CALL NO. 325

CONTRACT ID. 211342

HARDIN COUNTY

FED/STATE PROJECT NUMBER FD04 047 9001 120-131

DESCRIPTION WESTERN KENTUCKY PARKWAY (WK 9001)

WORK TYPE ASPHALT PAVEMENT & ROADWAY REHAB

PRIMARY COMPLETION DATE 10/1/2022

LETTING DATE: October 22,2021

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 am EASTERN DAYLIGHT TIME October 22,2021. Bids will be publicly announced at 10:00 am EASTERN DAYLIGHT TIME.

NO PLANS ASSOCIATED WITH THIS PROJECT.

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

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SCOPE OF WORK

ADMINISTRATIVE DISTRICT - 04

CONTRACT ID - 211342

FD04 047 9001 120-131

COUNTY - HARDIN

PCN - DE04790012132
FD04 047 9001 120-131

WESTERN KENTUCKY PARKWAY (WK 9001) FROM MILEPOINT 119.649 TO MILEPOINT 130.786ASPHALT PAVEMENT & ROADWAY REHAB SYP NO. 04-20016.00.

GEOGRAPHIC COORDINATES LATITUDE 37:35:02.00 LONGITUDE 86:00:38.00

COMPLETION DATE(S):

COMPLETED BY 10/01/2022 APPLIES TO ENTIRE CONTRACT

CONTRACT NOTES

PROPOSAL ADDENDA

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

BID SUBMITTAL

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

JOINT VENTURE BIDDING

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

UNDERGROUND FACILITY DAMAGE PROTECTION

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

REGISTRATION WITH THE SECRETARY OF STATE BY A FOREIGN ENTITY

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

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

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

SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT

Questions about projects during the advertisement should be submitted in writing to the Division of Construction Procurement. This may be done by fax (502) 564-7299 or email to 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.

SPECIAL NOTE FOR RECIPROCAL PREFERENCE

RECIPROCAL PREFERENCE TO BE GIVEN BY PUBLIC AGENCIES TO RESIDENT BIDDERS

By reference, KRS 45A.490 to 45A.494 are incorporated herein and in compliance regarding the bidders residency. Bidders who want to claim resident bidder status should complete the Affidavit for Claiming Resident Bidder Status along with their bid in the electronic bidding software. Submittal of the Affidavit should be done along the bid in Bid Express.

April 30, 2018

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.

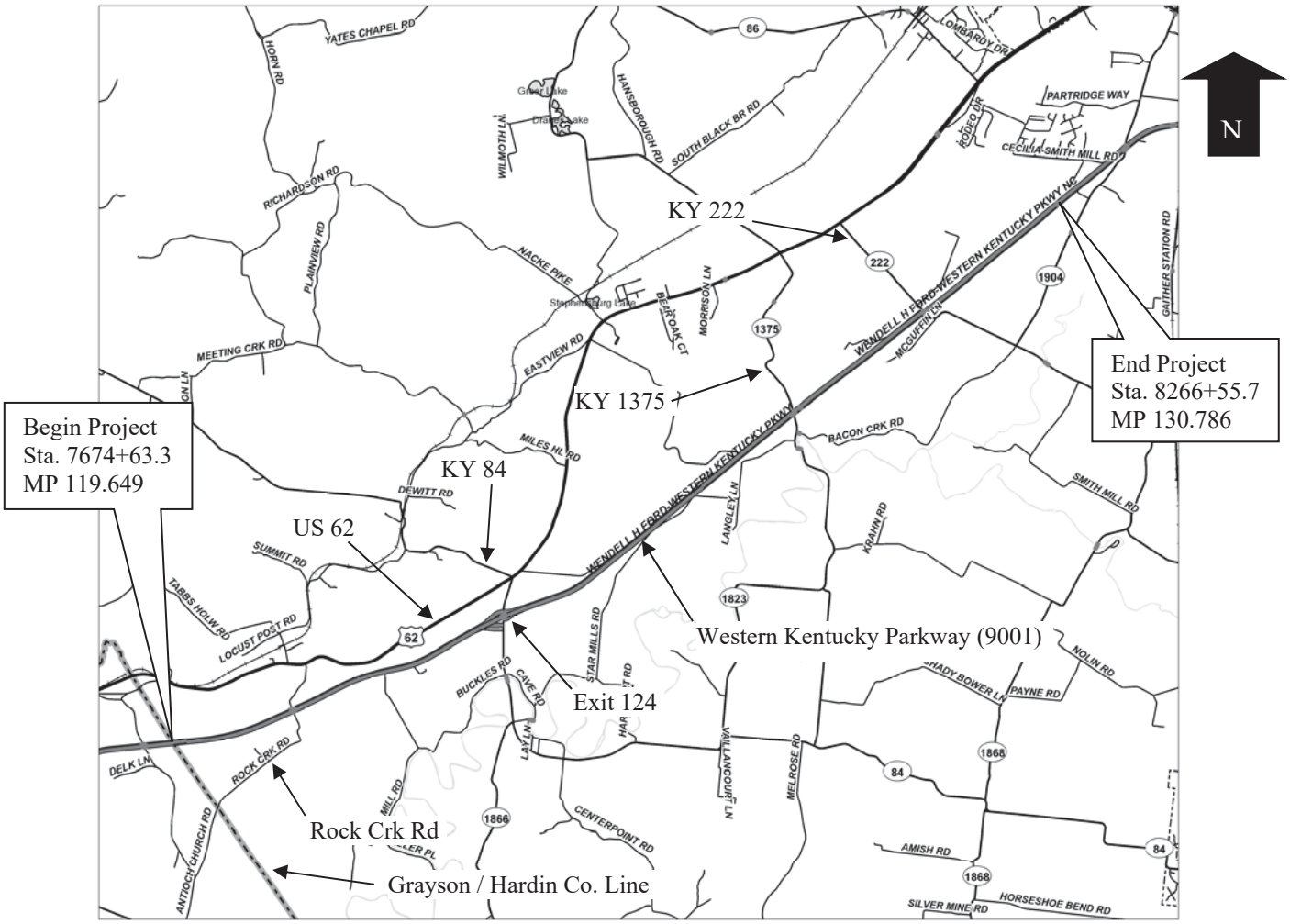
HARDIN COUNTY
WESTERN KENTUCKY PARKWAY
MP 119.649 to MP 130.786
Construction Numbers

FD04 047 9001 120–131

Item Number: 4–20016.00
Prepared For The
Kentucky Transportation Cabinet

Prepared By
DLZ KENTUCKY, INC.

1950 Haggard Court
Lexington, Kentucky 40505
Ph. 859–299–5226



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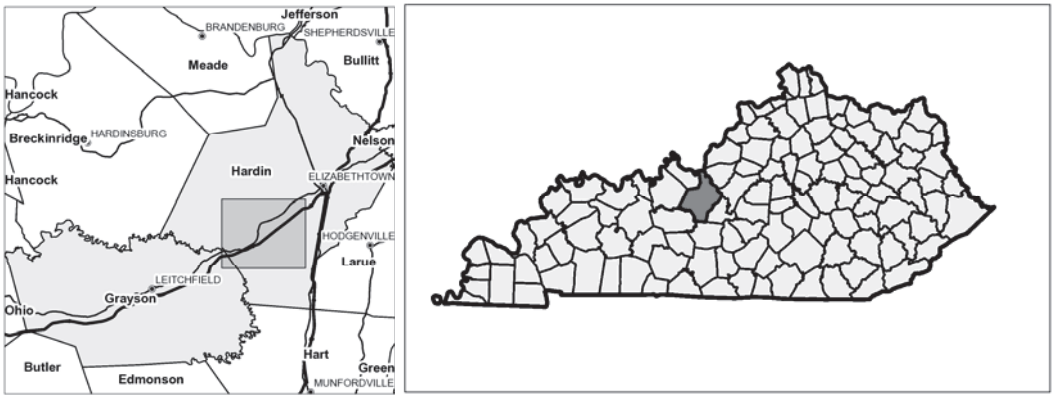

Item Number: 4-20016.00

Construction Numbers: FD04 047 9001 120-131

Letting Date: October 22, 2021

Recommended By: Andre Johannes Date: _____
Project Manager

Plan Approved By: _____ Date: _____
State Highway Engineer

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REFERENCES

1. Kentucky Transportation Cabinet, Department of Highways, Standard Specifications for Road and Bridge Construction, Edition of 2019

2. FHWA Manual on Uniform Traffic Control Devices (MUTCD) – 2009 Edition w/Revisions

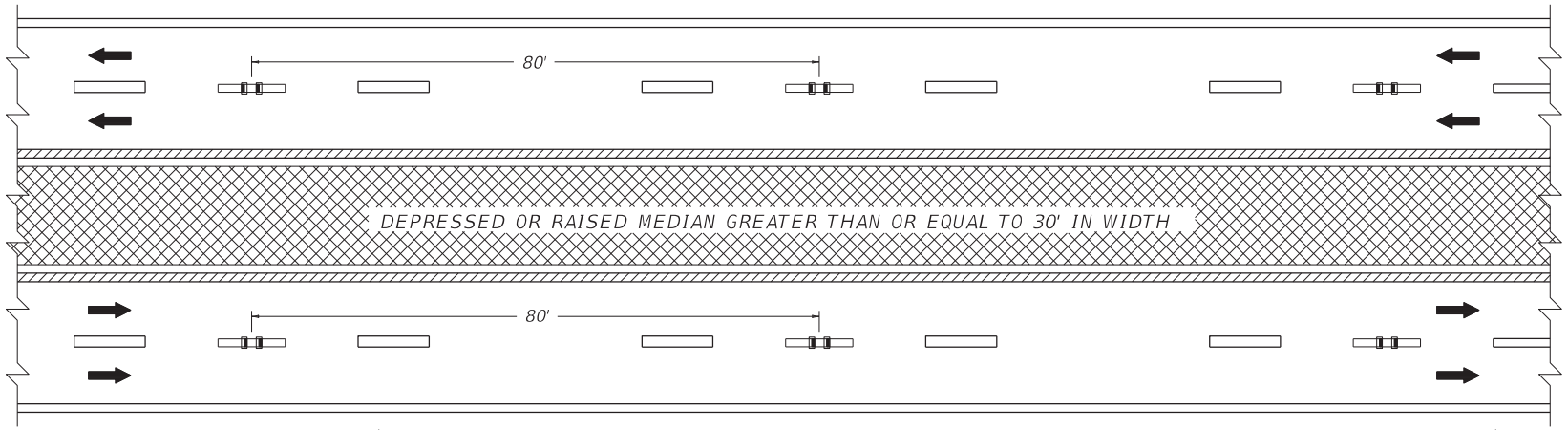
3. Kentucky Department of Highways Standard Drawings, 2020 edition, as applicable:

- RBE-060-15 Crash Cushion Type VI A B C (One & Two Direction)
- RBE-100-11 Crash Cushion Type VI-BT
- RBE-200-07 Crash Cushion Type IX
- RBI-001-12 Typical Guardrail Installations
- RBI-002-07 Typical Guardrail Installations
- RBI-003-09 Typical Installation For Guardrail End Treatment Type 2A
- RBI-004-06 Installation of Guardrail End Treatment Type 1
- RBI-005-08 Guardrail Installation At Bridge Columns
- RBI-006-07 Guardrail Installation At Sign Supports
- RBM-020-09 Delineators For Concrete Barriers
- RBM-115-10 Concrete Barrier Wall Type 9T (Temporary)
- RBM-130-05 Curb To Barrier Wall Transition
- RBR-001-13 Steel Beam Guardrail (“W” Beam)
- RBR-005-11 Guardrail Components
- RBR-010-06 Guardrail Terminal Sections
- RBR-015-06 Steel Guardrail Posts
- RBR-018 Guardrail System Transition
- RBR-020-07 Guardrail End Treatment Type 1
- RBR-025-06 Guardrail End Treatment Type 2A
- RBR-030-05 Guardrail End Treatment Type 3
- RBR-055-01 Delineators For Guardrail
- RBR-100-07 Steel Beam Guardrail (Thrie Beam)
- RDD-021-07 Flume Inlet Type 2
- RDD-040-05 Channel Lining Class II And III
- RDH-020-03 Sloped & Flared Headwalls For 12” To 27” Pipe
- RDI-001-10 Culvert, Entrance & Storm Sewer Pipe Types & Cover Heights
- RDI-021-01 Pipe Bedding For Culverts, Entrance, And Storm Sewer Reinforced Conc. Pipe
- RDI-025-06 Pipe Bedding Trench Condition
- RDI-026-01 Pipe Bedding Trench Condition Reinforced Conc. Pipe
- RDI-035-02 Coatings, Linings And Paving For Non-Structural Plate Pipe
- RDI-040-01 Erosion Control Blanket Slope Installation
- RDI-041-01 Erosion Control Blanket Channel Installation
- RDX-210-03 Temporary Silt Fence
- RDX-220-05 Silt Trap Type A
- RDX-225-01 Silt Trap Type B

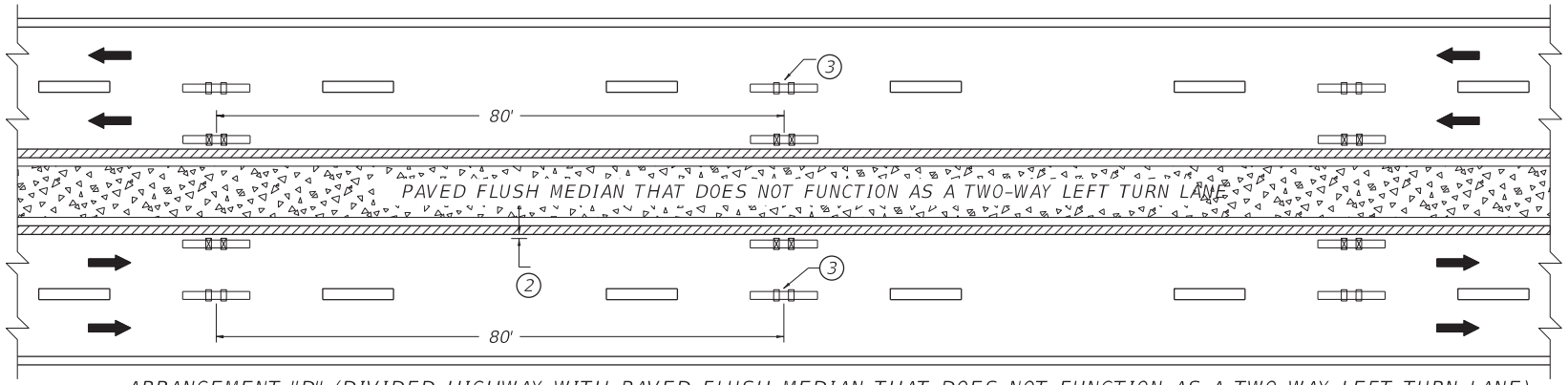
- RDX-230-01 Silt Trap Type C
- RGX-001-06 Miscellaneous Standards
- RGX-010-04 Typical Embankment Foundation Benches
- RPM-001-04 Permanent U-Turn Opening
- RPM-100-11 Curb And Gutter, Curbs And Valley Gutter
- RPM-110-07 Approaches, Entrances And Mail Box Turnout
- TPM-170-01 Flexible Delineator Post Arrangements For Horizontal Curves
- TPM-171-01 Flexible Delineator Post Arrangements For Interchange Ramp And Crossovers
- TPM-200 Typical Entrance Ramp Markings For Interstates And Parkways
- TMP-201 Typical Exit Ramp Markings For Interstates And Parkways
- TMP-204 Typical Markings For Gore Areas
- TPR-115 Shoulder & Edgeline Rumble Strip Placement Details
- TPR-120 Edgeline Rumble Strip Details Two Lane Roadways
- TPR-130 Rumble Strip Details Multi-Lane Roadways and Ramps
- TTC-115-04 Lane Closure Multi-Lane Highway Case I
- TTC-120-04 Lane Closure Multi-Lane Highway Case II
- TTC-135-03 Shoulder Closure
- TTD-120-03 Double Fine Signs
- TTD-125-03 Pavement Condition Warning Signs
- TTD-130 Speed Zone Signing For Work Zones
- TTS-110-02 Mobile Operation For Paint Striping Case III
- TTS-115-02 Mobile Operation For Paint Striping Case IV
- BGX-018 Treatment Of Open Sinkholes
- BHS-013 Thrie-Beam Guardrail Transition (TL-2)

4. Kentucky Department of Highways Active Sepia Drawings, 2020 edition, as applicable:

- 007 Inlaid Pavement Marker Arrangements Multi-Lane Roadways
- 009 Inlaid Pavement Marker Arrangements Two-Lane, Two-way Roadways
- 011 Inlaid Pavement Marker Arrangement Exit Gore And Off-Ramp
- 014 Inlaid Pavement Marker Arrangement On-Ramp With Parallel Acceleration Lane
- 017 Pavement Striping Details For Two Lane Two Way Roadways



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



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

~ NOTES ~

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

BID ITEMS	UNIT TO BID
06610 - INLAID PAVEMENT MARKER - MW	EACH
06612 - INLAID PAVEMENT MARKER - BY	EACH
06613 - INLAID PAVEMENT MARKER - B W/R	EACH

LEGEND

- BI-DIRECTIONAL PAVEMENT MARKER (YELLOW)
- BI-DIRECTIONAL PAVEMENT MARKER (WHITE-RED)
- MONO-DIRECTIONAL PAVEMENT MARKER (WHITE)
- MARKINGS (YELLOW)
- MARKINGS (WHITE)
- FLUSH MEDIAN
- DEPRESSED OR RAISED MEDIAN

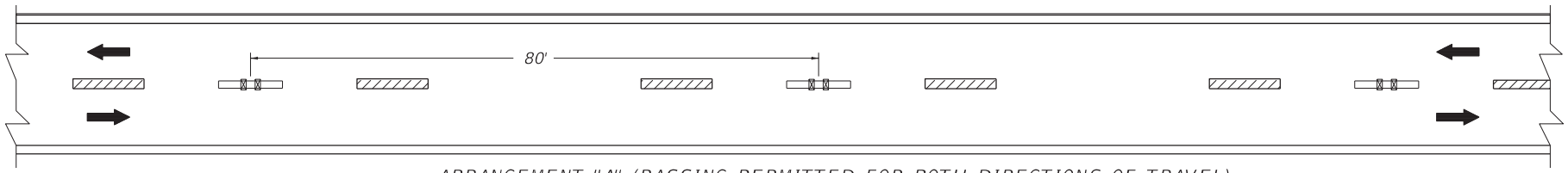
DRAWING NOT TO SCALE

KENTUCKY
DEPARTMENT OF HIGHWAYS

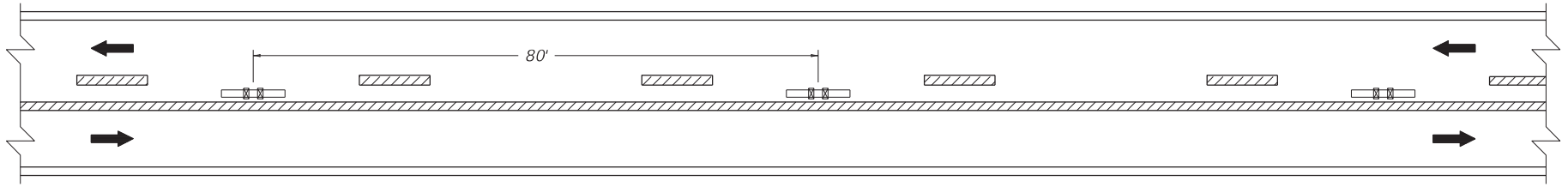
INLAID PAVEMENT MARKER
ARRANGEMENTS
MULTI-LANE ROADWAYS

SUBMITTED _____ DIVISION DIRECTOR 06-09-21 DATE

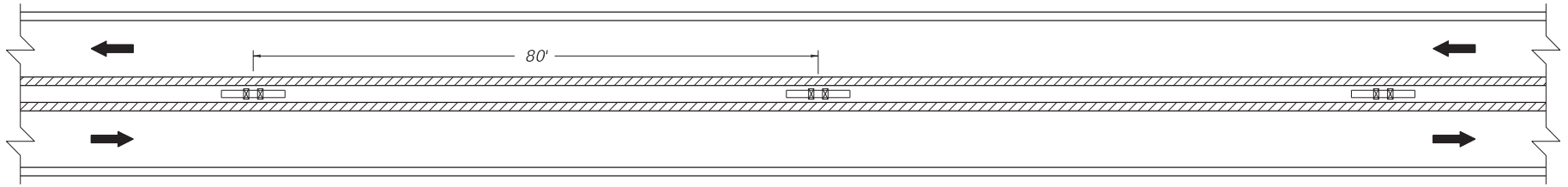
007



ARRANGEMENT "A" (PASSING PERMITTED FOR BOTH DIRECTIONS OF TRAVEL)



ARRANGEMENT "B" (PASSING PERMITTED FOR ONE DIRECTION OF TRAVEL)



ARRANGEMENT "C" (PASSING PROHIBITED FOR BOTH DIRECTIONS OF TRAVEL)

~ NOTES ~

1. MARKERS INSTALLED ALONG DASHED YELLOW CENTERLINES SHALL BE PLACED BETWEEN AND IN LINE WITH THE DASHES.
2. MARKERS INSTALLED WITH DOUBLE YELLOW CENTERLINES SHALL BE PLACED BETWEEN THE TWO LINES.
3. MARKERS SHALL NOT BE INSTALLED ON TOP OF THE PAVEMENT JOINT. OFFSET MARKERS A MINIMUM OF 2" FROM THE PAVEMENT JOINT. ENSURE THAT THE FINISHED LINE OF MARKERS IS STRAIGHT WITH MINIMAL LATERAL DEVIATION. MARKERS MAY BE ELIMINATED OR PLACEMENT ADJUSTED AT THE DISCRETION OF THE ENGINEER.

BID ITEMS	UNIT TO BID
06612 - INLAID PAVEMENT MARKER - BY	EACH

LEGEND

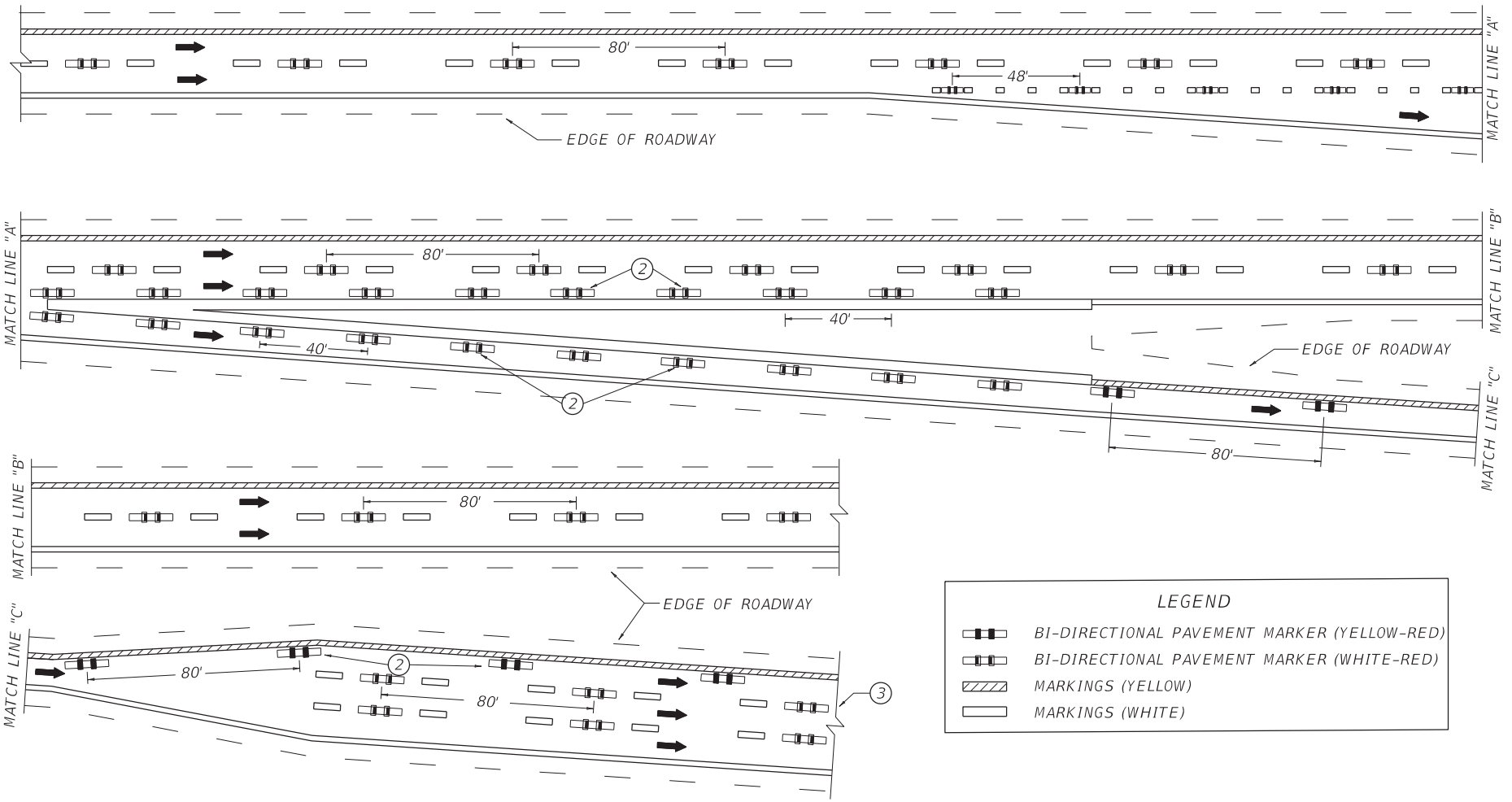
- BI-DIRECTIONAL PAVEMENT MARKER (YELLOW)
- MARKINGS (YELLOW)
- MARKINGS (WHITE)

KENTUCKY
DEPARTMENT OF HIGHWAYS

INLAID PAVEMENT MARKER
ARRANGEMENTs
TWO-LANE, TWO-WAY
ROADWAYS

SUBMITTED _____ 06-09-21
DIVISION DIRECTOR DATE

009



~ NOTES ~

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

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

DRAWING NOT TO SCALE

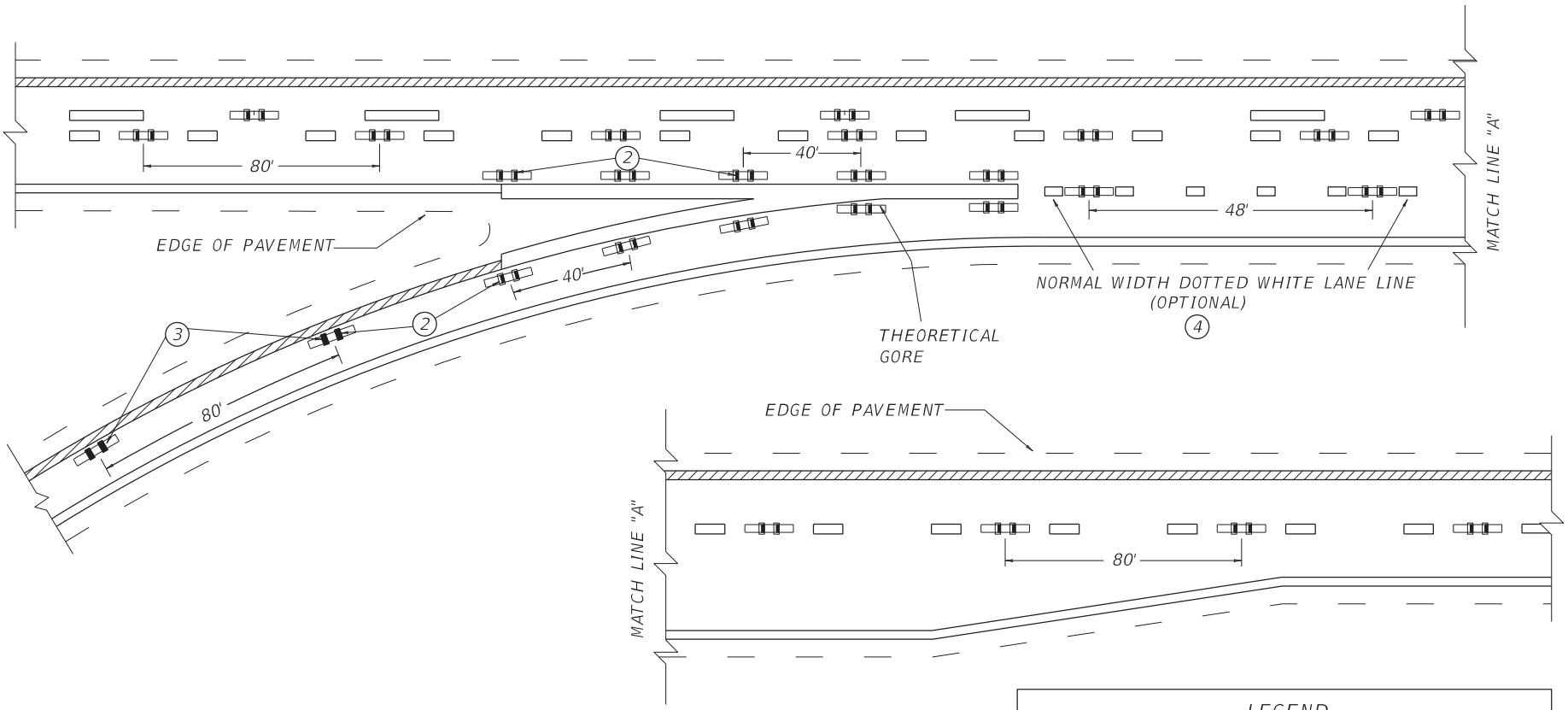
USE WITH CUR. STD. DWG. TPM-201

KENTUCKY
DEPARTMENT OF HIGHWAYS

INLAID PAVEMENT MARKER ARRANGEMENT
EXIT GORE AND OFF-RAMP

SUBMITTED _____ DIVISION DIRECTOR 06-09-21 DATE

011



LEGEND

- BI-DIRECTIONAL PAVEMENT MARKER (YELLOW-RED)
- BI-DIRECTIONAL PAVEMENT MARKER (WHITE-RED)
- MARKINGS (YELLOW)
- MARKINGS (WHITE)

~ NOTES ~

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

BID ITEMS AND UNIT TO BID

INLAID PAVEMENT MARKER (B-W/R, B-Y/R, BY, MW, MY)	EACH

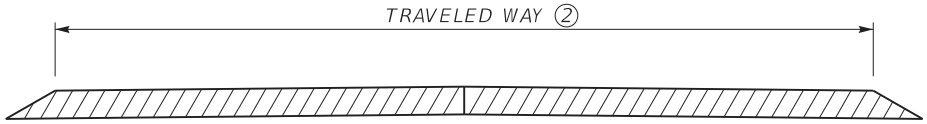
DRAWING NOT TO SCALE
USE WITH CUR. STD. DWG.
TPM-200

KENTUCKY
DEPARTMENT OF HIGHWAYS

INLAID PAVEMENT MARKER ARRANGEMENT ON-RAMP WITH PARALLEL ACCELERATION LANE

SUBMITTED _____ DIVISION DIRECTOR 06-09-21 DATE

014



TWO LANE ROADWAY
PAVEMENT CROSS-SECTION

TRAVELED WAY (2)	TYPE OF PAVEMENT STRIPING	NON-STATE PRIMARY ROUTES				STATE PRIMARY ROUTES	
		< 1000 ADT		>= 1000 ADT		ANY ADT	
		WIDTH	MATERIAL	WIDTH	MATERIAL	WIDTH	MATERIAL*
< 16' (4)	EDGELINE STRIPES ONLY	4"	PAINT	4"	PAINT	6"	THERMO (ASHPALT) TYPE I TAPE (CONCRETE)
16' TO < 20'	EDGELINE STRIPES ONLY OR CENTERLINE STRIPE ONLY	4"	PAINT	4"	PAINT	6"	THERMO (ASHPALT) TYPE I TAPE (CONCRETE)
>=20' (3)	CENTERLINE AND EDGELINE STRIPES	4" (5)	PAINT	6"	PAINT	6"	THERMO (ASHPALT) TYPE I TAPE (CONCRETE)

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

~ NOTES ~

1. INSTALL PAVEMENT STRIPING ON TWO LANE, TWO WAY ROADWAYS AS DETAILED IN THE ABOVE TABLE AND IN ACCORDANCE WITH THE PAVEMENT MARKINGS AND DELINEATION CHAPTER OF THE TRAFFIC OPERATIONS GUIDANCE MANUAL. CONTACT THE DIVISION OF TRAFFIC OPERATIONS FOR ADDITIONAL GUIDANCE IF NECESSARY.

(2) THE TRAVELED WAY IS THE PORTION OF ROADWAY FOR THE MOVEMENT OF VEHICLES, EXCLUSIVE OF THE SHOULDERS.

(3) ON TWO LANE, TWO WAY ROADWAYS THAT HAVE A TOTAL PAVEMENT WIDTH (W) THAT IS 20 FT OR GREATER, BUT LESS THAN 22 FT, EDGELINE RUMBLE STRIPS ARE NOT A STANDARD APPLICATION, BUT THEY MAY BE INSTALLED. THE DIVISION OF TRAFFIC OPERATIONS IS AVAILABLE TO ASSIST WITH THE DETERMINATION OF WHETHER OR NOT TO INSTALL EDGELINE RUMBLE STRIPS ON PAVEMENT WIDTHS LESS THAN 22 FT, AS WELL AS THE DIMENSION AND PLACEMENT DETAILS OF THE RUMBLE STRIPS AND PAVEMENT STRIPING.

ON TWO LANE, TWO WAY ROADWAYS THAT HAVE A TOTAL PAVEMENT WIDTH (W) THAT IS 22 FT OR GREATER, BUT LESS THAN 34 FT, INSTALL PAVEMENT STRIPING AS DETAILED IN THE ABOVE TABLE AND IN CONJUNCTION WITH CENTERLINE AND EDGELINE RUMBLE STRIPS AS DETAILED ON TPR-120 .

ON TWO LANE, TWO WAY ROADWAYS THAT HAVE A TOTAL PAVEMENT WIDTH (W) THAT IS 34 FT OR GREATER, INSTALL PAVEMENT STRIPING AS DETAILED IN THE ABOVE TABLE AND IN CONJUCTION WITH CENTERLINE AND SHOULDER RUMBLE STRIPS AS DETAILED ON TPR-125.

(4) EDGELINES MAY BE OMITTED FROM ROADWAYS WITH A TRAVELED WAY WIDTH LESS THAN 16 FEET WITH THE APPROVAL OF THE DIVISION OF TRAFFIC OPERATIONS.

(5) EDGELINES MAY BE OMITTED ON NON-STATE PRIMARY ROUTES WITH A TRAVELED WAY WIDTH GREATER THAN OR EQUAL TO 20 FEET AND AN ADT LESS THAN 1,000.

6. EDGELINES MAY BE OMITTED, BASED ON ENGINEERING JUDGMENT, IN AREAS WHERE THE PAVEMENT EDGE IS DELINEATED BY PHYSICAL OBJECTS SUCH AS CURBS, PARKING SPACES, OR OTHER MARKINGS. EDGELINES SHOULD BE INSTALLED ON ROADWAYS WITH CURB AND GUTTER IF THE POSTED SPEED LIMIT IS 45 MPH OR GREATER.

DRAWING NOT TO SCALE

USE WITH CUR. STD. DWGS.
TPR-120 & TPR-125

KENTUCKY
DEPARTMENT OF HIGHWAYS

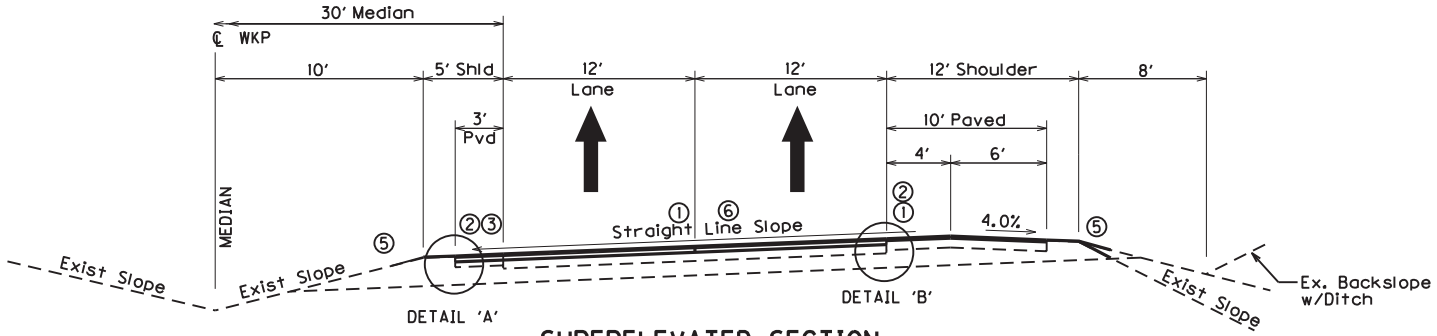
PAVEMENT STRIPING
DETAILS FOR TWO LANE
TWO WAY ROADWAYS

SUBMITTED _____ 06-09-21
DIVISION DIRECTOR DATE

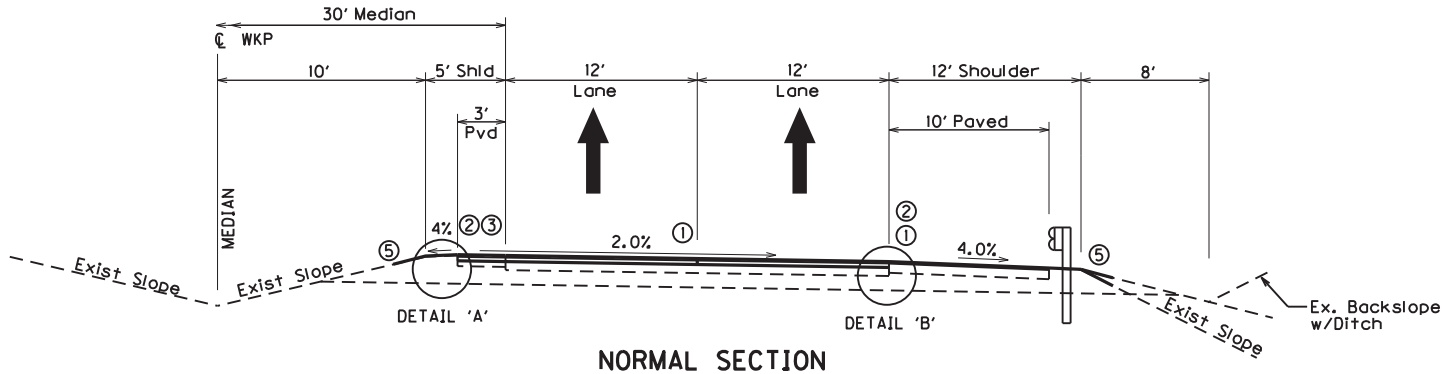
017

TYPICAL SECTIONS

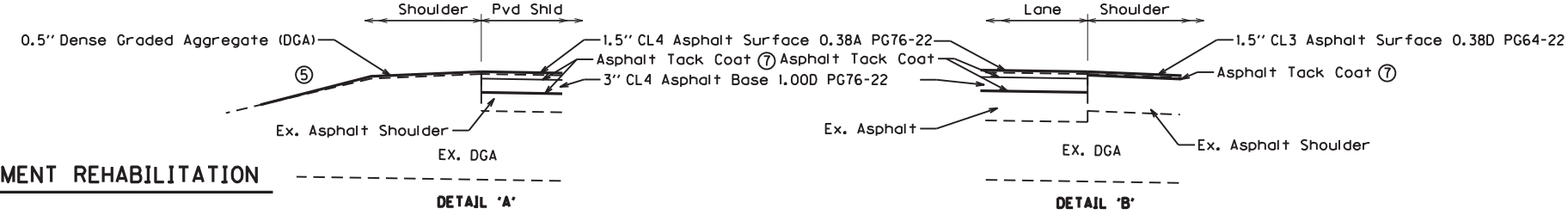
WESTERN KENTUCKY PARKWAY
EASTBOUND STA 7674+63.3 TO STA 7770+00 (Approx)
EASTBOUND STA 7810+00 (Approx) TO STA 7873+63 (Approx)
EASTBOUND STA 7881+53 (Approx) TO STA 8266+55.7
WESTBOUND STA 7674+63.3 TO STA 8266+55.7



SUPERELEVATED SECTION
EASTBOUND OR WESTBOUND



NORMAL SECTION
EASTBOUND OR WESTBOUND



PAVEMENT REHABILITATION

DRIVING LANES & INSIDE SHOULDER

4" ASPHALT MILLING & TEXTURING

BASE --- 3" CL4 ASPHALT BASE 1.00D PG76-22

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

OUTSIDE SHOULDER

1" ASPHALT MILLING & TEXTURING

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

① Place Joint Adhesive Between Driving Lanes And Between Driving Lane And Shoulders. (Surface Course Only.)

② Construct Sawed Rumble Strips

③ Asphalt Shoulder To Be Placed Concurrently With Driving Lane. Match Existing Cross Slope.

⑤ Asphalt Seal Coat Required From The Outside Edge Of The Paved Shoulder To A Point 2' Down The Ditch Or Fill Slope.

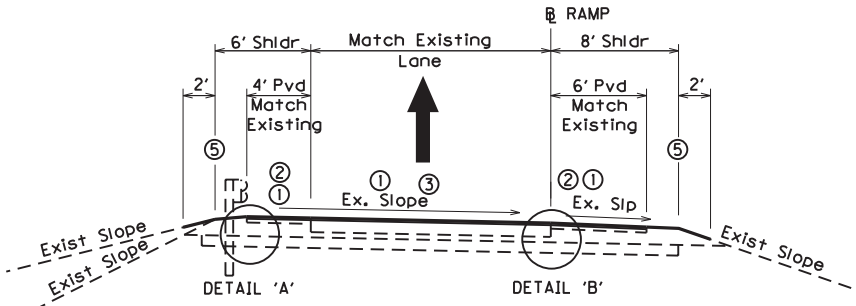
Two (2) Applications At The Rate Of
2.40 Lbs/SY Item 103 Asphalt Seal Coat
20 Lbs/SY Item 100 Asphalt Seal Aggregate
(Size No. 8 OR 9M).

⑥ Match Existing Cross Slope.

⑦ Asphalt Tack Coat applied at 0.84 lb/SY.

NOT TO SCALE

TYPICAL SECTIONS
KY 84 RAMPS REHABILITATION
MEDIAN CROSSOVERS

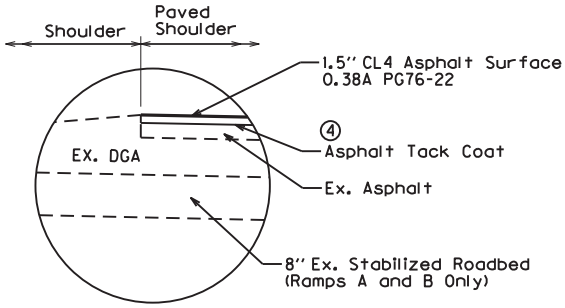


RAMP SECTION

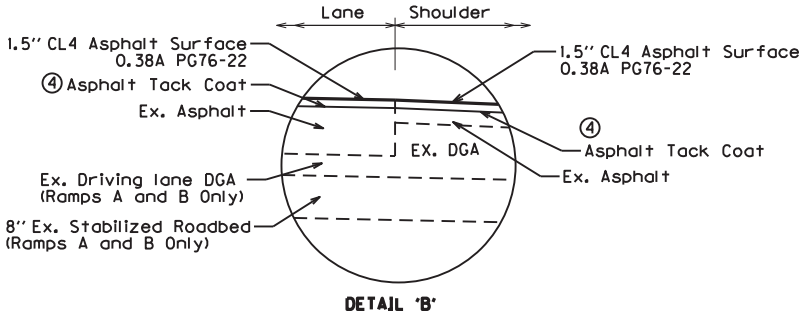
KY 84 RAMPS
PAVEMENT REHABILITATION

DRIVING LANES AND SHOULDERS

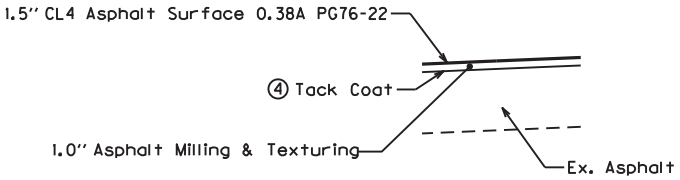
SURFACE --- 1.5" ASPHALT MILLING & TEXTURING
1.5" CL4 ASPHALT SURFACE 0.38A PG76-22



DETAIL 'A'



DETAIL 'B'



MEDIAN CROSSOVER DETAIL

① Match Existing Cross Slope.

② Asphalt Shoulder To Be Placed Concurrently With Driving Lane.
Construct Sawed Rumble Strips

③ Place Joint Adhesive At Construction Joint Between Paver Passes.

④ Asphalt Tack Coat Applied At 0.84 LB/SY

⑤ Asphalt Seal Coat Required From The Outside Edge Of The Paved Shoulder To A Point 2' Down The Ditch Or Fill Slope. (Not Reqeuired Where Existing Guardrail Is To Remain.)

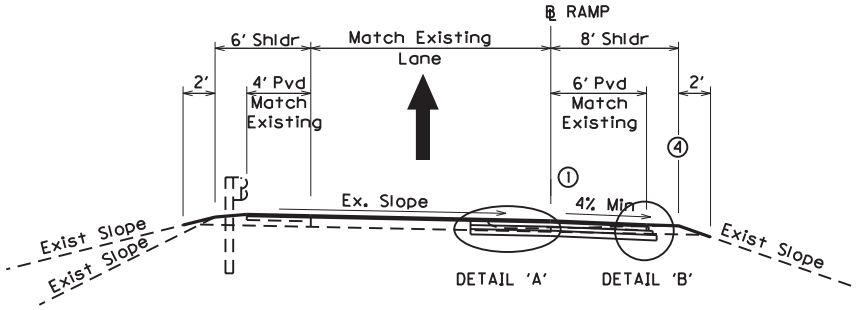
Two (2) Applications At The Rate Of
2.40 Lbs/SY Item 103 Asphalt Seal Coat
20 Lbs/SY Item 100 Asphalt Seal Aggregate
(Size No. 8 OR 9M).

MEDIAN CROSSOVERS
PAVEMENT REHABILITATION

SURFACE --- 1.0" ASPHALT MILLING & TEXTURING
1.5" CL4 ASPHALT SURFACE 0.38A PG76-22

NOT TO SCALE

TYPICAL SECTION
KY 84 RAMP D FULL DEPTH REPAIR
(WKP EASTBOUND ENTRANCE RAMP)



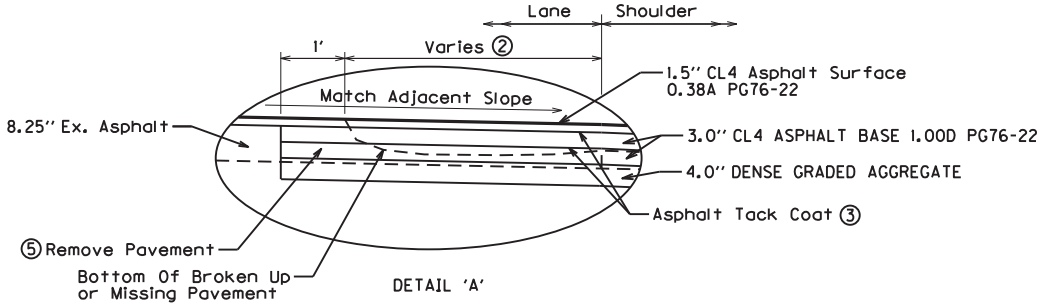
RAMP NORMAL SECTION

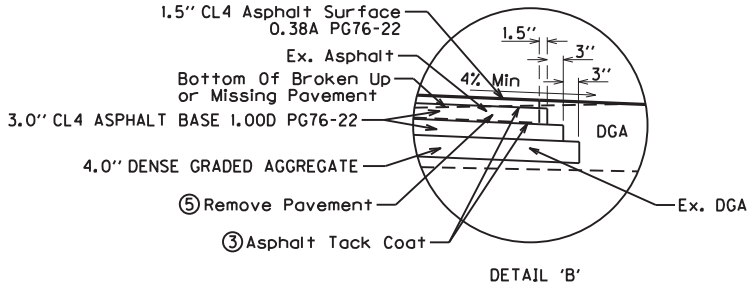
KY 84 RAMPS
FULL DEPTH REPAIR

DRIVING LANES AND SHOULDERS

APPROXIMATELY 1.5'' SURFACE ---- 1.5'' CL3 ASPHALT SURFACE 0.38A PG76-22

APPROXIMATELY 1.5'' SURFACE ---- 3.0'' CL4 ASPHALT BASE 1.00D PG76-22
3.0'' CL4 ASPHALT BASE 1.00D PG76-22
4.0'' DENSE GRADED AGGREGATE





① Asphalt Shoulder Surface Course To Be Placed Concurrently With Driving Lane. Construct Sawed Rumble Strips

② Full Depth Repair Limits To Be Determined By The Engineer.

③ Asphalt Tack Coat Applied At 0.84 LB/SY

④ Asphalt Seal Coat Required From The Outside Edge Of The Paved Shoulder To A Point 2' Down The Ditch Or Fill Slope. (Not Reqeuired Where Existing Guardrail Is To Remain.)

Two (2) Applications At The Rate Of
2.40 Lbs/SY Item 103 Asphalt Seal Coat
20 Lbs/SY Item 100 Asphalt Seal Aggregate
(Size No. 8 OR 9M).

⑤ Item No. 2091 'Remove Pavement' Shall Include Removal Of All Existing Pavement And Any Other Material To The Depth Required To Perform The Full Depth Repair

NOT TO SCALE

WESTERN KENTUCKY PARKWAY (WK-9001)
PAVEMENT REHABILITATION PROJECT
HARDIN COUNTY
ITEM NO. 4-20016.0

GENERAL SUMMARY

CODE	ITEM	UNIT	WK PARKWAY	KY 84 RAMP A	KY 84 RAMP B	KY 84 RAMP C	KY 84 RAMP D	(1) WK-9001 CURVE CORRETION	(1) WK-9001 DIGOUT AT KY 84	(1) KY 222 BRIDGE APPROACH	TOTAL	NOTES
78	Crushed Aggregate Size No. 2	Ton	2,113								**2,113**	(4)
1691	Flume Inlet Type 2	Each								4	**4**	
1718	Remove Inlet	Each								4	**4**	
1990	Delineator For Barrier Wall - B/W	Each								8	**8**	
2003	Relocate Temp Conc Barrier	Lin Ft	1,060								**1,060**	
2200	Roadway Excavation	CY							358		**358**	
2220	Flowable Fill	CY	26								**26**	(3)
2230	Embankment In Place	CY								3,324	**3,324**	
2262	Fence - Woven Wire Type 1	Lin Ft								200	**200**	
2265	Remove Fence	Lin Ft								200	**200**	
2483	Channel Lining Class II	Ton	168							25	**293**	(2)
2555	Concrete - Class B	CY								2	**2**	
2562	Temporary Signs	SF									**1,000**	
2568	Mobilization	LS									**1**	
2569	Demobilization	LS									**1**	
2575	Ditching And Shouldering	Lin Ft									**59,192**	
2650	Maintain & Control Traffic	LS									**1**	
2671	Portable Changeable Message Sign	Each									**2**	
2690	Safeloading	CY								5	**5**	
2701	Temp Silt Fence	LF						1,997	395	173	**2,565**	(5)
2703	Silt Trap Type A	Each						5	1	1	**7**	(5)
2704	Silt Trap Type B	Each	4					5	1	1	**11**	(5)
2705	Silt Trap Type C	Each	4					5	1	1	**11**	(5)
2706	Clean Silt Trap Type A	Each						5	1	1	**7**	(5)
2707	Clean Silt Trap Type B	Each	4					5	1	1	**11**	(5)
2708	Clean Silt Trap Type C	Each	4					5	1	1	**11**	(5)
2726	Staking	LS									**1**	
2775	Arrow Panel	Each									**2**	
2898	Relocate Crash Cushion	Each	1								**1**	
3171	Concrete Barier Wall Type 9T	LF	1,060								**1,060**	
5950	Erosion Control Blanket	SY	1,000								**1,000**	(5)
5963	Initial Fertilizer	Ton						0.3	0.1	0.1	**0.5**	(5)
5964	20-10-10 Fertilizer	Ton						0.2		0.1	**0.3**	(5)
5985	Seeding And Protection	SY						6,679	1,307	2,178	**10,164**	(5)
5992	Agricultural Limestone	Ton						4	1	1	**6**	(5)
6401	Flexible Delineator Post - M/W	Each	823	37	53	28	40				**981**	
6404	Flexible Delineator Post - M/Y	Each		24	26	16	14				**80**	
6511	Pave Striping-Temp Paint-6 In	Lin Ft									**256,784**	
6514	Pave Striping-Perm Paint-4 In	Lin Ft								1,022	**1,022**	
6542	Pave Striping-Thermo-6 In W	Lin Ft	143,190	1,179	1,237	748	707	4,993	986		**153,040**	
6543	Pave Striping-Thermo-6 In Y	Lin Ft	113,594	1,179	1,237	748	707	3,995	789		**122,249**	
6546	Pave Striping-Thermo-12 In W	Lin Ft	3,157								**3,157**	
6549	Pave Striping-Temp Rem Tape-B	Lin Ft									**4,000**	
6550	Pave Striping-Temp Rem Tape-W	Lin Ft									**2,000**	
6551	Pave Striping-Temp Rem Tape-Y	Lin Ft									**2,000**	
6568	Pave Marking-Thermo Stop Bar-24 In	Lin Ft		74		78					**152**	
8301	Remove Superstructure	LS								1	**1**	
8903	Crash Cushion TY VI Class BT TL3	Each	1								**1**	
10020NS	Fuel Adjustment	Doll									**96,864**	
10030NS	Asphalt Adjustment	Doll									**188,683**	
20362ES403	Shoulder Rumble Strips-Sawed	Lin Ft	227,188	2,358	2,474	1,496	1,414	7,989	1,579		**244,498**	
24489EC	Inlaid Pavement Markers	Each	1,578	15	16	9	9	50	10		**1,687**	
24891EC	Pave Mount Infrared Temp Equipment	SF	6,300,000	35,803	36,040	24,211	30,709	215,676	42,395	10,553	**6,695,387**	(7)
26136EC	Portable Queue Warning Alert System	Month									**10**	(6)
26137EC	Queue Warning PCMS	Month									**40**	(6)
26138EC	Queue Warning Portable Radar Sensors	Month									**40**	(6)

WESTERN KENTUCKY PARKWAY (WK-9001)
PAVEMENT REHABILITATION PROJECT
HARDIN COUNTY
ITEM NO. 4-20016.0

NOTES:

(1) Quantities have been carried forward from the Supplemental Plans section of the Proposal.

(2) Includes 168 Tons carried forward from the Drainage Summary and 100 Tons For filling in deeper eroded areas on fill slopes (see the Fill Slope Erosion Repair Detail).

(3) 15 CY carried forward from the KY 84 Concrete Slope Protection Repair Detail sheet and 10 CY carried forward from the KY 222 Concrete Slope Protection Repair Detail sheet. and 1 CY carried forwared from the Drainage Summary.

(4) 30 Tons carried forward from the KY 84 Concrete Slope Protection Repair Detail sheet and 20 Tons carried forward from the KY 222 Concrete Slope Protection Repair Detail sheet and 2,063 Tons carried forward from the Fill Slope Erosion Repair Summary.

(5) Estimated quantity. Use as directed by the Engineer.

(6) See the Special Note for Portable Queue Warning Alert System.

(7) See the Special Note for Paver Mounted Temperature Profiles.

SEE THE BRIDGE PLANS FOR BRIDGE WORK QUANTITIES

WESTERN KENTUCKY PARKWAY (WK-9001)
PAVEMENT REHABILITATION PROJECT
HARDIN COUNTY
ITEM NO. 4-20016.0

PAVEMENT SUMMARY

ITEM CODE	ITEM	UNIT	WK PARKWAY		KY 84 INTERCHANGE				(1)	(1)	(1)		TOTAL
			EASTBOUND	WESTBOUND	RAMP A	RAMP B	RAMP C	RAMP D	WK-9001 CURVE CORRETION	WK-9001 DIGOUT AT KY 84	KY 222 BRIDGE APPROACH	MAINTENANCE OF TRAFFIC FOR DIGOUT AT KY 84	
1	DENSE GRADED AGGREGATE (8) (9)	TON	8,510	9,353	167	108	90	231	1975	1603	143	259	**22,439**
100	ASPHALT SEAL AGGREGATE (2)	TON	987	1,084	19	13	10	12	35.5	7	3		**2,170.5**
103	ASPHALT SEAL COAT (3)	TON	118.4	130.1	2.3	1.5	1.3	1.4	4.3	0.8	0.4		**260.5**
190	LEVELING AND WEDGING PG64-22 (4)	TON							480		153		**633**
194	LEVELING AND WEDGING PG76-22 (4)	TON							434				**434**
219	CL4 ASPH BASE 1.00D PG76-22 (4)	TON	27,796	29,954	22	22	22	210	1977	1547	93	61	**61,704**
339	CL3 ASPH SURF 0.38D PG64-22 (4)	TON	4,987	5,426					383	72		38	**10,906**
342	CL4 ASPH SURF 0.38A PG76-22 (4)	TON	13,898	14,977	317	319	211	176	989	194	66		**31,147**
356	ASPHALT MATERIAL FOR TACK (6)	TON	166.9	180.1	1.7	1.7	1.1	1.2	12	3.7	0.5	0.2	**369.1**
2091	REMOVE PAVEMENT	SY						570		3189.5			**3,759.5**
2676	MOBILIZATION FOR MILLING & TEXTURING	LS											**1**
2677	ASPHALT PAVEMENT MILLING & TEXTURING (4) (7)	TON	40,355	43,562	337	334	231	150	3,221		35	27	**88,252**
20071EC	JOINT ADHESIVE (5)	LF	108,804	118,384	1,179	1,237	748	707	7,989	1,579	346		**240,973**
	HMA ELECTRONIC DELIVERY MGMT SYSTEM (10)	LS											

NOTES:

(1) Quantities have been carried forward from the Supplemental Plans section of the Proposal.
(2) Estimated at 20 pounds per square yard per application with two applications required.
(3) Estimated at 2.4 pounds per square yard per application with two applications required.
(4) Estimated at 110 pounds per square yard per inch depth.
(5) See Special Note For Longitudinal Pavement Joint Adhesive.
(6) Estimated at 0.84 pounds per square yard.
(7) The Contrator shall deliver 15,000 Tons of the millings to the Hardin County Maintenance Lot. The remainder of the millings will become the property of the Contractor.
(8) Estimated at 115 pounds per square yard per inch depth or 2.07 tons per cubic yard.
(9) Eroded/Washed Out DGA Shoulder Refill estimated at 3 inches depth.
(10) Contrary to the special note for HMA Electronic Delivery Management System (HMA e-Ticketing) this item will be considered incidental to the asphalt pavement bid items.

WESTERN KENTUCKY PARKWAY (WK-9001)
PAVEMENT REHABILITATION PROJECT
HARDIN COUNTY
ITEM NO. 4-20016.0

ITEM		PAVEMENT AREAS						(1)	(1)	(1)		
		WK PARKWAY		KY 84 INTERCHANGE								
		EASTBOUND	WESTBOUND	RAMP A	RAMP B	RAMP C	RAMP D	WK-9001 CURVE CORRETION	WK-9001 DIGOUT AT KY 84	KY 222 BRIDGE APPROACH	MAINTENANCE OF TRAFFIC FOR DIGOUT AT KY 84	TOTAL
		SQUARE YARDS										
1.5" CL4 ASPH SURF 0.38A PG76-22	(3)	168,458	181,542	3,845	3,871	2,557	2,139	11,982	2,349.5	797.25		**377,541.53**
1.5" CL3 ASPH SURF 0.38D PG64-22		60,447	65,769					4,640	876.5		455	**132,187.5**
3.0" CL4 ASPH BASE 1.00D PG76-22	(4)	168,458	181,542	133	133	133	1,273	11,982	6,567			**370,221**
3.5" CL4 ASPH BASE 1.00D PG76-22									2,404.5			**2,404.5**
4.0" CL4 ASPH BASE 1.00D PG76-22											276	**276**
4.5" CL4 ASPH BASE 1.00D PG76-22										375.25		**375.25**
VARIABLE DEPTH ASPHALT PAVEMENT MILLING & TEXTURING	(8)	411	411	133	133	133	133					**1,354**
1.0" ASPHALT PAVEMENT MILLING & TEXTURING	(3)	60,664	65,769									**126,433**
1.5" ASPHALT PAVEMENT MILLING & TEXTURING				3,845	3,805	2,557	1,569				325	**12,101**
4.0" ASPHALT PAVEMENT MILLING & TEXTURING		168,241	181,542									**349,783**
ASPHALT MATERIAL FOR TACK	(3)	397,363	428,853	3,978	4,004	2,690	2,842	28,604.25	8,867.5	1,172.5	455	**878,830.0**
FULL DEPTH DGA BASE									754.5			**754.5**
7.5" DENSE GRADED AGGREGATE									925.5			**925.5**
4.0" DENSE GRADED AGGREGATE	(6)						570		2,404.5		309	**3,283.5**
DENSE GRADED AGGREGATE SHOULDER WEDGE	(7)							954		69	91	**1,114**
REMOVE PAVEMENT	(6)						570		3,189.5			**3,759.5**
ERODED/WASHED OUT DGA SHOULDER REFILL	(5)	49,334	54,220	969	628	522	578					**106,251**
ASPHALT SEAL AGGREGATE	(2) (5)	98,668	108,440	1,938	1,255	1,044	1,156	3,551.0	702	307.50		**217,061.50**
ASPHALT SEAL COAT	(2) (5)	98,668	108,440	1,938	1,255	1,044	1,156	3,551.0	702	307.50		**217,061.50**

NOTES:

(1) Quantities have been carried forward from the Supplemental Plans section of the Proposal.
(2) Area for two applications shown.
(3) Eastbound totals include area for permanent median crossover.
(4) Ramp areas include quantity for Vertical Pavement Tapers (see detail) and area for two 3 inch courses shown for Ramp D full depth repair areas.
(5) Mainline quantities include area for extra width at existing guardrail end flare-outs.
(6) Ramp D quantity for ramp full depth repair areas.
(7) Quantity shown as Cubic Yards.
(8) Includes area of additional milling depth For Vertical Pavement Tapers (See detail).

WESTERN KENTUCKY PARKWAY (WK-9001)
PAVEMENT REHABILITATION PROJECT
HARDIN COUNTY
ITEM NO. 4-20016.00

GUARDRAIL SUMMARY

LOCATION					(2) ITEM										
					2381	21802EN	20432ES112	2929	25079ED	2367	2369	2373	1982	1987
					REMOVE GUARDRAIL	GR STEEL W BEAM S FACE (7 FT POST)	REMOVE CRASH CUSHION	CRASH CUSHION TYPE IX	THRIE BEAM GUARDRAIL TRANS. TL-2	END TREATMENT TYPE			DELINEATOR MONO DIR.	DELINEATOR BI DIR.
										1	2A	3	W	W
STATIONS			LOC (3)		(LF)		EACH							
EASTBOUND WK PKWY														
7703+75.1	To	7720+82.5	RT		1715.2	1662.5				1	1		34	
7741+64.6	To	7770+00.0	RT	(5)	2837.8	2787.5				1			41	
7821+18.0	To	7824+68.4	RT		353.4	300.0				1	1		7	
7835+33.8	To	7841+37.1	RT		603.3	550.0				1	1		6	
7902+51.9	To	7906+55.6	RT		403.8	350.0				1	1		4	
7915+95.1	To	7920+68.4	RT		477.3	425.0				1	1		10	
7936+37.6	To	7950+64.3	RT		1427.2	1375.0				1	1		14	
7954+51.0	To	7966+79.1	RT		1228.2	1175.0				1	1		12	
7971+04.1	To	7978+31.8	RT		727.7	675.0				1	1		7	
7990+83.0	To	7994+10.2	RT		327.6	275.0				1	1		3	
8001+42.0	To	8005+83.1	RT		441.1	387.5				1	1		4	
8011+43.3	To	8019+31.1	RT		787.7	737.5				1	1		8	
8058+77.7	To	8064+06.0	RT		528.3	475.0				1	1		5	
8072+02.3	To	8091+06.9	RT		1903.2	1850.0				1	1		27	
8128+27.5	To	8133+05.0	RT		477.5	425.0				1	1		5	
8152+89.4	To	8163+05.3	RT		1015.9	962.5				1	1		10	
8174+35.5	To	8176+89.5	RT		254.0	200.0				1	1		3	
TOTAL EASTBOUND					15509.2	14612.5	0	0	0	17	16		200	0
WK PWKY MEDIAN														
7745+04.0	To	7745+63.0	MED				1	1						
7746+00.7	To	7746+59.5	MED				1	1						
7877+26.9	To	7877+85.8	MED				1	1						
7878+25.3	To	7878+84.4	MED				1	1						
8081+25.0	To	8081+84.5	MED				1	1						
8082+22.9	To	8082+82.3	MED				1	1						
8175+78.1	To	8176+37.3	MED				1	1						
8176+74.4	To	8177+33.4	MED				1	1						
TOTAL WK PWKY MEDIAN					0.0	0.0	8	8	0	0	0		0	0

WESTERN KENTUCKY PARKWAY (WK-9001)
PAVEMENT REHABILITATION PROJECT
HARDIN COUNTY
ITEM NO. 4-20016.00

GUARDRAIL SUMMARY

LOCATION					(2) ITEM										
					2381	21802EN	20432ES112	2929	25079ED	2367	2369	2373	1982	1987
					REMOVE GUARDRAIL	GR STEEL W BEAM S FACE (7 FT POST)	REMOVE CRASH CUSHION	CRASH CUSHION TYPE IX	THRIE BEAM GUARDRAIL TRANS. TL-2	END TREATMENT TYPE			DELINEATOR MONO DIR.	DELINEATOR BI DIR.
										1	2A	3	W	W
STATIONS			LOC (3)		(LF)		EACH							
WESTBOUND WK PWKY														
7678+35.6	To	7694+40.1	RT		1603.1	1550.0				1	1		20	
7705+32.4	To	7721+51.9	RT		1613.1	1562.5				1	1		32	
7740+93.4	To	7757+45.9	RT		1651.2	1600.0				1	1		23	
7762+31.7	To	7772+46.5	RT		1014.4	962.5				1	1		14	
7786+79.6	To	7794+89.8	RT		813.6	762.5				1	1		16	
7803+84.5	To	7811+34.8	RT		750.8	700.0				1	1		8	
7878+02.8	To	7880+42.3	RT		240.0	187.5				1	1		5	
7895+01.2	To	7899+04.2	RT		403.6	350.0				1	1		5	
7903+75.5	To	7908+91.3	RT		515.8	462.5				1	1		5	
7948+74.5	To	7952+02.5	RT		328.8	275.0				1	1		3	
7957+30.3	To	7959+83.5	RT		253.3	200.0				1	1		3	
7964+52.3	To	7967+55.1	RT		303.4	250.0				1	1		3	
7976+64.8	To	7982+18.0	RT		553.2	500.0				1	1		6	
8002+52.9	To	8005+56.0	RT		303.1	250.0				1	1		3	
8014+29.4	To	8023+30.1	RT		900.8	850.0				1	1		9	
8059+77.1	To	8068+29.8	RT		852.7	800.0				1	1		9	
8074+00.9	To	8094+52.6	RT		2053.0	2000.0				1	1		28	
8130+50.5	To	8132+64.8	RT		214.3	162.5				1	1		2	
8156+99.7	To	8164+52.7	RT		753.0	700.0				1	1		8	
8176+20.3	To	8179+28.9	RT		309.1	262.5				1	1		3	
TOTAL WESTBOUND					15430.3	14387.5	0	0	0	20	20		205	0
KY 84 RAMP C														
311+54.6	To	313+33.5	RT	(4)	212.5	162.5				1			2	
311+84.8	To	313+38.7	LT	(4)	187.5	137.5				1				
KY 84 RAMP D														
400+35.1	To	401+55.7	LT	(4)	150.0	150.0					1			
TOTAL RAMPS					550.0	450.0				2	1		2	0

WESTERN KENTUCKY PARKWAY (WK-9001)
PAVEMENT REHABILITATION PROJECT
HARDIN COUNTY
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GUARDRAIL SUMMARY

LOCATION					(2)	ITEM									
					2381	21802EN	20432ES112	2929	25079ED	2367	2369	2373	1982	1987
					REMOVE GUARDRAIL	GR STEEL W BEAM S FACE (7 FT POST)	REMOVE CRASH CUSHION	CRASH CUSHION TYPE IX	THRIE BEAM GUARDRAIL TRANS. TL-2	END TREATMENT TYPE			DELINEATOR MONO DIR.	DELINEATOR BI DIR.
										1	2A	3	W	W
STATIONS			LOC (3)		(LF)		EACH							
EB WK-9001 CURVE CORRECTION				(1)										
770+00.00	To	771+36.88	RT	(5)	137.25	137.0					1		3	
783+45.20	To	805+88.86	RT		958.5	2237.0					1	1	45	
801+06.41	To	805+88.86	RT		478.5									
TOTAL WKP CURVE CORRECTION					1574.25	2374.0	0	0	0	0	2	1	48	0
EB WK-9001 DIGOUT AT KY 84				(1)										
575+51.87	To	578+05.56	RT		253.0	203.0				1	1		5	
TOTAL EB WKP DIGOUT AT KY 84					253.0	203.0	0	0	0	1	1	0	5	0
KY 222 BRIDGE APPROACH				(1)										
0+46.00	To	0+80.62	RT		46.0	44.75								
1+19.55	To	1+81.44	RT		89.0	66.0			1					
4+11.11	To	5+50.92	RT		163.0	139.25			1					2
0+40.46	To	1+83.29	LT		166.0	134.75			1					2
4+12.96	To	5+50.92	LT		161.0	138.0			1					2
TOTAL KY 222 BRIDGE APPROACH					625.0	522.75	0	0	4	0	0	0	0	6
TOTAL					**33941.8**	**32549.8**	**8**	**8**	**4**	**40**	**40**	**1**	**460**	**6**

(1) Quantities have been carried forward from the Supplemental Plans section of the Proposal.

(2) Includes removing existing end treatments. Salvage existing guardrail per the Standard Specifications, current edition, Section 719.03.07. The "Guardrail Delivery Verification Sheet" must be completed at the job site and provided to the Central Sign Shop and Recycle Center (formerly the Baily Bridge Yard) representative when the delivery is made. All wood posts shall become property of the contractor to be disposed of off site.

(3) Location relative to direction of travel for WKP. Location relative to stationing for KY 84 ramps and KY 222.

(4) Tie to existing guardrail.

(5) One continuous string of guardrail.

KENTUCKY TRANSPORTATION CABINET
Department of Highways
DIVISION OF CONSTRUCTION

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GUARDRAIL DELIVERY VERIFICATION SHEET

SECTION 1: CONTRACT INFORMATION

CONTRACT ID	**CONTRACTOR**
SECTION ENGINEER	**DISTRICT & COUNTY**

SECTION 2: GUARDRAIL DESCRIPTIONS & QUANTITIES

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 maintenance facility	LF		
Damaged posts to maintenance facility	EACH		

SECTION 3: REQUIRED SIGNATURES PART 1 *(required before leaving project site)*

SECTION ENGINEER'S REPRESENTATIVE NAME (*(Print.)*	
SECTION ENGINEER'S REPRESENTATIVE SIGNATURE	**DATE**
CONTRACTOR'S REPRESENTATIVE NAME *(Print.)*	
CONTRACTOR'S REPRESENTATIVE SIGNATURE	**DATE**

SECTION 4: REQUIRED SIGNATURES PART 2 *(required after arrival at Bailey Bridge Yard)*

Note: All material on the truck must be counted & the quantity received column completed before signatures.

BAILEY BRIDGE YARD REPRESENTATIVE NAME *(Print.)*	
BAILEY BRIDGE YARD REPRESENTATIVE SIGNATURE	**DATE**
CONTRACTOR'S REPRESENTATIVE NAME *(Print.)*	
CONTRACTOR'S REPRESENTATIVE SIGNATURE	**DATE**

Note: 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 by	**DATE**

WESTERN KENTUCKY PARKWAY (WK-9001)
PAVEMENT REHABILITATION PROJECT
HARDIN COUNTY
ITEM NO. 4-20016.00

FILL SLOPE EROSION REPAIR SUMMARY			
			CRUSHED AGGREGATE SIZE NO. 2 (1)
		ITEM CODE	78
		UNIT	TON
STA - STA	SIDE	EST. WIDTH (2)	
7684+29 - 7685+76	Westbound	13	42
7679+03 - 7679+10	Westbound	12	2
7680+08 - 7682+04	Westbound	15	65
7686+91 - 7686+99	Westbound	15	3
7690+60 - 7690+98	Westbound	16	14
7692+15 - 7692+23	Westbound	15	3
7692+67 - 7692+96	Westbound	16	10
7693+40 - 7693+74	Westbound	15	11
7706+86 - 7706+93	Westbound	16	2
7708+04 - 7708+24	Westbound	18	8
7708+41 - 7708+61	Westbound	18	8
7708+97 - 7709+49	Westbound	14	16
7712+33 - 7712+78	Westbound	15	15
7714+39 - 7714+89	Eastbound	20	22
7714+40 - 7715+26	Westbound	13	25
7715+72 - 7716+38	Eastbound	21	31
7718+85 - 7719+16	Westbound	14	10
7746+23 - 7746+52	Westbound	13	8
7747+20 - 7747+61	Westbound	15	14
7748+27 - 7748+97	Westbound	13	20
7749+64 - 7749+74	Westbound	13	3
7750+11 - 7750+19	Westbound	10	2
7750+35 - 7751+15	Westbound	16	28
7751+41 - 7751+55	Westbound	15	5
7751+88 - 7752+59	Westbound	15	24
7752+64 - 7753+77	Eastbound	17	43
7752+95 - 7753+42	Westbound	17	18
7754+29 - 7755+26	Eastbound	17	36
7754+42 - 7755+05	Westbound	15	21
7755+55 - 7755+74	Eastbound	17	7
7756+11 - 7757+29	Eastbound	17	45

WESTERN KENTUCKY PARKWAY (WK-9001)
PAVEMENT REHABILITATION PROJECT
HARDIN COUNTY
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FILL SLOPE EROSION REPAIR SUMMARY			
			CRUSHED AGGREGATE SIZE NO. 2 (1)
		ITEM CODE	78
		UNIT	TON
7756+86 - 7757+61	Westbound	13	22
7758+29 - 7758+55	Eastbound	17	10
7761+99 - 7762+62	Eastbound	18	25
7762+08 - 7762+19	Westbound	14	3
7762+92 - 7763+66	Eastbound	18	29
7764+10 - 7764+37	Westbound	16	10
7765+77 - 7766+02	Eastbound	18	10
7766+37 - 7767+63	Westbound	16	45
7767+72 - 7767+88	Westbound	15	5
7769+54 - 7769+79	Westbound	14	8
7769+86 - 7770+35	Eastbound	17	19
7786+74 - 7789+43	Westbound	15	90
7790+34 - 7790+67	Westbound	13	10
7793+86 - 7794+82	Westbound	16	34
7801+67 - 7802+01	Eastbound	16	12
7803+61 - 7806+10	Eastbound	15	83
7803+70 - 7807+28	Westbound	13	103
7837+49 - 7840+29	Eastbound	19	118
7896+77 - 7896+92	Westbound	13	4
7898+34 - 7898+41	Westbound	11	2
7903+68 - 7903+77	Eastbound	16	3
7903+89 - 7903+96	Westbound	13	2
7904+13 - 7904+24	Westbound	15	4
7904+23 - 7904+30	Eastbound	16	2
7906+09 - 7906+26	Eastbound	13	5
7918+05 - 7918+12	Eastbound	16	2
7919+85 - 7920+02	Eastbound	17	6
7938+45 - 7941+01	Eastbound	16	91
7942+98 - 7943+94	Eastbound	15	32
7945+35 - 7946+31	Eastbound	15	32
7949+99 - 7950+12	Eastbound	15	4
7977+91 - 7978+18	Westbound	13	8
7978+84 - 7979+15	Westbound	13	9

WESTERN KENTUCKY PARKWAY (WK-9001)
PAVEMENT REHABILITATION PROJECT
HARDIN COUNTY
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FILL SLOPE EROSION REPAIR SUMMARY			
			CRUSHED AGGREGATE SIZE NO. 2 (1)
		ITEM CODE	78
		UNIT	TON
7979+33 - 7979+84	Westbound	15	17
7980+34 - 7980+78	Westbound	15	15
7993+04 - 7994+29	Eastbound	17	47
8003+04 - 8003+33	Eastbound	16	10
8003+56 - 8004+03	Westbound	15	16
8003+74 - 8003+93	Eastbound	16	7
8004+65 - 8004+73	Eastbound	17	3
8005+60 - 8005+85	Eastbound	16	9
8014+07 - 8014+50	Westbound	15	14
8014+98 - 8015+66	Westbound	14	21
8016+08 - 8016+36	Westbound	13	8
8016+81 - 8017+07	Westbound	11	6
8018+27 - 8018+37	Eastbound	15	3
8018+70 - 8019+16	Eastbound	16	16
8060+29 - 8060+39	Eastbound	15	3
8060+67 - 8060+72	Eastbound	16	2
8061+05 - 8061+12	Eastbound	17	3
8061+80 - 8061+87	Eastbound	13	2
8062+20 - 8062+27	Eastbound	16	2
8062+79 - 8062+94	Eastbound	17	6
8073+02 - 8075+12	Eastbound	14	65
8075+93 - 8076+02	Eastbound	13	3
8077+23 - 8077+40	Eastbound	14	5
8078+48 - 8078+66	Eastbound	13	5
8078+87 - 8079+12	Westbound	12	7
8079+33 - 8079+67	Eastbound	14	11
8083+04 - 8084+38	Eastbound	16	48
8085+21 - 8085+40	Eastbound	16	7
8086+49 - 8086+71	Eastbound	15	7
8088+30 - 8088+40	Eastbound	16	4
8088+78 - 8088+89	Eastbound	15	4
8131+04 - 8131+46	Westbound	11	10
8131+95 - 8132+61	Eastbound	17	25

WESTERN KENTUCKY PARKWAY (WK-9001)
PAVEMENT REHABILITATION PROJECT
HARDIN COUNTY
ITEM NO. 4-20016.00

FILL SLOPE EROSION REPAIR SUMMARY			
			CRUSHED AGGREGATE SIZE NO. 2 (1)
		ITEM CODE	78
		UNIT	TON
8132+84 - 8133+05	Eastbound	17	8
8153+90 - 8155+90	Eastbound	13	58
8156+27 - 8156+78	Eastbound	15	17
8159+11 - 8159+34	Eastbound	15	8
8160+29 - 8164+21	Westbound	17	148
8161+95 - 8162+29	Eastbound	13	10
		TOTAL	2,063

(1) Quantity based on 4 inch average depth & estimated at 100 pounds per square yard per inch of depth. Quantity carried forward to the General Summary.
(2) Average width as measured from the shoulder break point.

See the Fill Slope Erosion Repair detail sheet for additional information.
See the General Summary for a quantity of Channel Lining Class II estimated to be needed to fill in deeper eroded areas.

WESTERN KENTUCKY PARKWAY (WK-9001)
PAVEMENT REHABILITATION PROJECT
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DRAINAGE SUMMARY

		CULVERT PIPE 15 IN (3)	CULVERT PIPE 18 IN (3)	PIPE CULVERT HEADWALL - 15 IN	PIPE CULVERT HEADWALL - 18 IN	FLOWABLE FILL (2)	CHANNEL LINING CLASS II (2)	CHANNEL LINING CLASS III	REPLACE GRATE	CLEAN OUT PIPE	NOTES
		461	462	1202	1204	2220	2483	2484	20366NN	(4)	
		LIN FT	LIN FT	EACH	EACH	CU YD	TON	TON	EACH	LIN FT	
STATION	Location										
7697+00 - 7698+80	MEDIAN						100				CONST 170' - 2' FB DITCH
7698+12	X-DRAIN									122	24" RCP CROSS DRAIN W/ DROP BOX INLET IN MEDIAN
7706+80 - 7707+10	MEDIAN						17				CONST 30' - 2' FB DITCH
7761+25 - 7761+46	MEDIAN						12				CONST 21' - 2' FB DITCH
7794+80	RIGHT								1		18" SLOPED & PARALLEL HEADWALL
7812+10	LEFT								1	54	15" SLOPED & PARALLEL HEADWALL
7822+91	RIGHT	8		1							HEADWALL DETACHED FROM 15" RCP
7852+59	LEFT		8		1			5			HEADWALL DETACHED FROM 18" RCP
7875+55	LEFT						10				FILL ERODED AREA AT HEADWALL
7919+59 - 7920+00	MEDIAN						29				CONST 41' - 2' FB DITCH
8123+53	RIGHT					1					EROSION AT 15" CMP/HEADWALL CONNECTION
8238+01	RIGHT							10			FILL ERODED AREA IN OUTLET DITCH
	Total	8	8	1	1	1	168	15	2		

(1) Removal of existing pipe and headwall will be incidental to their respective bid items.
(2) Quantity carried forward to the General Summary
(3) Refilling any washed out areas over the pipe with an embankment material approved by the Engineer will be incidental to the unit bid price for the pipe.
(4) Cleaning out pipes 36" or less is incidental to the Ditching & Shouldering Bid Item.

WESTERN KENTUCKY PARKWAY (WK-9001)
PAVEMENT REHABILITATION PROJECT
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FILL AND CAP SINKHOLE SUMMARY					
					FILL AND CAP SINKHOLE
				ITEM NO.	2471
Station	Milepoint	Location	Plan Area (SY)	Approx. Depth (Ft)	EACH
7720+66	120.50	Median	10	5.0	1
7881+94	123.53	Rt	3	3.3	1
7882+34	123.56	Rt	2	3.7	1
7926+21	124.38	Lt	4	3.7	1
7926+39	124.39	Lt	3	2.2	1
8031+70	126.38	Lt	6	4.5	1
8187+07	129.31	Lt	3	9.0	1
8189+82	129.36	Lt	15	3.6	1
8189+91	129.36	Lt	14	5.4	1
8191+32	129.39	Lt	2	3.2	1
				Total	**10**

Sinkholes to be repaired based on Standard Drawing No. BGX-018 "Treatment Of Open Sinkholes".

Contractor is to obtain prior approval from the Engineer before performing any sinkhole repairs.

GENERAL NOTES
WESTERN KENTUCKY PARKWAY (WK-9001) REHABILITATION PROJECT
HARDIN COUNTY
ITEM NO. 4-20016.00

THIS PROJECT IS A FULLY CONTROLLED ACCESS HIGHWAY

I. GENERAL

Perform all work in accordance with the Department's 2019 Standard Specifications, Supplemental Specifications, applicable Special Provisions, and Standard Drawings except as specified in these notes or elsewhere in this proposal. Article references are to the Standard Specifications.

All existing mile markers within the project limits have been shown on the plan sheets along with their station based on the centerlines shown in the plans. These can be used to relate the stations shown in the summaries to their location in the field.

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 the 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 Maintenance Of Traffic Plan.

B. PAVEMENT STRIPING. Use Pave Striping-Thermo-6 Inch for permanent striping on the WKP and KY 84 ramps. Use Pave Striping-Perm Paint-4 Inch for permanent striping on KY 222.

C. EROSION CONTROL BLANKET. Erosion Control Blanket is to be placed on any disturbed areas in the median, roadway side slopes, or other areas disturbed where work is required in the proposal.

III. CONSTRUCTION METHODS

A. MAINTAIN AND CONTROL TRAFFIC. See Maintenance Of Traffic Plan.

B. SITE PREPARATION. Be responsible for all site preparation. This item shall include, but is not limited to, clearing and grubbing, excavation and backfilling, embankments, removal of obstructions or any other items, and disposal of materials. All site preparation shall be only as approved or directed by the Engineer. Except for the bid items listed, site preparation will not be measured for payment but shall be incidental to the other items of work.

C. MILLING AND PAVING. After milling, where milling is called for in the proposal, correct settlement over pipes and culverts and remove de-bonded or flaking courses.

D. 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.

E. FINAL DRESSING, CLEANUP, AND SEEDING. After all work is completed, completely remove all debris from the job site. Perform Final Dressing Class A on all disturbed areas. This item is incidental to the other items of the work. Sow all disturbed earthen areas with the seed mixtures specified by the Engineer or place Erosion Control blanket on the areas if directed to do so by the Engineer.

F. PAVEMENT STRIPING AND PAVEMENT MARKERS. Permanent striping will be in accordance with Section 714, except that:

(1) Striping will be 6” in width (4” on KY 222), except 12” in gore areas;
(2) Permanent or Temporary Striping will be in place before a lane is opened to traffic.
(3) Permanent striping will be Pave Striping-Thermo-6 or 12 Inch W or Y on the WKP and KY 84 ramps, Permanent striping will be Pave Striping-Perm Paint-4 Inch W or Y on KY 222;
(4) Existing pavement marker removal shall be incidental to Milling.
(5) Inlaid Pavement Markers will be required.

G. ON SITE INSPECTION. Each Contractor submitting a bid for this work shall make a thorough inspection of the site prior to submitting a bid and shall be thoroughly familiarized 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. The Department will not honor any claims resulting from site conditions.

H. PROPERTY DAMAGE. The Contractor shall be responsible for all damage to public and/or private property resulting from the Contractor’s work. Restore all disturbed features in like kind materials and design to the existing or proposed grades, as applicable, at no additional cost to the Department.

I. 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 conclusion as to the conditions encountered. The department does not give any guarantee as to the accuracy of the data and will not consider any claim for additional compensation if the conditions encountered are not in accordance with the information shown.

J. UTILITY CLEARANCE. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. The Contractor shall be responsible for repairing all utility damage that occurs as a result of his operations at no additional cost to the Department. See the Special Note for Utility Clearance Impact on Construction.

IV. METHOD OF MEASUREMENT

Except as specified in these notes, or elsewhere in the drawings or this proposal, the method of measurement will be in accordance with the Standard Specifications.

A. MAINTAIN AND CONTROL TRAFFIC. See Maintenance Of Traffic Plan.

B. SITE PREPARATION. Other than the bid items listed, the Department will not measure Site Preparation for payment but shall be incidental to other items of work.

C. INLAID PAVEMENT MARKERS AND PERMANENT STRIPING. Pave Striping-Thermo 6 Inch, Pave Striping-Perm Paint 4 Inch are measured per linear foot. Inlaid Pavement Markers are measured as each

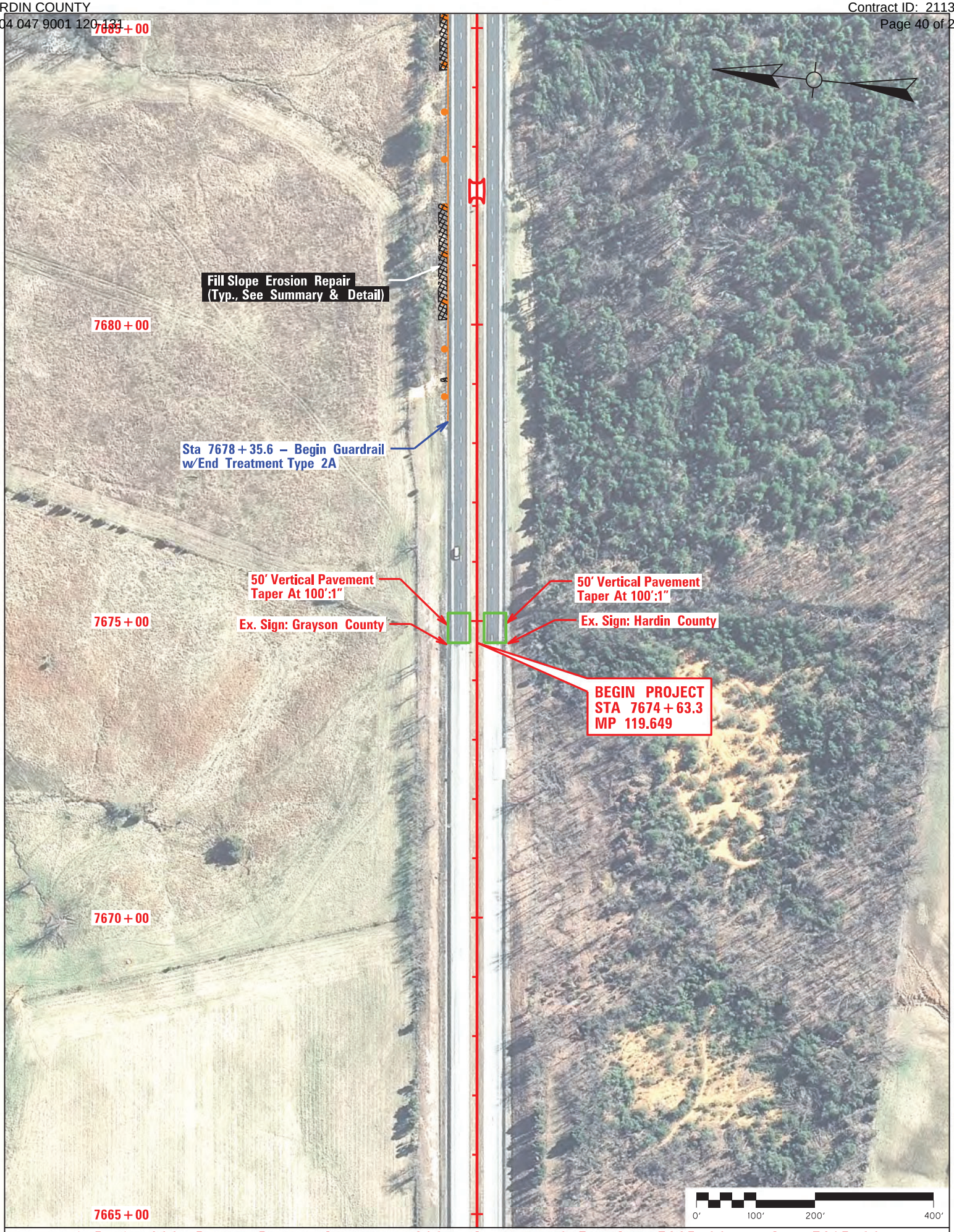
V. BASIS OF PAYMENT

Except as specified in these notes, or elsewhere in the drawings or this proposal, basis of payment will be in accordance with the Standard Specifications. 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 the Contractor's expense.

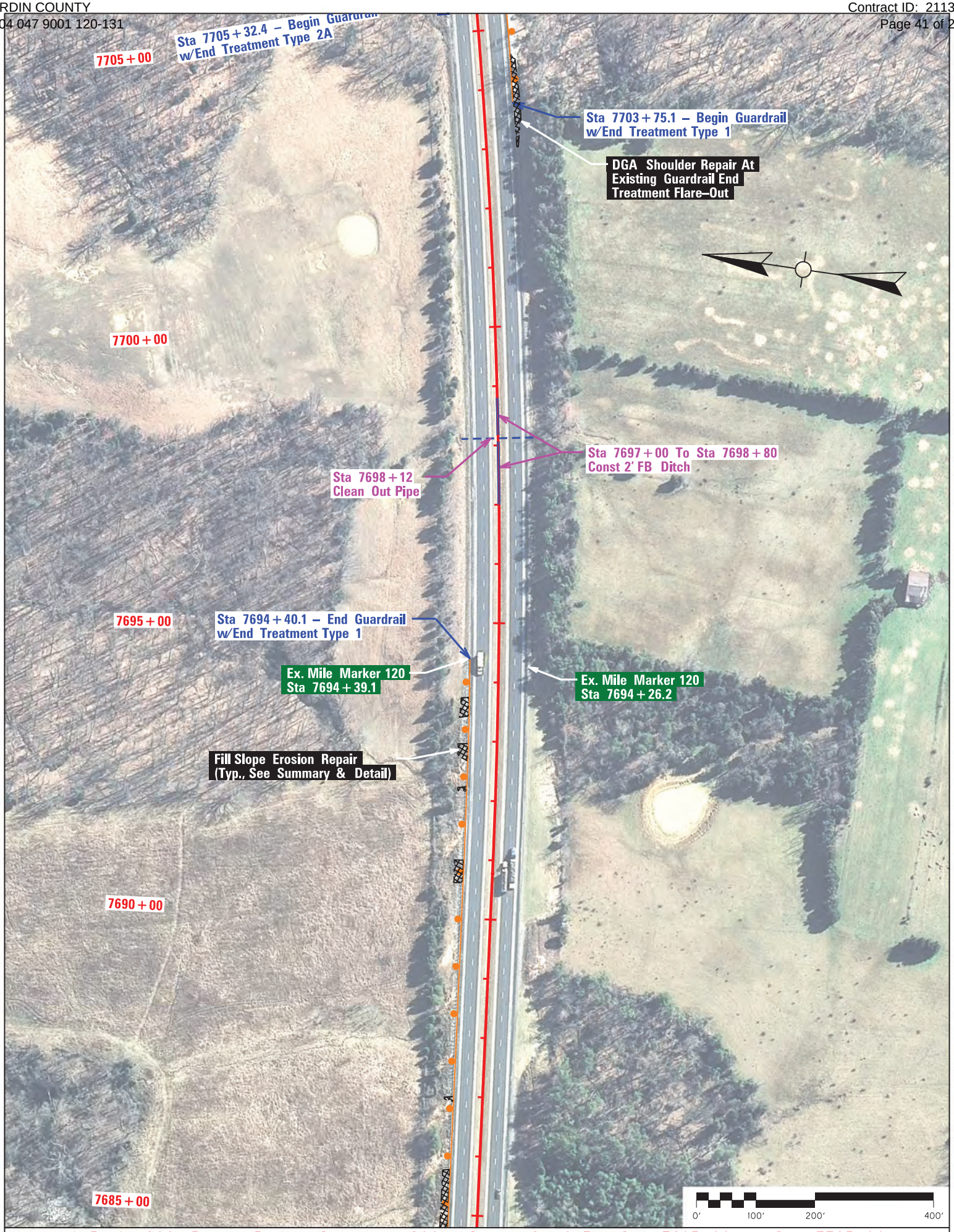
A. MAINTAIN AND CONTROL TRAFFIC. See Maintenance Of Traffic Plan.

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.

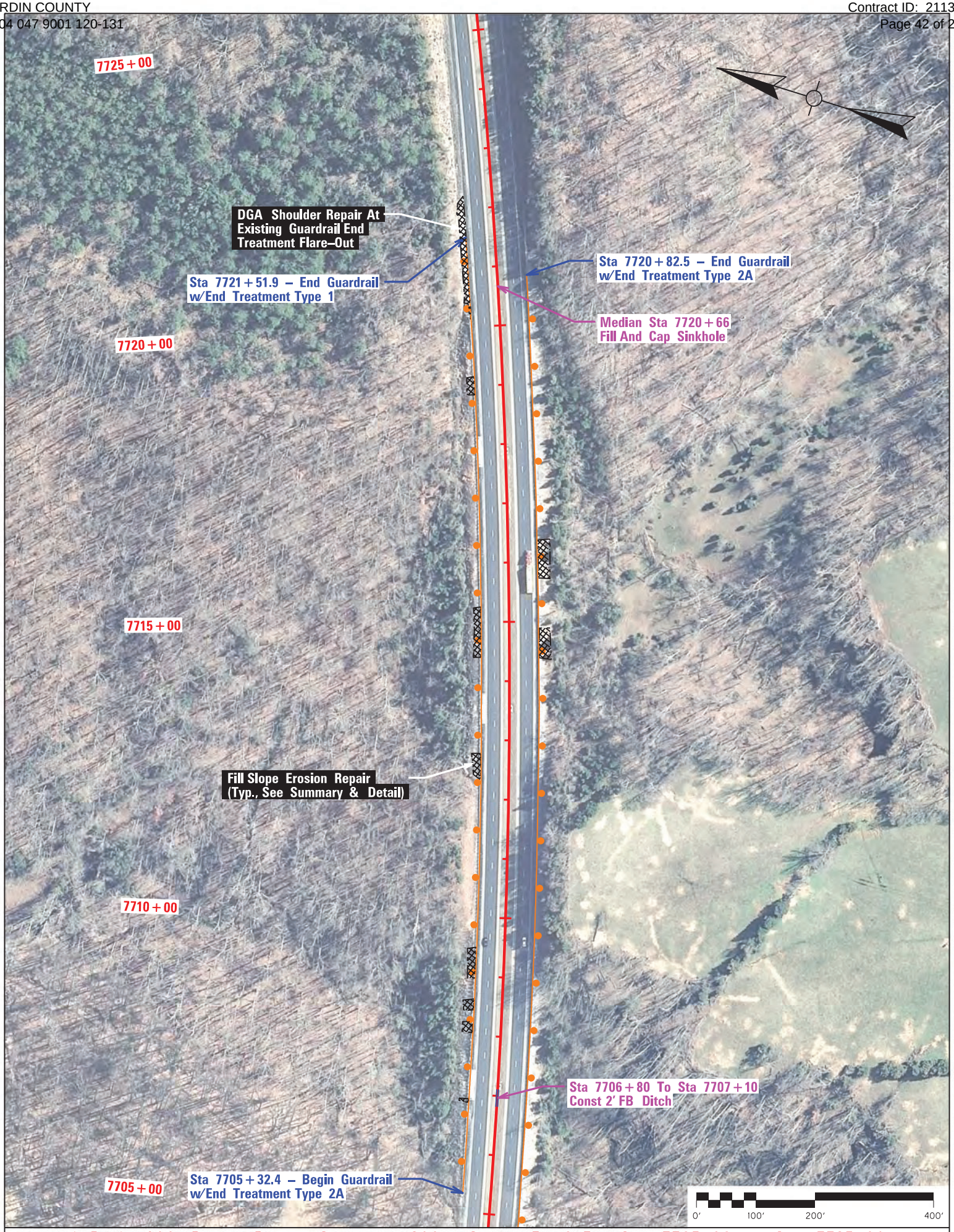
D. INLAID PAVEMENT MARKERS AND PERMANENT STRIPING. See the General Summary Sheet.



WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 1 of 31 - Sta 7665+00 to Sta 7685+00

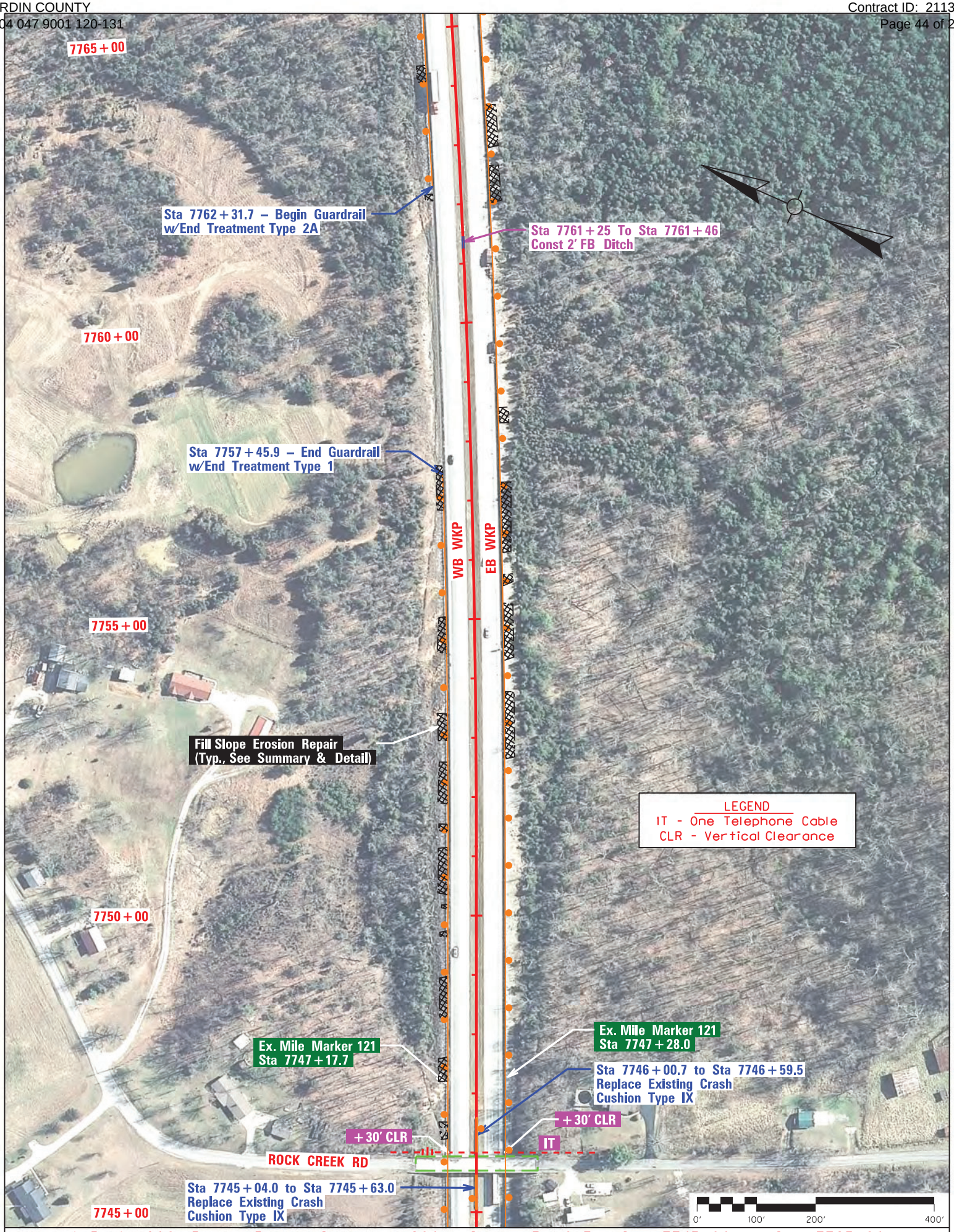


WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 2 of 31 - Sta 7685+00 to Sta 7705+00

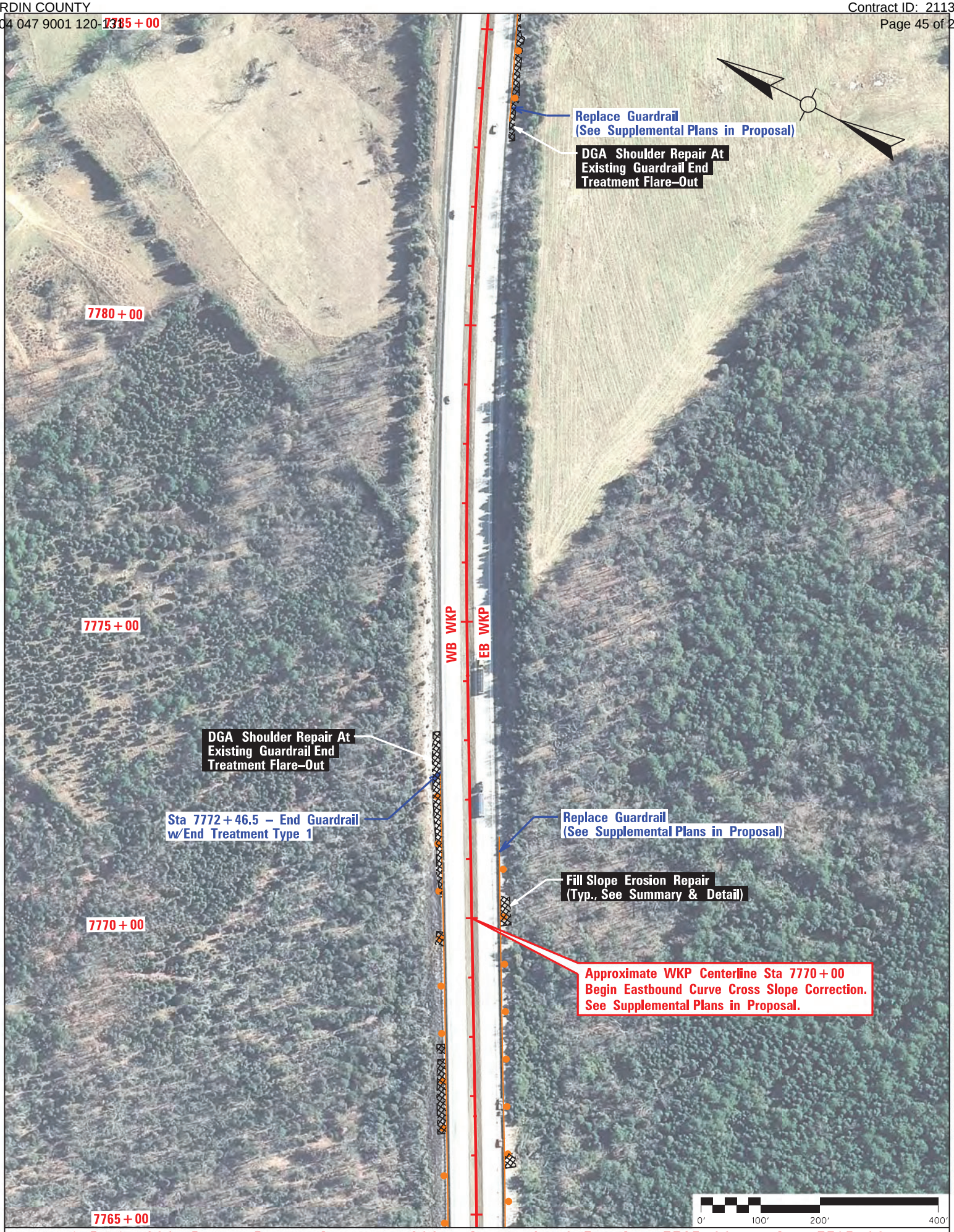


WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 3 of 31 - Sta 7705+00 to Sta 7725+00

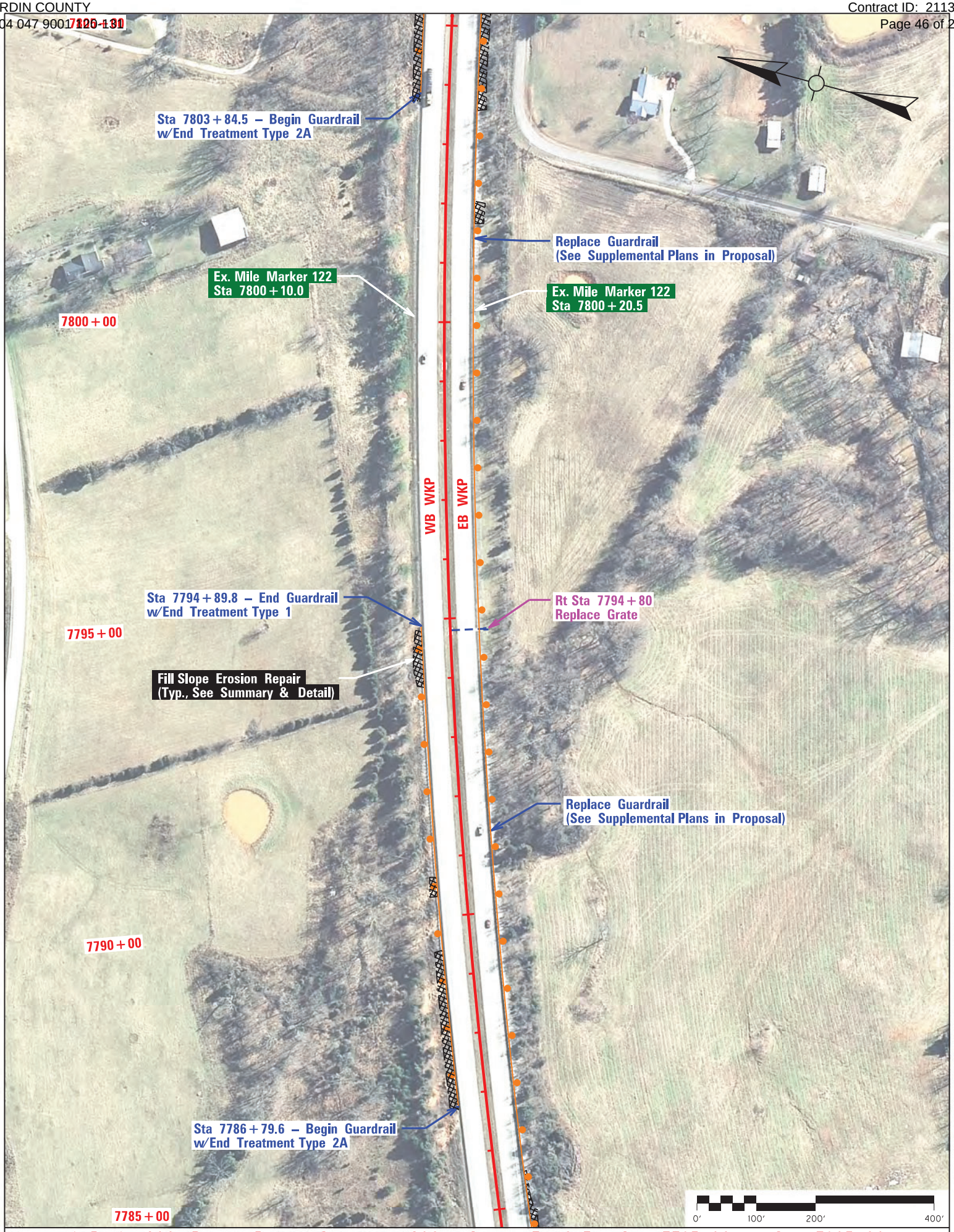
WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 4 of 31 - Sta 7725+00 to Sta 7745+00



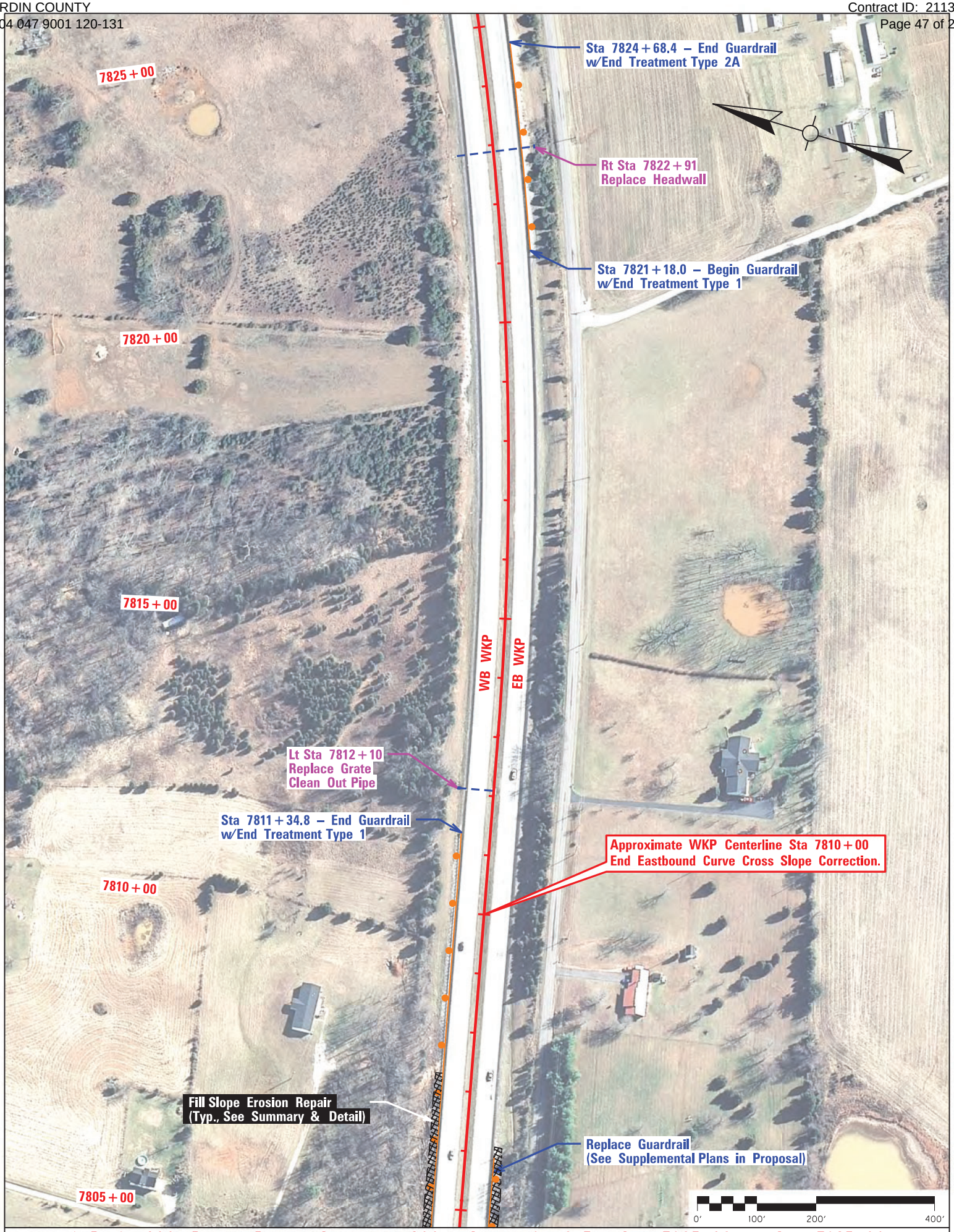
WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 5 of 31 - Sta 7745+00 to Sta 7765+00



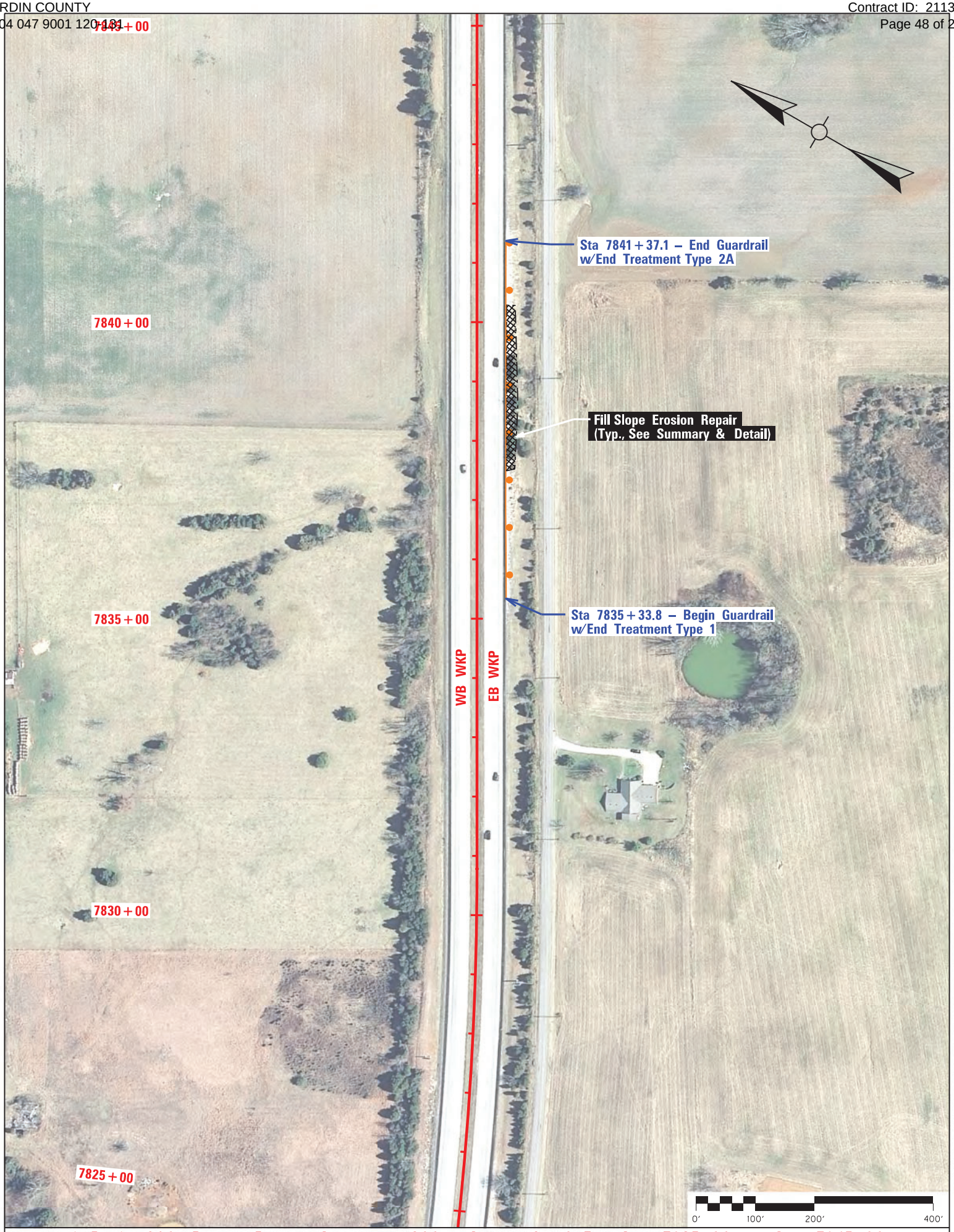
WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 6 of 31 - Sta 7765+00 to Sta 7785+00



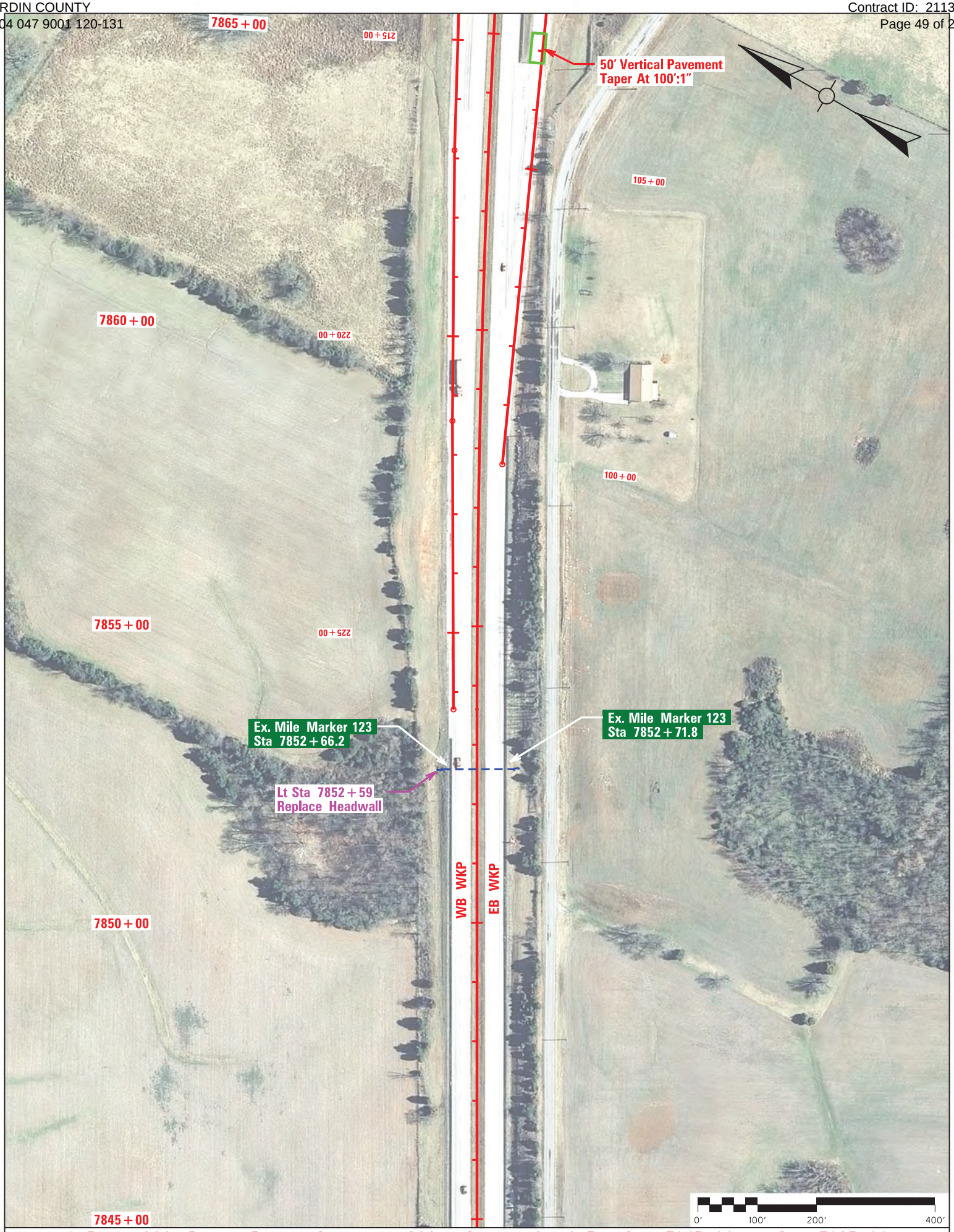
WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 7 of 31 - Sta 7785+00 to Sta 7805+00



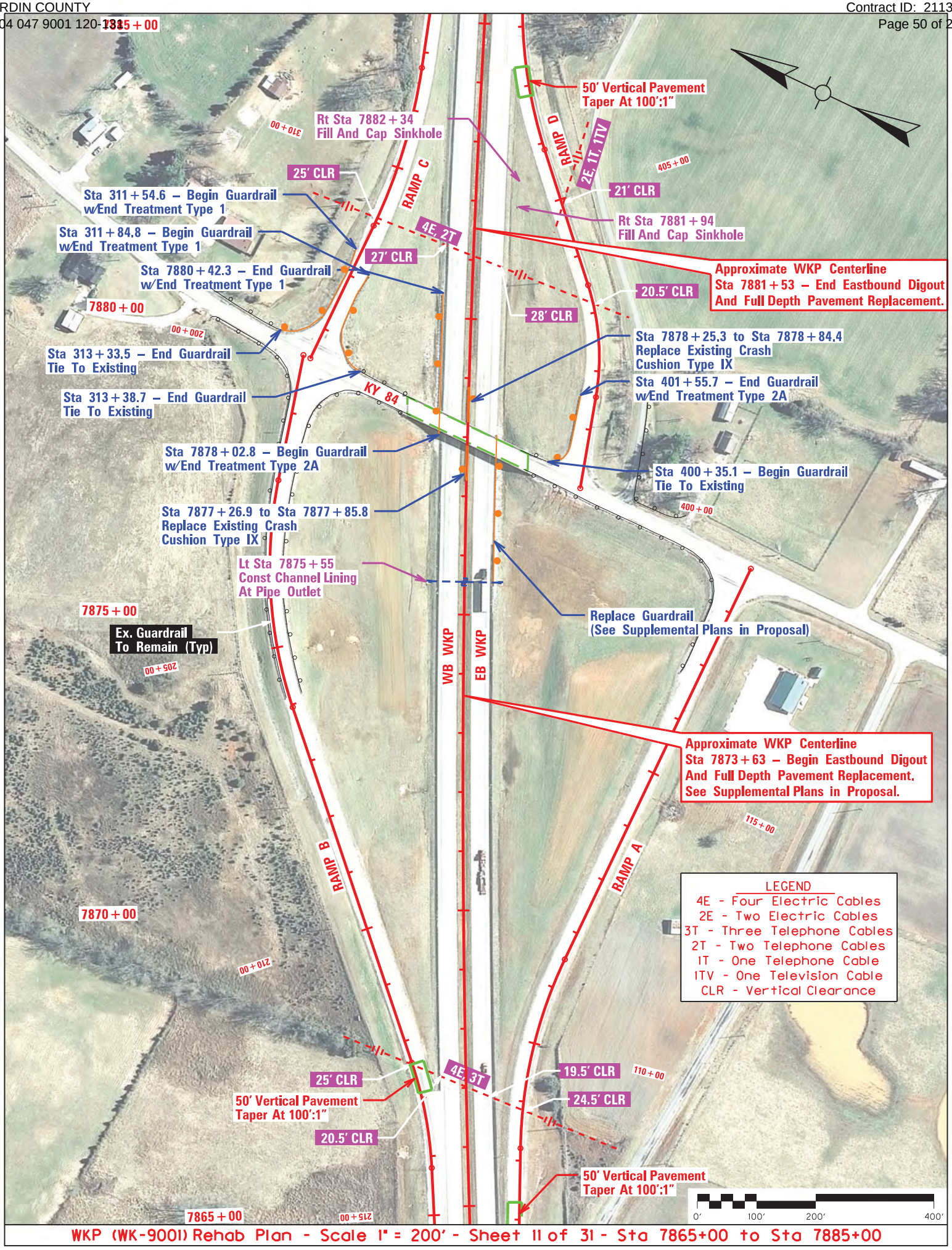
WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 8 of 31 - Sta 7805+00 to Sta 7825+00



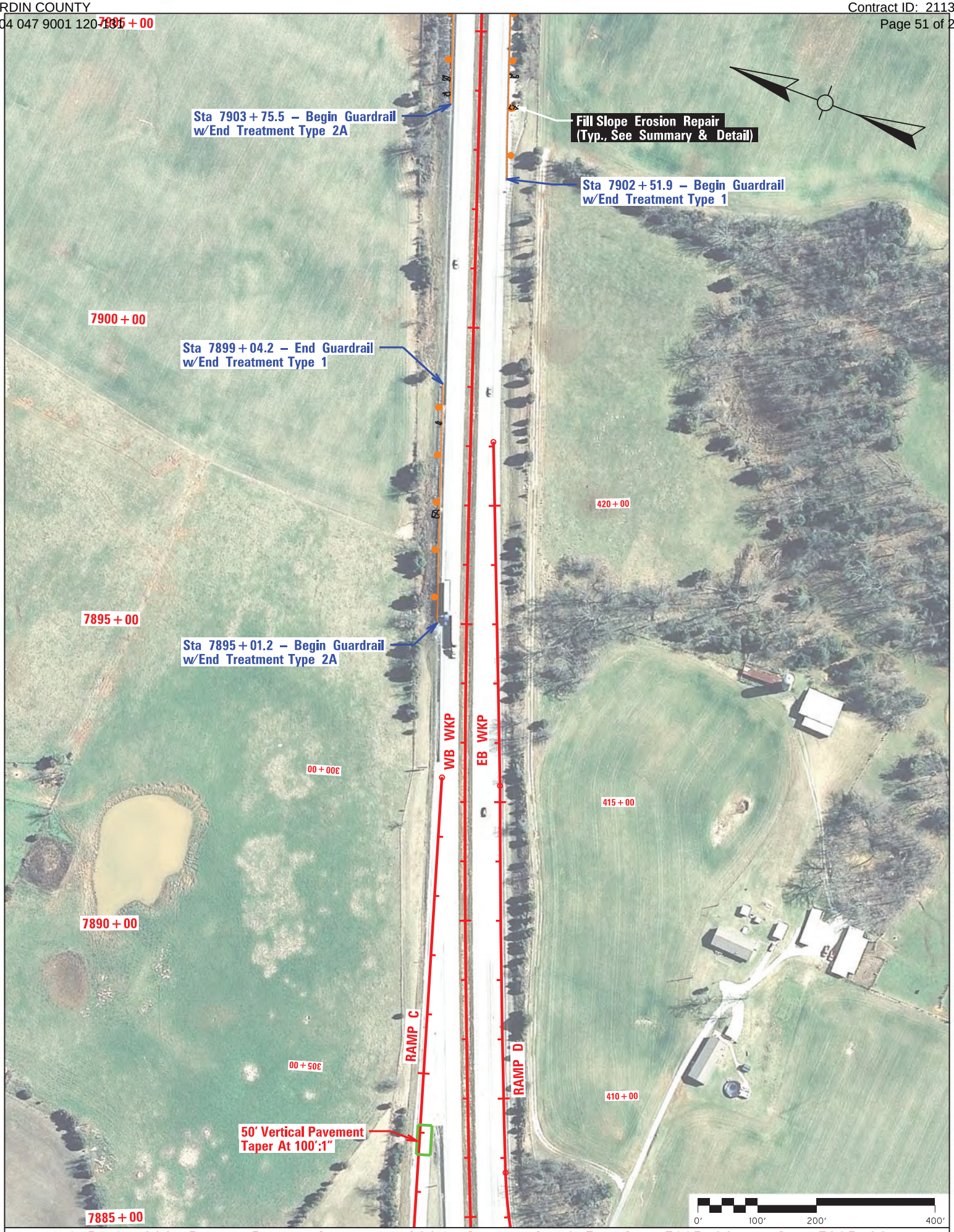
WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 9 of 31 - Sta 7825+00 to Sta 7845+00



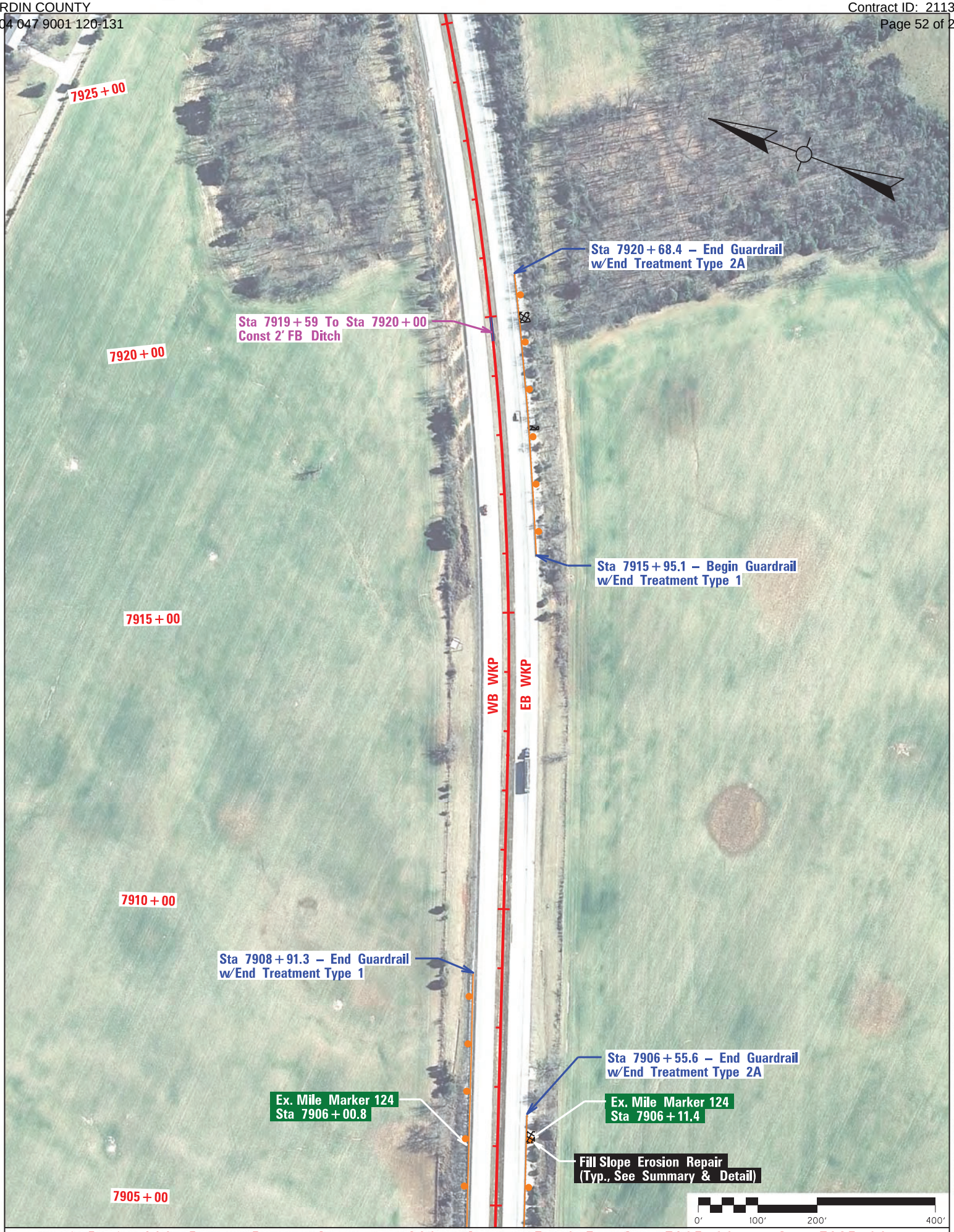
WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 10 of 31 - Sta 7845+00 to Sta 7865+00



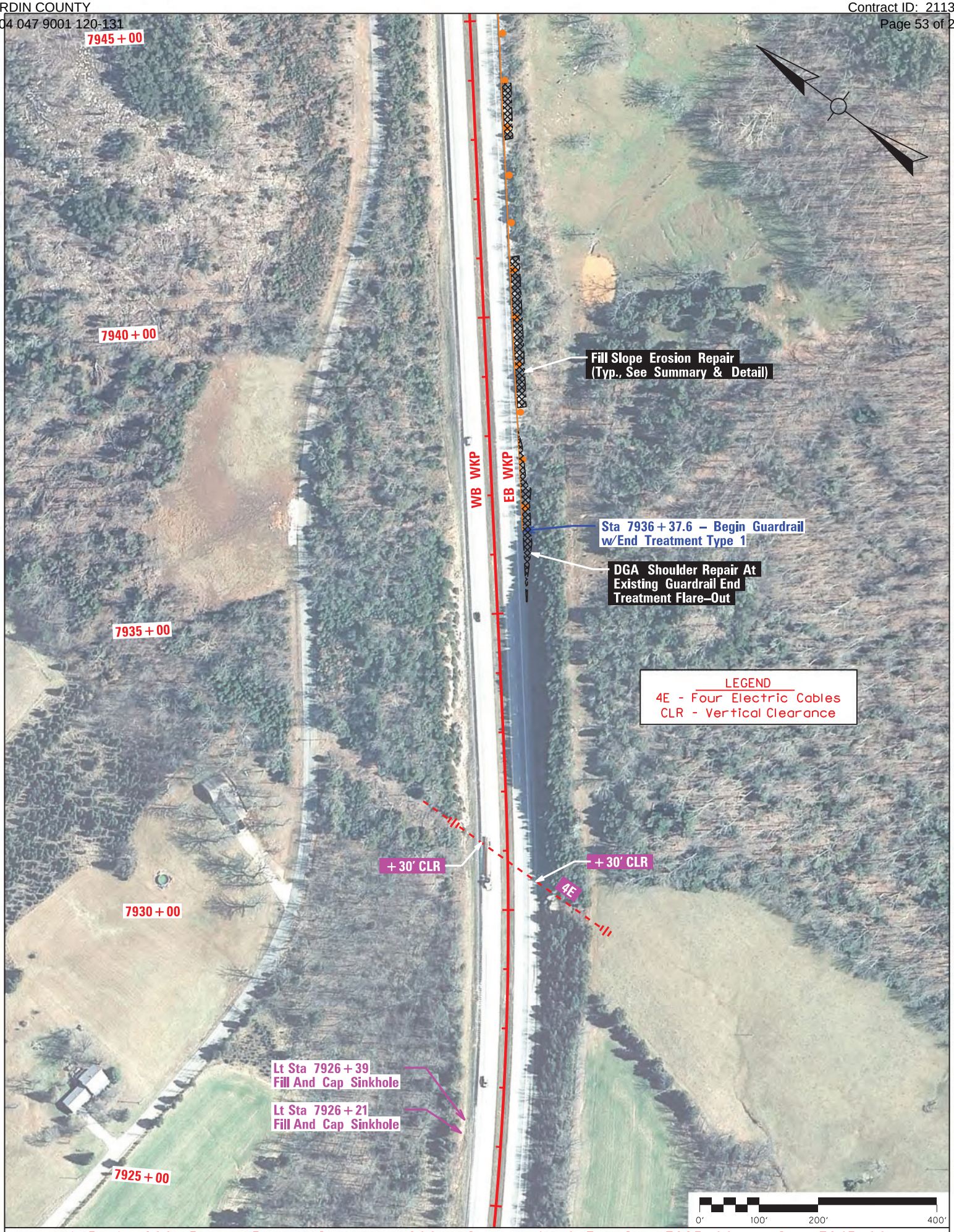
WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 11 of 31 - Sta 7865+00 to Sta 7885+00



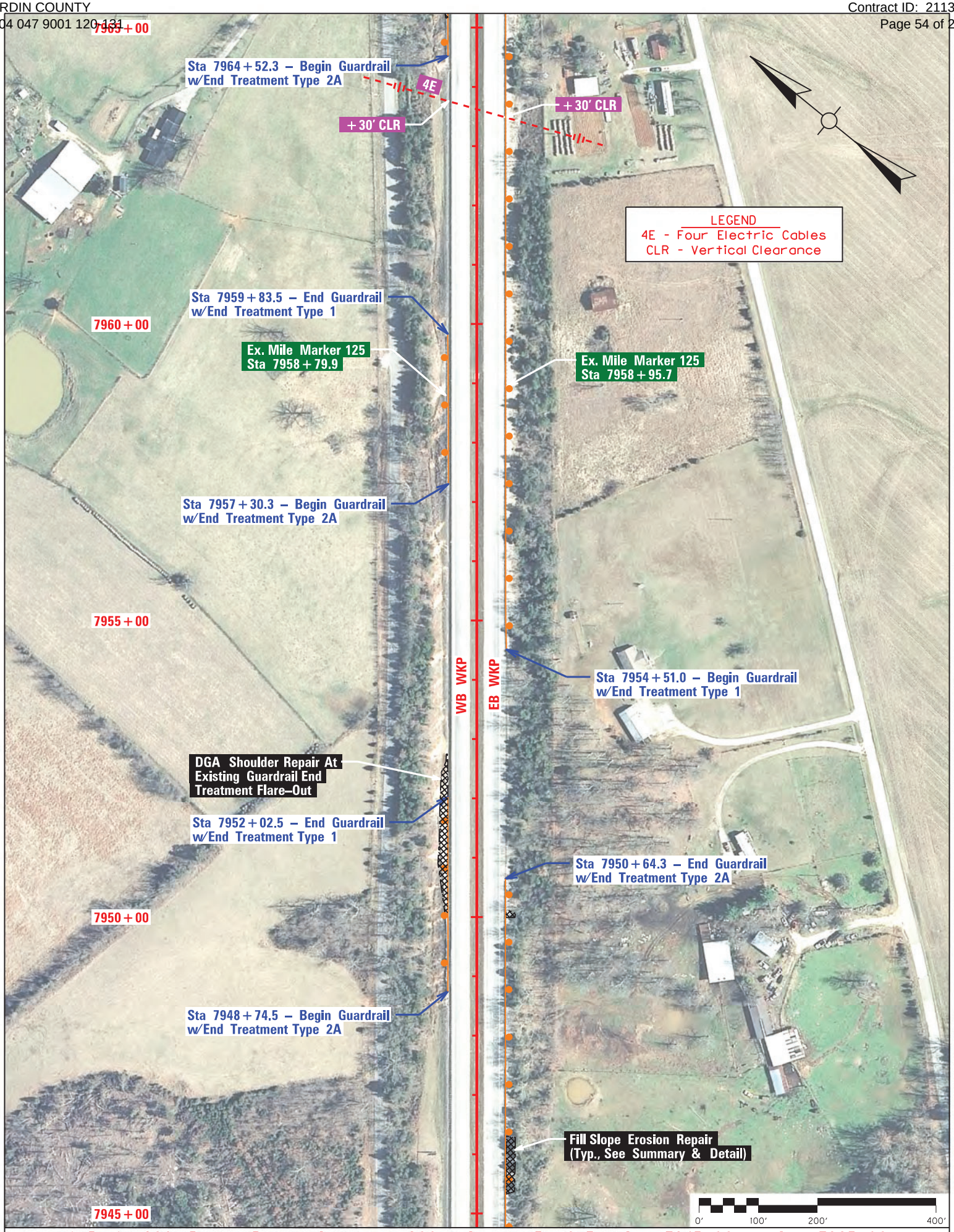
WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 12 of 31 - Sta 7885+00 to Sta 7905+00



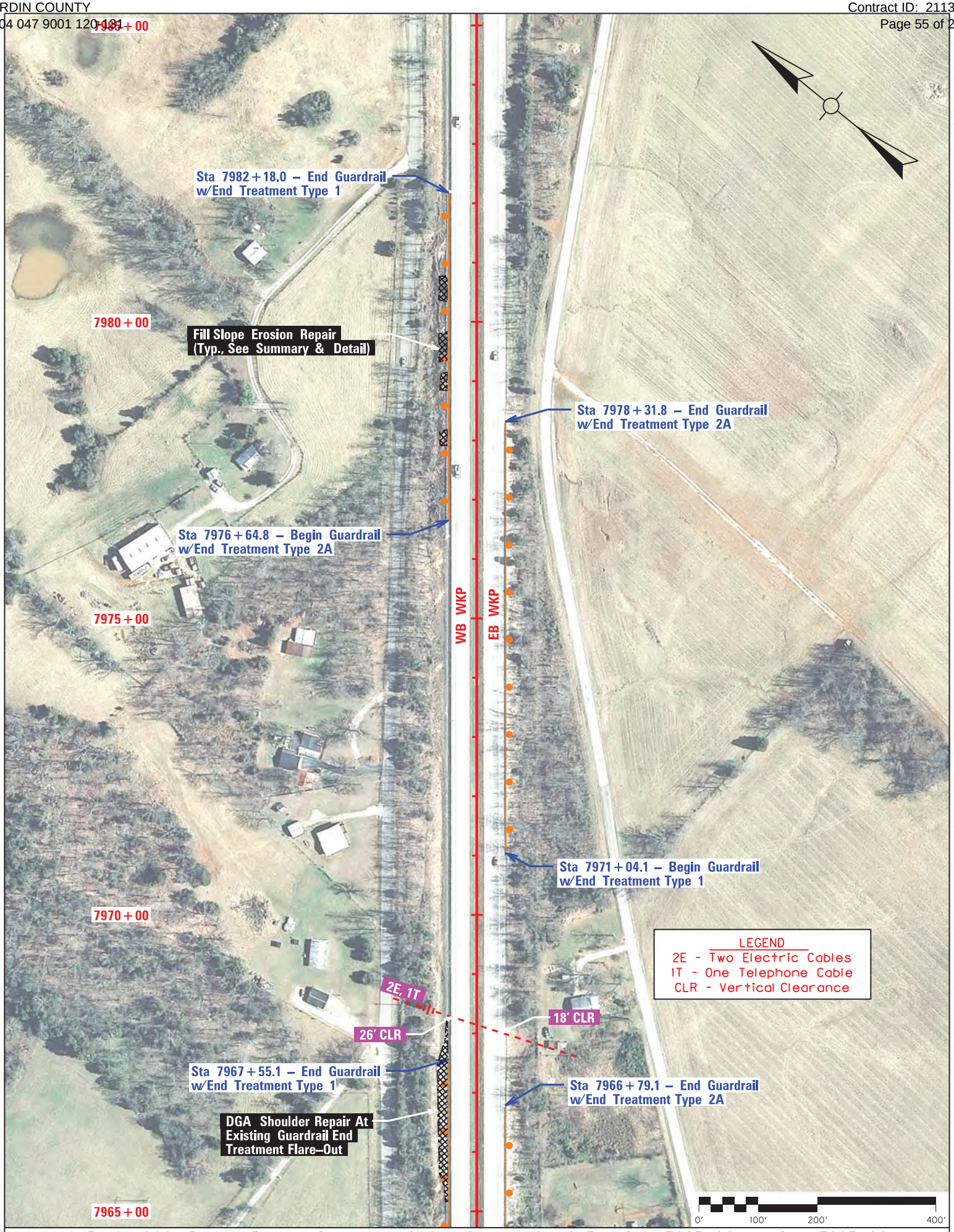
WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 13 of 31 - Sta 7905+00 to Sta 7925+00



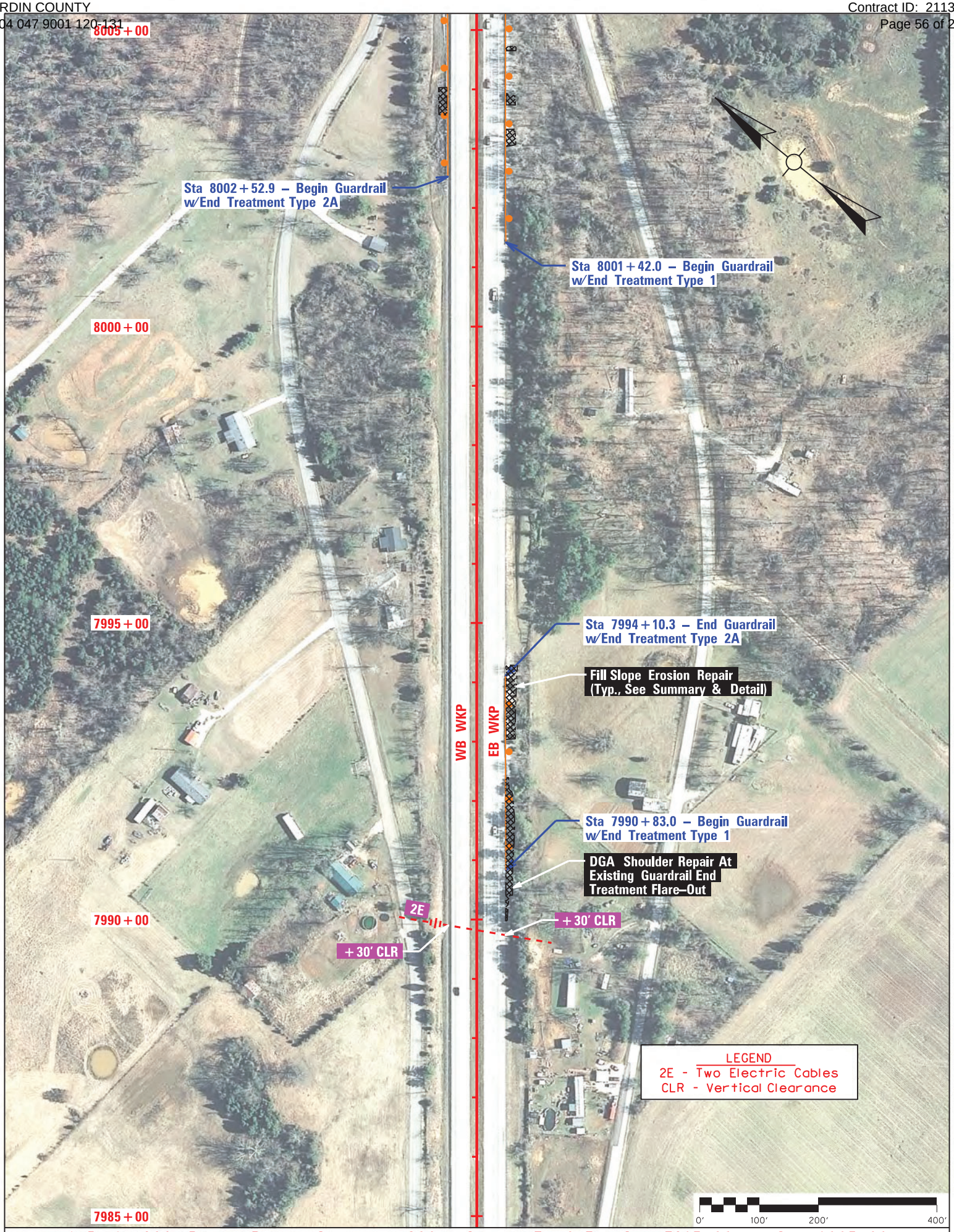
WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 14 of 31 - Sta 7925+00 to Sta 7945+00



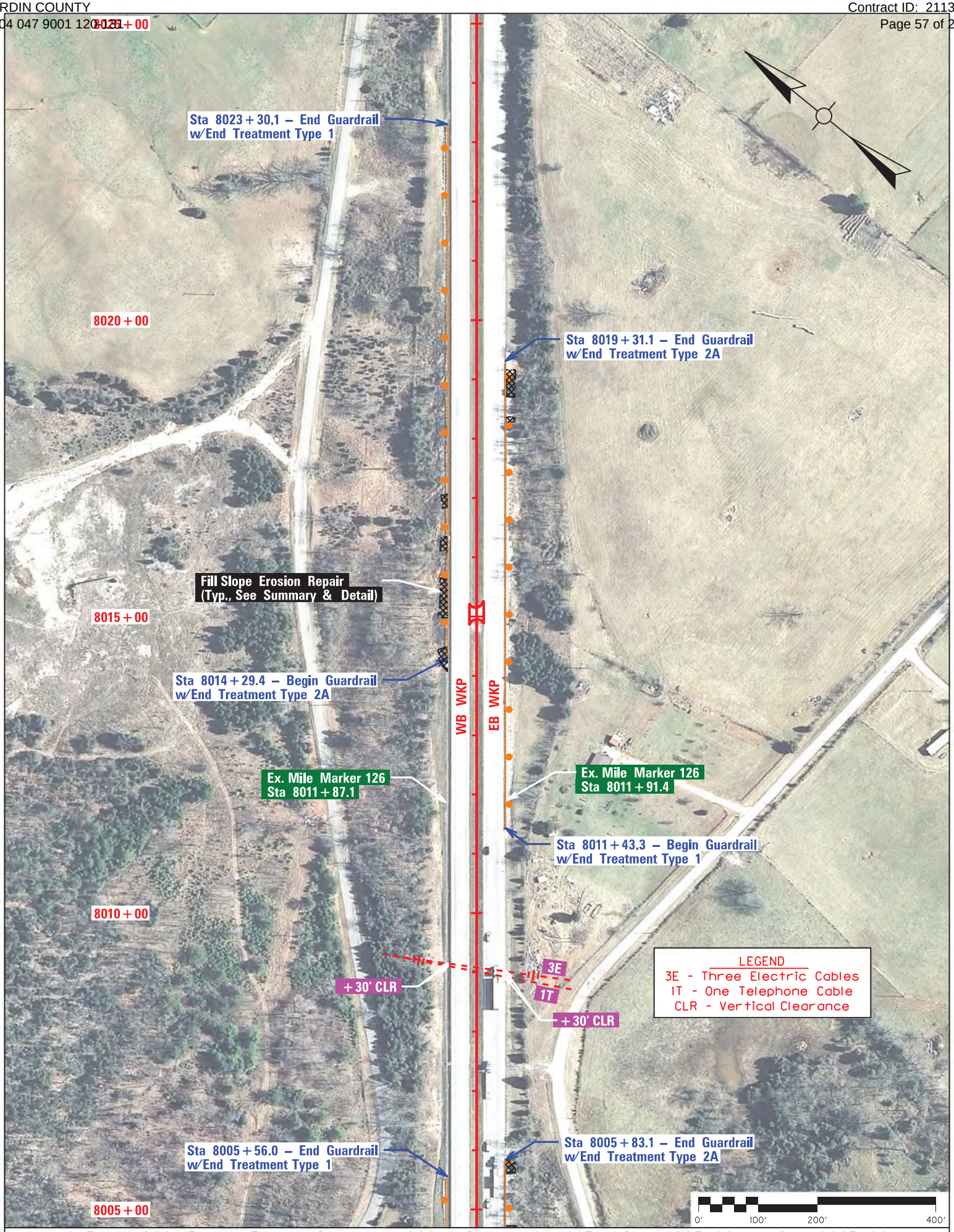
WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 15 of 31 - Sta 7945+00 to Sta 7965+00



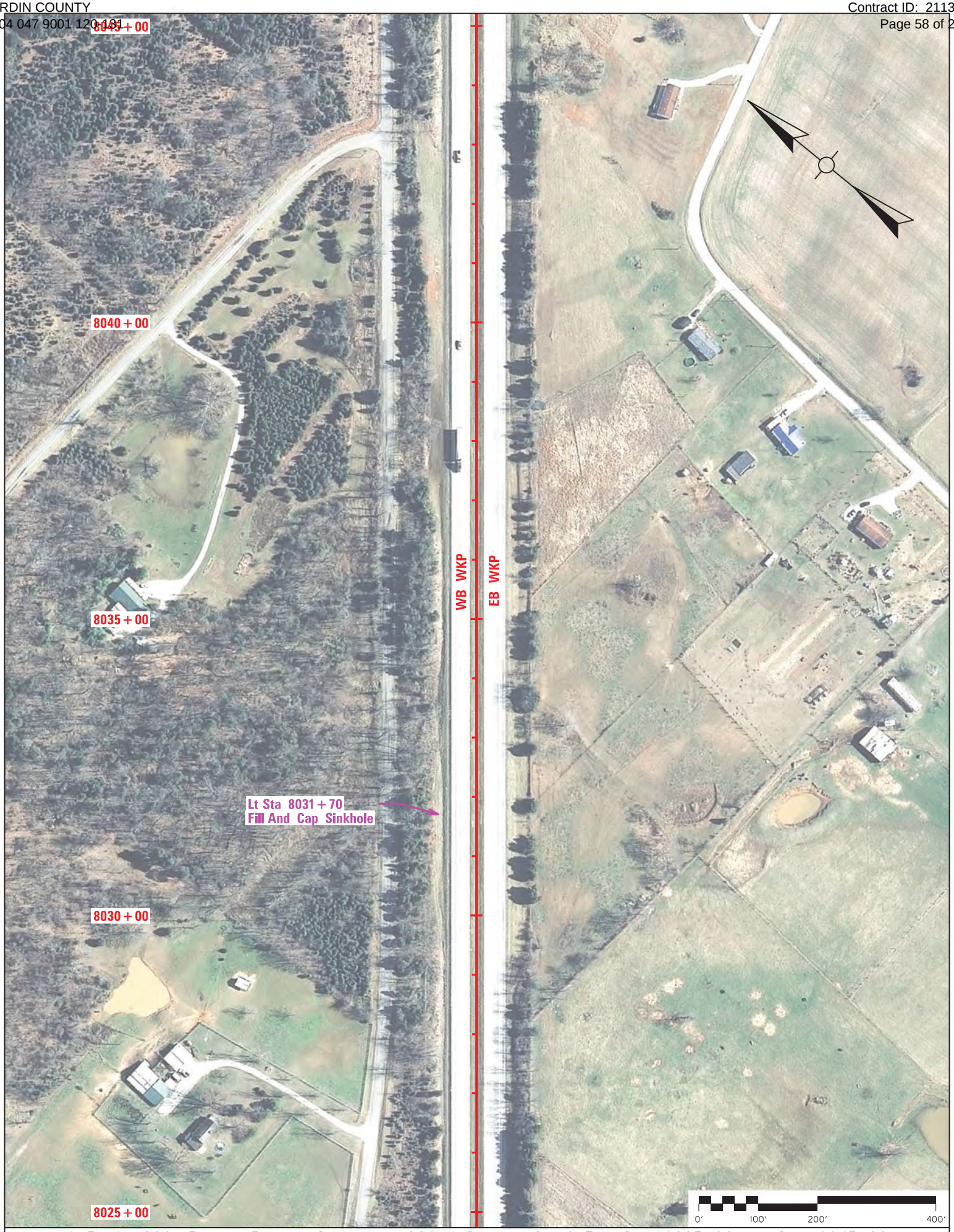
WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 16 of 31 - Sta 7965+00 to Sta 7985+00



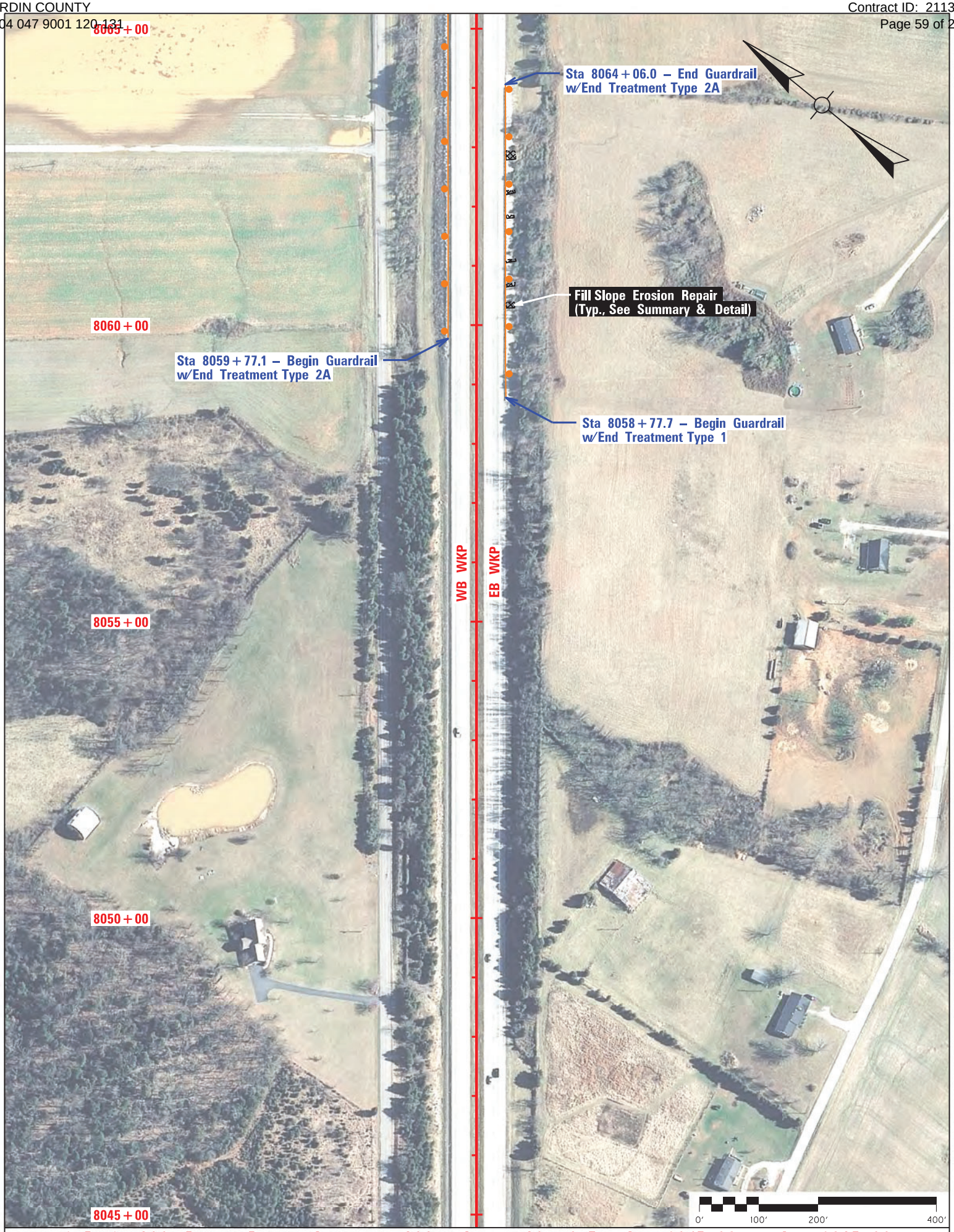
WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 17 of 31 - Sta 7985+00 to Sta 8005+00



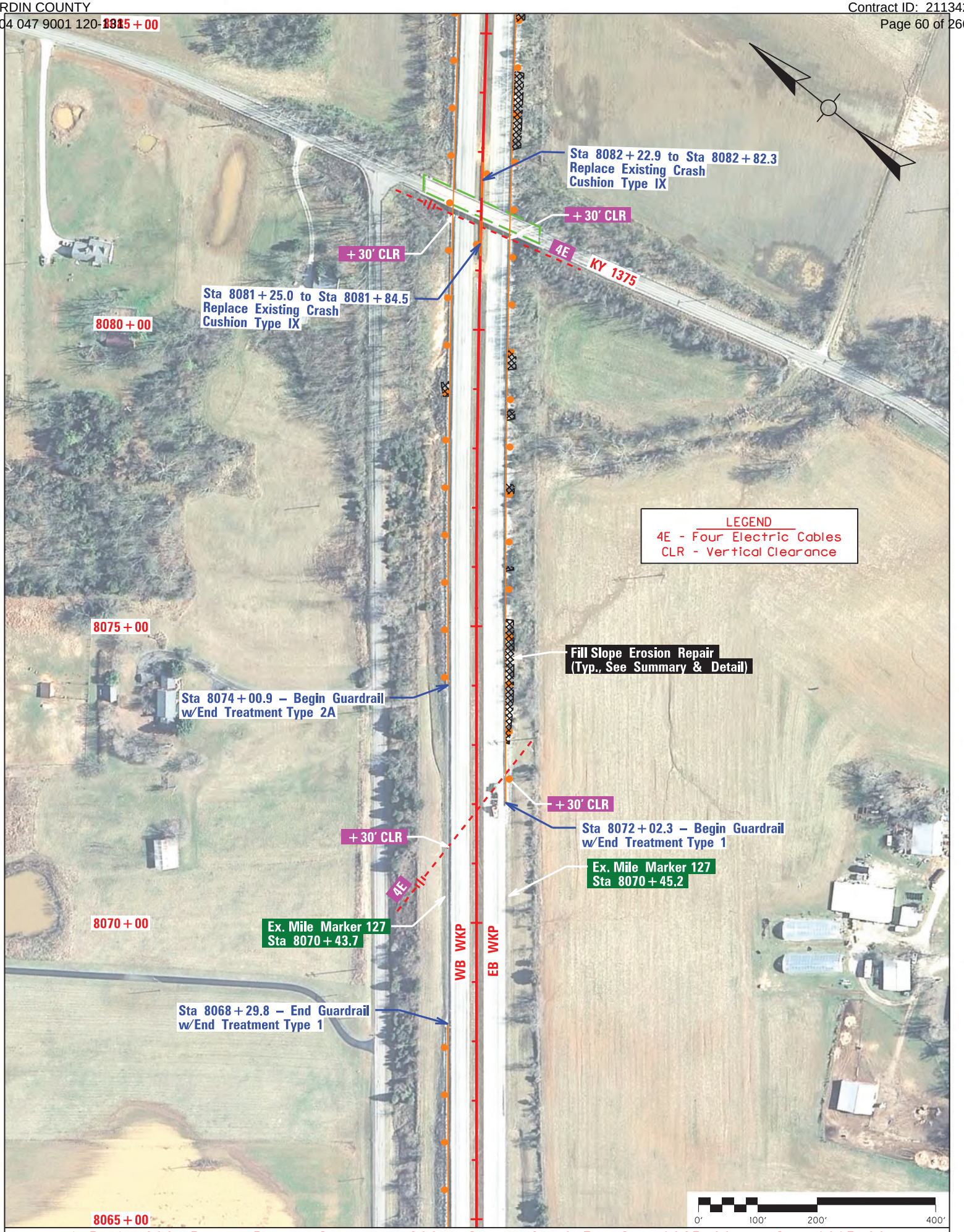
WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 18 of 31 - Sta 8005+00 to Sta 8025+00



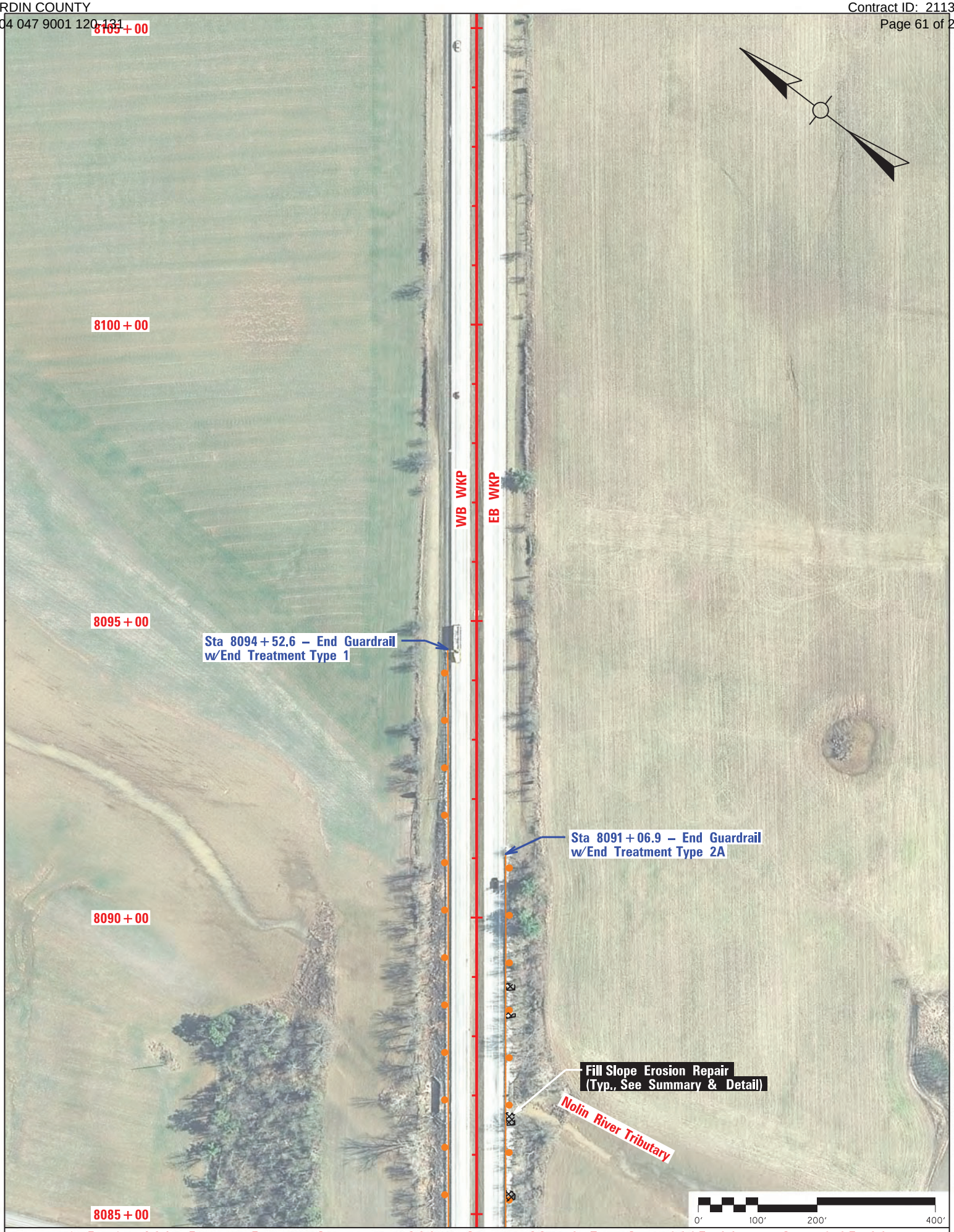
WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 19 of 31 - Sta 8025+00 to Sta 8045+00



WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 20 of 31 - Sta 8045+00 to Sta 8065+00

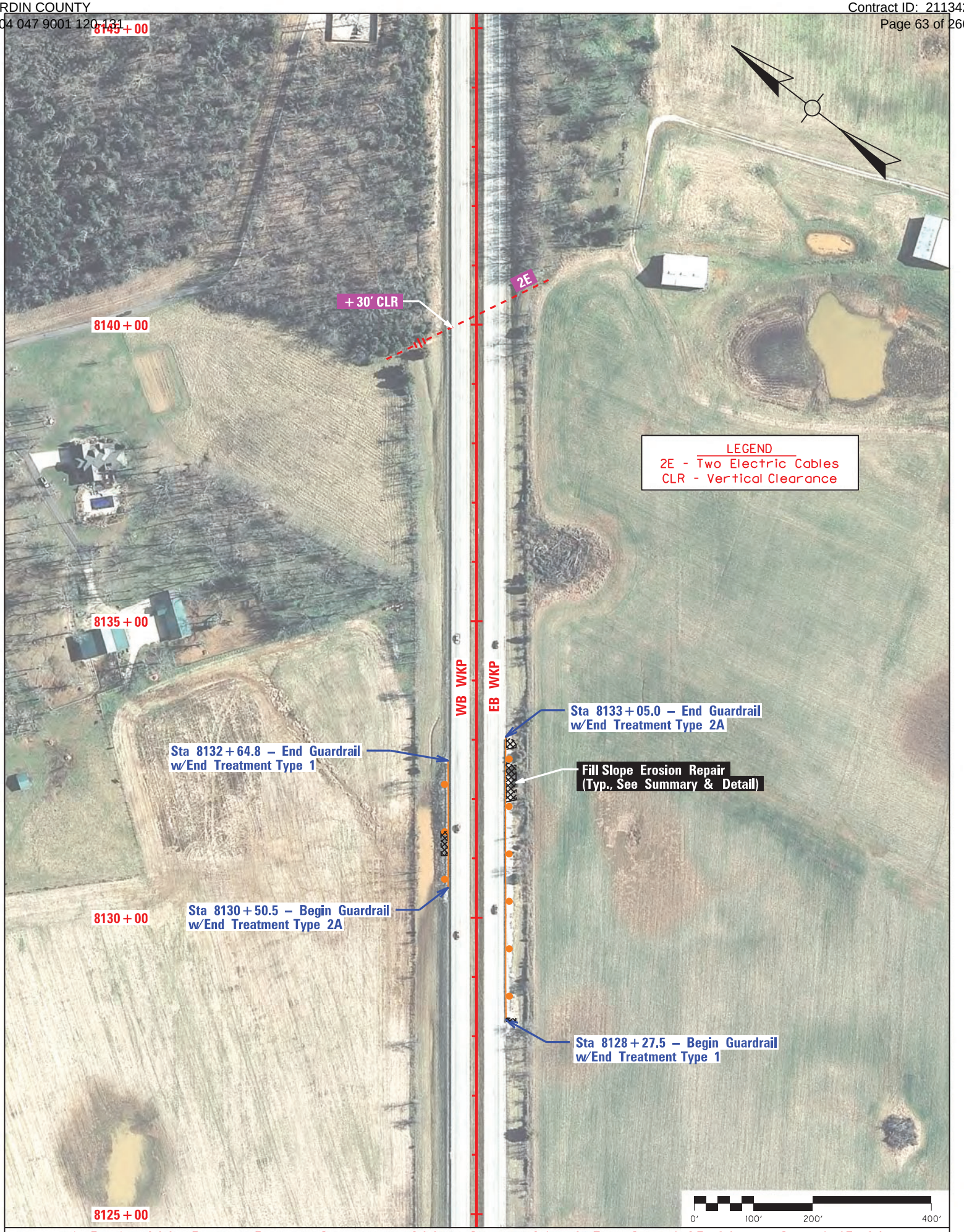


WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 21 of 31 - Sta 8065+00 to Sta 8085+00

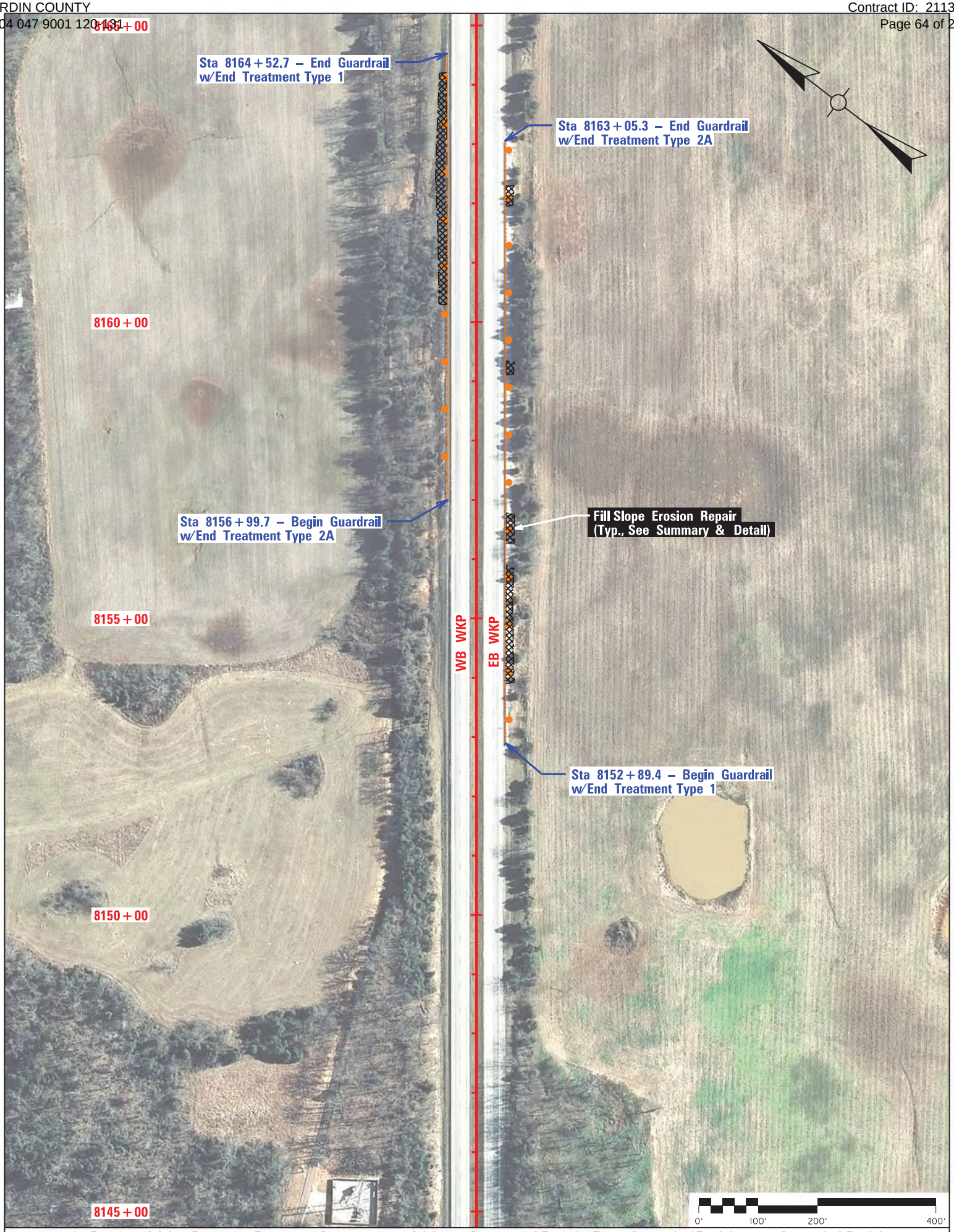


WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 22 of 31 - Sta 8085+00 to Sta 8105+00

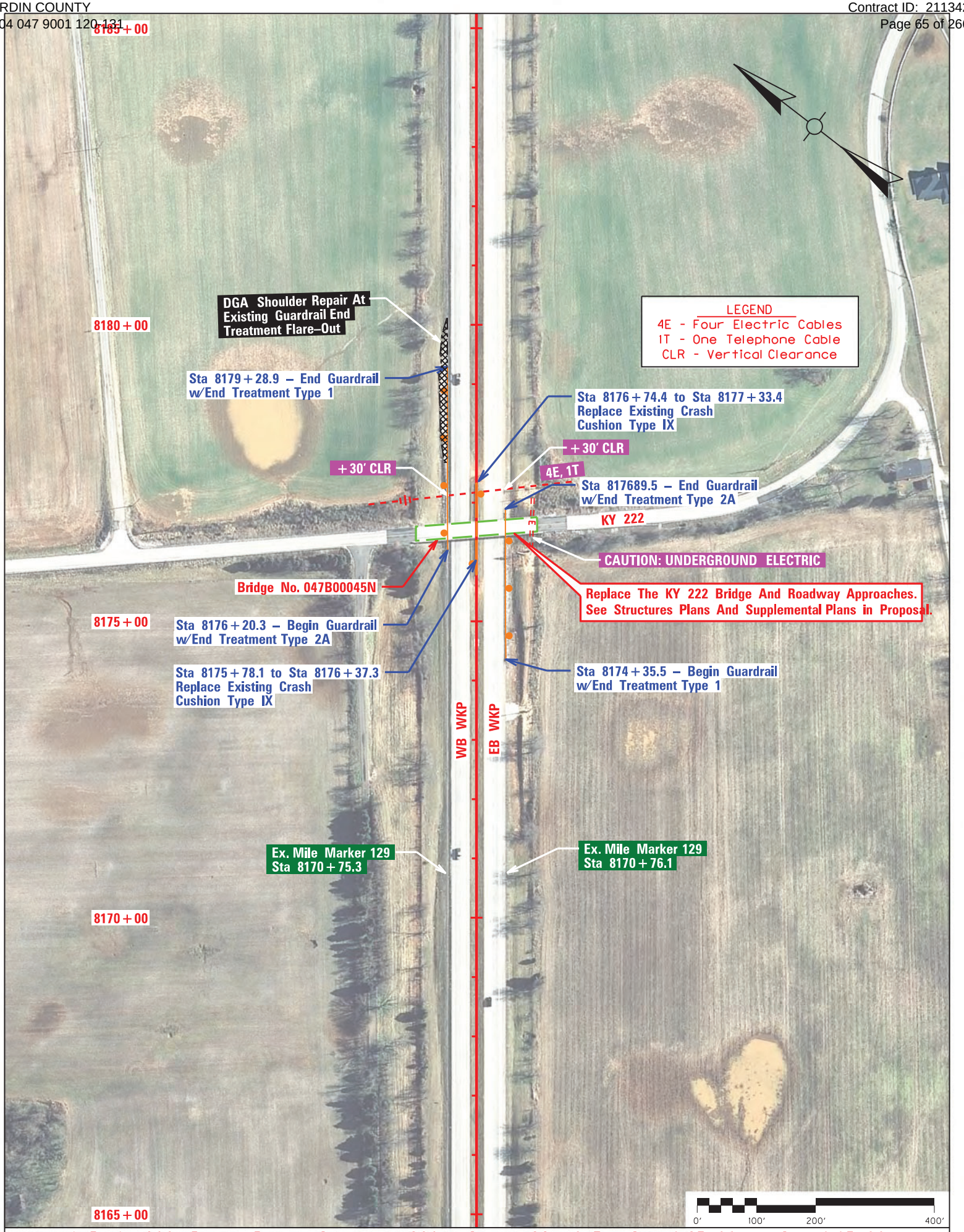
WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 23 of 31 - Sta 8105+00 to Sta 8125+00



WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 24 of 31 - Sta 8125+00 to Sta 8145+00



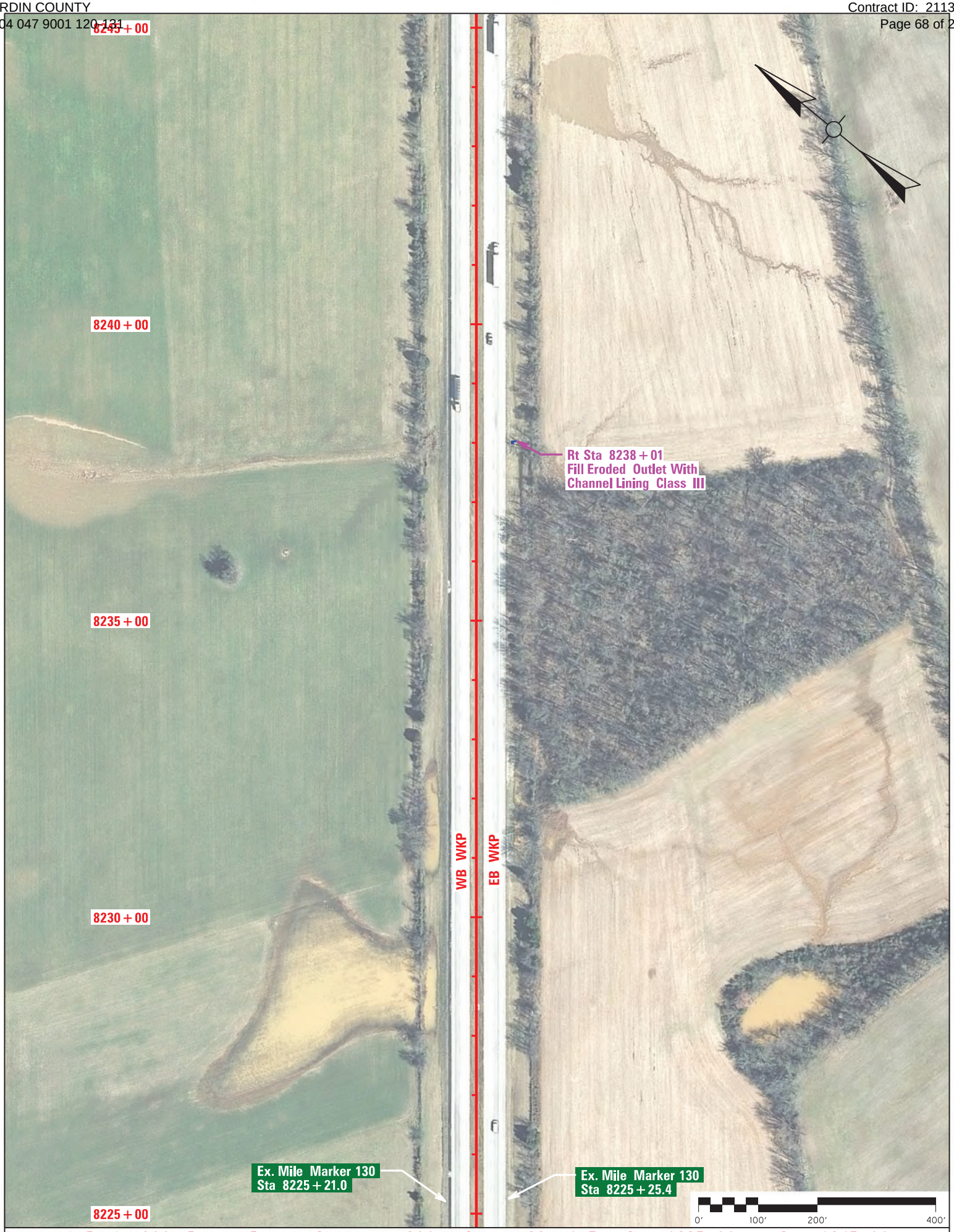
WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 25 of 31 - Sta 8145+00 to Sta 8165+00



WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 26 of 31 - Sta 8165+00 to Sta 8185+00

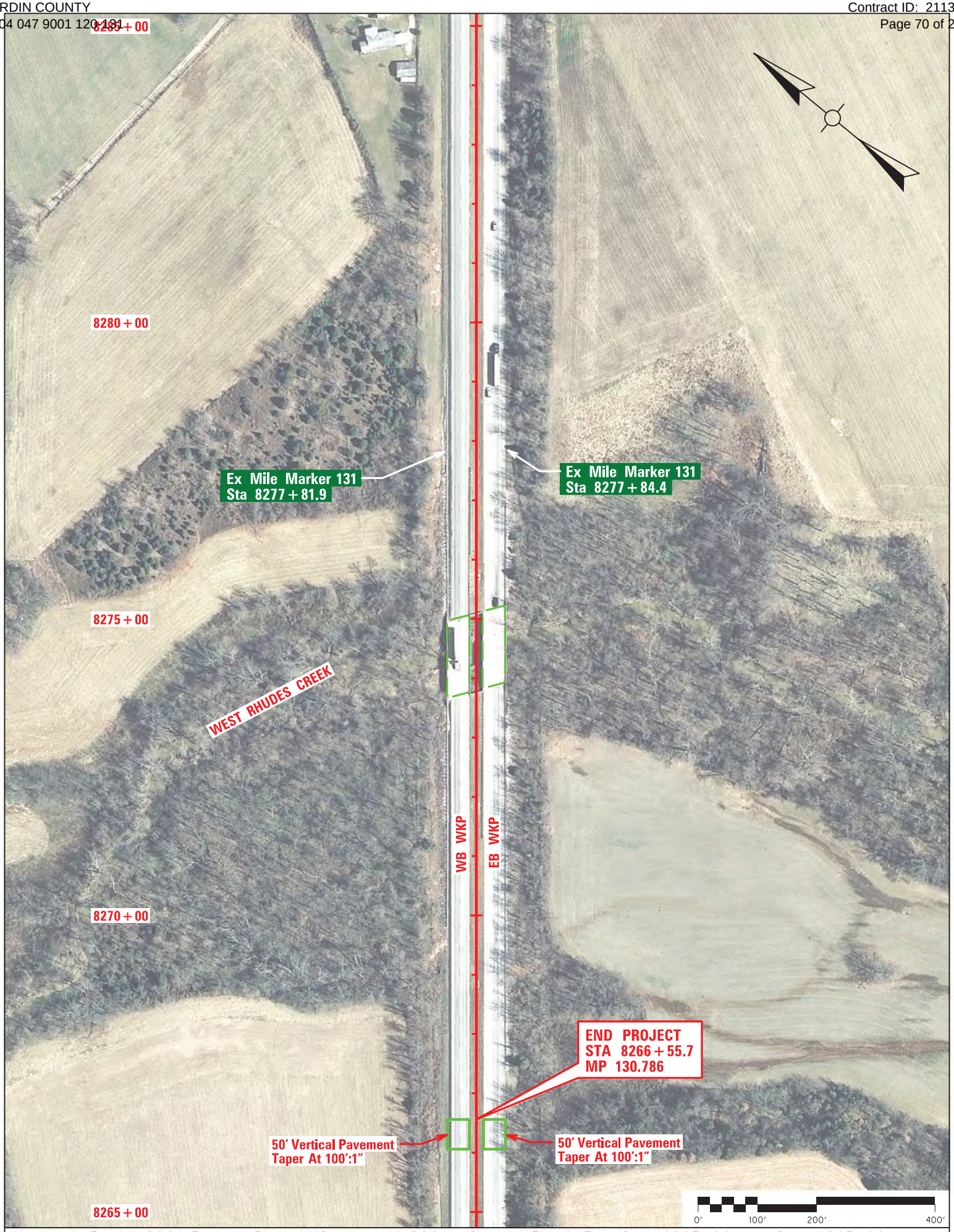
WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 27 of 31 - Sta 8185+00 to Sta 8205+00

WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 28 of 31 - Sta 8205+00 to Sta 8225+00



WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 29 of 31 - Sta 8225+00 to Sta 8245+00

WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 30 of 31 - Sta 8245+00 to Sta 8265+00



WKP (WK-9001) Rehab Plan - Scale 1" = 200' - Sheet 31 of 31 - Sta 8265+00 to Sta 8285+00

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	R1

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
R1	LAYOUT SHEET
R2	TYPICAL SECTIONS-SUMMARY OF QUANTITIES
R3 - R12	PLAN AND PROFILE SHEETS
R13 - R16	COORDINATE CONTROL SHEETS
X1 - X58	CROSS SECTION SHEETS

SHEETS NOT INCLUDED IN TOTAL SHEETS

R2A, R2B, R2C

STANDARD DRAWINGS

NUMBER

RBI-001-12	RBR-025-06	RDX-225-01
RBI-002-07	RBR-030-05	RDX-230-01
RBI-003-09	RBR-055-01	RGX-010-04
RBI-004-06	RBR-100-07	RPM-110-07
RBR-001-13	RDD-021-07	TPR-115
RBR-005-11	RDD-040-05	TPR-120
RBR-015-06	RDX-210-03	TPR-125
RBR-020-07	RDX-220-05	BHS-013

SEPIA DRAWINGS

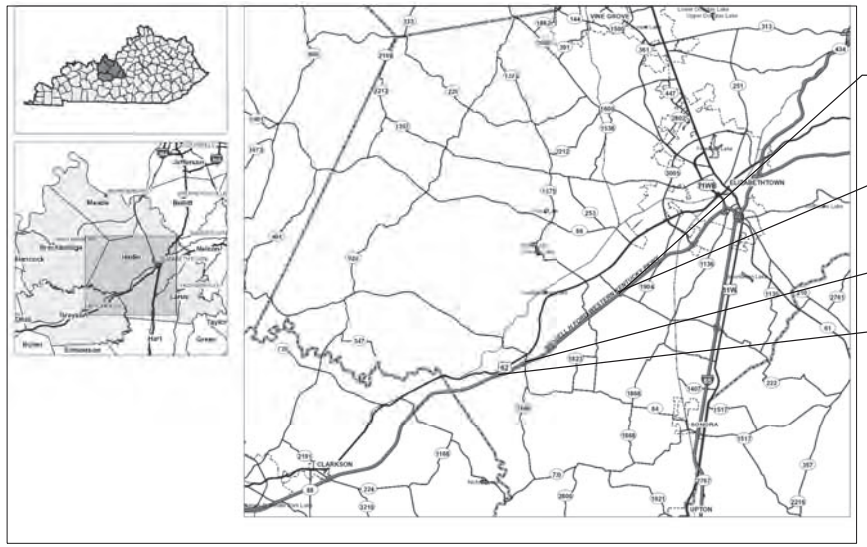
NUMBER

SEPIA 009
SEPIA 017

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

SUPPLEMENTAL PLANS OF PROPOSED PROJECT

WESTERN KENTUCKY PARKWAY (WK–9001)
PAVEMENT REHABILITATION



LAYOUT MAP
NOT TO SCALE

Palmer ENGINEERING
400 SHOPPERS DRIVE
WINCHESTER, KY 40392 (859) 744-1218

IN ASSOCIATION WITH
DLZ
ARCHITECTURE • ENGINEERING • PLANNING
SURVEYING • CONSTRUCTION SERVICES

	WK-9001 CURVE CORRECTION	WK-9001 DIGOUT AT KY 84	KY 222 BRIDGE APPROACH
LATITUDE	37 DEGREES 33 MINUTES 42.8 SECONDS NORTH	37 DEGREES 34 MINUTES 17.3 SECONDS NORTH	37 DEGREES 37 MINUTES 09.9 SECONDS NORTH
LONGITUDE	86 DEGREES 03 MINUTES 53.8 SECONDS WEST	86 DEGREES 02 MINUTES 14.9 SECONDS WEST	85 DEGREES 57 MINUTES 16.4 SECONDS WEST
LENGTH	3994.33 LIN. FT. 0.757 MILES	789.639 LIN. FT. 0.15 MILES	510.44 LIN. FT. 0.097 MILES
ADDED / DEDUCTED	FOR EQUALITIES NOT INCLUDED	FOR EQUALITIES NOT INCLUDED	FOR EQUALITIES NOT INCLUDED
	LIN. FT.	LIN. FT.	LIN. FT.
RAILROAD CROSSINGS NO.	LIN. FT.	LIN. FT.	LIN. FT.
BRIDGES	LIN. FT.	LIN. FT.	LIN. FT.

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS
COUNTY OF

HARDIN

ITEM NO. 4-20016.00
PROJECT NUMBER: FD04 047 9001 120-131
LETTING DATE: OCTOBER 22, 2021

RECOMMENDED BY: ANDRE JOHANNES — PROJECT MANAGER — DATE:

PLAN APPROVED BY: — STATE HIGHWAY ENGINEER — DATE:

STATE OF KENTUCKY ★ ANTHONY KEITH DAMRON 35597 ★ LICENSED PROFESSIONAL ENGINEER

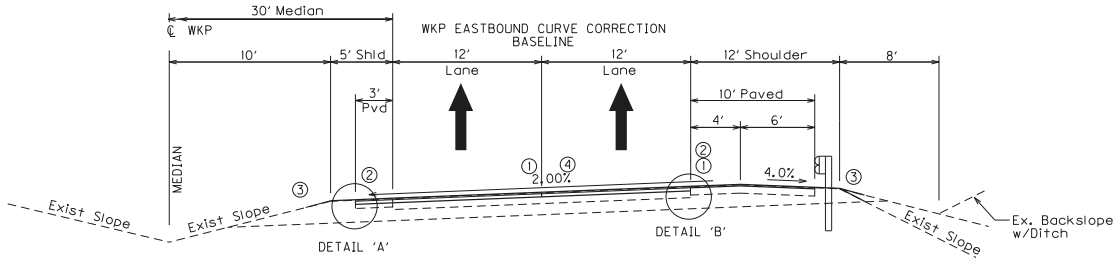
Anthony Damron

USER: anthonyd
DATE PLOTTED: September 2, 2021
FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\LAYOUT.DGN
E-SHEET NAME:
Power InRoads v8.11.9.397

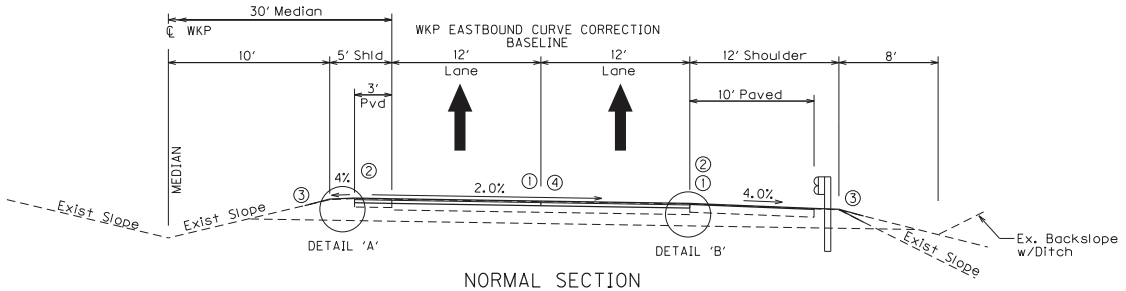
COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	R2

WK–9001 CURVE CORRECTION TYPICAL SECTIONS

WK-9001 EASTBOUND BASELINE
STA. 770+00 TO 809+94



SUPERELEVATED SECTION
EASTBOUND CURVE CORRECTION



NORMAL SECTION
EASTBOUND CURVE CORRECTION

NOTES:

① Place Joint Adhesive Between Driving Lanes And Between Driving Lane And Shoulders.

② Construct Sawed Rumble Strips

③ Asphalt Seal Coat Required From The Outside Edge Of The Paved Shoulder To A Point 2' Down The Ditch Or Fill Slope.

Two (2) Applications At The Rate Of
2.40 Lbs/SY Item 103 Asphalt Seal Coat
20 Lbs/SY Item 100 Asphalt Seal Aggregate
(Size No. 8 OR 9M).

④ Level and Wedge as needed to meet the required Cross slope correction. See Cross sections.

⑤ Asphalt Tack Coat applied at 0.84 lb/SY.

⑥ SEE CROSS SECTIONS FOR DETAILS

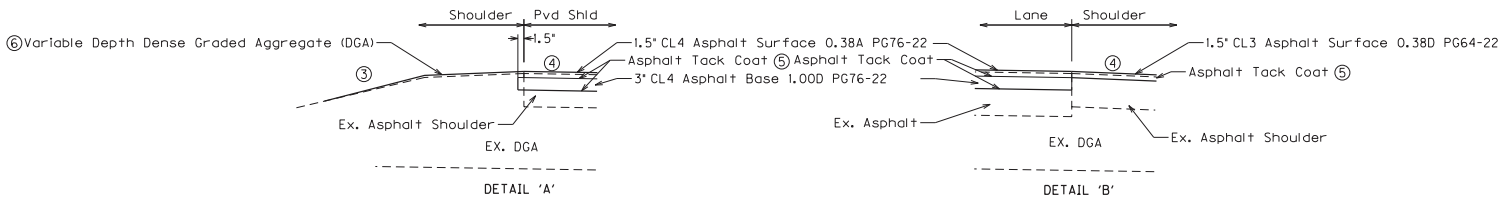
PAVEMENT REHABILITATION

DRIVING LANES & INSIDE SHOULDER

4" ASPHALT MILLING & TEXTURING
BASE --- 3" CL4 ASPHALT BASE 1.00D PG76-22
SURFACE --- 1.5" CL4 ASPHALT SURFACE 0.38A PG76-22
PG76-22 LEVELING AND WEDGING --- VARIED DEPTH

OUTSIDE SHOULDER

1" ASPHALT MILLING & TEXTURING
SURFACE --- 1.5" CL3 ASPHALT SURFACE 0.38D PG64-22
PG64-22 LEVELING AND WEDGING --- VARIED DEPTH



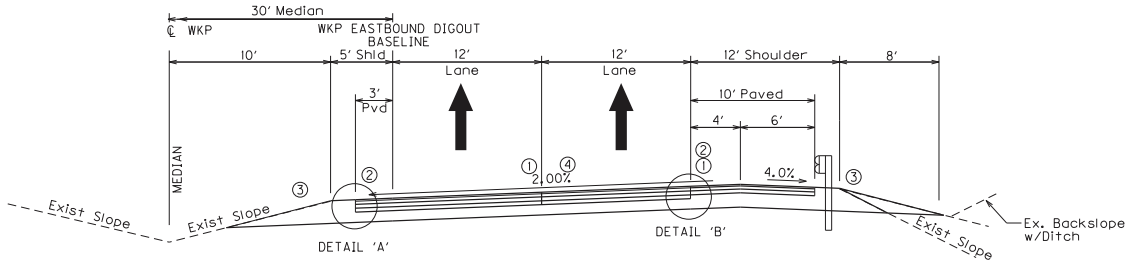
NOT TO SCALE

WK-9001 CURVE CORRECTION
TYPICAL SECTION

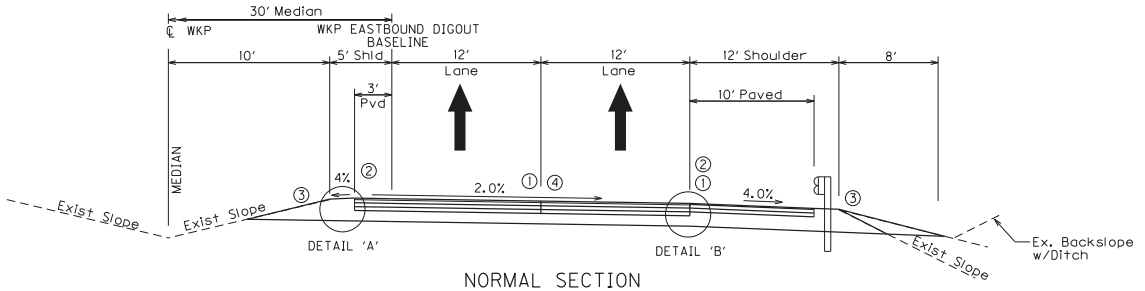
COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	R2A

WK-9001 DIGOUT AT KY 84 TYPICAL SECTIONS

WK-9001 EASTBOUND BASELINE
STA. 573+63.41 TO 581+53.43



SUPERELEVATED SECTION
EASTBOUND DIGOUT



NORMAL SECTION
EASTBOUND DIGOUT

NOTES:

① Place Joint Adhesive Between Driving Lanes And Between Driving Lane And Shoulders.

② Construct Sawed Rumble Strips

③ Asphalt Seal Coat Required From The Outside Edge Of The Paved Shoulder To A Point 2' Down The Ditch Or Fill Slope.

Two (2) Applications At The Rate Of 2.40 Lbs/SY Item 103 Asphalt Seal Coat 20 Lbs/SY Item 100 Asphalt Seal Aggregate (Size No. 8 OR 9M).

④ SEE CROSS SECTIONS FOR DETAILS.

⑤ Asphalt Tack Coat applied at 0.84 lb/SY.

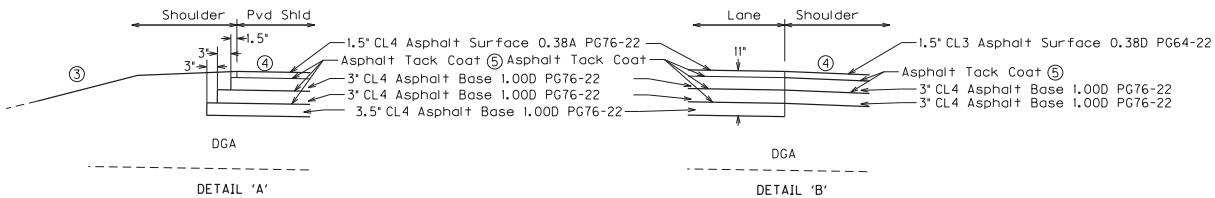
PAVEMENT RECONSTRUCTION

DRIVING LANES AND INSIDE SHOULDER

BASE --- 4.00" DGA
BASE --- 3.5" CL4 ASPHALT BASE 1.00D PG76-22
BASE --- 3" CL4 ASPHALT BASE 1.00D PG76-22
BASE --- 3" CL4 ASPHALT BASE 1.00D PG76-22
SURFACE --- 1.5" CL4 ASPHALT SURFACE 0.38A PG76-22

OUTSIDE SHOULDER

BASE --- 7.5" DGA
BASE --- 3" CL4 ASPHALT BASE 1.00D PG76-22
BASE --- 3" CL4 ASPHALT BASE 1.00D PG76-22
SURFACE --- 1.5" CL3 ASPHALT SURFACE 0.38D PG64-22



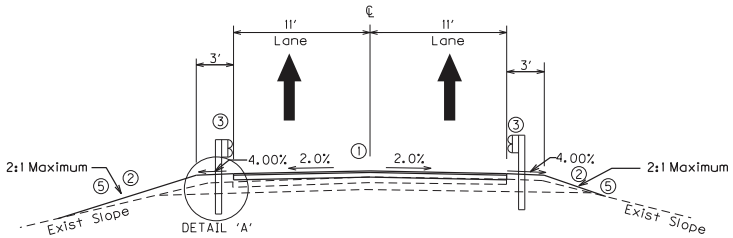
NOT TO SCALE

WK-9001 DIGOUT AT KY 84
TYPICAL SECTION

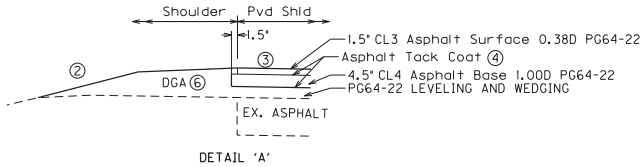
KY 222 BRIDGE APPROACH TYPICAL SECTIONS

KY 222
STA. 0+40.46 TO STA. 5+50.92

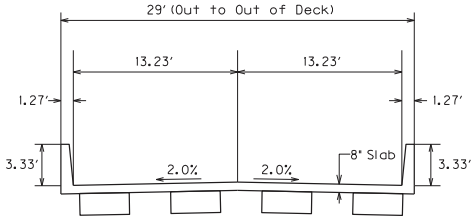
COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	R2B



NORMAL SECTION
KY 222



DETAIL 'A'



PROPOSED KY 222 BRIDGE
SEE BRIDGE PLANS

NOTES:

① Place Joint Adhesive Between Driving Lanes.

② Asphalt Seal Coat Required From The Outside Edge Of The Paved Shoulder To A Point 2' Down The Ditch Or Fill Slope.

Two (2) Applications At The Rate Of
2.40 Lbs/SY Item 103 Asphalt Seal Coat
20 Lbs/SY Item 100 Asphalt Seal Aggregate
(Size No. 8 OR 9M).

③ SEE CROSS SECTIONS for details on Placement of Guardrail.

④ Asphalt Tack Coat applied at 0.84 lb/SY.

⑤ Construct Embankment Benching, SEE CROSS SECTIONS for Details.

⑥ VARIABLE DEPTH

PAVEMENT SCHEDULE

DRIVING LANES
STA. 0+40.46 TO 0+64.55
&
STA. 5+17.00 TO 5+50.92

VARIED DEPTH MILLING AND TEXTURING
VARIED DEPTH PG64-22 LEVELING AND WEDGING
SURFACE --- 1.5" CL4 ASPHALT SURFACE 0.38A PG76-22

DRIVING LANES
STA. 0+64.55 TO 1+02.06
&
STA. 4+85.22 TO 5+17.00

VARIED DEPTH PG64-22 LEVELING AND WEDGING
SURFACE --- 1.5" CL4 ASPHALT SURFACE 0.38A PG76-22

DRIVING LANES
STA. 1+02.06 TO 1+94.86
&
STA. 3+99.54 TO 4+85.22

VARIED DEPTH PG64-22 LEVELING AND WEDGING
BASE --- 4.5" CL4 ASPHALT BASE 1.00D PG76-22
SURFACE --- 1.5" CL4 ASPHALT SURFACE 0.38A PG76-22

NOT TO SCALE

KY 222 BRIDGE APPROACH
TYPICAL SECTION

Power InRoads v8.11.9.397 | E-SHEET NAME: | USER: anthonyd DATE PLOTTED: January 1, 0001 | FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\TYPICAL.DGN

COUNTY OF	ITEM NO.	SHEET
HARDIN	4-20016.00	R2O

GENERAL SUMMARY

ITEM	DESCRIPTION	UNIT	WK-9001 CURVE CORRECTION	WK-9001 DIGOUT AT KY 84	KY 222 BRIDGE APPROACH	TOTAL
1691	FLUME INLET TYP 2	EACH			4	4
1718	REMOVE INLET ⑪	EACH			4	4
1990	DELINEATOR FOR BARRIER WALL-B/W ⑨	EACH			8	8
2200	ROADWAY EXCAVATION	CUYD		358		358
2262	FENCE-WOVEN WIRE TYPE 1 ⑫	LF			200	200
2265	REMOVE FENCE ⑫	LF			200	200
2483	CHANNEL LINING CLASS 2 ②	TONS			25	25
2555	CONCRETE-CLASS B ⑫	CUYD			2	2
2690	SAFELOADING ⑬	CUYD			5	5
2701	TEMPORARY SILT FENCE	LF	1997	395	173	2565
2703	SILTR TRAP TY A	EACH	5	1	1	7
2704	SILT TRAP TY B	EACH	5	1	1	7
2705	SILT TRAP TY C	EACH	5	1	1	7
2706	CLEAN SILT TRAP TY A	EACH	5	1	1	7
2707	CLEAN SILT TRAP TY B	EACH	5	1	1	7
2708	CLEAN SILT TRAP TY C	EACH	5	1	1	7
5963	INITIAL FERTILIZER	TONS	0.3	0.1	0.1	0.5
5964	20-10-10 FERTILIZER	TONS	0.2		0.1	0.3
5985	SEEDING AND PROTECTION	SQYD	6679	1307	2178	10164
5992	AGRICULTURAL LIMESTONE	TONS	4	1	1	6
6514	PAVE STRIPING-PERM-4 IN Y	LF			1022	1022
6542	PAVE STRIPING-THERMO-6 IN W	LF	4993	986		5979
6543	PAVE STRIPING-THERMO-6 IN Y	LF	3995	789		4784
8301	REMOVE SUPERSTRUCTURE ⑩	EACH			1	1
2230	EMBANKMENT IN PLACE ③	CUYD			3324	3324
20362ES403	SHOULDER RUMBLE STRIPS-SAWED	LF	7989	1579		9568
24489EC	INLAID PAVEMENT MARKERS	EACH	50	10		60
24891EC	PAVE MOUNT INFRARED TEMP EQUIPMENT ⑮	SQFT	215676	42395	10553	268624

GUARDRAIL SUMMARY

LOCATION				DELINEATOR FOR GUARDRAIL M/W	DELINEATOR FOR GUARDRAIL B/W	G/R STEEL W BEAM-S FACE (7 FT POST)	GUARDRAIL END TREATMENT TY 1	GUARDRAIL END TREATMENT TY 2A	GUARDRAIL END TREATMENT TY 3	REMOVE GUARDRAIL ⑦	THRIE BEAM GUARDRAIL TRANSITION TL-2
				1982	1987	21802EN	2367	2369	2373	2381	25079ED
STATIONS			LOC	EACH	EACH	LF	EACH	EACH	EACH	LF	EACH
EASTBOUND WK-9001 CURVE CORRECTION											
770+00.00	TO	771+36.88	RT	3		137		1		137.25	
783+45.2	TO	805+88.86	RT	45		2237		1	1	958.5	
801+06.41	TO	805+88.86	RT							478.5	
EASTBOUND WK-9001 DIGOUT AT KY 84											
575+51.87	TO	578+05.56	RT	5		203	1	1		253	
KY 222 BRIDGE APPROACH											
0+46.00	TO	0+80.62	RT			44.75				46	
1+19.55	TO	1+81.44	RT			66				89	1
4+11.11	TO	5+50.92	RT		2	139.25				163	1
0+40.46	TO	1+83.29	LT		2	134.75				166	1
4+12.96	TO	5+50.92	LT		2	138				161	1
TOTALS				53	6	3099.75	1	3	1	2452.25	4

NOTES

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

① ESTIMATED AT 115 LBS. PER SQ. YD. PER INCH OF DEPTH OR 2.07 TONS/CU.YD.

② QUANTITY FOR ROCK DITCH

③ INCLUDES 2107 CU.YD. FOR EMBANKMENT BENCHING.

④ VARIED DEPTH, SEE CROSS SECTIONS.

⑤ Two (2) Applications At The Rate Of 2.40 Lbs/SY Item 103 Asphalt Seal Coat 20 Lbs/SY Item 100 Asphalt Seal Aggregate (Size No. 8 OR 9M).

⑥ Asphalt Tack Coat applied at 0.84 lb/SY.

⑦ REMOVAL OF GUARDRAIL INCLUDES REMOVAL OF END TREATMENTS.

⑧ DGA BASE INCLUDES QUANTITY FOR DAYLIGHTING SIDE SLOPES. APPROXIMATELY 754.5 SQ.YD. OF FULL DEPTH (APPROXIMATELY 15 INCHES DEEP CAN BE USED FOR ESTIMATING).

⑨ FOR THE NEW KY 222 BRIDGE BARRIERS.

⑩ FOR REMOVAL OF SUPERSTRUCTURE OF EXISTING KY 222 BRIDGE.

⑪ REMOVE EXISTING INLETS AT STATIONS 1+64.04 RT, 1+63.87 LT, 4+30.94 RT, AND 4+31.07 LT.

⑫ FOR REMOVAL OF EXISTING CONTROL ACCESS FENCE AND REPLACEMENT OF IT AFTER CONSTRUCTION IS COMPLETE.

⑬ FOR SAFELOADING THE PIPES FOR THE EXISTING BRIDGE END DRAINAGE SYSTEM AT STATIONS 1+63.95 AND 4+31.01

⑭ MEASURED IN CU.YD.

⑮ SEE SPECIAL NOTE FOR PAVER MOUNTED TEMPERATURE PROFILS.

PAVING SUMMARY

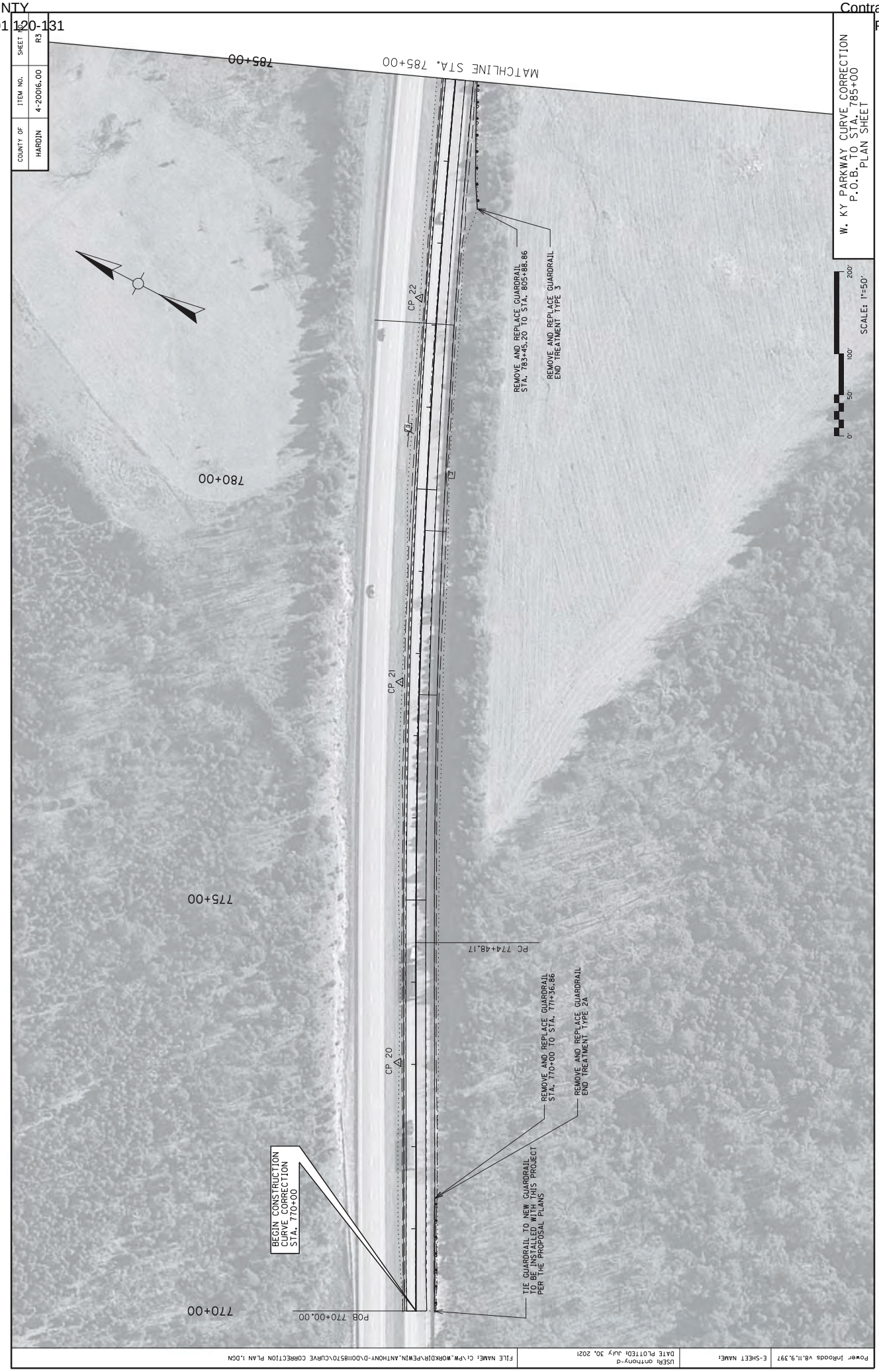
ITEM CODE	ITEM	UNIT	WK-9001 CURVE CORRECTION	WK-9001 DIGOUT AT KY 84	KY 222 BRIDGE APPROACH	TOTAL PROJECT
1	DGA BASE ① ⑧	TON	1975	1603	143	3721
100	ASPHALT SEAL AGGREGATE ⑤	TON	35.5	7	3	45.5
103	ASPHALT SEAL COAT ⑤	TON	4.3	0.8	0.4	5.5
190	LEVELING AND WEDGING PG64-22 ④	TON	480		153	633
194	LEVELING AND WEDGING PG76-22 ④	TON	434			434
219	CL4 ASPH BASE 1.00D PG76-22	TON	1977	1547	93	3617
339	CL3 ASPH SURF 0.38D PG64-22	TON	383	72		455
342	CL4 ASPH SURF 0.38A PG76-22	TON	989	194	66	1249
356	ASPHALT MATERIAL FOR TACK ⑥	TON	12	3.7	0.5	16.2
2091	REMOVE PAVEMENT	SQYD		3189.5		3189.5
2677	ASPHALT PAVE MILLING & TEXTURING ④	TONS	3221		35	3256
20071EC	JOINT ADHESIVE	LF	7989	1578.5	346	9913.5

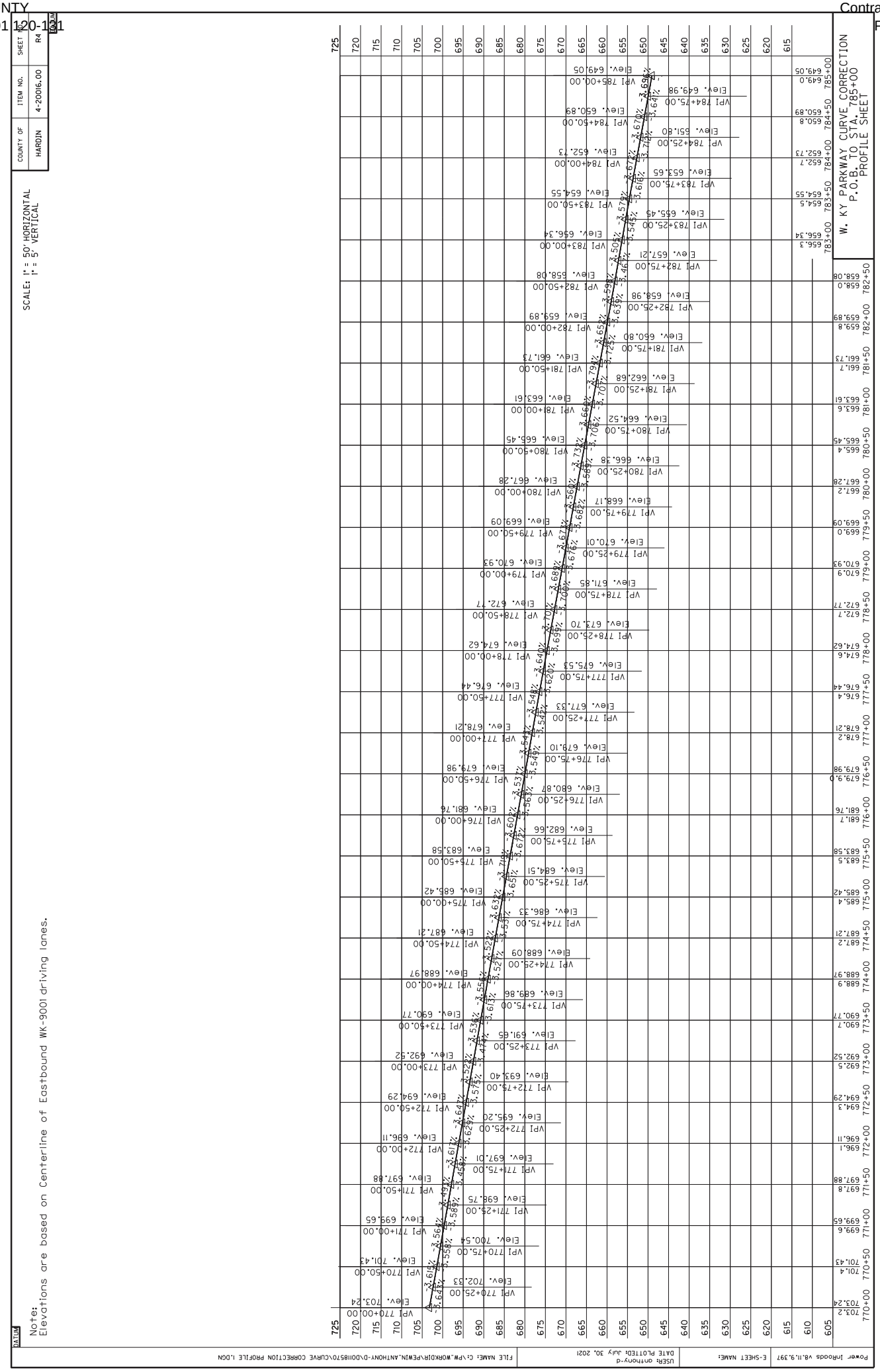
PAVING AREAS

ITEM	WK-9001 CURVE CORRECTION	WK-9001 DIGOUT AT KY 84	KY 222 BRIDGE APPROACH		TOTAL PROJECT
	SQUARES				
1.50" CL4 ASPH SURF 0.38A PG76-22	11982	2349.5	797.25		15128.75
3.00" CL4 ASPH BASE 1.00D PG76-22	11982	6567			18549
1.5" CL3 ASPH SURF 0.38D PG64-22	4640	876.5			5516.5
3.50" CL4 ASPH BASE 1.00D PG76-22		2404.5			2404.5
4.50" CL4 ASPH BASE 1.00D PG76-22			375.25		375.25
4.00" DGA BASE		2404.5			2404.5
7.5" DGA BASE		925.5			925.5
FULL DEPTH DGA BASE ⑧		754.5			754.5
ASPHALT SEAL AGGREGATE	1775.5	351	153.75		2280.25
ASPHALT SEAL COAT	1775.5	351	153.75		2280.25
ASPHALT MATERIAL FOR TACK	28604.25	8867.5	1172.5		38644.25
DGA SHOULDER WEDGE ① ⑭	954		69		1023

ALL QUANTITIES HAVE BEEN CARRIED FORWARD TO THE OVERALL PROPOSAL SUMMARY SHEETS.

GENERAL, GUARDRAIL & PAVING SUMMARY SHEET


COUNTY OF
HARDIN
ITEM NO.
4-20016.00
SHEET NO.
R3
W. KY PARKWAY CURVE CORRECTION
P.O.B. TO STA. 785+00
PLAN SHEET
SCALE: 1"=50'
0'
50'
100'
200'
MATCHLINE STA. 785+00
785+00
780+00
775+00
770+00
CP 22
CP 21
CP 20
REMOVE AND REPLACE GUARDRAIL
STA. 783+45.20 TO STA. 805+88.86
REMOVE AND REPLACE GUARDRAIL
END TREATMENT TYPE 3
PC 774+48.17
REMOVE AND REPLACE GUARDRAIL
STA. 770+00 TO STA. 771+36.86
REMOVE AND REPLACE GUARDRAIL
END TREATMENT TYPE 2A
BEGIN CONSTRUCTION
CURVE CORRECTION
STA. 770+00
TIE GUARDRAIL TO NEW GUARDRAIL
TO BE INSTALLED WITH THIS PROJECT
PER THE PROPOSAL PLANS
POB 770+00.00
Power Inroads v8.11.9.397
E-SHEET NAME:
USER: anthony-d
DATE PLOTTED: July 30, 2021
FILE NAME: c:\PW_WORKDIR\PEMIN_ANTHONY-D\D0118570\CURVE CORRECTION PLAN 1.DGN


W. KY PARKWAY CURVE CORRECTION
P.O.B. TO STA. 785+00
PROFILE SHEET
COUNTY OF HARDIN
ITEM NO. 4-20016.00
SHEET NO. R4
SCALE: 1" = 50' HORIZONTAL
1" = 5' VERTICAL
DATUM
Note:
Elevations are based on Centerline of Eastbound WK-9001 driving lanes.
Power InRoads v8.11.9.397
E-SHEET NAME:
USER: anthony-d
DATE PLOTTED: July 30, 2021
FILE NAME: c:\PW_WORKDIR\PEMAIN_ANTHONY-D\D0118570\CURVE CORRECTION PROFILE 1.DGN

COUNTY OF
HARDIN
ITEM NO.
4-20016.00
SHEET NO.
R5
W. KY PARKWAY CURVE CORRECTION
STA. 785+00 TO STA. 800+00
PLAN SHEET
SCALE: 1"=50'
0'
50'
100'
200'
MATCHLINE STA. 800+00
800+00
795+00
790+00
PI 789+91.31
MATCHLINE STA. 785+00
785+00
CP 25
CP 24
CP 23
REPLACE GRATE
REMOVE END TREATMENT
Power InRoads V8.11.9.397
E-SHEET NAME:
USER: anthony-d
DATE PLOTTED: July 30, 2021
FILE NAME: c:\PW_WORKDIR\PEMIN_ANTHONY-D\D0118570\CURVE CORRECTION PLAN 2.DGN

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-20016.00	R6

W. KY PARKWAY CURVE CORRECTION
785+00 TO STA. 800+00
PROFILE SHEET

SCALE: 1" = 50' HORIZONTAL
1" = 5' VERTICAL

Note:
Elevations are based on Centerline of Eastbound WK-9001 driving lanes.

COUNTY OF
HARDIN
ITEM NO.
4-20016.00
SHEET NO.
R7
W. KY PARKWAY CURVE CORRECTION
STA. 800+00 TO P.O.E.
PLAN SHEET
0'
50'
100'
200'
SCALE: 1"=50'
809+94
POE 809+94.33
END CONSTRUCTION
CURVE CORRECTION
STA. 809+94.33
CP 27
INSTAL GUARDRAIL
END TREATMENT TYPE 2A
REMOVE GUARDRAIL
END TREATMENT
805+00
PT 805+16.00
CP 26
REMOVE GUARDRAIL
END TREATMENT
REMOVE GUARDRAIL
STA. 801+06.41 TO STA. 805+88.86
800+00
MATCHLINE STA. 800+00
Power InRoads V8.11.9.397
E-SHEET NAME:
USER: anthony-d
DATE PLOTTED: July 30, 2021
FILE NAME: c:\PW_WORKDIR\PEMIN_ANTHONY-D\D0118570\CURVE CORRECTION PLAN 3.DGN

W. KY PARKWAY CURVE CORRECTION
800+00 TO P.O.E.
PROFILE SHEET

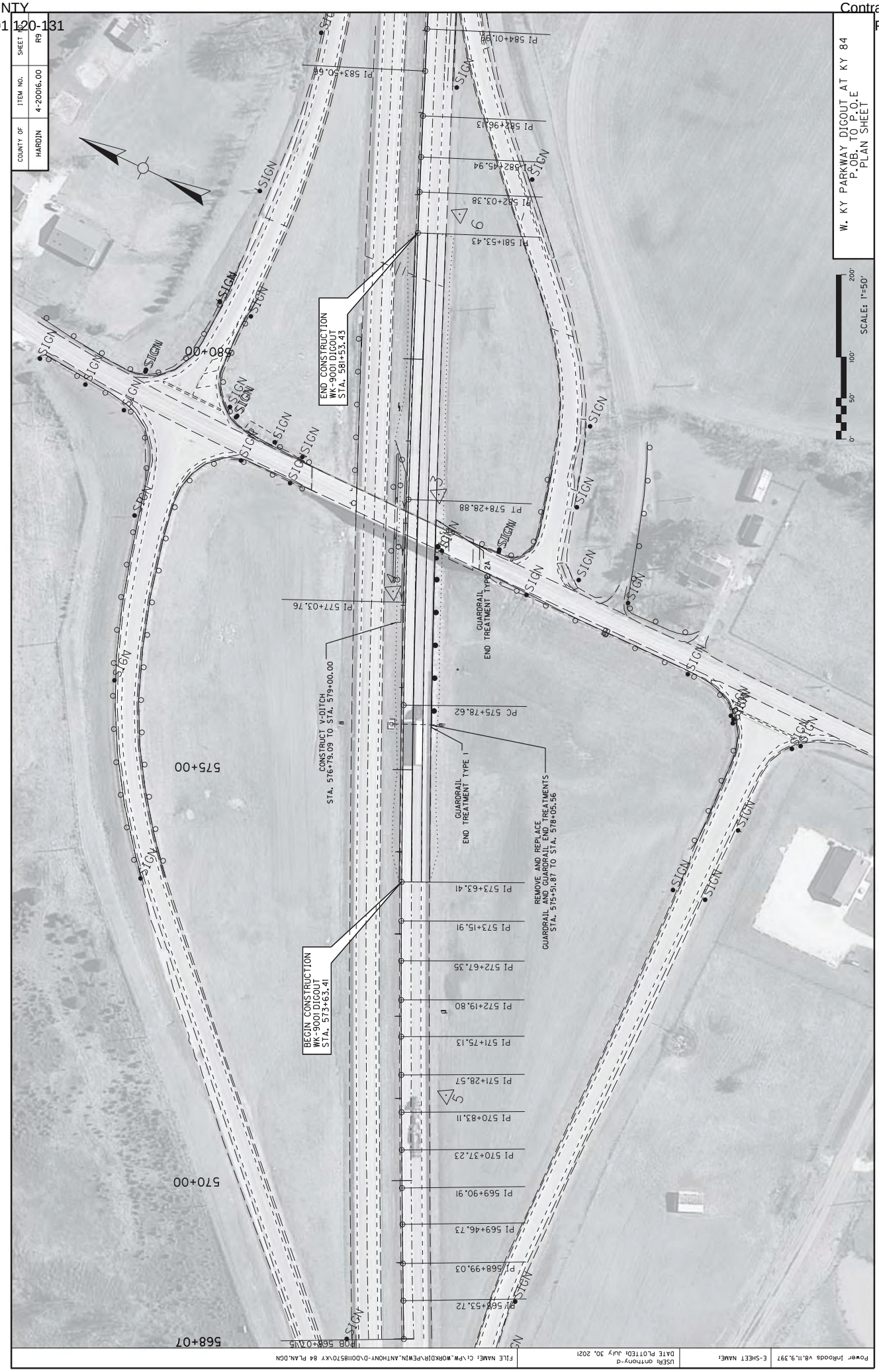
SCALE: 1" = 50' HORIZONTAL
1" = 5' VERTICAL

Note:
Elevations are based on Centerline of Eastbound WK-9001 driving lanes.

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-20016.00	R8

DATUM

Power InRoads v8.11.9.397 | E-SHEET NAME: | USER: anthony-d DATE PLOTTED: July 30, 2021 | FILE NAME: c:\PW_WORKDIR\PEMIN_ANTHONY-D\D0118570\CURVE CORRECTION PROFILE 3.DGN


COUNTY OF HARDIN
ITEM NO. 4-20016.00
SHEET NO. R9
W. KY PARKWAY DIGOUT AT KY 84
P.OB. TO P.O.E
PLAN SHEET
SCALE: 1"=50'
0' 50' 100' 200'
END CONSTRUCTION WK-9001 DIGOUT STA. 581+53.43
BEGIN CONSTRUCTION WK-9001 DIGOUT STA. 573+63.41
CONSTRUCT V-DITCH STA. 576+79.09 TO STA. 579+00.00
GUARDRAIL END TREATMENT TYPE 2A
GUARDRAIL END TREATMENT TYPE 1
REMOVE AND REPLACE GUARDRAIL AND GUARDRAIL END TREATMENTS STA. 575+51.87 TO STA. 578+05.56
PI 584+01.99
PI 583+50.68
PI 582+96.13
PI 582+45.94
PI 582+03.38
PI 581+53.43
PT 578+28.88
PI 577+03.76
PC 575+78.62
PI 573+63.41
PI 573+15.91
PI 572+67.35
PI 572+19.80
PI 571+75.13
PI 571+28.57
PI 570+83.11
PI 570+37.23
PI 569+90.91
PI 569+46.73
PI 568+99.03
PT 568+53.72
PRC 568+07.15
580+00
575+00
570+00
568+07
SIGN
Power InRoads v8.11.9.397
E-SHEET NAME:
USER: anthony-d
DATE PLOTTED: July 30, 2021
FILE NAME: c:\PW_WORKDIR\PEMIN_ANTHONY-D\D0118570\xy 84 PLAN.DGN

DATUM

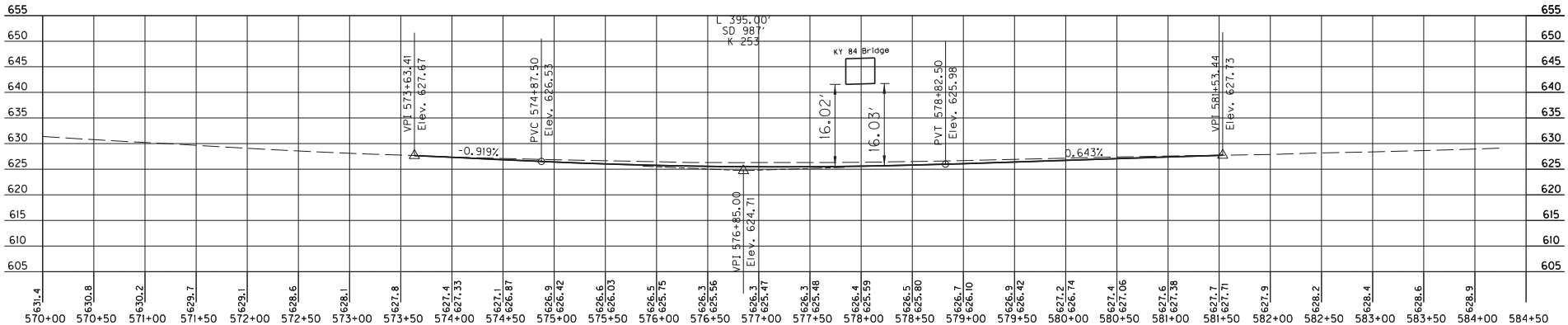
Note:

Elevations are based on the left edge of pavement of the Eastbound WK-9001 driving lanes.

SCALE: 1" = 50' HORIZONTAL
1" = 5' VERTICAL

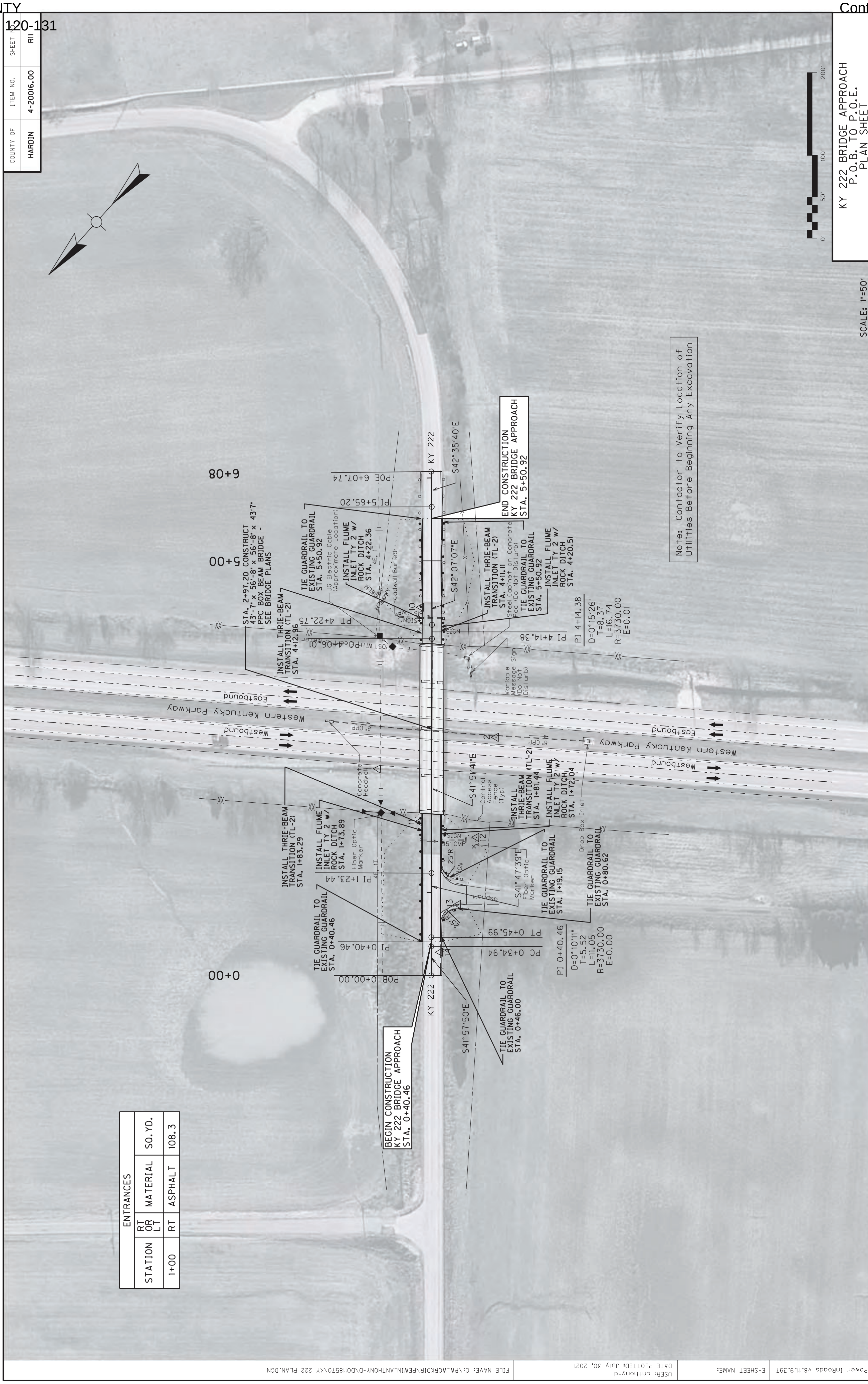
COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	R10

DATUM



FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\KY 84 PROFILE.DGN
USER: anthonyd
DATE PLOTTED: July 30, 2021
E-SHEET NAME:
Power InRoads v8.11.9.397

W. KY PARKWAY DIGOUT AT KY 84
P.O.B. TO P.O.E.
PROFILE SHEET

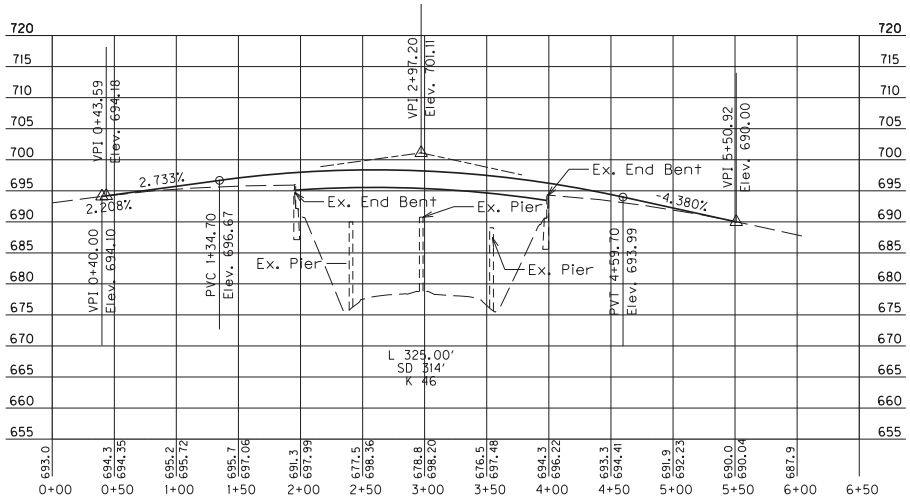

COUNTY OF
HARDIN
ITEM NO.
4-20016.00
SHEET NO.
R11
KY 222 BRIDGE APPROACH
P.O.B. TO P.O.E.
PLAN SHEET
SCALE: 1"=50'
Note: Contactor to Verify Location of Utilities Before Beginning Any Excavation
END CONSTRUCTION
KY 222 BRIDGE APPROACH
STA. 5+50.92
BEGIN CONSTRUCTION
KY 222 BRIDGE APPROACH
STA. 0+40.46
STA. 2+97.20 CONSTRUCT
43'-7" x 56'-8" x 56'-8" x 43'7"
PPC BOX BEAM BRIDGE -
SEE BRIDGE PLANS
Western Kentucky Parkway
Eastbound
Westbound
KY 222
POE 6+07.74
PI 5+65.20
PT 4+22.75
PC 4+06.01
PI 4+14.38
D=0°15'26"
T=8.37
L=16.74
R=3730.00
E=0.01
PI 1+23.44
PI 0+40.46
D=0°10'11"
T=5.52
L=11.05
R=3730.00
E=0.00
PT 0+45.99
PC 0+34.94
POB 0+00.00
S42° 35'40"E
S42° 07'07"E
S41° 51'41"E
S41° 47'39"E
S41° 57'50"E
TIE GUARDRAIL TO
EXISTING GUARDRAIL
STA. 5+50.92
INSTALL FLUME
INLET TY 2 w/
ROCK DITCH
STA. 4+22.36
INSTALL THRIE-BEAM
TRANSITION (TL-2)
STA. 4+11.11
INSTALL FLUME
INLET TY 2 w/
ROCK DITCH
STA. 4+20.51
INSTALL THRIE-BEAM
TRANSITION (TL-2)
STA. 4+12.96
INSTALL THRIE-BEAM
TRANSITION (TL-2)
STA. 1+81.44
INSTALL FLUME
INLET TY 2 w/
ROCK DITCH
STA. 1+72.04
INSTALL THRIE-BEAM
TRANSITION (TL-2)
STA. 1+83.29
INSTALL FLUME
INLET TY 2 w/
ROCK DITCH
STA. 1+73.89
TIE GUARDRAIL TO
EXISTING GUARDRAIL
STA. 0+40.46
TIE GUARDRAIL TO
EXISTING GUARDRAIL
STA. 1+19.15
TIE GUARDRAIL TO
EXISTING GUARDRAIL
STA. 0+80.62
TIE GUARDRAIL TO
EXISTING GUARDRAIL
STA. 0+46.00
0+00
5+00
6+08
ENTRANCES
STATION | RT OR LT | MATERIAL | SQ. YD.
1+00 | RT | ASPHALT | 108.3
Power InRoads v8.11.9.397
E-SHEET NAME:
USER: anthony-d
DATE PLOTTED: July 30, 2021
FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\KY 222 PLAN.DGN

DATUM

SCALE: 1" = 50' HORIZONTAL
1" = 5' VERTICAL

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	R12

DATUM



KY 222 BRIDGE APPROACH
P.O.B. TO P.O.E.
PROFILE SHEET

Power InRoads v8.11.9.397 | E-SHEET NAME: | USER: anthonyd DATE PLOTTED: July 30, 2021 | FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\KY 222 PROFILE.DGN

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-20016.00	R13

CURVE CROSS SLOPE CORRECTION ALIGNMENT INFORMATION

	STATION	NORTHING	EASTING
POB	770+00.00	3727469.9980	4828115.8400
PC	774+48.17	3727677.4222	4828513.1177
TANGENT DIRECTION:		N 62° 25' 49.12" E	
TANGENT LENGTH:		448.1678	
PC	774+48.17	3727677.4222	4828513.1177
PI	789+91.31	3728391.6319	4829881.0369
CC		3717521.5318	4833815.6495
PT	805+16.00	3728718.4590	4831389.1756

RADIUS:	11456.8300
DELTA:	15° 20' 32.11" RIGHT
DEGREE OF CURVATURE(ARC):	0° 30' 00.37"
LENGTH:	3067.8279
TANGENT:	1543.1456
CHORD:	3058.6707
MIDDLE ORDINATE:	102.5318
EXTERNAL:	103.4577
TANGENT DIRECTION:	N 62° 25' 49.12" E
RADIAL DIRECTION:	S 27° 34' 10.88" E
CHORD DIRECTION:	N 70° 06' 05.18" E
RADIAL DIRECTION:	S 12° 13' 38.76" E
TANGENT DIRECTION:	N 77° 46' 21.24" E

PT	805+16.00	3728718.4590	4831389.1756
POE	809+94.33	3728819.7670	4831856.6600
TANGENT DIRECTION:		N 77° 46' 21.24" E	
TANGENT LENGTH:		478.3356	

COORDINATE SYSTEM

Coordinates for horizontal control are based on the coordinates for control monuments 20 and 21 which were derived by RTK GNSS observations with a Trimble R10 Receiver utilizing the Kentucky Transportation Cabinet's CORS network. A conventional total station traverse was run from control monument 21 using control monument 20 for the backsight point through all the other control monuments to determine their coordinates.

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

BASIS OF ELEVATIONS

Elevations were derived from the GNSS observed elevation for control monument 20. This elevation was obtained by a GNSS RTK observation with a Trimble R10 Receiver utilizing the Kentucky Transportation Cabinet's CORS network and Geoid18.

The elevations of all other monuments are based on a closed differential level loop from control monument 20 through each of them. All elevations are based on the NAVD 88 and are shown in U.S. Survey Feet.

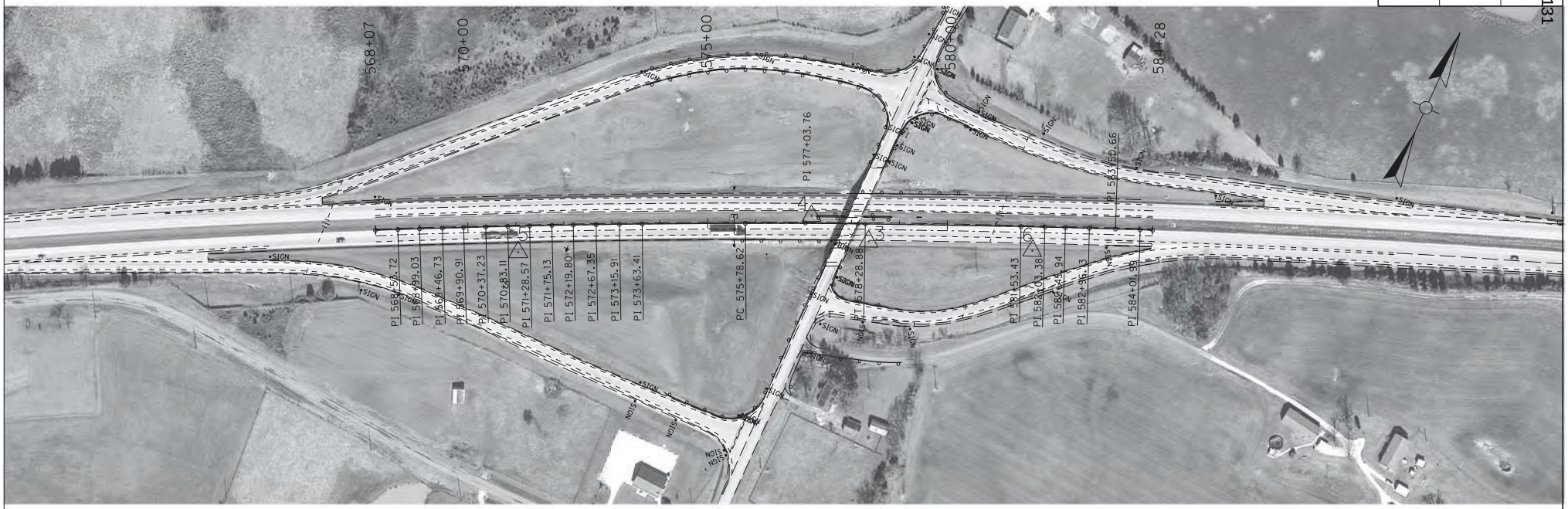
COORDINATE CONTROL POINTS

POINT	DESCRIPTION	State Plane Coordinates			STATION and OFFSET
		NORTH (Y)	EAST (X)	ELEV. (Z)	
20	1.5" Metal Cap on No.5 Rebar	3727628.668	4828374.352	691.31	773+02.59, 21.01' Lt
21	1.5" Metal Cap on No.5 Rebar	3727840.608	4828785.922	674.45	777+64.93, 22.78' Lt
22	1.5" Metal Cap on No.5 Rebar	3728035.959	4829211.192	657.41	782+32.05, 21.59' Lt
23	1.5" Metal Cap on No.5 Rebar	3728215.497	4829645.128	640.32	787+00.81, 21.59' Lt
24	1.5" Metal Cap on No.5 Rebar	3728379.797	4830090.125	627.79	791+74.29, 22.78' Lt
25	1.5" Metal Cap on No.5 Rebar	3728526.478	4830548.116	624.06	796+54.27, 22.96' Lt
26	1.5" Metal Cap on No.5 Rebar	3728656.888	4831029.017	624.44	801+51.60, 21.91' Lt
27	1.5" Metal Cap on No.5 Rebar	3728768.615	4831516.069	631.39	806+50.63, 22.14' Lt

SCALE: 1"=200'

COORDINATE CONTROL
CURVE CROSS SLOPE CORRECTION
STA 770+00.00 TO STA 809+94.33

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-20016.00	R14



COORDINATE SYSTEM

Coordinates for horizontal control are based on the coordinates for control monuments 3 and 4 which were derived by RTK GNSS observations with a Trimble R10 Receiver utilizing the Kentucky Transportation Cabinet's CORS network. A conventional total station traverse was run from control monument 4 using control monument 3 for the backsight point through all the other control monuments to determine their coordinates.

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

BASIS OF ELEVATIONS

Elevations were derived from the GNSS observed elevation for control monument 3. This elevation was obtained by a GNSS RTK observation with a Trimble R10 Receiver utilizing the Kentucky Transportation Cabinet's CORS network and Geoid18.

The elevations of all other monuments are based on a closed differential level loop from control monument 3 through each of them. All elevations are based on the NAVD 88 and are shown in U.S. Survey Feet.

COORDINATE CONTROL POINTS

POINT	DESCRIPTION	State Plane Coordinates			STATION and OFFSET
		NORTH (Y)	EAST (X)	ELEV. (Z)	
3	1.5" Metal Cap on No. 5 Rebar	3731765.869	4837995.750	625.09	578+36.25, 36.53' Rt
4	1.5" Metal Cap on No. 5 Rebar	3731765.298	4837865.479	626.50	577+16.67, 15.37' Lt
5	1.5" Metal Cap on No. 5 Rebar	3731443.567	4837339.660	628.72	571+03.70, 54.29' Rt
6	1.5" Metal Cap on No. 5 Rebar	3731889.500	4838314.693	624.87	581+78.41, 49.84' Rt

SCALE: 1"=100'

COORDINATE CONTROL
DIGOUT AT KY 84
STA 568+07.15 TO STA 584+28.07

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-20016.00	R15

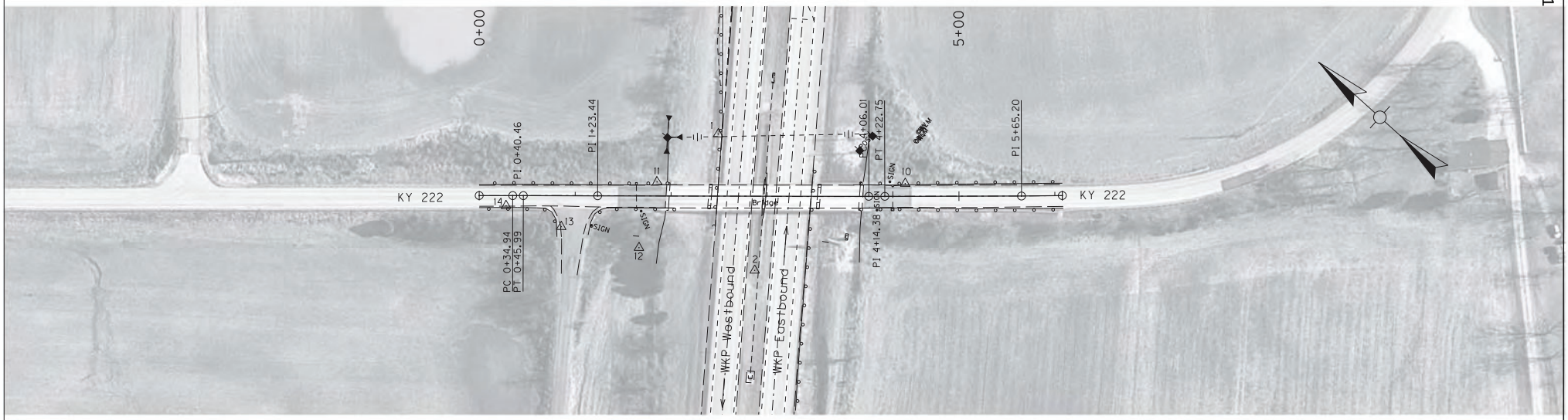
WKP DIGOUT AT KY 84 ALIGNMENT INFORMATION

	STATION	NORTHING	EASTING
Element: Linear			
POB	568+07.15	3731362.3190	4837049.6420
PI	568+53.72	3731382.9310	4837091.4060
Tangent Direction: N 63^43'55.36" E			
Tangent Length:46.5734			
Element: Linear			
PI	568+53.72	3731382.9310	4837091.4060
PI	568+99.03	3731402.9240	4837132.0610
Tangent Direction: N 63^48'47.96" E			
Tangent Length:45.3051			
Element: Linear			
PI	568+99.03	3731402.9240	4837132.0610
PI	569+46.73	3731423.9240	4837174.8870
Tangent Direction: N 63^52'43.27" E			
Tangent Length:47.6977			
Element: Linear			
PI	569+46.73	3731423.9240	4837174.8870
PI	569+90.91	3731443.3630	4837214.5660
Tangent Direction: N 63^53'58.08" E			
Tangent Length:44.1848			
Element: Linear			
PI	569+90.91	3731443.3630	4837214.5660
PI	570+37.23	3731463.5870	4837256.2330
Tangent Direction: N 64^06'33.68" E			
Tangent Length:46.3158			
Element: Linear			
PI	570+37.23	3731463.5870	4837256.2330
PI	570+83.11	3731483.5440	4837297.5450
Tangent Direction: N 64^12'56.67" E			
Tangent Length:45.8799			
Element: Linear			
PI	570+83.11	3731483.5440	4837297.5450
PI	571+28.57	3731503.2760	4837338.5050
Tangent Direction: N 64^16'41.17" E			
Tangent Length:45.4651			
Element: Linear			
PI	571+28.57	3731503.2760	4837338.5050
PI	571+75.13	3731523.4600	4837380.4650
Tangent Direction: N 64^18'39.85" E			
Tangent Length:46.5622			
Element: Linear			
PI	571+75.13	3731523.4600	4837380.4650
PI	572+19.80	3731542.6820	4837420.7860
Tangent Direction: N 64^30'42.22" E			
Tangent Length:44.6684			
Element: Linear			
PI	572+19.80	3731542.6820	4837420.7860
PI	572+67.35	3731563.0720	4837463.7380
Tangent Direction: N 64^36'20.02" E			
Tangent Length:47.5460			
Element: Linear			
PI	572+67.35	3731563.0720	4837463.7380
PI	573+15.91	3731583.8240	4837507.6380
Tangent Direction: N 64^41'57.83" E			
Tangent Length:48.5578			
Element: Linear			
PI	573+15.91	3731583.8240	4837507.6380
PI	573+63.41	3731603.9740	4837550.6610
Tangent Direction: N 64^54'13.55" E			
Tangent Length:47.5079			

	STATION	NORTHING	EASTING
Element: Linear			
PI	573+63.41	3731603.9740	4837550.6610
PC	575+78.62	3731694.1966	4837746.0371
Tangent Direction: N 65^12'46.82" E			
Tangent Length: 215.2021			
Element: Circular			
PC	575+78.62	3731694.1966	4837746.0371
PI	577+03.76	3731746.6609	4837859.6479
CC		3721979.9590	4842231.9693
PT	578+28.88	3731796.4538	4837974.4547
Radius: 10700.0000			
Delta: 1^20'24.43" Right			
Degree of Curvature(Arc): 0^32'07.71"			
Length: 250.2678			
Tangent: 125.1396			
Chord: 250.2621			
Middle Ordinate:0.7317			
External:0.7317			
Tangent Direction: N 65^12'46.82" E			
Radial Direction: S 24^47'13.18" E			
Chord Direction: N 65^52'59.04" E			
Radial Direction: S 23^26'48.74" E			
Tangent Direction: N 66^33'11.26" E			
Element: Linear			
PT	578+28.88	3731796.4538	4837974.4547
PI	581+53.43	3731925.5920	4838272.2070
Tangent Direction: N 66^33'11.26" E			
Tangent Length: 324.5507			
Element: Linear			
PI	581+53.43	3731925.5920	4838272.2070
PI	582+03.38	3731945.1370	4838318.1670
Tangent Direction: N 66^57'42.62" E			
Tangent Length:49.9433			
Element: Linear			
PI	582+03.38	3731945.1370	4838318.1670
PI	582+45.94	3731961.7870	4838357.3400
Tangent Direction: N 66^58'21.65" E			
Tangent Length:42.5646			
Element: Linear			
PI	582+45.94	3731961.7870	4838357.3400
PI	582+96.13	3731981.3470	4838403.5540
Tangent Direction: N 67^03'34.45" E			
Tangent Length:50.1829			
Element: Linear			
PI	582+96.13	3731981.3470	4838403.5540
PI	583+50.66	3732002.3010	4838453.8980
Tangent Direction: N 67^24'07.63" E			
Tangent Length:54.5306			
Element: Linear			
PI	583+50.66	3732002.3010	4838453.8980
PI	584+01.99	3732022.1800	4838501.2300
Tangent Direction: N 67^13'04.97" E			
Tangent Length:51.3371			
Element: Linear			
PI	584+01.99	3732022.1800	4838501.2300
POE	584+28.07	3732032.1140	4838525.3430
Tangent Direction: N 67^36'34.09" E			
Tangent Length:26.0791			

COORDINATE CONTROL
DIGOUT AT KY 84
ALIGNMENT INFORMATION

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-20016.00	R16



KY 222 ALIGNMENT INFORMATION

STATION	NORTHING	EASTING
ELEMENT: LINEAR		
POB 0+00.00	3749394.1820	4861804.1350
PC 0+34.94	3749368.2018	4861827.4980
TANGENT DIRECTION:	S 41°57'49.85" E	
TANGENT LENGTH: 34.9399		
ELEMENT: CIRCULAR		
PC 0+34.94	3749368.2018	4861827.4980
PI 0+40.46	3749364.0940	4861831.1920
CC	3746874.0942	4859053.9935
PT 0+45.99	3749359.9753	4861834.8738
RADIUS: 3730.0000		
DELTA:	0°10'10.99" RIGHT	
DEGREE OF CURVATURE(CHORD):		1°32'10.05"
LENGTH: 11.0489		
TANGENT: 5.5245		
CHORD: 11.0489		
MIDDLE ORDINATE: 0.0041		
EXTERNAL: 0.0041		
TANGENT DIRECTION:	S 41°57'49.85" E	
RADIAL DIRECTION:	S 48°02'10.15" W	
CHORD DIRECTION:	S 41°52'44.35" E	
RADIAL DIRECTION:	S 48°12'21.14" W	
TANGENT DIRECTION:	S 41°47'38.86" E	
ELEMENT: LINEAR		
PT 0+45.99	3749359.9753	4861834.8738
PI 1+23.44	3749302.2314	4861886.4921
TANGENT DIRECTION:	S 41°47'38.86" E	
TANGENT LENGTH: 77.4520		
ELEMENT: LINEAR		
PI 1+23.44	3749302.2314	4861886.4921
PC 4+06.01	3749091.7857	4862075.0591
TANGENT DIRECTION:	S 41°51'41.34" E	
TANGENT LENGTH: 282.5684		

STATION	NORTHING	EASTING
ELEMENT: CIRCULAR		
PC 4+06.01	3749091.7857	4862075.0591
PI 4+14.38	3749085.5511	4862080.6455
CC	3751580.9343	4864853.0150
PT 4+22.75	3749079.3416	4862086.2599
RADIUS: 3730.0000		
DELTA:	0°15'25.85" LEFT	
DEGREE OF CURVATURE(CHORD):		1°32'10.05"
LENGTH: 16.7426		
TANGENT: 8.3713		
CHORD: 16.7426		
MIDDLE ORDINATE: 0.0094		
EXTERNAL: 0.0094		
TANGENT DIRECTION:	S 41°51'41.34" E	
RADIAL DIRECTION:	S 48°08'18.66" W	
CHORD DIRECTION:	S 41°59'24.27" E	
RADIAL DIRECTION:	S 47°52'52.81" W	
TANGENT DIRECTION:	S 42°07'07.19" E	
ELEMENT: LINEAR		
PT 4+22.75	3749079.3416	4862086.2599
PI 5+65.20	3748973.6800	4862181.7950
TANGENT DIRECTION:	S 42°07'07.19" E	
TANGENT LENGTH: 142.4476		
ELEMENT: LINEAR		
PI 5+65.20	3748973.6800	4862181.7950
POE 6+07.74	3748942.3650	4862210.5850
TANGENT DIRECTION:	S 42°35'39.95" E	
TANGENT LENGTH: 42.5381		

COORDINATE CONTROL POINTS

POINT	DESCRIPTION	State Plane Coordinates			STATION and OFFSET
		NORTH (Y)	EAST (X)	ELEV. (Z)	
1	1.5" Metal Cap on No. 5 Rebar	3749251.885	4862018.510	677.060	2+49.04, 64.72' Lt
2	1.5" Metal Cap on No. 5 Rebar	3749128.492	4861938.161	678.550	2+87.32, 77.46' Rt
10	8" Magnail	3749072.432	4862110.403	692.900	4+44.07, 13.27' Lt
11	8" Magnail	3749265.905	4861938.681	694.580	1+85.32, 14.63' Lt
12	1.5" Metal Cap on No. 5 Rebar	3749233.988	4861875.095	676.860	1+66.66, 54.03' Rt
13	PK Nail	3749308.862	4861837.192	692.930	0+85.64, 32.34' Rt
14	PK Nail	3749366.241	4861814.978	693.290	0+28.03, 10.62' Rt

BASIS OF ELEVATIONS

Elevations were derived from the GNSS observed elevation for control monument 1. This elevation was obtained by a GNSS RTK observation with a Trimble R10 Receiver utilizing the Kentucky Transportation Cabinet's CORS network and Geoid18.

The elevations of all other monuments are based on a closed differential level loop from control monument 3 through each of them. All elevations are based on the NAVD 88 and are shown in U.S. Survey Feet.

COORDINATE SYSTEM

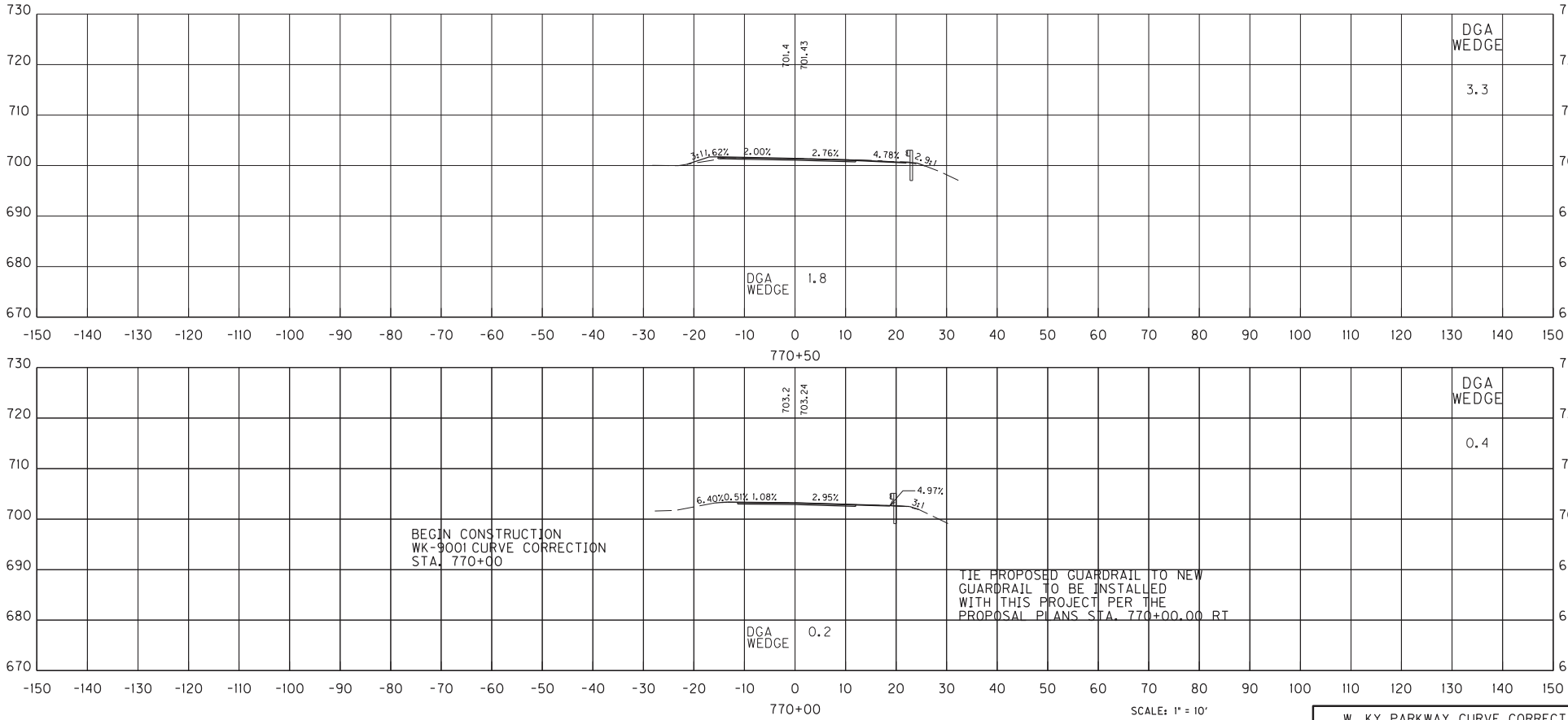
Coordinates for horizontal control are based on the coordinates for control monuments 1 and 2 which were derived by RTK GNSS observations with a Trimble R10 Receiver utilizing the Kentucky Transportation Cabinet's CORS network. A conventional total station traverse was run from control monument 2 using control monument 1 for the backsight point through all the other control monuments to determine their coordinates.

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

SCALE: 1"=50'

COORDINATE CONTROL
KY 222
STA 568+07.15 TO STA 584+28.07

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X1

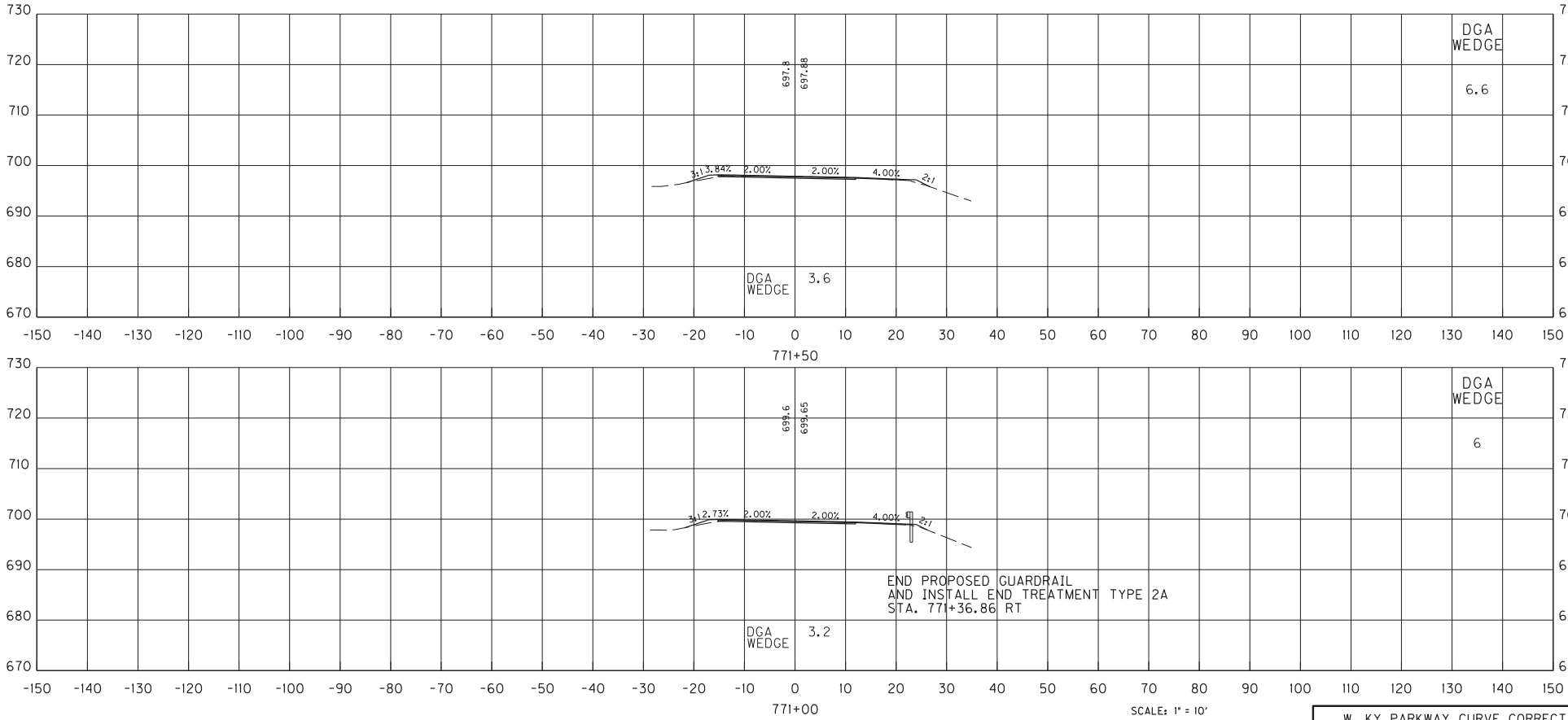


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 770+00 TO STA. 770+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X2

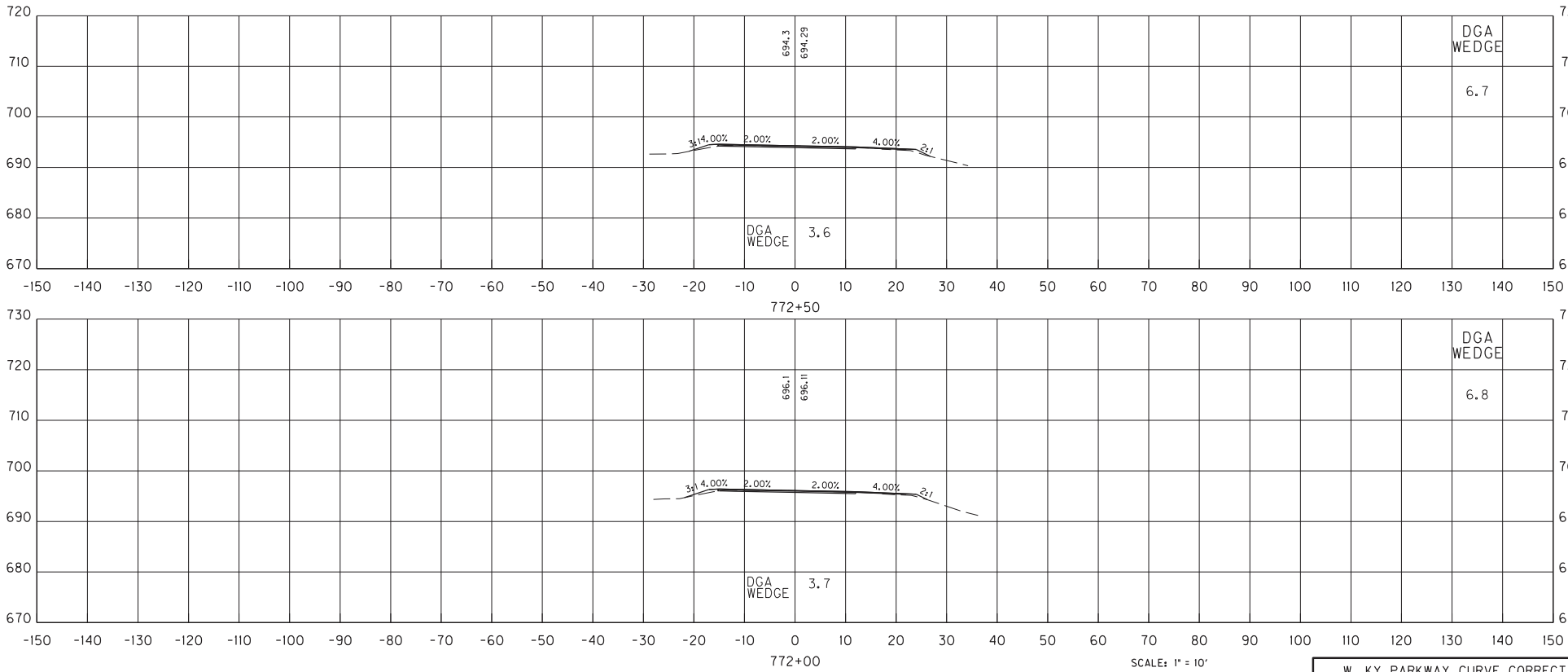


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 771+00 TO STA. 771+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X3

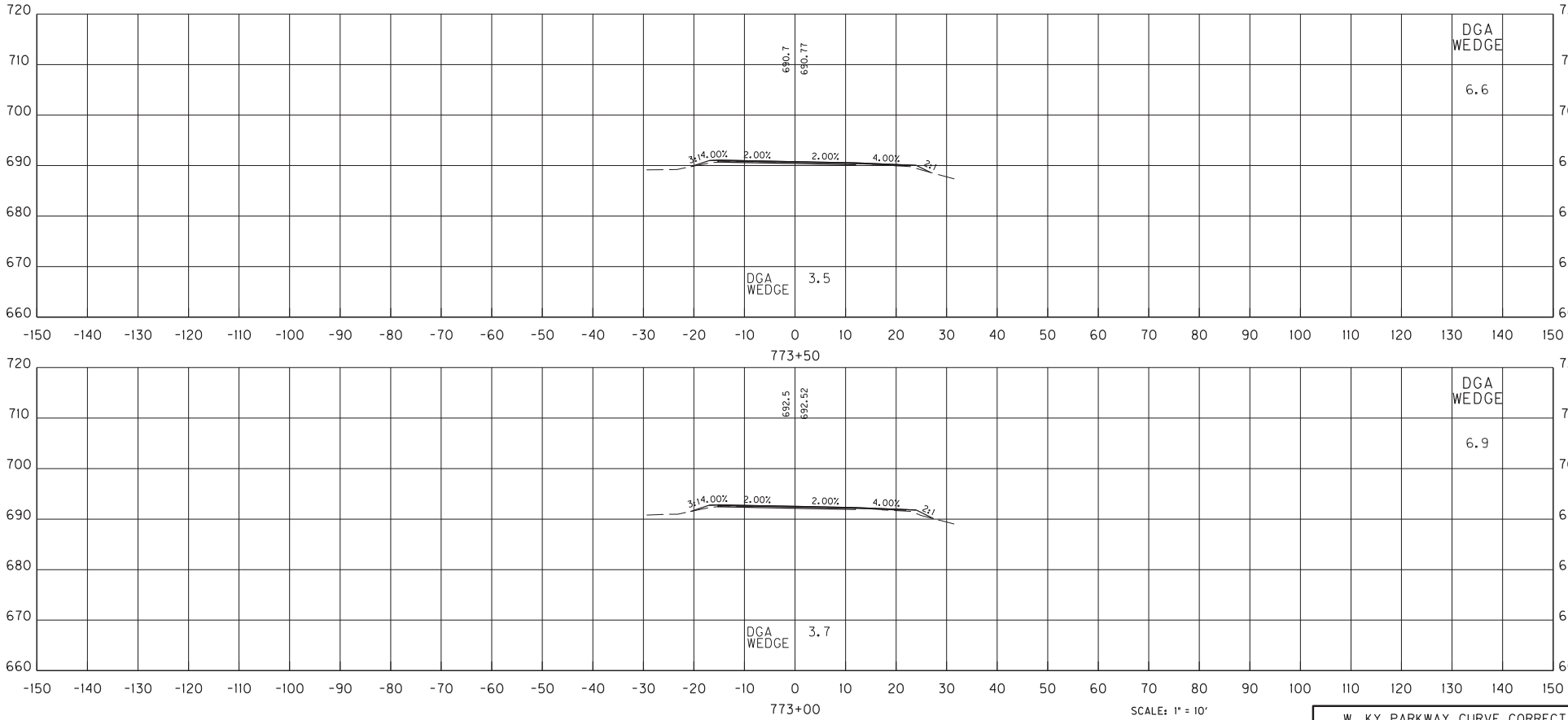


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 772+00 TO STA. 772+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X4

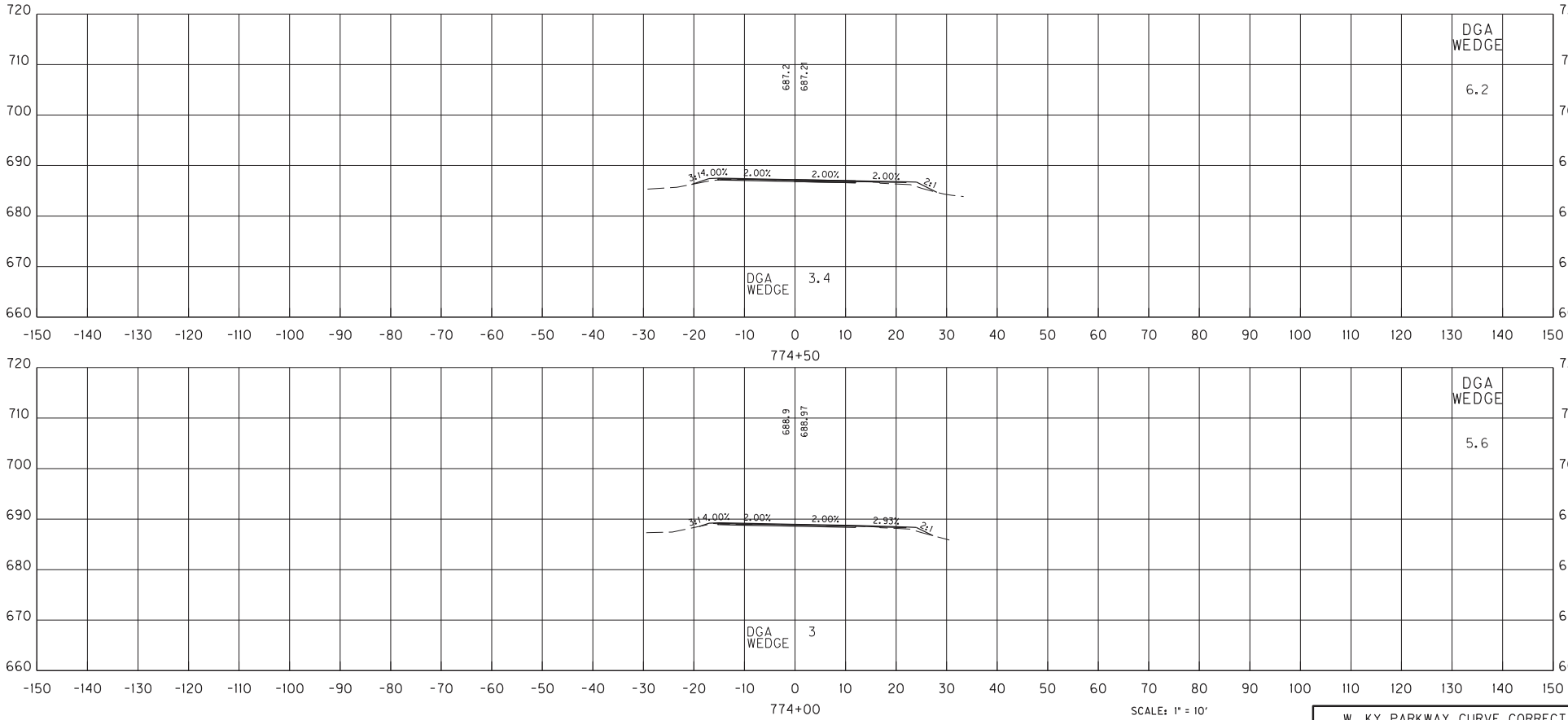


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 773+00 TO STA. 773+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X5

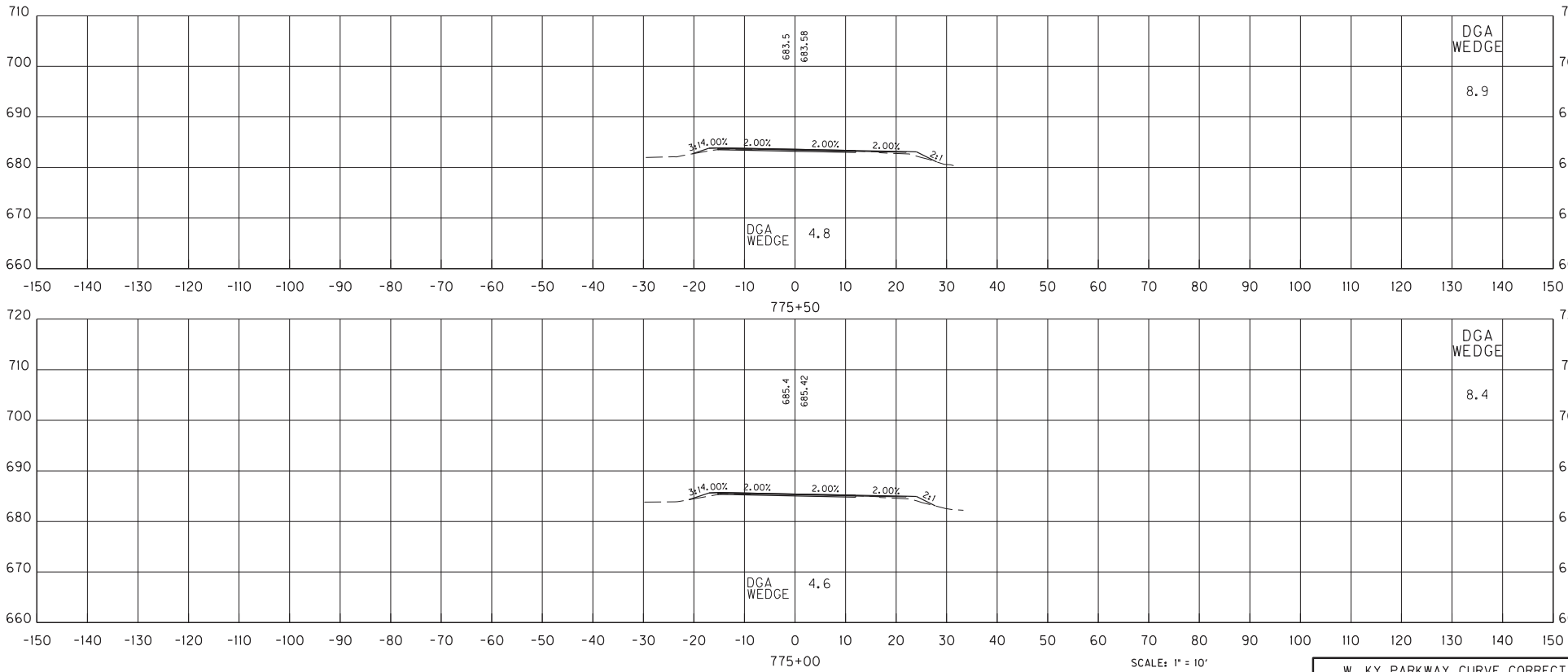


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 774+00 TO STA. 774+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0018570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X6

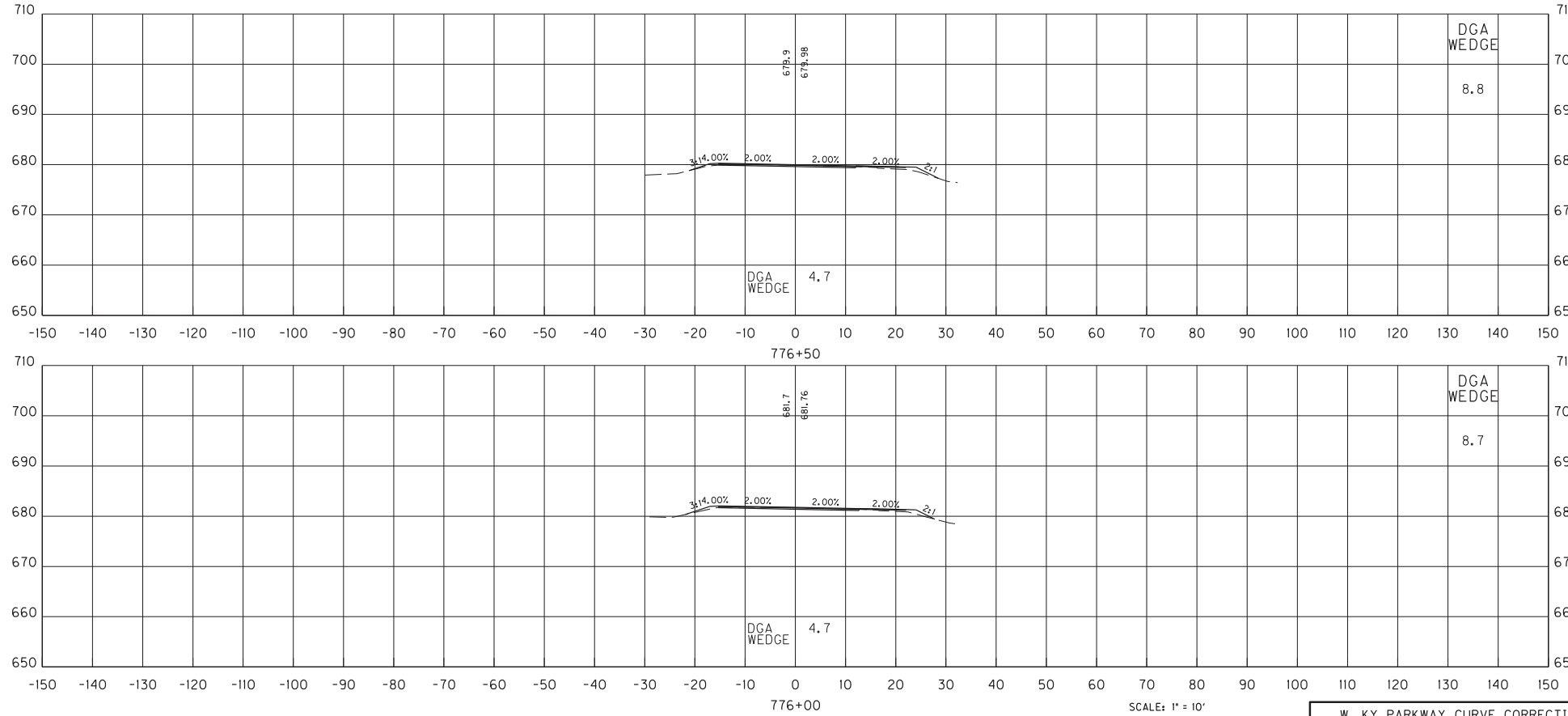


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 775+00 TO STA. 775+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X7

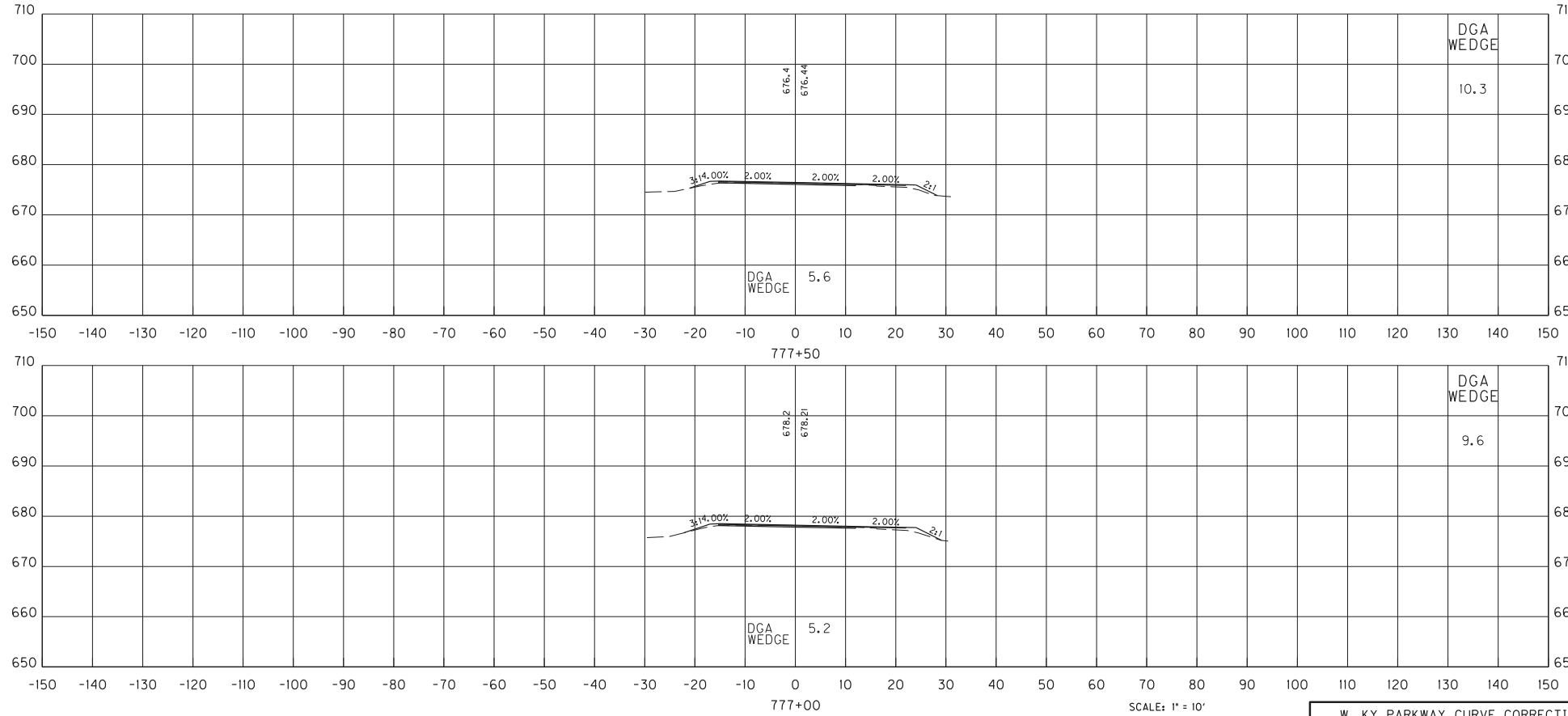


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 776+00 TO STA. 776+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

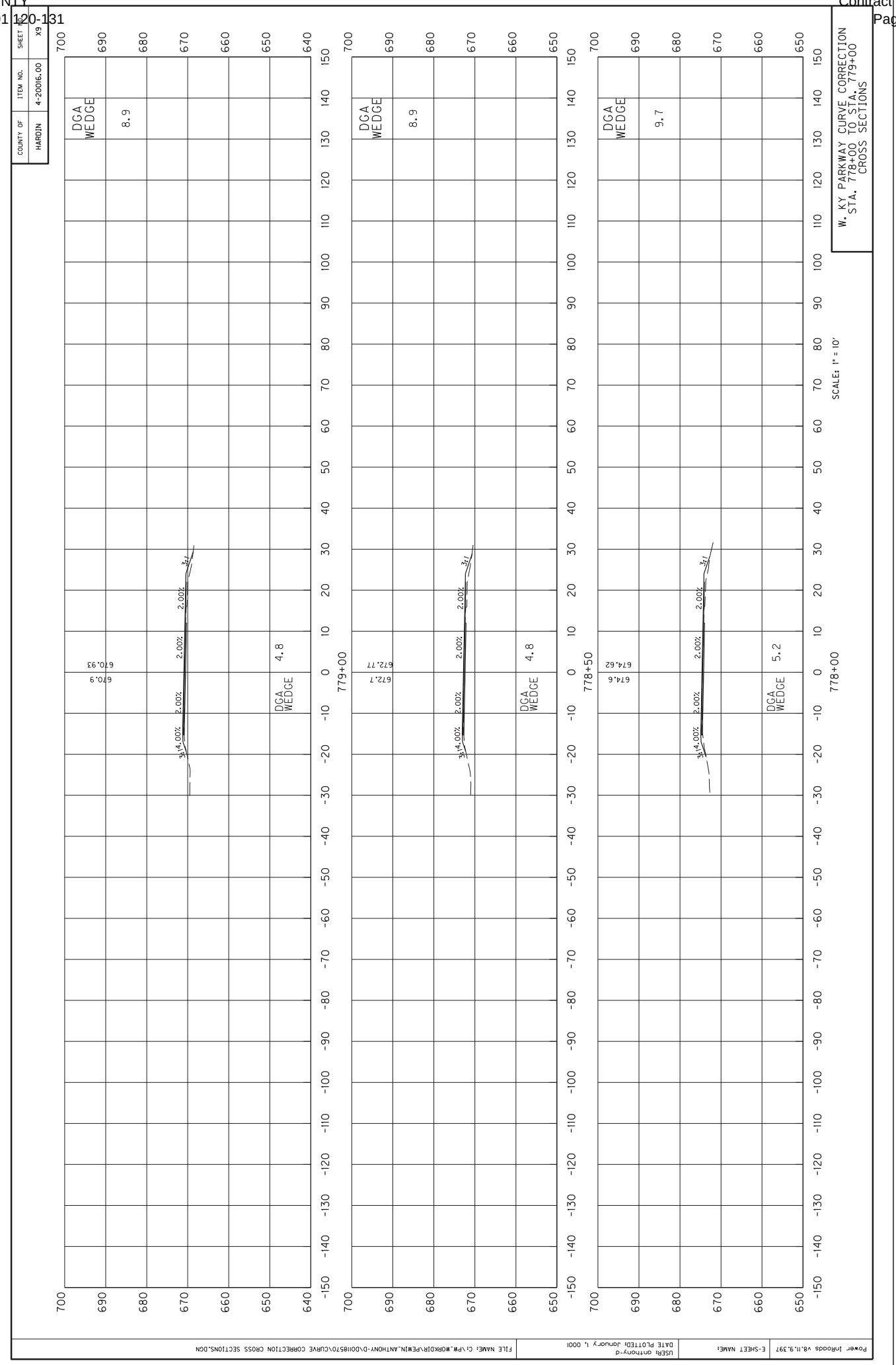
COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X8



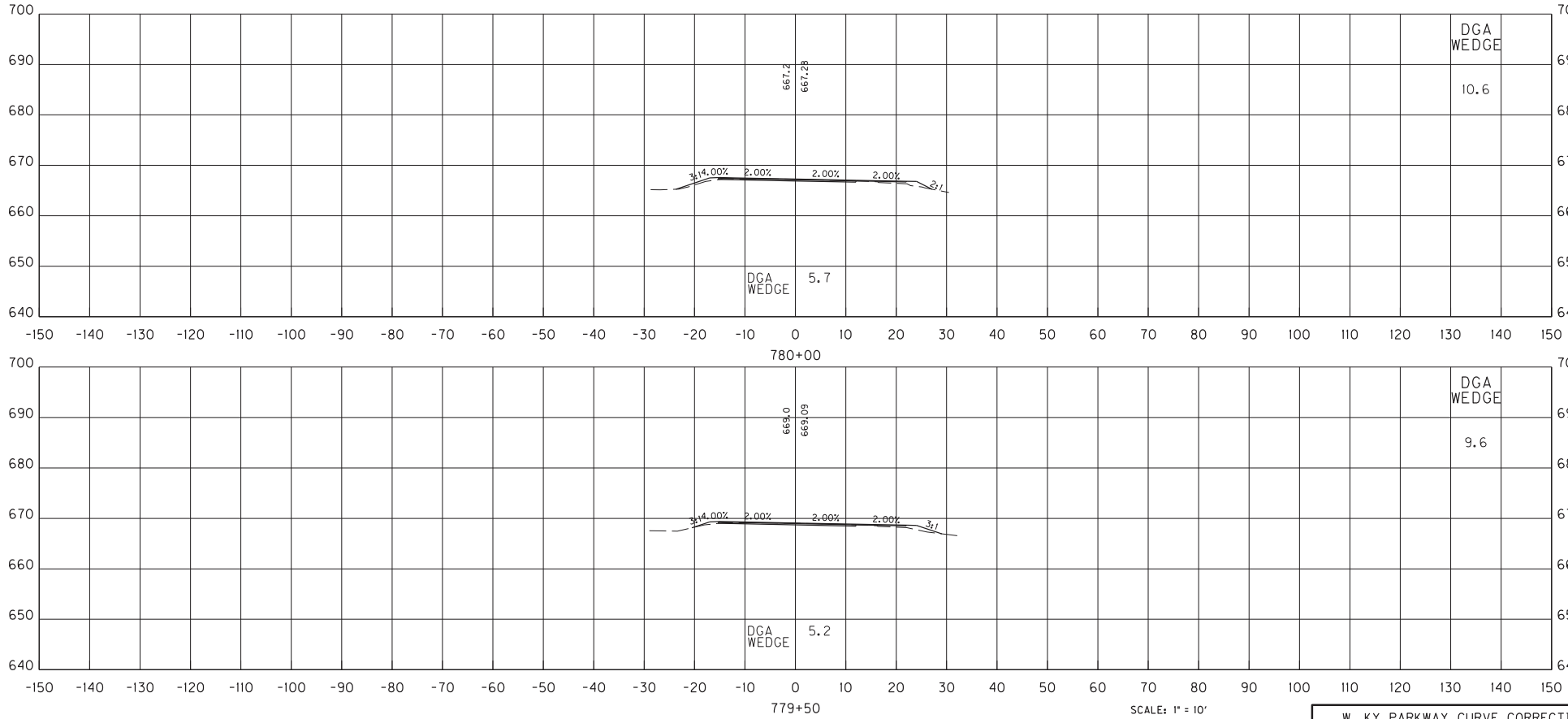
SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 777+00 TO STA. 777+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397


COUNTY OF HARDIN
ITEM NO. 4-20016.00
SHEET NO. X9
W. KY PARKWAY CURVE CORRECTION
STA. 778+00 TO STA. 779+00
CROSS SECTIONS
SCALE: 1" = 10'
779+00
778+50
778+00
DGA WEDGE
8.9
4.8
9.7
5.2
670.9
672.7
674.6
3:1
4.00%
2.00%
Power InRoads v8.11.9.397
E-SHEET NAME:
USER: anthony-d
DATE PLOTTED: January 1, 0001
FILE NAME: c:\PW_WORKDIR\PEMIN.ANTHONY-D\D0118570\CURVE CORRECTION CROSS SECTIONS.DGN

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X10

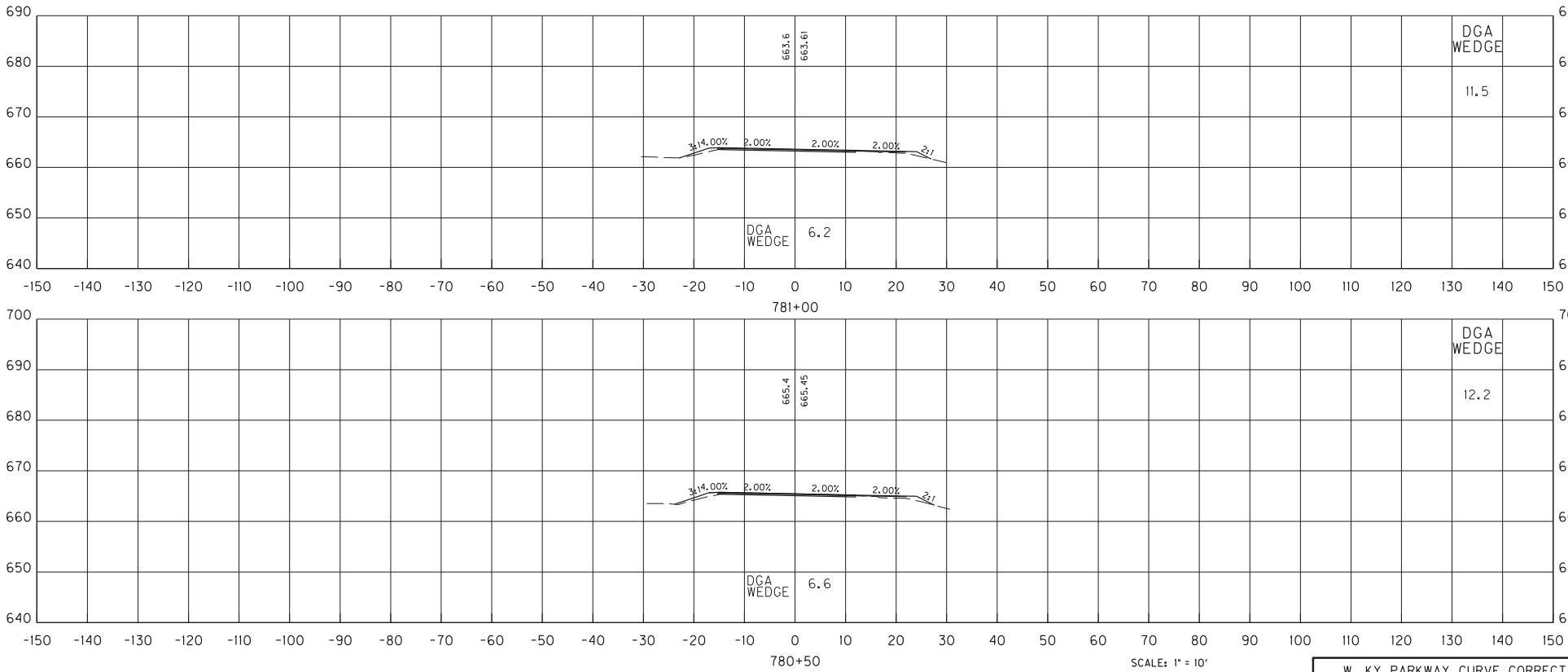


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 779+50 TO STA. 780+00
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0018570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
PowerInRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	XII

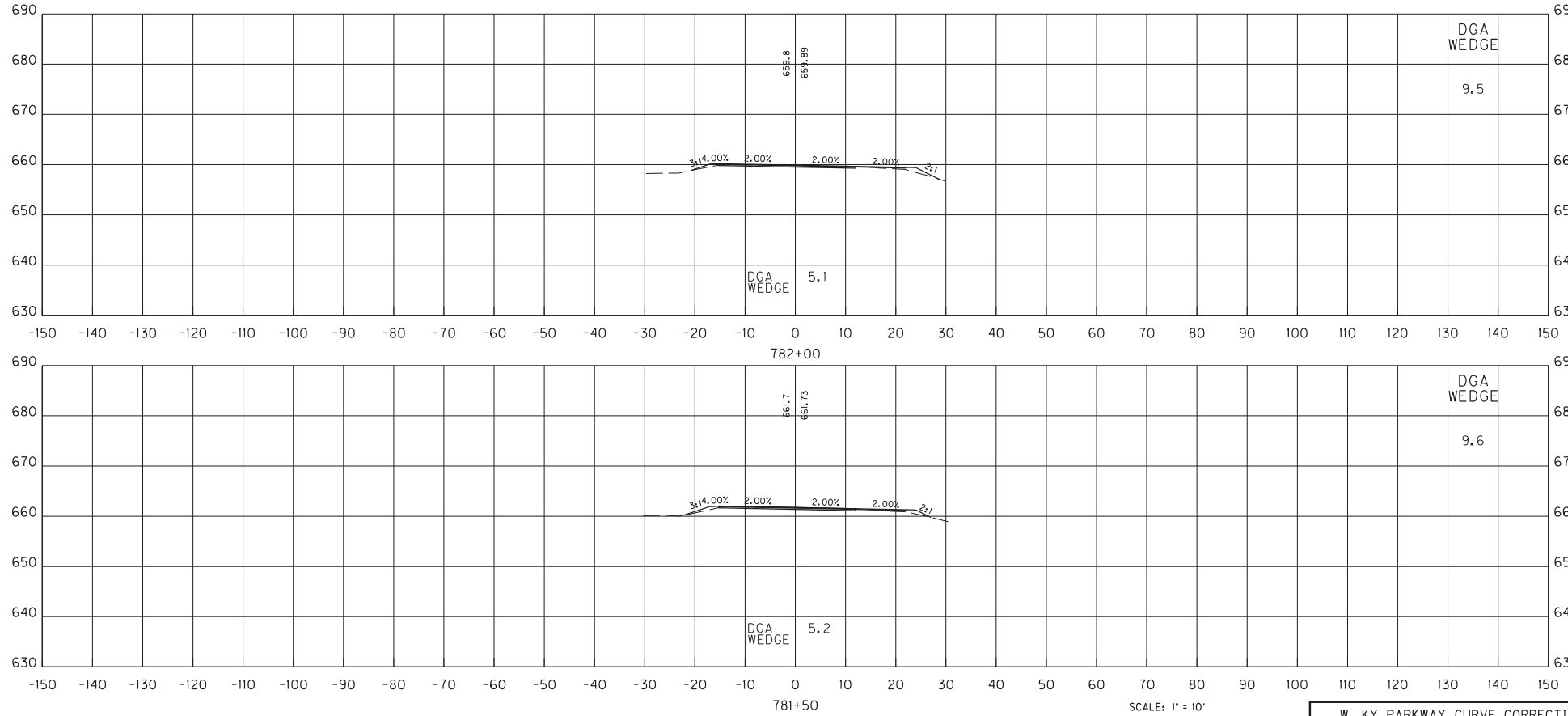


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 780+50 TO STA. 781+00
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthonyd
DATE PLOTTED: September 3, 2021
E-SHEET NAME: ——
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X12

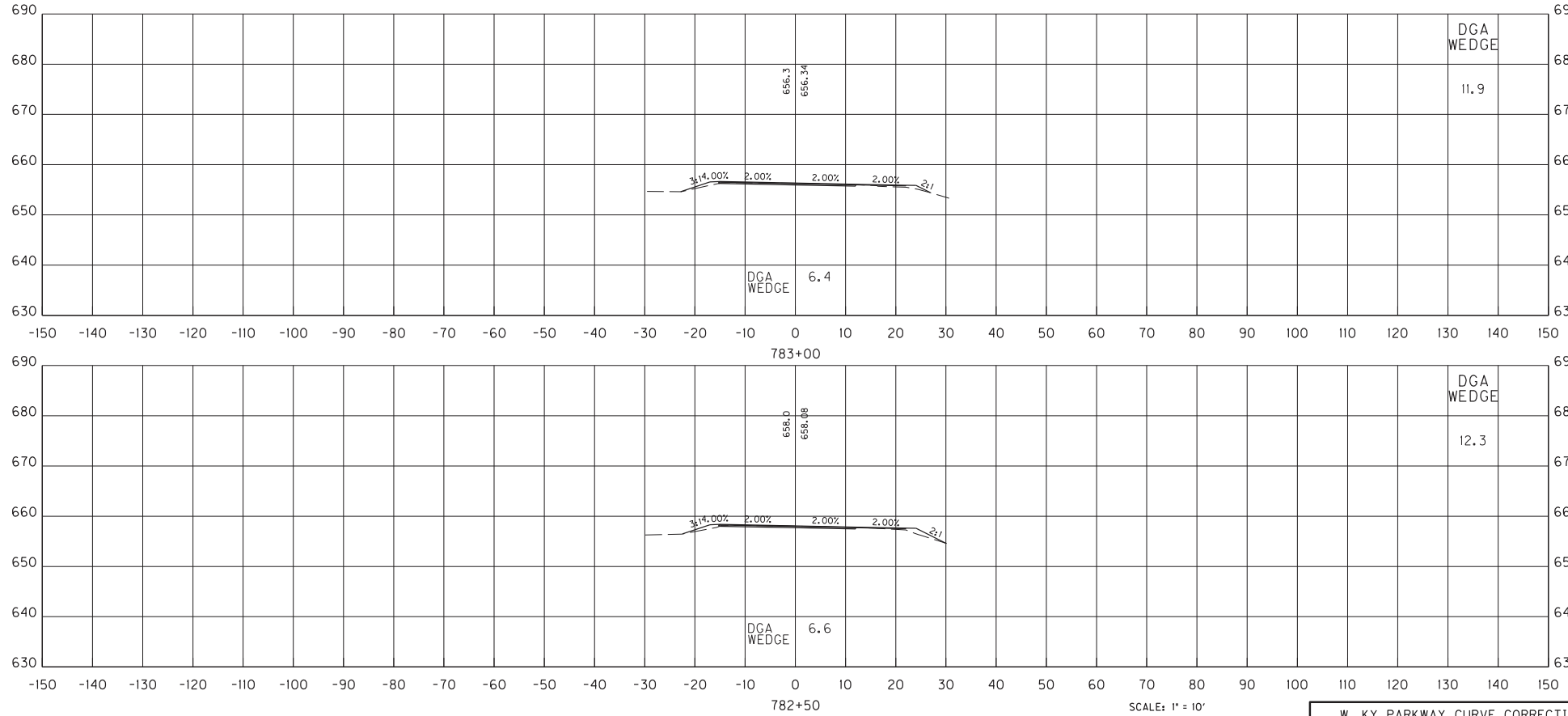


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 781+50 TO STA. 782+00
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0018570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X13

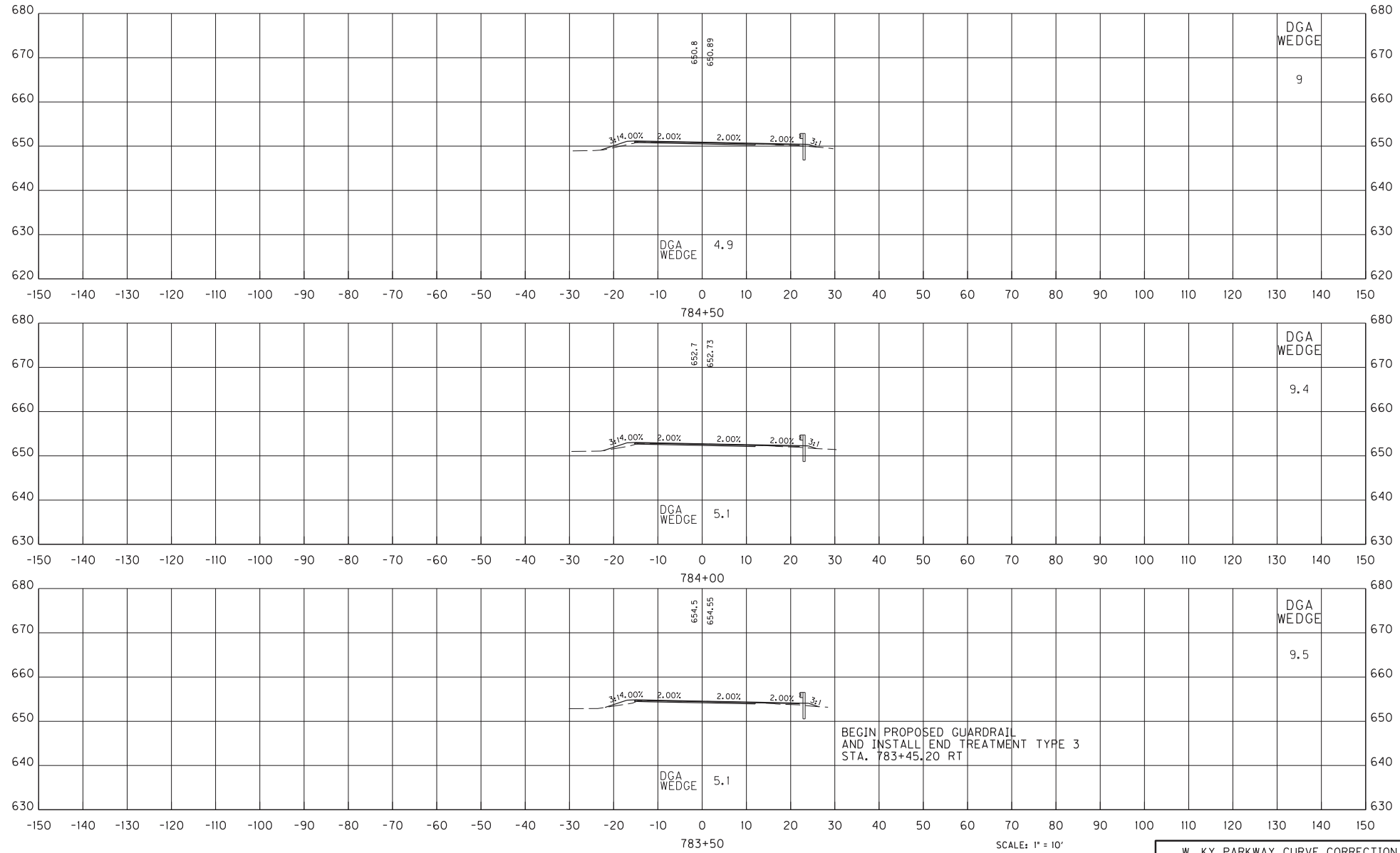


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 782+50 TO STA. 783+00
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0018570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

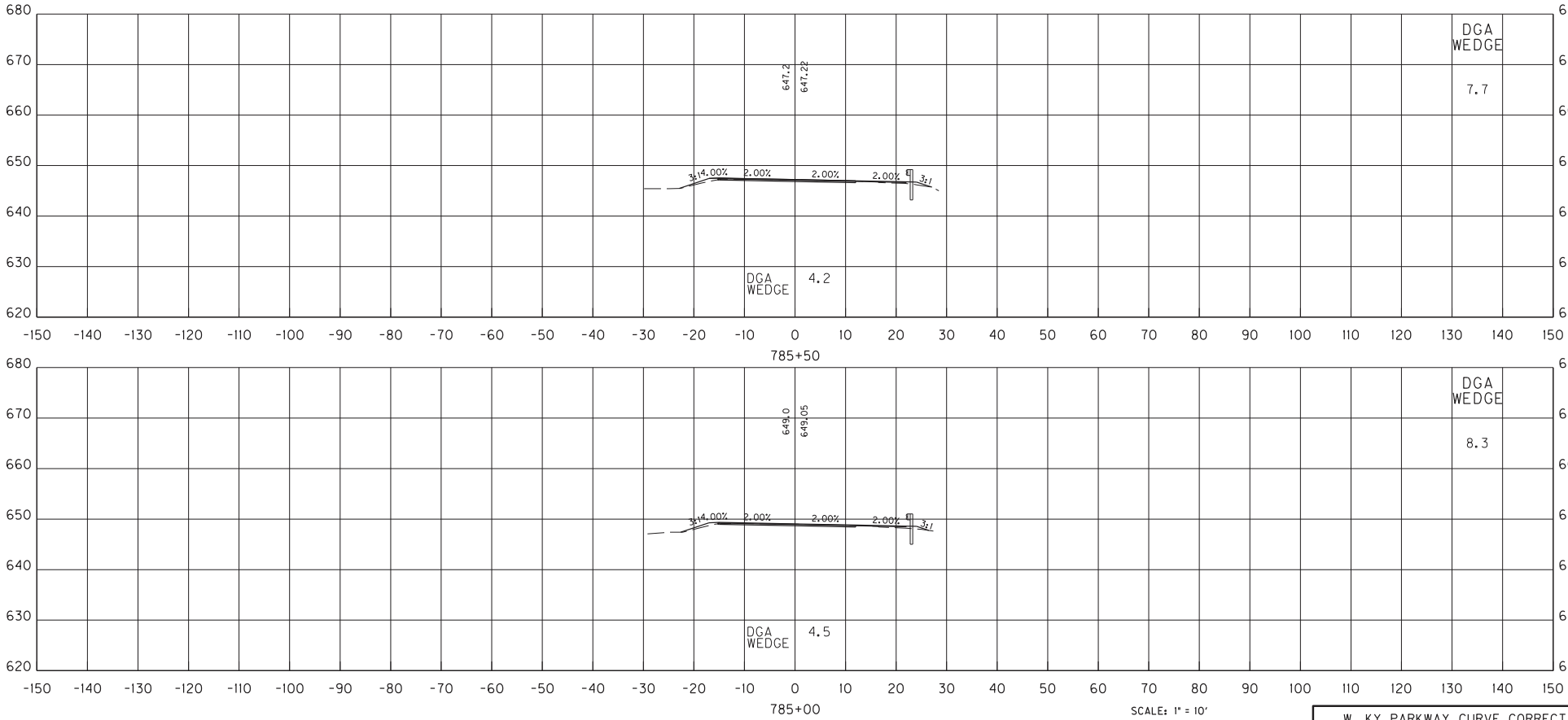
COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X14



W. KY PARKWAY CURVE CORRECTION
STA. 783+50 TO STA. 784+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X15

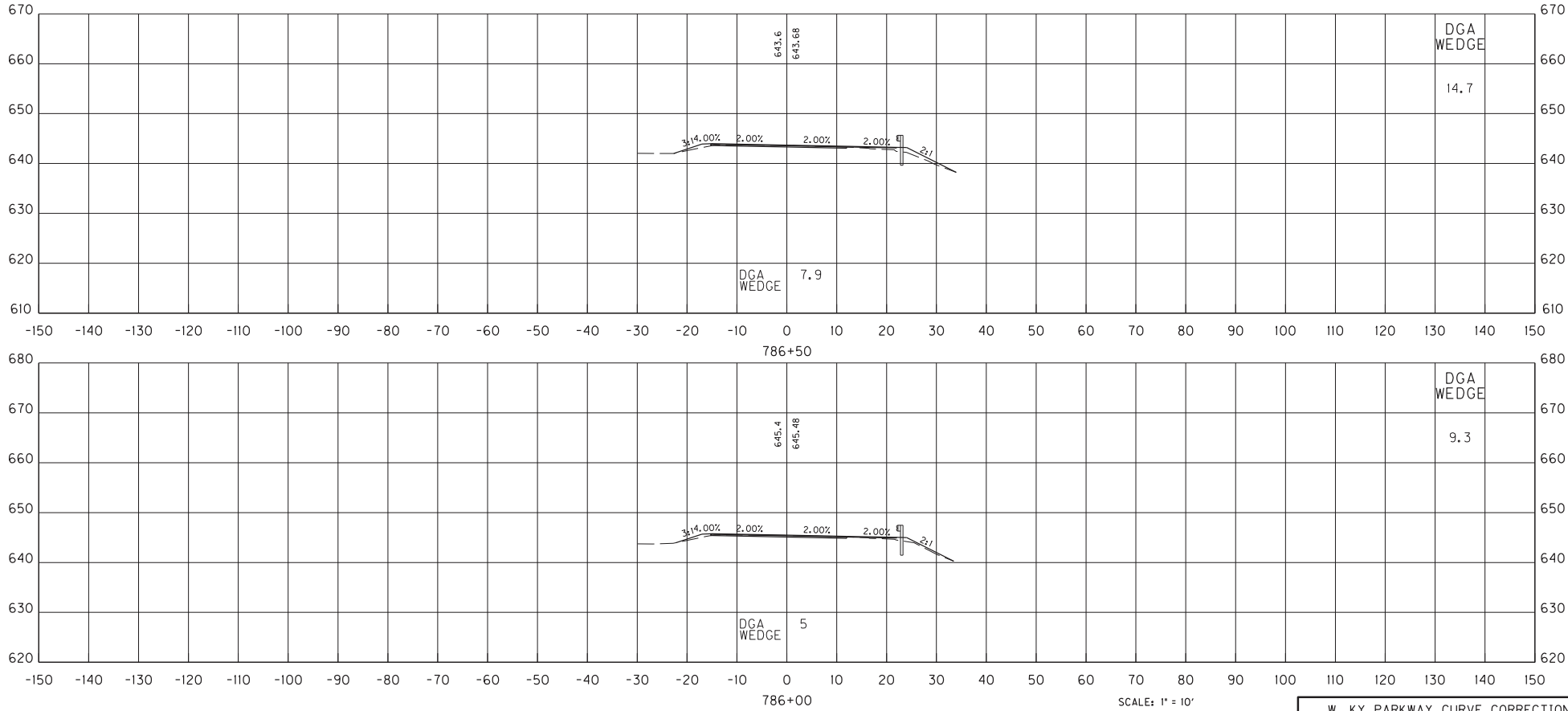


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 785+00 TO STA. 785+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0018570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

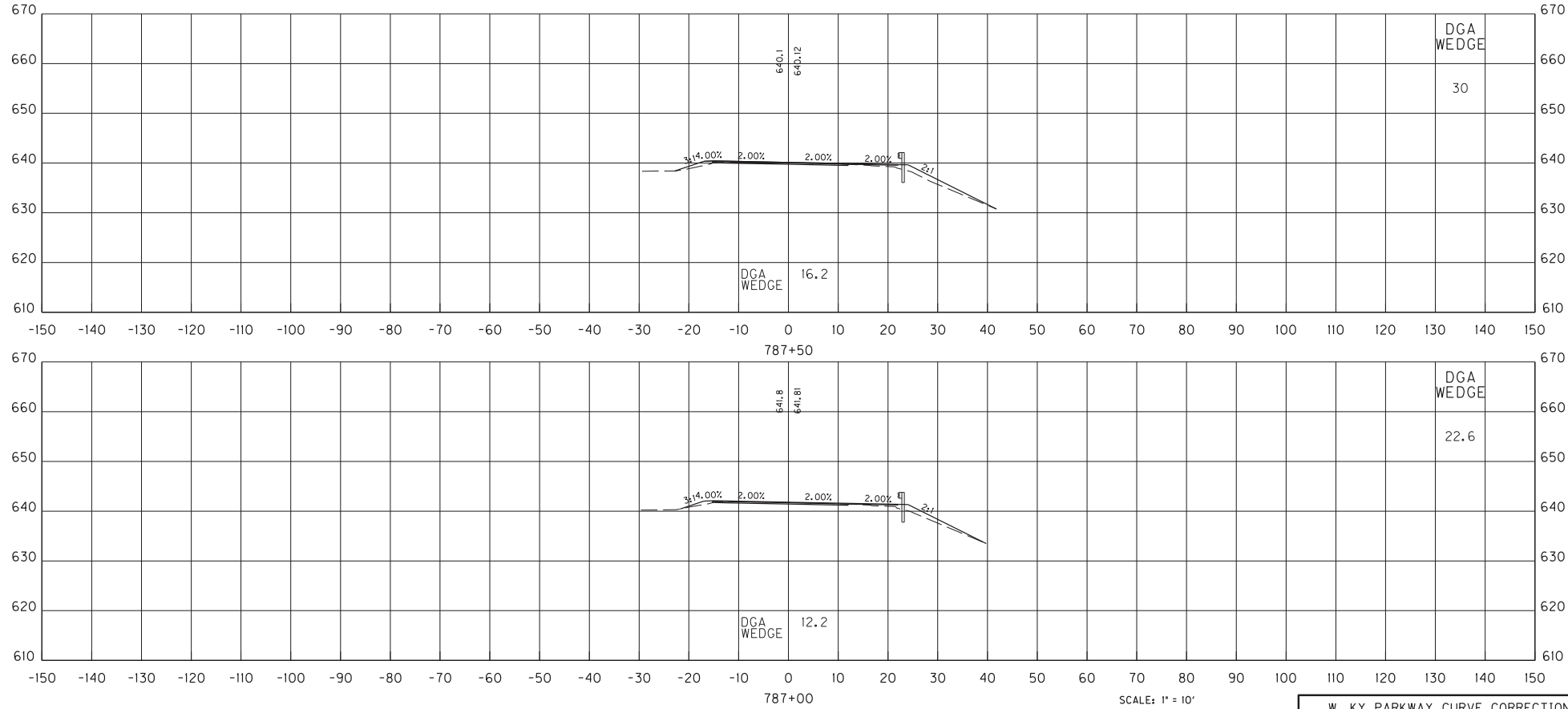
COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X16



W. KY PARKWAY CURVE CORRECTION
STA. 786+00 TO STA. 786+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0018570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X17

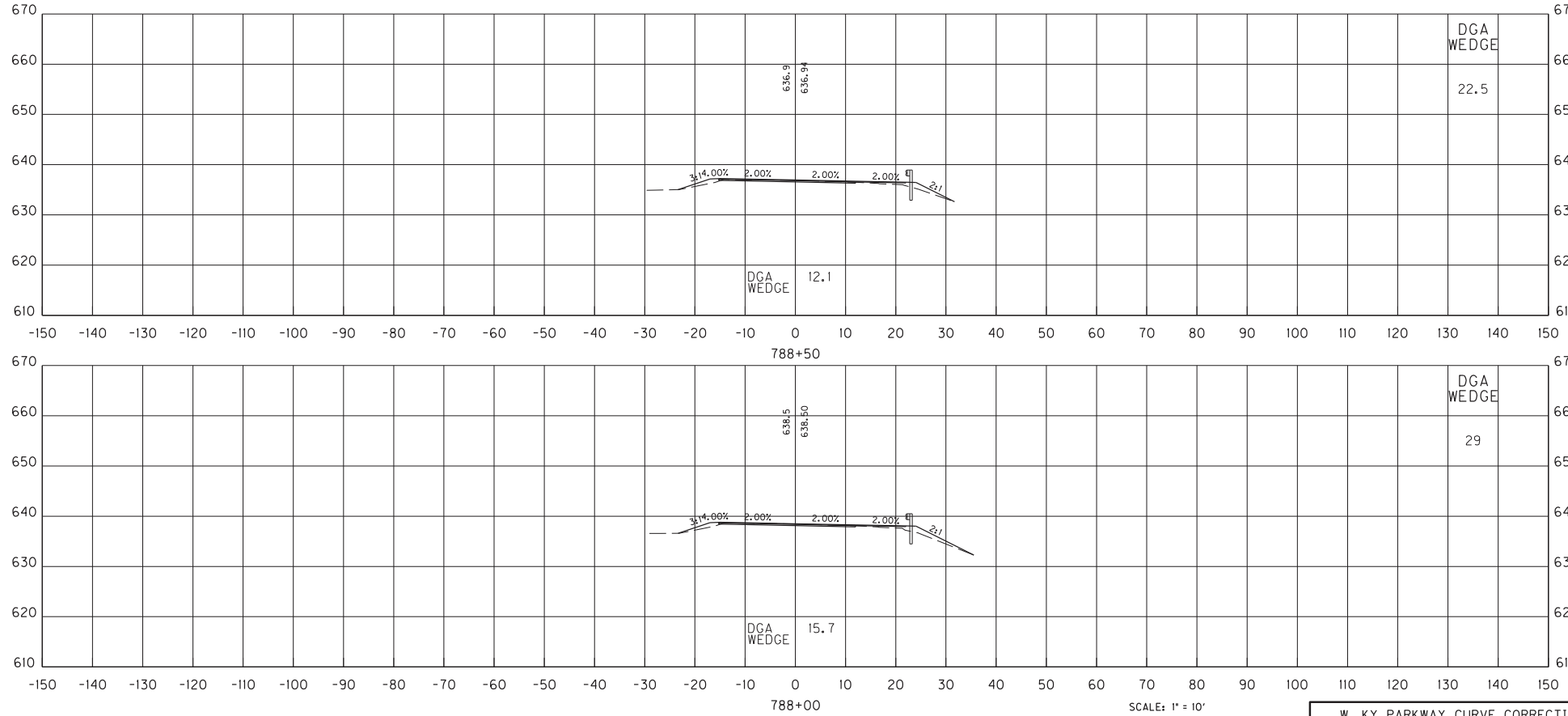


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 787+00 TO STA. 787+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X18

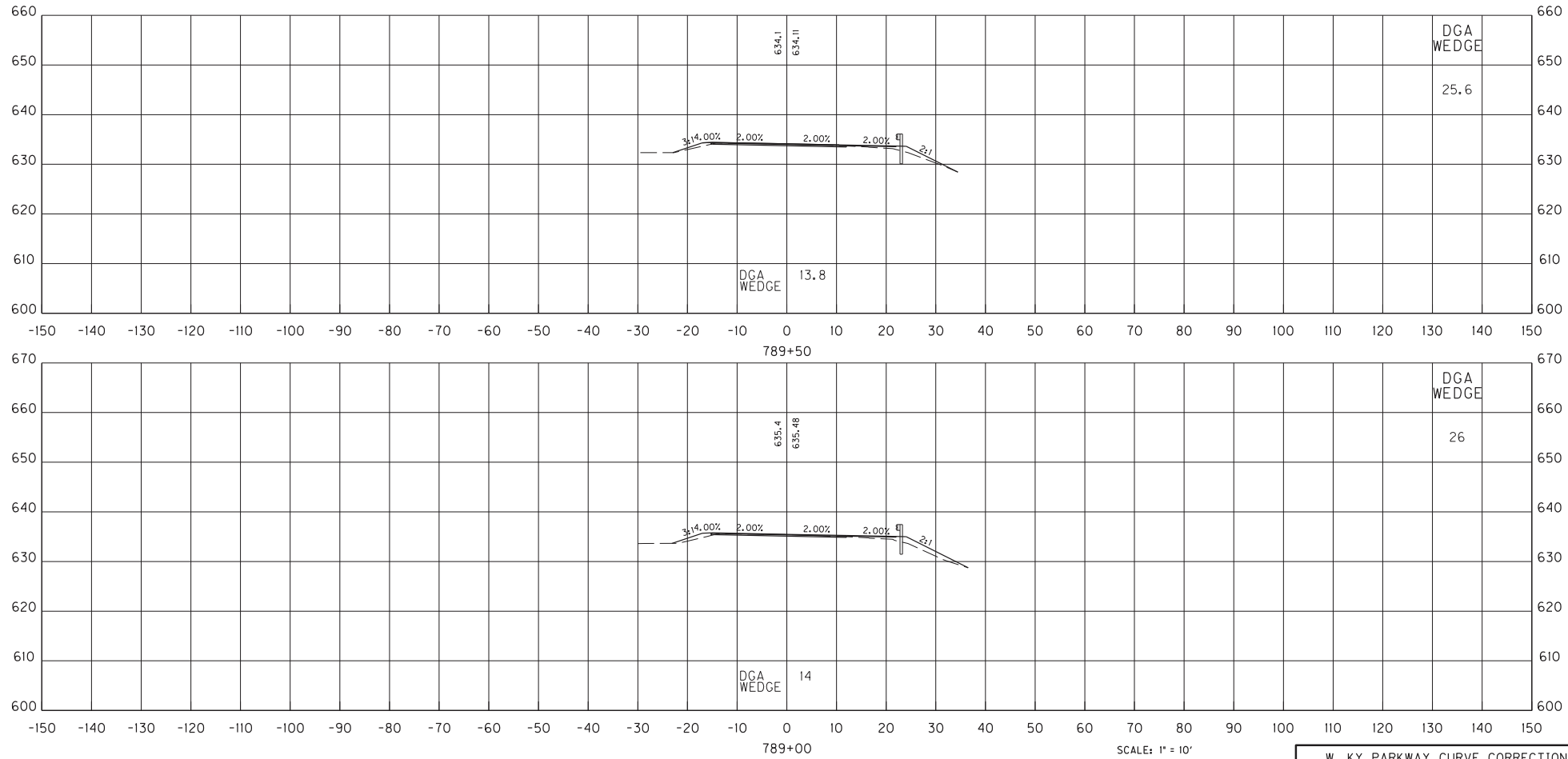


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 788+00 TO STA. 788+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0018570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X19

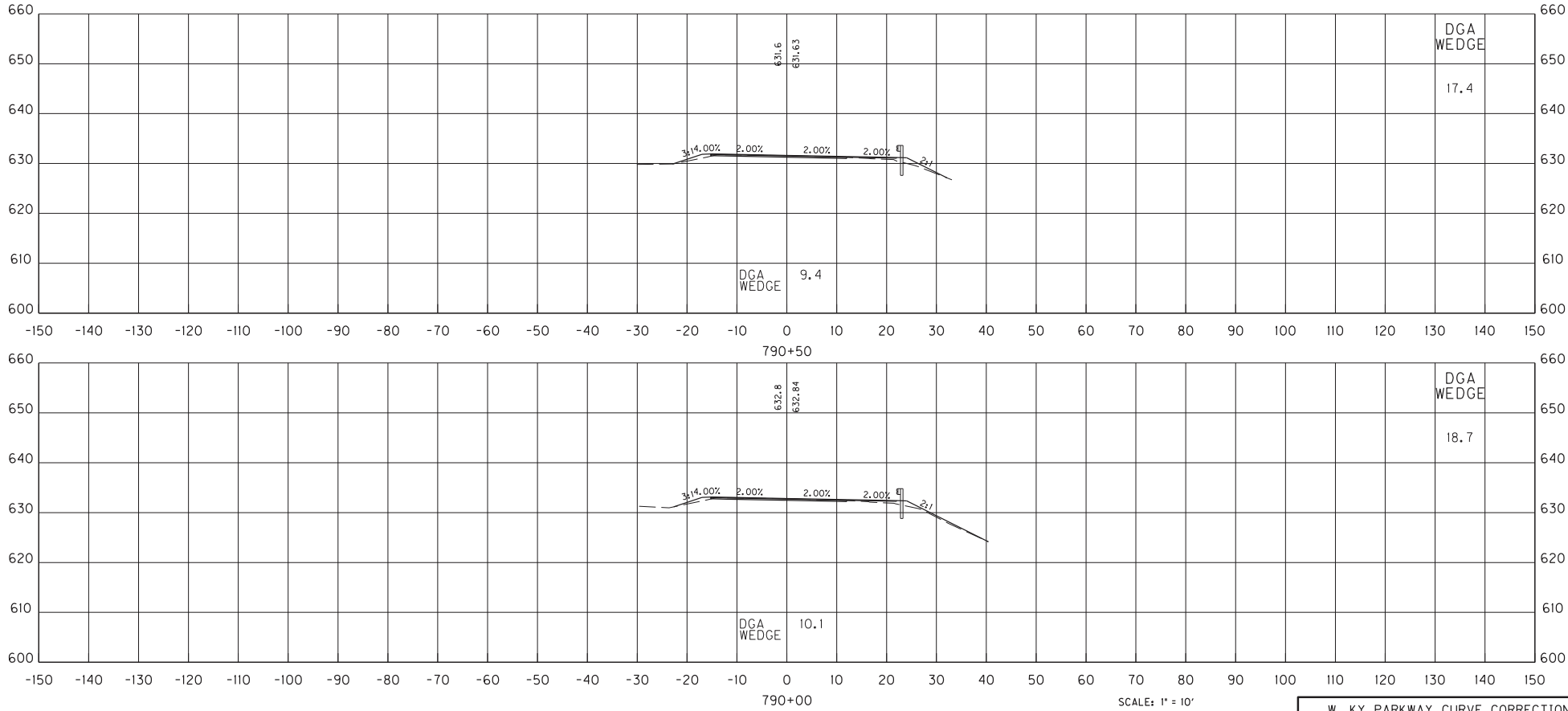


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 789+00 TO STA. 789+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0018570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X20

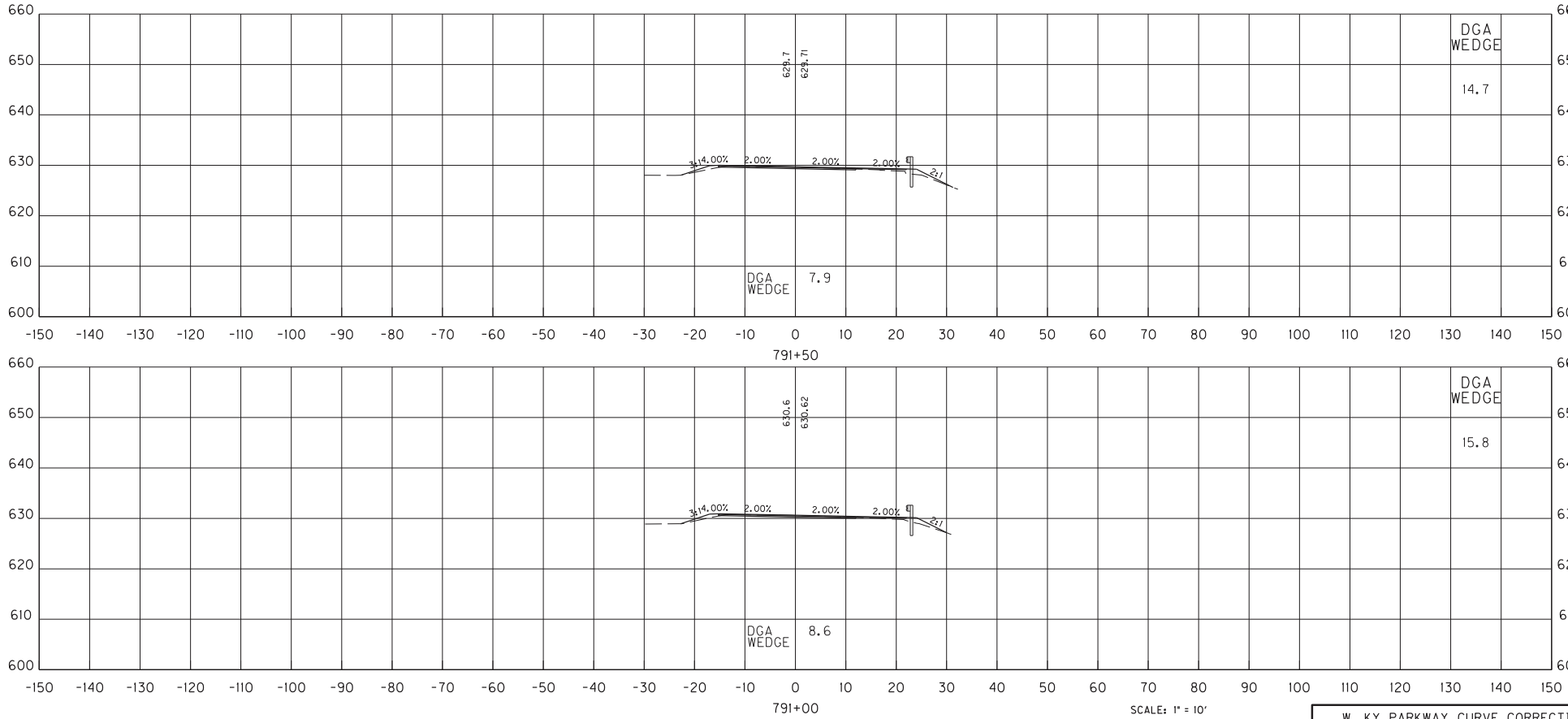


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 790+00 TO STA. 790+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X21

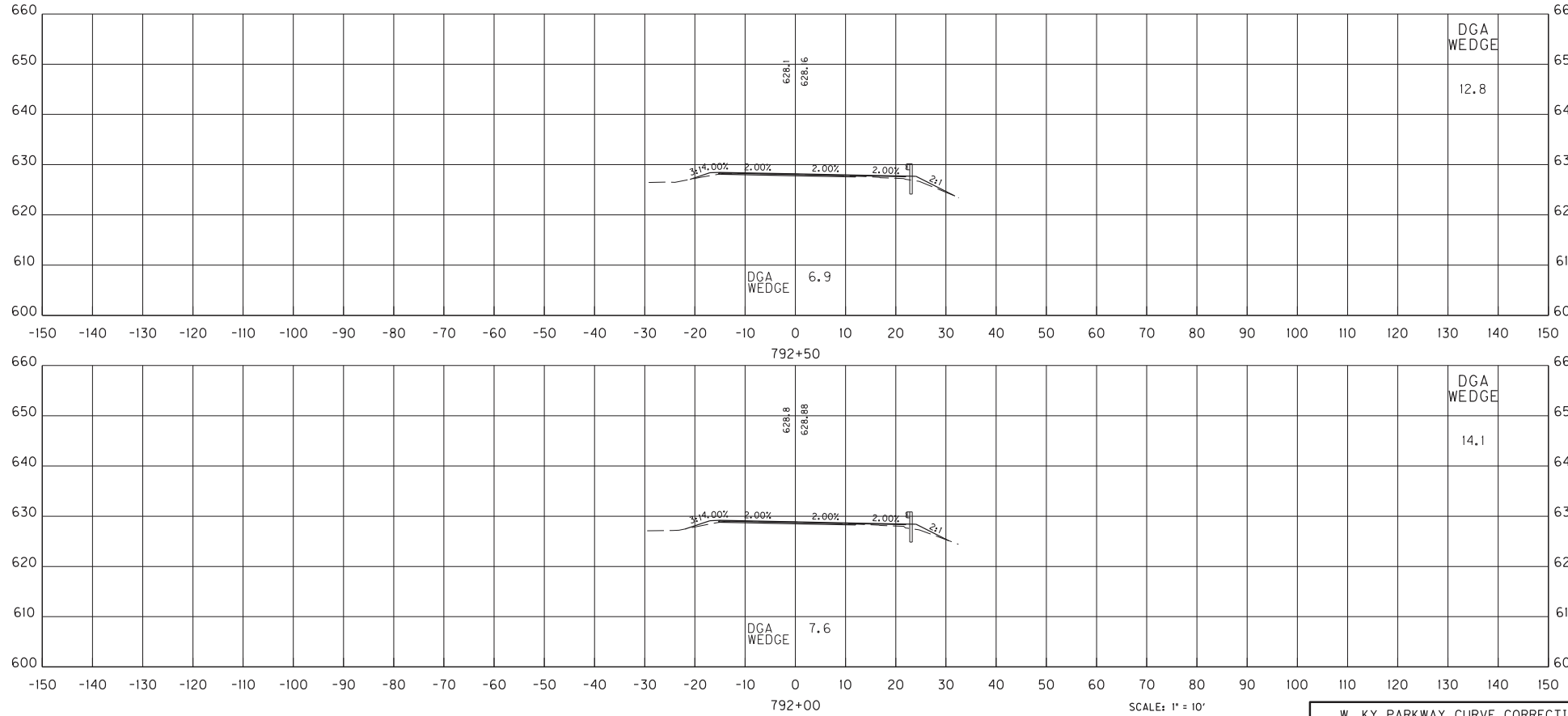


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 791+00 TO STA. 791+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X22

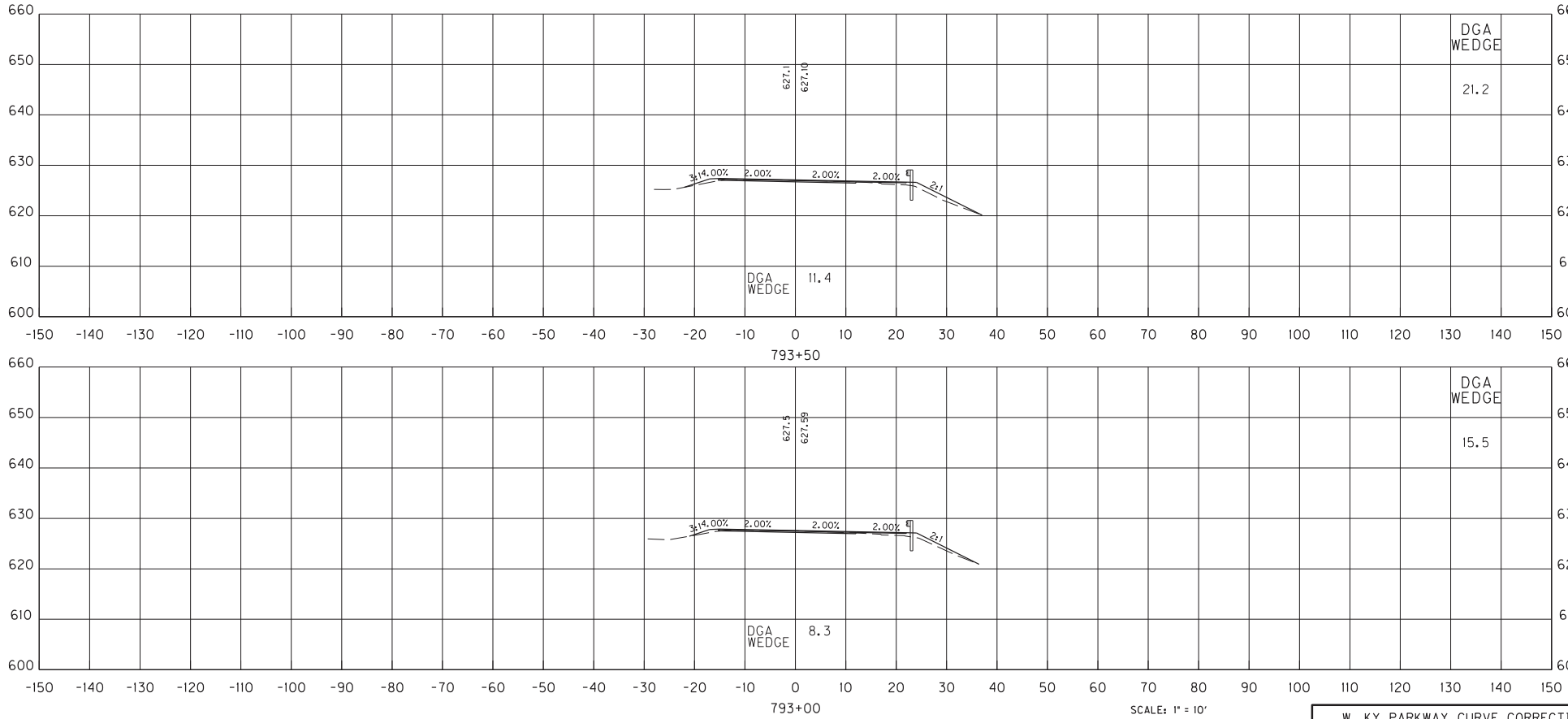


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 792+00 TO STA. 792+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0018570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X23

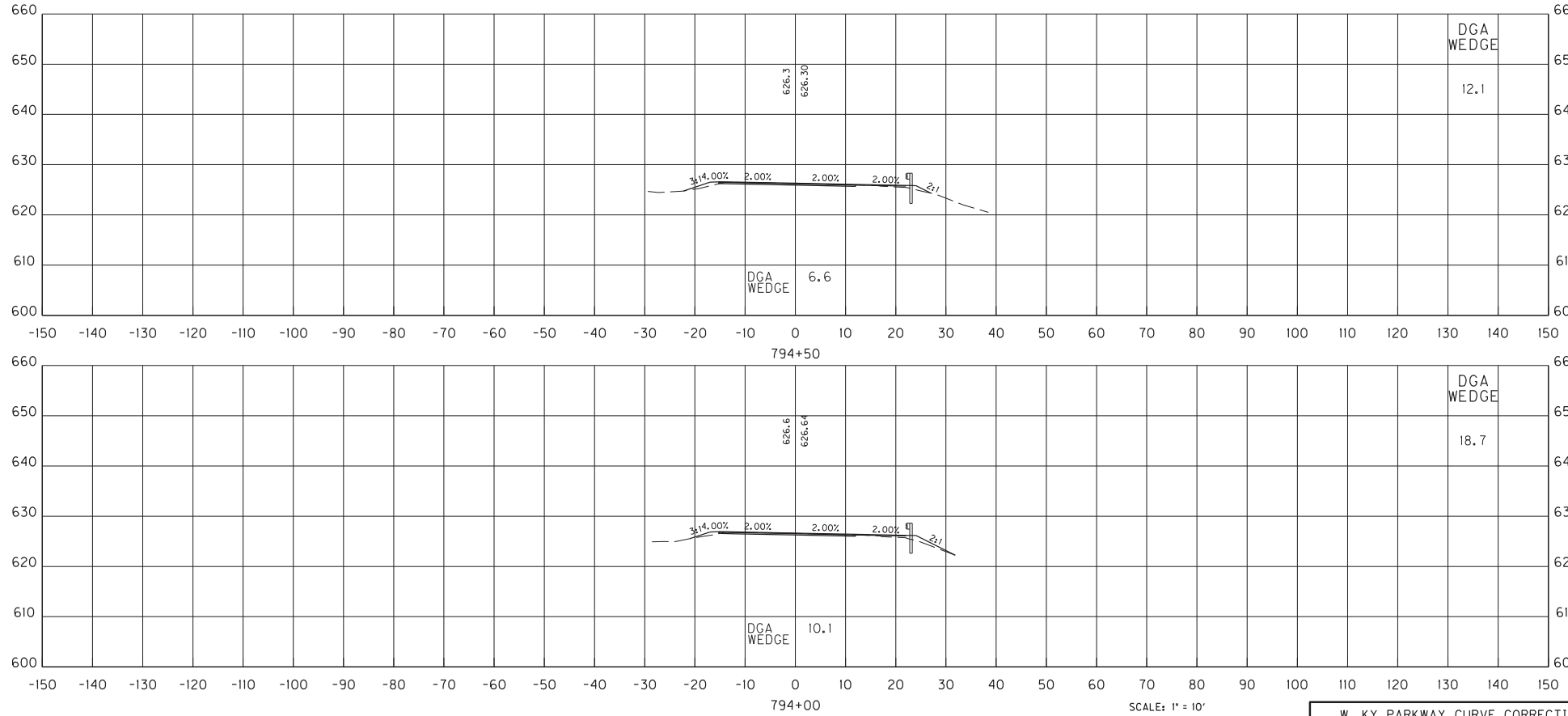


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 793+00 TO STA. 793+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X24



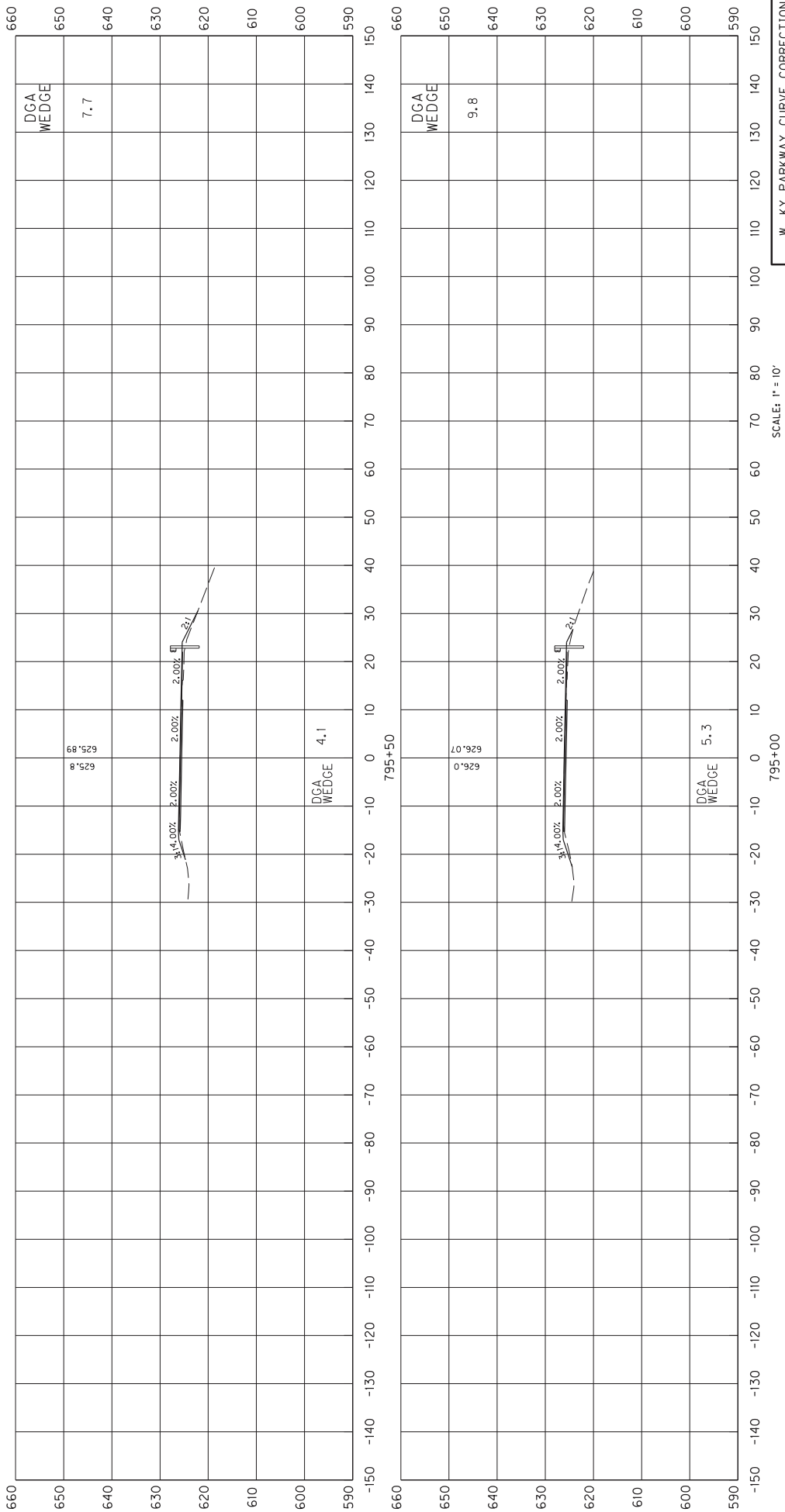
SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 794+00 TO STA. 794+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0018570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

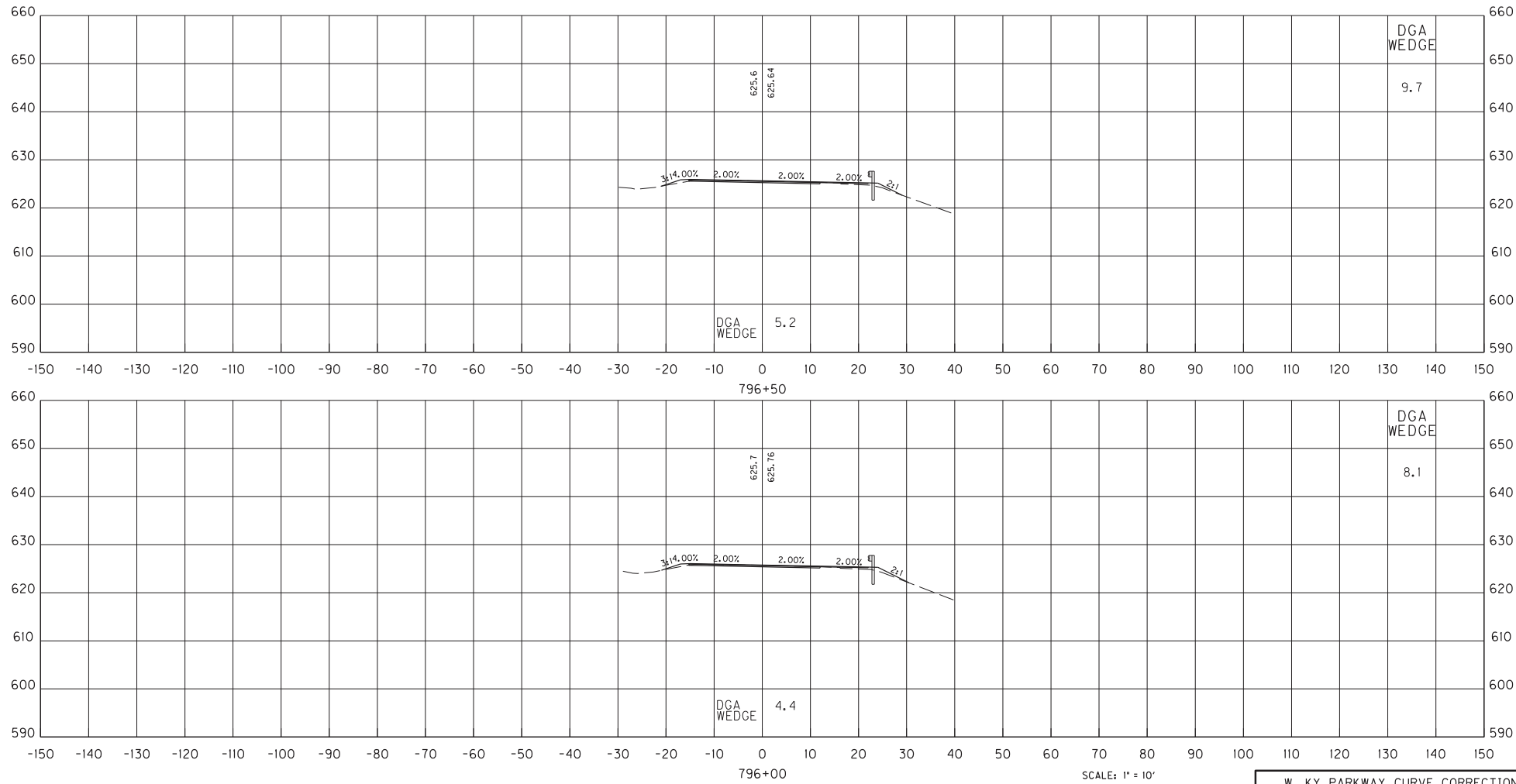
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-20016.00	X25

W. KY PARKWAY CURVE CORRECTION
STA. 795+00 TO STA. 795+50
CROSS SECTIONS



Power Inroads v8.11.9.397 | E-SHEET NAME: | USER: anthony-d DATE PLOTTED: January 1, 0001 | FILE NAME: c:\PW_WORKDIR\PEMIN_ANTHONY-D\D0118570\CURVE CORRECTION CROSS SECTIONS.DGN

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X26

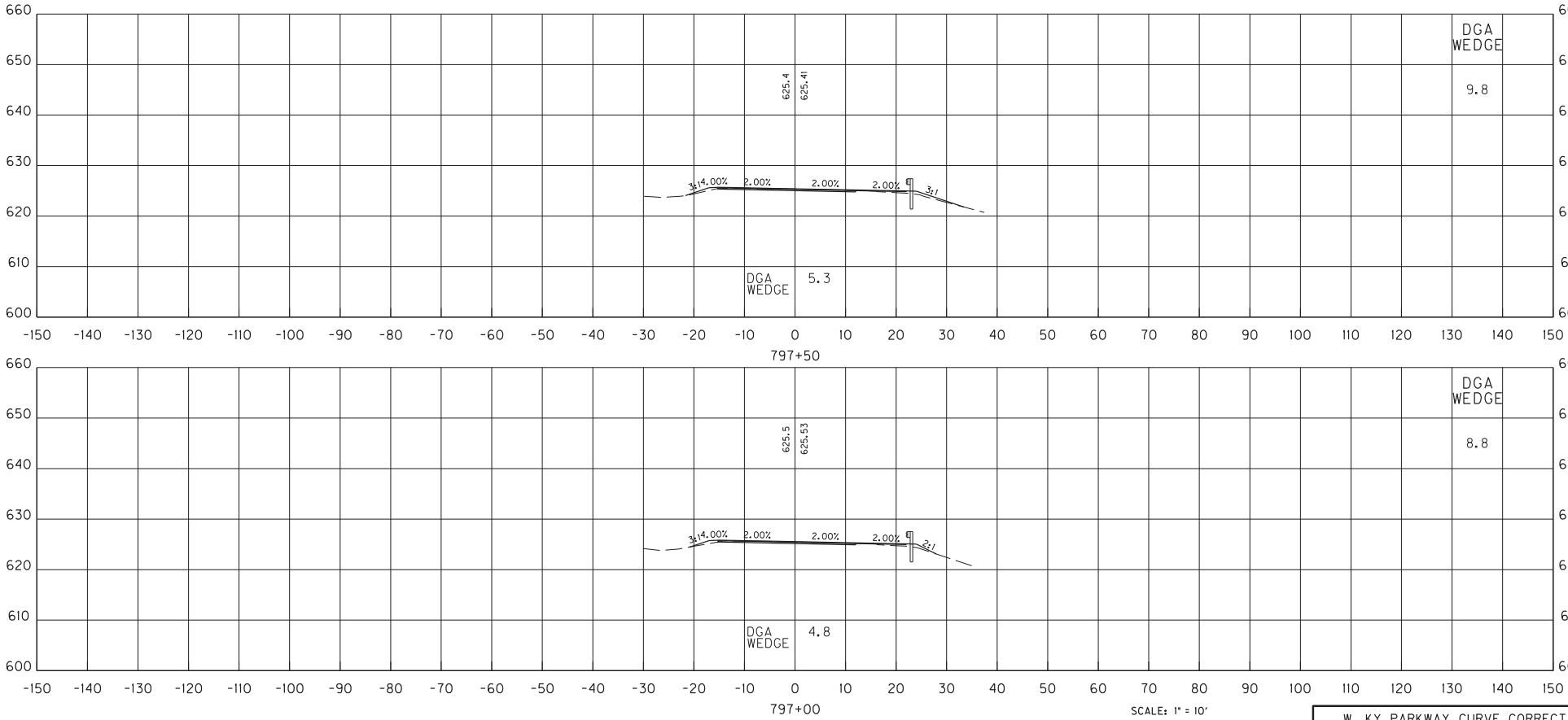


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 796+00 TO STA. 796+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0018570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X27

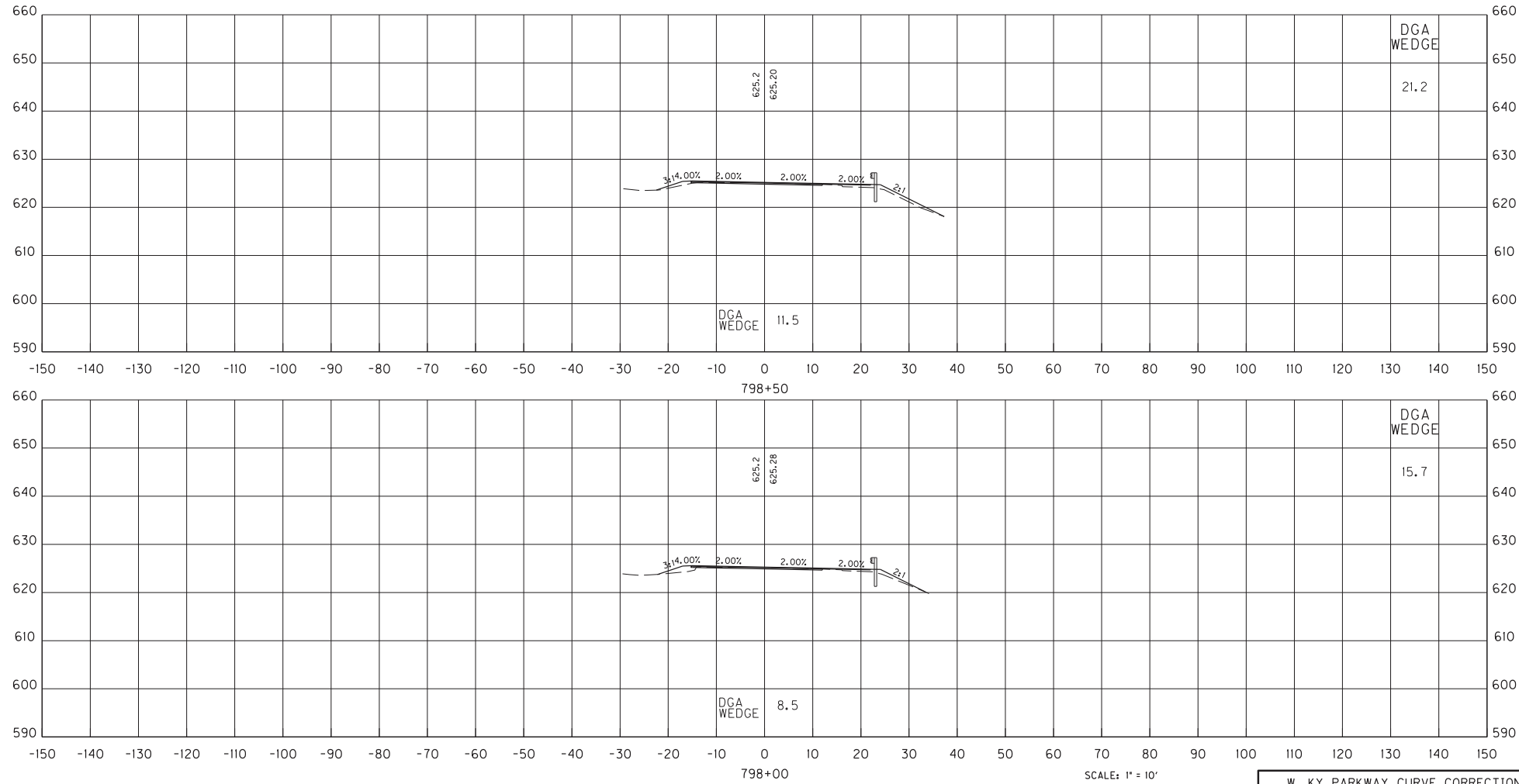


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 797+00 TO STA. 797+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X28

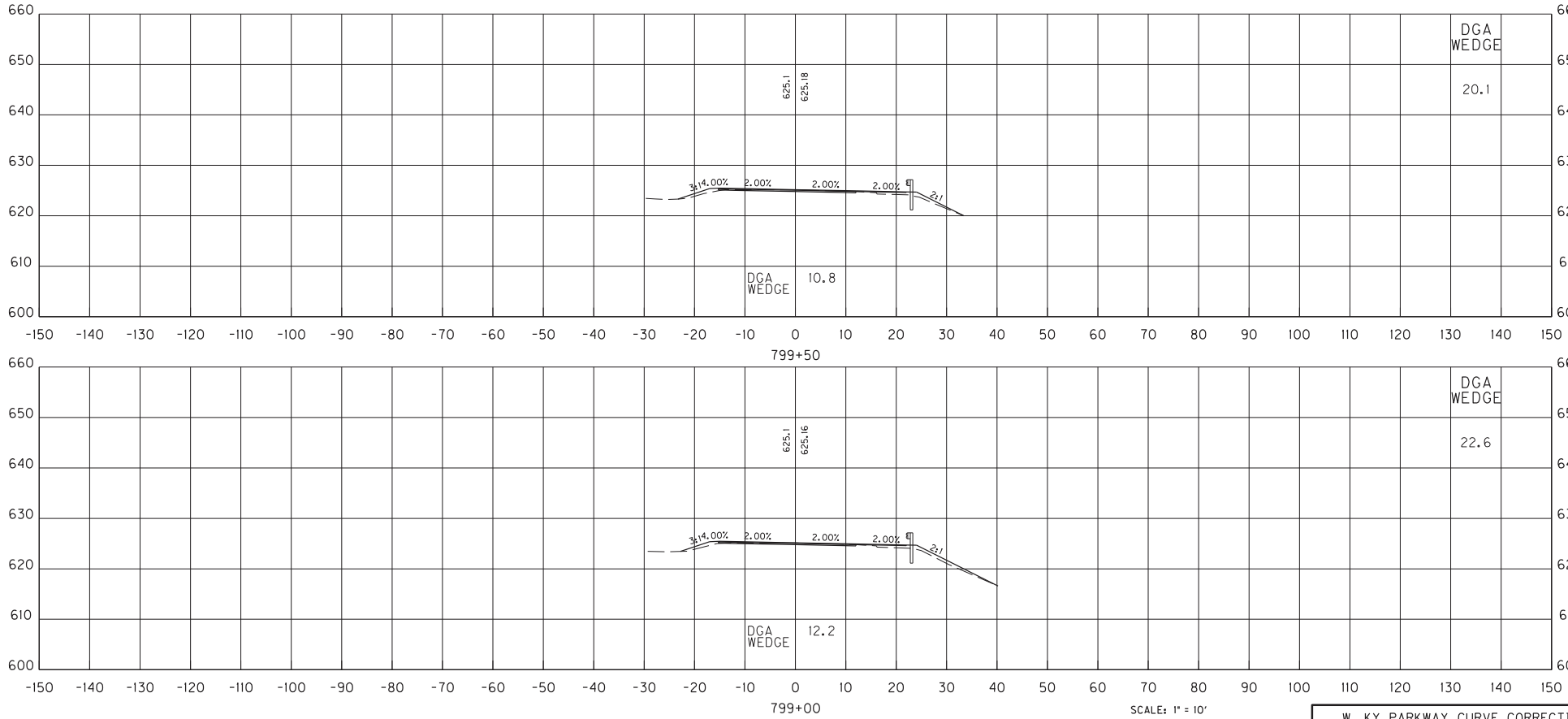


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 798+00 TO STA. 798+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0018570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X29

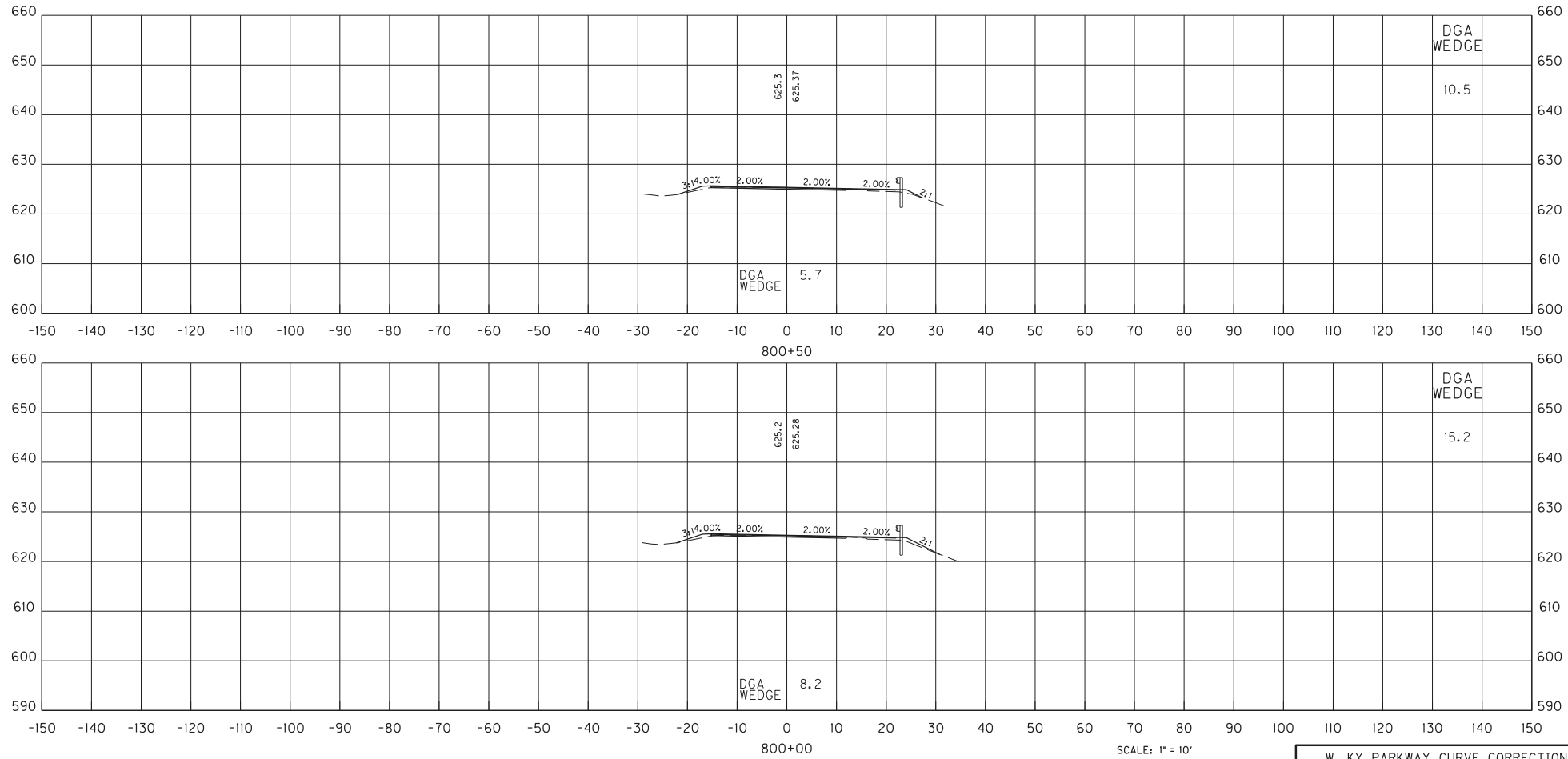


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 799+00 TO STA. 799+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X30

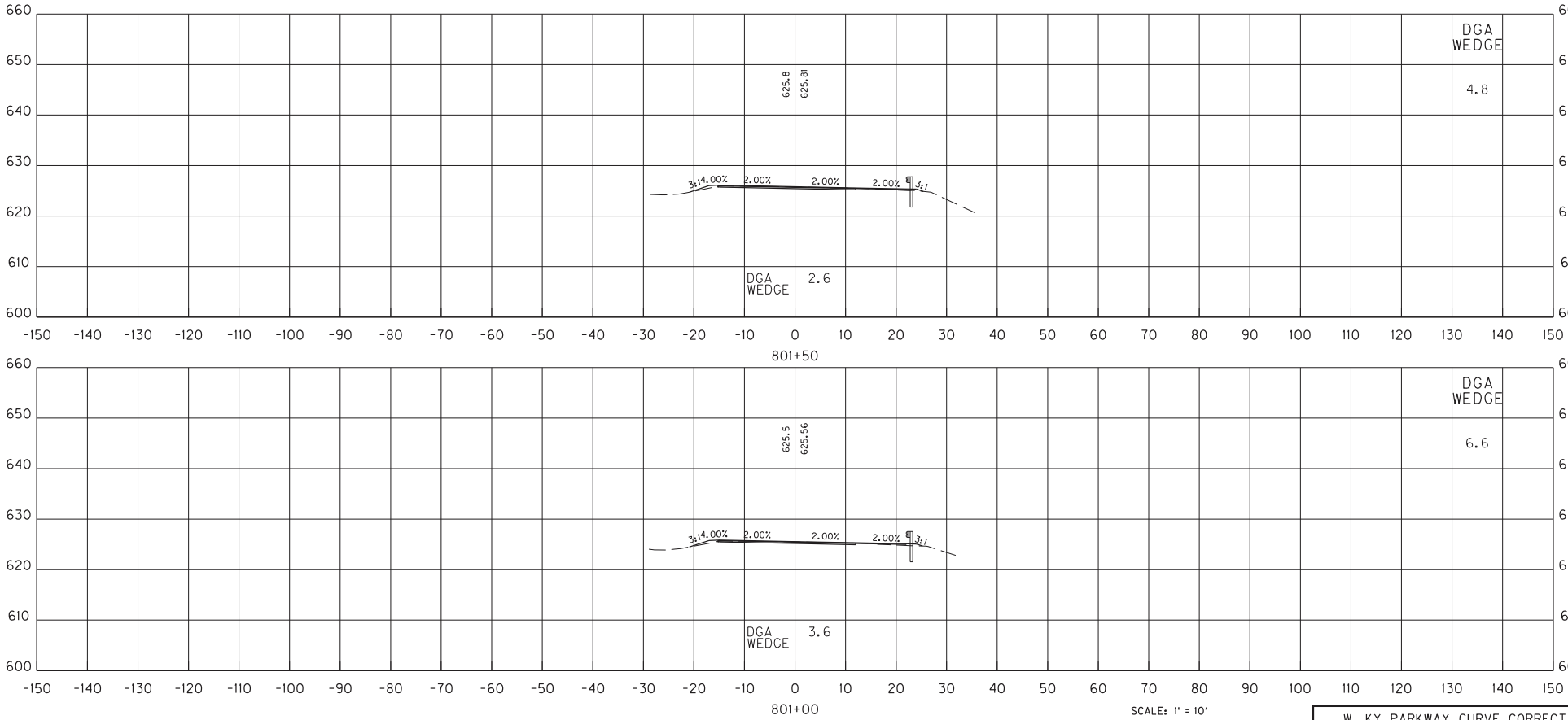


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 800+00 TO STA. 800+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X31

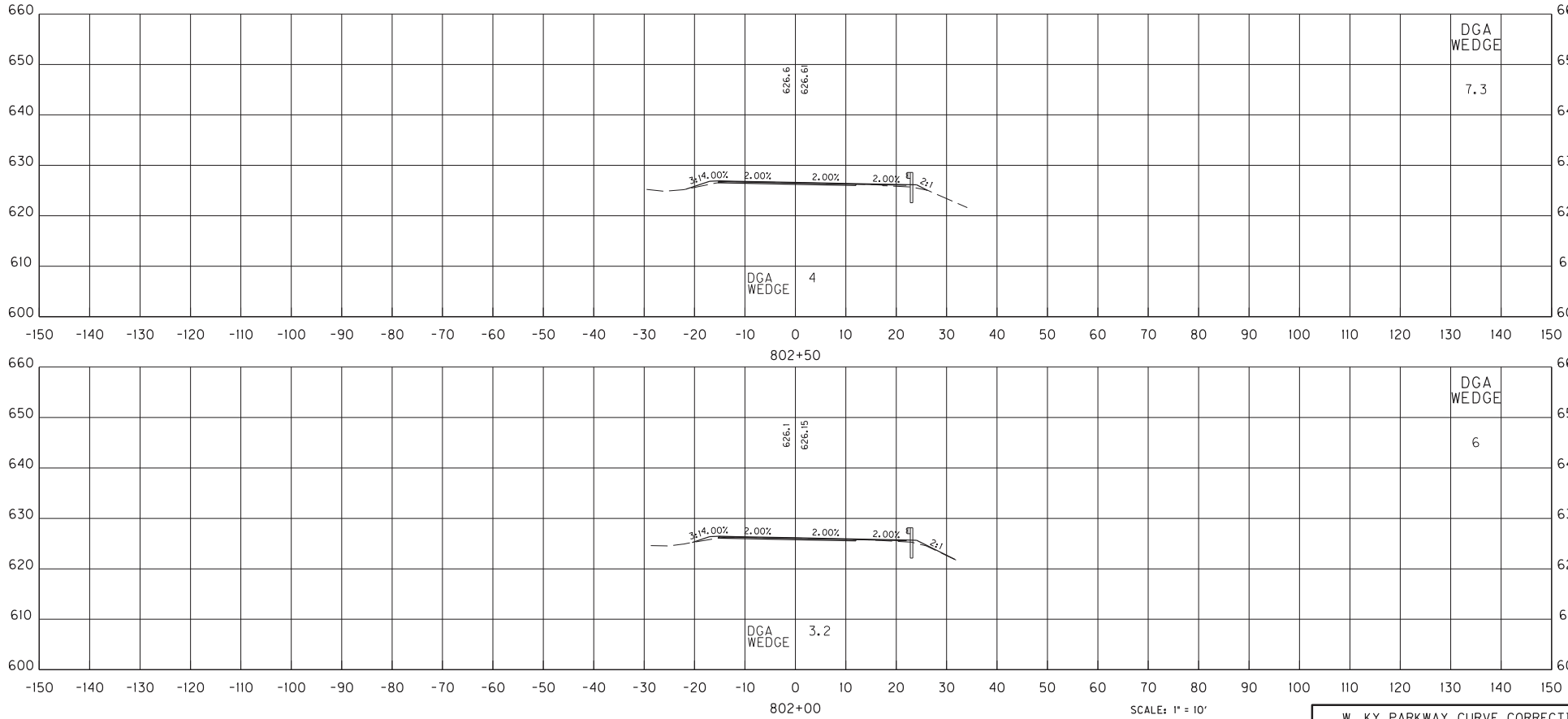


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 801+00 TO STA. 801+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X32

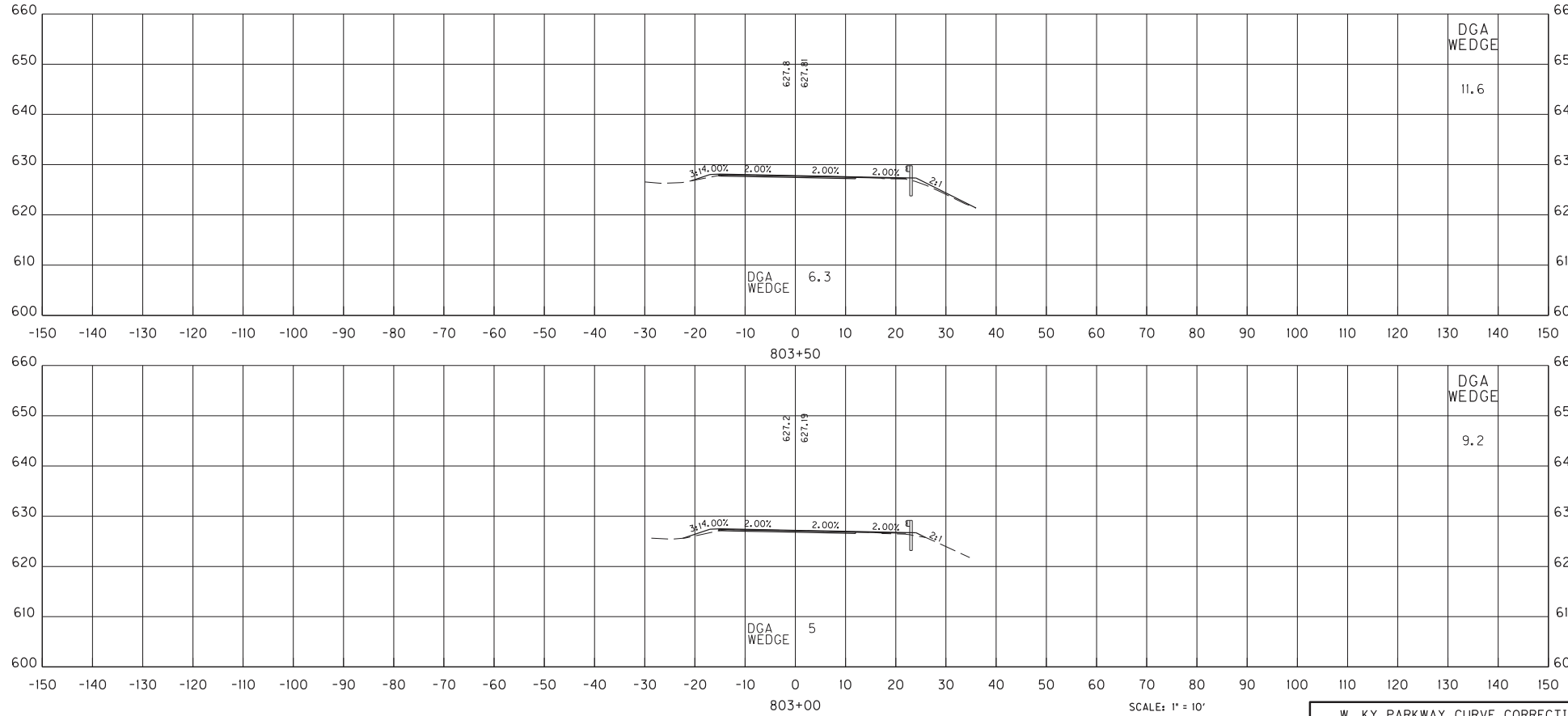


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 802+00 TO STA. 802+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X33

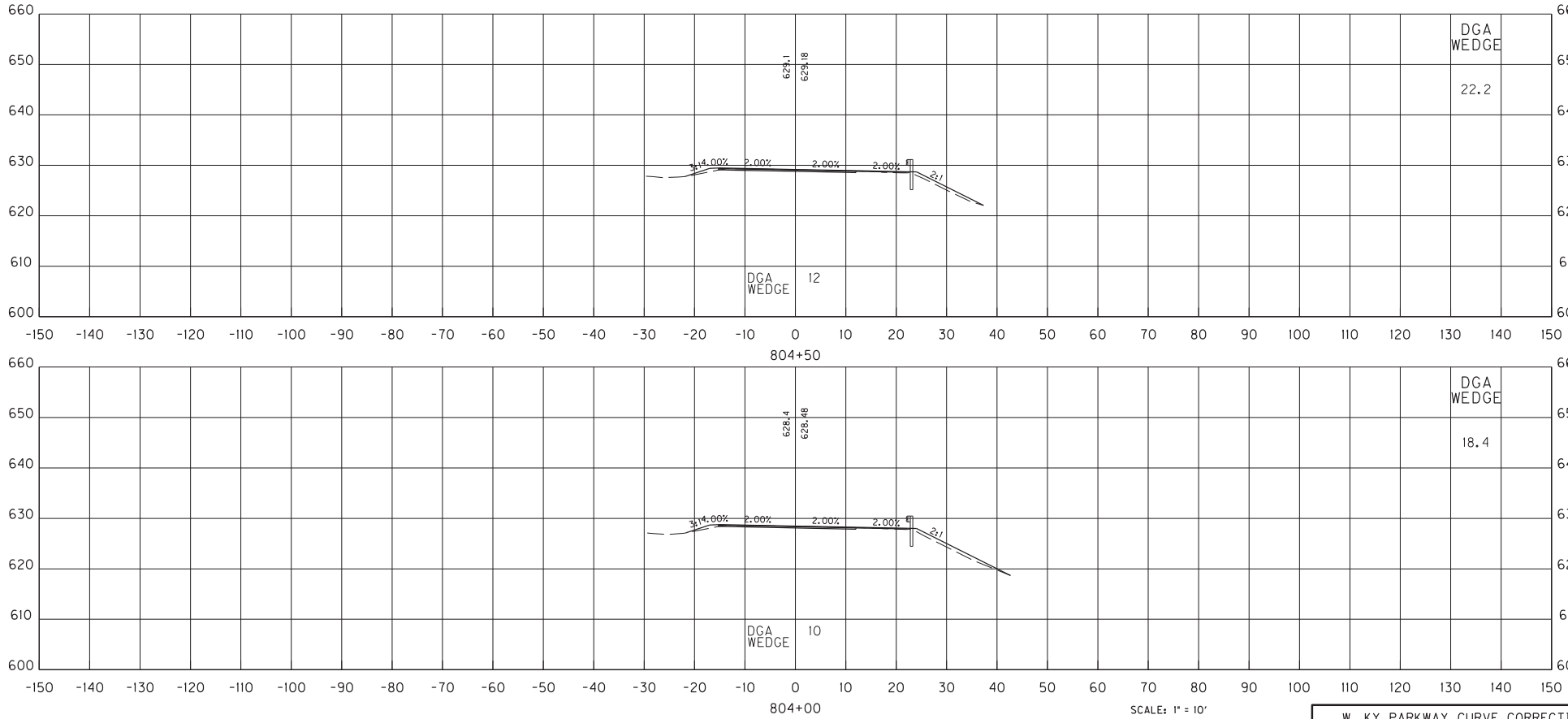


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 803+00 TO STA. 803+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0018570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X34

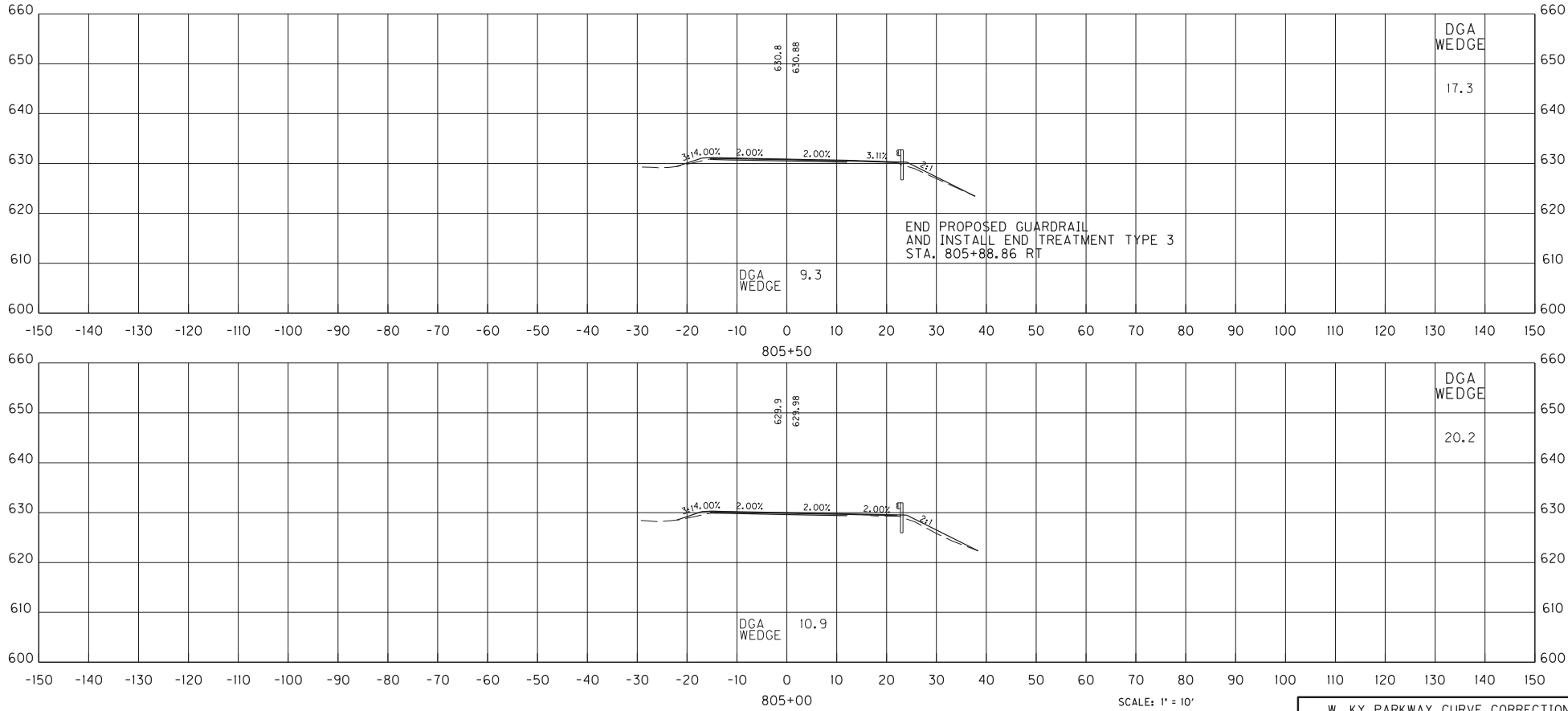


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 804+00 TO STA. 804+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X35

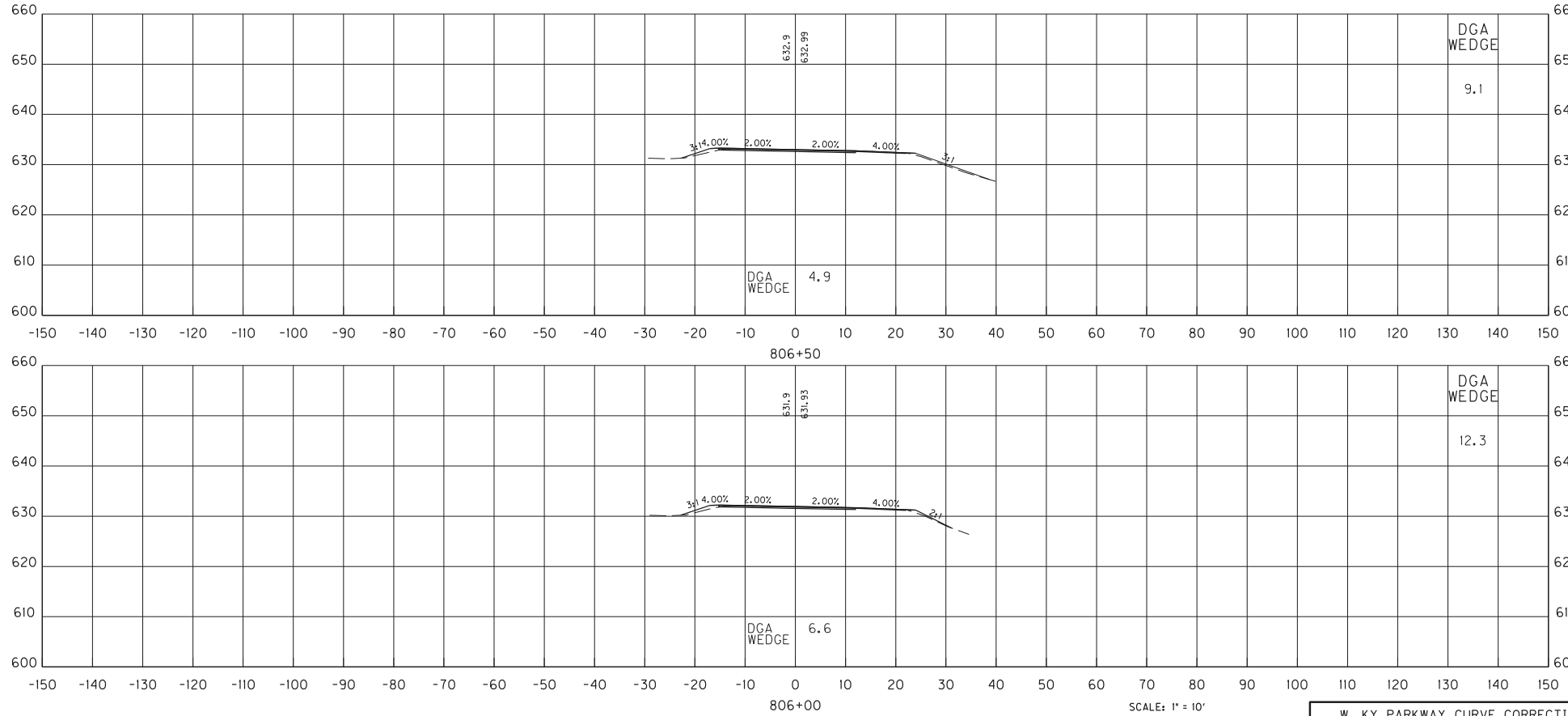


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 805+00 TO STA. 805+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X36

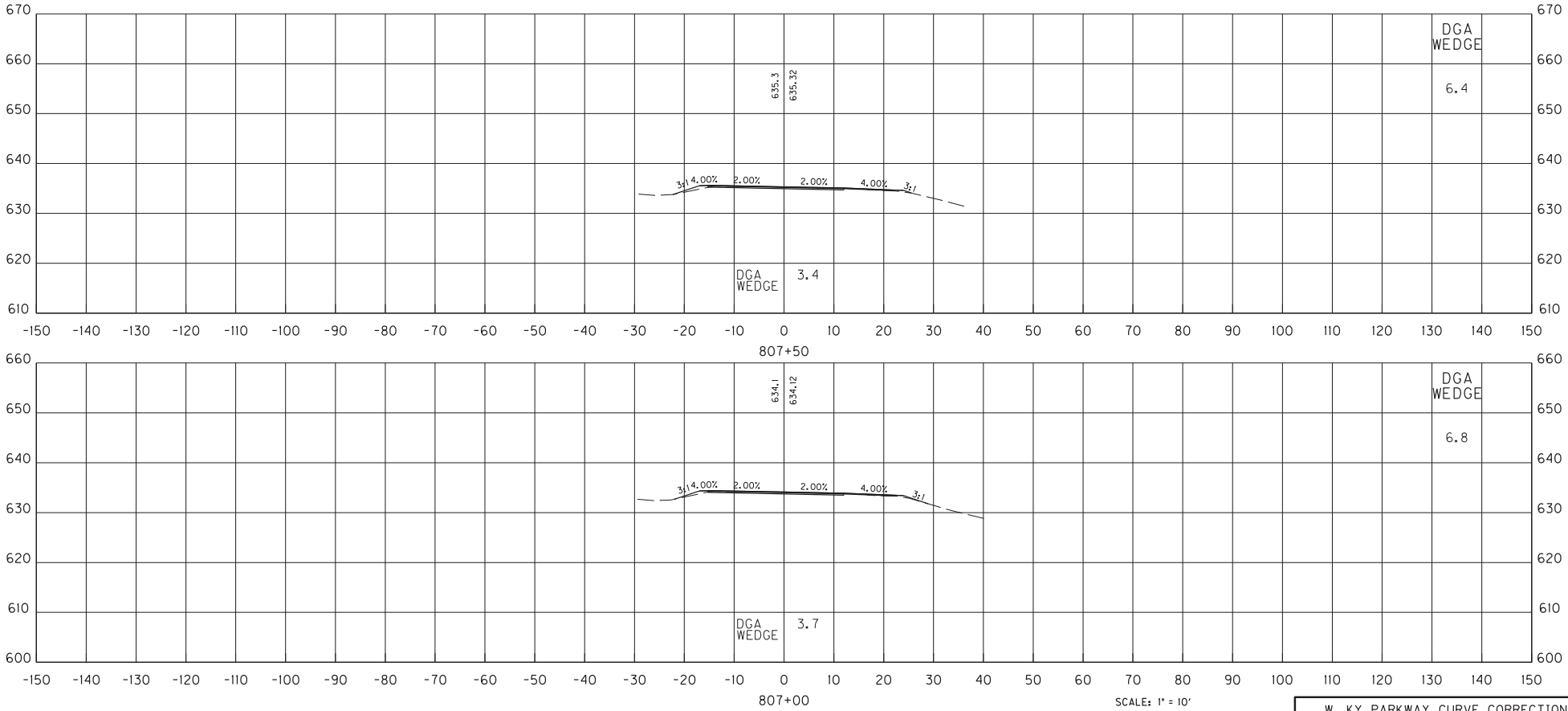


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 806+00 TO STA. 806+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X37

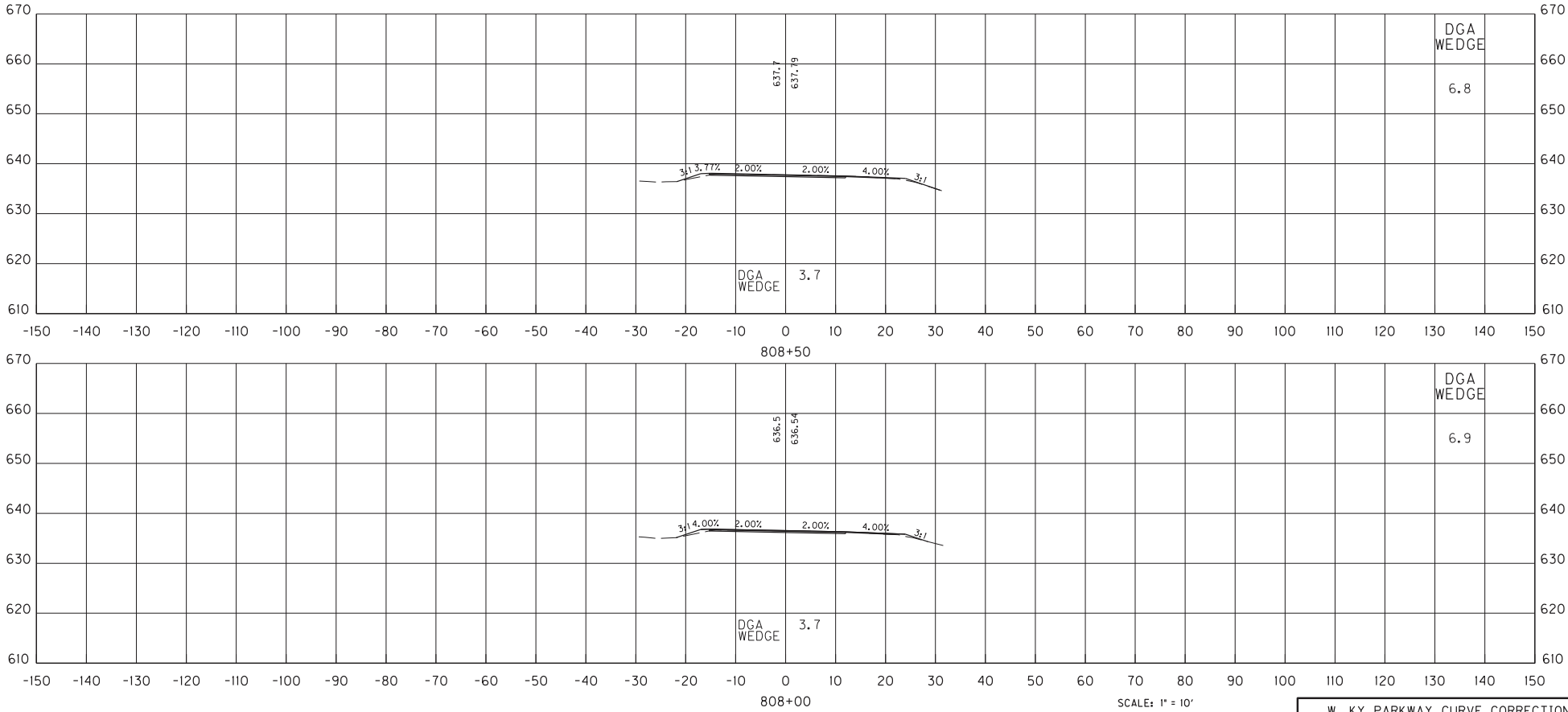


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 807+00 TO STA. 807+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X38

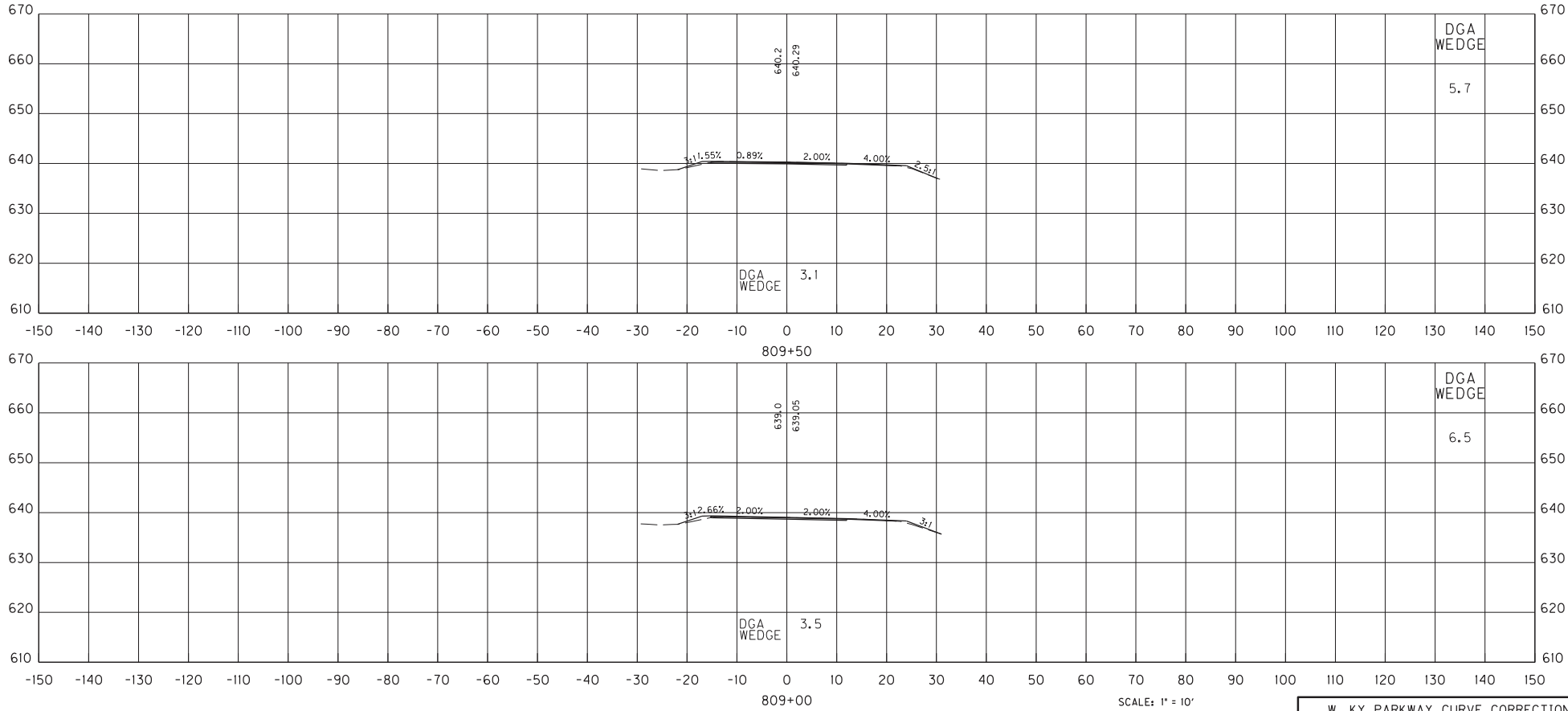


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 808+00 TO STA. 808+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0018570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X39



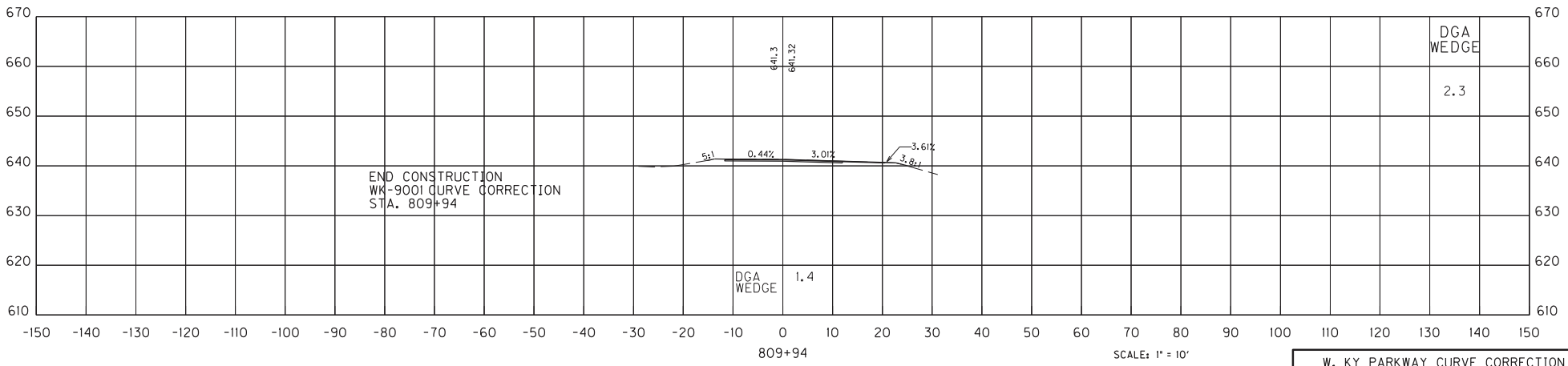
SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 809+00 TO STA. 809+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0018570\CURVE CORRECTION CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: January 1, 0001
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X40

TOTAL DGA WEDGE 954 CUYD

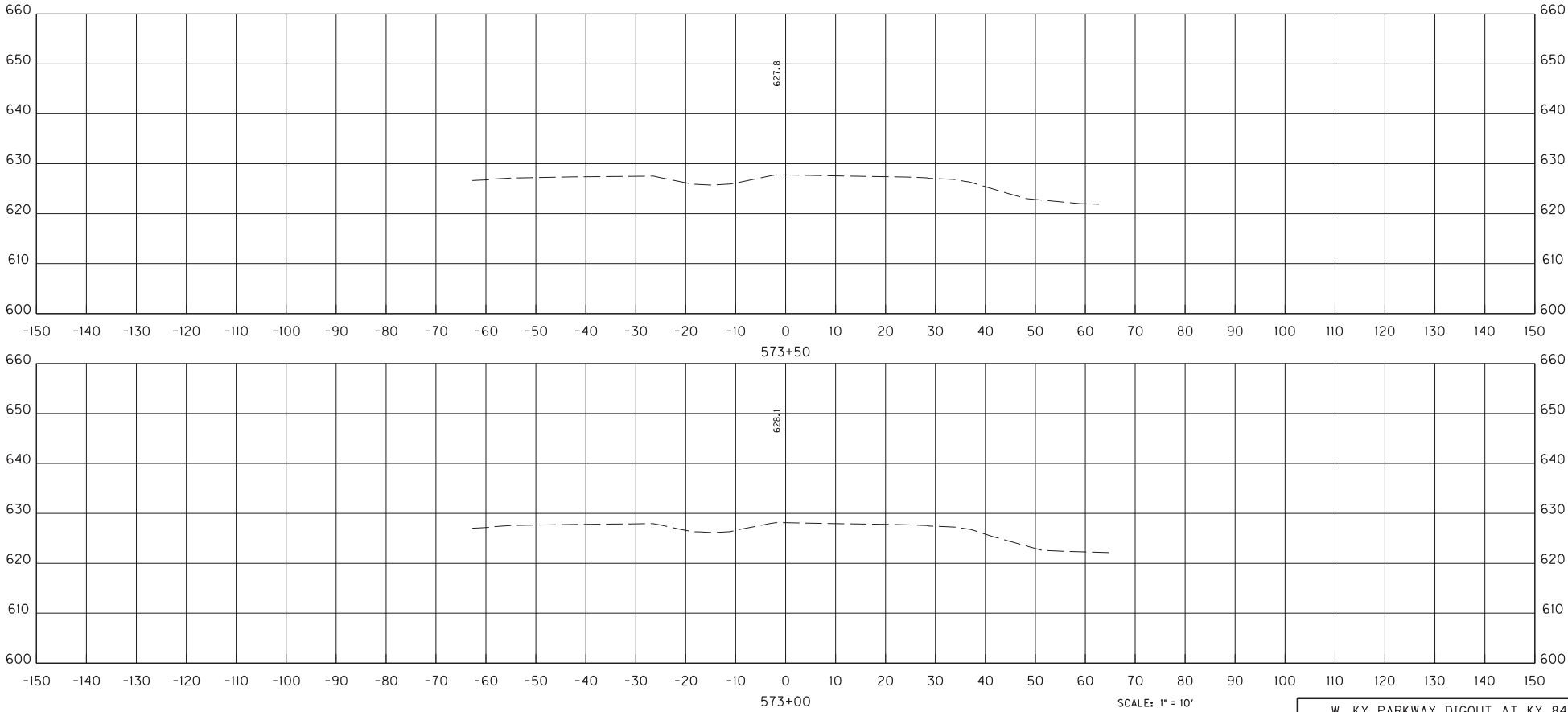


SCALE: 1" = 10'

W. KY PARKWAY CURVE CORRECTION
STA. 809+94 TO STA. 809+94
CROSS SECTIONS

USER: anthony-d
DATE PLOTTED: January 1, 0001
FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\CURVE CORRECTION CROSS SECTIONS.DGN
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X41

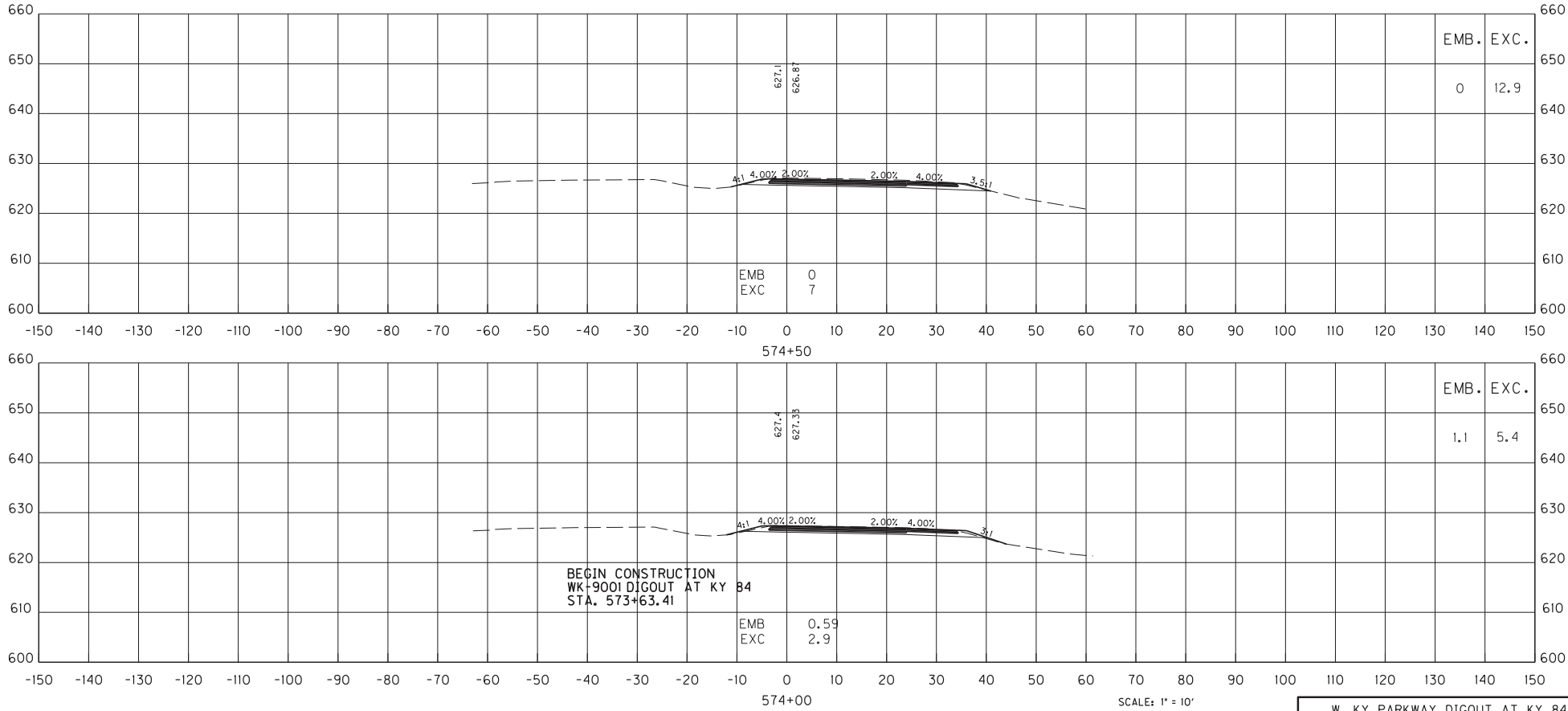


SCALE: 1" = 10'

W. KY PARKWAY DIGOUT AT KY 84
STA. 573+00 TO STA. 573+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\KY 84 CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: July 30, 2021
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X42

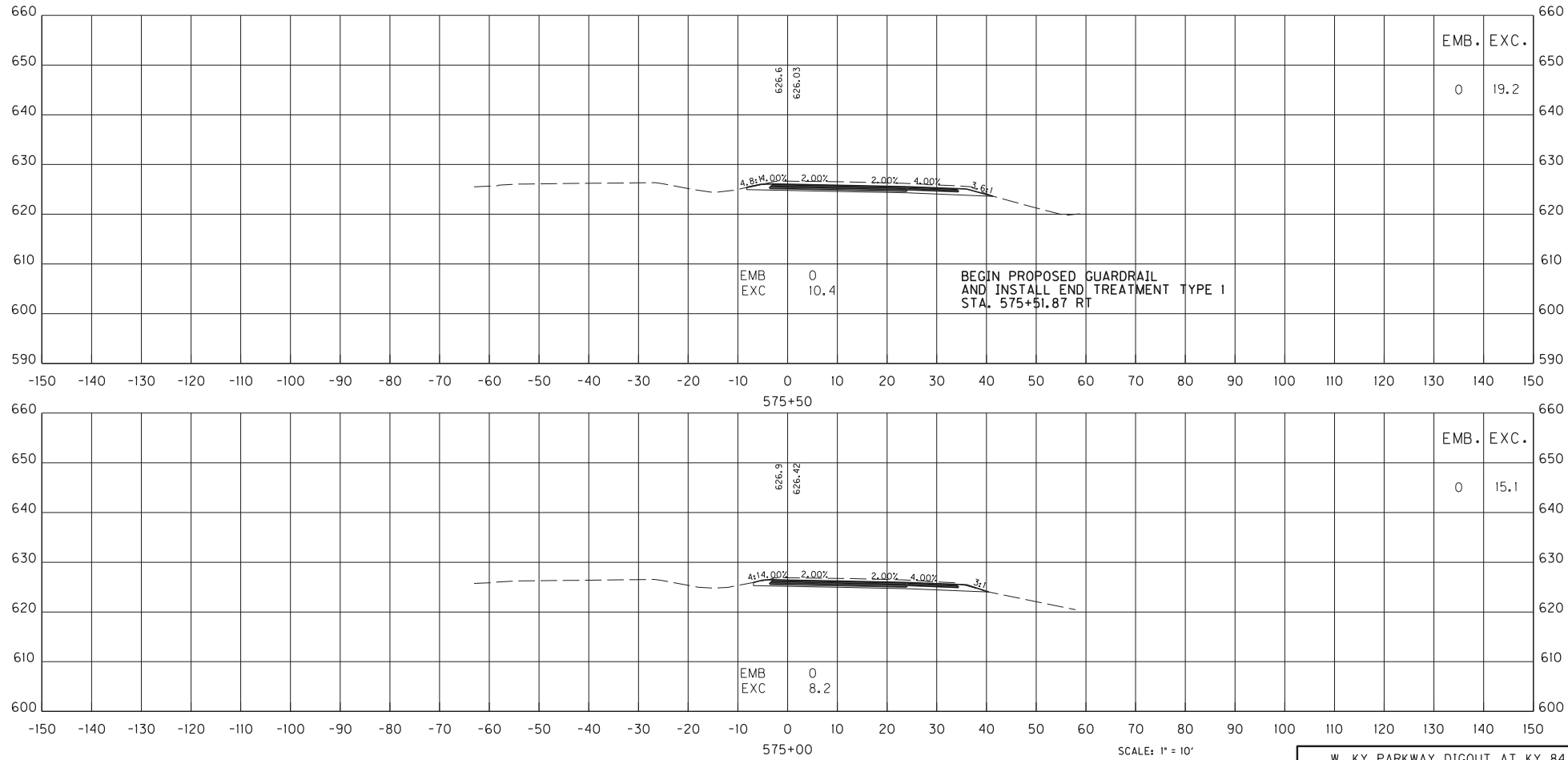


SCALE: 1" = 10'

W. KY PARKWAY DIGOUT AT KY 84
STA. 574+00 TO STA. 574+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN.ANTHONY-D\D0118570\KY 84 CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: July 30, 2021
E-SHEET NAME:
Power InRoads v8.11.9.397

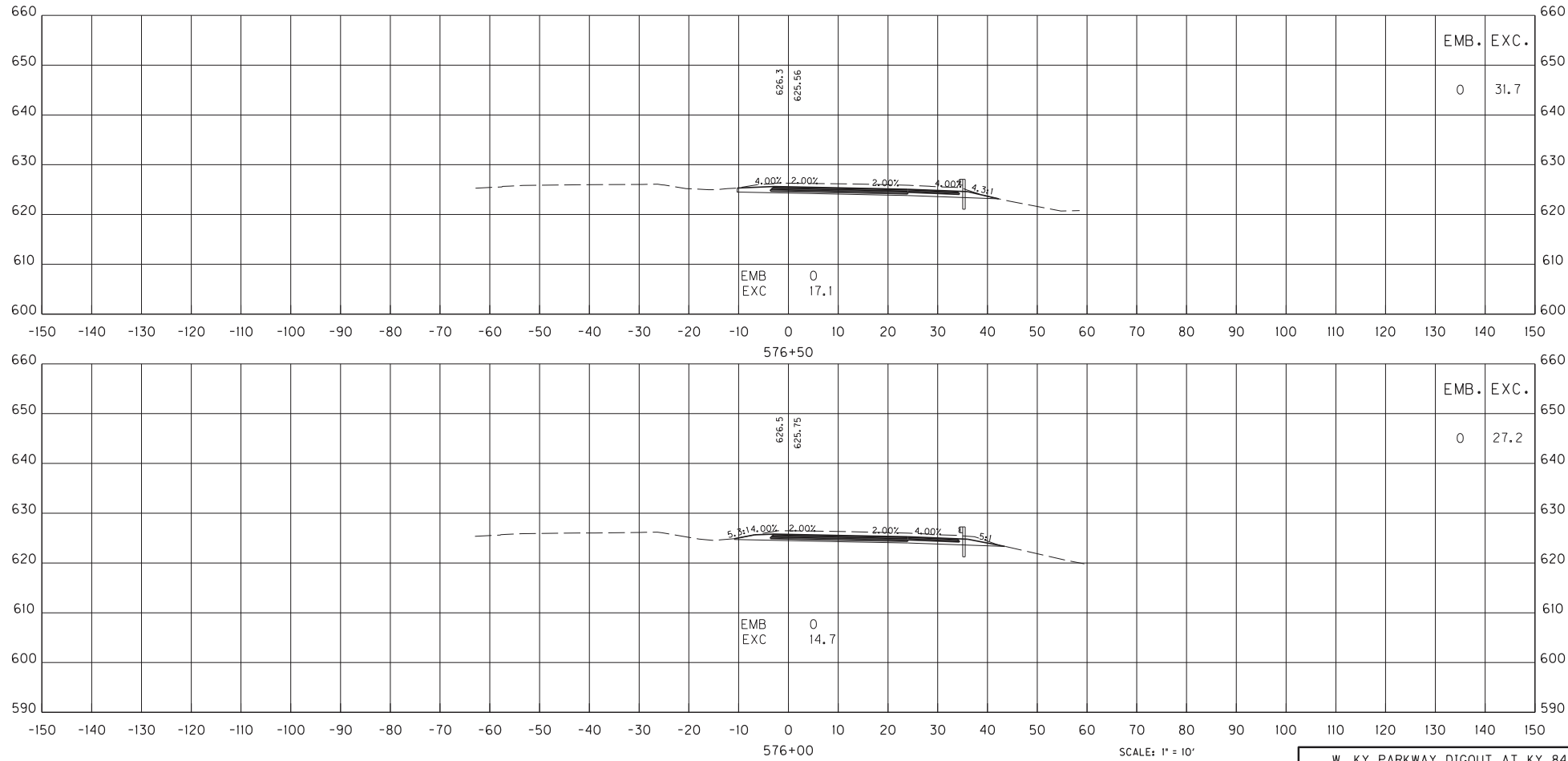
COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X43



W. KY PARKWAY DIGOUT AT KY 84
STA. 575+00 TO STA. 575+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\KY 84 CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: July 30, 2021
E-SHEET NAME:
PowerInRoads v8.11.9.397

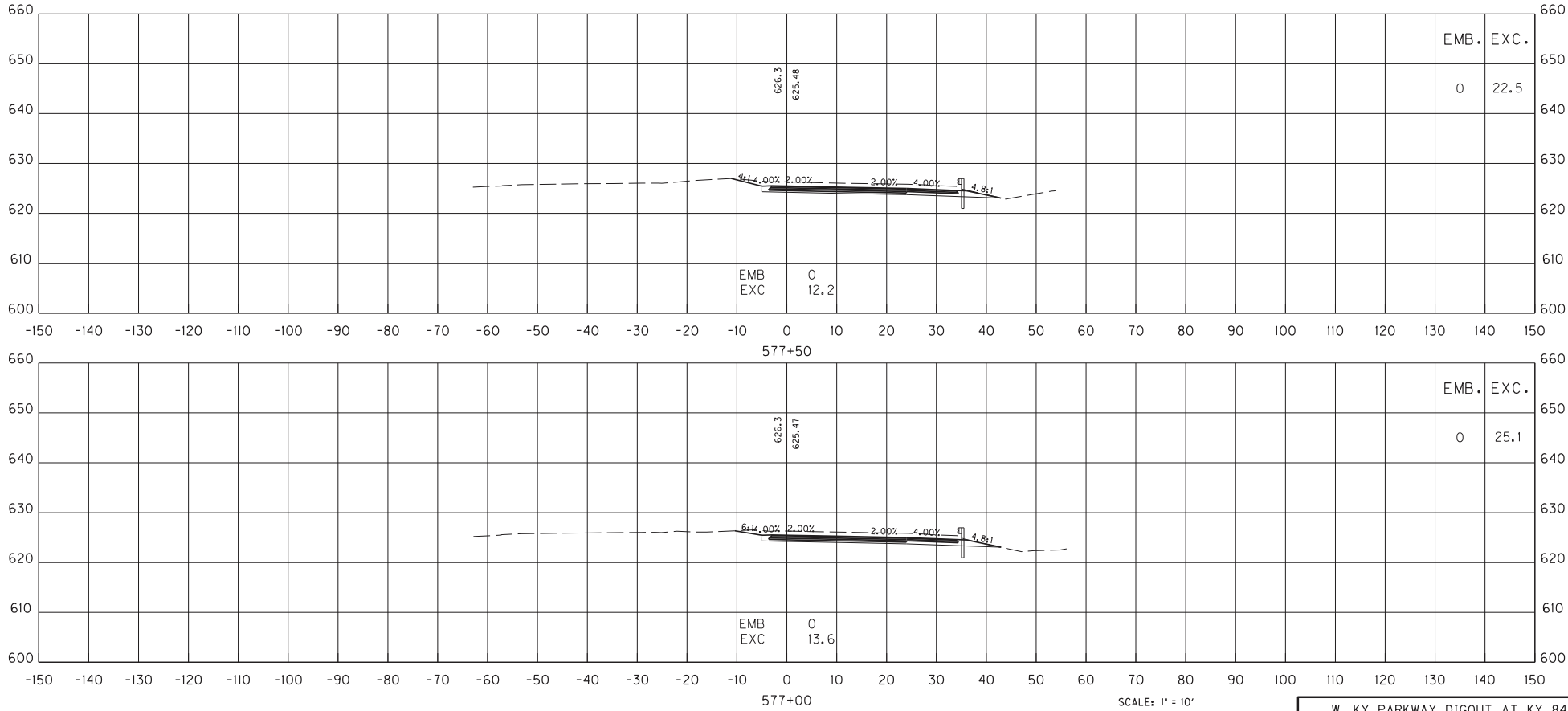
COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X44



W. KY PARKWAY DIGOUT AT KY 84
STA. 576+00 TO STA. 576+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\KY 84 CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: July 30, 2021
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X45

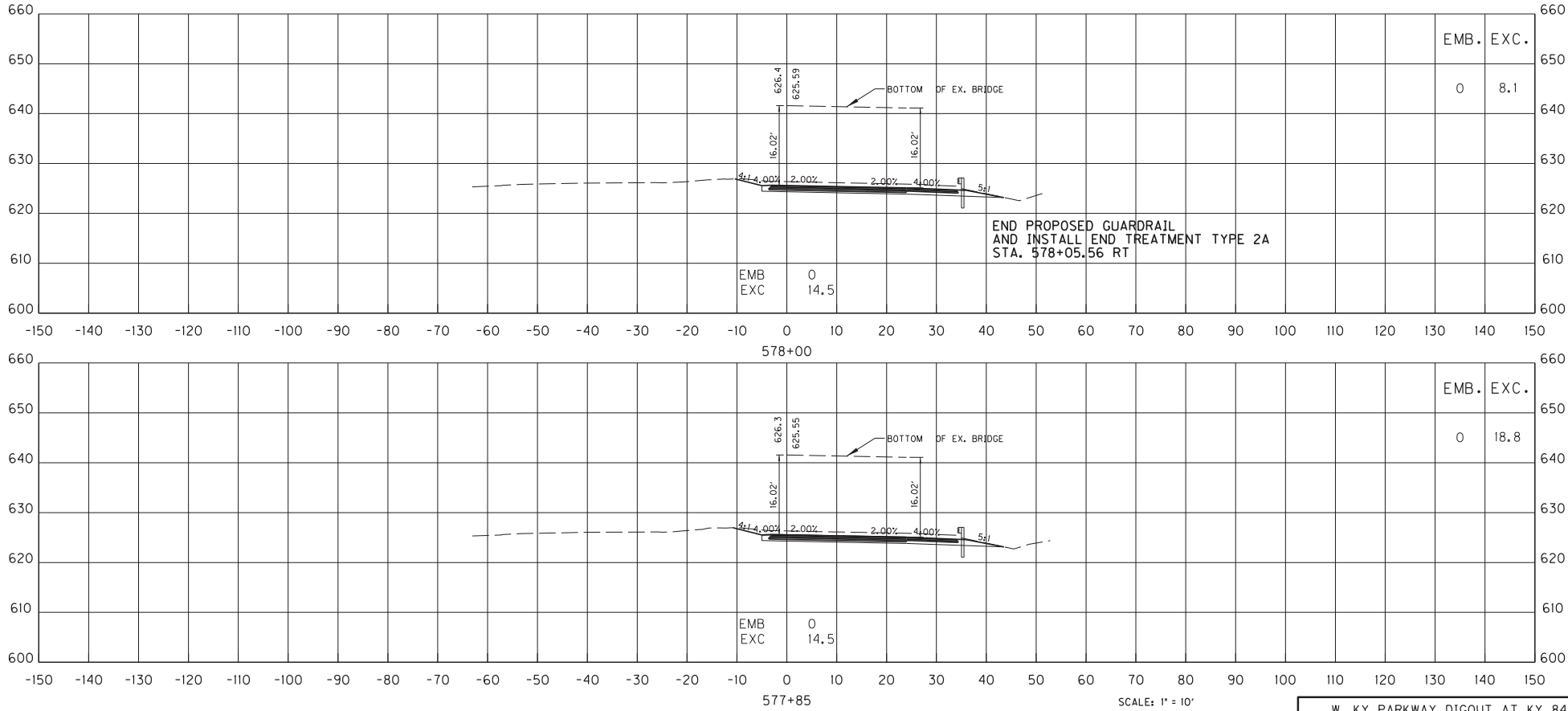


SCALE: 1" = 10'

W. KY PARKWAY DIGOUT AT KY 84
STA. 577+00 TO STA. 577+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\KY 84 CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: July 30, 2021
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X46

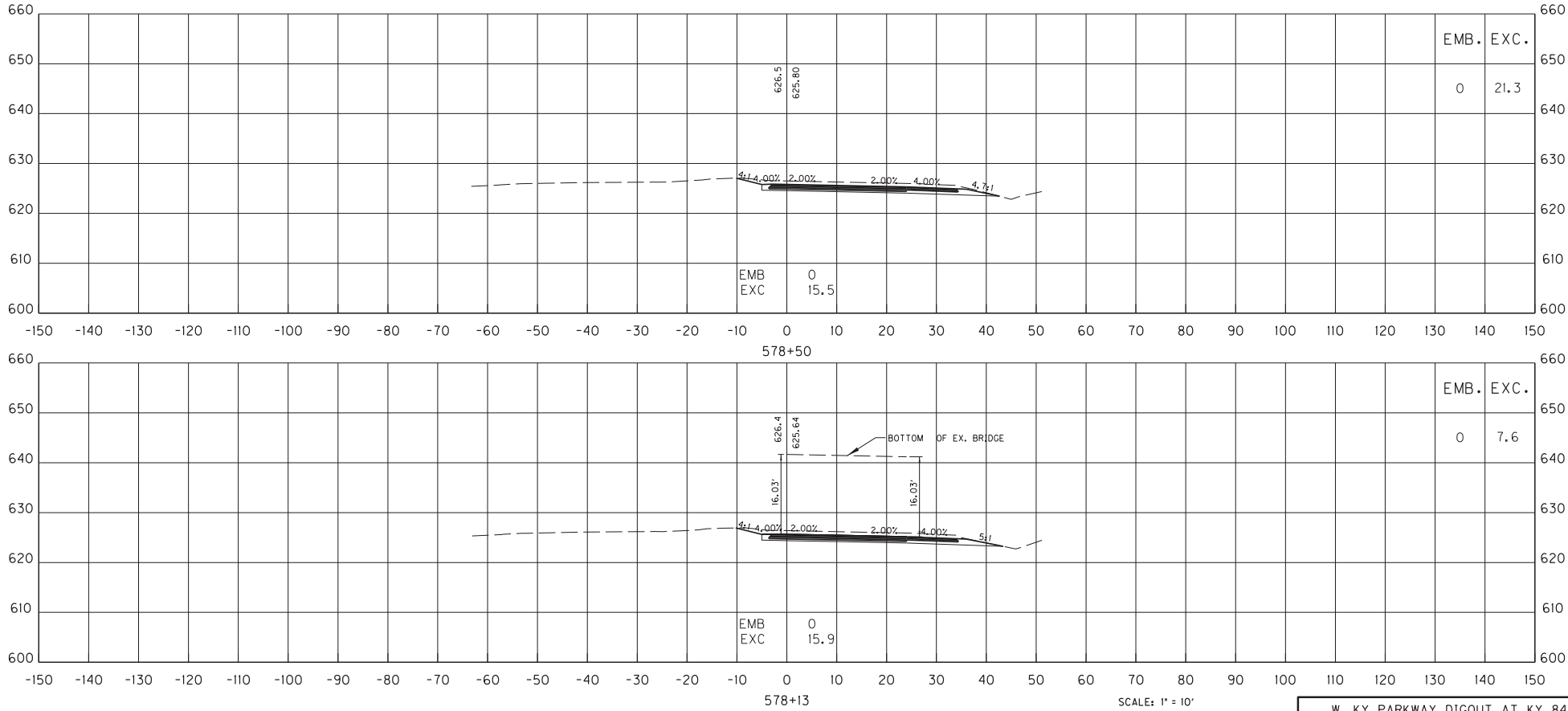


SCALE: 1" = 10'

W. KY PARKWAY DIGOUT AT KY 84
STA. 577+85 TO STA. 578+00
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\KY 84 CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: July 30, 2021
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X47

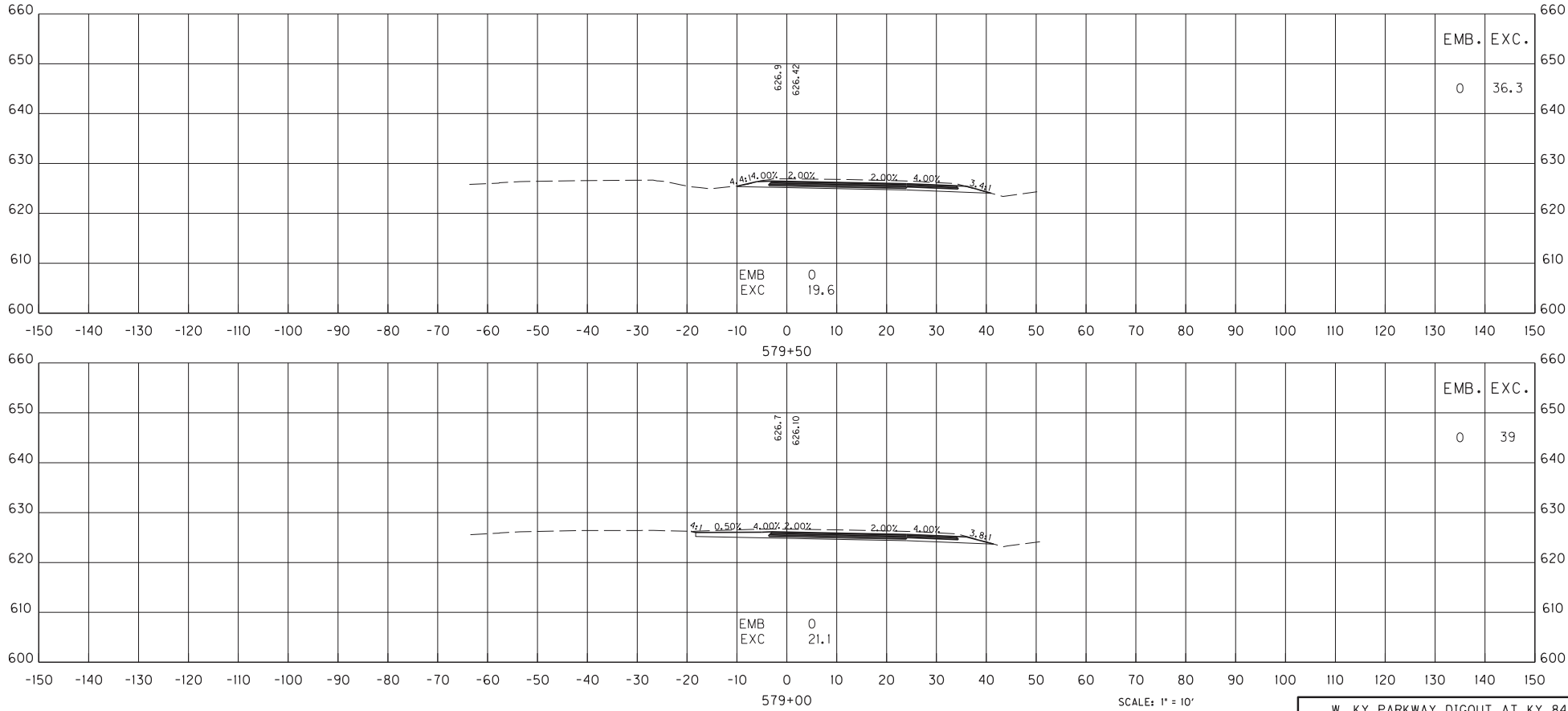


SCALE: 1" = 10'

W. KY PARKWAY DIGOUT AT KY 84
STA. 578+13 TO STA. 578+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\KY 84 CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: July 30, 2021
E-SHEET NAME:
PowerInRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X48

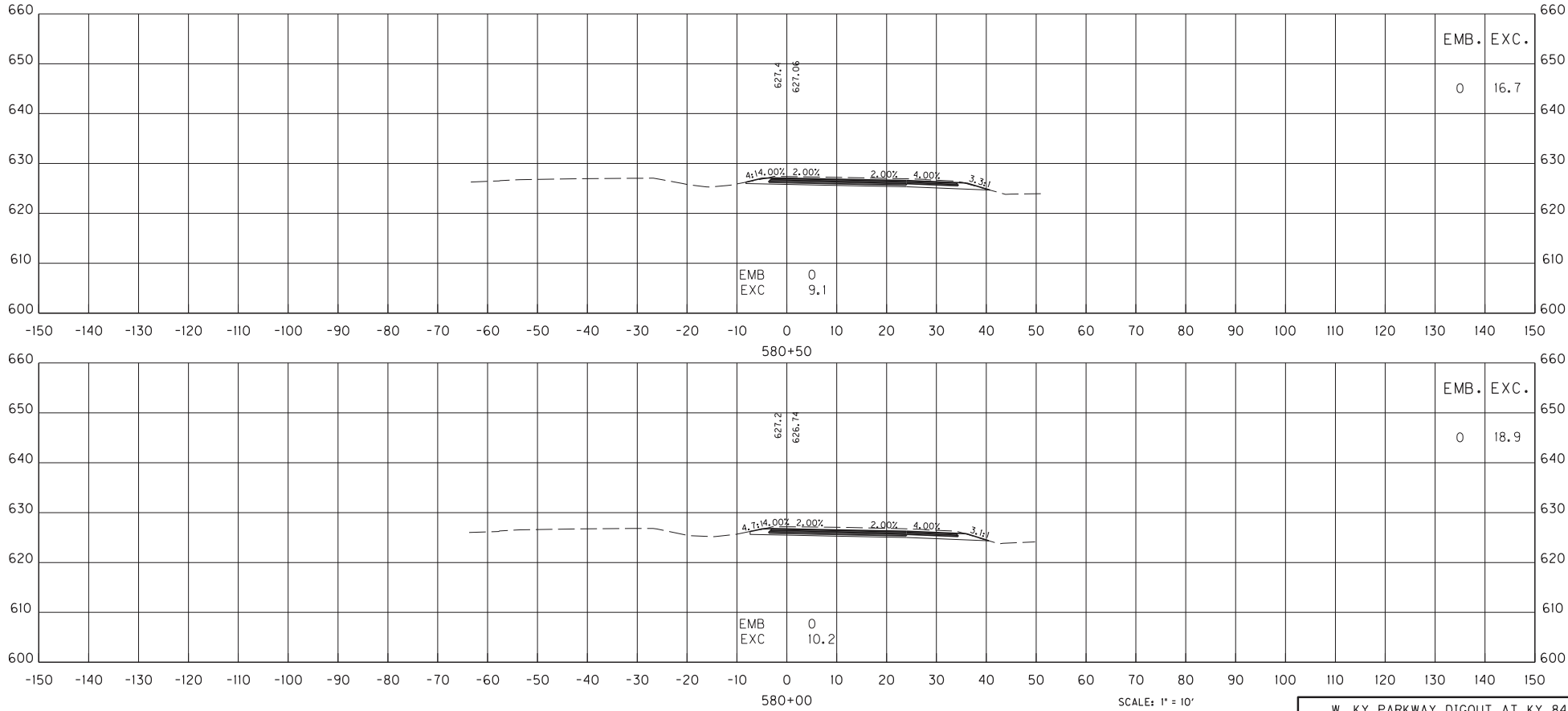


SCALE: 1" = 10'

W. KY PARKWAY DIGOUT AT KY 84
STA. 579+00 TO STA. 579+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\KY 84 CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: July 30, 2021
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X49



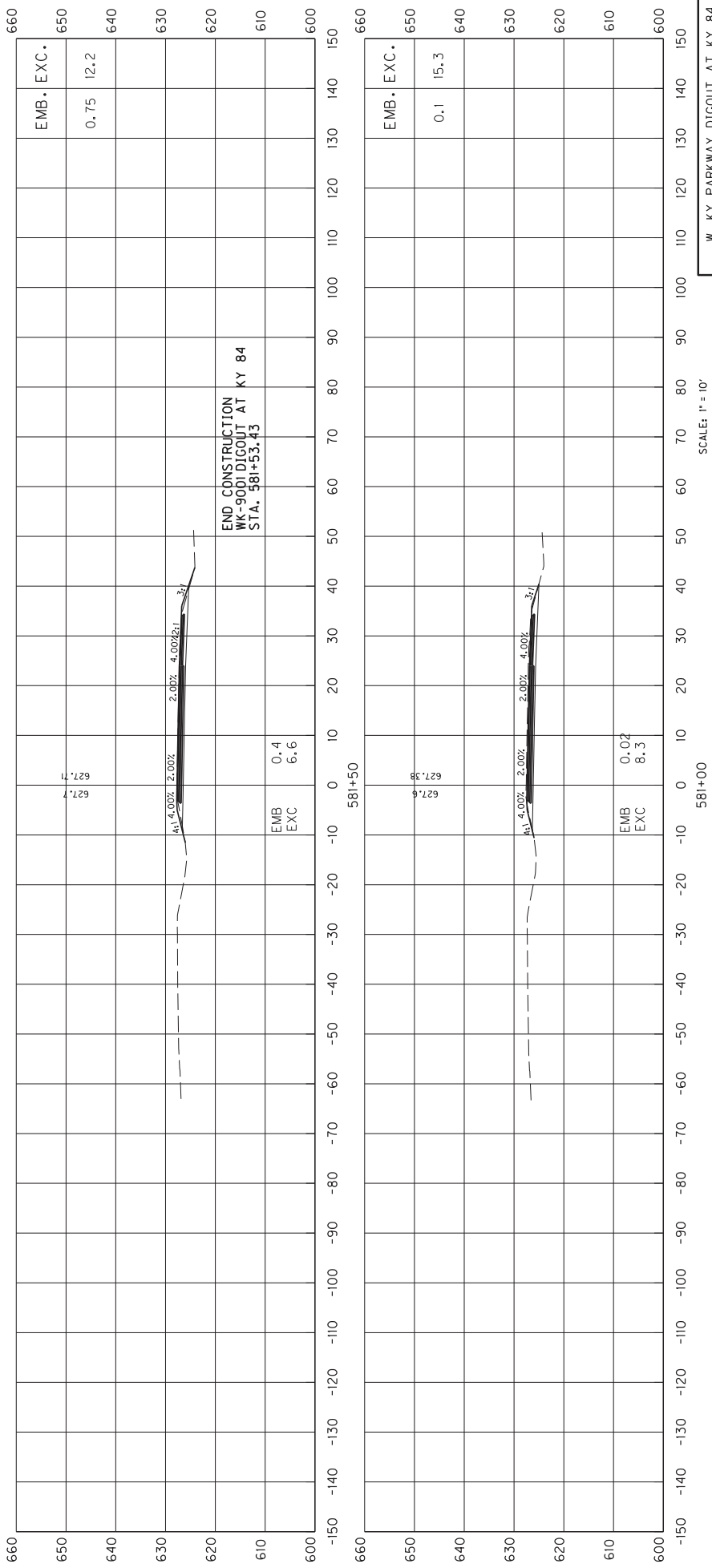
SCALE: 1" = 10'

W. KY PARKWAY DIGOUT AT KY 84
STA. 580+00 TO STA. 580+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\KY 84 CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: July 30, 2021
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-20016.00	X50

W. KY PARKWAY DIGOUT AT KY 84
STA. 581+00 TO STA. 581+50
CROSS SECTIONS

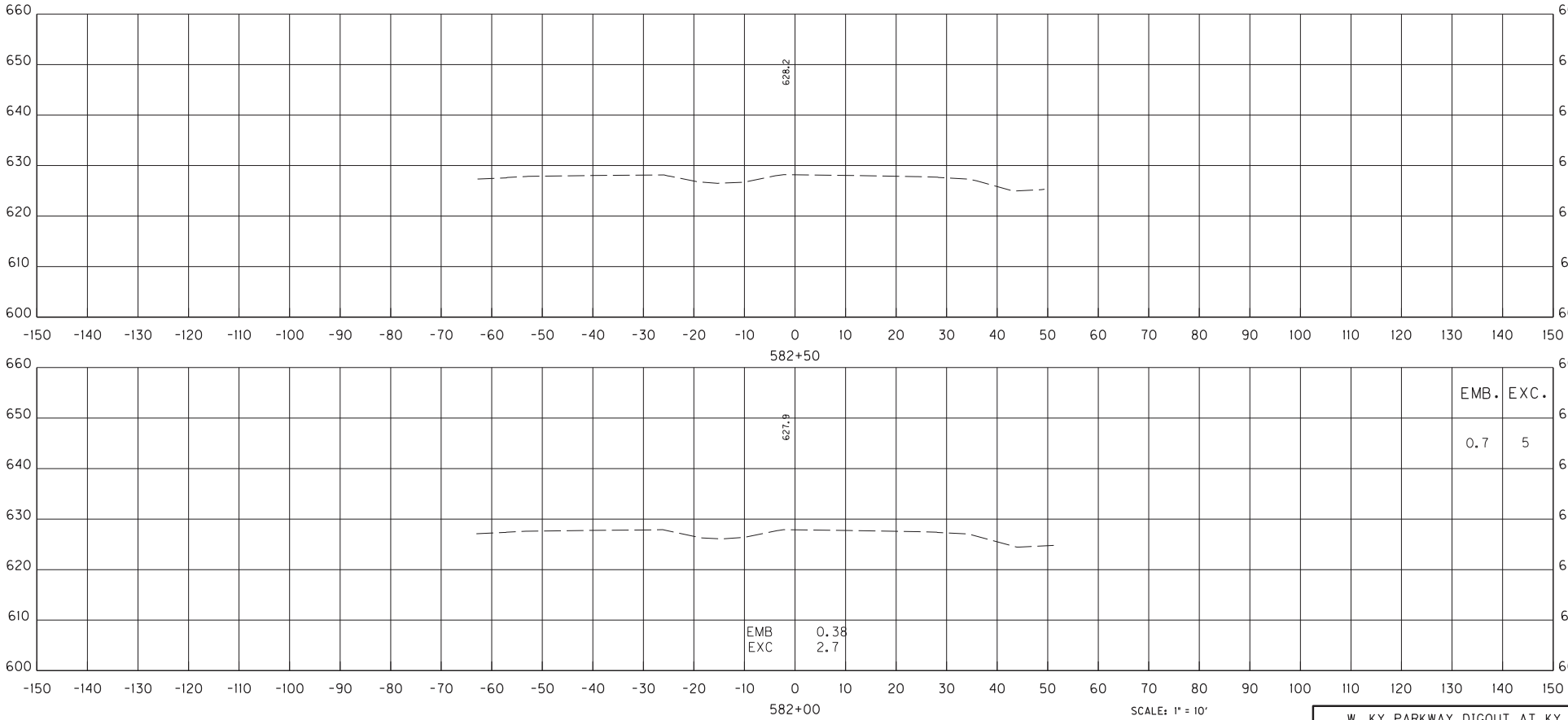


Power InRoads v8.11.9.397 | E-SHEET NAME: | USER: anthony-d DATE PLOTTED: July 30, 2021 | FILE NAME: c:\PW_WORKDIR\PEMIN_ANTHONY-D\D0118570\X7 84 CROSS SECTIONS.DGN

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X51

DIGOUT TOTALS

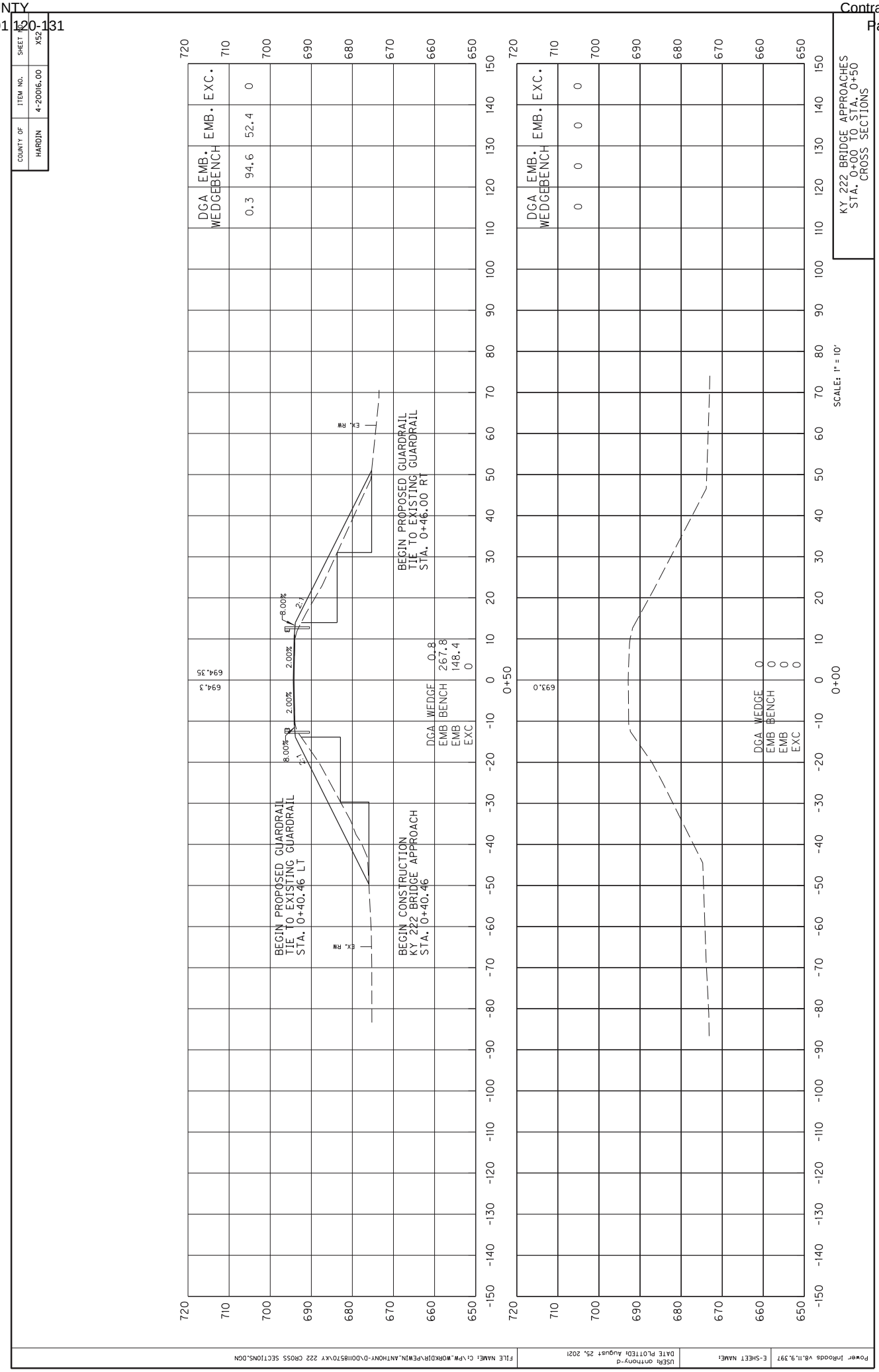
EMB	4	CU.YD.
EXC	358	CU.YD.

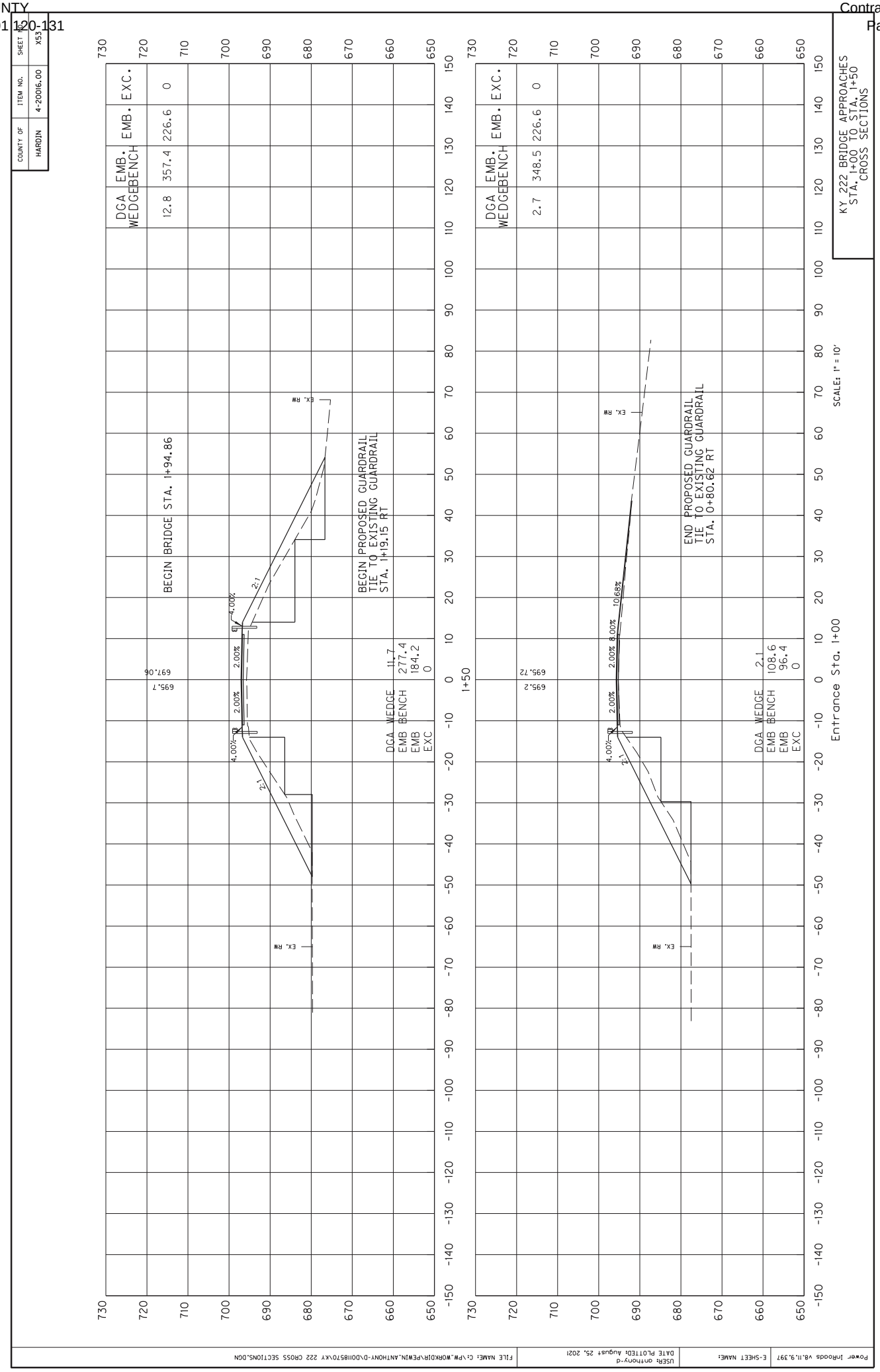


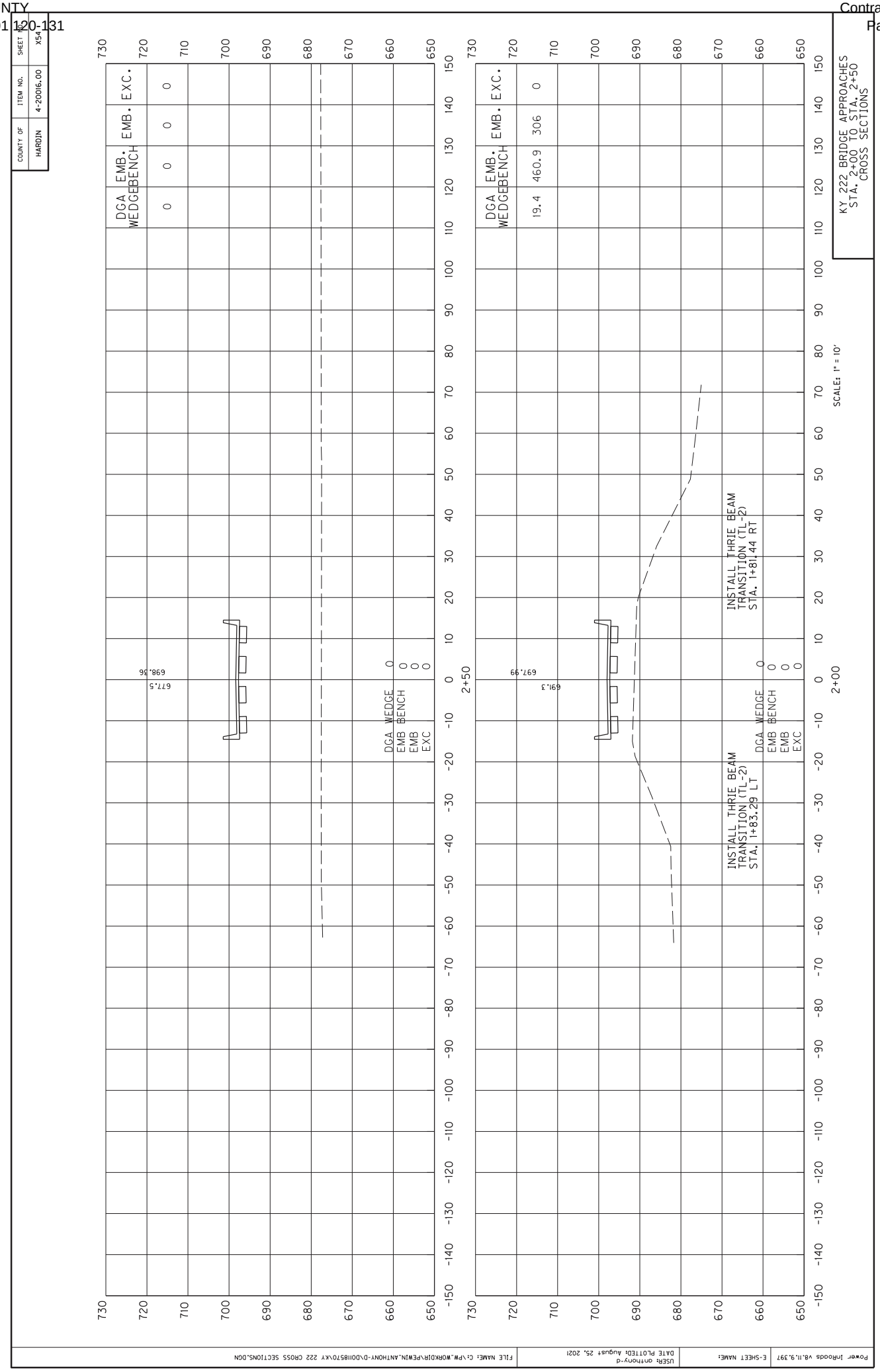
SCALE: 1" = 10'

W. KY PARKWAY DIGOUT AT KY 84
STA. 582+00 TO STA. 582+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\KY 84 CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: July 30, 2021
E-SHEET NAME:
Power InRoads v8.11.9.397


COUNTY OF
HARDIN
ITEM NO.
4-20016.00
SHEET NO.
X52
KY 222 BRIDGE APPROACHES
STA. 0+00 TO STA. 0+50
CROSS SECTIONS
SCALE: 1" = 10'
DGA WEDGE EMB. BENCH EMB. EXC.
0.3 94.6 52.4 0
0 0 0 0
BEGIN CONSTRUCTION
KY 222 BRIDGE APPROACH
STA. 0+40.46
BEGIN PROPOSED GUARDRAIL
TIE TO EXISTING GUARDRAIL
STA. 0+40.46 LT
BEGIN PROPOSED GUARDRAIL
TIE TO EXISTING GUARDRAIL
STA. 0+46.00 RT
DGA WEDGE 0.8
EMB BENCH 267.8
EMB 148.4
EXC 0
DGA WEDGE 0
EMB BENCH 0
EMB 0
EXC 0
694.35
694.3
693.0
8.00%
2.00%
2:1
EX. RW
0+50
0+00
Power Inroads v8.11.9.397
E-SHEET NAME:
USER: anthony-d
DATE PLOTTED: August 25, 2021
FILE NAME: c:\PW_WORKDIR\PEMIN_ANTHONY-D\D0118570\KY 222 CROSS SECTIONS.DGN

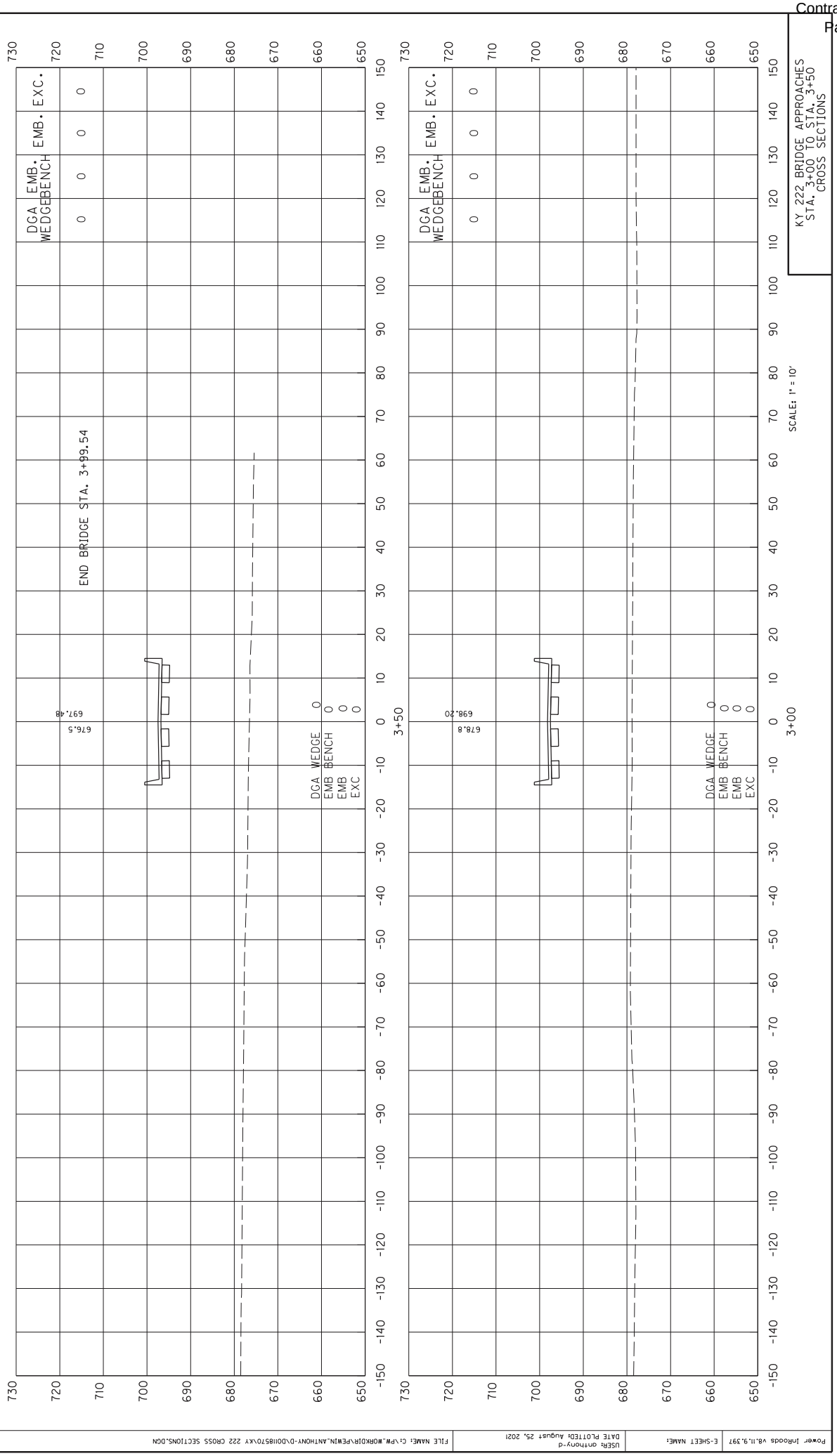

COUNTY OF HARDIN
ITEM NO. 4-20016.00
SHEET NO. X53
KY 222 BRIDGE APPROACHES
STA. 1+00 TO STA. 1+50
CROSS SECTIONS
DGA WEDGE 12.8
EMB. BENCH 357.4
EMB. EMB. 226.6
EXC. 0
BEGIN BRIDGE STA. 1+94.86
BEGIN PROPOSED GUARDRAIL
TIE TO EXISTING GUARDRAIL
STA. 1+19.15 RT
DGA WEDGE 11.7
EMB BENCH 277.4
EMB EMB 184.2
EXC 0
EX. RW
4.00%
2.00%
2:1
695.7
697.06
1+50
DGA WEDGE 2.7
EMB. BENCH 348.5
EMB. EMB. 226.6
EXC. 0
END PROPOSED GUARDRAIL
TIE TO EXISTING GUARDRAIL
STA. 0+80.62 RT
DGA WEDGE 2.1
EMB BENCH 108.6
EMB EMB 96.4
EXC 0
8.00%
10.68%
695.2
695.72
SCALE: 1" = 10'
Entrance Sta. 1+00
Power Inroads v8.11.9.397
E-SHEET NAME:
USER: anthony-d
DATE PLOTTED: August 25, 2021
FILE NAME: c:\PW_WORKDIR\PEMIN_ANTHONY-D\D0118570\xy 222 CROSS SECTIONS.DGN


KY 222 BRIDGE APPROACHES
STA. 2+00 TO STA. 2+50
CROSS SECTIONS
SCALE: 1" = 10'
COUNTY OF HARDIN
ITEM NO. 4-20016.00
SHEET NO. X54
DGA WEDGE EMB. BENCH EMB. EMB. EXC.
0 0 0 0
19.4 460.9 306 0
DGA WEDGE 0
EMB BENCH 0
EMB 0
EXC 0
677.5
698.36
691.3
697.99
INSTALL THRIE BEAM TRANSITION (TL-2) STA. 1+83.29 LT
INSTALL THRIE BEAM TRANSITION (TL-2) STA. 1+81.44 RT
2+50
2+00
Power InRoads v8.11.9.397
E-SHEET NAME:
USER: anthony-d
DATE PLOTTED: August 25, 2021
FILE NAME: c:\PW_WORKDIR\PEMIN_ANTHONY-D\D0118570\KY 222 CROSS SECTIONS.DGN

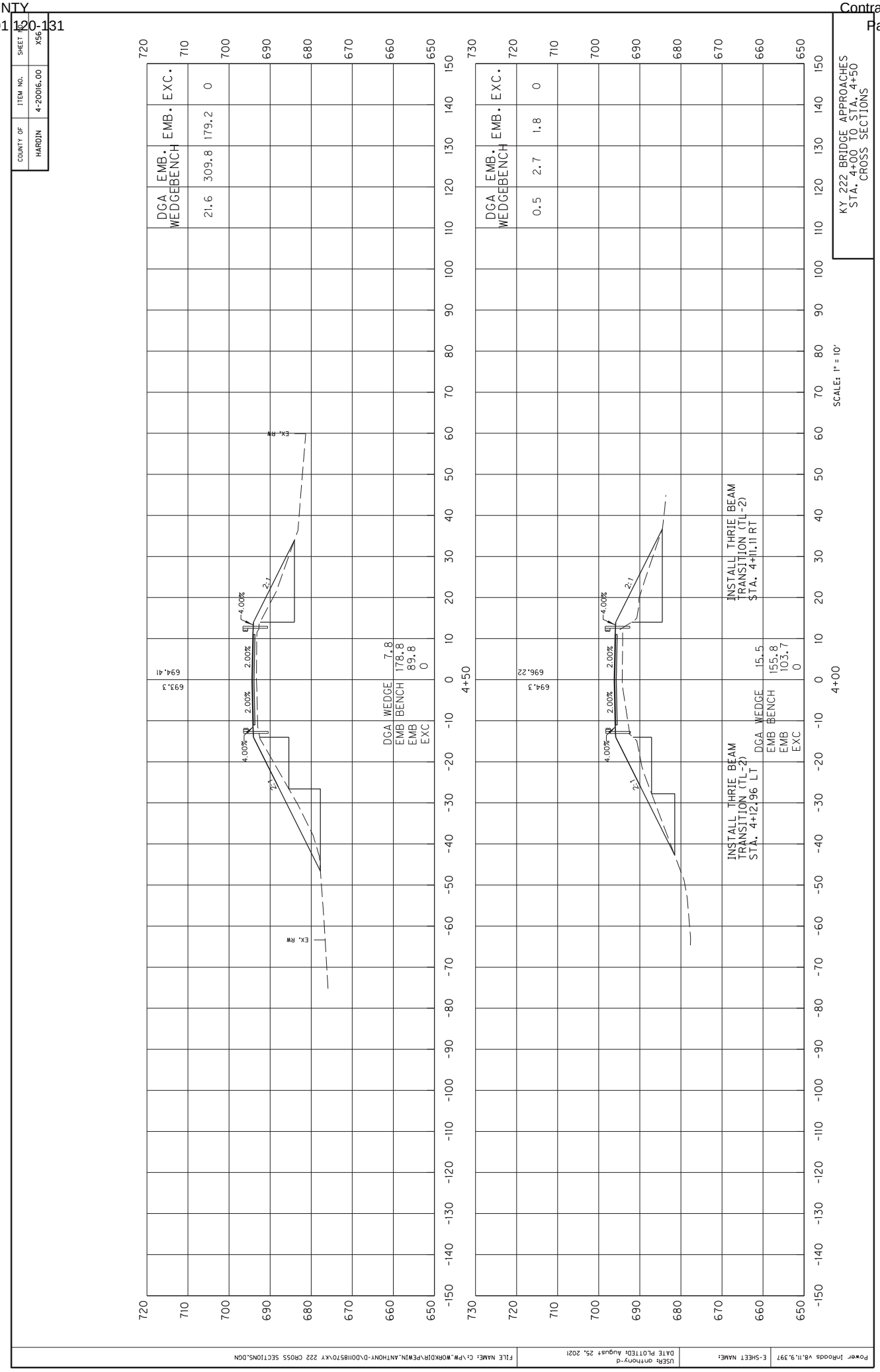
COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-20016.00	X55

KY 222 BRIDGE APPROACHES
STA. 3+00 TO STA. 3+50
CROSS SECTIONS

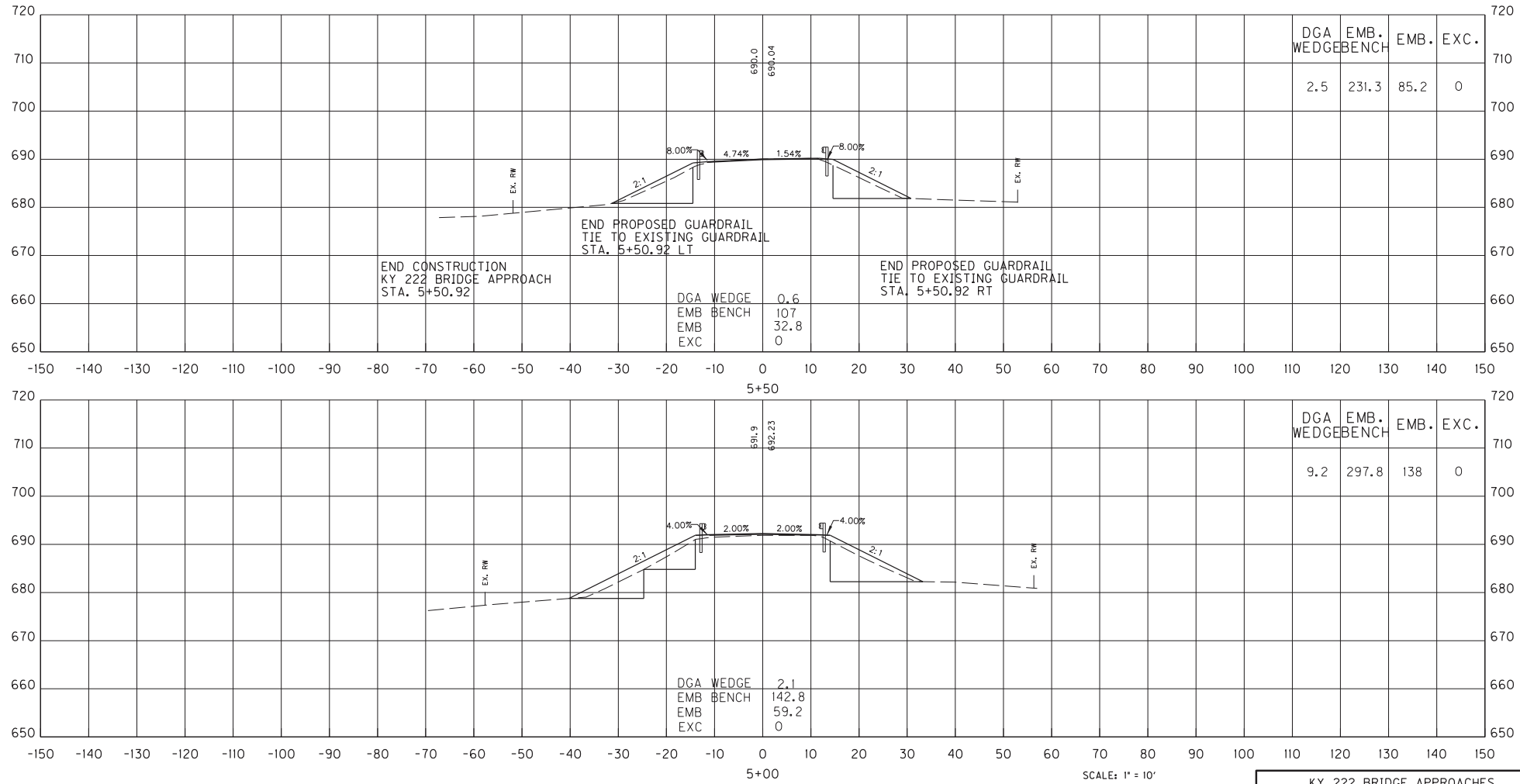
SCALE: 1" = 10'



Power Inroads v8.11.9.397 | E-SHEET NAME: | USER: anthony-d DATE PLOTTED: August 25, 2021 | FILE NAME: c:\PW_WORKDIR\PEMIN.ANTHONY-D\D0118570\KY 222 CROSS SECTIONS.DGN


COUNTY OF
HARDIN
ITEM NO.
4-20016.00
SHEET NO.
X56
KY 222 BRIDGE APPROACHES
STA. 4+00 TO STA. 4+50
CROSS SECTIONS
SCALE: 1" = 10'
DGA WEDGE 7.8
EMB BENCH 178.8
EMB EXC 89.8
0
693.3
694.41
EX. RW
4.00%
2.00%
2:1
4+50
INSTALL THRIE BEAM
TRANSITION (TL-2)
STA. 4+12.96 LT
DGA WEDGE 15.5
EMB BENCH 155.8
EMB EXC 103.7
0
694.3
696.22
INSTALL THRIE BEAM
TRANSITION (TL-2)
STA. 4+11.11 RT
4+00
DGA WEDGE
EMB BENCH
EMB EXC.
21.6 309.8 179.2 0
0.5 2.7 1.8 0
Power Inroads v8.11.9.397
E-SHEET NAME:
USER: anthony-d
DATE PLOTTED: August 25, 2021
FILE NAME: c:\PW_WORKDIR\PEMIN_ANTHONY-D\D0118570\KY 222 CROSS SECTIONS.DGN

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X57



SCALE: 1" = 10'

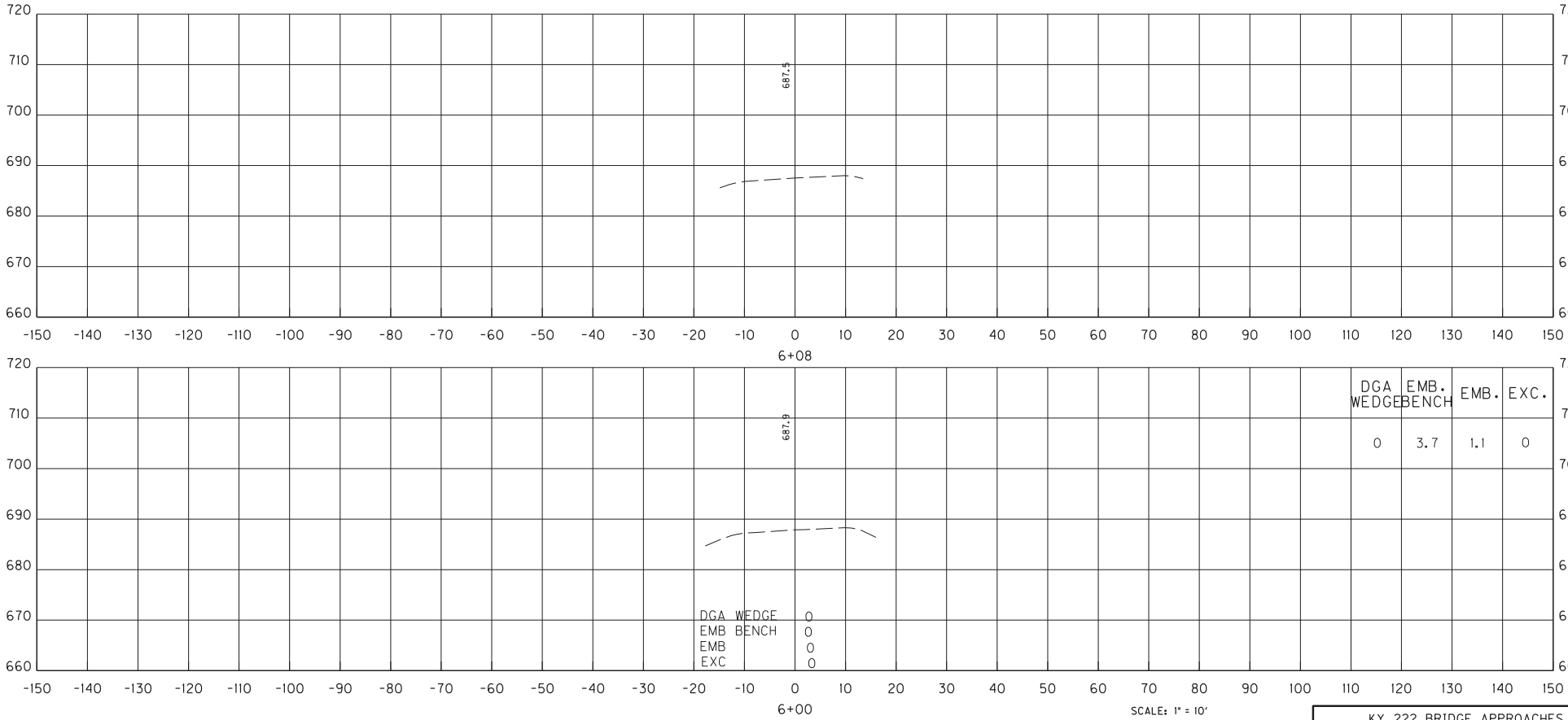
KY 222 BRIDGE APPROACHES
STA. 5+00 TO STA. 5+50
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\KY 222 CROSS SECTIONS.DGN
USER: anthonyd
DATE PLOTTED: August 25, 2021
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET #
HARDIN	4-20016.00	X58

KY 222 TOTALS

DGA WEDGE	69	CU.YD.
EMB. BENCH	2107	CU.YD.
EMB.	1217	CU.YD.
EXC.	0	CU.YD.

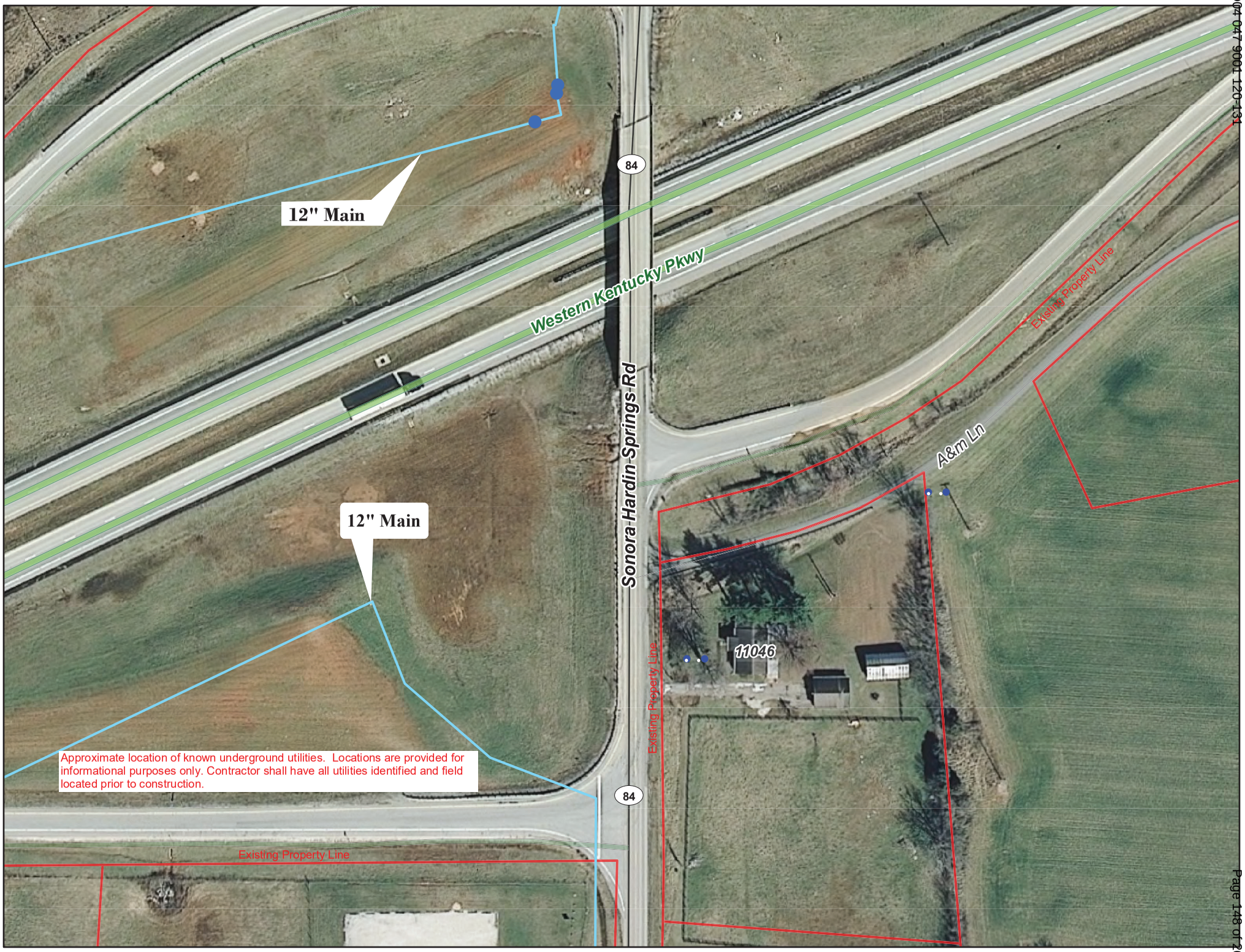


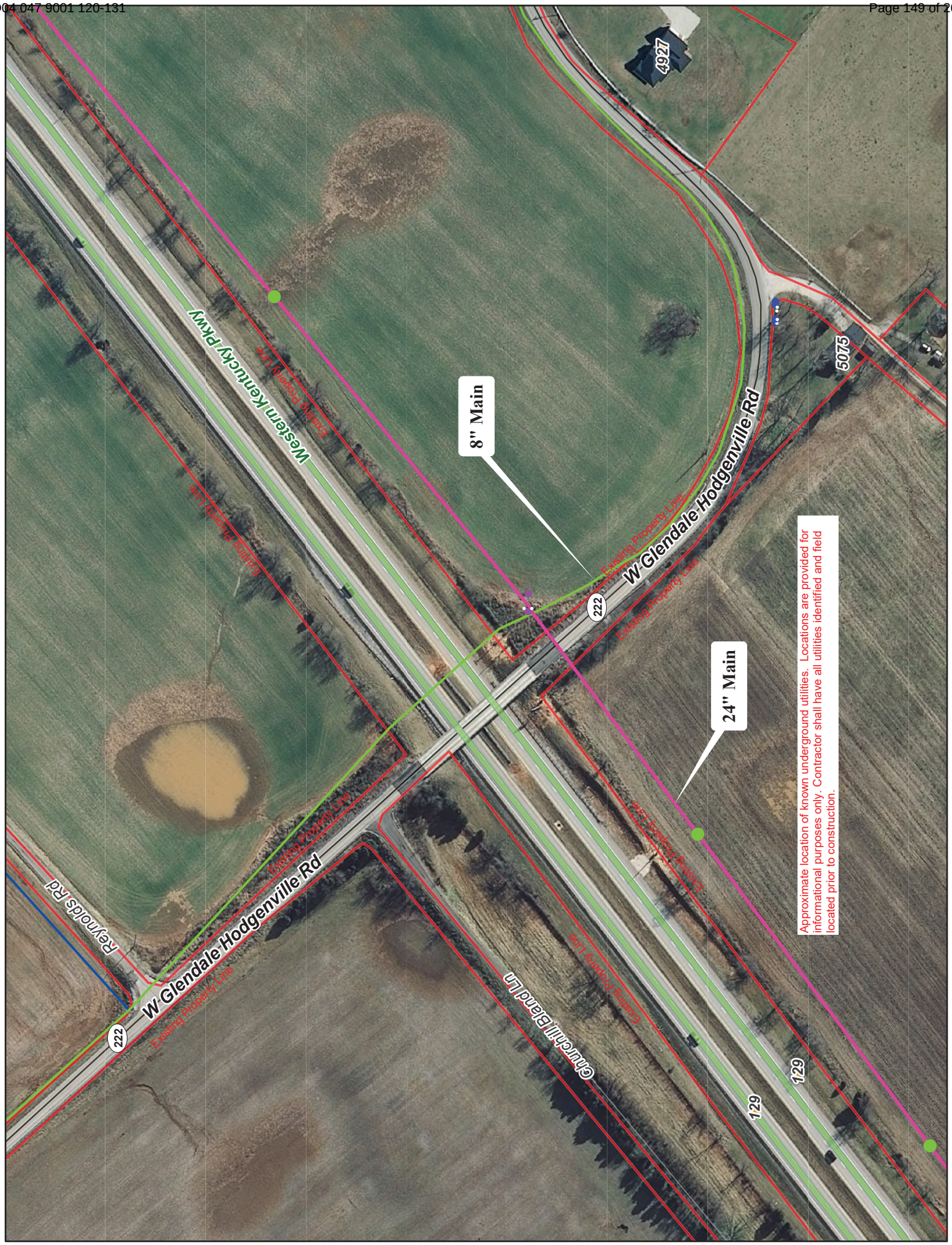
DGA WEDGE	EMB. BENCH	EMB.	EXC.
0	3.7	1.1	0

SCALE: 1" = 10'

KY 222 BRIDGE APPROACHES
STA. 6+00 TO STA. 6+08
CROSS SECTIONS

FILE NAME: C:\PW_WORKDIR\PEWIN_ANTHONY-D\D0118570\KY 222 CROSS SECTIONS.DGN
USER: anthony-d
DATE PLOTTED: August 25, 2021
E-SHEET NAME:
Power InRoads v8.11.9.397

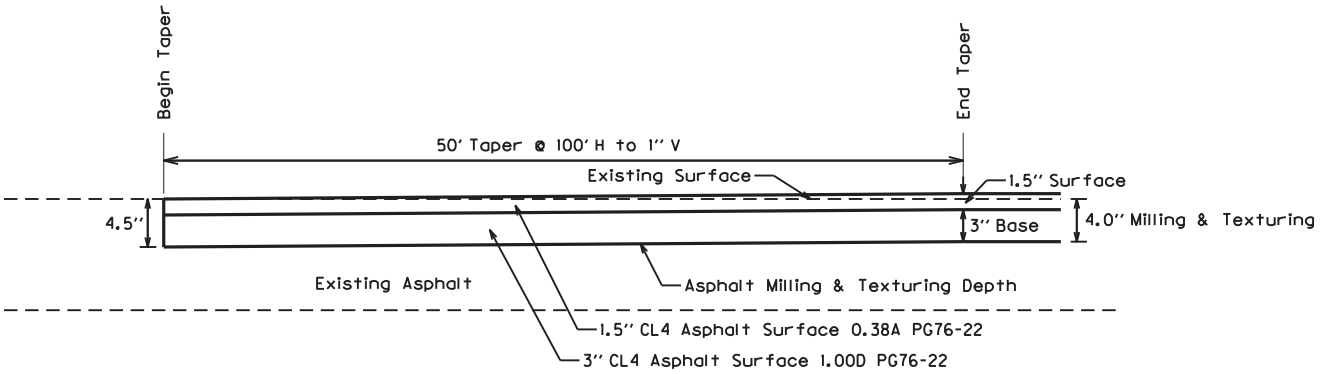

12" Main
84
Western Kentucky Pkwy
Sonora Hardin Springs Rd
Existing Property Line
A&m Ln
12" Main
11046
Existing Property Line
Approximate location of known underground utilities. Locations are provided for informational purposes only. Contractor shall have all utilities identified and field located prior to construction.
84
Existing Property Line


8" Main
24" Main
W Glendale Hodgenville Rd
Western Kentucky Pkwy
Gnutchill Bland Ln
Reynolds Rd
4927
5075
222
129
Existing Property Line
Approximate location of known underground utilities. Locations are provided for informational purposes only. Contractor shall have all utilities identified and field located prior to construction.

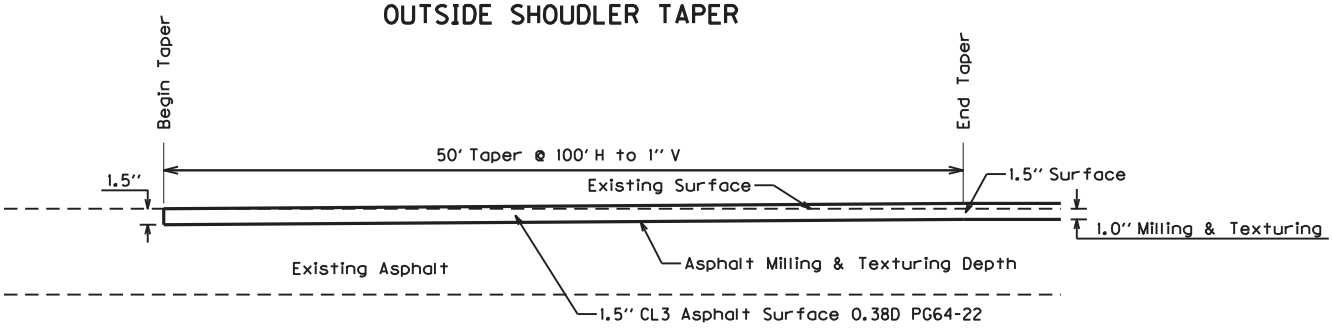
VERTICAL PAVEMENT TAPER DETAILS
MAINLINE WKP

NOTE:
USE AT TIE–INS TO EXISTING PAVEMENT AT EACH END OF THE PROJECT AND AT RAMP TIE–INS TO KY 84 RAMPS

DRIVING LANE AND INSIDE SHOULDER TAPER

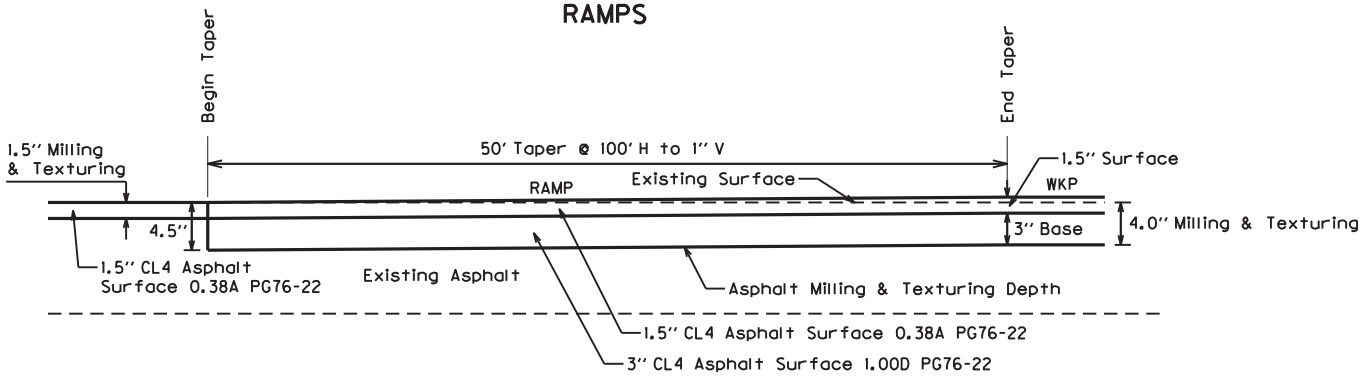


OUTSIDE SHOULDLER TAPER



NOTE:
TAPERS SHOWN AT BEGINNING OF PROJECT, REVERSE TAPERS AT END OF PROJECT.

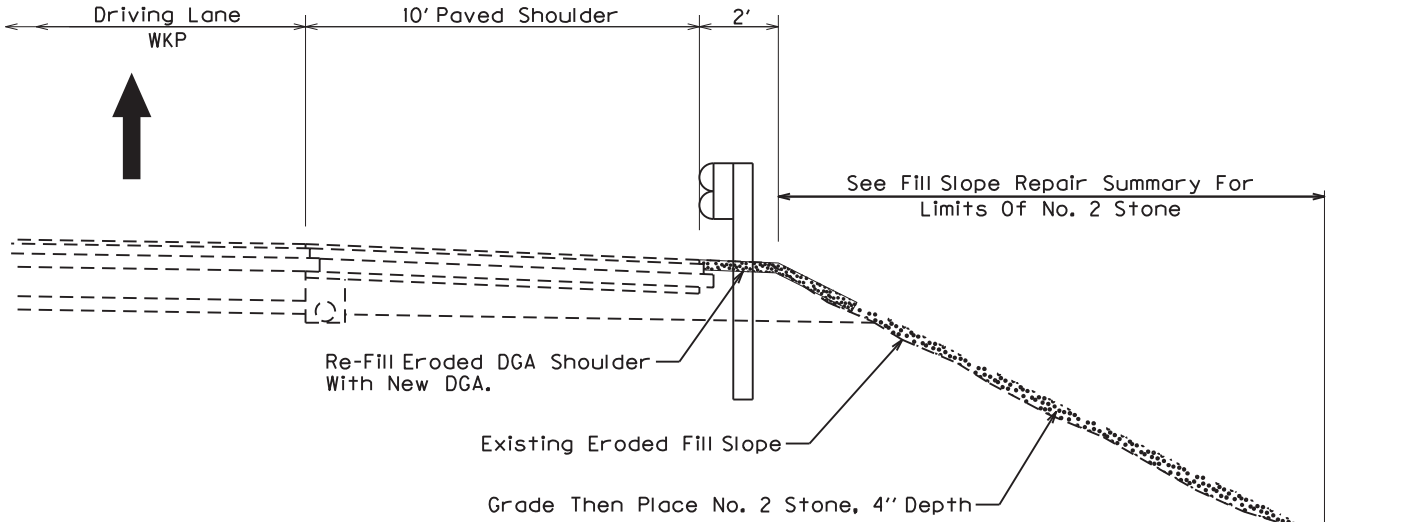
RAMPS



NOT TO SCALE

FILL SLOPE EROSION REPAIR AND DITCH DETAIL

FILL SLOPE EROSION REPAIR

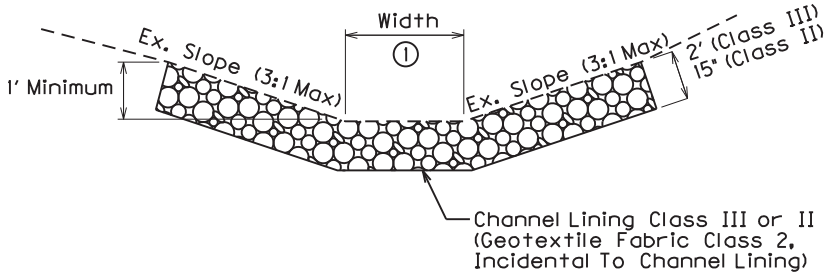


NOTES:
See The Fill Slope Erosion Repair Summary For Locations And Quantity Of No. 2 Stone.

Grading The Slope Prior To Placement Of No. 2 Stone Will Be Incidental To The Stone Bid Item.

A Quantity Of Channel Lining Class II Has Been Included On The General Summary For Filling In Deeply Eroded Areas Prior To Grading And Placing The No. 2 Stone.

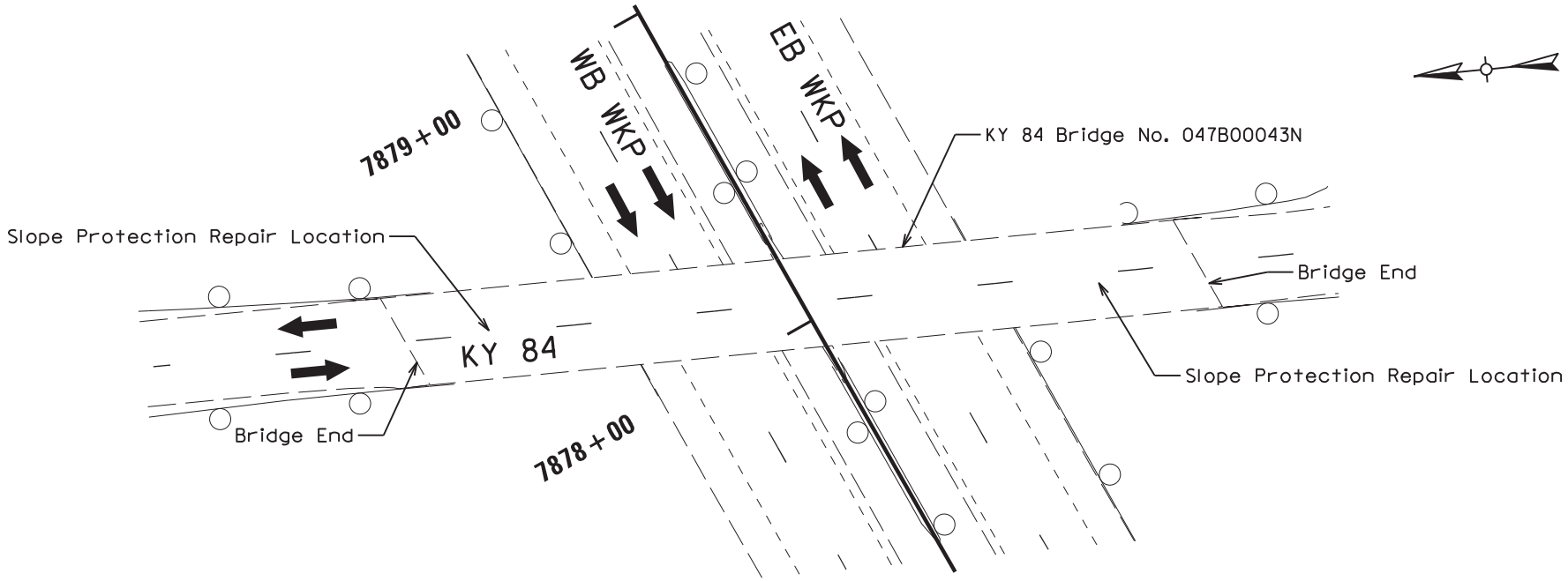
DITCH DETAIL



① See Drainage Summary

NOT TO SCALE

KY 84 BRIDGE CONCRETE SLOPE PROTECTION REPAIR DETAIL



ESTIMATED QUANTITIES

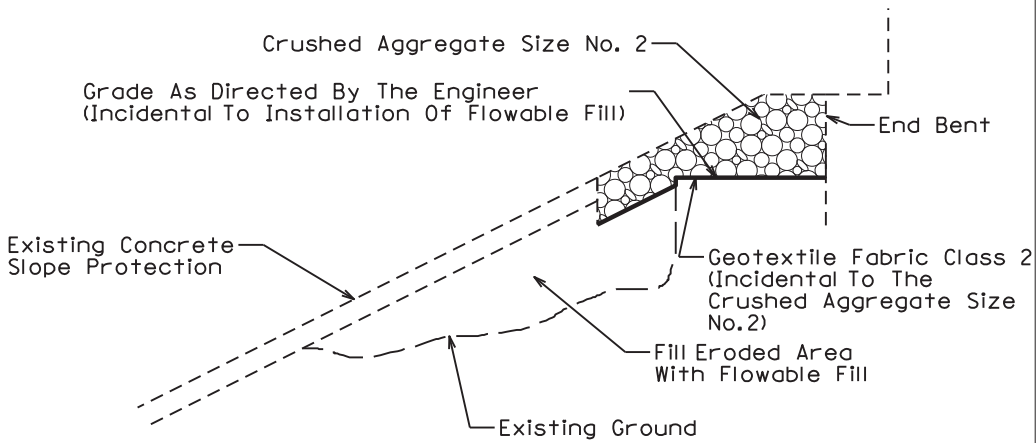
	Code	Description	Unit	Quantity
(1)	2220	Flowable Fill	CY	15
(2)	78	Crushed Aggregate Size No. 2	TON	30

Quantities Carried Forward To The General Summary

(1) Detail Applies To Both Ends Of Bridge.
10 CY Estimated For Eastbound Slope Protection.
5 CY Estimated For Westbound Slope Protection.

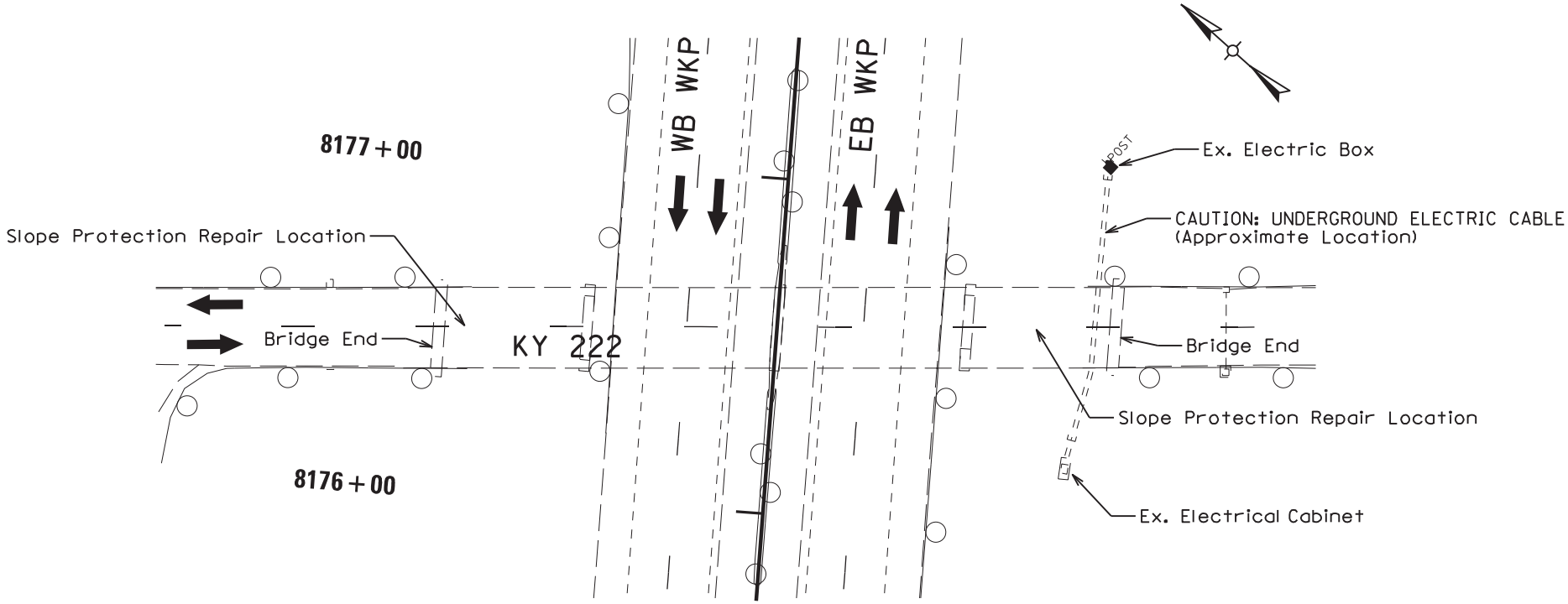
(2) Estimate At 15 Tons For Each End Of Bridge.

CONCRETE SLOPE PROTECTION REPAIR (1)



NOT TO SCALE

KY 222 BRIDGE CONCRETE SLOPE PROTECTION REPAIR DETAIL



ESTIMATED QUANTITIES

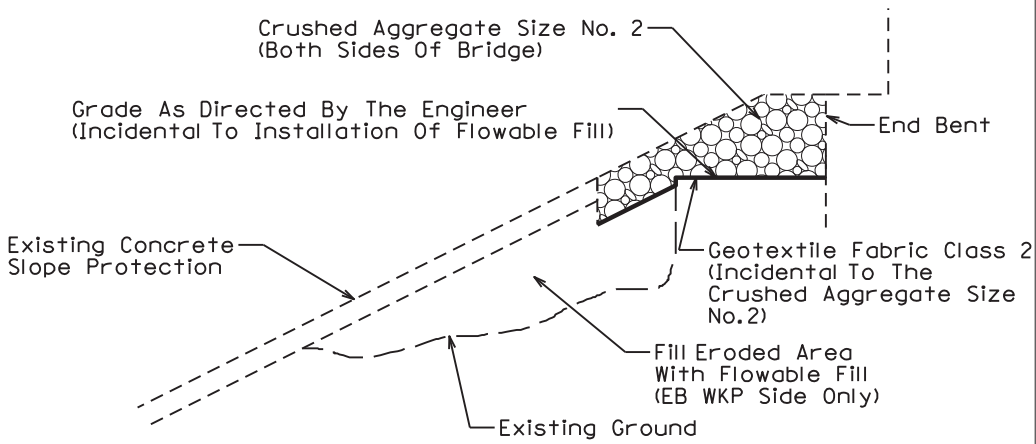
	Code	Description	Unit	Quantity
(1)	2220	Flowable Fill	CY	10
(2)	78	Crushed Aggregate Size No. 2	TON	20

Quantities Carried Forward To The General Summary

(1) Use On Eastbound WKP Side Only.

(2) Estimate At 10 Tons For Each End Of Bridge.

CONCRETE SLOPE PROTECTION REPAIR



NOT TO SCALE

TRAFFIC CONTROL PLAN
WESTERN KENTUCKY PARKWAY (WK-9001) REHABILITATION PROJECT
HARDIN COUNTY
ITEM NO. 4-20016.00

THIS PROJECT IS FOR A FULLY CONTROLLED ACCESS HIGHWAY

TRAFFIC CONTROL GENERAL

Except as provided herein, "Maintain and Control Traffic" shall be in accordance with the 2019 Standard Specifications and the 2020 Standard Drawings, current editions. Except for the roadway and traffic control bid items included in the project, 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 and the Manual on Uniform Traffic Control Devices (MUTCD), current edition.

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 specifications.

Reduce the speed limit in work areas to 55 miles per hour (10 miles per hour less than posted speed for ramps) 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 temporary signs. Any relocation or covering of the signs will be incidental to "Maintain and Control Traffic".

PROJECT PHASING & CONSTRUCTION PROCEDURES

This project has a fixed completion date. See the special note for Fixed Completion Date and Liquidated Damages.

Note that lane closures are required for the project. The minimum lane width shall be 11 ft. Stripe and taper according to the MUTCD and Standard Drawings. **The maximum length of lane closure per direction shall be 6 miles.**

Construction Phases 3, 4, and 5 (the digout work on eastbound WKP at the KY 84 interchange) are

to be performed concurrently with Phases 1 and 2 when the work shown for Phases 1 and 2 is being performed adjacent to the digout area.

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

During the days and hours when a lane closure is allowed, implement the following procedures: Maintain traffic as specified in the phasing notes and typical sections.

The contractor must notify the Engineer at least fourteen (14) days prior to the beginning of each construction phase in either direction and at least seven (7) days prior to a ramp closure.

PHASE 1

WB Sta 7674+63 to Sta 8266+55.7 &
EB Sta 7674+63 to Sta 7770+00, Sta 7810+00 to Sta 7873+63, Sta 7881+53 to Sta 8266+55.7:

Use a lane closure to reduce traffic to one lane then shift traffic to the outside lane and shoulder and close the inside lane and shoulder to traffic. Mill 4 inches of the existing inside lane and inside shoulder, then place 3 inches of asphalt base and 1.5 inches of asphalt surface pavement on the milled lane and shoulder. See the Vertical Pavement Taper Detail sheet For tying into the existing pavement at beginning and end of the project.

EB Sta 7770+00 to Sta 7810+00:

Perform the curve cross slope correction work for the inside lane and shoulder as shown on the Supplemental Plans in the Proposal. A Typical Section as well as a separate alignment with coordinate control information is included in the Supplemental Plans for this work.

Complete all inside shoulder work, and any other work shown in the proposal for the inside shoulder and median area (median slopes, ditches, roadway drainage, etc.).

Traffic channelizing devices are to be moved along with the active construction zone to minimize traffic on the shoulders.

PHASE 2

WB Sta 7674+63 to Sta 8266+55.7 &
EB Sta 7674+63 to Sta 7770+00, Sta 7810+00 to Sta 7873+63, Sta 7881+53 to Sta 8266+55.7:

Use a lane closure to reduce traffic to one lane then shift traffic to the inside lane and shoulder and close the outside lane and shoulder to traffic. Mill 4 inches of the existing outside lane and outside shoulder, then place 3 inches of asphalt base and 1.5 inches of asphalt surface pavement on the milled lane and shoulder. See the Vertical Pavement Taper Detail sheet For tying into the existing pavement at beginning and end of the project and for tying into the ramps at the KY 84 interchange.

EB Sta 7770+00 to Sta 7810+00:

Perform the curve cross slope correction work for the outside lane and shoulder as shown on the Supplemental Plans in the Proposal.
Complete all outside shoulder work, and any other work shown in the proposal for the outside shoulder and side slopes, ditches, or roadway drainage.

Traffic channelizing devices are to be moved along with the active construction zone to minimize traffic on the shoulders.

PHASE 3

EB Sta 7871+65 to Sta 7883+35:

Use a lane closure to reduce eastbound WKP traffic to one lane then shift traffic to the outside lane and close the inside lane to traffic. See the WKP Digout At KY 84 MOT Plans, sheets 1-3. Perform the pavement widening on the inside shoulder as shown on the Maintenance Of Traffic Typical Section for the digout at the KY 84 bridge.

PHASE 4

EB Sta 7873+63 to Sta 7881+53:

Use a lane closure to reduce eastbound WKP traffic to one lane then shift traffic to the outside lane and shoulder and close the inside lane to traffic. Install the Temporary Concrete Barrier Wall as shown on the Maintenance Of Traffic Typical Section for Phase 5 then shift traffic to the Phase 5 traffic configuration.

Perform the digout and installation of new pavement on the outside lane and shoulder as shown on the Supplemental Plans in the Proposal. A Typical Section as well as a separate alignment with coordinate control information is included in the Supplemental Plans for this work and the work to be performed in Phase 5.

PHASE 5

EB Sta 7873+63 to Sta 7881+53:

Maintain the eastbound lane closure performed in Phase 5 and shift traffic to the outside lane and shoulder. Relocate the Temporary Concrete Barrier Wall installed in Phase 5 to the new location as shown on the Maintenance Of Traffic Typical Section for Phase 5 then shift traffic to the Phase 5 traffic configuration. Perform the digout and installation of new pavement on the inside land and shoulder as shown on the Supplemental Plans in the Proposal.

PHASE 6

After all other work is completed, or when approved by the Engineer, place permanent striping and install the inlaid pavement markers. Mobile operations may be utilized.

RAMPS

Ramps at the KY 84 interchange may be closed a total of four (4) nights to complete all work on the ramps. Each night's closure shall begin at 6 PM and the ramps are to be opened to traffic by 6 AM the next morning. Two ramps in the same Western Kentucky Parkway traffic direction are to be closed at the same time for two consecutive nights. Both ramps are to be milled during the first night closure and both ramps are to be overlain during the second night closure.

KY 222 BRIDGE REPLACEMENT AND APPROACHES RECONSTRUCTION

The Contractor will be permitted to close KY 222 for a period of 60 consecutive days to perform the bridge replacement and reconstruction of the roadway approaches to the bridge. The closure shall begin no earlier than June 1, 2022 and is to be reopened to traffic no later than August 1, 2022. The Contractor is to install and maintain a signed detour to be in place at the time of the closure. Detour routes are provided in the project plans set for westbound KY 222 traffic and for eastbound US 62 traffic that may want to use eastbound KY 222.

The Contractor will be permitted to close one lane of KY 222 for an additional period of 7 consecutive days to perform the concrete sealing of the bridge superstructure. The closure shall begin at the prescribed time specified in the Special Note for Concrete Sealing. The Contractor shall provide the appropriate traffic control to maintain bi-directional traffic utilizing flaggers or temporary signals. Payment for the traffic control related to the concrete sealing shall be incidental to the bid item "Concrete Sealing".

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. Phase II construction may occur prior to Phase I to allow coordination with lane closures of the adjacent project. In case of conflict, the Engineer will determine the relative priority to give to work phasing on the various projects.

LANE CLOSURES

The maximum length of lane closure per direction shall be 6 miles.. Only one lane closure in each direction at any time will be permitted. Lanes closures may not stay in place for more than 48 hours without work actively being performed in the closed lane. Contrary to section 112, lane closures will **NOT** be measured for payment, but are considered incidental to "Maintain and Control Traffic".

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.

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 (PCMS) in advance of and within the project at locations to be determined by the Engineer. If work is in progress concurrently in both directions provide additional PCMS. Place PCMS one mile in advance of the anticipated queue at each lane closure. As the actual queue lengthens and/or shortens, relocate or provide additional PCMS 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 PCMS will be in operation at all times. In the event of damage or mechanical/electrical failure, the contractor will repair or replace the PCMS immediately. PCMS will be paid for once, no matter how many times they are moved or relocated. The Department **WILL NOT** take possession of the PCMS upon completion of the work.

TRUCK MOUNTED ATTENUATORS

Furnish and install MUTCD approved truck mounted attenuators (TMA) in advance of work areas when workers are present less than 12 feet from traffic. If there is less than 500 feet between work sites, only a single TMA will be required at a location as 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. TMA 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," lump sum.

Any striping removal (temporary or permanent) shall be removed by waterblasting. Waterblasting

and removal of temporary tape will be considered incidental to the “Maintain and Control Traffic” bid item.

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

1. Temporary markings will be 6" in width.
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.
3. Edge lines will be required for temporary striping.
4. Existing, temporary, or permanent striping will be in place before a lane is opened to traffic.

Should the Contractor change the existing striping pattern, the Contractor is to restripe the roadway back to its original configuration if no work is anticipated for a period of two (2) weeks, unless directed otherwise by the Engineer.

PAVEMENT EDGE DROP-OFFS

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

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

Less than 2” – Protect with a lane closure.

2” to 4” – Protect with a lane closure. Place plastic drums, vertical panels, or barricades every 50 feet. 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.

4” and greater - Drop-offs 4” or greater will be allowed during duration of the project. Protect with a lane or shoulder closure using drums, cones, or barricades. Place drums, or barricades with spacing not to exceed 20 feet and appropriate lighting should be utilized to illuminate the area during nighttime operations. Place Type III Barricades facing oncoming traffic at each drop off. If for any reason traffic must be maintained less than 6 feet from the drop off, wedge with DGA on 3:1 or flatter slope when work is not actively in progress in the drop-off area. Once excavation begins, work continuously to construct DGA and asphalt base to eliminate the drop-off. Drop-offs greater than 4 inches within 6 feet of traffic will not be allowed during non-working hours.

TYPE III BARRICADES

Type III Barricades will be considered incidental to the Maintain And Control Traffic bid item.

TRAFFIC COORDINATOR

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

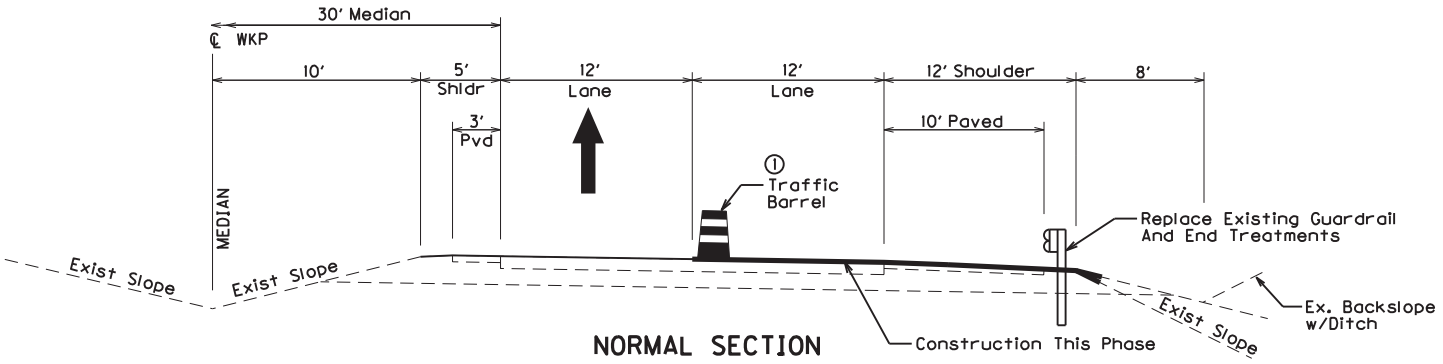
Designate an employee to be traffic coordinator. The designated Traffic Coordinator must be certified in accordance with Department's 2019 Standard Specifications Sec. 112.03.12. The Traffic Coordinator will inspect the project maintenance of traffic once daily, including weekends, during the Contractor's 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.

CONTRACTOR'S AND CONTRACTOR'S EMPLOYEES' VEHICLES

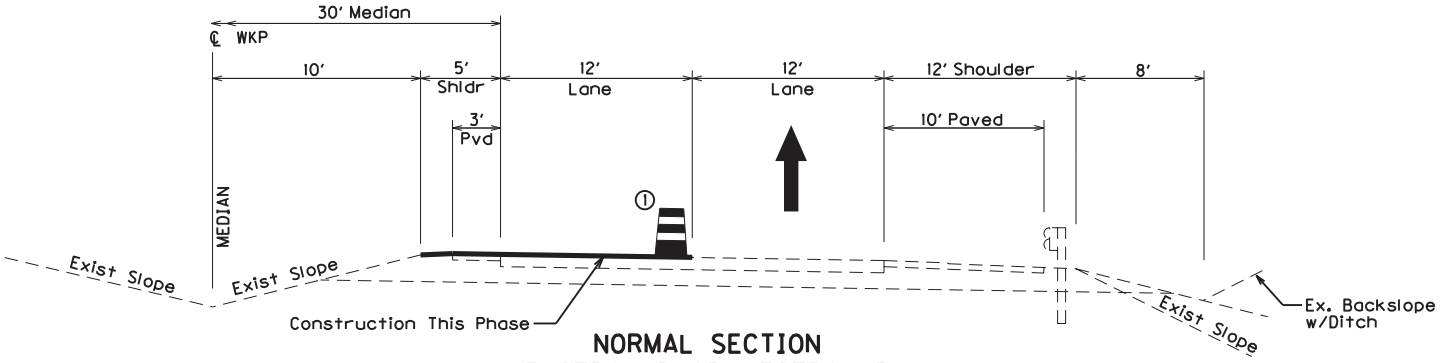
Do not use or allow employees to use median crossovers at any time except when inside lanes are closed for construction. In all other phases of construction, change vehicular direction of travel only at interchanges.

MAINTENANCE OF TRAFFIC
ROADWAY TYPICAL SECTIONS



NORMAL SECTION
EASTBOUND OR WESTBOUND
PHASE 2

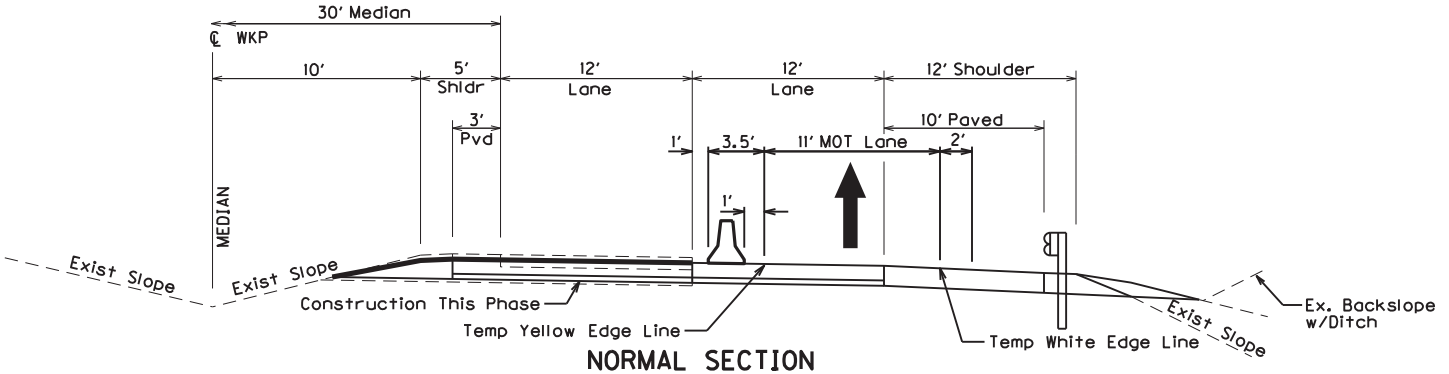
① Barrels Are To Be Moved Along With The Milling And Paving Operations To Minimize Traffic On Shoulders.



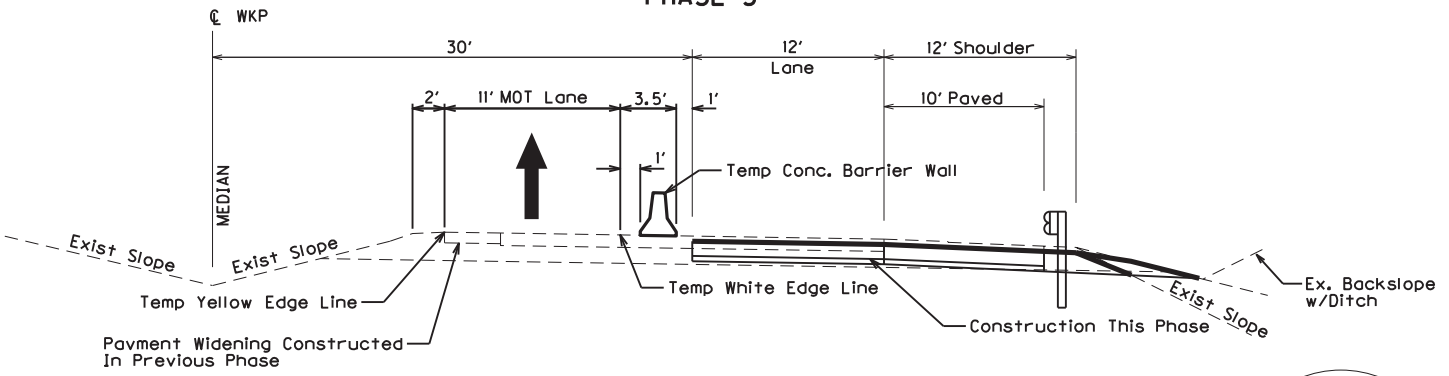
NORMAL SECTION
EASTBOUND OR WESTBOUND
PHASE 1

NOT TO SCALE

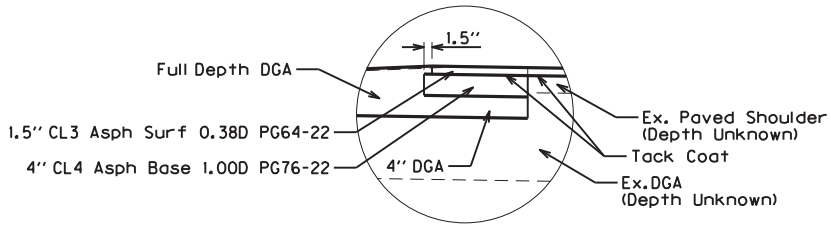
MAINTENANCE OF TRAFFIC
DIGOUT AT KY 84 BRIDGE



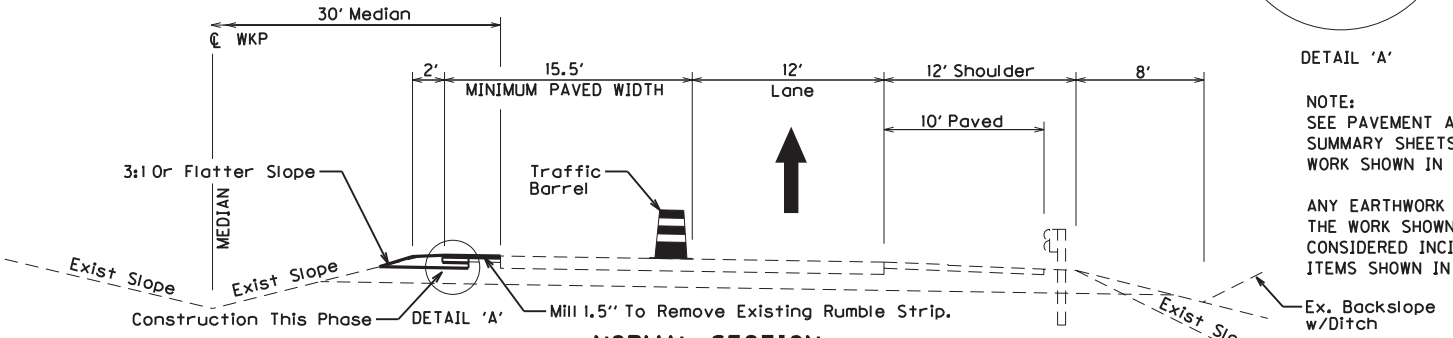
NORMAL SECTION
EASTBOUND
PHASE 5



NORMAL SECTION
EASTBOUND
PHASE 4



DETAIL 'A'

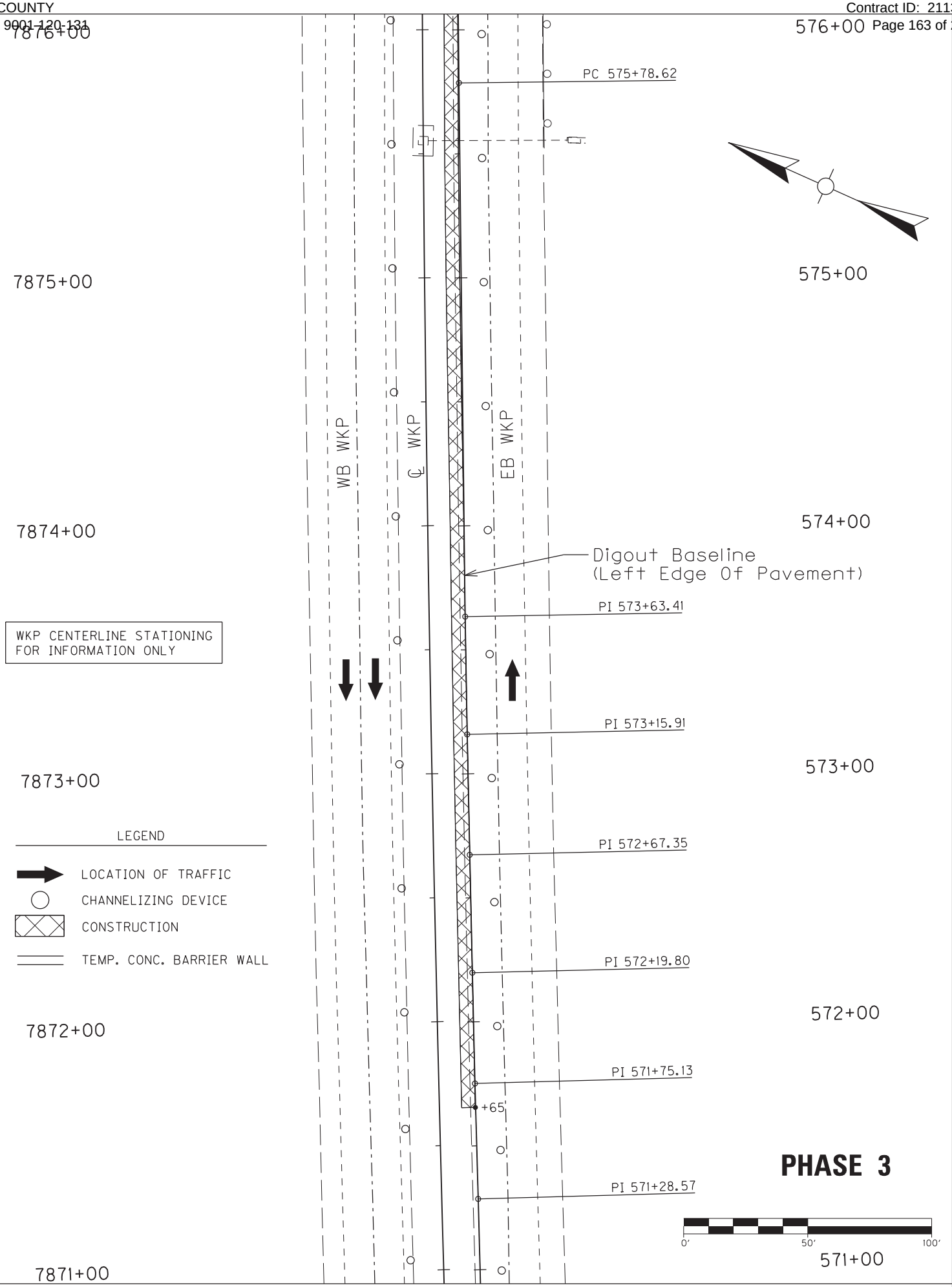


NORMAL SECTION
EASTBOUND
PHASE 3

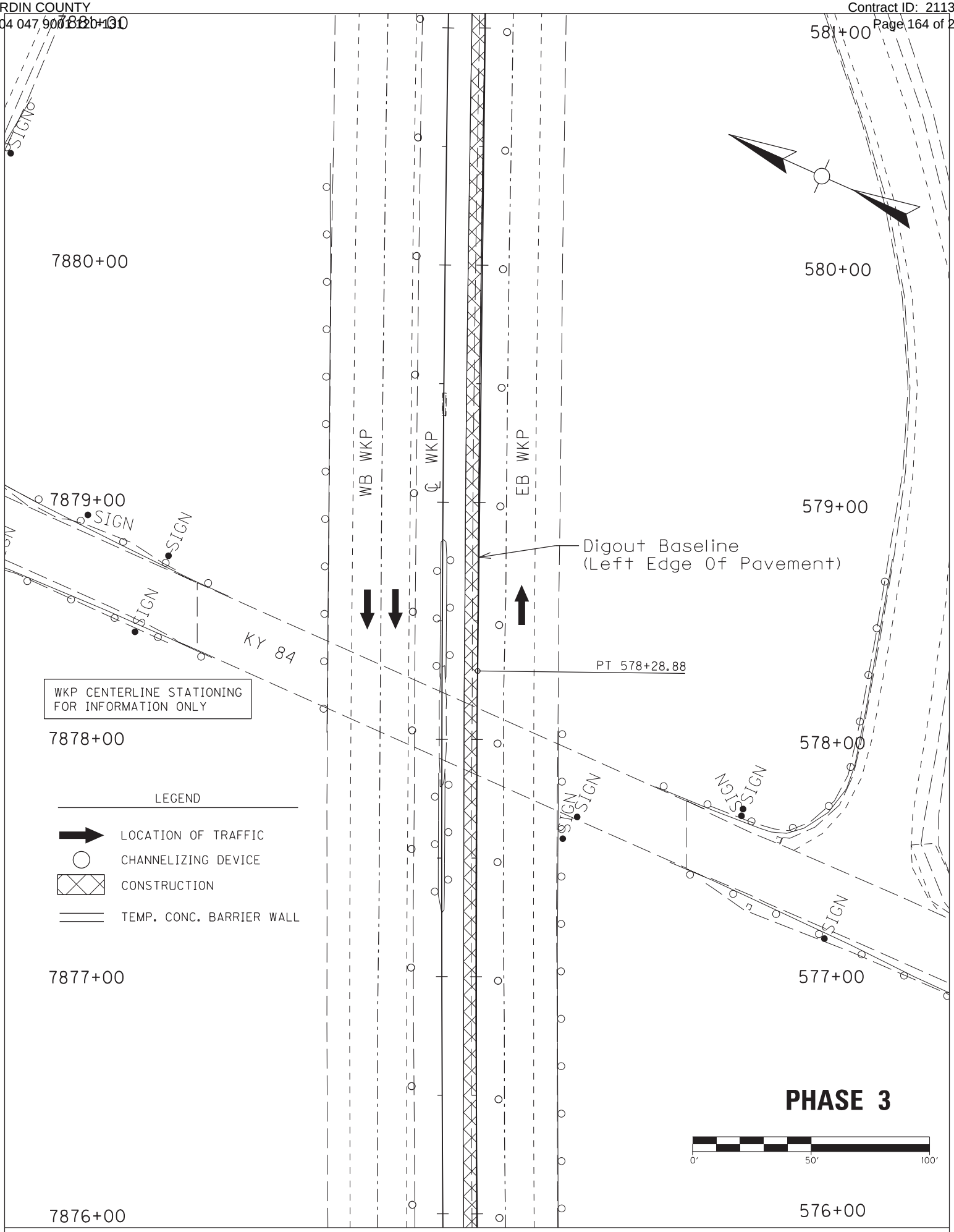
NOTE:
SEE PAVEMENT AREAS AND PAVEMENT SUMMARY SHEETS FOR QUANTITIES OF WORK SHOWN IN DETAIL 'A'.

ANY EARTHWORK REQUIRED TO CONSTRUCT THE WORK SHOWN IN DETAIL 'A' WILL BE CONSIDERED INCIDENTAL TO THE OTHER ITEMS SHOWN IN THE DETAIL.

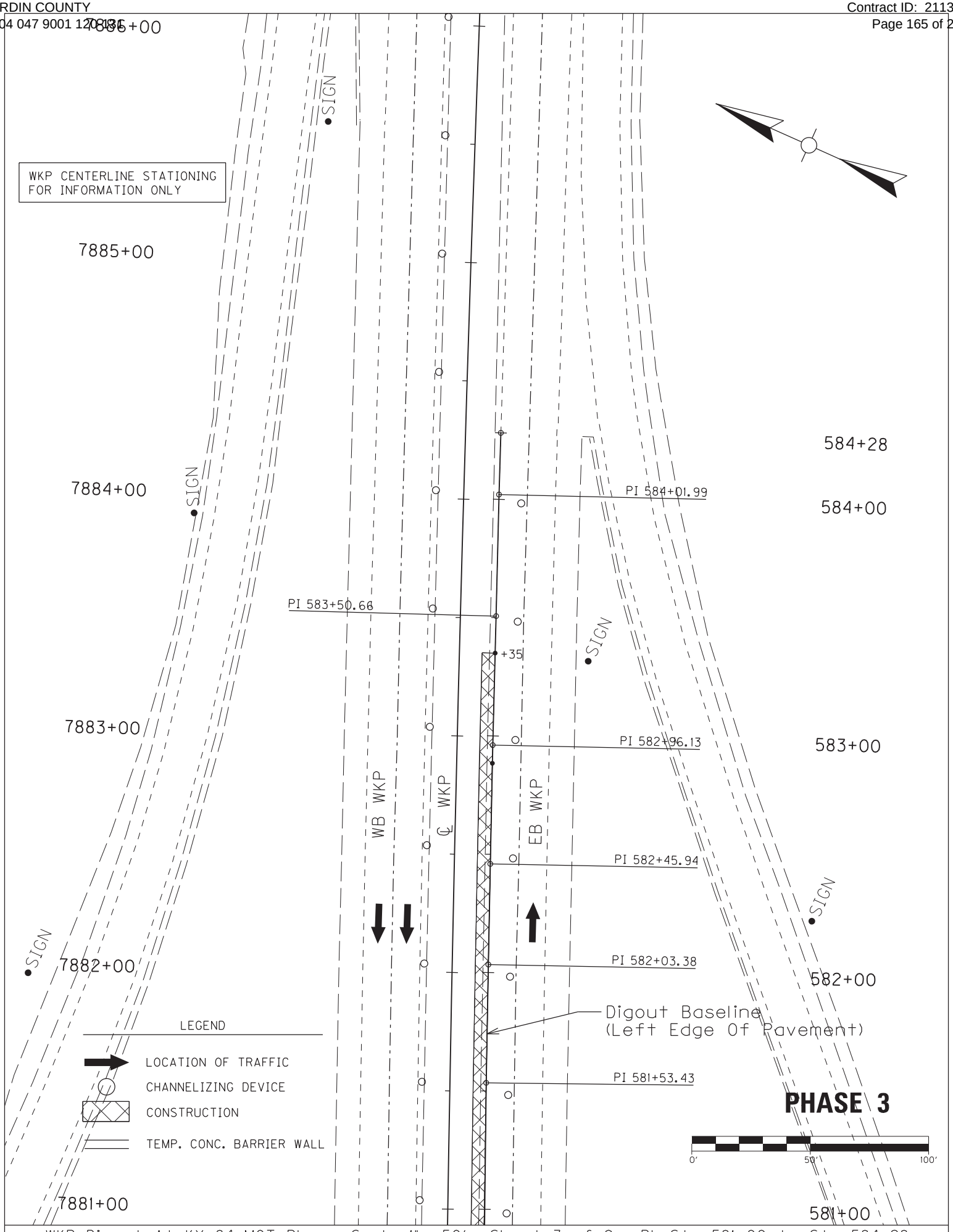
NOT TO SCALE



WKP Digout At KY 84 MOT Plan - Scale 1" = 50' - Sheet 1 of 9 - BL Sta 571+00 to Sta 576+00



WKP Digout At KY 84 MOT Plan - Scale 1" = 50' - Sheet 2 of 9 - BL Sta 576+00 to Sta 581+00



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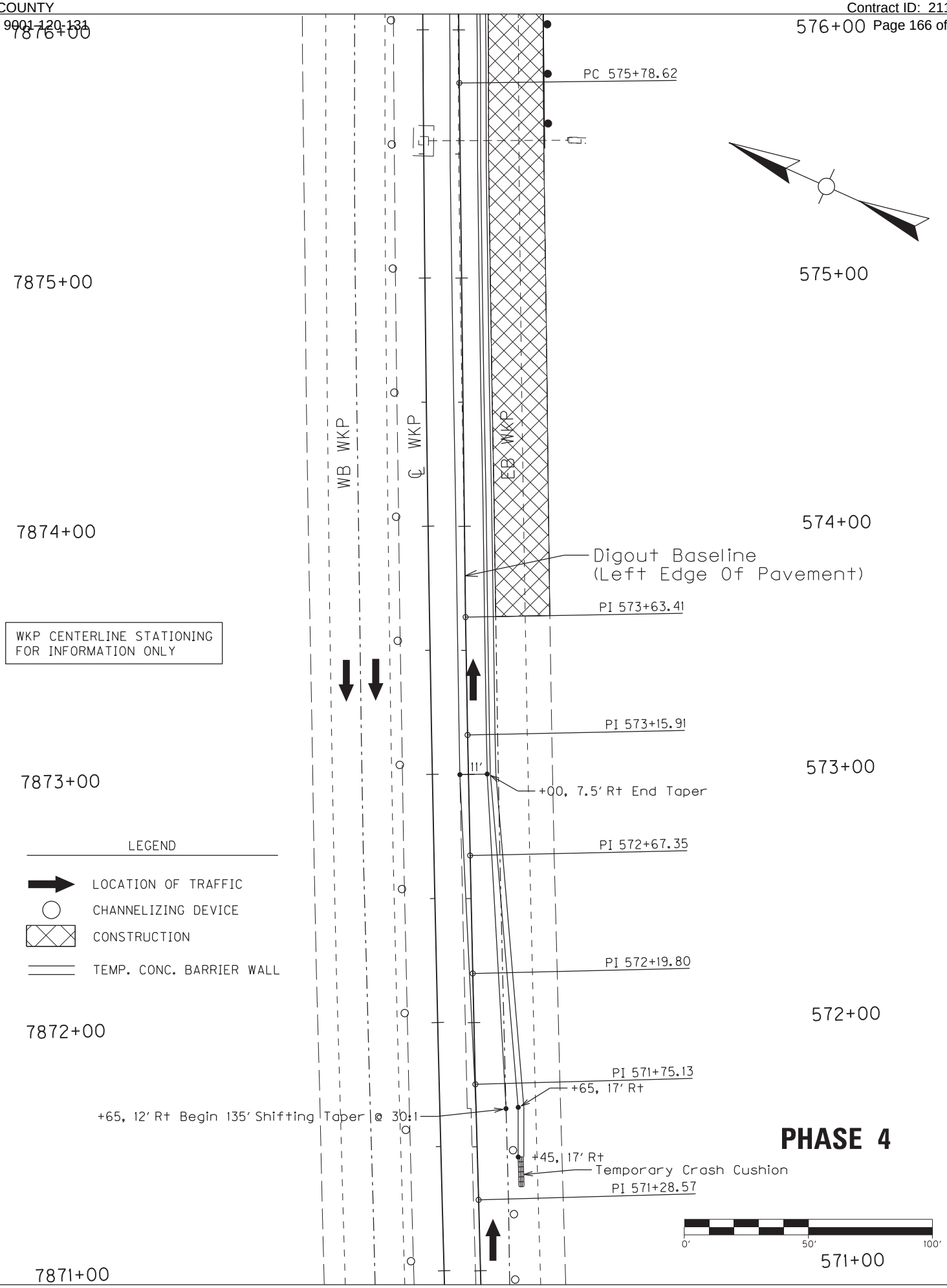

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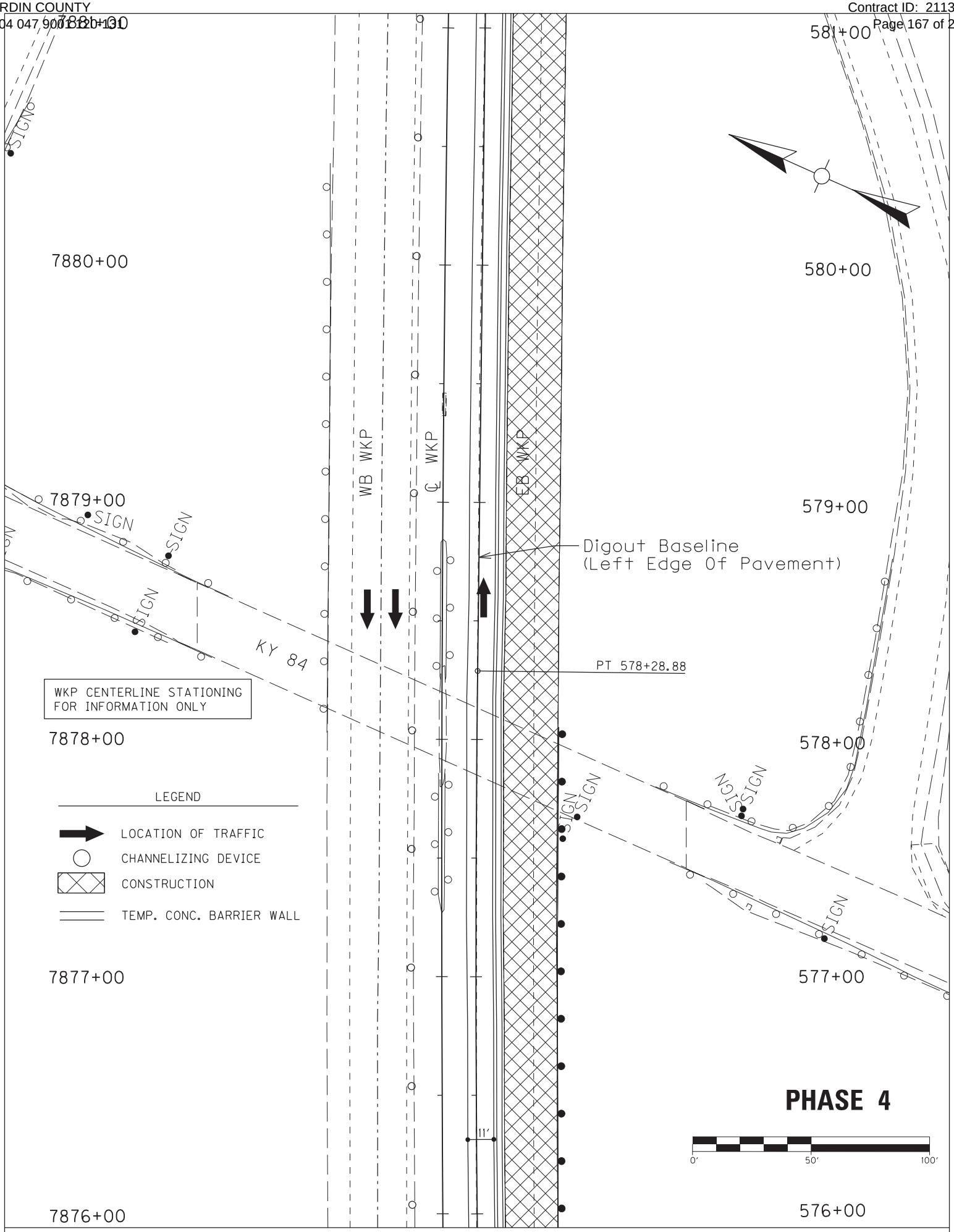

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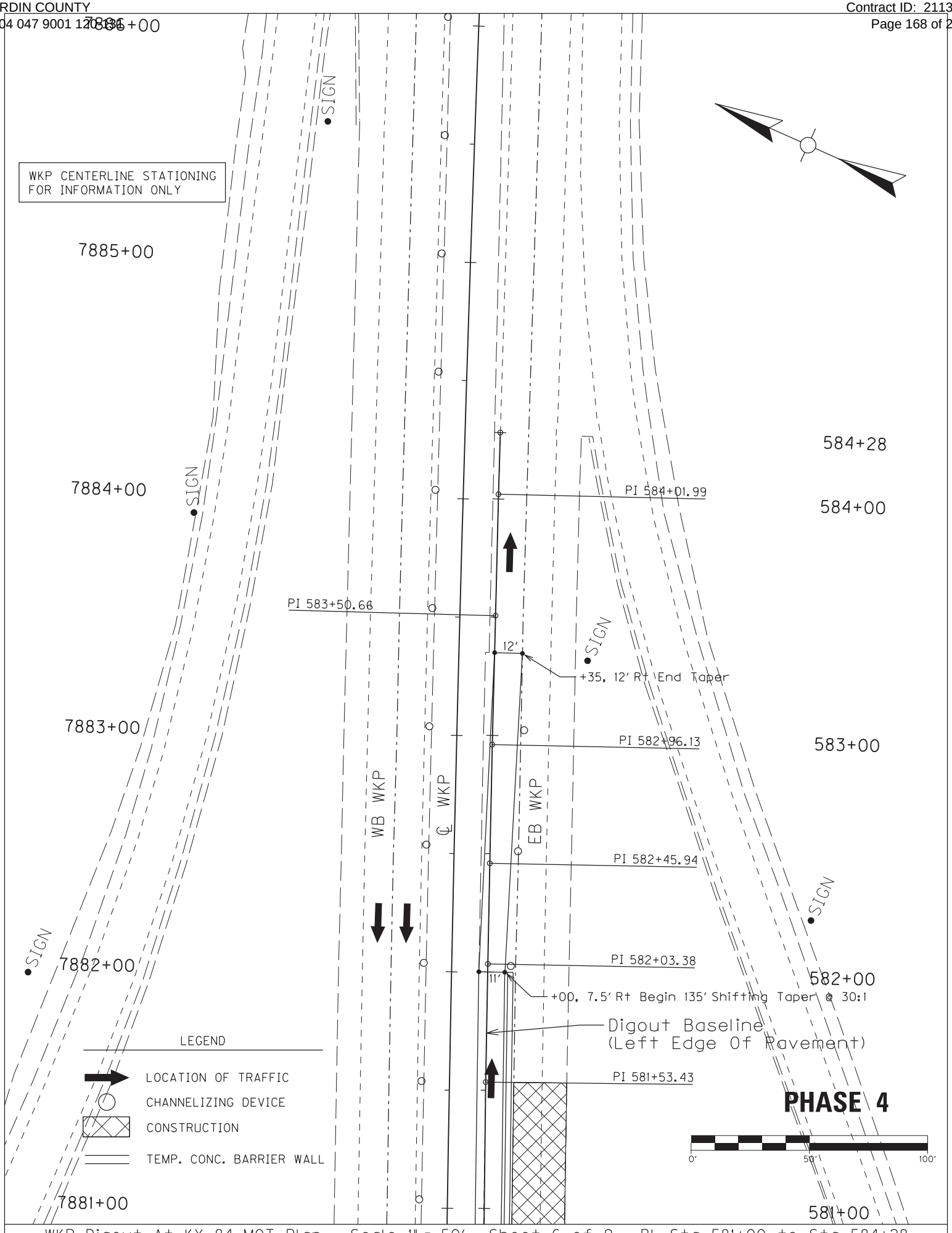
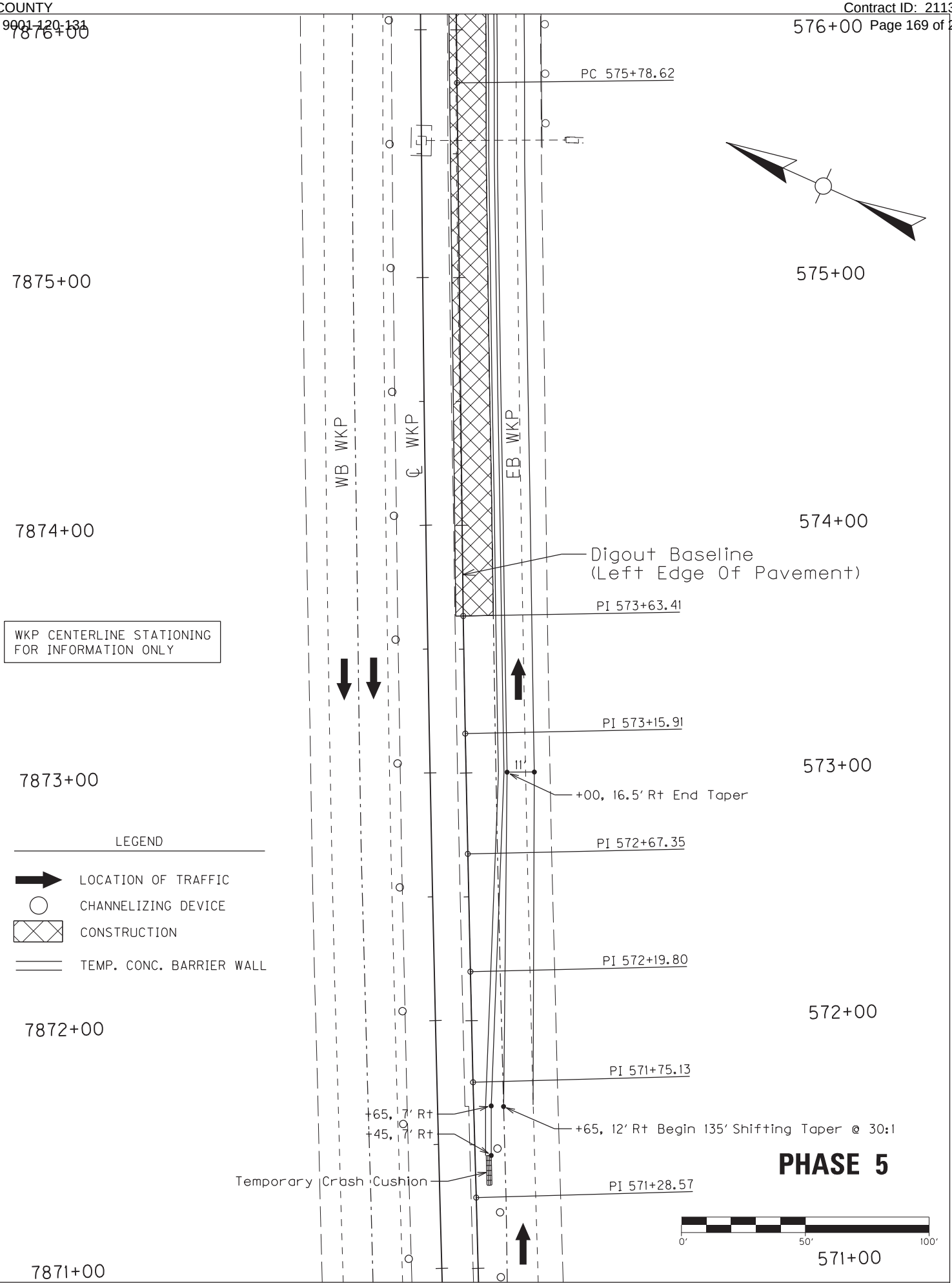


WKP Digout At KY 84 MOT Plan - Scale 1" = 50' - Sheet 6 of 9 - BL Sta 581+00 to Sta 584+28



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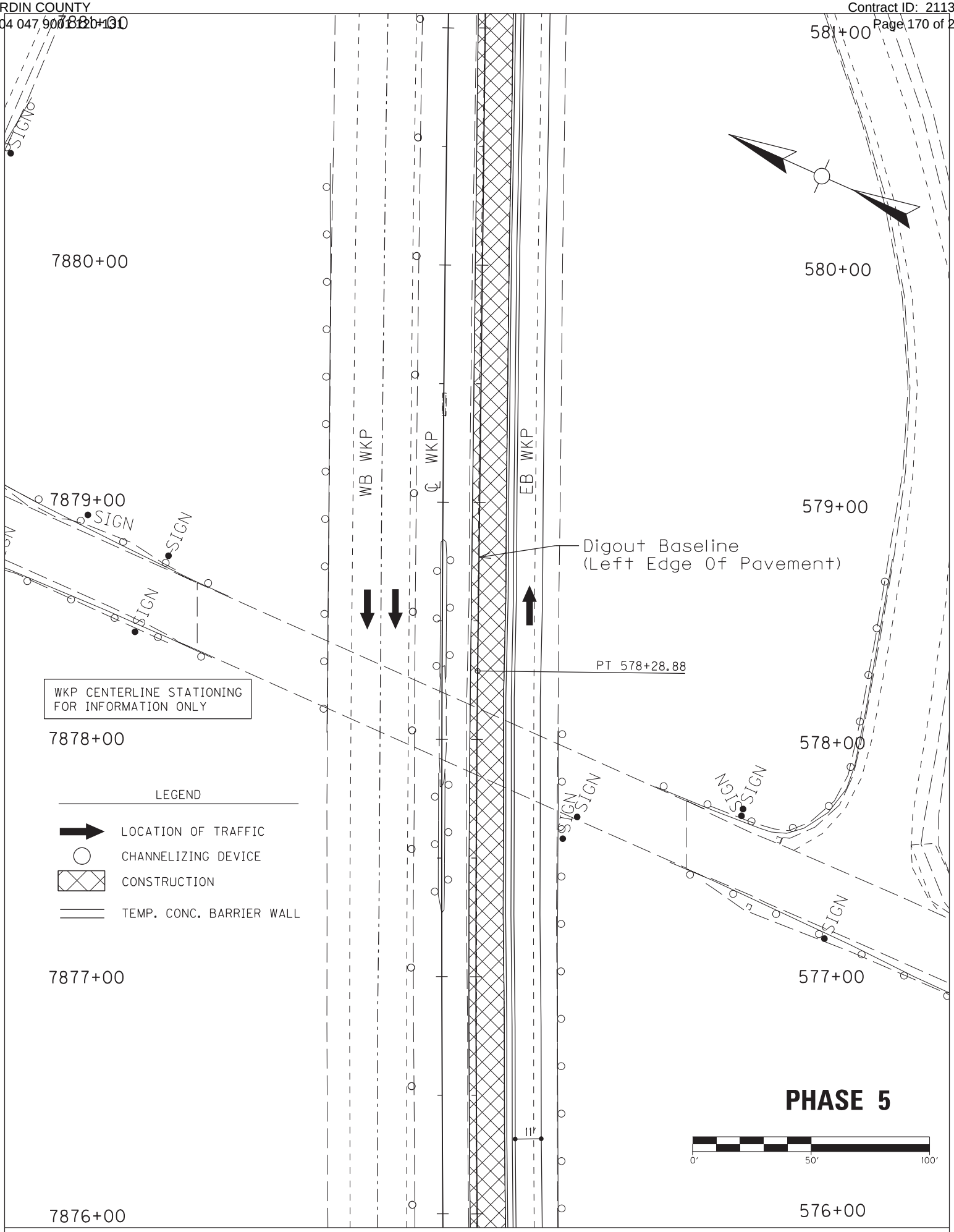
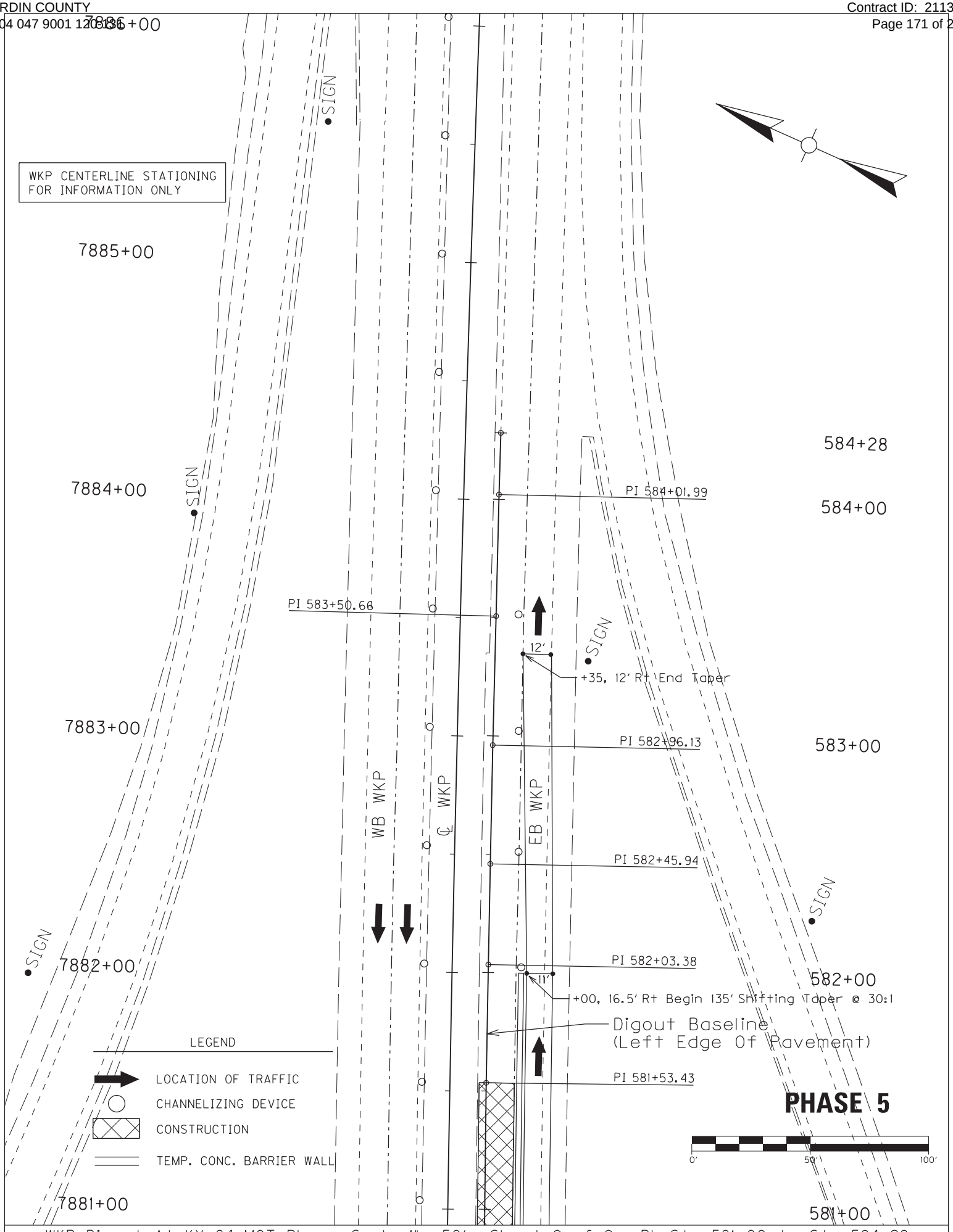
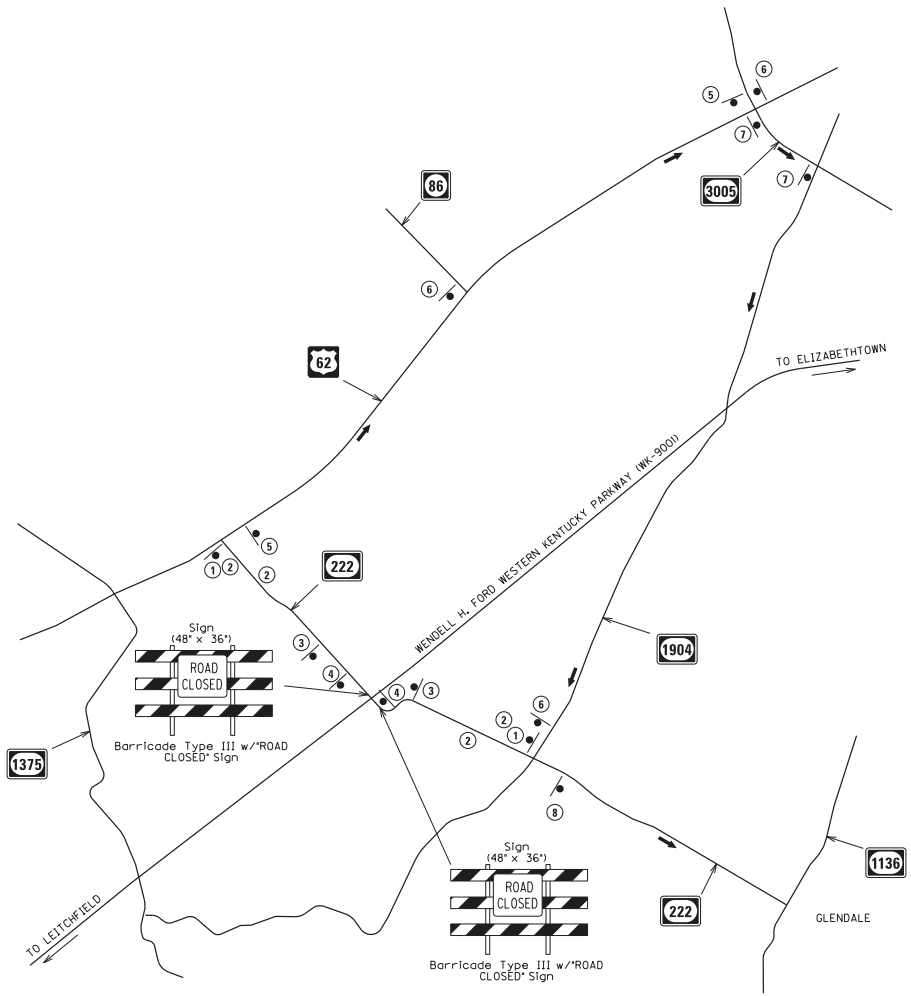


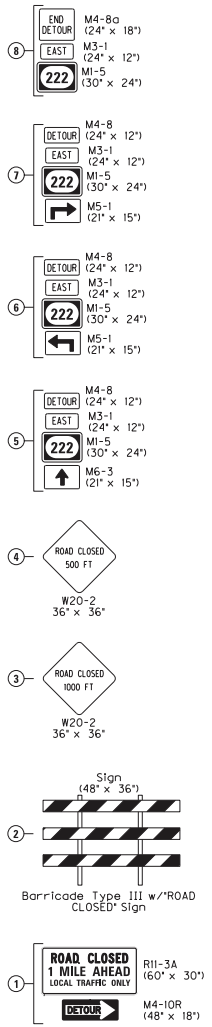
WKP Digout At KY 84 MOT Plan - Scale 1" = 50' - Sheet 8 of 9 - BL Sta 576+00 to Sta 581+00



WKP Digout At KY 84 MOT Plan - Scale 1" = 50' - Sheet 9 of 9 - BL Sta 581+00 to Sta 584+28

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-20016.00	





DETOUR TRAFFIC ON EASTBOUND US 62 (IN ROUTE TO EASTBOUND KY 222) TO SOUTHBOUND KY 3005, THEN TO WESTBOUND KY 1904, THEN TO EASTBOUND KY 222

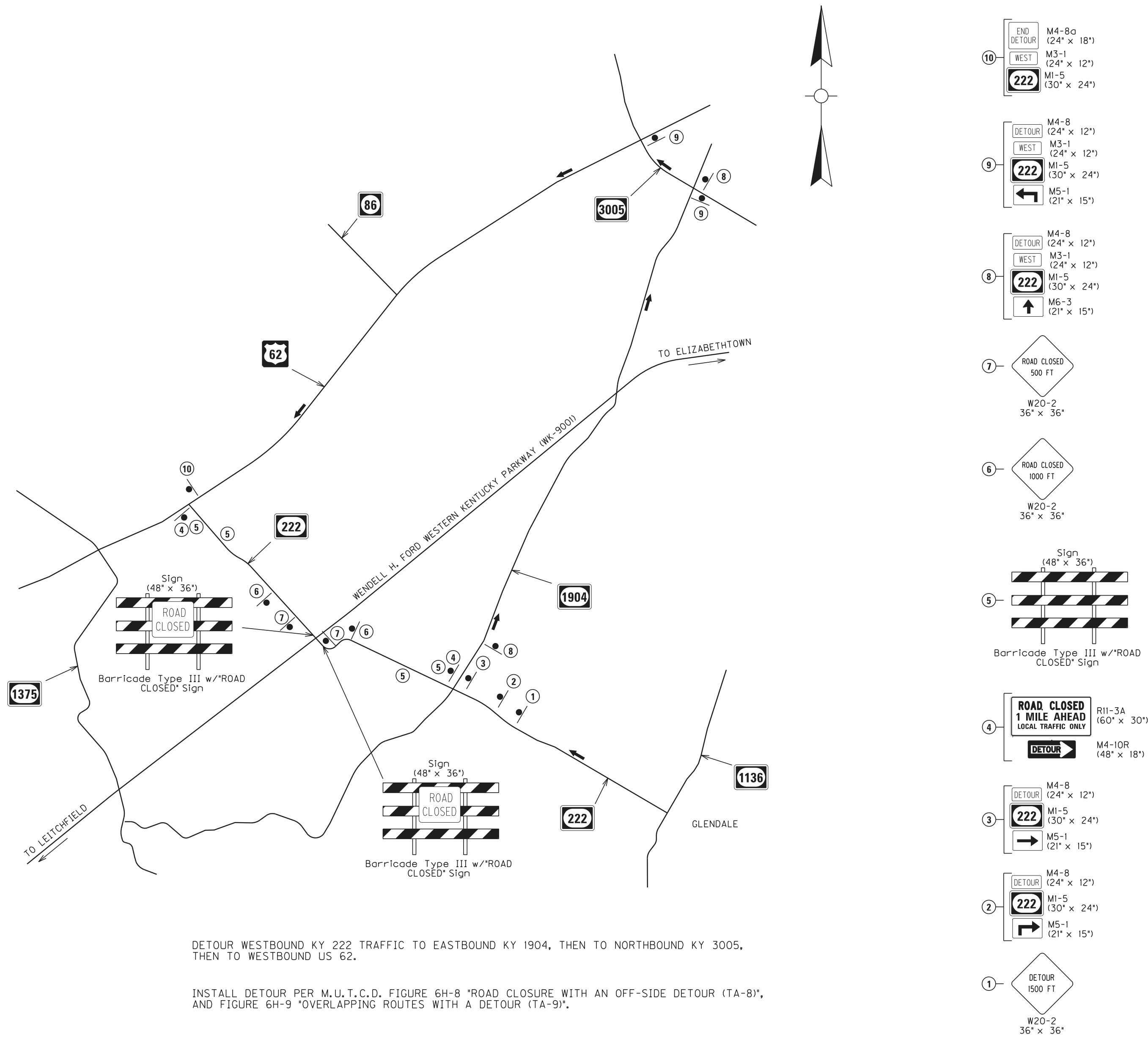
INSTALL DETOUR PER M.U.T.C.D. FIGURE 6H-8 "ROAD CLOSURE WITH AN OFF-SIDE DETOUR (TA-8)", AND FIGURE 6H-9 "OVERLAPPING ROUTES WITH A DETOUR (TA-9)".

NTS

DETOUR SIGNING

EASTBOUND KY 222 CLOSURE

COUNTY OF	ITEM NO.	SHEET NO.
HARDIN	4-20016.00	



DETOUR WESTBOUND KY 222 TRAFFIC TO EASTBOUND KY 1904, THEN TO NORTHBOUND KY 3005, THEN TO WESTBOUND US 62.

INSTALL DETOUR PER M.U.T.C.D. FIGURE 6H-8 "ROAD CLOSURE WITH AN OFF-SIDE DETOUR (TA-8)", AND FIGURE 6H-9 "OVERLAPPING ROUTES WITH A DETOUR (TA-9)".

NTS

DETOUR SIGNING
WESTBOUND KY 222 CLOSURE

FILE NAME: X:\PROJECTS\GFL\2020\2031\310090 KYTC PVMT REHAB 22\0100 HARDIN WK PKWY\PLAN\DETOUR WB KY 222.DGN
USER: tvonbehren
DATE PLOTTED: September 13, 2021
E-SHEET NAME:
MicroStation v8.11.9.919

LETTING DATE

CONSTRUCTION PROJECT NO.

TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS

HARDIN COUNTY
W. GLENDALE - HODGENVILLE ROAD
KY 222 OVER W.K. PARKWAY
STA. 2+97.20

ESTIMATE OF QUANTITIES

	BID ITEM CODE	08100	08104	08150	08151	08669	23378EC	02998	02403	03299	25028ED	02231
	BID ITEM	Concrete Class "A"	Concrete Class "AA"	Steel Reinforcement	Steel Reinforcement, Epoxy Coated	PPC Box Beam SB21	Concrete Sealing	Masonry Coating	Remove Concrete Masonry	Armored Edge for Concrete	Rail System Single Slope 40 Inch	Structure Granular Backfill
	UNIT	C.Y.	C.Y.	LBS.	LBS.	L.F.	S.F.	S.Y.	C.Y.	L.F.	L.F.	C.Y.
Substructure	End Bent #1	12.4			1321			25	2.7			7.1
Substructure	Pier #1	31.5		4294				112	13.0			
Substructure	Pier #2	39.2		3815	96			93	13.0			
Substructure	Pier #3	31.6		4294				111	13.0			
Substructure	End Bent #2	12.2			1321			27	2.7			7.1
	Superstructure		176.3		63227	796.0	12072			53.1	463.4	
	BRIDGE TOTALS	126.9	176.3	12403	65965	796.0	12072	368	44.4	53.1	463.4	14.2

INDEX OF SHEETS

Sheet No.	Description
S1	Title Sheet
S2	General Notes
S3	Layout
S4	Removal Details
S5-S6	End Bent Details
S7	Pier 1
S8	Pier 2
S9	Pier 3
S10	Framing Plan
S11	PPC Box Beam SB21 Details
S12-S13	Superstructure
S14-S15	Construction Elevations
S16	Intermediate Diaphragms
S17	Pier 1 & 3 Crash Wall
S18	Pier 2 Crash Wall

SPECIAL NOTES

Special Note for Concrete Sealing

SPECIAL PROVISIONS

69 Embankment at Bridge End Bent Structures

STANDARD DRAWINGS

BBP-003-02	Elastomeric Bearing Pads for Box Beams
BBP-002-04	Bearing Details
BGX-006-10	Stencils for Structures
BGX-015-04	Bridge Drains
BJE-001-14	Armored Edges
BHS-010	Railing System 40" Single Slope

SPECIFICATIONS

2019 Standard Specifications for Road and Bridge Construction.

2020 AASHTO LRFD Bridge Design Specifications

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

REVISION	DATE

PREPARED BY
Division of
Structural Design

DATE: May 2021	CHECKED BY
DESIGNED BY: C. Van Zee	
DETAILED BY: E. Downey	C. Van Zee

TITLE SHEET

CROSSING: Western KY Parkway

ROUTE	ITEM NO.	COUNTY OF
KY 222	4-20016.00	HARDIN
	SHEET NO. S1	DRAWING NUMBER 28422

MicroStation v10.15.0.74 USER: earlw.downey DATE PLOTTED: 14-SEP-2021 FILE NAME: J:\District04\4-20016 Hardin KY 222 Superstructure Replacement\Final Plans and Details\28422.dgn

GENERAL NOTES

SPECIFICATIONS: All references to the Specifications are to the current edition of the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction with current Supplemental Specifications. All references to the AASHTO Specifications are to the current edition of the AASHTO LRFD Bridge Design Specs, with Interims.

DESIGN LOAD: This bridge superstructure is designed for KY HL-93 Live Load. The KY HL-93 Live Load is arrived at by increasing the standard HL-93 truck and lane loads as specified in the AASHTO Specifications by 25%. The substructures are designed for a H-15 Live load.

REINFORCEMENT: Dimensions shown from the face of concrete to bars are to center of bars unless otherwise shown. Spacing of bars is from center to center of bars. Clear distance to face of concrete is 2", unless otherwise noted. Epoxy coat bars designated by suffix (e) in accordance with Section 811.10 of the Standard Specifications. Use stirrup bend diameters for bars designated by suffix (s) in a Bill of Reinforcement.

CONCRETE: Class "AA" is to be used throughout the new superstructure. Class "A" is to be used on the End Bents and Piers.

BEVELED EDGES: Bevel all exposed edges $^{61}/_{64}$", unless otherwise noted.

COMPLETION OF THE STRUCTURE: The Contractor is required to complete the structure in accordance with the plans and specifications. Material, labor or construction operations, not otherwise specified, are to be included in the bid item most appropriate to the work involved. This may include cofferdams, shoring, excavations, backfilling, removal of all or parts of existing structures, phase construction, incidental materials, labor or anything else required to complete the structure.

SHOP DRAWINGS: Submit shop drawings that are required by the plans and specifications directly to the Division of Structural Design. If any changes in the design plans are proposed by a fabricator or supplier, submit those changes to the Department through the Contractor.

DIMENSIONS: Dimensions are for a normal temperature of 60 degrees Fahrenheit. Layout dimensions are horizontal dimensions.

SUPERSTRUCTURE SLAB: Ensure the entire superstructure slab is poured continuously, out to out, before allowing any concrete to set.

FUTURE WEARING SURFACE: This structure is designed for a 15 psf wearing surface load.

DESIGN STRESSES:

Concrete Class "A"=	3500 psi.
Concrete Class "AA"=	4000 psi.
Steel Reinforcement=	60000 psi.

DESIGN METHOD: All reinforced concrete members are designed by the LRFD method as specified in the current AASHTO Specifications.

ON-SITE INSPECTION: Each contractor submitting a bid for this work shall make a thorough inspection of the project site prior to submitting a bid and shall be thoroughly familiarized with existing conditions so that work can be expeditiously performed after a contract is awarded. Submission of a bid will be considered evidence of this inspection having been made. Any claims resulting from site conditions will not be honored by the Department of Highway.

DAMAGE TO THE SUBSTRUCTURES: The contractor is responsible for any and all damages to the existing substructures during reconstruction even to the replacement of the entire substructure, should they be damaged due to their actions.

CONCRETE REMOVAL: The pier columns and other concrete where the existing reinforcement is to be reused, the contractor shall use hand held jack hammers or hydro-demolition techniques to remove concrete with out damaging the existing reinforcement that is to remain in place. Any concrete removal outside the detailed limits shall be replaced at the contractor's expense. The contractor shall make a saw cut at the removal limits to form a neat construction joint. All costs of this proceedure are included in the price bid for,"Remove Concrete Masonry".

DRILLING AND GROUTING: In accordance with Section 826 of the specifications, drill holes to a depth as shown herein these plans and apply a Type IV epoxy bonding adhesive in the holes. Also apply a Type V epoxy bonding material to the interface between the existing concrete and the new concrete prior to placing the new concrete. All costs associated with this work shall be incidental to the unit price bid for Class "A" concrete.

EXISTING REINFORCING STEEL: The cost of cutting, bending and cleaning existing reinforcing steel is to be incidental to the lump sum bid for Remove Existing Superstructure.

REMOVE SUPERSTRUCTURE: Include in the lump sum bid for Remove Superstructure all costs (materials, labor, equipment, etc.) associated with removing and disposing of the existing superstructure as detailed herein in accordance with Section 203 of the Specifications. Also include in this lump sum bid the cost of any required excavation and subsequent backfilling (including materials, labor, equipment, etc.) behind the end bents. The cost of removing portions of the end bents and piers shall be included in the unit price bid for Remove Concrete Masonry.

ORIGINAL DRAWING NUMBER: Refer to Drawing Number 14813 for original plans.

DIMENSIONS AND ELEVATIONS: All dimensions and elevations given in these plans are based on field surveyed data and dimensions from the old plans. Prior to beginning work or ordering any materials, the contractor shall verify all dimensions and elevations. No claim shall be honored by KYTC regarding site conditions.

EXISTING HANDRAIL: Remove and relocate the existing aluminum handrail as directed by the Engineer. All costs to remove, deliver to a location as specified by the Engineer, or disposal fees shall be incidental to the lump sum bid for Remove Existing Superstructure.

MASONRY COATING: Contrary to the Specifications, only apply Masonry Coating to the substructures.

CONCRETE SEALER: Superstructure areas detailed in the specifications as requiring masonry coating shall be sealed in accordance with the special note and in the areas shown in the detail on S12. Concrete surfaces (except the deck) shall receive the ordinary surface finish as described in section 601.03.18(A) prior to being sealed.

STRUCTURE GRANULAR BACKFILL: Excavation into existing pavement or ground behind end bent that may be required for end bent construction shall be backfilled with Structure Granular Backfill in accordance with Special Provision 69. Wrap all rock in Geotextile Fabric Class 2. All geotextile fabric shall be incidental to the unit price bid for Structure Granular Backfill.

The following abbreviations may have been used in the preparation of these plans:

bet.	Between
b.f.	Back Face
BOF	Bottom of Footing
bot.	Bottom
Brg.	Bearing
C to C	Center to Center
c.e.	Current Edition
C.Y.	Cubic Yard
Chd.	Chord
CL	Center Line
Cl.	Clear
Conc.	Concrete
Cu.	Cubic
Dwg.	Drawing
e.f.	Each Face
El.	Elevation
eq.	Equal
Est.	Estimate
Ext.	Exterior
F to F	Face to Face
f.f.	Front Face
f.s.	Far Side
fr.	Front
ft.	Feet
I.D.	Inside Diameter
In.	Inch
Int.	Interior
L	Left
LBS	Low Bridge Seat
LBS.	Pounds
M	Meter
MPH	Miles per Hour
n.s.	Near Side
O.D.	Outside Diameter
Opp.	Opposite
PC	Point of Curve
Perp.	Perpendicular
PI	Point of Intersection
PPC	Precast Prestressed Concrete
PPCDU	Precast Prestressed Concrete Deck Unit
PSI	Pounds per Square Inch
PT	Point of Tangent
R	Radius
R	Right
RCBC	Reinforced Concrete Box Culvert
RCDG	Reinforced Concrete Deck Girder
Req'd.	Required
RR	Railroad
Shld	Shoulder
spa.	Spaces
Sta.	Station
Std.	Standard
Str.	Straight
Tan	Tangent
Thru	Through
TOF	Top of Footing
Tot.	Total
Typ.	Typical
Vert.	Vertical
W.P.	Working Point
Yd.	Yard

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

REVISION	DATE

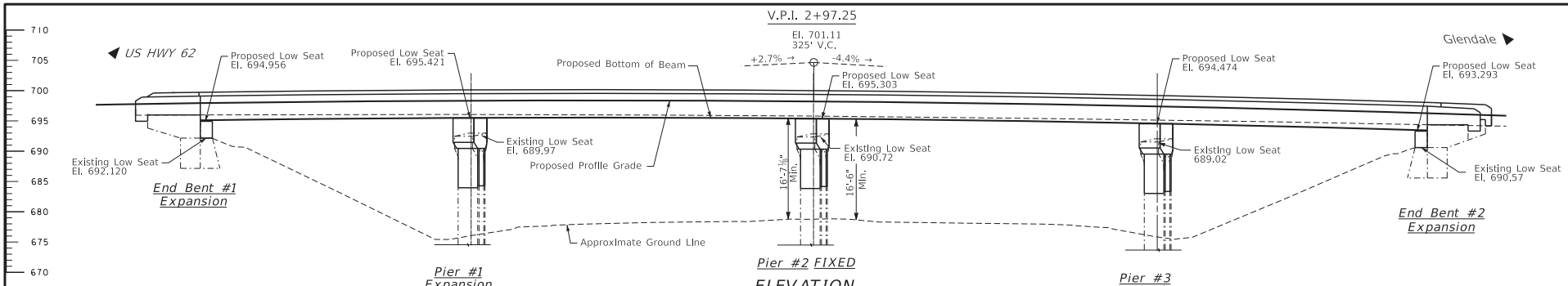
PREPARED BY
Division of Structural Design

DATE: May 2021	CHECKED BY
DESIGNED BY: C. Van Zee	
DETAILED BY: E. Downey	C. Van Zee

GENERAL NOTES

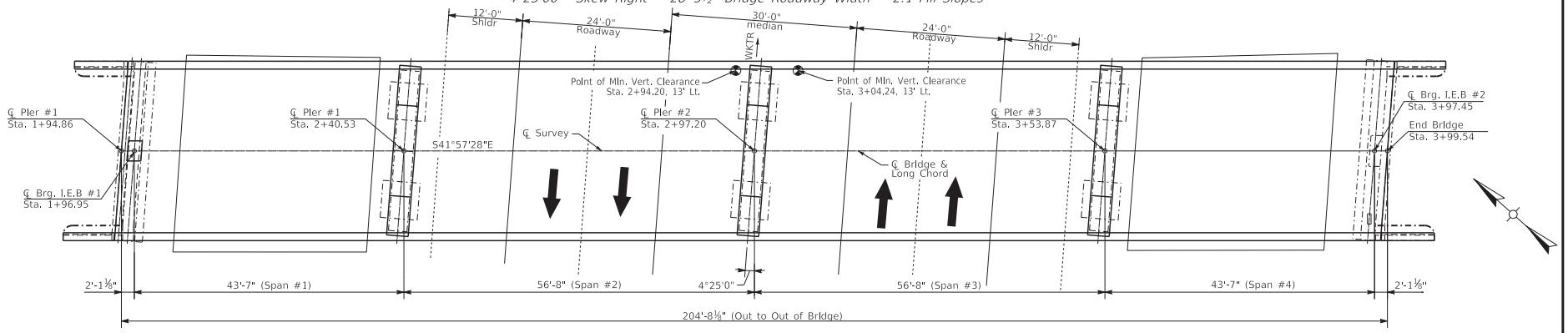
ROUTE	ITEM NO.	COUNTY OF
KY 222	4-20016.00	HARDIN
CROSSING: Western KY Parkway	SHEET NO. S2	DRAWING NUMBER 28422

MicroStation v10.15.0.74 USER: earlw.downey DATE PLOTTED: 14-SEP-2021 FILE NAME: I:\District04\4-20016 Hardin KY 222 Superstructure Replacement\Final Plans and Details\28422.dgn



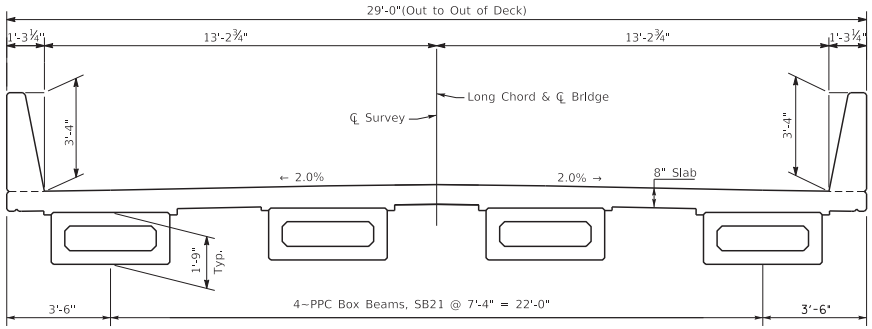
ELEVATION

43'-7" x 56'-8" x 56-8" x 43'-7" PPC Box Beam, SB21, Continuous for Live Load
KY-HL 93 Live Load ~ 36'-5½" Shoulder Width @ Bridge
4°25'00" Skew Right ~ 28'-5½" Bridge Roadway Width ~ 2:1 Fill Slopes



PLAN

~New Superstructure in Place over Existing Modified Substructures~



TYPICAL SECTION

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

REVISION	DATE

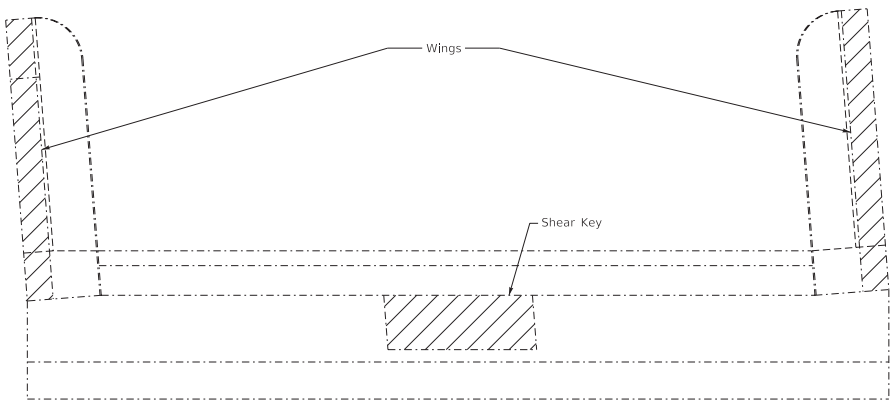
PREPARED BY
Division of Structural Design

DATE: May 2021	CHECKED BY
DESIGNED BY: C. Van Zee	J. Van Zee
DETAILED BY: M. Bawithawng	C. Van Zee

LAYOUT
CROSSING: Western KY Parkway

ROUTE	ITEM NO.	COUNTY OF
KY 222	4-20016.00	HARDIN
	SHEET NO. S3	DRAWING NUMBER 28422

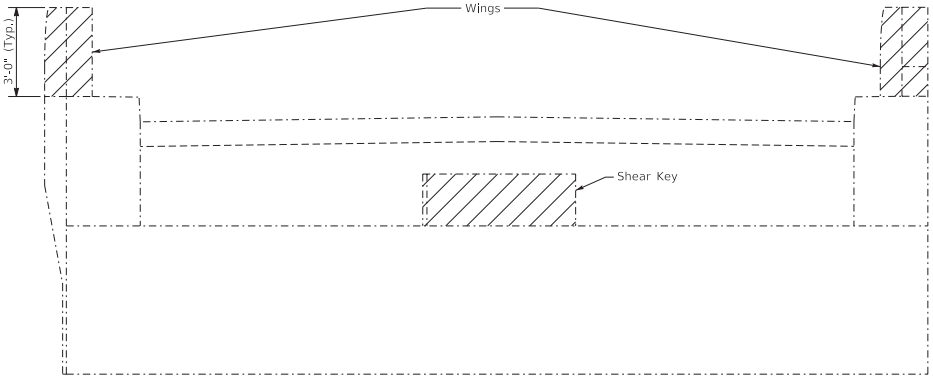
MicroStation v10.15.0.74 USER: earlw.downey DATE PLOTTED: 14-SEP-2021
FILE NAME: I:\District04\4-20016 Hardin KY 222 Superstructure Replacement\Final Plans and Details\28422.dgn



END BENT PLAN

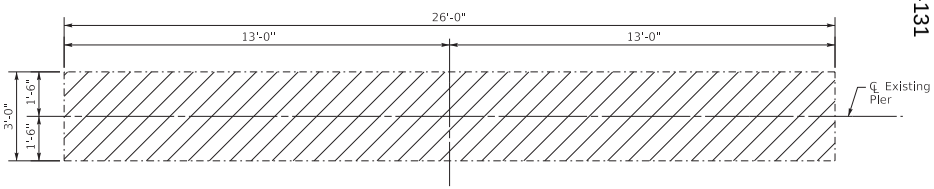
(Showing typ. removal at End Bent 1 & 2)

Note: Remove cross-hatched portion of existing concrete as detailed for existing wings on the End Bents and the columns on the Piers. Take care to not cut/damage existing vertical reinforcement in the pier columns and the wings on the End Bents. This reinforcement must be cleaned, straightened, and embedded in the new concrete as detailed in these plans.



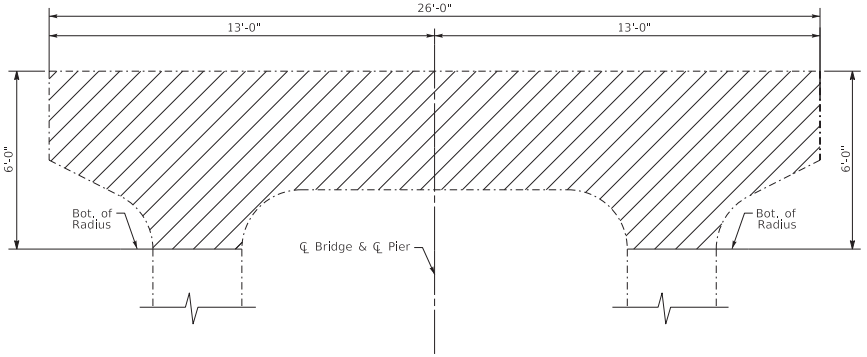
END BENT ELEVATION

(Showing typ. removal at End Bent 1 & 2)



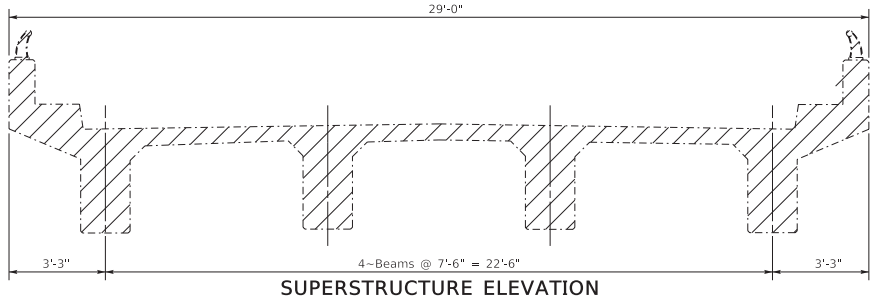
PIER PLAN

(Showing typ. removal at Pier Caps 1, 2 & 3)



PIER ELEVATION

(Showing typ. removal at Pier Caps 1, 2 & 3)



SUPERSTRUCTURE ELEVATION

(Remove Existing Superstructure)

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

REVISION	DATE

PREPARED BY
Division of Structural Design

DATE: May 2021	CHECKED BY
DESIGNED BY: C. Van Zee	J. Van Zee
DETAILED BY: E. Downey	C. Van Zee

REMOVAL DETAILS

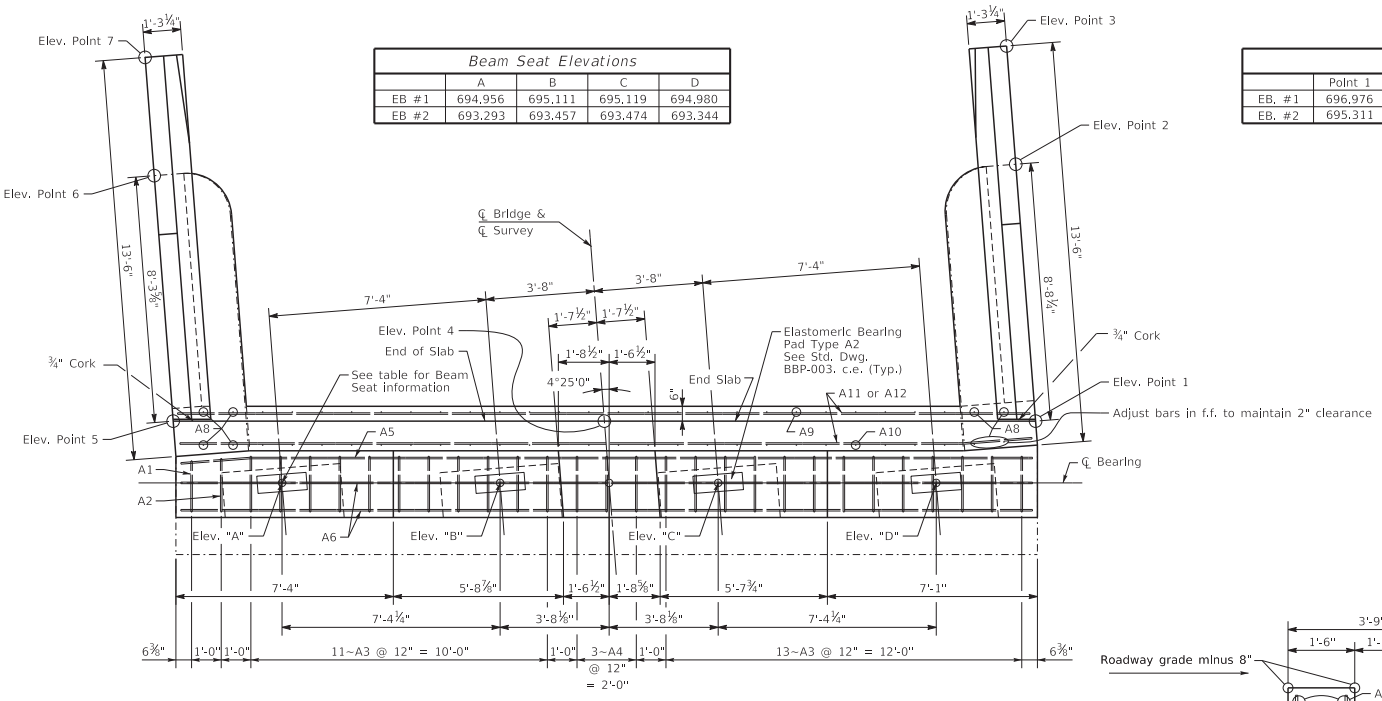
CROSSING
Western KY Parkway

ROUTE	ITEM NO.	COUNTY OF
KY 222	4-20016.00	HARDIN
	SHEET NO.	DRAWING NUMBER
	S4	28422

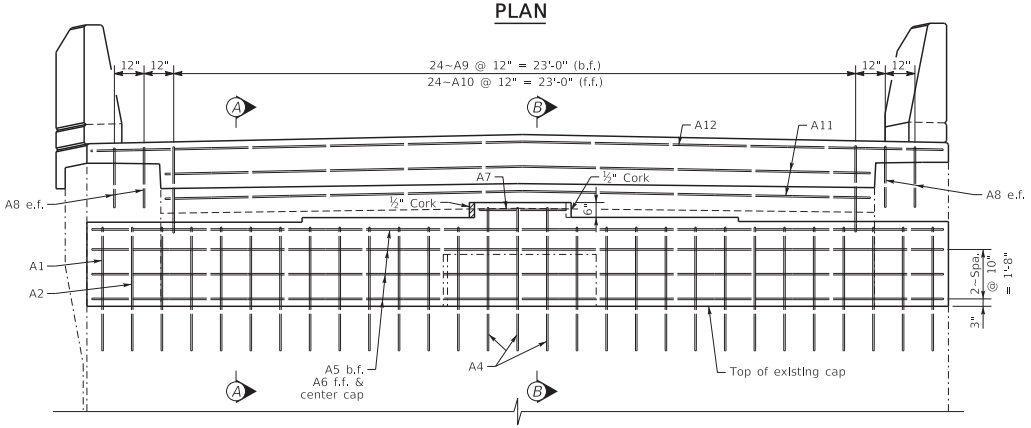
MicroStation v10.15.0.74 USER: earlw.downey DATE PLOTTED: 14-SEP-2021
FILE NAME: I:\District04\4-20016 Hardin KY 222 Superstructure Replacement\Final Plans and Details\28422.dgn

Beam Seat Elevations				
	A	B	C	D
EB #1	694.956	695.111	695.119	694.980
EB #2	693.293	693.457	693.474	693.344

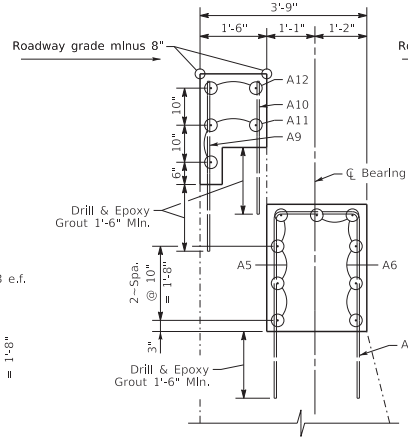
Point Elevations at Fascia and ℄							
	Point 1	Point 2	Point 3	Point 4	Point 5	Point 6	Point 7
EB. #1	696.976	696.846	697.448	697.220	696.944	696.817	697.417
EB. #2	695.311	695.038	695.574	695.536	695.241	694.978	695.512



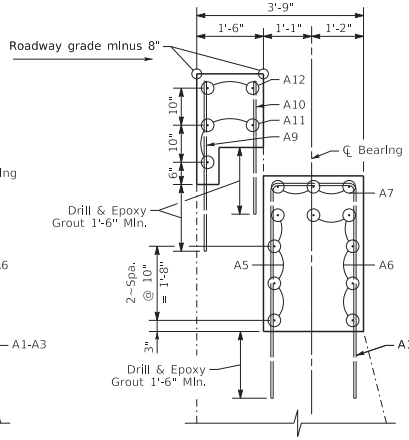
PLAN



ELEVATION



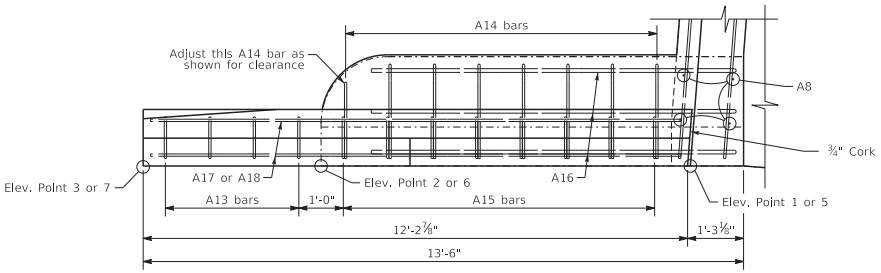
SECTION A-A



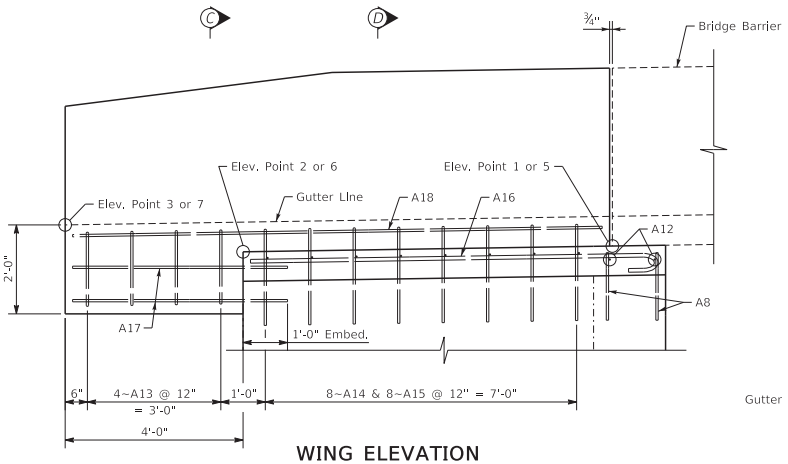
SECTION B-B

COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS	REVISION	DATE	PREPARED BY: Division of Structural Design	DATE: May 2021	CHECKED BY	END BEND DETAILS	ROUTE: KY 222	ITEM NO.: 4-20016.00	COUNTY OF: HARDIN
				DESIGNED BY: C. Van Zee	J. Van Zee	CROSSING: Western KY Parkway		SHEET NO.: S5	DRAWING NUMBER: 28422
				DETAILED BY: E. Downey	C. Van Zee				

MicroStation v10.15.0.74 USER: earlw.downey DATE PLOTTED: 14-SEP-2021 FILE NAME: I:\District04\4-20016 Hardin KY 222 Superstructure Replacement\Final Plans and Details\28422.dgn

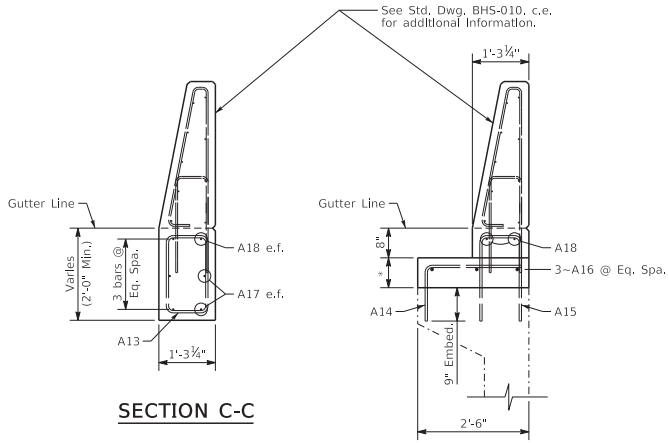


PLAN OF WING



WING ELEVATION

*Note: DImenIons may vary. Set by elevatIons gIven on previous sheet.

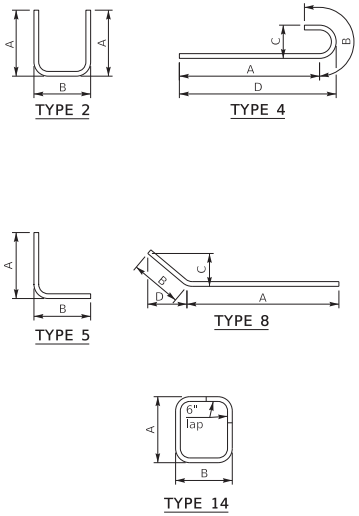


SECTION C-C

SECTION D-D

BILL OF REINFORCEMENT

MARK	TYPE	NO.	SIZE	LENGTH	LOCATION	A	B	C	D
A1e	2s	2	5	9-11	Cap	4- 2	1- 9⅛		
A2e	2s	2	5	10- 0	Cap	4- 2	1-10⅛		
A3e	2s	48	5	10- 0	Cap	4- 2	1-11		
A4e	2s	6	5	11- 4	Cap	4-10	1-11		
A5e	8	8	5	28- 9	Back Face of Cap	26- 4⅝	2- 4⅛	0- 2⅛	2- 4
A6e	Str.	10	5	28- 8	Front Face and Center of Cap				
A7e	Str.	6	5	2-11	Top of Shear Key				
A8e	Str.	16	5	2- 0	Backwall				
A9e	Str.	48	5	3- 9	Backwall				
A10e	Str.	48	5	2-11	Backwall				
A11e	Str.	6	5	23-10	Backwall				
A12e	Str.	4	5	28- 9	Backwall				
A13e	14s	16	5	5- 8	Wing	1- 8	0-11¼		
A14e	5s	32	5	3- 4	Wing	2- 2	1- 3		
A15e	2s	32	5	4- 7	Wing	1-11	0-11¼		
A16e	4	12	8	9- 2	Wing	7-11	1- 3	0- 8	8- 3
A17e	Str.	16	5	4-10	Wing				
A18e	Str.	8	5	11-11	Wing				



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

REVISION	DATE

PREPARED BY
Division of Structural Design

DATE: May 2021	CHECKED BY
DESIGNED BY: C. Van Zee	J. Van Zee
DETAILED BY: E. Downey	C. Van Zee

END BENT DETAILS

CROSSING: Western KY Parkway

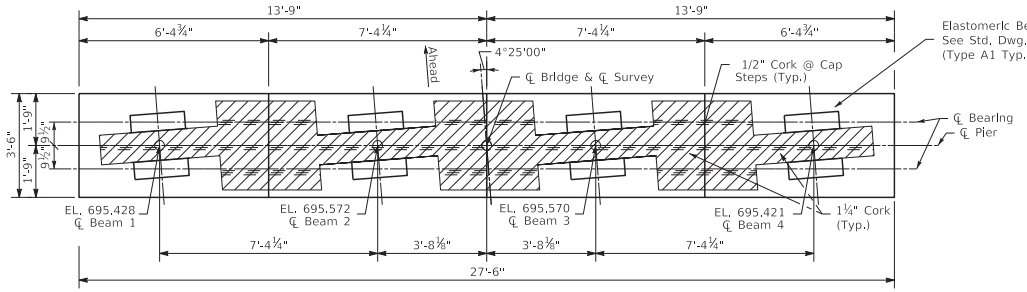
ROUTE: KY 222

ITEM NO.: 4-20016.00

SHEET NO.: S6

COUNTY OF: HARDIN

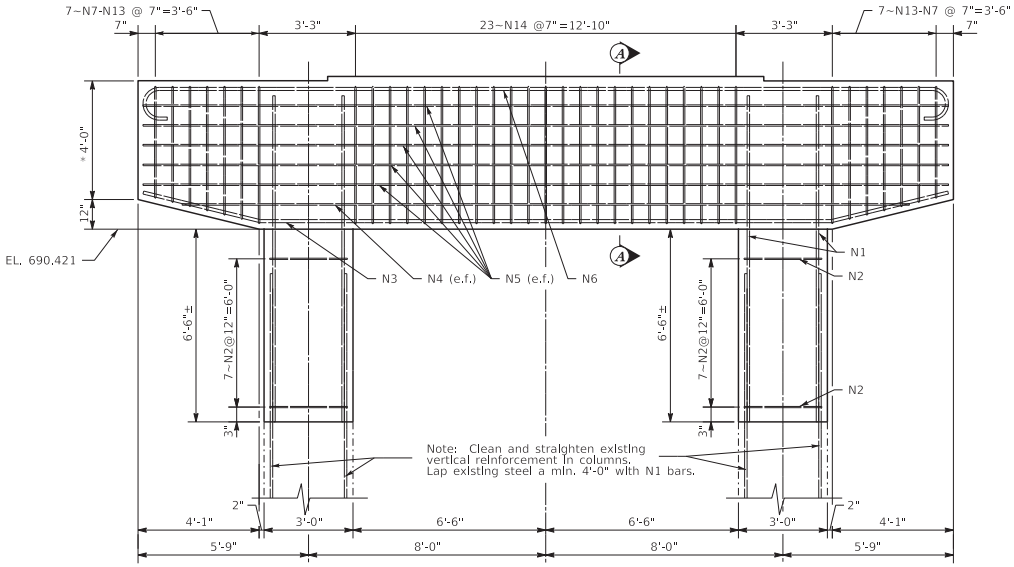
DRAWING NUMBER: 28422



NOTE:
Beam elevations are given at the top of concrete.

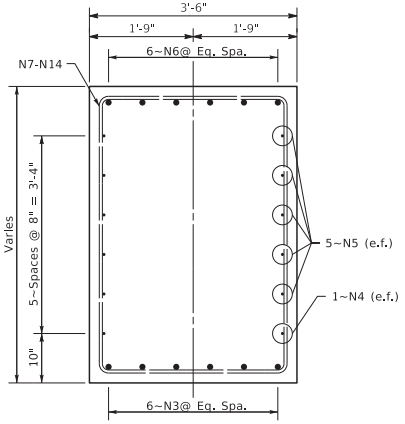
* Measured @ Low Bridge Seat

PLAN OF CAP

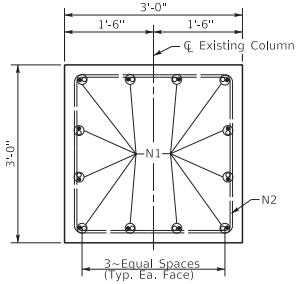


ELEVATION

Note: See removal details sheet for details regarding removal of existing concrete.



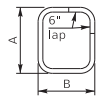
SECTION A-A



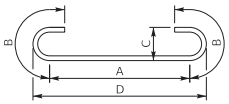
SECTION THROUGH PIER COLUMN

BILL OF REINFORCEMENT

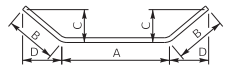
MARK	TYPE	NO.	SIZE	LENGTH	LOCATION	A	B	C	D
N1	Str.	24	8	11- 0	Column				
N2	14s	14	4	11- 3	Column Ties	2- 8	2- 8		
N3	Str.	6	10	27- 5	Cap Bottom Bars	19- 3⅜	4- 0¾	0-11⅝	3-11⅜
N4	Str.	2	5	24- 6	Cap Side				
N5	Str.	10	5	27- 2	Cap Side				
N6	1	6	10	30- 1	Cap Top Bars	26- 0¾	2- 0	1- 1¼	27- 2
N7	14s	2	5	14- 5	Cap Stirrup	3- 9⅝	3- 2		
N8	14s	2	5	14- 8	Cap Stirrup	3-11⅞	3- 2		
N9	14s	2	5	15- 0	Cap Stirrup	4- 1⅛	3- 2		
N10	14s	2	5	15- 3	Cap Stirrup	4- 2¾	3- 2		
N11	14s	2	5	15- 7	Cap Stirrup	4- 4½	3- 2		
N12	14s	2	5	15-10	Cap Stirrup	4- 6¼	3- 2		
N13	14s	2	5	16- 1	Cap Stirrup	4- 7⅞	3- 2		
N14	14s	23	5	16- 2	Cap Stirrup	4- 8	3- 2		



TYPE 14



TYPE 1



TYPE 6

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

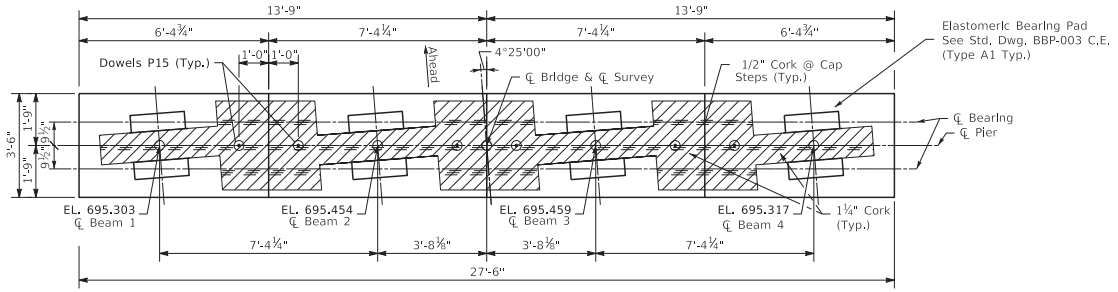
REVISION	DATE

PREPARED BY
Division of Structural Design

DATE: May 2021	CHECKED BY
DESIGNED BY: C. Van Zee	J. Van Zee
DETAILED BY: C. Van Zee	J. Van Zee

PIER 1 DETAILS
CROSSING: Western KY Parkway

ROUTE: KY 222
ITEM NO.: 4-20016.00
SHEET NO.: S7
COUNTY OF: HARDIN
DRAWING NUMBER: 28422

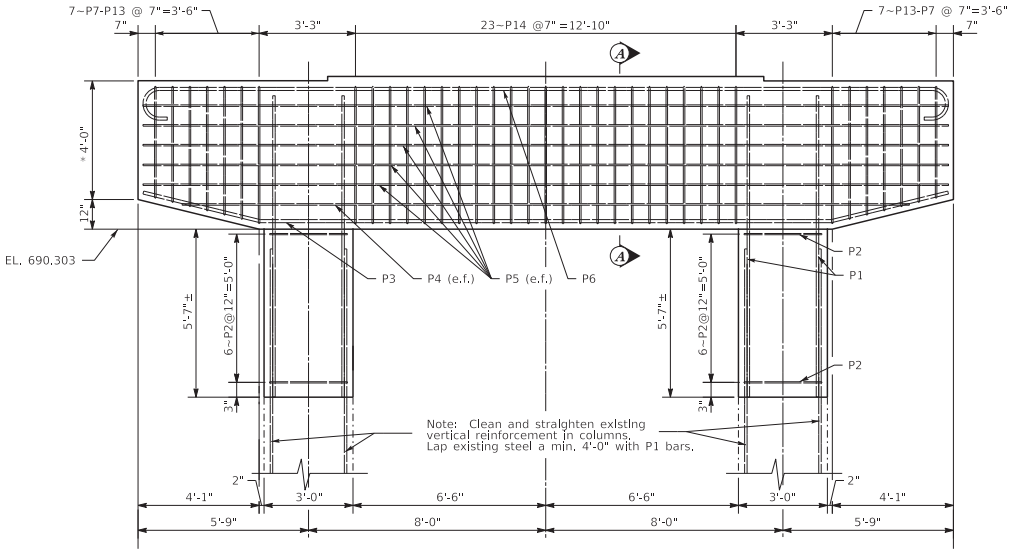


PLAN OF CAP

NOTE:
Beam elevations are given at the top of concrete.

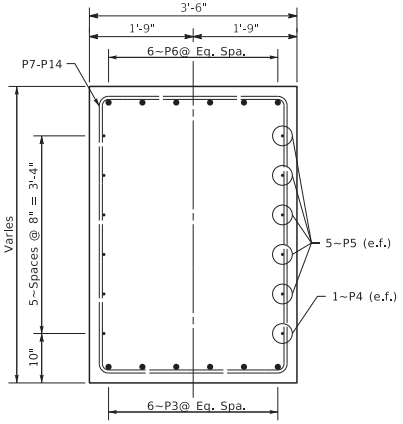
* Measured @ Low Bridge Seat

Note: For bearing and dowel details, see Std. Dwg. BBP-002, c.e.

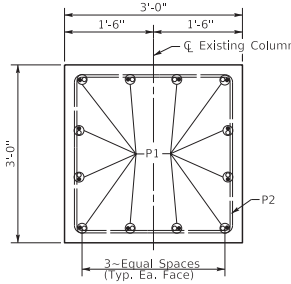


ELEVATION

Note: See removal details sheet for details regarding removal of existing concrete.



SECTION A-A



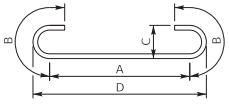
SECTION THROUGH PIER COLUMN

BILL OF REINFORCEMENT

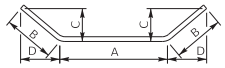
MARK	TYPE	NO.	SIZE	LENGTH	LOCATION	A	B	C	D
P1	Str.	24	8	10- 2	Column				
P2	14s	12	4	11- 3	Column Ties	2- 8	2- 8		
P3	Str.	6	10	27- 5	Cap Bottom Bars	19- 3⅜	4- 0¾	0-11⅝	3-11⅜
P4	Str.	2	5	24- 6	Cap Side				
P5	Str.	10	5	27- 2	Cap Side				
P6	1	6	10	30- 1	Cap Top Bars	26- 0¾	2- 0	1- 1¼	27- 2
P7	14s	2	5	14- 5	Cap Stirrup	3- 9⅝	3- 2		
P8	14s	2	5	14- 8	Cap Stirrup	3-11⅞	3- 2		
P9	14s	2	5	15- 0	Cap Stirrup	4- 1⅛	3- 2		
P10	14s	2	5	15- 3	Cap Stirrup	4- 2¾	3- 2		
P11	14s	2	5	15- 7	Cap Stirrup	4- 4½	3- 2		
P12	14s	2	5	15-10	Cap Stirrup	4- 6¼	3- 2		
P13	14s	2	5	16- 1	Cap Stirrup	4- 7⅞	3- 2		
P14	14s	23	5	16- 2	Cap Stirrup	4- 8	3- 2		
P15e	Str.	8	*	2- 0	Dowels				

*1½"Ø Dowels may be commercial grade steel

TYPE 14

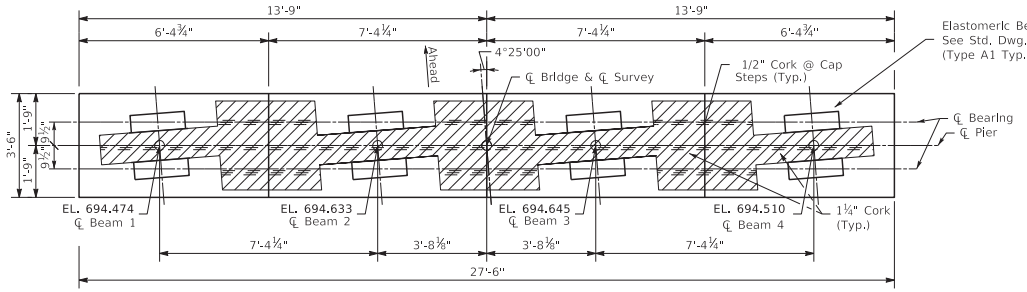


TYPE 1



TYPE 6

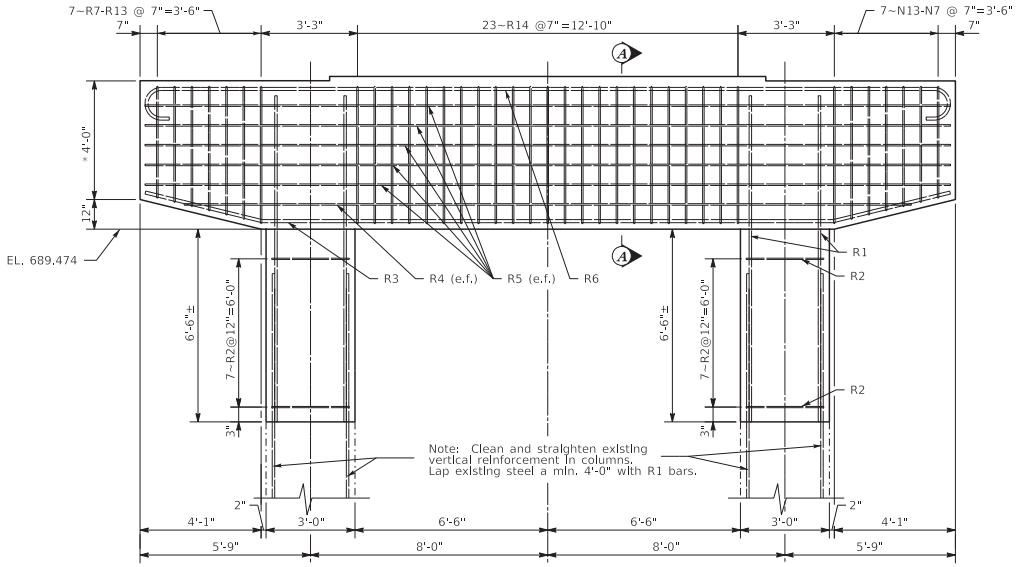
COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS	REVISION	DATE	PREPARED BY Division of Structural Design	DATE: May 2021	CHECKED BY	PIER 2 DETAILS	ROUTE KY 222	ITEM NO. 4-20016.00	COUNTY OF HARDIN
				DESIGNED BY: C. Van Zee	J. Van Zee	CROSSING Western KY Parkway		SHEET NO. S8	DRAWING NUMBER 28422
				DETAILED BY: C. Van Zee	J. Van Zee				



NOTE:
Beam elevations are given at the top of concrete.

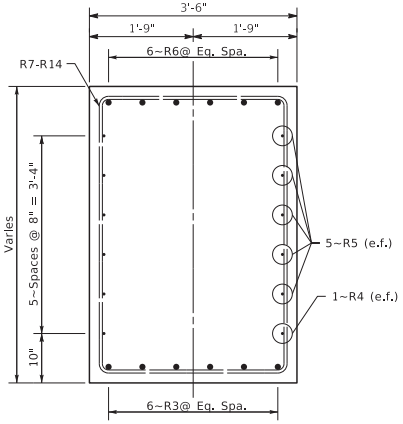
* Measured @ Low Bridge Seat

PLAN OF CAP

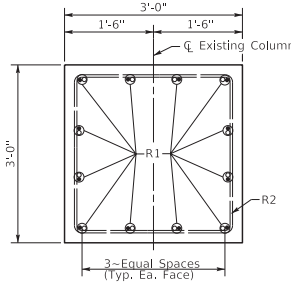


ELEVATION

Note: See removal details sheet for details regarding removal of existing concrete.



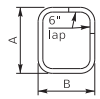
SECTION A-A



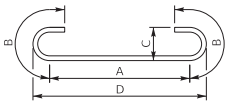
SECTION THROUGH
PIER COLUMN

BILL OF REINFORCEMENT

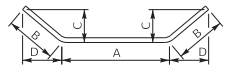
MARK	TYPE	NO.	SIZE	LENGTH	LOCATION	A	B	C	D
R1	Str.	24	8	11-10	Column				
R2	14s	16	4	11- 3	Column Ties	2- 8	2- 8		
R3	6	6	10	27- 5	Cap Bottom Bars	19- 3⅜	4- 0¾	0-11⅝	3-11⅜
R4	Str.	2	5	24- 6	Cap Side				
R5	Str.	10	5	27- 2	Cap Side				
R6	1	6	10	30- 1	Cap Top Bars	26- 0¾	2- 0	1- 1¼	27- 2
R7	14s	2	5	14- 5	Cap Stirrup	3- 9⅝	3- 2		
R8	14s	2	5	14- 8	Cap Stirrup	3-11⅞	3- 2		
R9	14s	2	5	15- 0	Cap Stirrup	4- 1⅛	3- 2		
R10	14s	2	5	15- 3	Cap Stirrup	4- 2¾	3- 2		
R11	14s	2	5	15- 7	Cap Stirrup	4- 4½	3- 2		
R12	14s	2	5	15-10	Cap Stirrup	4- 6¼	3- 2		
R13	14s	2	5	16- 1	Cap Stirrup	4- 7⅞	3- 2		
R14	14s	23	5	16- 2	Cap Stirrup	4- 8	3- 2		



TYPE 14



TYPE 1



TYPE 6

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

REVISION	DATE

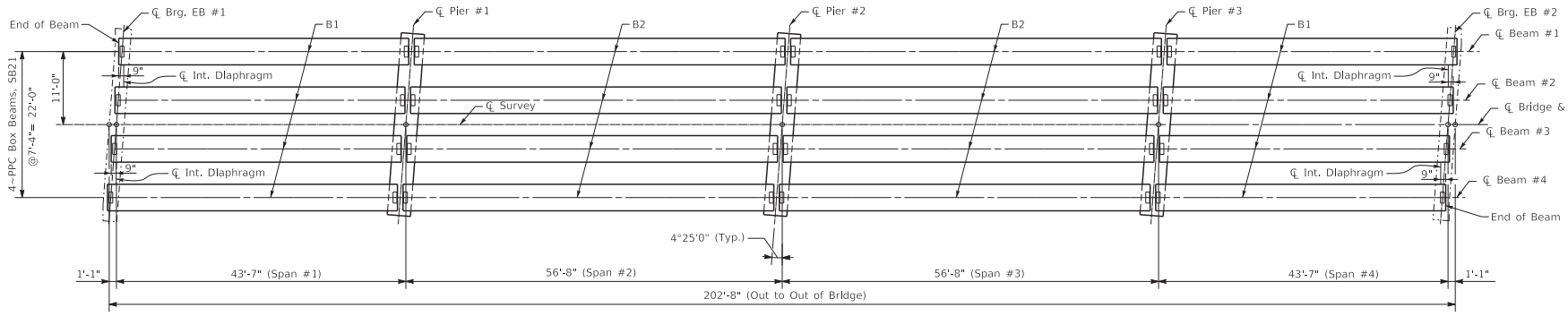
PREPARED BY
Division of
Structural Design

DATE: May 2021	CHECKED BY
DESIGNED BY: C. Van Zee	J. Van Zee
DETAILED BY: C. Van Zee	J. Van Zee

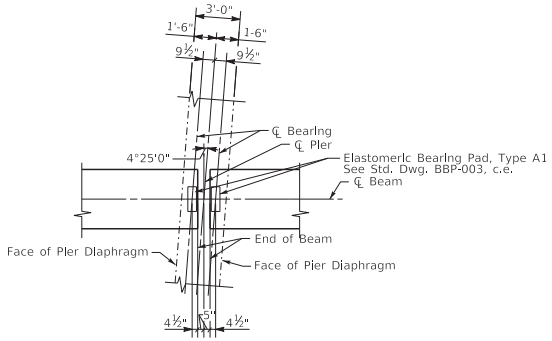
PIER 3 DETAILS

CROSSING
Western KY Parkway

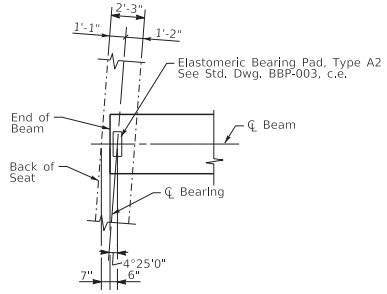
ROUTE	ITEM NO.	COUNTY OF
KY 222	4-20016.00	HARDIN
	SHEET NO.	DRAWING NUMBER
	S9	28422



FRAMING PLAN



END OF BEAM DETAIL @ PIERS



END OF BEAM DETAIL @ END BENTS

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

REVISION	DATE

PREPARED BY
Division of Structural Design

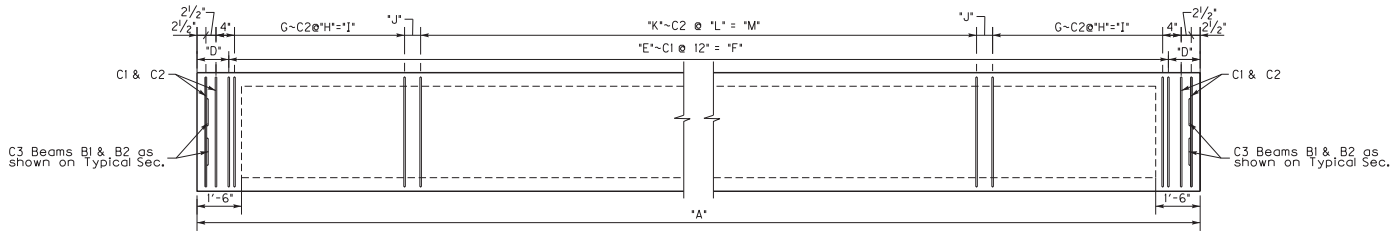
DATE: May 2021	CHECKED BY
DESIGNED BY: C. Van Zee	J. Van Zee
DETAILED BY: M. Bawithawng	C. Van Zee

FRAMING PLAN
CROSSING
Western KY Parkway

ROUTE	ITEM NO.	COUNTY OF
KY 222	4-20016.00	HARDIN
	SHEET NO.	DRAWING NUMBER
	S10	28422

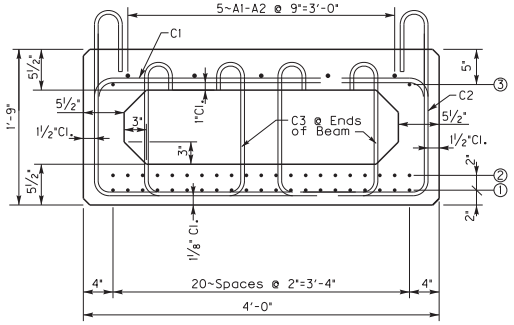
MicroStation v10.15.0.74 USER: earlw.downey DATE PLOTTED: 14-SEP-2021
FILE NAME: I:\District04\4-20016 Hardin KY 222 Superstructure Replacement\Final Plans and Details\28422.dgn

Strand Data with number indicated in rows														Box Beam Data																		Straight Reinforcement			Maximum Allowable Camber
Mark	Midspan Fully Stressed						End Fully Stressed						Total # of Strands	Concrete Stress (psi)		Hold Down (lbs)	Total # of Beams	Approx. Weight (lbs.)	No. of C Bars			Dimensions																							
	①	②	③	④			①	②	③	④				f'ci	f'c				C1	C2	C3	A	D	E	F	G	H	I	J	K	L	M	Mark	Size	Length	
B1	10	10					10	10					20	7000	8000		8	30515	46	65	4	43'-8"	1'-4"	42	41'	18	0'-6"	8'-6"	0'-7"	25	1'-0"	24'-0"	A1	#5	43'-4"	2 3/8"
B2	16	14	2				16	14	2				32	7000	8000		8	38702	58	95	4	55'-10"	1'-5"	54	53'	22	0'-3"	5'-3"	0'-10"	47	0'-11"	42'-2"	A2	#5	55'-6"	3 1/2"

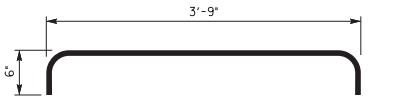


TOP VIEW (B1 & B2)– Showing Dimensions and Reinforcement

(Measured along ℄ Beam)

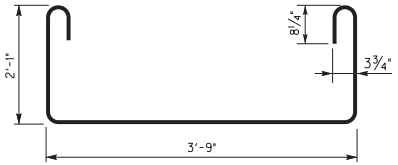


TYPICAL SECTION THROUGH BOX BEAM



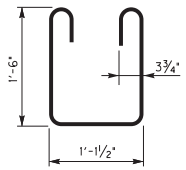
C1 Bars

#5 Top Slab Bar



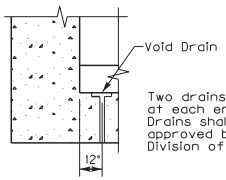
C2(e) Bars

#5 Stirrup Bar



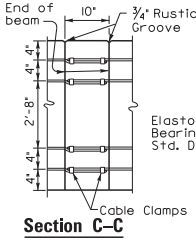
C3 Bar

#5 Anchor Bar

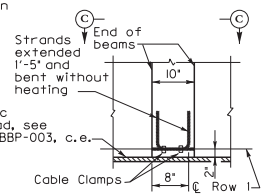


Two drains are to be located at each end of each void. Drains shall be 1"Ø of a type approved by the Department's Division of Materials.

VOID DRAIN DETAIL



Section C–C



Strand Splicing Detail

~Typical at Pier~

General Notes

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

MATERIALS DESIGN SPECIFICATIONS: For prestressed beams:
FY = 60,000 psi F'S = 270,000 psi

PRESTRESSING REINFORCEMENT: Ensure that strands are 0.5" (oversized diameter, 0.167 sq. in.), uncoated seven-wire stress relieved, low-relaxation conforming to AASHTO M 203, Grade 270. Billing of the cost for redesign of beam and subsequent plan modifications will be made for any request of alternate strand type or arrangement. The designer of the original plans is responsible for the billing and work.

CONSTRUCTION METHOD: Pretension all beams. Ensure concrete has attained f'ci (shown in the table) in standard test cylinders that are made and cured identically with the beams without bond stresses being transferred to the concrete or releasing the end anchors. Attain f'c (shown in the table) at or prior to 28 days. Apply an initial force of 33,817 lbs. per low-relaxation strand to develop a stress of 202,500 psi. No beam will be accepted that is honeycombed to the extent that strength of the beam or resistance to deterioration has been affected. An allowance of 0.0005L is made for shortening of beams due to shrinkage and elastic change and is included in the beam dimensions on this sheet. Payment will be made for plan quantities, which is the anticipated delivered length of the beams (length before 0.0005L allowance). Show a detensioning plan by sequential numbering of the strand pattern on the shop plans.

LIFTING DEVICES: Detail lifting devices on the shop plans. Loads are to be distributed equally to each device.

BEARING DEVICES: Include the price for bearing pads, cork, and styrofoam and any necessary galvanized metal shims in the bid for precast beams.

FABRICATION: The "Maximum Allowable Camber" shown on the beam sheet is the amount of camber, measured prior to casting the deck, above which the beam will begin to encroach into the slab. If the measured camber is greater than the "Maximum Allowable Camber" the contractor will be responsible for any necessary adjustments to assure a minimum slab thickness as shown in the plans. This work will be considered incidental to the completion of the structure and have the approval of the Engineer.

REINFORCEMENT: Dimensions shown from the face of concrete to reinforcement are clear distances. Spacing of reinforcement is from center to center of reinforcement. Epoxy Coated Reinforcement shall be in accordance with Section 811.10 of the Specifications. All bars marked "C" shall be considered a stirrup for purposes of bend diameters.

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

REVISION	DATE

PREPARED BY
Division of Structural Design

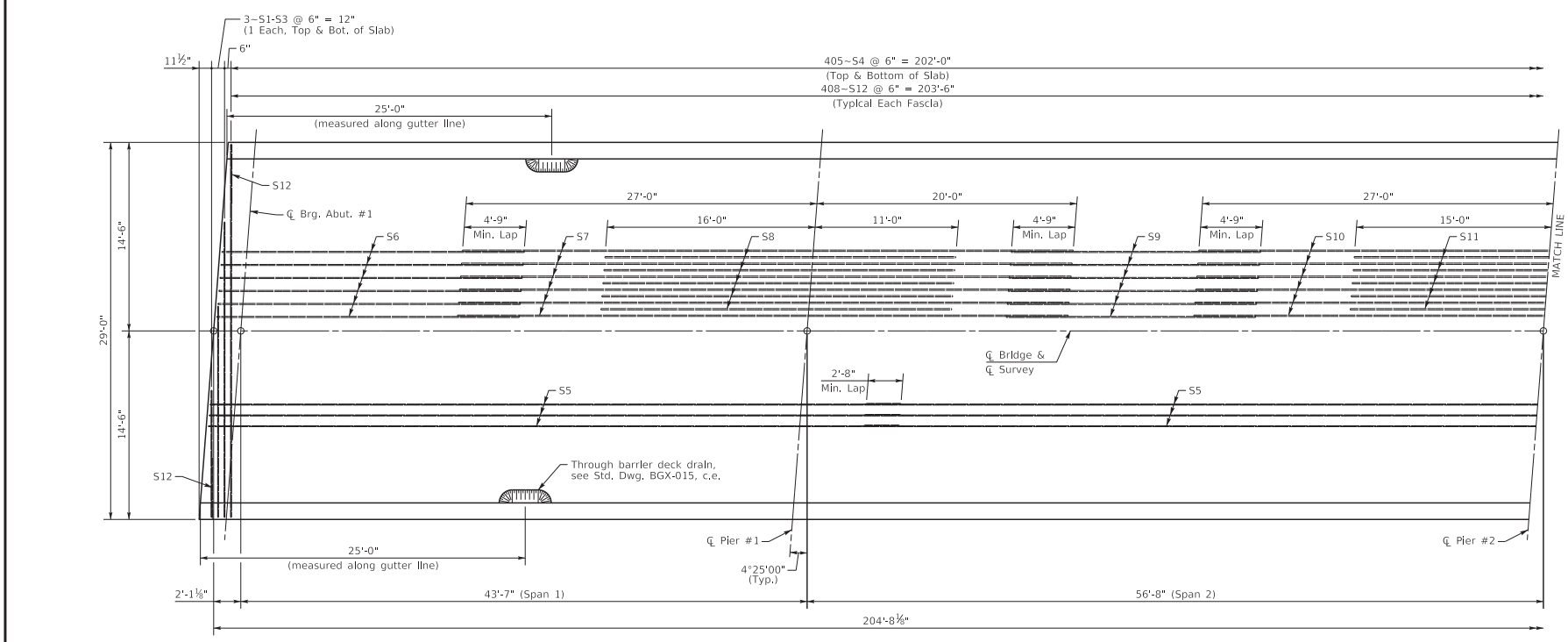
DATE: May 2021	CHECKED BY
DESIGNED BY: C. Van Zee	J. Van Zee
DETAILED BY: C. Van Zee	C. Van Zee

PPC BOX BEAM SB21 DETAILS

CROSSING: Western KY Parkway

ROUTE	ITEM NO.	COUNTY OF
KY 222	4-20016.00	HARDIN
	SHEET NO. S11	DRAWING NUMBER 28422

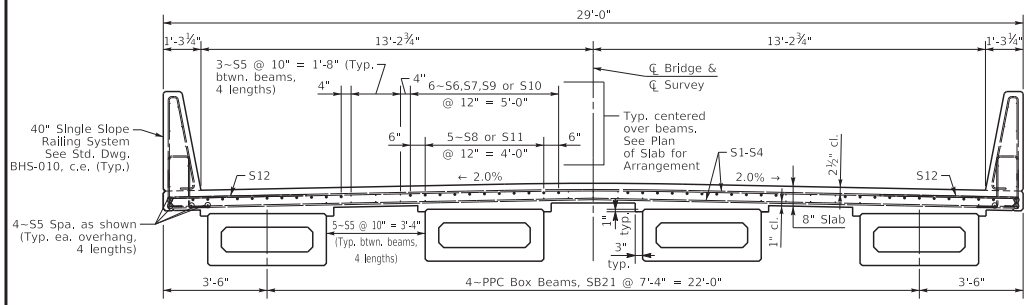
MicroStation v10.15.0.74 USER: earlw.downey DATE PLOTTED: 14-SEP-2021 FILE NAME: I:\District04\4-20016 Hardin KY 222 Superstructure Replacement\Final Plans and Details\28422.dgn



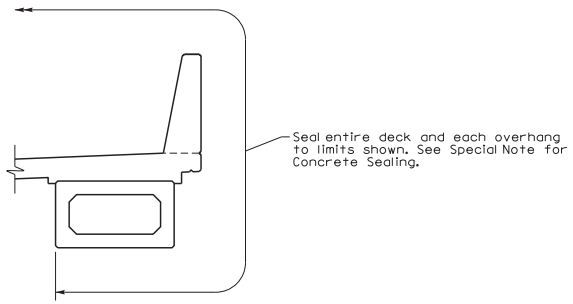
PLAN OF SLAB

(Span 1 and 2)

Note: S5~4 Lengths, 2'-8" Min. Lap

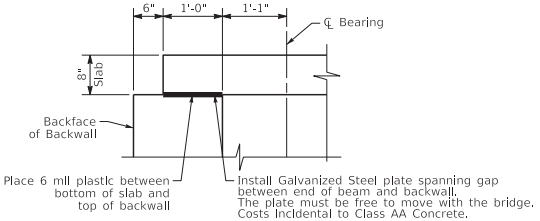


TYPICAL SECTION



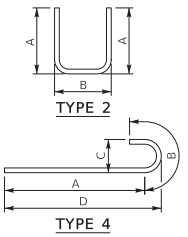
CONCRETE SEALING

COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS	REVISION	DATE	PREPARED BY Division of Structural Design	DATE: May 2021	CHECKED BY	*SUPERSTRUCTURE*	ROUTE	ITEM NO.	COUNTY OF
				DESIGNED BY: C. Van Zee	J. Van Zee	CROSSING	KY 222	4-20016.00	HARDIN
				DETAILED BY: E. Downey	C. Van Zee	Western KY Parkway		SHEET NO. S12	DRAWING NUMBER 28422



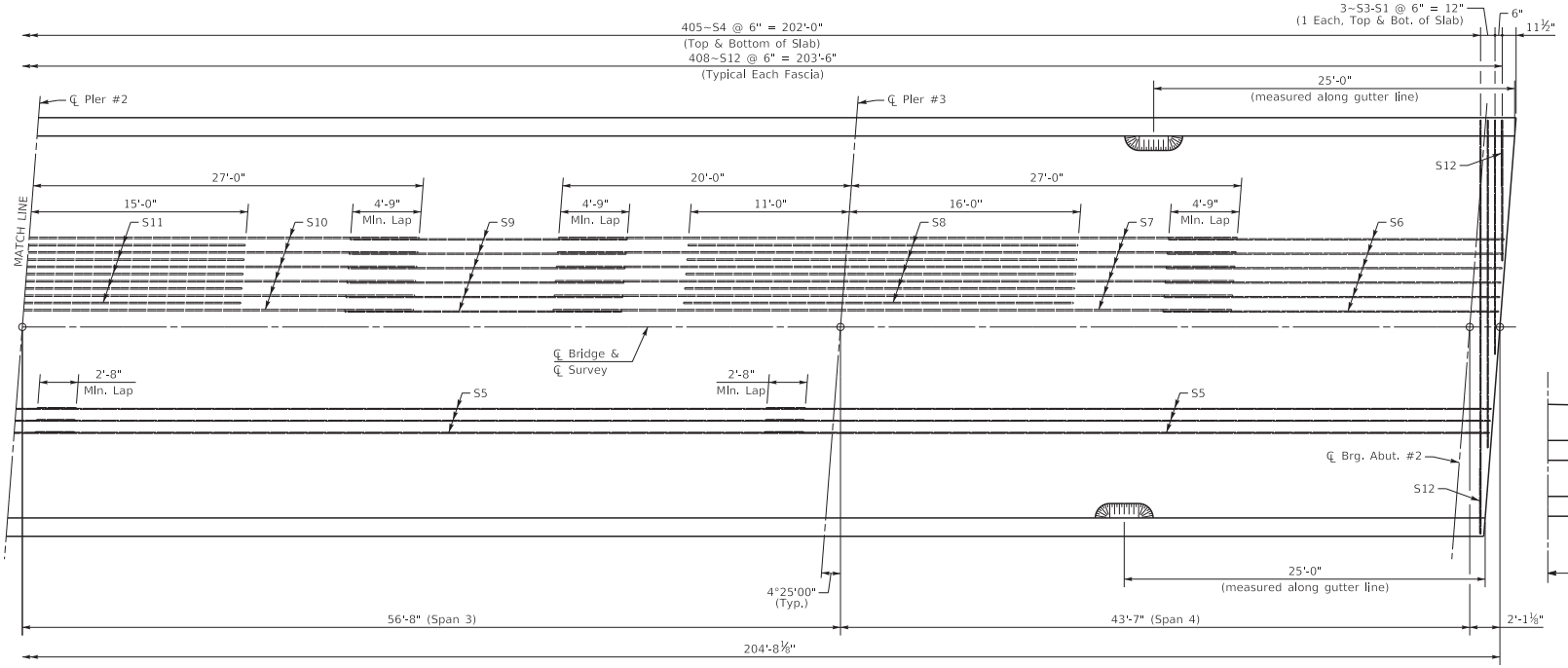
SLAB OVER BACKWALL DETAIL

(measured perpendicular to backwall)



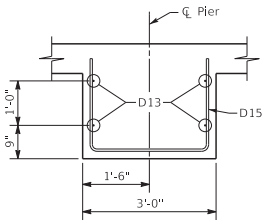
BILL OF REINFORCEMENT

MARK	TYPE	NO.	SIZE	LENGTH	LOCATION	A	B	C	D
S1e	Str.	4	5	9- 9	Top & Bottom of Slab				
S2e	Str.	4	5	16- 2	Top & Bottom of Slab				
S3e	Str.	4	5	22- 8	Top & Bottom of Slab				
S4e	Str.	810	5	28- 8	Top & Bottom of Slab				
S5e	Str.	128	5	53- 2	Top & Bottom of Slab				
S6e	Str.	48	8	23- 4	Top of Slab				
S7e	Str.	48	10	47- 0	Top of Slab				
S8e	Str.	40	10	27- 0	Top of Slab				
S9e	Str.	48	8	19- 3	Top of Slab				
S10e	Str.	24	10	54- 0	Top of Slab				
S11e	Str.	24	10	30- 0	Top of Slab				
S12e	4	816	4	5- 1	Top of Slab	4- 5	0- 8	0- 4	4- 7
D13e	Str.	36	5	3- 0	Pier Diaphragm				
D14e	2s	36	5	6- 8	Pier Diaphragm	2- 1	2- 8⅛		



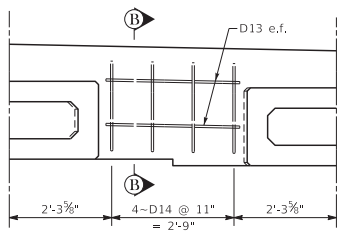
PLAN OF SLAB

(Span 3 and 4)



SECTION B-B

(Typ. Between Beams)



PIER DIAPHRAGM

(Typ. Between Beams)

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

REVISION	DATE

PREPARED BY
Division of Structural Design

DATE: May 2021	CHECKED BY
DESIGNED BY: C. Van Zee	J. Van Zee
DETAILED BY: E. Downey	C. Van Zee

SUPERSTRUCTURE
CROSSING
Western KY Parkway

ROUTE
KY 222

ITEM NO.
4-20016.00

SHEET NO.
S13

COUNTY OF
HARDIN

DRAWING NUMBER
28422

MicroStation v10.15.0.74 USER: earlw.downey DATE PLOTTED: 14-SEP-2021
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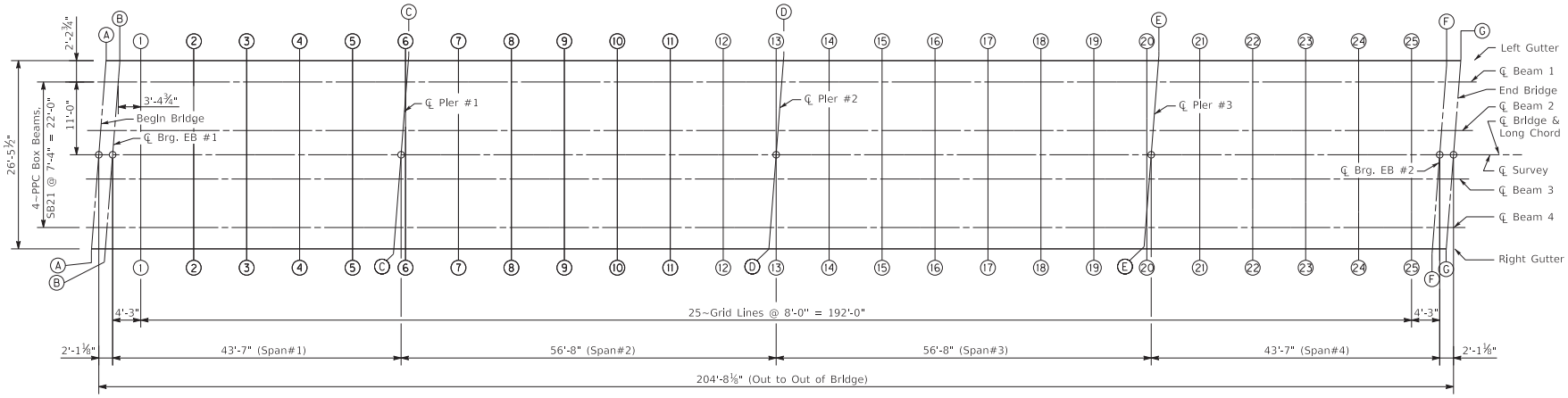


GRID LAYOUT

NOTES FOR ELEVATIONS TAKEN ON PRESTRESSED CONCRETE BEAMS

Take elevations on top of beam at points indicated by the grid layout. The beam elevations are to be read to three decimals, and entered in tables under "Top of Beam" elevations.

Compute dimension "X" as follows: "Construction Elevation" minus "Top of Beam" elevation equals dimension "X". Construction Elevations include camber due to weight of the concrete slab and barrier. Measuring of dimension "X" gives the final check on beam tolerances for camber, beam damage, and errors in erection that produce reverse cambers, sags, and unsightly fascia beams.

For setting templates, measure dimension "X" above top of beams for top of template. Do not set template by elevations.

Temporary supports or shoring will not be permitted under the girders when pouring the concrete floor slab or when taking "Top of Beam" elevations.

Construct barrier to roadway grade. Do not add camber to the barrier.

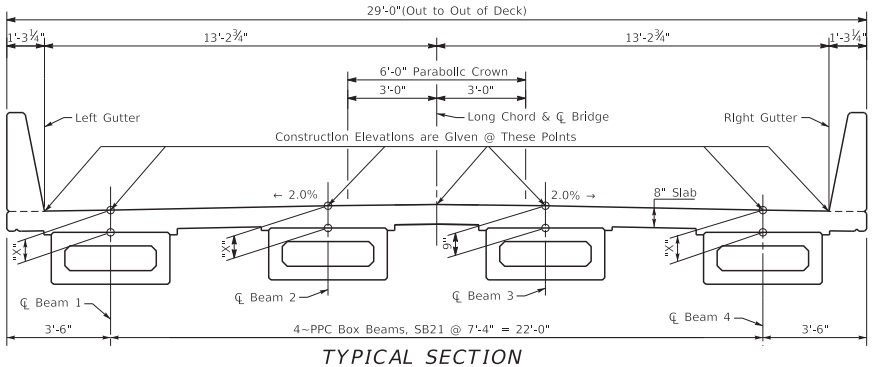
Note to Resident: The "Maximum Allowable Camber" shown on the beam sheet is the amount of camber, measured prior to casting the deck, above which the beam will begin to encroach into the slab. If the measured camber is greater than the "Maximum Allowable Camber" the contractor will be responsible for any necessary adjustments to assure a minimum slab thickness as shown in the plans. This work will be considered incidental to the completion of the structure and must have the approval of the Engineer.

The minimum allowable X-Dimension on a beam is that which results in the design deck thickness (8") at the edge of the beam flange. This is calculated as the deck thickness + (half the top flange width x cross slope of the bridge). For example 8" + 24"x0.02 = 8.48" = 0.706'.
Any necessary modifications to some or all of the X-dimensions must meet approval of the Engineer.

COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS	REVISION	DATE	PREPARED BY Division of Structural Design	DATE: May 2021	CHECKED BY	CONSTRUCTION ELEVATIONS	ROUTE	ITEM NO.	COUNTY OF
				DESIGNED BY: C. Van Zee	J. Van Zee	CROSSING Western KY Parkway	KY 222	4-20016.00	HARDIN
				DETAILED BY: M. Bawithawng	C. Van Zee			SHEET NO. S14	DRAWING NUMBER 28422

CONSTRUCTION ELEVATIONS

LOCATION	LEFT GUTTER	CL BEAM 1			CL BEAM 2			CENTER LINE	CL BEAM 3			CL BEAM 4			RIGHT GUTTER
		CONSTR. ELEV.	TOP OF BEAM	DIM. "X"	CONSTR. ELEV.	TOP OF BEAM	DIM. "X"		CONSTR. ELEV.	TOP OF BEAM	DIM. "X"	CONSTR. ELEV.	TOP OF BEAM	DIM. "X"	
Skew Line AA	697.667	697.708			697.847			697.887	697.839			697.684			697.638
Skew Line BB	697.695	697.737			697.876			697.916	697.868			697.714			697.667
Skew Line CC	698.075	698.119			698.263			698.305	698.261			698.112			698.067
Skew Line DD	697.948	697.993			698.145			698.191	698.150			698.007			697.965
Skew Line EE	697.118	697.165			697.324			697.373	697.335			697.200			697.160
Skew Line FF	696.001	696.050			696.214			696.266	696.231			696.102			696.063
Skew Line GG	695.937	695.986			696.150			696.203	696.168			696.038			695.999
Grid Line 1	697.745	697.790			697.938			697.982	697.939			697.793			697.750
Grid Line 2	697.856	697.900			698.048			698.091	698.049			697.903			697.859
Grid Line 3	697.945	697.989			698.136			698.179	698.136			697.990			697.945
Grid Line 4	698.010	698.054			698.201			698.244	698.200			698.053			698.008
Grid Line 5	698.053	698.096			698.242			698.285	698.241			698.093			698.049
Grid Line 6	698.075	698.119			698.267			698.311	698.269			698.125			698.082
Grid Line 7	698.134	698.179			698.328			698.372	698.330			698.186			698.142
Grid Line 8	698.174	698.219			698.367			698.411	698.369			698.224			698.180
Grid Line 9	698.188	698.233			698.380			698.423	698.380			698.234			698.190
Grid Line 10	698.173	698.217			698.363			698.406	698.362			698.215			698.171
Grid Line 11	698.128	698.172			698.317			698.359	698.315			698.167			698.122
Grid Line 12	698.056	698.099			698.243			698.286	698.241			698.092			698.047
Grid Line 13	697.961	698.005			698.149			698.191	698.149			698.005			697.961
Grid Line 14	697.915	697.960			698.109			698.154	698.112			697.967			697.924
Grid Line 15	697.859	697.903			698.052			698.096	698.053			697.908			697.865
Grid Line 16	697.776	697.820			697.967			698.011	697.968			697.822			697.778
Grid Line 17	697.664	697.708			697.854			697.897	697.853			697.706			697.662
Grid Line 18	697.522	697.565			697.711			697.753	697.709			697.561			697.516
Grid Line 19	697.352	697.396			697.540			697.583	697.538			697.389			697.344
Grid Line 20	697.160	697.204			697.348			697.390	697.345			697.197			697.153
Grid Line 21	696.996	697.040			697.188			697.232	697.189			697.043			697.000
Grid Line 22	696.824	696.868			697.015			697.059	697.016			696.870			696.826
Grid Line 23	696.629	696.673			696.820			696.863	696.820			696.673			696.629
Grid Line 24	696.411	696.455			696.600			696.643	696.600			696.452			696.408
Grid Line 25	696.170	696.214			696.359			696.402	696.358			696.210			696.165



TYPICAL SECTION

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

REVISION	DATE

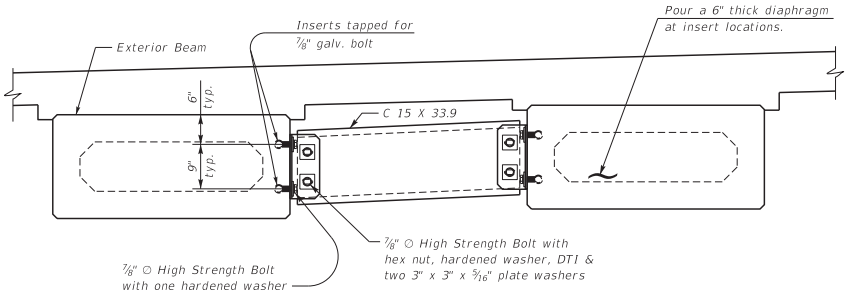
PREPARED BY
Division of Structural Design

DATE: May 2021	CHECKED BY
DESIGNED BY: C. Van Zee	J. Van Zee
DETAILED BY: M. Bawithawng	C. Van Zee

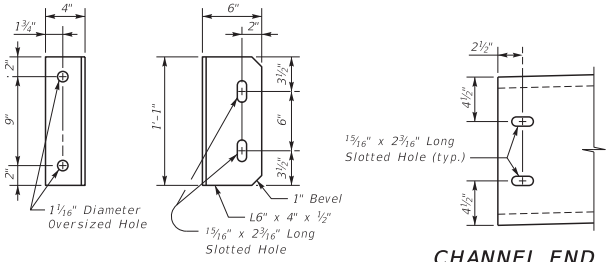
CONSTRUCTION ELEVATIONS
CROSSING: Western KY Parkway

ROUTE: KY 222
ITEM NO.: 4-20016.00
SHEET NO.: S15
COUNTY OF: HARDIN
DRAWING NUMBER: 28422

MicroStation v10.15.0.74 USER: earlw.downey DATE PLOTTED: 14-SEP-2021 FILE NAME: J:\District04\4-20016 Hardin KY 222 Superstructure Replacement\Final Plans and Details\28422.dgn



INTERMEDIATE DIAPHRAGM



CLIP ANGLE

CHANNEL END

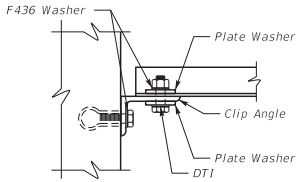
Diaphragm Notes

CONNECTIONS: *Ensure all bolted connections are ASTM A325, 7/8 inch diameter high strength bolts, nuts, and washers, mechanically zinc coated in accordance with AASHTO M298, for Class 50. Install all high strength bolted field connections using "direct tension indicators" (DTI's) in accordance with the Standard Specifications and ASTM F959. Ensure all DTI's are mechanically zinc coated. Show installation details of the DTI's on the shop plans. Place DTI's under the bolt head.*

STRUCTURAL STEEL: *Ensure plates, angles, and channels conform to ASTM A36 or A572 and galvanized after fabrication.*

SHOP DRAWINGS: *Show the location of all inserts and holes on the precast beam shop drawings. Submit shop drawings for the steel diaphragms to the Division of Structural Design for approval.*

DIAPHRAGMS: *Erect the diaphragms the same day that the precast beams are placed on the substructure. Include the cost of all materials and labor required to fabricate and erect the diaphragms in the bid for Precast Beams.*



CONNECTION DETAILS

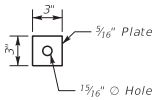


PLATE WASHER

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

REVISION	DATE

PREPARED BY
Division of
Structural Design

DATE: May 2021	CHECKED BY
DESIGNED BY: C. Van Zee	J. Van Zee
DETAILED BY: M. Bawithawng	C. Van Zee

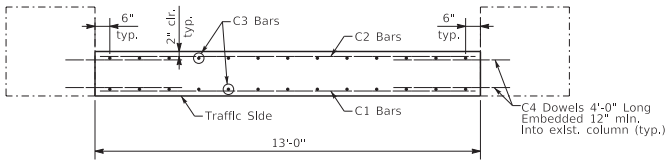
INTERMEDIATE DIAPHRAGMS
CROSSING: Western KY Parkway

ROUTE	ITEM NO.	COUNTY OF
KY 222	4-20016.00	HARDIN
	SHEET NO.	DRAWING NUMBER
	S16	28422

MicroStation v10.15.0.74 USER: earlw.downey DATE PLOTTED: 14-SEP-2021
FILE NAME: I:\District04\4-20016 Hardin KY 222 Superstructure Replacement\Final Plans and Details\28422.dgn

BILL OF REINFORCEMENT

MARK	TYPE	NO.	SIZE	LENGTH	LOCATION
C1	Str.	20	5	12- 8	Horizontal Front Face
C2	Str.	32	7	12- 8	Horizontal Back Face
C3	Str.	52	5	9- 8	Vertical Each Face
C4	Str.	80	6	4- 0	Dowels



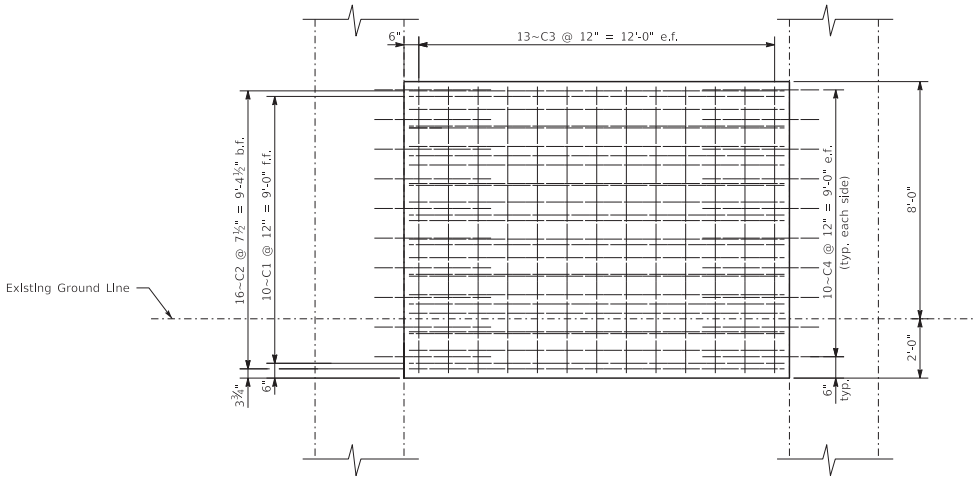
PLAN VIEW

Note:

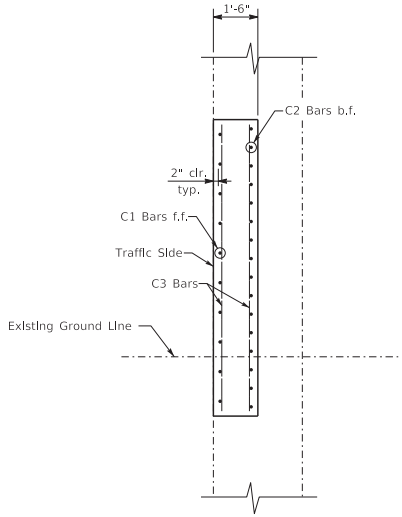
Anchor dowels shall be adhesively bonded to existing concrete in drilled holes.
The anchor dowel adhesive shall be one of the following:

A. HILTI HIT-HY 2000
B. An approved equal meeting ACI 355.4 and the minimum bond stress of the HIT-HY 200.

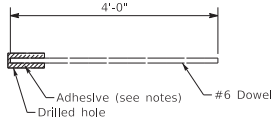
Install anchor dowels with a minimum embedment into existing concrete as shown.
Install per the manufacturer's recommendations.



FRONT ELEVATION VIEW



SIDE ELEVATION VIEW

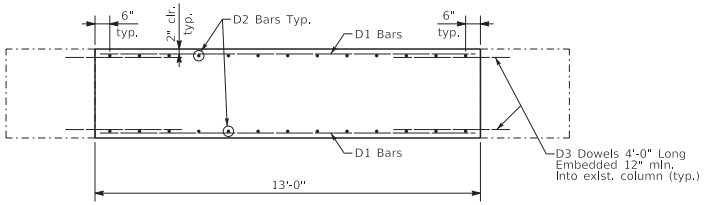


DOWEL DETAIL

COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS	REVISION	DATE	PREPARED BY Division of Structural Design	DATE: May 2021	CHECKED BY	PIER 1 & 3 CRASH WALL	ROUTE KY 222	ITEM NO. 4-20016.00	COUNTY OF HARDIN
				DESIGNED BY: C. Van Zee	J. Van Zee	CROSSING Western KY Parkway		SHEET NO. S17	DRAWING NUMBER 28422
				DETAILED BY: B. Miller	J. Van Zee				

BILL OF REINFORCEMENT

MARK	TYPE	NO.	SIZE	LENGTH	LOCATION
D1	Str.	16	5	12- 8	Horizontal Each Face
D2	Str.	26	5	5- 0	Vertical Each Face
D3	Str.	46	6	4- 0	Dowels



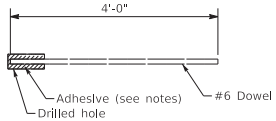
PLAN VIEW

Note:

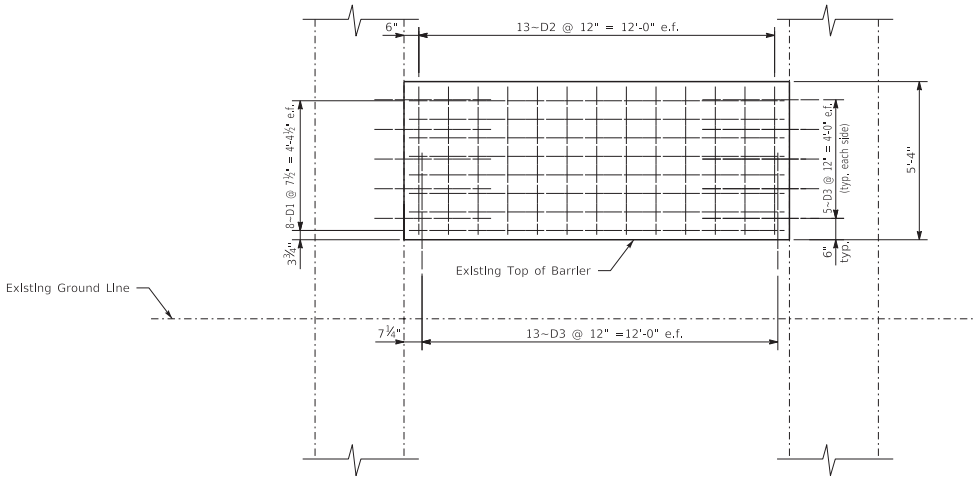
Anchor dowels shall be adhesively bonded to existing concrete in drilled holes.
The anchor dowel adhesive shall be one of the following:

A. HILTI HIT-HY 2000
B. An approved equal meeting ACI 355.4 and the minimum bond stress of the HIT-HY 200.

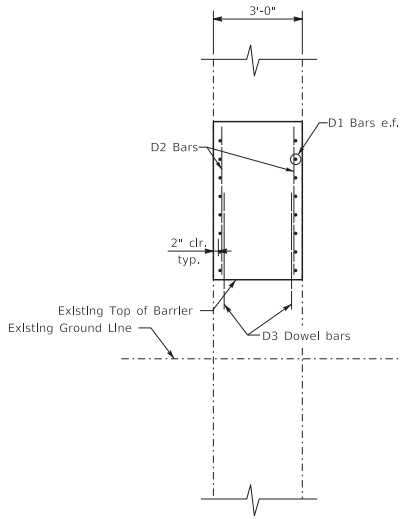
Install anchor dowels with a minimum embedment into existing concrete as shown.
Install per the manufacturer's recommendations.



DOWEL DETAIL



FRONT ELEVATION VIEW



SIDE ELEVATION VIEW

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

REVISION	DATE

PREPARED BY
Division of Structural Design

DATE: May 2021	CHECKED BY
DESIGNED BY: C. Van Zee	J. Van Zee
DETAILED BY: B. Miller	J. Van Zee

PIER 2 CRASH WALL
CROSSING: Western KY Parkway

ROUTE	ITEM NO.	COUNTY OF
KY 222	4-20016.00	HARDIN
	SHEET NO. S18	DRAWING NUMBER 28422

MicroStation v10.15.0.74 USER: earlw.downey DATE PLOTTED: 14-SEP-2021
FILE NAME: I:\District04\4-20016 Hardin KY 222 Superstructure Replacement\Final Plans and Details\28422.dgn

SPECIAL NOTES APPLICABLE TO
WESTERN KENTUCKY PARKWAY REHABILITATION PROJECT
HARDIN COUNTY
ITEM NO. 4-20016.00

- FIXED COMPLETION DATE AND LIQUIDATED DAMAGES
- 11N LONGITUDINAL PAVEMENT JOINT ADHESIVE
- 1I - PORTABLE CHANGEABLE MESSAGE SIGNS
- EXPERIMENTAL KYCT AND HAMBURG TESTING
- HMA ELECTRONIC DELIVERY MANAGEMENT SYSTEM (HMA e-TICKETING)
- GENERAL NOTE 444 – ASPHALT PAVEMENT RIDE QUALITY
- GENERAL NOTE 447 – COMPACTION OF ASPHALT MIXTURES
- PORTABLE QUEUE WARNING ALERT SYSTEM
- WASTE AND BORROW SITES
- TYPICAL SECTION DIMENSIONS

OTHER SPECIAL NOTES MAY APPLY

Special Note for Fixed Completion Date And Liquidated Damages
Western Kentucky Parkway Rehabilitation Project
Hardin County
Item No. 4-20016.00

This project will have a fixed completion date of **October 1, 2022** for completion of all work associated with this project.

Liquidated damages per the 2019 edition of the Standard Specifications for Road and Bridge Construction will be charged for each calendar day for any work completed after **October 1, 2022**.

A disincentive of $3,000.00 per day or portion thereof, will be assessed for any day or portion of a day that KY 222 is not open to traffic after the 60 days closure period specified in the Traffic Control Plan.

A disincentive of $1,000.00 per day or portion thereof, will be assessed for any day or portion of a day that all lanes of KY 222 are not open to traffic after the 7 day closure period specified in the Traffic Control Plan for concrete sealing.

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 of December through March.

All liquidated damages will be applied cumulatively.

All other applicable portions of Section 108 apply.

SPECIAL NOTE FOR EXPERIMENTAL KYCT AND HAMBURG TESTING

1.0 General

1.1 Description. The KYCT (Kentucky Method for Cracking Test) and the Hamburg test results will help determine if the mixture is susceptible to cracking and rutting. During the experimental phase, data will be gathered and analyzed by the Department to determine the durability of the bituminous mixes. Additionally, the data will help the Department to create future performance based specifications which will include the KYCT and Hamburg test methods.

2.0 Equipment

2.1 KYCT Testing Equipment. The Department will require a Marshall Test Press with digital recordation capabilities. Other CT testing equipment may be used for testing with prior approval by the Department.

2.2 Water Baths. One or more water baths will be required that can maintain a temperature of 77^{o} +/- 1.8^{o} F with a digital thermometer showing the water bath temperature. Also, one water bath shall have the ability to suspend gyratory specimen fully submerged in water in accordance with AASHTO T-166, current edition.

2.3 Hamburg Wheel Track Testing. The department encourages the use of the PTI APA/Hamburg Jr. test equipment to perform the loaded wheel testing. The Department will allow different equipment for the Hamburg testing, but the testing device must be approved by the Department prior to testing.

2.4 Gyratory Molds. Gyratory molds will be required to assist in the production of gyratory specimens in accordance with AASHTO T-312, current edition.

2.5 Ovens. Adequate (minimum of two ovens) will be required to accommodate the additional molds and asphalt mixture necessary to perform the acceptance testing as outlined in Section 402 of the Kentucky Standard Specifications for Road and Bridge Construction, current edition.

2.6 Department Equipment. The Department will provide gyratory molds, PINE 850 Test Press with digital recordation, and CT testing equipment to assist during this experimental phase so data can be gathered. Hamburg test specimens will be submitted to the Division of Materials for testing on the PTI APA/Hamburg Jr if the asphalt contractor or district materials office does not have an approved Hamburg testing device.

3.0 Testing Requirements

3.1 Acceptance Testing. Perform all acceptance testing and aggregate gradation as according with Section 402 and Section 403 of the Kentucky Standard Specifications for Road and Bridge Construction, current edition.

3.2 KYCT Testing. Perform crack resistance analysis (KYCT) in accordance with the current Kentucky Method for KYCT Index Testing during the mix design phase and during the plant production of all surface mixtures. For mix design approvals, submit KYCT results on the Department MixPack. For Class 4 mixtures, submit ingredient materials to the Division of Materials for informational verification.

3.2.1 KYCT Frequency. Obtain an adequate sample of hot mix asphalt to insure the acceptance testing, gradation, and KYCT gyratory samples can be fabricated and is representative of the bituminous mixture. Acceptance specimens shall be fabricated first, then immediately after, fabricate the KYCT samples with the gyratory compactor in accordance with Section 2.4 of this Special Note. Analysis of the KYCT specimens and gradation will be required one per sublot produced from the same asphalt material and at the same time as the acceptance specimen is sampled and tested.

3.2.2 Number of Specimens and Conditioning. Fabricate specimens in accordance with the Kentucky Method for KYCT Index Testing. Contrary to the method, fabricate a minimum of 3 and up to 6 test specimens. The specimens shall be compacted at the temperature in accordance to KM 64-411. KYCT mix design specimens shall be short-term conditioned for four hours at compaction temperature in accordance to KM 64-411. Contrary to the Kentucky Method, plant produced bituminous material shall be short-term conditioned immediately after sampling for two hours at compaction temperature in accordance to KM 64-411. Additionally, fabricated specimens shall be allowed to cool in air (fan is permissible) for 30 minutes +/- 5 minutes and conditioned in a 77 °F water bath for 30 minutes +/- 5 minutes. To insure confidence and reliability of the test results provided by KYCT testing and Hamburg testing, reheating of the asphalt mixture is prohibited.

3.2.3 Record Times. For each sublot, record the time required between drying aggregates in the plant to KYCT specimen fabrication. The production time may vary due to the time that the bituminous material is held in the silo. Record the preconditioning time when the time exceeds the one hour specimen cool down time as required in accordance to The Kentucky Method for KYCT Index Testing. The preconditioning time may exceed an hour if the technician is unable to complete the test on the same day or within the specified times as outlined in The Kentucky Method for KYCT Index Testing. The production time and the preconditioning time shall be recorded on the AMAW.

3.2.4 File Name. As according to section 7.12 of The Kentucky Method for KYCT Index Testing, save the filename with the following format; “CID_Approved Mix Number_Lot Number_Sublot Number_ Date”

3.3 Hamburg Testing. Perform the rut resistance analysis (Hamburg) in accordance to AASTHO T-324, not to exceed 20,000 passes for all bituminous mixtures during the mix design phase and production. For mix design approvals, submit Hamburg results on the Department MixPack. For Class 4 mixtures, submit ingredient materials to the Division of Materials for informational verification.

3.3.1 Hamburg Testing Frequency. Perform testing and analysis per lot of material. The plant produced bituminous material sampled for the Hamburg test does not have to be obtained at the same time as the acceptance and KYCT sample. If the Hamburg test sample is not obtained at the same time as the KYCT sample, determine the Maximum Specific Gravity of the KYCT sample in accordance with AASHTO T-209 coinciding with the Hamburg specimens.

3.3.2 Record Times. Record the production time as according to section 3.2.3 in this special note. Also record the time that the specimens were fabricated and the time the Hamburg testing was started. All times shall be recorded on the AMAW.

3.3.3 File Name. Save the Excel spreadsheet with the following file name; "Hamburg_CID_Approved Mix Number_Lot Number_Sublot Number_Date" and upload the file into the AMAW.

4.0 Data

Submit the AMAW and all test data that was obtained for acceptance, gradation, KYCT, and Hamburg testing within five working days once all testing has been completed for a lot to Central Materials Lab and the District Materials Engineer. Also, any data and or comments that the asphalt contractor or district personnel deem informational during this experimental phase, shall also be submitted to the Central Materials Lab and the District Materials Engineer. Any questions or comments regarding any item in this Special Note can be directed to the Central Office, Division of Materials, Asphalt Branch.

5.0 KYCT Video Demonstration

https://www.youtube.com/watch?v=84j0bM45-hg&feature=youtu.be

6.0 Payment

Any additional labor and testing equipment that is required to fabricate and test the KYCT and Hamburg specimens shall be considered to be incidental to the asphalt surface line item. The Department will perform the testing for the KYCT and Hamburg specimens if a producer does not possess the proper equipment.

June 3, 2019

SPECIAL NOTE FOR HMA ELECTRONIC DELIVERY MANAGEMENT SYSTEM
(HMA e-Ticketing)

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. Incorporate a GPS Fleet Management System for all HMA delivered to the project in order to monitor, track, and report loads of HMA during the construction processes from the point of measurement and loading to the point of incorporation to the project.

2.0 MATERIALS AND EQUIPMENT. Submit to the Engineer for approval, no fewer than 30 days prior to HMA placement activities, a GPS fleet management system supplier that can provide a qualified representative for on-site technical assistance during the initial setup, pre-construction verifications, and data management and processing as needed during the Project to maintain equipment.

Provide operator settings, user manuals, training videos, and required viewing/export software for review. Provide equipment that will meet the following:

1. A wireless fleet management or GPS device that is capable of tracking all delivery trucks (both company-owned and third-party) must be installed on all trucks and equipment (dump trucks, belly dumps, side-load dumps, transfer vehicles, pavers, or any other trucks/vehicles) used to transfer and incorporate HMA into the project. KYTC personnel shall have the ability to access Real Time monitoring through the use of a mobile device such as an iPad, smartphone, etc.

2. The fleet management system shall be fully integrated with the Contractor's Load Read-Out scale system at the HMA plant site.

3. The fleet management system shall have the ability to measure and track vehicles and their contents (weights and material types) continuously from the plant site to the project site. The system shall have internal battery backup capabilities due to loss of power, and have the ability to store data if GPS connectivity is lost and transmit that same data when unit re-establishes connectivity. To be considered continuous, no two data points shall be more than 60 seconds apart unless the vehicle is stopped. Duration of stop time for any reason shall be recorded.

3.0 CONSTRUCTION. Provide the Engineer with the manufacturer's specifications and all required documentation for data access at the pre-construction conference.

A. Construction Requirements

1. Install and operate equipment in accordance with the manufacturer's specifications.

2. Verify the GPS is working within the requirements of this Special Note.

B. Data Deliverables

Provide to the Engineer a means in which to gather report summaries by way of iOS apps, web pages, or any other method at the disposal of the Engineer. The Engineer may request data at any time during paving operations.

1. Real-time Continuous Data Items

Provide the Engineer access to a GIS map-based data viewer which displays the following information in real-time with a web-based system compatible with iOS and Windows environments.

- Each Truck
  - UniqueTruck ID
  - Truck status
    - Time At Source
    - Time At Destination

        - Time At Paver
        - Time At Scale
        - Time to and from plant/job
        - Time Stopped with Engine Running
    - Time of last transmission
    - Location (Latitude and Longitude in decimal degrees to nearest 0.0000001) every 60 seconds
    - Description of Material being transported (i.e. asphalt base, asphalt surface)
    - Mix Design Number
    - Net Weight of material being transported to the nearest 0.01 ton
    - Running Daily Total of Net Weight of material being transported to nearest 0.01 ton.
    - Project Number

    - Scale Location
    - Project Location
    - Point of Delivery (i.e. paver)

2. Daily Summary

The following summary information shall be provided to the Engineer electronically within 4 hours of beginning operations on the next working day

- For each Material
    - List of Individual Loads
        - Contractor Name
        - Project Number
        - Unique Truck ID
        - Net Weight For Payment (nearest 0.01 tons)
        - Date
        - Mix Temperature at Time of Loading, Fahrenheit (to be key entered by plant)
        - Time Loaded
        - Time Unloaded
        - Delivery Location (Latitude/Longitude in decimal degrees to nearest 0.0000001)
- For each Bid Item
        - Total Quantity for Payment (nearest 0.01 tons)

4.0 MEASUREMENT. The Department will measure the HMA electronic delivery management system as a lump sum item.

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.
3. Payment will be full compensation for costs related to providing the GPS system, including all equipped pavers and transfer vehicles, integration with plant load-out systems, and any software required for the construction and reporting process. All quality control procedures including the GPS systems representative's technical support and on-site training shall be included in the Contract lump sum price.

Code	Pay Item	Pay Unit
24986EC	HMA ELECTRONIC DELIVERY MANAGEMENT SYSTEM	LS

Special Note for Portable Queue Warning Alert System

1.0 Description

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

2.0 Materials

Materials shall be in accordance as follows:

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

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

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

A. General Capabilities and Performance Requirements

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

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

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

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

e. Warning Alerts: queue events, low battery voltage warnings, sensor movement alerts, high and low speed alerts shall be provided via cellular text messaging and/or via email messaging at the request of select Contractor personnel and KYTC officials.

f. The PQWAS system shall have the capabilities to provide alternate route messaging on specifically placed portable changeable message units and/or fixed Variable Message Systems (VMS). The intent of this service is to provide alternate route messaging to motorists before entering the project limits from all directions and giving them appropriate time to adjust their routes. Alternative routes shall be predefined and approved by KYTC. Additional PCMS units may be required for alternate route messaging and will be as per Section 5.0 of this note. KYTC's Traffic Management Center will provide detour messages via fixed VMS units during the term of the project.

B. Portable Radar Sensor Capabilities and Performance Requirements

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

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

C. PCMS Capabilities and Performance Requirements

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

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

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

3.0 Construction Requirements

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

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

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

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

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

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

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

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

Ensure compliance to all FCC and Department specifications.

4.0 Equipment Maintenance.

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

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

Partial Month Payment Schedule

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

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

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

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

6.0 Payment.

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

SPECIAL NOTE FOR TYPICAL SECTION DIMENSIONS

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

SPECIAL NOTE FOR CONCRETE SEALING

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

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

II. MATERIALS.

A. Sealer. Use one of the following:

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

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

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

III. CONSTRUCTION.

A. Curing Compound. Contrary to Section 609.03.12 of the specifications, curing compound is not to be used on this deck due to potentially causing issues with the concrete sealer. During the deck pour, finishing, and tining operations the Class AA concrete shall be kept continuously moist with the use of a mister until burlap or curing blankets are applied to the surface. At no point should water be pooling or running off the surface or the surface of the concrete be allowed to become dry. After the burlap or curing blankets are installed, cure in accordance with the specifications. Include all costs in the unit price bid for Class AA concrete. Failure to properly cure the concrete in accordance with this note and the specifications may result in weakened or cracked concrete. If the concrete is weakened or cracked due to improper curing, the contractor will be responsible for providing alternates to fix the issues to the Engineer for review and the contractor will be solely responsible for all costs to do so, up to complete replacement. Do not begin any construction on fixing any issues without approval of the Engineer.

B. Cleaning the Deck. Dry clean the deck to remove all loose debris. Remove all visible hydrocarbons from the surface with detergent approved by the manufacturer of the deck sealant. Pressure wash all surfaces to be sealed at 2000 to 3000 psi. Install pressure gauges at each wand to verify pressure. Use 30° fan tip or as recommended by the manufacturer of the deck sealant. Hold pressure washing wand a minimum of 45° from the deck with a maximum stand-off distance of 12 inches.

C. Sealing the Deck. Allow new concrete to cure a minimum 28 days prior to application of sealer. Monitor weather conditions prior to sealer application. Refer to manufacturer's recommendations for proper ambient conditions. Do not apply sealer if precipitation is anticipated within the time stated by the manufacturer. Allow the deck to dry 24 hours (after washing or rain event) before sealer application. The deck can be reopened to traffic while drying. Sealer must be applied within 48 hours of washing or the deck must be rewashed. Divide the deck into predefined areas of specific square footage to aid in

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

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

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

IV. MEASUREMENT

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

V. PAYMENT

A. **Concrete Sealing.** Payment at the contract unit price per square feet is full compensation for the following: (1) Furnish all labor, materials, tools, and

equipment; (2) Clean the bridge deck; (3) Seal the bridge deck; (4) Maintain & control traffic; and, (5) Any other work specified as part of this contract.

SPECIAL PROVISION FOR WASTE AND BORROW SITES

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

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

Rev 9/2021

SPECIAL NOTE FOR PAVER MOUNTED TEMPERATURE PROFILES

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

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

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

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

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

(B) Infrared sensor(s):

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

(C) Ability to measure the following:

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

(2) Stationing

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

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

(1) Full collected width of the thermal profiles,

(2) Paver speed and

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

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

At the preconstruction meeting, provide the Cabinet with rights to allow for web access to the data file location. Access to the data is not to be hindered in any way. The Contractor will provide the Cabinet with any vendor specific software, user id, passwords, etc. needed to access the data through this service, cost of this access is incidental to the thermal profile bid item. The Cabinet is to have access to all data as it is being collected. If a third party is used for collecting and distributing the data the Cabinet is to have the same access rights and time as the Contractor.

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

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

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

(2) IR Bar Manufacturer and Model number

(3) Number of Temperature Sensors (N)

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

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

(a) Date and Time reading taken
(b) Latitude and Longitude
(c) Distance paver has moved from last test location
(d) Direction and speed of the paver
(e) Surface temperature of each of the sensors

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

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

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

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

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

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

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

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

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

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

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

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

Special Note for Bridge Demolition, Renovation and Asbestos Abatement

If the project includes any bridge demolition or renovation, the successful bidder is required to notify Kentucky Division for Air Quality (KDAQ) via filing of form (DEP 7036) a minimum of 10 working days prior to commencement of any bridge demolition or renovation work.

Any available information regarding possible asbestos containing materials (ACM) on or within bridges to be affected by the project has been included in the bid documents. These are to be included with the Contractor's notification filed with the KDAQ. If not included in the bid documents, the Department will provide that information to the successful bidder for inclusion in the KDAQ notice as soon as possible. If there are no documents stating otherwise, the bidders should assume there are no asbestos containing materials that will in any way affect the work.

COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
transportation.ky.gov

Andy Beshear
GOVERNOR

Jim Gray
SECRETARY

Asbestos Inspection Report

To: Andre Johannes

District: Central Office

Date: September 16, 2021

Conducted By: O'Dail Lawson

Report Prepared By: O'Dail Lawson

Project and Structure Identification

Project Number: Hardin Co 04-20016

Structure ID: 047B00045N

Structure Location: KY-0222 (W Glendale-Hodgenville Rd) over WKY Parkway

Sample Description: Any suspect materials collected were negative for asbestos.

Inspection Date: September 10, 2015

Results and Recommendations

The results of the samples collected were negative for the presence of asbestos above 1%. No abatement is required at this time.

It is recommended that this report accompany the 10-Day Notice of Intent for Demolition (Notification Form DEP 7036) which is to be submitted to the Kentucky Division of Air Quality prior to abatement, demolition, or renovation of any building or structure in the Commonwealth.

MRS, INC. *MRS, Inc. Analytical Laboratory Division*
332 West Broadway / Suite # 902 (502) 495-1212
Louisville, Kentucky - 40202 - 2133 Fax: (502) 491-7111

BULK SAMPLE ASBESTOS ANALYSIS

Analysis N# # 3109146 Address: Hardin County - 047B00045N
Client Name: K Y T C
Sampled By: O'Dail Lawson

				% FIBROUS ASBESTOS				% NON-ASBESTOS FIBERS			
Sample ID	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	2%	(To Be	Point Counted)		2%			96%

Methodology : EPA Method 600/R-93-116
Date Analyzed : 14-Sep-21
Analyst : Winterford Mensah Reviewed By: Winterford Mensah Signature

AIHA # 102459 AJHA #1 02459

MRS, Inc. Analytical Laboratory Division

332 West Broadway, S Suite # 902 *Phone # : (502) 495-1212*
Louisville, Kentucky 40202 *E-Mail Address : CEOMRSInc@AOL.Com*

Client:	**K Y T C**	**Project No:**	**# 3109146 B**
Address:	**200 Mero Street**	**Sample ID:**	**# H - 2**
	Frankfort, KY	**Sampled:**	**8-Sep-21**
	40622	**Received:**	**10-Sep-21**
		Analyzed:	**14-Sep-21 - Point Count -**
	Attention : O'Dail Lawson		

Bulk Sample Analysis

Sampled By : **O'Dail Lawson**
Facility/Location: **Hardin County - Item # 047B00045N**
Field Description: **Guard Rail Mastic**
Laboratory Description:
Soft Gray Material

Asbestos Materials:
Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative

Non-Asbestos Fibrous Materials :

Cellulose	0.25 %
Binders	99.50 %

Remarks: The sample was analyzed for asbestos content following the EPA Methodology (600/R-93/116). The test relates only to the items tested. This report does not represent endorsement by NVLAP or any agency of the U.S. Government.

Analyst: Winterford Mensah Reviewed By: Winterford Mensah Signature

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	**Client Information**	KY TRANSPORTATION CABINET KY-222 over WKY pky.
Address:	200 Mero Street Frankfort KY	Results Code:	
Phone:	502-782-5020 Fax: 502-564-5655	N/A = Not Applicable	
PO#:		Samplers (signature):	
Project ID	HARDIN 047B00045N		

Sample ID	Sample Description	Collected Date	Collected Time	Analysis Requested	Matrix	Color	Cont. Type	Preservative
H-1	Joint Compound	9/8/21	10:28	Asbestos bulk	Rubber	black		N/A
H-2	Gusmo Rail Master	↓	↓	↓	MASTIC	grey		

Relinquished By:	Date/Time:	
Received By: Winterpool Menard	Date/Time: 9/09/21 (9/10/21)	
Relinquished By:	Date/Time:	
Received at Lab By:	Date/Time:	

CHC Training
Environmental Compliance Certification Experts

www.chctraining.com
303.412.6360
855.60.CERTIFY

Colorado State Approval No. 22651

1775 W. 55th Avenue
Denver, Colorado 80221
United States of America

Certificate of Achievement

This certificate is awarded to:

O'Dail Lawson

In recognition of satisfactory completion of the EPA-approved annual asbestos refresher training in accordance with the Model Accreditation Plan (MAP) (40 CFR Part 763, Subpart E, Appendix C), AHERA of the Toxic Substances Control Act (TSCA), and Colorado Regulation No. 8 entitled:

Building Inspector

Course Completion:	February 11, 2021
Examination Date:	February 11, 2021
Expiration Date:	February 11, 2022
Course Hours:	4.0

Verify this Certificate

Danaya N. Wilson
CEO & Training Program Manager

Credential License ID:
28699399

CHC Training
Safety Quality Compliance Integrity
Est. 2015
Accredited Alumni

Matthew Valdez
Instructor

CHC Training Certificate No.:
R21-0204-AI

Renew this Certificate

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

[X] Original	[ ] Re-Certification	RIGHT OF WAY CERTIFICATION	
ITEM #	**COUNTY**	**PROJECT # (STATE)**	**PROJECT # (FEDERAL)**
4-20016	Hardin	FD04 047 9001 129-131	
PROJECT DESCRIPTION			

Asphalt rehabilitation WK Parkway from MP119.649-130.786

[X] **No Additional Right of Way Required**

Construction will be within the limits of the existing right of way. The right of way was acquired in accordance to FHWA regulations under the Uniform Relocation Assistance and Real Property Acquisitions Policy Act of 1970, as amended. No additional right of way or relocation assistance were required for this project.

[ ] **Condition # 1 (Additional Right of Way Required and Cleared)**

All necessary right of way, including control of access rights when applicable, have been acquired including legal and physical possession. Trial or appeal of cases may be pending in court but legal possession has been obtained. There may be some improvements remaining on the right-of-way, but all occupants have vacated the lands and improvements, and KYTC has physical possession and the rights to remove, salvage, or demolish all improvements and enter on all land. Just Compensation has been paid or deposited with the court. All relocations have been relocated to decent, safe, and sanitary housing or that KYTC has made available to displaced persons adequate replacement housing in accordance with the provisions of the current FHWA directive.

[ ] **Condition # 2 (Additional Right of Way Required with Exception)**

The right of way has not been fully acquired, the right to occupy and to use all rights-of-way required for the proper execution of the project has been acquired. Some parcels may be pending in court and on other parcels full legal possession has not been obtained, but right of entry has been obtained, the occupants of all lands and improvements have vacated, and KYTC has physical possession and right to remove, salvage, or demolish all improvements. Just Compensation has been paid or deposited with the court for most parcels. Just Compensation for all pending parcels will be paid or deposited with the court prior to AWARD of construction contract

[ ] **Condition # 3 (Additional Right of Way Required with Exception)**

The acquisition or right of occupancy and use of a few remaining parcels are not complete and/or some parcels still have occupants. All remaining occupants have had replacement housing made available to them in accordance with 49 CFR 24.204. KYTC is hereby requesting authorization to advertise this project for bids and to proceed with bid letting even though the necessary right of way will not be fully acquired, and/or some occupants will not be relocated, and/or the just compensation will not be paid or deposited with the court for some parcels until after bid letting. KYTC will fully meet all the requirements outlined in 23 CFR 635.309(c)(3) and 49 CFR 24.102(j) and will expedite completion of all acquisitions, relocations, and full payments after bid letting and prior to AWARD of the construction contract or force account construction.

Total Number of Parcels on Project	0	EXCEPTION (S) Parcel #	ANTICIPATED DATE OF POSSESSION WITH EXPLANATION
Number of Parcels That Have Been Acquired	0		
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	8/26/21
Right of Way Director		**FHWA**	
Printed Name		Printed Name	
Signature	Kelly R. Divine Digitally signed by Kelly R. Divine Date: 2021.08.27 08:50:33 -05'00'	Signature	
Date		Date	

UTILITIES AND RAIL CERTIFICATION NOTE

Hardin County
0NHPP0022017
FD52 047 1209301D
Mile point: 120.930 TO 132.400
ADDRESS PAVEMENT CONDITION OF WENDELL H. FORD WESTERN KY PARKWAY BOTH DIRECTION(S) FROM MILEPOINT 120.93 (120.65 NON-CARDINAL) TO MILEPOINT 132.4 (130.95 NON-CARDINAL) (2020CCR)
ITEM NUMBER: 04-20016.00

PROJECT NOTES ON 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.

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

East Kentucky Power Cooperative, Inc. - Electric

Hardin County Water District #2 - Water

Comcast Communications - CATV

Windstream Holdings II, LLC - Communication

Brandenburg Telephone Co. - Telephone

Louisville Gas & Electric - Natural Gas

Form Revised 6/24/16

UTILITIES AND RAIL CERTIFICATION NOTE

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ITEM NUMBER: 04-20016.00

Kentucky Utilities - Electric

City of Elizabethtown Gas - Natural Gas

Nolin Rural Electric Cooperative Corp - Electric

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

THE FOLLOWING FACILITY OWNERS ARE RELOCATING/ADJUSTING THEIR FACILITIES WITHIN THE PROJECT LIMITS AND WILL BE COMPLETE PRIOR TO CONSTRUCTION

Not Applicable

THE FOLLOWING FACILITY OWNERS HAVE FACILITIES TO BE RELOCATED/ADJUSTED BY THE OWNER OR THEIR SUBCONTRACTOR AND IS TO BE COORDINATED WITH THE ROAD CONTRACT

Not Applicable

UTILITIES AND RAIL CERTIFICATION NOTE

Hardin County
0NHPP0022017
FD52 047 1209301D
Mile point: 120.930 TO 132.400
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ITEM NUMBER: 04-20016.00

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

Not Applicable

RAIL COMPANIES HAVE FACILITIES IN CONJUNCTION WITH THIS PROJECT AS NOTED

☒ **No Rail Involvement** ☐ **Rail Involved** ☐ **Rail Adjacent**

UTILITIES AND RAIL CERTIFICATION NOTE

Hardin County
0NHPP0022017
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ITEM NUMBER: 04-20016.00

AREA FACILITY OWNER CONTACT LIST

Facility Owner	Address	Contact Name	Phone	Email
Brandenburg Telephone Co. - Telephone	502 West Dixie Ave Elizabethtown KY 42702	Kyle Dalton	2709824466	kyle.dalton@brandenburgtel.com
City of Elizabethtown Gas - Natural Gas	200 West Dixie Ave. Elizabethtown KY 42701	Matthew Hobbs	2702682288	matthew.hobbs@elizabethtownky.gov
Comcast Communications - CATV	2919 Ring Road Elizabethtown KY 42701	Stephen Gaddie	2704011543	Stephen_Gaddie@comcast.com
East Kentucky Power Cooperative, Inc. - Electric	P.O. Box 707 Winchester KY 40392	Doug Meadows	8597719751	doug.meadows@ekpc.coop
Hardin County Water District #2 - Water	360 Ring Road Elizabethtown KY 42701	Forrest Pollock	2703079744	fpollock@hcwd2.org
Kentucky Utilities - Electric	820 W. Broadway Louisville KY 40202	Caroline Justice	5026273708	Caroline.Justice@lge-ku.com
Louisville Gas & Electric - Natural Gas	820 West Broadway Louisville KY 40202	Caroline Justice	5026273708	caroline.justice@lge-ku.com

UTILITIES AND RAIL CERTIFICATION NOTE

Hardin County
0NHPP0022017
FD52 047 1209301D
Mile point: 120.930 TO 132.400
ADDRESS PAVEMENT CONDITION OF WENDELL H. FORD WESTERN KY PARKWAY BOTH DIRECTION(S) FROM MILEPOINT 120.93 (120.65 NON-CARDINAL) TO MILEPOINT 132.4 (130.95 NON-CARDINAL) (2020CCR)
ITEM NUMBER: 04-20016.00

Nolin Rural Electric Cooperative Corp - Electric	411 Ring Road Elizabethtown KY 42701	Devon Woosley	2707656153	dwoosley@nolinrecc.com
Windstream Holdings II, LLC - Communication	111 South Main Street Elizabethtown KY 42701	Steve Johnson	8593576209	steve.johnson@windstream.com

Kentucky Transportation Cabinet

Highway District __ (1)

And

_____(2), Construction

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

Groundwater protection plan

For Highway Construction Activities

For

ADDRESS PAVEMENT CONDITION OF WENDELL H. FORD WESTERN KY PARKWAY BOTH DIRECTION(S) FROM MILEPOINT 120.93 TO MILEPOINT 132.4 Project: CID ## -

Revised 3/4/2016

Project information

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

1. Owner – Kentucky Transportation Cabinet, District __ (1)

2. Resident Engineer: (2)

3. Contractor name: (2)
   Address: (2)

   Phone number: (2)
   Contact: (2)
   Contractors agent responsible for compliance with the KPDES permit requirements (3):

4. Project Control Number (2)

5. Route (Address) (1)
   Western KY Parkway

6. Latitude/Longitude (project mid-point) dd/mm/ss, dd/mm/ss (1)
   37.561889
   -86.064944

7. County (project mid-point) (1)
   Hardin

8. Project start date (date work will begin): (2)

9. Projected completion date: (2)

A. Site description:

1. Nature of Construction Activity (from letting project description) (1)

   ADDRESS PAVEMENT CONDITION OF WENDELL H. FORD WESTERN KY PARKWAY BOTH DIRECTION(S) FROM MILEPOINT 120.93 TO MILEPOINT 132.4.

2. Order of major soil disturbing activities (2) and (3)

3. Projected volume of material to be moved (1)

   1500 CY

4. Estimate of total project area (acres) (1)

   2.3 Acres

5. Estimate of area to be disturbed (acres) (1)

   2.3 Acres

6. Post construction runoff coefficient will be included in the project drainage folder. Persons needing information pertaining to the runoff coefficient will contact the resident engineer to request this information.(1)

7. Data describing existing soil condition (1) & (2)

   The existing Soil is roadway embankment

8. Data describing existing discharge water quality (if any) (1) & (2)

   None exists

9. Receiving water name (1)

West Rhudes Creek, UT to Nolin River, Last Branch

10. TMDLs and Pollutants of Concern in Receiving Waters: (1 DEA)

No TMDLS have been developed for these receiving waters

11. Site map – Project layout sheet plus the erosion control sheets in the project plans that depict Disturbed Drainage Areas (DDAs) and related information. These sheets depict the existing project conditions with areas delineated by DDA (drainage area bounded by watershed breaks and right of way limits), the storm water discharge locations (either as a point discharge or as overland flow) and the areas that drain to each discharge point. These plans define the limits of areas to be disturbed and the location of control measures. Controls will be either site specific as designated by the designer or will be annotated by the contractor and resident engineer before disturbance commences. The project layout sheet shows the surface waters and wetlands.

12. Potential sources of pollutants:

    The primary source of pollutants is solids that are mobilized during storm events. Other sources of pollutants include oil/fuel/grease from servicing and operating construction equipment, concrete washout water, sanitary wastes and trash/debris. (3)

B. Sediment and Erosion Control Measures:

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

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

2. Following award of the contract, the contractor and resident engineer will annotate the erosion control sheets showing location and type of BMPs for each of the DDAs that will be disturbed at the outset of the project. This annotation will be accompanied by an order of work that reflects the order or sequence of major soil moving activities. The remaining DDAs are to be designated as “Do Not Disturb” until the contractor and resident engineer prepare the plan for BMPs to be employed. The initial BMP’s

shall be for the first phase (generally Clearing and Grubbing) and shall be modified as needed as the project changes phases. The BMP Plan will be modified to reflect disturbance in additional DDA's as the work progresses. All DDA's will have adequate BMP's in place before being disturbed.

3. As DDAs are prepared for construction, the following will be addressed for the project as a whole or for each DDA as appropriate:

   - Construction Access – This is the first land-disturbing activity. As soon as construction begins, bare areas will be stabilized with gravel and temporary mulch and/or vegetation.
   - At the beginning of the project, all DDAs for the project will be inspected for areas that are a source of storm water pollutants. Areas that are a source of pollutants will receive appropriate cover or BMPs to arrest the introduction of pollutants into storm water. Areas that have not been opened by the contractor will be inspected periodically (once per month) to determine if there is a need to employ BMPs to keep pollutants from entering storm water.
   - Clearing and Grubbing – The following BMP's will be considered and used where appropriate.
     - Leaving areas undisturbed when possible.
     - Silt basins to provide silt volume for large areas.
     - Silt Traps Type A for small areas.
     - Silt Traps Type C in front of existing and drop inlets which are to be saved
     - Diversion ditches to catch sheet runoff and carry it to basins or traps or to divert it around areas to be disturbed.
     - Brush and/or other barriers to slow and/or divert runoff.
     - Silt fences to catch sheet runoff on short slopes. For longer slopes, multiple rows of silt fence may be considered.
     - Temporary Mulch for areas which are not feasible for the fore mentioned types of protections.
     - Non-standard or innovative methods.
   - Cut & Fill and placement of drainage structures - The BMP Plan will be modified to show additional BMP's such as:
     - Silt Traps Type B in ditches and/or drainways as they are completed
     - Silt Traps Type C in front of pipes after they are placed
     - Channel Lining
     - Erosion Control Blanket
     - Temporary mulch and/or seeding for areas where construction activities will be ceased for 21 days or more.
     - Non-standard or innovative methods

- Profile and X-Section in place – The BMP Plan will be modified to show elimination of BMP's which had to be removed and the addition of new BMP's as the roadway was shaped. Probably changes include:
  - Silt Trap Type A, Brush and/or other barriers, Temporary Mulch, and any other BMP which had to be removed for final grading to take place.
  - Additional Silt Traps Type B and Type C to be placed as final drainage patterns are put in place.
  - Additional Channel Lining and/or Erosion Control Blanket.
  - Temporary Mulch for areas where Permanent Seeding and Protection cannot be done within 21 days.
  - Special BMP's such as Karst Policy
- Finish Work (Paving, Seeding, Protect, etc.) – A final BMP Plan will result from modifications during this phase of construction. Probably changes include:
  - Removal of Silt Traps Type B from ditches and drainways if they are protected with other BMP's which are sufficient to control erosion, i.e. Erosion Control Blanket or Permanent Seeding and Protection on moderate grades.
  - Permanent Seeding and Protection
  - Placing Sod
  - Planting trees and/or shrubs where they are included in the project
- BMP's including Storm Water Management Devices such as velocity dissipation devices and Karst policy BMP's to be installed during construction to control the pollutants in storm water discharges that will occur after construction has been completed are : No permanent BMPs are being proposed.

C. Other Control Measures

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

2. Waste Materials

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

will be disposed in accordance with appropriate regulations. Notices stating these practices will be posted in the office.

3. Hazardous Waste

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

4. Spill Prevention

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

- **Good Housekeeping:**

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

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

- **Hazardous Products:**

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

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

The following product-specific practices will be followed onsite:

- **Petroleum Products:**

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

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

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

- **Fertilizers:**

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

- **Paints:**

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

- **Concrete Truck Washout:**

Concrete truck mixers and chutes will not be washed on pavement, near storm drain inlets, or within 75 feet of any ditch, stream, wetland, lake, or sinkhole. Where possible, excess concrete and wash water will be discharged to areas

prepared for pouring new concrete, flat areas to be paved that are away from ditches or drainage system features, or other locations that will not drain off site. Where this approach is not possible, a shallow earthen wash basin will be excavated away from ditches to receive the wash water

- **Spill Control Practices**

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

- Manufacturers' recommended methods for spill cleanup will be clearly posted. All personnel will be made aware of procedures and the location of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage area. Equipment and materials will include as appropriate, brooms, dust pans, mops, rags, gloves, oil absorbents, sand, sawdust, and plastic and metal trash containers.
- All spills will be cleaned up immediately after discovery.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contract with a hazardous substance.
- Spills of toxic or hazardous material will be reported to the appropriate state/local agency as required by KRS 224 and applicable federal law.
- The spill prevention plan will be adjusted as needed to prevent spills from reoccurring and improve spill response and cleanup.
- Spills of products will be cleaned up promptly. Wastes from spill clean up will be disposed in accordance with appropriate regulations.

D. Other State and Local Plans

This BMP plan shall include any requirements specified in sediment and erosion control plans, storm water management plans or permits that have been approved by other state or local officials. Upon submittal of the NOI, other requirements for surface water protection are incorporated by reference into and are enforceable under this permit (even if they are not specifically included in this BMP plan). This provision does not apply to master or comprehensive plans, non-enforceable guidelines or technical guidance documents that are not identified in a specific plan or permit issued for the construction site by state or local officials. (1)

E. Maintenance

1. The BMP plan shall include a clear description of the maintenance procedures necessary to keep the control measures in good and effective operating condition.

- Maintenance of BMPs during construction shall be a result of weekly and post rain event inspections with action being taken by the contractor to correct deficiencies.

- Post Construction maintenance will be a function of normal highway maintenance operations. Following final project acceptance by the cabinet, district highway crews will be responsible for identification and correction of deficiencies regarding ground cover and cleaning of storm water BMPs. The project manager shall identify any BMPs that will be for the purpose of post construction storm water management with specific guidance for any non-routine maintenance. (1)

F. Inspections

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

- All erosion prevention and sediment control measures will be inspected at least once each week and following any rain of one-half inch or more.
- Inspections will be conducted by individuals that have successfully completed the KEPSC-RI course as required by Section 213.02.02 of the Standard Specifications for Road and Bridge Construction, current edition.
- Inspection reports will be written, signed, dated, and kept on file.
- Areas at final grade will be seeded and mulched within 14 days.
- Areas that are not at final grade where construction has ceased for a period of 21 days or longer and soil stock piles shall receive temporary mulch no later than 14 days from the last construction activity in that area.
- All measures will be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours of being reported.
- Built-up sediment will be removed from behind the silt fence before it has reached halfway up the height of the fence.
- Silt fences will be inspected for bypassing, overtopping, undercutting, depth of sediment, tears, and to ensure attachment to secure posts.

- Sediment basins will be inspected for depth of sediment, and built-up sediment will be removed when it reaches 50 percent of the design capacity and at the end of the job.
- Diversion dikes and berms will be inspected and any breaches promptly repaired. Areas that are eroding or scouring will be repaired and re-seeded / mulched as needed.
- Temporary and permanent seeding and mulching will be inspected for bare spots, washouts, and healthy growth. Bare or eroded areas will be repaired as needed.
- All material storage and equipment servicing areas that involve the management of bulk liquids, fuels, and bulk solids will be inspected weekly for conditions that represent a release or possible release of pollutants to the environment.

G. Non – Storm Water discharges

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

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

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

H. Groundwater Protection Plan (3)

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

- Contractors statement: (3)

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

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

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

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

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

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

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

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

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

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

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

(a) General information about this project is covered in the Project information;
(b) Activities that require a groundwater protection plan have been identified above;
(c) Practices that will protect groundwater from pollution are addressed in section C. Other control measures.
(d) Implementation schedule – all practices required to prevent pollution of groundwater are to be in place prior to conducting the activity;
(e) Training is required as a part of the ground water protection plan. All employees of the contractor, sub-contractor and resident engineer personnel will be trained to understand the nature and requirements of this plan as they pertain to their job

function(s). Training will be accomplished within one week of employment and annually thereafter. A record of training will be maintained by the contractor with a copy provide to the resident engineer.

(f) Areas of the project and groundwater plan activities will be inspected as part of the weekly sediment and erosion control inspections

(g) Certification (see signature page.)

KyTC BMP Plan for Project CID ## -

Contractor and Resident Engineer Plan certification

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

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

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

Resident Engineer and Contractor Certification:

(2) Resident Engineer signature

Signed _____title_____, _____
Typed or printed name[2] signature

(3) Signed _____title_____, _____
Typed or printed name[1] signature

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

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

Sub-Contractor Certification

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

Subcontractor

Name:
Address:
Address:

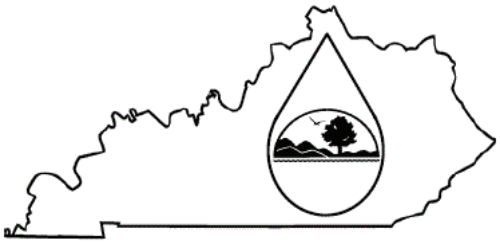
Phone:

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

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

Signed _____title_____, _____
Typed or printed name[1] signature

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



KENTUCKY POLLUTION DISCHARGE ELIMINATION SYSTEM (KPDES)

Notice of Intent (NOI) for coverage of Storm Water Discharge Associated with Construction Activities Under the KPDES Storm Water General Permit KYR100000

Click here for Instructions (Controls/KPDES_FormKYR10_Instructions.htm)

Click here to obtain information and a copy of the KPDES General Permit. (http://dep.ky.gov/formslibrary/Documents/KYR10PermitPage.pdf)

(*) indicates a required field; (✓) indicates a field may be required based on user input or is an optionally required field

Reason for Submittal:(*)	Agency Interest ID:	Permit Number:(✓)
Application for New Permit Coverage	Agency Interest ID	KPDES Permit Number

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

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

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

SECTION I -- FACILITY OPERATOR INFORMATION (PERMITTEE)

Company Name:(✓)	First Name:(✓)	M.I.:	Last Name:(✓)
KYTC Department of Highways - District 4	Paul	MI	Sanders

Mailing Address:(*)	City:(*)	State:(*)	Zip:(*)
634 East Dixie Ave	Elizabethtown	Kentucky	42701

eMail Address:(*)	Business Phone:(*)	Alternate Phone:
paul.sanders@ky.gov	2707665066	Phone

SECTION II -- GENERAL SITE LOCATION INFORMATION

Project Name:(*)	Status of Owner/Operator(*)	SIC Code(*)
CID 21- WK Parkway Pavement Rehab	State Government	1611 Highway and Street Const

Company Name:(✓)	First Name:(✓)	M.I.:	Last Name:(✓)
KYTC Department of Highways - District 4	Paul	MI	Sanders

Site Physical Address:(*)
WK Parkway

City:(*)	State:(*)	Zip:(*)
White Mills	Kentucky	42788

County:(*)	Latitude(decimal degrees)(*)DMS to DD Converter (https://www.fcc.gov/media/radio/dms-decimal)	Longitude(decimal degrees)(*)
Hardin	37.561889	-86.064944

SECTION III -- SPECIFIC SITE ACTIVITY INFORMATION

Project Description:(*)
ADDRESS PAVEMENT CONDITION OF WENDELL H. FORD WESTERN KY PARKWAY BOTH DIRECTION(S) FROM MILEPOINT 120.93 TO MILEPOINT 132.4

a. For single projects provide the following information

Total Number of Acres in Project:(✓)	Total Number of Acres Disturbed:(✓)
2.34	2.34
Anticipated Start Date:(✓)	Anticipated Completion Date:(✓)

b. For common plans of development provide the following information

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

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

	Company Name	
+		

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

Discharge Point(s):

	Unnamed Tributary?	Latitude	Longitude	Receiving Water Name	
1	No	37.648449	-85.905807	West Rhudes Creek	Delete
2	No	37.648958	-85.905911	West Rhudes Creek	Delete
3	Yes	37.634803	-85.930388	West Rhudes Creek	Delete
4	Yes	37.635101	-85.930727	West Rhudes Creek	Delete
5	Yes	37.633152	-85.932837	West Rhudes Creek	Delete
6	Yes	37.631795	-85.934860	West Rhudes Creek	Delete
7	Yes	37.630925	-85.936224	West Rhudes Creek	Delete
8	Yes	37.629711	-85.937936	West Rhudes Creek	Delete
9	Yes	37.628648	-85.940727	West Rhudes Creek	Delete
10	Yes	37.621247	-85.951054	West Rhudes Creek	Delete

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

Name of MS4:

Date of application/notification to the MS4 for construction site permit coverage:	Discharge Point(s):(*)
Date	

	Latitude	Longitude	
+			

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

Will the project require construction activities in a water body or the riparian zone?: (*)	Yes
If Yes, describe scope of activity: (✓)	Asphalt Rehabilitation of an existing roadway.
Is a Clean Water Act 404 permit required?:(*)	No

Is a Clean Water Act 401 Water Quality Certification required?:(*)	No

SECTION VII -- NOI PREPARER INFORMATION

First Name:(*)	M.I.:	Last Name:(*)	Company Name:(*)
Joseph	MI	Ferguson	KYTC Department of Highways - District 4

Mailing Address:(*)	City:(*)	State:(*)	Zip:(*)
634 East Dixie Ave	Elizabethtown	Kentucky	42701

eMail Address:(*)	Business Phone:(*)	Alternate Phone:
joseph.ferguson@ky.gov	2707665066	Phone

SECTION VIII -- ATTACHMENTS

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

SECTION IX -- CERTIFICATION

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

Signature:(*)	Title:(*)
Paul Sanders	Chief District Engineer

First Name:(*)	M.I.:	Last Name:(*)
Paul	MI	Sanders

eMail Address:(*)	Business Phone:(*)	Alternate Phone:	Signature Date:(*)
paul.sanders@ky.gov	2707665066	Phone	Date

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

SPECIAL NOTE

Filing of eNOI for KPDES Construction Stormwater Permit

County: Hardin **Route: WK 9001**
Item No.: 4-20016 **KDOW Submittal ID:** 253098

0474d722-2f22-415f-99e1-f19edfee0227

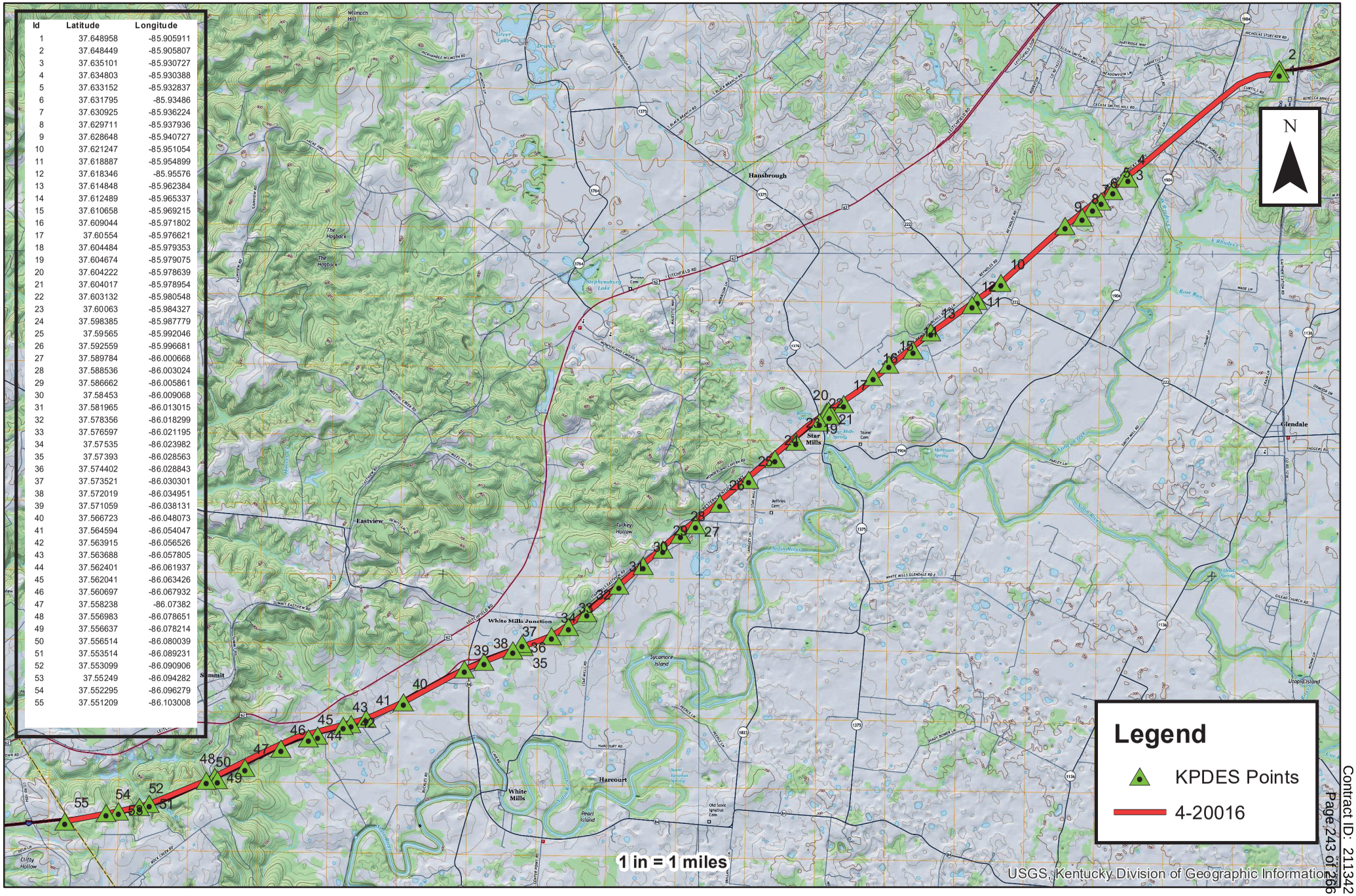
Project Description: ADDRESS PAVEMENT CONDITION OF WENDELL H. FORD WESTERN KY PARKWAY BOTH DIRECTION(S) FROM MILEPOINT 120.93 TO MILEPOINT 132.4

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

If there are any questions regarding this note, please contact David Waldner, Director, Division of Environmental Analysis, TCOB, 200 Mero Street, Frankfort, KY 40622, Phone: (502) 564-7250.

4-20016 - WK Parkway Pavement Rehab Project

Id	Latitude	Longitude
1	37.648958	-85.905911
2	37.648449	-85.905807
3	37.635101	-85.930727
4	37.634803	-85.930388
5	37.633152	-85.932837
6	37.631795	-85.93486
7	37.630925	-85.936224
8	37.629711	-85.937936
9	37.628648	-85.940727
10	37.621247	-85.951054
11	37.618887	-85.954899
12	37.618346	-85.95576
13	37.614848	-85.962384
14	37.612489	-85.965337
15	37.610658	-85.969215
16	37.609044	-85.971802
17	37.60554	-85.976621
18	37.604484	-85.979353
19	37.604674	-85.979075
20	37.604222	-85.978639
21	37.604017	-85.978954
22	37.603132	-85.980548
23	37.60063	-85.984327
24	37.598385	-85.987779
25	37.59565	-85.992046
26	37.592559	-85.996681
27	37.589784	-86.000668
28	37.588536	-86.003024
29	37.586662	-86.005861
30	37.58453	-86.009068
31	37.581965	-86.013015
32	37.578356	-86.018299
33	37.576597	-86.021195
34	37.57535	-86.023982
35	37.57393	-86.028563
36	37.574402	-86.028843
37	37.573521	-86.030301
38	37.572019	-86.034951
39	37.571059	-86.038131
40	37.566723	-86.048073
41	37.564594	-86.054047
42	37.563915	-86.056526
43	37.563688	-86.057805
44	37.562401	-86.061937
45	37.562041	-86.063426
46	37.560697	-86.067932
47	37.558238	-86.07382
48	37.556983	-86.078651
49	37.556637	-86.078214
50	37.556514	-86.080039
51	37.553514	-86.089231
52	37.553099	-86.090906
53	37.55249	-86.094282
54	37.552295	-86.096279
55	37.551209	-86.103008



PART II

SPECIFICATIONS AND STANDARD DRAWINGS

SPECIFICATIONS REFERENCE

Any reference in the plans or proposal to previous editions of the *Standard Specifications for Road and Bridge Construction* and *Standard Drawings* are superseded by *Standard Specifications for Road and Bridge Construction, Edition of 2019* and *Standard Drawings, Edition of 2020.*

SUPPLEMENTAL SPECIFICATIONS

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

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

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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.

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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

11N

SPECIAL NOTE FOR LONGITUDINAL PAVEMENT JOINT ADHESIVE

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

2. MATERIALS, EQUIPMENT, AND PERSONNEL.

2.1 Joint Adhesive. Provide material conforming to Subsection 2.1.1.

2.1.1 Provide an adhesive conforming to the following requirements:

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

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

2.2. Equipment.

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

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

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

3. CONSTRUCTION.

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

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

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

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

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

4. MEASUREMENT. The Department will measure the quantity of Pavement Joint Adhesive in linear feet. The Department will not measure for payment any extra materials, labor, methods, equipment, or construction techniques used to satisfy the requirements of this note. The Department will not measure for payment any trial applications of Pavement Joint Adhesive, the cleaning of the joint face, or furnishing and placing the adhesive. The Department will consider all such items incidental to the Pavement Joint Adhesive.

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

11N

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

Code	Pay Item	Pay Unit
20071EC	Joint Adhesive	Linear Foot

May 7, 2014

SPECIAL PROVISION FOR EMBANKMENT AT BRIDGE END BENT STRUCTURES

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

1.0 DESCRIPTION. Construct a soil, granular, or rock embankment with soil, granular or cohesive pile core and place structure granular backfill, as the Plans require. Construct the embankment according to the requirements of this Special Provision, the Plans, Standard Drawing RGX 100 and 105, and the Standard Specifications, Current Edition.

2.0 MATERIALS.

2.1 Granular Embankment. Conform to Subsection 805.10. When Granular Embankment materials are erodible or unstable according to Subsection 805.03.04, use the Special Construction Methods found in 3.2 of the Special Provision.

2.2 Rock Embankment. Provide durable rock from roadway excavation that consists principally of Unweathered Limestone, Durable Shale (SDI equal to or greater than 95 according to KM 64-513), or Durable Sandstone.

2.3 Pile Core. Provide a pile core in the area of the embankments where deep foundations are to be installed unless otherwise specified. The Pile Core is the zone indicated on Standard Drawings RGX 100 and 105 designated as Pile Core. Material control of the pile core area during embankment construction is always required. Proper Pile Core construction is required for installation of foundation elements such as drilled or driven piles or drilled shafts. The type of material used to construct the pile core is as directed in the plans or below. Typically, the pile core area will be constructed from the same material used to construct the surrounding embankment. Pile Core can be classified as one of three types:

A) Pile Core - Conform to Section 206 of the Standard Specifications. Provide pile core material consisting of the same material as the adjacent embankment except the material in the pile core area shall be free of boulders or particle sizes larger than 4 inches in any dimension or any other obstructions that may hinder pile driving operations. If the pile core material hinders pile driving operations, take the appropriate means necessary to reach the required pile tip elevation, at no expense to the Department.

B) Granular Pile Core. Granular pile core is required only when specified in the plans. Select a gradation of durable rock to facilitate pile driving that conforms to Subsection 805.11. If granular pile core material hinders pile driving operations, take appropriate means necessary to reach the required pile tip elevation, at no expense to the Department.

C) Cohesive Pile Core. Cohesive Pile Core is required only when specified in the plans. Conform to Section 206 of the Standard Specifications and use soil with at least 50 percent passing a No. 4 sieve having a minimum Plasticity Index (PI) of 10. In addition, keep the cohesive pile core free of boulders, larger than 4 inches in any dimension, or any other obstructions, which would interfere with drilling operations. If cohesive pile core material interferes with drilling operations, take appropriate means necessary to maintain

excavation stability, at no expense to the Department.

2.4 Structure Granular Backfill. Conform to Subsection 805.11

2.5 Geotextile Fabric. Conform to Type I or Type IV in Section 214 and 843.

3.0 CONSTRUCTION.

3.1 General. Construct roadway embankments at end bents according to Section 206 and in accordance with the Special Provision, the Plans, and Standard Drawings for the full embankment section. In some instances, granular or rock embankment will be required for embankment construction for stability purposes, but this special provision does not prevent the use of soil when appropriate. Refer to the plans for specific details regarding material requirements for embankment construction.

Place and compact the pile core and structure granular backfill according to the applicable density requirements for the project. If the embankment and pile core are dissimilar materials (i.e., a granular pile core is used with a soil embankment or a cohesive pile core is used with a granular embankment), a Geotextile Fabric, Type IV, will be required between the pile core and embankment in accordance with Sections 214 and 843 of the Standard Specifications.

When granular or rock embankment is required for embankment construction, conform to the general requirements of Subsection 206.03.02 B. In addition, place the material in no greater than 2-foot loose lifts and compact with a vibrating smooth wheel roller capable of producing a minimum centrifugal force of 15 tons. Apply these requirements to the full width of the embankment for a distance of half the embankment height or 50 feet, whichever is greater, as shown on Standard Drawing RGX-105.

When using granular pile core, install 8-inch perforated underdrain pipe at or near the elevation of the original ground in the approximate locations depicted on the standard drawing, and as the Engineer directs, to ensure positive drainage of the embankment. Wrap the perforated pipe with a fabric of a type recommended by the pipe manufacturer.

After constructing the embankment, excavate for the end bent cap, drive piling, install shafts or other foundation elements, place the mortar bed, construct the end bent, and complete the embankment to finish grade according to the construction sequence shown on the Plans or Standard Drawings and as specified hereinafter.

Certain projects may require widening of existing embankments and the removal of substructures. Construct embankment according to the plans. Substructure removal shall be completed according to the plans and Section 203. Excavation may be required at the existing embankment in order to place the structure granular backfill as shown in the Standard Drawings.

After piles are driven or shafts installed (see design drawings), slope the bottom of the excavation towards the ends of the trench as noted on the plans for drainage. Using a separate pour, place concrete mortar, or any class concrete, to provide a base for forming and placing the cap. Place side forms for the end bent after the mortar has set sufficiently to support workmen and forms without being disturbed.

Install 4-inch perforated pipe in accordance with the plans and Standard Drawings. In the event slope protection extends above the elevation of the perforated pipe, extend the pipe through the slope protection.

After placing the end bent cap and achieving required concrete cylinder strengths, remove adjacent forms and fill the excavation with compacted structure granular backfill material (maximum 1’ loose lifts) to the level of the berm prior to placing beams for the bridge. Place Type IV geotextile fabric between embankment material and structure granular backfill. After completing the end bent backwall, or after completing the span end

wall, place the compacted structure granular backfill (maximum 1' loose lifts) to subgrade elevation. If the original excavation is enlarged, fill the entire volume with compacted structure granular backfill (maximum 1' loose lifts) at no expense to the Department. Do not place backfill before removing adjacent form work. Place structure granular backfill material in trench ditches at the ends of the excavation. Place Geotextile Fabric, Type IV over the surface of the compacted structure granular backfill prior to placing aggregate base course.

Tamp the backfill with hand tampers, pneumatic tampers, or other means approved by the Engineer. Thoroughly compact the backfill under the overhanging portions of the structure to ensure that the backfill is in intimate contact with the sides of the structure.

Do not apply seeding, sodding, or other vegetation to the exposed granular embankment.

3.2 Special Construction Methods. Erodible or unstable materials may erode even when protected by riprap or channel lining; use the special construction method described below when using these materials.

Use fine aggregates or friable sandstone granular embankment at "dry land" structures only. Do not use them at stream crossings or locations subject to flood waters.

For erodible or unstable materials having 50 percent or more passing the No. 4 sieve, protect with geotextile fabric. Extend the fabric from the original ground to the top of slope over the entire area of the embankment slopes on each side of, and in front of, the end bent. Cover the fabric with at least 12 inches of non-erodible material.

For erodible or unstable materials having less than 50 percent passing a No. 4 sieve, cover with at least 12 inches of non-erodible material.

Where erodible or unstable granular embankment will be protected by riprap or channel lining, place Type IV geotextile fabric between the embankment and the specified slope protection.

4.0 MEASUREMENT.

4.1 Granular Embankment. The Department will measure the quantity in cubic yards using the plan quantity, increased or decreased by authorized adjustments as specified in Section 204. The Department will not measure for payment any Granular Embankment that is not called for in the plans.

The Department will not measure for payment any special construction caused by using erodible or unstable materials and will consider it incidental to the Granular Embankment regardless of whether the erodible or unstable material was specified or permitted.

4.2 Rock Embankment. The Department will not measure for payment any rock embankment and will consider it incidental to roadway excavation or embankment in place, as applicable. Rock embankments will be constructed using granular embankment on projects where there is no available rock present within the excavation limits of the project.

4.3 Pile Core. Pile core will be measured and paid under roadway excavation or embankment in place, as applicable. The Department will not measure the pile core for separate payment. The Department will not measure for payment the 8-inch perforated underdrain pipe and will consider it incidental to the Pile Core.

4.4 Structure Granular Backfill. The Department will measure the quantity in cubic yards using the plan quantity, increased or decreased by authorized adjustments as specified in Section 204. The Department will not measure any additional material required for backfill outside the limits shown on the Plans and Standard Drawings for payment and will

consider it incidental to the work.

The Department will not measure for payment the 4-inch perforated underdrain pipe and will consider it incidental to the Structure Granular Backfill.

4.5 Geotextile Fabric. The Department will not measure the quantity of fabric used for separating dissimilar materials when constructing the embankment and pile core and will consider it incidental to embankment construction.

The Department will not measure for payment the Geotextile Fabric used to separate the Structure Granular Backfill from the embankment and aggregate base course and will consider it incidental to Structure Granular Backfill.

The Department will not measure for payment the Geotextile Fabric required for construction with erodible or unstable materials and will consider it incidental to embankment construction.

4.6 End Bent. The Department will measure the quantities according to the Contract. The Department will not measure furnishing and placing the 2-inch mortar or concrete bed for payment and will consider it incidental to the end bent construction.

4.7 Structure Excavation. The Department will not measure structure excavation on new embankments for payment and will consider it incidental to the Structure Granular Backfill or Concrete as applicable.

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

Code	Pay Item	Pay Unit
02223	Granular Embankment	Cubic Yards
02231	Structure Granular Backfill	Cubic Yards

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

September 16, 2016

PART III

EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS

LABOR AND WAGE REQUIREMENTS
APPLICABLE TO OTHER THAN FEDERAL-AID SYSTEM PROJECTS

I. Application
II. Nondiscrimination of Employees (KRS 344)

I. APPLICATION

1. These contract provisions shall apply to all work performed on the contract by the contractor with his own organization and with the assistance of workmen under his immediate superintendence and to all work performed on the contract by piecework, station work or by subcontract. The contractor's organization shall be construed to include only workmen employed and paid directly by the contractor and equipment owned or rented by him, with or without operators.

2. The contractor shall insert in each of his subcontracts all of the stipulations contained in these Required Provisions and such other stipulations as may be required.

3. A breach of any of the stipulations contained in these Required Provisions may be grounds for termination of the contract.

II. NONDISCRIMINATION OF EMPLOYEES

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

Kentucky Equal Employment Opportunity Act of 1978

The requirements of the Kentucky Equal Employment Opportunity Act of 1978 (KRS 45.560-45.640) shall apply to this Contract. The apparent low Bidder will be required to submit EEO forms to the Division of Construction Procurement, which will then forward to the Finance and Administration Cabinet for review and approval. No award will become effective until all forms are submitted and EEO/CC has certified compliance. The required EEO forms are as follows:

- EEO-1: Employer Information Report
- Affidavit of Intent to Comply
- Employee Data Sheet
- Subcontractor Report

These forms are available on the Finance and Administration's web page under ***Vendor Information, Standard Attachments and General Terms*** at the following address: **https://www.eProcurement.ky.gov**.

Bidders currently certified as being in compliance by the Finance and Administration Cabinet may submit a copy of their approval letter in lieu of the referenced EEO forms.

For questions or assistance please contact the Finance and Administration Cabinet by email at **finance.contractcompliance@ky.gov** or by phone at 502-564-2874.

EMPLOYEE RIGHTS
UNDER THE FAIR LABOR STANDARDS ACT

THE UNITED STATES DEPARTMENT OF LABOR WAGE AND HOUR DIVISION

FEDERAL MINIMUM WAGE
$7.25 PER HOUR
BEGINNING JULY 24, 2009

OVERTIME PAY

At least 1½ times your regular rate of pay for all hours worked over 40 in a workweek.

CHILD LABOR

An employee must be at least **16** years old to work in most non-farm jobs and at least **18** to work in non-farm jobs declared hazardous by the Secretary of Labor.

Youths **14** and **15** years old may work outside school hours in various non-manufacturing, non-mining, non-hazardous jobs under the following conditions:

No more than

- **3** hours on a school day or **18** hours in a school week;
- **8** hours on a non-school day or **40** hours in a non-school week.

Also, work may not begin before **7 a.m.** or end after **7 p.m.**, except from June 1 through Labor Day, when evening hours are extended to **9 p.m.** Different rules apply in agricultural employment.

TIP CREDIT

Employers of "tipped employees" must pay a cash wage of at least $2.13 per hour if they claim a tip credit against their minimum wage obligation. If an employee's tips combined with the employer's cash wage of at least $2.13 per hour do not equal the minimum hourly wage, the employer must make up the difference. Certain other conditions must also be met.

ENFORCEMENT

The Department of Labor may recover back wages either administratively or through court action, for the employees that have been underpaid in violation of the law. Violations may result in civil or criminal action.

Employers may be assessed civil money penalties of up to $1,100 for each willful or repeated violation of the minimum wage or overtime pay provisions of the law and up to $11,000 for each employee who is the subject of a violation of the Act's child labor provisions. In addition, a civil money penalty of up to $50,000 may be assessed for each child labor violation that causes the death or serious injury of any minor employee, and such assessments may be doubled, up to $100,000, when the violations are determined to be willful or repeated. The law also prohibits discriminating against or discharging workers who file a complaint or participate in any proceeding under the Act.

ADDITIONAL INFORMATION

- Certain occupations and establishments are exempt from the minimum wage and/or overtime pay provisions.
- Special provisions apply to workers in American Samoa and the Commonwealth of the Northern Mariana Islands.
- Some state laws provide greater employee protections; employers must comply with both.
- The law requires employers to display this poster where employees can readily see it.
- Employees under 20 years of age may be paid $4.25 per hour during their first 90 consecutive calendar days of employment with an employer.
- Certain full-time students, student learners, apprentices, and workers with disabilities may be paid less than the minimum wage under special certificates issued by the Department of Labor.

For additional information:

1-866-4-USWAGE

(1-866-487-9243) TTY: 1-877-889-5627

WHD U.S. Wage and Hour Division

WWW.WAGEHOUR.DOL.GOV

U.S. Department of Labor | Wage and Hour Division

WHD Publication 1088 (Revised July 2009)

PART IV

INSURANCE

Refer to
Kentucky Standard Specifications for Road and Bridge Construction,
current edition

PART V

BID ITEMS

211342

PROPOSAL BID ITEMS

Report Date 9/23/21

Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00001		DGA BASE	22,439.00	TON		$	
0020	00100		ASPHALT SEAL AGGREGATE	2,170.50	TON		$	
0030	00103		ASPHALT SEAL COAT	260.50	TON		$	
0040	00190		LEVELING & WEDGING PG64-22	633.00	TON		$	
0050	00194		LEVELING & WEDGING PG76-22	434.00	TON		$	
0060	00219		CL4 ASPH BASE 1.00D PG76-22	61,704.00	TON		$	
0070	00339		CL3 ASPH SURF 0.38D PG64-22	10,906.00	TON		$	
0080	00342		CL4 ASPH SURF 0.38A PG76-22	31,147.00	TON		$	
0090	00356		ASPHALT MATERIAL FOR TACK	369.10	TON		$	
0100	02091		REMOVE PAVEMENT	3,759.50	SQYD		$	
0110	02676		MOBILIZATION FOR MILL & TEXT	1.00	LS		$	
0120	02677		ASPHALT PAVE MILLING & TEXTURING	88,252.00	TON		$	
0130	20071EC		JOINT ADHESIVE	240,973.00	LF		$	

Section: 0002 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0140	00078		CRUSHED AGGREGATE SIZE NO 2	2,113.00	TON		$	
0150	01691		FLUME INLET TYPE 2	4.00	EACH		$	
0160	01718		REMOVE INLET	4.00	EACH		$	
0170	01982		DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	460.00	EACH		$	
0180	01987		DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE	6.00	EACH		$	
0190	01990		DELINEATOR FOR BARRIER WALL-B/W	8.00	EACH		$	
0200	02003		RELOCATE TEMP CONC BARRIER	1,060.00	LF		$	
0210	02200		ROADWAY EXCAVATION	358.00	CUYD		$	
0220	02220		FLOWABLE FILL	26.00	CUYD		$	
0230	02230		EMBANKMENT IN PLACE	3,324.00	CUYD		$	
0240	02262		FENCE-WOVEN WIRE TYPE 1	200.00	LF		$	
0250	02265		REMOVE FENCE	200.00	LF		$	
0260	02367		GUARDRAIL END TREATMENT TYPE 1	40.00	EACH		$	
0270	02369		GUARDRAIL END TREATMENT TYPE 2A	40.00	EACH		$	
0280	02373		GUARDRAIL END TREATMENT TYPE 3	1.00	EACH		$	
0290	02381		REMOVE GUARDRAIL	33,941.80	LF		$	
0300	02471		FILL AND CAP SINKHOLE	10.00	EACH		$	
0310	02483		CHANNEL LINING CLASS II	293.00	TON		$	
0320	02555		CONCRETE-CLASS B	2.00	CUYD		$	
0330	02562		TEMPORARY SIGNS	1,000.00	SQFT		$	
0340	02575		DITCHING AND SHOULDERING	59,192.00	LF		$	
0350	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		$	
0360	02671		PORTABLE CHANGEABLE MESSAGE SIGN	2.00	EACH		$	
0370	02690		SAFELOADING	5.00	CUYD		$	
0380	02701		TEMP SILT FENCE	2,565.00	LF		$	
0390	02703		SILT TRAP TYPE A	7.00	EACH		$	
0400	02704		SILT TRAP TYPE B	11.00	EACH		$	

PROPOSAL BID ITEMS

211342

Report Date 9/23/21

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0410	02705		SILT TRAP TYPE C	11.00	EACH		$	
0420	02706		CLEAN SILT TRAP TYPE A	7.00	EACH		$	
0430	02707		CLEAN SILT TRAP TYPE B	11.00	EACH		$	
0440	02708		CLEAN SILT TRAP TYPE C	11.00	EACH		$	
0450	02726		STAKING	1.00	LS		$	
0460	02775		ARROW PANEL	2.00	EACH		$	
0470	02898		RELOCATE CRASH CUSHION	1.00	EACH		$	
0480	02929		CRASH CUSHION TYPE IX	8.00	EACH		$	
0490	03171		CONCRETE BARRIER WALL TYPE 9T	1,060.00	LF		$	
0500	05950		EROSION CONTROL BLANKET	1,000.00	SQYD		$	
0510	05963		INITIAL FERTILIZER	.50	TON		$	
0520	05964		MAINTENANCE FERTILIZER	.30	TON		$	
0530	05985		SEEDING AND PROTECTION	10,164.00	SQYD		$	
0540	05992		AGRICULTURAL LIMESTONE	6.00	TON		$	
0550	06401		FLEXIBLE DELINEATOR POST-M/W	981.00	EACH		$	
0560	06404		FLEXIBLE DELINEATOR POST-M/Y	80.00	EACH		$	
0570	06511		PAVE STRIPING-TEMP PAINT-6 IN	256,784.00	LF		$	
0580	06514		PAVE STRIPING-PERM PAINT-4 IN	1,022.00	LF		$	
0590	06542		PAVE STRIPING-THERMO-6 IN W	153,040.00	LF		$	
0600	06543		PAVE STRIPING-THERMO-6 IN Y	122,249.00	LF		$	
0610	06546		PAVE STRIPING-THERMO-12 IN W	3,157.00	LF		$	
0620	06549		PAVE STRIPING-TEMP REM TAPE-B	4,000.00	LF		$	
0630	06550		PAVE STRIPING-TEMP REM TAPE-W	2,000.00	LF		$	
0640	06551		PAVE STRIPING-TEMP REM TAPE-Y	2,000.00	LF		$	
0650	06568		PAVE MARKING-THERMO STOP BAR-24IN	152.00	LF		$	
0660	08301		REMOVE SUPERSTRUCTURE EXISTING KY 222 BRIDGE	1.00	LS		$	
0670	08903		CRASH CUSHION TY VI CLASS BT TL3	1.00	EACH		$	
0680	10020NS		FUEL ADJUSTMENT	96,864.00	DOLL	$1.00	$	$96,864.00
0690	10030NS		ASPHALT ADJUSTMENT	188,683.00	DOLL	$1.00	$	$188,683.00
0700	20362ES403		SHOULDER RUMBLE STRIPS-SAWED	244,498.00	LF		$	
0710	20432ES112		REMOVE CRASH CUSHION	8.00	EACH		$	
0720	21802EN		G/R STEEL W BEAM-S FACE (7 FT POST)	32,549.80	LF		$	
0730	24489EC		INLAID PAVEMENT MARKER	1,687.00	EACH		$	
0740	24891EC		PAVE MOUNT INFRARED TEMP EQUIPMENT	6,695,387.00	SF		$	
0750	25079ED		THRIE BEAM GUARDRAIL TRANSITION TL-2	4.00	EACH		$	
0760	26136EC		PORTABLE QUEUE WARNING ALERT SYSTEM	10.00	MONT		$	
0770	26137EC		QUEUE WARNING PCMS	40.00	MONT		$	
0780	26138EC		QUEUE WARNING PORTABLE RADAR SENSORS	40.00	MONT		$	

Section: 0003 - DRAINAGE

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0790	00461		CULVERT PIPE-15 IN	8.00	LF		$	
0800	00462		CULVERT PIPE-18 IN	8.00	LF		$	
0810	01202		PIPE CULVERT HEADWALL-15 IN	1.00	EACH		$	
0820	01204		PIPE CULVERT HEADWALL-18 IN	1.00	EACH		$	

PROPOSAL BID ITEMS

211342

Report Date 9/23/21

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0830	02484		CHANNEL LINING CLASS III	15.00	TON		$	
0840	20366NN		REPLACE GRATE	2.00	EACH		$	

Section: 0004 - BRIDGE - KY 222 OVER WESTERN KY PKWY (WK-9001)

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0850	02231		STRUCTURE GRANULAR BACKFILL	14.20	CUYD		$	
0860	02403		REMOVE CONCRETE MASONRY	44.40	CUYD		$	
0870	02998		MASONRY COATING	368.00	SQYD		$	
0880	03299		ARMORED EDGE FOR CONCRETE	53.10	LF		$	
0890	08100		CONCRETE-CLASS A	126.90	CUYD		$	
0900	08104		CONCRETE-CLASS AA	176.30	CUYD		$	
0910	08150		STEEL REINFORCEMENT	12,403.00	LB		$	
0920	08151		STEEL REINFORCEMENT-EPOXY COATED	65,965.00	LB		$	
0930	08669		PRECAST PC BOX BEAM SB21	796.00	LF		$	
0940	23378EC		CONCRETE SEALING	12,072.00	SQFT		$	
0950	25028ED		RAIL SYSTEM SINGLE SLOPE - 40 IN	463.40	LF		$	

Section: 0005 - DEMOBILIZATION &/OR MOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0960	02568		MOBILIZATION	1.00	LS		$	
0970	02569		DEMOBILIZATION	1.00	LS		$	