



CALL NO. 319

CONTRACT ID. 232243

FRANKLIN COUNTY

FED/STATE PROJECT NUMBER FD05 037 0421 000-002

DESCRIPTION LEESTOWN ROAD (US 421)

WORK TYPE ASPHALT RESURFACING

PRIMARY COMPLETION DATE 11/15/2023

LETTING DATE: May 25,2023

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN DAYLIGHT TIME May 25,2023. Bids will be publicly announced at 10:00 AM EASTERN DAYLIGHT TIME.

NO PLANS ASSOCIATED WITH THIS PROJECT.

DEFERRED PAYMENT

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

TABLE OF CONTENTS

PART I	SCOPE OF WORK <ul style="list-style-type: none">PROJECT(S), COMPLETION DATE(S), & LIQUIDATED DAMAGESCONTRACT NOTESSTATE CONTRACT NOTESDEFERRED PAYMENTSURFACING AREASASPHALT MIXTUREINCIDENTAL SURFACINGCOMPACTION OPTION ASPECIAL NOTE(S) APPLICABLE TO PROJECTWASTE AND BORROW SITESNON-TRACKING TACK COATASPHALT MIX PAVEMENT WEDGE MONOLITHIC OPERATIONASPHALT MILLING AND TEXTURINGBASE FAILURE REPAIRTYPICAL SECTION DIMENSIONSTRAFFIC CONTROL PLANDURABLE PAVEMENT EDGE DETAILSSKETCH MAP(S)SUMMARY SHEET(S)TYPICAL SECTION(S)BRIDGE DETAIL FOR PAVING PROJECT
PART II	SPECIFICATIONS AND STANDARD DRAWINGS <ul style="list-style-type: none">SPECIFICATIONS REFERENCESUPPLEMENTAL SPECIFICATION[SN-1I] PORTABLE CHANGEABLE SIGNS2020 STANDARD DRAWINGS THAT APPLY
PART III	EMPLOYMENT, WAGE AND RECORD REQUIREMENTS <ul style="list-style-type: none">LABOR AND WAGE REQUIREMENTSEXECUTIVE BRANCH CODE OF ETHICSKENTUCKY EQUAL EMPLOYMENT OPPORTUNITY ACT OF 1978 LOCALITY / STATEPROJECT WAGE RATES / STATE FUNDED
PART IV	INSURANCE
PART V	BID ITEMS

PART I

SCOPE OF WORK

ADMINISTRATIVE DISTRICT - 05

CONTRACT ID - 232243
FD05 037 0421 000-002
COUNTY - FRANKLIN
PCN - MP03704212301
FD05 037 0421 000-002

LEESTOWN ROAD (US 421) (MP 0.000) BEGIN AT THE FRANKLIN/WOODFORD COUNTY LINE EXTENDING
NORTH TO THE HICKMAN BRANCH CULVERT (MP 1.254), A DISTANCE OF 01.25 MILES.ASPHALT RESURFACING
GEOGRAPHIC COORDINATES LATITUDE 38:10:56.00 LONGITUDE 84:46:44.00
ADT 6,317

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

CONTRACT NOTES

PROPOSAL ADDENDA

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

BID SUBMITTAL

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

JOINT VENTURE BIDDING

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

UNDERGROUND FACILITY DAMAGE PROTECTION

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

REGISTRATION WITH THE SECRETARY OF STATE BY A FOREIGN ENTITY

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

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

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

SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT

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

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

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

HARDWOOD REMOVAL RESTRICTIONS

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

INSTRUCTIONS FOR EXCESS MATERIAL SITES AND BORROW SITES

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

ACCESS TO RECORDS

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

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

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

BUILD AMERICA, BUY AMERICA ACT (BABA)

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

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

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

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

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

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

BOYCOTT PROVISIONS

If applicable, the contractor represents that, pursuant to [KRS 45A.607](#), they are not currently engaged in, and will not for the duration of the contract engage in, the boycott of a person or an entity based in or doing business with a jurisdiction with which Kentucky can enjoy open trade.

Note: The term Boycott does not include actions taken for bona fide business or economic reasons, or actions specifically required by federal or state law.

If applicable, the contractor verifies that, pursuant to KRS 41.480, they do not engage in, and will not for the duration of the contract engage in, in energy company boycotts as defined by KRS 41.472.

LOBBYING PROHIBITIONS

The contractor represents that they, and any subcontractor performing work under the contract, have not violated the agency restrictions contained in [KRS 11A.236](#) during the previous ten (10) years, and pledges to abide by the restrictions set forth in such statute for the duration of the contract awarded.

The contractor further represents that, pursuant to [KRS 45A.328](#), they have not procured an original, subsequent, or similar contract while employing an executive agency lobbyist who was convicted of a crime related to the original, subsequent, or similar contract within five (5) years of the conviction of the lobbyist.

February 1, 2023

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

DEFERRED PAYMENT

The successful bidder on this project has the distinct understanding that payment for any work may be delayed until July 15, 2023. Work Order/Notice to Proceed will be issued in accordance the Standard Specifications for Road and Bridge Construction, current edition.

SURFACING AREAS

The Department estimates the mainline surfacing width to be varied 24 to 36 feet.

The Department estimates the total mainline area to be surfaced to be 24,043 square yards.

The Department estimates the shoulder width to be 2 feet on each side.

The Department estimates the total shoulder area to be surfaced to be 2,640 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-110-06 or as directed by the Engineer. In the event signal detectors are present in the intersecting streets or roads, pave the crossroads to the right of way limit or back of the signal detector, whichever is the farthest back of the mainline. Surface or resurface these areas as directed by the Engineer. The Department will not measure placing and compacting for separate payment but shall be incidental to the Contract unit price for the asphalt mixtures.

OPTION A

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

Special Note for Thermo Striping Application

Contrary to Section 714.02.05 of the Standard Specifications for Road and Bridge Construction, thermoplastic application will be required to be by ribbon gun at all locations that are to be applied over milled rumble strips in lieu of an extrusion application.

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

SPECIAL NOTE FOR NON-TRACKING TACK COAT

- 1. DESCRIPTION AND USEAGE. This specification covers the requirements and practices for applying a non-tracking tack asphalt coating. Place this material on the existing pavement course, prior to placement of a new asphalt pavement layer. Use when expedited paving is necessary or when asphalt tracking would negatively impact the surrounding area. This material is not suitable for other uses. Ensure material can “break” within 15 minutes under conditions listed in 3.2.
- 2. MATERIALS, EQUIPMENT, AND PERSONNEL.

2.1 Non-Tracking Tack. Provide material conforming to Subsection 2.1.1.

2.1.1 Provide a tack conforming to the following material requirements:

Property	Specification	Test Procedure
Viscosity, SFS, 77 ° F	20 – 100	AASHTO T 72
Sieve, %	0.3 max.	AASHTO T 59
Asphalt Residue ¹ , %	50 min.	AASHTO T 59
Oil Distillate, %	1.0 max.	AASHTO T 59
Residue Penetration, 77 ° F	0 - 30	AASHTO T 49
Original Dynamic Shear (G*/sin δ), 82 ° C	1.0 min.	AASHTO T 315
Softening Point, ° F	149 min.	AASHTO T 53
Solubility, %	97.5 min.	AASHTO T 44

¹ Bring sample to 212 °F over a 10-15 minute period. Maintain 212 °F for 15-20 minutes or until 30-40 mL of water has distilled. Continue distillation as specified in T59.

- 2.2. Equipment. Provide a distributor truck capable of heating, circulating, and spraying the tack between 170 °F and 180 °F. Do not exceed 180 °F. Circulate the material while heating. Provide the correct nozzles that is recommend by the producer to ensure proper coverage of tack is obtained. Ensure the bar can be raised to between 14” and 18” from the roadway.
 - 2.3. Personnel. Ensure the tack supplier has provided training to the contractor on the installation procedures for this product. Make a technical representative from the supplier available at the request of the Engineer.
- 3. CONSTRUCTION.
- 3.1 Surface Preparation. Prior to the application of the non-tracking tack, ensure the pavement surface is thoroughly dry and free from dust or any other debris that would inhibit adhesion. Clean the surface by scraping, sweeping, and the use of compressed air. Ensure this preparation process occurs shortly before application to prevent the return of debris on to the pavement. If rain is expected within one hour after application, do not apply material. Apply material only when the surface is dry, and no precipitation is expected.

- 3.2 Non-tracking Tack Application. Placement of non-tracking tack is not permitted from October 1st to May 15th. When applying material, ensure the roadway temperature is a minimum of 40°F and rising. Prior to application, demonstrate competence in applying the tack according to this note to the satisfaction of the Engineer. Heat the tack in the distributor to between 170 – 180 °F. After the initial heating, between 170 – 180 °F, the material may be sprayed between 165 °F and 180 °F. Do not apply outside this temperature range. Apply material at a minimum rate of 0.70 pounds (0.08 gallons) per square yard. Ensure full coverage of the material on the pavement surface. Full coverage of this material is critical. Increase material application rate if needed to achieve full coverage. Schedule the work so that, at the end of the day's production, all non-tracking tack is covered with the asphalt mixture. If for some reason the non-tracking tack cannot be covered by an asphalt mixture, ensure the non-tracking tack material is clean and reapply the non-tracking tack prior to placing the asphalt mixture. Do not heat material more than twice in one day.
- 3.3 Non-tracking Tack Certification. Furnish the tack certification to the Engineer stating the material conforms to all requirements herein prior to use.
- 3.4 Sampling and Testing. The Department will require a sample of non-tracking tack be taken from the distributor at a rate of one sample per 15,000 tons of mix. Take two 1 gallon samples of the heated material and forward the sample to the Division of Materials for testing within 7 days. Ensure the product temperature is between 170 and 180 °F at the time of sampling.
4. MEASUREMENT. The Department will measure the quantity of non-tracking tack in tons. The Department will not measure for payment any extra materials, labor, methods, equipment, or construction techniques used to satisfy the requirements of this note. The Department will not measure for payment any trial applications of non-tracking tack, the cleaning of the pavement surface, or furnishing and placing the non-tracking tack. The Department will consider all such items incidental to the non-tracking tack.
5. PAYMENT. The Department will pay for the non-tracking tack at the Contract unit bid price and apply an adjustment for each manufacturer's lot of material based on the degree of compliance as defined in the following schedule. Non-tracking tack will not be permitted for use from October 1st to May 15th. During this timeframe, the department will allow the use of an approved asphalt emulsion in lieu of a non-tracking tack product but will not adjust the unit bid price of the material. When a sample fails on two or more tests, the Department may add the deductions, but the total deduction will not exceed 100 percent.

Non-Tracking Tack Price Adjustment Schedule						
Test	Specification	100% Pay	90% Pay	80% Pay	50% Pay	0% Pay
Viscosity, SFS, 77 ° F	20 – 100	19 - 102	17 - 18	15 - 16	14	≤13
			103 - 105	106 - 107	108 - 109	≥ 110
Sieve, %	0.30 max.	≤ 0.40	0.41 - 0.50	0.51 - 0.60	0.61 - 0.70	≥ 0.71
Asphalt Residue, %	50 min.	≥49.0	48.5 – 48.9	48.0 – 48.4	47.5-47.9	≤ 47.4
Oil Distillate, %	1.0 max.	≤1.0	1.1-1.5	1.6 - 1.7	1.8-1.9	>2.0
Residue Penetration, 77 ° F.	30 max.	≤ 31	32 - 33	34 - 35	36 - 37	≥ 38
Original Dynamic Shear (G*/sin δ), 82 ° C	1.0 min.	≥0.95	0.92 – 0.94	0.90 – 0.91	0.85 - 0.89	≤ 0.84
Softening Point, ° F	149 min.	≥145	142 - 144	140 - 141	138 - 139	≤ 137
Solubility, %	97.5 min.	≥ 97.0	96.8 – 96.9	96.6 – 96.7	96.4 – 96.5	≤ 96.3

Code
24970EC

Pay Item
Asphalt Material for Tack Non-Tracking

Pay Unit
Ton

Revised: May 23, 2022

SPECIAL NOTE FOR PAVEMENT WEDGE AND SHOULDER MONOLITHIC OPERATION

1.0 MATERIALS. Provide an Asphalt Surface Mixture conforming to Section 403 of the Standard Specifications, as applicable to the project, for the pavement wedge.

2.0 CONSTRUCTION. Place the specified Asphalt Surface Mixture on shoulders monolithically with the driving lane. Prime the existing shoulder with tack material as the Engineer directs before placing the wedge. Construct according to Section 403.03 of the Standard Specifications.

Equip the paver with a modified screed that extends the full width of the wedge being placed and is tapered to produce a wedge. Obtain the Engineer's approval of the modified screed before placing shoulder wedge monolithically with the driving lane.

The wedge may vary in thickness at the edge of the milled area in the shoulder. If the area to receive the shoulder wedge is milled prior to placement, during rolling operations pinch the outside edge of the new inlay wedge to match the existing shoulder elevation not being resurfaced. Unless required otherwise by the Contract, construct rolled or sawed rumble strips according to Section 403.03.08, as applicable.

The following sketch is primarily for the computation of quantities; however, the wedge will result in a similar cross-section where sufficient width exists. Do not construct a shoulder for placing the wedge unless specified elsewhere in the Contract.



3.0 MEASUREMENT. The Department will measure Asphalt Surface Mixture placed as the pavement wedge according to Section 403.

4.0 PAYMENT. The Department will make payment for the completed and accepted quantities of Asphalt Surface Mixtures on pavement wedges according to Section 403.

SPECIAL NOTE FOR ASPHALT MILLING AND TEXTURING

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

Contrary to Section 408, the Department will retain possession of the material obtained from the milling operations. Deliver this material to the State Maintenance facility in Franklin County.

NOTICE TO CONTRACTOR: The Department considers transfer of millings to the state maintenance facility to be a part of the construction project.

1-3530 48 hours State keeps millings
01/2/2012

SPECIAL NOTE FOR BASE FAILURE REPAIR

Repair locations listed on the summary are approximate only. The Engineer will determine actual repair locations and dimensions at the time of construction. Prior to overall milling and/or leveling and wedging, excavate the designated base failure areas to a depth 8 inches below the existing asphalt pavement surface level. Dispose of the excavated materials at waste sites off the Right-of-Way obtained by the Contractor at no additional cost to the Department. See Special Note for Waste and Borrow.

Backfill the excavated areas with Class 2 Asphalt Base 1.00D PG64-22. Compact the asphalt base to the compaction required in Section 403.03.10. Seal the asphalt base with leveling and wedging. Perform all base failure repairs in such a manner that removal and replacement are completed on the same day. Do this work as one of the Contractor's first operations in order to allow further compaction by traffic. Do not mill or place new asphalt surface over repaired base failure areas until a minimum of 7 calendar days have elapsed after placement of the asphalt base. After a minimum of 7 calendar days and when the Engineer determines the base failure repair areas have sufficiently stabilized, begin milling and/or resurfacing operations. Prior to milling and/or constructing the new asphalt surface, level and wedge any settlement of the repair areas.

The bidder must draw conclusions as to the conditions encountered. The Department does not give any guarantee as to the accuracy of the data and will not consider any claim for additional compensation if the materials encountered that are not in accord with the classification shown.

Accept payment at the Contract unit prices per square yard for Base Failure repair and per ton for Leveling and Wedging as full compensation for all labor, materials, equipment, and incidentals for removing pavement and disposing of the materials, furnishing and placing asphalt base, leveling and wedging, and all other items necessary to complete the work according to these notes to the satisfaction of the Engineer.

1-3606basefailurerepairmillinlaypaybysy
01/02/2012

SPECIAL NOTE FOR TYPICAL SECTION DIMENSIONS

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

1-3725 Typical Section Dimensions
01/02/2012

TRAFFIC CONTROL PLAN

TRAFFIC CONTROL GENERAL

Except as provided herein, maintain and control traffic in accordance with the 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.

PROJECT PHASING & CONSTRUCTION PROCEDURES

Maintain all lanes open to traffic and perform no work during the following hours:

6:30 a.m. - 6:00 p.m.	Monday through Thursday
6:30 a.m. - 6:00 p.m.	Friday
7:30 a.m. - 6:00 p.m.	Saturday
7:30 a.m. - 6:00 p.m.	Sunday

The Engineer may permit minor operations that do not require a lane closure and cause little disruption to traffic between the hours of 6:30 a.m. to 6:00 p.m.

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

At locations with three or more lanes, maintain one lane of traffic in each direction at all times during construction. At locations with two lanes, maintain alternating one way traffic during construction. Provide a minimum clear lane width of 11 feet; however, provide for passage of vehicles of up to 16 feet in width. If traffic should be 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 Department will allow night work on this project. Obtain the Engineer’s approval of the method of lighting prior to performing night work.

Take these restrictions into account in submitting bid. The Department will not consider any claims for money or grant contract time extensions for any delays to the Contractor as a result of these restrictions.

Traffic Control Plan
Page 2 of 11

LANE CLOSURES

Do not leave lane closures in place during non-working hours.

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. Place changeable message signs one mile in advance of the anticipated queue at each lane closure. As the actual queue lengthens and/or shortens, relocate or provide additional changeable message signs so that traffic has warning of slowed or stopped traffic at least one mile but not more than two miles before reaching the end of the actual queue. The 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

Traffic Control Plan
Page 3 of 11

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.

TEMPORARY ENTRANCES

The Engineer will not require the Contractor to provide continuous access to farms, single family, duplex, or triplex residential properties during working hours; however, provide reasonable egress and ingress to each such property when actual operations are not in progress at that location. Limit the time during which a farm or residential entrance is blocked to the minimum length of time required for actual operations, not extended for the Contractor's convenience, and in no case exceeding six (6) hours. Notify all residents twenty-four hours in advance of any driveway or entrance closings and make any accommodations necessary to meet the access needs of disabled residents.

Except as allowed by the Phasing as specified above, maintain direct access to all side streets and roads, schools, churches, commercial properties and apartments or apartment complexes of four or more units at all times.

The Department will measure asphalt materials required to construct and maintain any temporary entrances which may be necessary to provide temporary access; however, the Department will not measure aggregates, excavation, and/or embankment, but shall be incidental to Maintain and Control Traffic. The Engineer will determine the type of surfacing material, asphalt or aggregate, to be used at each entrance.

THERMOPLASTIC INTERSECTION MARKINGS

Consider the locations listed on the summary as approximate only. Prior to milling and/or resurfacing, locate and document the locations of the existing markings. After resurfacing, 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.

Traffic Control Plan
Page 4 of 11

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 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.

PAVEMENT MARKINGS

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

1. Include edge lines in Temporary Striping; and
2. Place Temporary or Permanent Striping before opening a lane to traffic; and
3. If the Contractor's operations or phasing requires temporary markings that must subsequently be removed from the final surface course, use an approved removable lane tape; however, the Department will not measure removable lane tape for separate payment, but will measure and pay for removable lane tape as temporary striping.

PAVEMENT EDGE DROP-OFFS

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

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

Less than 2" - No protection required.

2" to 4" - Place plastic drums, vertical panels, or barricades every 50 feet. During daylight working hours only, the Engineer will allow the Contractor to use cones in

Traffic Control Plan

Page 5 of 11

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)

Traffic Control Plan Page 7 of 11

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
-

Traffic Control Plan
Page 8 of 11

Standard Abbreviations

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

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

Traffic Control Plan
Page 9 of 11

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.

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

TEMP WRNG	Temporary Warning	Temperature Wrong
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TYPICAL MESSAGES

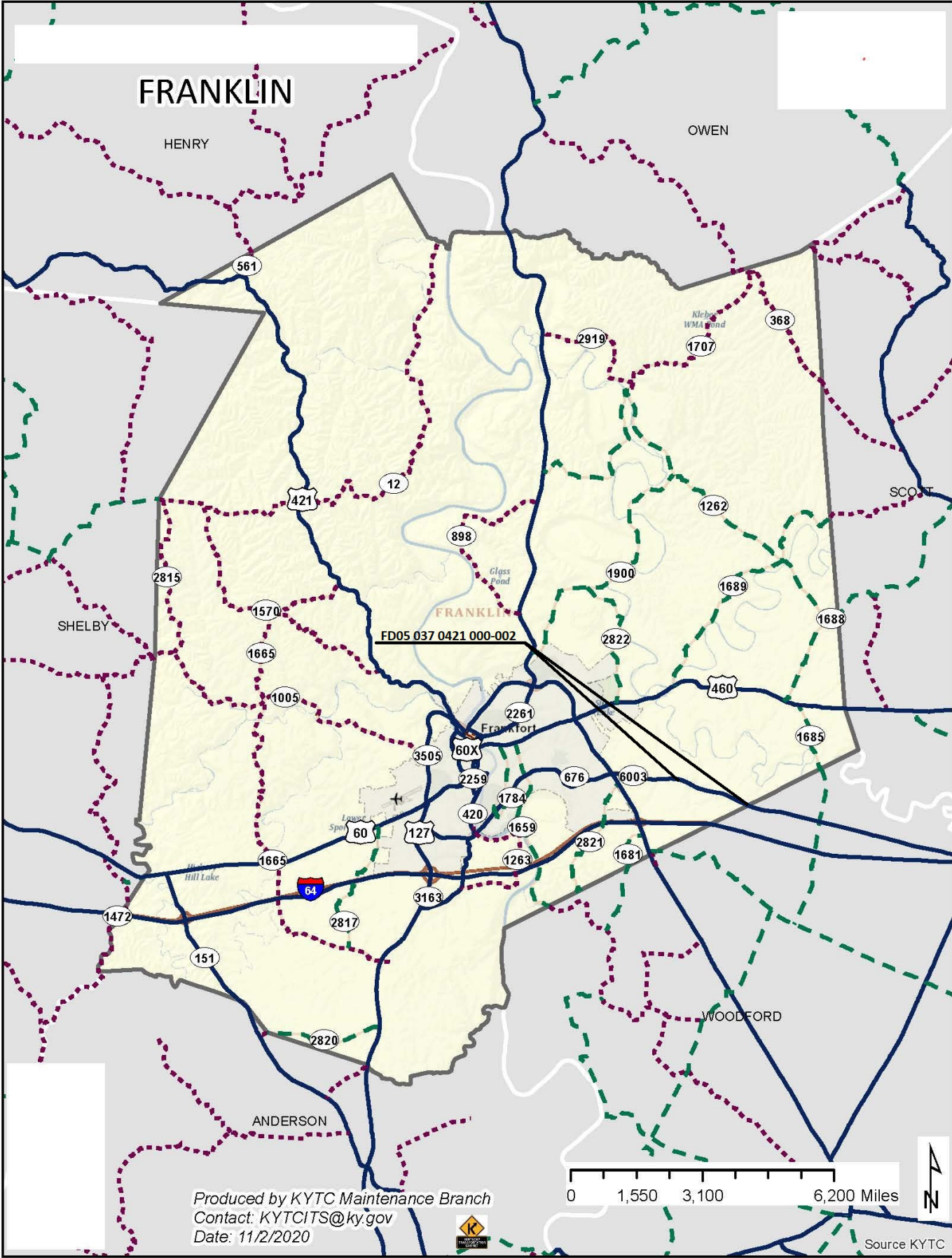
The following is a list of typical messages used on CMS. The list consists of the reason or problem that you want the driver to be aware of and the action that you want the driver to take.

<u>Reason/Problem</u>	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	

Traffic Control Plan
Page 11 of 11

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

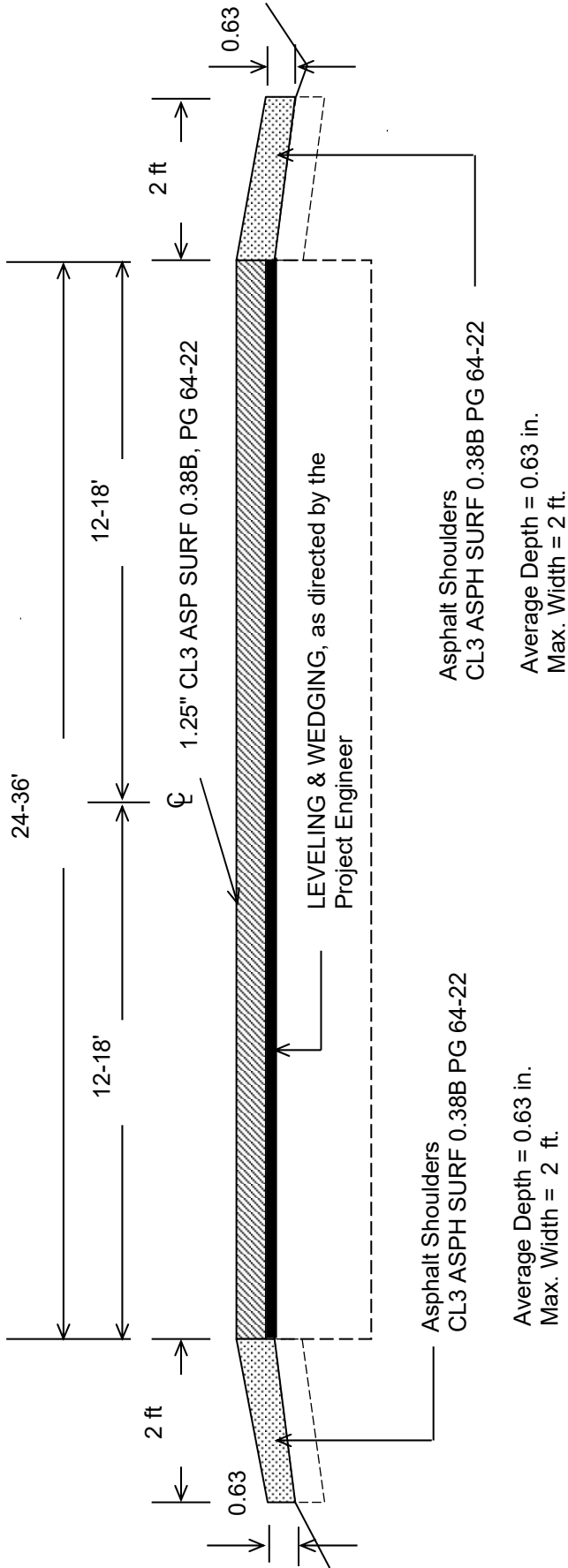




0.478	DUCKERS ROAD		28						SIDE STREET
0.49	DUCKERS ROAD			1					RT TURN SB
0.506	DUCKERS ROAD			1					RT TURN SB
1.02	HOGAN ROAD			1					RT TURN SB
1.028	HOGAN ROAD			1					RT TURN SB
1.157	MALLARD DRIVE			1					RT TURN SB
1.175	MALLARD DRIVE			1					RT TURN SB
TOTAL			28	6					

[illegible]

FRANKLIN COUNTY
FD05 037 0421 000-002
TYPICAL SECTION
0.000-1.001, 1.046-1.254



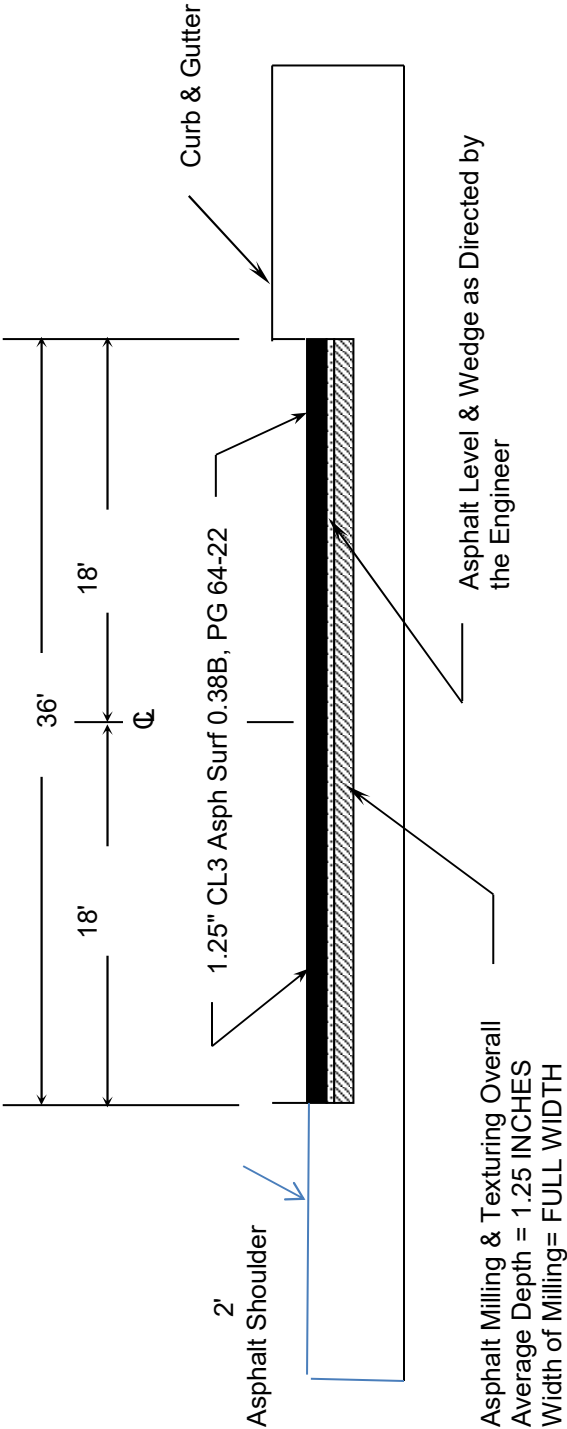
***Where Existing Site Conditions Permit**

MILL AND INLAY BASE FAILURES AT 8" IN DEPTH
BASE FAILURES AS DIRECTED BY
PROJECT ENGINEER

Asphalt Pavement Milling and Texturing
Depth of Milling = 1.25 In
Width = FULL WIDTH

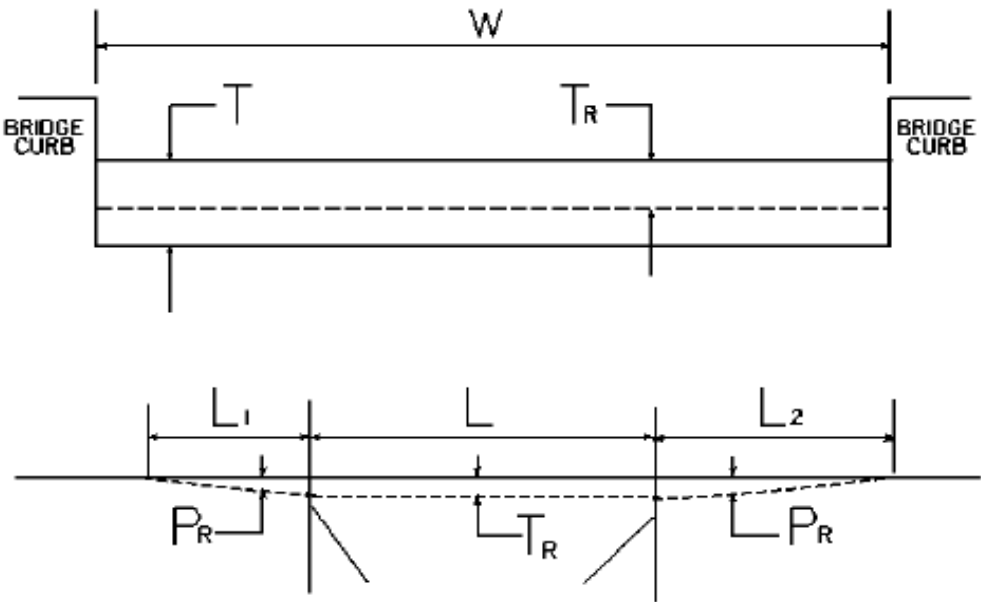
TYPICAL SECTION
FD05 037 0421 000-002
FRANKLIN COUNTY

1.001-1.046



NOT TO SCALE

BRIDGE DETAIL FOR PAVING PROJECT



W = bridge width curb to curb
T = thickness of existing asphalt overlay
L = length of bridge
L₁ & L₂ = length of approach pavement to be removed
T_R = thickness to be removed and replaced on bridge
P_R = thickness to be removed and replaced on pavement
Note: L₁ & L₂ lengths shall be determined by using a transition rate of 100 ft/in of thickness

Route	Bridge No.	MP	W (ft)	T (in)	L ₁ (ft)	L ₂ (ft)	T _R (in)	L (ft)	P _R (in)

PART II

SPECIFICATIONS AND STANDARD DRAWINGS

SPECIFICATIONS REFERENCE

Any reference in the plans or proposal to previous editions of the *Standard Specifications for Road and Bridge Construction* and *Standard Drawings* are superseded by *Standard Specifications for Road and Bridge Construction, Edition of 2019* and *Standard Drawings, Edition of 2020*.

SUPPLEMENTAL SPECIFICATIONS

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

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

SPECIAL NOTE FOR PORTABLE CHANGEABLE MESSAGE SIGNS

This Special Note will apply when indicated on the plans or in the proposal.

1.0 DESCRIPTION. Furnish, install, operate, and maintain variable message signs at the locations shown on the plans or designated by the Engineer. Remove and retain possession of variable message signs when they are no longer needed on the project.

2.0 MATERIALS.

2.1 General. Use LED Variable Message Signs Class I, II, or III, as appropriate, from the Department's List of Approved Materials.

Unclassified signs may be submitted for approval by the Engineer. The Engineer may require a daytime and nighttime demonstration. The Engineer will make a final decision within 30 days after all required information is received.

2.2 Sign and Controls. All signs must:

- 1) Provide 3-line messages with each line being 8 characters long and at least 18 inches tall. Each character comprises 35 pixels.
- 2) Provide at least 40 preprogrammed messages available for use at any time. Provide for quick and easy change of the displayed message; editing of the message; and additions of new messages.
- 3) Provide a controller consisting of:
 - a) Keyboard or keypad.
 - b) Readout that mimics the actual sign display. (When LCD or LCD type readout is used, include backlighting and heating or otherwise arrange for viewing in cold temperatures.)
 - c) Non-volatile memory or suitable memory with battery backup for storing pre-programmed messages.
 - d) Logic circuitry to control the sequence of messages and flash rate.
- 4) Provide a serial interface that is capable of supporting complete remote control ability through land line and cellular telephone operation. Include communication software capable of immediately updating the message, providing complete sign status, and allowing message library queries and updates.
- 5) Allow a single person easily to raise the sign to a satisfactory height above the pavement during use, and lower the sign during travel.
- 6) Be Highway Orange on all exterior surfaces of the trailer, supports, and controller cabinet.
- 7) Provide operation in ambient temperatures from -30 to + 120 degrees Fahrenheit during snow, rain and other inclement weather.
- 8) Provide the driver board as part of a module. All modules are interchangeable, and have plug and socket arrangements for disconnection and reconnection. Printed circuit boards associated with driver boards have a conformable coating to protect against moisture.
- 9) Provide a sign case sealed against rain, snow, dust, insects, etc. The lens is UV stabilized clear plastic (polycarbonate, acrylic, or other approved material) angled to prevent glare.
- 10) Provide a flat black UV protected coating on the sign hardware, character PCB, and appropriate lens areas.
- 11) Provide a photocell control to provide automatic dimming.

11

- 12) Allow an on-off flashing sequence at an adjustable rate.
- 13) Provide a sight to aim the message.
- 14) Provide a LED display color of approximately 590 nm amber.
- 15) Provide a controller that is password protected.
- 16) Provide a security device that prevents unauthorized individuals from accessing the controller.
- 17) Provide the following 3-line messages preprogrammed and available for use when the sign unit begins operation:

/KEEP/RIGHT/⇒⇒⇒/	/MIN/SPEED/**MPH/
/KEEP/LEFT/⇐⇐⇐/	/ICY/BRIDGE/AHEAD/ /ONE
/LOOSE/GRAVEL/AHEAD/	LANE/BRIDGE/AHEAD/
/RD WORK/NEXT/**MILES/	/ROUGH/ROAD/AHEAD/
/TWO WAY/TRAFFIC/AHEAD/	/MERGING/TRAFFIC/AHEAD/
/PAINT/CREW/AHEAD/	/NEXT/***/MILES/
/REDUCE/SPEED/**MPH/	/HEAVY/TRAFFIC/AHEAD/
/BRIDGE/WORK/***() FT/	/SPEED/LIMIT/**MPH/
/MAX/SPEED/**MPH/	/BUMP/AHEAD/
/SURVEY/PARTY/AHEAD/	/TWO/WAY/TRAFFIC/

*Insert numerals as directed by the Engineer.

Add other messages during the project when required by the Engineer.

2.3 Power.

- 1) Design solar panels to yield 10 percent or greater additional charge than sign consumption. Provide direct wiring for operation of the sign or arrow board from an external power source to provide energy backup for 21 days without sunlight and an on-board system charger with the ability to recharge completely discharged batteries in 24 hours.

3.0 CONSTRUCTION. Furnish and operate the variable message signs as designated on the plans or by the Engineer. Ensure the bottom of the message panel is a minimum of 7 feet above the roadway in urban areas and 5 feet above in rural areas when operating. Use Class I, II, or III signs on roads with a speed limit less than 55 mph. Use Class I or II signs on roads with speed limits 55 mph or greater.

Maintain the sign in proper working order, including repair of any damage done by others, until completion of the project. When the sign becomes inoperative, immediately repair or replace the sign. Repetitive problems with the same unit will be cause for rejection and replacement.

Use only project related messages and messages directed by the Engineer, unnecessary messages lessen the impact of the sign. Ensure the message is displayed in either one or 2 phases with each phase having no more than 3 lines of text. When no message is needed, but it is necessary to know if the sign is operable, flash only a pixel.

When the sign is not needed, move it outside the clear zone or where the Engineer directs. Variable Message Signs are the property of the Contractor and shall be removed from the project when no longer needed. The Department will not assume ownership of these signs.

4.0 MEASUREMENT. The final quantity of Variable Message Sign will be

11
the actual number of individual signs acceptably furnished and operated during the project. The Department will not measure signs replaced due to damage or rejection.

5.0 PAYMENT. The Department will pay for the Variable Message Signs at the unit price each. The Department will not pay for signs replaced due to damage or rejection. Payment is full compensation for furnishing all materials, labor, equipment, and service necessary to, operate, move, repair, and maintain or replace the variable message signs. The Department will make payment for the completed and accepted quantities under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
02671	Portable Changeable Message Sign	Each

Effective June 15, 2012

2020 KENTUCKY STANDARD DRAWINGS

ROADWAY

~ BARRIERS ~

GUARDRAIL AND BRIDGE END DRAINAGE

GUARDRAIL AND BRIDGE END DRAINAGE FOR SINGLE STRUCTURES.....RBB-001-09

GUARDRAIL AND BRIDGE END DRAINAGE FOR TWIN STRUCTURESRBB-002-09

LAYOUT OF GUARDRAIL AT TWIN STRUCTURES (DEPRESSED MEDIAN).....RBB-003-03

GUARDRAIL TRANSITION FROM NORMAL SHOULDER TO NARROW BRIDGE.....RBB-010-06

GUARDRAIL CONNECTORS TO BRIDGE ENDS

GUARDRAIL CONNECTOR TO BRIDGE END TYPE A COMPONENTSRBC-002-04

GUARDRAIL CONNECTOR TO BRIDGE END TYPE A AND A-1 COMPONENTS.....RBC-003-09

GUARDRAIL CONNECTOR TO BRIDGE END TYPE DRBC-004-08

GUARDRAIL CONNECTOR TO BRIDGE END TYPE D NOTES.....RBC-004N

GUARDRAIL CONNECTOR TO BRIDGE END TYPE ARBC-005-01

GUARDRAIL CONNECTOR TO BRIDGE END TYPE A NOTES.....RBC-005N

GUARDRAIL CONNECTOR TO BRIDGE END TYPE A-1RBC-006-01

GUARDRAIL CONNECTOR TO CONCRETE MEDIAN BARRIER ENDRBC-100-05

GUARDRAIL CONNECTOR TO CONCRETE MEDIAN BARRIER END NOTES.....RBC-100N

CONNECTION DETAILS OF CRASH CUSHION TYPE VI TO DOUBLE FACE GUARDRAILRBC-110-12

ENERGY ABSORPTION DEVICES

CRASH CUSHION TYPE VII CLASS B AND C (ONE & TWO DIRECTION)RBE-040-11

CRASH CUSHION TYPE VI (ONE & TWO DIRECTION).....RBE-060-15

CONCRETE MEDIAN BARRIER ENDRBE-065-08

CONCRETE MEDIAN BARRIER END NOTES.....RBE-065N

CONCRETE MEDIAN BARRIER END FOR CRASH CUSHION TYPE IXRBE-070-07

CONCRETE MEDIAN BARRIER END FOR CRASH CUSHION TYPE IX NOTESRBE-070N

ENERGY ABSORPTION DEVICES (CONTINUED)

CRASH CUSHION TYPE VI-BT.....RBE-100-11

CRASH CUSHION TYPE IXRBE-200-07

CRASH CUSHION TYPE IX-A.....RBE-205-07

TYPICAL BARRIER INSTALLATIONS

TYPICAL GUARDRAIL INSTALLATIONSRBI-001-12

TYPICAL GUARDRAIL INSTALLATIONSRBI-002-07

TYPICAL INSTALLATION FOR GUARDRAIL END TREATMENT TYPE 2A.....RBI-003-09

INSTALLATION OF GUARDRAIL END TREATMENT TYPE 1RBI-004-06

GUARDRAIL INSTALLATION AT BRIDGE COLUMNS.....RBI-005-08

GUARDRAIL INSTALLATION AT SIGN SUPPORTS.....RBI-006-07

CRASH CUSHION TYPE IX INSTALLATION AT MEDIAN PIERS (DEPRESSED MEDIAN).....RBI-007-09

CONCRETE MEDIAN BARRIERS

CONCRETE MEDIAN BARRIER FIXED-FORM OR SLIP-FORM (PERMANENT).....RBM-001-11

CONCRETE MEDIAN BARRIER PRECAST (PERMANENT - NEW PAVEMENT).....RBM-003-12

CONCRETE MEDIAN BARRIER PRECAST (PERMANENT – EXISTING PAVEMENT).....RBM-006-11

CONCRETE MEDIAN BARRIER SYMMETRICAL & ASYMMETRICAL SEPARATE AND TRANSITION

DETAILS	RBM-015-06
DELINEATORS FOR CONCRETE BARRIERS.....	RBM-020-09
CONCRETE MEDIAN BARRIER FIXED-FORM OR SLIP-FORM (PERMANENT) (50" TALL WALL)	RBM-050-02
CONCRETE MEDIAN BARRIER PRECAST (PERMANENT) (50" TALL WALL).....	RBM-053-02
CONCRETE MEDIAN BARRIER SYMMETRICAL & ASYMMETRICAL SEPARATE AND TRANSITION DETAILS (50" TALL WALL).....	RBM-060-01
CONCRETE BARRIER WALL TYPE 9T (TEMPORARY).....	RBM-115-10
BOX BEAM STIFFENING OF TEMPORARY CONCRETE BARRIER.....	RBM-120-02
CURB TO BARRIER WALL TRANSITION.....	RBM-130-05

GUARDRAIL HARDWARE

STEEL BEAM GUARDRAIL ("W"-BEAM).....	RBR-001-13
GUARDRAIL COMPONENTS.....	RBR-005-11
GUARDRAIL TERMINAL SECTIONS	RBR-010-06
STEEL GUARDRAIL POSTS.....	RBR-015-06
TIMBER GUARDRAIL POSTS.....	RBR-016-05
GUARDRAIL SYSTEM TRANSITION	RBR-018
GUARDRAIL END TREATMENT TYPE 1	RBR-020-07
GUARDRAIL END TREATMENT TYPE 2A.....	RBR-025-06
GUARDRAIL END TREATMENT TYPE 3	RBR-030-05
GUARDRAIL END TREATMENT TYPE 3 PIPE DRAINAGE DETAIL	RBR-031-01
GUARDRAIL END TREATMENT TYPE 3 ALTERNATE ANCHOR.....	RBR-032
GUARDRAIL END TREATMENT TYPE 4A.....	RBR-035-12
GUARDRAIL END TREATMENT TYPE 7	RBR-050-08
GUARDRAIL END TREATMENT TYPE 7 ALTERNATE ANCHOR	RBR-051-01
DELINEATORS FOR GUARDRAIL.....	RBR-055-01
DELINEATORS AT NARROW SHOULDER BRIDGES	RBR-060
STEEL BEAM GUARDRAIL (THRIE BEAM)	RBR-100-07

~ DRAINAGE ~
BOX INLETS AND OUTLETS

DROP BOXES

DROP BOX INLET TYPE 1	RDB-001-12
DROP BOX INLET TYPE 2	RDB-002-12
DROP BOX INLET TYPE 3	RDB-003-08
DROP BOX INLET TYPE 4.....	RDB-004-10
DROP BOX INLET TYPE 5A-5B-5C-5D-5E AND 5F	RDB-005-09
DROP BOX INLET TYPE 6A-6B-6C-6D-6E AND 6F	RDB-006-08
DROP BOX INLET TYPE 7 (LAYOUT & STEEL PATTERN)	RDB-007-03
DROP BOX INLET TYPE 7 (DIMENSION & STEEL CHARTS).....	RDB-008-04
DROP BOX INLET TYPE 10.....	RDB-010-07
DROP BOX INLET TYPE 11	RDB-011-08
DROP BOX INLET TYPE 12 OR 12A.....	RDB-012-10
DROP BOX INLET TYPE 13 (DETAIL SHEET).....	RDB-013-07
DROP BOX INLET TYPE 13 AND TYPE 16 (FRAME & GRATE DETAILS).....	RDB-014-06
DROP BOX INLET TYPE 13 (DETAIL & BAR CHART FOR LID)	RDB-015-04
DROP BOX INLET TYPE 13 (PIPE CHAMBER - GRADE CONDITION).....	RDB-016-03
DROP BOX INLET TYPE 13 (PIPE CHAMBER - SAG CONDITION)	RDB-017-03
DROP BOX INLET TYPE 13 (ADDITIONAL STEEL - RISER)	RDB-018-04
DROP BOX INLET TYPE 13 (ADDITIONAL STEEL - CHAMBER)	RDB-019-04
DROP BOX INLET TYPE 14 & 15	RDB-020-05
DROP BOX INLET TYPE 16 (DETAIL SHEET).....	RDB-030-04
DROP BOX INLET TYPE 16 (STEEL SHEET).....	RDB-031-04

DROP BOX INLET TYPE 16 (DETAIL & BAR CHART FOR LID)	RDB-032-04
DROP BOX INLET TYPE 16 (DIMENSIONS & ESTIMATE OF QUANTITIES).....	RDB-033-03
DROP BOX INLET TYPE 16 (ADDITIONAL STEEL - RISER)	RDB-034-04
DROP BOX INLET TYPE 16 (ADDITIONAL STEEL - CHAMBER)	RDB-035-04

SLOPED BOXES

SLOPED BOX OUTLET TYPE 1	RDB-100-05
GRATES FOR SLOPED BOX OUTLET TYPE 1	RDB-101-05
SLOPED AND FLARED BOX INLET-OUTLET 18”-24”-30”-36” ALL SKEWS	RDB-105-06
GRATES FOR SLOPED AND FLARED BOX INLET-OUTLET	RDB-106-05
SLOPED BOX INLET OR OUTLET TYPE 1	RDB-110-08
SLOPED BOX INLET OR OUTLET TYPE 2	RDB-111-08
METAL END SECTION TYPE 1 & 2 (PARALLEL STRUCTURES).....	RDB-150-02
METAL END SECTION TYPE 3 & 4 (CROSS STRUCTURES)	RDB-155-02
DIMENSIONS FOR METAL END SECTIONS.....	RDB-160-02

CURB BOXES

CONCRETE MEDIAN BARRIER BOX INLET (CAST-IN-PLACE).....	RDB-230-09
CONCRETE MEDIAN BARRIER BOX INLET (SLIP-FORM).....	RDB-231-11
CONCRETE MEDIAN BARRIER BOX INLET (50” TALL WALL CAST-IN-PLACE).....	RDB-240-02
CONCRETE MEDIAN BARRIER BOX INLET (50” TALL WALL SLIP-FORM)	RDB-241-02
CURB BOX INLET TYPE A (DETAIL DRAWING).....	RDB-270-09
CURB BOX INLET TYPE A (STEEL DRAWING)	RDB-271-05
CURB BOX INLET TYPE A (TOP PHASE TABLE).....	RDB-272-07
CURB BOX INLET TYPE A (DETAIL & BAR CHART FOR 8” LID).....	RDB-273-06
CURB BOX INLET TYPE B (DETAIL DRAWING)	RDB-280-06
CURB BOX INLET TYPE B (STEEL DRAWING).....	RDB-281-03
CURB BOX INLET TYPE B (TOP PHASE TABLE).....	RDB-282-04
CURB BOX INLET TYPE B (DETAIL & BAR CHART FOR 8” LID).....	RDB-283-04
CURB BOX INLET TYPE F.....	RDB-320-06
BOX INLET RISER	RDB-400-05
BOX INLET PIPE CHAMBER.....	RDB-410-06
BOX INLET PIPE CHAMBER (ADDITIONAL STEEL).....	RDB-420-05

PAVED DITCHES, FLUME INLETS AND CHANNEL LININGS

PAVED DITCH TYPE 1	RDD-001-06
PAVED DITCH TYPE 2	RDD-002-07
FLUME INLET TYPE 1	RDD-020-07
FLUME INLET TYPE 2	RDD-021-07
CHANNEL LINING CLASS IA (MATTRESS UNITS)	RDD-030-08
CHANNEL LINING CLASS II AND III.....	RDD-040-05

PIPE AND BOX CULVERT AND HEADWALLS

FOR ALL PIPE AND BOX CULVERT HEADWALLS (RDH SERIES) SEE HEADWALL SUPPLEMENT

TYPICAL DRAINAGE INSTALLATIONS

CULVERT, ENTRANCE & STORM SEWER PIPE TYPES & COVER HEIGHTS.....	RDI-001-10
CULVERT, ENTRANCE & STORM SEWER PIPE TYPES & COVER HEIGHTS.....	RDI-002-05
CULVERT & STORM SEWER PIPE TYPES & COVER HEIGHTS.....	RDI-003-05
CULVERT & STORM SEWER PIPE TYPES & COVER HEIGHTS.....	RDI-004-04
CULVERT & STORM SEWER PIPE TYPES & COVER HEIGHTS.....	RDI-005-04
CULVERT & STORM SEWER PIPE TYPES & COVER HEIGHTS.....	RDI-006-04
CULVERT & STORM SEWER PIPE TYPES & COVER HEIGHTS.....	RDI-007-04
CULVERT & STORM SEWER PIPE TYPES & COVER HEIGHTS.....	RDI-008-04

CULVERT, ENTRANCE & STORM SEWER PIPE TYPES & COVER HEIGHTS.....	RDI-011-03
CULVERT & STORM SEWER PIPE TYPES & COVER HEIGHTS.....	RDI-012-03
NON-CIRCULAR PIPE ALTERNATES	RDI-016-03
PIPE BEDDING FOR CULVERTS, ENTRANCE AND STORM SEWER PIPE.....	RDI-020-10
PIPE BEDDING FOR CULVERTS, ENTRANCE AND STORM SEWER REINFORCED CONC.PIPE.....	RDI-021-01
PIPE BEDDING, TRENCH CONDITION.....	RDI-025-06
PIPE BEDDING, TRENCH CONDITION REINFORCED CONC. PIPE.....	RDI-026-01
COATINGS, LININGS AND PAVINGS FOR NON-STRUCTURAL PLATE PIPE	RDI-035-02
EROSION CONTROL BLANKET SLOPE INSTALLATION.....	RDI-040-01
EROSION CONTROL BLANKET CHANNEL INSTALLATION.....	RDI-041-01
TYPICAL MEDIAN DRAIN INSTALLATIONS.....	RDI-045-02
FILL HEIGHTS FOR PRECAST REINFORCED CONCRETE BOX CULVERTS.....	RDI-100-05
BEDDING FOR PRECAST BOX CULVERTS, SEWERS, STORM DRAINS AND THEIR COMBINATIONS.....	RDI-120-04
.....	RDI-200-05
SLOTTED DRAIN PIPE (DETAIL SHEET)	RDI-200-05

MANHOLES

MANHOLE TYPE A	RDM-001-07
MANHOLE TYPE B	RDM-005-06
MANHOLE TYPE C (CHAMBER LAYOUT).....	RDM-010-06
MANHOLE TYPE C (TOWER APPLICATIONS)	RDM-011-05
MANHOLE TYPE C (STEEL PATTERN).....	RDM-012-03
MANHOLE TYPE C (TABLE OF QUANTITIES)	RDM-013-04
TRAPPED MANHOLE	RDM-050-07
MANHOLE STEPS.....	RDM-055
FRAME AND LID TYPE 1	RDM-100-03
FRAME AND LID TYPE 2	RDM-105-03

PERFORATED PIPE

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 DETAILS (SOLID ROCK)	RDP-007-04
PERFORATED PIPE HEADWALLS.....	RDP-010-09

MISCELLANEOUS DRAINAGE

JUNCTION BOX.....	RDX-001-06
JUNCTION BOX (DIMENSIONS AND QUANTITIES)	RDX-002-04
JUNCTION BOX TYPE B	RDX-005-03
SPRING BOX INLET TYPE “A”	RDX-010-05
SPRING BOX INLET TYPE “B”	RDX-011-05
TRAP FOR BOX INLETS	RDX-020-05
SUBGRADE DRAINAGE - CONCRETE PAVEMENT.....	RDX-050-05
INTERMEDIATE AND END ANCHORS FOR CIRCULAR PIPE.....	RDX-060-04
INTERMEDIATE AND END ANCHORS FOR NON-CIRCULAR PIPE.....	RDX-065-04
SIDE TAPERED INLETS – 30” TO 60” DIA. ALL SLOPES - ALL SKEWS.....	RDX-150-06
SECURITY DEVICES FOR FRAMES, GRATES AND LIDS	RDX-160-06
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
CHANNEL HABITAT IMPROVEMENT STRUCTURES (DUMPED STONE)	RDX-240-04

CHANNEL HABITAT IMPROVEMENT STRUCTURES (GABIONS)	RDX-245-04
PRECAST BOX CULVERT EXTENSION	RDX-300-04

~ FENCES AND GATES ~
CHAIN LINK FENCE

CHAIN LINK FENCE 4’ TO 6’ HIGH	RFC-001-08
CHAIN LINK FENCE 8’ TO 12’ HIGH	RFC-002-05

GATES

WOVEN WIRE GATES	RFG-001-07
4’ TO 12’ HIGH CHAIN LINK GATE.....	RFG-005-06
WATER GATE TYPE 1	RFG-010-05
WATER GATE TYPE 3	RFG-011-06

WOVEN WIRE FENCE

FENCING DETAILS	RFW-001-06
WOVEN WIRE FENCE TYPE 1	RFW-005-08
WOVEN WIRE FENCE TYPE 2.....	RFW-006-07

~ GENERAL ~

CURVE WIDENING AND SUPERELEVATION

CURVE WIDENING AND SUPERELEVATION TRANSITIONS	RGS-001-07
SUPERELEVATION FOR MULTILANE PAVEMENT	RGS-002-06

MISCELLANEOUS STANDARDS

MISCELLANEOUS STANDARDS	RGX-001-06
TEMPORARY BRIDGE OR PAVEMENT CROSSOVER.....	RGX-003-03
RIGHT-OF-WAY MONUMENTS.....	RGX-005-06
TYPICAL EMBANKMENT FOUNDATION BENCHES	RGX-010-04
SETTLEMENT PLATFORM.....	RGX-015-03
CONCRETE STEPS.....	RGX-020-13
HANDRAIL TYPE A, A-1, A-2, A-3, A-4.....	RGX-030-07
DETECTABLE WARNINGS	RGX-040-03
GABION RETAINING WALLS	RGX-050-02
BREAKAWAY SIGN SUPPORT SYSTEM FOR TYPE C BEAM.....	RGX-060-01
FOOTING DETAILS FOR TYPE C BEAM.....	RGX-061-01
TYPE D BREAKAWAY SIGN SUPPORT	RGX-065-02
TREATMENT OF EMBANKMENTS AT END-BENTS	RGX-100-07
TREATMENT OF EMBANKMENTS AT END-BENTS - DETAILS	RGX-105-09
ONE POINT PROCTER FAMILY OF CURVES.....	RGX-200-01

~ PAVEMENT ~

MEDIANS, CURBS, APPROACHES, ENTRANCES, ETC.

PERMANENT U-TURN MEDIAN OPENING.....	RPM-001-04
STANDARD BARRIER MEDIAN.....	RPM-010-06
MOUNTABLE MEDIAN.....	RPM-011-06
MOUNTABLE MEDIAN TYPE 6A.....	RPM-012-04
MOUNTABLE MEDIAN TYPE 7A.....	RPM-015-04
CURB AND GUTTER, CURBS AND VALLEY GUTTER	RPM-100-11
APPROACHES, ENTRANCES, AND MAIL BOX TURNOUT	RPM-110-07
CONCRETE TERMINAL SECTION TYPE 1	RPM-115-05
CONCRETE ISLAND CURB CONSTRUCTION DETAILS (RIGID & FLEXIBLE PAVEMENT)	RPM-120-07
PRECAST VEHICLE STOP	RPM-130-04

RUMBLE STRIPS TYPE 3	RPM-145-04
CONCRETE ENTRANCE PAVEMENT AND SIDEWALK.....	RPM-150-08
CONCRETE ENTRANCE PAVEMENT AND SIDEWALK.....	RPM-152-08
SIDEWALK RAMPS	RPM-170-09
SIDEWALK RAMP WITH HANDRAIL	RPM-172-07

NON-REINFORCED CONCRETE PAVEMENT

JOINTED PLAIN CONCRETE PAVEMENT FOR SHOULDERS AND MEDIANS	RPN-001-07
PAVEMENT TRANSITIONS AND JOINT DETAILS FOR JOINTED PLAIN CONCRETE PAVEMENT AT BRIDGE ENDS	RPN-010-07
JOINTED PLAIN CONCRETE PAVEMENT	RPN-015-05
CONCRETE PAVEMENT JOINTS - TYPES AND SPACING	RPN-020-04

STANDARD REINFORCED CONCRETE PAVEMENT

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
CONCRETE PAVEMENT JOINTS - TYPES AND SPACING	RPS-033-07
CONCRETE PAVEMENT JOINTS - TYPES AND SPACING	RPS-034-07
CONCRETE PAVEMENT JOINTS - TYPES AND SPACING	RPS-035-06
CONCRETE PAVEMENT JOINTS - TYPES AND SPACING	RPS-036-06
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

MISCELLANEOUS PAVING

STATION MARKINGS - CONCRETE PAVEMENT	RPX-001-04
PREFORMED COMPRESSION JOINT SEAL FOR CONCRETE PAVEMENT	RPX-010-05
HOT - POURED ELASTIC JOINT SEALS FOR CONCRETE PAVEMENT	RPX-015-04
SILICONE RUBBER SEALS FOR CONCRETE PAVEMENT	RPX-020-06
ACCESSIBLE PARKING SPACE DETAILS	RPX-100-03

TRAFFIC

~ PERMANENT ~

RAISED PAVEMENT MARKERS

PAVEMENT MARKER ARRANGEMENTS MULTI-LANE ROADWAYS	TPM-100-03
PAVEMENT MARKER ARRANGEMENTS MULTI-LANE ROADWAYS	TPM-105-03
PAVEMENT MARKER ARRANGEMENTS MULTI-LANE ROADWAYS	TPM-110-03
PAVEMENT MARKER ARRANGEMENTS TWO-LANE, TWO-WAY ROADWAYS	TPM-115-03
PAVEMENT MARKER ARRANGEMENT TWO-LANE TO FOUR-LANE TRANSITIONS	TPM-120-03
PAVEMENT MARKER ARRANGEMENT EXIT-GORE AND OFF-RAMP	TPM-125-03
PAVEMENT MARKER ARRANGEMENT FOR PARALLEL DECELERATION LANE.....	TPM-126
PAVEMENT MARKER ARRANGEMENT ON-RAMP WITH TAPERED ACCELERATION LANE .	TPM-130-03
PAVEMENT MARKER ARRANGEMENT ON-RAMP WITH PARALLEL ACCELERATION LANE .	TPM-135-03
PAVEMENT MARKER ARRANGEMENTS TWO-WAY LEFT, TURN LANE	TPM-140-04
PAVEMENT MARKER ARRANGEMENT CHANNELIZED INTERSECTION	TPM-145-03
FLEXIBLE DELINEATOR POST ARRANGEMENTS FOR HORIZONTAL CURVES	TPM-170-01
FLEXIBLE DELINEATOR POST ARRANGEMENTS FOR INTERCHANGE RAMPS AND CROSSTOPS	TPM-171-01
PAVEMENT STRIPING DETAILS FOR TWO LANE TWO WAY ROADWAYS	TPM-175

TYPICAL ENTRANCE RAMP MARKINGS	TPM-200
TYPICAL EXIT RAMP MARKINGS PAGE 1	TPM-201
TYPICAL EXIT RAMP MARKINGS PAGE 2.....	TPM 202
TYPICAL MARKINGS AT SIGNALIZED INTERSECTIONS	TPM-203
TYPICAL MARKINGS FOR GORE AREAS	TPM-204
TYPICAL MARKINGS FOR ISLANDS AND MEDIANS	TPM-205
TYPICAL MARKINGS FOR TURN LANES PAGE 1	TPM-206
TYPICAL MARKINGS FOR TURN LANES PAGE 2	TPM-207

RUMBLE STRIPS

CENTERLINE RUMBLE STRIPS PLACEMENT DETAILS	TPR-100
CENTERLINE RUMBLE STRIPS 4 INCH STRIPING	TPR-105
CENTERLINE RUMBLE STRIPS 6 INCH STRIPING	TPR-110
SHOULDER & EDGELINE RUMBLE STRIPS PLACEMENT DETAILS	TPR-115
EDGELINE RUMBLE STRIP DETAILS TWO LANE ROADWAYS	TPR-120
SHOULDER RUMBLE STRIP DETAILS TWO LANE ROADWAYS	TPR-125
RUMBLE STRIP DETAILS MULTI LANE ROADWAYS & RAMPS	TPR-130

~ TEMPORARY ~
TRAFFIC CONTROL

LANE CLOSURE TWO-LANE HIGHWAY	TTC-100-05
LANE CLOSURE USING TRAFFIC SIGNALS.....	TTC-110-04
LANE CLOSURE MULTI-LANE HIGHWAY CASE I.....	TTC-115-04
LANE CLOSURE MULTI-LANE HIGHWAY CASE II	TTC-120-04
DOUBLE LANE CLOSURE.....	TTC-125-04
SHOULDER CLOSURE	TTC-135-03
MEDIAN CROSSOVER CASE I.....	TTC-140-04
MEDIAN CROSSOVER CASE I.....	TTC-141-04
MEDIAN CROSSOVER CASE II	TTC-145-04
MEDIAN CROSSOVER CASE II	TTC-146-04
ROAD CLOSURE WITH DIVERSION	TTC-150-04
TEMPORARY PAVEMENT MARKER ARRANGEMENTS FOR CONSTRUCTION ZONES.....	TTC-155-02
TEMPORARY PAVEMENT MARKER ARRANGEMENTS FOR LANE CLOSURES	TTC-160-02
AUTOMATIC FLAGGING ASSISTANCE DEVICES	TTC-165

DEVICES

DOUBLE FINES ZONES SIGNS.....	TTD-120-03
PAVEMENT CONDITION WARNING SIGNS.....	TTD-125-06
SPEED ZONE SIGNING FOR WORK ZONES	TTD-130

STRIPING OPERATIONS

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 STRIPING CASE I	TTS-120-02
MOBILE OPERATION FOR DURABLE STRIPING CASE II	TTS-125-02
MOBILE OPERATION FOR DURABLE STRIPING CASE III.....	TTS-130-02
MOBILE OPERATION FOR DURABLE STRIPING CASE IV	TTS-135-02

BRIDGES

~ BEARING DEVICES ~

BEARING PADS

ELASTOMERIC BEARING PADS FOR PRESTRESSED BEAMS.....	BBP-001-12
BEARING DETAILS	BBP-002-04
ELASTOMERIC BEARING PADS FOR BOX BEAMS	BBP-003-02

~ DECK UNITS ~

PRECAST PRESTRESSED

BOX BEAM GENERAL NOTES & REFERENCES	BDP-001-06
BOX BEAM BEARING DETAILS	BDP-002-03
BOX BEAM MISCELLANEOUS DETAILS.....	BDP-003-03
BOX BEAM TENSION ROD DETAILS	BDP-004-04
RAILING SYSTEM TYPE II	BDP-005-04
BOX BEAM B12 & CB12 DETAILS.....	BDP-006-05
BOX BEAM B17 & CB17 DETAILS.....	BDP-007-05
BOX BEAM B21 & CB21 DETAILS.....	BDP-008-04
BOX BEAM B27 & CB27 DETAILS.....	BDP-009-04
BOX BEAM B33 & CB33 DETAILS.....	BDP-010-04
BOX BEAM B42 DETAILS	BDP-011-04
BOX BEAM CB42 DETAILS	BDP-012-04
SLAB BRIDGE FOR 12” & 17” BEAMS	BDP-013-04

MISCELLANEOUS STANDARDS

CONCRETE SLOPEWALLS FOR GRADE SEPARATION BRIDGES	BGX-004-09
CONCRETE SLOPEWALLS FOR GRADE SEPARATION BRIDGES	BGX-005-09
STENCILS FOR STRUCTURES.....	BGX-006-10
BRIDGE RESTORATION AND WATERPROOFING WITH CONCRETE OVERLAYS	BGX-009-04
GEOTECHNICAL LEGEND	BGX-012-02
BRIDGE DRAINS	BGX-015-04
LOW FLOW DIVERSION CURB	BGX-016-01
APPROACH SLAB	BGX-017-02
TREARMENT OF OPEN SINKHOLES	BGX-015
24 INCH JUNCTION BOX SINGLE SLOPE AND VERTICAL BARRIER	BGX-019
24 INCH JUNCTION BOX TYPE 3 BARRIER	BGX-020
JUNCTION BOX TYPE A	BGX-021
JOINT WATERPROOFING	BGX-022
STANDARD GRAVITY WALL	BGX-023
STANDARD GRAVITY WALL	BGX-024
CHAINLNK FENCE	BGX-025
AIR VENT DETAILS	BGX-026

STEEL HANDRAIL

RAILING SYSTEM, TYPE II, GUARDRAIL TREATMENT	SEPIA001
RAIL SYSTEM TYPE 3	SEPIA002
RAILING SYSTEM 36 INCH SINGLE SLOPE	BHS-009
RAILING SYSTEM 40 INCH SINGLE SLOPE	BHS-010
RAILING SYSTEM SIDE MOUNTED MGS DETAILS	BHS-011
RAILING SYSTEM T631 DETAILS	BHS-012
THRIE BEAM GUARDRAIL TRANSITION (TL-2)	BHS-013
THRIE BEAM GUARDRAIL TRANSITION (TL-3)	BHS-014

ALUMINUM HANDRAIL	BHS-015
STEEL HANDRAIL	BHS-016

JOINTS

ARMORED EDGES	BJE-001-14
EXPANSION JOINTS	BJE-002
EXPANSION JOINT REPLACEMENT 1"-3"	BJE-003
EXPANSION JOINT COVER PLATE DETAILS	BJE-004
EXPANSION JOINT REPLACEMENT GENERAL NOTES	BJE-005
EXPANSION JOINT REPLACEMENT 4" & 5"	BJE-006

CONCRETE PILES

14" REINFORCED CONCRETE PILE	BPC-002-08
14" PRECAST PRESTRESSED CONCRETE PILE	BPC-011-07

STEEL PILES

HP12 X 53 STEEL PILE	BPS-003-09
HP14 X 73 STEEL PILE	BPS-009-08
HP14 X 89 STEEL PILE	BPS-011-04
PIPE PILE 16 INCH	BPS-012

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.

3. If the contractor is in control of apprenticeship or other training or retraining, including on-the-job training programs, he shall not discriminate against an individual because of his race, color, religion, national origin, sex, disability or age forty (40) and over, in admission to, or employment in any program established to provide apprenticeship or other training.

4. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for non-compliance.

Revised: January 25, 2017

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.

EXECUTIVE BRANCH CODE OF ETHICS

In the 1992 regular legislative session, the General Assembly passed and Governor Brereton Jones signed Senate Bill 63 (codified as KRS 11A), the Executive Branch Code of Ethics, which states, in part:

KRS 11A.040 (7) provides:

No present or former public servant shall, within six (6) months following termination of his office or employment, accept employment, compensation, or other economic benefit from any person or business that contracts or does business with, or is regulated by, the state in matters in which he was directly involved during the last thirty-six (36) months of his tenure. This provision shall not prohibit an individual from returning to the same business, firm, occupation, or profession in which he was involved prior to taking office or beginning his term of employment, or for which he received, prior to his state employment, a professional degree or license, provided that, for a period of six (6) months, he personally refrains from working on any matter in which he was directly involved during the last thirty-six (36) months of his tenure in state government. This subsection shall not prohibit the performance of ministerial functions, including but not limited to filing tax returns, filing applications for permits or licenses, or filing incorporation papers, nor shall it prohibit the former officer or public servant from receiving public funds disbursed through entitlement programs.

KRS 11A.040 (9) states:

A former public servant shall not represent a person or business before a state agency in a matter in which the former public servant was directly involved during the last thirty-six (36) months of his tenure, for a period of one (1) year after the latter of:

- a) The date of leaving office or termination of employment; or
- b) The date the term of office expires to which the public servant was elected.

This law is intended to promote public confidence in the integrity of state government and to declare as public policy the idea that state employees should view their work as a public trust and not as a way to obtain private benefits.

If you have worked for the executive branch of state government within the past six months, you may be subject to the law's prohibitions. The law's applicability may be different if you hold elected office or are contemplating representation of another before a state agency.

Also, if you are affiliated with a firm which does business with the state and which employs former state executive-branch employees, you should be aware that the law may apply to them.

In case of doubt, the law permits you to request an advisory opinion from the Executive Branch Ethics Commission, 1025 Capital Center Drive, Suite 104, Frankfort, Kentucky 40601; telephone (502) 564-7954.

Revised: May 23, 2022

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



WWW.WAGEHOUR.DOL.GOV

PART IV

INSURANCE

Refer to
Kentucky Standard Specifications for Road and Bridge Construction,
current edition

PART V

BID ITEMS

Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00190		LEVELING & WEDGING PG64-22	181.00	TON		\$	
0020	00388		CL3 ASPH SURF 0.38B PG64-22	1,840.00	TON		\$	
0030	02562		TEMPORARY SIGNS	350.00	SQFT		\$	
0040	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
0050	02671		PORTABLE CHANGEABLE MESSAGE SIGN	2.00	EACH		\$	
0060	02676		MOBILIZATION FOR MILL & TEXT	1.00	LS		\$	
0070	02677		ASPHALT PAVE MILLING & TEXTURING	1,840.00	TON		\$	
0080	02697		EDGE LINE RUMBLE STRIPS	13,242.00	LF		\$	
0090	02775		ARROW PANEL	2.00	EACH		\$	
0100	03240		BASE FAILURE REPAIR	220.00	SQYD		\$	
0110	06510		PAVE STRIPING-TEMP PAINT-4 IN	12,000.00	LF		\$	
0120	06542		PAVE STRIPING-THERMO-6 IN W	13,678.00	LF		\$	
0130	06543		PAVE STRIPING-THERMO-6 IN Y	10,078.00	LF		\$	
0140	06568		PAVE MARKING-THERMO STOP BAR-24IN	28.00	LF		\$	
0150	06574		PAVE MARKING-THERMO CURV ARROW	6.00	EACH		\$	
0160	20458ES403		CENTERLINE RUMBLE STRIPS	6,621.00	LF		\$	
0170	24970EC		ASPHALT MATERIAL FOR TACK NON-TRACKING	11.00	TON		\$	

Section: 0002 - DEMOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0180	02569		DEMOBILIZATION	1.00	LS		\$	