



**KENTUCKY UNIFORM POLICE
TRAFFIC COLLISION REPORT**

MASTER FILE #
70739422

INVESTIGATING AGENCY: **FULTON COUNTY SHERIFF DEPT.** AGENCY ORI NUMBER: **0380000** LOCAL CODE:

ROADWAY NAME: **KY1909** PARKING LOT: **N** INTERSECTION WITH: **N** BETWEEN STREETS: **N**

ROADWAY # KY1909	DISTANCE FROM MILEPOINT	MILEPOINT # 0.771	INJURED 2	KILLED	# UNITS INVOLVED 1	HIT & RUN NO	ONE WAY NO	SPEED LIMIT 055 MPH
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IN CITY LIMITS? **NO** LATITUDE DEG: **36** MIN: **31.695** COLLISION DATE AND TIME: **08/11/2009 18:45**
MILES FROM CITY: **3 MILES EAST** LONGITUDE DEG: **88** MIN: **55.551**

CITY/TOWN: **03801 - FULTON** RAMP: **NO**
COUNTY: **038 - FULTON** FROM: DIR:
SECONDARY COLLISION: **NO** MEDIAN CROSSOVER: **NO** TO: DIR:

MANNER OF COLLISION: **09 - SINGLE VEHICLE** LOCATION 1ST EVENT: **97 - OTHER PROPERTY** TRAFFIC CONTROL: **12 - STOP SIGN**

ROADWAY TYPE: **07 - STATE** TOTAL LANES: **2** ROADWAY CHARACTER: **06 - STRAIGHT & LEVEL** ROADWAY SURFACE: **01 - ASPHALT** ROADWAY CONDITION: **01 - DRY**

WEATHER: **02 - CLEAR** LIGHT CONDITION: **02 - DAYLIGHT** LAND USE: **07 - RURAL** SCHOOL BUS RELATED: **03 - NOT APPLICABLE**

FIRST AID AT SCENE: **YES** FIRST AID GIVEN BY: **TWIN CITY AMBULANCE**

INJURED REMOVED TO: **03801 - PARKWAY REGIONAL**

EMS AGENCY AND RUN #

NOTIFIED TIME	ARRIVED TIME	TIME AT HOSPITAL	NOTIFIED TIME	ARRIVED TIME	TIME AT HOSPITAL	NOTIFIED TIME	ARRIVED TIME	TIME AT HOSPITAL

INJURED OR DECEASED REMOVED BY: **06 - PRIVATE AMBULANCE**

1 PROPERTY DAMAGE - OTHER THAN VEHICLES: PROPERTY

OWNER/ADDRESS

2 PROPERTY DAMAGE - OTHER THAN VEHICLES: PROPERTY

OWNER/ADDRESS

3 PROPERTY DAMAGE - OTHER THAN VEHICLES: PROPERTY

OWNER/ADDRESS

INV. COMPLETE: **NO** PHOTOS: **YES** PHOTOGRAPHER UNIT NO.: **FC-05**

INVESTIGATOR: **THOMAS D** ID NUMBER: **FC-05** BEAT OR POST NO.: COUNTY: TIME NOTIFIED: **18:45** TIME ARRIVED: **18:56** RDWY OPENED: **19:15**

REVIEWED BY: **R HOPPER** PAGE: **1 OF 3**

KENTUCKY UNIFORM POLICE TRAFFIC COLLISION REPORT - NARRATIVE

KSP 74 Revised 1/2000

MASTER FILE # 70739422

INVESTIGATING AGENCY FULTON COUNTY SHERIFF DEPT.

AGENCY ORI NUMBER 0380000

LOCAL CODE

Dispatched to a call of a single vehicle accident that had left the roadway and crashed into a tree. Upon my arrival ambulance service was already on the scene rendering aid to both occupants of the vehicle. I spoke to both subjects prior to them being transported to the hospital and got a brief statement. The driver stated they were heading west on St Rt 2149 when he did not realize the stop sign was there and ran through it crossing over St Rt 1909 leaving the roadway striking and earth embankment then striking a tree. Subjects were transported to the Parkway Hospital where they received treatment. The vehicle was removed from the scene by Scarbrough Wrecker service and taken to the Fulton County Detention Center with a hold put on the vehicle by the Fulton County Sheriff's Office. I went to the hospital and continued the investigation speaking first to Ms. Mitchell prior to asking her questions she was advised of her rights and agreed to give a statement. Ms. Mitchell stated that they had been arguing and she didn't think the driver seen the stop sign in time. She stated the subject had not been drinking but was on some prescription medication and had also taken a Loratab. Myself and Deputy Zickefoose went to interview Mr. Pritchett he was read his rights prior to questioning and stated he would give a statement. Subject stated they were arguing and he didn't notice the stop sign in time and wasn't for sure if the breaks functioned correctly. Subject was asked if he had been drinking any alcohol he stated no, subject was asked if he was taken any prescription medication he stated had taken two different medications prescribed by a doctor and had taken a 7.5 Loratab that he did not have a prescription for, subject stated he had taken all three medications within a short period of time. Deputy Zickefoose noted that the subjects pupils were fixed in all lighting conditions. Subject was read the implied consent form and requested to take a blood test which he agreed to do. Blood was taken from the subject by a lab tech at the hospital. Subject was not released from the hospital due to his injuries and was transported to another medical facility for additional treatment. Subject was cited to court for the charges listed on citation A026248. The interviews were tape recorded.

KENTUCKY UNIFORM POLICE TRAFFIC COLLISION REPORT - UNIT

MASTER FILE # 70739422

INVESTIGATING AGENCY		FULTON COUNTY SHERIFF DEPT.		AGENCY ORI NUMBER	0380000	LOCAL CODE
UNIT #	TOWED?			# OCCUPANTS	PEDESTRIAN FACTORS	
1	YES - FULTON COUNTY DETENTION CENTER			2		
OPERATOR'S LIC. NO.		STATE	LIC. CLASS	ENDORSEMENT		
P98050680		KY				
CDL	NO	CO. RESIDENT	YES	OWNER	YES	
OPERATORS LICENSE RESTRICTIONS						
OPERATOR NAME (I N F N MI)						

1ST AREA OF CONTACT	1ST AREA CONTACT - COMBINATION VEHICLE	EXTENT OF DAMAGE	AIR BAG SWITCH	TRAVEL DIRECTION
01 - FRONT VEHICLE		SEVERE	ON	WEST



**KENTUCKY UNIFORM POLICE
TRAFFIC COLLISION REPORT**

MASTER FILE #
71174533

INVESTIGATING AGENCY: **FULTON COUNTY SHERIFF DEPT.** AGENCY ORI NUMBER: **0380000** LOCAL CODE: **12-FC-104**

ROADWAY NAME: **KY1909** PARKING LOT: **N** INTERSECTION WITH: **N** BETWEEN STREETS: **N**

ROADWAY # KY1909	DISTANCE FROM MILEPOINT	MILEPOINT # 0.788	INJURED	KILLED	# UNITS INVOLVED 1	HIT & RUN NO	ONE WAY NO	SPEED LIMIT 055 MPH
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IN CITY LIMITS? **NO** LATITUDE DEG: **36** MIN: **31.709** COLLISION DATE AND TIME: **07/07/2012 05:30**
MILES FROM CITY: **2 MILES WEST** LONGITUDE DEG: **88** MIN: **55.574**

CITY/TOWN: **03801 - FULTON** RAMP: **NO**
COUNTY: **038 - FULTON** FROM: DIR:
SECONDARY COLLISION: **NO** MEDIAN CROSSOVER: **NO** TO: DIR:

MANNER OF COLLISION: **09 - SINGLE VEHICLE** LOCATION 1ST EVENT: **06 - SHOULDER** TRAFFIC CONTROL: **02 - CENTER LINE
12 - STOP SIGN
13 - WARNING SIGNS**

ROADWAY TYPE: **07 - STATE** TOTAL LANES: **2** ROADWAY CHARACTER: **06 - STRAIGHT & LEVEL** ROADWAY SURFACE: **01 - ASPHALT** ROADWAY CONDITION: **01 - DRY**

WEATHER: **02 - CLEAR** LIGHT CONDITION: **01 - DAWN** LAND USE: **07 - RURAL** SCHOOL BUS RELATED: **03 - NOT APPLICABLE**

FIRST AID AT SCENE: **NO** FIRST AID GIVEN BY:
INJURED REMOVED TO:

EMS AGENCY AND RUN #	EMS AGENCY AND RUN #	EMS AGENCY AND RUN #
NOTIFIED TIME	ARRIVED TIME	TIME AT HOSPITAL
NOTIFIED TIME	ARRIVED TIME	TIME AT HOSPITAL
NOTIFIED TIME	ARRIVED TIME	TIME AT HOSPITAL

INJURED OR DECEASED REMOVED BY:

1 PROPERTY DAMAGE - OTHER THAN VEHICLES: **UTILITY POLE** PROPERTY: **UT - UTILITY**

OWNER/ADDRESS: **HICKMAN-FULTON COUNTY RURAL ELECTRIC
MOSCOW AVE HICKMAN KY 42050**

2 PROPERTY DAMAGE - OTHER THAN VEHICLES: PROPERTY:

OWNER/ADDRESS:

3 PROPERTY DAMAGE - OTHER THAN VEHICLES: PROPERTY:

OWNER/ADDRESS:

INV. COMPLETE: **YES** PHOTOS: **NO** PHOTOGRAPHER UNIT NO.:
INVESTIGATOR: **ZICKEFOOSE D** ID NUMBER: **FC-2** BEAT OR POST NO.: TIME NOTIFIED: **05:39** TIME ARRIVED: **05:45** RDWY OPENED: **06:57**

REVIEWED BY: **R HOPPER** PAGE: **1 OF 3**

KENTUCKY UNIFORM POLICE TRAFFIC COLLISION REPORT - NARRATIVE

KSP 74 Revised 1/2000

MASTER FILE # 71174533

INVESTIGATING AGENCY FULTON COUNTY SHERIFF DEPT.

AGENCY ORI NUMBER 0380000

LOCAL CODE 12-FC-104

Driver of unit one was driving on St Rt 2149. When he came to the intersection with St Rt 1909 he failed to brake quickly enough to come to a stop. He was towing a large 4-wheeler on a 16 ft trailer. This additional load appears to have changed his breaking dynamics to the point that he was unable to stop. Vehicle crossed St Rt 1909 entering the ditch and striking utility pole number 21 belonging to the Hickman-Fulton Counties Rural Electric Cooperative. RECC was called to inspect the pole for safety.

KENTUCKY UNIFORM POLICE TRAFFIC COLLISION REPORT - UNIT

MASTER FILE # 71174533

INVESTIGATING AGENCY **FULTON COUNTY SHERIFF DEPT.** AGENCY ORI NUMBER **0380000** LOCAL CODE **12-FC-104**

UNIT # **1** TOWED? **YES - SCARBROUGH/S TOWING** TOWED DUE TO DISABLED? **YES** # OCCUPANTS **1** PEDESTRIAN FACTORS

OPERATOR'S LIC. NO. **G08806253** STATE **KY** LIC. CLASS **D** ENDORSEMENT
 CDL **NO** CO. RESIDENT **YES** OWNER **YES** OPERATORS LICENSE RESTRICTIONS
01 - CORRECTIVE LENS

OPERATOR NAME (LN, FN, MI) **GLOSSON, TYLER K**
 DATE OF BIRTH **04/16/1992** ADDRESS **1185 STATE ROUTE 924 FULTON, KY 42041**
 COMPLIANT **YES**

A. PRE-COLLISION VEHICLE ACTION **05 - GOING STRAIGHT AHEAD** B. UNIT TYPE **08-LT TRUCK(VAN/SPORTS UTILITY/PICKUP)** C. FIRE **NO** D. OVERTURNED **NO**

E. HUMAN FACTORS **14 - INATTENTION**
18 - NOT UNDER PROPER CONTROL

F-H. EVENT COLLISION
1ST: 16 - EARTH EMBANKMENT/ROCKCUT/DITCH
2ND: 31 - UTILITY POLE

I. VEHICULAR FACTORS **99 - NONE DETECTED** J. ENVIRONMENTAL FACTORS **99 - NONE DETECTED**

K. UNDERRIDE/OVERRIDE **01 - NO UNDERRIDE/OVERRIDE**

INVOLVED PERSONS: NAME, ADDRESS, CITY, STATE AND ZIP	DOB/DOD	14	15	16	17	18	19	20	21	22	23
GLOSSON, TYLER K 1185 STATE ROUTE 924 FULTON, KY 42041	MALE DOB: 04/16/1992	08,01	NO	01	05		01	01	01	01	01

VEH YEAR **1997** MAKE **TOYOTA** MODEL **4RUNNER SR5** TYPE **LL** STATE **KY** REGISTRATION NUMBER **GLOSS** YEAR **2012**

VEHICLE ID NUMBER **JT3HM84R7V0020062** VEHICLE INSURED **YES** NAME OF INSURANCE CO. **KENTUCKY FARM BUREAU** INSURANCE POLICY # COLOR OF VEH **WHITE**

1ST AREA OF CONTACT **01 - FRONT VEHICLE** 1ST AREA CONTACT - COMBINATION VEHICLE EXTENT OF DAMAGE **MOD/SEVERE** AIR BAG SWITCH **NOT PRESENT** TRAVEL DIRECTION **WEST**

ESTIMATED TRAVEL SPEED **BETWEEN 50 & 60 MPH** MOST HARMFUL EVENT

COMMERCIAL VEH. **NO** LARGE TRUCK OR BUS **NO** PLACARD PRESENT HAZ. CARGO HAZ. SPILL HAZ. MAT. # TYPE CARGO/COMMODITY NAS SAFETY REPORT #

HM CLASS CARRIER TYPE
 SINGLE/COMBINATION/BOBTAIL NO. AXLES NO. TRAILERS US DOT # ICC MC # CRASH AVOIDANCE (Fatal Only)

VEHICLE CONFIGURATION CARGO BODY TYPE BUS USE

GVWR TOTAL MOTOR CARRIER NAME CARRIER NAME SOURCE

MOTOR CARRIER ADDRESS

VIOLATION CODES CITATION NUMBER CASE NUMBER SUSPECTED DRINKING DRIVER **NO** METHOD OF DETERMINATION **02 - OBSERVATION**

TAKEN BY
 TEST OFFERED **NO** CHEMICAL TEST TESTED FOR SENT TO RESULTS PAGE

Criteria: Collision Date is greater than 1/1/2000 **And** County Name is one of: FULTON **And** Roadway Name contains 1909 **And** Milepoint is between 0.512 and 0.952



Collision w/Injury		1
Collision w/Fatality		0
Collision w/Prop Damage		1

Scale: 1 inch = 434.8 Feet, 0.08 Miles

Total Mapped	2
Total NOT Mapped	0

Executive Summary

**Traffic Forecast Report
Fulton County
Bridge Replacement on KY 1909 over Little Bayou
De Chien Creek
Item No. 01-1144.00**

Prepared for:



Prepared by:
Jayalakshmi Balaji
Division of Planning
Kentucky Transportation Cabinet
October 16, 2012

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Commonly Used Abbreviations and their Descriptions

ADT	Average Daily Traffic	Without any adjustment
DHV	Design Hour Volume	30 th highest hour of a <u>year</u>
ESAL	Equivalent Single Axle Load	A measure of traffic's impact on roadway
%T	Truck Percentage	The percentage of trucks to total volume
FC	Functional Class	Refers to a road's importance
GR	Growth Rate	A value normally compounded annually
PHF	Peak Hour Factor	Considers a 15 minute spike in an hourly count
K-Factor	K-30 th hour Factor	DHV divided by ADT (DHV/ADT)
D-Factor	Directional Factor	Percentage of dominant flow to total
MP	Mile Point	Miles increase easterly and northerly
ATR	Automatic Traffic Recorder	A permanent & continuous recording station
KYSTM	Kentucky Statewide Model	A computerized representation of KY roads

Traffic Forecast Technical Report
 Fulton County: Bridge Replacement on KY 1909 over Little Bayou De Chien Creek
 Item No. 01-1144.00



Kentucky Transportation Cabinet
 Division of Planning
TRAFFIC FORECAST REQUEST

TC 59-5
 07/2010

TF 12.075

Send form to: KYTC Division of Planning, 200 Mero Street, Frankfort, KY 40622

FROM Jessica Herring DISTRICT 1 DATE 8/23/2012

PROJECT Item # 1-1144.00
 (include map)

PROJECT DESCRIPTION Replace bridge on KY 1909 over Little Bayou De Chien
 (major widening, new highway, etc.) Creek S of intersection with KY 2149

ITEM NO. 1-1144.00 COUNTY Fulton eMARS Program Code 8684801D

PRIORITY (check one) L M H DATE NEEDED ASAP

FORMAT (check one) PDF only Paper only Both

TYPE OF FORECAST Bridge Replacement
 (Phase I Design, Phase II Design, Air/Noise, Bridge Replacement, Resurface, other)

OTHER INFORMATION NEEDED

(check as appropriate)

ADT	Build	No-Build	Residual
Current	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Design (Yr. 2038)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Include DHV's <input type="checkbox"/>			
Truck Percentages			
ADT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Light/Heavy	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Include DHV's <input type="checkbox"/>			
ESALs (Yr. 2038)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

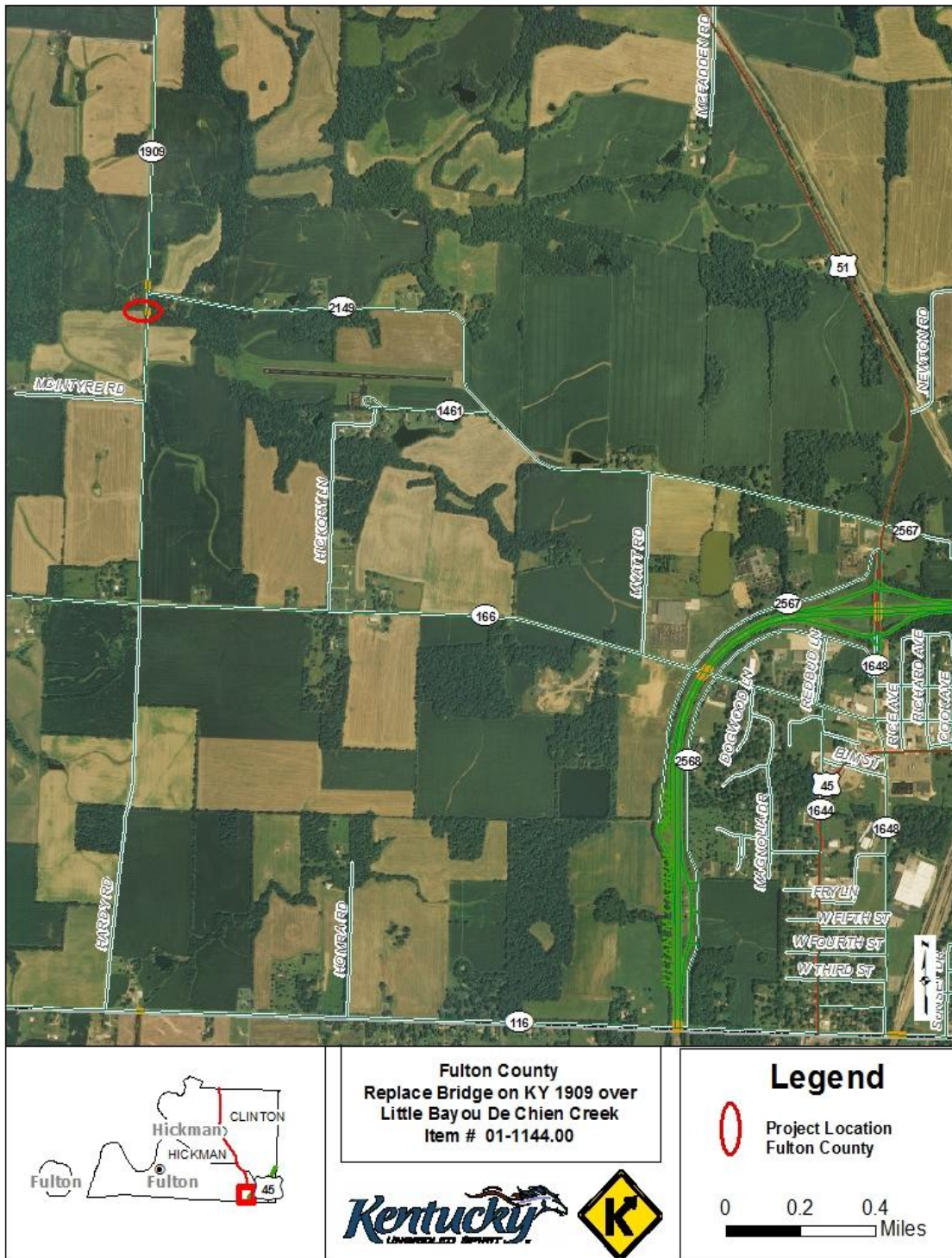
List all intersections that require turning movements.

Describe any special trip generators in the study area, such as heavy-traffic generators, trucks, existing/future development plans, schools, hospitals, warehouses, or special events.

Provide a list of those who need a copy of the completed forecast.

Jessica Herring

Summary Map



*Traffic Forecast Technical Report
 Fulton County: Bridge Replacement on KY 1909 over Little Bayou De Chien Creek
 Item No. 01-1144.00*

FORECAST OF EQUIVALENT SINGLE AXLE LOAD ACCUMULATIONS (20-year)

ROUTE ID:

County	Fulton	Date	10/16/12
Road Name	State Route 1909	Forecaster	Jay Balaji
Functional Class	9 - Rural Local	MARS No.	8684801D
Project Description	Bridge Replacement	Item No.	1-1144.00
Scenario	Build	Route No.	KY-1909
Segment Description	Same	Beg. MP	0.712
		End MP	0.752
		T.F. No.	TF12-075
		No. of Lanes	2
		1 or 2 way	2

REFERENCES:

Previous Forecasts	N/A	K-Factor Value	14.1%
Traffic Volume	038320	K-Factor Source	038320
Milepoint	0.1	PHF	0.85
Truck Percent	Functional Class Average	Full Route Unique Identifier	
Milepoint	N/A		038-KY-1909-000
ESAL Information	2007 Aggregated ESALS		
Growth Rate	2.00%		

TRAFFIC PARAMETERS:

	Present Year	Growth Rate	Construction Year	Median Year	Design Year
	2012		2018	2028	2038
Volume (AADT)	175	2.00%	200	240	290
Percent Trucks (%T)	13.1%	1.0%	14%	15%	17%
Number of Trucks	20	3.0%	30	40	50
Percent Trucks Hauling Coal (%CT)	0%	0.0%	0%	0%	0%
<i>Non-Coal Trucks:</i>					
Axles/Truck (A/T)	3.100	0.70%	3.232	3.466	3.716
ESALs/Axle (ESAL/A)	0.254	1.60%	0.279	0.327	0.384
<i>Coal Trucks:</i>					
Axles/Truck (A/CT)	0	0.00%	0.000	0.000	0.000
ESALs/Axle (ESAL/CA)	0	0.00%	0.000	0.000	0.000

ESAL CALCULATIONS: SEE ATTACHED ESAL CALCULATION SHEET

Design ESALs in Critical Lane 170,000

General Comments: As per District 1, no proposed development near the bridge and its going to be build in kind.

Traffic Forecast Technical Report
 Fulton County: Bridge Replacement on KY 1909 over Little Bayou De Chien Creek
 Item No. 01-1144.00

Bridge Replacement Over Little Bayou De Chien Creek On KY 1909

Year	ADT	Car %	Truck %	Cars	Trucks	CT%	AXIT	ESAL/AX	AX/CT	ESAL/CA	LDF	ESALS
2018	197	86.1%	13.9%	170	27	0.00%	3.23	0.28	0	0	0.500	4,672
2019	201	86.0%	14.0%	173	28	0.00%	3.26	0.28	0	0	0.500	4,918
2020	205	85.8%	14.2%	176	29	0.00%	3.28	0.29	0	0	0.500	5,178
2021	209	85.7%	14.3%	179	30	0.00%	3.30	0.29	0	0	0.500	5,452
2022	213	85.5%	14.5%	182	31	0.00%	3.32	0.30	0	0	0.500	5,741
2023	218	85.4%	14.6%	186	32	0.00%	3.35	0.30	0	0	0.500	6,045
2024	222	85.2%	14.8%	189	33	0.00%	3.37	0.31	0	0	0.500	6,366
2025	226	85.1%	14.9%	193	34	0.00%	3.39	0.31	0	0	0.500	6,703
2026	231	84.9%	15.1%	196	35	0.00%	3.42	0.32	0	0	0.500	7,059
2027	236	84.8%	15.2%	200	36	0.00%	3.44	0.32	0	0	0.500	7,434
2028	240	84.6%	15.4%	203	37	0.00%	3.47	0.33	0	0	0.500	7,829
2029	245	84.5%	15.5%	207	38	0.00%	3.49	0.33	0	0	0.500	8,245
2030	250	84.3%	15.7%	211	39	0.00%	3.51	0.34	0	0	0.500	8,684
2031	255	84.2%	15.8%	215	40	0.00%	3.54	0.34	0	0	0.500	9,146
2032	260	84.0%	16.0%	218	42	0.00%	3.56	0.35	0	0	0.500	9,633
2033	265	83.9%	16.1%	222	43	0.00%	3.59	0.35	0	0	0.500	10,146
2034	271	83.7%	16.3%	226	44	0.00%	3.61	0.36	0	0	0.500	10,686
2035	276	83.5%	16.5%	231	45	0.00%	3.64	0.37	0	0	0.500	11,256
2036	281	83.4%	16.6%	235	47	0.00%	3.66	0.37	0	0	0.500	11,856
2037	287	83.2%	16.8%	239	48	0.00%	3.69	0.38	0	0	0.500	12,489
2038	293	83.0%	17.0%	243	50	0.00%	3.72	0.38	0	0	0.500	13,156

5-yr ESALS 27,000
10-yr ESALS 60,000
15-yr ESALS 109,000
20-yr ESALS 170,000



TRANSPORTATION CABINET

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

Steven L. Beshear
Governor

Michael W. Hancock, P.E.
Secretary

INTRA-DEPARTMENTAL MEMO

TO: Jim LeFevre, P.E.
Chief District Engineer
District 1 - Paducah

ATTN: Jessica Herring

FROM: Keith R. Damron, P.E. *Keith R. Damron*
Director
Division of Planning

DATE: February 6, 2013

SUBJECT: Livingston County Traffic Forecast
Bridge Replacement KY 866 Over Gum Creek
Item No. 1-1145.00

In response to your August 23, 2012, request, we are providing the following forecasts on the attached report:

- 2012 and 2037 Average Daily Traffic and Design Hour Volume
- 2012 and 2037 Average Daily and Design Hour Truck Percent
- Truck Percentages and 20 year ESALs

If you have any questions, please call Jonathan Reynolds of this Division at (502) 564-7183.

KRD/JR/NH

Attachments

c/att: Keith Caudill
Paul Looney
Dan Hite



An Equal Opportunity Employer M/F/D

Executive Summary

Traffic Forecast Report Livingston County Bridge Replacement KY 866 Over Gum Creek Item No. 1-1145.00

Prepared for:



Prepared by:
Jonathan Reynolds, PE
Division of Planning
Kentucky Transportation Cabinet
January 10, 2013

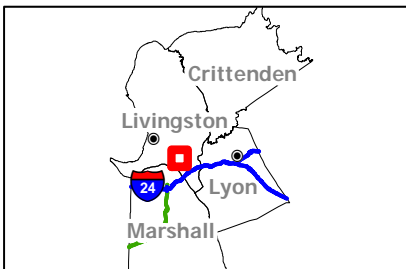
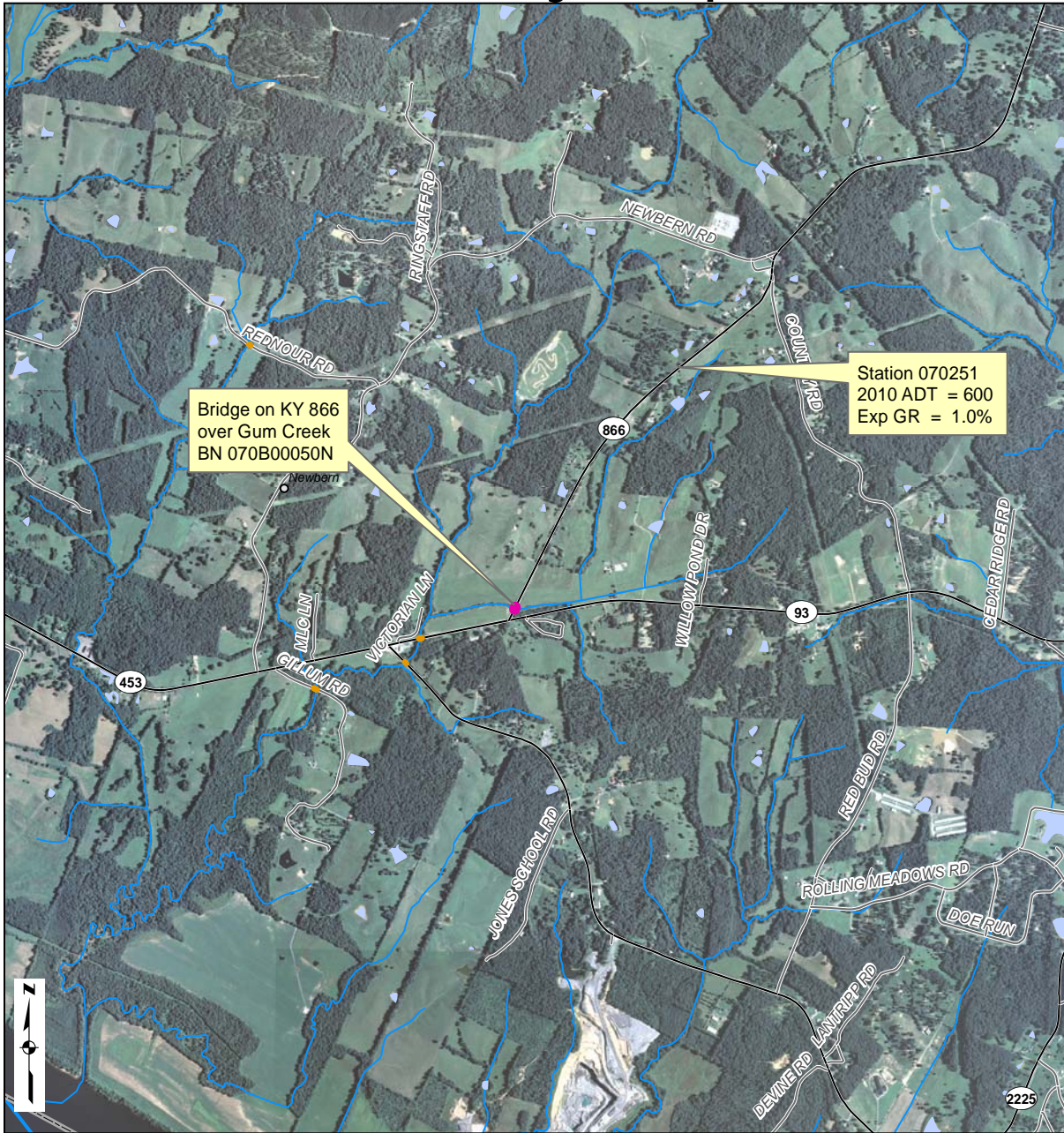
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Commonly Used Abbreviations and their Descriptions

ADT	Average Daily Traffic	Without any adjustment
DHV	Design Hour Volume	30 th highest hour of a <u>year</u>
ESAL	Equivalent Single Axle Load	A measure of traffic's impact on roadway
%T	Truck Percentage	The percentage of trucks to total volume
FC	Functional Class	Refers to a road's importance
GR	Growth Rate	A value normally compounded annually
PHF	Peak Hour Factor	Considers a 15 minute spike in an hourly count
K-Factor	K-30 th hour Factor	DHV divided by ADT (DHV/ADT)
D-Factor	Directional Factor	Percentage of dominant flow to total
MP	Mile Point	Miles increase easterly and northerly
ATR	Automatic Traffic Recorder	A permanent & continuous recording station
KYSTM	Kentucky Statewide Model	A computerized representation of KY roads

Vicinity Map



**Bridge Replacement on
 KY 866 over Gum Creek
 Item #1-1145.00**



Legend

Project Location

0 0.175 0.35 0.7 Miles

**Traffic Forecast Executive Summary
Livingston County: Bridge Replacement KY 866 Over Gum
Creek
Item No. 1-1145.00**

FORECAST SUMMARY

The project calls for replacing the bridge over Gum Creek on KY 866 in Livingston County. The purpose of this report is to analyze current and future traffic utilizing the KY 866 bridge between MP 0.022 and MP 0.062. District 1 requested traffic forecasts for the project road segment.

FORECAST TYPE

The following types of forecasts were developed:

- 2012 and 2037 ADT and DHV values
- 2012 and 2037 Average Daily and Design Hourly Truck Percent Forecasts
- 20-year ESALs

CURRENT-YEAR VOLUMES

The 2012 ADT volume is based on the 2010 48-hour count data collected at traffic station 070251 (see page 2). The traffic count data for this station was collected at MP 1.9 on KY 866. All figures are subject to rounding.

DESIGN-YEAR/GROWTH FACTORS

While the Kentucky State Data Center predicts a population decline in Livingston County between now and 2035 (see page 5), exponential growth analyses performed on historical data from station 070251 reveal traffic volumes on this section of KY 866 have been growing 1.0% annually. Therefore, a 1.0% growth rate was used for the purposes of this forecast.

DESIGN HOUR FACTORS

DHVs were estimated by analyzing the most recent hourly volume data collected at station 070251. The peak AM and PM volumes were derived by dividing the highest hourly volumes from these counts by their daily totals. Functional class design hour factors based on the day and month of these counts were then applied. Finally, the calculated K-factors were used in combination with the ADT forecast to produce DHVs for 2011 and 2037.

TRUCK PERCENTAGE

The truck percentage for this project is based on the functional class average for rural minor collector roads. A 10.4% truck percentage was used for the purpose of this forecast. Statewide research indicates a 2.0% annual growth rate for %T may be applied as a component of the overall traffic growth on rural minor collector roads.

ESALs

Functional class averages from ATR data, traffic counts, and the 2037 ADT projections were used to estimate 20-year ESALs on the project road segment. The 2007 aggregated ESAL report, generated by the Kentucky Transportation Center in collaboration with the Kentucky Transportation Cabinet, were used to grow the important ESAL calculation variables. For more information, please see the attached ESAL calculation sheets.

TURN MOVEMENTS

Turn movements were not requested and therefore not included.

*Traffic Forecast Technical Report
Livingston County: Bridge Replacement KY 866 Over Gum Creek
Item No. 1-1145.00*

HISTORICAL POPULATION SUMMARY

	1960	1970	1980	1990	2000	2010	60 - 70	70 - 80	80 - 90	90 - 00	00 - 10
	Population	Population	Population	Population	Population	Population	Pct	Pct	Pct	Pct	Pct
Kentucky	3,038,156	3,220,711	3,660,334	3,686,892	4,041,769	4,339,367	6.0%	13.6%	0.7%	9.6%	7.4%
Livingston Co	-	7,596	9,219	9,062	9,804	9,519	-	21.4%	-1.7%	8.2%	-2.9%
							Change	Change	Change	Change	Change

Sources: US Bureau of the Census; Kentucky State Data Center

FUTURE POPULATION PROJECTIONS SUMMARY

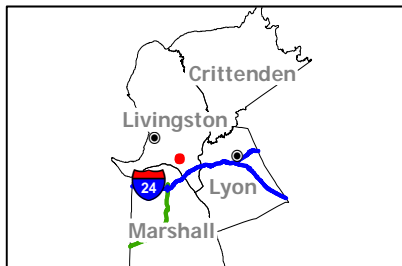
	2010	2015	2020	2025	2030	2035	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35
	Projection	Projection	Projection	Projection	Projection	Projection	Pct	Pct	Pct	Pct	Pct
Kentucky	4,339,367	4,509,429	4,672,754	4,820,390	4,951,178	5,063,331	3.9%	3.6%	3.2%	2.7%	2.3%
Livingston Co	9,519	9,510	9,438	9,280	9,018	8,699	-0.1%	-0.8%	-1.7%	-2.8%	-3.5%
							Change	Change	Change	Change	Change

Sources: US Bureau of the Census; Kentucky State Data Center

ANNUAL POPULATION GROWTH RATES FROM HISTORICAL DATA AND PROJECTIONS

	60 - 70	70 - 80	80 - 90	90 - 00	05 - 10	10 - 15	15 - 20	20 - 25	25 - 30	10 - 30
	GR	GR	GR	GR	GR	GR	GR	GR	GR	GR
Kentucky	0.59%	1.29%	0.07%	0.92%	0.77%	0.71%	0.62%	0.54%	0.45%	0.62%
Livingston Co	-	1.96%	-0.17%	0.79%	-0.02%	-0.15%	-0.34%	-0.57%	-0.72%	-0.13%

Summary Map



**Bridge Replacement on
 KY 866 over Gum Creek
 Item #1-1145.00**



Legend

Project Location

0 0.02 0.04 0.08 Miles

*Traffic Forecast Technical Report
 Livingston County: Bridge Replacement KY 866 Over Gum Creek
 Item No. 1-1145.00*

FORECAST OF EQUIVALENT SINGLE AXLE LOAD ACCUMULATIONS (20-year)

ROUTE ID:

County	Livingston	Date	12/28/12
Road Name	KY 866	Forecaster	Jonathan Reynolds, PE
Functional Class	8 - Rural Minor Collector	MARS No.	8684901D
Project Description	Bridge Replacement KY 866 Over Gum Creek	Item No.	1-1145.00
Scenario	Build	Route No.	KY 866
Segment Description	Bridge Replacement KY 866 Over Gum Creek	Beg. MP	0.022
		End MP	0.062
		T.F. No.	12.076
		No. of Lanes	2
		1 or 2 way	2

REFERENCES:

Previous Forecasts	none	K- Factor Value	11.4%
Traffic Volume	070251	K-Factor Source	058-021
Milepoint	1.95	PHF	0.9
Truck Percent	FC Avg	Full Route Unique Identifier	
Milepoint	N/A	070-KY-0866-000	
ESAL Information	2007 Aggregated ESALS		
Growth Rate	1.00%		

TRAFFIC PARAMETERS:

		Present Year	Growth Rate	Construction Year	Median Year	Design Year
		2012		2017	2027	2037
Volume	(AADT)	600	1.00%	630	700	800
Percent Trucks	(%T)	10.4%	1.0%	11%	12%	13%
Number of Trucks		60	2.0%	70	80	100
Percent Trucks Hauling Coal	(%CT)	0%	0.0%	0%	0%	0%
<i>Non-Coal Trucks:</i>						
Axes/Truck	(A/T)	3.100	0.70%	3.210	3.442	3.691
ESALs/Axle	(ESAL/A)	0.254	1.60%	0.275	0.322	0.378
<i>Coal Trucks:</i>						
Axes/Truck	(A/CT)	0	0.00%	0.000	0.000	0.000
ESALs/Axle	(ESAL/CA)	0	0.00%	0.000	0.000	0.000

ESAL CALCULATIONS: SEE ATTACHED ESAL CALCULATION SHEET

Design ESALs in Critical Lane 400,000

General Comments:

Bridge Replacement KY 866 Over Gum Creek (Build)

Year	ADT	Car %	Truck %	Cars	Trucks	CT%	AX/T	ESAL/AX	AX/JCT	ESAL/CA	LDF	ESALS
2017	631	89.1%	10.9%	562	69	0.00%	3.21	0.27	0	0	0.500	11,616
2018	637	89.0%	11.0%	567	70	0.00%	3.23	0.28	0	0	0.500	12,106
2019	643	88.8%	11.2%	572	72	0.00%	3.26	0.28	0	0	0.500	12,617
2020	650	88.7%	11.3%	577	73	0.00%	3.28	0.29	0	0	0.500	13,149
2021	656	88.6%	11.4%	582	75	0.00%	3.30	0.29	0	0	0.500	13,705
2022	663	88.5%	11.5%	587	76	0.00%	3.32	0.30	0	0	0.500	14,285
2023	669	88.4%	11.6%	592	78	0.00%	3.35	0.30	0	0	0.500	14,890
2024	676	88.3%	11.7%	597	79	0.00%	3.37	0.31	0	0	0.500	15,522
2025	683	88.2%	11.8%	602	81	0.00%	3.39	0.31	0	0	0.500	16,181
2026	690	88.0%	12.0%	607	82	0.00%	3.42	0.32	0	0	0.500	16,868
2027	697	87.9%	12.1%	612	84	0.00%	3.44	0.32	0	0	0.500	17,586
2028	704	87.8%	12.2%	618	86	0.00%	3.47	0.33	0	0	0.500	18,334
2029	711	87.7%	12.3%	623	88	0.00%	3.49	0.33	0	0	0.500	19,115
2030	718	87.6%	12.4%	628	89	0.00%	3.51	0.34	0	0	0.500	19,930
2031	725	87.4%	12.6%	634	91	0.00%	3.54	0.34	0	0	0.500	20,780
2032	732	87.3%	12.7%	639	93	0.00%	3.56	0.35	0	0	0.500	21,668
2033	739	87.2%	12.8%	645	95	0.00%	3.59	0.35	0	0	0.500	22,594
2034	747	87.1%	12.9%	650	97	0.00%	3.61	0.36	0	0	0.500	23,560
2035	754	86.9%	13.1%	656	99	0.00%	3.64	0.37	0	0	0.500	24,568
2036	762	86.8%	13.2%	661	101	0.00%	3.66	0.37	0	0	0.500	25,620
2037	769	86.7%	13.3%	667	103	0.00%	3.69	0.38	0	0	0.500	26,718

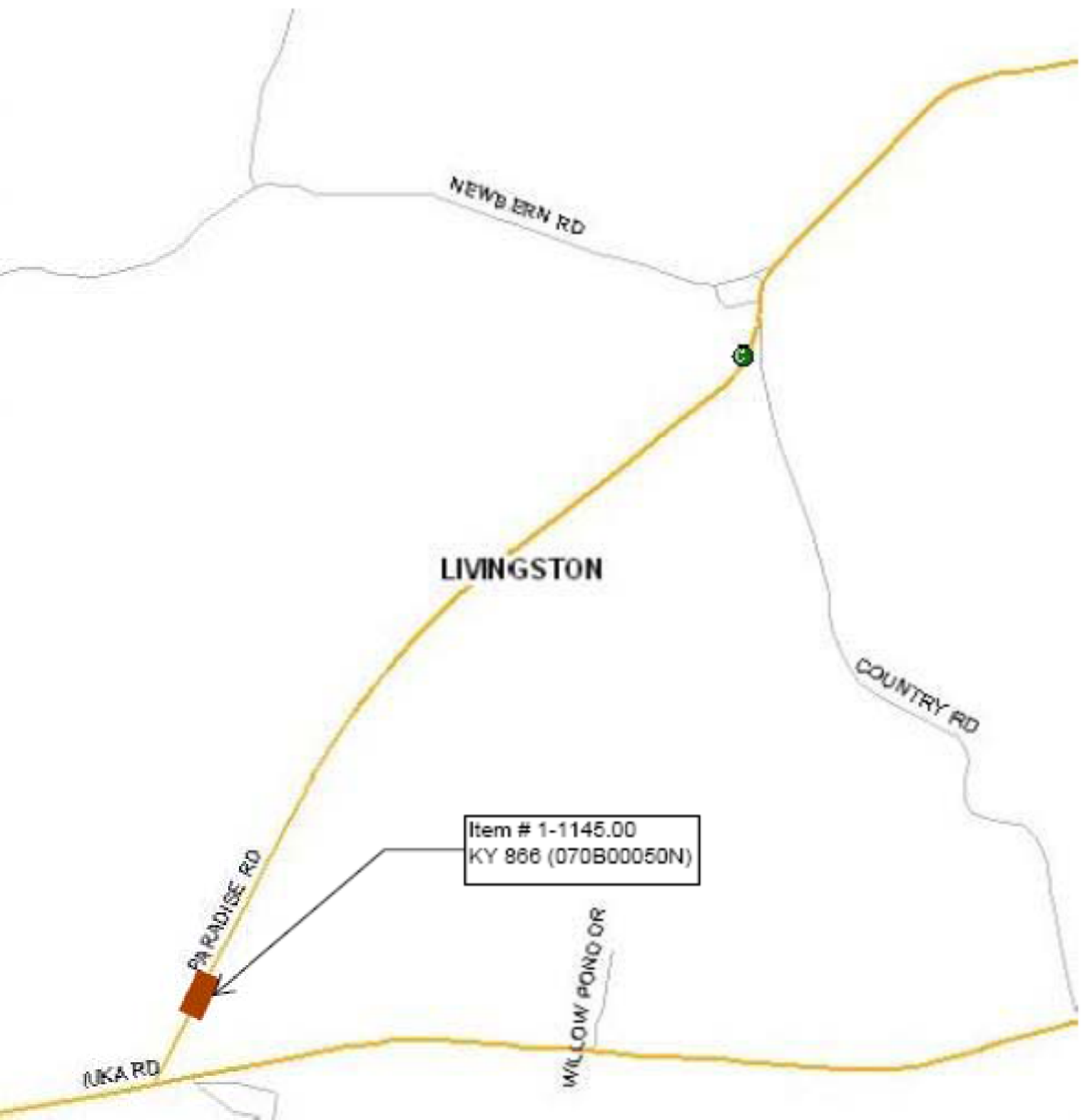
5-yr ESALS
100,000

10-yr ESALS
100,000

15-yr ESALS
200,000

20-yr ESALS
400,000

Collision Date is greater than 1/1/2000 **And** County Name is one of: LIVINGSTON **And** Milepoint is 1 **And** Roadway Name contains Paradise Road



w/Injury		0
w/Fatality		0
w/Prop		1
ed		1
Mapped		0

Scale: 1 inch = 1631 Feet, 0.31 Miles



KENTUCKY UNIFORM POLICE TRAFFIC COLLISION REPORT / Electronic Format

COLLISION DATE and TIME 06/28/2003 06:58					MASTER FILE # 70074329						
INVESTIGATING AGENCY LIVINGSTON COUNTY SHERIFF DEPT					AGENCY ORI NUMBER 0700000			LOCAL CODE			
ROADWAY NAME PARADISE ROAD W			PARKING LOT N		INTERSECTION WITH N or BETWEEN STREETS N						
ROADWAY # KY0866	MILES .3	FEET	DIR E	MILEPOINT # 1	INJURED	KILLED	# UNITS INVOLVED 1	HIT & RUN N	ONE WAY N	SPEED LIMIT 55 KM N	
IN CITY LIMITS? N CITY/TOWN CODE 07001				LATITUDE Deg. 37 Min. 05.716 Sec.							
MILES FROM CITY 8.9 DIR S				LONGITUDE Deg. 88 Min. 17.373 Sec.							
CITY/TOWN NAME SMITHLAND				RAMP? N FROM			DIR				
				TO			DIR				
MANNER OF COLLISION SINGLE VEHICLE			LOCATION 1ST EVENT OUTSIDE SHOULDER-RIGHT			TRAFFIC CONTROL CENTER LINE CURVE SIGN					
ROADWAY TYPE STATE			TOTAL LANES 2		ROADWAY CHARACTER CURVE & GRADE		RDWY SURFACE ASPHALT		ROADWAY COND DRY		
WEATHER CLEAR				LIGHT CONDITION DAYLIGHT			LAND USE RESIDENTIAL		SCHOOL BUS RELATED NOT APPLICABLE		
FIRST AID AT SCENE N		FIRST AID GIVEN BY			INJURED REMOVED TO						
EMS AGENCY - RUN #				EMS AGENCY - RUN #				EMS AGENCY - RUN #			
EMS TIMES NOTIFIED ARRIVED AT HOSPITAL				EMS TIMES NOTIFIED ARRIVED AT HOSPITAL				EMS TIMES NOTIFIED ARRIVED AT HOSPITAL			
INJURED or DECEASED REMOVED BY								PHOTOS Y			
								PHOTOGRAPHER			
								UNIT NO 3			
1 Y PROPERTY DAMAGE-OTHER THAN VEHICLES MAILBOX AND TREE OWNER NAME RANDY MCDONALD 820 PARADISE ROAD GRAND RIVERS KY 42045							PROPERTY PP-PRIVATE PROPERTY				
2 PROPERTY DAMAGE-OTHER THAN VEHICLES OWNER NAME							PROPERTY				
3 PROPERTY DAMAGE-OTHER THAN VEHICLES OWNER NAME							PROPERTY				
INVESTIGATOR LYNCH, R			ID NO. 3	BEAT or POST NO. LIV. CO.	TIME NOTIFIED 06:58	TIME ARRIVED 07:22	RDWY OPENED	REVIEWED BY T WILLIAMS		INVESTIG COMPLETE Y	PAGE 1 OF 4



KENTUCKY UNIFORM POLICE TRAFFIC COLLISION REPORT / Electronic Format

MASTER FILE # 70074329

LOCAL CODE

DESCRIPTION OF COLLISION

UNIT 1 WAS TRAVELING WEST WHEN ENTERED A S-CURVE WHERE VISIBLY WAS LIMITED, A VEHICLE WAS TURNING LEFT INTO A DRIVEWAY ACROSS UNIT 1 LANE OF TRAVEL, UNIT 1 SWERVED TO AVOID THE VEHICLE AND LEFT THE ROAD ON THE RIGHT SHOULDER AND STRUCK A TREE WHICH CAUSED THE REAR OF THE VEHICLE TO SWING TO THE LEFT AND STRIKE A MAILBOX, NO CONTACT WAS MADE WITH THE OTHER VEHICLE.

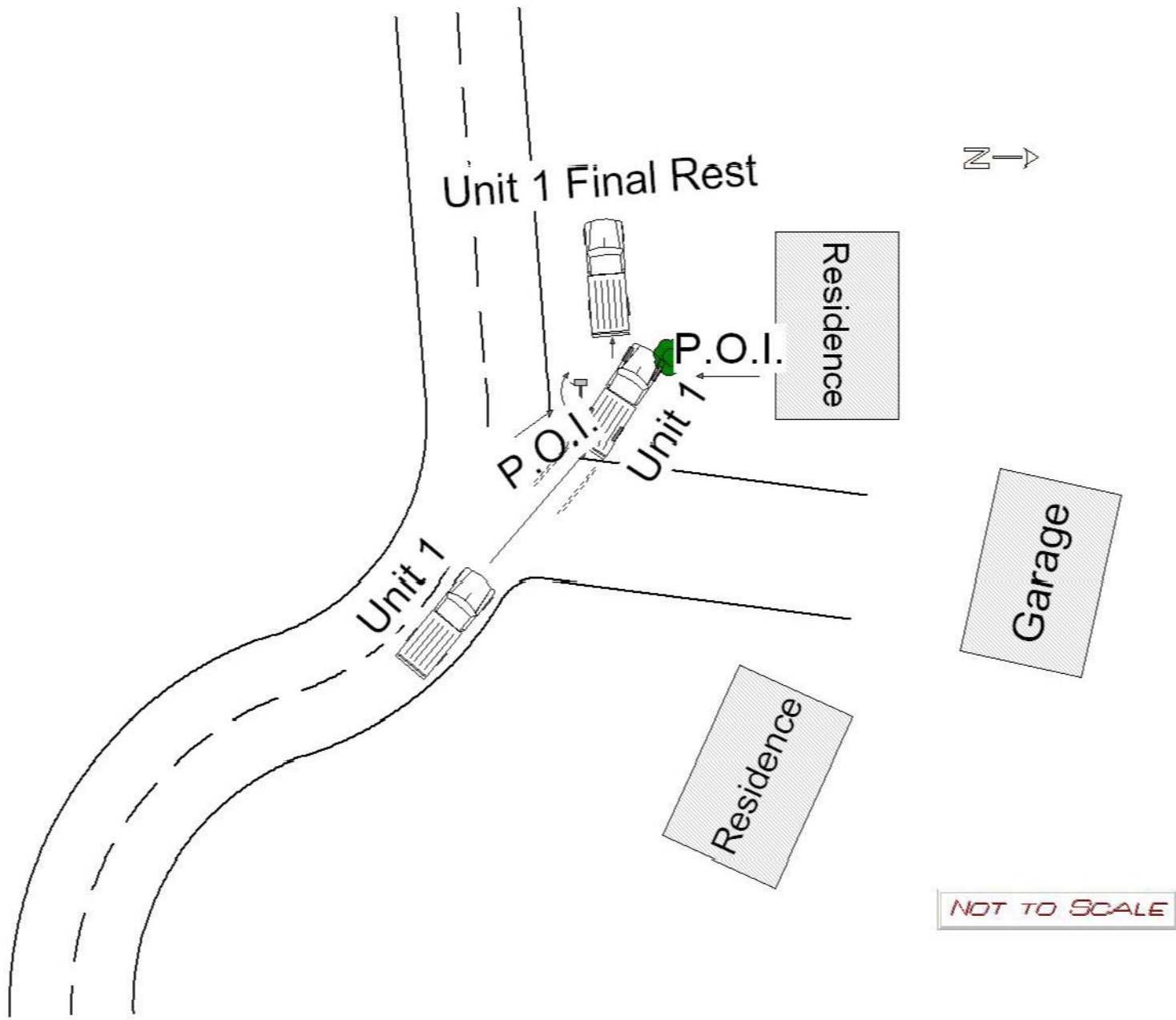


KENTUCKY UNIFORM POLICE TRAFFIC COLLISION REPORT / Electronic Format

UNIT # 1		MASTER FILE# 70074329				LOCAL CODE	
TOWED <input type="checkbox"/> REMOVED TO SMITH TOWING			# OCCUPANTS 1		PEDESTRIAN FACTORS		
OPERATOR's LIC NO. D93611388			STATE KY				
OPERATOR'S LICENSE RESTRICTIONS <input type="checkbox"/> N		COMP <input type="checkbox"/> Y CDL <input type="checkbox"/> N	CO. RESIDENT <input type="checkbox"/> Y OWNER <input type="checkbox"/> N				
OPERATOR LAST NAME DRISKILL		OPERATOR FIRST NAME WARREN		M.I. D			
DATE OF BIRTH 10/10/1959	STREET NUMBER AND NAME 986 PARADISE ROAD		CITY GRAND RIVERS		STATE KY	ZIP 42045	
A. PRE-COLLISION VEH ACTION 97-OTHER		B. UNIT TYPE CODE 08-LT TRUCK(VAN/SPORTS UTILITY/PICKUP)			C. FIRE <input type="checkbox"/> N	D. OVERTURNED <input type="checkbox"/> N	
E. HUMAN FACTORS 97-OTHER		I. VEHICULAR FACTORS 99-NONE DETECTED		J. ENVIRONMENTAL FACTORS 12-VIEW OBSTRUCTED/LIMITED			
F-H. 1 ST EVENT COLLISION 30-TREE				K. UNDERRIDE/OVERRIDE 01-NO UNDERRIDE/OVERRIDE			
F-H. 2 ND EVENT COLLISION 22-MAILBOX							

INVOLVED PERSONS: NAME, ADDRESS, CITY, STATE and ZIP	DOB/DOD	14	15	16	17	18	19	20	21	22	23
NAME DRISKILL, WARREN D. STREET 986 PARADISE ROAD CITY GRAND RIVERS, KY 42045 GENDER M	10/10/1959	01	N	01	05		01	02	01	01	01
NAME VULCAN CONST MATERIALS, L, STREET 947 US HWY 62 CITY GRAND RIVERS, KY 42045 GENDER	/ /	08	N								
NAME STREET CITY GENDER											
NAME STREET CITY GENDER											
NAME STREET CITY GENDER											
NAME STREET CITY GENDER											

VEHICLE YR 2002	MAKE FORD	MODEL F150	TYPE PK	STATE KY	REGISTRATION # 5932GB	YEAR 2003
VEHICLE ID NUMBER 1FTRE17W42NB06074	VEHICLE INSURED <input type="checkbox"/> Y	NAME OF INSURANCE COMPANY OLD REPUBLIC INS CO 1 877 797 3400				COLOR OF VEH WHITE
1ST AREA CONTACT 01-FRONT VEHICLE	1ST AREA CONTACT COMBINATION VEH	EXTENT OF DAMAGE SEVERE	AIR BAG SWITCH ON		TRAVEL DIR W	
			ESTIMATED TRAVEL SPEED BETWEEN 45 & 50 MPH		MOST HARMFUL EVENT	
COMMERCIAL VEH <input type="checkbox"/> N	HAZ CARGO	HAZ SPILL	HAZ CARGO CODE	TYPE CGO/COMMODITY	NAS SAFETY RPT #	CRASH AVOIDANCE (Fatal)
SINGLE/COMBINATION/BOBTAIL	No. AXLES	No. TRAILERS	US DOT #	ICC/MC#		
GVWR TOT	MOTOR CARRIER NAME	MOTOR CARRIER ADDRESS			CARRIER NAME SOURCE	
VIOLATION CODES		CITATION #	CASE #	SUSPECTED DRINKING DRIVER <input type="checkbox"/> N	METHOD of DETERMINATION OBSERVATION	
TEST OFFERED <input type="checkbox"/> N	CHEMICAL TEST	TESTED FOR	TAKEN BY	SENT TO	RESULTS	PAGE 3





TRANSPORTATION CABINET

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

Steven L. Beshear
Governor

Michael W. Hancock, P.E.
Secretary

MEMORANDUM

TO: James LeFevre, P.E.
Chief District Engineer
District 1 - Paducah

ATTN: Jessica Herring

FROM: Keith Damron, P.E.
Director
Division of Planning *Keith Damron*

DATE: August 30, 2012

SUBJECT: Graves County Traffic Forecast
Bridge Replacement over IC Railroad on CR 1384
Item No. 01-1147.00

In response to your August 15, 2012 request, we are providing the following forecasts on the attached report:

- 2012 and 2037 Average Daily Traffic
- 2012 and 2037 Truck Percentages
- 20 year ESALs

If you have any questions, please contact Daniel Hulker of this Division at (502) 564-7183.

KD/DAH/BC

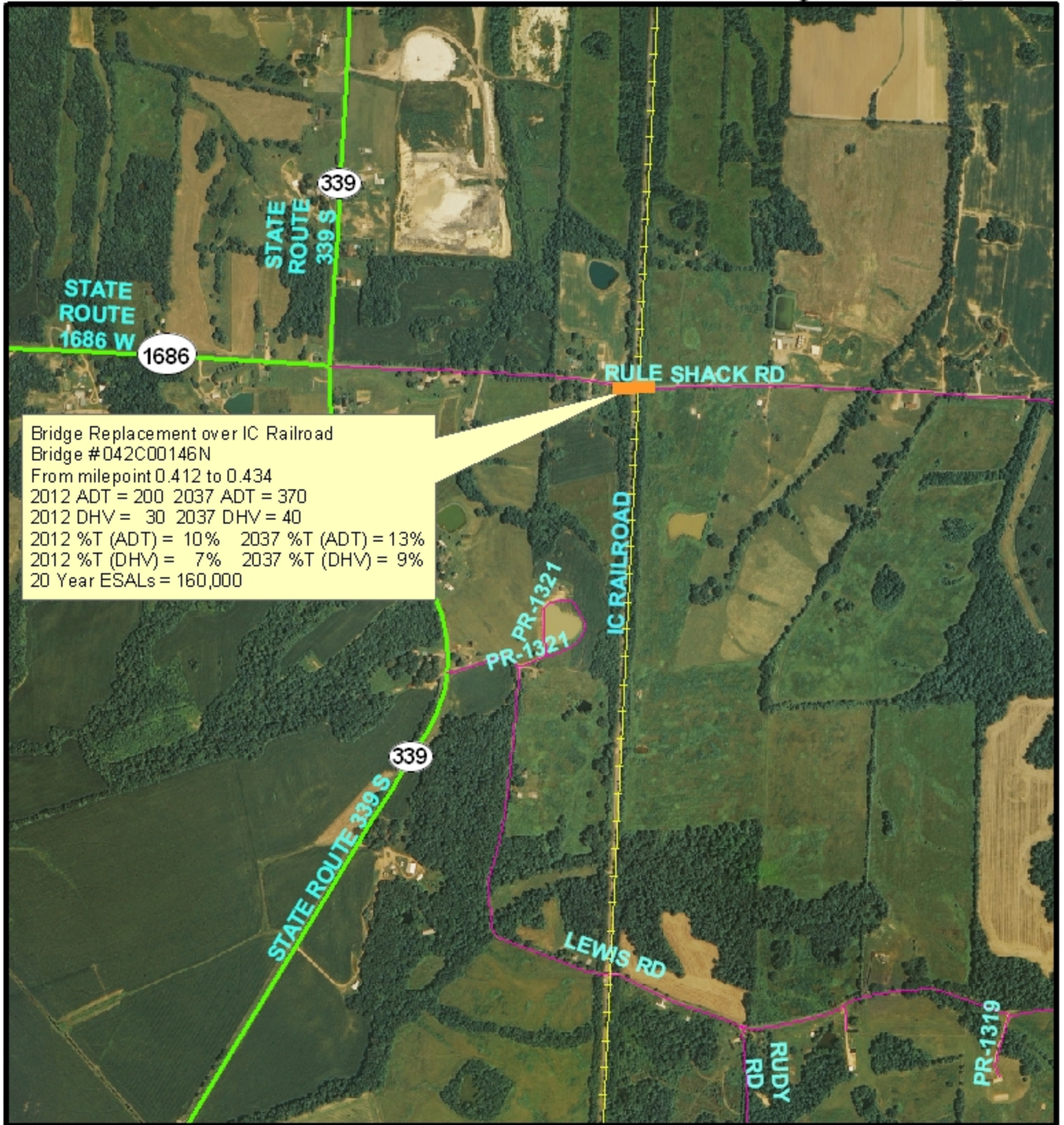
Attachments

c/att: David Martin
Michael McGregor
Paul Looney
Dan Hite



An Equal Opportunity Employer M/F/D

01-1147.00 - Summary Map



N

LEGEND
 Project Site Location:
 Bridge
 Replacement

Graves County
 Bridge Replacement
 over IC Railroad
 Item #01-1147.00



0 0.05 0.1 0.2 0.3 0.4 0.5
 Miles

FORECAST OF EQUIVALENT SINGLE AXLE LOAD ACCUMULATIONS (20-year)

ROUTE ID:

County	Graves	Date	08/29/12
Road Name	Rule Shack Road	Forecaster	Daniel Hulker
Functional Class	9 - Rural Local	MARS No.	N/A
Project Description	Bridge Replacement on CR 1384 over IC Railroad	Item No.	01-1147.00
Scenario	Build	Route No.	CR 1384
Segment Description	Same	Beg. MP	0.412
		End MP	0.434
		T.F. No.	TF 12-077
		No. of Lanes	2
		1 or 2 way	2

REFERENCES:

Previous Forecasts	None	K- Factor Value	11.4%
Traffic Volume	053-005	K-Factor Source	0
Milepoint	1.0 (KY 1686)	PHF	0.9
Truck Percent	053-005	Full Route Unique Identifier	
Milepoint	1.0 (KY 1686)	024-CR-1384 -000	
ESAL Information	2007 Aggregated ESALS		
Growth Rate	2.50%		

TRAFFIC PARAMETERS:

		Present Year	Growth Rate	Construction Year	Median Year	Design Year
		2012		2017	2027	2037
Volume	(AADT)	200	2.50%	230	290	370
Percent Trucks	(%T)	10.4%	1.0%	11%	12%	13%
Number of Trucks		20	3.5%	30	30	50
Percent Trucks Hauling Coal	(%CT)	0%	0.0%	0%	0%	0%
<i>Non-Coal Trucks:</i>						
Axles/Truck	(A/T)	3.100	0.70%	3.210	3.442	3.691
ESALs/Axle	(ESAL/A)	0.254	1.60%	0.275	0.322	0.378
<i>Coal Trucks:</i>						
Axles/Truck	(A/CT)	0	0.00%	0.000	0.000	0.000
ESALs/Axle	(ESAL/CA)	0	0.00%	0.000	0.000	0.000

ESAL CALCULATIONS: SEE ATTACHED ESAL CALCULATION SHEET

Design ESALs in Critical Lane 160,000

General Comments:

Bridge Replacement on CR 1384 over IC Railroad

Year	ADT	Car %	Truck %	Cars	Trucks	CT%	AX/T	ESAL/AX	AX/CT	ESAL/CA	LDF	ESALS
2017	226	89.1%	10.9%	202	25	0.00%	3.21	0.27	0	0	0.500	4,168
2018	232	89.0%	11.0%	206	26	0.00%	3.23	0.28	0	0	0.500	4,408
2019	238	88.8%	11.2%	211	27	0.00%	3.26	0.28	0	0	0.500	4,663
2020	244	88.7%	11.3%	216	27	0.00%	3.28	0.29	0	0	0.500	4,932
2021	250	88.6%	11.4%	221	28	0.00%	3.30	0.29	0	0	0.500	5,217
2022	256	88.5%	11.5%	227	29	0.00%	3.32	0.30	0	0	0.500	5,518
2023	262	88.4%	11.6%	232	30	0.00%	3.35	0.30	0	0	0.500	5,837
2024	269	88.3%	11.7%	237	32	0.00%	3.37	0.31	0	0	0.500	6,175
2025	276	88.2%	11.8%	243	33	0.00%	3.39	0.31	0	0	0.500	6,533
2026	283	88.0%	12.0%	249	34	0.00%	3.42	0.32	0	0	0.500	6,912
2027	290	87.9%	12.1%	255	35	0.00%	3.44	0.32	0	0	0.500	7,313
2028	297	87.8%	12.2%	261	36	0.00%	3.47	0.33	0	0	0.500	7,737
2029	304	87.7%	12.3%	267	37	0.00%	3.49	0.33	0	0	0.500	8,186
2030	312	87.6%	12.4%	273	39	0.00%	3.51	0.34	0	0	0.500	8,662
2031	320	87.4%	12.6%	280	40	0.00%	3.54	0.34	0	0	0.500	9,166
2032	328	87.3%	12.7%	286	42	0.00%	3.56	0.35	0	0	0.500	9,699
2033	336	87.2%	12.8%	293	43	0.00%	3.59	0.35	0	0	0.500	10,264
2034	344	87.1%	12.9%	300	45	0.00%	3.61	0.36	0	0	0.500	10,862
2035	353	86.9%	13.1%	307	46	0.00%	3.64	0.37	0	0	0.500	11,495
2036	362	86.8%	13.2%	314	48	0.00%	3.66	0.37	0	0	0.500	12,165
2037	371	86.7%	13.3%	321	49	0.00%	3.69	0.38	0	0	0.500	12,875

5-yr ESALS
25,000

10-yr ESALS
60,000

15-yr ESALS
100,000

20-yr ESALS
160,000