND COLLECTOR	RT	14+67	20+49	587.5				1		1			587.5			1	
SOUTHBOUND COLLECTOR	RT	42+47	45+22	275.0						1			275.0				
BLUEGRASS PARKWAY																	
BG PARKWAY	LT	84+44	95+18	1075.0									1075.0		1		
BG PARKWAY	RT	91+14	94+72	325.0								1	362.5	1			
BG PARKWAY	MED	92+16	95+01		250.0			1					300.0	1		1	
RAMP A	RT	0+00	4+97	500.0						1							
PROJECT TOTAL				29562.5	662.5	3	6	7	6	24	1	16	31112.5	15	10	13	

Quantities have been carried over and included in the general summary.

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-2060.00	

CENTERLINE COORDINATE DATA - I-65

POINT	DESCRIPTION	STATION	STATE PLANE COORDINATES	
			NORTH (Y)	EAST (X)
POB	BEGINNING	48+54.86	3766290.5431	4891290.7300
PC	PC	55+14.21	3766940.2151	4891403.2858
PI	℄ RADIUS 5729.58	68+02.80	3768209.8908	4891623.2575
PT	PT	80+49.21	3769263.1284	4892365.6554
TS	℄ LENTH 650.00	106+12.33	3771358.1082	4893842.3483
PI	℄ RADIUS 1909.86	114+46.93	3772075.7670	4894264.9429
ST	℄ LENTH 650.00	122+79.74	3772897.6013	4894399.8836
TS	℄ LENTH 575.00	133+38.33	3773952.7255	4894485.4678
PI	℄ RADIUS 2291.83	140+87.00	3774692.9799	4894591.4074
ST	℄ LENGTH 575.00	148+35.00	3775375.2110	4894897.6110
TS	℄ LENGTH 375.00	209+32.93	3780758.4962	4897721.3799
PI	℄ RADIUS 3819.72	219+39.42	3781666.2989	4898155.6446
ST	℄ LENGTH 375.00	229+34.60	3782668.1702	4898250.2262
TS	℄ LENGTH 375.00	246+20.20	3784369.3830	4898347.6934
PI	℄ RADIUS 3819.72	261+97.41	3785938.7568	4898502.8389
ST	℄ LENGTH 375.00	276+99.65	3787120.2608	4899547.3733
PC	PC	302+66.24	3788947.0533	4901302.0065
PI	℄ RADIUS 5729.58	309+25.80	3789422.7296	4901758.8934
PT	PT	315+79.57	3789782.1516	4902311.9119
TS	℄ LENGTH 375.00	354+01.64	3791864.9729	4905516.6098
PI	℄ RADIUS 3819.72	359+69.86	3792187.5394	4905984.2656
ST	℄ LENGTH 375.00	365+37.75	3792573.9926	4906400.6847
TS	℄ LENGTH 375.00	368+61.22	3792800.4615	4906631.6436
PI	℄ RADIUS 3819.72	373+48.75	3793133.3177	4906987.7482
ST	℄ LENGTH 375.00	378+36.22	3793425.3632	4907378.0214
TS	℄ LENGTH 650.00	379+64.06	3793499.4856	4907482.1767
PI	℄ RADIUS 1909.86	395+34.58	3794558.2895	4908637.6702
ST	℄ RADIUS 650.00	409+30.69	3796104.7391	4908383.2600
POE	END	428+51.26	3797947.1246	4907840.8669

CENTERLINE COORDINATE DATA - WKY PKWY SB COLLECTOR

POINT	DESCRIPTION	STATION	STATE PLANE COORDINATES	
			NORTH (Y)	EAST (X)
POB	BEGINNING	0+00.00	3771337.0161	4893746.7331
PI	NON-COINCIDENT	9+44.15	3770610.1435	4893144.1756
PI	NON-COINCIDENT	9+44.15	3770600.8011	4893155.4281
PC	PC	15+03.98	3770169.8039	4892798.1433
PI	℄ RADIUS 2291.83	16+90.00	3770026.5937	4892679.4259
PT	PT	18+75.21	3769866.1125	4892585.3580
PC	PC	37+04.24	3768288.1790	4891660.4337
PI	℄ RADIUS 1432.38	39+78.98	3768051.1576	4891521.5009
PT	PT	42+47.12	3767779.5520	4891480.1256
PI	NON-COINCIDENT	42+47.12	3767779.5509	4891480.1255
PI	NON-COINCIDENT	42+47.12	3767782.6356	4891456.3246
POE	END	52+94.78	3766746.9314	4891298.5481

CENTERLINE COORDINATE DATA - WKY PKWY NB COLLECTOR

POINT	DESCRIPTION	STATION	STATE PLANE COORDINATES	
			NORTH (Y)	EAST (X)
POB	BEGINNING	4+59.25	3766275.1744	4891379.4385
PI	NON-COINCIDENT	9+34.49	3766731.7340	4891511.3602
PI	NON-COINCIDENT	9+34.49	3766736.5848	4891497.1172
PC	PC	21+23.34	3767888.5632	4891790.9192
PI	℄ RADIUS 2291.83	23+18.57	3768077.7332	4891839.1653
PCC	PCC	25+12.85	3768256.0174	4891918.7124
PI	℄ RADIUS 5633.58	30+60.87	3768756.4835	4892142.0106
PT	PT	36+05.46	3769204.5300	4892457.5780
PI	PI	38+15.25	3769376.0480	4892578.3812
PI	NON-COINCIDENT	45+45.15	3769981.0830	4892986.6612
PI	NON-COINCIDENT	45+45.15	3769967.7309	4893006.6042
POE	END	56+10.19	3770857.3579	4893592.1537

CENTERLINE COORDINATE DATA - WKY PKWY RAMP A

POINT	DESCRIPTION	STATION	STATE PLANE COORDINATES	
			NORTH (Y)	EAST (X)
POB	BEGINNING	0+00.00	3770651.6611	4890863.2872
PC	PC	0+00.01	3770651.6566	4890863.2922
PI	℄ RADIUS 1865.86	2+30.79	3770496.9997	4891034.5877
PT	PT	4+59.24	3770305.2680	4891163.0394
PC	PC	6+06.92	3770182.5817	4891245.2336
PI	℄ RADIUS 716.20	8+01.33	3770021.0666	4891353.4414
PT	PT	9+86.59	3769827.0061	4891365.1285
PC	PC	27+32.29	3768084.4624	4891470.0709
PI	℄ RADIUS 1432.40	28+84.21	3767932.8201	4891479.2033
PT	PT	30+34.99	3767782.6356	4891456.3246

CENTERLINE COORDINATE DATA - WKY PKWY RAMP B

POINT	DESCRIPTION	STATION	STATE PLANE COORDINATES	
			NORTH (Y)	EAST (X)
POB	BEGINNING	0+00.00	3768923.5385	4892005.0380
PC	PC	0+00.10	3768923.4559	4892004.9896
PI	℄ RADIUS 479.50	0+93.16	3768843.1679	4891957.9280
PT	PT	1+83.94	3768786.3139	4891884.2491
PC	℄ RADIUS 240.00	1+84.03	3768786.2554	4891884.1733
PCC	PCC	12+80.51	3769148.5983	4891904.3567
PI	℄ RADIUS 480.00	13+40.82	3769106.5316	4891947.5734
PT	PT	14+00.51	3769055.0812	4891979.0400

CENTERLINE COORDINATE DATA - WKY PKWY RAMP C

POINT	DESCRIPTION	STATION	STATE PLANE COORDINATES	
			NORTH (Y)	EAST (X)
POB	BEGINNING	0+00.00	3766731.7340	4891511.3602
PC	PC	6+09.25	3767311.1937	4891699.5473
PI	℄ RADIUS 716.20	8+07.96	3767500.1849	4891760.9247
PT	PT	9+96.92	3767630.5361	4891910.9028
PC	PC	15+99.67	3768025.9357	4892365.8379
PI	℄ RADIUS 229.50	18+11.75	3768165.0605	4892525.9108
PT	PT	19+42.07	3768016.4429	4892677.2113
PI	PI	19+42.53	3768016.1224	4892677.5376
POE	END	22+42.53	3767815.6862	4892900.7535

CENTERLINE COORDINATE DATA - WKY PKWY RAMP D

POINT	DESCRIPTION	STATION	STATE PLANE COORDINATES	
			NORTH (Y)	EAST (X)
PC	℄ RADIUS 230.00	0+00.00	3768404.5139	4892396.0016
PT	PT	9+60.66	3768370.1544	4891997.7356

CENTERLINE COORDINATE DATA - WKY PKWY RAMP E

POINT	DESCRIPTION	STATION	STATE PLANE COORDINATES	
			NORTH (Y)	EAST (X)
POB	BEGINNING	0+00.00	3770610.1435	4893144.1756
PC	PC	6+09.25	3770179.8935	4892712.8164
PI	℄ RADIUS 716.20	9+72.78	3769923.1703	4892455.4313
PT	PT	12+82.04	3769979.3918	4892096.2753
PC	PC	15+13.18	3770015.1391	4891867.9135
PI	℄ RADIUS 763.94	18+00.87	3770059.6313	4891583.6876
PT	PT	20+63.46	3770280.5533	4891399.4122
POE	END	22+88.56	3770453.4152	4891255.2248

CENTERLINE COORDINATE DATA - WKY PKWY RAMP E-1

POINT	DESCRIPTION	STATION	STATE PLANE COORDINATES	
			NORTH (Y)	EAST (X)
POB	BEGINNING	0+00.00	3769979.3918	4892096.2753
PC	PC	2+31.70	3770031.1069	4891870.4169
PI	℄ RADIUS 716.20	3+03.36	3770047.1003	4891800.5679
PCC	PCC	3+74.54	3770076.6151	4891735.2721
PI	℄ RADIUS 358.10	6+92.55	3770207.6035	4891445.4920
PCC	PCC	8+94.63	3770510.8326	4891541.3181
PI	℄ RADIUS 928.47	13+16.41	3770913.0166	4891668.4070
PT	PT	16+86.44	3771081.8840	4892054.9136
POE	END	23+36.56	3771342.1681	4892650.6564

CENTERLINE COORDINATE DATA - WKY PKWY RAMP F

POINT	DESCRIPTION	STATION	STATE PLANE COORDINATES	
			NORTH (Y)	EAST (X)
POB	BEGINNING	0+00.00	3769381.4072	4892273.4231
PC	PC	0+00.00	3769381.4095	4892273.4245
PI	℄ RADIUS 480.00	1+49.58	3769510.4521	4892349.0643
PCC	PCC	2+90.00	3769659.6203	4892338.0083
PI	℄ RADIUS 240.00	15+43.90	3770910.0916	4892245.3762
PT	PT	9+53.21	3769713.7978	4891869.6896
PC	PC	9+53.24	3769713.7667	4891869.6799
PI	℄ RADIUS 358.00	10+55.89	3769615.8315	4891838.9241
PCC	PCC	11+53.18	3769516.4792	4891864.7375
PI	℄ RADIUS 716.20	12+59.48	3769413.5661	4891891.4763
PT	PT	13+64.23	3769322.8827	4891946.9366

CENTERLINE COORDINATE DATA - WKY PKWY RAMP G

POINT	DESCRIPTION	STATION	STATE PLANE COORDINATES	
			NORTH (Y)	EAST (X)
POB	BEGINNING	0+00.00	3767688.3123	4893163.1768
PC	PC	0+00.00	3767688.3131	4893163.1759
PI	℄ RADIUS 716.20	3+07.38	3767887.4941	4892929.0634
PT	PT	5+80.70	3768194.4077	4892912.1567
PC	PC	17+72.19	3769384.0935	4892846.6213
PI	℄ RADIUS 954.50	20+91.16	3769702.5723	4892829.0775
PT	PT	23+87.85	3769967.6159	4893006.5272
POE	END	23+87.98	3769967.7309	4893006.6042

CENTERLINE COORDINATE DATA - WKY PKWY RAMP H

POINT	DESCRIPTION	STATION	STATE PLANE COORDINATES	
			NORTH (Y)	EAST (X)
POB	BEGINNING	0+00.00	3768875.5578	4892270.7088
PC	PC	0+00.12	3768875.6641	4892270.7657
PI	℄ RADIUS 479.50	1+15.60	3768977.4835	4892325.2478
PT	PT	2+26.76	3769043.3357	4892420.1108
PC	℄ RADIUS 240.00	2+38.02	3769049.7550	4892429.3581
PCC	PCC	12+83.61	3768656.0754	4892410.8664
PI	℄ RADIUS 480.00	15+11.57	3768701.6214	4892349.9138
PT	PT	15+86.40	3768763.7852	4892306.0354

CENTERLINE COORDINATE DATA - BG PARKWAY

POINT	DESCRIPTION	STATION	STATE PLANE COORDINATES	
			NORTH (Y)	EAST (X)
POB	BEGINNING	84+44.12	3779018.6022	4896018.6331
PC	PC	84+44.12	3779018.6034	4896018.6335
PI	℄ RADIUS 716.20	89+04.87	3779447.8756	4896186.0094
PT	PT	92+62.98	3779473.5197	4896646.0439
PC	PC	108+94.23	3779564.3110	4898274.7675
PI	℄ RADIUS 2864.79	114+35.36	3779594.4287	4898815.0566
PT	PT	119+63.88	3779819.5494	4899307.1339
POE	END	131+12.38	3780297.3484	4900351.5254

CENTERLINE COORDINATE DATA - BG PARKWAY RAMP A

POINT	DESCRIPTION	STATION	STATE PLANE COORDINATES	
			NORTH (Y)	EAST (X)
POB	BEGINNING	0+00.00	3779030.9120	4895986.9397
PC	PC	0+00.01	3779030.9002	4895986.9351
PI	℄ RADIUS 750.15	2+57.09	3778791.2290	4895893.9488
PT	PT	4+95.35	3778544.9023	4895967.5144
PC	PC	7+92.52	3778260.1622	4896052.5523
PI	℄ RADIUS 818.51	11+16.09	3777950.1183	4896145.1472
PT	PT	14+08.80	3777660.5690	4896000.7094
POE	END	15+58.81	3777526.3384	4895933.7503

CENTERLINE COORDINATE DATA - BG PARKWAY RAMP B

POINT	DESCRIPTION	STATION	STATE PLANE COORDINATES	
			NORTH (Y)	EAST (X)
POB	BEGINNING	0+00.00	3779384.5184	4896927.8482
PC	PC	6+09.25	3778868.7329	4896603.5714
PI	℄ RADIUS 700.00	7+09.94	3778783.4934	4896549.9809
PCC	PCC	8+09.25	3778716.8136	4896474.5387
PI	℄ RADIUS 350.00	9+16.43	3778645.8325	4896394.2312
PCC	PCC	10+17.27	3778631.9908	4896287.9484
PI	℄ RADIUS 230.00	12+39.37	3778603.3102	4896067.7049
PCC	PCC	13+70.52	3778822.4177	4896031.3501
PI	℄ RADIUS 350.00	14+66.35	3778916.9536	4896015.6664
PT	PT	15+57.59	3779006.2937	4896050.3270

CENTERLINE COORDINATE DATA - BG PARKWAY RAMP C

POINT	DESCRIPTION	STATION	STATE PLANE COORDINATES	
			NORTH (Y)	EAST (X)
POB	BEGINNING	0+00.00	3778103.8912	4896403.4521
PC	PC	6+09.26	3778618.4281	4896729.7108
PI	℄ RADIUS 1432.39	11+77.93	3779098.6921	4897034.2376
PT	PT	16+91.93	3779239.2957	4897585.2555
PC	PC	24+97.80	3779438.5446	4898366.1004
PI	℄ RADIUS 5771.56	30+10.08	3779565.2059	4898862.4790
PT	PT	35+19.69	3779777.3155	4899328.7883
POE	END	35+19.70	3779777.3208	4899328.7999

CENTERLINE COORDINATE DATA - BG PARKWAY RAMP D

POINT	DESCRIPTION	STATION	STATE PLANE COORDINATES	
			NORTH (Y)	EAST (X)
POB	BEGINNING	0+00.00	3779724.5453	4898938.4417
PC	PC	0+00.01	3779724.5435	4898938.4356
PI	℄ RADIUS 1432.40	3+08.79	3779635.5395	4898642.7574
PCC	PCC	6+08.27	3779676.2585	4898336.6702
PI	℄ RADIUS 716.20	16+21.37	3779809.8422	4897332.4097
PT	PT	19+76.83	3780712.0346	4897793.3139
POE	END	21+26.82	3780845.6071	4897861.5522

CENTERLINE COORDINATE DATA - US 62 RAMP A

POINT	DESCRIPTION	STATION	STATE PLANE COORDINATES	
			NORTH (Y)	EAST (X)
POB	BEGINNING	0+00.00	3781975.9959	4898242.2557
PC	PC	6+09.25	3782572.0392	4898368.4201
PI	℄ RADIUS 2546.48	9+50.65	3782906.0392	4898439.1179
PT	PT	12+88.00	3783209.6227	4898595.2949
PC	PC	15+62.37	3783453.5970	4898720.8063
PI	℄ RADIUS 200.00	16+33.33	3783516.7003	4898753.2695
PT	PT	16+98.75	3783586.1524	4898738.6994
POE	END	18+46.99	3783731.2258	4898708.2649

CENTERLINE COORDINATE DATA - US 62 RAMP B

POINT	DESCRIPTION	STATION	STATE PLANE COORDINATES	
			NORTH (Y)	EAST (X)
POB	BEGINNING	0+00.00	3783717.9282	4898694.5867
PC	PC	3+87.37	3784064.8542	4898522.2556
PI	℄ RADIUS 763.94	5+84.28	3784241.2028	4898434.6567
PT	PT	7+72.80	3784437.9236	4898443.2171
POE	END	10+22.80	3784687.6895	4898454.0859

CENTERLINE COORDINATE DATA - US 62 RAMP C

POINT	DESCRIPTION	STATION	STATE PLANE COORDINATES	
			NORTH (Y)	EAST (X)
POB	BEGINNING	0+00.00	3784724.5053	4898306.9644
PC	PC	6+09.24	3784121.8093	4898217.8808
PI	℄ RADIUS 1041.74	9+02.17	3783832.0338	4898175.0495
PT	PT	11+80.35	3783607.0458	4897987.4733
PC	PC	12+41.13	3783560.3603	4897948.5509
PI	℄ RADIUS 200.00	13+89.78	3783446.1875	4897853.3631
PT	PT	14+96.79	3783322.1233	4897935.2423
POE	END	15+62.57	3783267.2231	4897971.4750

CENTERLINE COORDINATE DATA - US 62 RAMP D

POINT	DESCRIPTION	STATION	STATE PLANE COORDINATES	
			NORTH (Y)	EAST (X)
POB	BEGINNING	0+00.00	3783275.5951	4897953.0506
PC	PC	2+24.51	3783081.9651	4898066.6827
PI	℄ RADIUS 716.20	4+38.36	3782897.5317	4898174.9177
PT	PT	6+40.14	3782683.9480	4898164.3106
POE	END	8+90.13	3782434.2627	4898151.9105

I-65

COORDINATE CONTROL

I-65 HARDIN COUNTY
MP 90.54 TO MP 97.61
FD52 047 0065 090-098
NHPP IM 0654 (054)
Item No. 4-2060.00

THIS PROJECT IS A FULLY CONTROLLED ACCESS HIGHWAY

I. DESCRIPTION

Perform all work in accordance with the *Kentucky Transportation Cabinet, Department of Highways, Standard Specifications for Road and Bridge Construction, Edition of 2012*, Supplemental Specifications, any applicable Special Provisions, and applicable Standard and Sepia Drawings, except as hereafter specified. Article references are to the Standard Specifications. Furnish all materials, labor, equipment, and incidentals for the following work:

(1) Maintain and Control Traffic; (2) Remove and reset or replace Guardrail and Guardrail End treatments at the locations listed and/or as directed by the Engineer; (3) Inlaid Pavement Markers; (4) Asphalt Pavement Milling and Texturing; (5) Asphalt Surface and Asphalt Base at locations listed and/or as directed by the Engineer; and (6) All other work specified as part of this contract.

II. MATERIALS

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

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

B. **Dense Graded Aggregate.** Crushed Stone Base may not be furnished in lieu of DGA.

C. **Pavement Markings -6 inch Thermo.** Use Thermoplastic Markings 6-inch for permanent striping (12 inch at entrance and exit ramp tapers).

D. **Channel Lining Class II & III.** Channel lining will be limestone and is to be placed at pipe outlets with significant erosion and in ditch repair locations as directed by the Engineer.

E. **Erosion Control Blanket.** Erosion control blanket is to be placed in all ditching areas when ditching is complete, on slope stabilization areas, or as directed by the Engineer. Use Seed Mixture No. 1

III. CONSTRUCTION METHODS

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

B. **Site Preparation.** Be responsible for all site preparation. Do not disturb existing signs. This item will include, but is not limited to, incidental excavation and backfilling; removal of all obstructions or any other items; disposal of materials; sweeping and removal of debris; shoulder preparation and restoration, temporary and permanent erosion and pollution control; and all incidentals. Site preparation will be only as approved or directed by the Engineer. Other than the bid items listed, no direct payment will be made for site preparation, but will be incidental to the other items of work.

C. **Disposal of Waste.** Dispose of all cuttings, debris, and other waste off the right-of-way at approved sites obtained by the Contractor at no additional cost to the Department. The contractor will be responsible for obtaining any necessary permits for this work. Temporary openings in the right of way fence for direct access to waste sites off the right of way or for access to other public roads will not be allowed. No separate payment will be made for the disposal of waste and debris from the project or obtaining the necessary permits, but will be incidental to the other items of the work.

D. **Final Dressing, Clean Up, and Seeding and Protection.** After all work is completed, completely remove all debris from the job site. Perform Class A Final Dressing on all disturbed areas. Sow disturbed earthen areas with Seed Mixture No. I. These items are incidental to other items in the contract.

E. **Guardrail.** Remove and replace guardrail and guardrail End Treatments as directed by the Engineer. Guardrail, End Treatments and Terminal Sections are listed by mile points and quantities are approximate only. Actual locations will be determined by the Engineer at the time of construction. Grade and reshape shoulders to proper template for new End Treatment. Utilize DGA for embankment when required for new end treatments. Remove any existing guardrail with a lane closure in place.

Do not leave the area unprotected. After the guardrail is removed, a shoulder closure shall remain in place until the guardrail is replaced in that area. To minimize safety hazards, guardrail removal is to be performed at the latest practical time prior to initiating the paving operation in an area and re-installation is to begin within 5 calendar days from the time that the final base course is completed and shall be pursued until completion. If guardrail installation is not started within 5 calendar days after paving operations ends, Liquated Damages will be charged as outlined in Section 108 of the 2012 Standard Specifications.

The Contractor shall deliver existing salvaged guardrail system materials to the Central Sign Shop and Recycle Center in in Frankfort, KY (502-564-8187) between the hours of 8:00AM and 3:00PM, Monday through Friday and shall be neatly stacked in accordance with section 719.03.07 of the standard specifications. There is a guardrail delivery verification sheet which must be completed. The Contractor, engineer, and Central Sign/Guardrail Center representative must all sign off on this sheet before payment may be made.

F. **Pavement Striping and Pavement Markers.** Permanent striping will be in accordance with Section 112 and Section 713, except that:

(1). Striping will be 6" in width, 12" in ramp gore areas
(2). Permanent striping will be in place before a lane is opened to traffic; and
(3). Permanent striping will be 6" Durable Waterborne Marking Permanent Paint.

G. **On-Site Inspection.** Each Contractor submitting a bid for this work will make a thorough inspection of the site prior to submitting a bid and will thoroughly familiarize himself with existing conditions so that the work can be expeditiously performed after a contract is awarded. Submission of a bid will be considered evidence of this inspection having been made. Any claims resulting from site conditions will not be honored by the Department.

H. **Caution:** Information shown on the drawings and in this proposal and the types and quantities of work listed are not to be taken as an accurate or complete evaluation of the material and conditions to be encountered during construction. The bidder must draw his own conclusions as to the conditions encountered. The Department does not give any guarantee as to the accuracy of the data and no claim will be considered for additional compensation if the conditions encountered are not in accordance with the information above.

I. **Utility Clearance.** It is not anticipated that utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities.

IV. METHOD OF MEASUREMENT

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

B. **Site Preparation.** Other than the bid items listed, site preparation will not be measured for payment, but will be incidental to the other items of work.

C. **Dense Graded Aggregate.** DGA will be used for guardrail end treatments and slope repair.

D. **Inlaid Pavement Markers and Permanent Striping.** Permanent striping will be

Thermoplastic Markings (6" and 12") is measured per linear foot. See Traffic Control Plan. Inlaid Pavement Markers are measured as each.

E. **Erosion Control Blanket.** Erosion Control Blanket is measured by square yard and is to be used in ditching areas and slope stabilization areas as directed by the Engineer.

F. **Embankment.** Embankment is measured by cubic yard and is to be placed in pipe repair/extension locations and as directed by the Engineer. Contrary to the Standard Specifications, payment will be based on measured quantity **NOT** plan quantity.

V. BASIS OF PAYMENT

No direct payment will be made other than for the bid items listed. All other items required to complete the construction will be incidental to the bid items listed. Existing signs damaged by the Contractor will be replaced by the Contractor at his expense.

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

B. **Site Preparation.** Other than the bid items listed, no direct payment will be allowed for site preparation, but will be incidental to the other items of work.

C. **Dense Grade Aggregate.** See Section 302 of the Standard Specifications.

D. **Inlaid Pavement Markers and Permanent Striping.** See Special Notes and Traffic Control Plan.

NOTES APPLICABLE TO PROJECT
PAVEMENT REHABILITATION
I-65 HARDIN COUNTY
MP 90.54 TO MP 97.61
FD52 047 0065 090-098
NHPP IM 0654 (054)
Item No. 4-2060.00

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

2. The contractor is to be advised locations of low wires may exist. The following locations are approximate:

   I-65 M.P. 91.53
   I-65 M.P. 93.51
   I-65 M.P. 93.95
   I-65 M.P. 94.79
   I-65 M.P. 95.37

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

3. Guardrail, End Treatments, and Terminal Sections to be replaced as directed by the Engineer. Exact placement to be approved by the Engineer on construction.

4. Remove any existing guardrail with a lane closure in place. Do not leave the area unprotected. After the guardrail is removed, a shoulder closure shall remain in place until the guardrail is replaced in that area. The Contractor shall deliver existing salvaged guardrail system materials to the Central Sign Shop and Recycle Center in in Frankfort, KY (502-564-8187) between the hours of 8:00AM and 3:00PM, Monday through Friday and shall be neatly stacked in accordance with section 719.03.07 of the standard specifications. A "Guardrail Delivery Verification Sheet" has been included in this proposal and must be completed prior to delivery for verification of the components delivered. The Contractor, Engineer, and Central Sign Shop and Recycle Center representative must all sign off on this sheet before payment may be made.

5. All blue milepost signs on the project are not to be disturbed. The contractor will be responsible for the replacement of these signs if damaged during construction.

6. A quantity of Channel Lining Class III has been included to be applied to eroded areas around drainage outlets and for some of the areas that are to be ditched. The actual limits of ditching and/or channel lining shall be as directed and/or approved by the Engineer. Geotextile Fabric Type I will not be measured for payment and will be considered incidental to channel lining.

7. All “green” milepost signs shall be replaced with this project. Payment for these signs will be made by “each” for the bid item “Steel Post Mile Markers”. The proposed location for these green mile posts is different than their existing location. The new mile posts are to be placed as follows (see detail sheets):

    I-65 M.P. 91 Sta. 71+63.78
    I-65 M.P. 92 Sta. 124+43.78
    I-65 M.P. 93 Sta. 176+69.00
    I-65 M.P. 94 Sta. 228+93.00
    I-65 M.P. 95 Sta. 281+73.24
    I-65 M.P. 96 Sta. 334+08.90
    I-65 M.P. 97 Sta. 386+78.07

8. Any roadway signs that are damaged during construction are to be replaced at the contractor's expense.

9. Any light poles that are damaged during construction are to be replaced at the contractor's expense.

10. The existing edge drain system is to be preserved. Care should be taken when the asphalt is removed and replaced, any edge drains damaged during these activities will be replaced at the contractor’s expense. Edge drains damaged during placement of replacement outlets will also be replaced at the contractor's expense.

11. Several areas throughout the project have slopes that are beginning to fail or slip due to poor drainage. These areas shall be ditched as directed by the Engineer. The degrading slopes shall be regraded and dressed as directed by the Engineer. Payment for this work will be measured by linear foot of “ditching”, ton of “DGA” and square yard of “erosion control blanket”.

12. A quantity of “DGA” has been included to reshape the shoulders to “normal” condition as directed by the Engineer. Removing guardrail, Asphalt Seal Coat, and Asphalt Seal Aggregate will be paid separately from this item of work. Any other items of work necessary to complete this item of work as directed by the Engineer will be considered incidental to “DGA”.

13. All shoulders, mainline, and ramps are to receive two applications of asphalt seal coat. The width of the asphalt seal may vary throughout the project. The actual width shall be as directed by the Engineer. Quantities of asphalt seal coat and asphalt seal aggregate are included in the General Summary for the project wide shoulder wedging/reshaping.

14. Ditching is included with this project. The contractor shall remove all debris from ditches, including boulders and brush. The contractor shall remove all loose rock and brush up to and including the first bench cut in the existing rock cuts or as directed by the engineer. The median between US 62 Ramp A and US 62 Ramp B shall be reshaped and will be considered incidental to the bid item “Ditching.” A quantity of DGA has been included in the general summary for this purpose.

15. The drainage summary lists locations where the existing grates have been dislodged from their proper position. The contractor will be required to "re-set" the existing grates. “Resetting Grates” will be considered incidental to the bid item “Ditching”. Grates that have been damaged and will need to be replaced and will be paid for under the bid item "Replace Grate" and will be paid for by “each”. The “Replace Grate” bid item will be paid one each per headwall but may include multiple grate segments.

16. The cleaning of existing pipe culvert inlets and outlets 36 inches or less in diameter and perforated pipe headwalls are incidental to the bid item for "Ditching" in accordance with Section 209.03.01 of the 2012 Edition of the Standard Specifications for Road and Bridge Construction. There is a list of locations that have been identified to be cleaned. This list may not be complete and therefore there may be additional outlets which require cleaning. The Engineer will determine any additional outlets to be cleaned.

17. Delineators shall meet the requirements of Section 830 and 838 of the Standard Specifications. Delineators shall be placed in accordance with Section 3F of the M.U.T.C.D.

18. Quantities have been included in the General Summary for major and minor pavement repairs.

19. This project includes cross slope correction on the northbound lanes from approximately Sta. 374+50 (M.P. 96.77) to Sta. 413+40 (M.P. 97.51). Profiles and cross sections detailing this work are attached to this proposal.

20. This project includes the removal and replacement of the median high tension cable barrier throughout the project. See special notes for HTC Median Barrier attached to this proposal. Removal of the existing cable barrier will be considered incidental to the bid items associated with the construction of the new barrier.

21. Pavement Rideability Requirements, in accordance with Section 410 of the Standard Specifications, Current Edition, shall apply on this project. Category A shall apply.

22. Will accept the compaction of asphalt mixtures furnished for the driving lanes at one inch or greater on this project by Option A according to subsections 402 and 403 of the Standard Specifications, Current Edition. Use joint cores as described in subsection 402.03.02 for surface mixtures only. Will accept the compaction of all other mixtures by option B.

23. In accordance with the current MUTCD ensure proper markings at all existing median U-Turn locations. A quantity of yellow flexible delineators has been included for locations at the U-Turn locations.

REFERENCES

1. *Kentucky Transportation Cabinet, Department of Highways, Standard Specifications for Road and Bridge Construction, Edition of 2012.*

2. FHWA Manual on Uniform Traffic Control Devices.

3. Kentucky Department of Highways Standard Drawings, active sepia drawings, as applicable:

   001 Treatment of Open Sinkholes (3/28/16)
   005 Shoulder and Edge Line Rumble Strip Details (11/23/16)
   008 Rumble Strip Details, Multi-Lane Roadways and Ramps (11/23/16)

4. Kentucky Department of Highways Standard Drawings, current editions, as applicable:

RBC-002	Guardrail Connector to Bridge End Type A Components
RBC-003	Guardrail Connector to Bridge End Type A and A-1 Components
RBC-005	Guardrail Connector to Bridge End Type A
RBC-006	Guardrail Connector to Bridge End Type A-1
RBE-070	Concrete Median Barrier End for Crash Cushion Type IX
RBE-200	Crash Cushion Type IX
RBE-205	Crash Cushion Type IX-A
RBI-001	Typical Guardrail Installations
RBI-002	Typical Guardrail Installations
RBI-003	Installation of Guardrail End Treatment Type 2A
RBI-004	Installation of Guardrail End Treatment Type 1
RBI-005	Guardrail Installation at Bridge Columns
RBI-006	Guardrail Installation at Sign Supports
RBR-001	Steel Beam Guardrail “W” Beam
RBR-005	Guardrail Components
RBR-010	Guardrail Terminal Sections
RBR-015	Steel Guardrail Posts
RBR-020	Guardrail End Treatment Type 1
RBR-025	Guardrail End Treatment Type 2A
RBR-030	Guardrail End Treatment Type 3
RBR-035	Guardrail End Treatment Type 4A
RBR-055	Delineators for Guardrail
RDB-013	Drop Box Inlet Type 13 (Detail Sheet)
RDB-014	Drop Box Inlet Type 13 and Type 16 (Frame and Grate Details)
RDB-015	Drop Box Inlet Type 13 (Detail and Bar Chart for Lid)
RDB-100	Sloped Box Outlet Type 1
RDB-105	Sloped and Flared Box Inlet-Outlet
RDB-106	Grates for Sloped and Flared Box Inlet-Outlet
RDB-280	Curb Box Inlet Type B (Detail Drawing)
RDB-281	Curb Box Inlet Type B (Detail Drawing)
RDB-282	Curb Box Inlet Type B (Top Phase Tables)
RDB-320	Curb Box Inlet Type F
RDD-020	Flume Inlet Type 1
RDD-021	Flume Inlet Type 2
RDD-040	Channel Lining Class II and III

RDI-001	Culvert, Entrance & Storm Sewer Pipe Types and Cover Heights (12" – 24" Pipe)
RDP-001	Perforated Pipe Types and Cover Heights
RDP-005	Perforated Pipe for Subgrade Drainage on Two-Lane and Multi-Lane Roads
RDP-010	Perforated Pipe Headwalls
RDX-225	Silt Trap Type B
RPM-100	Curb and Gutter, Curbs and Valley Gutter
RGS-002	Superelevation for Multilane Pavement
RGX-001	Miscellaneous Standards
TPM-105	Pavement Marker Arrangements Multi-Lane Roadways
TPM-110	Pavement Marker Arrangements Multi-Lane Roadways
TPM-125	Pavement Marker Arrangement Exit Gore and Off-Ramp
TPM-126	Pavement Marker Arrangement for Parallel Deceleration Lane
TPM-130	Pavement Markers Arrangements on Ramp with Tapered Acceleration Lane
TPM-135	Pavement Markers Arrangements on Ramp with Parallel Acceleration Lane
TPM-165	Shoulder and Edge Line Rumble Strip Details
TPM-170	Flexible Delineator Post Arrangements for Horizontal Curves
TPM-171	Flexible Delineator Post Arrangements for Interchange Ramps and Crossovers
TTC-115	Lane Closure Multi-Lane Highway Case I
TTC-125	Double Lane Closure
TTC-135	Shoulder Closure
TTD-110	Post Splicing Detail
TTD-120	Work Zone Speed Limit and Double Fine Signs
TTD-125	Pavement Condition Warning Signs
TTS-110	Mobile Operation for Paint Striping Case III
TTS-115	Mobile Operation for Paint Striping Case IV
TTS-120	Mobile Operation for Durable Striping Case I
TTS-125	Mobile Operation for Durable Striping Case II

5. *Kentucky Transportation Cabinet, Department of Highways, Standard Specifications for Road and Bridge Construction, Edition of 2012*, Appendix B - Supplemental Specifications, as applicable:

Special Note	1I Portable Changeable Message Signs (6/15/2012)
Special Note	Asphalt Milling and Texturing *attached*
Special Note	Typical Section Dimensions *attached*
Special Note	Before You Dig *attached*
Special Note	Guardrail Delivery Verification Sheet *attached*
Special Note	Fixed Completion Date and Liquidated Damages *attached*
Special Note	Inlaid Pavement Markers *attached*
Special Note	Material Transfer Vehicle *attached*
Special Note	Shoulder Preparation and Restoration *attached* (See MOT Notes)
Special Note	Public Information Plan *attached*
Special Note	Paver Mounted Temperature Profiles *attached*
Special Note	Intelligent Compaction of Asphalt Mixtures *attached*
Special Note	HTC Median Barrier Constuction *attached*
Special Note	HTC Median Barrier Installation and Layout *attached*
Special Note	Installation and Maintenance Training *attached*
Special Note	High Tension Cable-Rope Median Barrier *attached*
Special Note	Material, Installation, and Bid Item Notes for Permanent Traffic Data Acquisition Stations *attached*
Special Note	Bridge Rehabilitation *attached*

TRAFFIC CONTROL PLAN
I-65 HARDIN COUNTY
MP 90.54 TO MP 97.61
FD52 047 0065 090-098
NHPP IM 0654 (054)
Item No. 4-2060.00

THIS PROJECT IS A FULLY CONTROLLED ACCESS HIGHWAY

TRAFFIC CONTROL GENERAL

Except as provided herein, maintain and control traffic in accordance with the 2012 Standard Specifications and the Standard Drawings, current editions. Except for the roadway and traffic control bid items listed, all items of work necessary to maintain and control traffic will be paid at the lump sum bid price to "Maintain and Control Traffic". All lane closures used on the Project will be in compliance with the appropriate Standard Drawings. Do NOT use Cones for lane closures or shoulder closures.

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

Reduce the speed limit in work areas to 55 miles per hour and establish double fines for work zone speeding violations. The extent of these areas within the project limits will be restricted to the proximity of actual work areas as determined by the Engineer. Notify the Engineer a minimum of 12 hours prior to using the double fine signs. At the beginning of the work zone, the “WARNING FINE DOUBLED IN WORK ZONE” signs will be dual mounted. At the end of the work zone, the “END DOUBLE FINE” signs will be dual mounted as well. Remove or cover the signs when the highway work zone does not have workers present for more than a two-hour period of time. Payment for the signs will be at the unit bid price for signs erected. Any relocation or covering of signs will be incidental to Maintain and Control Traffic.

Night work is permitted on this project. Obtain approval from the Engineer for the method of lighting prior to its use.

PROJECT PHASING & CONSTRUCTION PROCEDURES

No lane closures will be allowed during the following days:

Independence Day Weekend	June 30, 2017 – July 5, 2017
Labor Day Weekend	September 1-4, 2017
KEA (Fall Break)	To be determined by the Department
Thanksgiving Weekend	November 22-26, 2017
Christmas & New Year's Day	December 22, 2017 – January 1, 2018
Easter Weekend	March 30, 2018 – April 2, 2018
KEA (Spring Break)	To be determined by the Department
Kentucky Derby Weekend	May 4-7, 2018
Mother's Day Weekend	May 11-14, 2018
Memorial Day Weekend	May 25-28, 2018

All work done on the eastbound and westbound ramps and bridges for the Bluegrass Parkway over I-65 and southbound exit ramps to the Western Kentucky Parkway, including the bridge over US 31W shall be completed during **one weekend per bridge** starting on Friday at 9:00 PM and being finished by Wednesday at 6:00 AM.

A single lane closure will be allowed **anytime** unless otherwise stated in this proposal or approved by the Engineer.

A double lane closure will only be allowed in each direction during the following days and hours unless otherwise stated in this proposal or approved by the Engineer:

9:00 p.m. Sunday to 6:00 a.m. Monday
9:00 p.m. Monday to 6:00 a.m. Tuesday
9:00 p.m. Tuesday to 6:00 a.m. Wednesday
9:00 p.m. Wednesday to 6:00 a.m. Thursday
9:00 p.m. Thursday to 6:00 a.m. Friday
9:00 p.m. Friday to 9:00 a.m. Saturday
9:00 p.m. Saturday to 9:00 a.m. Sunday

All traffic that would normally use a closed ramp during ramp repairs during the one chosen weekend is to be rerouted along a detour. Details about each detour route and signage to use are given on the maintenance of traffic detour route maps. Payment for the detour is included in the bid item "Maintain and Control Traffic," lump sum.

The minimum clear lane width will be 11 feet. Use a lane closure all times when work is performed in the lane or adjacent shoulder. Shoulders used as temporary roadways will be inspected by the Engineer and if deemed necessary by the Engineer, repaired with Asphalt Mixture for Level & Wedging as directed prior to opening to traffic. Perform any maintenance of the shoulder as deemed necessary by the Engineer in order to maintain traffic. All removal of existing striping shall be by water blasting, unless otherwise directed by the Engineer, and this work shall be considered incidental to "Maintain and Control Traffic." Remove edge lines as necessary and approved by the Engineer throughout the project. Paint temporary edge lines through the lane closure.

All pavement edge transitions must be smooth and level before opening both lanes up to traffic. A lane closure must be in place during all times that pavement edge drop-offs are present (see Pavement Edge Drop-off note).

The Engineer will determine exact locations of pavement repair, if any, at the time of construction. Once removal of pavement at a particular repair location has begun, work continuously within the parameters outlined above to complete the work and eliminate the "hole". Place Type III Barricades immediately in front of pavement removal areas. Once pavement removal at a site has begun, full depth replacement must be completed within the time a lane closure is allowed.

Access to all ramps at all interchanges on the project shall be maintained at all times unless otherwise noted in this proposal or directed by the Engineer. All diversions to access ramps in areas of lane closures shall be approved by the Engineer prior to implementing the particular lane closure.

Note that Lane shifts are required throughout the project. See the Exhibits for lane locations and widths. Stripe according to the MUTCD.

During the days and hours when a lane closure is allowed, implement the following procedures: Maintain traffic as specified in the phasing notes. Any other work not requiring traffic lane widths to be restricted due to barrels or equipment encroaching into the interior lanes can be done during the remaining hours when two lanes of traffic must be maintained. Please refer to the "Special Note for Fixed Completion Date and Liquidated Damages" for damage rates per hour associated with failure to maintain the required number of lanes during the specified time period. Once pavement removal at a site has begun, full depth replacement must be completed within the time a lane closure is allowed. Liquidated Damages, at the rate specified per hour in the "Special Note for Fixed Completion Date and Liquidated Damages", will be assessed for each hour the existing number of lanes is not maintained.

The contractor must notify the Engineer at least fourteen (14) days prior to beginning construction in either direction.

SHOULDER PREPARATION AND RESTORATION

Prior to placing any lane closure that requires shifting traffic onto existing shoulders, patch and remove any foreign debris on the shoulders as directed by the Engineer. Remove failed materials and perform additional patching as directed by the Engineer during the time the shoulder is used as a travel lane. All work required for shoulder preparation and restoration is incidental to Maintenance of Traffic, with the exception of the asphalt patching, which will be paid at the contract unit bid price for "LEVELING AND WEDGING PG76-22".

OUTSIDE SHOULDER, OUTSIDE LANES AND RAMP PAVEMENT REPAIR

Close the outside lanes to traffic. Repair pavement failures in the outside lanes, outside shoulder and ramps as determined by the Engineer. Construct permeable pavement drains, as noted or as directed by the Engineer, in the outside lanes. Once the pavement has been removed, the Contractor must work continuously until the pavement has been replaced. The Engineer may restrict the number of locations being repaired at the same time.

INSIDE SHOULDER AND INSIDE LANES PAVEMENT REPAIR

Close the inside lanes to traffic. Repair pavement failures in the inside lanes and shoulder as determined by the Engineer. Once the pavement has been removed, the Contractor must work continuously until the pavement has been replaced. The Engineer may restrict the number of locations being repaired at the same time.

OUTSIDE LANE, OUTSIDE SHOULDER, AND RAMPS MILL AND FILL

Shift traffic to the inside lanes and close the outside lane to traffic. Mill roadway 1.75 inches on the outside lane and shoulder. Mill roadway 1.75 inches on the ramps utilizing part width construction phasing. The ramps must remain open during the lane closure.

Ramps needing milling and surface course:

Western KY Parkway Ramp A
Western KY Parkway Ramp B
Western KY Parkway Ramp C
Western KY Parkway Ramp D
Western KY Parkway Ramp E
Western KY Parkway Ramp E-1
Western KY Parkway Ramp F
Western KY Parkway Ramp G
Western KY Parkway Ramp H
Western KY Parkway Southbound Collector-Distributor
Western KY Parkway Northbound Collector-Distributor

Bluegrass Parkway Ramp A
Bluegrass Parkway Ramp B
Bluegrass Parkway Ramp C
Bluegrass Parkway Ramp D

US 62 Ramp A
US 62 Ramp B
US 62 Ramp C
US 62 Ramp D

Complete any roadside work including guardrail installation. Place the 1.5 inch final surface course on the outside lanes and shoulder with the exception of the southbound outside lanes and shoulder from MP 94.01 to MP 97.61, which is to receive the 3 inch base course only in this phase. Complete proposed bridge deck overlays on outside lanes and shoulders of the mainline bridges.

INSIDE LANES AND INSIDE SHOULDER MILL AND FILL

Shift traffic to the outside lanes and close the inside lanes to traffic. Mill roadway 1.75 inches on the inside lanes and shoulder. Place 3 inch base course on the southbound inside lanes and shoulder from MP 94.01 to MP 97.61. Place the 1.5 inch final surface course on the inside lanes and shoulder for both directions. Complete proposed bridge deck overlays on inside lanes and

shoulders of the mainline bridges.

PLACE FINAL SURFACE COURSE ON SOUTHBOUND LANES

Shift traffic to the inside lanes and close the outside lane to traffic. Place 1.5 inch final surface course on the southbound outside lanes and shoulder from MP 94.01 to MP 97.61.

PLACE PERMANENT STRIPING

After all other work is completed, place permanent striping. Mobile operations may be utilized. In addition to newly paved areas, place permanent striping on bridge decks within the project limits. Place permanent striping in accordance with the latest edition of the MUTCD.

LANE CLOSURES

Limit the lengths of lane closures to only that needed for actual operations in accordance with the phasing specified herein, or as directed by the Engineer. Limit lane closures to allow two lanes open per direction at any given time. No long term lane closures will be allowed. A minimum distance of 2 miles will be required between lane closures per direction. Contrary to section 112, lane closures will **NOT** be measured for payment, but are considered incidental to Maintain and Control Traffic.

DETOURS

With limited widths on ramp bridges receiving bridge deck overlays, weekend ramp closures will be allowed from 9:00 PM Friday till 6:00 AM Wednesday for the following ramps:

Western KY Parkway Ramp B
Western KY Parkway Ramp E + E-1
Western KY Parkway Southbound Collector-Distributor

Bluegrass Parkway Ramp A
Bluegrass Parkway Ramp B

One weekend will be allowed for the listed Western Kentucky Parkway Ramps to complete bridge work on bridge over US 31W as well as the proposed ramp pavement repairs and milling and resurfacing on the listed ramps.

One weekend will be allowed for the Bluegrass Parkway Ramp A to complete bridge work on bridge over I-65 as well as the proposed ramp pavement repairs and milling and resurfacing on this ramp.

One weekend will be allowed for the Bluegrass Parkway Ramp B to complete bridge work on bridge over I-65 as well as the proposed ramp pavement repairs and milling and resurfacing on this ramp.

Weekend closures will not be permitted concurrently due to detour requirements. See detour detail sheets attached. Detours will **NOT** be measured for payment, but are considered incidental to Maintain and Control Traffic. Liquidated Damages, at the rate specified per hour in the “Special Note for Fixed Completion Date and Liquidated Damages”, will be assessed for each hour the ramp closures remain in place beyond the specified time.

SIGNS

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

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

A quantity of signs has been included for lane shifts, "Roadwork Ahead" signs on entrance ramps, and extra Double Fine signs and Speed Limit signs between interchanges to be paid only once no matter how many times they are moved or relocated.

FLASHING ARROWS

Flashing arrows will be paid for once, no matter how many times they are moved or relocated. The Department **WILL NOT** take possession of the flashing arrows upon completion of the work.

PORTABLE CHANGEABLE MESSAGE SIGNS

Provide portable changeable message signs in advance of and within the project at locations to be determined by the Engineer. If work is in progress concurrently in both directions, or if more than one lane closure is in place in the same direction of travel, provide additional portable changeable message signs. Place portable changeable message signs one mile in advance of the anticipated queue at each lane closure. As the actual queue lengthens and/or shortens relocate or provide additional portable changeable message signs so that traffic has warning of slowed or stopped traffic at least one mile but not more than two miles before reaching the end of the actual queue. The locations designated may vary as the work progresses. The messages required to be provided will be designated by the Engineer. The portable changeable message signs will be in operation at all times. In the event of damage or mechanical/electrical failure, the Contractor will repair or replace the Portable Changeable Message Sign immediately. Portable Changeable Message Signs will be paid for once, no matter how many times they are moved or relocated. The Department will take possession of **two** of the signs upon completion of the work. The remaining will become possession of the contractor.

BARRELS

Barrels are to be used for channelization or delineation and will be incidental to "MAINTAIN AND CONTROL TRAFFIC" according to Section 112.04.01. Replacements for damaged barrels directed by the Engineer to be replaced due to poor condition or reflectivity will not be measured for payment.

TRUCK MOUNTED ATTENUATORS

Furnish and install MUTCD approved Truck Mounted Attenuators in advance of work areas when workers are present less than 12 feet from traffic. If there is less than 500 feet between work sites, only a single TMA will be required at a location directed by the Engineer. Locate the TMAs at the individual work sites and move them as the work zone moves within the project limits. All details of the TMA installations shall be approved by the Engineer. Truck Mounted Attenuators will not be measured for payment, but are incidental to Maintain and Control Traffic. The Department **WILL NOT** take possession of the TMAs upon completion of the work.

PAVEMENT MARKINGS

If lane closures are in place during nighttime hours, remove or cover the lenses of raised pavement markers that do not conform to the traffic control scheme in use, or as directed by the Engineer. Replace or uncover lenses before a closed lane is reopened to traffic. No direct payment will be made for removing and replacing or covering and uncovering the lenses, but will be incidental to "Maintain and Control Traffic".

Place temporary and permanent striping in accordance with Section 112 and section 713, except that:

1. Temporary and permanent striping will be 6" in width; and
2. If the contractor's operations or phasing requires temporary markings which must be subsequently removed from the ultimate pavement, an approved removable lane tape will be used; however removable tape will be measured and paid as Pavement Striping-Temporary Paint 6”; and
3. Edge lines will be required for temporary striping; and
4. Existing, temporary, or permanent striping will be in place before a lane is opened to traffic.
5. Place permanent striping on pavement within the project limits.
6. Permanent striping will be thermoplastic.

Should the Contractor change the existing striping pattern, the Contractor is to restripe the roadway back to its original configuration after a certain period of time especially if no work is anticipated for a period of time (i.e. winter shutdown).

PAVEMENT EDGE DROP-OFFS

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

A pavement edge between opposing directions of traffic or lanes that traffic is expected to cross in a lane change situation shall not have an elevation difference greater than 1 ½". Place warning signs (MUTCD W8-11 or W8-9A) in advance of and at 1500' intervals throughout the drop-off area. Dual posting on both sides of the traveled way shall be required. Wedge all transverse transitions between resurfaced and unresurfaced areas which traffic may cross with asphalt mixture for leveling and wedging. Remove the wedges prior to placement of the final surface course. Pavement edges that traffic is not expected to cross, except accidentally, shall be treated as follows:

Less than 2" – Protect with a lane closure.

2" to 4" – Protect with a lane closure. Place plastic drums, vertical panels, or barricades every 50 feet. Cones may not be used in place of plastic drums, panels, and barricades at any time. Construct a wedge with compacted cuttings from milling, trenching, or asphalt mixtures with a 3:1 or flatter slope, when work is not active in the drop-off area. Place Type III Barricades at the beginning of the lane closures, and place additional Type III Barricades spaced at 2,500 feet during the time the lane closure is in place.

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

Guardrail Installation – Guardrail will be removed at the last practical moment and replaced as soon as the placement of all base courses in an area requiring guardrail is complete. All areas from which guardrail is removed shall be protected by a shoulder closure or other method approved by the Engineer until the new guardrail is installed.

TRAFFIC COORDINATOR

Designate an employee to be Traffic Coordinator. The designated Traffic Coordinator must be certified by an agency qualified for training in this area. The Traffic Coordinator will inspect the project maintenance of traffic once every two hours during the Contractor's operations and at any time a lane closure is in place. The Traffic Coordinator will report all incidents throughout the work zone to the Engineer on the project. The Contractor will furnish the name and telephone number where the Traffic Coordinator can be contacted at all times.

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

COORDINATION OF WORK

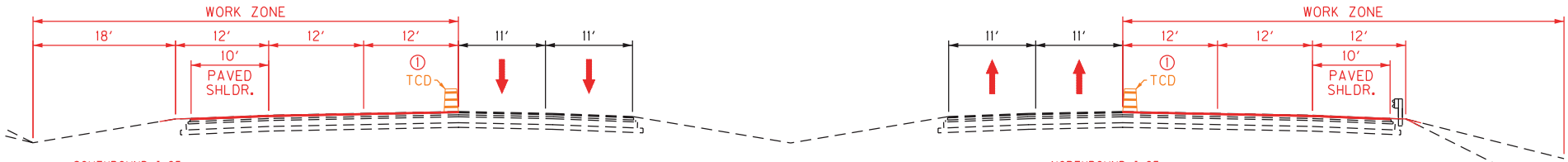
The Contractor is advised that other projects may be in progress within or in the near vicinity of this project. The traffic control of those projects may affect this project and the traffic control of this project may affect those projects. The Contractor will coordinate the work on this project with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

CONTRACTOR'S AND CONTRACTOR'S EMPLOYEES' VEHICLES

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

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-2060.00	

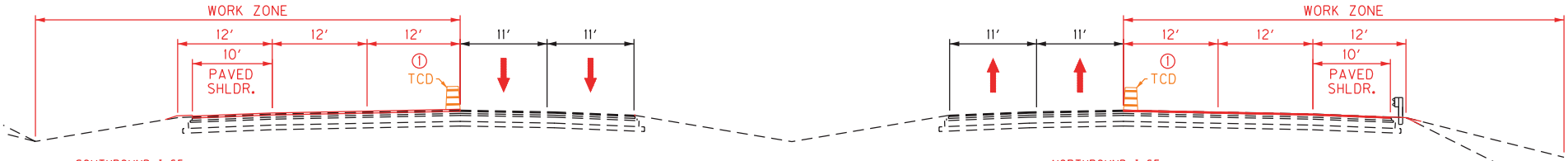
I–65
MAINTENANCE OF TRAFFIC
TYPICAL SECTIONS



SOUTHBOUND I-65
- PERFORM PAVEMENT REPAIRS WHERE NECESSARY ON LANES AND SHOULDER
- CONSTRUCT MILLING ON LANES AND SHOULDERS
- CONSTRUCT SURFACE PAVEMENT

NORTHBOUND I-65
- PERFORM PAVEMENT REPAIRS WHERE NECESSARY ON LANES AND SHOULDER
- CONSTRUCT MILLING ON LANES AND SHOULDERS
- CONSTRUCT SURFACE PAVEMENT

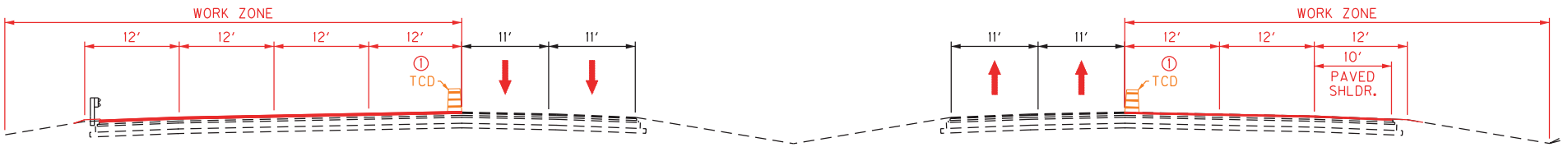
PHASE I
I–65 (6 LANE)
MP 91.37 TO MP 94.01



SOUTHBOUND I-65
- PERFORM PAVEMENT REPAIRS WHERE NECESSARY ON LANES AND SHOULDER
- CONSTRUCT MILLING ON LANES AND SHOULDERS
- CONSTRUCT 3" ASPHALT BASE

NORTHBOUND I-65
- PERFORM PAVEMENT REPAIRS WHERE NECESSARY ON LANES AND SHOULDER
- CONSTRUCT MILLING ON LANES AND SHOULDERS
- CONSTRUCT SURFACE PAVEMENT

PHASE I
I–65 (6 LANE)
MP 94.01 TO MP 95.12



SOUTHBOUND I-65
- PERFORM PAVEMENT REPAIRS WHERE NECESSARY ON LANES AND SHOULDER
- CONSTRUCT MILLING ON LANES AND SHOULDERS
- CONSTRUCT 3" ASPHALT BASE

NORTHBOUND I-65
- PERFORM PAVEMENT REPAIRS WHERE NECESSARY ON LANES AND SHOULDER
- CONSTRUCT MILLING ON LANES AND SHOULDERS
- CONSTRUCT SURFACE PAVEMENT

PHASE I
I–65 (6 LANE WITH TRUCK CLIMBING LANE)
MP 95.12 TO MP 97.61

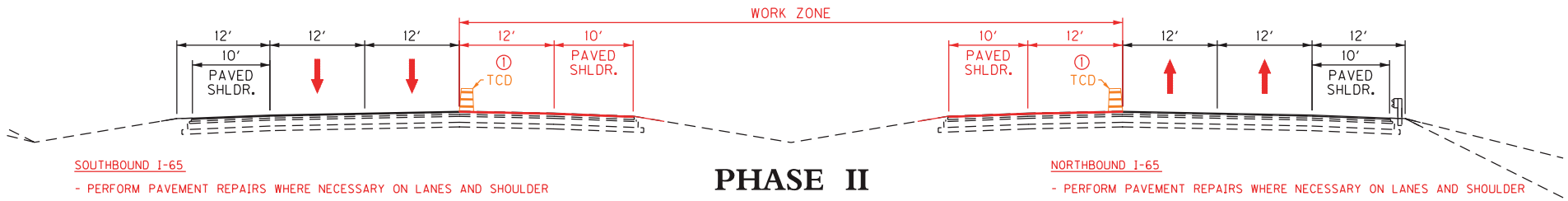
① TCDs SHALL BE SHIFTED TO ALLOW ADEQUATE SPACE TO PERFORM PAVEMENT REPAIRS AND PAVING OPERATIONS.

NOT TO SCALE

I-65
MAINTENANCE OF TRAFFIC
TYPICAL SECTIONS

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-2060.00	

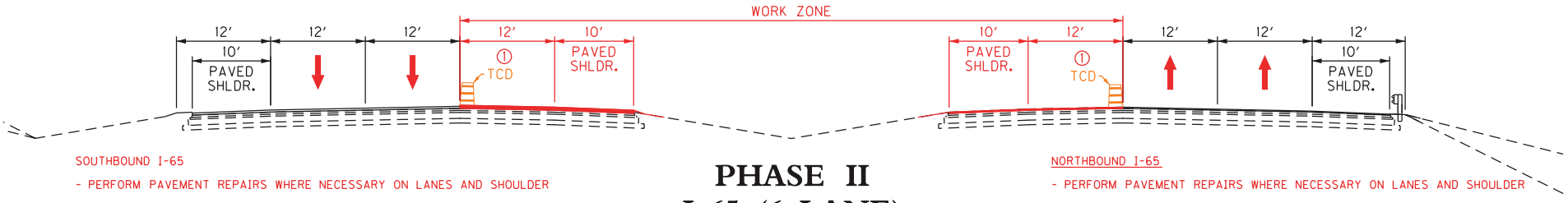
I–65
MAINTENANCE OF TRAFFIC
TYPICAL SECTIONS



SOUTHBOUND I-65
- PERFORM PAVEMENT REPAIRS WHERE NECESSARY ON LANES AND SHOULDER
- CONSTRUCT MILLING ON LANES AND SHOULDERS
- CONSTRUCT SURFACE PAVEMENT

PHASE II
I–65 (6 LANE)
MP 91.37 TO MP 94.01

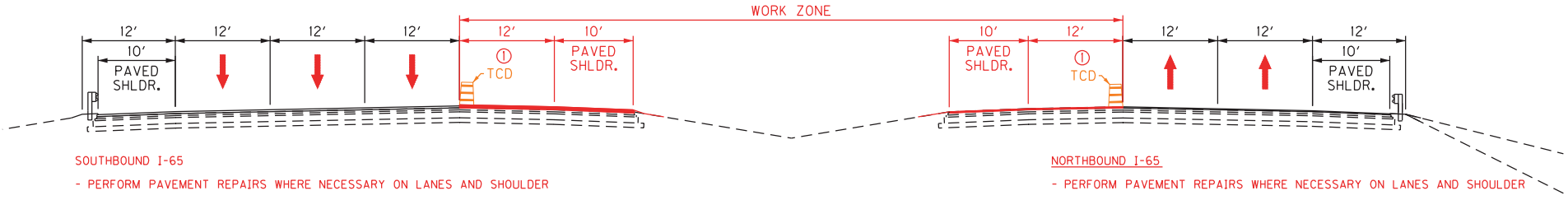
NORTHBOUND I-65
- PERFORM PAVEMENT REPAIRS WHERE NECESSARY ON LANES AND SHOULDER
- CONSTRUCT MILLING ON LANES AND SHOULDERS
- CONSTRUCT SURFACE PAVEMENT



SOUTHBOUND I-65
- PERFORM PAVEMENT REPAIRS WHERE NECESSARY ON LANES AND SHOULDER
- CONSTRUCT MILLING ON LANES AND SHOULDERS
- CONSTRUCT ASPHALT BASE
- CONSTRUCT SURFACE PAVEMENT

PHASE II
I–65 (6 LANE)
MP 94.01 TO MP 95.12

NORTHBOUND I-65
- PERFORM PAVEMENT REPAIRS WHERE NECESSARY ON LANES AND SHOULDER
- CONSTRUCT MILLING ON LANES AND SHOULDERS
- CONSTRUCT SURFACE PAVEMENT



SOUTHBOUND I-65
- PERFORM PAVEMENT REPAIRS WHERE NECESSARY ON LANES AND SHOULDER
- CONSTRUCT MILLING ON LANES AND SHOULDERS
- CONSTRUCT ASPHALT BASE
- CONSTRUCT SURFACE PAVEMENT

PHASE II
I–65 (6 LANE WITH TRUCK CLIMBING LANE)
MP 95.12 TO MP 97.61

NORTHBOUND I-65
- PERFORM PAVEMENT REPAIRS WHERE NECESSARY ON LANES AND SHOULDER
- CONSTRUCT MILLING ON LANES AND SHOULDERS
- CONSTRUCT SURFACE PAVEMENT

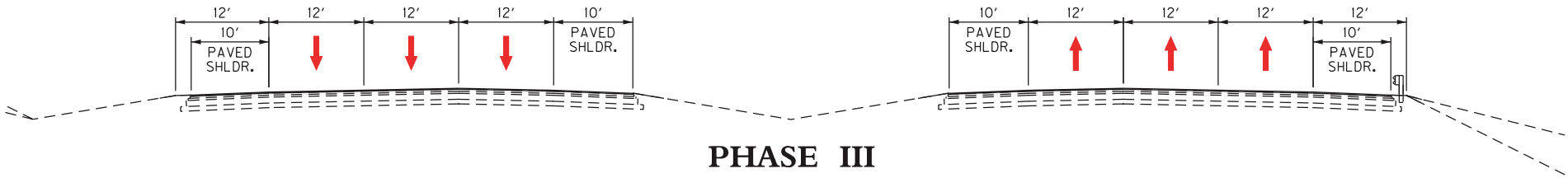
① TCDs SHALL BE SHIFTED TO ALLOW ADEQUATE SPACE TO PERFORM PAVEMENT REPAIRS AND PAVING OPERATIONS.

NOT TO SCALE

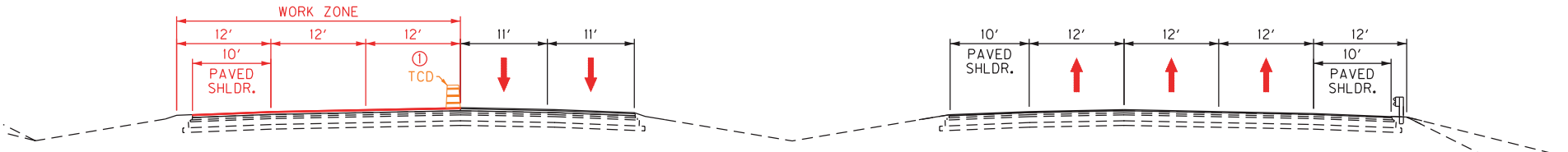
I-65
MAINTENANCE OF TRAFFIC
TYPICAL SECTIONS

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-2060.00	

I–65
MAINTENANCE OF TRAFFIC
TYPICAL SECTIONS



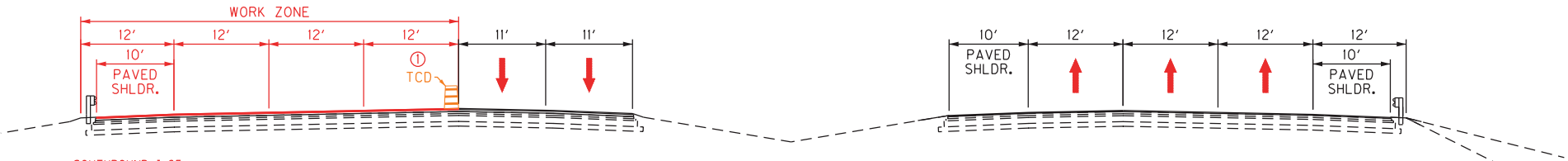
PHASE III
I–65 (6 LANE)
MP 91.37 TO MP 94.01



SOUTHBOUND I-65

- CONSTRUCT SURFACE PAVEMENT

PHASE III
I–65 (6 LANE)
MP 94.01 TO MP 95.12



SOUTHBOUND I-65

- CONSTRUCT SURFACE PAVEMENT

PHASE III
I–65 (6 LANE WITH TRUCK CLIMBING LANE)
MP 95.12 TO MP 97.61

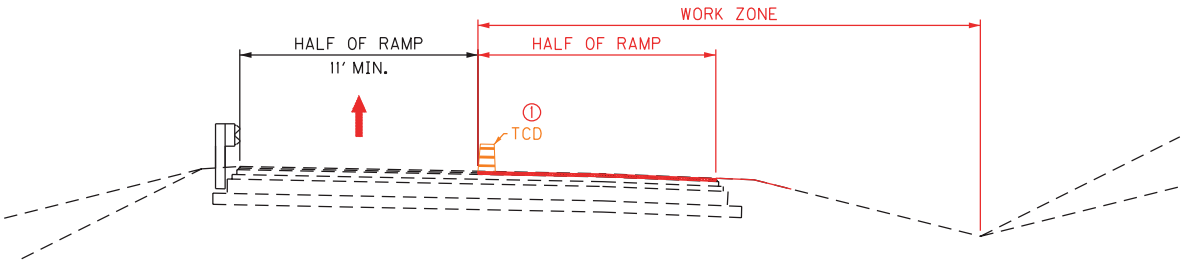
① TCDs SHALL BE SHIFTED TO ALLOW ADEQUATE SPACE TO PERFORM PAVEMENT REPAIRS AND PAVING OPERATIONS.

NOT TO SCALE

I-65
MAINTENANCE OF TRAFFIC
TYPICAL SECTIONS

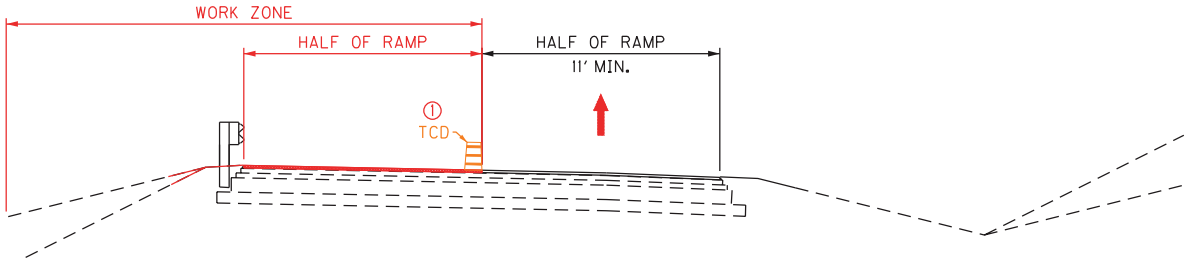
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-2060.00	

RAMPS AND CONNECTORS MAINTENANCE OF TRAFFIC TYPICAL SECTIONS



- PERFORM PAVEMENT REPAIRS WHERE NECESSARY ON LANES AND SHOULDER
- CONSTRUCT MILLING ON LANES AND SHOULDERS
- CONSTRUCT SURFACE PAVEMENT

PHASE IA ②
RAMPS AND CONNECTORS



- PERFORM PAVEMENT REPAIRS WHERE NECESSARY ON LANES AND SHOULDER
- CONSTRUCT MILLING ON LANES AND SHOULDERS
- CONSTRUCT SURFACE PAVEMENT

PHASE IB ②
RAMPS AND CONNECTORS

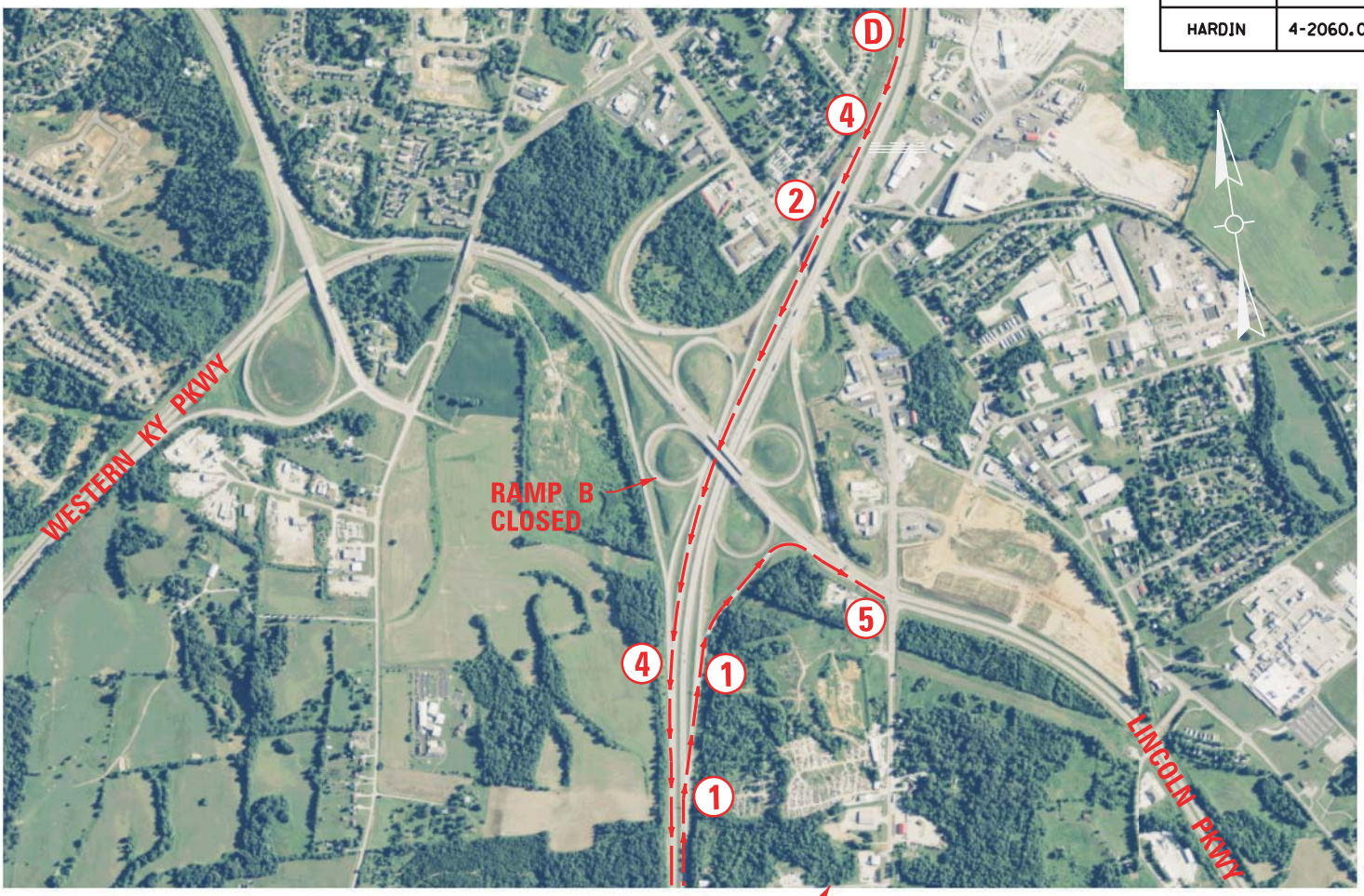
① TCDs SHALL BE SHIFTED TO ALLOW ADEQUATE SPACE TO PERFORM PAVEMENT REPAIRS AND PAVING OPERATIONS.

② RAMPS AND CONNECTORS ARE TO BE CONSTRUCTED WHEN OUTSIDE MAINLINE LANES AND SHOULDER WORK IS BEING PERFORMED. UTILIZE PART-WIDTH CONSTRUCTION PHASING ON THE RAMPS.

NOT TO SCALE

RAMPS AND CONNECTORS
MAINTENANCE OF TRAFFIC
TYPICAL SECTIONS

COUNTY OF	ITEM NO.
HARDIN	4-2060.00



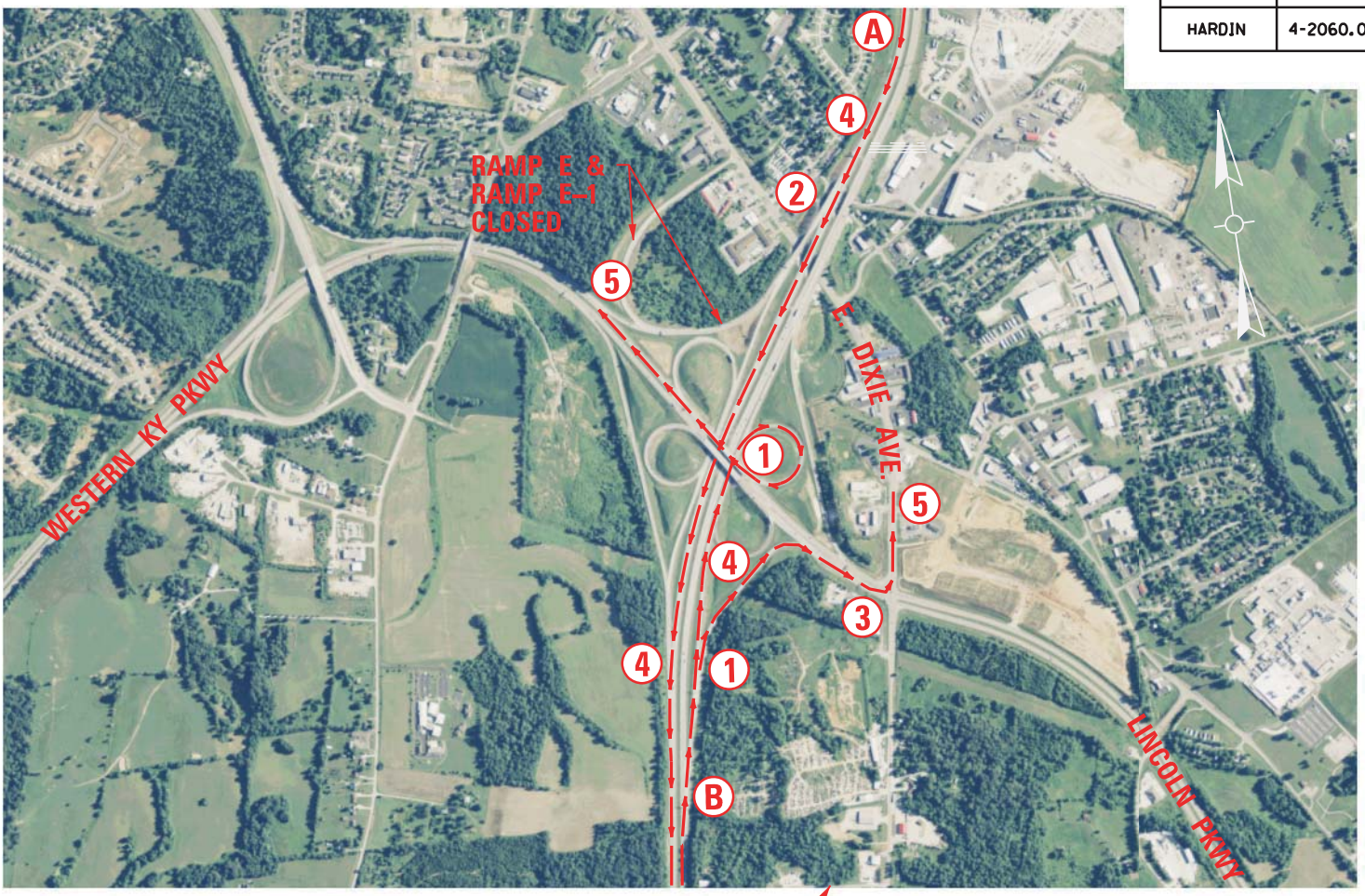
APPROX. 3.7 MILES

NOTE:
ALL SIGNS SHALL BE PLACED IN LOCATIONS NOTED OR AS DIRECTED AND/OR APPROVED BY THE ENGINEER. (SEE DETOUR SIGN KEY)

SCALE: 1"=1500'

DETOUR PLAN – RAMP B
SOUTHBOUND I-65 TO EASTBOUND
WESTERN KENTUCKY PKWY

COUNTY OF	ITEM NO.
HARDIN	4-2060.00



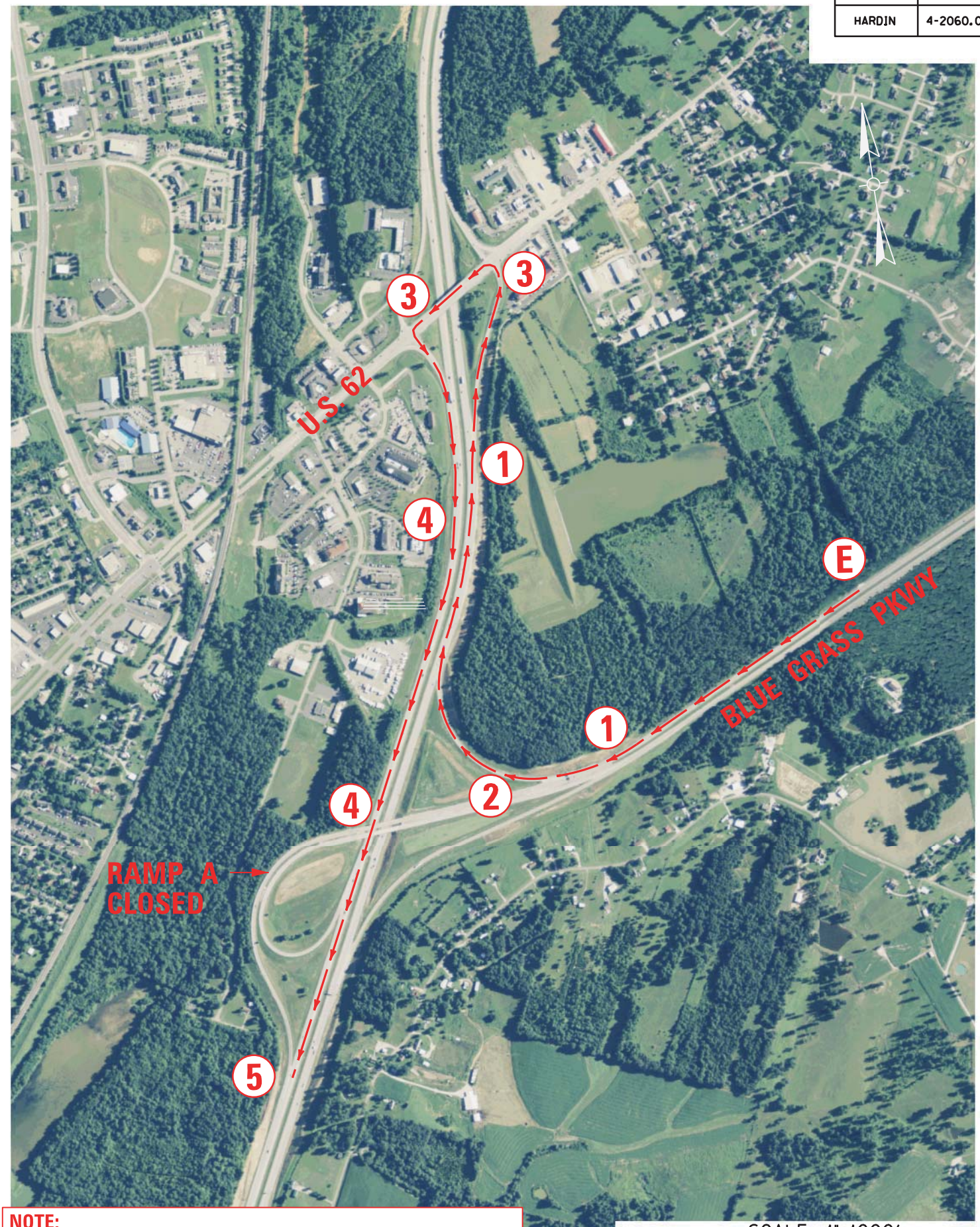
APPROX. 3.7 MILES

NOTE:
ALL SIGNS SHALL BE PLACED IN LOCATIONS NOTED OR AS DIRECTED AND/OR APPROVED BY THE ENGINEER. (SEE DETOUR SIGN KEY)

SCALE: 1"=1500'

DETOUR PLAN – RAMPS E & E-1
SOUTHBOUND I-65 TO WESTBOUND
WESTERN KENTUCKY PKWY

COUNTY OF	ITEM NO.
HARDIN	4-2060.00

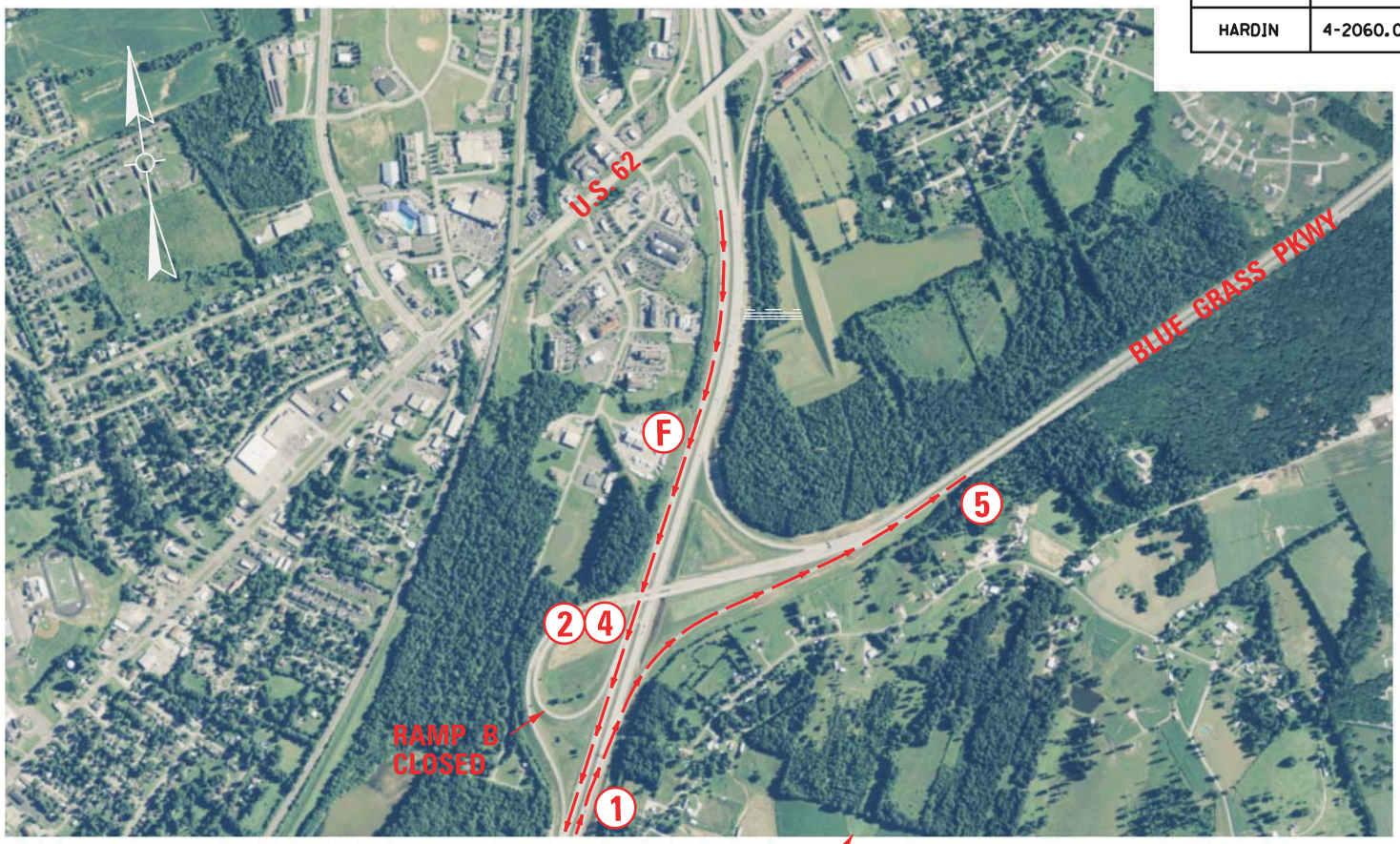


NOTE:
ALL SIGNS SHALL BE PLACED IN LOCATIONS NOTED OR AS DIRECTED AND/OR APPROVED BY THE ENGINEER. (SEE DETOUR SIGN KEY)

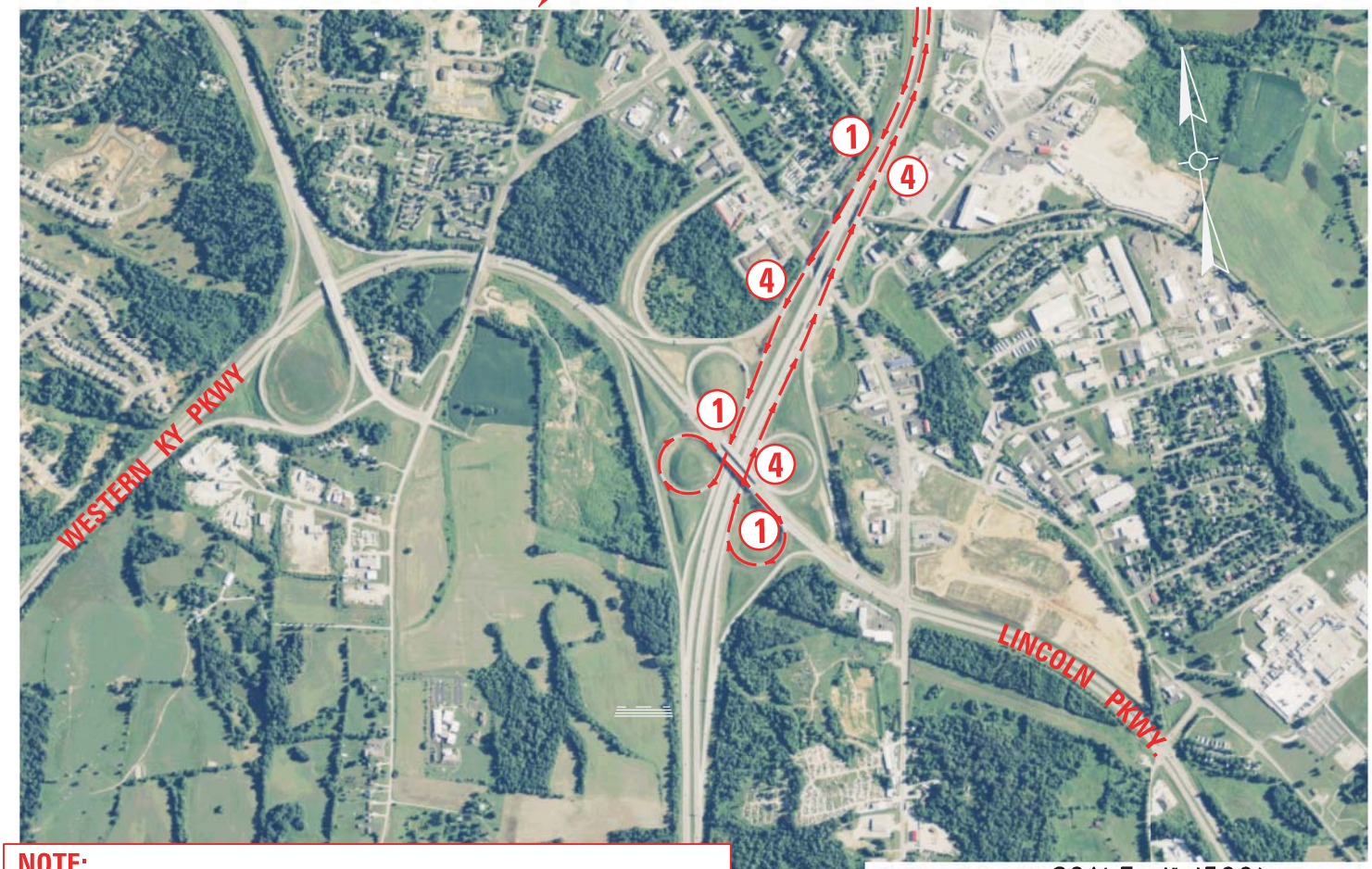
SCALE: 1"=1000'

DETOUR PLAN – RAMP A
WESTBOUND BLUE GRASS PKWY
TO SOUTHBOUND I–65

COUNTY OF	ITEM NO.
HARDIN	4-2060.00



APPROX. 1.1 MILES



NOTE:
ALL SIGNS SHALL BE PLACED IN LOCATIONS NOTED OR AS DIRECTED AND/OR APPROVED BY THE ENGINEER. (SEE DETOUR SIGN KEY)

SCALE: 1"=1500'

DETOUR PLAN – RAMP B SOUTHTBOUND I-65 TO EASTBOUND BLUE GRASS PKWY

DETOUR SIGNS KEY

PORTABLE CHANGEABLE MESSAGE SIGNS

A
RAMP TO WB
WESTERN KY PKWY
AND E. DIXIE AVE.
CLOSED
FOLLOW
DETOUR

B
TAKE EXIT TO WB
WESTERN KY PKWY
E. DIXIE AVE. TRAFFIC
KEEP RIGHT AND
FOLLOW DETOUR

C
WESTERN KY PKWY
TRAFFIC
TAKE EXIT 86 (KY 222)
FOLLOW
DETOUR

D
RAMP TO EB
WESTERN KY PKWY
CLOSED
FOLLOW
DETOUR

E
RAMP TO
SB I–65
CLOSED
FOLLOW
DETOUR

F
RAMP TO EB
BLUE GRASS PKWY
CLOSED
FOLLOW
DETOUR

1

M4–9

3

M4–9

5

M4–8A

2

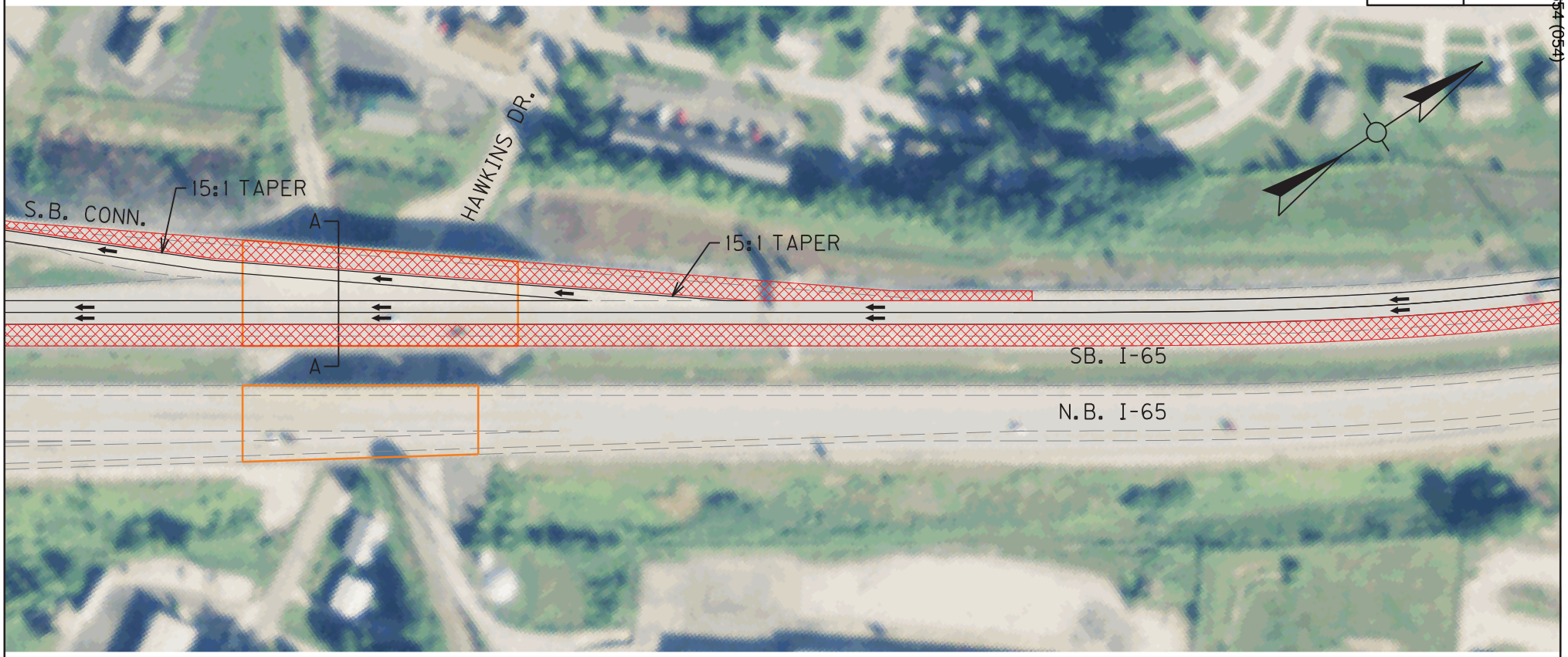
E5–2A

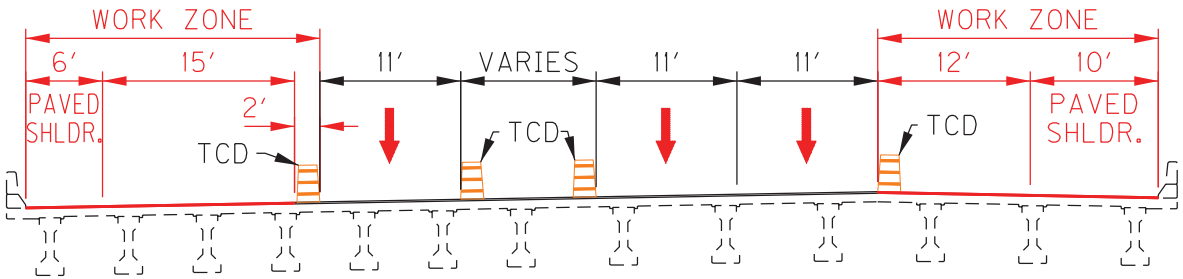
4

M4–9

ALL SIGNS SHALL BE PLACED IN LOCATIONS NOTED OR AS DIRECTED AND/OR APPROVED BY THE ENGINEER

COUNTY OF	ITEM NO.
HARDIN	4-2060.00



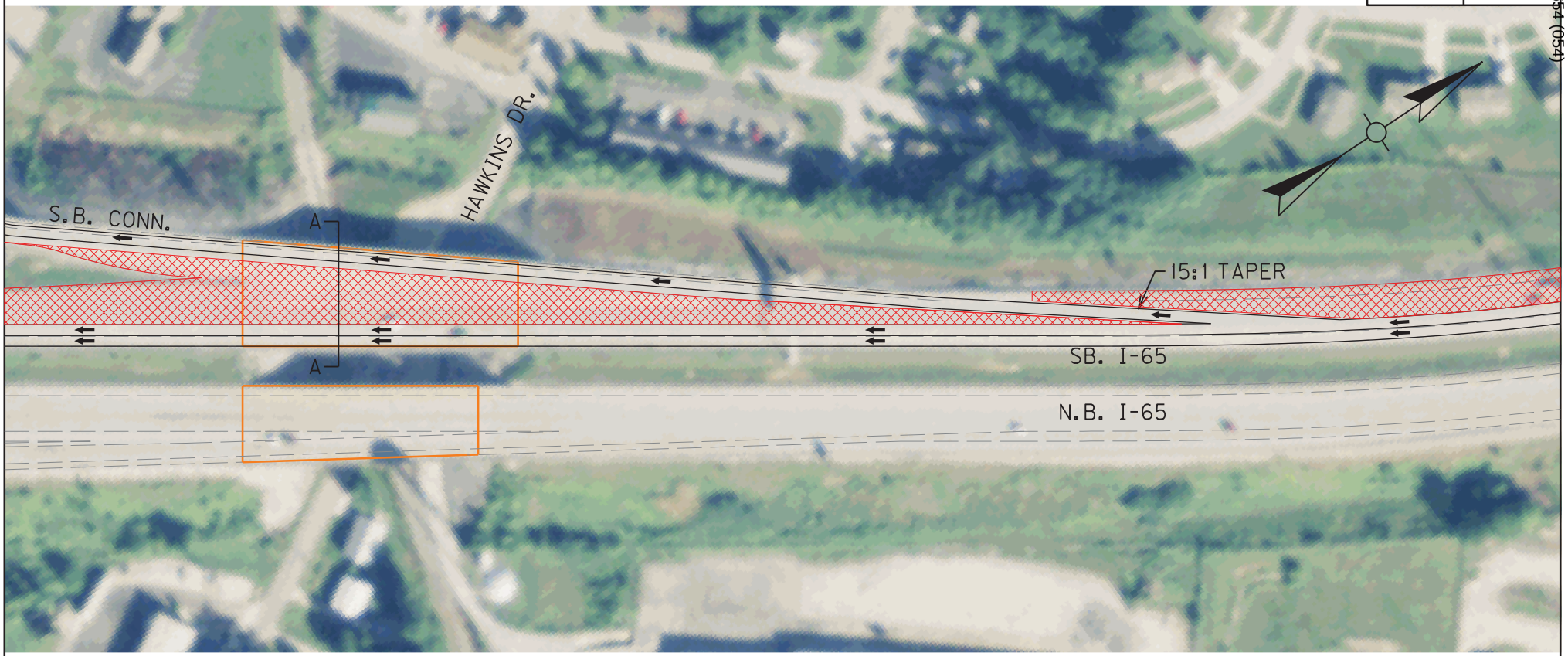


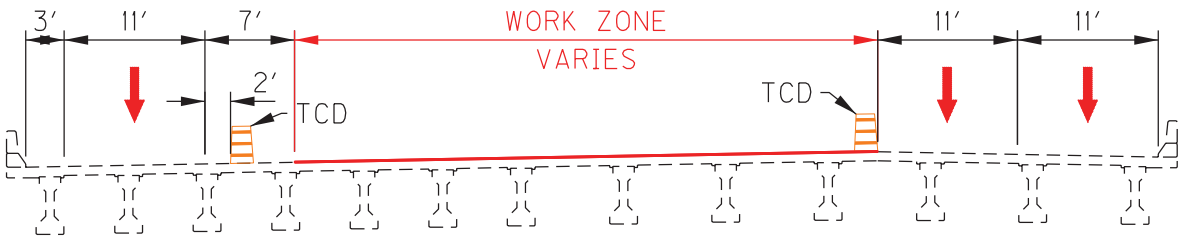
SECTION A–A
(N.T.S)

SCALE: N.T.S.

I–65 S.B. CONNECTOR BRIDGE
MAINTENANCE OF TRAFFIC PLAN
PHASE II

COUNTY OF	ITEM NO.
HARDIN	4-2060.00





SECTION A–A
(N.T.S)

SCALE: N.T.S.

1–65 S.B. CONNECTOR BRIDGE
MAINTENANCE OF TRAFFIC PLAN
PHASE I

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
TRAFFIC MANAGEMENT PLAN

County: HARDIN Item No.: 4-2060.00

Federal Project No.: NHPP IM 0654 (054)

Project Description:

ASPHALT PAVEMENT & ROADWAY REHAB ALONG I-65 MP 90.54 to MP 97.61.

Roadway Classification: ☒ Urban ☒ Rural

☐ Local ☐ Collector ☐ Arterial ☒ Interstate

ADT (current) 59,000 AM Peak Current 4,161 PM Peak Current 5,337 % Trucks 37%

Project Designation: ☒ Significant ☐ Other: _____

Traffic Control Plan Design:

Taper and Diversion Design Speeds 55 mph

Minimum Lane Width 11' Minimum Shoulder Width 0'

Minimum Bridge Width N/A

Minimum Radius N/A Maximum Grade N/A

Minimum Taper Length see below Minimum Intersection Level of Service N/A

Existing Traffic Queue Lengths 0 Projected Traffic Queue Lengths 1 mile

Comments:

FROM MUTCD, CURRENT EDITION
LANE CLOSURE TAPER - 55:1, SHIFTING TAPER - 27.5:1

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
TRAFFIC MANAGEMENT PLAN

Discussion:

1) Public Information Plan			
a) Prepare with assistance from ☒ KYTC or ☐ _____			
b) Identify Trip Generators	N/A	f) Railroad Involvement	Referenced
c) Identify Types of Road Users	Referenced	g) Address Pedestrians, Bikes Mass Transit	N/A
d) Public Information Message	Referenced	h) Address Timing, Frequency, Updates, Effectiveness of Plan	Referenced
e) Public Information Strategies to be used	Referenced	i) Police & Other Emergency Services	N/A

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
TRAFFIC MANAGEMENT PLAN

2) Temporary Traffic Control Plan (For Each Phase of Construction) Phase I			
Exposure Control Measures		**Positive Protection Measures**	
a) Is Road Closure Allowed Type: Lane	Referenced	a) Address Drop Off Protection Criteria	Referenced
b) Detour Conditions	Referenced	b) Temporary Barrier Requirements	Referenced
c) Working Hour Restrictions	Referenced	c) Evaluation of Existing Guardrail Conditions	Referenced
d) Holiday or Special Event Work Restrictions	Referenced	d) Address Temporary Drainage	Referenced
e) Evaluation of Intersection LOS	N/A	**Uniformed Law Enforcement Officers**	N/A
f) Evaluation of Queue Lengths	Referenced	**Payment for Traffic Control***	
g) Evaluation of User Costs and Incentives/Disincentives	Referenced	a) Method of Project Bidding	Referenced
h) Address Pedestrians, Bikes, Mass Transit	N/A	b) Special Notes	Referenced
Work Vehicles and Equipment	Referenced	*Payment for traffic control items shall be in accordance with the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction	
Comments:			

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
TRAFFIC MANAGEMENT PLAN

2) Temporary Traffic Control Plan (For Each Phase of Construction) Phase 2			
Exposure Control Measures		**Positive Protection Measures**	
a) Is Road Closure Allowed Type: Lane	Referenced	a) Address Drop Off Protection Criteria	Referenced
b) Detour Conditions	Referenced	b) Temporary Barrier Requirements	Referenced
c) Working Hour Restrictions	Referenced	c) Evaluation of Existing Guardrail Conditions	Referenced
d) Holiday or Special Event Work Restrictions	Referenced	d) Address Temporary Drainage	Referenced
e) Evaluation of Intersection LOS	N/A	**Uniformed Law Enforcement Officers**	N/A
f) Evaluation of Queue Lengths	Referenced	**Payment for Traffic Control***	
g) Evaluation of User Costs and Incentives/Disincentives	Referenced	a) Method of Project Bidding	Referenced
h) Address Pedestrians, Bikes, Mass Transit	N/A	b) Special Notes	Referenced
Work Vehicles and Equipment	Referenced	*Payment for traffic control items shall be in accordance with the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction	
Comments:			

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
TRAFFIC MANAGEMENT PLAN

2) Temporary Traffic Control Plan (For Each Phase of Construction) Phase 3+			
Exposure Control Measures		**Positive Protection Measures**	
a) Is Road Closure Allowed Type: Lane	Referenced	a) Address Drop Off Protection Criteria	Referenced
b) Detour Conditions	Referenced	b) Temporary Barrier Requirements	Referenced
c) Working Hour Restrictions	Referenced	c) Evaluation of Existing Guardrail Conditions	Referenced
d) Holiday or Special Event Work Restrictions	Referenced	d) Address Temporary Drainage	Referenced
e) Evaluation of Intersection LOS	N/A	**Uniformed Law Enforcement Officers**	N/A
f) Evaluation of Queue Lengths	Referenced	**Payment for Traffic Control***	
g) Evaluation of User Costs and Incentives/Disincentives	Referenced	a) Method of Project Bidding	Referenced
h) Address Pedestrians, Bikes, Mass Transit	N/A	b) Special Notes	Referenced
Work Vehicles and Equipment	Referenced	*Payment for traffic control items shall be in accordance with the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction	
Comments:			

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
TRAFFIC MANAGEMENT PLAN

APPROVAL:

Project Manager — April 18, 2017 — Date

Project Delivery and Preservation Manager — 4-19-17 — Date

Engineering Support Manager — 4/19/17 — Date

FHWA Representative — Date

Revisions to the TMP require review/approval by the signatories.

Delay		WZ CAP	Route	BegMP	EndMP	CntMP	Station	Truck %
		1250	I-65	91.086	93.345	92.6	P68	37.0%
%diverted		nb	nb	nb	nb	nb	nb	nb
0%		Monday	Tuesday	Wed	Thurs	Friday	Sat	Sun
12-1 am	1	453	429	451	423	652	454	378
1-2 am	2	368	393	368	407	396	393	302
2-3 am	3	341	300	318	372	356	312	221
3-4 am	4	317	371	363	346	410	279	194
4-5 am	5	447	480	509	519	528	377	173
5-6 am	6	887	881	879	877	919	461	244
6-7 am	7	1,224	1,278	1,265	1,256	1,229	561	389
7-8 am	8	1,435	1,475	1,388	1,527	1,453	774	563
8-9 am	9	1,317	1,364	1,351	1,450	1,377	1,008	952
9-10 am	10	1,443	1,459	1,454	1,578	1,641	1,300	1,350
10-11 am	11	1,597	1,302	1,528	1,632	1,749	1,703	1,871
11-12 am	12	1,794	1,535	1,692	1,837	1,858	1,922	[illegible]
12-1 pm	13	1,511	1,672	1,649	1,899	[illegible]	[illegible]	2,511
1-2 pm	14	1,461	1,731	1,470	1,941	[illegible]	1,797	[illegible]
2-3 pm	15	1,527	[illegible]	1,775	1,906	[illegible]	1,803	[illegible]
3-4 pm	16	1,650	1,951	[illegible]	1,936	2,529	1,829	2,585
4-5 pm	17	1,831	[illegible]	1,943	[illegible]	2,519	1,808	2,507
5-6 pm	18	1,676	1,809	1,819	[illegible]	[illegible]	1,606	[illegible]
6-7 pm	19	1,503	1,431	1,317	1,610	[illegible]	1,415	[illegible]
7-8 pm	20	1,242	1,057	1,127	890	1,664	1,236	1,929
8-9 pm	21	1,485	991	917	1,119	1,354	1,012	1,372
9-10 pm	22	737	775	779	1,339	1,111	800	1,182
10-11 pm	23	543	669	700	412	885	687	915
11-12 pm	24	607	479	497	756	665	497	645
	Total	27,396	27,760	27,661	30,231	34,422	26,007	31,921
Number of lanes		Mon	Tue	Wed	Thu	Fri	Sat	Sun
Needed (I-65)		nb	nb	nb	nb	nb	nb	nb
12:00 AM - 1:00 AM		1	1	1	1	1	1	1
1:00 AM - 2:00 AM		1	1	1	1	1	1	1
2:00 AM - 3:00 AM		1	1	1	1	1	1	1
3:00 AM - 4:00 AM		1	1	1	1	1	1	1
4:00 AM - 5:00 AM		1	1	1	1	1	1	1
5:00 AM - 6:00 AM		1	1	1	1	1	1	1
6:00 AM - 7:00 AM		1	2	2	2	1	1	1
7:00 AM - 8:00 AM		2	2	2	2	2	1	1
8:00 AM - 9:00 AM		2	2	2	2	2	1	1
9:00 AM - 10:00 AM		2	2	2	2	2	2	2
10:00 AM - 11:00 AM		2	2	2	2	2	2	2
11:00 AM - 12:00 PM		2	2	2	2	2	2	2
12:00 PM - 1:00 PM		2	2	2	2	2	2	3
1:00 PM - 2:00 PM		2	2	2	2	2	2	2
2:00 PM - 3:00 PM		2	2	2	2	2	2	2
3:00 PM - 4:00 PM		2	2	2	2	3	2	3
4:00 PM - 5:00 PM		2	2	2	2	3	2	3
5:00 PM - 6:00 PM		2	2	2	2	2	2	2
6:00 PM - 7:00 PM		2	2	2	2	2	2	2
7:00 PM - 8:00 PM		1	1	1	1	2	1	2
8:00 PM - 9:00 PM		2	1	1	1	2	1	2
9:00 PM - 10:00 PM		1	1	1	2	1	1	1
10:00 PM - 11:00 PM		1	1	1	1	1	1	1
11:00 PM - 12:00 AM		1	1	1	1	1	1	1

*- Analysis is based on current counts and capacity with minimal to no delays

Speed Limit:	70	WZ Speed Limit:	55	WZ Length (miles):	3
Long-Term Cap (2 ln):	2,500 vplph	Short-Term Cap (2 ln):	[illegible] vplph		
%diverted	sb	sb	sb	sb	sb	sb	sb
0%	Monday	Tuesday	Wed	Thurs	Friday	Sat	Sun
Yes	348	423	480	431	514	589	714
Yes	244	201	479	372	423	456	527
Yes	212	393	306	344	370	320	265
Yes	208	319	351	371	366	318	196
Yes	297	378	396	439	449	418	241
Yes	496	534	566	586	619	523	295
Yes	850	925	924	981	1,012	647	474
Yes	1,392	1,466	1,472	1,525	1,489	1,018	702
Yes	1,391	1,459	1,448	1,544	1,688	1,149	1,070
Yes	1,471	1,478	1,518	1,665	1,883	1,417	1,390
Yes	1,442	1,470	1,644	1,714	[illegible]	1,770	1,749
Yes	1,528	1,463	1,304	1,787	[illegible]	1,843	1,940
Yes	1,644	1,622	[illegible]	1,905	[illegible]	[illegible]	[illegible]
Yes	1,550	1,597	1,726	[illegible]	2,596	1,823	[illegible]
Yes	1,674	1,819	1,843	[illegible]	2,553	1,819	[illegible]
Yes	[illegible]	[illegible]	[illegible]	[illegible]	2,674	1,760	[illegible]
Yes	[illegible]	1,894	[illegible]	[illegible]	2,818	1,585	[illegible]
Yes	1,709	1,761	1,897	[illegible]	2,723	1,461	[illegible]
Yes	1,528	1,634	1,517	1,827	[illegible]	1,174	1,867
Yes	1,158	1,098	1,138	1,377	1,843	1,055	1,574
Yes	1,014	999	1,081	1,293	1,488	957	1,243
Yes	916	705	848	1,059	1,257	849	860
Yes	711	642	730	855	988	649	691
Yes	578	551	616	689	818	502	479
ADT Both							
58,754	26,354	26,836	28,375	31,732	37,658	26,103	28,835
Station P68	Mon	Tue	Wed	Thu	Fri	Sat	Sun
MP 92.6	sb	sb	sb	sb	sb	sb	sb
12:00 AM - 1:00 AM	1	1	1	1	1	1	1
1:00 AM - 2:00 AM	1	1	1	1	1	1	1
2:00 AM - 3:00 AM	1	1	1	1	1	1	1
3:00 AM - 4:00 AM	1	1	1	1	1	1	1
4:00 AM - 5:00 AM	1	1	1	1	1	1	1
5:00 AM - 6:00 AM	1	1	1	1	1	1	1
6:00 AM - 7:00 AM	1	1	1	1	1	1	1
7:00 AM - 8:00 AM	2	2	2	2	2	1	1
8:00 AM - 9:00 AM	2	2	2	2	2	1	1
9:00 AM - 10:00 AM	2	2	2	2	2	2	2
10:00 AM - 11:00 AM	2	2	2	2	2	2	2
11:00 AM - 12:00 PM	2	2	2	2	2	2	2
12:00 PM - 1:00 PM	2	2	2	2	2	2	2
1:00 PM - 2:00 PM	2	2	2	2	3	2	2
2:00 PM - 3:00 PM	2	2	2	2	3	2	2
3:00 PM - 4:00 PM	2	2	2	2	3	2	2
4:00 PM - 5:00 PM	2	2	2	2	3	2	2
5:00 PM - 6:00 PM	2	2	2	2	3	2	2
6:00 PM - 7:00 PM	2	2	2	2	2	1	2
7:00 PM - 8:00 PM	1	1	1	2	2	1	2
8:00 PM - 9:00 PM	1	1	1	2	2	1	1
9:00 PM - 10:00 PM	1	1	1	1	2	1	1
10:00 PM - 11:00 PM	1	1	1	1	1	1	1
11:00 PM - 12:00 AM	1	1	1	1	1	1	1

I-65 MP 92.6 Station P68 User Cost Analysis (3 lanes to 2 nb, 3 lanes to 2 sb)

Queue Delay	nb Monday	nb Monday	nb Tuesday	nb Tuesday	nb Wed	nb Wed	nb Thurs	nb Thurs	nb Friday	nb Friday	nb Sat	nb Sat	nb Sun	nb Sun
	Queue (miles)	Delay (min)	Queue (miles)	Delay (min)	Queue (miles)	Delay (min)	Queue (miles)	Delay (min)	Queue (miles)	Delay (min)	Queue (miles)	Delay (min)	Queue (miles)	Delay (min)
12-1 am	na	0	na	0	na	0	na	0	na	0	na	0	na	0
1-2 am	na	0	na	0	na	0	na	0	na	0	na	0	na	0
2-3 am	na	0	na	0	na	0	na	0	na	0	na	0	na	0
3-4 am	na	0	na	0	na	0	na	0	na	0	na	0	na	0
4-5 am	na	0	na	0	na	0	na	0	na	0	na	0	na	0
5-6 am	na	0	na	0	na	0	na	0	na	0	na	0	na	0
6-7 am	na	0	na	0	na	0	na	0	na	0	na	0	na	0
7-8 am	na	0	na	0	na	0	na	0	na	0	na	0	na	0
8-9 am	na	0	na	0	na	0	na	0	na	0	na	0	na	0
9-10 am	na	0	na	0	na	0	na	0	na	0	na	0	na	0
10-11 am	na	0	na	0	na	0	na	0	na	0	na	0	na	0
11-12 am	na	0	na	0	na	0	na	0	na	0	na	0	na	0
12-1 pm	na	0	na	0	na	0	na	0	na	0	na	0	0	0
1-2 pm	na	0	na	0	na	0	na	0	na	0	na	0	0	0
2-3 pm	na	0	na	0	na	0	na	0	na	0	na	0	0	0
3-4 pm	na	0	na	0	na	0	na	0	0	0	na	0	0	1
4-5 pm	na	0	na	0	na	0	na	0	0	1	na	0	1	2
5-6 pm	na	0	na	0	na	0	na	0	0	1	na	0	0	1
6-7 pm	na	0	na	0	na	0	na	0	na	0	na	0	na	0
7-8 pm	na	0	na	0	na	0	na	0	na	0	na	0	na	0
8-9 pm	na	0	na	0	na	0	na	0	na	0	na	0	na	0
9-10 pm	na	0	na	0	na	0	na	0	na	0	na	0	na	0
10-11 pm	na	0	na	0	na	0	na	0	na	0	na	0	na	0
11-12 pm	na	0	na	0	na	0	na	0	na	0	na	0	na	0
MAX	0	0	0	0	0	0	0	0	0	1	0	0	1	2

Queue Delay	sb Monday	sb Monday	sb Tuesday	sb Tuesday	sb Wed	sb Wed	sb Thurs	sb Thurs	sb Friday	sb Friday	sb Sat	sb Sat	sb Sun	sb Sun
	Queue (miles)	Delay (min)	Queue (miles)	Delay (min)	Queue (miles)	Delay (min)	Queue (miles)	Delay (min)	Queue (miles)	Delay (min)	Queue (miles)	Delay (min)	Queue (miles)	Delay (min)
12-1 am	na	0	na	0	na	0	na	0	na	0	na	0	na	0
1-2 am	na	0	na	0	na	0	na	0	na	0	na	0	na	0
2-3 am	na	0	na	0	na	0	na	0	na	0	na	0	na	0
3-4 am	na	0	na	0	na	0	na	0	na	0	na	0	na	0
4-5 am	na	0	na	0	na	0	na	0	na	0	na	0	na	0
5-6 am	na	0	na	0	na	0	na	0	na	0	na	0	na	0
6-7 am	na	0	na	0	na	0	na	0	na	0	na	0	na	0
7-8 am	na	0	na	0	na	0	na	0	na	0	na	0	na	0
8-9 am	na	0	na	0	na	0	na	0	na	0	na	0	na	0
9-10 am	na	0	na	0	na	0	na	0	na	0	na	0	na	0
10-11 am	na	0	na	0	na	0	na	0	na	0	na	0	na	0
11-12 am	na	0	na	0	na	0	na	0	na	0	na	0	na	0
12-1 pm	na	0	na	0	na	0	na	0	na	0	na	0	na	0
1-2 pm	na	0	na	0	na	0	na	0	0	1	na	0	na	0
2-3 pm	na	0	na	0	na	0	na	0	1	3	na	0	na	0
3-4 pm	na	0	na	0	na	0	na	0	1	6	na	0	na	0
4-5 pm	na	0	na	0	na	0	na	0	3	12	na	0	na	0
5-6 pm	na	0	na	0	na	0	na	0	5	18	na	0	na	0
6-7 pm	na	0	na	0	na	0	na	0	5	19	na	0	na	0
7-8 pm	na	0	na	0	na	0	na	0	2	10	na	0	na	0
8-9 pm	na	0	na	0	na	0	na	0	0	1	na	0	na	0
9-10 pm	na	0	na	0	na	0	na	0	na	0	na	0	na	0
10-11 pm	na	0	na	0	na	0	na	0	na	0	na	0	na	0
11-12 pm	na	0	na	0	na	0	na	0	na	0	na	0	na	0
MAX	0	0	0	0	0	0	0	0	5	19	0	0	0	0

USER COST	nb Monday	sb Monday	nb Tuesday	sb Tuesday	nb Wed	sb Wed	nb Thurs	sb Thurs	nb Friday	sb Friday	nb Sat	sb Sat	nb Sun	sb Sun
	USER COST ($)		USER COST ($)		USER COST ($)		USER COST ($)		USER COST ($)		USER COST ($)		USER COST ($)	
12-1 am	$320	$246	$304	$299	$319	$340	$299	$305	$461	$364	$321	$417	$267	$505
1-2 am	$260	$173	$278	$142	$260	$339	$288	$263	$280	$299	$278	$323	$214	$373
2-3 am	$241	$150	$212	$278	$225	$216	$263	$243	$252	$262	$221	$226	$156	$187
3-4 am	$224	$147	$262	$226	$257	$248	$245	$262	$290	$259	$197	$225	$137	$139
4-5 am	$316	$210	$340	$267	$360	$280	$367	$311	$374	$318	$267	$296	$122	$171
5-6 am	$628	$351	$623	$378	$622	$400	$620	$415	$650	$438	$326	$370	$173	$209
6-7 am	$866	$601	$904	$654	$895	$654	$889	$694	$869	$716	$397	$458	$275	$335
7-8 am	$1,015	$985	$1,044	$1,037	$982	$1,041	$1,080	$1,079	$1,028	$1,053	$548	$720	$398	$497
8-9 am	$932	$984	$965	$1,032	$956	$1,024	$1,026	$1,092	$974	$1,194	$713	$813	$674	$757
9-10 am	$1,021	$1,041	$1,032	$1,046	$1,029	$1,074	$1,116	$1,178	$1,161	$1,332	$920	$1,002	$955	$983
10-11 am	$1,130	$1,020	$921	$1,040	$1,081	$1,163	$1,155	$1,213	$1,237	$1,420	$1,205	$1,252	$1,324	$1,237
11-12 am	$1,269	$1,081	$1,086	$1,035	$1,197	$923	$1,300	$1,264	$1,314	$1,595	$1,360	$1,304	$1,571	$1,372
12-1 pm	$1,069	$1,163	$1,183	$1,148	$1,167	$1,470	$1,343	$1,348	$1,556	$1,724	$1,396	$1,416	$3,534	$1,399
1-2 pm	$1,034	$1,097	$1,225	$1,130	$1,040	$1,221	$1,373	$1,428	$1,606	$4,607	$1,271	$1,290	$3,582	$1,541
2-3 pm	$1,080	$1,184	$1,396	$1,287	$1,256	$1,304	$1,348	$1,557	$1,645	$6,263	$1,276	$1,287	$3,373	$1,556
3-4 pm	$1,167	$1,430	$1,380	$1,418	$1,480	$1,419	$1,370	$1,601	$3,760	$9,054	$1,294	$1,245	$4,465	$1,453
4-5 pm	$1,295	$1,395	$1,383	$1,340	$1,375	$1,420	$1,506	$1,621	$4,297	$15,050	$1,279	$1,121	$5,414	$1,521
5-6 pm	$1,186	$1,209	$1,280	$1,246	$1,287	$1,342	$1,464	$1,552	$2,208	$21,144	$1,136	$1,034	$2,976	$1,414
6-7 pm	$1,063	$1,081	$1,012	$1,156	$932	$1,073	$1,139	$1,293	$1,422	$21,540	$1,001	$831	$1,490	$1,321
7-8 pm	$879	$819	$748	$777	$797	$805	$630	$974	$1,177	$11,830	$874	$746	$1,364	$1,114
8-9 pm	$1,051	$717	$701	$707	$649	$765	$792	$915	$958	$1,262	$716	$677	$970	$879
9-10 pm	$521	$648	$548	$499	$551	$600	$947	$749	$786	$889	$566	$601	$836	$608
10-11 pm	$384	$503	$473	$454	$495	$516	$291	$605	$626	$699	$486	$459	$647	$489
11-12 pm	$429	$409	$339	$390	$352	$436	$535	$487	$470	$579	$352	$355	$456	$339
TOTAL	$19,382	$18,645	$19,639	$18,985	$19,562	$20,074	$21,368	$22,449	$29,404	$103,891	$18,399	$18,467	$35,375	$20,400

Note: Assumes 0% diversion NB in traffic, 0% SB.

INTERSTATE 65 REHABILITATION PROJECT
MP 91 TO MP 98
ITEMS 4-2060
PUBLIC INFORMATION PLAN

The primary goal of the Public Information Plan (PIP) is to inform the motoring public and area stakeholders of project information including Maintenance of Traffic (MOT). KYTC's District 4 Public Information Officer (PIO) will coordinate and disseminate appropriate information to stakeholders and media regarding construction plans.

This project is expected to impact traffic during construction seasons of 2017 and 2018. Work will be phased to begin and be completed on the northbound side and then switched to the southbound side. Efforts will be made to minimize impacts during holiday traffic and other known heavy volume periods/events.

LOCAL STAKEHOLDERS

Due to the travel impact along the construction route and adjacent/alternate routes, the stakeholders for this project will include officials and agencies from mainly Hardin County. It should be noted that additional work continues in the southern Hardin County area with an active I65 widening project. KYTC will monitor both construction zones and coordinate traffic impacts should a major event take place.

- State Representative, C.B. Embry, Jr. (Hardin) – 270.791.1879 / cb.embry@lrc.ky.gov
- State Representative, Jim DuPlessis (Hardin) – 502.564.8100 / jim.duplessis@lrc.ky.gov
- State Senator, Dennis Parrett (Hardin) – 270.765.4565 / dennis.parrett@lrc.ky.gov
- Hardin County Judge Executive, Harry Berry – 270.765.2350 / hcgo@kcky.org
- Elizabethtown Mayor, Edna Berger – 270.765.6121 / kelly@elizabethtownky.gov
- Hardin County Sheriff, John Ward – 270.765.5133 / info.hcso@hcky.org
- Hardin County Schools Transportation Director, John Skaggs – 270.769.8800 / John.Skaggs@hardin.kyschools.us
- Hardin County Emergency Management Director, Bryce Shumate – 270.268.2558 / bshumate.hcgo@hcky.org
- Kentucky State Police (Elizabethtown Post) – 270.766.5078
- Kentucky Transportation Cabinet District-4 Incident Management Team
    - Multiple Contacts / Distribution List Available

UTILITY IMPACTS

None

TRUCKING FIRMS AND OUT OF STATE STAKEHOLDERS

Information will be distributed electronically to trucking firms via Rick Taylor at the Department of Vehicle Regulation (502.564.4540 / rick.taylor@ky.gov). TRIMARC (www.trimarc.org) will also be utilized on an as needed basis to help disseminate information. Construction travel impacts will also be posted on the go.ky.gov system. KYTC will utilize overhead message boards along the interstate corridor through Kentucky from Tennessee to Indiana on an as needed basis.

EMERGENCY SITUATIONS

US 31W/KY 313 and US 62/Bluegrass Parkway/KY 61 are predetermined as best routes to divert traffic in the event of a significant closure.

MEDIA RELATIONS

The District Public Information Officer (PIO) will prepare an initial news release regarding the contract award for the project. The PIO will provide updates to the media and other contacts outlined in this plan throughout the project duration to keep the public informed of construction progress. Traffic advisories will be submitted to the media when a change in the MOT occurs. The contractor must provide to the PIO via the Resident Engineer notification of any change in the MOT at least five (3) days prior to the change.

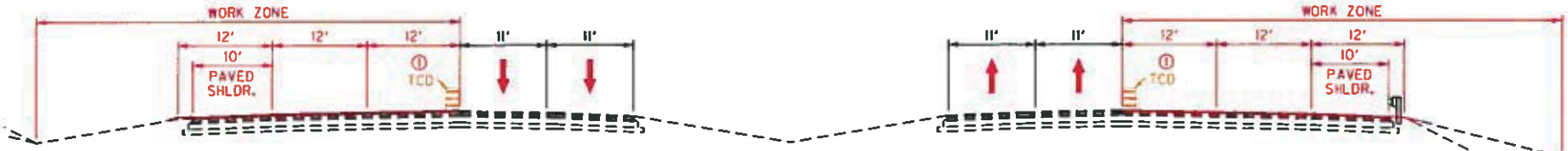
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-2060.00	

I-65
MAINTENANCE OF TRAFFIC
TYPICAL SECTIONS

SOUTHBOUND I-65
- PERFORM PAVEMENT REPAIRS WHERE NECESSARY ON LANES AND SHOULDER
- CONSTRUCT MILLING ON LANES AND SHOULDERS
- CONSTRUCT SURFACE PAVEMENT

NORTHBOUND I-65
- PERFORM PAVEMENT REPAIRS WHERE NECESSARY ON LANES AND SHOULDER
- CONSTRUCT MILLING ON LANES AND SHOULDERS
- CONSTRUCT SURFACE PAVEMENT

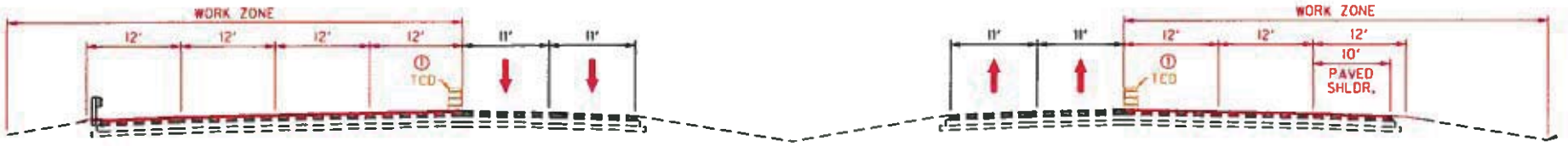
PHASE I
I-65 (6 LANE)
MP 91.37 TO MP 94.01



SOUTHBOUND I-65
- PERFORM PAVEMENT REPAIRS WHERE NECESSARY ON LANES AND SHOULDER
- CONSTRUCT MILLING ON LANES AND SHOULDERS
- CONSTRUCT 3" ASPHALT BASE

NORTHBOUND I-65
- PERFORM PAVEMENT REPAIRS WHERE NECESSARY ON LANES AND SHOULDER
- CONSTRUCT MILLING ON LANES AND SHOULDERS
- CONSTRUCT SURFACE PAVEMENT

PHASE I
I-65 (6 LANE)
MP 94.01 TO MP 95.12



SOUTHBOUND I-65
- PERFORM PAVEMENT REPAIRS WHERE NECESSARY ON LANES AND SHOULDER
- CONSTRUCT MILLING ON LANES AND SHOULDERS
- CONSTRUCT 3" ASPHALT BASE

NORTHBOUND I-65
- PERFORM PAVEMENT REPAIRS WHERE NECESSARY ON LANES AND SHOULDER
- CONSTRUCT MILLING ON LANES AND SHOULDERS
- CONSTRUCT SURFACE PAVEMENT

PHASE I
I-65 (6 LANE WITH TRUCK CLIMBING LANE)
MP 95.12 TO MP 97.61

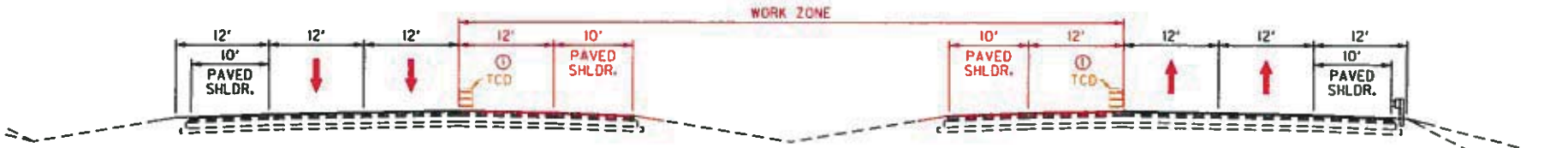
① TCDs SHALL BE SHIFTED TO ALLOW ADEQUATE SPACE TO PERFORM PAVEMENT REPAIRS AND PAVING OPERATIONS.

NOT TO SCALE

I-65
MAINTENANCE OF TRAFFIC
TYPICAL SECTIONS

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-2060.00	

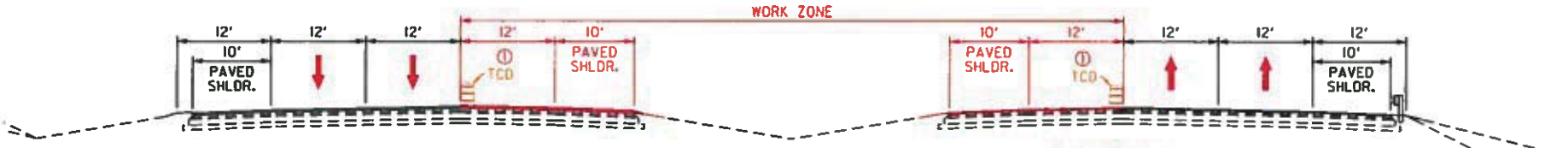
I-65
MAINTENANCE OF TRAFFIC
TYPICAL SECTIONS



SOUTHBOUND I-65
- PERFORM PAVEMENT REPAIRS WHERE NECESSARY ON LANES AND SHOULDER
- CONSTRUCT MILLING ON LANES AND SHOULDERS
- CONSTRUCT SURFACE PAVEMENT

PHASE II
I-65 (6 LANE)
MP 91.37 TO MP 94.01

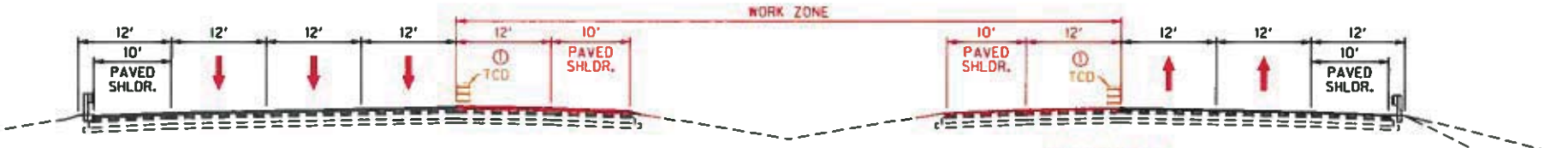
NORTHBOUND I-65
- PERFORM PAVEMENT REPAIRS WHERE NECESSARY ON LANES AND SHOULDER
- CONSTRUCT MILLING ON LANES AND SHOULDERS
- CONSTRUCT SURFACE PAVEMENT



SOUTHBOUND I-65
- PERFORM PAVEMENT REPAIRS WHERE NECESSARY ON LANES AND SHOULDER
- CONSTRUCT MILLING ON LANES AND SHOULDERS
- CONSTRUCT ASPHALT BASE
- CONSTRUCT SURFACE PAVEMENT

PHASE II
I-65 (6 LANE)
MP 94.01 TO MP 95.12

NORTHBOUND I-65
- PERFORM PAVEMENT REPAIRS WHERE NECESSARY ON LANES AND SHOULDER
- CONSTRUCT MILLING ON LANES AND SHOULDERS
- CONSTRUCT SURFACE PAVEMENT



SOUTHBOUND I-65
- PERFORM PAVEMENT REPAIRS WHERE NECESSARY ON LANES AND SHOULDER
- CONSTRUCT MILLING ON LANES AND SHOULDERS
- CONSTRUCT ASPHALT BASE
- CONSTRUCT SURFACE PAVEMENT

PHASE II
I-65 (6 LANE WITH TRUCK CLIMBING LANE)
MP 95.12 TO MP 97.61

NORTHBOUND I-65
- PERFORM PAVEMENT REPAIRS WHERE NECESSARY ON LANES AND SHOULDER
- CONSTRUCT MILLING ON LANES AND SHOULDERS
- CONSTRUCT SURFACE PAVEMENT

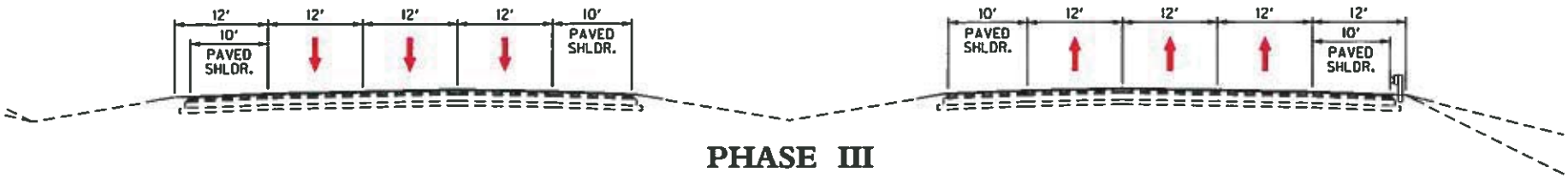
① TCDs SHALL BE SHIFTED TO ALLOW ADEQUATE SPACE TO PERFORM PAVEMENT REPAIRS AND PAVING OPERATIONS.

NOT TO SCALE

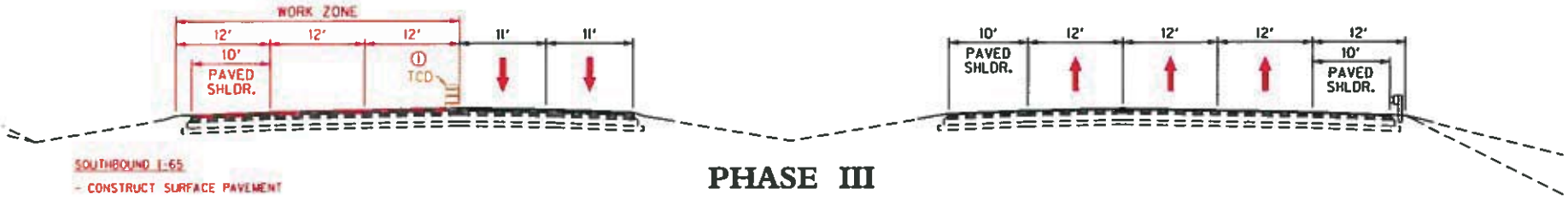
I-65
MAINTENANCE OF TRAFFIC
TYPICAL SECTIONS

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-2060.00	

I–65
MAINTENANCE OF TRAFFIC
TYPICAL SECTIONS

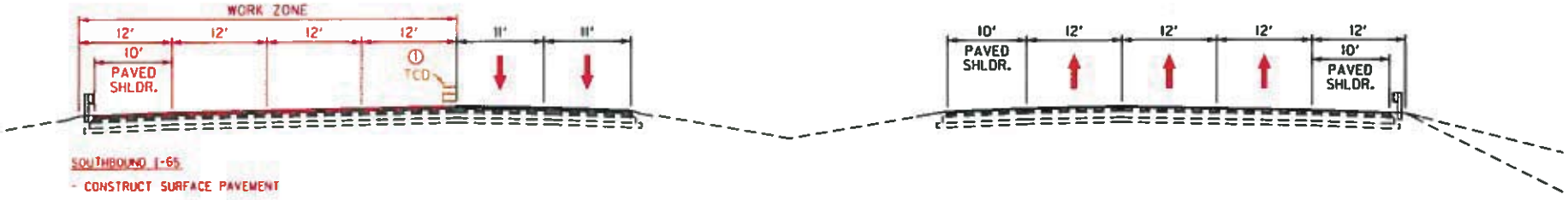


PHASE III
I–65 (6 LANE)
MP 91.37 TO MP 94.01



SOUTHBOUND I-65
- CONSTRUCT SURFACE PAVEMENT

PHASE III
I–65 (6 LANE)
MP 94.01 TO MP 95.12



SOUTHBOUND I-65
- CONSTRUCT SURFACE PAVEMENT

PHASE III
I–65 (6 LANE WITH TRUCK CLIMBING LANE)
MP 95.12 TO MP 97.61

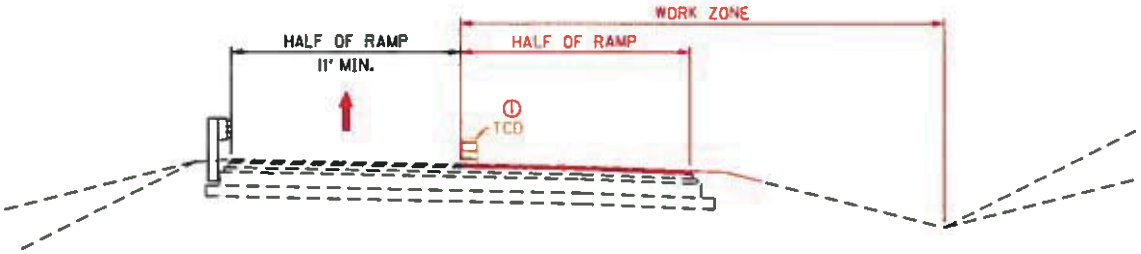
① TCDs SHALL BE SHIFTED TO ALLOW ADEQUATE SPACE TO PERFORM PAVEMENT REPAIRS AND PAVING OPERATIONS.

NOT TO SCALE

I-65
MAINTENANCE OF TRAFFIC
TYPICAL SECTIONS

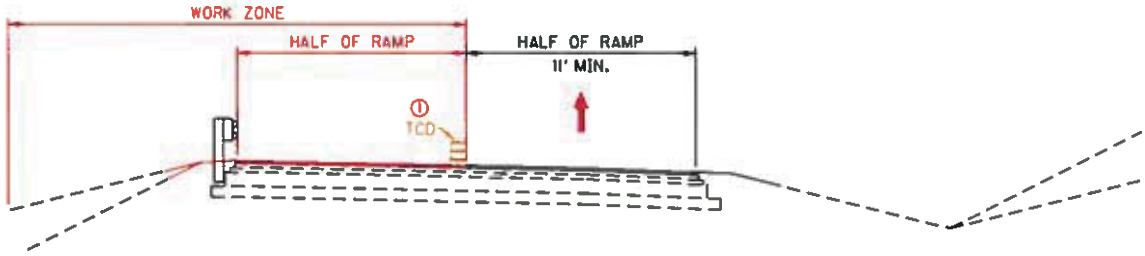
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-2060.00	

RAMPS AND CONNECTORS MAINTENANCE OF TRAFFIC TYPICAL SECTIONS



- PERFORM PAVEMENT REPAIRS WHERE NECESSARY ON LANES AND SHOULDER
- CONSTRUCT MILLING ON LANES AND SHOULDERS
- CONSTRUCT SURFACE PAVEMENT

PHASE IA ②
RAMPS AND CONNECTORS



- PERFORM PAVEMENT REPAIRS WHERE NECESSARY ON LANES AND SHOULDER
- CONSTRUCT MILLING ON LANES AND SHOULDERS
- CONSTRUCT SURFACE PAVEMENT

PHASE IB ②
RAMPS AND CONNECTORS

① TCDs SHALL BE SHIFTED TO ALLOW ADEQUATE SPACE TO PERFORM PAVEMENT REPAIRS AND PAVING OPERATIONS.

② RAMPS AND CONNECTORS ARE TO BE CONSTRUCTED WHEN OUTSIDE MAINLINE LANES AND SHOULDER WORK IS BEING PERFORMED. UTILIZE PART-WIDTH CONSTRUCTION PHASING ON THE RAMPS.

NOT TO SCALE

RAMPS AND CONNECTORS
MAINTENANCE OF TRAFFIC
TYPICAL SECTIONS

SPECIAL NOTE FOR
ASPHALT MILLING AND TEXTURING
I-65 HARDIN COUNTY
Item No. 4-2060.00

Begin paving operations immediately after the commencement of the asphalt milling operation. Continue paving operations continuously until completed. Do not allow public traffic to drive on the milled surface. If paving operations are not begun within this time period, liquidated damages will be assessed at the rate prescribed by Section 108.09 of the current Standard Specifications until such time as paving operations are begun.

The Contractor is to deliver 20,000 tons of the asphalt millings to the KYTC – Hardin County Maintenance Facility at 310 Valley Creek Road in Elizabethtown, KY, 3,000 tons of the asphalt millings to the KYTC – Hart County Maintenance Facility at 1545 Main Street in Munfordville, KY and 1000 tons of the asphalt millings to the KYTC – Larue County Maintenance Facility at 620 Campbellsville Road in Hodgenville, KY. Delivering the millings to the maintenance facilities will be considered incidental to the bid item "Asphalt Milling and Texturing." The Contractor will take possession of the remainder 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.

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

SPECIAL NOTE FOR TYPICAL SECTION DIMENSIONS
I-65

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

SPECIAL NOTE FOR BEFORE YOU DIG

The contractor is instructed to call 1-800-752-6007 to reach KY 811, the one-call system for information on the location of existing underground utilities. The call is to be placed a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor should be aware that owners of underground facilities are not required to be members of the KY 811 one-call Before-U-Dig (BUD) service. The contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area.

GUARDRAIL DELIVERY VERIFICATION SHEET

Contract Id: _____ **Contractor:** _____

Section Engineer: _____ **District & County:** _____

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

Required Signatures before Leaving Project Site

Printed Section Engineer's Representative_____ & Date_____

Signature Section Engineer's Representative_____& Date_____

Printed Contractor's Representative_____& Date_____

Signature Contractor's Representative_____& Date_____

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

Printed Bailey Bridge Yard Representative_____ & Date_____

Signature Bailey Bridge Yard Representative_____& Date_____

Printed Contractor's Representative_____& Date_____

Signature Contractor's Representative_____& Date_____

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

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

Special Note for Fixed Completion Date and Liquidated Damages
I-65 HARDIN COUNTY
Item No. 4-2060.00

This project has an Intermediate Completion Date and a Fixed Completion Date.

Contrary to Section 108.09, Liquidated Damages of $5,000 per calendar day will be assessed for each day work remains uncompleted beyond the Specified Completion Date for the proposed construction including all pavement repairs, slope correction, bridge repairs, bridge overlays, pavement milling, surfacing, guardrail, pavement striping and pavement markers in the northbound direction of I-65 specified in the proposal. The Intermediate Completion Date for this work is October 15, 2017. Liquidated Damages will be assessed for each day that a lane closure is in place on the northbound lanes of I-65, within the project limits, after this date, **NO EXCEPTIONS**.

Contrary to Section 108.09, Liquidated Damages of $5,000 per calendar day will be assessed for each day work remains uncompleted beyond the Specified Project Completion Date. This project has a Fixed Project Completion Date of September 1, 2018.

In addition to the Liquidated Damages specified in Section 108.09, Liquidated Damages in the following amounts will be charged when a lane or ramp closure remains in place during the prohibited period outlined in the Traffic Control Plan, excluding delays caused by inclement weather:

Mainline: $5,000 for the first hour or fraction thereof
$10,000 for the second hour or fraction thereof
$20,000 for any additional hour or fraction thereof

Ramps: $500 for the first hour or fraction thereof
$1,500 any additional hour or fraction thereof

These hourly disincentives will still be in effect after the Intermediate Completion Date and the Fixed Completion Date and will be charged in addition to the $5,000 per calender day if warranted. The contractor is expected to make every effort to complete the work in order to open the ramp or mainline lane closure within a specified timeframe.

If work is delayed by inclement weather, the minimum work required to allow removal of the lane closure, as directed by the Engineer, shall be resumed immediately as soon as weather permits or the Department will begin to assess Liquidated Damages as specified herein.

Contrary to Section 108.09 of the Standard Specifications, **the disincentive fee will be charged during those periods when seasonal limitations of the Contract prohibit the Contractor from working on a controlling item or operation. This includes the months from December through March.**

All liquidated damages will be applied cumulatively.

All other applicable portions of Section 108 apply.

SPECIAL NOTE FOR INLAID PAVEMENT MARKERS

I. DESCRIPTION

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

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

II. MATERIALS

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

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

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

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

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

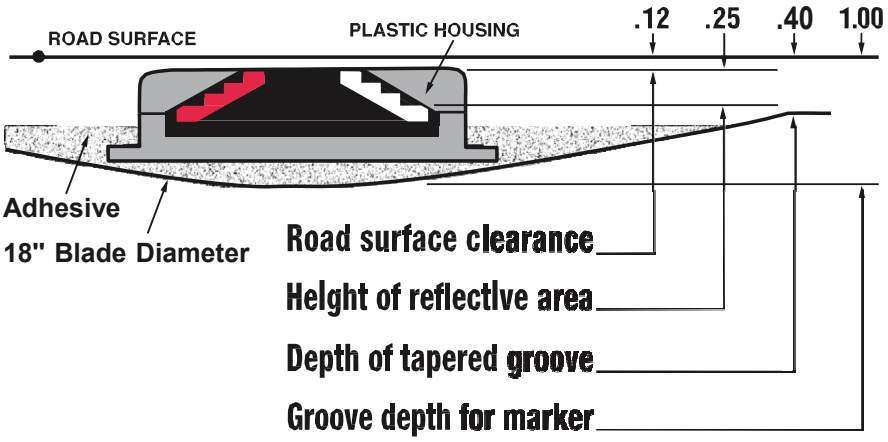
III. CONSTRUCTION

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

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

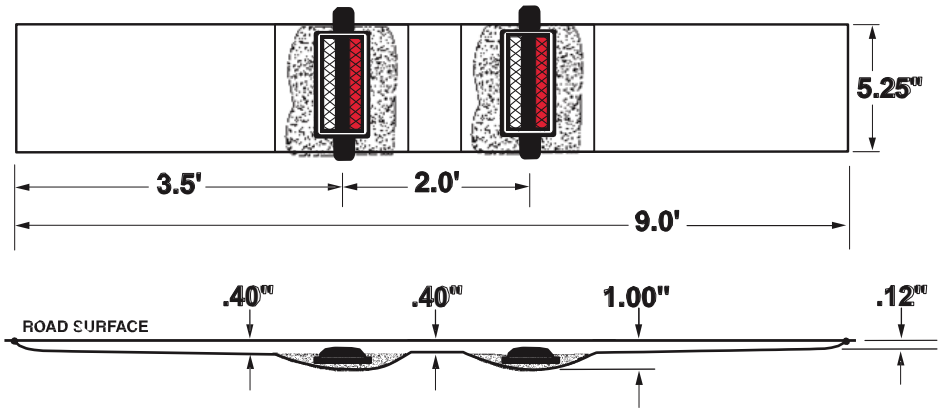
C. Installation. Install IPMs in recessed grooves cut into the final course of asphalt pavement according to the manufacturer's recommendations. Do not cut the grooves until the pavement has cured sufficiently to prevent tearing or raveling. Cut installation grooves using diamond blades on saws that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

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



D. Location and Spacing. Install the markers in the pattern for high reflectivity with two (2) IPMs per groove. Locate and space markers as shown in the current standard drawings or sepias (note: use Inlaid Pavement Markers wherever Type V Pavement Markers are called for). Do not install markers on bridge decks. Do not install a marker on top of a pavement joint or crack. Offset the recessed groove a minimum of 2 inches from any longitudinal pavement joint or crack and at least one inch from the

painted stripe, ensuring that the finished line of markers is straight with minimal lateral deviation. Give preference to maintaining the 2-inch offset between recessed groove and joint as opposed to keeping the line of markers straight.



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

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

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

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

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

H. Caution. Do not take information shown on the drawings and in this proposal and the types and quantities of work listed as an accurate or complete evaluation of the material and conditions to be encountered during construction, but consider the types and quantities of work listed as approximate only. The bidder must draw his own conclusion as to the conditions encountered. The Department does not give any guarantee as to the accuracy of the data and no claim will be considered for additional

compensation or extension of Contract time if the conditions encountered are not in accordance with the information shown.

IV. MEASUREMENT

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

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

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

V. PAYMENT

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

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

SPECIAL NOTE FOR MATERIAL TRANSFER VEHICLE

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

1.0 DESCRIPTION. Provide and use a Material Transfer Vehicle (MTV) to place asphalt mixtures.

2.0 MATERIALS AND EQUIPMENT. In addition to the equipment specified in Subsection 403.02, provide a MTV with the following minimum characteristics:

1) A system to independently deliver asphalt mixtures from the hauling equipment to the paving equipment;

2) A high capacity truck unloading system, capable of 600 tons per hour, that will receive asphalt mixtures from the hauling equipment;

3) A minimum combined capacity, including the MTV storage bin and paver hopper, of 25 tons of asphalt mixture;

4) An auger system in the storage bin to continuously blend the asphalt mixture prior to discharge to the conveyor system; and

5) A discharge conveyor, with the ability to swivel, to deliver the mixture to the paving spreader while allowing the MTV to operate from an adjacent lane.

3.0 CONSTRUCTION. When constructing driving lanes, use a MTV to place asphalt mixtures. When the Engineer determines the use of the MTV is not practical for a portion of the project he may waive its requirement for that portion.

4.0 MEASUREMENT.

4.1 Asphalt Placement with MTV. The Department will not measure the MTV for payment and will consider its use incidental to the asphalt mixture.

4.2 Asphalt Mixture. The Department will measure the quantity according to Section 402.

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

Code	Pay Item	Pay Unit
-----	Asphalt Mixture, Type	Ton

SPECIAL NOTE FOR PAVER MOUNTED TEMPERATURE PROFILES

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

1.0 DESCRIPTION. Provide a paver mounted infrared temperature equipment to continually monitor the temperature of the asphalt mat immediately behind all paver(s) during the placement operations for all driving lanes within the project limits. Provide thermal profiles that include material temperature and measurement locations.

2.0 MATERIALS AND EQUIPMENT. In addition to the equipment specified in Subsection 403.02 Utilize a thermal equipment supplier that can provide a qualified representative for on-site technical assistance during the initial setup, pre-construction verification, and data management and processing as needed during the Project to maintain equipment within specifications and requirements.

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

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

(B) Infrared sensor(s):

(1) Measuring from 32°F to 400°F with an accuracy of ± 2.0% of the sensor reading.

(C) Ability to measure the following:

(1) The placement distance using a Global Positioning System (GPS) or a Distance Measuring Instrument (DMI) and a Global Positioning System (GPS).

(2) Stationing

(D) GPS: Accuracy ± 4 feet in the X and Y Direction

(E) Latest version of software to collect, display, retain and analyze the mat temperature readings during placement. The software must have the ability to create and analyze:

(1) Full collected width of the thermal profiles,

(2) Paver speed and

(3) Paver stops and duration for the entire Project.

(F) Ability to export data automatically to a remote data server ("the cloud").

At the preconstruction meeting, provide the Department with rights to allow for web access to the data file location.

This web-based software must also provide the Department with the ability to download the raw files and software and to convert them into the correct format.

(G) The thermal profile data files must provide the following data in a neat easy to read table format.

(1) Project information including Road Name and Number, PCN, Beginning and Ending MPs.

(2) IR Bar Manufacturer and Model number

(3) Number of Temperature Sensors (N)

(4) Spacing between sensors and height of sensors above the asphalt mat

(5) Total number of individual records taken each day (DATA BLOCK)

(a) Date and Time reading taken

(b) Latitude and Longitude

(c) Distance paver has moved from last test location

(d) Direction and speed of the paver

(e) Surface temperature of each of the sensors

3.0 CONSTRUCTION. Provide the Engineer with all required documentation at the pre-construction conference.

(A) Install and operate equipment in accordance with the manufacturer's specifications.

(B) Verify that the temperature sensors are within ± 2.0% using an independent temperature device on a material of known temperature. Collect and compare the GPS coordinates from the equipment with an independent measuring device.

(1) Ensure the independent survey grade GPS measurement device is calibrated to the correct coordinate system (using a control point), prior to using these coordinates to validate the equipment GPS.

(2) The comparison is considered acceptable if the coordinates are within 4 feet of each other in the X and Y direction.

(C) Collect thermal profiles on all Driving Lanes during the paving operation and transfer the data to the "cloud" network or if automatic data transmission is not available, transfer the data to the Engineer at the end of daily paving.

(D) Contact the Department immediately when System Failure occurs. Daily Percent Coverage will be considered zero when the repairs are not completed within two (2) working days of System Failure. The start of this two (2) working day period begins the next working day after System Failure.

(E) Evaluate thermal profile segments, every 150 feet, and summarize the segregation of temperature results. Results are to be labeled as Minimal 0°-25°F, Moderate 25.1°-50°F and Severe >50°. Severe readings over 3 consecutive segments or over 4 or more segments in a day warrant investigation on the cause of the differential temperature distribution.

4.0 MEASUREMENT. The Department will measure the total area of the driving lanes mapped by the infrared scanners. Full payment will be provided for all driving lanes with greater than 85% coverage. Partial payment will be made for all areas covered from 50% coverage to 85% coverage at the following rate Coverage area percentage X Total bid amount. And area with less than 50% coverage will not be measured for payment.

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

1. Payment is full compensation for all work associated with providing all required equipment, training, and documentation.
2. Delays due to GPS satellite reception of signals or equipment breakdowns will not be considered justification for contract modifications or contract extensions.

Code	Pay Item	Pay Unit
24891EC	PAVE MOUNT INFRARED TEMP EQUIPMENT	SQFT

SPECIAL NOTE FOR INTELLIGENT COMPACTION OF ASPHALT MIXTURES

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

1.0 DESCRIPTION. Provide and use Intelligent Compaction (IC) Rollers for compaction of all asphalt mixtures.Also follow all requirements of the special note for Paver mounted temperature profiles.

2.0 MATERIALS AND EQUIPMENT. In addition to the equipment specified in Subsection 403.02, two (2) IC rollers are to be used on the project at all times. One (1) IC roller is required to be the first roller after the paver commonly called the breakdown roller. All IC rollers will meet the following minimum characteristics:

1) Are self propelled double-drum vibratory rollers equipped with accelerometers mounted in or about the drum to measure the interactions between the rollers and compacted materials in order to evaluate the applied compactive effort. The IC rollers must have the approval of the Engineer prior to use. Examples of rollers equipped with IC technology can be found at www.IntelligentCompaction.com.

2) Are equipped with non-contact temperature sensors for measuring pavement surface temperatures.

3) The output from the roller is designated as the IC-MV which represents the stiffness of the materials based on the vibration of the roller drums and the resulting response from the underlying materials.

4) Are equipped with integrated on-board documentation systems that are capable of displaying real-time color-coded maps of IC measurement values including the stiffness response values, location of the roller, number of roller passes, machine settings, together with the material temperature, speed and the frequency and amplitude of roller drums. Ensure the display unit is capable of transferring the data by means of a USB port.

5) Are equipped with a mounted Global Positioning System GPS radio and receiver either a Real Time Kinematic (RTK-GPS) or Global Navigational Satellite System (GNSS) units that monitor the location and track the number of passes of the rollers. Accuracy of the positioning system is to be a minimum of 12 inches.

3.0 WORK PLAN. Submit to the Engineer an IC Work Plan at the Preconstruction Conference and at least 2 weeks prior to the beginning construction. Describe in the work plan the following:

1. Compaction equipment to be used including:
   - Vendor(s)
   - Roller model(s),
   - Roller dimensions and weights,
   - Description of IC measurement system,
   - GPS capabilities,
   - Documentation system,
   - Temperature measurement system, and
   - Software.

2. Roller data collection methods including sampling rates and intervals and data file types.

3. Transfer of data to the Engineer including method, timing, and personnel responsible. Data transfer shall occur at minimum twice per day or as directed by the Engineer, and is to be either electronic or digital. If the contractor elects to use a proprietary real time cloud data collecting and distribution system (ex. Visionlink) the Cabinet requires the ability to access the data through this service.

4. Training plan and schedule for roller operators, project foreman, project surveyors, and Cabinet personnel; including both classroom and field training. Training should be conducted at least 1 week before beginning IC construction. The training is to be performed by a qualified representative(s) from the IC Roller manufacture(s) to be used on the project.

4.0 CONSTRUCTION. Do not begin work until the Engineer has approved the IC submittals and the IC equipment.

Follow requirements established in Section 400 for production and placement, materials, equipment, acceptance plans

and adjustments except as noted or modified in this Specification. Provide the Engineer at least one day's notice prior to beginning construction or prior to resuming production if operations have been temporarily suspended. Ensure paving equipment complies with all requirements specified in Section 400. The IC roller temperatures will be evaluated by the Department with the data from a Paver Mounted Infrared Temperature Gauge.

A. Pre-Construction Test Section(s) Requirements

1. Prior to the start of production, ensure the proper setup of the GPS, IC rollers and the rover(s) by conducting joint GPS correlation and verification testing between the Contractor, GPS representative and IC roller manufacturer using the same datum.

1. Ensure GPS correlation and verification testing includes the following minimum processes:

    a. Establish the GPS system to be used either one with a base station or one with mobile receivers only. Ensure all components in the system are set to the correct coordinate system; then,

    b. Verify that the roller and rover are working properly and that there is a connection with the base station; then,

    c. Record the coordinates of the two edges where the front drum of the roller is in contact with the ground from the on-board, color-coded display; then,

    d. Mark the locations of the roller drum edges and move the roller, and place the mobile receiver at each mark and record the readings; then,

2. Compare coordinates between the roller and rover receivers. If the coordinates are within 12.0 in. of each other, the comparison is acceptable. If the coordinates are not within 12.0 in., diagnose and perform necessary corrections and repeat the above steps until verification is acceptable.

3. Do not begin work until acceptable GPS correlation and verification has been obtained.

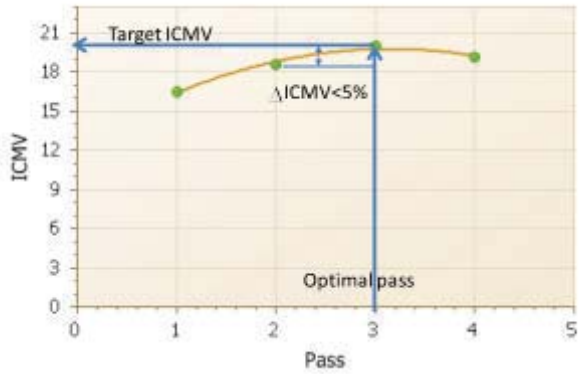
4. The Contractor and the Department should conduct random GPS verification testing during production to ensure data locations are accurate. The recommended rate is once per day with a requirement of at least once per week.

5. All acceptance testing shall be as outlined in Standard Specifications section 400.

B. Construction Test Section(s) Requirements

Construct test section(s) at location(s) agreed on by the Contractor and the Engineer within the project limits. The test section is required to determine a compaction curve of the asphalt mixtures in relationship to number of roller passes and to the stiffness of mixture while meeting the Department in-place compaction requirements. All rollers and the respective number of passes for each is to be determined via control strip each time a material change, equipment change or when the Engineer deems necessary.

Conduct test section(s) on every lift and every asphalt mixture. Ensure test section quantities of 500 to 1,000 tons of mainline mixtures. Operate IC rollers in the low to medium amplitude range and at the same settings (speed, frequency) throughout the section while minimizing overlapping of the roller, **the settings are to be used throughout the project with no changes.** After each roller pass, the qualified technician from the contractor observed by the Department will use a nondestructive nuclear gauge that has been calibrated to the mixture to estimate the density of the asphalt at 10 locations uniformly spaced throughout the test section within the width of a single roller pass. The density readings and the number of roller passes needed to achieve the specified compaction will be recorded. The estimated target density will be the peak of the average of the nondestructive readings within the desired compaction temperature range for the mixture. The IC roller data in conjunction with the Veda software will create an IC compaction curve for the mixture. The target IC-MV is the point when the increase in the IC-MV of the material between passes is less than 5 percent on the compaction curve. The IC compaction curve is defined as the relationship between the IC-MV and the roller passes. A compaction curve example is as follows:



Subsequent to the determination of the target IC-MV, compact an adjoining > 250 < 500 tons section using same roller settings and the number of estimated roller passes and allow the Department to verify the compaction with the same calibrated nondestructive nuclear gauge following the final roller pass. Obtain GPS measurement of the core locations with a GPS rover. Use the Veda software to perform least square linear regression between the core data and IC-MV in order to correlate the production IC-MV values to the Department specified in-place air voids. A sample linear regression curve example is as follows.

C. Construction Requirements
Use the IC roller on all lifts and types of asphalt within the limits of the project.

Ensure the optimal number of roller passes determined from the test sections has been applied to a minimum coverage of 80% of the individual IC Construction area. Ensure a minimum of 75% of the individual IC Construction area meets the target IC-MV values determined from the test sections.

Do not continue paving operations if IC Construction areas not meeting the IC criteria are produced until they have been investigated by the Department. Obtain the Engineer's approval to resume paving operations. Non-IC rollers are allowed to be used as the third roller on the project; one of the breakdown or the finish rollers is to be equipped with IC technology.

IC Construction areas are defined as subsections of the project being worked continuously by the Contractor. The magnitude of the IC Construction areas may vary with production but must be at least 750 tons per mixture for evaluation. Partial IC Construction areas of < 750 tons will be included in the previous area evaluation. IC Construction areas may extend over multiple days depending on the operations.

The IC Construction Operations Criteria does not affect the Department's acceptance processes for the materials or construction operations

5.0 MEASUREMENT. The Department will measure the total tons of asphalt mixtures compacted using the IC roller(s). Compaction is to be performed by a minimum of one IC roller, material compacted by rollers not equipped with properly functioning IC equipment will not be accepted for payment of the bid item asphalt mixtures IC rolled. Use of non-IC rollers can be accepted on small areas due to equipment malfunctions at the written approval of the Engineer. Paving operations should be suspended for equipment malfunctions that will extend over three days of operation.

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

3. Payment is full compensation for all work associated with providing IC equipped rollers, transmission of electronic data files, two copies of IC roller manufacturer software, and training.

4. Delays due to GPS satellite reception of signals to operate the IC equipment or IC roller breakdowns will not be considered justification for contract modifications or contract extensions.

Code	Pay Item		Pay Unit
24781EC	Intelligent Compaction for Asphalt	TON	

SPECIAL NOTE FOR
HTC MEDIAN BARRIER CONSTRUCTION

Hardin County
HTC Median Barrier on I-65 from MP 91.45 to MP 97.61

Item No. 04-2060.00

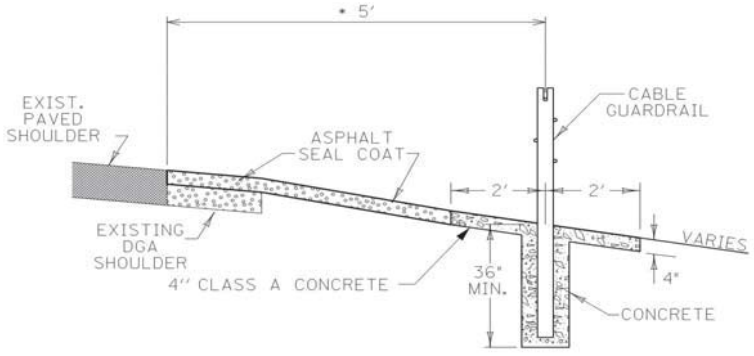
This project includes the removal of the existing cable barrier system and the construction of a new HTC Median Barrier along I-65 in Hardin County beginning at MP 91.45 (North of the I-65 bridge over US 31W) to MP 97.61 (End of Project and end of mainline asphalt pavement).

The Manufacturer will assist the Contractor with the layout and location of the HTC Median Barrier installation. The Contractor will create schematic layout sheets for the HTC Median Barrier system and, prior to construction, the proposed layout and location of the HTC Median Barrier will be approved by the Department. The installed barrier shall be 5' from the edge of the paved shoulder, measured from the center of the concrete mow strip **(See Detail A)**. Installations shall be on the Northbound and Southbound sides of the median.

Cut a 4-foot wide and 4-inch deep trench where the HTC system is to run and place Class A Concrete in the trench **(See Detail A).**

The contractor shall place DGA and an asphalt seal coat from the paved shoulder to the concrete mow strip through the length of the project.

The Manufacturer is responsible for the design of the line post and terminal. The Contractor shall be responsible for obtaining any geotechnical information required by the Manufacturer to complete the design of their system's anchoring.



Detail A

PROPOSED HTC MEDIAN BARRIER		ITEM NO: 04-2060.00
HARDIN COUNTY	ROUTE: I-65	MILEPOINT 91.45 TO 97.61

HTC END LOCATIONS
HARDIN
COUNTY

STATION	MILEPOINTS	LENGTH
NB 101+22.78	NB 91.56	2811.3
NB 29+34.08	NB 92.09	
NB 133+05.18	NB 92.16	17969.7
NB 312+74.87	NB 95.59	
NB 313+41.70	NB 95.60	11082.5
NB 424+24.15	NB 97.71	
	TOTAL:	31,863.40’

NOTE:
These locations have been assumed for the purpose of quantifying the project. Exact locations are to be determined by the Vendor and the Contractor, and approved by the Engineer, and are to be documented in the HTC Median Barrier System Layout Plans.

SPECIAL NOTES FOR HTC MEDIAN BARRIER INSTALLATION AND LAYOUT

PAGE 1 OF 2

The HTC Median Barrier will meet or exceed the specifications documented in the ***SPECIAL NOTE FOR HIGH TENSION CABLE-ROPE MEDIAN BARRIER***. The Contractor may choose any manufacturer of high tension cable-rope so long as their system meets or exceeds specifications documented in the ***SPECIAL NOTE FOR HIGH TENSION CABLE-ROPE MEDIAN BARRIER***. The Contractor shall select and install only one manufacturer's high tension cable barrier system for the entire project. Terminal sections and high tension cable barrier shall be produced by the same manufacturer. A listing of high tension cable-rope manufacturers and their products may be found on the Federal Highway Administration's Safety website for Roadside Hardware Guidance:

(http://safety.fhwa.dot.gov/roadway_dept/policy_guide/road_hardware/).

The Contractor shall provide the following documentation to the Engineer a minimum of 14 days prior to installation of the system:

a) A copy of the appropriate FHWA Acceptance Letters (from NCHRP Report 350 testing) for the HTC system, including one for TL-4 on 6H:1V slopes, TL-3 on 4H:1V, and TL-3 for the terminals/end anchorages.

b) Two copies of the manufacturer's product brochure, specifications, and installation and maintenance manuals.

c) Certification signed and stamped by a Professional Engineer licensed in the Commonwealth of Kentucky stating that the final design of the system meets the requirements of the contract documents.

d) Five copies of the proposed system layout plans clearly depicting installation details, including existing planimetric features (guardrail, safety terminals, edges of pavement/shoulder, ditch line, structures, etc.) and proposed HTC system features (safety terminals, intermediate line posts, and cable-rope location).

e) One copy of the design drawings and calculations for the safety terminal and intermediate line post foundations for the soil conditions on the project. Design drawings and calculations shall be stamped by a Professional Engineer licensed in the Commonwealth of Kentucky.

Review and acceptance of the proposed design (as shown in the documentation listed above) must occur before the Contractor proceeds with installation. The review will be completed in 14 days.

SPECIAL NOTES FOR
HTC MEDIAN BARRIER INSTALLATION AND LAYOUT

PAGE 2 OF 2

When developing the proposed system layout, the Contractor and Manufacturer will adhere to the following guidance:

a) Maintain a minimum of 9’ between the HTC system and the edge of traveled way. Allowances will be made to the offset when the barrier passes by a permanent structure such as a bridge pier or sign truss pedestal. The Engineer will approve any variances to the 9’ offset.

b) The HTC system must remain a minimum of 10’ up from the median ditch line.

c) Legal median u-turn crossovers should remain open.

d) Where possible, shield anchors behind existing roadside safety hardware (i.e. guardrail end treatments, bridge-ends, etc.)

Contrary to Section 111 of the *KYTC Standard Specifications for Road and Bridge Construction (current edition)* no Value Engineering or proposal to modify the specifications of the high tension cable median barrier will be accepted on this project.

The concrete pad mow strip will be constructed per the Section 505 of the *KYTC Standard Specifications for Road and Bridge Construction (current edition)* for concrete sidewalks.

SPECIAL NOTE FOR INSTALLATION AND MAINTENANCE TRAINING

1. Provide installation training by the manufacturer of the system during construction.

   A. During the installation of the proposed cable barrier system, provide on-site field instruction on installation procedures covering all aspects of the system installation, including grading, line post installation, wire rope or cable installation and tensioning, and terminal or anchor installation. The scheduling and location of this training shall be approved by the Engineer.

   B. Provide the training for a maximum of 10 participants, to include the following as may apply:
      - Contractor (prime)
      - Installation Contractor (sub)
      - KYTC personnel (Construction, Maintenance, Traffic Safety and Highway Design)

2. The installation contractor must have personnel on site at all times during the installation of the system that have been trained by the manufacturer.

3. Provide maintenance training by the manufacturer of the system prior to the closing out of the project.

   A. Provide a minimum of two (2) hours of classroom instruction on the maintenance and repair of the system. This training shall be provided in a location central to the project and the local KYTC district office. The scheduling and location of this training shall be approved by the Engineer.

   B. Provide a minimum of two (2) hours of on-site field instruction on the maintenance and repair of the system.

   C. Provide the training as required for a maximum of 30 participants, to include the following:

      - KYTC personnel (Construction, Maintenance, Traffic Safety and Highway Design)
      - FHWA representative when system installed on federal aid projects
      - Those invited by the KYTC, which may include law enforcement agencies and emergency response representatives

4. The required training will be **incidental to the contract**.

SPECIAL NOTE FOR
HIGH TENSION CABLE-ROPE MEDIAN BARRIER

Sheet 1 of 4

DESCRIPTION This work shall consist of furnishing and installing a high tension cable-rope HTC median barrier with terminals/end anchorages as recommended by the Manufacturer, as directed by the Engineer, and in accordance with the requirements of this special note.

GENERAL REQUIREMENTS The HTC median barrier system shall be a four cable-rope system that meets the National Cooperative Highway Research Program (NCHRP) Report 350, Test Level 4 testing for 6H:1V slopes and be accepted by FHWA as such. HTC installed on front slope grades steeper than 6H:1V but 4H:1V or flatter shall be Test Level 3 tested and accepted as such. Each of the four cable-ropes shall be independently anchored to a concrete end-anchor. The terminals/end anchorages shall be tested and accepted under NCHRP Report 350 Test Level 3. Geotechnical information of the project area shall be used by the Manufacturer to design the sizes and depths of the anchors and footings. Intermediate line posts shall be socketed with sleeves set in concrete. The maximum post spacing for the HTC System shall be 10.5 feet, center to center.

MATERIALS Samples for testing shall be provided as directed by the Physical Section of the Division of Materials. Contractors shall contact the Physical Section of the Division of Materials at 502-564-3160 for department specific sampling and testing procedures prior to bid. Section references are from the *Kentucky Standard Specifications for Road and Bridge Construction (current edition)*.

Concrete, Class A	Section 601
Steel Reinforcement (Minimum Grade 40 steel)	Section 811
Anchor Bolts and Nuts	Section 813
Galvanizing (Bolts, Nuts & Washers)	AASHTO M 232
Fittings (Steel) Hardware	AASHTO M 30
Reflective Sheeting	Section 830

Cable-rope The cable-rope shall be a galvanized ¾ inch diameter, 3x7 wire rope construction meeting AASHTO M30 Type I Class A coating. The wire rope shall be pre-stretched during manufacturing to exhibit a minimum modulus of elasticity of 11,805,090 pounds/inch^2 after pre-stretching. If cable rope or fittings of higher strength were used at the time of NCHRP 350 evaluation, use the higher strength materials.

Posts Posts shall be the socketed versions with caps, placed in metal or plastic sleeves installed in a concrete foundation. All posts shall be fabricated from materials meeting ASTM A-36 or greater steel and galvanized after fabrication to A-123. The required welding shall be performed by a certified welder in accordance with AWS D1.1. Posts shall be domestic hot-rolled mild steel, or cold-formed from hot-rolled mild steel. A fitting gasket, profiled to fit tightly around each post, shall be provided to prevent debris from entering the socket.

SPECIAL NOTE FOR
HIGH TENSION CABLE-ROPE MEDIAN BARRIER

Sheet 2 of 4

Fittings Only swaged fittings shall be provided. Field-installed, galvanized-steel fittings (i.e., turnbuckles and splices) shall be one-inch diameter. Smaller fittings may be allowed with written permission from the Division of Design, Division of Construction, and the Division of Materials. Factory applied or stainless steel fittings shall meet AASHTO M30 Type I Class A. Threaded terminals shall be right hand or left hand threaded M24 X 3 pitch to ANSI B 1.13M. The body of the threaded terminal shall provide a minimum of 6 inches wire rope engagement depth. Threaded terminals shall be either stainless steel or galvanized, after processing, to ASTM A-153.

Turnbuckles Turnbuckles (i.e. Rigging Screws) shall be threaded to accept the fitting described above. Turnbuckles may be either the open or closed body type (with two inspection holes to determine threaded rope terminal penetration). The turnbuckles shall allow for a minimum of 6 inches of penetration from each end. Turnbuckles shall meet AASHTO M30 Type I Class A and shall be either stainless steel or galvanized, after processing, to ASTM A-153.

Mechanical Anchor Fittings Fittings shall be provided at the anchor termination of each cable-rope and shall be of the same type as used in the connection to the turnbuckles. The fittings shall meet AASHTO M30 Type I Class A yielding, shall be capable of release and reuse, and shall be either stainless steel or galvanized, after processing, to ASTM A-153.

End Terminals End Terminals placed within the clear zone, as defined by AASHTO Roadside Design Guide, shall be NCHRP Report 350 compliant, meeting Test Level 3 (TL-3) requirements, and having an FHWA letter of acceptance. Other terminals may be used in locations where impacts are unlikely or if properly shielded by impact attenuator, if approved by the Engineer. Each of the four cable-ropes of the system shall have separate anchor connections to the terminal end section. End anchors shall be fabricated from materials meeting ASTM A-36 and galvanized after fabrication to A-123. All welding shall be performed by a certified welder in accordance with AWS D1.1.

CONSTRUCTION The Contractor shall install high tension cable-rope barrier system according to the manufacturer's design and recommendation. Prior to construction, the proposed layout and location of the HTC System will be approved by the Department. The posts shall be installed plumb and in accordance with the proposed layout, spacing, and location shown in the HTC System layout plans as approved by the Department.

Turnbuckles shall be included to allow for tensioning of the cable-ropes. For installations greater than 1,000 feet in length, at least one Turnbuckle per 1,000 feet shall be included per length of cable-rope. For installations less than 1,000 feet in length, one Turnbuckle per length of cable-rope shall be included near the center of the installation.

SPECIAL NOTE FOR
HIGH TENSION CABLE-ROPE MEDIAN BARRIER

Sheet 3 of 4

Extreme care shall be taken in ensuring proper cable-rope height. The area shall be relatively smooth, without edge drop-offs, holes, other depressions or abrupt slope changes between the edge of the traveled way and the cable-rope barrier system.

The HTC System shall be placed and tensioned immediately after initial installation per the manufacturer's recommendations. Tension shall be rechecked approximately two (2) to three (3) weeks after initial tensioning and adjusted, if necessary. A tension log form shall be completed showing the time, date, location, ambient temperature, and final tension reading, signed by the person performing the tension reading. This log shall be furnished to the Engineer upon completion of work. This form shall also include the manufacturer's recommended tension chart.

Line post shall be socketed with sleeves set in concrete. The minimum diameter for the line post foundations shall be 12 inches. Minimum installation depth for the concrete line posts footings shall be 36-inches for non-rock installation. Greater depths may be required for non-rock installation due to manufacturer's recommendations based on soil information as shown in this proposal. Depths and requirements for installations in rock shall be based on manufacturer's recommendations.

The HTC System shall be delineated with retro-reflective sheeting. The delineation shall be applied to the last five posts at each end of an installation and throughout the remainder of the installation at a maximum spacing of 50 feet. The delineation shall provide a minimum of seven square inches of area when viewed on a line parallel to the roadway centerline. For median installations, the sheeting shall be applied to both sides of the post. The delineation shall be attached near the top of the posts as recommended by the manufacturer. The sheeting shall be yellow or white and shall be the same color as the adjacent edge line.

Contractor shall not allow traffic to be exposed to trenching and/or excavated post anchor holes for longer than one working shift, as directed by the Engineer.

SPECIAL NOTE FOR
HIGH TENSION CABLE-ROPE MEDIAN BARRIER

Sheet 4 of 4

MEASUREMENT

High Tension Cable-Rope Barrier will be measured by the linear foot. Any costs associated with the cable-rope, intermediate line posts, line post foundations, cable-rope tensioning, reflective sheeting, and all necessary incidentals shall be included in the price bid for this item.

End Anchors will be measured by each unit. The Contractor's proposed layout and location plans will specify the type and number of end terminals required. Any costs associated with the excavation, reinforcing steel, concrete, and other incidentals shall be included in the price bid for this item. End anchor pay limits vary by manufacturer. See manufacturers shop drawings for details.

PAYMENT

Code	Pay Item	Pay Unit
23147EN	HIGH TENSION CABLE-ROPE BARRIER	LINEAR FOOT
23148EN	END ANCHORS	EACH

Such payment shall be full compensation for furnishing all materials, equipment, labor, and incidentals to complete the work as specified.

HARDIN CO. I-65 ~m.p. 92.61
~LAT/LONG N 37.693388, W 85.839605
STATION P68

SITE LOCATION IS APPROXIMATE AND WILL BE DETERMINED IN THE FIELD AND APPROVED BY DIVISION OF PLANNING PERSONNEL PRIOR TO ANY CONSTRUCTION.

ALL LOOPS SHALL BE 6'X6' SQUARE AND SHALL BE INSTALLED 16' FROM LEADING EDGE TO LEADING EDGE AS SHOWN. PIEZOELECTRIC SENSORS (PIEZOS) SHALL BE INSTALLED 5' FROM THE EDGE OF LOOPS WITH THE EDGE OF EACH PIEZO FLUSH WITH THE EDGE OF THE CORRESPONDING DRIVING LANE. LOOPS AND PIEZOS SHALL BE INSTALLED SPLICE-FREE TO THE CABINET AND A MINIMUM OF 2' OF WIRE FOR EACH SENSOR SHALL BE COILED AND LABELED INSIDE EACH JUNCTION BOX AND CABINET. DIVISION OF PLANNING PERSONNEL WILL CONNECT THE LOOPS AND PIEZOS INSIDE THE CABINET.

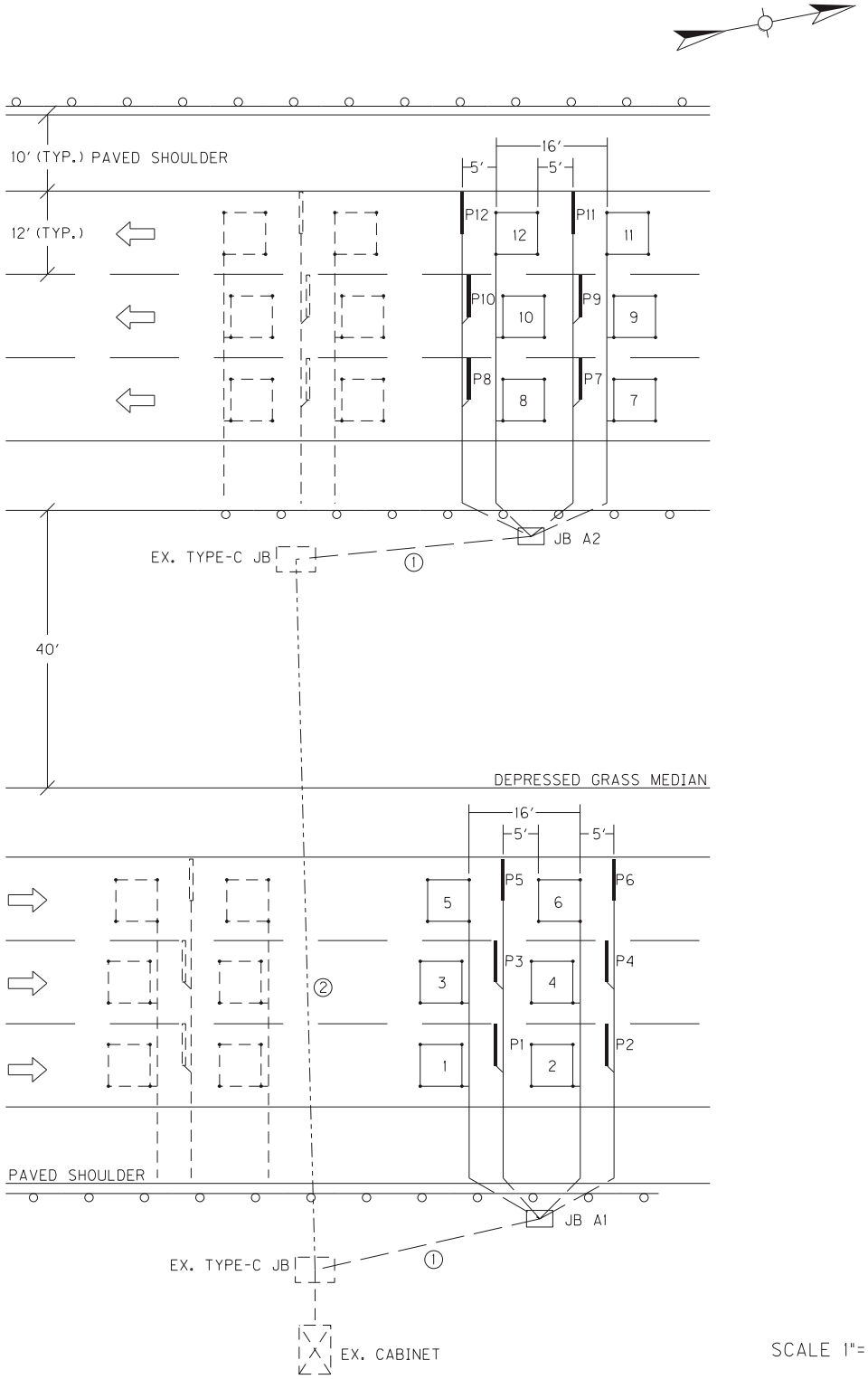
INSTALL TWO (2) TYPE A JUNCTION BOXES (JB A1 AND A2).

INSTALL ONE (1) 1¼" CONDUIT FROM EACH SAW SLOT TO NEAREST JUNCTION BOX.

CODED NOTE:

① INSTALL ONE (1) 2" RIGID CONDUIT.

② BORE ONE (1) 2" RIGID CONDUIT BETWEEN EX. TYPE-C JUNCTION BOXES.



SCALE 1"=25'

HARDIN CO. I-65 ~m.p. 93.65
~LAT/LONG N 37.70673, W 85.83082
STATION 144

SITE LOCATION IS APPROXIMATE AND WILL BE DETERMINED IN THE FIELD AND APPROVED BY DIVISION OF PLANNING PERSONNEL PRIOR TO ANY CONSTRUCTION.

ALL LOOPS SHALL BE 6'X6' SQUARE AND SHALL BE INSTALLED 16' FROM LEADING EDGE TO LEADING EDGE AS SHOWN. PIEZOELECTRIC SENSORS (PIEZOS) SHALL BE INSTALLED 5' FROM THE EDGE OF LOOPS WITH THE EDGE OF EACH PIEZO FLUSH WITH THE EDGE OF THE CORRESPONDING DRIVING LANE. LOOPS AND PIEZOS SHALL BE INSTALLED SPLICE-FREE TO THE CABINET AND A MINIMUM OF 2' OF WIRE FOR EACH SENSOR SHALL BE COILED AND LABELED INSIDE EACH JUNCTION BOX AND CABINET. DIVISION OF PLANNING PERSONNEL WILL CONNECT THE LOOPS AND PIEZOS INSIDE THE CABINET.

INSTALL TWO (2) TYPE A JUNCTION BOXES (JB A1 AND A2).

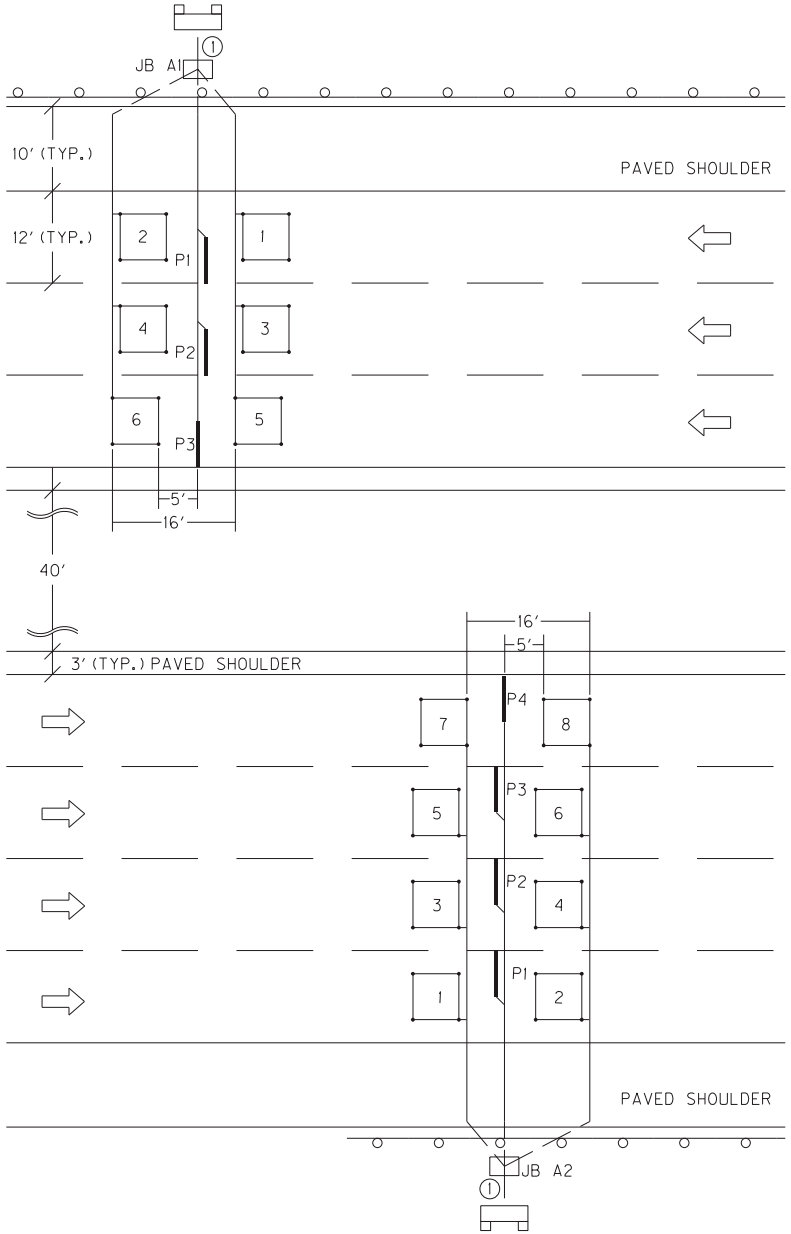
INSTALL ONE (1) 1¼" CONDUIT FROM EACH SAW SLOT TO NEAREST JUNCTION BOX.

INSTALL TWO (2) 20"x20"x8" CABINETS MOUNTED TO TWO (2) WOOD POSTS (EACH).

REMOVE EXISTING TRAFFIC COUNTING EQUIPMENT (CABINETS, JUNCTION BOXES, CONDUITS, POSTS, ETC.) AND DISPOSE OF OFF THE PROJECT.

CODED NOTE:

① INSTALL ONE (1) 2" CONDUIT.



SCALE 1"=25'

HARDIN CO. I-65 m.p. ~ 96.35
~LAT/LONG N 37.73704, W 85.80438
STATION 174

SITE LOCATION IS APPROXIMATE AND WILL BE DETERMINED IN THE FIELD AND APPROVED BY DIVISION OF PLANNING PERSONNEL PRIOR TO ANY CONSTRUCTION.

ALL LOOPS SHALL BE 6'X6' SQUARE AND SHALL BE INSTALLED 16' FROM LEADING EDGE TO LEADING EDGE AS SHOWN. PIEZOELECTRIC SENSORS (PIEZOS) SHALL BE INSTALLED 5' FROM THE EDGE OF LOOPS WITH THE EDGE OF EACH PIEZO FLUSH WITH THE EDGE OF THE CORRESPONDING DRIVING LANE. LOOPS AND PIEZOS SHALL BE INSTALLED SPLICE-FREE TO THE CABINET AND A MINIMUM OF 2' OF WIRE FOR EACH SENSOR SHALL BE COILED AND LABELED INSIDE EACH JUNCTION BOX AND CABINET. DIVISION OF PLANNING PERSONNEL WILL CONNECT THE LOOPS AND PIEZOS INSIDE THE CABINET.

INSTALL ONE (1) 1¼" CONDUIT FROM EACH SAW SLOT TO NEAREST JUNCTION BOX.

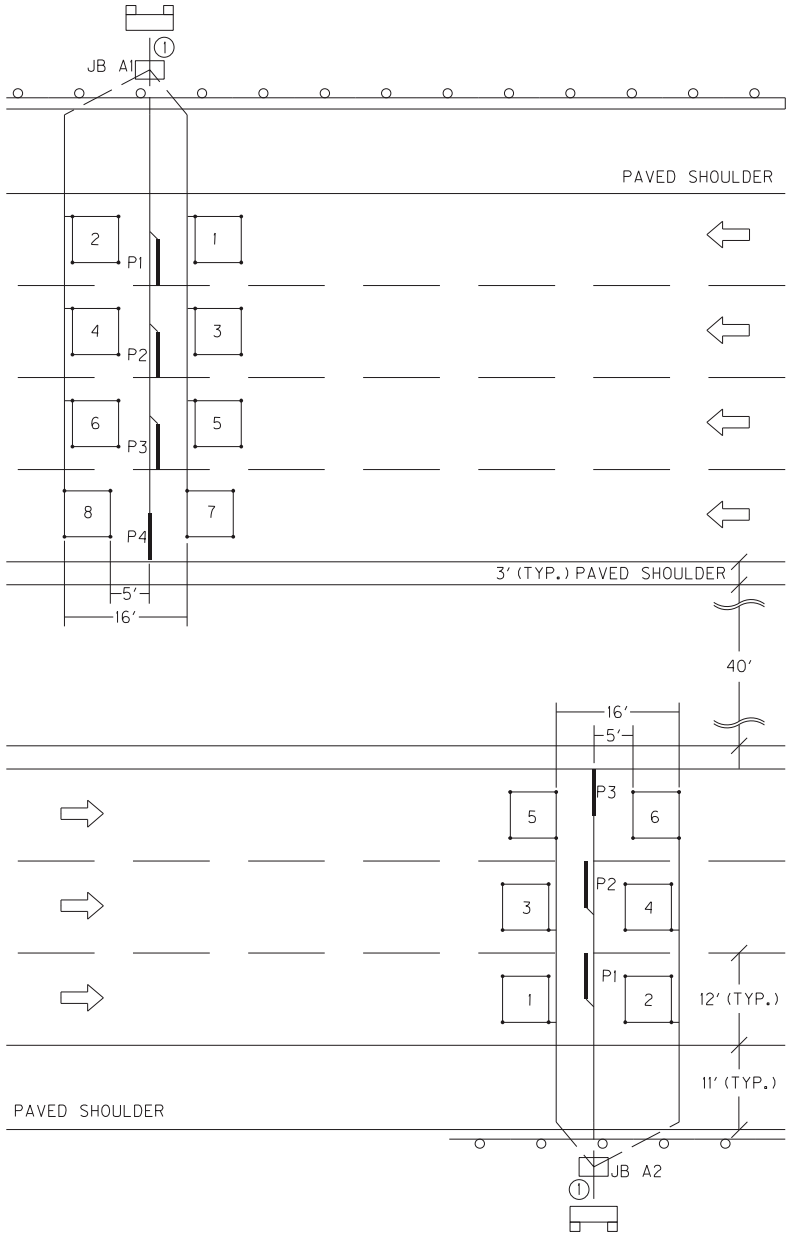
INSTALL TWO (2) TYPE A JUNCTION BOXES (JB A1 AND A2).

INSTALL TWO (2) 20"X20"X8" CABINETS MOUNTED TO TWO (2) WOOD POSTS (EACH).

REMOVE EXISTING TRAFFIC COUNTING EQUIPMENT (CABINETS, JUNCTION BOXES, CONDUITS, POSTS, ETC.) FROM ~m.p. 99.55 AND DISPOSE OF OFF THE PROJECT.

CODED NOTE:

① INSTALL ONE (1) 2" CONDUIT.



SCALE 1"=25'

PERMANENT TRAFFIC DATA ACQUISITION STATIONS
ESTIMATE OF QUANTITIES

Bid Item Code	Description	Unit	Quantity
2562	TEMPORARY SIGNS	SQ FT	
2650	MAINTAIN AND CONTROL TRAFFIC	LP SUM	
2775	ARROW PANEL	EACH	
4791	CONDUIT ¾ INCH	LIN FT	
4793	CONDUIT 1 ¼ INCH	LIN FT	260
4795	CONDUIT 2 INCH	LIN FT	110
4811	ELECTRICAL JUNCTION BOX TYPE B	EACH	
4820	TRENCHING AND BACKFILLING	LIN FT	350
4821	OPEN CUT ROADWAY	LIN FT	
4829	PIEZOELECTRIC SENSOR	EACH	26
4830	LOOP WIRE	LIN FT	11800
4850	CABLE NO. 14/1 PAIR	LIN FT	
4871	POLE – 35’ WOODEN	EACH	
4895	LOOP SAW SLOT AND FILL	LIN FT	1875
4899	ELECTRICAL SERVICE	EACH	
20213EC	INSTALL PAD MOUNT ENCLOSURE	EACH	
20359NN	GALVANIZED STEEL CABINET	EACH	4
20360ES818	WOOD POST	EACH	8
20391NS835	ELECTRICAL JUNCTION BOX TYPE A	EACH	6
20392NS835	ELECTRICAL JUNCTION BOX TYPE C	EACH	
20468EC	ELECTRICAL JUNCTION BOX 10x8x4	EACH	
21543EN	BORE AND JACK PIPE – 2 IN	LIN FT	100
23206EC	INSTALL CONTROLLER CABINET	EACH	

MATERIAL, INSTALLATION, AND BID ITEM NOTES FOR PERMANENT TRAFFIC DATA ACQUISITION STATIONS

1. DESCRIPTION

Except as specified in these notes, all work shall consist of furnishing and installing all materials necessary for permanent data acquisition station equipment installation(s) and shall be performed in accordance with the current editions of:

- The Contract
- Division of Planning Standard Detail Sheets
- Kentucky Transportation Cabinet, Department of Highways, *Standard Specifications for Road and Bridge Construction*
- Kentucky Transportation Cabinet, Department of Highways, Standard Drawings
- National Fire Protection Association *(NFPA) 70: National Electrical Code*
- Institute of Electrical and Electronic Engineers (IEEE), *National Electrical Safety Code*
- Federal Highway Administration, *Manual on Uniform Traffic Control Devices*
- American Association of State Highway and Transportation Officials (AASHTO), *Roadside Design Guide*.
- Standards of the utility company serving the installation, if applicable

The permanent traffic data acquisition station layout(s) indicate the extent and general arrangement of the proposed installation and are for general guidance. Any omission or commission shown or implied shall not be cause for deviation from the intent of the plans and specifications. Information shown on the plans and in this proposal and the types and quantities of work listed are not to be taken as an accurate or complete evaluation of the material and conditions to be encountered during construction. The bidder must draw his own conclusion as to the conditions encountered. The Department of Highways (Department) does not give any guarantee as to the accuracy of the data and no claim will be considered for additional compensation if the conditions encountered are not in accordance with the information shown. If any modifications of the plans or specifications are considered necessary by the Contractor, details of such modifications and the reasons, therefore, shall be submitted in writing to the Engineer for written approval prior to beginning such modified work.

The Contractor shall contact all utility companies and the district utility agent prior to beginning construction to insure proper clearance and shielding from existing and proposed utilities. The Contractor shall use all possible care in excavating on this project so as not to disturb any existing utilities whether shown on the plans or not shown on the plans. Any utilities disturbed or damaged by the Contractor during construction shall be replaced or repaired to original condition by the Contractor at no cost to the department. If necessary, to avoid existing utilities, the Contractor shall hand dig areas where poles or conduit cross utilities.

The Contractor shall be responsible for all damage to public and/or private property resulting from his work.

The Contractor shall inspect the project site prior to submitting a bid and shall be thoroughly familiarized with existing conditions. Submission of a bid will be considered an affirmation of this inspection having been completed. The Department will not honor any claims resulting from site conditions.

2. MATERIALS

All proposed materials shall be approved prior to being utilized. The Contractor shall submit for material approval an electronic file of descriptive literature, drawings and any requested design data for the proposed materials. After approval, no substitutions of any approved materials may be made without the written approval of the Engineer.

Materials requiring sampling shall be made available a sufficient time in advance of their use to allow for necessary testing.

2.1. Anchoring

2.1.1. Anchor and Anchor Rod

Anchor, except rock anchor, shall be expanding type, with a minimum area of 135 square inches.

Anchor rod shall be galvanized steel, double-eye, have a minimum diameter of 5/8 inches, and a minimum length of 84 inches. Minimum holding capacity shall be 15,400 lbs.

Rock anchor shall be galvanized steel, triple-eye, expanding type, with a minimum diameter of ¾ inch, a minimum 53 inches long, and a minimum tensile strength of 23,000 lb.

2.1.2. Guy Wire and Guy Guard

Guy wire shall be Class A, Zinc-coated, 3/8 inch diameter, high strength grade steel (minimum 10,800 lb.) and galvanized per ASTM A475. Guy guard shall be 8’ long, fully-rounded, yellow, and able to be securely attached to the guy wire.

2.1.3. Strandvise for Guy Wire

Strandvise for guy wire shall be 3/8 inch and rated to hold a minimum of 90% of the rated breaking strength (RBS) of the strand used.

2.2. Asphalt

Asphalt shall be a minimum CL2 Asph Surf 0.38C PG64-22 and conform to the *Standard Specifications for Road and Bridge Construction.*

2.3. Backer Rod

Backer rod shall be ½ inch diameter, closed cell polyethylene foam and shall meet or exceed the following physical properties:

- Density (average): 2.0 lbs/cu.ft. (minimum): ASTM D 1622 test method
- Tensile Strength: 50 PSI (minimum): ASTM D 1623 test method
- Compression Recovery: 90% (minimum): ASTM D 5249 test method
- Water Absorption: 0.03 gm/cc (maximum): ASTM C 1016 test method

2.4. Cabinets

2.4.1. Galvanized Steel Cabinet

Galvanized Steel Cabinet shall be constructed of 16 or 14 gauge galvanized steel and shall meet or exceed the industry standards set forth by UL 50 and NEMA 3R. The finish shall be an ANSI 61 gray polyester powder finish inside and out over the galvanized steel. Cabinet shall have minimum inside dimensions of 20 inches high by 20 inches wide by 8 inches deep.

The cabinet shall be equipped with the following:

- Drip shield top
- Seam-free sides, front, and back, to provide protection in outdoor installations against rain, sleet, and snow
- Hinged cover with 16 gauge galvanized steel continuous stainless steel pin.
- Cover fastened with captive plated steel screws, knob or latch
- Hasp and staple for padlocking
- No gaskets or knockouts
- Back panel for terminal block installation
- Post mounting hardware
- Terminal Blocks

2.4.2. Anchor Bolt for Pad Mounted Cabinet

Anchor bolt for pad mounted cabinet shall be galvanized steel with minimum dimensions of 3/8 inch by 6 inches.

2.5. Concrete

Concrete shall be Class A and conform to the *Standard Specifications for Road and Bridge Construction.*

2.6. Conduit and Conduit Fittings

Conduit and conduit fittings shall be rigid steel unless otherwise specified.

Conduit shall be zinc galvanized inside and out and conform to the NEC, UL Standard 6, and ANSI C-80.1.

Rigid Steel Conduit Fittings shall be galvanized inside and out and conform to the NEC, UL Standard 514B, and ANSI C-80.4. Intermediate Metal Conduit (IMC) will not be approved as an acceptable alternative to rigid steel conduit.

2.7. Conduit sealant

Conduit sealant shall be weather-, mold-, and mildew-resistant and chemically resistant to gasoline, oil, dilute acids and bases. Conduit sealant shall be closed cell type and shall meet or exceed the following properties:

- Cure Time — 20 minutes max.
- Density — 64.4 kg/m3; 6 lbs/ft3
- Compressive Strength (ASTM 1691) — 13.8 MPa; 330 or 300 psi

- Tensile Strength (ASTM 1623) 15.9 MPa; 270 or 250 psi
- Flexural Strength (ASTM D790) 14.5 MPa; 460 or 450 psi
- Service Temperature -20 to 200 F

2.8. Electrical Service Meter Base

Electrical service meter base shall meet or exceed all requirements of the National Electrical Code and the local utility providing the electrical service.

2.9. Electrical Service Disconnect

Electrical service disconnect shall meet or exceed all requirements of the National Electrical Code and the local utility providing the electrical service.

2.10. Flashing Arrow

Flashing Arrow shall conform to the *Standard Specifications for Road and Bridge Construction.*

2.11. Ground Fault Circuit Interrupter (GFCI) Receptacle

Ground Fault Circuit Interrupter Receptacle shall be 2-pole, 3-wire, 20 Amp, 125 Volt, 60 Hz, NEMA 5-20R configuration and meet or exceed the following standards and certifications:

- NEMA WD-1 and WD-6
- UL 498 and 943
- NOM 057
- ANSI C-73

This item shall include a UL listed, 4 inch x4 inch x $2^1/_8$ inch box with ¾ inch side and end knockouts and a 1½ inches deep, single-receptacle cover to house the GFCI receptacle. Box and cover shall be hot rolled, galvanized steel with a minimum thickness of 0.62 inches.

2.12. Grounding

2.12.1. Ground Rod

Ground Rod shall be composite shaft consisting of a pure copper exterior (5 mil minimum) that has been inseparably molten welded to a steel core. Ground Rod shall have a minimum diameter of 5/8 inch, a minimum length of 8 feet and shall be manufactured for the sole purpose of providing electrical grounding.

2.12.2. Ground Rod Clamp

Ground rod shall be equipped with a one piece cast copper or bronze body with a non-ferrous hexagonal head set screw and designed to accommodate a 10 AWG solid through 2 AWG stranded grounding conductor.

2.13. Grout

2.13.1. Grout for Inductive Loop Installation

Grout for inductive loop installation shall be non-shrink, shall meet the requirements of the *Standard Specifications for Road and Bridge Construction*,

and shall be included on the KYTC Division of Materials, *List of Approved Materials*.

2.13.2. Grout for Piezoelectric Sensor Installation

Grout for piezoelectric sensor installation shall be per the piezoelectric sensor manufacturer's recommendation. Grout shall be suitable for installation in both asphalt and Portland cement pavements. Grout shall have a short curing time (tack free in ten minutes; open to traffic in forty minutes; and fully cured within sixty minutes) to prevent unnecessary lane closure time and should be of sufficient consistency to prevent running when applied on road surfaces with a drainage cross slope. Particulate matter within the grout shall not separate or settle and the grout shall not shrink during the curing process.

2.14. Hardware

Except where specified otherwise, all hardware such as nuts, bolts, washers, threaded ends of fastening devices, etc. with a diameter less than 5/8 inch shall be passivated stainless steel, alloy type 316 or type 304. Stainless steel hardware shall meet ASTM F593 and F594 for corrosion resistance. All other nuts and bolts shall meet ASTM A307 and shall be galvanized.

2.14.1. Conduit Strap

Conduit strap shall be double-hole, stainless steel, and sized to support specified conduit. Conduit strap shall attach to wood pole or post with two 2 ¼ inch wood screws.

2.14.2. Mounting Strap for Pole Mount Cabinet

Mounting strap for pole mount cabinet shall be ¾ inch x 0.03 inch stainless steel; equipped with clips or buckles to securely hold strap.

2.14.3. Metal Framing Channel and Fittings

Metal framing channel shall be 1 5/8 inches wide galvanized steel that conforms to ASTM A1011 and ASTM A653. One side of the channel shall have a continuous slot with in-turned edges to accommodate toothed fittings.

Fittings shall be punch pressed from steel plates and conform to ASTM A575 and the physical requirements of ASTM A1011.

2.15. Junction Box

2.15.1. Junction Box Type A, B, or C

Junction Box Type A, B, or C shall meet or exceed ANSI/SCTE 77-2007, Tier 15. Box shall have an open bottom. A removable, non-slip cover marked "PLANNING" shall be equipped with a lifting slot and attached with a minimum of two 3/8 inch stainless steel hex bolts and washers. Type A Box shall have nominal inside dimensions of 13 inches wide by 24 inches long by 18 inches deep. Type B Box shall have nominal inside dimensions of 11 inches wide by 18 inches long by 12

inches deep. Type C Box shall have nominal inside dimensions of 24 inches wide by 36 inches long by 30 inches deep.

2.15.2. Aggregate for Junction Box Type A, B, or C

Aggregate for junction box type A, B, or C shall be gradation size no. 57 and conform to the *Standard Specifications for Road and Bridge Construction.*

2.15.3. Junction Box 10x8x4

Junction Box Type 10x8x4 shall be constructed of a UV-stabilized, nonmetallic material or non-rusting metal and be weatherproof in accordance with NEMA 4X. Box shall be equipped with an overhanging door with a continuous durable weatherproof gasket between the body and door. Door shall be hinged with stainless steel screws, hinge(s) and pin(s) and shall be equipped with a stainless steel padlockable latch on the side opposite the hinge(s). Junction Box 10x8x4 shall have minimum inside dimensions of 10 inches high by 8 inches wide by 4 inches deep.

2.16. Maintain and Control Traffic

Materials for the bid item Maintain and Control Traffic shall conform to the *Standard Specifications for Road and Bridge Construction,* and the KYTC Department of Highways *Standard Drawings.*

2.17. Piezoelectric Sensor

Piezoelectric sensor (piezo) shall provide a consistent level voltage output signal when a vehicle axle passes over it, shall have a shielded transmission cable attached, and shall meet the following requirements:

- Dimensions: such that sensor will fit in a ¾ inch wide by 1 inch deep saw cut. Total length shall be 6 feet unless specified otherwise.
- Output uniformity: ± 7% (maximum)
- Typical output level range: 250mV (minimum) from a wheel load of 400 lbs.
- Working temperature range: -40° to 160° F.
- Sensor life: 30 million Equivalent Single Axle Loadings (minimum)

Shielded transmission cable shall be coaxial and shall meet the following requirements:

- RG 58C/U with a high density polyethylene outer jacket rated for direct burial
- Length shall be a minimum of 100 feet. Installations may exceed 100 feet so the piezo shall be supplied with a lead-in of appropriate length so that the cable can be installed splice-free from the piezo to the cabinet.
- Soldered, water resistant connection to the sensor.

One installation bracket for every 6 inches of sensor length shall also be supplied. Piezo shall be a RoadTrax BL Class I or approved equal.

2.18. Saw Slot Sealant

Saw Slot Sealant shall be non-shrink, non-stringing, moisture cure, polyurethane

encapsulant suitable for use in both asphalt and concrete pavements. It shall provide a void-free encapsulation for detector loop cables and adequate compressive yield strength and flexibility to withstand heavy vehicular traffic and normal pavement movement.

The cured encapsulant shall meet or exceed the following:

- Hardness (Indentation): 35-65 Shore A, ASTM D2240
- Tensile Strength: 150 psi minimum, ASTM D412
- Elongation: 125% minimum 2 inch/minute pull, ASTM D412
- Tack-free Drying Time: 24 hours maximum, ASTM C679
- Complete Drying Time: 30 hours maximum, KM 64-447
- Chemical Interactions (seven day cure at room temperature, 24-hour immersion, KM 64-446):
  - Motor Oil: No effect
  - Deicing Chemicals: No effect
  - Gasoline: Slight swell
  - Hydraulic Brake Fluid: No effect
  - Calcium Chloride (5%): No effect

2.19. Seeding and Protection

Material for Seeding and Protection shall be Seed Mixture Type I and conform to the *Standard Specifications for Road and Bridge Construction.*

2.20. Signs

Materials for signs shall conform to the *Standard Specifications for Road and Bridge Construction.*

2.21. Splicing Materials

2.21.1. Electrical Tape

Electrical tape shall be a premium grade, UL-listed, all-weather, vinyl-insulating tape with a minimum thickness of 7 mil. Tape shall be flame retardant and resistant to abrasion, moisture, alkalis, acids, corrosion, and weather (including ultraviolet exposure).

2.21.2. Splice Kit

Splice kit shall be inline resin-type and rated for a minimum of 600V. Resin shall be electrical insulating-type and shall provide complete moisture and insulation resistance.

2.22. Steel Reinforcing Bar

Steel reinforcing bar shall be #5 and shall conform to the *Standard Specifications for Road and Bridge Construction.*

2.23. Terminal Block

Terminal block shall be rated for a minimum of 300 V and have a minimum of six

terminal pairs with 9/16-inch nominal spacing (center to center) for connecting loop and piezoelectric sensor wires to cable assemblies. Terminal block shall have screw type terminal strips to accommodate wire with spade-tongue ends.

2.24. Warning Tape

Warning tape shall be acid and alkali resistant formulated for direct burial. Tape shall be a minimum of 3 inches wide by 4.0 mils (nominal) thick, and shall be permanently imprinted with a minimum 1 inch black legend on a red background warning of an electric line. Tape shall meet or exceed the following industry specifications:

- American Gas Association (AGA) 72-D-56
- American Petroleum Institute (API) RP 1109
- American Public Works Association (APWA) Uniform Color Code
- Department of Transportation (DOT) Office of Pipeline Safety USAS B31.8
- Federal Gas Safety Regulations S 192-321 (e)
- General Services Administration (GSA) Public Buildings Service Guide: PBS 4-1501, Amendment 2
- National Transportation Safety Board (NTSB) PSS 73-1
- Occupational Safety and Health Administration (OSHA) 1926.956 (c) (1)

2.25. Wire and Cable

All cable and wire shall be plainly marked in accordance with the National Electrical Code (NEC).

2.25.1. Loop Wire

Loop wire shall be 14 AWG, stranded, copper, single conductor, and shall conform to the International Municipal Signal Association (IMSA) Specification No. 51-7.

2.25.2. Cable No. 14/1 Pair

Cable No. 14/1 pair loop lead-in cable shall be 14 AWG, stranded, copper paired, electrically shielded conductors, and shall conform to IMSA 19-2.

2.25.3. Grounding conductor

Grounding conductor and bonding jumper shall be solid or stranded, 4 AWG bare copper.

2.25.4. Service Entrance Conductor

Service entrance conductor shall be stranded, copper, Type USE-2, sized as required to comply with the NEC.

2.25.5. Terminal for electrical wire or cable

Terminal for electrical wires or cables shall be insulated, solderless, spade tongue terminals of correct wire and stud size. Terminal for electrical wires or cables shall be incidental to the wire or cable (including piezoelectric sensor transmission cable) to be connected to terminal strips.

2.26. Wood Post

Wood post shall be Southern Pine pretreated to conform to the American Wood Preservers' Association (AWPA) C-14 and shall have minimum dimensions of 4 inches by 4 inches by 8 feet long (for Galvanized Steel Cabinet) or 4 feet long (for Junction Box 10x8x4), sawed on all four sides with both ends square.

2.27. Wooden Pole

Wooden pole shall be a Class IV wood pole of the length specified and shall conform to the *Standard Specifications for Road and Bridge Construction* except the pole shall be treated in accordance with AWPA P9 Type A.

3. CONSTRUCTION METHODS

The plans indicate the extent and general arrangement of the installation and are for guidance. When the Contractor deems any modifications to the plans or specifications necessary, details of such changes and the reasons shall be submitted in writing to the engineer for written approval prior to beginning the modified work.

After the project has been let and awarded, the Division of Construction shall notify the Division of Planning of the scheduled date for a Pre-Construction meeting so that prior arrangements can be made to attend. This will allow the Division of Planning an opportunity to address any concerns and answer any questions that the Contractor may have before beginning the work.

The Division of Planning Equipment Management Team (502-564-7183) shall be notified a minimum of seven days before any work pertaining to these specifications begins to allow their personnel the option to be present during installation.

Unless otherwise specified, installed materials shall be new.

Construction involving the installation of loops or piezoelectric sensors shall not be performed when the temperature of the pavement is less than 38ºF.

A final inspection will be performed by a member of the Central Office Division of Planning equipment staff after the installation is complete to verify that the installation is in compliance with the plans and specifications.

Any required corrective work shall be performed per the *Standard Specifications for Road and Bridge Construction.*

3.1. Anchoring

Furnish: Anchor, anchor rod, guy wire, strand vise, guy guard.

Anchor shall be installed in relatively dry and solid soil. Rock anchor shall be installed in solid rock. Excavate the hole at a 45° to 60° angle in line with the guy (hole size shall be slightly larger than the expanded anchor – see manufacturer's recommendation). Attach rod to anchor, install assembly into hole, and expand anchor. Backfill and tamp entire disturbed area. The effectiveness of the anchor is dependent upon the thoroughness of backfill tamping. Attach guy to strand vise on pole and anchor rod and tighten to required tension. Install guy guard on guy.

3.2. Bore and Jack Pipe – 2"

Furnish: Steel Encasement Pipe, 2"

Bore and jack pipe – 2" shall conform to the Section 706 of the *Standard Specifications for Road and Bridge Construction.*

3.3. Cleanup and Restoration

Furnish: Seed Mix Type 1 (as required); fertilizer (as required); agricultural limestone (as required); mulch or hydromulch (as required); tackifier (as required).

The Contractor shall be responsible for repairing any damage to public and/or private property resulting from his work. Upon completion of the work, restore all disturbed highway features in like kind design and materials. This shall include filling any ruts and leveling ground appropriately. Contractor shall dispose of all waste and debris off the project. Sow all disturbed earthen areas with Seed Mix Type 1 per Section 212 of the *Standard Specifications for Road and Bridge Construction*. All materials and labor necessary for cleanup and restoration shall be considered incidental to other bid items.

3.4. Conduit

Furnish: Conduit; conduit fittings; bushings (grounding where required); LB condulets (as required); weatherheads (as required); conduit straps; hardware; conduit sealant.

Conduit that may be subject to regular pressure from traffic shall be laid to a minimum depth of 24 inches below grade. Conduit that will not be subject to regular pressure from traffic shall be laid to a minimum depth of 18 inches below grade.

Conduit ends shall be reamed to remove burrs and sharp edges. Cuts shall be square and true so that the ends will butt together for the full circumference of the conduit. Tighten couplings until the ends of the conduit are brought together. Do not leave exposed threads. Damaged portions of the galvanized surfaces and untreated threads resulting from field cuts shall be painted with an Engineer-approved, rust inhibitive paint. Conduit bends shall have a radius of no less than 12 times the nominal diameter of the conduit, unless otherwise shown on the plans.

Contractor shall install a bushing (grounding bushing where required) on both ends of all conduits. Cap spare conduits on both ends with caps or conduit sealant.

Conduit openings in junction boxes and cabinets shall be waterproofed with a flexible, removable conduit sealant, working it around the wires, and extending it a minimum 1 inch into the end of the conduit.

After the conduit has been installed and prior to backfilling, the conduit installation shall be inspected and approved by the Engineer.

3.5. Electrical Service

Furnish: Meter base, service disconnect, wire, GFCI AC duplex receptacle with box and cover; conduit, conduit fittings, bushings (grounding where required); LB condulets (as required); weatherhead; conduit straps; hardware; conduit sealant; ground rod with clamp; grounding conductor.

Prior to any construction, the Contractor shall initiate a work order with the local power

company for the installation of electrical service to the site. A representative from the Division of Planning and the local power company shall be consulted prior to choosing an exact location for the pole. The Contractor shall clear the right-of-way for the electrical service drop.

Contractor shall obtain electrical inspections, memberships, meter base, service disconnect and any other requirements by the utility serving the installation and pay all fees as required.

Install meter-base and disconnect panel with a 30-ampere, fused, circuit breaker inside. Install a manufactured weatherproof hub connectors to connect the conduit to the top of the meter base and service disconnect.

Install a rigid ¾ inch conduit with three 8 AWG service conductors from the cabinet, through the service disconnect to the meter base and a 1¼" conduit with three 8 AWG service conductors from the meter base to a weatherhead two feet from the top of the electrical service pole. Install conduit straps 30 inches on center and provide a drip loop where the wire enters the weatherhead. Splice electric drop with service entrance conductors at the top of the pole.

The limit of conduit incidental to "Install Electrical Service" for a pad mounted cabinet is 24 inches beyond face of service pole.

Install a 120-volt, 20-amp GFCI AC duplex receptacle with box and cover in the automatic data recorder (ADR) cabinet.

Install a ground rod with clamp. Install a grounding conductor wire from the meter base, through the disconnect panel, to the ground rod clamp. Install grounding conductor in 1-¾" conduit from service disconnect to ground rod.

After completing the installation and before the electrical service is connected, obtain a certificate of compliance from the Kentucky Department of Housing, Buildings and Construction, Electrical Inspection Division.

3.6. Flashing Arrow

Furnish: Arrow Panel

Construction of Flashing Arrow shall conform to the *Standard Specifications for Road and Bridge Construction.*

3.7. Galvanized Steel Cabinet

Furnish: Cabinet; wood posts; concrete; conduit fittings; metal framing channel; pipe clamp; terminal block(s); spade tongue wire terminals; wire labels; hardware.

Where right-of-way allows, locate the cabinet such that it is outside the clear zone in accordance with the *Roadside Design Guide*. Install Cabinet such that the door of the

cabinet faces the roadway.

Excavate as required and install wood posts to a depth of 36 inches and place concrete around posts as shown on the standard detail sheets. Install metal framing channel with pipe clamp between posts.

Install Cabinet on wood posts 38 inches above the finished grade as shown on the standard detail sheets. Install a unistrut between posts when two posts are specified.

Install the required number of terminal blocks on the cabinet back plate. Install a spade tongue terminal on each loop and piezo sensor wire entering the cabinet and connect wires to terminal block(s). Wiring shall be neat and orderly. Label all wires and cables inside cabinet.

Install conduit from ground to cabinet and attach to pipe clamp. Install locknuts to attach conduit to cabinet and install a conduit bushing as shown on the standard detail sheets.

3.8. Grounding

Furnish: Ground rod with clamp; grounding conductor.

At sites with electrical or solar service, all conduits, poles, and cabinets shall be bonded to ground rods and the electrical system ground to form a complete grounded system.

Install such that top of ground rod is a minimum of 3 inches below finished grade.

Grounding systems shall have a maximum 25 ohms resistance to ground. If the resistance to ground is greater than 25 ohms, two or more ground rods connected in parallel shall be installed. Adjacent ground rods shall be separated by a minimum of 6 feet.

3.9. Install Pad Mount Enclosure

Furnish: Concrete; anchor bolts with washers and nuts; conduit; conduit fittings; conduit grounding bushings; ground rod with clamp; grounding conductor; conduit sealant; wooden stakes (where required); wire labels; hardware.

The Contractor shall be responsible for securing the enclosure from the Central Office Division of Planning Warehouse in Frankfort and transporting it to the installation site.

Where right-of-way allows, locate the enclosure such that it is outside the clear zone in accordance with the *Roadside Design Guide*.

Excavate as required, and place concrete to construct the enclosure foundation as specified on the standard detail sheets. Install enclosure on the concrete base such that the door(s) of the enclosure opens away from traffic (hinges away from traffic). Install anchor bolts, washers, and nuts to secure the enclosure to the foundation.

Install ground rod with clamp and install one ¾ inch rigid conduit from enclosure base to

ground rod. Install a grounding conductor from ground rod to enclosure base and bond to each conduit bushing in the base.

Install one ¾ inch rigid steel conduit for electrical service from the base of the enclosure to 24 inches beyond the concrete base. Make all field wiring connections to the electrical service, as applicable.

If electrical service is not provided as a bid item in the contract, plug conduit on both ends with a cap, conduit sealant, or electrical tape. Mark the location of the buried conduit end with a wooden stake labeled "3/4 in. conduit."

Install specified rigid steel conduit(s) into the base of the enclosure for sensor wire entry. Install one spare 2 inch conduit from the enclosure base to 2 feet beyond the concrete base. Plug spare conduit on both ends with a cap, conduit sealant or electrical tape.

The limit of all conduits incidental to "Install Pad Mount Enclosure" is 24 inches beyond the edge of the concrete base.

Wiring in enclosure shall be neat and orderly. Label all wires and cables inside enclosure. KYTC personnel will furnish and install terminal blocks and connect sensors to terminal blocks.

3.10. Install Controller Cabinet

Furnish: Mounting brackets; mounting straps; conduit; LB condulets; conduit fittings; conduit grounding bushings; ground rod with clamp; grounding conductor; cable staples; conduit sealant; wooden stakes (where required); wire labels; hardware.

The Contractor shall be responsible for securing the cabinet from the Central Office Division of Planning Warehouse in Frankfort and transporting it to the installation site. Any existing holes in the cabinet not to be reused shall be covered or plugged to meet NEC requirements.

Install mounting brackets and secure cabinet to pole with mounting straps.

Install a ground rod with clamp. Install grounding conductor in 1-¾" conduit form cabinet to ground rod.

Install one ¾ inch rigid steel conduit with two lb condulets from cabinet to electrical service disconnect box. Make all field wiring connections to the electrical service, as applicable.

If electrical service is not provided as a bid item in the contract, plug conduit on both ends with cap, plumbers putty, conduit sealant, or electrical tape. Mark the location of the buried conduit end with a wooden stake labeled "3/4 in. conduit".

Install specified rigid steel conduit(s) and type LB condulet(s) into the bottom of the

cabinet for sensor wire entry. The limit of conduits incidental to "Install Controller Cabinet" is 24 inches beyond the face of the pole.

Wiring in cabinet shall be neat and orderly. Label all wires and cables inside cabinet. KYTC personnel will furnish and install terminal blocks and connect sensors to terminal blocks.

3.11. Junction Box Type 10x8x4

Furnish: Junction box; wood post; conduit fittings; wire labels; hardware.

Where right-of-way allows, locate the junction box such that it is outside the clear zone in accordance with the Roadside Design Guide.

Excavate as required and install wood post(s) to a depth of 18 inches. Install junction box on wood post such that the bottom of the box is 18 inches above the finished grade as shown on the standard detail sheets. Box shall be installed with four (4) 2½ inch wood screws and washers.

Install locknuts to attach conduit to junction box and install a conduit bushing as shown on the standard detail sheets.

Wiring inside box shall be neat and orderly. Label all wires and cables inside box.

3.12. Junction Box Type A, B, or C

Furnish: Junction box, No. 57 aggregate; grounding conductor

Excavate as required and place approximately 12 inches of No. 57 aggregate beneath the proposed junction box to allow for drainage. Install specified junction box type A, B, or C near the edge of pavement, flush with finished grade per the detail sheets. Where required, orient the box so that the dimensions comply with the National Electrical Code. Stub conduits with grounding bushings into junction box at its base to accommodate wires and connect grounding conductor to all grounding bushings. Backfill to existing grade, and restore disturbed area to the satisfaction of the Engineer.

Wiring inside box shall be neat and orderly. Label all wires and cables inside box.

3.13. Loops - Proposed

Furnish: Wire; saw slot sealant; backer rod; grout; conduit sealant.

The plans and notes specify the approximate location for loop installations. Prior to sawing slots or drilling cores, the Contractor shall meet with a representative of the Division of Planning to verify the precise layout locations on site. Avoid expansion joints and pavement sections where potholes, cracks, or other roadway flaws exist.

Upon completion of this meeting, the Contractor shall measure out and mark the proposed loop locations with spray paint or chalk such that the saw slots will be parallel

and perpendicular to the direction of traffic. Marked lines shall be straight and exact to the locations determined and sized as shown on the plans. Unless indicated otherwise, loops shall be 6 feet by 6 feet square and loops in the same lane shall be spaced 16 feet from leading edge to leading edge.

On resurfacing, rehabilitation, and new construction projects that include new asphalt pavement, the Contractor shall install loops prior to laying the final surface course. On projects with milling and texturing, the Contractor may install the loops prior to or after the milling operation; however, if installed prior to milling, the Contractor shall be responsible for ensuring that the loops are installed at a depth such that the milling operation will not disturb the newly installed loops. The Contractor shall correct damage caused by the milling operations to newly installed loops prior to placement of the final surface course at no additional cost to the Cabinet.

For projects that include the installation of new asphalt and piezoelectric sensors, the Contractor shall mark or otherwise reference all loops installed prior to the final surface course such that the loops can be accurately located when the piezoelectric sensors are installed after placement of the final surface course.

For projects that do not have asphalt surfacing, the Contractor shall install the loops in the surface of the pavement.

The Prime Contractor shall coordinate the installation of loops with the electrical sub-Contractor and the Engineer to ensure correct operation of the completed installation.

The following is a typical step by step procedure for the installation of a loop.

- Carefully mark the slot to be cut, perpendicular to the flow of traffic and centered in the lane.
- Make each saw-cut 3/8-inch wide and at a depth such that the top of the backer rod is a minimum of 2 inches below the surface of rigid (PCC/Concrete) pavement or 4 inches below the surface of asphalt pavement.
- Drill a 1½ inch core hole at each corner and use a chisel to smooth corners to prevent sharp bends in the wire.
- Clean ALL foreign and loose matter out of the slots and drilled cores and within 1 foot on all sides of the slots using a high pressure washer.
- Completely dry the slots and drilled cores and within 1 foot on all sides of the slots using oil-free forced air, torpedo heaters, electric heaters, or natural evaporation, depending on weather conditions. Be very careful not to burn the asphalt if heat is used.
- Measure 9-12 inches from the edge of the paved surface (shoulder break or face of curb) and drill a 1½ inch hole on a 45º angle to the conduit adjacent to the roadway.
- Closely inspect all cuts, cores, and slots for jagged edges or protrusions prior to the placement of the wire. All jagged edges and protrusions shall be ground or re-cut and cleaned again.

- Place the loop wire splice-free from the termination point (cabinet or junction box) to the loop, continue around the loop for four turns, and return to the termination point.
- Push the wire into the saw slot with a blunt object such as a wooden stick. Make sure that the loop wire is pushed fully to the bottom of the saw slot.
- Install conduit sealant to a minimum of 1" deep into the cored 1½ inch hole.
- Apply loop sealant from the bottom up and fully encapsulate the loop wires in the saw slot. The wire should not be able to move when the sealant has set.
- Cover the encapsulated loop wire with a continuous layer of backer rod along the entire loop and home run saw slots such that no voids are present between the loop sealant and backer rod.
- Finish filling the saw cut with non-shrinkable grout per manufacturer's instructions. Alleviate all air pockets and refill low spaces. There shall be no concave portion to the grout in the saw slot. Any excess grout shall be cleaned from the roadway to alleviate tracking.
- Clean up the site and dispose of all waste off the project.
- Ensure that the grout has completely cured prior to subjecting the loop to traffic. Curing time varies with temperature and humidity.

Exceptions to installing loop wire splice-free to the junction box or cabinet may be considered on a case-by-case basis and must be pre-approved by the Engineer. If splices are allowed, they shall be located in a junction box and shall conform to the construction note for Splicing.

If loop lead-in cable (Cable No. 14/1 Pair) is specified, cable shall be installed splice free to the cabinet ensuring that extra cable is left in each junction box or cabinet. All wires and cables shall be labeled in each junction box and cabinet.

Loop inductance readings shall be between 100 and 300 microhenries. The difference of the loop inductance between two loops in the same lane shall be ±20 microhenries. Inductance loop conductors shall test free of shorts and grounds. Upon completion of the project, all loops must pass an insulation resistance test of at least 100 million ohms to ground when tested with a 500 Volt direct current potential in a reasonably dry atmosphere between conductors and ground.

3.14. Loops – Existing

When noted on a data collection station layout sheet that there are existing inductive loops within the limits of the project, notify the Engineer in writing, a minimum of 14 calendar days prior to beginning milling operations. After milling and prior to placing asphalt inlay, conduct an operating test on the existing inductance loops at the control cabinet in the presence of the Engineer to determine if the inductance loop conductors have an insulating resistance of a minimum of 100 megohms when tested with a 500 volt direct current potential in a reasonably dry atmosphere between conductors and ground. The Department may also conduct its own tests with its own equipment.

If the tests indicate the loop resistances are above the specified limit and the Engineer determines the system is operable, proceed with the asphalt inlay. If the test indicates the loop resistance is not within the specified limits or if the Engineer determines the system is otherwise not operable, prior to placing the asphalt inlay install and test new loop detectors according to the station layout, notes, and Detail Drawings.

The Engineer will contact and maintain liaison with the District Planning Engineer and the Division of Planning in order to coordinate any necessary work.

3.15. Maintain and Control Traffic

Furnish (all as required): Drums, traffic cones, barricades used for channelization purposes, delineators, and object markers.

Maintain and Control Traffic shall conform to the plans, the Standard Specifications for Road and Bridge Construction, and the KYTC Department of Highways Standard Drawings.

3.16. Open Cut Roadway

Furnish: Concrete, reinforcing bars.

Excavate trench by sawing and chipping away roadway to dimensions as indicated on the detail sheets. After placing conduit, install concrete and steel reinforcing bars per the *Standard Specifications for Road and Bridge Construction.* Restore any disturbed sidewalk to its original condition.

3.17. Piezoelectric Sensor

Furnish: Piezoelectric sensor and cable; sensor support brackets; saw slot sealant; backer rod; grout; conduit sealant.

The plans and notes specify the approximate location for piezoelectric sensor (piezo) installations. Prior to sawing slots or drilling cores, the Contractor shall meet with a representative of the Division of Planning to verify the final layout on site. Avoid expansion joints and pavement sections where potholes, cracks, or other roadway flaws exist. Roadway ruts at the proposed piezo location shall not be in excess of ½ inch under a 4-foot straight edge.

Install the piezo perpendicular to traffic in the final surface course of the pavement. Locate the sensor in the lane as shown on the site layout drawing. Eleven-foot length sensors shall be centered in the lane.

The following is a typical step by step procedure for the installation of a piezo. Refer specifically to the manufacturer's instructions provided with the sensor prior to installation.

- Carefully mark the slot to be cut, perpendicular to the flow of traffic and properly positioned in the lane.

- It is strongly recommended that a ¾ inch wide diamond blade be used for cutting the slot, or that blades be ganged together to provide a single ¾ inch wide cut. The slot shall be wet cut to minimize damage to the pavement.
- Cut a slot ¾ inch wide (±1/16 inch) by 1 inch minimum deep. The slot should be a minimum of 2 inches longer than the sensor (including the lead attachment). Drop the saw blade an extra ½ inch down on both ends of the sensor. The lead out of the passive cable should be centered on the slot.
- Cut the slot for the passive cable ¼ inch wide and at a depth so that the top of the backer rod is a minimum of 2 inches below the road surface.
- Clean ALL foreign and loose matter out of the slot and within 1 foot on all sides of the slot using a high pressure washer.
- Completely dry the slot and within 1 foot on all sides of the slot using oil-free forced air, torpedo heaters, electric heaters, or natural evaporation, depending on weather conditions. Be very careful not to burn the asphalt if heat is used.
- Measure 9-12 inches from the edge of the paved surface (shoulder break or face of curb) and drill a 1½ inch hole on a 45º angle to the conduit adjacent to the roadway.
- Place strips of 2-4 inch wide tape strips on the pavement along the lengths of both sides of the sensor slot, 1/8 inch away from the slot.
- Wear clean, protective latex (or equivalent) gloves at all times when handling sensors. Visually inspect sensor to ensure it is straight. Check lead attachment and passive cable for cuts, gaps, cracks and/or bare wire. Verify that the correct sensor type and length is being installed by checking the data sheet. Verify there is sufficient cable to reach the cabinet. Piezo lead-in cable shall not be spliced.
- Test the sensor for capacitance, dissipation factor and resistance, according to the directions enclosed with the sensor. Capacitance and dissipation should be within ±20% of the piezo data sheet. Resistance (using the 20M setting) should be infinite. Record the sensor serial number and the test results and label “pre-installation.” This information should be stored in the counter cabinet and/or returned to Department Planning personnel.
- Lay the sensor next to the slot and ensure that it is straight and flat.
- Clean the sensor with steel wool or an emery pad and wipe with alcohol and a clean, lint-free cloth.
- Place the installation bracket clips every 6 inches along the length of the sensor.
- Bend the tip of the sensor downward at a 30° angle. Bend the lead attachment end down at a 15° angle and then 15° back up until level (forming a lazy Z).
- Place the sensor in the slot, with the brass element 3/8 inch below the road surface along the entire length. The tip of the sensor should be a minimum of 2 inches from the end of the slot and should not touch the bottom of the slot. The top of the plastic installation bracket clips should be 1/8 inch below the surface of the road. The lead attachment should not touch the bottom or sides of the slot. Ensure the sensor ends are pushed down per the manufacturer’s instructions.
- Visually inspect the length of the sensor to ensure it is at uniform depth along its length and it is level (not twisted, canted or bent).

- On the passive cable end, block the end of the slot approximately 3-5 inches beyond the end of the lead attachment area creating an adequate "dam" so that the sensor grout does not flow out.
- Use one bucket of sensor grout per piezo installation. Overfill the slot with sensor grout and allow to cure for a minimum of 10 minutes before continuing with the installation. Ensure that sensor grout fills around and beneath the sensor completely and that there is not a trough on top.
- Remove the tape along the sides of the saw slot when the adhesive starts to cure.
- Carefully remove the dam from the end of the sensor.
- Route the lead-in cable through the saw slot
- Install conduit sealant to a minimum of 1" deep into the cored 1½ inch hole.
- Cover the lead-in cable with encapsulant, backer rod, and grout.
- If necessary, after the grout has hardened, grind with an angle grinder until the profile is a 1/16 inch mound. There shall be no concave portion to the mound.
- Clean up the site and dispose of all waste off the project.
- Ensure that the sensor grout has completely cured prior to subjecting the sensor to traffic. Curing time will vary with temperature and humidity.

Upon installation, test the sensor for capacitance, dissipation factor and resistance, according to the directions enclosed with the sensor. Capacitance and dissipation should be within +20% of the piezo data sheet. Resistance (using the 20M setting) should be infinite. Perform a functional test of the piezo with an oscilloscope to ensure that the sensor is generating a proper response to the passage of vehicles.

Record the sensor serial number and the test results and label "post-installation." This information should be stored in the counter cabinet and/or returned to Department Planning personnel.

3.18. Pole – Wooden

Furnish: Pole; anchoring equipment (as required); hardware (as required).

Excavate and install wood pole to a minimum depth of one-sixth the total pole height. Place backfill material in hole and compact until flush with existing grade. Install guy wire, guy guard, anchor, anchor rod, and strand vise, if necessary. Anchor shall be a minimum of one-third the pole height from the face of the pole. Provide temporary erosion control, seeding, protection and restoration of disturbed areas to the satisfaction of the Engineer.

3.19. Removal of Existing Equipment

The Contractor shall remove existing materials (including but not limited to: poles, anchors, cabinets, junction boxes, conduit and wire) not to be reused. Contractor shall dispose of all removed materials off the project. All materials and labor necessary for the removal of existing equipment shall be considered incidental to other bid items.

3.20. Signs

Furnish: Signs; sign standards; hardware.

Construction of **s**igns shall conform to the *Standard Specifications for Road and Bridge Construction.*

3.21. Splicing

Furnish: Splice kit; solder.

These notes describe the splicing process (if permitted) and are not intended to grant permission to splice. Permission to splice shall be determined by the Division of Planning and the locations shall be shown on the layout sheet. If splicing is needed but not shown on the layout sheet, the Contractor shall receive prior written approval from the Division of Planning.

All splices shall conform to the provisions of the NEC.

Splices for loop and loop lead-in wire shall be twisted and soldered. Abrade the outer jacket of both wires to promote good adhesion and prevent capillary leak paths. Seal the splice with an electrical sealing resin. Spliced loop conductors shall test free of shorts and unauthorized grounds and shall have an insulating resistance of at least 100 megohms when tested with a 500 volt direct current potential in a reasonably dry atmosphere between conductors and ground.

For piezos, the same type coax cable, supplied by the manufacturer, shall be used to splice to the sensor's lead-in cable. Cables shall be soldered. Abrade the outer jacket of both cables to promote good adhesion and prevent capillary leak paths. Seal the splice with an electrical sealing resin. Spliced piezo cables shall be tested and have a minimum resistance of 20 megohms, a maximum dissipation factor of 0.03, a capacitance within the manufacturer's recommended range based upon the length of additional cable. A functional test of the piezo shall be performed to ensure that the sensor is generating a proper response to the passage of vehicles.

3.22. Trenching and Backfilling

Furnish: Warning tape; seed mix type I; cereal rye or German foxtail-millet; mulch; concrete (as required); asphalt (as required).

Excavate trench and provide required cover as shown on the standard detail sheets. After placing conduit, backfill material shall be placed and compacted in lifts of 9 inches or less. Install warning tape as shown on the detail sheet. Provide temporary erosion control, seeding, protection and restoration of disturbed areas to the satisfaction of the Engineer. This item shall include concrete, asphalt or approved replacement material for sidewalks, curbs, roadways, etc. (if required).

3.23. Wiring

Furnish: Wire; wire labels; spade tongue wire terminals (as required).

Installation of all wiring shall conform to the NEC. Permanent identification numbers shall be affixed to all wires in all junction boxes and cabinets (see Layout(s) for loop and piezo numbers).

Additional lengths of each loop and piezo sensor wire shall be neatly coiled in all cabinets and junction boxes as follows:

Enclosure Type	Additional length of each wire
Galvanized Steel Cabinet	2’
Pad Mount Cabinet (332)	8’
Pole Mount Cabinet (336)	4’
Junction Box Type 10x8x4	2’
Junction Box Type A, B, or C	2’

3.24. Wood Post

Furnish: Wood post; concrete (as required); seed mix type I; cereal rye or German foxtail-millet; mulch.

Excavate hole to specified depth and place concrete, if required. Install post, backfill to existing grade, and tamp backfill. Provide temporary erosion control, seeding, protection and restoration of disturbed areas to the satisfaction of the Engineer.

4. BID ITEM NOTES AND METHOD OF MEASUREMENT FOR PAYMENT

Only the bid items listed will be measured for payment. All other items required to complete the vehicle detection installation shall be incidental to other items of work. Payment at the contract unit price shall be full compensation for all materials, labor, equipment and incidentals to furnish and install these items.

4.1. Bore and Jack Pipe – 2”

Bore and jack pipe – 2” shall be furnished, installed, and measured for payment per the *Standard Specifications for Road and Bridge Construction.*

4.2. Conduit

Conduit shall include furnishing and installing specified conduit in accordance with the specifications. This item shall include conduit fittings, bodies, boxes, weatherheads, expansion joints, couplings, caps, conduit sealant, electrical tape, clamps, bonding straps and any other necessary hardware. Conduit will be measured in linear feet.

4.3. Electrical Service

Electrical Service shall include furnishing and installing all necessary materials and payment of all fees toward the complete installation of an electrical service which has passed all required inspections. Incidental to this item shall be furnishing and installing:

- Meter-base per utility company’s specifications
- Service disconnect panel per utility company’s specifications
- Meter base and service disconnect entrance hubs, waterproof
- Service entrance conductors
- Rigid steel conduit
- Rigid steel conduit fittings
- Conduit straps
- Weatherhead
- Duplex GFCI receptacle, 120-volt, 20-amp
- Ground rod with clamp
- Grounding conductor

Also incidental to this item shall be any necessary clearing of right of way for the electrical service drop.

Electrical service will be measured in individual units each.

4.4. Flashing Arrow

Flashing Arrow shall be furnished, installed, and measured for payment per the *Standard Specifications for Road and Bridge Construction.*

4.5. Galvanized Steel Cabinet

Galvanized Steel Cabinet shall include furnishing and installing galvanized steel cabinet on post as specified. Incidental to this item shall be furnishing and installing grounding hardware, and any necessary post/pole mounting hardware. Also incidental to this item shall be furnishing and installing the required number of terminal blocks and connection of all

sensors to the terminal blocks. Galvanized Steel Cabinet will be measured in individual units each.

4.6. Install Pad Mount Enclosure

Install Pad Mount Enclosure shall include installing a Department-furnished enclosure as specified on the detail sheets.

This item shall include obtaining the enclosure from KYTC and transporting it to the installation site and furnishing and installing the following:

- Concrete foundation (including any excavation necessary)
- Anchor bolts, lock washers, and nuts
- Conduit
- Conduit fittings (including grounding bushings)
- Weatherhead
- Terminal Strip(s)
- Ground rod with clamp
- Grounding conductor

Install Pad Mount Enclosure will be measured in individual units each.

4.7. Install Controller Cabinet

Install Controller Cabinet shall include installing a Department-furnished cabinet as specified on the detail sheets.

This item shall include obtaining the cabinet from KYTC and transporting it to the installation site and furnishing and installing the following:

- Conduit
- Conduit Fittings
- Terminal Strip(s)
- Ground rod with clamp
- Grounding conductor

Install Controller Cabinet will be measured in individual units each.

4.8. Junction Box Type 10" x 8" x 4"

Junction Box Type 10”x8”x4” shall include furnishing and installing specified junction box in accordance with the specifications. This item shall include connectors, splice sleeves, conduit fittings, mounting materials and any other items required to complete the installation. Incidental to this item shall be furnishing and installing specified post (wood, channel, metal, etc.) as required for the installation. Junction Box Type 10”x8”x4” will be measured in individual units each.

4.9. Junction Box Type A, B, or C

Junction Box Type A, B, or C shall include furnishing and installing specified junction box in accordance with the specifications. This item shall include excavation, furnishing and installing #57 aggregate, backfilling around the box, and restoration of disturbed areas to the satisfaction of the Engineer. Incidental to this item shall be furnishing and installing a

grounding conductor bonding all conduit grounding bushings in the box. Junction Box Type A, B, or C will be measured in individual units each.

4.10. Loop Saw Slot and Fill

Loop Saw Slot and Fill shall include sawing and cleaning saw slots and furnishing and installing conduit sealant, loop sealant, backer rod, grout, or other specified material. Loop Saw Slot and Fill will be measured in linear feet of sawed slot.

4.11. Maintain and Control Traffic

Maintain and Control Traffic shall be measured for payment per the *Standard Specifications for Road and Bridge Construction.*

4.12. Open Cut Roadway

Open Cut Roadway shall include excavating trench (sawing and chipping roadway) to dimensions as indicated on the detail sheets and furnishing and placing concrete, steel reinforcing bars, and asphalt. This item also includes restoring any disturbed sidewalk to its original condition. Open Cut Roadway will be measured in linear feet.

4.13. Piezoelectric Sensor

Piezoelectric sensor (piezo) shall include sawing and cleaning saw slots and furnishing and installing piezo in accordance with the specifications. This item shall include furnishing and installing lead-in wire, conduit sealant, encapsulation material, backer rod, grout, testing, and accessories. Piezo will be measured in individual units each.

4.14. Pole – 35’ Wooden

Pole – 35’ Wooden shall include excavation, furnishing and installing specified wood pole, backfilling and restoring disturbed areas to the satisfaction of the Engineer. Incidental to this item shall be furnishing and installing guy wire, anchor and anchor rod, strand vise, and guy guard, if specified.

Pole – 35’ Wooden will be measured in individual units each.

4.15. Signs

Signs shall be furnished, installed, and measured for payment per the *Standard Specifications for Road and Bridge Construction.*

4.16. Trenching and Backfilling

Trenching and Backfilling shall include excavation, warning tape, backfilling, temporary erosion control, seeding, protection and restoration of disturbed areas to original condition. This item shall include concrete, asphalt or approved replacement material for sidewalks, curbs, roadways, etc. (if required). Trenching and backfilling will be measured in linear feet.

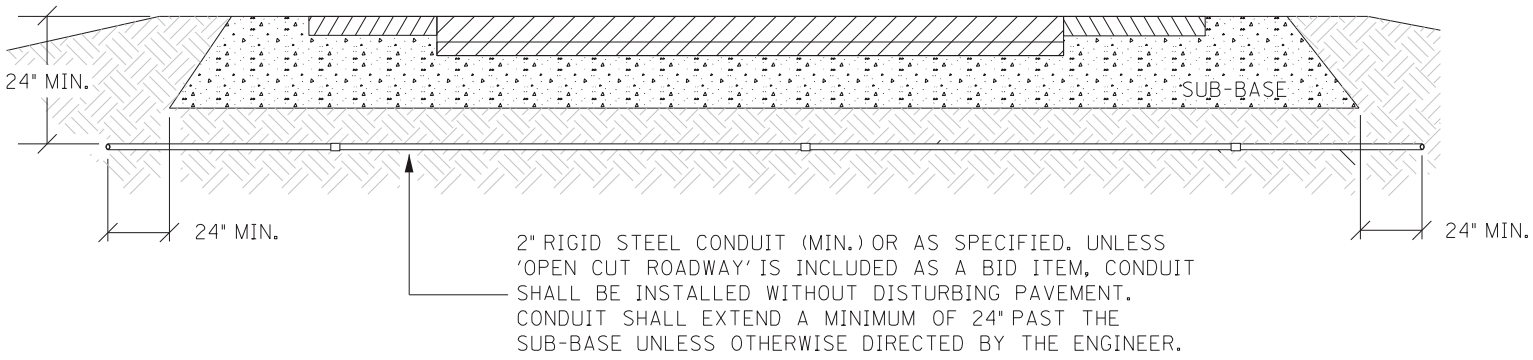
4.17. Wire or Cable

Wire or cable shall include furnishing and installing specified wire or cable within saw slot, conduit, junction box, cabinet, or overhead as indicated on the detail sheets. Incidental to this item shall be the labeling of all wires and cables in each junction box, cabinet and splice

box, and furnishing and installing other hardware required for installing cable. Wire or Cable will be measured in linear feet.

4.18. Wood Post

Wood Post shall include furnishing and installing wood post as specified. This item shall include excavation, furnishing and placing concrete (if required), backfilling around the post, and restoration of disturbed areas to the satisfaction of the engineer. Wood Post will be measured in individual units each.

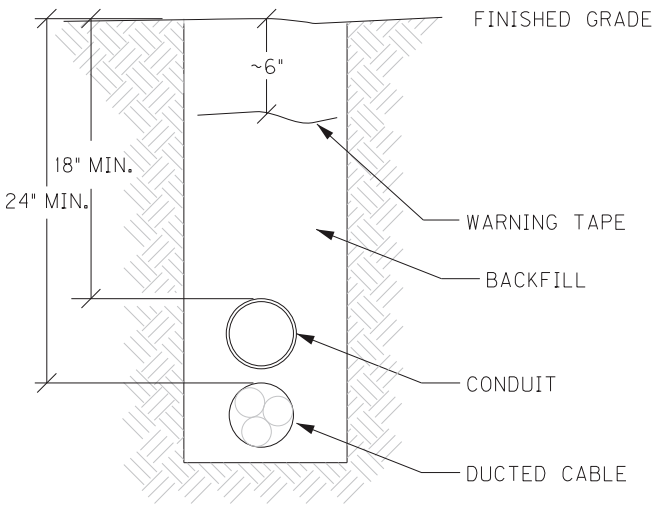


CONDUIT UNDER PAVEMENT

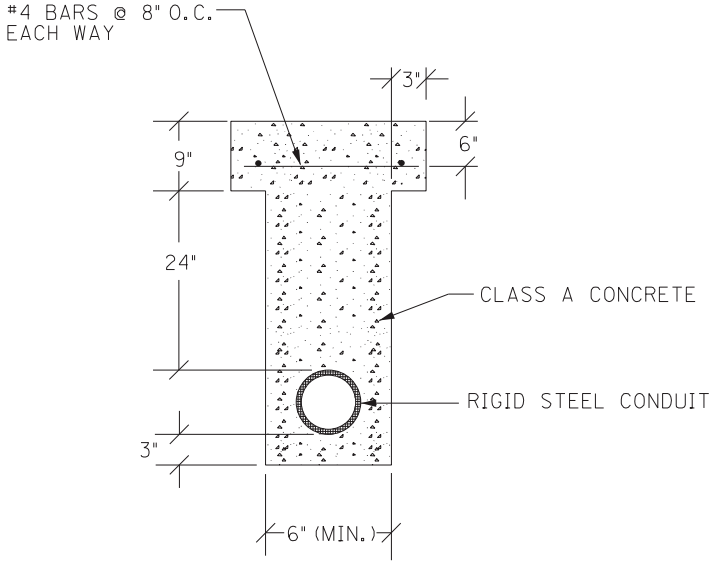
TOTAL TRENCH WIDTH SHALL BE 3" (NOM.) WIDER THAN THE SUM OF THE OUTSIDE DIAMETER(S) OF THE CONDUIT(S) INSTALLED. CONDUIT(S) SHALL BE CENTERED IN TRENCH.

CONTRACTOR SHALL PLACE BACKFILL IN LIFTS (9" MAX.) COMPACT BACKFILL, AND RESTORE DISTURBED AREA TO THE SATISFACTION OF THE ENGINEER

CONTRACTOR SHALL INSTALL UNDERGROUND UTILITY WARNING TAPE ABOVE CONDUIT AS SHOWN.



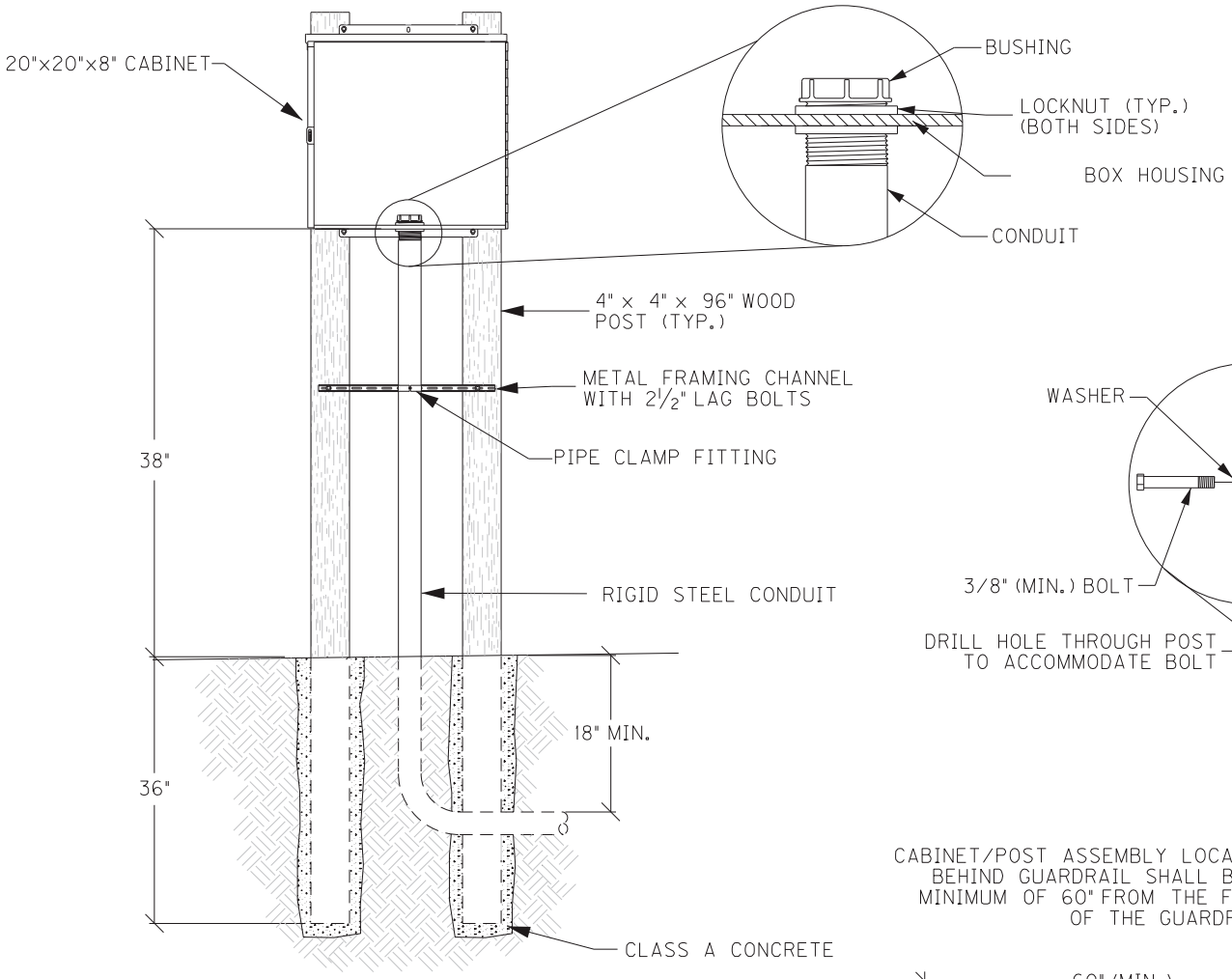
CONDUIT TRENCH



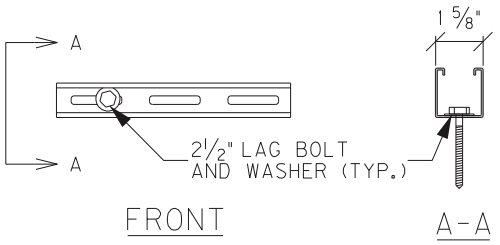
OPEN CUT PAVEMENT DETAIL

CONDUIT INSTALLATION

NOT TO SCALE



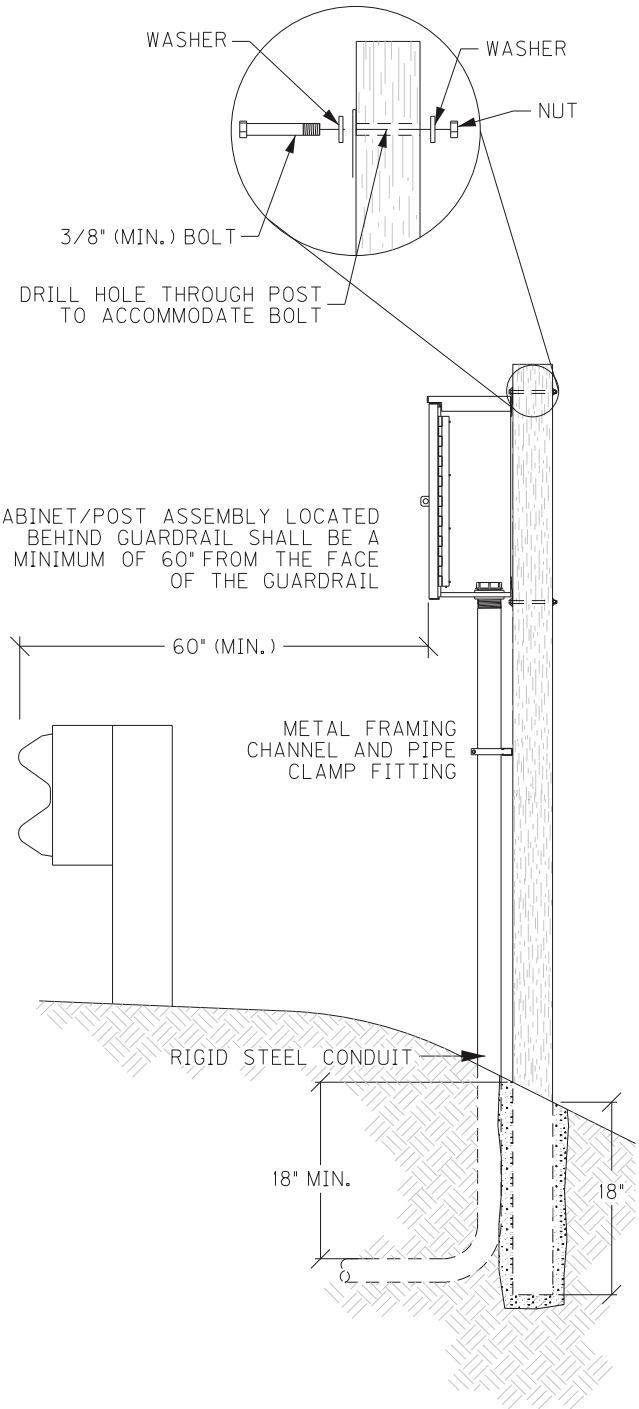
FRONT VIEW



FRONT

A-A

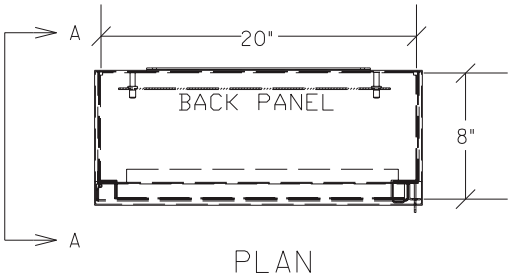
METAL FRAMING CHANNEL



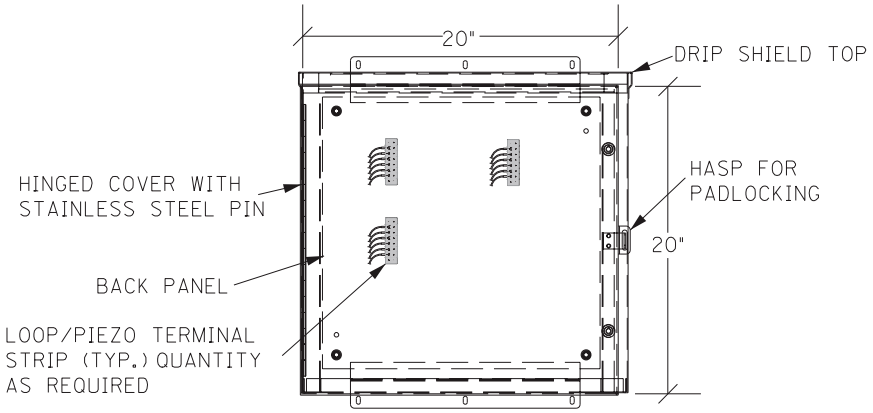
RIGHT VIEW

GALVANIZED STEEL CABINET
DOUBLE POST ASSEMBLY

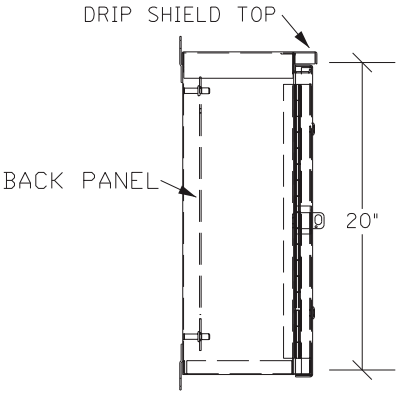
NOT TO SCALE



PLAN

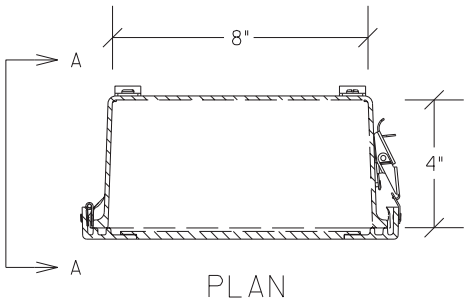


ELEVATION

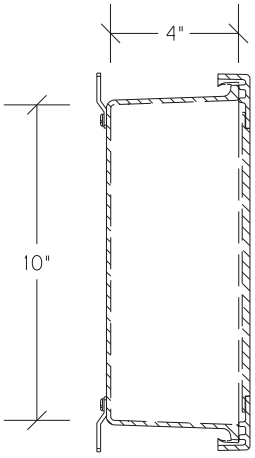


SECTION A-A

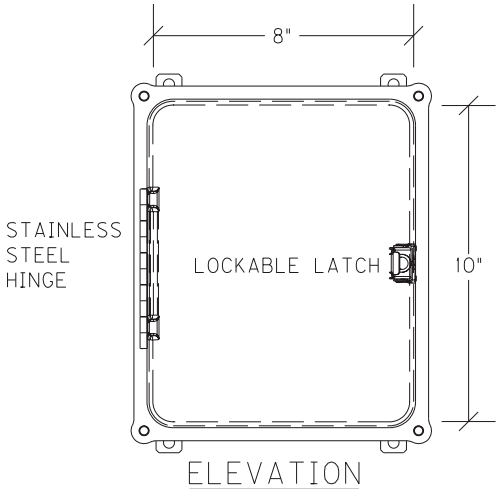
GALVANIZED STEEL CABINET



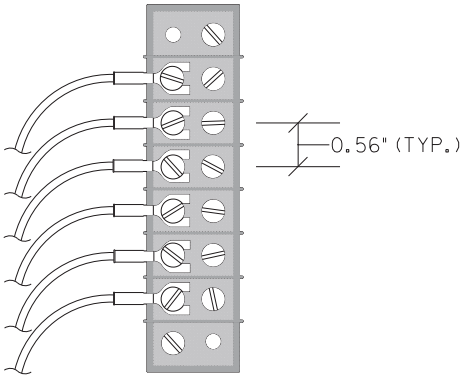
PLAN



SECTION A-A



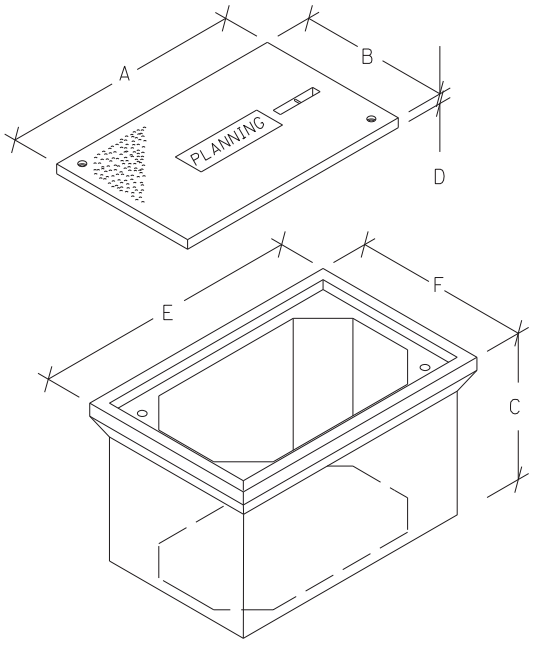
ELEVATION



TERMINAL STRIP (TYP.)

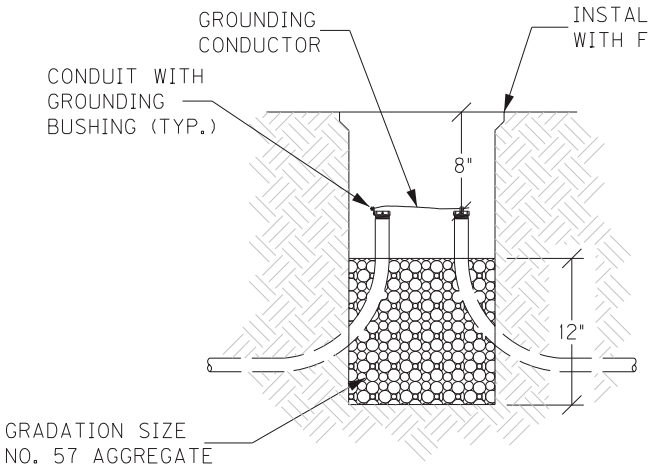
JUNCTION BOX 10"x8"X4"

NOT TO SCALE



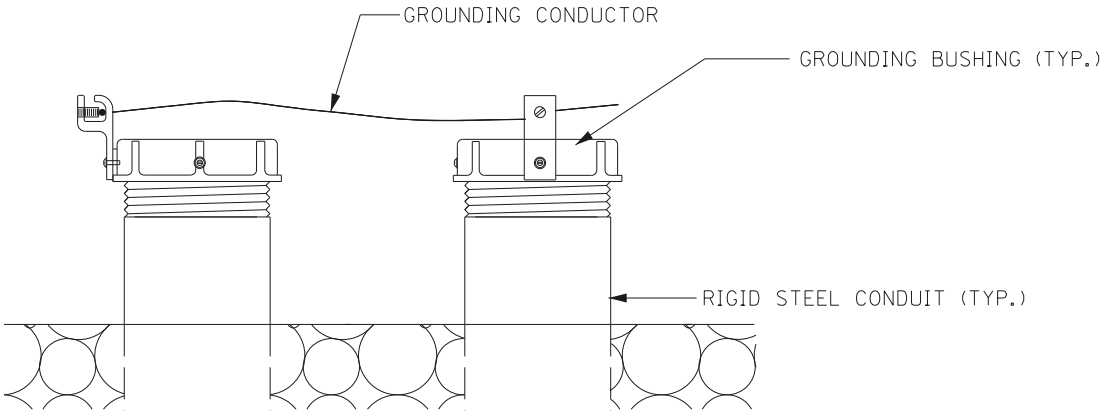
JUNCTION BOX DIMENSIONS (NOMINAL)						
	A	B	C	D*	E	F
TYPE A	23"	14"	18"	2"	25"	16"
TYPE B	18"	11"	12"	1¾"	20"	13"
TYPE C	36"	24"	30"	3"	38"	26"

* MINIMUM
STACKABLE BOXES ARE PERMITTED



ELEVATION

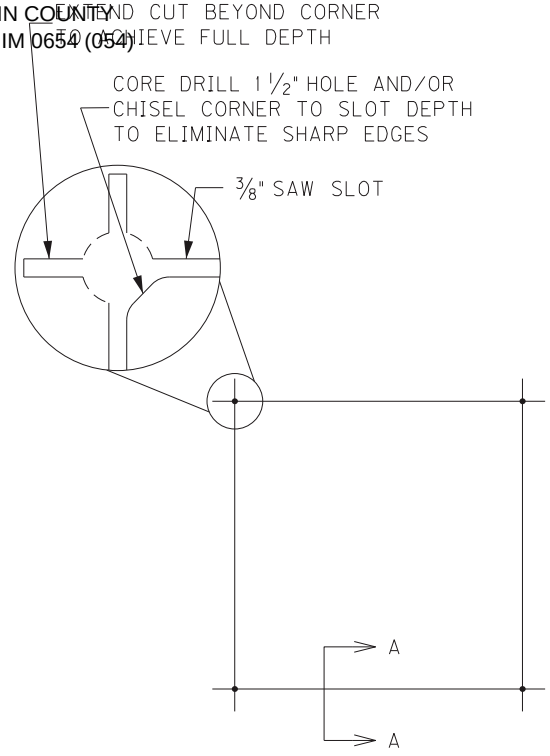
WHERE REQUIRED, JUNCTION BOX SHALL BE ORIENTED SUCH THAT THE DIMENSIONS COMPLY WITH THE NATIONAL ELECTRICAL CODE.



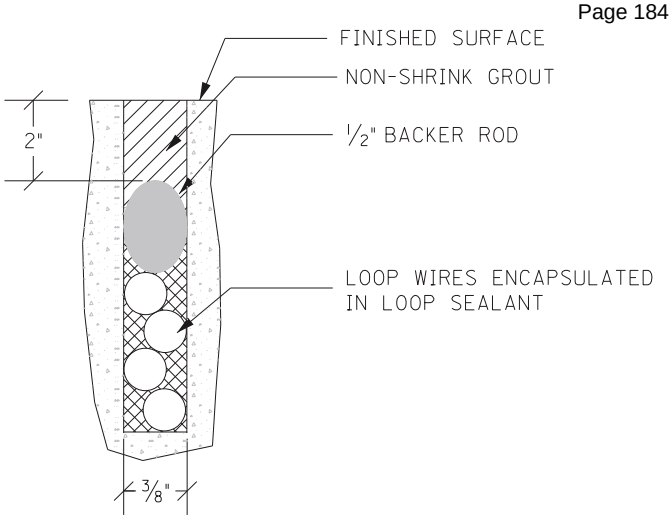
GROUNDING DETAIL

JUNCTION BOX - TYPE A, TYPE B, TYPE C

NOT TO SCALE



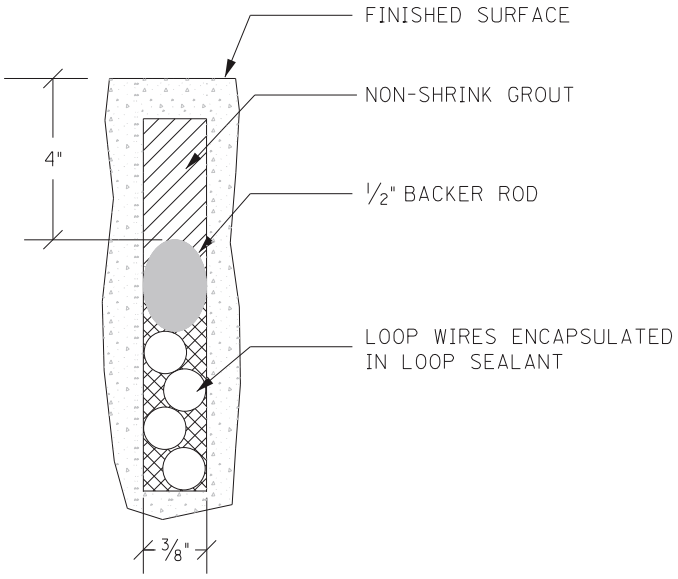
SAW CUT PLAN



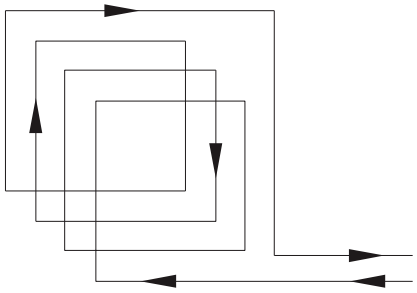
SECTION A-A (CONCRETE)

UNLESS SPECIFIED OTHERWISE, ALL LOOPS SHALL BE 6' x 6' SQUARE, CENTERED IN EACH LANE, WITH FOUR TURNS OF 14 AWG LOOP WIRE.

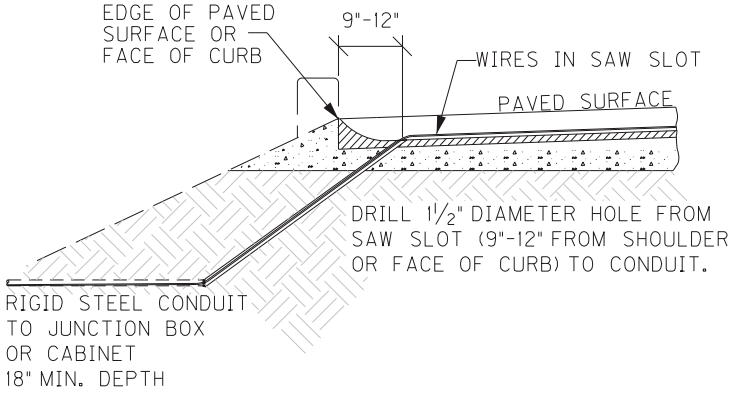
ADJACENT SAW SLOTS SHALL BE A MINIMUM OF 12" APART.



SECTION A-A (ASPHALT)



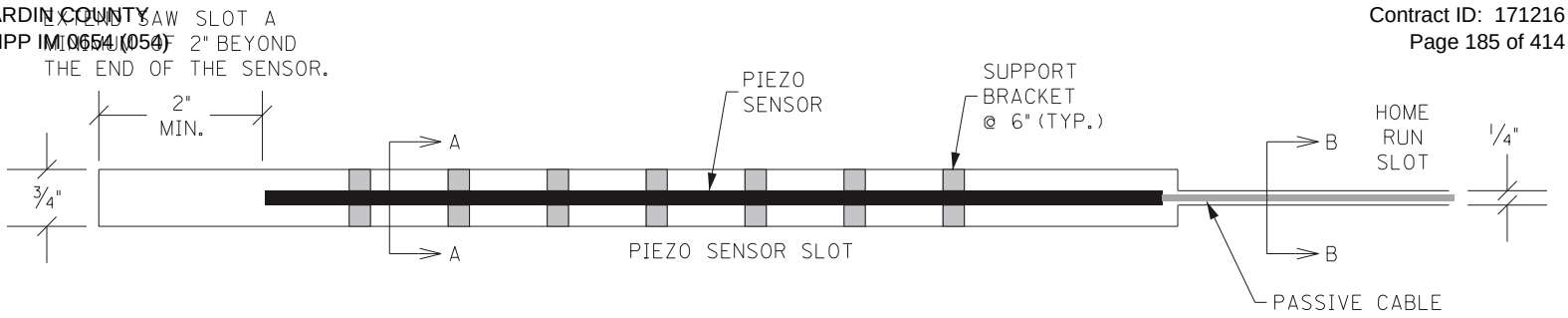
WIRING PLAN



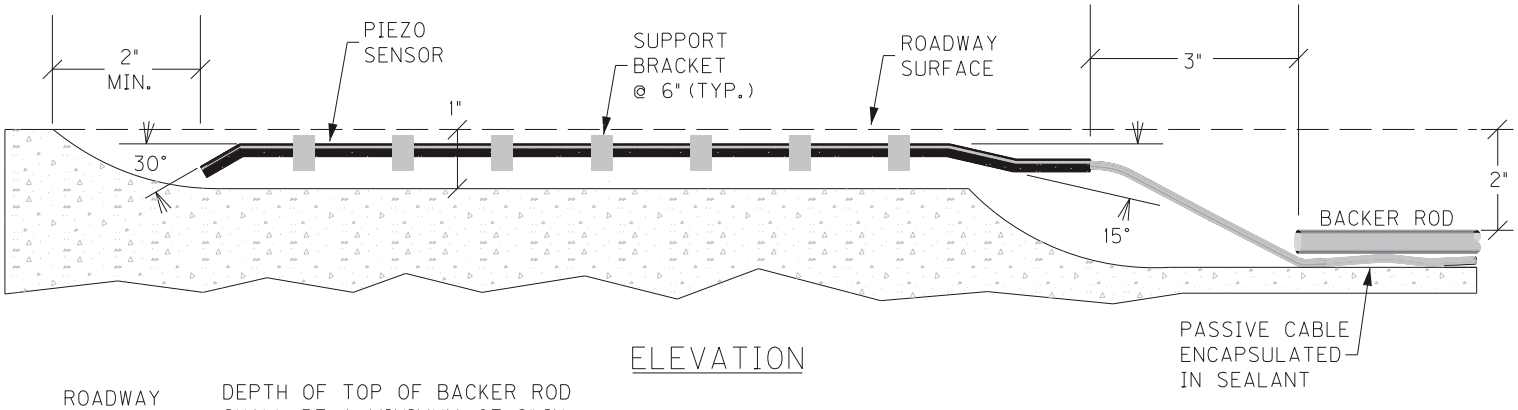
SAW SLOT EDGE OF PAVEMENT TRANSITION

INDUCTIVE LOOP DETECTOR

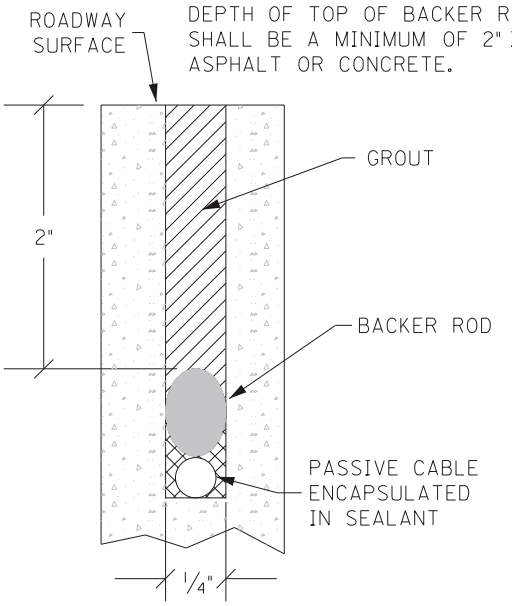
NOT TO SCALE



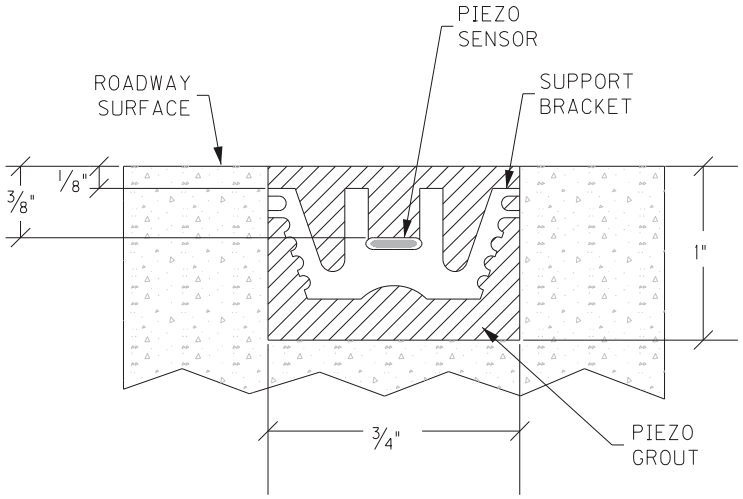
PLAN



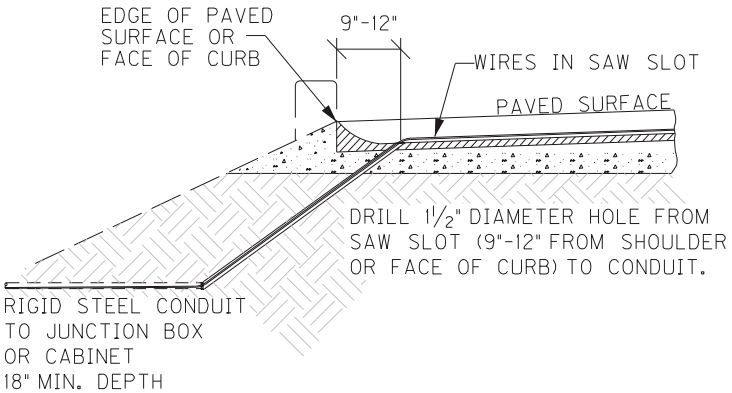
ELEVATION



SECTION B-B



SECTION A-A



SAW SLOT EDGE OF PAVEMENT TRANSITION

PIEZOELECTRIC SENSOR INSTALLATION

NOT TO SCALE

HARDIN COUNTY, INTERSTATE I-65

ITEM NO. 4-2060.00

BRIDGE REHABILITATION
(NINE LOCATIONS)

MILE POINT 91.427 TO 93.355

SPECIAL NOTE INDEX

BRIDGE INDEX

SPECIAL NOTE FOR BRIDGE RESTORATION AND WATERPROOFING WITH CONCRETE OVERLAYS

I. DESCRIPTION.

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2012 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

This work consists of the following:

(1) Furnish all labor, materials, tools, and equipment
(2) Remove the existing overlay or machine prep the existing slab
(3) Complete full-depth and partial depth repairs as directed by the Engineer
(4) Repair/replace damaged and corroded reinforcing bars
(5) Place new concrete overlay and epoxy-sand slurry in accordance with Section 606
(6) Complete asphalt approach pavement, if required
(7) Maintain and control traffic
(8) Any other work specified as part of this Contract.

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

II. MATERIALS.

A. Latex Concrete. See Section 606.03.17.
B. Class "M" Concrete. Use either "M1" or "M2". See Section 601.
C. Epoxy-Sand Slurry. See Section 606.03.10.
D. Steel Reinforced – Epoxy Coated. Use Grade 60. See Section 602.

III. CONSTRUCTION.

A. Remove Existing Overlay. See Section 606.03.03.
B. Machine Preparation of Existing Slab. See Section 606.03.03.
C. Full Depth Slab Repair. See Section 606.
D. Partial Depth Slab Repair and Latex Overlay. Remove areas determined to be unsound by the Engineer via hand held jackhammers weighing less than 45lbs in accordance with Section 606.02.10 D. Repair/Replace all damaged or severely corroded reinforcing bars prior to partial depth repair operation. The Department will not measure material removal and will consider this work incidental to the bid item "PARTIAL DEPTH PATCHING". Mix and place Latex Modified Concrete Overlay in accordance with Sections 606.03.08 and 606.03.17.
E. Surface Texturing. Texture the concrete surface of the overlay in accordance with Section 609.03.10.

SPECIAL NOTE FOR BRIDGE RESTORATION AND WATERPROOFING WITH CONCRETE OVERLAYS

IV. MEASUREMENT. See Section 606 and the following:

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

047B00124N	**(1.5" thick overlay)**	**=**	**29.8 cu yd**
047B00132L	**(1.5" thick overlay)**	**=**	**52.5 cu yd**
047B00126R	**(1.5" thick overlay)**	**=**	**79.3 cu yd**
047B00125L	**(1.5" thick overlay)**	**=**	**121.8 cu yd**
047B00125R	**(1.5" thick overlay)**	**=**	**77.4 cu yd**
047B00129L	**(1.5" thick overlay)**	**=**	**28.6 cu yd**
047B00129R	**(1.5" thick overlay)**	**=**	**28.6 cu yd**
047B00128L	**(1.5" thick overlay)**	**=**	**45.0 cu yd**
047B00128R	**(1.5" thick overlay)**	**=**	**45.0 cu yd**

B. Latex Modified Concrete for Partial Depth Patching and Variable Thickness of Overlay. The Department will measure the quantity in cubic yards by deducting the theoretical volume of bridge deck overlay (LMC) from the total volume (as indicated by the batch quantity tickets) of Concrete required to obtain the finished grade shown on the Plans or established by the Engineer.

C. Machine Preparation of Slab. The Department will measure the machine preparation of the existing bridge deck in square yards, which shall include all labor, equipment, and material needed to complete the work.

D. Steel Reinforcement – Epoxy Coated. The Department will measure any epoxy reinforcing steel necessary for the partial or full depth patch in pounds, which shall include all labor, equipment, and material needed to complete this work.

V. PAYMENT. See Section 606 and the following:

A. Latex Modified Concrete for Overlay. The Department will make payment for the Latex Modified Concrete under Bid Item #08534 "CONCRETE OVERLAY – LATEX" for the quantity in cubic yards complete in place.

B. Latex Modified Concrete for Partial Depth Patching and Variable Thickness of Overlay. The Department will make payment for the Partial Depth Patching under Bid Item #24094EC "PARTIAL DEPTH PATCHING". Payment will be for the quantity per cubic yard complete in place.

C. Machine Preparation of Slab. The Department will make payment for the removal of the existing overlay, or milling surface, under Bid Item #8551 "MACHINE PREPARATION OF SLAB". Payment will be for the square yards complete.

SPECIAL NOTE FOR BRIDGE RESTORATION AND WATERPROOFING WITH CONCRETE OVERLAYS

D. Steel Reinforcement. The Department will make payment for steel reinforcement, if necessary, under Bid Item #08151 "STEEL REINFORCEMENT – EPOXY COATED". Payment will be at the unit price per pound.

SPECIAL NOTES FOR PROTECTION OF RAILROAD INTEREST

CSX TRANSPORTATION, INC.

I. AUTHORITY OF RAILROAD ENGINEER AND STATE ENGINEER:

A. The authorized representative of the Railroad Company, hereinafter referred to as Railroad Engineer, shall have final authority in all matters affecting the safe maintenance of Railroad operations and property.

B. The authorized representative of the State, hereinafter referred to as the Engineer, shall have authority over all other matters as prescribed herein and in the Project Specifications.

II. NOTICE OF STARTING WORK:

A. The Contractor shall not commence any work on Railroad rights of way until he has complied with the following conditions:

1. Given the Railroad written notice, with copy to the Engineer who has been designated to be in charge of the work, **at least ten (10) days in advance** of the date he proposes to begin work on Railroad rights of way. The notice must refer to Railroad Agreement with the State by the date of the Agreement. **If flagging service is required, such notice shall be submitted at least thirty (30) days in advance** of the date scheduled to commence work. The Railroad's Contact information is on the Summary Sheet.

2. Obtain written authorization from the Railroad to begin work on Railroad rights of way, such authorization to include an outline of specific conditions with which he must comply.

3. Obtain written approval from the Railroad of Railroad Protective Insurance Liability coverage as required by paragraph 14 herein.

4. Furnish a schedule for all work within the Railroad rights of way as required by paragraph 7, B, 1.

B. The Railroad's written authorization to proceed with the work shall include the names, addresses, and telephone numbers of the Railroad's representatives who are to be notified as hereinafter required. Where more than one representative is designated, the area of responsibility of each representative shall be specified.

III. INTERFERENCE WITH RAILROAD OPERATIONS:

A. *The Contractor shall so arrange and conduct his work that there will be no interference with Railroad operations, including train, signal, telephone and telegraphic services, or damage to the property of the Railroad Company or to poles, wires, and other facilities of tenants on the rights of way of the Railroad Company. The Contractor shall store materials so as to prevent trespassers from causing damage to trains or Railroad property and shall not use Railroad property without written permission from the Railroad. Whenever work is to affect the operations or safety of trains, the method of doing such work shall first be submitted to the Railroad Engineer for approval, but such approval shall not relieve the Contractor from liability. Any work to be performed by the Contractor which requires flagging service or inspection service (watchman) shall be deferred by the Contractor until the flagging protection required by the Railroad is available at the job site.*

B. *Should conditions arising from, or in connection with the work, require that immediate and unusual provisions be made to protect train operations and property of the Railroad, the Contractor shall make such provisions. If in the judgment of the Railroad Engineer, or his representative, such provisions are insufficient, the Railroad Engineer may require or provide such provisions, as he deems necessary at Contractor's cost and expense. In any event, such unusual provisions shall be at the Contractor's expense and without cost and/or time to the Railroad or the State.*

IV. TRACK CLEARANCES

A. *The minimum track clearances to be maintained by the Contractor during construction are shown on the Project Plans. However, before undertaking any work within Railroad rights of way, or before placing any obstruction over any track, the Contractor shall:*

1. Notify the Railroad's representative **at least 72 hours in advance** of the work.

2. Receive assurance from the Railroad's representative that arrangements have been made for flagging service as necessary.

3. Receive permission from the Railroad's representative to proceed with the work.

4. Ascertain that the State Engineer has received copies of notice to the Railroad and of the Railroad's response thereto, and has approved the contractor's methods.

V. CONSTRUCTION PROCEDURES

A. General:

1. Construction work on Railroad property shall be:

   a) Subject to the inspection and approval of the Railroad.

   b) In accord with the Railroad's written outline of specific conditions.

   c) In accord with the Railroad's general rules, regulations and requirements including those relating to safety, fall protection and personal protective equipment, which the Contractor shall obtain from the Railroad.

   d) In accord with all Special Notes, Summaries, and Addendums.

2. The Railroad requires a submission of construction procedure that meets the requirements of these Special Notes and attachments. The Railroad's **submittal review period is thirty (30) days. Resubmissions will be reviewed within (30) days.**

3. All requirements of the *Construction Submission Criteria* shall be met. Requirements in addition to those in the *Construction Submission* Criteria are listed below in this document:

B. Excavation:

1. The sub grade of an operated track shall be **maintained with edge of berm at least 15'0" from centerline of track and not more than 24 inches below top of rail.** Contractor will not be required to make existing section meet this specification if substandard, in which case the existing section will be maintained.

2. Additionally, the Railroad Engineer may require installation of orange construction fencing for protection of the work area located on Railroad right of way.

C. Excavation of Structures:

1. The Contractor will be required to take special precaution and care in connection with excavating and shoring pits, and in driving piles, or sheeting for footings adjacent to tracks to provide adequate lateral support for the tracks and the loads which they carry, without disturbance of track alignment and surface, and to avoid obstructing track clearances with working equipment, tools or other material. The procedure for doing such work, including need of and plans for shoring, shall first be submitted, with the stamp of an Engineer in the State of Kentucky, and approved by

the Engineer and the Railroad Engineer, but such approval shall not relieve the Contractor from liability.

2. Additionally, a walkway with handrail protection may be required as noted in Section XI herein.

D. Demolition, Erection, Hoisting

1. Railroad tracks and other railroad property must be protected from damage during the procedure. No crane or equipment may be set on the rails or track structure and no material may be dropped on Railroad property.

2. Loads shall not be supported while any trains are passing if that piece of equipment has the capacity to **foul a 50' envelope.**

3. The Railroad may require the Contractor to install filter fabric over the track and ballast to prevent any concrete dust or other construction debris from fouling the ballast. This will be determined during actual construction activities by the Railroad or its representatives. Fabric should extend at least 25 feet beyond the outside edges of the bridge. Fabric will remain in place until all construction activities are complete.

4. Temporary construction clearance: Ensure all falsework, bracing, or forms have a minimum vertical clearance of 23 feet above the top of the highest rail and a minimum horizontal clearance of 12 feet measured perpendicular to the centerline of the nearest track.

E. Blasting:

1. The Contractor shall obtain advance written approval of the Railroad Engineer and the Engineer for use of explosive on or adjacent to Railroad property. The request for permission to use explosives shall include a detailed blasting plan. If permission for use of explosives is granted, the Contractor will be required to comply with the following:

   a) No blasting shall be done without the presence of an authorized representative of the Railroad. **At least 10 days advance notice** to the person designated in the Railroad's notice of authorization to proceed (see Section II.B above) will be required to arrange for the presence of an authorized Railroad representative and such flagging as the Railroad may require.

2. The Railroad representative will:

   a) Determine the approximate location of trains and advise the Contractor the approximate amount of time available for the blasting operation and clean-up.

   b) Have the authority to order discontinuance of blasting if, in his opinion, blasting is too hazardous or is not in accord with these Special Notes.

F. Maintenance of Railroad Facilities:

1. The Contractor will be required to maintain all ditches and drainage structures free of silt or other obstructions which may result from his operations and provide and maintain any erosion control measures as required. The Contractor shall provide erosion control measures during construction and use methods that accord with applicable state standard specifications for road and bridge construction, including either (1) silt fence; (2) berm or temporary ditches; (3) sediment basin; (4) aggregate checks; and (5) channel lining. The Contractor will promptly repair eroded areas with Railroad rights of way and to repair any other damage to the property of the Railroad or its tenants at the Contractor's expense.

2. All maintenance and repair of damages due to the Contractor's operations shall be done at the Contractor's expense.

G. Storage of Materials and Equipment:

1. Materials and equipment shall not be stored where they will interfere with Railroad operations, nor on the rights of way of the Railroad Company without first having obtained permission from the Railroad Engineer, and such permission will be with the understanding that the Railroad Company will not be liable for damage to such material and equipment from any cause and that the Railroad Engineer may move or require the Contractor to move, at the Contractor's expense, such material and equipment.

2. All grading or construction machinery that is left parked near the track unattended by a watchman shall be effectively immobilized so that it cannot be moved by unauthorized persons. The Contractor shall protect, defend, indemnify and save Railroad, and any associated, controlled or affiliated corporation, harmless from and against all losses, costs, expenses, claim or liability for loss or damage to property or the loss of life or personal injury, arising out of or incident to the Contractor's failure to immobilize grading or construction machinery.

H. Cleanup:

1. Upon completion of the work, the Contractor shall remove from within the limits of the Railroad rights of way, all machinery, equipment, surplus materials, falsework, rubbish or temporary buildings of the Contractor, and leave said rights of way in a neat condition satisfactory to the Railroad Engineer or his authorized representative.

VI. DAMAGES:

A. The Contractor shall assume all liability for any and all damages to his/her work, employees, equipment and materials caused by Railroad traffic.

B. Any cost incurred by the Railroad for repairing damages to its property or to property of its tenants, caused by or resulting from the operations of the Contractor, shall be paid directly to the Railroad by the Contractor.

VII. FLAGGING SERVICES:

A. When Required:

1. Flagging services will not be provided until the contractor's insurance has been reviewed & approved by the Railroad.

2. Under the terms of the agreement between the Department and the Railroad, the **Railroad has sole authority to determine the need for flagging** required to protect its operations. In general, the requirements of such services will be whenever the Contractor's personnel or equipment are likely to be, working on the Railroad's rights of way, or across, over, adjacent to, or under a track, or when such work has disturbed or is likely to disturb a railroad structure or the railroad roadbed or surface and alignment of any track to such extent that the movement of trains must be controlled by flagging. If any element (workers, equipment, tools, scaffolding, etc.) may exist or fall within 50 -feet of the edge of track, a flagman is necessary.

3. Normally, the Railroad will assign one flagman to a project; but in some cases, more than one may be necessary, such as yard limits where three-(3) flagmen may be required. However, if the Contractor works within distances that violate instructions given by the Railroad's authorized representative or performs work that has not been scheduled with the Railroad's authorized representative, a flagman or flagmen may be required until the project has been completed.

B. Scheduling and Notification:

1. Not later than the time that approval is initially requested to begin work on Railroad rights of way, Contractor shall furnish to the Railroad and the Department a schedule for all work required to complete the portion of the project within Railroad rights of way and arrange for a job site meeting between the Contractor, the Department, and the Railroad's authorized representative. Flagman or Flagmen may not be provided until the job site meeting has been conducted and the Contractor's work scheduled.

2. The Contractor will be required to give the Railroad representative **at least 10 working days of advance written notice** of intent to begin work within Railroad rights of way. If it is necessary for the Railroad to advertise a flagging job for bid, it **may take up to 30-days to obtain service**. Once begun, when work is suspended at any time for any reason, the Contractor will be required to give the Railroad representative **at least 72 hours in advance** before resuming work on Railroad rights of way. Such notice shall include sufficient details of the proposed work to enable the Railroad representative to determine if flagging will be required. If such notice is in writing, the Contractor shall furnish the Engineer a copy; if notice is given verbally it shall be confirmed in writing with copy to the Engineer. If flagging is required, no work shall be undertaken until the flagman, or flagmen is present at the job site. It **may take up to 30 days to obtain flagging initially** from the Railroad. When flagging begins the flagman is usually assigned by the Railroad to work at the project site on a continual basis until no longer needed and may be unable to be called for on a spot basis. If flagging becomes unnecessary and is suspended, it **may take up to 30 days to again obtain flagging services** from the Railroad. Due to labor agreements, it is necessary to give **5 working days notice before flagging service may be discontinued** and responsibility for payment stopped.

3. If, after the flagman is assigned to the project site, emergencies arise which require the flagman's presence elsewhere, and then the Contractor shall delay work on Railroad rights of way until such time as the flagman is again available. Any additional costs resulting from such delay shall be borne by the Contractor and not the Department or Railroad.

4. When demobilizing, the Contractor shall contact the flagman to avoid unnecessary flagging charges. This communication shall be documented.

C. Payment:

1. **The Cabinet will be responsible for paying the Railroad directly for any and all costs of flagging,** which may be required to accomplish the construction. **The Contractor shall adhere to the Special Note for Railroad Flagging, if applicable, and may be charged for flagging in excess of the allowable days, per said Special Note.**

2. The estimated cost of flagging is listed on the Summary Sheet. The charge to the Cabinet by the Railroad will be the actual cost based on the rate of pay for the Railroad's employees who are available for flagging service at the time the service is required.

3. Work by a flagman (M/W) in excess of 8 hours per day or 40 hours per week or on rest days, but not more than 16 hours a day will result in overtime pay at 1 ½ times the appropriate rate. Work by a flagman (M/W) in excess of 16 hours per day will result in overtime pay at 2 times the appropriate rate. Flagman (M/W) working in excess of 16 hours must receive a minimum of 5 hours of rest between shifts or their next shift of work is paid at the overtime rate of 2 times the appropriate rate. If work is performed on a holiday, the flagging rate is 2 ½ times the normal rate.

   Work by a flagman (T&E) in excess of 8 hours per day or 40 hours per week, but not more than 12 hours a day will result in overtime pay at 1 ½ times the appropriate rate. After a 12 hour work day the flagman (T&E) must be provided with 12 hours of rest. Flagman (T&E) who work six days consecutive days must receive two days off.

   Flagman's work day begins and ends at his reporting location.

4. Railroad work involved in preparing and handling bills will also be charged to the Contractor. Charges to the Department by the Railroad shall be in accordance with applicable provisions of Subchapter B, Part 140, Subpart I and Subchapter G, Part 646, Subpart B of the Federal-Aid Policy Guide issued by the Federal Highway Administration on December 9, 1991, including all current amendments. Flagging costs are subject to change. The above estimates of flagging cost are provided for information only and are not binding in any way.

D. Verification:

1. The Contractor and Project Engineer will review and sign the Railroad flagman's time sheet, attesting that the flagman was present during the time recorded. Flagman may be removed by Railroad if form is not signed. If flagman is removed, the Contractor will not be allowed to re-enter the Railroad rights of way until the issue is resolved. Any complaints concerning flagman or flagmen must be resolved in a timely manner. If need for flagman or flagmen is questioned, please contact the Railroad's Representative listed on the Project Summary Sheet. All verbal complaints must be confirmed in writing by the Contractor within 5 working days with copy to the Highway Engineer. All written correspondence should be addressed to the Railroad's Representative listed on the Project Summary Sheet.

2. The Railroad flagman assigned to the project will be responsible for notifying the Project Engineer upon arrival at the job site on the first day (or as soon thereafter as possible) that flagging services begin and on the last day that he performs such services for each separate period that services are provided. The Project Engineer will document such notification in the project records. When requested, the Project Engineer will also sign the flagman's diary showing daily time spent and activity at the project site.

VIII. HAUL ACROSS RAILROAD:

A. Where the plans show or imply that materials of any nature must be hauled across a Railroad, unless the plans clearly show that the State has included arrangements for such haul in its agreement with the Railroad, the Contractor will be required to make all necessary arrangements with the Railroad regarding means of transporting such materials across the Railroad. The Contractor will be required to bear all costs incidental, including flagging, to such crossings whether services are performed by his own forces or by Railroad personnel.

B. *No crossing may be established for use of the Contractor for transporting materials or equipment across the tracks of the Railroad Company unless a license agreement or right of entry is granted and executed for its installation, maintenance, necessary watching and flagging thereof and removal, all at the expense of the Contractor.* ***The approval process for an agreement normally takes 90-days.***

IX. WORK FOR THE BENEFIT OF THE CONTRACTOR:

A. All temporary or permanent changes in wire lines on the Railroad or other facilities which are considered necessary to the project are shown on the plans; included in the force account agreement between the State and the Railroad or will be covered by appropriate revisions to same which will be initiated and approved by the State and/or the Railroad.

B. Should the Contractor desire any changes in addition to the above, then he shall make separate arrangements with the Railroad for same to be accomplished at the Contractor's expense.

X. COOPERATION AND DELAYS:

A. It shall be the Contractor's responsibility to arrange a schedule with the Railroad for accomplishing stage construction involving work by the Railroad or tenants of the Railroad. In arranging his schedule he shall ascertain, from the Railroad, the lead time required for assembling crews and materials and shall make due allowance therefore.

B. Train schedules cannot be provided to the Contractor. It is the Contractor's responsibility to contact the Railroad in order to arrange "Track Time." This "Track Time" will be an agreed upon prearranged time period (duration) that the Railroad will, without undue burden, schedule no train traffic to facilitate the Contractor's work on or near Railroad right-of-way. This track time must be arranged during the submission review process.

C. No charge or claims of the Contractor against either the Department or the Railroad will be allowed for hindrance or delay on account of railroad traffic; any work done by the Railroad or other delay incident to or necessary for safe maintenance of Railroad traffic or for any delays due to compliance with these Special Notes.

D. The Contractor shall cooperate with others participating in the construction of the Project to the end that all work may be carried on to the best advantage.

E. The Railroad does not assume any responsibility for work performed by others in connection with the Project. No claims of the Contractor against the Railroad for any inconvenience, delay, or additional cost incurred by the Contractor on account of operations by others shall be filed.

XI. TRAINMAN'S WALKWAYS:

*A. Along the outer side of each exterior track of multiple operated track, and on each side of single operated track, an unobstructed continuous space suitable for trainman's use in walking along trains, extending to a line not less than 12~~10~~ feet from centerline of track, shall be maintained. Any temporary impediments to walkways and track drainage encroachments or obstructions allowed during work hours while Railroad's protective service is provided shall be removed before the close of each day. If there is any excavation near the walkway, a handrail, with **12'-0" minimum clearance from centerline of track,** shall be placed.*

XII. GUIDELINES FOR PERSONNEL ON RAILROAD RIGHTS OF WAY:

A. All persons shall wear hard hats and reflective vest. Appropriate eye and hearing protection must be used. Working in shorts is prohibited. Shirts must cover shoulders, back and abdomen. Working in tennis or jogging shoes, sandals, boots with high heels, cowboy and other slip on type boots is prohibited. High top (6-inch or more) safety-toe shoes with laces, oil-resistant soles, and a distinct separation between heel and sole are required.

*B. No one is allowed within **25' of the centerline of the track** without specific authorization from the flagman.*

C. All persons working near track when train is passing are to look out for dragging bands, chains and protruding or shifting cargo.

D. No one is allowed to cross tracks without specific authorization from the flagman.

*E. All work within **25' of track must stop when train is passing.***

F. No steel tape or chain will be allowed to cross or touch rails without permission.

XIII. GUIDELINES FOR EQUIPMENT ON RAILROAD RIGHTS OF WAY:

*A. No crane or boom equipment will be allowed to set up to work or park within **boom distance plus 15' of centerline of track** without specific permission from Railroad Engineer.*

B. No crane or boom equipment will be allowed to foul track or lift a load over the track without flag protection and track time.

C. All employees will stay with their machines when crane or boom equipment is pointed toward track.

D. All cranes and boom equipment under load will stop work while a train is passing (including pile driving).

E. Swinging loads must be secured to prevent movement while train is passing.

F. No loads will be suspended above a moving train.

*G. No equipment will be allowed within **50' of centerline of track** without specific authorization of the flagman.*

H. Trucks, tractors or any equipment will not touch ballast line without specific permission from railroad official and flagman.

*I. No equipment or load movement **within 50' or above a standing train or other equipment** without specific authorization of the flagman.*

*J. All operating equipment within **50' of track must halt operations when a train is passing**. All other operating equipment may be halted by the flagman if the flagman views the operation to be dangerous to the passing train.*

K. All equipment, loads and cables are prohibited from touching rails.

L. While clearing and grubbing, no vegetation will be removed from railroad embankment with heavy equipment without specific permission from the Railroad Engineer and flagman.

M. No equipment or materials will be parked or stored on Railroad's property unless specific permission is granted from the Railroad Engineer.

N. All unattended equipment that is left parked on Railroad property shall be effectively immobilized so that it cannot be moved by unauthorized persons.

O. All cranes and boom equipment will be turned away from track after each work day or whenever unattended by an operator.

XIV. INSURANCE:

A. In addition to any other forms of insurance or bonds required under the terms of the contract and specifications, the Contractor will be required to carry insurance of the following kinds:

1. Commercial General Liability coverage at their sole cost and expense with limits of not less than **$5,000,000** in combined single limits for bodily injury and/or property damage per occurrence, and such policies shall name the Railroad as an additional insured.

2. Statutory Worker's Compensation and Employers Liability Insurance with limits of not less than **$1,000,000**, which insurance must contain a waiver of subrogation against the Railroad and its affiliates.

3. Commercial automobile liability insurance with limits of not less than **$1,000,000** combined single limit for bodily injury and/or property damage per occurrence, and such policies shall name the Railroad as an additional insured.

4. Railroad Protective Liability (RPL) insurance with limits of not less than **$5,000,000** combined single limit for bodily injury and/or property damage per occurrence and an aggregate annual limit of **$10,000,000**, which insurance shall satisfy the following additional requirements:

   a. The Railroad Protective Insurance Policy must be on the ISO/RIMA Form of Railroad Protective Insurance – Insurance Services Office (ISO) Form CG 00 35.

   b. The Railroad must be the named insured on the Railroad Protective Insurance Policy

   c. Name and Address of the Contractor must be shown on the Declarations page.

   d. Description of operations must appear on the Declarations page and must match the Project description, including project or contract identification numbers.

   e. Terrorism Risk Insurance Act (TRIA) coverage must be included.

   f. Authorized endorsements must include:

      (i). Pollution Exclusion Amendment – CG 28 31, unless using form CG 00 35 version 96 and later.

   g. Authorized endorsements may include:

      (i). Broad form Nuclear Exclusion – IL 00 21
      (ii). 30-day Advance Notices of Non-renewal or cancellation
      (iii). Required State Cancellation Endorsement
      (iv). Quick Reference or Index – CL/IL 240

   h. Authorized endorsements may not include:

      (i). A Pollution Exclusion Endorsement except CG 28 31
      (ii). An Endorsement that excludes TRIA coverage
      (iii). An Endorsement that limits or excludes Professional Liability coverage
      (iv). A Non-Cumulation of Liability or Pyramiding of Limits Endorsement

(v). A Known Injury Endorsement
(vi). A Sole Agent Endorsement
(vii). A Punitive or Exemplary Damages Exclusion
(viii). A 'Commong Policy Conditions' Endorsement
(ix). Policies that contain any type of deductible
(x). Any endorsement that is not named in Section 4 (f) or (g) above that the Railroad deems unacceptable

5. All insurance companies must be A. M. Best rated A- and Class VII or better.

6. Such additional or different insurance as the Railroad may require.

B. Additional Terms:

1. Contractor must submit the original Railroad Protective Liability policy, Certificates of Insurance, and all notices and correspondence regarding the insurance policy to the contact listed on the Project Summary Sheet.

2. The Contractor may not begin work on the Project until it has received the Railroad's written approval or the required insurance.

C. Insurance policies shall follow the requirements of Subchapter G, Part 646, Subpart A of the Federal-Aid Policy Guide issued by the Federal Highway Administration on December 9, 1991, including all current amendments.

D. If any part of the work is sublet, similar insurance and evidence thereof in the same amounts as required of the Prime Contractor shall be provided by or in behalf of the subcontractor to cover his operations. Endorsements to the Prime Contractor's policies specifically naming subcontractors and describing their operations will be acceptable for this purpose.

E. All insurance herein before specified shall be carried until all work required to be performed under the terms of the contract has been satisfactorily completed within the limits of the rights of way of the Railroad as evidenced by the formal acceptance by the Department. Insuring Companies may cancel insurance by permission of the Department and Railroad or on ***thirty (30) days written notice*** *to the Department and Railroad Insurance Contacts as listed on the Project Summary Sheet.*

XV. FAILURE TO COMPLY:

A. *These Special Notes are supplemental and amendatory to the current version of the Kentucky Department of Highways' Standard Specifications for Road and Bridge Construction and amendments thereof, and where in conflict therewith, these Special Notes shall govern.*

B. *In the event the Contractor violates or fails to comply with any of the requirements of these Special Notes:*

1. The Railroad Engineer may require that the Contractor vacate Railroad property.

2. The Engineer may withhold any and all monies due the Contractor on pay estimates.

3. Any such orders shall remain in effect until the Contractor has remedied the situation to the satisfaction of the Railroad Engineer and the Engineer.

XVI. PAYMENT FOR COST OF COMPLIANCE:

A. *No separate payment will be made for any extra cost incurred on account of compliance with these Special Notes. All such cost shall be included in prices bid for other items of the work as specified in the payment items.*

Supplemental – Special Notes for Protection of Railroad Interest

1. The Contractor will provide the necessary protection to keep all debris generated by hydro-demolition, including but not limited to blasting, scraping, brushing and chipping operations, and shall be contained, collected and properly disposed of by the Project Sponsor or its Contractor. The Project Sponsor and its Contractor agree to fully comply with all federal, state, and local environmental laws, regulations, statutes and ordinances at all times.
2. If Contractor has the potential to penetrate the deck during the deck hydro-demolition work, then Contractor will be required to install falsework/demo shield protection directly over the CSXT Railroad span. The falsework/demo shield protection will be installed prior to the deck being penetrated and will stay in place for the duration of the construction activities. The falsework/demo shield shall be designed and constructed in accordance to CSX's Construction Submission Criteria. In addition, filter fabric protection will be required to protect the track and ballast directly under the falsework/demo shield protection.
    a. Refer to The Special Notes for Protection of Railroad Interest, Section V. Construction Procedures; for demolition plan submittal and notifications procedures to satisfy CSX requirements.
    b. Refer to The Special Notes for Protection of Railroad Interest, Section VII. Flagging Services; for scheduling flagging protection and advance notification procedures to satisfy CSX requirements.
3. Temporary construction Clearance - Ensure all falsework, bracing or forms have a minimum horizontal clearance of 12 feet measured perpendicular to the centerline of the nearest track and a minimum clearance of 23 feet measured vertically from the top of rail.
4. Means and Methods – The Contractor shall develop a detailed submission indicating the progression of work with specific times when tasks will be performed for work activities that are on or in the vicinity of the CSXT property. This submission may require a walkthrough at which time CSXT and/or the Representative will be present. Work will not be permitted to commence until the Contractor has provided CSXT with a satisfactory plan that the project will be undertaken without scheduling, performance or safety related issues. Provide a listing of the anticipated equipment to be used, the location of all equipment to be used and ensure a contingency plan of action is in place should a primary piece of equipment malfunction. All work in the vicinity of CSXT property that has the potential of affecting CSXT train operations must be submitted and approved by CSXT prior to work being performed. This submission will also include a detailed narrative discussing the coordination of project safety issues between Contractor, CSXT and the Representative. The narrative shall address project level coordination and day to day, specific work operations including equipment operations, erection plans and temporary works.

Kentucky Transportation Cabinet
Division of Right of Way & Utilities

TC 69-008
08/2010
Page 1 of 2

SUMMARY FOR KYTC PROJECTS THAT INVOLVE A RAILROAD

Date: 3/14/2017 *(enter using M/d/yyyy format)*

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

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

County: Hardin
Federal Number: NHPP IM 0654 054
State Number: FD04 121 86591 01D;
Route: I-65
Project Description: I-65 Bridge Rehab over CSX and Hawkins Dr
Item Number: 04-2060.00 **Highway Milepost:** 091-092

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

Rail Company Name: **CSX Transportation, Inc.**
AAR-DOT# (if applicable): 297 855V **Railroad Milepost:** JH 7.0
Freight: Train Count (6am to 6pm): 1 **Train Count (6pm to 6am):** 0 **Train Count (24 hr total):** 1 **Max Speed:** 10 mph
Passenger: Train Cnt. (6am to 6pm): 0 **Train Cnt. (6pm to 6am):** 0 **Train Cnt. (24 hr total):** 0 **Max Speed:** 0 mph
(This information is necessary to acquire the necessary insurances when working with Railroad Right of Way)

INSURANCE REQUIREMENTS

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

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

FLAGGING INFORMATION

Flagging Estimate:

Flagging will be paid to the RR by KYTC. Contractor shall adhere to the Special Note for Railroad Flagging.

Hourly Rate:

$1019.00 per day based on a 8 hour day effective as of the date of this document.

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

Forecasted Rate Increases:

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

RAILROAD CONTACTS

(*to be provided by Railroad Company)*

General Railroad Contact:

Troy Creasy
CSX Transportation, Inc.
Project Manager - Public Projects
1610 Forest Ave., Suite 120
Richmond, VA 23229
(Phone) 804-226-7718
(Email) Troy_Creasy@csx.com

Regional Representative (Roadmaster):

Chuck Deaton
CSX Transportation
Roadmaster
1200 Don Hutson Blvd.
Louisville, KY
(Phone) 502-364-1119
(Email) charles_deaton@csx.com

Insurance contact:

_____
CSX Corporation
Insurance Department
_____
_____
(Phone) _____
(Email) insurancedocuments@csx.com

Railroad Designer Contact:

Contractor or In-House Employee? Consultant

Larry Shaw, PE
Sr. Project Manager
Benesch
201 N. Illinois St., 16th Floor South Tower
Indianapolis, IN 46204
(Phone) 317-610-3241
(Email) LShaw@benesch.com

Railroad Construction Contact:

Contractor or In-House Employee? Consultant

Wayne Bolen, PE
Sr. Project Manager
Benesch
201 E Fifth Street, Suite 1900
Cincinnati, OH 45202
(Phone) 859-250-5483
(Email) WBolen@benesch.com

KENTUCKY TRANSPORTATION CABINET CONTACTS

(*to be provided by KYTC)*

KYTC Railroad Coordinator:

Allen Rust, PE
Div. of Right of Way & Utilities
Kentucky Transportation Cabinet
200 Mero Street, 5th Floor East
Frankfort, Kentucky 40622
(Phone) 502-782-4950
(Email) allen.rust@ky.gov

KYTC Construction Procurement Director:

Rachel Mills, Director
Div. of Construction Procurement
Kentucky Transportation Cabinet
200 Mero Street, 3rd Floor West
Frankfort, Kentucky 40622
(Phone) 502-782-5152
(Email) Rachel.Mills@ky.gov

KYTC Construction Director:

Ryan Griffith, Director
Div. of Construction Procurement
Kentucky Transportation Cabinet
200 Mero Street, 3rd Floor West
Frankfort, Kentucky 40622
(Phone) 502-782-5127
(Email) ryan.griffith@ky.gov

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

CSX TRANSPORTATION

CONSTRUCTION SUBMISSION CRITERIA

CSXT Design and Construction
Public Projects Group
Jacksonville, FL
Date Issued: November 1, 2013

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INTRODUCTION

The intent of this document is to guide outside agencies and their Contractors when performing work on, over, or with potential to impact CSXT property (ROW). Work plans shall be submitted for review to the designated CSXT Engineering Representative for all work which presents the potential to affect CSXT property or operations; this document shall serve as a guide in preparing these work plans. All work shall be performed in a manner that does not adversely impact CSXT operations or safety; as such, the requirements of this document shall be strictly adhered to, in addition to all other applicable standards associated with the construction. Applicable standards include, but are not limited to, CSXT Standards and Special Provisions, CSXT Insurance Requirements, CSXT Pipeline Occupancy Criteria, as well as the governing local, county, state and federal requirements. It shall be noted that this document and all other CSXT standards are subject to change without notice, and future revisions will be made available at the CSXT website: www.csx.com.

I. DEFINITIONS

1. **Agency –** The project sponsor (i.e. State DOT, Local Agencies, Private Developer, etc.)
2. **AREMA –** American Railway Engineering and Maintenance-of-Way Association – the North American railroad industry standards group. The use of this term shall be in specific reference to the AREMA Manual for Railway Engineering.
3. **Construction Submission –** The Agency or its representative shall submit six (6) sets of plans, supporting calculations, and detailed means and methods procedures for the specific proposed activity. All plans, specifications, and supporting calculations shall be signed/sealed by a Professional Engineer as defined below.
4. **Controlled Demolition –** Removal of an existing structure or subcomponents in a manner that positively prevents any debris or material from falling, impacting, or otherwise affecting CSXT employees, equipment or property. Provisions shall be made to ensure that there is no impairment of railroad operations or CSXT's ability to access its property at all times.
5. **Contractor –** The Agency's representative retained to perform the project work.
6. **Engineer –** CSXT Engineering Representative or a GEC authorized to act on the behalf of CSXT.
7. **Flagman –** A qualified CSXT employee with the sole responsibility to direct or restrict movement of trains, at or through a specific location, to provide protection for workers.
8. **GEC –** General Engineering Consultant who has been authorized to act on the behalf of CSXT.
9. **Horizontal Clearance –** Distance measured perpendicularly from centerline of any track to the nearest obstruction at any elevation between TOR and the maximum vertical clearance of the track.
10. **Professional Engineer –** An engineer who is licensed in State or Commonwealth in which the project is to occur. All plans, specifications, and supporting calculations shall be prepared by the Licensed Professional Engineer and shall bear his/her seal and signature.
11. **Potential to Foul –** Work having the possibility of impacting CSXT property or operations; defined as one or more of the following:
    a. Any activity where access onto CSXT property is required.
    b. Any activity where work is being performed on CSXT ROW.
    c. Any excavation work adjacent to CSXT tracks or facilities, within the Theoretical Railroad Live Load Influence Zone, or where the active earth pressure zone extends within the CSXT property limits.

d. The use of any equipment where, if tipped and laid flat in any direction (360 degrees) about its center pin, can encroach within twenty five feet (25’-0”) of the nearest track centerline. This is based upon the proposed location of the equipment during use, and may be a function of the equipment boom length. Note that hoisting equipment with the potential to foul must satisfy the 150% factor of safety requirement for lifting capacities.

e. Any work where the scatter of debris, or other materials has the potential to encroach within twenty five feet (25’-0”) of the nearest track centerline.

f. Any work where significant vibration forces may be induced upon the track structure or existing structures located under, over, or adjacent to the track structure.

g. Any other work which poses the potential to disrupt rail operations, threaten the safety of railroad employees, or otherwise negatively impact railroad property, as determined by CSXT.

12. **ROW –** Right of Way; Refers to CSXT Right-of-Way as well as all CSXT property and facilities. This includes all aerial space within the property limits, and any underground facilities.

13. **Submission Review Period -** a minimum of thirty (30) days in advance of start of work. Up to thirty (30) days will be required for the initial review response. Up to an additional thirty (30) days may be required to review any/all subsequent submissions or resubmission.

14. **Theoretical Railroad Live Load Influence Zone –** A 1½ horizontal to 1 vertical theoretical slope line starting 18 inches (1'-6") below top of tie elevation and twelve feet (12'-0") from the centerline of the nearest track.

15. **TOR –** Top of Rail. This is the base point for clearance measurements. It refers to the crown (top) of the steel rail; the point where train wheels bear on the steel rails.

16. **Track Structure –** All load bearing elements which support the train. This includes, but is not limited to, the rail, ties, appurtenances, ballast, sub-ballast, embankment, retaining walls, and bridge structures.

17. **Vertical Clearance –** Distance measured from TOR to the lowest obstruction within six feet (6’-0”) of the track centerline, in either direction.

II. GENERAL SUBMISSION REQUIREMENTS

A. A construction work plan is required to be submitted by the Agency or its Contractor, for review and acceptance, prior to accessing or performing any work with Potential to Foul.

B. The Agency or its representative shall submit six (6) sets of plans, specifications, supporting calculations, and detailed means and methods procedures for the specific proposed work activity.

C. Construction submissions shall include all information relevant to the work activity, and shall clearly and concisely explain the nature of the work, how it is being performed, and what measures are being taken to ensure that railroad property and operations are continuously maintained.

D. All construction plans shall include a map of the work site, depicting the CSXT tracks, the CSXT right of way, proposed means of access, proposed locations for equipment and material staging (dimensioned from nearest track centerline), as well as all other relevant project information. An elevation drawing may also be necessary in order to depict clearances or other components of the work.

E. Please note that CSXT will not provide pricing to individual contractors involved in bidding projects. Bidding contractors shall request information from the agency and not CSXT.

F. The Contractor shall install a geotextile fabric ballast protection system to prevent construction or demolition debris and fines from fouling ballast. The geotextile ballast protection system shall be installed and maintained by the Contractor to the satisfaction of the Engineer.

G. The Engineer shall be kept aware of the construction schedule. The Contractor shall provide timely communication to the Engineer when scheduling the work such that the Engineer may be present during the work. The Contractor's schedule shall not dictate the work plan review schedule, and flagging shall not be scheduled prior to receipt of an accepted work plan.

H. At any time during construction activities, the Engineer may require revisions to the previously approved procedures to address weather, site conditions or other circumstances that may create a potential hazard to rail operations or CSXT facilities. Such revisions may require immediate interruption or termination of ongoing activities until such time the issue is resolved to the Engineer's satisfaction. CSXT and its GEC shall not be responsible for any additional costs or time claims associated with such revisions.

I. Blasting will not be permitted to demolish a structure over or within CSXT's right-of-way. When blasting off of CSXT property but with Potential to Foul, vibration monitoring, track settlement surveying, and/or other protective measures may be required as determined by the Engineer.

J. Blasting is not permitted adjacent to CSXT right-of-way without written approval from the Chief Engineer, CSXT.

K. Mechanical and chemical means of rock removal must be explored before blasting is considered. If written permission for the use of explosives is granted, the Agency or Contractor must submit a work plan satisfying the following requirements:

1. Blasting shall be done with light charges under the direct supervision of a responsible officer or employee of the Agency or Contractor.

2. Electronic detonating fuses shall not be used because of the possibility of premature explosions resulting from operation of two-way train radios.

3. No blasting shall be done without the presence of an authorized representative of CSXT. Advance notice to the Engineer is required to arrange for the presence of an authorized CSXT representative and any flagging that CSXT may require.

4. Agency or Contractor must have at the project site adequate equipment, labor and materials, and allow sufficient time, to clean up debris resulting from the blasting and correct any misalignment of tracks or other damage to CSXT property resulting from the blasting. Any corrective measures required must be performed as directed by the Engineer at the Agency's or Contractor's expense without any delay to trains. If Agency's or Contractor's actions result in the delay of any trains including passenger trains, the Agency or Contractor shall bear the entire cost thereof.

5. The Agency or Contractor may not store explosives on CSXT property.
6. At any time during blasting activities, the Engineer may require revisions to the previously approved procedures to address weather, site conditions or other circumstances that may create a potential hazard to rail operations or CSXT facilities. Such revisions may require immediate interruption or termination of ongoing activities until such time the issue is resolved to the Engineer's satisfaction. CSXT and its GEC shall not be responsible for any additional costs or time claims associated with such revisions.

III. HOISTING OPERATIONS

A. All proposed hoisting operations with Potential to Foul shall be submitted in accordance with the following:

1. A plan view drawing shall depict the work site, the CSXT track(s), the proposed location(s) of the lifting equipment, as well as the proposed locations for picking, any intermediate staging, and setting the load(s). All locations shall be dimensioned from centerline of the nearest track. Crane locations shall also be dimensioned from a stationary point at the work site for field confirmation.
2. Computations showing the anticipated weight of all picks. Computations shall be made based upon the field-verified plans of the existing structure. Pick weights shall account for the weight of concrete rubble or other materials attached to the component being removed; this includes the weight of subsequent rigging devices/components. Rigging components shall be sized for the subsequent pick weight.
3. All lifting equipment, rigging devices, and other load bearing elements shall have a rated (safe lifting) capacity that is greater than or equal to 150% of the load it is carrying, as a factor of safety. Supporting calculations shall be furnished to verify the minimum capacity requirement is maintained for the duration of the hoisting operation.
4. Dynamic hoisting operations are prohibited when carrying a load with the Potential to Foul. Cranes or other lifting equipment shall remain stationary during lifting. (i.e. no moving picks).
5. For lifting equipment, the manufacturer's capacity charts, including crane, counterweight, maximum boom angle, and boom nomenclature is to be submitted.
6. A schematic rigging diagram must be provided to clearly call out each rigging component from crane hook to the material being hoisted. Copies of catalog or information sheets shall be provided to verify rigging weights and capacities.
7. For built-up rigging devices, the contractor shall submit the following:
    i. Details of the device, calling out material types, sizes, connections and other properties.
    ii. Load test certification documents and/or design computations bearing the seal and signature of a Professional Engineer. Load test shall be performed in the configuration of its intended use as part of the subject demolition procedure.
    iii. Copies of the latest inspection reports of the rigging device. The device shall be inspected within one (1) calendar year of the proposed date for use.
8. A detail shall be provided showing the crane outrigger setup, including dimensions from adjacent slopes or facilities. The detail shall indicate requirements for bearing surface preparation, including material requirements and compaction efforts. As a minimum, outriggers and/or tracks shall bear on mats, positioned on level material with adequate bearing capacity.
9. A complete written narrative that describes the sequence of events, indicating the order of lifts and any repositioning or re-hitching of the crane(s).

IV. DEMOLITION PROCEDURE

A. The Agency or its Contractor shall submit a detailed procedure for a controlled demolition of any structure on, over, or adjacent to the ROW. The controlled demolition procedure must be approved by the Engineer prior to beginning work on the project.

B. Existing Condition of structure being demolished:

1. The Contractor shall submit as-built plans for the structure(s) being demolished.
2. If as-built plans are unavailable, the Contractor shall perform an investigation of the structure, including any foundations, substructures, etc. The field measurements are to be made under the supervision of the Professional Engineer submitting the demolition procedure. Findings shall be submitted as part of the demolition means and methods submittal for review by the Engineer.
3. Any proposed method for temporary stabilization of the structure during the demolition shall be based on the existing plans or investigative findings, and submitted as part of the demolition means and methods for review by the Engineer.

C. Demolition work plans shall include a schematic plan depicting the proposed locations of the following, at various stages of the demolition:

1. All cranes and equipment, calling out the operating radii.
2. All proposed access and staging locations with all dimensions referenced from the center line of the nearest track.
3. Proposed locations for stockpiling material or locations for truck loading.
4. The location, with relevant dimensions, of all tracks, other railroad facilities; wires, poles, adjacent structures, or buried utilities that could be affected, showing that the proposed lifts are clear of these obstructions.
5. Note that no crane or equipment may be set on the CSXT rails or track structure and no material may be dropped on CSXT property.

D. Demolition submittal shall also include the following information:

1. All hoisting details, as dictated by Section III of this document.
2. A time schedule for each of the various stages must be shown as well as a schedule for the entire lifting procedure. The proposed time frames for all critical subtasks (i.e., torch/saw cutting various portions of the superstructure or substructure, dismantling splices, installing temporary bracing, etc.) shall be furnished so that the potential impact(s) to CSXT operations may be assessed and eliminated or minimized.
3. The names and experience of the key Contractor personnel involved in the operation shall be included in the Contractor's means and methods submission.
4. Design and supporting calculations shall be prepared, signed, and sealed by the Professional Engineer for items including the temporary support of components or intermediate stages shall be submitted for review. A guardrail will be required to be installed in a track in the proximity of temporary bents or shoring towers, when located within twelve feet (12'-0") from the centerline of the track. The guardrail will be installed by CSXT forces, at the expense of the Agency or its contractor.

E. Girders or girder systems shall be stable at all times during demolition. Temporary bracing shall be provided at the piers, abutments, or other locations to resist overturning and/or buckling of the member(s). The agency shall submit a design and details of the proposed temporary bracing system, for review by the Engineer. Lateral wind forces for the temporary conditions shall be considered in accordance with AREMA, Chapter 8, Section 28.6.2. The minimum lateral wind pressure shall be fifteen pounds per square foot (15 psf).

F. Existing, obsolete, bridge piers shall be removed to a minimum of three feet (3'-0") below the finished grade, final ditch line invert, or as directed by the Engineer.

G. A minimum quantity of twenty five (25) tons of CSXT approved granite track ballast may be required to be furnished and stockpiled on site by the Contractor, or as directed by the Engineer.

H. The use of acetylene gas is prohibited for use on or over CSXT property. Torch cutting shall be performed utilizing other materials such as propane.

I. CSXT's tracks, signals, structures, and other facilities shall be protected from damage during demolition of existing structure or replacement of deck slab.

J. Demolition Debris Shield

1. On-track or ground-level debris shields (such as crane mats) are prohibited for use by CSXT.
2. Demolition Debris Shield shall be installed prior to the demolition of the bridge deck or other relevant portions of the structure. The demolition debris shield shall be erected from the underside of the bridge over the track area to catch all falling debris. The debris shield shall not be the primary means of debris containment.
    i. The demolition debris shield design and supporting calculations, all signed/sealed by a Professional Engineer, shall be submitted for review and acceptance.
    ii. The demolition debris shield shall have a minimum design load of 50 pounds per square foot (50 psf) plus the weight of the equipment, debris, personnel, and all other loads.
    iii. The Contractor shall verify the maximum particle size and quantity of the demolition debris generated during the procedure does not exceed the shield design loads. Shield design shall account for loads induced by particle impact; however the demolition procedure shall be such that impact forces are minimized. The debris shield shall not be the primary means of debris containment.
    iv. The Contractor shall include installation/removal means and methods for the demolition debris shield as part of the proposed Controlled Demolition procedure submission.
    v. The demolition debris shield shall provide twenty three feet (23'-0") minimum vertical clearance, or maintain the existing vertical clearance if the existing clearance is less than twenty three feet (23'-0").
    vi. Horizontal clearance to the centerline of the track should not be reduced unless approved by the Engineer.
    vii. The Contractor shall clean the demolition debris shield daily or more frequently as dictated either by the approved design parameters or as directed by the Engineer.

K. Vertical Demolition Debris Shield

1. This type of shield may be required for substructure removals in close proximity to CSXT track and other facilities, as determined by the Engineer.
2. The Agency or its Contractor shall submit detailed plans with detailed calculations, prepared, signed, and sealed by a Professional Engineer, of the protection shield.

V. ERECTION PROCEDURE

A. The Agency or its Contractor shall submit a detailed procedure for erection of a structure with Potential to Foul. The erection procedure must be approved by the Engineer prior to beginning work on the project.

B. Erection work plans shall include a schematic plan depicting the following, at all stages of the construction:

1. All proposed locations of all cranes and equipment, calling out the operating radii.
2. All proposed access and staging locations with all dimensions referenced from the center line of the nearest track.
3. All proposed locations for stockpiling material or locations for truck loading.
4. The location, with relevant dimensions, of all tracks, other railroad facilities; wires, poles, adjacent structures, or buried utilities that could be affected, showing that the proposed lifts are clear of these obstructions.

C. No crane or equipment may be set on the CSXT rails or track structure and no material may be dropped on CSXT property.

D. For erection of a structure over the tracks, the following information shall be submitted for review and acceptance by the Engineer, at least thirty (30) days prior to erection:

1. As-built beam seat elevations – field surveyed upon completion of pier/abutment construction.
2. Current Top of Rail (TOR) elevations – field measured at the time of as-built elevation collection.
3. Computations verifying the anticipated minimum vertical clearance in the final condition which accounts for all deflection and camber, based upon the current TOR and as-built beam seat elevations. The anticipated minimum vertical clearance shall be greater than or equal to that which is indicated by the approved plans. Vertical clearance (see definitions) is measured from TOR to the lowest point on the overhead structure at any point within six feet (6’-0”) from centerline of the track. Calculations shall be signed and sealed by a Professional Engineer.

E. Girders or girder systems shall be stable at all times during erection. No crane may unhook prior to stabilizing the beam or girder.

1. Lateral wind forces for the temporary conditions shall be considered in accordance with AREMA, Chapter 8, Section 28.6.2. The minimum lateral wind pressure shall be fifteen pounds per square foot (15 psf).
2. Temporary bracing shall be provided at the piers, abutments, or other locations to resist overturning and/or buckling of the member(s). The agency shall submit a design and details of the proposed temporary bracing system, for review by the Engineer.
3. Temporary bracing shall not be removed until sufficient lateral bracing or diaphragm members have been installed to establish a stable condition. Supporting calculations, furnished by the Professional Engineer, shall confirm the stable condition.

F. Erection procedure submissions shall also include the following information:

1. All hoisting details, as dictated by Section III of this document.
2. A time schedule for each of the various stages must be shown as well as a schedule for the entire lifting procedure. The proposed time frames for all critical subtasks (i.e. performing aerial splices, installing temporary bracing, installation of diaphragm members, etc.) shall be furnished so that the potential impact(s) to CSXT operations may be assessed and eliminated or minimized.
3. The names and experience of the key Contractor personnel involved in the operation shall be included in the Contractor’s means and methods submission.

4. A guardrail will be required to be installed in a track in the proximity of temporary bents or shoring towers, when located within twelve feet (12'-0") from the centerline of the track. The guardrail will be installed by CSXT forces, at the expense of the Agency or its Contractor.
5. Design and supporting calculations prepared by the Professional Engineer for items including the temporary support of components or intermediate stages shall be submitted for review.

VI. TEMPORARY EXCAVATION AND SHORING

A. The Agency or its Contractor shall submit a detailed design and procedure for the installation of a sheeting/shoring system adjacent to the tracks. Shoring protection shall be provided when excavating with Potential to Foul, or as otherwise determined by CSXT. Shoring shall be provided in accordance with the AREMA, except as noted below.

B. Shoring may not be required if all of the following conditions are satisfied:

1. The excavation does not encroach within the Theoretical Live Load Influence Zone. Please refer to Figure 1.
2. The track structure is situated on level ground, or in a cut section, and on stable soil.
3. The excavation does not adversely impact the stability of a CSXT facility (i.e. signal bungalow, drainage facility, under grade bridge, building, etc), or the stability of any structure on, over, or adjacent to CSXT property with potential to foul.
4. Shoring is not required by any governing federal, state, local or other construction code.

C. Shoring is required when excavating the toe of an embankment. Excavation of any embankment which supports an active CSXT track structure without shoring will not be permitted.

D. Trench boxes are not an acceptable means of shoring. Trench boxes are prohibited for use on CSXT property or within the Theoretical Railroad Live Load Influence Zone.

E. Shoring shall be a cofferdam-type, which completely encloses the excavation. However, where justified by site or work conditions, partial cofferdams with open sides away from the track may be permissible, as determined by the Engineer.

F. Cofferdams shall be constructed using interlocking steel sheet piles, or when approved by the Engineer, steel soldier piles with timber lagging. Wales and struts shall be included when dictated by the design.

G. The use of tiebacks can be permissible for temporary shoring systems, when conditions warrant. Tiebacks shall have a minimum clear cover of 6'-0", measured from the bottom of the rail. Upon completion of the work, tiebacks shall be grouted, cut off, and remain in place.

H. All shoring systems on, or adjacent to CSXT right-of-way, shall be equipped with railings or other fall protection, compliant with the governing federal, state or local requirements. Area around pits shall be graded to eliminate all potential tripping hazards.

I. Interlocking steel sheet piles shall be used for shoring systems qualifying one or more of the following conditions:

1. Within 18'-0" of the nearest track centerline
2. Within the live load influence zone
3. Within slopes supporting the track structure
4. As otherwise deemed necessary by the Engineer.

J. Sheet piles qualifying for one or more of the requirements listed in Section VI.I (above) of this document shall not be removed. Sheet piles shall be left in place and cut off a minimum of 3'-0" below the finished grade, the ditch line invert, or as otherwise directed by the Engineer. The ground shall be backfilled and compacted immediately after sheet pile is cut off.

K. The following design considerations shall be considered when preparing the shoring design package:

1. Shoring shall be designed to resist a vertical live load surcharge of 1,880 lbs. per square foot, in addition to active earth pressure. The surcharge shall be assumed to act on a continuous strip, eight feet six inches (8'-6") wide. Lateral pressures due to surcharge shall be computed using the strip load formula shown in AREMA *Manual for Railway Engineering*, Chapter 8, Part 20.
2. Allowable stresses in materials shall be in accordance with AREMA Chapter 7, 8, and 15.3.
3. A minimum horizontal clearance of ten feet (10'-0") from centerline of the track to face of nearest point of shoring shall be maintained, provided a twelve feet (12'-0") roadbed is maintained with a temporary walkway and handrail system.
4. For temporary shoring systems with Potential to Foul, piles shall be plumb under full dead load. Maximum deflection at the top of wall, under full live load, shall be as follows:
    i. ½ inch for walls within twelve feet (12'-0") of track centerline (Measured from centerline of the nearest track to the nearest point of the supporting structure).
    ii. 1 inch for walls located greater than twelve feet (12'-0") from track centerline

L. Shoring work plans shall be submitted in accordance with Section II of this document, as well as the following additional requirements:

1. The work plan shall include detailed drawings of the shoring systems calling out the sizes of all structural members, details of all connections. Both plan and elevation drawings shall be provided, calling out dimensions from the face of shoring relative to the nearest track centerline. The elevation drawing shall also show the height of shoring, and track elevation in relation to bottom of excavation.
2. Full design calculations for the shoring system shall be furnished.
3. A procedure for cutting off the sheet pile, backfilling and restoring the embankment.

VII. TRACK MONITORING

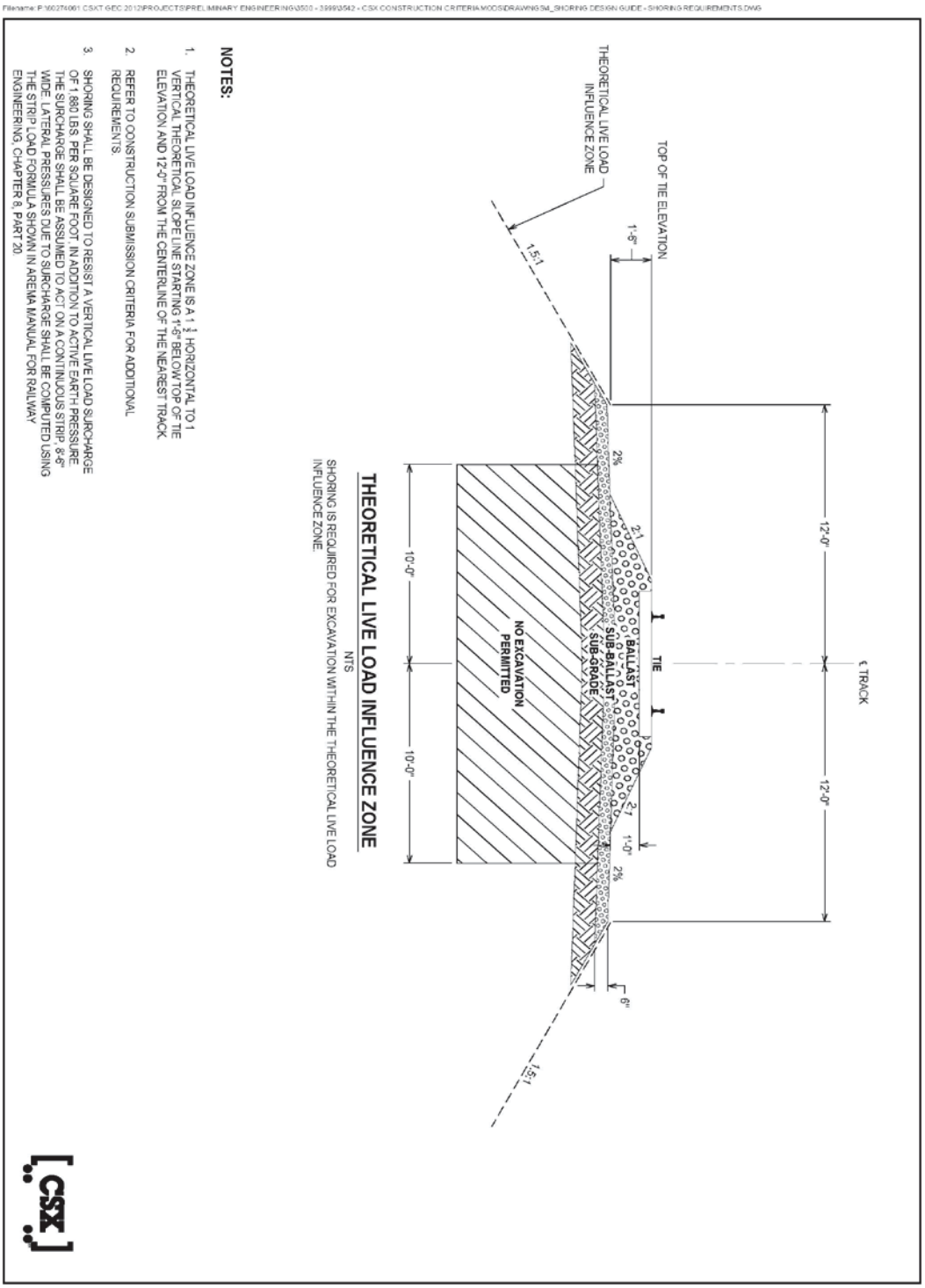
A. When work being performed has the potential to disrupt the track structure, a work plan must be submitted detailing a track monitoring program which will serve to monitor and detect both horizontal and vertical movement of the CSXT track and roadbed.

B. The program shall specify the survey locations, the distance between the location points, and frequency of monitoring before, during, and after construction. CSXT reserves to the right to modify the survey locations and monitoring frequency as necessary during the project.

C. The survey data shall be collected in accordance with the approved frequency and immediately furnished to the Engineer for analysis.

D. If any movement has occurred as determined by the Engineer, CSXT will be immediately notified. CSXT, at its sole discretion, shall have the right to immediately require all contractor operations to be ceased, have the excavated area immediately backfilled and/or determine what corrective action is required. Any corrective action required by CSXT or performed by CSXT including the monitoring of corrective action of the contractor will be at project expense.

Figure 1: Theoretical Live Load Influence Zone



Elizabethtown, Hardin Co., KY
KYTC Project No. FD04 121 86591 01D;
CSXT Milepost: JH-7.0
CSXT OP No.: KY0361

EXHIBIT D

CONTRACTOR'S ACCEPTANCE

To and for the benefit of the ***Company***, ("***Company***") and to induce the ***Company*** to permit Contractor on or about ***Company's*** property for the purposes of performing work in accordance with the Agreement dated _____, 20__, between the Commonwealth of Kentucky Transportation Cabinet, Department of Highways and the ***Company***, Contractor hereby agrees to abide by and perform all applicable terms of the Agreement, including, particularly Exhibits B and C as included herein.

Contractor: _____

By: _____

Name: _____

Title: _____

Date: _____

SPECIAL NOTE FOR CONCRETE PATCHING REPAIR AND BEAM REPAIR

I. DESCRIPTION

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2012 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

This work consists of the following:

(1) Furnish all labor, materials, tools, and equipment
(2) Provide safe access to the bridge substructure (piers) and or superstructure (beams), in accordance with Section 107.01.01, for the Engineer to sound possible repair areas and for workers to complete the construction
(3) Remove the deteriorated concrete
(4) Blast clean and prepare the surfaces for patching
(5) Prime the areas immediately prior to patching
(6) Apply the "Vertical and Overhead Patch" or Class "M" Concrete
(7) Finish the patched surface
(8) Maintain and control traffic
(9) Any other work specified as part of this Contract

II. MATERIALS

A. Vertical and Overhead Patching Material. Conform to Manufacturer's Technical Guidance.
B. Class "M" Concrete. Use either "M1" or "M2". See Section 601.

III. CONSTRUCTION

A. Remove Deteriorated Concrete. Prior to beginning the concrete repairs, provide safe access to the substructure, in accordance with Section 107.01.01, for the Engineer to sound possible repair areas. The Engineer will sound the concrete with a hammer and mark the areas of concrete to be removed and patched. All areas of deteriorated concrete found should be repaired as part of this work. Final payment for "CONCRETE PATCHING REPAIR" will be the field measured quantity of patching completed in accordance with this Note and as designated by the Engineer.

Remove specified areas of deteriorated concrete as directed by the Engineer. The removal of unsound material shall be accomplished with hand tools or pneumatic hammers that do not exceed twenty (20) pounds. Precautions shall be exercised to protect the underlying sound material. Saw, route, or otherwise manipulate the sides of the patch so that the interface between the old concrete and patch area are perpendicular. Remove all deteriorated loose concrete to a minimum depth of 2" for repairs using vertical and overhead patching material and 4" for repairs

SPECIAL NOTE FOR
CONCRETE PATCHING REPAIR AND BEAM REPAIR

using Class "M" Concrete. Also, ensure concrete removal in the patch area extends at least three-quarters (3/4) inch beyond any steel reinforcement more than 50 percent exposed. Dispose of all removed material entirely away from the job site or as directed by the Engineer.

Extreme care shall be taken when removing the existing spalled or delaminated concrete so as not to damage the existing reinforcing steel. Completely clean all existing steel reinforcement encountered free of rust and leave in place. Wire brushing may be required to thoroughly clean exposed steel reinforcement. Repair or replace any damaged steel reinforcement as directed by the Engineer at no additional cost to the Department. Ensure that all exposed steel reinforcement is tied in accordance with Section 602.03.04. The Contractor must consult the Engineer before removing any concrete that is directly below the beam bearings.

B. Prepare Concrete Surfaces for Patching. Prepare concrete surfaces to be patched in accordance with Section 510.03.01. Final blast cleaning shall be completed within twelve (12) hours prior to placement of the epoxy mortar patch. Concrete must be sound, dry, and clean prior to placement of epoxy resin prime coat.

C. Apply Vertical and Overhead Patching Material or Class "M" Concrete. The Engineer shall have the option of designating a spalled or delaminated area to be repaired using high early strength Class "M" Concrete or "Vertical and Overhead Patch" material. Any material used must be approved by the Engineer. Refer to the Transportation Cabinet, Division of Materials' List of Approved Materials for currently approved materials for vertical and overhead patching. Place either the Class "M" Concrete or "Vertical and Overhead Patch" material as approved by the Engineer. Place the epoxy resin primer in accordance with the Standard Specifications and Manufacturer's recommendations. Place the "Vertical and Overhead Patch" material in accordance with the Manufacturer's specifications to restore the deteriorated areas to their original dimensions as directed by the Engineer. Place Class "M" Concrete according to the Standard Specifications.

IV. MEASUREMENT

A. Concrete Patching Repair. The Department will measure the quantity in square feet.

B. Beam Repair. The Department will measure the quantity as each location of beam repairs as shown in the plans.

SPECIAL NOTE FOR
CONCRETE PATCHING REPAIR AND BEAM REPAIR

V. PAYMENT

A. Concrete Patching Repair. Payment at the Contract unit price per square foot is full compensation for removal of deteriorated concrete, preparation of the concrete surface, application of the "Vertical and Overhead Patch" material or Class "M" Concrete, application of the epoxy resin seal coat, and all incidental items necessary to complete the work in accordance with this Note.

B. Beam Repair. Payment at the contract unit price per each is full compensation for removal of deteriorated concrete, preparation of the concrete surface, application of the "Vertical and Overhead Patch" material or Class "M" Concrete, application of the epoxy resin seal coat, and all incidental items necessary to complete the work in accordance with this Note.

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

SPECIAL NOTE FOR ELIMINATING TRANSVERSE JOINTS ON BRIDGES

I. DESCRIPTION

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2012 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

This work consists of the following:

(1) Furnish all labor, materials, tools, and equipment
(2) Remove existing concrete to eliminate the transverse joint
(3) Install additional steel reinforcement, new armored edge and new concrete as specified and in accordance with the attached detail drawings
(4) Maintain and control traffic
(5) Any other work specified as part of this Contract.

II. MATERIALS

A. Class "M" Concrete. Use either "M1" or "M2". See Section 601.
B. Steel Reinforcement - Epoxy Coated. Use Grade 60. See Section 602.
C. Epoxy Bond Coat. See Section 511.

III. CONSTRUCTION

A. Remove Existing Materials. Remove the existing transverse joints, joint filler, and specified areas of concrete as shown on the attached detail drawings or as directed by the Engineer. When deteriorated concrete adjacent to the limits of removal is encountered, extend the removal area as directed by the Engineer. Dispose of all removed material entirely away from the job site. This work is incidental to the contract unit price for "Eliminate Transverse Joint".

Clean and leave all existing steel reinforcement encountered in place. Damaged steel reinforcement will be repaired/replaced as directed by the Engineer at no additional cost to the Department.

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

Blast clean all areas of existing concrete and structural steel to come in contact with new concrete until free of all laitance and deleterious substances immediately prior to the placement of the new concrete. The surface areas of existing concrete to come in contact with the new concrete are to be coated

SPECIAL NOTE FOR
ELIMINATING TRANSVERSE JOINTS ON BRIDGES

with an epoxy bond coat immediately prior to placing new concrete in accordance with Section 511. The interfaces of the new and old concrete shall be as nearly vertical and horizontal as possible.

C. Steel Reinforcement. Furnish for this work steel reinforcement as shown in the attached detail drawings. Splice these bars to the existing reinforcement in the deck and backwall in the areas of removed concrete as shown on the attached detail drawings or directed by the Engineer. Ensure that all exposed steel reinforcement is tied in accordance with Section 602.03.04 prior to pouring the new concrete. Reinforcement, bar splices and mechanical connectors are incidental to the contract unit price for "Eliminate Transverse Joint".

D. Shop Plans. Shop Plans will not be required. The Contractor is responsible for obtaining field measurements and supplying properly sized materials to complete the work.

IV. MEASUREMENT

A. Eliminate Transverse Joint. The Department will measure the quantity in linear feet from gutterline to gutterline along the centerline of the joint. All work shown on the "Elimination Transverse Joint" detail drawings that is outside of the pay limits shall be incidental to the bid item.

V. PAYMENT

A. Eliminate Transverse Joint. Payment at the Contract unit price per linear foot is full compensation for removing and disposing of the specified existing materials; furnishing and installing the concrete, steel reinforcement and armored edge; and all incidental items necessary to complete the work within the specified pay limits as specified by this note and as shown on the attached detail drawings.

The Department will consider payment as full compensation for all work required by this note and the attached detail drawings.

SPECIAL NOTE FOR
REMOVE AND RECONSTRUCT WING WALL AND BARRIER

I. DESCRIPTION

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2012 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

This work consists of the following:

(1) Furnish all labor, materials, tools, and equipment
(2) Remove and reset guardrail
(3) Excavate and backfill soil
(4) Remove specified portions of existing bridge wing walls, barrier walls, brush blocks, etc.
(5) Install additional steel reinforcement and new concrete as specified and in accordance with the attached detail drawings
(6) Paint exposed existing reinforcement and masonry coat all new concrete
(7) Maintain and control traffic
(8) Any other work specified as part of this Contract

II. MATERIALS

A. Class "AA" Concrete. See Section 601.
B. Steel Reinforcement-Epoxy Coated. Use Grade 60. See Section 602.
C. Masonry Coating. See Section 601.

III. CONSTRUCTION

A. Remove and Reset Guardrail. Remove the guardrails as indicated on the detail drawings prior to performing work on the wing wall, barrier wall etc. After the completion of all necessary work, reset the guardrail back to its original location, or as indicated on the detail drawings. Payment for this work is incidental to the pay item "Remove and Reset Guardrail".

B. Excavate and Backfill. Excavate the soil surrounding the wing walls as is necessary to perform all work indicated in the detail drawings. Backfill the soil after the completion of all necessary work. Payment for this work is incidental to the pay item "Excavate and Backfill".

C. Remove Existing Materials. Remove the existing wing walls to the limits shown on the detail drawings and as directed by the Engineer including the existing wing walls, barrier walls, brush blocks, etc. Dispose of all removed material entirely away from the job site. Payment for this work is incidental to the pay item "Concrete-Class AA".

SPECIAL NOTE FOR
REMOVE AND RECONSTRUCT WING WALL AND BARRIER

D. Concrete Sawing. Existing wing wall and barrier wall parapet sections shall be carefully removed to lines designated on detail drawings by using diamond saw blades or an approved equivalent. The surfaces presented as a result of this removal shall be reasonably true and even with sharp straight corners. Sawing shall be dust free and without vibration. Payment for this work is incidental to the pay item "Concrete-Class AA".

E. Steel Reinforcement. All steel reinforcement shall be epoxy-coated in accordance with Section 811.10. Install the steel reinforcement in accordance with Section 602 and as directed by the Engineer. In the attached detail drawings, dimensions shown from face of concrete to bars are clear distances unless otherwise shown. Spacing of bars is from center to center of bars. Payment for steel reinforcement will be under the pay item "Steel Reinforcement-Epoxy Coated".

F. Place New Concrete. Blast clean all areas of existing concrete and structural steel to come in contact with new concrete until free of all laitance and deleterious substances immediately prior to the placement of the Class "AA" Concrete. The surface areas of existing concrete to come in contact with the new Class "AA" Concrete are to be coated with an epoxy bond coat immediately prior to placing new concrete in accordance with Section 511. This work is incidental to the pay item "Concrete-Class AA".

G. Masonry Coating. A masonry coating shall be applied to all new concrete surfaces; existing concrete surfaces that have been sawcut; and to front, top, and end faces of existing wing walls. Payment for this work is incidental to the pay item "Concrete-Class AA".

H. Exposed Reinforcing Bars (Final). The existing reinforcing steel exposed by sawcutting shall be painted a color that is compatible with the sawed concrete face. The paint shall be a heavy duty epoxy with epoxy/polyamide resin. This work should be completed as soon as practicable to reduce rusting and streaking. Payment for this work is incidental to pay item "Steel Reinforcement-Epoxy Coated".

I. Electrical Conduit. The Contractor shall determine if electrical conduit is in the brush blocks and/or plinths of the barrier walls. If so, the Contractor shall determine if live electricity is in the conduit before removing any portions of the barrier walls. If conduit is present, the Contractor shall replace the portion within the limits of the barrier repair. Payment for this work is incidental to pay item "Concrete-Class AA".

IV. MEASUREMENT

A. Remove and Reset Guardrail. The Department will measure the quantity in linear feet.

SPECIAL NOTE FOR
REMOVE AND RECONSTRUCT WING WALL AND BARRIER

B. Excavate and Backfill. The Department will measure the quantity in cubic yards.

C. Class "AA" Concrete. The Department will measure the quantity in cubic yards.

D. Steel Reinforcement-Epoxy Coated. The Department will measure the quantity in pounds.

V. PAYMENT

A. Remove and Reset Guardrail. The Department will make payment for this item of work under Bid Item #2383 "REMOVE AND REST GUARDRAIL" for the quantity per linear foot.

B. Excavate and Backfill. The Department will make payment for this item of work under Bid Item #3235 "EXCAVATE AD BACKFILL" for the quantity per cubic yard.

C. Class "AA" Concrete. The Department will make payment for this item of work under Bid Item #8104 "CONCRETE-CLASS AA" for the quantity per cubic yard.

D. Steel Reinforcement. The Department will make payment for this item of work under Bid Item #8151 "STEEL REINFORCEMENT-EPOXY COATED" for the quantity per pound.

The Department will consider payment as full compensation for all work required by this note and the detail drawings.

SPECIAL NOTE FOR REPLACING EXPANSION DAMS AND/OR INSTALLING ARMORED EDGES FOR CONCRETE BRIDGES

I. DESCRIPTION

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2012 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

This work consists of the following:

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

II. MATERIALS

A. Class "M" Concrete. Use either "M1" or "M2". See Section 601.

B. Structural Steel. Use new, commercial grade steel suitable for welding. The Engineer will base acceptance on visual inspection. See Standard Drawing BJE-001, current edition, for armored edges. See Manufacturer's specifications for "Armored Edges on Strip Seal Expansion Dams".

C. Stud Anchors. The armored edge stud anchors are ¾" x 6" embedded stud shear connectors conforming to ASTM A108, Grade 1015 (Nelson Studs or equal).

D. Steel Reinforcement - Epoxy Coated. Use Grade 60. See Section 602.

E. Epoxy Bond Coat. See Section 511.

F. Pre-Compressed Horizontal Expansion Joint System. It shall have a cellular or micro-cell, polyurethane foam impregnated with hydrophobic acrylic emulsion, or a hydrophobic polymer. The polyurethane foam external facing shall be factory coated and cured with highway-grade, fuel resistant silicone or a highway-grade elastomeric coating at a width greater than the maximum joint expansion.

III. EQUIPMENT

A. Hammers. See Section 606.02.10 B.

B. Sawing Equipment. See Section 606.02.10 C.

C. Hydraulic Impact Equipment. See Section 606.02.10 D.

IV. CONSTRUCTION

A. Remove Existing Materials. Remove the existing expansion dam/bridge end and specified areas of concrete as shown on the attached sketches.

SPECIAL NOTE FOR REPLACING EXPANSION DAMS AND/OR INSTALLING ARMORED EDGES FOR CONCRETE BRIDGES

Remove debris and/or expansion joint filler as directed by the Engineer. When deteriorated concrete adjacent to the limits of removal is encountered, extend the removal area as directed by the Engineer. Dispose of all removed material entirely away from the job site. Clean and leave all existing steel reinforcement encountered in place. Damaged steel reinforcement will be repaired/replaced as directed by the Engineer at no additional cost to the Department. This work is incidental to the Contract unit price for "Expansion Joint Replacement" or "Armored Edge for Concrete".

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

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

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

C. Additional Steel Reinforcement. Furnish for this work, as directed by the Engineer, steel reinforcement as shown in the attached detail drawings. Splice these bars to the existing reinforcement in the deck in the areas of removed concrete as shown in the attached detail drawings or as directed by the Engineer. Ensure that all exposed steel reinforcement is tied in accordance with Section 602.03.04 prior to pouring the new Class "M" Concrete. Field cutting and bending is permitted. Do <u>not</u> place any additional steel reinforcement above the height of the top row of Nelson studs on the armored edges.

Reinforcement, bar splices, and mechanical connectors are incidental to the Contract unit price for "Expansion Joint Replacement" or "Replace Armored Edge".

SPECIAL NOTE FOR REPLACING EXPANSION DAMS AND/OR INSTALLING ARMORED EDGES FOR CONCRETE BRIDGES

D. Stage Construction. Install concrete and armored edges in two (or more if specified) stages as necessary. Join the armored edges at or near the centerline of the roadway or lane line, field weld, and grind smooth.

E. Pre-Compressed Horizontal Expansion Joint System. System shall be supplied in pre-compressed sticks for easy installation. System shall be installed in accordance with Manufacturer's recommendations concerning approved adhesives, welds between sticks and appurtenances, and adhesion to concrete deck or armored edges. Joint seal is to be installed ¾" recessed from the surface.

F. Shop Plans. Shop Plans will not be required. The Contractor is responsible for obtaining field measurements and supplying properly sized materials to complete the work.

V. MEASUREMENT

A. Expansion Joint Replacement – 1½", 2" and 2½". The Department will measure the quantity in linear feet from gutterline to gutterline along the centerline of the joint.

B. Longitudinal Joint Replacement –¾". The Department will measure the quantity in linear feet from abutment to abutment along the centerline of the joint.

C. Armored Edge for Concrete. The Department will measure the quantity in linear feet from gutterline to gutterline along the face of the bridge end.

VI. PAYMENT

A. Expansion Joint Replacement – 1½", 2" and 2½". Payment at the Contract unit price per linear foot is full compensation for removing specified existing materials, furnishing and installing the new armored edges, concrete, reinforcement, precompressed joint seal, and all incidental items necessary to complete the work as specified by this note and as shown on the attached detail drawings.

B. Longitudinal Joint Replacement – ¾". Payment at the Contract unit price per linear foot is full compensation for removing specified existing materials, furnishing and installing the new armored edges, concrete, reinforcement, precompressed joint seal, and all incidental items necessary to complete the work as specified by this note and as shown on the attached detail drawings.

C. Armored Edge for Concrete. Payment at the Contract unit price per linear foot is full compensation for removing specified existing materials, furnishing and installing the new armored edges, concrete, reinforcement,

SPECIAL NOTE FOR REPLACING EXPANSION DAMS AND/OR INSTALLING ARMORED EDGES FOR CONCRETE BRIDGES

and all incidental items necessary to complete work as specified by this note and as shown on the attached detail drawings.

D. Steel Reinforcement. See Section 602.

The Department will consider payment as full compensation for all work required by this note and the attached detail drawings.

I-65 Ramp over US-31W (047B00124N)

(MP 91.427)

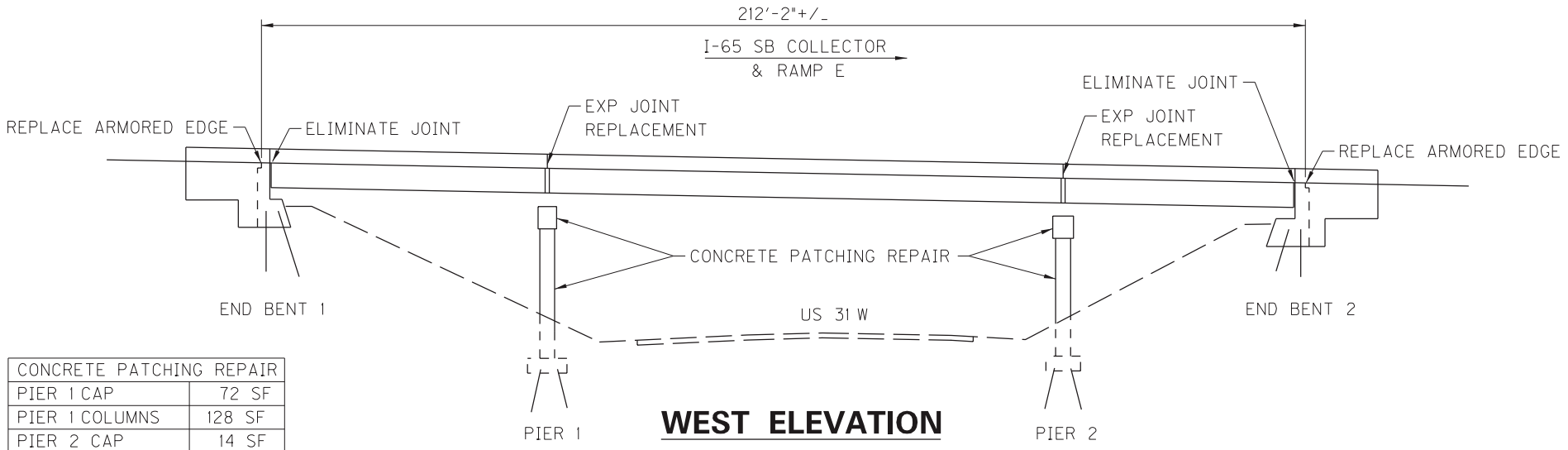
SUMMARY OF QUANTITIES			
ITEM CODE	**DESCRIPTION**	**QUANTITY**	**UNIT**
3295	EXPAN JOINT REPLACE 2 IN	77	LF
3299	ARMORED EDGE FOR CONCRETE	76	LF
3300	ELIMINATE TRANSVERSE JOINT	76	LF
8151	STEEL REINFORCEMENT-EPOXY COATED	45	LB
8504	EPOXY SAND SLURRY	58	SY
8526	CLASS M CONCRETE FOR FULL DEPTH PATCHING	0.2	CY
8534	CONCRETE OVERLAY-LATEX	29.8	CY
8549	BLAST CLEANING	716	SY
8551	MACHINE PREPARATION OF SLAB	716	SY
22146EN	CONCRETE PATCHING REPAIR	255	SF
24094EC	PARTIAL DEPTH PATCHING	2.2	CY

NOTE: EXPANSION JOINT REPLACEMENT SIZE BASED ON WIDTH SHOWN ON EXISTING PLANS.

NOTE: STEEL REINFORCEMENT-EPOXY COATED QUANTITY BASED 100% REPLACEMENT OF THE STEEL WITHIN THE FULL DEPTH PATCHING AREA.

NOTE: PARTIAL DEPTH AND FULL DEPTH PATCHING QUANTITIES ARE BASED ON APPROXIMATE ESTIMATES OF 2% AND 0.1% OF THE OVERALL OVERLAY AREA, RESPECTIVELY.

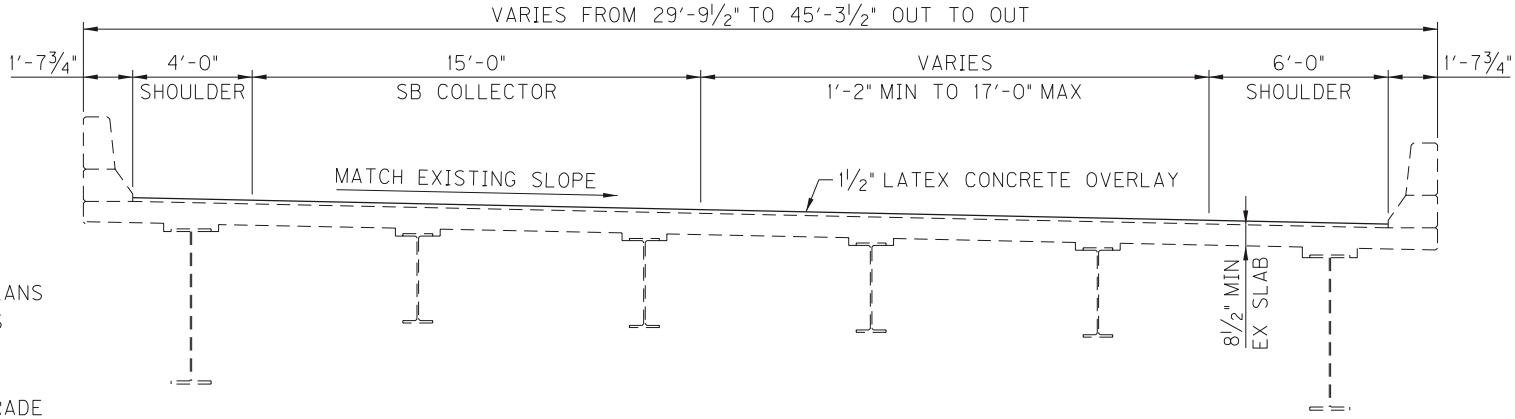
NOTE: CONCRETE PATCHING BASED ON VISUAL INSPECTION BY KYTC-DISTRICT 4 + 35%.



WEST ELEVATION

CONCRETE PATCHING REPAIR	
PIER 1 CAP	72 SF
PIER 1 COLUMNS	128 SF
PIER 2 CAP	14 SF
PIER 2 COLUMNS	41 SF

ACTUAL QUANTITIES MAY VARY



TYPICAL DECK SECTION

SPAN 3 SUPERSTRUCTURE SHOWN

NOTES:
DETAILS SHOWN ARE BASED ON EXISTING PLANS (DWG NO 20463). FEATURES AND DIMENSIONS SHOWN ARE APPROXIMATE.

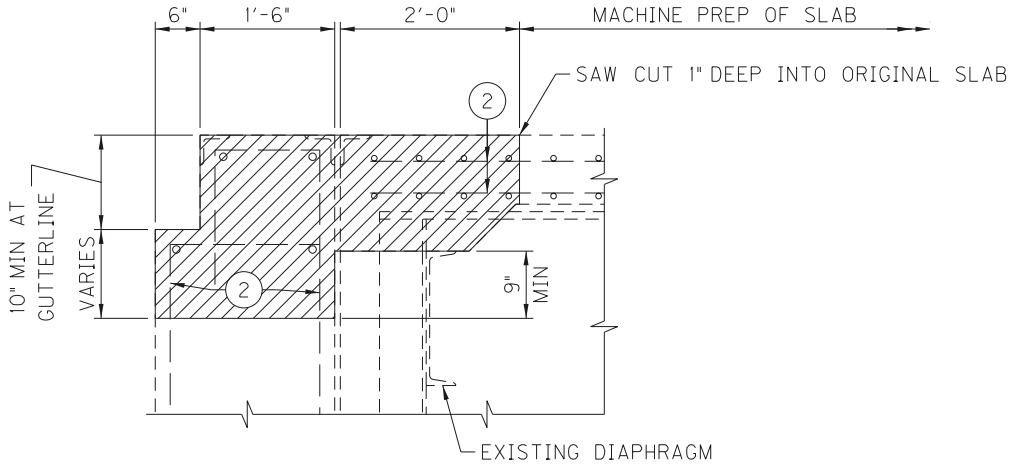
CONTRACTOR SHALL VERIFY THE PROFILE GRADE LOCATION AND CROSS-SLOPES WITH THE EXISTING BRIDGE PLANS AND ROADWAY PAVEMENT REHABILITATION PLANS.

BRIDGE 047B00124N SHEET 1 OF 4

Stantec

ELEVATION AND TYPICAL DECK SECTION

COUNTY:	HARDIN
ROUTE:	I-65 (SOUTHBOUND COLLECTOR)
CROSSING:	US 31W



EXISTING SECTION AT END BENTS

(SHOWING LIMITS OF REMOVAL)

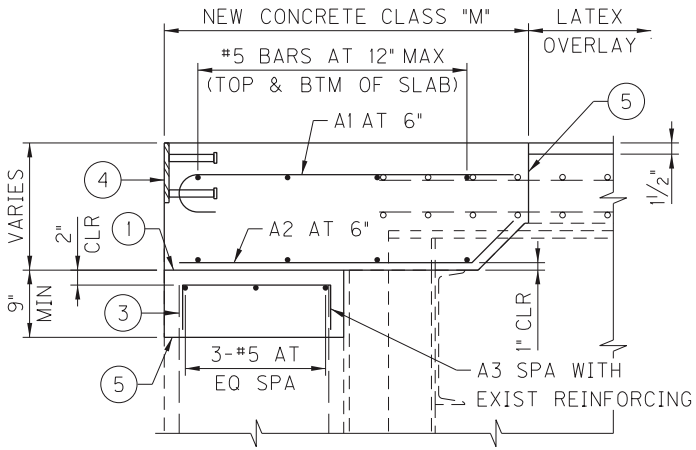
NOTES:
REMOVE HATCHED AREA OF CONCRETE, EXPANSION DEVICE AND ARMORED EDGE. CLEAN AND REUSE EXISTING REINFORCEMENT. THE CONTRACTOR HAS THE OPTION TO REUSE OR REPLACE THE TRANSVERSE REINFORCEMENT.

FOR BONDING NEW CONCRETE TO EXISTING SURFACES, SEE SECTION 511 OF THE STANDARD SPECIFICATIONS.

ROUGHEN EXISTING CONCRETE WHEN IN CONTACT WITH NEW CONCRETE.

THIS WORK, INCLUDING ALL LABOR, TOOLS AND MATERIAL, IS TO BE INCLUDED IN THE BID ITEM 3300 "ELIMINATE TRANSVERSE JOINT".

SEE SHEET 4 OF 4 FOR BAR BEND DIMENSIONS



PROPOSED SECTION AT END BENTS

NOTATIONS:

(1) BOND BREAKER (1 LAYER OF 30# ROOFING PAPER)

(2) CLEAN AND STRAIGHTEN EXISTING EMBEDDED REINFORCEMENT

(3) CUT/REMOVE EXISTING REINFORCEMENT TO MAINTAIN 2" CLEARANCE

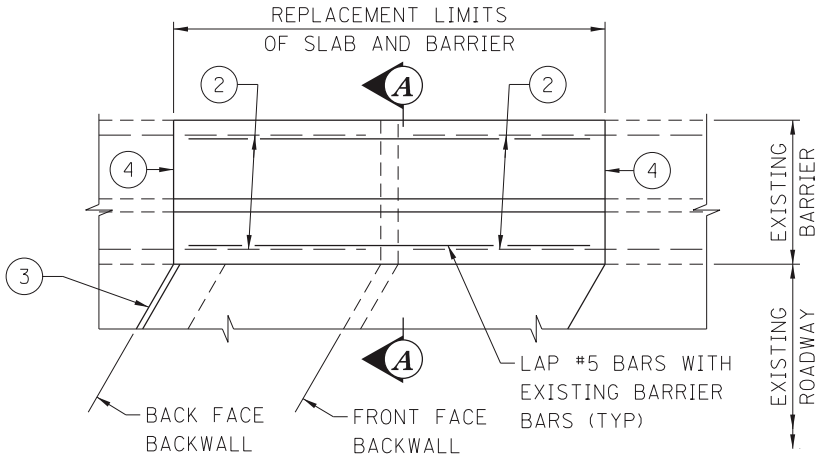
(4) ARMORED EDGE, SEE STD DWG BJE-001-13

(5) BONDED CONSTRUCTION JOINT

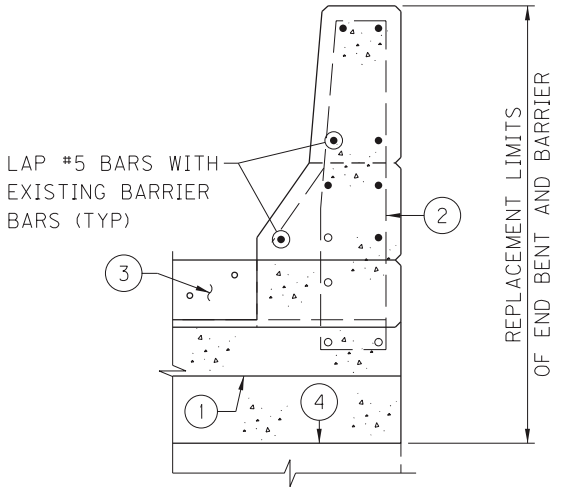
Stantec

JOINT ELIMINATION DETAILS - END BENTS

COUNTY:	HARDIN
ROUTE:	I-65 (SOUTHBOUND COLLECTOR)
CROSSING:	US 31W



PROPOSED PLAN AT BARRIER



SECTION A–A

NOTE:
SEE JOINT ELIMINATION DETAILS, SHEET 2 OF 4, FOR REINFORCEMENT AND DIMENSIONS NOT SHOWN.

NOTES:
REMOVE HATCHED AREA OF CONCRETE, EXPANSION DEVICE AND ARMORED EDGE. CLEAN AND REUSE EXISTING REINFORCEMENT. THE CONTRACTOR HAS THE OPTION TO REUSE OR REPLACE THE TRANSVERSE REINFORCEMENT.

FOR BONDING NEW CONCRETE TO EXISTING SURFACES, SEE SECTION 511 OF THE STANDARD SPECIFICATIONS.

ROUGHEN EXISTING CONCRETE WHEN IN CONTACT WITH NEW CONCRETE.

THIS WORK, INCLUDING ALL LABOR, TOOLS AND MATERIAL, IS TO BE INCLUDED IN THE BID ITEM 3300 "ELIMINATE TRANSVERSE JOINT".

NOTATIONS:

(1) BOND BREAKER (1 LAYER OF 30# ROOFING PAPER)

(2) CLEAN AND STRAIGHTEN EXISTING EMBEDDED REINFORCEMENT

(3) ARMORED EDGE, SEE STD DWG BJE-001-13, (BETWEEN GUTTERLINES ONLY)

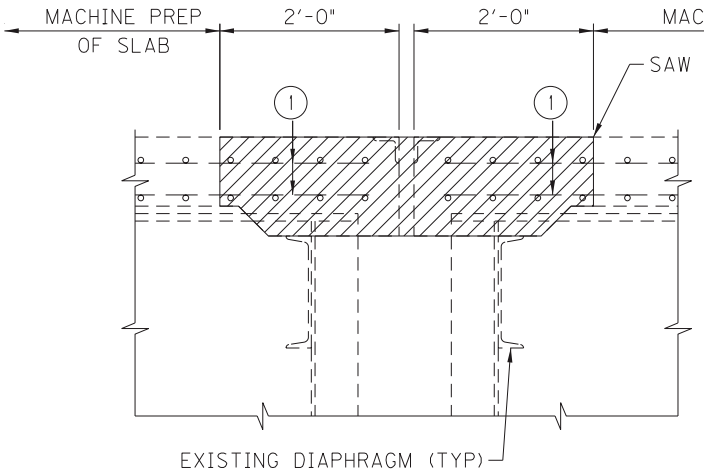
(4) BONDED CONSTRUCTION JOINT

BRIDGE 047B00124N SHEET 3 OF 4

Stantec

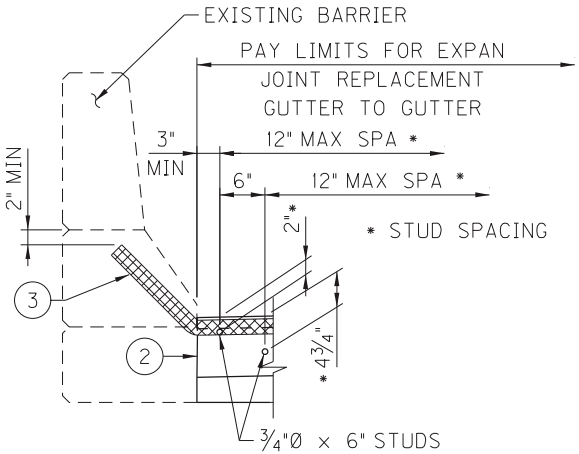
JOINT ELIMINATION DETAILS - END BENT BARRIERS

COUNTY:	HARDIN
ROUTE:	I-65 (SOUTHBOUND COLLECTOR)
CROSSING:	US 31W

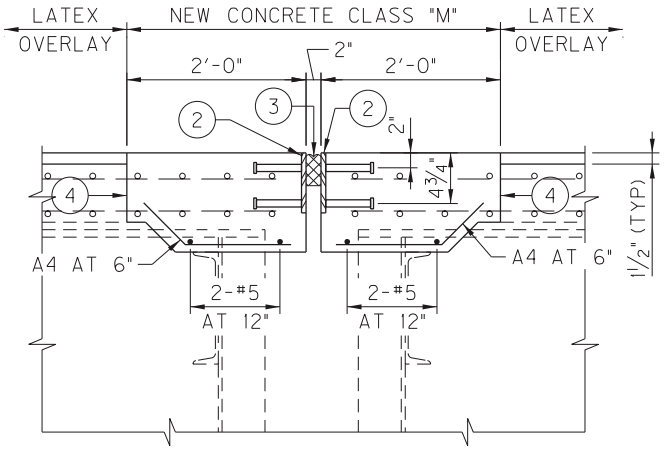


EXISTING SECTION AT PIERS

(SHOWING LIMITS OF REMOVAL)



PROPOSED SECTION THRU JOINT AT BARRIER



PROPOSED SECTION AT PIERS

NOTATIONS:

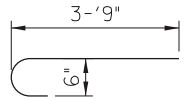
1. CLEAN AND STRAIGHTEN EXISTING EMBEDDED REINFORCEMENT
2. PL ⅝" x 8" WITH ¾"Ø x 6" STUDS
3. 2" PRECOMPRESSED, SILICONE-AND-FOAM HYBRID JOINT SYSTEM. INSTALL ¾" FROM TOP OF DECK.
4. BONDED CONSTRUCTION JOINT

NOTES:
REMOVE HATCHED AREA OF CONCRETE, EXPANSION DEVICE AND ARMORED EDGE. CLEAN AND REUSE EXISTING REINFORCEMENT. THE CONTRACTOR HAS THE OPTION TO REUSE OR REPLACE THE TRANSVERSE REINFORCEMENT.

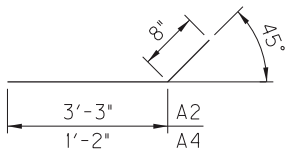
FOR BONDING NEW CONCRETE TO EXISTING SURFACES, SEE SECTION 511 OF THE STANDARD SPECIFICATIONS.

ROUGHEN EXISTING CONCRETE WHEN IN CONTACT WITH NEW CONCRETE.

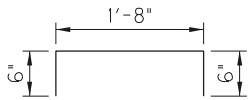
THIS WORK, INCLUDING ALL LABOR, TOOLS AND MATERIAL, IS TO BE INCLUDED IN THE BID ITEM 3295 "EXPAN JOINT REPLACE 2 IN"



A1 - #6 BAR



A2 & A4 - #6 BAR



A3- #5 BAR

BRIDGE 047B00124N SHEET 4 OF 4

Stantec

JOINT REPLACEMENT DETAILS - PIERS 1 & 2

COUNTY:	HARDIN
ROUTE:	I-65 (SOUTHBOUND COLLECTOR)
CROSSING:	US 31W

I-65 (SB) over US-31W (047B00132L)

(MP 91.427)

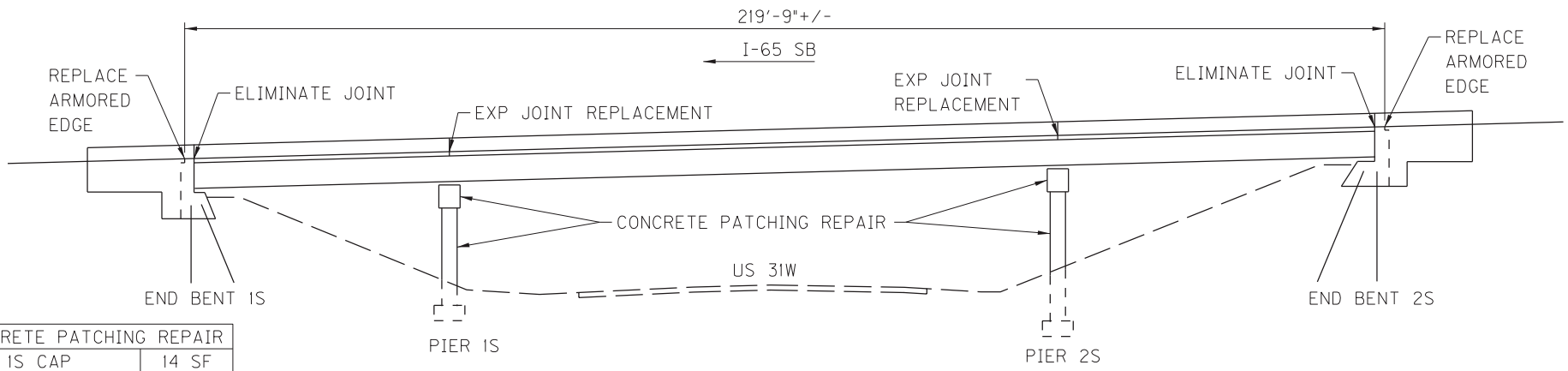
SUMMARY OF QUANTITIES			
ITEM CODE	**DESCRIPTION**	**QUANTITY**	**UNIT**
3295	EXPAN JOINT REPLACE 2 IN	130	LF
3299	ARMORED EDGE FOR CONCRETE	130	LF
3300	ELIMINATE TRANSVERSE JOINT	130	LF
8151	STEEL REINFORCEMENT-EPOXY COATED	65	LB
8504	EPOXY SAND SLURRY	65	SY
8526	CLASS M CONCRETE FOR FULL DEPTH PATCHING	0.3	CY
8534	CONCRETE OVERLAY-LATEX	52.5	CY
8549	BLAST CLEANING	1260	SY
8551	MACHINE PREPARATION OF SLAB	1260	SY
22146EN	CONCRETE PATCHING REPAIR	145	SF
24094EC	PARTIAL DEPTH PATCHING	3.9	CY

NOTE: EXPANSION JOINT REPLACEMENT SIZE BASED ON WIDTH SHOWN ON EXISTING PLANS.

NOTE: STEEL REINFORCEMENT-EPOXY COATED QUANTITY BASED 100% REPLACEMENT OF THE STEEL WITHIN THE FULL DEPTH PATCHING AREA.

NOTE: PARTIAL DEPTH AND FULL DEPTH PATCHING QUANTITIES ARE BASED ON APPROXIMATE ESTIMATES OF 2% AND 0.1% OF THE OVERALL OVERLAY AREA, RESPECTIVELY.

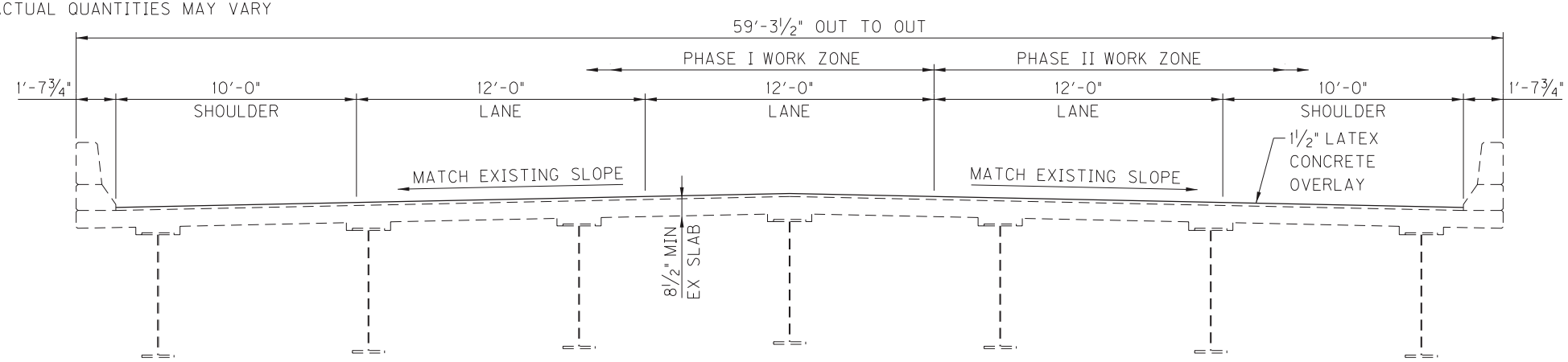
NOTE: CONCRETE PATCHING BASED ON VISUAL INSPECTION BY KYTC-DISTRICT 4 + 35%.



ELEVATION

CONCRETE PATCHING REPAIR	
PIER 1S CAP	14 SF
PIER 1S COLUMNS	-
PIER 2S CAP	21 SF
PIER 2S COLUMNS	110 SF

ACTUAL QUANTITIES MAY VARY



TYPICAL DECK SECTION

LOOKING NORTH

NOTES:
DETAILS SHOWN ARE BASED ON EXISTING PLANS (DWG NO 20427).
FEATURES AND DIMENSIONS SHOWN ARE APPROXIMATE.

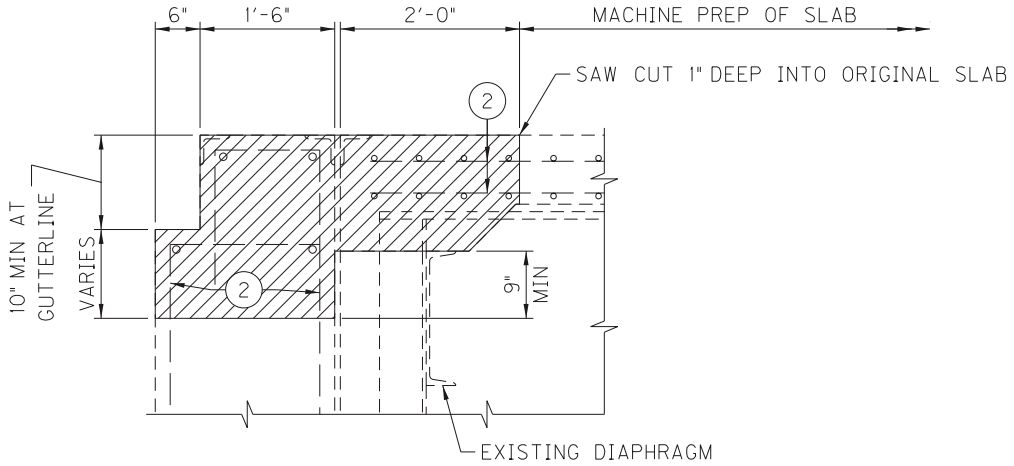
CONTRACTOR SHALL VERIFY THE PROFILE GRADE LOCATION AND CROSS-SLOPES WITH THE EXISTING BRIDGE PLANS AND ROADWAY PAVEMENT REHABILITATION PLANS.

BRIDGE 047B00132L SHEET 1 OF 4

Stantec

ELEVATION AND TYPICAL DECK SECTION

COUNTY: HARDIN
ROUTE: I-65 SOUTHBOUND
CROSSING: US 31W



EXISTING SECTION AT END BENTS

(SHOWING LIMITS OF REMOVAL)

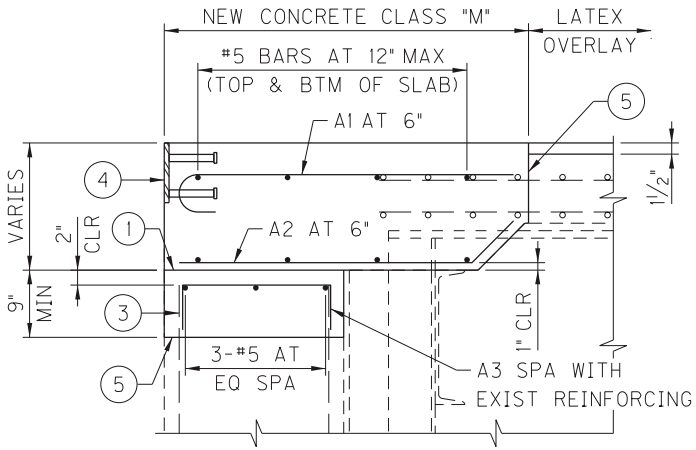
NOTES:
REMOVE HATCHED AREA OF CONCRETE, EXPANSION DEVICE AND ARMORED EDGE. CLEAN AND REUSE EXISTING REINFORCEMENT. THE CONTRACTOR HAS THE OPTION TO REUSE OR REPLACE THE TRANSVERSE REINFORCEMENT.

FOR BONDING NEW CONCRETE TO EXISTING SURFACES, SEE SECTION 511 OF THE STANDARD SPECIFICATIONS.

ROUGHEN EXISTING CONCRETE WHEN IN CONTACT WITH NEW CONCRETE.

THIS WORK, INCLUDING ALL LABOR, TOOLS AND MATERIAL, IS TO BE INCLUDED IN THE BID ITEM 3300 "ELIMINATE TRANSVERSE JOINT".

SEE SHEET 4 OF 4 FOR BAR BEND DIMENSIONS.



PROPOSED SECTION AT END BENTS

NOTATIONS:

(1) BOND BREAKER (1 LAYER OF 30# ROOFING PAPER)

(2) CLEAN AND STRAIGHTEN EXISTING EMBEDDED REINFORCEMENT

(3) CUT/REMOVE EXISTING REINFORCEMENT TO MAINTAIN 2" CLEARANCE

(4) ARMORED EDGE, SEE STD DWG BJE-001-13

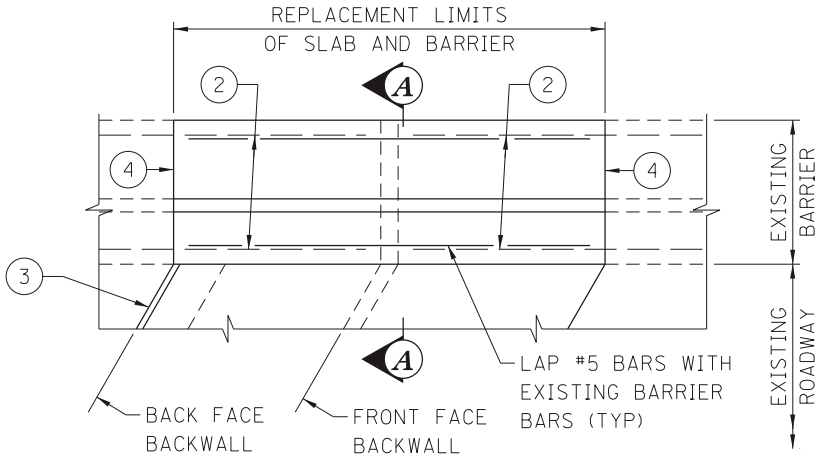
(5) BONDED CONSTRUCTION JOINT

BRIDGE 047B00132L SHEET 2 OF 4

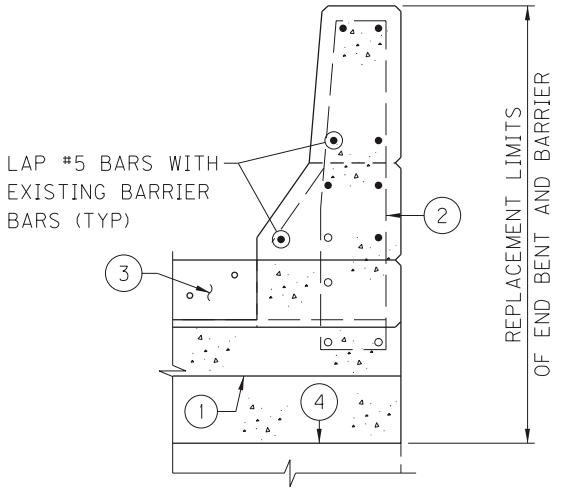
Stantec

JOINT ELIMINATION DETAILS - END BENTS

COUNTY:	HARDIN
ROUTE:	I-65 SOUTHBOUND
CROSSING:	US 31W



PROPOSED PLAN AT BARRIER



SECTION A–A

NOTE:
SEE JOINT ELIMINATION DETAILS, SHEET 2 OF 4, FOR REINFORCEMENT AND DIMENSIONS NOT SHOWN.

NOTES:
REMOVE HATCHED AREA OF CONCRETE, EXPANSION DEVICE AND ARMORED EDGE. CLEAN AND REUSE EXISTING REINFORCEMENT. THE CONTRACTOR HAS THE OPTION TO REUSE OR REPLACE THE TRANSVERSE REINFORCEMENT.

FOR BONDING NEW CONCRETE TO EXISTING SURFACES, SEE SECTION 511 OF THE STANDARD SPECIFICATIONS.

ROUGHEN EXISTING CONCRETE WHEN IN CONTACT WITH NEW CONCRETE.

THIS WORK, INCLUDING ALL LABOR, TOOLS AND MATERIAL, IS TO BE INCLUDED IN THE BID ITEM 3300 "ELIMINATE TRANSVERSE JOINT".

NOTATIONS:

(1) BOND BREAKER (1 LAYER OF 30# ROOFING PAPER)

(2) CLEAN AND STRAIGHTEN EXISTING EMBEDDED REINFORCEMENT

(3) ARMORED EDGE, SEE STD DWG BJE-001-13, (BETWEEN GUTTERLINES ONLY)

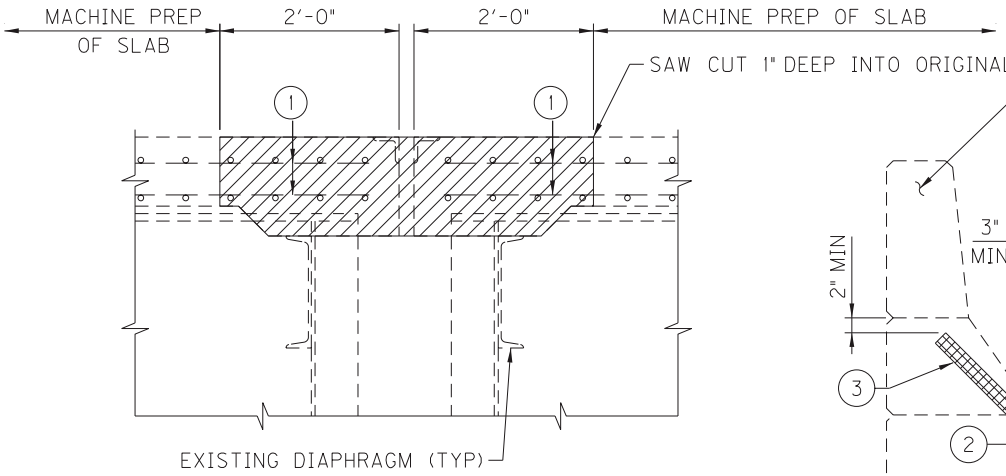
(4) BONDED CONSTRUCTION JOINT

BRIDGE 047B00132L SHEET 3 OF 4

Stantec

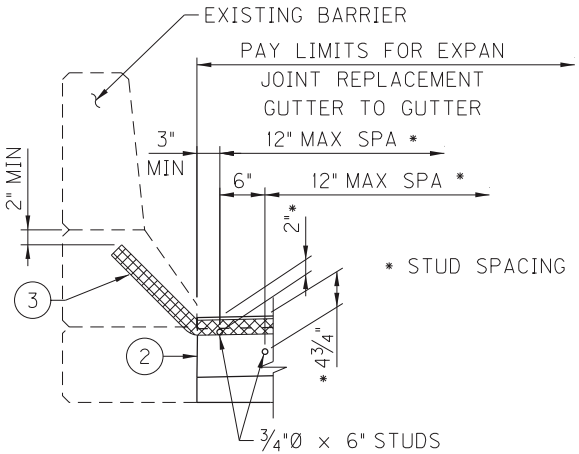
JOINT ELIMINATION DETAILS - END BENT BARRIERS

COUNTY:	HARDIN
ROUTE:	I-65 SOUTHBOUND
CROSSING:	US 31W



EXISTING SECTION AT PIERS

(SHOWING LIMITS OF REMOVAL)



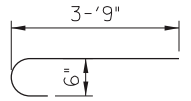
PROPOSED SECTION THRU JOINT AT BARRIER

NOTES:
REMOVE HATCHED AREA OF CONCRETE, EXPANSION DEVICE AND ARMORED EDGE. CLEAN AND REUSE EXISTING REINFORCEMENT. THE CONTRACTOR HAS THE OPTION TO REUSE OR REPLACE THE TRANSVERSE REINFORCEMENT.

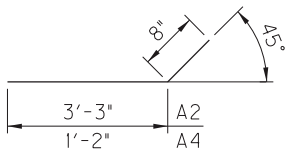
FOR BONDING NEW CONCRETE TO EXISTING SURFACES, SEE SECTION 511 OF THE STANDARD SPECIFICATIONS.

ROUGHEN EXISTING CONCRETE WHEN IN CONTACT WITH NEW CONCRETE.

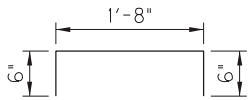
THIS WORK, INCLUDING ALL LABOR, TOOLS AND MATERIAL, IS TO BE INCLUDED IN THE BID ITEM 3295 "EXPAN JOINT REPLACE 2 IN"



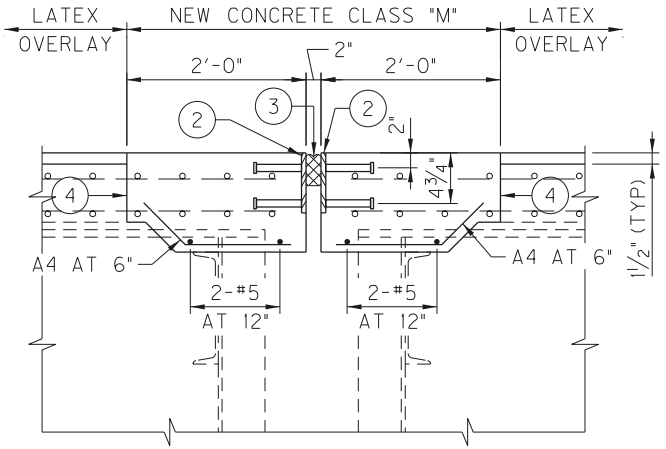
A1 - #6 BAR



A2 & A4 - #6 BAR



A3- #5 BAR



PROPOSED SECTION AT PIERS

NOTATIONS:

1. CLEAN AND STRAIGHTEN EXISTING EMBEDDED REINFORCEMENT
2. PL ⅝" x 8" WITH ¾"Ø x 6" STUDS
3. 2" PRECOMPRESSED, SILICONE-AND-FOAM HYBRID JOINT SYSTEM. INSTALL ¾" FROM TOP OF DECK.
4. BONDED CONSTRUCTION JOINT

BRIDGE 047B00132L SHEET 4 OF 4

Stantec

JOINT REPLACEMENT DETAILS - PIERS 1S & 2S

COUNTY:	HARDIN
ROUTE:	I-65 SOUTHBOUND
CROSSING:	US 31W

I-65 (NB) over US-31W (047B00126R)

(MP 91.427)

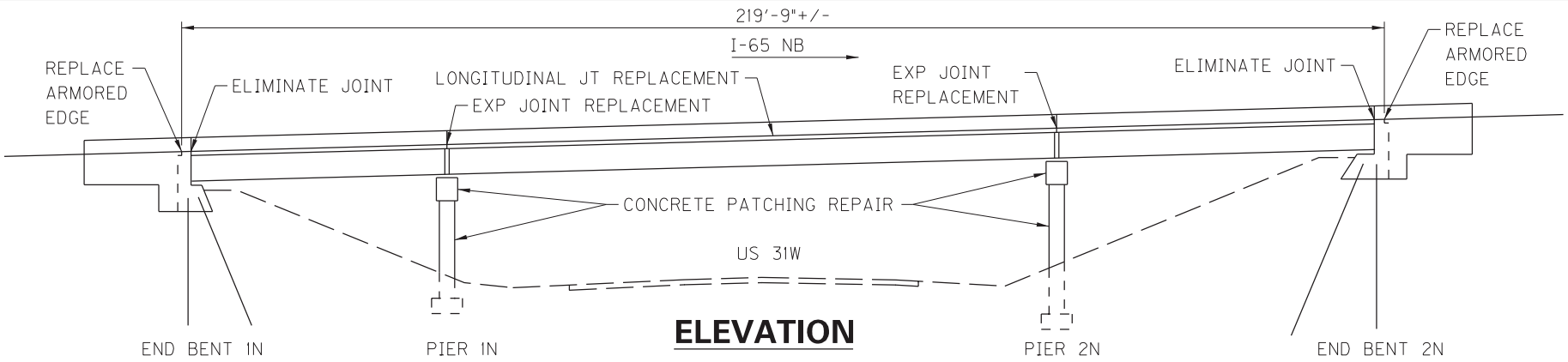
SUMMARY OF QUANTITIES			
ITEM CODE	**DESCRIPTION**	**QUANTITY**	**UNIT**
24897EC	EXPAN JOINT REPLACE 3/4 IN	220	LF
3295	EXPAN JOINT REPLACE 2 IN	197	LF
3299	ARMORED EDGE FOR CONCRETE	196	LF
3300	ELIMINATE TRANSVERSE JOINT	196	LF
8151	STEEL REINFORCEMENT-EPOXY COATED	105	LB
8504	EPOXY SAND SLURRY	65	SY
8526	CLASS M CONCRETE FOR FULL DEPTH PATCHING	0.5	CY
8534	CONCRETE OVERLAY-LATEX	79.3	CY
8549	BLAST CLEANING	1905	SY
8551	MACHINE PREPARATION OF SLAB	1905	SY
22146EN	CONCRETE PATCHING REPAIR	810	SF
24094EC	PARTIAL DEPTH PATCHING	5.9	CY

NOTE: LONGITUDINAL JOINT REPLACEMENT AND EXPANSION JOINT REPLACEMENT SIZES BASED ON WIDTHS SHOWN ON EXISTING PLANS.

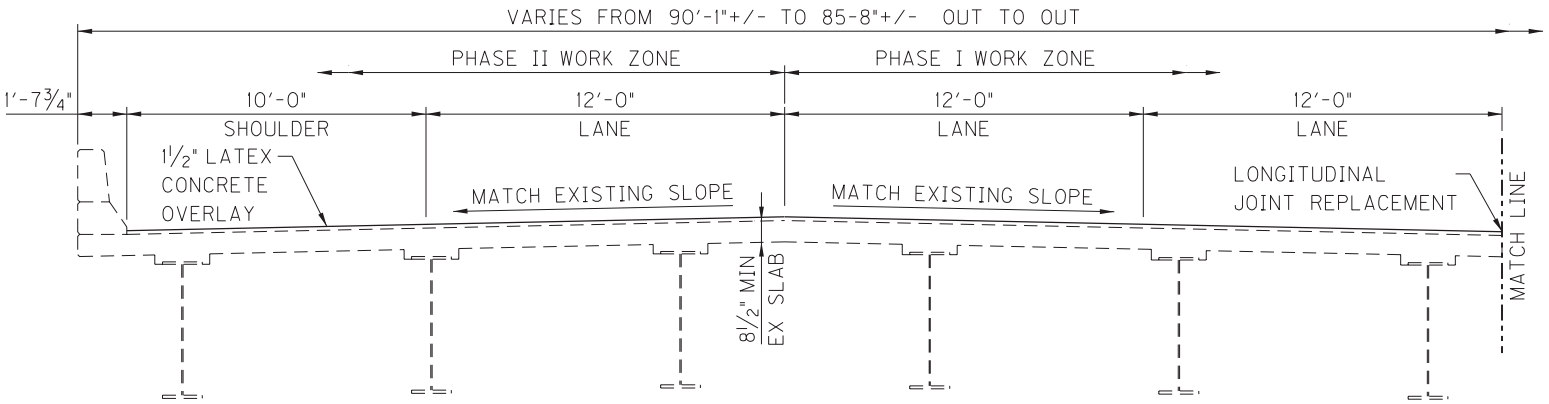
NOTE: STEEL REINFORCEMENT-EPOXY COATED QUANTITY BASED 100% REPLACEMENT OF THE STEEL WITHIN THE FULL DEPTH PATCHING AREA.

NOTE: PARTIAL DEPTH AND FULL DEPTH PATCHING QUANTITIES ARE BASED ON APPROXIMATE ESTIMATES OF 2% AND 0.1% OF THE OVERALL OVERLAY AREA, RESPECTIVELY.

NOTE: CONCRETE PATCHING BASED ON VISUAL INSPECTION BY KYTC-DISTRICT 4 + 35%.

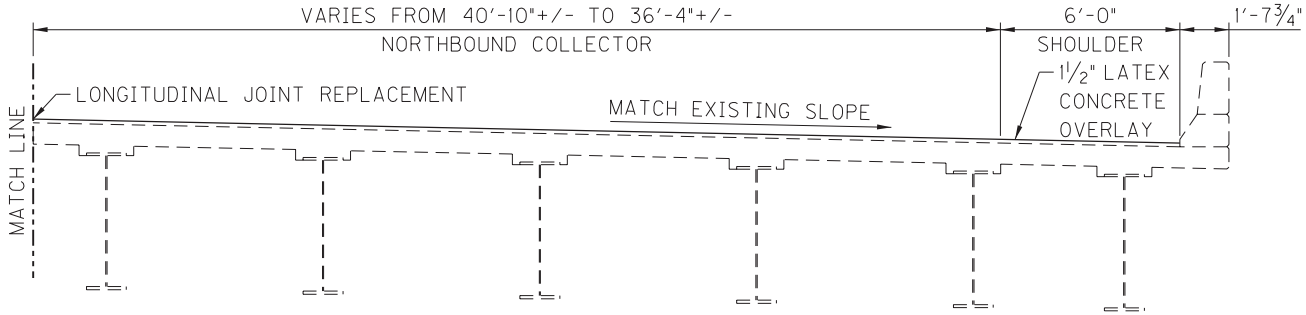


ELEVATION



CONCRETE PATCHING REPAIR	
PIER 1N CAP	51 SF
PIER 1N COLUMNS	-
PIER 2N CAP	710 SF
PIER 2N COLUMNS	49 SF

ACTUAL QUANTITIES MAY VARY



NOTES:
DETAILS SHOWN ARE BASED ON EXISTING PLANS (DWG NO 20427). FEATURES AND DIMENSIONS SHOWN ARE APPROXIMATE.

CONTRACTOR SHALL VERIFY THE PROFILE GRADE LOCATION AND CROSS-SLOPES WITH THE EXISTING BRIDGE PLANS AND ROADWAY PAVEMENT REHABILITATION PLANS.

TYPICAL DECK SECTION

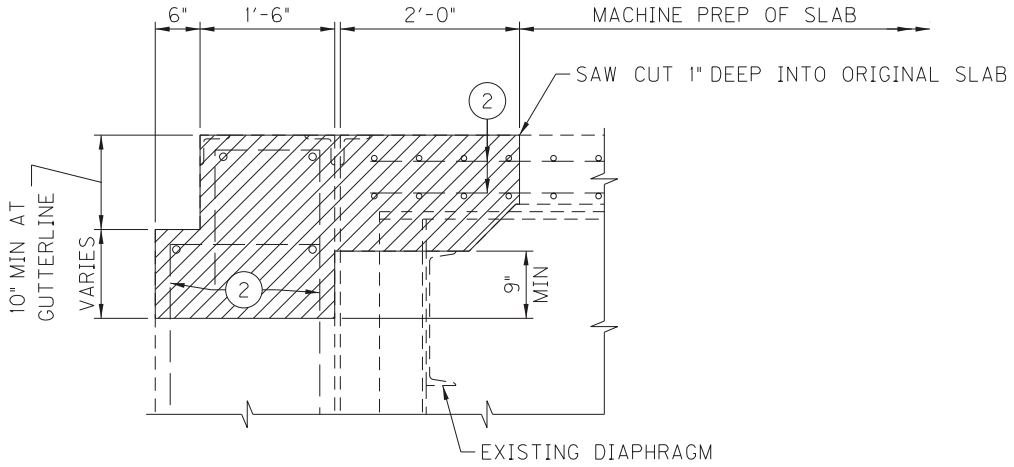
LOOKING NORTH

BRIDGE 047B00126R SHEET 1 OF 5

Stantec

ELEVATION AND TYPICAL DECK SECTION

COUNTY: HARDIN
ROUTE: I-65 NORTHBOUND
CROSSING: US 31W



EXISTING SECTION AT END BENTS

(SHOWING LIMITS OF REMOVAL)

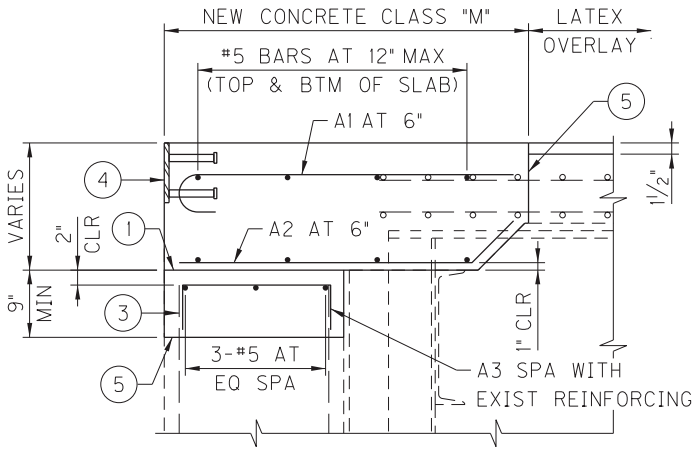
NOTES:
REMOVE HATCHED AREA OF CONCRETE, EXPANSION DEVICE AND ARMORED EDGE. CLEAN AND REUSE EXISTING REINFORCEMENT. THE CONTRACTOR HAS THE OPTION TO REUSE OR REPLACE THE TRANSVERSE REINFORCEMENT.

FOR BONDING NEW CONCRETE TO EXISTING SURFACES, SEE SECTION 511 OF THE STANDARD SPECIFICATIONS.

ROUGHEN EXISTING CONCRETE WHEN IN CONTACT WITH NEW CONCRETE.

THIS WORK, INCLUDING ALL LABOR, TOOLS AND MATERIAL, IS TO BE INCLUDED IN THE BID ITEM 3300 "ELIMINATE TRANSVERSE JOINT".

SEE SHEET 4 OF 5 FOR BAR BEND DIMENSIONS.



PROPOSED SECTION AT END BENTS

NOTATIONS:

(1) BOND BREAKER (1 LAYER OF 30# ROOFING PAPER)

(2) CLEAN AND STRAIGHTEN EXISTING EMBEDDED REINFORCEMENT

(3) CUT/REMOVE EXISTING REINFORCEMENT TO MAINTAIN 2" CLEARANCE

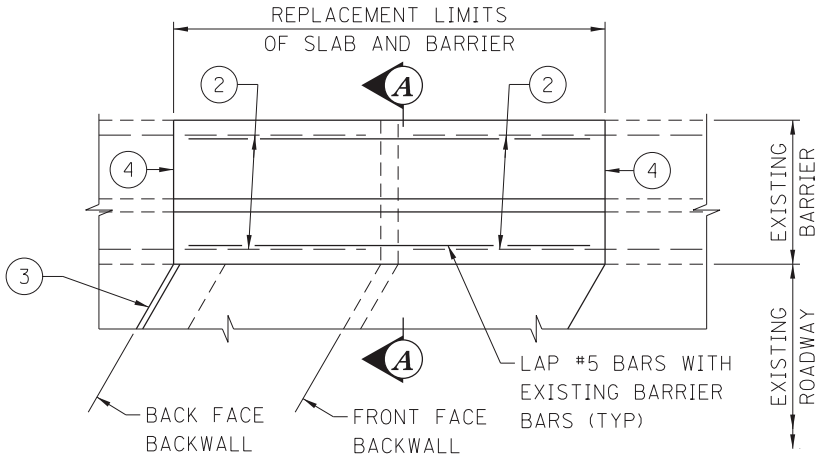
(4) ARMORED EDGE, SEE STD DWG BJE-001-13

(5) BONDED CONSTRUCTION JOINT

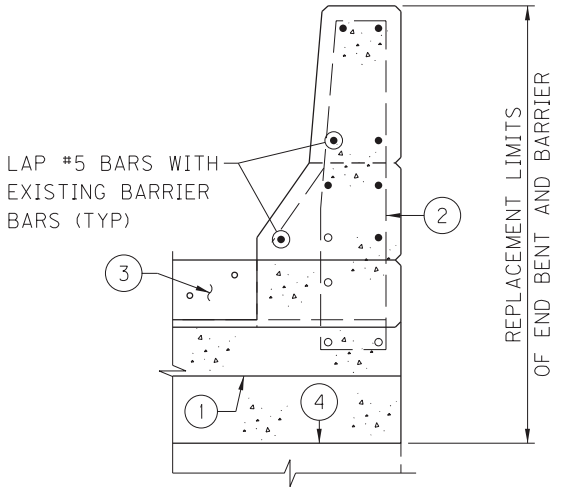
Stantec

JOINT ELIMINATION DETAILS - END BENTS

COUNTY:	HARDIN
ROUTE:	I-65 NORTHBOUND
CROSSING:	US 31W



PROPOSED PLAN AT BARRIER



SECTION A–A

NOTE:
SEE JOINT ELIMINATION DETAILS, SHEET 2 OF 5, FOR REINFORCEMENT AND DIMENSIONS NOT SHOWN.

NOTES:
REMOVE HATCHED AREA OF CONCRETE, EXPANSION DEVICE AND ARMORED EDGE. CLEAN AND REUSE EXISTING REINFORCEMENT. THE CONTRACTOR HAS THE OPTION TO REUSE OR REPLACE THE TRANSVERSE REINFORCEMENT.

FOR BONDING NEW CONCRETE TO EXISTING SURFACES, SEE SECTION 511 OF THE STANDARD SPECIFICATIONS.

ROUGHEN EXISTING CONCRETE WHEN IN CONTACT WITH NEW CONCRETE.

THIS WORK, INCLUDING ALL LABOR, TOOLS AND MATERIAL, IS TO BE INCLUDED IN THE BID ITEM 3300 "ELIMINATE TRANSVERSE JOINT".

NOTATIONS:

(1) BOND BREAKER (1 LAYER OF 30# ROOFING PAPER)

(2) CLEAN AND STRAIGHTEN EXISTING EMBEDDED REINFORCEMENT

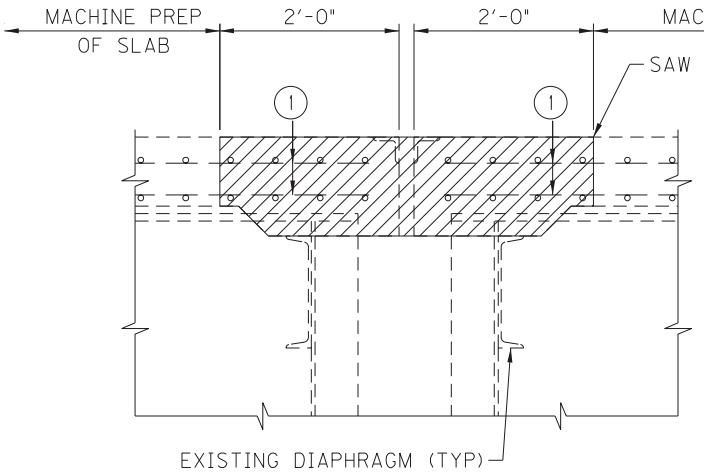
(3) ARMORED EDGE, SEE STD DWG BJE-001-13, (BETWEEN GUTTERLINES ONLY)

(4) BONDED CONSTRUCTION JOINT

Stantec

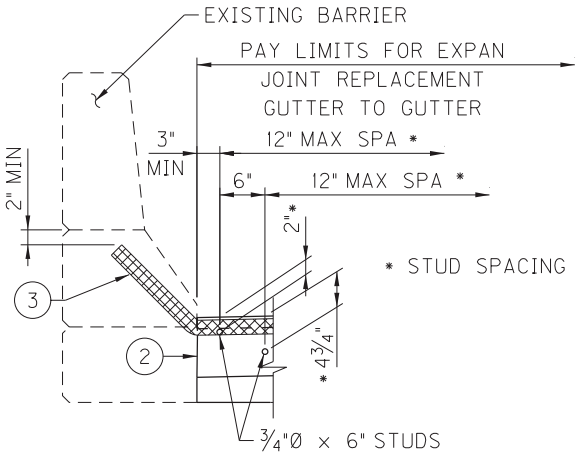
JOINT ELIMINATION DETAILS - END BENT BARRIERS

COUNTY:	HARDIN
ROUTE:	I-65 NORTHBOUND
CROSSING:	US 31W

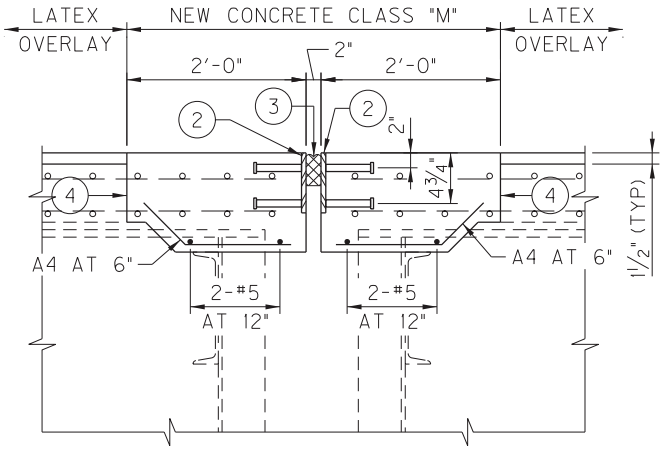


EXISTING SECTION AT PIERS

(SHOWING LIMITS OF REMOVAL)



PROPOSED SECTION THRU JOINT AT BARRIER



PROPOSED SECTION AT PIERS

NOTATIONS:

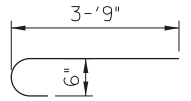
1. CLEAN AND STRAIGHTEN EXISTING EMBEDDED REINFORCEMENT
2. PL ⅝" x 8" WITH ¾"Ø x 6" STUDS
3. 2" PRECOMPRESSED, SILICONE-AND-FOAM HYBRID JOINT SYSTEM. INSTALL ¾" FROM TOP OF DECK.
4. BONDED CONSTRUCTION JOINT

NOTES:
REMOVE HATCHED AREA OF CONCRETE, EXPANSION DEVICE AND ARMORED EDGE. CLEAN AND REUSE EXISTING REINFORCEMENT. THE CONTRACTOR HAS THE OPTION TO REUSE OR REPLACE THE TRANSVERSE REINFORCEMENT.

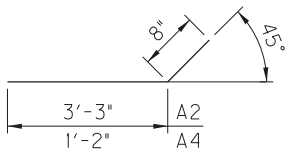
FOR BONDING NEW CONCRETE TO EXISTING SURFACES, SEE SECTION 511 OF THE STANDARD SPECIFICATIONS.

ROUGHEN EXISTING CONCRETE WHEN IN CONTACT WITH NEW CONCRETE.

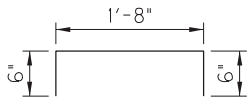
THIS WORK, INCLUDING ALL LABOR, TOOLS AND MATERIAL, IS TO BE INCLUDED IN THE BID ITEM 3295 "EXPAN JOINT REPLACE 2 IN".



A1 - #6 BAR



A2 & A4 - #6 BAR



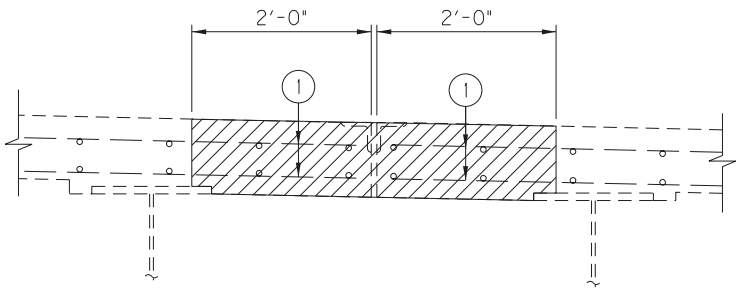
A3- #5 BAR

BRIDGE 047B00126R SHEET 4 OF 5

Stantec

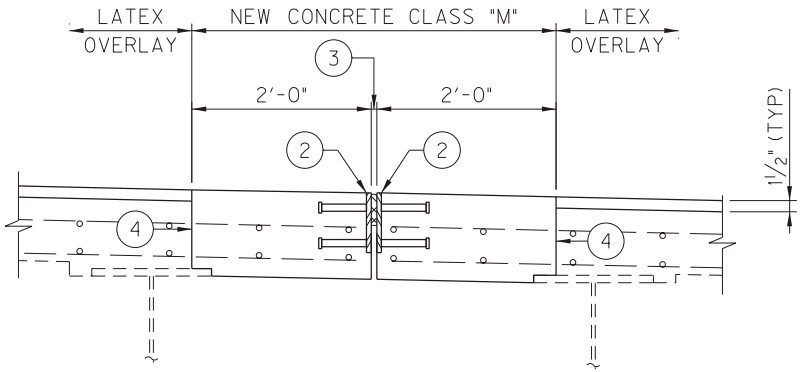
JOINT REPLACEMENT DETAILS - PIERS 1N & 2N

COUNTY:	HARDIN
ROUTE:	I-65 NORTHBOUND
CROSSING:	US 31W



EXISTING SECTION AT LONGITUDINAL JOINT

(SHOWING LIMITS OF REMOVAL)



PROPOSED SECTION AT LONGITUDINAL JOINT

NOTATIONS:

(1) CLEAN AND STRAIGHTEN EXISTING EMBEDDED REINFORCEMENT

(2) PL ⅝" × 8" WITH ¾"Ø × 6" STUDS

(3) ¾" PRECOMPRESSED, SILICONE-AND-FOAM HYBRID JOINT SYSTEM. INSTALL ¾" FROM TOP OF DECK.

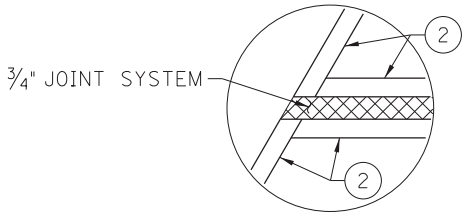
(4) BONDED CONSTRUCTION JOINT

NOTES:
REMOVE HATCHED AREA OF CONCRETE, EXPANSION DEVICE AND ARMORED EDGE. CLEAN AND REUSE EXISTING REINFORCEMENT. THE CONTRACTOR HAS THE OPTION TO REUSE OR REPLACE THE TRANSVERSE REINFORCEMENT.

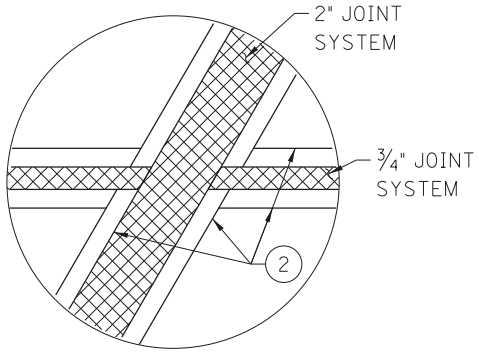
FOR BONDING NEW CONCRETE TO EXISTING SURFACES, SEE SECTION 511 OF THE STANDARD SPECIFICATIONS.

ROUGHEN EXISTING CONCRETE WHEN IN CONTACT WITH NEW CONCRETE.

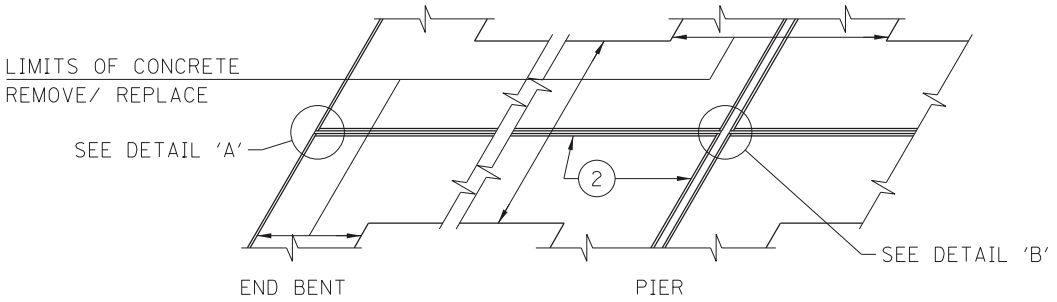
THIS WORK, INCLUDING ALL LABOR, TOOLS AND MATERIAL, IS TO BE INCLUDED IN THE BID ITEM 24897EC "EXPAN JOINT REPLACE ¾ IN".



DETAIL 'A'



DETAIL 'B'



PART PLAN – LONGITUDINAL JOINT

BRIDGE 047B00126R SHEET 5 OF 5

Stantec

JOINT REPLACEMENT DETAILS - LONGITUDINAL JOINT

COUNTY:	HARDIN
ROUTE:	I-65 NORTHBOUND
CROSSING:	US 31W

I-65 (SB) over CSX RR & Hawkins Dr (047B00125L)

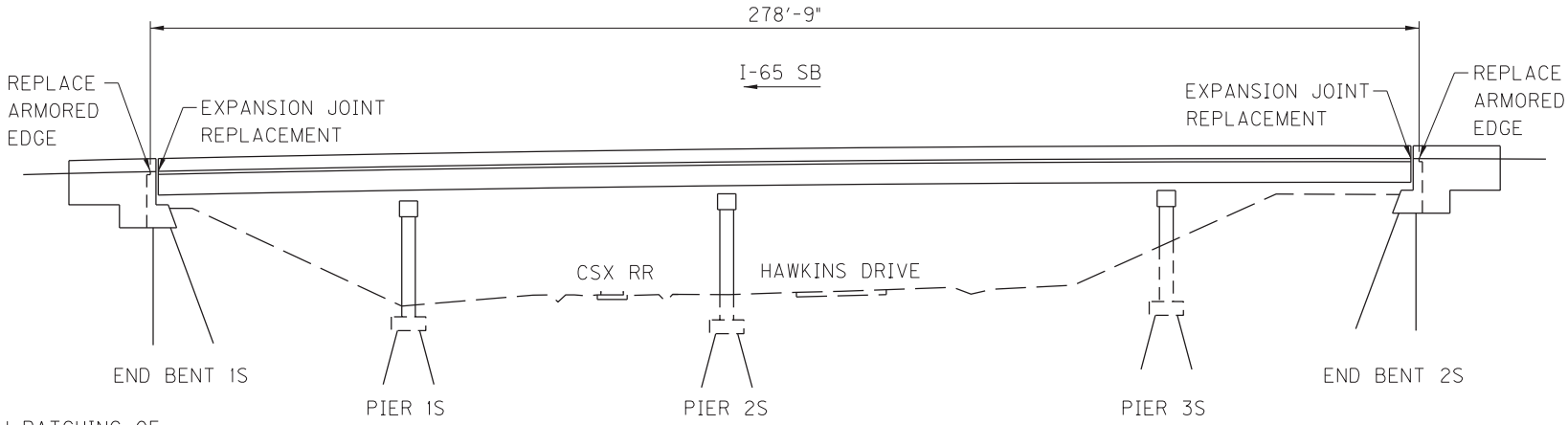
(MP 91.540)

SUMMARY OF QUANTITIES			
ITEM CODE	**DESCRIPTION**	**QUANTITY**	**UNIT**
3295	EXPAN JOINT REPLACE 2 IN	194	LF
3299	ARMORED EDGE FOR CONCRETE	194	LF
8151	STEEL REINFORCEMENT-EPOXY COATED	145	LB
8504	EPOXY SAND SLURRY	80	SY
8526	CLASS M CONCRETE FOR FULL DEPTH PATCHING	0.7	CY
8534	CONCRETE OVERLAY-LATEX	121.8	CY
8549	BLAST CLEANING	2925	SY
8551	MACHINE PREPARATION OF SLAB	2925	SY
24094EC	PARTIAL DEPTH PATCHING	9.0	CY

NOTE: EXPANSION JOINT REPLACEMENT SIZE BASED ON WIDTH SHOWN ON EXISTING PLANS.

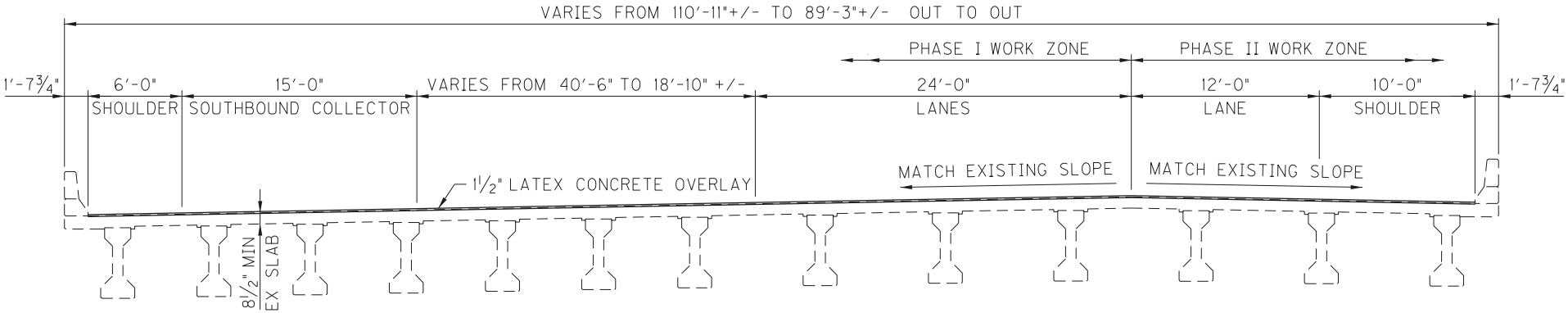
NOTE: STEEL REINFORCEMENT-EPOXY COATED QUANTITY BASED 100% REPLACEMENT OF THE STEEL WITHIN THE FULL DEPTH PATCHING AREA.

NOTE: PARTIAL DEPTH AND FULL DEPTH PATCHING QUANTITIES ARE BASED ON APPROXIMATE ESTIMATES OF 2% AND 0.1% OF THE OVERALL OVERLAY AREA, RESPECTIVELY. NO FULL DEPTH PATCHING OF DECK SHALL BE PERFORMED ON SPAN OVER RAILROAD.



NOTE:
NO FULL DEPTH PATCHING OF DECK IS TO BE PERFOMED IN SPAN OVER RR.

ELEVATION



TYPICAL DECK SECTION

LOOKING NORTH

NOTES:
DETAILS SHOWN ARE BASED ON EXISTING PLANS (DWG NO 20457).
FEATURES AND DIMENSIONS SHOWN ARE APPROXIMATE.

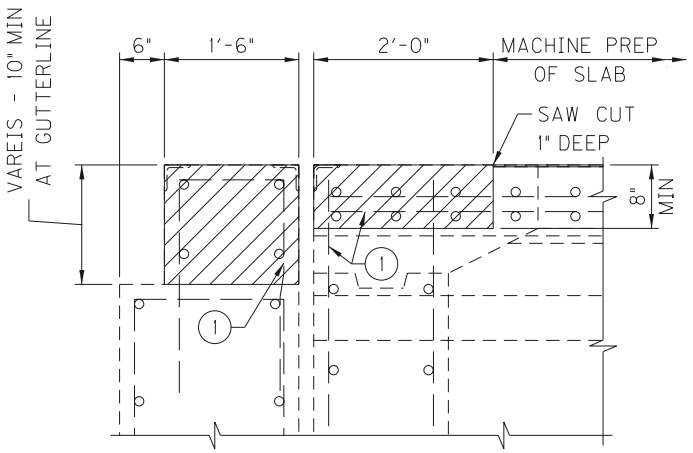
CONTRACTOR SHALL VERIFY THE PROFILE GRADE LOCATION AND CROSS-SLOPES WITH THE EXISTING BRIDGE PLANS AND ROADWAY PAVEMENT REHABILITATION PLANS.

BRIDGE 047B00125L SHEET 1 OF 2

Stantec

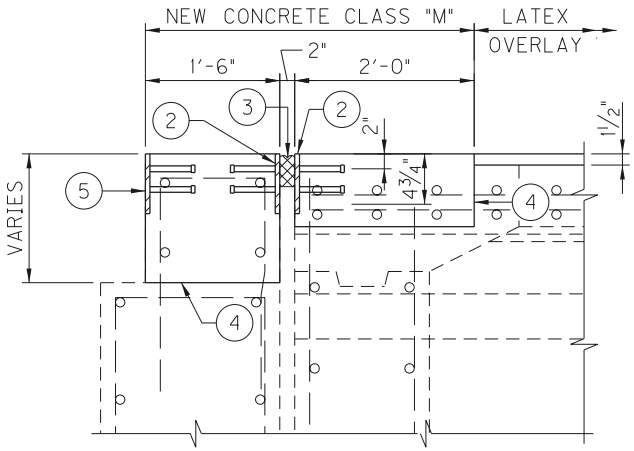
ELEVATION AND TYPICAL DECK SECTION

COUNTY:	HARDIN
ROUTE:	I-65 SOUTHBOUND
CROSSING:	CSX RR & HAWKINS DRIVE

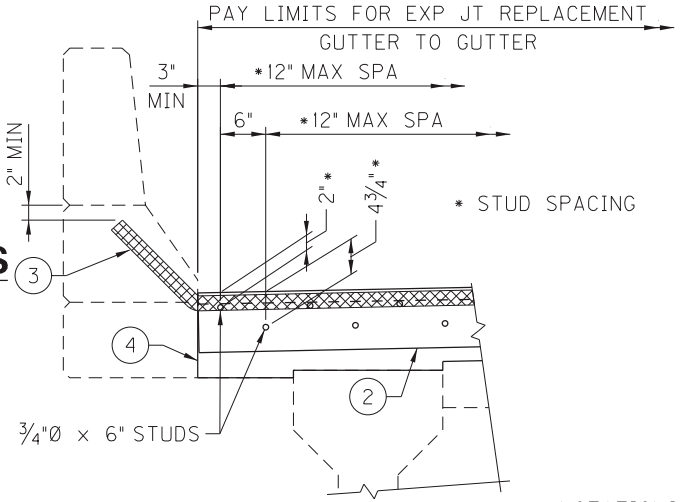


EXISTING SECTION AT END BENTS

(SHOWING LIMITS OF REMOVAL)



PROPOSED SECTION AT END BENTS



PROPOSED SECTION THRU JOINT AT BARRIER

NOTES:
REMOVE HATCHED AREA OF CONCRETE, EXPANSION DEVICE AND ARMORED EDGE. CLEAN AND REUSE EXISTING REINFORCEMENT. THE CONTRACTOR HAS THE OPTION TO REUSE OR REPLACE THE TRANSVERSE REINFORCEMENT.

FOR BONDING NEW CONCRETE TO EXISTING SURFACES, SEE SECTION 511 OF THE STANDARD SPECIFICATIONS.

ROUGHEN EXISTING CONCRETE WHEN IN CONTACT WITH NEW CONCRETE.

THIS WORK, INCLUDING ALL LABOR, TOOLS AND MATERIAL, IS TO BE INCLUDED IN THE BID ITEM 3295 "EXPAN JOINT REPLACE 2 IN".

NOTATIONS:

(1) CLEAN AND STRAIGHTEN EXISTING REINFORCEMENT

(2) PL $\frac{5}{8}$" × 8" WITH $\frac{3}{4}$"Ø × 6" STUDS

(3) 2" PRECOMPRESSED, SILICONE-AND-FOAM HYBRID JOINT SYSTEM. INSTALL $\frac{3}{4}$" FROM TOP OF DECK.

(4) BONDED CONSTRUCTION JOINT

(5) ARMORED EDGE, SEE STD DWG BJE-001-13

BRIDGE 047B00125L SHEET 2 OF 2

Stantec

JOINT REPLACEMENT DETAILS - END BENTS

COUNTY:	HARDIN
ROUTE:	I-65 SOUTHBOUND
CROSSING:	CSX RR & HAWKINS DRIVE

I-65 (NB) over CSX RR & Hawkins Dr (047B00125R)

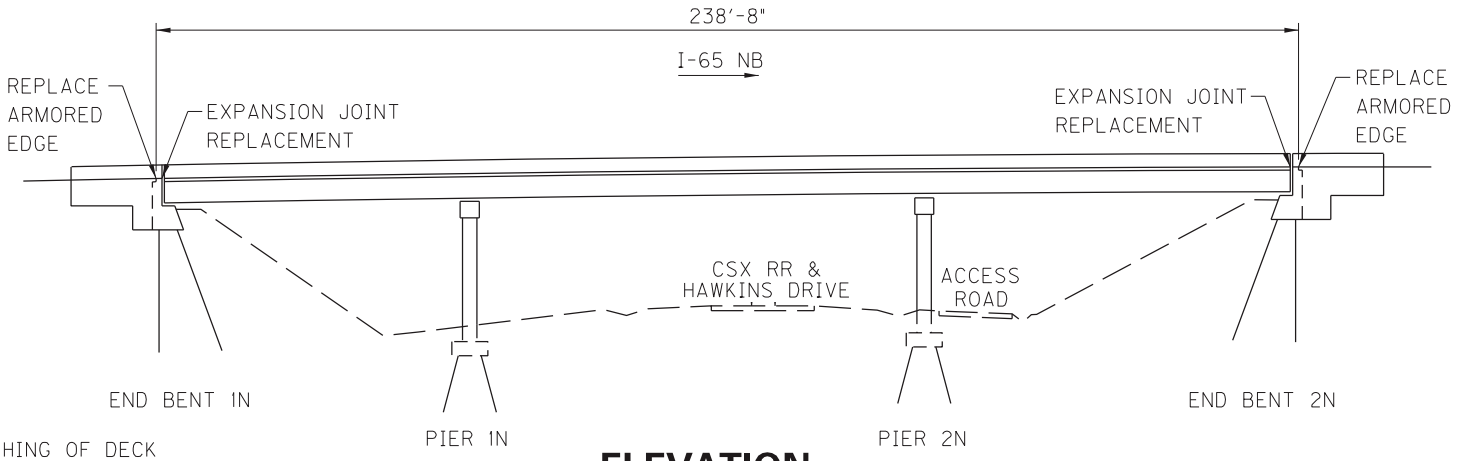
(MP 91.540)

SUMMARY OF QUANTITIES			
ITEM CODE	**DESCRIPTION**	**QUANTITY**	**UNIT**
3295	EXPAN JOINT REPLACE 2 IN	145	LF
3299	ARMORED EDGE FOR CONCRETE	145	LF
8151	STEEL REINFORCEMENT-EPOXY COATED	105	LB
8504	EPOXY SAND SLURRY	70	SY
8526	CLASS M CONCRETE FOR FULL DEPTH PATCHING	0.5	CY
8534	CONCRETE OVERLAY-LATEX	77.4	CY
8549	BLAST CLEANING	1860	SY
8551	MACHINE PREPARATION OF SLAB	1860	SY
24094EC	PARTIAL DEPTH PATCHING	5.7	CY

NOTE: EXPANSION JOINT REPLACEMENT SIZE BASED ON WIDTH SHOWN ON EXISTING PLANS.

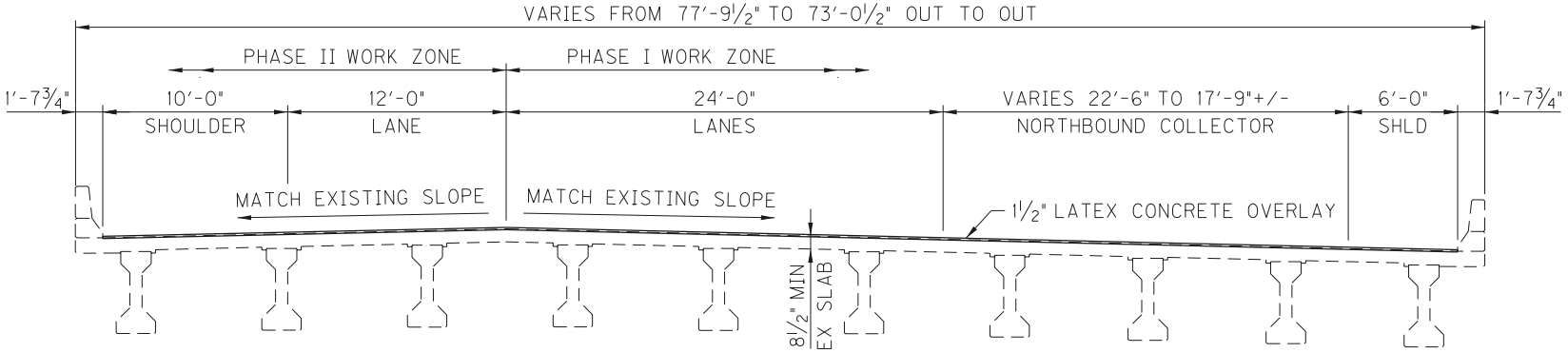
NOTE: STEEL REINFORCEMENT-EPOXY COATED QUANTITY BASED 100% REPLACEMENT OF THE STEEL WITHIN THE FULL DEPTH PATCHING AREA.

NOTE: PARTIAL DEPTH AND FULL DEPTH PATCHING QUANTITIES ARE BASED ON APPROXIMATE ESTIMATES OF 2% AND 0.1% OF THE OVERALL OVERLAY AREA, RESPECTIVELY. NO FULL DEPTH PATCHING OF DECK SHALL BE PERFORMED ON SPAN OVER RAILROAD.



NOTE:
NO FULL DEPTH PATCHING OF DECK
IS TO BE PERFORMED IN SPAN OVER RR.

ELEVATION



TYPICAL DECK SECTION

LOOKING NORTH

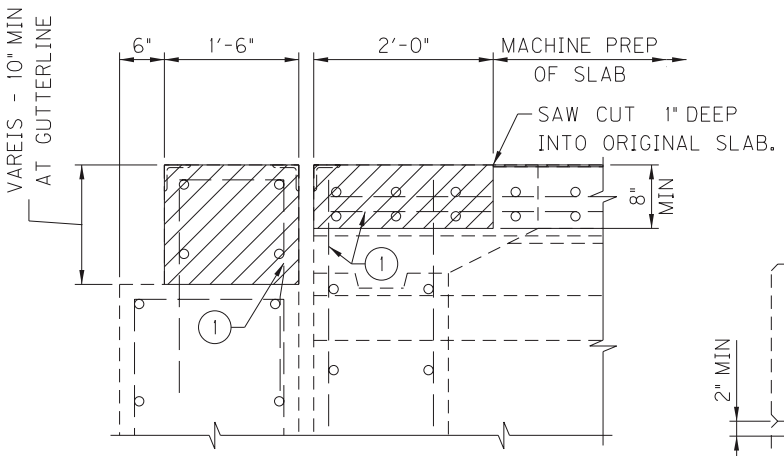
NOTES:
DETAILS SHOWN ARE BASED ON EXISTING PLANS (DWG NO 20457).
FEATURES AND DIMENSIONS SHOWN ARE APPROXIMATE.

CONTRACTOR SHALL VERIFY THE PROFILE GRADE LOCATION AND CROSS-SLOPES WITH THE EXISTING BRIDGE PLANS AND ROADWAY PAVEMENT REHABILITATION PLANS.

Stantec

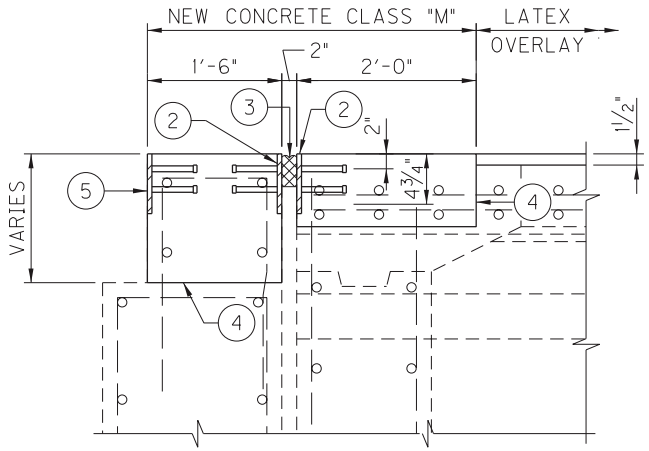
ELEVATION AND TYPICAL DECK SECTION

COUNTY:	HARDIN
ROUTE:	I-65 NORTHBOUND
CROSSING:	CSX RR & HAWKINS DRIVE

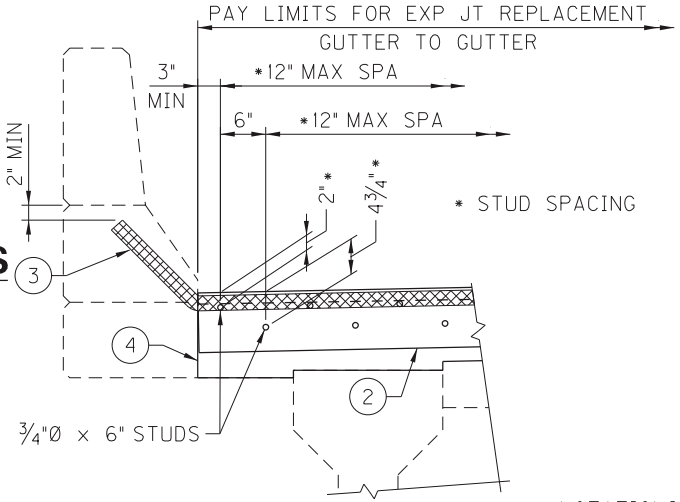


EXISTING SECTION AT END BENTS

(SHOWING LIMITS OF REMOVAL)



PROPOSED SECTION AT END BENTS



PROPOSED SECTION THRU JOINT AT BARRIER

NOTES:
REMOVE HATCHED AREA OF CONCRETE, EXPANSION DEVICE AND ARMORED EDGE. CLEAN AND REUSE EXISTING REINFORCEMENT. THE CONTRACTOR HAS THE OPTION TO REUSE OR REPLACE THE TRANSVERSE REINFORCEMENT.

FOR BONDING NEW CONCRETE TO EXISTING SURFACES, SEE SECTION 511 OF THE STANDARD SPECIFICATIONS.

ROUGHEN EXISTING CONCRETE WHEN IN CONTACT WITH NEW CONCRETE.

THIS WORK, INCLUDING ALL LABOR, TOOLS AND MATERIAL, IS TO BE INCLUDED IN THE BID ITEM 3295 "EXPAN JOINT REPLACE 2 IN".

NOTATIONS:

(1) CLEAN AND STRAIGHTEN EXISTING REINFORCEMENT

(2) PL $\frac{5}{8}$" × 8" WITH $\frac{3}{4}$"Ø × 6" STUDS

(3) 2" PRECOMPRESSED, SILICONE-AND-FOAM HYBRID JOINT SYSTEM. INSTALL $\frac{3}{4}$" FROM TOP OF DECK.

(4) BONDED CONSTRUCTION JOINT

(5) ARMORED EDGE, SEE STD DWG BJE-001-13

BRIDGE 047B00125R SHEET 2 OF 2

Stantec

JOINT REPLACEMENT DETAILS - END BENTS

COUNTY:	HARDIN
ROUTE:	I-65 NORTHBOUND
CROSSING:	CSX RR & HAWKINS DRIVE

I-65 (SB) over Springfield Rd (047B00129L)

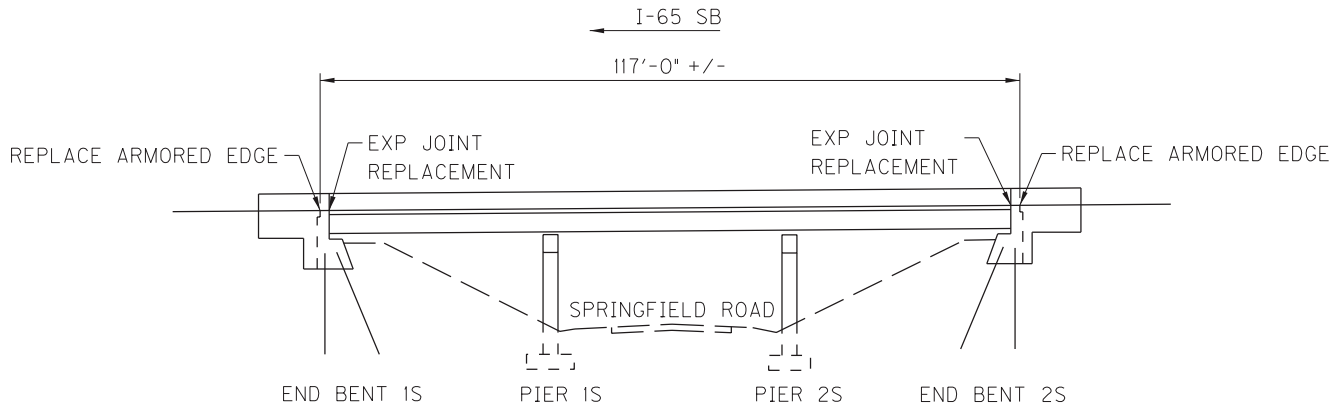
(MP 92.150)

SUMMARY OF QUANTITIES			
ITEM CODE	**DESCRIPTION**	**QUANTITY**	**UNIT**
3294	EXPAN JOINT REPLACE 1 1/2 IN	113	LF
3299	ARMORED EDGE FOR CONCRETE	113	LF
8151	STEEL REINFORCEMENT-EPOXY COATED	45	LB
8504	EPOXY SAND SLURRY	35	SY
8526	CLASS M CONCRETE FOR FULL DEPTH PATCHING	0.2	CY
8534	CONCRETE OVERLAY-LATEX	28.6	CY
8549	BLAST CLEANING	685	SY
8551	MACHINE PREPARATION OF SLAB	685	SY
24094EC	PARTIAL DEPTH PATCHING	2.1	CY

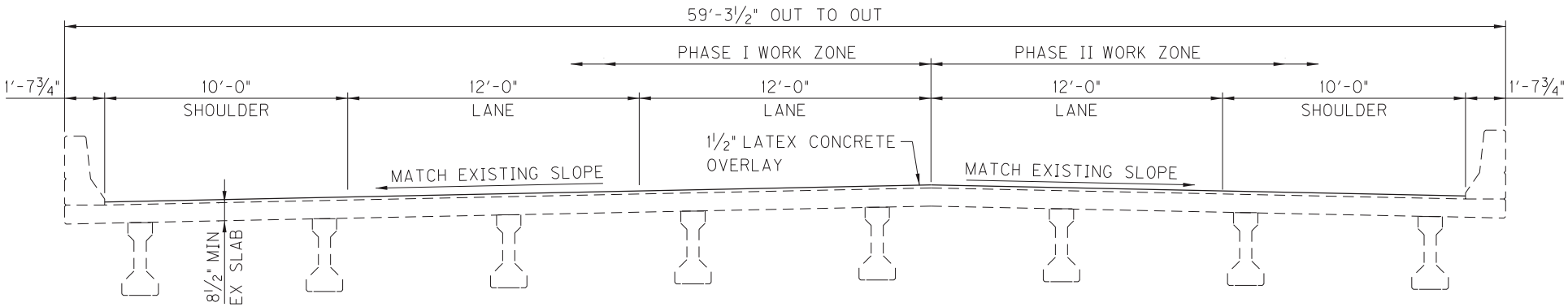
NOTE: EXPANSION JOINT REPLACEMENT SIZE BASED ON WIDTH SHOWN ON EXISTING PLANS.

NOTE: STEEL REINFORCEMENT-EPOXY COATED QUANTITY BASED 100% REPLACEMENT OF THE STEEL WITHIN THE FULL DEPTH PATCHING AREA.

NOTE: PARTIAL DEPTH AND FULL DEPTH PATCHING QUANTITIES ARE BASED ON APPROXIMATE ESTIMATES OF 2% AND 0.1% OF THE OVERALL OVERLAY AREA, RESPECTIVELY.



ELEVATION



TYPICAL DECK SECTION

LOOKING NORTH

NOTES:
DETAILS SHOWN ARE BASED ON EXISTING PLANS (DWG NO 20394).
FEATURES AND DIMENSIONS SHOWN ARE APPROXIMATE.

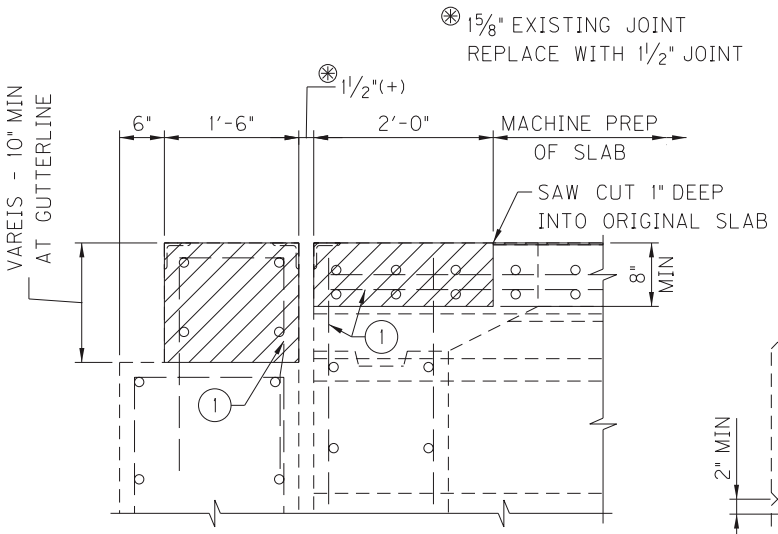
CONTRACTOR SHALL VERIFY THE PROFILE GRADE LOCATION AND CROSS-SLOPES WITH THE EXISTING BRIDGE PLANS AND ROADWAY PAVEMENT REHABILITATION PLANS.

BRIDGE 047B00129L SHEET 1 OF 2

Stantec

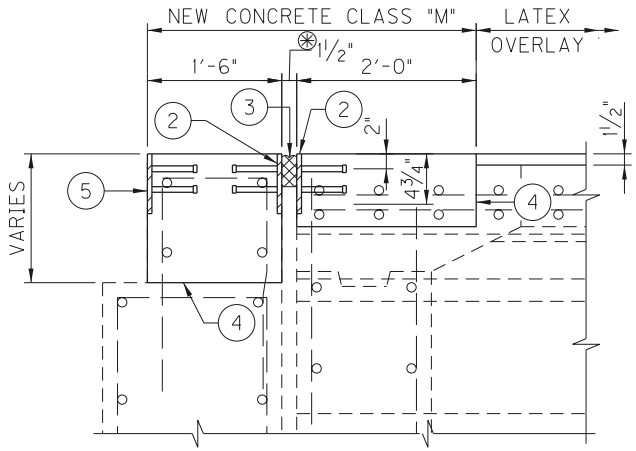
ELEVATION AND TYPICAL DECK SECTION

COUNTY:	HARDIN
ROUTE:	I-65 SOUTHBOUND
CROSSING:	SPRINGFIELD ROAD

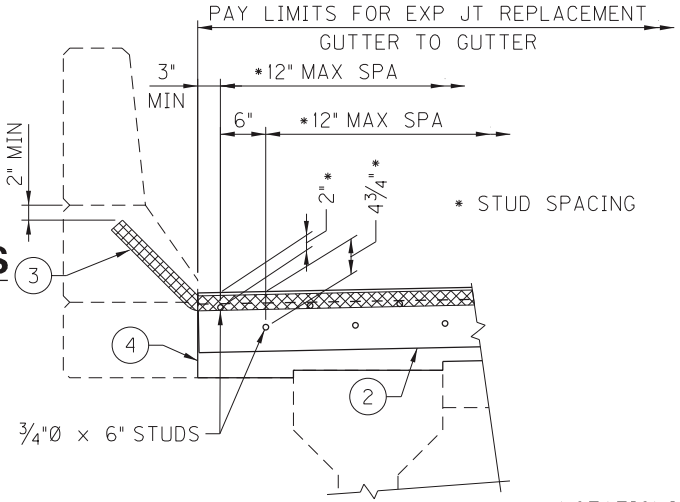


EXISTING SECTION AT END BENTS

(SHOWING LIMITS OF REMOVAL)



PROPOSED SECTION AT END BENTS



PROPOSED SECTION THRU JOINT AT BARRIER

NOTES:
REMOVE HATCHED AREA OF CONCRETE, EXPANSION DEVICE AND ARMORED EDGE. CLEAN AND REUSE EXISTING REINFORCEMENT. THE CONTRACTOR HAS THE OPTION TO REUSE OR REPLACE THE TRANSVERSE REINFORCEMENT.

FOR BONDING NEW CONCRETE TO EXISTING SURFACES, SEE SECTION 511 OF THE STANDARD SPECIFICATIONS.

ROUGHEN EXISTING CONCRETE WHEN IN CONTACT WITH NEW CONCRETE.

THIS WORK, INCLUDING ALL LABOR, TOOLS AND MATERIAL, IS TO BE INCLUDED IN THE BID ITEM 3294 "EXPAN JOINT REPLACE 1½ IN".

NOTATIONS:

(1) CLEAN AND STRAIGHTEN EXISTING REINFORCEMENT

(2) PL ⅝" × 8" WITH ¾"Ø × 6" STUDS

(3) 1½" PRECOMPRESSED, SILICONE-AND-FOAM HYBRID JOINT SYSTEM. INSTALL ¾" FROM TOP OF DECK.

(4) BONDED CONSTRUCTION JOINT

(5) ARMORED EDGE, SEE STD DWG BJE-001-13

BRIDGE 047B00129L SHEET 2 OF 2

Stantec

JOINT REPLACEMENT DETAILS - END BENTS

COUNTY: HARDIN
ROUTE: I-65 SOUTHBOUND
CROSSING: SPRINGFIELD ROAD

I-65 (NB) over Springfield Rd (047B00129R)

(MP 92.150)

SUMMARY OF QUANTITIES			
ITEM CODE	**DESCRIPTION**	**QUANTITY**	**UNIT**
2383	REMOVE AND RESET GUARDRAIL	15	LF
3235	EXCAVATION AND BACKFILL	6.0	CY
3294	EXPAN JOINT REPLACE 1 1/2 IN	113	LF
3299	ARMORED EDGE FOR CONCRETE	113	LF
8104	CONCRETE-CLASS AA	6.3	CY
8151	STEEL REINFORCEMENT-EPOXY COATED	730	LB
8504	EPOXY SAND SLURRY	35	SY
8526	CLASS M CONCRETE FOR FULL DEPTH PATCHING	0.2	CY
8534	CONCRETE OVERLAY-LATEX	28.6	CY
8549	BLAST CLEANING	685	SY
8551	MACHINE PREPARATION OF SLAB	685	SY
22146EN	CONCRETE PATCHING REPAIR	15	SF
24093EC	BEAM REPAIR	1	EA
24094EC	PARTIAL DEPTH PATCHING	2.1	CY

NOTE: THE FOLLOWING QUANTITIES REFLECT WORK DONE UNDER SPECIAL NOTE FOR "REMOVE AND RECONSTRUCT WING WALL AND BARRIER":

- REMOVE AND RESET GUARDRAIL
- EXCAVATION AND BACKFILL
- CONCRETE-CLASS AA
- STEEL REINFORCEMENT-EPOXY COATED

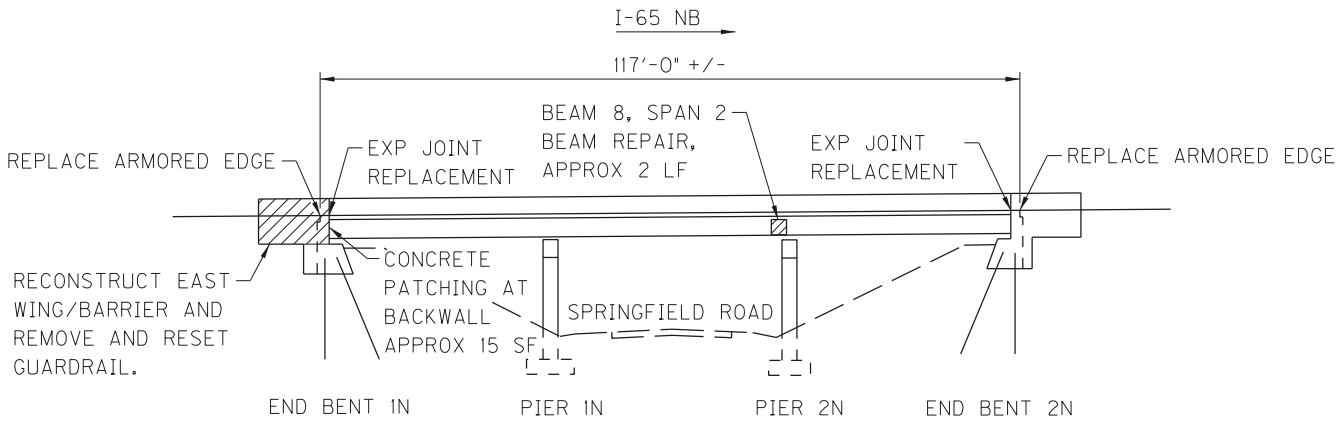
NOTE: EXPANSION JOINT REPLACEMENT SIZE BASED ON WIDTH SHOWN ON EXISTING PLANS.

NOTE: STEEL REINFORCEMENT-EPOXY COATED QUANTITY REFLECTS 100% REPLACEMENT OF THE STEEL WITHIN THE FULL DEPTH PATCHING AREA, AS WELL AS WORK DONE UNDER SPECIAL NOTE FOR "REMOVE AND RECONSTRUCT WING WALL AND BARRIER".

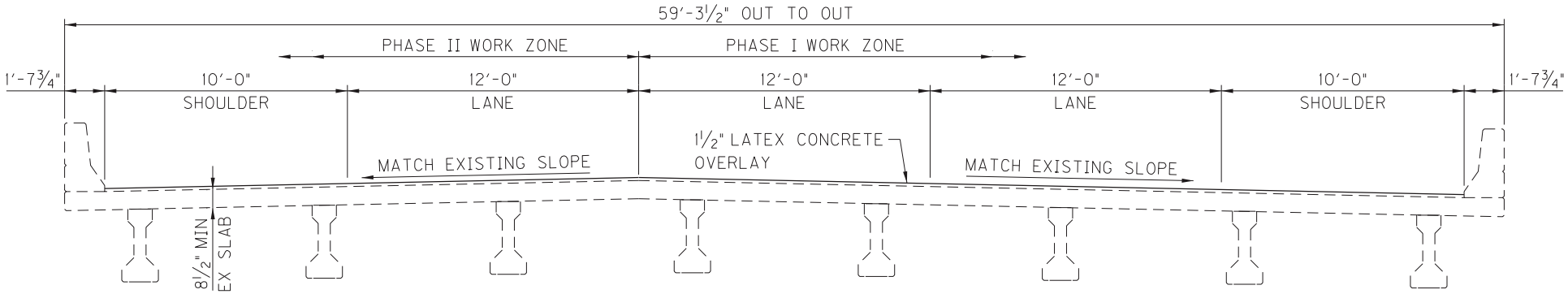
NOTE: PARTIAL DEPTH AND FULL DEPTH PATCHING QUANTITIES ARE BASED ON APPROXIMATE ESTIMATES OF 2% AND 0.1% OF THE OVERALL OVERLAY AREA, RESPECTIVELY.

NOTE: CONCRETE PATCHING REPAIR QUANTITY BASED ON VISUAL INSPECTION BY STANTEC + 20%.

NOTE: BEAM REPAIR QUANTITY BASED ON VISUAL INSPECTION BY STANTEC.



ELEVATION



TYPICAL DECK SECTION

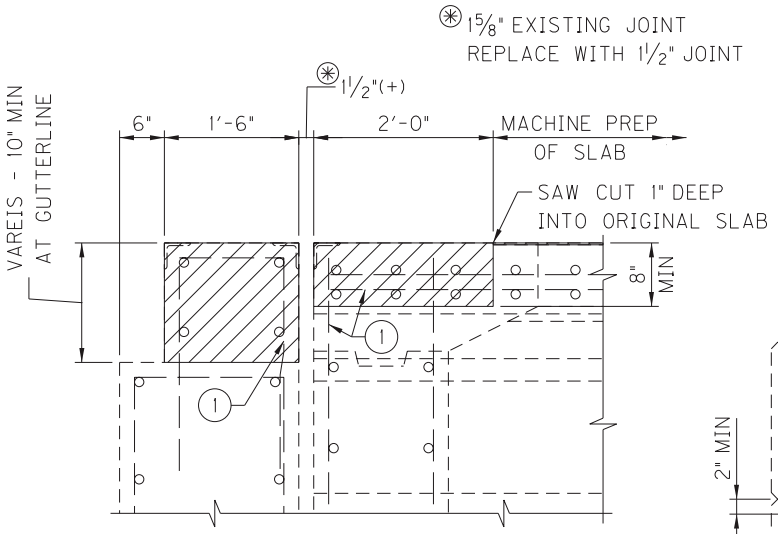
LOOKING NORTH

NOTES:
DETAILS SHOWN ARE BASED ON EXISTING PLANS (DWG NO 20394).
FEATURES AND DIMENSIONS SHOWN ARE APPROXIMATE.

CONTRACTOR SHALL VERIFY THE PROFILE GRADE LOCATION AND CROSS-SLOPES WITH THE EXISTING BRIDGE PLANS AND ROADWAY PAVEMENT REHABILITATION PLANS.

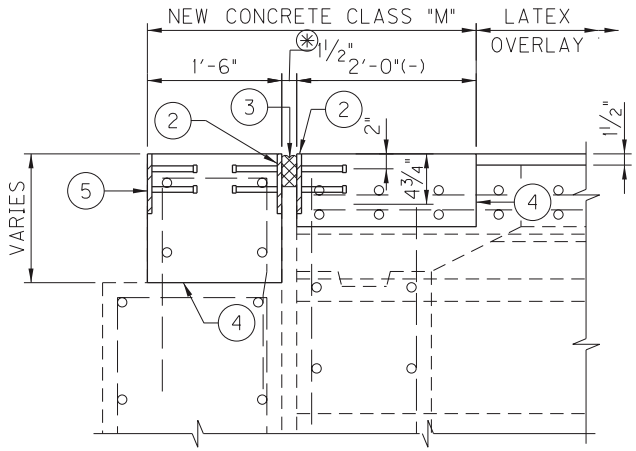
BRIDGE 047B00129R SHEET 1 OF 3

Stantec	ELEVATION AND TYPICAL DECK SECTION	COUNTY: HARDIN ROUTE: I-65 NORTHBOUND CROSSING: SPRINGFIELD ROAD

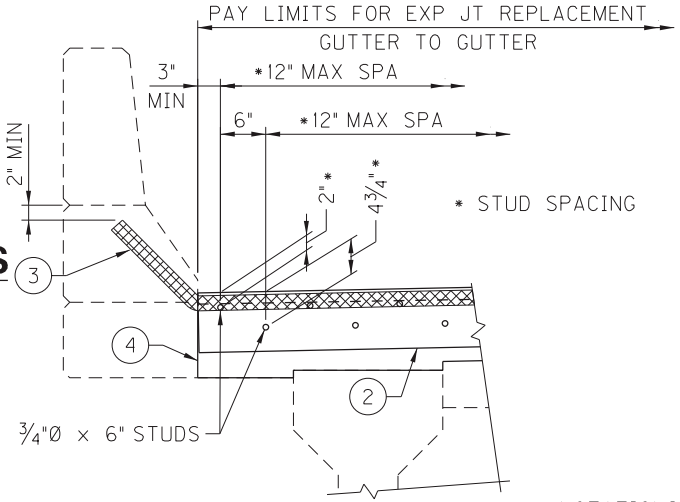


EXISTING SECTION AT END BENTS

(SHOWING LIMITS OF REMOVAL)



PROPOSED SECTION AT END BENTS



PROPOSED SECTION THRU JOINT AT BARRIER

NOTES:
REMOVE HATCHED AREA OF CONCRETE, EXPANSION DEVICE AND ARMORED EDGE. CLEAN AND REUSE EXISTING REINFORCEMENT. THE CONTRACTOR HAS THE OPTION TO REUSE OR REPLACE THE TRANSVERSE REINFORCEMENT.

FOR BONDING NEW CONCRETE TO EXISTING SURFACES, SEE SECTION 511 OF THE STANDARD SPECIFICATIONS.

ROUGHEN EXISTING CONCRETE WHEN IN CONTACT WITH NEW CONCRETE.

THIS WORK, INCLUDING ALL LABOR, TOOLS AND MATERIAL, IS TO BE INCLUDED IN THE BID ITEM 3294 "EXPAN JOINT REPLACE 1½ IN".

NOTATIONS:

(1) CLEAN AND STRAIGHTEN EXISTING REINFORCEMENT

(2) PL ⅝" × 8" WITH ¾"Ø × 6" STUDS

(3) 1½" PRECOMPRESSED, SILICONE-AND-FOAM HYBRID JOINT SYSTEM. INSTALL ¾" FROM TOP OF DECK.

(4) BONDED CONSTRUCTION JOINT

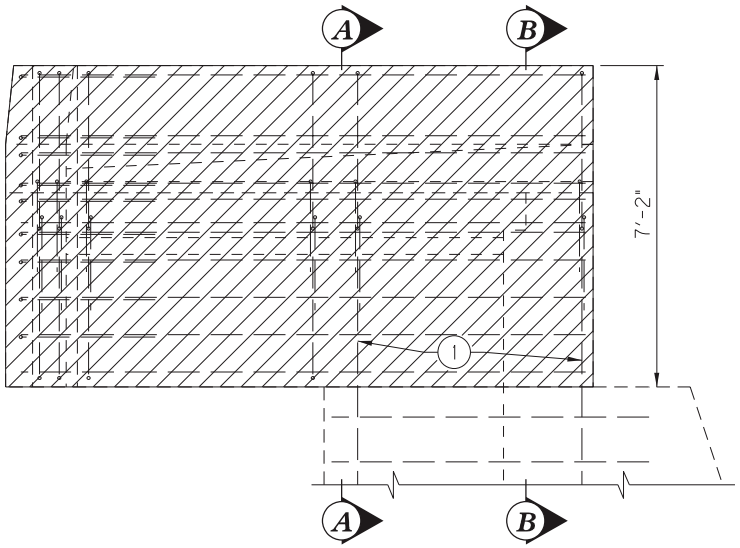
(5) ARMORED EDGE, SEE STD DWG BJE-001-13

BRIDGE 047B00129R SHEET 2 OF 3

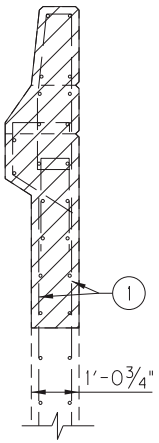
Stantec

JOINT REPLACEMENT DETAILS - END BENTS

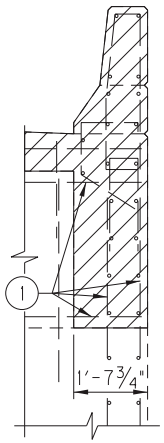
COUNTY:	HARDIN
ROUTE:	I-65 NORTHBOUND
CROSSING:	SPRINGFIELD ROAD



EXISTING WING ELEVATION



SECTION A–A



SECTION B–B

NOTES:
REMOVE HATCHED AREA OF CONCRETE, EXPANSION DEVICE AND ARMORED EDGE. CLEAN AND REUSE EXISTING REINFORCEMENT. THE CONTRACTOR HAS THE OPTION TO REUSE OR REPLACE THE TRANSVERSE REINFORCEMENT.

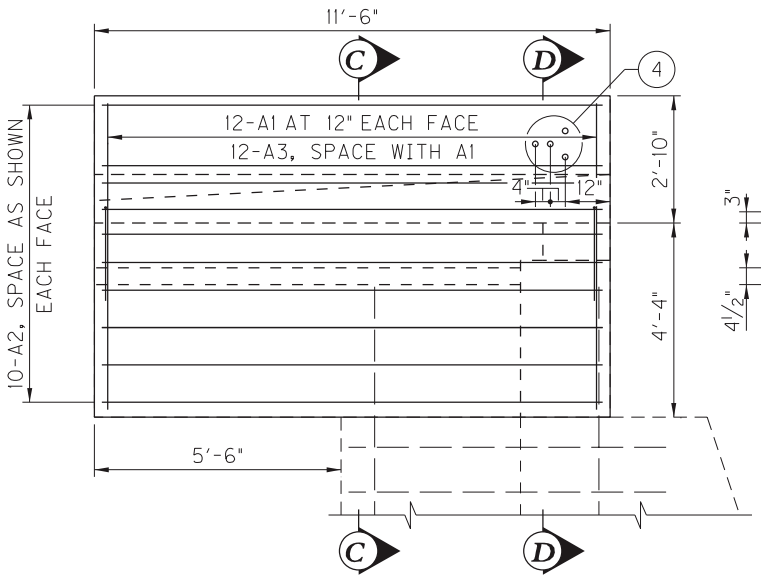
FOR BONDING NEW CONCRETE TO EXISTING SURFACES, SEE SECTION 511 OF THE STANDARD SPECIFICATIONS.

ROUGHEN EXISTING CONCRETE WHEN IN CONTACT WITH NEW CONCRETE.

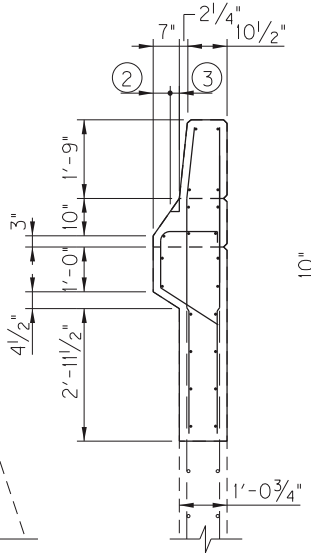
THE WORK SHOWN ON THIS SHEET, INCLUDING ALL LABOR AND TOOLS IS INCLUDED IN THE FOLLOWING BID ITEMS:
8104 "CONCRETE-CLASS AA", 8151 "STEEL REINFORCEMENT-EPOXY COATED", 22146EN "CONCRETE PATCHING REPAIR", 3235 "EXCAVATION AND BACKFILL", AND 2383 "REMOVE AND RESET GUARDRAIL".

NOTATIONS:

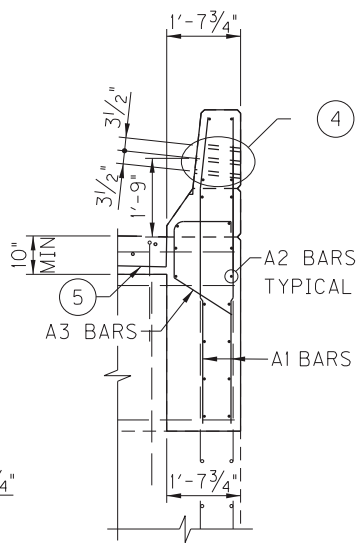
1. CLEAN AND STRAIGHTEN EXISTING REINFORCEMENT
2. VARIES FROM 2" TO 7"
3. VARIES FROM 5" TO 0"
4. GUARDRAIL ATTACHMENT HOLES (1" DIA PLASTIC PIPE)
5. ARMORED EDGE, SEE STD DWG BJE-001-13



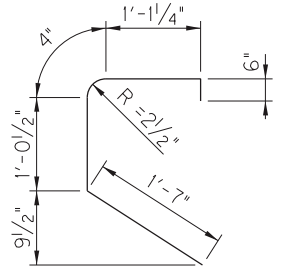
PROPOSED WING ELEVATION



SECTION C–C



SECTION D–D



A1, 6'-10" LONG
A2, 11'-2" LONG
A3- #5 BAR

BRIDGE 047B00129R SHEET 3 OF 3

Stantec

RECONSTRUCT - WINGWALL AND BARRIER - END BENT 1 (EAST WING)

COUNTY:	HARDIN
ROUTE:	I-65 NORTHBOUND
CROSSING:	SPRINGFIELD ROAD

Bluegrass Parkway (WB) over I-65 (047B00128L)

(MP 93.355)

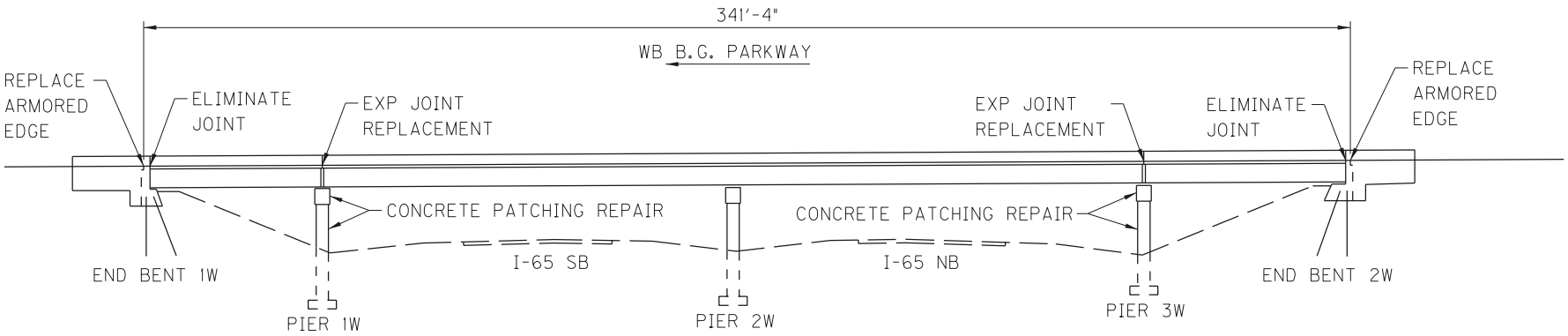
SUMMARY OF QUANTITIES			
ITEM CODE	**DESCRIPTION**	**QUANTITY**	**UNIT**
3296	EXPAN JOINT REPLACE 2 1/2 IN	70	LF
3299	ARMORED EDGE FOR CONCRETE	70	LF
3300	ELIMINATE TRANSVERSE JOINT	70	LF
8151	STEEL REINFORCEMENT-EPOXY COATED	60	LB
8504	EPOXY SAND SLURRY	95	SY
8526	CLASS M CONCRETE FOR FULL DEPTH PATCHING	0.3	CY
8534	CONCRETE OVERLAY-LATEX	45	CY
8549	BLAST CLEANING	1080	SY
8551	MACHINE PREPARATION OF SLAB	1080	SY
22146EN	CONCRETE PATCHING REPAIR	195	SF
24094EC	PARTIAL DEPTH PATCHING	3.6	CY

NOTE: EXPANSION JOINT REPLACEMENT SIZE BASED ON WIDTH SHOWN ON EXISTING PLANS.

NOTE: STEEL REINFORCEMENT-EPOXY COATED QUANTITY BASED 100% REPLACEMENT OF THE STEEL WITHIN THE FULL DEPTH PATCHING AREA.

NOTE: PARTIAL DEPTH AND FULL DEPTH PATCHING QUANTITIES ARE BASED ON APPROXIMATE ESTIMATES OF 2% AND 0.1% OF THE OVERALL OVERLAY AREA, RESPECTIVELY.

NOTE: CONCRETE PATCHING BASED ON VISUAL INSPECTION BY KYTC-DISTRICT 4 + 35%.



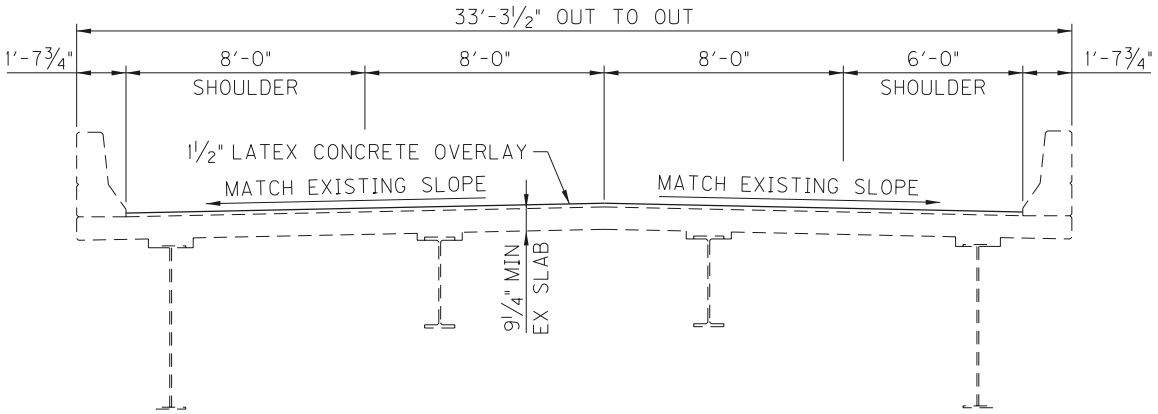
ELEVATION

CONCRETE PATCHING REPAIR	
PIER 1W CAP	48 SF
PIER 1W COLUMNS	79 SF
PIER 3W CAP	27 SF
PIER 3W COLUMNS	41 SF

ACTUAL QUANTITES MAY VARY

NOTES:
DETAILS SHOWN ARE BASED ON EXISTING PLANS (DWG NO 20096). FEATURES AND DIMENSIONS SHOWN ARE APPROXIMATE.

CONTRACTOR SHALL VERIFY THE PROFILE GRADE LOCATION AND CROSS-SLOPES WITH THE EXISTING BRIDGE PLANS AND ROADWAY PAVEMENT REHABILITATION PLANS.



TYPICAL DECK SECTION

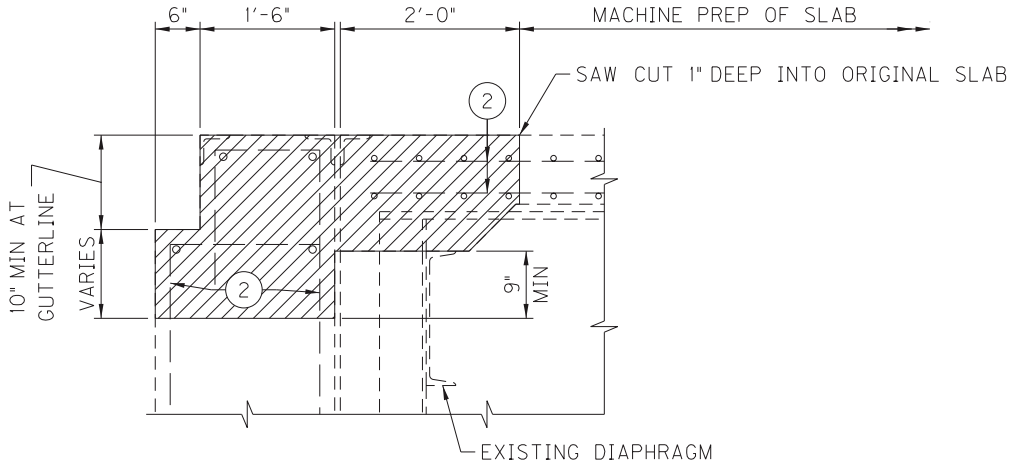
SPANS 1 & 4 SUPERSTRUCUTRE SHOWN

BRIDGE 047B00128L SHEET 1 OF 4

Stantec

ELEVATION AND TYPICAL DECK SECTION

COUNTY:	HARDIN
ROUTE:	B.G. PARKWAY WESTBOUND
CROSSING:	I-65



EXISTING SECTION AT END BENTS

(SHOWING LIMITS OF REMOVAL)

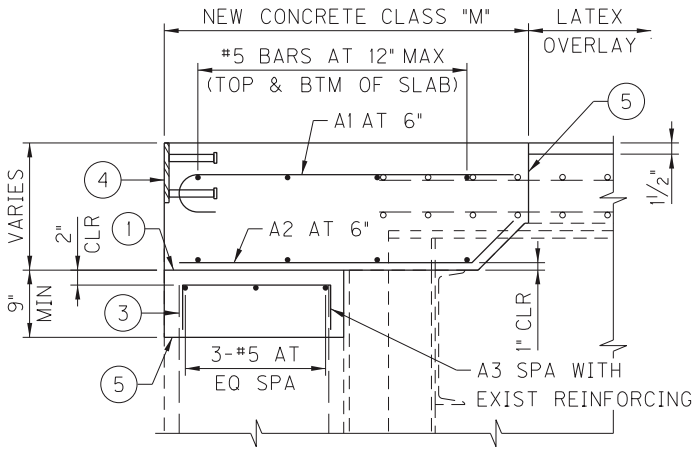
NOTES:
REMOVE HATCHED AREA OF CONCRETE, EXPANSION DEVICE AND ARMORED EDGE. CLEAN AND REUSE EXISTING REINFORCEMENT. THE CONTRACTOR HAS THE OPTION TO REUSE OR REPLACE THE TRANSVERSE REINFORCEMENT.

FOR BONDING NEW CONCRETE TO EXISTING SURFACES, SEE SECTION 511 OF THE STANDARD SPECIFICATIONS.

ROUGHEN EXISTING CONCRETE WHEN IN CONTACT WITH NEW CONCRETE.

THIS WORK, INCLUDING ALL LABOR, TOOLS AND MATERIAL, IS TO BE INCLUDED IN THE BID ITEM 3300 "ELIMINATE TRANSVERSE JOINT".

SEE SHEET 4 OF 4 FOR BAR BEND DIMENSIONS.



PROPOSED SECTION AT END BENTS

NOTATIONS:

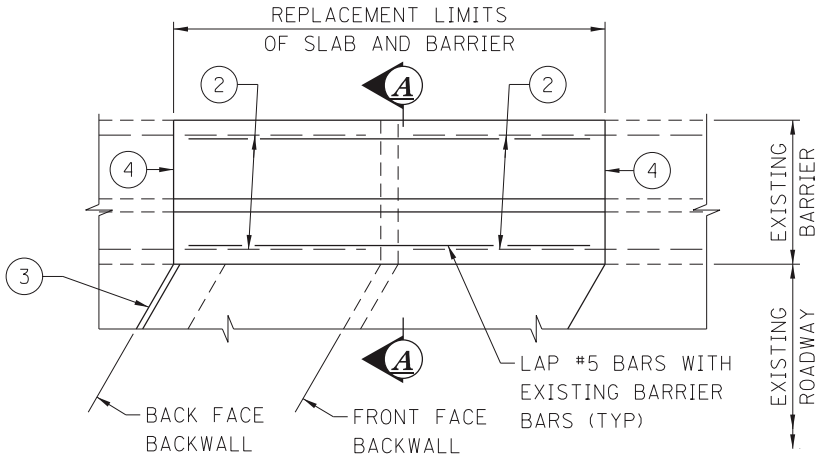
(1) BOND BREAKER (1 LAYER OF 30# ROOFING PAPER)

(2) CLEAN AND STRAIGHTEN EXISTING EMBEDDED REINFORCEMENT

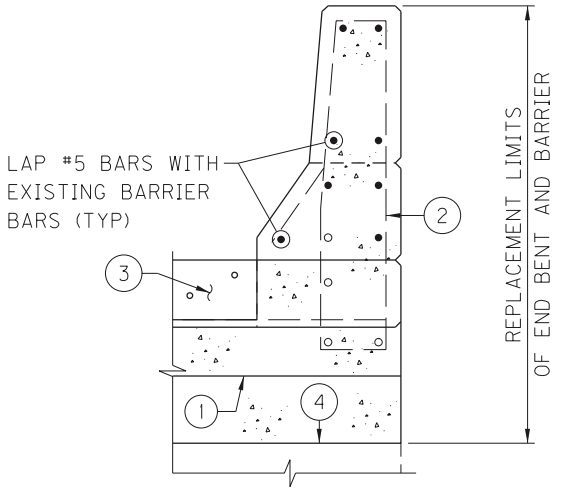
(3) CUT/REMOVE EXISTING REINFORCEMENT TO MAINTAIN 2" CLEARANCE

(4) ARMORED EDGE, SEE STD DWG BJE-001-13

(5) BONDED CONSTRUCTION JOINT



PROPOSED PLAN AT BARRIER



SECTION A–A

NOTE:
SEE JOINT ELIMINATION DETAILS, SHEET 2 OF 4, FOR REINFORCEMENT AND DIMENSIONS NOT SHOWN.

NOTES:
REMOVE HATCHED AREA OF CONCRETE, EXPANSION DEVICE AND ARMORED EDGE. CLEAN AND REUSE EXISTING REINFORCEMENT. THE CONTRACTOR HAS THE OPTION TO REUSE OR REPLACE THE TRANSVERSE REINFORCEMENT.

FOR BONDING NEW CONCRETE TO EXISTING SURFACES, SEE SECTION 511 OF THE STANDARD SPECIFICATIONS.

ROUGHEN EXISTING CONCRETE WHEN IN CONTACT WITH NEW CONCRETE.

THIS WORK, INCLUDING ALL LABOR, TOOLS AND MATERIAL, IS TO BE INCLUDED IN THE BID ITEM 3300 "ELIMINATE TRANSVERSE JOINT".

NOTATIONS:

(1) BOND BREAKER (1 LAYER OF 30# ROOFING PAPER)

(2) CLEAN AND STRAIGHTEN EXISTING EMBEDDED REINFORCEMENT

(3) ARMORED EDGE, SEE STD DWG BJE-001-13, (BETWEEN GUTTERLINES ONLY)

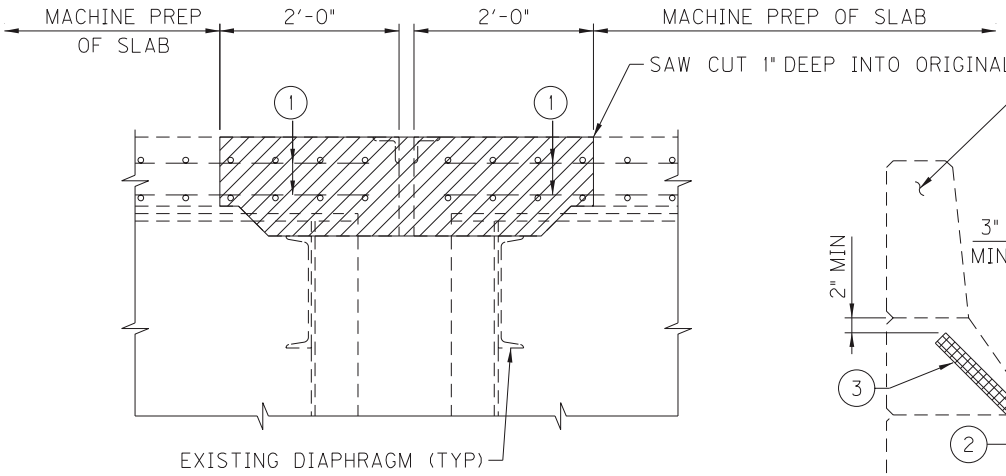
(4) BONDED CONSTRUCTION JOINT

BRIDGE 047B00128L SHEET 3 OF 4

Stantec

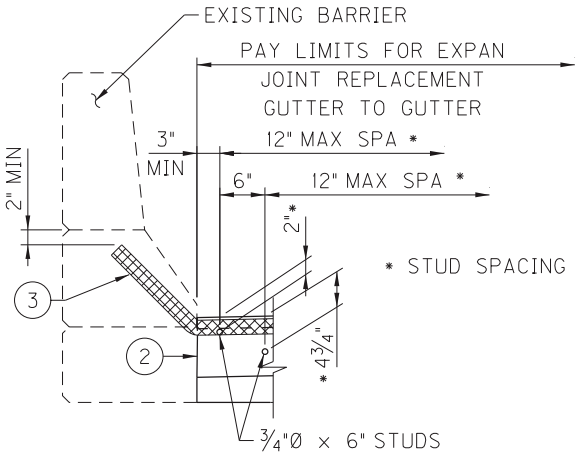
JOINT ELIMINATION DETAILS - END BENT BARRIERS

COUNTY:	HARDIN
ROUTE:	BLUEGRASS PARKWAY WESTBOUND
CROSSING:	I-65



EXISTING SECTION AT PIERS

(SHOWING LIMITS OF REMOVAL)



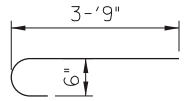
PROPOSED SECTION THRU JOINT AT BARRIER

NOTES:
REMOVE HATCHED AREA OF CONCRETE, EXPANSION DEVICE AND ARMORED EDGE. CLEAN AND REUSE EXISTING REINFORCEMENT. THE CONTRACTOR HAS THE OPTION TO REUSE OR REPLACE THE TRANSVERSE REINFORCEMENT.

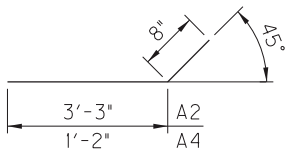
FOR BONDING NEW CONCRETE TO EXISTING SURFACES, SEE SECTION 511 OF THE STANDARD SPECIFICATIONS.

ROUGHEN EXISTING CONCRETE WHEN IN CONTACT WITH NEW CONCRETE.

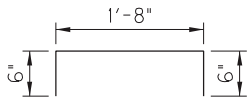
THIS WORK, INCLUDING ALL LABOR, TOOLS AND MATERIAL, IS TO BE INCLUDED IN THE BID ITEM 3296 "EXPAN JOINT REPLACE 2½ IN".



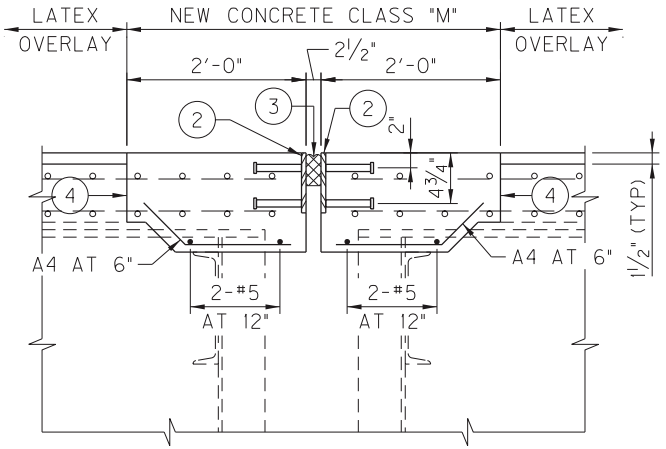
A1 - #6 BAR



A2 & A4 - #6 BAR



A3- #5 BAR



PROPOSED SECTION AT PIERS

NOTATIONS:

1. CLEAN AND STRAIGHTEN EXISTING EMBEDDED REINFORCEMENT
2. PL ⅝" x 8" WITH ¾"Ø x 6" STUDS
3. 2½" PRECOMPRESSED, SILICONE-AND-FOAM HYBRID JOINT SYSTEM. INSTALL ¾" FROM TOP OF DECK.
4. BONDED CONSTRUCTION JOINT

BRIDGE 047B00128L SHEET 4 OF 4

Stantec

JOINT REPLACEMENT DETAILS - PIERS 1W & 3W

COUNTY:	HARDIN
ROUTE:	BLUEGRASS PARKWAY WESTBOUND
CROSSING:	I-65

Bluegrass Parkway (EB) over I-65 (047B00128R)

(MP 93.355)

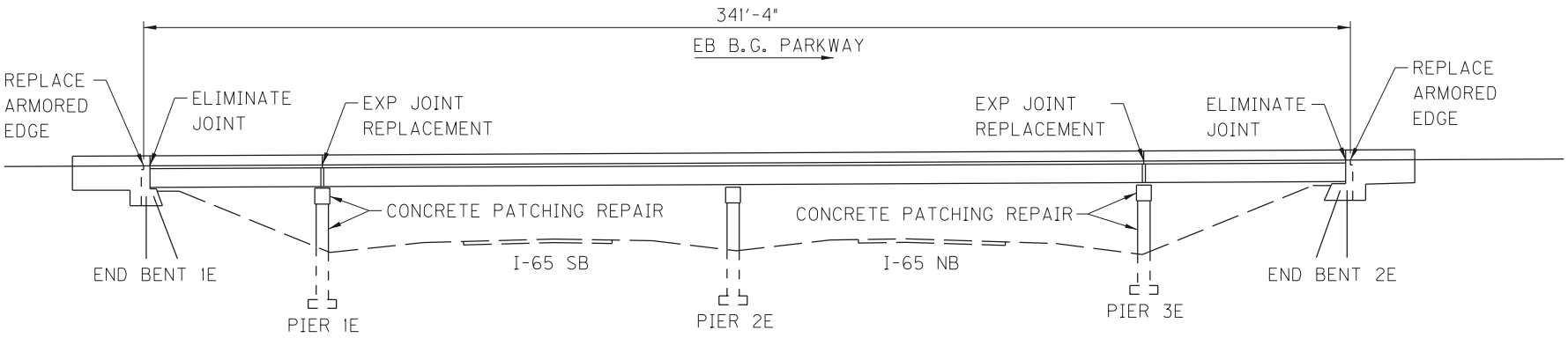
SUMMARY OF QUANTITIES			
ITEM CODE	**DESCRIPTION**	**QUANTITY**	**UNIT**
3296	EXPAN JOINT REPLACE 2 1/2 IN	70	LF
3299	ARMORED EDGE FOR CONCRETE	70	LF
3300	ELIMINATE TRANSVERSE JOINT	70	LF
8151	STEEL REINFORCEMENT-EPOXY COATED	60	LB
8504	EPOXY SAND SLURRY	95	SY
8526	CLASS M CONCRETE FOR FULL DEPTH PATCHING	0.3	CY
8534	CONCRETE OVERLAY-LATEX	45	CY
8549	BLAST CLEANING	1080	SY
8551	MACHINE PREPARATION OF SLAB	1080	SY
22146EN	CONCRETE PATCHING REPAIR	210	SF
24094EC	PARTIAL DEPTH PATCHING	3.6	CY

NOTE: EXPANSION JOINT REPLACEMENT SIZE BASED ON WIDTH SHOWN ON EXISTING PLANS.

NOTE: STEEL REINFORCEMENT-EPOXY COATED QUANTITY BASED 100% REPLACEMENT OF THE STEEL WITHIN THE FULL DEPTH PATCHING AREA.

NOTE: PARTIAL DEPTH AND FULL DEPTH PATCHING QUANTITIES ARE BASED ON APPROXIMATE ESTIMATES OF 2% AND 0.1% OF THE OVERALL OVERLAY AREA, RESPECTIVELY.

NOTE: CONCRETE PATCHING BASED ON VISUAL INSPECTION BY KYTC-DISTRICT 4 + 35%.



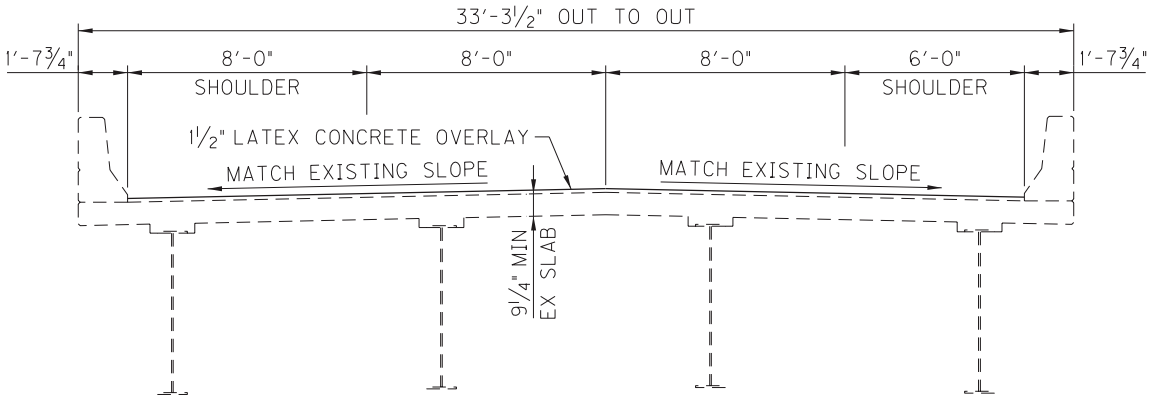
ELEVATION

CONCRETE PATCHING REPAIR	
PIER 1E CAP	88 SF
PIER 1E COLUMNS	54 SF
PIER 3E CAP	48 SF
PIER 3E COLUMNS	20 SF

ACTUAL QUANTITES MAY VARY

NOTES:
DETAILS SHOWN ARE BASED ON EXISTING PLANS (DWG NO 20096). FEATURES AND DIMENSIONS SHOWN ARE APPROXIMATE.

CONTRACTOR SHALL VERIFY THE PROFILE GRADE LOCATION AND CROSS-SLOPES WITH THE EXISTING BRIDGE PLANS AND ROADWAY PAVEMENT REHABILITATION PLANS.



TYPICAL DECK SECTION

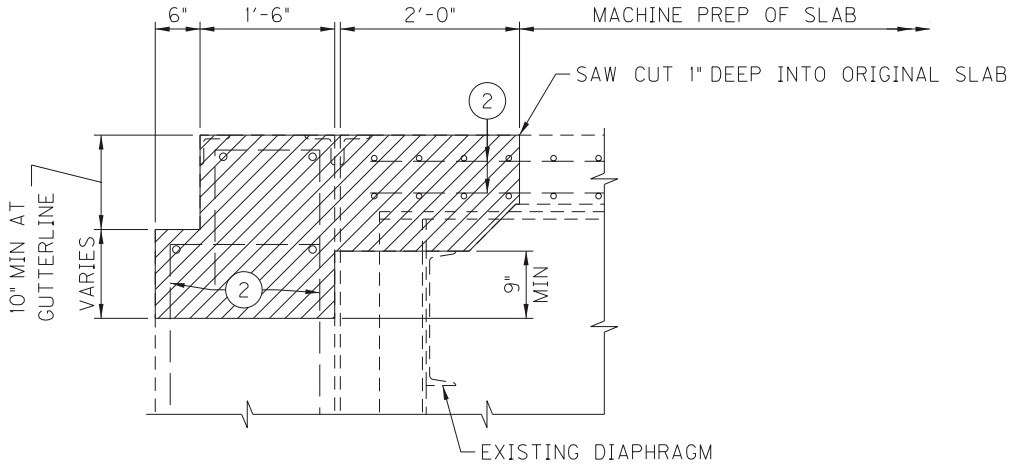
SPANS 2 & 3 SUPERSTRUCTURE SHOWN

BRIDGE 047B00128R SHEET 1 OF 4

Stantec

ELEVATION AND TYPICAL DECK SECTION

COUNTY:	HARDIN
ROUTE:	B.G. PARKWAY EASTBOUND
CROSSING:	I-65



EXISTING SECTION AT END BENTS

(SHOWING LIMITS OF REMOVAL)

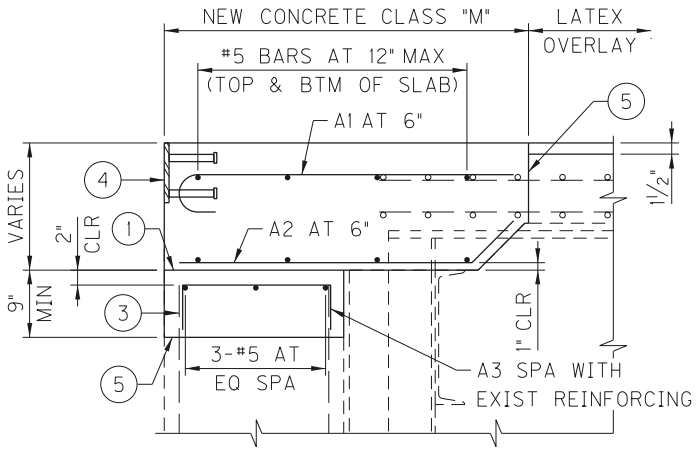
NOTES:
REMOVE HATCHED AREA OF CONCRETE, EXPANSION DEVICE AND ARMORED EDGE. CLEAN AND REUSE EXISTING REINFORCEMENT. THE CONTRACTOR HAS THE OPTION TO REUSE OR REPLACE THE TRANSVERSE REINFORCEMENT.

FOR BONDING NEW CONCRETE TO EXISTING SURFACES, SEE SECTION 511 OF THE STANDARD SPECIFICATIONS.

ROUGHEN EXISTING CONCRETE WHEN IN CONTACT WITH NEW CONCRETE.

THIS WORK, INCLUDING ALL LABOR, TOOLS AND MATERIAL, IS TO BE INCLUDED IN THE BID ITEM 3300 "ELIMINATE TRANSVERSE JOINT".

SEE SHEET 4 OF 4 FOR BAR BEND DIMENSIONS.



PROPOSED SECTION AT END BENTS

NOTATIONS:

(1) BOND BREAKER (1 LAYER OF 30# ROOFING PAPER)

(2) CLEAN AND STRAIGHTEN EXISTING EMBEDDED REINFORCEMENT

(3) CUT/REMOVE EXISTING REINFORCEMENT TO MAINTAIN 2" CLEARANCE

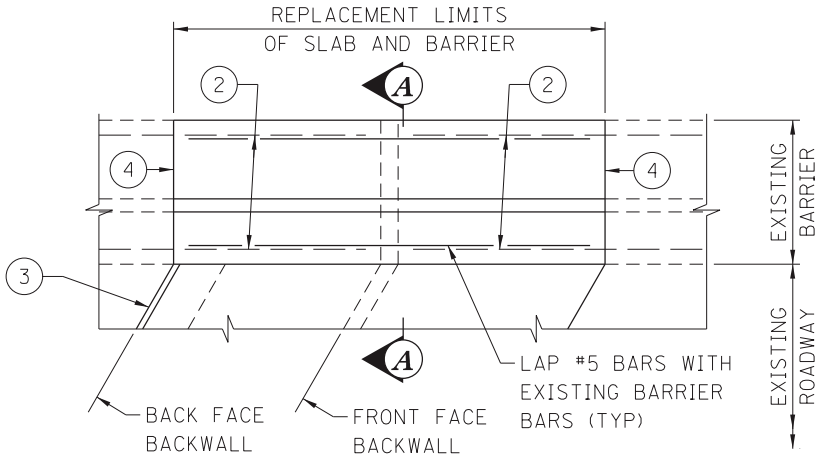
(4) ARMORED EDGE, SEE STD DWG BJE-001-13

(5) BONDED CONSTRUCTION JOINT

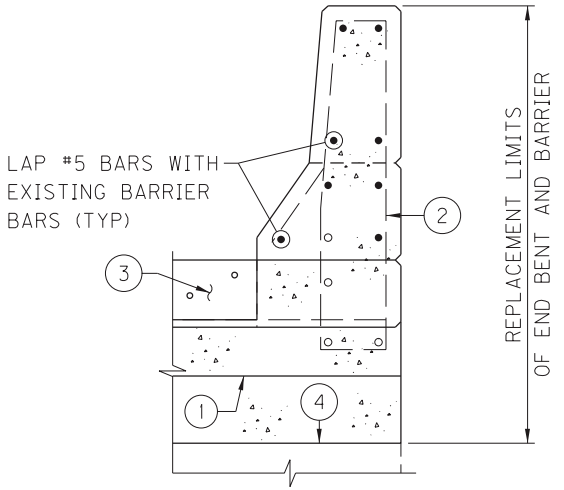
Stantec

JOINT ELIMINATION DETAILS - END BENTS

COUNTY:	HARDIN
ROUTE:	BLUEGRASS PARKWAY EASTBOUND
CROSSING:	I-65



PROPOSED PLAN AT BARRIER



SECTION A–A

NOTE:
SEE JOINT ELIMINATION DETAILS, SHEET 2 OF 4, FOR REINFORCEMENT AND DIMENSIONS NOT SHOWN.

NOTES:
REMOVE HATCHED AREA OF CONCRETE, EXPANSION DEVICE AND ARMORED EDGE. CLEAN AND REUSE EXISTING REINFORCEMENT. THE CONTRACTOR HAS THE OPTION TO REUSE OR REPLACE THE TRANSVERSE REINFORCEMENT.

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NOTATIONS:

(1) BOND BREAKER (1 LAYER OF 30# ROOFING PAPER)

(2) CLEAN AND STRAIGHTEN EXISTING EMBEDDED REINFORCEMENT

(3) ARMORED EDGE, SEE STD DWG BJE-001-13, (BETWEEN GUTTERLINES ONLY)

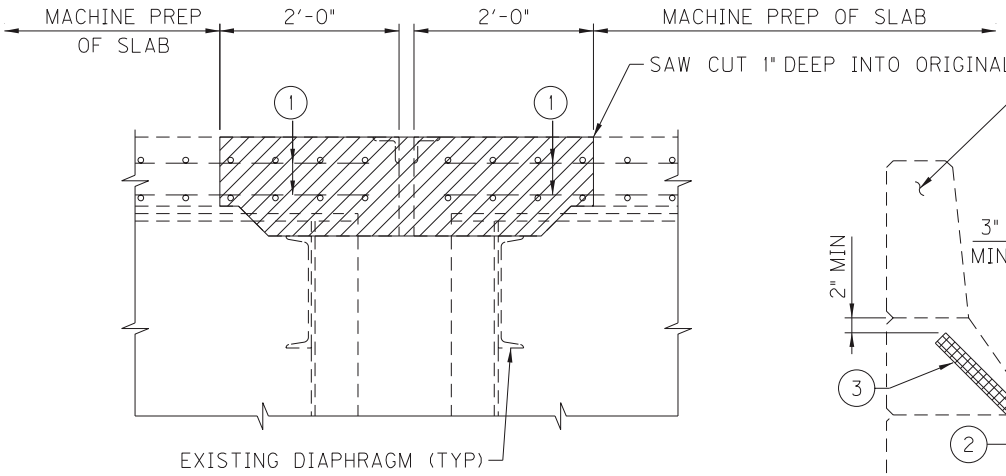
(4) BONDED CONSTRUCTION JOINT

BRIDGE 047B00128R SHEET 3 OF 4

Stantec

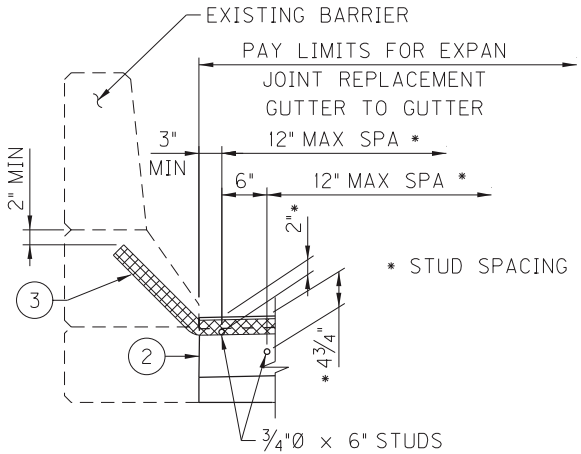
JOINT ELIMINATION DETAILS - END BENT BARRIERS

COUNTY:	HARDIN
ROUTE:	BLUEGRASS PARKWAY EASTBOUND
CROSSING:	I-65



EXISTING SECTION AT PIERS 1E & 3E

(SHOWING LIMITS OF REMOVAL)



PROPOSED SECTION THRU JOINT AT BARRIER

NOTES:
REMOVE HATCHED AREA OF CONCRETE, EXPANSION DEVICE AND ARMORED EDGE. CLEAN AND REUSE EXISTING REINFORCEMENT. THE CONTRACTOR HAS THE OPTION TO REUSE OR REPLACE THE TRANSVERSE REINFORCEMENT.

FOR BONDING NEW CONCRETE TO EXISTING SURFACES, SEE SECTION 511 OF THE STANDARD SPECIFICATIONS.

ROUGHEN EXISTING CONCRETE WHEN IN CONTACT WITH NEW CONCRETE.

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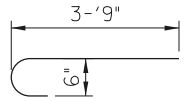
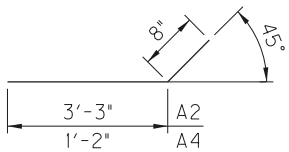
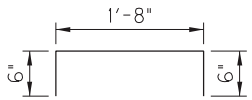


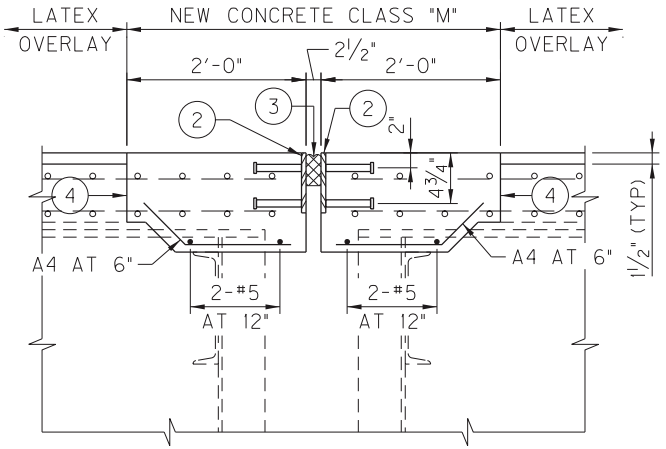
A1 - #6 BAR



A2 & A4 - #6 BAR



A3- #5 BAR



NOTATIONS:

1. CLEAN AND STRAIGHTEN EXISTING EMBEDDED REINFORCEMENT
2. PL ⅝" x 8" WITH ¾"Ø x 6" STUDS
3. 2½" PRECOMPRESSED, SILICONE-AND-FOAM HYBRID JOINT SYSTEM. INSTALL ¾" FROM TOP OF DECK.
4. BONDED CONSTRUCTION JOINT

PROPOSED SECTION AT PIERS 1E & 3E

BRIDGE 047B00128R SHEET 4 OF 4

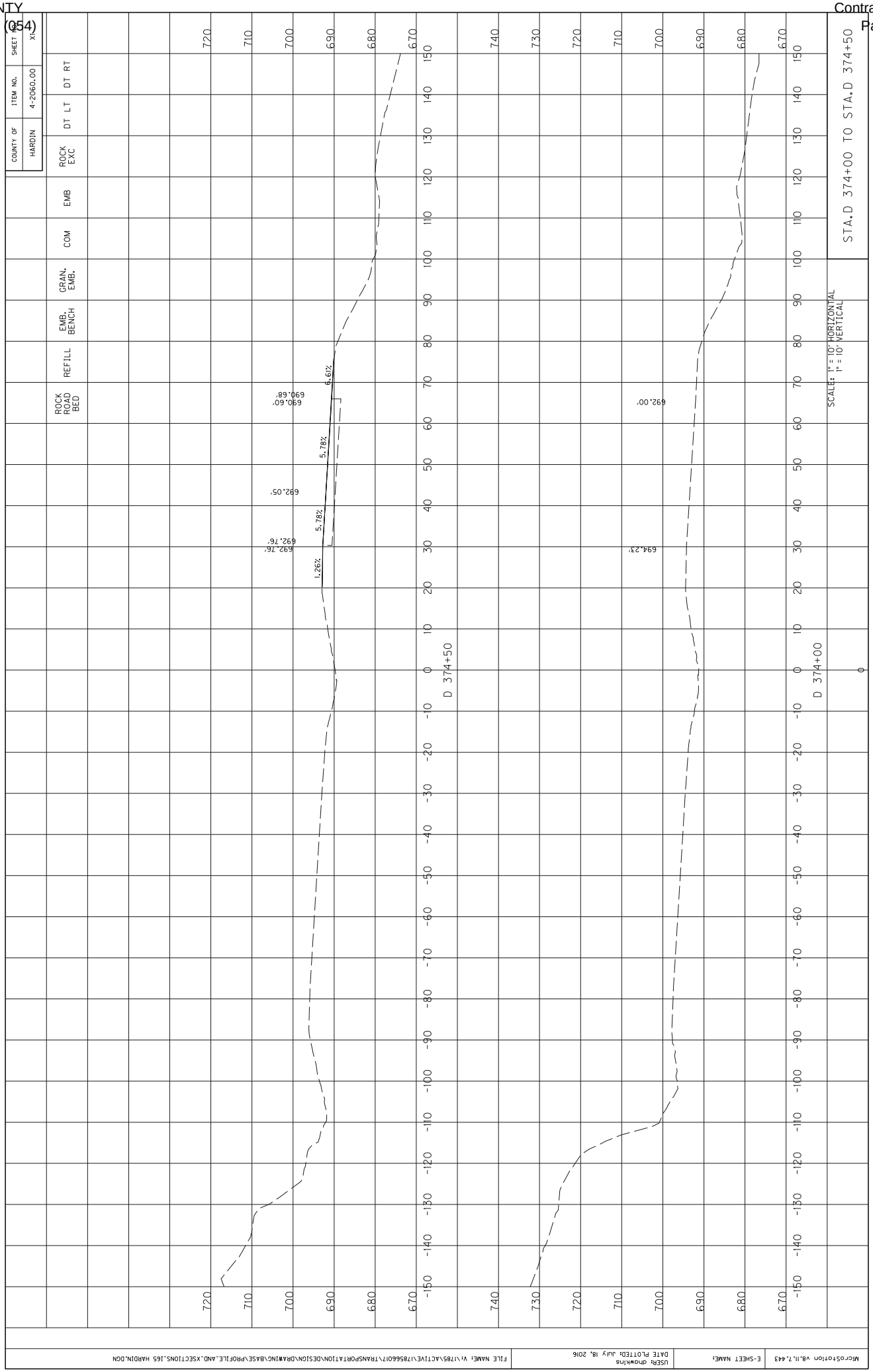
Stantec

JOINT REPLACEMENT DETAILS - PIERS 1E & 3E

COUNTY:	HARDIN
ROUTE:	BLUEGRASS PARKWAY EASTBOUND
CROSSING:	I-65

4-2060.00 HARDIN

CROSS SECTION PLAN SHEETS IN 11” X 17” SIZE ARE ALSO AVAILABLE IN THE PROJECT-RELATED INFORMATION FOLDER ON THE CONSTRUCTION PROCUREMENT WEBSITE.


COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. XX
DT RT
DT LT
ROCK EXC
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 374+00 TO STA.D 374+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
690.60'
690.68'
692.05'
692.76'
692.76'
692.00'
694.23'
6.61%
5.78%
5.78%
1.26%
D 374+50
D 374+00
720
710
700
690
680
670
740
730
720
710
700
690
680
670
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
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-40
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-100
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-120
-130
-140
-150
MicroStation v8.11.7.443
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USER: dhawkins
DATE PLOTTED: July 18, 2016
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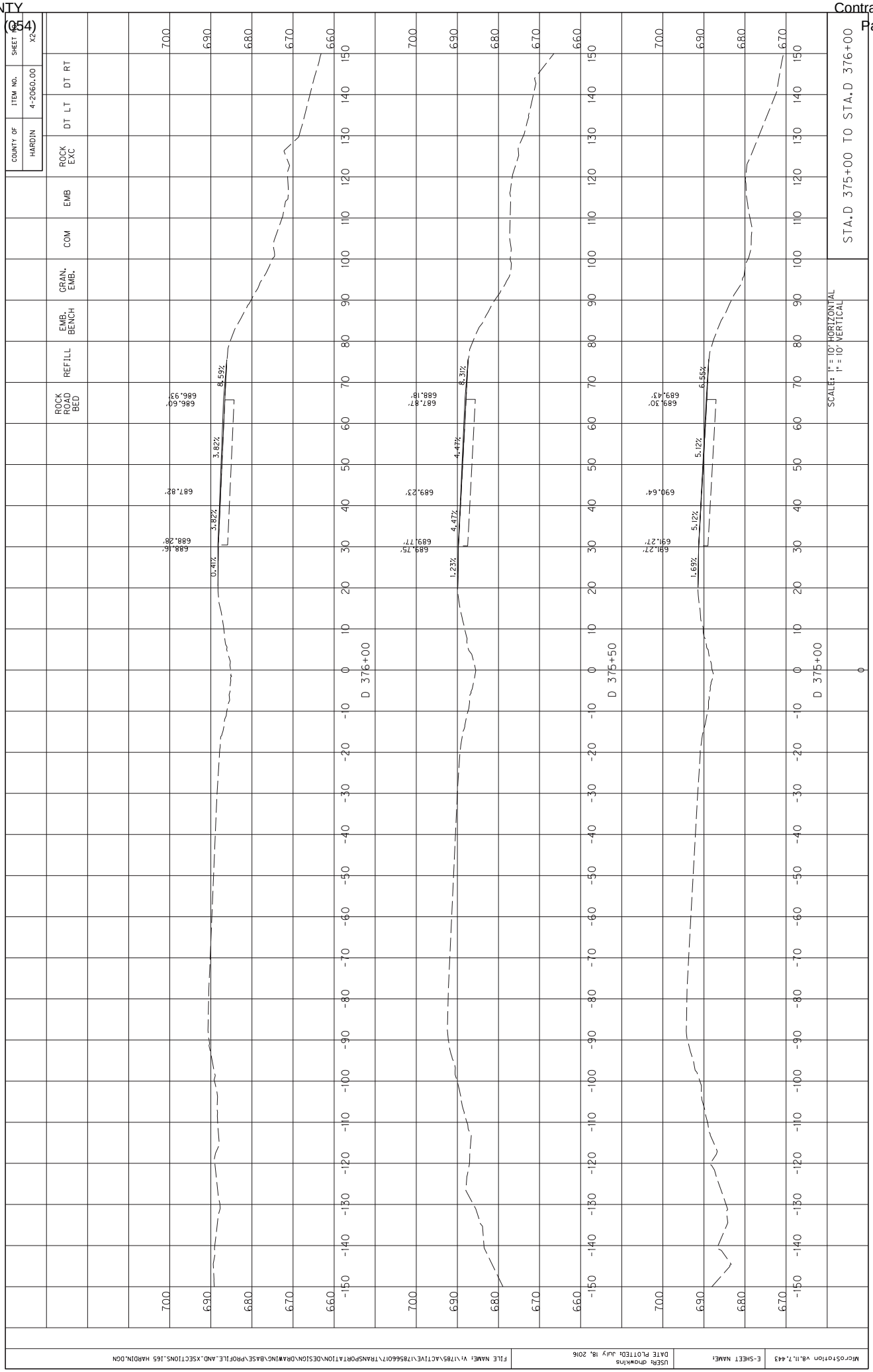
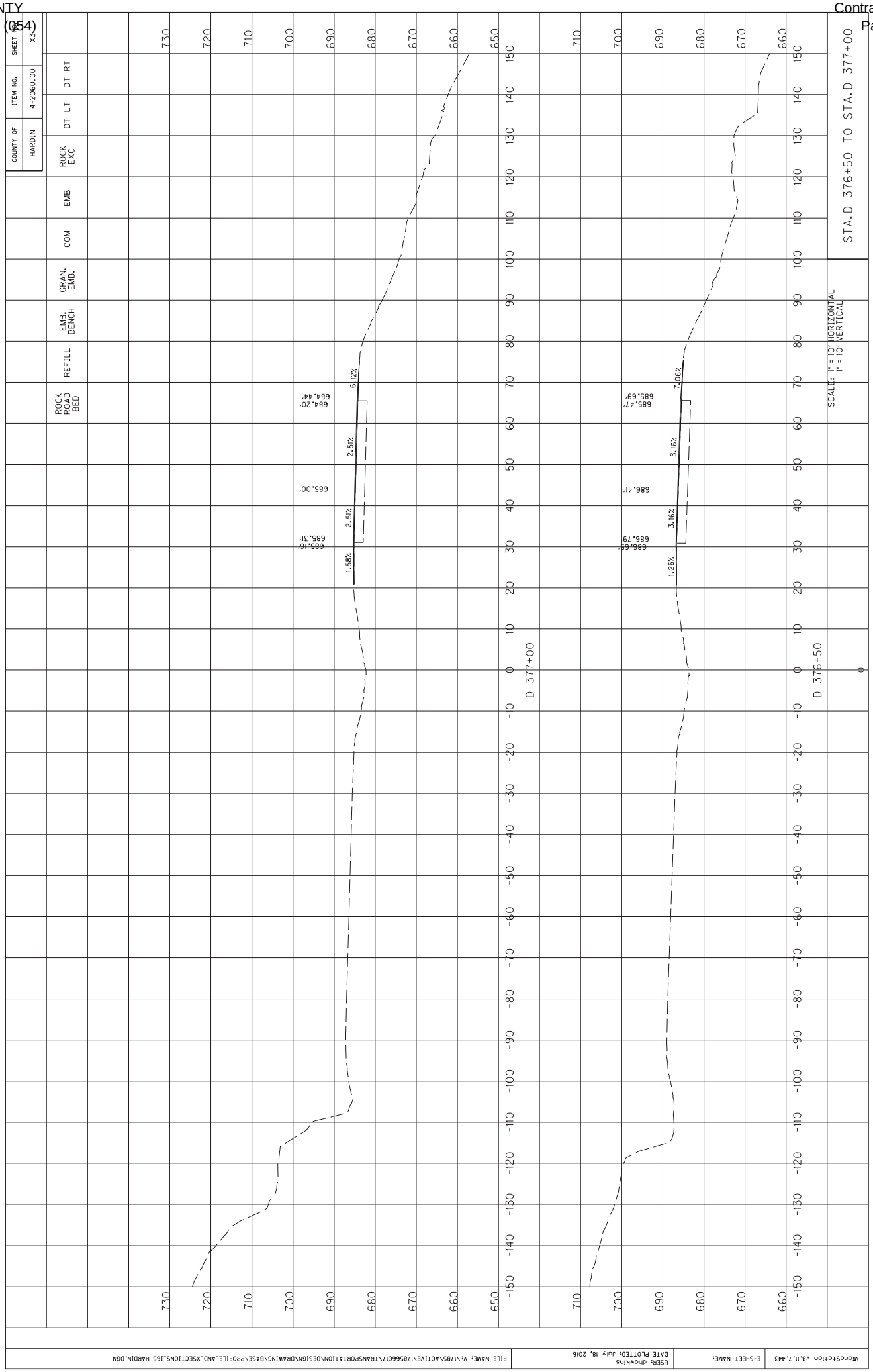

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X2
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 375+00 TO STA.D 376+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 375+00
D 375+50
D 376+00
0.41%
3.82%
8.59%
4.47%
8.31%
5.12%
6.55%
1.69%
1.23%
687.82'
688.26'
686.60'
686.93'
689.23'
689.75'
687.87'
688.18'
690.64'
691.27'
689.30'
689.43'
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: y:\1785\ACTIVE\1785601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN


COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X3
DT RT
DT LT
ROCK EXC
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 376+50 TO STA.D 377+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 377+00
D 376+50
684.20'
684.44'
685.00'
685.16'
685.31'
685.47'
685.69'
686.41'
686.65'
686.79'
6.12%
2.51%
2.51%
1.58%
7.06%
3.16%
3.16%
1.26%
730
720
710
700
690
680
670
660
650
150
140
130
120
110
100
90
80
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60
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MicroStation v8.11.7.443
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USER: dhawkins
DATE PLOTTED: July 18, 2016
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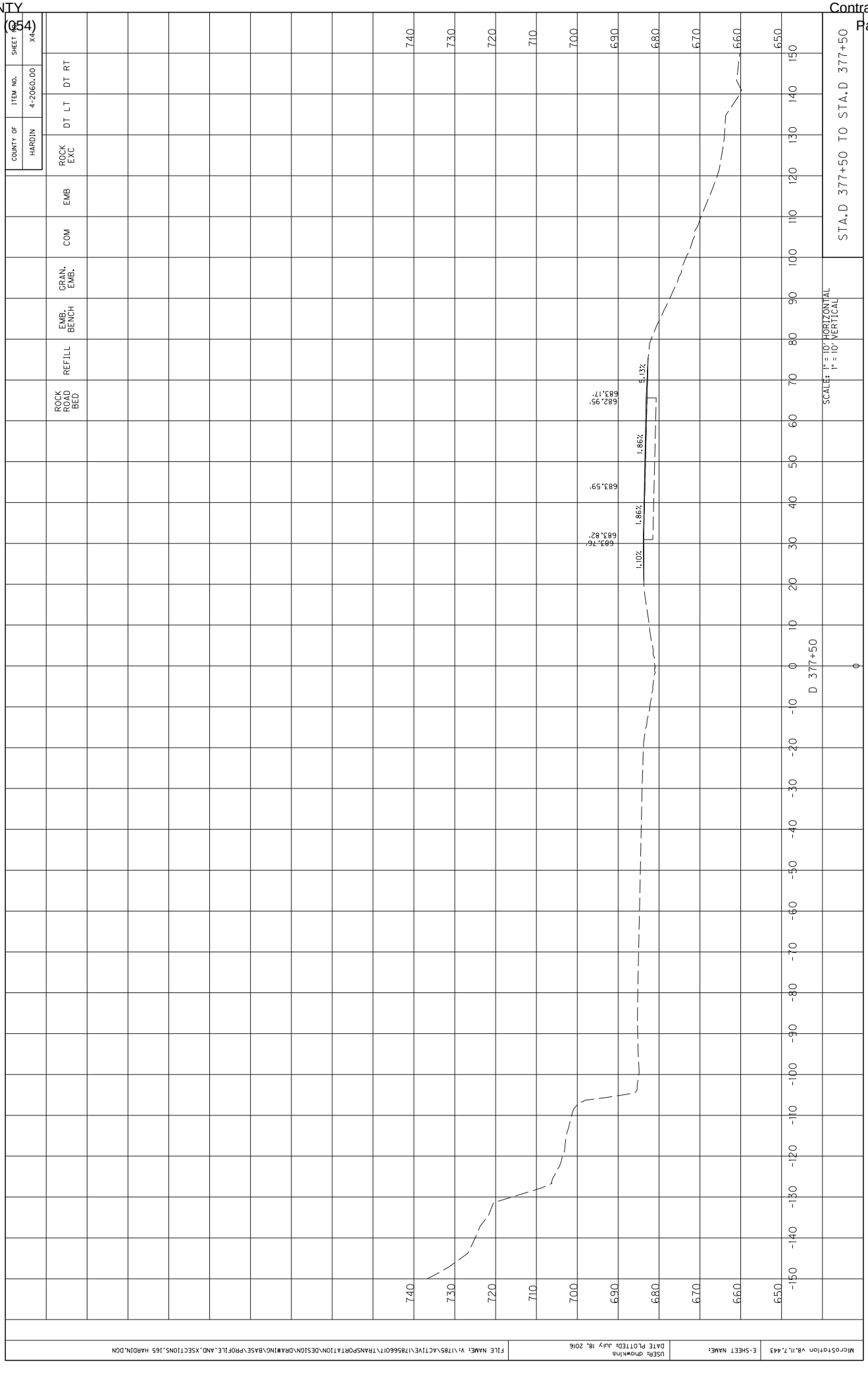
COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X4
DT RT
DT LT
ROCK EXC
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
740
730
720
710
700
690
680
670
660
650
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
682.95'
683.17'
683.59'
683.76'
683.82'
5.13%
1.86%
1.86%
1.10%
D 377+50
0
STA.D 377+50 TO STA.D 377+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
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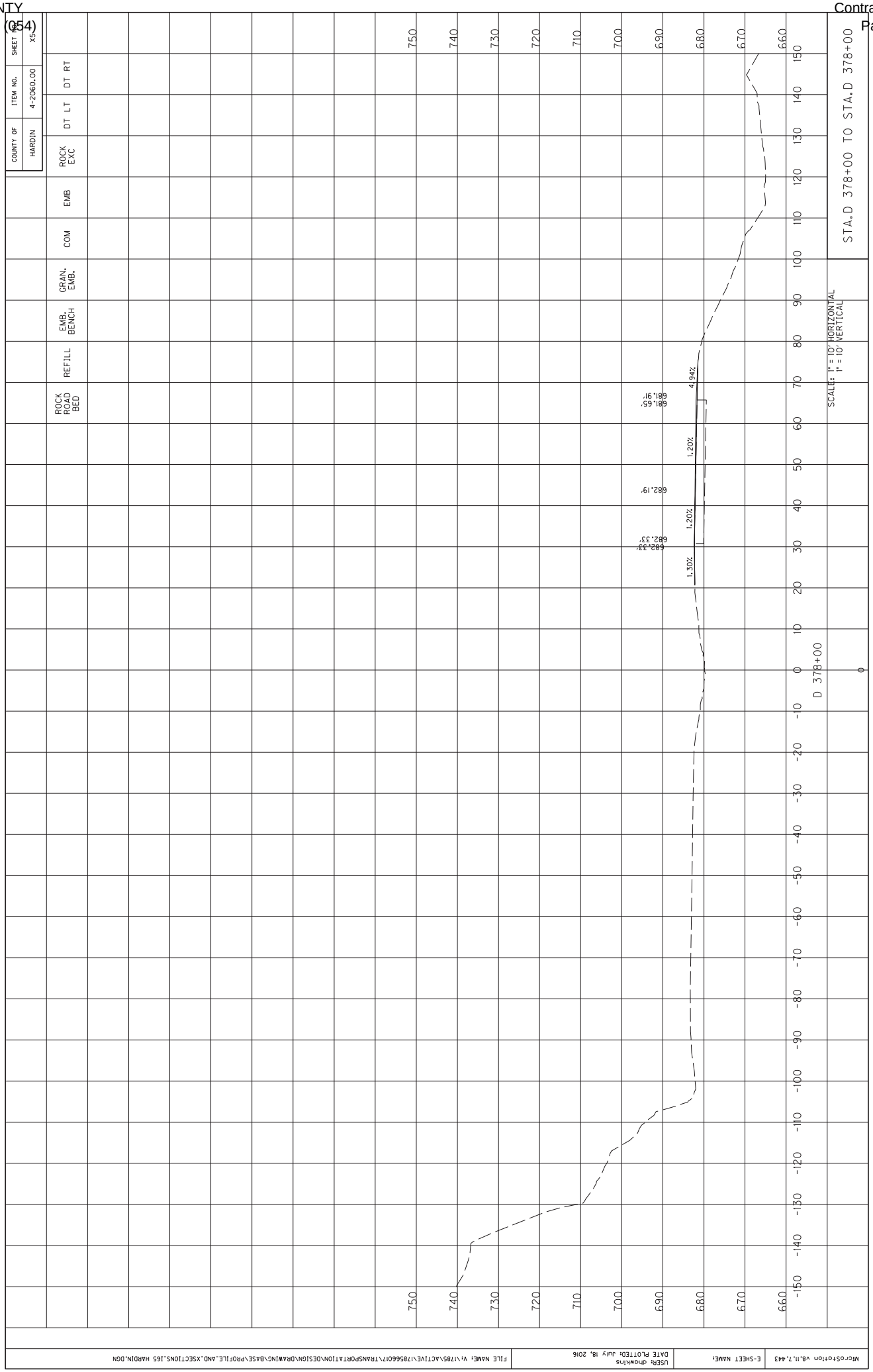
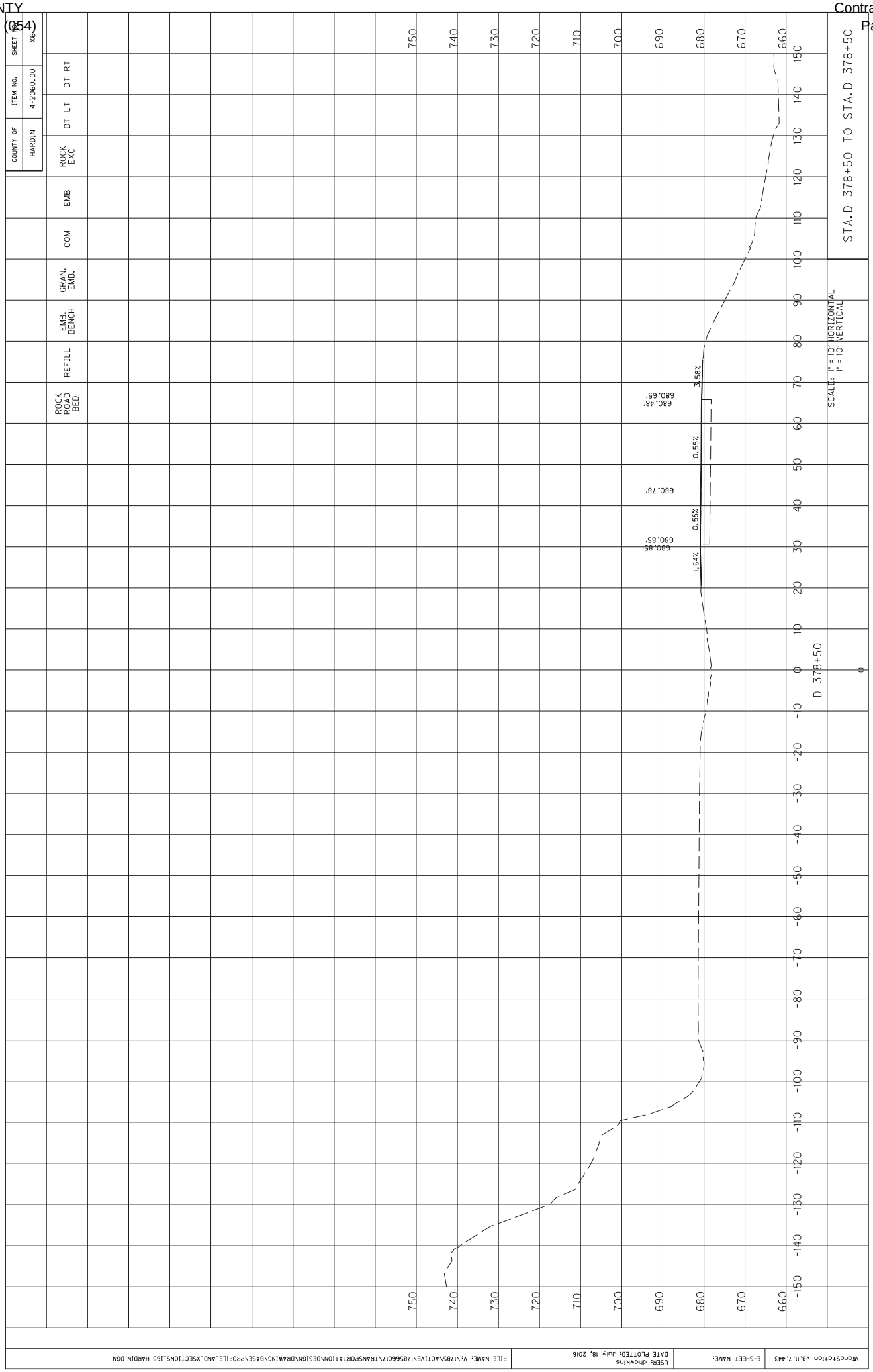
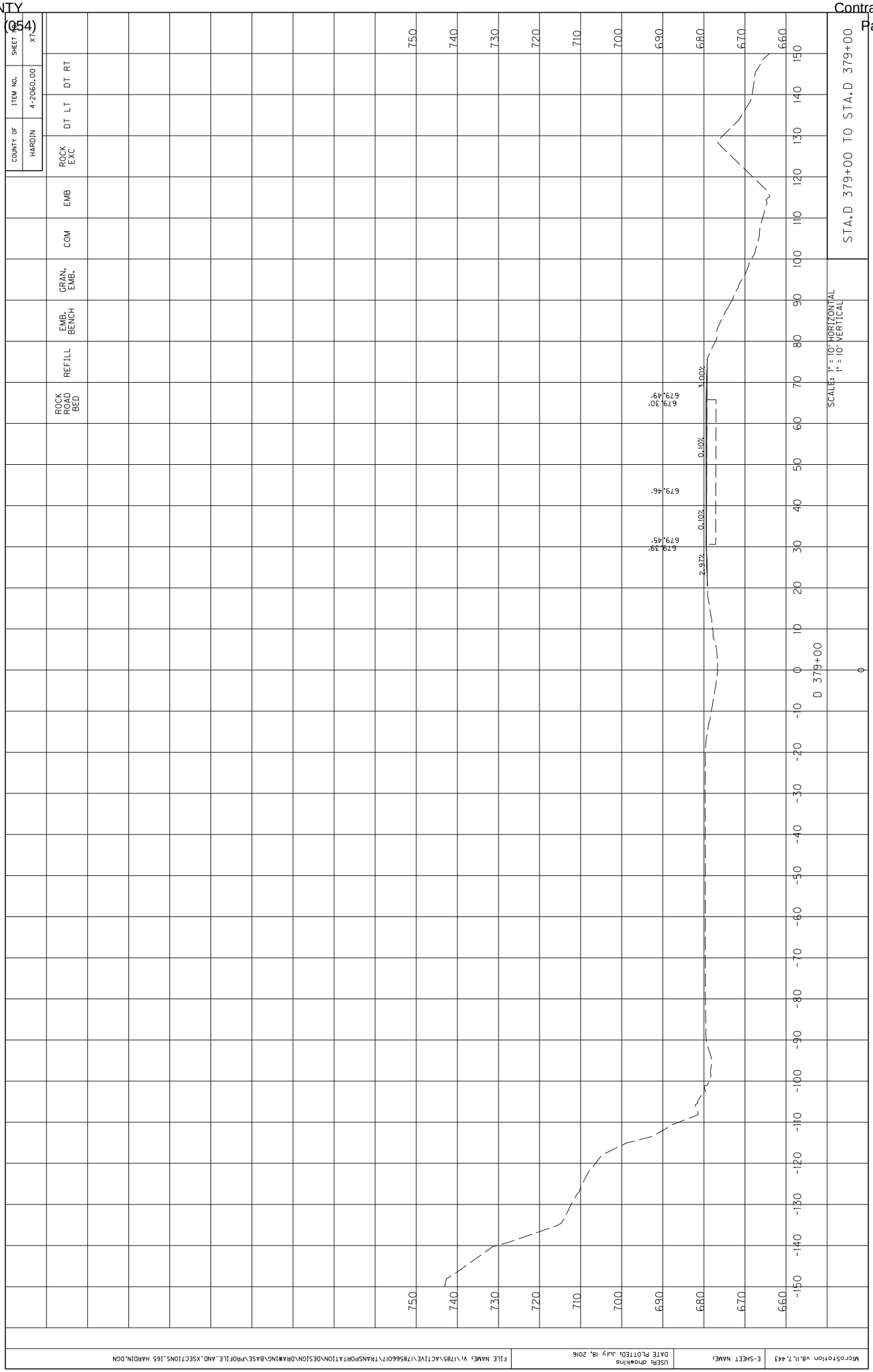
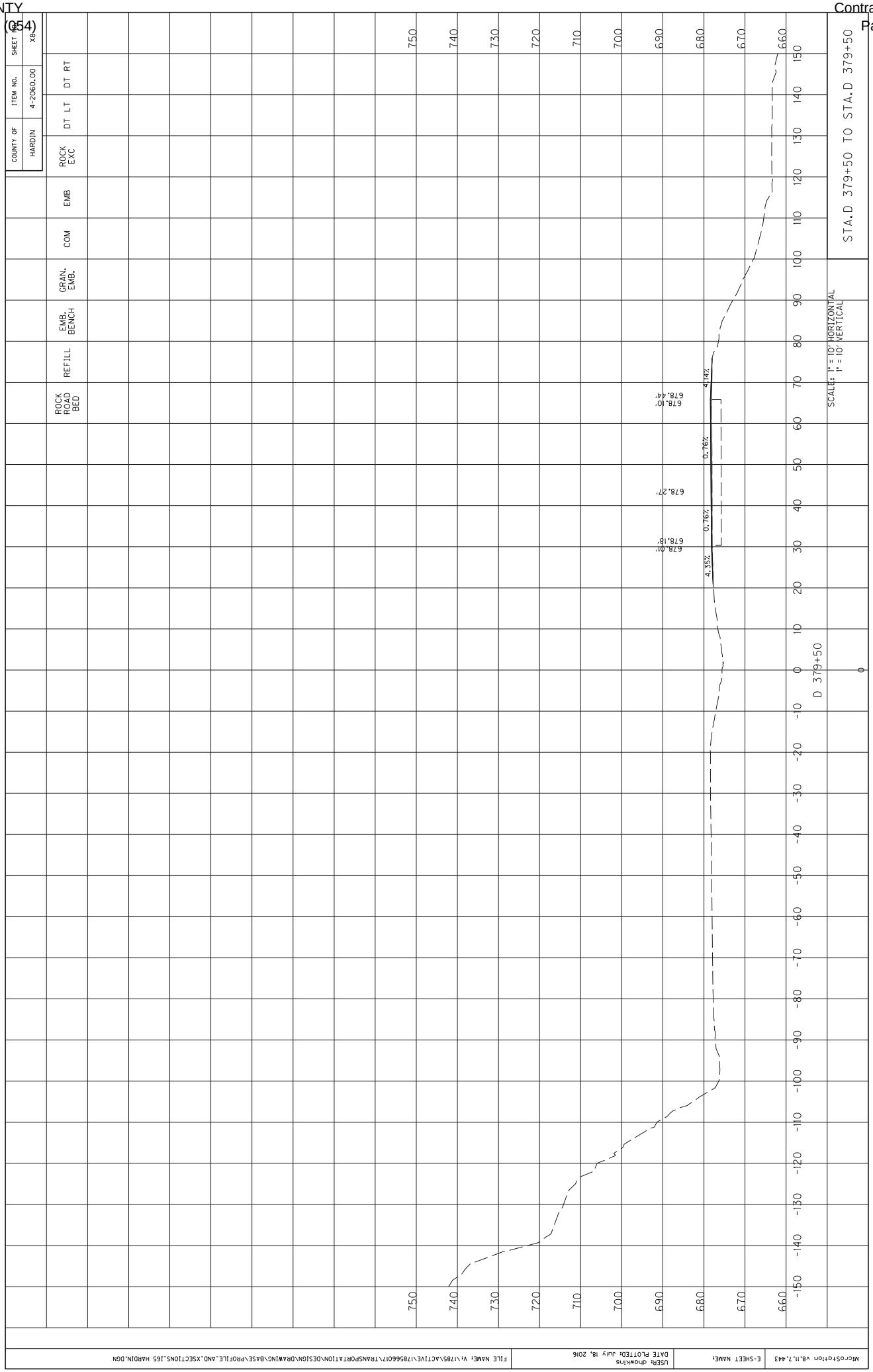
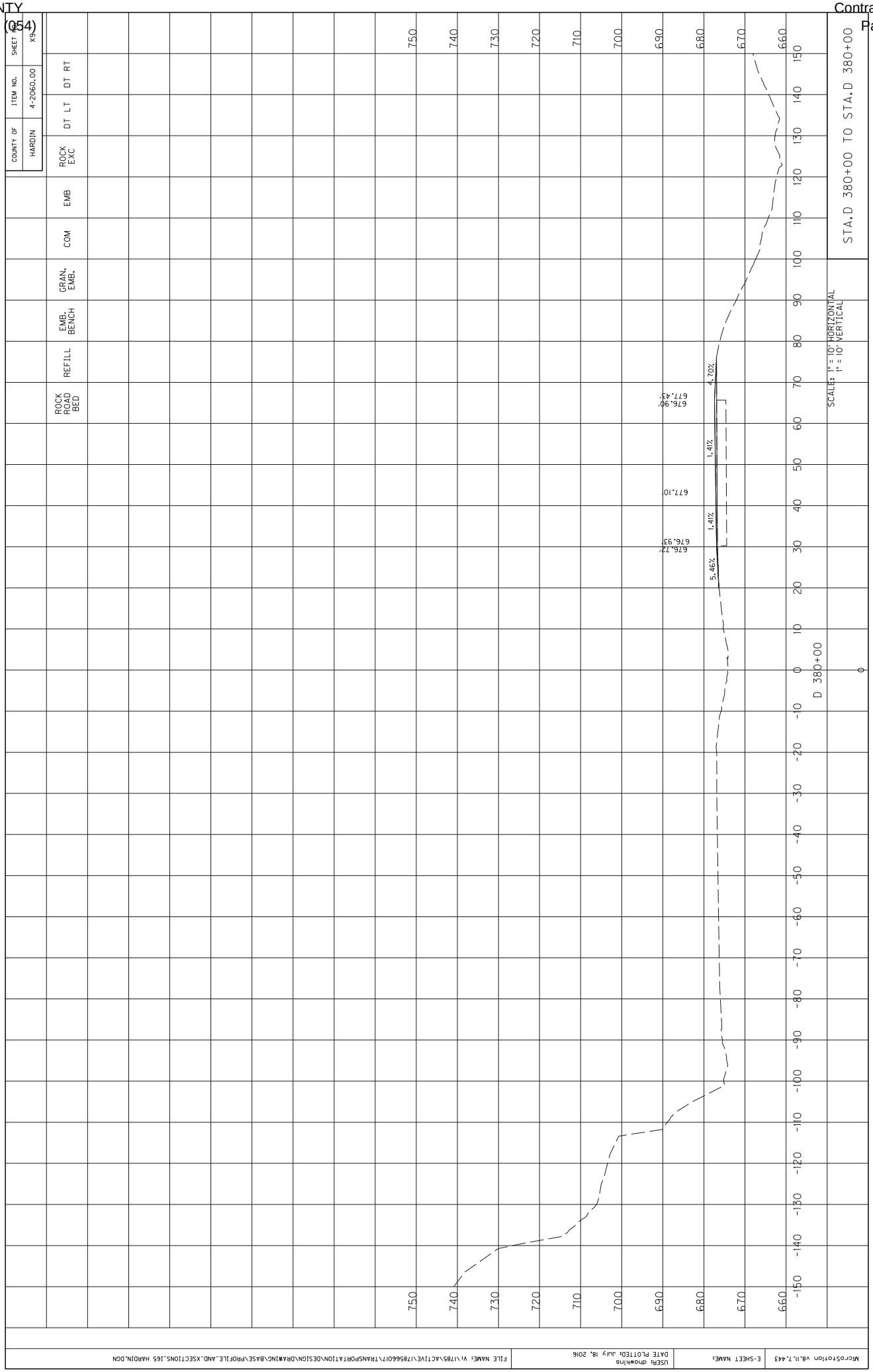
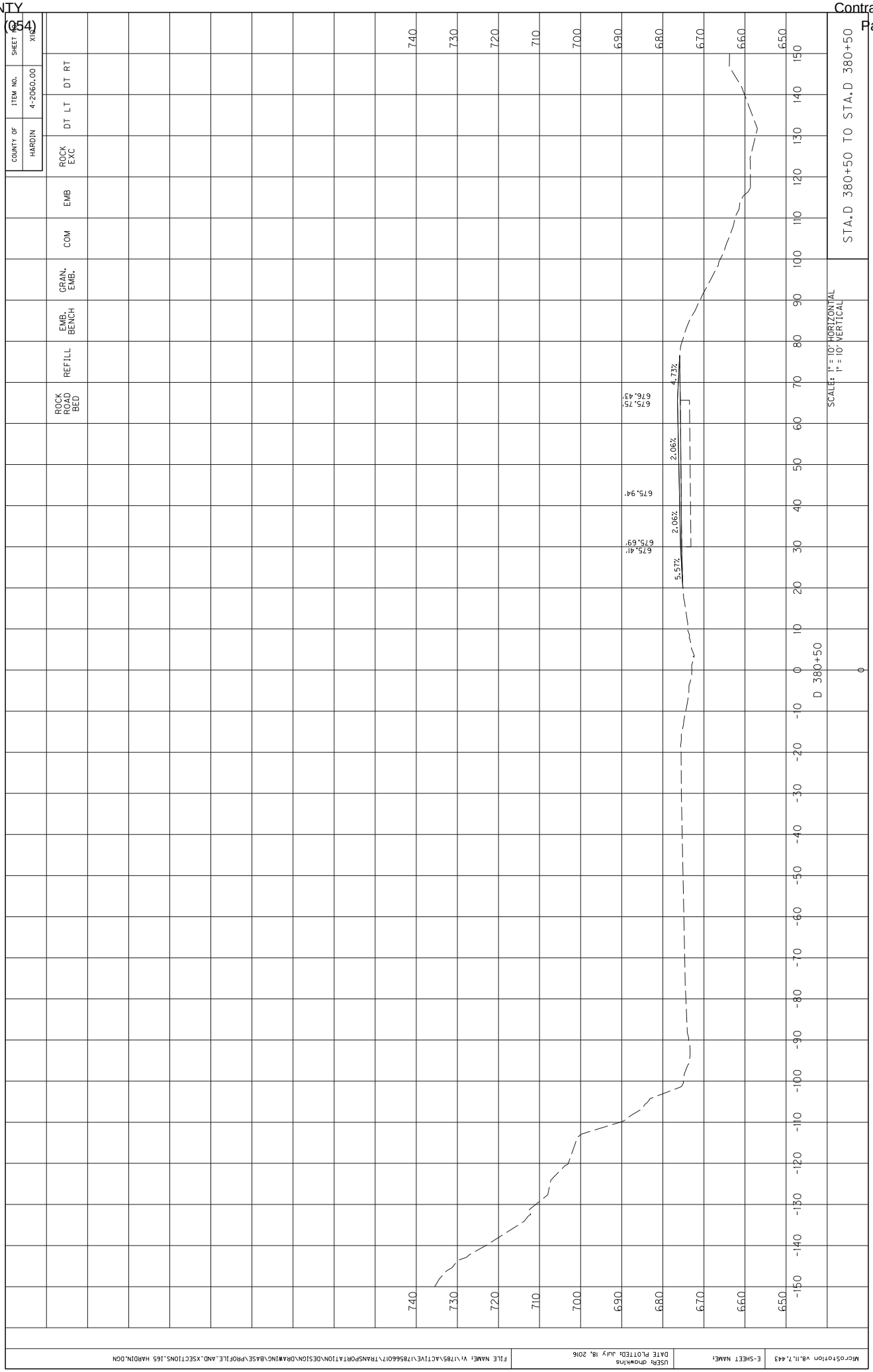

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X5
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 378+00 TO STA.D 378+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 378+00
681.65'
681.91'
682.19'
682.33'
682.33'
4.94%
1.20%
1.20%
1.30%
FILE NAME: V:\1785\ACTIVE\178566017\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN
USER: dhawkins
DATE PLOTTED: July 18, 2016
E-SHEET NAME:
MicroStation V8.11.7.443

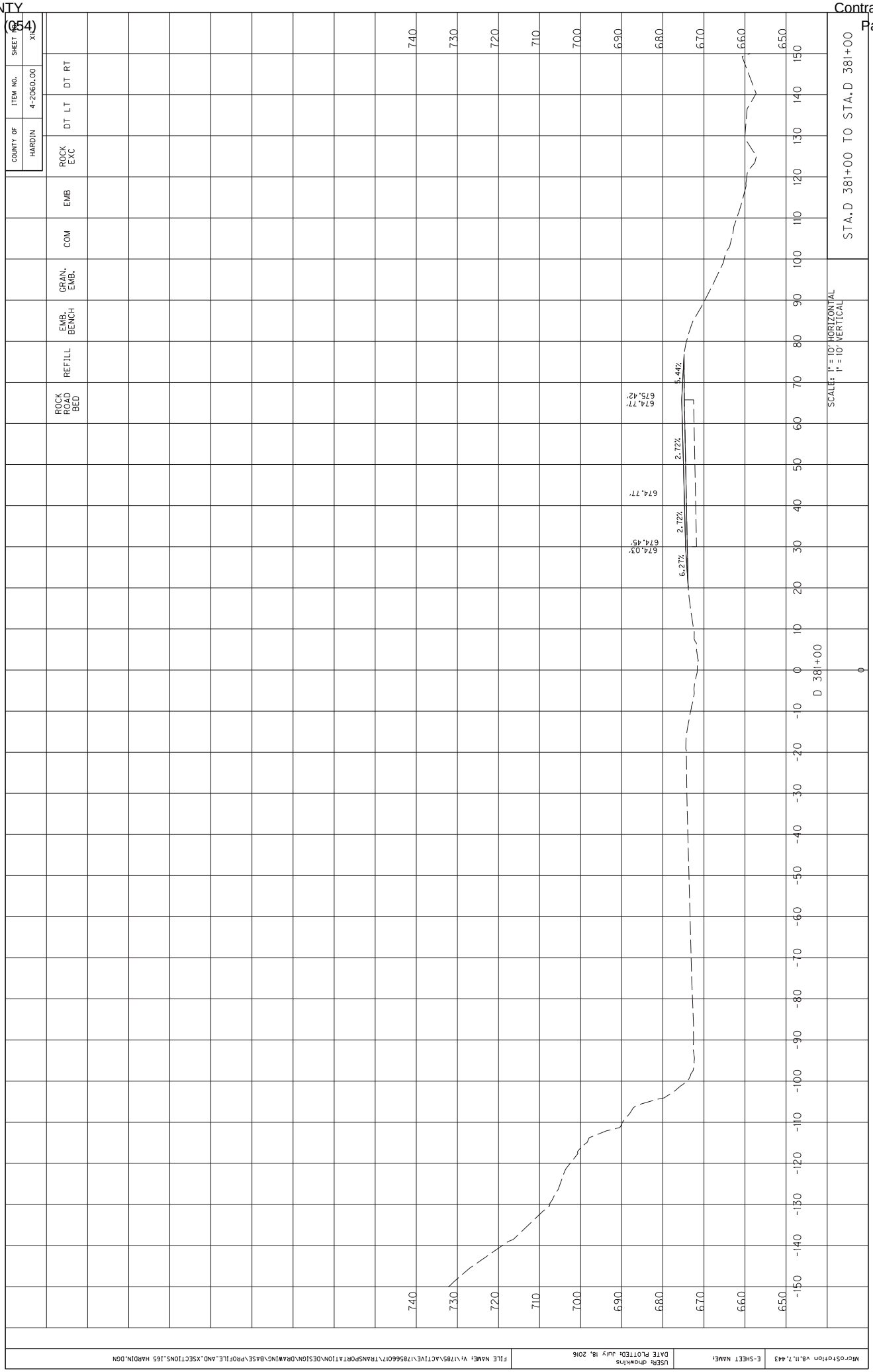

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X6
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA. D 378+50 TO STA. D 378+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 378+50
3.58%
0.55%
0.55%
1.64%
680.48'
680.65'
680.78'
680.85'
750
740
730
720
710
700
690
680
670
660
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: y:\1785\ACTIVE\1785601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

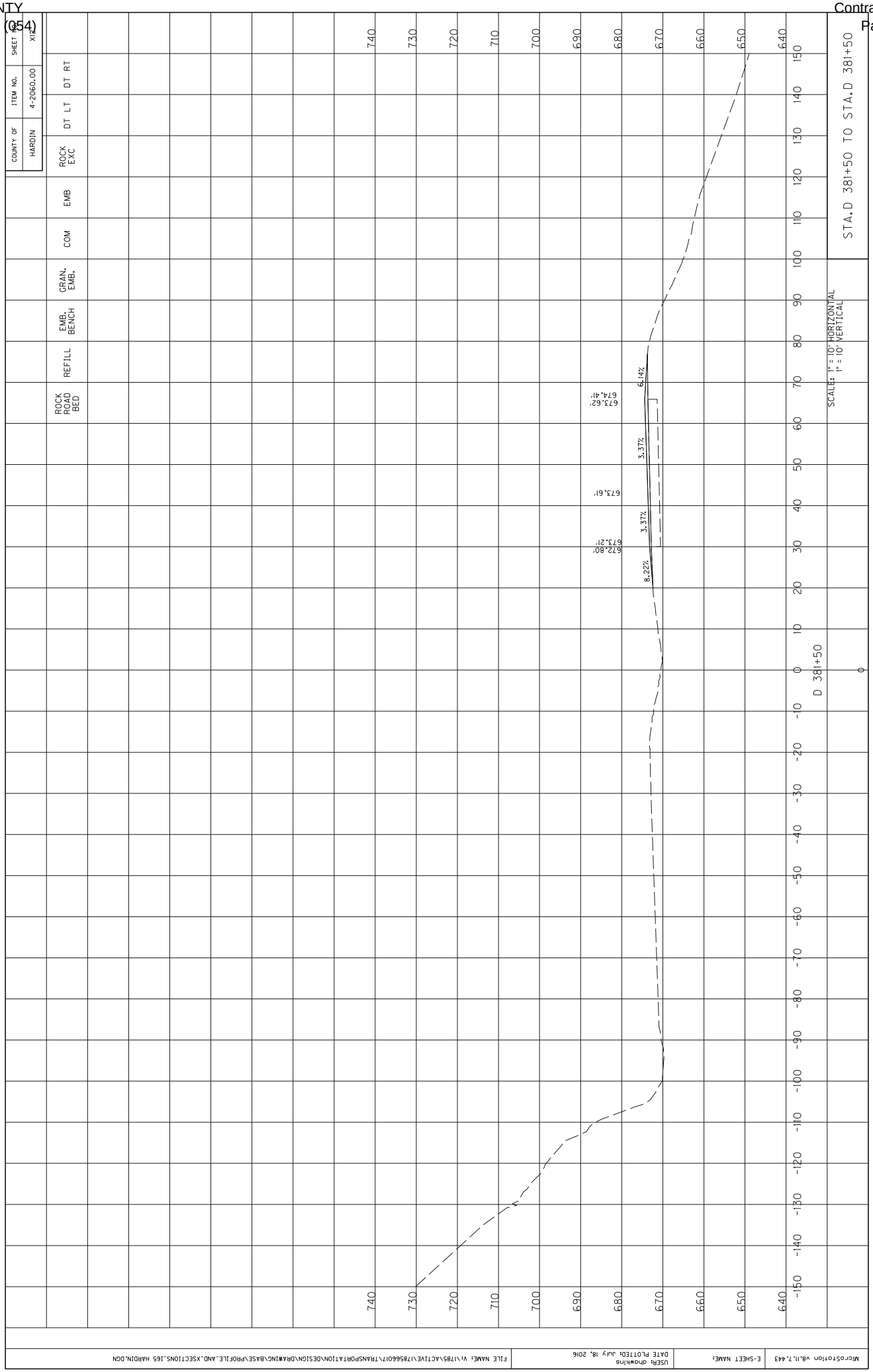

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X7
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 379+00 TO STA.D 379+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 379+00
679.30'
679.49'
679.46'
679.39'
679.45'
3.00%
0.10%
0.10%
2.93%
750
740
730
720
710
700
690
680
670
660
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: y:\1785\ACTIVE\1785601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

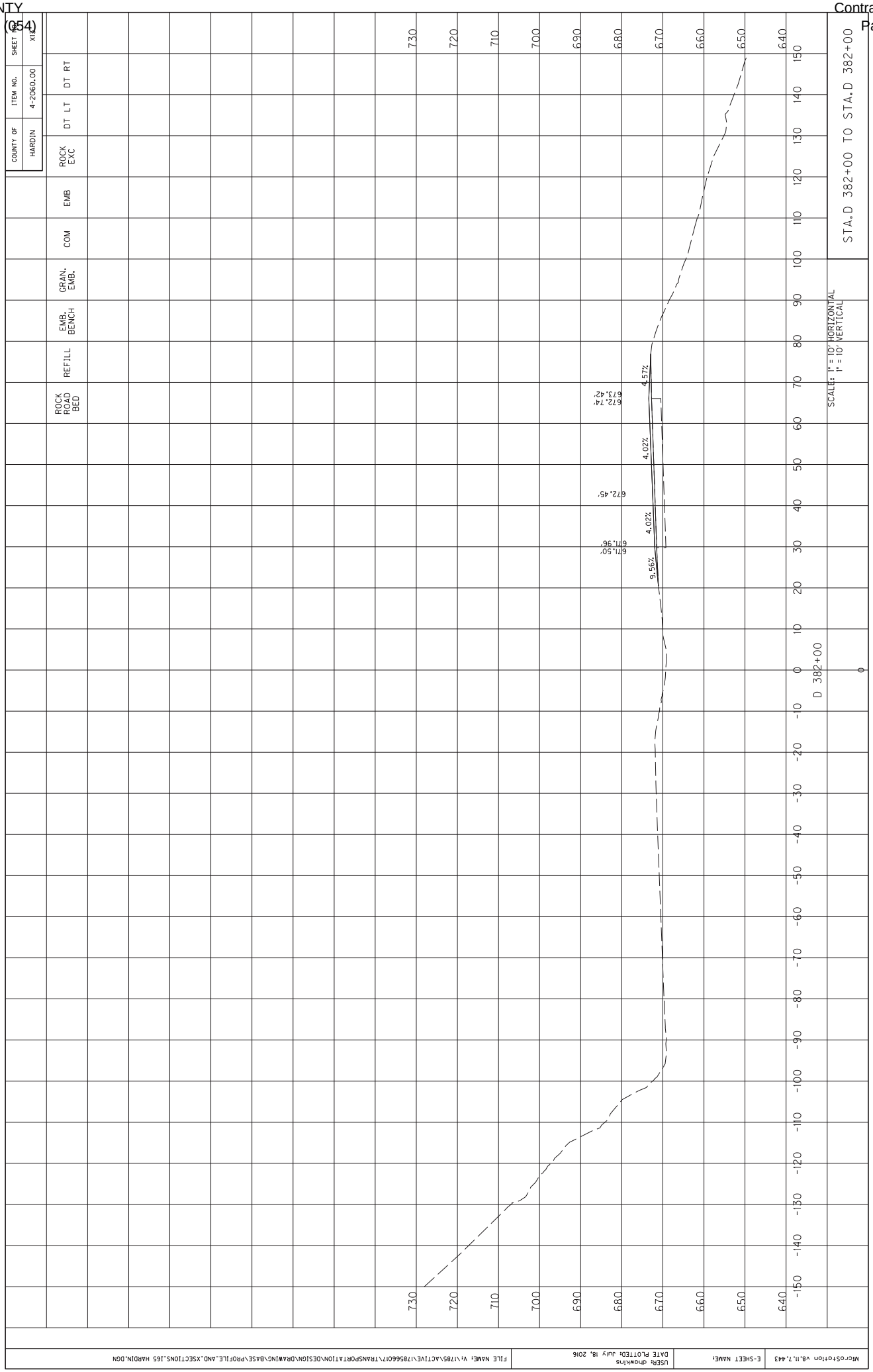

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X8
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA. D 379+50 TO STA. D 379+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 379+50
678.10'
678.44'
678.27'
678.01'
678.18'
4.14%
0.76%
0.76%
4.35%
750
740
730
720
710
700
690
680
670
660
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: y:\1785\ACTIVE\1785601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

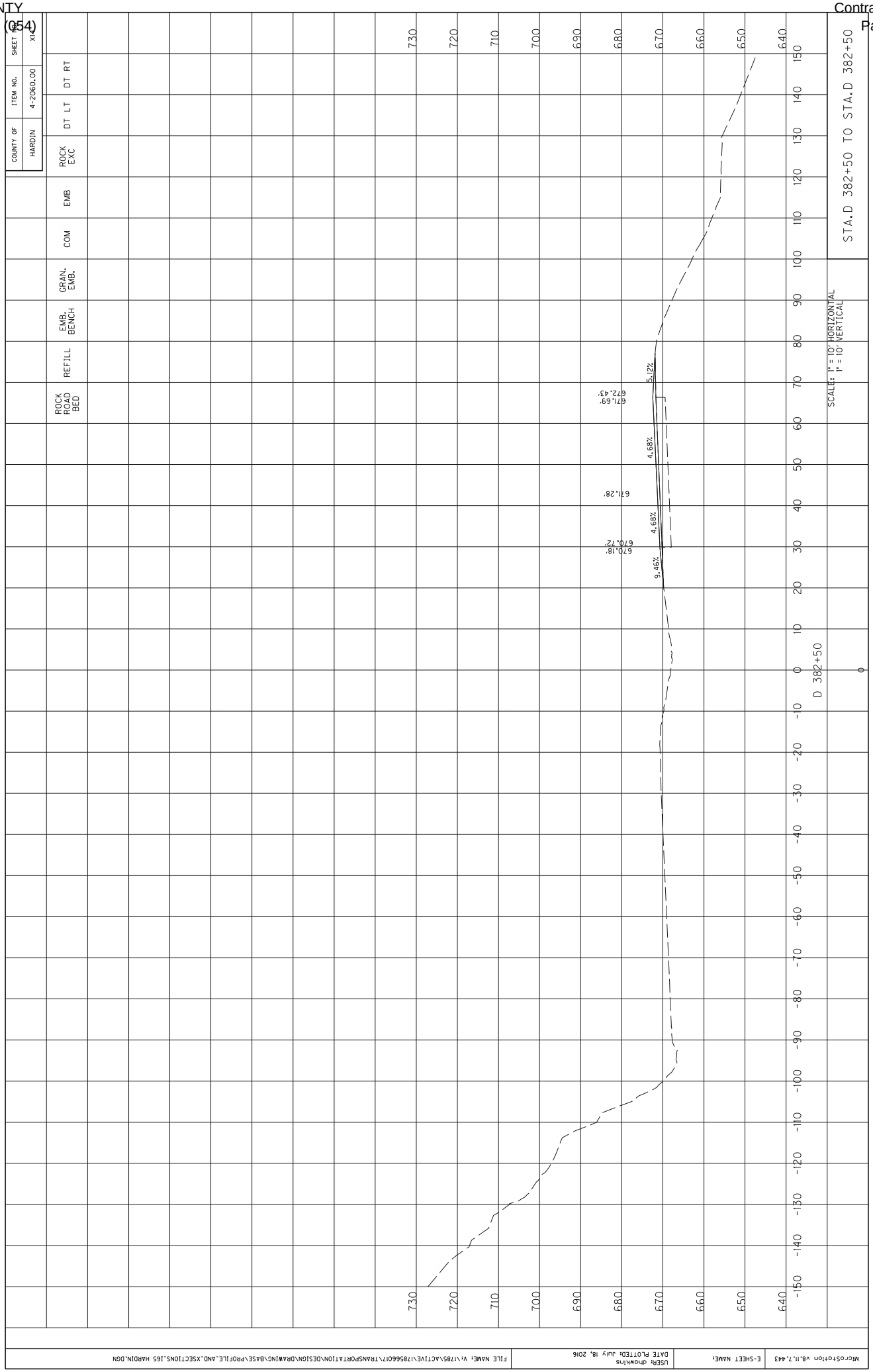

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X9
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 380+00 TO STA.D 380+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 380+00
676.90'
677.43'
677.10'
676.93'
676.72'
4.70%
1.41%
1.41%
5.46%
750
740
730
720
710
700
690
680
670
660
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: v:\1785\ACTIVE\1785601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

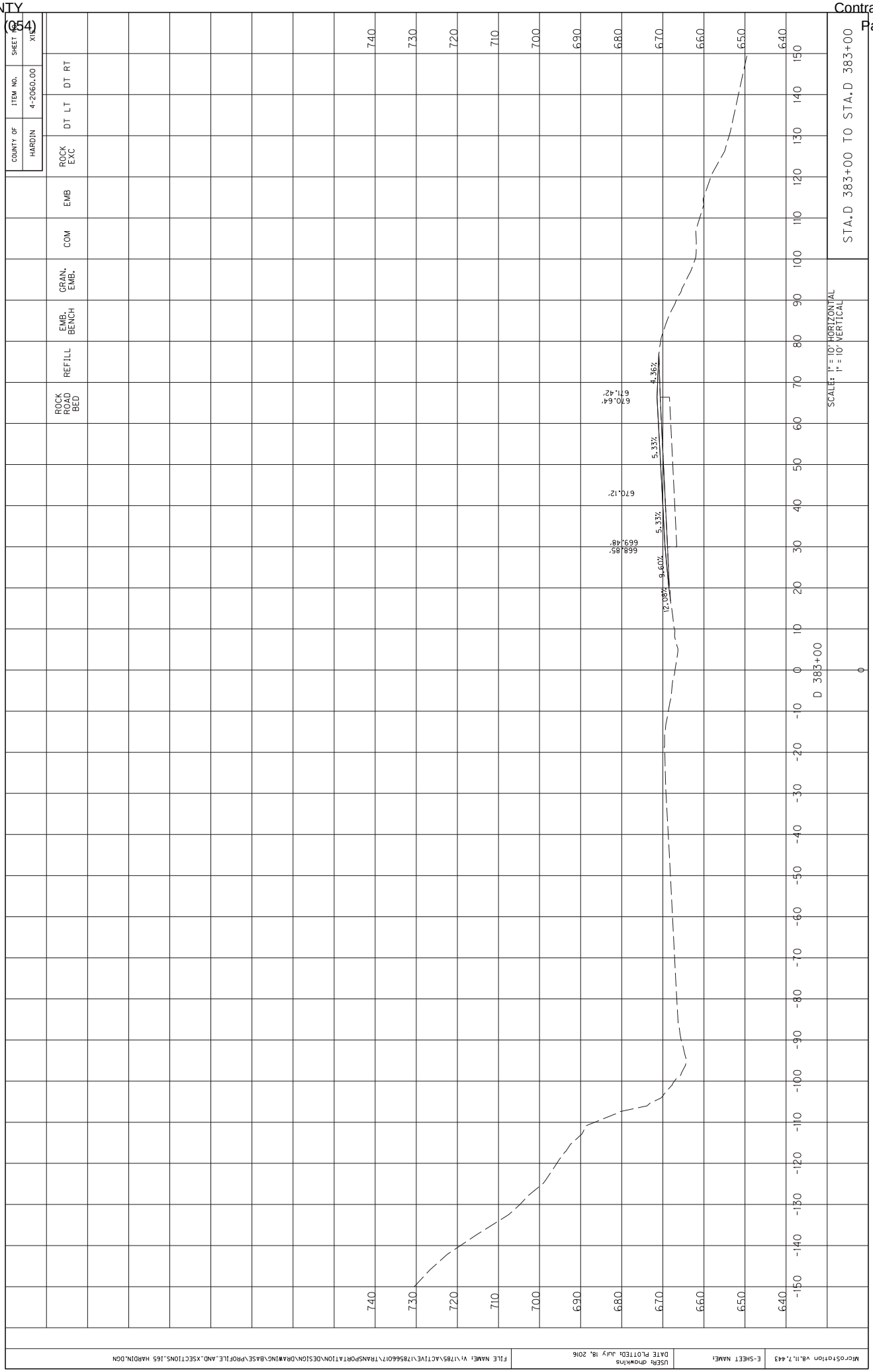

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. XIG
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 380+50 TO STA.D 380+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 380+50
675.75'
676.43'
675.94'
675.69'
675.41'
4.73%
2.06%
2.06%
5.57%
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: v:\1785\ACTIVE\178566017\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

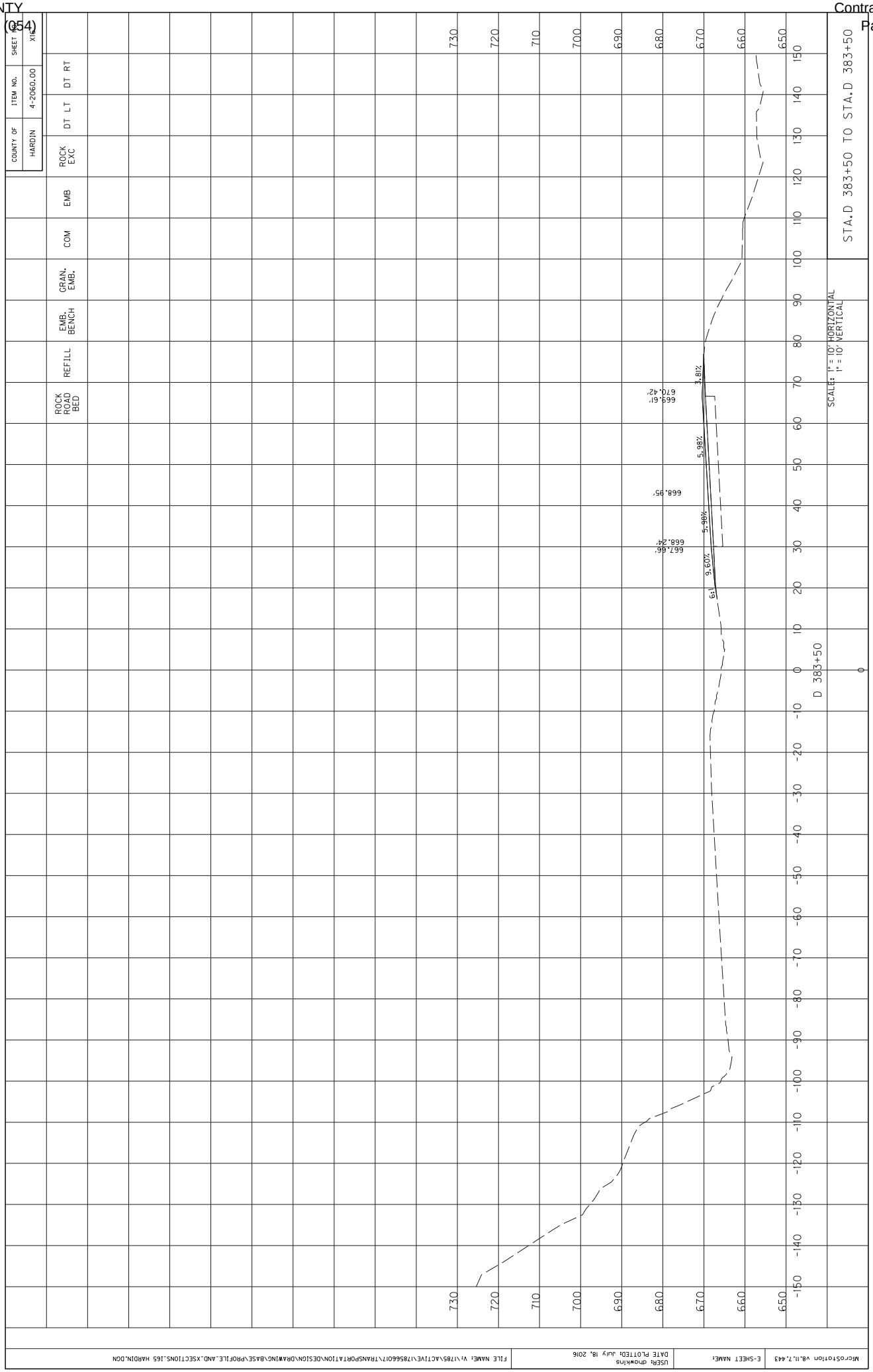

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. XX
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA. D 381+00 TO STA. D 381+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 381+00
674.77'
675.42'
674.77'
674.03'
674.45'
6.27%
2.72%
2.72%
5.44%
740
730
720
710
700
690
680
670
660
650
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: v:\1785\ACTIVE\1785601\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

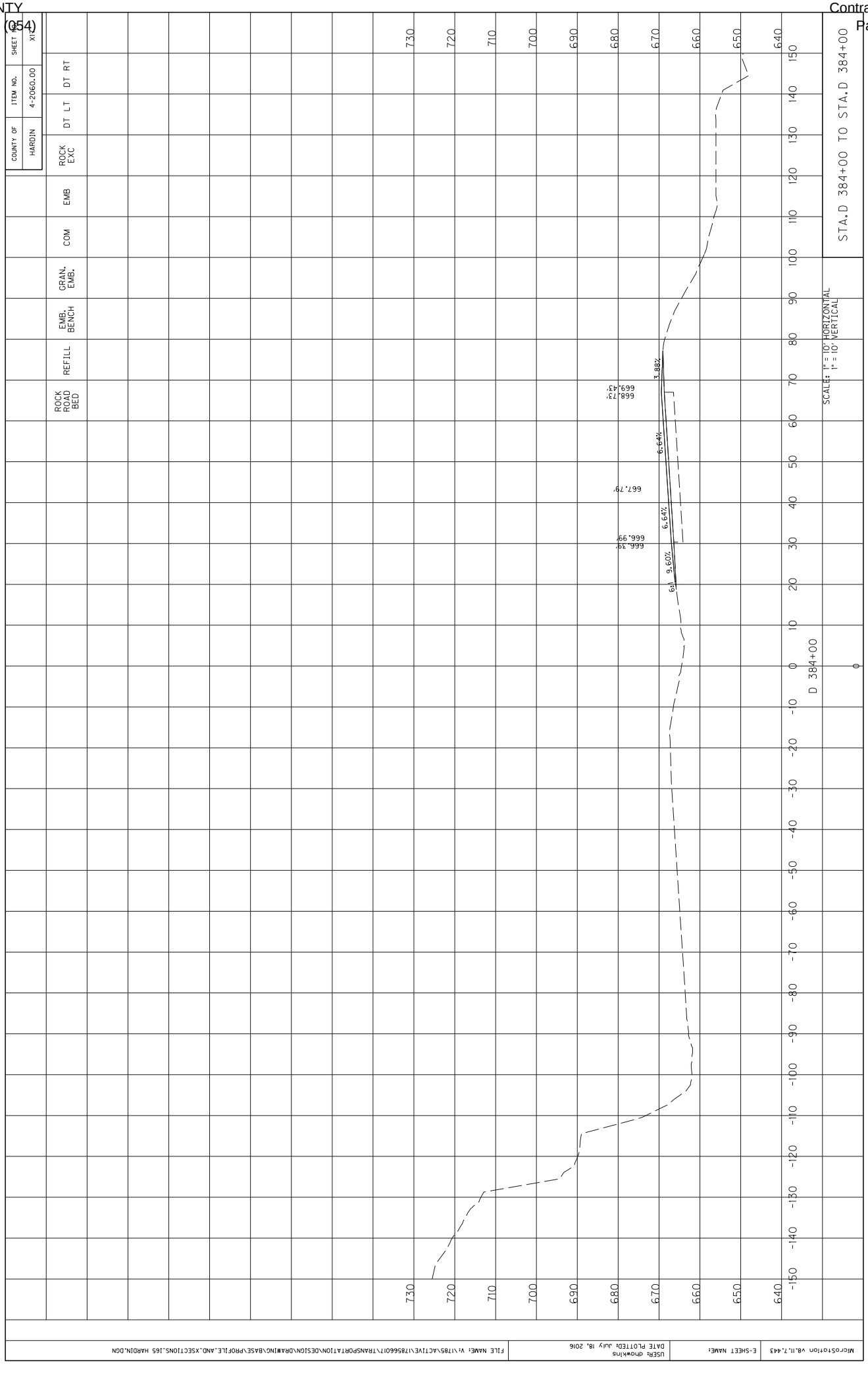

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. XIII
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 381+50 TO STA.D 381+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
673.62'
674.41'
673.61'
672.80'
673.21'
6.14%
3.37%
3.37%
8.22%
D 381+50
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: v:\1785\ACTIVE\178566017\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

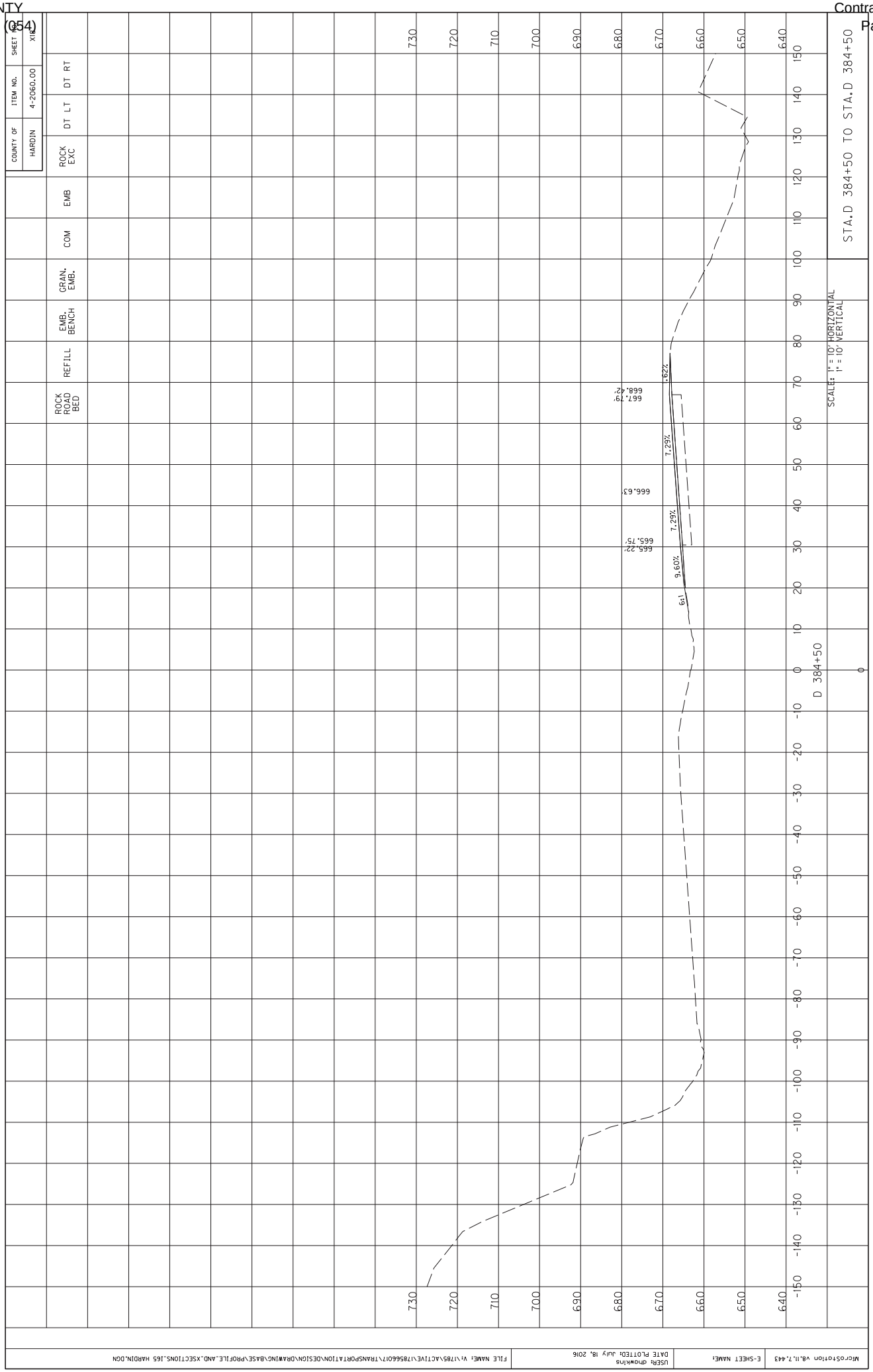

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. XIS
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 382+00 TO STA.D 382+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
4.57%
4.02%
4.02%
9.56%
672.74'
673.42'
672.45'
671.50'
671.96'
D 382+00
730
720
710
700
690
680
670
660
650
640
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: y:\1785\ACTIVE\178566017\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

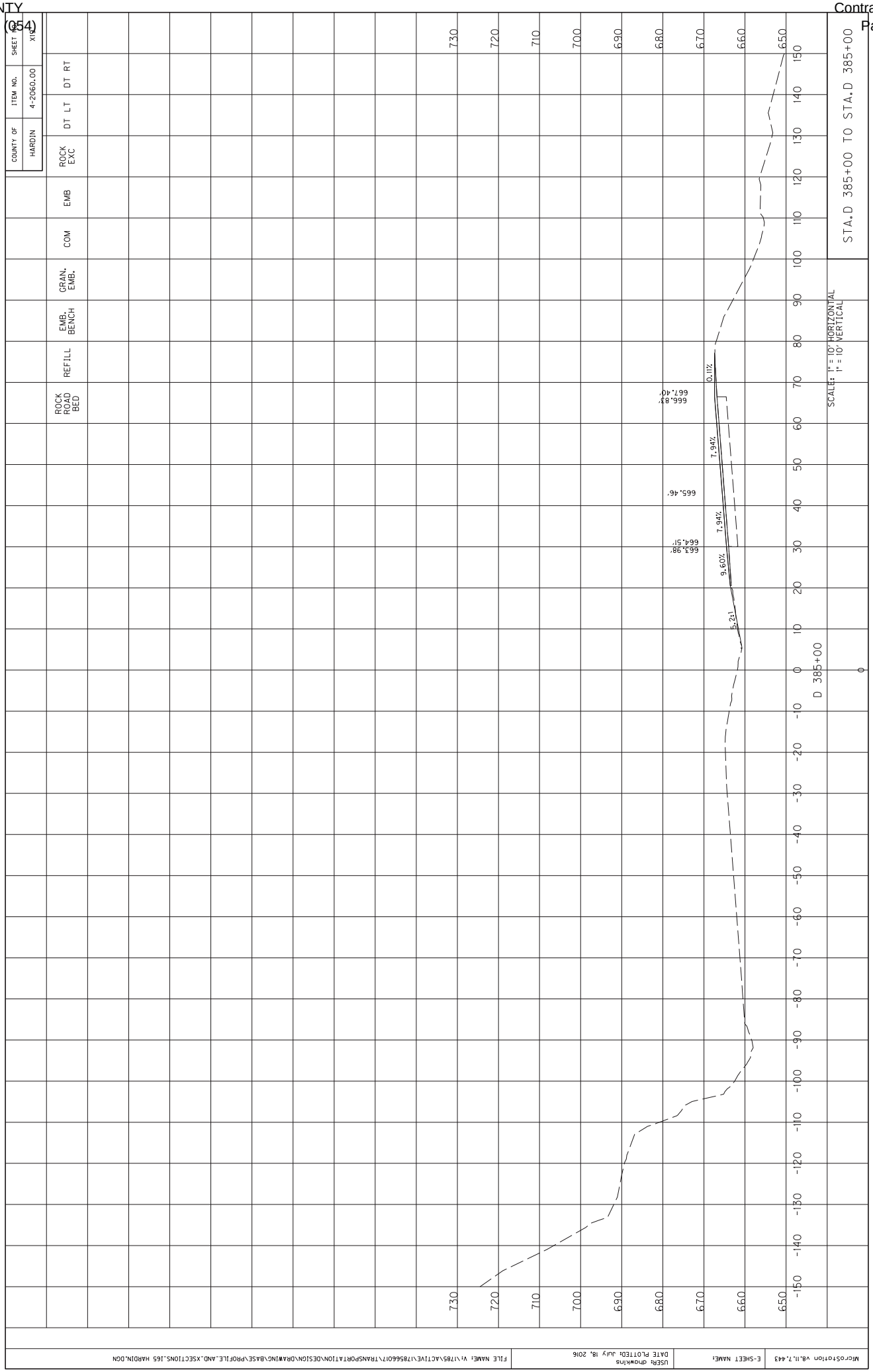

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. XX
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA. D 382+50 TO STA. D 382+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
671.69'
672.43'
671.28'
670.18'
670.72'
5.12%
4.68%
4.68%
9.46%
D 382+50
730
720
710
700
690
680
670
660
650
640
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: y:\1785\ACTIVE\1785601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

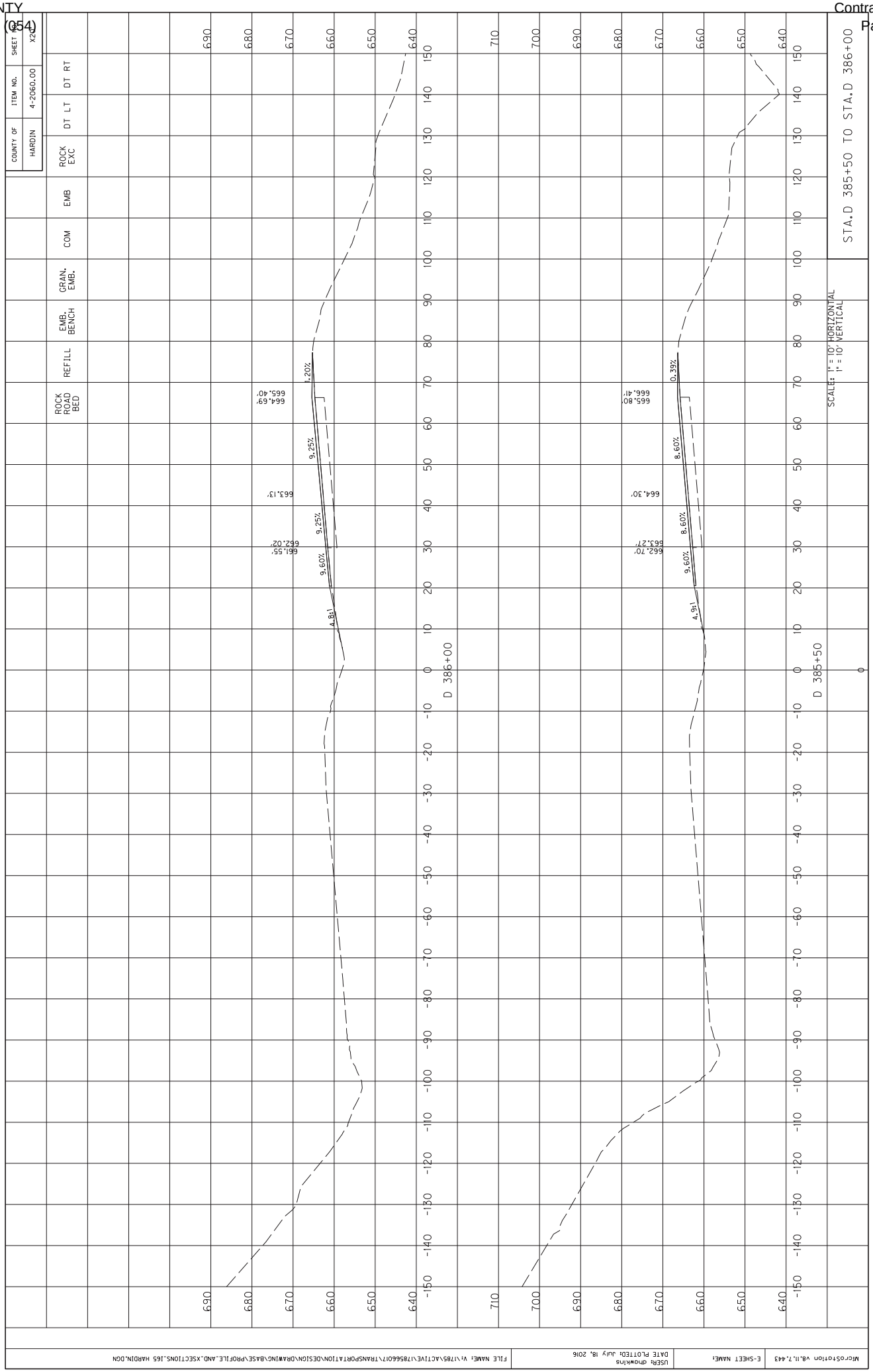

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. XIS
DT LT
DT RT
ROCK EXC
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 383+00 TO STA.D 383+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
670.64'
671.42'
4.36%
670.12'
5.33%
668.85'
669.48'
5.33%
9.60%
12.08%
D 383+00
740
730
720
710
700
690
680
670
660
650
640
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: y:\1785\ACTIVE\1785601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

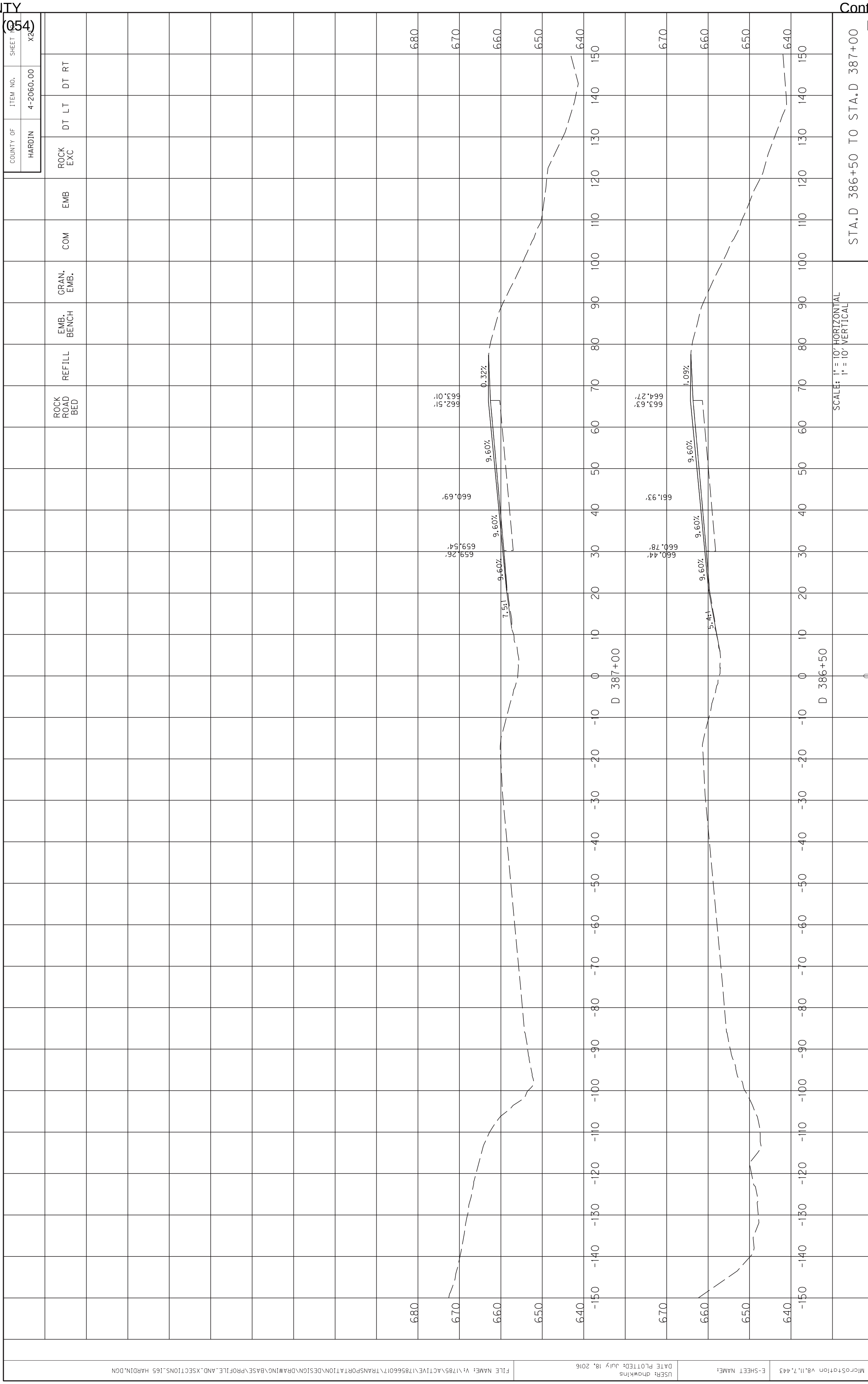

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X16
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA. D 383+50 TO STA. D 383+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 383+50
669.61'
670.42'
668.35'
667.66'
668.24'
3.81%
5.98%
5.98%
9.60%
730
720
710
700
690
680
670
660
650
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: y:\1785\ACTIVE\17856601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

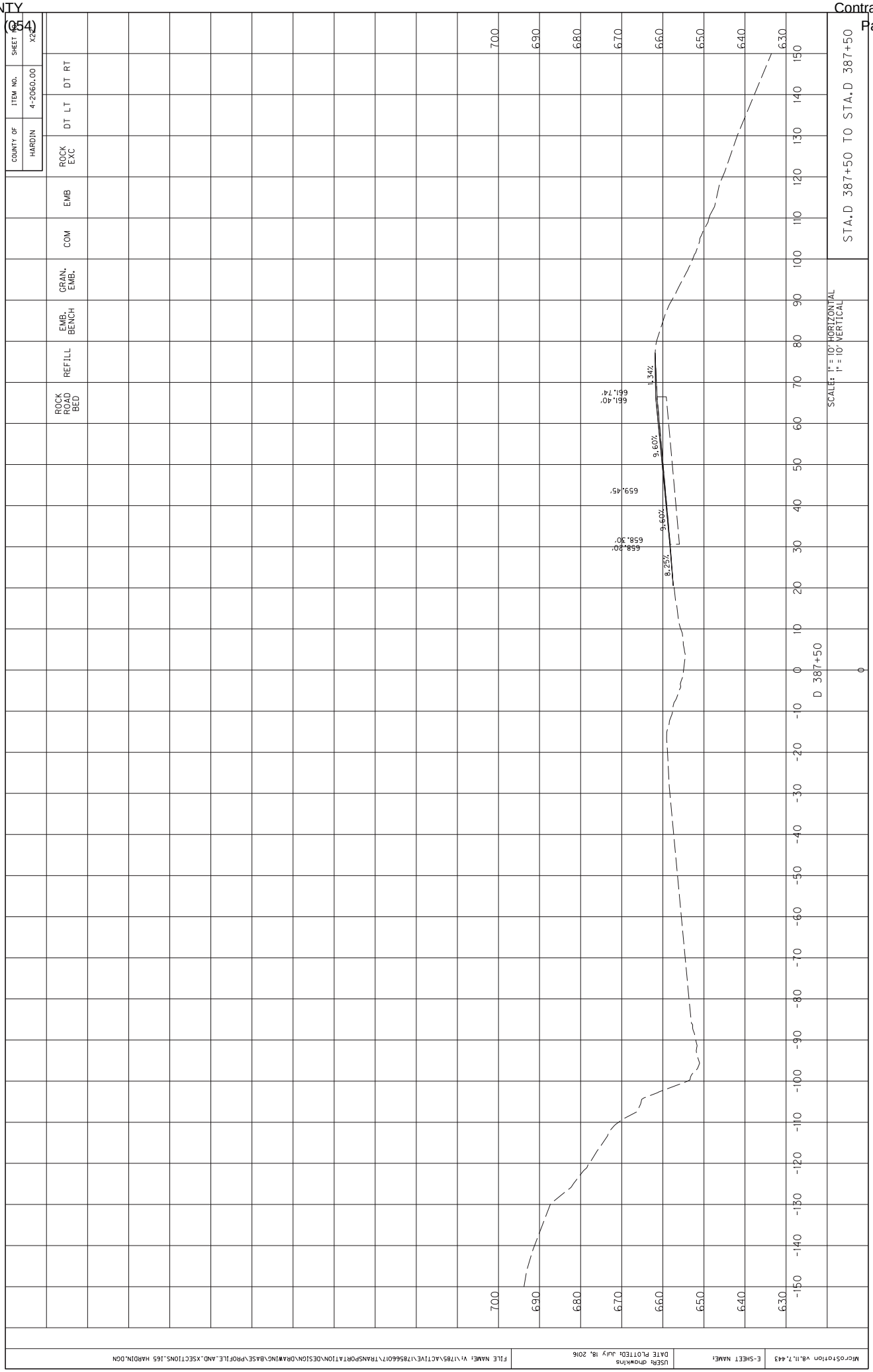

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. XII
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 384+00 TO STA.D 384+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
668.73'
669.43'
3.88%
6.64%
667.79'
6.64%
666.99'
666.39'
9.60%
D 384+00
730
720
710
700
690
680
670
660
650
640
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: v:\1785\ACTIVE\1785601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

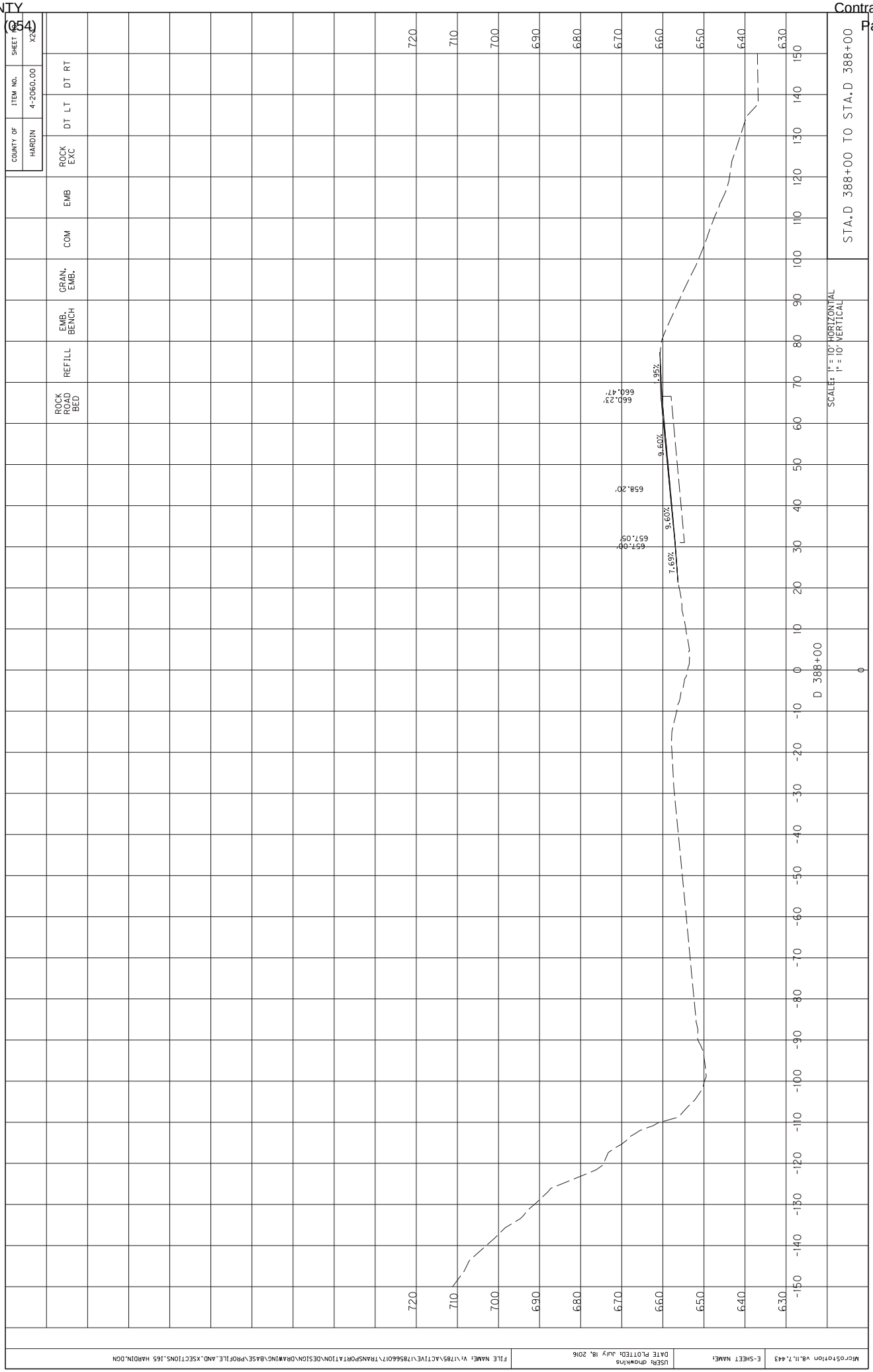

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. XIB
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 384+50 TO STA.D 384+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
730
720
710
700
690
680
670
660
650
640
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
D 384+50
729'
668.42'
667.79'
7.29%
666.63'
7.29%
665.75'
665.22'
9.09%
1:9
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: v:\1785\ACTIVE\1785601\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

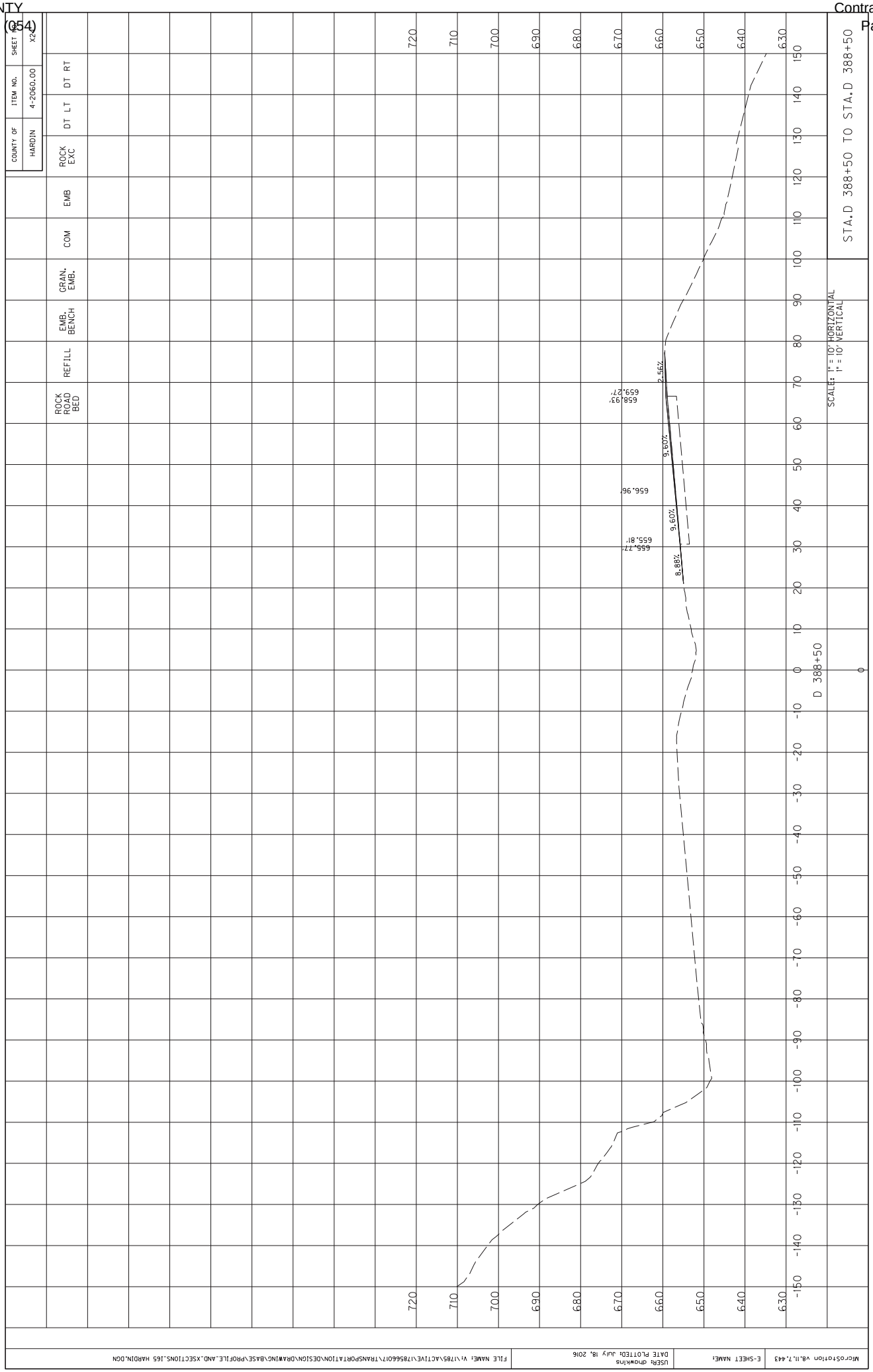

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. XIX
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 385+00 TO STA.D 385+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 385+00
0.11%
7.94%
7.94%
9.60%
5.21%
666.83'
667.40'
665.46'
663.98'
664.51'
730
720
710
700
690
680
670
660
650
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: y:\1785\ACTIVE\1785601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

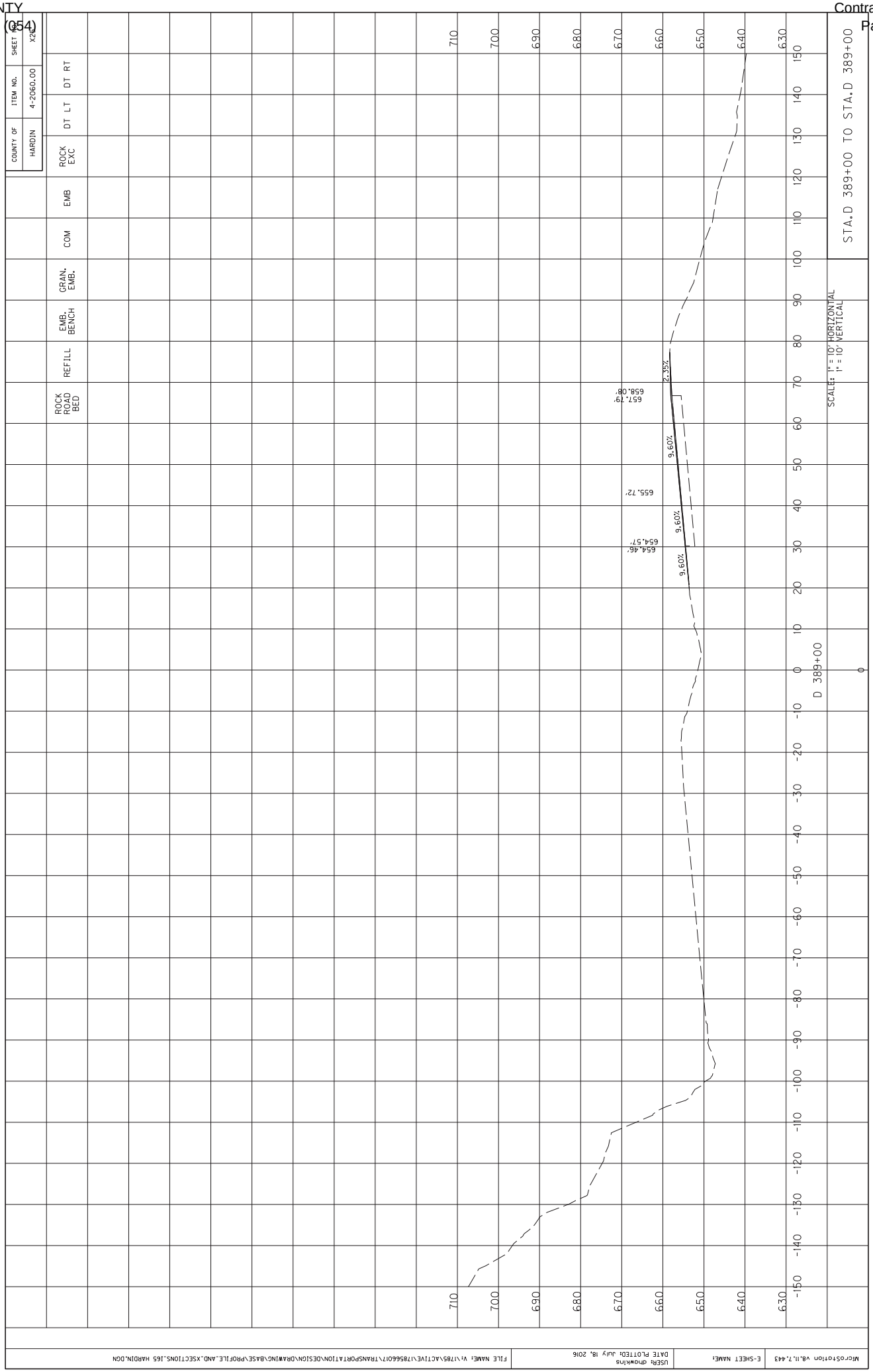

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X20
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 385+50 TO STA.D 386+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 386+00
D 385+50
4.8:1
9.60%
9.25%
9.25%
1.20%
4.9:1
9.60%
8.60%
8.60%
0.39%
663.13'
662.02'
661.55'
664.69'
665.40'
664.30'
663.27'
662.70'
665.80'
666.41'
FILE NAME: V:\1785\ACTIVE\1785601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN
USER: dhawkins
DATE PLOTTED: July 18, 2016
E-SHEET NAME:
MicroStation v8.11.7.443

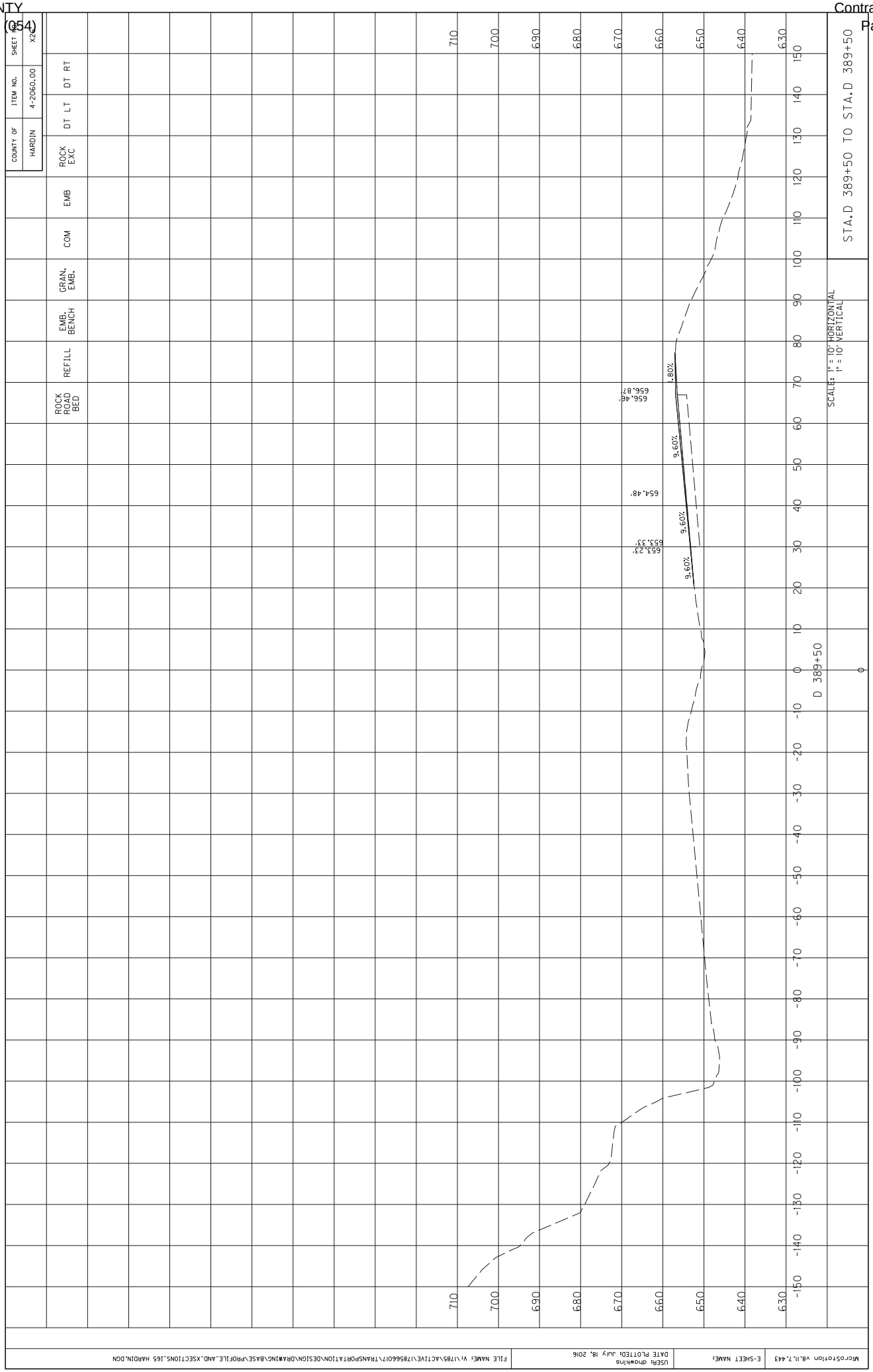

COUNTY OF
HARDIN
ITEM NO.
4-2060.00
SHEET NO.
X2
DT RT
DT LT
ROCK EXC
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 386+50 TO STA.D 387+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 387+00
D 386+50
0.32%
1.09%
9.60%
7.5:1
5.4:1
663.01'
662.51'
664.27'
663.63'
660.69'
661.93'
659.54'
659.26'
660.78'
660.44'
680
670
660
650
640

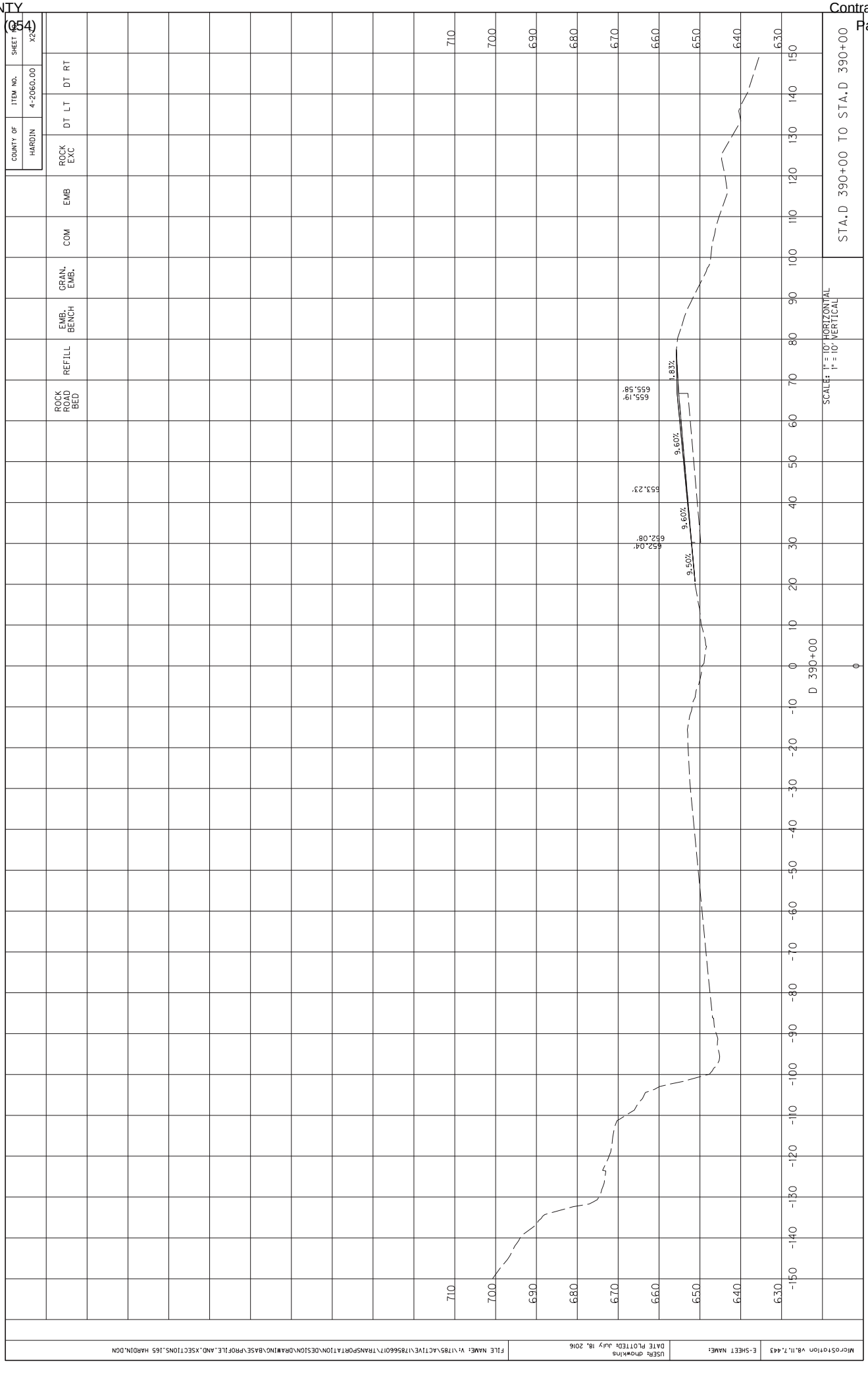

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X22
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA. D 387+50 TO STA. D 387+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 387+50
661.40'
661.74'
659.45'
658.20'
658.30'
1.34%
9.60%
9.60%
8.25%
700
690
680
670
660
650
640
630
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: y:\1785\ACTIVE\178566017\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

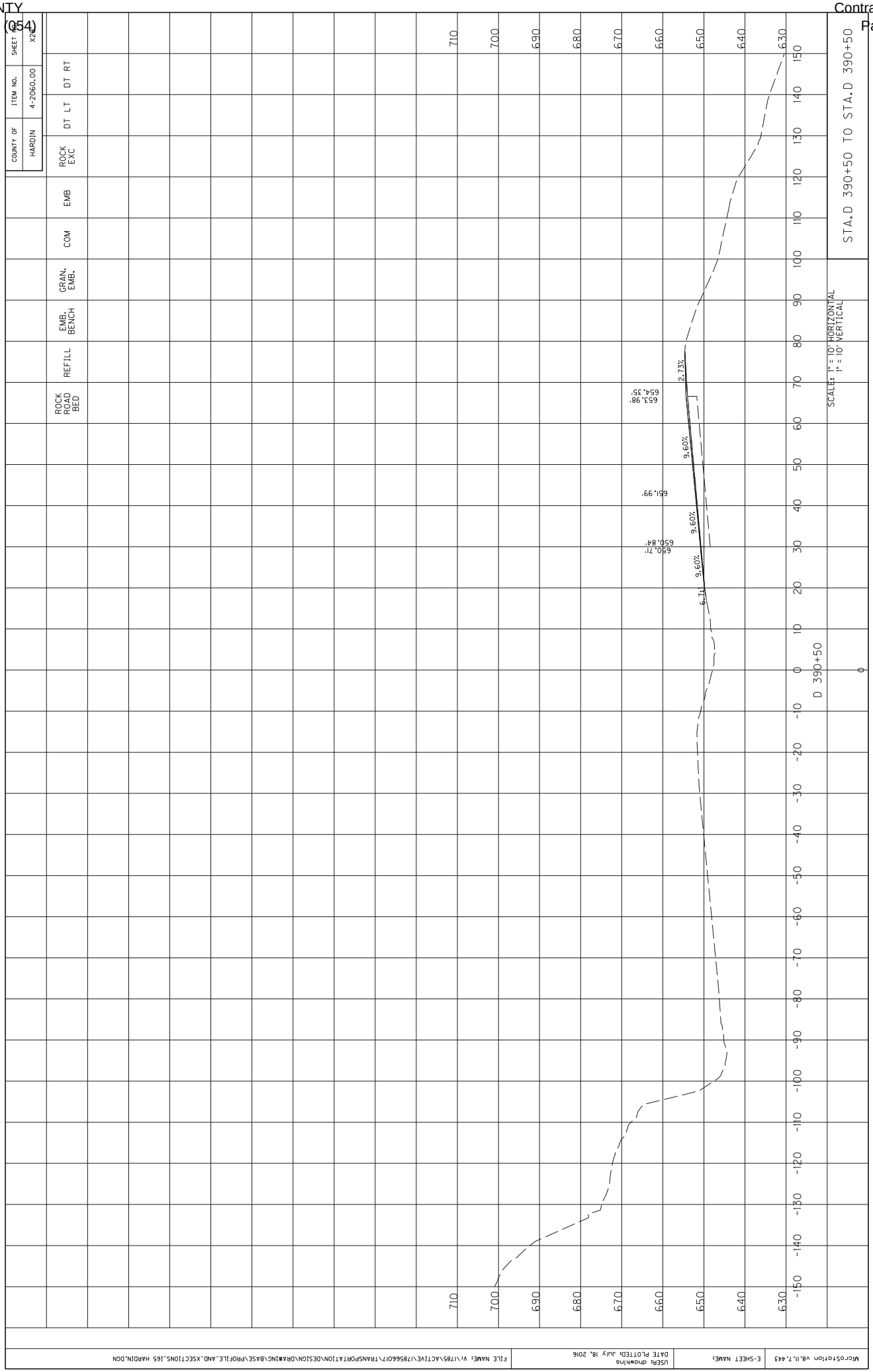

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X24
DT RT
DT LT
ROCK EXC
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 388+00 TO STA.D 388+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
660.47'
660.23'
658.20'
657.00'
657.05'
9.95%
9.60%
9.60%
7.69%
D 388+00
720
710
700
690
680
670
660
650
640
630
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: y:\1785\ACTIVE\178566017\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

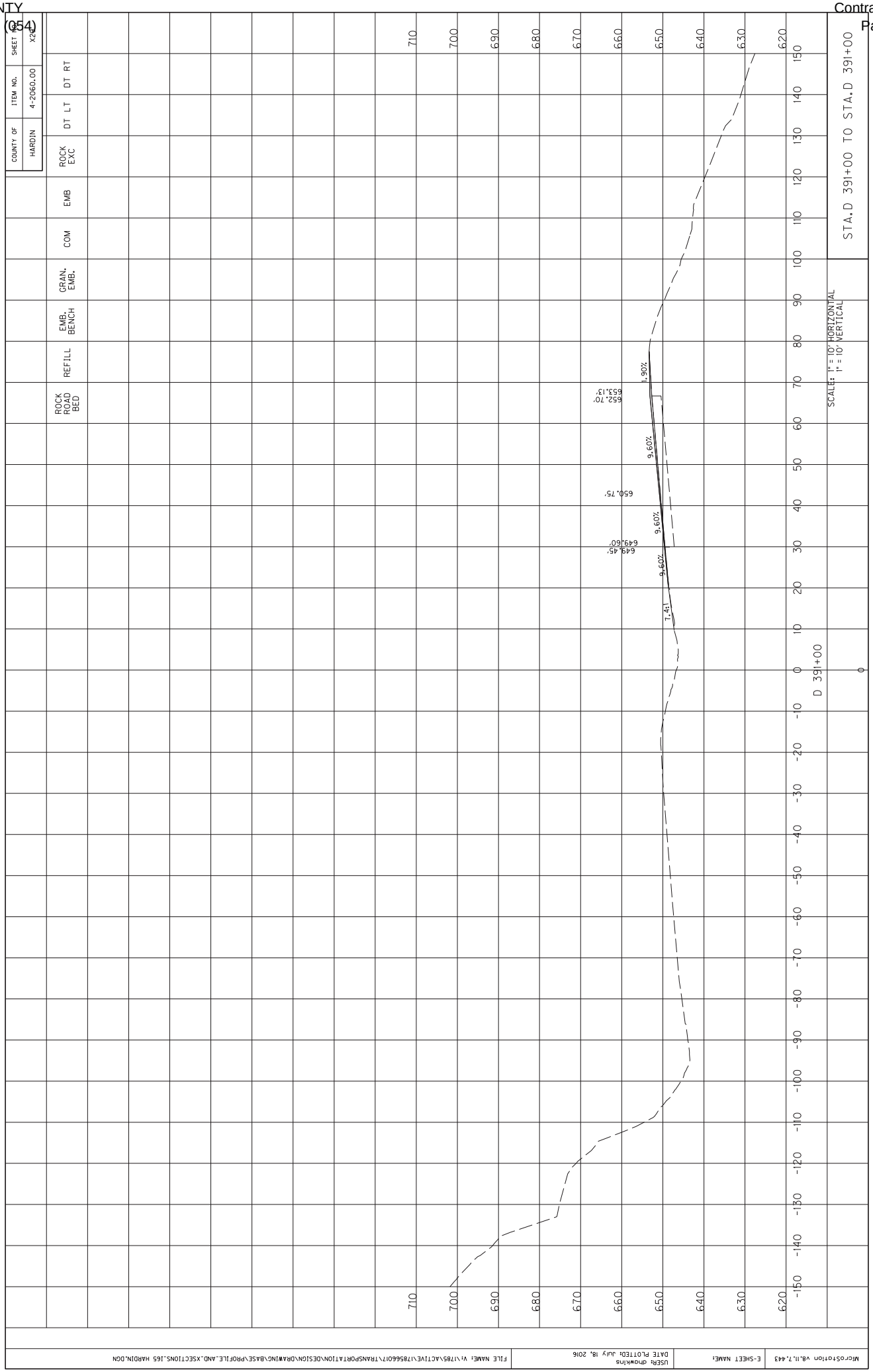

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X2
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA. D 388+50 TO STA. D 388+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 388+50
2.56%
9.60%
9.60%
8.88%
659.27'
658.93'
656.96'
655.81'
655.77'
720
710
700
690
680
670
660
650
640
630
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: y:\1785\ACTIVE\1785601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

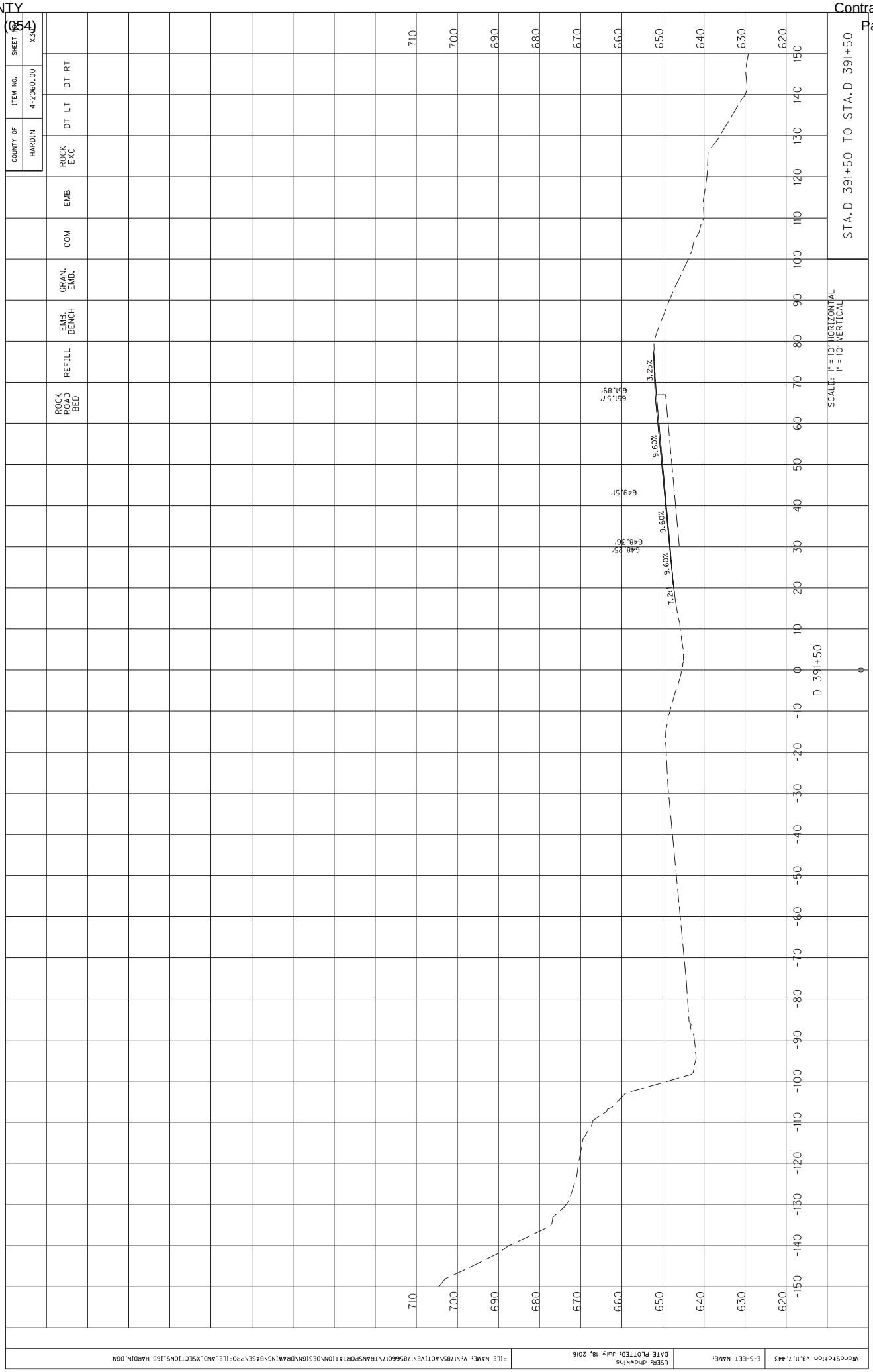

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X25
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 389+00 TO STA.D 389+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 389+00
2.35%
9.60%
9.60%
9.60%
658.08'
657.79'
655.72'
654.57'
654.46'
710
700
690
680
670
660
650
640
630
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: y:\1785\ACTIVE\17856601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

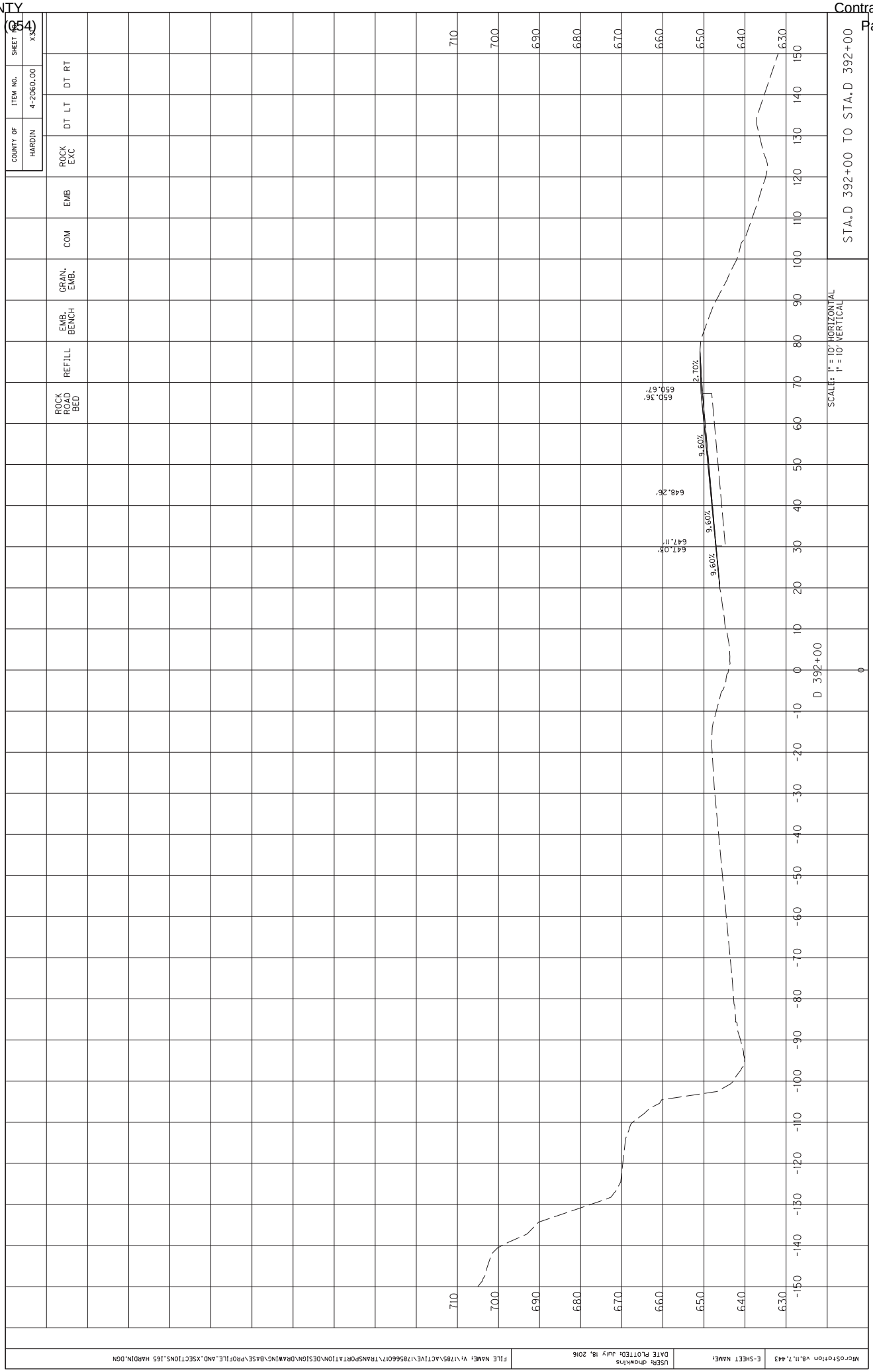

COUNTY OF
HARDIN
ITEM NO.
4-2060.00
SHEET NO.
X26
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA. D 389+50 TO STA. D 389+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 389+50
656.46'
656.87'
654.48'
653.23'
653.33'
9.60%
9.60%
9.60%
1.80%
710
700
690
680
670
660
650
640
630
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: v:\1785\ACTIVE\1785601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

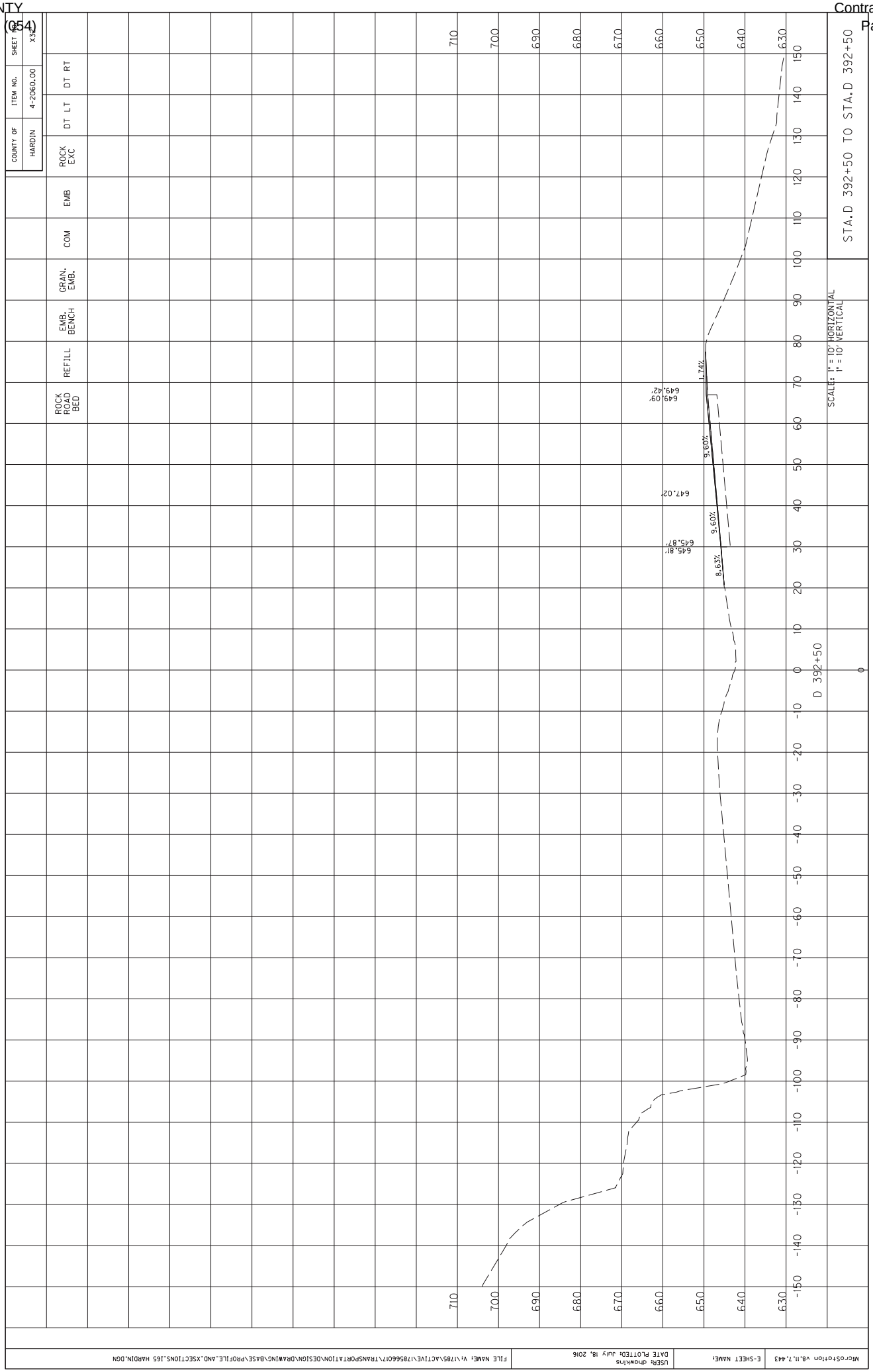

COUNTY OF
HARDIN
ITEM NO.
4-2060.00
SHEET NO.
X22
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 390+00 TO STA.D 390+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
655.19'
655.58'
553.23'
652.04'
652.08'
1.83%
9.60%
9.60%
9.50%
D 390+00
710
700
690
680
670
660
650
640
630
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: v:\1785\ACTIVE\1785601\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

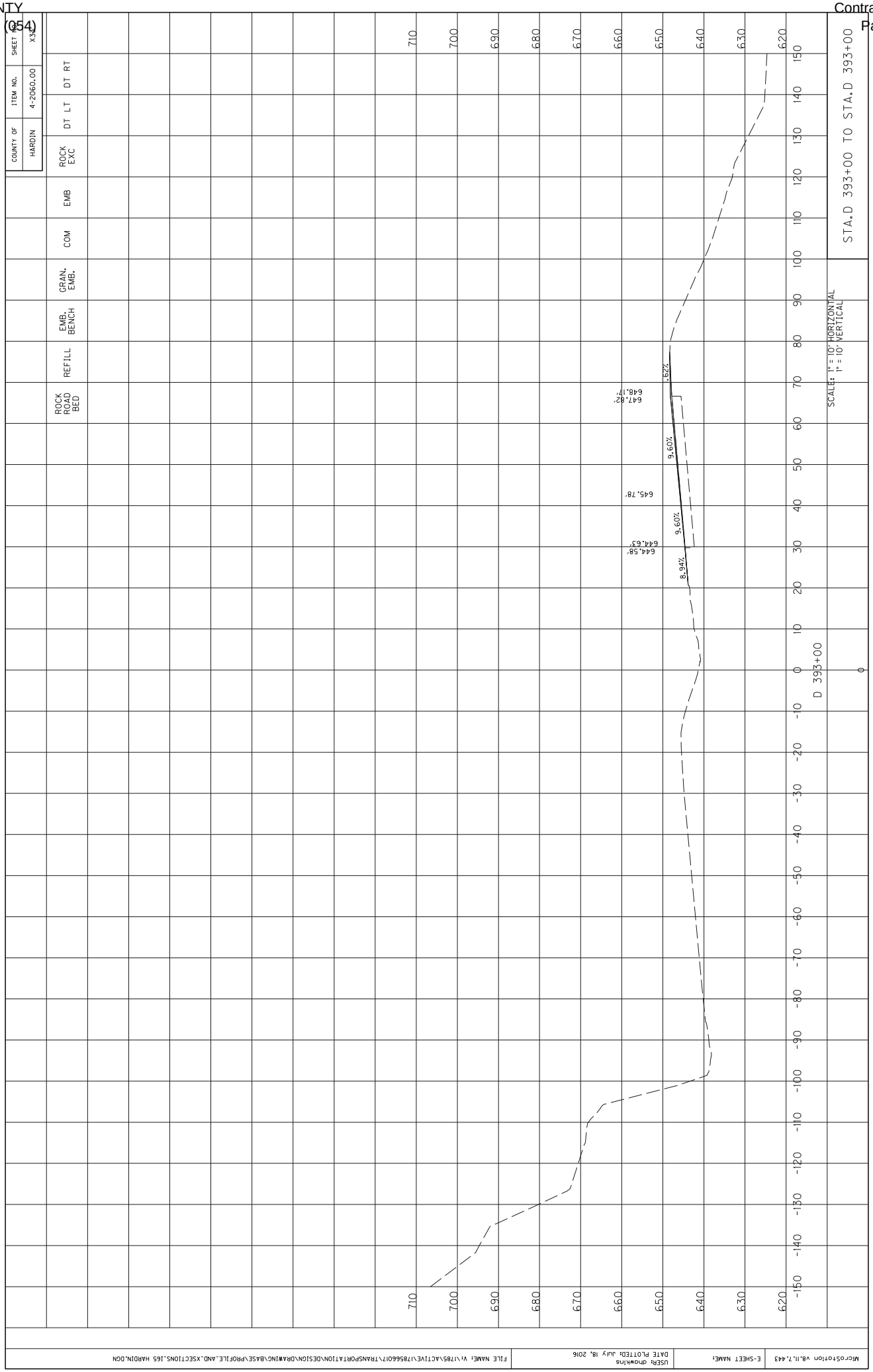

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X26
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 390+50 TO STA.D 390+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 390+50
653.98'
654.35'
651.99'
650.71'
650.84'
2.73%
9.60%
9.60%
9.60%
6.71%
710
700
690
680
670
660
650
640
630
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: v:\1785\ACTIVE\17856601\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

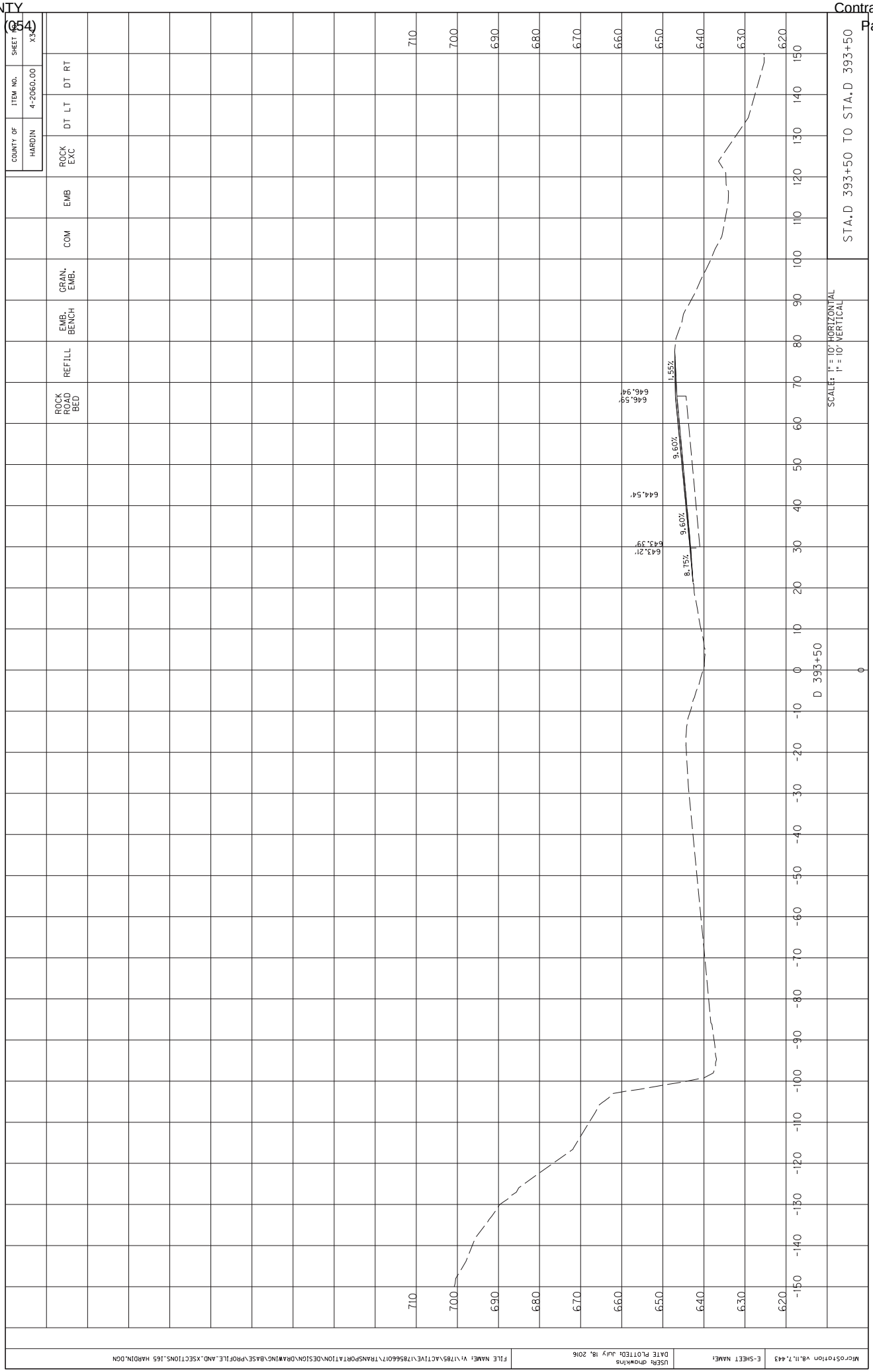

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X26
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA. D 391+00 TO STA. D 391+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 391+00
652.70'
653.13'
650.75'
649.45'
649.60'
1.90%
9.60%
9.60%
9.60%
7.41
710
700
690
680
670
660
650
640
630
620
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: y:\1785\ACTIVE\178566017\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

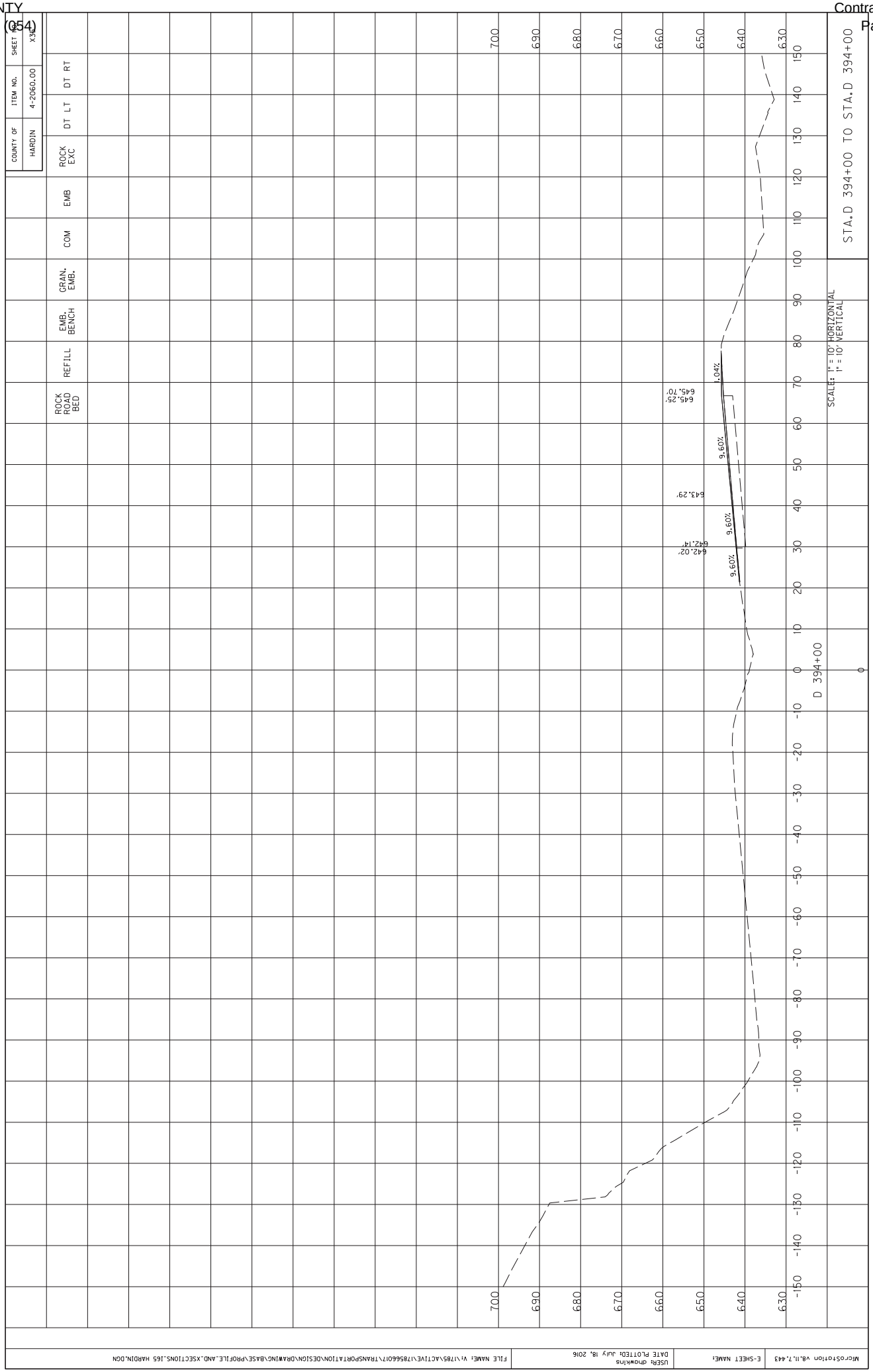

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X30
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 391+50 TO STA.D 391+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
3.25%
651.57'
651.89'
9.60%
649.51'
9.60%
648.25'
648.36'
9.60%
7.2%
D 391+50
710
700
690
680
670
660
650
640
630
620
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: v:\1785\ACTIVE\1785601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN


COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X3
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 392+00 TO STA.D 392+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 392+00
650.36'
650.67'
2.70%
9.60%
648.26'
9.60%
647.03'
647.11'
9.60%
710
700
690
680
670
660
650
640
630
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: y:\1785\ACTIVE\17856601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN


COUNTY OF
HARDIN
ITEM NO.
4-2060.00
SHEET NO.
X32
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA. D 392+50 TO STA. D 392+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 392+50
649.09'
649.42'
1.74%
9.60%
647.02'
9.60%
645.81'
645.87'
8.63%
710
700
690
680
670
660
650
640
630
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: v:\1785\ACTIVE\17856601\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN


COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X35
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 393+00 TO STA.D 393+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 393+00
9.60%
9.60%
8.94%
647.82'
648.17'
645.78'
644.58'
644.63'
MicroStation v8.11.7.443
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: v:\1785\ACTIVE\1785601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN


COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X34
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA. D 393+50 TO STA. D 393+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
646.59'
646.94'
644.54'
643.21'
643.39'
1.55%
9.60%
9.60%
8.75%
D 393+50
710
700
690
680
670
660
650
640
630
620
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: v:\1785\ACTIVE\1785601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN


COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X35
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 394+00 TO STA.D 394+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 394+00
645.25'
645.70'
643.29'
642.02'
642.14'
1.04%
9.60%
9.60%
9.60%
700
690
680
670
660
650
640
630
150
140
130
120
110
100
90
80
70
60
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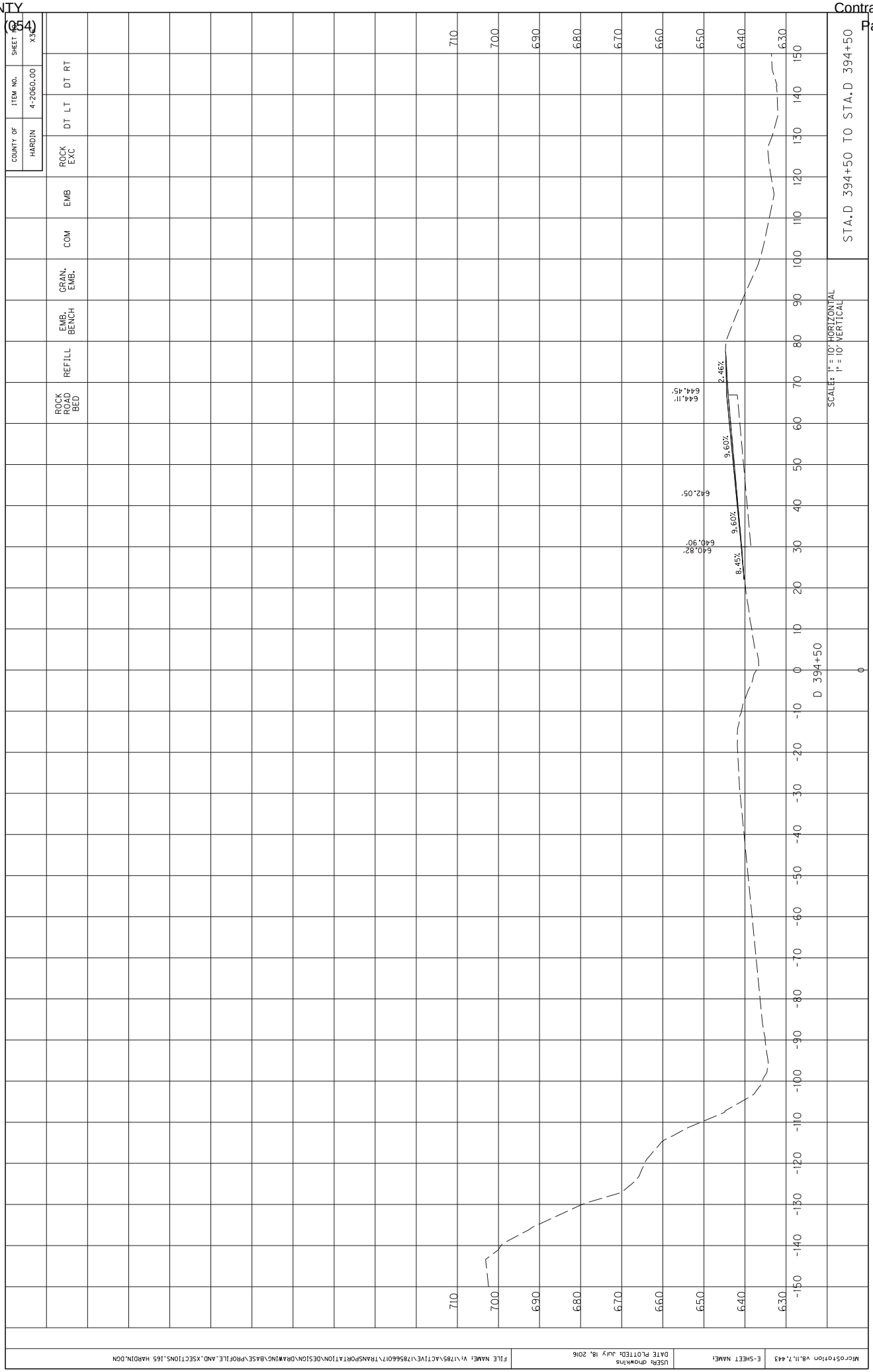
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: y:\1785\ACTIVE\17856601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN


COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X36
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 394+50 TO STA.D 394+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
644.11'
644.45'
2.46%
9.60%
642.05'
9.60%
640.82'
640.90'
8.45%
D 394+50
710
700
690
680
670
660
650
640
630
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
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-10
-20
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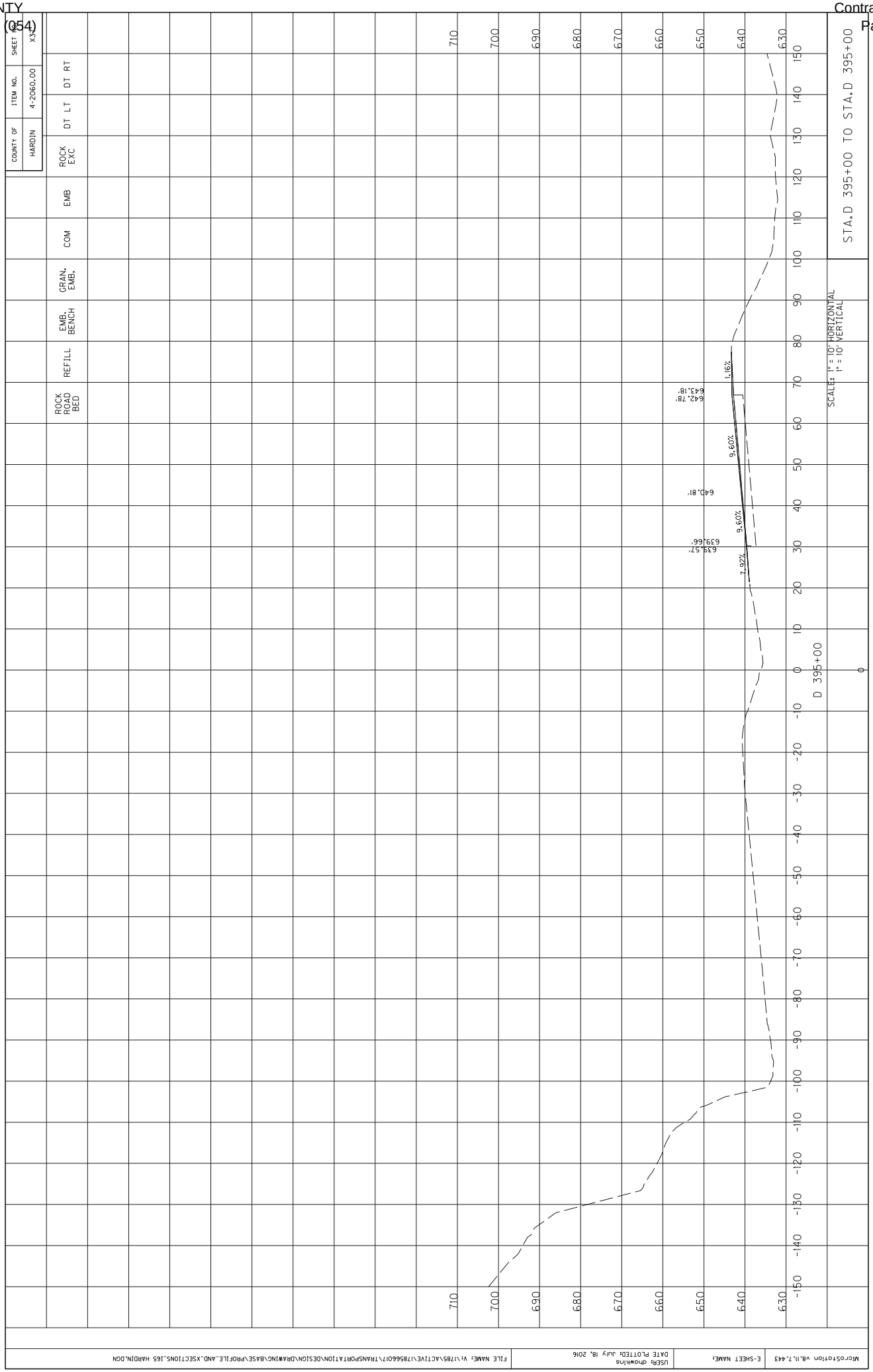
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: y:\1785\ACTIVE\17856601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN


COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X3
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 395+00 TO STA.D 395+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
642.78'
643.18'
640.81'
639.57'
639.66'
1.16%
9.09%
9.60%
7.92%
D 395+00
710
700
690
680
670
660
650
640
630
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
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-10
-20
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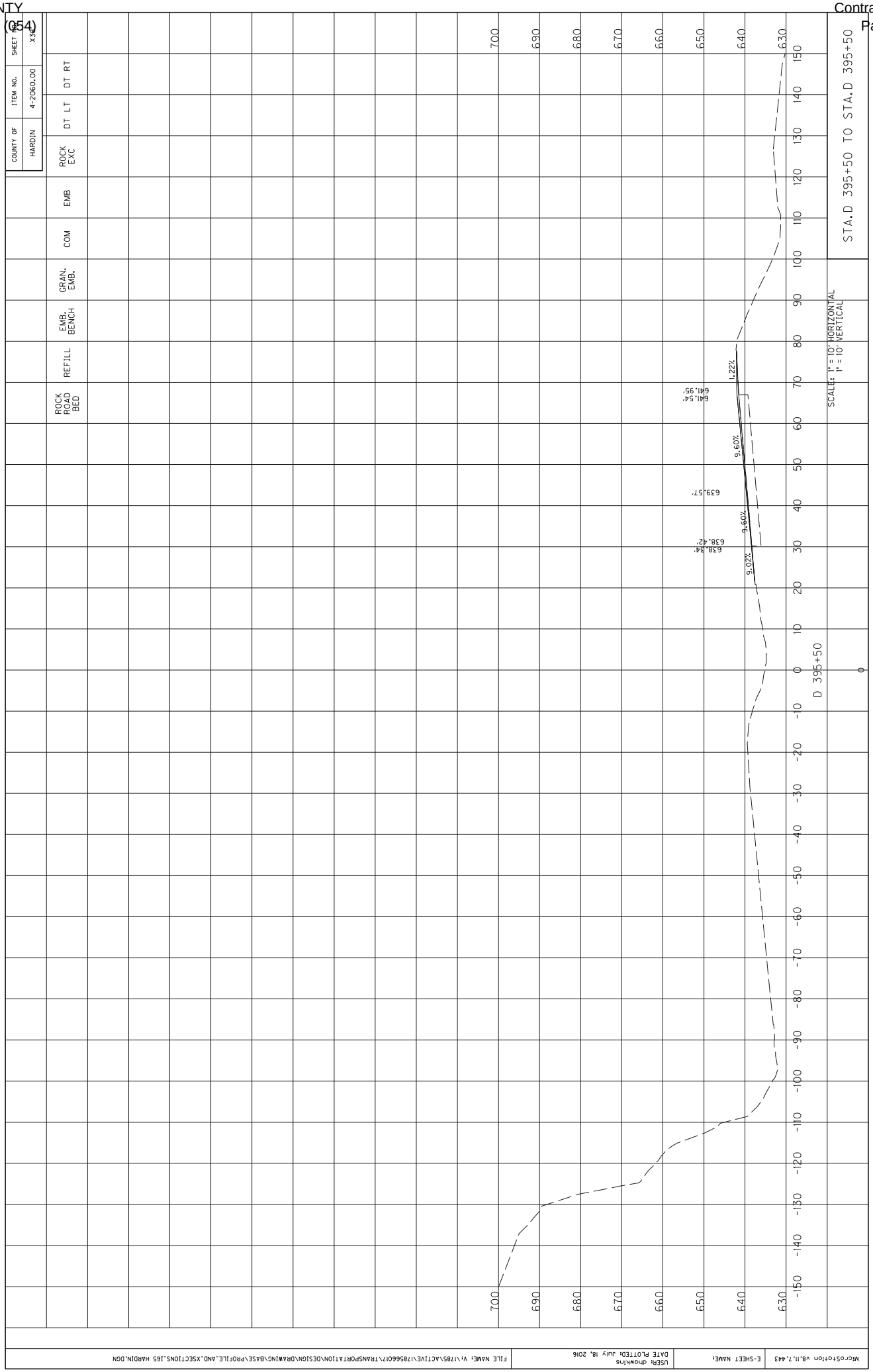
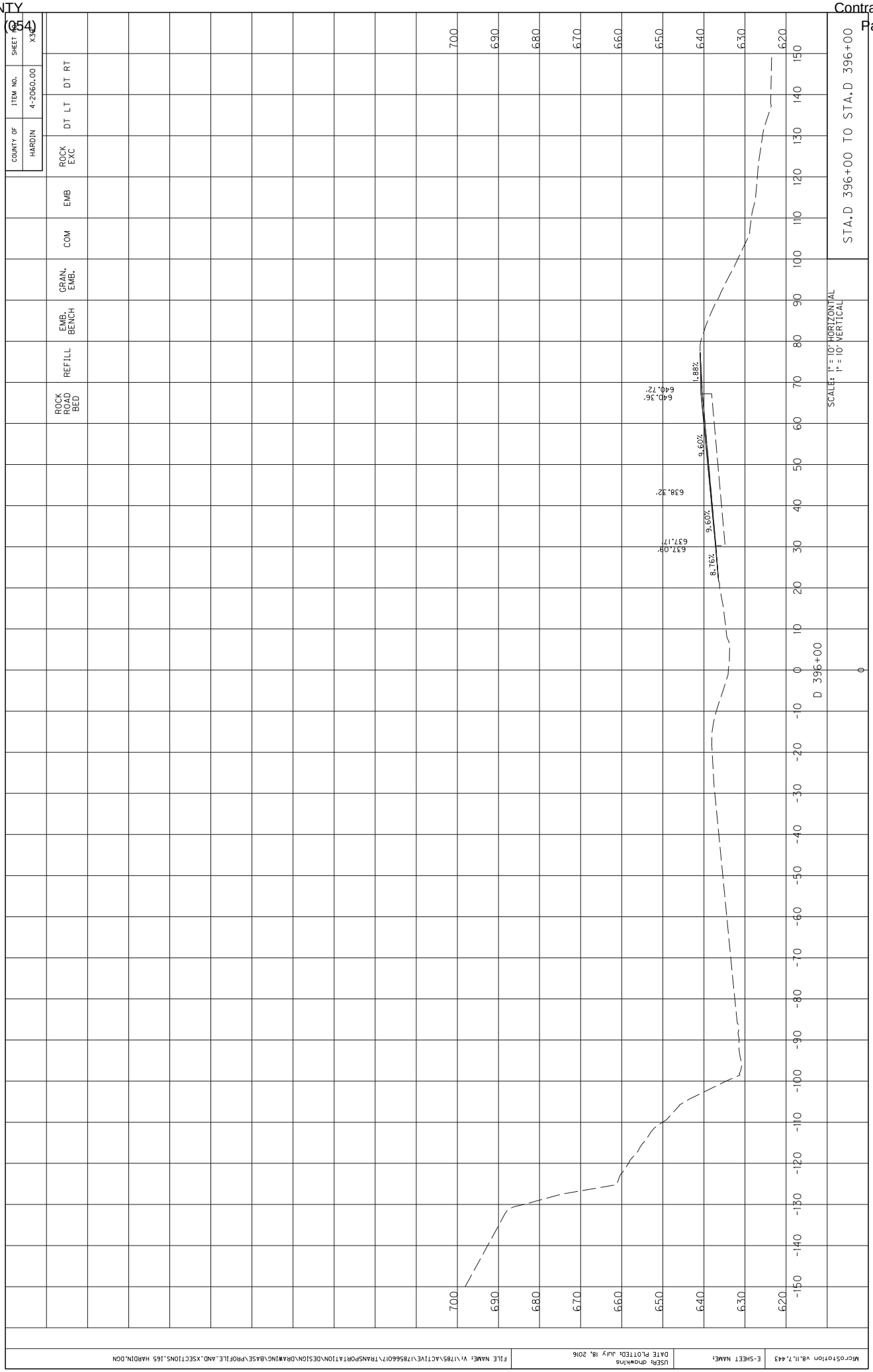
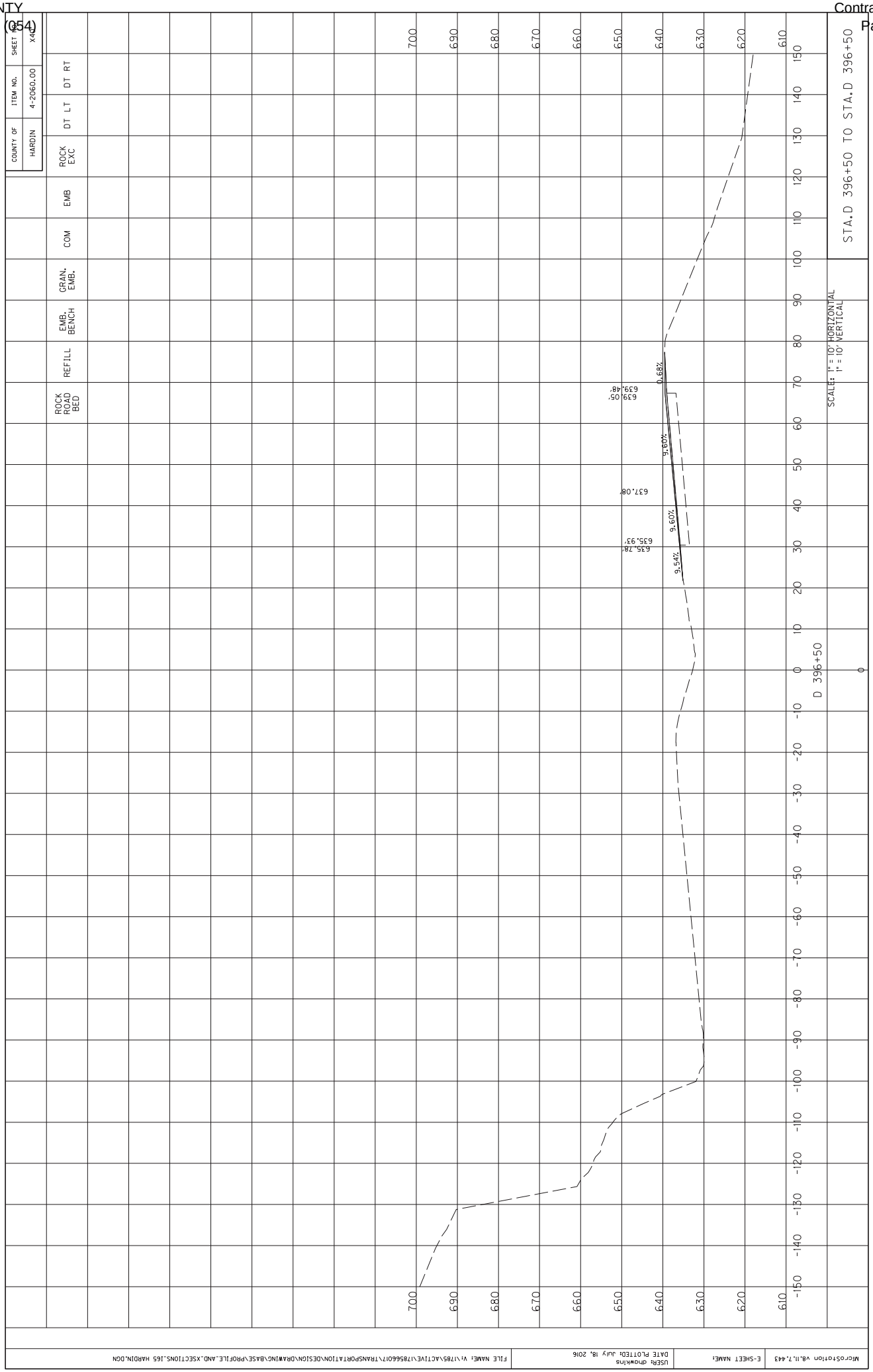
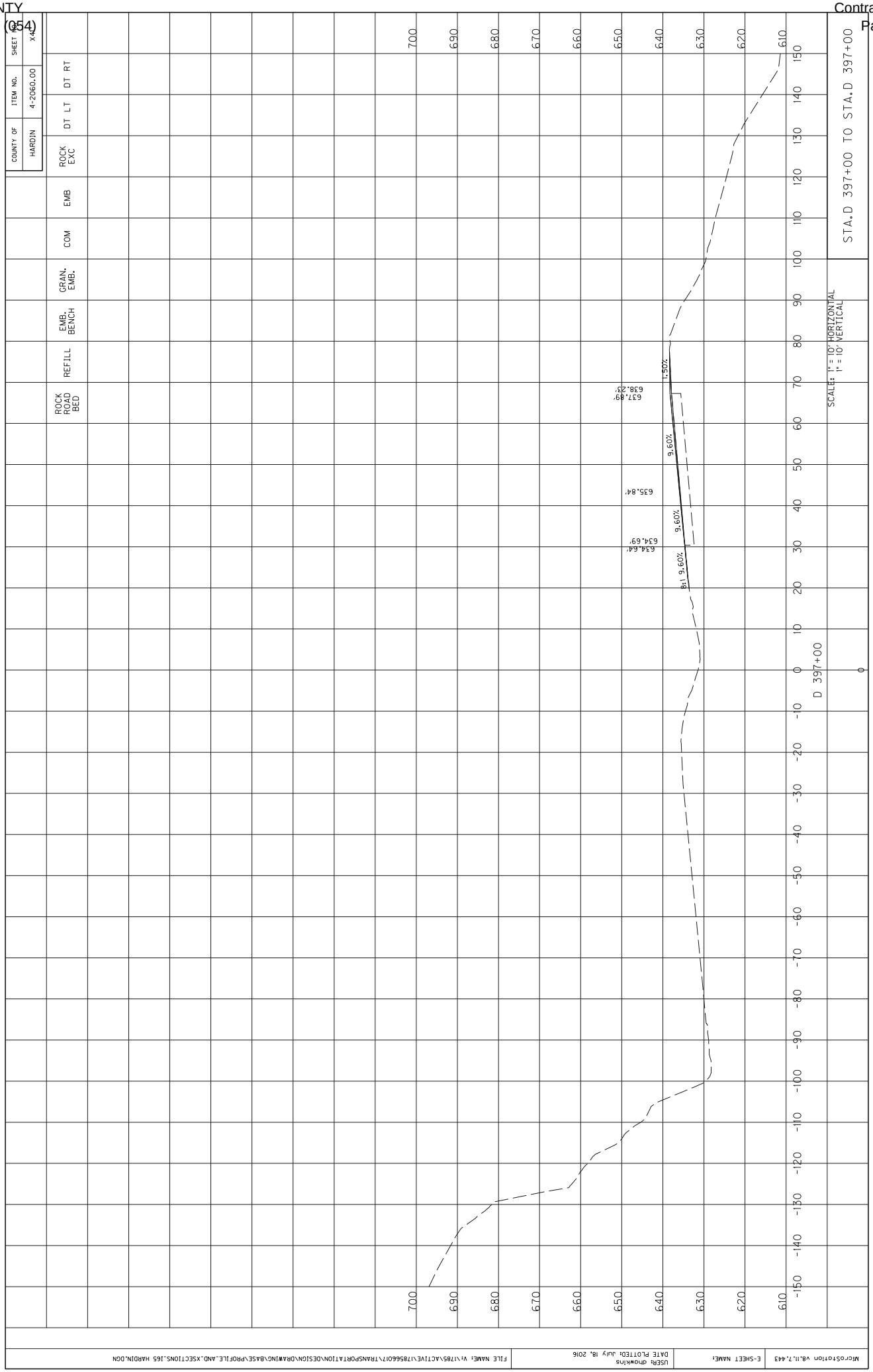
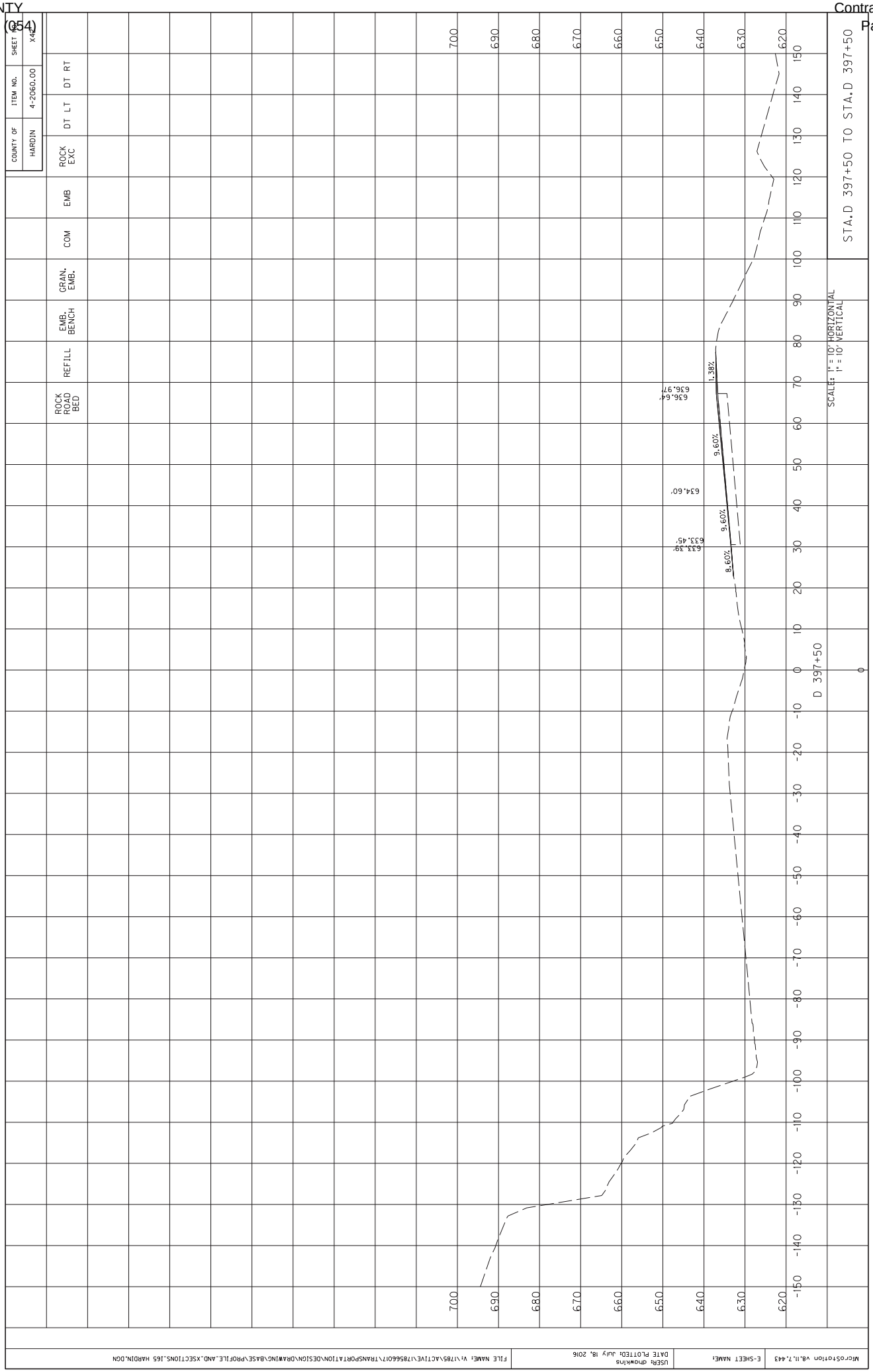
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: v:\1785\ACTIVE\17856601\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

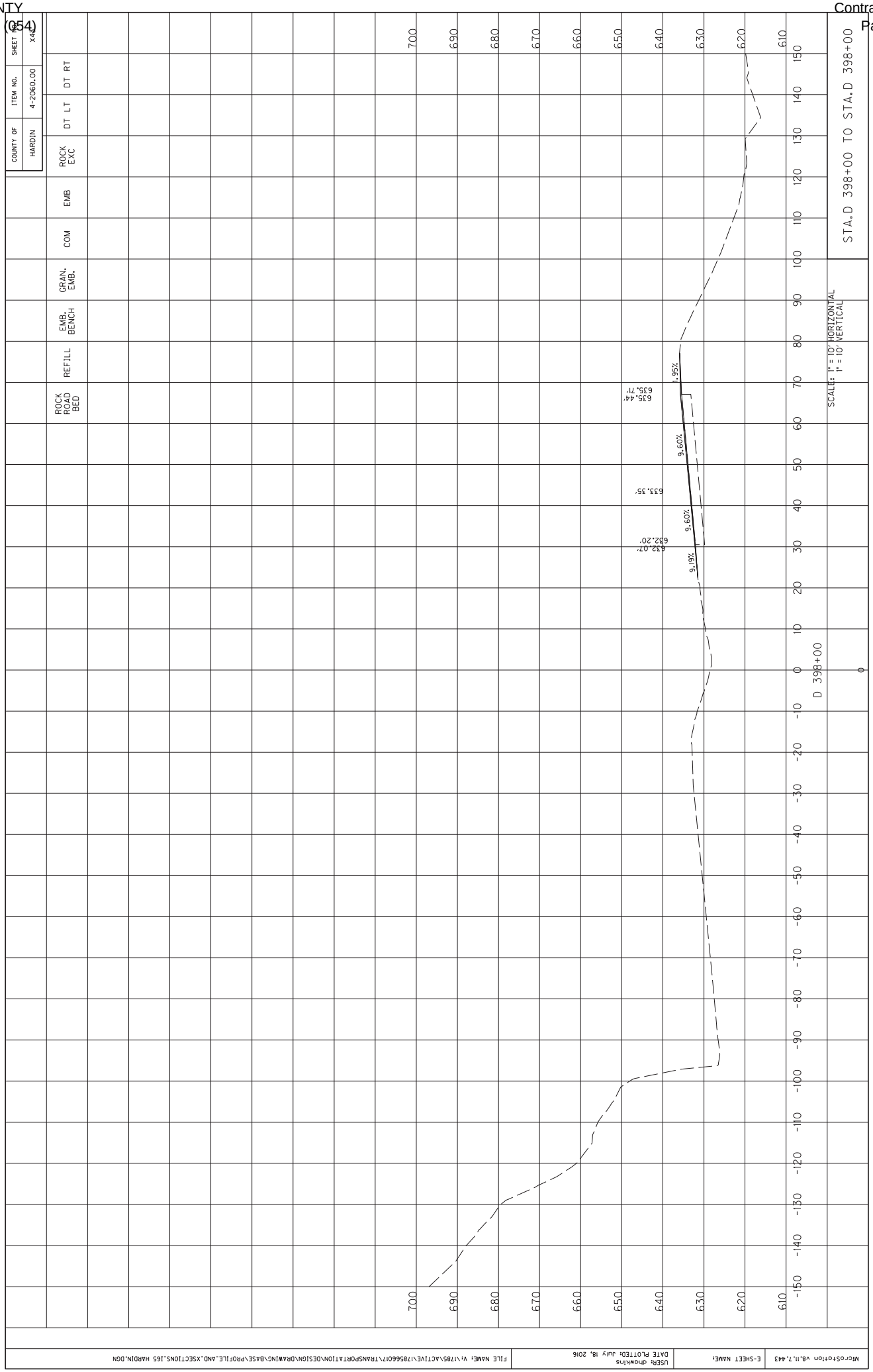

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X36
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA. D 395+50 TO STA. D 395+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 395+50
1.22%
9.60%
9.60%
9.02%
641.54'
641.95'
639.57'
638.34'
638.42'
700
690
680
670
660
650
640
630
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: y:\1785\ACTIVE\1785601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

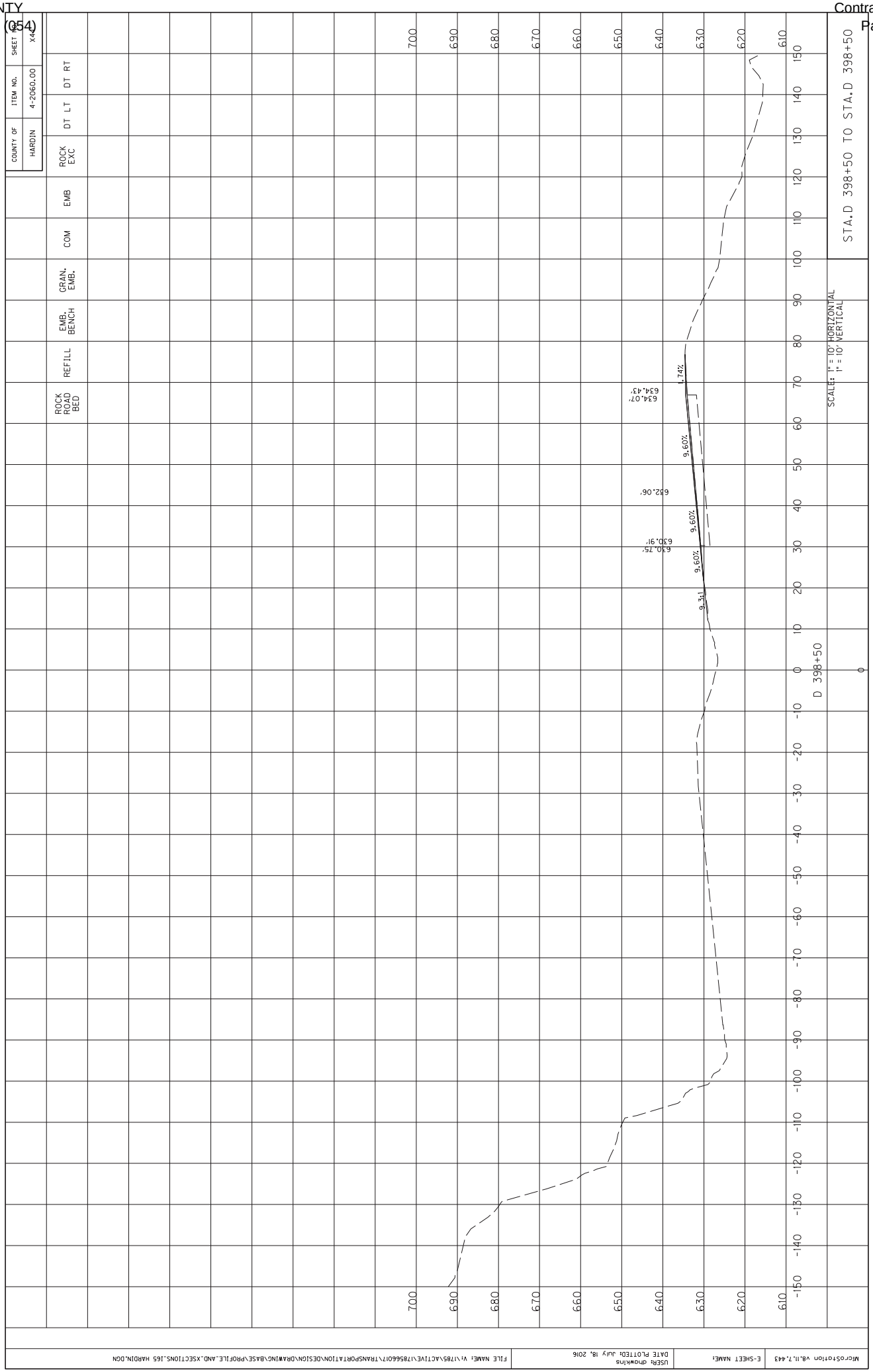

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X36
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 396+00 TO STA.D 396+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 396+00
640.36'
640.72'
638.32'
637.09'
637.17'
1.88%
9.60%
9.60%
8.76%
FILE NAME= V:\1785\ACTIVE\178566017\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN
USER: dhawkins
DATE PLOTTED: July 18, 2016
E-SHEET NAME=
MicroStation V8.11.7.443

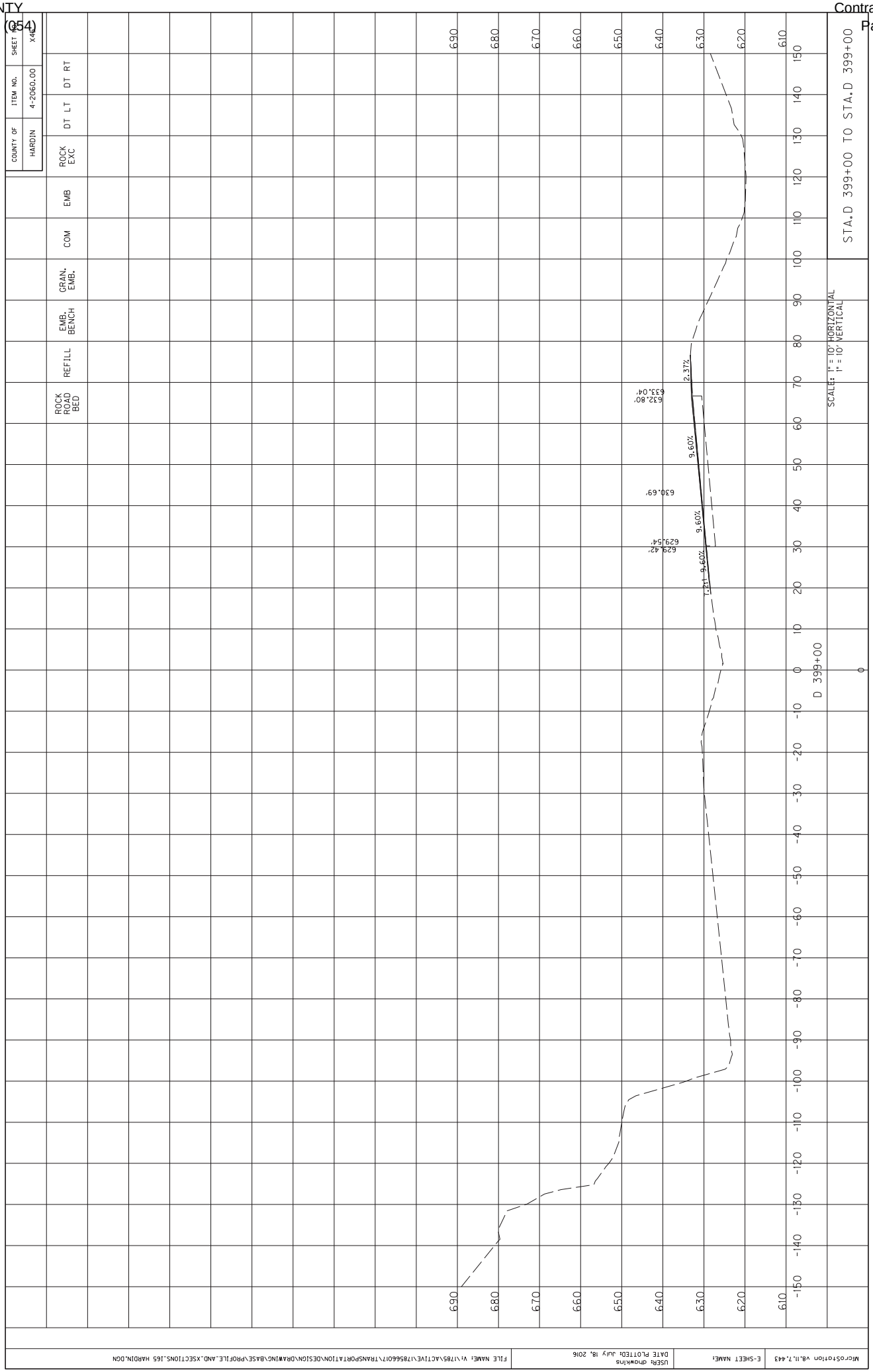

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X40
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA. D 396+50 TO STA. D 396+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 396+50
639.05'
639.48'
637.08'
635.78'
635.93'
0.68%
9.60%
9.60%
9.54%
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: y:\1785\ACTIVE\17856601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

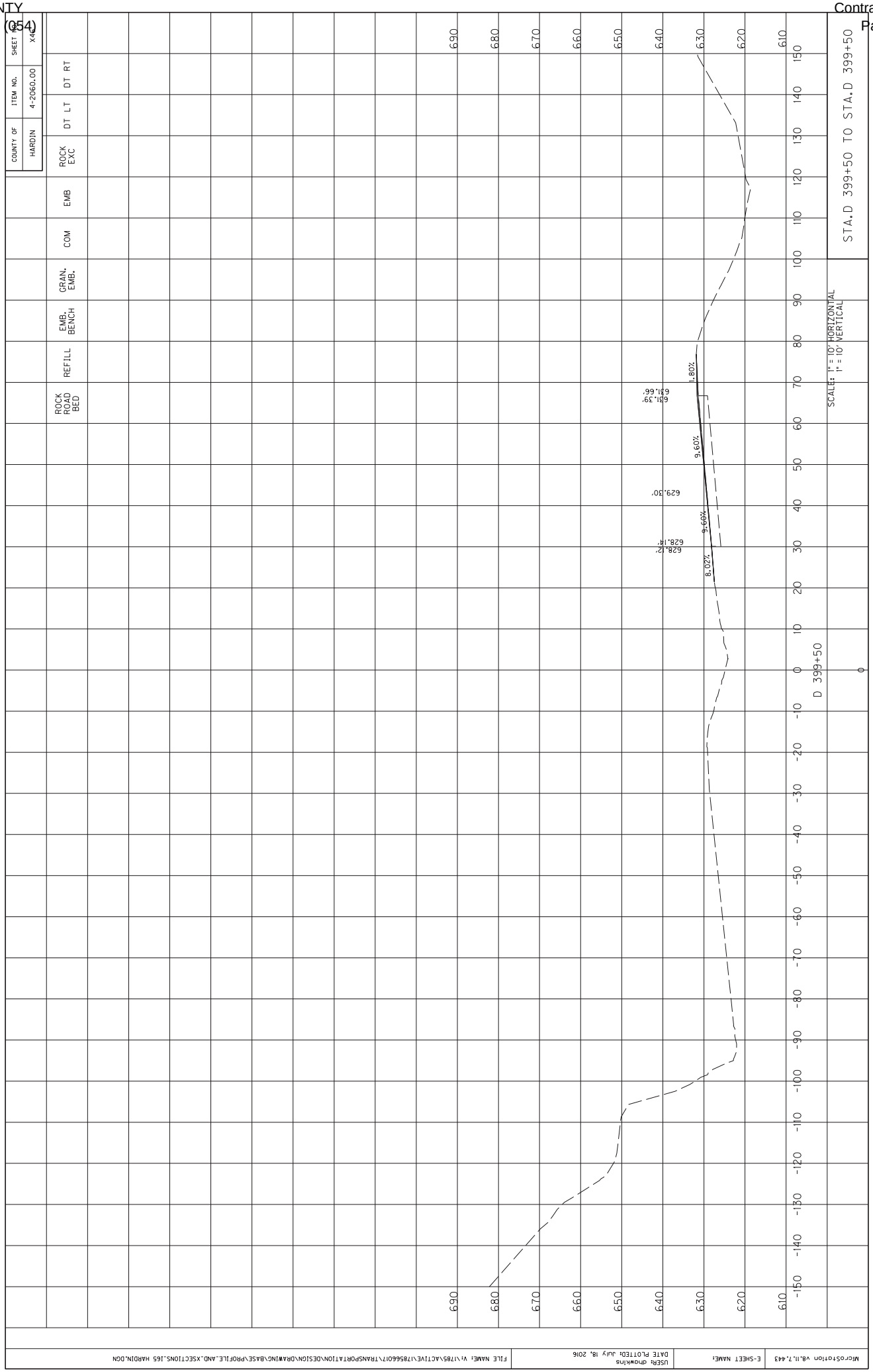

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X4
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 397+00 TO STA.D 397+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 397+00
1.50%
9.60%
9.60%
8:1 9.60%
637.89'
638.23'
635.84'
634.64'
634.69'
700
690
680
670
660
650
640
630
620
610
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: v:\1785\ACTIVE\1785601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

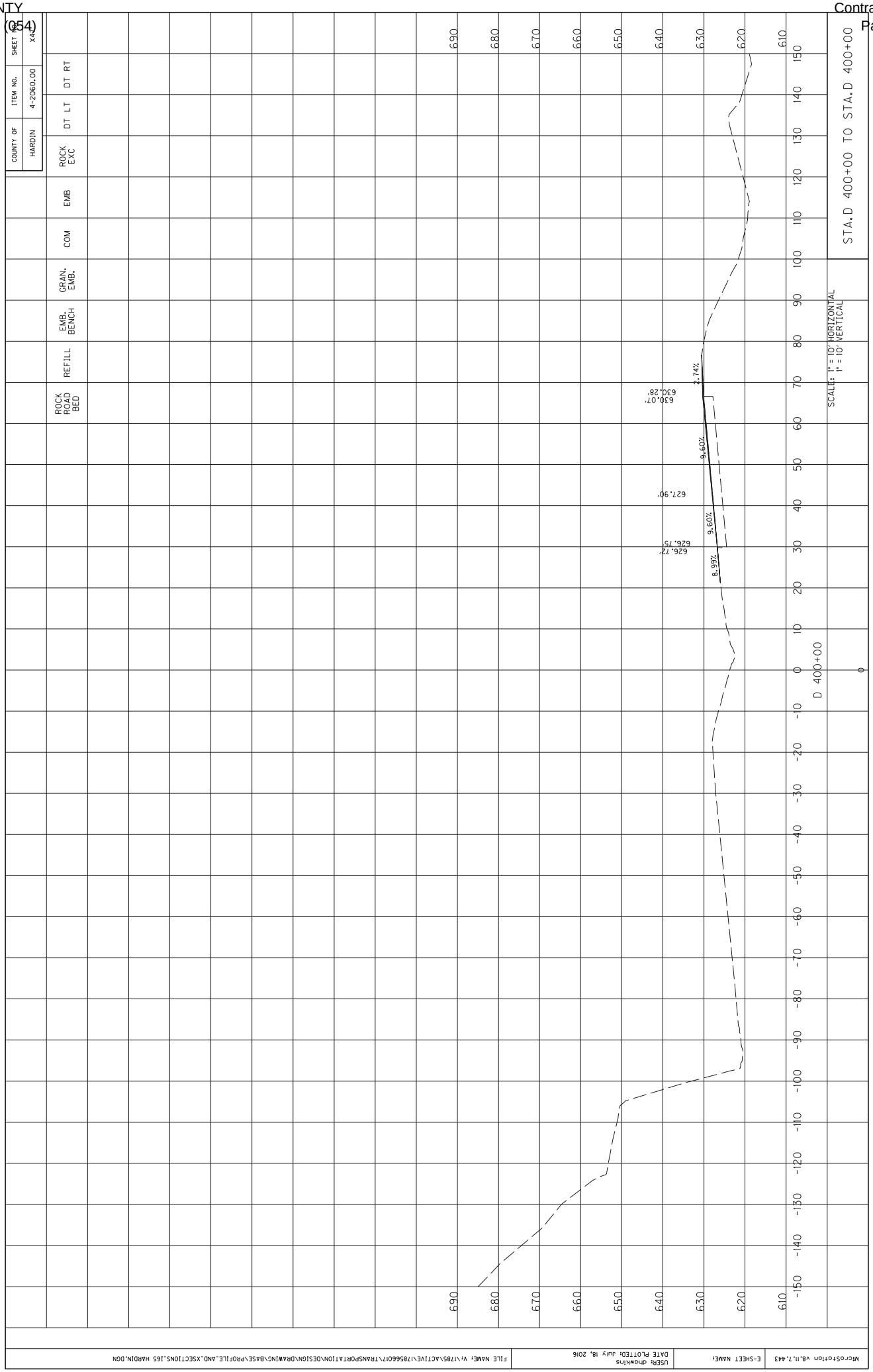

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X42
DT RT
DT LT
ROCK EXC
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 397+50 TO STA.D 397+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 397+50
636.97'
636.64'
634.60'
633.39'
633.45'
1.38%
9.60%
9.60%
8.60%
700
690
680
670
660
650
640
630
620
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: v:\1785\ACTIVE\1785601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

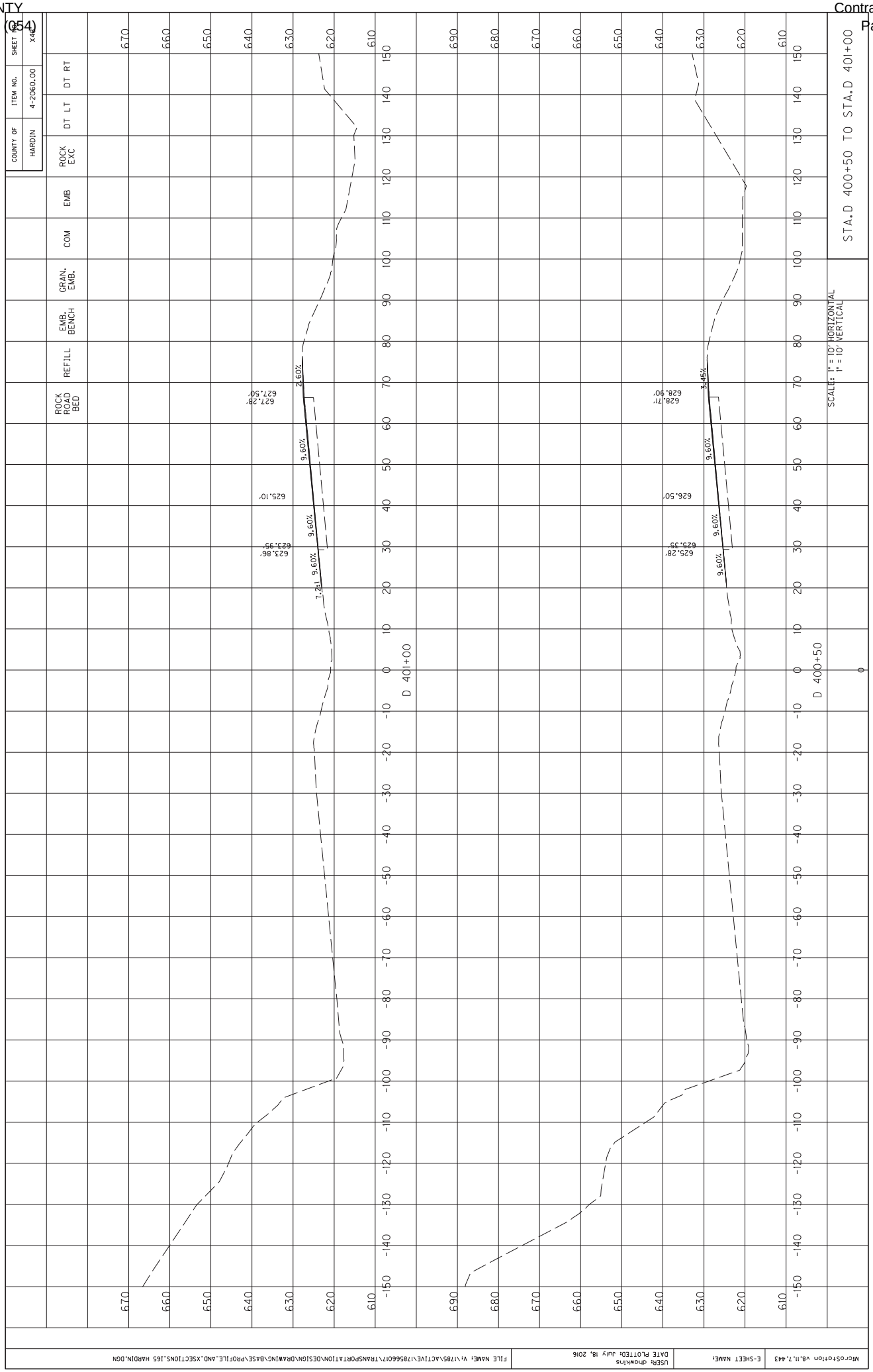

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X45
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 398+00 TO STA.D 398+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
635.71'
635.44'
1.95%
9.60%
633.35'
9.09%
632.20'
632.07'
9.19%
D 398+00
700
690
680
670
660
650
640
630
620
610
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: v:\1785\ACTIVE\1785601\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

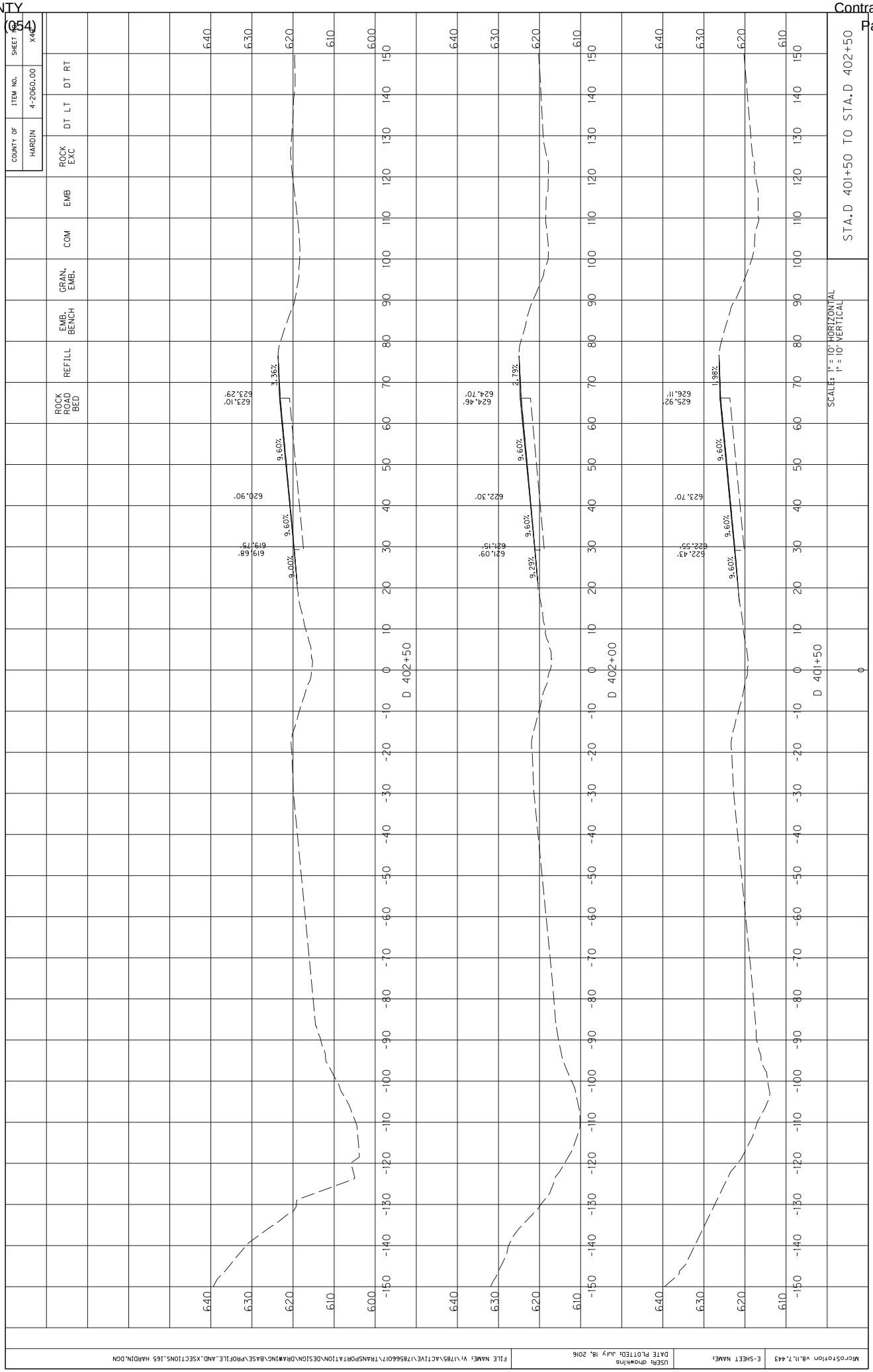

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X4
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 398+50 TO STA.D 398+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
634.07'
634.43'
632.06'
630.75'
630.91'
1.74%
9.60%
9.60%
9.60%
9.3:1
D 398+50
700
690
680
670
660
650
640
630
620
610
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: v:\1785\ACTIVE\1785601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

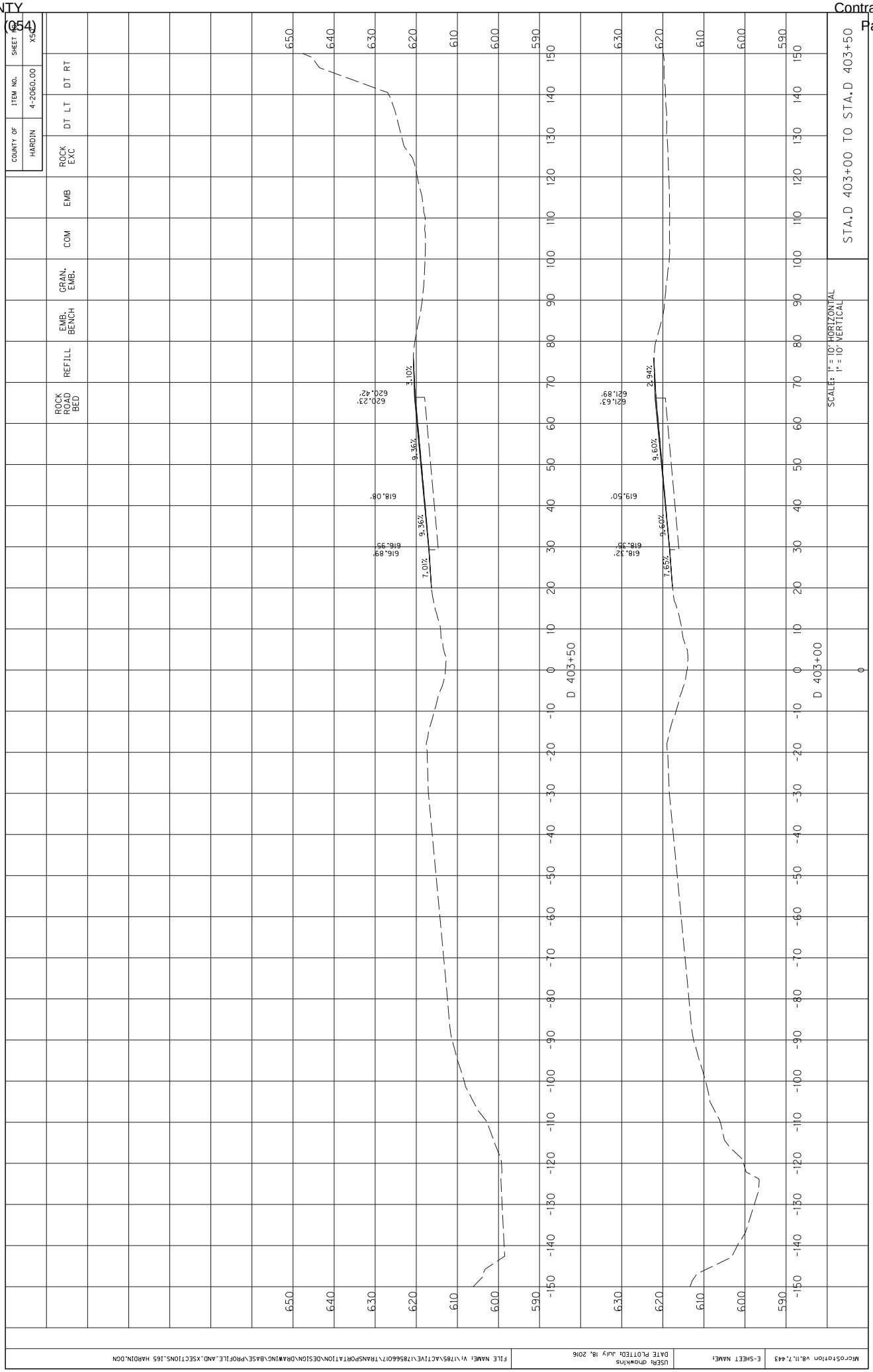

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X46
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 399+00 TO STA.D 399+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 399+00
2.37%
632.80'
633.04'
9.60%
630.69'
9.60%
629.42'
629.54'
9.60%
(121)
690
680
670
660
650
640
630
620
610
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: v:\1785\ACTIVE\1785601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

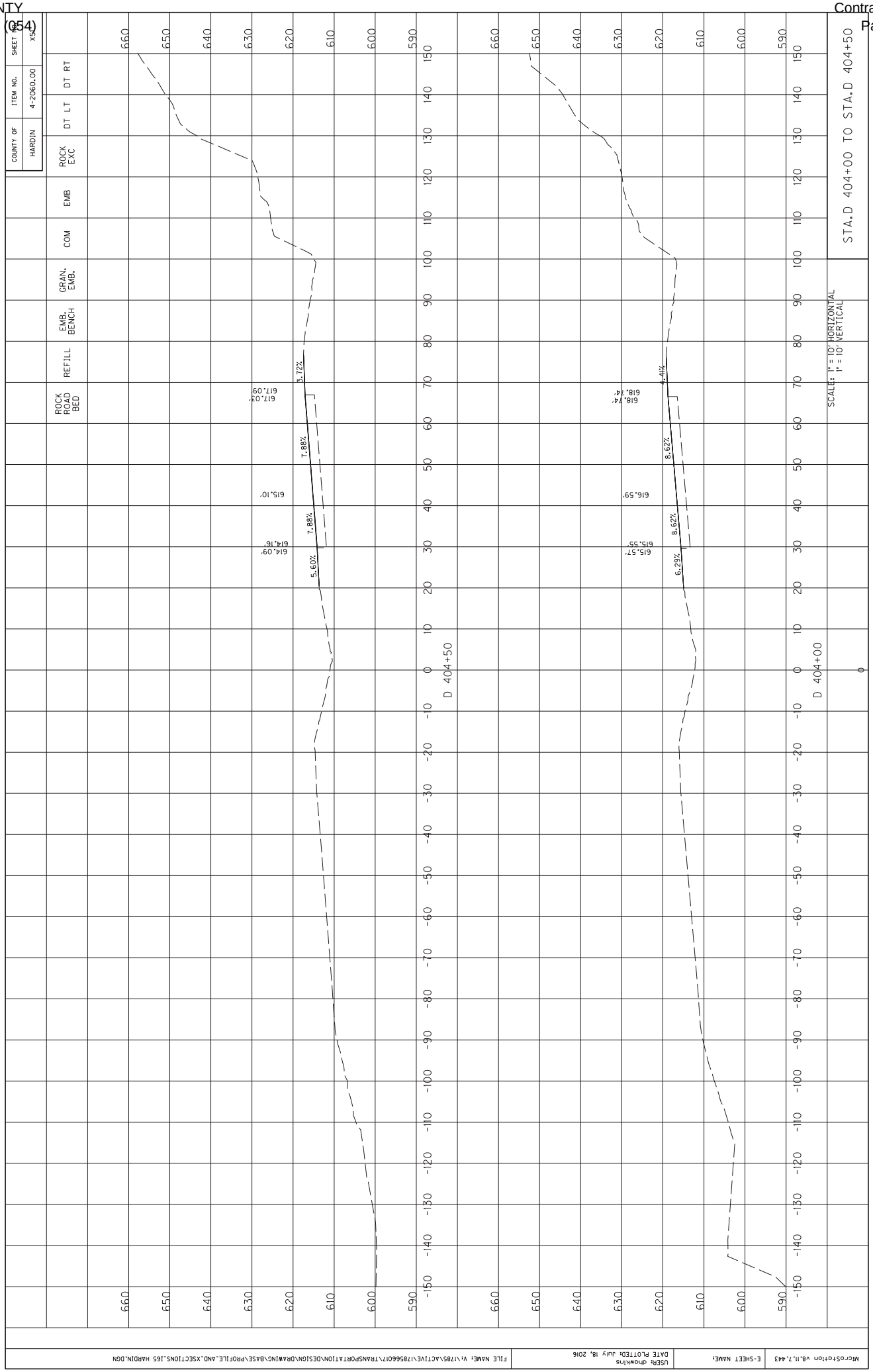

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X46
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 399+50 TO STA.D 399+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 399+50
631.39'
631.66'
10.81%
629.30'
9.60%
628.12'
9.60%
8.02%
690
680
670
660
650
640
630
620
610
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: V:\1785\ACTIVE\17856601\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

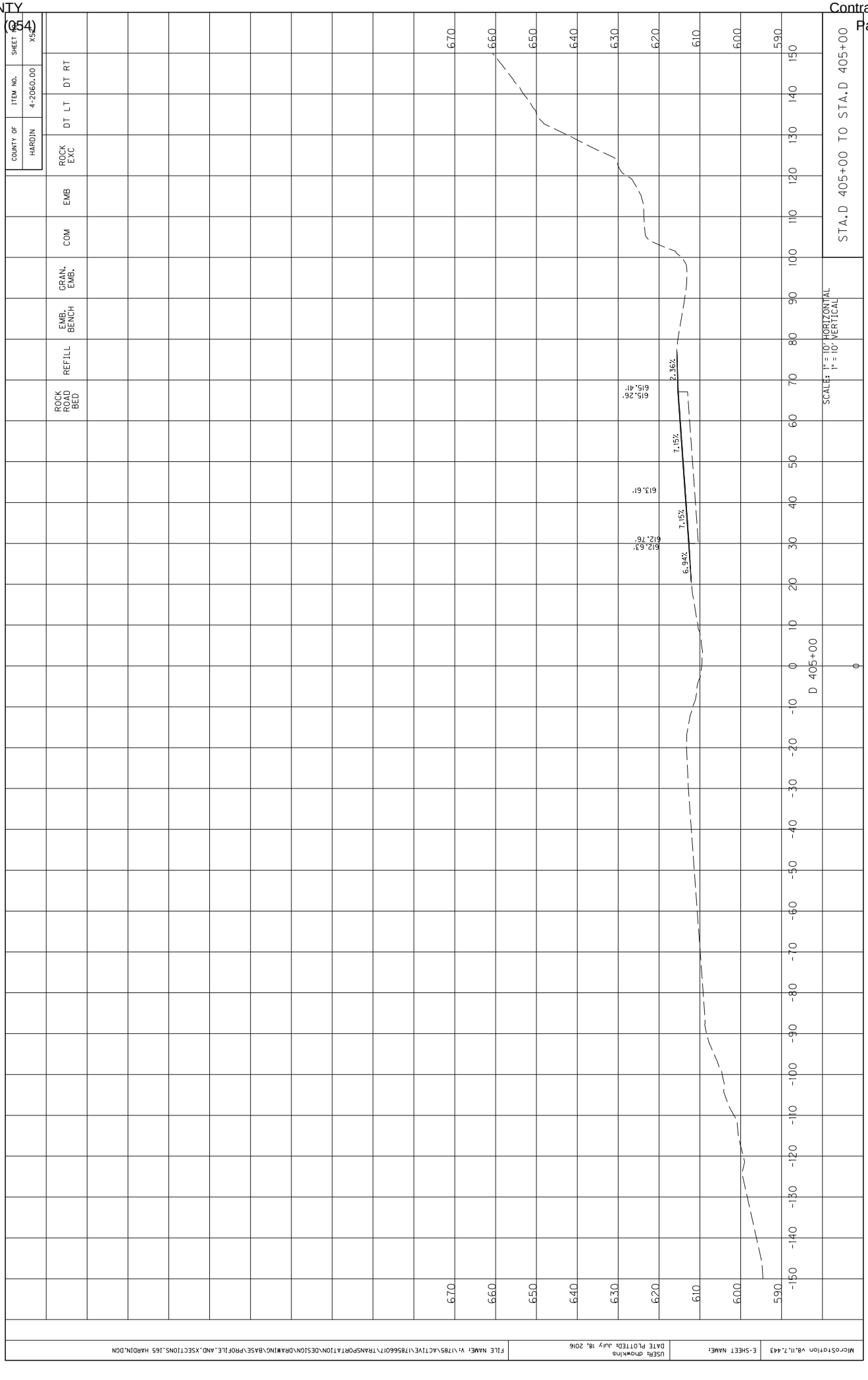

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X42
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 400+00 TO STA.D 400+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 400+00
2.74%
9.60%
9.60%
8.99%
630.07'
630.28'
627.90'
626.72'
626.75'
690
680
670
660
650
640
630
620
610
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: v:\1785\ACTIVE\17856601\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

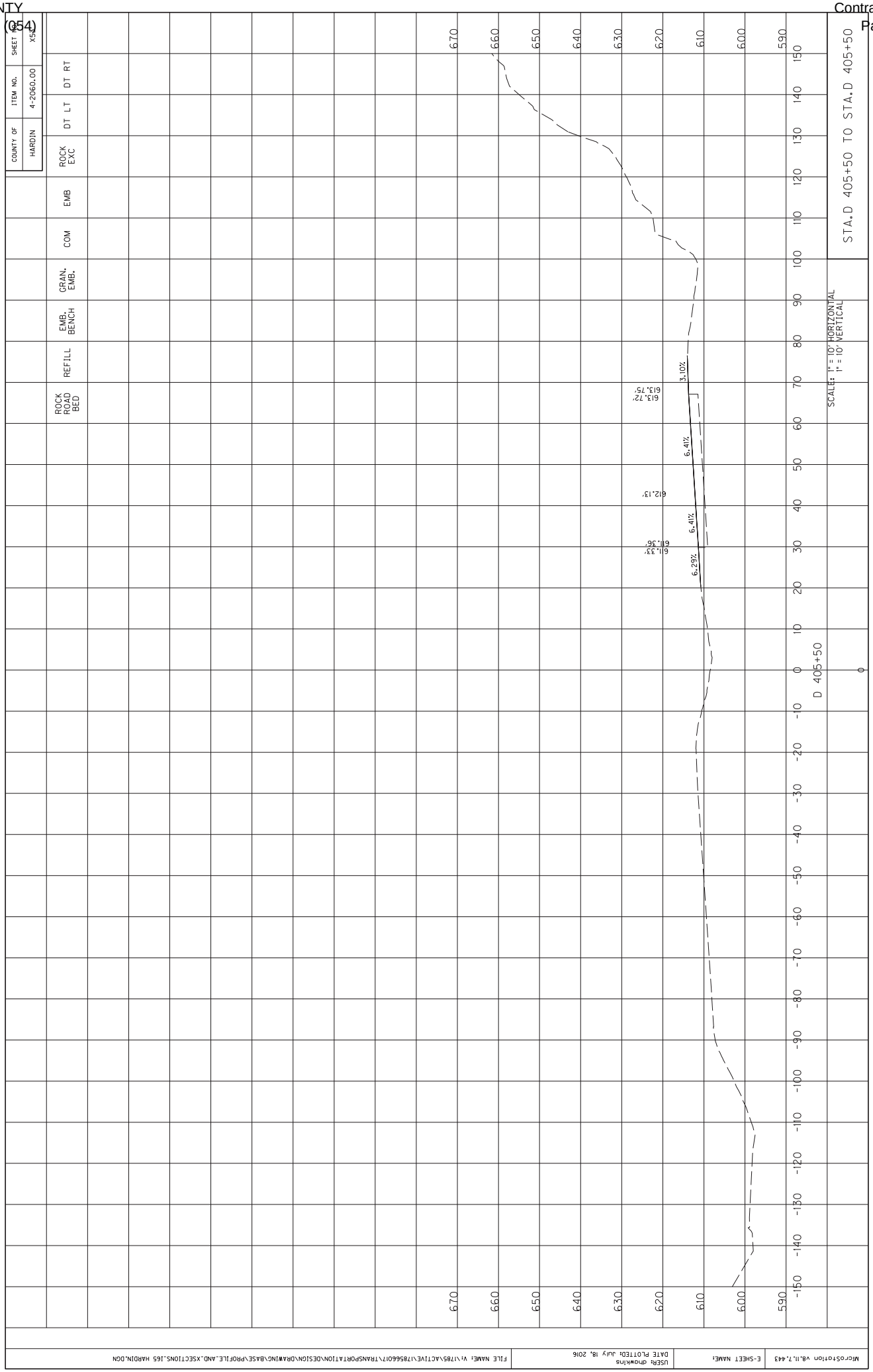

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X48
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA. D 400+50 TO STA. D 401+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 401+00
D 400+50
627.28'
627.50'
625.10'
623.86'
623.95'
628.71'
628.90'
626.50'
625.28'
625.35'
2.60%
9.60%
3.45%
7.2:1
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: v:\1785\ACTIVE\178566017\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

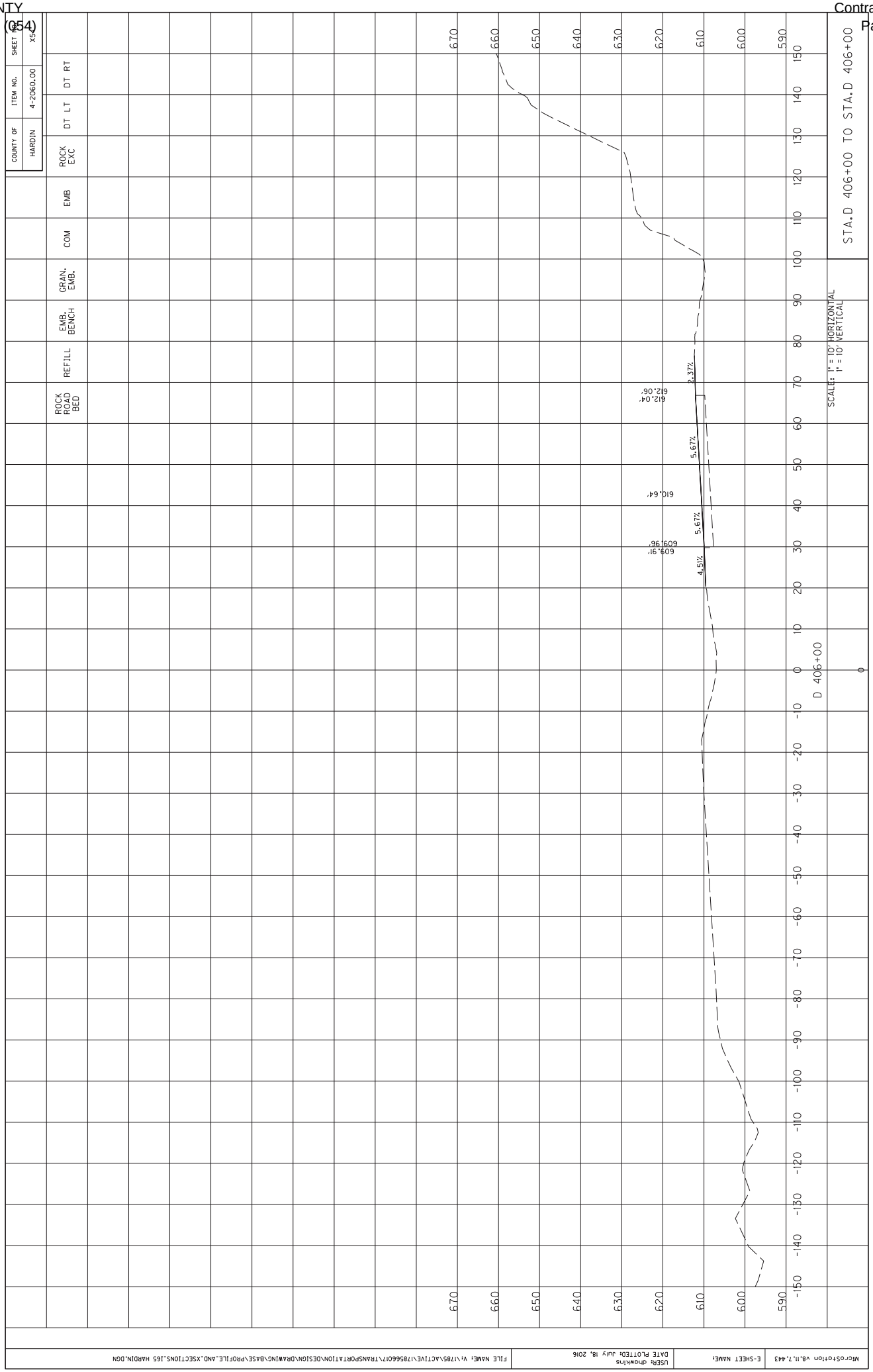

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X48
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA. D 401+50 TO STA. D 402+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 401+50
D 402+00
D 402+50
9.60%
9.29%
2.79%
1.98%
3.36%
9.00%
622.43'
622.55'
623.70'
625.92'
626.11'
621.09'
621.15'
622.30'
624.46'
624.70'
619.68'
619.75'
620.90'
623.10'
623.29'
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: y:\1785\ACTIVE\1785601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

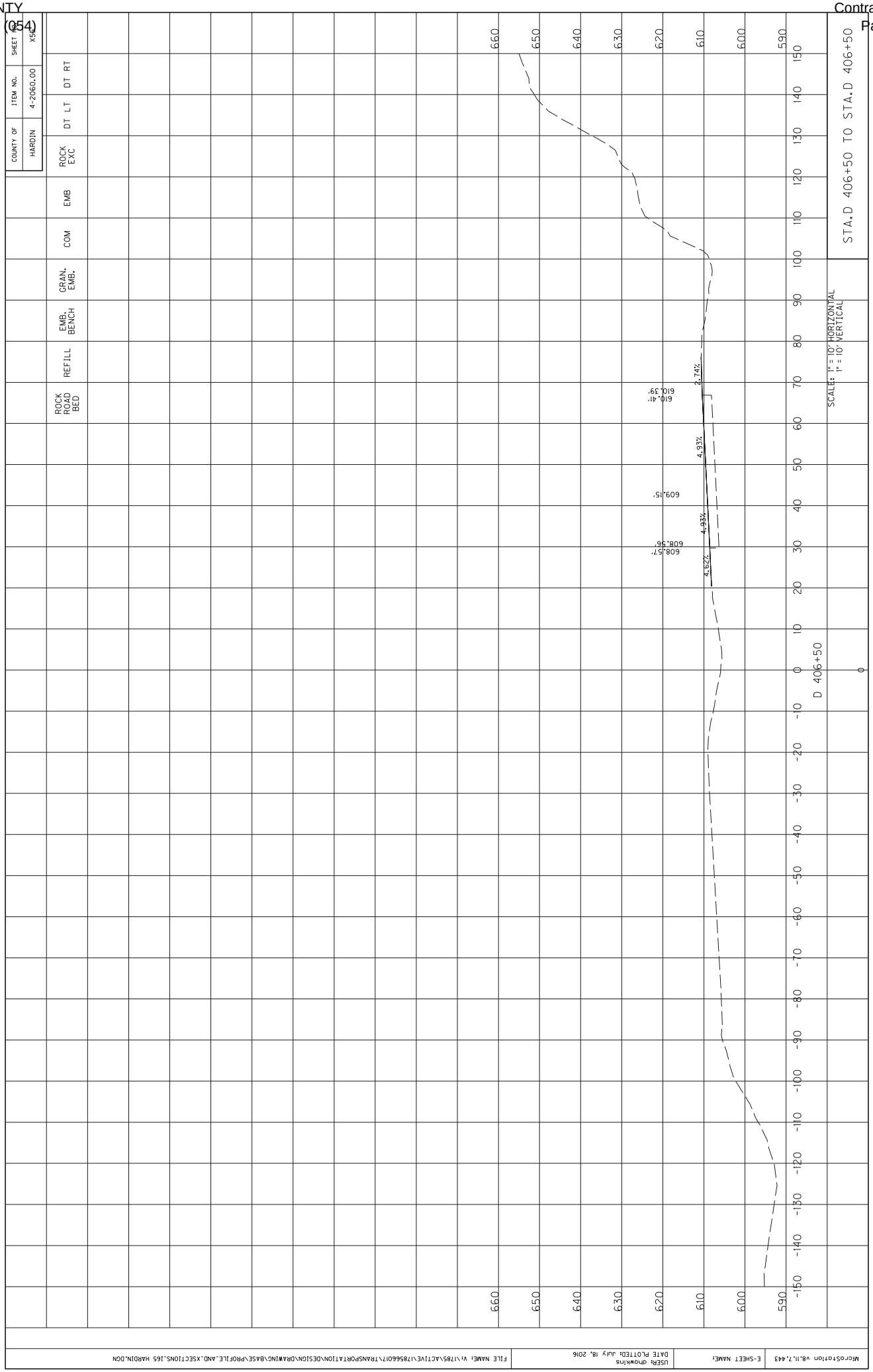

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X50
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 403+00 TO STA.D 403+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 403+50
D 403+00
620.23'
620.42'
618.08'
616.89'
616.95'
621.63'
621.89'
619.50'
618.32'
618.38'
3.10%
9.36%
9.36%
7.01%
2.94%
9.60%
9.60%
7.65%
FILE NAME: V:\1785\ACTIVE\178566017\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN
USER: dhawkins
DATE PLOTTED: July 18, 2016
SHEET NAME:
MicroStation V8.11.7.443

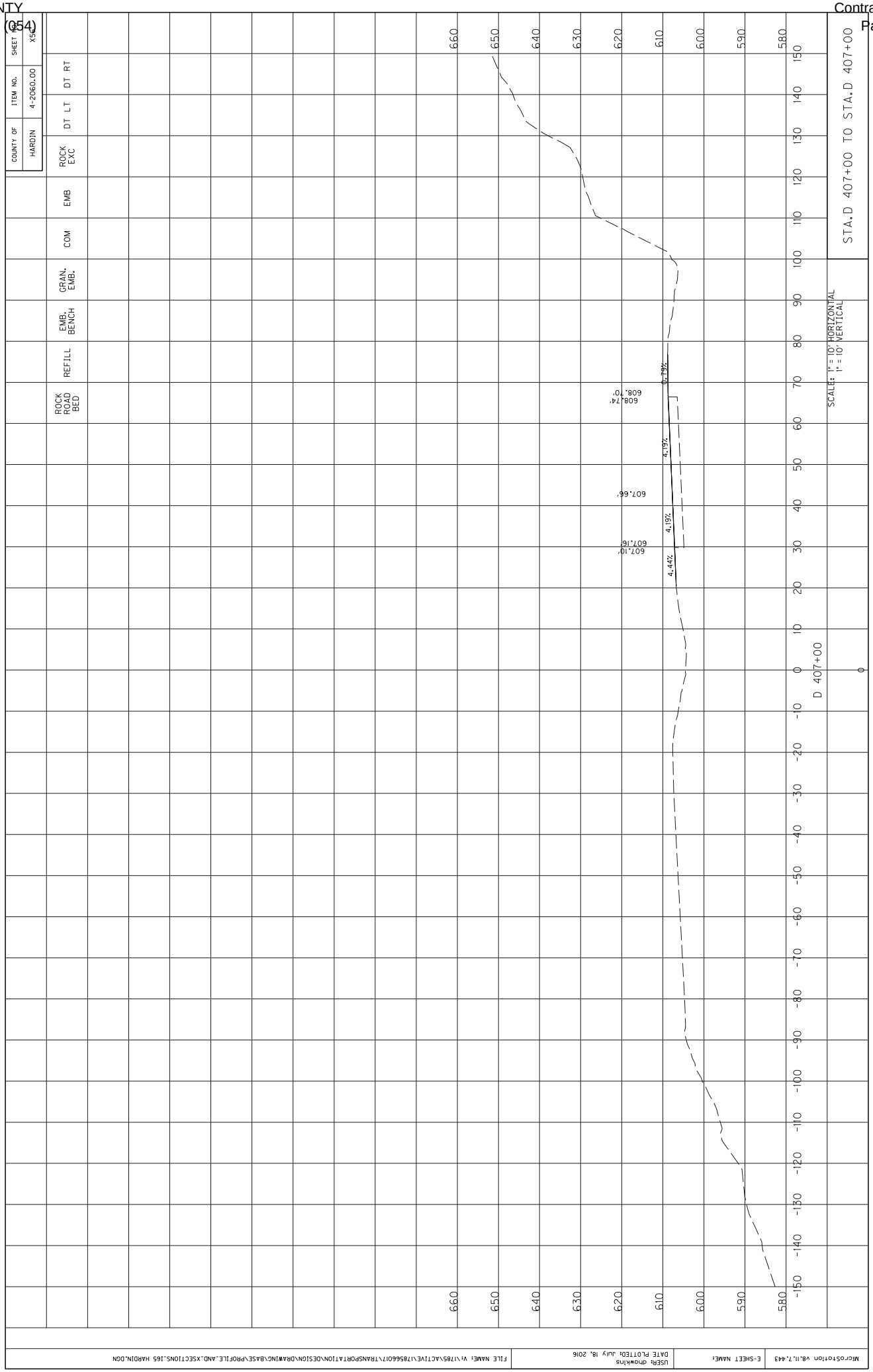

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X5
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 404+00 TO STA.D 404+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 404+50
D 404+00
617.03'
617.09'
615.10'
614.09'
614.16'
5.60%
7.88%
7.88%
3.72%
618.74'
618.74'
616.59'
615.57'
615.55'
6.29%
8.62%
8.62%
4.41%
FILE NAME: V:\1785\ACTIVE\178566017\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN
USER: dhawkins
DATE PLOTTED: July 18, 2016
E-SHEET NAME:
MicroStation V8.11.7.443

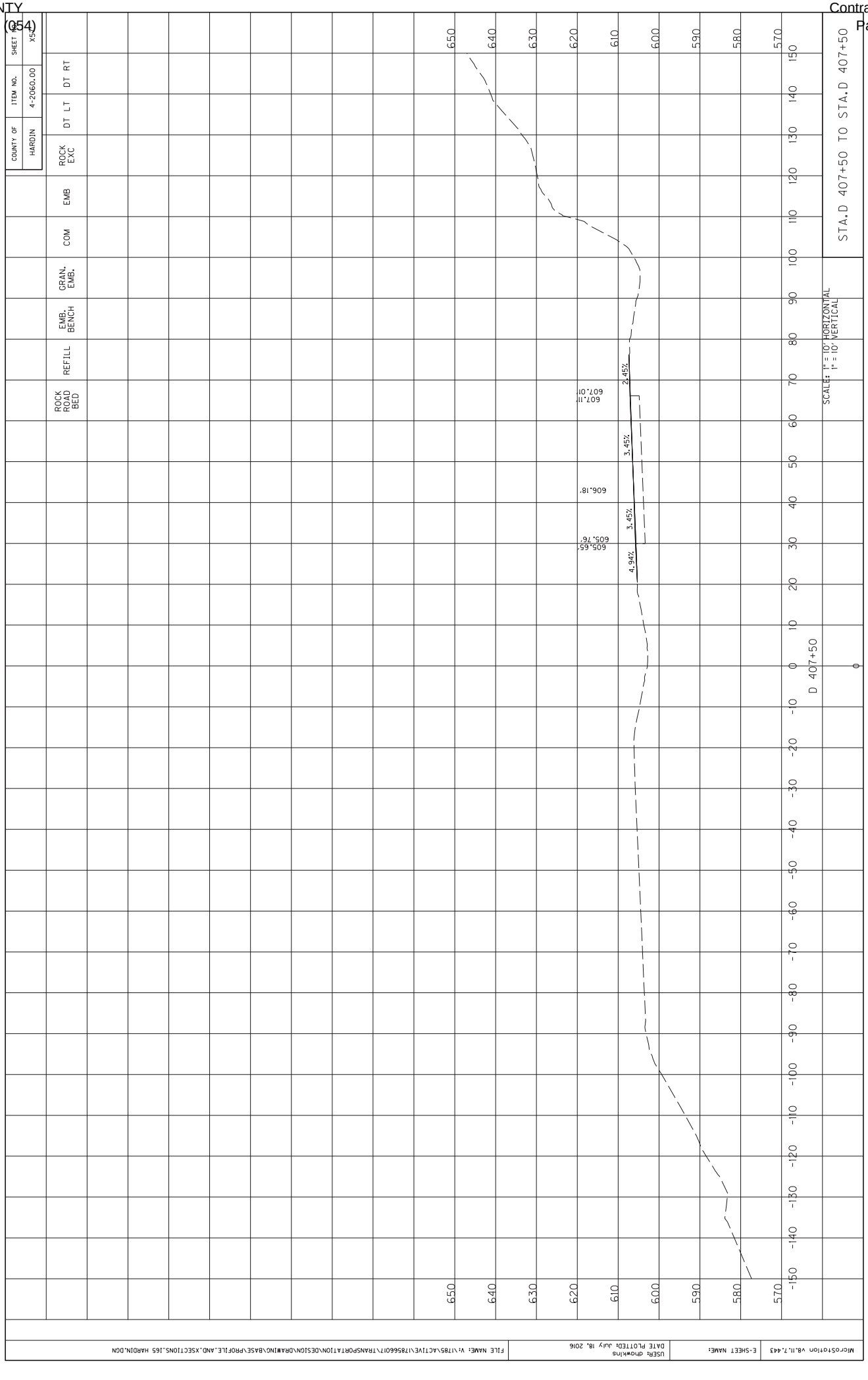

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X52
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 405+00 TO STA.D 405+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
615.26'
615.41'
613.61'
612.63'
612.76'
2.36%
7.15%
7.15%
6.94%
D 405+00
670
660
650
640
630
620
610
600
590
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: y:\1785\ACTIVE\17856601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

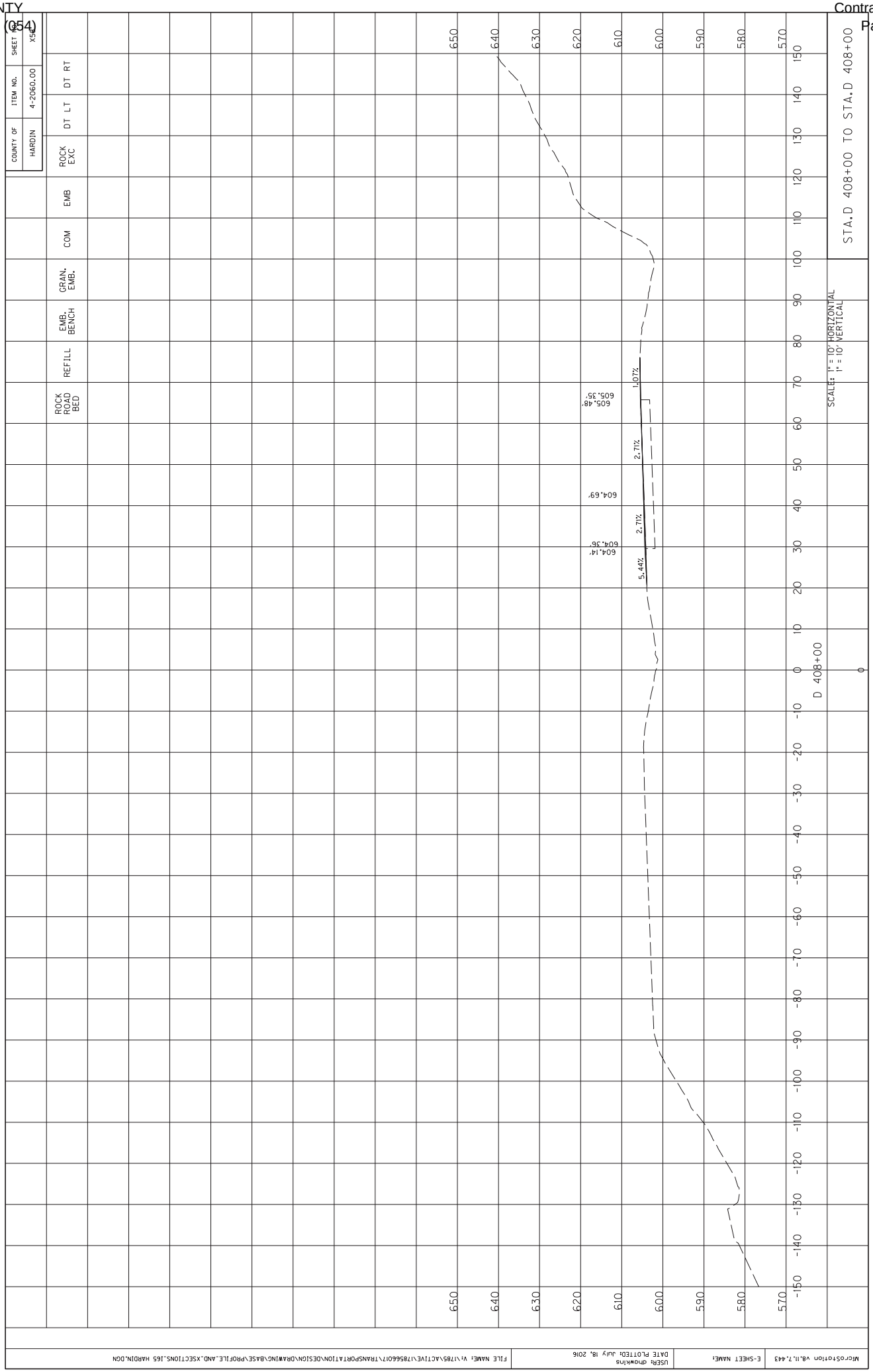

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X54
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 405+50 TO STA.D 405+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 405+50
613.72'
613.79'
612.13'
611.33'
611.36'
3.10%
6.41%
6.41%
6.29%
670
660
650
640
630
620
610
600
590
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: y:\1785\ACTIVE\17856601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

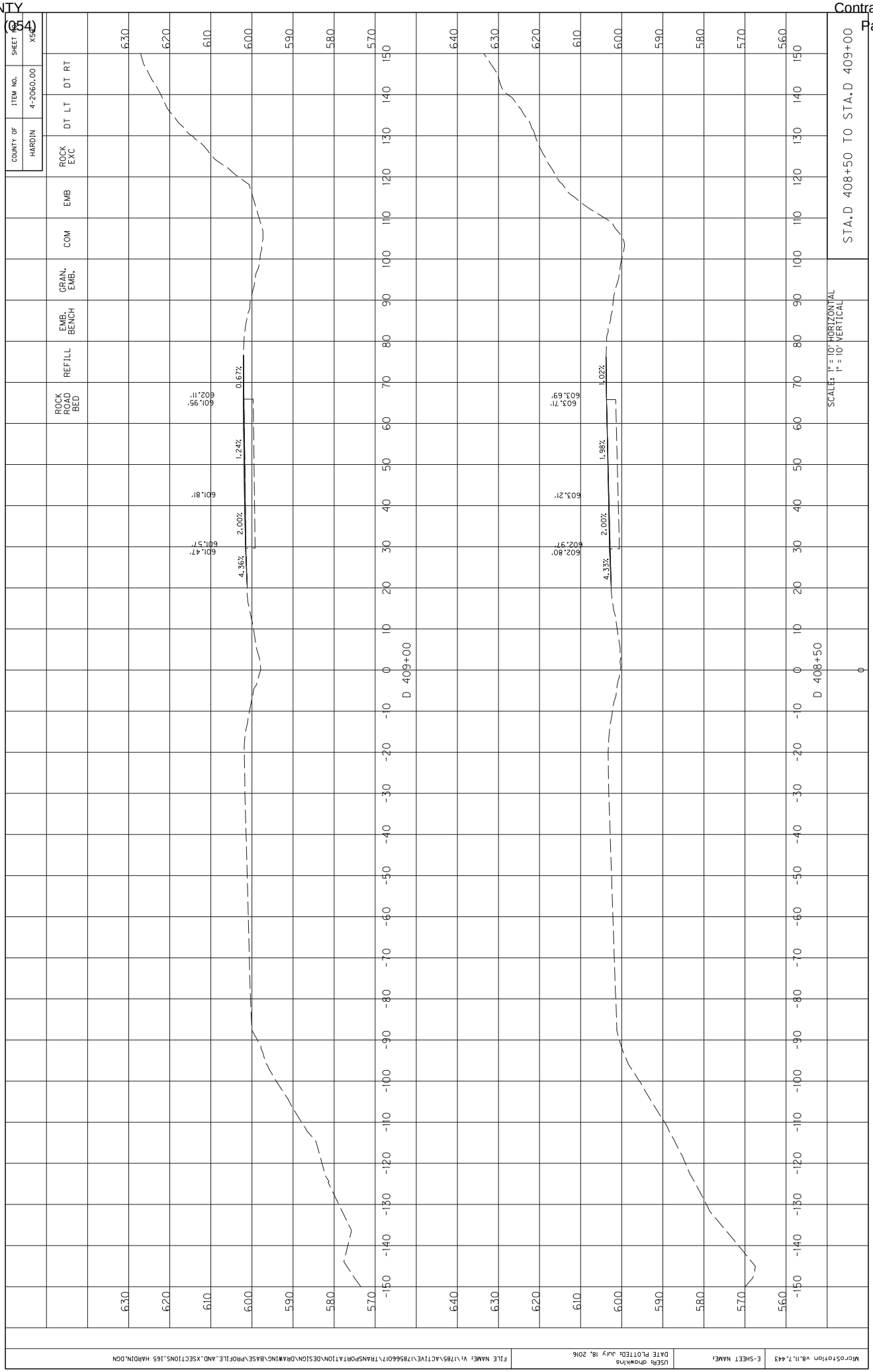

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X54
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 406+00 TO STA.D 406+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
612.04'
612.06'
610.64'
609.91'
609.96'
2.37%
5.67%
5.67%
4.51%
D 406+00
670
660
650
640
630
620
610
600
590
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: v:\1785\ACTIVE\1785601\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

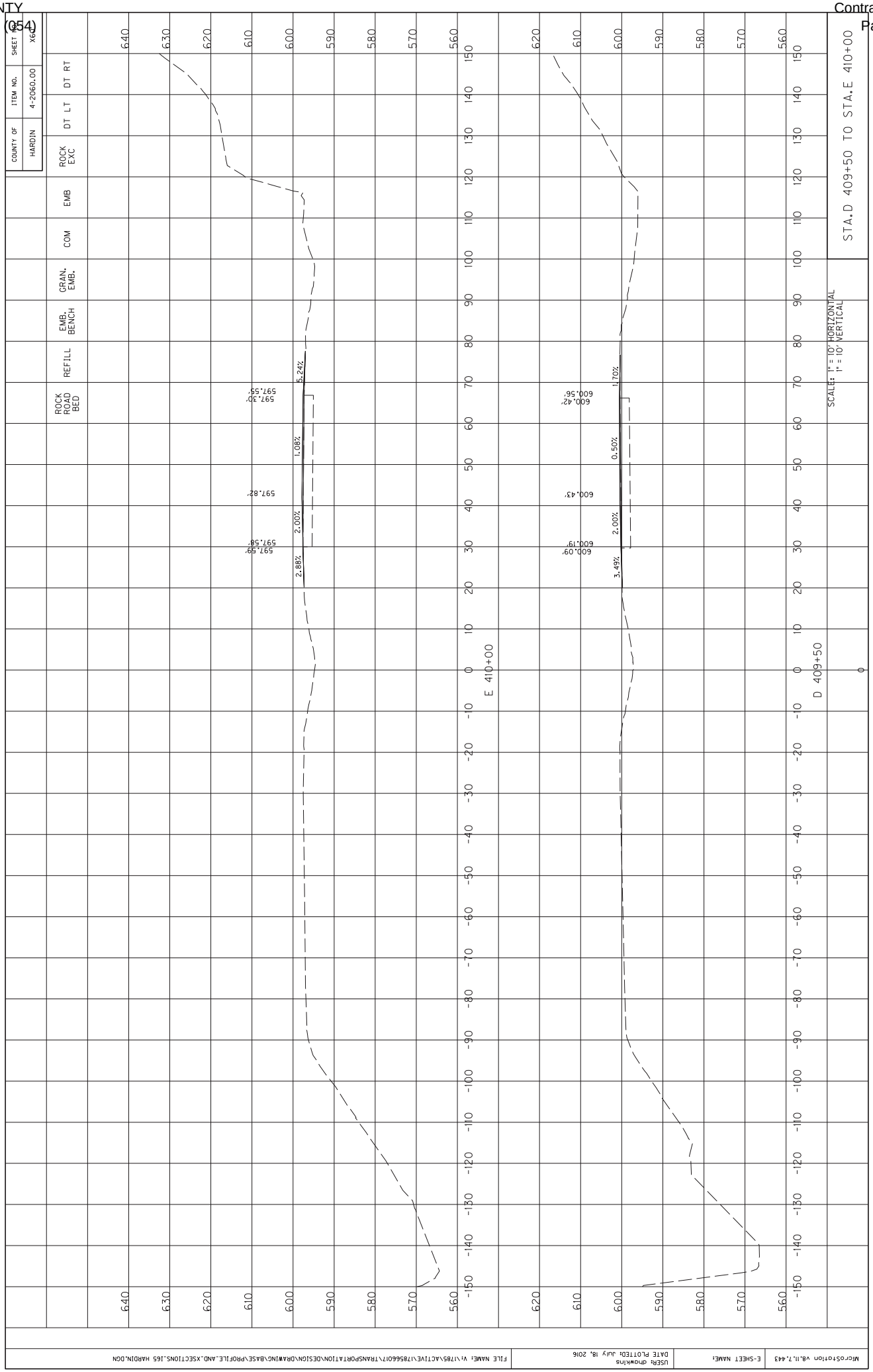

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X54
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 406+50 TO STA.D 406+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
610.41'
610.39'
2.74%
4.93%
609.15'
4.93%
608.57'
608.56'
4.62%
D 406+50
660
650
640
630
620
610
600
590
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: y:\1785\ACTIVE\17856601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN


COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X56
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 407+00 TO STA.D 407+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
608.74'
608.70'
607.66'
607.10'
607.16'
0.79%
4.19%
4.19%
4.44%
D 407+00
660
650
640
630
620
610
600
590
580
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: y:\1785\ACTIVE\178566017\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

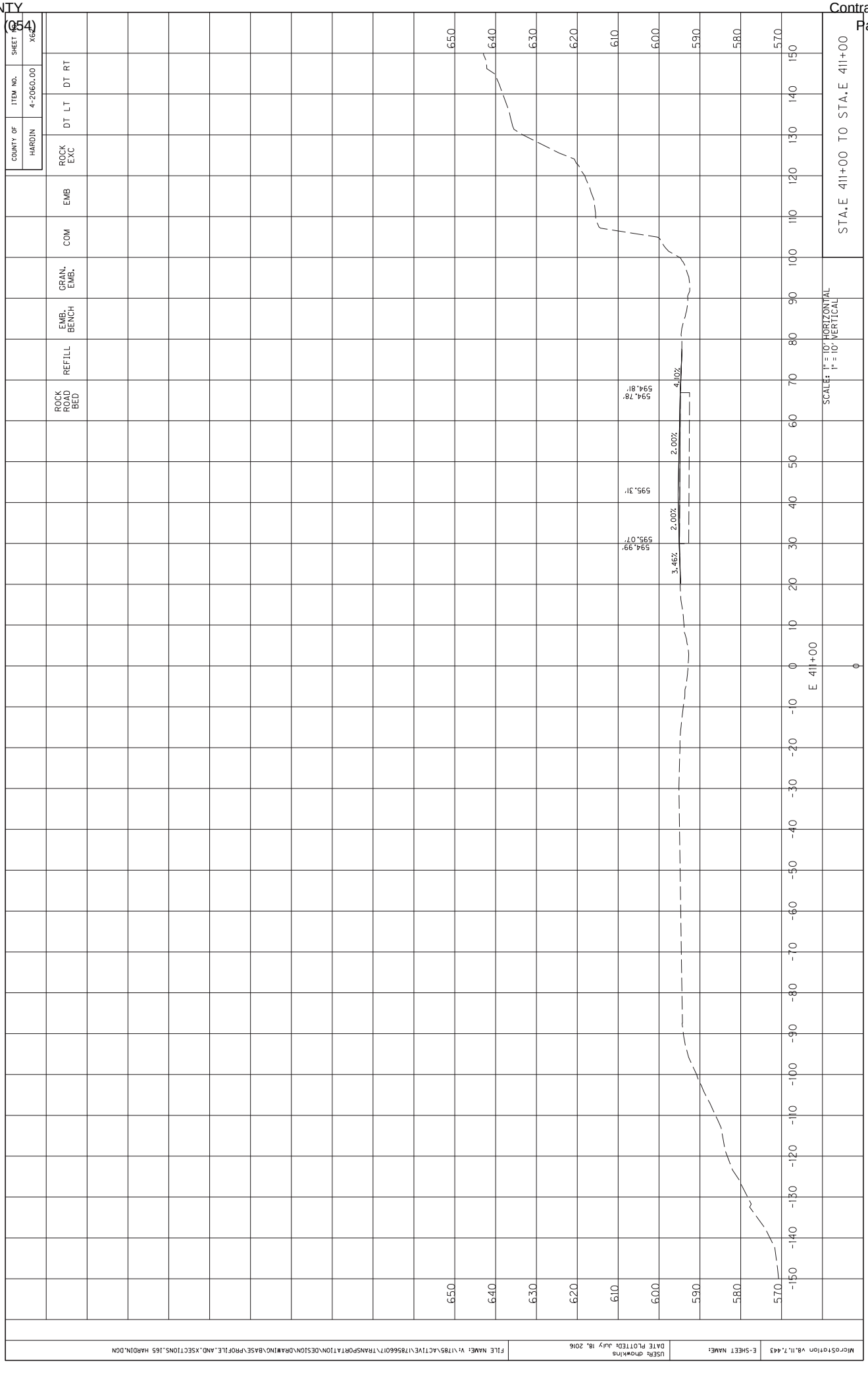

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X5
DT RT
DT LT
ROCK EXC
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 407+50 TO STA.D 407+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
607.11'
607.01'
606.18'
605.76'
605.65'
2.45%
3.45%
3.45%
4.94%
D 407+50
650
640
630
620
610
600
590
580
570
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: v:\1785\ACTIVE\1785601\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

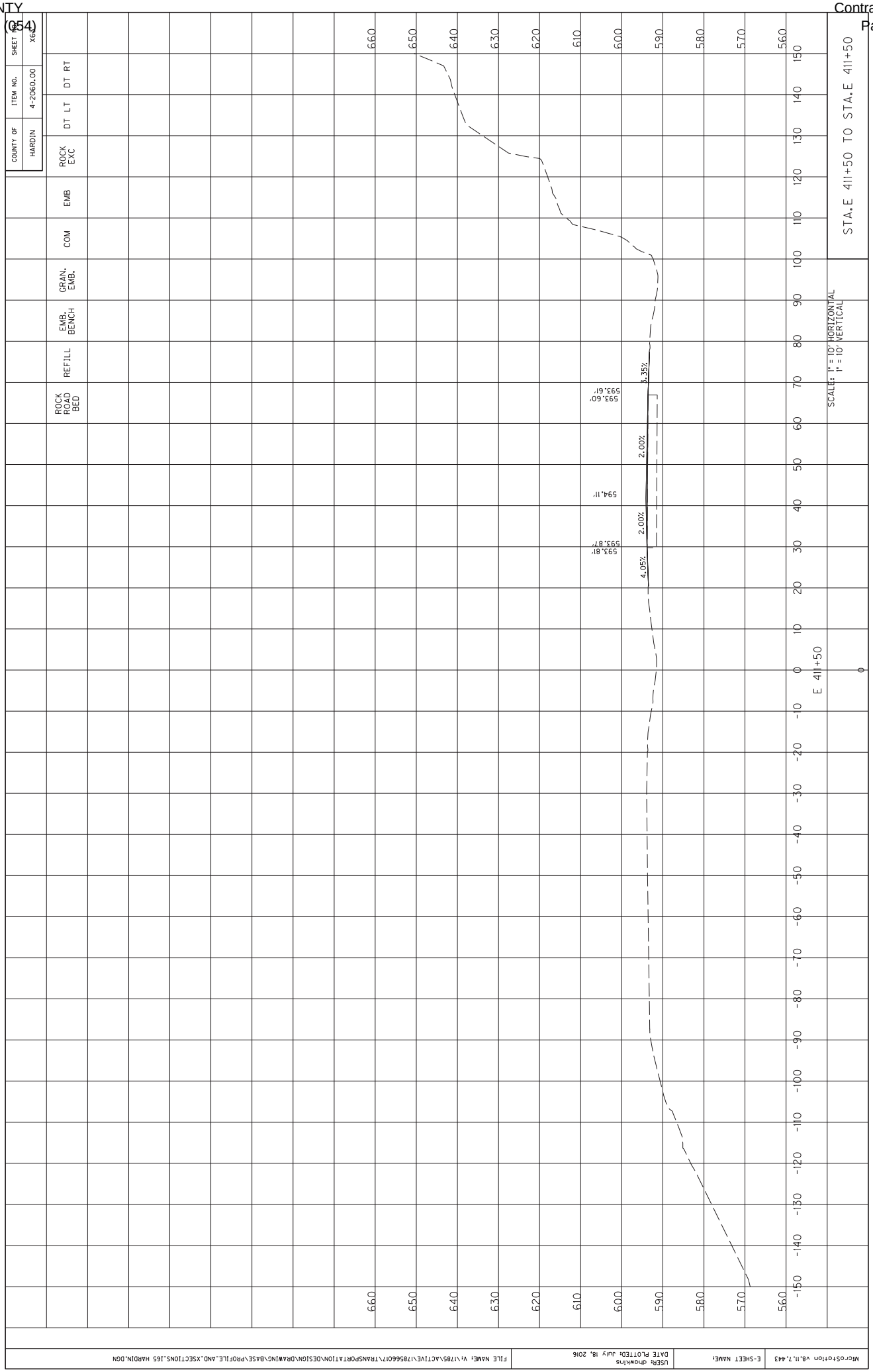

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X56
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 408+00 TO STA.D 408+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
605.48'
605.35'
604.69'
604.14'
604.36'
1.07%
2.71%
2.71%
5.44%
D 408+00
650
640
630
620
610
600
590
580
570
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: v:\1785\ACTIVE\1785601\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

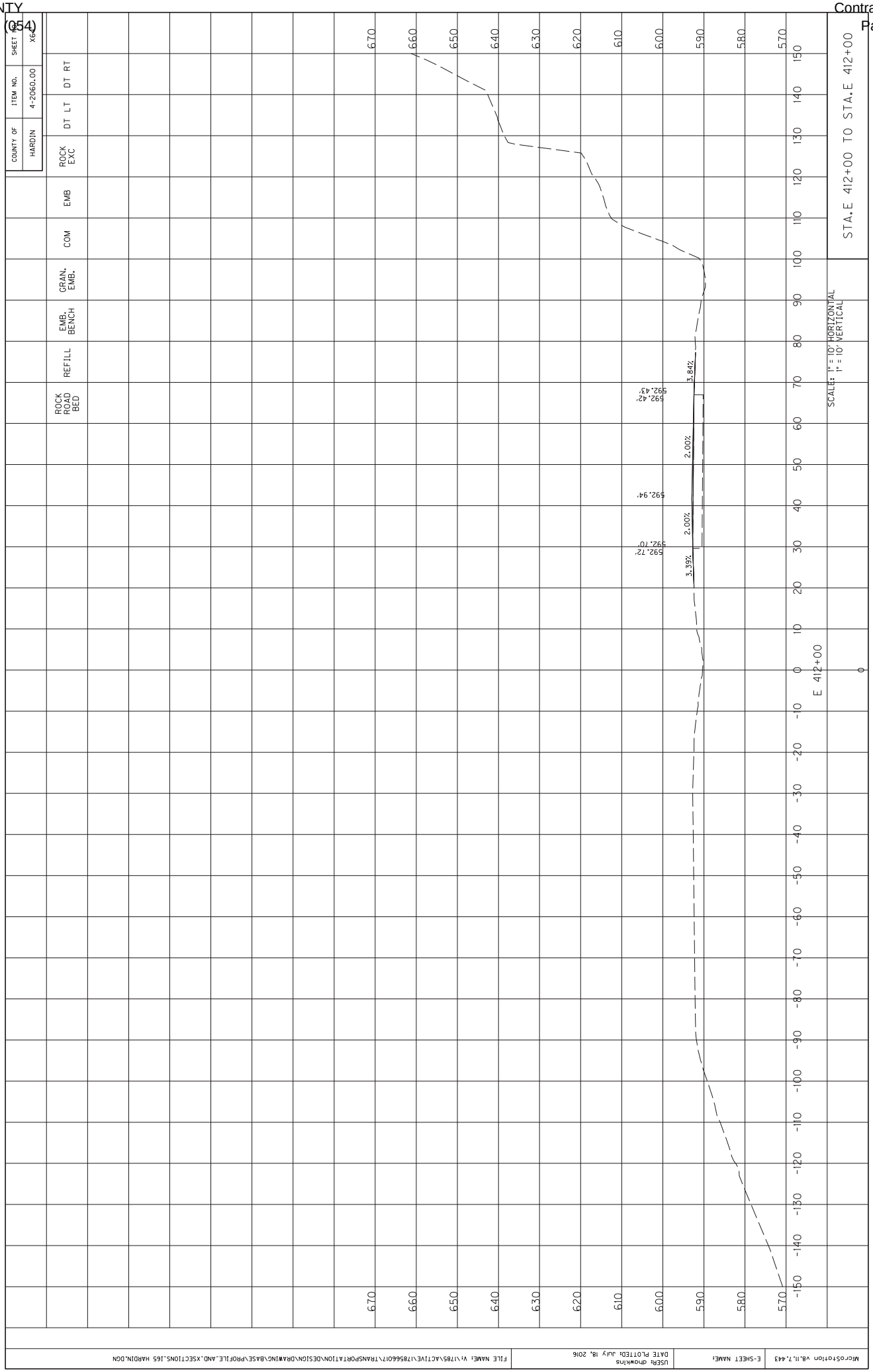

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X54
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.D 408+50 TO STA.D 409+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
D 409+00
D 408+50
4.36%
2.00%
1.24%
0.67%
4.33%
2.00%
1.98%
1.02%
601.47'
601.57'
601.81'
601.95'
602.11'
602.80'
602.97'
603.21'
603.71'
603.69'
FILE NAME: V:\1785\ACTIVE\17856017\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN
USER: dhawkins
DATE PLOTTED: July 18, 2016
SHEET NAME:
MicroStation V8.11.7.443

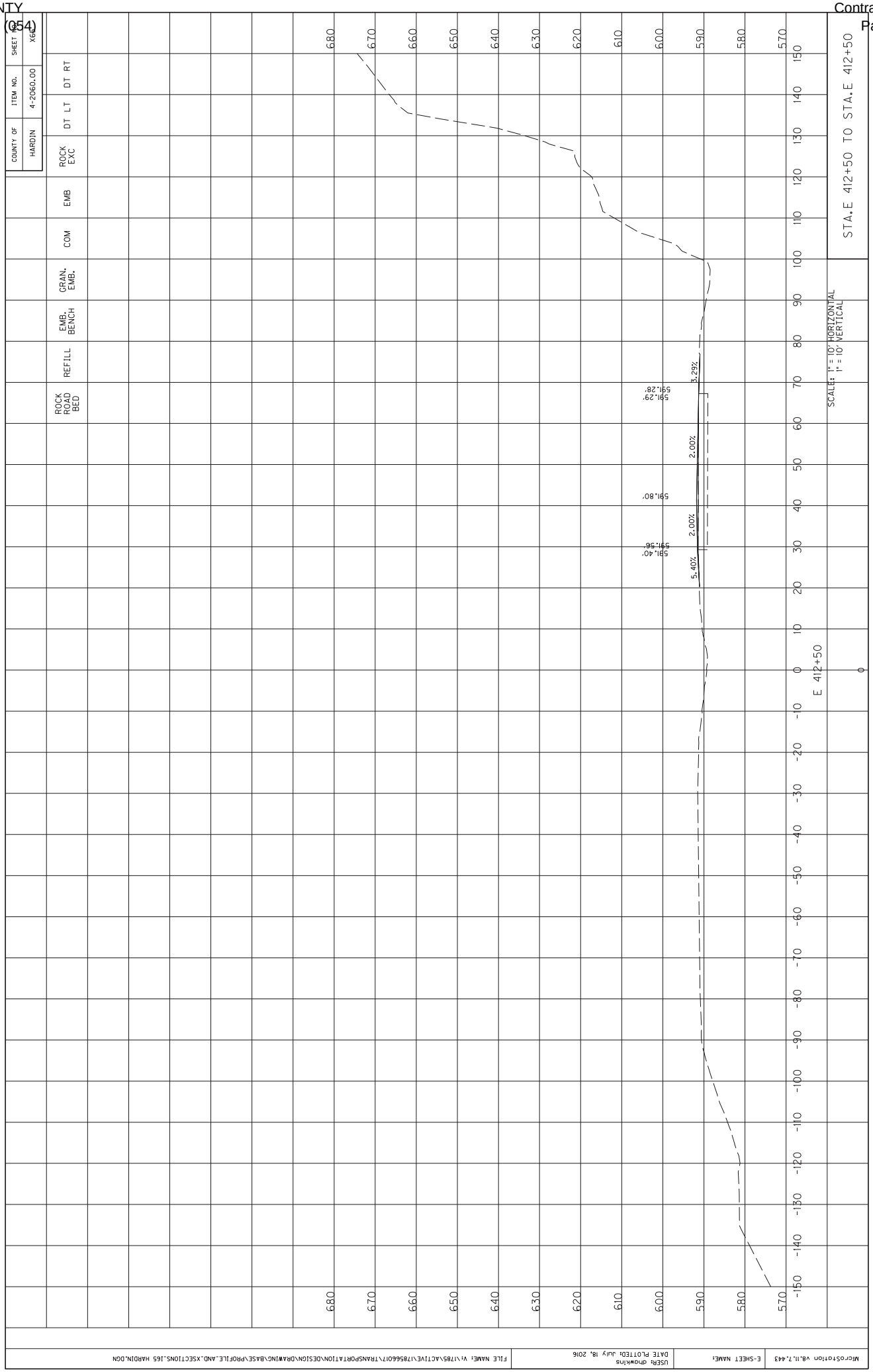

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X60
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA. D 409+50 TO STA. E 410+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
E 410+00
D 409+50
597.30'
597.55'
597.82'
597.59'
597.58'
600.42'
600.56'
600.43'
600.09'
600.19'
5.24%
1.08%
2.00%
2.88%
1.70%
0.50%
2.00%
3.49%
FILE NAME: v:\1785\ACTIVE\178566017\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN
USER: dhawkins
DATE PLOTTED: July 18, 2016
SHEET NAME:
MicroStation V8.11.7.443

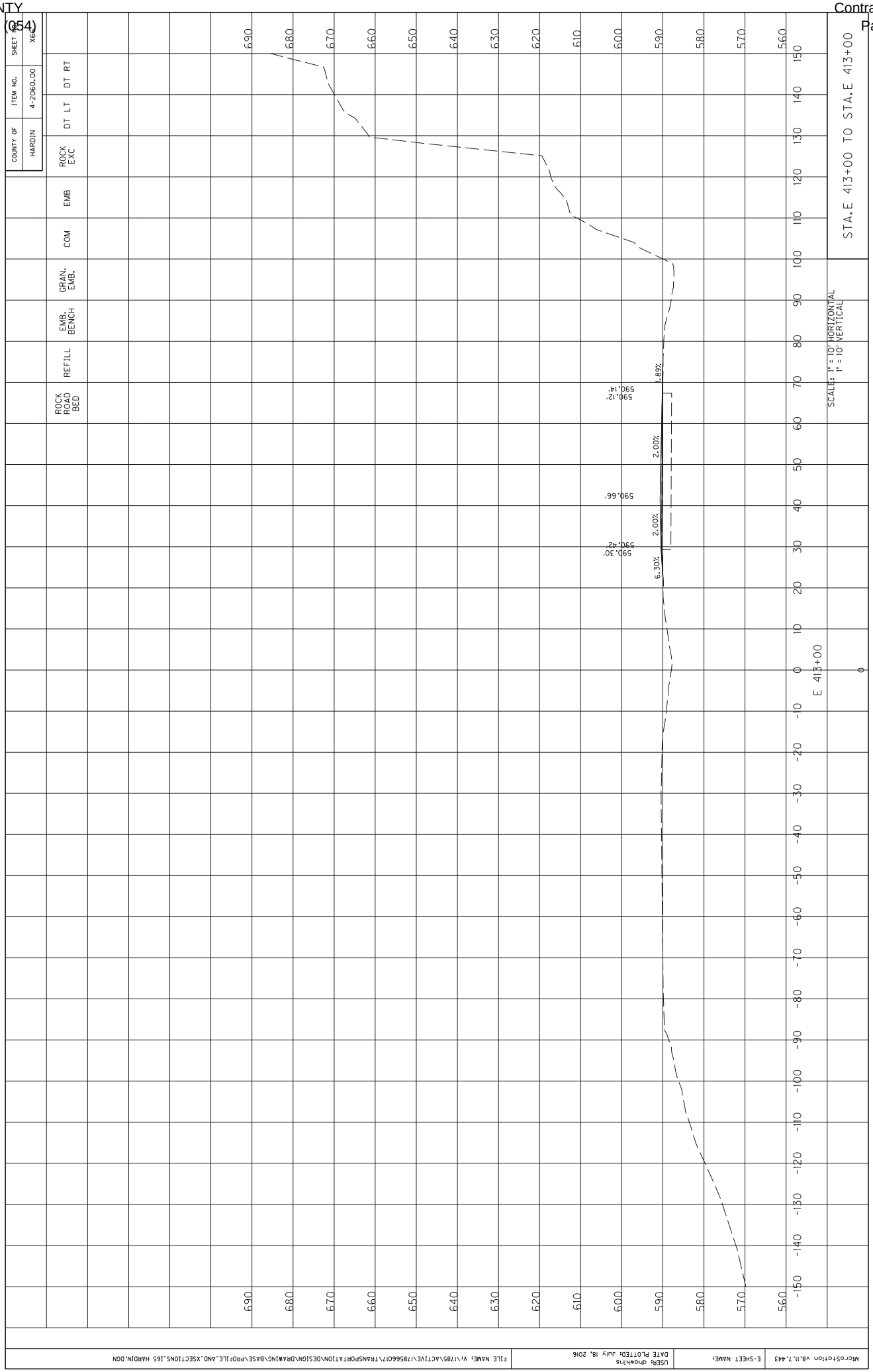
COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X60
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.E 410+50 TO STA.E 410+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
E 410+50
596.07'
596.00'
596.55'
596.31'
596.23'
4.71%
1.90%
2.00%
3.31%
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: y:\1785\ACTIVE\17856601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

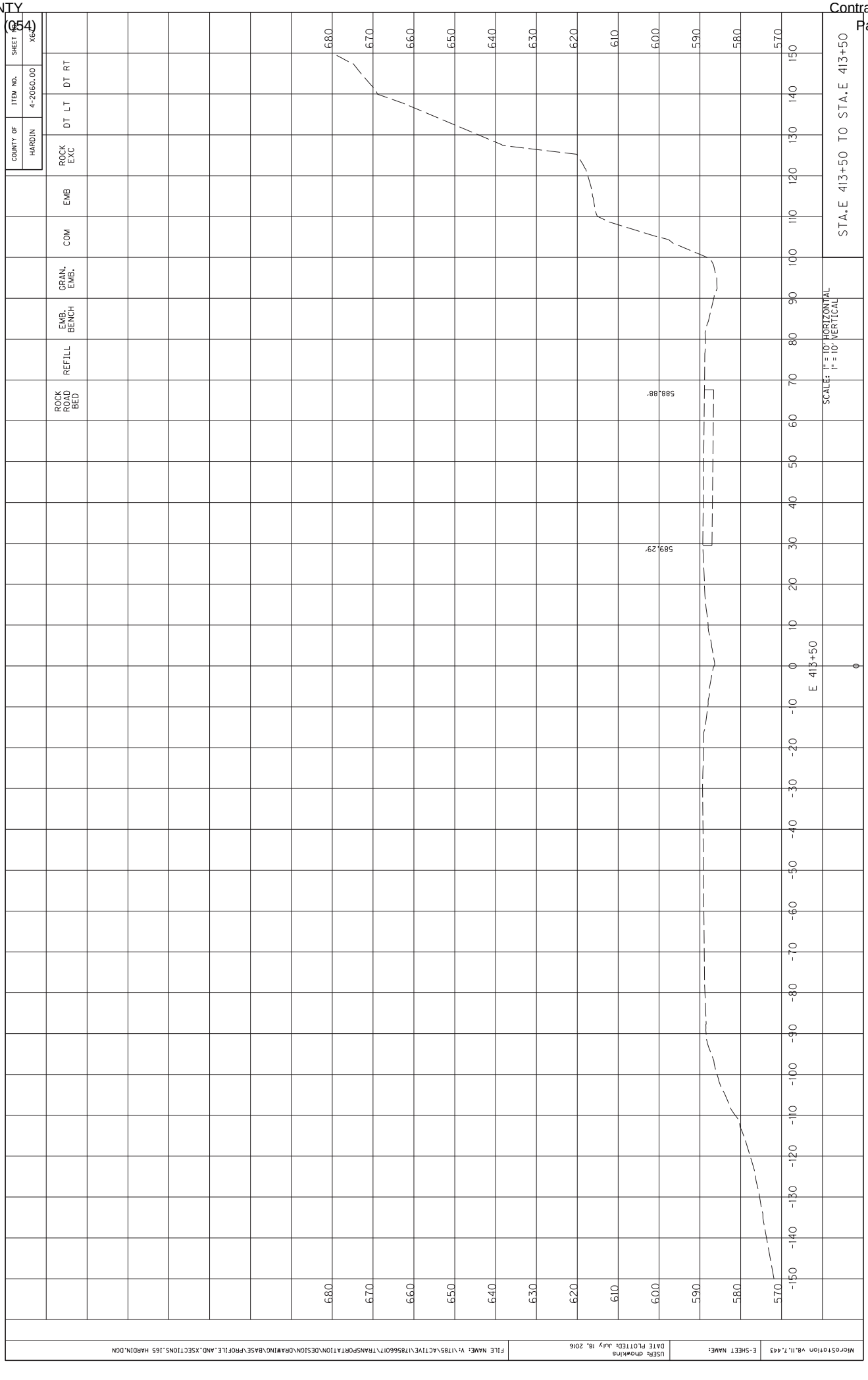

COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X62
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA. E 411+00 TO STA. E 411+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
E 411+00
650
640
630
620
610
600
590
580
570
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
594.78'
594.81'
4.10%
2.00%
595.31'
595.07'
594.99'
2.00%
3.46%
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: y:\1785\ACTIVE\17856601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN


COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X64
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA. E 411+50 TO STA. E 411+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
E 411+50
593.60'
593.61'
594.11'
593.81'
593.87'
3.35%
2.00%
2.00%
4.05%
660 650 640 630 620 610 600 590 580 570 560
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100 -110 -120 -130 -140 -150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: v:\1785\ACTIVE\17856601\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN


COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X64
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.E 412+00 TO STA.E 412+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
E 412+00
592.43'
592.42'
592.94'
592.72'
592.70'
3.84%
2.00%
2.00%
3.39%
670
660
650
640
630
620
610
600
590
580
570
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: v:\1785\ACTIVE\17856601\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN


COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X66
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.E 412+50 TO STA.E 412+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
591.28'
591.29'
591.80'
591.40'
591.56'
3.29%
2.00%
2.00%
5.40%
E 412+50
680 670 660 650 640 630 620 610 600 590 580 570
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100 -110 -120 -130 -140 -150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: y:\1785\ACTIVE\17856601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN


COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X66
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.E 413+00 TO STA.E 413+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
E 413+00
590.12'
590.14'
590.66'
590.30'
590.42'
1.89%
2.00%
2.00%
6.30%
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: y:\1785\ACTIVE\17856601T\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN


COUNTY OF HARDIN
ITEM NO. 4-2060.00
SHEET NO. X6
ROCK EXC
DT LT
DT RT
EMB
COM
GRAN. EMB.
EMB. BENCH
REFILL
ROCK ROAD BED
STA.E 413+50 TO STA.E 413+50
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
588.88'
589.29'
E 413+50
680
670
660
650
640
630
620
610
600
590
580
570
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
MicroStation v8.11.7.443
E-SHEET NAME:
USER: dhawkins
DATE PLOTTED: July 18, 2016
FILE NAME: v:\1785\ACTIVE\1785601\TRANSPORTATION\DESIGN\DRAWING\BASE\PROFILE_AND_XSECTIONS_165 HARDIN.DGN

Special Note for Bridge Demolition, Renovation and Asbestos Abatement

If the project includes any bridge demolition or renovation, the successful bidder is required to notify Kentucky Division for Air Quality (KDAQ) via filing of form (DEP 7036) a minimum of 10 days prior to commencement of any bridge demolition or renovation work.

Any available information regarding possible asbestos containing materials (ACM) on or within bridges to be affected by the project has been included in the bid documents. These are to be included with the Contractor's notification filed with the KDAQ. If not included in the bid documents, the Department will provide that information to the successful bidder for inclusion in the KDAQ notice as soon as possible. If there are no documents stating otherwise, the bidders should assume there are no asbestos containing materials that will in any way affect the work.

COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
Frankfort, Kentucky 40622
www.transportation.ky.gov/

Matthew G. Bevin
Governor

Greg Thomas
Secretary

Asbestos Inspection Report

To: Dan Hite

District: District 4

Date: August 8, 2016

Conducted By: O'Dail Lawson

Report Prepared By: O'Dail Lawson

Project and Structure Identification

Project Number: Hardin County I-65 MP 91.1 to MP 98

Structure ID: 047B00124N

Structure Location: I-65 Southbound over WKY Parkway over US31W

Sample Description: The samples collected were negative for asbestos.

Inspection Date: June 28th, 2016

Results and Recommendations

The results of the samples collected were negative for the presence of asbestos above 1%. No abatement is required at this time.

It is recommended that this report accompany the 10-Day Notice of Intent for Demolition (DEP7036 Form) which is to be submitted to the Kentucky Division of Air Quality prior to abatement, demolition, or renovation of any building or structure in the Commonwealth.

MRS, INC. MRS, Inc. Analytical Laboratory Division
332 West Broadway, Suite 613
Louisville, Kentucky 40202
(502) 495-1212
Fax: (502) 491-7111

BULK SAMPLE ASBESTOS ANALYSIS

Analysis N # 268033
Address: Hardin County - 047B00124
Client Name: KYTC
Sampled By: O'Dail Lawson

				% FIBROUS ASBESTOS				% NON-ASBESTOS FIBERS			
Number	Color	Layered	Fibrous	Chrysotile	Amosite	crocidolite	Others	Cellulose	Fiberglass	Syn. Fiber	Other/Mat.
# 24-1	Gray	Yes	No				None	2%			98%
# 24-2	Black	Yes	No				None				100%

Methodology : EPA Method 600/R-93-116
Date Analyzed : 3-Aug-16
Analyst : Winterford Mensah
Reviewed By: Winterford Mensah
Signature

AIHA # 102459
AJHA #1 02459

Chain of Custody Record

Kentucky Transportation Cabinet

200 Mero Street, 5th Floor West
Frankfort, Kentucky 40622
(502) 564-7250 fax (502) 564-5655

O'Dail Lawson o'dail.lawson@ky.gov
KYTC
Address: 200 Mero Street
Frankfort KY
Phone: 502-782-5020 Fax: 502-564-5655
PO#:

Client Information KY TRANSPORTATION CABINET
Results Code:
ND = None Detected
FTD = Filter Tampering or Damaged
N/A = Not Applicable

I-65 SB Ramp to WKy Parkway over US 31W

Sampler (signature):

Project or Subject Reference HARDIN 047B00124

Sample ID	Sample Description	Collected Date	Collected Time	Analysis Requested	Matrix	Color	Cont. Type	Preservative
24-1	Masonry Coating	6/28/16	12:45	Asbestos bulk	Coating	Gray		N/A
24-2	Joint Compound	↓	↓	↓	Neoprene	Black		

Relinquished By:		Date/Time:
Received By:	Winterfield Mercado	Date/Time: 07/08/16
Relinquished By:		Date/Time:
Received at Lab By:		Date/Time:

ENVIRONMENTAL TRAINING CONCEPTS, INC

P.O Box 99603 Louisville, KY 40269
(502)640-2951

Certification Number: ETC-AIR-071116-00630

O'Dail Lawson

has on 07-11-2016, attended and successfully completed the requirements and passed the examination with a score of 70% of better on the entitled course.

ASBESTOS INSPECTOR REFRESHER

Training was in accordance with 40 CFR Part 763 (AHERA) approved by the Commonwealth of Kentucky, the Indiana Department of Environmental Management and Tennessee Department of Environment & Conservation The above student received requisite training for Asbestos Accreditation under Title II of the Toxic Substance Act (TSCA).

Conducted at: 1301 Kentucky Mills Drive, Louisville, KY

Expiration Date: 07-11-2017

Name – Training Manager

Name - Instructor

COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
Frankfort, Kentucky 40622
www.transportation.ky.gov/

Matthew G. Bevin
Governor

Greg Thomas
Secretary

Asbestos Inspection Report

To: Dan Hite

District: District 4

Date: August 8, 2016

Conducted By: O'Dail Lawson

Report Prepared By: O'Dail Lawson

Project and Structure Identification

Project Number: Hardin County I-65 MP 91.1 to MP 98

Structure ID: 047B00125R

Structure Location: I-65 Southbound over CSX RR and Hawkins Drive

Sample Description: The samples collected were negative for asbestos.

Inspection Date: June 28th, 2016

Results and Recommendations

The results of the samples collected were negative for the presence of asbestos above 1%. No abatement is required at this time.

It is recommended that this report accompany the 10-Day Notice of Intent for Demolition (DEP7036 Form) which is to be submitted to the Kentucky Division of Air Quality prior to abatement, demolition, or renovation of any building or structure in the Commonwealth.

MRS, INC. *MRS, Inc. Analytical Laboratory Division*
332 West Broadway, Suite 613
Louisville, Kentucky 40202
(502) 495-1212
Fax: (502) 491-7111

BULK SAMPLE ASBESTOS ANALYSIS

Analysis N # 268034
Client Name: KYTC
Sampled By: O'Dail Lawson
Address: Hardin County - 047B00125L

				% FIBROUS ASBESTOS				% NON-ASBESTOS FIBERS			
Number	Color	Layered	Fibrous	Chrysotile	Amosite	crocidolite	Others	Cellulose	Fiberglass	Syn. Fiber	Other/Mat.
# 25-1	Gray	Yes	No				None	2%			98%
# 25 - 2	Black	Yes	No				None				100%
# 25 -3	Black	Yes	No				None				100%

Methodology : EPA Method 600/R-93-116
Date Analyzed : 3-Aug-16
Analyst : Winterford Mensah
Reviewed By: Winterford Mensah
Signature

AIHA # 102459
AJHA #1 02459

KENTUCKY TRANSPORTATION CABINET

Chain of Custody Record

Kentucky Transportation Cabinet

200 Mero Street, 5th Floor West
Frankfort, Kentucky 40622
(502) 564-7250 fax (502) 564-5655

O'Dail Lawson o'dail.lawson@ky.gov
KYTC
Address: 200 Mero Street
Frankfort KY
Phone: 502-782-5020 Fax: 502-564-5655
PO#:

Client Information KY TRANSPORTATION CABINET
Results Code:
ND = None Detected
FTD = Filter Tampering or Damaged
N/A = Not Applicable

I65 SB over CSX RR @ Hawkins Dr.

Samplers (signature): [signature]

Project or Subject Reference 047B00125L

Sample ID	Sample Description	Collected Date	Collected Time	Analysis Requested	Matrix	Color	Cont. Type	Preservative
25-1	Masonry Coating	6/28/16	11:45	Asbestos bulk	Coating	Grey		N/A
25-2	Joint Compound	↓	↓	↓	Rubber	Black		
25-3	↓				Bitumin	Black		

Relinquished By:	Date/Time:
Received By: [signature]	Date/Time: 07/20/16
Relinquished By:	Date/Time:
Received at Lab By:	Date/Time:

ENVIRONMENTAL TRAINING CONCEPTS, INC

P.O Box 99603 Louisville, KY 40269
(502)640-2951

Certification Number: ETC-AIR-071116-00630

O'Dail Lawson

has on 07-11-2016, attended and successfully completed the requirements and passed the examination with a score of 70% of better on the entitled course.

ASBESTOS INSPECTOR REFRESHER

Training was in accordance with 40 CFR Part 763 (AHERA) approved by the Commonwealth of Kentucky, the Indiana Department of Environmental Management and Tennessee Department of Environment & Conservation The above student received requisite training for Asbestos Accreditation under Title II of the Toxic Substance Act (TSCA).

Conducted at: 1301 Kentucky Mills Drive, Louisville, KY

Expiration Date: 07-11-2017

Name – Training Manager

Name - Instructor

COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
Frankfort, Kentucky 40622
www.transportation.ky.gov/

Matthew G. Bevin
Governor

Greg Thomas
Secretary

Asbestos Inspection Report

To: Dan Hite

District: District 4

Date: August 8, 2016

Conducted By: O'Dail Lawson

Report Prepared By: O'Dail Lawson

Project and Structure Identification

Project Number: Hardin County I-65 MP 91.1 to MP 98

Structure ID: 047B00126R

Structure Location: I-65 Northbound ramp over US 31W

Sample Description: The samples collected were negative for asbestos.

Inspection Date: June 28th, 2016

Results and Recommendations

The results of the samples collected were negative for the presence of asbestos above 1%. No abatement is required at this time.

It is recommended that this report accompany the 10-Day Notice of Intent for Demolition (DEP7036 Form) which is to be submitted to the Kentucky Division of Air Quality prior to abatement, demolition, or renovation of any building or structure in the Commonwealth.

MRS, INC. *MRS, Inc. Analytical Laboratory Division*

332 West Broadway, Suite 613
Louisville, Kentucky 40202

(502) 495-1212
Fax: (502) 491-7111

BULK SAMPLE ASBESTOS ANALYSIS

Analysis N # 260835
Client Name: KYTC
Sampled By: O'Dail Lawson

Address: Hardin County - 047B00126 R

				% FIBROUS ASBESTOS				% NON-ASBESTOS FIBERS			
Number	Color	Layered	Fibrous	Chrysotile	Amosite	crocidolite	Others	Cellulose	Fiberglass	Syn. Fiber	Other/Mat.
# 26 - 1	Black	Yes	No				None				100%

Methodology : EPA Method 600/R-93-116
Date Analyzed : 3-Aug-16
Analyst : Winterford Mensah

Reviewed By: Winterford Mensah
Signature

AIHA # 102459

AJHA #1 02459

Chain of Custody Record

Kentucky Transportation Cabinet

200 Mero Street, 5th Floor West
Frankfort, Kentucky 40622
(502) 564-7250 fax (502) 564-5655

O'Dail Lawson o'dail.lawson@ky.gov KYTC Address: 200 Mero Street Frankfort KY Phone: 502-782-5020 Fax: 502-564-5655 PO#:	**Client Information** KY TRANSPORTATION CABINET 047B00126R Results Code: ND = None Detected FTD = Filter Tampering or Damaged N/A = Not Applicable I-65 NB Ramp over US 31W Samplers (signature):
Project or Subject Reference: HARDIN 047B00126R	

Sample ID	Sample Description	Collected Date	Collected Time	Analysis Requested	Matrix	Color	Cont. Type	Preservative
2&4	Joint Compound	6/28/16	13:10	Asbestos bulk	Rubber	Black		N/A

Relinquished By:	Date/Time:
Received By: Winfred Mercer	Date/Time: 07/08/16
Relinquished By:	Date/Time:
Received at Lab By:	Date/Time:

ENVIRONMENTAL TRAINING CONCEPTS, INC

P.O Box 99603 Louisville, KY 40269
(502)640-2951

Certification Number: ETC-AIR-071116-00630

O'Dail Lawson

has on 07-11-2016, attended and successfully completed the requirements and passed the examination with a score of 70% of better on the entitled course.

ASBESTOS INSPECTOR REFRESHER

Training was in accordance with 40 CFR Part 763 (AHERA) approved by the Commonwealth of Kentucky, the Indiana Department of Environmental Management and Tennessee Department of Environment & Conservation The above student received requisite training for Asbestos Accreditation under Title II of the Toxic Substance Act (TSCA).

Conducted at: 1301 Kentucky Mills Drive, Louisville, KY

Expiration Date: 07-11-2017

Name – Training Manager

Name - Instructor

COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
Frankfort, Kentucky 40622
www.transportation.ky.gov/

Matthew G. Bevin
Governor

Greg Thomas
Secretary

Asbestos Inspection Report

To: Andre Johannes

District: 4

Date: March 22, 2017

Conducted By: O'Dail Lawson

Report Prepared By: O'Dail Lawson

Project and Structure Identification

Project Number: Hardin 04-2060.00

Structure ID: 047B00128R

Structure Location: Bluegrass Parkway over Interstate 65.

Sample Description: The samples collected were negative for asbestos.

Inspection Date: March 16, 2017

Results and Recommendations

The results of the samples collected were negative for the presence of asbestos above 1%. No abatement is required at this time.

It is recommended that this report accompany the 10-Day Notice of Intent for Demolition (DEP7036 Form) which is to be submitted to the Kentucky Division of Air Quality prior to abatement, demolition, or renovation of any building or structure in the Commonwealth.

MRS, INC. *MRS, Inc. Analytical Laboratory Division*
332 West Broadway, Suite 613
Louisville, Kentucky 40202
(502) 495-1212
Fax: (502) 491-7111

BULK SAMPLE ASBESTOS ANALYSIS

Analysis N #: # 03218
Client Name: KYTC
Sampled By: O'Dail Lawson
Address: Hardin County 047B00128R
Bluegrass Parkway Over I - 65

				% FIBROUS ASBESTOS				% NON-ASBESTOS FIBERS			
Number	Color	Layered	Fibrous	Chrysotile	Amosite	crocidolite	Others	Cellulose	Fiberglass	Syn. Fiber	Other/Mat.
H 1	Black	Yes	No				None				100%
H 2	Gray	Yes	No				None	3%			97%

Methodology : EPA Method 600/R-93-116
Date Analyzed : 21-Mar-17
Analyst : Winterford Mensah
Reviewed By: Winterford Mensah
Signature

AIHA # 102459
AJHA #1 02459

Chain of Custody Record

Kentucky Transportation Cabinet

200 Mero Street, 5th Floor West
Frankfort, Kentucky 40622
(502) 564-7250 fax (502) 564-5655

Bluegrass Parkway over I-65

	O'Dail Lawson o'dail.lawson@ky.gov	**Client Information**	KY TRANSPORTATION CABINET
	KYTC	Results Code:	
Address:	200 Mero Street	ND = None Detected	
	Frankfort KY	FTD = Filter Tampering or Damaged	
Phone:	502-782-5020 Fax: 502-564-5655	N/A = Not Applicable	
PO#:		Samplers (signature):	

Project or Subject Reference: HARDIN 047B00128R

Sample ID	Sample Description	Collected Date	Collected Time	Analysis Requested	Matrix	Color	Cont. Type	Preservative
H1	Joint Compound	3/16/17	13:15	Asbestos bulk	Rubber	black		N/A
H2	Masonry Sealant	↓	↓	↓	coating	grey		

Relinquished By:	Date/Time:
Received By: Kimberly Mead	Date/Time: 3/17/17
Relinquished By:	Date/Time:
Received at Lab By:	Date/Time:

ENVIRONMENTAL TRAINING CONCEPTS, INC

P.O Box 99603 Louisville, KY 40269
(502)640-2951

Certification Number: ETC-AIR-071116-00630

O'Dail Lawson

has on 07-11-2016, attended and successfully completed the requirements and passed the examination with a score of 70% of better on the entitled course.

ASBESTOS INSPECTOR REFRESHER

Training was in accordance with 40 CFR Part 763 (AHERA) approved by the Commonwealth of Kentucky, the Indiana Department of Environmental Management and Tennessee Department of Environment & Conservation The above student received requisite training for Asbestos Accreditation under Title II of the Toxic Substance Act (TSCA).

Conducted at: 1301 Kentucky Mills Drive, Louisville, KY

Expiration Date: 07-11-2017

Name – Training Manager

Name - Instructor

COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
Frankfort, Kentucky 40622
www.transportation.ky.gov/

Matthew G. Bevin
Governor

Greg Thomas
Secretary

Asbestos Inspection Report

To: Dan Hite

District: District 4

Date: August 8, 2016

Conducted By: O'Dail Lawson

Report Prepared By: O'Dail Lawson

Project and Structure Identification

Project Number: Hardin County I-65 MP 91.1 to MP 98

Structure ID: 047B00129R

Structure Location: I-65 over Springfield Road

Sample Description: The samples collected were negative for asbestos.

Inspection Date: June 28th, 2016

Results and Recommendations

The results of the samples collected were negative for the presence of asbestos above 1%. No abatement is required at this time.

It is recommended that this report accompany the 10-Day Notice of Intent for Demolition (DEP7036 Form) which is to be submitted to the Kentucky Division of Air Quality prior to abatement, demolition, or renovation of any building or structure in the Commonwealth.

MRS, INC. *MRS, Inc. Analytical Laboratory Division*
332 West Broadway, Suite 613
Louisville, Kentucky 40202
(502) 495-1212
Fax: (502) 491-7111

BULK SAMPLE ASBESTOS ANALYSIS

Analysis N # 268036 Address: Hardin County - 047B00129 R
Client Name: KYTC
Sampled By: O'Dail Lawson

				% FIBROUS ASBESTOS				% NON-ASBESTOS FIBERS			
Number	Color	Layered	Fibrous	Chrysotile	Amosite	crocidolite	Others	Cellulose	Fiberglass	Syn. Fiber	Other/Mat.
# 29-1	Gray	Yes	No				None	2%			98%
# 29-2	Black	Yes	No				None				100%

Methodology : EPA Method 600/R-93-116
Date Analyzed : 3-Aug-16
Analyst : Winterford Mensah Reviewed By: Winterford Mensah
Signature

The test relates only to the items tested. This report does not represent endorsement by NVLAP or any agency of the U.S Government. Partial Reproduction of any part of this report is strictly prohibited. Samples shall be retained for (30) days.

AIHA # 102459 AJHA #1 02459

Chain of Custody Record

Kentucky Transportation Cabinet

200 Mero Street, 5th Floor West
Frankfort, Kentucky 40622
(502) 564-7250 fax (502) 564-5655

	O'Dail Lawson o'dail.lawson@ky.gov	**Client Information**	KY TRANSPORTATION CABINET
	KYTC	Results Code:	I65 over Spring Field Road
Address:	200 Mero Street	ND = None Detected	
	Frankfort KY	FTD = Filter Tampering or Damaged	
Phone:	502-782-5020 Fax: 502-564-5655	N/A = Not Applicable	
PO#:		Samplers (signature):	
Project or Subject Reference	HARDIN 047B00129R		

Sample ID	Sample Description	Collected Date	Collected Time	Analysis Requested	Matrix	Color	Cont. Type	Preservative
29-1	Masonry Coating	6/28/16	11:20	Asbestos bulk	Coating	grey		N/A
29-2	Joint Compound	↓	↓	↓	Rubber	black		

Relinquished By:	Date/Time:
Received By: Nicholas Marsh	Date/Time: 07/08/16
Relinquished By:	Date/Time:
Received at Lab By:	Date/Time:

ENVIRONMENTAL TRAINING CONCEPTS, INC

P.O Box 99603 Louisville, KY 40269
(502)640-2951

Certification Number: ETC-AIR-071116-00630

O'Dail Lawson

has on 07-11-2016, attended and successfully completed the requirements and passed the examination with a score of 70% of better on the entitled course.

ASBESTOS INSPECTOR REFRESHER

Training was in accordance with 40 CFR Part 763 (AHERA) approved by the Commonwealth of Kentucky, the Indiana Department of Environmental Management and Tennessee Department of Environment & Conservation The above student received requisite training for Asbestos Accreditation under Title II of the Toxic Substance Act (TSCA).

Conducted at: 1301 Kentucky Mills Drive, Louisville, KY

Expiration Date: 07-11-2017

Name – Training Manager

Name - Instructor

COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
Frankfort, Kentucky 40622
www.transportation.ky.gov/

Matthew G. Bevin
Governor

Greg Thomas
Secretary

Asbestos Inspection Report

To: Dan Hite

District: District 4

Date: August 5, 2016

Conducted By: O'Dail Lawson

Report Prepared By: O'Dail Lawson

Project and Structure Identification

Project Number: Hardin County I-65 MP 91.1 to MP 98

Structure ID: 047B00132L

Structure Location: I-65 Southbound over 31W

Sample Description: The samples collected were negative for asbestos.

Inspection Date: June 28th, 2016

Results and Recommendations

The results of the samples collected were negative for the presence of asbestos above 1%. No abatement is required at this time.

It is recommended that this report accompany the 10-Day Notice of Intent for Demolition (DEP7036 Form) which is to be submitted to the Kentucky Division of Air Quality prior to abatement, demolition, or renovation of any building or structure in the Commonwealth.

MRS, INC. *MRS, Inc. Analytical Laboratory Division*
332 West Broadway, Suite 613
Louisville, Kentucky 40202
(502) 495-1212
Fax: (502) 491-7111

BULK SAMPLE ASBESTOS ANALYSIS

Analysis N # 268037 Address: Hardin County - 047B00132 L
Client Name: KYTC
Sampled By: O'Dail Lawson

				% FIBROUS ASBESTOS				% NON-ASBESTOS FIBERS			
Number	Color	Layered	Fibrous	Chrysotile	Amosite	crocidolite	Others	Cellulose	Fiberglass	Syn. Fiber	Other/Mat.
# 32-1	Gray	Yes	No				None	2%			98%
# 32-2	Black	Yes	No				None				100%

Methodology : EPA Method 600/R-93-116
Date Analyzed : 3-Aug-16
Analyst : Winterford Mensah Reviewed By: Signature

AIHA # 102459 AJHA #1 02459

Chain of Custody Record

Kentucky Transportation Cabinet

200 Mero Street, 5th Floor West
Frankfort, Kentucky 40622
(502) 564-7250 fax (502) 564-5655

O'Dail Lawson o'dail.lawson@ky.gov KYTC Address: 200 Mero Street Frankfort KY Phone: 502-782-5020 Fax: 502-564-5655 PO#:	**Client Information** KY TRANSPORTATION CABINET Results Code: ND = None Detected FTD = Filter Tampering or Damaged N/A = Not Applicable 047B00132L I-65 SB over 31W Samplers (signature):
Project or Subject Reference Hardin 047B00132L	

Sample ID	Sample Description	Collected Date	Collected Time	Analysis Requested	Matrix	Color	Cont. Type	Preservative
32-1	Masonry Coatings	6/28/16	12:20	Asbestos bulk	Coating	grey		N/A
32-2	Joint Compound	↓	↓	↓	Nonplus	grey		

Relinquished By:	Date/Time:
Received By: Kimberly Mercer	Date/Time: 07/06/16
Relinquished By:	Date/Time:
Received at Lab By:	Date/Time:

ENVIRONMENTAL TRAINING CONCEPTS, INC

P.O Box 99603 Louisville, KY 40269
(502)640-2951

Certification Number: ETC-AIR-071116-00630

O'Dail Lawson

has on 07-11-2016, attended and successfully completed the requirements and passed the examination with a score of 70% of better on the entitled course.

ASBESTOS INSPECTOR REFRESHER

Training was in accordance with 40 CFR Part 763 (AHERA) approved by the Commonwealth of Kentucky, the Indiana Department of Environmental Management and Tennessee Department of Environment & Conservation The above student received requisite training for Asbestos Accreditation under Title II of the Toxic Substance Act (TSCA).

Conducted at: 1301 Kentucky Mills Drive, Louisville, KY

Expiration Date: 07-11-2017

Name – Training Manager

Name - Instructor

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

☒ Original ☐ Re-Certification — RIGHT OF WAY CERTIFICATION

ITEM #	COUNTY	PROJECT # (STATE)	PROJECT # (FEDERAL)
04-2060	Hardin	FD52 047 0065 090-098	NHPP IM 0654 (054)

PROJECT DESCRIPTION

I-65 Rehab From MP 90.52 to 97.50 including mainline rehab and mainline bridge work and BGP overpass work.

☒ **No Additional Right of Way Required**

Construction will be within the limits of the existing right of way. The right of way was acquired in accordance to FHWA regulations under the Uniform Relocation Assistance and Real Property Acquisitions Policy Act of 1970, as amended. No additional right of way or relocation assistance were required for this project.

☐ **Condition # 1 (Additional Right of Way Required and Cleared)**

All necessary right of way, including control of access rights when applicable, have been acquired including legal and physical possession. Trial or appeal of cases may be pending in court but legal possession has been obtained. There may be some improvements remaining on the right-of-way, but all occupants have vacated the lands and improvements, and KYTC has physical possession and the rights to remove, salvage, or demolish all improvements and enter on all land. Just Compensation has been paid or deposited with the court. All relocations have been relocated to decent, safe, and sanitary housing or that KYTC has made available to displaced persons adequate replacement housing in accordance with the provisions of the current FHWA directive.

☐ **Condition # 2 (Additional Right of Way Required with Exception)**

The right of way has not been fully acquired, the right to occupy and to use all rights-of-way required for the proper execution of the project has been acquired. Some parcels may be pending in court and on other parcels full legal possession has not been obtained, but right of entry has been obtained, the occupants of all lands and improvements have vacated, and KYTC has physical possession and right to remove, salvage, or demolish all improvements. Just Compensation has been paid or deposited with the court for most parcels. Just Compensation for all pending parcels will be paid or deposited with the court prior to AWARD of construction contract

☐ **Condition # 3 (Additional Right of Way Required with Exception)**

The acquisition or right of occupancy and use of a few remaining parcels are not complete and/or some parcels still have occupants. All remaining occupants have had replacement housing made available to them in accordance with 49 CFR 24.204. KYTC is hereby requesting authorization to advertise this project for bids and to proceed with bid letting even though the necessary right of way will not be fully acquired, and/or some occupants will not be relocated, and/or the just compensation will not be paid or deposited with the court for some parcels until after bid letting. KYTC will fully meet all the requirements outlined in 23 CFR 635.309(c)(3) and 49 CFR 24.102(j) and will expedite completion of all acquisitions, relocations, and full payments after bid letting and prior to AWARD of the construction contract or force account construction.

		EXCEPTION (S) Parcel #	ANTICIPATED DATE OF POSSESSION WITH EXPLANATION
Total Number of Parcels on Project	0		
Number of Parcels That Have Been Acquired			
Signed Deed	0		
Condemnation	0		
Signed ROE	0		

Notes/ Comments (Use Additional Sheet if necessary)

LPA RW Project Manager		Right of Way Supervisor	
Printed Name		Printed Name	Michael H. Price
Signature		Signature	Michael H. Price
Date		Date	3/18/2017
Right of Way Director		**FHWA**	
Printed Name	[illegible]	Printed Name	DAVID WHITWORTH
Signature	[illegible]	Signature	David Whitworth
Date	20 Mar 17	Date	03/21/17

UTILITIES AND RAIL CERTIFICATION NOTE

HARDIN COUNTY, NHPP IM 0654 (054)
FD52 047 0065 090-098
I 65) REHAB
SYP # 4-2060

GENERAL PROJECT NOTE ON UTILITY PROTECTION

NA

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

KENTUCKY UTILITES
NOLIN WRECC
WINDSTREAM
AT&T

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

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

NA

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

NA

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

NA

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)**

CSX RAILROAD AT MP 91.540

UTILITIES AND RAIL CERTIFICATION NOTE

HARDIN COUNTY, NHPP IM 0654 (054)
FD52 047 0065 090-098
I 65) REHAB
SYP # 4-2060

UNDERGROUND FACILITY DAMAGE PROTECTION – BEFORE YOU DIG

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

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

SPECIAL CAUTION NOTE – PROTECTION OF UTILITIES

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

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

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

UTILITIES AND RAIL CERTIFICATION NOTE

HARDIN COUNTY, NHPP IM 0654 (054)
FD52 047 0065 090-098
I 65) REHAB
SYP # 4-2060

AREA UTILITIES CONTACT LIST

Utility Company/Agency	Contact Name	Contact Information
Kentucky Utilites	Greg Geiser	502-627-3708
Nolin RECC	Paul Baker	270-765-6153
Windstream Ky East	Roger Redford	502-957-7140
AT&T	Scott Roche	502-348-4528
CSX TRANSPORTATION	CHUCK DEATON	502-216-0995

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 2012* 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

1I

SPECIAL NOTE FOR PORTABLE CHANGEABLE MESSAGE SIGNS

This Special Note will apply when indicated on the plans or in the proposal.

1.0 DESCRIPTION. Furnish, install, operate, and maintain variable message signs at the locations shown on the plans or designated by the Engineer. Remove and retain possession of variable message signs when they are no longer needed on the project.

2.0 MATERIALS.

2.1 General. Use LED Variable Message Signs Class I, II, or III, as appropriate, from the Department's List of Approved Materials.

Unclassified signs may be submitted for approval by the Engineer. The Engineer may require a daytime and nighttime demonstration. The Engineer will make a final decision within 30 days after all required information is received.

2.2 Sign and Controls. All signs must:

1) Provide 3-line messages with each line being 8 characters long and at least 18 inches tall. Each character comprises 35 pixels.
2) Provide at least 40 preprogrammed messages available for use at any time. Provide for quick and easy change of the displayed message; editing of the message; and additions of new messages.
3) Provide a controller consisting of:
   a) Keyboard or keypad.
   b) Readout that mimics the actual sign display. (When LCD or LCD type readout is used, include backlighting and heating or otherwise arrange for viewing in cold temperatures.)
   c) Non-volatile memory or suitable memory with battery backup for storing pre-programmed messages.
   d) Logic circuitry to control the sequence of messages and flash rate.
4) Provide a serial interface that is capable of supporting complete remote control ability through land line and cellular telephone operation. Include communication software capable of immediately updating the message, providing complete sign status, and allowing message library queries and updates.
5) Allow a single person easily to raise the sign to a satisfactory height above the pavement during use, and lower the sign during travel.
6) Be Highway Orange on all exterior surfaces of the trailer, supports, and controller cabinet.
7) Provide operation in ambient temperatures from -30 to + 120 degrees Fahrenheit during snow, rain and other inclement weather.
8) Provide the driver board as part of a module. All modules are interchangeable, and have plug and socket arrangements for disconnection and reconnection. Printed circuit boards associated with driver boards have a conformable coating to protect against moisture.
9) Provide a sign case sealed against rain, snow, dust, insects, etc. The lens is UV stabilized clear plastic (polycarbonate, acrylic, or other approved material) angled to prevent glare.
10) Provide a flat black UV protected coating on the sign hardware, character PCB, and appropriate lens areas.
11) Provide a photocell control to provide automatic dimming.

1I

12) Allow an on-off flashing sequence at an adjustable rate.
13) Provide a sight to aim the message.
14) Provide a LED display color of approximately 590 nm amber.
15) Provide a controller that is password protected.
16) Provide a security device that prevents unauthorized individuals from accessing the controller.
17) Provide the following 3-line messages preprogrammed and available for use when the sign unit begins operation:

/KEEP/RIGHT/⇒⇒⇒/
/KEEP/LEFT/⇐⇐⇐/
/LOOSE/GRAVEL/AHEAD/
/RD WORK/NEXT/**MILES/
/TWO WAY/TRAFFIC/AHEAD/
/PAINT/CREW/AHEAD/
/REDUCE/SPEED/**MPH/
/BRIDGE/WORK/***0 FT/
/MAX/SPEED/**MPH/
/SURVEY/PARTY/AHEAD/
/MIN/SPEED/**MPH/
/ICY/BRIDGE/AHEAD/ /ONE LANE/BRIDGE/AHEAD/
/ROUGH/ROAD/AHEAD/
/MERGING/TRAFFIC/AHEAD/
/NEXT/***/MILES/
/HEAVY/TRAFFIC/AHEAD/
/SPEED/LIMIT/**MPH/
/BUMP/AHEAD/
/TWO/WAY/TRAFFIC/

*Insert numerals as directed by the Engineer.
Add other messages during the project when required by the Engineer.

2.3 Power.

1) Design solar panels to yield 10 percent or greater additional charge than sign consumption. Provide direct wiring for operation of the sign or arrow board from an external power source to provide energy backup for 21 days without sunlight and an on-board system charger with the ability to recharge completely discharged batteries in 24 hours.

3.0 CONSTRUCTION. Furnish and operate the variable message signs as designated on the plans or by the Engineer. Ensure the bottom of the message panel is a minimum of 7 feet above the roadway in urban areas and 5 feet above in rural areas when operating. Use Class I, II, or III signs on roads with a speed limit less than 55 mph. Use Class I or II signs on roads with speed limits 55 mph or greater.

Maintain the sign in proper working order, including repair of any damage done by others, until completion of the project. When the sign becomes inoperative, immediately repair or replace the sign. Repetitive problems with the same unit will be cause for rejection and replacement.

Use only project related messages and messages directed by the Engineer, unnecessary messages lessen the impact of the sign. Ensure the message is displayed in either one or 2 phases with each phase having no more than 3 lines of text. When no message is needed, but it is necessary to know if the sign is operable, flash only a pixel.

When the sign is not needed, move it outside the clear zone or where the Engineer directs. Variable Message Signs are the property of the Contractor and shall be removed from the project when no longer needed. The Department will not assume ownership of these signs.

4.0 MEASUREMENT. The final quantity of Variable Message Sign will be

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the actual number of individual signs acceptably furnished and operated during the project. The Department will not measure signs replaced due to damage or rejection.

5.0 PAYMENT. The Department will pay for the Variable Message Signs at the unit price each. The Department will not pay for signs replaced due to damage or rejection. Payment is full compensation for furnishing all materials, labor, equipment, and service necessary to, operate, move, repair, and maintain or replace the variable message signs. The Department will make payment for the completed and accepted quantities under the following:

Code	Pay Item	Pay Unit
02671	Portable Changeable Message Sign	Each

Effective June 15, 2012

PART III

EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

FHWA-1273 -- Revised May 1, 2012

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. GENERAL

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).

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.

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.

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).

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.

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.

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.

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 contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 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.

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.

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 contacting 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 administrating agency may direct as a means of enforcing such provisions, including sanctions for non-compliance.

Revised: January 25, 2017

EXECUTIVE BRANCH CODE OF ETHICS

In the 1992 regular legislative session, the General Assembly passed and Governor Brereton Jones signed Senate Bill 63 (codified as KRS 11A), the Executive Branch Code of Ethics, which states, in part:

KRS 11A.040 (7) provides:

No present or former public servant shall, within six (6) months following termination of his office or employment, accept employment, compensation, or other economic benefit from any person or business that contracts or does business with, or is regulated by, the state in matters in which he was directly involved during the last thirty-six (36) months of his tenure. This provision shall not prohibit an individual from returning to the same business, firm, occupation, or profession in which he was involved prior to taking office or beginning his term of employment, or for which he received, prior to his state employment, a professional degree or license, provided that, for a period of six (6) months, he personally refrains from working on any matter in which he was directly involved during the last thirty-six (36) months of his tenure in state government. This subsection shall not prohibit the performance of ministerial functions, including but not limited to filing tax returns, filing applications for permits or licenses, or filing incorporation papers, nor shall it prohibit the former officer or public servant from receiving public funds disbursed through entitlement programs.

KRS 11A.040 (9) states:

A former public servant shall not represent a person or business before a state agency in a matter in which the former public servant was directly involved during the last thirty-six (36) months of his tenure, for a period of one (1) year after the latter of:

a) The date of leaving office or termination of employment; or
b) The date the term of office expires to which the public servant was elected.

This law is intended to promote public confidence in the integrity of state government and to declare as public policy the idea that state employees should view their work as a public trust and not as a way to obtain private benefits.

If you have worked for the executive branch of state government within the past six months, you may be subject to the law's prohibitions. The law's applicability may be different if you hold elected office or are contemplating representation of another before a state agency.

Also, if you are affiliated with a firm which does business with the state and which employs former state executive-branch employees, you should be aware that the law may apply to them.

In case of doubt, the law permits you to request an advisory opinion from the Executive Branch Ethics Commission, 3 Fountain Place, Frankfort, Kentucky 40601; telephone (502) 564-7954.

Revised: January 27, 2017

General Decision Number: KY170100 03/10/2017 KY100

Superseded General Decision Number: KY20160100

State: Kentucky

Construction Type: Highway

Counties: Anderson, Bath, Bourbon, Boyd, Boyle, Bracken, Breckinridge, Bullitt, Carroll, Carter, Clark, Elliott, Fayette, Fleming, Franklin, Gallatin, Grant, Grayson, Greenup, Hardin, Harrison, Henry, Jefferson, Jessamine, Larue, Lewis, Madison, Marion, Mason, Meade, Mercer, Montgomery, Nelson, Nicholas, Oldham, Owen, Robertson, Rowan, Scott, Shelby, Spencer, Trimble, Washington and Woodford Counties in Kentucky.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.20 for calendar year 2017 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 $10.20 (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 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/06/2017
1	01/13/2017
2	02/03/2017
3	03/10/2017

BRIN0004-003 06/01/2016

BRECKENRIDGE COUNTY

	Rates	Fringes
BRICKLAYER	$ 25.96	11.38

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* BRKY0001-005 06/01/2016

BULLITT, CARROLL, GRAYSON, HARDIN, HENRY, JEFFERSON, LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, & TRIMBLE COUNTIES:

	Rates	Fringes

BRICKLAYER.....$ 25.96 11.38

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* BRKY0002-006 06/01/2016

BRACKEN, GALLATIN, GRANT, MASON & ROBERTSON COUNTIES:

	Rates	Fringes
BRICKLAYER	$ 27.01	11.38

BRKY0007-004 06/01/2016

BOYD, CARTER, ELLIOT, FLEMING, GREENUP, LEWIS & ROWAN COUNTIES:

	Rates	Fringes
BRICKLAYER	$ 32.20	18.78

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* BRKY0017-004 06/01/2016

ANDERSON, BATH, BOURBON, BOYLE, CLARK, FAYETTE, FRANKLIN, HARRISON, JESSAMINE, MADISON, MERCER, MONTGOMERY, NICHOLAS, OWEN, SCOTT, WASHINGTON & WOODFORD COUNTIES:

	Rates	Fringes
BRICKLAYER	$ 25.64	11.38

CARP0064-001 05/01/2015

	Rates	Fringes
CARPENTER	$ 27.50	16.06
Diver	$ 41.63	16.06
PILEDRIVERMAN	$ 27.75	16.06

ELEC0212-008 06/06/2016

BRACKEN, GALLATIN and GRANT COUNTIES

	Rates	Fringes
ELECTRICIAN	$ 27.47	17.13

ELEC0212-014 12/01/2014

BRACKEN, GALLATIN & GRANT COUNTIES:

	Rates	Fringes
Sound & Communication Technician	$ 22.75	10.08

ELEC0317-012 06/01/2016

BOYD, CARTER, ELLIOT & ROWAN COUNTIES:

	Rates	Fringes

ELECTRICIAN (Wiremen)
Cable Splicer.....$ 32.68 18.13
Electrician.....$ 33.31 22.98

ELEC0369-007 06/01/2016

ANDERSON, BATH, BOURBON, BOYLE, BRECKINRIDGE, BULLITT, CARROLL, CLARK, FAYETTE, FRAONKLIN, GRAYSON, HARDIN, HARRISON, HENRY, JEFFERSON, JESSAMINE, LARUE, MADISON, MARION, MEADE, MERCER, MONTGOMERY, NELSON, NICHOLAS, OLDHAM, OWEN, ROBERTSON, SCOTT, SHELBY, SPENCER, TRIMBLE, WASHINGTON, & WOODFORD COUNTIES:

	Rates	Fringes
ELECTRICIAN	$ 30.56	16.10

ELEC0575-002 06/02/2014

FLEMING, GREENUP, LEWIS & MASON COUNTIES:

	Rates	Fringes
ELECTRICIAN	$ 31.70	14.21

ENGI0181-018 07/01/2016

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1	$ 31.05	14.65
GROUP 2	$ 28.28	14.65
GROUP 3	$ 28.71	14.65
GROUP 4	$ 27.97	14.65

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - A-Frame Winch Truck; Auto Patrol; Backfiller; Batcher Plant; Bituminous Paver; Bituminous Transfer Machine; Boom Cat; Bulldozer; Mechanic; Cableway; Carry-All Scoop; Carry Deck Crane; Central Compressor Plant; Cherry Picker; Clamshell; Concrete Mixer (21 cu. ft. or Over); Concrete Paver; Truck-Mounted Concrete Pump; Core Drill; Crane; Crusher Plant; Derrick; Derrick Boat; Ditching & Trenching Machine; Dragline; Dredge Operator; Dredge Engineer; Elevating Grader & Loaders; Grade-All; Gurries; Heavy Equipment Robotics Operator/Mechanic; High Lift; Hoe-Type Machine; Hoist (Two or More Drums); Hoisting Engine (Two or More Drums); Horizontal Directional Drill Operator; Hydrocrane; Hyster; KeCal Loader; LeTourneau; Locomotive; Mechanic; Mechanically Operated Laser Screed; Mechanic Welder; Mucking Machine; Motor Scraper; Orangepeel Bucket; Overhead Crane; Piledriver; Power Blade; Pumpcrete; Push Dozer; Rock Spreader, attached to equipment; Rotary Drill; Roller (Bituminous); Rough Terrain Crane; Scarifier; Scoopmobile; Shovel; Side Boom; Subgrader; Tailboom; Telescoping Type Forklift; Tow or Push Boat; Tower Crane (French, German & other types); Tractor Shovel; Truck Crane; Tunnel Mining Machines, including Moles, Shields or

similar types of Tunnel Mining Equipment

GROUP 2 - Air Compressor (Over 900 cu. ft. per min.); Bituminous Mixer; Boom Type Tamping Machine; Bull Float; Concrete Mixer (Under 21 cu. ft.); Dredge Engineer; Electric Vibrator; Compactor/Self-Propelled Compactor; Elevator (One Drum or Buck Hoist); Elevator (When used to Hoist Building Material); Finish Machine; Firemen & Hoist (One Drum); Flexplane; Forklift (Regardless of Lift Height); Form Grader; Joint Sealing Machine; Outboard Motor Boat; Power Sweeper (Riding Type); Roller (Rock); Ross Carrier; Skid Mounted or Trailer Mounted Conrete Pump; Skid Steer Machine with all Attachments; Switchman or Brakeman; Throttle Valve Person; Tractair & Road Widening Trencher; Tractor (50 H.P. or Over); Truck Crane Oiler; Tugger; Welding Machine; Well Points; & Whirley Oiler

GROUP 3 - All Off Road Material Handling Equipment, including Articulating Dump Trucks; Greaser on Grease Facilities servicing Heavy Equipment

GROUP 4 - Bituminous Distributor; Burlap & Curing Machine; Cement Gun; Concrete Saw; Conveyor; Deckhand Oiler; Grout Pump; Hydraulic Post Driver; Hydro Seeder; Mud Jack; Oiler; Paving Joint Machine; Power Form Handling Equipment; Pump; Roller (Earth); Steerman; Tamping Machine; Tractor (Under 50 H.P.); & Vibrator

CRANES - with booms 150 ft. & Over (Including JIB), and where the length of the boom in combination with the length of the piling leads equals or exceeds 150 ft. - $1.00 over Group 1 rate

EMPLOYEES ASSIGNED TO WORK BELOW GROUND LEVEL ARE TO BE PAID 10%
ABOVE BASIC WAGE RATE. THIS DOES NOT APPLY TO OPEN CUT WORK.

IRON0044-009 06/01/2016

BRACKEN, GALLATIN, GRANT, HARRISON, ROBERTSON,
BOURBON (Northern third, including Townships of Jackson, Millersburg, Ruddel Mills & Shawhan);
CARROLL (Eastern third, including the Township of Ghent);
FLEMING (Western part, excluding Townships of Beechburg, Colfax, Elizaville, Flemingsburg, Flemingsburg Junction, Foxport, Grange City, Hillsboro, Hilltop, Mount Carmel, Muses Mills, Nepton, Pecksridge, Plummers Landing, Plummers Mill, Poplar Plains, Ringos Mills, Tilton & Wallingford);
MASON (Western two-thirds, including Townships of Dover, Lewisburg, Mays Lick, Maysville, Minerva, Moranburg, Murphysville, Ripley, Sardis, Shannon, South Ripley & Washington);
NICHOLAS (Townships of Barefoot, Barterville, Carlisle, Ellisville, Headquarters, Henryville, Morningglory, Myers & Oakland Mills);
OWEN (Townships of Beechwood, Bromley, Fairbanks, Holbrook, Jonesville, Long Ridge, Lusby's Mill, New, New Columbus, New Liberty, Owenton, Poplar Grove, Rockdale, Sanders, Teresita & Wheatley);

SCOTT (Northern two-thirds, including Townships of Biddle, Davis, Delaplain, Elmville, Longlick, Muddy Ford, Oxford, Rogers Gap, Sadieville, Skinnersburg & Stonewall)

	Rates	Fringes
IRONWORKER		
Fence Erector	$ 23.76	19.15
Structural	$ 26.47	20.20

IRON0070-006 06/01/2016

ANDERSON, BOYLE, BRECKINRIDGE, BULLITT, FAYETTE, FRANKLIN, GRAYSON, HARDIN, HENRY, JEFFERSON, JESSAMINE, LARUE, MADISON, MARION, MEADE, MERCER, NELSON, OLDHAM, SHELBY, SPENCER, TRIMBLE, WASHINGTON & WOODFORD
BOURBON (Southern two-thirds, including Townships of Austerlity, Centerville, Clintonville, Elizabeth, Hutchison, Littlerock, North Middletown & Paris);
CARROLL (Western two-thirds, including Townships of Carrollton, Easterday, English, Locust, Louis, Prestonville & Worthville);
CLARK (Western two-thirds, including Townships of Becknerville, Flanagan, Ford, Pine Grove, Winchester & Wyandotte);
OWEN (Eastern eighth, including Townships of Glenmary, Gratz, Monterey, Perry Park & Tacketts Mill);
SCOTT (Southern third, including Townships of Georgetown, Great Crossing, Newtown, Stampling Ground & Woodlake);

	Rates	Fringes
IRONWORKER	$ 27.91	21.11

IRON0372-006 07/15/2016

BRACKEN, GALLATIN, GRANT, HARRISON and ROBERTSON
BOURBON (Northern third, including Townships of Jackson, Millersburg, Ruddel Mills & Shawhan);
CARROLL (Eastern third, including the Township of Ghent);
FLEMING (Western part, Excluding Townships of Beechburg, Colfax, Elizaville, Flemingsburg, Flemingsburg Junction, Foxport, Grange City, Hillsboro, Hilltop, Mount Carmel, Muses Mills, Nepton, Pecksridge, Plummers Landing, Plummers Mill, Poplar Plains,
Ringos Mills, Tilton & Wallingford);
MASON (Western two-thirds, including Townships of Dover, Lewisburg, Mays Lick, Maysville, Minerva, Moranburg, Murphysville, Ripley, Sardis, Shannon, South Ripley & Washington);
NICHOLAS (Townships of Barefoot, Barterville, Carlisle, Ellisville, Headquarters, Henryville, Morningglory, Myers & Oakland Mills);
OWEN (Townships of Beechwood, Bromley, Fairbanks, Holbrook, Jonesville, Long Ridge, Lusby's Mill, New, New Columbus, New Liberty, Owenton, Poplar Grove, Rockdale, Sanders, Teresita & Wheatley);
SCOTT (Northern two-thirds, including Townships of Biddle, Davis,Delaplain, Elmville, Longlick, Muddy Ford, Oxford, Rogers Gap, Sadieville, Skinnersburg & Stonewall) COUNTIES

	Rates	Fringes
IRONWORKER, REINFORCING	$ 27.15	20.33

IRON0769-007 06/01/2016

BATH, BOYD, CARTER, ELLIOTT, GREENUP, LEWIS, MONTGOMERY & ROWAN
CLARK (Eastern third, including townships of Bloomingdale, Hunt, Indian Fields, Kiddville, Loglick, Rightangele & Thomson);
FLEMING (Townships of Beechburg, Colfax, Elizaville, Flemingsburg, Flemingsburg Junction, Foxport, Grange City, Hillsboro, Hilltop, Mount Carmel, Muses Mills, Nepton, Pecksridge, Plummers Landing, Plummers Mill, Poplar Plains, Ringos Mills, Tilton & Wallingford);
MASON (Eastern third, including Townships of Helena, Marshall, Orangeburg, Plumville & Springdale);
NICHOLAS (Eastern eighth, including the Township of Moorefield Sprout)

	Rates	Fringes
IRONWORKER		
ZONE 1	$ 31.33	23.47
ZONE 2	$ 31.73	23.47
ZONE 3	$ 33.33	23.47

ZONE 1 - Up to 10 mile radius of Union Hall, Ashland, Ky., 1643 Greenup Ave.

ZONE 2 - 10 to 50 mile radius of Union Hall, Ashland, Ky., 1643 Greenup Ave.

ZONE 3 - 50 mile radius & over of Union Hall, Ashland, Ky., 1643 Greenup Ave.

LABO0189-003 07/01/2016

BATH, BOURBON, BOYD, BOYLE, BRACKEN, CARTER, CLARK, ELLIOTT, FAYETTE, FLEMING, FRANKLIN, GALLATIN, GRANT, GREENUP, HARRISON, JESSAMINE, LEWIS, MADISON, MASON, MERCER, MONTGOMERY, NICHOLAS, OWEN, ROBERTSON, ROWAN, SCOTT, & WOOLFORD COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1	$ 22.75	12.84
GROUP 2	$ 23.00	12.84
GROUP 3	$ 23.05	12.84
GROUP 4	$ 23.65	12.84

LABORERS CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter Tender; Cement Mason Tender; Cleaning of Machines;

Concrete; Demolition; Dredging; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level D; Flagperson; Grade Checker; Hand Digging & Hand Back Filling; Highway Marker Placer; Landscaping, Mesh Handler & Placer; Puddler; Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail & Fence Installer; Signal Person; Sound Barrier Installer; Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper; Wrecking of Concrete Forms; General Cleanup

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer); Brickmason Tender; Mortar Mixer Operator; Scaffold Builder; Burner & Welder; Bushammer; Chain Saw Operator; Concrete Saw Operator; Deckhand Scow Man; Dry Cement Handler; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level C; Forklift Operator for Masonary; Form Setter; Green Concrete Cutting; Hand Operated Grouter & Grinder Machine Operator; Jackhammer; Pavement Breaker; Paving Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; Wagon Driller

GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman; Gunnite Operator & Mixer; Grout Pump Operator; Side Rail Setter; Rail Paved Ditches; Screw Operator; Tunnel (Free Air); Water Blaster

GROUP 4 - Caisson Worker (Free Air); Cement Finisher; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Levels A & B; Miner & Driller (Free Air); Tunnel Blaster; & Tunnel Mucker (Free Air); Directional & Horizontal Boring; Air Track Drillers (All Types); Powdermen & Blasters; Troxler & Concrete Tester if Laborer is Utilized

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LABO0189-008 07/01/2014

ANDERSON, BULLITT, CARROLL, HARDIN, HENRY, JEFFERSON, LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, TRIMBLE & WASHINGTON COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1	$ 22.71	11.05
GROUP 2	$ 22.96	11.05
GROUP 3	$ 23.01	11.05
GROUP 4	$ 23.61	11.05

LABORERS CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter Tender; Cement Mason Tender; Cleaning of Machines; Concrete; Demolition; Dredging; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level D; Flagperson; Grade Checker; Hand Digging & Hand Back Filling; Highway Marker Placer; Landscaping, Mesh Handler & Placer; Puddler;

Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail & Fence Installer; Signal Person; Sound Barrier Installer; Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper; Wrecking of Concrete Forms; General Cleanup

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer); Brickmason Tender; Mortar Mixer Operator; Scaffold Builder; Burner & Welder; Bushammer; Chain Saw Operator; Concrete Saw Operator; Deckhand Scow Man; Dry Cement Handler; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level C; Forklift Operator for Masonary; Form Setter; Green Concrete Cutting; Hand Operated Grouter & Grinder Machine Operator; Jackhammer; Pavement Breaker; Paving Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; Wagon Driller

GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman; Gunnite Operator & Mixer; Grout Pump Operator; Side Rail Setter; Rail Paved Ditches; Screw Operator; Tunnel (Free Air); Water Blaster

GROUP 4 - Caisson Worker (Free Air); Cement Finisher; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Levels A & B; Miner & Driller (Free Air); Tunnel Blaster; & Tunnel Mucker (Free Air); Directional & Horizontal Boring; Air Track Drillers (All Types); Powdermen & Blasters; Troxler & Concrete Tester if Laborer is Utilized

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LABO0189-009 07/01/2014

BRECKINRIDGE & GRAYSON COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1	$ 22.66	11.10
GROUP 2	$ 22.91	11.10
GROUP 3	$ 22.96	11.10
GROUP 4	$ 23.56	11.10

LABORERS CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter Tender; Cement Mason Tender; Cleaning of Machines; Concrete; Demolition; Dredging; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level D; Flagperson; Grade Checker; Hand Digging & Hand Back Filling; Highway Marker Placer; Landscaping, Mesh Handler & Placer; Puddler; Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail & Fence Installer; Signal Person; Sound Barrier Installer; Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper; Wrecking of Concrete Forms; General Cleanup

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer); Brickmason Tender; Mortar Mixer Operator; Scaffold Builder;

Burner & Welder; Bushammer; Chain Saw Operator; Concrete Saw Operator; Deckhand Scow Man; Dry Cement Handler; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level C; Forklift Operator for Masonary; Form Setter; Green Concrete Cutting; Hand Operated Grouter & Grinder Machine Operator; Jackhammer; Pavement Breaker; Paving Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; Wagon Driller

GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman; Gunnite Operator & Mixer; Grout Pump Operator; Side Rail Setter; Rail Paved Ditches; Screw Operator; Tunnel (Free Air); Water Blaster

GROUP 4 - Caisson Worker (Free Air); Cement Finisher; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Levels A & B; Miner & Driller (Free Air); Tunnel Blaster; & Tunnel Mucker (Free Air); Directional & Horizontal Boring; Air Track Drillers (All Types); Powdermen & Blasters; Troxler & Concrete Tester if Laborer is Utilized

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PAIN0012-005 06/11/2005

BATH, BOURBON, BOYLE, CLARK, FAYETTE, FLEMING, FRANKLIN, HARRISON, JESSAMINE, MADISON, MERCER, MONTGOMERY, NICHOLAS, ROBERTSON, SCOTT & WOODFORD COUNTIES:

	Rates	Fringes
PAINTER		
Bridge/Equipment Tender and/or Containment Builder	$ 18.90	5.90
Brush & Roller	$ 21.30	5.90
Elevated Tanks; Steeplejack Work; Bridge & Lead Abatement	$ 22.30	5.90
Sandblasting & Waterblasting	$ 22.05	5.90
Spray	$ 21.80	5.90

PAIN0012-017 05/01/2015

BRACKEN, GALLATIN, GRANT, MASON & OWEN COUNTIES:

	Rates	Fringes
PAINTER (Heavy & Highway Bridges - Guardrails - Lightpoles - Striping)		
Bridge Equipment Tender and Containment Builder	$ 20.73	9.06
Brush & Roller	$ 23.39	9.06
Elevated Tanks; Steeplejack Work; Bridge & Lead Abatement	$ 24.39	9.06

Sandblasting & Water Blasting	$ 24.14	9.06
Spray	$ 23.89	9.06

PAIN0118-004 06/01/2014

ANDERSON, BRECKINRIDGE, BULLITT, CARROLL, GRAYSON, HARDIN, HENRY, JEFFERSON, LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, TRIMBLE & WASHINGTON COUNTIES:

	Rates	Fringes
PAINTER		
Brush & Roller	$ 18.50	11.97
Spray, Sandblast, Power Tools, Waterblast & Steam Cleaning	$ 19.50	11.97

PAIN1072-003 12/01/2016

BOYD, CARTER, ELLIOTT, GREENUP, LEWIS and ROWAN COUNTIES

	Rates	Fringes
Painters:		
Bridges; Locks; Dams; Tension Towers & Energized Substations	$ 32.98	16.15
Power Generating Facilities	$ 29.74	16.15

PLUM0248-003 06/01/2016

BOYD, CARTER, ELLIOTT, GREENUP, LEWIS & ROWAN COUNTIES:

	Rates	Fringes
Plumber and Steamfitter	$ 30.00	24.05

PLUM0392-007 06/01/2014

BRACKEN, CARROLL (Eastern Half), GALLATIN, GRANT, MASON, OWEN & ROBERTSON COUNTIES:

	Rates	Fringes
Plumbers and Pipefitters	$ 29.80	17.79

PLUM0502-003 08/01/2016

BRECKINRIDGE, BULLITT, CARROLL (Western Half), FRANKLIN (Western three-fourths), GRAYSON, HARDIN, HENRY, JEFFERSON, LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, TRIMBLE & WASHINGTON COUNTIES

	Rates	Fringes
PLUMBER	$ 32.00	20.13

SUKY2010-160 10/08/2001

	Rates	Fringes
Truck drivers:		
GROUP 1	$ 16.57	7.34
GROUP 2	$ 16.68	7.34
GROUP 3	$ 16.86	7.34
GROUP 4	$ 16.96	7.34

TRUCK DRIVER CLASSIFICATIONS

GROUP 1 - Mobile Batch Truck Tender

GROUP 2 - Greaser; Tire Changer; & Mechanic Tender

GROUP 3 - Single Axle Dump; Flatbed; Semi-trailer or Pole Trailer when used to pull building materials and equipment; Tandem Axle Dump; Distributor; Mixer; & Truck Mechanic

GROUP 4 - Euclid & Other Heavy Earthmoving Equipment & Lowboy; Articulator Cat; 5-Axle Vehicle; Winch & A-Frame when used in transporting materials; Ross Carrier; Forklift when used to transport building materials; & Pavement Breaker

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

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 after an employee works eight (8) hours a day or forty (40) hours a week, whichever gives the employee the greater wages. At least time and one-half the base rate is required for all overtime. A laborer, workman or mechanic and an employer may enter into a written agreement or a collective bargaining agreement to work more than eight (8) hours a calendar day but not more than ten (10) hours a calendar day for the straight time hourly rate. Wage violations or questions should be directed to the designated Engineer or the undersigned.

Director
Division of Construction Procurement
Frankfort, Kentucky 40622
502-564-3500

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (Executive Order 11246)

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

GOALS FOR MINORITY PARTICIPATION IN EACH TRADE	GOALS FOR FEMALE PARTICIPATION IN EACH TRADE
9.6%	6.9%

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally-assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4, 3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of $10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed. The notification shall be mailed to:

Evelyn Teague, Regional Director
Office of Federal Contract Compliance Programs
61 Forsyth Street, SW, Suite 7B75
Atlanta, Georgia 30303-8609

4. As used in this Notice, and in the contract resulting from this solicitation, the **"covered area"** is Hardin 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

Report Date 5/18/17

Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00001		DGA BASE	2,758.00	TON		$	
0020	00100		ASPHALT SEAL AGGREGATE	1,902.00	TON		$	
0030	00103		ASPHALT SEAL COAT	229.00	TON		$	
0040	00194		LEVELING & WEDGING PG76-22	11,344.00	TON		$	
0050	00214		CL3 ASPH BASE 1.00D PG64-22	6,597.00	TON		$	
0060	00219		CL4 ASPH BASE 1.00D PG76-22	14,744.00	TON		$	
0070	00339		CL3 ASPH SURF 0.38D PG64-22	11,141.00	TON		$	
0080	00342		CL4 ASPH SURF 0.38A PG76-22	34,609.00	TON		$	
0090	02677		ASPHALT PAVE MILLING & TEXTURING	52,750.00	TON		$	
0100	23229EC		HIGH FRICTION SURFACE TREATMENT	1,569.00	SQYD		$	

Section: 0002 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0590	01982		DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	348.00	EACH		$	
0600	01983		DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL YELLOW	47.00	EACH		$	
0610	02237		DITCHING	48,074.00	LF		$	
0620	02352		GUARDRAIL-STEEL W BEAM-D FACE	662.50	LF		$	
0630	02360		GUARDRAIL TERMINAL SECTION NO 1	3.00	EACH		$	
0640	02363		GUARDRAIL CONNECTOR TO BRIDGE END TY A	15.00	EACH		$	
0650	02365		CRASH CUSHION TYPE IX-A	7.00	EACH		$	
0660	02367		GUARDRAIL END TREATMENT TYPE 1	6.00	EACH		$	
0670	02369		GUARDRAIL END TREATMENT TYPE 2A	24.00	EACH		$	
0680	02373		GUARDRAIL END TREATMENT TYPE 3	1.00	EACH		$	
0690	02381		REMOVE GUARDRAIL	31,112.50	LF		$	
0700	02387		GUARDRAIL CONNECTOR TO BRIDGE END TY A-1	10.00	EACH		$	
0710	02391		GUARDRAIL END TREATMENT TYPE 4A	16.00	EACH		$	
0720	02562		TEMPORARY SIGNS	2,500.00	SQFT		$	
0730	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		$	
0740	02671		PORTABLE CHANGEABLE MESSAGE SIGN	8.00	EACH		$	
0750	02676		MOBILIZATION FOR MILL & TEXT	1.00	LS		$	
0760	02696		SHOULDER RUMBLE STRIPS	213,924.00	LF		$	
0770	02704		SILT TRAP TYPE B	23.00	EACH		$	
0780	02707		CLEAN SILT TRAP TYPE B	23.00	EACH		$	
0790	02714		SHOULDERING	74,659.00	LF		$	
0800	02775		ARROW PANEL	6.00	EACH		$	
0810	02929		CRASH CUSHION TYPE IX	6.00	EACH		$	
0820	05950		EROSION CONTROL BLANKET	12,444.00	SQYD		$	
0830	06401		FLEXIBLE DELINEATOR POST-M/W	918.00	EACH		$	
0840	06404		FLEXIBLE DELINEATOR POST-M/Y	622.00	EACH		$	
0850	06412		STEEL POST MILE MARKERS	14.00	EACH		$	
0860	06427		TRENCHING	31,864.00	LF		$	
0870	06511		PAVE STRIPING-TEMP PAINT-6 IN	461,822.00	LF		$	

Report Date 5/18/17

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0880	06542		PAVE STRIPING-THERMO-6 IN W	153,228.00	LF		$	
0890	06543		PAVE STRIPING-THERMO-6 IN Y	109,011.00	LF		$	
0900	06546		PAVE STRIPING-THERMO-12 IN W	6,080.00	LF		$	
0910	06556		PAVE STRIPING-DUR TY 1-6 IN W	3,728.00	LF		$	
0920	06557		PAVE STRIPING-DUR TY 1-6 IN Y	2,124.00	LF		$	
0930	06568		PAVE MARKING-THERMO STOP BAR-24IN	80.00	LF		$	
0940	06574		PAVE MARKING-THERMO CURV ARROW	9.00	EACH		$	
0950	10020NS		FUEL ADJUSTMENT	122,088.00	DOLL	$1.00	$	$122,088.00
0960	10030NS		ASPHALT ADJUSTMENT	306,650.00	DOLL	$1.00	$	$306,650.00
0970	20432ES112		REMOVE CRASH CUSHION	13.00	EACH		$	
0980	20757ED		PAVEMENT REPAIR (MAJOR) (REVISED: 5-18-17)	1,462.00	SQYD		$	
0990	20757ED		PAVEMENT REPAIR (MINOR) (REVISED: 5-18-17)	6,006.00	SQYD		$	
1000	21802EN		G/R STEEL W BEAM-S FACE (7 FT POST)	29,562.50	LF		$	
1010	22415EN		CONCRETE CLASS A FOR PAD	14,162.00	SQYD		$	
1020	23147EN		HIGH TENSION CABLE-ROPE BARRIER	31,864.00	LF		$	
1030	23148EN		END ANCHORS	6.00	EACH		$	
1040	24489EC		INLAID PAVEMENT MARKER	3,038.00	EACH		$	
1050	24781EC		INTELLIGENT COMPACTION FOR ASPHALT	49,353.00	TON		$	
1060	24891EC		PAVE MOUNT INFRARED TEMP EQUIPMENT	3,708,738.00	SF		$	

Section: 0003 - DRAINAGE

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1070	00462		CULVERT PIPE-18 IN	4.00	LF		$	
1080	01010		NON-PERFORATED PIPE-4 IN	675.00	LF		$	
1090	01020		PERF PIPE HEADWALL TY 1-4 IN	2.00	EACH		$	
1100	01021		PERF PIPE HEADWALL TY 1-6 IN	1.00	EACH		$	
1110	01028		PERF PIPE HEADWALL TY 3-4 IN	15.00	EACH		$	
1120	01030		PERF PIPE HEADWALL TY 3-8 IN	1.00	EACH		$	
1130	01032		PERF PIPE HEADWALL TY 4-4 IN	10.00	EACH		$	
1140	01432		SLOPED BOX OUTLET TYPE 1-15 IN	1.00	EACH		$	
1150	01453		S & F BOX INLET-OUTLET-36 IN	1.00	EACH		$	
1160	01484		CURB BOX INLET TYPE B-T	17.00	EACH		$	
1170	01487		CURB BOX INLET TYPE F	1.00	EACH		$	
1180	01565		DROP BOX INLET TYPE 13GT	1.00	EACH		$	
1190	01690		FLUME INLET TYPE 1	5.00	EACH		$	
1200	01691		FLUME INLET TYPE 2	13.00	EACH		$	
1210	01877		SPECIAL HEADER CURB	8,407.00	LF		$	
1220	01891		ISLAND HEADER CURB TYPE 2	197.00	LF		$	
1230	02165		REMOVE PAVED DITCH	45.00	SQYD		$	
1240	02220		FLOWABLE FILL	5.00	CUYD		$	
1250	02223		GRANULAR EMBANKMENT	119.00	CUYD		$	
1260	02484		CHANNEL LINING CLASS III	944.00	TON		$	
1270	02599		FABRIC-GEOTEXTILE TYPE IV	75.00	SQYD		$	
1280	05963		INITIAL FERTILIZER	4.00	TON		$	
1290	05964		20-10-10 FERTILIZER	4.00	TON		$	

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1300	05985		SEEDING AND PROTECTION	54,032.00	SQYD		$	
1310	20366NN		REPLACE GRATE	12.00	EACH		$	
1320	23970NC		RESET GRATE	10.00	EACH		$	
1330	24906ED		REGRADE SLOPE	13,725.00	SQYD		$	

Section: 0004 - BRIDGE - I-65 RAMP OVER US 31W (047B00124N)

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1340	03295		EXPAN JOINT REPLACE 2 IN	77.00	LF		$	
1350	03299		ARMORED EDGE FOR CONCRETE	76.00	LF		$	
1360	03300		ELIMINATE TRANSVERSE JOINT	76.00	LF		$	
1370	08151		STEEL REINFORCEMENT-EPOXY COATED	45.00	LB		$	
1380	08504		EPOXY SAND SLURRY	58.00	SQYD		$	
1390	08526		CONC CLASS M FULL DEPTH PATCH	.20	CUYD		$	
1400	08534		CONCRETE OVERLAY-LATEX	29.80	CUYD		$	
1410	08549		BLAST CLEANING	716.00	SQYD		$	
1420	08551		MACHINE PREP OF SLAB	716.00	SQYD		$	
1430	22146EN		CONCRETE PATCHING REPAIR	255.00	SQFT		$	
1440	24094EC		PARTIAL DEPTH PATCHING	2.20	CUYD		$	

Section: 0005 - BRIDGE - I-65 (SB) OVER US 31W (047B00132L)

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1450	03295		EXPAN JOINT REPLACE 2 IN	130.00	LF		$	
1460	03299		ARMORED EDGE FOR CONCRETE	130.00	LF		$	
1470	03300		ELIMINATE TRANSVERSE JOINT	130.00	LF		$	
1480	08151		STEEL REINFORCEMENT-EPOXY COATED	65.00	LB		$	
1490	08504		EPOXY SAND SLURRY	65.00	SQYD		$	
1500	08526		CONC CLASS M FULL DEPTH PATCH	.30	CUYD		$	
1510	08534		CONCRETE OVERLAY-LATEX	52.50	CUYD		$	
1520	08549		BLAST CLEANING	1,260.00	SQYD		$	
1530	08551		MACHINE PREP OF SLAB	1,260.00	SQYD		$	
1540	22146EN		CONCRETE PATCHING REPAIR	145.00	SQFT		$	
1550	24094EC		PARTIAL DEPTH PATCHING	3.90	CUYD		$	

Section: 0006 - BRIDGE - I-65 (NB) OVER US 31W (047B00126R)

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1560	03295		EXPAN JOINT REPLACE 2 IN	197.00	LF		$	
1570	03299		ARMORED EDGE FOR CONCRETE	196.00	LF		$	
1580	03300		ELIMINATE TRANSVERSE JOINT	196.00	LF		$	
1590	08151		STEEL REINFORCEMENT-EPOXY COATED	105.00	LB		$	
1600	08504		EPOXY SAND SLURRY	65.00	SQYD		$	
1610	08526		CONC CLASS M FULL DEPTH PATCH	.50	CUYD		$	
1620	08534		CONCRETE OVERLAY-LATEX	79.30	CUYD		$	
1630	08549		BLAST CLEANING	1,905.00	SQYD		$	

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1640	08551		MACHINE PREP OF SLAB	1,905.00	SQYD		$	
1650	22146EN		CONCRETE PATCHING REPAIR	810.00	SQFT		$	
1660	24094EC		PARTIAL DEPTH PATCHING	5.90	CUYD		$	
1670	24897EC		EXPAN JOINT REPLACE 3/4 IN (LONGITUDINAL JOINT)	220.00	LF		$	

Section: 0007 - BRIDGE - I-65 (SB) OVER CSX RR & HAWKINS DRIVE (047B00125L)

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1680	03295		EXPAN JOINT REPLACE 2 IN	194.00	LF		$	
1690	03299		ARMORED EDGE FOR CONCRETE	194.00	LF		$	
1700	08151		STEEL REINFORCEMENT-EPOXY COATED	145.00	LB		$	
1710	08504		EPOXY SAND SLURRY	80.00	SQYD		$	
1720	08526		CONC CLASS M FULL DEPTH PATCH	.70	CUYD		$	
1730	08534		CONCRETE OVERLAY-LATEX	121.80	CUYD		$	
1740	08549		BLAST CLEANING	2,925.00	SQYD		$	
1750	08551		MACHINE PREP OF SLAB	2,925.00	SQYD		$	
1760	24094EC		PARTIAL DEPTH PATCHING	9.00	CUYD		$	

Section: 0008 - BRIDGE - I-65 (NB) OVER CSX RR & HAWKINS DRIVE (047B00125R)

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1770	03295		EXPAN JOINT REPLACE 2 IN	145.00	LF		$	
1780	03299		ARMORED EDGE FOR CONCRETE	145.00	LF		$	
1790	08151		STEEL REINFORCEMENT-EPOXY COATED	105.00	LB		$	
1800	08504		EPOXY SAND SLURRY	70.00	SQYD		$	
1810	08526		CONC CLASS M FULL DEPTH PATCH	.50	CUYD		$	
1820	08534		CONCRETE OVERLAY-LATEX	77.40	CUYD		$	
1830	08549		BLAST CLEANING	1,860.00	SQYD		$	
1840	08551		MACHINE PREP OF SLAB	1,860.00	SQYD		$	
1850	24094EC		PARTIAL DEPTH PATCHING	5.70	CUYD		$	

Section: 0009 - BRIDGE - I-65 (SB) OVER SPRINGFIELD RD (047B00129L)

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1860	03294		EXPAN JOINT REPLACE 1 1/2 IN	113.00	LF		$	
1870	03299		ARMORED EDGE FOR CONCRETE	113.00	LF		$	
1880	08151		STEEL REINFORCEMENT-EPOXY COATED	45.00	LB		$	
1890	08504		EPOXY SAND SLURRY	35.00	SQYD		$	
1900	08526		CONC CLASS M FULL DEPTH PATCH	.20	CUYD		$	
1910	08534		CONCRETE OVERLAY-LATEX	28.60	CUYD		$	
1920	08549		BLAST CLEANING	685.00	SQYD		$	
1930	08551		MACHINE PREP OF SLAB	685.00	SQYD		$	
1940	24094EC		PARTIAL DEPTH PATCHING	2.10	CUYD		$	

Section: 0010 - BRIDGE - I-65 (NB) OVER SPRINGFIELD RD (047B00129R)

PROPOSAL BID ITEMS

Report Date 5/18/17

Section: 0010 - BRIDGE - I-65 (NB) OVER SPRINGFIELD RD (047B00129R)

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0110	02383		REMOVE & RESET GUARDRAIL	15.00	LF		$	
0120	03235		EXCAVATION AND BACKFILL	6.00	CUYD		$	
0130	03294		EXPAN JOINT REPLACE 1 1/2 IN	113.00	LF		$	
0140	03299		ARMORED EDGE FOR CONCRETE	113.00	LF		$	
0150	08104		CONCRETE-CLASS AA	6.30	CUYD		$	
0160	08151		STEEL REINFORCEMENT-EPOXY COATED	730.00	LB		$	
0170	08504		EPOXY SAND SLURRY	35.00	SQYD		$	
0180	08526		CONC CLASS M FULL DEPTH PATCH	.20	CUYD		$	
0190	08534		CONCRETE OVERLAY-LATEX	28.60	CUYD		$	
0200	08549		BLAST CLEANING	685.00	SQYD		$	
0210	08551		MACHINE PREP OF SLAB	685.00	SQYD		$	
0220	22146EN		CONCRETE PATCHING REPAIR	15.00	SQFT		$	
0230	24093EC		BEAM REPAIR	1.00	EACH		$	
0240	24094EC		PARTIAL DEPTH PATCHING	2.10	CUYD		$	

Section: 0011 - BRIDGE - BG PKWAY (WB) OVER I-65 (047B00128L)

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0250	03296		EXPAN JOINT REPLACE 2 1/2 IN	70.00	LF		$	
0260	03299		ARMORED EDGE FOR CONCRETE	70.00	LF		$	
0270	03300		ELIMINATE TRANSVERSE JOINT	70.00	LF		$	
0280	08151		STEEL REINFORCEMENT-EPOXY COATED	60.00	LB		$	
0290	08504		EPOXY SAND SLURRY	95.00	SQYD		$	
0300	08526		CONC CLASS M FULL DEPTH PATCH	.30	CUYD		$	
0310	08534		CONCRETE OVERLAY-LATEX	45.00	CUYD		$	
0320	08549		BLAST CLEANING	1,080.00	SQYD		$	
0330	08551		MACHINE PREP OF SLAB	1,080.00	SQYD		$	
0340	22146EN		CONCRETE PATCHING REPAIR	195.00	SQFT		$	
0350	24094EC		PARTIAL DEPTH PATCHING	3.60	CUYD		$	

Section: 0012 - BRIDGE - BG PKWAY (EB) OVER I-65 (047B00128R) ADDED ADDENDUM #1

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0360	03296		EXPAN JOINT REPLACE 2 1/2 IN	70.00	LF		$	
0370	03299		ARMORED EDGE FOR CONCRETE	70.00	LF		$	
0380	03300		ELIMINATE TRANSVERSE JOINT	70.00	LF		$	
0390	08151		STEEL REINFORCEMENT-EPOXY COATED	60.00	LB		$	
0400	08504		EPOXY SAND SLURRY	95.00	SQYD		$	
0410	08526		CONC CLASS M FULL DEPTH PATCH	.30	CUYD		$	
0420	08534		CONCRETE OVERLAY-LATEX	45.00	CUYD		$	
0430	08549		BLAST CLEANING	1,080.00	SQYD		$	
0440	08551		MACHINE PREP OF SLAB	1,080.00	SQYD		$	
0450	22146EN		CONCRETE PATCHING REPAIR	210.00	SQFT		$	
0460	24094EC		PARTIAL DEPTH PATCHING	3.60	CUYD		$	

PROPOSAL BID ITEMS

Report Date 5/18/17

Section: 0013 - TRAFFIC LOOPS

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0470	04793		CONDUIT-1 1/4 IN	260.00	LF		$	
0480	04795		CONDUIT-2 IN	110.00	LF		$	
0490	04820		TRENCHING AND BACKFILLING	350.00	LF		$	
0500	04829		PIEZOELECTRIC SENSOR	26.00	EACH		$	
0510	04830		LOOP WIRE	11,800.00	LF		$	
0520	04895		LOOP SAW SLOT AND FILL	1,875.00	LF		$	
0530	20359NN		GALVANIZED STEEL CABINET	4.00	EACH		$	
0540	20360ES818		WOOD POST	8.00	EACH		$	
0550	20391NS835		ELECTRICAL JUNCTION BOX TYPE A	6.00	EACH		$	
0560	21543EN		BORE AND JACK CONDUIT (2 IN)	100.00	LF		$	

Section: 0014 - DEMOBILIZATION &/OR MOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0570	02568		MOBILIZATION	1.00	LS		$	
0580	02569		DEMOBILIZATION	1.00	LS		$	