

GARY W. MOORE  
COUNTY JUDGE/EXECUTIVE

JUDITH S. EARLYWINE  
COUNTY ADMINISTRATOR



**BOONE COUNTY**  
PUBLIC WORKS

BOONECOUNTYKY.ORG

SCOTT PENNINGTON  
DIRECTOR

**Encroachment Permit Application**

Date 2/23/17

Applicant Name: Duke Energy

Contact Person: John Perkins

Address: 139 E 4th St

Phone: 513-287-1278

City, State, Zip: Cincinnati, OH 45202

Email: john.perkins@duke-energy.com

Phone: 513-287-1278

Type of Encroachment

Industrial Entrance

Commercial Entrance

Residential Entrance

Farm Entrance

Utility Encroachment  Underground  Overhead

Other (Specify) \_\_\_\_\_

Encroachment Location: Litton Ln

Description of Work to be Completed: Install 12" steel pipeline from our existing main just west of Gum Branch Rd to our existing gas main in Walton at Old Nicholson Rd. In addition we'll have a 8" plastic main going up Richwood Rd to our existing main on Hick's Pike. Gas main will be installed with a minimum of 4' of cover over pipe. We would directional drill under Gum Branch Rd, Liberty Hills, Suncrest Dr and Decker Ln. We would prefer to open cut across Kite Ln, Crouch Rd and Old Nicholson Rd because of the limited space to setup drilling equipment at these crossings. We will also install a pressure regulating station on the east side of Old Nicholson Rd in the ROW space between the road and the railroad.

**Separate Attached Drawings Required for All Encroachments Other than Residential**

Application Fee: Industrial Entrance - \$400.00 ea  
Commercial Entrance - \$200.00 ea All  
Other Entrances - Free  
Utility encroachment - Free

Make checks payable to: Boone County Fiscal Court

Return completed application and fee to: Boone County Public Works  
5645 Idlewild Rd.  
Burlington, KY 41005

**The applicant agrees to the following terms and conditions:**

1. The applicant shall comply with and is bound by the requirements of the Boone County Public Works Department's Regulations.
2. Applicant agrees that if the Department determines that vehicular capacity deficiencies or over capacity conditions develop as a result of the installation and use of this facility, the applicant shall adjust, relocate or reconstruct the facilities and/or provide and bear the expense for signs, storage lanes of other corrective measures reasonably deemed necessary by the Department and set forth in the Department's Regulations within a reasonable length of time after receipt of written notice regarding such adjustments, relocation, additions modifications and/or corrective measures, such time to be specified in the notice.
3. The said encroachment will not infringe on the frontage rights of an abutting owner without written consent of the said owner as hereto: "I (we) consent to the granting of attached permit."  
Date: \_\_\_\_\_ (This does not apply to utilities which serve the general public).
4. Any permit granted hereunder shall be with the full understanding that it shall not interfere with any similar rights or permits heretofore granted to any other party except as otherwise provided by law.
5. A plan prepared by Duke Energy and dated 11/23/16 is attached hereto and made a part hereof, which describes the facilities to be constructed by the applicant for which facilities this permit is granted. The applicant agrees as a condition to the issuance of the permit to construct and maintain such facilities in accordance with said plan, and the applicant shall not use the facilities authorized herein in any manner contrary to that prescribed by this permit and plan. Normal usage and routine maintenance only are authorized under this permit.
6. Applicant shall comply with the Manual on Uniform Traffic Control Devices as revised to and in effect on the date of the issuance of this permit which is made a part hereof by reference.
7. Applicant shall at all times from date when work is first commenced and until such time as all facilities are removed from the right-of-way premise, defend, protect and save harmless the Department from all liability, claims, and demands arising out of work undertaken by the applicant pursuant to this permit, due to any negligent act or omission by the applicant, its servants, agents employees or contractors. This provision shall not inure to the benefit of any third party or operate to enlarge any liability of the Department beyond that existing at common law if this right to indemnity did not exist.
8. Upon a violation of any of the provisions of this permit, the Department may revoke the permit by giving notice to the applicant in writing to remove from the right-of-way any facilities placed thereon within a reasonable time as set forth in the notice, and in the event said facilities are not so removed, and the right-of-way restored the Department may cause same to be removed, and the costs thereof shall be charged to the applicant.
9. If the work authorized by this permit is on a project in the construction phase, it shall be the responsibility of the applicant to make contact the Inspection Services Division of the Boone County Public Works Department.
10. This permit does not alleviate any requirements of any other government agency.
11. Applicant agrees to keep the priority route in which this permit was issued clear of dirt, mud and debris during construction and for the life of this permit.
12. An asphalt concrete or portland cement concrete apron, of a minimum of 19 feet in length for the width of the driveway, shall be provided from the edge of the paved portion of the street upon which the driveway is encroaching (per section 3314 of the Boone County Zoning Regulations).
13. This application will become void one (1) year from applicant signature date. Applicant must contact Engineering Services when the work is complete. (859) 334-3600.

Applicant Signature John Perkins  
Approval Michael Mandt  
Release Date \_\_\_\_\_

Date 2/23/17  
Date 2/24/17  
Permit No. 14-1141

GARY W. MOORE  
COUNTY JUDGE/EXECUTIVE

JEFFREY S. EARLYWINE  
COUNTY ADMINISTRATOR



**BOONE COUNTY**  
PUBLIC WORKS

*BOONECOUNTYKY.ORG*

SCOTT PENNINGTON  
DIRECTOR

DATE: 2-24-17

TO: Duke Energy  
Attn: John Perkins

PERMISSION HAS BEEN REQUESTED TO PERFORM THE FOLLOWING WORK  
WITHIN THE PUBLIC RIGHT-OF-WAY OF Gum Branch Rd, Liberty Hills, Suncrest Dr,  
Decker Ln, Kite Ln, Crouch Rd, and Old Nicholson Rd.

DESCRIPTION OF WORK IS AS FOLLOWS:

Traffic control by MUTCD standards

Erosion control if needed

Restoration required in R-O-W

No construction materials are to be stored on the roadway

Bore pits to be protected

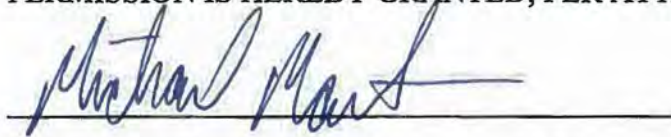
Directionally drill under Gum Branch Rd, Liberty Hills, Suncrest Dr and Decker Ln

Must adhere to Boone County Open-Cut Standards when crossing asphalt apron

Contractor shall backfill pipe with CLSM to bottom of existing pavement and bring up with  
asphalt on Kite Ln, Crouch Rd, and Old Nicholson Rd

Inspection required only on Kite Ln, Crouch Rd, and Old Nicholson Rd

PERMISSION IS HEREBY GRANTED, PER ATTACHMENTS.



PERMIT # 16-1141

DANIEL D. RICE/ GEORGIA L. JONES/MICHAEL MARTIN/MIKE EBERHART  
INSPECTION SERVICES  
ENGINEERING DIVISION

INSPECTION REQUIRED **YES** NO  
IF YES, A FOURTY EIGHT (48) HOUR NOTICE REQUIRED

THANK YOU.

OFFICE HOURS 7:30 AM – 4:00 PM M-F

PHONE (859) 334-3600 FAX (859) 334-3598



ATTENTION ALL UTILITIES AND THEIR CONTRACTORS:

PERMISSION TO PERFORM WORK WITHIN THE DEDICATED PUBLIC RIGHT-OF-WAY HAS BEEN REQUESTED BY John Perkins.

IN APPROVING THIS APPLICATION, THE UTILITY OF CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE FOLLOWING:

1. COMPACTION WITHIN THE RIGHT-OF-WAY IS REQUIRED. REFER TO THE BOONE COUNTY SUBDIVISION REGULATIONS, APPENDIX "A", ITEM 1.0, PARAGRAPH 1.4 (BACKFILL). WRITTEN RESULTS TO BOONE COUNTY PUBLIC WORKS IMMEDIATELY.
2. ALL EXCAVATIONS, I.E. BORE PITS, ROAD CUTS, SERVICE TAPS, OR REPAIRS SHALL BE BACKFILLED AT THE END OF EACH WORKING DAY, OR OTHER ARRANGEMENTS SHOULD BE MADE WITH THE INSPECTOR.
3. PRE-CONSTRUCT MEETINGS ARE ENCOURAGED.
4. NO FIXED STRUCTURES SHALL BE ALLOWED WITHIN FOUR (4) FEET OF THE EDGE OF ANY PAVEMENT, OR HAMPER MAINTENANCE OF DRAINAGE SYSTEMS.
5. THE COMPANY AGREES TO SAVE BOONE COUNTY HARMLESS FROM ANY ACTION FOR DAMAGES ARISING OUT OF ITS PROSECUTION OF THE WORK DESCRIBED HEREIN.
6. ALL RESTORATION OF THE ROADWAY OR RIGHT-OF-WAY SHALL BE TO THE SATISFACTION OF THE BOONE COUNTY SUBDIVISION REGULATIONS.
7. WORK ZONE TRAFFIC CONTROL, ROADWAY SIGNS AND MARKINGS MUST BE UTILIZED, AND IN CONFORMANCE WITH THE CURRENT M.U.T.C.D.
8. KENTUCKY LABOR CABINET, OCCUPATIONAL SAFETY AND HEALTH, (O.S.H.A.), STANDARDS 803 KAR 2:415 AND 803 KAR 2:309 (TRENCHING/SHORING, CONFINED SPACES) WILL BE OBSERVED BY THE INSPECTOR. ANY UNSAFE CONDITIONS, IN THE OPINION OF THE INSPECTOR, WILL BE BROUGHT TO THE CONTRACTOR'S ATTENTION. IF THE SITUATION IS NOT IMMEDIATELY RECTIFIED, THE O.S.H.A. DIVISION OF COMPLIANCE AND UTILITY COMPANY/OWNER WILL BE NOTIFIED IN WRITING.
9. A TWENTY-FOUR HOUR (24 HR.) NOTICE OF INSPECTION IS REQUIRED FOR ANY WORK PERFORMED WITHIN COUNTY RIGHT-OF-WAY.

DANIEL RICE, SUPERVISOR  
OFFICE: (859) 334-3600  
MOB: (859) 393-2205



**Matthew G. Bevin**  
Governor

**COMMONWEALTH OF KENTUCKY**  
**TRANSPORTATION CABINET**  
Department of Highways, District 6 Office  
421 Buttermilk Pike  
Covington, Kentucky 41017  
(859) 341-2700  
[www.transportation.ky.gov/](http://www.transportation.ky.gov/)

**Greg Thomas**  
Secretary

February 16, 2017

Duke Energy - Gas  
PO Box 960  
Room EX460  
Cincinnati, Ohio 45202

**Subject: Permit #: 06-2017-00261**  
**Permit Type: Other - Trim or Cut Trees**  
**Approval**

Dear Applicant:

Attached is your permit approval and documentation for the subject permit.

Be advised that all work must be done in conformity with permit and application conditions. If you have any questions, please contact the Permits Section at this office.

Sincerely,

A handwritten signature in blue ink, appearing to read "Matt Bogen".

**Matthew Bogen**  
D6 Permits - Supervisor

Attachments



An Equal Opportunity Employer M/F/D



Kentucky Transportation Cabinet  
 Department of Highways  
 Division of Maintenance  
 Permits Branch

TC 99-1 (B)  
 03/2016  
 Page 1 of 1

**ENCROACHMENT PERMIT**

**KEPT No.:** 06-2017-00261  
**Permittee:** Duke Energy - Gas  
**Permit Type / Subtype:** Other / Trim or Cut Trees  
**Work Completion Date:** 2/15/2018

INDEMNITIES		
Type	Amount Required	Tracking Number
Performance Bond	\$0.00	
Cash / Check	\$0.00	
Self-Insured	\$0.00	
Payment Bond	\$0.00	
Liability Insurance	\$0.00	

This permit has been: APPROVED  DENIED

Matthew Bogen D6 Permits - Supervisor 2/16/2017  
 SIGNATURE TITLE DATE

The TC 99-1(B), including the application TC-99 1(A) and all related and accompanying documents and drawings make up the permit. It is not a permit unless both the TC 99-1(A) and TC 99-1(B) are both present.

LOCATION(S)			
Description	County - Route	Latitude	Longitude
Trim/cut trees for gas main project	Boone - KY 2951	38.898530	-84.651237

## NOTICE OF COMPLETION OF ENCROACHMENT PERMIT WORK

---

### PERMITEE

Name: Duke Energy - Gas  
Contact Person:  
Address: PO Box 960 Room EX460  
City: Cincinnati  
State: Ohio  
Zip: 45202  
Telephone: (513) 287-1276

### PROJECT IDENTIFICATION

Permit Number: 06-2017-00261

---

I wish to notify the Department of Highways that the above mentioned permit work and any necessary right-of-way restoration have been completed and are ready for final inspection.

---

Applicant

---

Please return this form to the address below when work is completed and ready for final inspection.

Please Return to: Permit Engineer  
Department of Highways, District 6 Office  
421 Buttermilk Pike  
Covington, Kentucky 41017  
(859) 341-2700  
[www.transportation.ky.gov/](http://www.transportation.ky.gov/)

LOCATION(S)			
Description	County - Route	Latitude	Longitude
Trim/cut trees for gas main project	Boone - KY 2951	38.898530	-84.651237



Kentucky Transportation Cabinet  
Department of Highways  
Permits Branch

TC 99-1 (A)  
8/2012  
Page 1 of 4

APPLICATION FOR ENCROACHMENT PERMIT

<b>Permittee Information</b>				KYTC No. <u>06-2017-00261</u>			
Name	Duke Energy			<b>Permit Information</b>			
Address	PO Box 960			Address	SEE PRINTS for Big Bone Pipeline project		
	Room EX460			City			
City	Cincinnati			State	KY	Zip	41094
State	OH	Zip	45202	County	Boone		
Phone#	513-287-1276			Route No.	2957	Mile Point	0-2.7
Contact	John Perkins			Longitude (X)			
Phone	513-287-1276	Cell	513-315-8338	Latitude (Y)			
Email	John.Perkins@duke-energy.com			<i>Information below to be filled out by KYTC</i>			
Contact	Greg Menetrey			<input type="checkbox"/> Air Right	<input type="checkbox"/> Entrance		
Phone	513-659-0066	Cell:	513-659-0066	<input type="checkbox"/> Utilities	<input checked="" type="checkbox"/> Other: <u>Trim/Cut trees</u>		
Email	Greg.menetrey@duke-energy.com			<input checked="" type="checkbox"/> Left <input checked="" type="checkbox"/> Right <input type="checkbox"/> X-Ing			
				Access:	<input type="checkbox"/> Full	<input type="checkbox"/> Partial	<input checked="" type="checkbox"/> by Permit

General Description of Work

Clear trees in preparation for 10 mile pipeline project from Big Bone Lick state park to Walton, KY. See plans and stationing below where tree removal will need to occur.

Station 0+00 to 64+00 (Sheets 8-13)  
 Station 74+00 to 128+00 (Sheets 14-17)  
 Station 176+00 to 182+50 (Sheet 21)  
 Station 361+00 to 364+00 (Sheets 34, 35)  
 Station 371+00 to 438+00 (Sheets 35-40)  
 Richwood Rd portion - Station -4+00 to 3+00 (Sheet 45)  
 Richwood Rd portion - Station 3+00 to 30+00 (Sheets 6 of 9 to sheet 8 of 9)

**APPROVED**  
**FEB 16 2017**  
**KYTC District 6**

THE UNDERSIGNED PERMITTEE(S) (being duly authorized representative(s) or owner(s)) DO AGREE TO ALL TERMS AND CONDITIONS ON THE TC 99-1 (A).

John Perkins  
Signature

2/2/17  
Date

This is not a permit unless and until the permittee(s) receives an approved TC 99-1(B) from KYTC. This application will become void if not approved by the cancellation date. The cancellation date will be one year from the date the permittee submits their application.





## APPLICATION FOR ENCROACHMENT PERMIT

### TERMS AND CONDITIONS

1. The permit, including this application and all related and accompanying documents and drawings making up the permit, remains in effect and is binding upon the Applicant/Permittee, its successors and assigns, as long as the encroachment(s) exists and also until the permittee is finally relieved by the Department of Highways from all its obligations.
2. Applicant shall meet all requirements of the Clean Water Act if the project will disturb one acre or more, the applicant shall obtain a KPDES KYR10 Permit from the Kentucky Division of Water. All disturbed areas shall meet the requirements of the Department of Highway's Standard Specifications, Sections 212 and 213, as amended.
3. INDEMNITY:
  - A. PERFORMANCE BOND: The permittee shall provide to the Department a performance bond according to the Permits Manual, Section PE-203 as a guarantee of conformance with the Department's Encroachment Permit requirements.
  - B. PAYMENT BOND: At the discretion of the department, a payment bond will be required of the permittee to ensure payment of liquidated damages assessed to the permittee.
  - C. LIABILITY INSURANCE: Liability insurance will be required of the permittee (in an amount approved by the department) to cover all liabilities associated with the encroachment.
  - D. It shall be the responsibility of the permittee, its successors and assigns, to maintain all indemnities in full force and effect until the permittee is authorized to release the indemnity by the Department.
4. A copy of this application and all related documents making up the approved permit will be given to the applicant and shall be made readily available for review at the work site at all times.
5. Perpetual maintenance of the encroachment is the responsibility of the permittee, its successors and assigns, with the approval of the Department as required, unless otherwise stated.
6. Permittee, its successors and assigns, shall comply with and agrees to be bound by the requirements and terms of (a) this application and all related documents making up the approved permit, (b) by the Department's Permits Manual, and (c) by the Manual on Uniform Traffic Control Devices, both manuals as revised to and in effect on the date of issuance of the permit, all of which documents are made a part thereof by this reference. Compliance by the permittee, its successors and assigns, with subsequent revisions to applicable provisions of either manual or other policy of the Department may be made a condition of allowing the encroachment to persist under the permit.
7. Permittee agrees that this and any encroachment may be ordered removed by the Department at any time, and for any reason, upon thirty days written notice to the last known address of the applicant or to the address at the location of the encroachment. The permittee agrees that the cost of removing and of restoring the associated right-of-way is the responsibility of the permittee, its successors and assigns.
8. Permittee, its successors and assigns, agree that if the Department determines that motor vehicular safety deficiencies develop as a result of the installation or use of the encroachment, the permittee, its successors and assigns, shall provide and bear the expenses to adjust, relocate, or reconstruct the facilities, and/or add signs, auxiliary lanes, or other corrective measures reasonably deemed necessary by the Department within a reasonable time after receipt of a written notice of such deficiency. The period within which such adjustments, relocations, additions, modifications, and/or other corrective measures must be completed will be specified in the notice.



**APPLICATION FOR ENCROACHMENT PERMIT**

9. Where traffic signals are required as a condition of granting the requested permit or are thereafter required to correct motor vehicular safety deficiencies, as determined by the Department, the costs for signal equipment and installation(s) shall be borne by the permittee, its successors and assigns, and/or the Department in its reasonable discretion and only in accordance with the Department's current policy set forth in the Traffic Operations Manual and Permits Manual. Any modifications to the permittee's entrance necessary to accommodate signalization (including necessary easement(s) on private property) shall be the responsibility of the permittee, its successors and assigns, at no expense to the Department.

10. The requested encroachment shall not infringe on the frontage rights of an abutting owner without their written consent as hereinafter described. Each abutting owner shall express their consent, which shall be binding on their successors and assigns, by the submission of a notarized statement as follows, "I (we), \_\_\_\_\_, hereby consent to the granting of the permit requested by the applicant along Route \_\_\_\_\_, which permit does affect frontage rights along my (our) adjacent real property." By signature(s) \_\_\_\_\_, subscribed and sworn by \_\_\_\_\_, on this date \_\_\_\_\_.

11. The permit, if approved, is subject to the agreement that it shall not interfere with any similar rights or permit(s) previously granted to any other party, except as otherwise provided by law.

12. Permittee shall include documentation which describes the facilities to be constructed. Permittee, its successors and assigns, agrees as a condition of the granting of the permit to construct and maintain any and all permitted facilities or other encroachments in strict accordance with the submitted and approved permit documentation and the policies and procedures of the Department. Permittee, its successors and assigns, shall not use facilities authorized herein in any manner contrary to that prescribed by the approved permit. Only normal usage as contemplated by the parties and by this application and routine maintenance are authorized by the permit.

13. Permittee, its successors and assigns, at all times from the date permitted work is commenced until such time as all permitted facilities or other encroachments are removed from the right-of-way and the right-of-way restored, shall defend, protect, indemnify and save harmless the Department from any and all liability claims and demands arising out of the work, encroachment, maintenance, or other undertaking by the permittee, its successors and assigns, related or undertaken pursuant to the granted permit, due to any claimed act or omission by the permittee, its servants, agents, employees, or contractors. This provision shall not inure to the benefit of any third party nor operate to enlarge any liability of the Department beyond that existing at common law or otherwise if this right to indemnity did not exist.

14. Upon a violation of any provision of the permit, or otherwise in its reasonable discretion, the Department may require additional action by the permittee, its successors and assigns, up to and including the removal of the encroachment and restoration of the right-of-way. In the event additional actions required by the Department under the permit are not undertaken as ordered and within a reasonable time, the Department may in its discretion cause those or other additional corrective actions to be undertaken and the Department may and shall recover the reasonable costs of those corrective actions from the permittee, its successors and assigns.

15. Permittee, its successors and assigns, shall use the encroachment premises in compliance with all requirements of federal law and regulation, including those imposed pursuant to Title VI of the Civil Right Act of 1964 (42 U.S.C. § 2000d et seq.) and the related regulations of the U.S. Department of Transportation in Title 49 C.F.R. Part 21, all as amended.



Kentucky Transportation Cabinet  
Department of Highways  
Permits Branch

TC 99-1 (A)  
8/2012  
Page 4 of 4

**APPLICATION FOR ENCROACHMENT PERMIT**

**16.** Permittee, its successors and assigns, agree that if the Department determines it is necessary for the facilities or other encroachment authorized by the permit to be removed, relocated or reconstructed in connection with the reconstruction, relocation or improvement of a highway, the Department may revoke permission for the encroachment to remain under the permit and may order its removal, relocation or reconstruction by the permittee, its successors and assigns, at the expense of the permittee, except where the Department is required by law to pay any or all of those costs.

**17.** Permittee agrees that the authorized permit is personal to the permittee and shall remain in effect until such time as (a) the permittee's rights to the adjoining real property to have benefitted from the requested encroachment have been relinquished, (b) until all permit obligations have been assumed by appropriate successors and assigns, and (c) unless and until a written release from permit obligations has been granted by the Department. The permit and its requirements shall also bind the real property to have benefitted from the requested encroachment to the extent permitted by law. The permit and the related encroachment become the responsibility of the successors and assigns of the permittee and the successors and assigns of each property owner benefitting from the encroachment, or the encroachment may not otherwise permissibly continue to be maintained on the right-of-way. (Does not apply to utility encroachments serving the general public.)

**18.** If work authorized by the permit is within a highway construction project in the construction phase, it shall be the responsibility of the permittee to make personal contact with the Department's Engineer on the project in order to coordinate all permitted work with the Department's prime contractor on the project.

**19.** This permit is not intended to, nor shall it, affect, alter or alleviate any requirement imposed upon the permittee, its successors and assigns, by any other agency.

**20.** Permittee, its successors and assigns, agrees to contain and maintain all dirt, mud, and other debris emanating from the encroachment away from the surrounding right-of-way and the travel way of the highway hereafter and at all times that its obligations under the permit remain in effect.



## ENCROACHMENT PERMIT GENERAL NOTES & SPECIFICATIONS

Permit No. 06-2017-00261

### I. SAFETY

#### A. General Provisions

- All signs and control of traffic shall be in accordance with the Manual on Uniform Traffic Control Devices for Streets and Highways, latest edition, Part VI, and safety requirements shall comply with the Permits Manual.
- All work necessary in shoulder or ditch line areas of a state highway shall be scheduled to be promptly completed so that hazards adjacent to the traveled way are kept to an absolute minimum.
- No more than one (1) traveled-lane shall be blocked or obstructed during normal working hours. All signs and flaggers during lane closure shall conform to the Manual on Uniform Traffic Control Devices.
- When necessary to block one (1) traveled-lane of a state highway, the normal working hours shall be as directed by the Department. No lanes shall be blocked or obstructed during adverse weather conditions (rain, snow, fog, etc.) without specific permission from the Department. Working hours shall be between 8:30 AM and 4:00 PM.
- The traveled-way and shoulders shall be kept clear of mud and other construction debris at all times during construction of the permitted facility.
- No nonconstruction equipment or vehicles or office trailers shall be allowed on the right of way during working hours.
- The right of way shall be left free and clear of equipment, material, and vehicles during non-working hours.

#### B. Explosives

- No explosive devices or explosive material shall be used within state right of way without proper license and approval of the Kentucky Department of Mines and Minerals, Explosive Division.

#### C. Other Safety Requirements

- Applicant shall adhere to MUTCD standards for all traffic control. Roadway shall be kept clear of debris at all times.

### II. UTILITIES \* Applies to Fully Controlled Access Highways ONLY

- \*All work necessary within the right of way shall be performed behind a temporary fence erected prior to a boring operation.
- \*The temporary woven wire fence shall be removed immediately upon completion of work on the right of way, and the control of access immediately restored to original condition, in accordance with applicable Kentucky Department of Highways Standard Drawings.
- \*All vents, valves, manholes, etc., shall be located outside of the right-of-way.
- \*Encasement pipe shall extend from right-of-way line to right-of-way line and shall be one continuous run of pipe. The encasement pipe shall be welded at all joints.
- The boring pit and tail ditch shall extend past the existing toe of slope or bottom of ditch line and shall be a minimum of 42 inches deep.

Permit No. 06-2017-00261

**II. UTILITIES (Continued)**

- Encasement pipe shall conform to current standards for highway crossings in accordance with the Permits Manual.
- Parallel lines shall be constructed between back slope of ditch line and right-of-way line and shall have a minimum of 30-inch cover above top of pipe or conduit.
- All pavement cuts shall be restored per Kentucky Transportation Cabinet form TC 99-13.
- Aerial crossing of this utility line shall have a minimum clearance of \_\_\_\_\_ feet from the high point of the roadway to the low point of the line (calculated at the coefficient for expansion of 120 degrees Fahrenheit).
- The 30-foot clear zone requirement shall be met to the extent possible in accordance with the Permits Manual.
- Special requirements:

**III. GENERAL**

**A. OSHA**

- Kentucky Occupational Safety and Health Standards for the construction industry, which has the effect of law, states in part: (Page 52, 1926.651, Specific Excavation Requirements) "Prior to opening an excavation, effort shall be made to determine whether underground installations, (sewer, telephone, water, fuel, electric lines, etc.) will be encountered, and if so, where such underground installations are located. When the excavation approaches the estimated location of such an installation, the exact location shall be determined, and when it is uncovered, proper supports shall be provided for the existing installation. Utility companies shall be contacted and advised of proposed work prior to the start of actual excavation."

**B. Archaeological**

- Whenever materials of an archaeological nature are discovered during the course of construction work or maintenance operations, contact shall be made immediately with the Division of Environmental Analysis, which maintains an archaeologist on staff, or with the Office of the State Archaeologist located at the University of Kentucky. Following this consultation, further action shall be decided on a case-by-case basis by the State Highway Engineer or the Transportation Planning Engineer or their designated representative.

**C. Utilities in the Work Areas**

- The permittee shall be responsible for any damage to existing utilities, and any utility modifications or relocations within state right of way necessary, as determined by the Department or by the owner of the utility, shall be at the expense of the permittee and subject to the approval of the Department.
- All existing manholes and valve boxes shall be adjusted to be flush with finished grade.

**D. Environmental**

- If the activity to which this permit relates disturbs one acre or more of land, you must obtain a KPDES KYR10 permit.

Websites

<http://www.water.ky.gov/permitting/wastewaterpermitting/KPDES/storm/>

Inspectors for KPDES KYR10 at [www.KEPSC.org](http://www.KEPSC.org)

Permit No. 06-2017-00261

**IV. RIGHT OF WAY RESTORATION**

All disturbed portions of the right of way shall be restored to grass as per Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition). A satisfactory turf, as determined by the Department, shall be established by the permittee prior to release of indemnity. Sodding or seeding shall be as follows:

- |                                    |  |
|------------------------------------|--|
| Lawn or High Maintenance Situation | 70% Lawn Fescue (e.g., variety - Falcon)<br>30% Bluegrass or |
|                                    | 70% Lawn Rye (e.g., variety - Derby)<br>30% Bluegrass        |

- |   |  |
|---|--|
| Right of Way Lawn Maintenance Situation | 70% KY 31 Fescue<br>30% Perennial Rye Grass or |
|   | 100% KY Fescue                                 |

- Two tons of clean straw mulch per acre of seeding.
- Prior to seeding, the ground shall be prepared in accordance with Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition).
- Substitutes for sod such as artificial turf, rocked mulch, or paved areas may be acceptable if they are aesthetically pleasing.
- All ditch-flow lines and all ditch-side slopes shall be sodded.
- Existing concrete right of way markers shall not be disturbed, but if damaged in any way, they shall be entirely replaced by the permittee, with new concrete markers to match the original markers, in accordance with Kentucky Department of Highways Standard Drawings. Markers that are entirely removed shall be re-established in the proper locations by the permittee and to the satisfaction of the Department.
- Other right of way restoration requirements are as follows:

**V. DRAINAGE**

- All pipe shall be laid in a straight alignment, to proper grades, and with all materials and methods of installation including bedding and joint seating in accordance with Department Standard Specifications for Road and Bridge Construction (latest edition). Pipe shall not be covered until inspected by the Department and express permission obtained to make backfill.
- All gutter lines at the base of new curbs shall be on continuous grades, and pockets of water along with curbs or in entrance areas or other paved areas within the right of way shall not be acceptable.
- All drainage structures and appurtenances (manholes, catch basins, curbing, inlet basins, etc.) shall conform to Department specifications and shall be constructed in accordance with the Department Standard Drawings. Type required:

Any negative impact to existing drainage features shall be corrected to KYTC standards.

Permit No. 06-2017-00261

**VI. Paving**

- No bituminous pavement shall be installed within the right of way between November 15 and April 1, nor when the temperature is below 40 degrees Fahrenheit, without the express consent of the Department. No bituminous pavement shall be installed when the underlying course is wet.
- Paving within the right of way shall be as follows:
  - Base (Type) \_\_\_\_\_ (Thickness) \_\_\_\_\_
  - Surface Base (Type) \_\_\_\_\_ (Thickness) \_\_\_\_\_
  - Finished Surface (Type) \_\_\_\_\_ (Thickness) \_\_\_\_\_
- Existing pavement and shoulder material shall be removed to accommodate the above paving specifications.
- The finished surface of all new pavement within the right of way shall be true to the required slope and grade, uniform in density and texture, free of irregularities, and equivalent in riding qualities to the adjacent highway pavement or as determined by the Department of Highways.
- All materials and methods of construction, including base and subgrade preparation, shall be in accordance with Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition).
- 24 hours notice to the Department is required prior to beginning paving operations.  
Phone: \_\_\_\_\_ Name: \_\_\_\_\_
- To ensure proper surface drainage, the new pavement shall be flush with the edge of existing highway pavement and shall slope away from the existing edge of the pavement as specified in drawings.
- Existing edge of pavement shall be saw-cut to provide a straight and uniform joint for new pavement. An approved joint sealer, in accordance with Kentucky Department of Highways Standard Specifications (latest edition), shall be applied between new and existing pavements.

**VII. SIDEWALKS SPECIFICATIONS \*This dimension should be equal to the width of the sidewalk.**

**A. New Sidewalks**

- Sidewalks shall be constructed of Class A concrete (3,500 p.s.i. test), shall be \* \_\_\_\_\_ feet in width, 6 inches in thickness across the bituminous entrance, and 4 inches in thickness across the remaining sections.
- Sidewalks shall have tooled joints not less than 1 inch in depth at four foot intervals\*, and 1/2 preformed expansion joints extending entirely through the sidewalk at intervals not to exceed 50 feet.
- All materials and methods of construction, including curing, shall be in accordance with the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition).

**B. Existing Sidewalks**

- (Applicable if existing sidewalks are being relocated) Use of the sidewalk shall not be blocked or obstructed, and a usable walkway shall be maintained across the construction area at all times.
- All damaged sections of the sidewalks shall be entirely replaced to match existing sections.

Permit No. 06-2017-00261

### VIII. DENSE GRADED SHOULDERS

- Any existing dense-graded aggregate shoulders in the entire frontage within the construction area, which have been disturbed or damaged or on which dirt has been placed or mud has been deposited or tracked, shall be restored to original condition by removal of all contaminated material and replaced to proper grade with new dense-graded aggregate.
- All new aggregate shoulders as specified in the plan shall consist of 5 inches of compacted dense-graded aggregate, 2<sup>1/2</sup> pounds per square yard of calcium chloride.
- All dense-graded aggregate shoulders shall slope away from the new edge of pavement at the rate of 3/4 inch per foot.

### IX. CURBING

#### A. Bituminous Curbs

- Bituminous concrete curbs shall be given a paint coat of asphalt emulsion.
- The surface under the bituminous concrete curb shall be tacked with asphalt emulsion.
- All bituminous concrete curbs shall be constructed of a Class I bituminous concrete mixture as specified by official Department of Highways specifications.
- All bituminous curbs shall be rolled curb, with a minimum base width of 8 inches and a minimum height of \_\_\_\_ inches. The top of the curb shall be constructed in such a manner as to guarantee a uniform rolled effect throughout the entire run.

#### B. Concrete Curbs

- All curbs or curb and gutter shall be constructed of Class A concrete (3,500 p.s.i. test) and shall be uniform in height, width, and alignment, true to grade, and satisfactory in finish and appearance as determined by the Department. All materials and methods of construction, including curing, shall be in accordance with Department of Highways Standard Specifications for Road and Bridge Construction (latest edition).
- All concrete curbs shall be 6 inches in width, extend \_\_\_\_ inches above finished grade and 12 inches below finished grade, with all visible edge rounded to 1/2 inch radii.
- All concrete curbs shall have expansion joints constructed at intervals of not more than 30 feet, and 1/2 inch premolded expansion joint material (cut to conform to the curb or to the curb and gutter section) shall be used in each expansion joint.
- The last \_\_\_\_ feet of all concrete curbs are to be tapered down to finished grade.

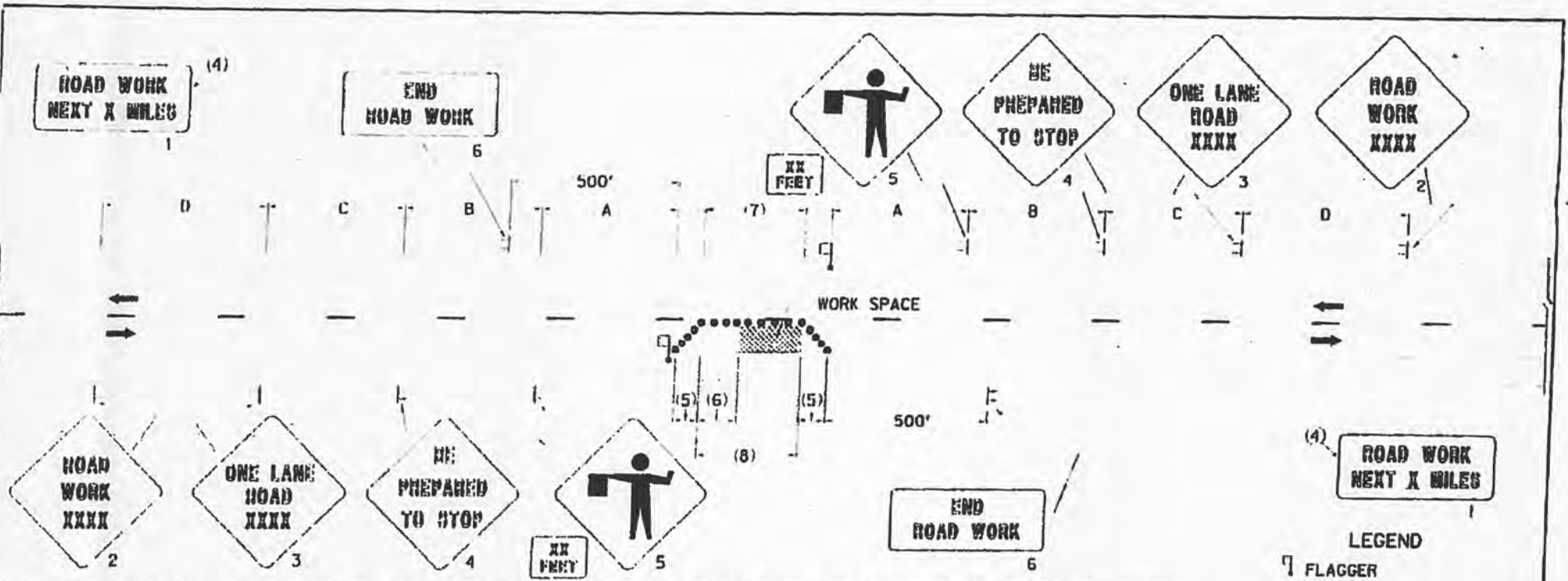


**X. RIGHT-OF-WAY FENCE REPLACEMENT**

- The replacement fence shall be a height of at least 48 inches and shall be of sufficient density to contain all animals (if applicable).
- The replacement fence shall be a minimum of 1 foot and a maximum of 2 feet outside the right-of-way line.
- The fence materials and design shall meet accepted industry standards and be treated as paintable.
- The permittee shall be required to maintain the fence in a high state of repair.
- The existing fence shall be removed by permittee and stored at the Department's maintenance storage yard for future reuse by the Department.
- The control of access shall not be diminished as a result of replacement of the fence.
- Miscellaneous:

**NOTICE TO PERMITTEE**

THE PERMITTEE AGREES THAT ALL WORK WITHIN THE EXISTING RIGHT OF WAY SHALL BE DONE IN ACCORDANCE WITH THE PLANS AS APPROVED AND PERMITTED BY AN ENCROACHMENT PERMIT. ANY CHANGES OR VARIANCES MADE AT THE TIME OF CONSTRUCTION WITHOUT WRITTEN APPROVAL FROM THE DEPARTMENT OF HIGHWAYS SHALL BE REMOVED BY THE PERMITTEE AT NO EXPENSE TO THE DEPARTMENT OF HIGHWAYS AND SHALL BE REDONE BY THE PERMITTEE TO CONFORM WITH THE APPROVED PLANS.



1. THE SIZE OF SIGNS 2 THRU 5 SHALL BE 48" X 48" (SUPPLEMENTAL PLAQUES SHALL BE 30" X 24") IF THE NORMAL POSTED SPEED LIMIT IS 45 MPH OR GREATER. OTHERWISE, 36" X 36" SIGNS (WITH 24" X 18" SUPPLEMENTAL PLAQUES) MAY BE USED. SIGN NOS. 1 AND 6 SHALL BE 48" X 24" IF THE NORMAL POSTED SPEED LIMIT IS 45 MPH OR GREATER, OTHERWISE 36" X 18" SIGNS MAY BE USED.
2. THE FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. FLAGGER STATIONS SHALL BE LOCATED FAR ENOUGH IN ADVANCE OF THE ACTIVITY AREA SO THAT APPROACHING ROAD USERS WILL HAVE SUFFICIENT DISTANCE TO STOP BEFORE ENTERING THE WORK SPACE (REFER TO TABLE 6C-2 OF THE MUTCD). ILLUMINATION SHALL BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT.
3. DRUMS OR TYPE II BARRICADES SHALL BE USED IN LIEU OF CONES OR TUBULAR MARKERS IF CLOSURE EXTENDS INTO NIGHTTIME HOURS.
4. SIGN NO. 1 SHALL BE INSTALLED AT THE LIMITS OF THE PROJECT WHEN THE CONSTRUCTION ZONE IS LONGER THAN TWO MILES IN LENGTH. THE DISTANCE SHOWN SHALL BE STATED TO THE NEAREST WHOLE MILE.
5. TAPERS SHALL BE 50' (MIN) TO 100' (MAX) IN LENGTH. SPACING OF CHANNELIZING DEVICES SHOULD BE 20' THRU THE TAPER AREAS.
6. BUFFER SPACE (OPTIONAL). IF USED, THE BUFFER SPACE SHOULD BE EXTENDED SO THAT THE TWO-WAY TRAFFIC TAPER IS PLACED BEFORE A HORIZONTAL (OR CREST VERTICAL) CURVE TO PROVIDE ADEQUATE SIGHT DISTANCE FOR THE FLAGGER AND A QUEUE OF STOPPED VEHICLES.
7. SPACING OF CHANNELIZING DEVICES THRU THE ACTIVITY AREA SHOULD BE 80'.
8. FOR LANE CLOSURES DURING DAYLIGHT HOURS WITH ROADWAY WIDTHS FROM 16 TO 20 FEET, CONES SHALL BE USED. IF CHANNELIZING DEVICES CANNOT BE PROVIDED THROUGH THE WORK SPACE AND STILL ACHIEVE A USEABLE PAVEMENT WIDTH IN THE ADJACENT LANE FOR MOTORISTS TO SAFELY TRAVERSE THE WORK ZONE OR WHERE ROAD WIDTHS ARE LESS THAN 16 FEET, THE ROAD SHOULD BE CLOSED TO THROUGH TRAFFIC. LOCAL TRAFFIC SHALL BE MAINTAINED.
9. WHEN NIGHTTIME WORK IS BEING PERFORMED, FLOODLIGHTS SHOULD BE USED TO ILLUMINATE THE WORK AREA.

- LEGEND**
- FLAGGER
  - ▬ SIGN
  - CHANNELIZING DEVICES  
CONES  
DRUMS  
TYPE II BARRICADES  
TUBULAR MARKERS

SIGNING AND SPACING TABLE					
ROAD TYPE	A	B	C	D	SIGNS REQUIRED
EXPRESSWAY/ FREEWAY	1000'	500'	1100'	2600'	1 THRU 5
SP. LT. ≥ 45 MPH*	500'	500'	500'	1100'	1 THRU 5
SP. LT. ≤ 40 MPH*	250'	250'	250'	250'	1, 3 THRU 5

\*NOTE: USE NORMAL POSTED SPEED LIMIT

**APPLICATION**  
THIS DRAWING APPLIES TO LANE CLOSURES ON TWO-LANE, TWO DIRECTION HIGHWAYS, INCLUDING ROADWAYS WITH WIDTHS FROM 16 TO 20 FEET.

**DRAWING NOT TO SCALE**

USE WITH CURRENT  
STD. DWG TTD-110

KENTUCKY DEPARTMENT OF HIGHWAYS
<b>LANE CLOSURE TWO-LANE HIGHWAY</b>
STANDARD DRAWING NO. TTC-100-02 SUBMITTED BY <i>R. Allen Wolfe</i> DATE 12-2-11 CHECKED BY <i>[Signature]</i> DATE 12-2-11 APPROVED BY <i>[Signature]</i> DATE 12-2-11

## IMPORTANT NOTICE

Federal law requires that traffic control shall be implemented in accordance with MUTCD Standards and KYTC Specifications under the supervision of a Work Zone Traffic Control Supervisor.

A Work Zone Traffic Control Technician shall be available on the jobsite to ensure that the work zone is in compliance with the applicable standards.

If any questions, please contact Matt Bogen at (859) 341-2700.

## IMPORTANT NOTICE

Federal law requires that High Visibility Class 2 or Class 3 retroreflective safety apparel that meets ANSI/ISEA 107-2004 Standards shall be worn at all times by anyone working within the KYTC R/W limits.

Class 3 apparel is required for flaggers after dark.

If any questions, please contact Matt Bogen at (859) 341-2700.