Siting Board 2-1:

Provide the diameter of the pipeline.

Response: The pipeline will be 6-inch piping from the tap point to the Plant Site.

Witness: Doug Buresh

Siting Board 2-2:

Provide the maximum allowable operating pressure of the pipeline.

Response: The maximum allowable operating pressure of the pipeline is determined by the rating of the Texas Gas line at the point of interconnection which is 965 psig.

Witness: Doug Buresh

Siting Board 2-3:

Provide the normal operating pressure for the pipeline.

Response: The normal operating pressure of the pipeline is determined by the operation of the Texas Gas line which is 680 psig at the point of interconnection.

Witness: Doug Buresh

Siting Board 2-4:

Explain whether the gas in the line be odorized, or will it remain un odorized.

Response: The line will be odorized. Odorization equipment will be located at the Texas Gas point of interconnection.

Witness: Doug Buresh

Siting Board 2-5:

Explain who will be responsible for operating the line.

Response: The Kentucky Municipal Energy Agency will own and operate the gas pipeline from the point of interconnection with Texas Gas to the plant site.

Witness: Doug Buresh

Siting Board 2-6:

Explain who will be responsible for maintaining compliance with CFR Part 191, 192, and 199.

Response: The Kentucky Municipal Energy Agency will be responsible for all applicable regulations.

Witness: Doug Buresh

Siting Board 2-7:

Explain whether a PHMSA Operator ID been requested as required per CFR Part 191.22(a).

Response: The Kentucky Municipal Energy Agency has not requested a PHMSA Operator ID yet.

Witness: Doug Buresh

Siting Board 2-8:

Provide the approximate start date of construction and the anticipated operational startup date.

Response: The current schedule shows an early start for construction to begin in February 2026 with 6 or more months of float. The first gas flow to engines is currently scheduled for March 2027 with the Commercial Operating Date projected for June 1, 2027.

Witness: Doug Buresh

Siting Board 2-9:

Explain whether the transmission line anticipate any high consequence areas in the location of the pipeline.

Response: There are no current or planned High Consequence Areas along our pipeline route within the current and proposed Potential Impact Radius.

Witness: Doug Buresh

Siting Board 2-10:

Refer to the Application, Attachment A, Context Map. Provide an updated site plan that shows the location of:

a. Parcel boundaries;

b. Perimeter fencing;

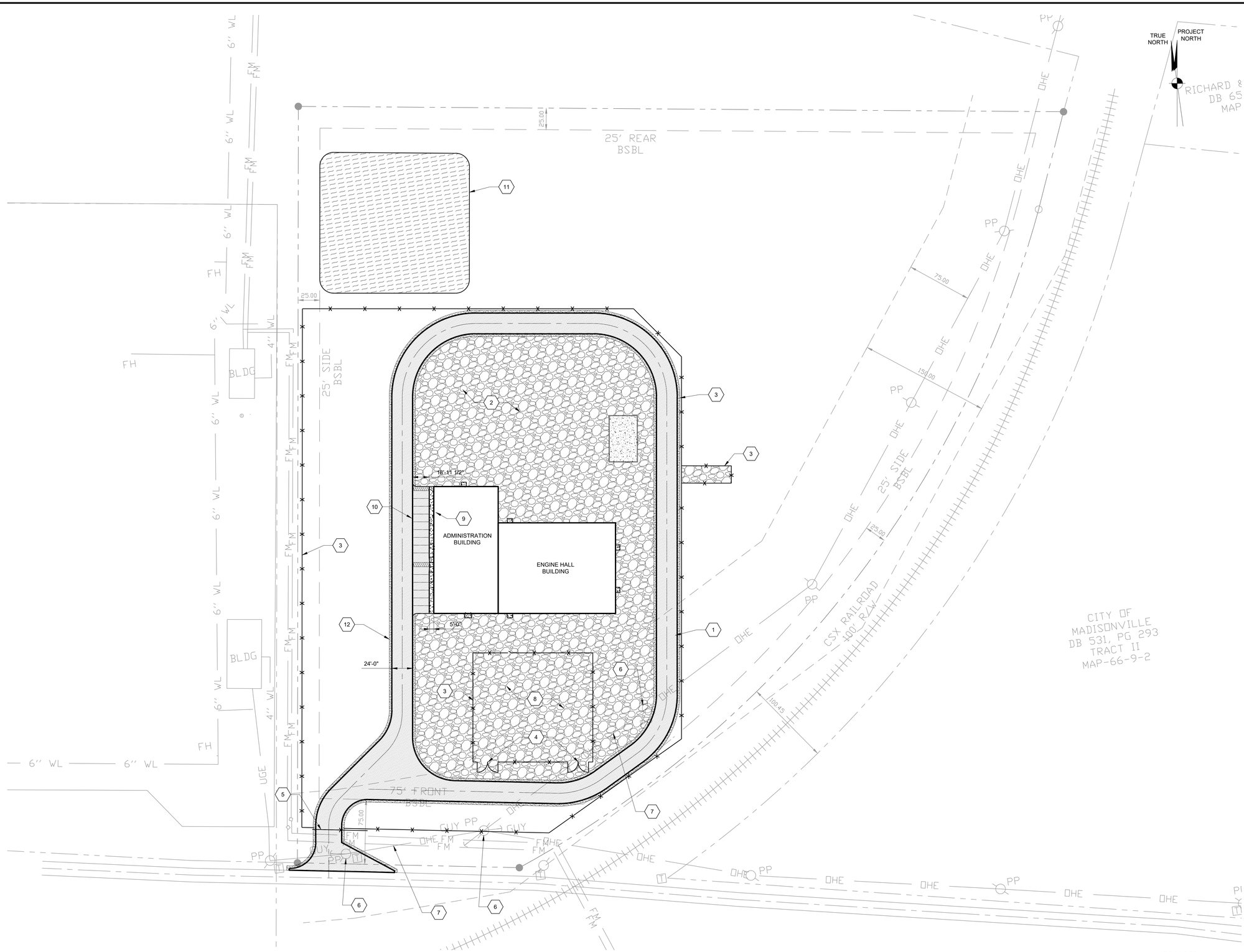
c. Access roads;

d. Access points; and

e. Substation.

Response: Attachment 2-10 is an updated site plan for the plant reflecting a minor shift to the plant entrance to the west. Final electric substation (switching station) configuration will not be known until after completion of the interconnection study in May 2025. As such, previous Attachment 1-12 remains the current proposed substation site plan.

Witness: Doug Buresh



KEYNOTE LEGEND:

1. PERIMETER ACCESS ROAD. HMA PAVEMENT.
2. SURFACE AGGREGATE.
3. PERIMETER CHAIN LINK FENCE.
4. 24' WIDE DOUBLE SWING GATE.
5. 30' WIDE CANTILEVER SLIDE GATE.
6. POWER POLE TO BE RELOCATED.
7. OVERHEAD POWER LINE TO BE RELOCATED.
8. ELECTRICAL EQUIPMENT YARD.
9. PCC SIDEWALK.
10. EMPLOYEE PARKING. HMA PAVEMENT.
11. DETENTION BASIN. SEE SHEET CG101.
12. AGGREGATE SHOULDER.

SITE PLAN

SCALE: 1"=50'

AT FULL SIZE

0 1 2 3 IN

0 1 2 3 4 5 6 7 8 cm

PRELIMINARY ISSUE
FOR REVIEW
NOT FOR CONSTRUCTION

01-03-25

NO.	REVISIONS	DSGN	CHKD	APVD	DATE

Stanley Consultants INC.
225 Iowa Avenue, Muscatine, Iowa 52761-3764
www.stanleyconsultants.com

CHRISTMAN SINCE 1894

KYMEA

KENTUCKY MUNICIPAL ENERGY AGENCY
KYMEA ENERGY CENTER I
MADISONVILLE, KENTUCKY

SITE PLAN

DESIGNED	V.J. SCHROCK
DRAWN	S.L. ROENFELDT
CHECKED	
APPROVED	
APPROVED	
DATE	

SCALE: AS NOTED

NO. 31825.01

REV. B

CS101

CADD D1-R6

Siting Board 2-11

Refer to Site Assessment Report (SAR), Appendix E, Site Layout and Kentucky Municipal Energy's response to Siting Board Staff's First Request for Information (Staff's First Request), Item 11. State the distance between the stacks and AC Slaton Road.

Response: The stacks are approximately 492 feet from the centerline of AC Slaton Road.

Witness: Doug Buresh

Siting Board 2-12:

Explain, in detail, the plan for any re-vegetation or reclamation of land disturbed during the construction of the underground natural gas pipeline.

Response:

All disturbed lands will be seeded with a mixture of Kentucky 31 fescue and annual/perennial ryegrasses unless owner requests other mixtures. Grass species will be selected on the basis of quick germination, growth, and time of year to be seeded. Temporary seeding may be used to stabilize areas that have not reached final grade. Temporary seeding reduces runoff and dust while also protecting the surface of the soil and promoting infiltration while preparing it for permanent seeding. Permanent seeding will be applied to disturbed areas within 14 days of reaching final grade if no temporary cover is applied.

Witness: Doug Buresh

Siting Board 2-13:

Refer to Kentucky Municipal Energy's response to Staff's First Request, Item 3. Explain whether additional easement(s) will be required to reach a final interconnection point. Include whether the agreement(s) have or will be negotiated with private landowners. Provide any agreements that have been negotiated or executed.

Response: From the Plant Site, the preliminary pipeline route only crosses the CSX railroad, the Substation Site, Bean Cemetery Road, property owned by the City of Madisonville east of Bean Cemetery Road and the Kenneth Hill, Jr. property (M-12-1-13A) to reach the final interconnection point on the Hill property. The planned route will only require easements from the City of Madisonville and the one private property owner. KYMEA has not yet negotiated the easements nor the railroad or highway crossings.

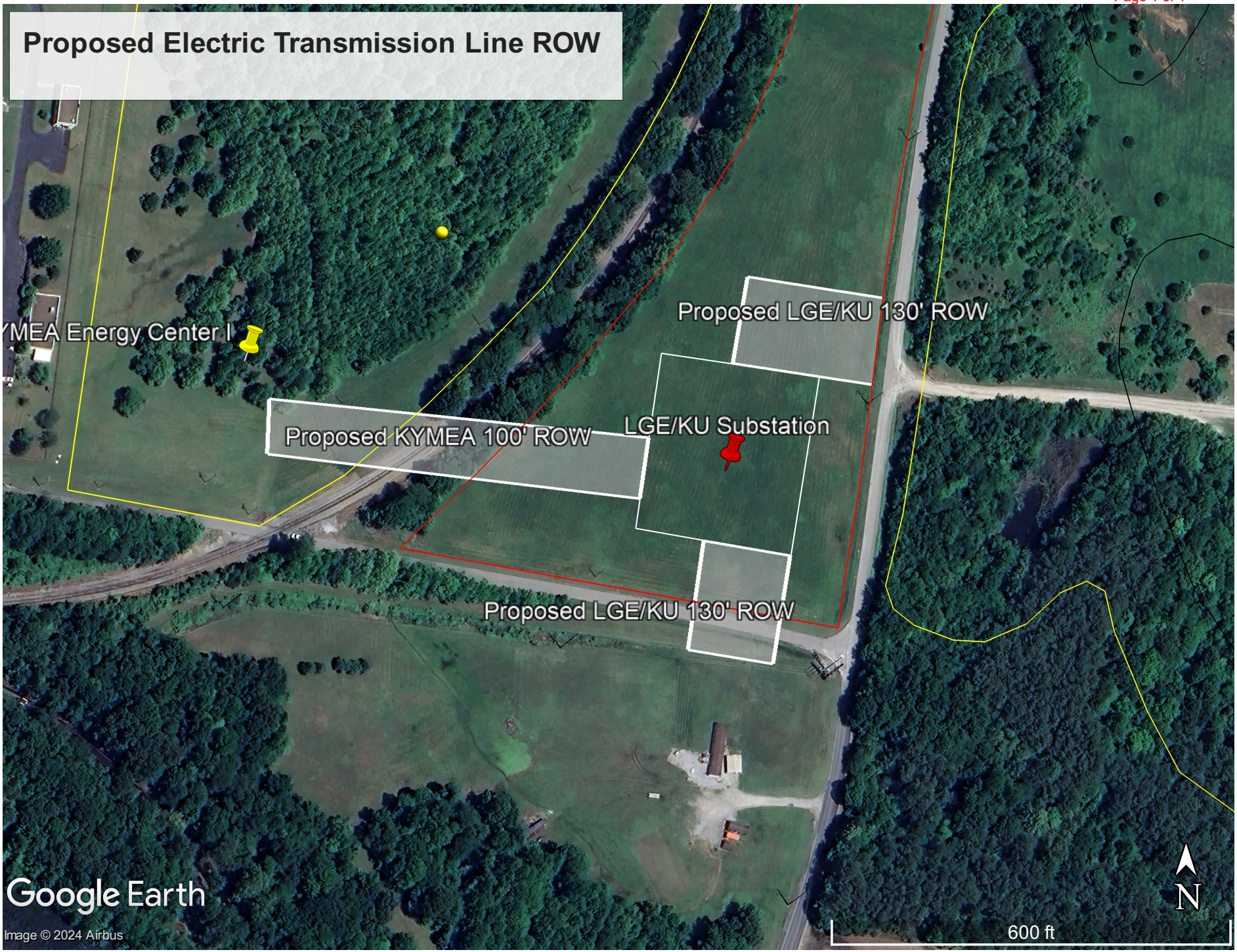
Witness: Doug Buresh

Siting Board 2-14:

Provide a map showing all possible transmission line routes. Use satellite imagery as the basemap.

Response: Final electric substation (switching station) configuration will not be known until after completion of the interconnection study in May 2025. Civil/Site engineering is underway by Paterson & Dewar Engineers based on the largest potential configuration. Attachment 2-14 shows proposed electric transmission line rights-of-way for both KYMEA's generation lead line (100' wide) and LGE/KU's transmission interconnects (130' wide). The proposed transmission line routes are also identified on Attachment 1-12 filed in response to the first request for information.

Witness: Doug Buresh


Proposed Electric Transmission Line ROW
YMEA Energy Center I
Proposed LGE/KU 130' ROW
Proposed KYMEA 100' ROW
LGE/KU Substation
Proposed LGE/KU 130' ROW
Google Earth
Image © 2024 Airbus
N
600 ft

Siting Board 2-15:

Provide any updates regarding easement agreements for the proposed transmission line including but not limited to copies of all signed agreements, if different from the response to Item 4.

Response: Final electric substation (switching station) configuration and associated rights of way locations will not be known until after completion of the interconnection study in May 2025. Easements, if necessary, will be obtained at that time as required.

Witness: Doug Buresh

Siting Board 2-16:

Refer to Kentucky Municipal Energy's response to Staff's First Request, Item 21. Provide any sketches, including preliminary sketches, of the proposed transmission line support structures.

Response: LGE/KU will not begin engineering of the transmission line support structures until after completion of the interconnection study in May 2025.

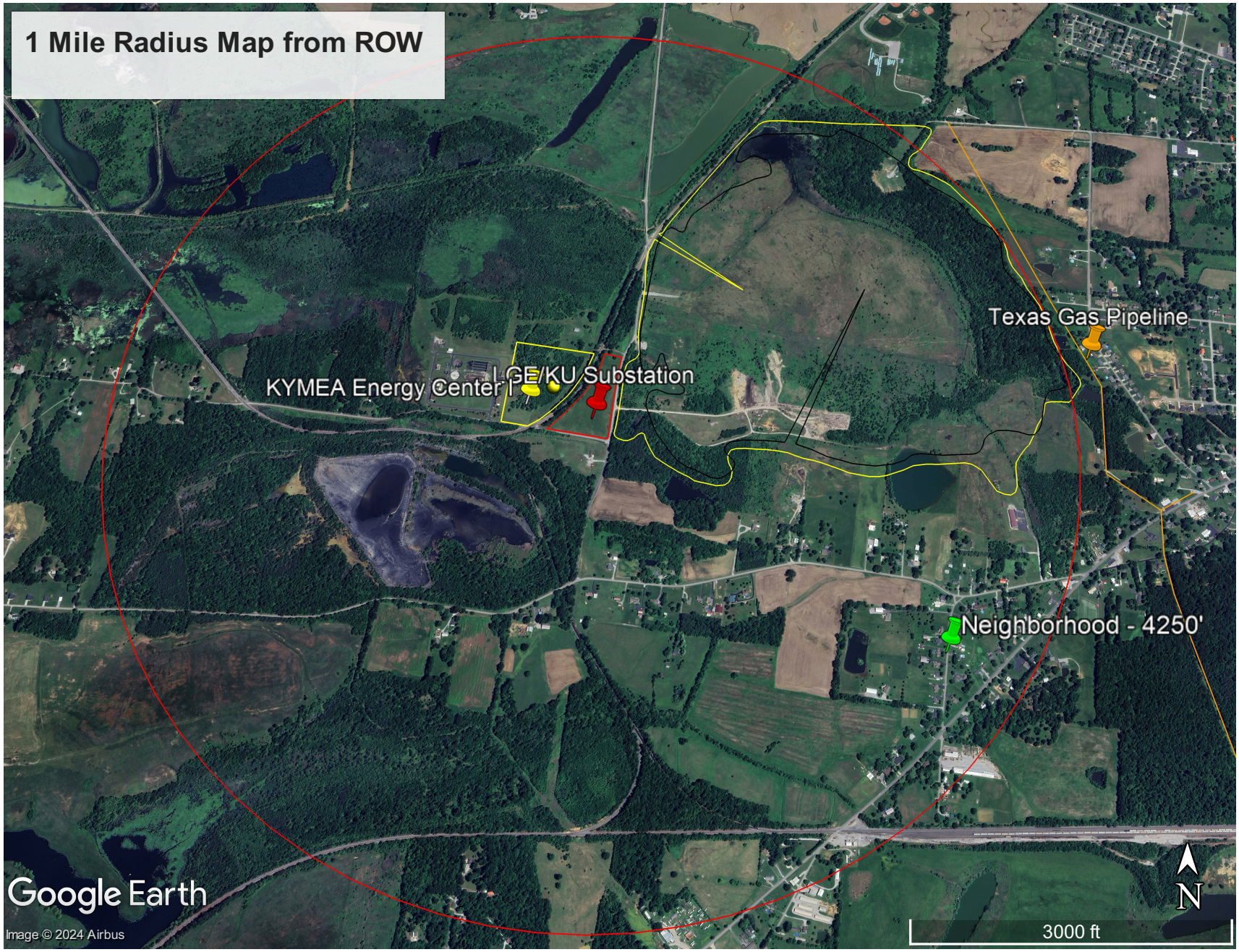
Witness: Doug Buresh

Siting Board 2-17:

Provide the approximate distance of the proposed transmission line right of way (ROW) from neighborhoods, school, public and private parks, within one mile of the proposed facilities.

Response: There is only one neighborhood (per the definition found in KRS 278.700) within a one-mile radius which is 4250' to the southeast (see Attachment 2-17). There are no known schools or parks within a one-mile radius.

Witness: Doug Buresh


1 Mile Radius Map from ROW
KYMEA Energy Center
LGE/KU Substation
Texas Gas Pipeline
Neighborhood - 4250'
Google Earth
Image © 2024 Airbus
N
3000 ft

Siting Board 2-18:

Provide a map of the property boundaries, by property parcel, that will be affected by the transmission line, the accompanying ROW as well as the names of the owners with of the addresses, names and parcel number(s) denoted on an accompanying chart.

Response: Final electric substation (switching station) configuration will not be known until after completion of the interconnection study in May 2025. Attachment 2-14 shows proposed electric transmission line rights-of-way for LGE/KU's transmission interconnects (130' wide). The transmission line for interconnection that runs along Bean Cemetery Road lies on the proposed Substation Site and does not require crossing the road. To interconnect with the transmission lines that run along A C Slaton Road, the only property owners that may be impacted are shown on Attachment 2-18 and are listed below.

Parcel 66-23-1

DONNA HENDRICKS & SHARON HENDRICKS

2529 BEAN CEMETERY RD

MADISONVILLE, KY 42431

Parcel 66-9-2

CITY OF MADISONVILLE

PO BOX 705

MADISONVILLE, KY 42431

Witness: Doug Buresh


A C SLATON RD
BEAN CEMETERY RD
BC LAND
MAP-66-23-1
HENDRICKS DONNA & SHARON HENDRICKS
BEAN CEMENTERY RD & A C SLATON RD
Acres: 20.00
Value: $70,000
View: Report | Google Maps
MAP-66-9-2
MADISONVILLE CITY OF
BEAN CEMETERY RD 00000
Acres: 88.00
Value: $660,000
View: Report | Google Maps

Siting Board 2-19:

Explain how the proposed transmission line would not have a significant adverse impact on the scenic assets of Madisonville, Kentucky.

Response: The project site is zoned General Industrial and is not within the vicinity of any locations of notable visual beauty. Adjacent areas include reclaimed strip mine lands and waters, coal refuse areas, railroads, and a wastewater treatment plant. The transmission line from the plant (generator lead line) crosses railroad tracks and an existing distribution line. This is a very short run in an area that already has significant existing adverse impacts including the wastewater treatment plant. Otherwise, the interconnect transmission ties will connect into the existing transmission line(s). The proposed transmission line construction would be consistent with existing transmission lines running along Bean Cemetery Road and A C Slaton Road. The installation will have an orderly appearance with consistent lines. The only home in the immediate area of the proposed easements is already bound by existing powerline easements on both its north and east boundaries. Any vegetative screening of the substation itself is subject to its final layout and overhead line design. Specific location of vegetation will not be finalized until the final substation configuration is set, which will be after completion of the interconnection study in May 2025.

Witness: Doug Buresh and Rich Kirkland

Siting Board 2-20:

Provide the proposed right of way distance from the center line and a total ROW distance.

Response: The rights-of-way corridor for the LGE/KU transmission interconnections will be 130 feet wide. The south right-of-way across A C Slaton Road will be approximately 165 feet long. The west right-of-way will be approximately 210 feet long. The right-of-way corridor for the KYMEA generator lead line will be 100 feet wide and approximately 575 feet long

Witness: Doug Buresh

Siting Board 2-21:

Refer to Kentucky Municipal Energy's response to Staff's First Request, Item 55. Provide the percent of project construction traffic (inclusive of delivery trucks and worker vehicles) traveling to the project site from I-69 northbound and from I-69 southbound.

Response: The vast majority of heavy trucks will be coming from I-69 northbound as most equipment will be trucked from Houston, Texas. Worker vehicle origination is unknown, but the majority would be expected from the north based on local population centers.

Witness: Doug Buresh

Siting Board 2-22:

Provide an update of the status of the Project in the interconnection process.

Response: The Provisional System Impact Study (PRSIS) Report was completed on December 6, 2024, with favorable results on thermal, stability and short circuit analyses; however, "One LG&E/KU voltage constraint was observed that requires a network upgrade for its mitigation. Therefore, no transmission interconnection capacity will be available for this PRSIS." Network upgrades will be considered under the Transitional Cluster Process. The Interim Transitional Cluster Study Report will not be complete until May 2025. In the interim, KYMEA will be initiating a Facilities Study (FS) Agreement to study electric substation (switching station) configuration alternatives. In addition, KYMEA has requested an Engineering and Procurement (E&P) Agreement with LGE/KU to begin the procurement of long lead time items.

Witness: Doug Buresh

Siting Board 2-23:

Provide any interconnection studies or accompanying updates that have not already been provided to the Siting Board.

Response: See Attachment 2-23 LGE-GIS-2024-002 PRSIS Executive Summary. Although the document is marked "confidential," it is publicly available online at http://www.oasis.oati.com/woa/docs/LGEE/LGEEdocs/LGE-GIS-2024-002_PRSIS_Executive_Summary.pdf and, therefore, does not meet the legal standard for confidential treatment.

Witness: Doug Buresh

TRANSERV INTERNATIONAL

INDEPENDENT, INNOVATIVE, RELIABLE TRANSMISSION MANAGEMENT SERVICES

LGE-GIS-2024-002
Provisional Request

System Impact Study
Executive Summary

Version 1.0

Report Issue Date: December 6, 2024

TranServ International, Inc.
7901 Computer Avenue
Bloomington, MN 55435
Phone: 763.205.7099

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Table of Contents

List of Commonly Used Abbreviations
(Includes defined FERC and NERC terms)

AFS	Affected System Study.
ASPEN	Advanced Systems for Power Engineering, Inc. (Short-Circuit modeling software).
BESS	Battery Energy Storage System.
BP	Business Practices.
CEII	Critical Energy Infrastructure Information.
CFPT	Contingent Facilities Planning Tool.
COD	Commercial Operation Date.
DF	Distribution Factor (see LG&E PGL & GI Criteria for details).
DSPT	Dynamic Stability Processing Tool
ERIS	Energy Resource Interconnection Service.
ESR	Energy Storage Resource.
FeS	Feasibility Study.
FS	Facilities Study.
FTP	File Transfer Protocol.
GI	Generator Interconnection.
GO	Generator Owner.
GSU	Generator Step-Up Transformer.
IBR	Invertor Based Resource.
IC	Interconnection Customer.
ITO	Independent Transmission Organization (TranServ).
LG&E/KU	Louisville Gas and Electric Co. and Kentucky Utilities Co.
LTC	Load Tap Changer.
MPT	Main Plant Transformer.
NERC	North American Reliability Corp.
NRIS	Network Resource Interconnection Service.
OASIS	Open Access Same-Time Information System.
OATT	Open Access Transmission Tariff.
OW	Outside World (System outside of LG&E/KU BAA)
PGL	LG&E/KU Planning Guidelines (per the document posted on OASIS).
PRIS	Provisional Interconnection Service.
PRSIS	Provisional System Impact Study.
PSS/E	Power System Simulator for Engineering (Siemens Power Technologies, Inc. or PTI).
PV	Photo-voltaic (technology and/or arrays).
SCD	Short-Circuit Duties.
SERC	Southeastern Electric Reliability Council.
SIS	System Impact Study.
TO	Transmission Owner.
TOP	Transmission Operator.
TSP	Transmission Service Provider.
TSR	Transmission Service Request.
TP	Transmission Planner.
TSI/TranServ	TranServ International, Inc.
AFS	Affected System Study.
ASPEN	Advanced Systems for Power Engineering, Inc. (Short-Circuit modeling software).
BESS	Battery Energy Storage System.
BP	Business Practices.
CEII	Critical Energy Infrastructure Information.
CFPT	Contingent Facilities Planning Tool.
COD	Commercial Operation Date.

DF	Distribution Factor (see LG&E PGL & GI Criteria for details).
ERIS	Energy Resource Interconnection Service.
ESR	Energy Storage Resource.
FeS	Feasibility Study.
FS	Facilities Study.
FTP	File Transfer Protocol.
GI	Generator Interconnection.
GO	Generator Owner.
GSU	Generator Step-Up Transformer.
IBR	Invertor Based Resource.
IC	Interconnection Customer.
ITO	Independent Transmission Organization (TranServ).
LG&E/KU	Louisville Gas and Electric Co. and Kentucky Utilities Co.
LTC	Load Tap Changer.
MPT	Main Plant Transformer.
NERC	North American Reliability Corp.
NRIS	Network Resource Interconnection Service.
OASIS	Open Access Same-Time Information System.
OATT	Open Access Transmission Tariff.
PGL	LG&E/KU Planning Guidelines (per the document posted on OASIS).
PRIS	Provisional Interconnection Service.
PRSIS	Provisional System Impact Study.
PSS/E	Power System Simulator for Engineering (Siemens Power Technologies, Inc. or PTI).
PV	Photo-voltaic (technology and/or arrays).
RICE	Reciprocating Internal Combustion Engine
SCD	Short-Circuit Duties.
SERC	Southeastern Electric Reliability Council.
SIS	System Impact Study.
SPPR	Successive Positive Peak Ratio (defined in PGL).
TO	Transmission Owner.
TOP	Transmission Operator.
TSP	Transmission Service Provider.
TSR	Transmission Service Request.
TP	Transmission Planner.
TSI/TranServ	TranServ International, Inc.

1. Executive Summary

Table E-1 shows the GI request received by TranServ to provide an NRIS to the LG&E/KU Transmission Network.

Table E-1

Request Details

Queue Position	Queue Date	County	State	Max Output (MW)	Point of Inter-connection	In-Service Date	Inter-connection Service Type	Generator Type
LGE-GIS-2024-002	02/21/2024	Hopkins County, Kentucky	KY	75	2MADSNV LP W to 2 EARLINGTN N 69 kV line	04/01/2027	NRIS	Natural Gas Engines

This PRSIS is performed as an annual re-study to analyze the impact of this GI, located in Hopkins County, Kentucky, in accordance with the LG&E/KU GI Study Criteria and LG&E/KU PGL.

An Ad Hoc Study Group was involved in the study process. Table E-2 summarizes the comments from the independent testing performed by the Ad Hoc Study Group.

Table E-2

Ad Hoc Study Group Independent Study Comments

Ad Hoc Group Member	Date Received	Ad Hoc Group Member Comment provided
MISO	12/02/2024	MISO is reviewing the report and will determine the need for Affected System study in near future.
No other Ad Hoc Members provided comments or independent testing results for this request.		

The GI request, LGE-GIS-2024-002, is an NRIS request that was studied as sourced from the new generation by connecting to 2MADSNV LP W to 2 EARLINGTN N 69 kV line that was sunk into the LG&E/KU system in merit order. TranServ performed this SIS to determine the impact of this GI on the transmission network. The simulations performed considered steady-state contingencies in Categories P0, P1, P2 EHV, P3, and P4 EHV and stability disturbances in Categories P0 - P7 of the current effective versions of NERC TPL-001 standards and the LG&E/KU PGL.

The subject request was evaluated using 2027 Winter Peak, 2027 Summer Peak and 2028 Off Peak steady state power flow model with roots in the LG&E/KU 2024 TEP BCS models and a short circuit model with roots in LG&E/KU's 2023 TEP Short Circuit Models all of which include the 2023 TEP approved projects and approved project changes. Stability analysis was performed using 2027 summer peak, 2027 maximized generator and 2027 Light Load, with roots in LG&E/KU's 2023 TEP Stability Models.

This study modeled all earlier queued LG&E/KU GI requests and all confirmed TSRs. Since a prior queued request is contingent upon construction of network upgrades, a contingent facility analysis was performed as detailed in Section 1.4. Representation of the confirmed TSRs may have necessitated representation of associated planned transmission improvements. Thus, it is important to realize that if the planned improvements do not come to fruition, the subject request's impact on the transmission system as identified by this study may become invalid and a revised study may become necessary before GI service can be granted.

1.1 Steady-State Analysis Results

1.1.1 Thermal Analysis Results after withdrawal of GI-2019-002 and GI-2019-004

After withdrawal of the GI-2019-002 and GI-2019-004 requests, no LG&E/KU or third-party GI-2024-002 NRIS thermal constraints were observed.

1.1.2 Voltage Analysis Results

P1-P3 LG&E/KU voltage constraint is observed as shown in Table E-3.

Table E-3

GI 2024-002 LG&E/KU P1-P3 Voltage Constraint

Model	Facility	kV	Post Project voltage (pu)
2027S	2MADSNV HO	69	0.8991
	2MADSNV N	69	0.8997

As seen in table E-3, the low voltage is observed at the two buses for post-project conditions under a P3 contingency, which requires a mitigation.

It should be noted that for the pre-project case, this contingency cannot occur due to lack of breakers near the "future POI". Instead, loss of loads near the buses of table E-3 would occur that would be subsequently mitigated by Restoration Procedure # 6 recommended in 2024 TEP.

1.2 Flowgate Analysis Results

No flowgate constraints due to the subject request were found.

1.3 Partial Service Availability

No LG&E/KU thermal constraints were identified for the subject request as shown in section 1.1. One LG&E/KU voltage constraint is observed per Table E-3. Therefore, no interconnection capacity will be available for this GI request.

1.4 Contingent Facility Analysis Results

This study included the effect of all earlier queued LG&E/KU GI requests. This study also included the effect of all confirmed Transmission Service Requests (TSRs). Since a prior queued GI request is contingent upon construction of network upgrades, a contingent facility analysis was performed. The results of that analysis are shown in table E-4 for NRIS. None of the facilities met the requirements for "contingent facilities" as defined by the GI Criteria, of being overloaded and DF from GI-2024-002 exceeding 20% DF threshold. Therefore, no GI-2024-002 contingent facilities have been determined.

Table E-4

Contingent Facility Analysis Results

Request	Model	Facility	Rating	Pre Project		Post Project		DF (%)
				MW	%	MW	%	
GI-2019-029	2027OP	2CENT HARDIN69.000 TO 2KARGLE 69.000 1	98	51.6	53%	52.6	54%	1.3%
GI-2019-029	2027OP	4HARDINSBURG138.00 TO 4N.HARD 138.00 1	191	36.6	19%	37.0	19%	0.5%
GI-2021-019	2027OP	2BOYLE CO 69.000 TO 2DANVILLE 1 69.000 1	69	17.7	26%	17.7	26%	0.0%
GI-2021-019	2027OP	2DANVILLE 1 69.000 TO 2DANVILLE E 69.000 1	89	11.2	13%	11.2	13%	0.0%
GI-2019-029	2027S	2CENT HARDIN69.000 TO 2KARGLE 69.000 1	98	35.6	36%	36.7	37%	1.5%
GI-2019-029	2027S	4BLACKBRANCH138.00 TO 4CENT HARDIN138.00 1	227	88.1	39%	89.4	39%	1.7%
GI-2019-029	2027S	4BLACKBRANCH138.00 TO 4GI2019-029P 138.00 1	208	101.1	49%	102.4	49%	1.7%
GI-2019-029	2027S	4BLACKBRANCH138.00 TO 4GI2019-029P 138.00 1	208	99.6	48%	100.9	49%	1.7%
GI-2019-029	2027S	4HARDINSBURG138.00 TO 4N.HARD 138.00 1	191	18.4	10%	18.8	10%	0.5%
GI-2021-007	2027S	5COLEMAN TAP161.00 TO 5PADUCAH PRI161.00 1	245	149.6	61%	145.2	59%	-5.9%
GI-2021-007	2027S	5COLEMAN TAP161.00 TO 5PADUCAH PRI161.00 1	245	207.3	85%	202.0	82%	-7.0%
GI-2021-008	2027S	7BUCKNER 345.00 TO 7MIDDLETOWN 345.00 1	1195	808.5	68%	804.0	67%	-6.0%
GI-2021-019	2027S	2BOYLE CO 69.000 TO 2DANVILLE 1 69.000 1	52	32.2	62%	32.2	62%	0.0%
GI-2021-019	2027S	2DANVILLE 1 69.000 TO 2DANVILLE E 69.000 1	67	20.5	31%	20.5	31%	0.0%
GI-2021-020	2027S	5S PADUCAH 161.00 TO 5PADUCAH PRI161.00 1	245	134.1	55%	129.1	53%	-6.7%
GI-2021-020	2027S	5COLEMAN TAP161.00 TO 5PADUCAH PRI161.00 1	245	201.2	82%	196.1	80%	-6.8%
GI-2019-029	2027W	2CENT HARDIN69.000 TO 2KARGLE 69.000 1	134	29.8	22%	30.9	23%	1.4%
GI-2019-029	2027W	4BLACKBRANCH138.00 TO 4CENT HARDIN138.00 1	352	97.0	28%	98.2	28%	1.6%

Request	Model	Facility	Rating	Pre Project		Post Project		DF (%)
				MW	%	MW	%	
GI-2019-029	2027W	4BLACKBRANCH138.00 TO 4GI2019-029P 138.00 1	322	110.8	34%	112.0	35%	1.6%
GI-2019-029	2027W	4BLACKBRANCH138.00 TO 4GI2019-029P 138.00 1	322	108.7	34%	109.9	34%	1.6%
GI-2019-029	2027W	4HARDINSBURG138.00 TO 4N.HARD 138.00 1	191	34.8	18%	35.1	18%	0.5%
GI-2021-008	2027W	7BUCKNER 345.00 TO 7MIDDLETOWN 345.00 1	1195	730.2	61%	725.8	61%	-5.8%
GI-2021-009	2027W	08TRIMBL 345.00 TO 7GHENT 345.00 1	1434	1118.1	78%	1122.9	78%	6.3%
GI-2021-011	2027W	08TRIMBL 345.00 TO 7GHENT 345.00 1	1434	1092.0	76%	1095.6	76%	4.8%

1.5 Short Circuit Analysis Results

The Short Circuit Analysis results indicate that the transmission system has adequate interrupting capabilities to accommodate the addition of the new generator.

1.6 Stability Analysis Results

For all tested disturbances, all monitored voltages and angles were found to be within acceptable limits with the addition of the 75 MW generation at the point of interconnection.

The study relied on the following, all of which are discussed in detail in Section 5 of the full report:

a. Observed violations of SPPR criteria for P1-P7 disturbances are not considered a criteria violation since, per TO and ITO, visual inspection shows that the violated channels for angles and voltages are damped out.

All tested disturbances passed the stability criteria.

1.7 Stiffness Verification due to Inverter Based Resource Interconnection

Since the GI-2024-002 request interconnection is a generator with natural gas engines, the stiffness verification for inverter based resource was not performed.

1.8 Conclusions

No LG&E/KU thermal constraints were identified.

One LG&E/KU voltage constraint was observed (see 1.1.2 in the report) that requires a network upgrade for its mitigation. Therefore, no transmission interconnection capacity will be available for this PRIS.

No third-party thermal or voltage constraints were identified.

MISO is determining the need for an AFS and committed to notify the ITO in near future.

No LG&E/KU short circuit or stability constraints due to the subject request were identified.

In order to obtain 75 MW injection at the POI, the gross generation at the plant bus would need to be 75.6 MW as was modeled for this PRSIS and is supported by the data provided by the customer.

In order to meet the OATT requirement of ±0.95 power factor at POI, the plant reactive power capability of ±32 MVAR is required which is supported by the customer data.

If the LGE-GIS-2024-002 request is granted, the new generation will have interconnection rights for 75 MW net output at the POI. The COD of the LGE-GIS-2024-002 request is April 1, 2027.

Since, this is a provisional study and no network upgrades can be considered, LG&E/KU has provided only a good faith estimate of interconnection costs.

- Generator Owner Facilities: Customer to Determine.
- NRIS Network Interconnection Facilities: $**16,567,305**
- NRIS Network Upgrade Facilities: $0
- Distribution Facilities: $0

LG&E/KU's good faith estimate of the total cost for facilities are:

Total Conceptual Cost Estimate	
Service Type	**Estimated Cost**
NRIS	**$16,567,305**

The full report is available on the LG&E/KU Critical Energy Infrastructure Information (CEII) File Transfer Protocol (FTP) site. See study report title posting on OASIS for instructions for accessing LG&E/KU CEII FTP site. The LG&E/KU secure CEII FTP site URL is: https://eftws.lge-ku.com/EFTClient/Account/Login.htm.

Siting Board 2-24:

Refer to Kentucky Municipal Energy's response to Staff's First Request Item 59, Attachment 1-54, Figure 4 Sight Distance Triangles. Provide a revised attachment indicating the sight distance triangles for the access road to the Plant site, as requested in Staff's First Request and at the site visit.

Response: Further review of the access road to the Plant Site resulted in a westward shift in the entrance to the plant as shown in Attachment 2-10. The updated Traffic Impact Study is attached as Attachment 2-24. Figure 4 of the report (sight triangles) has also been updated accordingly.

Witness: Josh Coburn

Proposed RICE Development
Traffic Impact Study
Madisonville, KY

Prepared for

KYMEA

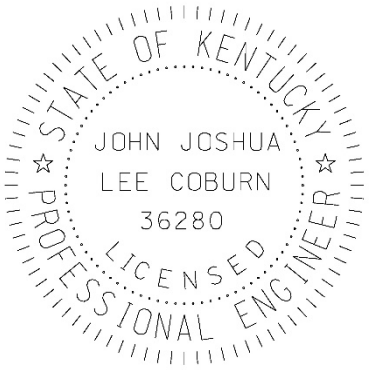
August 2024 Updated
January 2025

Palmer ENGINEERING

Traffic Impact Study Certification

I John Coburn certify that this Traffic Impact Study has been prepared under my direct supervision and that I am a Professional Engineer registered in the State of Kentucky and have successfully completed the Traffic Impact Study Requirements training course required by KYTC. Furthermore, I certify that this study has been completed in accordance with the KYTC Traffic Impact Study Requirements and in accordance with engineering standards of practice. The results presented have been determined to be accurate representations of existing and anticipated conditions based on the assumptions and methodologies presented in this report.

John Coburn
KY PE No. 36280



College of Engineering
Kentucky Transportation Center

TECHNOLOGY TRANSFER PROGRAM

TRAFFIC IMPACT STUDY COURSE
Certificate of Completion (3.5 PDH)

John Coburn
KY PE License No. 36280

Completed: 08/12/2022
Expires: 08/12/2026
Company: University of Kentucky

TIM THARPE
Tim Tharpe, KYTC
Director of Traffic Operations

Adam Kirk, Instructor

The official status of this certificate can be verified with the KYTC Division of Traffic Operations

Table of Contents

EXECUTIVE SUMMARY

A natural gas electric generating facility is proposed in Hopkins County, KY and will take up three parcels of unused agricultural land that has recently been rezoned for industrial uses. The project site will have a primary access point along AC Slaton Road near the intersection with Bean Cemetery Road. Construction of the plant is expected to occur in 2027.

This traffic study analyzes the traffic conditions of AC Slaton Road and Bean Cemetery Road for the construction year no build and build scenarios. Both the AM and PM peak hour were evaluated to determine if the trips generated during construction will have a significant impact on the roadway's traffic conditions.

Based on the results of the analysis, the following conclusions were developed:

- All highway segments are anticipated to operate at acceptable level of service (LOS) standards during both the peak hours for the build and no build scenarios. Therefore, the construction for this project will not adversely affect traffic operations on Bean Cemetery or AC Slaton Road.
- All roadways provide adequate sight distance for passenger cars and trucks to enter and exit the facility.
- No turn lanes are warranted based on low traffic volumes along AC Slaton Road and Bean Cemetery Road.

INTRODUCTION

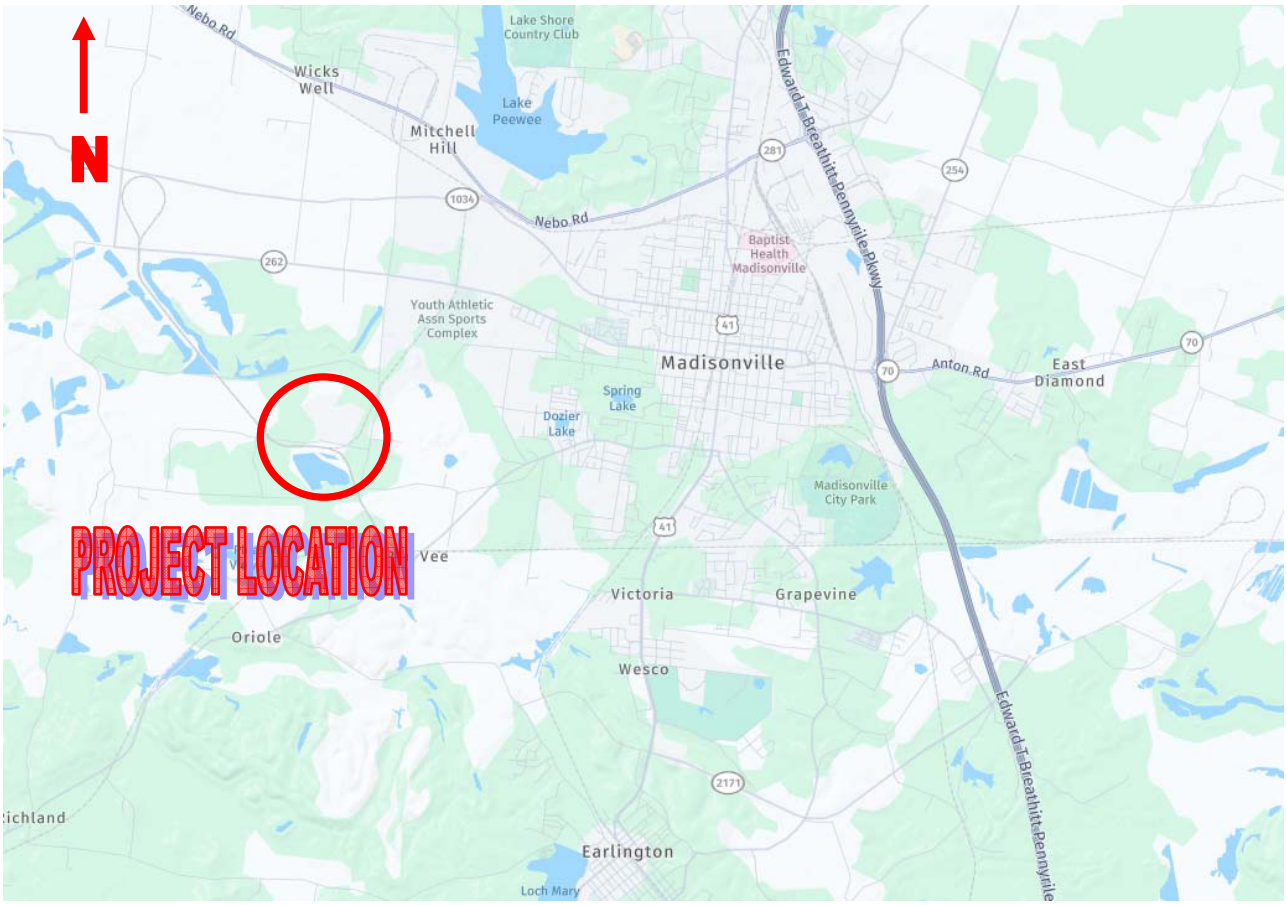
This traffic impact study has been completed for a proposed development in Hopkins County, Kentucky, in the city of Madisonville, KY. The majority of the development will be located within AC Slaton Road and Bean Cemetery Road. The vicinity map (Map 1) displays the location of the proposed development and study area.

The proposed development is a natural gas electric generating facility to be built on three empty parcels located adjacent to an existing water treatment plant. This traffic impact study analyzes two roadways in the area that will be impacted by the trips the development generates. These roadways include the following:

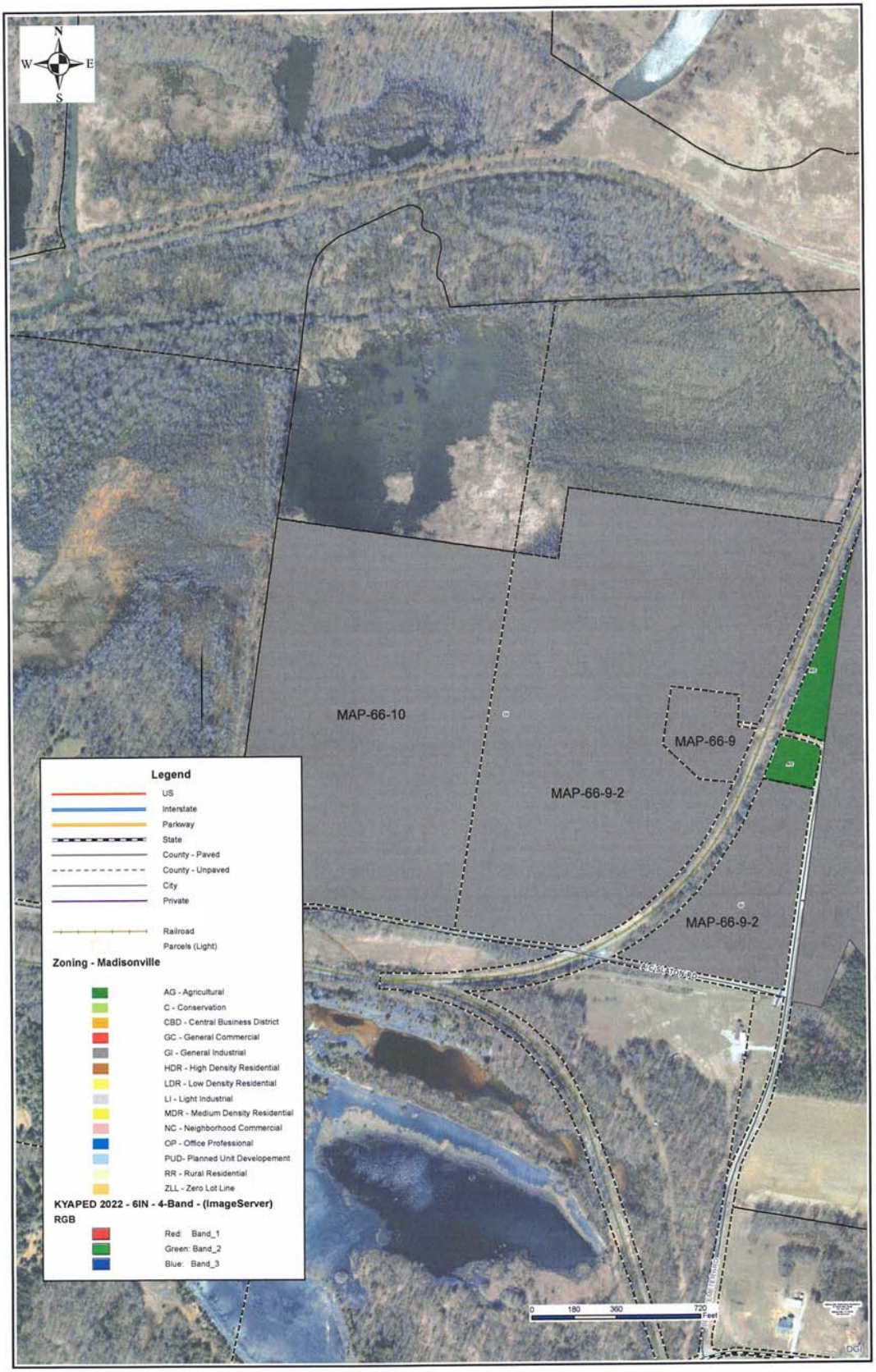
- AC Slaton Road
- Bean Cemetery Road

In the vicinity of the proposed development, the surrounding area consist of farmland and single family housing. The site of the proposed development has recently been rezoned to General Industrial (GI). Map 2 provides the updated zoning map for the three parcels.

Bean Cemetery Road near AC Slaton Road



Map 1. **Vicinity Map**



***Map 2.* Zoning Map**

EXISTING CONDITIONS

Regional and Local Access

The proposed development can be accessed from AC Slaton Road and Bean Cemetery Road. AC Slaton Road will provide local access into the site and Bean Cemetery Road will provide regional and local access into the site. A brief description of the surrounding roadways follows:

AC Slaton Road – AC Slaton Road is a local road that provides local access to the project site and generally runs in an east to west direction in the study area. The roadway measures approximately 16 feet wide without any striping. The current speed limit along this roadway is 25 mph.

Bean Cemetery Road – Bean Cemetery Road is a local road that provides regional and local access to the project site and generally runs in a north to south direction in the study area. The roadway measures 20 feet wide without any striping. The current speed limit along this roadway is posted at 35 mph.

LEVEL OF SERVICE AND DELAY

Level of Service (LOS) was used as the measure of effectiveness for each roadway. According to the Highway Capacity Manual, the level of service is defined in terms of average travel speed, percent time spent following and percent of free-flow speed for two lane highways (See Table 1). The average travel speed (ATS) reflects mobility on a two-way highway. The percent time spent following (PTSF) represents the maneuverability on the highway along with comfort and convenience of travel. The percent free-flow speed (PFFS) represents the ability of the vehicle to travel at or near the posted speed limit. A Level of Service C is desirable, and D is acceptable in an urban setting.

LOS	CLASS I HIGHWAYS		CLASS II HIGHWAYS	CLASS III HIGHWAYS
	AVG TRAVEL SPEED (MPH)	PERCENT TIME SPENT FOLLOWING (%)	PERCENT TIME SPENT FOLLOWING (%)	PERCENT FREE-FLOW SPEED (%)
A	>55	≤35	≤40	>91.7
B	>50-55	>35-50	>40-55	>83.3-91.7
C	>45-50	>50-65	>55-70	>75.0-83.3
D	>40-45	>65-80	>70-85	>66.7-75.0
E	≤40	>80	>85	≤66.7
F	Demand exceeds capacity			

Table 1. Two-Lane Highway Level of Service

Base Traffic Volumes (existing condition)

Manual traffic counts were taken using traffic tubes for four consecutive days. Traffic counts at AC Slaton Road and Bean Cemetery Road were taken August 15th, 2024 through August 18th, 2024, Thursday through Sunday. The traffic tubes were placed in sections of the roadways that will be affected by trips generated for the proposed development. All traffic volumes can be found in the Appendix.

Background Traffic Volumes

The estimated completion date for the proposed development is by the end of 2027. The Kentucky Transportation Cabinet (KYTC) does not have historical traffic data for AC Slaton Road or Bean Cemetery Road. To determine the traffic growth in this area, Pleasant View Road historical traffic data was analyzed. Pleasant View Road is a local road that is connected to both AC Slaton Road and Bean Cemetery Road. The historic traffic volumes along Pleasant Valley Road has shown a flat growth rate over the nine years between 2014 and 2023 (KYTC Count Station 054533).

Based on this data, this analysis assumes that there is no growth rate for both roadways. The KYTC count station data for station 054533 can be found in the Appendix.

METHODOLOGY

Level of Service, average speed, and travel time were measures of effectiveness analyzed using the highway capacity software (HCS2024).

Trips were generated for the proposed development and then distributed to the roadway system based on the existing traffic patterns and engineering judgment. For the analysis, the study uses traffic volumes from the current year, as well as a future build out year in which the traffic volumes were grown at a rate determined by historic traffic counts in the area. Based on the historic traffic growth, the expected growth of the background traffic is flat. Therefore, the opening year (2027) background traffic is the same as the existing counts (2024 No Build). The assigned volumes from the proposed development and the background traffic volumes combined to produce the total proposed traffic volumes for existing and build out conditions. HCS2024 was used to analyze the roadway network for existing and proposed conditions in both the current year and build out year (2027). The 2024 background, level-of-service, and travel times can be found in the Appendix along with 2024 No Build (Fig 1) and 2027 Build (Fig 3).

TRIP GENERATION AND PROJECTED TRAFFIC VOLUMES

Natural gas electric generating facilities are not included in the *Trip Generation, 11th Edition,* a nationally recognized resource of trip generation rates published by the Institute of Transportation Engineers. Therefore, trip estimates were based on information provided by the client and engineering judgement.

SITE TRIP GENERATION

The proposed site will consist of a natural gas electric generating facility. The proposed energy center will require construction equipment and workers to travel to and from the site throughout the construction phases. The client provided information for man-hours during construction. The highest estimated manpower during construction is 97. Heavy trucks were assumed to be an additional 10% of the estimated manpower. The trips generated during both peak hours was assumed to be 110 trips. It is expected that this would be a conservative number of trips generated during the construction process. Once construction is complete, the manpower required to maintain the facility is drastically lower than the manpower of construction.

LEVEL OF SERVICE AND DELAY ANALYSIS

All roadway traffic volumes, average vehicle speeds, and level of service information can be found in the Appendix. The 2027 base traffic volume information will be the focus upon comparisons between the projected background traffic and the proposed traffic volumes (full build out). The 2027 No-Build volumes would exist on the roadway system in the absence of the proposed development and the 2027 Build volumes are the volumes with the proposed development included.

INTERSECTION ANALYSIS

2024 No Build Analysis

The HCS analysis reveals that all roadways operate with a level of service (LOS) “A” for both peak hours of the day. Travel times for AC Slaton Road are 2.72 minutes per mile of roadway and the average speed is 22.1 mph. Travel times for Bean Cemetery Road are 1.75 minutes per mile of roadway and the average speed is around 34 mph.

2027 Build Analysis

The HCS analysis shows that the build conditions are similar to the 2024 no build. AC Slaton experiences minor degrading, operating with a level of service (LOS) “B” for both peak hours of the day. Travel times increase from 2.72 minutes to 2.79 minutes per mile of roadway along AC Slaton Road and the average speed drops from 22.1 to 21.5 mph. Bean Cemetery Road continues to operate at a LOS “A” during both peak hours. Travel times increase from 1.75 minutes to 1.83 minutes per mile of roadway. The average speed decreases from 34 mph to 32.8 mph.

2024 EXISTING COUNTS (NO BUILD)					
AM PEAK	Average Speed mph	Percent Followers %	Travel Time to Travel 1 mile, min	Followers Density Foll/min/ln	Vehicle LOS
AC SLATON RD	22.1	7.50%	2.72	0	A
BEAN CEMETERY RD	34.4	17.00%	1.75	0.3	A
PM PEAK	Average Speed mph	Percent Followers %	Travel Time to Travel 1 mile, min	Followers Density Foll/min/ln	Vehicle LOS
AC SLATON RD	22.1	8.20%	2.72	0	A
BEAN CEMETERY RD	33.9	19.70%	1.77	0.4	A

Table 2. 2024 No Build Summary

2027 BUILD					
AM PEAK	Average Speed mph	Percent Followers %	Travel Time to Travel 1 mile, min	Followers Density Foll/min/ln	Vehicle LOS
AC SLATON RD	21.5	35.20%	2.79	2.7	B
BEAN CEMETERY RD	32.8	37.20%	1.83	2.2	A
PM PEAK	Average Speed mph	Percent Followers %	Travel Time to Travel 1 mile, min	Followers Density Foll/min/ln	Vehicle LOS
AC SLATON RD	21.5	35.30%	2.79	2.8	B
BEAN CEMETERY RD	32.8	38.50%	1.83	2.5	A

Table 3. 2027 Build Summary

ADDITIONAL STUDY ITEMS

Turn Lane Analysis

Kentucky Transportation Cabinet's "*Warrant Calcs Interactive*" spreadsheet was used to determine if turn lanes were warranted along AC Slaton Road and Bean Cemetery Road where the study assumed traffic would be added for the proposed development. Due to the low volumes existing on AC Slaton Road and Bean Cemetery, the minimum threshold of through volumes required to warrant turn lanes were not met. Therefore, turn lanes were not warranted. Turn lane warrants for AC Slaton Road and Bean Cemetery Road can be found in the Appendix of this report.

Sight Distance Analysis

Sight distance triangles were determined utilizing AASHTO's *Geometric Design of Highways and Streets, 7th Edition*. The amount of recommended sight distances for the roads with access to the proposed development are summarized in Table 4 below. Figure 4 in the Appendix of this report provides a plan view of the sight triangles. The sight distance for the roadways were evaluated based on the posted speed limit. From Figure 4, in the Appendix of this report, it is evident that all roadways provide adequate sight distance for all traffic entering the roadways from the development.

REQUIRED SIGHT DISTANCE (FT)				
ROADWAY	RIGHT TURNING CAR SIGHT DISTANCE	LEFT TURNING CAR SIGHT DISTANCE	RIGHT TURNING TRUCK SIGHT DISTANCE	LEFT TURNING TRUCK SIGHT DISTANCE
AC Slaton	240	280	390	425
Beans Cemetery	335	390	545	595

Table 4. Sight Distance Requirements

CONCLUSIONS AND RECOMMENDATIONS

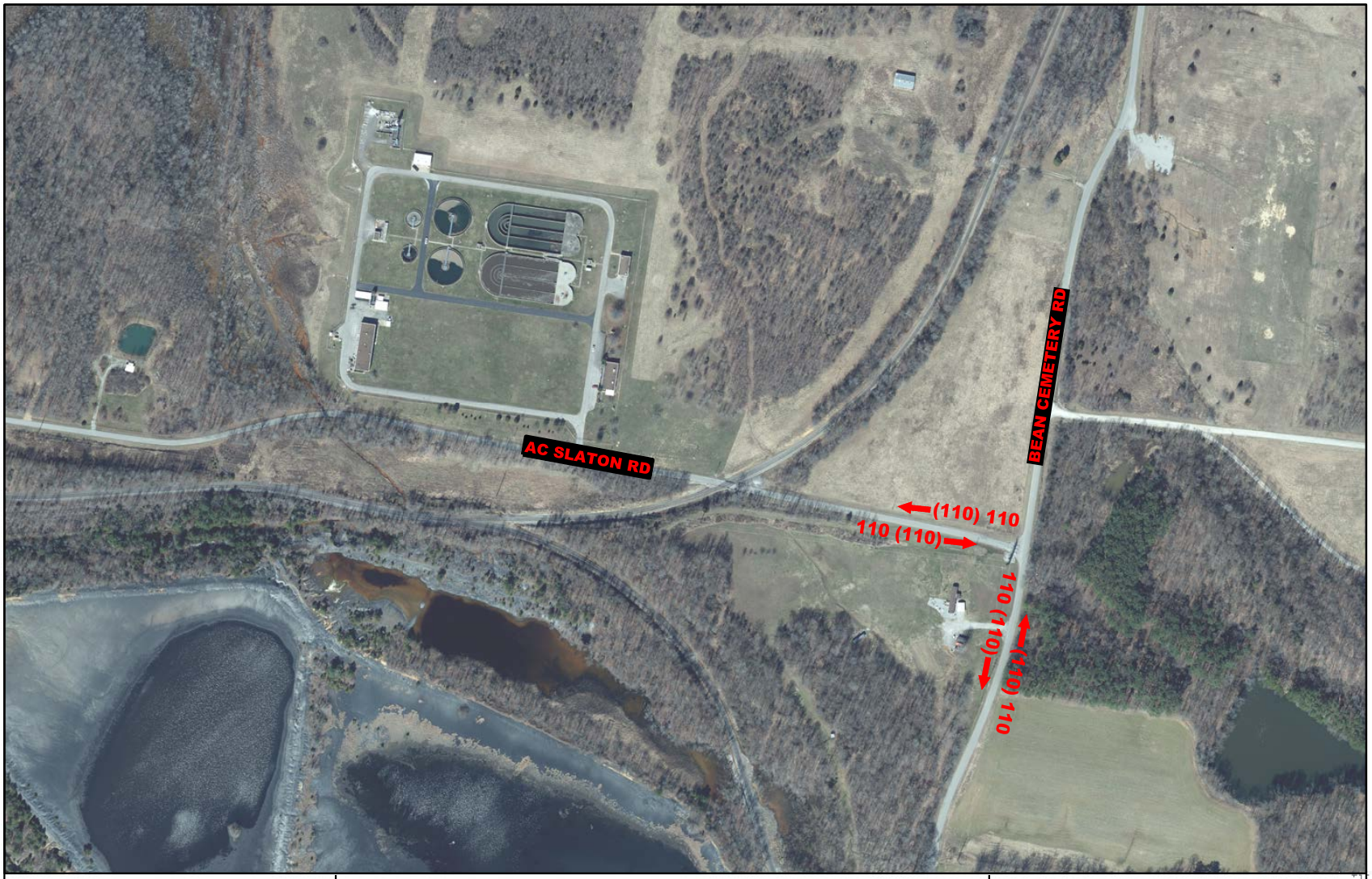
When comparing the no build analysis to the build analysis it was determined that the roadways in the study area will continue to operate at a LOS similar to existing conditions. The analysis determined that under proposed conditions AC Slaton Road experience minor degrading to a LOS "B" and Bean Cemetery Road will continue to operate at a LOS "A". The turn lane analysis determined that no additional turn lanes are warranted for any roadways based on the traffic volumes on the road. The sight distance analysis determined that passenger cars and trucks entering the roadways from the development can do so safely.

Based on the analyses performed, no changes to the roadway network are recommended within the study area in order for traffic conditions to operate within acceptable conditions.

APPENDIX

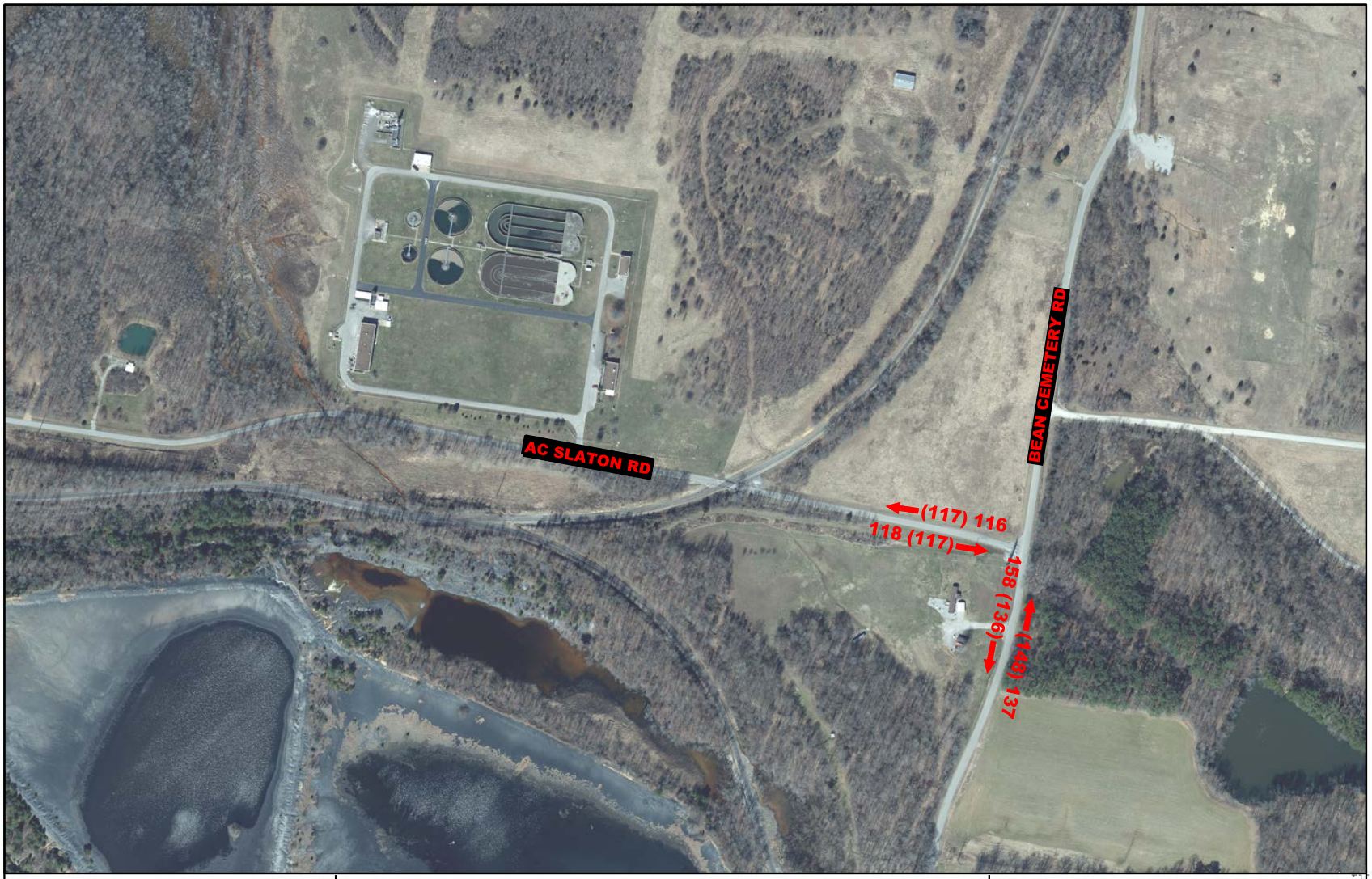
PROPOSED KYMEA ENERGY CENTER I
HOPKINS COUNTY, KENTUCKY

FIGURE 1
2024 EXISTING COUNTS
(AM) PM



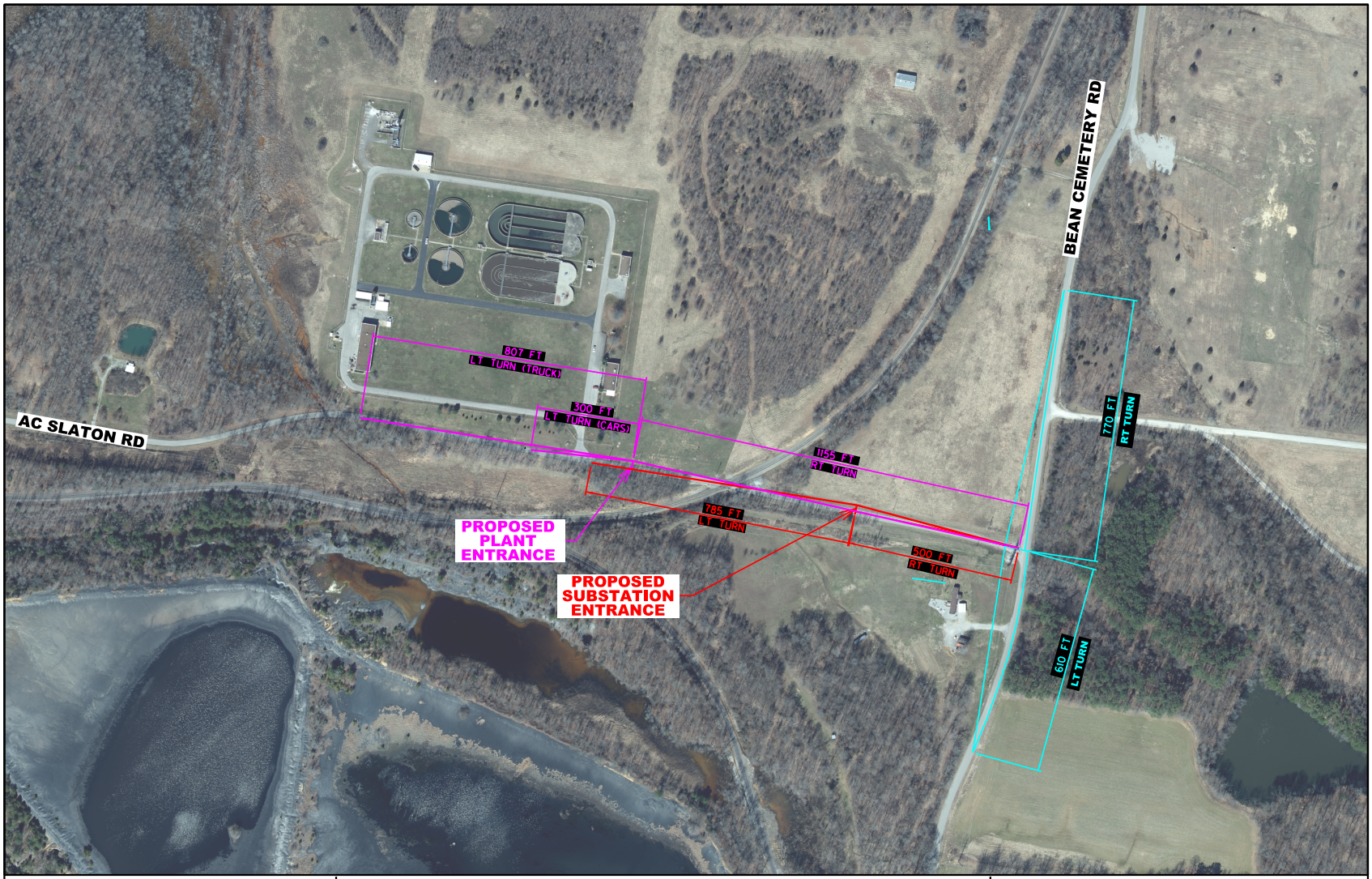
PROPOSED KYMEA ENERGY CENTER I
HOPKINS COUNTY, KENTUCKY

FIGURE 2
TRIPS GENERATED
(AM) PM



PROPOSED KYMEA ENERGY CENTER I
HOPKINS COUNTY, KENTUCKY

FIGURE 3
2027 BUILD
(AM) PM



PROPOSED KYMEA ENERGY CENTER I
HOPKINS COUNTY, KENTUCKY

FIGURE 4
SIGHT DISTANCE TRIANGLES

HCS Two-Lane Highway Report

Project Information			
Analyst	BH	Date	8/22/2024
Agency	PEC	Analysis Year	2024
Jurisdiction		Time Analyzed	AM
Project Description	AC SLATON RD NO BUILD	Units	U.S. Customary

Segment 1

Vehicle Inputs			
Segment Type	Passing Constrained	Length, ft	5280
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	25	Access Point Density, pts/mi	1.0

Demand and Capacity			
Directional Demand Flow Rate, veh/h	10	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.70	Total Trucks, %	5.10
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.01

Intermediate Results			
Segment Vertical Class	1	Free-Flow Speed, mi/h	22.1
Speed Slope Coefficient (m)	1.75692	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.28486	PF Power Coefficient (p)	0.60712
In Passing Lane Effective Length?	No	Follower Density, followers/mi/ln	0.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	22.1

Vehicle Results			
Average Speed, mi/h	22.1	Percent Followers, %	7.5
Segment Travel Time, minutes	2.72	Adj. Follower Density, followers/mi/ln	0.0
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	2	0.00	0.0	A

HCS Two-Lane Highway Report

Project Information			
Analyst	BH	Date	8/22/2024
Agency	PEC	Analysis Year	2024
Jurisdiction		Time Analyzed	PM
Project Description	AC SLATON RD NO BUILD	Units	U.S. Customary

Segment 1

Vehicle Inputs			
Segment Type	Passing Constrained	Length, ft	5280
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	25	Access Point Density, pts/mi	1.0

Demand and Capacity			
Directional Demand Flow Rate, veh/h	11	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.70	Total Trucks, %	5.10
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.01

Intermediate Results			
Segment Vertical Class	1	Free-Flow Speed, mi/h	22.1
Speed Slope Coefficient (m)	1.75692	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.28486	PF Power Coefficient (p)	0.60712
In Passing Lane Effective Length?	No	Follower Density, followers/mi/ln	0.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	22.1

Vehicle Results			
Average Speed, mi/h	22.1	Percent Followers, %	8.2
Segment Travel Time, minutes	2.72	Adj. Follower Density, followers/mi/ln	0.0
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	2	0.00	0.0	A

HCS Two-Lane Highway Report

Project Information			
Analyst	BH	Date	8/22/2024
Agency	PEC	Analysis Year	2024
Jurisdiction		Time Analyzed	AM
Project Description	BEAN CEMETERY RD NO BUILD	Units	U.S. Customary

Segment 1

Vehicle Inputs			
Segment Type	Passing Constrained	Length, ft	5280
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	35	Access Point Density, pts/mi	0.0

Demand and Capacity			
Directional Demand Flow Rate, veh/h	51	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.75	Total Trucks, %	3.80
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results			
Segment Vertical Class	1	Free-Flow Speed, mi/h	34.4
Speed Slope Coefficient (m)	2.42321	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.38708	PF Power Coefficient (p)	0.67322
In Passing Lane Effective Length?	No	Follower Density, followers/mi/ln	0.3
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	34.4

Vehicle Results			
Average Speed, mi/h	34.4	Percent Followers, %	17.0
Segment Travel Time, minutes	1.75	Adj. Follower Density, followers/mi/ln	0.3
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	10	0.00	0.3	A

HCS Two-Lane Highway Report

Project Information			
Analyst	BH	Date	8/22/2024
Agency	PEC	Analysis Year	2024
Jurisdiction		Time Analyzed	PM
Project Description	BEAN CEMETERY RD NO BUILD	Units	U.S. Customary

Segment 1

Vehicle Inputs			
Segment Type	Passing Constrained	Length, ft	5280
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	35	Access Point Density, pts/mi	1.8

Demand and Capacity			
Directional Demand Flow Rate, veh/h	64	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.75	Total Trucks, %	3.80
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.04

Intermediate Results			
Segment Vertical Class	1	Free-Flow Speed, mi/h	33.9
Speed Slope Coefficient (m)	2.39882	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.38545	PF Power Coefficient (p)	0.67109
In Passing Lane Effective Length?	No	Follower Density, followers/mi/ln	0.4
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	33.9

Vehicle Results			
Average Speed, mi/h	33.9	Percent Followers, %	19.7
Segment Travel Time, minutes	1.77	Adj. Follower Density, followers/mi/ln	0.4
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	12	0.00	0.4	A

HCS Two-Lane Highway Report

Project Information			
Analyst	BH	Date	8/22/2024
Agency	PEC	Analysis Year	2027
Jurisdiction		Time Analyzed	AM
Project Description	AC SLATON RD BUILD	Units	U.S. Customary

Segment 1

Vehicle Inputs			
Segment Type	Passing Constrained	Length, ft	5280
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	25	Access Point Density, pts/mi	1.0

Demand and Capacity			
Directional Demand Flow Rate, veh/h	167	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.70	Total Trucks, %	5.10
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.10

Intermediate Results			
Segment Vertical Class	1	Free-Flow Speed, mi/h	22.1
Speed Slope Coefficient (m)	1.75692	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.28486	PF Power Coefficient (p)	0.60712
In Passing Lane Effective Length?	No	Follower Density, followers/mi/ln	2.7
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	21.5

Vehicle Results			
Average Speed, mi/h	21.5	Percent Followers, %	35.2
Segment Travel Time, minutes	2.79	Adj. Follower Density, followers/mi/ln	2.7
Vehicle LOS	B		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	29	0.04	2.7	B

HCS Two-Lane Highway Report

Project Information			
Analyst	BH	Date	8/22/2024
Agency	PEC	Analysis Year	2027
Jurisdiction		Time Analyzed	PM
Project Description	AC SLATON RD BUILD	Units	U.S. Customary

Segment 1

Vehicle Inputs			
Segment Type	Passing Constrained	Length, ft	5280
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	25	Access Point Density, pts/mi	1.0

Demand and Capacity			
Directional Demand Flow Rate, veh/h	169	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.70	Total Trucks, %	5.10
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.10

Intermediate Results			
Segment Vertical Class	1	Free-Flow Speed, mi/h	22.1
Speed Slope Coefficient (m)	1.75692	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.28486	PF Power Coefficient (p)	0.60712
In Passing Lane Effective Length?	No	Follower Density, followers/mi/ln	2.8
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	21.5

Vehicle Results			
Average Speed, mi/h	21.5	Percent Followers, %	35.3
Segment Travel Time, minutes	2.79	Adj. Follower Density, followers/mi/ln	2.8
Vehicle LOS	B		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	30	0.04	2.8	B

HCS Two-Lane Highway Report

Project Information			
Analyst	BH	Date	8/22/2024
Agency	PEC	Analysis Year	2027
Jurisdiction		Time Analyzed	AM
Project Description	BEAN CEMETERY RD BUILD	Units	U.S. Customary

Segment 1

Vehicle Inputs			
Segment Type	Passing Constrained	Length, ft	5280
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	35	Access Point Density, pts/mi	1.8

Demand and Capacity			
Directional Demand Flow Rate, veh/h	197	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.75	Total Trucks, %	10.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.12

Intermediate Results			
Segment Vertical Class	1	Free-Flow Speed, mi/h	33.7
Speed Slope Coefficient (m)	2.38763	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.38384	PF Power Coefficient (p)	0.67097
In Passing Lane Effective Length?	No	Follower Density, followers/mi/ln	2.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	32.8

Vehicle Results			
Average Speed, mi/h	32.8	Percent Followers, %	37.2
Segment Travel Time, minutes	1.83	Adj. Follower Density, followers/mi/ln	2.2
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	37	0.03	2.2	A

HCS Two-Lane Highway Report

Project Information			
Analyst	BH	Date	8/22/2024
Agency	PEC	Analysis Year	2027
Jurisdiction		Time Analyzed	PM
Project Description	BEAN CEMETERY RD BUILD	Units	U.S. Customary

Segment 1

Vehicle Inputs			
Segment Type	Passing Constrained	Length, ft	5280
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	35	Access Point Density, pts/mi	1.8

Demand and Capacity			
Directional Demand Flow Rate, veh/h	211	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.75	Total Trucks, %	10.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.12

Intermediate Results			
Segment Vertical Class	1	Free-Flow Speed, mi/h	33.7
Speed Slope Coefficient (m)	2.38763	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.38384	PF Power Coefficient (p)	0.67097
In Passing Lane Effective Length?	No	Follower Density, followers/mi/ln	2.5
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	32.8

Vehicle Results			
Average Speed, mi/h	32.8	Percent Followers, %	38.5
Segment Travel Time, minutes	1.83	Adj. Follower Density, followers/mi/ln	2.5
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/AP	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	40	0.03	2.5	A

Left Turn Lane Warrants

Bean Cemetery 2027 AM Build

Input Fields

Left Turn Volume (vph)	110	Speed Limit (mph)	35
Advancing Volume (vph)	148	No. of through lanes	1
Opposing Volume (vph)	136	Percent Heavy Vehicles (decimal percent)	0.1

Left Turn Lane NOT Warranted

Note: This spreadsheet is intended to supplement the guidance provided in the Auxiliary Turn Lane policy outlined in the KYTC Highway Design Manual. This policy should be fully reviewed and understood prior to using this application.

Left Turn Lane Warrants

Bean Cemetery 2027 PM Build

Input Fields

Left Turn Volume (vph)	110	Speed Limit (mph)	35
Advancing Volume (vph)	137	No. of through lanes	1
Opposing Volume (vph)	158	Percent Heavy Vehicles (decimal percent)	0.1

Left Turn Lane NOT Warranted

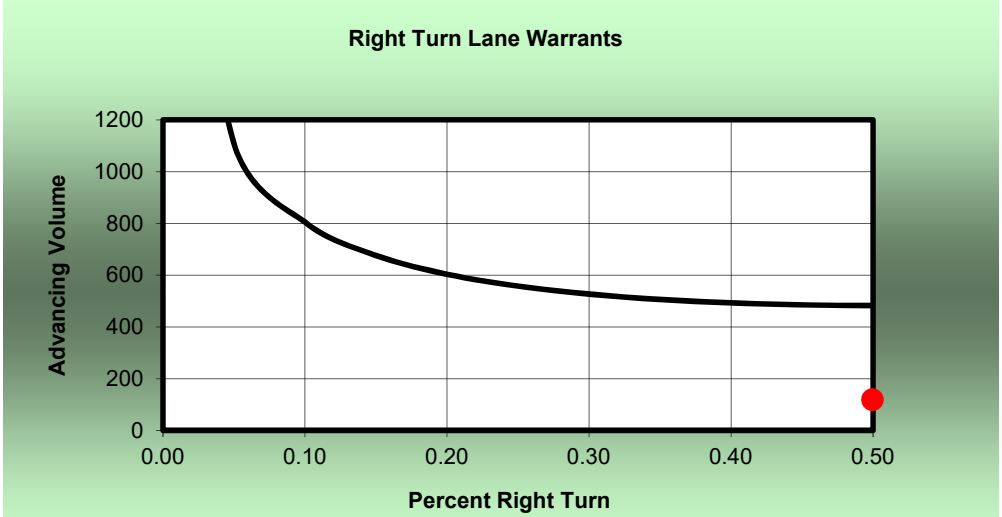
Note: This spreadsheet is intended to supplement the guidance provided in the Auxiliary Turn Lane policy outlined in the KYTC Highway Design Manual. This policy should be fully reviewed and understood prior to using this application.

Right Turn Lane Warrants

Bean Cemetery 2027 AM Build

Input Fields

Right Turn Volume (vph)	110	Speed Limit (mph)	35
Advancing Volume (vph)	136		



Note: This spreadsheet is intended to supplement the guidance provided in the Auxiliary Turn Lane policy outlined in the KYTC Highway Design Manual. This policy should be fully reviewed and understood prior to using this application.

Right Turn Lane Warrants

Bean Cemetery 2027 PM Build

Input Fields

Right Turn Volume (vph)	110	Speed Limit (mph)	35
Advancing Volume (vph)	158		

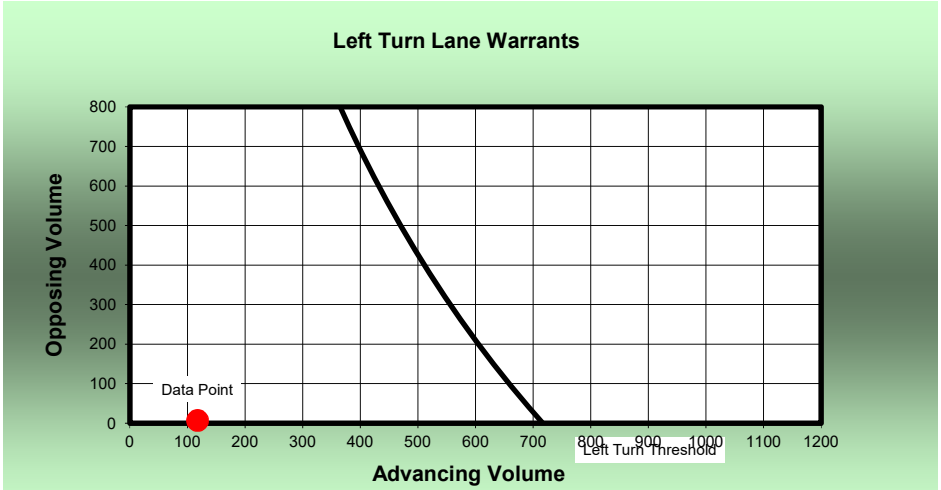
Note: This spreadsheet is intended to supplement the guidance provided in the Auxiliary Turn Lane policy outlined in the KYTC Highway Design Manual. This policy should be fully reviewed and understood prior to using this application.

Left Turn Lane Warrants

AC Slaton 2027 AM Build

Input Fields

Left Turn Volume (vph)	110	Speed Limit (mph)	35
Advancing Volume (vph)	117	No. of through lanes	1
Opposing Volume (vph)	7	Percent Heavy Vehicles (decimal percent)	0.1



Left Turn Lane NOT Warranted

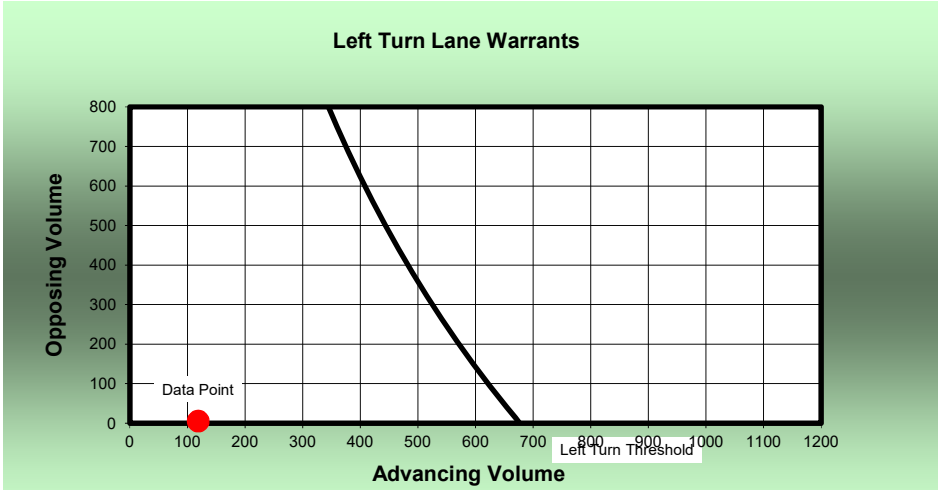
Note: This spreadsheet is intended to supplement the guidance provided in the Auxiliary Turn Lane policy outlined in the KYTC Highway Design Manual. This policy should be fully reviewed and understood prior to using this application.

Left Turn Lane Warrants

AC Slaton 2027 PM Build

Input Fields

Left Turn Volume (vph)	110	Speed Limit (mph)	35
Advancing Volume (vph)	118	No. of through lanes	1
Opposing Volume (vph)	6	Percent Heavy Vehicles (decimal percent)	0.1



Left Turn Lane NOT Warranted

Note: This spreadsheet is intended to supplement the guidance provided in the Auxiliary Turn Lane policy outlined in the KYTC Highway Design Manual. This policy should be fully reviewed and understood prior to using this application.

Right Turn Lane Warrants

AC Slaton Rd 2027 AM Build

Input Fields

Right Turn Volume (vph)	110	Speed Limit (mph)	25
Advancing Volume (vph)	117		

Note: This spreadsheet is intended to supplement the guidance provided in the Auxiliary Turn Lane policy outlined in the KYTC Highway Design Manual. This policy should be fully reviewed and understood prior to using this application.

Right Turn Lane Warrants

AC Slaton Rd 2027 PM Build

Input Fields

Right Turn Volume (vph)	110	Speed Limit (mph)	25
Advancing Volume (vph)	116		

Note: This spreadsheet is intended to supplement the guidance provided in the Auxiliary Turn Lane policy outlined in the KYTC Highway Design Manual. This policy should be fully reviewed and understood prior to using this application.

Historical Traffic Volume Summary

Station Details:

Sta ID:	054533
Sta Type:	Full Coverage
Map:	MapIt
District:	2
County:	Hopkins
Route:	054-KY-1302 -000
Route Desc:	PLEASANT VIEW RD

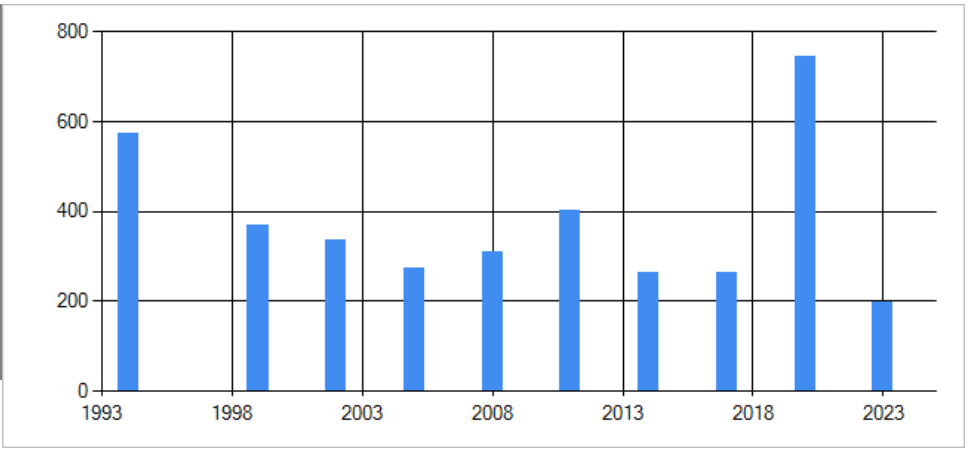
Begin MP:	0
Begin Desc:	JOHN HARDY ROAD
End Mp:	1.8630
End Desc:	PLEASANT VIEW ROAD BRIDGE
Impact Year:	
Year Added:	

Newest Count:

AADT:	198
Year:	2023
% Single:	
% Combo:	
K Factor:	12.60
D Factor:	56

Definitions:
Sta. ID - Three digit county number + station number
MP - milepoint
Impact Year – year of significant change to traffic pattern within station segment
AADT – Annual Average Daily Traffic – the annualized average 24-hour volume of vehicles on a segment of roadway
% Single – single unit truck volume as a percentage of the AADT
% Combo – combination truck volume as a percentage of the AADT
K Factor – peak hour volume as a percentage of the AADT
D Factor – percentage of peak hour volume flowing in the peak direction

Year	AADT	Year	AADT	Year	AADT
2024		2014	265	2004	
2023	198	2013		2003	
2022		2012		2002	338
2021		2011	401	2001	
2020	744	2010		2000	
2019		2009		1999	370
2018		2008	309	1998	
2017	265	2007		1997	
2016		2006		1996	
2015		2005	275	1995	



AC Slaton
Madisonville, KY
KYMEA RICE Site

Site Code:
Station ID:
Location 1:
Location 2:
Location 3:
Location 4:

Comment 1:
Comment 2:
Comment 3:
Comment 4:
Latitude: 0.000000
Longitude: 0.000000

8/15/2024 Time	Eastbound, None Specified	Westbound, None Specified	Total
12:00 AM	*	*	0
12:15	*	*	0
12:30	*	*	0
12:45	*	*	0
1:00	2	0	2
1:15	0	0	0
1:30	0	0	0
1:45	0	0	0
2:00	0	0	0
2:15	0	0	0
2:30	0	0	0
2:45	0	0	0
3:00	0	0	0
3:15	0	1	1
3:30	0	0	0
3:45	0	0	0
4:00	0	0	0
4:15	0	0	0
4:30	0	0	0
4:45	0	0	0
5:00	0	0	0
5:15	0	0	0
5:30	0	0	0
5:45	2	0	2
6:00	0	0	0
6:15	0	0	0
6:30	1	0	1
6:45	0	0	0
7:00	1	1	2
7:15	0	0	0
7:30	1	0	1
7:45	2	0	2
8:00	2	0	2
8:15	1	1	2
8:30	1	0	1
8:45	2	1	3
9:00	1	0	1
9:15	2	0	2
9:30	1	0	1
9:45	0	3	3
10:00	2	2	4
10:15	0	1	1
10:30	3	2	5
10:45	2	2	4
11:00	0	0	0
11:15	0	0	0
11:30	0	2	2
11:45	2	1	3
Total	28	17	45
Percent	62.2%	37.8%	
Peak	10:00	9:45	10:00
Volume	7	8	14
Peak Factor	0.583	0.667	0.700

AC Slaton
Madisonville, KY
KYMEA RICE Site

Site Code:
Station ID:
Location 1:
Location 2:
Location 3:
Location 4:

Comment 1:
Comment 2:
Comment 3:
Comment 4:
Latitude: 0.000000
Longitude: 0.000000

8/15/2024 Time	Eastbound, None Specified	Westbound, None Specified	Total
12:00 PM	2	4	6
12:15	1	3	4
12:30	1	1	2
12:45	0	1	1
1:00	2	2	4
1:15	1	2	3
1:30	0	1	1
1:45	1	1	2
2:00	2	1	3
2:15	0	0	0
2:30	1	1	2
2:45	0	1	1
3:00	0	1	1
3:15	0	0	0
3:30	0	1	1
3:45	2	1	3
4:00	1	2	3
4:15	2	1	3
4:30	0	1	1
4:45	1	3	4
5:00	1	0	1
5:15	1	4	5
5:30	0	2	2
5:45	0	0	0
6:00	1	2	3
6:15	0	1	1
6:30	0	0	0
6:45	1	2	3
7:00	0	1	1
7:15	1	0	1
7:30	1	1	2
7:45	0	1	1
8:00	2	3	5
8:15	0	0	0
8:30	2	0	2
8:45	0	0	0
9:00	0	1	1
9:15	0	0	0
9:30	0	1	1
9:45	0	1	1
10:00	0	0	0
10:15	1	0	1
10:30	0	0	0
10:45	0	0	0
11:00	0	0	0
11:15	0	0	0
11:30	0	0	0
11:45	0	0	0
Total	28	48	76
Percent	36.8%	63.2%	
Peak	3:30	12:00 PM	12:00 PM
Volume	5	9	13
Peak Factor	0.625	0.563	0.542

AC Slaton
Madisonville, KY
KYMEA RICE Site

Site Code:
Station ID:
Location 1:
Location 2:
Location 3:
Location 4:

Comment 1:
Comment 2:
Comment 3:
Comment 4:
Latitude: 0.000000
Longitude: 0.000000

8/16/2024 Time	Eastbound, None Specified	Westbound, None Specified	Total
12:00 AM	0	0	0
12:15	0	0	0
12:30	0	0	0
12:45	0	0	0
1:00	0	0	0
1:15	0	0	0
1:30	0	0	0
1:45	0	0	0
2:00	0	0	0
2:15	0	1	1
2:30	0	0	0
2:45	0	0	0
3:00	0	0	0
3:15	0	0	0
3:30	0	0	0
3:45	0	0	0
4:00	0	0	0
4:15	0	0	0
4:30	0	0	0
4:45	0	0	0
5:00	0	0	0
5:15	0	0	0
5:30	0	0	0
5:45	2	0	2
6:00	0	0	0
6:15	0	1	1
6:30	1	0	1
6:45	1	0	1
7:00	1	0	1
7:15	1	0	1
7:30	1	1	2
7:45	1	0	1
8:00	1	0	1
8:15	2	0	2
8:30	3	0	3
8:45	1	1	2
9:00	2	1	3
9:15	0	1	1
9:30	2	1	3
9:45	0	1	1
10:00	1	0	1
10:15	0	1	1
10:30	1	1	2
10:45	1	1	2
11:00	0	0	0
11:15	0	1	1
11:30	1	1	2
11:45	3	0	3
Total	26	13	39
Percent	66.7%	33.3%	
Peak	8:15	8:45	8:15
Volume	8	4	10
Peak Factor	0.667	1.000	0.833

AC Slaton
Madisonville, KY
KYMEA RICE Site

Site Code:
Station ID:
Location 1:
Location 2:
Location 3:
Location 4:

Comment 1:
Comment 2:
Comment 3:
Comment 4:
Latitude: 0.000000
Longitude: 0.000000

8/16/2024 Time	Eastbound, None Specified	Westbound, None Specified	Total
12:00 PM	0	1	1
12:15	2	2	4
12:30	0	3	3
12:45	2	0	2
1:00	0	0	0
1:15	2	1	3
1:30	2	2	4
1:45	1	1	2
2:00	0	0	0
2:15	1	0	1
2:30	1	0	1
2:45	2	2	4
3:00	0	2	2
3:15	2	1	3
3:30	4	1	5
3:45	0	0	0
4:00	2	3	5
4:15	0	1	1
4:30	0	1	1
4:45	1	2	3
5:00	1	2	3
5:15	1	2	3
5:30	0	0	0
5:45	1	2	3
6:00	0	1	1
6:15	3	2	5
6:30	0	2	2
6:45	0	0	0
7:00	1	2	3
7:15	1	0	1
7:30	1	0	1
7:45	0	0	0
8:00	0	1	1
8:15	0	0	0
8:30	0	1	1
8:45	0	1	1
9:00	2	1	3
9:15	0	0	0
9:30	1	2	3
9:45	0	0	0
10:00	0	0	0
10:15	1	2	3
10:30	0	0	0
10:45	0	0	0
11:00	0	1	1
11:15	0	0	0
11:30	0	0	0
11:45	0	0	0
Total	35	45	80
Percent	43.8%	56.3%	
Peak	2:45	4:00	2:45
Volume	8	7	14
Peak Factor	0.500	0.583	0.700

AC Slaton
Madisonville, KY
KYMEA RICE Site

Site Code:
Station ID:
Location 1:
Location 2:
Location 3:
Location 4:

Comment 1:
Comment 2:
Comment 3:
Comment 4:
Latitude: 0.000000
Longitude: 0.000000

8/17/2024 Time	Eastbound, None Specified	Westbound, None Specified	Total
12:00 AM	0	0	0
12:15	0	0	0
12:30	0	0	0
12:45	0	0	0
1:00	0	0	0
1:15	0	0	0
1:30	0	0	0
1:45	0	0	0
2:00	0	0	0
2:15	0	0	0
2:30	0	0	0
2:45	0	0	0
3:00	0	0	0
3:15	0	0	0
3:30	0	0	0
3:45	0	0	0
4:00	0	0	0
4:15	0	0	0
4:30	0	0	0
4:45	0	0	0
5:00	0	0	0
5:15	0	0	0
5:30	1	0	1
5:45	0	0	0
6:00	0	0	0
6:15	0	0	0
6:30	1	0	1
6:45	0	0	0
7:00	0	0	0
7:15	1	0	1
7:30	0	0	0
7:45	1	0	1
8:00	0	0	0
8:15	2	1	3
8:30	1	0	1
8:45	0	1	1
9:00	0	0	0
9:15	0	0	0
9:30	0	0	0
9:45	2	1	3
10:00	1	0	1
10:15	2	0	2
10:30	0	1	1
10:45	0	0	0
11:00	2	0	2
11:15	2	0	2
11:30	2	0	2
11:45	1	0	1
Total	19	4	23
Percent	82.6%	17.4%	
Peak	11:00	8:00	9:45
Volume	7	2	7
Peak Factor	0.875	0.500	0.583

AC Slaton
Madisonville, KY
KYMEA RICE Site

Site Code:
Station ID:
Location 1:
Location 2:
Location 3:
Location 4:

Comment 1:
Comment 2:
Comment 3:
Comment 4:
Latitude: 0.000000
Longitude: 0.000000

8/17/2024 Time	Eastbound, None Specified	Westbound, None Specified	Total
12:00 PM	0	1	1
12:15	2	3	5
12:30	3	1	4
12:45	1	1	2
1:00	2	1	3
1:15	0	0	0
1:30	0	0	0
1:45	0	0	0
2:00	2	2	4
2:15	1	0	1
2:30	1	2	3
2:45	0	0	0
3:00	0	0	0
3:15	1	1	2
3:30	0	1	1
3:45	0	1	1
4:00	3	1	4
4:15	0	1	1
4:30	2	2	4
4:45	1	1	2
5:00	0	1	1
5:15	1	3	4
5:30	0	1	1
5:45	0	0	0
6:00	0	1	1
6:15	0	1	1
6:30	2	0	2
6:45	0	0	0
7:00	0	0	0
7:15	1	1	2
7:30	1	0	1
7:45	0	2	2
8:00	0	0	0
8:15	1	0	1
8:30	1	0	1
8:45	0	1	1
9:00	0	2	2
9:15	0	0	0
9:30	0	0	0
9:45	0	0	0
10:00	0	0	0
10:15	0	0	0
10:30	0	0	0
10:45	0	0	0
11:00	0	0	0
11:15	0	0	0
11:30	0	0	0
11:45	0	1	1
Total	26	33	59
Percent	44.1%	55.9%	
Peak	12:15	4:30	12:15
Volume	8	7	14
Peak Factor	0.667	0.583	0.700

AC Slaton
Madisonville, KY
KYMEA RICE Site

Site Code:
Station ID:
Location 1:
Location 2:
Location 3:
Location 4:

Comment 1:
Comment 2:
Comment 3:
Comment 4:
Latitude: 0.000000
Longitude: 0.000000

8/18/2024 Time	Eastbound, None Specified	Westbound, None Specified	Total
12:00 AM	0	0	0
12:15	0	0	0
12:30	0	0	0
12:45	0	0	0
1:00	0	0	0
1:15	0	0	0
1:30	0	0	0
1:45	0	0	0
2:00	0	0	0
2:15	0	0	0
2:30	0	0	0
2:45	0	0	0
3:00	0	0	0
3:15	0	0	0
3:30	0	0	0
3:45	0	0	0
4:00	0	1	1
4:15	0	0	0
4:30	0	0	0
4:45	0	0	0
5:00	0	0	0
5:15	0	0	0
5:30	0	0	0
5:45	0	0	0
6:00	0	0	0
6:15	0	0	0
6:30	0	0	0
6:45	0	0	0
7:00	0	0	0
7:15	0	0	0
7:30	0	0	0
7:45	0	0	0
8:00	0	0	0
8:15	0	0	0
8:30	0	0	0
8:45	0	0	0
9:00	0	0	0
9:15	1	0	1
9:30	0	0	0
9:45	1	0	1
10:00	1	0	1
10:15	0	1	1
10:30	1	2	3
10:45	0	4	4
11:00	2	0	2
11:15	2	1	3
11:30	1	1	2
11:45	0	0	0
Total	9	10	19
Percent	47.4%	52.6%	
Peak	10:30	10:00	10:30
Volume	5	7	12
Peak Factor	0.625	0.438	0.750

AC Slaton
Madisonville, KY
KYMEA RICE Site

Site Code:
Station ID:
Location 1:
Location 2:
Location 3:
Location 4:

Comment 1:
Comment 2:
Comment 3:
Comment 4:
Latitude: 0.000000
Longitude: 0.000000

8/18/2024 Time	Eastbound, None Specified	Westbound, None Specified	Total
12:00 PM	0	3	3
12:15	1	0	1
12:30	1	1	2
12:45	0	2	2
1:00	9	0	9
1:15	7	1	8
1:30	0	0	0
1:45	0	1	1
2:00	0	0	0
2:15	2	2	4
2:30	0	1	1
2:45	1	1	2
3:00	1	1	2
3:15	0	1	1
3:30	0	0	0
3:45	0	0	0
4:00	0	2	2
4:15	0	1	1
4:30	1	3	4
4:45	0	0	0
5:00	0	1	1
5:15	1	1	2
5:30	0	1	1
5:45	2	0	2
6:00	0	0	0
6:15	0	0	0
6:30	4	0	4
6:45	1	1	2
7:00	2	0	2
7:15	0	2	2
7:30	0	2	2
7:45	1	0	1
8:00	0	2	2
8:15	0	0	0
8:30	0	0	0
8:45	1	0	1
9:00	2	0	2
9:15	0	0	0
9:30	0	0	0
9:45	0	1	1
10:00	*	*	0
10:15	*	*	0
10:30	*	*	0
10:45	*	*	0
11:00	*	*	0
11:15	*	*	0
11:30	*	*	0
11:45	*	*	0
Total	37	31	68
Percent	54.4%	45.6%	
Peak	12:30	12:00 PM	12:30
Volume	17	6	21
Peak Factor	0.472	0.500	0.583
Grand Total	208	201	409
Percent	50.9%	49.1%	
AADT		ADT: 103	AADT: 103

Bean Cemetary
Madisonville, KY
KYMEA RICE Site

Site Code:
Station ID:
Location 1:
Location 2:
Location 3:
Location 4:

Comment 1:
Comment 2:
Comment 3:
Comment 4:
Latitude: 0.000000
Longitude: 0.000000

8/15/2024 Time	Southbound, None Specified	Northbound, None Specified	Total
12:00 AM	0	2	2
12:15	1	2	3
12:30	0	1	1
12:45	1	3	4
1:00	1	1	2
1:15	4	0	4
1:30	1	0	1
1:45	1	0	1
2:00	0	0	0
2:15	1	0	1
2:30	0	0	0
2:45	1	1	2
3:00	2	1	3
3:15	2	0	2
3:30	1	0	1
3:45	3	0	3
4:00	1	0	1
4:15	0	1	1
4:30	0	1	1
4:45	2	0	2
5:00	0	4	4
5:15	0	1	1
5:30	0	2	2
5:45	0	6	6
6:00	0	1	1
6:15	0	3	3
6:30	0	3	3
6:45	2	3	5
7:00	4	6	10
7:15	4	3	7
7:30	3	10	13
7:45	11	14	25
8:00	5	7	12
8:15	7	7	14
8:30	4	7	11
8:45	4	14	18
9:00	6	7	13
9:15	4	6	10
9:30	4	5	9
9:45	6	4	10
10:00	8	8	16
10:15	7	7	14
10:30	5	7	12
10:45	8	10	18
11:00	2	2	4
11:15	2	1	3
11:30	5	4	9
11:45	10	5	15
Total	133	170	303
Percent	43.9%	56.1%	
Peak	10:00	7:30	7:30
Volume	28	38	64
Peak Factor	0.875	0.679	0.640

Bean Cemetary
Madisonville, KY
KYMEA RICE Site

Site Code:
Station ID:
Location 1:
Location 2:
Location 3:
Location 4:

Comment 1:
Comment 2:
Comment 3:
Comment 4:
Latitude: 0.000000
Longitude: 0.000000

8/15/2024 Time	Southbound, None Specified	Northbound, None Specified	Total
12:00 PM	3	6	9
12:15	5	6	11
12:30	5	6	11
12:45	3	5	8
1:00	8	11	19
1:15	11	3	14
1:30	7	4	11
1:45	7	9	16
2:00	6	8	14
2:15	3	5	8
2:30	7	3	10
2:45	9	2	11
3:00	6	11	17
3:15	3	13	16
3:30	4	5	9
3:45	4	8	12
4:00	10	10	20
4:15	7	8	15
4:30	12	6	18
4:45	17	6	23
5:00	14	3	17
5:15	15	12	27
5:30	13	5	18
5:45	12	6	18
6:00	7	8	15
6:15	13	3	16
6:30	6	7	13
6:45	3	9	12
7:00	4	3	7
7:15	7	14	21
7:30	4	5	9
7:45	7	0	7
8:00	9	7	16
8:15	2	4	6
8:30	9	5	14
8:45	2	2	4
9:00	3	6	9
9:15	1	4	5
9:30	2	4	6
9:45	2	2	4
10:00	2	3	5
10:15	1	1	2
10:30	0	4	4
10:45	1	5	6
11:00	1	1	2
11:15	1	4	5
11:30	1	1	2
11:45	2	2	4
Total	281	265	546
Percent	51.5%	48.5%	
Peak	4:45	3:00	4:30
Volume	59	37	85
Peak Factor	0.868	0.712	0.787

Bean Cemetary
Madisonville, KY
KYMEA RICE Site

Site Code:
Station ID:
Location 1:
Location 2:
Location 3:
Location 4:

Comment 1:
Comment 2:
Comment 3:
Comment 4:
Latitude: 0.000000
Longitude: 0.000000

8/16/2024 Time	Southbound, None Specified	Northbound, None Specified	Total
12:00 AM	1	1	2
12:15	3	0	3
12:30	0	1	1
12:45	0	2	2
1:00	2	0	2
1:15	4	0	4
1:30	0	0	0
1:45	2	0	2
2:00	0	0	0
2:15	2	0	2
2:30	0	1	1
2:45	3	0	3
3:00	1	2	3
3:15	0	0	0
3:30	1	0	1
3:45	0	0	0
4:00	0	0	0
4:15	0	1	1
4:30	0	1	1
4:45	0	2	2
5:00	0	2	2
5:15	1	2	3
5:30	0	0	0
5:45	0	4	4
6:00	0	2	2
6:15	2	2	4
6:30	2	2	4
6:45	0	7	7
7:00	2	7	9
7:15	1	1	2
7:30	3	9	12
7:45	3	10	13
8:00	3	7	10
8:15	5	6	11
8:30	4	4	8
8:45	6	11	17
9:00	5	5	10
9:15	7	11	18
9:30	8	6	14
9:45	2	4	6
10:00	2	3	5
10:15	5	4	9
10:30	4	4	8
10:45	3	5	8
11:00	4	9	13
11:15	10	5	15
11:30	4	3	7
11:45	5	7	12
Total	110	153	263
Percent	41.8%	58.2%	
Peak	8:45	8:45	8:45
Volume	26	33	59
Peak Factor	0.813	0.750	0.819

Bean Cemetary
Madisonville, KY
KYMEA RICE Site

Site Code:
Station ID:
Location 1:
Location 2:
Location 3:
Location 4:

Comment 1:
Comment 2:
Comment 3:
Comment 4:
Latitude: 0.000000
Longitude: 0.000000

8/16/2024 Time	Southbound, None Specified	Northbound, None Specified	Total
12:00 PM	5	7	12
12:15	9	7	16
12:30	7	9	16
12:45	1	6	7
1:00	1	5	6
1:15	4	9	13
1:30	7	12	19
1:45	7	6	13
2:00	3	9	12
2:15	7	7	14
2:30	7	4	11
2:45	9	5	14
3:00	11	7	18
3:15	6	6	12
3:30	12	4	16
3:45	7	10	17
4:00	11	11	22
4:15	8	10	18
4:30	8	3	11
4:45	16	4	20
5:00	7	6	13
5:15	18	7	25
5:30	7	10	17
5:45	6	8	14
6:00	7	5	12
6:15	11	5	16
6:30	8	7	15
6:45	2	7	9
7:00	7	7	14
7:15	5	3	8
7:30	7	3	10
7:45	6	9	15
8:00	7	5	12
8:15	5	5	10
8:30	3	3	6
8:45	5	4	9
9:00	4	4	8
9:15	3	7	10
9:30	7	1	8
9:45	3	4	7
10:00	0	4	4
10:15	5	2	7
10:30	1	1	2
10:45	3	1	4
11:00	2	3	5
11:15	1	4	5
11:30	2	0	2
11:45	3	2	5
Total	291	268	559
Percent	52.1%	47.9%	
Peak	4:30	1:15	4:45
Volume	49	36	75
Peak Factor	0.681	0.750	0.750

Bean Cemetary
Madisonville, KY
KYMEA RICE Site

Site Code:
Station ID:
Location 1:
Location 2:
Location 3:
Location 4:

Comment 1:
Comment 2:
Comment 3:
Comment 4:
Latitude: 0.000000
Longitude: 0.000000

8/17/2024 Time	Southbound, None Specified	Northbound, None Specified	Total
12:00 AM	1	0	1
12:15	2	0	2
12:30	5	0	5
12:45	1	1	2
1:00	0	1	1
1:15	6	0	6
1:30	1	1	2
1:45	0	1	1
2:00	1	2	3
2:15	1	0	1
2:30	0	0	0
2:45	0	0	0
3:00	0	0	0
3:15	0	0	0
3:30	1	0	1
3:45	0	0	0
4:00	0	0	0
4:15	0	0	0
4:30	0	0	0
4:45	0	1	1
5:00	0	0	0
5:15	0	0	0
5:30	0	1	1
5:45	0	0	0
6:00	0	1	1
6:15	1	1	2
6:30	0	4	4
6:45	2	2	4
7:00	2	0	2
7:15	0	0	0
7:30	1	3	4
7:45	2	4	6
8:00	0	1	1
8:15	3	3	6
8:30	3	4	7
8:45	4	4	8
9:00	1	7	8
9:15	4	7	11
9:30	4	5	9
9:45	7	4	11
10:00	3	5	8
10:15	2	8	10
10:30	4	4	8
10:45	4	5	9
11:00	7	5	12
11:15	6	5	11
11:30	3	7	10
11:45	4	6	10
Total	86	103	189
Percent	45.5%	54.5%	
Peak	10:30	8:45	11:00
Volume	21	23	43
Peak Factor	0.750	0.821	0.896

Bean Cemetary
Madisonville, KY
KYMEA RICE Site

Site Code:
Station ID:
Location 1:
Location 2:
Location 3:
Location 4:

Comment 1:
Comment 2:
Comment 3:
Comment 4:
Latitude: 0.000000
Longitude: 0.000000

8/17/2024 Time	Southbound, None Specified	Northbound, None Specified	Total
12:00 PM	3	6	9
12:15	7	7	14
12:30	10	6	16
12:45	5	4	9
1:00	3	5	8
1:15	6	5	11
1:30	4	8	12
1:45	2	2	4
2:00	7	6	13
2:15	6	8	14
2:30	4	9	13
2:45	3	7	10
3:00	2	8	10
3:15	5	4	9
3:30	7	1	8
3:45	4	6	10
4:00	5	10	15
4:15	4	7	11
4:30	6	5	11
4:45	6	5	11
5:00	7	5	12
5:15	9	4	13
5:30	4	1	5
5:45	1	3	4
6:00	10	3	13
6:15	4	6	10
6:30	2	3	5
6:45	2	4	6
7:00	6	4	10
7:15	7	3	10
7:30	2	8	10
7:45	4	3	7
8:00	6	0	6
8:15	4	4	8
8:30	4	8	12
8:45	6	4	10
9:00	6	2	8
9:15	2	2	4
9:30	4	9	13
9:45	4	3	7
10:00	1	1	2
10:15	1	3	4
10:30	1	1	2
10:45	3	3	6
11:00	1	1	2
11:15	4	1	5
11:30	0	2	2
11:45	2	1	3
Total	206	211	417
Percent	49.4%	50.6%	
Peak	4:30	2:15	2:00
Volume	28	32	50
Peak Factor	0.778	0.889	0.893

Bean Cemetary
Madisonville, KY
KYMEA RICE Site

Site Code:
Station ID:
Location 1:
Location 2:
Location 3:
Location 4:

Comment 1:
Comment 2:
Comment 3:
Comment 4:
Latitude: 0.000000
Longitude: 0.000000

8/18/2024 Time	Southbound, None Specified	Northbound, None Specified	Total
12:00 AM	3	1	4
12:15	3	1	4
12:30	0	1	1
12:45	1	1	2
1:00	0	1	1
1:15	1	1	2
1:30	1	1	2
1:45	0	0	0
2:00	1	0	1
2:15	0	1	1
2:30	1	1	2
2:45	1	0	1
3:00	1	0	1
3:15	0	0	0
3:30	0	1	1
3:45	0	1	1
4:00	1	0	1
4:15	0	0	0
4:30	0	0	0
4:45	1	0	1
5:00	0	0	0
5:15	0	0	0
5:30	0	0	0
5:45	0	0	0
6:00	0	0	0
6:15	0	0	0
6:30	0	1	1
6:45	2	1	3
7:00	0	1	1
7:15	0	1	1
7:30	1	2	3
7:45	2	1	3
8:00	4	0	4
8:15	1	3	4
8:30	2	1	3
8:45	1	1	2
9:00	1	1	2
9:15	0	3	3
9:30	0	5	5
9:45	2	3	5
10:00	1	2	3
10:15	1	2	3
10:30	5	4	9
10:45	10	9	19
11:00	7	4	11
11:15	6	2	8
11:30	10	6	16
11:45	6	7	13
Total	77	71	148
Percent	52.0%	48.0%	
Peak	10:45	10:45	10:45
Volume	33	21	54
Peak Factor	0.825	0.583	0.711

Bean Cemetary
Madisonville, KY
KYMEA RICE Site

Site Code:
Station ID:
Location 1:
Location 2:
Location 3:
Location 4:

Comment 1:
Comment 2:
Comment 3:
Comment 4:
Latitude: 0.000000
Longitude: 0.000000

8/18/2024 Time	Southbound, None Specified	Northbound, None Specified	Total
12:00 PM	4	2	6
12:15	5	6	11
12:30	10	6	16
12:45	8	7	15
1:00	5	6	11
1:15	10	11	21
1:30	3	4	7
1:45	2	6	8
2:00	4	8	12
2:15	6	9	15
2:30	5	3	8
2:45	5	7	12
3:00	3	6	9
3:15	3	9	12
3:30	3	8	11
3:45	5	6	11
4:00	4	9	13
4:15	3	7	10
4:30	11	6	17
4:45	5	8	13
5:00	3	4	7
5:15	7	5	12
5:30	5	4	9
5:45	3	6	9
6:00	2	6	8
6:15	5	4	9
6:30	9	10	19
6:45	1	1	2
7:00	6	4	10
7:15	5	5	10
7:30	5	3	8
7:45	0	4	4
8:00	7	4	11
8:15	3	1	4
8:30	6	5	11
8:45	2	3	5
9:00	3	2	5
9:15	3	1	4
9:30	4	5	9
9:45	1	1	2
10:00	1	0	1
10:15	2	2	4
10:30	3	4	7
10:45	2	4	6
11:00	2	1	3
11:15	0	3	3
11:30	1	1	2
11:45	0	0	0
Total	195	227	422
Percent	46.2%	53.8%	
Peak	12:30	3:15	12:30
Volume	33	32	63
Peak Factor	0.825	0.889	0.750
Grand Total	1379	1468	2847
Percent	48.4%	51.6%	
AADT		ADT: 712	AADT: 712

Palmer ENGINEERING

400 Shoppers Drive
P.O. Box 747
Winchester, KY 40392
859-744-1218
www.palmernet.com

Siting Board 2-25:

Provide the entire corporate structure of Kentucky Municipal Energy, including its parent companies.

Response: The Kentucky Municipal Energy Agency is an interlocal agency created pursuant to KRS 65.210 to 65.300. It does not have any corporate "parents." It is an independent agency with eleven members who are Cities in the Commonwealth of Kentucky.

Witness: Doug Buresh

Siting Board 2-26:

Refer to the Application, Section 11, Environmental Violation Record. Provide the names of the entities, as well as the relationship to the applicant, with an ownership interest in Kentucky Municipal Energy that were referenced as not having any environmental violations.

Response: The statement only references the Kentucky Municipal Energy Agency. It is not owned by another corporate parent.

Witness: Doug Buresh