

10 e. Additional School Data and Analysis for Somerset Coral Gables
UBC Campus Traffic Study (10-20-10)

TECHNICAL MEMORANDUM

To: Glen Kephart
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City of Coral Gables
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Date: October 20th, 2010

SUBJECT: Additional School Data and Analysis for Somerset C.G. UBC Campus Traffic Study

In response to your request for additional data regarding the subject school during our meeting held on October 19th, 2010, we are providing you herewith the additional data and analysis for your review and consideration. I hope this addresses your concerns; however, should you need additional information or wish to discuss this further, please feel free to contact me at the numbers above.

- We have reviewed the St. Thomas Episcopal Parish School Pick-up/Drop-off Evaluation performed by David Plummer & Associates dated January 25, 2007 (copy attached). The analysis indicates 267 students of the 424 students are being dismissed in grades 1 through 5 at 3:15 PM. This resulted in a maximum queue at 3:15 PM and was stated that "Queue spillback to Kendall Drive", this event no longer existed by 3:20 PM and minimal activity was identified by 3:25; that is 10 minutes after the assigned pick-up time.
- When we evaluated the available site stacking, since it was not explicitly provided in the document, we found that with a single lane of stacking the site could stack 19 vehicles (11 adjacent to 90 degree parking and 8 in drop-off area). If a double stacking is allowed, as described in the analysis, then the maximum stacking would be 30 vehicles. Lastly, if each of the arrows on Exhibit 2 represents a vehicles then they are indicating (graphically) 28 vehicles of stacking.
- This project is similar in size and magnitude to the subject school. In fact, the results of the operational analysis (processing & stacking) yield similar results. Our analysis is expecting a maximum queue of 31 vehicles for a dismissal of 245 students where their operation is obtaining between 28 and 30 vehicles of queue for 267 students being dismissed.



In addition to the above analysis we have revised Table A2 which provides the AM Trip Generation in 15-minute intervals for 3 Arrivals; the previous was performed with two arrivals. As a result the greatest 15- minute interval resulted in 61 vehicles exiting the site. That is approximately 4 vehicles per minute. Since the previous LOS (Level of Service) resulted in LOS A, revision to that analysis was not needed. However, we did evaluate the processing rates of several other schools based on actual vehicles dropping off their children.

The table below indicates the average of 5 schools surveyed resulted in 79 vehicles exiting the site. This is approximately 23 percent less than the 61 vehicles we will have during the peak 15-minutes. Additionally, all of the schools surveyed had at least one 15-minute interval that exceeded the peak capacity of 61 vehicles. In other words, none of the schools had a deficiency of being able to process 61 vehicles in 15-minutes. As I indicated in our meeting yesterday, this is not the limiting factor.

School Name	24-29 AM	30-35 AM	36-41 AM	42-47 AM	48-53 AM	Total
Somerset Silver Palms	28	61	129	257	62	107
Mater Gardens Academy	108	48	31	94	133	83
Doral Academy -Previously Provided	27	42	61	90	104	65
Somerset Academy	9	36	80	104	105	67
Pinesrest Prep	13	72	97	143	48	75

In conclusion, the analysis we have provided for the subject school is based on a conservative approach and yields results that are likely to be worse than expected. In addition, the school operator is willing to put forth various safeguards to protect the safety of the children and the surrounding neighborhood

ATTACHMENTS

TABLE: A2-B
Somerset UBC (PK - 8)
School AM Trip Generation (3 Arrivals)

Time	Percent of Students	Number of Students	Vehicles-In	Vehicles-Out	Total Trips	Cummulative Trips	Operation
6:45 AM - 7:00 AM	6%	44	21	18	39	39	First Arrival 7:30 AM (PK - 2)
7:00 AM - 7:15 AM	10%	74	35	31	66	105	
7:15 AM - 7:30 AM	25%	147	71	61	132	237	
7:30 AM - 7:45 AM	10%	74	36	30	66	66	Second Arrival 8:00 AM (3 - 5)
7:45 AM - 8:00 AM	20%	147	71	61	132	198	
8:00 AM - 8:15 AM	10%	74	36	30	66	66	Third Arrival 8:30 AM (5 - 8)
8:15 AM - 8:30 AM	20%	147	71	61	132	198	
8:30 AM - 8:45 AM	4%	30	15	12	27	225	
Total	100%	735.735	356	304	660	PEAK DEPARTURE	

	Veh-In	Veh-Out	Total Trips (vph)
* Trip Generation Trips	356	304	660

SCHOOL AM PEAK HOUR ARRIVAL					
AM Peak Hour (7:30 AM - 8:30 AM)	Veh-In	Veh-Out	Total Trips (vph)	Total Trips (vph)	From Previous
	214	182	396	561	-29%

Note: * See Table A1.

TABLE: A9
Somerset UBC (PK - 8)
 AM Peak Vehicle Processing Volume
 Various School Data

School Name	Time Period					Average
	7:15 - 7:30 AM	7:31 - 7:45 AM	7:46 - 8:00 AM	8:01 - 8:15 AM	8:16 - 8:30 AM	
Somerset Silver Palms	28	61	129	257	62	107
Mater Gardens Academy	108	48	31	94	133	83
Doral Academy -Previously Provided	27	42	61	90	104	65
Somerset Academy	9	36	80	104	105	67
Pinesrest Prep	13	72	97	143	48	75

Summary

Average Vehicles Processed (All Schools)	79
Minimum Vehicles Processed	9
Maximum Vehicles Processed	257
Median Vehicles Processed	72

Somerset UBC AM Peak 15-Minute Vehicles Out	61
Time Period	7:45 - 8:00 AM
Percent Below Average	-23%
Percent Below Maximum	-76%

Notes:
 See Table A2-B

**Surrogate School
Queuing and Parking Data Collection Sheet**

School Name:	Somerset Academy Silver Palms	Weather:	Clear
School Address:	23255 SW 115 Avenue, Miami FL	Date:	9/14/2010
Location:	Parent & Bus Drop-Off	Technician:	CV/BB

AM: On-Site Queuing Observations

Time	Car-In	Car-Out	Cars Parked	Cars Queued	Bus-In	Bus-Out	Bus Queued
7:00 AM	0	0	0	3	0	0	0
7:01 AM	0	0	0	3	0	0	0
7:02 AM	0	0	0	3	0	0	0
7:03 AM	0	0	0	3	0	0	0
7:04 AM	0	0	0	3	0	0	0
7:05 AM	0	0	0	3	0	0	0
7:06 AM	0	0	0	3	0	0	0
7:07 AM	1	0	0	4	0	0	0
7:08 AM	1	1	0	4	0	0	0
7:09 AM	0	0	0	4	0	0	0
7:10 AM	0	0	0	4	0	0	0
7:11 AM	6	0	1	10	0	0	0
7:12 AM	5	4	0	11	0	0	0
7:13 AM	2	1	0	12	0	0	0
7:14 AM	2	1	0	13	0	0	0
7:15 AM	1	1	0	13	0	0	0
7:16 AM	3	4	0	12	0	0	0
7:17 AM	1	1	0	12	0	0	0
7:18 AM	3	2	0	13	0	0	0
7:19 AM	1	0	0	14	0	0	0
7:20 AM	2	0	0	16	0	0	0
7:21 AM	4	2	2	18	0	0	0
7:22 AM	1	3	0	16	0	0	0
7:23 AM	1	0	0	17	0	0	0
7:24 AM	3	1	0	19	0	0	0
7:25 AM	1	3	0	17	0	0	0
7:26 AM	4	0	0	21	0	0	0
7:27 AM	3	4	2	2	0	0	0
7:28 AM	3	2	1	21	0	0	0
7:29 AM	1	4	0	18	0	0	0
7:30 AM	3	1	2	20	0	0	0
Queued at Beginning of Count				3			0

Surrogate School
Queuing and Parking Data Collection Sheet

School Name:	Somerset Academy Silver Palms	Weather:	Clear
School Address:	23255 SW 115 Avenue, Miami FL	Date:	9/14/2010
Location:	Parent & Bus Drop-Off	Technician:	CV/BB

AM: On-Site Queuing Observations

Time	Car-In	Car-Out	Cars Parked	Cars Queued	Bus-In	Bus-Out	Bus Queued
7:31 AM	4	3		21	0	0	0
7:32 AM	3	3	0	21	0	0	0
7:33 AM	7	5	5	23	0	0	0
7:34 AM	2	7		18	0	0	0
7:35 AM	6	2	0	22	0	0	0
7:36 AM	3	2		23	0	0	0
7:37 AM	4	7	0	20	0	0	0
7:38 AM	9	5	4	24	0	0	0
7:39 AM	3	3		24	0	0	0
7:40 AM	7	3		28	0	0	0
7:41 AM	2	4	0	26	0	0	0
7:42 AM	10	4	3	32	0	0	0
7:43 AM	5	4	0	33	0	0	0
7:44 AM	7	4	3	36	0	0	0
7:45 AM	8	5	6	39	0	0	0
7:46 AM	9	5	2	43	0	0	0
7:47 AM	11	4	4	50	0	0	0
7:48 AM	10	11	2	49	0	0	0
7:49 AM	11	5	3	55		0	1
7:50 AM	14	5	2	64	0	0	1
7:51 AM	13	6		71	0		0
7:52 AM	14	13		72	0	0	0
7:53 AM	12	9		75	0	0	0
7:54 AM	13	11		77	0	0	0
7:55 AM	13	11	2	79	0	0	0
7:56 AM	10	11	3	78	0	0	0
7:57 AM	12	5	2	85	0	0	0
7:58 AM	10	14		81	0	0	0
7:59 AM	11	8	0	84	0	0	0
8:00 AM	12	11	2	85	0	0	0

Surrogate School
Queuing and Parking Data Collection Sheet

School Name:	Somerset Academy Silver Palms	Weather:	Clear
School Address:	23255 SW 115 Avenue, Miami FL	Date:	9/14/2010
Location:	Parent & Bus Drop-Off	Technician:	CV/BB

AM: On-Site Queuing Observations

Time	Car-In	Car-Out	Cars Parked	Cars Queued	Bus-In	Bus-Out	Bus Queued
8:01 AM	18	13	1	90	0	0	0
8:02 AM	13	17	3	86	0	0	0
8:03 AM	20	16	2	90	0	0	0
8:04 AM	20	16	0	94	0	0	0
8:05 AM	20	19	0	95	0	0	0
8:06 AM	17	20	0	92	0	0	0
8:07 AM	20	12	0	100	0	0	0
8:08 AM	14	20	2	94	0	0	0
8:09 AM	13	22	0	85	0	0	0
8:10 AM	13	21		77	0	0	0
8:11 AM	11	19	0	69	0	0	0
8:12 AM	15	16	2	68	0	0	0
8:13 AM	11	15	0	64	0	0	0
8:14 AM	6	15	0	55	0	0	0
8:15 AM	8	16	0	47	0	0	0
8:16 AM	5	13	0	39	0	0	0
8:17 AM		11	0	29	0	0	0
8:18 AM	3	5		27	0	0	0
8:19 AM	2	5	0	24	0	0	0
8:20 AM		3	0	22	0	0	0
8:21 AM		2	0	21	0	0	0
8:22 AM	2	6	0	17	0	0	0
8:23 AM			0	17	0	0	0
8:24 AM	2	3	0	16	0	0	0
8:25 AM	0	3	2	13	0	0	0
8:26 AM	0	4	0	9	0	0	0
8:27 AM	0		0	8	0	0	0
8:28 AM	0	0	0	8	0	0	0
8:29 AM	0	2	0	6	0	0	0
8:30 AM	0	3	0	3	0	0	0

Surrogate School
Queuing and Parking Data Collection Sheet

School Name:	Somerset Academy Silver Palms	Weather:	Clear
School Address:	23255 SW 115 Avenue, Miami FL	Date:	9/14/2010
Location:	Parent & Bus Drop-Off	Technician:	CV/BB

AM: On-Site Queuing Observations

Time	Car-In	Car-Out	Cars Parked	Cars Queued	Bus-In	Bus-Out	Bus Queued
831 AM	0	0	0	3	0	0	0
832 AM	0	0	0	3	0	0	0
8:33 AM	0	3	0	0	0	0	0
834 AM	0	0	0	0	0	0	0
8:35 AM	0	0	0	0	0	0	0
8:36 AM	0	0	0	0	0	0	0
837 AM	0	0	0	0	0	0	0
8:38 AM	0	0	0	0	0	0	0
839 AM	0	0	0	0	0	0	0
840 AM	0	0	0	0	0	0	0
8:41 AM	0	0	0	0	0	0	0
842 AM	0	0	0	0	0	0	0
8:43 AM	0	0	0	0	0	0	0
844 AM	0	0	0	0	0	0	0
845 AM	0	0	0	0	0	0	0
8:46 AM	0	0	0	0	0	0	0
8:47 AM	0	0	0	0	0	0	0
848 AM	0	0	0	0	0	0	0
8:49 AM	0	0	0	0	0	0	0
850 AM	0	0	0	0	0	0	3
851 AM	0	0	0	0	0	0	0
852 AM	0	0	0	0	0	0	0
8:53 AM	0	0	0	0	0	0	0
854 AM	0	0	0	0	0	0	0
855 AM	0	0	0	0	0	0	0
856 AM	0	0	0	0	0	0	0
8:57 AM	0	0	0	0	0	0	0
858 AM	0	0	0	0	0	0	0
859 AM	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0
	544	547		1091		1	2

Surrogate School
Queuing and Parking Data Collection Sheet

School Name:	Somerset Academy Silver Palms	Weather:	Cloudy
School Address :	23255 SW 115 Avenue, Miami FL	Date:	9/14/2010
Location:	Parent & Bus Drop-Off	Technician:	CV/RG

PM: On-Site Queuing Observations

Time	Car-In	Car-Out	Cars Queued	Bus-In	Bus-Out	Bus Queued
Queue at Beginning of Count			10			0
1:45 PM	0	0	10	0	0	0
1:46 PM	0	0	10	0	0	0
1:47 PM	0	0	10	0	0	0
1:48 PM		0	11	0	0	0
1:49 PM	0	0	11	0	0	0
1:50 PM	5	0	16	0	0	0
1:51 PM	2		17	0	0	0
1:52 PM	3	0	20	0	0	0
1:53 PM		0	21	0	0	0
1:54 PM	2		22	0	0	0
1:55 PM	0		21	0	0	0
1:56 PM	2		22	0	0	0
1:57 PM	4		25	0	0	0
1:58 PM	3		27	0	0	0
1:59 PM	3	3	27	0	0	0
2:00 PM	5	6	26	0	0	0
2:01 PM	3	3	26	0	0	0
2:02 PM	5	4	27	0	0	0
2:03 PM	2		28	0	0	0
2:04 PM	4	2	30	0	0	0
2:05 PM	5	3	32	0	0	0
2:06 PM		4	31	0	0	0
2:07 PM	3		33	0	0	0
2:08 PM	3	5	31	0	0	0
2:09 PM	2	7	26	0	0	0
2:10 PM	0	3	23	0	0	0
2:11 PM	4	5	22	0	0	0
2:12 PM		6	17	0	0	0
2:13 PM		7	11	0	0	0
2:14 PM	0	0	11	0	0	0
2:15 PM			11	0	0	0

Surrogate School
Queuing and Parking Data Collection Sheet

School Name:	Somerset Academy Silver Palms	Weather:	Cloudy
School Address:	23255 SW 115 Avenue, Miami FL	Date:	9/14/2010
Location:	Parent & Bus Drop-Off	Technician:	CV/RG

PM: On-Site Queuing Observations

Time	Car-In	Car-Out	Cars Queued	Bus-In	Bus-Out	Bus Queued
2:16 PM	0		10	0	0	0
2:17 PM	0		9	0	0	0
2:18 PM	0	0	9	0	0	0
2:19 PM		0	10	0	0	0
2:20 PM		0	11	0	0	0
2:21 PM	2	0	13	0	0	0
2:22 PM		0	14	0	0	0
2:23 PM		0	15	0	0	0
2:24 PM		1	15	0	0	0
2:25 PM		3	13	0	0	0
2:26 PM	0	0	13	0	0	0
2:27 PM	4	0	17	0	0	0
2:28 PM		0	18	0	0	0
2:29 PM			18	0	0	0
2:30 PM	3	0	21	0	0	0
2:31 PM	2	0	23	0	0	0
2:32 PM	2	0	25	0	0	0
2:33 PM	0	0	25	0	0	0
2:34 PM	3	0	28	0	0	0
2:35 PM	3	0	31	0	0	0
2:36 PM	2	0	33	0	0	0
2:37 PM	4	0	37	0	0	0
2:38 PM	5	0	42	0	0	0
2:39 PM	4	0	46	0	0	0
2:40 PM	4	0	50	0	0	0
2:41 PM	4		53	0	0	0
2:42 PM	3	1	55	0	0	0
2:43 PM	3		57	0	0	0
2:44 PM	8	2	63	0	0	0
2:45 PM	8	0	71	0	0	0

Surrogate School
Queuing and Parking Data Collection Sheet

School Name:	Somerset Academy Silver Palms	Weather:	Cloudy
School Address:	23255 SW 115 Avenue, Miami FL	Date:	9/14/2010
Location:	Parent & Bus Drop-Off	Technician:	CVRG

PM: On-Site Queuing Observations

Time	Car-In	Car-Out	Cars Queued	Bus-In	Bus-Out	Bus Queued
2:46 PM	11	0	92	0	0	0
2:47 PM	9	0	91	0	0	0
2:48 PM	10	0	101	0	0	0
2:49 PM	15		115	0	0	0
2:50 PM	9	3	121	0	0	0
2:51 PM	10	0	131	0	0	0
2:52 PM	13	0	144	0	0	0
2:53 PM	12	0	156	0	0	0
2:54 PM	8	0	164	0	0	0
2:55 PM	13		176	0	0	0
2:56 PM	8	2	182	0	0	0
2:57 PM	10	0	192	0	0	0
2:58 PM	9	2	199		0	
2:59 PM	7		205	0	0	
3:00 PM	8	6	207	0	0	
3:01 PM	2	9	200	0	0	
3:02 PM	4	16	188	0	0	
3:03 PM	11	23	176	0	0	1
3:04 PM	2	24	154	0	0	1
3:05 PM		27	128	0		0
3:06 PM	9	25	112	0	0	0
3:07 PM	2	21	93	0	0	0
3:08 PM	6	16	83	0	0	0
3:09 PM		17	67	0	0	0
3:10 PM	4	13	58	0	0	0
3:11 PM		10	49	0	0	0
3:12 PM	7	14	42	0	0	0
3:13 PM	7	7	42	0	0	0
3:14 PM	7	12	37	0	0	0
3:15 PM	2	14	25	0	0	0

Surrogate School
Queuing and Parking Data Collection Sheet

School Name:	Somerset Academy Silver Palms	Weather:	Cloudy
School Address:	23255 SW 115 Avenue, Miami FL	Date:	9/14/2010
Location:	Parent & Bus Drop-Off	Technician:	CV/RG

PM: On-Site Queuing Observations

Time	Car-In	Car-Out	Cars Queued	Bus-In	Bus-Out	Bus Queued
3:16 PM	2	10	17		0	
3:17 PM	4	8	13	0	0	
3:18 PM	4	2	15	0	0	
3:19 PM	4	4	15	0	0	
3:20 PM		9	7	0	1	0
3:21 PM	0	5	2	0	0	0
3:22 PM	0	0	2	0	0	0
3:23 PM	0	2	0	0	0	0
3:24 PM	0	0	0	0	0	0
3:25 PM	0	0	0	0	0	0
3:26 PM	0	0	0	0	0	0
3:27 PM	0	0	0	0	0	0
3:28 PM	0	0	0	0	0	0
3:29 PM	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0
3:31 PM	0	0	0	0	0	0
3:32 PM	0	0	0	0	0	0
3:33 PM	0	0	0	0	0	0
3:34 PM	0	0	0	0	0	0
3:35 PM	0	0	0	0	0	0
3:36 PM	0	0	0	0	0	0
3:37 PM	0	0	0	0	0	0
3:38 PM	0	0	0	0	0	0
3:39 PM	0	0	0	0	0	0
3:40 PM	0	0	0	0	0	0
3:41 PM	0	0	0	0	0	0
3:42 PM	0	0	0	0	0	0
3:43 PM	0	0	0	0	0	0
3:44 PM	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0

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Surrogate School
Queuing and Parking Data Collection Sheet

School Name:	Mater Gardens Academy	Weather:	Sunny
School Address:	9010 NW 178 Lane, Miami FL	Date:	3/19/2009
Location:	South Side Parents Drop-Off	Technician:	CV/RG

AM: On-Site Queuing Observations

Time	Car-In	Car-Out	Cars Parked Inside (i.e. slots)	Cars Queued	Bus-In	Bus-Out	Bus Queued
638 AM	0	0	0	0		0	
639 AM		0		1	0	0	0
640 AM	0	0	0	1	0	0	0
641 AM	0	0	0		0		0
642 AM	0		0		0	0	0
643 AM	3		0		0	0	
644 AM		2	0	2	0	0	
6.45AM		0	0	2	0	0	
646 AM	0	0	0	2	0	0	
647 AM	0		0		0	0	0
6.40AM		0	0	2	0		
649 AM	0				0	0	
650 AM	0	0	0		0		0
651 AM	0		0		0	0	
652 AM	0				0		0
653 AM		0	0		0	0	0
6.54 AM	0		0	0	0	0	
655 AM	0		0		0	0	
656 AM	0			0	0	0	0
657 AM	0	0			0	0	0
658 AM	0	0	2		0		
659 AM	2	2	0	0	0	0	0
700 AM	1		0	0	0	0	0
701 AM					0	0	
702 AM		0	0	2	0	0	
703 AM	2		0	3	0	0	
704 AM		0	0	4	0		0
705 AM	3			6	0		
706 AM	0	3	0		0	0	0
707 AM	2	2	0		0		0
708 AM	2	0	0	5		0	

Surrogate School
Queuing and Parking Data Collection Sheet

School Name:	Major Gardens Academy	Weather:	Sunny
School Address:	9010 NW 178 Lane, Miami FL	Date:	3/19/2009
Location:	South Side Parents Drop-Off	Technician:	CV/RG

AM: On-Site Queuing Observations

Time	Car-In	Car-Out	Cars Parked Inside (LA staff)	Cars Queued	Bus-In	Bus-Out	Bus Queued
7:09 AM	1	1	0	5	0	0	0
7:10 AM	1	2	1	4	0	0	0
7:11 AM	1	2	0	3	0	0	0
7:12 AM	2	2	0	3	0	0	0
7:13 AM	9	2	0	10	0	0	0
7:14 AM	5	6	0	9	1	0	1
7:15 AM	6	5	0	10	0	0	1
7:16 AM	1	7	1	4	0	0	1
7:17 AM	4	0	1	8	2	1	2
7:18 AM	9	3	0	14	0	0	2
7:19 AM	5	8	1	11	0	0	2
7:20 AM	4	5	0	10	0	0	2
7:21 AM	7	9	2	8	0	0	2
7:22 AM	7	4	0	11	0	0	2
7:23 AM	8	7	1	12	0	1	1
7:24 AM	7	6	0	13	0	0	1
7:25 AM	7	11	1	9	0	0	1
7:26 AM	12	8	0	13	0	1	0
7:27 AM	8	7	1	14	0	0	0
7:28 AM	10	11	0	13	0	0	0
7:29 AM	7	8	1	12	0	0	0
7:30 AM	1	9	2	4	0	0	0
7:31 AM	4	4	0	4	1	1	0
7:32 AM	5	1	1	8	0	0	0
7:33 AM	3	5	2	6	0	0	0
7:34 AM	4	6	0	4	1	1	0
7:35 AM	5	2	1	7	0	0	0
7:36 AM	5	7	1	5	0	0	0
7:37 AM	3	4	1	4	0	0	0
7:38 AM	3	5	0	2	0	0	0

**Surrogate School
Queuing and Parking Data Collection Sheet**

School Name:	Mater Gardens Academy	Weather:	Sunny
School Address:	9010 NW 178 Lane, Miami FL	Date:	01/19/2009
Location:	South Side Parents Drop-Off	Technician:	CV/RG

AM: On-Site Queuing Observations

Time	Car-In	Car-Out	Cars Parked (inside (i.e. staff))	Cars Queued	Bus-In	Bus-Out	Bus Queued
7:39 AM	3		2	4	0	0	0
7:40 AM	2	3	0	3	0	0	0
7:41 AM	2	3		2	0	0	
7:42 AM	4		0	5	0	0	0
7:43 AM	2	2		5	0		0
7:44 AM	2	2	0				
7:45 AM		2	0	4	0		0
7:46 AM	3		0	6	0	0	0
7:47 AM	2	3		5	0		0
7:48 AM			0	5	0	0	
7:49 AM	3		0	7	0	0	0
7:50 AM	3	2	0	8	0	0	
7:51 AM	2	2		6	0		
7:52 AM	2	5	0	5		0	
7:53 AM	0		2	5	0		0
7:54 AM			0	7	0		
7:55 AM	2	2		7	0		
7:56 AM	7	2	0	12	0	0	0
7:57 AM	2	5		9	0		
7:58 AM	2	6	0	5	0		0
7:59 AM	2	0	2	7	0	0	
8:00 AM	9	0	0	14	0	0	0
8:01 AM	8	5	0	19	0		
8:02 AM	4	5		18	0		0
8:03 AM	9		2	24	0	0	
8:04 AM	10	8	0	26	0		
8:05 AM		10		24	0	0	0
8:06 AM	6	5	0	25	0	0	0
8:07 AM	6	6		25	0		0
8:08 AM	7	9	0	23		0	

**Surrogate School
Queuing and Parking Data Collection Sheet**

School Name:	Matior Gardens Academy	Weather:	Sunny
School Address:	9010 NW 178 Lane, Miami FL	Date:	3/19/2009
Location:	South Side Parents Drop-off	Technician:	
		CV/RG:	

AM: On-Site Queuing Observations

Time	Car-In	Car-Out	Cars Parked Inside (0 start)	Cars Queued	Bus-In	Bus-Out	Bus Queued
8:09 AM	6	3	0	26	0	1	0
8:10 AM	4	12	1	18	0	0	0
8:11 AM	4	5	0	17	1	0	1
8:12 AM	1	5	2	13	0	0	0
8:13 AM	4	2	0	15	0	0	0
8:14 AM	8	5	1	18	0	0	1
8:15 AM	8	11	1	15	0	0	1
8:16 AM	6	3	0	18	1	0	2
8:17 AM	9	6	0	21	0	0	2
8:18 AM	5	10	2	16	0	0	2
8:19 AM	11	10	1	17	0	1	1
8:20 AM	11	9	0	19	0	0	1
8:21 AM	4	8	1	15	0	0	1
8:22 AM	9	3	0	21	0	0	1
8:23 AM	11	3	0	29	0	0	1
8:24 AM	14	7	1	36	0	0	0
8:25 AM	3	10	0	29	0	0	1
8:26 AM	13	6	2	36	0	0	0
8:27 AM	10	14	0	32	0	0	1
8:28 AM	16	11	0	37	0	0	1
8:29 AM	9	12	0	34	0	0	1
8:30 AM	10	21	1	23	0	0	0
8:31 AM	7	10	0	20	0	0	1
8:32 AM	9	13	0	16	0	0	1
8:33 AM	6	8	0	14	0	0	1
8:34 AM	6	7	0	13	0	0	1
8:35 AM	6	7	0	12	0	0	1
8:36 AM	0	4	1	6	0	0	1
8:37 AM	2	1	0	9	0	0	1
8:38 AM	0	3	1	6	0	0	1
8:39 AM	3	7	0	2	0	0	1
8:40 AM	0	1	0	1	0	1	0
8:41 AM	1	1	0	1	0	0	0
8:42 AM	1	1	0	1	0	0	0
8:43 AM	0	0	0	0	0	0	0
8:44 AM	0	1	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0

Surrogate School
Queuing and Parking Data Collection Sheet

School Name:	Mator Gardens Academy	Weather:	Cloudy
School Address:	9010 NW 178 Lane, Miami FL	Date:	3/19/2009
Location:	South Side Parents Drop-Off	Technician:	RG

PM: On-Site Queuing Observations

Time	Car-In	Car-Out	Cars Queued	Bus-In	Bus-Out	Bus Queued
1:40 PM	0	0	0	0	0	0
1:41 PM	0	0	0	0	0	0
1:42 PM	1	0	1	0	0	0
1:43 PM	3	0	4	0	0	0
1:44 PM	0	1	3	0	0	0
1:45 PM	1	1	3	0	0	0
1:46 PM	0	0	3	0	0	0
1:47 PM	0	0	3	0	0	0
1:48 PM	2	0	5	0	0	0
1:49 PM	2	0	7	0	0	0
1:50 PM	0	0	7	0	0	0
1:51 PM	2	0	9	0	0	0
1:52 PM	5	0	14	0	0	0
1:53 PM	1	0	15	1	0	1
1:54 PM	1	0	16	0	0	1
1:55 PM	0	0	16	0	0	1
1:56 PM	2	0	18	0	0	1
1:57 PM	0	0	18	0	0	1
1:58 PM	2	0	20	0	0	1
1:59 PM	2	0	22	0	0	1
2:00 PM	0	0	22	0	0	1
2:01 PM	0	0	22	0	1	0
2:02 PM	4	2	24	1	0	1
2:03 PM	1	4	21	0	1	0
2:04 PM	3	1	23	0	0	0
2:05 PM	4	4	23	0	0	0
2:06 PM	1	3	21	0	0	0
2:07 PM	4	3	22	0	0	0
2:08 PM	5	7	20	0	0	0
2:09 PM	4	3	21	0	0	0
2:10 PM	2	1	22	0	0	0
2:11 PM	2	5	19	0	0	0
2:12 PM	0	3	16	0	0	0
2:13 PM	2	2	16	1	0	1
2:14 PM	0	1	15	0	0	1
2:15 PM	2	1	16	0	0	1

**Surrogate School
Queuing and Parking Data Collection Sheet**

School Name:	Motor Gardens Academy	Weather:	Cloudy
School Address:	8010 NW 178 Lane, Miami FL	Date:	3/19/2009
Location:	South Side Parents Drop-Off	Technician:	RG

PM: On-Site Queuing Observations

Time	Car-In	Car-Out	Cars Queued	Bus-In	Bus-Out	Bus Queued
216 PM	2	0	18	0	0	1
217 PM	0	0	18	0	0	1
218 PM	1	2	17	0	0	1
219 PM	1	0	18	0	0	1
220 PM	1	2	17	0	0	1
221 PM	0	0	17	0	0	1
222 PM	1	0	18	0	0	1
223 PM	2	0	20	0	0	1
224 PM	2	0	22	0	0	1
225 PM	1	1	22	0	0	1
226 PM	3	1	24	0	0	1
227 PM	5	0	29	0	0	1
228 PM	1	0	30	0	0	1
229 PM	5	1	34	0	0	1
230 PM	5	1	38	2	0	3
231 PM	2	3	37	0	0	3
232 PM	5	1	41	0	0	3
233 PM	3	3	41	0	0	3
234 PM	1	3	39	0	1	2
235 PM	3	3	39	0	2	0
236 PM	3	3	39	0	0	0
237 PM	3	7	35	0	0	0
238 PM	1	4	32	0	0	0
239 PM	5	4	33	0	0	0
240 PM	3	5	31	0	0	0
241 PM	2	2	31	0	0	0
242 PM	4	3	32	0	0	0
243 PM	2	1	33	0	0	0
244 PM	2	4	31	0	0	0
245 PM	2	2	31	0	0	0
2:46 PM	6	0	37	0	0	0
2:47 PM	2	2	37	0	0	0
2:48 PM	3	2	38	0	0	0
249 PM	5	0	43	0	0	0
2:50 PM	7	2	48	0	0	0

Surrogate School
Queuing and Parking Data Collection Sheet

School Name:	Mator Gardens Academy	Weather:	Cloudy
School Address:	9010 NW 178 Lane, Miami FL	Date:	3/19/2009
Location:	South Side Parents Drop-Off	Technician:	RG

PM: On-Site Queuing Observations

Time	Car-In	Car Out	Cars Queued	Bus-In	Bus Out	Bus Queued
251 PM	5	0	53	0	0	0
252 PM	1	0	54	0	0	0
2:53 PM	1	0	55	0	0	0
254 PM	1	0	56	0	0	0
255 PM	0	0	62	0	0	0
256 PM	1	1	62	1	0	1
257 PM	5	2	65	0	0	1
2:58 PM	7	3	69	0	0	1
259 PM	4	1	72	0	0	1
300 PM	3	5	70	0	0	1
301 PM	4	6	68	0	0	1
302 PM	5	6	67	0	0	1
303 PM	3	5	65	0	1	0
304 PM	3	7	61	0	0	0
305 PM	2	11	52	0	0	0
306 PM	3	9	46	0	0	0
307 PM	1	3	44	0	0	0
308 PM	0	5	39	0	0	0
309 PM	5	4	40	0	0	0
3:10 PM	4	9	35	0	0	0
311 PM	1	6	30	0	0	0
3:12 PM	1	8	23	0	0	0
313 PM	5	6	22	1	0	
314 PM	4	6	20	0	0	1
3:15 PM	5	6	19	0	0	1
316 PM	4	3	20	0	0	1
317PM	3	4	19	0	0	
318 PM	1	5	15	0	0	
3:19 PM	4	4	15	0	0	
320 PM	5	1	19	0	0	1
321 PM	2	1	20	0	0	
322 PM	3	2	21	0	0	
323 PM	2	2	21	0	0	1
324 PM	1	2	20	0	0	1
3:25 PM	0	0	20	0	0	1

Surrogate School
Queuing and Parking Data Collection Sheet

School Name:	Mater Gardens Academy	Weather:	Cloudy
School Address:	9010 NW 178 Lane, Miami FL	Date:	3/19/2009
Location:	South Side Parents Drop-Off	Technician:	RG

PM: On-Site Queuing Observations

Time	Car-In	Car- Out	T. Cars Queued	Bus-In	Bus-Out	B. Queued
326 PM	4	0	24	0	0	1
327 PM	2	1	25	0	0	1
328 PM	1	1	25	0	0	1
329 PM	1	0	26	0	0	1
330 PM	0	1	25	1	0	2
331 PM	4	1	28	0	0	2
332 PM	3	0	31	0	0	2
333 PM	5	2	34	0	0	2
334 PM	5	1	38	0	0	2
335 PM	1	2	37	0	0	2
336 PM	4	0	41	0	0	2
337 PM	5	4	42	1	0	3
338 PM	5	3	44	0	1	2
339 PM	3	0	47	0	0	2
340 PM	4	0	51	0	1	1
341 PM	4	2	53	1	0	2
342 PM	6	5	54	0	1	1
343 PM	1	11	44	0	0	1
344 PM	4	7	41	1	0	2
345 PM	2	11	32	0	0	2
346 PM	4	9	27	0	0	2
347 PM	1	8	20	0	1	1
348 PM	0	8	12	0	0	1
349 PM	3	5	10	0	0	1
350 PM	4	5	9	0	1	0
351 PM	2	4	7	0	0	0
352 PM	2	6	3	0	0	0
3:53 PM	1	3	1	0	0	0
3:54 PM	0	1	0	0	0	0
3:55 PM	0	0	0	0	0	0

330 338 676 11 11

Somerset (West Miami) Surrogate School
Queuing and Parking Data Collection Sheet

School Name:	Somerset Academy	Weather:	Sunny
School Address:	18491 SW 134 Avenue	Date:	9/15/2009
Location:	Parent Drop-Off	Technician:	RG/CV

AM: Queuing Observations

Time	Car-In	Car-Out	Cars Parked	Cars Queued	Van-In	Van-Out	Van Queued
7.15 AM	2			2			0
7.16 AM				2			0
7.17 AM							0
7.18 AM				0			0
7.19 AM							0
7.20 AM							0
7.21 AM				2			0
7.22 AM				2			0
7.23 AM				3			0
7.24 AM				3			0
7.25 AM				3			0
7.26 AM	2			4			0
7.27 AM	2			6			0
7.28 AM				6			0
7.29 AM	2			7			0
7.30 AM	3		2	10			0
7.31 AM	3	2		11			0
7.32 AM	2	2	3	11			0
7.33 AM				12			0
7.34 AM	2	2		12			0
7.35 AM	4	3	2	13			0
7.36 AM	2			14			0
7.37 AM	2		3	15			0
7.38 AM	3	3		15			0
7.39 AM	4	4		15	1		1
7.40 AM	5		4	19			0
7.41 AM	3	4		19			0
7.42 AM	3	5		16			0
7.43 AM	4	3	5	17			0
7.44 AM	4			21			0
7.45 AM	4	5	3	20			0

Somerset (West Miami) Surrogate School
Queuing and Parking Data Collection Sheet

School Name:	Somerset Academy	Weather:	Sunny
School Address:	18491 SW 134 Avenue	Date:	9/15/2009
Location:	Parent Drop-Off	Technician:	RG/CV

AM: Queuing Observations

Time	Car-In	Car-Out	Cars Parked	Cars Queued	Van-In	Van-Out	Van Queued
7:46 AM	4	2	2	22			0
7:47 AM	8	4	2	26			0
7:48 AM	8	4		30			
7:49 AM	7	3	4	34			
7:50 AM	8	3		39			0
7:51 AM	8	3		44			0
7:52 AM	7	9	2	42			0
7:53 AM	7	5		44			0
7:54 AM	8	6		44			0
7:55 AM	7	6	2	45			
7:56 AM	8	5		48			0
7:57 AM	7	5	2	50			0
7:58 AM	7	12		45			0
7:59 AM	7	2	3	50			0
8:00 AM	7	11	2	46			0
8:01 AM	4	2		48			0
8:02 AM	9	13		44	1		
8:03 AM	7	10		41			
8:04 AM	9			49			1
8:05 AM	3	6		46			1
8:08 AM	10	3		53			
8:07 AM	9	9		53		1	0
8:08 AM	2	3		52			0
8:09 AM	12	5		59			0
8:10 AM	7	11		55			0
8:11 AM	8	2		61			0
8:12 AM	8	19		50			0
8:13 AM	8			58			0
8:14 AM	3	14		47			0
8:15 AM	12	6		53			0

Somerset (West Miami) Surrogate School
Queuing and Parking Data Collection Sheet

School Name:	Somerset Academy	Weather:	Sunny
School Address:	18491 SW 134 Avenue	Date:	9/15/2009
Location:	Parent Drop-Off	Technician:	RG/CV

AM: Queuing Observations

Time	Car-In	CarOut	Cars Parked	Cars Queued	Van-In	Van-Out	Van Queued
8:16 AM	5	4		55			0
8:17 AM	9	11		53			0
8:18 AM	9	4		58			0
8:19 AM	18	4		72			0
8:20 AM	7			78			0
8:21 AM	3	16		65			0
8:22 AM	6	5		66			0
8:23 AM	7	11		62			0
8:24 AM	5	9		58			0
8:25 AM	4	2		60			0
8:26 AM	5	15		50			0
8:27 AM	4			53			0
8:28 AM	2	12		43			0
8:29 AM	2	3		42			0
8:30 AM		7		35			0
8:31 AM		3		32			0
8:32 AM		2		30			0
8:33 AM	3	15		18			0
8:34 AM	3			20			0
8:35 AM		11		10			0
8:36 AM		3		10			0
8:37 AM		2		9			0
8:38 AM	3	1		11			0
8:39 AM	3	3		11			0
8:40 AM		5		6			0
8:41 AM		6					0
8:42 AM				0			0
8:43 AM							0
8:44 AM				0			0
8:45 AM				0			0

Somerset (West Miami) Surrogate School
Queuing and Parking Data Collection Sheet

School Name: Somerset Academy
School Address: 18491 SW 134 Avenue
Location: Parent Drop-Off

Weather: Sunny
Date: 9/15/2009
Technician: RG/CV

AM: Queuing Observations

Time	Car-In	Car-Out	Cars Parked	Cars Queued	Van-In	Van-Out	Van Queued	
8:46 AM				0			0	
8:47 AM				0			0	
8:48 AM				0			0	
8:49 AM				0			0	
8:50 AM				0			0	
8:51 AM				0			0	
8:52 AM				0			0	
8:53 AM				0			0	
8:54 AM				0			0	
8:55 AM				0			0	
8:56 AM				0			0	
8:57 AM				0			0	
8:58 AM				0			0	
8:59 AM				0			0	
9:00 AM				0			0	
	1	388	388	46	776	5	1	5

#REF1

Queuing and Parking Data Collection Sheet

School Name:	Somerset Academy	Weather:	Sunny
School Address:	18491 SW 134 Avenue	Date:	9/15/2009
Location:	Parent Drop-Off	Technician:	CV

PM: Queuing Observations

Time	Car-In	Car-Out	Cars Parked	Cars Queued	Van-In	Van-Out	Van Queued
1 30 PM			8	9			
1 31 PM				9			
1:32 PM				9	1		2
1 33 PM	2			11			2
1 34 PM				12			2
1:35 PM	2			14			2
1:36 PM	4			18			2
1:37 PM				19			2
1 38 PM		1		19			2
1 39 PM				20			2
1:40 PM	5			24			2
1:41 PM				25			2
1 42 PM				26			2
1.43 PM		1		26			2
1.44 PM				27			2
1:45 PM	3			30		1	
146 PM	5	2		33			
1 47 PM		3		30			
1:48 PM		3		28			
1 49 PM		5		23			
1:50 PM	3	3		23			
1 51 PM		5		19			
1 52 PM	4	3		20			
1:53 PM		8		13			
1:54 PM		4		10			
1 55 PM		3		7			
1 56 PM	5	5		7			
1:57 PM		2		6			
1 58 PM		3		3			
1 59 PM	3	3		3			
200 PM		4		0			

#REF1

Queuing and Parking Data Collection Sheet

School Name: Somerset Academy
School Address: 18491 SW 134 Avenue
Location: Parent Drop-Off

Weather: Sunny
Date: 9/15/2009
Technician: CV

PM: Queuing Observations

Time	Car-In	Car-Out	Cars Parked	Cars Queued	Van-In	Van-Out	Van Queued
201 PM	2	1					
2:02 PM							
203 PM	3	2		2			
204 PM		2					
205 PM	2			2			
206 PM	2			4			
207 PM				5			
2:08 PM				5			
209 PM				6			
210 PM				7			
211 PM				7			
2:12 PM	2	2		7			
213 PM				7			
2:14 PM				8			
2:15 PM				9			
216 PM				9			
217 PM				9			
218 PM				9			
219 PM				10			
220 PM	3			13			
221 PM	2			15			
2:22 PM	3			18			
223 PM				19			
224 PM				19			
2:25 PM		1		18			
226 PM				18			
2:27 PM				17			
228 PM				17			
2:29 PM				18			
230 PM				19			

#REF1

Queuing and Parking Data Collection Sheet

School Name:	Somerset Academy	Weather:	Sunny
School Address:	18491 SW 134 Avenue	Date:	9/15/2009
Location:	Parent Drop-Off	Technician:	CV

PM: Queuing Observations

Time	Car-In	Car-Out	Cars Parked	Cars Queued	Van-In	Van-Out	Van Queued
231 PM				20			
232 PM	3			23			1
233 PM	2			25			1
234 PM	2			26			
235 PM				27	1		2
236 PM	3			30			2
237 PM	3			33			2
238 PM	2			35			2
239 PM	3			38			2
240 PM	2			40			2
241 PM	2			42			2
242 PM	2			43			2
243 PM				43			3
244 PM	4			47			3
245 PM	3			50			3
246 PM	1			50			3
247 PM				51			3
248 PM	7			58			3
249 PM	3			61			3
250 PM	2			63			3
251 PM	4			67			
252 PM	2			69			3
253 PM	3			72			3
254 PM	3			75			3
255 PM				76			3
256 PM	2			77			3
257 PM				77			3
258 PM	2			78			3
259 PM	2			80			2
300 PM		2		78			2

#REF!

Queuing and Parking Data Collection Sheet

School Name:	Somerset Academy	Weather:	Sunny
School Address:	18491 SW 134 Avenue	Date:	9/15/2009
Location:	Parent Drop-Off	Technician:	CV

PM: Queuing Observations

Time	Car-In	Car-Out	Cars Parked	Cars Queued	Van-In	Van-Out	Van Queued
301 PM		9		70			2
302 PM	3	5		68			2
303 PM	3	8		63		2	0
3:04 PM	5			67			0
305 PM	5	12		60			0
306 PM	4	10		54			0
3:07 PM	6	7		53			0
3.08 PM	2	7		48			0
3.09 PM	7	7		48			0
3:10 PM		5		44			0
311 PM	3	9		38			0
312 PM	2	7		33			0
313 PM	2	7		28			0
314 PM	4	4		28			0
315 PM	4	7		25			0
316 PM	3	4		24			0
3:17 PM	2	3		23			0
3:18 PM				23			0
3.19 PM	3			26			0
320 PM	2			27			0
3:21 PM	2	2		27			0
3:22 PM	2	3		26			1
3.23 PM	5			30			1
3:24 PM	3			32			
3:25 PM	2	3		31			
326 PM	4	2		33			
327 PM	2			35			
328 PM	2	5		32			
329 PM		6		26			
330 PM	2	6		22			

#REF!

Queuing and Parking Data Collection Sheet

School Name: Somerset Academy
School Address: 18491 SW 134 Avenue
Location: Parent Drop-Off

Weather: Sunny
Date: 9/15/2009
Technician: CV

PM: Queuing Observations

Time	Car-In	Car-Out	Cars Parked	Cars Queued	Van-In	Van-Out	Van Queued
3:31 PM	5	4		23			
3:32 PM	3	4		22			0
3:33 PM	3	9		16			0
3:34 PM	3	4		15			0
3:35 PM	2	2		15			0
3:36 PM	3	4		14			0
3:37 PM		3		12			0
3:38 PM	4	2		14			0
3:39 PM	2	4		12			0
3:40 PM		2		11			0
3:41 PM				11			0
3:42 PM		3		9			0
3:43 PM	2	2		9			0
3:44 PM				10			0
3:45 PM		1		9			
3:46 PM		2		7			
3:47 PM		2		6			
3:48 PM				5			
3:49 PM				5			
3:50 PM				5			
3:51 PM				5			
	271	274	8	545	5	6	

Surrogate School
Queuing and Parking Data Collection Sheet

School Name :	Pinecrest Preparatory Academy	Weather:	Sunny
School Address :	14301 SW 42 Street	Date:	2/24/2009
		Technician:	CV

AM: On-Site Queuing Observations

Time	Car-In	Car-Out	Cars Queued	Bus-In	Bus-Out	Bus Queued
7:00 AM			3	0	0	0
7:01 AM			3	0	0	0
7:02 AM	2	2	3	0	0	0
7:03 AM	0	2		0	0	0
7:04 AM				0	0	0
7:05 AM				0	0	0
7:06 AM			2	0	0	0
7:07 AM			3	0	0	0
7:08 AM			2	0	0	0
7:09 AM			1	0	0	0
7:10 AM			2	0	0	0
7:11 AM			2	0	0	0
7:12 AM				0	0	0
7:13 AM				0	0	0
7:14 AM				0	0	0
7:15 AM	3		4	0	0	0
7:16 AM	2		5	0	0	0
7:17 AM			5	0	0	0
7:18 AM			5	0	0	0
7:19 AM		4		0	0	0
7:20 AM			0	0	0	0
7:21 AM	1			0	0	0
7:22 AM	1		2	0	0	0
7:23 AM			2	0	0	0
7:24 AM	2	2	2	0	0	0
7:25 AM			2	0	0	0
7:26 AM				0	0	0
7:27 AM				0	0	0
7:28 AM	2		3	0	0	0
7:29 AM	3		5	0	0	0
7:30 AM			4	0	0	0

Surrogate School
Queuing and Parking Data Collection Sheet

School Name:	Pinecrest Preparatory Academy	Weather:	Sunny
School Address:	14301 SW 42 Street	Date:	2/24/2009
		Technician:	CV

AM: On-Site Queuing Observations

Time	Car-In	Car-Out	Cars Queued	Bus-In	Bus-Out	Bus Queued
731 AM			4	0	0	0
7:32 AM	2		5	0	0	0
7:33 AM			6	0	0	0
734 AM	2		7	0	0	0
735 AM	2		9	0	0	0
7:36 AM	2	2	9	0	0	0
7:37 AM			10	0	0	0
738 AM	3		12	0	0	0
7:39 AM	4	2	14	0	0	0
740 AM			15	0	0	0
741 AM	2		16	0	0	0
742 AM	3		18	0	0	0
7:43 AM	3		21	0	0	0
7:44 AM	4	4	21	0	0	0
7:45 AM	3	3	21	0	0	0
746 AM	2	3	20	0	0	0
747 AM	11	2	29	0	0	0
7:48 AM	1	5	25	0	0	0
749 AM	6	3	28	0	0	0
7:50 AM	3	2	29	0	0	0
7:51 AM	3	6	26	0	0	0
752 AM	4	2	28	0	0	0
753 AM	6	2	32	0	0	0
754 AM	2	4	30	0	0	0
7:55 AM	4	3	31	0	0	0
756 AM	7	4	34	0	0	0
7:57 AM	10	2	42	0	0	0
7:58 AM	5	4	43	0	0	0
7:59 AM	7	5	45	0	0	0
8:00 AM	12	9	48	0	0	0

Surrogate School
Queuing and Parking Data Collection Sheet

School Name:	Pincrest Preparatory Academy	Weather:	Sunny
School Address:	14301 SW 42 Street	Date:	2/24/2009
		Technician:	CV

AM: On-Site Queuing Observations

Time	Car-In	Car-Out	Cars Queued	Bus-In	Bus-Out	Bus Queued
8:01 AM	1	3	46	0	0	0
8:02 AM	9	8	47	0	0	0
8:03 AM	6	6	47	0	0	0
8:04 AM	7	7	47	0	0	0
8:05 AM	10	7	50	0	0	0
8:06 AM	3	5	48	0	0	0
8:07 AM	5	8	45	0	0	0
8:08 AM	11	8	48	0	0	0
8:09 AM	3	4	47	0	0	0
8:10 AM	8	7	48	0	0	0
8:11 AM	6	7	47	0	0	0
8:12 AM	6	7	46	0	0	0
8:13 AM	10	5	51	0	0	0
8:14 AM	9	9	51	0	0	0
8:15 AM	13	6	58	0	0	0
8:16 AM	7	7	58	0	0	0
8:17 AM	12	5	65	0	0	0
8:18 AM	8	11	62	0	0	0
8:19 AM	9	8	63	0	0	0
8:20 AM	6	10	59	0	0	0
8:21 AM	11	9	61	0	0	0
8:22 AM	8	10	59	0	0	0
8:23 AM	9	13	55	0	0	0
8:24 AM	7	12	50	0	0	0
8:25 AM	5	8	47	0	0	0
8:26 AM	12	11	48	0	0	0
8:27 AM	7	10	45	0	0	0
8:28 AM	6	8	43	0	0	0
8:29 AM	8	10	41	0	0	0
8:30 AM	8	11	38	0	0	0

Surrogate School
Queuing and Parking Data Collection Sheet

School Name:	Pinecrest Preparatory Academy	Weather:	Sunny
School Address:	14301 SW 42 Street	Date:	2/24/2009
		Technician:	CV

AM: On-Site Queuing Observations

Time	Car-In	Car-Out	Cars Queued	Bus-In	Bus-Out	Bus Queued
8:31 AM	2	7	33	0	0	0
8:32 AM	4	8	29	0	0	0
8:33 AM		11	18	0	0	0
8:34 AM	3	4	17	0	0	0
8:35 AM		3	15	0	0	0
8:36 AM		3	12	0	0	0
8:37 AM		4	8	0	0	0
8:38 AM		2	6	0	0	0
8:39 AM		3	3	0	0	0
8:40 AM			3	0	0	0
8:41 AM		2		0	0	0
8:42 AM				0	0	0
8:43 AM		1	0	0	0	0
8:44 AM			0	0	0	0
8:45 AM			0	0	0	0

Surrogate School
Queuing and Parking Data Collection Sheet

School Name:	Pinecrest Preparatory Academy	Weather:	Sunny
School Address:	14301 SW 42 Street	Date:	2/24/2009
		Technician:	CV
PM: On-Site Queuing Observations			

Time	Car-In	Car-Out	Cars Queued	Bus-In	Bus-Out	Bus Queued
1:40 PM			0	0	0	0
1:41 PM			0	0	0	0
1:42 PM			0	0	0	0
1:43 PM			0	0	0	0
1:44 PM			0	0	0	0
1:45 PM			0	0	0	0
1:46 PM			0	0	0	0
1:47 PM			0	0	0	0
1:48 PM	5		5	0	0	0
1:49 PM	10		15	0	0	0
1:50 PM			15	0	0	0
1:51 PM	10		25	0	0	0
1:52 PM			25	0	0	0
1:53 PM			25	0	0	0
1:54 PM			24	0	0	0
1:55 PM	4		28	0	0	0
1:56 PM	2		30	0	0	0
1:57 PM	1		31	0	0	0
1:58 PM	2	5	28	0	0	0
1:59 PM	3	6	25	0	0	0
2:00 PM	5	6	24	0	0	0

Surrogate School
Queuing and Parking Data Collection Sheet

School Name:	Pinecrest Preparatory Academy	Weather:	Sunny
School Address:	14301 SW 42 Street	Date:	2/24/2009
		Technician:	CV

PM: On-Site Queuing Observations

Time	Car-In	Car-Out	Cars Queued	Bus-In	Bus-Out	Bus Queued
2:01 PM	2	6	20	0	0	0
2:02 PM	3	3	20	0	0	0
2:03 PM	2	4	18	0	0	0
2:04 PM		5	13	0	0	0
2:05 PM	2	5	10	0	0	0
2:06 PM		6	5	0	0	0
2:07 PM	2	3	4	0	0	0
2:08 PM	2	6	0	0	0	0
2:09 PM	2	2	0	0	0	0
2:10 PM				0	0	0
2:11 PM				0	0	0
2:12 PM				0	0	0
2:13 PM			2	0	0	0
2:14 PM			2	0	0	0
2:15 PM			2	0	0	0
2:16 PM			2	0	0	0
2:17 PM				0	0	0
2:18 PM				0	0	0
2:19 PM			0	0	0	0
2:20 PM			0	0	0	0
2:21 PM				0	0	0
2:22 PM				0	0	0
2:23 PM			2	0	0	0
2:24 PM			2	0	0	0
2:25 PM			2	0	0	0
2:26 PM				0	0	0
2:27 PM			3	0	0	0
2:28 PM			3	0	0	0
2:29 PM			4	0	0	0
2:30 PM			5	0	0	0

Surrogate School
Queuing and Parking Data Collection Sheet

School Name:	Pinecrest Preparatory Academy	Weather:	Sunny
School Address :	14301 SW 42 Street	Date:	2/24/2009
		Technician:	CV

PM: On-Site Queuing Observations

Time	Car-In	Car-Out	Cars Queued	Bus-In	Bus-Out	Bus Queued
2:01 PM	2	6	20	0	0	0
2:02 PM	3	3	20	0	0	0
2:03 PM	2	4	18	0	0	0
2:04 PM		5	13	0	0	0
2:05 PM	2	5	10	0	0	0
2:06 PM		6	5	0	0	0
2:07 PM	2	3	4	0	0	0
2:08 PM	2	6	0	0	0	0
2:09 PM	2	2	0	0	0	0
2:10 PM				0	0	0
2:11 PM				0	0	0
2:12 PM				0	0	0
2:13 PM			2	0	0	0
2:14 PM			2	0	0	0
2:15 PM			2	0	0	0
2:16 PM			2	0	0	0
2:17 PM				0	0	0
2:18 PM				0	0	0
2:19 PM			0	0	0	0
2:20 PM			0	0	0	0
2:21 PM				0	0	0
2:22 PM				0	0	0
2:23 PM			2	0	0	0
2:24 PM			2	0	0	0
2:25 PM			2	0	0	0
2:26 PM	1			0	0	0
2:27 PM			3	0	0	0
2:28 PM			3	0	0	0
2:29 PM			4	0	0	0
2:30 PM			5	0	0	0

Surrogate School
Queuing and Parking Data Collection Sheet

School Name:	Pinecrest Preparatory Academy	Weather:	Sunny
School Address:	14301 SW 42 Street	Date:	2/24/2009
		Technician:	CV

PM: On-Site Queuing Observations

Time	Car-In	Car-Out	Cars Queued	Bus-In	Bus-Out	Bus Queued
231 PM			4	0	0	0
2:32 PM			4	0	0	0
233 PM		2	2	0	0	0
2:34 PM			1	0	0	0
235 PM				0	0	0
236 PM			1	0	0	0
2:37 PM				0	0	0
238 PM	3		4	0	0	0
239 PM			4	0	0	0
2:40 PM			4	0	0	0
241 PM			4	0	0	0
242 PM			4	0	0	0
243 PM	2		6	0	0	0
2:44 PM			7	0	0	0
245 PM			7	0	0	0
246 PM	2		8	0	0	0
2:47 PM	7		14	0	0	0
248 PM			14	0	0	0
2:49 PM	6		20	0	0	0
250 PM	4		24	0	0	0
251 PM	6		30	0	0	0
252 PM	3		33	0	0	0
2:53 PM	2		35	0	0	0
2:54 PM	2		37	0	0	0
255 PM	2		39	0	0	0
2:56 PM	11		50	0	0	0
2:57 PM	2	3	49	0	0	0
258 PM	2		50	0	0	0
259 PM		8	42	0	0	0
300 PM	7	7	42	0	0	0

Surrogate School
Queuing and Parking Data Collection Sheet

School Name:	Pinecrest Preparatory Academy	Weather:	Sunny
School Address:	14301 SW 42 Street	Date:	2/24/2009
		Technician:	CV

PM: On-Site Queuing Observations

Time	Car-In	Car-Out	Cars Queued	Bus-In	Bus-Out	Bus Queued
3:01 PM	8	7	43	0	0	0
3:02 PM	10	6	47	0	0	0
3:03 PM	8	3	52	0	0	0
3:04 PM	9	8	53	0	0	0
3:05 PM	2	5	50	0	0	0
3:06 PM	2	4	48	0	0	0
3:07 PM	4	4	48	0	0	0
3:08 PM	11	8	51	0	0	0
3:09 PM	2	6	47	0	0	0
3:10 PM			47	0	0	0
3:11 PM	2	4	45	0	0	0
3:12 PM		6	39	0	0	0
3:13 PM		5	34	0	0	0
3:14 PM	2	6	30	0	0	0
3:15 PM	3	5	28	0	0	0
3:16 PM	4		32	0	0	0
3:17 PM	6	2	36	0	0	0
3:18 PM			36	0	0	0
3:19 PM	12		48	0	0	0
3:20 PM	4		52	0	0	0
3:21 PM	3		55	0	0	0
3:22 PM			56	0	0	0
3:23 PM	2	3	55	0	0	0
3:24 PM	3		57	0	0	0
3:25 PM	3	3	57	0	0	0
3:26 PM	5		61	0	0	0
3:27 PM		3	58	0	0	0
3:28 PM	2	5	55	0	0	0
3:29 PM	5	12	48	0	0	0
3:30 PM	7	8	47	0	0	0

Surrogate School
Queuing and Parking Data Collection Sheet

School Name :	Pinecrest Preparatory Academy	Weather:	Sunny
School Address :	14301 SW 42 Street	Date:	2/24/2009
		Technician:	CV

PM: On-Site Queuing Observations

Time	Car-In	Car-Out	Cars Queued	Bus-In	Bus-Out	Bus Queued
3:31 PM	2	11	38	0	0	0
3:32 PM	4	4	38	0	0	0
3:33 PM	5	7	36	0	0	0
3:34 PM	5	10	31	0	0	0
3:35 PM	4	9	26	0	0	0
3:36 PM	6	4	28	0	0	0
3:37 PM		7	22	0	0	0
3:38 PM		6	16	0	0	0
3:39 PM	2	6	12	0	0	0
3:40 PM	4	3	13	0	0	0
3:41 PM	2	5	10	0	0	0
3:42 PM	4		13	0	0	0
3:43 PM		6	7	0	0	0
3:44 PM		4	3	0	0	0
3:45 PM			2	0	0	0
3:46 PM		2		0	0	0
3:47 PM	2	3	0	0	0	0
3:48 PM			0	0	0	0
3:49 PM			0	0	0	0
3:50 PM			0	0	0	0
3:51 PM			0	0	0	0
3:52 PM			0	0	0	0
3:53 PM			0	0	0	0
3:54 PM			0	0	0	0
3:55 PM			0	0	0	0
3:56 PM	0	0	0	0	0	0
3:57 PM	0	0	0	0	0	0
3:58 PM	0	0	0	0	0	0
3:59 PM	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0

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January 25, 2007

Mr. Christian M. Cobb
c/o St. Thomas Episcopal Parish School
Codina Development Corporation
355 Alhambra Circle, 9th Floor
Coral Gables, FL 33134
(305) 520-2461, fax: (305) 520-2471

Re: **St. Thomas Episcopal Parish School Pick-up/Drop-off Evaluation - #06161**

Dear Chris:

The purpose of this letter is to document the evaluation of pick-up/drop-off operations at St. Thomas Episcopal Parish School and to make recommendations for improving this operation. The evaluation and subsequent recommendations will help make the pick-up / drop-off operations at the school as safe and efficient as possible. Further, ingress and egress to the site can be enhanced.

BACKGROUND

St. Thomas Episcopal Parish School (STS) is located at 5692 North Kendall Drive in Coral Gables, FL. STS has purchased an existing single family home adjacent to and east of their property. A conceptual site plan has been developed showing that the newly purchased property will be used as an "open field." This new property can also be used as temporary, overflow parking when there are major events at the church or school. See Exhibit 1.

The existing site plan has 101 paved parking spaces, while the new site plan shows 129 paved parking spaces. The existing field on the south side of the property is also used for overflow parking.

As of November 2006, STS had the following student enrollment:

- Junior Pre-K: 51
 - Senior Pre-K: 51
 - Kindergarten: 55
 - Grade 1: 54
 - Grade 2: 56
 - Grade 3: 55
 - Grade 4: 51
 - Grade 5: 51
- } 207
424 students



Mr. Chris Cobb

Re: St. Thomas Episcopal Parish School Pick-up/Drop-off Evaluation - #06161

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Also as of November 2006, STS had the following number of teachers, administrators, and employees:

- Teachers: 62
- Admin. & Staff: 14
- Church Staff: 7
- 83

Early drop-off starts at 7:30am, and all students start at 8:10am. Pick-up times vary and are summarized below:

- Junior Pre-K: Noon
- Senior Pre-K: 2:00pm
- Kindergarten: 2:45pm
- Grades 1-5: 3:15pm

Approximately two-thirds of the students are eligible to be picked up during the 3:15pm period. After-care/enrichment/sports are a major element at the school. Approximately 80% of the students participate in aftercare/enrichment/sports. These programs end no later than 6:00pm.

FIELD OBSERVATIONS

Field observations of the pick-up/drop-off operations and access to the site were observed on Tuesday, November 28, 2006. Pick-up operations were also observed on Tuesday, December 12, 2006 when there was not enrichment or any sports after school. This date was chosen so observations would be made during a "worst-case" scenario. A meeting was held on-site after the pick-up period on November 28, 2006 with Kitty Finneran and Linda Johnson of STS to discuss details of the pick-up/drop-off operations.

A School Speed Zone exists on Kendall Drive adjacent to STS. This flasher system controls vehicular speed during the drop-off and pick-up periods. A Coral Gables police officer is present on Kendall Drive during both the drop-off and pick-up periods to assist with access to STS.

There are three driveways on Kendall Drive that provide access to the parking area. These driveways will be referred to as the east, center, and west driveways. There is also a semi-circular driveway just east of Red Road that is used by some parents as a place to park and walk-up to the school.

The east driveway is closed during both the pick-up and drop-off periods. The center driveway is used for one-way, inbound access. The west driveway is used for one-way, outbound access.

On-site circulation is generally one-way. When a driver accesses the site from the center driveway, they turn west to head toward the circular pick-up/drop-off area. When a driver leaves the pick-up/drop-off area, they head east to the east driveway to exit the property.



Mr. Chris Cobb

Re: St. Thomas Episcopal Parish School Pick-up/Drop-off Evaluation - #06161

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Drop-off Operations

Early drop-off period begins at 7:30am and school starts for all students at 8:10am. General observations of the drop-off period are below:

- A Coral Gables police officer is present to assist with inbound access at the center driveway. The officer generally assists with the westbound to southbound left turns into the site by stopping eastbound Kendall Drive traffic. He observes the eastbound traffic to make sure the queues do not spillback to the Red Road intersection. If this scenario starts to occur, the officer will allow eastbound traffic to flow unimpeded until the queue dissipates.
- The vast majority of parents park and walk their children onto campus. This is not "typical" at schools that have children in Grades 1-5, but is very typical Junior Kindergarten to Kindergarten aged children.
- STS encourages parents to join their children at the daily "flag ceremony," which requires parking and walking in as opposed to drop-off.
- There is a designated walking path on the south side of the parking lot adjacent to the field.
- Some parents do park at the semi-circular driveway adjacent to the church (just east of Red Road) or in the swale on the south side of Kendall Drive adjacent to STS.
- Some assistance is provided at the drop-off area by STS staff. The inside lane of the circular pick-up/drop-off area is coned off so that there is only a single lane.
- Some parents expressed that there is a shortage of parking. This is due to the number of parents who park and walk their children onto campus.
- When needed, the existing field on the south side of the property is used as overflow parking.
- In general, the operations at the circular drop-off area works well because most parents avoid it and park their vehicle to escort their child to the campus.

Pick-up Operations

- The Junior Kindergarten through Kindergarten pick-up operations works well. The limited number of students, the different periods of when pick-up occurs, and the availability of parking contributes to the success of this operation.
- Some parents, during the Junior Kindergarten through Kindergarten pick, park and abandon their vehicles at the circular pick-up area in order to retrieve their child from STS.
- The Coral Gables police officer arrives at approximately 2:45pm and assists drivers exiting from the east driveway onto Kendall Drive.
- Assistance is provided by STS staff with the pick-up operation for Grades 1 through 5.
- The children are assembled adjacent to the pick-up and wait for their name to be called.
- The inside lane of the circular pick-up/drop-off area is coned off so that there is only a single lane.
- A two-lane queue is formed from the center driveway to the single-lane entry point at the pick-up area.



Mr. Chris Cobb

Re: St. Thomas Episcopal Parish School Pick-up/Drop-off Evaluation - #06161

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- Parents are required to have their child's name posted on their dashboard for quick identification.
- An STS staff member, using a microphone/speaker system, calls out the names of the students who parents are waiting in the queue and are ready to enter the pick-up area. This helps with the efficiency of the pick-up operation.
- Most of the pick-up occurs on the passenger side of the vehicle.
- After a child is loaded in the vehicle, the driver is able to leave the pick-up area. If a student's name is called and they are not present, the parent generally waits at the pick-up area until the child is found.
- The field observations for the pick-up on Tuesday, December 12, 2006 represented a "worst-case" scenario because enrichment or sports were not offered that day.
- Queuing data during the Grade 1 through 5 pick-up on December 12, 2006 was:
 - 3:02pm: 15 vehicles in queue (parents arriving prior to school dismissal).
 - 3:08pm Queue reached center driveway.
 - 3:12pm Queue nearly reached Kendall Drive from the center driveway.
 - 3:15pm Queue spillback to Kendall Drive (pick-up starts).
 - 3:20pm Queue no longer extends to Kendall Drive.
 - 3:25pm Minimal activity at the pick-up area.
 - 3:27pm Pick-up over.
- When pick-up operations were observed on November 28, 2006, the queuing did not extend back to the center driveway (or to Kendall Drive). Enrichment/sports occurred that afternoon, which is more "typical" for STS.

PICK-UP / DROPOFF OPERATIONAL GOALS

School pick-up / drop-off operations need to be as safe and as efficient as possible. The primary concern is for the safety of the children. Efficiency is a bonus. Some of the general principles of safe and efficient pick-up/drop-off operations are below:

- Provide dual lane queuing area.
- Require single-lane loading / unloading in pick-up / drop-off area.
- Hold vehicle entry in queuing area.
- Require pick-up/drop-off on passenger side only.
- Prohibit children from entering/exiting vehicle while in the queuing area.
- Hold vehicles in queuing area.
- Require single lane platoon exiting from pick-up/drop-off area.
- Assemble students adjacent to pick-up area prior to start of pick-up operations.
- Provide adult supervision of pick-up/drop-off operations.
- Prohibit offsite parking/walking.
- Require in-vehicle student identification card.
- Provide a supervisor to call out names of students whose parents are in queue during pick-up.
- Designate parking spaces for campus-bound parents.



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- Prohibit unattended vehicles in pick-up/drop-off area.
 - Provide well-defined bicycle and walking paths.
 - Prohibit pedestrian crossings at vehicle entrance / exit points of pick-up / drop-off area.

Overall, as I expressed to Kitty Finneran, STS does a very good job handling their pick-up/drop-off operations in a safe and efficient manner. Most schools that I work with are not as advanced as STS in their pick-up/drop-off operations. STS does many things well, which include:

- Providing a police officer to assist with access to/from Kendall Drive.
- Involving a sufficient amount of staff during the pick-up period.
- Having the children assembled at the pick-up area.
- Requiring a student identification card in the vehicle.
- Providing a supervisor to call out the names of the students whose parents are in the queue.
- Providing dual-lane queuing prior to the entry point of the pick-up/drop-off area.
- Allowing only a single-lane at the entrance/exit points of the pick-up/drop-off area.
- Providing a designated walkway for parents/children who park their vehicles and walk into STS.

These items should continue to be implemented at STS.

PICK-UP/DROPOFF RECOMMENDATIONS

The following are my recommendations for improving the pick-up / drop-off operations at STS (see Exhibit 2):

1. Do not allow off-campus parking / walking, especially on the swale area of Kendall Drive. This condition negatively affects the traffic operations on Kendall Drive. The new site plan, which adds approximately 28 new paved parking spaces, will help with this issue.
2. Require all pick-up / drop-off to occur on the passenger side only.
3. Do not allow parents to leave their vehicles unattended while in the pick-up/drop-off service areas. Parents who need to go on campus should park at designated areas.
4. Allow only loading/unloading by "platoons" of vehicles in a single lane. Prohibit individual vehicles from exiting until the entire platoon is ready to exit. Control at the entry and exit points of the single lane loading areas is required.
5. Do not allow children to exit or enter their vehicle from the queue area. This situation was observed only a few times at STS.



Mr. Chris Cobb

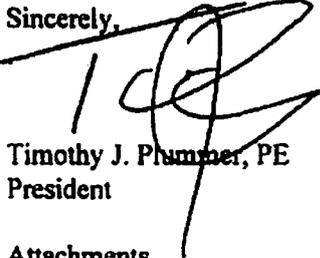
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6. If a student (or all students for multi-student vehicles) are not present for loading when the student's vehicle reaches the loading point, the vehicle is required to exit the loading zone and rejoin the queue. This is necessary so that the "platoon" of vehicles can exit at the same time.
7. Supervisors assisting with pick-up/drop-off operations should wear a safety vest.
8. Parents should be encouraged to use the drop-off area in the mornings. This drop-off operation is under-utilized at STS.
9. Grades 1 through 5 comprise approximately two-thirds of the student population and are dismissed from STS at the same time. To further separate vehicle arrivals, consideration should be given to modifying the pick-up times. One scenario to consider is dismissal for Kindergarten through Grade 2 at 3:00pm and Grades 3 through 5 at 3:20pm. By separating vehicle arrivals, the likelihood of queue spillback to Kendall Drive will be minimized. Junior Kindergarten and Pre-Kindergarten dismissal should remain at the same time.
10. If dismissal times are altered as discussed in item #9, color coded student identification cards should be required (i.e., K through G2 are blue and G3 through G5 are red).
11. Any new pick-up/drop-off plan should be implemented at the start of a new school year on the first day of school. A meeting with the parents at the end of the school year, prior to implementing a new pick-up/drop-off plan, is recommended.

I suggest that we meet with the appropriate St. Thomas staff to review this information and the recommendations. Please call me at (305) 447-0900 if you have any questions or need more information.

Sincerely,



Timothy J. Plummer, PE
President

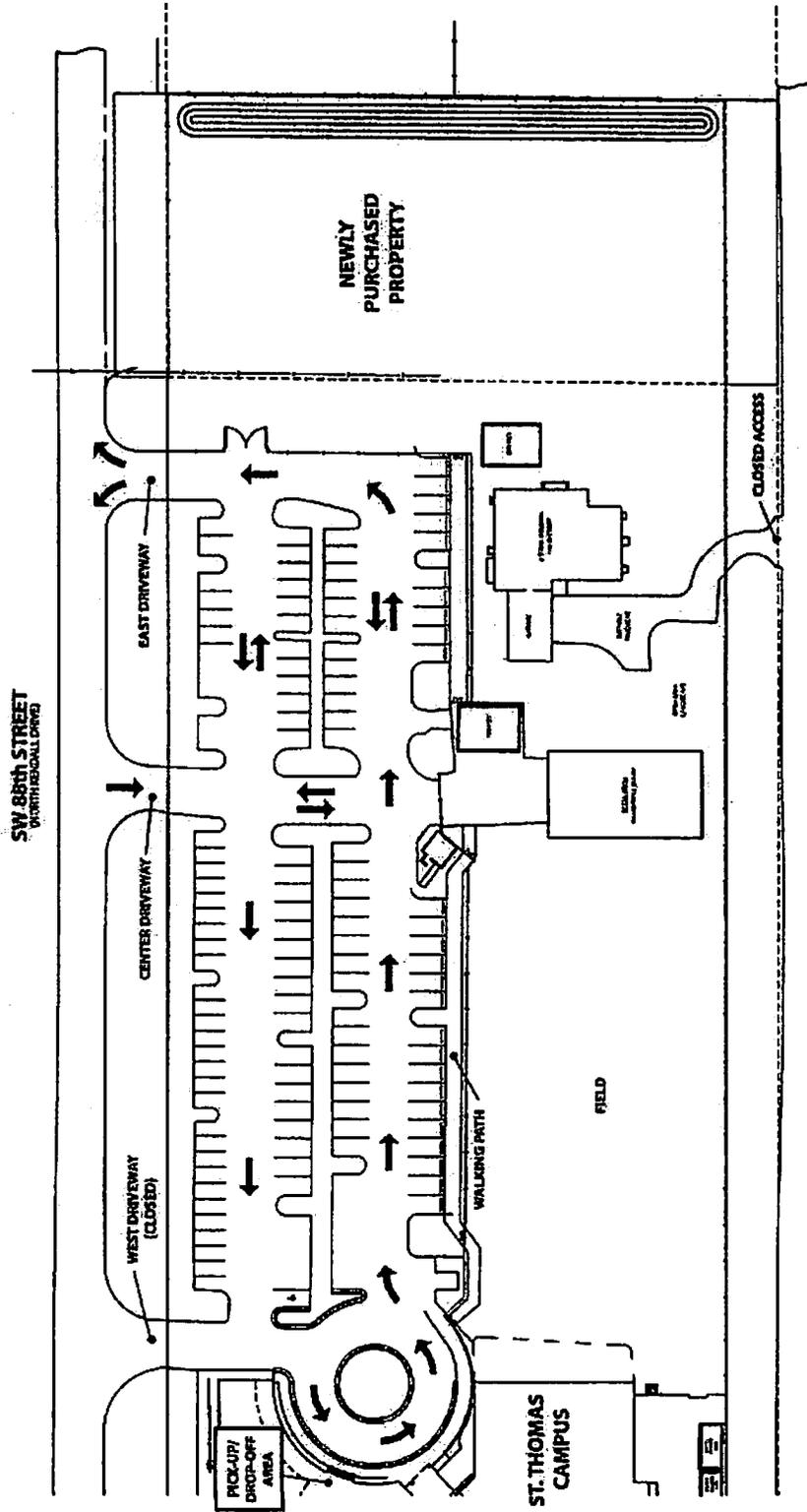
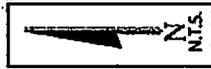
Attachments

cc: Kitty Finneran (STS), Laura Russo, File

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EXISTING ACCESS & CIRCULATION



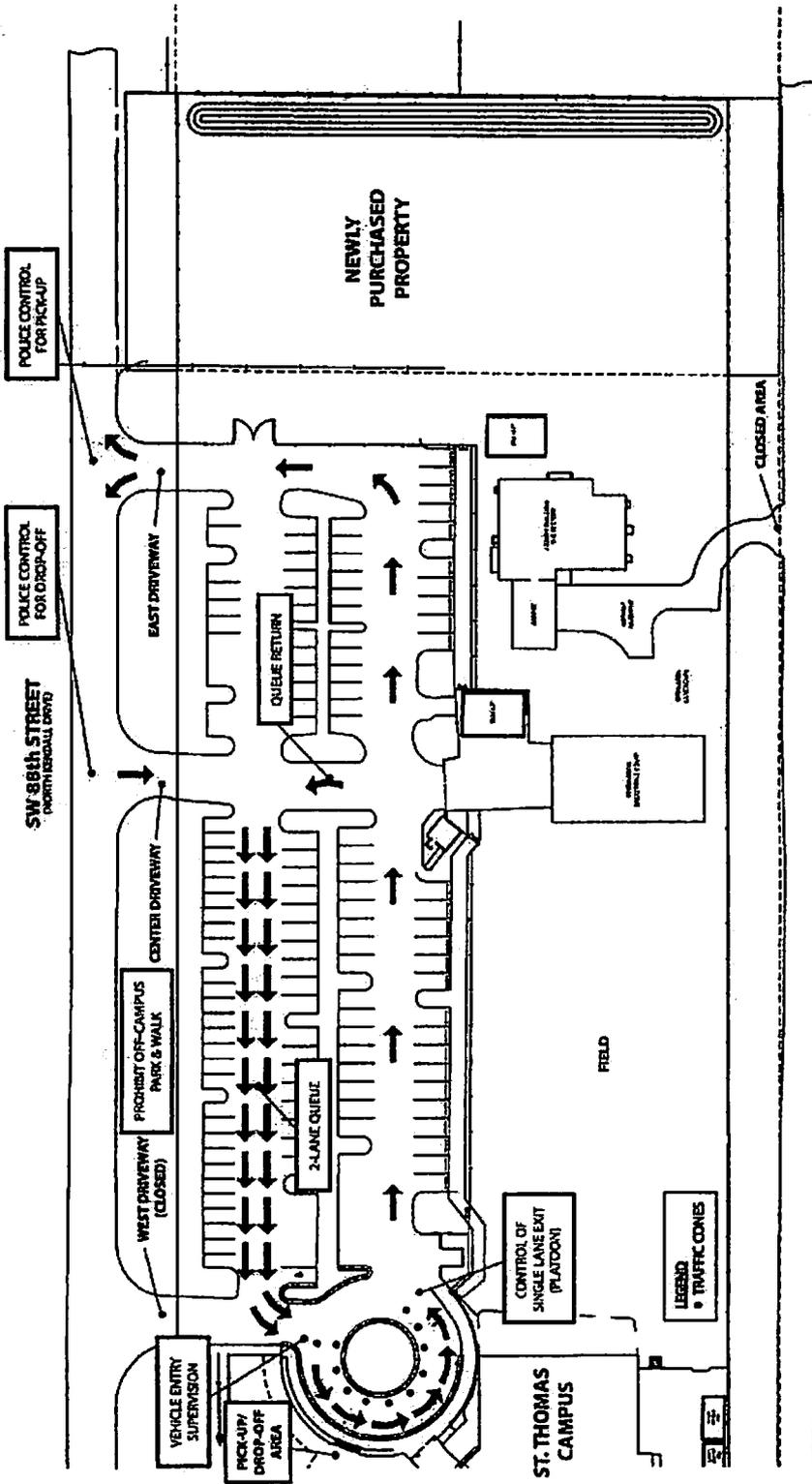
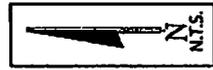
BANYAN DRIVE



EXHIBIT 1

ST. THOMAS EPISCOPAL PARISH SCHOOL

PROPOSED PICK-UP/DROP-OFF PLAN



BANYAN DRIVE



EXHIBIT 2

ST. THOMAS EPISCOPAL PARISH SCHOOL