

Parking & Traffic Study
Samaritan Hospital
Master Facilities Project
City of Troy, New York

CM Project No. 113-028

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CHAPTER I INTRODUCTION

This report summarizes the results of a Parking and Traffic Study conducted at Samaritan Hospital located in the City of Troy, Rensselaer County, New York. The project site is located to the northwest of the intersection of Peoples Avenue and Burdett Avenue as shown on Figure 1.1. The purpose of this report is to document the existing parking demand of the hospital, estimate changes in demand resulting from program and site changes, and make recommendations as to the needed parking capacity. In addition, this study will review any potential traffic impacts associated with these changes.

A. Planned Project

The proposed Master Facilities Project (MFP) includes the construction of 5-floor (plus basement level) hospital pavilion on the west side of the existing building. The pavilion will house a new emergency room (ER) on the main floor, expanded operating room (OR) space in the basement, and 5 upper floors for expanded patient bed uses. Access to the campus will remain largely unchanged on the east and south sides, while the north and west sides for the block will feature new entrances and a multi-story parking garage. A conceptual site plan is included in Appendix A. The project is expected to be open and operational in 2017.

B. Study Area and Methodology

The methodology used in this study includes documenting the existing parking demand for the hospital and estimating the changes in demand resulting from construction of the pavilion and other program changes at the hospital. Parking supply was then compared to the future parking demand to determine the amount of additional parking needed. Similarly, the changes in trip generation associated with the new pavilion and parking will be estimated and the changes in traffic at the surrounding intersections evaluated.



PROJECT LOCATION

SAMARITAN HOSPITAL TRAFFIC STUDY
CITY OF TROY, NEW YORK



PROJECT: 113-028

DATE: 02/2014

FIGURE: 1.1

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CHAPTER II

EXISTING CONDITIONS

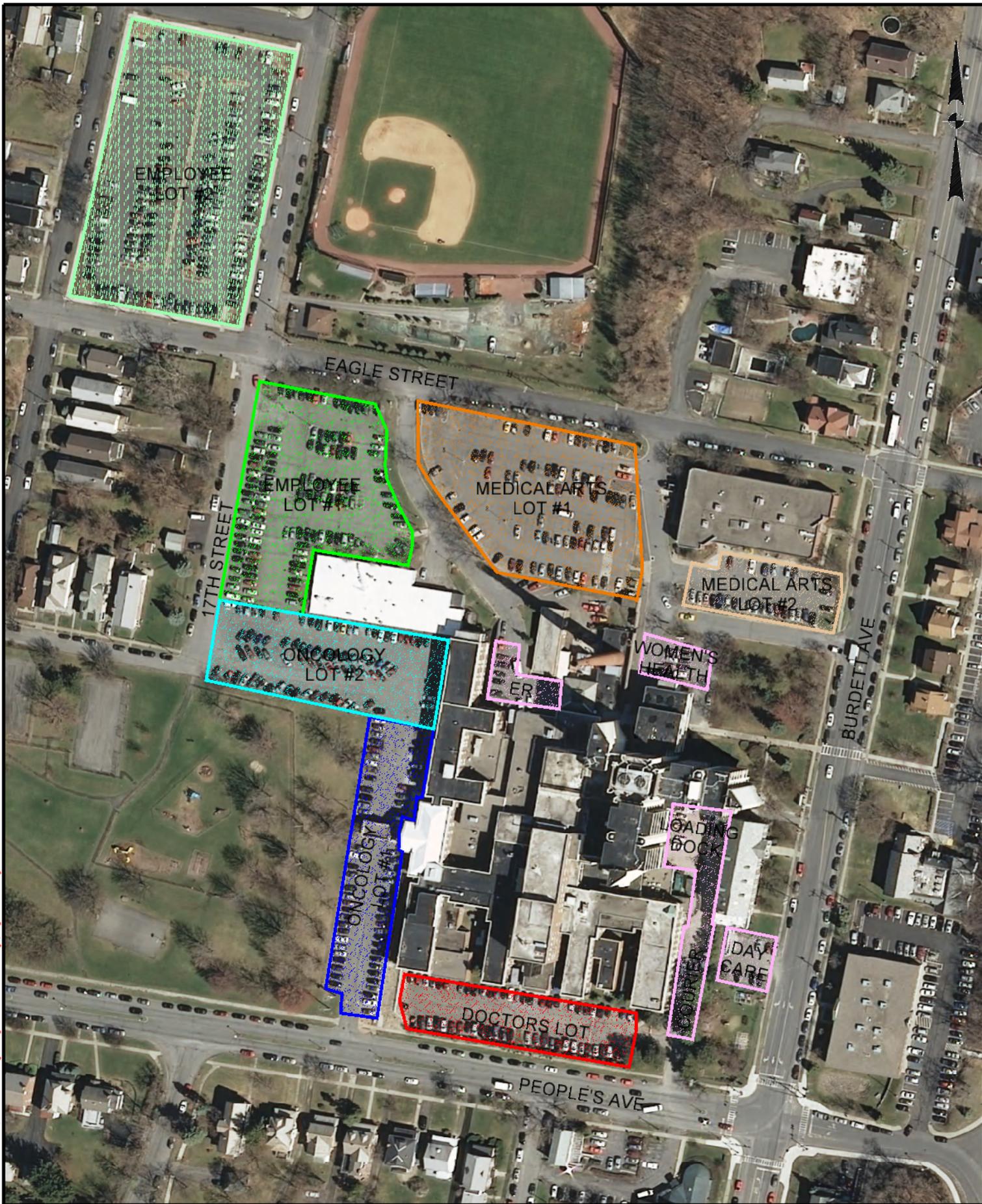
A. Existing Parking Supply

The available parking supply at the hospital was documented by counting the number of available striped parking spaces. Several distinct parking lots exist at the hospital and are shown in Figure 2.1. These include the following:

1. Doctors Lot – 57 spaces available, gated, access available via card reader.
2. Oncology Lot #1 – 57 spaces available adjacent to the building.
3. Oncology Lot #2 – 98 spaces available in this angled parking lot.
4. Employee Lot #1 – 121 spaces, approximately 23 of which are located on 17th Street on City property.
5. Employee Lot #2 – 201 spaces.
6. Medical Arts Lot #1 – 130 spaces.
7. Medical Arts Lot #2 – 30 spaces, which includes the three spaces located on the west side of the building opposite the entrance to Medical Arts Lot #1.
8. Other Lots – 7 spaces for ER parking, 10 spaces at the Women’s Health entrance, 9 spaces for the day care lot, 11 spaces in the loading area and courier parking area, and 8 spaces for the maintenance area.
9. On-street parking (adjacent to hospital) - 17 spaces on Burdett St, 23 spaces on Eagle St, 11 spaces on 17th St., 20 spaces on Peoples Ave.

B. Parking Demand

A parking study was completed for the Samaritan Hospital campus on February 13, 2013 from 7:00 am to 5:00 pm. Parking lot occupancy counts were conducted in 60 minute intervals, each noting the number of vehicles parked in each lot. The raw data collected is included in Appendix B and is summarized in Table 2.1.



PARKING LOT LOCATIONS

SAMARITAN HOSPITAL PARKING STUDY
CITY OF TROY, NEW YORK



**Table 2.1 - Summary of Parking Occupancy by Lot
February 13, 2013**

Parking Area	Available Spaces	7:00 - 8:00	8:00 - 9:00	9:00 - 10:00	10:00 - 11:00	11:00 - 12:00	12:00 - 1:00	1:00 - 2:00	2:00 - 3:00	3:00 - 4:00	4:00 - 5:00	Average
		Doctors Lot	32	49	52	56	53	60	54	54	50	34
Oncology Lot #1	57	35	57	53	49	57	55	52	58	46	52	
Oncology Lot #2	98	18	49	86	93	91	84	90	91	92	69	76
Employee Lot #1	121	105	114	121	121	126	124	114	111	64	112	
Employee Lot #2	201	41	138	177	184	187	164	160	137	76	144	
Medical Arts Lot #1	130	60	82	92	109	102	102	126	113	83	98	
Medical Arts Lot #2	30	18	24	25	29	25	14	24	24	11	22	
ER Parking	7	5	5	7	7	8	9	7	6	6	7	
Women's Health	10	10	7	9	10	9	10	8	10	11	9	
Day Care	9	3	12	8	4	5	6	3	3	2	5	
Loading/Courier	11	8	13	11	13	15	11	10	15	12	12	
Maintenance	8	5	7	8	7	5	6	7	10	7	7	
Total	739	340	557	654	684	680	648	655	629	421	593	
Occupancy		46%	75%	89%	93%	92%	88%	89%	85%	57%	80%	
Burdett St	17	15	16	16	15	16	14	16	16	10	15	
Eagle St	23	23	23	23	23	23	23	23	20	8	21	
17th St	11	9	11	11	10	9	9	9	8	4	9	
Peoples Ave	20	15	18	20	20	17	20	18	12	12	17	
Total	71	62	68	70	69	65	66	66	56	34	62	
Occupancy		87%	96%	99%	97%	92%	93%	93%	79%	48%	87%	

Peak Parking Periods
Exceeds Capacity

The existing parking occupancy of the hospital as a sum of all the parking lots peaked at 93% (684 vehicles parked) between 10:00 a.m. and 11:00 a.m. This is peak period is consistent with the previous parking study conducted at Samaritan in 2005. However, the overall parking supply at that time was 630 spaces with an occupancy rate of 99%. On-street parking adjacent to the hospital peaked between 9:00 a.m. and 10:00 a.m. with 70 vehicles or 99% occupancy. Table 2.1 further shows that 8 of the 12 parking lots exceeded capacity at one time or another through the day.

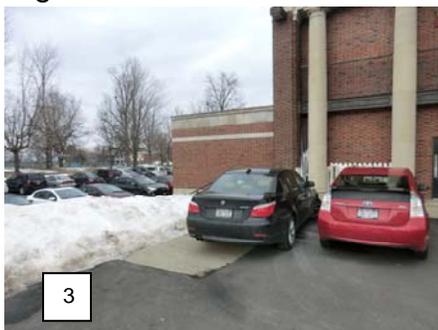
C. Parking Observations

Several parking problems were observed during the field inspection at the hospital. Some of these issues led to the parking lot occupancy exceeding 100%, while others decrease the efficiency at which drivers can effectively use the lots. Examples of these conditions are described below:

1. Parking improperly across two spaces. This problem leads to fewer spaces being available.



2. Parking in unmarked spaces. This problem helps to highlight the need for more parking in some areas and results in parking lots exceeding 100% capacity.



3. Improper parking by handicap vehicles. This problem illustrates the need for more handicapped parking and enforcement of parking regulations. Instances

such as those shown in the following photos may create difficulties for those requiring wheelchair access directly from the vehicle and may restrict wheelchair access to the adjacent sidewalk.



4. Poor parking layout. The parking in the Oncology lot #2 is of a “herringbone” style. In photo #7, the silver, red, and black vehicles have all parked relatively evenly. However, the black vehicle has parked approximately 5 feet short of the end of the stall (photo #8) thereby reducing the available aisle width. Photo #8 also illustrates the disadvantage of the “herringbone” style configuration. The layout exposes the side of a vehicle to the front or back of another. If the driver of the green station wagon were to incorrectly judge the distance to the sedan parked behind it, the driver may back up (or pull in forward) too far and cause damage to the front quarter panel, headlight, and bumper, which may otherwise be absorbed by each vehicles bumper if this occurred in an end to end parking lot configuration.



Additionally, the parking is laid out such that vehicles should travel west through both parking lot aisles, even though pavement marking arrows clearly show that drivers in the southern aisle are directed eastbound through the parking lot. Another feature common to the parking lots are “dead zones,” where rows of parking turn at the corner of a parking lot. As such, the driver of the red vehicle in photo #9 would be blocked in if a vehicle were parked in the designated spot in front of it, and the blue vehicle correctly parked near the ER in photo #10 is blocked in by two other vehicles parked incorrectly.



D. Existing Traffic Volumes

Existing turning movement traffic counts were conducted at the following study area intersections:

- 17th Street/Eagle Street
- Burdett Avenue/Peoples Avenue
- Samaritan (West Driveway)/Peoples Avenue
- 15th Street/Peoples Avenue

Turning movements counts were conducted between 6:00 and 9:00 AM and 3:00 and 6:00 PM during a typical weekday in February and March, 2013 and are included in Appendix B.

CHAPTER III FUTURE PARKING & TRAFFIC DEMAND

A. Existing Parking Demand

The hospital is currently generating a peak parking demand of 684 vehicles. This excludes on-street parking due to the uncertainty in what uses generate that parking demand. Based on the Samaritan's overall square-footage of 462,939 (includes the medical arts building, MOB) and total of 183 beds, the off-street parking demand rate is equal to 1.48 vehicles per 1,000 square feet (KSF), or 3.74 vehicles per bed. For comparison purposes, the Institute of Transportation Engineers (ITE) has compiled parking generation rates for rural, suburban, and urban hospitals. For urban hospitals, the average peak parking demand is 3.70 vehicles per KSF or 3.47 vehicles per bed.

B. New Demand

The new pavilion will accommodate new and expanded uses for the hospital that will result in additional parking demand. To estimate the increase in demand, each component was reviewed.

Emergency Room

The emergency department will be expanded from approximately 12,400 SF to 30,000 SF, an addition of approximately 17,600 SF. Current patient visits average approximately 48,000 visits per year and is expected to increase to 53,500 visits by 2022. To estimate the amount of parking needed during the peak, the patient visits were further defined to a typical day and hour as shown in Table 3.1.

Table 3.1 – ER Parking Generation

Patient Visits			Vehicles Generated
Per Year	Per Day	Per Hour	Per Hour
48,000	132	11	11
53,500	147	12	12

Assumes 365 days per year, visits occur over 12 hours in a day, and each visit generates one vehicle.

It is evident from Table 3.1 that the expansion of the ER will not result in any significant increase in peak parking generation.

Operating Rooms

The basement level of the pavilion will include approximately 12,000 SF of space for OR procedures. At the existing Samaritan parking rate, this would equate to an increase in parking demand of 18 vehicles. At the ITE rate, the OR space would generate a peak parking demand of 44 vehicles.

Pavilion Upper Floors

The upper floors of the pavilion will support a net addition of 72 beds. Based on the Samaritan parking rate, this expansion would result in an additional parking demand of 269 vehicles, while the ITE rate would result in 250 vehicles.

Table 3.2 summarizes the net increase in parking demand resulting from the project. In total, the new pavilion would generate a parking demand of 294 vehicles based on the ITE rates or 287 vehicles based on the existing Samaritan rates. For the purposes of this study, a peak parking demand of 294 vehicles will be carried forward through the remainder of the analysis.

Table 3.2 – Parking Demand Increases

Component	Vehicles	
	ITE Rate	Samaritan Rate
ER	Negligible	Negligible
OR	44	18
Upper Floors	250	269
Total	294	287

C. Parking Decreases

Two specific program changes are proposed as part of the overall MFP. These include moving the School of Nursing classes and the oncology department to Seton (St. Mary's Hospital). This will result in a reduction in the parking demand at Samaritan and has been estimated below.

School of Nursing

The School of Nursing has both morning and afternoon classes with a varied number of students and staff each day. Their average number of students and staff is 70 in the morning and 45 in the afternoon. Given the peak parking period of 10:00 to 11:00 AM, only the morning class parking generation was estimated. With the availability of transit to the hospital, vehicle occupancy of 1.2 persons/vehicle was assumed, which results in a parking generation of 58 vehicles. This existing demand would be removed upon the transfer of classes to Seton. Clinicals will remain at Samaritan and no parking reduction would occur.

Oncology

The oncology department has approximately 12 to 15 staff, and 7 to 8 patients seen 2 to 3 times per day. For this analysis, it is assumed that 14 staff and 8 patients would be relocated to Seton. This would equate to a parking demand of 18 vehicles, assuming a 1.2-person/vehicle occupancy.

Laundry

Currently, laundry service is accommodated at the hospital. This service is proposed to be provided off-site in the future, which will reduce the on-site parking demand of staff by approximately 12 spaces.

Table 3.3 summarizes the net increase in parking demand resulting from the expected net increase and decrease in parking demand for the project. The net increase in parking demand is estimated to be 206 vehicles after completion of the pavilion and program changes.

Table 3.3 – Net Parking Demand Increases

Component	Vehicles	Component	Vehicles
ER	Negligible	Nursing	-58
OR	+44	Oncology	-18
Upper Floors	+250	Laundry	-12
<i>Subtotal</i>	<i>+294</i>	<i>Subtotal</i>	<i>-88</i>
Net Total +206			

D. Parking Supply Changes

In order to construct the new pavilion and entrances, parking in the MOB, Employee, Oncology #1 and #2, and the ER lots will require modifications. Furthermore, it is assumed that on-street parking along the east side of 17th Street will be removed with the construction of the site driveways in order to maintain clear sight lines exiting the hospital. Similarly, on-street parking on Eagle Street would be moved from the south side to the north side of the street. Table 3.4 summarizes the anticipated parking supply changes.

Table 3.4 – Net Parking Supply Changes

Component	Original Supply	Proposed Supply	Loss/Gain
MOB Lot 1 & 2	138	88	-50
Employee Lot #1	121	0	-121
Oncology Lot 1 & 2	146	68	-78
ER	7	8	+1
Eagle St	25	24	-1
17th St	23	0	-23
Parking Demand	--	206	-206
		Total	-478

With the loss of parking due to site plan changes and the increase in parking demand, it will be necessary to add additional parking to the campus. As such, a multi-level parking garage is proposed to replace the existing employee lot. A minimum of 478 spaces will be necessary to account for the pavilion and programming changes. However, it is recommended that additional spaces be provided to account for fluctuations in demand, and provide efficiency to finding a parking space. Therefore, it is recommended that the additional demand of 478 spaces be no more than 90% of the supply, meaning that the parking garage should provide at least 530 spaces.

E. Trip Generation Adjustments

The logic used above to determine the parking demand changes was similarly applied to estimate the change in the amount of trips generated by the pavilion and programming changes. A traffic and parking study of St. Mary's Hospital in 2006 determined the hospital generated vehicle trips at a rate of 1.44 trips/1,000 square feet (T/KSF) during the AM peak hour and a rate of 1.32 T/KSF for the PM peak hour.

These trip rates were applied to the expansion of the OR (12 KSF) to estimate the resulting increase in traffic. Additionally, ITE trip generation rates were used to estimate the traffic increase resulting in the net addition of 72 beds to the new pavilion. As was previously determined with the ER, its expansion will have a negligible change in parking and, likewise, traffic demand.

Trip reductions attributed to programming changes like the School of Nursing, Oncology, and laundry, have also been accounted for. Table 3.5 summarizes the changes in trips generated by Samaritan Hospitals new pavilion and programming changes.

Table 3.5 – Net Trip Generation Increases

Component	Trips* AM (PM)	Component	Trips* AM (PM)
ER	Negligible	Nursing	-58 (-38)
OR	17 (16)	Oncology	-18 (-18)
Upper Floors	95 (102)	Laundry	-9 (-17)
<i>Subtotal</i>	<i>+112 (+118)</i>	<i>Subtotal</i>	<i>-85 (-73)</i>
<i>Net Total +27 (+45)</i>			

*Two way trips, sum of trips entering and exiting.

Accounting for the new construction and programming changes, it is estimated that the hospital will generate a net increase of 27 new trips in the AM peak hour and 45 new trips in the PM peak hour.

The net increase in trips is considered relatively low when compared to the traffic volumes already traveling around the hospital. The traffic volumes indicate that traffic on Burdett Avenue and Peoples Avenue varies from 600 to 650 vehicles in the AM and PM peak hour, and between 140 and 180 vehicles during the AM and PM peak hours on Eagle Street. The addition of 27 and 45 trips during the AM and PM peak hours, respectively, equate to an increase of only 2 to 3% over the existing volumes. Therefore, these trips, when distributed across several entrances and intersections will not result in any significant traffic impacts.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

A Parking and Traffic Study was completed for the proposed Samaritan Multiple Facilities Project (MFP), which is expected to be complete and operational in 2017. Construction of the new pavilion and programming changes will result in changes in the parking demand and will require construction of new parking. The following conclusions and recommendations are offered:

1. There will be an estimated increase in parking demand of 294 spaces due to the new pavilion with an estimated decrease in parking demand of 88 spaces due to programming changes. The net result is an increase of 206 spaces.
2. Site plan changes, the net increase in parking demand, and accounting for a 90% parking efficiency will result in the need for construction of an additional 530 parking spaces.
3. The site plan indicates the proposed parking garage will provide approximately 550 spaces.
4. There will be an estimated net increase of 27 trips in the AM peak hour and 45 trips in the PM peak hour generated by the pavilion and programming changes.
5. With the construction of the parking garage and an adequate supply of parking, some of the parking issues discussed in Chapter 2.C will be remedied.
6. On-street parking along 17th Street adjacent to the hospital should be restricted (i.e no parking), and parking on the south side of Eagle Street (between 17th Street and Burdett Avenue) may be moved to the north side of the street.
7. The net increase in trips generated at the hospital will not have any significant impacts on neighboring intersections.

Appendix A

Conceptual Site Plan

Parking & Traffic Study
Samaritan MFP
City of Troy, New York

Appendix B

Parking & Traffic Counts

Parking & Traffic Study
Samaritan MFP
City of Troy, New York

Job # 113-028
 Recorder: DPR
 Date: 2/13/13

Parking Study Data

Time Begin: 7:03 AM
 Time End: 8:05 AM

Lot	Capacity	Occupied	Unoccupied	Extra Vehicles	Total Parked	Notes
Employee Lot# 1 +16	120	105				
Employee Lot # 2 17, 24, 19, 29 27, 25, 23, 27		41				2 spots inaccessible due to snow Tim's parked in air spot
Medical Arts Lot# 1 61, 69	80 130	60				Includes 3 spots + lot on Bull In
Medical Arts Lot # 2	30	18				
Oncology # 1	64	35 + Tim's				7 of 64 blocked by Senior (N: 404)
Oncology # 2	100 98	18		+ 2		
Doctors Lot 29, 30	59	32				
ER	7	5		+ 1		+ 1 on bus
Loading Area	6 + 2 Bays	2 + 2 Bays				
Courier Area	5	6		+ 2		
Women's Health	10	10				
Day Care	9	7				
Performance	8	5				could squeeze two more in
On Street - Burdett						
On-Street - Eagle	26/23	23				Mostly occupied, 1-2 free spots Some spots available
On-Street - 17th	10/11	9 veh				Room for more or 2
On-Street - Peoples						

off Eagle

Time Begin: 8:29 AM
 Time End: 9:05 AM

Parking Study Data

Job # 113-028
 Recorder: DRR
 Date: 2/13/13

Lot	Capacity	Occupied	Unoccupied	Extra Vehicles	Total Parked	Notes
Employee Lot # 1	121	114	7 (All Patient)			
Employee Lot # 2	201	138	63			
Medical Arts Lot # 1	130	82				
Medical Arts Lot # 2	30	24	6 (ALLADA)			
Oncology # 1	64	57 + Trucks	5			1 Illegal (Hatched Area)
Oncology # 2	98	49				
Doctors Lot	59	49				
ER	7	5				+ 1 Amb, + 1 Passveh in loading area
Loading Area	6 + 2 Bays	4 + 1 Bay				
Courier Area	5	3				6 Illegal Parked
Women's Health	10	7				
Day Care	9	6				
MAINTENANCE	8	7				
On Street - Burdett	10/17	16				
On-Street - Eagle	26/23	23				
On-Street - 17th	10/11	11				
On-Street - Peoples						Newfew spots

Both sides of 17th next to Emp cot # 2 filled by 9AM (23 veh)

Job # 113-028
 Recorder: DFR
 Date: 2/13/13

Parking Study Data

Time Begin: 9:30 AM
 Time End: 10:05 AM

Lot	Capacity	Occupied	Unoccupied	Extra Vehicles	Total Parked	Notes
Employee Lot # 1	121	121	0			
Employee Lot # 2	201	177	24			1 of 24 has snow in it.
Medical Arts Lot # 1	130	92	38			
Medical Arts Lot # 2	30	25	5			
Oncology # 1	64		9	①	64-7-24(8)	4P in hotbed Area 7 of 9 are bitted. - 10:05
Oncology # 2	98	86	12			
Doctors Lot	59	52	7			
ER	7	7				
Loading Area	6+2 Bays	5+0 Bays		1 illegal		
Courier Area	5	2		6 Illegal Parked		
Women's Health	10	9				
Day Care	9	5				
	8	8				
On Street - Burdett	16/17	16 (w/3 bays)				
On-Street - Eagle	23	23				
On-Street - 17th	10/11	11				
On-Street - Peoples	20	20				

(Bays) Due to Regulations Aerial Space for more (Appx + 4)
 17th Street Next to Empire 2 (25 ven)

Job # 113-028
 Recorder: DPR
 Date: 2/13/13

Parking Study Data

Time Begin: 10:25 AM
 Time End: 11:01 AM

Lot	Capacity	Occupied	Unoccupied	Extra Vehicles	Total Parked	Notes
Employee Lot# 1	121		0	THH		5 Illegal Parked
Employee Lot # 2	201	189	17			
Medical Arts Lot# 1	130	109				
Medical Arts Lot # 2	30	29	1 (ADA)			
Oncology # 1	64		12	1 (noticed)	64-7-5+1-53	7 of 12 are APC. by 10:25/John
Oncology # 2	98	93	5			
Doctors Lot	59	56	3			
ER	7/6	6		1 Illegal		
Loading Area	6+2 Bays	4+10 Bays				
Courier Area	5	1		6 Illegal		4 near O2 Tanks
Women's Health	10	10				
Day Care	9	4				
Maintenance	8	7				
On Street - Burdett	6/17	15				
On-Street - Eagle	23	24				
On-Street - 17th	10/11	11				
On-Street - Peoples	20	Full				

Loading Adj. to Emp Lot # 1 → Cap = 3
 Dec = 1
 23 vehicles on 17th adj. to Emp Lot # 2

Time Begin: 11:20 AM
 Time End: 11:50 AM

Parking Study Data

Job # 113-028
 Recorder: DRR
 Date: 2/13/13

Lot	Capacity	Occupied	Unoccupied	Extra Vehicles	Total Parked	Notes
Employee Lot# 1	121	121+5	0	111		
Employee Lot # 2	201	187	14			
Medical Arts Lot# 1	130	108				
Medical Arts Lot # 2	30	25	5 (HADA)			
Oncology # 1	64		9 + 7 + 1 (HADA)		64-7-9+1	
Oncology # 2	98	89	9	11 (2)	91	
Doctors Lot	59	53	6			
ER	6/7	8		2 Illegal		> + 3 Ambulance in Bay's
Loading Area	7 + 2 Bay's	7 + 0 Bay's				
Courier Area	5	2 + 0 + 605		4 Illegal		
Women's Health	10	10				
Day Care	9	4				
Non-Peoples	8	5				
On Street - Burdett	16/17	16				
On-Street - Eagle	29	24				
On-Street - 17th	10/11	10				
On-Street - Peoples	20	Full				

17th Adj to Lot # 2
 19

Job # 113-028

Recorder: J. Johnson

Date: 2/13/13

Parking Study Data

Time Begin: 12:02 pm
Time End: 12:42 pm

Lot	Capacity	Occupied	Unoccupied	Extra Vehicles	Total Parked	Notes
Employee Lot# 1	121		11 = 2		124	
Loading Area	3	2		HH = 5	2	
Employee Lot # 2	201	177	24		201	
Medical Arts Lot# 1	130	102			102	
Medical Arts Lot # 2	30	14			14	
Oncology # 1	64		17 7 + 200	1 illegal	57	
Oncology # 2	98		14		84	
Doctors Lot	59		1	2 illegal	60	
ER	6/7	7		2 illegal	9 + ER veh	+ 1 Ambulance, + 1 Trooper car
Loading Area	7 + 2 bays	5 + 1				
Courier Area	5	4		5 illegal + 02 illegal	10	
Women's Health	10	9			9	
Day Care	9	6			6	
Maintenance	8	6			6	
On Street - Burdett	16/17	16			16	
On-Street - Eagle	23/24	23			23	
On-Street - 17th	10/11	9			9	
On-Street - Peoples	20		3		17	
17th Adj	50/52	mid 20s	19		19	

Job # 113-028

Recorder: J. Johnson

Date: 2/13/13

Parking Study Data

Time Begin: 1:06 PM
Time End: 1:35 PM

Lot	Capacity	Occupied	Unoccupied	Extra Vehicles	Total Parked	Notes
Employee Lot# 1	121	121		111 = 4	124	
Lead Area	3	2			2	
Employee Lot # 2	201		37		164	
Medical Arts Lot# 1	130	102			102	
Medical Arts Lot # 2	30	20		1 illegal	21	
Oncology # 1	64		7 + 2	7	55	7 + 2 trailers occupy 7 spots
Oncology # 2	98					
Doctors Lot	59		6	1 illegal	54	
ER	6/7	7			7 + 2 Amb + 2 Ambulance	
Loading Area	7 + 2 bays	3 + 2			5	
Courier Area	5	3		5 illegal	8	
Women's Health	10	10			10	
Day Care	9	4			4	
Maintenance	8	6			6	
On Street - Burdett	16/17	14			14	
On-Street - Eagle	23/24	23			23	
On-Street - 17th	10/11	9			9	
On-Street - Peoples	20	20			20	

17th St + Adl =
Emp 100 =

mid 20s

18

18

Job # 113-028

Recorder: J. Johnson

Date: 2/15/13

Parking Study Data

Time Begin: 2:04 pm
Time End: 2:39 pm

Lot	Capacity	Occupied	Unoccupied	Extra Vehicles	Total Parked	Notes
Employee Lot# 1	121		12	+5 illegal	706	
Lead Area	3	2				
Employee Lot # 2	201		41	+3 illegal	160	
Medical Arts Lot# 1	130	126			126	
Medical Arts Lot # 2	30	24			24	
Oncology # 1	64	51	6 + 74	+1 illegal	52	7 + Trailer occupy 7 spaces
Oncology # 2	98		7		91	
Doctors Lot	59	53	6	+1 illegal	54	
ER	6/7	5		+1 illegal	6	+1 Hub, +1 Trooper
Loading Area	7+26 days	4+0				
Courier Area	5	1		+5 illegal	6	
Women's Health	10	8			8	
Day Care	9	5			5	
Maintenance	8	7			7	
On Street - Burdett	16/17	16			16	
On-Street - Eagle	23/24	23			23	
On-Street - 17th	10/11	9			9	
On-Street - Peoples	20	18		1 illegal	19	
17th St Adj.	205	18				
Emp. Lot 2						

Job # 113-028

Recorder: J. Johnson

Date: 2/13/13

Parking Study Data

Time Begin: 3:03 PM
Time End: 3:34 PM

Lot	Capacity	Occupied	Unoccupied	Extra Vehicles	Total Parked	Notes
Employee Lot # 1	121	1	18	6 illegal	111	
Lead Area	3	1			1	
Employee Lot # 2	201		64		137	
Medical Arts Lot # 1	130	113			113	
Medical Arts Lot # 2	30	24				
Oncology # 1	64	57 57	0 + 7+	7+ 1 illegal	58	7+ = trailer occupy 7 spaces
Oncology # 2	98		6		92	
Doctors Lot	59		10	+ 1 illegal	50	
ER	6/7	5		+ 1 illegal	6	
Loading Area	7 + 2 bays	5 + 0				
Courier Area	5	3		+ 5 illegal + 10 illegal	10	
Women's Health	10	9		+ 1 illegal	10	
Day Care	7	7			7	
Maintenance	8	8		2 illegal	10	
On Street - Burdett	16/17	16			16	
On-Street - Eagle	23/24	20			20	
On-Street - 17th	10/11	8 8			8	
On-Street - Peoples	20	12			12	
17th Adj. to Lot 2	205	15			15	

Job # 113-028
 Recorder: S. Johnson
 Date: 2/13/13

Parking Study Data

Time Begin: 4:22pm
 Time End: 4:52pm

Lot	Capacity	Occupied	Unoccupied	Extra Vehicles	Total Parked	Notes
Employee Lot# 1	121	59	62	5 illegals	64	
Lead Area	3	1			1	
Employee Lot # 2	201	76			76	
Medical Arts Lot# 1	130	83			83	
Medical Arts Lot # 2	30	11			11	
Oncology # 1	64		12 + 74	+ 1 illegal	46	74 = trailer in 8 spaces
Oncology # 2	98	69	29		69	
Doctors Lot	59	33	26	+ 1 illegal	34	
ER	6/7	5		+ 1 illegal	6 + 2 Amb	2 ambulances
Loading Area	7 + 2 bays	440			4	
Courier Area	5	5		+ 2 illegal + 10 = illegal	8	
Women's Health	10	9		+ 2 illegal	11	
Day Care	9	8			8	
Maintenance	8	6		+ 1 illegal	7	
On Street - Burdett	16/17	10			10	
On-Street - Eagle	23/24	8			8	
On-Street - 17th	10/m	4			4	
On-Street - Peoples	20	12			12	
17th Rd to Emp Lot # 2	205	6			6	



Project: 113-028
 Counted By: AMM
 Location: Troy, NY
 Other:

File Name : tm13028a1
 Site Code : 13-028-1
 Start Date : 2/26/2013
 Page No : 1

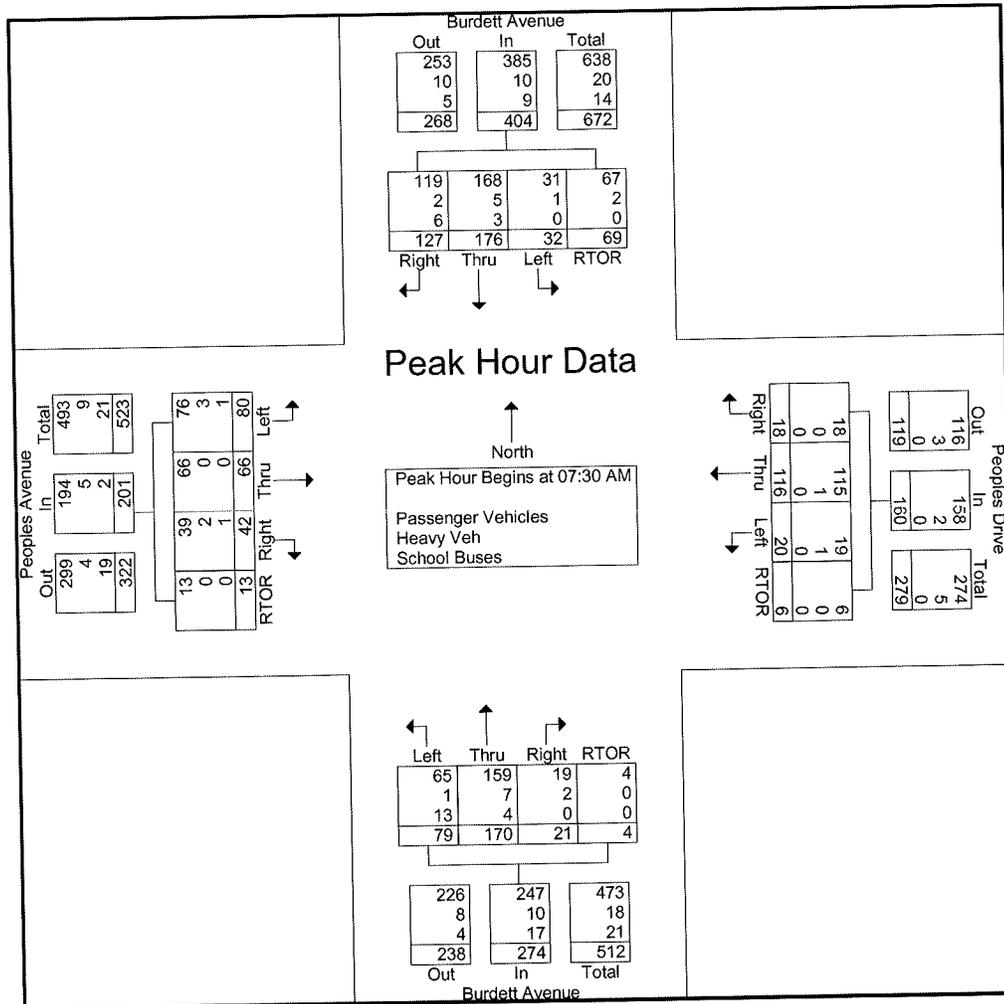
Groups Printed- Passenger Vehicles - Heavy Veh - School Buses

Start Time Factor	Peoples Avenue Eastbound					Peoples Drive Westbound					Burdett Avenue Northbound					Burdett Avenue Southbound					Int. Total
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	
06:00 AM	2	5	1	2	10	0	4	0	0	4	4	7	0	0	11	0	10	8	0	18	43
06:15 AM	4	0	1	1	6	0	3	0	0	3	4	8	1	1	14	1	22	6	1	30	53
06:30 AM	4	3	1	0	8	3	5	0	2	10	4	22	0	1	27	2	25	11	5	43	88
06:45 AM	11	5	3	1	20	1	8	3	1	13	6	33	0	0	39	5	27	6	17	55	127
Total	21	13	6	4	44	4	20	3	3	30	18	70	1	2	91	8	84	31	23	146	311
07:00 AM	16	18	0	3	37	1	13	0	0	14	15	21	2	0	38	11	19	11	2	43	132
07:15 AM	29	15	1	2	47	8	19	2	1	30	12	20	1	1	34	10	33	14	10	67	178
07:30 AM	13	9	10	4	36	5	28	2	2	37	15	38	2	3	58	9	44	27	20	100	231
07:45 AM	22	20	9	6	57	5	40	4	1	50	20	50	5	0	75	7	50	43	13	113	295
Total	80	62	20	15	177	19	100	8	4	131	62	129	10	4	205	37	146	95	45	323	836
08:00 AM	25	17	11	1	54	6	32	4	0	42	22	38	10	0	70	9	40	22	32	103	269
08:15 AM	20	20	12	2	54	4	16	8	3	31	22	44	4	1	71	7	42	35	4	88	244
08:30 AM	34	22	6	0	62	5	24	6	2	37	11	29	5	3	48	8	23	26	25	82	229
08:45 AM	27	16	4	0	47	9	21	2	0	32	11	42	1	1	55	11	20	34	15	80	214
Total	106	75	33	3	217	24	93	20	5	142	66	153	20	5	244	35	125	117	76	353	956
Grand Total	207	150	59	22	438	47	213	31	12	303	146	352	31	11	540	80	355	243	144	822	2103
Apprch %	47.3	34.2	13.5	5		15.5	70.3	10.2	4		27	65.2	5.7	2		9.7	43.2	29.6	17.5		
Total %	9.8	7.1	2.8	1	20.8	2.2	10.1	1.5	0.6	14.4	6.9	16.7	1.5	0.5	25.7	3.8	16.9	11.6	6.8	39.1	
Passenger Vehicles	193	148	54	22	417	44	207	31	12	294	127	333	28	10	498	78	334	230	141	783	1992
% Passenger Vehicles	93.2	98.7	91.5	100	95.2	93.6	97.2	100	100	97	87	94.6	90.3	90.9	92.2	97.5	94.1	94.7	97.9	95.3	94.7
Heavy Veh	12	1	3	0	16	2	4	0	0	6	3	15	3	1	22	2	15	6	3	26	70
% Heavy Veh	5.8	0.7	5.1	0	3.7	4.3	1.9	0	0	2	2.1	4.3	9.7	9.1	4.1	2.5	4.2	2.5	2.1	3.2	3.3
School Buses	2	1	2	0	5	1	2	0	0	3	16	4	0	0	20	0	6	7	0	13	41
% School Buses	1	0.7	3.4	0	1.1	2.1	0.9	0	0	1	11	1.1	0	0	3.7	0	1.7	2.9	0	1.6	1.9

Project: 113-028
 Counted By: AMM
 Location: Troy, NY
 Other:

File Name : tm13028a1
 Site Code : 13-028-1
 Start Date : 2/26/2013
 Page No : 2

Start Time	Peoples Avenue Eastbound					Peoples Drive Westbound					Burdett Avenue Northbound					Burdett Avenue Southbound					Int. Total
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	
Peak Hour Analysis From 6:00:00 AM to 8:45:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 7:30:00 AM																					
7:30:00 AM	13	9	10	4	36	5	28	2	2	37	15	38	2	3	58	9	44	27	20	100	231
7:45:00 AM	22	20	9	6	57	5	40	4	1	50	20	50	5	0	75	7	50	43	13	113	295
8:00:00 AM	25	17	11	1	54	6	32	4	0	42	22	38	10	0	70	9	40	22	32	103	269
8:15:00 AM	20	20	12	2	54	4	16	8	3	31	22	44	4	1	71	7	42	35	4	88	244
Total Volume	80	66	42	13	201	20	116	18	6	160	79	170	21	4	274	32	176	127	69	404	1039
% App. Total	39.8	32.8	20.9	6.5		12.5	72.5	11.2	3.8		28.8	62	7.7	1.5		7.9	43.6	31.4	17.1		
PHF	.800	.825	.875	.542	.882	.833	.725	.563	.500	.800	.898	.850	.525	.333	.913	.889	.880	.738	.539	.894	.881
Passenger Vehicles	76	66	39	13	194	19	115	18	6	158	65	159	19	4	247	31	168	119	67	385	984
% Passenger Vehicles	95.0	100	92.9	100	96.5	95.0	99.1	100	100	98.8	82.3	93.5	90.5	100	90.1	96.9	95.5	93.7	97.1	95.3	94.7
Heavy Veh	3	0	2	0	5	1	1	0	0	2	1	7	2	0	10	1	5	2	2	10	27
% Heavy Veh	3.8	0	4.8	0	2.5	5.0	0.9	0	0	1.3	1.3	4.1	9.5	0	3.6	3.1	2.8	1.6	2.9	2.5	2.6
School Buses	1	0	1	0	2	0	0	0	0	0	13	4	0	0	17	0	3	6	0	9	28
% School Buses	1.3	0	2.4	0	1.0	0	0	0	0	0	16.5	2.4	0	0	6.2	0	1.7	4.7	0	2.2	2.7





Project: 112-028
 Counted By: MDN
 Location: Troy, NY
 Other:

File Name : tm13028p1
 Site Code : 13-028-1
 Start Date : 2/26/2013
 Page No : 1

Groups Printed- Passenger Vehicles - Heavy Veh - School Buses

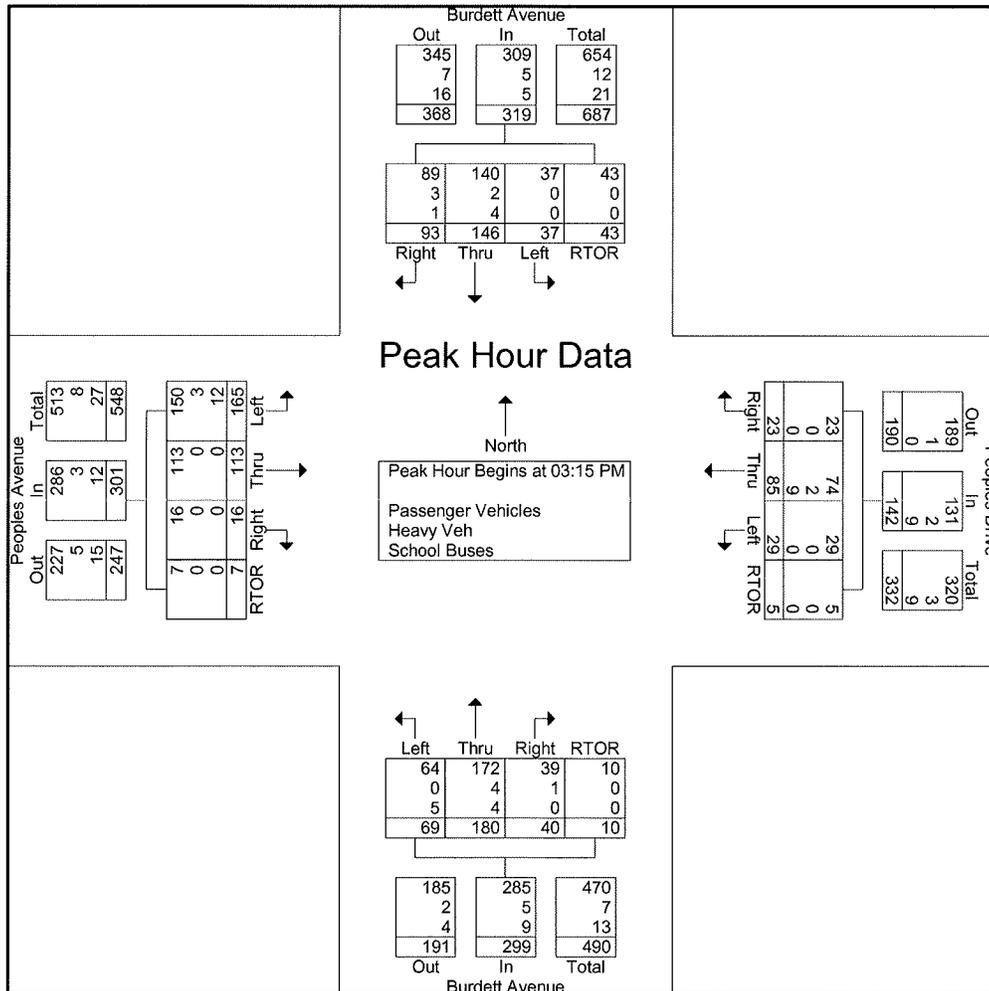
Start Time	Peoples Avenue Eastbound					Peoples Drive Westbound					Burdett Avenue Northbound					Burdett Avenue Southbound					Int. Total
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
03:00 PM	27	12	7	1	47	6	20	6	6	38	4	35	2	2	43	15	40	22	16	93	221
03:15 PM	31	13	3	3	50	7	15	6	3	31	22	55	10	3	90	13	28	25	11	77	248
03:30 PM	49	33	5	0	87	6	16	5	0	27	23	55	13	3	94	11	32	22	11	76	284
03:45 PM	41	40	4	1	86	11	27	7	1	46	8	36	8	3	55	7	39	22	14	82	269
Total	148	98	19	5	270	30	78	24	10	142	57	181	33	11	282	46	139	91	52	328	1022
04:00 PM	44	27	4	3	78	5	27	5	1	38	16	34	9	1	60	6	47	24	7	84	260
04:15 PM	34	26	8	1	69	5	26	10	3	44	11	35	2	2	50	6	34	11	20	71	234
04:30 PM	44	40	3	1	88	9	18	10	2	39	9	35	4	1	49	6	34	25	7	72	248
04:45 PM	58	32	11	3	104	10	25	7	1	43	8	35	5	2	50	10	32	19	14	75	272
Total	180	125	26	8	339	29	96	32	7	164	44	139	20	6	209	28	147	79	48	302	1014
05:00 PM	65	27	7	1	100	8	22	4	2	36	6	31	6	2	45	7	38	19	11	75	256
05:15 PM	56	36	9	3	104	8	23	4	1	36	8	41	4	4	57	9	40	13	23	85	282
05:30 PM	45	35	11	2	93	13	12	4	2	31	5	26	7	5	43	5	41	11	18	75	242
05:45 PM	32	33	5	1	71	15	23	4	2	44	14	31	6	5	56	8	39	12	8	67	238
Total	198	131	32	7	368	44	80	16	7	147	33	129	23	16	201	29	158	55	60	302	1018
Grand Total	526	354	77	20	977	103	254	72	24	453	134	449	76	33	692	103	444	225	160	932	3054
Apprch %	53.8	36.2	7.9	2		22.7	56.1	15.9	5.3		19.4	64.9	11	4.8		11.1	47.6	24.1	17.2		
Total %	17.2	11.6	2.5	0.7	32	3.4	8.3	2.4	0.8	14.8	4.4	14.7	2.5	1.1	22.7	3.4	14.5	7.4	5.2	30.5	
Passenger Vehicles	490	354	76	20	940	102	224	72	24	422	126	433	72	33	664	103	429	217	158	907	2933
% Passenger Vehicles	93.2	100	98.7	100	96.2	99	88.2	100	100	93.2	94	96.4	94.7	100	96	100	96.6	96.4	98.8	97.3	96
Heavy Veh	10	0	0	0	10	0	5	0	0	5	0	9	4	0	13	0	8	7	2	17	45
% Heavy Veh	1.9	0	0	0	1	0	2	0	0	1.1	0	2	5.3	0	1.9	0	1.8	3.1	1.2	1.8	1.5
School Buses	26	0	1	0	27	1	25	0	0	26	8	7	0	0	15	0	7	1	0	8	76
% School Buses	4.9	0	1.3	0	2.8	1	9.8	0	0	5.7	6	1.6	0	0	2.2	0	1.6	0.4	0	0.9	2.5



Project: 112-028
 Counted By: MDN
 Location: Troy, NY
 Other:

File Name : tm13028p1
 Site Code : 13-028-1
 Start Date : 2/26/2013
 Page No : 2

Start Time	Peoples Avenue Eastbound					Peoples Drive Westbound					Burdett Avenue Northbound					Burdett Avenue Southbound					Int. Total
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	
Peak Hour Analysis From 3:00:00 PM to 5:45:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 3:15:00 PM																					
3:15:00 PM	31	13	3	3	50	7	15	6	3	31	22	55	10	3	90	13	28	25	11	77	248
3:30:00 PM	49	33	5	0	87	6	16	5	0	27	23	55	13	3	94	11	32	22	11	76	284
3:45:00 PM	41	40	4	1	86	11	27	7	1	46	8	36	8	3	55	7	39	22	14	82	269
4:00:00 PM	44	27	4	3	78	5	27	5	1	38	16	34	9	1	60	6	47	24	7	84	260
Total Volume	165	113	16	7	301	29	85	23	5	142	69	180	40	10	299	37	146	93	43	319	1061
% App. Total	54.8	37.5	5.3	2.3		20.4	59.9	16.2	3.5		23.1	60.2	13.4	3.3		11.6	45.8	29.2	13.5		
PHF	.842	.706	.800	.583	.865	.659	.787	.821	.417	.772	.750	.818	.769	.833	.795	.712	.777	.930	.768	.949	.934
Passenger Vehicles	150	113	16	7	286	29	74	23	5	131	64	172	39	10	285	37	140	89	43	309	1011
% Passenger Vehicles	90.9	100	100	100	95.0	100	87.1	100	100	92.3	92.8	95.6	97.5	100	95.3	100	95.9	95.7	100	96.9	95.3
Heavy Veh	3	0	0	0	3	0	2	0	0	2	0	4	1	0	5	0	2	3	0	5	15
% Heavy Veh	1.8	0	0	0	1.0	0	2.4	0	0	1.4	0	2.2	2.5	0	1.7	0	1.4	3.2	0	1.6	1.4
School Buses	12	0	0	0	12	0	9	0	0	9	5	4	0	0	9	0	4	1	0	5	35
% School Buses	7.3	0	0	0	4.0	0	10.6	0	0	6.3	7.2	2.2	0	0	3.0	0	2.7	1.1	0	1.6	3.3





Project: 113-028
 Counted By: JJ
 Location: Troy, NY
 Other:

File Name : tm13028a2
 Site Code : 13-028-2
 Start Date : 2/26/2013
 Page No : 1

Groups Printed- Passenger Vehicles - Heavy Veh - School Buses

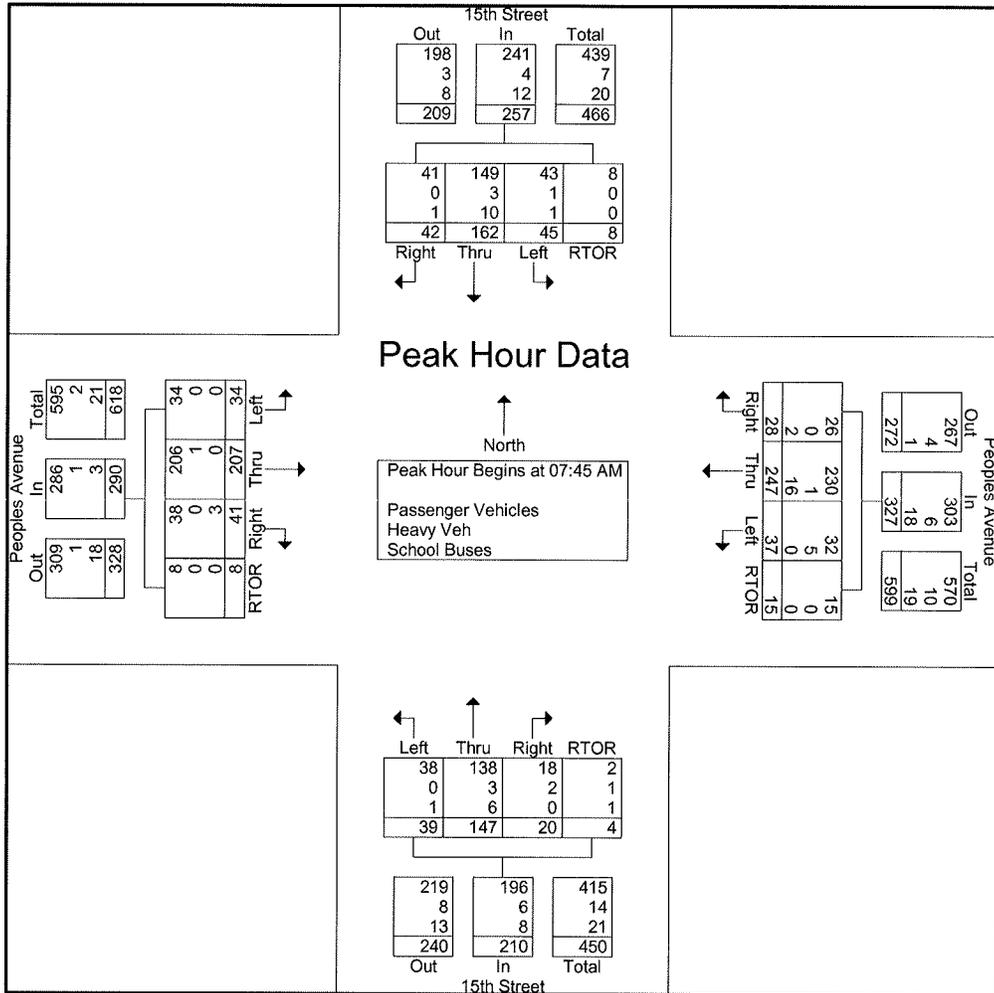
Start Time Factor	Peoples Avenue Eastbound					Peoples Avenue Westbound					15th Street Northbound					15th Street Southbound					Int. Total
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	
06:00 AM	1	13	15	1	30	0	10	3	1	14	5	7	0	0	12	2	8	1	1	12	68
06:15 AM	3	17	1	1	22	1	7	1	0	9	5	15	1	1	22	4	8	3	1	16	69
06:30 AM	9	17	1	1	28	2	8	2	0	12	5	21	0	0	26	4	17	2	2	25	91
06:45 AM	7	35	4	1	47	2	15	3	1	21	1	20	1	0	22	11	19	3	1	34	124
Total	20	82	21	4	127	5	40	9	2	56	16	63	2	1	82	21	52	9	5	87	352
07:00 AM	3	34	14	3	54	4	29	2	1	36	4	20	2	0	26	5	21	2	3	31	147
07:15 AM	5	36	3	0	44	2	38	2	3	45	7	18	3	2	30	10	33	8	2	53	172
07:30 AM	6	45	5	1	57	3	71	5	2	81	4	23	1	1	29	15	32	7	0	54	221
07:45 AM	6	44	13	1	64	10	77	5	4	96	19	40	4	1	64	17	45	12	2	76	300
Total	20	159	35	5	219	19	215	14	10	258	34	101	10	4	149	47	131	29	7	214	840
08:00 AM	8	50	8	1	67	9	81	8	1	99	9	42	5	1	57	10	50	9	1	70	293
08:15 AM	11	58	9	5	83	10	48	5	6	69	7	29	5	0	41	11	40	11	5	67	260
08:30 AM	9	55	11	1	76	8	41	10	4	63	4	36	6	2	48	7	27	10	0	44	231
08:45 AM	7	42	9	2	60	11	48	4	3	66	9	27	5	1	42	5	31	7	4	47	215
Total	35	205	37	9	286	38	218	27	14	297	29	134	21	4	188	33	148	37	10	228	999
Grand Total	75	446	93	18	632	62	473	50	26	611	79	298	33	9	419	101	331	75	22	529	2191
Apprch %	11.9	70.6	14.7	2.8		10.1	77.4	8.2	4.3		18.9	71.1	7.9	2.1		19.1	62.6	14.2	4.2		
Total %	3.4	20.4	4.2	0.8	28.8	2.8	21.6	2.3	1.2	27.9	3.6	13.6	1.5	0.4	19.1	4.6	15.1	3.4	1	24.1	
Passenger Vehicles	74	441	86	18	619	50	451	45	26	572	77	283	27	6	393	98	303	73	21	495	2079
% Passenger Vehicles	98.7	98.9	92.5	100	97.9	80.6	95.3	90	100	93.6	97.5	95	81.8	66.7	93.8	97	91.5	97.3	95.5	93.6	94.9
Heavy Veh	0	3	1	0	4	10	3	0	0	13	0	6	5	2	13	1	7	0	1	9	39
% Heavy Veh	0	0.7	1.1	0	0.6	16.1	0.6	0	0	2.1	0	2	15.2	22.2	3.1	1	2.1	0	4.5	1.7	1.8
School Buses	1	2	6	0	9	2	19	5	0	26	2	9	1	1	13	2	21	2	0	25	73
% School Buses	1.3	0.4	6.5	0	1.4	3.2	4	10	0	4.3	2.5	3	3	11.1	3.1	2	6.3	2.7	0	4.7	3.3



Project: 113-028
 Counted By: JJ
 Location: Troy, NY
 Other:

File Name : tm13028a2
 Site Code : 13-028-2
 Start Date : 2/26/2013
 Page No : 2

Start Time	Peoples Avenue Eastbound					Peoples Avenue Westbound					15th Street Northbound					15th Street Southbound					Int. Total
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	
Peak Hour Analysis From 6:00:00 AM to 8:45:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 7:45:00 AM																					
7:45:00 AM	6	44	13	1	64	10	77	5	4	96	19	40	4	1	64	17	45	12	2	76	300
8:00:00 AM	8	50	8	1	67	9	81	8	1	99	9	42	5	1	57	10	50	9	1	70	293
8:15:00 AM	11	58	9	5	83	10	48	5	6	69	7	29	5	0	41	11	40	11	5	67	260
8:30:00 AM	9	55	11	1	76	8	41	10	4	63	4	36	6	2	48	7	27	10	0	44	231
Total Volume	34	207	41	8	290	37	247	28	15	327	39	147	20	4	210	45	162	42	8	257	1084
% App. Total	11.7	71.4	14.1	2.8		11.3	75.5	8.6	4.6		18.6	70	9.5	1.9		17.5	63	16.3	3.1		
PHF	.773	.892	.788	.400	.873	.925	.762	.700	.625	.826	.513	.875	.833	.500	.820	.662	.810	.875	.400	.845	.903
Passenger Vehicles	34	206	38	8	286	32	230	26	15	303	38	138	18	2	196	43	149	41	8	241	1026
% Passenger Vehicles	100	99.5	92.7	100	98.6	86.5	93.1	92.9	100	92.7	97.4	93.9	90.0	50.0	93.3	95.6	92.0	97.6	100	93.8	94.6
Heavy Veh	0	1	0	0	1	5	1	0	0	6	0	3	2	1	6	1	3	0	0	4	17
% Heavy Veh	0	0.5	0	0	0.3	13.5	0.4	0	0	1.8	0	2.0	10.0	25.0	2.9	2.2	1.9	0	0	1.6	1.6
School Buses	0	0	3	0	3	0	16	2	0	18	1	6	0	1	8	1	10	1	0	12	41
% School Buses	0	0	7.3	0	1.0	0	6.5	7.1	0	5.5	2.6	4.1	0	3.8	2.2	6.2	2.4	0	4.7	3.8	





Project: 113-028
 Counted By: JJ
 Location: Troy, NY
 Other:

File Name : tm13028p2
 Site Code : 13-028-2
 Start Date : 2/26/2013
 Page No : 1

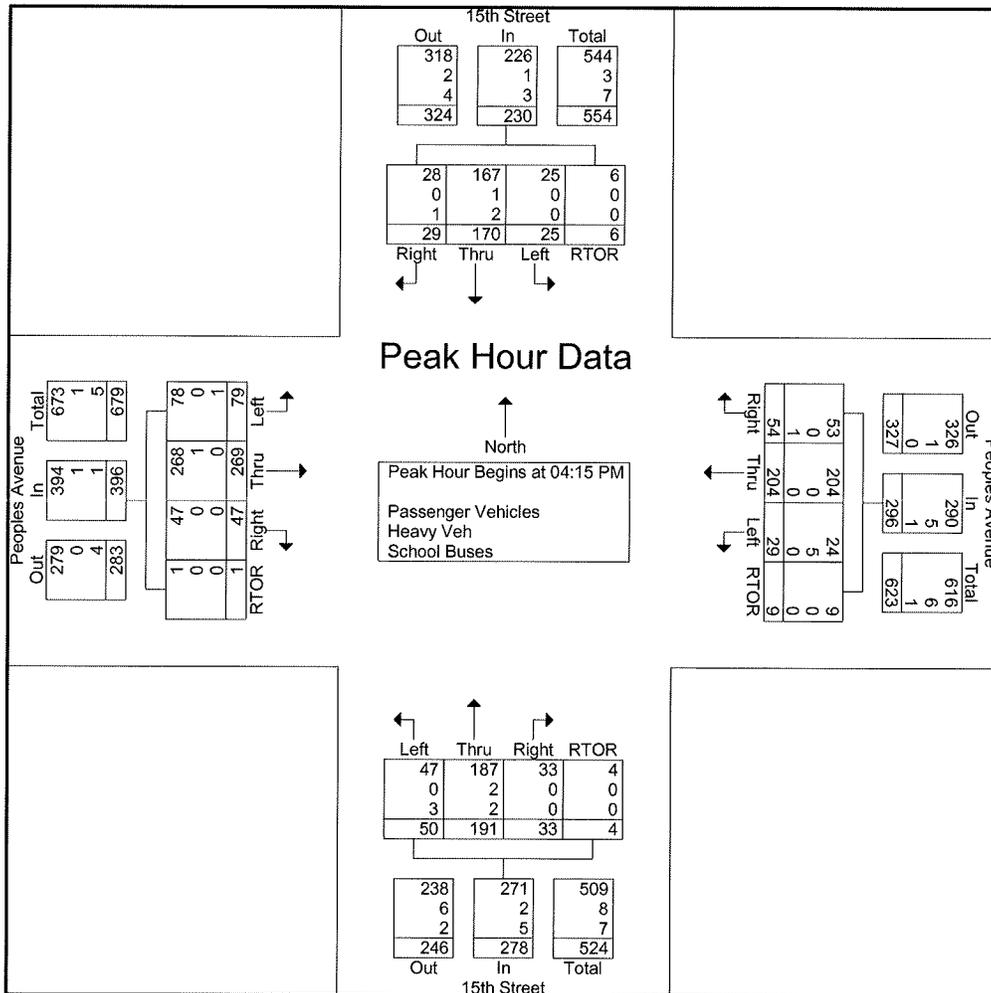
Groups Printed- Passenger Vehicles - Heavy Veh - School Buses

Start Time Factor	Peoples Avenue Eastbound					Peoples Avenue Westbound					15th Street Northbound					15th Street Southbound					Int. Total
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	
03:00 PM	7	34	6	3	50	9	52	6	5	72	9	35	4	1	49	1	35	13	2	51	222
03:15 PM	6	42	8	3	59	9	68	10	0	87	11	41	6	1	59	5	24	5	1	35	240
03:30 PM	18	55	13	5	91	6	59	6	1	72	8	49	12	6	75	4	48	10	2	64	302
03:45 PM	17	56	9	4	86	12	53	8	3	76	9	50	8	3	70	6	42	11	1	60	292
Total	48	187	36	15	286	36	232	30	9	307	37	175	30	11	253	16	149	39	6	210	1056
04:00 PM	20	59	12	4	95	3	55	11	3	72	11	44	7	0	62	6	33	6	0	45	274
04:15 PM	16	60	11	0	87	5	63	14	1	83	13	45	7	1	66	7	36	7	1	51	287
04:30 PM	19	59	15	1	94	8	46	11	5	70	12	50	5	0	67	7	48	8	2	65	296
04:45 PM	20	71	11	0	102	7	49	10	2	68	11	45	11	0	67	5	42	5	2	54	291
Total	75	249	49	5	378	23	213	46	11	293	47	184	30	1	262	25	159	26	5	215	1148
05:00 PM	24	79	10	0	113	9	46	19	1	75	14	51	10	3	78	6	44	9	1	60	326
05:15 PM	12	76	8	0	96	6	49	10	4	69	8	40	8	2	58	4	45	6	0	55	278
05:30 PM	19	71	9	0	99	7	39	7	2	55	8	44	8	2	62	2	37	6	0	45	261
05:45 PM	16	49	15	3	83	7	34	7	8	56	7	36	6	2	51	5	28	10	1	44	234
Total	71	275	42	3	391	29	168	43	15	255	37	171	32	9	249	17	154	31	2	204	1099
Grand Total	194	711	127	23	1055	88	613	119	35	855	121	530	92	21	764	58	462	96	13	629	3303
Apprch %	18.4	67.4	12	2.2		10.3	71.7	13.9	4.1		15.8	69.4	12	2.7		9.2	73.4	15.3	2.1		
Total %	5.9	21.5	3.8	0.7	31.9	2.7	18.6	3.6	1.1	25.9	3.7	16	2.8	0.6	23.1	1.8	14	2.9	0.4	19	
Passenger Vehicles	193	707	127	23	1050	75	608	115	35	833	115	515	88	20	738	58	455	93	13	619	3240
% Passenger Vehicles	99.5	99.4	100	100	99.5	85.2	99.2	96.6	100	97.4	95	97.2	95.7	95.2	96.6	100	98.5	96.9	100	98.4	98.1
Heavy Veh	0	1	0	0	1	11	1	0	0	12	0	5	2	1	8	0	2	0	0	2	23
% Heavy Veh	0	0.1	0	0	0.1	12.5	0.2	0	0	1.4	0	0.9	2.2	4.8	1	0	0.4	0	0	0.3	0.7
School Buses	1	3	0	0	4	2	4	4	0	10	6	10	2	0	18	0	5	3	0	8	40
% School Buses	0.5	0.4	0	0	0.4	2.3	0.7	3.4	0	1.2	5	1.9	2.2	0	2.4	0	1.1	3.1	0	1.3	1.2

Project: 113-028
 Counted By: JJ
 Location: Troy, NY
 Other:

File Name : tm13028p2
 Site Code : 13-028-2
 Start Date : 2/26/2013
 Page No : 2

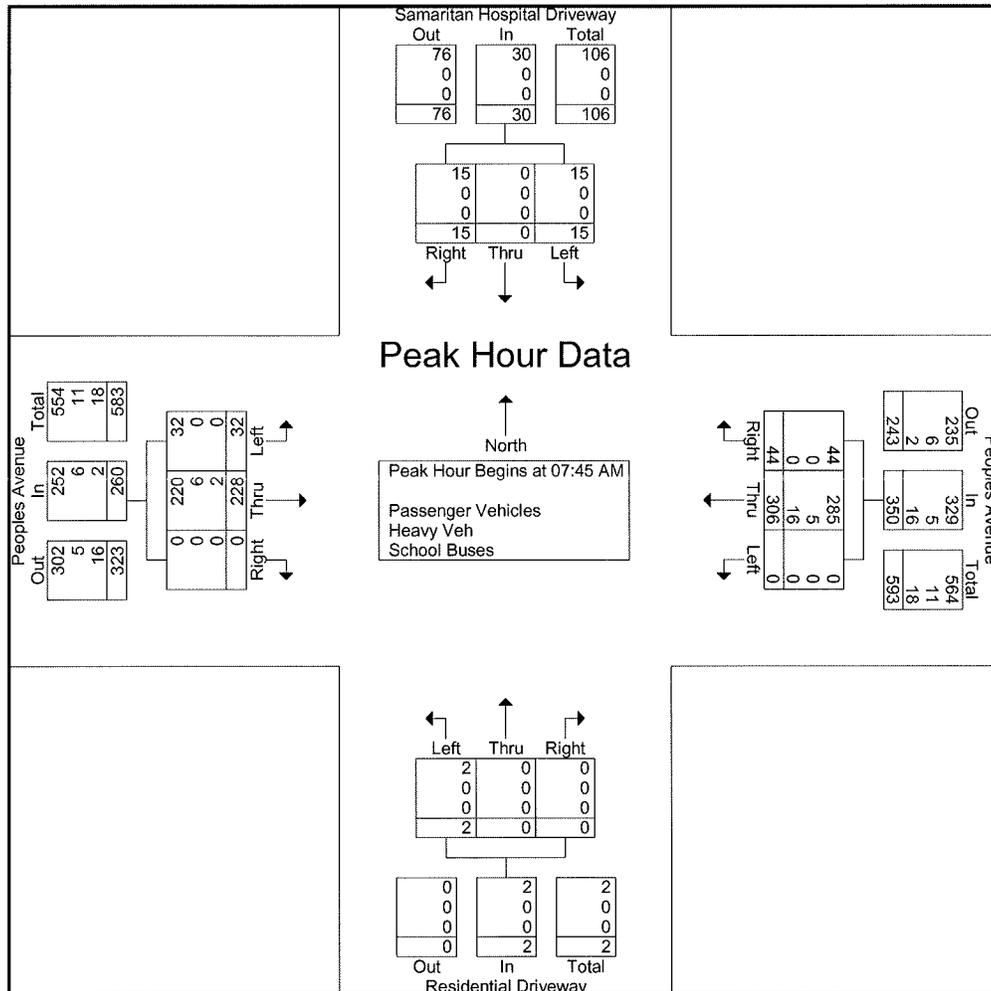
Start Time	Peoples Avenue Eastbound					Peoples Avenue Westbound					15th Street Northbound					15th Street Southbound					Int. Total
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	
Peak Hour Analysis From 3:00:00 PM to 5:45:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 4:15:00 PM																					
4:15:00 PM	16	60	11	0	87	5	63	14	1	83	13	45	7	1	66	7	36	7	1	51	287
4:30:00 PM	19	59	15	1	94	8	46	11	5	70	12	50	5	0	67	7	48	8	2	65	296
4:45:00 PM	20	71	11	0	102	7	49	10	2	68	11	45	11	0	67	5	42	5	2	54	291
5:00:00 PM	24	79	10	0	113	9	46	19	1	75	14	51	10	3	78	6	44	9	1	60	326
Total Volume	79	269	47	1	396	29	204	54	9	296	50	191	33	4	278	25	170	29	6	230	1200
% App. Total	19.9	67.9	11.9	0.3		9.8	68.9	18.2	3		18	68.7	11.9	1.4		10.9	73.9	12.6	2.6		
PHF	.823	.851	.783	.250	.876	.806	.810	.711	.450	.892	.893	.936	.750	.333	.891	.893	.885	.806	.750	.885	.920
Passenger Vehicles	78	268	47	1	394	24	204	53	9	290	47	187	33	4	271	25	167	28	6	226	1181
% Passenger Vehicles	98.7	99.6	100	100	99.5	82.8	100	98.1	100	98.0	94.0	97.9	100	100	97.5	100	98.2	96.6	100	98.3	98.4
Heavy Veh	0	1	0	0	1	5	0	0	0	5	0	2	0	0	2	0	1	0	0	1	9
% Heavy Veh	0	0.4	0	0	0.3	17.2	0	0	0	1.7	0	1.0	0	0	0.7	0	0.6	0	0	0.4	0.8
School Buses	1	0	0	0	1	0	0	1	0	1	3	2	0	0	5	0	2	1	0	3	10
% School Buses	1.3	0	0	0	0.3	0	0	1.9	0	0.3	6.0	1.0	0	0	1.8	0	1.2	3.4	0	1.3	0.8



Project: 113-028
 Counted By: JJ
 Location: Troy, NY
 Other:

File Name : tm13028a3
 Site Code : 13-028-3
 Start Date : 3/5/2013
 Page No : 2

Start Time	Peoples Avenue Eastbound				Peoples Avenue Westbound				Residential Driveway Northbound				Samaritan Hospital Driveway Southbound				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 6:00:00 AM to 8:45:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 7:45:00 AM																	
7:45:00 AM	5	59	0	64	0	97	13	110	0	0	0	0	2	0	2	4	178
8:00:00 AM	6	55	0	61	0	81	12	93	1	0	0	1	6	0	4	10	165
8:15:00 AM	9	61	0	70	0	62	9	71	1	0	0	1	4	0	7	11	153
8:30:00 AM	12	53	0	65	0	66	10	76	0	0	0	0	3	0	2	5	146
Total Volume	32	228	0	260	0	306	44	350	2	0	0	2	15	0	15	30	642
% App. Total	12.3	87.7	0		0	87.4	12.6		100	0	0		50	0	50		
PHF	.667	.934	.000	.929	.000	.789	.846	.795	.500	.000	.000	.500	.625	.000	.536	.682	.902
Passenger Vehicles	32	220	0	252	0	285	44	329	2	0	0	2	15	0	15	30	613
% Passenger Vehicles	100	96.5	0	96.9	0	93.1	100	94.0	100	0	0	100	100	0	100	100	95.5
Heavy Veh	0	6	0	6	0	5	0	5	0	0	0	0	0	0	0	0	11
% Heavy Veh	0	2.6	0	2.3	0	1.6	0	1.4	0	0	0	0	0	0	0	0	1.7
School Buses	0	2	0	2	0	16	0	16	0	0	0	0	0	0	0	0	18
% School Buses	0	0.9	0	0.8	0	5.2	0	4.6	0	0	0	0	0	0	0	0	2.8

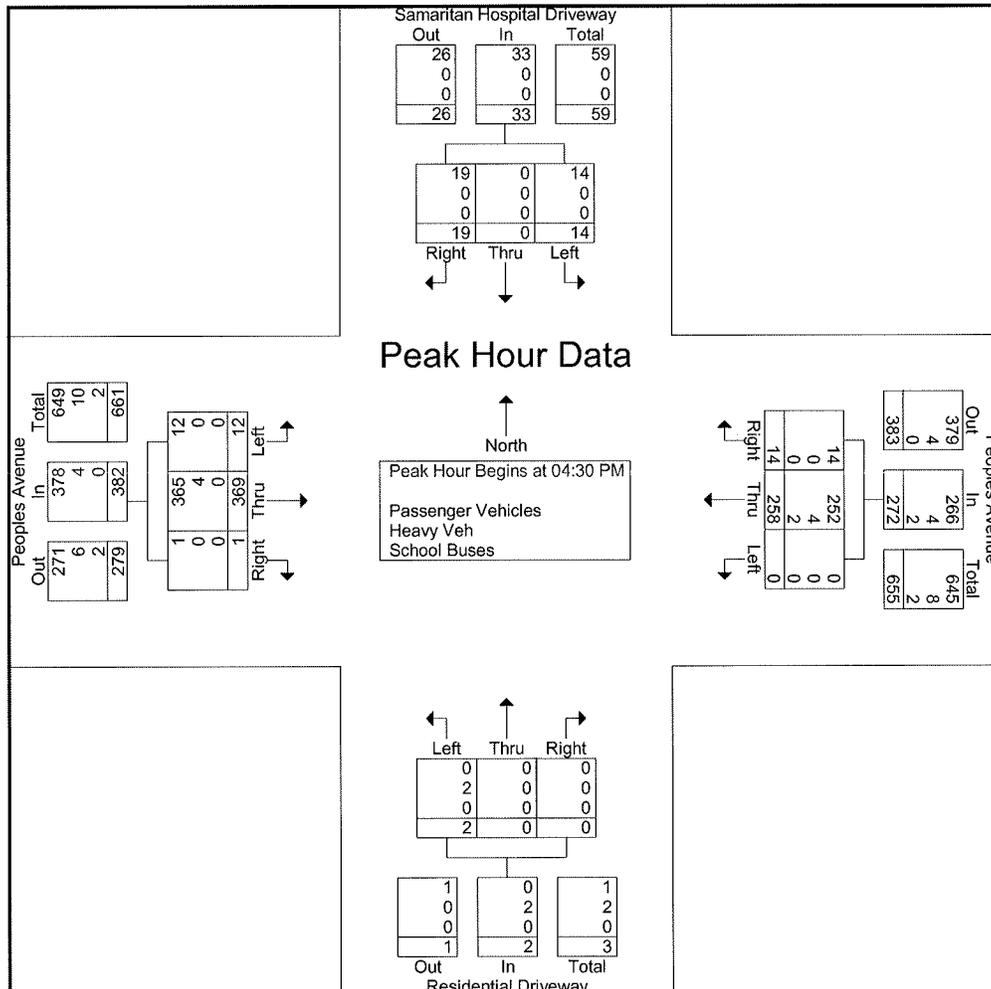




Project: 113-028
 Counted By: JJ
 Location: Troy, NY
 Other:

File Name : tm13028p3
 Site Code : 13-028-3
 Start Date : 3/5/2013
 Page No : 2

Start Time	Peoples Avenue Eastbound				Peoples Avenue Westbound				Residential Driveway Northbound				Samaritan Hospital Driveway Southbound				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 3:00:00 PM to 5:45:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 4:30:00 PM																	
4:30:00 PM	4	91	0	95	0	83	5	88	0	0	0	0	4	0	8	12	195
4:45:00 PM	1	71	0	72	0	55	4	59	1	0	0	1	5	0	4	9	141
5:00:00 PM	4	112	1	117	0	64	4	68	1	0	0	1	1	0	5	6	192
5:15:00 PM	3	95	0	98	0	56	1	57	0	0	0	0	4	0	2	6	161
Total Volume	12	369	1	382	0	258	14	272	2	0	0	2	14	0	19	33	689
% App. Total	3.1	96.6	0.3		0	94.9	5.1		100	0	0		42.4	0	57.6		
PHF	.750	.824	.250	.816	.000	.777	.700	.773	.500	.000	.000	.500	.700	.000	.594	.688	.883
Passenger Vehicles	12	365	1	378	0	252	14	266	0	0	0	0	14	0	19	33	677
% Passenger Vehicles	100	98.9	100	99.0	0	97.7	100	97.8	0	0	0	0	100	0	100	100	98.3
Heavy Veh	0	4	0	4	0	4	0	4	2	0	0	2	0	0	0	0	10
% Heavy Veh	0	1.1	0	1.0	0	1.6	0	1.5	100	0	0	100	0	0	0	0	1.5
School Buses	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
% School Buses	0	0	0	0	0	0.8	0	0.7	0	0	0	0	0	0	0	0	0.3





Project: 113-028
 Counted By: JL
 Location: Troy, NY
 Other:

File Name : tm13028a4
 Site Code : 13-028-4
 Start Date : 3/6/2013
 Page No : 1

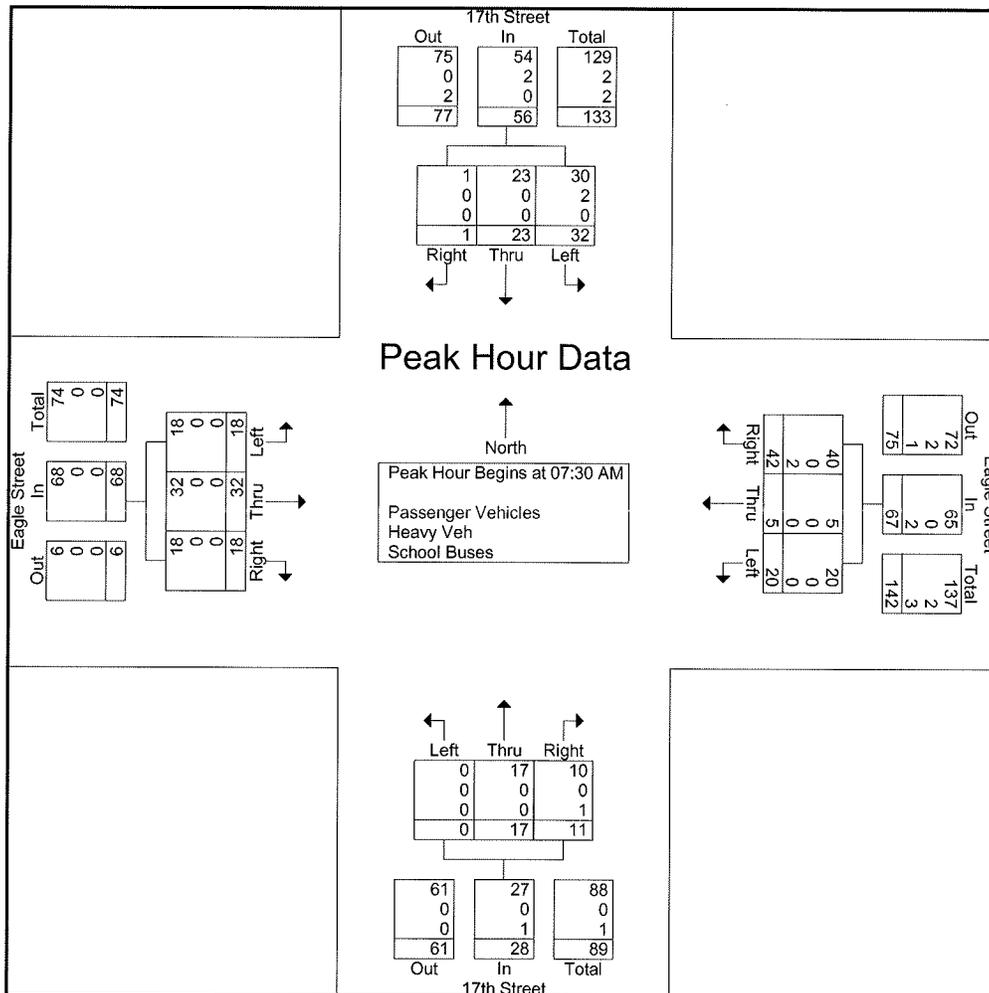
Groups Printed- Passenger Vehicles - Heavy Veh - School Buses

Start Time Factor	Eagle Street Eastbound				Eagle Street Westbound				17th Street Northbound				17th Street Southbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
06:00 AM	0	0	0	0	4	0	3	7	0	1	1	2	2	4	0	6	15
06:15 AM	0	5	6	11	3	0	0	3	0	1	0	1	1	1	0	2	17
06:30 AM	2	9	14	25	8	1	4	13	0	0	0	0	0	19	0	19	57
06:45 AM	4	11	8	23	9	1	4	14	0	2	0	2	10	19	0	29	68
Total	6	25	28	59	24	2	11	37	0	4	1	5	13	43	0	56	157
07:00 AM	3	2	5	10	2	0	7	9	0	3	0	3	5	4	0	9	31
07:15 AM	2	2	1	5	5	0	5	10	0	7	1	8	4	4	0	8	31
07:30 AM	4	6	4	14	5	1	11	17	0	5	2	7	8	6	0	14	52
07:45 AM	2	14	3	19	5	0	10	15	0	5	1	6	10	5	0	15	55
Total	11	24	13	48	17	1	33	51	0	20	4	24	27	19	0	46	169
08:00 AM	4	5	9	18	2	0	5	7	0	2	4	6	7	5	0	12	43
08:15 AM	8	7	2	17	8	4	16	28	0	5	4	9	7	7	1	15	69
08:30 AM	3	6	4	13	8	5	5	18	0	3	3	6	7	4	0	11	48
08:45 AM	2	11	2	15	9	3	5	17	1	5	7	13	1	6	0	7	52
Total	17	29	17	63	27	12	31	70	1	15	18	34	22	22	1	45	212
Grand Total	34	78	58	170	68	15	75	158	1	39	23	63	62	84	1	147	538
Apprch %	20	45.9	34.1		43	9.5	47.5		1.6	61.9	36.5		42.2	57.1	0.7		
Total %	6.3	14.5	10.8	31.6	12.6	2.8	13.9	29.4	0.2	7.2	4.3	11.7	11.5	15.6	0.2	27.3	
Passenger Vehicles	34	77	58	169	68	14	73	155	1	39	22	62	58	84	1	143	529
% Passenger Vehicles	100	98.7	100	99.4	100	93.3	97.3	98.1	100	100	95.7	98.4	93.5	100	100	97.3	98.3
Heavy Veh	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
% Heavy Veh	0	0	0	0	0	0	0	0	0	0	0	0	4.8	0	0	2	0.6
School Buses	0	1	0	1	0	1	2	3	0	0	1	1	1	0	0	1	6
% School Buses	0	1.3	0	0.6	0	6.7	2.7	1.9	0	0	4.3	1.6	1.6	0	0	0.7	1.1

Project: 113-028
 Counted By: JL
 Location: Troy, NY
 Other:

File Name : tm13028a4
 Site Code : 13-028-4
 Start Date : 3/6/2013
 Page No : 2

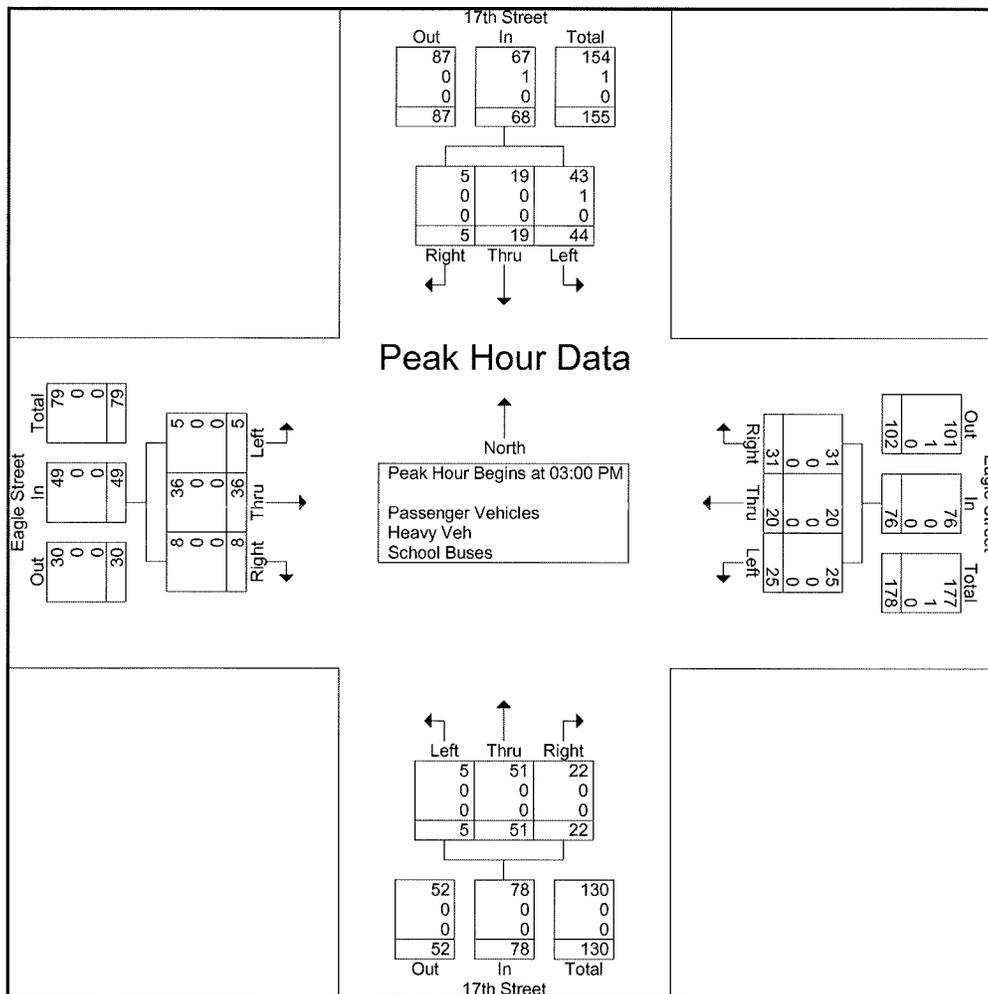
Start Time	Eagle Street Eastbound				Eagle Street Westbound				17th Street Northbound				17th Street Southbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 6:00:00 AM to 8:45:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 7:30:00 AM																	
7:30:00 AM	4	6	4	14	5	1	11	17	0	5	2	7	8	6	0	14	52
7:45:00 AM	2	14	3	19	5	0	10	15	0	5	1	6	10	5	0	15	55
8:00:00 AM	4	5	9	18	2	0	5	7	0	2	4	6	7	5	0	12	43
8:15:00 AM	8	7	2	17	8	4	16	28	0	5	4	9	7	7	1	15	69
Total Volume	18	32	18	68	20	5	42	67	0	17	11	28	32	23	1	56	219
% App. Total	26.5	47.1	26.5		29.9	7.5	62.7		0	60.7	39.3		57.1	41.1	1.8		
PHF	.563	.571	.500	.895	.625	.313	.656	.598	.000	.850	.688	.778	.800	.821	.250	.933	.793
Passenger Vehicles	18	32	18	68	20	5	40	65	0	17	10	27	30	23	1	54	214
% Passenger Vehicles	100	100	100	100	100	100	95.2	97.0	0	100	90.9	96.4	93.8	100	100	96.4	97.7
Heavy Veh	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
% Heavy Veh	0	0	0	0	0	0	0	0	0	0	0	0	6.3	0	0	3.6	0.9
School Buses	0	0	0	0	0	0	2	2	0	0	1	1	0	0	0	0	3
% School Buses	0	0	0	0	0	0	4.8	3.0	0	0	9.1	3.6	0	0	0	0	1.4



Project: 113-028
 Counted By: KWW
 Location: Troy, NY
 Other:

File Name : tm13028p4
 Site Code : 13-028-4
 Start Date : 3/6/2013
 Page No : 2

Start Time	Eagle Street Eastbound				Eagle Street Westbound				17th Street Northbound				17th Street Southbound				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 3:00:00 PM to 5:45:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 3:00:00 PM																	
3:00:00 PM	1	6	2	9	4	5	13	22	0	7	8	15	11	3	2	16	62
3:15:00 PM	2	10	2	14	9	4	7	20	1	17	4	22	6	7	2	15	71
3:30:00 PM	0	14	1	15	5	5	7	17	3	19	7	29	12	4	0	16	77
3:45:00 PM	2	6	3	11	7	6	4	17	1	8	3	12	15	5	1	21	61
Total Volume	5	36	8	49	25	20	31	76	5	51	22	78	44	19	5	68	271
% App. Total	10.2	73.5	16.3		32.9	26.3	40.8		6.4	65.4	28.2		64.7	27.9	7.4		
PHF	.625	.643	.667	.817	.694	.833	.596	.864	.417	.671	.688	.672	.733	.679	.625	.810	.880
Passenger Vehicles	5	36	8	49	25	20	31	76	5	51	22	78	43	19	5	67	270
% Passenger Vehicles	100	100	100	100	100	100	100	100	100	100	100	100	97.7	100	100	98.5	99.6
Heavy Veh	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
% Heavy Veh	0	0	0	0	0	0	0	0	0	0	0	0	2.3	0	0	1.5	0.4
School Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% School Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Appendix C

Detailed Parking & Traffic Calculations

**Parking & Traffic Study
Samaritan MFP
City of Troy, New York**

Parking 462,939 SF Samaritan Hospital (+MOB)
 Samaritan 183 Beds- Existing
 48,000 Patients per year (ER)
 132 Average ER Patient Visits Per day (assume in 12 hours)
 11 Average ER Patient Visits Per Hour
 684 Peak Parking Occupancy
 1.48 Veh/KSF Parking Generation - Existing
 3.74 Veh/Bed Parking Generation - Existing

For 3.47 ITE Parking Rate (Average Peak vs. beds, urban)
 Reference 3.70 ITE Parking Rate (Average Peak vs. KSF, urban)

ER 53,500 Projected increase in patient visits per year
 147 Average ER Patient Visits Per day (assume in 12 hours)
 12 Average ER Hour
 *** Only a Negligible increase in parking demand as a result of ER expansion based on Patients
 30 KSF - New
 12.444 KSF - Relocation of Existing
 17.556 KSF - Net Increase

OR 12 KSF - New

		Park Rate	
12 @ ITE Rate		3.70 Veh/KSF	44 Veh
12 @ Samaritan Rate		1.48 Veh/KSF	18 Veh

2nd Fl 12 Net Bed increase
 3rd Fl 26 Bed increase
 4th Fl 26 Bed increase
 5th Fl 8 Bed increase

 72 Total Bed increase

		Park Rate	
72 Bed @ ITE Rate		3.47 Veh/Bed	250 Veh
72 Bed @ Sam Rate		3.74 Veh/Bed	269 Veh

Total New Spaces	294 Veh (ITE KSF/Bed)
	287 Veh (Sam KSF/Sam Bed)

***Assume 283 Veh parking demand.

Reductions

School of Nursing
 Class moving
 Morning Class/staff

	Mon	Tues	Wed	Thur	Fri	Mon-Thur	
	70	70	86	52	38	70	Average Persons

Assume 1.2 Veh Occupancy/transit use

	AM Peak	70 Persons	1.2 Pers/Veh	Total	58 Spaces
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Samaritan Trip and Parking Generation Changes
Oncology

2/9/2014

12-15 Staff move, 7-8 patients per round, 2-3 rounds per day.
Say 14 Staff, 8 Patients, AM/PM
Assume 1.2 Veh Occupancy/transit use

AM Peak 22 Persons 1.2 Pers/Veh 18 Spaces

Laundry See Eleanor Ollier 3/13/13 email
Assume 6 day people remain to handle laundry deliveries
Assume Veh Occupancy/transit use based on email.

Early AM	4 Persons	1 Pers/Veh	Total 4 Spaces	Total Peak
Day	16 Persons	2 Pers/Veh	8 Spaces	12 Veh
Evening	14 Persons	1.75 Pers/Veh	8 Spaces	

22 people less 6 = 16

		Total	
Trip Reductions	AM	76 Veh	
Laundry Stays			
		Total	
Trip Reductions	AM	88 Veh	
Laundry Removed			

		Total	
Net Addition	AM	218 Veh	
Laundry Stays			
		Total	
Net Addition	AM	206 Veh	
Laundry Removed			

USE-->

New Trips

Samaritan	183 Beds- Existing				
ER	30 KSF - New				
	12.444 KSF - Relocation of Existing				
	17.556 KSF - Net Increase				
	*** Increase in ER patient volume is negligible, therefore no increase in trip gen.				
OR	12 KSF - New				
	12 KSF Net increase				
		Trip Rate		In	out
	12 @ St Marys Rate	1.44 T/KSF	17 Trips AM	12	5
	12 @ St Marys Rate	1.32 T/KSF	16 Trips PM	5	11
2nd Fl	12 Net Bed increase				
3rd Fl	26 Bed increase				
4th Fl	26 Bed increase				
5th Fl	8 Bed increase				
	<u>72</u> Total Bed increase	1.32 T/Bed	95 Trips AM	68	27
	72 Total Bed increase	1.42 T/Bed	102 Trips PM	34	68

		In	Out	Total
Trip Additions	AM	80	32	112
	PM	39	79	118

Reductions

School of Nursing

Class moving	Mon	Tues	Wed	Thur	Fri	Mon-Thur	
Morning Class/staff		70	70	86	52	38	70 Average Persons
Afternoon Class/staff		74	10	58	40	8	46 Average Persons

Assume	1.2 Veh Occupancy/transit use				
			Total	In*	Out*
AM	70 Persons	1.2 Veh/Occ.	58 Trips	45	13
PM	46 Persons	1.2 Veh/Occ.	38 Trips	12	26

* Based on University/College split for Students.

Oncology

12-15 Staff move, 7-8 patients per round, 2-3 rounds per day.

Say 14 Staff, 8 Patients, AM/PM

Assume	1.2 Veh Occupancy/transit use				
				In*	Out*
AM	22 Persons	1.2 Veh/Occ.	18 Trips	14	4
PM	22 Persons	1.2 Veh/Occ.	18 Trips	6	12

* Based on Medical-Dental Office split for Employees

Laundry See Eleanor Ollier 3/13/13 email
 Assume 6 day people remain to handle laundry deliveries
 Assume 1.8 Veh Occupancy/transit use (based on veh occupancy from email)

			Total	In*	Out*
AM	16	Persons	1.8 Veh/Occ.	9 Trips	9
PM	30	Persons	1.8 Veh/Occ.	17 Trips	7

* Based on shift schedules

22 people less 6 = 16
36 people less 6 = 30

		In	Out	Total
Trip Reductions	AM	59	17	76
Laundry Stays	PM	18	38	56
		In	Out	Total
Trip Reductions	AM	68	17	85
Laundry Removed	PM	25	48	73

		In	Out	Total
Net Addition	AM	21	15	36
Laundry Stays	PM	21	41	62
		In	Out	Total
Net Addition	AM	12	15	27
Laundry Removed	PM	14	31	45

USE-->