



TRANSPORTATION CABINET

Frankfort, Kentucky 40622
www.transportation.ky.gov/

Steven L. Beshear
Governor

Michael W. Hancock, P.E.
Secretary

May 15, 2013

CALL NO. 100
CONTRACT ID NO. 131023
ADDENDUM # 1

Subject: Jefferson County, IM 0655 (108)
Letting May 24, 2013

- (1) Revised - Front Sheet
- (2) Revised - Completion Date - Page 4 of 137
- (3) Revised - SHEET T7 Page 62 of 137
- (4) Added - Notes - Pages 77(a) - 77(1) of 137
- (5) Deleted - Pages 82 & 83 of 137

Proposal revisions are available at <http://transportation.ky.gov/Construction-Procurement/>.

Plan revisions are available at <http://www.lynnimaging.com/kytransportation/>.

If you have any questions, please contact us at 502-564-3500.

Sincerely,

A handwritten signature in blue ink that reads "Ryan Griffith".

Ryan Griffith
Acting Director
Division of Construction Procurement

RG:ks
Enclosures



An Equal Opportunity Employer M/F/D



CALL NO. 100

CONTRACT ID. 131023

JEFFERSON COUNTY

FED/STATE PROJECT NUMBER IM 0655(108)

DESCRIPTION LOUISVILLE-TENNESSEE STATE LINE ROAD (I-65)

WORK TYPE SIGNS-LIGHTING-SIGNALS

PRIMARY COMPLETION DATE 10/21/2013

LETTING DATE: May 24,2013

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN DAYLIGHT TIME May 24,2013. Bids will be publicly announced at 10:00 AM EASTERN DAYLIGHT TIME.

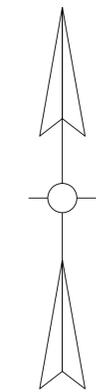
NO PLANS ASSOCIATED WITH THIS PROJECT.

DBE CERTIFICATION REQUIRED - 5%

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

LUMINAIRES	STATIONS/ COORDINATES	ALIGNMENT
HMI	Sta 129+92.06 LT 121.58	OUTER LOOP

NOTES:
 REMOVE ALL LUMINAIRE POLES AND BASES TO THE LEFT OF LINE BELOW. THE CONTRACTOR SHALL REMOVE ALL WIRING GOING INTO THE EXISTING POLES. THE CONDUITS IN THE EXISTING POLE THAT ARE NOT GOING TO BE REMOVED SHALL BE CAPPED ON BOTH ENDS. THIS IS INCIDENTAL TO THE BID ITEM *4940* FOR REMOVE LIGHTING.

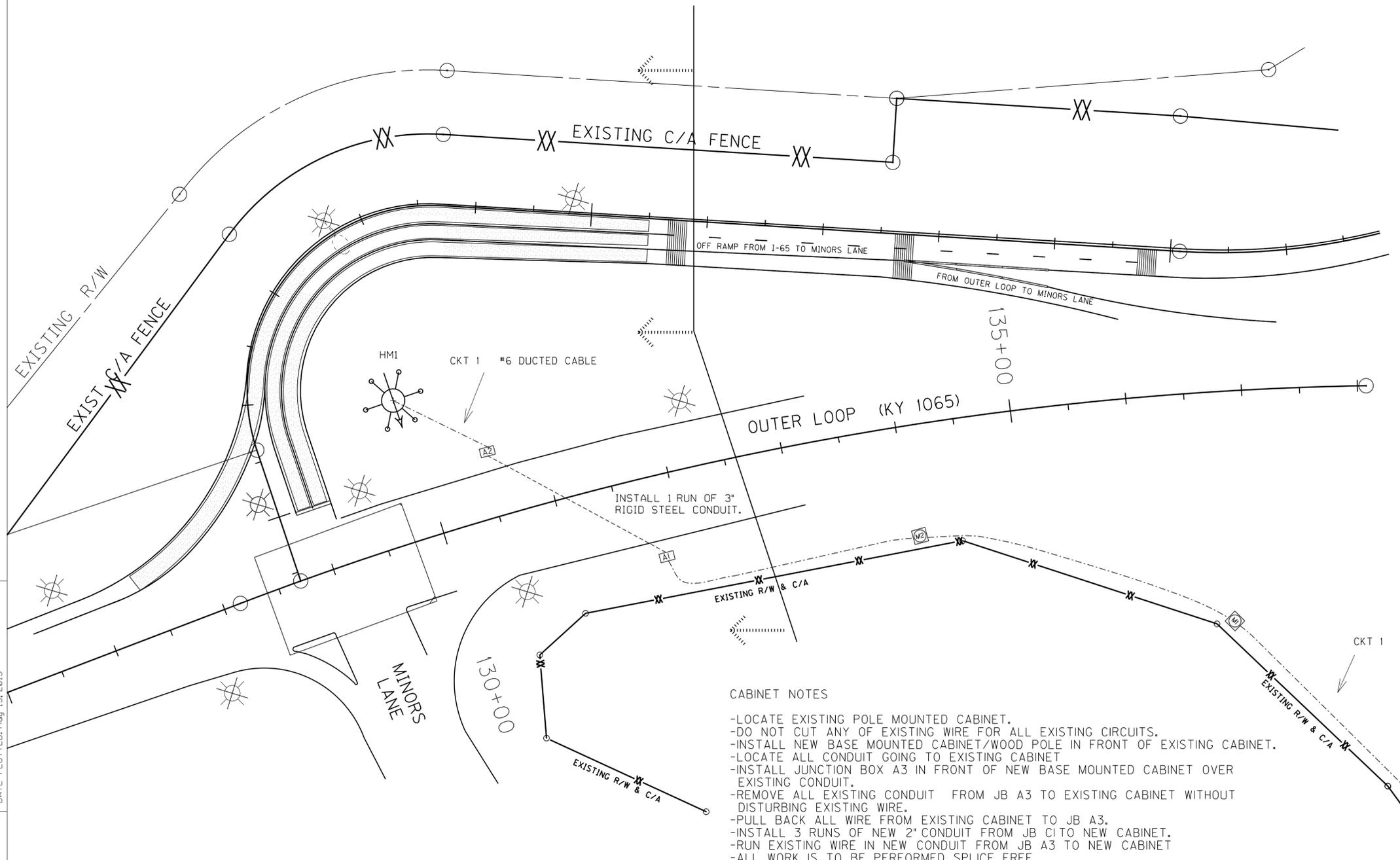


Scale 1" = 50'

LEGEND

	1000 W HPS LUMINAIRES (ASYMMETRICAL) MOUNTED ON HIGH MAST POLE
	EXISTING POLE MOUNTED CABINET
	BASE MOUNTED CABINET
	JUNCTION BOXES- TYPE A & C (AS DESIGNATED)
	CONCRETE MARKER
	3" RIGID STEEL CONDUIT (UNLESS OTHERWISE NOTED)
	DUCTED CABLE
	EXISTING LUMINAIRE POLE (TO BE REMOVED)
	EXISTING 35 FT. WOOD SERVICE POLE

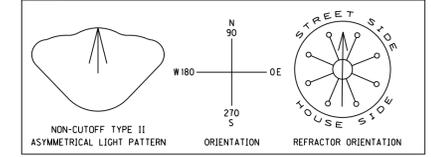
FILE NAME: G:\PWORK\DEE\MCEL\MURRAY\DM591038\T00700L.T.DGN
 USER: Dee,McElmurray
 DATE PLOTTED: May 13, 2013
 E-SHEET NAME: T00700L.T
 MicroStation v8.11.7.443



CABINET NOTES

- LOCATE EXISTING POLE MOUNTED CABINET.
- DO NOT CUT ANY OF EXISTING WIRE FOR ALL EXISTING CIRCUITS.
- INSTALL NEW BASE MOUNTED CABINET/WOOD POLE IN FRONT OF EXISTING CABINET.
- LOCATE ALL CONDUIT GOING TO EXISTING CABINET
- INSTALL JUNCTION BOX A3 IN FRONT OF NEW BASE MOUNTED CABINET OVER EXISTING CONDUIT.
- REMOVE ALL EXISTING CONDUIT FROM JB A3 TO EXISTING CABINET WITHOUT DISTURBING EXISTING WIRE.
- PULL BACK ALL WIRE FROM EXISTING CABINET TO JB A3.
- INSTALL 3 RUNS OF NEW 2" CONDUIT FROM JB C10 TO NEW CABINET.
- RUN EXISTING WIRE IN NEW CONDUIT FROM JB A3 TO NEW CABINET
- ALL WORK IS TO BE PERFORMED SPLICE FREE.

NOTE:
 HIGH MAST POLES SHALL BE PLACED AS CLOSE TO STATIONS AND OFFSETS AS STATED ON PLANS TO PROVIDE PROPER ILLUMINATION. IF ANY POLE NEEDS TO BE LOCATED MORE THAN 20' FROM THE STATION INDICATED, C.O. TRAFFIC SHALL BE CONTACTED AT 502-564-3020.

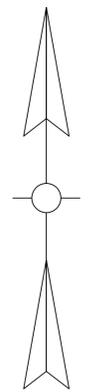


CABLE	ORIGIN	ENDING	CONNECTING
#6/3C DUCTED SERVICE		HMI	HMI CKT #1

POLE	MTG HT.	LAMP WATTS	NO.	BASE DEPTH	CKT NO.	LIGHT PATTERN	HOUSE SIDE SHIELD	REFRACTOR ORIENTATION
HMI	80 FT	1000W	(6)	SEE T3	1	ASYMMETRICAL	NONE	288°

- SERVICE AREA
- NEW UTILITY POLE WITH 480 V, 1PHASE SERVICE. BASE MOUNTED LIGHTING CONTROL CABINET.
- EXISTING SERVICE CABINET/POLE
- NEW SERVICE POLE (DISCONNECT AND METER)

△ REVISED 5-13-13



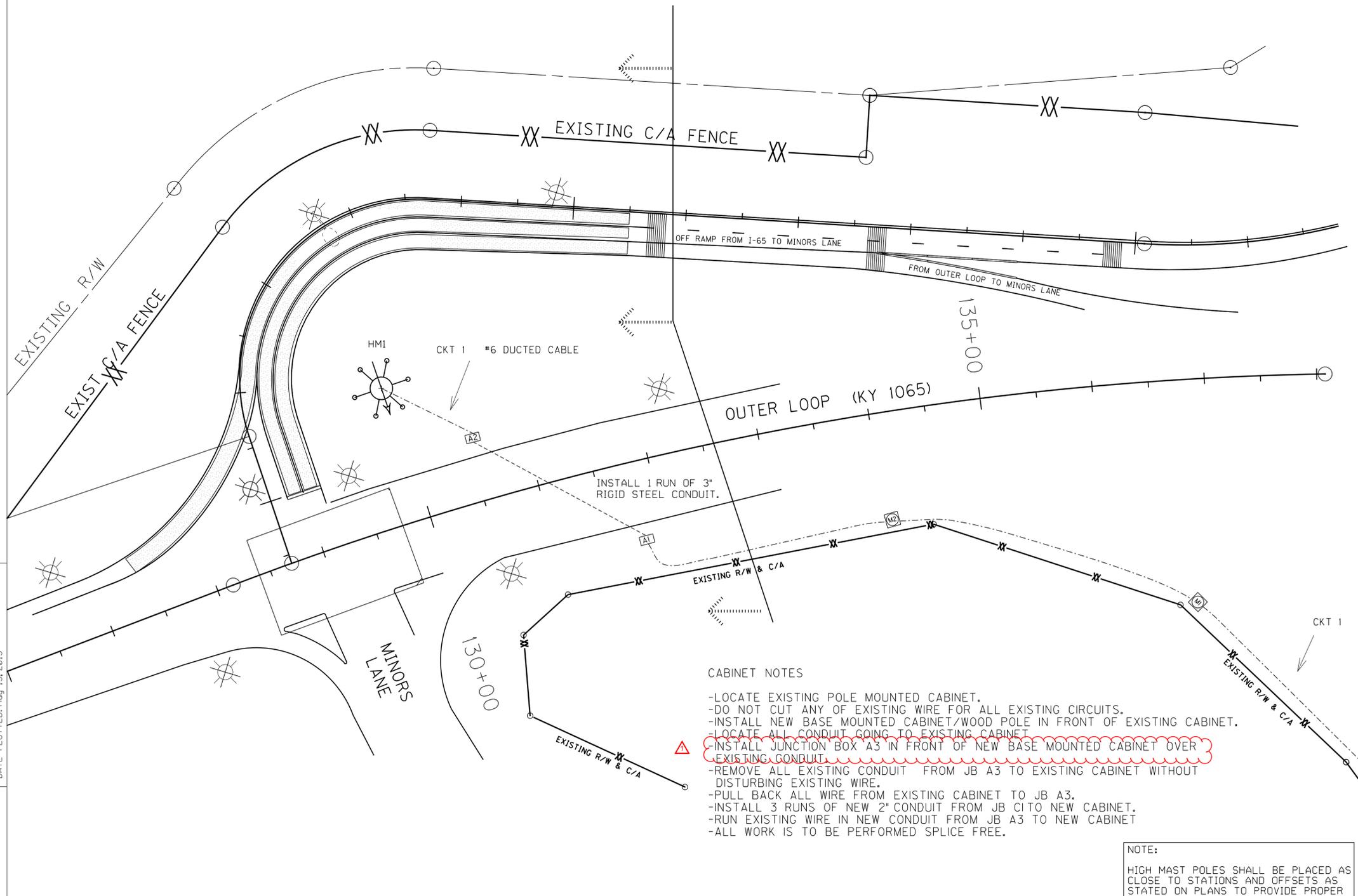
NOTES:
 REMOVE ALL LUMINAIRE POLES AND BASES TO THE LEFT OF LINE BELOW. THE CONTRACTOR SHALL REMOVE ALL WIRING GOING INTO THE EXISTING POLES. THE CONDUITS IN THE EXISTING POLE THAT ARE NOT GOING TO BE REMOVED SHALL BE CAPPED ON BOTH ENDS. THIS IS INCIDENTAL TO THE BID ITEM *4940* FOR REMOVE LIGHTING.

LUMINAIRES	STATIONS/ COORDINATES	ALIGNMENT
HMI	Sta 129+92.06 LT 121.58	OUTER LOOP

Scale 1" = 50'

LEGEND	
	1000 W HPS LUMINAIRES (ASYMMETRICAL) MOUNTED ON HIGH MAST POLE
	EXISTING POLE MOUNTED CABINET
	BASE MOUNTED CABINET
	JUNCTION BOXES- TYPE A & C (AS DESIGNATED)
	CONCRETE MARKER
	3" RIGID STEEL CONDUIT (UNLESS OTHERWISE NOTED)
	DUCTED CABLE
	EXISTING LUMINAIRE POLE (TO BE REMOVED)
	EXISTING 35 FT. WOOD SERVICE POLE

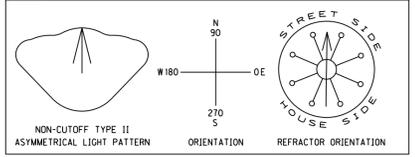
FILE NAME: G:\PWORK\DEE\MCEL\MURRAY\DM591038\T00700L.T.DGN
 USER: Dee,McElmurray
 DATE: PLOTTED: May 13, 2013
 E-SHEET NAME: T00700L.T
 MicroStation v8.11.7.443



CABINET NOTES

- LOCATE EXISTING POLE MOUNTED CABINET.
- DO NOT CUT ANY OF EXISTING WIRE FOR ALL EXISTING CIRCUITS.
- INSTALL NEW BASE MOUNTED CABINET/WOOD POLE IN FRONT OF EXISTING CABINET.
- LOCATE ALL CONDUIT GOING TO EXISTING CABINET.
- INSTALL JUNCTION BOX A3 IN FRONT OF NEW BASE MOUNTED CABINET OVER EXISTING CONDUIT.
- REMOVE ALL EXISTING CONDUIT FROM JB A3 TO EXISTING CABINET WITHOUT DISTURBING EXISTING WIRE.
- PULL BACK ALL WIRE FROM EXISTING CABINET TO JB A3.
- INSTALL 3 RUNS OF NEW 2" CONDUIT FROM JB C10 TO NEW CABINET.
- RUN EXISTING WIRE IN NEW CONDUIT FROM JB A3 TO NEW CABINET
- ALL WORK IS TO BE PERFORMED SPLICE FREE.

NOTE:
 HIGH MAST POLES SHALL BE PLACED AS CLOSE TO STATIONS AND OFFSETS AS STATED ON PLANS TO PROVIDE PROPER ILLUMINATION. IF ANY POLE NEEDS TO BE LOCATED MORE THAN 20' FROM THE STATION INDICATED, C.O. TRAFFIC SHALL BE CONTACTED AT 502-564-3020.



SERVICE AREA
 NEW UTILITY POLE WITH 480 V, 1PHASE SERVICE. BASE MOUNTED LIGHTING CONTROL CABINET.
 EXISTING SERVICE CABINET/POLE
 NEW SERVICE POLE (DISCONNECT AND METER)

CABLE	ORIGIN	ENDING	CONNECTING					
#6/3C	DUCTED SERVICE	HMI	HMI	CKT	#1			
POLE	MTG HT.	LAMP WATTS	NO.	BASE DEPTH	CKT NO.	LIGHT PATTERN	HOUSE SIDE SHIELD	REFRACTOR ORIENTATION
HMI	80 FT	1000W	(6)	SEE T3	1	ASYMMETRICAL	NONE	288°

ADMINISTRATIVE DISTRICT - 05

CONTRACT ID - 131023

IM 0655(108)

COUNTY - JEFFERSON

PCN - DE05600651323

IM 0655(108)

LOUISVILLE-TENNESSEE STATE LINE ROAD (I-65) IMPROVEMENTS TO TRAFFIC LIGHTING AND SIGNING ON
I-65 SOUTHBOUND RAMP AT KY(OUTER LOOP).SIGNS-LIGHTING-SIGNALS SYP NO. 05-00205.01.
GEOGRAPHIC COORDINATES LATITUDE 38:08:13.00 LONGITUDE 85:42:48.00

COMPLETION DATE(S):

COMPLETED BY 10/21/2013	APPLIES TO ENTIRE CONTRACT
	APPLIES TO PVMT. TREAT.,PVMT.
	MARKGS.,RUMBLE
COMPLETED BY 08/31/2013	STRIPS&SIGNING



TRANSPORTATION CABINET

Department of Highways District 5 Office
8310 Westport Road
Louisville, KY 40242-3042

Steven L. Beshear
Governor

Michael W. Hancock, P.E.
Secretary

Categorical Exclusion for Minor Projects

Item No.: 5-205.01 **County :** Jefferson **Location:** I-65 @ KY 1065 (Outer Loop)
Project Type: #1 Mill and Resurfacing, #3 Traffic Signal Replacement, #4 Installation and Maintenance of Signs, #5 Line Painting, #6 Raised Pavement Markings
Project Description: Improvements to traffic lighting, signals, and signing on the southbound I-65 exit ramp to WB KY 1065. This project will install pavement markings such as reflective material, delineators, advance curve arrows, and chevrons. Additionally, it will erect signage such as flashing warning signs, fluorescent yellow sheeting on all sign posts, gore signs, truck rollover signs, replace lighting with at least one high mast pole, install signs/beacons such as warning sign beacons to advance turn signs, rebuild traffic signal at Minors Lane, resurface shoulder rumble strips, install milled transverse rumble strips at two locations and install friction treatment starting prior to second curve. This project is approximately 0.51 miles long.
Termini: I-65 SB ramp to KY 1065 (Outer Loop) (see attached mapping for project location)

The project as proposed,

- will not induce any significant impacts to planned growth or land use for the area;
- will not require relocations
- will not have a significant impact on any federally listed, threatened or endangered species
 - No Effect (Project Type: #1, 3, 4, 5, and 6)
 - Not Likely to Adversely Effect (Attach finding/describe minimization measures)
- will not have a significant impact on any cultural or archaeological resource
 - By its nature, project has no potential to affect Historic Properties
 - No Effect No Adverse Effect (see comments and attach coordination letters/findings)
- will not have a significant impact on any (check all that apply and describe in Comments)
 - water fowl refuge recreational/park Cultural Resource other 4(f) resource
 - Deminimis* 4(f) completed and attached Programmatic 4(f) completed and attached
- will not involve significant air or noise impacts;
- will not have a significant impact on water quality;
 - Permits required: 401 404 Unknown (explain in comments)
- will not have significant impacts on travel patterns;
- will not otherwise, either individually or cumulatively, have any significant environmental impacts.

Comments: See attached PA 106 Architectural Historic and Archaeological Table 2 forms. See attached no effect form. All work within existing ROW. See attached PM 2.5 coordination and MSAT.

The project described above has been determined to meet the Categorical Exclusion criteria established in 23 CFR 771.17 and the FHWA/KYTC Categorical Exclusion Agreement.

Stephen J. Skaff 3/6/13
Dist. Environmental Coordinator Date

[Signature] 3-6-13
Project Manager Date

SPECIAL NOTES FOR ALL WEATHER PERFORMANCE-BASED PAVEMENT MARKINGS

DESCRIPTION

Work performed under this contract shall be in conformance with Commonwealth of Kentucky, Transportation Cabinet, Department of Highways' Standard Specifications for Road and Bridge Construction, 2012 Edition, applicable Special Provisions and general notes and specifications included in this proposal and the Standard drawings, 2012 Edition. The U.S. Department of Transportation's Manual on Uniform Traffic Control Devices (MUTCD), Current Edition, with all published changes and additions shall also apply to this contract. This project shall consist of furnishing all labor, equipment, materials, and incidentals for the following:

(1) Maintaining and Controlling Traffic; (2) Grooving, Providing, and Installing 3MTM StamarkTM High Performance Wet Reflective Pavement Marking Tape Series 380AW, 3MTM All Weather Paint, or 3MTM All Weather Thermoplastic as outlined in the proposal; (3) all other work specified in the Contract.

MATERIALS

Although the paint used for the durable all weather pavement markings on this project will be tested by the Department for various compositional requirements and minimum acceptable application rates for paint and beads are specified elsewhere in this proposal, it shall be the responsibility of the Contractor to insure that all striping meets the retroreflectivity requirements specified in this contract. Retroreflectivity readings will be taken only by qualified employees of the Department and Contractor who hold qualification from the Department as Pavement Marking Inspection Technicians or by a Department approved vendor. Portable readings will be taken in accordance with KM202. The Department may choose to obtain retroreflectivity readings using a mobile retroreflectometer. Mobile retroreflectometer readings will be taken using a 30M-geometry instrument by a Department approved vendor in accordance with KM203. The minimum retroreflectivity requirements shall meet the special provisions of this section. Restriping will be required for striping that fails to meet the minimum retroreflectivity requirements. The provisions for restriping are described in the section of this contract entitled "MEASUREMENT AND PAYMENT." Complete restriping within 30 calendar days after notification by the Engineer except that no striping will be performed after **October 15, 2013**. All aspects of this specification shall apply to lines that are repainted due to failure to meet the requirements of this specification including the retroreflectivity requirements. Liquidated damages, as outlined in the Standard Specifications, shall be assessed for each day beyond the 30 calendar days that repainting is not completed and shall accrue until the **October 15, 2013** deadline. At that point, no additional striping will be performed and payment will be based upon the Payment Schedule. Pavement markings shall comply with sections 846, 837 and 836 for Durable waterborne paint, Thermoplastic markings and Durable Tape respectively the in 2012 Department of

Highways' Standard Specifications for Road and Bridge Construction sans those attributes that classify each marking as an All-Weather Wet Reflective marking.

INITIAL PAVEMENT MARKING PREFORMANCE

The initial retro-reflectance averaged over many installations and measured according to the Department specification methods will be at least the values in the following table:

Initial Performance

	Retroreflectivity (mcd(ft ⁻²)(fc ⁻¹)) {metric equivalent mcd(m ⁻²)(lux ⁻¹)}	
	White	Yellow
Dry	300	225
Wet recovery (ASTM 2177)	275	200

Acceptance measurements shall follow KM 202 or KM 203.

In the event the markings do fail to meet minimum requirements, the contractor shall be responsible for total removal of sub-standard marking and replacement of new pavement markings at no cost to the Department. Pavement marking removal method shall be discussed with the Resident Engineer prior removing sub-standard markings.

QUALITY CONTROL/QUALITY ASSURANCE

The Contractor shall designate a Quality Control Coordinator (QC) for the project who will be the contact person for any questions or concerns regarding the quality of the work performed under this contract. The Quality Control Coordinator shall:

- **Hold current qualification from the Department as a Pavement Marking Inspection Technician**
- Plan and oversee the Contractor's evaluation of the lines applied on the project
- Complete and submit Daily Striping Reports and Data Logger spreadsheets (electronic copies) to the Engineer within 24 hours of completion of that days striping
- Coordinate and review or Perform KM-202, for each section of striping and provide completed test reports (electronic copy) along with printouts from the handheld retroreflectometer to the Engineer within one (1) working day of completion
- Document all adjustments made to the application process to consistently produce the quality of line desired
- Notify the Engineer of any changes in the striping work plan that are determined necessary
- Inform and mobilize crews to complete restriping or corrective work (after notification by the Department)
- Supply the appropriate certifications for paint to the Engineer assigned to the particular project at the time of sampling
- Track the quantities of materials supplied by the vendors and applied by the painting crew
- Meet with the Engineer to discuss and/or conduct field reviews on the project throughout the execution of the contract.

Quality control testing in accordance with KM-202 will be performed for each section of striping on zones selected by the Department based on KM-64-113.

At the Pre-construction Conference, the Contractor shall furnish the Department a quality control plan that covers in detail the following items:

- The name, address, phone and fax numbers for the Quality Control Coordinator
- The names of individuals other than the Quality Control Coordinator taking readings in accordance with KM202 (these people shall hold qualification from the Department as Pavement Marking Inspection Technicians)
- An overall work plan which states the estimated starting and completion dates for the entire project, the number of crews to be used on the project and a general description of how the project will be completed
- A description of the striping equipment to be used on the project, including make and model of each striper, minimum and maximum operating speeds, and type of instruments to be used to calibrate the flow of paint and beads
- The frequency and method to be used to monitor application rates and quality of the line (specifically with regard to retroreflectivity, width, thickness, bead distribution, tracing accuracy, etc.)
- A list of paint(s) and bead(s) to be used in this contract along with a statement from the paint manufacturer that indicates the recommended minimum and maximum application temperatures for ambient temperature, pavement temperature, paint temperature, and guidelines for any other environmental factors that would adversely affect the successful performance of the paint
- The contact person, phone, e-mail and fax numbers for reporting claims for paint on vehicles
- Submit the description and product literature of the reflectometer to be used to the Engineer assigned to the project for approval
- Submit a manufacturer's sampling procedure for sampling from tote

Acceptance of the Contractor's quality control plan is required prior to the start of work. The Department reserves the right to require the Contractor to make changes in the quality control plan and operations to obtain the quality specified in the contract.

After acceptance by the Department, the Contractor shall notify the Engineer in writing of any proposed change. Proposed changes are subject to acceptance by the Department.

The Department will provide the locations of randomly selected zones for QC testing for each section of striping within two weeks of receipt of the Daily Striping Report.

The Department will perform Quality Assurance (QA) testing on (at least) one segment of each section of striping completed by the Contractor. QA testing is intended to verify the Contractor's QC test data. Upon receipt of the Contractor's test report for each section, the QA Inspector will randomly select (at least) one segment for evaluation and test in accordance with KM202 with the exception that QA testing will be conducted within 2 weeks of receipt of the QC report.

The Department will base payment for each section evaluated in accordance with KM-202 on the Contractor's QC test results if the QC and QA mean values for each segment selected for

QA testing differ by less than 10% of the QA mean value.

If a dispute should arise regarding the acceptability of the Contractor's QC test results the dispute resolution shall be conducted as follows:

1. If the retroreflectivity values obtained during the QA testing within a segment indicate a change in pay quantities (i.e. QC readings are passing and QA readings are failing) and the mean values differ by more than 10 % of the QA mean value; additional testing will be required. Discard the original QC and QA test results for the section in question. The QA will randomly establish three new zones, in accordance with KM-113, in each segment within the section in question. The QC and QA will jointly evaluate each new zone within the section in accordance with KM-202 (with the exception of the evaluation period if greater than 60 days). The QC test results for each segment will be used for evaluation of the section if the QC and QA mean values for each segment differ by less than 10% of the QA mean value.
2. If the variance between QC and QA testing does not indicate a change in the pay quantities for the section (i.e. QC and QA readings are both passing) however, the QC mean values differ by more than 10% of the QA mean value: additional readings will not be required. Accept the QC test results for evaluation of the section. However, additional testing within the section in question should be conducted as soon as possible to determine the cause of the discrepancy. Resolution to the discrepancy should be documented.
3. If resolution to a dispute or variance of QC and QA test results cannot be achieved by the QC and QA, additional testing will be required. Discard the QC and QA test results for the section in question. Additional testing will be conducted by the QC, QA, and representatives of Central Office Division of Materials. Additional testing will be conducted within two weeks of receipt of a written request from the Engineer to the Division of Materials for each section in question. Three new zones, randomly selected in accordance with KM-113, will be established by the QA for each segment of the section in question. Each instrument to be used for testing will be calibrated in the presence of Central Office representatives prior to initiation of testing. The QC, QA and Central Office representatives will obtain readings for each new zone in accordance with KM-202 (with the exception of the evaluation period if greater than 60 days). The QC test results for each segment will be used for evaluation of the section if the QC mean values for each segment differ by less than 10% to the mean value obtained by Central Office. The QA test results for each segment will be used for evaluation of the section if the QC mean values differ by more than 10% to the mean value obtained by Central Office and the QA mean value differs by less than 10% to the Central Office mean value. If neither the QC nor QA mean values meet these requirements, the Central Office mean value for each segment will be used to evaluate the section in question. These results will be final and the basis of payment for the section in question.

The Contractor will incur all costs associated with additional testing performed by Department personnel for dispute resolution that does not result in the use of QC test data as the basis of payment. These costs will include the cost of maintenance and control of traffic.

The Department reserves the right to take over the QC portion of testing. In the event that the Department exercises this option, the Contractor will incur the cost of testing performed

by the Department.

The Department reserves the right to evaluate designated routes, in whole or in part, in accordance with KM-203. The Department will identify routes or portions of routes to be evaluated in accordance with KM-203 at the Pre-construction Conference. Any section of striping which includes a designated route, in whole or in part, will be evaluated in accordance with KM-203. The evaluation of a section in accordance with KM-203 will be conducted at the Departments expense.

The Department will require the approved vendor performing retroreflectivity evaluation in accordance with KM-203 to successfully demonstrate compliance to his/her quality control procedures prior to collection of data for this contract. The Department will select an appropriate test site for demonstration purposes and conduct joint evaluations of both yellow and white longitudinal markings within the test site using approved 30M geometry handheld instruments. The demonstration will be deemed successful if the mean average obtained by the approved vendor differs by less than 10% to the mean average obtained by the Department for each marking evaluated within the test site.

The Department will provide notice to the Contractor regarding the date and location of the demonstration test site. The Contractor may elect to participate in the demonstration, using his/her hand held instrument, to obtain test data for informational purposes only.

The Department will base payment for each section evaluated in accordance with KM-203 solely on the test results obtained by the Department's approved vendor. Completed test results submitted by the Department's approved vendor will be considered final and are not subject to dispute.

The Department will furnish the Contractor with a blank electronic copy of the Contractors Daily Striping Report (DSR). The Contractor shall complete and furnish this standard DSR to the Engineer's office daily for each crew for each color and width of line applied. The information on the DSR shall reflect the milepoints and quantities for striping completed for that day and for that crew. The Contractor shall also include with the DSR the certification for the paint used on that day's striping. (Sample attached)

MEASUREMENT AND PAYMENT

Initial Performance

The Contractor will be paid for the actual linear miles (rounded to the nearest hundredth) of four-inch solid line for each color applied, as determined by the Engineer.

Full payment to the Contractor for the PAVE STRIPING bid items will be based upon successful compliance with the retroreflectivity requirements outlined in this proposal. The Contractor will be paid 40% of the payment for the bid item after application of striping to a particular section of roadway. The remaining payment will be made based upon the following procedure and the Payment Schedule: The work completed in one day by one striping crew for each color will be considered a section. Each section will be divided into segments (according to KM-202 or KM-203) for the purpose of evaluating retroreflectivity.

If 80% or more of the readings taken within a segment are at or above the specified minimum retroreflectivity in the proceeding section for each color, the segment will be considered as passing.

If a section is not accepted and less than 60% of the readings are at or above the specified minimum the contractor will be required to restripe. The restriping will be subject to the same requirements as the original striping.

If a section is not accepted and the number of passing readings is $\geq 60\%$ and $< 80\%$, the Contractor will be asked to restripe failing segments. The Contractor has the following options:

Restripe segment at no additional cost to the Department; or

If time does not allow for the segments to be restriped, accept deduction in payment for striping that has been determined below standard with the understanding that the Contractor may forfeit the performance payment.

If the striping does not comply with minimum specifications and the Contractor chooses to replace the pavement markings, then the contractor is to notify the Engineer of their intent to replace the markings and the method of removal for the marking.

The contractor shall not groove at a depth greater than 200 mils or full roadway pavement replacement may be required by Engineer.

PAYMENT REQUIREMENT

	Initial Payment	Performance Payment	Total Payment
Passing	40%	60%	100%
Failing	40%	0%	40%

A deduction in payment will be made for using paint that fails to meet the required material composition requirements as outlined in section 846 of the 2012 Department of Highways' Standard Specifications for Road and Bridge Construction.

There is no opportunity for the Contractor to make repairs on performance of pavement markings not meeting retained requirements.

Samples will be taken from the pavement marking installer during construction.

CONSTRUCTION REQUIREMENTS

1. Application of the wet reflective marking shall consist of placement of the waterborne paint, followed by the application of the wet reflective beads. The color of the wet reflective beads shall match the color of the line being applied.
2. The width of the line shall be as shown in the proposal.
3. Groove width: Marking width + 1 inch (+/- 1/8 inch).

Groove depth: Paint – 50 mils
Tape – 80 mils
Thermoplastic – 120 mils

Groove length: Full length of marking + 3 inch grooving transition on either end.

Groove position: Minimum of 2 inches from the edge of the longitudinal seam.

Finished surface: The bottom of the groove should have a fine corduroy surface.

Plane the grooved lines in accordance with details in the plan. Use grooving equipment with a free-floating, independent cutting or grinding head. Plane a minimum number of passes to create a smooth groove.

If a course tooth pattern is present, increase the number of blades and decrease the thickness of the spacers used on the cutting head.

Groove cleaning: Grooves must be cleaned by using high-pressure compressed air with at least 185 ft³/min air flow and 90 psi air pressure. A leaf blower will not be an acceptable method of cleaning.

If water is used in the grooving process, allow the groove to dry a minimum of 24 hours after groove cleaning, after removal of excess water, and prior to pavement marking application (temporary markings may be required). Clean and dry the groove for proper application and placement of the pavement marking. Use a high-pressure air blower with at least 185 ft³/min air flow and 90 psi air pressure to clean the groove; use of the air blower does not decrease the amount of time required for the groove to dry.

4. The waterborne paint shall be applied at a minimum rate of 25 gal/mile, tape shall be applied at a minimum of 60 mils and thermoplastic shall be at a minimum rate of 1750 lbs/mile. The thickness may be increased depending on manufacturer's recommendations to properly hold the bead system.

5. Glass beads and the wet reflective beads shall be mechanically applied to the wet paint directly behind the paint spray guns. The order of application and the application rates of the wet reflective beads shall be based on the manufacturer's recommendations to provide wet night retroreflectivity.

6. All Thermoplastic markings shall be placed by an extruded method only.

7. Contractor must submit a Quality Control Plan to include calibration and verification of application rates

METHOD OF MEASUREMENT

1. Final measurement will not be made except for authorized changes during construction or where appreciable errors are found in the contract quantity. The revision

or correction will be computed and added to or deducted from the contract quantity.

2. Where required, measurement of 4 inch pavement markings will be made to nearest linear foot. Where intermittent lines are specified, deductions will be made for the gaps in pavement marking.

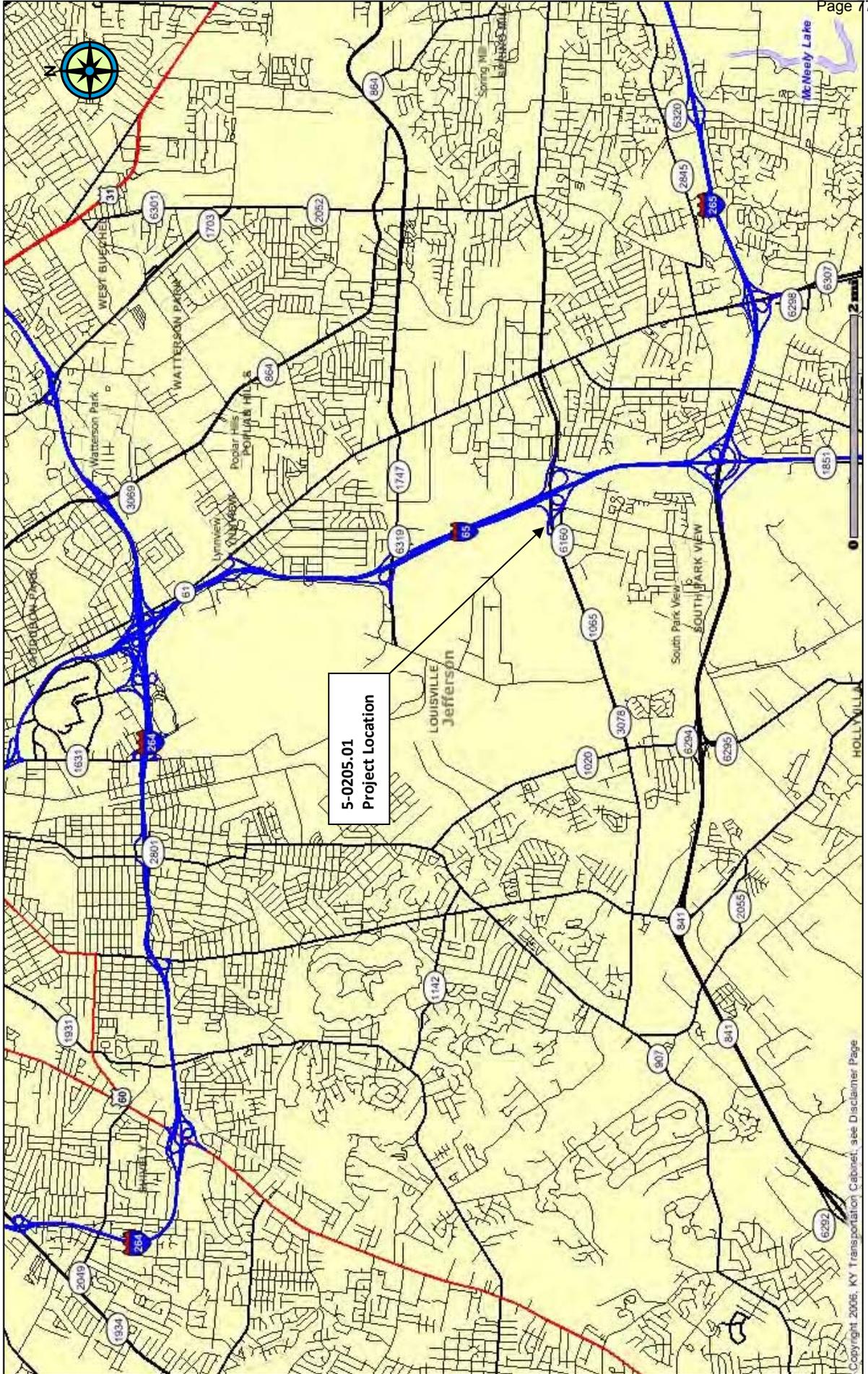
3. Basis of Payment. The accepted quantity of wet reflective pavement markings will be paid at the contract unit price of the linear foot.

4. The Department will NOT MEASURE for payment the following operations: Temporary Pollution Control, Site Preparation, Temporary Pavement Markings, and Waste Disposal. These activities shall be incidental to the bid items.

5-0205.01 ~ Improvements on I-65 SB Ramp at KY 1065 (Outer Loop)

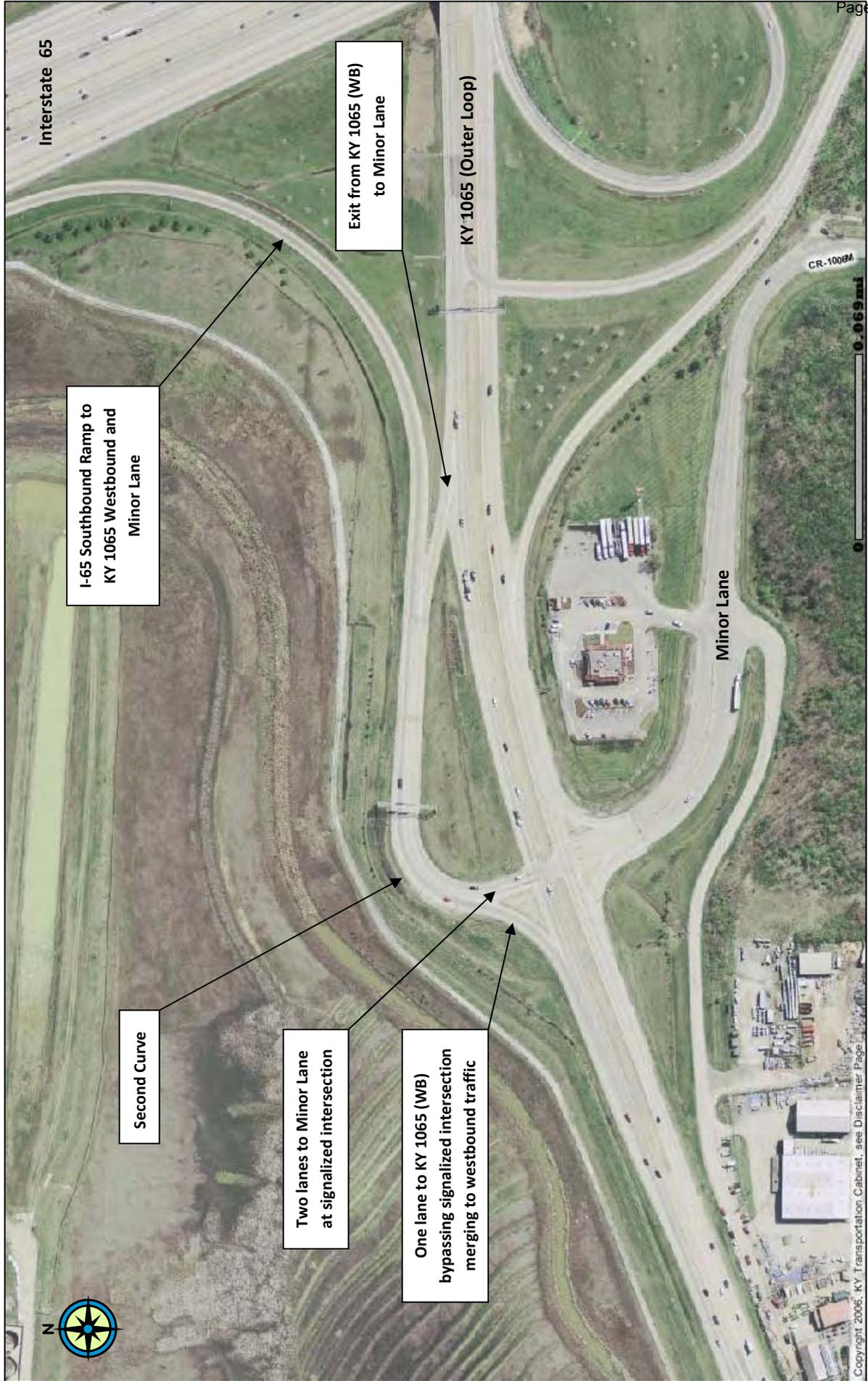
Louisville ~ Jefferson County

Vicinity Map



5-0205.01 ~ Improvements on I-65 SB Ramp at KY 1065 (Outer Loop) Louisville ~
Jefferson County

Intersection Location (Outer Loop MP 4.564)



KENTUCKY STANDARD DRAWINGS

2012 STANDARD DRAWINGS THAT APPLY

~ GENERAL ~

MISCELLANEOUS STANDARDS

BREAKAWAY SIGN SUPPORT SYSTEM FOR TYPE C BEAM.....	RGX-060
FOOTING DETAILS FOR TYPE C BEAM.....	RGX-061
TYPE D BREAKAWAY SIGN SUPPORT.....	RGX-065-01

TRAFFIC

~ PERMANENT ~

RAISED PAVEMENT MARKERS

PAVEMENT MARKER ARRANGEMENT EXIT-GORE AND OFF-RAMP.....	TMP-125-02
PAVEMENT MARKER ARRANGEMENT ON RAMP WITH PARALLEL ACCELERATION LANE.....	TMP-135-02

~ TEMPORARY ~

TRAFFIC CONTROL

LANE CLOSURE MULTI-LANE HIGHWAY CASE I.....	TTC-115-02
SHOULDER CLOSURE.....	TTC-135-01
TEMPORARY PAVEMENT MARKER ARRANGEMENTS FOR LANE CLOSURES.....	TTC-160-01

DEVICES

POST SPLICING DETAIL.....	TTD-110-01
---------------------------	------------