CALL NO. 300

CONTRACT ID. 192254

HARDIN COUNTY

FED/STATE PROJECT NUMBER FD04 047 31WB 000-001

DESCRIPTION HARDIN COUNTY (US 31WB)

WORK TYPE JPC PAVEMENT REPAIRS - DIAMOND GRINDING

PRIMARY COMPLETION DATE 7/31/2020

LETTING DATE: October 25,2019

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN DAYLIGHT TIME October 25,2019. 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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PART I

SCOPE OF WORK

ADMINISTRATIVE DISTRICT - 04

CONTRACT ID - 192254

FD04 047 31WB 000-001

COUNTY - HARDIN

PCN - MP04731WB1901
FD04 047 31WB 000-001

ELIZABETHTOWN BYPASS (US 31WB) (MP 0.000) FROM KY 1136 EXTENDING NORTH TO THE SOUTH END OF THE BRIDGE OVER THE WESTERN KENTUCKY PARKWAY (MP 0.246), A DISTANCE OF 0.25 MILES.JPC PAVEMENT REPAIRS - DIAMOND GRINDING

GEOGRAPHIC COORDINATES LATITUDE 37:40:37.00 LONGITUDE 85:51:37.00

COMPLETION DATE(S):

COMPLETED BY 07/31/2020	SPECIFIED COMPLETION DATE ALL ITEMS IN CONTRACT
0 WORKING Hours	LANE CLOSURES DURING PROHIBTED HOURS
0 WORKING Days	FAILURE TO REPLACE FAILED REMOVABLE STRIPING TAPE

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

NATIONAL HIGHWAY

Be advised that Ramp "D" on project FD04 047 31WB 000-001 is on the NATIONAL HIGHWAY SYSTEM.

PROJECT TRAFFIC COORDINATOR (PTC)

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

SURFACING AREAS

The Department estimates the mainline and ramp surfacing width to vary 12-48 feet.
The Department estimates the total mainline and ramp area to be surfaced with JPC Pavement-9" to be 1,185 square yards.
The Department estimates the shoulder width to be 11 feet on each side.
The Department estimates the total shoulder area to be surfaced with asphalt pavement to be 1,030 square yards.

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.

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-110-07 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.

JPC PAVEMENT SMOOTHNESS

JPC Pavement Smoothness requirements (Category B) shall apply on this project in accordance with Section 501 of the 2019 Standard Specifications.

OPTION B

Be advised that the Department will control and accept compaction of asphalt mixtures furnished on this project under OPTION B in accordance with Sections 402 and 403.

SPECIAL NOTE FOR JPC PAVEMENT

THIS PROJECT IS A PARTIALLY CONTROLLED ACCESS HIGHWAY

I. DESCRIPTION

Except as specified herein, construct Jointed Plain Concrete (JPC) Pavement in accordance with the Department's 2019 Standard and Supplemental Specifications, Special Provisions and Special Notes, and Standard and Sepia Drawings, current editions, and as directed by the Engineer. Section references are to the Standard Specifications. Furnish all materials, labor, equipment, and incidentals for the following work:

(1) Maintain and control traffic; (2) Site Preparation and Erosion Control; and (3) Remove existing PCC pavement and replace with JPC Pavement-9 Inch; (4) Construct Edge Drain Sytem; (5) Partial Depth Patching; (6) Diamond Grind JPC Pavement; (7) Saw, clean, and Reseal existing joints; and (6) All other work specified as part of this contract.

II. MATERIALS

The Department will sample and test all materials according to the Department's Sampling Manual. Make the materials available for sampling a sufficient time in advance of use, to allow for the necessary time for testing, unless otherwise specified in these notes.

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

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

C. Crushed Stone Base. Furnish Crushed Stone Base. Do **NOT** furnish Dense Graded Aggregate in lieu of Crushed Stone Base.

D. JPC Pavement-9 Inch. See Special note for Full Depth Concrete Pavement Repair 11J. Use Class P or Class A Concrete. At the Contractor's request and at no additional cost to the Department, the Engineer may approve high early strength rapid setting concrete; however, the Engineer will not approve chloride accelerators. The Department will allow either central mixing or truck mixing.

E. Joint Sealant. Use Hot-Poured Elastic, no alternate.

F. Partial Depth Patching. Use Fibercrete (marketingassociatesinc.com).

G. Edge Drains. See Section 704.

III. CONSTRUCTION METHODS

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

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

C. Site Preparation. Be responsible for all site preparation, including but not limited to, incidental excavation and backfilling; removal of all obstructions or any other items; disposal of materials; sweeping and removal of debris; temporary and permanent erosion and pollution control; final dressing, clean up, and seeding; and all incidentals. Perform all Site Preparation only as approved or directed by the Engineer. See Special Note for Erosion Control.

D. Pavement Removal. Consider pavement removal locations and dimensions shown on the drawings to be approximate only; the Engineer will determine exact locations and dimensions at the time of construction and mark areas to be removed. Prior to removal, saw-cut existing pavement at locations directed by the Engineer to provide a neat edge where new concrete will adjoin existing pavement. Remove existing pavement and underlying DGA or other stone base as necessary to provide for the specified thickness of the replacement JPC Pavement without unnecessarily disturbing the remaining base by any method approved by the Engineer.

E. Preparation of Base. Immediately after pavement removal, compact the existing aggregate base to the Engineer's satisfaction. The Engineer will accept compaction by either visual inspection or by nuclear gauge. When the Engineer deems it necessary to stabilize the existing base, use Crushed Stone Base. The Contractor may use flowable fill and cement stabilization as an alternative to stabilize the existing base or to replace unsuitable materials, at the Contractors request and at no additional cost to the Department when a plan for such is presented to and approved by the Engineer. During compaction, wet the base as the Engineer directs. Compact areas not accessible to compaction equipment by hand tamping.

F. JPC Pavement. Except as provided herein, construct JPC Pavement-9 Inch according to the Special note for Full Depth Concrete Pavement Repair 11J. Prior to pavement removal and placing JPC Pavement, obtain the Engineer's approval of proposed method of construction for ensuring and establishing a smooth profile. Immediately after removing pavement, stabilize any exposed DGA base as directed by the Engineer and place JPC. Install dowel bars and tie bars according to the Standard Drawings in both pavement and shoulders. Do not allow an area with removed pavement within (10) ten feet of traffic during non-working hours. If any such areas exist, perform pavement removal, base stabilization, and construct the JPC Pavement as one continuous operation. Construct the replacement JPC Pavement to be a minimum

depth of 9 inches after Diamond Grinding; however, transition the finished grade to match adjacent pavement that is to remain in place; therefore, the actual thickness of the pavement may be greater than 9 inches in some areas. Consolidate the concrete, strike off, machine finish with a vibrating or roller screed, and straightedge the plastic concrete with a straightedge conforming to Section 501.02.18. The Department will not require texturing, use a broom finish. Do not seal the joints until after Diamond Grinding. Test the profile of the finished pavement according to Section 501.03.19. Provide positive drainage upon completion of construction.

G. Curing. Use curing blankets only. Do not use burlap curing or white membrane curing compound. If the Contractor elects to us JPC Pavement 24/48/72, cure as follows when overnight ambient temperatures are expected to be below 50 °F:

1) When overnight ambient temperatures are expected to be below 50 °F, cover the concrete with one of the following:
   a) 1 layer of closed-cell polystyrene foam protected by at least one layer of plastic film;
   b) 2 layers of burlap covered with one layer of 4-mil plastic;
   c) 3 inches of hay or straw covered with one layer of 4-mil plastic;
   d) a Department approved alternate.

2) When overnight ambient temperatures are expected to be below 40 °F, cover the concrete with one of the following:
   a) 2 layers of closed-cell polystyrene foam protected by at least one layer of plastic film;
   b) 4 layers of burlap covered with one layer of 4-mil plastic;
   c) 6 inches of hay or straw covered with 4-mil plastic;
   d) a Department approved alternative.

The Department will allow placement of the insulating cover to be delayed for up to 4 hours to accommodate sawing joints. The Department will allow temporary removal of the cover to accommodate sawing and sealing joints. The Department will allow permanent removal of the cover when the concrete attains the required opening strength of 3,000 psi.

H. Joints in New JPC. Saw joints in the new JPC according to Special note for Full Depth Concrete Pavement Repair 11J. After Diamond Grinding, Clean and seal the joint with Hot-poured Elastic after Diamond Grinding.

I. Diamond Grinding. Perform Diamond Grinding on the new JPC and existing PCCP Pavements. See Special Note for Diamond Grinding.

J. Ride Quality. See Section 501.03.19, category B (after Diamond Grinding).

K. Joints in Existing PCCP. See Special Note for Diamond Grinding.

L. Partial Depth Patching. Perform partial depth patching at sites designated by the Engineer at the time of construction according to the manufacturer's specifications.

M. Edge Drain. Construct edge drain system on the right side of the new pavement in the vicinity of Bush Lane. The Engineer will determine the exact termini of the system at the time of construction. See Special Note for Edge Drain, the drawings, and Section 704.

N. Disposal of Waste. Dispose of all waste and debris off the right-of-way at sites obtained by the Contractor at no additional cost to the Department. See Special Note for Waste and Borrow and Special Note for Concrete Slurry.

O. Pavement Markings. See Traffic Control Plan.

P. On-Site Inspection. Prior to submitting a bid, make a thorough inspection of the site and become thoroughly familiar with the existing conditions so that the work can be expeditiously performed after contract award. The Department will consider submission of a bid as evidence of this inspection having been made. The Department will not honor any claims resulting from site conditions.

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

R. Caution. Consider information shown on the drawings and in this proposal and the types and quantities of work listed are approximate only, and not 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 no claim will be considered for additional compensation or Contract time if the conditions encountered are not in accordance with the information shown.

S. Utility Clearance. Determine the location of all underground and overhead utilities prior to construction. It is not anticipated that utility facilities will need to be relocated and/or adjusted; however, in the event that work does require relocation and/or adjustment, the utility companies will work concurrently with the Contractor while relocating their facilities.

T. Final Dressing, Clean Up, and Seeding and Protection. After all work is completed, remove all waste and debris from the construction sites. Remove all temporary shoulder widening and restore disturbed shoulders. Perform Class A final dressing on all disturbed areas. Sow disturbed earthen areas according to the Special Note for Erosion Comtrol.

IV. METHOD OF MEASUREMENT

The Department will measure only the bid items listed. All other items required to complete the construction shall be incidental to the listed bid items.

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

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

C. Crushed Stone Base. See Section 302.04.02.

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

E. Remove Pavement. The Department will measure the actual quantity of removed pavement in square yards regardless of type. The Department will not measure removal of underlying base material but shall be incidental to Remove Pavement.

F. JPC Pavement-9 Inch. See Special Note for Full Depth Concrete Pavement Repair 11J, except the Department will measure the actual pavement area.

G. Joint Sealing. The Department will not measure sawing, cleaning, and sealing joints in new JPC Pavement-9 Inch for payment, but shall be incidental to JPC Pavement-9 Inch.

H. Smooth Dowels, Deformed Tie Bars, and Hook Bolts. The Department will not measure smooth dowels, deformed tie bars and hook bolts, but shall be incidental to JPC Pavement-9 Inch.

I. Edge Drains. See Special Note For Edge Drain.

J. Diamond Grinding. See Special Note foe Diamond Grinding.

K. Saw, Clean, and Re-sealing Existing Joints. See Special Note foe Diamond Grinding.

L. Partial Depth Patching. The department will measure Partial Depth Patching in Cubic Feet.

IV. BASIS OF PAYMENT

The Department will make payment only for the bid items listed. All other items required to complete the construction shall be incidental to the bid items listed.

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

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

C. Crushed Stone Base. See Section 302.05.

D. Remove Pavement. Accept payment at the Contract unit price per square yard as full compensation for all labor, materials, equipment, and incidentals for removing and disposing of pavement and underlying base materials.

E. JPC Pavement-9 Inch. See Special Note for Full Depth Concrete Pavement Repair 11J,

F. Diamond Grinding. See Special Note for Diamond Grinding..

G. Edge Drains. See Special Note for Edge Drain.

H. Partial Depth Patching. Accept payment at the Contract unit price per Cubic Foot as full compensation for all labor, materials, equipment, and incidentals for removing and disposing of PCC Pavement and placing Partial Depth Patches.

SPECIAL NOTE FOR DIAMOND GRINDING

I. DESCRIPTION

Except as specified herein, Diamond Grind new JCP and existing PCCP pavements in accordance with the Department's 2019 Standard and Supplemental Specifications, Special Provisions and Special notes, and Standard and Sepia Drawings, current editions, and as directed by the Engineer. Section references are to the Standard Specifications. Furnish all materials, labor, equipment, and incidentals for the following work:

(1) Maintain and Control Traffic; (2) Diamond Grind new JPC pavement and existing JPC pavement to remain in place; and (3) All other work specified as part of this contract.

II. MATERIALS

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

B. Joint Sealant. Use Hot-Poured Elastic, no alternate.

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

III. CONSTRUCTION

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

B. Diamond Grinding. See Section 503.03.01 through 501.03.04 and the Special Note for Concrete Slurry. Diamond Grind the entire area of new JCP and existing PCCP on Ramp D and between KY 1136 and the Western Kentucky Parkway overpass.

C. Joint Sealing. See Section 501.03.18, except use hot-poured elastic only, no alternate.

D. Texture. See Section 503.03.07.

E. Alignment Tolerances. See Section 503.03.08.

F. Ride Quality. See Section 503.03.09 for Category B.

G. Pavement Markings. See Section 503.03.06. Before opening to traffic apply temporary painted markings or the permanent markings.

IV. MEASUREMENT

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

B. Diamond Grinding. See Section 503.04.01 except the Department will field measure the actual area ground.

C. Joint Sealing. The Department will **NOT** measure cleaning and sealing the joints in the new JPC pavement. The Department will measure sawing, cleaning, and sealing joints in the existing PCCP Pavement according to section 503.04.02.

D. Pavement Markings. The Department will **NOT** measure temporary painted pavement markings. For permanent pavement markings, see the Traffic Control Plan and Section 717.05.

V. PAYMENT

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

B. Diamond Grinding. See Section 503.05.

C. Joint Sealing. The Department will **NOT** make payment for cleaning and sealing the joints in the new JPC pavement. The Department will measure sawing, cleaning, and sealing joints in the existing PCCP Pavement according to section 503.05.

D. Pavement Markings. See the traffic Control Plan and Section 717.04.

SPECIAL NOTE FOR CONCRETE SLURRY

If Diamond Grinding, Pavement Grooving or any other process which produces slurry is required on roadways or bridges, ensure that all concrete slurry associated with these processes is collected, managed, and disposed of appropriately. Dispose of the waste material at a permitted disposal facility, in accordance with the 2019 Kentucky Standard Specifications for Road and Bridge Construction and the Environmental Performance Standards outlined in 401 KAR 47:030, or manage as a material for beneficial reuse. Be responsible for any fines or remediation related to improper disposal at no additional cost to the Department.

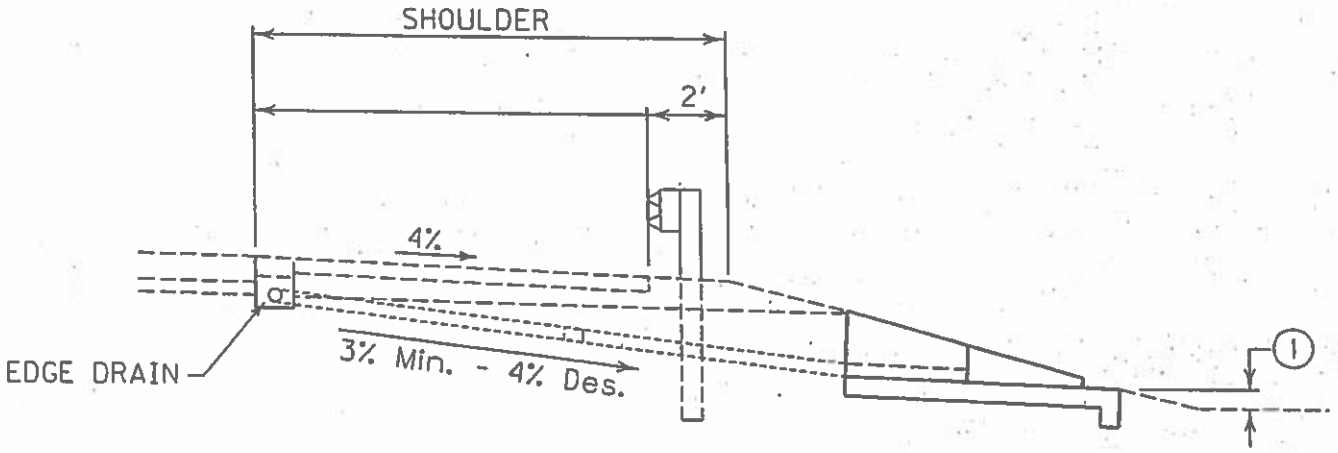
The Department will not measure for payment disposal of concrete slurry, but shall be considered incidental to other bid items.

SPECIAL NOTE FOR EDGE DRAIN

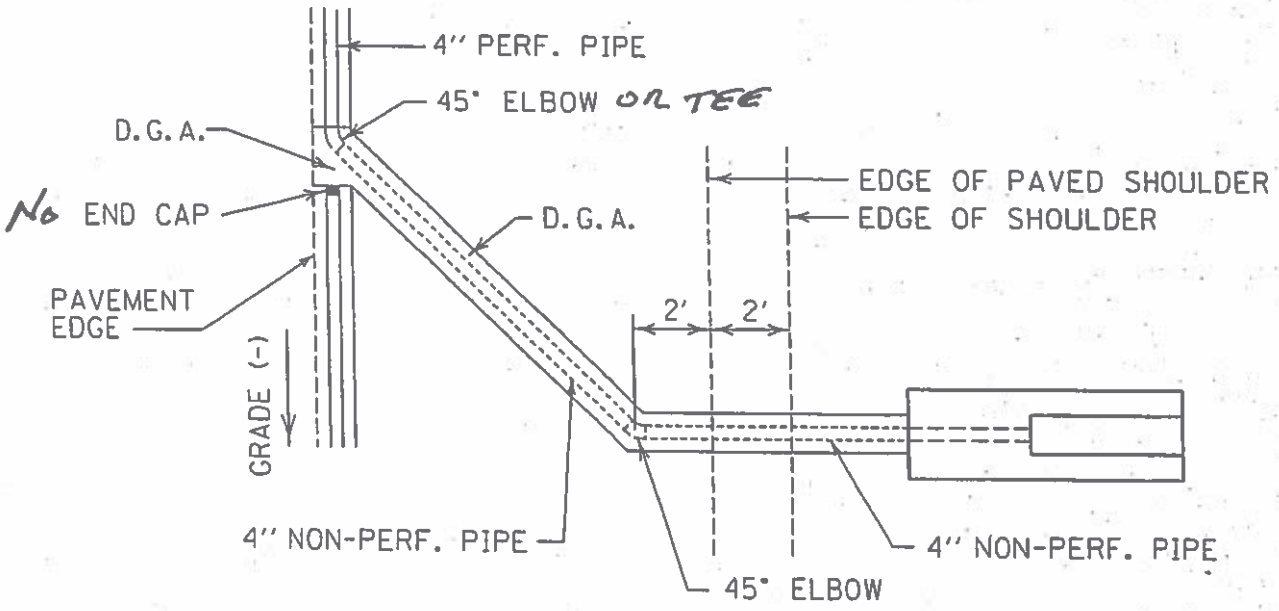
Construct a Perforated Pipe Edge Drain System according to Section 704.03.02 as shown on the Detail Drawing and as directed by the Engineer. Use 4" perforated pipe with aggregate fill for trench wrapped in Geotextile Fabric Type IV according to Section 704.02.04; do not use perforated pipe with sock or natural sand. Outlet the Perforated Pipe with Non-Perforated Pipe and a Perforated Pipe Headwalls. The Department will measure Perforated Pipe and Non-Perforated Pipe for Edge Drains, Perforated Pipe Headwalls, Crushed Aggregate Size No. 2, and Inspect and Certify Edge Drain System according to 704.04. The Department will **NOT** measure Structure Excavation, course aggregate and geotextile fabric for payment. The Department will make payment for Perforated Pipe and Non-Perforated Pipe, Perforated Pipe Headwalls, Crushed Aggregate Size No. 2, and Inspect and Certify Edge Drain System according to Section 704.05.

LONGITUDINAL PAVEMENT EDGE DRAIN
(PERFORATED PIPE)
(EXISTING PAVEMENT)

FD04 047 31WB 000-001



(1) 6" MINIMUM FREEBOARD TO THE BOTTOM OF THE DITCH.



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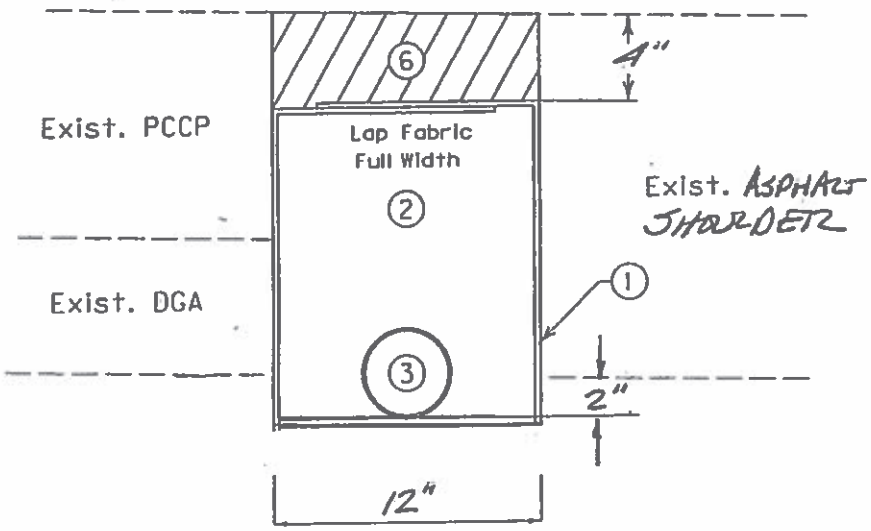
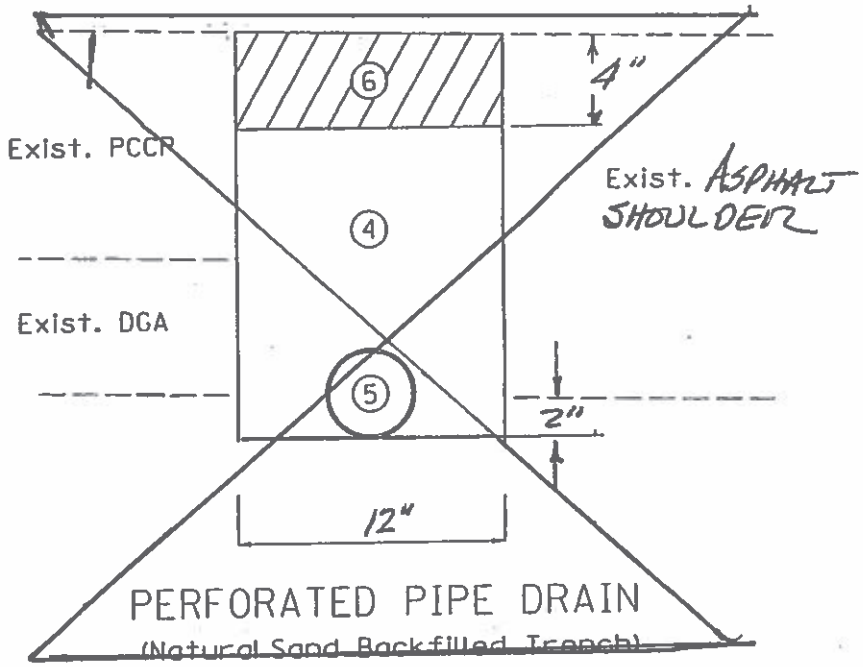


PERFORATED PIPE DRAIN
(Aggregate Backfilled Trench)



PERFORATED PIPE DRAIN
(Natural Sand Backfilled Trench)

✳ ① FABRIC-GEOTEXTILE TYPE IV

✳ ② CRUSHED AGGREGATE SIZE NO. 57 (No Sand)

③ 1000 PERFORATED PIPE- 4" (No Sock)

~~✳ ④ Compacted Natural Sand Backfill~~

~~⑤ 1000 PERFORATED PIPE- 4" (With Sock) manufacturers spec.~~

⑥ CLASS 2 ASPHALT BASE
1,00 D PG64-22
EDGE DRAIN CAP

NOTE: THESE ITEMS (✳) CONSIDERED INCIDENTAL TO PERFORATED PIPE -

PAVEMENT EDGE DRAIN

Existing Pavement

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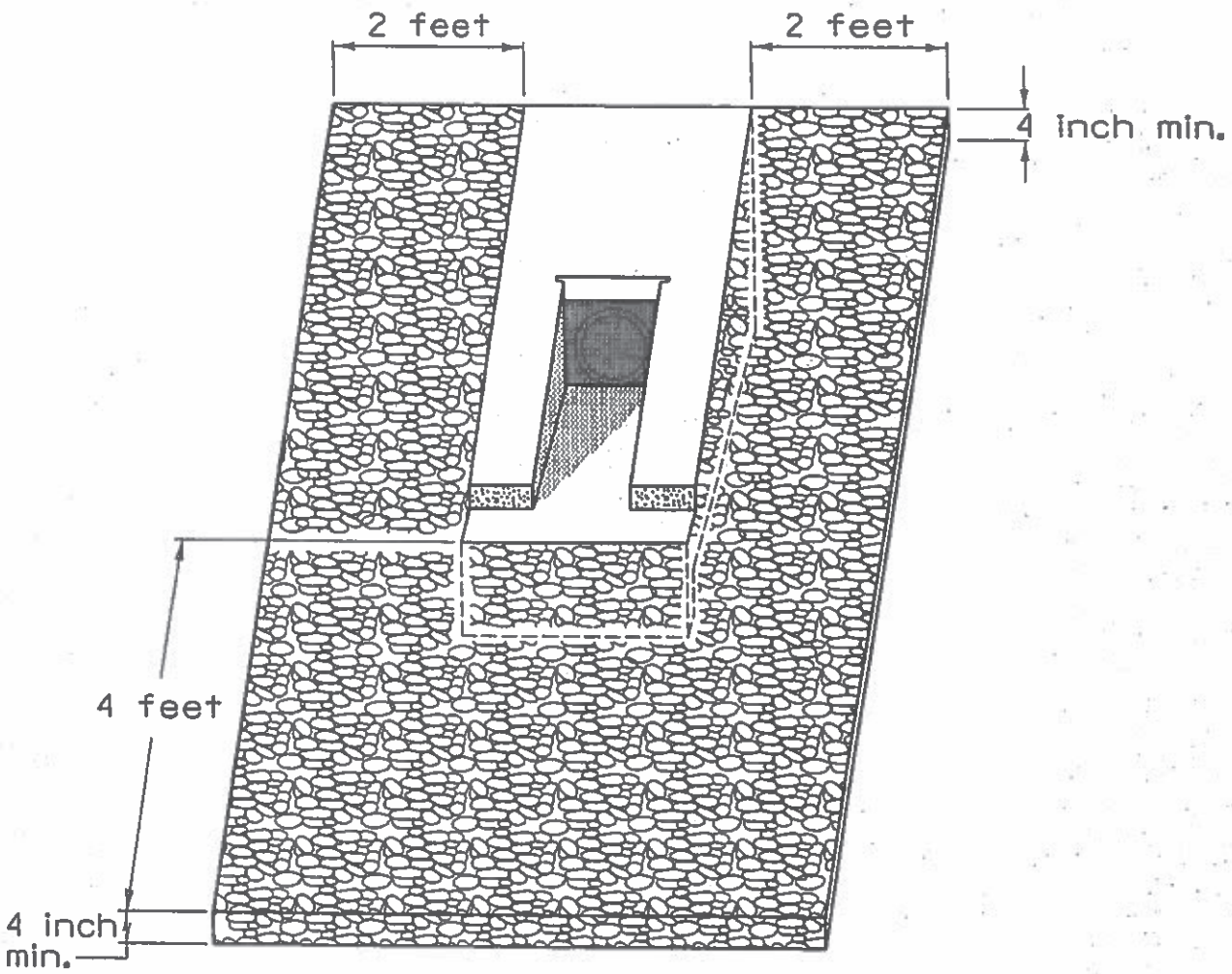
SPECIAL NOTE FOR PAVEMENT SUBSURFACE DRAINAGE OUTLET

Use approximately one ton of Crushed Aggregate Size No. 2 at all Perforated Pipe Headwall Outlets as illustrated in the detail below. Place Crushed Aggregate Size No. 2 to a minimum depth of 4" as detailed below.

Use Dense Graded Aggregate (DGA) removed during placement of the Crushed Aggreagate Size No. 2 to dress existing shoulders where DGA is exposed. Waste other materials removed during placement of the Crushed Aggregate Size No. 2 as directed by the Engineer. The Department will make no direct payment for disposal of wasted material.

The Department will consider payment for Crushed Aggregate Size No. 2 as full compensation for all materials, labor, and other incidentals necessary to place Crushed Aggregate Size No. 2 for vegetation control and/or erosion control at pavement edge drain outlets.

See current Standard Drawing RDP-010 for dimensions and other details.



PERFORATED PIPE HEADWALL OUTLET

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SPECIAL NOTE FOR LIQUIDATED DAMAGES

Do not perform any work in calendar year 2019. The overall completion day for all items in the Contract is July 31, 2020. The Department will assess Liquidated Damages in the amount specified in Section 108.09.

In addition to the requirements of Section 108.09, the Department will assess Liquidated Damages in the amount of $1,000 per hour or part of an hour for each hour that a lane closure remains in place during hours prohibited by the Traffic Control Plan. A lane closure shall be defined as any traffic control device or Contract worker or vehicle in the traveled way that could potentially impact the flow of traffic. This includes, but not limited to, signs, barricades, barrels, cones, arrow boards, flaggers, Contractor work vehicles, and striping operations.

In addition to the requirements of Section 108.09, the Department will assess Liquidated Damages in the amount of $500 per calendar day that removable temporary striping tape that becomes damaged or fails to adhere remains un-replaced beyond dusk on the day of notification.

The Department will apply all liquidated damages accumulatively.

All other applicable portions of Section 108 apply.

SPECIAL PROVISION FOR WASTE AND BORROW SITES

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

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

COORDINATION OF WORK WITH OTHERS

Be advised, there may be active project(s) adjacent to or within this project. These may be KYTC administered contracts, work being performed as part of a KYTC issued encroachment permit, or work being performed by Department forces. The Engineer will coordinate the work of any other Contractors, permit holders, or the Department' forces. See Sections 105.06, 107.06 and 107.14 of the 2019 Standard Specifications.

SPECIAL NOTE FOR ASPHALT MILLING AND TEXTURING

Perform Asphalt Milling and Texturing adjacent to the new JPC Pavement on northbound US 31WB at Bush Lane after installation of the Edge Drain System. Begin paving operations within **48 hours** of commencement of the milling operation. Continue paving operations continuously until completed. If paving operations are not begun within this time period, the Department will assess liquidated damages at the rate of $750 per calendar day until such time as paving operations are begun.

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

SPECIAL NOTE FOR TYPICAL SECTION DIMENSIONS

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

1-3725 Typical Section Dimensions
01/02/2012

TRAFFIC CONTROL PLAN

THIS PROJECT IS A PARTIALLY CONTROLLED ACCESS HIGHWAY

TRAFFIC CONTROL GENERAL

Except as provided herein, maintain and control traffic in accordance with the 2019 Standard and Supplemental Specifications and the Standard and Sepia Drawings, current editions. Except for the roadway and traffic control bid items listed, all items of work necessary to maintain and control traffic will be paid at the lump sum bid price to "Maintain and Control Traffic".

Contrary to Section 106.01, furnish new, or used in like new condition, traffic control devices at the beginning of the work and maintain in like new condition until completion of the work.

TRAFFIC COORDINATOR

Furnish a Traffic Coordinator for a Classified Project according to Section 112.03.12. The Traffic Coordinator shall inspect the project maintenance of traffic, at least three times daily, or as directed by the Engineer, during the Contractor's operations and at any time a lane closure is in place. The personnel shall have access on the project to a radio or telephone to be used in case of emergencies or accidents. The Traffic Coordinator shall report all incidents throughout the work zone to the Engineer on the project. The Contractor shall furnish the name and telephone number where the Traffic Coordinator can be contacted at all times

CONSTRUCTION PROCEDURES

Prior to beginning work, informally partner with the Engineer and obtain his approval of phasing and a work plan to accomplish the work with the least possible disruption to traffic.

The Engineer may specify days and hours when lane closures will not be allowed.

For each full depth JPC Pavement site within ten (10) feet of traffic, remove pavement, stabilize the base, and place and cure JPC pavement in one continuous operation at each location.

Maintain a minimum of one lane of traffic in each direction on US 31WB. Maintain alternating one-way traffic on KY 1136 when required by actual construction in progress. Maintain one lane of traffic on Ramp "D" at all times. Provide minimum clear lane widths of ten (10) feet; however, provide for passage of vehicles of up to 16 feet in width. If traffic is stopped due to construction

operations, and a school bus on an official run arrives on the scene, make provisions for the passage of the bus as quickly as possible.

The Contractor may request that trucks over 10,000 pounds gross vehicle weight (GVW) and all over-dimensional vehicles be prohibited on ramp "D" during construction. Fourteen (14) calendar days prior to restricting traffic, partner with the Engineer to develop a Signing Plan and Work Schedule to expedite the work and minimize disruption to traffic.

Night work may be required for portions of the work on this project. Obtain the Engineer's approval of the method of lighting prior to performing night work.

LANE & SHOULDER CLOSURES

Only one lane of US 31WB may be closed concurrently in each direction unless otherwise directed or permitted specified by the Engineer. If necessary, perform multiple pours per lane in order to maintain traffic in all directions and at all approaches.

Except for JPC curing, do not leave lane and shoulder closures in place during non-working hours.

Do not store materials or equipment on shoulders during non-working hours. Contrary to Section 112.04.17, the Department will not measure Long Term Lane Closures for payment, but shall be incidental to Maintain and Control Traffic.

PUBLIC INFORMATION PLAN

The Department will prepare a Public Information Plan and provide public notification. Submit the approved Phasing and work plan for the Engineer's approval 14 calendar days prior to beginning work. Notify the Engineer immediately and obtain prior approval of any deviations from the previously approved closure schedule.

SIGNS

Sign posts and splices shall be compliant with NCHRP 350 or MASH. Manufacturer's documentation validating this compliance shall be provided to the Engineer prior to installation. Signs, including any splices, shall be installed according to manufacturer's specifications and installation recommendations. Contrary to section 112.04.02, only long-term signs (signs intended to be continuously in place for more than 3 days) will be measured for payment. Short-term signs (signs intended to be left in place for 3 days or less) will not be measured for payment but will be incidental to Maintain and Control Traffic.

CHANGEABLE MESSAGE SIGNS

Provide changeable message signs in advance of and within the project at locations determined by the Engineer. If work is in progress concurrently in both directions or if more than one lane closure is in place in the same direction of travel, provide additional changeable message signs as directed by the Engineer. The Engineer may vary the designated locations as the work progresses. The Engineer will determine the messages to be displayed. In the event of damage or mechanical/electrical failure, repair or replace the Changeable Message Sign within 24 hours. The Department will measure for payment the maximum number of Changeable Message Signs in concurrent use at the same time on a single day on all sections of the contract. The Department will measure individual Changeable Message Signs only once for payment, regardless of how many times they are set, reset, removed, and relocated during the duration of the project. The Department will not measure replacements for damaged Changeable Message Signs or for signs the Engineer directs be replaced due to poor condition or readability. Retain possession of the Changeable Message Signs upon completion of the work.

ARROW PANELS

Use arrow panels as shown on the Standard Drawings or as directed by the Engineer. The Department will measure for payment the maximum number of arrow panels in concurrent use at the same time on a single day on all sections of the contract. The Department will measure for payment the maximum number of Arrow Panels in concurrent use at the same time on a single day on all sections of the contract. The Department will measure individual Arrow Panels only once for payment, regardless of how many times they are set, reset, removed, and relocated during the duration of the project. The Department will not measure replacements for damaged Arrow Panels or for panels signs the Engineer directs be replaced due to poor condition or readability for payment. Retain possession of the Arrow Panels upon completion of the work.

BARRICADES

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

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

TEMPORARY ENTRANCE

Maintain direct access to Bush Lane at all times. The Department will measure asphalt materials required to provide temporary access; however, the Department will not measure aggregates, excavation, and/or embankment, or temporary pipe, but shall be incidental to Maintain and Control Traffic. The Engineer will determine the type of surfacing material, asphalt or aggregate to be used, and the size of pipe.

INTERSECTION MARKINGS

Consider the locations listed on the summary as approximate only. Prior to construction, locate and document the locations of the existing markings. After Diamond Grinding, replace the markings at their approximate existing locations or as directed by Engineer. Place markings not existing prior to resurfacing as directed by the Engineer. Place Durable Type I Tape markings on JPC pavement and Thermoplastic markings on asphalt pavement.

PAVEMENT STRIPING

If there is to be a deviation from the existing striping plan, the Engineer will furnish the Contractor a striping plan prior to removal and placement of the JPC. Install Temporary Striping according to Section 112 with the following exceptions:

1. Place Temporary or Permanent Striping before opening a lane to traffic; and
2. Include Edge Lines In Temporary Striping; and
3. Place 6 inch lines for Permanent and Temporary Striping; and
4. Temporarily cover skip and solid lines through the length of the tapers for lane closures and other striping that is to remain in place after construction as directed by the Engineer with 6” black removable tape.
5. If the Contractor’s operations or phasing requires temporary markings that must subsequently be removed from the final surface course, use an approved removable lane tape.
6. Consider permanent removal of all other pavement striping for traffic control incidental to Maintain and Control Traffic.
7. The Contractor shall replace any temporary striping that becomes damaged or fails to adhere to the pavement before dark on the day of the notification.

PAVEMENT EDGE DROP-OFFS

Do not allow a pavement edge between opposing directions of traffic or lanes that traffic is expected to cross in a lane change situation with an elevation difference greater than 1½”. Place Warning signs (MUTCD W8-11 or W8-9A) in advance of and at 1500’ intervals throughout the drop-off area. Dual post the signs on both sides of the traveled way. Wedge all transverse

transitions between resurfaced and unresurfaced areas which traffic may cross with asphalt surface mixtures. Remove the wedges prior to placement of the final surface course.

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

Less than 2" - No protection required.

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

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

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

USE AND PLACEMENT OF CHANGEABLE MESSAGE SIGNS

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

Application

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

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

CMS should not be used for:

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

Messages

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

- Visible for at least ½ mile under ideal daytime and nighttime conditions
- Legible from all lanes a minimum of 650 feet
- Entire message readable twice while traveling at the posted speed
- Nor more than two message panels should be used (three panels may be used on roadways where vehicles are traveling less than 45 mph). A panel is the message that fits on the face of the sign without flipping or scrolling.
- Each panel should convey a single thought; short and concise
- Do not use two unrelated panels on a sign
- Do not use the sign for two unrelated messages
- Should not scroll text horizontally or vertically
- Should not contain both the words left and right
- Use standardized abbreviations and messages
- Should be accurate and timely
- Avoid filler/unnecessary words and periods (hazardous, a, an, the)
- Avoid use of speed limits
- Use words (not numbers) for dates

Placement

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

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

Standard Abbreviations

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

Word	Abbrev.	Example
Access	ACCS	ACCIDENT AHEAD/USE ACCS RD NEXT RIGHT
Alternate	ALT	ACCIDENT AHEAD/USE ALT RTE NEXT RIGHT
Avenue	AVE	FIFTH AVE CLOSED/DETOUR NEXT LEFT
Blocked	BLKD	FIFTH AVE BLKD/MERGE LEFT
Boulevard	BLVD	MAIN BLVD CLOSED/USE ALT RTE
Bridge	BRDG	SMITH BRDG CLOSED/USE ALT RTE
Cardinal Directions	N, S, E, W	N I75 CLOSED/ DETOUR EXIT 30
Center	CNTR	CNTR LANE CLOSED/MERGE LEFT
Commercial	COMM	OVRSZ COMM VEH/USE I275
Condition	COND	ICY COND POSSIBLE
Congested	CONG	HVY CONG NEXT 3 MI
Construction	CONST	CONST WORK AHEAD/EXPECT DELAYS
Downtown	DWNTN	DWNTN TRAF USE EX 40
Eastbound	E-BND	E-BND I64 CLOSED/DETOUR EXIT 20
Emergency	EMER	EMER VEH AHEAD/PREPARE TO STOP
Entrance, Enter	EX, EXT	DWNTN TRAF USE EX 40
Expressway	EXPWY	WTRSN EXPWY CLOSED/DETOUR EXIT 10
Freeway	FRWY, FWY	GN SYNDR FWY CLOSED/DETOUR EXIT 15
Hazardous Materials	HAZMAT	HAZMAT IN ROADWAY/ALL TRAF EXIT 25
Highway	HWY	ACCIDENT ON AA HWY/EXPECT DELAYS
Hour	HR	ACCIDENT ON AA HWY/2 HR DELAY
Information	INFO	TRAF INFO TUNE TO 1240 AM
Interstate	I	E-BND I64 CLOSED/DETOUR EXIT 20
Lane	LN	LN CLOSED/MERGE LEFT
Left	LFT	LANE CLOSED/MERGE LFT
Local	LOC	LOC TRAF USE ALT RTE
Maintenance	MAINT	MAINT WRK ON BRDG/SLOW
Major	MAJ	MAJ DELWAYS I75/USE ALT RTE
Mile	MI	ACCIDENT 3 MI AHEAD/ USE

		ALT RTE
Minor	MNR	ACCIDENT 3 MI MNR DELAY
Minutes	MIN	ACCIDENT 3 MI/30 MIN DELAY
Northbound	N-BND	N-BND I75 CLOSED/ DETOUR EXIT 50
Oversized	OVRSZ	OVRSZ COMM VEH/USE I275 NEXT RIGHT
Parking	PKING	EVENT PKING NEXT RGT
Parkway	PKWY	CUM PKWAY TRAF/DETOUR EXIT 60
Prepare	PREP	ACCIDENT 3 MIL/PREP TO STOP
Right	RGT	EVENT PKING NEXT RGT
Road	RD	HAZMAT IN RD/ALL TRAF EXIT 25
Roadwork	RDWK	RDWK NEXT 4 MI/POSSIBLE DELAYS
Route	RTE	MAJ DELAYS I75/USE ALT RTE
Shoulder	SHLDR	SHLDR CLOSED NEXT 5 MI
Slippery	SLIP	SLIP COND POSSIBLE/ SLOW SPD
Southbound	S-BND	S-BND I75 CLOSED/DETOUR EXIT 50
Speed	SPD	SLIP COND POSSIBLE/ SLOW SPD
Street	ST	MAIN ST CLOSED/USE ALT RTE
Traffic	TRAF	CUM PKWAY TRAF/DETOUR EXIT 60
Vehicle	VEH	OVRSZ COMM VEH/USE I275 NEXT RIGHT
Westbound	W-BND	W-BND I64 CLOSED/DETOUR EXIT 50
Work	WRK	CONST WRK 2MI/POSSIBLE DELAYS

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

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

TYPICAL MESSAGES

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

Reason/Problem	Action
ACCIDENT	ALL TRAFFIC EXIT RT
ACCIDENT/XX MILES	AVOID DELAY USE XX
XX ROAD CLOSED	CONSIDER ALT ROUTE
XX EXIT CLOSED	DETOUR
BRIDGE CLOSED	DETOUR XX MILES
BRIDGE/(SLIPPERY, ICE, ETC.)	DO NOT PASS
CENTER/LANE/CLOSED	EXPECT DELAYS
DELAY(S), MAJOR/DELAYS	FOLLOW ALT ROUTE
DEBRIS AHEAD	KEEP LEFT
DENSE FOG	KEEP RIGHT
DISABLED/VEHICLE	MERGE XX MILES
EMER/VEHICLES/ONLY	MERGE LEFT
EVENT PARKING	MERGE RIGHT
EXIT XX CLOSED	ONE-WAY TRAFFIC
FLAGGER XX MILES	PASS TO LEFT
FOG XX MILES	PASS TO RIGHT
FREEWAY CLOSED	PREPARE TO STOP
FRESH OIL	REDUCE SPEED
HAZMAT SPILL	SLOW
ICE	SLOW DOWN
INCIDENT AHEAD	STAY IN LANE
LANES (NARROW, SHIFT, MERGE, ETC.)	STOP AHEAD
LEFT LANE CLOSED	STOP XX MILES
LEFT LANE NARROWS	TUNE RADIO 1610 AM
LEFT 2 LANES CLOSED	USE NN ROAD
LEFT SHOULDER CLOSED	USE CENTER LANE
LOOSE GRAVEL	USE DETOUR ROUTE
MEDIAN WORK XX MILES	USE LEFT TURN LANE
MOVING WORK ZONE, WORKERS IN ROADWAY	USE NEXT EXIT
NEXT EXIT CLOSED	USE RIGHT LANE
NO OVERSIZED LOADS	WATCH FOR FLAGGER
NO PASSING	
NO SHOULDER	
ONE LANE BRIDGE	
PEOPLE CROSSING	
RAMP CLOSED	
RAMP (SLIPPERY, ICE, ETC.)	
RIGHT LANE CLOSED	

Traffic Control Plan
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RIGHT LANE NARROWS
RIGHT SHOULDER CLOSED
ROAD CLOSED
ROAD CLOSED XX MILES
ROAD (SLIPPERY, ICE, ETC.)
ROAD WORK
ROAD WORK (OR CONSTRUCTION) (TONIGHT, TODAY, TOMORROW, DATE)
ROAD WORK XX MILES
SHOULDER (SLIPPERY, ICE, SOFT, BLOCKED, ETC.)
NEW SIGNAL XX MILES
SLOW 1 (OR 2) - WAY TRAFFIC
SOFT SHOULDER
STALLED VEHICLES AHEAD
TRAFFIC BACKUP
TRAFFIC SLOWS
TRUCK CROSSING
TRUCKS ENTERING
TOW TRUCK AHEAD
UNEVEN LANES
WATER ON ROAD
WET PAINT
WORK ZONE XX MILES
WORKERS AHEAD

SPECIAL NOTE FOR EROSION CONTROL

I. DESCRIPTION

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

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

II. MATERIALS

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

III. CONSTRUCTION

Be advised, these Erosion Control Plan Notes do not constitute a BMP plan for the project. Jointly with the Engineer, prepare a site specific BMP plan for each drainage area within the project in accordance with Section 213. Provide a unique BMP at each project site using good engineering practices taking into account existing site conditions, the type of work to be performed, and the construction phasing, methods and techniques to be utilized to complete the work. Be responsible for all erosion prevention, sediment control, and water pollution prevention measures required by the BMP for each site. Represent and warrant compliance with the Clean Water Act (33 USC Section 1251 et seq.), the 404 Permit, the 401 Water Quality Certification, and applicable state and

local government agency laws, regulations, rules, specifications, and permits. Contrary to Section 105.05, in case of discrepancy between theses notes, the Standard Specifications, Interim Supplemental Specifications, Special and Special Notes, Standard and Sepia Drawings, and such state and local government agency requirements, adhere to the most restrictive requirement.

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

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

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

After all construction is complete, restore all disturbed areas in accordance with Section 212. Completely remove all temporary erosion control devices not required as part of the permanent erosion control from the construction site. Prior to removal, obtain the Engineer’s concurrence of items to be removed. Grade the remaining exposed earth (both on and off the Right of-Way) as nearly as possible to its original condition, or as directed by the Engineer. Prepare the seed bed areas and sow all exposed earthen areas with the applicable seed mixture(s) according to Section 212.03.03.

IV. MEASUREMENT

Erosion Control Blanket. If required by the BMP, the Department will measure Erosion Control Blanket according to Section 212.04.07.

Sodding. If required by the BMP, the Department will measure Sodding according to Section 212.04.08.

Channel Lining. If required by the BMP, the Department will measure Channel Lining according to Sections 703.04.04-703.04.07.

Erosion Control. Contrary to Sections 212.04, 213.04, and 703.04 other than Erosion Control Blankets, Sodding, and Channel Lining, the Department will **NOT** measure Erosion Control for separate payment. The Department will not measure developing, updating, and maintaining a BMP plan for each site; providing a KEPSC-RI qualified inspector; locating, furnishing, installing, inspecting, maintaining, and removing erosion and water pollution control items; Roadway Excavation, Borrow Excavation, Embankment In Place, Topsoil Furnished and Placed, and Spreading Stockpiled Topsoil; Topdressing Fertilizer, Temporary and Permanent Seeding and Protection, Special Seeding Crown Vetch, and Temporary Mulch; Sedimentation Basin and Clean Sedimentation Basin, Silt Trap Type "A" and Clean Silt Trap Type "A"; Silt Trap Type "B" and Clean Silt Trap Type "B"; Silt Trap Type "C" and Clean Silt Trap Type "C"; Temporary Silt Fence and Clean Temporary Silt Fence; Plants, Vines, Shrubs, and Trees; Gabion and Dumped Stone Deflectors and Riffle Structures; Boulders; Temporary Ditches and clean Temporary Ditches; Geotextile Fabric, and all other erosion and water pollution control items required by the BMP or the Engineer, but shall be incidental to the applicable items of work.

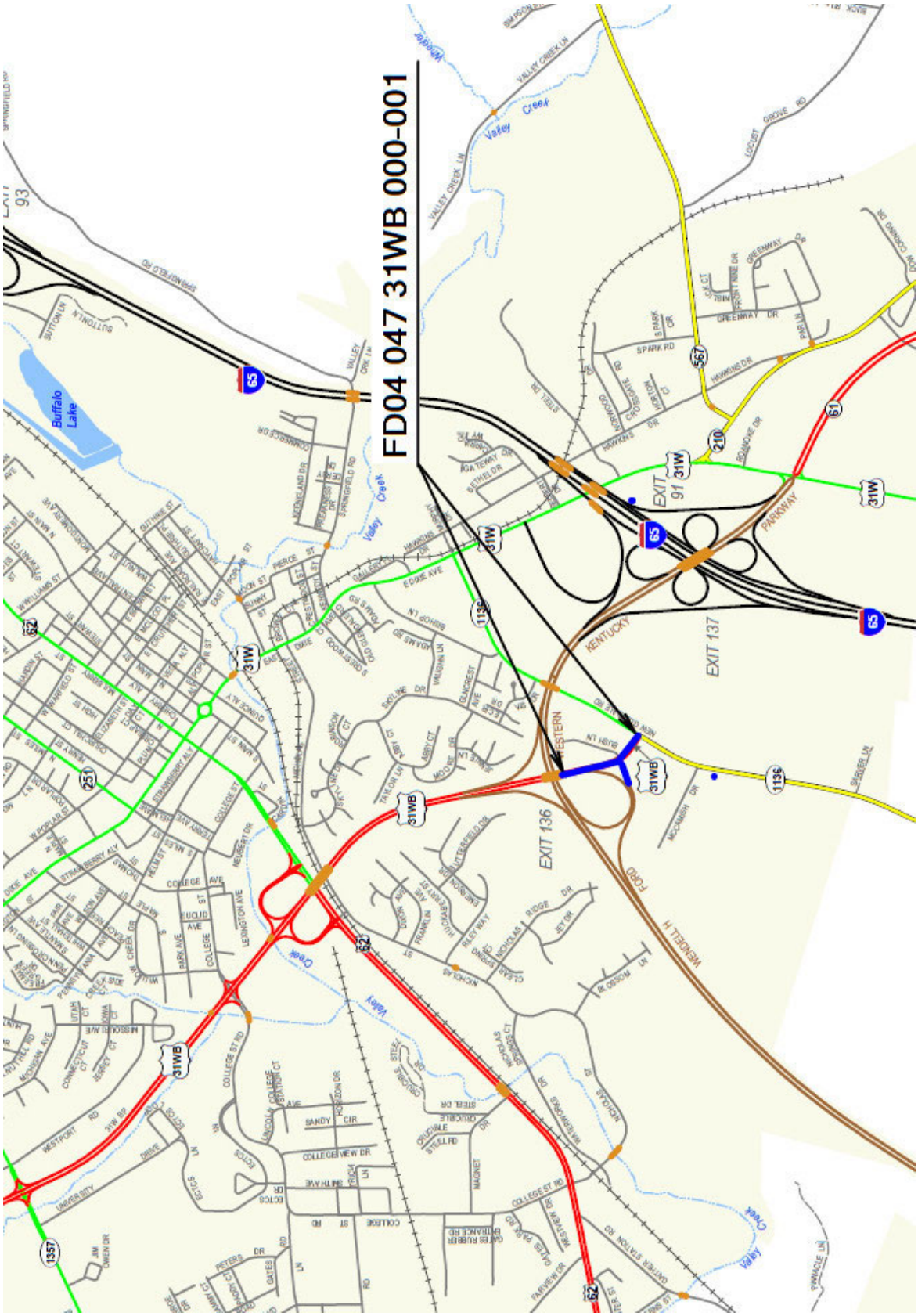
V. BASIS OF PAYMENT

Erosion Control Blanket. If not listed as a bid item, but required by the BMP, the Department will pay for Erosion Control Blankets as Extra Work according to Sections 104.03 and 109.04.

Sodding. If not listed as a bid item, but required by the BMP, the Department will pay for Sodding as Extra Work according to Sections 104.03 and 109.04.

Channel Lining. If not listed as a bid item, but required by the BMP, the Department will pay for Channel Lining as Extra Work according to Sections 104.03 and 109.04.

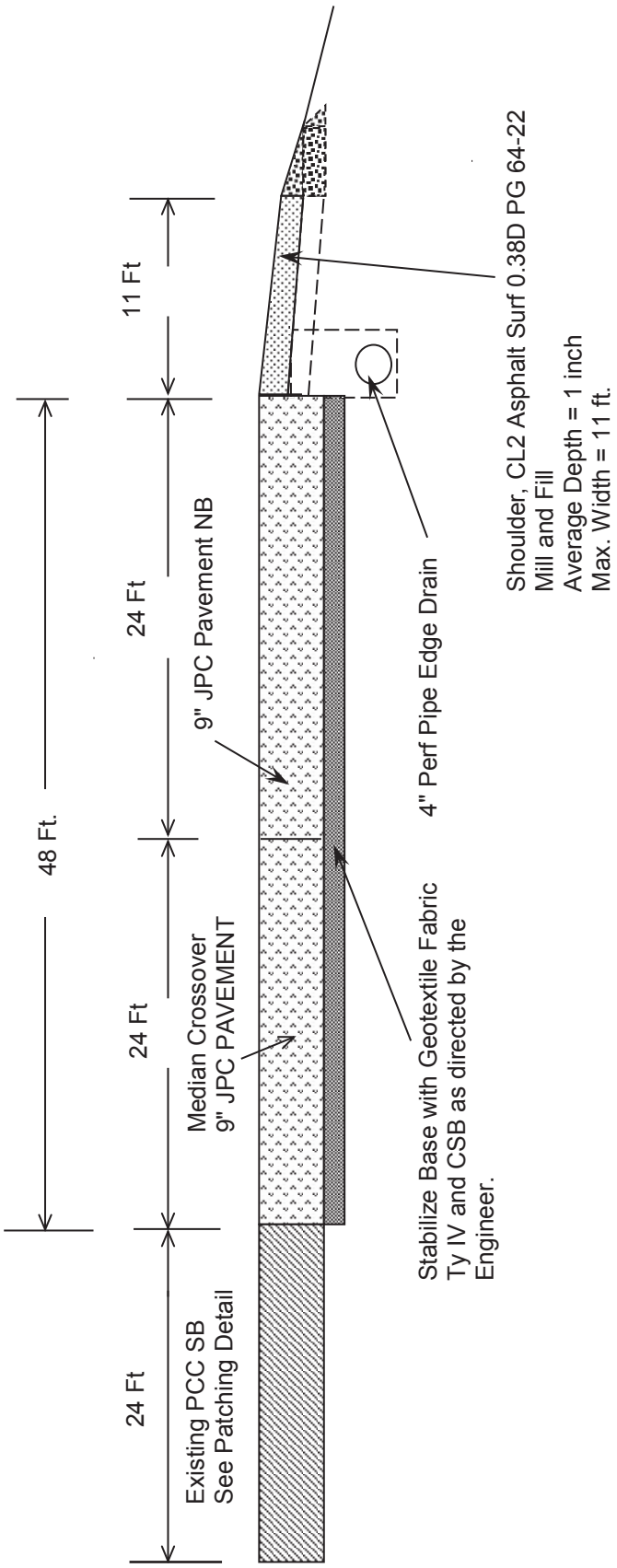
HARDIN COUNTY



INTERSECTION PAVEMENT MARKING SUMMARY

INTERSECTION	THERMOPLASTIC			TYPE 1 TAPE			NOTES
	STOP BARS	ARROWS		STOP BARS	ARROWS		
	24 INCH	CURVE	STR	24 INCH	CURVE	STR	
	LF	EA	EA	LF	EA	EA	
KY 1136	24	2	0	0	0	0	
RAMP D	0	0	0	38	4	0	
	24	2	0	38	4	0	

FD05 047 31WB 000-001
Typical Half Section



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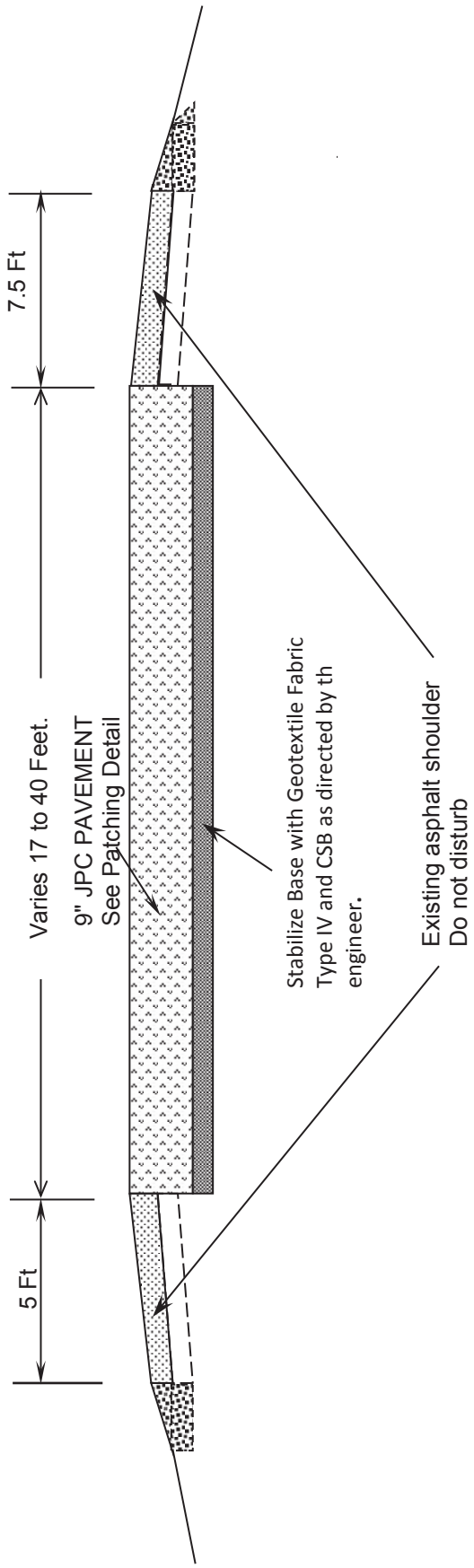
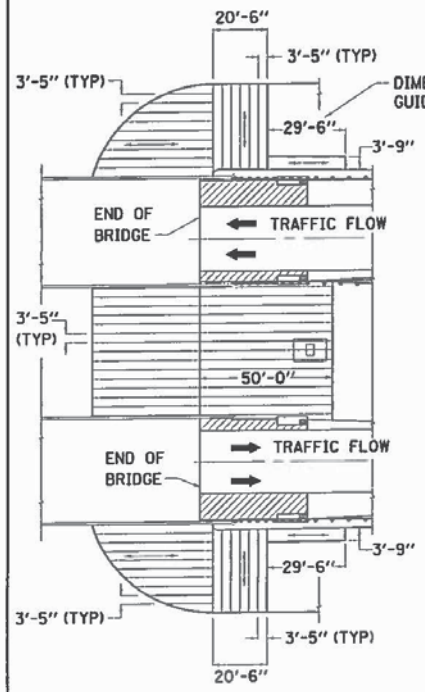
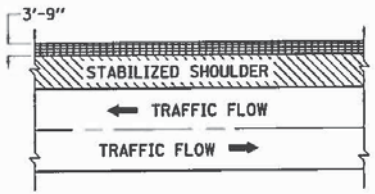
Typical Section
Ramp "D"



DETAIL HARDIN US 31WB
JPC PAVEMENT



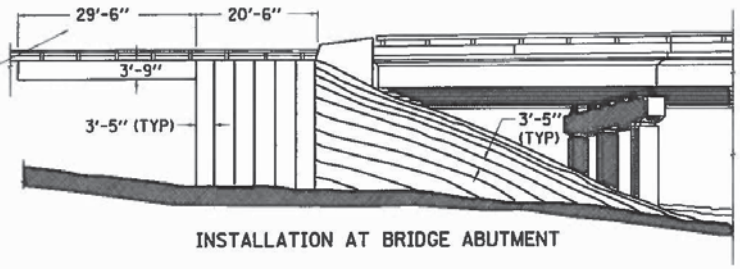
PLAN VIEW
INSTALLATION AT BRIDGE ABUTMENT



INSTALLATION ADJACENT TO ROADWAY

ANY AREA WITHIN 8'-0" OF THE ROADWAY THAT IS SEEDED SHALL BE PROTECTED WITH ONE 3'-9" WIDTH OF NETTING.

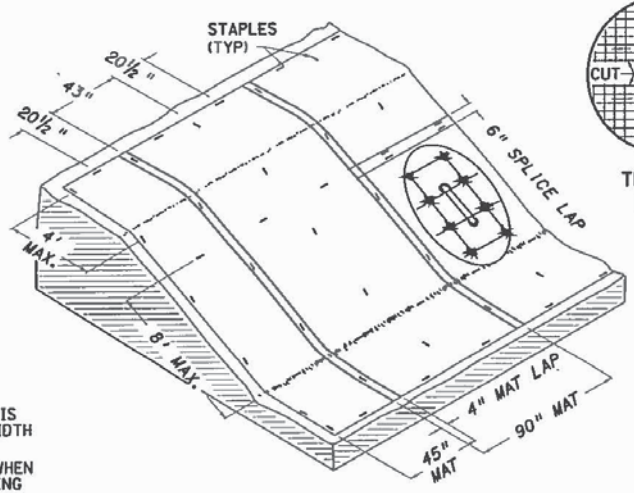
STABILIZED SHOULDERS HAVE BEEN DEPICTED. WHEN THE SHOULDERS ARE EARTH THE STRIP OF NETTING SHALL BE ADJACENT TO THE ROADWAY.



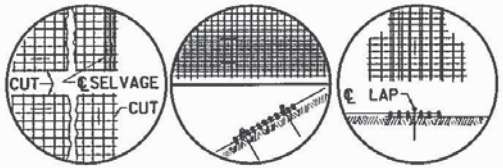
INSTALLATION AT BRIDGE ABUTMENT

NOTES

1. METHOD OF MEASUREMENT AND BASIS OF PAYMENT SHALL BE IN ACCORDANCE WITH KENTUCKY STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
2. BLACK PLASTIC NETTING: MANUFACTURED FROM EXTRUDED RECTANGULAR MESH PLASTIC; A MINIMUM OF 45" WIDE, APPROXIMATELY ¾"X1" MESH OPENINGS; WEIGHING NOT LESS THAN 2.6 LBS. PER 1000 SQ. FT. (±0.5 LB). OTHER NETTING MAY BE USED IF APPROVED BY THE ENGINEER.
3. STAPLES SHALL BE U-SHAPED AND MADE FROM STEEL WIRE OF NO. WI-WI.5 OR W2 AS NEEDED FOR INSTALLATION CONDITIONS. THE STAPLES SHALL HAVE A MINIMUM WIDTH OF 1" AND A MINIMUM LENGTH OF 6".
4. NETTING SHALL BE INSTALLED AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER, ALL IN ACCORDANCE WITH THIS STANDARD DRAWING.
5. STAPLES SHALL BE DRIVEN FLUSH WITH SOIL SURFACE AT ALL EDGES AND LAPS IN ALTERNATE ROWS OF 4'-0" AND 8'-0" MAXIMUM SPACING DOWN THE SLOPE AS DEPICTED BELOW, (BEGIN AND END ALL INSTALLATIONS WITH A ROW OF STAPLES ON 4'-0" MAXIMUM SPACING) WITH THE STAPLE TOPS TURNED AS FOLLOWS; STAPLES ON 4'-0" SPACING, PARALLEL TO MAT LENGTH. STAPLES SHALL BRIDGE A MINIMUM OF TWO STRANDS OF NETTING AND BE LOCATED WITH AT LEAST TWO STRANDS BETWEEN STAPLE AND ALL EDGES. KEEP NETTING TAUT AND IN CONTACT WITH THE MULCH AT ALL POINTS, BUT DO NOT STRETCH.



INSTALLATION ON SLOPES



TERMINAL EDGES | 6" SPLICE LAP | 4" MAT LAP

NETTING

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HARDIN		1	103

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

PLANS OF
PROPOSED PROJECT
GRADE, DRAIN AND SURFACE

HARDIN COUNTY
FD04 047 31WB 000-002

INDEX OF SHEETS

SHEETS NOT INCLUDED IN TOTAL SHEETS 2a-2h, 18a-18d

TOTAL BRIDGE SHEETS 56

STANDARD DRAWINGS

NUMBER	DESCRIPTION
RBB-001-03	RDX-200
RBC-001-05	RDX-240
RBE-060-08	RDH-020
RBI-002-03	RDH-110
RBM-001-06	RDH-120
RBM-003-06	RDH-210
RBM-006-05	RDH-212
RBM-020-05	RDH-310-01
RBM-130	RDH-320-01
RBR-001-08	RFW-001-01
RBR-005-07	RFW-005-04
RBR-010-02	RGS-001-03
RBR-015-02	RGS-002-02
RBR-016-01	RGX-001-02
RBR-025-01	RGX-005-02
RBR-035-03	RGX-010-01
RDB-005-05	RPM-100-05
RDB-100-01	RPM-110-02
RDB-101-01	RPN-010-03
RDB-105-02	RPN-015-01
RDB-106-02	RPN-020
RDB-110-05	RPS-010-06
RDB-230-05	RPS-020-08
RDB-231-05	RPS-030-02
RDB-280-02	RPS-031-02
RDB-281	RPX-001-01
RDB-282	TSC-003-05
RDB-283	TSC-200-04
RDB-410-02	TSC-210-04
RDD-040-01	TSC-220-03
RDI-001-03	TSC-221-03
RDI-020-04	TSC-260-08
RDI-025	TSC-261-05
RDX-001-02	TSC-270-01
RDX-002-01	TSC-300-04
RDX-161-03	TSC-400-01
RDI-030-03	

TOTAL STANDARD DRAWINGS 73

LOCAL PLANS
CONSTRUCTION PLANS

REVIEWED BY: _____
DIVISION OF CONSTRUCTION

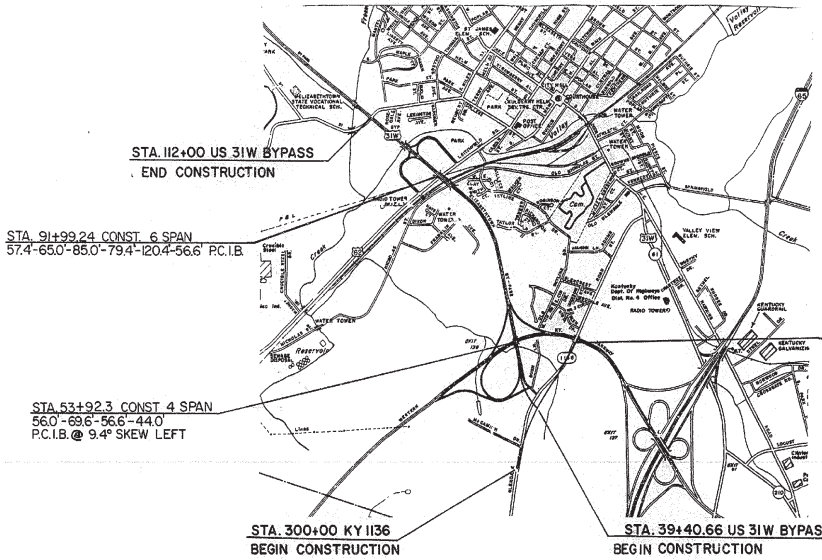
PLANS CHECKED BY: C.E.S. 3-29-94
FINAL CHECK BY: C.E.S. 3-29-94

DESIGN CRITERIA

CLASS OF HIGHWAY: ARTERIAL
TYPE OF TERRAIN: ROLLING
DESIGN SPEED: 45
REQUIRED NPSD: _____
REQUIRED PSD: _____
LEVEL OF SERVICE: _____
ADT PRESENT (1992): 19,100
ADT FUTURE (2012): 29,800
DHV: 3,300
D %: _____
T %: _____

GEOGRAPHIC COORDINATE
LATITUDE 37° 40' 45"
LONGITUDE 85° 51' 41"

DESIGNED
% RESTRICTED SD: _____
LEVEL OF SERVICE: _____
MAX. DISTANCE W/O PASSING: _____



GRAPHIC SCALE IN FEET
1200 0 1200 2400 3600 FEET

LAYOUT MAP

	US 31WB	KY 1136	TOTAL PROJECT	
GROSS LENGTH	7259.34 LIN. FT. 1.375 MILES	3000 LIN. FT. 0.568 MILES	10259.34 LIN. FT. 1943 MILES	LIN. FT. MILES
ADDED DEDUCTED	FOR EQUALITIES LIN. FT.	FOR EQUALITIES LIN. FT.	FOR EQUALITIES LIN. FT.	FOR EQUALITIES LIN. FT.
NET LENGTH	7259.34 LIN. FT. 1.375 MILES	3000 LIN. FT. 0.568 MILES	10259.34 LIN. FT. 1943 MILES	LIN. FT. MILES
	NOT INCLUDED	NOT INCLUDED	NOT INCLUDED	NOT INCLUDED
RAILROAD CROSSINGS NO.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.
BRIDGES	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.

US 31W BYPASS IS A PARTIALLY CONTROLLED ACCESS HIGHWAY. ACCESS SHALL BE PROVIDED ONLY WHERE SPECIFICALLY SHOWN ON PLANS.

CONTROL OF ACCESS FOR KY 1136 SHALL BE BY PERMIT.

Stephen Newman
Date: 03/16/98

KENTUCKY
DEPARTMENT OF HIGHWAYS
HARDIN COUNTY

ELIZABETHTOWN BYPASS FROM (KY 1136 TO KY 251) AND REALIGNMENT OF GLENDALE ROAD (KY 1136)

PROJECT NUMBERS: FD04 047 31WB 000-002 C
LETTING DATE: 4-22-94

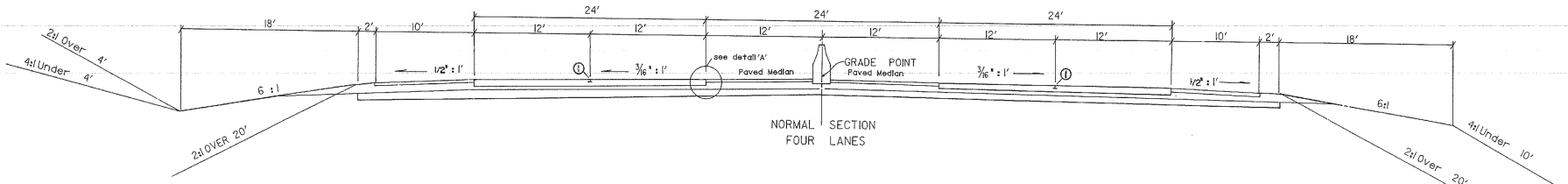
DESIGNED BY Feb. 10 1994 BY _____ DESIGN ENGINEER
Feb. 14 1994 BY Charles R. Meyer TEBM for Reconstruction
APPROVED BY MARCH 16 1994 BY _____ DIRECTOR OF TRAFFIC
PLAN CHECKED 3/16/1994 BY Eileen C. Dockery CHIEF DRAFTSMAN
PLAN APPROVED 3/16 1994 BY John B. Lockridge DIRECTOR OF DESIGN
PLAN APPROVED 3/16 1994 BY David E. Smith for STATE HIGHWAY ENGINEER

TYPICAL SECTIONS FOR 31W BYPASS

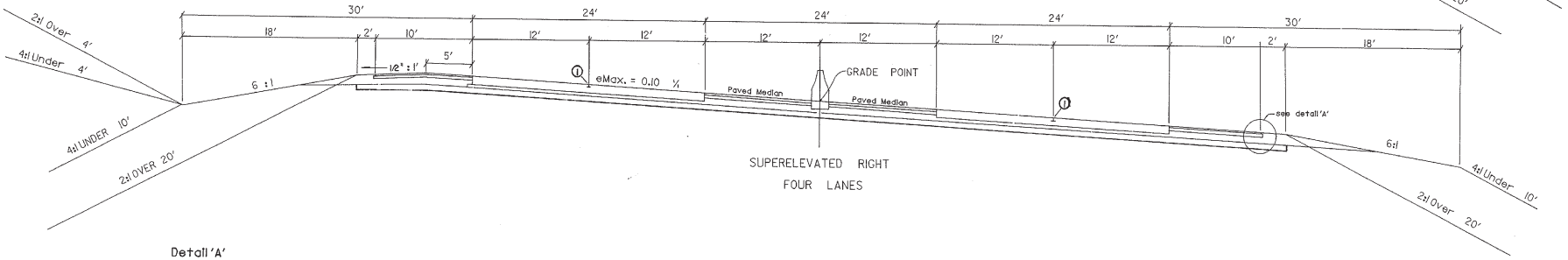
COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HARDIN		2	103

)-047-31WB-000-002

MAIN LINE

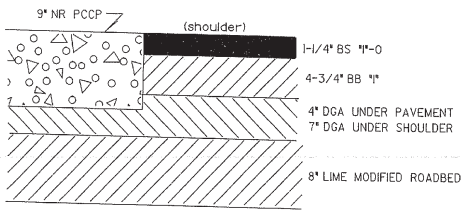


NORMAL SECTION
FOUR LANES

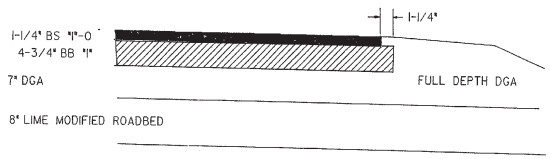


SUPERELEVATED RIGHT
FOUR LANES

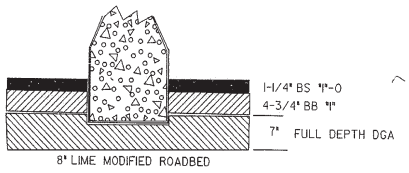
Detail 'A'



Detail 'B'



Detail 'C'



① LONGITUDNAL SAWED JOINT

NEW CONSTRUCTION
GRADE, DRAIN AND SURFACE

PAVEMENT

Traffic Lanes

Surface: 9" Non-Reinforced PCC Pavement

Base: 4" Dense Graded Aggregate

Median and Shoulders

Surface: 1 1/4" Bituminous Concrete Surface Calss I-0

Base: 4 3/4" Bituminous Concrete Base Class I (One Course)
Full Depth Dense Graded Aggregate

Tack: 0.4 lbs/sy of Bituminous Material For Tack

Outside Edge of Shoulders for 2' Down Ditch or Fill Slope (Two Applications)

2.4lb/sy Emulsified Asphalt RS-2
20lb/sy Bituminous Seal Aggregate(Size No. 8 or 9M)

ROADBED PREPARATION

2.0 lb/sy Bituminous Curing Seal

110 lb/cf of Lime - 6% By Weight
8" Lime Modified Roadbed

2

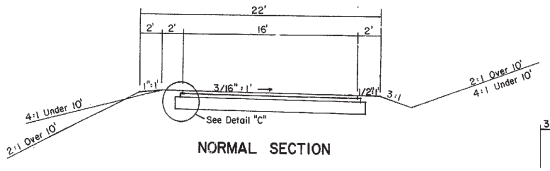
GEORGE MARR CO. 7-13-73 FORM NO. 2

TYPICAL SECTIONS

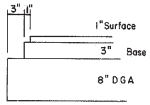
COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HARDIN		2a	103

042 31WB 000-002

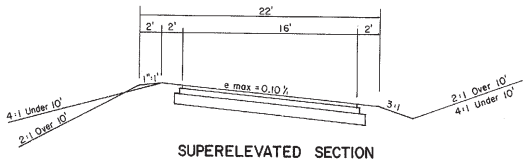
RAMP DETOURS



NORMAL SECTION



DETAIL "C"



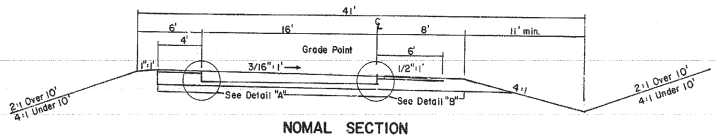
SUPERELEVATED SECTION

DETOUR CONSTRUCTION

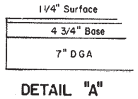
USING

PAVEMENT	
SURFACE	1" BITUMINOUS CONCRETE SURFACE CLASS I-O
BASE	3" BITUMINOUS CONCRETE BASE CLASS I 8" DENSE GRADED AGGREGATE
TACK	BITUMINOUS MATERIAL FOR TACK

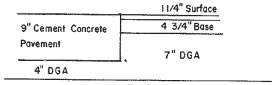
RAMPS "C" & "D"



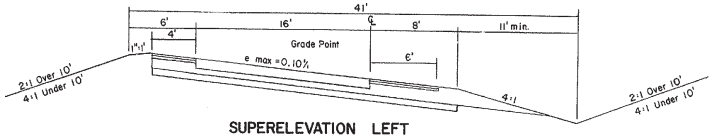
NOMAL SECTION



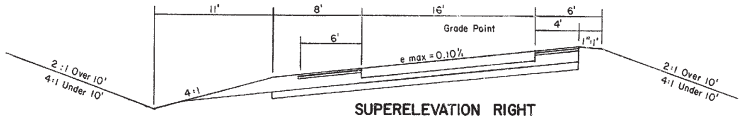
DETAIL "A"



DETAIL "B"



SUPERELEVATION LEFT



SUPERELEVATION RIGHT

NEW CONSTRUCTION

GRADE, DRAIN AND SURFACE

USING

TRAFFIC LANE	
SURFACE	9" CEMENT CONCRETE PAVEMENT
BASE	4" DENSE GRADED AGGREGATE
SHOULDERS	
SURFACE	1 1/4" BITUMINOUS CONCRETE SURFACE CLASS I-O
BASE	4 3/4" BITUMINOUS CONCRETE BASE CLASS I 7" DENSE GRADED AGGREGATE
TACK	BITUMINOUS MATERIAL FOR TACK
SHOULDER SLOPES	EMULSIFIED ASPHALT RS-2 BITUMINOUS SEAL AGGREGATE
ROADBED PREPARATION	
	8" LIME MODIFIED ROADBED LIME (6% BY WT. @ 110 LB./CU. FT.) BITUMINOUS CURING SEAL (2.0 LB./SQ.YD.)

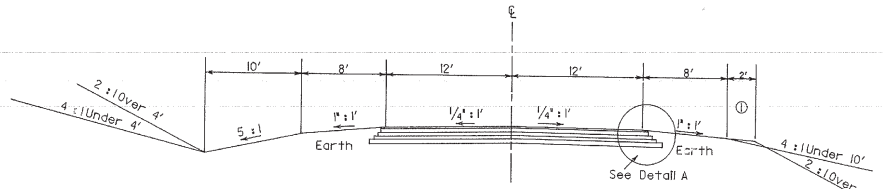
3

GEORGE MARR CO. 7-13-73 FORM NO. 2

TYPICAL SECTIONS
FOR
KY 1136 RELOCATION

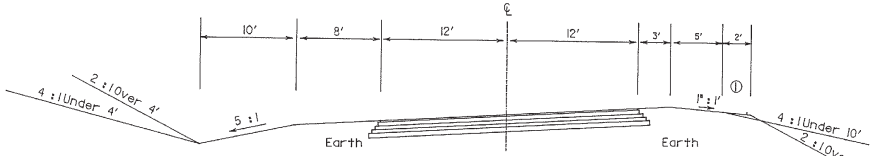
COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HARDIN		26	103

3-047-31WB-000-002



NORMAL SECTION

① Widen 2' when guardrail is required.



SUPERELEVATED SECTION

① Widen 2' when guardrail is required.

NEW CONSTRUCTION
FOR GRADE DRAIN AND SURFACE

PAVEMENT

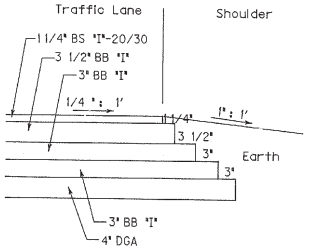
Traffic Lanes

Surface:	1 1/4" Bituminous Concrete Surface Class I-20/30
Base:	9 1/2" Bituminouse Concrete Base Class I (3"+3"+3 1/2") 4" Dense Graded Aggregate
Tack:	0.4 lbs/sy Bituminous Material for Tack

Shoulders

Earth

STEPOUT DETAIL A



4

GEORGE MARR CO. 7-13-73 FORM NO. 2

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HARDIN		26	103

FD 04 047 31WB 000-002

GENERAL SUMMARY

ITEM CODE	ITEM	UNIT	31WB	KY 1136	BRIDGE OVERLAY LT. STA. 53+92.3	BRIDGE OVERLAY LT. STA. 91+99.24	TOTAL PROJECT	
2545	CLEARING AND GRUBBING	LP SUM					① LP SUM	
2230	EMBANKMENT IN PLACE	CU YD	④ ~~15392~~	③ ~~106976~~			~~122368~~	116,266
2242	WATER ②	M GAL	~~1000~~	~~500~~			~~1500~~ 0	
2381	REMOVING GUARDRAIL	LIN FT	~~2872.5~~				~~2872.5~~	4879
2351	GUARDRAIL-STEEL W BEAM-S FACE	LIN FT	~~1737.5~~	~~4225~~			~~5962.5~~	4790
2360	GUARDRAIL TERMINAL SECT NO I	EACH		~~4~~			~~4~~ 5	
2370	GUARDRAIL END TREATMENT TYPE 4	EACH	~~2~~	1			~~3~~ 1	
2369	GUARDRAIL END TREATMENT TY 2A	EACH	~~1~~				~~1~~ 3	
2363	GUARDRAIL CON TO BR END TYPE A	EACH	4				4	
1967	CONC MEDIAN BARRIER TYPE I2C	LIN FT	4538 ~~4730~~				~~4730~~	4538
1985	DELINEATOR FOR BARRIER-YELLOW	EACH	~~68~~				~~68~~	153
2001	CURB TO BARRIER WALL TRANS	EACH	1				1	
2888	CRASH CUSHION TYPE VID	EACH	1				1	
1830	STANDARD INTEGRAL CURB	LIN FT	~~500~~ 525.3				~~500~~	525
2434	R/W MARKER RURAL TYPE I	EACH		~~30~~			~~30~~	28
2484	CHANNEL LINING CLASS III	TON		~~1863~~			~~1863~~	1462.7
2705	SILT CHECK	EACH	~~12~~	~~16~~			~~28~~	14
2726	STAKING	LP SUM	1				1	
2091	REMOVING PAVEMENT	SQ YD	~~4000~~	~~1825~~			~~5825~~	6093
5986	SEED AND PROTECT, METHOD 2	SQ YD	~~22547~~	~~44298~~			~~66845~~	123,871
2262	R/W FENCE-WOVEN WIRE TYPE I	LIN FT		~~1035~~			~~1035~~	1176
5992	AGRICULTURAL LIMESTONE	TON	~~15.2~~	~~29.9~~			~~45.1~~	101.5
5960	FERTILIZER 10-20-20	TON	~~2.2~~	~~4.4~~			~~6.6~~	13.6
2650	MAINTAIN AND CONTROL TRAFFIC	LP SUM					LP SUM	
2568	MOBILIZATION	LP SUM					LP SUM	
2569	DEMOBILIZATION	LP SUM					LP SUM	
2651	DETOUR CONSTRUCTION	LP SUM					LP SUM	
2887	CRASH CUSHION TYPE VIC	EACH	~~3~~ 1				~~3~~ 1	
2775	FLASHING ARROW	EACH	~~2~~ 1		1		2	
2743	4" PAVEMENT STRIPING (PERMANENT)	LIN FT	~~32811~~	~~9000~~			~~41811~~	45,641
2748	REMOVABLE STRIPING TAPE-YELLOW	LIN FT	~~15000~~				~~15000~~	8098
3213	PAVEMENT MARKER TYPE V - M W	EACH	~~162~~ 149				~~162~~ 149	
1718	REMOVING INLET	EACH	1				1	
8100	CONCRETE-CLASS A	CU YD		~~4.1~~			⑥ ~~9.2~~	17.0
2358	HAULING GUARDRAIL	LIN FT	~~2872.5~~				~~2872.5~~	4666
5989	SPECIAL SEEDING CROWN VETCH	LB	~~10~~	~~65~~			~~75~~ 99	
5966	FERTILIZER 20-10-10	TON	~~1.1~~	~~2.2~~			~~3.3~~ 6.1	
5953	TEMP EROSION CONTROL-MULCH	TON	~~1~~	~~1~~			~~2~~ 0	
5956	CORRECTIVE SEEDING-SEED	LB	~~20~~	~~40~~			~~60~~ 410	
5980	CORRECTIVE SEEDING-STRAW	TON	~~0.5~~	~~0.9~~			~~1.4~~ 4.2	
	CHANNEL CHANGE SEEDING	SQ YD		~~1780~~			~~1780~~ 0	
2747	REMOVABLE STRIPING TAPE-WHITE	LIN FT	~~5000~~				~~5000~~	4561
8510	REM EPOXY BIT FOREIGN OVERLAY	SQ YD			~~1400~~	3250	~~4650~~	3913
8551	MACHINE PREP OF EXISTING SLAB	SQ YD			~~860~~ 1169	~~2750~~ 2752	~~3610~~	3921
8549	BLAST CLEANING	SQ YD			~~950~~	~~3010~~	~~3960~~	4175
8504	EPOXY SAND SLURRY	SQ YD			~~100~~	~~265~~	~~365~~	182
8540	JOINT SEALING	LIN FT			~~100~~	~~240~~	~~340~~ 0	
8534	CONCRETE OVERLAY-LATEX	CU YD			~~45~~	~~137~~	~~182~~	220.47
8160	STRUCTURAL STEEL	LP SUM			⑤	⑤	LP SUM	
8526	CONC CLASS AA FULL DEPTH PATCH	CU YD			~~3.00~~ 0	~~3.00~~ 0	~~6.00~~ 0	
150	BIT CONC SURFACE CLASS I	TON			~~35~~	~~35~~	~~70~~ 0	
2587	HOOK BOLT WITH EXPAN ANCHOR	EACH	~~40~~				~~40~~ 98	

① APPROXIMATELY 17.2 ACRES
② FOR CONTROLLING DUST CAUSED BY MAINTAINING TRAFFIC ONLY.
③ INCLUDES 3447 CU.YD. FOR EMB. BEN.
④ INCLUDES 385 CU. YD. FOR EMB BEN.
⑤ STRUCTURAL STEEL ESTIMATED AT 500 LBS.
⑥ 5.1 CU. YD. FROM PIPE SUMMARY SHEET

EARTHWORK CALCULATIONS

	COMMON	EMBANKMENT
KY 1136	11090	103529
31W	22185	8393
RAMP C	117	323
RAMP D	149	737
BUSH LANE	665	0
317+00 ENT.	129	~~5554~~
TOTALS:	34335	118536
APPARENT SHRINKAGE (11%)ON 118536		+13039
TOTAL EMBANKMENT NEEDED		131575
LESS AVAILABLE EXCAVATION		-34335
ADDITIONAL MATERIAL NEEDED		97240

5

GENERAL SUMMARY

COUNTY NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HARDIN		P2	103

FD.04 047 31WB 000-002

PAVING SUMMARY

ITEM CODE	ITEM	UNIT	31W BYPASS	BUSH LANE	GLENDALE ROAD (KY 1136)	ENTRANCES	TOTAL PROJECT
	B.T.C. Conc. Surf. Cl. I-O 5.1% A/C						
~~149~~	~~BIT CONC SURFACE CLASS I-O~~	~~TON~~	~~1334~~	~~48~~			~~1382~~
153	BIT CONC SURFACE CLASS I-20	TON					314
154	BIT CONC SURFACE CLASS I-20/30 5.1% A/C	TON			~~655~~	~~855~~	2388
155	BIT CONC SURFACE CLASS I-20 HT	TON					
156	BIT CONC SURFACE CLASS I-40 HT	TON					
157	BIT CONC SURFACE CLASS I-40/20	TON					
246	BIT CONC SURFACE CLASS AK-SHLD	TON					
247	BIT CONC SURFACE CLASS AK	TON					
248	BIT CONC SURFACE CLASS AK/HT	TON					
249	BIT CONC SURFACE CLASS A/ HT	TON					
250	BIT CONC SURFACE CLASS K/HT	TON					
251	BIT CONC SURFACE CLASS A	TON					
252	BIT CONC SURFACE CLASS K	TON					
190	BIT MIX FOR LEVELING & WEDGING	TON					
130	BIT CONC BINDER CLASS I	TON					
120	BIT CONC BASE CLASS I	TON	~~5,028~~	~~131~~	~~5,110~~	~~10,269~~	11,098
123	BIT CONC BASE CLASS K	TON					
1	D G A BASE	① TON	~~13,066~~	~~330~~	~~2,533~~	~~15,129~~	18,248
3	CRUSHED STONE BASE	① TON					
15	DRAINAGE BLANKET-TYPE I-UNTR	③ TON					
18	DRAINAGE BLANKET-TYPE II-ASPH	② TON					
13	LIME STABILIZED ROADBED	SQ YD	~~30,263~~				~~30,263~~ 0
14	LIME	TON	~~688~~				~~599~~ 0
358	BITUMINOUS CURING SEAL	TON	~~24.2~~				~~24.2~~ 0
20	TRAFFIC BOUND BASE	② TON					~~317~~ 320
100	BITUMINOUS SEAL AGGREGATE	TON	~~21.5~~				~~21.5~~ 81
291	EMULSIFIED ASPHALT RS-2	TON	~~2.6~~				~~2.6~~ 18.3
296	CUTBACK ASPHALT EMUL PRIMER L	TON					
356	BITUMINOUS MATERIAL FOR TACK	TON	~~3,96~~	~~0.11~~	~~5.9~~	~~10.0~~	3.7
270	ANTI-STRIP ADD PER TON BIT MIX	EACH				~~8765~~	11,605
2073	P C C PAVEMENT - NON-REINFORCED 9 INCH	SQ. YD.	~~14,635~~			~~14,635~~	15,313
2101	CEMENT CONCRETE ENTRANCE PAVEMENT-8"					~~213~~	~~213~~ 196

NOTES

ALL BITUMINOUS CONCRETE 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.

② ESTIMATED AT 100 LBS. PER SQ. YD. PER INCH OF DEPTH.

③ ESTIMATED AT 95 LBS. PER SQ. YD. PER INCH OF DEPTH.

PAVING AREAS

ITEM	S 31W BYPASS	Q MEDIAN	U SHOULDER	A RAMP "C"	R RAMP "D"	E BUSH LANE	GLENDALE ROAD (KY 1136)	Y ENTRANCES (KY 1136)	A DETOUR "C"	R DETOUR "D"	D	S TOTAL PROJECT
9" P C C PAVEMENT	12,216		1,483	936								14,635
1-1/4" BITUMINOUS CONCRETE SURFACE CLASS I-O		13,166	4,222	489	483	714						18,533
3" BITUMINOUS CONCRETE BASE CLASS I		13,166	4,257	494	490							19,074
4-3/4" BITUMINOUS CONCRETE BASE CLASS I						594			515	814		1,923
BITUMINOUS MATERIAL FOR TACK		13,166	4,257	494	490	719		29,325	512	806		49,769
4" DENSE GRADED AGGREGATE BASE	12,216			1,483	936	126		10,144				24,779
5" DENSE GRADED AGGREGATE BASE		1,328										1,328
7" DENSE GRADED AGGREGATE BASE		13,166	7,515	494	429							21,730
8" DENSE GRADED AGGREGATE BASE						608			526	825		1,959
8" LIME MODIFIED ROADBED	26,981			1,978	1,304							30,263
BITUMINOUS CURING SEAL	26,981			1,978	1,304							30,263
EMULSIFIED ASPHALT RS-2	26,981			1,978	1,304							30,263
BITUMINOUS SEAL AGGREGATE			844	133	95							1,072
1-1/4" BITUMINOUS CONCRETE SURFACE CLASS I-20/30			844	133	95							1,072
3-1/2" BITUMINOUS CONCRETE BASE CLASS I							9,518					9,518
3" BITUMINOUS CONCRETE BASE CLASS I (2-COURSES)							9,576					9,576
CEMENT CONCRETE ENTRANCE PAVEMENT-8"								19,114				19,114
TRAFFIC BOUND AGGREGATE-2"									213			213
1" BITUMINOUS CONCRETE SURFACE CLASS I-O										806		1,318

PIPE DRAINAGE SUMMARY

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HARDIN		2e	103

047 31WB 000-002

SHEET NO.	SKEW	CULVERT PIPE 18" R.C.P. CLASS III BCCSP GAGE 16 BCCAP GAGE 16	CULVERT PIPE 18" EQ. R.C.P. CLASS III BCCSP GAGE 16 BCCAP GAGE 16	CULVERT PIPE 30" R.C.P. CLASS III NO ALTERNATE	CULVERT PIPE 48" R.C.P. CLASS IV BCCSP GAGE 8 BCCAP GAGE 8	ENTRANCE PIPE 15"	ENTRANCE PIPE 18"	ENTRANCE PIPE 30"	SLOPED BOX INLET - OUTLET TYPE 1	18" SLOPED BOX OUTLET TYPE - 1	SLOPED & FLARED BOX INLET-OUTLET 30"	CURB BOX INLET TYPE B	48" JUNCTION BOX	DROP BOX INLET TYPE 5D	CONCRETE MEDIAN BARRIER BOX INLET TYPE 1281	CLASS "A" CONCRETE (1)	STEEL REINFORCEMENT	REMARKS
ITEM CODE		462	491	466	470	440	441	445	1440	1433	1452	1480	1647	1511	1608		8150	
UNIT TO BID ON		LINEAR FOOT							EACH							CU. YD.	LB.	
STA. 40+14		~~161~~ 160								2								
STA. 55+35		~~50~~ 40								~~1~~								
STA. 78+25												1				0.93	8	Sloped & Flared Headwall
STA. 82+00		~~72~~ 80								1					1			
STA. 85+00		~~71~~ 70								1					1			
STA. 88+00		~~68~~ 64								1					1			
STA. 94+55		~~61~~ 59								1					1			
100+50 Rt. M/L												1		1		0.93	8	SLOPED & FLARED HEADWALL
BUSH LANE																		
STA. 50+66			~~36~~ 50						2									
KY 1136																		
STA. 323+50		~~25~~ 36																
STA. 323+58					111								1	1		3.27	248	48" PIPE CULVERT HEADWALL
APPROACH LT. STA. 323+50																		
STA. 50+54		~~84~~ 100								1						~~0.93~~	~~8~~	~~SLOPED & FLARED HEADWALL~~
RAMP D DETOUR																		
STA. 141+86				32							1			1				
RAMP D STA 41+92 15° SKEW																		
45+75 Lt. Ramp C				136														
46+35 Barr. Wall Trench																4.29	140	1-30" Std Hdwl. & 2 Pipe Collars & Paved Ditch
309+40 Rt. Slab over Gas Line																3.51	163	
																4.07		
TOTALS		~~590~~ 609	~~36~~ 50	~~32~~ 168	111	~~284~~ 274	64	~~73~~ 0	2	6	1	2	1	~~2~~ 3	4	~~5.13~~ [illegible]	~~264~~ 567	

(1) CARRIED OVER AND INCLUDED IN THE GENERAL SUMMARY.

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GEORGE MARR CO. 7-13-73 FORM NO. 2

BRIDGE AND CULVERT SUMMARY

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HARDIN		2f	103

FD 04 047 31WB 000-002

DIVISION OF BRIDGES ESTIMATE AND PROJECT SUMMARY
KENTUCKY DEPARTMENT OF HIGHWAYS

SHEET 1

COUNTY HARDIN
ROAD ELIZABETHTOWN BYPASS

STATE PROJECT NO. FSP-047-31WB-000-002-003-D
FEDERAL PROJECT NO. NH 31-1 (14)

COMPLETED DATE

REVISION DATE

SPECIAL DRAWINGS 23193/23SH, 23194/32SH

STANDARD DRAWINGS BGX-006-05/1SH

TOTAL PLAN SHEETS 56

	DRAWING NUMBER	23193	23194
	STATION ON PROJECT ROUTE	53+92.30	91+99.24
	STATION ON CROSSING ROUTE	8532+39.70	

DESCRIPTION OF STRUCTURE

	BRIDGE /	BRIDGE	BRIDGE
	TOTAL LENGTH /	230.3	469.2
	NO. OF SPANS /	4 SPANS	6 SPANS
	SKEW /	09.4 LEFT	VARIES
	FABRICATION /	PCIB	PCIB
	SPAN LENGTH /	CONT 56.0	CONT 57.4
	/	CONT 69.6	CONT 65.0
	/	CONT 56.6	CONT 85.0
	/	CONT 44.0	CONT 79.4
	/		CONT 120.4
	/		CONT 56.6

QUANTITIES

CODE	UNIT	DESCRIPTION			TOTALS FOR PROJECT
8100	C.Y.	CONCRETE-CLASS A	~~208.3~~ 216.8	~~626.4~~ 617.5	834.3
8104	C.Y.	CONCRETE-CLASS AA	426.9	842.6	1269.5
8150	LBS.	STEEL REINFORCEMENT	33337.	99960.	133297.
8001	C.Y.	STRUCTURE EXCAVATION-COMMON	~~288.~~ 304.3	~~945.~~ 998.2	~~1233.~~ 1302.5
8002	C.Y.	STRUCTURE EXCAV-SOLID ROCK	~~38.~~ 0	~~130.~~ 0	~~188.~~ 0
8033	L.F.	TEST PILES	~~32.~~ 38		~~32.~~ 38
8046	L.F.	PILES-STEEL HP12X53	~~556.~~ 609		~~556.~~ 609
8151	LBS.	STEEL REINF-EPOXY COATED	97512.	265351.	362863.
2403	C.Y.	REMOVING CONCRETE MASONRY	~~12.~~ 5.0	~~9.~~ 10.4	~~21.~~ 15.4
8160	L.S.	STRUCTURAL STEEL	NOTE 9		NOTE 9
8469	L.F.	EXPANSION DAM-1 1/2" NEOPRENE	~~98.~~ 94	95.	~~185.~~ 189
8633	L.F.	PRECAST PC I BEAM TYPE III	~~1348.6~~ 1348	~~1731.6~~ 1732	3080.0
8636	L.F.	PRECAST 60 INCH PCI BEAM MOD.		~~1062.9~~ 1061	~~1062.9~~ 1061
8471	L.F.	EXPANSION DAM-2 1/2" NEOPRENE		47.	47.
8045	L.S.	COFFERDAM-PIER 3	1.		1.

NOTES AND SPECIAL PROVISIONS

9	LBS.	APPROX WT OF STRUCTURAL STEEL	1066.
		92(91) PERMANENT STEEL BRIDGE DECK FORMS	

1066.

BRIDGE AND CULVERT QUANTITIES ARE NOT INCLUDED IN THE GENERAL SUMMARY.

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COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HARDIN		2g	103

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GENERAL NOTES

PROPOSAL ATTACHMENTS

SPECIAL NOTE FOR FALL PROTECTION (8-23-88)

SPECIAL NOTES FOR HARDIN COUNTY FD 04 047 31WB 000-002

SPECIAL NOTE FOR FABRIC WRAPPED BACKFILL DRAIN MATERIALS (5-17-91)

SPECIAL NOTE FOR BITUMINOUS INDENTED RUMBLE STRIPS (12-7-88)

SPECIAL NOTE FOR POLISH RESISTANT AGGREGATE REQUIREMENTS (2-6-92)

SPECIAL NOTE FOR ASPHALT CEMENT QUANTITY WHEN LABORATORY MIX DESIGN IS REQUIRED (2-26-92)

SPECIAL NOTE FOR ANTI-STRIPPING ADDITIVE (2-6-92)

SPECIAL NOTE FOR FINE AGGREGATES FOR BITUMINOUS MIXTURES (5-6-91)

SPECIAL NOTE FOR CONTROL AND ACCEPTANCE OF BITUMINOUS MIXTURES (7-28-93)

SPECIAL NOTE FOR DENSE GRADED AGGREGATE AND CRUSHED STONE BASE (12-1-92)

SPECIAL NOTE FOR EROSION AND WATER POLLUTION CONTROL (2-10-93)

SPECIAL NOTE FOR APPLICATION OF FEDERAL RAILROAD ADMINISTRATION SAFETY RULES (1-21-93)

SPECIAL NOTE FOR PAVEMENT MARKINGS (10-5-93)

SPECIAL NOTE FOR TACK WELDING (2-17-93)

SPECIAL NOTE FOR ROAD IMPROVEMENT SIGNS FOR NON-FEDERAL PROJECTS (11-3-93)

SPECIAL NOTE FOR USE OF FLOWABLE FILL AS PIPE BACKFILLL (4-26-93)

SPECIAL NOTE FOR RETROREFLECTIVE MATERIALS (10-27-93)

SPECIAL PROVISIONS

43F	(91)	MARSHALL DESIGN METHOD CRITERIA CLASS I MIXTURES
46K	(91)	PRICE ADJUSTMENT FOR PETROLEUM PRODUCTS
53A	(91)	PRICE ADJUSTMENT FOR PORTLAND CEMENT
54D	(91)	CONCRETE PLANT QUALITY CONTROLS
84B	(91)	LIME ROADBED STABILIZATION
88	(91)	CONSTRUCTION ACTIVITIES AFFECTING STREAMS
94	(91)	COMPACTION TEST STRIPS, CLASS I MIXTURES
136	(91)	CRASH CUSHIONS

THIS PROJECT IS A PARTIALLY CONTROLLED ACCESS HIGHWAY. ACCESS SHALL BE PROVIDED ONLY WHERE SPECIFICALLY INDICATED ON PLANS.

CONTROL OF WORK

THE RIGHT IS RESERVED BY THE DEPARTMENT TO HAVE OTHER WORK PERFORMED BY OTHER CONTRACTORS AND BY ITS OWN FORCES AND TO PERMIT PUBLIC UTILITY COMPANIES AND OTHERS TO DO WORK DURING THE CONSTRUCTION OF, AND WITHIN THE LIMITS OF OR ADJACENT TO, THE PROJECT. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS AND COOPERATE WITH SUCH OTHER PARTIES SO THAT INTERFERENCE WITH SUCH OTHER WORK WILL BE REDUCED TO A MINIMUM. THE CONTRACTOR SHALL AGREE, AND HEREBY DOES AGREE, TO MAKE NO CLAIMS AGAINST THE DEPARTMENT FOR ADDITIONAL COMPENSATION DUE TO DELAYS OR OTHER CONDITIONS CREATED BY THE OPERATIONS OF SUCH OTHER PARTIES. SHOULD A DIFFERENCE OF OPINION ARISE AS TO THE RIGHTS OF THE CONTRACTOR AND OTHERS WORKING WITHIN THE LIMITS OF OR ADJACENT TO THE PROJECT, THE ENGINEER WILL DECIDE AS TO THE RESPECTIVE RIGHTS OF THE VARIOUS PARTIES INVOLVED IN ORDER TO ASSURE THE COMPLETION OF THE DEPARTMENT'S WORK IN GENERAL HARMONY AND IN A SATISFACTORY MANNER AND HIS DECISION SHALL BE FINAL AND BINDING UPON THE CONTRACTOR.

DETAIL SHEETS

ANY STANDARD DRAWINGS REFERRED TO IN THE PLANS, OR PROPOSAL, THAT ARE NOT ATTACHED AS HALF-SIZE SHEETS, HAVE BEEN INCLUDED ELSEWHERE IN THE PLANS AS FULL-SIZE DETAIL SHEETS.

BEFORE YOU DIG

THE CONTRACTOR IS ADVISED THAT HE CAN CALL 1-800-752-6007 TOLL FREE A MINIMUM OF TWO WORKING DAYS PRIOR TO EXCAVATION FOR INFORMATION ON THE LOCATION OF EXISTING UNDERGROUND UTILITIES WHICH SUBSCRIBE TO THE BEFORE-U-DIG (BUD) SERVICE. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE EXCAVATION WITH ALL UTILITY OWNERS, INCLUDING THOSE WHO DO NOT SUBSCRIBE TO BUD. ALL UTILITIES AND A CONTACT PERSON FOR EACH COMPANY ARE SHOWN ON SHEET NO. 3 OF THE PLANS.

UTILITIES (HAZARDOUS OR FLAMMABLE MATERIALS)

THE CONTRACTOR IS ADVISED TO EXERCISE CAUTION IN HIS OPERATIONS IN AREAS WHERE PLANS INDICATE THE PRESENCE OF A GAS LINE OR OTHER LINES CARRYING HAZARDOUS MATERIAL.

CSX TRANSPORTATION, INC. HAS SIGNALS AND COMMUNICATIONS FACILITIES TO RELOCATE FOR THIS CONSTRUCTION. THEY HAVE BEEN AUTHORIZED TO PROCEED AND SHOULD BE CLEARED PRIOR TO THE APRIL 22, 1994 LETTING.

TRAFFIC NOTE

SEE PROPOSAL FOR MAINTENANCE OF TRAFFIC NOTES.

TRAFFIC CONTROL ITEMS

UNLESS OTHERWISE DIRECTED, ALL SALVAGABLE TRAFFIC CONTROL ITEMS, DEVICES, MATERIALS AND INCIDENTALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR WHEN NO LONGER NEEDED FOR MAINTAINING AND CONTROLLING TRAFFIC DURING CONSTRUCTION.

DETOUR CONSTRUCTION

CONTRARY TO SUBSECTION 104.04.01 OF THE STANDARD SPECIFICATIONS, THE LUMP SUM BID FOR "DETOUR CONSTRUCTION" SHALL INCLUDE ALL GRADING AND NECESSARY DRAINAGE FOR THE TEMPORARY ROADWAY AND REMOVAL THEREOF WHEN IT IS NO LONGER NEEDED.

DEPARTMENT OF THE ARMY PERMIT AND WATER QUALITY CERTIFICATION APPROVALS

THIS PROJECT AT ONE OR MORE LOCATIONS IS REGULATED BY A DEPARTMENT OF THE ARMY (DA) PERMIT WHICH CAN REQUIRE THE APPROVAL OF A STATE WATER QUALITY CERTIFICATION FROM THE KENTUCKY DIVISION OF WATER. THE CONTRACTOR SHALL PERFORM ALL APPLICABLE WORK IN COMPLIANCE WITH THE CONDITIONS STATED IN THE DA PERMIT AND THE APPROVED WATER QUALITY CERTIFICATION. THE CONTRACTOR SHALL POST A COPY OF THE DA PERMIT AND THE WATER QUALITY CERTIFICATION IN A CONSPICUOUS PLACE AT THE PROJECT SITE. IF A DA PERMIT OR WATER QUALITY CERTIFICATION APPROVAL IS PENDING, THE CONTRACTOR SHALL NOT WORK IN OR DISTURB THE DESIGNATED AREA(S) UNTIL THE APPROPRIATE APPROVAL(S) HAS BEEN OBTAINED. REFER TO NOTICE(S) CONTAINED IN THE CONTRACT BID PROPOSAL FOR DESIGNATED AREA(S) WHERE WORK IS PROHIBITED BY THE ABSENCE OF APPROVAL.

NOTICE - CAUTION - CLASSIFICATION

WITHOUT REGARD TO THE MATERIALS ENCOUNTERED, ALL ROADWAY AND DRAINAGE EXCAVATION SHALL BE UNCLASSIFIED. IT SHALL BE DISTINCTLY UNDERSTOOD THAT ANY REFERENCE TO ROCK, EARTH, OR ANY OTHER MATERIAL ON THE PLANS OR CROSS-SECTIONS WHETHER IN NUMBERS, WORDS, LETTERS OR LINES, IS SOLELY FOR THE DEPARTMENT'S INFORMATION AND IS NOT TO BE TAKEN AS AN INDICATION OF CLASSIFIED EXCAVATION OR THE QUANTITIY OF EITHER ROCK, EARTH OR ANY OTHER MATERIAL INVOLVED. THE BIDDER MUST DRAW HIS OWN CONCLUSION AS TO THE CONDITIONS TO BE ENCOUNTERED. THE DEPARTMENT DOES NOT GIVE ANY GUARANTEE AS TO THE ACCURACY OF THE DATA AND NO CLAIM WILL BE CONSIDERED FOR ADDITIONAL COMPENSATION IF THE MATERIALS ENCOUNTERED ARE NOT IN ACCORD WITH THE CLASSIFICATION SHOWN.

ROADBED NOTE, EMBANKMENT-IN-PLACE

IN ADDITION TO THE REQUIREMENTS FOR EMBANKMENTS (SECTION 207 OF THE STANDARD SPECIFICATIONS), MATERIAL FOR THE TOP 12 INCHES OF ROADBED SHALL HAVE A MINIMUM DRY WEIGHT OF 98 POUNDS PER CUBIC FOOT AS DETERMINED BY KM 64-511, AND SHALL BE COMPACTED TO AN IN-PLACE DENSITY CONFORMING TO THE COMPACTING REQUIREMENTS OF SECTION 207.05 OF THE STANDARD SPECIFICATIONS.

EROSION CONTROL

SEED MIXTURE NO. 1 SHALL BE USED.

FERTILIZER SHALL BE APPLIED AT THE RATE OF 23 POUNDS PER 1000 SQUARE FEET.

AGRICULTURAL LIMESTONE SHALL BE APPLIED AT THE RATE OF 150 POUNDS PER 1000 SQUARE FEET.

LIME STABILIZED ROADBED

THE TOP 8 INCHES OF THE FINISHED ROADBED SHALL BE STABILIZED WITH LIME IN ACCORDANCE WITH SPECIAL PROVISION NO. 84 FOR LIME ROADBED STABILIZATION. SELECTED SOILS, HAVING A MINIMUM CBR VALUE OF 3, SHALL BE USED FOR THIS PURPOSE.

THE LIME CONTENT HAS BEEN ESTABLISHED AT 6 PERCENT BY WEIGHT, AND THE PLAN QUANTITY HAS BEEN ESTIMATED USING AN AVERAGE DRY DENSITY OF 110 LBS./CU. FT. HOWEVER, THE QUANTITY SHALL BE ADJUSTED AFTER THE ROADBED HAS BEEN CONSTRUCTED AND SAMPLES SUBMITTED AND TESTED BY THE DIVISION OF MATERIALS. APPROXIMATELY TWO WEEKS TIME IS NEEDED FOR THIS PURPOSE.

BITUMINOUS MATERIAL

THE BITUMINOUS MATERIAL FOR BITUMINOUS CONCRETE SHALL BE AC-20.

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GENERAL NOTES

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HARDIN		2h	103

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BITUMINOUS MATERIAL FOR DETOURS

THE BITUMINOUS MATERIAL FOR BITUMINOUS CONCRETE USED FOR TEMPORARY DETOURS WITHIN THE LIMITS OF THE PROJECT MAY BE EITHER AC-10 OR AC-20.

BITUMINOUS MATERIAL FOR TACK

BITUMINOUS MATERIAL FOR TACK IS ESTIMATED AT 0.4 LB./SQ. YD. FOR EACH COURSE. SEE SECTION 407 OF THE STANDARD SPECIFICATIONS FOR RATES OF APPLICATION.

CEMENT CONCRETE PAVEMENT AND/OR BASE NOTE

EITHER CENTRAL-MIXING OR TRUCK-MIXING W[illegible] BE PERMITTED (AT THE CONTRACTOR'S OPTION) IN CEMENT CONCRETE PAVEMENT CONSTRUCTION. HAND FINISHING WILL BE PERMITTED.

TRANSVERSE JOINTS AT RIGHT ANGLES

TRANSVERSE CONTRACTION AND EXPANSION JOINTS AT RIGHT ANGLES WILL BE PERMITTED IN THE PORTLAND CEMENT CONCRETE PAVEMENT.

STANDARD DRAWINGS FOR HEADWALLS

STANDARD DRAWINGS FOR HEADWALLS (RDH SERIES) ARE NOT ATTACHED TO THESE PLANS BUT ARE AVAILABLE IN THE SUPPLEMENT TO THE STANDARD DRAWING BOOK, WHICH MAY BE OBTAINED FROM THE MANAGEMENT SERVICES DIVISION OF THE DEPARTMENT OF HIGHWAYS IN FRANKFORT, KENTUCKY AT A COST OF $7.50 PER COPY.

PIPE REMOVAL

CONTRARY TO THE STANDARD SPECIFICATIONS, THE REMOVAL OF PIPE, WHETHER SHOWN ON THE PLANS OR NOT, IS INCIDENTAL TO THE CONTRACT.

GUARDRAIL END TREATMENT TYPE 4

THE WIDENING OF THE EMBANKMENT TO ACCOMMODATE TYPE 4 END TREATMENTS CONSTRUCTED IN ACCORDANCE WITH APPLICABLE PLANS AND STANDARD DRAWINGS SHALL BE COMPLETED WITH EMBANKMENT-IN-PLACE SHOWN ELSEWHERE IN PLANS AND/OR PROPOSAL.

CRASH CUSHION REPLACEMENT ELEMENTS

THE CONTRACTOR SHALL HAVE A COMPLETE REPLACEMENT UNIT AVAILABLE ON THE PROJECT SITE FOR THE DURATION OF THE PROJECT, UNLESS THE SUPPLIER OF THE SPECIFIED IMPACT ATTENUATOR (CRASH CUSHION) CERTIFIES IN WRITING THAT REPLACEMENT UNITS AND/OR PARTS CAN BE DELIVERED TO THE PROJECT SITE WITHIN 24 HOURS AFTER THEY ARE ORDERED.

REMOVING GUARDRAIL

THE EXISTING GUARDRAIL SYSTEM, INCLUDING POSTS, TERMINAL SECTIONS AND END TREATMENTS, SHALL BE REMOVED IN A MANNER ACCEPTABLE TO THE ENGINEER WHICH WILL AVOID DAMAGE DURING REMOVAL. WHEN REMOVING GUARDRAIL, NO OPEN ENDS OR GAPS SHALL BE LEFT EXPOSED TO ONCOMING TRAFFIC WITHOUT ADEQUATE PROTECTION OR WARNING DEVICES. PAYMENT SHALL BE AT THE CONTRACT UNIT PRICE FOR "REMOVING GUARDRAIL" (CODE NO. 2384).

UPON REMOVAL, ALL GUARDRAIL COMPONENTS SHALL BE HAULED BY THE CONTRACTOR TO THE NEAREST MAINTENANCE BARN, UNLESS OTHERWISE DIRECTED. THE "W" BEAM RAIL SHALL BE STACKED 45 PER BUNDLE (3 WIDE, 15 HIGH, OVERLAPPED). THE METAL POSTS SHALL BE STACKED 50 PER BUNDLE (5 WIDE, 10 HIGH, OVERLAPPED). PAYMENT SHALL BE AT THE CONTRACT UNIT PRICE FOR "HAULING GUARDRAIL" (CODE NO. 2358).

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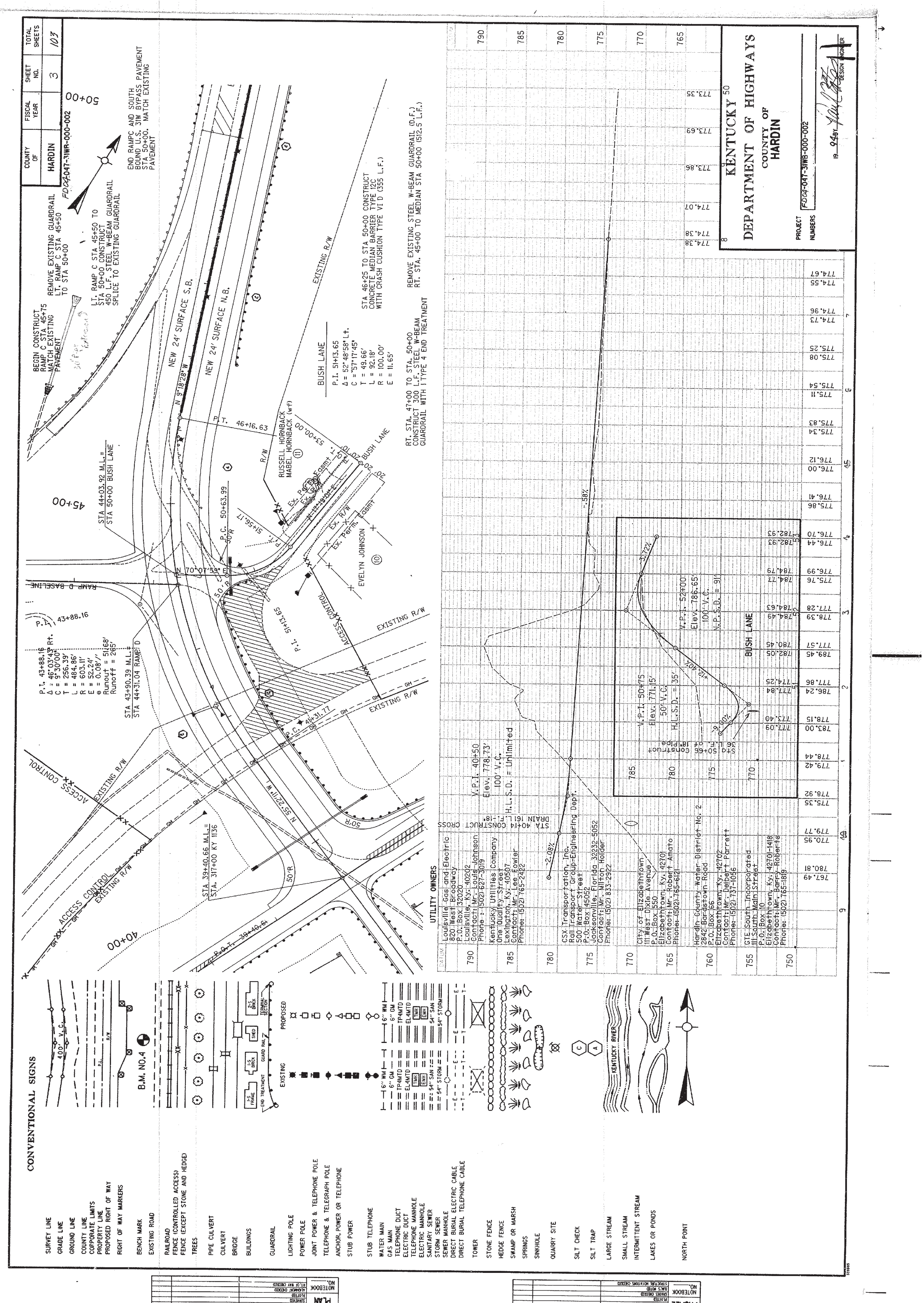
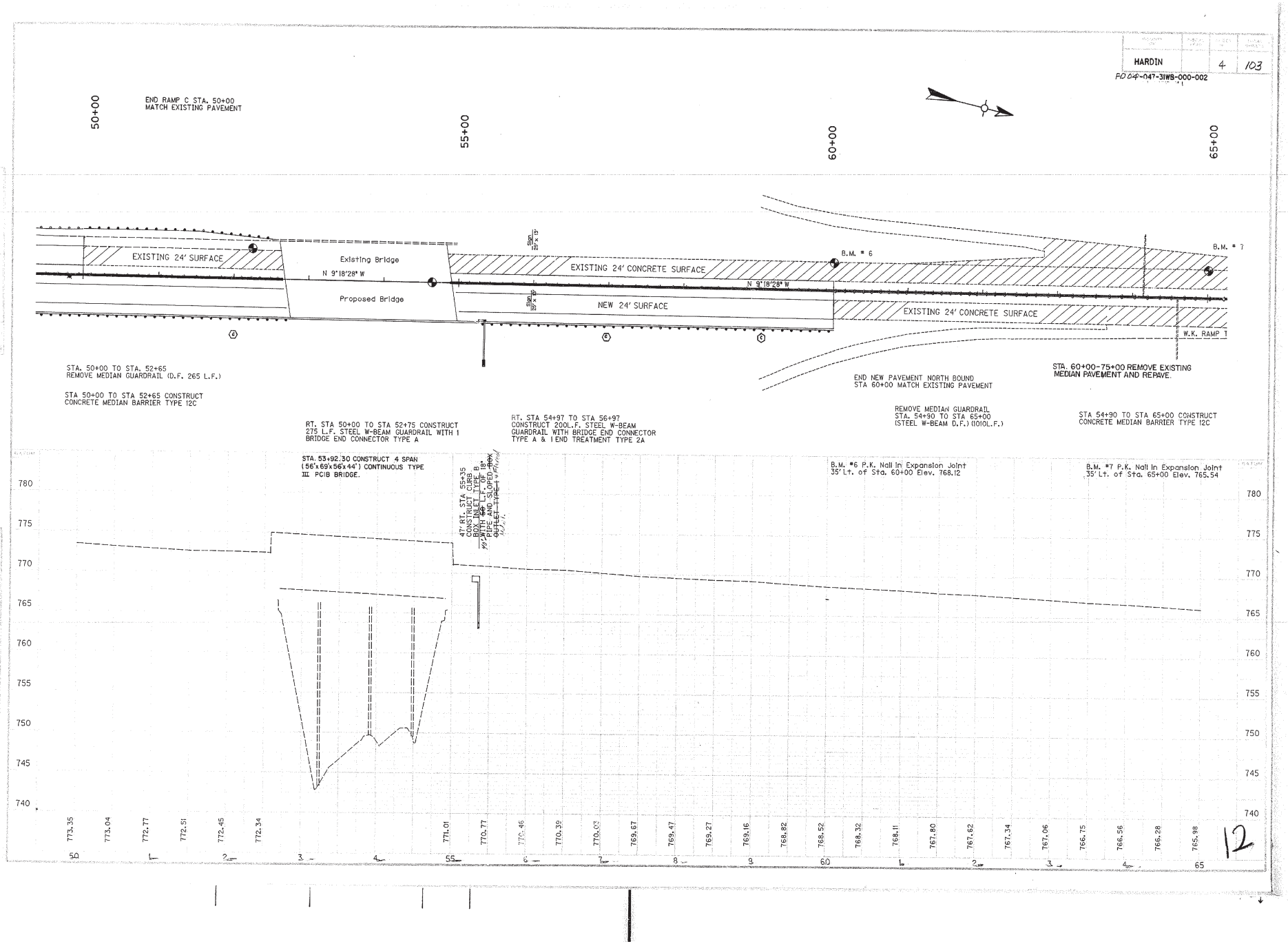

CONVENTIONAL SIGNS
KENTUCKY DEPARTMENT OF HIGHWAYS
COUNTY OF HARDIN
UTILITY OWNERS
BUSH LANE
NEW 24' SURFACE S.B.
NEW 24' SURFACE N.B.
EXISTING R/W
ACCESS CONTROL
RAMP D BASELINE
EVELYN JOHNSON
RUSSELL HORNBACK
MABEL HORNBACK (w/f)
PLAN
PROFILE

	HARDIN	4	103
	FD 04-047-31WB-000-002		



HARDIN CO. 103
FD04-047-31WB-000-002

ST. 65+00 CONSTRUCT TEMPORARY CRASH CUSHION TYPE VI C

STA 75+00 CONSTRUCT TEMPORARY CRASH CUSHION TYPE VI C

P.I. 80+42.51
Δ = 39°23'19" Lt.
C = 3°00'00"
Ts = 834.29'
Ls = 300.00'
Lc = 1012.95'
θ = 4°30'00"
L.T.= 200.06'
S.T.= 100.06'
R = 1909.86'
Es = 120.75'
e = 0.079'/'
Runout = 59.34'
Runoff = 300'

65+00 70+00 75+00 80+00

T.S. 72+08.22
S.C. 75+08.22

B.M. #7
B.M. #8
B.M. #9
B.M. #10

N 9°18'28" W

EXISTING 24' SURFACE S.B.
EXISTING 24' SURFACE N.B.
W.K. RAMP TAPER
NEW 24' SURFACE N.B.

N 9°18'28" W

P.I. 80+42.51

CONSTRUCT CONCRETE BARRIER MEDIAN BOX AT STA. 78+25

STA 65+00 TO STA 69+75
REMOVE MEDIAN GUARDRAIL
(STEEL W-BEAM D.F.) (475 L.F.)

STA. 65+00 TO STA 80+00
CONSTRUCT CONCRETE MEDIAN
BARRIER TYPE 12C. (1475L.F.)

BEGIN NEW PAVEMENT NORTHBOUND
STA 75+22. MATCH EXISTING
PAVEMENT

B.M. #7 P.K. Nail in Expansion Joint
35' Lt. of Sta 65+00 Elev. 765.54

B.M. #8 P.K. Nail in Expansion Joint
14' Lt. of Sta 70+00 Elev. 763.07'

B.M. #9 P.K. Nail in Expansion Joint
35' Lt. of Sta 75+00 Elev. 758.35'

B.M. #10 P.K. Nail in Expansion Joint
36.5' Lt. of Sta 80+00 Elev. 755.42'

+25 CONSTRUCT CONCRETE MEDIAN BARRIER BOX

780 775 770 765 760 755 750 745 740

765.98 765.88 765.65 765.43 765.12 764.85 764.55 764.26 764.06 763.82 763.59 763.27 762.96 762.66 762.47 762.25 762.00 761.77 761.53 761.24 760.96 760.84 760.51 760.22 759.86 759.75 759.48 759.16 758.78 758.33 757.84

65 6 7 8 9 70 1 2 3 4 75 6 7 8 9 80

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COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HARDIN		6	103

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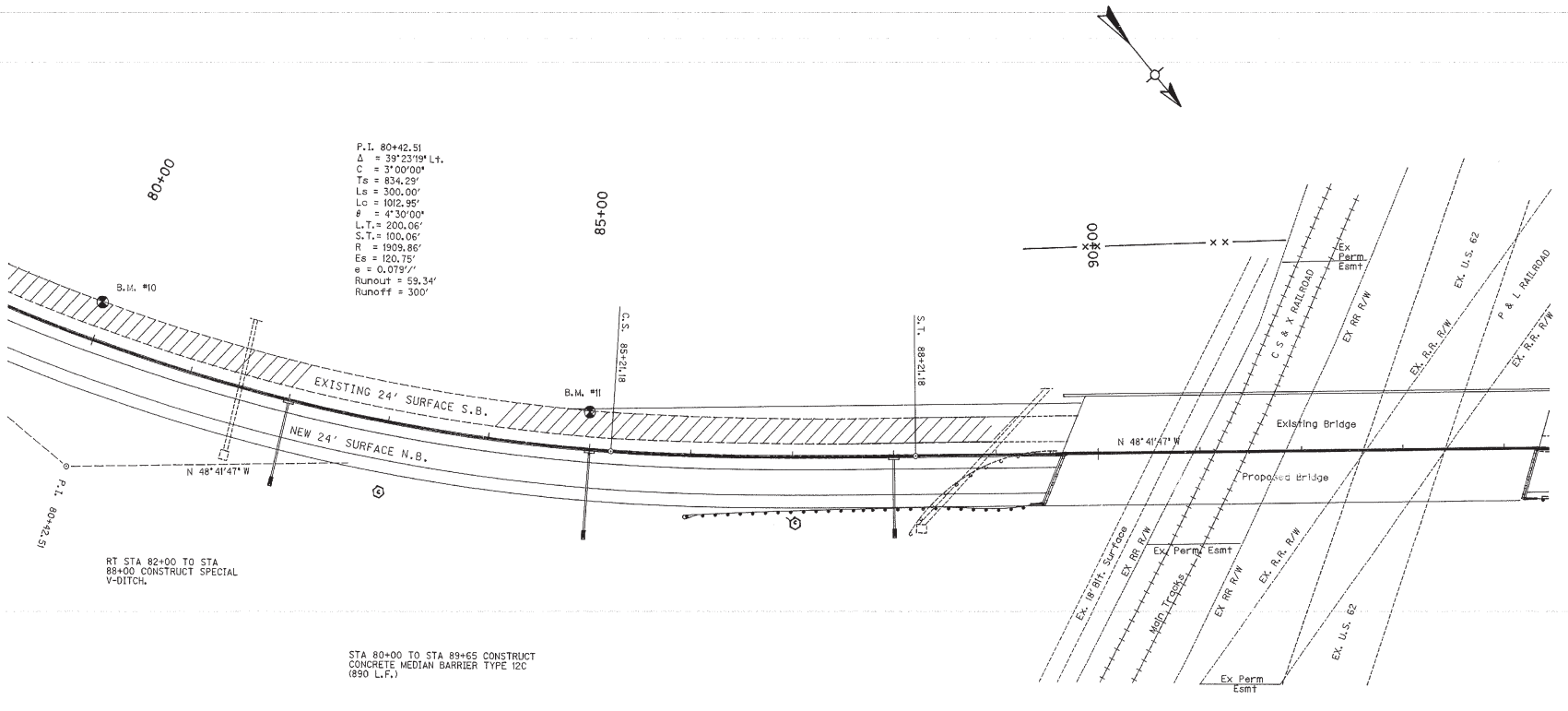


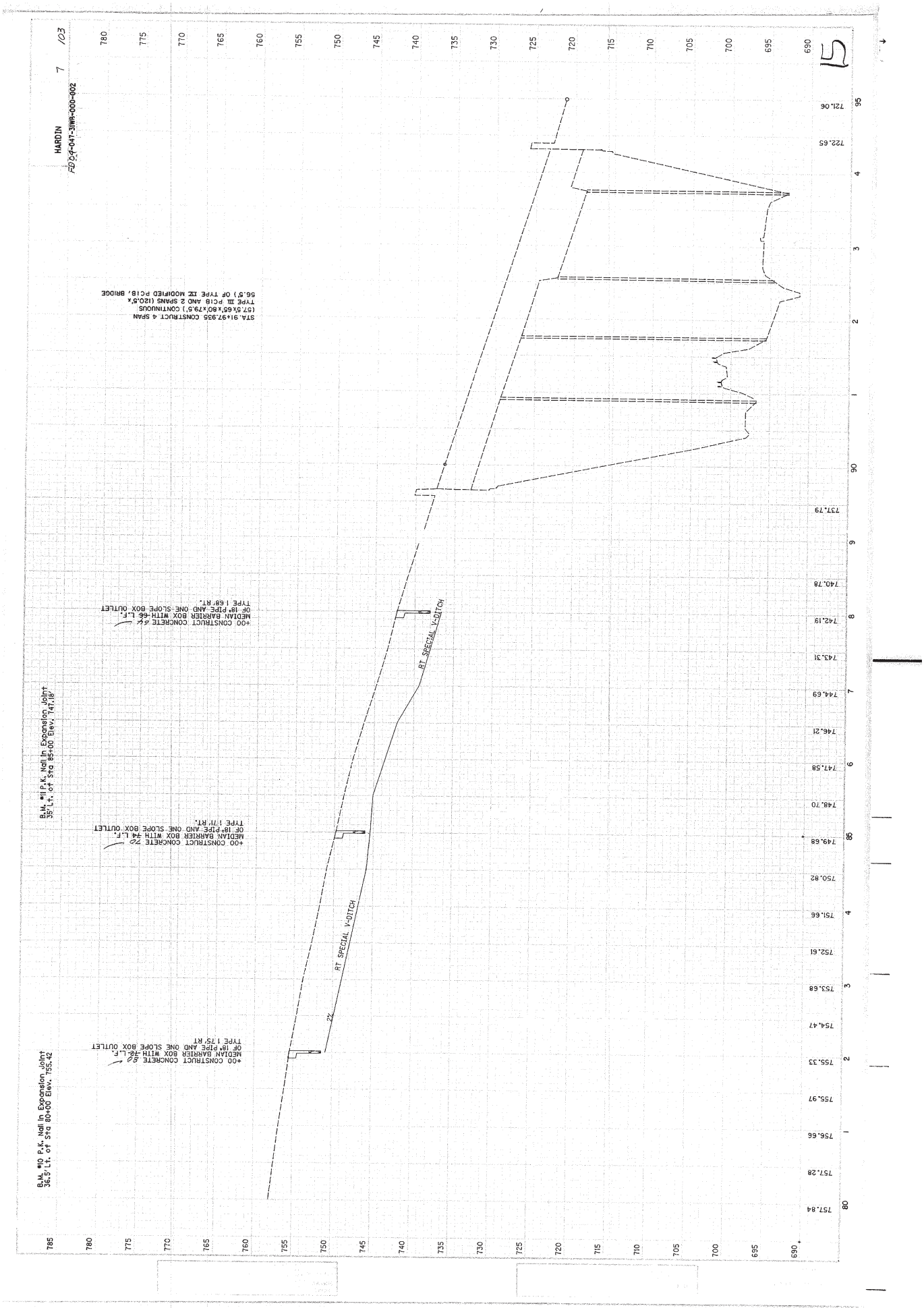
RT STA 82+00 TO STA 88+00 CONSTRUCT SPECIAL V-DITCH.

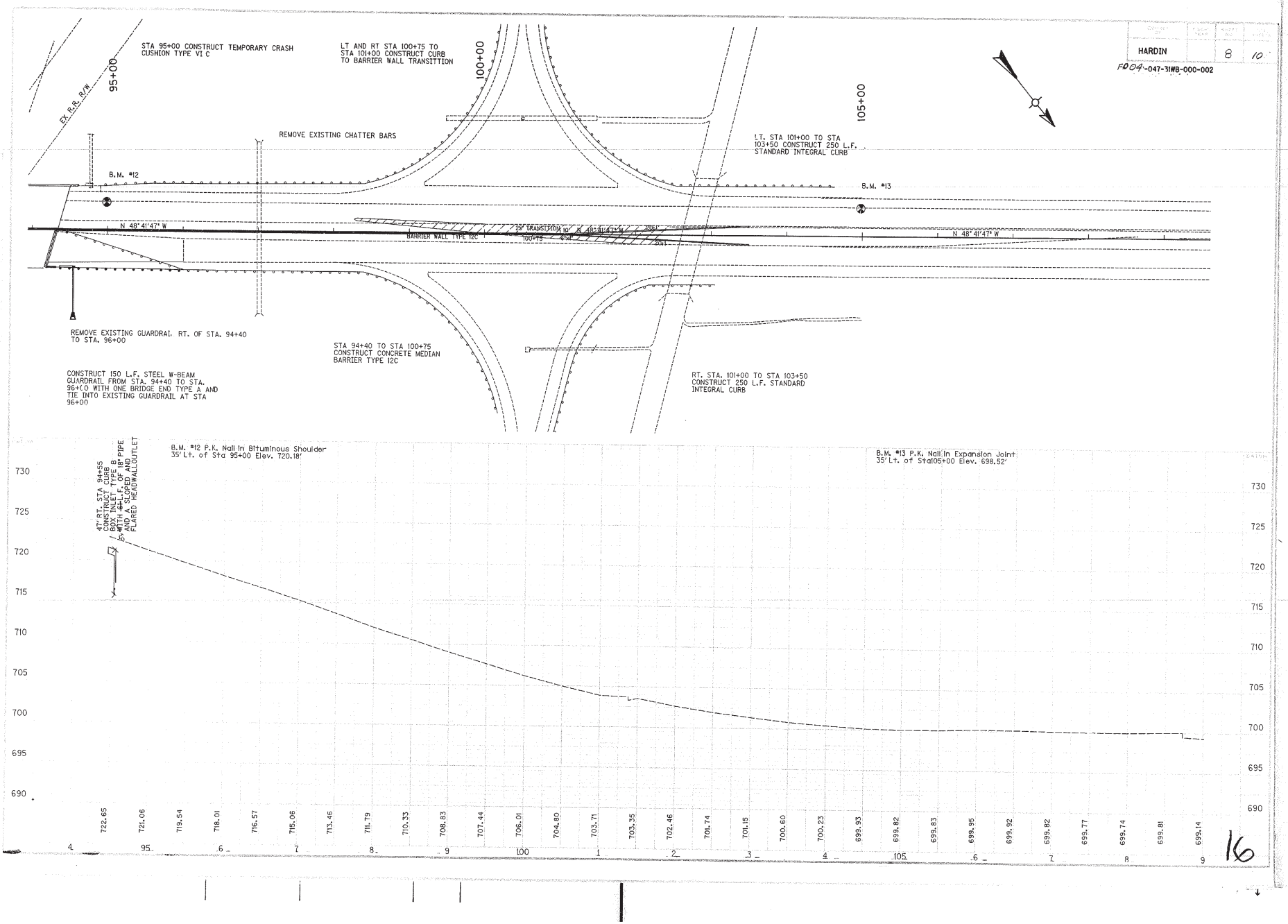
STA 80+00 TO STA 89+65 CONSTRUCT CONCRETE MEDIAN BARRIER TYPE 12C (890 L.F.)

RT STA 85+95 TO STA 89+45
CONSTRUCT 350 L.F. STEEL W-BEAM GUARDRAIL WITH 1 END TREATMENT TYPE 4 AND 1 BRIDGE END CONNECTOR TYPE A

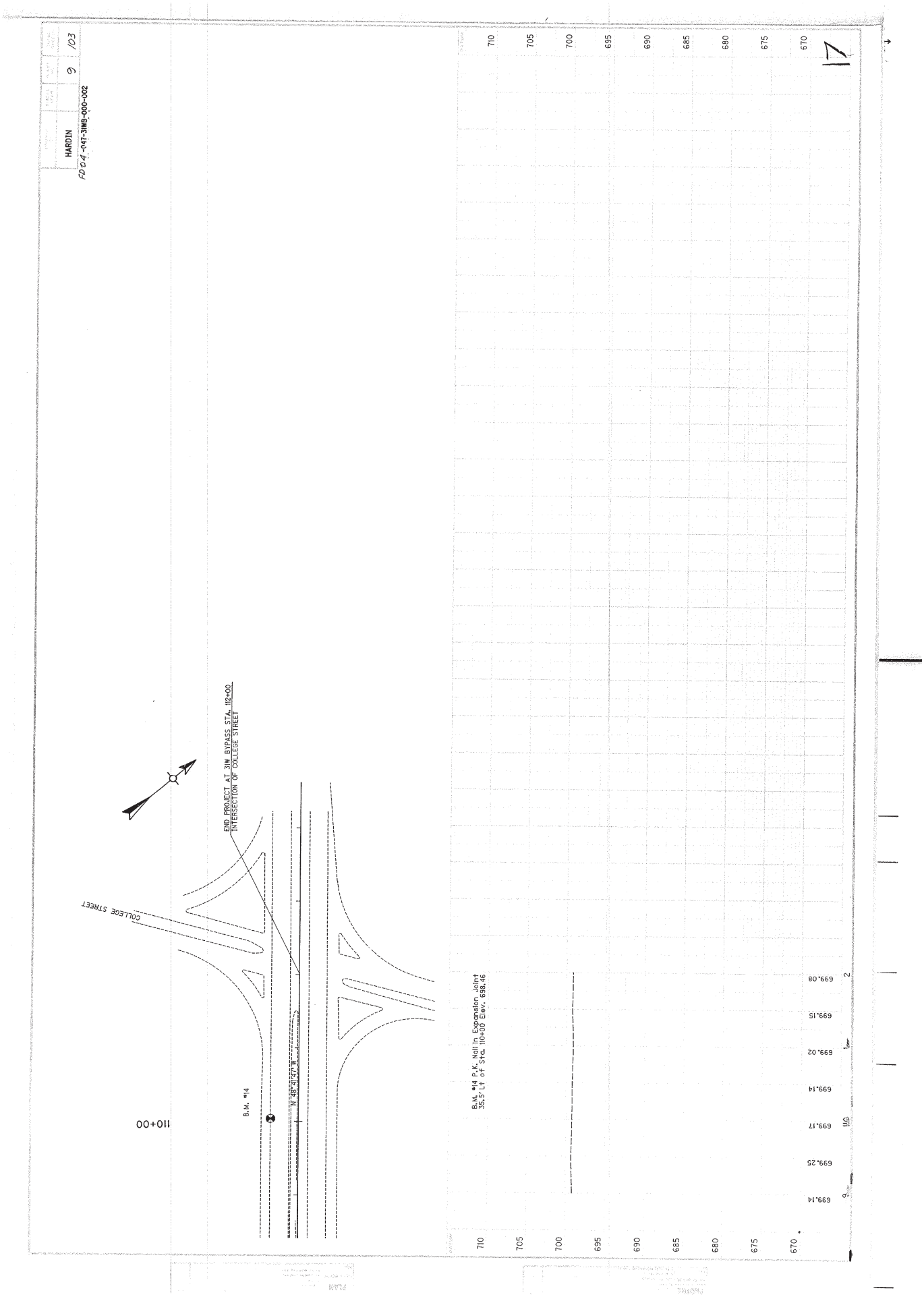
14

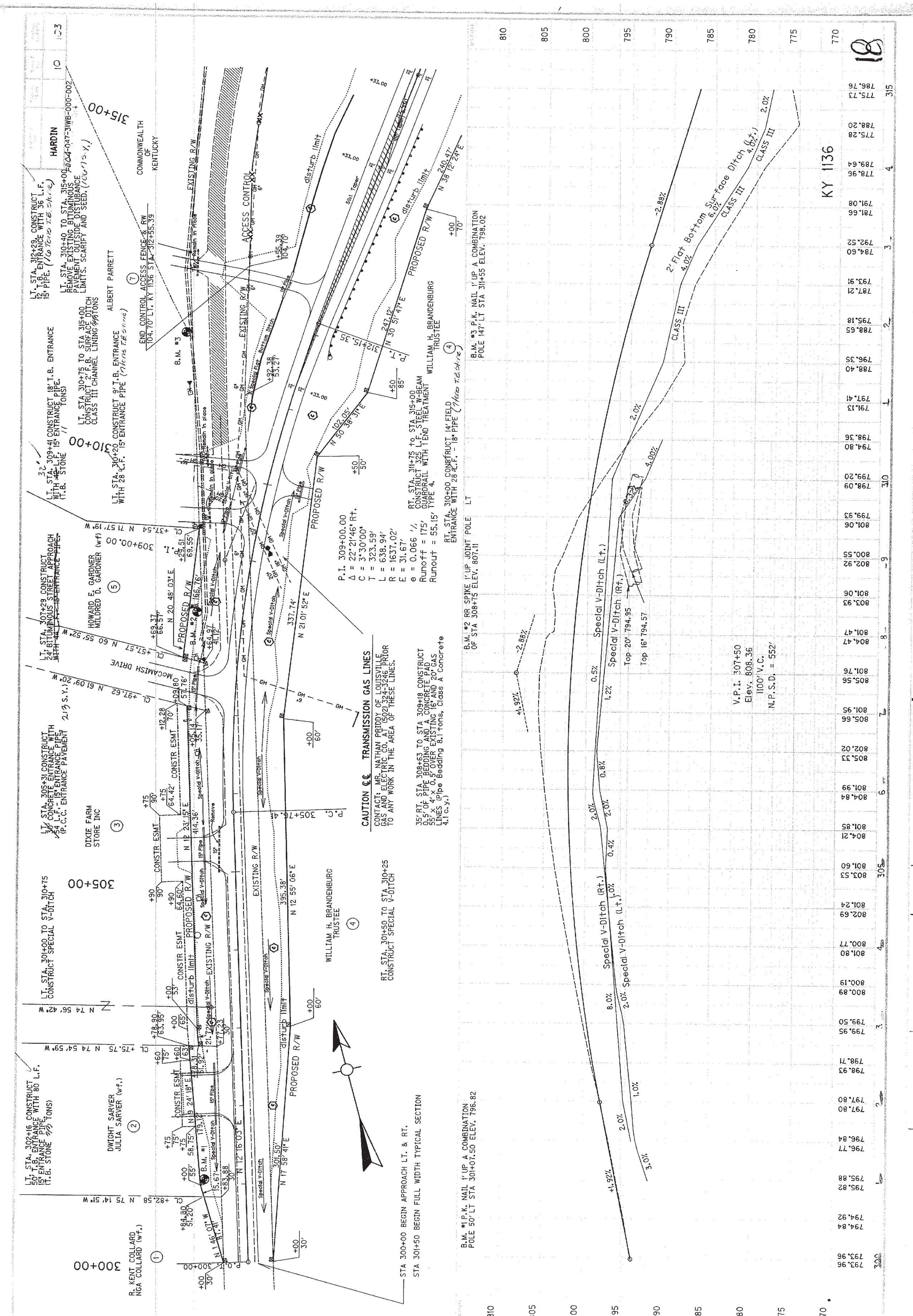
GEORGE MARR CO. 7-13-73 FORM NO. 2


HARDIN
FD04-047-31WB-000-002
STA. 91+97.935 CONSTRUCT 4 SPAN
(57.5'x65'x80'x79.5') CONTINUOUS
TYPE III PC18 AND 2 SPANS (120.5'x
56.5') OF TYPE IIC MODIFIED PC18, BRIDGE
+00 CONSTRUCT CONCRETE 60
MEDIAN BARRIER BOX WITH 42 L.F.
OF 18" PIPE AND ONE SLOPE BOX OUTLET
TYPE I 7'/ RT.
+00 CONSTRUCT CONCRETE 60
MEDIAN BARRIER BOX WITH 66 L.F.
OF 18" PIPE AND ONE SLOPE BOX OUTLET
TYPE I 68' RT.
+00 CONSTRUCT CONCRETE 70
MEDIAN BARRIER BOX WITH 34 L.F.
OF 18" PIPE AND ONE SLOPE BOX OUTLET
TYPE I 7'/ RT.
B.M. #10 P.K. Nail In Expansion Joint
36.5' Lt. of Sta 80+00 Elev. 755.42
B.M. #11 P.K. Nail In Expansion Joint
35' Lt. of Sta 85+00 Elev. 747.18'
RT SPECIAL V-DITCH
RT SPECIAL V-DITCH
2%


HARDIN 8 10
FD04-047-31WB-000-002
STA 95+00 CONSTRUCT TEMPORARY CRASH CUSHION TYPE VI C
LT AND RT STA 100+75 TO STA 101+00 CONSTRUCT CURB TO BARRIER WALL TRANSITTION
95+00
100+00
105+00
Ex. R.R. R/W
REMOVE EXISTING CHATTER BARS
LT. STA 101+00 TO STA 103+50 CONSTRUCT 250 L.F. STANDARD INTEGRAL CURB
B.M. #12
B.M. #13
N 48° 41' 47" W
25' TRANSITION
BARRIER WALL TYPE 12C
REMOVE EXISTING GUARDRAIL RT. OF STA. 94+40 TO STA. 96+00
STA 94+40 TO STA 100+75 CONSTRUCT CONCRETE MEDIAN BARRIER TYPE 12C
CONSTRUCT 150 L.F. STEEL W-BEAM GUARDRAIL FROM STA. 94+40 TO STA. 96+00 WITH ONE BRIDGE END TYPE A AND TIE INTO EXISTING GUARDRAIL AT STA 96+00
RT. STA. 101+00 TO STA 103+50 CONSTRUCT 250 L.F. STANDARD INTEGRAL CURB
B.M. #12 P.K. Nail in Bituminous Shoulder 35' Lt. of Sta 95+00 Elev. 720.18'
B.M. #13 P.K. Nail in Expansion Joint 35' Lt. of Sta105+00 Elev. 698.52'
47' RT. STA 94+55 CONSTRUCT CURB GUTTER INLET TYPE B WITH 24 L.F. OF 18" PIPE AND A SLOPED AND FLARED HEADWALLOUTLET
730
725
720
715
710
705
700
695
690
722.65 721.06 719.54 718.01 716.57 715.06 713.46 711.79 710.33 708.83 707.44 706.01 704.80 703.71 703.35 702.46 701.74 701.15 700.60 700.23 699.93 699.82 699.83 699.95 699.92 699.82 699.77 699.74 699.81 699.14
95 100 105

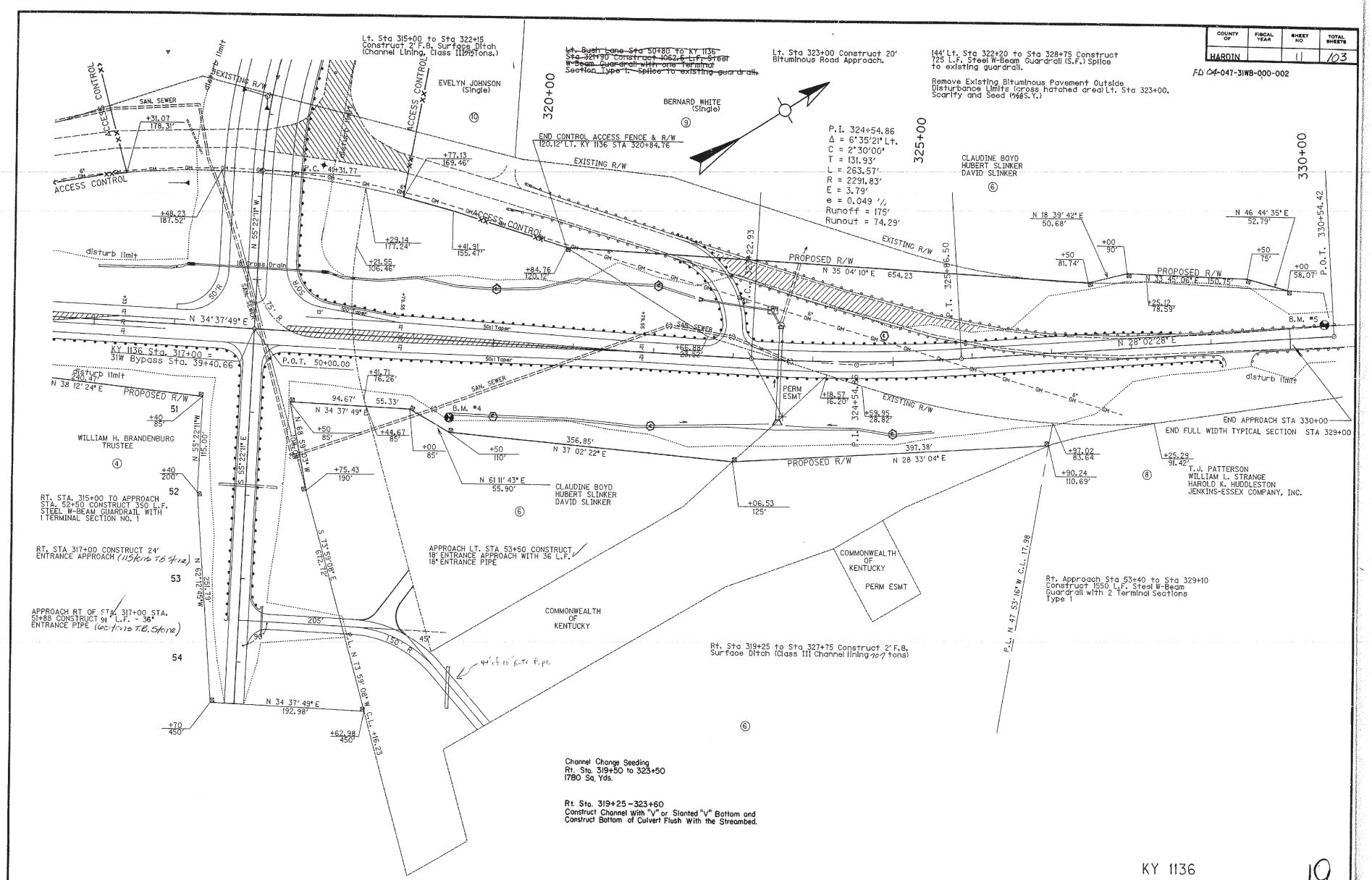
16


HARDIN
FD04-047-31WB-000-002
3
103
END PROJECT AT 31W BYPASS STA. 112+00
INTERSECTION OF COLLEGE STREET
COLLEGE STREET
B.M. #14
110+00
B.M. #14 P.K. Nail in Expansion Joint
35.5' Lt of Sta. 110+00 Elev. 698.46
710
705
700
695
690
685
680
675
670
699.08
699.15
699.02
699.14
699.17
699.25
699.14


KY 1136
HARDIN
FD04-047-31WB-000-002
CAUTION ℄℄ TRANSMISSION GAS LINES
CONTACT: MR. NATHAN PRIDDY OF LOUISVILLE GAS AND ELECTRIC CO. AT (502) 364-2416 PRIOR TO ANY WORK IN THE AREA OF THESE LINES.
P.I. 309+00.00
Δ = 22°21'46" Rt.
C = 3°30'00"
T = 323.59'
L = 638.94'
R = 1637.02'
E = 31.67'
e = 0.066 '/'
Runoff = 175'
Runout = 55.15'
V.P.I. 307+50
Elev. 808.36
1100' V.C.
N.P.S.D. = 552'
STA 300+00 BEGIN APPROACH LT. & RT.
STA 301+50 BEGIN FULL WIDTH TYPICAL SECTION
B.M. #1 P.K. NAIL 1' UP A COMBINATION POLE 50' LT STA 301+07.50 ELEV. 796.82
B.M. #2 RR SPIKE 1' UP JOINT POLE LT OF STA 308+75 ELEV. 807.11
B.M. #3 P.K. NAIL 1' UP A COMBINATION POLE 147' LT STA 311+55 ELEV. 798.02
END CONTROL ACCESS FENCE & RW 104.70' LT. KY 1136 STA. 312+55.39
COMMONWEALTH OF KENTUCKY
R. KENT COLLARD NGA COLLARD (wf.)
DWIGHT SARVER JULIA SARVER (wf.)
DIXIE FARM STORE INC
HOWARD E. GARDNER MILDRED D. GARDNER (wf)
ALBERT PARRETT
WILLIAM H. BRANDENBURG TRUSTEE
MCCAMISH DRIVE
PROPOSED R/W
EXISTING R/W
ACCESS CONTROL
CONSTR ESMT
Special V-Ditch (Rt.)
Special V-Ditch (Lt.)
2' Flat Bottom Surface Ditch (Lt.)
CLASS III
300+00
305+00
310+00
315+00

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HARDIN		11	103

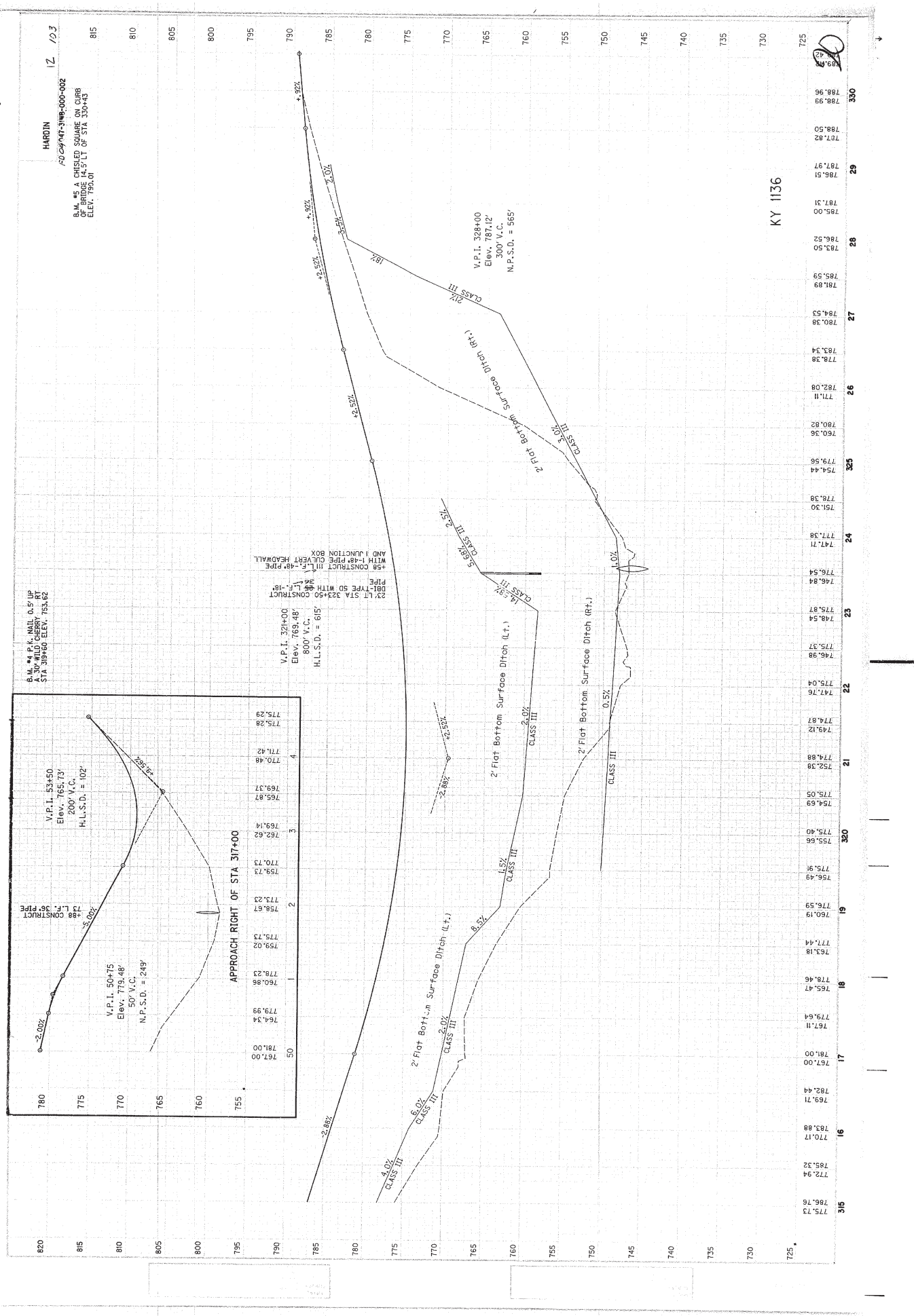
FD 04-047-31WB-000-002



KY 1136

19

GEORGE MARR CO. 7-13-73 FORM NO. 2


HARDIN
FD 04 047-31WB-000-002
B.M. #5 A CHISLED SQUARE ON CURB OF BRIDGE 14.5' LT OF STA 330+43 ELEV. 790.01
B.M. #4 P.K. NAIL 0.5' UP A 30" WILD CHERRY RT STA 319+60 ELEV. 753.62
KY 1136
V.P.I. 328+00
Elev. 787.12'
300' V.C.
N.P.S.D. = 565'
V.P.I. 321+00
Elev. 769.48'
800' V.C.
H.L.S.D. = 615'
23' LT STA 323+50 CONSTRUCT DBI-TYPE SD WITH 36" L.F.-18" PIPE
+58 CONSTRUCT III L.F.-48" PIPE CULVERT HEADWALL WITH 1-48" PIPE CULVERT HEADWALL AND 1 JUNCTION BOX
2' Flat Bottom Surface Ditch (Rt.)
2' Flat Bottom Surface Ditch (Lt.)
CLASS III
APPROACH RIGHT OF STA 317+00
V.P.I. 53+50
Elev. 765.73'
200' V.C.
H.L.S.D. = 102'
V.P.I. 50+75
Elev. 779.48'
50' V.C.
N.P.S.D. = 249'
+88 CONSTRUCT 73 L.F. 36" PIPE

RIGHT OF WAY SUMMARY

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
		13	103

FD04 047 31WB 000-002

PARCEL NO.	NAME	TOTAL AREA OF TRACT		PERMANENT R/W ACQUIRED		EASEMENTS			AREA SEVERED				EXCESS PURCHASED		PORTION REMAINING		SEWER SYSTEM TYPE	SEWER SYSTEM AFFECTED BY PROJECT		BUILDINGS ACQUIRED NUMBER				HAZARDOUS WASTE	REMARKS
						PERMANENT	TEMPORARY	CONSTRUCTION	LEFT		RIGHT							YES	NO	C	R	F	S		
		ACRES	SQ. FT.	ACRES	SQ. FT.	SQ. FT.	SQ. FT.	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.									
1	R. KENT COLLARD NGA COLLARD (wf.)	1.279		0.020	889				1.259						1.259		3	✓							D.B. 764 Pg. 496-500
2	DWIGHT SARVER JULIA SARVER (wf.)	2.731		0.129	5,605			1,201	2.602						2.602		3	✓							D.B. 264 Pg.625-626
3	DIXIE FARM STORE, INC.	7.95		0.224	9,776			7,416	7.726						7.726		3	✓							~~D.B. 289 Pg. 308~~ D.B. 290 Pg. 109-112 D.B. 690 Pg. 493
4	WILLIAM H. BRANDENBURG TRUSTEE	123.54		5.250	228,709						118.290				118.290										D.B. 620 Pg. 89-90
5	HOWARD GARDNER MILDRED GARDNER (wf.)	0.85		0.049	2,133				0.801						0.801		3	✓							D.B. 611 Pg. 316
6	DAVID SLINKER et al	25.0 *		2.662	115,966				7.953		14.385 +				22.338										D.B. 594 Pg. 241-243
7	ALBERT PARRETT	11.93	NOT USED																						D.B.428 Pg. 237-238
8	HAROLD HUDDLESTON et al	42.5 *	NOT USED																						D.B. 321 Pg. 106-107
9	BERNARD WHITE	0.5	NOT USED																						D.B. 403 Pg. 265
10	EVELYN JOHNSON	0.412	NOT USED														3	✓							D.B. 353 Pg. 164
11	RUSSELL HORNBACK MABEL HORNBACK (wf.)	0.25 *	NOT USED														3	✓							D.B. 251 Pg. 161

NOTE: PERMANENT R/W ACQUIRED + PERMANENT EASEMENT + AREA SEVERED = TOTAL AREA OF TRACT.

* Area From Tax Map

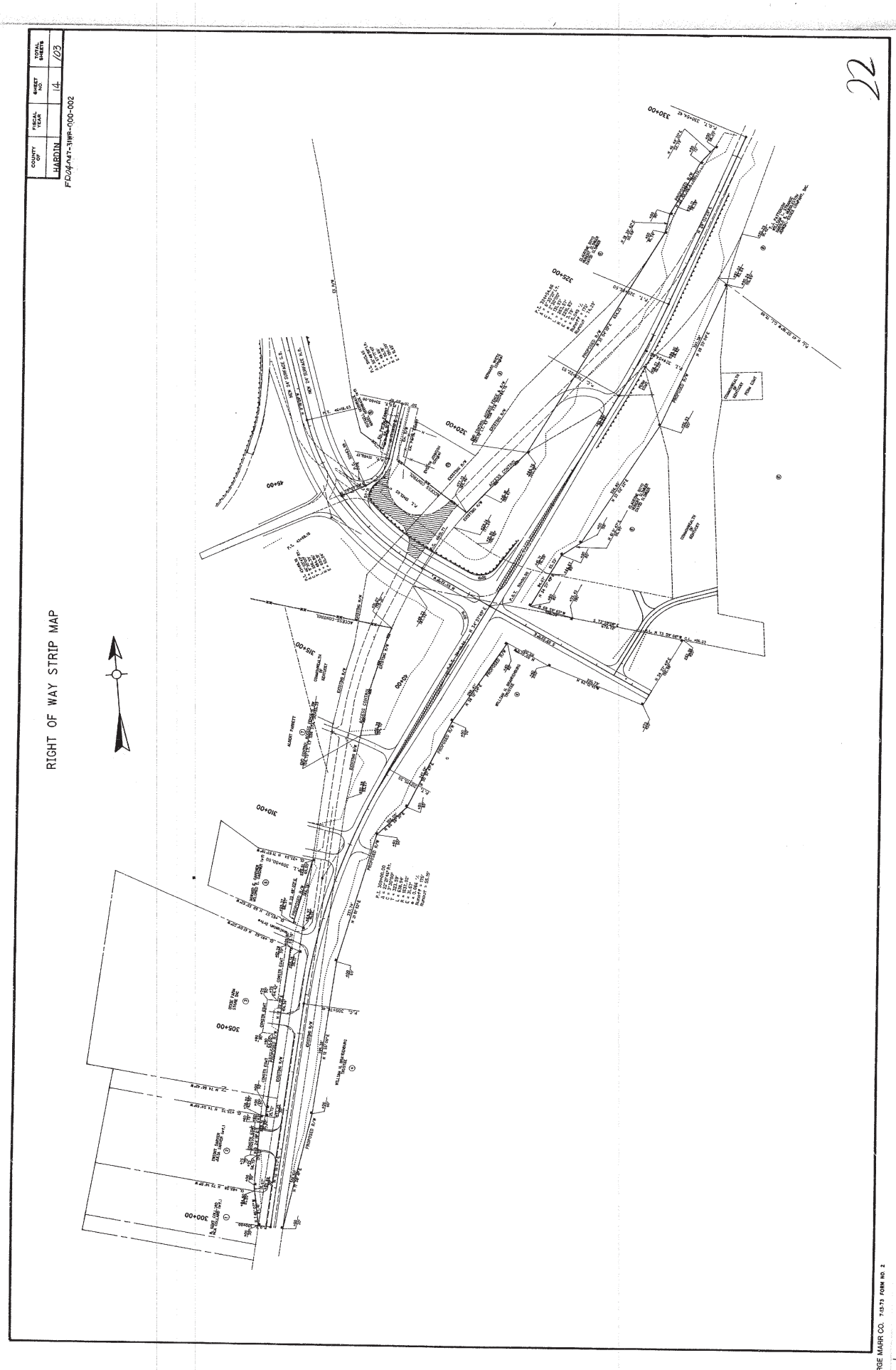
+ 0.077 Acres (3375 s.f.) Is a Permanent Easment

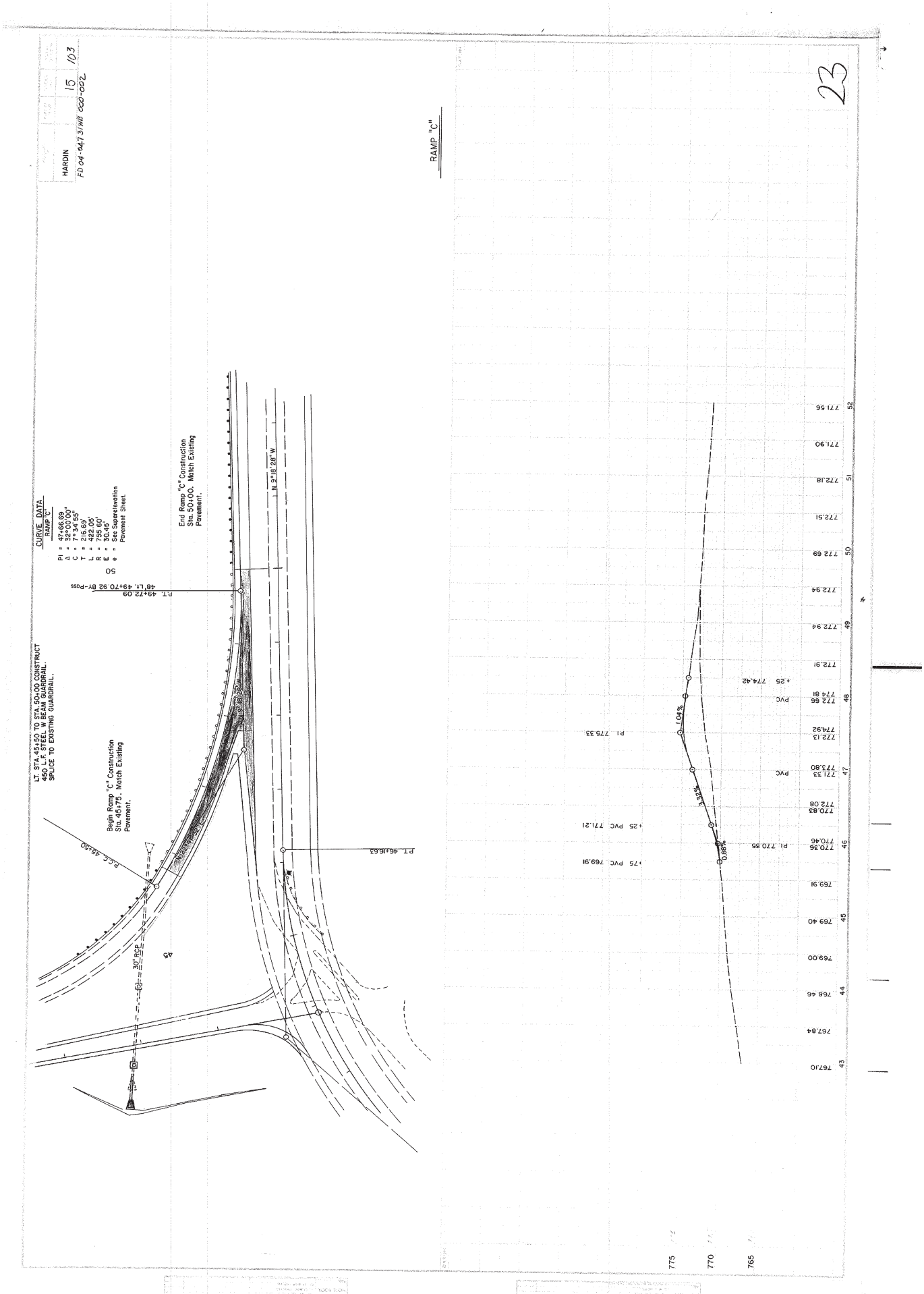
TYPE SEWER SYSTEM
1. PRIVATE - INDIVIDUAL
2. PRIVATE - MULTI PARTY
3. PUBLIC
4. NONE
5. NOT APPLICABLE

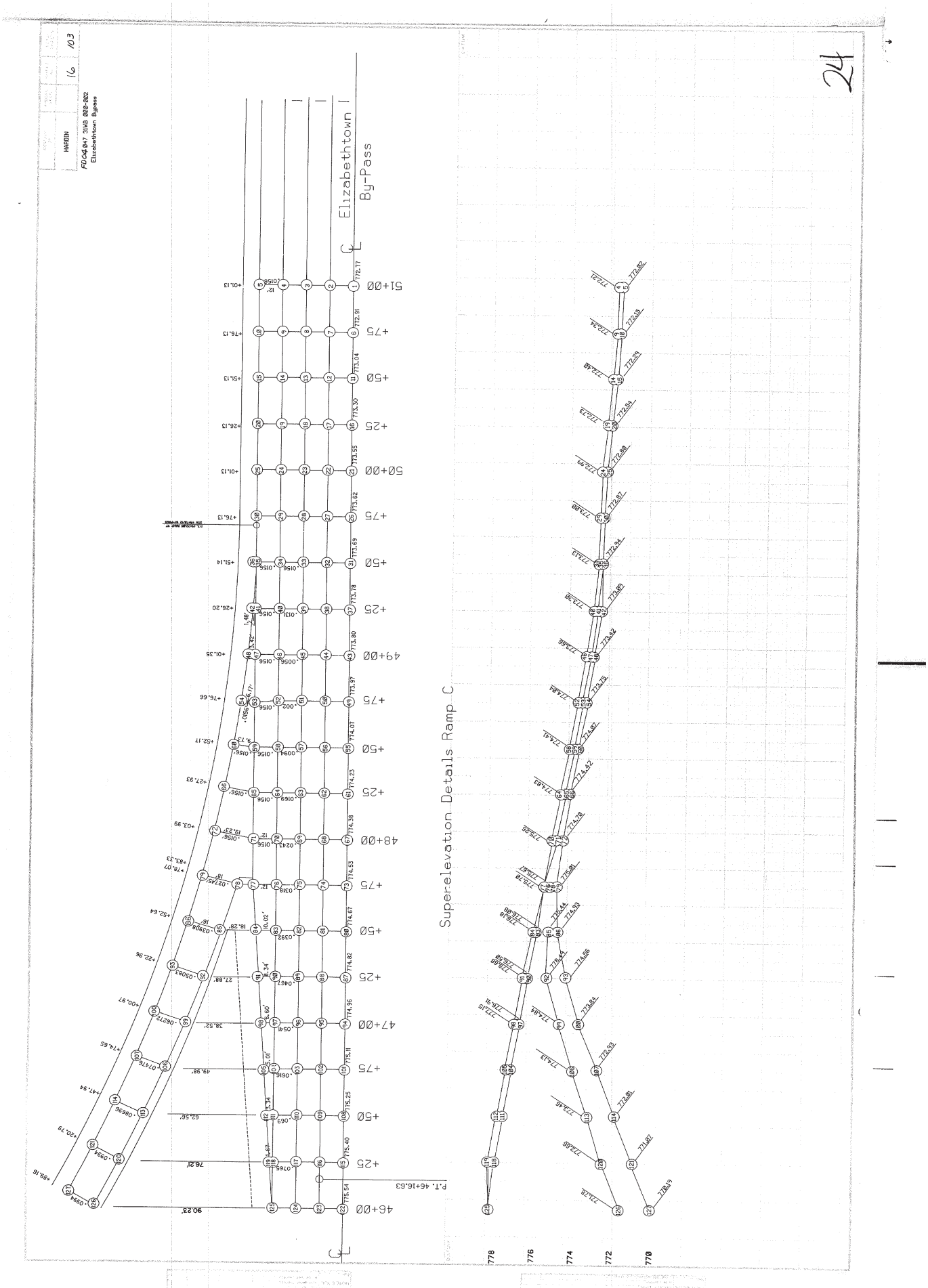
BUILDINGS ACQUIRED CODE
C - COMMERICAL
R - RESIDENTIAL
F - FARM
S - STORAGE

HAZARDOUS WASTE
UST - UNDERGROUND STORAGE TANK

GEORGE MARR CO. 7-13-73 FORM NO. 2

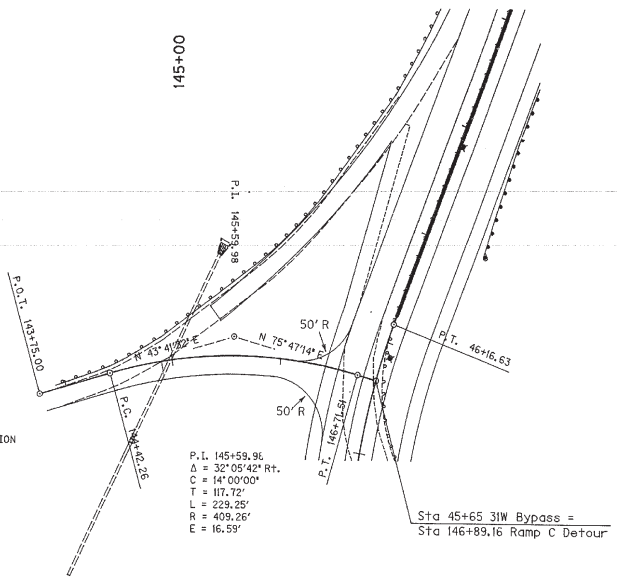

RIGHT OF WAY STRIP MAP
22
COUNTY OF HARDIN
FISCAL YEAR
SHEET NO. 14
TOTAL SHEETS 103
FD04 047-31WB-000-002
300+00
305+00
310+00
315+00
320+00
325+00
330+00
45+00

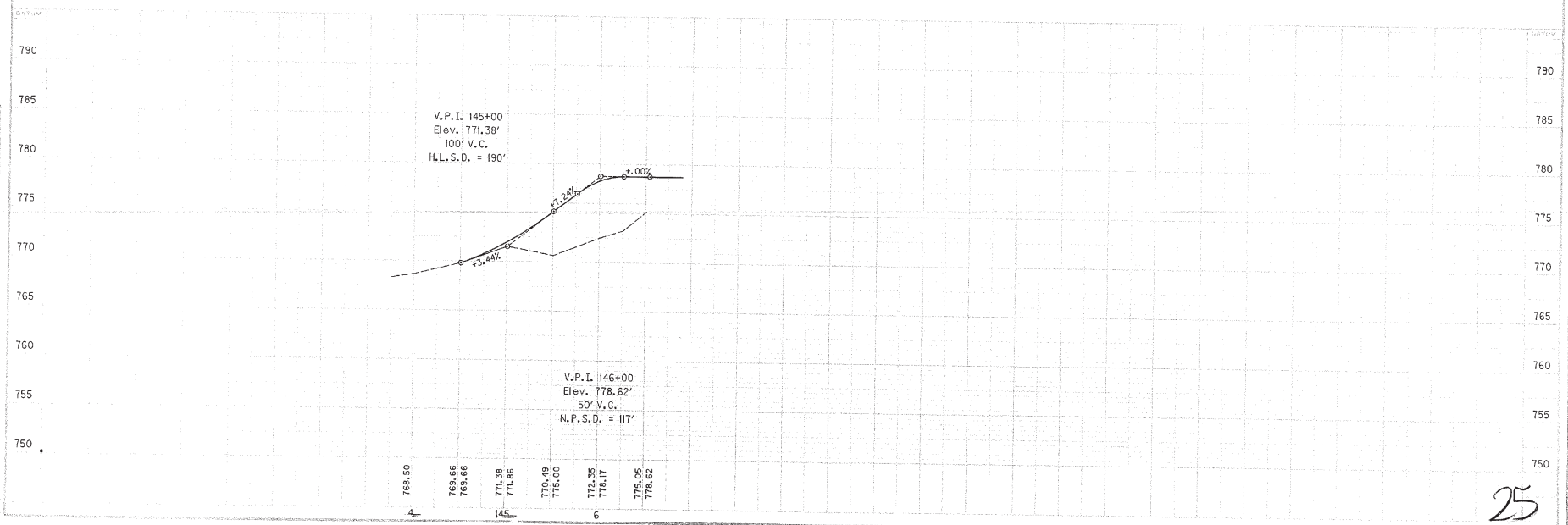

HARDIN
FD 04-047 31WB 000-002
15
103
23
RAMP "C"
CURVE DATA
RAMP "C"
PI = 47+66.69
Δ = 32°00'00"
D = 7°34'55"
T = 216.69'
L = 422.05'
R = 755.60'
E = 30.45'
e = See Superelevation Pavement Sheet.
End Ramp "C" Construction Sta. 50+00. Match Existing Pavement.
P.T. 49+72.09
48' Lt. 49+70.92 By-Pass
N. 9°18'28" W.
Begin Ramp "C" Construction Sta. 45+75. Match Existing Pavement.
P.C.C. 45+30
P.T. 46+66.63
LT. STA. 45+80 TO STA. 50+00 CONSTRUCT 46'-0" F.S.E. W BEAM GUARDRAIL. SPLICE TO EXISTING GUARDRAIL.
30" RCP
45
50
PI 775.33
+25 PVC 771.21
+75 PVC 769.91
PI 770.36
+25 774.42
PVC
PVC
-1.04%
-3.32%
0.88%
771.56
771.90
772.18
772.51
772.69
772.94
772.94
772.81
772.66
774.81
772.13
774.92
771.33
773.80
770.83
772.08
770.36
770.46
769.91
769.40
769.00
768.46
767.84
767.10
52
51
50
49
48
47
46
45
44
43
775
770
765


HARDIN
FD04 047 31WB 000-002
Elizabethtown Bypass
16
103
24
℄ Elizabethtown I
By-Pass
Superelevation Details Ramp C
51+00
+75
+50
+25
50+00
+75
+50
+25
49+00
+75
+50
+25
48+00
+75
+50
+25
47+00
+75
+50
+25
46+00
P.T. 46+16.63
778
776
774
772
770

HARDIN		17	103

FD 04-047-31WB-000-002





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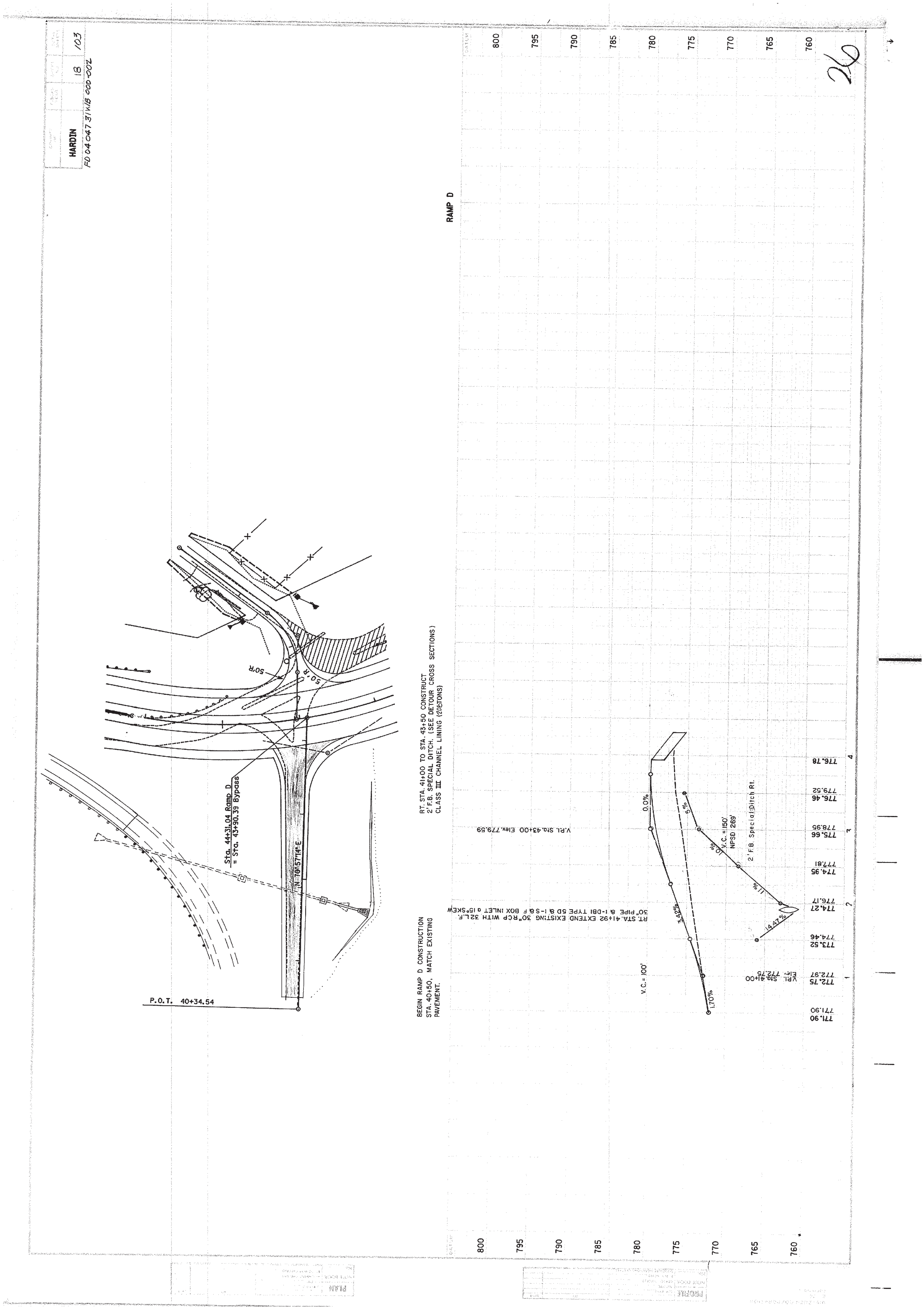
HARDIN
18
103
FD04 047 31WB 000-002
P.O.T. 40+34.54
Sta. 44+31.04 Ramp D
= Sta. 43+90.39 Bypass
N 70°57'14" E
50'R
50'R
BEGIN RAMP D CONSTRUCTION
STA. 40+50, MATCH EXISTING
PAVEMENT.
RT. STA. 41+00 TO STA. 43+50 CONSTRUCT
2' F.B. SPECIAL DITCH. (SEE DETOUR CROSS SECTIONS)
CLASS III CHANNEL LINING (206TONS)
RAMP D
RT. STA. 41+92 EXTEND EXISTING 30" RCP WITH 32 L.F.
30" PIPE & 1-DBI TYPE 5D & 1-S & F BOX INLET @ 15° SKEW
V.P.I. Sta. 43+00 Elev. 779.59
V.C. = 100'
0.0%
3.42%
1.70%
5%
10%
V.C. = 150'
NPSD 269'
11%
14.47%
2' F.B. Special Ditch Rt.
V.P.I. Sta. 41+00
Elev. 772.75
800
795
790
785
780
775
770
765
760
771.90
771.90
772.75
772.97
773.52
774.46
774.27
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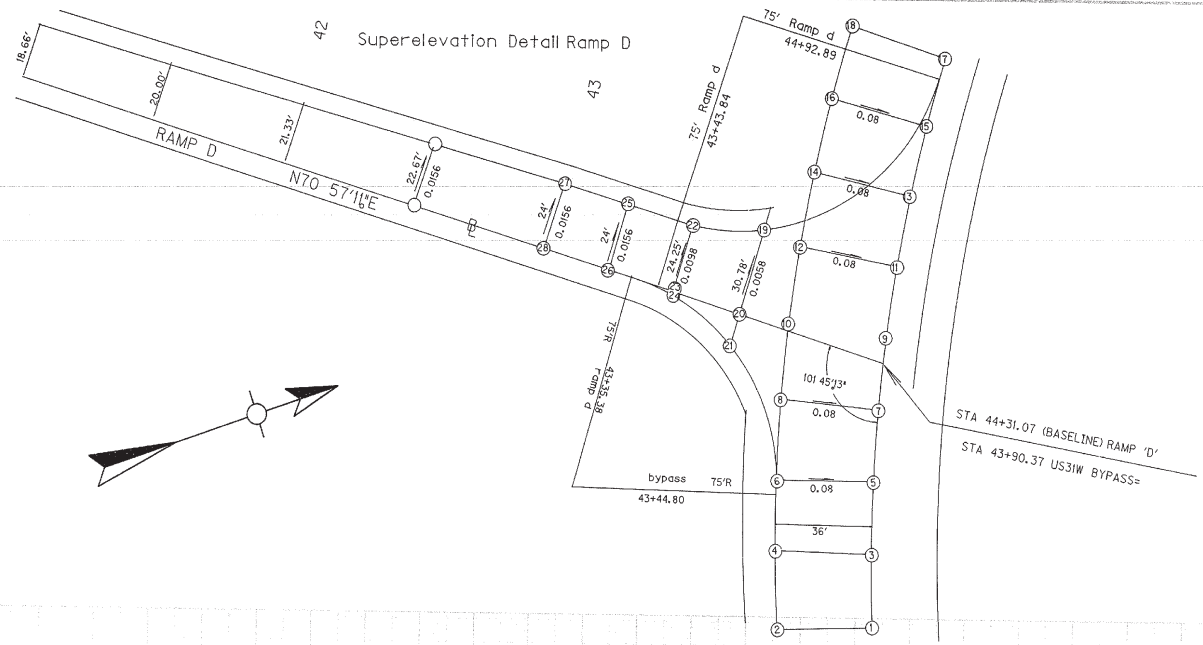
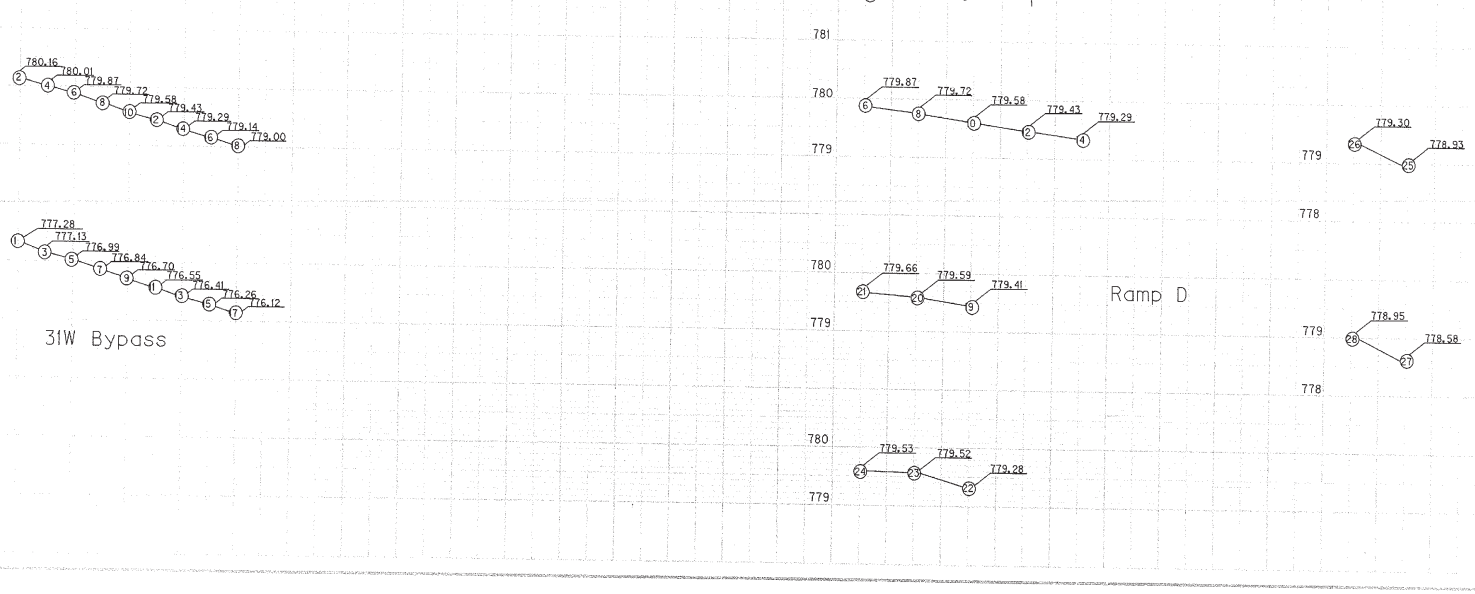
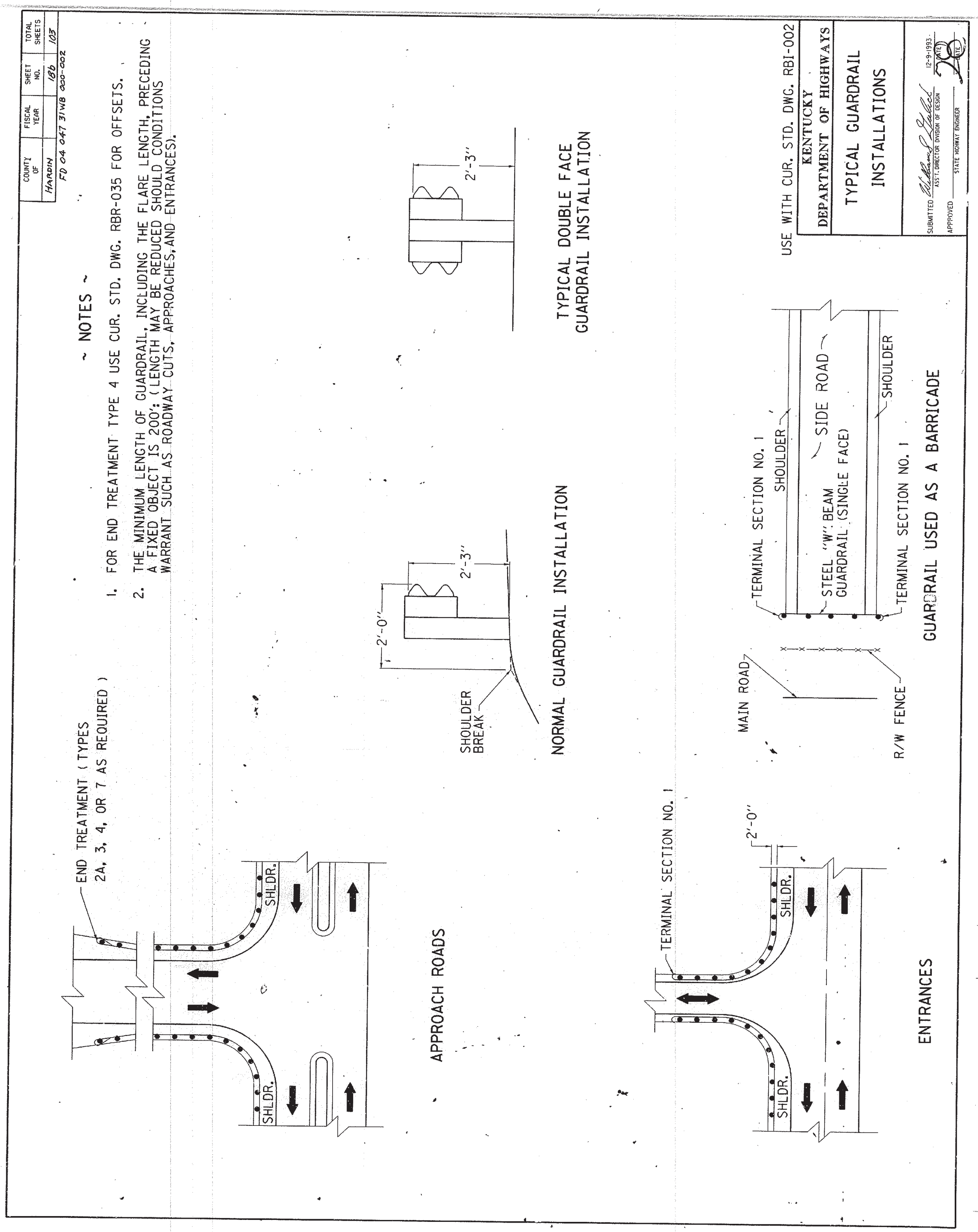
776.46
779.52
776.78
1
2
3
4
26



hardin 18a 103
FD 04 047 31WB 000-002
Elizabethtown Bypass



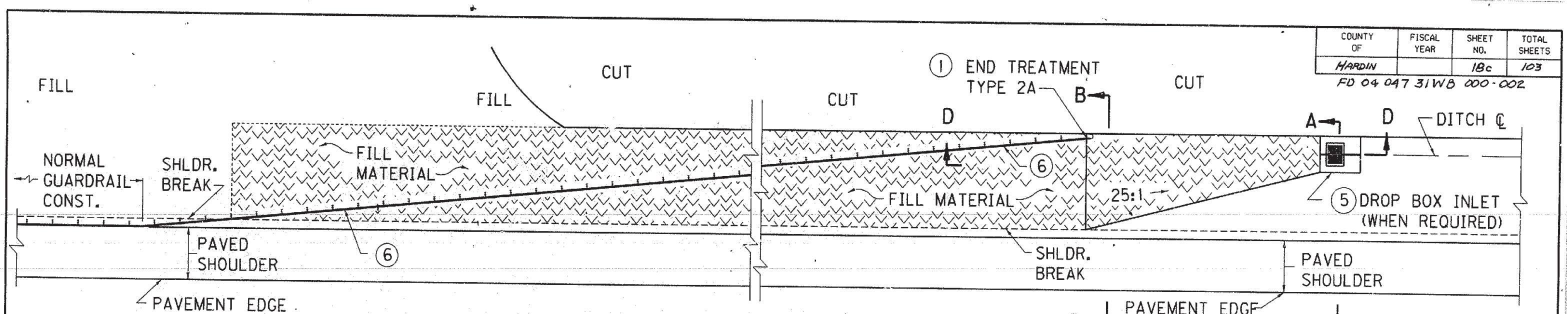
27



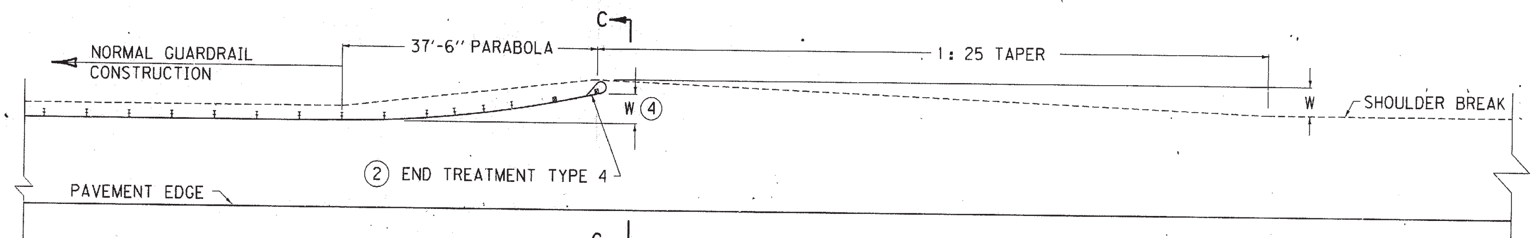
DRAWN STOUT
CHECKED D. H. McALISTER
RECOMMENDED
APPROVED F.H.W.A.
DATE JAN.,1987/ 1993
FORM NO.10

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HARDIN		18c	103

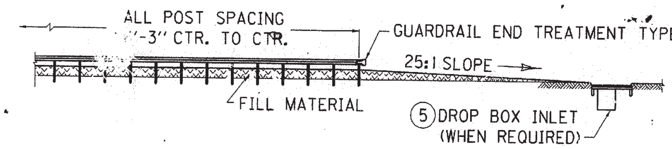
FD 04 047 31WB 000-002



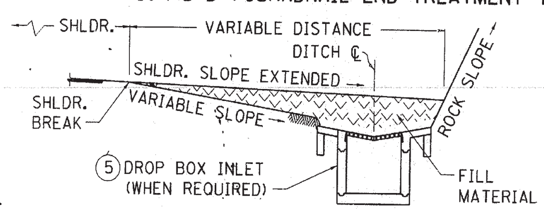
~ DETAIL OF GUARDRAIL FOR FILL TO SOLID ROCK CUT SECTION ~



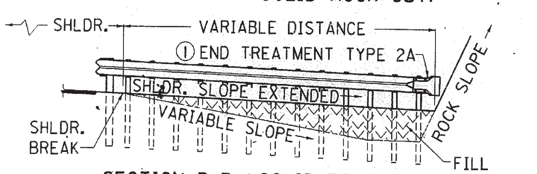
~ DETAIL OF GUARDRAIL FOR FILL SECTION ~



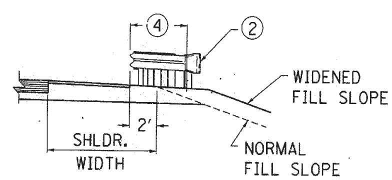
SECTION D-D (GUARDRAIL END TREATMENT TYPE 2A)



SECTION A-A (SOLID ROCK CUT)



SECTION B-B (SOLID ROCK CUT)
DETAIL OF END TREATMENT TYPE 2A



SECTION C-C (FILL)
DETAIL OF END TREATMENT TYPE 4

NOTES: BID ITEMS AND UNIT TO BID:

A. GUARDRAIL END TREATMENT: TYPE 2A OR TYPE 4 - EACH
B. ROADWAY OR BORROW EXCAVATION, OR EMBANKMENT IN PLACE - CU. YD.
C. DROP BOX INLET - EACH
(5) SEE PLANS FOR BOX TYPE AND OTHER DRAINAGE DETAILS. DROP BOX INLET BID ITEM SHALL NOT BE REQUIRED, PROVIDED ADEQUATE DRAINAGE CAN BE OBTAINED.

END TREATMENT TYPE 2A
(1) SOLID ROCK CUTS WITHOUT AN ADEQUATE RECOVERY ZONE.

END TREATMENT TYPE 4
(2) FILLS.
3. SOLID ROCK CUTS WITH ADEQUATE RECOVERY ZONE.
(4) SEE CURRENT STD. DWG. RBR-035 FOR PARABOLIC OFFSET.

USE WITH CUR. STD. DWGS.
RBI-001, RBI-002, RDB-005

	(6)		
DESIGN SPEED	70 MPH	60 MPH	50 MPH OR LESS
FLARE RATES	15:1	13:1	11:1

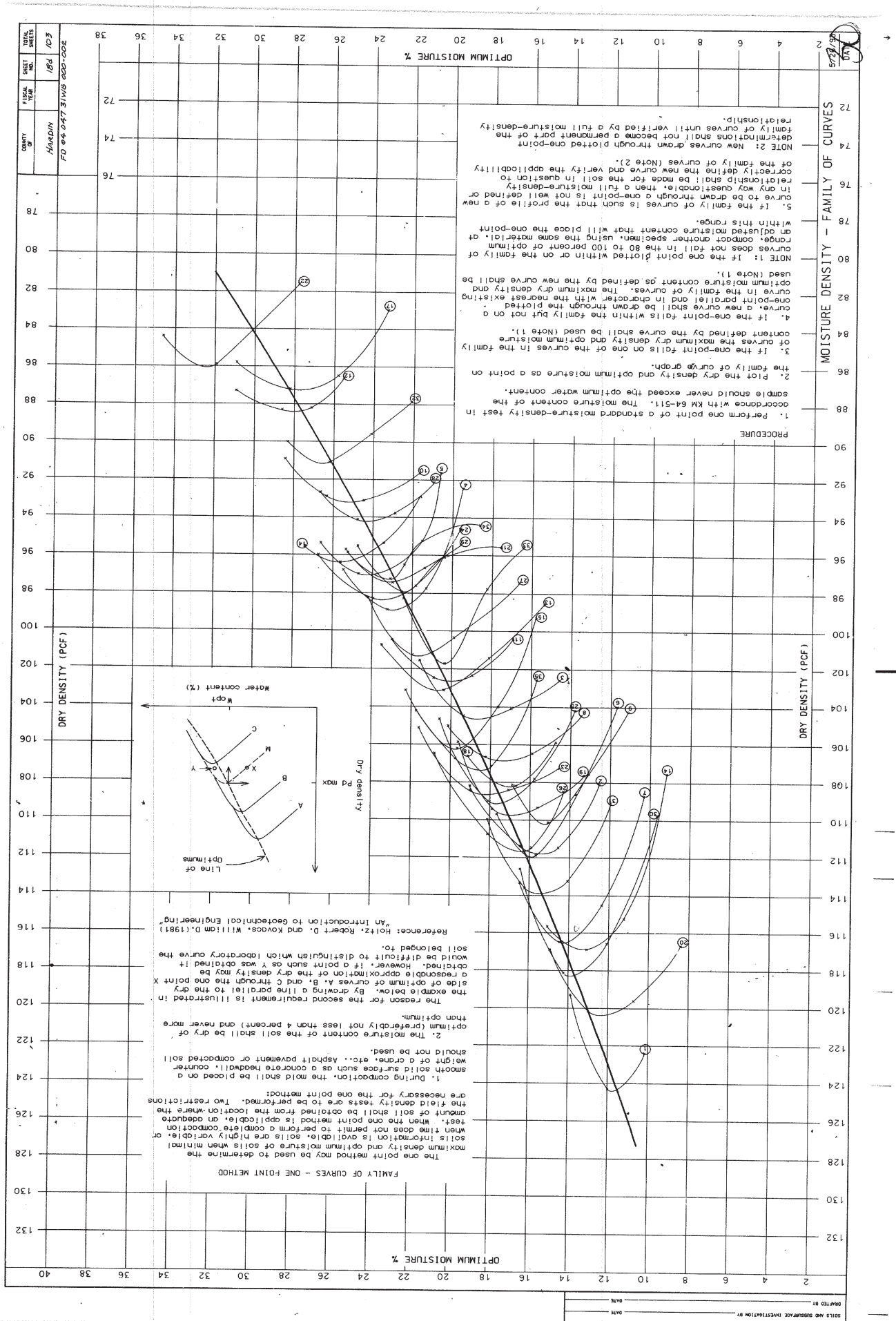
KENTUCKY
DEPARTMENT OF HIGHWAYS

TYPICAL INSTALLATION FOR END TREATMENTS TYPE 2A AND TYPE 4

SUBMITTED [signature] 12-09-1993 DATE
ASS'T. DIRECTOR DIVISION OF DESIGN
APPROVED ________ STATE HIGHWAY ENGINEER DATE

29

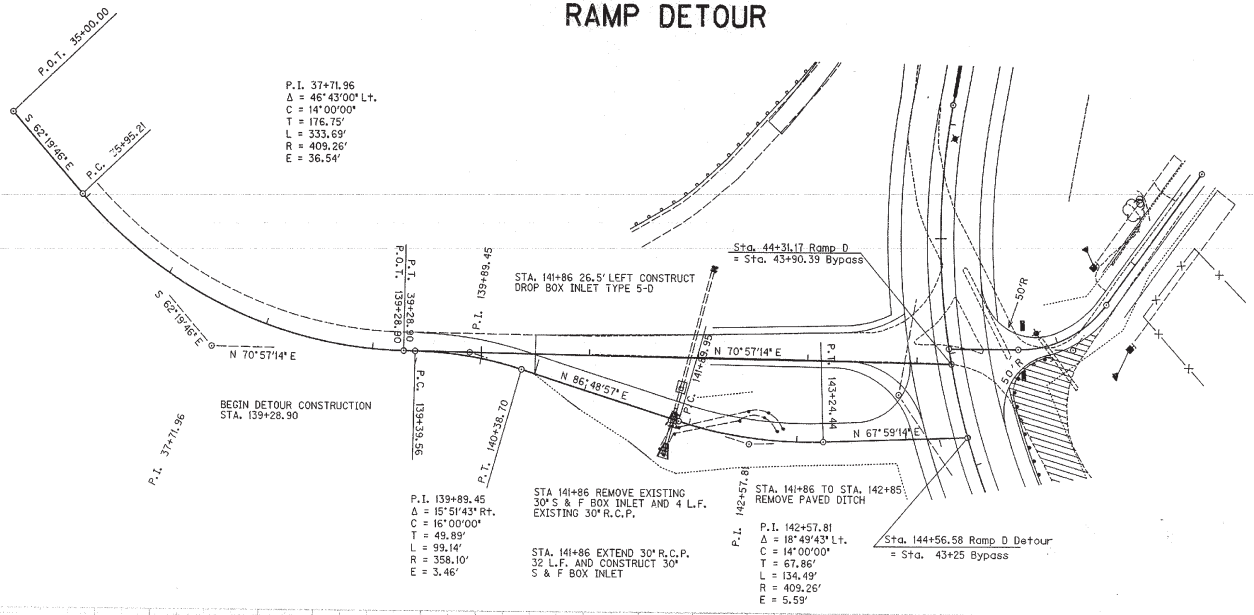
DRAWN modrb1003workfile
CHECKED D. H. McALISTER
RECOMMENDED
APPROVED F.H.W.A.
DATE

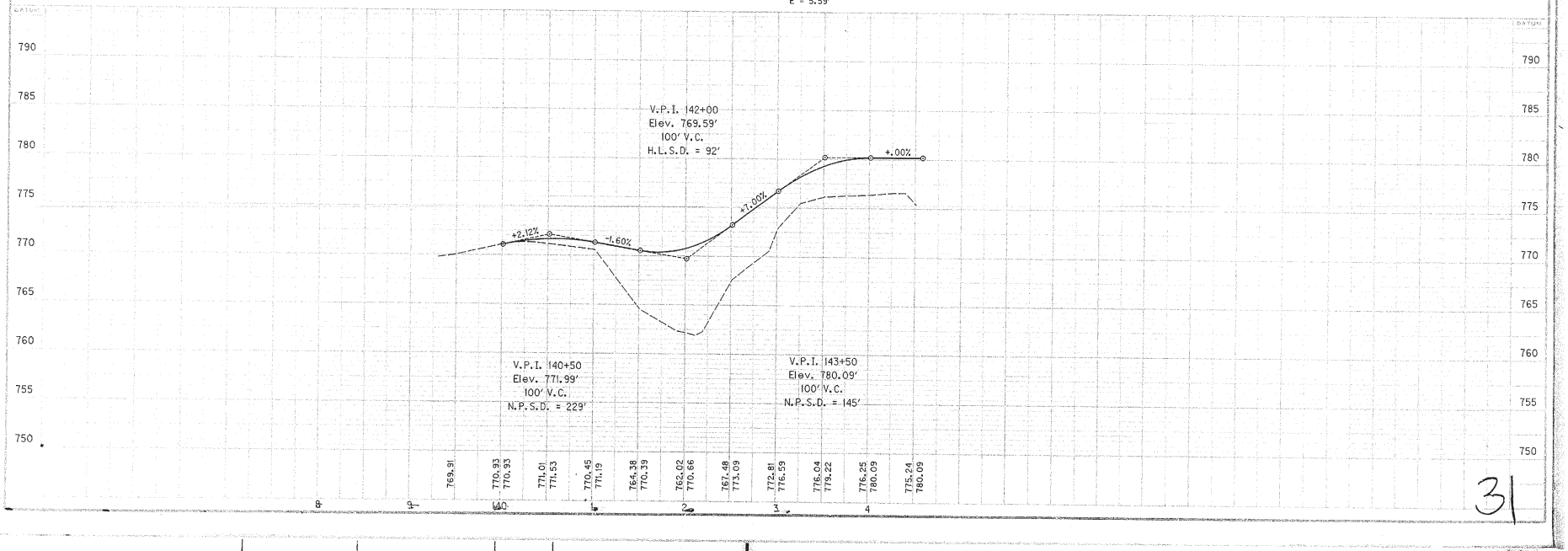

MOISTURE DENSITY - FAMILY OF CURVES
DRY DENSITY (PCF)
OPTIMUM MOISTURE %
PROCEDURE
1. Perform one point of a standard moisture-density test in accordance with KM 64-511. The moisture content of the sample should never exceed the optimum water content.
2. Plot the dry density and optimum moisture as a point on the family of curves graph.
3. If the one-point falls on one of the curves in the family of curves the maximum dry density and optimum moisture content defined by the curve shall be used (Note 1).
4. If the one-point falls within the family but not on a curve, a new curve shall be drawn through the plotted one-point parallel and in character with the nearest existing curve in the family of curves. The maximum dry density and optimum moisture content as defined by the new curve shall be used (Note 1).
NOTE 1: If the one point plotted within or on the family of curves does not fall in the 80 to 100 percent of optimum range, compact another specimen, using the same material, at an adjusted moisture content that will place the one-point within this range.
5. If the family of curves is such that the profile of a new curve to be drawn through a one-point is not well defined or in any way questionable, then a full moisture-density relationship shall be made for the soil in question to correctly define the new curve and verify the applicability of the family of curves (Note 2).
NOTE 2: New curves drawn through plotted one-point determinations shall not become a permanent part of the family of curves until verified by a full moisture-density relationship.
FAMILY OF CURVES - ONE POINT METHOD
The one point method may be used to determine the maximum density and optimum moisture of soils when minimal soils information is available. soils are highly variable, or when time does not permit to perform a complete compaction test. When the one point method is applicable, an adequate amount of soil shall be obtained from the location where the field density tests are to be performed. Two restrictions are necessary for the one point method:
1. During compaction, the mold shall be placed on a smooth solid surface such as a concrete headwall, counter weight of a crane, etc.. Asphalt pavement or compacted soil should not be used.
2. The moisture content of the soil shall be dry of optimum (preferably not less than 4 percent) and never more than optimum.
The reason for the second requirement is illustrated in the example below. By drawing a line parallel to the dry side of optimum of curves A, B, and C through the one point X a reasonable approximation of the dry density may be obtained. However, if a point such as Y was obtained it would be difficult to distinguish which laboratory curve the soil belonged to.
Line of Optimums
Dry density
Pd max
Wopt
Water content (%)
Reference: Holtz, Robert D. and Kovacs, William D.(1981) "An Introduction to Geotechnical Engineering"
SOILS AND SUBSURFACE INVESTIGATION BY
DRAFTED BY
DATE
DATE
COUNTY OF HARDIN
FISCAL YEAR
SHEET NO. 184
TOTAL SHEETS 103
FD 04 047 31WB 000-002

RAMP DETOUR

COUNTY NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HARDIN		19	103

FD04-047-31WB-000-002





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PART II

SPECIFICATIONS AND STANDARD DRAWINGS

SPECIFICATIONS REFERENCE

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

SUPPLEMENTAL SPECIFICATIONS

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

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

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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

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SPECIAL NOTE FOR FULL DEPTH CONCRETE PAVEMENT REPAIR

This Special Note applies to full depth repairs of concrete pavement. Section references herein are to the Department's Standard Specifications for Road and Bridge Construction, current edition.

1.0 DESCRIPTION. Remove and replace concrete pavement. Comply with the applicable Standard Drawings and the Standard Specifications except as specifically superseded herein.

2.0 MATERIALS AND EQUIPMENT.

2.1 JPC Pavement. Test concrete materials according to section 601.03.03. Conform to 501, 502, and 601 except that the concrete must achieve 3000 psi in accordance with Section 4.4 of this note. The Engineer may allow pavement to be opened to traffic at less than 3,000 psi subject to the deductions described in Section 4.4 of this note.

2.2 Dowel Bars and Sleeves. Conform to 811.

2.3 Tie Bars. Conform to Section 811. Use epoxy coated tie bars in longitudinal and transverse joints.

2.4 Joint Sealants. Conform to Subsection 807.03.01 or 807.03.05.

2.5 Grout Adhesives and Epoxy Resin Systems. Conform to Section 826.

2.6 Dense Graded Aggregate (DGA) and Crushed Stone Base (CSB). Conform to Section 805.

2.7 Geotextile Fabric. Conform to Section 843.

2.8 Drills. Drill holes using a gang drill, capable of drilling a minimum of four simultaneously. Misalignment of holes shall not exceed 1/4 inch in the vertical or oblique plane.

2.9 Hammers. Only use chisel point hammers weighing less than 40 pounds to remove deteriorated concrete.

3.0 CONSTRUCTION.

3.1 Removal of Existing Pavement. Remove existing pavement to the extent the Contract specifies or as the Engineer directs. The minimum length of patches measured along centerline is 3 feet on each side of an existing joint.

When working with pavements with non-skewed transverse joints, if it is necessary to remove existing pavement closer than 6 feet to a transverse joint, remove the pavement 3 feet beyond that joint .

When working with pavements with skewed transverse joints, if it is necessary to remove existing pavement closer than 3 feet to a transverse joint, remove the pavement 3 feet beyond that joint.

Details of configurations of pavement and joints for various situations are depicted in the drawings herein.

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When small areas of removal and replacement are performed at bridge ends, maintain or reconstruct existing expansion joints at their existing location. When the Engineer determines extensive full width removal and replacement is required, construct new expansion joints at the locations shown on Standard Drawing No. RPN-010.

In the removal operation, make a full depth saw cut longitudinally along the centerline joint and shoulder joint and transversely along the area marked for removal. To prevent damage to the subbase, do not allow the saw to penetrate more than ½" into the subbase. The Engineer may direct or approve additional cuts within the removal area for ease of removal of the damaged slab and to prevent damage to adjacent pavement to remain in place. Do not overcut beyond the limits of the removal area. Prevent saw slurry from entering existing joints and cracks. To avoid pumping and erosion beneath the slab, do not allow traffic on sawed pavement for more than 48 hours before beginning removal procedures, unless directed by the Engineer.

Lift out the deteriorated concrete vertically with lift pins. If approved by the Engineer, use other methods that do not damage the base, shoulder, or sides of pavement that is to be left in place. If any damage does occur, repair as the Engineer directs and use an acceptable alternative method for the removal process. Do not damage the pavement base during these operations.

3.2 Pavement Replacement. Do not damage the pavement base during these operations.

3.2.1 Preparation of Base. Compact the new and existing aggregate base to the Engineer's satisfaction. The Engineer will accept compaction by either visual inspection or by nuclear gauge. When the Engineer deems it necessary to stabilize the existing base or replace unsuitable materials, excluding bridge ends, use 12 inches of geotextile fabric wrapped No. 2 aggregate topped with 4 inches of DGA or CSB. Use either Type III or Type IV geotextile fabric. Flowable fill and cement stabilization may be used as an alternative to stabilize the existing base or to replace unsuitable materials when a plan for such is presented to and approved by the Engineer. The Engineer may also direct using only DGA or CSB to correct base deficiencies. At bridge ends, treat existing base and subgrade as the Contract specifies. During compaction, wet the base as the Engineer directs. Compact areas not accessible to compaction equipment by hand tamping.

3.2.2 Underdrains. Construct, or repair damage to, pavement edge drains according to Section 704. If underdrains are placed omitting areas to be patched, construct additional lateral drains as necessary to provide outlets for the installed underdrain until performing the pavement replacement and completing the underdrain system. Provide drainage for any undercut or base repair areas.

3.2.3 Pavement Replacement. Using load transfer assemblies for dowel joints drill into the existing slab according to the details shown herein and on the Standard Drawings.

Use plain epoxy coated dowels of the size specified on the standard drawings based on the pavement thickness for contraction and expansion joints.

Drill holes for dowel bars and tie bars into the face of the existing slab, at a diameter as specified in the following. Drill the dowel bar holes and tie bar

holes to a depth equal to 1/2 the length of the bars. Anchor tie bars into the existing pavement using an epoxy resin. Anchor dowel bars into the existing pavement using either an epoxy resin or an adhesive grout. For tie bars and dowel bars where an epoxy resin is to be used drill the holes 1/8 inch larger than the bar diameter. For dowel bars where an adhesive grout product is to be used, drill holes 1/4 inch larger than the bar diameter. Use a clear or opaque grout retention disk in both grout and epoxy applications. Operate the equipment to prevent damage to the pavement being drilled. Obtain the Engineer's approval of the drilling procedure. Install load transfer assemblies according to the Standard Drawings and Standard Specifications.

When indicated herein or in the Standard Drawings, use 1 inch deformed tie bars, 18 inches long on 30-inch centers and starting and ending 20 inches inside the edges of the repair area in the longitudinal joint. Use 1 inch deformed tie bars, or plain epoxy coated dowel bars sized in accordance with the Standard Drawings, 18 inches long beginning 12 inches inside of each edge and on 12-inch centers in transverse construction joints.

Install the dowels and tie bars according to Section 511 unless contradicted here. Ensure the holes are dry and free of dust and debris. Use a nozzle to insert the grout or epoxy starting at the back of the drilled hole to allow for full coating of the dowel or tie bar. After placement, use a bond breaker on the section of the dowel bar that is protruding from the hole.

Mix, place, finish, and cure concrete according to Section 501 with the exception that the Department will allow truck mixing, 2-bag mixers, and hand finishing.

When required, use a form on the side of the slab at longitudinal joints. When the adjacent traffic lane is not closed to traffic or the drop-off is not protected, temporarily fill the space between the form and the adjacent pavement with DGA. After placing the slab, remove the DGA and form. Fill the hole with concrete and thoroughly consolidate by rodding, spading, and sufficient vibration to form a dense homogeneous mass. Use a form on the side of the slab adjacent to shoulders. Excavate and backfill as shown on Section F'-F'.

For patches less than 25 feet in length, use a bond breaker and do not install tie bars at the longitudinal joint. Bond breakers should not exceed 1/8 inch in thickness, e.g. tar paper.

When resurfacing is required, a float finish is satisfactory. Otherwise, broom finish or, when the adjacent surface has a grooved finish, texture the surface according to Subsection 501.03.13 H). Finish the surface, including joints, to meet a surface tolerance of 1/8 inch in 10 feet that will be verified by straightedge. Cure the pavement and apply curing membranes according to 501.03.15.

Keep all pavement surfaces adjacent to this operation reasonably clean of excess grout and other materials at all times. Maintain all original longitudinal joints. Place transverse joints according to the details shown herein and on the Standard Drawings.

3.3 Joint Sealing. Seal all new or partially new joints with silicone rubber sealant or hot-poured elastic joint sealant according to Subsection 501.03.18.

4.0 MEASUREMENT.

4.1 Remove JPC Pavement. The Department will measure the quantity in square yards of surface area. The Department will not measure removal of

underlying base material for payment and will consider it incidental to Remove JPC Pavement.

4.2 DGA or CSB. The Department will measure the quantity used to stabilize the existing base or to replace unsuitable material in tons. The Department will not measure removal of existing base material or underlying material for payment and will consider incidental to DGA or CSB. The quantity of DGA used for the drop-off protection shall be incidental to this work and will not be measured for payment.

4.3 JPC Pavement Non-Reinforced. The Department will measure according to 501.04.01. The Department will not measure dowels, tie bars, or joint sealing for payment and will consider it incidental to Non-Reinforced JPC Pavement.

JPC Pavement will be paid according to section 5.0 below and according to the following payment schedule based on the compressive strength. The cylinders for payment will be tested two hours prior the scheduled opening of traffic.

3000 psi and up	100% payment
2750 to 3000 psi	75% payment and approval from the Engineer to open to traffic*
2500 to 2750 psi	50% payment and approval from the Engineer to open to traffic*
2250 to 2500 psi	25% payment and approval from the Engineer to open to traffic*
Below 2250 psi	10% payment and no potential to open to traffic. Maintain traffic closure until concrete reaches a minimum of 2250 psi.

*If the Engineer approves opening to traffic, the Engineer will evaluate the concrete at 28 days (or sooner) to determine if the removal and replacement of the concrete is necessary due to pavement distress induced by the early opening (i.e. noticeable cracking). If required by the Engineer, remove and replace those slabs showing distress at no cost to the Department.

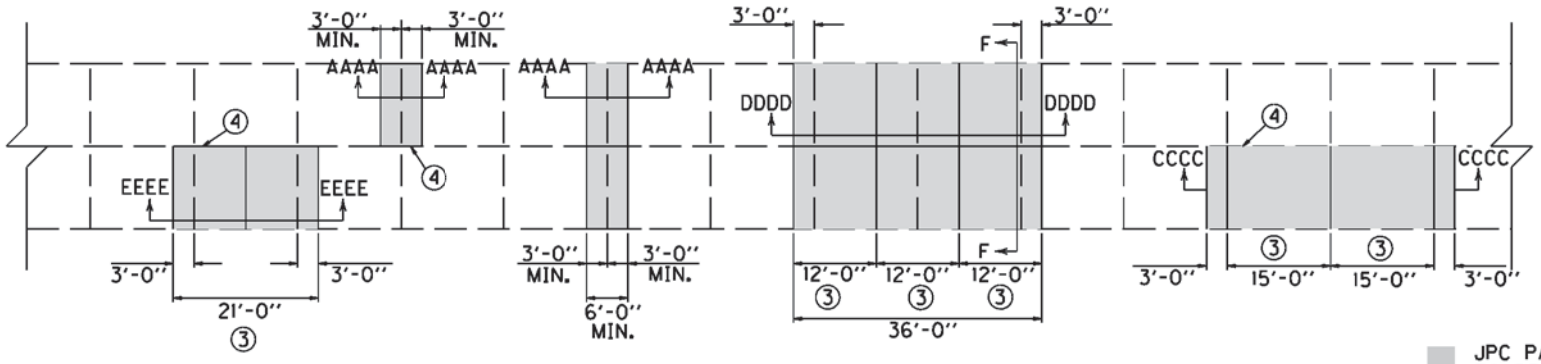
4.4 Underdrains. The Department will measure the quantity according to Subsection 704.04. The Department will not measure lateral drains for payment and will consider them incidental to the Underdrains.

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

Code	Pay Item	Pay Unit
----	Remove JPC Pavement	Square Yard
00001	DGA Base	Ton
00003	Crushed Stone Base	Ton
02069-02071, 02073, 02075, 02084, 02086, 02088	JPC Pavement Non-Reinforced, thickness	See Subsection 501.05
01000	Perforated Pipe, 4-inch	Linear Foot
02598, 02599	Fabric-Geotextile, Type	Square Yard

The Department will consider payment as full compensation for all work required in this provision.

June 15, 2012



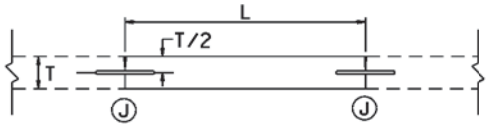
PLAN VIEW

1. SAW AT LOCATIONS "J" AND ALONG LONGITUDINAL JOINT (IF ONLY ONE LANE IS REMOVED) FULL DEPTH WITHOUT DAMAGE TO EXISTING CONCRETE. SAW RELIEF JOINTS AS THE ENGINEER DIRECTS OR APPROVES. REMOVE THE EXISTING JPC PAVEMENT TO THE LENGTH AND AT THE LOCATIONS NOTED ELSEWHERE IN THE CONTRACT. L=6 FEET MINIMUM AND LOCATIONS "J" SHALL NOT BE CLOSER THAN 6 FEET TO ANY TRANSVERSE JOINT BEYOND THE REPAIR.
2. INSTALL SMOOTH, LOAD TRANSFER DOWELS (EXCEPT USE TIE BARS FOR SECTION CCCC), 18 INCHES LONG (SEE STANDARD DRAWING NO. RPS-020 FOR DOWEL SIZE) AT LOCATIONS "J". INSTALL DOWELS (OR TIE BARS FOR SECTION CCCC) IN THE EXISTING CONCRETE USING EPOXY TYPE IV. INSTALL DOWELS (OR TIE BARS FOR SECTION CCCC) ON 12 INCH CENTERS BEGINNING 12 INCHES FROM THE EDGE OF THE SLAB.

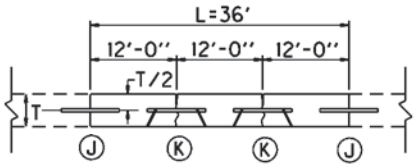
③ IF L IS GREATER THAN 20 FEET, INSTALL NEW LOAD TRANSFER ASSEMBLY(S) AND CONSTRUCT CONTRACTION JOINTS SUCH THAT THE DISTANCE BETWEEN JOINTS IN THE REPLACED SECTION IS NO LESS THAN 10 FEET OR MORE THAN 20 FEET. TRANSVERSE JOINTS SHALL BE SPACED APPROXIMATELY 15' EQUIDISTANT, BUT NOT LESS THAN 10 FEET OR NO MORE THAN 20 FEET. ADJUST JOINTS TO PROVIDE THE MINIMUM NUMBER OF JOINTS WITHOUT EXCEEDING THE 10-20 FOOT RANGE. INSTALL NEW LOAD TRANSFER ASSEMBLY(S) AND ALIGN LOAD TRANSFER ASSEMBLY(S) WITH AN EXISTING JOINT OR CRACK IN THE ADJACENT SLAB IF ONLY ONE LANE IS BEING REPLACED.

④ IF ONLY ONE LANE IS REMOVED, AND L>25', INSTALL NEW 1-INCH TIE BARS 18 INCHES LONG ON 30 INCH CENTERS IN THE LONGITUDINAL JOINT USING EPOXY TYPE IV. IF 2 OR MORE LANES ARE REMOVED, CONSTRUCT LONGITUDINAL JOINT(S) ACCORDING TO THE STANDARD DRAWING EXCEPT USE 1-INCH TIE BARS 18 INCHES LONG ON 30 INCH CENTERS. IF L≤25', DO NOT TIE THE LONGITUDINAL JOINT TO THE EXISTING LANE; USE A BOND BREAKER MATERIAL APPROVED BY THE ENGINEER THAT WILL ASSURE NO INTERACTION WITH THE ADJACENT LANE.

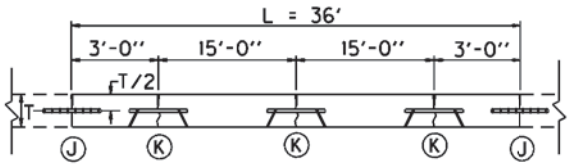
5. REPLACE WITH NON-REINFORCED JPC PAVEMENT AND INSTALL CONTRACTION JOINTS AT LOCATIONS "K" AND CONTRACTION JOINTS (OR A CONSTRUCTION JOINT FOR LOCATION CCCC) AT LOCATIONS "J". SAW AND SEAL ALL JOINTS.
6. SEE "CROSS SECTION" FOR SECTION F.



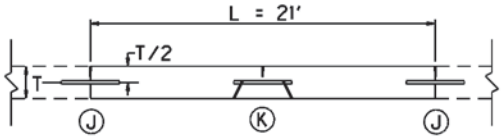
SECTION AAAA
JOINT REPLACEMENT



SECTION DDDD
FULL WIDTH REPLACEMENT
(INCLUDING JPC SHOULDERS)

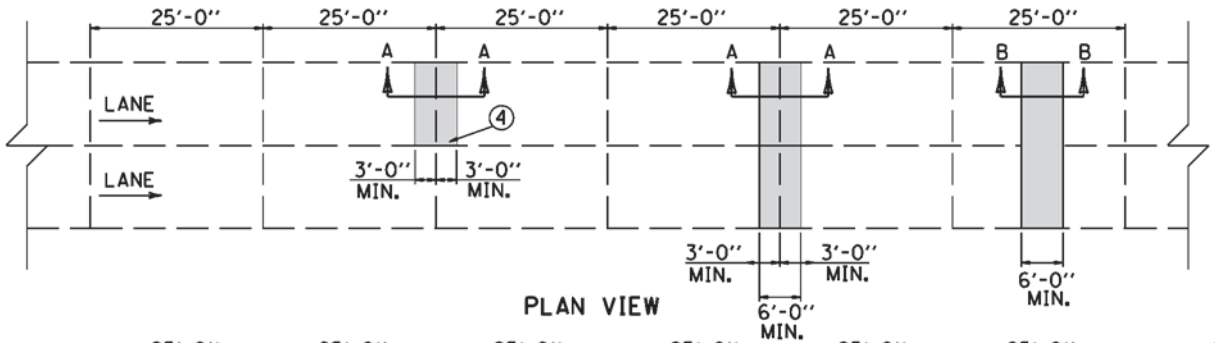


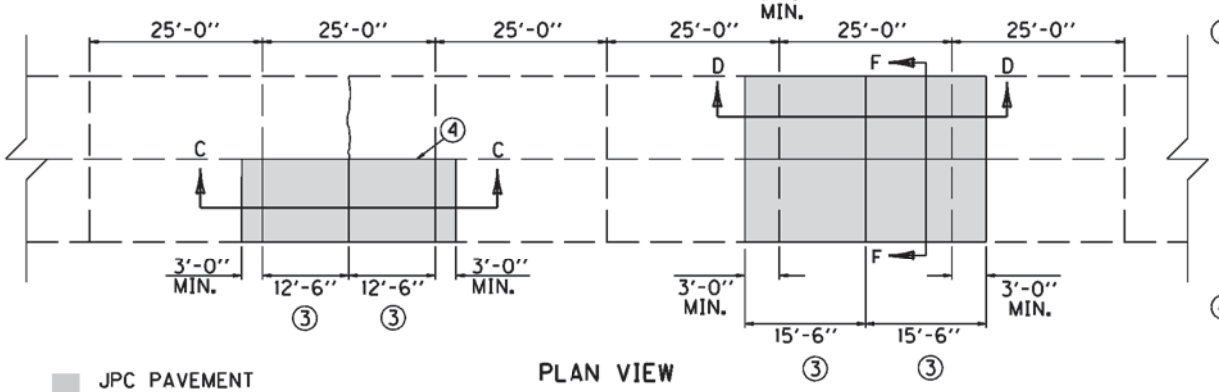
SECTION CCCC
LANE REPLACEMENT WHERE ADJACENT
LANES OR JPC SHOULDERS WILL REMAIN



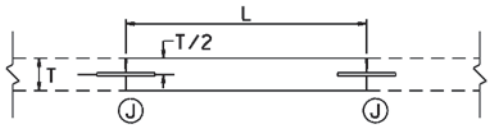
SECTION EEEE
LANE REPLACEMENT L≤25'

KENTUCKY DEPARTMENT OF HIGHWAYS
15' JOINT SPACING
APPROVED _____ TEBW DIVISION OF DESIGN _____ DATE

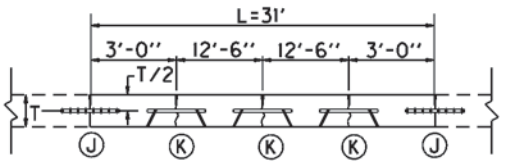




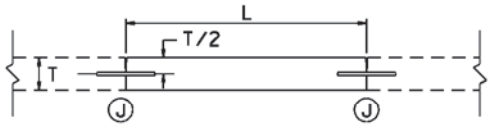
JPC PAVEMENT TO BE REMOVED



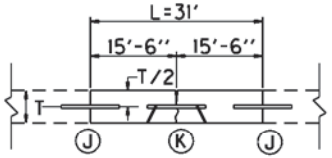
SECTION A
JOINT REPLACEMENT



SECTION C
LANE REPLACEMENT WHERE ADJACENT LANES OR JPC SHOULDERS WILL REMAIN



SECTION B
MID-SLAB REPLACEMENT



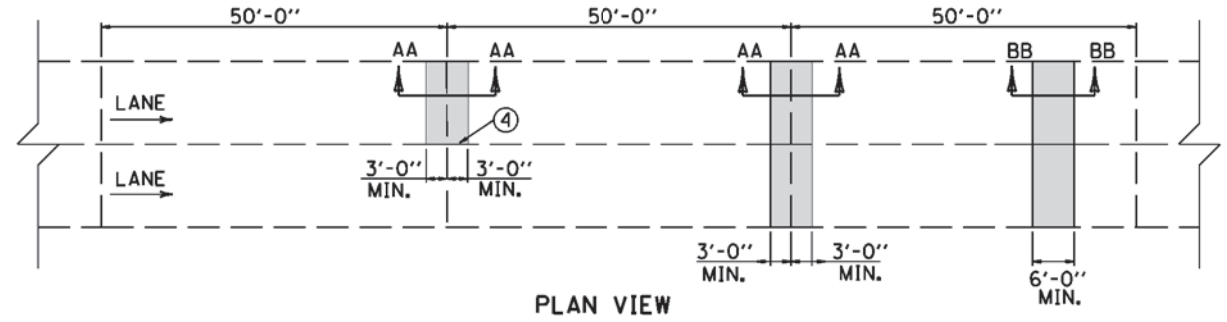
SECTION D
FULL WIDTH REPLACEMENT
(INCLUDING JPC SHOULDERS)

1. SAW AT LOCATIONS "J" AND ALONG LONGITUDINAL JOINT (IF ONLY ONE LANE IS REMOVED) FULL DEPTH WITHOUT DAMAGE TO EXISTING CONCRETE. SAW RELIEF JOINTS AS THE ENGINEER DIRECTS OR APPROVES. REMOVE THE EXISTING JPC PAVEMENT TO THE LENGTH AND AT THE LOCATIONS NOTED ELSEWHERE IN THE CONTRACT. L=6 FEET MINIMUM AND LOCATIONS "J" SHALL NOT BE CLOSER THAN 6 FEET TO ANY TRANSVERSE JOINT BEYOND THE REPAIR.
2. INSTALL SMOOTH, LOAD TRANSFER DOWELS (EXCEPT USE TIE BARS FOR SECTION C), 18 INCHES LONG (SEE STANDARD DRAWING NO. RPS-020 FOR DOWEL SIZE) AT LOCATIONS "J". INSTALL DOWELS (OR TIE BARS FOR SECTION C) IN THE EXISTING CONCRETE USING EPOXY TYPE IV. INSTALL DOWELS (OR TIE BARS FOR SECTION C) ON 12 INCH CENTERS BEGINNING 12 INCHES FROM THE EDGE OF THE SLAB.
③ IF L IS GREATER THAN 20 FEET, INSTALL NEW LOAD TRANSFER ASSEMBLY(S) AND CONSTRUCT CONTRACTION JOINTS SUCH THAT THE DISTANCE BETWEEN JOINTS IN THE REPLACED SECTION IS NO LESS THAN 10 FEET OR MORE THAN 20 FEET. TRANSVERSE JOINTS SHALL BE SPACED APPROXIMATELY 15' EQUIDISTANT, BUT NOT LESS THAN 10 FEET OR NO MORE THAN 20 FEET. ADJUST JOINTS TO PROVIDE THE MINIMUM NUMBER OF JOINTS WITHOUT EXCEEDING THE 10-20 FOOT RANGE. INSTALL NEW LOAD TRANSFER ASSEMBLY(S) AND ALIGN LOAD TRANSFER ASSEMBLY(S) WITH AN EXISTING JOINT OR CRACK IN THE ADJACENT SLAB IF ONLY ONE LANE IS BEING REPLACED.
④ IF ONLY ONE LANE IS REMOVED, AND L>25', INSTALL NEW 1-INCH TIE BARS 18 INCHES LONG ON 30 INCH CENTERS IN THE LONGITUDINAL JOINT USING EPOXY TYPE IV. IF 2 OR MORE LANES ARE REMOVED, CONSTRUCT LONGITUDINAL JOINT(S) ACCORDING TO THE STANDARD DRAWING EXCEPT USE 1-INCH TIE BARS 18 INCHES LONG ON 30 INCH CENTERS. IF L≤25', DO NOT TIE THE LONGITUDINAL JOINT TO THE EXISTING LANE; USE A BOND BREAKER MATERIAL APPROVED BY THE ENGINEER THAT WILL ASSURE NO INTERACTION WITH THE ADJACENT LANE.
5. REPLACE WITH NON-REINFORCED JPC PAVEMENT AND INSTALL CONTRACTION JOINTS AT LOCATIONS "K" AND CONTRACTION JOINTS (OR A CONSTRUCTION JOINT FOR LOCATION C) AT LOCATIONS "J". SAW AND SEAL ALL JOINTS.
6. SEE "CROSS SECTION" FOR SECTION F.

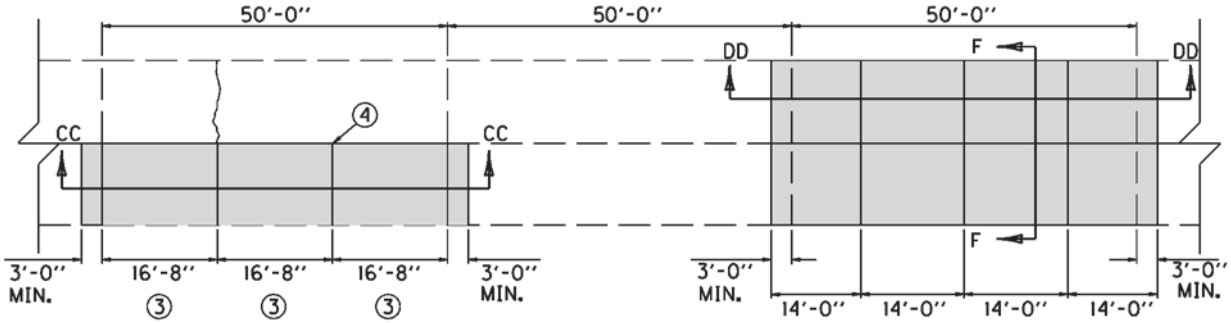
KENTUCKY DEPARTMENT OF HIGHWAYS

25' JOINT SPACING

APPROVED _____ TEBM DIVISION OF DESIGN _____ DATE

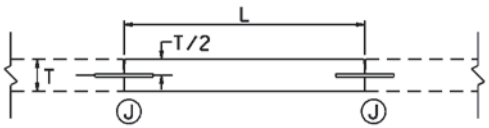


PLAN VIEW

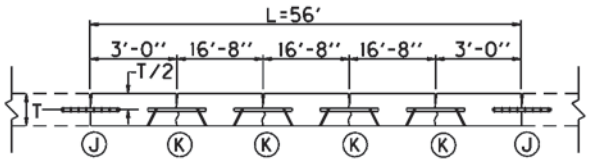


JPC PAVEMENT TO BE REMOVED

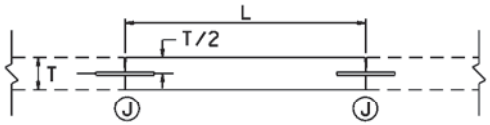
PLAN VIEW



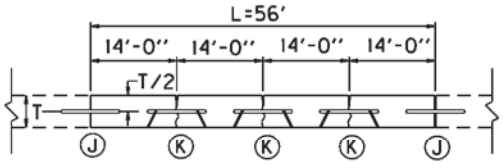
SECTION AA
JOINT REPLACEMENT



SECTION CC
LANE REPLACEMENT WHERE ADJACENT LANES OR JPC SHOULDERS WILL REMAIN



SECTION BB
MID-SLAB REPLACEMENT



SECTION DD
FULL WIDTH REPLACEMENT
(INCLUDING JPC SHOULDERS)

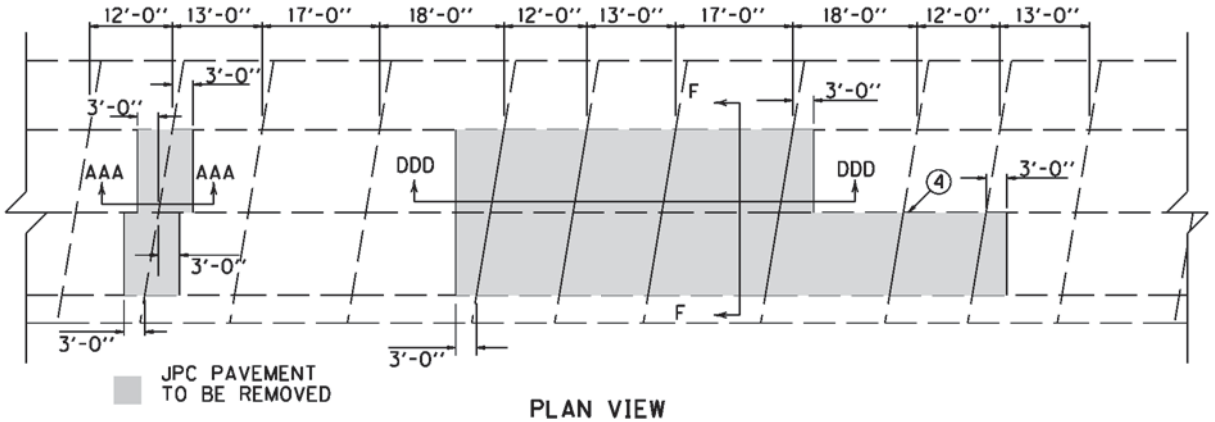
1. SAW AT LOCATIONS "J" AND ALONG LONGITUDINAL JOINT (IF ONLY ONE LANE IS REMOVED) FULL DEPTH WITHOUT DAMAGE TO EXISTING CONCRETE. SAW RELIEF JOINTS AS THE ENGINEER DIRECTS OR APPROVES. REMOVE THE EXISTING JPC PAVEMENT TO THE LENGTH AND AT THE LOCATIONS NOTED ELSEWHERE IN THE CONTRACT. L=6 FEET MINIMUM AND LOCATIONS "J" SHALL NOT BE CLOSER THAN 6 FEET TO ANY TRANSVERSE JOINT BEYOND THE REPAIR.
2. INSTALL SMOOTH, LOAD TRANSFER DOWELS (EXCEPT USE TIE BARS FOR SECTION CC), 18 INCHES LONG (SEE STANDARD DRAWING NO. RPS-020 FOR DOWEL SIZE) AT LOCATIONS "J". INSTALL DOWELS (OR TIE BARS FOR SECTION CC) IN THE EXISTING CONCRETE USING EPOXY TYPE IV. INSTALL DOWELS (OR TIE BARS FOR SECTION CC) ON 12 INCH CENTERS BEGINNING 12 INCHES FROM THE EDGE OF THE SLAB.

(3) IF L IS GREATER THAN 20 FEET, INSTALL NEW LOAD TRANSFER ASSEMBLY(S) AND CONSTRUCT CONTRACTION JOINTS SUCH THAT THE DISTANCE BETWEEN JOINTS IN THE REPLACED SECTION IS NO LESS THAN 10 FEET OR MORE THAN 20 FEET. TRANSVERSE JOINTS SHALL BE SPACED APPROXIMATELY 15' EQUIDISTANT, BUT NOT LESS THAN 10 FEET OR NO MORE THAN 20 FEET. ADJUST JOINTS TO PROVIDE THE MINIMUM NUMBER OF JOINTS WITHOUT EXCEEDING THE 10-20 FOOT RANGE. INSTALL NEW LOAD TRANSFER ASSEMBLY(S) AND ALIGN LOAD TRANSFER ASSEMBLY(S) WITH AN EXISTING JOINT OR CRACK IN THE ADJACENT SLAB IF ONLY ONE LANE IS BEING REPLACED.

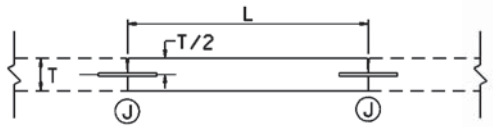
(4) IF ONLY ONE LANE IS REMOVED, AND L>25', INSTALL NEW 1-INCH TIE BARS 18 INCHES LONG ON 30 INCH CENTERS IN THE LONGITUDINAL JOINT USING EPOXY TYPE IV. IF 2 OR MORE LANES ARE REMOVED, CONSTRUCT LONGITUDINAL JOINT(S) ACCORDING TO THE STANDARD DRAWING EXCEPT USE 1-INCH TIE BARS 18 INCHES LONG ON 30 INCH CENTERS. IF L≤25', DO NOT TIE THE LONGITUDINAL JOINT TO THE EXISTING LANE; USE A BOND BREAKER MATERIAL APPROVED BY THE ENGINEER THAT WILL ASSURE NO INTERACTION WITH THE ADJACENT LANE.

5. REPLACE WITH NON-REINFORCED JPC PAVEMENT AND INSTALL CONTRACTION JOINTS AT LOCATIONS "K" AND CONTRACTION JOINTS (OR A CONSTRUCTION JOINT FOR LOCATION CC) AT LOCATIONS "J". SAW AND SEAL ALL JOINTS.
6. SEE "CROSS SECTION" FOR SECTION F.

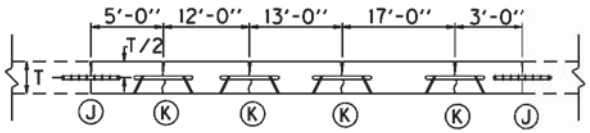
KENTUCKY DEPARTMENT OF HIGHWAYS
50' JOINT SPACING
SUBMITTED _____ TEBM DIVISION OF DESIGN _____ DATE



PLAN VIEW



SECTION AAA
JOINT REPLACEMENT



SECTION DDD
LANE REPLACEMENT
(ALWAYS MATCH EXISTING JOINTS)

1. SAW AT LOCATIONS "J" AND ALONG LONGITUDINAL JOINT (IF ONLY ONE LANE IS REMOVED) FULL DEPTH WITHOUT DAMAGE TO EXISTING CONCRETE. SAW RELIEF JOINTS AS THE ENGINEER DIRECTS OR APPROVES. REMOVE THE EXISTING JPC PAVEMENT TO THE LENGTH AND AT THE LOCATIONS NOTED ELSEWHERE IN THE CONTRACT. L=6 FEET MINIMUM AND LOCATIONS "J" SHALL NOT BE CLOSER THAN 6 FEET TO ANY TRANSVERSE JOINT BEYOND THE REPAIR.
2. INSTALL SMOOTH, LOAD TRANSFER DOWELS (EXCEPT USE TIE BARS FOR SECTION DDD), 18 INCHES LONG (SEE STANDARD DRAWING NO. RPS-020 FOR DOWEL SIZE) AT LOCATIONS "J". INSTALL DOWELS (OR TIE BARS FOR SECTION DDD) IN THE EXISTING CONCRETE USING EPOXY TYPE IV. INSTALL DOWELS (OR TIE BARS FOR SECTION DDD) ON 12 INCH CENTERS BEGINNING 12 INCHES FROM THE EDGE OF THE SLAB.
3. IF L IS GREATER THAN 20 FEET, INSTALL NEW LOAD TRANSFER ASSEMBLY(S) AND MATCH EXISTING JOINTS. INSTALL NEW LOAD TRANSFER ASSEMBLY(S) AND ALIGN LOAD TRANSFER ASSEMBLY(S) WITH EXISTING JOINTS IN ADJACENT SLABS.

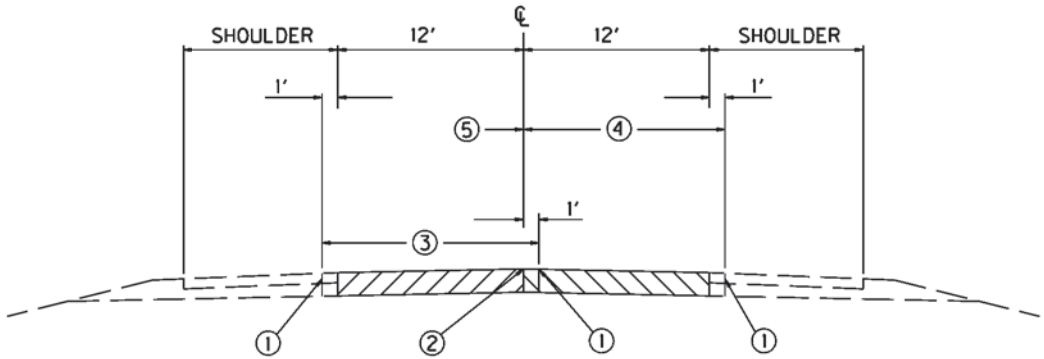
④ IF ONLY ONE LANE IS REMOVED, AND L>25', INSTALL NEW 1-INCH TIE BARS 18 INCHES LONG ON 30 INCH CENTERS IN THE LONGITUDINAL JOINT USING EPOXY TYPE IV. IF 2 OR MORE LANES ARE REMOVED, CONSTRUCT LONGITUDINAL JOINT(S) ACCORDING TO THE STANDARD DRAWING EXCEPT USE 1-INCH TIE BARS 18 INCHES LONG ON 30 INCH CENTERS. IF L≤25', DO NOT TIE THE LONGITUDINAL JOINT TO THE EXISTING LANE; USE A BOND BREAKER MATERIAL APPROVED BY THE ENGINEER THAT WILL ASSURE NO INTERACTION WITH THE ADJACENT LANE.

5. REPLACE WITH NON-REINFORCED JPC PAVEMENT AND INSTALL CONTRACTION JOINTS AT LOCATIONS "K" AND CONTRACTION JOINTS (OR A CONSTRUCTION JOINT FOR LOCATION DDD) AT LOCATIONS "J". SAW AND SEAL ALL JOINTS.
6. SEE "CROSS SECTION" FOR SECTION F.

KENTUCKY
DEPARTMENT OF HIGHWAYS

RANDOM SKEWED

APPROVED _____ _____
TEBM DIVISION OF DESIGN DATE



SECTION F

① SAW-CUT LINE. THIS ONE FOOT IS TO ALLOW FOR A FORM AND THE REMOVAL AND REPLACEMENT SHALL BE INCIDENTAL TO THE WORK, EXCEPT NEW ASPHALT MIXTURE SHALL BE PAID DIRECT ON A TONNAGE BASIS, AND NEW JPC PAVEMENT WILL BE PAID BY THE SQUARE YARD. COMPACT THE DGA BASE BY MECHANICAL TAMPERS TO THE ENGINEER'S SATISFACTION.

② EXISTING LONGITUDINAL JOINT.

③ FIRST SLAB REMOVAL LIMITS AND REPLACE 12-FOOT LANE.

④ SECOND SLAB REMOVAL LIMITS AND REPLACE 12-FOOT LANE.

⑤ THIS ONE FOOT IS TO ALLOW FOR A FORM ON THE FIRST POUR, AND A TEMPORARY PAVEMENT IS REQUIRED. THE DEPARTMENT WILL NOT REQUIRE REMOVAL OF THIS ONE FOOT IF THE GRADE OF THE EXISTING PAVEMENT IS ADEQUATE TO ENSURE THE NEW CONCRETE CAN BE PLACED AND FINISHED TO THE SATISFACTION OF THE ENGINEER. ANY TEMPORARY PAVEMENT IS INCIDENTAL TO JPC PAVEMENT.

6. THE ABOVE DRAWING DEPICTS THE ORDER OF SLAB REMOVAL WHEN BOTH ARE TO BE REMOVED AT THE SAME LOCATION. WHEN ONLY ONE SLAB OR LANE IS TO BE REMOVED, REMOVE AND REPLACE ACCORDING TO SECTION C, CC, OR CCCC. TRAFFIC CONTROL WILL SPECIFY WHICH LANE TO REMOVE FIRST.

KENTUCKY DEPARTMENT OF HIGHWAYS
CROSS SECTION
APPROVED _____ TEBM DIVISION OF DESIGN _____ DATE

2016 APPLICABLE KENTUCKY STANDARD DRAWINGS

PERFORATED PIPE TYPES AND COVER HEIGHTS....RDP-001-06
PERFORATED PIPE FOR SUBGRADE DRAINAGE ON TWO-LANE (CLASS 2) AND MULTI-LANE ROADS....RDP-005-05
PERFORATED PIPE UNDERDRAINS (LONGITUDINAL AND TRANSVERSE)....RDP-006-04
PERFORATED PIPE HEADWALLS....RDP-010-09
TEMPORARY SILT FENCE....RDX-210-03
TEMPORARY SILT FENCE WITH WOVEN WIRE FENCE FABRIC....RDX-215-01
SILT TRAP - TYPE A....RDX-220-05
SILT TRAP - TYPE B....RDX-225-01
SILT TRAP - TYPE C....RDX-230-01
CURVE WIDENING AND SUPERELEVATION TRANSITIONS....RGS-001-07
SUPERELEVATION FOR MULTILANE PAVEMENT....RGS-002-06
MISCELLANEOUS STANDARDS....RGX-001-06
APPROACHES, ENTRANCES, AND MAIL BOX TURNOUT....RPM-110-07
JOINTED PLAIN CONCRETE PAVEMENT FOR SHOULDERS AND MEDIANS....RPN-001-07
JOINTED PLAIN CONCRETE PAVEMENT....RPN-015-05
CONCRETE PAVEMENT JOINTS - TYPES AND SPACING....RPN-020-04
CONCRETE PAVEMENT JOINT DETAILS....RPS-010-11
EXPANSION AND CONTRACTION JOINT - LOAD TRANSFER ASSEMBLIES....RPS-020-14
CONCRETE PAVEMENT JOINTS - TYPES AND SPACING....RPS-030-06
CONCRETE PAVEMENT JOINTS - TYPES AND SPACING....RPS-031-06
CONCRETE PAVEMENT JOINTS - TYPES AND SPACING....RPS-032-06
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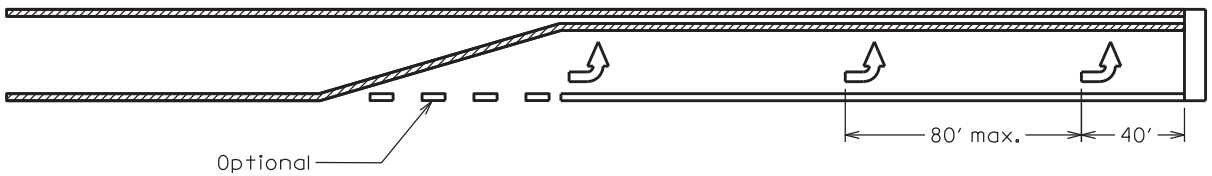
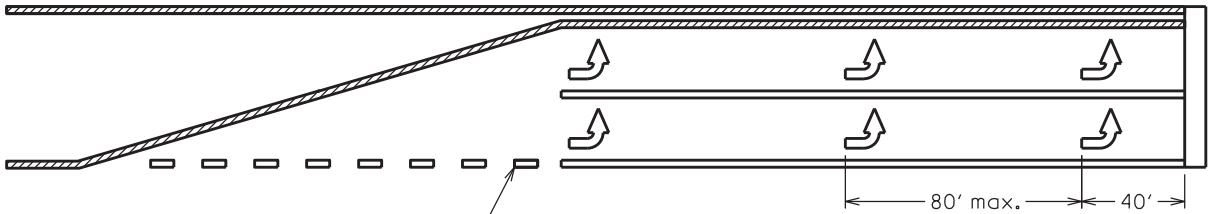
CONCRETE PAVEMENT JOINTS - TYPES AND SPACING....RPS-037-06
CONCRETE PAVEMENT JOINTS - TYPES AND SPACING....RPS-038-06
CONCRETE PAVEMENT JOINTS - TYPES AND SPACING....RPS-039-06
HOT - POURED ELASTIC JOINT SEALS FOR CONCRETE PAVEMENT....RPX-015-04
LANE CLOSURE TWO-LANE HIGHWAY....TTC-100-04
LANE CLOSURE MULTI-LANE HIGHWAY CASE I....TTC-115-03
DOUBLE LANE CLOSURE....TTC-125-03
SHOULDER CLOSURE....TTC-135-02
PAVEMENT CONDITION WARNING SIGNS....TTD-125-02
MOBILE OPERATION FOR PAINT STRIPING CASE I....TTS-100-02
MOBILE OPERATION FOR PAINT STRIPING CASE II....TTS-105-02
MOBILE OPERATION FOR PAINT STRIPING CASE III....TTS-110-02
MOBILE OPERATION FOR PAINT STRIPING CASE IV....TTS-115-02
MOBILE OPERATION FOR DURABLE PAINT STRIPING CASE I....TTS-120-02
MOBILE OPERATION FOR DURABLE PAINT STRIPING CASE II....TTS-125-02
MOBILE OPERATION FOR DURABLE PAINT STRIPING CASE III....TTS-130-02
MOBILE OPERATION FOR DURABLE PAINT STRIPING CASE IV....TTS-135-02

COUNTY OF	ITEM NO.	SHEET NO.

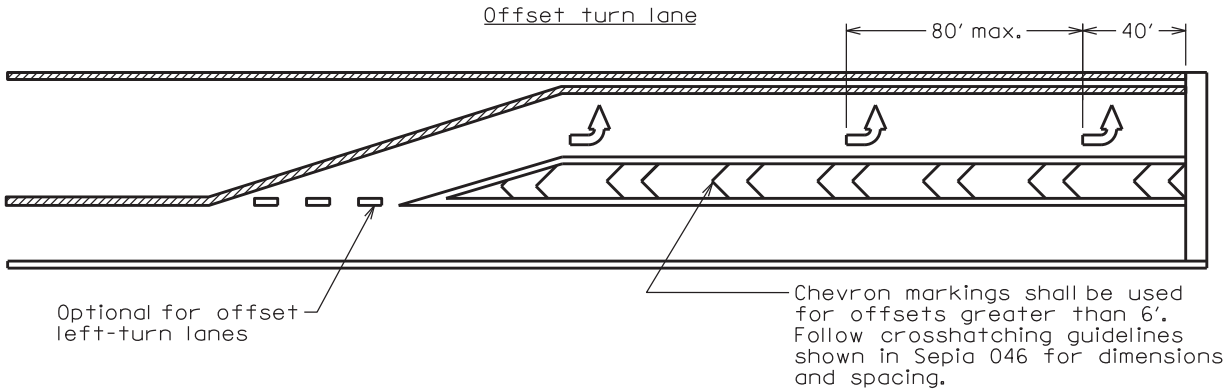
Single turn lane



Dual turn lane



Offset turn lane



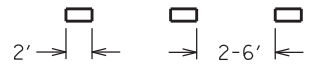
STRIPING NOTES:

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

ARROW SPACING NOTES:

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

DOTTED EXTENSION DIMENSIONS:



Dotted extensions shall be normal width.

DRAWING NOT TO SCALE

LEGEND

MARKINGS

WHITE

YELLOW

KENTUCKY
DEPARTMENT OF HIGHWAYS

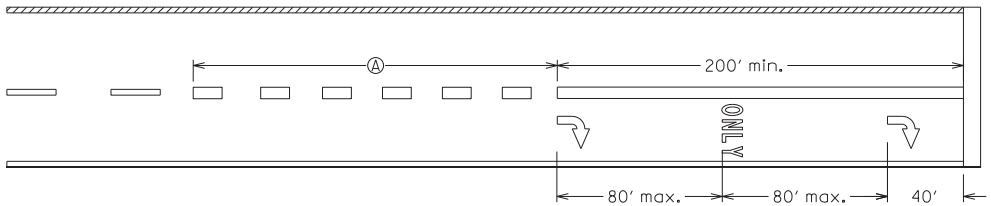
TYPICAL MARKINGS
FOR TURN LANES

SUBMITTED R. Allen Wolfe 11-30-18
DATE

042

COUNTY OF	ITEM NO.	SHEET

Lane drop scenario

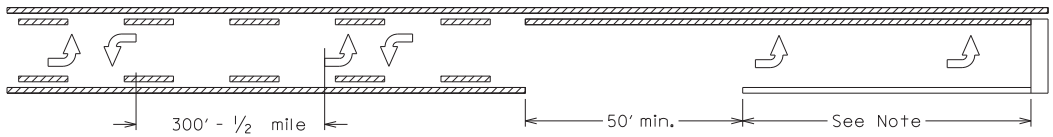


WIDE DOTTED LANE LINE DIMENSIONS:

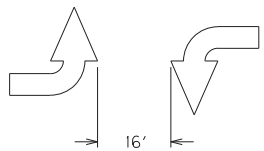
Dotted lane lines shall be twice the normal width in lane drop scenarios.

Speed Limit	Ⓐ
25	125′
35	245′
45	540′
55	660′
65	780′

Two-way left-turn lane



TWLTL ARROW DETAILS:



LANE DROP MARKINGS NOTES:

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

TWO-WAY LEFT-TURN LANE NOTES:

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

DRAWING NOT TO SCALE

LEGEND
MARKINGS
WHITE
YELLOW

KENTUCKY DEPARTMENT OF HIGHWAYS

TYPICAL MARKINGS FOR TURN LANES

SUBMITTED R. Gilbert Wolfe 4-22-19
DATE

043

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

192254

PROPOSAL BID ITEMS

Report Date 9/26/19

Section: 0001 - JPC PAVEMENT REPAIRS & DIAMOND GRINDING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00003		CRUSHED STONE BASE	140.00	TON		$	
0020	00078		CRUSHED AGGREGATE SIZE NO 2 (LIMESTONE)	4.00	TON		$	
0030	00212		CL2 ASPH BASE 1.00D PG64-22	45.00	TON		$	
0040	00301		CL2 ASPH SURF 0.38D PG64-22	30.00	TON		$	
0050	01000		PERFORATED PIPE-4 IN	425.00	LF		$	
0060	01010		NON-PERFORATED PIPE-4 IN	50.00	LF		$	
0070	01015		INSPECT & CERTIFY EDGE DRAIN SYSTEM	1.00	LS		$	
0080	01028		PERF PIPE HEADWALL TY 3-4 IN	2.00	EACH		$	
0090	02058		REMOVE PCC PAVEMENT	1,184.00	SQYD		$	
0100	02060		PCC PAVEMENT DIAMOND GRINDING	7,900.00	SQYD		$	
0110	02073		JPC PAVEMENT-9 IN	1,184.00	SQYD		$	
0120	02110		PARTIAL DEPTH PATCHING	5.00	CUFT		$	
0130	02599		FABRIC-GEOTEXTILE TYPE IV	1,184.00	SQYD		$	
0140	02676		MOBILIZATION FOR MILL & TEXT	1.00	LS		$	
0150	02677		ASPHALT PAVE MILLING & TEXTURING	30.00	TON		$	
0160	06556		PAVE STRIPING-DUR TY 1-6 IN W	3,500.00	LF		$	
0170	06557		PAVE STRIPING-DUR TY 1-6 IN Y	2,800.00	LF		$	
0180	06568		PAVE MARKING-THERMO STOP BAR-24IN	24.00	LF		$	
0190	06574		PAVE MARKING-THERMO CURV ARROW	2.00	EACH		$	
0200	23265ES717		PAVE MARK TY 1 TAPE STOP BAR-24 IN	38.00	LF		$	
0210	23270ES717		PAVE MARK TY 1 TAPE-CURV ARROW	4.00	EACH		$	

Section: 0002 - MAINTAIN & CONTROL TRAFFIC

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0220	02014		BARRICADE-TYPE III	5.00	EACH		$	
0230	02562		TEMPORARY SIGNS	500.00	SQFT		$	
0240	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		$	
0250	02671		PORTABLE CHANGEABLE MESSAGE SIGN	4.00	EACH		$	
0260	02775		ARROW PANEL	3.00	EACH		$	
0270	06549		PAVE STRIPING-TEMP REM TAPE-B (6 INCH)	250.00	LF		$	
0280	06550		PAVE STRIPING-TEMP REM TAPE-W	3,500.00	LF		$	
0290	06551		PAVE STRIPING-TEMP REM TAPE-Y	2,800.00	LF		$	
0300	22664EN		WATER BLASTING EXISTING STRIPE	6,300.00	LF		$	

Section: 0003 - DEMOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0310	02569		DEMOBILIZATION	1.00	LS		$	