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Memorandum

Date: June 24, 2025

To: Jim Silliman, P.E., County Engineer,
Oldham County Engineer's Office

From: Etta Reed, P.E., Bayer Becker
Sarah Major, Bayer Becker

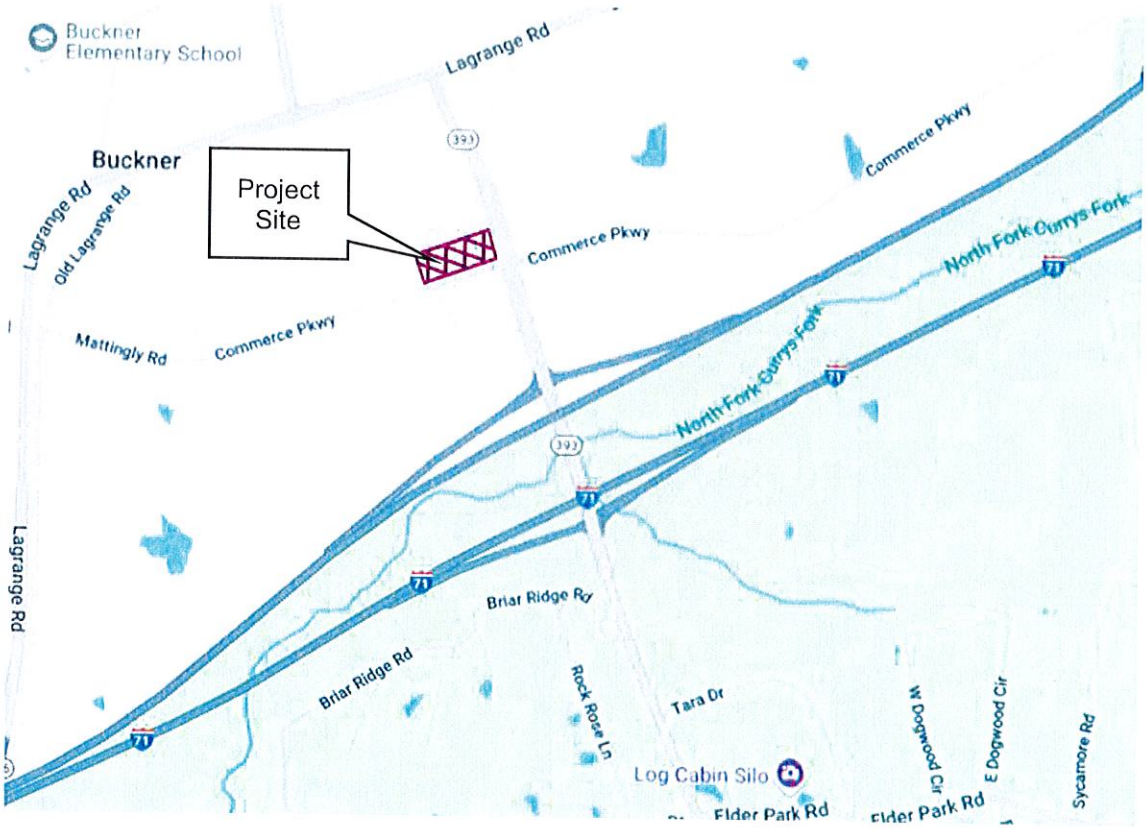
Cc: Declan McCormack, BHDP

Subject: Chase Bank Crestwood Station, Buckner, Oldham County, KY
Traffic Assessment

In accordance with the Oldham County Subdivision Regulations, Bayer Becker has prepared the following Traffic Assessment for the Chase Bank Crestwood Station, which is to be located at the intersection of KY 393 and Commerce Parkway in Buckner, Oldham County, Kentucky. The purpose of this assessment is to determine the amount of traffic to be added to the existing roadway as a result of the proposed development.

The Chase Bank Crestwood Station site is to be located on the northwest corner of KY 393 and Commerce Parkway in Buckner, Oldham County, Kentucky. A vicinity map is provided in Figure 1 below.

Figure 1
Vicinity Map



Proposed Development

As identified above, the Chase Bank Crestwood Station is a proposed commercial development which is to be located at the northwest corner of KY 393 and Commerce Parkway in Buckner, Oldham County, Kentucky.

More specifically, the proposed development is to consist of a drive-in bank consisting of approximately 3,432 square feet with a drive-through window. Site access is proposed along Commerce Parkway, opposite the proposed site drive that is to serve the future Wawa development. The proposed site access drive runs thru the Chase Bank development and is stubbed to the adjacent property to the north.

A site plan is provided in Appendix A.

Area Conditions

The Traffic Assessment study area consists of the KY 393 and Commerce Parkway key intersection. Said intersection is controlled via a traffic signal. This area is predominantly surrounded by industrial and commercial land uses, with residential areas located further beyond.

Typically, KY 393 is a north-south, two-lane roadway to the north of Commerce Parkway and a three-lane roadway to the south. Along the site frontage, KY 393 expands to a five-lane roadway to the north and a six-lane roadway to the south of Commerce Parkway; consisting of two lanes of travel in each direction, with a dedicated left turn lane provided southbound, and a dedicated left and right turn lane provided northbound. KY 393 has a posted speed limit of 35 miles per hour (mph) and is classified as a minor arterial according to the KYTC Functional Classification Map.

Commerce Parkway typically is an east-west, two-lane roadway consisting of one lane of travel in each direction. Along the site frontage, it expands to a three-lane roadway to the west of KY 393 and a four-lane roadway to the east. Consisting of one lane of travel in each direction, with a dedicated left turn lane provided eastbound, and a dedicated left and right turn lane westbound. Commerce Parkway has a posted speed limit of 35 miles per hour (mph) and is classified as a local road to the west and a major collector to the east, according to the KYTC Functional Classification Map.

Existing Conditions

To determine existing weekday peak hour traffic volumes along the site access at Commerce Parkway, Bayer Becker performed turning movement traffic counts at the adjacent intersection to the east, KY 393 and Commerce Parkway, for a 24-hour period beginning at 12:00 AM on Thursday, May 15, 2025.

Based on the data collected, the weekday peak hours occurred from:

- 8:00 AM to 9:00 AM – AM Peak Hour
- 4:00 PM to 5:00 PM – PM Peak Hour

Complete traffic count information is provided in Appendix B, and the 2025 existing peak hour traffic volumes are presented in Figure 2.

All figures provided in Attachments.

No Build Traffic

Full build out of the Chase Bank Crestwood Station is anticipated in 2026. In order to determine future traffic volumes on the adjacent roadways, a linear growth rate of 2 % per year was determined for the study area, based on conversations with the Oldham County Engineer. The growth rate was applied to 2025 existing traffic volumes to estimate 2026 future no build volumes presented in Worksheet 1. More specifically, the growth rate yields the growth factor of 1.02 for 2026 full build out year.

In addition to the 2% growth per year, future traffic associated with the proposed Wawa, Fifth Third Bank, Starbucks and I-71 Trade Center developments are incorporated into the no build traffic volumes. Traffic volumes for the Wawa, Fifth Third Bank, and Starbucks volumes were obtained from their associated Traffic Impact Studies provided by Oldham County and are detailed in Worksheets 2 and 3.

An industrial development, the I-71 Trade Center, is proposed to be located to the southwest of the Chase Bank Crestwood Station site. A traffic impact study was not provided for this development. In order to account for the traffic to be generated by the I-71 Trade Center, trip generation calculations were prepared, and the associated traffic was distributed onto the adjacent roadways.

I-71 Trade Center

Table 2

Trip Generation

Land Use	ITE Code	Size	Unit	AM Peak Hour			PM Peak Hour		
				Enter	Exit	Total	Enter	Exit	Total
Warehouse	150	729.44	GFA	86	25	111	32	82	114
New Site Trips				86	25	111	32	82	114

Trip generation information excerpted from the ITE Trip Generation Manual is provided in Appendix C. Site trips for I-71 Trade Center were assigned to the adjacent roadway network and the study area key intersections based on existing and expected traffic patterns. The I-71 Trade Center directional distribution and volumes are presented in Worksheets 4 and 5.

The 2026 no build traffic volumes including all proposed developments mentioned above are presented in Figure 3.

All worksheets provided in Attachments.

Site Traffic

Site trips generated by the proposed development were calculated using the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th edition.

An important element in trip generation is the consideration of pass-by trips. Pass-by trips, as defined by ITE, are trips made as intermediate stops on the way from an origin to a primary trip destination. Pass-by trips are attracted from traffic passing the site on an adjacent street. Procedures outlined in the ITE Trip Generation Handbook, 3rd Edition establish rates to estimate pass-by for a specific land use, which are based on actual traffic count volumes collected at driveways to various land uses.

Another important element in trip generation is the consideration of diverted trips. Diverted trips are comparable to pass-by trips in which they are attracted from existing traffic on roadways within the vicinity of the site but are different in that diverted trips are not currently traveling directly adjacent to the site.

The following tables present the site trips generated during the weekday AM and PM peak hours of adjacent street traffic for the proposed Chase Bank.

Chase Bank
Table 1
Trip Generation

Land Use	ITE Code	Size	Unit	AM Peak Hour			PM Peak Hour		
				Enter	Exit	Total	Enter	Exit	Total
Drive-In Bank	912	3.43	GFA	20	14	34	36	36	72
Pass-By Trips (29% AM / 35% PM)				-6	-4	-10	-13	-12	-25
New Site Trips				14	10	24	23	24	47

Land use descriptions and trip generation information excerpted from the ITE Trip Generation Manual are provided in Appendix C.

Site trips for Chase Bank were assigned to the adjacent roadway network and at the study area key intersection based on existing and expected traffic patterns. Site traffic distributions for new site trips are presented in Figure 4, for pass-by trips are presented in Figure 5, and diverted trips are presented in Figure 6.

New site traffic volumes are provided in Figure 7, pass-by trips in Figure 8 and diverted trips in Figure 9.

Build Traffic

To determine 2026 build traffic volumes for Chase Bank, the proposed site traffic volumes from Figures 7, 8, and 9 were combined with the 2026 no build traffic volumes from Figure 3.

The 2026 build traffic volumes are presented in Figure 10, respectively.

Analysis

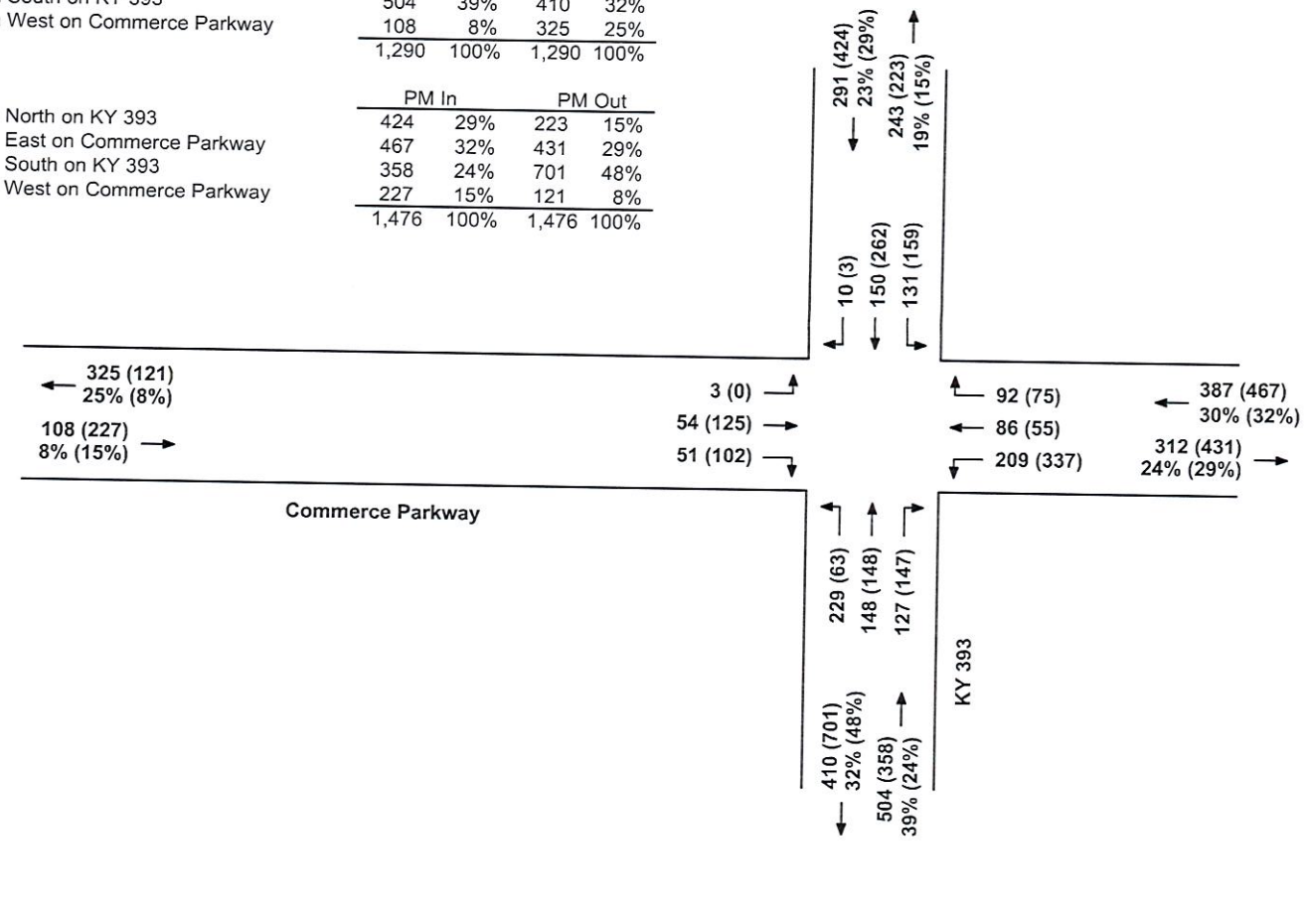
Based upon the 24-hour turning movement count conducted on May 15, 2025, the ADT of KY 393 is 9,343 and the ADT of Commerce Parkway is 5,794. Utilizing the trip distribution in Figure 2, 62 percent of the new trips in the AM peak hour traffic and 53 percent of the new trips in the PM peak hour traffic to be generated by the proposed Chase Bank Crestwood Station will enter from KY 393.

Should you have any questions or need any additional information please do not hesitate to contact us.

ATTACHMENTS

External Station - Traffic and Percentages	AM In		AM Out	
To/From North on KY 393	291	23%	243	19%
To/From East on Commerce Parkway	387	30%	312	24%
To/From South on KY 393	504	39%	410	32%
To/From West on Commerce Parkway	108	8%	325	25%
	1,290	100%	1,290	100%

	PM In		PM Out	
To/From North on KY 393	424	29%	223	15%
To/From East on Commerce Parkway	467	32%	431	29%
To/From South on KY 393	358	24%	701	48%
To/From West on Commerce Parkway	227	15%	121	8%
	1,476	100%	1,476	100%



N.T.S.

Figure 2

Proposed Chase Bank

KY 393 & Commerce Parkway
Buckner, Oldham County, Kentucky

2025 Existing Traffic Volumes & Percent Distribution

xx - AM Peak Hour
(xx) - PM Peak Hour

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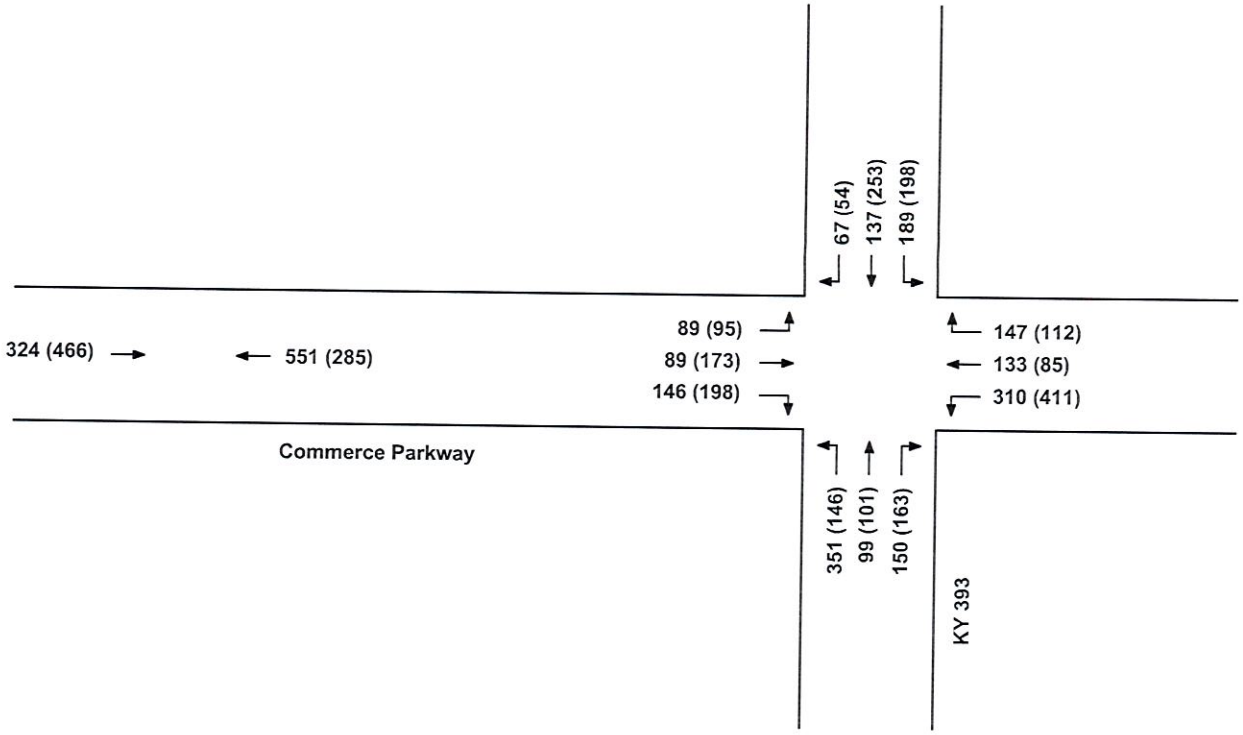

N.T.S.

Figure 3

Proposed Chase Bank

KY 393 & Commerce Parkway
Buckner, Oldham County, Kentucky

2026 No Build Traffic Volumes

xx - AM Peak Hour
(xx) - PM Peak Hour

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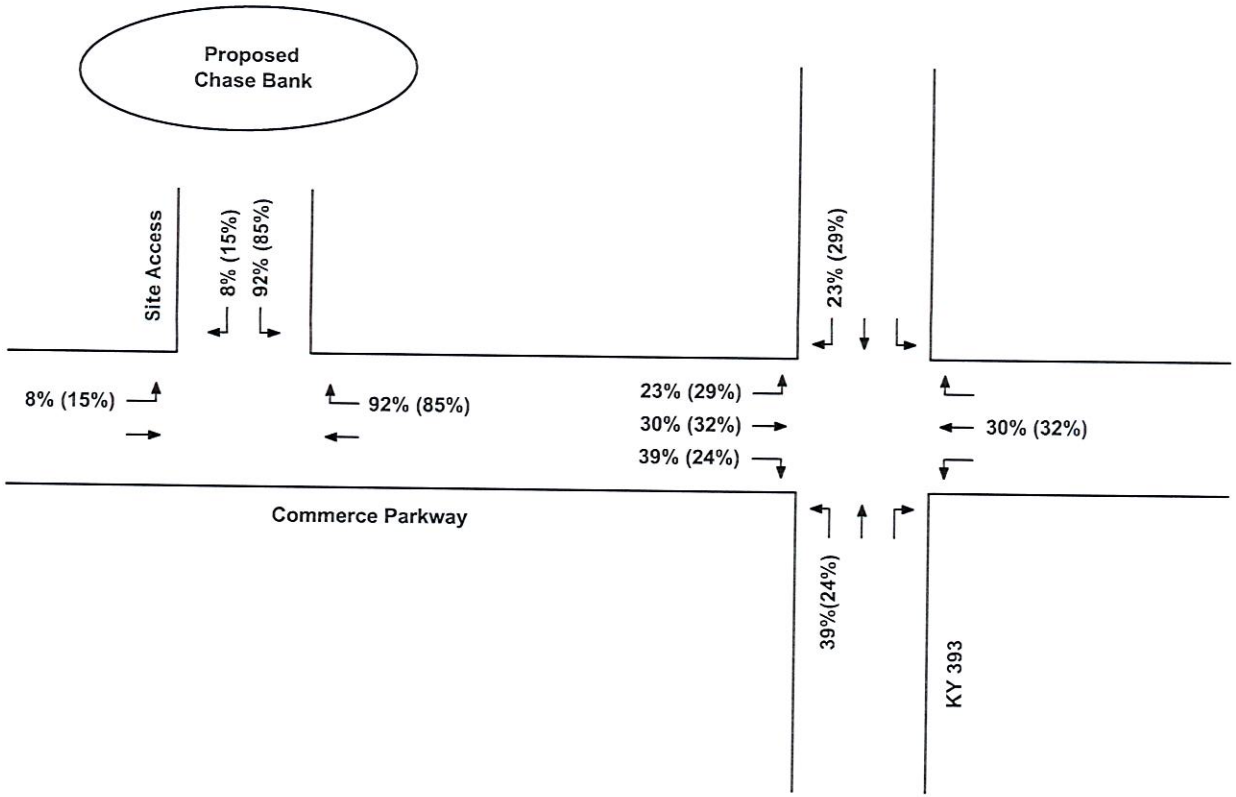

N.T.S.

Figure 4

Proposed Chase Bank

KY 393 & Commerce Parkway
Buckner, Oldham County, Kentucky

New Site Traffic Distribution - Entering & Exiting

xx - AM Peak Hour
(xx) - PM Peak Hour

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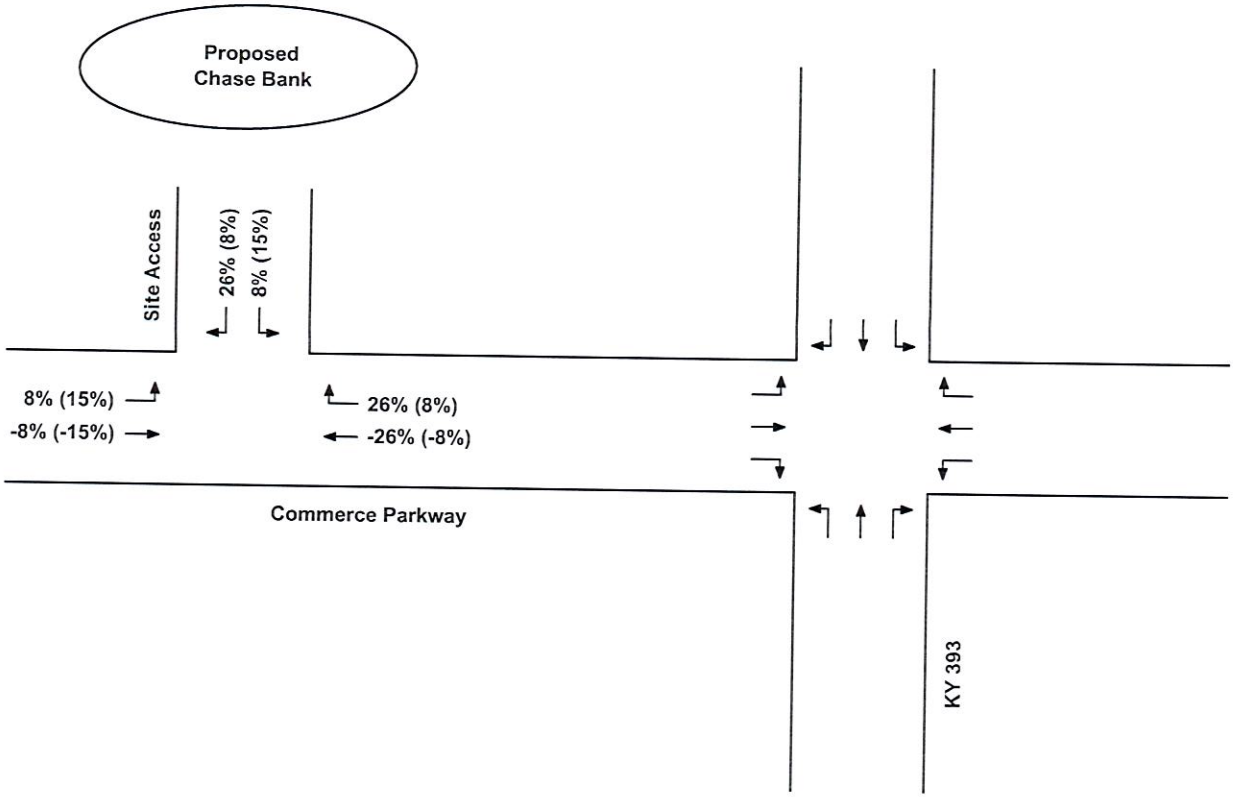

N.T.S.

Figure 5

Proposed Chase Bank

KY 393 & Commerce Parkway
Buckner, Oldham County, Kentucky

Pass-By Traffic Distribution - Entering & Exiting

xx - AM Peak Hour
(xx) - PM Peak Hour

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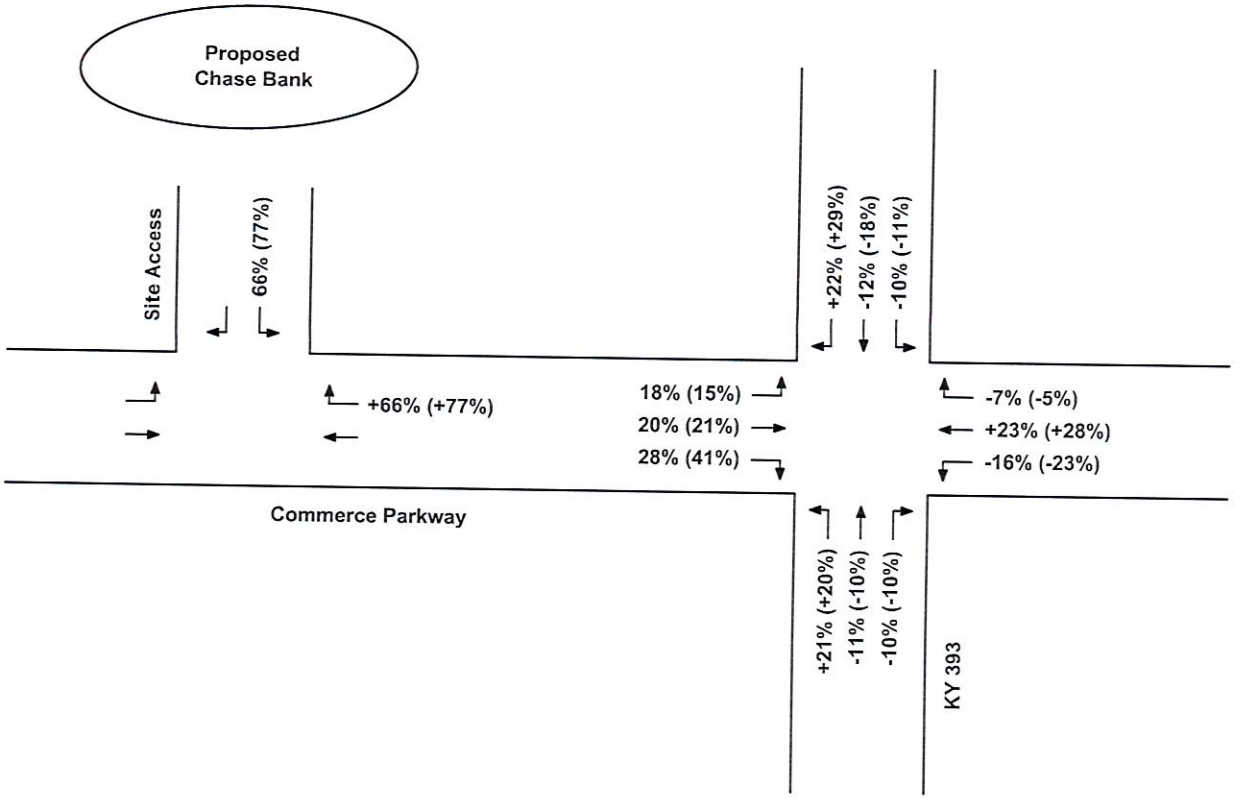

N.T.S.

Figure 6

Proposed Chase Bank

KY 393 & Commerce Parkway
Buckner, Oldham County, Kentucky

Diverted Trips Distribution - Entering & Exiting

xx - AM Peak Hour
(xx) - PM Peak Hour

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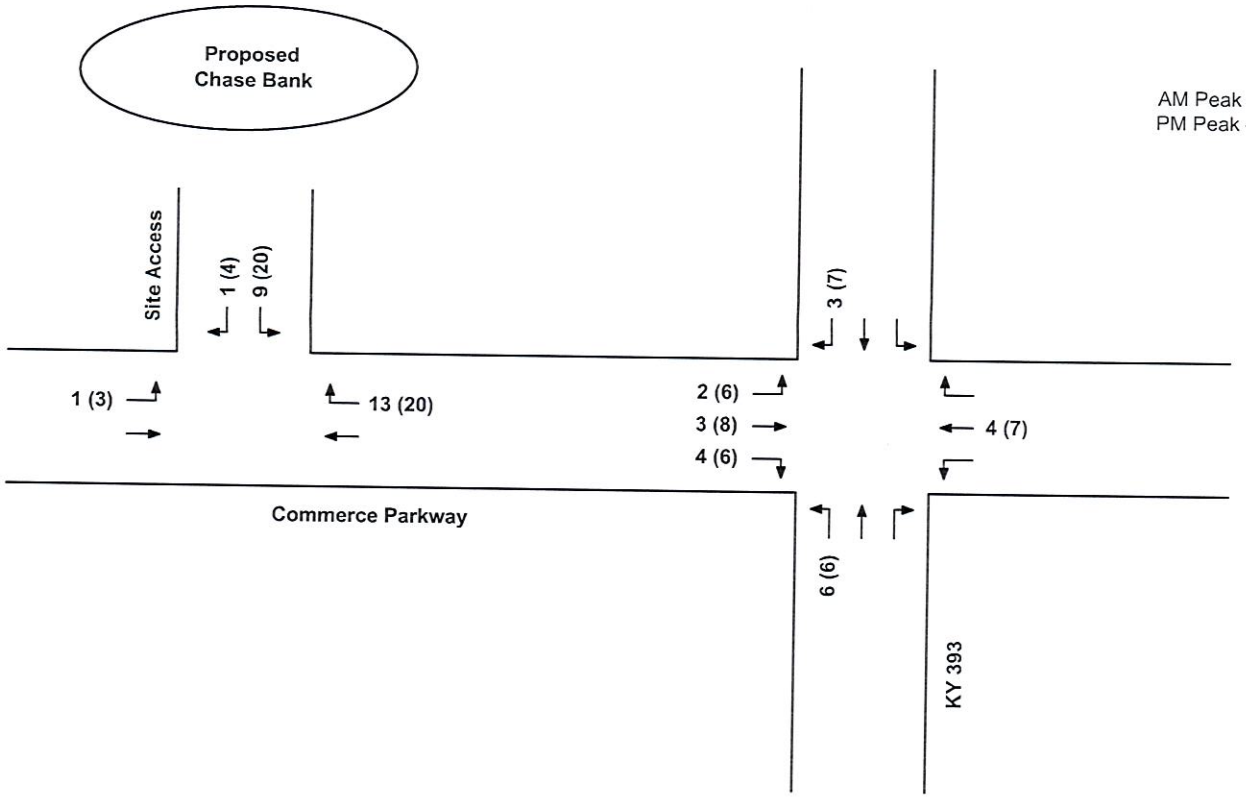

Figure 7

Proposed Chase Bank

KY 393 & Commerce Parkway
Buckner, Oldham County, Kentucky

New Site Traffic Volumes - Entering & Exiting

xx - AM Peak Hour
(xx) - PM Peak Hour

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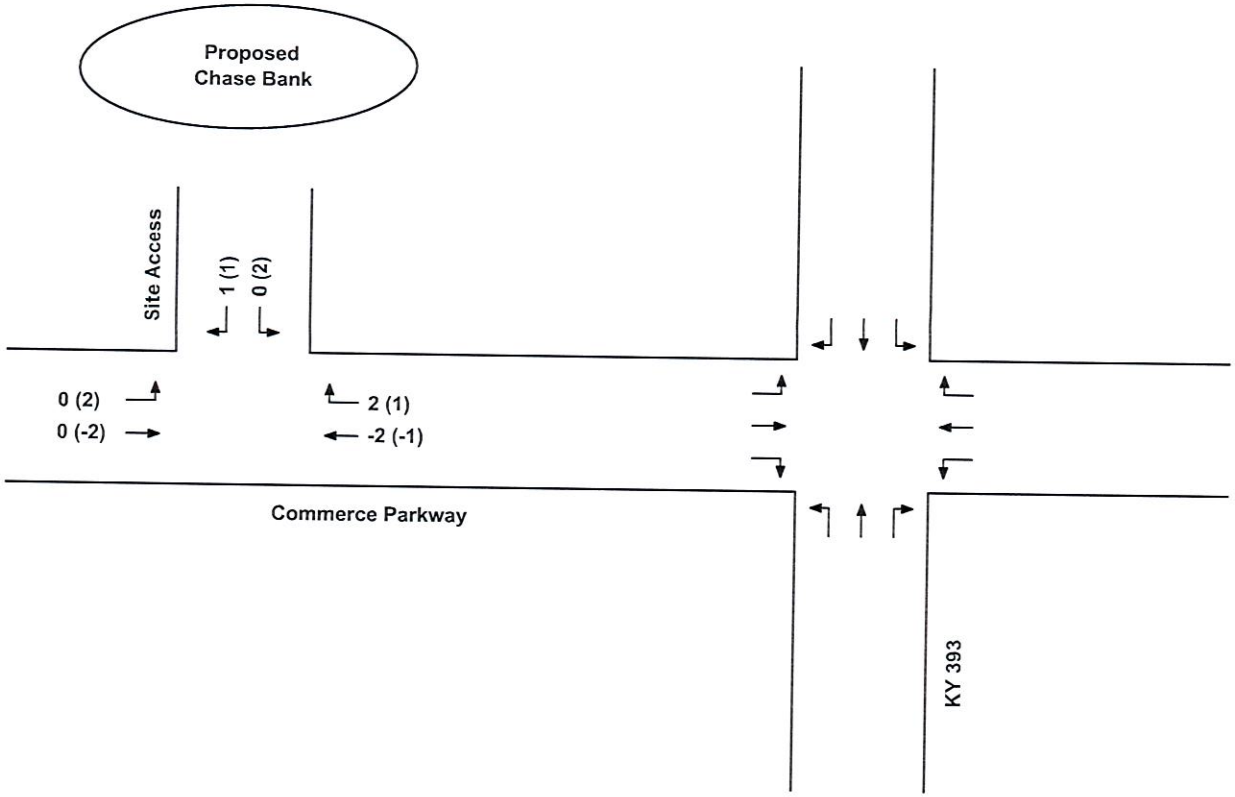

N.T.S.

Figure 8

Proposed Chase Bank

KY 393 & Commerce Parkway
Buckner, Oldham County, Kentucky

Pass-By Traffic Volumes - Entering & Exiting

xx - AM Peak Hour
(xx) - PM Peak Hour

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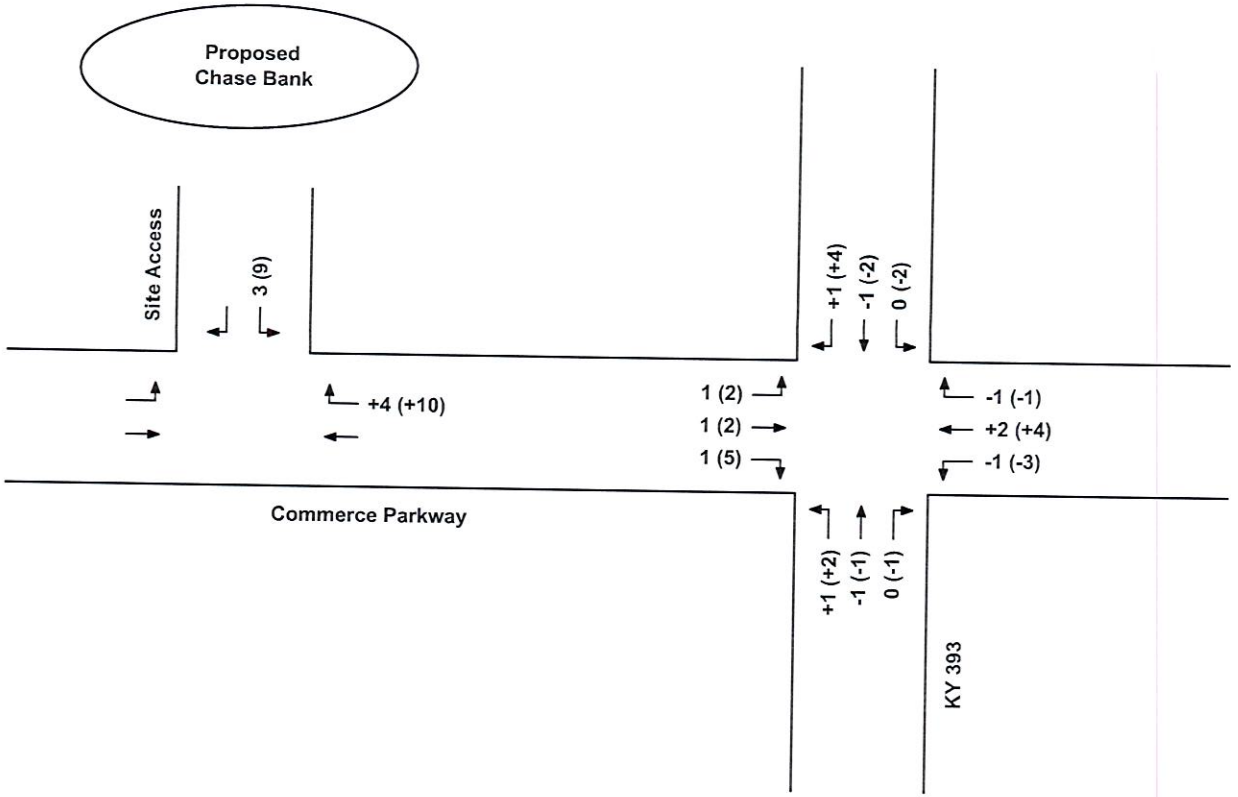

N.T.S.

Figure 9

Proposed Chase Bank

KY 393 & Commerce Parkway
Buckner, Oldham County, Kentucky

Diverted Traffic Volumes - Entering & Exiting

xx - AM Peak Hour
(xx) - PM Peak Hour

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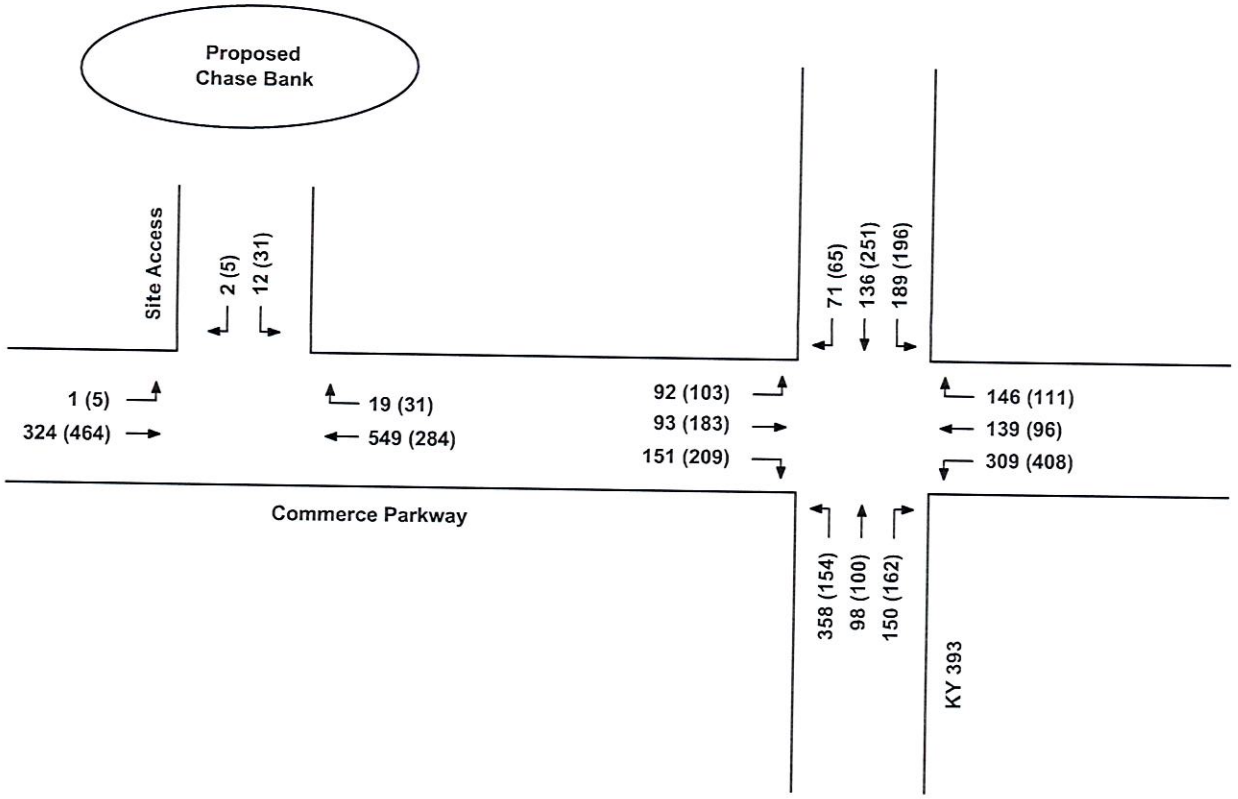

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Figure 10

Proposed Chase Bank

KY 393 & Commerce Parkway
Buckner, Oldham County, Kentucky

2026 Build Traffic Volumes

xx - AM Peak Hour
(xx) - PM Peak Hour

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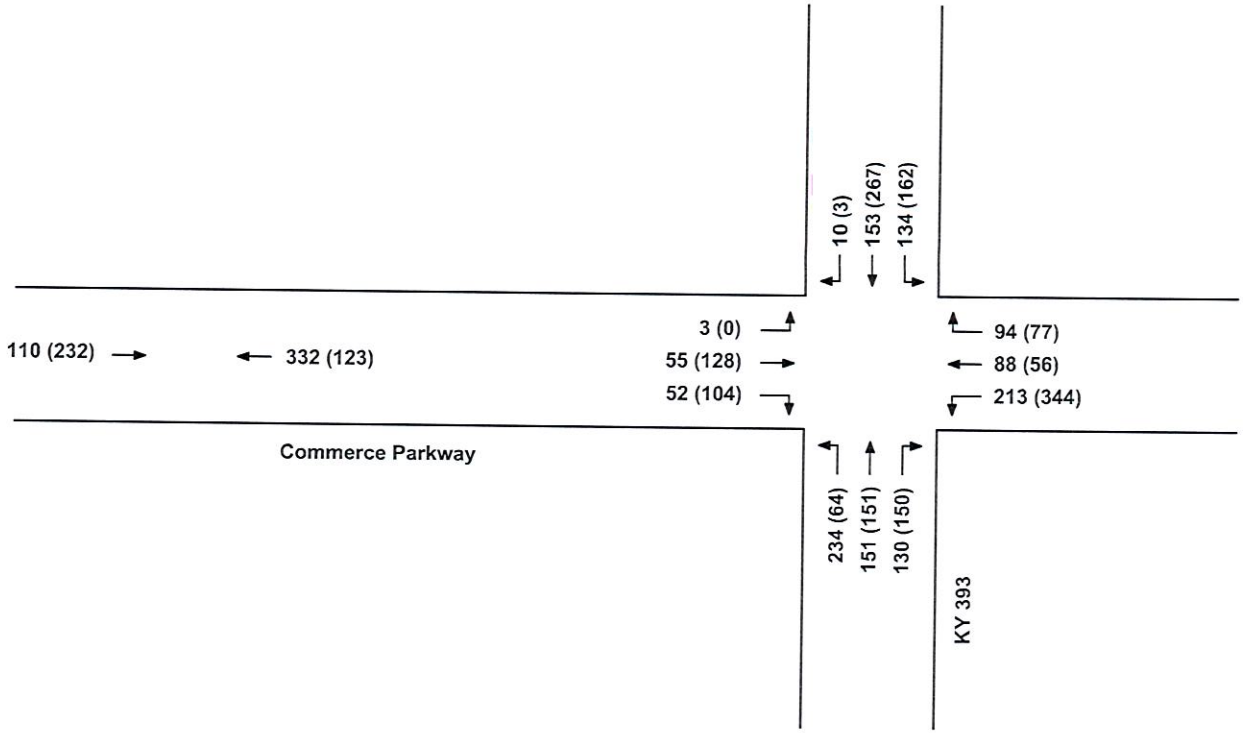

N.T.S.

Worksheet 1

Proposed Chase Bank

KY 393 & Commerce Parkway
Buckner, Oldham County, Kentucky

2025 Existing Traffic Volumes Grown to 2026

xx - AM Peak Hour
(xx) - PM Peak Hour

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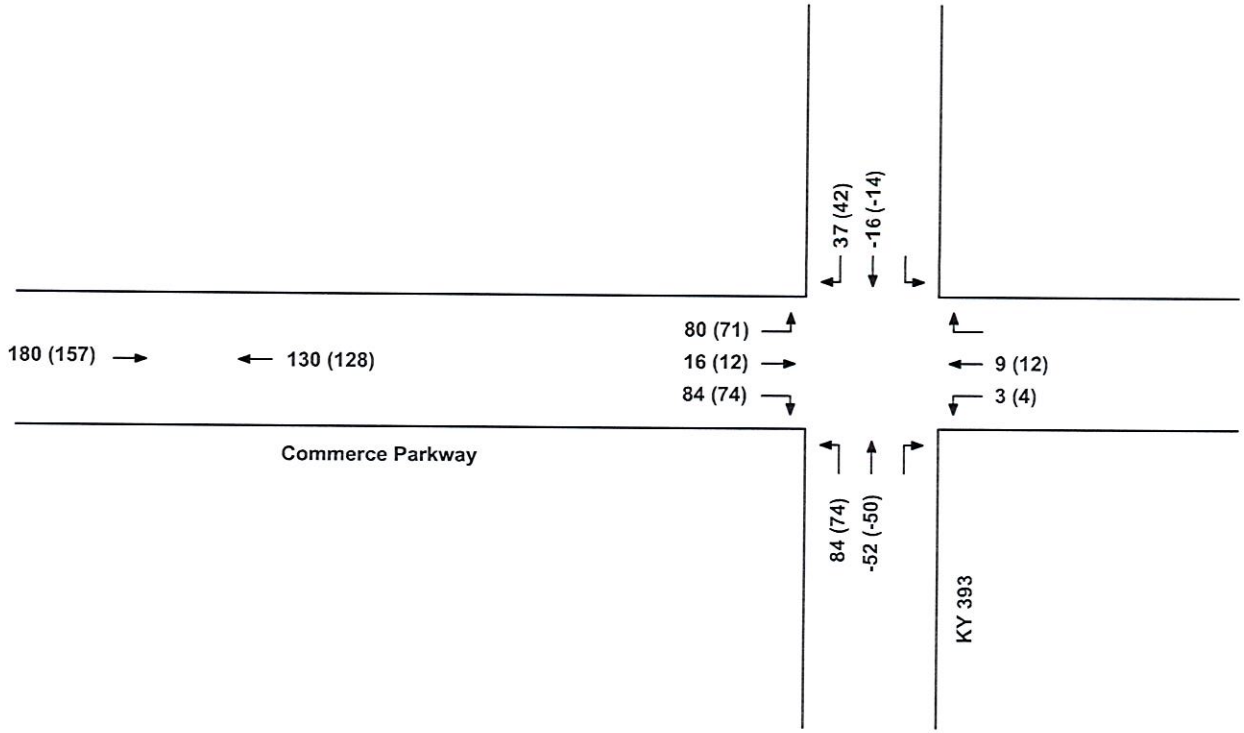

N.T.S.

Worksheet 2

Proposed Chase Bank

KY 393 & Commerce Parkway
Buckner, Oldham County, Kentucky

Wawa Full Build Out Projected Traffic Volumes

xx - AM Peak Hour
(xx) - PM Peak Hour

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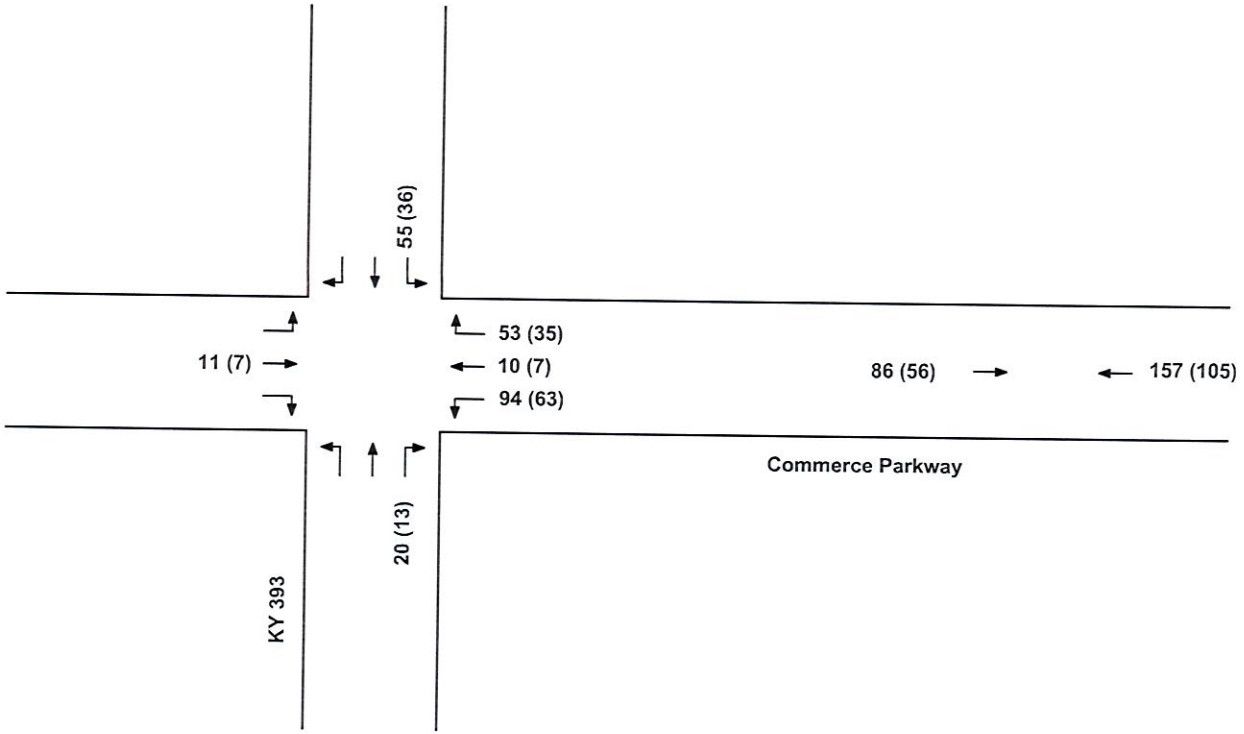

N.T.S.

Worksheet 3

Proposed Chase Bank

KY 393 & Commerce Parkway
Buckner, Oldham County, Kentucky

Fifth Third Bank & Starbucks
Full Build Out Projected Traffic Volumes

xx - AM Peak Hour
(xx) - PM Peak Hour

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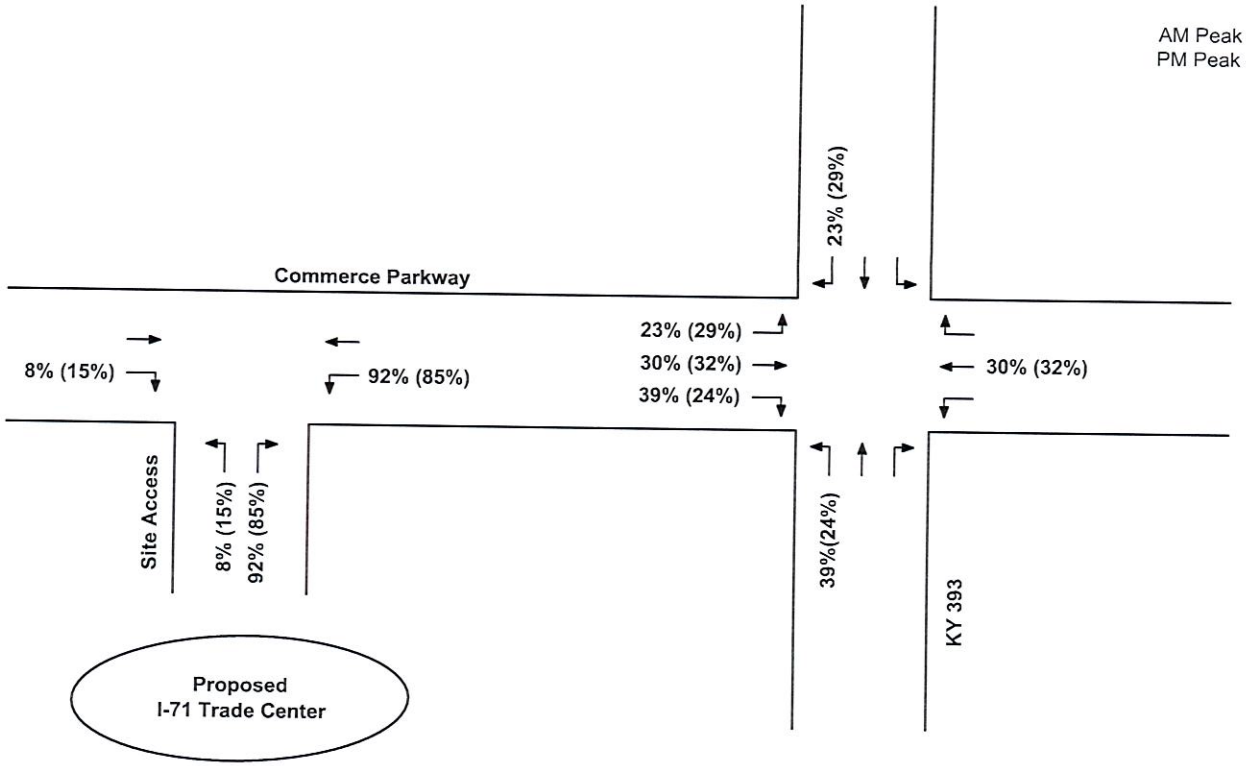
AM Peak - 86 Enter / 25 Exit
PM Peak - 32 Enter / 82 Exit



N.T.S.

Worksheet 4

Proposed I - 71 Trade Center
KY 393 & Commerce Parkway
Buckner, Oldham County, Kentucky

New Site Traffic Distribution - Entering & Exiting

xx - AM Peak Hour
(xx) - PM Peak Hour

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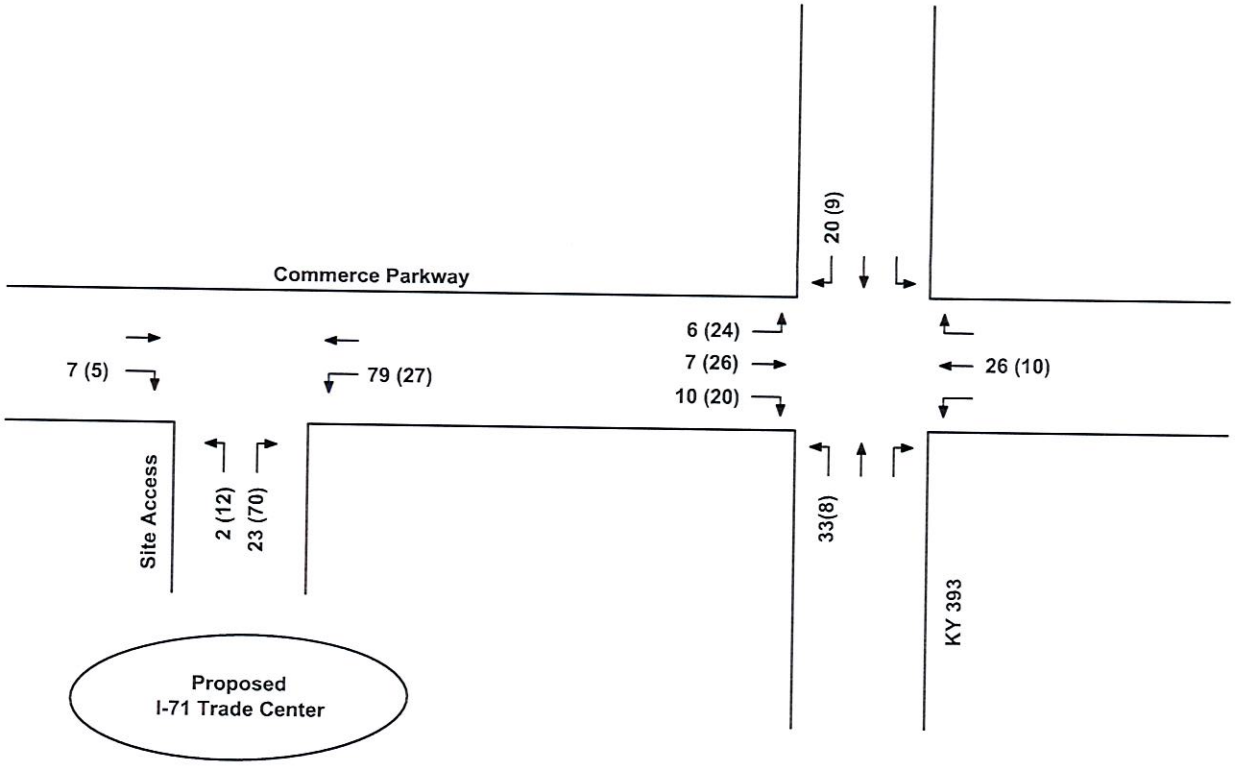

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Worksheet 5

Proposed I - 71 Trade Center
KY 393 & Commerce Parkway
Buckner, Oldham County, Kentucky

New Site Traffic Volume - Entering & Exiting

xx - AM Peak Hour
(xx) - PM Peak Hour

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APPENDIX A
SITE PLAN

SITE DATA	
LOT SIZE (SQ. FEET)	82360.86
LOT SIZE (ACRES)	1.89
BUILDING GFA (S.F.)	3432
FAR	0.04
LANDSCAPE AREA (S.F.)	49982.71
PAVING (S.F.)	28946.15
PARKING STALLS	28
# PARKING PER 1000 S.F.	8.16

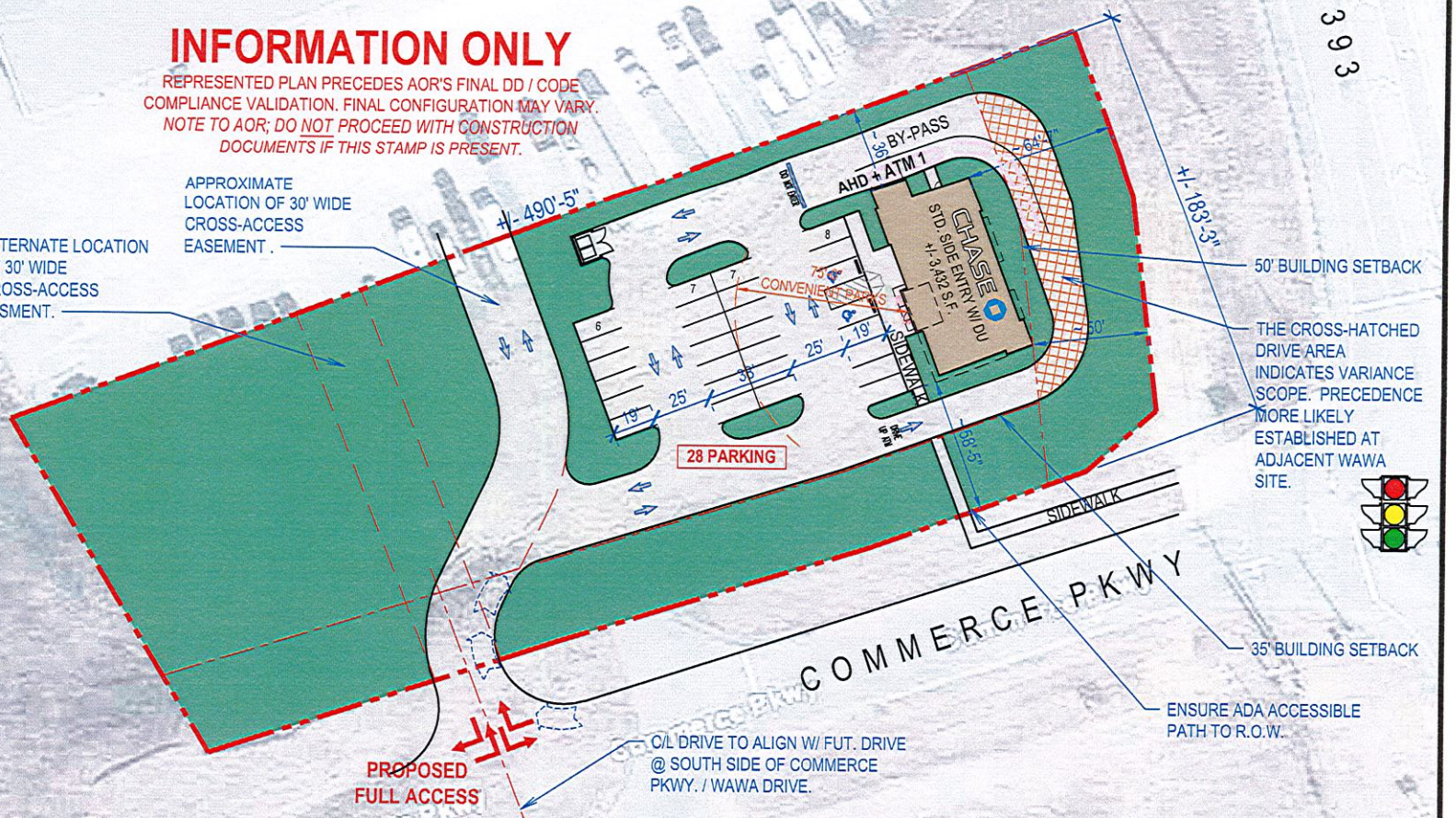
NOTE: SITE PLAN LAYOUT REPRESENTS DESIGN INTENT ONLY. PROPERTY LINES AND AREA CALCULATIONS FOR REFERENCE ONLY AND MAY NOT REFLECT ACTUAL SURVEY DATA OR FIELD CONDITIONS.

SUMMARY POINTS

- NO DRIVE AISLE OR PARKING IS ALLOWED WITHIN BUILDING SETBACK.
- MAXIMUM (18) PARKING ALLOWED. A VARIANCE IS REQUIRED TO ACCOMMODATE AN ADDITIONAL 10 PARKING STALLS.

INFORMATION ONLY

REPRESENTED PLAN PRECEDES AOR'S FINAL DD / CODE COMPLIANCE VALIDATION. FINAL CONFIGURATION MAY VARY. *NOTE TO AOR; DO NOT PROCEED WITH CONSTRUCTION DOCUMENTS IF THIS STAMP IS PRESENT.*



DRAFT

Regional Director (RD) DATE

Operating Model Lead (OML) DATE

CHASE

Proposed Site Plan

Crestwood Station - Relo

Hwy 393 and Commerce Pkwy, Buckner, KY 40010

DATE	DESIGNER	AREA	SCALE
2/18/2025	RJM	+/- 1.89 AC	1" = 60'

0 10' 30' 60'

APPENDIX B
TRAFFIC COUNTS

Bayer Becker
6900 Tylersville Road
Suite A
Mason, Ohio, United States 45040
513-336-6600 sarahmajor@bayerbecker.com

Count Name: KY 393 and Commerce Parkway
Site Code: 25-0039
Start Date: 05/15/2025

Turning Movement Data

Start Time	KY 393 Southbound					Commerce Parkway Westbound					KY 393 Northbound					Commerce Parkway Eastbound					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
7:00 AM	1	36	16	0	53	13	10	37	0	60	25	57	16	0	98	5	1	0	0	6	217
7:15 AM	1	59	29	0	89	12	12	37	0	61	37	43	19	0	99	6	10	0	0	16	265
7:30 AM	2	47	36	0	85	16	11	57	0	84	55	64	18	0	137	4	9	0	0	13	319
7:45 AM	3	23	29	0	55	22	19	45	0	86	47	40	26	0	113	4	18	2	0	24	278
Hourly Total	7	165	110	0	282	63	52	176	0	291	164	204	79	0	447	19	38	2	0	59	1079
8:00 AM	1	38	21	0	60	20	23	55	0	98	37	34	19	0	90	2	6	0	0	8	256
8:15 AM	1	36	40	0	77	23	17	40	0	80	24	42	48	0	114	12	12	0	0	24	295
8:30 AM	3	37	33	0	73	29	29	56	0	114	33	50	93	0	176	19	16	3	0	38	401
8:45 AM	5	39	37	0	81	20	17	58	0	95	33	22	69	0	124	18	20	0	0	38	338
Hourly Total	10	150	131	0	291	92	86	209	0	387	127	148	229	0	504	51	54	3	0	108	1290
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	106	61	0	167	16	24	76	0	116	31	20	19	0	70	37	52	0	0	89	442
4:15 PM	0	76	43	0	119	17	10	87	0	114	62	30	13	1	106	32	35	0	0	67	406
4:30 PM	1	39	25	0	65	26	7	107	0	140	20	42	13	2	77	19	20	0	0	39	321
4:45 PM	2	41	30	0	73	16	14	67	0	97	34	56	18	1	109	14	18	0	0	32	311
Hourly Total	3	262	159	0	424	75	55	337	0	467	147	148	63	4	362	102	125	0	0	227	1480
5:00 PM	1	61	37	0	99	35	13	83	0	131	33	39	13	0	85	25	22	1	0	48	363
5:15 PM	0	50	44	0	94	16	18	70	0	104	31	31	15	0	77	7	15	2	0	24	299
5:30 PM	2	44	38	0	84	32	5	63	0	100	28	55	13	0	96	12	14	0	0	26	306
5:45 PM	9	49	35	0	93	29	15	67	0	111	32	52	23	0	107	15	13	0	0	28	339
Hourly Total	12	204	154	0	370	112	51	283	0	446	124	177	64	0	365	59	64	3	0	126	1307
Grand Total	32	781	554	0	1367	342	244	1005	0	1591	562	677	435	4	1678	231	281	8	0	520	5156
Approach %	2.3	57.1	40.5	0.0	-	21.5	15.3	63.2	0.0	-	33.5	40.3	25.9	0.2	-	44.4	54.0	1.5	0.0	-	-
Total %	0.6	15.1	10.7	0.0	26.5	6.6	4.7	19.5	0.0	30.9	10.9	13.1	8.4	0.1	32.5	4.5	5.4	0.2	0.0	10.1	-
All Vehicles (no classification)	32	781	554	0	1367	342	244	1005	0	1591	562	677	435	4	1678	231	281	8	0	520	5156
% All Vehicles (no classification)	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	100.0	100.0

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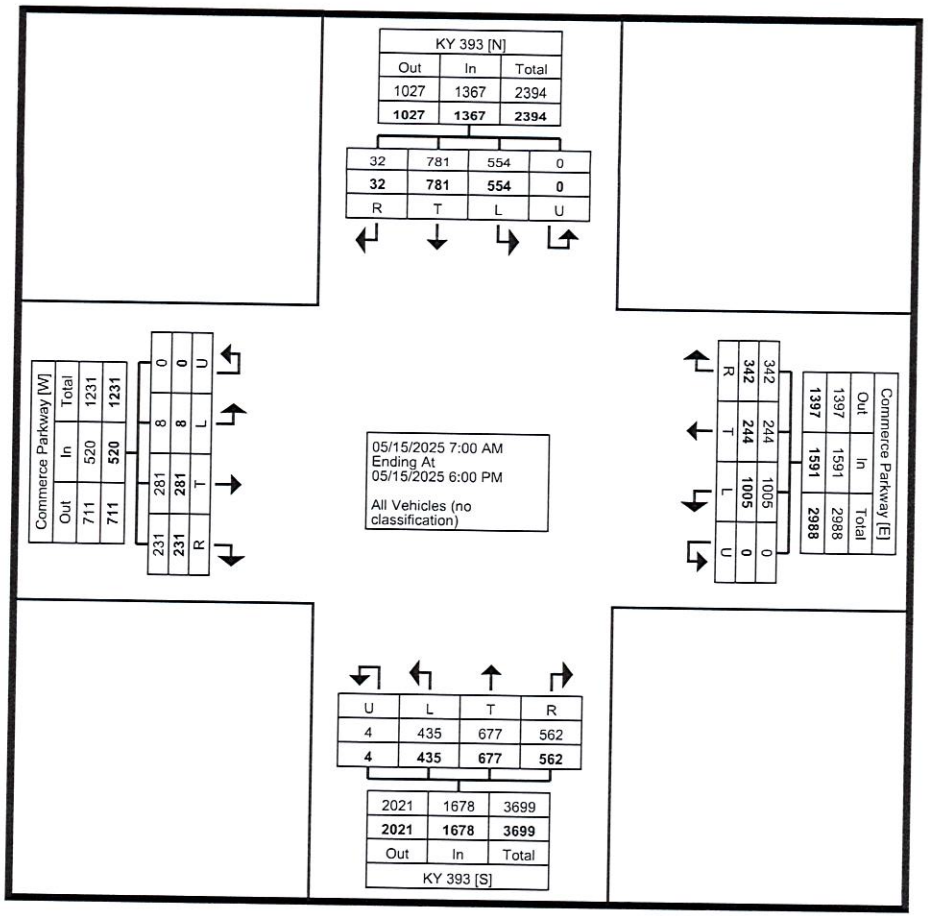
513-336-6600 sarahmajor@bayerbecker.com

Count Name: KY 393 and Commerce Parkway
Site Code: 25-0039
Start Date: 05/15/2025
Page No: 2



Turning Movement Data Plot

Bayer Becker
6900 Tylersville Road
Suite A
Mason, Ohio, United States 45040
513-336-6600 sarahmajor@bayerbecker.com

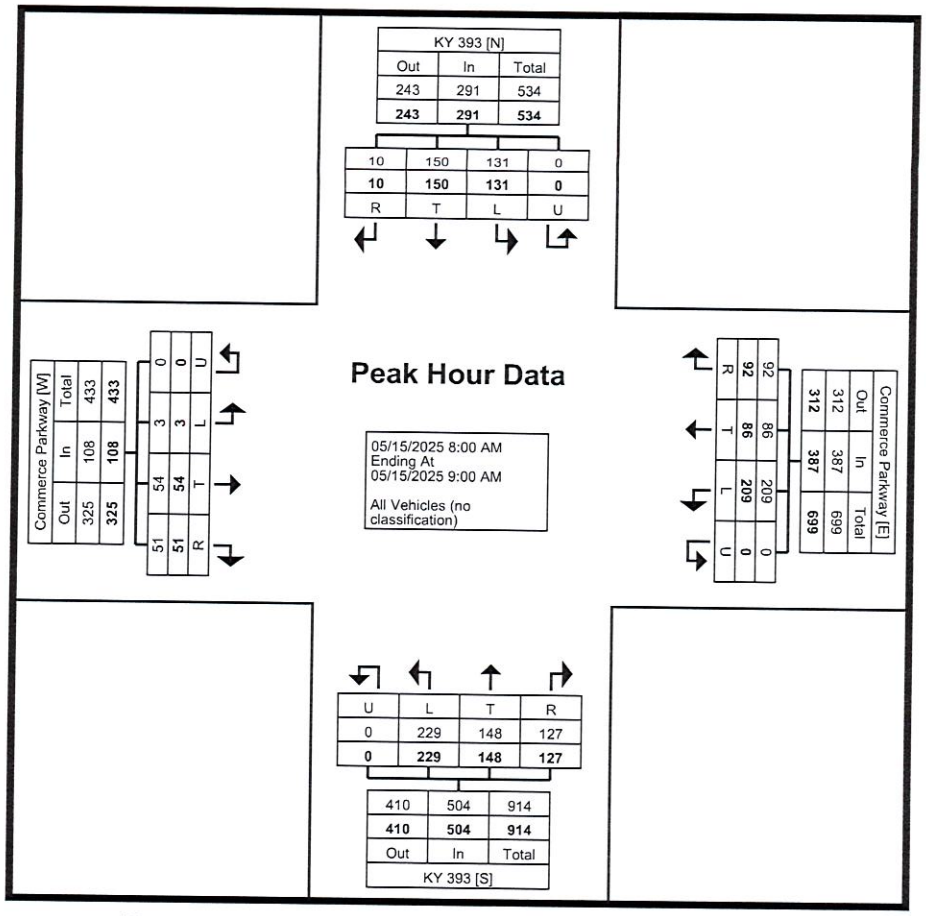
Count Name: KY 393 and Commerce Parkway
Site Code: 25-0039
Start Date: 05/15/2025

Turning Movement Peak Hour Data (8:00 AM)

Start Time	KY 393 Southbound					Commerce Parkway Westbound					KY 393 Northbound					Commerce Parkway Eastbound					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
8:00 AM	1	38	21	0	60	20	23	55	0	98	37	34	19	0	90	2	6	0	0	8	256
8:15 AM	1	36	40	0	77	23	17	40	0	80	24	42	48	0	114	12	12	0	0	24	295
8:30 AM	3	37	33	0	73	29	29	56	0	114	33	50	93	0	176	19	16	3	0	38	401
8:45 AM	5	39	37	0	81	20	17	58	0	95	33	22	69	0	124	18	20	0	0	38	338
Total	10	150	131	0	291	92	86	209	0	387	127	148	229	0	504	51	54	3	0	108	1290
Approach %	3.4	51.5	45.0	0.0	-	23.8	22.2	54.0	0.0	-	25.2	29.4	45.4	0.0	-	47.2	50.0	2.8	0.0	-	-
Total %	0.8	11.6	10.2	0.0	22.6	7.1	6.7	16.2	0.0	30.0	9.8	11.5	17.8	0.0	39.1	4.0	4.2	0.2	0.0	8.4	-
PHF	0.500	0.962	0.819	0.000	0.898	0.793	0.741	0.901	0.000	0.849	0.858	0.740	0.616	0.000	0.716	0.671	0.675	0.250	0.000	0.711	0.804
All Vehicles (no classification)	10	150	131	0	291	92	86	209	0	387	127	148	229	0	504	51	54	3	0	108	1290
% All Vehicles (no classification)	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0

Bayer Becker
6900 Tylersville Road
Suite A
Mason, Ohio, United States 45040
513-336-6600 sarahmajor@bayerbecker.com

Count Name: KY 393 and Commerce Parkway
Site Code: 25-0039
Start Date: 05/15/2025



Turning Movement Peak Hour Data Plot (8:00 AM)

Bayer Becker
6900 Tylersville Road
Suite A
Mason, Ohio, United States 45040
513-336-6600 sarahmajor@bayerbecker.com

Count Name: KY 393 and Commerce Parkway
Site Code: 25-0039
Start Date: 05/15/2025

Turning Movement Peak Hour Data (4:00 PM)

Start Time	KY 393 Southbound					Commerce Parkway Westbound					KY 393 Northbound					Commerce Parkway Eastbound					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
4:00 PM	0	106	61	0	167	16	24	76	0	116	31	20	19	0	70	37	52	0	0	89	442
4:15 PM	0	76	43	0	119	17	10	87	0	114	62	30	13	1	106	32	35	0	0	67	406
4:30 PM	1	39	25	0	65	26	7	107	0	140	20	42	13	2	77	19	20	0	0	39	321
4:45 PM	2	41	30	0	73	16	14	67	0	97	34	56	18	1	109	14	18	0	0	32	311
Total	3	262	159	0	424	75	55	337	0	467	147	148	63	4	362	102	125	0	0	227	1480
Approach %	0.7	61.8	37.5	0.0	-	16.1	11.8	72.2	0.0	-	40.6	40.9	17.4	1.1	-	44.9	55.1	0.0	0.0	-	-
Total %	0.2	17.7	10.7	0.0	28.6	5.1	3.7	22.8	0.0	31.6	9.9	10.0	4.3	0.3	24.5	6.9	8.4	0.0	0.0	15.3	-
PHF	0.375	0.618	0.652	0.000	0.635	0.721	0.573	0.787	0.000	0.834	0.593	0.661	0.829	0.500	0.830	0.689	0.601	0.000	0.000	0.638	0.837
All Vehicles (no classification)	3	262	159	0	424	75	55	337	0	467	147	148	63	4	362	102	125	0	0	227	1480
% All Vehicles (no classification)	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	-	100.0	100.0

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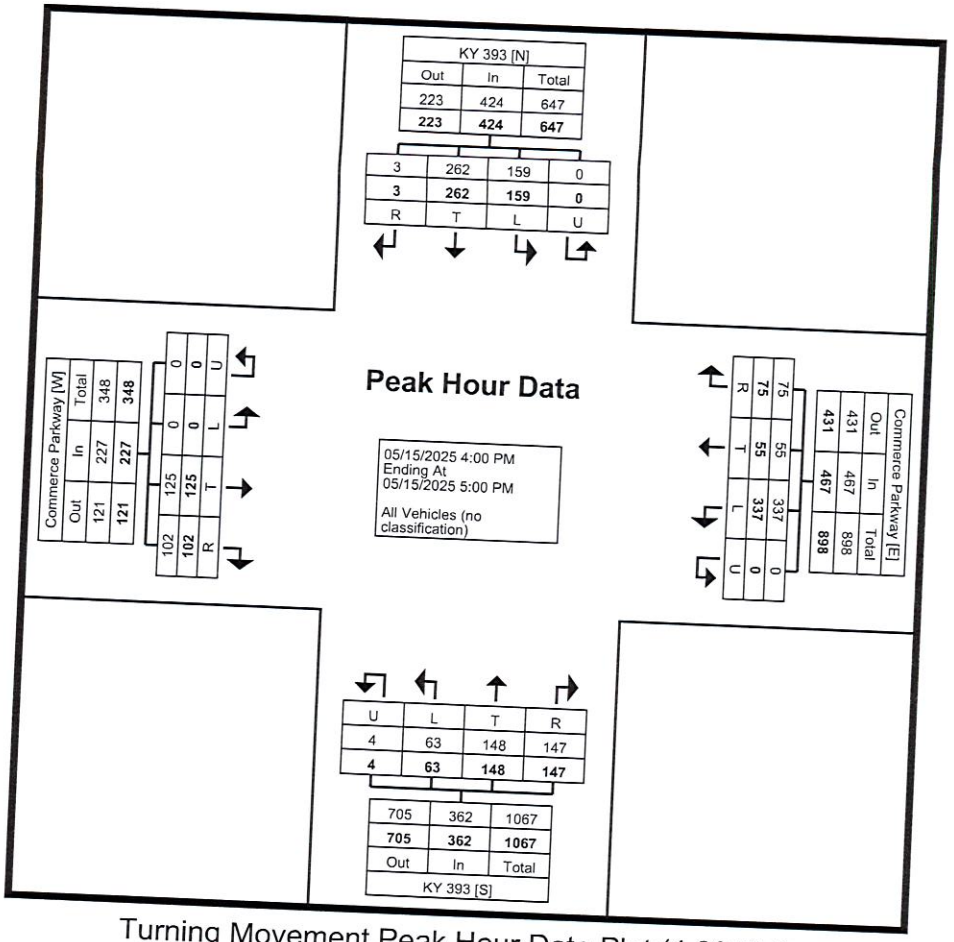
Count Name: KY 393 and Commerce Parkway
Site Code: 25-0039
Start Date: 05/15/2025



Turning Movement Peak Hour Data Plot (4:00 PM)

Bayer Becker
6900 Tylersville Road
Suite A
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Count Name: KY 393 and Commerce Parkway - 24 Hr
Site Code: 25-039
Start Date: 05/15/2025

Turning Movement Data

Start Time	KY 393 Southbound					Commerce Parkway Westbound					KY 393 Northbound					Commerce Parkway Eastbound					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
12:00 AM	0	2	0	0	2	1	0	3	0	4	1	2	1	0	4	0	0	0	0	0	10
12:15 AM	0	1	0	0	1	0	0	2	0	2	0	0	1	0	1	0	0	0	0	0	4
12:30 AM	0	3	0	0	3	1	0	1	0	2	1	0	0	0	1	0	0	0	0	0	6
12:45 AM	0	0	0	0	0	2	0	2	0	4	0	3	0	0	3	1	1	1	0	3	10
Hourly Total	0	6	0	0	6	4	0	8	0	12	2	5	2	0	9	1	1	1	0	3	30
1:00 AM	0	2	1	0	3	0	0	0	0	0	1	1	0	0	2	0	0	2	0	2	7
1:15 AM	0	0	1	0	1	0	1	2	0	3	1	2	0	0	3	0	0	0	0	0	7
1:30 AM	0	0	2	0	2	0	0	1	0	1	1	0	0	0	1	1	0	0	0	1	5
1:45 AM	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	2	0	0	0	2	4
Hourly Total	1	2	4	0	7	0	1	4	0	5	3	3	0	0	6	3	0	2	0	5	23
2:00 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1	2
2:15 AM	0	0	0	0	0	0	0	2	0	2	1	0	0	0	1	0	0	0	0	0	3
2:30 AM	0	2	1	0	3	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	5
2:45 AM	0	1	1	0	2	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	4
Hourly Total	0	3	2	0	5	0	0	5	0	5	1	2	0	0	3	0	0	1	0	1	14
3:00 AM	0	4	0	0	4	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	7
3:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:30 AM	0	0	0	0	0	0	1	0	0	1	1	0	1	0	2	2	0	0	0	2	5
3:45 AM	0	0	1	0	1	0	0	0	0	0	2	1	0	0	3	0	1	0	0	1	5
Hourly Total	0	5	1	0	6	0	2	0	0	2	3	3	1	0	7	2	1	0	0	3	18
4:00 AM	0	1	1	0	2	0	0	2	0	2	2	3	2	0	7	0	0	0	0	0	11
4:15 AM	0	3	0	0	3	0	3	4	0	7	3	2	0	0	5	0	0	0	0	0	15
4:30 AM	0	3	1	0	4	0	0	1	0	1	1	6	0	0	7	0	0	0	0	0	12
4:45 AM	0	6	1	0	7	0	0	4	0	4	5	1	1	0	7	1	0	0	0	1	19
Hourly Total	0	13	3	0	16	0	3	11	0	14	11	12	3	0	26	1	0	0	0	1	57
5:00 AM	0	4	3	0	7	0	1	1	0	2	2	3	5	0	10	0	0	0	0	0	19
5:15 AM	0	6	3	0	9	1	1	2	0	4	8	5	1	0	14	2	2	0	0	4	31
5:30 AM	0	4	4	0	8	3	0	5	0	8	13	7	6	0	26	1	0	0	0	1	43
5:45 AM	1	8	5	0	14	4	3	2	0	9	15	14	5	0	34	1	1	0	0	2	59
Hourly Total	1	22	15	0	38	8	5	10	0	23	38	29	17	0	84	4	3	0	0	7	152
6:00 AM	0	9	5	0	14	5	3	9	0	17	6	9	3	0	18	2	2	0	0	4	53
6:15 AM	2	11	4	0	17	4	2	13	0	19	11	16	4	0	31	2	2	0	0	4	71
6:30 AM	0	27	10	0	37	6	6	19	0	31	13	24	8	0	45	5	7	0	0	12	125
6:45 AM	0	23	15	0	38	13	11	28	0	52	20	52	8	0	80	3	4	0	0	7	177
Hourly Total	2	70	34	0	106	28	22	69	0	119	50	101	23	0	174	12	15	0	0	27	426
7:00 AM	1	36	16	0	53	13	8	37	0	58	24	57	15	0	96	5	1	0	0	6	213

7:15 AM	1	59	30	0	90	8	13	38	0	59	37	43	18	0	98	7	10	0	0	17	264
7:30 AM	2	46	34	0	82	14	12	56	0	82	54	63	19	0	136	4	9	0	0	13	313
7:45 AM	3	23	30	0	56	19	19	49	0	87	44	37	26	0	107	4	19	2	0	25	275
Hourly Total	7	164	110	0	281	54	52	180	0	286	159	200	78	0	437	20	39	2	0	61	1065
8:00 AM	1	37	21	0	59	21	23	37	0	81	37	33	22	0	92	5	5	0	0	10	242
8:15 AM	2	36	39	0	77	24	17	40	0	81	25	40	51	0	116	10	13	0	0	23	297
8:30 AM	3	37	34	0	74	29	29	47	0	105	33	46	91	0	170	17	17	3	0	37	386
8:45 AM	4	30	38	0	72	21	20	56	0	97	34	21	71	0	126	19	19	0	0	38	333
Hourly Total	10	140	132	0	282	95	89	180	0	364	129	140	235	0	504	51	54	3	0	108	1258
9:00 AM	0	35	36	0	71	25	10	48	0	83	22	19	17	0	58	11	10	0	1	22	234
9:15 AM	2	25	27	0	54	17	6	40	0	63	21	20	7	0	48	6	12	1	0	19	184
9:30 AM	1	18	26	0	45	17	9	40	0	66	16	16	8	1	41	5	6	0	0	11	163
9:45 AM	1	18	23	0	42	12	6	49	0	67	18	28	13	0	59	7	5	4	0	16	184
Hourly Total	4	96	112	0	212	71	31	177	0	279	77	83	45	1	206	29	33	5	1	68	765
10:00 AM	1	24	25	0	50	21	8	45	0	74	18	31	7	0	56	5	8	0	0	13	193
10:15 AM	0	17	27	0	44	20	8	33	0	61	19	22	2	0	43	4	11	3	0	18	166
10:30 AM	2	23	32	0	57	29	7	42	0	78	18	25	9	0	52	9	8	2	0	19	206
10:45 AM	1	25	31	0	57	26	3	42	0	71	22	29	11	0	62	5	15	0	0	20	210
Hourly Total	4	89	115	0	208	96	26	162	0	284	77	107	29	0	213	23	42	5	0	70	775
11:00 AM	2	36	38	0	76	17	14	33	0	64	24	29	7	0	60	12	9	0	1	22	222
11:15 AM	1	35	34	0	70	26	11	51	0	88	25	31	8	0	64	12	16	1	0	29	251
11:30 AM	2	21	24	0	47	21	14	75	0	110	21	17	2	0	40	17	21	0	0	38	235
11:45 AM	1	21	36	0	58	21	8	60	0	89	19	31	5	0	55	7	22	2	0	31	233
Hourly Total	6	113	132	0	251	85	47	219	0	351	89	108	22	0	219	48	68	3	1	120	941
12:00 PM	0	29	33	0	62	30	17	49	0	96	24	29	10	0	63	12	12	0	0	24	245
12:15 PM	2	26	40	0	68	25	16	34	0	75	22	36	6	0	64	10	16	2	0	28	235
12:30 PM	1	33	40	0	74	21	12	38	0	71	18	31	10	1	60	9	17	4	0	30	235
12:45 PM	2	33	18	0	53	19	12	48	0	79	15	15	2	0	32	10	7	0	0	17	181
Hourly Total	5	121	131	0	257	95	57	169	0	321	79	111	28	1	219	41	52	6	0	99	896
1:00 PM	2	34	33	0	69	19	10	37	0	66	19	31	5	0	55	11	14	2	0	27	217
1:15 PM	1	52	40	0	93	20	9	48	0	77	25	29	7	0	61	11	14	0	0	25	256
1:30 PM	2	42	35	0	79	27	12	59	0	98	25	39	12	0	76	12	10	0	0	22	275
1:45 PM	1	29	21	0	51	23	8	53	0	84	25	38	9	0	72	12	11	0	0	23	230
Hourly Total	6	157	129	0	292	89	39	197	0	325	94	137	33	0	264	46	49	2	0	97	978
2:00 PM	2	32	24	0	58	24	8	35	0	67	20	32	3	0	55	9	11	1	0	21	201
2:15 PM	1	40	20	0	61	22	9	41	0	72	17	22	5	0	44	13	20	3	0	36	213
2:30 PM	2	44	46	0	92	17	12	46	0	75	27	27	4	0	58	10	18	1	0	29	254
2:45 PM	4	44	23	0	71	19	8	53	0	80	27	27	6	0	60	7	9	1	1	18	229
Hourly Total	9	160	113	0	282	82	37	175	0	294	91	108	18	0	217	39	58	6	1	104	897
3:00 PM	2	30	25	0	57	19	17	53	0	89	26	28	7	0	61	15	11	3	0	29	236
3:15 PM	1	29	18	0	48	24	14	67	0	105	22	29	17	0	68	10	20	0	1	31	252
3:30 PM	0	37	31	0	68	23	17	82	0	122	21	29	9	0	59	21	21	2	0	44	293
3:45 PM	2	56	40	0	98	26	23	60	0	109	32	30	26	0	88	16	17	0	0	33	328
Hourly Total	5	152	114	0	271	92	71	262	0	425	101	116	59	0	276	62	69	5	1	137	1109
4:00 PM	0	105	61	0	166	16	24	77	0	117	32	20	20	0	72	38	52	0	0	90	445
4:15 PM	0	75	43	0	118	17	10	89	0	116	61	29	13	1	104	32	35	0	0	67	405
4:30 PM	1	39	25	0	65	26	7	105	0	138	22	42	13	2	79	19	20	0	0	39	321
4:45 PM	2	39	29	0	70	7	15	70	0	92	34	56	18	0	108	13	18	0	0	31	301
Hourly Total	3	258	158	0	419	66	56	341	0	463	149	147	64	3	363	102	125	0	0	227	1472
5:00 PM	1	62	37	0	100	27	12	83	0	122	32	38	13	0	83	25	22	1	0	48	353
5:15 PM	0	48	45	0	93	15	18	67	0	100	31	30	15	0	76	6	16	2	0	24	293
5:30 PM	2	40	39	0	81	30	5	61	0	96	27	55	13	0	95	12	15	0	0	27	299

5:45 PM	9	45	35	0	89	29	15	66	0	110	32	50	23	0	105	14	13	0	0	27	331
Hourly Total	12	195	156	0	363	101	50	277	0	428	122	173	64	0	359	57	66	3	0	126	1276
6:00 PM	0	53	31	0	84	28	8	54	0	90	28	55	5	0	88	11	18	0	0	29	291
6:15 PM	0	38	44	0	82	18	13	63	0	94	25	49	9	1	84	12	11	0	0	23	283
6:30 PM	0	39	17	0	56	31	13	58	0	102	17	37	6	1	61	13	11	0	0	24	243
6:45 PM	2	37	27	0	66	24	4	52	0	80	13	33	7	0	53	10	5	1	0	16	215
Hourly Total	2	167	119	0	288	101	38	227	0	366	83	174	27	2	286	46	45	1	0	92	1032
7:00 PM	0	47	42	0	89	13	5	47	0	65	8	25	2	0	35	14	2	1	0	17	206
7:15 PM	0	37	28	0	65	20	6	29	0	55	10	33	4	0	47	4	7	1	0	12	179
7:30 PM	0	39	19	0	58	21	6	30	0	57	11	49	1	0	61	13	6	0	0	19	195
7:45 PM	0	61	25	0	86	19	3	32	0	54	8	23	7	0	38	4	6	0	0	10	188
Hourly Total	0	184	114	0	298	73	20	138	0	231	37	130	14	0	181	35	21	2	0	58	768
8:00 PM	0	38	26	0	64	23	6	38	0	67	12	17	2	0	31	10	8	0	0	18	180
8:15 PM	0	31	14	0	45	19	1	31	0	51	5	15	3	0	23	1	6	0	0	7	126
8:30 PM	0	46	24	0	70	19	3	34	0	56	10	17	2	0	29	7	4	0	0	11	166
8:45 PM	2	59	22	0	83	11	2	21	0	34	11	21	0	0	32	3	8	0	0	11	160
Hourly Total	2	174	86	0	262	72	12	124	0	208	38	70	7	0	115	21	26	0	0	47	632
9:00 PM	0	18	15	0	33	7	2	24	0	33	2	16	2	0	20	4	4	1	0	9	95
9:15 PM	2	17	10	0	29	12	3	25	0	40	8	12	2	0	22	3	4	0	0	7	98
9:30 PM	0	12	9	0	21	9	2	20	0	31	3	17	1	0	21	4	3	0	0	7	80
9:45 PM	0	12	7	0	19	7	2	20	0	29	2	15	2	0	19	2	0	0	0	2	69
Hourly Total	2	59	41	0	102	35	9	89	0	133	15	60	7	0	82	13	11	1	0	25	342
10:00 PM	0	10	5	0	15	4	1	12	0	17	4	8	3	0	15	1	1	0	0	2	49
10:15 PM	0	7	6	0	13	4	0	11	0	15	3	5	0	0	8	1	1	0	0	2	38
10:30 PM	0	32	2	0	34	4	0	8	0	12	0	5	1	0	6	0	2	0	0	2	54
10:45 PM	0	4	0	0	4	4	1	12	0	17	2	3	0	0	5	0	0	0	0	0	26
Hourly Total	0	53	13	0	66	16	2	43	0	61	9	21	4	0	34	2	4	0	0	6	167
11:00 PM	0	3	1	0	4	3	0	4	0	7	1	4	0	0	5	2	0	2	0	4	20
11:15 PM	0	2	1	0	3	0	0	3	0	3	0	3	0	0	3	0	1	0	0	1	10
11:30 PM	0	1	1	0	2	1	0	1	0	2	1	1	0	0	2	0	0	0	0	0	6
11:45 PM	0	0	0	0	0	1	1	3	0	5	1	2	0	0	3	0	0	0	0	0	8
Hourly Total	0	6	3	0	9	5	1	11	0	17	3	10	0	0	13	2	1	2	0	5	44
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	81	2409	1837	0	4327	1268	670	3078	0	5016	1460	2050	780	7	4297	660	783	50	4	1497	15137
Approach %	1.9	55.7	42.5	0.0	-	25.3	13.4	61.4	0.0	-	34.0	47.7	18.2	0.2	-	44.1	52.3	3.3	0.3	-	-
Total %	0.5	15.9	12.1	0.0	28.6	8.4	4.4	20.3	0.0	33.1	9.6	13.5	5.2	0.0	28.4	4.4	5.2	0.3	0.0	9.9	-
All Vehicles (no classification)	81	2409	1837	0	4327	1268	670	3078	0	5016	1460	2050	780	7	4297	660	783	50	4	1497	15137
% All Vehicles (no classification)	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

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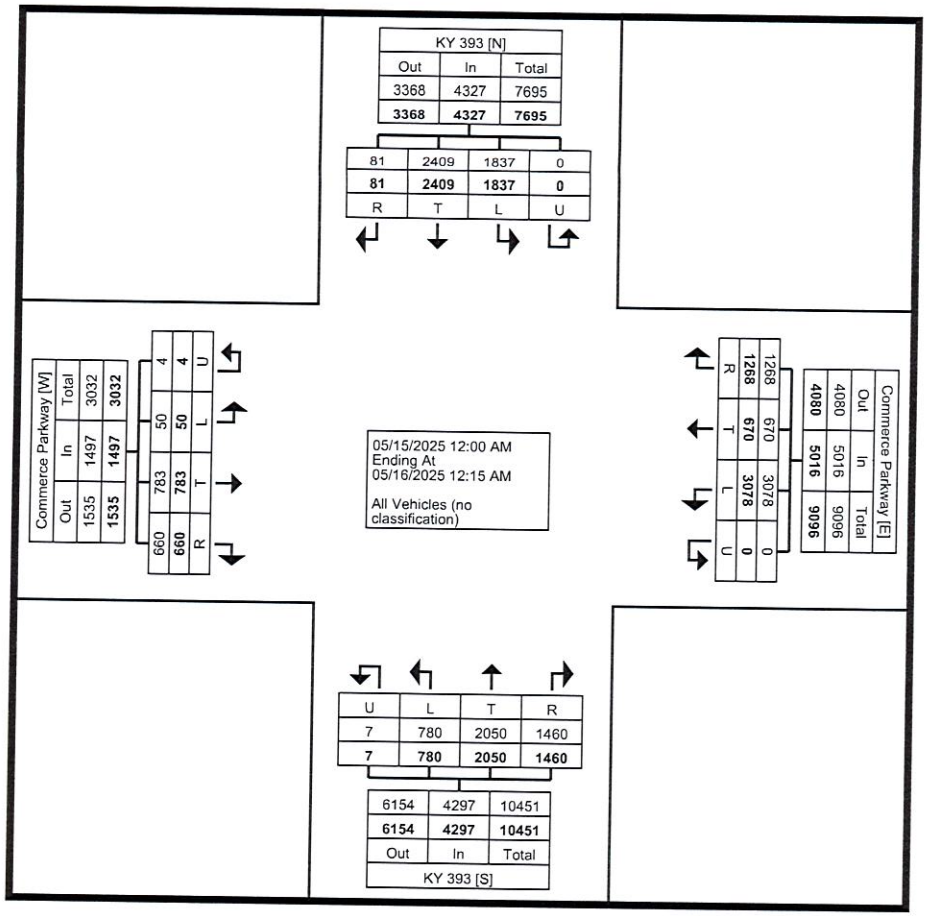
513-336-6600 sarahmajor@bayerbecker.com

Count Name: KY 393 and Commerce Parkway - 24 Hr
Site Code: 25-039
Start Date: 05/15/2025



Turning Movement Data Plot

Bayer Becker
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Count Name: KY 393 and Commerce Parkway - 24 Hr
Site Code: 25-039
Start Date: 05/15/2025

Turning Movement Peak Hour Data (8:00 AM)

Start Time	KY 393 Southbound					Commerce Parkway Westbound					KY 393 Northbound					Commerce Parkway Eastbound					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
8:00 AM	1	37	21	0	59	21	23	37	0	81	37	33	22	0	92	5	5	0	0	10	242
8:15 AM	2	36	39	0	77	24	17	40	0	81	25	40	51	0	116	10	13	0	0	23	297
8:30 AM	3	37	34	0	74	29	29	47	0	105	33	46	91	0	170	17	17	3	0	37	386
8:45 AM	4	30	38	0	72	21	20	56	0	97	34	21	71	0	126	19	19	0	0	38	333
Total	10	140	132	0	282	95	89	180	0	364	129	140	235	0	504	51	54	3	0	108	1258
Approach %	3.5	49.6	46.8	0.0	-	26.1	24.5	49.5	0.0	-	25.6	27.8	46.6	0.0	-	47.2	50.0	2.8	0.0	-	-
Total %	0.8	11.1	10.5	0.0	22.4	7.6	7.1	14.3	0.0	28.9	10.3	11.1	18.7	0.0	40.1	4.1	4.3	0.2	0.0	8.6	-
PHF	0.625	0.946	0.846	0.000	0.916	0.819	0.767	0.804	0.000	0.867	0.872	0.761	0.646	0.000	0.741	0.671	0.711	0.250	0.000	0.711	0.815
All Vehicles (no classification)	10	140	132	0	282	95	89	180	0	364	129	140	235	0	504	51	54	3	0	108	1258
% All Vehicles (no classification)	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0

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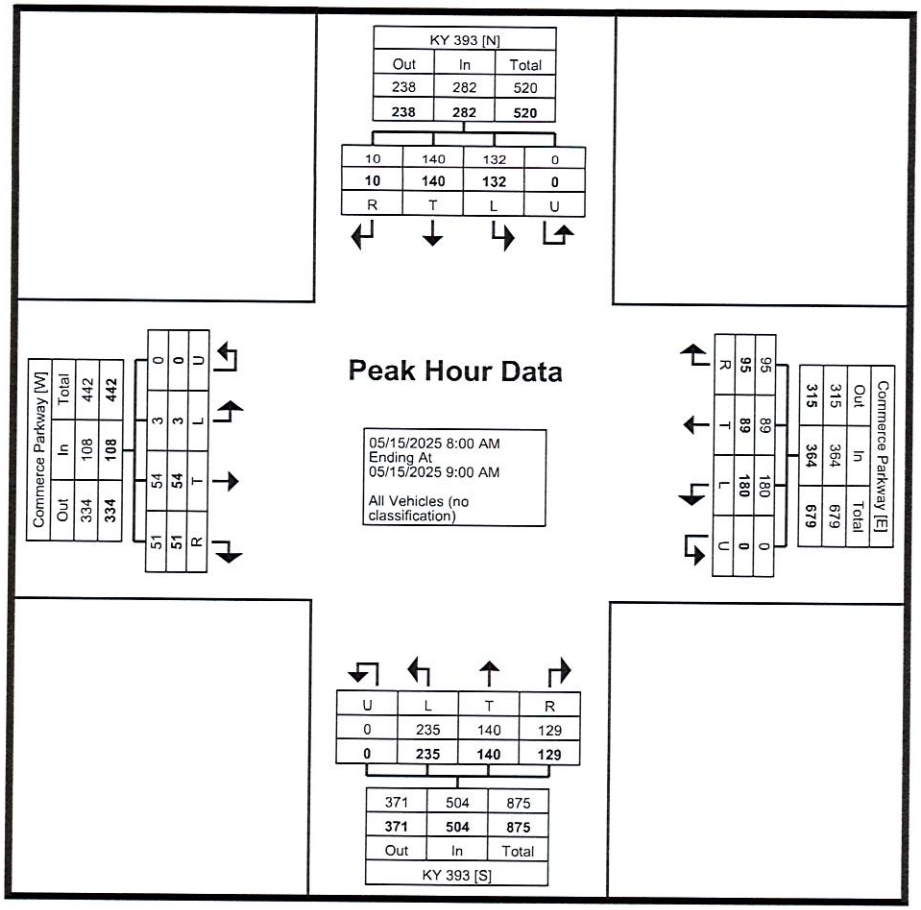

Turning Movement Peak Hour Data Plot (8:00 AM)

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Count Name: KY 393 and Commerce Parkway - 24 Hr
Site Code: 25-039
Start Date: 05/15/2025

Turning Movement Peak Hour Data (3:45 PM)

Start Time	KY 393 Southbound					Commerce Parkway Westbound					KY 393 Northbound					Commerce Parkway Eastbound					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
3:45 PM	2	56	40	0	98	26	23	60	0	109	32	30	26	0	88	16	17	0	0	33	328
4:00 PM	0	105	61	0	166	16	24	77	0	117	32	20	20	0	72	38	52	0	0	90	445
4:15 PM	0	75	43	0	118	17	10	89	0	116	61	29	13	1	104	32	35	0	0	67	405
4:30 PM	1	39	25	0	65	26	7	105	0	138	22	42	13	2	79	19	20	0	0	39	321
Total	3	275	169	0	447	85	64	331	0	480	147	121	72	3	343	105	124	0	0	229	1499
Approach %	0.7	61.5	37.8	0.0	-	17.7	13.3	69.0	0.0	-	42.9	35.3	21.0	0.9	-	45.9	54.1	0.0	0.0	-	-
Total %	0.2	18.3	11.3	0.0	29.8	5.7	4.3	22.1	0.0	32.0	9.8	8.1	4.8	0.2	22.9	7.0	8.3	0.0	0.0	15.3	-
PHF	0.375	0.655	0.693	0.000	0.673	0.817	0.667	0.788	0.000	0.870	0.602	0.720	0.692	0.375	0.825	0.691	0.596	0.000	0.000	0.636	0.842
All Vehicles (no classification)	3	275	169	0	447	85	64	331	0	480	147	121	72	3	343	105	124	0	0	229	1499
% All Vehicles (no classification)	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	-	100.0	100.0

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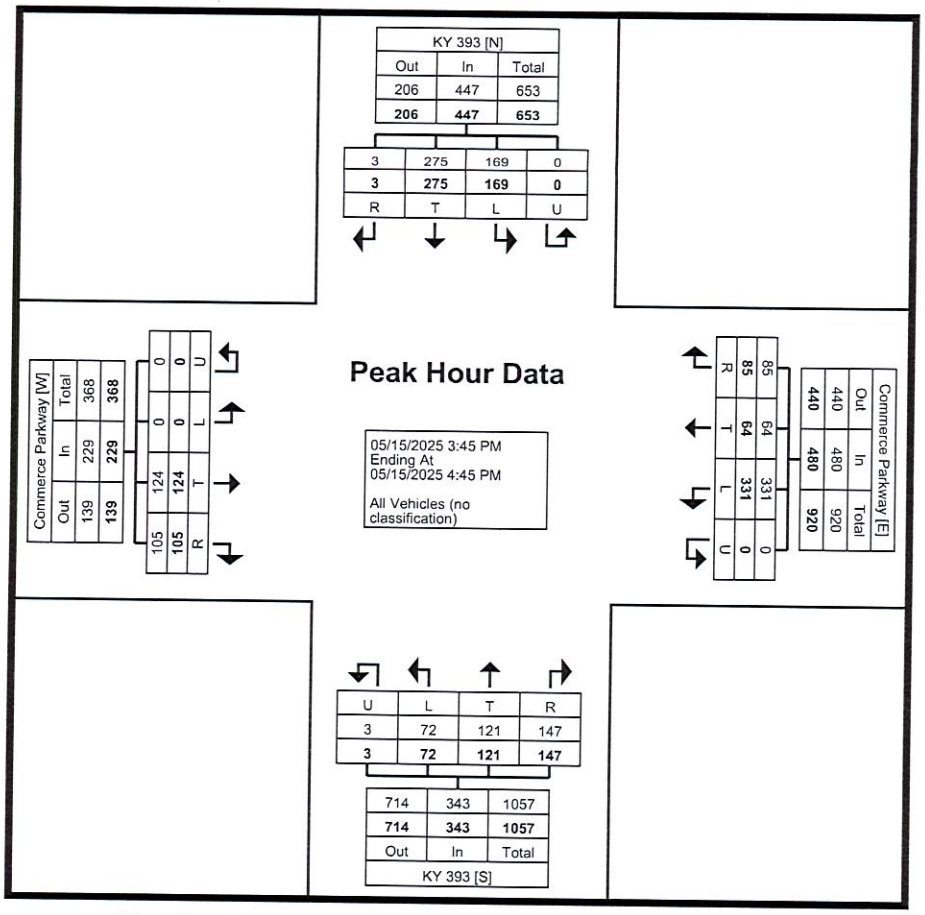
Page No: 8



Turning Movement Peak Hour Data Plot (3:45 PM)

APPENDIX C
ITE LAND USE
TRIP GENERATION

Land Use: 912
Drive-in Bank

Description

A bank is a financial institution that can offer a wide variety of financial services. A drive-in bank provides banking services for a motorist through a teller station. A drive-in bank may also serve patrons who walk into the building. The drive-in lanes may or may not provide an automatic teller machine (ATM). Walk-in bank (Land Use 911) is a related use.

Additional Data

The independent variable—drive-in lanes—refers to all lanes at a banking facility used for financial transactions, including ATM-only lanes.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

The sites were surveyed in the 2000s and the 2010s in Colorado, Kentucky, Minnesota, Nebraska, New Jersey, New York, Oregon, Pennsylvania, Texas, Vermont, Virginia, Washington, and Wisconsin.

To assist in the future analysis of this land use, it is important that Friday data be collected and reported separately from weekday data. It is also important to specify the date and month of the data collection period and the number of drive-through lanes that are open at the time of the study.

Source Numbers

535, 539, 553, 555, 573, 577, 600, 624, 626, 629, 630, 637, 656, 657, 710, 724, 728, 866, 869, 883, 884, 927, 935, 961, 1047

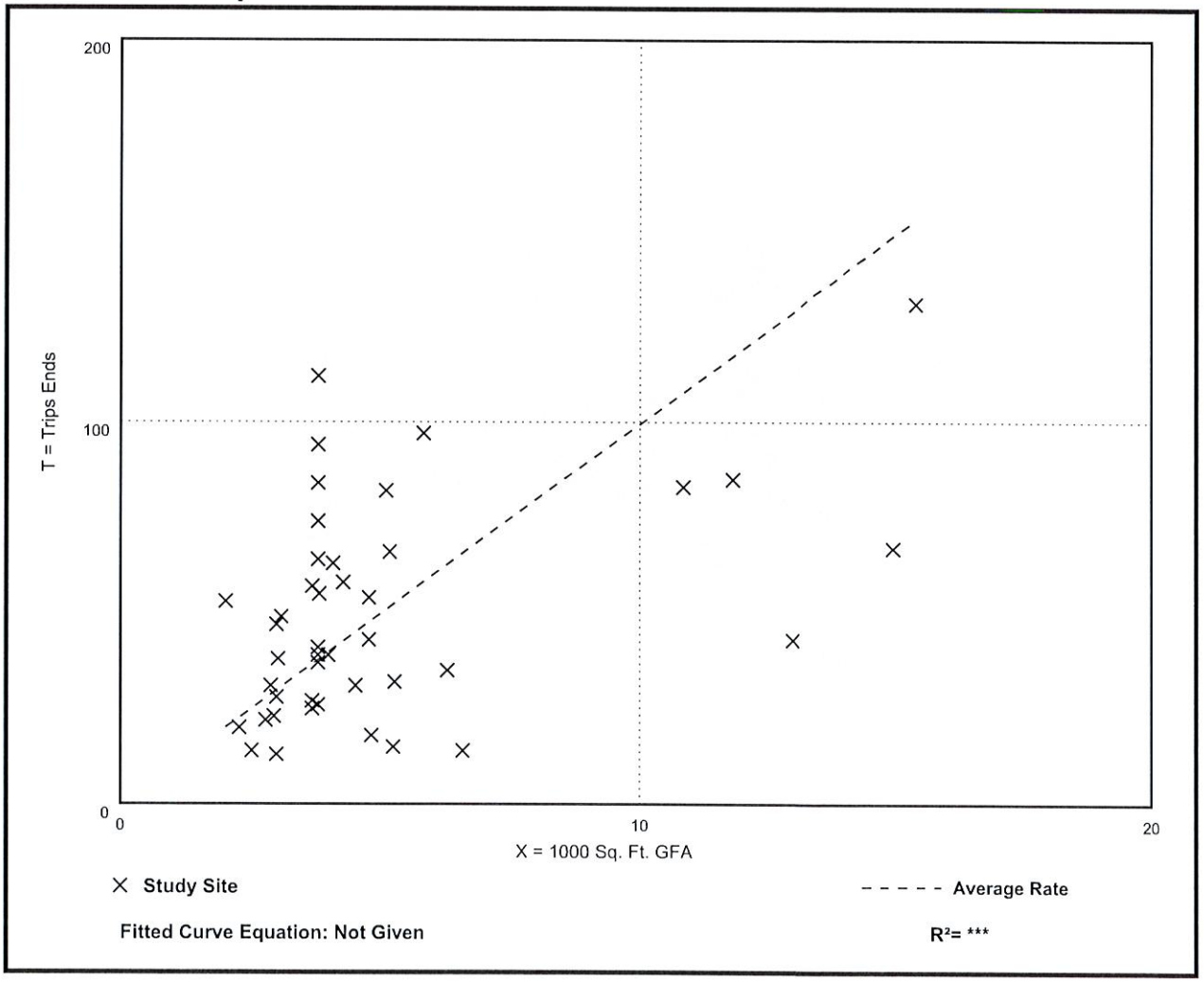
Drive-in Bank
(912)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 44
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 58% entering, 42% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.95	2.12 - 29.47	6.00

Data Plot and Equation



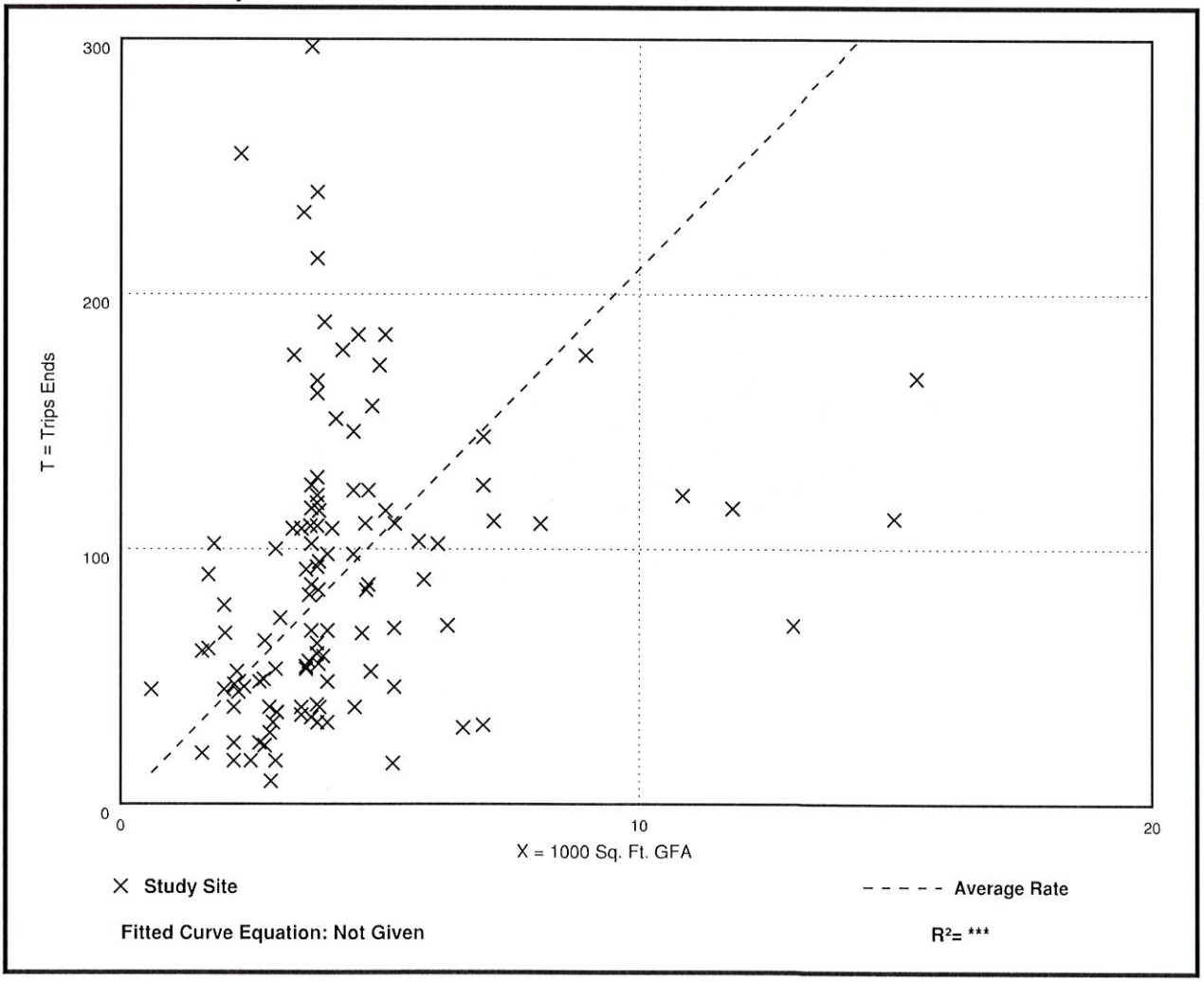
Drive-in Bank
(912)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 114
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
21.01	3.04 - 109.91	15.13

Data Plot and Equation



Land Use: 150
Warehousing

Description

A warehouse is primarily devoted to the storage of materials, but it may also include office and maintenance areas. High-cube transload and short-term storage warehouse (Land Use 154), high-cube fulfillment center warehouse (Land Use 155), high-cube parcel hub warehouse (Land Use 156), and high-cube cold storage warehouse (Land Use 157) are related uses.

Additional Data

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in California, Connecticut, Minnesota, New Jersey, New York, Ohio, Oregon, Pennsylvania, and Texas.

Source Numbers

184, 331, 406, 411, 443, 579, 583, 596, 598, 611, 619, 642, 752, 869, 875, 876, 914, 940, 1050

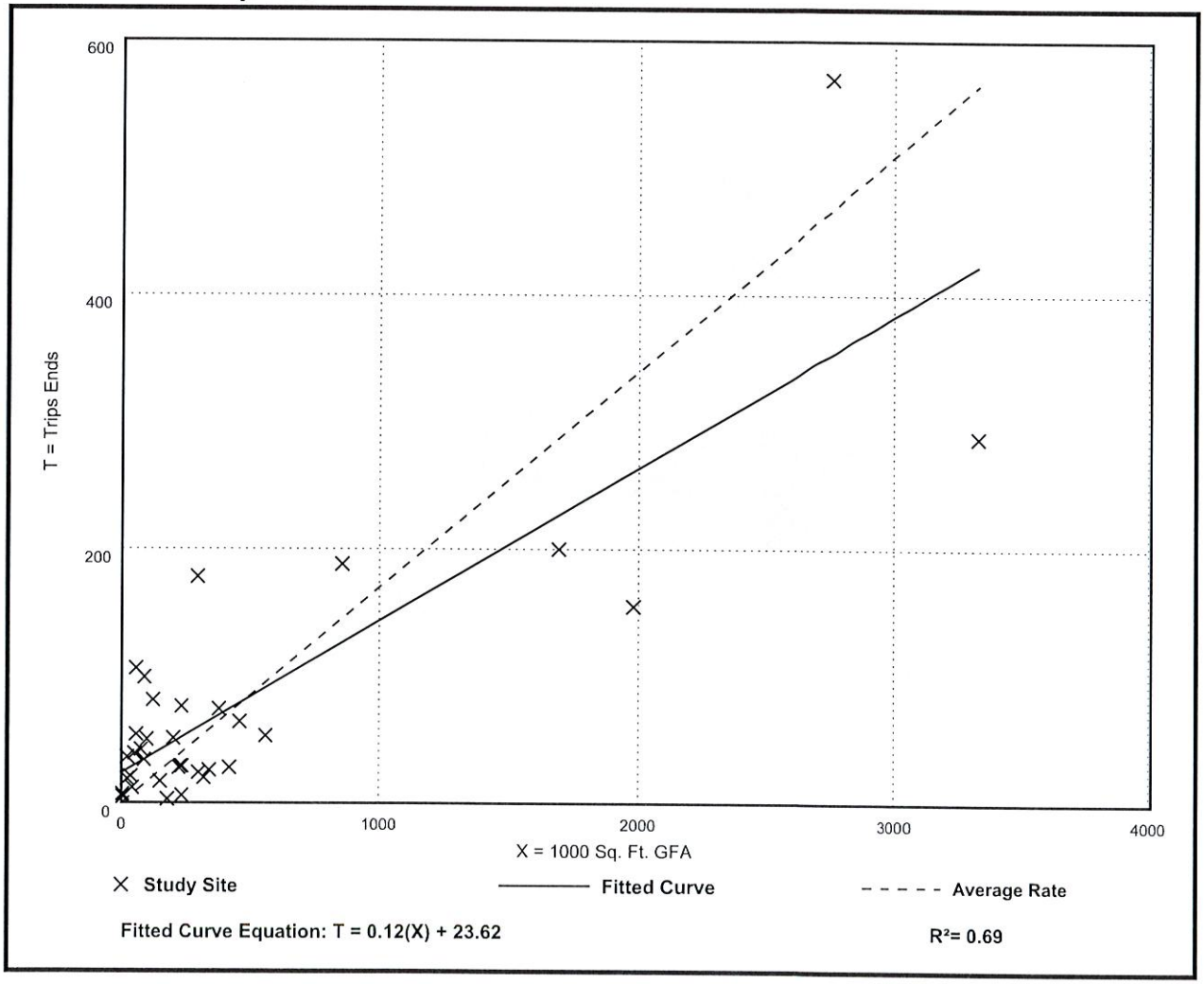
Warehousing
(150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 36
Avg. 1000 Sq. Ft. GFA: 448
Directional Distribution: 77% entering, 23% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.17	0.02 - 1.93	0.19

Data Plot and Equation



Fitted Curve Equation: T = 0.12(X) + 23.62

R^2= 0.69

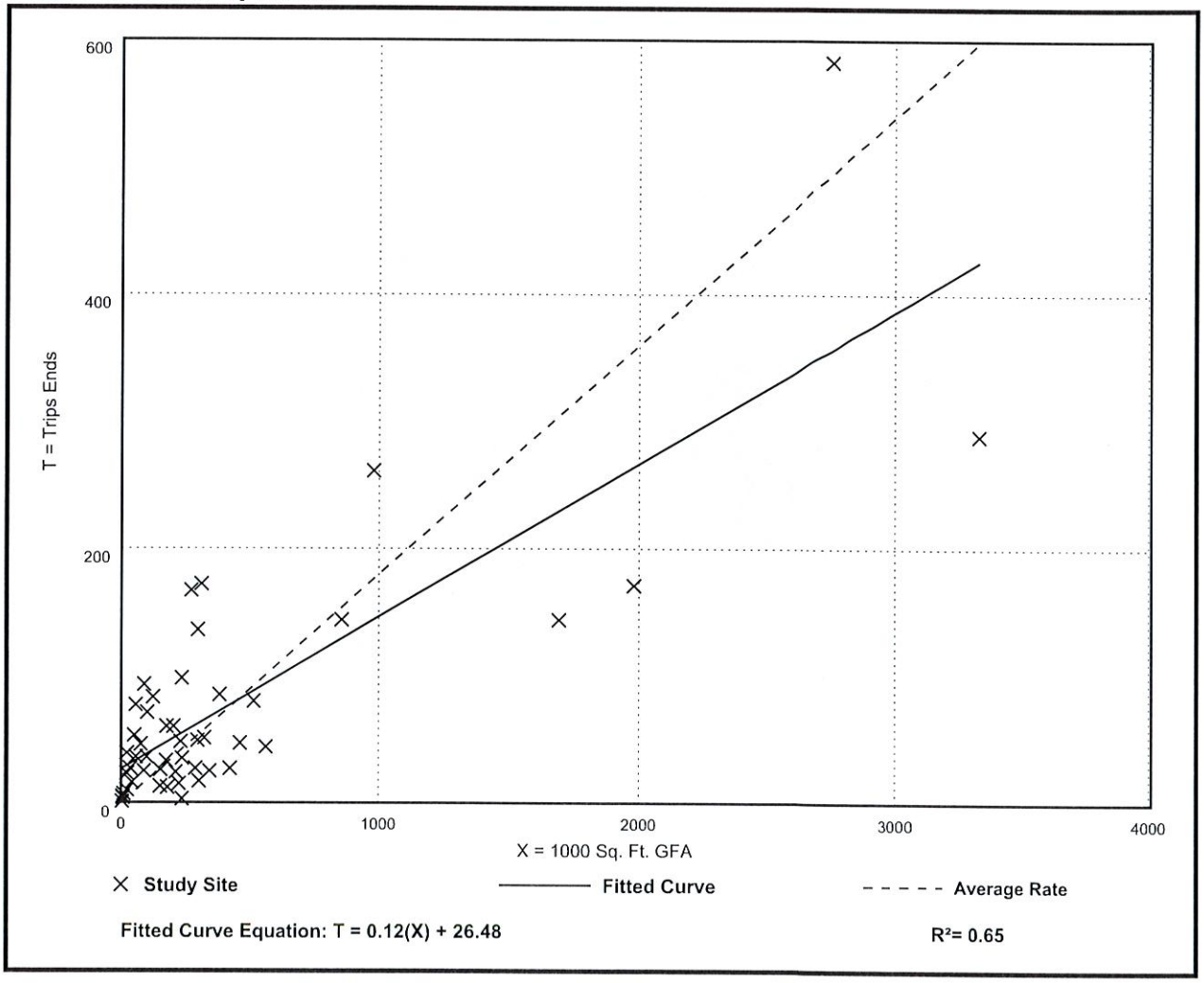
Warehousing
(150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 49
Avg. 1000 Sq. Ft. GFA: 400
Directional Distribution: 28% entering, 72% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.18	0.01 - 1.80	0.18

Data Plot and Equation



Fitted Curve Equation: T = 0.12(X) + 26.48

R^2= 0.65