LIVINGSTON SPRINGS PROPOSED PLANS AND ATTACHMENTS:

1. Brief summary of the Development

2. a. Conceptual Master Plan
   b. Plan showing acreages in each Zoning Classification

3. Existing PUD Master Pan

4. Signed Memorandum of Understanding between current owners and Stonebridge HOA

5. Bear Creek "will serve" letter

6. Market Study from Amanda Polles

7. Traffic Study from Kiser Traffic and Engineering, LLC

A PUD

By Livingston Springs, a MS Partnership

The property consists of approximately 330 acres located at the SE corner of Highway 463 and Highway 22 in Madison County. The property currently is zoned a PUD in Madison County. The approximate acreages for the current and future designations of zoning in the PUD are as follows:

Current	
Single Family	164 acres
Multi Family	28 acres
Retail/office/light industrial	33 acres
Sewage Facility	23 acres
Club Facility	35 acres
Food service and neighborhood retail	47 acres
Total	330 acres

Future		
Single Family	R-2	67 acres
	R-E	170 acres
	Total	237 acres
Condominium		9.3 acres
Retail/commercial total		23.7 acres
NA		
NA		
All retail for entire development is		23.7 acres
Greenspace		25 acres
Lakes		27 acres
Access easements		8 acres
Total		330 acres

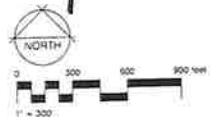
The current PUD in place was approved with the zoning above in the left-hand column. However, since this time, there has been tremendous growth in Madison County and the character of the neighborhood has changed and traffic has increased. A Market Study and Traffic Study are submitted with this revised plan. You can see from the above table, that we are increasing the residential aspect of the development.

The revised plan has 150 R-2 lots, which are between 10,000 and 13,000+/- sf. The houses on these lots will be a minimum of 2200 sf. heated and cooled. There will be 31 estate lots in the range of 2-8 acres. There will be 29 condominiums on about 9.3 acres. Greenspace and lakes will be developed to keep the feel of being in the country.

EXHIBIT

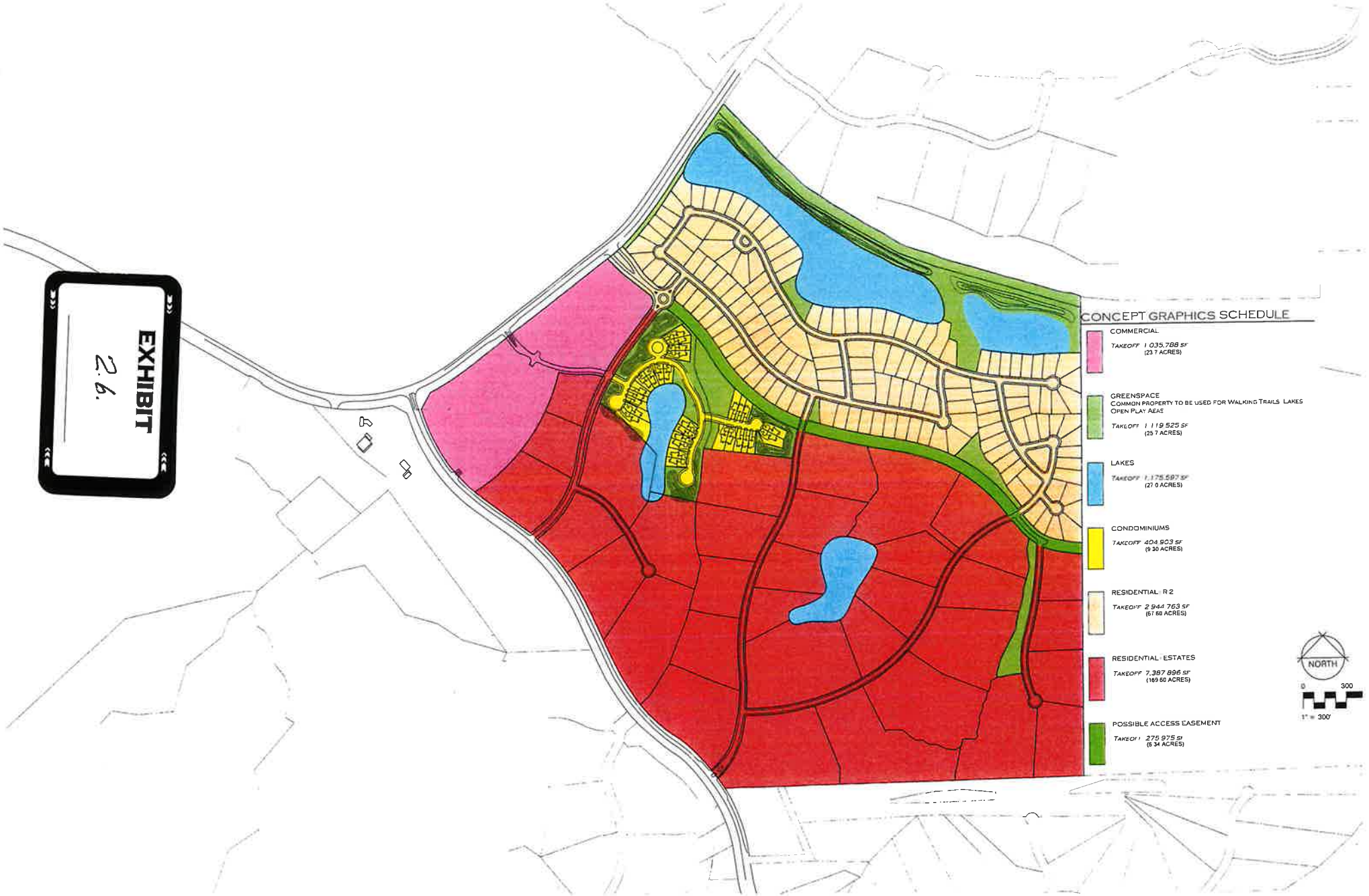
2.a.

Conceptual Masterplan



This master plan has been prepared for the purpose of illustrating the general concept of the development The Developer reserves the right to alter or revise the uses and locations illustrated on this plan without notice All measurements and acreages shown are approximate

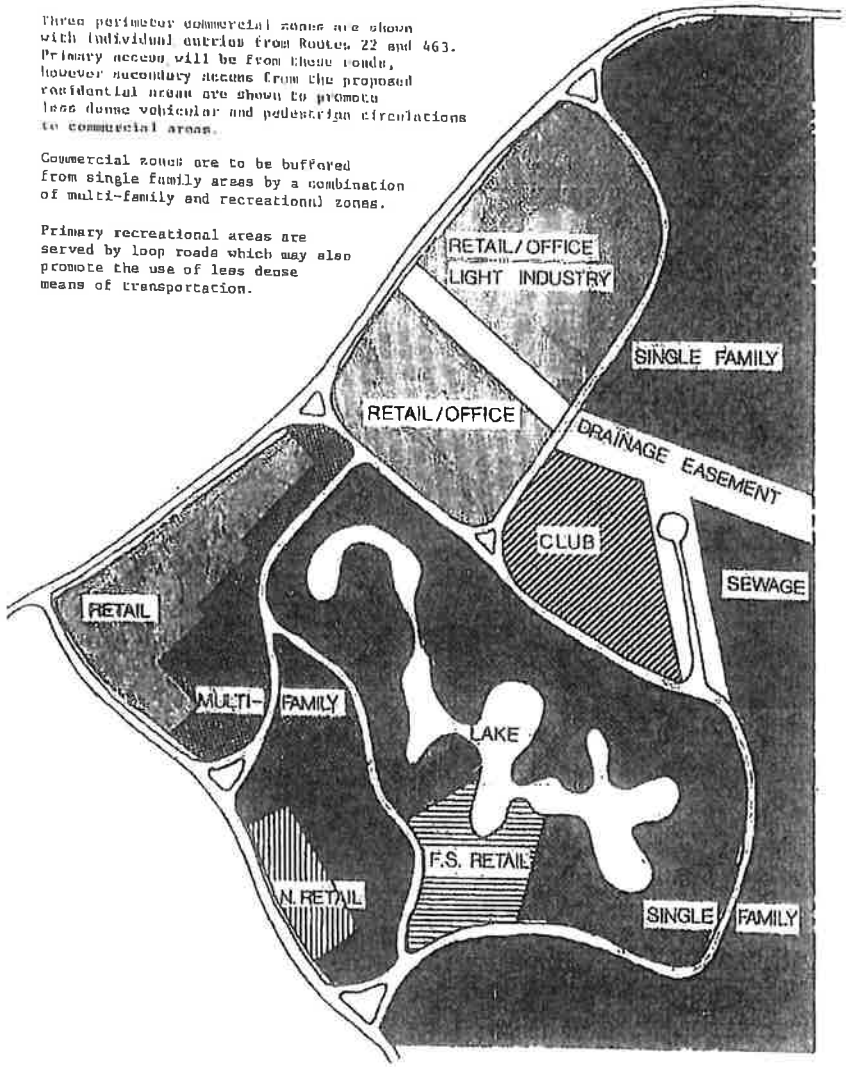
EXHIBIT
2.9.


CONCEPT GRAPHICS SCHEDULE
COMMERCIAL
TAKEOFF 1 035,788 SF
(23 7 ACRES)
GREENSPACE
COMMON PROPERTY TO BE USED FOR WALKING TRAILS LAKES
OPEN PLAY AEAS
TAKEOFF 1 119 525 SF
(25 7 ACRES)
LAKES
TAKEOFF 1,175 597 SF
(27 0 ACRES)
CONDOMINIUMS
TAKEOFF 404 903 SF
(9 30 ACRES)
RESIDENTIAL R 2
TAKEOFF 2 944 763 SF
(67 60 ACRES)
RESIDENTIAL ESTATES
TAKEOFF 7,387 896 SF
(169 60 ACRES)
POSSIBLE ACCESS EASEMENT
TAKEOFF 275 975 SF
(6 34 ACRES)
NORTH
0
300
1" = 300'

Three perimeter commercial zones are shown with individual entries from Routes 22 and 463. Primary access will be from these roads, however secondary access from the proposed residential areas are shown to promote less dense vehicular and pedestrian circulations to commercial areas.

Commercial zones are to be buffered from single family areas by a combination of multi-family and recreational zones.

Primary recreational areas are served by loop roads which may also promote the use of less dense means of transportation.



RETAIL/OFFICE/LIGHT INDUSTRY
NEIGHBORHOOD RETAIL
FOOD SERVICE RETAIL
MULTI-FAMILY
SINGLE FAMILY
SWIM/TENNIS CLUB
SEWAGE TREATMENT PLANT

LAND USE PROPOSAL

PROPOSED LANDS OF
PAUL'S RESTAURANTS, INC.

0 500 1000

EXHIBIT 3

MEMORANDUM OF UNDERSTANDING

GROUP ONE: Stonebridge Homeowners Association

GROUP TWO: Developers of property at Highway 463 and Highway 22

It is understood and agreed on by both parties

1. Developer agrees to uses strippings and any excess dirt excavated from the two lakes to be created parallel to Persimon Creek for the purpose of constructing a berm to run the full distance of the property. The purpose of the berm is to provide as high as possible a buffer between the developed property and Stonebridge subdivision.

2. The said berm will be planted by the developer with evergreen planting material approved by Stonebridge HOA as to type of material, size of material and density of material within reason.

3. The said berm will be properly irrigated to promote growth and health of all planted material. Water for the irrigation of said berm will be pumped from the new lakes by the developer.

4. The developer agrees to require all houses be a minimum of 2200 sq ft , heated and cooled.

5. Stonebridge HOA will be given all engineering and drainage studies in adequate time for their review and study.

Agreed on by.

Chip Triplett representing Developer _____ Date 1/27/23

Logan Phillips representing Stonebridge HOA _____ Date 1/27/23

Ed Kennedy representing Stonebridge HOA _____ Date 1/27/2023

EXHIBIT

4

BEAR CREEK WATER ASSOCIATION

P. O. Box 107
Canton, MS 39046

Phone: (601) 856-5969
Fax: (601) 856-8936

January 31, 2023

RE: Properties on east side of Highway 463 and south side of Highway 22
Sections 8 and 9, T8N, R1E
Madison County, Mississippi

To Chip Triplett:

Please be advised that ALL properties located in Sections 8 and 9, Township 8 North, Range 1 East, and lying on the easterly side of Highway 463 and the southerly side of Highway 22, do lie within Bear Creek Water Association's water and sewer certificated area. The association will provide those properties with such services in accordance with its standard water and sewer extension policies and procedures.

Please contact me if you need any additional information.

Sincerely,

Nolan P. Williamson, P.E.
General Manager

Market Study

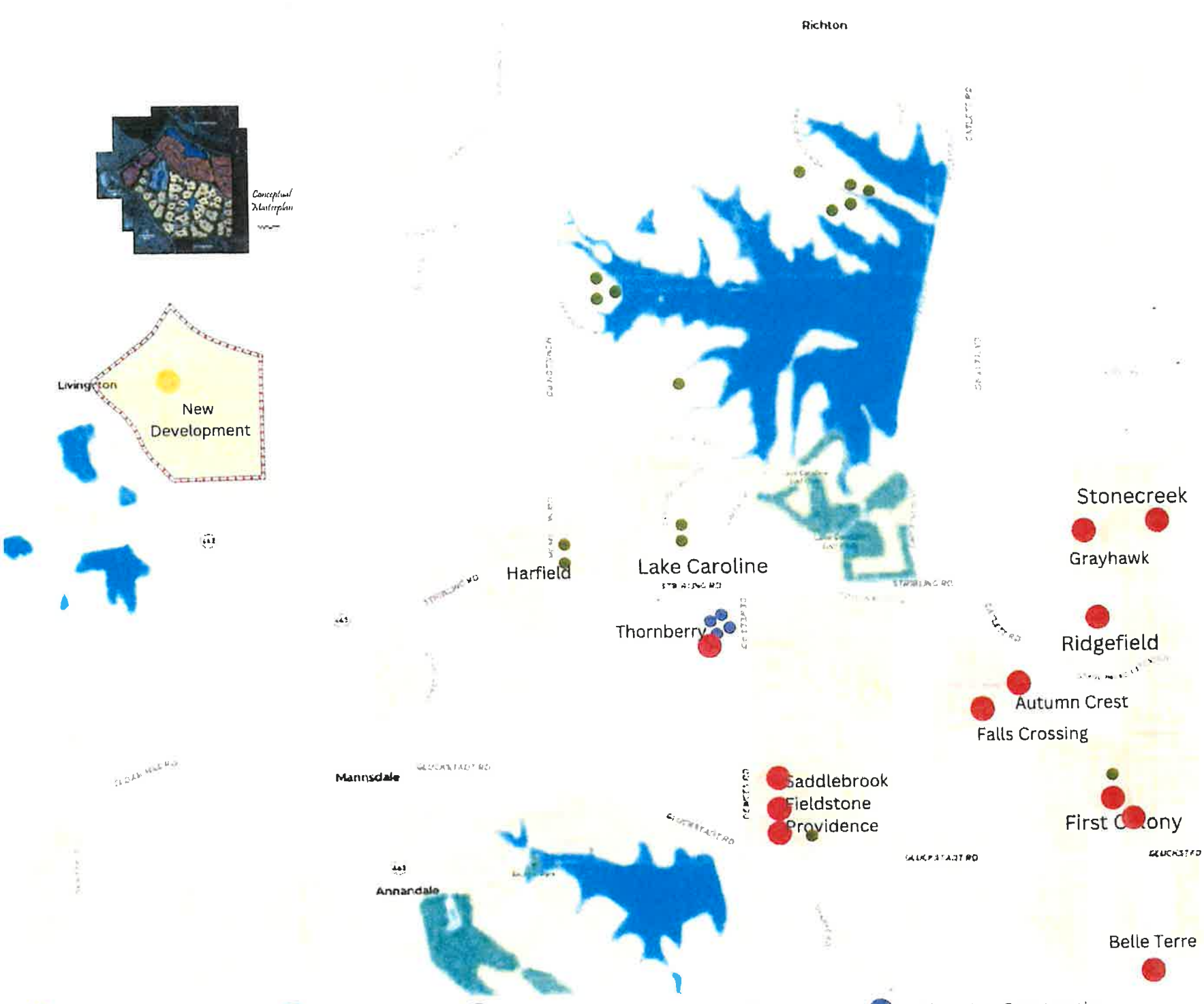
My name is Amanda Polles, and I am the broker owner for Polles Properties, LLC. I have been a broker for eleven (11) year and I have been a licensed real estate agent for almost 17 years. In the attachments, you will review data and facts picturing a snapshot of our current market to help describe the need for new construction of houses in the subject property referred to as "New Development" on your handout. We hope the statistical data will reveal the lack of inventory we are facing in today's market and hope the subject property will enhance the lifestyle of the community immediately surrounding it.

The New Development has a proposed masterplan, and it consists of 150 R-2 lots. The square footage of these homes would be starting in size at 2,200 square feet. There would be 34 Estate lots of 2 acres or larger and there would be 28 townhomes. There are 23.7 acres of commercial land that could be developed in the future.

Page 1 of the handout gives a visual map of the current layout of Madison County with the current properties that are in a 23-mile radius of the subject property. As you can see, there are 11 currently zoned R2 neighborhoods. Of these 11 R2 neighborhoods, only 14 active listings of houses exist to the current public. Of these 14 listings, only 4 are new construction that fit the criteria of 2200-2600 square feet and in the same school district as the new development.

To address the public need from the statistics standpoint, I want you to look at exhibit "A" of your handout. These are houses both existing houses and new construction. Please notice on the "Yearly Market Comparison" (exhibit A, page 1), that in 2020, the number of houses (listings) sold was 0. That number in 2021 increased to 24 marking a 100% increase in one year. In 2021, that number of homes sold from 24 to 168 in 2022(page 2). This marked an over 600% incline. Now, going to page 3, the total number of new listings for 2023 are currently 14 in total (noted in green on the map). These 14 are currently active in R2 subdivisions in 39110 that are between the square footage of 2200-2600. Of these 14 active listings, only four (4) are new construction, again in the same school district and size minimum of the new development. This simply is a huge need in our area at the current pace our great county continues to grow.

Thank you for giving me the opportunity to give my professional opinion and input on this matter. I will be happy to answer any questions you may have in the future.


Richton
Conceptual Masterplan
Livingston
New Development
Harfield
Lake Caroline
Thornberry
Stonecreek
Grayhawk
Ridgefield
Autumn Crest
Falls Crossing
Mannsdale
Saddlebrook
Fieldstone
Providence
First Colony
Annandale
Belle Terre
New area development
R2 Subdivisions
Current homes for sale 2200- 2600 sq ft
Active New Construction

1

Exhibit "A"

Yearly Market Comparison

Comparing Entire MLS

As of Friday, February 3, 2023 2:45:03 PM

Search Parameters: Property type Residential; Property Sub Type of 'Single Family Residence'; Zip Code of '39110'; Approx H/C SqFt between 2200 and 2600; School District of 'Madison CO Dist'.

	Number of Sold Listings				Dollar Volume of Sold Listings				Median Sale Price			
	2020	2021	Diff	Chg	2020	2021	Diff	Chg	2020	2021	Diff	Chg
January	0	0	0	0.0%	$ 0	$ 0	0	0.0%	0	0	0	0.0%
February	0	0	0	0.0%	$ 0	$ 0	0	0.0%	0	0	0	0.0%
March	0	0	0	0.0%	$ 0	$ 0	0	0.0%	0	0	0	0.0%
April	0	0	0	0.0%	$ 0	$ 0	0	0.0%	0	0	0	0.0%
May	0	0	0	0.0%	$ 0	$ 0	0	0.0%	0	0	0	0.0%
June	0	0	0	0.0%	$ 0	$ 0	0	0.0%	0	0	0	0.0%
July	0	0	0	0.0%	$ 0	$ 0	0	0.0%	0	0	0	0.0%
August	0	0	0	0.0%	$ 0	$ 0	0	0.0%	0	0	0	0.0%
September	0	0	0	0.0%	$ 0	$ 0	0	0.0%	0	0	0	0.0%
October	0	6	6	100.0%	$ 0	$ 2,025,900	2,025,900	100.0%	0	354,200	354,200	100.0%
November	0	8	8	100.0%	$ 0	$ 3,028,000	3,028,000	100.0%	0	380,500	380,500	100.0%
December	0	10	10	100.0%	$ 0	$ 3,574,900	3,574,900	100.0%	0	366,950	366,950	100.0%
Total	0	24	24	100.0%	$ 0	$ 8,628,800	8,628,800	100.0%	0	366,700	366,700	100.0%

	Number of New Listings				Dollar Volume of New Listings				Median List Price			
	2020	2021	Diff	Chg	2020	2021	Diff	Chg	2020	2021	Diff	Chg
January	0	0	0	0.0%	$ 0	$ 0	0	0.0%	0	0	0	0.0%
February	0	0	0	0.0%	$ 0	$ 0	0	0.0%	0	0	0	0.0%
March	0	0	0	0.0%	$ 0	$ 0	0	0.0%	0	0	0	0.0%
April	0	0	0	0.0%	$ 0	$ 0	0	0.0%	0	0	0	0.0%
May	0	1	1	100.0%	$ 0	$ 475,000	475,000	100.0%	0	475,000	475,000	100.0%
June	0	1	1	100.0%	$ 0	$ 420,000	420,000	100.0%	0	420,000	420,000	100.0%
July	0	1	1	100.0%	$ 0	$ 230,000	230,000	100.0%	0	230,000	230,000	100.0%
August	0	5	5	100.0%	$ 0	$ 1,659,800	1,659,800	100.0%	0	335,000	335,000	100.0%
September	0	7	7	100.0%	$ 0	$ 2,521,500	2,521,500	100.0%	0	350,000	350,000	100.0%
October	0	13	13	100.0%	$ 0	$ 5,064,600	5,064,600	100.0%	0	414,000	414,000	100.0%
November	0	10	10	100.0%	$ 0	$ 3,544,800	3,544,800	100.0%	0	357,450	357,450	100.0%
December	0	8	8	100.0%	$ 0	$ 2,909,100	2,909,100	100.0%	0	339,950	339,950	100.0%
Total	0	46	46	100.0%	$ 0	$ 16,824,800	16,824,800	100.0%	0	352,450	352,450	100.0%

Exhibit "A" 2

Yearly Market Comparison

Comparing Entire MLS
As of Friday, February 3, 2023 2:43:10 PM
Search Parameters: Property type Residential; Property Sub Type of 'Single Family Residence'; Zip Code of '39110'; Approx H/C SqFt between 2200 and 2600; School District of 'Madison CO Dist'.

	Number of Sold Listings				Dollar Volume of Sold Listings				Median Sale Price			
	2021	2022	Diff	Chg	2021	2022	Diff	Chg	2021	2022	Diff	Chg
January	0	13	13	100.0%	$ 0	$ 4,395,800	4,395,800	100.0%	0	330,000	330,000	100.0%
February	0	18	18	100.0%	$ 0	$ 7,019,550	7,019,550	100.0%	0	389,875	389,875	100.0%
March	0	15	15	100.0%	$ 0	$ 5,768,400	5,768,400	100.0%	0	386,500	386,500	100.0%
April	0	9	9	100.0%	$ 0	$ 3,695,000	3,695,000	100.0%	0	430,000	430,000	100.0%
May	0	23	23	100.0%	$ 0	$ 9,146,800	9,146,800	100.0%	0	392,000	392,000	100.0%
June	0	18	18	100.0%	$ 0	$ 6,666,500	6,666,500	100.0%	0	352,500	352,500	100.0%
July	0	19	19	100.0%	$ 0	$ 7,473,001	7,473,001	100.0%	0	395,000	395,000	100.0%
August	0	22	22	100.0%	$ 0	$ 8,198,300	8,198,300	100.0%	0	371,000	371,000	100.0%
September	0	15	15	100.0%	$ 0	$ 6,095,065	6,095,065	100.0%	0	406,290	406,290	100.0%
October	6	7	1	16.7%	$ 2,025,900	$ 2,584,000	558,100	27.5%	354,200	350,000	-4,200	-1.2%
November	8	3	-5	-62.5%	$ 3,028,000	$ 906,500	-2,121,500	-70.1%	380,500	326,000	-54,500	-14.3%
December	10	6	-4	-40.0%	$ 3,574,900	$ 2,517,500	-1,057,400	-29.6%	366,950	448,000	81,050	22.1%
Total	24	168	144	600.0%	$ 8,628,800	$ 64,466,416	55,837,616	647.1%	366,700	380,500	13,800	3.8%

	Number of New Listings				Dollar Volume of New Listings				Median List Price			
	2021	2022	Diff	Chg	2021	2022	Diff	Chg	2021	2022	Diff	Chg
January	0	16	16	100.0%	$ 0	$ 6,035,150	6,035,150	100.0%	0	349,000	349,000	100.0%
February	0	18	18	100.0%	$ 0	$ 6,936,914	6,936,914	100.0%	0	403,950	403,950	100.0%
March	0	14	14	100.0%	$ 0	$ 5,352,450	5,352,450	100.0%	0	369,825	369,825	100.0%
April	0	25	25	100.0%	$ 0	$ 9,662,100	9,662,100	100.0%	0	385,000	385,000	100.0%
May	1	20	19	1900.0%	$ 475,000	$ 7,339,399	6,864,399	1445.1%	475,000	367,000	-108,000	-22.7%
June	1	21	20	2000.0%	$ 420,000	$ 8,003,199	7,583,199	1805.5%	420,000	382,000	-38,000	-9.0%
July	1	22	21	2100.0%	$ 230,000	$ 8,265,970	8,035,970	3493.9%	230,000	357,500	127,500	55.4%
August	5	18	13	260.0%	$ 1,659,800	$ 8,016,400	6,356,600	382.9%	335,000	481,200	146,200	43.6%
September	7	8	1	14.3%	$ 2,521,500	$ 3,111,915	590,415	23.4%	350,000	388,708	38,708	11.1%
October	13	8	-5	-38.5%	$ 5,064,600	$ 3,411,800	-1,652,800	-32.7%	414,000	455,450	41,450	10.0%
November	10	7	-3	-30.0%	$ 3,544,800	$ 2,828,900	-715,900	-20.2%	357,450	427,500	70,050	19.6%
December	8	8	0	0.0%	$ 2,909,100	$ 3,106,300	197,200	6.7%	339,950	359,950	20,000	5.9%
Total	46	185	139	302.2%	$ 16,824,800	$ 72,070,497	55,245,697	328.3%	352,450	384,999	32,549	9.2%

exhibit "A" 3

Yearly Market Comparison

Comparing Entire MLS
As of Friday, February 3, 2023 5:43:49 PM
Search Parameters: Property type Residential; Property Sub Type of 'Single Family Residence'; Zip Code of '39110'; Approx H/C SqFt between 2200 and 2600; School District of 'Madison CO Dist'.

	Number of Sold Listings				Dollar Volume of Sold Listings				Median Sale Price			
	2022	2023	Diff	Chg	2022	2023	Diff	Chg	2022	2023	Diff	Chg
January	13	7	-6	-46.2%	$ 4,395,800	$ 2,808,900	-1,586,900	-36.2%	330,000	355,000	25,000	7.6%
February	18	1	-17	-94.4%	$ 7,019,550	$ 499,000	-6,520,550	-92.9%	389,875	499,000	109,125	28.0%
March	15	0	-15	-100.0%	$ 5,768,400	$ 0	-5,768,400	-100.0%	386,500	0	-386,500	-100.0%
April	9	0	-9	-100.0%	$ 3,695,000	$ 0	-3,695,000	-100.0%	430,000	0	-430,000	-100.0%
May	23	0	-23	-100.0%	$ 9,146,800	$ 0	-9,146,800	-100.0%	392,000	0	-392,000	-100.0%
June	18	0	-18	-100.0%	$ 6,666,500	$ 0	-6,666,500	-100.0%	352,500	0	-352,500	-100.0%
July	19	0	-19	-100.0%	$ 7,473,001	$ 0	-7,473,001	-100.0%	395,000	0	-395,000	-100.0%
August	22	0	-22	-100.0%	$ 8,198,300	$ 0	-8,198,300	-100.0%	371,000	0	-371,000	-100.0%
September	15	0	-15	-100.0%	$ 6,095,065	$ 0	-6,095,065	-100.0%	406,290	0	-406,290	-100.0%
October	7	0	-7	-100.0%	$ 2,584,000	$ 0	-2,584,000	-100.0%	350,000	0	-350,000	-100.0%
November	3	0	-3	-100.0%	$ 906,500	$ 0	-906,500	-100.0%	326,000	0	-326,000	-100.0%
December	6	0	-6	-100.0%	$ 2,517,500	$ 0	-2,517,500	-100.0%	448,000	0	-448,000	-100.0%
YTD Total	15	8	-7	-46.7%	$ 5,128,800	$ 3,307,900	-1,820,900	-35.5%	330,000	451,000	121,000	36.7%
Total	168	8	-160	-95.2%	$ 64,466,416	$ 3,307,900	-61,158,516	-94.9%	380,500	403,000	22,500	5.9%

	Number of New Listings				Dollar Volume of New Listings				Median List Price			
	2022	2023	Diff	Chg	2022	2023	Diff	Chg	2022	2023	Diff	Chg
January	16	12	-4	-25.0%	$ 6,035,150	$ 4,662,700	-1,372,450	-22.8%	349,000	370,000	21,000	6.0%
February	18	2	-16	-88.9%	$ 6,936,914	$ 911,500	-6,025,414	-86.9%	403,950	455,750	51,800	12.8%
March	14	0	-14	-100.0%	$ 5,352,450	$ 0	-5,352,450	-100.0%	369,825	0	-369,825	-100.0%
April	25	0	-25	-100.0%	$ 9,662,100	$ 0	-9,662,100	-100.0%	385,000	0	-385,000	-100.0%
May	20	0	-20	-100.0%	$ 7,339,399	$ 0	-7,339,399	-100.0%	367,000	0	-367,000	-100.0%
June	21	0	-21	-100.0%	$ 7,993,199	$ 0	-7,993,199	-100.0%	382,000	0	-382,000	-100.0%
July	22	0	-22	-100.0%	$ 8,265,970	$ 0	-8,265,970	-100.0%	357,500	0	-357,500	-100.0%
August	18	0	-18	-100.0%	$ 8,016,400	$ 0	-8,016,400	-100.0%	481,200	0	-481,200	-100.0%
September	8	0	-8	-100.0%	$ 3,111,915	$ 0	-3,111,915	-100.0%	388,708	0	-388,708	-100.0%
October	8	0	-8	-100.0%	$ 3,411,800	$ 0	-3,411,800	-100.0%	455,450	0	-455,450	-100.0%
November	7	0	-7	-100.0%	$ 2,828,900	$ 0	-2,828,900	-100.0%	427,500	0	-427,500	-100.0%
December	8	0	-8	-100.0%	$ 3,106,300	$ 0	-3,106,300	-100.0%	359,950	0	-359,950	-100.0%
YTD Total	19	14	-5	-26.3%	$ 7,078,867	$ 5,574,200	-1,504,667	-21.3%	384,999	388,750	3,751	1.0%
Total	185	14	-171	-92.4%	$ 72,060,497	$ 5,574,200	-66,486,297	-92.3%	384,999	388,750	3,751	1.0%

Residential CMA

N.C. (4)

Listings as of 02/03/23 at 2:11 PM

Property type Residential; Status of 'Active', 'Active New Construction','Contingency - Right of First Refusal'; Approx H/C SqFt between 2200 and 2600; New Construction of 'Yes'; High School of 'Germantown'; Elementary School of 'Mannsdale'.

Active Properties

#	MLS #	Prop Type	Address	City	Subdivision	Yr Blt	Beds	Full Bth	Half Bth	Approx H/C SqFt	List Price	List Price/SqFt	List Date	DOM	CDOM
1	4037504	Residential	111 Forestview Place	Madison	Thornberry	2023	4	3	0	2,444	$487,900	$199.63	01/19/2023	15	15
2	4027523	Residential	495 Crossvine Place	Madison	Thornberry	2022	4	3	0	2,444	$489,900	$200.45	08/29/2022	158	158
3	4032480	Residential	449 Crossvine Place Place	Madison	Thornberry	2022	4	3	0	2,459	$490,000	$199.27	10/30/2022	56	56
						Avg	4	3	0	2,449	$489,266.67	$199.78		76.33	76.33
			Total # of Listings: 3			Min	4	3	0	2,444	$487,900	$199.27		15	15
						Max	4	3	0	2,459	$490,000	$200.45		158	158
						Med	4	3	0	2,444	$489,900	$199.63		56	56

Active New Construction Properties

#	MLS #	Prop Type	Address	City	Subdivision	Yr Blt	Beds	Full Bth	Half Bth	Approx H/C SqFt	List Price	List Price/SqFt	List Date	DOM	CDOM
1	4026105	Residential	475 Crossvine Place	Madison	Thornberry	2022	4	3	0	2,556	$511,200	$200	08/12/2022		
						Avg	4	3	0	2,556	$511,200	$200			
			Total # of Listings: 1			Min	4	3	0	2,556	$511,200	$200			
						Max	4	3	0	2,556	$511,200	$200			
						Med	4	3	0	2,556	$511,200	$200			

Property Type Count 4 **Averages** **Sqft:** 2,476 **$/Sqft:** 199.84 **DOM/CDOM:** 76/76 **Original List Price:** 494,750 **List Price:** 494,750

* Price statistics for closed listings based on sold price. All other statuses and Totals based on current list price.

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Kiser Traffic and Engineering, LLC
P.O. Box 2441
Madison, MS 39130
601.720.0262

December 19, 2022

Mr. Ron McMaster, Jr., P.E.
McMaster & Associates, Inc.
212 Waterford Square, Suite 300
Madison, MS 39110

Re: Traffic Analysis for the proposed Retail/Residential development in Madison County, MS at the SE corner of MS Hwy 463/MS Hwy 22

Dear Ron:

Per your request, Kiser Traffic and Engineering has conducted an analysis of the proposed Mixed Use development in Madison County, MS. This letter is intended to provide traffic analysis information regarding the development of the ± 330 acre site on the east side of MS Hwy 463 and south side of MS Hwy 22. My understanding is that development of the project site includes:

Phase 1: Year 2025– 100 Single Family (R-2)/28 Townhouses/20 Estate Lots/100,000 SF Commercial-Retail
Phase 2: Year 2028 - 67 Single Family (R-2)/14 Estate Lots/100,000 SF Commercial-Retail

Access to the site is proposed to include two full access driveways on MS Hwy 22 and 3 full access driveways on MS Hwy 463. The location of the project site is shown in **Figure 1-Vicinity Map**. The project site plan is provided in **Figure 2-Site Plan**. The graphics referenced in this letter are provided as attachments.

Existing Conditions

A field inventory of the project site was conducted to document the existing conditions of the site and traffic control within the project limits. The primary roadways serving the project site are MS Hwy 463 and MS Hwy 22. Based on the Functional Classification System of the Jackson Urbanized Area, MS Hwy 463 and MS Hwy 22 are classified as Principal Arterial roadways adjacent to the site. MS Hwy 463 is primarily a north/south roadway connecting US Highway 51 to the southeast with MS Highway 22 to the north, a distance of ±10.1 miles.

MS Hwy 463 narrows from 5-lanes to 2-lanes west of Park Place Boulevard. Traffic signals and left turn lanes on MS Hwy 463 exist at Madison Middle School and Reunion Pkwy/Annandale. Left turn lanes are also provided on MS Hwy 463 at the Mannsdale Elementary School two entrance driveways north of Stribling Road. The posted speed limit is 55 mph on MS Hwy 463 adjacent to the project site. The cross section includes one-lane of traffic in each direction with 28 ft of asphalt.

MS Hwy 463 widens at the intersection of MS Hwy 22 to provide a northbound left turn and right turn lane. MS Hwy 463 terminates at MS Hwy 22. Rumble strips are in place for northbound traffic to help convey the need to stop at MS Hwy 22. The intersection of Hwy 463/Hwy 22 was recently overlaid from the east approach, extending east past the project site. The overlay included restriping MS Hwy 22 to include a dedicated westbound left turn lane. This widened section of MS Hwy 22 extends west of MS Hwy 463 to provide a dedicated westbound left turn lane at Livingston Church Road. The southeast and southwest turning radii have 2.5 ft roll curb/gutter.

Above: Looking north on MS Hwy 463 at MS Hwy 22 intersection.
Below: Looking south on MS Hwy 463 from MS Hwy 22 intersection.

MS Highway 22 extends west of US Highway 51 in Canton and terminates at Interstate 20 in Edwards. The cross section adjacent to the project site includes a single lane in each direction, with a total of 26 ft of asphalt. The posted speed limit is 55 mph adjacent to the project site. The recent overlay east of MS Hwy 463 includes rumble stripes along the pavement edge and reflective Raised Pavement Markers (RPM's). MS Hwy 22 widens to 38 ft at MS Hwy 463, providing a dedicated westbound left turn lane.

Above: MS Hwy 22 – Looking west at Livingston.
Below: Looking east on MS Hwy 463.

Above: Looking south on MS Hwy 463 at rumble strips and gated driveway to Livingston church.

Chestnut Hill subdivision is located west of MS Highway 463 and has a (gated) driveway located near the crest of the hill along MS Hwy 463, between two of the proposed site access driveways.

Above: Looking west from MS Hwy 22 at Chestnut Hill subdivision gates.

Two existing driveways for the property are planned to be used as future access for the site. One site driveway is proposed 620 ft south of Chestnut Hill, across from a utility cabinet. The driveway is gravel with a gate along the tree line.

Above: MS Hwy 463 looking north. Vehicle on right in existing gravel driveway. Vehicle on left at utility drive.

Another site driveway exists on MS Hwy 22, approximately 700 ft east of MS Hwy 463. The existing driveway is a gravel driveway on the south side of MS Hwy 22.

Above: MS Hwy 22 looking west at existing gravel drive/proposed site driveway.

Existing Traffic

A 12-hour turning movement traffic count was conducted on November 17, 2022, at the adjacent intersection of MS Hwy 463/MS Hwy 22. The existing peak hour traffic volumes adjacent to the site are shown in **Figure 3**. The detail of the traffic count is provided as an attachment to this report. The peak hours included:

AM Peak Hour	6:45-7:45 AM	660 vph
Mid-Day peak Hour	12:45-1:45 PM	528 vph
PM Peak Hour	4:30-5:30 PM	730 vph

Trip Generation/Assignment

The ±330 acres of property is planned to be developed with a combination of land uses in two phases, including:

Phase 1-Year 2025
Retail-100,000 SF
Single Family Homes-100 dwelling units
Residential Estates-20 dwelling units
Townhomes-28 dwelling units

Phase 2-Year 2028
Retail-100,000 SF
Single Family Homes-100 dwelling units
Residential Estates-20 dwelling units

The trip generation was evaluated using the *Institute of Transportation Engineers* (ITE's) Trip Generation, 10th Edition, for each of the proposed land uses. The results of the trip generation for each of these options are provided in **Table 1**.

Table 1-Trip Generation

Land Use	Intensity	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
Phase 1								
Single Family Homes	120 D.U.	1,230	90	23	67	121	76	45
Retail	100,000 S.F.	6,012	202	125	77	543	261	282
Multi-Family-Low Rise	28 D.U.	171	14	3	11	19	12	7
	Phase 1 **Total**	**7,413**	**306**	**151**	**155**	**683**	**349**	**334**
Phase 1+2 (Total)								
Single Family Homes	201 D.U.	1,976	148	37	111	199	125	74
Retail	200,000 S.F.	9,632	252	156	96	908	436	472
Multi-Family-Low Rise	28 D.U.	171	14	3	11	19	12	7
	Phase 1+2 Total	**11,779**	**414**	**196**	**218**	**1126**	**573**	**553**

Daily Traffic Generation	Retail	[ITE 820]	=	Ln(T) = 0.68*Ln(X)+5.57
	Multi-Family-Low Rise	[ITE 220]	=	T = 7.56 * # D.U.-40.86
	Single Family Homes	[ITE 210]	=	Ln(T) = 0.92*Ln(# D.U.)+2.71
AM Peak Hour Traffic Gen	Retail	[ITE 820]	=	T = 0.94*(X); (62%in/38%out)
	Multi-Family-Low Rise	[ITE 220]	=	Ln(T) = 0.95*Ln(# D.U.)-0.51 ; (23%in/77%out)
	Single Family Homes	[ITE 210]	=	T = 0.71 * # D.U. +4.8 ; (25%in/75%out)
PM Peak Hour Traffic Gen	Retail	[ITE 820]	=	Ln(T) = 0.74*Ln(X)+2.89 ; (48%in/52%out)
	Multi-Family-Low Rise	[ITE 220]	=	Ln(T) = 0.89*Ln(# D.U.)-0.02 ; (63%in/37%out)
	Single Family Homes	[ITE 210]	=	Ln(T) = 0.96*Ln(#D.U.)+0.20 ; (63%in/37%out)

Source: ITE Trip Generation, 10th Edition. Kiser Traffic and Engineering, 2022.

The trip generation calculations identify that the PM Peak hour is more than double the AM peak, primarily because of the Retail traffic. However, the average Pass-by trip percentage for Retail traffic is 34%. Pass by trips are trips that are already on the adjacent street and not new trips; however, pass-by trips do not reduce the driveway volumes, just the impacts to the adjacent street totals. The calculated trips from the site were assigned to the existing roadway network and are shown graphically in **Figures 4a-b**, for Phases 1 & 2, respectively. To remain conservative, no pass-by trip reductions were used in this analysis.

The buildout of the project site is planned to be completed in two phases, with buildout of Phase 1 in 2025 and Phase 2 in 2028. To forecast traffic to the horizon years (2025/2028), the census data for the City of Madison and Madison County were researched to compare the population changes since 1990. The historical population changes are listed in **Table 2**.

Table 2 - Historical Population Changes

Location	Population by Year				1990-2020 Percent Change	2010-2020 Compound Annual Growth
	1990	2000	2010	2020		
Madison, MS	7,954	18,802	24,169	27,764	250%	1.4%
Madison County	53,794	74,674	95,203	105,482	100%	1.1%

Source: US Census.gov, Kiser Traffic and Engineering, 2022.

The MDOT traffic counts on Highways 22 and 463 are listed in **Table 3** below. The volumes show a slight increase in traffic over the last decade.

Table 3 – Historical Daily Traffic Volumes by Year

Roadway	Count Year/Average Daily Volume			
	2012	2015	2018	2021
MS Hwy 22-West of Hwy 463	4,100	4,400	5,400	5,300
Roadway	2011	2014	2017	2021
MS Hwy 463-North of Stribling Road	3,200	3,500	4,600	4,800

Source: MDOT 2022. Count location #450330,#450910. Kiser Traffic and Engineering, 2022.

Based on MDOT's traffic records, the daily traffic volumes on MS Hwy 22 west of the site increased at a rate of 3% (compounded annually) over the last 9 years. Similarly, MS Hwy 463 increased at a rate of 4% (compounded annually) over the last 10 years. Existing traffic (non-site) on MS Hwy 463 and MS Hwy 22 was increased with a 4% compound annual growth rate to account for background growth in the area. The projected 2025/2028 Total Traffic for Phases 1 and 2 are shown in **Figures 5a** and **5b**. The intersection volume calculations are provided as an attachment to this letter/report.

Traffic Impacts

The intersection delays were evaluated using the information provided in the Highway Capacity Manual to evaluate the levels-of-service (LOS) for the study intersections. The LOS analysis included the existing (Year 2022) and future traffic (Year 2025/Year 2028-Total traffic at buildout for Phases 1 and 2). The intersections identified in this analysis include the adjacent intersection of MS Hwy 22/MS Hwy 463, the two proposed project site driveways on MS Hwy 22 and the three proposed driveways on MS Hwy 463. The capacity analysis sheets are provided as an attachment to this letter/report. The capacity analysis results are summarized in **Tables 4, 5a** and **5b.**

Table 4

2022 Existing Traffic - Capacity Analysis Summary

Unsignalized Intersections	Time Period	Critical Movement Level of Service											
		Eastbound			Westbound			Northbound			Southbound		
		Lt	Th	Rt	Lt	Th	Rt	Lt	Th	Rt	Lt	Th	Rt
MS Hwy 22/	AM Peak	-	-	-	A	-	-	C	-	A	-	-	-
MS Hwy 463	PM Peak	-	-	-	A	-	-	C	-	A	-	-	-

Source: Kiser Traffic and Engineering, 2022, HCM 6th Edition.

Table 5a

2025 Total Traffic – Phase 1 - Capacity Analysis Summary

Unsignalized Intersections	Time Period	Critical Movement Level of Service											
		Eastbound			Westbound			Northbound			Southbound		
		Lt	Th	Rt	Lt	Th	Rt	Lt	Th	Rt	Lt	Th	Rt
MS Hwy 22/	AM Peak	-	-	-	A	-	-	C	-	A	-	-	-
MS Hwy 463	PM Peak	-	-	-	A	-	-	C	-	B	-	-	-
MS Hwy 22/	AM Peak	-	-	-	A	-	-	B	-	A	-	-	-
West Site Drive	PM Peak	-	-	-	A	-	-	B	-	A	-	-	-
MS Hwy 22/	AM Peak	-	-	-	A	-	-	B	-	A	-	-	-
East Site Drive	PM Peak	-	-	-	A	-	-	B	-	A	-	-	-
MS Hwy 463/	AM Peak	-	-	-	B	-	A	-	-	-	A	-	-
Retail Site Drive	PM Peak	-	-	-	C	-	B	-	-	-	A	-	-
MS Hwy 463/	AM Peak	-	-	-	B	-	B	-	-	-	A	-	-
Middle Site Drive	PM Peak	-	-	-	C	-	C	-	-	-	A	-	-
MS Hwy 463/	AM Peak	-	-	-	B	-	B	-	-	-	A	-	-
South Site Drive	PM Peak	-	-	-	C	-	C	-	-	-	A	-	-

Source: Kiser Traffic and Engineering, 2022, HCM 6th Edition.

Each of the study intersections is forecast to operate at acceptable levels at the buildout of Phase 1 (2025) based on the calculated delays from the traffic counts and calculated trip generation of the project site.

Table 5b-2028 Total Traffic – Phase 2 - Capacity Analysis Summary

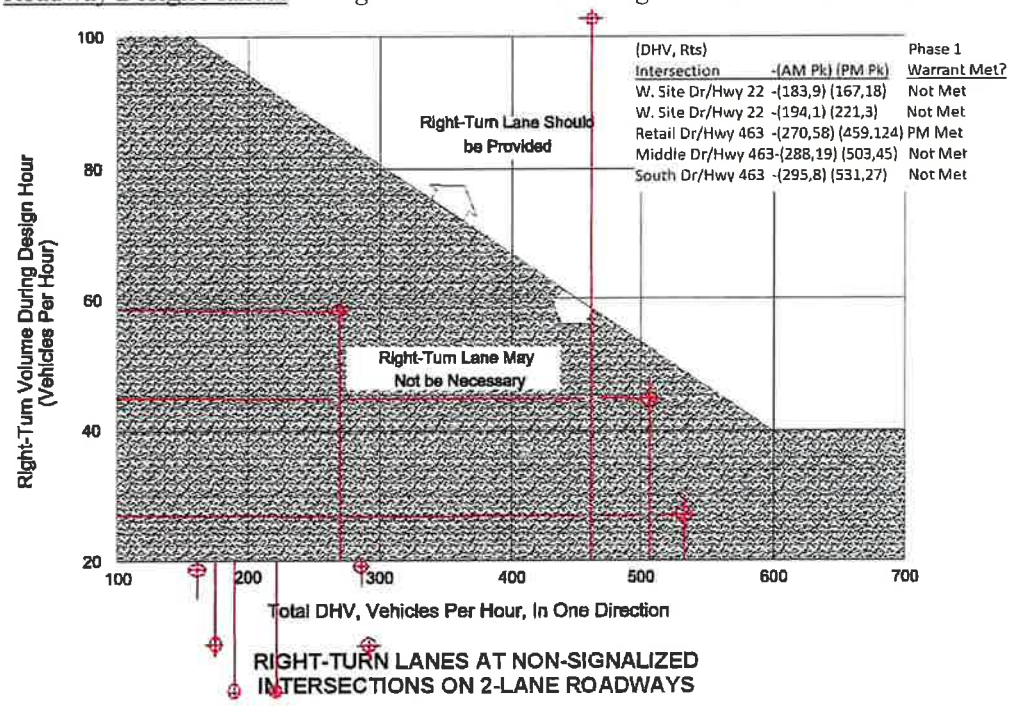
Unsignalized Intersections	Time Period	Critical Movement Level of Service											
		Eastbound			Westbound			Northbound			Southbound		
		Lt	Th	Rt	Lt	Th	Rt	Lt	Th	Rt	Lt	Th	Rt
MS Hwy 22/	AM Peak	-	-	-	A	-	-	C	-	B	-	-	-
MS Hwy 463	PM Peak	-	-	-	A	-	-	**E**	-	B	-	-	-
MS Hwy 22/	AM Peak	-	-	-	A	-	-	B	-	A	-	-	-
West Site Drive	PM Peak	-	-	-	A	-	-	B	-	B	-	-	-
MS Hwy 22/	AM Peak	-	-	-	A	-	-	B	-	A	-	-	-
East Site Drive	PM Peak	-	-	-	A	-	-	C	-	B	-	-	-
MS Hwy 463/	AM Peak	-	-	-	B	-	A	-	-	-	A	-	-
Retail Site Drive	PM Peak	-	-	-	D	-	B	-	-	-	A	-	-
MS Hwy 463/	AM Peak	-	-	-	C	-	C	-	-	-	A	-	-
Middle Site Drive	PM Peak	-	-	-	**E**	-	**E**	-	-	-	A	-	-
MS Hwy 463/	AM Peak	-	-	-	C	-	C	-	-	-	A	-	-
South Site Drive	PM Peak	-	-	-	D	-	D	-	-	-	A	-	-

Source: Kiser Traffic and Engineering, 2022, HCM 6th Edition.

The Phase 2 projected traffic volumes reveal some minor street delays at the Hwy 463/Middle Site Drive and for the northbound left turn from Hwy 463 to Hwy 22 westbound.

Auxiliary Turn Lane Warrants

The need for auxiliary right turn lanes at site driveways along MS Hwy 22 and MS Hwy 463 were evaluated. The MDOT Roadway Design Manual includes graphs for determining if auxiliary right turn lanes are justified. The right turn lane criteria are based on the right turning volume and the total volume advancing. The phase 1 and phase 2 traffic volumes were evaluated using based on the base year volumes from the traffic count, along with the calculated trip generation traffic volumes, and the turn lane graphs. The volumes were plotted on the graphic provided in the Roadway Design Manual for *Right Turn Lanes at Non-Signalized Intersections on 2-lane Roadways*.



Source: MDOT, Kiser Traffic and Engineering, 2022.

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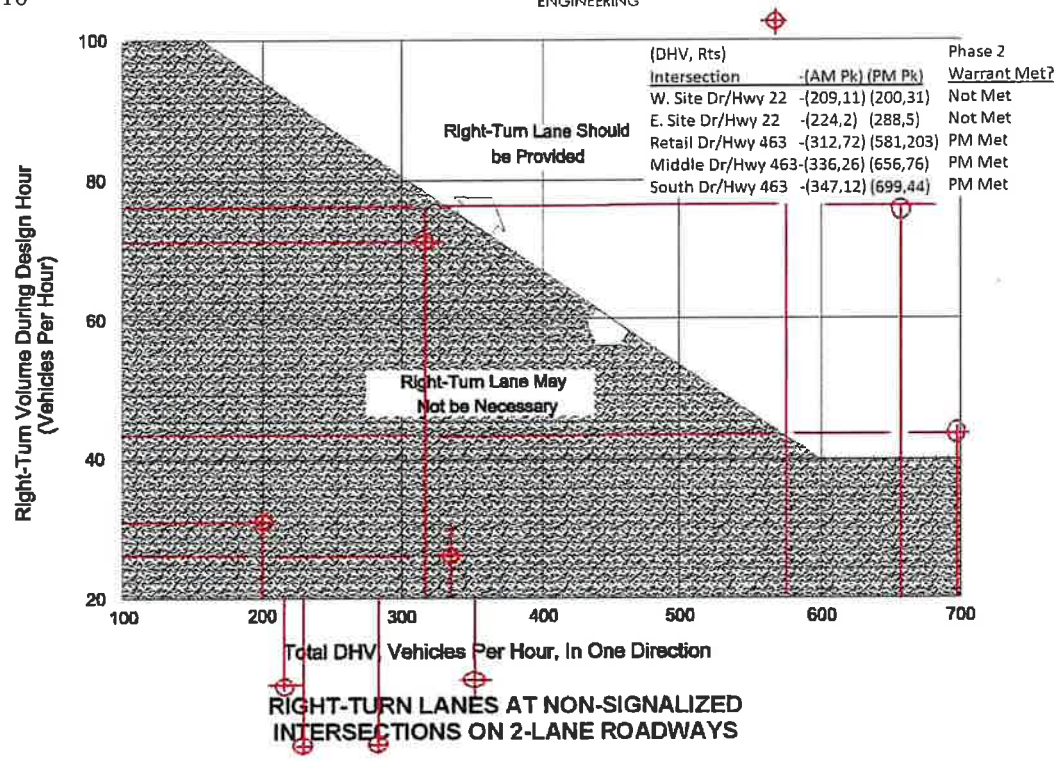
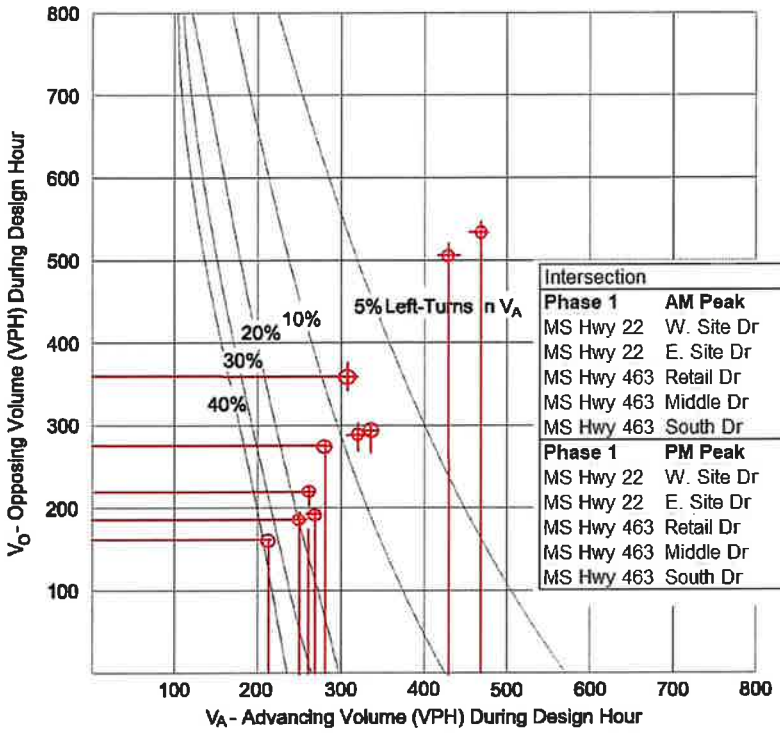


Source: MDOT, Kiser Traffic and Engineering, 2022.

The analysis of the projected traffic volumes reveals that a right turn lane is warranted on MS Hwy 463 at the proposed Retail site driveway in Phase 1 (PM Peak). Phase 2 charts identify that additional right turn lanes are anticipated to be warranted on MS Hwy 463 at the Middle and South site driveways, based on the 2028 PM Peak hour volumes.

Left turn lane warrants were evaluated for Phase 1 and Phase 2 horizon years at each of the proposed site driveways. The left turn lane warrants are based on plotting the *Volume Advancing (Va)* and *Volume Opposing (Vo)* on the graphic and identifying the location of the plotted point in relation to the *Percentage of Left Turns (%)* in the Volume Advancing. If the calculated percentage of left turns is greater than the value of the plotted percentage, the left turn lane threshold is met.

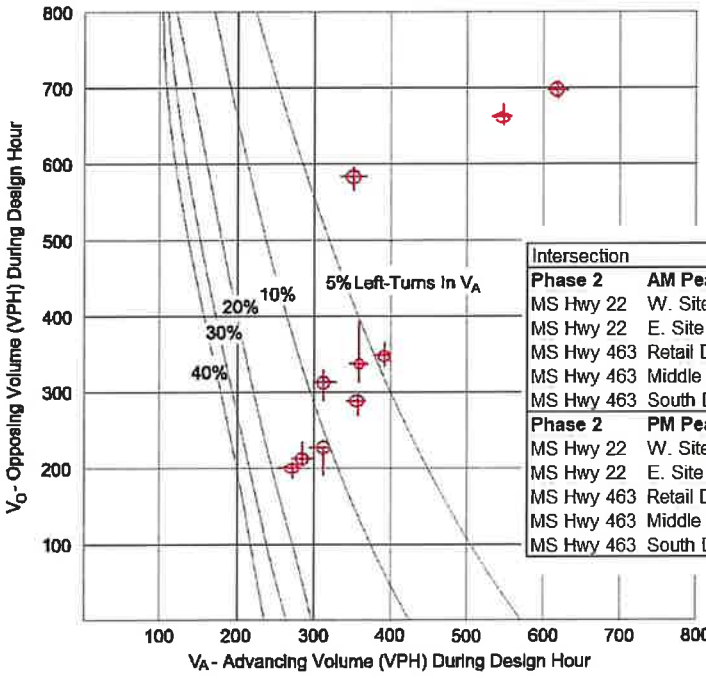


V_A = Total advancing traffic volume including all turning traffic

V_O = Total opposing traffic volume including all turning traffic

Intersection		Va	Vo	%	Met?
Phase 1	**AM Peak**				
MS Hwy 22	W. Site Dr	250	183	12.4%	Not Met
MS Hwy 22	E. Site Dr	269	194	8.2%	Not Met
MS Hwy 463	Retail Dr	277	270	1.4%	Not Met
MS Hwy 463	Middle Dr	315	288	0%	Not Met
MS Hwy 463	South Dr	339	295	0%	Not Met
Phase 1	**PM Peak**				
MS Hwy 22	W. Site Dr	211	167	31.7%	**Not Met**
MS Hwy 22	E. Site Dr	262	221	20.2%	Not Met
MS Hwy 463	Retail Dr	306	359	2.6%	Not Met
MS Hwy 463	Middle Dr	429	503	0.2%	Not Met
MS Hwy 463	South Dr	468	531	0.2%	Not Met

LEFT-TURN LANES AT NON-SIGNALIZED INTERSECTIONS ON 2-LANE ROADWAYS (55 mph – 60 mph)



V_A = Total advancing traffic volume including all turning traffic

V_O = Total opposing traffic volume including all turning traffic

Intersection		Va	Vo	%	Met?
Phase 2	**AM Peak**				
MS Hwy 22	W. Site Dr	288	209	13.5%	**Not Met**
MS Hwy 22	E. Site Dr	312	224	9.3%	Not Met
MS Hwy 463	Retail Dr	313	312	1.6%	Not Met
MS Hwy 463	Middle Dr	358	336	0%	Not Met
MS Hwy 463	South Dr	396	347	0.3%	Not Met
Phase 2	**PM Peak**				
MS Hwy 22	W. Site Dr	274	200	40.5%	**Met**
MS Hwy 22	E. Site Dr	358	288	24.3%	**Met**
MS Hwy 463	Retail Dr	349	581	3.7%	Not Met
MS Hwy 463	Middle Dr	552	656	0.2%	Not Met
MS Hwy 463	South Dr	617	699	0.3%	Not Met

The plotted points identify that in Phase 1, while no left turn lane warrants are met, the West Site Drive at MS Hwy 22 is forecast to be close to being met in the PM Peak hour (2025). Phase 2 volumes push this warrant to be met by 2028 in the PM peak hour. The proposed East Site Drive at Hwy 22 is also shown to meet left turn lane warrants by Phase 2 buildout (2028).

Sight Distance

There are horizontal and vertical curves at each proposed site driveway, that affect the available sight distance. Intersection sight distance for a major road driver to identify a vehicle entering the roadway is measured from a driver's eye height of 3.5 ft. The height of object is 4.35 ft, with the top 10 inches of the automobile that would need to be visible for the object to be identified as a vehicle. The sight distance criteria is intended for a major road vehicle identifying an entering/crossing vehicle to allow reciprocal sight distance, allowing each driver to see the other driver, a sight distance of 3.5 ft to 3.5 ft was evaluated. The 85th percentile speed is typically 5-10 mph above the posted speed limit. The Stopping Sight Distance requirements and Intersection Sight Distance (desirable distances) outlined in the AASHTO's A Policy on Geometric Design of Highways and Streets for these speeds are shown in **Table 6**.

Table 6 - Stopping Sight Distance

Design Speed (mph)	Stopping Sight Distance (ft)	Intersection Sight Distance (ft)
45	360	500
50	425	555
55	495	610
60	570	665
65	645	720

Note: SSD is for passenger cars on grades 3% or less.

Source: AASHTO, A Policy on Geometric Design of Highway and Streets, 7th Edition, 2018.

The measurements were taken from a driver's eye height of 3.5 ft to a height of object of 3.5 ft. The vertex of the departure sight triangle on the minor road should be measured from a distance of 14.5 ft from the edge of travelled way of the major road. The horizontal curves appear to limit the sight distance more than the vertical curves on MS Highway 463 at the proposed site driveways. The Intersection Sight Distance is a desirable condition, while Stopping Sight Distance is a mandatory condition.

MS Hwy 22/West Site Drive

The West Site Drive on MS Hwy 22 is proposed ±700 ft east of MS Hwy 463. An existing gravel driveway extends south of MS Hwy 22 where the future access is proposed. The adjacent property is higher than MS Hwy 22 at this proposed West Site Driveway. The horizontal curve to the west at MS Hwy 463 and tree line limit the sight distance to the west to ±900 ft. The visibility to the east is slightly impacted by the vertical curve; however, the final grade of the site driveway will dictate the impact of the vertical curve. The line of sight allows (in excess of) 900 ft; however, the final grade is recommended to be measured with the vertical curve to ensure that (at a minimum) Stopping Sight Distance requirements are met.

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Above: Sight Distance to the West along MS Hwy 22 from West Site Drive
Below: Sight Distance to the East along MS Hwy 22 from West Site Drive (car visible on vertical curve)

MS Hwy 22/East Site Drive

The East Site Drive is located ±845 ft east of the West Site Drive on MS Hwy 22, at the beginning of a slight horizontal curve east of the site. The adjacent property south of the highway is lower than the grade of MS Hwy 22. The grade of the proposed site driveway is recommended to be raised to improve sight distance. With the site driveway raised to at/near the grade of MS Hwy 22, the sight distance to the left and right is (in excess of) ±900 ft. (Top photo-Looking east from proposed site drive. Bottom photo-Looking west).

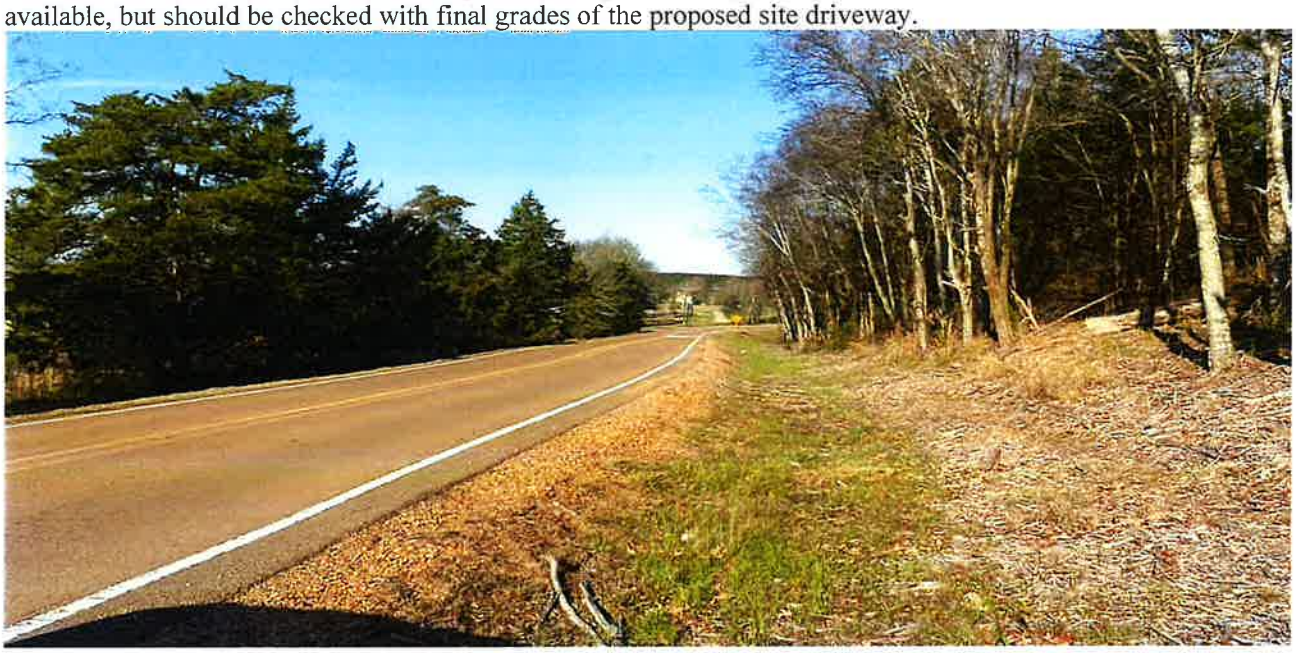
MS Hwy 463/Retail Site Drive

The north site driveway proposed on MS Hwy 463 is planned to be ±700 ft north of MS Highway 22. The adjacent property drops off significantly in elevation at this proposed driveway. The W3-1 "Stop Ahead" Warning sign is within the sight triangle and recommended to be relocated concurrent with the driveway construction. The visibility to the left is limited by the horizontal curve and tree line to ±780 ft. The vertical curve is approximately -5%. The sight distance to the right is ±650 ft. SSD for -5% is 625 ft to the left and for +5% is 525 ft to the right for 60 mph design speed. Sufficient sight distance is anticipated to be available, but should be checked with final grades of the proposed site driveway.

Above: Looking south on MS Hwy 463 from proposed Retail Site Drive.
Below: Looking north on MS Hwy 463 from proposed Retail Site Drive toward MS Hwy 22.

MS Hwy 463/Middle Site Drive

The Middle Site Drive proposed on MS Hwy 463 is anticipated to provide access to the Estate Lots, Townhomes, Retail and single family residential units. This Middle Site Drive is proposed ±640 ft south of the Retail site drive and ±1,390 ft north of Chestnut Hill's driveway. Visibility to the south is restricted by a horizontal and vertical curve to ±780 ft, while sight distance to the north is limited by a horizontal curve to ±900 ft. SSD for -6% is 640 ft to the left and for +6% is 515 ft to the right for 60 mph design speed. Sufficient sight distance is anticipated to be available, but should be checked with final grades of the proposed site driveway.



Above: Looking north on MS Hwy 463 from proposed Site Drive toward MS Hwy 22.
Below: Looking south on MS Hwy 463 from proposed Site Drive.

MS Hwy 463/South Site Drive

The South Site Drive proposed on MS Hwy 463 is anticipated to provide access to Estate Lots and Single Family lots. The South Site Drive is proposed to be 620 ft south of Chestnut Hill. Sight distance to the right (toward Chestnut Hill) is limited by the horizontal curve to ±845 ft. Sight distance to the left is limited by the horizontal curve and tree line to ±620 ft. The grade on MS Hwy 463 to Chestnut Hill is less than 3%, while the grade to the south is ±4%. SSD to the right would be 570 ft and to the left would be 530 ft for a 60 mph design speed. Sight distance to the left could be improved with removal of trees from the inside radius of the curve.

Above: Looking north along MS Hwy 463 toward Chestnut Hill driveway.
Below: Looking south on MS Hwy 463 from proposed South Site Drive.

Each of the proposed site driveways is anticipated to meet Stopping Sight Distance requirements based on the existing grades and proposed driveway locations. Final grades of driveways are recommended to be checked to confirm that Stopping Sight Distance requirements are met.

Driveway Spacing/Corner Clearance

The MDOT Access Management Manual identifies that commercial driveways on facilities with posted speed limits greater than or equal to 50 mph should be spaced no closer than 425 ft and corner clearance should be 125 ft minimum. Each site access point exceeds these minimum criteria for access and corner clearance.

Signal Warrant Analysis

The Manual on Uniform Traffic Control Devices (MUTCD) outlines the factors for justifying installation of a traffic control signal. Three of the 9 warrants are vehicular volume based warrants: 1) eight-hour vehicular volume, 2) four-hour vehicular volume and 3) peak hour vehicular volume. The MUTCD states that a traffic control signal should not be installed unless one or more of the warrants are met. Warrant #1, the eight-hour warrant, is intended for application at locations where a large volume of intersecting traffic is the principal reason to consider installing a traffic control signal. Warrant #2, the four-hour warrant, is intended where the volume of the intersecting traffic is the principal reason to consider installing a traffic control signal. Warrant #3, the peak-hour signal warrant is intended for use at a location where traffic conditions are such that for a minimum of 1 hour of an average day, the minor-street traffic suffers undue delay when entering or crossing the major street. The three vehicular volume based warrants were evaluated at the two study intersections on MS Hwy 463 where the minor street delays were forecast to be LOS E in the buildout (2028) condition.

MS Hwy 22 is the east/west major street movement with a posted speed limit of 55 mph and 38 ft of asphalt on the east, west and south approaches. The hourly traffic volumes were compared to the MUTCD threshold volumes for Condition A – Minimum Vehicular Volume and for Condition B-Interruption of Continuous Traffic in Warrant 1, as well as the volume Warrants in #2 and #3. The detail of the hourly volumes and warrant analysis are provided in **Table 7a** for Existing traffic and **Tables 7b/7c** for Year 2028 Total Traffic. The traffic calculation sheets are provided as an attachment to this letter.

Table 7a-MS Hwy 463/MS Hwy 22
Year 2022 -Existing Traffic - Signal Warrant Analysis

Start	Approach						Warrant 1A		Warrant 1B		Warrant #2	Warrant #3
Time	EB	WB	EB+ WB	NB Lt	NB Rt	NB Total	Major-350	Minor-105	Major-525	Minor-53	Four Hour	Peak Hour
06:00 AM	241	129	370	116	18	134	Yes	Yes	-	Yes	-	-
07:00 AM	251	160	411	140	41	181	Yes	Yes	-	Yes	-	-
08:00 AM	226	99	325	116	30	146	-	Yes	-	Yes	-	-
09:00 AM	190	85	275	124	28	152	-	Yes	-	Yes	-	-
10:00 AM	187	95	282	115	27	142	-	Yes	-	Yes	-	-
11:00 AM	218	87	305	123	35	158	-	Yes	-	Yes	-	-
12:00 PM	211	93	304	156	30	186	-	Yes	-	Yes	-	-
01:00 PM	199	115	314	175	33	208	-	Yes	-	Yes	-	-
02:00 PM	208	97	305	181	42	223	-	Yes	-	Yes	-	-
03:00 PM	229	119	348	235	49	284	-	Yes	-	Yes	Yes	-
04:00 PM	301	141	442	252	35	287	Yes	Yes	-	Yes	Yes	Yes
05:00 PM	286	109	395	265	50	315	Yes	Yes	-	Yes	Yes	-
Subtotal	2,747	1,329	4,076	1,998	418	2,416	4	12	0	12	3	1
Count date: 11/17/22					Warrant Met?		No		No		No	Yes

Source: Kiser Traffic and Engineering, 2022.
Volumes are in vehicles per hour.

The peak hour volume warrant is met with existing traffic volumes, excluding the minor street right turns.

KISER TRAFFIC AND ENGINEERING

Table 7b-MS Hwy 463/MS Hwy 22
Year 2028 -Total Traffic - Signal Warrant Analysis

Start	Approach						Warrant 1A		Warrant 1B		Warrant #2	Warrant #3
Time	EB	WB	EB+ WB	NB Lt	NB Rt	NB Total	Major-350	Minor-105	Major-525	Minor-53	Four Hour	Peak Hour
06:00 AM	311	167	478	149	23	172	Yes	Yes	-	Yes	Yes	-
07:00 AM	330	215	545	181	54	235	Yes	Yes	Yes	Yes	Yes	-
08:00 AM	304	138	442	151	40	191	Yes	Yes	-	Yes	Yes	-
09:00 AM	269	118	387	161	36	197	Yes	Yes	-	Yes	-	-
10:00 AM	273	136	409	153	35	188	Yes	Yes	-	Yes	-	-
11:00 AM	320	134	454	166	45	211	Yes	Yes	-	Yes	Yes	-
12:00 PM	317	148	465	209	39	248	Yes	Yes	-	Yes	Yes	-
01:00 PM	295	175	470	233	43	276	Yes	Yes	-	Yes	Yes	Yes
02:00 PM	304	152	456	241	54	295	Yes	Yes	-	Yes	Yes	Yes
03:00 PM	331	181	512	309	63	372	Yes	Yes	-	Yes	Yes	Yes
04:00 PM	423	214	637	334	45	379	Yes	Yes	Yes	Yes	Yes	Yes
05:00 PM	412	176	588	350	64	414	Yes	Yes	Yes	Yes	Yes	Yes
Subtotal	3,889	1,954	5,843	2,637	541	3,178	12	12	3	12	10	5
Count date: 11/17/22					Warrant Met?		Yes		No		Yes	Yes

Source: Kiser Traffic and Engineering, 2022.
Volumes are in vehicles per hour.

With the addition of background growth and project site traffic volumes, each of the 3 vehicular volume based warrants are forecast to be met by Buildout-Year 2028 at the MS Hwy 463/MS Hwy 22 intersection.

Table 7c-MS Hwy 463/Middle Site Drive
Year 2028 -Total Traffic - Signal Warrant Analysis

Start	Approach						Warrant 1A		Warrant 1B		Warrant #2	Warrant #3
Time	NB	SB	NB+ SB	WB Lt	WB Rt	WB Total	Major-350	Minor-105	Major-525	Minor-53	Four Hour	Peak Hour
06:00 AM	201	283	484	7	0	7	Yes	-	-	-	-	-
07:00 AM	299	297	596	38	2	40	Yes	-	Yes	-	-	-
08:00 AM	284	297	581	38	2	40	Yes	-	Yes	-	-	-
09:00 AM	354	264	618	28	1	29	Yes	-	Yes	-	-	-
10:00 AM	382	318	700	29	1	30	Yes	-	Yes	-	-	-
11:00 AM	446	389	835	42	1	43	Yes	-	Yes	-	-	-
12:00 PM	518	396	914	55	1	56	Yes	-	Yes	Yes	-	-
01:00 PM	505	395	900	49	1	50	Yes	-	Yes	-	-	-
02:00 PM	508	391	899	48	1	49	Yes	-	Yes	-	-	-
03:00 PM	589	432	1,021	51	1	52	Yes	-	Yes	-	-	-
04:00 PM	606	551	1,157	63	1	64	Yes	-	Yes	Yes	Yes	-
05:00 PM	668	513	1,181	64	1	65	Yes	-	Yes	Yes	Yes	-
Subtotal	5,360	4,526	9,886	512	13	525	12	0	11	3	2	0
Count date: 11/17/22					Warrant Met?		No		No		No	No

Source: Kiser Traffic and Engineering, 2022.
Volumes are in vehicles per hour.

None of the vehicular volume based signal warrants are forecast to met at the Middle Site Drive/Hwy 463 intersection.

Recommendations

No major street capacity related issues are anticipated with the development of the project site with 200,000 SF of Retail, 28 Townhouses, 167 single family homes, and 34 Estate homes, based on the traffic count and calculated site trip generation. An analysis of the auxiliary turn lane warrants from MDOT revealed that a right turn lane is anticipated to be warranted on MS Hwy 463 at the proposed Retail site driveway in Phase 1 (PM Peak). Phase 2 charts identify that additional right turn lanes are anticipated to be warranted on MS Hwy 463 at the Middle and South site driveways, based on the 2028 PM Peak hour volumes. No left turn lanes were calculated to be warranted in Phase 1; however, Phase 2 volumes are anticipated to meet the left turn lane warrants at the East and West site driveways on MS Hwy 22.

The signal warrant analysis identified that the existing (2022) traffic meets the peak hour signal warrant at the MS Hwy 463/MS Hwy 22 intersection, without the development of the project site. The Year 2028 signal warrant analysis is shown to meet all 3 of the vehicular volume based warrants at buildout.

While the Middle Site Driveway on MS Hwy 463 was shown to have LOS F for westbound traffic in the peak hours, the warrant analysis was not shown to meet any of the vehicular volume based warrants. A traffic signal is not recommended at the Middle Site Drive intersection with MS Hwy 463.

Driveway spacing and corner clearance requirements are met for each proposed site driveway. Final grades for driveways are recommended to confirm that sufficient Stopping Sight Distances are provided. The recommended improvements are shown in **Figures 6a-b**. If you have any questions or comments regarding this analysis, please call me at (601) 720-0262.

Sincerely,

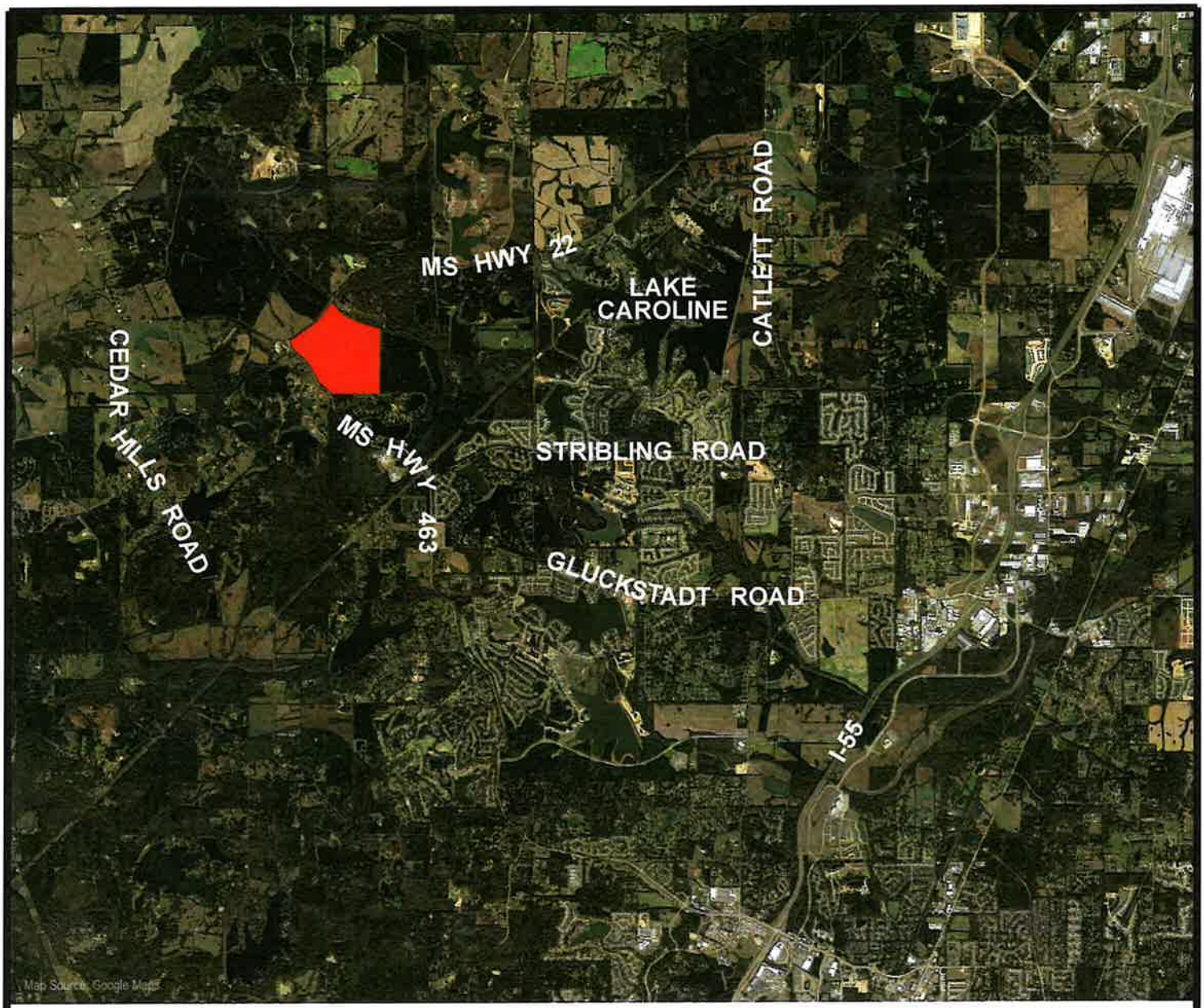
Kiser Traffic and Engineering, LLC

Jonathan A. Kiser, P.E., PTOE, PTP
Professional Traffic Engineer &
Transportation Planner

Attachments:
Figure 1 – Vicinity Map
Figure 2 – Site Plan
Figure 3 – Year 2022 Existing Traffic
Figure 4a/b – Phase 1/2 Year 2025/2028 Site Traffic Assignment
Figure 5a/b – Phase 1/2 Year 2025/2028 Total Traffic
Figure 6a/b – Recommended Improvements

Appendix

Volume Calculation Sheets	(A1-6)
Signal Warrant Volume Calculation Tables	(A7-9)
Traffic count – MS Hwy 463/MS Hwy 22	(A10-15)
HCM Capacity Analysis Sheets	(B1-26)
2022 Existing AM/PM	(B1-2)
2025 Phase 1 - Total Traffic-AM/PM	(B3-14)
2028 Phase 2 - Total Traffic-AM/PM	(B15-26)



MADISON COUNTY

Project Location

N.T.S.

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VICINITY MAP

FIGURE 1

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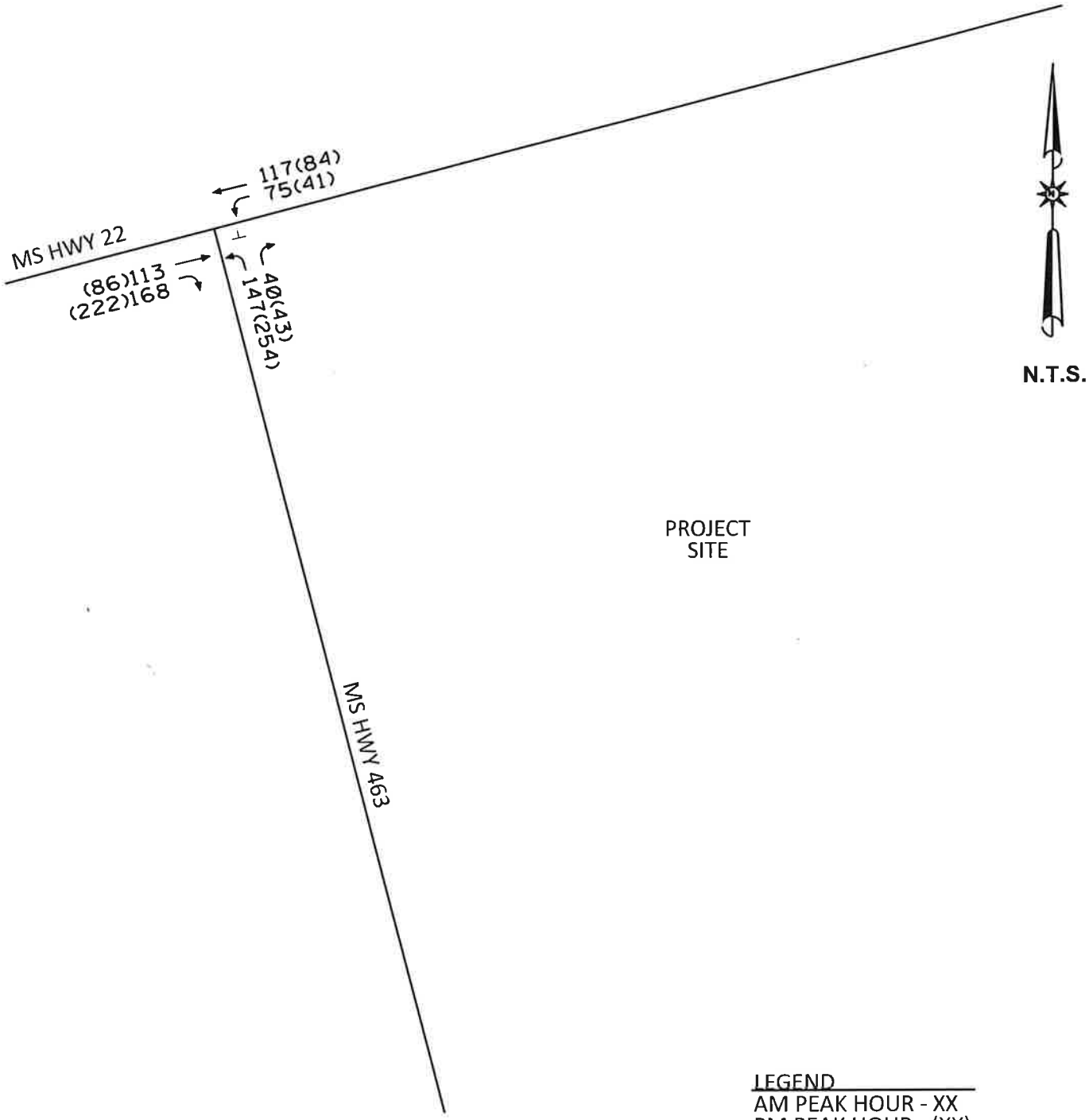

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YEAR 2022 EXISTING TRAFFIC

FIGURE
3

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MS Hwy 22/MS Hwy 463

Seasonal Adjustment Factor	1
Annual Growth Factor	4.0%
Base Year	2022
Horizon Year 1	2025
Horizon Year 2	2028

Start Time	Northbound			Southbound			Eastbound			Westbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
AM Peak Hour													
2022 Existing Traffic	147	0	40	0	0	0	0	113	168	75	117	0	660
2025 Non-Site Traffic	165	0	45	0	0	0	0	127	189	84	132	0	742
2028 Non-Site Traffic	186	0	51	0	0	0	0	143	213	95	148	0	836
Site Traffic-Phase 1 Single Family	0	0	0	0	0	0	0	1	0	0	3	0	4
Site Traffic-Phase 1 Retail	2	0	0	0	0	0	0	9	4	0	5	0	20
Site Traffic-Phase 1 Estates	1	0	1	0	0	0	0	0	0	0	0	0	2
Site Traffic-Phase 1 Multi-Family	0	0	0	0	0	0	0	0	0	0	0	0	0
Site Traffic-Phase 1 Subtotal	3	0	1	0	0	0	0	10	4	0	8	0	26
2025 Total Traffic	168	0	46	0	0	0	0	137	193	84	140	0	768
Site Traffic-Phase 2 Single Family	0	0	0	0	0	0	0	2	0	0	5	0	7
Site Traffic-Phase 2 Retail	3	0	0	0	0	0	0	11	5	0	7	0	26
Site Traffic-Phase 2 Estates	1	0	2	0	0	0	0	0	0	1	0	0	4
Site Traffic-Phase 2 Multi-Family	0	0	0	0	0	0	0	0	0	0	0	0	0
Site Traffic-Phase 2 Subtotal	4	0	2	0	0	0	0	13	5	1	12	0	37
2028 Total Traffic	190	0	53	0	0	0	0	156	218	96	160	0	873
PM Peak Hour													
2022 Existing Traffic	254	0	43	0	0	0	0	86	222	41	84	0	730
2025 Non-Site Traffic	286	0	48	0	0	0	0	97	250	46	94	0	821
2028 Non-Site Traffic	321	0	54	0	0	0	0	109	281	52	106	0	923
Site Traffic-Phase 1 Single Family	0	0	0	0	0	0	0	3	0	0	2	0	5
Site Traffic-Phase 1 Retail	8	0	0	0	0	0	0	18	8	0	20	0	54
Site Traffic-Phase 1 Estates	0	0	1	0	0	0	0	0	1	1	0	0	3
Site Traffic-Phase 1 Multi-Family	0	0	0	0	0	0	0	0	0	0	0	0	0
Site Traffic-Phase 1 Subtotal	8	0	1	0	0	0	0	21	9	1	22	0	62
2025 Total Traffic	294	0	49	0	0	0	0	118	259	47	116	0	883
Site Traffic-Phase 2 Single Family	0	0	0	0	0	0	0	5	0	0	3	0	8
Site Traffic-Phase 2 Retail	14	0	0	0	0	0	0	31	13	0	33	0	91
Site Traffic-Phase 2 Estates	1	0	1	0	0	0	0	0	1	2	0	0	5
Site Traffic-Phase 2 Multi-Family	0	0	0	0	0	0	0	0	0	0	0	0	0
Site Traffic-Phase 2 Subtotal	15	0	1	0	0	0	0	36	14	2	36	0	104
2028 Total Traffic	336	0	55	0	0	0	0	145	295	54	142	0	1,027

Source: Kiser Traffic and Engineering, 2022. Count Date 11/17/2022

MS Hwy 22/West Site Drive

Seasonal Adjustment Factor	1
Annual Growth Factor	4.0%
Base Year	2022
Horizon Year 1	2025
Horizon Year 2	2028

Start Time	Northbound			Southbound			Eastbound			Westbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
AM Peak Hour													
2022 Existing Traffic	0	0	0	0	0	0	0	153	0	0	192	0	345
2025 Non-Site Traffic	0	0	0	0	0	0	0	172	0	0	216	0	388
2028 Non-Site Traffic	0	0	0	0	0	0	0	194	0	0	243	0	437
Site Traffic-Phase 1 Single Family	0	0	0	0	0	0	0	1	0	0	3	0	4
Site Traffic-Phase 1 Retail	5	0	19	0	0	0	0	0	9	31	0	0	64
Site Traffic-Phase 1 Estates	0	0	0	0	0	0	0	1	0	0	0	0	1
Site Traffic-Phase 1 Multi-Family	0	0	2	0	0	0	0	0	0	0	0	0	2
Site Traffic-Phase 1 Subtotal	5	0	21	0	0	0	0	2	9	31	3	0	71
2025 Total Traffic	5	0	21	0	0	0	0	174	9	31	219	0	459
Site Traffic-Phase 2 Single Family	0	0	0	0	0	0	0	2	0	0	5	0	7
Site Traffic-Phase 2 Retail	7	0	24	0	0	0	0	0	11	39	0	0	81
Site Traffic-Phase 2 Estates	0	0	0	0	0	0	0	2	0	0	1	0	3
Site Traffic-Phase 2 Multi-Family	0	0	2	0	0	0	0	0	0	0	0	0	2
Site Traffic-Phase 2 Subtotal	7	0	26	0	0	0	0	4	11	39	6	0	93
2028 Total Traffic	7	0	26	0	0	0	0	198	11	39	249	0	530
PM Peak Hour													
2022 Existing Traffic	0	0	0	0	0	0	0	129	0	0	125	0	254
2025 Non-Site Traffic	0	0	0	0	0	0	0	145	0	0	141	0	286
2028 Non-Site Traffic	0	0	0	0	0	0	0	163	0	0	158	0	321
Site Traffic-Phase 1 Single Family	0	0	0	0	0	0	0	3	0	0	2	0	5
Site Traffic-Phase 1 Retail	20	0	71	0	0	0	0	0	18	65	0	0	174
Site Traffic-Phase 1 Estates	0	0	0	0	0	0	0	1	0	0	1	0	2
Site Traffic-Phase 1 Multi-Family	0	0	1	0	0	0	0	0	0	2	0	0	3
Site Traffic-Phase 1 Subtotal	20	0	72	0	0	0	0	4	18	67	3	0	184
2025 Total Traffic	20	0	72	0	0	0	0	149	18	67	144	0	470
Site Traffic-Phase 2 Single Family	0	0	0	0	0	0	0	5	0	0	3	0	8
Site Traffic-Phase 2 Retail	33	0	118	0	0	0	0	0	31	109	0	0	291
Site Traffic-Phase 2 Estates	0	0	0	0	0	0	0	1	0	0	2	0	3
Site Traffic-Phase 2 Multi-Family	0	0	1	0	0	0	0	0	0	2	0	0	3
Site Traffic-Phase 2 Subtotal	33	0	119	0	0	0	0	6	31	111	5	0	305
2028 Total Traffic	33	0	119	0	0	0	0	169	31	111	163	0	626

Source: Kiser Traffic and Engineering, 2022. Count Date 11/17/2022

MS Hwy 22/East Site Drive

Seasonal Adjustment Factor	1
Annual Growth Factor	4.0%
Base Year	2022
Horizon Year 1	2025
Horizon Year 2	2028

Start Time	Northbound			Southbound			Eastbound			Westbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
AM Peak Hour													
2022 Existing Traffic	0	0	0	0	0	0	0	153	0	0	192	0	345
2025 Non-Site Traffic	0	0	0	0	0	0	0	172	0	0	216	0	388
2028 Non-Site Traffic	0	0	0	0	0	0	0	194	0	0	243	0	437
Site Traffic-Phase 1 Single Family	3	0	19	0	0	0	0	0	1	7	0	0	30
Site Traffic-Phase 1 Retail	0	0	8	0	0	0	0	18	0	13	31	0	70
Site Traffic-Phase 1 Estates	0	0	3	0	0	0	0	1	0	1	0	0	5
Site Traffic-Phase 1 Multi-Family	0	0	2	0	0	0	0	2	0	1	0	0	5
Site Traffic-Phase 1 Subtotal	3	0	32	0	0	0	0	21	1	22	31	0	110
2025 Total Traffic	3	0	32	0	0	0	0	193	1	22	247	0	498
Site Traffic-Phase 2 Single Family	5	0	32	0	0	0	0	0	2	11	0	0	50
Site Traffic-Phase 2 Retail	0	0	10	0	0	0	0	24	0	16	39	0	89
Site Traffic-Phase 2 Estates	0	0	5	0	0	0	0	2	0	2	1	0	10
Site Traffic-Phase 2 Multi-Family	0	0	1	0	0	0	0	2	0	0	0	0	3
Site Traffic-Phase 2 Subtotal	5	0	48	0	0	0	0	28	2	29	40	0	152
2028 Total Traffic	5	0	48	0	0	0	0	222	2	29	283	0	589
PM Peak Hour													
2022 Existing Traffic	0	0	0	0	0	0	0	129	0	0	125	0	254
2025 Non-Site Traffic	0	0	0	0	0	0	0	145	0	0	141	0	286
2028 Non-Site Traffic	0	0	0	0	0	0	0	163	0	0	158	0	321
Site Traffic-Phase 1 Single Family	2	0	13	0	0	0	0	0	3	22	0	0	40
Site Traffic-Phase 1 Retail	0	0	28	0	0	0	0	71	0	26	65	0	190
Site Traffic-Phase 1 Estates	0	0	2	0	0	0	0	1	0	3	1	0	7
Site Traffic-Phase 1 Multi-Family	0	0	1	0	0	0	0	1	0	2	2	0	6
Site Traffic-Phase 1 Subtotal	2	0	44	0	0	0	0	73	3	53	68	0	243
2025 Total Traffic	2	0	44	0	0	0	0	218	3	53	209	0	529
Site Traffic-Phase 2 Single Family	3	0	21	0	0	0	0	0	5	36	0	0	65
Site Traffic-Phase 2 Retail	0	0	47	0	0	0	0	118	0	44	109	0	318
Site Traffic-Phase 2 Estates	0	0	4	0	0	0	0	1	0	6	2	0	13
Site Traffic-Phase 2 Multi-Family	0	0	2	0	0	0	0	1	0	1	2	0	6
Site Traffic-Phase 2 Subtotal	3	0	74	0	0	0	0	120	5	87	113	0	402
2028 Total Traffic	3	0	74	0	0	0	0	283	5	87	271	0	723

Source: Kiser Traffic and Engineering, 2022. Count Date 11/17/2022

MS Hwy 463/North Commercial Drive

Seasonal Adjustment Factor	1
Annual Growth Factor	4.0%
Base Year	2022
Horizon Year 1	2025
Horizon Year 2	2028

Start Time	Northbound			Southbound			Eastbound			Westbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
AM Peak Hour													
2022 Existing Traffic	0	187	0	0	243	0	0	0	0	0	0	0	430
2025 Non-Site Traffic	0	210	0	0	273	0	0	0	0	0	0	0	483
2028 Non-Site Traffic	0	237	0	0	307	0	0	0	0	0	0	0	544
Site Traffic-Phase 1 Single Family	0	0	0	0	0	0	0	0	0	0	0	0	0
Site Traffic-Phase 1 Retail	0	0	56	4	0	0	0	0	0	35	0	2	97
Site Traffic-Phase 1 Estates	0	2	0	0	0	0	0	0	0	0	0	0	2
Site Traffic-Phase 1 Multi-Family	0	0	2	0	0	0	0	0	0	7	0	0	9
Site Traffic-Phase 1 Subtotal	0	2	58	4	0	0	0	0	0	42	0	2	108
2025 Total Traffic	0	212	58	4	273	0	0	0	0	42	0	2	591
Site Traffic-Phase 2 Single Family	0	0	0	0	0	0	0	0	0	0	0	0	0
Site Traffic-Phase 2 Retail	0	0	70	5	0	0	0	0	0	43	0	3	121
Site Traffic-Phase 2 Estates	0	3	0	0	1	0	0	0	0	0	0	0	4
Site Traffic-Phase 2 Multi-Family	0	0	2	0	0	0	0	0	0	7	0	0	9
Site Traffic-Phase 2 Subtotal	0	3	72	5	1	0	0	0	0	50	0	3	134
2028 Total Traffic	0	240	72	5	308	0	0	0	0	50	0	3	678
PM Peak Hour													
2022 Existing Traffic	0	297	0	0	263	0	0	0	0	0	0	0	560
2025 Non-Site Traffic	0	334	0	0	296	0	0	0	0	0	0	0	630
2028 Non-Site Traffic	0	376	0	0	333	0	0	0	0	0	0	0	709
Site Traffic-Phase 1 Single Family	0	0	0	0	0	0	0	0	0	0	0	0	0
Site Traffic-Phase 1 Retail	0	0	117	8	0	0	0	0	0	127	0	8	260
Site Traffic-Phase 1 Estates	0	1	0	0	2	0	0	0	0	0	0	0	3
Site Traffic-Phase 1 Multi-Family	0	0	7	0	0	0	0	0	0	4	0	0	11
Site Traffic-Phase 1 Subtotal	0	1	124	8	2	0	0	0	0	131	0	8	274
2025 Total Traffic	0	335	124	8	298	0	0	0	0	131	0	8	904
Site Traffic-Phase 2 Single Family	0	0	0	0	0	0	0	0	0	0	0	0	0
Site Traffic-Phase 2 Retail	0	0	196	13	0	0	0	0	0	212	0	14	435
Site Traffic-Phase 2 Estates	0	2	0	0	3	0	0	0	0	0	0	0	5
Site Traffic-Phase 2 Multi-Family	0	0	7	0	0	0	0	0	0	4	0	0	11
Site Traffic-Phase 2 Subtotal	0	2	203	13	3	0	0	0	0	216	0	14	451
2028 Total Traffic	0	378	203	13	336	0	0	0	0	216	0	14	1,160

Source: Kiser Traffic and Engineering, 2022. Count Date 11/17/2022

MS Hwy 463/ Middle Site Drive

Seasonal Adjustment Factor	1
Annual Growth Factor	4.0%
Base Year	2022
Horizon Year 1	2025
Horizon Year 2	2028

Start Time	Northbound			Southbound			Eastbound			Westbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
AM Peak Hour													
2022 Existing Traffic	0	187	0	0	243	0	0	0	0	0	0	0	430
2025 Non-Site Traffic	0	210	0	0	273	0	0	0	0	0	0	0	483
2028 Non-Site Traffic	0	237	0	0	307	0	0	0	0	0	0	0	544
Site Traffic-Phase 1 Single Family	0	0	5	0	0	0	0	0	0	14	0	0	19
Site Traffic-Phase 1 Retail	0	56	13	0	35	0	0	0	0	8	0	0	112
Site Traffic-Phase 1 Estates	0	1	1	0	0	0	0	0	0	2	0	1	5
Site Traffic-Phase 1 Multi-Family	0	2	0	0	7	0	0	0	0	0	0	0	9
Site Traffic-Phase 1 Subtotal	0	59	19	0	42	0	0	0	0	24	0	1	145
2025 Total Traffic	0	269	19	0	315	0	0	0	0	24	0	1	628
Site Traffic-Phase 2 Single Family	0	0	8	0	0	0	0	0	0	23	0	0	31
Site Traffic-Phase 2 Retail	0	70	16	0	43	0	0	0	0	10	0	0	139
Site Traffic-Phase 2 Estates	0	1	2	0	1	0	0	0	0	5	0	2	11
Site Traffic-Phase 2 Multi-Family	0	2	0	0	7	0	0	0	0	0	0	0	9
Site Traffic-Phase 2 Subtotal	0	73	26	0	51	0	0	0	0	38	0	2	190
2028 Total Traffic	0	310	26	0	358	0	0	0	0	38	0	2	734
PM Peak Hour													
2022 Existing Traffic	0	297	0	0	263	0	0	0	0	0	0	0	560
2025 Non-Site Traffic	0	334	0	0	296	0	0	0	0	0	0	0	630
2028 Non-Site Traffic	0	376	0	0	333	0	0	0	0	0	0	0	709
Site Traffic-Phase 1 Single Family	0	0	16	0	0	0	0	0	0	10	0	0	26
Site Traffic-Phase 1 Retail	0	117	26	0	127	0	0	0	0	28	0	0	298
Site Traffic-Phase 1 Estates	0	0	3	1	1	0	0	0	0	2	0	1	8
Site Traffic-Phase 1 Multi-Family	0	7	0	0	4	0	0	0	0	0	0	0	11
Site Traffic-Phase 1 Subtotal	0	124	45	1	132	0	0	0	0	40	0	1	343
2025 Total Traffic	0	458	45	1	428	0	0	0	0	40	0	1	973
Site Traffic-Phase 2 Single Family	0	0	26	0	0	0	0	0	0	15	0	0	41
Site Traffic-Phase 2 Retail	0	196	44	0	212	0	0	0	0	47	0	0	499
Site Traffic-Phase 2 Estates	0	1	6	1	2	0	0	0	0	3	0	1	14
Site Traffic-Phase 2 Multi-Family	0	7	0	0	4	0	0	0	0	0	0	0	11
Site Traffic-Phase 2 Subtotal	0	204	76	1	218	0	0	0	0	65	0	1	565
2028 Total Traffic	0	580	76	1	551	0	0	0	0	65	0	1	1,274

Source: Kiser Traffic and Engineering, 2022. Count Date 11/17/2022

MS Hwy 463/South Residential Site Drive

Seasonal Adjustment Factor	1
Annual Growth Factor	4.0%
Base Year	2022
Horizon Year 1	2025
Horizon Year 2	2028

Start Time	Northbound			Southbound			Eastbound			Westbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
AM Peak Hour													
2022 Existing Traffic	0	187	0	0	243	0	0	0	0	0	0	0	430
2025 Non-Site Traffic	0	210	0	0	273	0	0	0	0	0	0	0	483
2028 Non-Site Traffic	0	237	0	0	307	0	0	0	0	0	0	0	544
Site Traffic-Phase 1 Single Family	0	5	7	0	14	0	0	0	0	20	0	0	46
Site Traffic-Phase 1 Retail	0	69	0	0	42	0	0	0	0	0	0	0	111
Site Traffic-Phase 1 Estates	0	1	1	0	3	0	0	0	0	4	0	1	10
Site Traffic-Phase 1 Multi-Family	0	2	0	0	7	0	0	0	0	0	0	0	9
Site Traffic-Phase 1 Subtotal	0	77	8	0	66	0	0	0	0	24	0	1	176
2025 Total Traffic	0	287	8	0	339	0	0	0	0	24	0	1	659
Site Traffic-Phase 2 Single Family	0	8	11	0	23	0	0	0	0	31	0	0	73
Site Traffic-Phase 2 Retail	0	86	0	0	53	0	0	0	0	0	0	0	139
Site Traffic-Phase 2 Estates	0	2	1	1	5	0	0	0	0	7	0	1	17
Site Traffic-Phase 2 Multi-Family	0	2	0	0	7	0	0	0	0	0	0	0	9
Site Traffic-Phase 2 Subtotal	0	98	12	1	88	0	0	0	0	38	0	1	238
2028 Total Traffic	0	335	12	1	395	0	0	0	0	38	0	1	782
PM Peak Hour													
2022 Existing Traffic	0	297	0	0	263	0	0	0	0	0	0	0	560
2025 Non-Site Traffic	0	334	0	0	296	0	0	0	0	0	0	0	630
2028 Non-Site Traffic	0	376	0	0	333	0	0	0	0	0	0	0	709
Site Traffic-Phase 1 Single Family	0	16	22	0	10	0	0	0	0	13	0	0	61
Site Traffic-Phase 1 Retail	0	144	0	0	155	0	0	0	0	0	0	0	299
Site Traffic-Phase 1 Estates	0	3	5	1	2	0	0	0	0	3	0	0	14
Site Traffic-Phase 1 Multi-Family	0	7	0	0	4	0	0	0	0	0	0	0	11
Site Traffic-Phase 1 Subtotal	0	170	27	1	171	0	0	0	0	16	0	0	385
2025 Total Traffic	0	504	27	1	467	0	0	0	0	16	0	0	1,015
Site Traffic-Phase 2 Single Family	0	26	36	0	15	0	0	0	0	21	0	0	98
Site Traffic-Phase 2 Retail	0	240	0	0	260	0	0	0	0	0	0	0	500
Site Traffic-Phase 2 Estates	0	6	8	2	3	0	0	0	0	6	0	1	26
Site Traffic-Phase 2 Multi-Family	0	7	0	0	4	0	0	0	0	0	0	0	11
Site Traffic-Phase 2 Subtotal	0	279	44	2	282	0	0	0	0	27	0	1	635
2028 Total Traffic	0	655	44	2	615	0	0	0	0	27	0	1	1,344

Source: Kiser Traffic and Engineering, 2022. Count Date 11/17/2022

Signal Warrant Calculations
Site Traffic Assignment by Hour-of-Day

Retail Traffic

Hour of Day	% entering	% exiting	All Retail			Retail Site Traffic @463/22				Retail Site Traffic @ Hwy 463/Middle Site Dr			
			In	out	Total	NB Left	EB Thru	EB Rt	WB Thru	NB Thru	NB Rt	SB Thru	WB Left
6:00	1.0%	1.0%	52	51	103	2	4	2	4	23	5	23	5
7:00	2.0%	2.0%	104	103	207	3	7	3	7	47	10	46	10
8:00	3.1%	1.2%	156	96	252	3	11	5	7	70	16	43	10
9:00	5.5%	2.0%	285	103	197	3	20	9	7	128	29	46	10
10:00	7.0%	4.3%	363	221	424	7	25	11	15	163	36	99	22
11:00	8.4%	6.2%	436	318	612	10	31	13	22	196	44	143	32
12:00	9.4%	7.3%	488	374	720	11	34	15	26	220	49	168	37
13:00	8.2%	7.6%	426	390	750	12	30	13	27	192	43	176	39
14:00	7.7%	7.9%	400	405	780	12	28	12	28	180	40	182	41
15:00	7.8%	7.8%	405	400	770	12	28	12	28	182	41	180	40
16:00	8.0%	8.9%	415	457	878	14	29	12	32	187	42	206	46
17:00	8.4%	9.2%	436	472	908	14	31	13	33	196	44	212	47
18:00	8.0%	7.5%	415	385	740	12	29	12	27	187	42	173	39
Source: Kiser Traffic and Engineering, 2022.						3% out	7% in	3% in	7% out	45% in	10% in	45% out	10% out

Residential Single Family

Hour of Day	% entering	% exiting	Single Family Residential			Single Family Traffic @463/22				Single Family Traffic @ Hwy 463/Middle Site Dr			
			In	Out	Total	NB Left	EB Thru	EB Rt	WB Thru	NB Thru	NB Rt	SB Thru	WB Left
6:00	2.0%	1.0%	6	6	12	0	0	0	0	0	2	0	2
7:00	5.0%	20.0%	31	92	123	0	2	0	5	0	8	0	23
8:00	4.0%	15.0%	12	92	104	0	1	0	5	0	3	0	23
9:00	3.0%	10.0%	9	61	70	0	0	0	3	0	2	0	15
10:00	2.0%	4.0%	6	24	30	0	0	0	1	0	2	0	6
11:00	4.0%	5.0%	12	31	43	0	1	0	2	0	3	0	8
12:00	10.0%	10.0%	29	61	90	0	1	0	3	0	7	0	15
13:00	5.0%	5.0%	15	31	46	0	1	0	2	0	4	0	8
14:00	4.0%	4.0%	12	24	36	0	1	0	1	0	3	0	6
15:00	5.0%	6.0%	15	37	52	0	1	0	2	0	4	0	9
16:00	9.0%	9.0%	26	55	81	0	1	0	3	0	7	0	14
17:00	22.0%	9.0%	65	55	120	0	3	0	3	0	16	0	14
18:00	35.0%	10.0%	103	61	164	0	5	0	3	0	26	0	15
Source: Kiser Traffic and Engineering, 2022.							5% in		5% out		25% in		25% out

Signal Warrant Calculations
Site Traffic Assignments by Hour-of-Day

Estate Single Family

Hour of Day	% entering	% exiting	Estate Residential			Estate Traffic @463/22				Estate Traffic @ Hwy 463/Middle Site Dr					
			In	Out	Total	NB Left	NB Rt	EB Rt	WB Lt	NB Thru	NB Rt	SB Lt	SB Thru	WB Left	WB Rt
6:00	2.0%	1.0%	1	1	2	0	0	0	0	0	0	0	0	0	0
7:00	5.0%	20.0%	6	19	25	1	2	0	1	1	2	0	1	5	2
8:00	4.0%	15.0%	3	20	23	1	2	0	0	1	1	0	0	5	2
9:00	3.0%	10.0%	2	13	15	1	1	0	0	1	1	0	0	3	1
10:00	2.0%	4.0%	1	5	6	0	1	0	0	0	0	0	0	1	1
11:00	4.0%	5.0%	3	7	10	0	1	0	0	0	1	0	0	2	1
12:00	10.0%	10.0%	6	13	19	1	1	0	1	1	2	0	1	3	1
13:00	5.0%	5.0%	3	7	10	0	1	0	0	0	1	0	0	2	1
14:00	4.0%	4.0%	3	5	8	0	1	0	0	0	1	0	0	1	1
15:00	5.0%	6.0%	3	8	11	0	1	0	0	0	1	0	0	2	1
16:00	9.0%	9.0%	6	12	18	1	1	0	1	1	2	0	1	3	1
17:00	22.0%	9.0%	14	12	26	1	1	1	1	1	4	1	1	3	1
18:00	35.0%	10.0%	22	13	35	1	1	1	2	1	6	1	2	3	1
Source: Kiser Traffic and Engineering, 2022.						5% out	10% out	5% in	10% in	5% out	25% in	5% in	10% in	25% out	10% out

Multi-Family

Hour of Day	% entering	% exiting	Multi-Family			Multi-Family Traffic @463/22				Multi-Family Traffic @ Hwy 463/Middle Site Dr			
			In	Out	Total	NB Left	EB Thru	EB Rt	WB Thru	NB Thru	NB Rt	SB Lt	SB Thru
6:00	2.0%	1.0%	1	1	2	0	0	0	0	1	0	0	1
7:00	5.0%	20.0%	3	11	14	0	0	0	0	2	0	0	7
8:00	4.0%	15.0%	3	20	23	0	0	0	0	2	0	0	12
9:00	3.0%	10.0%	2	13	15	0	0	0	0	1	0	0	8
10:00	2.0%	4.0%	1	5	6	0	0	0	0	1	0	0	3
11:00	4.0%	5.0%	3	7	10	0	0	0	0	2	0	0	4
12:00	10.0%	10.0%	6	13	19	0	0	0	0	4	0	0	8
13:00	5.0%	5.0%	3	7	10	0	0	0	0	2	0	0	4
14:00	4.0%	4.0%	3	5	8	0	0	0	0	2	0	0	3
15:00	5.0%	6.0%	3	8	11	0	0	0	0	2	0	0	5
16:00	9.0%	9.0%	6	12	18	0	0	0	0	4	0	0	7
17:00	22.0%	9.0%	14	12	26	0	0	0	0	8	0	0	7
18:00	35.0%	10.0%	12	7	19	0	0	0	0	7	0	0	4
Source: Kiser Traffic and Engineering, 2022.						3% out	3% in	2% in	2% out	60% in			60% out

Signal Warrant Calculations
Hour-of-Day Totals by Intersection

All Site Traffic

Hour of Day	All Site Traffic @463/22						All Site Traffic @ Hwy 463/Middle Site Dr					
	NB Left	NB Right	EB Thru	EB Rt	WB Lt	WB Thru	NB Thru	NB Rt	SB Left	SB Thru	WB Left	WB Right
6:00	2	0	4	2	0	4	24	7	0	24	7	0
7:00	4	2	9	3	1	12	50	20	0	54	38	2
8:00	4	2	**13**	**5**	**1**	**12**	**73**	**26**	0	55	38	2
9:00	4	1	20	9	0	10	130	32	0	54	28	1
10:00	7	1	25	11	0	16	164	38	0	102	29	1
11:00	10	1	32	13	0	24	198	48	0	147	42	1
12:00	12	1	35	15	1	29	225	58	0	177	55	1
13:00	12	1	31	13	0	29	194	48	0	180	49	1
14:00	12	1	29	12	0	29	182	44	0	185	48	1
15:00	12	1	29	12	0	30	184	46	0	185	51	1
16:00	15	1	30	12	1	35	192	51	0	214	63	1
17:00	15	1	**36**	**14**	**2**	**36**	205	64	1	218	64	1
18:00	13	1	34	13	2	30	195	74	1	179	57	1

Existing - 2022 Traffic

Hour of Day	Existing Traffic @463/22						Existing Traffic @ Hwy 463/Middle Site Dr					
	NB Left	NB Right	EB Thru	EB Rt	WB Lt	WB Thru	NB Thru	NB Rt	SB Left	SB Thru	WB Left	WB Right
6:00	116	18	93	148	57	72	134	0	0	205	0	0
7:00	140	41	109	142	50	110	181	0	0	192	0	0
8:00	116	30	70	156	35	64	146	0	0	191	0	0
9:00	124	28	57	133	33	52	152	0	0	166	0	0
10:00	115	27	55	132	39	56	142	0	0	171	0	0
11:00	123	35	62	156	35	52	158	0	0	191	0	0
12:00	156	30	71	140	33	60	186	0	0	173	0	0
13:00	175	33	62	137	33	82	208	0	0	170	0	0
14:00	181	42	75	133	30	67	223	0	0	163	0	0
15:00	235	49	70	159	36	83	284	0	0	195	0	0
16:00	252	35	70	231	35	106	287	0	0	266	0	0
17:00	265	50	91	195	37	72	315	0	0	232	0	0
Total	1,998	418	885	1,862	453	876	2,416	0	0	2,315	0	0

Year 2028 Total Traffic

Hour of Day	Year 2028 Total Traffic @463/22						Year 2028 Total Traffic @ Hwy 463/Middle Site Dr					
	NB Left	NB Right	EB Thru	EB Rt	WB Lt	WB Thru	NB Thru	NB Rt	SB Left	SB Thru	WB Left	WB Right
6:00	149	23	122	189	72	95	194	7	0	283	7	0
7:00	181	54	147	183	64	151	279	20	0	297	38	2
8:00	151	40	102	202	45	93	258	26	0	297	38	2
9:00	161	36	92	177	42	76	322	32	0	264	28	1
10:00	153	35	95	178	49	87	344	38	0	318	29	1
11:00	166	45	110	210	44	90	398	48	0	389	42	1
12:00	209	39	125	192	43	105	460	58	0	396	55	1
13:00	233	43	109	186	42	133	457	48	0	395	49	1
14:00	241	54	124	180	38	114	464	44	0	391	48	1
15:00	309	63	118	213	46	135	543	46	0	432	51	1
16:00	334	45	119	304	45	169	555	51	0	551	63	1
17:00	350	64	151	261	49	127	604	64	1	512	64	1
Total	2,637	541	1,414	2,475	579	1,375	4,878	482	1	4,525	512	13

Source: Kiser Traffic and Engineering, 2022.

Kiser Traffic and Engineering, LLC
P.O. Box 2441, Madison, MS 39130

Intersection: MS Hwy 463/MS Hwy 22
Counter: S. Ghotra (Video)
County/State: Madison/MS
Weather: Clear/Dry

File Name : 463-22
Site Code : 00000000
Start Date : 11/17/2022
Page No : 1

Groups Printed- Unshifted

	HWY 463 Southbound					HWY 22 Westbound					HWY 463 Northbound					HWY 22 Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
06:00 AM	0	0	0	0	0	3	12	0	0	15	16	0	3	0	19	0	14	18	0	32	66
06:15 AM	0	0	0	0	0	6	19	0	0	25	29	0	1	0	30	0	21	29	0	50	105
06:30 AM	0	0	0	0	0	18	15	0	0	33	31	0	6	0	37	0	27	49	0	76	146
06:45 AM	0	0	0	0	0	30	26	0	0	56	40	0	8	0	48	0	31	52	0	83	187
Total	0	0	0	0	0	57	72	0	0	129	116	0	18	0	134	0	93	148	0	241	504
07:00 AM	0	0	0	0	0	25	28	0	0	53	25	0	5	0	30	0	28	47	0	75	158
07:15 AM	0	0	0	0	0	12	35	0	0	47	32	0	12	0	44	0	27	32	0	59	150
07:30 AM	0	0	0	0	0	8	28	0	0	36	50	0	15	0	65	0	27	37	0	64	165
07:45 AM	0	0	0	0	0	5	19	0	0	24	33	0	9	0	42	0	27	26	0	53	119
Total	0	0	0	0	0	50	110	0	0	160	140	0	41	0	181	0	109	142	0	251	592
08:00 AM	0	0	0	0	0	9	15	0	0	24	27	0	10	0	37	0	25	46	0	71	132
08:15 AM	0	0	0	0	0	11	18	0	0	29	33	0	6	0	39	0	13	29	0	42	110
08:30 AM	0	0	0	0	0	9	14	0	0	23	33	0	5	0	38	0	19	39	0	58	119
08:45 AM	0	0	0	0	0	6	17	0	0	23	23	0	9	0	32	0	13	42	0	55	110
Total	0	0	0	0	0	35	64	0	0	99	116	0	30	0	146	0	70	156	0	226	471
09:00 AM	0	0	0	0	0	11	13	0	0	24	30	0	10	0	40	0	16	36	0	52	116
09:15 AM	0	0	0	0	0	7	14	0	0	21	29	0	8	0	37	0	9	34	0	43	101
09:30 AM	0	0	0	0	0	10	10	0	0	20	29	0	4	0	33	0	22	33	0	55	108
09:45 AM	0	0	0	0	0	5	15	0	0	20	36	0	6	0	42	0	10	30	0	40	102
Total	0	0	0	0	0	33	52	0	0	85	124	0	28	0	152	0	57	133	0	190	427
10:00 AM	0	0	0	0	0	12	27	0	0	39	35	0	8	0	43	0	16	32	0	48	130
10:15 AM	0	0	0	0	0	12	10	0	0	22	29	0	8	0	37	0	11	27	0	38	97
10:30 AM	0	0	0	0	0	4	8	0	0	12	19	0	5	0	24	0	16	31	0	47	83
10:45 AM	0	0	0	0	0	11	11	0	0	22	32	0	6	0	38	0	12	42	0	54	114
Total	0	0	0	0	0	39	56	0	0	95	115	0	27	0	142	0	55	132	0	187	424
11:00 AM	0	0	0	0	0	9	16	0	0	25	45	0	6	0	51	0	9	30	0	39	115
11:15 AM	0	0	0	0	0	8	11	0	0	19	20	0	9	0	29	0	27	47	0	74	122
11:30 AM	0	0	0	0	0	8	11	0	0	19	31	0	7	0	38	0	12	52	0	64	121
11:45 AM	0	0	0	0	0	10	14	0	0	24	27	0	13	0	40	0	14	27	0	41	105
Total	0	0	0	0	0	35	52	0	0	87	123	0	35	0	158	0	62	156	0	218	463
12:00 PM	0	0	0	0	0	1	18	0	0	19	43	0	5	0	48	0	20	28	0	48	115
12:15 PM	0	0	0	0	0	10	17	0	0	27	36	0	6	0	42	0	23	44	0	67	136
12:30 PM	0	0	0	0	0	11	10	0	0	21	37	0	11	0	48	0	10	31	0	41	110
12:45 PM	0	0	0	0	0	11	15	0	0	26	40	0	8	0	48	0	18	37	0	55	129
Total	0	0	0	0	0	33	60	0	0	93	156	0	30	0	186	0	71	140	0	211	490
01:00 PM	0	0	0	0	0	10	16	0	0	26	34	0	11	0	45	0	21	31	0	52	123
01:15 PM	0	0	0	0	0	10	24	0	0	34	37	0	4	0	41	0	18	34	0	52	127
01:30 PM	0	0	0	0	0	9	18	0	0	27	63	0	8	0	71	0	12	39	0	51	149
01:45 PM	0	0	0	0	0	4	24	0	0	28	41	0	10	0	51	0	11	33	0	44	123
Total	0	0	0	0	0	33	82	0	0	115	175	0	33	0	208	0	62	137	0	199	522
02:00 PM	0	0	0	0	0	4	23	0	0	27	42	0	11	0	53	0	10	34	0	44	124

Kiser Traffic and Engineering, LLC
P.O. Box 2441, Madison, MS 39130

Intersection: MS Hwy 463/MS Hwy 22
Counter: S. Ghotra (Video)
County/State: Madison/MS
Weather: Clear/Dry

File Name : 463-22
Site Code : 00000000
Start Date : 11/17/2022
Page No : 2

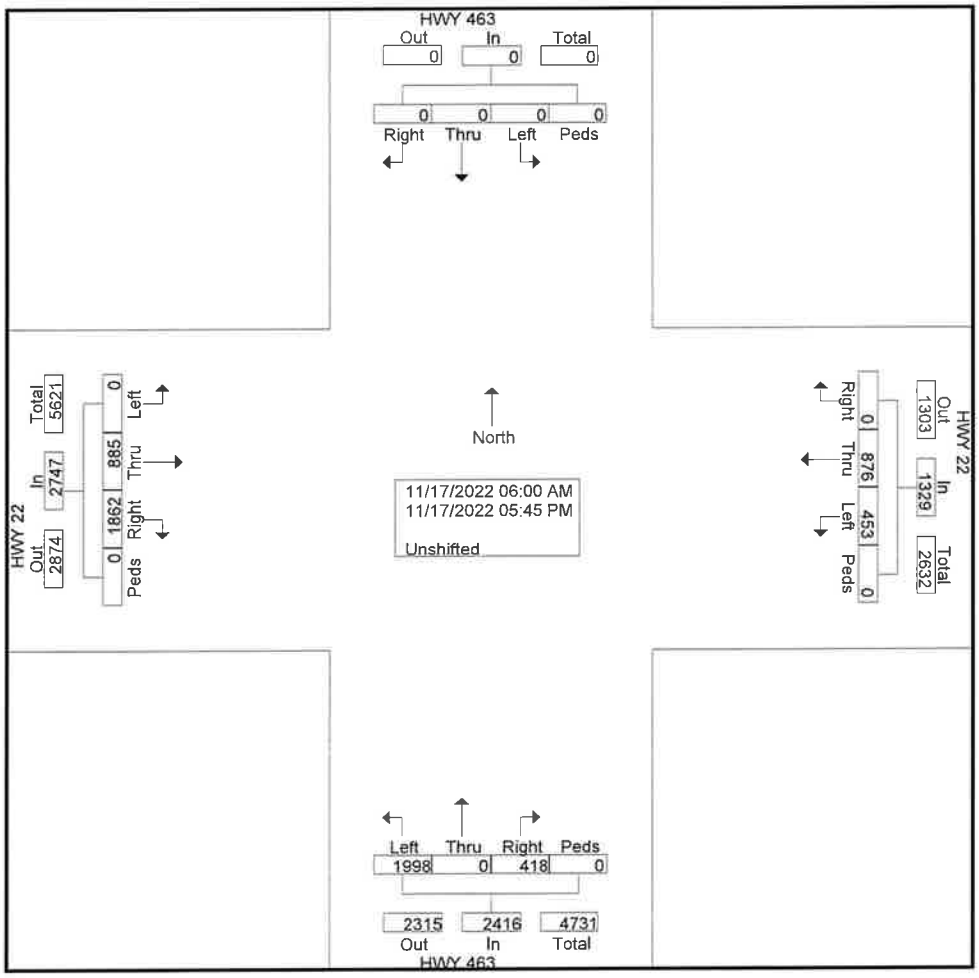
Groups Printed- Unshifted

	HWY 463 Southbound					HWY 22 Westbound					HWY 463 Northbound					HWY 22 Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
02:15 PM	0	0	0	0	0	9	22	0	0	31	46	0	12	0	58	0	19	29	0	48	137
02:30 PM	0	0	0	0	0	8	10	0	0	18	43	0	8	0	51	0	15	23	0	38	107
02:45 PM	0	0	0	0	0	9	12	0	0	21	50	0	11	0	61	0	31	47	0	78	160
Total	0	0	0	0	0	30	67	0	0	97	181	0	42	0	223	0	75	133	0	208	528
03:00 PM	0	0	0	0	0	10	18	0	0	28	66	0	16	0	82	0	14	47	0	61	171
03:15 PM	0	0	0	0	0	8	20	0	0	28	56	0	10	0	66	0	13	49	0	62	156
03:30 PM	0	0	0	0	0	10	15	0	0	25	55	0	13	0	68	0	25	37	0	62	155
03:45 PM	0	0	0	0	0	8	30	0	0	38	58	0	10	0	68	0	18	26	0	44	150
Total	0	0	0	0	0	36	83	0	0	119	235	0	49	0	284	0	70	159	0	229	632
04:00 PM	0	0	0	0	0	8	34	0	0	42	55	0	11	0	66	0	13	55	0	68	176
04:15 PM	0	0	0	0	0	11	24	0	0	35	75	0	4	0	79	0	15	52	0	67	181
04:30 PM	0	0	0	0	0	7	26	0	0	33	64	0	11	0	75	0	15	60	0	75	183
04:45 PM	0	0	0	0	0	9	22	0	0	31	58	0	9	0	67	0	27	64	0	91	189
Total	0	0	0	0	0	35	106	0	0	141	252	0	35	0	287	0	70	231	0	301	729
05:00 PM	0	0	0	0	0	13	14	0	0	27	71	0	9	0	80	0	18	43	0	61	168
05:15 PM	0	0	0	0	0	12	22	0	0	34	61	0	14	0	75	0	26	55	0	81	190
05:30 PM	0	0	0	0	0	3	21	0	0	24	68	0	12	0	80	0	29	41	0	70	174
05:45 PM	0	0	0	0	0	9	15	0	0	24	65	0	15	0	80	0	18	56	0	74	178
Total	0	0	0	0	0	37	72	0	0	109	265	0	50	0	315	0	91	195	0	286	710
Grand Total	0	0	0	0	0	453	876	0	0	1329	1998	0	418	0	2416	0	885	1862	0	2747	6492
Apprch %	0	0	0	0		34.1	65.9	0	0		82.7	0	17.3	0		0	32.2	67.8	0		
Total %	0	0	0	0	0	7	13.5	0	0	20.5	30.8	0	6.4	0	37.2	0	13.6	28.7	0	42.3	

Kiser Traffic and Engineering, LLC
P.O. Box 2441, Madison, MS 39130

Intersection: MS Hwy 463/MS Hwy 22
Counter: S. Ghotra (Video)
County/State: Madison/MS
Weather: Clear/Dry

File Name : 463-22
Site Code : 00000000
Start Date : 11/17/2022
Page No : 3



Kiser Traffic and Engineering, LLC
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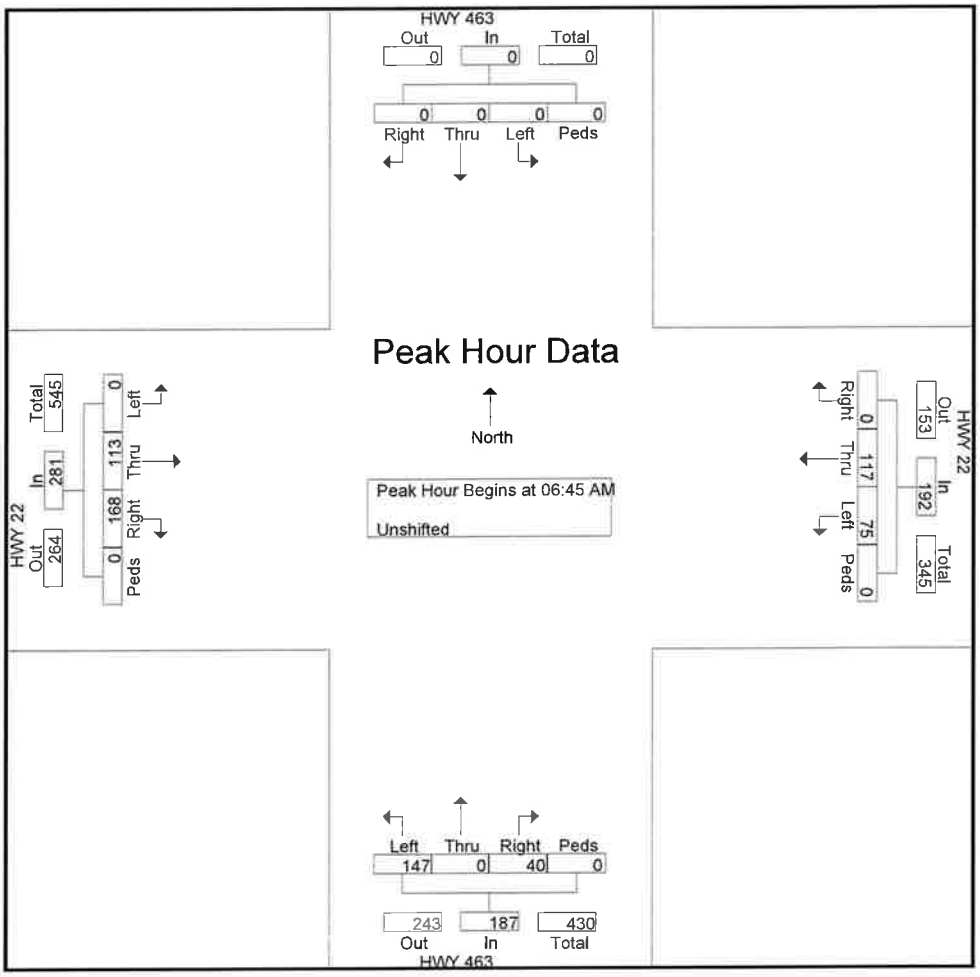
Intersection: MS Hwy 463/MS Hwy 22
Counter: S. Ghotra (Video)
County/State: Madison/MS
Weather: Clear/Dry

File Name : 463-22
Site Code : 00000000
Start Date : 11/17/2022
Page No : 4

	HWY 463 Southbound					HWY 22 Westbound					HWY 463 Northbound					HWY 22 Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 06:45 AM																					
06:45 AM	0	0	0	0	0	**30**	26	0	0	**56**	40	0	8	0	48	0	**31**	**52**	0	**83**	**187**
07:00 AM	0	0	0	0	0	25	28	0	0	53	25	0	5	0	30	0	28	47	0	75	158
07:15 AM	0	0	0	0	0	12	**35**	0	0	47	32	0	12	0	44	0	27	32	0	59	150
07:30 AM	0	0	0	0	0	8	28	0	0	36	**50**	0	**15**	0	**65**	0	27	37	0	64	165
Total Volume	0	0	0	0	0	75	117	0	0	192	147	0	40	0	187	0	113	168	0	281	660
% App. Total	0	0	0	0		39.1	60.9	0	0		78.6	0	21.4	0		0	40.2	59.8	0		
PHF	.000	.000	.000	.000	.000	.625	.836	.000	.000	.857	.735	.000	.667	.000	.719	.000	.911	.808	.000	.846	.882

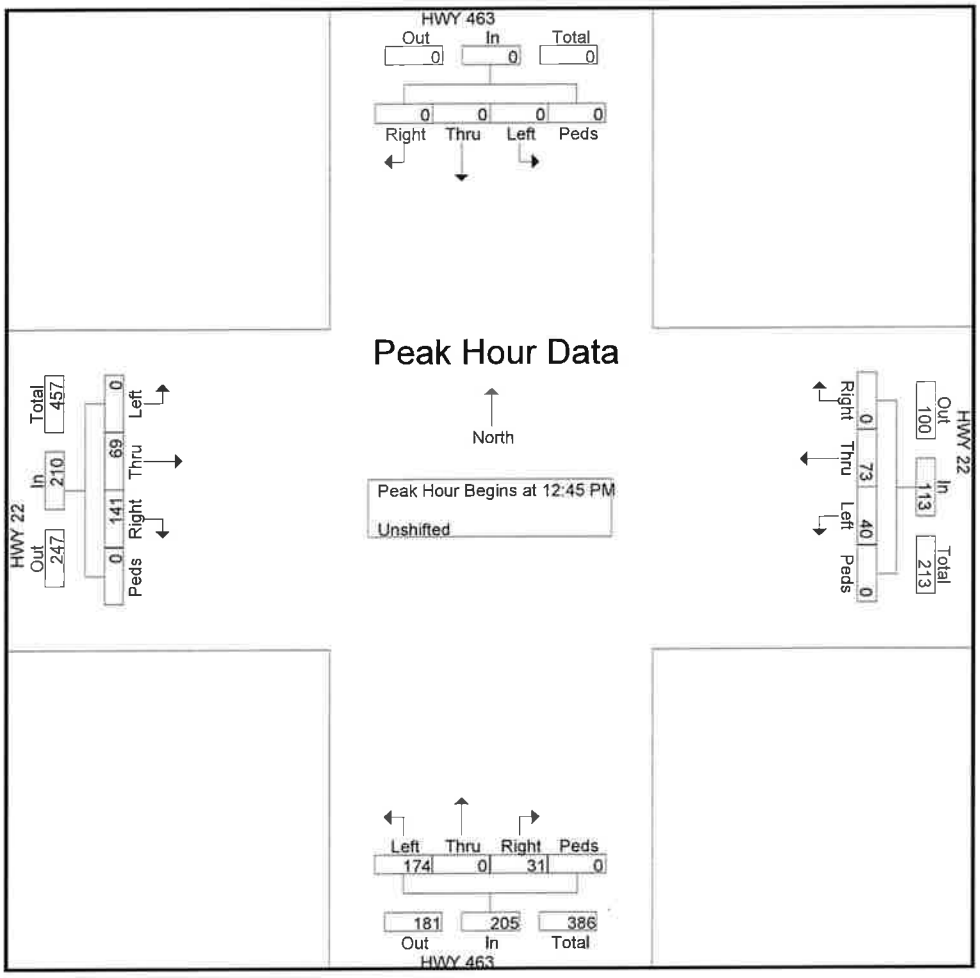


Kiser Traffic and Engineering, LLC
P.O. Box 2441, Madison, MS 39130

Intersection: MS Hwy 463/MS Hwy 22
Counter: S. Ghotra (Video)
County/State: Madison/MS
Weather: Clear/Dry

File Name : 463-22
Site Code : 00000000
Start Date : 11/17/2022
Page No : 5

	HWY 463 Southbound					HWY 22 Westbound					HWY 463 Northbound					HWY 22 Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:45 PM																					
12:45 PM	0	0	0	0	0	**11**	15	0	0	26	40	0	8	0	48	0	18	37	0	**55**	129
01:00 PM	0	0	0	0	0	10	16	0	0	26	34	0	**11**	0	45	0	**21**	31	0	52	123
01:15 PM	0	0	0	0	0	10	**24**	0	0	**34**	37	0	4	0	41	0	18	34	0	52	127
01:30 PM	0	0	0	0	0	9	18	0	0	27	**63**	0	8	0	**71**	0	12	**39**	0	51	**149**
Total Volume	0	0	0	0	0	40	73	0	0	113	174	0	31	0	205	0	69	141	0	210	528
% App. Total	0	0	0	0		35.4	64.6	0	0		84.9	0	15.1	0		0	32.9	67.1	0		
PHF	.000	.000	.000	.000	.000	.909	.760	.000	.000	.831	.690	.000	.705	.000	.722	.000	.821	.904	.000	.955	.886



Kiser Traffic and Engineering, LLC
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Intersection: MS Hwy 463/MS Hwy 22
Counter: S. Ghotra (Video)
County/State: Madison/MS
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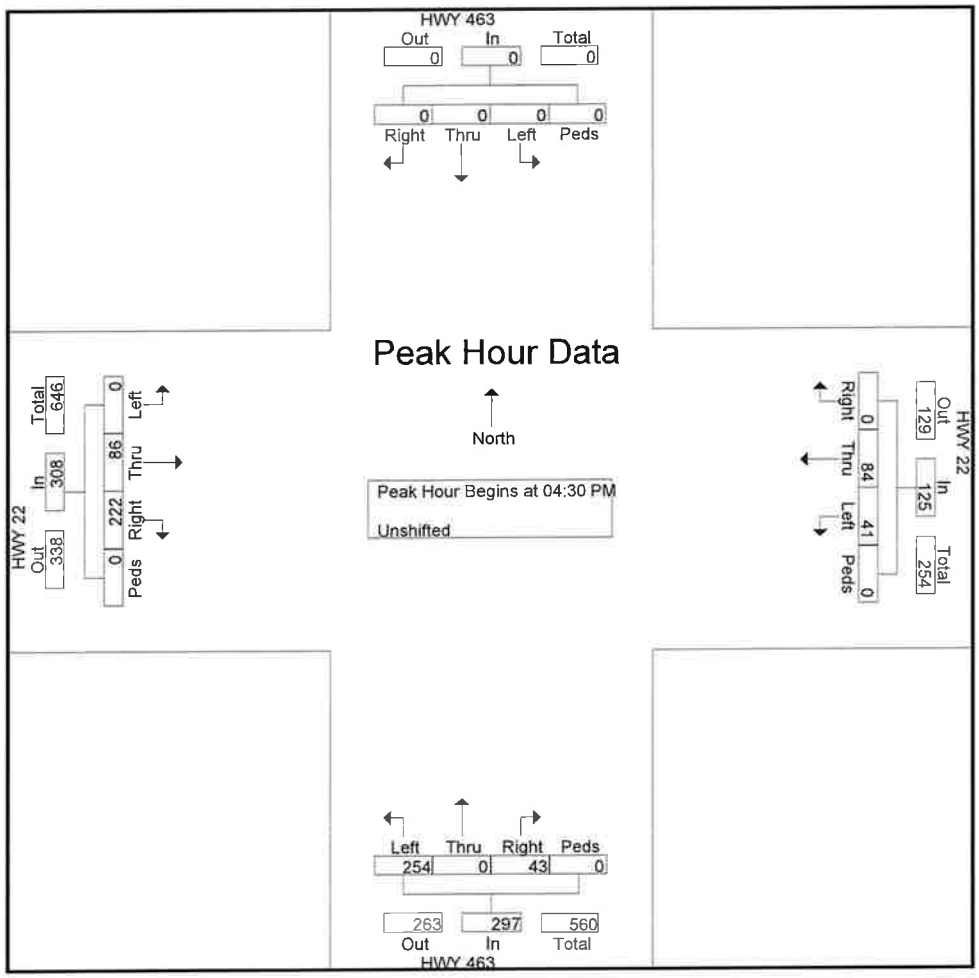
File Name : 463-22
Site Code : 00000000
Start Date : 11/17/2022
Page No : 6

	HWY 463 Southbound					HWY 22 Westbound					HWY 463 Northbound					HWY 22 Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	0	0	0	7	**26**	0	0	33	64	0	11	0	75	0	15	60	0	75	183
04:45 PM	0	0	0	0	0	9	22	0	0	31	58	0	9	0	67	0	**27**	**64**	0	**91**	189
05:00 PM	0	0	0	0	0	**13**	14	0	0	27	**71**	0	9	0	**80**	0	18	43	0	61	168
05:15 PM	0	0	0	0	0	12	22	0	0	**34**	61	0	**14**	0	75	0	26	55	0	81	**190**
Total Volume	0	0	0	0	0	**41**	84	0	0	125	254	0	43	0	297	0	86	222	0	308	730
% App. Total	0	0	0	0		32.8	67.2	0	0		85.5	0	14.5	0		0	27.9	72.1	0		
PHF	.000	.000	.000	.000	.000	.788	.808	.000	.000	.919	.894	.000	.768	.000	.928	.000	.796	.867	.000	.846	.961



Intersection	
Int Delay, s/veh	5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	113	168	75	117	147	40
Future Vol, veh/h	113	168	75	117	147	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	270	-	0	225
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	123	183	82	127	160	43

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	306	0	506	215
Stage 1	-	-	-	-	215	-
Stage 2	-	-	-	-	291	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1255	-	526	825
Stage 1	-	-	-	-	821	-
Stage 2	-	-	-	-	759	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1255	-	492	825
Mov Cap-2 Maneuver	-	-	-	-	492	-
Stage 1	-	-	-	-	821	-
Stage 2	-	-	-	-	710	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.2	14.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	492	825	-	-	1255	-
HCM Lane V/C Ratio	0.325	0.053	-	-	0.065	-
HCM Control Delay (s)	15.8	9.6	-	-	8.1	-
HCM Lane LOS	C	A	-	-	A	-
HCM 95th %tile Q(veh)	1.4	0.2	-	-	0.2	-

Intersection	
Int Delay, s/veh	6.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	86	222	41	84	254	43
Future Vol, veh/h	86	222	41	84	254	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	270	-	0	225
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	93	241	45	91	276	47

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	334	0	395	214
Stage 1	-	-	-	-	214	-
Stage 2	-	-	-	-	181	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1225	-	610	826
Stage 1	-	-	-	-	822	-
Stage 2	-	-	-	-	850	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1225	-	587	826
Mov Cap-2 Maneuver	-	-	-	-	587	-
Stage 1	-	-	-	-	822	-
Stage 2	-	-	-	-	819	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.6	15.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	587	826	-	-	1225	-
HCM Lane V/C Ratio	0.47	0.057	-	-	0.036	-
HCM Control Delay (s)	16.5	9.6	-	-	8.1	-
HCM Lane LOS	C	A	-	-	A	-
HCM 95th %tile Q(veh)	2.5	0.2	-	-	0.1	-

Intersection	
Int Delay, s/veh	5.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	137	193	84	140	168	46
Future Vol, veh/h	137	193	84	140	168	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	270	-	0	225
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	149	210	91	152	183	50

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	359	0	588	254
Stage 1	-	-	-	-	254	-
Stage 2	-	-	-	-	334	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1200	-	471	785
Stage 1	-	-	-	-	788	-
Stage 2	-	-	-	-	725	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1200	-	435	785
Mov Cap-2 Maneuver	-	-	-	-	435	-
Stage 1	-	-	-	-	788	-
Stage 2	-	-	-	-	670	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.1	17.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	435	785	-	-	1200	-
HCM Lane V/C Ratio	0.42	0.064	-	-	0.076	-
HCM Control Delay (s)	19.1	9.9	-	-	8.2	-
HCM Lane LOS	C	A	-	-	A	-
HCM 95th %tile Q(veh)	2	0.2	-	-	0.2	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	174	9	31	219	5	21
Future Vol, veh/h	174	9	31	219	5	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	189	10	34	238	5	23

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	199	0	500	194
Stage 1	-	-	-	-	194	-
Stage 2	-	-	-	-	306	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1373	-	530	847
Stage 1	-	-	-	-	839	-
Stage 2	-	-	-	-	747	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1373	-	515	847
Mov Cap-2 Maneuver	-	-	-	-	515	-
Stage 1	-	-	-	-	839	-
Stage 2	-	-	-	-	725	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	515	847	-	-	1373	-
HCM Lane V/C Ratio	0.011	0.027	-	-	0.025	-
HCM Control Delay (s)	12.1	9.4	-	-	7.7	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	193	1	22	247	3	32
Future Vol, veh/h	193	1	22	247	3	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	210	1	24	268	3	35

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	211	0	527	211
Stage 1	-	-	-	-	211	-
Stage 2	-	-	-	-	316	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1360	-	512	829
Stage 1	-	-	-	-	824	-
Stage 2	-	-	-	-	739	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1360	-	501	829
Mov Cap-2 Maneuver	-	-	-	-	501	-
Stage 1	-	-	-	-	824	-
Stage 2	-	-	-	-	723	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	501	829	-	-	1360	-
HCM Lane V/C Ratio	0.007	0.042	-	-	0.018	-
HCM Control Delay (s)	12.2	9.5	-	-	7.7	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	42	2	212	58	4	273
Future Vol, veh/h	42	2	212	58	4	273
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	-	150	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	46	2	230	63	4	297

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	535	230	0	0	293	0
Stage 1	230	-	-	-	-	-
Stage 2	305	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	506	809	-	-	1269	-
Stage 1	808	-	-	-	-	-
Stage 2	748	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	504	809	-	-	1269	-
Mov Cap-2 Maneuver	504	-	-	-	-	-
Stage 1	808	-	-	-	-	-
Stage 2	745	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.7	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	504	809	1269	-
HCM Lane V/C Ratio	-	-	0.091	0.003	0.003	-
HCM Control Delay (s)	-	-	12.9	9.5	7.8	0
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	0	-

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	1	269	19	0	315
Future Vol, veh/h	24	1	269	19	0	315
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	1	292	21	0	342

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	645	303	0	0	313	0
Stage 1	303	-	-	-	-	-
Stage 2	342	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	437	737	-	-	1247	-
Stage 1	749	-	-	-	-	-
Stage 2	719	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	437	737	-	-	1247	-
Mov Cap-2 Maneuver	437	-	-	-	-	-
Stage 1	749	-	-	-	-	-
Stage 2	719	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	444	1247	-
HCM Lane V/C Ratio	-	-	0.061	-	-
HCM Control Delay (s)	-	-	13.6	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	1	287	8	0	339
Future Vol, veh/h	24	1	287	8	0	339
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	1	312	9	0	368

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	685	317	0	0	321	0
Stage 1	317	-	-	-	-	-
Stage 2	368	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	414	724	-	-	1239	-
Stage 1	738	-	-	-	-	-
Stage 2	700	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	414	724	-	-	1239	-
Mov Cap-2 Maneuver	414	-	-	-	-	-
Stage 1	738	-	-	-	-	-
Stage 2	700	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	421	1239	-
HCM Lane V/C Ratio	-	-	0.065	-	-
HCM Control Delay (s)	-	-	14.1	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	8.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	118	259	47	116	294	49
Future Vol, veh/h	118	259	47	116	294	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	270	-	0	225
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	128	282	51	126	320	53

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	410	0	497	269
Stage 1	-	-	-	-	269	-
Stage 2	-	-	-	-	228	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1149	-	532	770
Stage 1	-	-	-	-	776	-
Stage 2	-	-	-	-	810	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1149	-	509	770
Mov Cap-2 Maneuver	-	-	-	-	509	-
Stage 1	-	-	-	-	776	-
Stage 2	-	-	-	-	774	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.4	21.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	509	770	-	-	1149	-
HCM Lane V/C Ratio	0.628	0.069	-	-	0.044	-
HCM Control Delay (s)	23.3	10	-	-	8.3	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	4.3	0.2	-	-	0.1	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	149	18	67	144	20	72
Future Vol, veh/h	149	18	67	144	20	72
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	162	20	73	157	22	78

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	182	0	475	172
Stage 1	-	-	-	-	172	-
Stage 2	-	-	-	-	303	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1393	-	548	872
Stage 1	-	-	-	-	858	-
Stage 2	-	-	-	-	749	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1393	-	517	872
Mov Cap-2 Maneuver	-	-	-	-	517	-
Stage 1	-	-	-	-	858	-
Stage 2	-	-	-	-	706	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.5	10.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	517	872	-	-	1393	-
HCM Lane V/C Ratio	0.042	0.09	-	-	0.052	-
HCM Control Delay (s)	12.3	9.5	-	-	7.7	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	0.3	-	-	0.2	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	218	3	53	209	2	44
Future Vol, veh/h	218	3	53	209	2	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	237	3	58	227	2	48

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	240	0	582	239
Stage 1	-	-	-	-	239	-
Stage 2	-	-	-	-	343	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1327	-	475	800
Stage 1	-	-	-	-	801	-
Stage 2	-	-	-	-	719	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1327	-	451	800
Mov Cap-2 Maneuver	-	-	-	-	451	-
Stage 1	-	-	-	-	801	-
Stage 2	-	-	-	-	683	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.6	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	451	800	-	-	1327	-
HCM Lane V/C Ratio	0.005	0.06	-	-	0.043	-
HCM Control Delay (s)	13	9.8	-	-	7.8	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0	0.2	-	-	0.1	-

Intersection	
Int Delay, s/veh	2.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	131	8	335	124	8	298
Future Vol, veh/h	131	8	335	124	8	298
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	-	150	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	142	9	364	135	9	324

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	706	364	0	0	499	0
Stage 1	364	-	-	-	-	-
Stage 2	342	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	402	681	-	-	1065	-
Stage 1	703	-	-	-	-	-
Stage 2	719	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	398	681	-	-	1065	-
Mov Cap-2 Maneuver	398	-	-	-	-	-
Stage 1	703	-	-	-	-	-
Stage 2	712	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.5	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	398	681	1065	-
HCM Lane V/C Ratio	-	-	0.358	0.013	0.008	-
HCM Control Delay (s)	-	-	19	10.4	8.4	0
HCM Lane LOS	-	-	C	B	A	A
HCM 95th %tile Q(veh)	-	-	1.6	0	0	-

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	40	1	458	45	1	428
Future Vol, veh/h	40	1	458	45	1	428
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	1	498	49	1	465

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	990	523	0	0	547	0
Stage 1	523	-	-	-	-	-
Stage 2	467	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	273	554	-	-	1022	-
Stage 1	595	-	-	-	-	-
Stage 2	631	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	273	554	-	-	1022	-
Mov Cap-2 Maneuver	273	-	-	-	-	-
Stage 1	595	-	-	-	-	-
Stage 2	630	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.5	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	276	1022	-
HCM Lane V/C Ratio	-	-	0.161	0.001	-
HCM Control Delay (s)	-	-	20.5	8.5	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	0	504	27	1	467
Future Vol, veh/h	16	0	504	27	1	467
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	0	548	29	1	508

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1073	563	0	0	577	0
Stage 1	563	-	-	-	-	-
Stage 2	510	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	244	526	-	-	996	-
Stage 1	570	-	-	-	-	-
Stage 2	603	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	244	526	-	-	996	-
Mov Cap-2 Maneuver	244	-	-	-	-	-
Stage 1	570	-	-	-	-	-
Stage 2	602	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.9	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	244	996	-
HCM Lane V/C Ratio	-	-	0.071	0.001	-
HCM Control Delay (s)	-	-	20.9	8.6	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	156	218	96	160	190	53
Future Vol, veh/h	156	218	96	160	190	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	270	-	0	225
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	170	237	104	174	207	58

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	407	0	671	289
Stage 1	-	-	-	-	289	-
Stage 2	-	-	-	-	382	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1152	-	422	750
Stage 1	-	-	-	-	760	-
Stage 2	-	-	-	-	690	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1152	-	384	750
Mov Cap-2 Maneuver	-	-	-	-	384	-
Stage 1	-	-	-	-	760	-
Stage 2	-	-	-	-	628	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.2	21.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	384	750	-	-	1152	-
HCM Lane V/C Ratio	0.538	0.077	-	-	0.091	-
HCM Control Delay (s)	24.8	10.2	-	-	8.4	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	3.1	0.2	-	-	0.3	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	198	11	39	249	7	26
Future Vol, veh/h	198	11	39	249	7	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	215	12	42	271	8	28

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	227	0	576	221
Stage 1	-	-	-	-	221	-
Stage 2	-	-	-	-	355	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1341	-	479	819
Stage 1	-	-	-	-	816	-
Stage 2	-	-	-	-	710	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1341	-	461	819
Mov Cap-2 Maneuver	-	-	-	-	461	-
Stage 1	-	-	-	-	816	-
Stage 2	-	-	-	-	684	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	10.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	461	819	-	-	1341	-
HCM Lane V/C Ratio	0.017	0.035	-	-	0.032	-
HCM Control Delay (s)	12.9	9.6	-	-	7.8	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	222	2	29	283	5	48
Future Vol, veh/h	222	2	29	283	5	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	241	2	32	308	5	52

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	243	0	614	242
Stage 1	-	-	-	-	242	-
Stage 2	-	-	-	-	372	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1323	-	455	797
Stage 1	-	-	-	-	798	-
Stage 2	-	-	-	-	697	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1323	-	442	797
Mov Cap-2 Maneuver	-	-	-	-	442	-
Stage 1	-	-	-	-	798	-
Stage 2	-	-	-	-	677	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	10.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	442	797	-	-	1323	-
HCM Lane V/C Ratio	0.012	0.065	-	-	0.024	-
HCM Control Delay (s)	13.2	9.8	-	-	7.8	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0	0.2	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	50	3	240	72	5	308
Future Vol, veh/h	50	3	240	72	5	308
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	-	150	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	3	261	78	5	335

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	606	261	0	0	339	0
Stage 1	261	-	-	-	-	-
Stage 2	345	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	460	778	-	-	1220	-
Stage 1	783	-	-	-	-	-
Stage 2	717	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	458	778	-	-	1220	-
Mov Cap-2 Maneuver	458	-	-	-	-	-
Stage 1	783	-	-	-	-	-
Stage 2	713	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.7	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	458	778	1220	-
HCM Lane V/C Ratio	-	-	0.119	0.004	0.004	-
HCM Control Delay (s)	-	-	13.9	9.6	8	0
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0	0	-

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	38	2	310	26	0	358
Future Vol, veh/h	38	2	310	26	0	358
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	2	337	28	0	389

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	740	351	0	0	365	0
Stage 1	351	-	-	-	-	-
Stage 2	389	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	384	692	-	-	1194	-
Stage 1	713	-	-	-	-	-
Stage 2	685	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	384	692	-	-	1194	-
Mov Cap-2 Maneuver	384	-	-	-	-	-
Stage 1	713	-	-	-	-	-
Stage 2	685	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	393	1194	-
HCM Lane V/C Ratio	-	-	0.111	-	-
HCM Control Delay (s)	-	-	15.3	0	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	38	1	335	12	1	395
Future Vol, veh/h	38	1	335	12	1	395
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	1	364	13	1	429

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	802	371	0	0	377	0
Stage 1	371	-	-	-	-	-
Stage 2	431	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	353	675	-	-	1181	-
Stage 1	698	-	-	-	-	-
Stage 2	655	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	353	675	-	-	1181	-
Mov Cap-2 Maneuver	353	-	-	-	-	-
Stage 1	698	-	-	-	-	-
Stage 2	654	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.4	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	357	1181	-
HCM Lane V/C Ratio	-	-	0.119	0.001	-
HCM Control Delay (s)	-	-	16.4	8.1	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Intersection	
Int Delay, s/veh	14.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	145	295	54	142	336	55
Future Vol, veh/h	145	295	54	142	336	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	270	-	0	225
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	158	321	59	154	365	60

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	479	0	591	319
Stage 1	-	-	-	-	319	-
Stage 2	-	-	-	-	272	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1083	-	470	722
Stage 1	-	-	-	-	737	-
Stage 2	-	-	-	-	774	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1083	-	445	722
Mov Cap-2 Maneuver	-	-	-	-	445	-
Stage 1	-	-	-	-	737	-
Stage 2	-	-	-	-	732	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.3	36.4
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	445	722	-	-	1083	-
HCM Lane V/C Ratio	0.821	0.083	-	-	0.054	-
HCM Control Delay (s)	40.7	10.4	-	-	8.5	-
HCM Lane LOS	E	B	-	-	A	-
HCM 95th %tile Q(veh)	7.7	0.3	-	-	0.2	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	169	31	111	163	33	119
Future Vol, veh/h	169	31	111	163	33	119
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	184	34	121	177	36	129

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	218	0	620	201
Stage 1	-	-	-	-	201	-
Stage 2	-	-	-	-	419	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1352	-	452	840
Stage 1	-	-	-	-	833	-
Stage 2	-	-	-	-	664	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1352	-	407	840
Mov Cap-2 Maneuver	-	-	-	-	407	-
Stage 1	-	-	-	-	833	-
Stage 2	-	-	-	-	598	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.2	11.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	407	840	-	-	1352	-
HCM Lane V/C Ratio	0.088	0.154	-	-	0.089	-
HCM Control Delay (s)	14.7	10.1	-	-	7.9	0
HCM Lane LOS	B	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	0.5	-	-	0.3	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	283	5	87	271	3	74
Future Vol, veh/h	283	5	87	271	3	74
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	308	5	95	295	3	80

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	313	0	796	311
Stage 1	-	-	-	-	311	-
Stage 2	-	-	-	-	485	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1247	-	356	729
Stage 1	-	-	-	-	743	-
Stage 2	-	-	-	-	619	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1247	-	324	729
Mov Cap-2 Maneuver	-	-	-	-	324	-
Stage 1	-	-	-	-	743	-
Stage 2	-	-	-	-	563	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	324	729	-	-	1247	-
HCM Lane V/C Ratio	0.01	0.11	-	-	0.076	-
HCM Control Delay (s)	16.2	10.6	-	-	8.1	0
HCM Lane LOS	C	B	-	-	A	A
HCM 95th %tile Q(veh)	0	0.4	-	-	0.2	-

Intersection	
Int Delay, s/veh	6.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	216	14	378	203	13	336
Future Vol, veh/h	216	14	378	203	13	336
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	-	150	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	235	15	411	221	14	365

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	804	411	0	0	632	0
Stage 1	411	-	-	-	-	-
Stage 2	393	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	352	641	-	-	951	-
Stage 1	669	-	-	-	-	-
Stage 2	682	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	346	641	-	-	951	-
Mov Cap-2 Maneuver	346	-	-	-	-	-
Stage 1	669	-	-	-	-	-
Stage 2	670	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	33.3	0	0.3
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	346	641	951	-
HCM Lane V/C Ratio	-	-	0.679	0.024	0.015	-
HCM Control Delay (s)	-	-	34.8	10.8	8.8	0
HCM Lane LOS	-	-	D	B	A	A
HCM 95th %tile Q(veh)	-	-	4.7	0.1	0	-

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	65	1	580	76	1	551
Future Vol, veh/h	65	1	580	76	1	551
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	1	630	83	1	599

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1273	672	0	0	713	0
Stage 1	672	-	-	-	-	-
Stage 2	601	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	185	456	-	-	887	-
Stage 1	508	-	-	-	-	-
Stage 2	547	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	185	456	-	-	887	-
Mov Cap-2 Maneuver	185	-	-	-	-	-
Stage 1	508	-	-	-	-	-
Stage 2	546	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	35.8	0	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	187	887	-
HCM Lane V/C Ratio	-	-	0.384	0.001	-
HCM Control Delay (s)	-	-	35.8	9.1	0
HCM Lane LOS	-	-	E	A	A
HCM 95th %tile Q(veh)	-	-	1.7	0	-

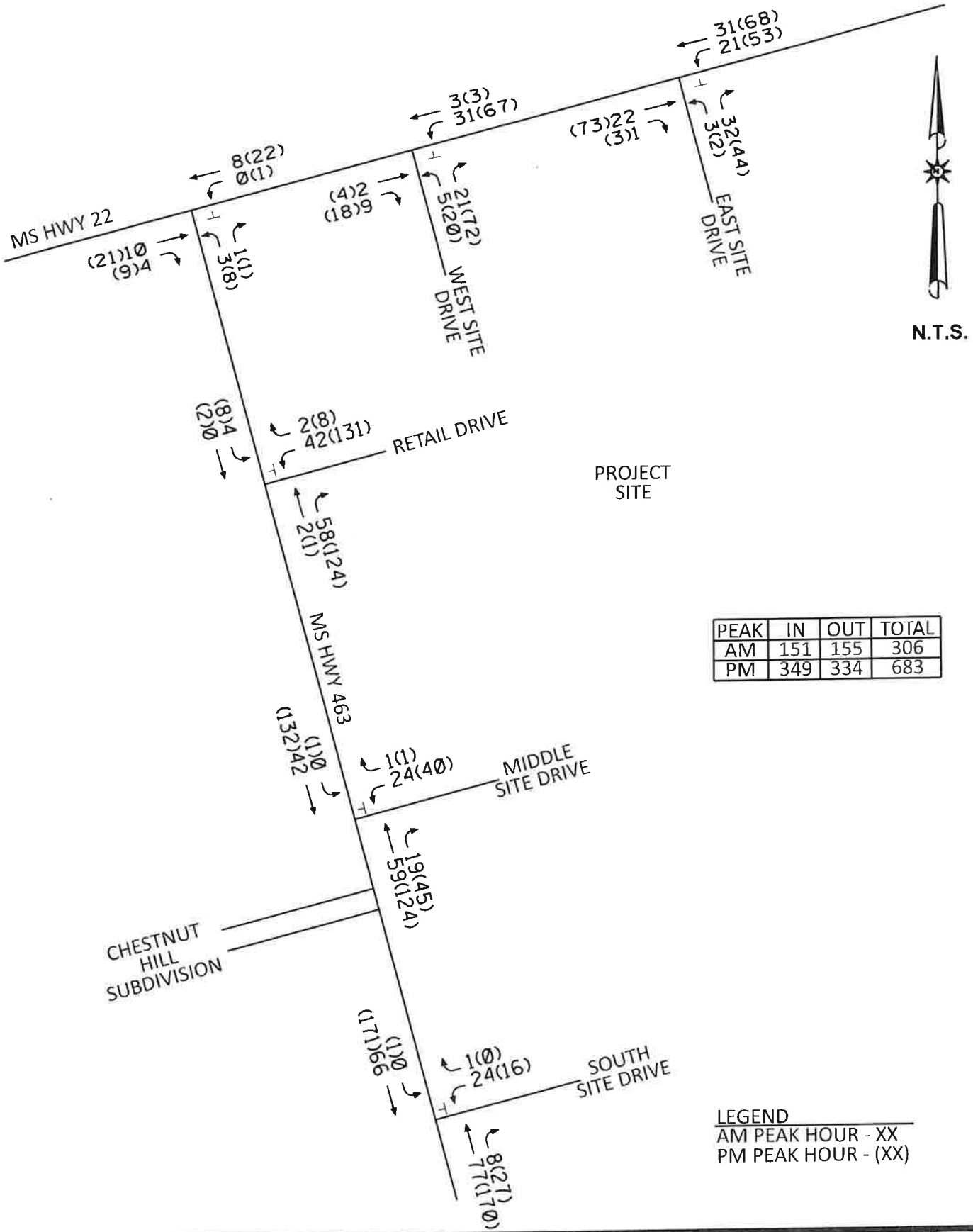
Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	27	1	655	44	2	615
Future Vol, veh/h	27	1	655	44	2	615
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	1	712	48	2	668

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1408	736	0	0	760	0
Stage 1	736	-	-	-	-	-
Stage 2	672	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	153	419	-	-	852	-
Stage 1	474	-	-	-	-	-
Stage 2	508	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	152	419	-	-	852	-
Mov Cap-2 Maneuver	152	-	-	-	-	-
Stage 1	474	-	-	-	-	-
Stage 2	506	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	33.6	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	156	852	-
HCM Lane V/C Ratio	-	-	0.195	0.003	-
HCM Control Delay (s)	-	-	33.6	9.2	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	0.7	0	-



PEAK	IN	OUT	TOTAL
AM	151	155	306
PM	349	334	683

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TRAFFIC AND ENGINEERING

PHASE 1 YEAR 2025
SITE TRAFFIC ASSIGNMENT

FIGURE
4a

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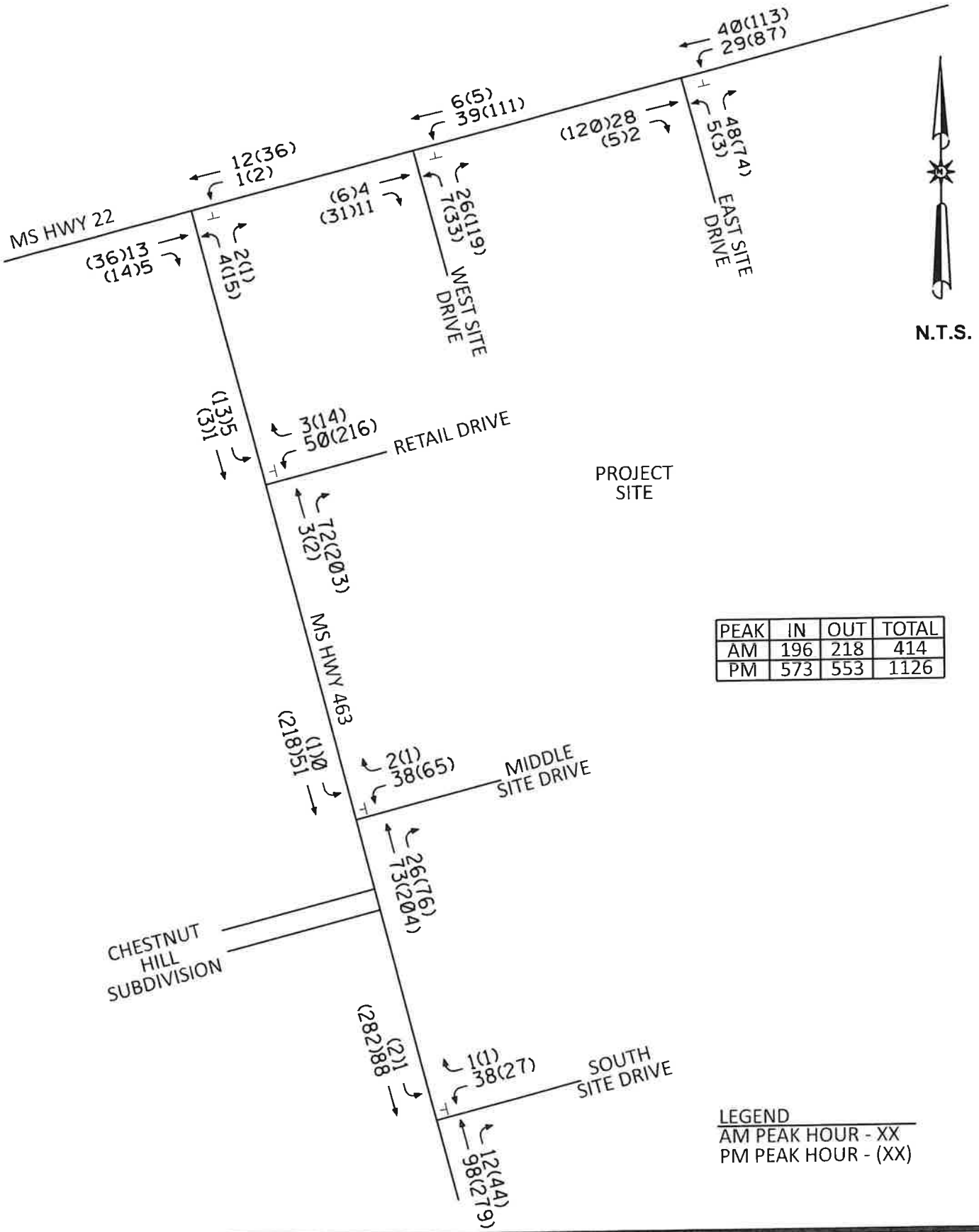

PEAK	IN	OUT	TOTAL
AM	196	218	414
PM	573	553	1126

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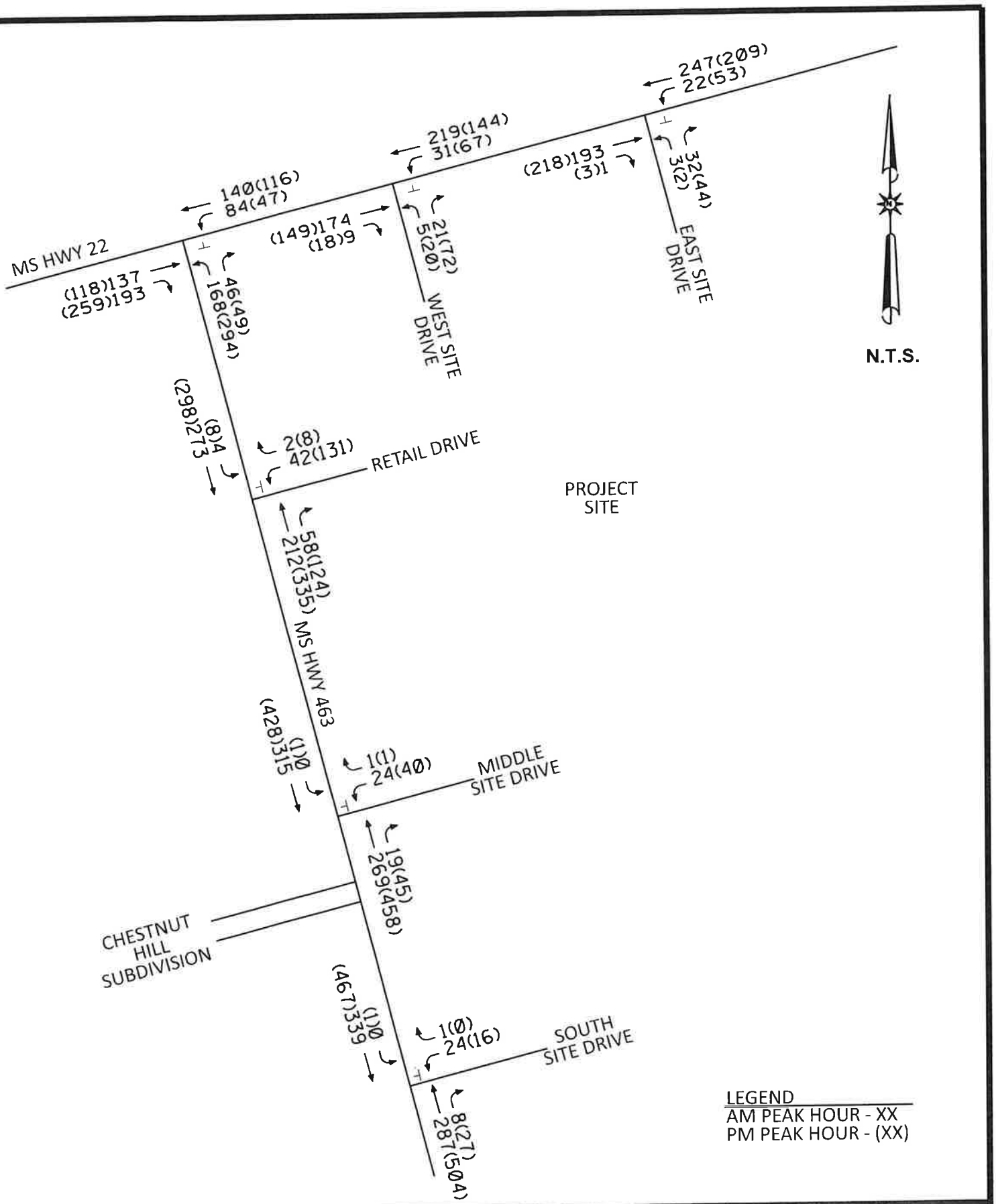
PHASE 2 YEAR 2028
SITE TRAFFIC ASSIGNMENT

FIGURE
4b

C:\Kiser\CADD\#173-Hwy 463-Hwy 22\siteltraffic.dgn



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PHASE 1 YEAR 2025 TOTAL TRAFFIC

FIGURE 5a

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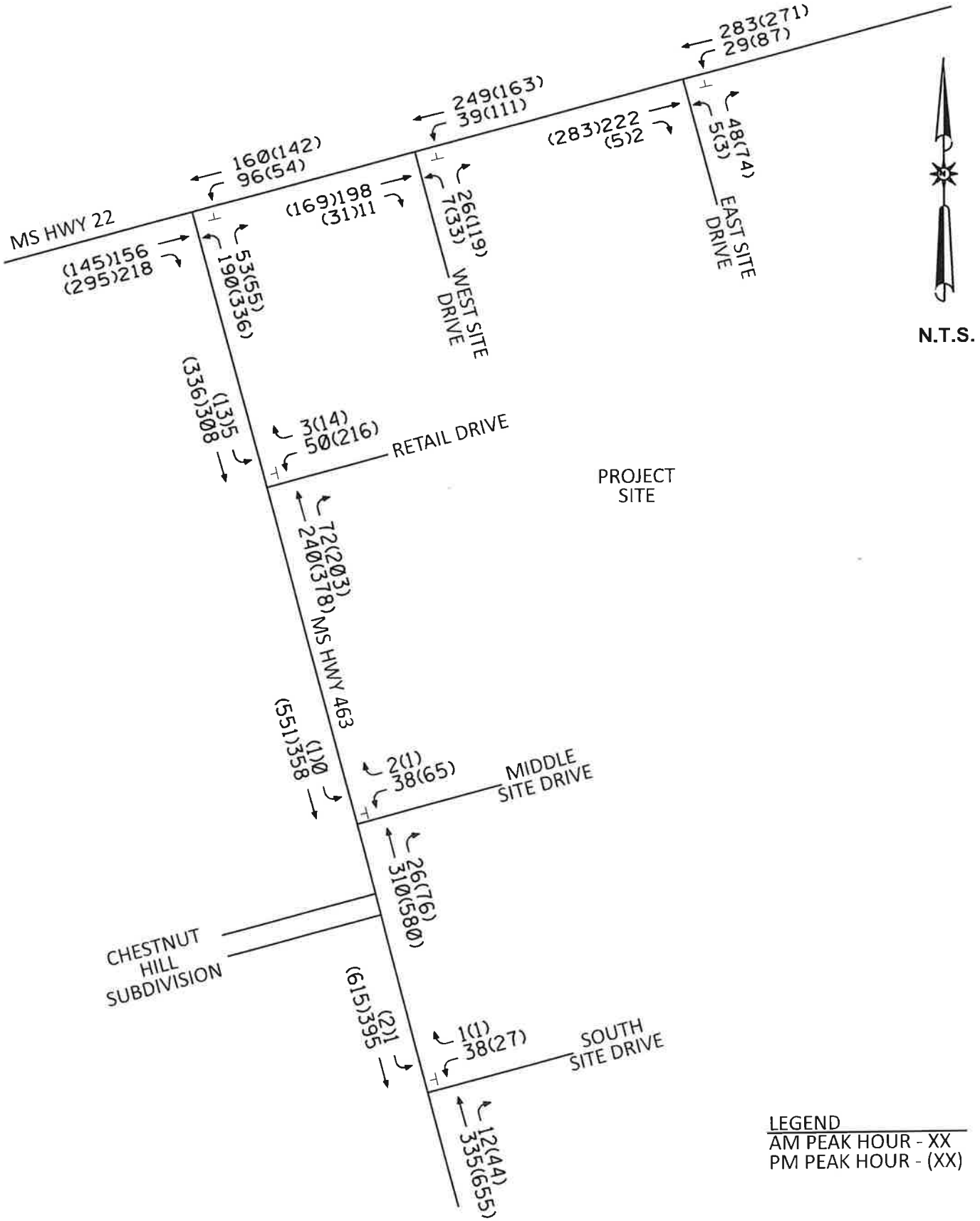

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PHASE 2 YEAR 2028 TOTAL TRAFFIC

FIGURE 5b

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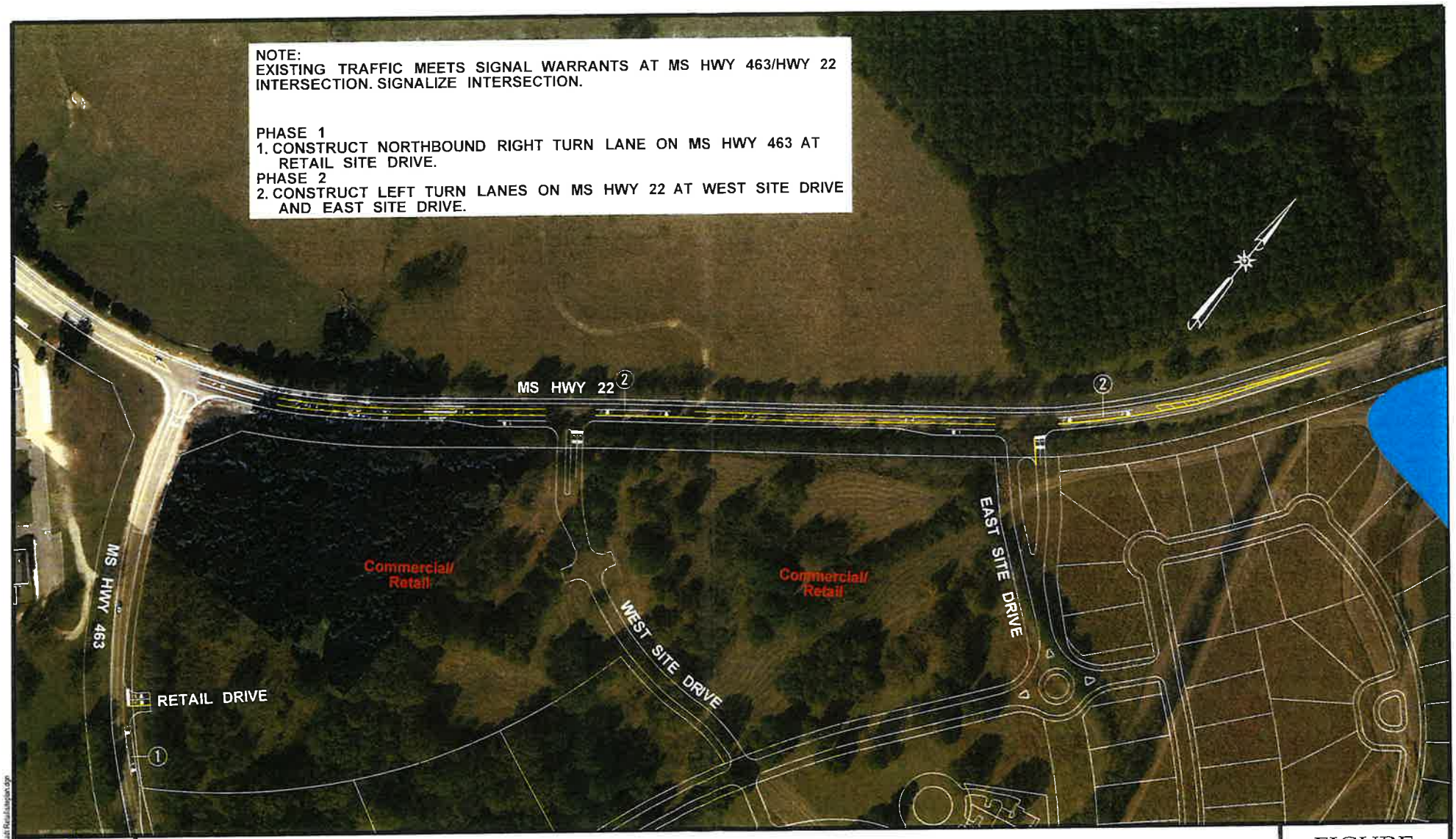
SITE PLAN

FIGURE
2



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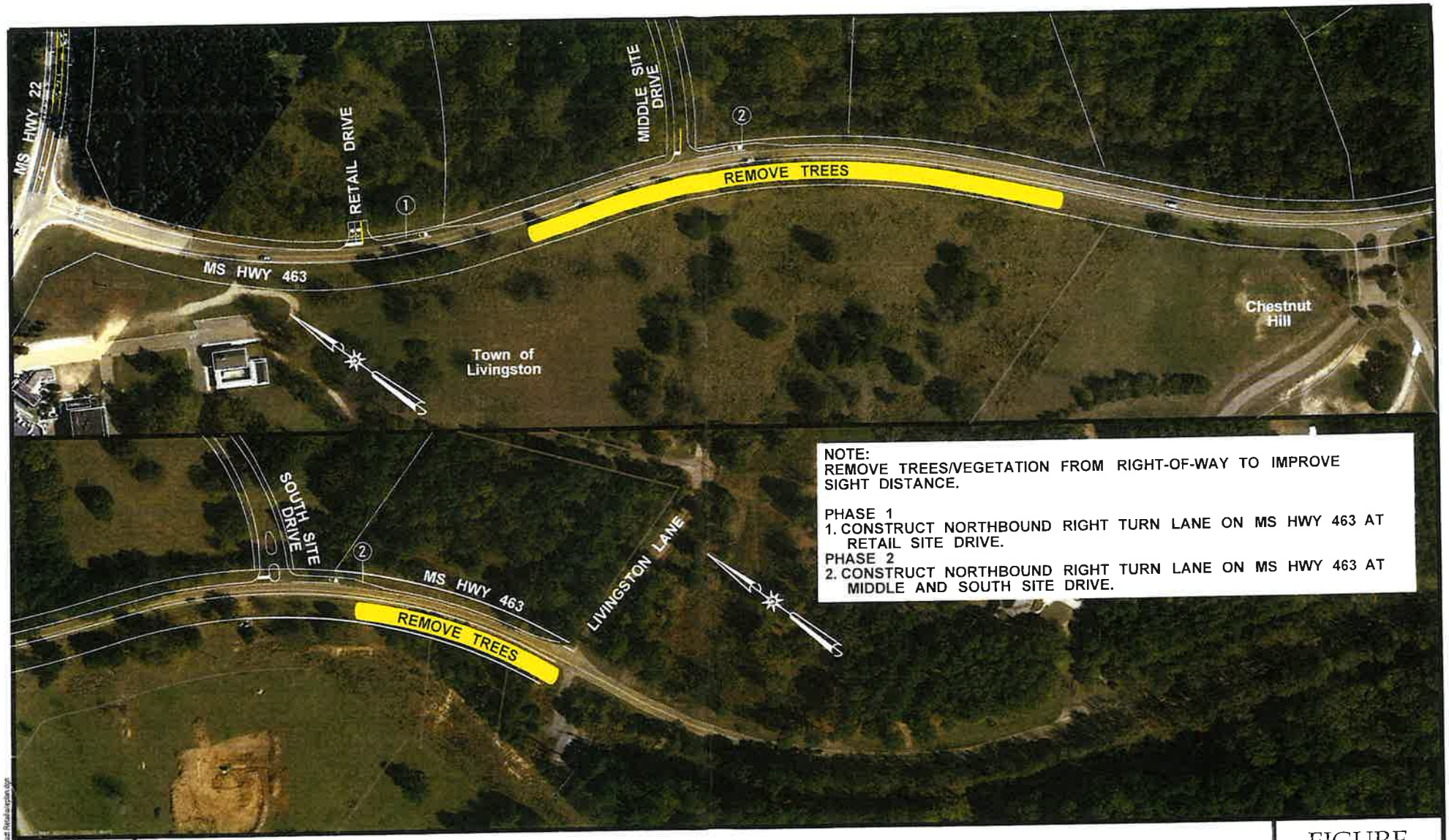
RECOMMENDED IMPROVEMENTS

FIGURE
6a



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RECOMMENDED IMPROVEMENTS

FIGURE
6b

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