CALL NO. 400

CONTRACT ID. 252348

BOONE COUNTY

FED/STATE PROJECT NUMBER 008GR25P084 - FD05, FD04, & FE01

DESCRIPTION WARSAW TO UNION ROAD (US 42)

WORK TYPE ASPHALT RESURFACING

PRIMARY COMPLETION DATE 6/30/2026

LETTING DATE: September 25,2025

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN DAYLIGHT TIME September 25,2025. 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 - 06

CONTRACT ID - 252348

008GR25P084 - FD05, FD04, & FE01

COUNTY - BOONE

PCN - MP00800422505
FD05 008 0042 000-006

WARSAW TO UNION ROAD (US 42) (MP 0.000) BEGIN AT THE GALLATIN/BOONE COUNTY LINE EXTENDING EAST TO KY 338 (MP 5.673), A DISTANCE OF 05.67 MILES.ASPHALT RESURFACING

GEOGRAPHIC COORDINATES LATITUDE 38:51:25.93 LONGITUDE 84:42:48.96

ADT 5,243

PCN - MP00800422506
FD04 008 0042 000-006

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GEOGRAPHIC COORDINATES LATITUDE 38:51:25.93 LONGITUDE 84:42:48.96

ADT 5,243

COMPLETION DATE(S):

COMPLETED BY 06/30/2026 APPLIES TO ENTIRE CONTRACT

CONTRACT NOTES

INSURANCE

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

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 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/construction-procurement). 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 state agency certifies that it is in compliance with the provisions of KRS 45A.150, "Access to contractor's books, documents, papers, records, or other evidence directly pertinent to the contract." The Contractor, as defined in KRS 45A.030, 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 agreement for the purpose of financial audit or program review. 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. Records and other prequalification information confidentially disclosed as part of the bid process shall not be deemed as directly pertinent to the agreement and shall be exempt from disclosure as provided in KRS 61.878(1)(c).

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.

SPECIAL NOTE – BUY AMERICA REQUIREMENTS AND BUILD AMERICA, BUY AMERICA (BABA) ACT 05/05/2025

1.0 BUY AMERICA REQUIREMENT.

Follow the "Buy America" provisions as required by 23 U.S.C. § 313 and 23 C.F.R. § 635.410. Except as expressly provided herein all manufacturing processes of steel or iron materials including but not limited to structural steel, guardrail materials, corrugated steel, culvert pipe, structural plate, prestressing strands, and steel reinforcing bars shall occur in the United States of America, including the application of:

- Coating,
- Galvanizing,
- Painting, and
- Other coating that protects or enhances the value of steel or iron products.

The following are exempt, unless processed or refined to include substantial amounts of steel or iron material, and may be used regardless of source in the domestic manufacturing process for steel or iron material:

- Pig iron,
- Processed, pelletized, and reduced iron ore material, or
- Processed alloys.

The Contractor shall submit a certification stating that all manufacturing processes involved with the production of steel or iron materials occurred in the United States.

Produce, mill, fabricate, and manufacture in the United States of America all aluminum components of bridges, tunnels, and large sign support systems, for which either shop fabrication, shop inspection, or certified mill test reports are required as the basis of acceptance by the Department.

Use foreign materials only under the following conditions:

1) When the materials are not permanently incorporated into the project; or
2) When the delivered cost of such materials used does not exceed 0.1 percent of the total Contract amount or $2,500.00, whichever is greater.

The Contractor shall submit to the Engineer the origin and value of any foreign material used.

2.0 – BUILD AMERICA, BUY AMERICA (BABA)

Contractor shall comply with the Federal Highway Administration (FHWA) Buy America Requirement in 23 C.F.R. § 635.410 and all relevant provisions of the Build America, Buy America Act (BABA), contained within the Infrastructure Investment and Jobs Act, Pub. L. No. 117-58, §§ 70901-52 enacted November 15, 2021. The BABA requires iron, steel, manufactured products, and construction materials used in infrastructure projects funded by federal financial assistance to be produced in the United States. Comply with 2 C.F.R § 184.

BABA permits FHWA participation in the Contract only if domestic steel and iron will be used on the Project. To be considered domestic, all steel and iron used, and all products manufactured from steel and iron must be produced in the United States and all manufacturing processes, including application of a coating, for these materials must occur in the United States. Coating includes all processes that protect or enhance the value of the material to which the coating is applied. This requirement does not preclude a minimal use of foreign steel and iron materials, provided the cost of such materials does not exceed 0.1% of the total contract amount under the Contract or $2,500.00 whichever is greater.

BABA permits FHWA participation in the Contract only if all "construction materials" as defined in the Act are made in the United States. The Buy America preference applies to the following construction materials incorporated into infrastructure projects: non-ferrous metals; plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables); glass (including optic glass); Fiber optic cable; optical fiber; lumber; engineered wood; and drywall. Contractor will be

required to use construction materials produced in the United States on this Project. The Contractor shall submit a certification stating that all construction materials are certified to be BABA compliant.

3.0 FINAL RULE – FHWA'S BUY AMERICA REGULATION TO TERMINATE GENERAL APPLICABILITY WAIVER FOR MANUFACTURED PRODUCTS

- **March 17, 2025** (effective date): For all Federal-aid projects obligated on or after March 15, 2025, all iron or steel products, as defined in § 635.410(c)(1)(iii), must comply with FHWA's Buy America requirements for steel and iron in § 635.410(b). In addition, for all Federal-aid projects obligated on or after March 15, 2025, per § 635.410(c)(2), articles, materials, and supplies should be classified as an iron or steel product, a manufactured product, or another product as specified by law or in 2 CFR part 184 (such other products specified by law or in 2 CFR part 184 include "excluded materials" and "construction materials"); an article, material, or supply must not be considered to fall into multiple categories.
- **October 1, 2025:** The final assembly requirement will become effective for Federal-aid projects obligated on or after October 1, 2025. This means that, for manufactured product to be Buy America compliant, for Federal-aid projects obligated on or after October 1, 2025, final assembly of the manufactured product must occur in the United States.
- **October 1, 2026:** The 55 percent requirement will become effective for Federal-aid projects obligated on or after October 1, 2026. This means that, for manufactured product to be Buy America-compliant, for Federal-aid projects obligated on or after October 1, 2026, all manufactured products permanently incorporated into the project must both be manufactured in the United States (satisfy the final assembly requirement) and have the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States be greater than 55 percent of the total cost of all components of the manufactured product (satisfy the 55 percent requirement).

4.0 – ADDITIONAL REQUIREMENTS

The Contractor has completed and submitted, or shall complete and submit, to the Cabinet a Buy America/ Build America, Buy America Certificate prior to the Cabinet issuing the notice to proceed, in the format below. After submittal, the Contractor is bound by its original certification.

A false certification is a criminal act in violation of 18 U.S.C. § 1001. The Contractor has the burden of proof to establish that it's in compliance.

At the Contractor's request, the Cabinet may, but is not obligated to, seek a waiver of Buy America requirements if grounds for the waiver exist under 23 C.F.R. § 635.410(c) or will comply with the applicable Buy America requirements if a waiver of those requirements is not available or not pursued by the Cabinet.

Please refer to the Federal Highway Administration's Buy America webpage for more information.

Buy America - Construction Program Guide - Contract Administration - Construction - Federal Highway Administration (dot.gov)

SPECIAL NOTE – BUY AMERICA REQUIREMENTS AND BUILD AMERICA, BUY AMERICA (BABA) ACT 05/05/2025

BUY AMERICA / BUILD AMERICA, BUY AMERICA (ACT) MATERIALS CERTIFICATE OF COMPLIANCE

The Contractor hereby certifies that it will comply with all relevant provisions of the Build America, Buy America Act, contained within the Infrastructure Investment and Jobs Act, Pub. L. NO. 117-58, §§ 70901-52, the requirements of 23 U.S.C. § 313, 23 C.F.R. § 635.410 and 2 C.F.R § 184.

Date Submitted:_____

Contractor:_____

Signature:_____

Printed Name:_____

Title:_____

NOTE: THIS CERTIFICATION IS IN ADDITION TO ANY AND ALL REQUIREMENTS OUTLINED IN THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND/OR SPECIAL NOTES CONTAINED IN THE PROJECT PROPOSAL.

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

SURFACING AREAS

The Department estimates the mainline surfacing width to be varied from 21 to 25 feet.

The Department estimates the total mainline area to be surfaced to be 76,888 square yards.

The Department estimates the shoulder width to be 0 feet on each side.

The Department estimates the total shoulder area to be surfaced to be 0 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.

FUEL AND ASPHALT PAY ADJUSTMENT

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

OPTION A

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

Special Notes Applicable to Project
General Notes & Description of Work

CAUTION

The information in this proposal and the type of work listed herein are approximate only and are not to be taken as an exact evaluation of the materials and conditions to be encountered during construction; the bidder must draw his/her own conclusions when developing the Unit Bid Prices for each bid item. As such, if the conditions encountered are not in accordance with the information shown, the Department does not guarantee any changes to the Unit Bid Prices nor extension of the contract will be considered. The Department will pay for bid item quantity overruns, but only if pre-approved by the Engineer.

STATIONING

The contractor is advised that the planned locations of work were established using the Route Milepoint Log with a beginning location of the Boone-Gallatin county line along US 42, which corresponds to Milepoint 0.000 along US 42. **NOTE**: The existing mile marker signs may not correspond to the proposed work locations.

ON-SITE INSPECTION

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

RIGHT OF WAY LIMITS

The Department has not established the exact limits of the Right-of-Way. Unless a consent and release form is obtained from the adjoining property owner, limit work activities to the obvious Right-of-Way and staging areas secured and environmentally cleared by the Contractor at no additional cost to the Department. In the event that private improvements (i.e., fences, buildings, etc.) encroach upon the Right-of-Way, the contractor shall notify the Engineer and limit work activities in order to NOT disturb the improvements. If they become necessary, the Department will secure consent and releases from property owners through the Engineer. Be responsible for all encroachments onto private lands.

CONTROL

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

General Notes & Description of Work
Page 2 of 2

DESCRIPTION OF WORK

This project contains work to be paid for using multiple funding sources. The Contractor shall work with the Engineer to document work and the appropriate bid items for measurement by the Engineer. The work and funding source is listed in the following sections. Except as specified herein, perform all work in accordance with the Department's Standard Specifications, Supplemental Specifications, applicable Special Notes and Special Provisions, and applicable Standard and Sepia Drawings, current editions. Furnish all materials, labor, equipment, and incidentals for the following work:

FD05 008 0042 000-006

Pavement Resurfacing. The existing roadway is to be resurfaced from the Boone-Gallatin county line to the intersection of KY 338 (Richwood Rd.). Other items that may be associated with the pavement resurfacing include: edge key by milling and texturing, leveling and wedging, application of asphalt material for tack, construction of centerline and edgeline rumble strips, and construction of permanent pavement striping and markings.

FD04

Relocation of Span-Mounted Flashing Beacons. Work involves the relocation of the flashing beacons span-mounted above the intersection with KY 338/KY 1292. The existing beacons facing the US 42 approaches are mounted on the near-side span and are to be relocated to the far-side span. It may be possible to simply turn the existing beacons to face the opposite approach (with minor lateral relocation) as opposed to relocating each beacon to the opposite span. Contractor to work with Engineer to determine most appropriate manner of adjustment.

FE01 008 0042 000-006

Removal of Existing Signing Assemblies and Installation of Proposed Signing. A quantity of signs have been identified in the Remove Sign Summary for removal. An estimated quantity of new signing and sign post is included on the Signing Summary. The Contractor and Engineer will work with the District Traffic Section to determine the final signing layout and sign types prior to installation of the proposed signing. Refer to the Special Note for Signing and the Special Note for Signage for more details concerning the procedures for determining and staking the final layout and installation of the signing.

Remove, Store & Reinstall Signs. A quantity of "Remove-Store and Reinstall Sign" has been included in the contract for existing sheet signs that need to be relocated to be properly located alongside the planned sign installations. Reinstall the sign on the same day as it is removed from the existing location. The intent is for the sign to be "down" the minimum length of time necessary.

Tree Trimming. A quantity Trim & Remove Trees & Brush has been included for the identified work in the southeast corner at the intersection of US 42 and KY 1292 (Beaver Rd.). This work is to improve the intersection sight distance. The Engineer and Contractor shall work together to identify the limits of the tree and brush trimming and removal.

Special Note for Signage

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

All permanent signs and sign components shall be fabricated using Type XI sheeting.

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

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

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

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

Special Note for Signing

I. DESCRIPTION

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

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

II. MATERIALS

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

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

III. CONSTRUCTION METHODS

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

B. Site Preparation. Be responsible for all site preparation including, but not limited to: clearing and grubbing, staking, excavation, backfill, and removal of obstructions or any other material not covered by other items. Perform all site preparation only as approved or directed by the Engineer.

C. Staking. See Special Note for Staking.

D. Signs and Posts. Before beginning installation, the Contractor shall furnish to the Engineer drawings, descriptions, manufacturer's cuts, etc. describing and/or detailing all material to be used. Mill test reports for beams, steel panels, and each different gauge of aluminum or steel sheeting used must be submitted to the Division of Construction and approved prior to erection.

Fabricate sheet signs from .080 or .125 gauge aluminum alloy 5052-H38 or 6061-T6, in accordance with ASTM B-209, and to the size and shape specified. Prepare the side of the aluminum sheet to receive the retroreflective background material according to the recommendations of the sheeting and retroreflective material manufacturer(s). Sheeting used as background material for sign faces is to be the color specified and visually in accordance with the standard requirements of ASTM D-4956 and meet the requirements of Section 830 of the Standard Specifications. Contrary to Section 830.02.06, only the types and colors of sheeting as specified in the proposal will be accepted. All retroreflective material shall be fabricated and assembled in accordance with the specifications and/or recommendations of the manufacturer(s).

All hardware for the erection of sheeting signs shall be rust resistant: stainless steel, zinc coated, aluminum, or an Engineer approved material. All beams and sign posts shall be of sufficient lengths so that a single, continuous length of sign post extends from the top of the sign to the required embedment in the anchor. Splicing of the sign post shall NOT be allowed. For installations in soil, Type I steel posts shall be mounted on either a standard anchor, with soil stabilizer plate, or on a Type D breakaway sign support. Refer to Sheeting Sign Detail Sheet 1 of 2 for installation details for a standard anchor with soil stabilizer plate. When installing a standard anchor with soil stabilizer plate, if solid rock is encountered, the Contractor shall drill a hole to the required depth into the rock, install the anchor into the hole, and backfill the anchor post with concrete, or other method approved by the Engineer. The cost shall be incidental to Type I steel post, and a soil stabilizer plate will not be required. Refer to Standard Drawing RGX-065, current edition, for installation details of Type D breakaway sign supports. Approved manufacturers for Type D breakaway sign supports have been placed on the list of approved materials. For installations on existing concrete, such as a sidewalk, concrete median, etc., or installations on existing asphalt, such as flush medians, Type I steel posts shall be mounted on a Type D Surface Mount. For Type D Surface Mounts use only Kleen Break Model 425 by Xcessories Squared of Auburn, IL. If the Surface Mount is to be installed on sufficiently cured concrete, use part number XKBSM42520-G. If the Surface Mount is to be installed on asphalt surface, use part numbers XKB42520-G and AXT225-36-G. Prior to installation, the Contractor shall submit to the Engineer shop drawings of the Type D Surface Mount(s). Install the Type D Surface Mount(s) according to all the applicable requirements of the manufacturer (see shop drawings). All steel post shall meet the requirements of Section 832. All hardware including, but not limited to, sign post anchors, soil stabilizer plates, nuts, bolts, washers, fasteners, fittings, and bracing, or any other incidentals necessary to erect the signs shall be furnished by the Contractor and will be incidental to the work.

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

When listed on the plans and/or summaries, fabricate Reflective Sign Post Panels from .080 gauge aluminum alloy 5052-H38 or 6061-T6, in accordance with ASTM B-209 and to the size(s) specified. Prepare the side of the aluminum sheet to receive the retroreflective background material according to the recommendations of the sheeting and retroreflective material manufacturer(s). Sheeting for the Reflective Sign Post Panels shall be the same Type and color as the sign installed on the post. Examples include:

- Red, fluorescent yellow, and fluorescent yellow-green (Type XI Sheeting)
- White and yellow (Type XI Sheeting)

Reflective Sign Post Panels shall be 2 inches wide and will typically have a height of 60 inches for rural installations and typically have a height of 84 inches for urban installations. There will be certain instances where a proposed Reflective Sign Post Panel will have a height dimension less than 60 inches; typically, this will be when the bottom of the bottom-most sign is mounted lower than the standard 5 ft minimum mounting height (e.g. 3 ft or 4 ft mount heights). In those cases, the height

of the Reflective Sign Post Panel is expected to closely match (within 1-2 inches) the distance between the top of the anchor or support to the bottom edge of the bottom-most sign. Reflective Sign Post Panels shall have three 3/8" holes (one hole in the top 3", one hole near the center, and one hole in the bottom 3") that align with the holes on the Type I steel post.

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

All sign blanks shall be hole punched by the manufacturer for either horizontal or vertical installation. Attach all aluminum sheeting signs to square post with 3/8" all steel rivets and nylon washers. Use bracing as indicated on the plans, summaries, and/or standard signing detail sheets, and/or when directed by the Engineer and/or District Traffic Engineer.

All sign posts shall be attached to anchors with 5/16" corner bolts and 5/16" flanged nuts, and all post and anchor cuts shall be treated with a Cold Galvanizing Compound spray.

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

E. Remove & Relocate Sheet Signs. When listed on the plans and/or summaries, and/or as directed by the Engineer and/or District Traffic Engineer, remove the specified existing sheet sign(s) from the existing post(s) and reinstall on a new sign post. Once the specified existing sheet sign(s) have been removed and relocated, and if the existing sign post(s) are no longer needed to support other existing signs, removal of the existing sign post(s) will be paid under the bid item REMOVE SIGN. If any of the existing hardware components (bracing, brackets, bolts, rivets, etc.) are found to have pre-existing damage or are damaged during the Contractor's removal and reinstallation efforts, the Contractor shall provide the necessary replacement hardware for proper re-installation of the sheet sign. These components shall be incidental to the bid item REMOVE AND RELOCATE SHEET SIGNS.

Prior to removing and reinstalling a sheet sign, the Contractor shall first review the existing sheet sign for damage. It is the Contractor's responsibility to notify the Engineer of any existing sheet sign damage prior to removal and relocation of the sheet sign, so that it can be documented that the existing sheet sign had pre-existing damage. If the Contractor does not make the Engineer aware of pre-existing damage prior to detaching the sheet sign from its existing post, the Department will assume the damage was the result of the Contractor's removal and reinstallation efforts. The Contractor shall replace any sheet signs that are damaged during the removal and reinstallation efforts. Replacement of sheet signs damaged by the Contractor shall be incidental to the bid item REMOVE AND RELOCATE SHEET SIGNS.

If the existing sheet sign is found to have pre-existing damage, the Department will provide the Contractor with a new sheet sign to replace the sheet sign with pre-existing damage. Detaching the existing, damaged sheet sign from the existing post and attaching the new, Department-provided sheet sign to the new sign post shall be incidental the bid item REMOVE AND RELOCATE SHEET SIGNS.

F. Remove & Relocate Sign Assemblies. When listed on the plans and/or summaries, and/or as directed by the Engineer and/or District Traffic Engineer, remove the specified existing sign assemblies from the existing location and reinstall in a new location. The Department will consider all signs attached to one or more connected posts as a single sign assembly, no matter how many signs are attached to the existing sign assembly. If any of the existing hardware components (bracing, brackets, bolts, rivets, etc.) are found to have pre-existing damage or are damaged during the Contractor's removal and reinstallation efforts, the Contractor shall provide the necessary replacement hardware for proper re-installation of the sign assembly. These components shall be incidental to the bid item REMOVE AND RELOCATE SIGN ASSEMBLY.

Prior to removing and relocating a sign assembly, the Contractor shall review the existing sign(s) and sign post(s) for damage. It is the Contractor's responsibility to notify the Engineer of any sign or sign post damage prior to removal and relocation of the sign assembly, so that it can be documented that the existing sign and/or sign post had pre-existing damage. If the Contractor does not make the Department aware of pre-existing damage prior to removing a sign assembly from its existing location, the Department will assume the damage was the result of the Contractor's removal and reinstallation efforts. The Contractor shall replace any components of a sign assembly that are damaged during removal and relocation. Replacement of any components damaged by the Contractor shall be incidental to the bid item REMOVE AND RELOCATE SIGN ASSEMBLY.

If an existing sign that is part of a sign assembly to be removed and relocated is found to have pre-existing damage, the Department will provide the Contractor with a new sign to replace the sign with pre-existing damage. Detaching the existing, damaged sign from the existing post and attaching the new, Department-provided sign to the relocated existing post shall be incidental to the bid item REMOVE AND RELOCATE SIGN ASSEMBLY.

If an existing sign assembly that is to be removed and relocated is found to not have an existing soil stabilizer plate, or if the soil stabilizer plate and/or anchor is damaged during removal, then a new soil stabilizer plate and/or anchor shall be provided by the Contractor and shall be incidental to the bid item REMOVE AND RELOCATE SIGN ASSEMBLY.

If an existing sign assembly that is being relocated is not currently mounted on a Type D breakaway sign support, but the plans and/or summaries indicate, or wind load standards dictate, a Type D breakaway sign support or a Type D Surface Mount is required, provide and install the specified Type D support as part of the removal and reinstallation efforts. Type D breakaway sign supports shall be paid under the bid item GMSS TYPE D and Type D Surface Mount supports shall be paid under the bid item GMSS TYPE D (SURFACE MOUNT).

If an existing sign that is being relocated is found to have pre-existing damage to one or more of the sign post, the Department will <u>NOT</u> utilize the bid item REMOVE AND RELOCATE SIGN ASSEMBLY for removing and relocating such a sign assembly. Instead, the Department will require the Contractor to install a new sign post(s) at the new location, and pay for the new post(s) under the bid item STEEL POST TYPE I. Detaching the existing sign(s) from the existing, damaged post(s) and attaching the existing sign(s) to the new sign post(s) shall be incidental to the bid item STEEL POST TYPE I. Any hardware that is needed to complete the installation shall also be incidental to the bid item STEEL

POST TYPE I. Removal of the existing damaged post(s) and any other sign components not needed will be paid under the bid item REMOVE SIGN.

G. Property Damage. The Contractor shall be responsible for all damage to public and/or private property resulting from the Contractor's activities. Repair or replace damaged roadway features in like kind materials and design as directed by the Engineer at no additional cost to the Department. Repair or replace damaged private property in like kind materials and design to the satisfaction of the owner and the Engineer at no additional cost to the Department.

H. Coordination with Utility Companies. Locate all underground, above ground, and overhead utilities prior to beginning construction. Be responsible for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. Be responsible for repairing all utility damage that occurs due to the Contractor's operations at no additional cost to the Department. NOTIFY THE ENGINEER AND THE UTILITY OWNER(S) IMMEDIATELY WHEN IT IS DISCOVERED OR ANTICIPATED THAT ANY UTILITY CONFLICT COULD DELAY THE CONTRACTOR'S OPERATIONS. If the total delay exceeds ten working days, an extension of the specified completion date will be negotiated with the Contractor for delay to the Contractor's work; however, no extension will be granted for any delay caused by the Contractor's failure to notify the Engineer and/or the utility company as specified above when a conflict is discovered or anticipated as specified.

I. Caution. The information in this proposal and the type of work listed herein are approximate only and are not to be taken as an exact evaluation of the materials and conditions to be encountered during construction; the bidder must draw his/her own conclusions when developing the Unit Bid Prices for each bid item. As such, if the conditions encountered are not in accordance with the information shown, the Department does not guarantee any changes to the Unit Bid Prices nor extension of the contract will be considered. The Department will pay for bid item quantity overruns, but only if pre-approved by the Engineer.

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

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

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

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

IV. METHOD OF MEASUREMENT

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

B. Site Preparation. Other than the bid items listed, the Department will NOT measure Site Preparation for payment, but shall be incidental to the project bid items.

C. Signs and Reflective Sign Post Panels. The Department will measure the finished in-place area of signs and Reflective Sign Post Panels in Square Feet.

D. Sign Posts. The Department will measure the finished in-place length of sign posts in Linear Feet, from the top of the anchor, or top of the sign support, to the top of the sign post. Laps, cutoffs, excess, and waste will NOT be measured for payment.

E. Type D Breakaway Sign Supports. The Department will measure Type D breakaway sign supports as Each support installed.

F. Type D Surface Mounts. The Department will measure Type D Surface Mounts as Each surface mount installed.

G. Class A Concrete for Signs. The Department will measure the Class A Concrete used in conjunction with Type D breakaway sign support installations in Cubic Yards. Any concrete that is required as backfill due to hitting rock during a standard installation shall be incidental to the bid item STEEL POST TYPE I, and soil stabilizers will not be required.

H. Remove Sign. The Department will consider all signs attached to one or more connected posts as a single sign. The Department will measure as Each sign assembly removed and NOT each individual sign removed.

I. Remove & Relocate Sheet Signs. The Department will measure sheet signs removed from an existing sign post and reinstalled on a new sign post as Each sheet sign removed and reinstalled. as indicated in the contract documents, or as directed by the Engineer. The new sign post shall be measured as indicated in paragraph D. of this section.

J. Remove & Relocate Sign Assemblies. The Department will consider all signs attached to one or more connected posts as a single sign assembly. When the contract documents indicate that an existing sign assembly is to be removed from its existing location and reinstalled in a new location, the Department will measure and pay for "Remove and Relocate Sign Assembly" as each sign assembly removed and relocated; NOT each individual sign removed and relocated.

K. Items Provided by KYTC. The Department will NOT measure for payment the installation of signs and/or surface mounts provided by KYTC. These activities shall be incidental to the bid item STEEL POST TYPE I.

L. Clean Up, Disposal of Waste, Final Dressing, Seeding and Protection. The Department will NOT measure for payment the following activities: Clean Up, Disposal of Waste, Final Dressing and Seeding and Protection.

V. BASIS OF PAYMENT

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

B. Signs and Reflective Sign Post Panels. The Department will make payment for the completed and accepted quantities under the bid item SBM ALUM SHEET SIGNS .125 IN or .080 IN. The Department will consider payment full compensation for all work and incidentals necessary to install the signs and any Reflective Sign Post Panels, as required by these notes and the details found elsewhere in the plans/proposal, at the locations indicated on the summary sheets, plans, and/or as directed by the Engineer.

C. Sign Posts. The Department will make payment for the completed and accepted quantities under the bid item STEEL POST TYPE I. The Department will consider payment full compensation for all work and incidentals necessary to install the sign posts as required by these notes and the details found elsewhere in the plans/proposal.

D. Type D Breakaway Sign Supports. The Department will make payment for the completed and accepted quantities under the bid item GMSS TYPE D. The Department will consider payment full compensation for all work and incidentals necessary to install the Type D breakaway sign supports as required by Standard Drawing RGX-065, current edition.

E. Type D Surface Mounts. The Department will make payment for the completed and accepted quantities under the bid item GMSS TYPE D (SURFACE MOUNT). The Department will consider payment full compensation for all work and incidentals necessary to install the Type D surface mounts according to all applicable manufacturer requirements.
NOTE: The permissible Type D Surface Mount alternative is: Kleen Break Model 425 for Surface Mount Concrete Installations by Xcessories Squared of Auburn, IL

F. Class A Concrete for Signs. The Department will make payment for the completed and accepted quantities, used in conjunction with Type D breakaway sign support installations, under the bid item

CLASS A CONCRETE FOR SIGNS. The Department will consider payment full compensation for all work and incidentals necessary to install the concrete as required by Standard Drawing RGX-065, current edition.

G. Remove Sign. The Department will make payment for the completed and accepted quantities under the bid item REMOVE SIGN. The Department will consider payment full compensation for all work and incidentals necessary to remove the existing signs, posts, anchors, and any other sign material or hardware, from the locations indicated on the summary sheets, plans, and/or as directed by the Engineer.

H. Remove & Relocate Sheet Signs. The Department will make payment for the completed and accepted quantities under the bid item REMOVE AND RELOCATE SHEET SIGNS. Any hardware that is needed to complete the removal and reinstallation shall be incidental. The Department will consider payment full compensation for all work and incidentals necessary to remove and reinstall the existing sheet signs as indicated on the plans, summaries, and/or as directed by the Engineer.

I. Remove & Relocate Sign Assemblies. The Department will make payment for the completed and accepted quantities under the bid item REMOVE AND RELOCATE SIGN ASSEMBLY. Any hardware that is needed to complete the removal and reinstallation shall be incidental. The Department will consider payment full compensation for all work and incidentals necessary to remove and reinstall the existing sign assembly as indicated on the plans, summaries, and/or as directed by the Engineer

Special Note for Tree, Stump, and Brush Removal

I. DESCRIPTION

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

(1) Site Preparation; (2) Maintaining and controlling traffic; (3) Temporary erosion control and temporary pollution control; (4) Cutting, trimming, and/or removing trees, stumps, and/or brush as specified or directed by the Project Engineer; (5) Treating all cut stumps required by Project Engineer to prevent re-sprouting; (5) Clean up and disposal of waste; (6) Final dressing and seeding and protection; and (7) all other work specified in the Contract.

II. MATERIALS

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

A. Maintain and Control Traffic. The Contractor shall maintain and control traffic in accordance with the Traffic Control Plan.

B. Seeding and Protection. Use applicable Seed Mixture as specified per Section 212.03.03.

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

III. CONSTRUCTION METHODS

A. Maintain and Control Traffic. The Contractor shall maintain and control traffic in accordance with the Traffic Control Plan.

B. Cutting, Trimming, and/or Removing Trees, Stumps, and/or Brush. The Contractor shall cut, trim, and/or remove trees within the clearing dimensions as shown on the Tree Trimming Detail. On this detail, the horizontal width is taken from the edge of pavement measured perpendicular to the roadway, but not to extend beyond the obvious Right-of-Way limits, or as directed by the Engineer. To achieve the tree trimming/clearing dimensions shown on the Tree Trimming Detail, the complete removal of some trees may be necessary. The Department’s expectation is that if the trunk or any portion of the trunk of any tree is within the tree trimming/clearing dimensions shown on the Tree Trimming Detail, any such tree shall be cut and removed as part of this bid item. Additionally, if there are trees whose main trunk is not within the tree trimming/clearing dimensions, but more than approximately 50% of the tree’s canopy will be removed due to trimming, any such tree shall be cut and removed as part of this bid item. Cut trees and/or bushes as close to the ground as possible; three inches (3”) or less from ground line. All tree stumps within the mowing zone shall be removed

via mechanical grinding, or other methods approved by the Engineer, to a minimum depth of four inches (4") below the surrounding grade line. For trees that are cut but will not be required to have their stump removed, treat the stump, within one hour of cutting, with the herbicide solution specified below. The Contractor and Engineer should work together to identify the trees and/or stumps requiring removal. The Engineer will make the final determination on the decision to remove or leave any trees and/or stumps in question.

Replace and level any and all soil disturbed during the tree, stump, and/or brush removal and/or tree trimming operations. Leave the soil in a condition suitable for seeding that is level with the surrounding soil grade, with no holes or indentions to catch water or present unsafe mowing conditions. This work will be incidental to the bid item "Trim and Remove Trees and Brush."

NOTE: Tree cutting restrictions apply. See the Special Note for Tree Removal for details on the restrictions.

C. Removal of Tree, Stump, and Brush Debris. The Contractor will remove all debris and biomass from the trimming and/or removal of trees, stumps, and/or brush from the work site and dispose of such off the right-of-way in accordance with local, state, and federal solid waste laws and regulations. Cleanup and remove all existing down trees and brush located within the designated areas. At the discretion of the Engineer, the contractor may be permitted to chip and blow biomass onto non-mowing zones. Chips shall not be blown onto areas that would potentially restrict the flow of water in drainage ditches. All un-chipped biomass must be removed from roadway right-of-ways.

The Contractor shall keep the work zone free of accumulated waste material and debris at all times. Remove and dispose of all tree, stump, and brush chips off the right-of-way. Remove and dispose of all debris and waste material off the right-of-way as work is completed and at the end of each workday. Remove desirable wood pieces from the right-of-way at the end of each workday. Stockpile trees and brush off the right-of-way. At the discretion of the Project Engineer, the Contractor may be permitted to stockpile trees and brush at approved locations along the right-of-way.

The Contractor shall immediately correct any disturbance to all drainage features and structures caused by the Contractor's work.

D. Stump Treatment. Within one hour of cutting, the Contractor shall apply a stump treatment mix consisting of fifty percent (50%) Glyphosate (EPA Reg. No. 524-579) with water and add twelve (12) ounces of Imazapyr (EPA Reg. No. 241-431), as specified, per gallon of solution. The addition of a non-ionic surfactant 5% (v/v) shall be added to the solution to increase uptake of the herbicide solution into the root system. Generic formulations are not acceptable. Mix the herbicide solution in the presence of the Inspector. Include a color indicator in the herbicide solution to mark the treated stumps. Spray or paint the herbicide solution onto all cut stumps within one hour after cutting. Apply the herbicide solution in a manner to avoid drift onto surrounding vegetative ground cover. Stumps in the mowing zone, designated for mechanical grinding treatment, need not receive the herbicide treatment.

Provide herbicide material for the treatment of cut stumps meeting the following criteria:

a. Glyphosate

Active ingredient: (**Glyphosate**)
*Glyphosate, N-(phosphonomethyl)glycine, in the form of its potassium salt.....48.7%
Inert ingredients 51.3%
Total 100.0%
* Contains 660 grams per liter or 5.5 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its potassium salt. Equivalent to 540 grams per liter or 4.5 pounds per U.S. gallon of the acid, glyphosate.
EPA Reg. No. 524-579

b. Imazapyr

Active ingredient: (**Imazapyr**)
*Isopropylamine salt of Imazapyr 2-[4,5-dihydro-4-methyl-4-(1methylethyl)-5oxo-1H-imidazol-2-yl]-3-pyridinecarboxylic acid) 26.7%
Inert ingredients 73.3%
Total 100%
* Equivalent to 21.8 percent 2-[4,5-dihydro-4-methyl-4-(1methylethyl)-5oxo-1H-imidazolyl]-3-pyridinecarboxylic acid or 2 pounds acid per gallon.
EPA Reg. No. 241-431

KRS 217B requires that any individual who applies pesticides to Kentucky Highway Right-of-Way areas must be certified as a Pesticide Applicator under Category 6 guidelines. Comply with all current laws and regulations established by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and by KRS 217B that regulate the handling, use, and application of pesticides.

E. Property Damage. The Contractor will be responsible for all damage to public and/or private property resulting from his/her work.

F. Coordination with Utility Companies. NOTICE: Utility locations shown in the plans are approximate and have not been specifically located by the Department. Locate all underground, above ground and overhead utilities prior to beginning construction. The Contractor shall have the responsibility for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Utility Owner while they relocate their facilities. The Contractor shall be responsible for repairing all utility damage that occurs as a result of his/her operations.

G. Right-of-Way Limits. The exact limits of the Right-of-Way have not been established by the Department. The Contractor shall limit his/her activities to the obvious Right-of-Way, permanent or temporary easements, and any work areas secured by consent and release of the adjacent property owners. The Contractor shall be responsible for all encroachments onto private lands.

H. Clean Up, Disposal of Waste. Clean up and dispose of all removed debris by the end of each workday,

and other waste as per Section 204.03.08. The Department will incur no cost to obtain the disposal sites. The Department will NOT make direct payment for clean up or disposal of waste and debris from the project. See the Special Provision for Waste and Borrow Sites.

I. Final Dressing, Seeding and Protection. Apply final dressing, class A to all disturbed areas, both on and off the Right-of-Way. Sow all disturbed earthen areas with the appropriate Seed Mixture as specified in Section 212.03.03.

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

IV. METHOD OF MEASUREMENT

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

B. Site preparation. Other than the bid items listed, site preparation will NOT be measured for payment, but shall be incidental to the project bid items.

C. Trim & Remove Trees & Brush. The Department will measure the quantity by Linear Foot, per side of the highway. See the Tree Trimming Detail for the horizontal and vertical tree trimming/clearing dimensions.

D. Stump Treatment. The Department will NOT measure for payment the operation of Stump Treatment. This activity shall be incidental to the bid item "Trim & Remove Trees & Brush."

E. Clean Up, Disposal of Waste. The Department will NOT measure for payment the operations of Clean Up and Disposal of Waste. These activities shall be incidental to the project bid items.

F. Final Dressing, Seeding and Protection. The Department will NOT measure for payment the operations of Final Dressing. Seeding and Protection will be measured according to Section 212.

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

V. BASIS OF PAYMENT

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

B. Trim & Remove Trees & Brush. The Department will make payment for the completed and accepted quantities per Linear Foot. The Department will consider payment at the contract unit price as full compensation for furnishing all materials, equipment, labor, other expenses, and all incidentals necessary to complete the work of trimming and removing the trees and brush.

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

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) 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 steam.

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 measure Erosion Control as one lump sum. The Department will not measure developing, updating, and maintaining a BMP plan for each site; providing a KEPSC 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 Erosion Control.

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.

Erosion Control. Contrary to Sections 212.05 and 213.05, other than Erosion Control Blanket, Sodding, and Channel Lining, payment at the Contract lump sum price for Erosion Control, shall be full compensation for all materials, equipment, labor and incidentals necessary to complete the erosion and water pollution control work as specified in these notes, Sections 212 and 213, the Supplemental Specifications, applicable Special Provisions and Special Notes, and Standard and Sepia Drawings, including but not limited to developing, updating, and maintaining a BMP plan for each site; providing a KEPSC 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.

Special Note for Completion Date & Liquidated Damages

I. COMPLETION DATE

All work in this Contract is to be completed in the 2025 construction season by October 31, 2025 or before. The Contractor will have the option of selecting the starting date for the work proposed within this Contract. Once a starting date is selected, notify the Department in writing of the date selected at least two weeks prior to beginning work. Once work begins, all work shall be completed and all traffic control devices removed within a maximum of 30 calendar days. Contrary to Section 108.07.03, the Engineer will begin charging calendar days for this project on the day the Contractor starts work or sets up traffic control.

II. LIQUIDATED DAMAGES

In addition to the requirements of Section 108.09, the Department will assess Liquidated Damages in the amount of **$1000** per day for each day, or fraction of a day, if either the 30 calendar days or the October 31, 2025 date is exceeded. All construction must be completed in accordance with any and all applicable weather limitations listed in the Standard Specifications. As such, the Contractor is advised to select a starting date based on a favorable weather forecast.

NOTE: At the sole discretion of the Engineer, all, or part, of these Liquidated Damages may be waived due to unforeseen circumstances, such as unexpected weather.

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

All liquidated damages will be applied accumulatively.

All other applicable portions of Section 108 apply.

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

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

1.0 DESCRIPTION. Incorporate an e-Ticketing Delivery Software for weighed asphalt material delivered to the project to report loads and provide daily running totals of weighed asphalt material for pay items and incidental work during the construction processes from the point of measurement and loading to the point of incorporation to the project.

2.0 MATERIALS AND EQUIPMENT. Contractor shall supply material data in JavaScript Object Notation (JSON) documents to the KYTC e-Ticketing Delivery Software (KYTC e-Ticketing Portal) via Application Programming Interface (API) or direct connection. Test and verify that ticket data can be shared from the original source no fewer than 30 days prior to material placement activities. An e-Ticketing Delivery Software supplier can provide a qualified representative for on-site technical assistance during the initial setup, pre-construction verifications, and data management and processing as needed during the Project to maintain material data delivery capabilities. Virtual meetings may be hosted in lieu of on-site meetings when deemed appropriate by the Engineer.

Provide e-Ticketing Delivery Software that will meet the following:

1. The e-Ticketing Delivery Software shall be fully integrated with the Contractor's Load Read-Out scale system at the material source location.

2. The e-Ticketing Delivery Software shall provide real-time delivery to KYTC e-Ticketing Portal.

3. Transmit any updates to the ticket data within 5 minutes of a change.

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

A. Construction Requirements

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

2. Verify that all pertinent information is provided by the software within the requirements of this Special Note.

B. Data Deliverables

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

1. Asphalt Material

a. **Real-time Continuous Data Items**

Provide the Engineer access to JSON documents capable of being transmitted through the KYTC's e-Ticketing Portal that displays the following information in real-time with a web-based system compatible with iOS and Windows environments.

- Each Truck
  - Supplier Name
  - Supplier Address
  - Supplier Phone
  - Plant location
  - Date
  - Time at source
  - Project Location

- Contract ID#
- Carrier Name
- Unique Truck ID
- Description of Material
- Mix Design Number
- Gross, Tare and Net Weight
- Weighmaster

4.0 MEASUREMENT. The Department will not measure the electronic delivery management system.

5.0 PAYMENT. The Department will not measure this work for payment and will consider all items contained in this note to be incidental to the asphalt mixtures on the project, as applicable.

May 5, 2025

SPECIAL NOTE FOR EXPERIMENTAL KYCT AND FIELD RUT TESTING
June 2025 Update

1.0 General

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

2.0 Equipment

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

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

2.3 Field Rutting Tests. I f t he contractor elects to perform the IDEAL-RT test, in conformance with ASTM D8360-22, the acquisition of the “Option A” or “Option B” test fixture is required. If the IDT-HT is desired, the test press utilized for the KYTC is sufficient. The Department shall approve all test configurations at their discretion.

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

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

2.6 Department Equipment. The Department will provide gyratory molds, PINE 850 Test Press with digital recordation, and CT testing equipment to assist during this experimental phase so data can be gathered.

3.0 Testing Requirements

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

3.2 KYCT Testing. Perform crack resistance analysis (KYCT) in accordance with the current Kentucky Method for KYCT Index Testing during the plant production of all surface mixtures. Conform to KYTC Specifications for Mix Design approvals. All production testing is currently informational.

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

3.2.2 Number of Specimens and Conditioning. Fabricate specimens in accordance with the Kentucky Method for KYCT Index Testing. Contrary to the method, for field specimens, fabricate three replicates for cracking resistance analyses and three replicates for rutting resistance analyses. The specimens shall be compacted at the temperature in accordance with KM 64-411.

Contrary to the Kentucky Method, plant produced bituminous material shall be short-term conditioned immediately after sampling for two hours uncovered in the oven at compaction temperature in accordance with KM 64-411.

While the fabricated specimens are allowed to cool in air (fan is permissible) for 30 minutes +/- 5 minutes, find the bulk specific gravity of each specimen according to AASHTO T166. Next, condition the replicates in a 77 °F water bath for 30 minutes +/- 5 minutes. To ensure confidence and reliability of the test results provided by KYCT testing and Field Rut testing, reheating of the asphalt mixture is prohibited.

3.2.3 Long Term Aging CT's. For long-term aging and cracking resistance considerations in mix design, mix and condition 3 specimens uncovered for 20 hours at compaction temperature in accordance with KM 64-411. Perform KYCT testing in accordance with KM 64-450 and record the results on the Long-Term KYCT tab of the latest version of the MixPack.

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

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

3.3 Field Rut Testing. Perform the rut resistance analysis (IDEAL-RT or IDT-HT) in accordance with ASTM D8360-22 or ALDOT458, respectively. Contrary to ASTM D8360 & ALDOT458, precondition the test specimens in a water bath or forced draft oven at 50 °C +/- 1 °C for 60 +/- 5 min before completing the test.

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

3.3.2 Number of Specimens and Conditioning. Fabricate in accordance with the Kentucky Method for KYCT Index Testing. Contrary to the method, for field specimens, fabricate three

replicates for rutting resistance analyses. The specimens shall be compacted at the temperature in accordance with KM 64-411. Contrary to the Kentucky Method, plant produced bituminous material shall be short-term conditioned immediately after sampling for two hours uncovered in the oven at compaction temperature in accordance with KM 64-411.

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

3.3.4 File Name. Record all field rut data in the latest version of the AMAW.

4.0 Data

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

5.0 Payment

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

June 12th, 2025

SPECIAL NOTE FOR RECYCLED ASPHALT PAVEMENT (RAP) STOCKPILE MANAGEMENT

I. GENERAL

The use of reclaimed asphalt pavement (RAP) from Department projects or other approved sources in hot mix asphalt (HMA) or warm mix asphalt (WMA) shall be subject to stockpile management and handling of material as described in this section.

The Department approves RAP on a stockpile basis, following the process set forth in this method. The contractor's responsibilities in the process are as follows:

- To obtain the Department's approval of all RAP prior to its use on a Department project and to deliver test data and samples as required
- To monitor and preserve the quality and uniformity of the approved material during storage and handling, adding no unapproved material to the existing stockpile
- To comply with the Department's requirements regarding replenishment of approved stockpiles

The Department will approve RAP based on its composition and variability in gradation and asphalt content, and on visual inspections of the stockpile, which the Department may conduct at its discretion. The Department may withdraw approval of a stockpile if the requirements of this specification are not followed in good faith.

The Maximum Percentage Allowed in a mix design will be based on these criteria and on the category of RAP source, as defined in this document.

II. APPROVAL PROCESS

Qualified asphalt producers (listed in List of Approved Materials-Asphalt Mixing Plants) may submit requests for RAP stockpile approval to the Asphalt Branch, Division of Materials, in the Annual Certification for Previously Approved Asphalt Mixing Plants and Related Equipment. The requester shall provide test results as prescribed in Part IID. The Division of Materials may, at their discretion, collect samples or inspect a RAP stockpile consistent with Section IIE.

Upon completion of the review of testing results and, if applicable, visual inspection, the Division of Materials, Asphalt Branch will approve or disapprove the material by letter and will assign a Stockpile Identification Number for each approved RAP stockpile. Note: The contractor's average gradation and asphalt content, as listed in the approval letter, shall be the gradation used in subsequent mix designs. The approval letter will state the applicable limits on the use of the material in mix designs and will summarize the Department's findings, listing the average gradation and asphalt content from the contractor's tests and the corresponding values found by the Department. Where the Maximum Percentage Allowed is low due to variability, the contractor may elect to improve the uniformity of the material by further processing and may again sample, test, and request approval for the material.

No material shall be added to a stockpile after it has been approved, except as provided in Parts V, VI, and VII below.

IIA. RAP Quality Management Plan

For a contractor to receive approval to use RAP on any department project, a RAP Quality Management Plan must first be approved by the department. The RAP Quality Management Plan shall be submitted to the

Division of Materials annually for approval as part of the Contractor's Quality Control Plan/Checklist. The Quality Management Plan is required to demonstrate how the Contractor will provide consistency and quality of material utilized in all asphalt mixes produced for use on Department projects. The Quality Management Plan shall include:

- Unprocessed RAP Stockpiles
  - Designation of stockpile(s) as single or multiple source
  - Designation of stockpile(s) as classified or unclassified
  - Designation of stockpile(s) as captive or continuously replenishing
  - Plan for how stockpile(s) is built (layers, slope, etc.)
  - Plan to minimize stockpile(s) contamination
- Processing and Crushing
  - Equipment used to feed screener or crusher
  - Excavation process based on equipment type
- Processing Millings
  - Single Project or Source
    - Screening, Fractionation, or Crushing plan
  - Multiple Source
    - Process to achieve uniform material from stockpile
    - Screening, Fractionation, or Crushing plan
- Processed RAP Stockpiles
  - Minimization of segregation
  - Minimization of moisture

IIB. RAP Stockpile Placement

All processed RAP stockpiles shall be placed on a sloped, paved surface. The requirement for a paved surface may be waived by the Cabinet if the Contractor's RAP Quality Management Plan demonstrates effective material handling that will minimize deleterious material from beneath the processed stockpile entering the plant. *No processed stockpile will be placed directly on grass or dirt.*

IIC. Stockpile Identification Signs

RAP stockpiles shall be identified with posted signs displaying the gradation of material in the stockpile (course, intermediate, or fine). These signs shall be made of weatherproof material and shall be highly visible. Numerals shall be easily readable from outside the stockpile area. If a stockpile exists in two or more parts, each part must have its own sign.

IID. Standard Approval Procedure

The Contractor shall obtain random samples representative of the entire stockpile and shall have each sample tested for gradation and asphalt content according to KM 64-426, KM 64-427, and AASHTO T308. The material samples must be in its final condition after all crushing and screening. At least one sample shall be obtained for each 1,000 tons of processed RAP, with a minimum of five samples per stockpile. Sampling shall be performed according to the method prescribed for asphalt mix aggregates in the Department's Materials Field Testing and Sampling Manual and KM 64-601. The minimum sampling size (after quartering) for tests of RAP samples is 1,500 g. except for samples containing particles more than one inch in diameter, for which the minimum is 2,000 g.

To request approval of a RAP stockpile, submit the following documents to the Division of Materials. It is the requester's responsibility to correctly address, label, and deliver these submittals:

• Submit request for approval at beginning of the paving season as part of the Annual Certification for Previously Approved Asphalt Mixing Plants and Related Equipment.

• If requesting approval after paving season begins, submit memo, including stockpile portion of the inspection list for Annual Certification for Previously Approved Asphalt Mixing Plants and Related Equipment, to Division of Materials.

• Reports of the tests prescribed above using the Stockpile <INSERT NAME> document.

• A drawing of the plant site showing the location of the stockpile to be approved *and all other stockpiles on the premises*

Mail, deliver or email the request form, with test reports and site drawing, to:

Kentucky Transportation Cabinet
Division of Materials
ATTN: Asphalt Branch Manager
1227 Wilkinson Boulevard
Frankfort, Kentucky 40601

Robert.Semones@ky.gov

IIE. Tests and inspections by the Department

The Department shall have the right to observe the collection of samples, or to perform the sampling and testing as a verification of contractor submittal. As a condition of approval, the Department may at any time inspect and sample RAP stockpiles for which approval has been requested and may perform additional quality control tests to determine the consistency and quality of the material.

The approval letter issued by the Department will include any results of verification testing performed by the Cabinet. The approved contractor results should be used by mix design technicians in the design calculations.

III. RAP STOCKPILE TIERED MANAGEMENT AND EFFECTIVE BINDER CONTENT

The stockpile management and approval requirements will be tiered based on the maximum cold feed percentages as defined in this section and Table 1. below.

Table 1. Tiered Testing Requirements

Mix Type	0-≤12%	12-≤20%	20-≤35%
Surface	Tier 1	Tier 2	Tier 3
Base	Tier 1	Tier 2	Tier 3

NOTE: All asphalt mixes and binder selection will be subject to Section 409 of the current Standard Specifications.

The following requirements will apply based on the percentage of RAP in the mix.

Tier 1

Tier 1 mixes (less than or equal to 12% RAP) will be subject to the requirements of sections IIA, IIB, and IIC.

Tier 2

Tier 2 mixes (12% to less than 20% RAP) will be subject to the requirements of Section II in its entirety and Table 2 requirements.

Tier 3

Tier 3 Asphalt Base mixes with 20% to less than 35% RAP, Tier 3 Asphalt Surface mixes with 20% to less than 30% RAP will be subject to Section II in its entirety and Table 2 requirements.

IV. MAXIMUM PERCENTAGE OF RAP ALLOWED

The Maximum Percent of RAP allowed in mix designs shall be the lowest percentage determined by the gradation and asphalt content of the RAP, as established under the criteria below, and requirements listed in Section III.

Limits according to range in gradation and bitumen content

The Maximum Percent of RAP Allowed, based on gradation and asphalt content, shall be determined by the Department using the standard deviation of these values. This standard deviation will be calculated using data provided by the contractor from at least five samples. While the contractor is required to provide the data from these tested samples, the Department retains the discretion to perform its own sampling and testing to support or verify its findings. An apparent outlier shall not be considered in determining these ranges. Where one result appears to be unrepresentative of the whole, two or more additional samples shall be tested. The outlying value of all tests shall then be excluded from the range. The maximum percentage of RAP allowable shall be the lowest percentage determined according to Table 2 below.

Table 2. Maximum Percent RAP According to Variability in Test Results

	Standard Deviation as calculated above:		
Surface			
% asphalt content	< 0.4	< 0.5	
% passing No. 200 sieve	< 1.25	< 1.5	
% passing Median Sieve	< 4.0	< 5.0	
	Allowable RAP Cold Feed %		
	Tier 3 - 20%-30%	Tier 2 - 12%-20%	Tier 1 - 0%-12%
Base			
% asphalt content	< 0.5	< 0.75	
% passing No. 200 sieve	< 1.5	< 2.25	
% passing Median sieve	< 5.0	< 7.0	
	Allowable RAP Cold Feed %		
	Tier 3 - 20%-35%	Tier 2 - 12%-20%	Tier 1 - 0%-12%

NOTE: These allowances notwithstanding, the Contractor is required to maintain the mixture within the Mixture Control Tolerances of Kentucky Method 443.
The percentage allowable in mix designs shall be limited to meet the design criteria for viscosity established in the Standard Specifications.

V. GENERAL STOCKPILE REQUIREMENTS AND REPLENISHMENT

V.A. Single Pavement Source

Early approval of material from a single pavement source. When a new stockpile is to consist entirely of millings removed from a single existing pavement, the stockpile may be approved based on samples taken during the milling and processing operations, prior to completion of milling. The initial stockpile may be approved as either a new stockpile or a new stockpile in continual replenishment status.

For continual replenishment status, samples shall be taken from the processed stockpile after it reaches 1,000 tons. A total of five initial samples, plus one additional sample for every 1,000 tons, is required. As prescribed in Part II above, the contractor shall test all samples and deliver the test results, together with a letter request for approval in Continual Replenishment status, to the address indicated. The stockpile shall be subject to initial approval as prescribed above in Part II. Once approved, it may be replenished without further approvals as provided in Part VII below.

V.B. Heterogeneous or contaminated material

Asphalt pavement millings containing traffic detection loops, raised pavement markers, or other debris must be separated and excluded before stockpiling RAP for approval for use in KYTC asphaltic concrete mixtures.

No material other than RAP from an approved stockpile shall be included in mixtures for State projects. The following materials are specifically excluded:

• Material contaminated with foreign matter such as liquids, soil, concrete, or debris

• Plant waste, especially waste containing abnormal concentrations of bitumen, drum build-up, or material from spills or plant clean-up operations

The following materials shall not be added to or placed in proximity to an approved stockpile but may be accumulated in a separate stockpile and submitted for approval according to Part III:

- Production mixtures returned to the plant for any reason.
- Mis-proportioned mixtures, especially those generated at start-up.

VI. REPLENISHMENT OF STOCKPILES

An approved RAP stockpile may be replenished with Department approval, provided the replenishment material meets all necessary requirements for approval and maintains uniformity in gradation and asphalt content as outlined in this document.

VI.A. Procedure and approval criteria

The procedure for requesting approval of a stockpile replenishment, that is not in continual replenishment status, shall be the same as for approval of an original stockpile, and the material for the replenishment shall meet all criteria for approval as a new stockpile. RAP proposed for replenishment shall be sampled and tested by the Contractor for gradation and asphalt cement as prescribed in Section II above. The Laboratory shall

review these results and provide approval for use in Department asphalt mix designs, according to Table 2 above.

VI.B. Effect of replenishment on existing approved mix designs

Replenishment of a stockpile may render certain mix designs invalid, depending on the percent RAP allowed in the design and on the difference in average properties between the old and new stockpiles. A replenished stockpile may be used as the RAP ingredient in an existing approved design provided that:

1. The Maximum Percent Allowed for the replenishment stockpile equals or exceeds the percent RAP called for in the mix design. In no case may the Maximum Percent Allowed be exceeded.

However, if a mix design calls for up to 5.0 percent more than the Maximum Percent Allowed for the replenishment, the *design* may be adjusted, with approval, to use the lower percent allowed, provided that the production mixture continues to meet all acceptance criteria. For example, a design which calls for 20 percent RAP may be adjusted and produced with 15 percent if it continues to meet for acceptance.

VII. CONTINUAL REPLENISHMENT WITHOUT RE-APPROVAL

At the request of the contractor, a previously approved stockpile may be placed in Continual Replenishment Status and may be replenished any number of times without re-approval provided that:

1. Replenishment is within six months of the last stockpile addition.
2. The contractor shall continue to monitor and test the materials added to the stockpile and shall forward these results to the Division of Materials for every 1,000 tons of RAP added to the stockpile.
3. The contractor must certify that replenishment materials are free of contaminants.
4. The Department shall be notified by letter to the Director of the Division of Materials that the stockpile is being replenished on a continual basis.
5. The RAP Maximum Percent Allowed for continual replenishment shall be limited by Sections III and IV.

Note: Upon request, one 20-pound sample bag of RAP for each Continual Replenishment Stockpile shall be submitted to the Division of Materials for petrographic analysis every 12 months.

The Department may inspect, sample, and test such stockpiles at its discretion and may, upon determining that the stockpile is unsuitable, withdraw approval of the material and all mix designs which include it. Approval of the stockpile may be withdrawn at any time based upon extreme or erratic ingredient proportions, unsuitable ingredients, or poor performance, as determined by the Division of Materials, Asphalt Branch. The Department will conduct periodic comparison testing on the opposite quarters of samples submitted by the Contractor for special replenishment approval category. The approval of the stockpile may be withdrawn if

erroneous information was found on the contractor's testing and/or improper sampling procedures were involved after a thorough investigation.

VIII. DEPLETION OF STOCKPILE AND EXPIRATION OF APPROVAL

When a stockpile has been fully depleted, the Contractor may replenish it within 24 months after the date of depletion; a depleted stockpile not replenished after 24 months will be removed from the approved list and may not be replenished.

Approval of a stockpile may be withdrawn if, in the finding of the Division of Materials, Asphalt Branch, the total amount of material used in new mixtures equals the total tonnage of the original stockpile plus all approved replenishments. Six years from the original approval of a stockpile or from its most recent replenishment, a stockpile shall be presumed to be depleted, and its approval shall expire. This shall apply to all stockpiles, regardless of status or history of use.

IX. RECORDS

The Contractor shall maintain records at the plant site on all RAP stockpiles. These records shall be available for inspection by representatives of the Department and shall include the following:

- All test results.
- The Department's approval letter for each stockpile and replenishment, together with the Contractor's requests for approval and all data submitted therewith.
- A current drawing of all stockpile locations at the plant site, including unapproved stockpiles, showing stockpile numbers of all stockpiles approved for State work.

X. RELOCATION OF STOCKPILE

If material from an approved RAP stockpile is to be moved to another location, the contractor shall seek approval from the Department prior to its further use on State projects. A letter request shall be submitted to the Division of Materials indicating the current stockpile location, the total quantity of material to be moved, and the amount, if any, to remain in the current location. The Division of Materials will issue an approval letter applicable to the new location.

June 18, 2025

COORDINATION OF WORK WITH OTHER CONTRACTS

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

1-3193 Coordination Contracts
01/02/2012

SPECIAL NOTE FOR PAVEMENT WEDGE AND SHOULDER MONOLITHIC OPERATION

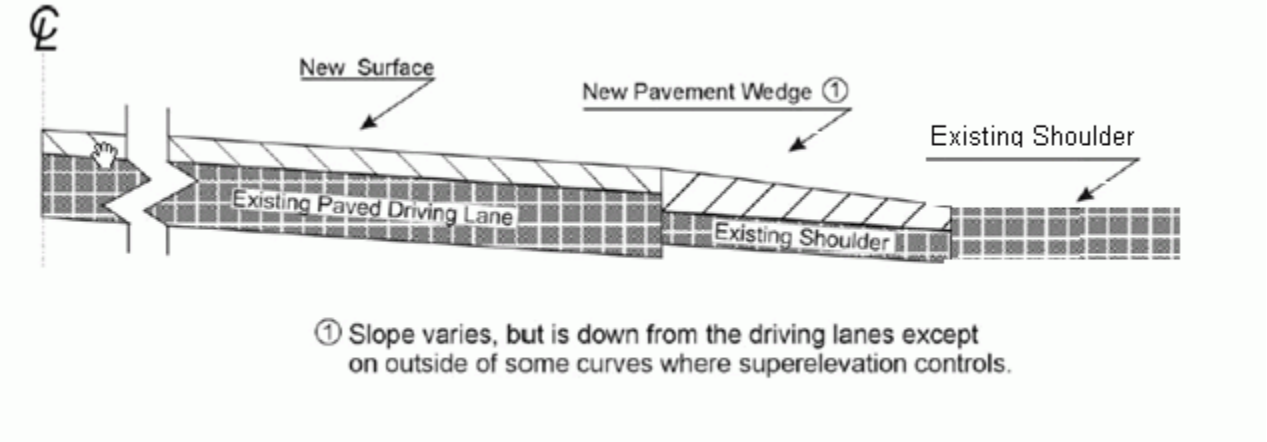
1.0 MATERIALS. Provide an Asphalt Surface Mixture conforming to Section 403 of the Standard Specifications, as applicable to the project, for the pavement wedge.

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.



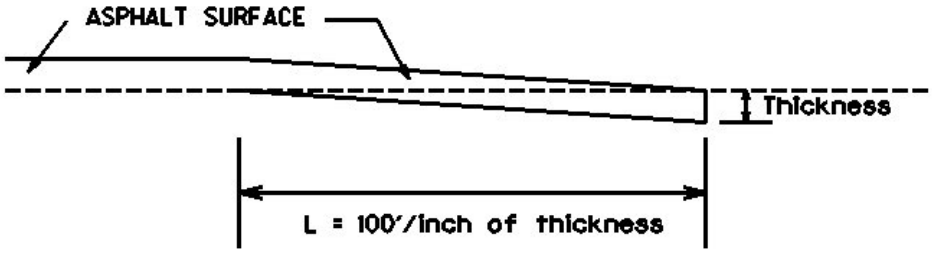
3.0 MEASUREMENT. The Department will measure Asphalt Surface Mixture placed as the pavement wedge according to Section 403.

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 EDGE KEY

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

EDGE KEY



Thickness = 1.25 Inches

L = 125 LF

L= Length of Edge Key

1-3309 Edge key by Ton
01/02//2012

SPECIAL NOTES FOR REMOVAL OF GUARDRAIL TO ACCOMMODATE MILLING AND PAVING OPERATIONS

If necessary to accommodate milling and paving operations and with prior approval of the Engineer, the Contractor may remove the existing guardrail system rail elements and offset blocks. Do not disturb guardrail posts, bridge end connectors, end treatments, and/or terminal sections. Perform all guardrail removal operations under the same full lane closure required for the milling or paving operations. Remove the Guardrail immediately prior to the milling or paving operation and reset the guardrail immediately after the operation has passed. If the milling and the paving operations at the site of the guardrail removal are scheduled to be accomplished on the same day, the Contractor may leave guardrail removed during the interval between the operations only when the milling and paving operations are being performed under a single lane closure. Do not leave guardrail down overnight or at other times when operations are not actually in progress.

When resetting guardrail, do not leave blunt ends exposed where they would be hazardous to the public. If left in place between the milling and paving operations, protect exposed ends protected with a temporary end treatment installed by connecting at least 25 feet of rail to the exposed end, and by slightly flaring, and burying the end of the rail completely into the existing shoulder. Place a drum with bridge panel in advance of the guardrail end and maintain during the interval between the paving and milling operations.

Reset the guardrail to the lines and grades existing immediately prior to removal as shown on current Standard and Sepia Drawings or as designated by the Engineer. The Engineer will check the existing guardrail to be removed and reset before removal begins. If components are found missing or damaged to the extent that they cannot be reused, the Department will furnish the necessary parts and materials to the Contractor for installation when the guardrail is reset. The Department will make these parts available to the Contractor at the Department's Boone County Maintenance facility. Be responsible for all damage to the existing guardrail system resulting from his work. Replace any parts that are damaged or lost during the guardrail removal and replacement process. Correct any vertical or horizontal misalignment not present prior to removal by any method approved by the Engineer, which allows the construction of the guardrail to the true grade and prevents apparent sags.

The Department will not measure removing and resetting the existing guardrail, replacing guardrail components that were damaged or missing prior to project with components furnished by the Department, furnishing and installing parts lost or damaged by the Contractor, and providing and maintaining a temporary end treatment with drum and panel, but shall be incidental to other items of work, as applicable.

SPECIAL NOTE FOR
ASPHALT MILLING AND TEXTURING

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

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

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

SPECIAL NOTE FOR TYPICAL SECTION DIMENSIONS

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

1-3725 Typical Section Dimensions
01/02/2012

TRAFFIC CONTROL PLAN

TRAFFIC CONTROL GENERAL

Except as provided herein, 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

Unless otherwise approved by the Engineer, no lane closures will be allowed during the following times:

Memorial Day Weekend	3 pm Friday, May 23, 2025 – 8 pm Monday, May 26, 2025
Independence Day	7 am Friday, July 4, 2025 – 8 pm Sunday, July 6, 2025
Labor Day Weekend	3 pm Friday, August 29, 2025 – 8 pm Monday, September 1, 2025

When Boone County Schools are in session, do NOT erect lane closures during the following days and/or hours:

Monday-Friday 6:00 AM – 9:00 AM, and 3:00 PM – 6:00 PM, daily

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

Maintain alternating one-way traffic during construction. Provide a minimum clear lane width of 8 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.

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 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 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.

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 construction.

PAVEMENT MARKINGS

If there is to be a deviation from the existing striping plan, the Engineer will furnish the Contractor a striping plan prior to placement of the final surface course.

Install Temporary Striping according to Section 112 with the following exception:

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

PAVEMENT EDGE DROP-OFFS

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

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

Traffic Control Plan
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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	

Traffic Control Plan
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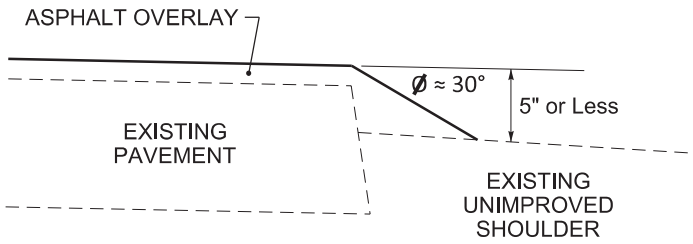
PEOPLE CROSSING
RAMP CLOSED
RAMP (SLIPPERY, ICE, ETC.)
RIGHT LANE CLOSED
RIGHT LANE NARROWS
RIGHT SHOULDER CLOSED
ROAD CLOSED
ROAD CLOSED XX MILES
ROAD (SLIPPERY, ICE, ETC.)
ROAD WORK
ROAD WORK (OR CONSTRUCTION) (TONIGHT, TODAY, TOMORROW, DATE)
ROAD WORK XX MILES
SHOULDER (SLIPPERY, ICE, SOFT, BLOCKED, 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

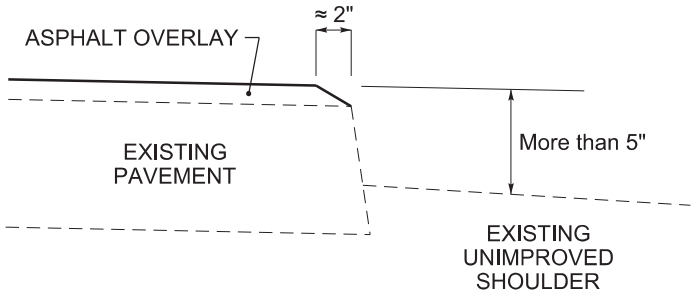
DURABLE PAVEMENT EDGE DETAIL

(Resurfacing adjacent to low shoulder with dropoff of 5 inches or less)



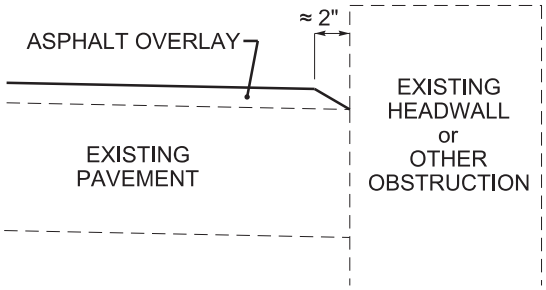
DURABLE PAVEMENT EDGE DETAIL

(Resurfacing adjacent to low shoulder with dropoff of more than 5 inches)



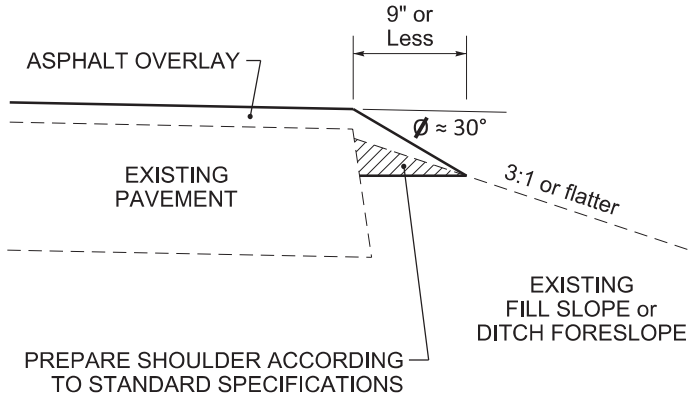
DURABLE PAVEMENT EDGE DETAIL

(Resurfacing adjacent to an obstruction, such as an existing headwall)



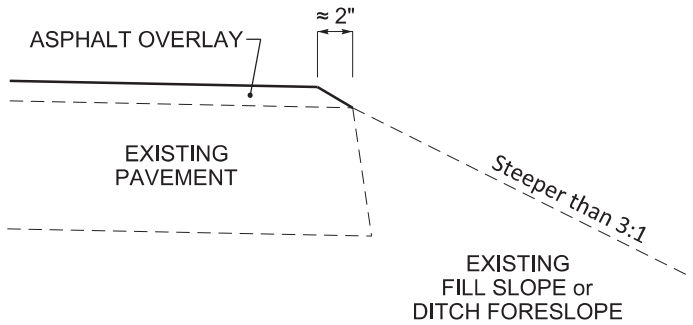
DURABLE PAVEMENT EDGE DETAIL

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



DURABLE PAVEMENT EDGE DETAIL

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

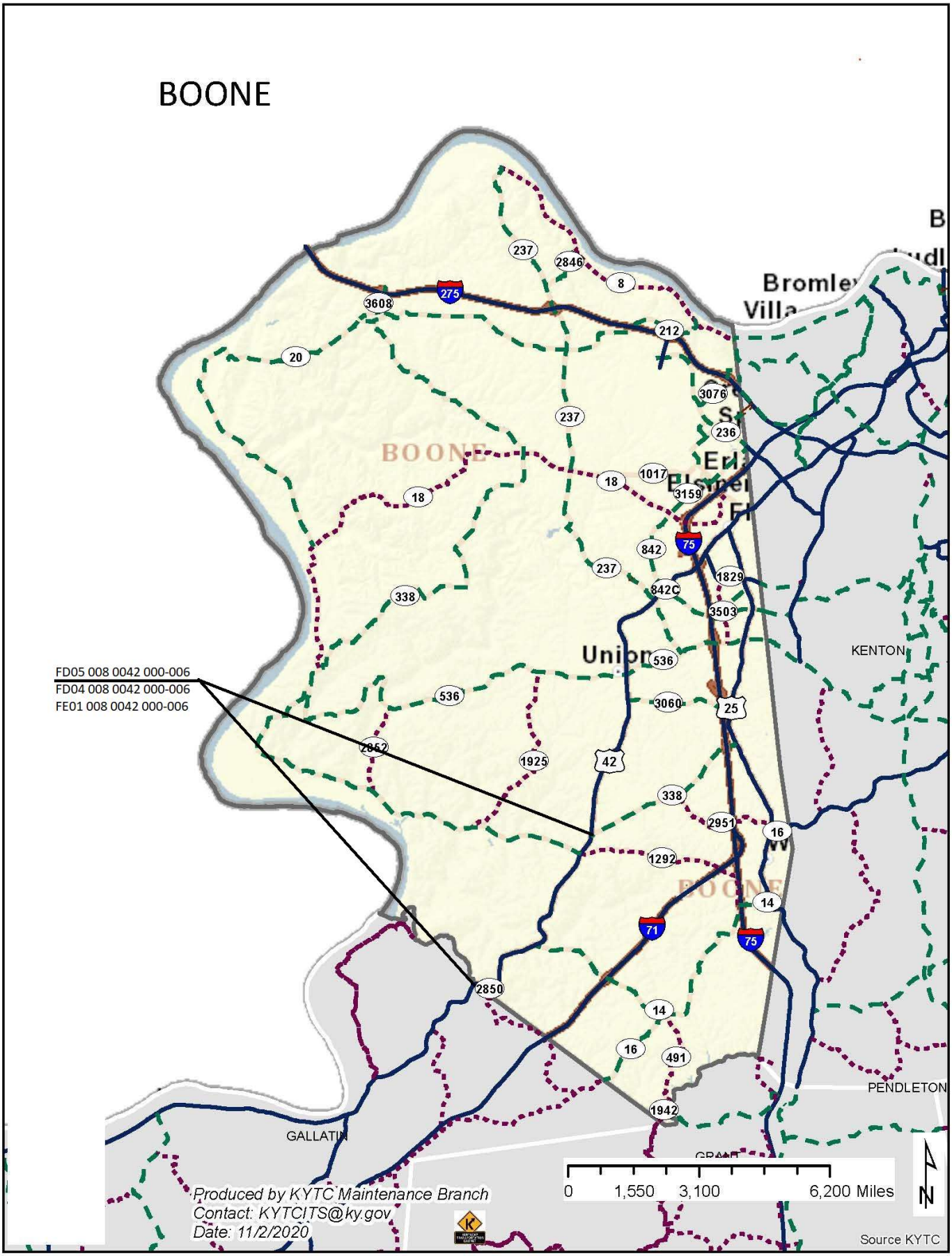


NOTES

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

DRAWING NOT TO SCALE

DURABLE PAVEMENT EDGE DETAILS


BOONE
FD05 008 0042 000-006
FD04 008 0042 000-006
FE01 008 0042 000-006
KENTON
PENDLETON
GALLATIN
BOONE
Produced by KYTC Maintenance Branch
Contact: KYTCITS@ky.gov
Date: 11/2/2020
0 1,550 3,100 6,200 Miles
N
Source KYTC

MATERIAL SUMMARY

CONTRACT ID: 252348 **008GR25P084 - FD05, FD04, & FE01** **MP00800422505**

WARSAW TO UNION ROAD (US 42) BEGIN AT THE GALLATIN/BOONE COUNTY LINE EXTENDING EAST TO KY 338 ASPHALT RESURFACING, A DISTANCE OF 5.67 MILES.

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0005	00190	LEVELING & WEDGING PG64-22	552.00	TON
0010	00356	ASPHALT MATERIAL FOR TACK	41.00	TON
0015	00388	CL3 ASPH SURF 0.38B PG64-22	5,800.00	TON
0020	02676	MOBILIZATION FOR MILL & TEXT - (FD05)	1.00	LS
0025	02677	ASPHALT PAVE MILLING & TEXTURING	70.00	TON
0030	02697	EDGELINE RUMBLE STRIPS	59,912.00	LF
0035	10020NS	FUEL ADJUSTMENT	9,514.00	DOLL
0040	10030NS	ASPHALT ADJUSTMENT	23,895.00	DOLL
0045	20458ES403	CENTERLINE RUMBLE STRIPS	28,456.00	LF
0050	02562	TEMPORARY SIGNS	270.00	SQFT
0055	02650	MAINTAIN & CONTROL TRAFFIC - (FD05)	1.00	LS
0060	02671	PORTABLE CHANGEABLE MESSAGE SIGN	3.00	EACH
0065	02775	ARROW PANEL	2.00	EACH
0070	06510	PAVE STRIPING-TEMP PAINT-4 IN	52,455.00	LF
0075	06515	PAVE STRIPING-PERM PAINT-6 IN	104,910.00	LF
0080	06540	PAVE STRIPING-THERMO-4 IN W	62.00	LF
0085	06541	PAVE STRIPING-THERMO-4 IN Y	37.00	LF
0090	06568	PAVE MARKING-THERMO STOP BAR-24IN	40.00	LF
0095	06574	PAVE MARKING-THERMO CURV ARROW	7.00	EACH
0100	02569	DEMOBILIZATION	1.00	LS

CONTRACT ID: 252348 **008GR25P084 - FD05, FD04, & FE01** **MP00800422506**

WARSAW TO UNION ROAD (US 42) BEGIN AT THE GALLATIN/BOONE COUNTY LINE EXTENDING EAST TO KY 338 SIGNS-LIGHTING-SIGNALS, A DISTANCE OF 5.67 MILES.

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0105	02562	TEMPORARY SIGNS	150.00	SQFT
0110	02650	MAINTAIN & CONTROL TRAFFIC - (FD04)	1.00	LS
0115	21659NN	RELOCATE SIGNAL HEAD	4.00	EACH
0120	02569	DEMOBILIZATION	1.00	LS

MATERIAL SUMMARY

CONTRACT ID: 252348 **008GR25P084 - FD05, FD04, & FE01** **MP00800422507**

WARSAW TO UNION ROAD (US 42) BEGIN AT THE GALLATIN/BOONE COUNTY LINE EXTENDING EAST TO KY 338 SIGNS-LIGHTING-SIGNALS, A DISTANCE OF 5.67 MILES.

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0125	02562	TEMPORARY SIGNS	200.00	SQFT
0130	02650	MAINTAIN & CONTROL TRAFFIC - (FE01)	1.00	LS
0135	03269	TRIM & REMOVE TREES & BRUSH	750.00	LF
0140	21415ND	EROSION CONTROL - (FE01)	1.00	LS
0145	06406	SBM ALUM SHEET SIGNS .080 IN	807.00	SQFT
0150	06407	SBM ALUM SHEET SIGNS .125 IN	93.00	SQFT
0155	06410	STEEL POST TYPE 1	1,547.00	LF
0160	21134ND	REMOVE-STORE AND REINSTALL SIGN	3.00	EACH
0165	21373ND	REMOVE SIGN	56.00	EACH
0170	24631EC	BARCODE SIGN INVENTORY	220.00	EACH
0175	02569	DEMOBILIZATION	1.00	LS

GENERAL SUMMARY

COUNTY OF	FUNDING NO.
BOONE	FD05 008 0042 000 006

	ITEM	DESCRIPTION	UNIT	TOTAL PROJECT
	190	LEVELING & WEDGING PG64-22	TON	552
	356	ASPHALT MATERIAL FOR TACK	TON	37
	388	CL3 ASPH SURF 0.38B PG64-22	TON	5,523
	2562	TEMPORARY SIGNS	SQFT	270.00
	2569	DEMOBILIZATION	LS	1
	2650	MAINTAIN & CONTROL TRAFFIC	LS	1
	2671	PORTABLE CHANGEABLE MESSAGE SIGN	EACH	3
	2676	MOBILIZATION FOR MILL & TEXT	LS	1
	2677	ASPHALT PAVE MILLING & TEXTURING	TON	70
	2697	EDGELINE RUMBLE STRIPS	LF	56,912
	2775	ARROW PANEL	EACH	2
	6510	PAVE STRIPING-TEMP PAINT-4 IN	LF	52,455
	6514	PAVE STRIPING-PERM PAINT-4 IN	LF	104,910
①	6540	PAVE STRIPING-THERMO-4 IN W	LF	62
①	6541	PAVE STRIPING-THERMO-4 IN Y	LF	37
①	6568	PAVE STRIPING-THERMO STOP BAR-24IN	LF	40
①	6574	PAVE MARKING-THERMO CURV ARROW	EACH	7
	10020NS	FUEL ADJUSTMENT	DOLL	9,514
	10030NS	ASPHALT ADJUSTMENT	DOLL	23,895
	20458ES403	CENTERLINE RUMBLE STRIPS	LF	28,456
	26228EC	ELECTRONIC DELIVERY MGMT SYSTEM	LS	1

① REFER TO THE US 42 & KY 338/KY 1292 INTERSECTION STRIPING DETAIL SHEET AND THERMOPLASTIC MARKING SUMMARY FOR LOCATION INFORMATION.

Milling Summary
FD05 008 0042 000-006

				Total	70

Milepoint	Comment	Length	Width	Avg Depth	Tons
0.000	Beginning Edge Key	125	23	0.625	11
0.360	Bridge Key (B00067N)	125	23	0.625	11
0.380	Bridge Key (B00067N)	125	23	0.625	11
2.240	Bridge Key (B00064N)	125	23	0.625	11
2.280	Bridge Key (B00064N)	125	25	0.625	12
5.673	Ending Edge Key	125	21	0.625	10
					0

Surfacing Summary
FD05 008 0042 000-006

Begin MP	End MP	Length (LF)	Avg Width (FT)	Area (SQYD)	Avg Depth (IN)	Quantity (TON)
0.000	0.360	1,901	23	4,858	1.25	334
0.380	2.240	9,821	23	25,098	1.25	1,725
2.280	3.109	4,377	25	12,159	1.25	836
3.109	5.125	10,644	23	27,203	1.25	1,870
5.125	5.230	554	28	1,725	1.25	119
5.230	5.673	2,339	21	5,458	1.25	375
					Sub-Total	**5,260**
					Additional Surfacing at Sideroads (Estimated at 5%)	**263**
					Total	**5,523**

Notes:
1) Leveling & Wedging estimated at 10% of the Asphalt Surface quantity. The Engineer will determine the actual locations and lift thickness at the time of construction.
2) The quantity of Asphalt Material for Tack was estimated based on 115% of the surfacing area to account for use in leveling & wedging and final surfacing.

BOONE COUNTY
THERMOPLASTIC INTERSECTION PAVEMENT MARKINGS SUMMARY
FD05 008 0042 000-006

MP	INTERSECTION	X-WALKS	STOP BARS	ARROWS			LANE SKIP STRIPING		NOTES
		6 INCH LF	24 INCH LF	CURVE EA	STR EA	COMB EA	4 IN - W LF	4 IN - Y LF	
5.116 - 5.132	US 42 @ KY 338 / KY 1292						29		SB US 42 - SINGLE SKIP (2:4)
5.119 - 5.136	US 42 @ KY 338 / KY 1292						33		NB US 42 - SINGLE SKIP (2:4)
4.919 (KY 338)	KY 338 (BEAVER RD) @ US 42		20						
5.121 - 5.132	US 42 @ KY 338 / KY 1292							37	CL US 42 - DOUBLE SKIP (2:4)
0.004 (KY 1292)	KY 1292 @ US 42		20						
5.137	US 42 @ KY 338 / KY 1292			1					RIGHT TURN
5.153	US 42 @ KY 338 / KY 1292			1					RIGHT TURN
5.169	US 42 @ KY 338 / KY 1292			1					RIGHT TURN
5.185	US 42 @ KY 338 / KY 1292			1					RIGHT TURN
5.200	US 42 @ KY 338 / KY 1292			1					RIGHT TURN
5.655	US 42 @ KY 338 (RICHWOOD RD)			1					RIGHT TURN
5.667	US 42 @ KY 338 (RICHWOOD RD)			1					RIGHT TURN
TOTAL		0	40	7	0	0	62	37	

GENERAL SUMMARY

COUNTY OF	FUNDING NO.
BOONE	FD04

	ITEM	DESCRIPTION	UNIT	TOTAL PROJECT
①	21659NN	RELOCATE SIGNAL HEAD	EACH	4

① FOR ADJUSTMENT OF THE OVERHEAD FLASHING BEACONS FACING THE US 42 APPROACHES TO THE INTERSECTION WITH KY 338/KY 1292. THESE BEACONS ARE TO BE ADJUSTED TO REFLECT A FAR-SIDE ARRANGEMENT AS OPPOSED TO THE EXISTING NEAR-SIDE ARRANGEMENT. IT MAY BE POSSIBLE TO ROTATE THE EXISTING BEACONS (AS WELL AS POTENTIALLY RELOCATING LATERALLY) INSTEAD OF A FULL RELOCATION OF THE BEACONS FROM ONE SPAN TO THE OTHER. ACCEPTANCE OF RELOCATION TO BE DETERMINED BY ENGINEER.

GENERAL SUMMARY

COUNTY OF	FUNDING NO.
BOONE	FE01 008 0042 000-006

ITEM	DESCRIPTION	UNIT	TOTAL PROJECT
3269	TRIM & REMOVE TREES & BRUSH	LF	750
6406	SBM ALUM SHEET SIGNS .080 IN	SQFT	807
6407	SBM ALUM SHEET SIGNS .125 IN	SQFT	93
6410	STEEL POST TYPE 1	LF	1,547
21134ND	REMOVE-STORE AND REINSTALL SIGN	EACH	3
21415ND	EROSION CONTROL	LS	1
21373ND	REMOVE SIGN	EACH	56
24631EC	BARCODE SIGN INVENTORY	EACH	220

Remove Sign Summary

FEO1 008 0042 000-006

Approx. Location			Sign Details	
Station	Milepoint	LT / RT		
19+65	0.37	RT	route sign assemblies	
20+60	0.39	LT	route sign assemblies	
20+65	0.39	LT	route sign assemblies	
20+85	0.39	LT	route sign assemblies	
22+80	0.43	RT	route sign assemblies	
24+50	0.46	RT	Curve sign	
27+08	0.51	RT	Curve sign - laying in the ditch	
28+20	0.53	RT	Arrow	
28+60	0.54	RT	Chevron	
29+80	0.56	RT	Chevron	
31+00	0.59	RT	Chevron	
32+20	0.61	RT	Chevron	
34+60	0.66	RT	Chevron	
35+80	0.68	RT	Chevron	
37+00	0.70	RT	Chevron	
38+20	0.72	RT	Chevron	
40+80	0.77	RT	Arrow	
41+30	0.78	RT	Chevron	1
41+80	0.79	RT	Chevron - laying in the ditch	1
42+80	0.81	RT	Chevron	
42+80	0.81	LT	Curve sign	
44+50	0.84	LT	Curve sign	
46+25	0.88	LT	Chevron	
47+30	0.90	LT	Chevron	
48+50	0.92	LT	Chevron	
50+10	0.95	LT	Curve sign	
56+35	1.07	RT	No passing sign	
62+40	1.18	RT	Curve sign	
62+40	1.18	LT	Chevron	
74+95	1.42	LT	Curve sign	2
81+90	1.55	RT	No passing sign	
82+25	1.56	LT	No passing sign	
88+65	1.68	RT	Congestion Ahead sign	

Approx. Location			Sign Details	
Station	Milepoint	LT / RT		
109+65	2.08	LT	route sign assemblies	
110+20	2.09	RT	No passing sign	
118+85	2.25	LT	Empty sign post	
118+95	2.25	RT	Stop sign on side road	
KY 14		RT	Stop ahead sign, roughly 850' before US 42 intersection on KY 14	
123+00	2.33	RT	Curve sign and plaque	
123+35	2.34	RT	route sign assemblies	
123+35	2.34	RT	route sign assemblies	
127+30	2.41	RT	Remove curve sign only	
142+50	2.70	LT	Empty sign post	
191+75	3.63	LT	Curve sign and plaque	
196+65	3.72	LT	No passing sign	
200+15	3.79	RT	No passing sign	
206+85	3.92	LT	T-intersection sign - leave sign post for new sign	
214+55	4.06	RT	No passing sign	
231+60	4.39	RT	Bus Stop Ahead - leave sign post for new sign	
235+40	4.46	LT	No passing sign	
250+15	4.74	RT	Curve sign	
262+00	4.96	RT	route sign assemblies	1
271+70	5.15	RT	route sign assemblies	
278+45	5.27	RT	No passing sign and route signs	
295+00	5.59	RT	KY338 route assembly - leave other route assemblies	
295+80	5.60	LT	KY338 route assembly - leave other route assemblies	
298+95	5.66	RT	route assemblies	
301+30	5.71	LT	KY338 route assembly - keep sign posts and signs to be installed on new sign post	
301+40	5.71	LT	remove white left arrow under KY338 route sign	

Note: Reinstall all signs denoted as "Remove, Store, and Reinstall" as close as possible to their original location while not impacting the visibility of neighboring signs. Engineer to approve location prior to installation.

1: Remove, Store, and Reinstall

2: Keep post, just remove indicated sign

Sign Summary — Boone County — US 42 — FE01 008 0042 000-006

SIGN LOCATION						MUTCD Code	Sign Description	Sign Text / Remarks	Sign Dimensions (in x in)			SHEETING			SBM Alum Sheet Signs 0.080 IN (SQ FT)	SBM Alum Sheet Signs 0.125 IN (SQ FT)	Installation Type	Bracing Req'd	# of Sign Posts	Estimated Length of 2" Post (ft)	Estimated Length of 2-1/2" Post (ft)	2-1/4" Stiffener Req'd (incdntl to post)	TOTAL Estimated Sign Post Length (LF)	Barcode Sign Inv. (EACH)
Assembly ID	Side of Road	Approx Offset (ft)	Approx Station	Approx. Mile Point	Facing Traffic Traveling							Text/ Symbol Color	Background Color	Sheeting Type										
1	LT	15	Gallatin County	16.910	C	W1-2R	Right Curve		30	x	30	Black	FL Yellow	IX	6.25		Stnd w/ Soil Plate		1	15			15	1
					C	W13-1P	Advisory Speed (plaque)	40 MPH	18	x	18	Black	FL Yellow	IX	2.25									1
2	LT	15	Gallatin County	16.956	NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
3	LT	15	0+45	0.009	NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
4	RT	15	16+25	0.308	C	M2-1P	Junction (plaque)		21	x	15	Black	White	III or IV	2.19		Stnd w/ Soil Plate		1	15			15	1
					C	M1-5a	State Route Sign (3 or 4 digit)	2850	30	x	24	Black	White	III or IV	5.00									1
5	LT	15	16+40	0.311	NC	M3-4P	West		24	x	12	Black	White	III or IV	2.00		Stnd w/ Soil Plate		1	14			14	1
					NC	M1-4	US Route Sign (1 or 2 digit)	42	24	x	24	Black	White	III or IV	4.00									1
6	LT	20	16+40	0.311	NC	M3-3P	South		24	x	12	Black	White	III or IV	2.00		Stnd w/ Soil Plate		1	14			14	1
					NC	M1-4a	US Route Sign (3 digit)	127	30	x	24	Black	White	III or IV	5.00									1
7	RT	15	20+00	0.379	C	M1-4	US Route Sign (1 or 2 digit)	42	24	x	24	Black	White	III or IV	4.00		Stnd w/ Soil Plate		1	17			17	1
					C	M1-4a	US Route Sign (3 digit)	127	30	x	24	Black	White	III or IV	5.00									1
					C	M6-3P	Straight Arrow		21	x	15	Black	White	III or IV	2.19									1
8	RT	20	20+00	0.379	C	M1-5a	State Route Sign (3 or 4 digit)	2850	30	x	24	Black	White	III or IV	5.00		Stnd w/ Soil Plate		1	15			15	1
					C	M6-1PR	Right Arrow		21	x	15	Black	White	III or IV	2.19									1
9	LT	15	20+60	0.390	NB	M1-4	US Route Sign (1 or 2 digit)	42 - install on exiting sign post facing side road	24	x	24	Black	White	III or IV	4.00		Stnd w/ Soil Plate		1	15			15	1
					NB	M6-4P	Horizontal Double Arrow	install on existing sign post facing side road	21	x	15	Black	White	III or IV	2.19									1
10	LT	15	20+65	0.391	NB	M1-4a	US Route Sign (3 digit)	127 - install on exiting sign post facing side road	30	x	24	Black	White	III or IV	5.00				0	15			0	1
					NB	M6-4P	Horizontal Double Arrow	install on existing sign post facing side road	21	x	15	Black	White	III or IV	2.19									1
11	LT	15	20+85	0.395	NC	M1-5a	State Route Sign (3 or 4 digit)	2850	30	x	24	Black	White	III or IV	5.00		Stnd w/ Soil Plate		1	15			15	1
					NC	M6-1PL	Left Arrow		21	x	15	Black	White	III or IV	2.19									1
12	LT	20	20+85	0.395	NC	M1-4	US Route Sign (1 or 2 digit)	42	24	x	24	Black	White	III or IV	4.00		Stnd w/ Soil Plate		1	17			17	1
					NC	M1-4a	US Route Sign (3 digit)	127	30	x	24	Black	White	III or IV	5.00									1
					NC	M6-3P	Straight Arrow		21	x	15	Black	White	III or IV	2.19									1
13	RT	15	22+85	0.433	C	M3-2P	East		24	x	12	Black	White	III or IV	2.00		Stnd w/ Soil Plate		1	14			14	1
					C	M1-4	US Route Sign (1 or 2 digit)	42	24	x	24	Black	White	III or IV	4.00									1
14	RT	20	22+85	0.433	C	M3-1P	North		24	x	12	Black	White	III or IV	2.00		Stnd w/ Soil Plate		1	14			14	1
					C	M1-4a	US Route Sign (3 digit)	127	30	x	24	Black	White	III or IV	5.00									1
15	LT	15	24+85	0.471	NC	M2-1P	Junction (plaque)		21	x	15	Black	White	III or IV	2.19		Stnd w/ Soil Plate		1	15			15	1
					NC	M1-5a	State Route Sign (3 or 4 digit)	2850	30	x	24	Black	White	III or IV	5.00									1
16	RT	15	25+83	0.489	C	W1-2L	Left Curve		30	x	30	Black	FL Yellow	IX	6.25		Stnd w/ Soil Plate		1	15			15	1
					C	W13-1P	Advisory Speed (plaque)	45 MPH	18	x	18	Black	FL Yellow	IX	2.25									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
17	RT	15	27+08	0.513	NC	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
18	RT	15	28+28	0.536	C	W1-6L	Left One-Direction Lrg Arrow		48	x	24	Black	FL Yellow	IX		8.00	Stnd w/ Soil Plate		2	15			30	1
					C	W13-1aP	Advisory Speed Conformation (plaque)	45 MPH	48	x	15	Black	FL Yellow	IX		5.00								1
					NC	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
19	RT	15	29+48	0.558	C	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
20	RT	15	30+68	0.581	C	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
21	RT	15	31+88	0.604	C	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
22	RT	15	33+08	0.627	C	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
23	RT	15	34+28	0.649	C	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									

Sign Summary — Boone County — US 42 — FE01 008 0042 000-006

SIGN LOCATION											SHEETING					Installation Type	Bracing Req'd	# of Sign Posts	Estimated Length of 2" Post (ft)	Estimated Length of 2-1/2" Post (ft)	2-1/4" Stiffener Req'd (incdntl to post)	TOTAL Estimated Sign Post Length (LF)	Barcode Sign Inv. (EACH)
Assembly ID	Side of Road	Approx Offset (ft)	Approx Station	Approx. Mile Point	Facing Traffic Traveling	MUTCD Code	Sign Description	Sign Text / Remarks	Sign Dimensions (in x in)			Text/ Symbol Color	Background Color	Sheeting Type	SBM Alum Sheet Signs 0.080 IN (SQ FT)	SBM Alum Sheet Signs 0.125 IN (SQ FT)							
24	RT	15	35+48	0.672	C	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
25	RT	15	36+68	0.695	C	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
26	RT	15	37+88	0.717	C	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
27	RT	15	39+08	0.740	C	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
28	RT	15	40+28	0.763	C	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
29	RT	15	41+48	0.786	NC	W1-6R	Right One-Direction Lrg Arrow		48	x	24	Black	FL Yellow	IX		8.00	Stnd w/ Soil Plate		2	15			30	1
					NC	W13-1aP	Advisory Speed Conformation (plaque)	45 MPH	48	x	15	Black	FL Yellow	IX		5.00								1
					C	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
30	RT	15	42+68	0.808	NC	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
31	LT	15	43+93	0.832	NC	W1-2R	Right Curve		30	x	30	Black	FL Yellow	IX	6.25		Stnd w/ Soil Plate		1	15			15	1
					NC	W13-1P	Advisory Speed (plaque)	45 MPH	18	x	18	Black	FL Yellow	IX	2.25									1
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
32	RT	15	43+90	0.831	C	W1-2R	Right Curve		30	x	30	Black	FL Yellow	IX	6.25		Stnd w/ Soil Plate		1	15			15	1
					C	W13-1P	Advisory Speed (plaque)	45 MPH	18	x	18	Black	FL Yellow	IX	2.25									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
33	RT	15	45+10	0.854	C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
34	RT	15	46+30	0.877	C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
35	RT	15	47+50	0.900	C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
36	RT	15	48+70	0.922	C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
37	LT	15	49+95	0.946	NC	W1-2L	Left Curve		30	x	30	Black	FL Yellow	IX	6.25		Stnd w/ Soil Plate		1	15			15	1
					NC	W13-1P	Advisory Speed (plaque)	45 MPH	18	x	18	Black	FL Yellow	IX	2.25									1
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
38	RT	15	55+25	1.046	NC	W14-3	No Passing Zone		48	x	48 x 36	Black	Yellow	III or IV		5.56	Stnd w/ Soil Plate		1	14			14	1
39	LT	15	56+85	1.077	C	W14-3	No Passing Zone		48	x	48 x 36	Black	Yellow	III or IV		5.56	Stnd w/ Soil Plate		1	14			14	1
40	RT	15	62+65	1.187	C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
41	RT	15	63+85	1.209	C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
42	RT	15	65+05	1.232	C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									

Sign Summary — Boone County — US 42 — FE01 008 0042 000-006

SIGN LOCATION									Sign Dimensions (in x in)			SHEETING			SBM Alum Sheet Signs 0.080 IN (SQ FT)	SBM Alum Sheet Signs 0.125 IN (SQ FT)			# of Sign Posts	Estimated Length of 2" Post (ft)	Estimated Length of 2-1/2" Post (ft)	2-1/4" Stiffener Req'd (incdntl to post)	TOTAL Estimated Sign Post Length (LF)	Barcode Sign Inv. (EACH)
Assembly ID	Side of Road	Approx Offset (ft)	Approx Station	Approx. Mile Point	Facing Traffic Traveling	MUTCD Code	Sign Description	Sign Text / Remarks				Text/ Symbol Color	Background Color	Sheeting Type			Installation Type	Bracing Req'd						
43	RT	15	74+95	1.420	NC	W1-8L	Left Chevron	Install on existing sign in place of existing curve sign w/ advisory speed	18	x	24	Black	FL Yellow	IX	3.00				0	13			0	1
44	RT	15	82+00	1.553	NC	W14-3	No Passing Zone		48 x	48	x 36	Black	Yellow	III or IV		5.56	Stnd w/ Soil Plate		1	14			14	1
45	LT	15	83+35	1.579	C	W14-3	No Passing Zone		48 x	48	x 36	Black	Yellow	III or IV		5.56	Stnd w/ Soil Plate		1	14			14	1
46	RT	15	88+20	1.670	C	W1-4R	Right Reverse Curve		30	x	30	Black	FL Yellow	IX	6.25		Stnd w/ Soil Plate		1	15			15	1
					C	W13-1P	Advisory Speed (plaque)	45 MPH	18	x	18	Black	FL Yellow	IX	2.25									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
47	RT	15	90+20	1.708	C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
48	RT	15	91+40	1.731	C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
49	RT	15	92+60	1.754	C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
50	RT	15	93+80	1.777	C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
51	RT	15	96+20	1.822	C	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
52	RT	15	97+40	1.845	C	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
53	RT	15	98+60	1.867	C	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
54	RT	15	99+80	1.890	C	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
55	RT	15	101+00	1.913	C	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
56	LT	15	103+00	1.951	NC	Reflective Sheeting for Posts - installed on existing sign post			2	x	60		Yellow	IX	0.83				0	16			0	
57	RT	15	113+60	2.152	C	M2-1P	Junction (plaque)		21	x	15	Black	White	III or IV	2.19		Stnd w/ Soil Plate		1	15			15	1
					C	M1-5	State Route Sign (1 or 2 digit)	14	24	x	24	Black	White	III or IV	4.00									
58	LT	15	117+55	2.226	NC	M3-4P	West		24	x	12	Black	White	III or IV	2.00		Stnd w/ Soil Plate		1	14			14	1
					NC	M1-4	US Route Sign (1 or 2 digit)	42	24	x	24	Black	White	III or IV	4.00									
59	LT	20	117+55	2.226	NC	M3-3P	South		24	x	12	Black	White	III or IV	2.00		Stnd w/ Soil Plate		1	14			14	1
					NC	M1-4a	US Route Sign (3 digit)	127	30	x	24	Black	White	III or IV	5.00									
60	LT	15	118+00	2.235	WB	W1-7	Two-Direction Large Arrow	install so face is perpendicular to oncomming traffic on KY 14	60	x	30	Black	Yellow	III or IV		12.50	Stnd w/ Soil Plate		2	14			28	1
					WB	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					WB	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
61	LT	20	118+85	2.251	NC	M4-5P	To	between 2 existing signs	24	x	12	Black	White	III or IV	2.00		Stnd w/ Soil Plate		1	16			16	1
					NC	M1-1	Interstate Route Sign (2-digit)	71	24	x	24	White	Blue & Red	III or IV	4.00									1
					NC	M6-1PL	Left Arrow		21	x	15	Black	White	III or IV	2.19									1
62	RT	45	118+95	2.253	WB	R1-1	Stop	with flashing LEDs around the perimeter	48	x	48	White	Red	IX		16.00	Stnd w/ Soil Plate		2	15			30	1
					WB	Reflective Sheeting for Posts			2	x	60		Red	IX	0.83									
					WB	Reflective Sheeting for Posts			2	x	60		Red	IX	0.83									

Sign Summary — Boone County — US 42 — FE01 008 0042 000-006

SIGN LOCATION												SHEETING										
Assembly ID	Side of Road	Approx Offset (ft)	Approx Station	Approx. Mile Point	Facing Traffic Traveling	MUTCD Code	Sign Description	Sign Text / Remarks	Sign Dimensions (in x in)			Text/ Symbol Color	Background Color	Sheeting Type	SBM Alum Sheet Signs 0.080 IN (SQ FT)	SBM Alum Sheet Signs 0.125 IN (SQ FT)	Installation Type	Bracing Req'd	# of Sign Posts	Estimated Length of 2" Post (ft)	Estimated Length of 2-1/2" Post (ft)	2-1/4" Stiffener Req'd (incdntl to post)	TOTAL Estimated Sign Post Length (LF)	Barcode Sign Inv. (EACH)
63	RT	540	118+95	2.253	WB	W3-1	Stop Ahead	installed on KY 14, 495' prior to the intersection with US 42.	48	x	48	Red & Black	Yellow	III or IV		16.00	Stnd w/ Soil Plate		2	15			30	1
					WB	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					WB	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
64	RT	15	119+40	2.261	C	M3-2P	East		24	x	12	Black	White	III or IV	2.00		Stnd w/ Soil Plate		1	14			14	1
					C	M1-4	US Route Sign (1 or 2 digit)	42	24	x	24	Black	White	III or IV	4.00									1
65	RT	20	119+40	2.261	C	M3-1P	North		24	x	12	Black	White	III or IV	2.00		Stnd w/ Soil Plate		1	14			14	1
					C	M1-4a	US Route Sign (3 digit)	127	30	x	24	Black	White	III or IV	5.00									1
66	LT	15	122+85	2.327	NC	M2-1P	Junction (plaque)		21	x	15	Black	White	III or IV	2.19		Stnd w/ Soil Plate		1	15			15	1
					NC	M1-5	State Route Sign (1 or 2 digit)	14	24	x	24	Black	White	III or IV	4.00									1
67	RT	15	126+30	2.392	C	W1-2L	Left Curve		30	x	30	Black	FL Yellow	IX	6.25		Stnd w/ Soil Plate		1	15			15	1
					C	W13-1P	Advisory Speed (plaque)	50 MPH	18	x	18	Black	FL Yellow	IX	2.25									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
68	RT	15	127+30	2.411	C	W1-8L	Left Chevron	install on existing sign post	18	x	24	Black	FL Yellow	IX	3.00				0	13			0	1
69	RT	15	138+50	2.623	C	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
70	LT	15	143+50	2.718	NC	W1-2R	Right Curve		30	x	30	Black	FL Yellow	IX	6.25		Stnd w/ Soil Plate		1	15			15	1
					NC	W13-1P	Advisory Speed (plaque)	50 MPH - verify advisory speed in the field before installation	18	x	18	Black	FL Yellow	IX	2.25									1
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
71	RT	15	146+40	2.773	C	Reflective Sheeting for Posts - installed on existing sign post			2	x	60		Yellow	IX	0.83				0	16			0	1
72	RT	15	148+35	2.810	C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
73	RT	15	149+55	2.832	C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
74	RT	15	150+75	2.855	C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
75	RT	15	151+95	2.878	C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
76	RT	15	153+15	2.901	C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
77	RT	15	154+35	2.923	C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
78	RT	15	155+55	2.946	C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
79	RT	15	157+45	2.982	C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
80	RT	15	158+65	3.005	C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
81	RT	15	159+85	3.027	C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									
					NC	Reflective Sheeting for Posts			2	x	60		Yellow	IX	0.83									

Sign Summary **Boone County** **US 42** **FE01 008 0042 000-006**

Assembly ID	Side of Road	Approx Offset (ft)	Approx Station	Approx. Mile Point	Facing Traffic Traveling	MUTCD Code	Sign Description	Sign Text / Remarks	Sign Dimensions (in x in)			Text/ Symbol Color	Background Color	Sheeting Type	SBM Alum Sheet Signs 0.080 IN (SQ FT)	SBM Alum Sheet Signs 0.125 IN (SQ FT)	Installation Type	Bracing Req'd	# of Sign Posts	Estimated Length of 2" Post (ft)	Estimated Length of 2-1/2" Post (ft)	2-1/4" Stiffener Req'd (incdntl to post)	TOTAL Estimated Sign Post Length (LF)	Barcode Sign Inv. (EACH)
SIGN LOCATION												SHEETING												
82	RT	15	161+05	3.050	C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C		Reflective Sheeting for Posts		2	x	60		Yellow	IX	0.83									
					NC		Reflective Sheeting for Posts		2	x	60		Yellow	IX	0.83									
83	RT	15	162+25	3.073	C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C		Reflective Sheeting for Posts		2	x	60		Yellow	IX	0.83									
					NC		Reflective Sheeting for Posts		2	x	60		Yellow	IX	0.83									
84	RT	15	163+45	3.096	C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C		Reflective Sheeting for Posts		2	x	60		Yellow	IX	0.83									
					NC		Reflective Sheeting for Posts		2	x	60		Yellow	IX	0.83									
85	RT	15	164+65	3.118	C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C		Reflective Sheeting for Posts		2	x	60		Yellow	IX	0.83									
					NC		Reflective Sheeting for Posts		2	x	60		Yellow	IX	0.83									
86	RT	15	165+85	3.141	C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C		Reflective Sheeting for Posts		2	x	60		Yellow	IX	0.83									
					NC		Reflective Sheeting for Posts		2	x	60		Yellow	IX	0.83									
87	RT	15	167+05	3.164	C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C		Reflective Sheeting for Posts		2	x	60		Yellow	IX	0.83									
					NC		Reflective Sheeting for Posts		2	x	60		Yellow	IX	0.83									
88	RT	15	168+25	3.187	C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C		Reflective Sheeting for Posts		2	x	60		Yellow	IX	0.83									
					NC		Reflective Sheeting for Posts		2	x	60		Yellow	IX	0.83									
89	RT	15	169+45	3.209	C	W1-8R	Right Chevron		18	x	24	Black	FL Yellow	IX	3.00		Stnd w/ Soil Plate		1	13			13	1
					NC	W1-8L	Left Chevron		18	x	24	Black	FL Yellow	IX	3.00									1
					C		Reflective Sheeting for Posts		2	x	60		Yellow	IX	0.83									
					NC		Reflective Sheeting for Posts		2	x	60		Yellow	IX	0.83									
90	RT	15	171+50	3.248	NC		Reflective Sheeting for Posts - installed on existing sign post - verify advisory speed of 35 mph		2	x	60		Yellow	IX	0.83				0	16			0	
91	RT	15	172+95	3.276	C	W1-2L	Left Curve		30	x	30	Black	FL Yellow	IX	6.25		Stnd w/ Soil Plate		1	15			15	1
					C	W13-1P	Advisory Speed (plaque)	45 MPH	18	x	18	Black	FL Yellow	IX	2.25									1
					C		Reflective Sheeting for Posts		2	x	60		Yellow	IX	0.83									
92	RT	15	173+75	3.291	NC		Reflective Sheeting for Posts - installed on existing sign post		2	x	60		Yellow	IX	0.83				0	16			0	
93	RT	15	174+95	3.313	C		Reflective Sheeting for Posts - installed on existing sign post		2	x	60		Yellow	IX	0.83				0	16			0	
					C		Reflective Sheeting for Posts - installed on existing sign post		2	x	60		Yellow	IX	0.83									
					NC		Reflective Sheeting for Posts - installed on existing sign post		2	x	60		Yellow	IX	0.83									
94	RT	15	176+20	3.337	C		Reflective Sheeting for Posts - installed on existing sign post		2	x	60		Yellow	IX	0.83				0	16			0	
					NC		Reflective Sheeting for Posts - installed on existing sign post		2	x	60		Yellow	IX	0.83									
95	RT	15	177+30	3.358	C		Reflective Sheeting for Posts - installed on existing sign post		2	x	60		Yellow	IX	0.83				0	16			0	
					NC		Reflective Sheeting for Posts - installed on existing sign post		2	x	60		Yellow	IX	0.83									
96	RT	15	177+80	3.367	C		Reflective Sheeting for Posts - installed on existing sign post		2	x	60		Yellow	IX	0.83				0	16			0	
					NC		Reflective Sheeting for Posts - installed on existing sign post		2	x	60		Yellow	IX	0.83									
					NC		Reflective Sheeting for Posts - installed on existing sign post		2	x	60		Yellow	IX	0.83									
97	RT	15	178+30	3.377	C		Reflective Sheeting for Posts - installed on existing sign post		2	x	60		Yellow	IX	0.83				0	16			0	
					NC		Reflective Sheeting for Posts - installed on existing sign post		2	x	60		Yellow	IX	0.83									
98	LT	15	181+65	3.440	NC		Reflective Sheeting for Posts - installed on existing sign post - verify advisory speed of 35 mph		2	x	60		Yellow	IX	0.83				0	16			0	
99	LT	15	189+70	3.593	NC	W1-5L	Left Winding Road		30	x	30	Black	FL Yellow	IX	6.25		Stnd w/ Soil Plate		1	15			15	1
					NC	W13-1P	Advisory Speed (plaque)	35 MPH - verify advisory speed in the field before installation	18	x	18	Black	FL Yellow	IX	2.25									1
					NC		Reflective Sheeting for Posts		2	x	60		Yellow	IX	0.83									
100	LT	15	206+85	3.918	NC	W2-2R	Side Road Right	replace old sign on existing sign post	30	x	30	Black	Yellow	III or IV	6.25				0	14			0	1
101	RT	15	231+60	4.386	C	S3-1	School Bus Stop Ahead	replace old sign on existing sign post	36	x	36	Black	FL Yellow-Green	IX	9.00				0	14			0	1
102	RT	15	231+60	4.386	C	W2-2R	Side Road Right	install on existing sign post	30	x	30	Black	Yellow	III or IV	6.25				0	14			0	1
103	RT	15	252+30	4.778	C	W1-2L	Left Curve		30	x	30	Black	FL Yellow	IX	6.25		Stnd w/ Soil Plate		1	14			14	1
104	LT	15	256+30	4.854	NC	W1-2R	Right Curve		30	x	30	Black	FL Yellow	IX	6.25		Stnd w/ Soil Plate		1	14			14	1
105	RT	15	268+00	5.076	NC	M2-1P	Junction (plaque)		21	x	15	Black	White	III or IV	2.19		Stnd w/ Soil Plate		1	16			16	1
					NC	M1-5a	State Route Sign (3 or 4 digit)	338	30	x	24	Black	White	III or IV	5.00									1
					NC	M5-1PL	Advance Left Turn Arrow		21	x	15	Black	White	III or IV	2.19									1

Sign Summary — Boone County — US 42 — FE01 008 0042 000-006

SIGN LOCATION						MUTCD Code	Sign Description	Sign Text / Remarks	Sign Dimensions (in x in)			SHEETING			SBM Alum Sheet Signs 0.080 IN (SQ FT)	SBM Alum Sheet Signs 0.125 IN (SQ FT)	Installation Type	Bracing Req'd	# of Sign Posts	Estimated Length of 2" Post (ft)	Estimated Length of 2-1/2" Post (ft)	2-1/4" Stiffener Req'd (incdntl to post)	TOTAL Estimated Sign Post Length (LF)	Barcode Sign Inv. (EACH)
Assembly ID	Side of Road	Approx Offset (ft)	Approx Station	Approx. Mile Point	Facing Traffic Traveling							Text/ Symbol Color	Background Color	Sheeting Type										
106	RT	20	268+00	5.076	NC	M2-1P	Junction (plaque)		21	x	15	Black	White	III or IV	2.19		Stnd w/ Soil Plate		1	16			16	1
					NC	M1-5a	State Route Sign (3 or 4 digit)	1292	30	x	24	Black	White	III or IV	5.00									1
					NC	M5-1PR	Advance Right Turn Arrow		21	x	15	Black	White	III or IV	2.19									1
107	LT	15	270+00	5.114	NC	M3-4P	West		24	x	12	Black	White	III or IV	2.00		Stnd w/ Soil Plate		1	14			14	1
					NC	M1-4	US Route Sign (1 or 2 digit)	42	24	x	24	Black	White	III or IV	4.00									1
108	LT	20	270+00	5.114	NC	M3-3P	South		24	x	12	Black	White	III or IV	2.00		Stnd w/ Soil Plate		1	14			14	1
					NC	M1-4a	US Route Sign (3 digit)	127	30	x	24	Black	White	III or IV	5.00									1
109	RT	15	271+70	5.146	C	M1-5a	State Route Sign (3 or 4 digit)	338	30	x	24	Black	White	III or IV	5.00		Stnd w/ Soil Plate		1	15			15	1
					C	M6-1PL	Left Arrow		21	x	15	Black	White	III or IV	2.19									1
110	RT	20	271+70	5.146	C	M1-4	US Route Sign (1 or 2 digit)	42	24	x	24	Black	White	III or IV	4.00		Stnd w/ Soil Plate		1	17			17	1
					C	M1-4a	US Route Sign (3 digit)	127	30	x	24	Black	White	III or IV	5.00									1
					C	M6-3P	Straight Arrow		21	x	15	Black	White	III or IV	2.19									1
111	RT	25	271+70	5.146	C	M1-5a	State Route Sign (3 or 4 digit)	1292	30	x	24	Black	White	III or IV	5.00		Stnd w/ Soil Plate		1	15			15	1
					C	M6-1PR	Right Arrow		21	x	15	Black	White	III or IV	2.19									1
112	RT	15	274+60	5.201	C	M3-2P	East		24	x	12	Black	White	III or IV	2.00		Stnd w/ Soil Plate		1	14			14	1
					C	M1-4	US Route Sign (1 or 2 digit)	42	24	x	24	Black	White	III or IV	4.00									1
113	RT	20	274+60	5.201	C	M3-1P	North		24	x	12	Black	White	III or IV	2.00		Stnd w/ Soil Plate		1	14			14	1
					C	M1-4a	US Route Sign (3 digit)	127	30	x	24	Black	White	III or IV	5.00									1
114	LT	26	276+20	5.231	NC	R3-7R	Right Lane Must Turn Right	install on existing sign post	30	x	30	Black	White	III or IV	6.25		Stnd w/ Soil Plate		1	14			14	1
115	LT	15	278+25	5.270	NC	M2-1P	Junction (plaque)		21	x	15	Black	White	III or IV	2.19		Stnd w/ Soil Plate		1	16			16	1
					NC	M1-5a	State Route Sign (3 or 4 digit)	1292	30	x	24	Black	White	III or IV	5.00									1
					NC	M5-1PL	Advance Left Turn Arrow		21	x	15	Black	White	III or IV	2.19									1
116	LT	20	278+25	5.270	NC	M2-1P	Junction (plaque)		21	x	15	Black	White	III or IV	2.19		Stnd w/ Soil Plate		1	16			16	1
					NC	M1-5a	State Route Sign (3 or 4 digit)	338	30	x	24	Black	White	III or IV	5.00									1
					NC	M5-1PR	Advance Right Turn Arrow		21	x	15	Black	White	III or IV	2.19									1
117	RT	20	295+00	5.587	C	M2-1P	Junction (plaque)		21	x	15	Black	White	III or IV	2.19		Stnd w/ Soil Plate		1	16			16	1
					C	M1-5a	State Route Sign (3 or 4 digit)	338 - reinstall existing sign	30	x	24	Black	White	III or IV										1
					C	M5-1PR	Advance Right Turn Arrow	reinstall existing sign	21	x	15	Black	White	III or IV										1
118	RT	25	300+60	5.693	C	M1-4	US Route Sign (1 or 2 digit)	42	24	x	24	Black	White	III or IV	4.00		Stnd w/ Soil Plate		1	17			17	1
					C	M1-4a	US Route Sign (3 digit)	127	30	x	24	Black	White	III or IV	5.00									1
					C	M6-3P	Straight Arrow		21	x	15	Black	White	III or IV	2.19									1
119	RT	30	300+60	5.693	C	M1-5a	State Route Sign (3 or 4 digit)	338	30	x	24	Black	White	III or IV	5.00		Stnd w/ Soil Plate		1	15			15	1
					C	M6-1PR	Right Arrow		21	x	15	Black	White	III or IV	2.19									1
120	RT	35	300+60	5.693	C	M4-5P	To		24	x	12	Black	White	III or IV	2.00		Stnd w/ Soil Plate		1	16			16	1
					C	M1-1	Interstate Route Sign (2-digit)	75	24	x	24	White	Blue & Red	III or IV	4.00									1
					C	M6-1PR	Right Arrow		21	x	15	Black	White	III or IV	2.19									1
121	LT	20	301+20	5.705	WB	M4-5P	To	Install to the left of the large yellow double arrow sign, facing oncoming traffic from KY338	24	x	12	Black	White	III or IV	2.00		Stnd w/ Soil Plate		1	16			16	1
					WB	M1-5a	State Route Sign (3 or 4 digit)	338	30	x	24	Black	White	III or IV	5.00									1
					WB	M6-1PL	Left Arrow		21	x	15	Black	White	III or IV	2.19									1
122	LT	20	301+30	5.706	C	M1-5a	State Route Sign (3 or 4 digit)	42 - install on existing sign post facing oncoming traffic from KY338	30	x	24	Black	White	III or IV	5.00				0	15			0	1
					C	M6-4P	Horizontal Double Arrow		21	x	15	Black	White	III or IV	2.19									1
123	LT	20	301+40	5.708	NC	M6-1PL	Left Arrow	install on existing sign post under KY338 route sign	21	x	15	Black	White	III or IV	2.19				0	13			0	1

Summary of Items		
SBM Alum Sheet Signs 0.080 INCH	807.02	SQ FT
SBM Alum Sheet Signs 0.125 INCH	92.74	SQ FT
Barcode Sign Inventory	220	EACH

Summary of Items		
Steel Post - Type 1	1547	LF
GMSS Type D	0	EACH
GMSS Type D (Surface Mount)	0	EACH
Class A Concrete for Signs	0.00	CU YD

*** Advisory Speed to be determined by Engineer by Ball Banking.

Trim and Remove Trees and Brush Summary — Boone County — US 42

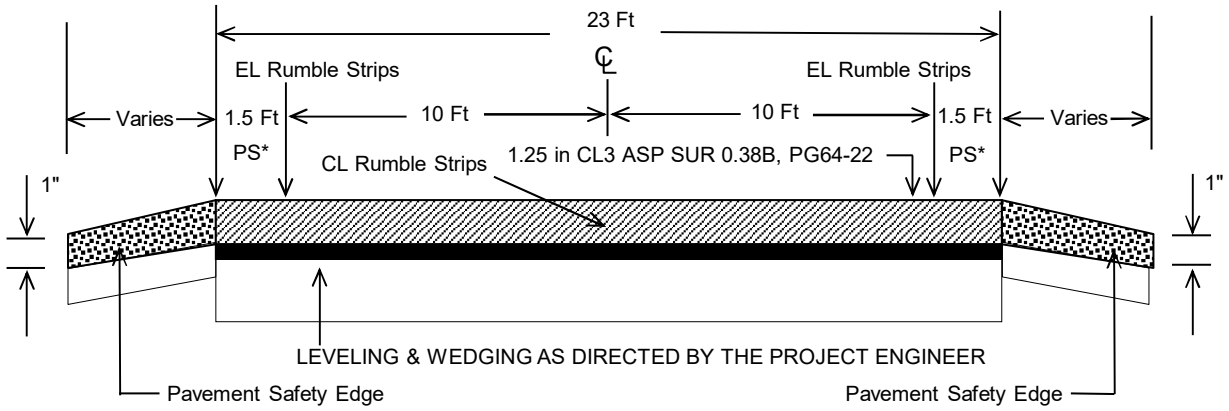
Notes: * The intent of the Remarks column is to provide the contractor with the an approximate level of effort for each location. Refer to the Staking Note and Special Note for Tree Stump and Brush Removal for further details about expected level of effort, particularly Part B of the Construction Methods which describes when complete removal of trees are required.
** Approximate Horizontal Offset Dimension for Tree Clearing. Actual Dimension shall be determined in the field by the Engineer at the time of construction. Refer to the Staking Note.

LOCATION			Length (LF)	"X" Dimension**	03269 - TRIM & REMOVE TREES & BRUSH - LF *					24894EC REMOVE STUMP EACH	Remarks *
Side of Road	Approx. BEGIN Milepoint	Approx. END Milepoint			Case 1 * Tree Trimming without Undergrowth Removal	Case 1B * Tree Trimming with Undergrowth Removal	Case 2 * Tree Trimming and/or Tree Removal without Undergrowth Removal	Case 2B * Tree Trimming and/or Tree Removal with Undergrowth Removal	Case 3B * Undergrowth Removal Only		
RT	5.004	5.146	750	20'-50'				750			Trim/Remove to overhead utility lines

Total Estimated Quantity of 3269 TRIM & REMOVE TREES & BRUSH	**750**	**LF**
Total Estimated Quantity of 24894EC REMOVE STUMP	**0**	**EACH**

TYPICAL SECTION
FD05 008 0042 000-006
BOONE COUNTY

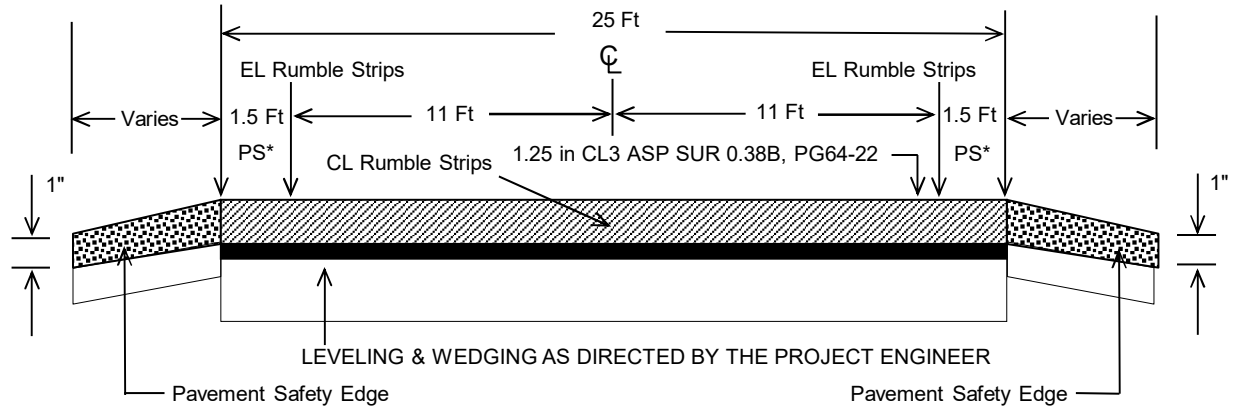
MP 0.000 TO MP 2.271
MP 3.109 TO MP 5.125



*PS - Paved Shoulder

TYPICAL SECTION
FD05 008 0042 000-006
BOONE COUNTY

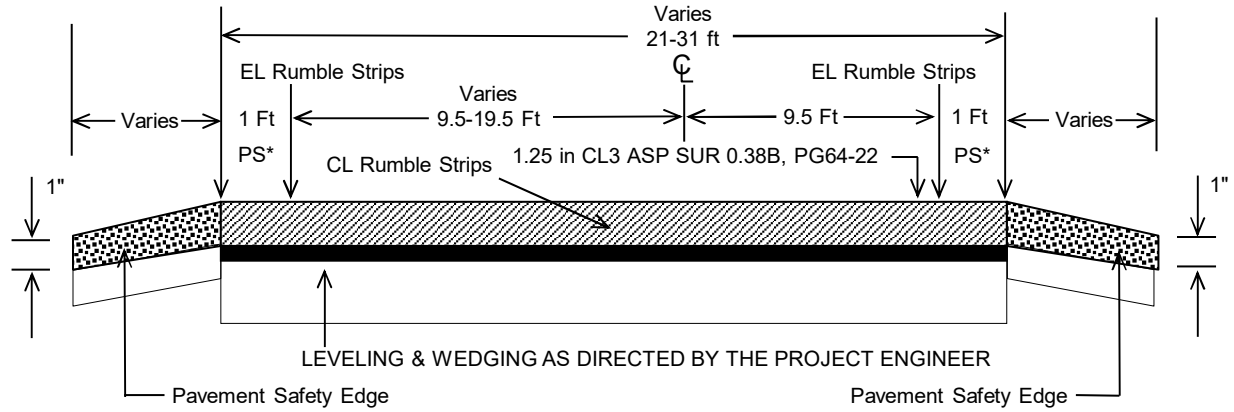
MP 2.271 TO MP 3.109



*PS - Paved Shoulder

TYPICAL SECTION
FD05 008 0042 000-006
BOONE COUNTY

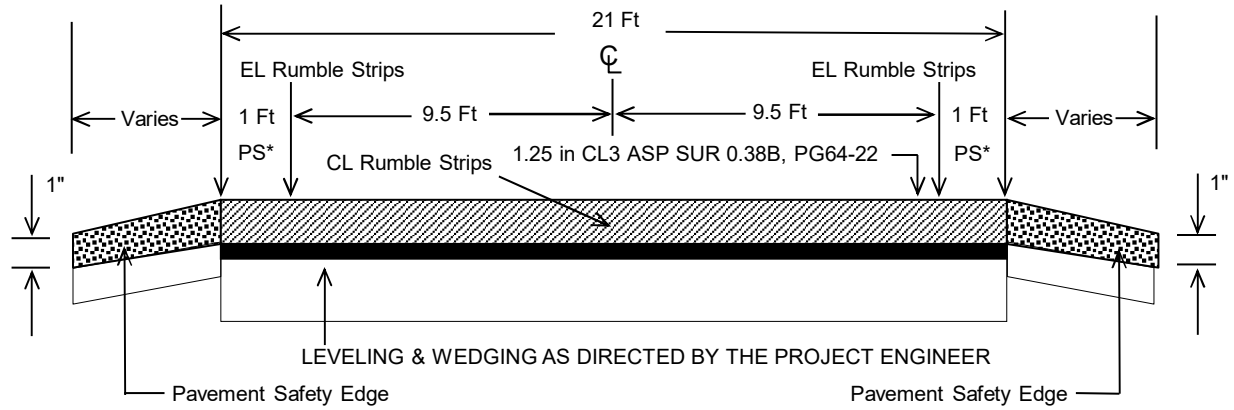
MP 5.125 TO MP 5.230



*PS - Paved Shoulder

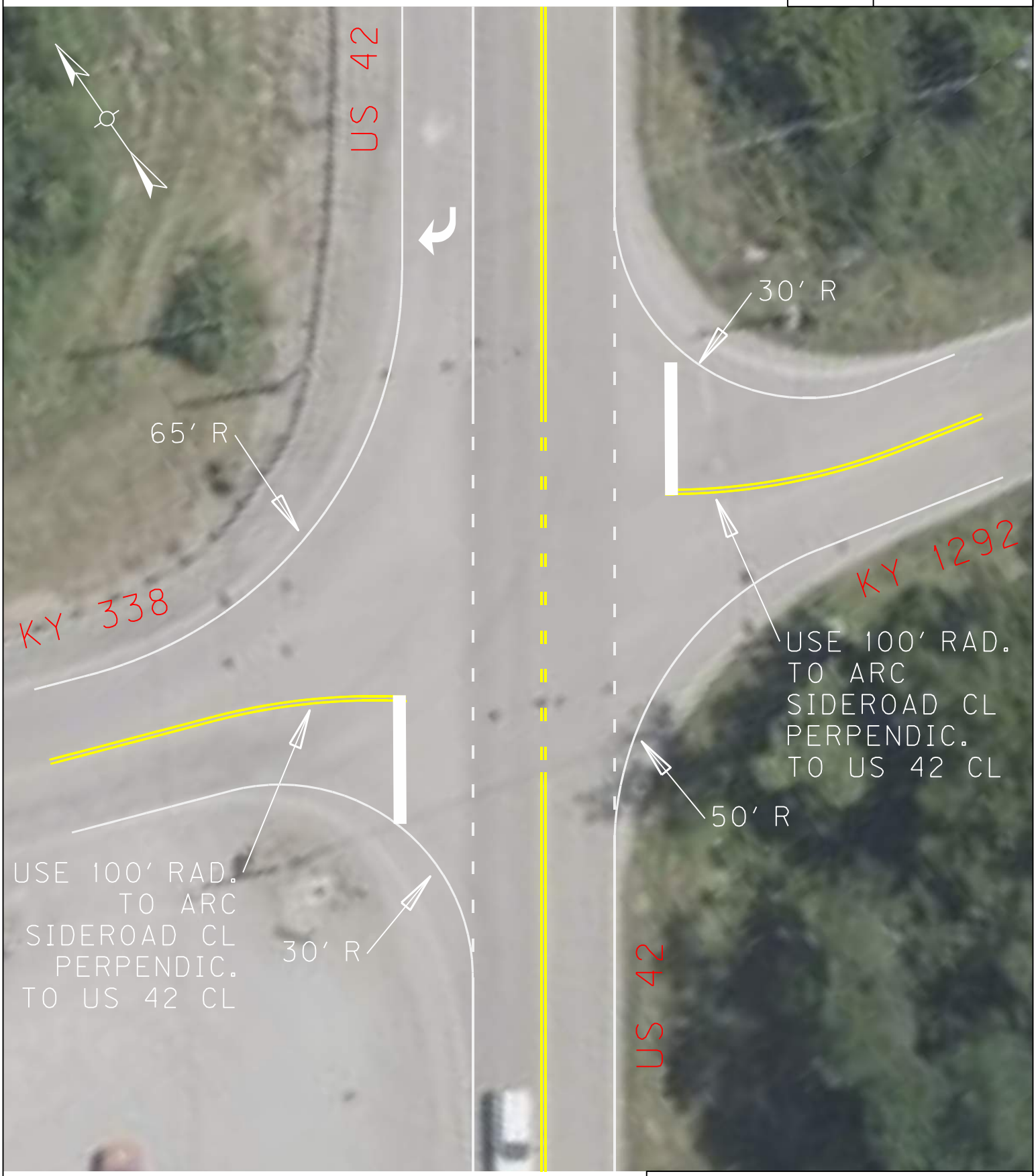
TYPICAL SECTION
FD05 008 0042 000-006
BOONE COUNTY

MP 5.230 TO MP 5.673



*PS - Paved Shoulder

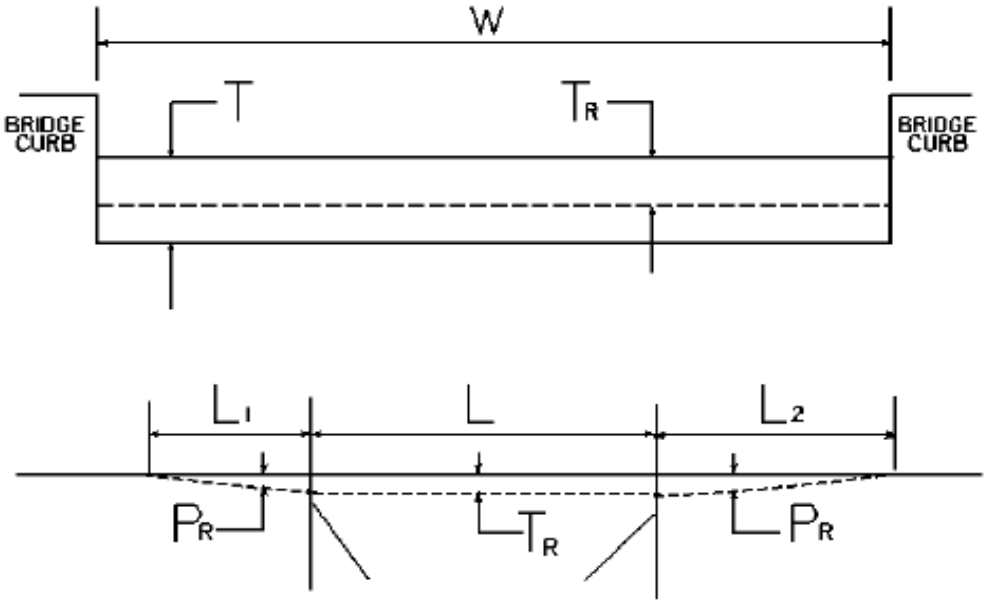
COUNTY OF	FUNDING NO.
BOONE	FD05 008 0042 000-006 FD04



SCALE: 1"=20'

US 42 & KY 338/KY 1292
INTERSECTION STRIPING
DETAIL SHEET

BRIDGE DETAIL FOR PAVING PROJECT

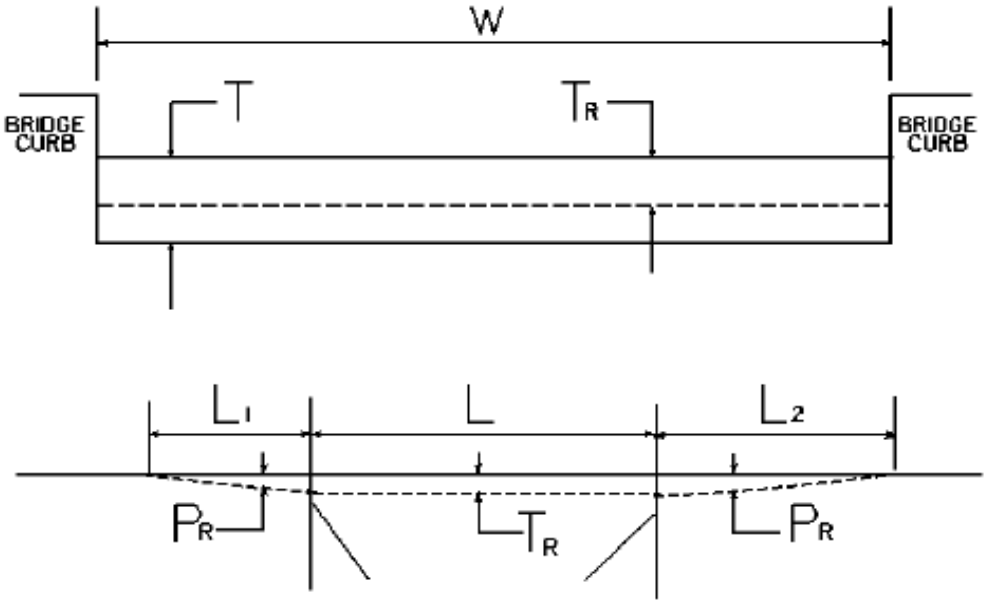


W = bridge width curb to curb
T = thickness of existing asphalt overlay
L = length of bridge
L_1 & L_2 = length of approach pavement to be removed
T_R = thickness to be removed and replaced on bridge
P_R = thickness to be removed and replaced on pavement
Note: L_1 & L_2 lengths shall be determined by 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)
US42	B00067N	0.360	27.90	0.00	125.00	125.00	0.00	64.80	1.25
US42	B00064N	2.240	40.00	0.00	125.00	125.00	0.00	207.00	1.25

01/01/2009

BRIDGE DETAIL FOR PAVING PROJECT



W = bridge width curb to curb
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L = length of bridge
L_1 & L_2 = 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: L_1 & L_2 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)
US 42	B00067N	0.369	24.00		125.00	125.00	0.00	65.00	1.25
US 42	B00064N	2.256	20.00		125.00	125.00	0.00	207.00	1.25

01/01/2009

PART II

SPECIFICATIONS AND STANDARD DRAWINGS

STANDARD SPECIFICATIONS

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

2020 STANDARD DRAWINGS THAT APPLY

ROADWAY

~ GENERAL ~

MISCELLANEOUS STANDARDS

MISCELLANEOUS STANDARDS.....RGX-001-06
TYPE D BREAKAWAY SIGN SUPPORT RGX-065-02

TRAFFIC

~ PERMANENT ~

MARKERS

TYPICAL MARKINGS FOR TURN LANES PAGE 1 .....TPM-206
TYPICAL MARKINGS FOR TURN LANES PAGE 2 .....TPM-207

~ TEMPORARY ~

TRAFFIC CONTROL

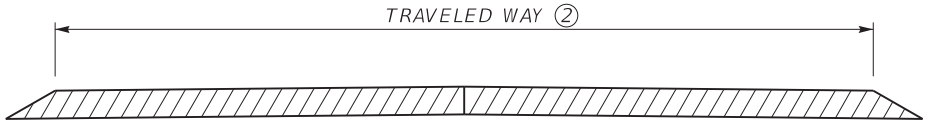
LANE CLOSURE TWO-LANE HIGHWAY.....TTC-100-05
LANE CLOSURE USING TRAFFIC SIGNALS TTC-110-05

DEVICES

DOUBLE FINES ZONE SIGNS TTD-120-03
PAVEMENT CONDITION WARNING SIGNS TTD-125-03
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



TWO LANE ROADWAY
PAVEMENT CROSS-SECTION

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

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

~ NOTES ~

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

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

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

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

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

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

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

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

DRAWING NOT TO SCALE

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

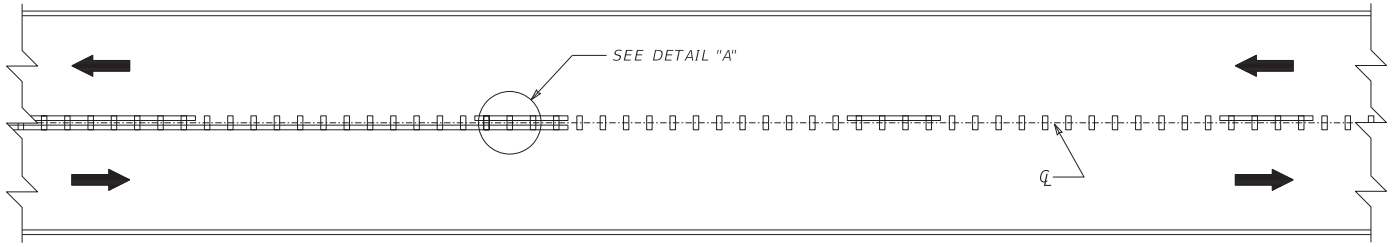
KENTUCKY
DEPARTMENT OF HIGHWAYS

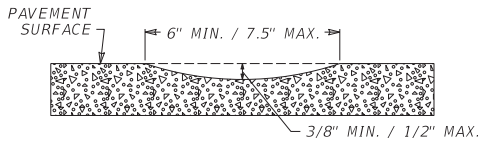
PAVEMENT STRIPING
DETAILS FOR TWO LANE
TWO WAY ROADWAYS

SUBMITTED _____ 06-09-21
DIVISION DIRECTOR DATE

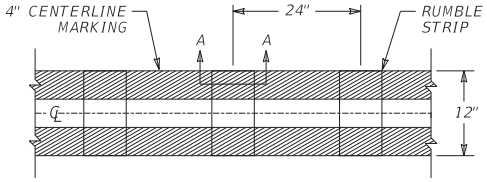
017

PLAN VIEW

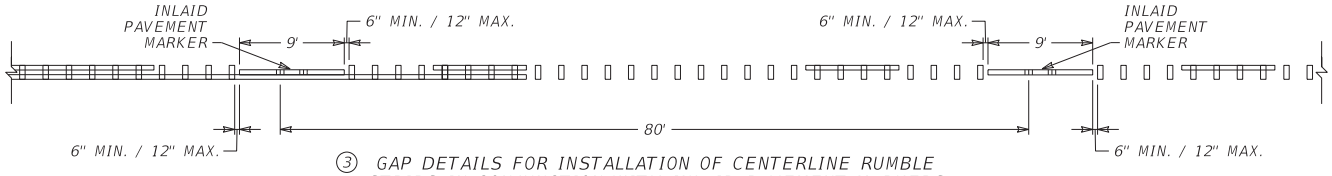




SECTION A-A



DETAIL "A"



③ GAP DETAILS FOR INSTALLATION OF CENTERLINE RUMBLE STRIPS IN CONJUNCTION WITH INLAID PAVEMENT MARKERS

~ NOTES ~

1. DISTANCES SHOWN ARE APPROXIMATE. MAINTAIN RUMBLE STRIP DIMENSIONS AND SPACING AS MUCH AS POSSIBLE.
2. CENTERLINE RUMBLE STRIPS SHALL BE INSTALLED IN LINE WITH THE CENTER OF THE ROADWAY AS MUCH AS POSSIBLE.
③ FOR ROADWAYS WHERE BOTH INLAID PAVEMENT MARKERS AND CENTERLINE RUMBLE STRIPS ARE TO BE INSTALLED, DISCONTINUE THE CENTERLINE RUMBLE STRIPS 6" MIN. / 12" MAX. BEFORE AND AFTER THE GROOVE FOR EACH INLAID PAVEMENT MARKER. INSTALL AS MANY RUMBLE STRIPS AS POSSIBLE BETWEEN ADJACENT PAVEMENT MARKERS WHILE MAINTAINING THE 24" CYCLE.
4. DO NOT INSTALL CENTERLINE RUMBLE STRIPS IN AREAS INDICATED ON TPR-100 .
5. CENTERLINE RUMBLE STRIPS SHOULD BE OMITTED WHERE THE POSTED SPEED LIMIT IS 45 MPH OR LESS, OR WHERE LANE WIDTHS ARE LESS THAN 11 FT.

BID ITEM AND UNIT TO BID
CENTERLINE RUMBLE STRIPS LF

DRAWING NOT TO SCALE

USE WITH CUR. STD. DWGS. TPR-100, TPR-120, AND TPR-125

SUBMITTED _____ DIVISION DIRECTOR 08-21-2023 DATE

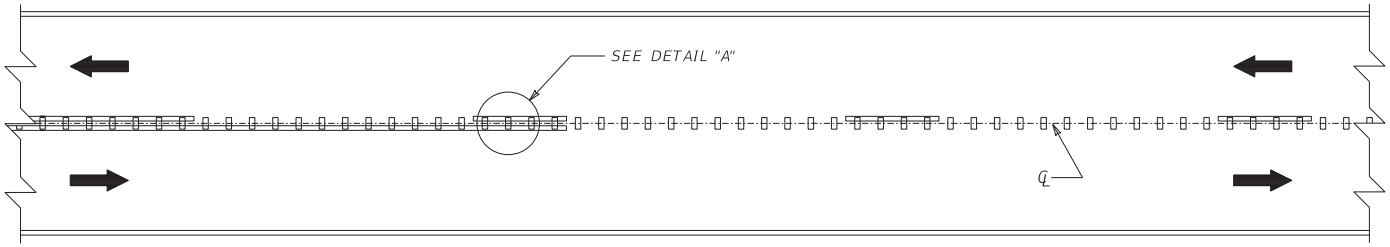
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

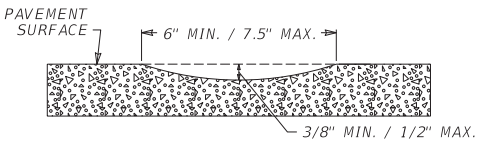
DRAWING TITLE: SEPIA 026 - CENTERLINE RUMBLE STRIPS 4 INCH STRIPING

ITEM NO. COUNTY OF
SHEET NO.

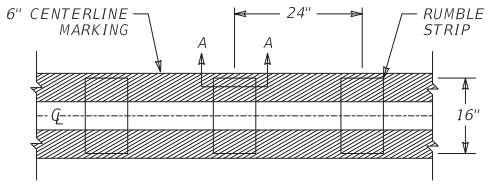
OpenRoads Designer v10.12.02.4 USER: cwillmerdinger FILE NAME: C:\PWWORK\KYTC_CWILLMERDINGER\D2267496\TPR105.DGN

PLAN VIEW

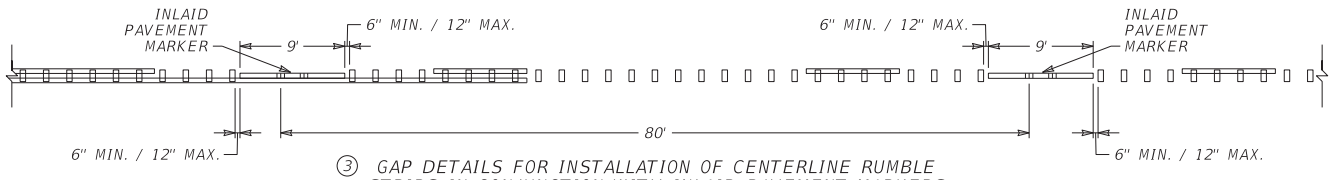




SECTION A-A



DETAIL "A"



③ GAP DETAILS FOR INSTALLATION OF CENTERLINE RUMBLE STRIPS IN CONJUNCTION WITH INLAID PAVEMENT MARKERS

~ NOTES ~

1. DISTANCES SHOWN ARE APPROXIMATE. MAINTAIN RUMBLE STRIP DIMENSIONS AND SPACING AS MUCH AS POSSIBLE.
2. CENTERLINE RUMBLE STRIPS SHALL BE INSTALLED IN LINE WITH THE CENTER OF THE ROADWAY AS MUCH AS POSSIBLE.
③ FOR ROADWAYS WHERE BOTH INLAID PAVEMENT MARKERS AND CENTERLINE RUMBLE STRIPS ARE TO BE INSTALLED, DISCONTINUE THE CENTERLINE RUMBLE STRIPS 6" MIN. / 12" MAX. BEFORE AND AFTER THE GROOVE FOR EACH INLAID PAVEMENT MARKER. INSTALL AS MANY RUMBLE STRIPS AS POSSIBLE BETWEEN ADJACENT PAVEMENT MARKERS WHILE MAINTAINING THE 24" CYCLE.
4. DO NOT INSTALL CENTERLINE RUMBLE STRIPS IN AREAS INDICATED ON TPR-100.
5. CENTERLINE RUMBLE STRIPS SHOULD BE OMITTED WHERE THE POSTED SPEED LIMIT IS 45 MPH OR LESS, OR WHERE LANE WIDTHS ARE LESS THAN 11 FT.

BID ITEM AND UNIT TO BID
CENTERLINE RUMBLE STRIPS LF

DRAWING NOT TO SCALE

USE WITH CUR. STD. DWGS. TPR-100, TPR-120, AND TPR-125

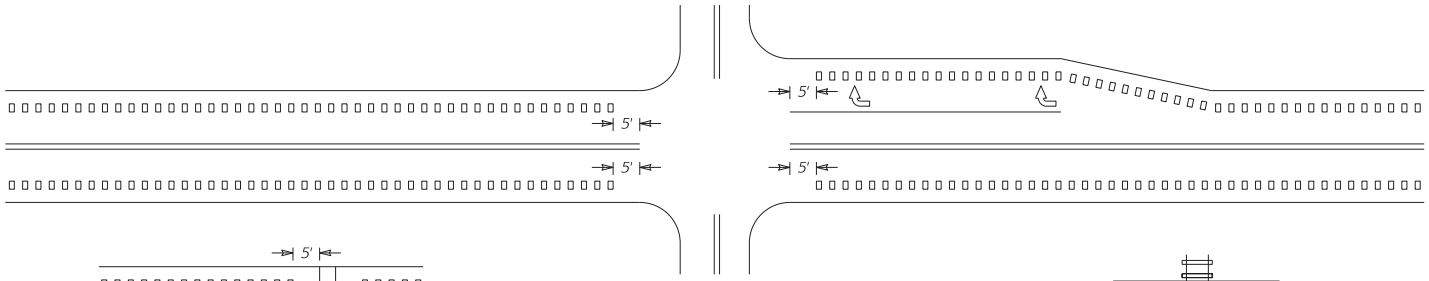
SUBMITTED _____ DIVISION DIRECTOR 08-21-2023 DATE

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

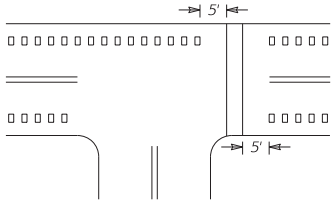
DRAWING TITLE: SEPIA 027 - CENTERLINE RUMBLE STRIPS 6 INCH SPACING

ITEM NO. COUNTY OF
SHEET NO.

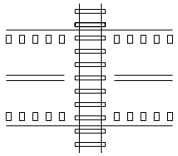
OpenRoads Designer v10.12.02.4 USER: cwillmerdinger FILE NAME: C:\PWWORK\KYTC_CWILLMERDINGER\D2267495\TPR110.DGN



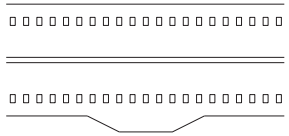
INTERSECTIONS WITH OR WITHOUT (1)
RIGHT TURN LANES



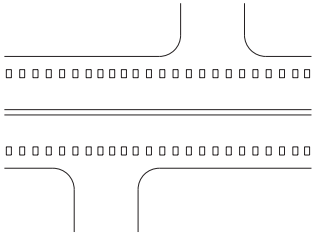
MARKED CROSSWALK (2)



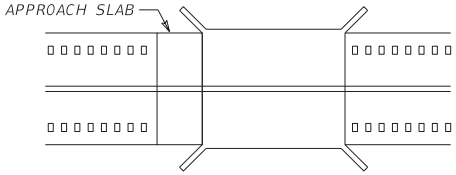
HIGHWAY-RAIL GRADE CROSSINGS (3)



MAILBOX TURNOUTS (6)



DRIVEWAYS/MINOR
COMMERCIAL ENTRANCES (5)



BRIDGE DECK/APPROACH SLAB (4)

~ NOTES ~

(1) EDGELINE RUMBLE STRIPS SHALL BE OMITTED THROUGH MAJOR INTERSECTIONS WITH, OR WITHOUT, RIGHT-TURN LANES. OMIT EDGELINE RUMBLE STRIPS APPROXIMATELY 5' IN ADVANCE OF THE AREA WHERE EDGELINE PAVEMENT MARKINGS HAVE BEEN OMITTED (NORMALLY WHERE THE SIDE STREET RADIUS INTERSECTS THE MAINLINE).

(2) EDGELINE RUMBLE STRIPS SHALL NOT BE INSTALLED THROUGH MARKED CROSSWALKS. OMIT EDGELINE RUMBLE STRIPS APPROXIMATELY 5 FT IN ADVANCE OF MARKED CROSSWALKS.

(3) EDGELINE RUMBLE STRIPS SHALL NOT BE INSTALLED ACROSS HIGHWAY-RAIL GRADE CROSSINGS.

(4) EDGELINE RUMBLE STRIPS SHALL NOT BE INSTALLED ON BRIDGE DECKS OR APPROACH SLABS.

(5) EDGELINE RUMBLE STRIPS SHALL BE INSTALLED THROUGH DRIVEWAYS & MINOR COMMERCIAL ENTRANCES.

(6) EDGELINE RUMBLE STRIPS SHALL BE INSTALLED THROUGH MAILBOX TURNOUTS.

7. EDGELINE RUMBLE STRIPS SHOULD BE OMITTED WHERE THE POSTED SPEED LIMIT IS 45 MPH OR LESS.

DRAWING NOT TO SCALE

USE WITH CUR. STD. DWGS.
TPR-120, TPR-125, AND
TPR-130

BID ITEMS AND UNIT TO BID
EDGELINE RUMBLE STRIPS LF

SUBMITTED _____ DIVISION DIRECTOR 08-21-2023 DATE

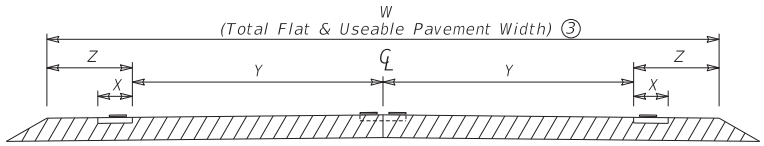
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

DRAWING TITLE: SEPIA 028 - EDGELINE RUMBLE STRIP PLACEMENT DETAILS

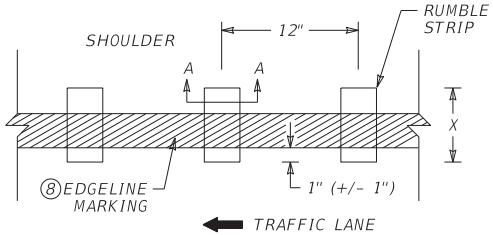
ITEM NO. COUNTY OF
SHEET NO.

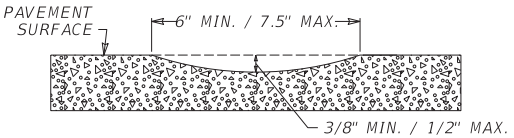
OpenRoads Designer v10.12.02.4 USER: cwillmerdinger FILE NAME: C:\PWWORK\KYTC_CWILLMERDINGER\D2267497\TPR115.DGN

PAVEMENT WIDTH (W) ③	TYPES OF RUMBLE STRIPS TO INSTALL	LANE WIDTH (Y) ⑤	SHOULDER WIDTH (Z) ⑥	LENGTH OF EDGELINE RUMBLE (X) ⑦
20'	④ OPTIONAL: EDGELINE RUMBLE STRIPS	9'	1'	8"
21'		9.5'	1'	8"
22'	STANDARD: INSTALL ONLY EDGELINE RUMBLE STRIPS	10'	1'	8"
23'		10'	1.5'	8"
24'		10.5'	1.5'	8"
25'	STANDARD: INSTALL BOTH EDGELINE AND CENTERLINE RUMBLE STRIPS	11'	1.5'	8"
26'		11'	2'	8"
27'		11'	2.5'	8"
28'		11'	3'	8"
29'		11'	3.5'	8"
30'		11'	4'	8"
31'		11'	4.5'	8"
32'		11'	5'	8"
33'		11'	5.5'	8"
34'		11'	6'	8"
35'		11.5'	6'	8"
36'		12'	6'	8"
37'		12'	6.5'	12"
38'		12'	7'	12"
39'		12'	7.5'	12"
>=40'		12'	>=8'	16"

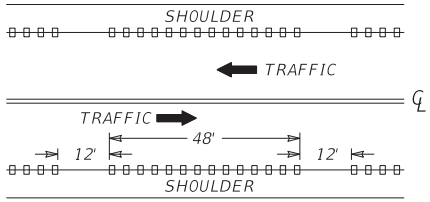


PAVEMENT CROSS-SECTION





SECTION A-A



BICYCLE GAPS ⑨

~ NOTES ~

SEE CURRENT STANDARD DRAWING NUMBER TPR-120N FOR ALL NOTES.

APPLICATION OF THE TABLE ABOVE: THE TOTAL PAVEMENT WIDTH (W) IS THE STARTING POINT IN USING THE TABLE. THE TOTAL PAVEMENT WIDTH (W) IS THE TOTAL PAVEMENT THAT IS FLAT AND USEABLE FOR DRIVING. WHEN MEASURING THE TOTAL PAVEMENT WIDTH (W) DO NOT INCLUDE THE WIDTH OF ANY PAVEMENT THAT IS NOT FLAT AND USEABLE FOR DRIVING, SUCH AS PAVEMENT WEDGES. ONCE THE TOTAL PAVEMENT WIDTH (W) IS DETERMINED, USE THIS VALUE AND THE TABLE ABOVE TO DETERMINE THE TYPE(S) OF RUMBLE STRIPS TO INSTALL AND THE RECOMMENDED LANE WIDTH (Y) AND SHOULDER WIDTH (Z).

BID ITEM AND UNIT TO BID	
EDGELINE RUMBLE STRIPS	LF
CENTERLINE RUMBLE STRIPS	LF

DRAWING NOT TO SCALE

USE WITH CUR. STD. DWGS. TPR-100, TPR-105, TPR-110, TPR-115 AND TPR-120N

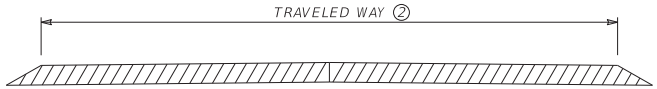
SUBMITTED _____ DIVISION DIRECTOR 08-21-2023 DATE

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

DRAWING TITLE: SEPIA 029 - EDGELINE RUMBLE STRIP DETAILS TWO LANE ROADWAYS

ITEM NO. COUNTY OF
SHEET NO.

OpenRoads Designer v10.12.02.4 USER: cwillmerdinger FILE NAME: C:\PWWORK\KYTC_CWILLMERDINGER\D2267498\TPR120.DGN



TWO LANE ROADWAY
PAVEMENT CROSS-SECTION

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

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

~ NOTES ~

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

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

(3) ON TWO LANE, TWO WAY ROADWAYS THAT HAVE A TOTAL PAVEMENT WIDTH (W) THAT IS 20 FT OR GREATER, BUT LESS THAN 22 FT, EDGELINE RUMBLE STRIPS ARE AN OPTIONAL APPLICATION. THE DIVISION OF TRAFFIC OPERATIONS IS AVAILABLE TO ASSIST WITH THE DETERMINATION OF WHETHER OR NOT TO INSTALL EDGELINE RUMBLE STRIPS ON PAVEMENT WIDTHS LESS THAN 22 FT.

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

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

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

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

DRAWING NOT TO SCALE

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

SUBMITTED _____ DIVISION DIRECTOR 09/28/2023 DATE

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

DRAWING TITLE: SEPIA 032 - PAVEMENT STRIPING DETAILS FOR TWO LANE TWO WAY ROADWAYS

ITEM NO. COUNTY OF
SHEET NO.

OpenRoads Designer v10.16.2.267 USER: cwillmerdinger DATE PLOTTED: 8/7/2015 9:53:17 AM FILE NAME: C:\PWWORK\KYTC_CWILLMERDINGER\D2044566\SEPIA032.DGN

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

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

The Executive Branch Code of Ethics created by Kentucky Revised Statutes (KRS) Chapter 11A, effective July 14, 1992, establishes the ethical standards that govern the conduct of all executive branch employees. The Executive Branch Code of Ethics, which states, in part:

KRS 11A.040 (7) provides:

A present or former public servant listed in KRS 11A.010(9)(a) to (g) shall not, within one (1) year following termination of his or her 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 one (1) year, he or she personally refrains from working on any matter in which he was directly involved during the last thirty-six (36) months of his or her 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 to obtain private benefits.

If you have worked for the executive branch of state government within the past year, 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 105, Frankfort, Kentucky 40601; telephone (502) 564-7954.

Revised: March 11, 2025

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

BID ITEMS

252348

PROPOSAL BID ITEMS

Report Date 8/21/25

252348

Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00190		LEVELING & WEDGING PG64-22	552.00	TON		$	
0020	00356		ASPHALT MATERIAL FOR TACK	41.00	TON		$	
0030	00388		CL3 ASPH SURF 0.38B PG64-22	5,800.00	TON		$	
0040	02676		MOBILIZATION FOR MILL & TEXT (FD05)	1.00	LS		$	
0050	02677		ASPHALT PAVE MILLING & TEXTURING	70.00	TON		$	
0060	02697		EDGELINE RUMBLE STRIPS	59,912.00	LF		$	
0070	10020NS		FUEL ADJUSTMENT	9,514.00	DOLL	$1.00	$	$9,514.00
0080	10030NS		ASPHALT ADJUSTMENT	23,895.00	DOLL	$1.00	$	$23,895.00
0090	20458ES403		CENTERLINE RUMBLE STRIPS	28,456.00	LF		$	

Section: 0002 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0100	02562		TEMPORARY SIGNS	470.00	SQFT		$	
0110	02650		MAINTAIN & CONTROL TRAFFIC (FD05)	1.00	LS		$	
0120	02650		MAINTAIN & CONTROL TRAFFIC (FE01)	1.00	LS		$	
0130	02671		PORTABLE CHANGEABLE MESSAGE SIGN	3.00	EACH		$	
0140	02775		ARROW PANEL	2.00	EACH		$	
0150	03269		TRIM & REMOVE TREES & BRUSH	750.00	LF		$	
0160	06510		PAVE STRIPING-TEMP PAINT-4 IN	52,455.00	LF		$	
0170	06515		PAVE STRIPING-PERM PAINT-6 IN	104,910.00	LF		$	
0180	06540		PAVE STRIPING-THERMO-4 IN W	62.00	LF		$	
0190	06541		PAVE STRIPING-THERMO-4 IN Y	37.00	LF		$	
0200	06568		PAVE MARKING-THERMO STOP BAR-24IN	40.00	LF		$	
0210	06574		PAVE MARKING-THERMO CURV ARROW	7.00	EACH		$	
0220	21415ND		EROSION CONTROL (FE01)	1.00	LS		$	

Section: 0003 - SIGNING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0230	06406		SBM ALUM SHEET SIGNS .080 IN	807.00	SQFT		$	
0240	06407		SBM ALUM SHEET SIGNS .125 IN	93.00	SQFT		$	
0250	06410		STEEL POST TYPE 1	1,547.00	LF		$	
0260	21134ND		REMOVE-STORE AND REINSTALL SIGN	3.00	EACH		$	
0270	21373ND		REMOVE SIGN	56.00	EACH		$	
0280	24631EC		BARCODE SIGN INVENTORY	220.00	EACH		$	

Section: 0004 - SIGNALIZATION

PROPOSAL BID ITEMS

252348

Report Date 8/21/25

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0290	02562		TEMPORARY SIGNS	150.00	SQFT		$	
0300	02650		MAINTAIN & CONTROL TRAFFIC (FD04)	1.00	LS		$	
0310	21659NN		RELOCATE SIGNAL HEAD	4.00	EACH		$	

Section: 0005 - DEMOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0320	02569		DEMOBILIZATION	1.00	LS		$	