

**TRAFFIC ANALYSIS REPORT
(UPDATE) – FINAL DRAFT
(16-TAR-411A)**

FOR

HOTELS AT HARRISON AVENUE

LOCATED

IN

CARY, NORTH CAROLINA

Prepared For:
Town of Cary
316 N. Academy Street
Cary, NC 27512

Prepared By:
Ramey Kemp & Associates, Inc.
5808 Faringdon Place, Suite 100
Raleigh, NC 27069
License #C-0910

October 2017

**TRAFFIC ANALYSIS REPORT (UPDATE) – FINAL DRAFT
HOTELS AT HARRISON AVENUE (16-TAR-411A)
CARY, NORTH CAROLINA**

EXECUTIVE SUMMARY

1. Development Overview

This report summarizes the findings of the update to the previous Traffic Analysis Report that was conducted for the rezoning for the hotel development. The development is expected to be fully built-out by 2021 and consist of two hotels with a maximum total of 252 rooms according to the application. Access to the site will be provided via one (1) right-in/right-out (RIRO) driveway on Harrison Avenue. Cross access is proposed with the Arboretum development just north of this development, which has a RIRO access on Harrison Avenue and Weston Parkway.

The proposed development will be located within the Base Zone which contains the remainder of the Town’s corporate limits and extraterritorial jurisdiction not within the Central Zone. The level-of-service standard is “D” based upon the standard Institute for Transportation Engineers (ITE) average peak hour.

2. Future Traffic Volumes, Traffic Growth, and Adjacent Development Trips

Background traffic considers new trips from approved adjacent development and ambient traffic growth. An ambient traffic growth rate of 2% per year was used for study intersections.

In addition to the ambient growth, trips generated by the following adjacent developments are considered in the analysis of background (2021) conditions:

- 16-TAR-400 Winstead Hotel and Restaurant (Final Draft TAR)
- 14-TAR-381 Weston Corners Apartments (Ovation at Weston, 15-SP-010)
- 13-TAR-376 Harrison Townhomes (Harrison Bluffs, 14-SP-025)
- 13-TAR-377 Centregreen Office (Centregreen Park at Weston, 13-SP-062)

- 08-TAR-296A Weston Parkway Property (Weston Corner Apts, 08-SP-087A & 087B)
- Weston Townhomes (QJ) – Kimley Horn (Creeks at Weston, 14-SB-018)
- Weston Lakefront (Metlife) (QJ) – Kimley Horn (13-SP-036 and 13-SP-036A)
- SAS Building A (QJ) – VHB (SAS/A, 15-SP-0175)

3. Site Trip Generation

It is estimated that the proposed development will generate 2,060 trips during a typical 24-hour weekday period. Of the daily traffic volume, it is anticipated that 134 trips (79 entering and 55 exiting) will occur during the AM peak hour and 151 trips (77 entering and 74 exiting) will occur during the PM peak hour.

Trip Generation Summary

Land Use (ITE Code)	Intensity	Daily Traffic (vpd)	AM Peak Hour Trips (vph)			PM Peak Hour Trips (vph)		
			Enter	Exit	Total	Enter	Exit	Total
Hotel (310)	252 rooms	2,060	79	55	134	77	74	151

4. Capacity Analysis Summary

This study analyzes weekday AM and PM peak hour traffic for existing (2016), background (2021), and combined (2021) conditions. Combined (2021) conditions with improvements consider two options for improvements. Option 1 considers a third left-turn lane on the I-40 WB off ramp. Option 2 considers a new loop for the WB on-ramp which results in changes to signal phasing and timings at the intersection. Since the intersection with the I-40 WB ramps primarily control signal timings along the Harrison Avenue corridor, signal timings would need to be adjusted with this option. Therefore, Option 2 includes signal timing adjustments at other intersections and many of these results in an improved LOS for the intersection without additional improvements.

INTERSECTION		Existing 2016		Background 2021	
		AM	PM	AM	PM
Harrison Avenue and I-40 WB Ramps	EB	C (26)	C (27)	D (36)	E (58)
	WB	D (46)	D (54)	D (48)	E (55)
	NB	D (52)	E (77)	F (136)	F (132)
	Overall	D (43)	D (53)	F (101)	F (94)
Harrison Avenue and I-40 EB Ramps	EB	A (7)	A (5)	C (19)	B (17)
	WB	C (28)	A (2)	C (30)	A (6)
	SB	F (413)	F (331)	F (799)	F (284)
	Overall	F (118)	D (55)	F (127)	C (32)
Harrison Avenue and SAS Campus Drive	EB	C (21)	C (32)	E (71)	E (79)
	WB	B (17)	B (12)	B (18)	B (13)
	NB	D (43)	E (58)	D (45)	F (89)
	SB	D (47)	D (40)	D (47)	D (43)
	Overall	B (19)	C (27)	D (42)	D (54)
Harrison Avenue and Bass Pro Lane	EB	A (8)	A (8)	A (9)	E (60)
	WB	A (6)	B (16)	B (18)	B (19)
	SB	D (53)	E (58)	D (53)	E (62)
	Overall	A (10)	B (16)	B (16)	D (42)
Harrison Avenue and Weston Parkway / Richard Drive	EB	D (49)	F (114)	D (45)	F (267)
	WB	D (48)	E (57)	D (48)	E (57)
	NB	B (19)	C (30)	C (21)	C (25)
	SB	B (16)	B (16)	C (28)	C (29)
	Overall	C (22)	D (49)	C (28)	F (108)
Harrison Avenue and Research Drive	WB	D (43)	D (49)	D (41)	D (50)
	NB	B (19)	C (19)	C (34)	C (21)
	SB	A (9)	A (4)	B (12)	B (11)
	Overall	B (18)	B (17)	C (28)	C (22)

INTERSECTION		Existing 2016		Background 2021	
		AM	PM	AM	PM
Harrison Avenue and Cary Parkway	EB	F (118)	D (51)	F (157)	E (57)
	WB	E (55)	E (64)	E (57)	E (72)
	NB	F (102)	C (21)	F (213)	C (20)
	SB	C (29)	C (26)	C (29)	C (32)
	Overall	F (86)	C (30)	F (149)	C (34)
Harrison Avenue and Reedy Creek Road	WB	D (53)	D (46)	E (58)	D (42)
	NB	B (15)	A (9)	B (20)	B (12)
	SB	A (8)	A (4)	A (8)	A (5)
	Overall	B (19)	A (9)	C (22)	A (9)
Weston Parkway and Harrison Oaks Boulevard	EB	A (6)	B (12)	A (9)	B (20)
	WB	A (9)	B (11)	B (16)	B (13)
	NB	E (55)	D (41)	E (57)	D (40)
	SB	D (50)	D (53)	D (51)	D (53)
	Overall	B (14)	B (16)	B (18)	C (21)
Weston Parkway and Winstead Drive	EB	A (3)	A (6)	A (9)	B (13)
	WB	B (13)	B (12)	C (21)	B (18)
	NB	--	--	--	--
	SB	C (35)	C (27)	E (65)	C (33)
	Overall	B (12)	A (10)	C (21)	B (16)
Weston Parkway and Norwell Boulevard	EB	B (15)	C (20)	B (16)	C (26)
	WB	B (19)	B (13)	C (24)	B (18)
	NB	C (24)	B (19)	E (61)	C (30)
	SB	C (27)	C (33)	D (41)	D (50)
	Overall	B (19)	B (20)	C (29)	C (26)
Cary Parkway and Norwell Boulevard	EB	A ² (9)	A ² (10)	A ² (10)	A ² (10)
	WB	A ² (9)	A ² (8)	A ² (10)	A ² (9)
	NB	F ¹ (60)	E ¹ (35)	F ¹ (92)	F ¹ (55)
	SB	D ¹ (32)	F ¹ (98)	F ¹ (84)	F ¹ (236)
	Overall	--	--	--	--
Harrison Avenue and Site Drive (RIRO)	EB	--	--	--	--
	NB	--	--	--	--
	SB	--	--	--	--
	Overall	--	--	--	--

1. Level of service for minor approach.
2. Level of service for major approach left-turn movements.

INTERSECTION		Combined 2021		Combined 2021 with Improvements Option 1 (Additional NB Left-turn Lane)		Combined 2021 with Improvements Option 2 (EB Ramp Loop)	
		AM	PM	AM	PM	AM	PM
Harrison Avenue and I-40 WB Ramps	EB	D (39)	E (72)	C (34)	E (70)	A (6)	C (33)
	WB	D (48)	E (55)	D (47)	E (55)	D (45)	D (51)
	NB	F (141)	F (137)	D (52)	D (44)	B (18)	A (7)
	Overall	F (105)	F (103)	D (46)	E (57)	B (14)	C (20)
Harrison Avenue and I-40 EB Ramps	EB	C (24)	D (49)	No Improvements Necessary		D (49)	D (46)
	WB	C (32)	A (6)			E (71)	A (9)
	SB	F (841)	F (317)			F (123)	F (131)
	Overall	F (136)	D (49)			E (67)	D (41)
Harrison Avenue and SAS Campus Drive	EB	E (78)	E (77)	No Improvements Necessary		E (59)	E (68)
	WB	B (18)	B (14)			B (14)	B (19)
	NB	D (45)	F (89)			D (49)	E (75)
	SB	D (47)	D (43)			D (49)	D (40)
	Overall	D (45)	D (53)			C (34)	D (49)
Harrison Avenue and Bass Pro Lane	EB	A (9)	E (61)	No Improvements Necessary		A (6)	A (8)
	WB	C (20)	C (20)			B (12)	B (10)
	SB	D (53)	E (62)			E (75)	E (65)
	Overall	B (17)	D (43)			B (13)	B (14)
Harrison Avenue and Weston Parkway / Richard Drive	EB	D (44)	F (272)	D (44)	F (272)	D (38)	F (82)
	WB	D (48)	E (57)	D (48)	E (57)	D (48)	E (58)
	NB	C (21)	C (25)	C (21)	C (25)	C (24)	E (57)
	SB	C (28)	D (41)	C (27)	B (15)	B (18)	E (67)
	Overall	C (28)	F (113)	C (27)	F (103)	C (24)	E (69)
Harrison Avenue and Research Drive	WB	D (40)	D (50)	No Improvements Necessary		D (44)	D (48)
	NB	D (45)	C (22)			A (9)	B (10)
	SB	B (12)	B (11)			C (21)	A (8)
	Overall	D (34)	C (22)			B (14)	B (16)

INTERSECTION		Combined 2021		Combined 2021 with Improvements Option 1 (Additional NB Left-turn Lane)		Combined 2021 with Improvements Option 2 (EB Ramp Loop)	
		AM	PM	AM	PM	AM	PM
Harrison Avenue and Cary Parkway	EB	F (159)	E (58)	F (159)	E (58)	F (139)	E (63)
	WB	E (57)	E (72)	E (57)	E (72)	E (78)	F (100)
	NB	F (214)	C (20)	F (177)	B (20)	F (134)	C (24)
	SB	C (28)	C (33)	C (29)	C (33)	C (26)	C (23)
	Overall	F (151)	C (35)	F (132)	C (35)	F (106)	C (32)
Harrison Avenue and Reedy Creek Road	WB	E (58)	D (42)	No Improvements Necessary		D (53)	D (50)
	NB	B (20)	B (12)			C (21)	A (9)
	SB	A (8)	A (5)			A (4)	A (2)
	Overall	C (22)	A (9)			C (21)	A (7)
Weston Parkway and Harrison Oaks Boulevard	EB	A (9)	C (20)	No Improvements Necessary		A (8)	B (17)
	WB	B (16)	B (13)			B (13)	A (10)
	NB	E (57)	D (41)			E (71)	D (45)
	SB	D (51)	D (53)			E (59)	E (59)
	Overall	B (18)	C (21)			B (17)	B (19)
Weston Parkway and Winstead Drive	EB	A (9)	B (13)	No Improvements Necessary		No Improvements Necessary	
	WB	C (21)	B (18)				
	NB	--	--				
	SB	E (65)	C (33)				
	Overall	C (21)	B (16)				
Weston Parkway and Norwell Boulevard	EB	B (16)	C (26)	No Improvements Necessary		No Improvements Necessary	
	WB	C (25)	B (18)				
	NB	E (63)	C (30)				
	SB	D (41)	D (50)				
	Overall	C (29)	C (26)				
Cary Parkway and Norwell Boulevard	EB	A ² (10)	B ² (10)	No Improvements Necessary		No Improvements Necessary	
	WB	A ² (10)	A ² (9)				
	NB	F ¹ (96)	F ¹ (57)				
	SB	F ¹ (103)	F ¹ (252)				
	Overall	--	--				
Harrison Avenue and Site Drive (RIRO)	EB	B ¹ (14)	D ¹ (26)	No Improvements Necessary		No Improvements Necessary	
	NB	--	--				
	SB	--	--				
	Overall	--	--				

Adjustments to Analysis Guidelines

Capacity analysis at all study intersections was completed according to the Town's LDO and NCDOT Congestion Management Guidelines. Refer to section 6.1 of this report for a detailed description of any adjustments to these guidelines made throughout the analysis.

Intersection Capacity Analysis Summary

A considerable amount of traffic exiting the site must make a U-turn at the intersection of Harrison Avenue and Research Drive because of the proposed site access location.

It should also be noted that signal timings along the corridor would need to be adjusted to accommodate either of the significant improvements recommended at the intersection of Harrison Avenue and I-40 WB Ramps. It is worth noting that the levels-of-service reported with the signal modifications in Section 7 are a result of the eastbound loop on Harrison Avenue to I-40 WB improvement at the intersection of Harrison Avenue and I-40 WB Ramps. If either of the two improvements recommended at the intersection of Harrison Avenue and I-40 WB Ramps are not committed to by the developer, signal timings along the corridor would not be adjusted and thus the delays and levels-of-service observed at all study intersections along the corridor would be deficient.

All the study area intersections (including the proposed site driveways) are expected to operate at acceptable levels-of-service under existing and future year conditions with the exception of the intersections listed below. A summary of the study area intersections that are expected to need improvements to meet the Town's LDO requirements are provided below:

I-40 WB Ramps and Harrison Avenue

Capacity analysis indicates that this intersection currently operates at an overall LOS D during the weekday AM and PM peak hours. Under background (2021) and combined (2021) conditions, the intersection is expected to operate at an overall LOS F during the weekday AM and PM peak hours. Based on the Town's Land Development Ordinance (LDO), improvements are needed to mitigate intersections where the combined LOS is worse than that of background conditions when below LOS D. An additional northbound left-turn lane

improves the intersection's overall delay to what was seen in background (2021) conditions and is considered optional for improvements. With the additional northbound left-turn lane on the I-40 WB Off-Ramp, the additional receiving lane would be dropped as a westbound left-turn lane at the intersection of Harrison Avenue and I-40 EB Ramps. Per the Town's request, an eastbound loop on Harrison Avenue to I-40 WB was analyzed as an alternative to an additional northbound left-turn lane on the I-40 WB Off-Ramp and is considered Option 2. This improvement forces all eastbound traffic on Harrison Avenue previously making a left-turn onto the I-40 WB On-Ramp to make a right-turn, looping around to I-40 WB. Additionally, this improvement eliminates the need for the outermost eastbound exclusive left-turn lane. As a result of the eastbound loop on Harrison Avenue to I-40 WB, the intersection's overall delay is expected to improve during the weekday AM and PM peak hours, so that the combined conditions are better than the background conditions. It is worth noting that there will be a potential issue with the acquisition of right-of-way and widening across the existing bridge; however, one of these two improvements is needed to meet the Town's LDO requirements. Additionally, it should be noted that the site accounts for approximately 2% of the total traffic at this intersection.

I-40 EB and Harrison Avenue

Capacity analysis indicates that this intersection currently operates at an overall LOS F during the weekday AM peak hour and an overall LOS D during the weekday PM peak hour. Under background (2021) conditions, the SAS Building A adjacent development recommends the outermost southbound right-turn lane be changed to a free flowing movement while the innermost right-turn lane remains operating under the traffic signal. With the improvements from the SAS Building A development, the intersection is expected to continue operating at LOS F during the weekday AM peak hour and operate at LOS C during the weekday PM peak hour under background (2021) conditions. The intersection is expected to continue operating at LOS F during the weekday AM peak hour and operate at LOS D during the weekday PM peak hour under combined (2021) conditions. Based on the Town's Land Development Ordinance (LDO), improvements are needed to mitigate intersections where the combined LOS is worse than that of background conditions when below LOS D. Signal timings along the corridor were adjusted to accommodate the significant improvement at the intersection of

Harrison Avenue and I-40 WB Ramps. As a result, the intersection's overall delay is expected to improve during the weekday AM and PM peak hours, so that the combined conditions are better than the background conditions. Additionally, it should be noted that the site accounts for approximately 2% of the total traffic at this intersection.

Harrison Avenue and Weston Parkway / Richard Drive

Capacity analysis indicates that this intersection currently operates at an overall LOS C during the weekday AM peak hour and an overall LOS D during the weekday PM peak hour. Under background (2021) and combined (2021) conditions, the intersection is expected to continue operating at an overall LOS C during the weekday AM peak hour and operate at an overall LOS F during the weekday PM peak hour. Based on the Town's Land Development Ordinance (LDO), improvements are needed to mitigate intersections where the combined LOS is worse than that of background conditions when below LOS D. An additional southbound through lane (shown in Option 1) improves this intersection's overall delay during the PM peak hour under combined (2021) conditions to match the overall delay experienced in background (2021) conditions. There is existing pavement at the intersection of Harrison Avenue and Weston Parkway / Richard Drive to accommodate this additional southbound through lane. The additional southbound through lane would then utilize existing pavement (the existing right-turn lane) extending back to the intersection of Harrison Avenue and Bass Pro Lane, requiring an exclusive southbound right-turn lane to be constructed directly west of the through lane. As an alternative to the additional southbound through lane, signal timings along the corridor were adjusted to accommodate the significant improvement at the intersection of Harrison Avenue and I-40 WB Ramps (Option 2). As a result, the intersection's overall delay is expected to improve during the weekday AM and PM peak hours, so that the combined conditions are better than the background conditions. Additionally, it should be noted that the site accounts for approximately 3% of the total traffic at this intersection.

Harrison Avenue and Cary Parkway

Capacity analysis indicates that this intersection currently operates at an overall LOS F during the weekday AM peak hour and an overall LOS C during the weekday PM peak hour. Under

background (2021) and combined (2021) conditions, the intersection is expected to continue operating at an overall LOS F during the weekday AM peak hour and an overall LOS C during the weekday PM peak hour. Based on the Town's Land Development Ordinance (LDO), improvements are needed to mitigate intersections where the combined LOS is worse than that of background conditions when below LOS D. The addition of an exclusive northbound right-turn lane at this intersection (shown in Option 1) is expected to reduce the delays experienced under combined (2021) conditions during the AM peak hour to below those experienced in background (2021) conditions. Although this movement does not have site traffic, improvements are required by the Town's LDO to decrease the overall delay with the addition of the site back to what was seen in background (2021) conditions. The addition of the exclusive northbound right-turn lane redistributes the capacity to other movements on the northbound approach, decreasing the overall delay. As an alternative to an exclusive northbound right-turn lane, signal timings along the corridor were adjusted to accommodate the significant improvement at the intersection of Harrison Avenue and I-40 WB Ramps (Option 2). As a result, the intersection's overall delay is expected to improve during the weekday AM and PM peak hours, so that the combined conditions are better than the background conditions. Additionally, it should be noted that the site accounts for approximately 1% of the total traffic at this intersection.

Cary Parkway and Norwell Boulevard

Capacity analysis indicates that the northbound approach operates at LOS E during the weekday AM and PM peak hours. The southbound approach currently operates at LOS D during the AM peak hour and LOS F during the PM peak hour. Under background (2021) and combined (2021) conditions the minor street approaches are expected to operate at LOS F during both the AM and PM peak hours. These levels-of-service are not uncommon for minor street approaches with heavy mainline volumes. While the traffic at this intersection meets the peak hour warrant for the PM peak hour from the *Manual on Uniform Traffic Control Devices* (MUTCD), it is unlikely this intersection will satisfy the MUTCD 8-hour and 4-hour warrants, which NCDOT favors for the installation of a traffic signal. It should be noted that this intersection meets the peak hour warrant for the PM peak hour under existing (2016) and background (2021) conditions. It should also be noted that signalization of this intersection

would provide the gap in the mainline traffic necessary to allow other minor street approaches to operate at an acceptable level-of-service with minimal queues. It is recommended that this intersection be monitored for signalization and a full signal warrant analysis be conducted upon full build-out of the development (2021). If this intersection satisfies the necessary MUTCD warrants to warrant installation of a traffic signal, a traffic signal should be installed. It is worth noting that adding a third lane to the southbound approach is not expected to improve the approach delay because there are minimal southbound through movements in comparison to the other movements on this approach. Additionally, it should be noted that the site accounts for approximately 1% of the total traffic at this intersection.

5. Recommendations

Based on the findings of this study, specific geometric and traffic control improvements have been identified at study intersections. The improvements are summarized below and are illustrated in the figures found on pages E-15 and E-16. These improvements are recommended to meet the Town's LDO requirements and may prove to be infeasible.

Committed Improvements by Adjacent Developments

The following improvement has been committed to in the TAR for the SAS Building A development.

I-40 EB Ramps and Harrison Avenue

- Reconfigure the outermost southbound right-turn lane to become a free-flowing right-turn lane, while the innermost right-turn lane remains signal controlled.

Recommended Improvements by Developer

The following improvements are recommended based on the Town's LDO requirements:

I-40 WB Ramps and Harrison Avenue

- Construct an additional exclusive northbound left-turn lane with 575 feet of storage and appropriate taper. This will require the addition of a third westbound through lane on Harrison Avenue across the bridge terminating as the westbound left-turn lane at the eastbound ramps. (Option 1)

OR

- Construct a loop ramp on the eastbound approach along Harrison Avenue to I-40 WB. Restripe the outermost exclusive eastbound left-turn lane to become chevron pavement markings. Restripe the innermost exclusive eastbound left-turn lane as a through lane. (Option 2)
- Modify corridor signal timings to accommodate for the recommended construction of the loop ramp. (Option 2)

I-40 EB Ramps and Harrison Avenue

- Modify corridor signal timings to accommodate for the recommended construction of the loop ramp to I-40 WB on the eastbound approach at the intersection of Harrison Avenue and I-40 WB Ramps. (Option 2)

Harrison Avenue and Weston Parkway

- Restripe the chevron pavement markings currently on the roadway to become an additional southbound through lane. Extend this lane utilizing existing pavement to the intersection of Harrison Avenue and Bass Pro Lane. Restripe existing pavement (the existing right-turn lane) to accommodate an additional receiving lane. Drop the additional receiving lane at the RIRO access road to The Arboretum Mixed-Use Development. (Option 1)
- Construct an exclusive southbound right-turn lane with 100 feet of storage and appropriate taper. (Option 1)

OR

- Modify corridor signal timings to accommodate for the recommended construction of the loop ramp to I-40 WB on the eastbound approach at the intersection of Harrison Avenue and I-40 WB Ramps. (Option 2)

Harrison Avenue and Research Drive

- Widen east side of Harrison Avenue via a bulb-out to accommodate the high volume of anticipated U-turns from the proposed development on the southbound approach at this intersection. (Option 1 and Option 2)
- Modify corridor signal timings to accommodate for the recommended construction of the loop ramp to I-40 WB on the eastbound approach at the intersection of Harrison Avenue and I-40 WB Ramps. (Option 2)

Harrison Avenue and Cary Parkway

- Restripe the existing northbound through/right lane as a second through lane. (Option 1)

- Construct an exclusive northbound right-turn lane with 100 feet of storage and appropriate taper. (Option 1)

OR

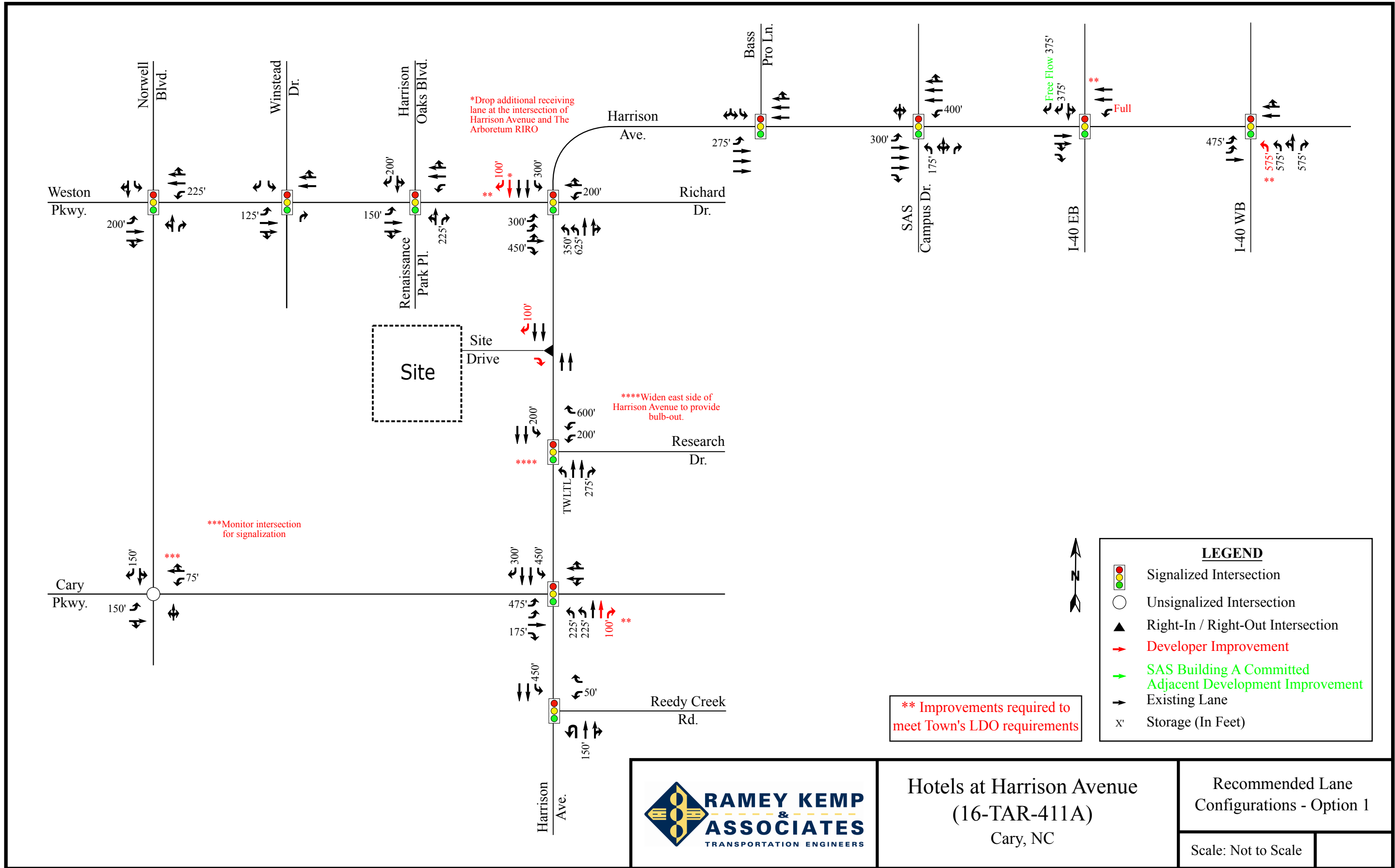
- Modify corridor signal timings to accommodate for the recommended construction of the loop ramp to I-40 WB on the eastbound approach at the intersection of Harrison Avenue and I-40 WB Ramps. (Option 2)

Cary Parkway and Norwell Boulevard

- Monitor intersection for signalization upon full build-out of the development. Conduct a full signal warrant analysis at this intersection upon build-out of the development to determine if a traffic signal should be constructed.

Harrison Avenue and Site Drive (RIRO)

- Construct Site Drive with one ingress lane and one egress lane and an island that will restrict the intersection access to right-in/right-out only.
- Provide stop control for the eastbound approach.
- Construct an exclusive southbound right-turn lane with 100 feet of storage and appropriate taper.



*Drop additional receiving lane at the intersection of Harrison Avenue and The Arboretum RIRO

****Widen east side of Harrison Avenue to provide bulb-out.

***Monitor intersection for signalization

** Improvements required to meet Town's LDO requirements

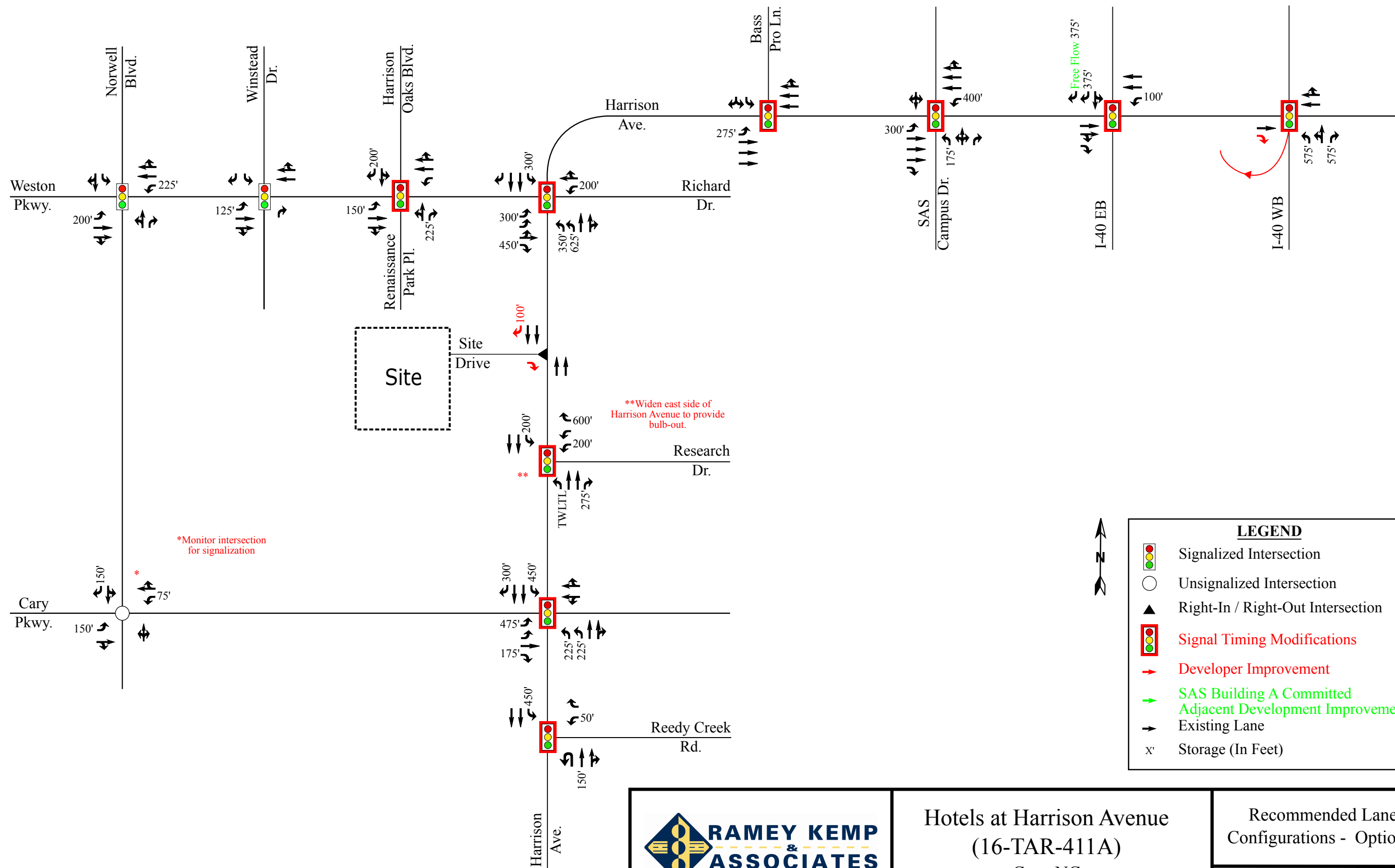
LEGEND

- Signalized Intersection
- Unsignalized Intersection
- Right-In / Right-Out Intersection
- Developer Improvement
- SAS Building A Committed Adjacent Development Improvement
- Existing Lane
- Storage (In Feet)









Hotels at Harrison Avenue
(16-TAR-411A)
Cary, NC

Recommended Lane Configurations - Option 1

Scale: Not to Scale



LEGEND

-  Signalized Intersection
-  Unsignalized Intersection
-  Right-In / Right-Out Intersection
-  Signal Timing Modifications
-  Developer Improvement
-  SAS Building A Committed Adjacent Development Improvement
-  Existing Lane
-  Storage (In Feet)



RAMEY KEMP & ASSOCIATES
TRANSPORTATION ENGINEERS

Hotels at Harrison Avenue
(16-TAR-411A)
Cary, NC

Recommended Lane
Configurations - Option 2

Scale: Not to Scale