



Neel-Schaffer, Inc.  
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July 26, 2018

Mr. Joe C. Morris, Jr.  
Terra Holdings, LLC  
P.O. Box 227  
145 Ridgeland Plaza  
Ridgeland, MS 39158

Re: Traffic Analysis for the Proposed Convenience Market w/ Gas Pumps in Madison County, MS

Dear Mr. Morris:

Per your request, Neel-Schaffer has conducted an analysis of the proposed gas station in Gluckstadt, MS. This letter is intended to provide traffic analysis information regarding the development of the property in the southeast corner of the intersection of Dees Drive Connector Road-Calhoun Station Parkway with Gluckstadt Road. Development of the 1.94 acre project site is planned to include a 4,380 SF Convenience Market with 12 automobile fueling positions. Access to the site is proposed to include two site driveways on Dees Drive Connector. A driveway was constructed to serve the adjacent Burger King site and will serve as a shared driveway connecting the Burger King site with the gas station site. The existing cross section of Dees Drive Connector Road adjacent to the site includes a 3-lane roadway that narrows to 2 lanes south of the existing shared driveway. The project site plan is provided in **Figure 1-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 posted speed limit on both Gluckstadt Road and Calhoun Station Parkway is 35 mph adjacent to the site. Calhoun Station Parkway was extended south of Church Road in 2011, to connect with Gluckstadt Road. The extension of Calhoun Station Parkway south to Gluckstadt Road provided a contiguous route on the west side of I-55 between the Sowell Road interchange and Gluckstadt Road interchange.

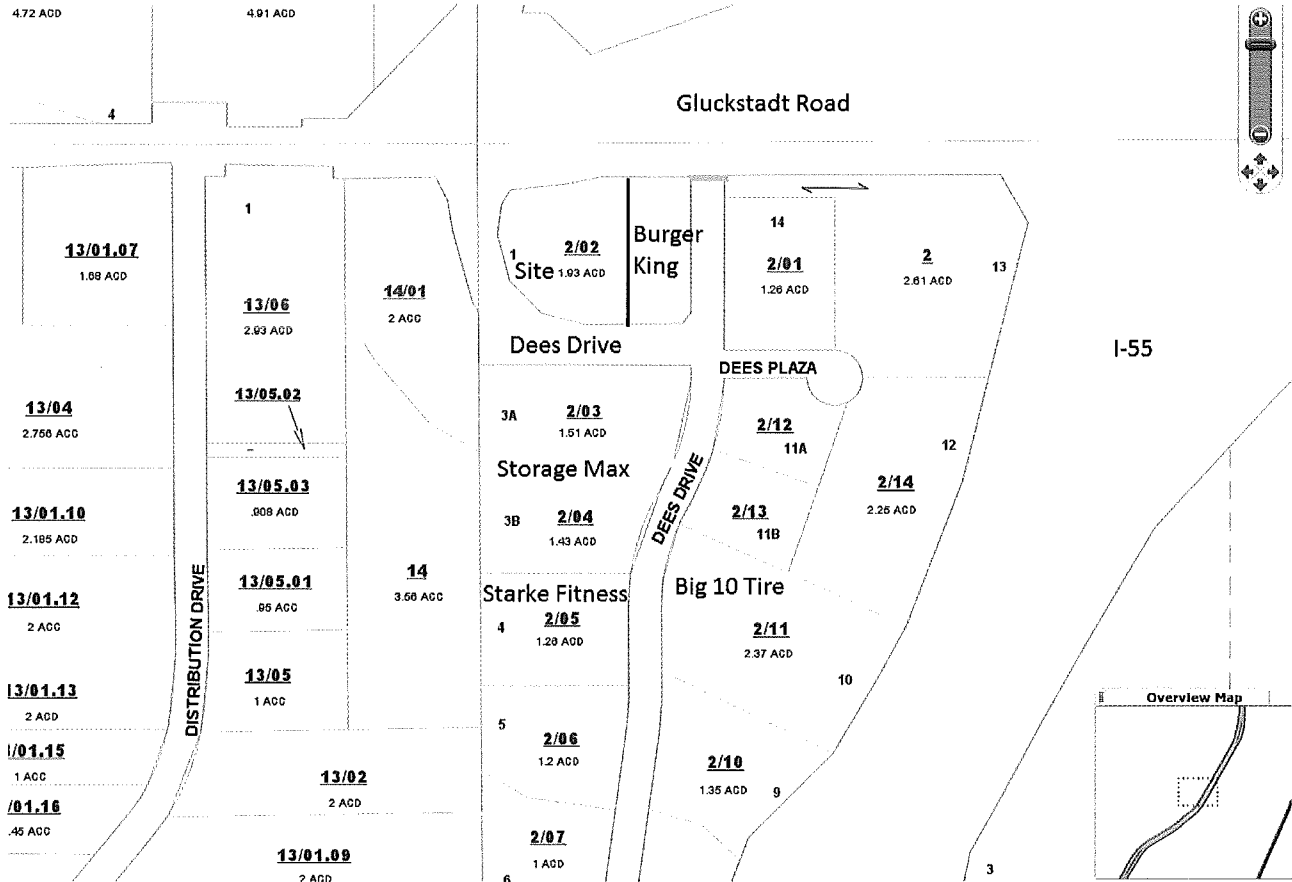
In 2014/2015, the Gluckstadt Road interchange was reconstructed and Dees Drive was realigned to intersect with Calhoun Station Parkway at a signalized intersection with the construction of the Dees Drive Connector roadway. Gluckstadt Road was widened to a four-lane divided roadway between I-55 and Calhoun Station Parkway, adjacent to the site, then narrowed to a three lane roadway west of Calhoun Station Parkway. In August/September 2017, an intersection project added a fourth lane (eastbound) between Distribution Drive and Dees Drive/Calhoun Station Parkway on the south side of Gluckstadt Road, along with a new traffic signal at Distribution Drive/Gluckstadt Road to relieve congestion/delays associated with this adjacent intersection.

There are multiple traffic generators along Dees Drive, south of Gluckstadt Road, including the Burger King, Big 10 Tire and Starke Fitness Gym. Calhoun Station Parkway provides access north to the Germantown High School and Middle School, and to residential areas that use Stribling Road Extension as a bypass of the congestion/delays associated with Gluckstadt Road.



Dees Drive – Looking south from Gluckstadt Road

A traffic count was conducted on August 24, 2017, at the adjacent intersection of Dees Drive Connector-Calhoun Station Parkway/Gluckstadt Road. Calhoun Station Parkway is a north/south Major Collector roadway that provides access to Germantown High School and Middle School, just north of Church Road. Gluckstadt Road is an east/west principal arterial roadway. Current plans for Gluckstadt Road include a combination of restriping the center lane and widening to the south to provide two eastbound thru lanes between Catlett Road and I-55. Dees Drive Connector road and Dees Drive are not classified roadways in the Federal Aid system. MDOT has acquired access control over the property between Dees Drive Connector and I-55, eliminating the opportunity for direct access to Gluckstadt Road along this section of roadway.



Madison County Tax Map

Source: TSC Maps, Neel-Schaffer, 2018.

The year 2017 peak hour traffic volumes adjacent to the site are shown in **Figure 2**.

**Trip Generation/Assignment**

The trip generation characteristics of the proposed Convenience Market with Gas Pumps were calculated using the Institute of Transportation Engineers (ITE), Trip Generation, 9<sup>th</sup> Edition. The manual identifies two different independent variables for calculating traffic for a Convenience Market with Gas Pumps (Land Use 853): 1) SF of Convenience Market and 2) Number of fueling positions. The two rates are nearly identical for this size of Convenience Market and number of gas pump. An average of the two independent variable calculations was used to estimate the site’s trip generation characteristics. The results of the trip generation calculations are shown in **Table 1**.

Table 1  
Trip Generation

Land Use	Intensity		Daily Trips	AM Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out
Conv. Mkt w/ Gas Pmps	4,380	S.F.	3,704	179	90	89	223	112	111
Conv. Mkt w/ Gas Pmps	12	Fueling pos	6,511	199	100	99	229	115	114
		Average	<b>5,108</b>	<b>189</b>	<b>95</b>	<b>94</b>	<b>226</b>	<b>114</b>	<b>112</b>
<u>Pass-by Trips</u>									
Conv. Mkt w/ Gas Pumps	12	Fueling pos		119	60	59	149	75	74
		Net new trips		70	35	35	77	39	38
Daily Traffic Generation									
	Conv. Mkt w/ Gas Pumps	[ITE 853]	=	T = 845.6 * X, SF GFA					
	Conv. Mkt w/ Gas Pumps	[ITE 853]	=	T = 542.6 * X, Fueling Pos					
AM Peak Hour Traffic Generation									
	Conv. Mkt w/ Gas Pumps	[ITE 853]	=	T = 40.92 * X ; (50%in/50%out) SF GFA					
	Conv. Mkt w/ Gas Pumps	[ITE 853]	=	T = 16.57 * X ; (50%in/50%out) Fueling Pos					
PM Peak Hour Traffic Generation									
	Conv. Mkt w/ Gas Pumps	[ITE 853]	=	T = 50.92 * X ; (50%in/50%out) SF GFA					
	Conv. Mkt w/ Gas Pumps	[ITE 853]	=	T = 19.07 * X ; (50%in/50%out) Fueling Pos					

Source: ITE Trip Generation, 9th Edition, Neel-Schaffer, 2018. X = 1,000 SF of Gross Floor Area or Fueling Positions

ITE’s Trip Generation studies identify that the average pass-by trips are in excess of 60% for Land Use 853 in both the AM and PM peak hours. While a pass-by trip reduction decreases the impacts to the adjacent street, it does not reduce driveway volumes, as these are not “new trips” on the adjacent street, but the vehicles stop by the gas station on their way to another origin or destination. To remain conservative, no pass-by trip reduction was used in this analysis. The average of the two independent variable calculations was used for the trip generation of the project site. The project site traffic is shown graphically in **Figure 3**. The site traffic was then added to the non-site traffic to evaluate the impacts to the roadway adjacent to the site for buildout (2019). The projected 2019 Total Traffic is shown in **Figure 4**.

**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 and future traffic (2019-Total traffic at buildout). The intersections identified in this analysis include the adjacent signalized intersection of Dees Drive Connector-Calhoun Station Parkway/Gluckstadt Road and the two project site driveways. The capacity analysis sheets are provided as an attachment to this letter/report. The capacity analysis results are summarized in **Table 2**.

Table 2  
Capacity Analysis Summary

Signalized Intersection	Time Period	Approach LOS				Intersection LOS							
		EB	WB	NB	SB								
<i>Existing Traffic</i>													
Gluckstadt Road/ Dees-Calhoun SP	AM Peak	B	B	C	C	C							
	PM Peak	B	D	D	D	C							
<i>2019 Total Traffic</i>													
Gluckstadt Road/ Dees-Calhoun SP	AM Peak	C	C	D	D	C							
	PM Peak	B	D	D	D	C							
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
<i>2019 Total Traffic</i>													
N. Site Drive/ Dees Drive Con.	AM Peak	-	-	-	-	-	A	-	-	-	-	-	-
	PM Peak	-	-	-	-	-	A	-	-	-	-	-	-
S. Site Drive/ Dees Drive Con.	AM Peak	-	-	-	A	-	A	-	-	-	A	-	-
	PM Peak	-	-	-	A	-	A	-	-	-	A	-	-

Source: Neel-Schaffer, 2018, HCM 2010.

The study intersections are forecast to operate at acceptable levels (from a capacity perspective) with the development of the project site. With increases in traffic on Dees Drive Connector Road, the split phasing of the signal for north/south traffic may need to change to concurrent north/south phasing as north/south traffic volumes become more balanced.

**Southbound Left-turn Access**

The proximity of the existing north site driveway to Gluckstadt Road (+105 ft) creates the potential for southbound left turning traffic on the Dees Drive Connector Road to queue into Gluckstadt Road. The modification of this (existing) north site driveway to convert from a full access driveway to a “right-out only” will help to reduce the impacts of site traffic on this adjacent Principal Arterial roadway/signalized intersection. The existing driveway is shown in the site plan to continue to serve as a shared access between Burger King (existing) and the proposed convenience market with gas pumps at buildout. Traffic entering the Burger King site will have the option of entering through the new gas station drive, the existing Burger King driveway on the Dees Drive Connector, or the existing driveway on the (old) Dees Drive driveway east of Burger King. Supplemental signage is shown on the site plan to show “Do Not Enter” signs on the north site driveway, to direct southbound traffic on Dees Drive Connector into the other driveway for the gas station and Burger King. Calculations identify the northbound 95<sup>th</sup> percentile queue at 130 ft during the PM peak hour. Restricting southbound left turns at the north site driveway and having the second driveway located (in excess of) 200 ft south of Gluckstadt Road would help to reduce the impacts that southbound left turning traffic would have on Gluckstadt Road.

Access to the undeveloped 2 acre parcel to the west would be recommended to align with the proposed south driveway of the gas station across Dees Drive Connector, when this parcel develops.



Mr. Joe C. Morris, Jr.  
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**Recommendations**

No major street capacity related issues were identified with the capacity analysis of the proposed site driveways or the adjacent intersection of Dees Drive Connector/Calhoun Station Parkway based on the traffic count and proposed trip generation of the gas station site. The adjacent signalized intersection of Dees Drive Connector-Calhoun Station Parkway/ Gluckstadt Road may need to convert from split phasing (existing) to concurrent north/south phasing if traffic volumes increase significantly on Dees Drive Connector in future years to reduce major street delays.

The existing location of the north driveway on Dees Drive Connector Road is within the calculated 95<sup>th</sup> percentile queue for northbound traffic at buildout of the project site (2019). Restricting this north driveway to a “right turn out only” will help to reduce the traffic impacts by diverting southbound left turning traffic on Dees Drive Connector to the second (south) site driveway for the convenience market with gas pumps.

Signage at the north site driveway is shown to include adding “Do Not Enter” signs concurrent with the geometric changes, to help to direct entering traffic to the southern site driveway. The signage and geometric changes would help to divert southbound that otherwise would be turning across the northbound left turn lane, and/or be impeded by northbound traffic queues from the traffic signal if attempting to use the north driveway for ingress access.

The site plan and driveways (as shown in the site plan) are anticipated to operate at acceptable levels at buildout of the project site based on the traffic counts and capacity analysis of the project site driveways. The site plan includes modifying the existing northern driveway from its current configuration (full access) to be limited to a right-out-only driveway with “Do Not Enter” signs facing Dees Drive Connector. The site plan also shows a second full access driveway south of the existing driveway to serve the convenience market with gas pumps and continue to be a shared access with the adjacent Burger King site.

If you have any questions or comments regarding this analysis, please call me at (601) 948-3071.

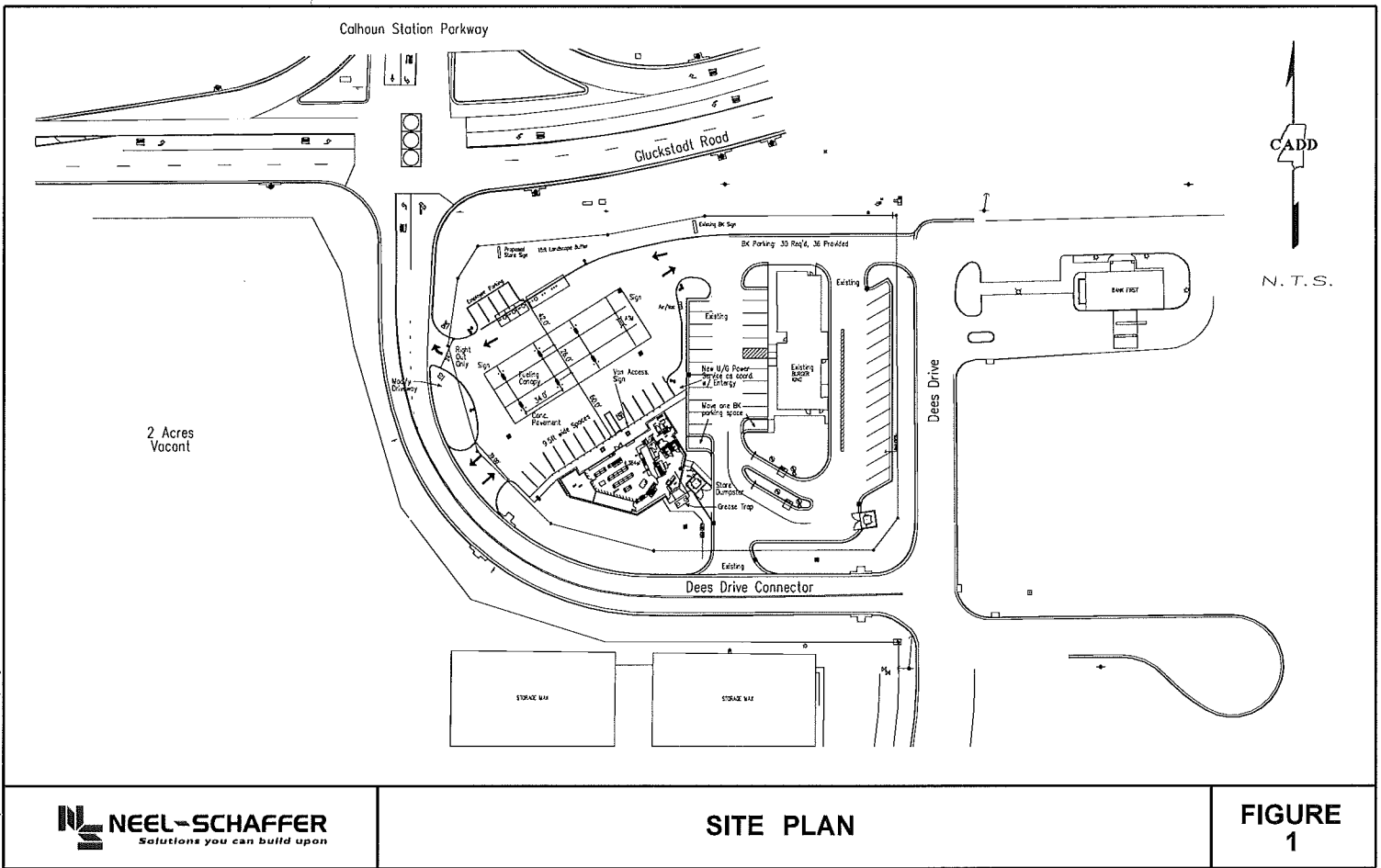
Sincerely,

NEEL-SCHAFFER, INC.

A handwritten signature in cursive script that reads 'Jonathan Kiser'.

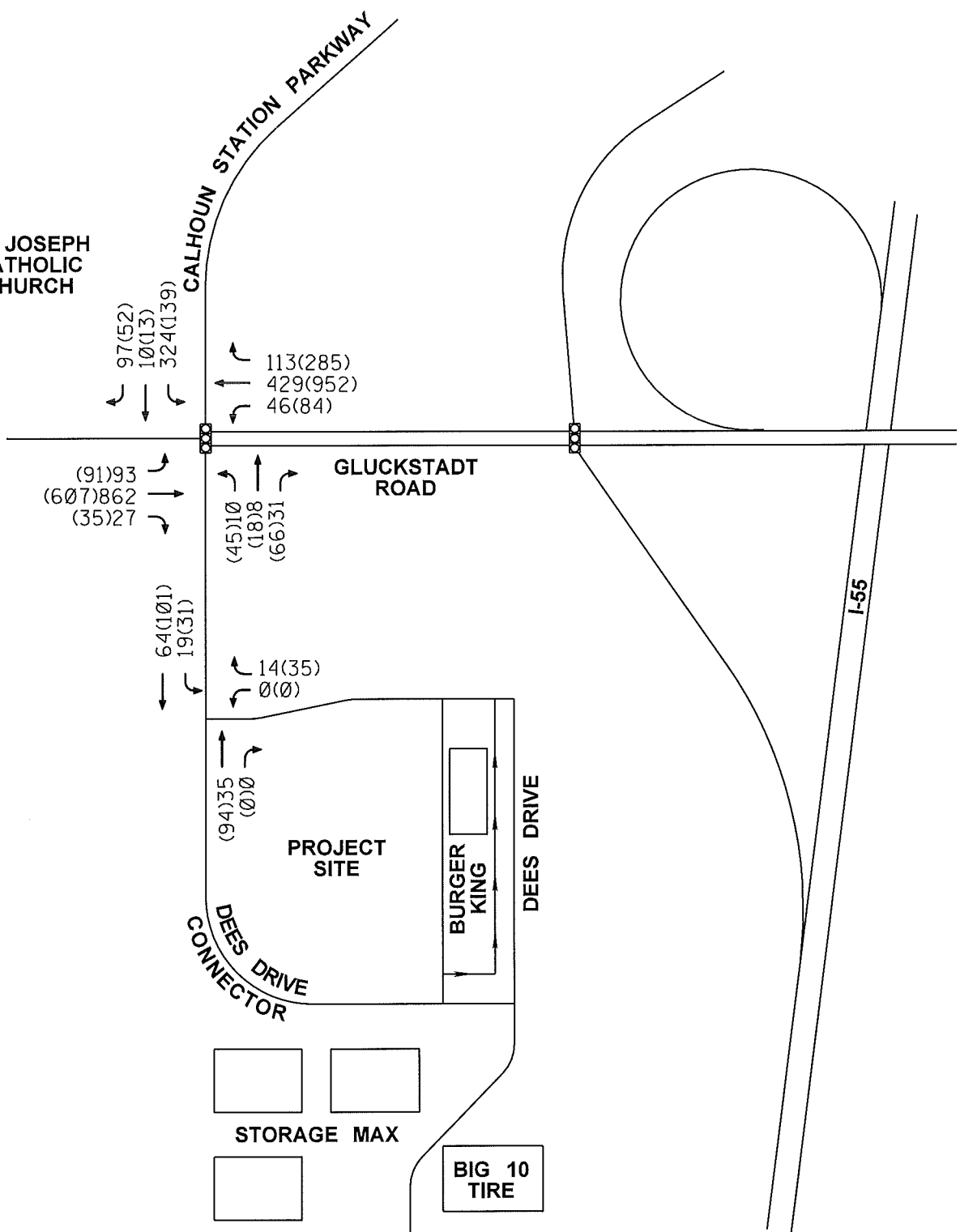
Jonathan A. Kiser, P.E., PTOE, PTP  
Professional Traffic Engineer &  
Transportation Planner

Attachments: Figure 1 – Site Plan  
Figure 2 – 2017 Existing Traffic  
Figure 3 – Site Traffic  
Figure 4 – 2019 Total Traffic  
Volume Calculation Sheets (A1-A3)  
Traffic count – Calhoun Station Parkway-Dees Drive Connector/Gluckstadt Road (A4-A8)  
HCM Capacity Analysis Sheets (A9-A18)





ST. JOSEPH  
CATHOLIC  
CHURCH



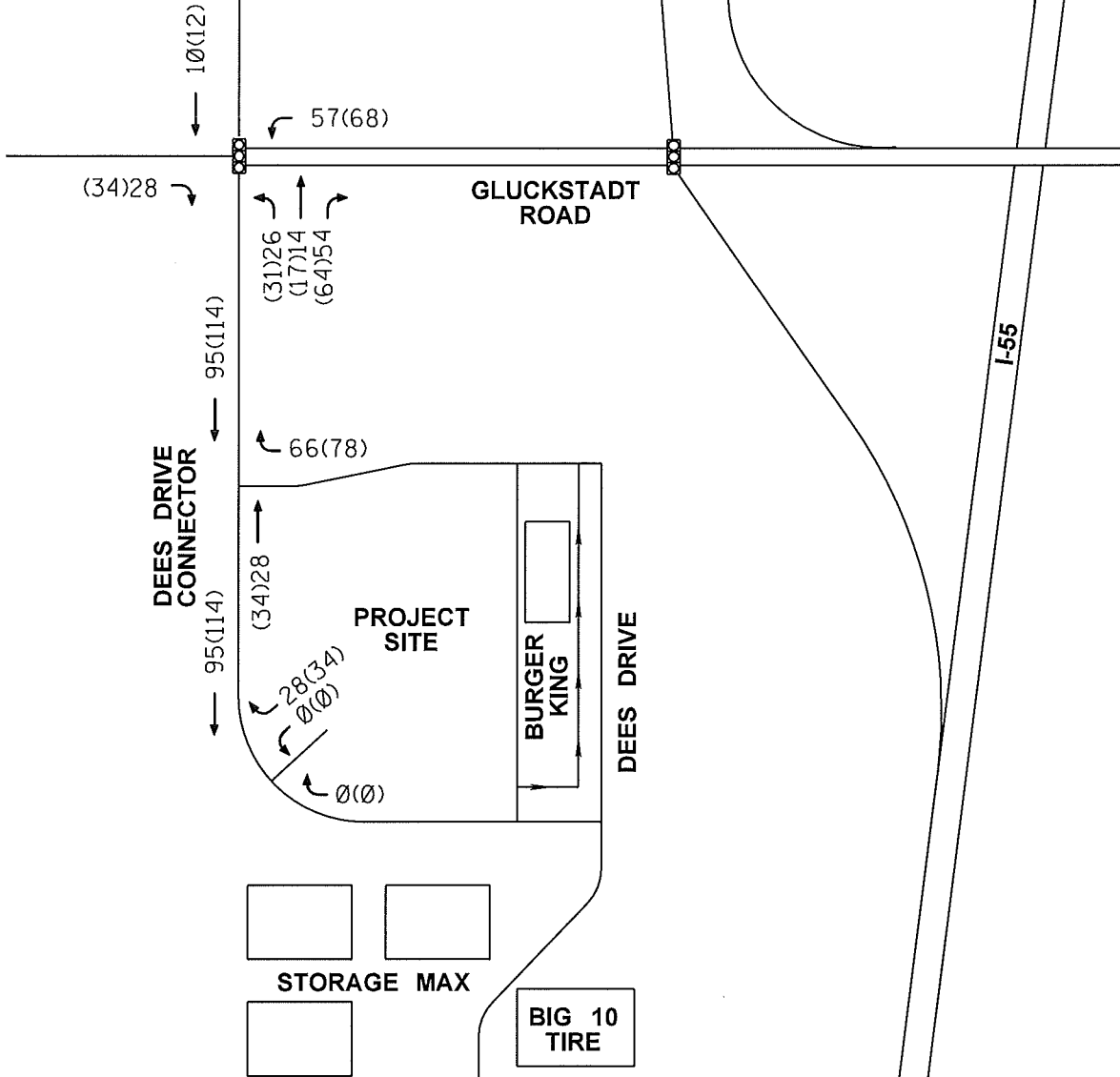
**LEGEND**  
 XX - AM PEAK HOUR - 7:15 - 8:15 AM  
 (XX) - PM PEAK HOUR - 4:45 - 5:45 PM

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ST. JOSEPH CATHOLIC CHURCH

CALHOUN STATION PARKWAY

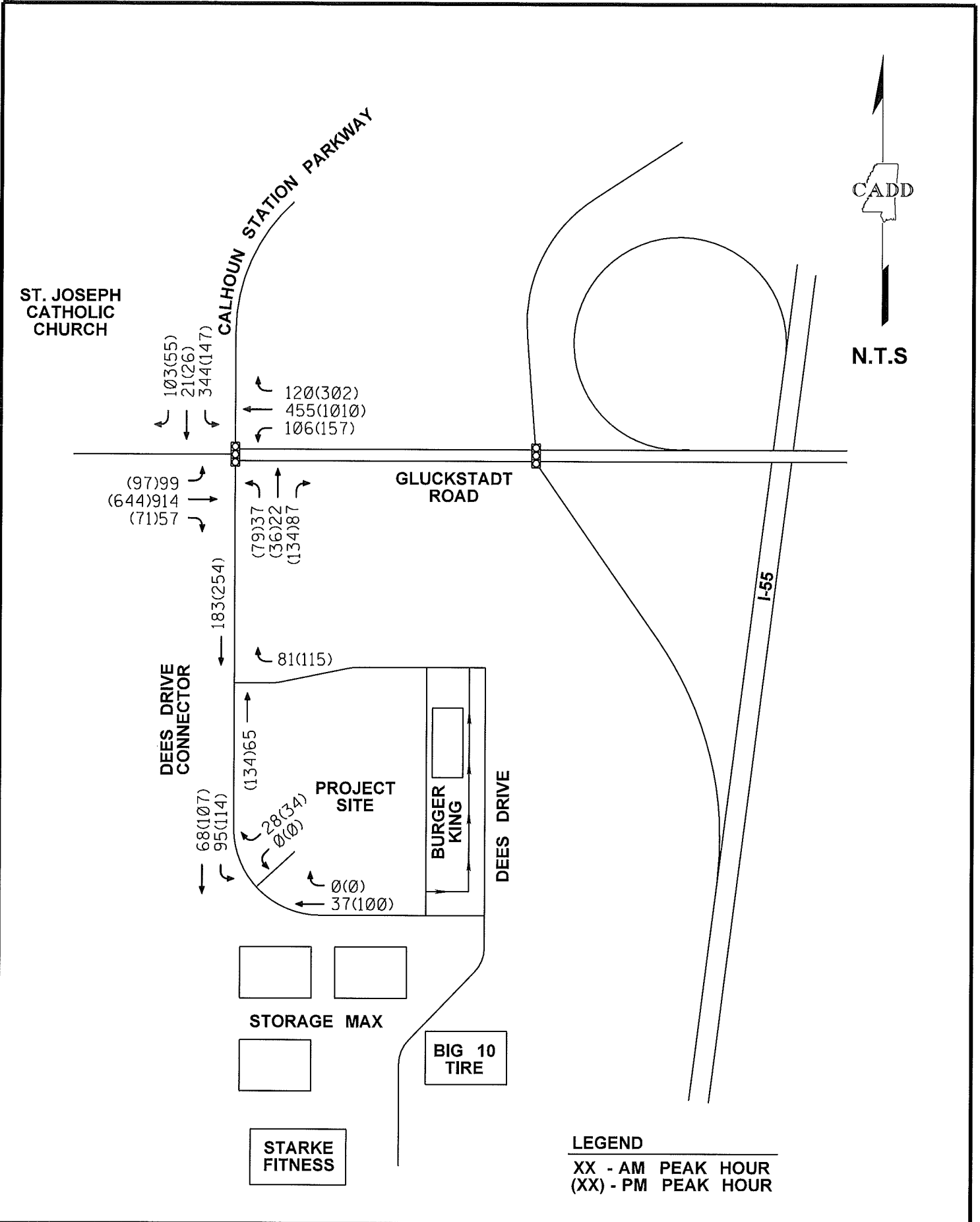


**LEGEND**  
 XX - AM PEAK HOUR  
 (XX) - PM PEAK HOUR

**TRIP GENERATION**

TIME	IN	OUT	TOTAL
AM	95	94	189
PM	114	112	226

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**Calhoun Station Parkway-Dees Drive Connector/Gluckstadt Road**

Seasonal Adjustment Factor 1  
 Annual Growth Factor 3.0%  
 Base Year 2017  
 Horizon Year 1 2019

Start Time	Northbound			Southbound			Eastbound			Westbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
<b>AM Peak Hour</b>													
2017 Existing Traffic	10	8	31	324	10	97	93	862	27	46	429	113	2,050
2019 Non-Site Traffic	11	8	33	344	11	103	99	914	29	49	455	120	2,176
Site Traffic	26	14	54		10		57		28	57			189
2019 Total Traffic	37	22	87	344	21	103	99	914	57	106	455	120	2,365
<b>PM Peak Hour</b>													
2017 Existing Traffic	45	18	66	139	13	52	91	607	35	84	952	285	2,387
2019 Non-Site Traffic	48	19	70	147	14	55	97	644	37	89	1010	302	2,532
Site Traffic	31	17	64		12		68		34	68			226
2019 Total Traffic	79	36	134	147	26	55	97	644	71	157	1,010	302	2,758

Source: Neel-Schaffner, 2018.

**Dees Drive Connector/Gas Station N. Drive**

Seasonal Adjustment Factor 1  
 Annual Growth Factor 3.0%  
 Base Year 2017  
 Horizon Year 1 2019

Start Time	Northbound			Southbound			Eastbound			Westbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
<b>AM Peak Hour</b>													
2017 Existing Traffic	0	35	0	19	64	0	0	0	0	0	0	14	132
2019 Non-Site Traffic	0	37	0	0	88	0	0	0	0	0	0	15	140
Site Traffic	0	28	0	0	95	0	0	0	0	0	0	66	189
2019 Total Traffic	0	65	0	0	183	0	0	0	0	0	0	81	329
<b>PM Peak Hour</b>													
2017 Existing Traffic	0	94	0	31	101	0	0	0	0	0	0	35	261
2019 Non-Site Traffic	0	100	0	0	140	0	0	0	0	0	0	37	277
Site Traffic	0	34	0	0	114	0	0	0	0	0	0	78	226
2019 Total Traffic	0	134	0	0	254	0	0	0	0	0	0	115	503

Source: Neel-Schaffer, 2018.

**Dees Drive Connector/Gas Station S. Drive**

Seasonal Adjustment Factor 1  
 Annual Growth Factor 3.0%  
 Base Year 2017  
 Horizon Year 1 2019

Start Time	Northbound			Southbound			Eastbound			Westbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
<b>AM Peak Hour</b>													
2017 Existing Traffic	0	35	0	0	64	0	0	0	0	0	0	0	99
2019 Non-Site Traffic	0	37	0	0	88	0	0	0	0	0	0	0	125
Site Traffic	0	0	0	95	0	0	0	0	0	0	0	28	123
2019 Total Traffic	0	37	0	95	88	0	0	0	0	0	0	28	248
<b>PM Peak Hour</b>													
2017 Existing Traffic	0	94	0	0	101	0	0	0	0	0	0	0	195
2019 Non-Site Traffic	0	100	0	0	140	0	0	0	0	0	0	0	240
Site Traffic	0	0	0	114	0	0	0	0	0	0	0	34	148
2019 Total Traffic	0	100	0	114	140	0	0	0	0	0	0	34	388

Source: Neel-Schaffer, 2018.

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A4

Intersection: Gluckstadt/Calhoun Stn Pkwy  
Counter: K. Smith (Video)  
County/State: Madison/MS  
Weather: Clear/Dry

File Name : CSP-Gluckstadt-pk-hrs  
Site Code : 00000000  
Start Date : 8/24/2017  
Page No : 1

Groups Printed- Unshifted

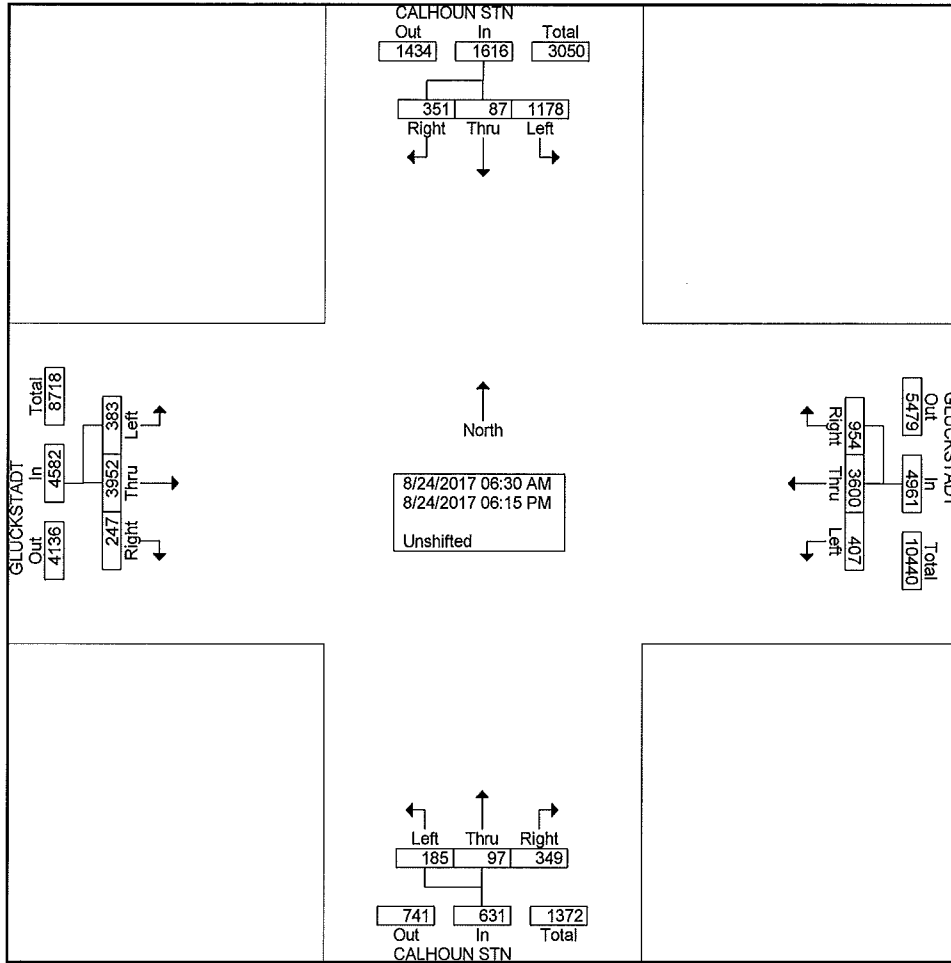
Start Time	CALHOON STN Southbound				GLUCKSTADT Westbound				CALHOON STN Northbound				GLUCKSTADT Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
06:30 AM	55	2	7	64	9	67	9	85	2	2	7	11	14	190	7	211	371
06:45 AM	63	4	13	80	7	113	19	139	3	3	11	17	7	228	8	243	479
Total	118	6	20	144	16	180	28	224	5	5	18	28	21	418	15	454	850
07:00 AM	78	3	14	95	10	87	12	109	0	2	8	10	8	250	4	262	476
07:15 AM	109	2	13	124	12	89	27	128	1	2	7	10	13	231	4	248	510
07:30 AM	60	2	18	80	10	101	22	133	4	4	5	13	11	241	5	257	483
07:45 AM	88	2	27	117	14	107	34	155	2	2	7	11	43	196	8	247	530
Total	335	9	72	416	46	384	95	525	7	10	27	44	75	918	21	1014	1999
08:00 AM	67	4	39	110	10	132	30	172	3	0	12	15	26	194	10	230	527
08:15 AM	43	1	25	69	16	97	25	138	4	2	7	13	4	162	9	175	395
*** BREAK ***																	
Total	110	5	64	179	26	229	55	310	7	2	19	28	30	356	19	405	922
*** BREAK ***																	
11:00 AM	26	8	8	42	13	73	23	109	8	3	16	27	7	95	12	114	292
11:15 AM	26	4	3	33	17	100	25	142	8	3	9	20	7	99	17	123	318
11:30 AM	24	3	5	32	24	112	36	172	5	5	8	18	7	126	17	150	372
11:45 AM	34	8	12	54	19	119	26	164	12	10	21	43	6	117	15	138	399
Total	110	23	28	161	73	404	110	587	33	21	54	108	27	437	61	525	1381
12:00 PM	26	7	11	44	18	105	27	150	11	9	21	41	16	112	12	140	375
12:15 PM	26	5	8	39	19	128	25	172	12	5	12	29	15	104	10	129	369
12:30 PM	13	5	7	25	14	100	27	141	8	4	22	34	12	119	5	136	336
12:45 PM	42	1	10	53	18	107	31	156	6	6	20	32	17	96	7	120	361
Total	107	18	36	161	69	440	110	619	37	24	75	136	60	431	34	525	1441
*** BREAK ***																	
04:00 PM	48	0	14	62	20	152	34	206	7	3	14	24	15	137	10	162	454
04:15 PM	40	1	10	51	21	185	46	252	11	1	13	25	12	148	11	171	499
04:30 PM	39	1	13	53	14	178	48	240	12	3	20	35	19	147	8	174	502
04:45 PM	34	4	10	48	20	229	62	311	7	1	14	22	22	139	7	168	549
Total	161	6	47	214	75	744	190	1009	37	8	61	106	68	571	36	675	2004
05:00 PM	46	3	11	60	27	215	63	305	10	2	18	30	18	156	8	182	577
05:15 PM	29	5	10	44	19	239	81	339	12	6	15	33	24	144	9	177	593
05:30 PM	30	1	21	52	18	269	79	366	16	9	19	44	27	168	11	206	668
05:45 PM	47	6	16	69	13	181	49	243	3	4	15	22	12	121	8	141	475
Total	152	15	58	225	77	904	272	1253	41	21	67	129	81	589	36	706	2313
06:00 PM	49	2	16	67	10	184	53	247	12	0	15	27	11	120	7	138	479
06:15 PM	36	3	10	49	15	131	41	187	6	6	13	25	10	112	18	140	401
Grand Total	1178	87	351	1616	407	3600	954	4961	185	97	349	631	383	3952	247	4582	11790
Apprch %	72.9	5.4	21.7		8.2	72.6	19.2		29.3	15.4	55.3		8.4	86.3	5.4		
Total %	10	0.7	3	13.7	3.5	30.5	8.1	42.1	1.6	0.8	3	5.4	3.2	33.5	2.1	38.9	

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A5

Intersection: Gluckstadt/Calhoun Stn Pkwy  
Counter: K. Smith (Video)  
County/State: Madison/MS  
Weather: Clear/Dry

File Name : CSP-Gluckstadt-pk-hrs  
Site Code : 00000000  
Start Date : 8/24/2017  
Page No : 2



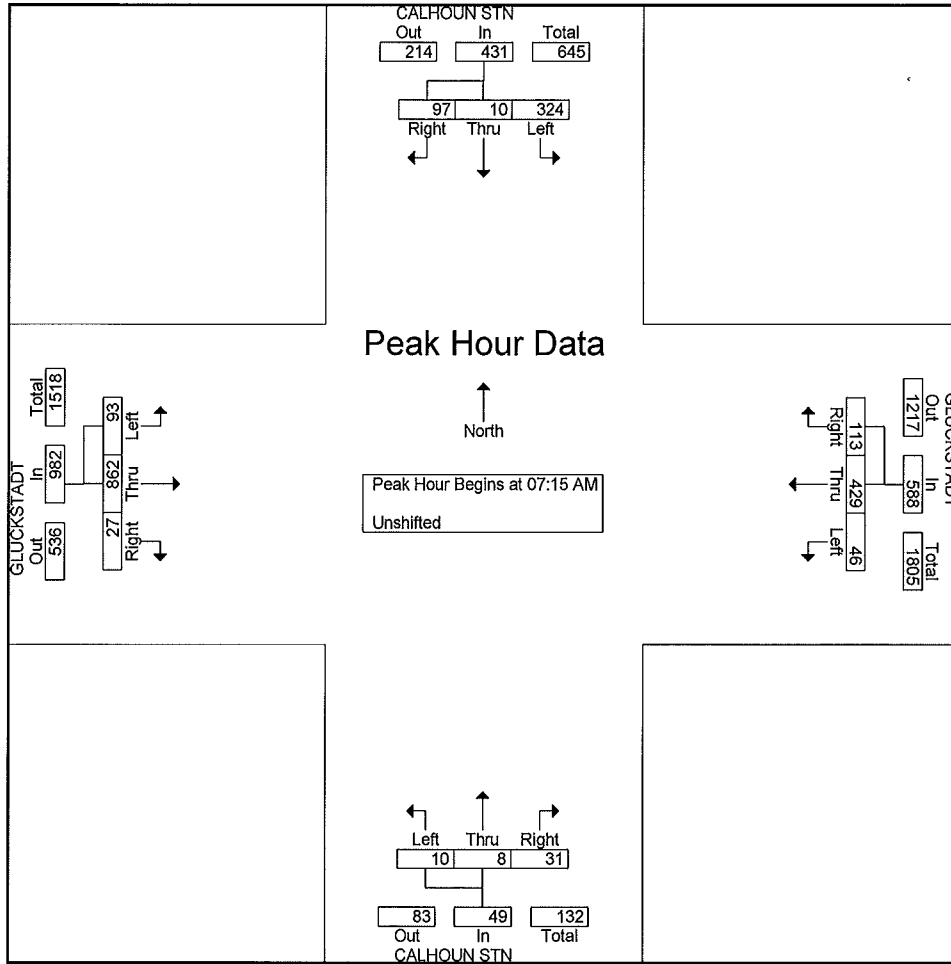
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A6

Intersection: Gluckstadt/Calhoun Stn Pkwy  
Counter: K. Smith (Video)  
County/State: Madison/MS  
Weather: Clear/Dry

File Name : CSP-Gluckstadt-pk-hrs  
Site Code : 00000000  
Start Date : 8/24/2017  
Page No : 3

Start Time	CALHOON STN Southbound				GLUCKSTADT Westbound				CALHOON STN Northbound				GLUCKSTADT Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 06:30 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	109	2	13	124	12	89	27	128	1	2	7	10	13	231	4	248	510
07:30 AM	60	2	18	80	10	101	22	133	4	4	5	13	11	241	5	257	483
07:45 AM	88	2	27	117	14	107	34	155	2	2	7	11	43	196	8	247	530
08:00 AM	67	4	39	110	10	132	30	172	3	0	12	15	26	194	10	230	527
Total Volume	324	10	97	431	46	429	113	588	10	8	31	49	93	862	27	982	2050
% App. Total	75.2	2.3	22.5		7.8	73	19.2		20.4	16.3	63.3		9.5	87.8	2.7		
PHF	.743	.625	.622	.869	.821	.813	.831	.855	.625	.500	.646	.817	.541	.894	.675	.955	.967





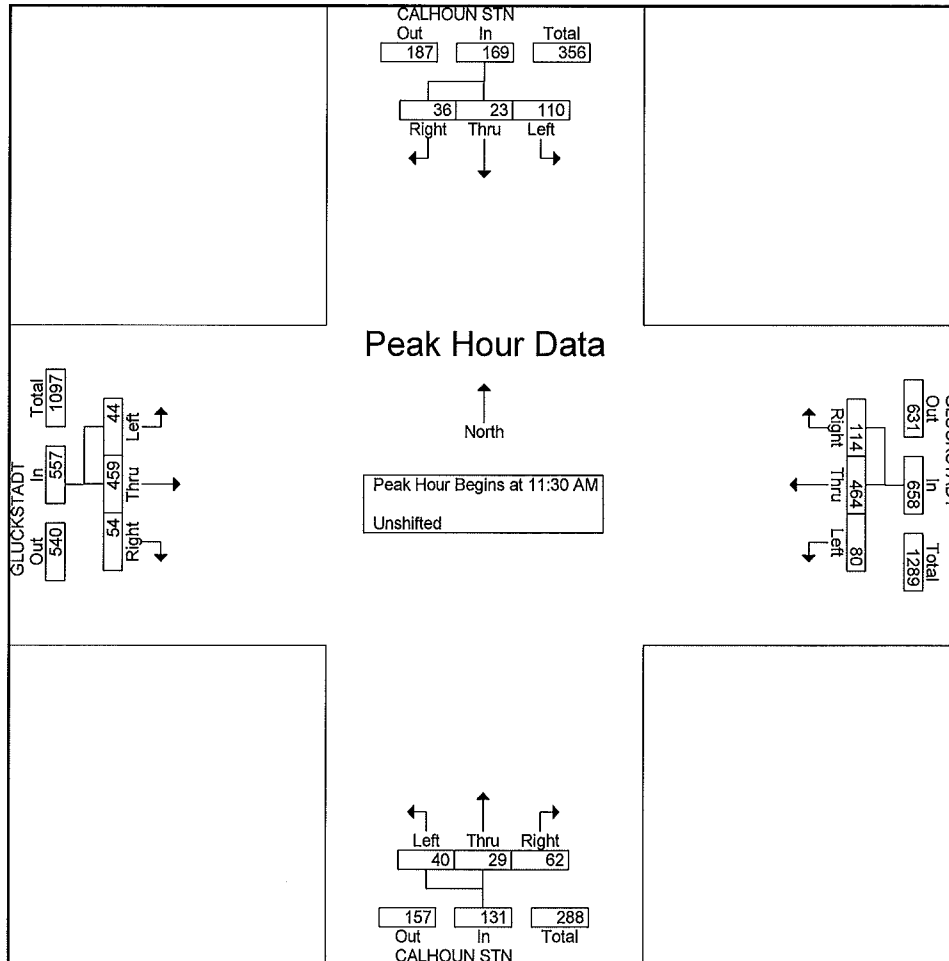
Neel-Schaffer  
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A7

Intersection: Gluckstadt/Calhoun Stn Pkwy  
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County/State: Madison/MS  
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File Name : CSP-Gluckstadt-pk-hrs  
Site Code : 00000000  
Start Date : 8/24/2017  
Page No : 4

Start Time	CALHOON STN Southbound				GLUCKSTADT Westbound				CALHOON STN Northbound				GLUCKSTADT Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:30 AM																	
11:30 AM	24	3	5	32	24	112	36	172	5	5	8	18	7	126	17	150	372
11:45 AM	34	8	12	54	19	119	26	164	12	10	21	43	6	117	15	138	399
12:00 PM	26	7	11	44	18	105	27	150	11	9	21	41	16	112	12	140	375
12:15 PM	26	5	8	39	19	128	25	172	12	5	12	29	15	104	10	129	369
Total Volume	110	23	36	169	80	464	114	658	40	29	62	131	44	459	54	557	1515
% App. Total	65.1	13.6	21.3		12.2	70.5	17.3		30.5	22.1	47.3		7.9	82.4	9.7		
PHF	.809	.719	.750	.782	.833	.906	.792	.956	.833	.725	.738	.762	.688	.911	.794	.928	.949



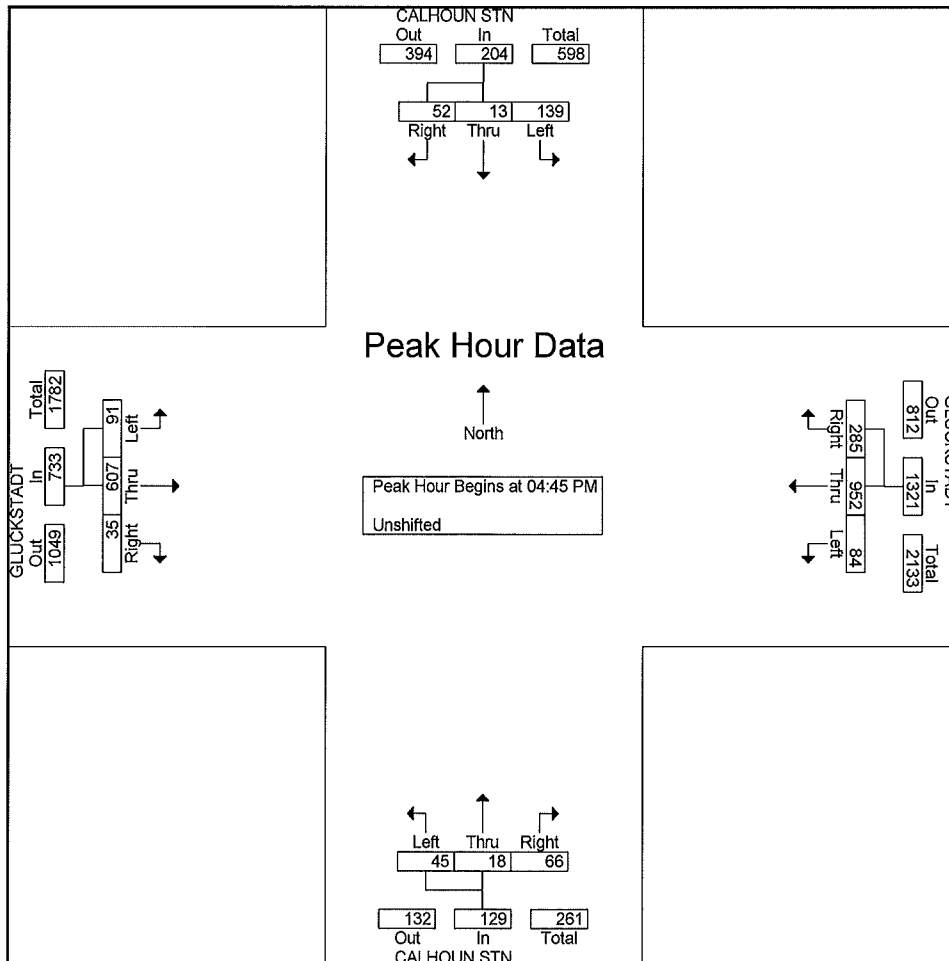
Neel-Schaffer  
P.O. Box 22625  
Jackson, MS 39225

A8

Intersection: Gluckstadt/Calhoun Stn Pkwy  
Counter: K. Smith (Video)  
County/State: Madison/MS  
Weather: Clear/Dry

File Name : CSP-Gluckstadt-pk-hrs  
Site Code : 00000000  
Start Date : 8/24/2017  
Page No : 5

Start Time	CALHOON STN Southbound				GLUCKSTADT Westbound				CALHOON STN Northbound				GLUCKSTADT Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	34	4	10	48	20	229	62	311	7	1	14	22	22	139	7	168	549
05:00 PM	46	3	11	60	27	215	63	305	10	2	18	30	18	156	8	182	577
05:15 PM	29	5	10	44	19	239	81	339	12	6	15	33	24	144	9	177	593
05:30 PM	30	1	21	52	18	269	79	366	16	9	19	44	27	168	11	206	668
Total Volume	139	13	52	204	84	952	285	1321	45	18	66	129	91	607	35	733	2387
% App. Total	68.1	6.4	25.5		6.4	72.1	21.6		34.9	14	51.2		12.4	82.8	4.8		
PHF	.755	.650	.619	.850	.778	.885	.880	.902	.703	.500	.868	.733	.843	.903	.795	.890	.893



**Intersection**

Int Delay, s/veh 2

**Movement** WBL WBR NBT NBR SBL SBT

Lane Configurations		↖	↗			↖
Traffic Vol, veh/h	0	14	35	0	19	64
Future Vol, veh/h	0	14	35	0	19	64
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
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	0	15	38	0	21	70

**Major/Minor** Minor1 Major1 Major2

Conflicting Flow All	-	38	0	0	38	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	4.12	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	0	1034	-	-	1572	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	1034	-	-	1572	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

**Approach** WB NB SB

HCM Control Delay, s	8.5	0	1.7
HCM LOS	A		

**Minor Lane/Major Mvmt** NBT NBRWBLn1 SBL SBT

Capacity (veh/h)	-	-	1034	1572	-
HCM Lane V/C Ratio	-	-	0.015	0.013	-
HCM Control Delay (s)	-	-	8.5	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

HCM 2010 Signalized Intersection Summary  
 103: Dees Dr/Calhoun Stn Pkwy & Gluckstadt Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	862	27	46	429	113	10	8	31	324	10	97
Future Volume (veh/h)	93	862	27	46	429	113	10	8	31	324	10	97
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	101	937	29	50	466	0	11	9	34	352	11	0
Adj No. of Lanes	1	2	0	1	1	1	1	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	356	1328	41	276	672	571	132	26	96	413	434	369
Arrive On Green	0.06	0.38	0.38	0.05	0.36	0.00	0.07	0.07	0.07	0.23	0.23	0.00
Sat Flow, veh/h	1774	3505	108	1774	1863	1583	1774	342	1293	1774	1863	1583
Grp Volume(v), veh/h	101	473	493	50	466	0	11	0	43	352	11	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1844	1774	1863	1583	1774	0	1635	1774	1863	1583
Q Serve(g_s), s	2.3	15.2	15.2	1.2	14.3	0.0	0.4	0.0	1.7	12.7	0.3	0.0
Cycle Q Clear(g_c), s	2.3	15.2	15.2	1.2	14.3	0.0	0.4	0.0	1.7	12.7	0.3	0.0
Prop In Lane	1.00		0.06	1.00		1.00	1.00		0.79	1.00		1.00
Lane Grp Cap(c), veh/h	356	670	698	276	672	571	132	0	122	413	434	369
V/C Ratio(X)	0.28	0.71	0.71	0.18	0.69	0.00	0.08	0.00	0.35	0.85	0.03	0.00
Avail Cap(c_a), veh/h	379	832	867	331	876	744	527	0	485	675	709	602
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.5	17.7	17.7	13.8	18.3	0.0	28.9	0.0	29.5	24.6	19.8	0.0
Incr Delay (d2), s/veh	0.4	2.1	2.0	0.3	1.6	0.0	0.3	0.0	1.7	5.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	7.7	8.1	0.6	7.5	0.0	0.2	0.0	0.8	6.9	0.2	0.0
LnGrp Delay(d),s/veh	13.9	19.7	19.6	14.1	19.9	0.0	29.1	0.0	31.2	30.4	19.9	0.0
LnGrp LOS	B	B	B	B	B		C		C	C	B	
Approach Vol, veh/h		1067			516			54			363	
Approach Delay, s/veh		19.1			19.3			30.8			30.1	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.5	7.5	29.9		20.1	8.7	28.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.9	5.1	31.5		25.5	5.1	31.5				
Max Q Clear Time (g_c+1), s		3.7	3.2	17.2		14.7	4.3	16.3				
Green Ext Time (p_c), s		0.2	0.0	7.6		0.9	0.0	7.9				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			21.5									
HCM 2010 LOS			C									

Intersection

Int Delay, s/veh	2.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↔	↔			↔
Traffic Vol, veh/h	0	35	94	0	31	101
Future Vol, veh/h	0	35	94	0	31	101
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
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	0	38	102	0	34	110























Major/Minor	Minor1	Major1	Major2	Major2	Major2
Conflicting Flow All	-	102	0	0	102
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	4.12
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	2.218
Pot Cap-1 Maneuver	0	953	-	-	1490
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	953	-	-	1490
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	1.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	953	1490
HCM Lane V/C Ratio	-	-	0.04	0.023
HCM Control Delay (s)	-	-	8.9	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

HCM 2010 Signalized Intersection Summary  
103: Dees Dr/Calhoun Stn Pkwy & Gluckstadt Rd

A12  
2017-PM-Existing.syn  
07/25/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	607	35	84	952	285	45	18	66	139	13	52
Future Volume (veh/h)	91	607	35	84	952	285	45	18	66	139	13	52
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	99	660	38	91	1035	0	49	20	72	151	14	0
Adj No. of Lanes	1	2	0	1	1	1	1	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	175	1908	110	507	1043	886	145	29	104	192	202	171
Arrive On Green	0.05	0.56	0.56	0.05	0.56	0.00	0.08	0.08	0.08	0.11	0.11	0.00
Sat Flow, veh/h	1774	3402	196	1774	1863	1583	1774	356	1281	1774	1863	1583
Grp Volume(v), veh/h	99	343	355	91	1035	0	49	0	92	151	14	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1828	1774	1863	1583	1774	0	1637	1774	1863	1583
Q Serve(g_s), s	2.1	9.5	9.5	1.9	49.6	0.0	2.4	0.0	4.9	7.5	0.6	0.0
Cycle Q Clear(g_c), s	2.1	9.5	9.5	1.9	49.6	0.0	2.4	0.0	4.9	7.5	0.6	0.0
Prop In Lane	1.00		0.11	1.00		1.00	1.00		0.78	1.00		1.00
Lane Grp Cap(c), veh/h	175	993	1025	507	1043	886	145	0	134	192	202	171
V/C Ratio(X)	0.57	0.35	0.35	0.18	0.99	0.00	0.34	0.00	0.69	0.79	0.07	0.00
Avail Cap(c_a), veh/h	183	993	1025	535	1043	886	364	0	336	354	372	316
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.4	10.8	10.8	7.8	19.7	0.0	39.1	0.0	40.3	39.2	36.1	0.0
Incr Delay (d2), s/veh	3.7	0.2	0.2	0.2	26.0	0.0	1.4	0.0	6.2	7.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	4.7	4.9	0.9	32.8	0.0	1.2	0.0	2.5	4.0	0.3	0.0
LnGrp Delay(d),s/veh	25.0	11.0	11.0	8.0	45.6	0.0	40.5	0.0	46.5	46.2	36.3	0.0
LnGrp LOS	C	B	B	A	D		D		D	D	D	
Approach Vol, veh/h		797			1126			141			165	
Approach Delay, s/veh		12.7			42.6			44.4			45.3	
Approach LOS		B			D			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		11.9	9.0	55.1		14.3	9.1	55.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.5	5.9	49.6		18.0	5.0	50.5				
Max Q Clear Time (g_c+I1), s		6.9	3.9	11.5		9.5	4.1	51.6				
Green Ext Time (p_c), s		0.4	0.0	18.1		0.3	0.0	0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			32.2									
HCM 2010 LOS			C									

Intersection

Int Delay, s/veh 2.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↖	↗			↖
Traffic Vol, veh/h	0	81	65	0	0	183
Future Vol, veh/h	0	81	65	0	0	183
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
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	0	88	71	0	0	199

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	71	0	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-
Pot Cap-1 Maneuver	0	991	-	-	0
Stage 1	0	-	-	-	0
Stage 2	0	-	-	-	0
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	991	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	991
HCM Lane V/C Ratio	-	-	0.089
HCM Control Delay (s)	-	-	9
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0.3

Intersection

Int Delay, s/veh 3.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	28	37	0	95	88
Future Vol, veh/h	0	28	37	0	95	88
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
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	0	30	40	0	103	96

Major/Minor	Minor1	Major1	Major2	Major3	Major4	Major5
Conflicting Flow All	342	40	0	0	40	0
Stage 1	40	-	-	-	-	-
Stage 2	302	-	-	-	-	-
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	654	1031	-	-	1570	-
Stage 1	982	-	-	-	-	-
Stage 2	750	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	609	1031	-	-	1570	-
Mov Cap-2 Maneuver	609	-	-	-	-	-
Stage 1	982	-	-	-	-	-
Stage 2	698	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	3.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	1031	1570	-
HCM Lane V/C Ratio	-	-	-	0.03	0.066	-
HCM Control Delay (s)	-	-	0	8.6	7.5	0
HCM Lane LOS	-	-	A	A	A	A
HCM 95th %tile Q(veh)	-	-	-	0.1	0.2	-



HCM 2010 Signalized Intersection Summary  
 103: Dees Dr/Calhoun Stn Pkwy & Gluckstadt Rd

A15  
 2019-AM-Total.syn  
 07/25/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	914	57	106	455	120	37	22	87	344	21	103
Future Volume (veh/h)	99	914	57	106	455	120	37	22	87	344	21	103
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	108	993	62	115	495	0	40	24	95	374	23	0
Adj No. of Lanes	1	2	0	1	1	1	1	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	320	1236	77	253	684	582	183	34	135	425	446	379
Arrive On Green	0.06	0.37	0.37	0.06	0.37	0.00	0.10	0.10	0.10	0.24	0.24	0.00
Sat Flow, veh/h	1774	3384	211	1774	1863	1583	1774	329	1303	1774	1863	1583
Grp Volume(v), veh/h	108	519	536	115	495	0	40	0	119	374	23	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1825	1774	1863	1583	1774	0	1633	1774	1863	1583
Q Serve(g_s), s	2.9	20.5	20.5	3.1	17.8	0.0	1.6	0.0	5.5	15.8	0.7	0.0
Cycle Q Clear(g_c), s	2.9	20.5	20.5	3.1	17.8	0.0	1.6	0.0	5.5	15.8	0.7	0.0
Prop In Lane	1.00		0.12	1.00		1.00	1.00		0.80	1.00		1.00
Lane Grp Cap(c), veh/h	320	647	667	253	684	582	183	0	169	425	446	379
V/C Ratio(X)	0.34	0.80	0.80	0.45	0.72	0.00	0.22	0.00	0.71	0.88	0.05	0.00
Avail Cap(c_a), veh/h	333	717	740	263	755	642	454	0	418	582	611	519
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.0	22.2	22.2	17.2	21.2	0.0	32.0	0.0	33.7	28.5	22.8	0.0
Incr Delay (d2), s/veh	0.6	6.0	5.9	1.3	3.1	0.0	0.6	0.0	5.3	11.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	11.0	11.4	1.6	9.7	0.0	0.8	0.0	2.7	9.0	0.4	0.0
LnGrp Delay(d),s/veh	16.6	28.2	28.0	18.4	24.3	0.0	32.6	0.0	39.0	39.8	22.8	0.0
LnGrp LOS	B	C	C	B	C		C		D	D	C	
Approach Vol, veh/h		1163			610			159			397	
Approach Delay, s/veh		27.0			23.2			37.4			38.8	
Approach LOS		C			C			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		12.5	9.2	32.9		23.1	9.0	33.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.9	5.1	31.5		25.5	5.1	31.5				
Max Q Clear Time (g_c+I1), s		7.5	5.1	22.5		17.8	4.9	19.8				
Green Ext Time (p_c), s		0.6	0.0	5.9		0.8	0.0	7.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			28.7									
HCM 2010 LOS			C									

Intersection

Int Delay, s/veh 2.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↔	↔			↔
Traffic Vol, veh/h	0	115	134	0	0	254
Future Vol, veh/h	0	115	134	0	0	254
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
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	0	125	146	0	0	276

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	146	0	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-
Pot Cap-1 Maneuver	0	901	-	-	0
Stage 1	0	-	-	-	0
Stage 2	0	-	-	-	0
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	901	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	901
HCM Lane V/C Ratio	-	-	0.139
HCM Control Delay (s)	-	-	9.6
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0.5

Intersection

Int Delay, s/veh 3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↘	↖			↗
Traffic Vol, veh/h	0	34	100	0	114	140
Future Vol, veh/h	0	34	100	0	114	140
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
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	0	37	109	0	124	152

Major/Minor	Minor1	Major1	Major2	Major2	Major2
Conflicting Flow All	509	109	0	0	109
Stage 1	109	-	-	-	-
Stage 2	400	-	-	-	-
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	524	945	-	-	1481
Stage 1	916	-	-	-	-
Stage 2	677	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	476	945	-	-	1481
Mov Cap-2 Maneuver	476	-	-	-	-
Stage 1	916	-	-	-	-
Stage 2	615	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	3.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	945	1481	-
HCM Lane V/C Ratio	-	-	-	0.039	0.084	-
HCM Control Delay (s)	-	-	0	9	7.7	0
HCM Lane LOS	-	-	A	A	A	A
HCM 95th %tile Q(veh)	-	-	-	0.1	0.3	-

HCM 2010 Signalized Intersection Summary  
 103: Dees Dr/Calhoun Stn Pkwy & Gluckstadt Rd

A18  
 2019-PM-Total.syn  
 07/25/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	644	71	157	1010	302	79	36	134	147	26	55
Future Volume (veh/h)	97	644	71	157	1010	302	79	36	134	147	26	55
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	105	678	77	171	1031	0	86	39	146	160	28	0
Adj No. of Lanes	1	2	0	1	1	1	1	1	0	1	1	1
Peak Hour Factor	0.92	0.95	0.92	0.92	0.98	0.98	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	1801	204	478	1080	918	350	46	174	256	316	268
Arrive On Green	0.04	0.56	0.56	0.06	0.58	0.00	0.06	0.13	0.13	0.09	0.17	0.00
Sat Flow, veh/h	1774	3205	364	1774	1863	1583	1774	345	1290	1774	1863	1583
Grp Volume(v), veh/h	105	374	381	171	1031	0	86	0	185	160	28	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1799	1774	1863	1583	1774	0	1635	1774	1863	1583
Q Serve(g_s), s	3.0	14.0	14.0	4.8	62.0	0.0	4.9	0.0	13.1	8.9	1.5	0.0
Cycle Q Clear(g_c), s	3.0	14.0	14.0	4.8	62.0	0.0	4.9	0.0	13.1	8.9	1.5	0.0
Prop In Lane	1.00		0.20	1.00		1.00	1.00		0.79	1.00		1.00
Lane Grp Cap(c), veh/h	165	995	1011	478	1080	918	350	0	220	256	316	268
V/C Ratio(X)	0.64	0.38	0.38	0.36	0.95	0.00	0.25	0.00	0.84	0.63	0.09	0.00
Avail Cap(c_a), veh/h	167	995	1011	526	1112	945	514	0	357	358	407	346
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.7	14.5	14.5	10.6	23.5	0.0	40.7	0.0	50.2	38.6	41.7	0.0
Incr Delay (d2), s/veh	7.7	0.2	0.2	0.5	17.0	0.0	0.4	0.0	9.3	2.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	6.8	6.9	2.4	36.6	0.0	2.4	0.0	6.5	4.5	0.8	0.0
LnGrp Delay(d),s/veh	35.4	14.7	14.7	11.0	40.6	0.0	41.0	0.0	59.6	41.1	41.8	0.0
LnGrp LOS	D	B	B	B	D		D		E	D	D	
Approach Vol, veh/h		860			1202			271			188	
Approach Delay, s/veh		17.2			36.4			53.7			41.2	
Approach LOS		B			D			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.4	71.4	11.5	24.6	9.3	73.4	15.7	20.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.2	65.8	18.0	26.0	5.0	71.0	18.0	26.0				
Max Q Clear Time (g_c+I), s	11.8	16.0	6.9	3.5	5.0	64.0	10.9	15.1				
Green Ext Time (p_c), s	0.1	21.0	0.1	1.2	0.0	5.0	0.2	0.9				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			32.1									
HCM 2010 LOS			C									

# ELEVATION CERTIFICATE

**Important:** Follow the instructions on pages 1–9.

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

SECTION A – PROPERTY INFORMATION				FOR INSURANCE COMPANY USE	
A1. Building Owner's Name Terra Holdings, LLC				Policy Number:	
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 108 Dees Way				Company NAIC Number:	
City Madison		State Mississippi		ZIP Code 39110	
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) Tax Parcel #082H-28-002/02.00					
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) <u>Commercial</u>					
A5. Latitude/Longitude: Lat. <u>32-30-58.69</u> Long. <u>90-06-21.01</u> Horizontal Datum: <input type="checkbox"/> NAD 1927 <input checked="" type="checkbox"/> NAD 1983					
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.					
A7. Building Diagram Number _____					
A8. For a building with a crawlspace or enclosure(s):					
a) Square footage of crawlspace or enclosure(s) _____ sq ft					
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade _____					
c) Total net area of flood openings in A8.b _____ sq in					
d) Engineered flood openings? <input type="checkbox"/> Yes <input type="checkbox"/> No					
A9. For a building with an attached garage:					
a) Square footage of attached garage _____ sq ft					
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade _____					
c) Total net area of flood openings in A9.b _____ sq in					
d) Engineered flood openings? <input type="checkbox"/> Yes <input type="checkbox"/> No					
SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION					
B1. NFIP Community Name & Community Number Madison County - #280228			B2. County Name Madison		B3. State Mississippi
B4. Map/Panel Number 28089C0415F	B5. Suffix F	B6. FIRM Index Date 03/17/2010	B7. FIRM Panel Effective/ Revised Date 03/17/2010	B8. Flood Zone(s) AE	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth) 272.3
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9: <input checked="" type="checkbox"/> FIS Profile <input type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input type="checkbox"/> Other/Source: _____					
B11. Indicate elevation datum used for BFE in Item B9: <input type="checkbox"/> NGVD 1929 <input checked="" type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other/Source: _____					
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Designation Date: _____ <input type="checkbox"/> CBRS <input type="checkbox"/> OPA					

# ELEVATION CERTIFICATE

OMB No. 1660-0008  
 Expiration Date: November 30, 2018

<b>IMPORTANT: In these spaces, copy the corresponding information from Section A.</b>			<b>FOR INSURANCE COMPANY USE</b>
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 108 Dees Way			Policy Number:
City Madison	State Mississippi	ZIP Code 39110	Company NAIC Number

## SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on:  Construction Drawings\*  Building Under Construction\*  Finished Construction

\*A new Elevation Certificate will be required when construction of the building is complete.

C2. Elevations – Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO. Complete Items C2.a–h below according to the building diagram specified in Item A7. In Puerto Rico only, enter meters.

Benchmark Utilized: Y362 (CP3432) Vertical Datum: NAVD88

Indicate elevation datum used for the elevations in items a) through h) below.

NGVD 1929  NAVD 1988  Other/Source: \_\_\_\_\_

Datum used for building elevations must be the same as that used for the BFE.

Check the measurement used.

- |   |                               |                                 |
|---|-------------------------------|---------------------------------|
| a) Top of bottom floor (including basement, crawlspace, or enclosure floor) _____   | <input type="checkbox"/> feet | <input type="checkbox"/> meters |
| b) Top of the next higher floor _____   | <input type="checkbox"/> feet | <input type="checkbox"/> meters |
| c) Bottom of the lowest horizontal structural member (V Zones only) _____   | <input type="checkbox"/> feet | <input type="checkbox"/> meters |
| d) Attached garage (top of slab) _____  | <input type="checkbox"/> feet | <input type="checkbox"/> meters |
| e) Lowest elevation of machinery or equipment servicing the building<br>(Describe type of equipment and location in Comments) _____ | <input type="checkbox"/> feet | <input type="checkbox"/> meters |
| f) Lowest adjacent (finished) grade next to building (LAG) _____  | <input type="checkbox"/> feet | <input type="checkbox"/> meters |
| g) Highest adjacent (finished) grade next to building (HAG) _____   | <input type="checkbox"/> feet | <input type="checkbox"/> meters |
| h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support _____                                  | <input type="checkbox"/> feet | <input type="checkbox"/> meters |

## SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.

Were latitude and longitude in Section A provided by a licensed land surveyor?  Yes  No  Check here if attachments.

Certifier's Name Robert M. Barnes	License Number 2583	
Title Registered Professional Land Surveyor		
Company Name Barnes Surveying, LLC		
Address 2 Old River Place, Ste. K		
City Jackson	State Mississippi	ZIP Code 39202



Signature <i>Robert M. Barnes</i>	Date 07/05/2018	Telephone (601) 353-7878
--------------------------------------	--------------------	-----------------------------

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

Comments (including type of equipment and location, per C2(e), if applicable)

Proposed floor elevation = 274.0

# ELEVATION CERTIFICATE

OMB No. 1660-0008  
Expiration Date: November 30, 2018

<b>IMPORTANT: In these spaces, copy the corresponding information from Section A.</b>			<b>FOR INSURANCE COMPANY USE</b>
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 108 Dees Way			Policy Number:
City Madison	State Mississippi	ZIP Code 39110	Company NAIC Number

## SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)

For Zones AO and A (without BFE), complete Items E1–E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, B, and C. For Items E1–E4, use natural grade, if available. Check the measurement used. In Puerto Rico only, enter meters.

- E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (LAG).
- a) Top of bottom floor (including basement, crawlspace, or enclosure) is \_\_\_\_\_ . \_\_\_\_\_  feet  meters  above or  below the HAG.
- b) Top of bottom floor (including basement, crawlspace, or enclosure) is \_\_\_\_\_ . \_\_\_\_\_  feet  meters  above or  below the LAG.
- E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 1–2 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is \_\_\_\_\_ . \_\_\_\_\_  feet  meters  above or  below the HAG.
- E3. Attached garage (top of slab) is \_\_\_\_\_ . \_\_\_\_\_  feet  meters  above or  below the HAG.
- E4. Top of platform of machinery and/or equipment servicing the building is \_\_\_\_\_ . \_\_\_\_\_  feet  meters  above or  below the HAG.
- E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance?  Yes  No  Unknown. The local official must certify this information in Section G.

## SECTION F – PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without a FEMA-issued or community-issued BFE) or Zone AO must sign here. The statements in Sections A, B, and E are correct to the best of my knowledge.

Property Owner or Owner's Authorized Representative's Name

Address City State ZIP Code

Signature Date Telephone

Comments

Check here if attachments.

# ELEVATION CERTIFICATE

OMB No. 1660-0008  
 Expiration Date: November 30, 2018

<b>IMPORTANT: In these spaces, copy the corresponding information from Section A.</b>			<b>FOR INSURANCE COMPANY USE</b>
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 108 Dees Way			Policy Number:
City Madison	State Mississippi	ZIP Code 39110	Company NAIC Number

## SECTION G – COMMUNITY INFORMATION (OPTIONAL)

The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Complete the applicable item(s) and sign below. Check the measurement used in Items G8–G10. In Puerto Rico only, enter meters.

- G1.  The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)
- G2.  A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.
- G3.  The following information (Items G4–G10) is provided for community floodplain management purposes.

G4. Permit Number	G5. Date Permit Issued	G6. Date Certificate of Compliance/Occupancy Issued
-------------------	------------------------	---

G7. This permit has been issued for:       New Construction     Substantial Improvement

G8. Elevation of as-built lowest floor (including basement) of the building: \_\_\_\_\_  feet  meters Datum \_\_\_\_\_

G9. BFE or (in Zone AO) depth of flooding at the building site: \_\_\_\_\_  feet  meters Datum \_\_\_\_\_

G10. Community's design flood elevation: \_\_\_\_\_  feet  meters Datum \_\_\_\_\_

Local Official's Name	Title
-----------------------	-------

Community Name	Telephone
----------------	-----------

Signature	Date
-----------	------

Comments (including type of equipment and location, per C2(e), if applicable)

Check here if attachments.



# BUILDING PHOTOGRAPHS

OMB No. 1660-0008  
Expiration Date: November 30, 2018

## ELEVATION CERTIFICATE

See Instructions for Item A6.

<b>IMPORTANT: In these spaces, copy the corresponding information from Section A.</b>			<b>FOR INSURANCE COMPANY USE</b>
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 108 Dees Way			Policy Number:
City Madison	State Mississippi	ZIP Code 39110	Company NAIC Number

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least 2 building photographs below according to the instructions for Item A6. Identify all photographs with date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8. If submitting more photographs than will fit on this page, use the Continuation Page.



Photo One

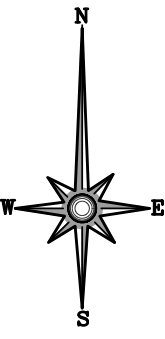
Photo One Caption

FRONT VIEW

Photo Two

Photo Two

Photo Two Caption



# Site Plan Review

July 13, 2018

## Contents

- Existing Site
- Site Photos
- Zoning & Ownership
- Note Site Plan
- Grading
- Drainage/ Retention
- Landscaping
- Rendering (Front)
- Elevations - Sides & Rear
- Canopy
- Floor Plan

## Existing Site

## Proposed Sprint Mart Store

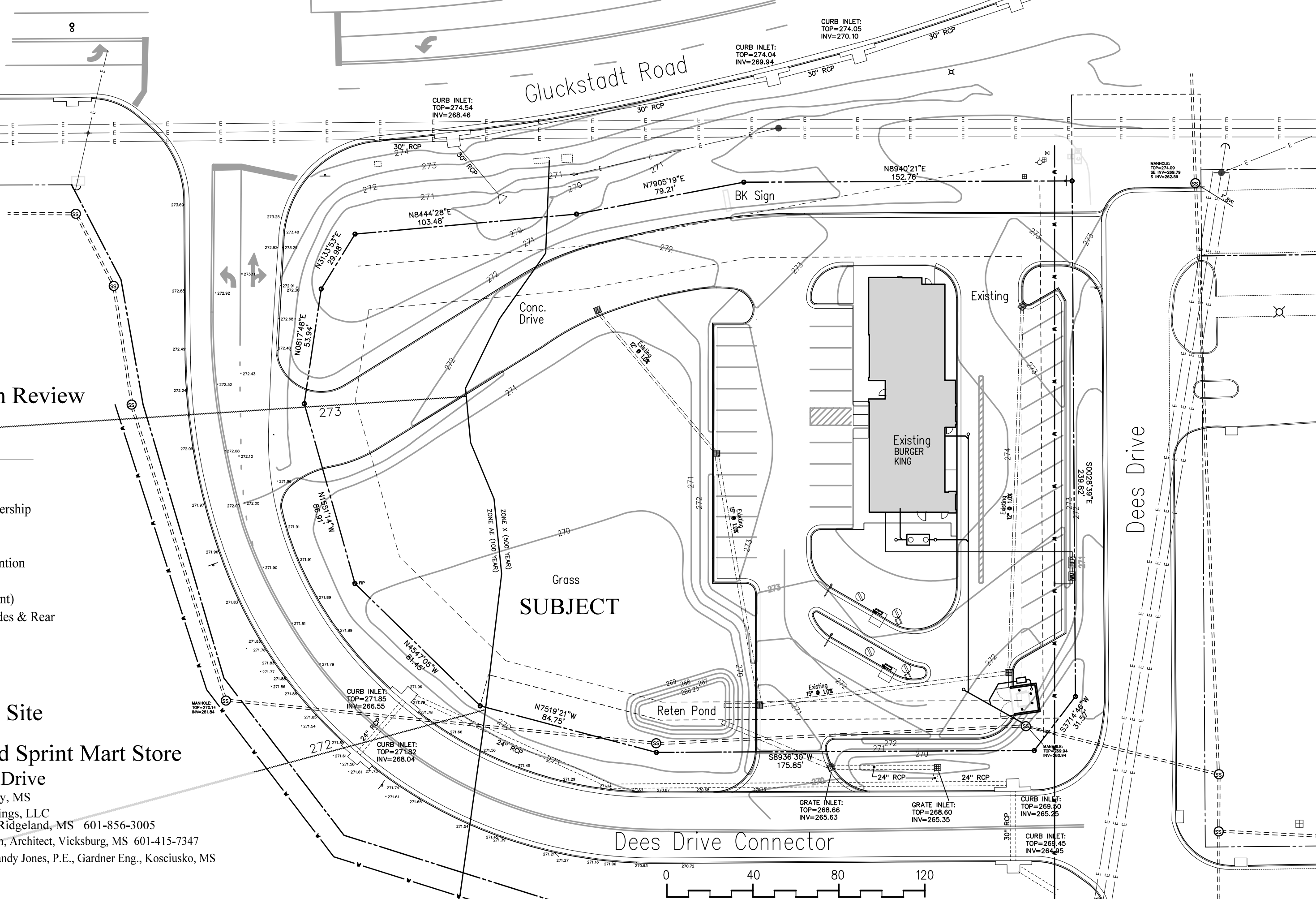
108 Dees Drive

Madison County, MS

For Terra Holdings, LLC  
P.O. Box 227, Ridgeland, MS 601-856-3005

Site: Paul Ingram, Architect, Vicksburg, MS 601-415-7347

Civil Consult: Randy Jones, P.E., Gardner Eng., Kosciusko, MS  
662-290-0708



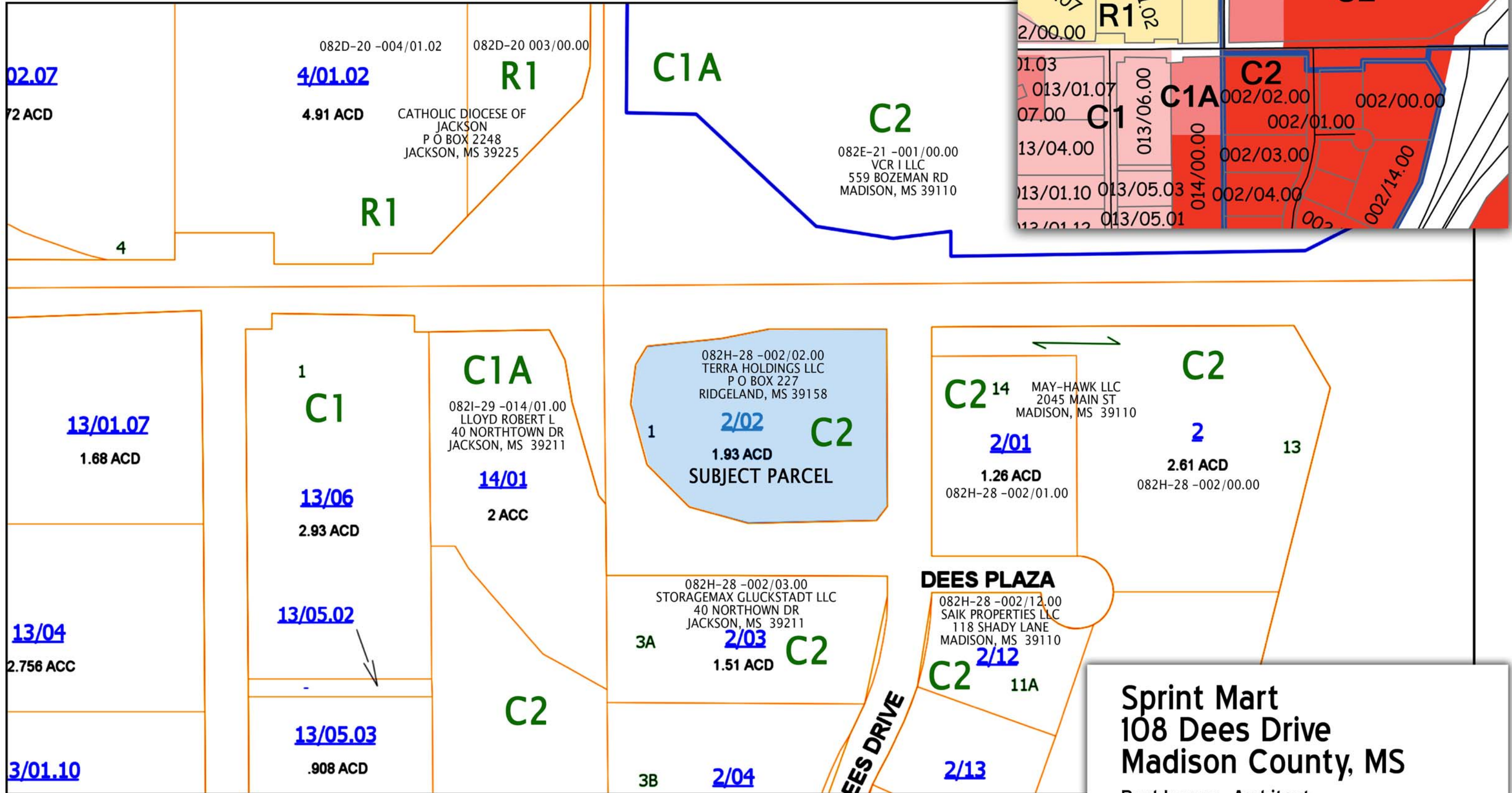
Dees Drive Connector





**Sprint Mart**  
**108 Dees Drive**  
**Madison County, MS**  
Paul Ingram, Architect  
July 13, 2018

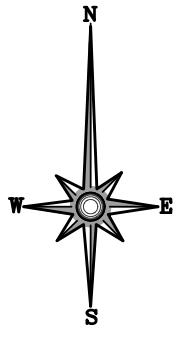
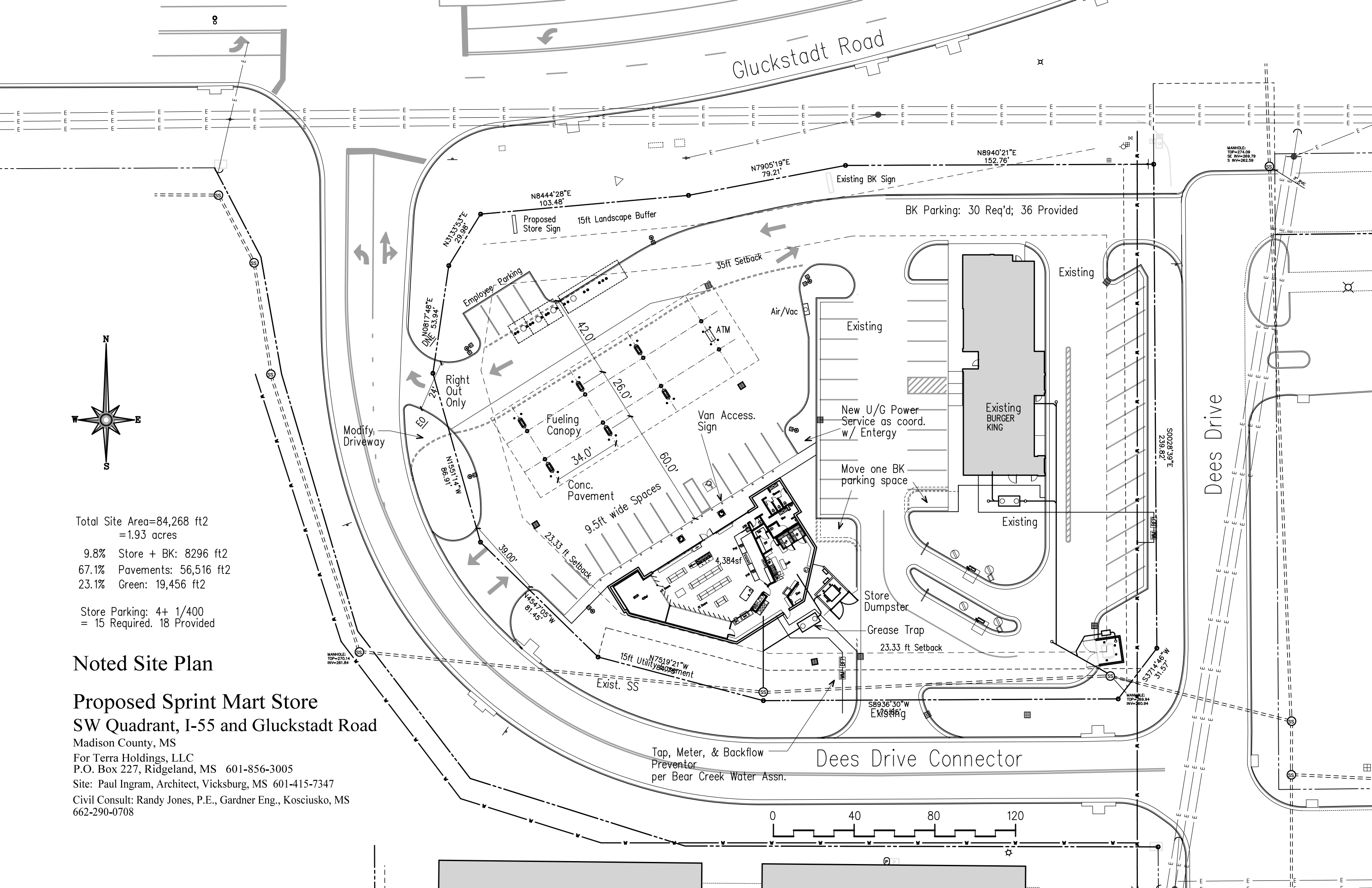
# Ownership & Zoning



20 m  
70 ft  
Feb/08/2016  
Scale 1:1128

The materials available at this web site are for informational purposes only and do not constitute a legal document.

**Sprint Mart**  
108 Dees Drive  
Madison County, MS  
Paul Ingram, Architect  
July 13, 2018



Total Site Area=84,268 ft<sup>2</sup>  
 =1.93 acres

9.8% Store + BK: 8296 ft<sup>2</sup>  
 67.1% Pavements: 56,516 ft<sup>2</sup>  
 23.1% Green: 19,456 ft<sup>2</sup>

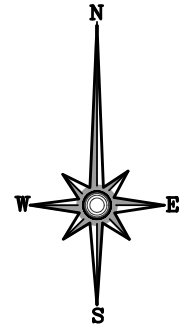
Store Parking: 4+ 1/400  
 = 15 Required. 18 Provided

**Noted Site Plan**

**Proposed Sprint Mart Store**  
 SW Quadrant, I-55 and Gluckstadt Road  
 Madison County, MS

For Terra Holdings, LLC  
 P.O. Box 227, Ridgeland, MS 601-856-3005  
 Site: Paul Ingram, Architect, Vicksburg, MS 601-415-7347  
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 662-290-0708





### EROSION CONTROL NOTES

The Contractor shall adhere to the CE's Erosion & Sediment Control Plan, and the approved Construction Notice of Intent (CNOI) and Stormwater Pollution Prevention Plan (SWPPP.)

Erosion and sediment control requirements are not limited by the installations indicated on the Plan drawing, but shall be a constant requirement of the contractor to ascertain on-site sources of sediment and sediment migration, and to provide control systems to prevent migration from the site or entry into established storm systems in the public rights-of-way.

Install protection devices as noted on the plan and immediately after the installation of drainage structures, flumes, fill, ditch work, etc. Monitor all erosion and sediment control systems, especially after rain events, and maintain, per the CNOI permit.

Erosion and sediment control systems shall be maintained in good working condition throughout the project, removed only when improvements stop the potential for erosion and sediment flows. Permanent vegetation shall be per the approved Landscaping Plan.

### Grading/ Drainage Schematic

### Proposed Sprint Mart Store SW Quadrant, I-55 and Gluckstadt Road

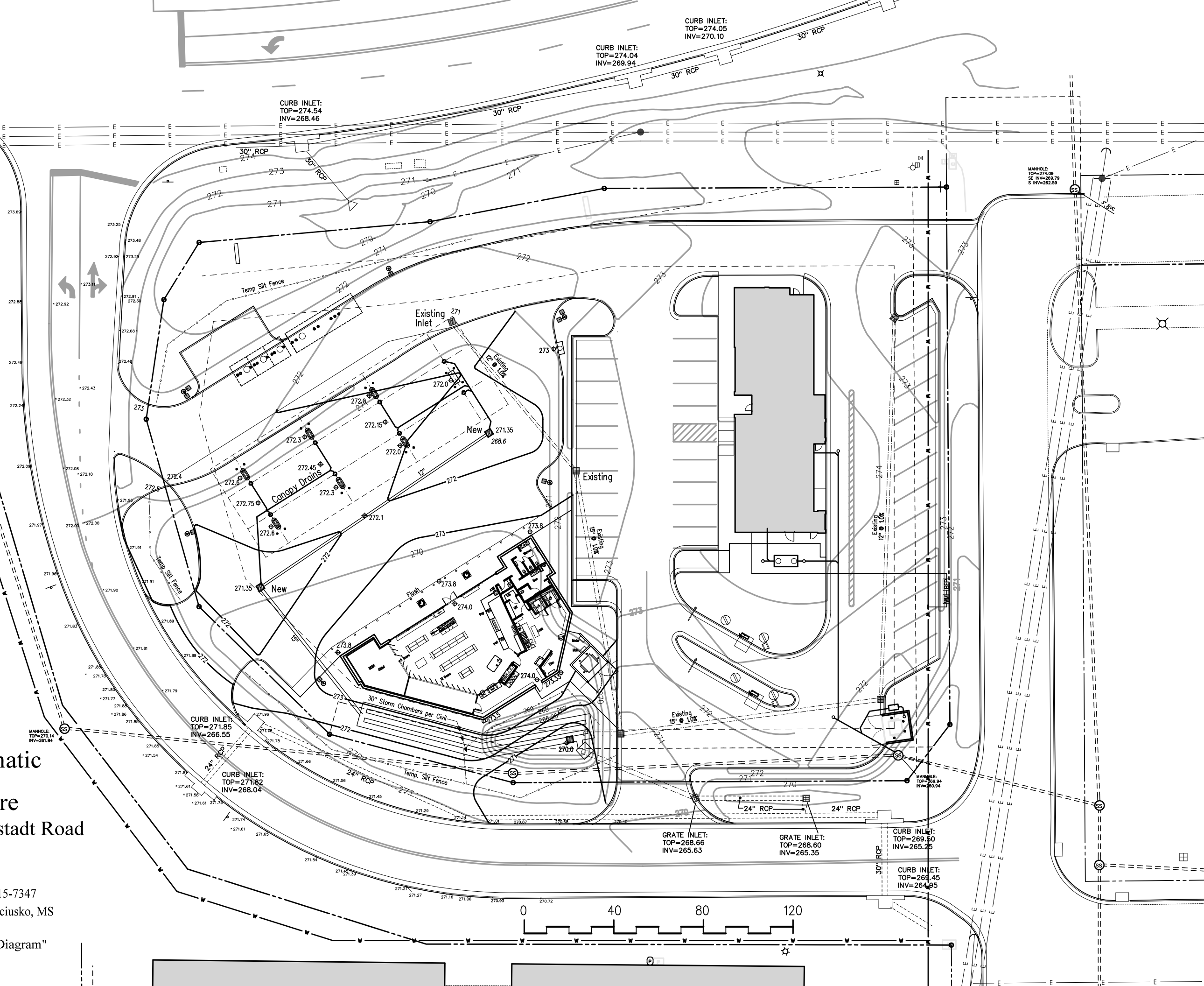
Madison County, MS

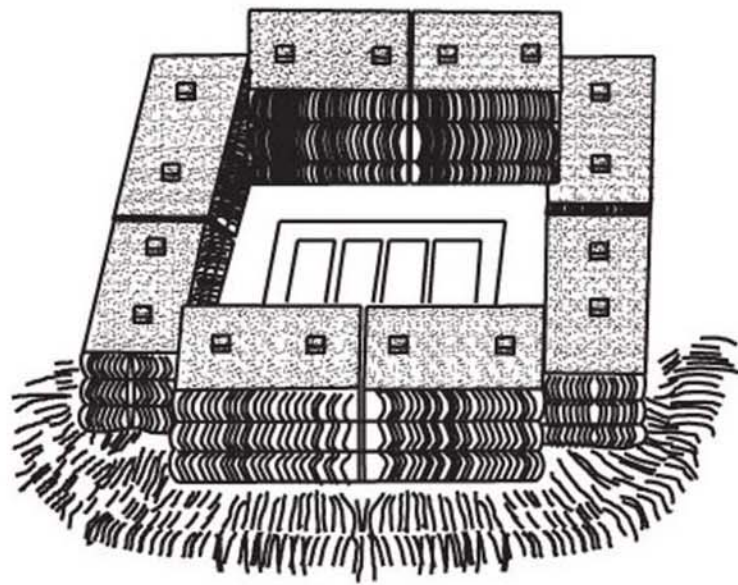
For Terra Holdings, LLC  
P.O. Box 227, Ridgeland, MS 601-856-3005

Site: Paul Ingram, Architect, Vicksburg, MS 601-415-7347

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662-290-0708

To accompany "Stormwater Drainage System Diagram"





**DROP INLET**

**TEMPORARY EROSION CHECKS USING HAY OR STRAW BALES**

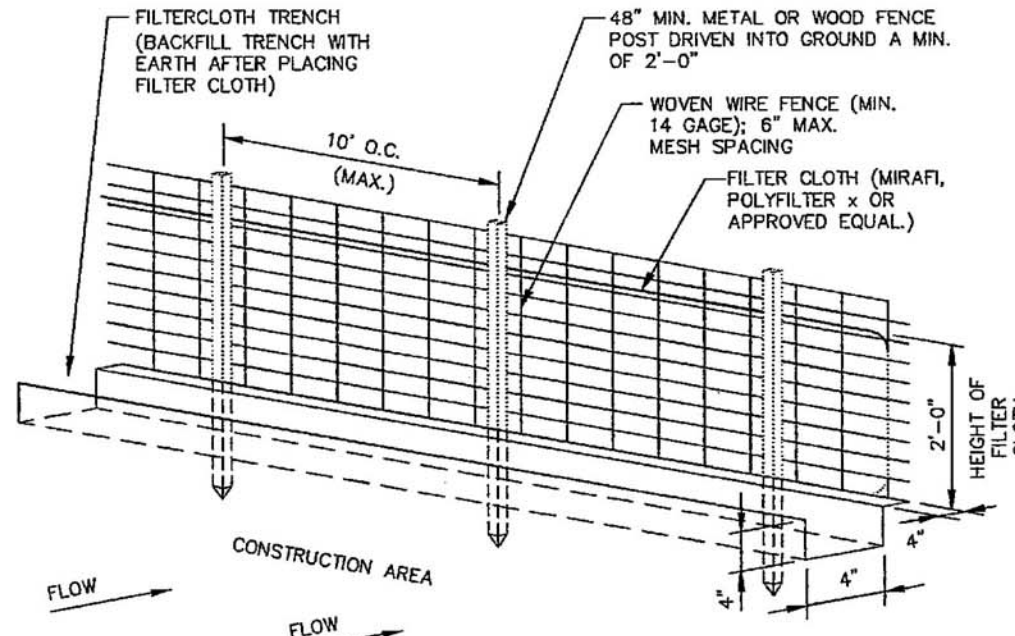
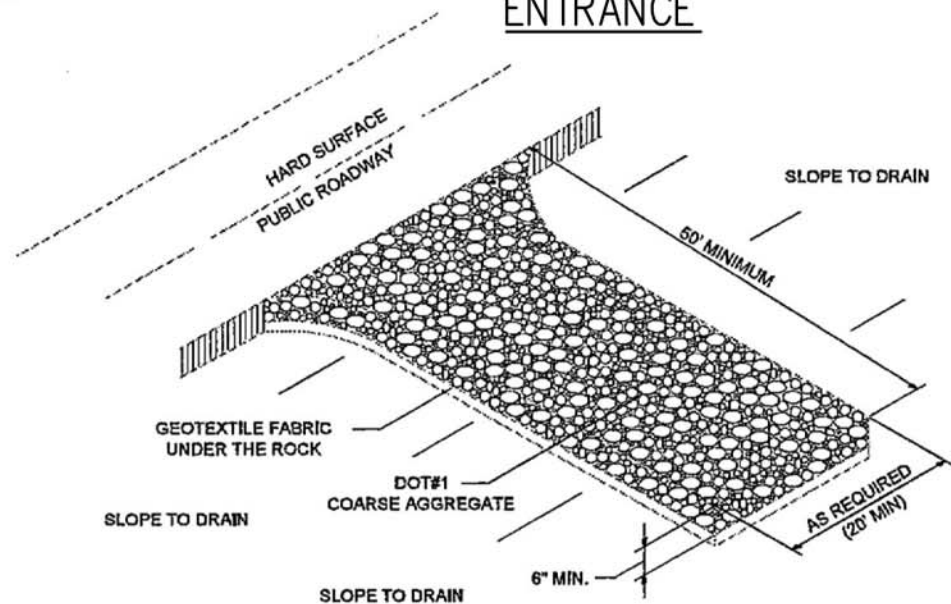
NOTE: EMBED ALL BALES 3" MINIMUM INTO GROUND AND STAKE (2" X 2" X 36") SECURELY.

**NOTES:**

1. THE AREA OF THE CONSTRUCTION ENTRANCE SHALL BE EXCAVATED 6 INCHES DEEP, 50 FEET LONG AND SHALL EXTEND THE FULL WIDTH OF ANY VEHICULAR INGRESS AND EGRESS (MINIMUM 20 FEET) LOCATED ON THE SITE.
2. THE ENTRANCE SHALL BE PROPERLY MAINTAINED FOR THE DURATION OF THE PROJECT TO PREVENT THE TRACKING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. ALL MAINTENANCE AND REPAIRS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. THE ENTRANCE SHALL BE CHECKED ON A DAILY BASIS AND BEFORE & AFTER ANY RAINFALL EVENT FOR ANY DAMAGES. ANY DAMAGES FOUND SHALL BE REMEDIATED BEFORE THE DAYS END AT NO ADDITIONAL COST TO THE CITY.

4. THE ENTRANCE SHALL BE PROPERLY GRADED TO PREVENT THE FLOW OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS SHALL BE REMOVED IMMEDIATELY.
5. MEASURES SHALL BE TAKEN TO PREVENT VEHICULAR TRAFFIC FROM BYPASSING THE CONSTRUCTION ENTRANCE DURING INGRESS AND EGRESS.

**TEMPORARY CONSTRUCTION ENTRANCE**



**SILT FENCE CONSTRUCTION SPECIFICATIONS**

**INSTALLATION:**

1. USE STEEL FENCE POSTS OR 4-INCH DIAMETER WOODEN POSTS THAT ARE 5 FEET IN LENGTH.
2. INSTALL POSTS STARTING AT THE CENTER OF THE LOWEST POINT OF THE FENCE LINE. DRIVE POSTS 12 INCHES INTO THE GROUND.
3. INSTALL POSTS ON 10-FOOT CENTERS IF METAL MESH FENCING IS TO BE USED AS ADDITIONAL SUPPORT. IF NO METAL FENCING SUPPORT IS USED, THEN INSTALL POSTS ON 6-FOOT CENTER OR LESS.
4. EXCAVATE A TRENCH 4 INCHES DEEP BY 4 INCHES WIDE ON THE UPHILL SIDE OF THE FENCE POSTS.
5. STAPLE OR TIE SILT FENCE FABRIC TO POSTS ON UPHILL SIDE, LEAVING 8 INCHES ON THE BOTTOM TO EXTEND DOWN AND ACROSS THE BOTTOM OF THE TRENCH.
6. BACKFILL TRENCH AND TAMP DOWN OVER FABRIC.
7. ALLOW 6-INCH OVERLAP AT JOINTS.
8. MULCH BARE GROUND UPHILL OF SILT FENCE OR PROVIDE OTHER EROSION CONTROL MEASURES.

**MAINTENANCE:**

1. REMOVE ACCUMULATED SEDIMENT ALONG THE FENCE WHEN IT HAS REACHED A THIRD TO A HALF OF THE FENCE HEIGHT. DO NOT PLACE SEDIMENT ON THE DOWNHILL SIDE.
2. INSPECT WEEKLY AND AFTER EACH SIGNIFICANT STORM EVENT (GREATER THAN 1/2 INCH OF RAIN).
3. REMOVE FENCE WHEN AREA ABOVE THE FENCE HAS BEEN STABILIZED.
4. IF FABRIC IS TORN, THEN REPLACE WITH A NEW PIECE THAT STRETCHES TO POST ON EITHER SIDE OF THE TEAR.

**EROSION CONTROL NOTES**

The Contractor shall adhere to the Erosion & Sediment Control Plan, and the approved Construction Notice of Intent (CNOI) and Stormwater Pollution Prevention Plan (SWPPP.)

Erosion and sediment control requirements are not limited by the installations indicated on the Plan drawing, but shall be a constant requirement of the contractor to ascertain on-site sources of sediment and sediment migration, and to provide control systems to prevent migration from the site or entry into established storm systems in the public rights-of-way.

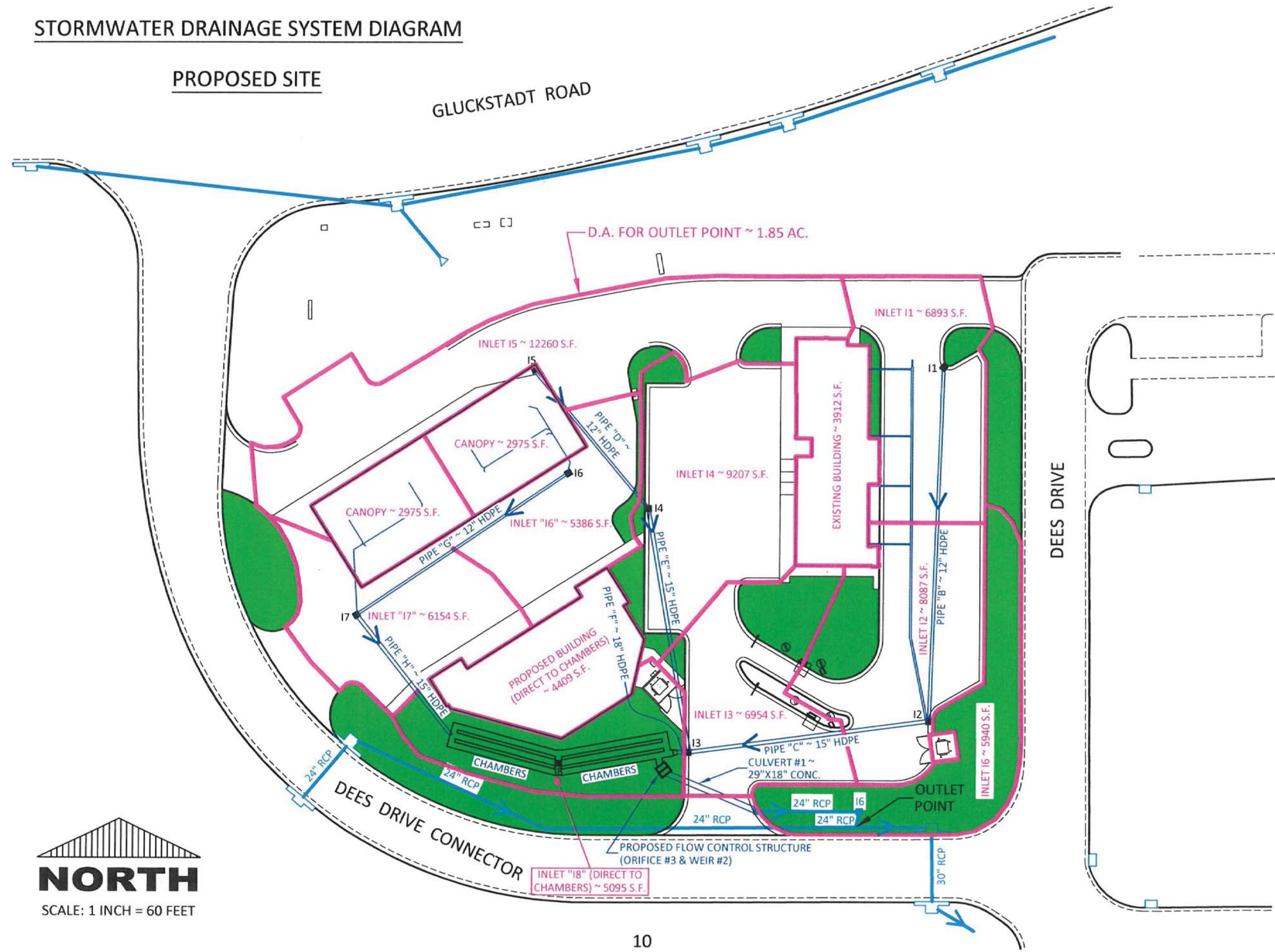
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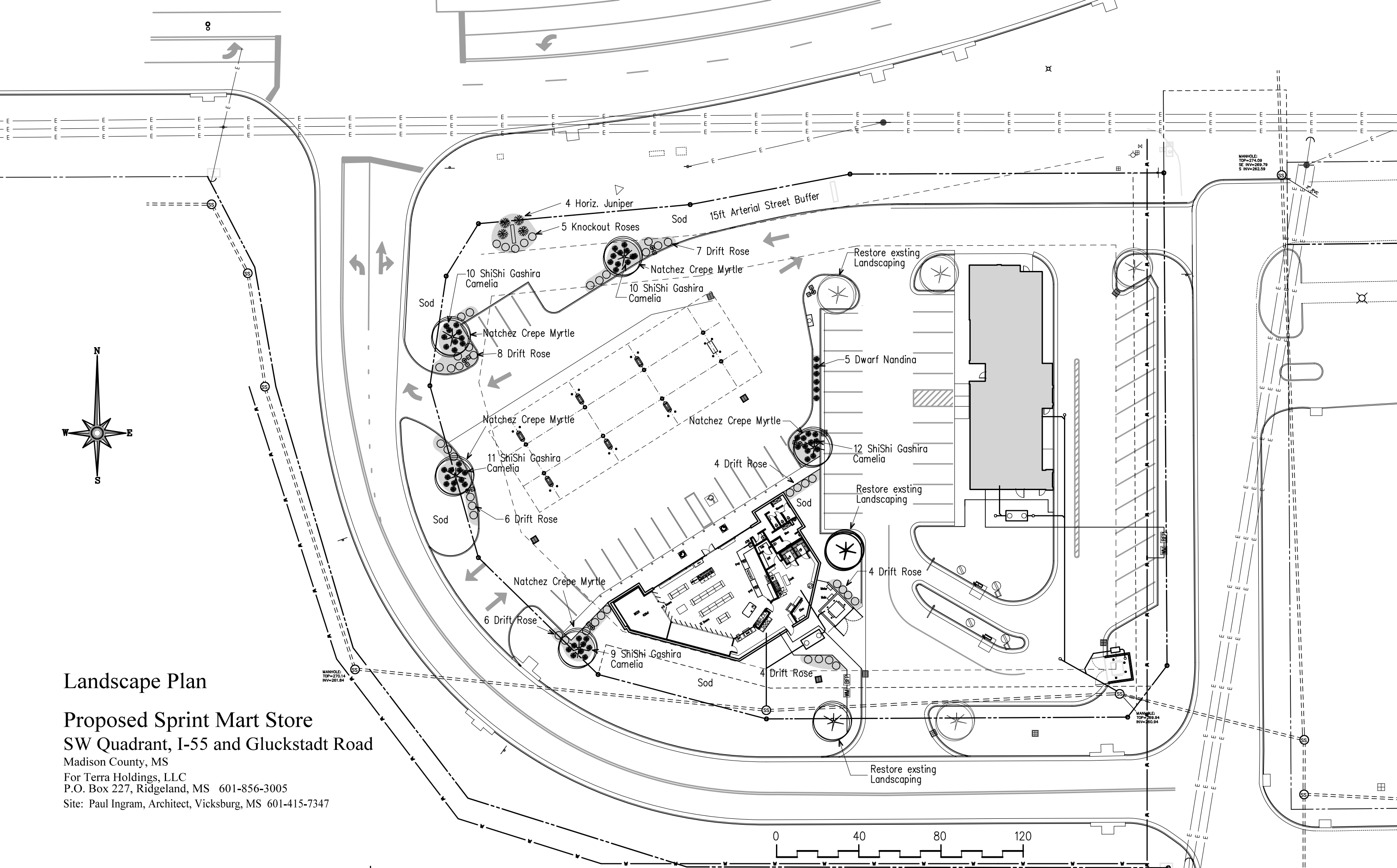
# STORMWATER DRAINAGE SYSTEM DIAGRAM

PROPOSED SITE

GLUCKSTADT ROAD







# Landscape Plan

**Proposed Sprint Mart Store**  
 SW Quadrant, I-55 and Gluckstadt Road  
 Madison County, MS

For Terra Holdings, LLC  
 P.O. Box 227, Ridgeland, MS 601-856-3005  
 Site: Paul Ingram, Architect, Vicksburg, MS 601-415-7347



**Sprint  
Mart**

Sprint Mart 108 Dees Dr.  
Madison County, MS  
July 13, 2018 Rendering

- Limestone colored EIFS
- Cast Stone sign circles, sills
- Dark Blue metal Spanish Tile Mansard
- "Old New Orleans" or similar Brick
- Burnished Block Stone Base
- Bronze Metal Glazing
- Parapets all around to conceal roof equipment

*Signs shown for information only. Signs subject to County approval per parcel allotment or future variance request.*

Signs Summary:  
 "Sprint Mart" on Bldg: 50sf  
 "Best Bean" round: 12.5sf  
 "CHIX" round: 12.5sf  
 Highway: 50sf  
 Total: 125sf

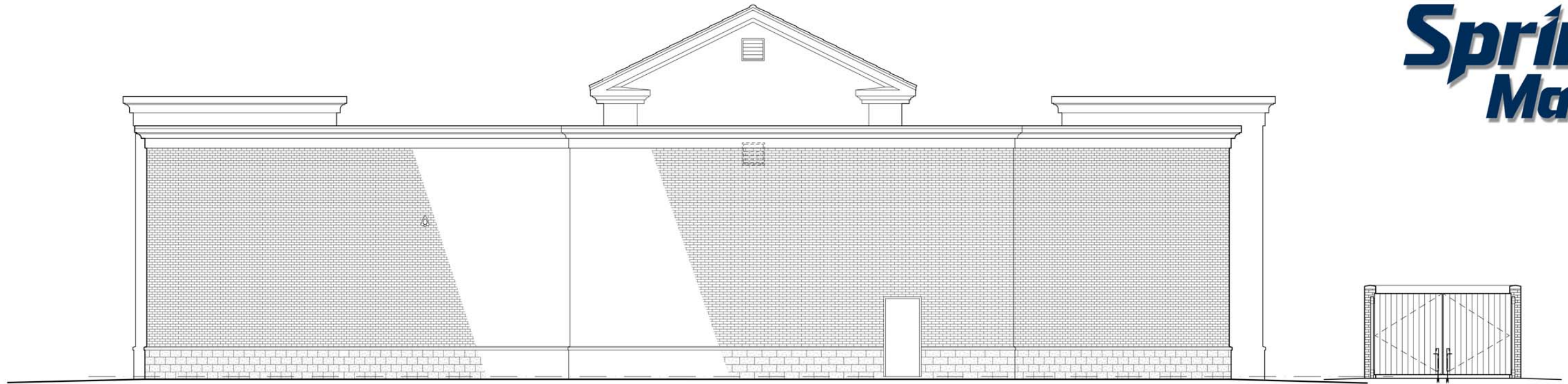


5x10 Highway Sign Face  
50sf  
(Graphics subject to Owner approval)



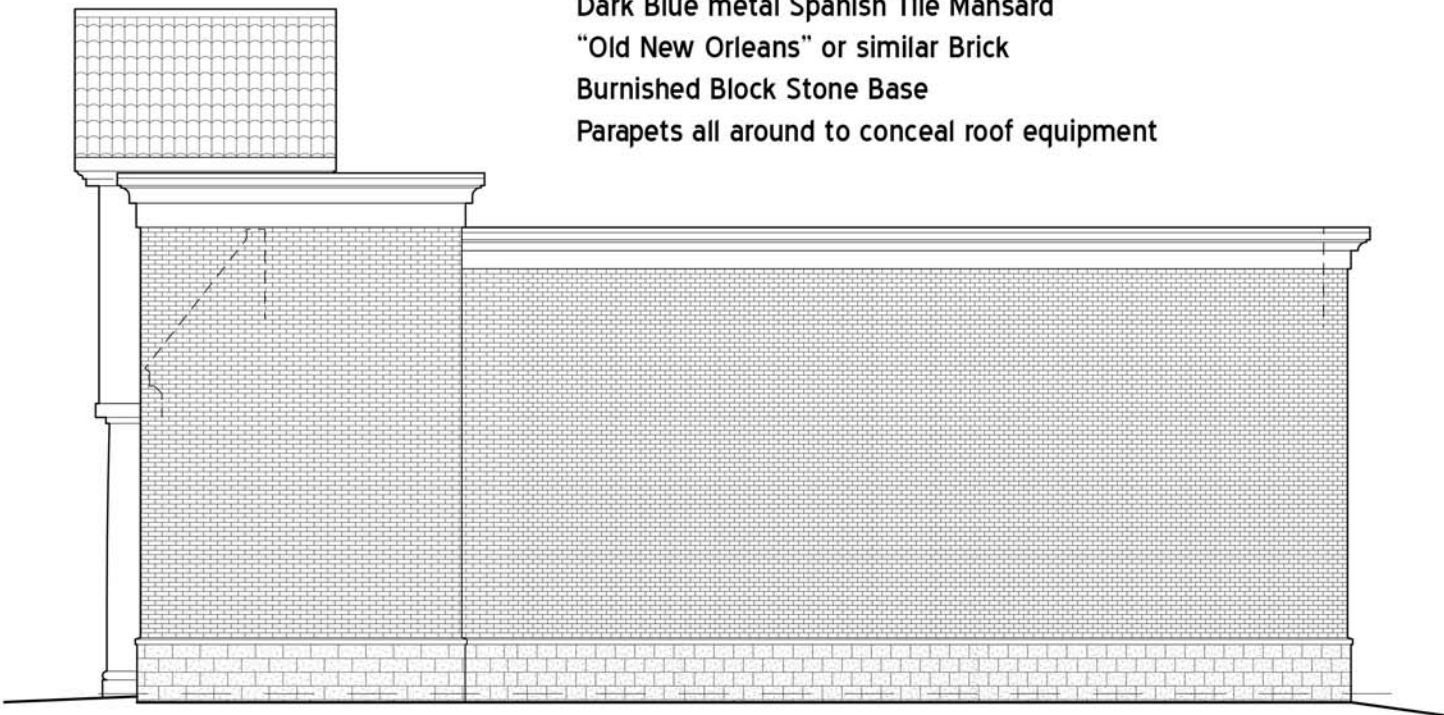
2018 Store in Ridgeland

Paul Ingram, Architect

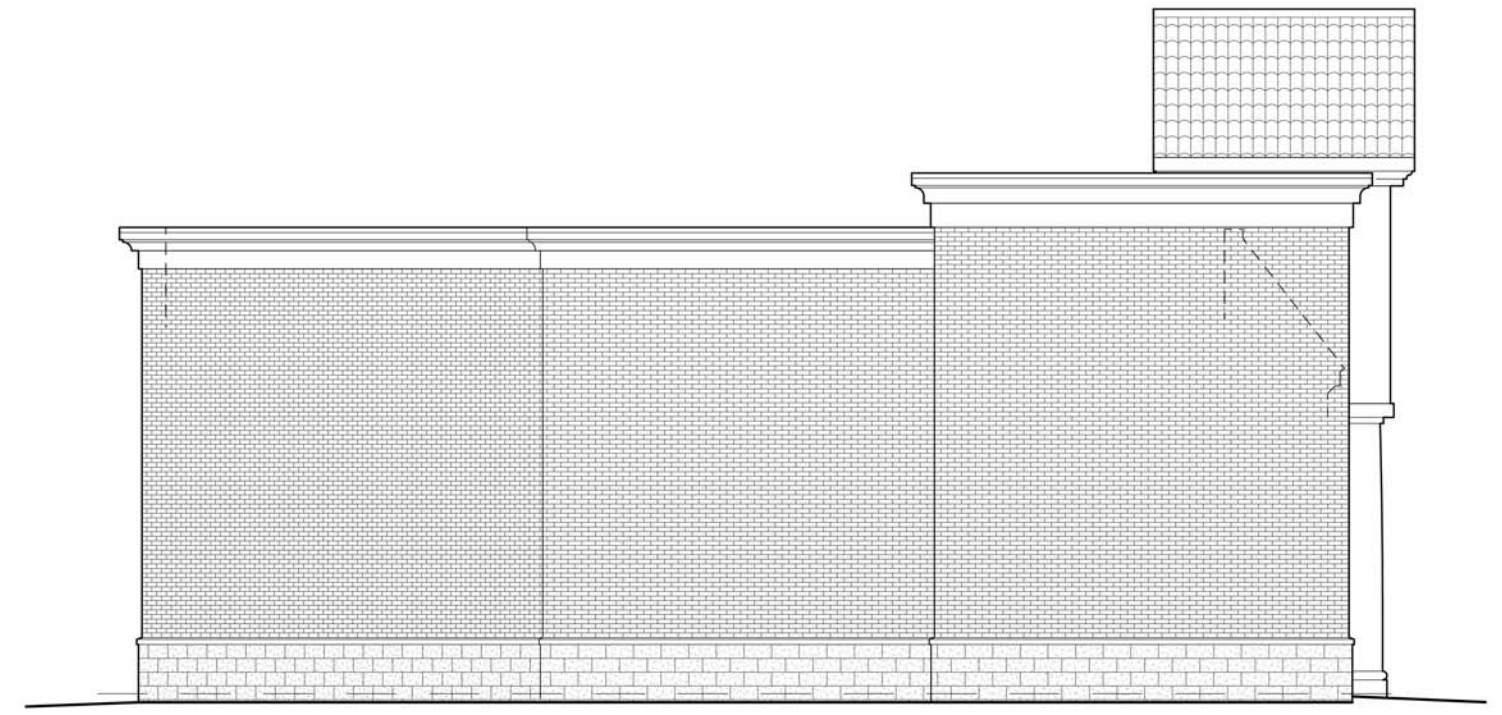


**Rear**

- Limestone colored EIFS
- Cast Stone sign circles, sills
- Dark Blue metal Spanish Tile Mansard
- "Old New Orleans" or similar Brick
- Burnished Block Stone Base
- Parapets all around to conceal roof equipment

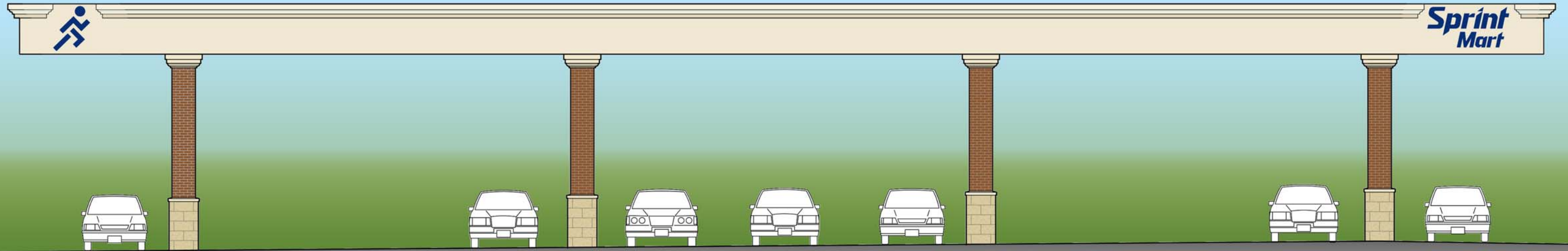


**Right**

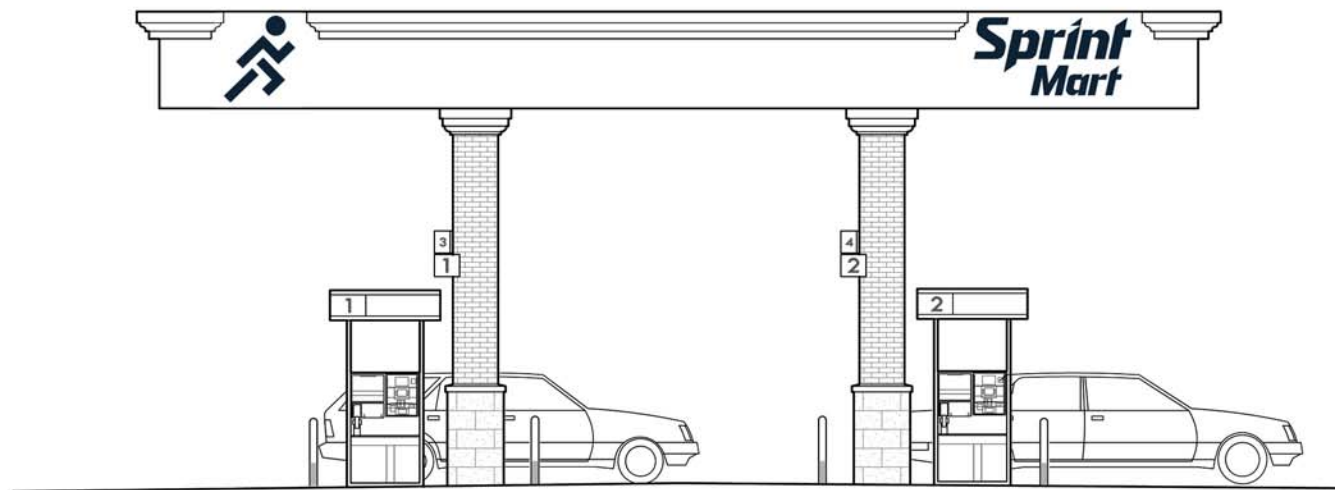


**Left**





Limestone colored EIFS  
 Cast Stone Sills  
 "Old New Orleans" or similar Brick  
 Burnished Block Stone Base



Sprint Mart  
 108 Dees Drive  
 Madison County, MS  
 Fuel & ATM Canopy



Paul Ingram, Architect  
 July 13, 2018

# Proposed Sprint Mart Store

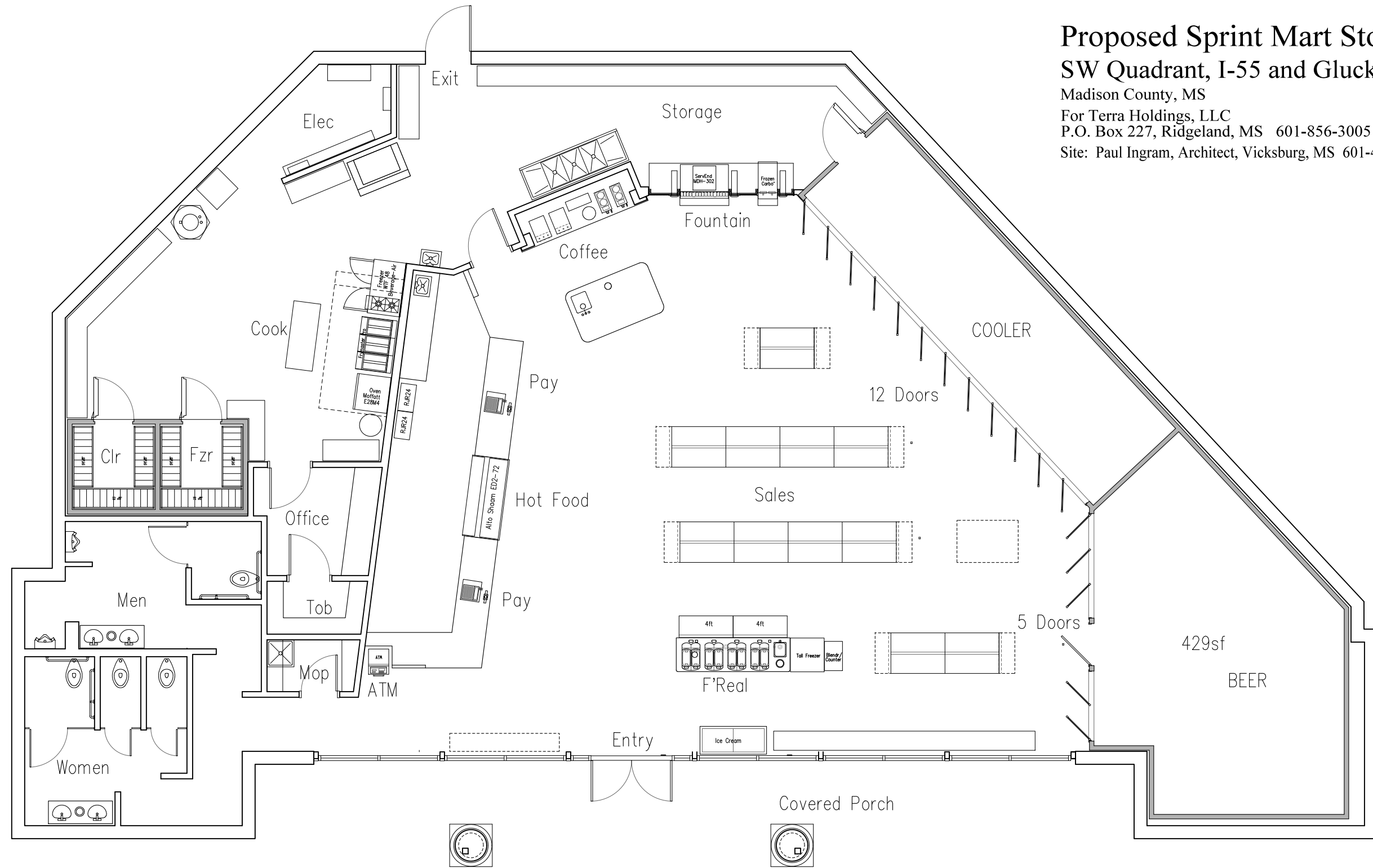
## SW Quadrant, I-55 and Gluckstadt Road

Madison County, MS

For Terra Holdings, LLC

P.O. Box 227, Ridgeland, MS 601-856-3005

Site: Paul Ingram, Architect, Vicksburg, MS 601-415-7347



FLOOR PLAN

4,384 sf

