

Scope of Work

Traffic Study at Garrard County High School in Lancaster, KY**Project and Scope Description**

The Project consists of evaluation of the existing operations of Industry Road (County Road 39) and Crab Orchard Road near Garrard County High School and the anticipated operations once a proposed athletic complex is constructed. The study will utilize Highway Capacity Manual (HCM) calculations at existing intersections to assess performance. Additionally, the new trips generated by the athletic complex will be estimated and distributed on the two streets mentioned above.

Work Items:

Clark Dietz will order turning movement counts at the intersections adjacent to the study area. Clark Dietz will perform the traffic analysis, and a brief report or memo summarizing the anticipated impact to Crab Orchard Road and Industry Road will be written.

The tasks below are described in detail in the following pages:

Task 1	Data Collection
Task 2	Traffic Analysis
Task 3	Summary Report

Scope of Work

Task 1 – Data Collection

Objective – Collect accurate turning movement counts at intersections in the study area.

Results/Deliverables

Turning movement counts/hourly volumes.

Activity

Activities are as follows:

- Request video data collection and processing by qualified subconsultant.
- Review and organize turning movement counts once received.
- Calculate volumes for 10-year horizon

Assumptions

- Data will be collected Miovision traffic cameras by Gewalt Hamilton Associates, Inc.
- Data should be collected between 6 a.m. and 4 p.m. to capture the morning drop off and afternoon pick up school traffic. (10-hour counts)
- Data will be collected on a Tuesday, Wednesday, or Thursday when school is in normal session.
- 10-year horizon and 0.5% annual growth in traffic volumes will be used.

Task 2 – Traffic Analysis

Objective – Perform traffic analysis to evaluate existing and anticipated performance of entrances to high school and nearby intersections. Review number of vehicles turning into new entrance on Crab Orchard Road.

Results/Deliverables

Turning movement counts/hourly volumes.

Activity

Activities are as follows:

- Create map showing distribution of traffic volumes within study area.
- Calculate peak hour new trips generated by new facility (excluding special events) and add to the network.
- Perform HCM calculations for the intersections in the study area including the two existing school entrances for existing conditions and proposed conditions.

Assumptions

- AM and PM peak hours will be evaluated.
- Entrance on Crab Orchard Road to new athletic complex will only serve school buses and will be gated the remainder of the day.
- Buses leaving new entrance on Crab Orchard Road have the following distribution: 65% left; 35% right.
- Traffic generated by special events (e.g. football games) will not be estimated or evaluated.

Scope of Work

- Industry Road school entrances were designed and constructed to accommodate the proposed athletic complex.
 - Analysis does not include a review of the geometrics, pavement quality, or drainage of the streets in the study area.
 - Coordination with KYTC District 7 is not required.
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Task 3 – Summary Report

Objective – Summarize the analysis process and the findings of the analysis. Identify whether improvements to Crab Orchard Road are recommended to accommodate the additional trips.

Results/Deliverables

Final summary memo or report.

Activity

Activities are as follows:

- Compile results into a memo or report summarizing the study.

Assumptions

- Clark Dietz will not present the memo at a public hearing or meeting. This effort would require an amendment to the contract.
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Schedule

September 16, 2022	Notice to Proceed
Week of September 26, 2022	Data Collection
October 3, 2022	Traffic Analysis Begins
October 16, 2022	Final Report Delivered

Lump Sum Project Elements Task	SALARY	EXPENSES	TOTAL
1. DATA COLLECTION	\$280.00	\$2,680.00	\$2,960.00
2. TRAFFIC ANALYSIS	\$1,950.00	\$0.00	\$1,950.00
3. SUMMARY REPORT	\$1,250.00	\$0.00	\$1,250.00
TOTALS	\$3,480.00	\$2,680.00	\$6,160.00
		TOTAL LUMP SUMP =	\$6,200.00

Project Ele	General Billing Rates	Principal \$250.00	Engineer 6 \$205.00	Engineer 3 \$140.00	Engineer 2 \$130.00	Engineer 1 \$120.00	Technician 2 \$115.00	Technician 1 \$95.00	Clerk/ Typist \$90.00	Total Hours	Total Salary
1. DATA COLLECTION											
1 Organize peak hour traffic counts				2						2	\$280.00
Total Hours Section A.											
Total Salaries Section A.											
Average Salary Section A.											
		0	0	2	0	0	0	0	0	2	\$280.00
		\$0.00	\$0.00	\$280.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$140.00
2. TRAFFIC ANALYSIS											
1 Create map with distribution of traffic in peak hours				4						4	\$560.00
2 Develop trip generation volumes for athletic complex				1						1	\$140.00
3 Create map with new trips added to existing trips				1						1	\$140.00
4 Highway Capacity Manual calculations for 2 two-way stop controlled int's (existing and added trips)			2	3						5	\$830.00
5 Create map/graphic showing results of HCM calculations				2						2	\$280.00
										0	\$0.00
Total Hours Section B.											
Total Salaries Section B.											
Average Salary Section B.											
		0	2	11	0	0	0	0	0	13	\$1,950.00
		\$0.00	\$410.00	\$1,540.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$150.00
3. SUMMARY REPORT											
1 Describe impacts to Crab Orchard Rd.				1						1	\$140.00
2 Recommend traffic control measures for large events				1						1	\$140.00
3 Summarize study and findings			2	4						6	\$970.00
Total Hours Section C.											
Total Salaries Section C.											
Average Salary Section C.											
		0	2	6	0	0	0	0	0	8	\$1,250.00
		\$0.00	\$410.00	\$840.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$156.25
TOTAL DESIGN SERVICES - ITEMS A THRU C											
TOTAL HOURS - ITEMS A THRU C											
TOTAL SALARIES - ITEMS A THRU C											
TOTAL AVERAGE SALARY - ITEMS A THRU C											
		0	4	19	0	0	0	0	0	23	\$3,480.00
		\$0.00	\$820.00	\$2,660.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$151.30

Project Element		Mileage	Meals	Reproduction	Subconsultant	Totals
1.	DATA COLLECTION	\$0.00	\$0.00	\$0.00	\$2,680.00	\$2,680.00
2.	TRAFFIC ANALYSIS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3.	SUMMARY REPORT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TOTALS		\$0.00	\$0.00	\$0.00	\$2,680.00	\$2,680.00

Traffic Data			
10-hour counts at 4 intersections	\$67/hr	\$2,680.00	