APPENDIX C

Additional Traffic Data

ATTACHMENT
Response 3.8-4

Traffic Count

WEEKEND PEAK 15 MINUTE COUNTS

PROJECT	Raleigh and Heiden Properties
LOCATION	CR 161, and CR 109
DATE	Friday August 26, 2011
TIME	1:00 PM to 6:00 PM

15 Minute Traffic

		CR 161 SB				CR 109 EB				CR 161 NB								
START TIME	END TIME	left	thru 1	right 2	Total	left 3	thru	right 4	Total	left 5	thru 6	right	Total	left	thru	right	Total	GRAND TOTAL
01:00 PM	01:15 PM		34	3	37	3		17	20	13	50		63					**120**
01:15 PM	01:30 PM		34	2	36	6		16	22	7	56		63					**121**
01:30 PM	01:45 PM		46	8	54	8		12	20	14	73		87					**161**
01:45 PM	02:00 PM		50	2	52	4		11	15	15	72		87					**154**
02:00 PM	02:15 PM		41	2	43	5		18	23	15	68		83					**149**
02:15 PM	02:30 PM		28	2	30	4		13	17	11	65		76					**123**
02:30 PM	02:45 PM		49	5	54	7		6	13	15	68		83					**150**
02:45 PM	03:00 PM		36	5	41	3		19	22	18	67		85					**148**
03:00 PM	03:15 PM		42	4	46	6		14	20	14	71		85					**151**
03:15 PM	**03:30 PM**		**41**	**2**	**43**	**3**		**13**	**16**	**19**	**70**		**89**					**148**
03:30 PM	**03:45 PM**		**48**	**9**	**57**	**8**		**17**	**25**	**18**	**97**		**115**					**197**
03:45 PM	**04:00 PM**		**48**	**4**	**52**	**7**		**20**	**27**	**17**	**83**		**100**					**179**
04:00 PM	**04:15 PM**		**48**	**3**	**51**	**5**		**22**	**27**	**14**	**102**		**116**					**194**
04:15 PM	04:30 PM		41	4	45	7		13	20	18	69		87					**152**
04:30 PM	04:45 PM		47	5	52	1		17	18	20	75		95					**165**
04:45 PM	05:00 PM		38	8	46	5		20	25	20	74		94					**165**
05:00 PM	05:15 PM		45	1	46	3		16	19	17	77		94					**159**
05:15 PM	05:30 PM		44	2	46	3		13	16	18	73		91					**153**
05:30 PM	05:45 PM		36	6	42	2		16	18	11	54		65					**125**
05:45 PM	06:00 PM		49	4	53	1		12	13	14	74		88					**154**
TOTAL			845	81	926	91		305	396	308	1438		1746					3068

WEEKEND PEAK HOURLY APPROACH VOLUMES

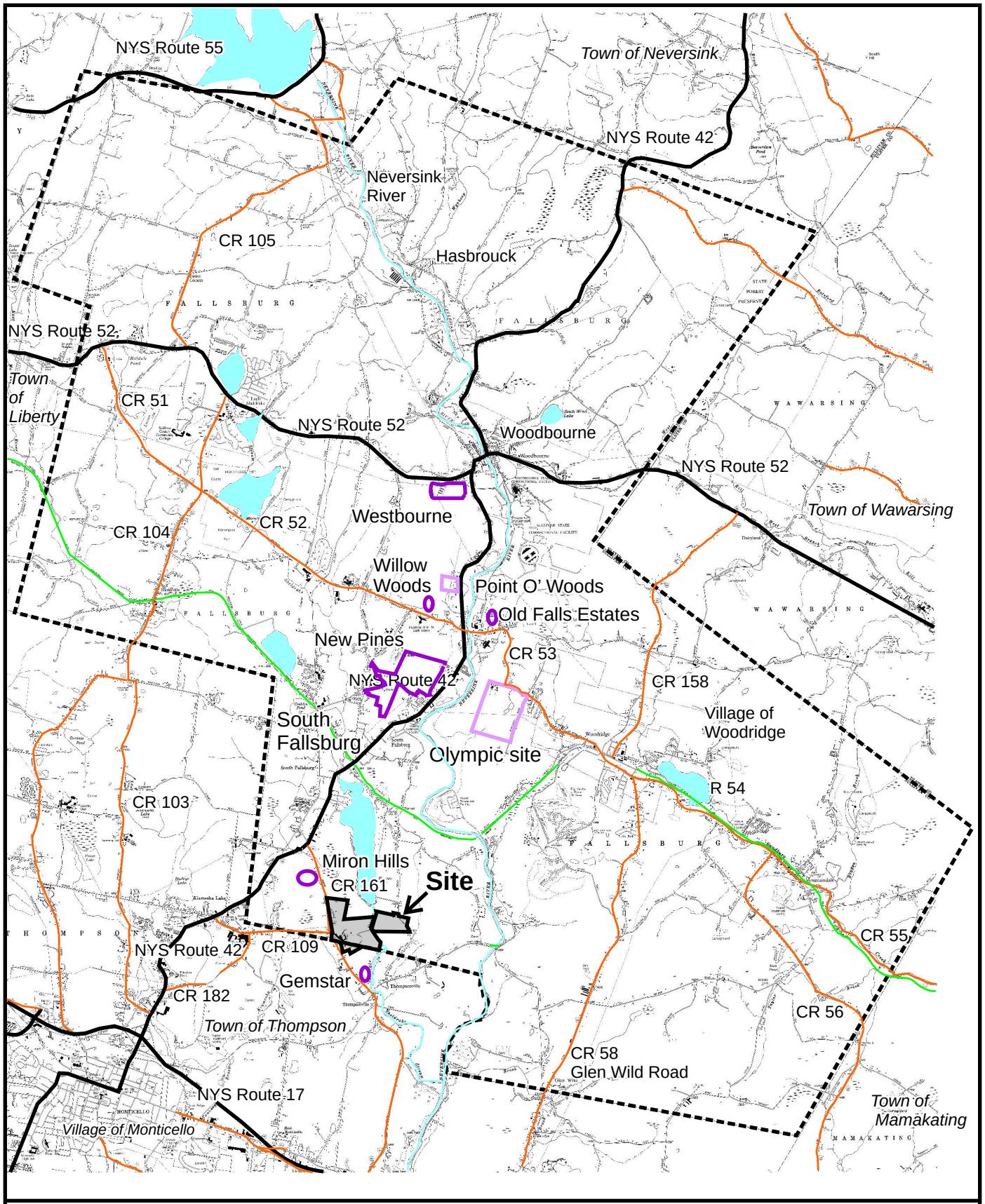
PROJECT	Raleigh and Heiden Properties	TIM MILLER ASSOCIATES, INC.
LOCATION	CR 161, and CR 109	
DATE	Friday August 26, 2011	
TIME	1:00 PM to 6:00 PM	

HOURLY SUMMARY

		CR 161 SB				CR 109 EB				CR 161 NB								
START TIME	END TIME	left	thru 1	right 2	Total	left 3	thru	right 4	Total	left 5	thru 6	right	Total	left	thru	right	Total	GRAND TOTAL
01:00 PM	02:00 PM		164	15	179	21		56	77	49	251		300					**556**
01:15 PM	02:15 PM		171	14	185	23		57	80	51	269		320					**585**
01:30 PM	02:30 PM		165	14	179	21		54	75	55	278		333					**587**
01:45 PM	02:45 PM		168	11	179	20		48	68	56	273		329					**576**
02:00 PM	03:00 PM		154	14	168	19		56	75	59	268		327					**570**
02:15 PM	03:15 PM		155	16	171	20		52	72	58	271		329					**572**
02:30 PM	03:30 PM		168	16	184	19		52	71	66	276		342					**597**
02:45 PM	03:45 PM		167	20	187	20		63	83	69	305		374					**644**
03:00 PM	04:00 PM		179	19	198	24		64	88	68	321		389					**675**
03:15 PM	04:15 PM		185	18	203	23		72	95	68	352		420					**718**
03:30 PM	**04:30 PM**		**185**	**20**	**205**	**27**		**72**	**99**	**67**	**351**		**418**					**722**
03:45 PM	04:45 PM		184	16	200	20		72	92	69	329		398					**690**
04:00 PM	05:00 PM		174	20	194	18		72	90	72	320		392					**676**
04:15 PM	05:15 PM		171	18	189	16		66	82	75	295		370					**641**
04:30 PM	05:30 PM		174	16	190	12		66	78	75	299		374					**642**
04:45 PM	05:45 PM		163	17	180	13		65	78	66	278		344					**602**
05:00 PM	06:00 PM		174	13	187	9		57	66	60	278		338					**591**
03:30 PM	**04:30 PM**		**185**	**20**	**205**	**27**		**72**	**99**	**67**	**351**		**418**					**722**
Peak 15 Minutes																		**197**
Peak Hour Factor																		**0.92**

ATTACHMENT
Response 3.8-6

Figure 3.8-1



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SCALE IN MILES

KEY
Lake or Reservoir
State Routes
County Roads
Old Rail or Road Grade

Figure 3.8-1: Regional Context
Raleigh and Heiden Properties
Town of Fallsburg
Sullivan County, New York
Base Map: NYS DOT Planimetric Map
Scale: As shown

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Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

ATTACHMENT
Response 3.8-7

Figures 3.8-7a and 3.8-7b

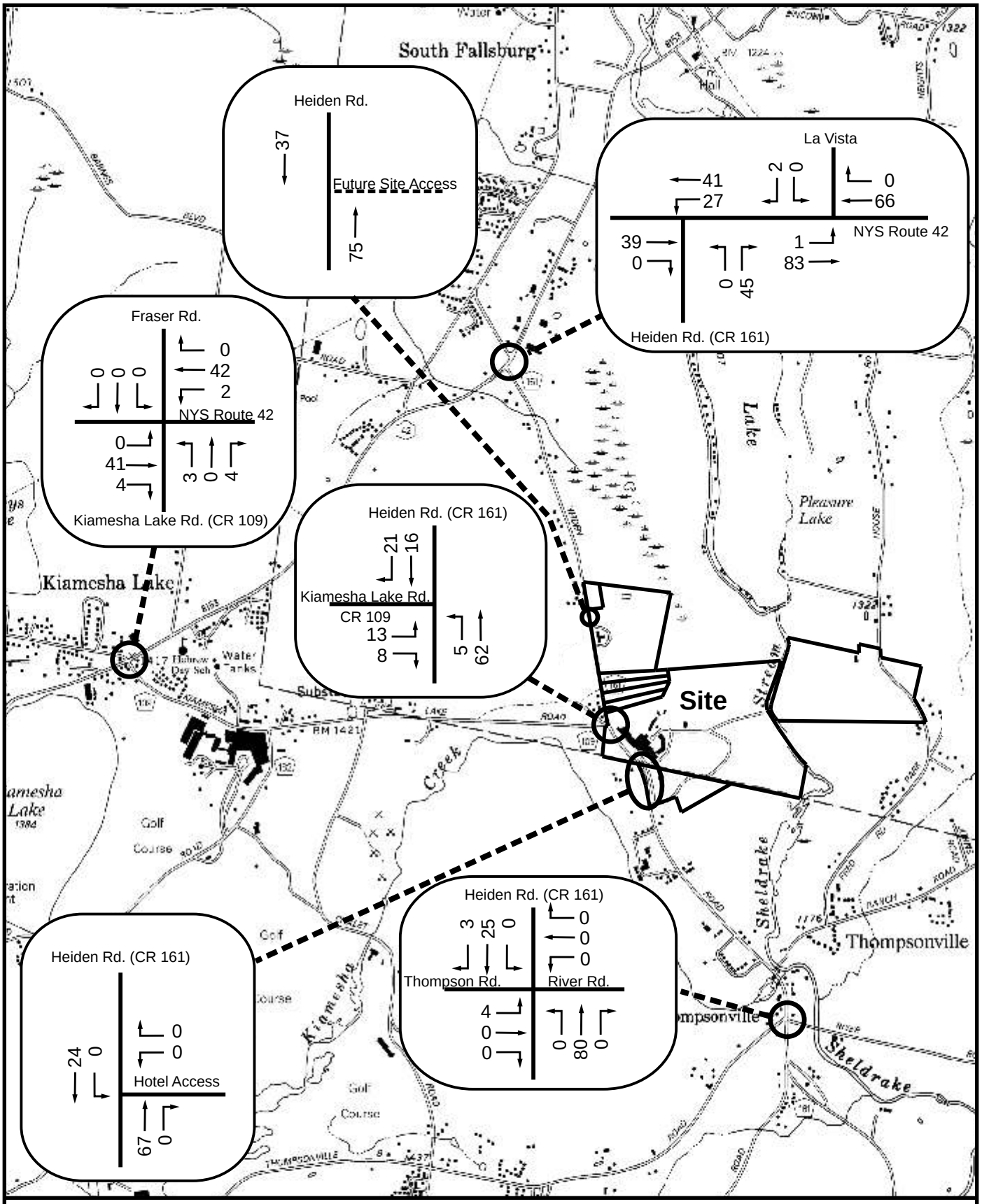

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Figure: 3.8-7a: No Build Projects Generated Friday Peak Hour Traffic
Raleigh and Heiden Properties
Town of Fallsburg, Sulivan County, New York
Base Map: US DOT 7.5-minute Planimetric Map, Monticello Quad
Scale: 1" = 2,000'

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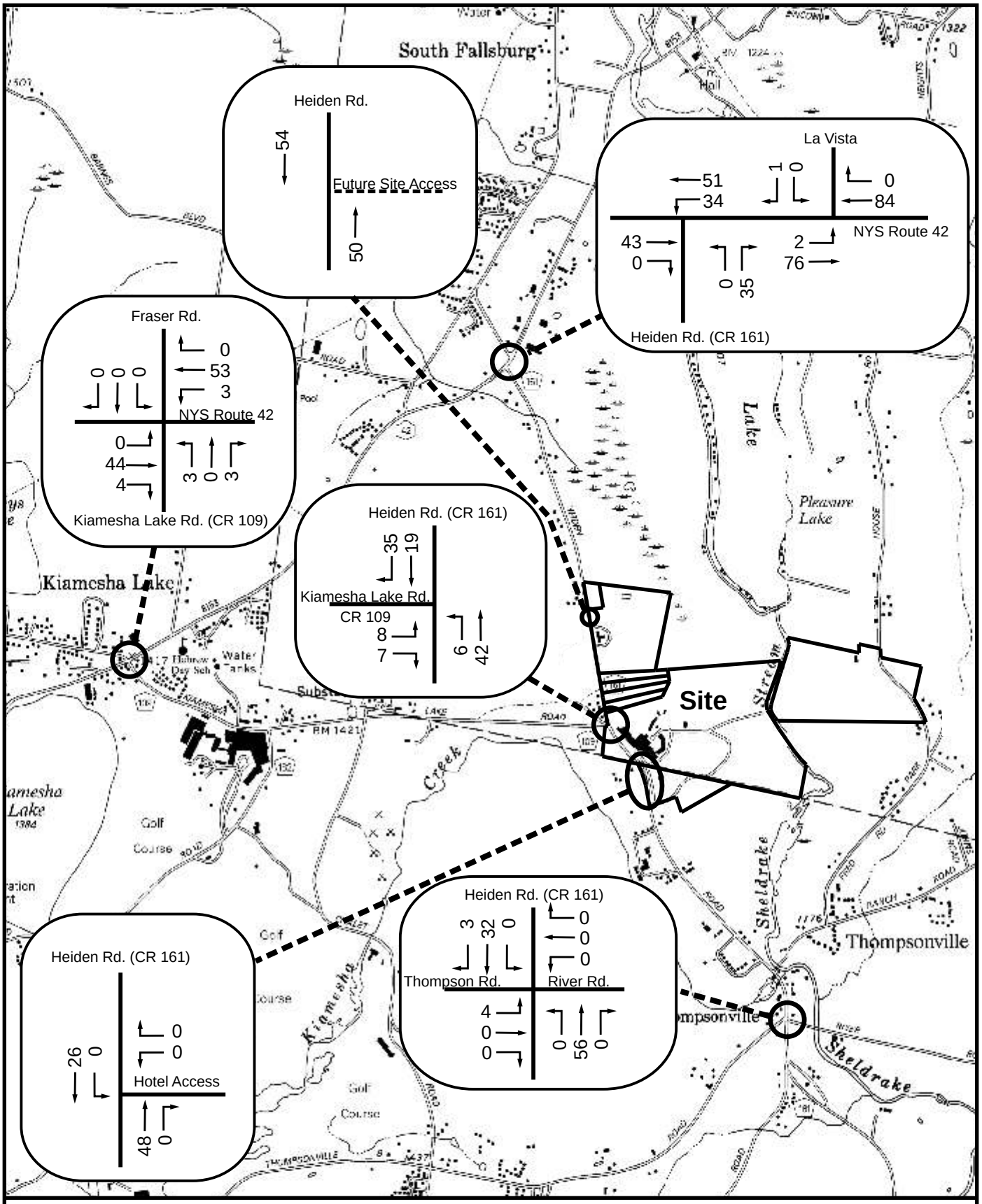

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Figure: 3.8-7b: No Build Projects Generated Sunday Peak Hour Traffic
Raleigh and Heiden Properties
Town of Fallsburg, Sulivan County, New York
Base Map: US DOT 7.5-minute Planimetric Map, Monticello Quad
Scale: 1" = 2,000'

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ATTACHMENT
Response 3.8-9

Distribution Sensitivity

Table 3.8-9 shows the relative volume changes indicated by "#" based on the Friday site traffic departure pattern shifting from 31 percent to 21 percent for southbound Heiden Road (CR 161) at Thompson Road and Sunday site traffic arrival pattern shifting from 30 percent to 20 percent for northbound Heiden Road (CR 161) at Thompson Road. These delays can be compared to delay increases for volume increases in the No Build and Build Conditions at the same intersections. Approaches impacted have existing levels of service A or B. The relative volume changes are small compared to volume changes anticipated on these approaches. See also Response 3.8-11 and 3.8-13.

FEIS Comment Table 3.8-9
Relative Sensitivity of 10 Percent Volume Shifts in Off-peak Direction of Site Traffic on Heiden Road

Intersection Road	Lane Group Approach Direction - Movement	Summer Friday P.M. Peak Hour			Summer Sunday PM Peak Hour		
		Existing Level of Service, (Delay), and Volume	No Build Volume and [Delay] Changes from Existing	Build Volume and [Delay] Changes from No Build	Existing Level of Service, (Delay), and Volume	No Build Volume and [Delay] Changes from Existing	Build Volume and [Delay] Changes from No Build
Heiden Road (CR 161), River Road, and Thompsonville Road (unsignalized)							
Heiden Rd. CR 161	NB - L, T, R	A (7.6) 405	113 (0.2)	44 (0.0)	A (7.9) 158	69 (0.3)	35 (0.1)
	SB - L, T, R	A (8.2) 184	43 (0.3)	29 (0.2) **-9#**	A (7.6) 294	59 (0.3)	36 (0.1) **-12#**
River Road	WB - L, T, R	B (14.5) 1	0 (3.2)	0 (1.7)	A (9.4) 2	0 (0.5)	0 (0.4)
Thompsonville Rd	EB - L, T, R	C (15.2) 32	6 (4.8)	4 (3.4)	B (13.7) 27	5 (3.5)	3 (2.5)
Heiden Road (CR 161) and Kiamesha Lake Road (CR 109) (unsignalized)							
Heiden Rd. CR 161	NB - L, T	A (7.7) 409	91 (0.2)	50 (0.1) **+4#**	A (8.1) 302	73 (0.3)	56 (0.3)
Kiamesha Lake Rd	EB - L, R	B (11.5) 67	27 (2.7)	72 (7.6)	B (12.4) 85	22 (2.8)	60 (9.3) **+8#**
Heiden Rd. CR 161	SB – T, R	193 **	53 **	22 ** **+0#*** **	243 **	74 **	27 **
NYS Route 42, Fraser Road and Kiamesha Lake Road (CR 109) (signalized)							
NYS Route 42	EB - L, T, R	A (7.9) 510	87 (1.6)	35 (0.9)	B (11.9) 688	104 (6.1)	28 (3.5) **+4#**
	WB - L, T, R	A (8.0) 524	87(1.5)	0 (0.0)	A (9.3) 623	107 (2.9)	0 (0.1)
Kiamesha Lake Rd	NB - L, T, R	B (19.8) 71	11 (0.6)	21 (2.2) **+4#**	B (18.7) 46	10 (0.3)	27 (1.4)
Fraser Road	SB - L, T, R	C (20.5) 127	11 (0.4)	0 (0.3)	C (24.2) 151	12 (2.4)	0 (-0.2)

NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound.
L = left, R= right, T = through, (e.g. WB-L = Westbound left).
* Where theoretical delays exceed 120 seconds per vehicles delays are not anticipated as shown rather other compensating changes would be expected from drivers to reduce delays. The theoretical delays would therefore not likely occur but would manifest in other mostly negative operational changes.
** Priority movements no delay and level of service A.
*** Traffic shifts from through to right turns on this approach which would reduce delays on other approaches.
# Volume changes based from the Build Condition based on shifting ten percent of the departing Friday site traffic away from southbound Heiden Road (CR 161) toward the Thompson Road intersection and ten percent of the arriving Sunday traffic away from northbound Heiden Road at the Thompson Road intersection.

ATTACHMENT
Response 3.8-11

Table 3.8-6
Computation Sheets 2 and 25

The computation sheet for the Existing Condition of the intersection of Heiden Road (CR 161) and Kiamesha Lake Road (CR 109) for the Friday peak hour (DEIS Appendix F Attachment 4 Page 2) has been corrected. Levels of service and volume to capacity ratios have remained unchanged. The eastbound approach (Kiamesha Lake Road) delay changes to 11.5 seconds, still a level of service B. The change in delay does not alter the acceptable results.

The computation sheet for the intersection of NYS Route 42 and La Vista Drive, Build Condition, Friday peak hour (DEIS Appendix F Attachment 4 page 25), has been corrected and added to this FEIS Appendix C attachment.

DEIS Table 3.8-6 has been revised below as FEIS Table 3.8-6.

FEIS Table 3.8-6
Level of Service Summary All Conditions

Intersection Road	Lane Group Approach Direction - Movement	Levels of Service, (Delay in seconds per vehicle), and Volume to Capacity Ratio					
		Summer Friday P.M. Peak Hour			Summer Sunday PM Peak Hour		
		Existing	No Build	Build	Existing	No Build	Build
Heiden Road (CR 161), River Road, and Thompsonville Road (unsignalized)							
Heiden Rd. CR 161	NB - L, T, R	A (7.6) 0.01	A (7.8) 0.01	A (7.8) 0.01	A (7.9) 0.00	A (8.2) 0.00	A (8.3) 0.00
	SB - L, T, R	A (8.2) 0.00	A (8.5) 0.00	A (8.7) 0.00	A (7.6) 0.00	A (7.9) 0.00	A (8.0) 0.00
River Road	WB - L, T, R	B (14.5) 0.01	C (17.7) 0.01	C (19.4) 0.02	A (9.4) 0.00	A (9.9) 0.01	B (10.3) 0.01
Thompsonville Rd	EB - L, T, R	C (15.2) 0.14	C (20.0) 0.22	C (23.4) 0.27	B (13.7) 0.08	C (17.2) 0.13	C (19.7) 0.17
Heiden Road (CR 161) and Kiamesha Lake Road (CR 109) (unsignalized)							
Heiden Rd. CR 161	NB - L, T	A (7.7) 0.03	A (7.9) 0.04	A (8.0) 0.07	A (8.1) 0.07	A (8.4) 0.09	A (8.7) 0.09
Kiamesha Lake Rd	EB - L, R	B **(11.5)** 0.12	B (14.2) 0.22	C (21.8) 0.49	B (12.4) 0.16	C (15.2) 0.25	C (24.5) 0.51
NYS Route 42, Fraser Road, and Kiamesha Lake Road (CR 109) (signalized)							
NYS Route 42	EB - L, T, R	A (7.9) 0.56	A (9.5) 0.66	B (10.4) 0.70	B (11.9) 0.76	B (18.0) 0.87	C (21.5) 0.91
	WB - L, T, R	A (8.0) 0.56	A (9.5) 0.66	A (9.5) 0.66	A (9.3) 0.65	B (12.2) 0.77	B (12.3) 0.77
Kiamesha Lake Rd	NB - L, T, R	B (19.8) 0.35	C (20.4) 0.42	C (22.6) 0.57	B (18.7) 0.19	B (19.0) 0.24	C (20.4) 0.41
Fraser Road	SB - L, T, R	C (20.5) 0.43	C (20.9) 0.48	C (21.2) 0.50	C (24.2) 0.62	C (26.6) 0.68	C (26.4) 0.68
	Overall	B (10.2) 0.53	B (11.5) 0.61	B (12.3) 0.67	B (12.6) 0.72	B (16.7) 0.82	B (18.4) 0.84
Heiden Road (CR 161) and NYS Route 42 (unsignalized)							
NYS Route 42	WB - L	A (9.6) 0.22	B (10.4) 0.29	B (10.5) 0.31	A (9.5) 0.26	B (10.4) 0.34	B (10.5) 0.35
Heiden Rd. CR 161	NB - L, R	F (360.8*) 1.70*	F (814.4*) 2.71*	F (879.7*) 2.85*	F (54.3) 0.85	F (257.8*) 1.44*	F (275.5*) 1.48*
NYS Route 42 and La Vista Drive (unsignalized)							
NYS Route 42	EB - L, T	B (10.2) 0.17	B (11.1) 0.20	B (11.2) 0.21	A (9.4) 0.12	B (10.2) 0.15	B (10.3) 0.15
La Vista Drive	SB - L, R	C (24.4) 0.42	E (39.3) 0.59	E (40.5) 0.60	C (17.5) 0.31	C (23.9) 0.42	C (24.4) 0.43

NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound.
L = left, R= right, T = through, (e.g. WB-L = Westbound left).
See Appendix F for level of service calculations.
* Where theoretical delays exceed 120 seconds per vehicles, or volume to capacity ratios exceed 1.2 , delays are not anticipated as shown rather other compensating changes would be expected from drivers to reduce delays. The theoretical delays would therefore not likely occur but would manifest in other mostly negative operational changes.

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*JAG*	Intersection	*CR 109 and CR 161*
Agency/Co.	*TMA*	Jurisdiction	*Town of Fallsburg*
Date Performed	*12/12/2011*	Analysis Year	*Existing Condition*
Analysis Time Period	*Friday Peak Hour*		

Project Description	
East/West Street: *CR 109 Kiamesha Lake Road*	North/South Street: *Heiden Road CR 161*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*33*	*376*			*177*	*16*
Peak-Hour Factor, PHF	*0.87*	*0.87*	*1.00*	*1.00*	*0.89*	*0.89*
Hourly Flow Rate, HFR (veh/h)	*37*	*432*	*0*	*0*	*198*	*17*
Percent Heavy Vehicles	*1*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*19*		*48*			
Peak-Hour Factor, PHF	*0.84*	*1.00*	*0.84*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*22*	*0*	*57*	*0*	*0*	*0*
Percent Heavy Vehicles	*1*	*0*	*1*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LR*	
v (veh/h)	*37*						*79*	
C (m) (veh/h)	*1361*						*634*	
v/c	*0.03*						*0.12*	
95% queue length	*0.08*						*0.42*	
Control Delay (s/veh)	*7.7*						*11.5*	
LOS	*A*						*B*	
Approach Delay (s/veh)	--	--				*11.5*		
Approach LOS	--	--				*B*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*JAG*	Intersection	*Route 42 and La Vista*
Agency/Co.	*TMA*	Jurisdiction	*Town of Fallsburg*
Date Performed	*12/12/2011*	Analysis Year	*Build Condition*
Analysis Time Period	*Friday Peak Hour*		

Project Description

East/West Street: *NYS Route 42* | North/South Street: *La Vista Drive*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*135*	*921*			*729*	*155*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*1.00*	*1.00*	*0.93*	*0.93*
Hourly Flow Rate, HFR (veh/h)	*150*	*1023*	*0*	*0*	*783*	*166*
Percent Heavy Vehicles	*1*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*18*		*80*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.67*	*1.00*	*0.67*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*26*	*0*	*119*
Percent Heavy Vehicles	*0*	*0*	*0*	*1*	*0*	*1*
Percent Grade (%)		*0*			*-6*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LR*	
v (veh/h)	*150*						*145*	
C (m) (veh/h)	*728*						*240*	
v/c	*0.21*						*0.60*	
95% queue length	*0.77*						*3.53*	
Control Delay (s/veh)	*11.2*						*40.5*	
LOS	*B*						*E*	
Approach Delay (s/veh)	--	--				*40.5*		
Approach LOS	--	--				*E*		

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ATTACHMENT
Response 3.8-12

Figures 3.8-11 and 3.8-12 revised
Tables 3.8-12a and 3.8-12b
Computation Sheets 1 to 6

Table 3.8-12a Raleigh Hotel Trip Rate Summary				
	Peak Hour Trip Rates			
	Weekday P.M.		Saturday	
Land Uses {ITE Code}	IN (Trips/ Room)	OUT (Trips/ Room)	IN (Trips/ Room)	OUT (Trips/ Room)
Hotel 320 rooms {310}	0.354	0.256	0.390	0.394
Trip Generation, Institute of Transportation Engineers, 8th edition, Washington, DC, 2008.				

Table 3.8-12b Raleigh Hotel Trip Generation				
	Peak Hour Trip			
	Weekday P.M.		Saturday	
Land Uses	IN (Trips)	OUT (Trips)	IN (Trips)	OUT (Trips)
Hotel 320 rooms {310}	113	82	99	126
Trip Generation, Institute of Transportation Engineers, 8th edition, Washington, DC, 2008.				

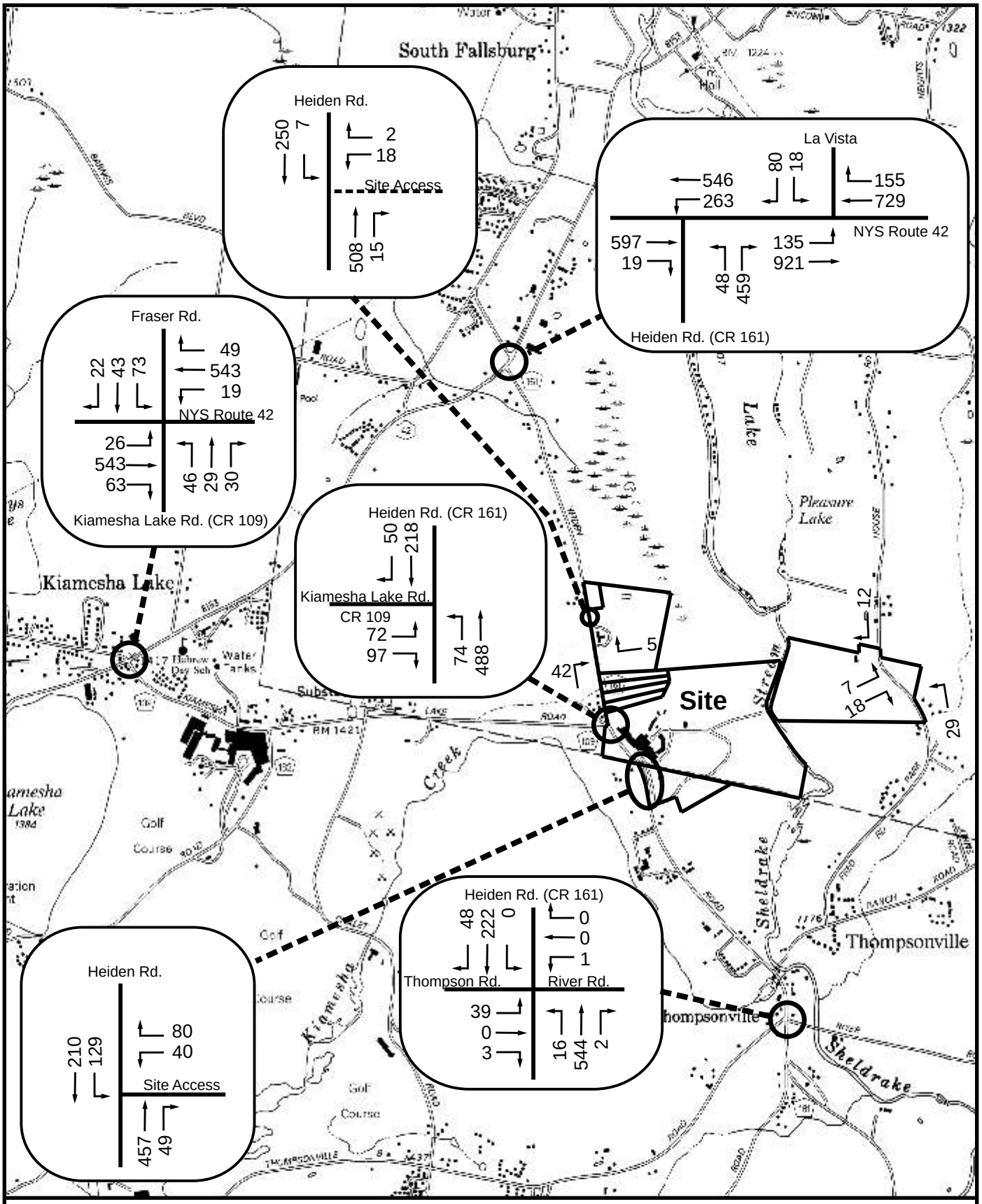

Figure 3.8-11 Revised: Build Summer Friday Peak Hour Traffic
Raleigh and Heiden Properties
Town of Fallsburg, Sulivan County, New York
Base Map: US DOT 7.5-minute Planimetric Map, Monticello Quad
Scale: 1" = 2,000'

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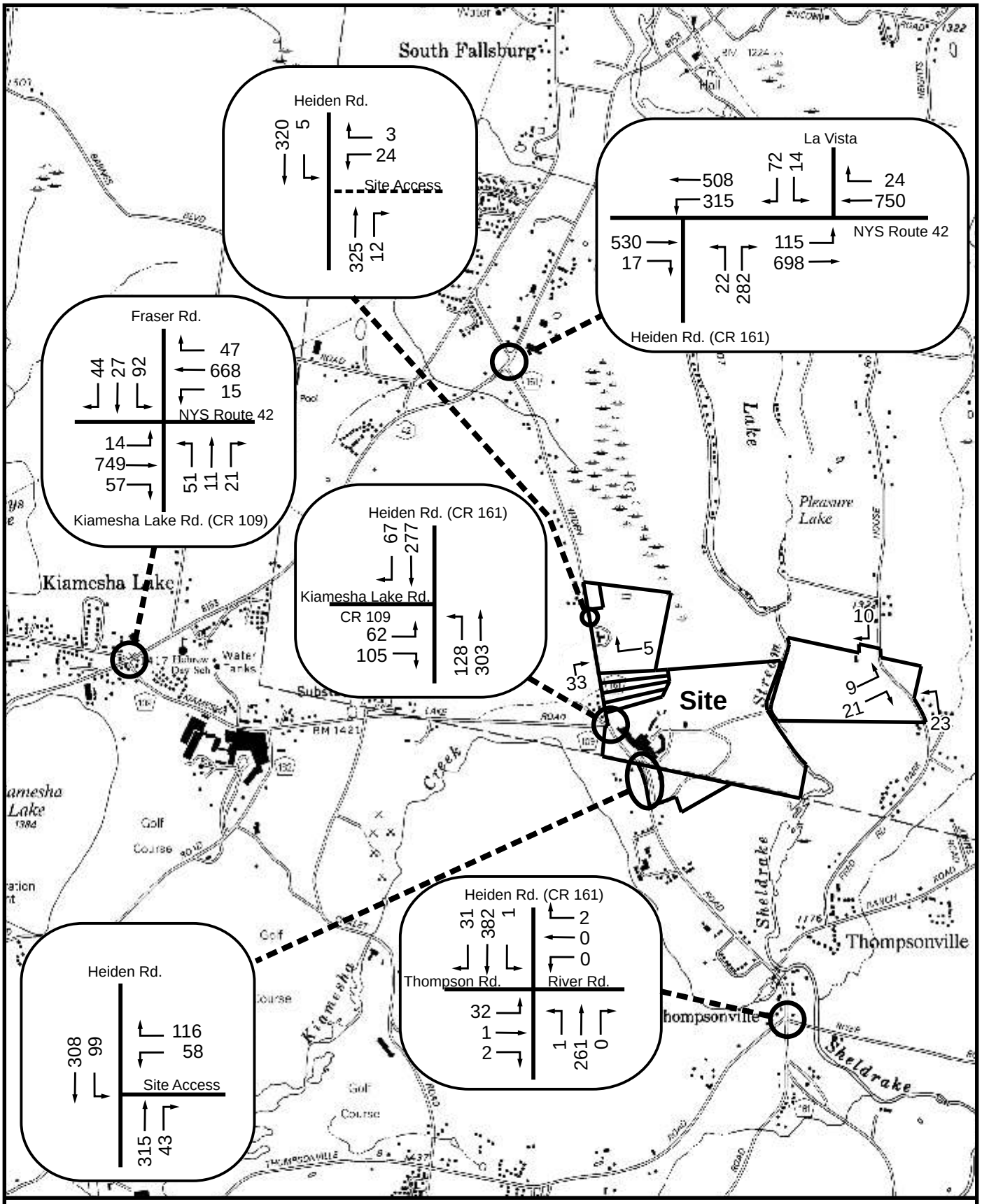

Figure 3.8-12 revised: Build Summer Sunday Peak Hour Traffic
Raleigh and Heiden Properties
Town of Fallsburg, Sulivan County, New York
Base Map: US DOT 7.5-minute Planimetric Map, Monticello Quad
Scale: 1" = 2,000'

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File 09038 01/02/2012
WP:\09038

Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

Table 3.8-12c Accesses to Heiden Road Level of Service Summary Build Condition			
Intersection Road	Lane Group Approach Direction - Movement	Levels of Service, (Delay in seconds per vehicle), and Volume to Capacity Ratio Build Condition Summer Friday P.M. Peak Hour	Summer Sunday PM Peak Hour
Heiden Road (CR 161) and South Access (unsignalized)			
Heiden Rd. CR 161	SB - L, T	A (9.2) 0.15	A (8.6) 0.11
South access*	WB - L, R	C (21.5) 0.38	C (22.0) 0.48
Heiden Road (CR 161) and Center Access (unsignalized)			
Heiden Rd. CR 161	SB - L, T	---	---
Center access	WB - L, R	B (12.4) 0.01	B (10.8) 0.01
Heiden Road (CR 161) and North Access (unsignalized)			
Heiden Rd. CR 161	SB - L, T	A (8.7) 0.01	A (8.1) 0.01
North access	WB - L, R	C (17.0) 0.07	C (15.7) 0.08

NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound.

L = left, R= right, T = through, (e.g. WB-L = Westbound left).

See following pages for level of service calculations.

*Includes hotel traffic.

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*JAG*	Intersection	*South access and CR 161*
Agency/Co.	*TMA*	Jurisdiction	*Town of Thompson*
Date Performed	*12/19/2011*	Analysis Year	*Build Codition*
Analysis Time Period	*Friday Peak Hour*		

Project Description

East/West Street: *south site access* | North/South Street: *Heiden Road CR 161*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*457*	*49*	*129*	*210*	
Peak-Hour Factor, PHF	*1.00*	*0.87*	*0.87*	*0.87*	*0.87*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*525*	*56*	*148*	*241*	*0*
Percent Heavy Vehicles	*0*	--	--	*1*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*40*		*80*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.90*	*1.00*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*44*	*0*	*88*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (veh/h)		*148*		*132*				
C (m) (veh/h)		*998*		*348*				
v/c		*0.15*		*0.38*				
95% queue length		*0.52*		*1.72*				
Control Delay (s/veh)		*9.2*		*21.5*				
LOS		*A*		*C*				
Approach Delay (s/veh)	--	--	*21.5*					
Approach LOS	--	--	*C*					

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*JAG*	Intersection	*Center access and CR 161*
Agency/Co.	*TMA*	Jurisdiction	*Town of Fallsburg*
Date Performed	*12/19/2011*	Analysis Year	*Build Codition*
Analysis Time Period	*Friday Peak Hour*		

Project Description

East/West Street: *Center site access*	North/South Street: *Heiden Road CR 161*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*518*	*42*		*268*	
Peak-Hour Factor, PHF	*1.00*	*0.87*	*0.87*	*1.00*	*0.87*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*595*	*48*	*0*	*308*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*		*T*	
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)						*5*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*0*	*0*	*5*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)	*0*			*0*		
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*1*
Configuration						*R*

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration					*R*			
v (veh/h)					*5*			
C (m) (veh/h)					*492*			
v/c					*0.01*			
95% queue length					*0.03*			
Control Delay (s/veh)					*12.4*			
LOS					*B*			
Approach Delay (s/veh)	--	--	*12.4*					
Approach LOS	--	--	*B*					

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*JAG*	Intersection	*North access and CR 161*
Agency/Co.	*TMA*	Jurisdiction	*Town of Fallsburg*
Date Performed	*12/19/2011*	Analysis Year	*Build Codition*
Analysis Time Period	*Friday Peak Hour*		

Project Description

East/West Street: *North site access*	North/South Street: *Heiden Road CR 161*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*508*	*15*	*7*	*250*	
Peak-Hour Factor, PHF	*1.00*	*0.87*	*0.87*	*0.87*	*0.87*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*583*	*17*	*8*	*287*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*18*		*2*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.90*	*1.00*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*20*	*0*	*2*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)	*0*			*0*		
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (veh/h)		*8*		*22*				
C (m) (veh/h)		*987*		*322*				
v/c		*0.01*		*0.07*				
95% queue length		*0.02*		*0.22*				
Control Delay (s/veh)		*8.7*		*17.0*				
LOS		*A*		*C*				
Approach Delay (s/veh)	--	--	*17.0*					
Approach LOS	--	--	*C*					

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*JAG*	Intersection	*South access and CR 161*
Agency/Co.	*TMA*	Jurisdiction	*Town of Thompson*
Date Performed	*12/19/2011*	Analysis Year	*Build Codition*
Analysis Time Period	*Sunday Peak Hour*		

Project Description

East/West Street: *south site access* | North/South Street: *Heiden Road CR 161*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*315*	*43*	*99*	*308*	
Peak-Hour Factor, PHF	*1.00*	*0.81*	*0.81*	*0.80*	*0.80*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*388*	*53*	*123*	*384*	*0*
Percent Heavy Vehicles	*0*	--	--	*1*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*58*		*116*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.90*	*1.00*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*64*	*0*	*128*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)	*0*			*0*		
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (veh/h)		*123*		*192*				
C (m) (veh/h)		*1124*		*400*				
v/c		*0.11*		*0.48*				
95% queue length		*0.37*		*2.52*				
Control Delay (s/veh)		*8.6*		*22.0*				
LOS		*A*		*C*				
Approach Delay (s/veh)	--	--	*22.0*					
Approach LOS	--	--	*C*					

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*JAG*	Intersection	*Center access and CR 161*
Agency/Co.	*TMA*	Jurisdiction	*Town of Fallsburg*
Date Performed	*12/19/2011*	Analysis Year	*Build Codition*
Analysis Time Period	*Sunday Peak Hour*		

Project Description

East/West Street: *Center site access* | North/South Street: *Heiden Road CR 161*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*332*	*33*		*344*	
Peak-Hour Factor, PHF	*1.00*	*0.81*	*0.81*	*1.00*	*0.80*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*409*	*40*	*0*	*429*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*		*T*	
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)						*5*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*0*	*0*	*5*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)	*0*			*0*		
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*1*
Configuration						*R*

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration					*R*			
v (veh/h)					*5*			
C (m) (veh/h)					*630*			
v/c					*0.01*			
95% queue length					*0.02*			
Control Delay (s/veh)					*10.8*			
LOS					*B*			
Approach Delay (s/veh)	--	--	*10.8*					
Approach LOS	--	--	*B*					

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*JAG*	Intersection	*North access and CR 161*
Agency/Co.	*TMA*	Jurisdiction	*Town of Fallsburg*
Date Performed	*12/19/2011*	Analysis Year	*Build Codition*
Analysis Time Period	*Sunday Peak Hour*		

Project Description

East/West Street: *North site access* | North/South Street: *Heiden Road CR 161*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*325*	*12*	*5*	*320*	
Peak-Hour Factor, PHF	*1.00*	*0.81*	*0.81*	*0.80*	*0.80*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*401*	*14*	*6*	*399*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*24*		*3*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.90*	*1.00*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*26*	*0*	*3*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (veh/h)		*6*		*29*				
C (m) (veh/h)		*1155*		*364*				
v/c		*0.01*		*0.08*				
95% queue length		*0.02*		*0.26*				
Control Delay (s/veh)		*8.1*		*15.7*				
LOS		*A*		*C*				
Approach Delay (s/veh)	--	--	*15.7*					
Approach LOS	--	--	*C*					

ATTACHMENT
Response 3.8-13

Tables 3.8-13a and 3.8-13b
Computation Sheets 1 of 3 to 3 of 3

Table 3.8-13a Volume Comparison All Conditions							
Intersection Road	Lane Group Approach Direction - Movement	Summer Friday P.M. Peak Hour					
		DEIS			FEIS		
		Existing	No Build	Build	Existing	No Build	Build
Heiden Road (CR 161) and Kiamesha Lake Road (CR 109) (unsignalized)							
Kiamesha Lake Rd	EB – L	19	34	72	27	41	79
	EB - R	48	60	97	72	83	120
Heiden Rd. CR 161	NB – L	33	41	74	67	75	108
	NB - T	376	469	488	351	427	446
Heiden Rd. CR 161	SB – T	177	208	218	185	209	219
	SB - R	16	38	50	20	42	54

NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound.
L = left, R= right, T = through, (e.g. WB-L = Westbound left).
See Appendix F for level of service calculations.

Table 3.8-13b Level of Service Summary All Conditions							
Intersection Road	Lane Group Approach Direction - Movement	Summer Friday P.M. Peak Hour Levels of Service, (Delay in seconds per vehicle), and Volume to Capacity Ratio					
		DEIS			FEIS 2011		
		Existing	No Build	Build	Existing	No Build	Build
Heiden Road (CR 161) and Kiamesha Lake Road (CR 109) (unsignalized)							
Heiden Rd. CR 161	NB - L, T	A (7.7) 0.03	A (7.9) 0.04	A (8.0) 0.07	A (7.8) 0.05	A (8.0) 0.06	A (8.1) 0.09
Kiamesha Lake Rd	EB - L, R	B (11.6) 0.12	B (14.2) 0.22	C (21.8) 0.49	B (12.2) 0.18	B (14.7) 0.27	C (22.7) 0.52

NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound.
L = left, R= right, T = through, (e.g. WB-L = Westbound left).
Level of service calculations are on following pages.

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*JAG*	Intersection	*CR 109 and CR 161*
Agency/Co.	*TMA*	Jurisdiction	*Town of Fallsburg*
Date Performed	*12/15/2011*	Analysis Year	*Existing Condition*
Analysis Time Period	*Friday Peak Hour*		

Project Description *base traffic 2011*

East/West Street: *CR 109 Kiamesha Lake Road* | North/South Street: *Heiden Road CR 161*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*67*	*351*			*185*	*20*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*1.00*	*1.00*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*74*	*390*	*0*	*0*	*205*	*22*
Percent Heavy Vehicles	*1*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*27*		*72*			
Peak-Hour Factor, PHF	*0.92*	*1.00*	*0.92*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*29*	*0*	*78*	*0*	*0*	*0*
Percent Heavy Vehicles	*1*	*0*	*1*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LR*	
v (veh/h)	*74*						*107*	
C (m) (veh/h)	*1347*						*609*	
v/c	*0.05*						*0.18*	
95% queue length	*0.17*						*0.63*	
Control Delay (s/veh)	*7.8*						*12.2*	
LOS	*A*						*B*	
Approach Delay (s/veh)	--	--				*12.2*		
Approach LOS	--	--				*B*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*JAG*	Intersection	*CR 109 and CR 161*
Agency/Co.	*TMA*	Jurisdiction	*Town of Fallsburg*
Date Performed	*12/15/2011*	Analysis Year	*No Build Condition*
Analysis Time Period	*Friday Peak Hour*		

Project Description *base traffic 2011*

East/West Street: *CR 109 Kiamesha Lake Road* | North/South Street: *Heiden Road CR 161*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*75*	*427*			*209*	*42*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*1.00*	*1.00*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*83*	*474*	*0*	*0*	*232*	*46*
Percent Heavy Vehicles	*1*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*41*		*83*			
Peak-Hour Factor, PHF	*0.92*	*1.00*	*0.92*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*44*	*0*	*90*	*0*	*0*	*0*
Percent Heavy Vehicles	*1*	*0*	*1*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LR*	
v (veh/h)	*83*						*134*	
C (m) (veh/h)	*1291*						*505*	
v/c	*0.06*						*0.27*	
95% queue length	*0.21*						*1.06*	
Control Delay (s/veh)	*8.0*						*14.7*	
LOS	*A*						*B*	
Approach Delay (s/veh)	--	--				*14.7*		
Approach LOS	--	--				*B*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*JAG*	Intersection	*CR 109 and CR 161*
Agency/Co.	*TMA*	Jurisdiction	*Town of Fallsburg*
Date Performed	*12/15/2011*	Analysis Year	*Build Condition*
Analysis Time Period	*Friday Peak Hour*		

Project Description

East/West Street: *CR 109 Kiamesha Lake Road* | North/South Street: *Heiden Road CR 161*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*108*	*446*			*219*	*54*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*1.00*	*1.00*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*120*	*495*	*0*	*0*	*243*	*60*
Percent Heavy Vehicles	*1*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*79*		*120*			
Peak-Hour Factor, PHF	*0.92*	*1.00*	*0.92*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*85*	*0*	*130*	*0*	*0*	*0*
Percent Heavy Vehicles	*1*	*0*	*1*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LR*	
v (veh/h)	*120*						*215*	
C (m) (veh/h)	*1264*						*414*	
v/c	*0.09*						*0.52*	
95% queue length	*0.31*						*2.90*	
Control Delay (s/veh)	*8.1*						*22.7*	
LOS	*A*						*C*	
Approach Delay (s/veh)	--	--				*22.7*		
Approach LOS	--	--				*C*		

ATTACHMENT
Response 3.8-18

Photo 3.8-18

FEIS Photo 3.8-18: Raleigh Hotel Gatehouse
Raleigh and Heiden Properties
Town of Fallsburg
Sullivan County, New York
Source: TMA, 4/6/11

File 09038 12/15/11
JS/09038

ATTACHMENT
Response 3.8-19

DEIS Page 3.8-10 revised

The Town of Fallsburg has a significant seasonal population. The Friday and Sunday peak hour counts were specifically taken to represent a maximum impact scenario of traffic during the Friday p.m. and Sunday afternoon peak hour traffic during the busiest summer months. Thus the level of service represents peak summer traffic.

As seen in Table 3.8-6, all of the studied lane groups operate with additional available capacity and operate at efficient levels of service A to C during the seasonal peak hour periods with one exception. The intersection of NYS Route 42 with Heiden Road is projected at level of service F with delays during the Friday and Sunday seasonal peak hour periods.

Drivers can alter their decision according to conditions faced. Where modeling projects high delays (over 120 seconds) and high (1.2) volume to capacity ratios, the theoretical values may never be attained. Reductions in actual delays may be altered by acceptance of smaller gaps, smaller headways, and lane encroachment. In this case the gaps of the CR 109 signal at NYS Route 42 and the striped median use by left turning traffic from Heiden Road (CR 161) may also be reducing actual delays.

No Build Level of Service

As seen in Table 3.8-6, all of the studied lane groups operate with additional available capacity and operate at efficient levels of service A to C during the seasonal peak hour periods with two exceptions. The Friday peak hour of La Vista Drive drops to level of service E.

The intersection of NYS Route 42 with Heiden Road continues at level of service F with delays doubling during the Friday and Sunday seasonal peak hour periods. The delays shown are theoretical delays and in this case are unlikely to be seen. What is more likely to occur is the peak traffic will spread out rather than remain constant as typically presumed. In addition to smoothing out the peak traffic, shifting trip time outside the peak hour, and routing changes may occur. Specifically drivers would choose not to travel on the problem approach at that time choosing to arrive earlier or later. Others not being able to shift time would shift to alternative routes as CR 103, CR 58, or Park House Road (Wildwood Drive). Drivers would continue activities to reduce delays on the approach as discussed in the Existing Condition such as acceptance of smaller gaps.

Build Condition Level of Service

Table 3.8-6 summarizes the No Build and Build Condition levels of service, a comparison of which would indicate the “impact” of the project. Since individuals may define “impacts” differently, this industry accepted practice for comparing the before and after levels of service serves as a consistent scale upon which to review projects. The traffic capacity “impacts” are defined as the difference between future traffic conditions before and after the project (No Build and Build Conditions) based on criteria established in the 2000 Highway Capacity Manual[7].

Table 3.8-6 presents levels of service for the Build Condition for the studied intersections. Level of service at all intersection and times would remain C or better except locations noted in the No Build Condition. The La Vista approach delay in the Friday p.m. peak hour would increase less than two seconds per vehicle. The Heiden Road (CR 161) approach to NYS Route 42 delays increase however the analysis becomes hypersensitive to even small (less than ten vehicles)

[7] Transportation Research Board, National Research Council, Highway Capacity Manual, Washington, D.C. 2000.

ATTACHMENT
Response 3.8-26

NYS DOT Counts

STATION: **966121**

New York State Department of Transportation

Traffic Count Hourly Report

ROAD #: **CR 1610** ROAD NAME: **HEIDEN RD**
DIRECTION: Northbound FACTOR GROUP: 41
STATE DIR CODE: 1 WK OF YR: 26
DATE OF COUNT: 06/24/2008
NOTES LANE 1: Week 26-Nb

COUNT TAKEN BY: ORG CODE: TST INITIALS: JSV

FROM: **OLD CR 161**
REC. SERIAL #: 8403
PLACEMENT: .5 S of Rte 42
@ REF MARKER:
ADDL DATA:
COUNT TYPE: AXLE PAIRS
PROCESSED BY: ORG CODE: R09 INITIALS: jjg

TO: **NY 42**
FUNC. CLASS: 07
NHS: no
JURIS: County
CC Stn:
BATCH ID: DOT-R09No header

COUNTY: **Sullivan**
TOWN: **THOMPSON**
LION#:
BIN: 3356170
RR CROSSING:
HPMS SAMPLE:

DATE	DAY	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
		AM												PM														
1	S																											
2	M																											
3	T																											
4	W																											
5	T																											
6	F																											
7	S																											
8	S																											
9	M																											
10	T																											
11	W																											
12	T																											
13	F																											
14	S																											
15	S																											
16	M																											
17	T																											
18	W																											
19	T																											
20	F																											
21	S																											
22	S																											
23	M																											
24	T											**133**	**118**	**113**	**101**	**101**	**123**	**93**	**121**	**68**	**90**	**46**	**52**	**37**	**24**			
25	W	**18**	**8**	**6**	**5**	**4**	**19**	**43**	**111**	**129**	**137**	**115**	**126**	**120**	**131**	**121**	**162**	**149**	**139**	**144**	**82**	**55**	**51**	**98**	**47**	2020	162	15
26	T	**43**	**19**	**11**	**8**	**5**	**18**	**46**	**103**	**115**	**124**	**112**	**128**	**149**	**189**	**189**	**264**	**208**	**241**	**207**	**200**	**184**	**151**	**177**	**161**	3052	264	15
27	F	**93**	**46**	**27**	**10**	**10**	**16**	**50**	**131**	**162**	**156**	**127**	**157**	**157**	**283**	**242**	**285**	**239**	**220**	**154**	**102**	**51**	**63**	**49**	**35**	2865	285	15
28	S	**26**	**14**	**7**	**6**	**4**	**15**	**21**	**53**	**55**	**58**	**56**	**74**	**88**	**76**	**74**	**82**	**59**	**54**	**51**	**43**	**60**	**51**	**46**	**49**	1122	88	12
29	S	**49**	**47**	**37**	**9**	**11**	**9**	**29**	**43**	**51**	**99**	**102**	**154**	**163**	**177**	**160**	**182**	**187**	**154**	**152**	**127**	**97**	**70**	**58**	**41**	2208	187	16
30	M																											

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

																								ADT
50	**23**	**15**	**8**	**6**	**17**	**45**	**112**	**131**	**135**	**118**	**128**	**123**	**136**	**133**	**178**	**146**	**162**	**136**	**120**	**92**	**83**	**101**	**75**	**2273**

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor
6	134	4	74	178	8%	0.971	1.193

ESTIMATED (one way)

AADT
1905

STATION: **966121**

New York State Department of Transportation

Traffic Count Hourly Report

ROAD #: **CR 1610** ROAD NAME: **HEIDEN RD**
DIRECTION: Southbound FACTOR GROUP: 41
STATE DIR CODE: 2 WK OF YR: 26
DATE OF COUNT: 06/24/2008
NOTES LANE 1: Week 26-Sb

COUNT TAKEN BY: ORG CODE: TST INITIALS: JSV

FROM: **OLD CR 161**
REC. SERIAL #: 8403
PLACEMENT: .5 S of Rte 42
@ REF MARKER:
ADDL DATA:
COUNT TYPE: AXLE PAIRS
PROCESSED BY: ORG CODE: R09 INITIALS: jjg

TO: **NY 42**
FUNC. CLASS: 07
NHS: no
JURIS: County
CC Stn:
BATCH ID: DOT-R09No header

COUNTY: **Sullivan**
TOWN: **THOMPSON**
LION#:
BIN: 3356170
RR CROSSING:
HPMS SAMPLE:

DATE	DAY	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
		AM												PM														
1	S																											
2	M																											
3	T																											
4	W																											
5	T																											
6	F																											
7	S																											
8	S																											
9	M																											
10	T																											
11	W																											
12	T																											
13	F																											
14	S																											
15	S																											
16	M																											
17	T																											
18	W																											
19	T																											
20	F																											
21	S																											
22	S																											
23	M																											
24	T											**86**	**89**	**78**	**112**	**117**	**119**	**156**	**109**	**93**	**84**	**52**	**46**	**33**	**22**			
25	W	**10**	**2**	**5**	**3**	**14**	**48**	**69**	**106**	**92**	**84**	**115**	**100**	**112**	**140**	**117**	**159**	**148**	**114**	**105**	**100**	**64**	**46**	**32**	**35**	1820	159	15
26	T	**24**	**15**	**12**	**8**	**17**	**49**	**79**	**82**	**107**	**113**	**96**	**119**	**121**	**136**	**125**	**147**	**152**	**163**	**111**	**107**	**82**	**69**	**54**	**47**	2035	163	17
27	F	**31**	**15**	**22**	**7**	**30**	**52**	**75**	**98**	**101**	**116**	**146**	**123**	**140**	**156**	**147**	**171**	**156**	**115**	**99**	**81**	**43**	**19**	**26**	**12**	1981	171	15
28	S	**7**	**3**	**5**	**5**	**12**	**16**	**25**	**32**	**57**	**51**	**61**	**59**	**63**	**58**	**75**	**83**	**53**	**60**	**56**	**47**	**39**	**34**	**69**	**74**	1044	83	15
29	S	**56**	**30**	**16**	**5**	**14**	**15**	**40**	**52**	**61**	**75**	**116**	**169**	**158**	**153**	**164**	**216**	**203**	**159**	**159**	**206**	**166**	**168**	**133**	**65**	2599	216	15
30	M																											

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

																									ADT
21	**11**	**13**	**6**	**19**	**49**	**72**	**92**	**97**	**101**	**108**	**105**	**101**	**125**	**117**	**138**	**148**	**125**	**100**	**94**	**64**	**52**	**39**	**34**	**1831**

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor
6	134	4	74	148	8%	0.971	1.193

ESTIMATED (one way)

AADT
1535

ROAD #: **1610** ROAD NAME: **HEIDEN RD** FROM: **OLD CR 161** TO: **NY 42** COUNTY: **Sullivan**
STATION: **966121** STATE DIR CODE: **2** PLACEMENT: **.5 S of Rte 42** **DATE OF COUNT: 06/24/2008**

STATION: **966148**

New York State Department of Transportation

Traffic Count Hourly Report

ROAD #: **0800** ROAD NAME: **GREY RD**
DIRECTION: Eastbound FACTOR GROUP: 30
STATE DIR CODE: 1 WK OF YR: 26
DATE OF COUNT: 06/24/2008
NOTES LANE 1: Week 26-Eb

COUNT TAKEN BY: ORG CODE: TST INITIALS: JSV

FROM: **DENISON HILL RD**
REC. SERIAL #: 9053
PLACEMENT: 200' W fo Dennism Hill Road
@ REF MARKER:
ADDL DATA:
COUNT TYPE: AXLE PAIRS
PROCESSED BY: ORG CODE: R09 INITIALS: jjg

TO: **RANCH HILL RD**
FUNC. CLASS: 09
NHS: no
JURIS: Town
CC Stn:
BATCH ID: R09-r9ww26

COUNTY: **Sullivan**
TOWN: **FALLSBURG**
BIN: 3356530
RR CROSSING:
HPMS SAMPLE:

DATE	DAY	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
		AM												PM														
24	T												10	14	16	15	21	25	24	17	11	10	8	9	4			
25	W	1	0	0	1	1	9	4	10	13	9	16	12	11	15	10	21	20	15	15	13	18	4	2	4	224	21	15
26	T	3	2	0	1	1	10	3	9	11	13	4	10	23	7	20	25	21	21	15	21	8	9	11	7	255	25	15
27	F	12	3	5	1	1	10	3	7	7	16	9	9	19	29	30	22	35	24	16	16	15	9	5	2	305	35	16
28	S	6	0	2	1	0	0	4	10	10	5	10	19	22	16	15	22	14	12	5	21	10	11	7	10	232	22	12
29	S	11	2	0	0	0	4	0	4	18	22	18	44	36	41	51	34	51	47	49	50	33	35	24	5	579	51	14
30	M	9	1	2	0	2	14	6	12	19	33	41	34	18	41	33	43	34	36	38	19	12	16	12	9	484	43	15
1	T	3	3	0	0	0	12	3	4																			

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

5	2	1	1	1	10	4	8	12	18	18	15	16	20	20	28	25	24	21	16	12	9	8	6	ADT 300

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor
7	165	4	99	28	9%	0.989	1.120

ESTIMATED (one way)

AADT
268

New York State Department of Transportation

Traffic Count Hourly Report

ROAD #: **0800** ROAD NAME: **GREY RD**
DIRECTION: Westbound FACTOR GROUP: 30
STATE DIR CODE: 2 WK OF YR: 26
DATE OF COUNT: 06/24/2008
NOTES LANE 1: Week 26-Wb

COUNT TAKEN BY: ORG CODE: TST INITIALS: JSV

FROM: **DENISON HILL RD**
REC. SERIAL #: 9053
PLACEMENT: 200' W fo Dennism Hill Road
@ REF MARKER:
ADDL DATA:
COUNT TYPE: AXLE PAIRS
PROCESSED BY: ORG CODE: R09 INITIALS: jjg

TO: **RANCH HILL RD**
FUNC. CLASS: 09
NHS: no
JURIS: Town
CC Stn:
BATCH ID: R09-r9ww26

COUNTY: **Sullivan**
TOWN: **FALLSBURG**
BIN: 3356530
RR CROSSING:
HPMS SAMPLE:

DATE	DAY	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
		AM												PM														
24	T												**16**	**8**	**11**	**23**	**20**	**26**	**23**	**17**	**10**	**10**	**4**	**0**	**0**			
25	W	**1**	**0**	**0**	**1**	**1**	**3**	**6**	**12**	**16**	**25**	**19**	**15**	**13**	**15**	**16**	**20**	**32**	**23**	**13**	**15**	**13**	**9**	**2**	**0**	270	32	16
26	T	**0**	**5**	**0**	**0**	**0**	**4**	**8**	**17**	**10**	**15**	**7**	**14**	**18**	**18**	**12**	**21**	**24**	**25**	**15**	**14**	**18**	**13**	**3**	**10**	271	25	17
27	F	**5**	**2**	**2**	**0**	**0**	**2**	**4**	**19**	**7**	**19**	**21**	**21**	**26**	**26**	**24**	**38**	**36**	**32**	**29**	**19**	**6**	**7**	**8**	**5**	358	38	15
28	S	**2**	**4**	**0**	**0**	**0**	**4**	**10**	**6**	**24**	**15**	**16**	**20**	**25**	**16**	**16**	**28**	**12**	**11**	**15**	**15**	**8**	**11**	**10**	**7**	275	28	15
29	S	**7**	**7**	**2**	**0**	**0**	**1**	**7**	**9**	**6**	**23**	**39**	**33**	**29**	**38**	**28**	**26**	**34**	**22**	**28**	**15**	**11**	**12**	**7**	**4**	388	39	10
30	M	**2**	**0**	**0**	**0**	**0**	**0**	**6**	**8**	**13**	**18**	**30**	**17**	**16**	**23**	**33**	**30**	**30**	**26**	**23**	**17**	**9**	**10**	**8**	**7**	326	33	14
1	T	**1**	**2**	**1**	**0**	**0**	**3**	**6**	**11**																			

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

2	2	1	0	0	3	6	13	12	19	19	17	14	17	21	23	28	24	17	14	12	9	3	4	ADT 280

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor
7	165	4	99	28	10%	0.989	1.120

ESTIMATED (one way)

AADT
250