Town of Cary
2007 Comprehensive Transportation Plan Survey
Executive Summary

The Comprehensive Transportation Plan (CTP) Survey surveyed 405 residents of Cary on numerous issues relating to transportation in Cary. The areas examined include the overall transportation system, streets, bicycling, transit, pedestrian, and key transportation improvements.

The respondents rated the overall Cary transportation system (street, pedestrian, transit, and cycling elements) with a solid rating. The mean was 6.29 on a 9-point scale with 66.8% of the responses above the midpoint. The highest rated transportation aspects were *street aesthetics*, *street traffic safety measures*, and *maintenance of neighborhood streets*. The lowest rated were *bicycle racks/ amenities*, *C-Tran service*, and *traffic congestion*. When asked the major transportation issues, the respondents indicated the key ones were *bad or unsafe drivers*, *traffic congestion/delays*, and *street maintenance*. The somewhat less important issues were *limited public transportation* and *lack of alternative modes of travel*. As for the key potential transportation improvements, these were to *build more facilities for non-motorized transportation*, *improve maintenance for roads/bridges*, *add turn lanes at intersections*, and *widen existing streets*. The less important potential improvements were to *build new freeways*, *build HOV lanes*, and *build new streets*.

The next area of the survey examined the streets in Cary. The respondents named the most congested streets in Cary as Walnut Street, Cary Parkway, and Kildaire Farm Road. All were considered congested in both the AM and PM. As to expanding funding for street maintenance and improvements, the respondents indicated they would prefer redirecting existing resources from other projects and not increasing taxes. There was also a degree of support for the connectivity requirement in neighborhoods that mandates a certain number of streets in the neighborhood connect which can limit cul-de-sacs and dead-end streets. The use of traffic calming strategies in neighborhoods was also supported and there was even a degree of support for expanding the program. When asked their favorite streets, the respondents indicated Cary Parkway, Kildaire Farm Road, Weston Parkway, Maynard Road, Academy Street, and High House Road. The major factors considered included aesthetics/landscaping, connectivity/convenience, traffic flow, width, and maintenance. The streets mentioned as most needing improvement include Cary Parkway, Maynard Road, Kildaire Farm Road, Walnut Street, and Chapel Hill Road. The key areas for improvement were potholes/maintenance, widening, traffic congestion, construction issues, and signal lights.

In terms of bicycling, approximately 50% of the respondents owned a bicycle and almost 47% actually rode their bikes. Most of the riders consider themselves to be intermediate or basic skill level riders. The major biking activities engaged in were exercise/recreation (100%), to civic places (46.9%), to visit family/friends (46.9%), and to shopping or dining (20.8%). Most of the usage frequency was weekly and primarily monthly for most activities; although, exercise/recreation and visiting family/friends had higher levels of daily usage. If the Town made improvements to the biking system, then the respondents would significantly increase their biking activities and usage frequently with much higher daily and weekly usage. The bicycle riders indicated they were most comfortable *cycling on the greenway system away from streets*, *cycling on multi-use paths outside the roadway*, or *cycling in a striped bike lane next to travel lanes*. They were not comfortable with any option that involved riding in traffic without bike markings. The bicycle riders generally supported any measures to improve the biking system especially *commuter use of greenways*, *increased bicycle* *education/encourage use*, and *open greenway system to night riding including enforcement and lights*. The bicycle riders also named the streets they would like to see improved for bicycling. These include Cary Parkway, Maynard Road, High House Street, and Kildaire Farm Road. The major methods to improve these streets include adding bike lanes/marked lanes, widening, and improving sidewalks. Both bicycle riders and nonriders were asked about the effectiveness of several improvements to encourage cycling. They indicated the most effective improvements were *extended greenways/trail system* and *improved off-road connectivity between residential neighborhoods*. They indicated a level of effectiveness for *paved shoulders wide enough for cycling* and *striped bike lanes on major roadways*. Finally, there was support for several bicycle programs to maintain a multimodal transportation system including *safe routes to school*, *safety education*, and *increased enforcement*.

The respondents were also asked about C-Tran service. The usage of C-Tran was very low for both fixed route and door-to-door services. The highest usage was for door-to-door service compared to fixed route (4.9% versus 3.2%). In terms of frequency of usage, there was higher daily usage for fixed route service and higher weekly, monthly, and yearly for door-to-door. The respondents indicated the most important items to encourage C-Tran usage were *RDU Airport service*, *more print/online information*, and *on-time performance*. The least important items were *earlier service in the morning*, *later service in the evening*, and *employee-sponsored transit passes*. The major areas mentioned to add new fixed route service were to *shopping areas/malls*, *Raleigh*, *Kildaire Farm Road*, *RDU*, *RTP*, *Davis Drive*, *Cary Parkway*, and *Durham*. However, a large percentage (20.4%) did not know enough about C-Tran to comment indicating the need to increase the information flow on the service to citizens.

Several pedestrian aspects were examined in the survey. When asked the major reasons for not walking in Cary, the responses focused on the convenience of driving including *I have to run many errands in many different locations* and *I have a lot to carry and need my car to haul it*. The respondents also indicated *traffic makes it unsafe and unpleasant* and *there isn't continuous sidewalks to the destinations*. Strategies to encourage more walking in Cary may include the continued use of traffic calming strategies, better traffic enforcement, and more continuous sidewalks. The respondents also rated three aspects of Cary's sidewalks including *maintenance*, *safety*, and *connectivity*. All were rated very positively with *connectivity* rating slightly lower.

The final set of questions examined the importance of several key transportation improvements. The respondents rated *street maintenance* (fix potholes, resurface, better signage), *neighborhood traffic safety*, *streets*, and *sidewalks* as the most important improvement areas. There was an open-ended question included for any additional comments to the CTP update process. The most frequent responses focused on *improving sidewalks*, *increased Police traffic enforcement*, *improved street maintenance (potholes, landscaping), improved public transportation*, and *improved signal lights*.

Town of Cary
2007 Comprehensive Transportation Plan
Survey Report

Methodology

The Town of Cary's 2007 Comprehensive Transportation Plan (CTP) Citizen Survey was conducted from March 31st through April 22nd of 2007. The survey instrument is shown in Appendix A. BKL Research administered the telephone survey to 405 residents of the Town of Cary. This resulted in a margin of error of $\pm$ 5%. Both listed and unlisted telephone numbers with Cary exchanges including annexed regions were included in the sampling frame and contacted using a random selection process. A minimum of four separate callbacks was attempted on each number not screened (eliminated) from the sampling frame. The potential respondents were screened with regards to residence in Cary and whether they were over the age of 18. The average survey completion time was between 14 and 18 minutes. The refusal rate for the survey was 24.0%.

The survey consisted of 26 core questions with related subparts and 5 demographic questions. Respondents were asked to rate several aspects of the Town's transportation system, the Town's streets, bicycling issues, transit in Cary, pedestrian issues, and potential transportation improvements. The respondents were primarily asked to use a 9-point scale with a midpoint of 5. See Appendix N for a breakdown of the closest intersection to the respondent's home.

Demographic Characteristics of the Sample

The demographic profiles of the sample are exhibited in Figures 1-4. The age profile of the sample is illustrated in Figure 1. A very large percentage of the respondents (75.2%) fell between the ages of 26 to 55 with the largest portion (32.0%) in the 36-45 year-old category. Keep in mind residents under the age of 18 were screened from the sample. Figure 2 represents the number of years the respondents had lived in the Town of Cary. As for years of residency, 65.9% of the respondents had lived in Cary for 6 years or more. There was also a relatively high percentage who had lived in the Town from 2 to 5 years (23.0%) or less than 2 years (11.1%). Figure 3 indicates 32.2% of the respondents work in Cary. The gender breakdown was 52.5% female and 47.5% male (Figure 4).

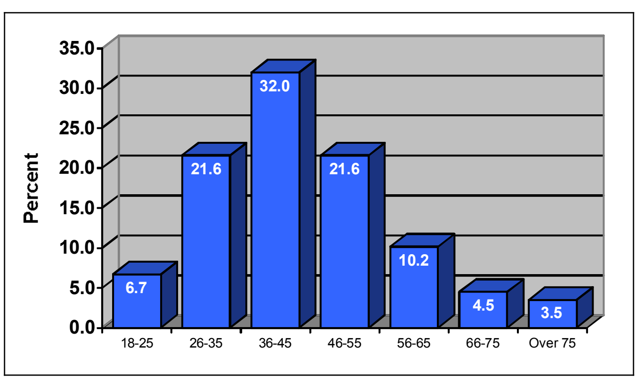

Figure 1. Sample: Age Distribution.

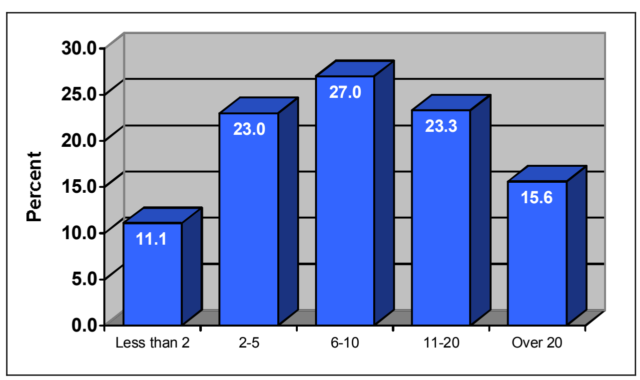

Figure 2. Sample: Years Lived in Cary.

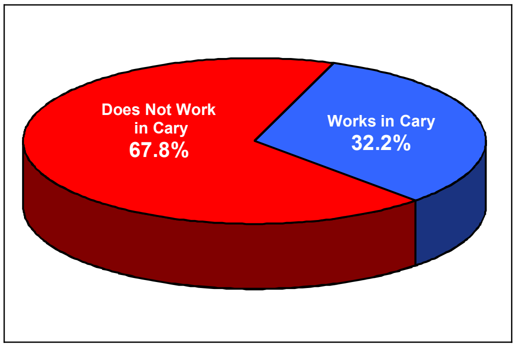

Figure 3. Sample: Work Location.

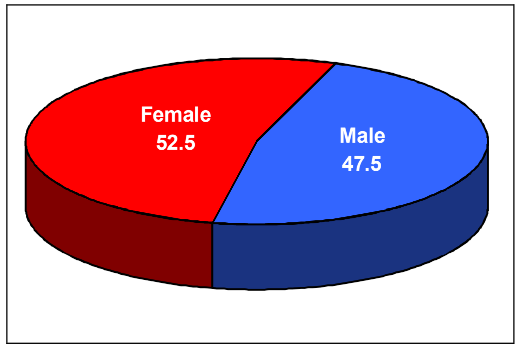

Figure 4. Sample: Gender.

The report will include selected crosstabulations specifically chosen by the Town for questions in the survey (Appendix B). It is important to exercise caution in the interpretation of crosstabulations. They will act to segment or slice up the sample size and in turn increase the margin of error for a question. For that reason, these groupings will not be included in the discussion and incorporated into the appendices for exploratory purposes only. The crosstabulations are numbered separately within the appendix and will be referred to in the section they pertain. For example, the Town selected crosstabulations for the aforementioned demographic variables. These are shown in Tables B271-B278 in Appendix B.

The percentages in the tables shown in the report are rounded off to one decimal place. Due to rounding, this may result in row totals that do not always add up to exactly 100.0%. When no sample size is given, this indicates the full sample (n=405) was asked that particular question. Subsamples such as respondents who ride bikes will be indicated separately, such as (n=96).

The results showing mean scores will be presented with the percentage above the midpoint illustrated such (7.25 – 82.5%). This indicates the mean was 7.25 on a 9-point scale with 82.5% responding above the midpoint of 5. If this was a scale from strongly oppose (1) to strongly support (9), then 82.5% responded on the support side of the scale.

Transportation System

The transportation system in Cary was assessed by a series of questions that rated the overall transportation system, aspects of the system, important transportation issues, and ways to improve the system. The respondents were first asked to evaluate the overall transportation system including street, pedestrian, transit, and cycling elements. A 9-point scale from poor (1) to excellent (9) was used to rate the system. The mean for the overall transportation system rating was a 6.29 with 66.8% rating the system above average (5) and only 11.1% below average (Table 1). These represent solid ratings considering all aspects of the transportation system are included in the assessment. Selected crosstabulations for the transportation system ratings are shown in Tables B1-B5 (Appendix B).

Table 1. Cary Transportation System Rating (Street, Pedestrian, Transit, and Cycling Elements).

Mean	Poor 1	2	3	4	Average 5	6	7	8	Excellent 9
6.29	1.5	1.2	4.2	4.2	22.0	12.1	31.2	17.1	6.4

The next series of questions examined 11 different aspects of the transportation system in Cary. The same 9-point scale from poor (1) to excellent (9) was used to assess these aspects. Table 2 indicates the three highest rated aspects were *street aesthetics* (7.11 – 84.3% above average), *street traffic safety measures* (6.66 – 76.3%), and *maintenance of neighborhood streets* (6.52 – 73.1%). The three lowest rated aspects were *bicycle racks/amenities* (4.90 – 34.9%), *C-Tran service* (4.92 – 32.7%), and *traffic congestion* (5.18 – 45.0%).

Table 2. Transportation System Aspects Ratings.

Transportation Aspects	Mean	Poor 1	2	3	4	Average 5	6	7	8	Excellent 9
Street aesthetics	7.11	1.5	0.5	2.2	2.7	8.7	11.9	22.9	30.1	19.4
Street traffic safety measures	6.66	2.0	1.2	2.0	4.2	14.4	12.7	29.3	22.6	11.7
Maintenance neighborhood streets	6.52	1.2	1.5	2.7	4.5	17.0	16.5	25.9	19.7	11.0
Maintenance of primary roads	6.38	0.7	1.2	2.5	6.5	18.6	19.1	25.1	17.9	8.4
Street design	6.35	2.5	2.0	4.0	5.7	15.6	13.6	27.7	20.7	8.4
Condition of roads	6.22	1.5	1.7	2.5	7.2	18.4	20.1	26.6	15.9	6.2
Signal systems	6.18	3.2	2.5	5.4	7.2	16.0	12.1	25.9	18.3	9.4
Bicycle routes	5.59	5.2	4.9	10.1	7.9	21.6	9.8	18.6	12.5	9.5
Traffic congestion	5.18	5.4	4.7	9.9	16.1	18.8	15.3	18.8	6.9	4.0
C-Tran service	4.92	9.7	11.9	5.9	5.5	34.3	6.8	8.9	8.1	8.9
Bicycle racks and amenities	4.90	6.6	9.6	13.6	7.0	28.2	10.0	11.0	7.6	6.3

Another series of questions examined key transportation system issues in Cary. This time a 9-point scale from least critical (1) to most critical (9) was used. Table 3 indicates the respondents perceived the most critical issues to be *bad, unsafe drivers* (7.09 – 82.0% above neutral), *traffic congestion/ delays* (7.03 – 83.3%), and *street maintenance* (6.88 – 78.3%). In addition, *pedestrian/bicycle safety* (6.60 – 70.4%) was perceived to be a moderately critical issue. Somewhat less critical concerns were *lack of alternative modes of travel* (5.76 – 57.0%) and *limited public transportation* (5.73 – 55.2%). Appendix C shows the responses to the "other" category for the transportation issues. There were a limited number of responses for this question. The most frequent comments concerned *adding bike paths/lanes* (5 comments), *better enforcement of laws/speeding issues* (5 comments), *improve sidewalks* (4 comments), and *better signage* (4 comments).

Table 3. Cary Transportation System Issues Ratings.

Transportation Issues	Mean	Least Critical 1	2	3	4	Neutral 5	6	7	8	Most Critical 9
Bad, unsafe drivers	7.09	1.5	1.7	1.5	4.5	8.7	11.2	17.7	31.2	21.9
Traffic congestion/delays	7.03	1.7	0.5	2.7	3.5	8.2	11.1	30.4	19.3	22.5
Street maintenance	6.88	0.7	1.2	2.7	6.2	10.9	12.1	20.5	29.4	16.3
Pedestrian/bicycle safety	6.60	4.2	1.7	3.0	3.7	16.9	9.7	20.8	19.6	20.3
Lack of alternative modes of travel	5.76	9.5	4.4	4.1	4.4	20.6	11.6	19.1	15.5	10.8
Limited public transportation	5.73	8.5	5.2	3.9	3.1	24.1	12.2	18.1	14.8	10.1

The final question in the transportation section examined ways to improve the transportation system in Town. A 9-point scale from not important (1) to most important (9) was utilized. The respondents indicated the most important method to improve transportation was to *build more facilities for non-motorized transportation (sidewalks, greenways, and bike lanes)*. The mean was 6.71 for this option with 71.8% above the neutral rating (Table 4). This was followed by *improve maintenance on roads/ bridges* (6.46 – 69.1%), *add turn lanes at intersections* (6.27 – 68.7%), and *widen existing streets* (6.05 – 62.9%). The three methods viewed somewhat less important by the respondents were *build new freeways* (4.65 – 37.1%), *build HOV lanes* (4.89 – 44.1%), and *build new streets* (4.90 – 43.1%). Appendix D shows the responses to the "other" category for transportation improvements. The most frequent comments were *slowing growth* (4 comments), *improving the train system* (3 comments), *repair potholes* (2 comments) and *better signage* (2 comments).

Table 4. Cary Transportation System Improvements.

Improvements	Mean	Not Important 1	2	3	4	Neutral 5	6	7	8	Most Important 9
Build more facilities for non-motorized transportation	6.71	7.3	1.0	2.8	4.3	12.8	6.3	18.3	19.3	27.9
Improve maintenance for roads/bridges	6.46	4.0	0.8	3.5	5.0	17.8	14.0	18.8	20.8	15.5
Add turning lanes at intersections	6.27	6.2	1.7	2.5	4.0	16.9	16.1	21.3	18.4	12.9
Widen existing streets	6.05	6.7	2.2	6.4	5.4	16.3	14.1	20.2	12.6	16.0
Provide more bus service	5.44	12.0	6.6	5.4	4.6	19.9	10.7	17.1	11.5	12.0
Widen existing freeways	5.33	12.8	2.7	4.9	8.4	21.2	14.8	16.5	10.9	7.7
Build new streets	4.90	13.7	5.2	9.0	9.7	19.4	15.7	14.4	8.0	5.0
Build HOV lanes	4.89	18.2	7.0	6.7	6.5	17.7	10.4	17.2	8.5	8.0
Build new freeways	4.65	16.4	6.7	8.5	10.9	20.4	11.7	14.2	6.2	5.0

Streets

The next series of questions in the survey examined the streets in Cary. The respondents gave their opinions on the most congested streets in Town, options on expanding funding for street maintenance and improvements, neighborhood connectivity requirements, traffic calming strategies, favorite streets in Town, and streets most in need of improvements.

The first question asked the respondents to name the three most congested streets in Cary. They were also asked to name the time when they were congested (AM, PM, or both). Table 5 indicates the three most congested streets were Walnut Street (mentioned 15.7%), Cary Parkway (13.4%), and Kildaire Farm Road (12.1%). All were most congested in both the AM and PM. Other streets with traffic congestion problems included Maynard Road (7.8%), Davis Drive (7.5%), High House Road (7.0%), Tryon Road (6.3%), and Chapel Hill/Highway 54 (6.0%). Again, all of these streets were congested in both the AM and PM.

Table 5. Most Congested Streets in Cary.

Streets	# Times Mentioned	% Mentioned	% AM	% PM	% Both
Walnut Street	155	15.7	3.4	10.1	86.6
Cary Parkway	133	13.4	3.9	14.2	81.9
Kildaire Farm Road	120	12.1	7.6	8.4	84.0
Maynard Road	77	7.8	5.6	9.7	84.7
Davis Drive	74	7.5	5.4	13.5	81.1
High House Road	69	7.0	7.4	10.3	82.4
Tryon Road	62	6.3	5.0	6.7	88.3
Chapel Hill Road/Highway 54	59	6.0	0.0	23.2	76.8
Harrison Avenue	43	4.3	12.5	12.5	75.0
Crossroads	34	3.4	0.0	0.0	100.0
Highway 55	30	3.0	6.7	6.7	86.7
Chatham Street	28	2.8	3.7	25.9	70.4
US 1	17	1.7	6.7	6.7	86.7
Highway 64	16	1.6	12.5	0.0	87.5
Morrisville-Carpenter Road	14	1.4	0.0	0.0	100.0

The respondents were next asked their opinion on what the Town should do toward expanding funding for street maintenance and improvements. They were given four response options including exploring all options including tax increases, redirecting funds from other projects to streets without tax increases, keeping it the way things are now, and no opinion. Table 6 shows most respondents favored *consider redirecting existing resources from other projects to streets but don't increase my taxes* (55.1%). There was some degree of support for *explore all options including the possibility of raising my taxes* (21.1%). There were 21.4% of the respondents who indicated *things are fine the way they are now so don't explore any changes* while 2.4% offered *no opinion*. Appendix E shows the responses to the "other" category. The limited number of responses focused on *traffic problems* (3 comments), *growth issues* (3 comments), and *making developers contribute funds* (2 comments).

Table 6. Opinion on Expanding Funding for Cary Street Maintenance and Improvements.

Explore all options, including the possibility of raising my taxes	Consider redirecting existing resources from other projects to streets, but don't increase my taxes	Things are fine the way they are now, so don't explore any changes	No opinion
21.1	55.1	21.4	2.4

Another question in the street section examined the connectivity requirements for new residential developments. The requirement mandates that new residential developments connect a certain number of streets which can limit cul-de-sacs and dead-end streets in neighborhoods. The respondent's support for the requirements was judged on a 9-point scale from strongly oppose (1) to strongly support (9). Table 7 shows there was a degree of support for this requirement; although, the level of support was not overwhelming. The mean was 5.67 with 46.6% on the support side of the scale and 25.4% on the oppose side. Note that 27.9% of the responses resided in the neutral or indifferent category.

Table 7. Support for Connectivity Requirements for New Residential Developments.

Mean	Strongly Oppose 1	2	3	4	Neutral 5	6	7	8	Strongly Support 9
5.67	9.7	3.0	8.2	4.5	27.9	5.7	12.2	9.5	19.2

The respondents were also asked about the use of traffic calming strategies in residential areas. These strategies include speed humps and narrowing lanes to slow traffic flow in neighborhoods. The respondents were given five response options including continuing the program as it is currently, increase the funding for the program and continue using speed humps, increase the funding for the program and use a wider range of traffic calming measures (chicanes, bulb-outs), end the program, or lack of knowledge about the program. Overall, the respondents indicated a high degree of support for maintaining or even expanding the program of traffic calming measures (Table 8). The most frequent response was to *continue the program at the current level* (38.5%). However, there was a large percentage who would like to see funding increased to the program. Note that 33.8% who would like to *increase funding to the program and use a wider range of traffic calming measures (chicanes, bulb-outs)* and 15.5% who would like *increased funding to the program with continued use of speed humps*. There were only 8.5% of the respondents who would *discontinue the program* and 3.8% indicated *I don't know enough about the program*.

Table 8. Opinion on Cary Traffic Calming Strategies.

Continue the program at the current level	Increase funding to the program with continued use of speed humps	Increase funding to the program and use a wider range of traffic calming measures	Discontinue the program	I don't know enough about the program
38.5	15.5	33.8	8.5	3.8

The next question in this section asked the respondents to name their three favorite streets in Cary and the reason it was their favorite. Table 9 shows the most named street was Cary Parkway (31.0%) and the major reason was aesthetics and landscaping. The respondents also complimented Cary Parkway for traffic flow, connectivity/convenience, maintenance, wideness, traffic signals, and lack of congestion. Other streets mentioned to a much lesser degree were Kildaire Farm Road (7.1%), Weston Parkway (6.8%), Maynard Road (6.5%), Academy Street (5.6%), High House Road (5.6%), Chatham Street (4.0%), and Lochmere Drive (4.0%). In totality, the major factors the respondents considered important in determining their favorite streets were aesthetics/landscaping, connectivity/convenience, traffic flow, width, and street maintenance. See Appendix F for the listing of all the favorite streets mentioned and the reasons.

Table 9. Favorite Streets in Cary and Reasons.*

Streets	# Times Mentioned	% Mentioned	Reasons
Cary Parkway	99	31.0	Aesthetics/landscaping (40), traffic flow (30), connectivity/ convenience (20), well maintained (13), wide (11), traffic signals (10), not congested (9), speed limit (4), median (3), well designed (3)
Kildaire Farm Road	23	7.1	Connectivity/convenience (6), aesthetics/landscaping (4), traffic flow (2), well maintained (2)
Weston Parkway	22	6.8	Aesthetics/landscaping (11), not congested (8), well maintained (4), traffic flow (3), median (3), wide (3)
Maynard Road	21	6.5	Loop/convenience (15), not congested (4), well maintained (2)
Academy Street	18	5.6	Aesthetics/landscaping (7), downtown area (6), small town feel (2), not congested (2), historical feel (2), amenities/businesses (2)
High House Road	18	5.6	Traffic flow (5), aesthetics/landscaping (4), connectivity/ convenience (4), not congested (2), wide (2), signal lights (2)
Chatham Street	13	4.0	Aesthetics/landscaping (6), old part of town (3), downtown area (3)
Lochmere Drive	13	4.0	Aesthetics/landscaping (8), connectivity/convenience (4), speed limit (2)
Harrison Avenue	9	2.8	Not congested (3), connectivity/convenience (2), wide (2), traffic flow (2)
Highway 55	6	1.9	Connectivity/convenience (2), wide (2)
Walnut Street	5	1.6	Not congested (2), amenities/businesses (2)
Davis Drive	4	1.2	Connectivity/convenience (2), traffic signals (2)
Evans Road	4	1.2	Aesthetics/landscaping (2), connectivity/convenience, wide
US 1	3	0.9	Aesthetics/landscaping (2), median, street lighting, wide

* Respondents may have more than one comment

The respondents were also asked which streets they would recommend for improvements as a part of the Comprehensive Transportation Plan and the reasons why (Table 10). The key streets they suggested were Cary Parkway (10.7%), Maynard Road (10.5%), Kildaire Farm Road (9.3%), Walnut Street (8.9%), Chapel Hill Road/Highway 54 (7.7%), Tryon Road (6.3%), Davis Drive (5.9%), and High House Road (5.3%). In totality, the major problems the respondents considered important in designating streets for improvement were potholes/maintenance, widening, traffic congestion, construction issues, and signal lights (timing and synchronization). See Appendix G for a listing of all streets recommended for improvement and the reasons.

Table 10. Streets for Improvement in Cary and Reasons.*

Streets	# Times Mentioned	% Mentioned	Reasons
Cary Parkway	71	10.7	23 Potholes/maintenance (Penny, High House) 12 Widen (Harrison, Evans, North end) 8 Traffic congestion (North end) 7 Construction issues 6 Signal lights (synchronize, timing) 6 Uneven pavement/repave 4 Speeding/enforcement 2 Traffic flow (extend road) 2 Improve sidewalks 2 Add turn lanes (Lake Pine)
Maynard Road	70	10.5	26 Widen 15 Potholes/maintenance (Harrison, Maynard loop, Griffiths) 8 Traffic congestion 7 Signal lights (timing – Chapel Hill, East & West ends; add – Castalia, past Chatham) 6 Uneven pavement/repave (Chapel Hill to High House) 4 Increase speed limit 3 Poor access 2 Construction issues 2 Street lighting
Kildaire Farm Road	62	9.3	22 Potholes/maintenance 14 Traffic congestion 11 Widen 5 Signal lights (timing, synchronization, too many) 4 Speeding/enforcement 2 Uneven pavement/repave
Walnut Street	59	8.9	22 Traffic congestion 9 Poor design 9 Potholes/maintenance (East end) 9 Widen 5 Construction issues 3 Signal lights (timing) 2 Uneven pavement/repave 2 Poor median
Chapel Hill Road/Highway 54	51	7.7	26 Widen 9 Potholes/maintenance 8 Traffic congestion 4 Construction issues 2 Signal lights 2 Improve sidewalks
Tryon Road	42	6.3	12 Widen 10 Traffic congestion 6 Construction issues 4 Potholes/maintenance 2 Signal lights 2 Uneven pavement/repave
Davis Drive	39	5.9	10 Widen 9 Traffic congestion 8 Potholes/maintenance 4 Two lanes to one (High House) 3 Signal lights 3 Uneven pavement/repave 3 Construction issues 2 Add bike path
High House Road	35	5.3	6 Traffic congestion 5 Construction issues 5 Signal lights (timing, sensors, L/R turns) 4 Widen 4 Add turn lane (Davis/55) 3 Potholes/maintenance

* Respondents may have more than one comment

Table 10. Streets for Improvement in Cary and Reasons (Continued).

Streets	# Times Mentioned	% Mentioned	Reasons
Chatham Street	28	4.2	8 Widen (West end) 7 Potholes/maintenance (East end) 5 Uneven pavement/repave 3 Traffic congestion 2 Construction issues 2 Provide alternative route
Harrison Avenue	20	3.0	6 Traffic signals (timing – Maynard) 5 Potholes/maintenance 4 Traffic congestion 3 Widen
Carpenter Fire Station Road	11	1.7	5 Potholes/maintenance 5 Widen 2 Add turn lanes (Highway 55) 2 Traffic congestion 2 Signal lights (timing)
Morrisville Carpenter Road	10	1.5	5 Widen (Davis Drive into Morrisville, Highway 54) 2 One lane road
Morrisville Parkway	10	1.5	5 Potholes/maintenance 2 Uneven pavement/repave
Highway 55	10	1.5	3 Widen 2 Traffic congestion
Apex Road	7	1.1	2 Widen
Crossroads	7	1.1	4 Traffic congestion 3 Traffic flow/poor design 2 Widen

See Appendix B for selected crosstabulations for transportation aspects (B6-B27), issues (B28-B49), measures to improve (B50-B71), funding maintenance/improvements (B72-B73), neighborhood connectivity requirements (B74-B79), and traffic calming strategies (B80-B82).

Bicycling

The next series of questions examined biking in Cary. The respondents were asked an extensive set of questions concerning several issues including if they owned a bicycle, if they ride their bicycle, riding skill level, bicycle usage/frequency, the impact of improvements on usage/frequency, cycling options for riding, measures to improve Cary's bike system, improvements to encourage more riding, and bicycle programs to maintain a multimodal transportation system.

Table 11 indicates that approximately 50% of the respondents own a bicycle. Of those who own a bike, approximately 47% ride their bicycle. In terms of skill level, most would consider themselves to be intermediate level riders (53.7%) or basic level riders (31.6%). Note that few considered themselves to be beginners (7.4%) or advanced level (7.4%) riders (Table 12).

Table 11. Bicycle Ownership and Ridership.

Owner/Rider	Yes	No
Bicycle ownership	50.4	49.6
Bicycle ridership (n=199)	46.6	53.4

Table 12. Bicycle Riding Skill Level (n=95).

Beginner I am still learning to bike and typically ride only on streets and sidewalks in my neighborhood, completely away from traffic	**Basic** I am a casual rider; I prefer to ride on bike paths, greenways, and bike lanes on streets without fast moving and heavy traffic	**Intermediate** I would classify myself somewhere between basic and advanced	**Advanced** I am an experienced cyclist who prefers to ride with traffic on streets rather than on striped bike lanes and paths, I think vehicles should share the road with cyclists
7.4	31.6	53.7	7.4

The respondents who ride their bicycles were subsequently asked their biking activities and frequency of usage. Table 13 indicates the most common biking activity was to ride for exercise or recreation with 100% of the respondents engaging in this activity. This was followed by riding to civic places such as a library or park (46.9%), visiting friends or family (46.9%), and shopping or dining (20.8%). There were lower percentages for riding their bicycle to work (9.4%), cultural events such as a concert or movie (8.3%), school (4.2%), and transit stops (1.0%).

In terms of frequency of usage, the frequency could vary greatly depending on the activity. For example, those who used their bicycles for exercise/recreation had high daily (8.3%) and very high weekly (47.9%) usage. Interestingly, those who visit family/friends on bicycles made this a common practice with high daily (11.9%) and monthly (61.9%) usage. Most of the other activities generally had monthly usage including to transit stops (100.0%), to shopping/dining (73.7%), to cultural events (71.4%), to work (66.7%), to civic places (65.1%) and to school (50.0%). Keep in mind the sample sizes were small for these breakdowns since only respondents who replied they ride their bicycles and only those who engage in a specific activity were asked the questions on usage frequency. Note the sample sizes listed in the table which indicates the number of respondents who replied "yes" to an activity and were asked about their usage frequency.

The respondents who ride their bikes were then asked if their biking activities and usage frequency would change if the Town made improvements to the bike system. Table 14 shows that both the activities and the frequency of usage would increase significantly with the improvements. The largest increase in activities would be for exercise/recreation with 75.8% of the respondents indicating they would increase their usage. There would also be large increases for civic places (54.7%), visit family/friend (51.1%), shopping/dining (36.8%), and cultural events (22.3%). Note that all the activities increased in percentages. In terms of usage frequency, daily usage would increase dramatically for all the activities. In addition, weekly use also increased for all activities except for cultural events and transit stops which both had larger daily use increases. These daily and weekly gains resulted in rather large decreases in monthly usage frequency as the respondents use their bicycles more often. Overall, improvements in the Town's biking system could possibly have a significant impact on biking activities and frequency of usage.

Table 13. Biking Activities and Frequency of Usage (n=96 for Activities).

Biking Activity	Yes	No	n	Daily	Weekly	Monthly	Yearly
For exercise/recreation	100.0	0.0	96	8.3	47.9	39.6	4.2
To civic places	46.9	53.1	45	0.0	30.2	65.1	4.7
To visit friends/family	46.9	53.1	45	11.9	16.7	61.9	9.5
To shopping or dining	20.8	79.2	20	0.0	26.3	73.7	0.0
To work	9.4	90.6	9	0.0	33.3	66.7	0.0
To a cultural event	8.3	91.7	8	0.0	28.6	71.4	0.0
To school	4.2	95.8	4	0.0	50.0	50.0	0.0
To a transit stop	1.0	99.0	1	0.0	0.0	100.0	0.0

Table 14. Biking Activities and Frequency of Usage – with Improvements (n=95 for Activities).

Biking Activity	Yes	No	n	Daily	Weekly	Monthly	Yearly
For exercise/recreation	75.8	24.2	72	22.9	52.9	24.3	0.0
To civic places	54.7	45.3	52	13.7	45.1	41.2	0.0
To visit friends/family	51.1	48.9	48	25.5	36.2	38.3	0.0
To shopping or dining	36.8	63.2	35	17.6	35.3	47.1	0.0
To a cultural event	22.3	77.7	21	23.8	28.6	47.6	0.0
To work	16.8	83.2	16	43.8	43.8	12.5	0.0
To a transit stop	11.6	88.4	11	36.4	18.2	45.5	0.0
To school	7.4	92.6	7	28.6	71.4	0.0	0.0

The respondents who ride bikes were next asked their level of comfort in riding in several cycling situations (Table 15). A 9-point scale was used from least comfortable (1) to most comfortable (9). The highest comfort level was for *cycling on the greenways away from streets* with a mean of 8.28 and 93.7% above neutral on the comfortable side of the scale. The next highest comfort level was for *cycling in a multi-use path outside the roadway* (7.34 – 82.2%). *Cycling in a striped bike lane next to travel lanes* (5.17 – 50.5%) rated in the neutral range. There was a significant decline in the comfort level for any option requiring riding in traffic without any bike markings. Note that *cycling to the right of a wide outside lane (without bike markings) near vehicular traffic* rated with a mean of only 3.09 and only 15.8% above neutral. The lowest comfort level was for *cycling in the travel lane (without bike markings) with vehicular traffic* (2.63 – 13.7%).

Table 15. Cycling Options Based on Level of Comfort (n=95).

Cycling Options	Mean	Least Comfortable 1	2	3	4	Neutral 5	6	7	8	Most Comfortable 9
Cycling on the greenway system away from streets	8.28	2.1	0.0	0.0	1.1	3.2	2.1	9.5	11.6	70.5
Cycling on a multi-use path outside the roadway	7.34	4.2	1.1	3.2	4.2	5.3	7.4	9.5	23.2	42.1
Cycling in a striped bike lane next to travel lanes	5.17	21.1	5.3	5.3	6.3	11.6	8.4	15.8	11.6	14.7
Cycling to the right of a wide outside lane (without bike markings) near vehicular traffic	3.09	40.0	8.4	10.5	14.7	10.5	8.4	2.1	3.2	2.1
Cycling in the travel lane (without bike markings) with vehicular traffic	2.63	48.4	11.6	11.6	5.3	9.5	9.5	2.1	2.1	0.0

The next set of questions examined the support for five measures designed to improve the bike system in Cary. Again, this was asked only of those respondents who ride their bikes. A 9-point scale from strongly oppose (1) to strongly support (9) was used. Table 16 shows that all five measures received support with the highest for *commuter use of greenways (better connection to on-road facilities)* with a mean of 7.77 and 88.3% above neutral (support side of the scale). Also receiving a high level of support was *increased bicycle education/encourage use* (7.20 – 79.0%) and *opening the greenway system to night riding including enforcement and lights* (7.09 – 76.5%). There was moderate support for *striped bike lanes on major roadways instead of unmarked wide outside lanes* (6.67 – 70.2%) and *Town-funded support facilities like drinking fountains and bike lockers* (6.60 – 68.4%). Overall, the bike riders were very receptive to measures to improve the bike system.

Table 16. Support for Measures to Improve Cary's Bike System (n=94).

Measures	Mean	Strongly Oppose 1	2	3	4	Neutral 5	6	7	8	Strongly Support 9
Commuter use of greenways (better connections to on-road facilities)	7.77	2.1	2.1	1.1	1.1	5.3	6.3	12.6	14.7	54.7
Increased bicycle education/encourage use	7.20	4.2	2.1	4.2	4.2	6.3	7.4	11.6	14.7	45.3
Open greenway system to night riding including enforcement and lights	7.09	6.4	2.1	3.2	3.2	8.5	5.3	10.6	19.1	41.5
Striped bike lanes on major roadways instead of unmarked wide outside lanes	6.67	10.6	1.1	3.2	6.4	8.5	5.3	14.9	9.6	40.4
Town-funded support facilities like drinking fountains and bike lockers	6.60	7.4	2.1	2.1	5.3	14.7	7.4	15.8	14.7	30.5

The bike riding respondents were next asked what three roads they would most like improved for bicycling and what improvements they would suggest (Table 17). The roads mentioned most often were Cary Parkway (22.1%), Maynard Road (14.0%), High House Road (13.2%), and Kildaire Farm Road (12.5%). The major improvement was to add bike lanes/marked lanes. Also mentioned was widening roads and improving sidewalks. Appendix H lists all the streets and methods to improve.

Table 17. Streets in Cary for Improvement for Bicycling and Reasons.*

Streets	# Times Mentioned	% Mentioned	Methods
Cary Parkway	30	22.1	Bike lanes/marked lanes (20), widen (4), make improvements (3), sidewalks (2), signage (2)
Maynard Road	19	14.0	Bike lanes/marked lanes (15), sidewalks (2), make improvements (2)
High House Road	18	13.2	Bike lanes/marked lanes (14), improve safety (2)
Kildaire Farm Road	17	12.5	Bike lanes/marked lanes (8), widen (2), sidewalks (2)
Davis Drive	8	5.9	Bike lanes/marked lanes (6)
Walnut Street	7	5.1	Bike lanes/marked lanes (6), sidewalks (2)
Lake Pine Drive	5	3.7	Sidewalks (3), bike lanes/marked lanes (2)
Harrison Avenue	5	3.7	Bike lanes/marked lanes (3), make improvements (2)
Chapel Hill Road	4	2.9	Bike lanes/marked lanes (3)
Tryon Road	4	2.9	Bike lanes/marked lanes (3)
Penny Road	3	2.2	Bike lanes/marked lanes (2)
Chatham Street	3	2.2	Bike lanes/marked lanes (2)
Highway 55	3	2.2	Bike lanes/marked lanes (3)
Highway 64	3	2.2	Bike lanes/marked lanes (3)

* Respondents may have more than one comment

A set of questions examined the effectiveness of several improvements to the Town's biking system designed to encourage cycling. This question was asked of the total sample including both bikers and nonbikers. The inclusion of nonbikers lowered the means significantly because many of nonriders would not increase their biking behaviors regardless of the improvements. A 9-point scale from not effective (1) to very effective (9) was used. Table 18 indicates the highest levels of effectiveness were for *extended greenways/trail system* with a mean of 5.37 and 52.8% on the effective side of the scale. In addition, *improved off-road connectivity between residential neighborhoods* (5.22 – 53.2%) was perceived to have a higher level of effectiveness. These were the only two improvements with means falling on the effective side of the scale. The potential improvements with the next highest level of effectiveness were *paved shoulders wide enough for cycling* (4.81 – 45.6%), *striped lanes on major roadways* (4.62 – 45.0%), and *improved bike signage* (4.53 – 40.3%). Only three other of the improvements garnered means above 4.00 including *regular street maintenance* (4.31 – 37.6%), *drainage grades flush with pavement surface* (4.26 – 36.8%), and *bike amenities such as restrooms, water fountains, and benches* (4.22 – 35.0%). The least effective improvements were *wide outside lanes without bike markings on major highways* (3.44 – 24.9%), *bicycle racks* (3.93 – 30.8%), and *more public cycling events* (3.97 – 32.8%). Appendix I shows the "other" responses to improvements to encourage cycling. The most frequent responses were *unsafe/dangerous on streets* (9 comments), *need for off-road bike paths* (5 comments), *adding recreational trails* (5 comments), *improve sidewalks* (4 comments), and *publicize bike safety information* (3 comments).

Table 18. Effectiveness of Improvements to Encourage Cycling.

Biking Improvements	Mean	Not Effective 1	2	3	4	Neutral 5	6	7	8	Very Effective 9
Extended greenways/trail system	5.37	32.7	1.0	1.5	1.0	10.8	3.1	8.2	10.3	31.2
Improved off-road connectivity between residential neighborhoods	5.22	34.0	1.6	1.8	1.0	8.3	4.9	9.1	12.7	26.5
Paved shoulders wide enough for cycling	4.81	36.0	2.3	2.8	2.3	10.9	3.1	11.4	10.6	20.5
Striped bike lanes on major roadways	4.62	40.6	1.6	1.3	2.3	9.3	5.7	10.1	8.8	20.4
Improved bike signage	4.53	36.7	3.1	3.4	2.6	14.0	6.7	9.0	4.4	20.2
Regular street maintenance	4.31	39.4	2.6	2.6	2.1	15.8	6.0	9.8	8.8	13.0
Drainage grades flush with pavement surface	4.26	38.3	4.2	2.9	4.4	13.5	5.5	10.2	8.3	12.8
Restrooms, water fountains, benches	4.22	37.1	3.9	4.1	4.9	14.9	6.7	10.3	4.6	13.4
More public cycling events	3.97	40.6	4.9	3.9	4.2	13.5	5.7	10.4	7.3	9.4
Bicycle racks	3.93	38.9	6.2	2.8	5.7	15.5	6.2	10.9	4.1	9.6
Wide outside lanes without bike markings on major highways	3.44	47.8	4.9	4.2	4.9	13.2	4.9	7.8	6.2	6.0

The final series of questions in the biking section examined the importance of five bicycle programs to maintaining a multimodal system in Cary. This question was also asked of both riders and nonriders using a 9-point scale from not important (1) to very important (9). Table 19 shows that all the programs were viewed with a degree of importance. The programs deemed most important were *safe routes to school* (7.75 – 86.9% above neutral) and *safety education* (7.46 – 81.9%). *Increased enforcement* (6.86 – 72.4%) was viewed with a moderately high level of importance. *Public service announcements* (5.95 – 55.5%) and *bicycle events* (5.28 – 48.6%) were rated as slightly less important overall by the respondents.

Table 19. Importance of Bicycle Programs to Maintain a Multimodal Transportation System.

Bicycle Programs	Mean	Not Important 1	2	3	4	Neutral 5	6	7	8	Very Important 9
Safe routes to school	7.75	4.8	1.3	0.8	0.8	5.5	4.0	9.5	16.6	56.8
Safety education	7.46	3.5	1.0	1.3	2.3	10.1	6.6	10.9	18.2	46.2
Increased enforcement	6.86	5.1	1.5	1.3	3.8	16.0	7.9	15.5	17.5	31.5
Public service announcements	5.95	10.7	2.8	3.6	6.6	20.7	11.2	9.4	10.2	24.7
Bicycle events	5.28	16.9	7.6	5.8	4.0	17.1	10.3	10.6	8.1	19.6

The selected crosstabulations are included in Appendix B for bike ownership (B83-B86), bike ridership (B87-B90), riding skill level (B91-B94), activities/usage frequency (B95-B126), cycling options (B127-B142), measures to improve Cary's bike system (B143-B158), effectiveness of improvements to encourage cycling (B159-B174), and bicycling programs to maintain multimodal system (B175-B190).

Transit

The next set of questions in the survey examined the use of C-Tran. The first question looked into the respondent's use of C-Tran fixed route and door-to-door services (Table 20). There was slightly higher usage of door-to-door service (4.9%) compared to fixed route service (3.2%). Overall, there was minimal use of either service. There was slightly higher daily use for fixed route (0.5%) while door-to-door had the highest weekly (1.3%), monthly (2.3%), and yearly (1.0%) usage.

Table 20. Usage of C-Tran Fixed Route and Door-to-Door Services.

C-Tran Service	Daily	Weekly	Monthly	Yearly	Never
Fixed route	0.5	0.7	1.5	0.5	96.8
Door-to-door	0.3	1.3	2.3	1.0	95.1

The respondents were then asked about the importance of several items to encourage C-Tran usage. This was asked of the total sample including the 95% to 97% nonusers of C-Tran (Table 21). A 9-point scale from not important (1) to very important (9) was used. Respondents indicated the most important items to increase C-Tran usage were *RDU Airport service* (5.24 – 50.1% above neutral), *more print/online information* (5.09 – 47.1%), and *on-time performance* (5.09 – 47.2%). These were the only items with means over the neutral mark of 5.00. The lowest importance was for *earlier service in the morning* (3.89 – 30.3%) and *later service in the evening* (3.89 – 29.8%). Appendix J shows the "other" responses for encouraging usage of C-Tran. The most frequent comments mentioned included *provide information* (13 comments), *expand service area* (6 comments), *more timely service* (5 comments), *on-demand service* (5 comments), *improve mass transit* (4 comments), and *better hours* (2 comments).

Table 21. Importance of Items to Encourage Usage of C-Tran.

C-Tran Items	Mean	Not Important 1	2	3	4	Neutral 5	6	7	8	Very Important 9
RDU Airport service	5.24	35.5	1.1	0.8	1.6	10.9	2.9	5.0	8.8	33.4
More print/online information	5.09	35.6	3.1	0.8	2.6	10.9	3.4	3.1	6.8	33.8
On-time performance	5.09	37.5	2.1	0.5	1.1	11.6	1.8	4.5	7.1	33.8
Benches/shelters at bus stops	4.93	38.5	2.6	1.1	1.8	9.0	2.6	6.1	8.7	29.6
Higher fuel cost	4.88	36.3	1.3	2.4	1.9	13.3	5.3	5.8	8.0	25.7
More frequent service	4.80	36.3	2.9	1.6	1.6	13.2	6.1	6.8	7.6	23.9
More areas served by fixed route	4.79	37.8	2.4	2.4	0.8	13.8	2.9	6.3	6.6	27.0
Environmental considerations	4.77	36.7	1.8	2.6	2.4	13.7	4.5	5.5	9.5	23.2
All-day service to and from Raleigh	4.71	38.7	2.6	2.1	1.1	12.6	3.2	7.6	8.2	23.9
More Park & Ride parking locations	4.59	38.7	3.2	1.3	3.2	11.7	4.8	7.4	8.8	21.0
One transit pass for C-Tran and TTA	4.49	43.8	2.6	1.6	0.3	11.9	2.9	4.2	6.9	25.9
Lower cost	4.46	40.8	4.5	1.9	0.5	15.4	1.9	4.5	5.6	24.9
Employer-sponsored transit passes	4.36	46.1	1.8	0.8	0.5	12.4	1.8	5.5	8.9	22.1
Later service in the evening	3.89	47.1	3.4	2.1	1.8	15.8	3.2	5.0	5.3	16.3
Earlier service in the morning	3.89	47.5	2.6	2.4	1.3	15.8	3.4	6.3	5.0	15.6

The final question in this series asked the respondents to name the top three areas currently not served by a regular C-Tran fixed route that could use this service. Many of the respondents specifically indicated they did not know enough about C-Tran to comment (20.4%) including several suggestions to provide more information on the service (Table 22). In addition, there were also 8.5% of the respondents who indicated they would not use the service regardless of routes including 3.8% who felt the car was too convenient.

The major areas to add new fixed route service were shopping areas/malls (6.6%), Raleigh (6.6%), Davis Drive (4.2%), Kildaire Farm Road (3.8%), RDU (3.8%), RTP (3.8%), Cary Parkway (3.3%), Durham (2.8%), Town parks (2.8%), and downtown area (2.4%). Note that 2.8% would prefer the service function more like a door-to-door taxi service, not fixed route. See Appendix K for a listing of all potential areas for a C-Tran fixed route.

Table 22. Potential Areas to Add Regular C-Tran Fixed Route Service.

C-Tran Areas	# Times Mentioned	% Mentioned
Don't know about C-Tran/publicize	43	20.4
Would not use the service	18	8.5
Shopping areas/malls	14	6.6
Raleigh	14	6.6
Davis Drive	9	4.2
Car is too convenient	8	3.8
Kildaire Farm Road	8	3.8
RDU	8	3.8
RTP	8	3.8
Use as a taxi service	7	3.3
Cary Parkway	7	3.3
Durham	6	2.8
Use it when older	6	2.8
Parks	6	2.8
Downtown Cary	5	2.4

The selected transit crosstabulations for C-Tran usage (B191-B206) and importance of items to increase C-Tran usage (B207-B224) are shown in Appendix B.

Pedestrian

The next section of the survey examined the pedestrian aspects in Cary. The respondents were first asked their reasons for choosing not to walk in Cary (Table 23). A 9-point scale was used from never (1) to very often (9). The two main reasons for not walking given by the respondents highlight the convenience factor of driving a car including *I have to run many errands in many different locations and it would take too long to walk* (5.17 – 52.4% above average) and *I have a lot to carry and need my car to haul it* (4.76 – 45.7%). The other key reasons given for not walking in Town included *traffic makes it unsafe and unpleasant* (4.14 – 37.7%), *there isn't continuous sidewalks to the destination* (3.61 – 29.9%), *it is too far* (3.42 – 28.0%) and *the weather is bad* (3.42 – 19.0%). The respondents indicated little importance to several factors including *I don't like walking* (1.52 – 3.4%), *I have a health condition* (1.57 – 5.3%), *the neighborhood is dangerous* (1.65 – 4.4%), and *there are too many hills* (1.99 – 7.7%). Overall, the key actions to encourage walking would be to use more traffic calming measures to limit unsafe/unpleasant traffic, increase traffic law enforcement, and construct more continuous sidewalks. This is due to the fact the other key reasons including driving convenience, weather, and driving distance are not controllable. Appendix L lists the limited number of "other" responses to reasons for not walking. The most frequent responses were the prevalence of *dangerous drivers/inattentive drivers* (5 comments) and *lack of sidewalks* (3 comments). See Appendix B for selected crosstabulations for reasons not to walk in Cary (B225-B238).

Table 23. Reasons for Choosing Not to Walk in Cary.

Reasons Not to Walk	Mean	Never 1	2	3	4	Average 5	6	7	8	Very Often 9
I have to run many errands in many different locations and it would take too long to walk	5.17	30.2	2.3	4.8	3.5	6.8	5.0	11.1	14.4	21.9
I have a lot to carry and need my car to haul it	4.76	32.7	2.5	6.9	5.1	7.1	7.1	8.4	11.2	19.0
Traffic makes it unsafe and unpleasant	4.14	38.4	7.1	6.1	5.3	5.6	7.1	8.1	7.1	15.4
There isn't continuous sidewalks to the destination	3.61	44.7	8.5	7.3	4.3	5.3	5.0	7.3	6.0	11.6
It is too far	3.42	49.4	6.5	5.0	4.5	6.5	6.3	7.6	4.0	10.1
The weather is bad	3.42	33.3	14.9	13.6	6.8	12.4	2.3	5.1	4.5	7.1
There are too many hills	1.99	68.1	10.4	6.8	3.3	3.8	2.3	1.3	1.3	2.8
The neighborhood is dangerous	1.65	79.2	6.6	4.3	1.8	3.8	0.3	1.5	1.3	1.3
I have a health condition	1.57	86.0	4.6	0.5	2.6	1.0	0.0	1.0	1.0	3.3
I don't like walking	1.52	83.5	5.6	3.3	1.5	2.8	0.3	0.8	0.5	1.8

Three dimensions of sidewalks in Cary were also assessed by the respondents. All rated well above average (Table 24). *Maintenance* (7.16 – 82.2% above average) and *safety* (7.15 – 82.2%) were rated the highest. Rating somewhat lower was the dimension of sidewalk *connectivity*. However, the mean (6.29) was still solid with 68.4% above the midpoint of 5. The selected crosstabulations for sidewalk ratings (B239-B252) are shown in Appendix B.

Table 24. Rating Aspects of Sidewalks in Cary.

Sidewalk Aspects	Mean	Poor 1	2	3	4	Average 5	6	7	8	Excellent 9
Maintenance	7.16	1.5	0.0	0.3	2.5	13.8	8.3	25.3	28.3	20.3
Safety	7.15	1.8	1.0	1.3	1.5	12.5	7.3	23.8	29.8	21.3
Connectivity	6.29	4.5	3.0	5.5	4.5	14.2	14.5	18.7	21.2	14.0

Key Transportation Improvements

The final series of questions examined the importance of key transportation improvements. A 9-point scale from no importance (1) to utmost importance (9) was used to assess the improvements (Table 25). The three most important improvements were *street maintenance* (7.85 – 91.3% above neutral), *neighborhood traffic safety* (7.61 – 86.7%), and *streets* (7.57 – 89.0%). In addition, several other improvements ranked high including *sidewalks* (7.02 – 79.1%), *greenways* (6.80 – 75.5%), and *street landscaping and aesthetics* (6.57 – 71.8%). The lowest ranking of the improvements were *on-road bike facilities* (6.17 – 64.9%) and *transit services* (5.99 – 58.5%). See Appendix B for selected crosstabulations for the key transportation improvements (B253-B270).

Table 25. Importance of Key Transportation Improvements.

Improvements	Mean	No Importance 1	2	3	4	Neutral 5	6	7	8	Utmost Importance 9
Street maintenance (fix potholes, resurface, better signage)	7.85	0.5	0.0	1.0	1.0	6.3	5.0	16.3	28.0	42.0
Neighborhood traffic safety	7.61	1.5	0.3	1.5	2.3	7.8	5.0	16.3	26.3	39.1
Streets	7.57	1.5	0.0	1.5	0.2	7.7	7.5	20.9	25.7	34.9
Sidewalks	7.02	3.0	1.2	2.5	2.0	12.2	9.5	21.4	20.0	28.2
Greenways	6.80	4.0	1.8	1.5	4.0	13.3	10.3	20.3	21.8	23.1
Street landscaping and aesthetics	6.57	2.0	3.0	2.0	4.8	16.5	16.3	19.5	16.5	19.5
On-road bike facilities (bike lanes, wide shoulders, signage)	6.17	11.3	3.0	2.3	5.0	13.8	9.3	16.3	18.5	20.8
Transit services (more routes, less headway, dial-a-ride for seniors/disabled)	5.99	7.6	7.1	5.1	2.3	19.4	9.6	12.6	16.9	19.4

Additional Comments

The final question in the survey asked the respondents for any comments or ideas they may have for the CTP update process. Table 26 gives a summary list of the key suggestions. The most frequent comments focused on *add and improving sidewalks* (10.1%) and *increased traffic enforcement by the Police* (10.1%), especially for speeding. Another frequent suggestion was to *improve street maintenance including potholes/landscaping* (9.2%). The respondents also mentioned to *improve public transportation* (7.8%), *slow growth* (5.5%), and *add bike paths/bike-friendly* (5.5%). There was also a concern to *improve signal lights* (5.1%) and the key aspects were timing (Kildaire Farm, Maynard, Harrison, Pond), synchronization (Maynard, Kildaire Farm, Cary Parkway), and poor sensors. In addition, there were 4.1% of the comments focusing on *school zone safety*. There were also 18 comments or 8.3% who complimented the *good job* the Town is doing. See Appendix M for a complete listing of all comments.

Table 26. Additonal Comments for the CTP Update Process.

Comments	# Times Mentioned	% Mentioned
Add and improve sidewalks	22	10.1
Increased traffic enforcement by Police/speeding	22	10.1
Improve street maintenance (potholes/landscaping)	20	9.2
Good job	18	8.3
Improve public transportation	17	7.8
Slow growth	12	5.5
Add bike paths/bike-friendly	12	5.5
Improve signal light timing, synchronization, sensors	11	5.1
School zone safety	9	4.1
Complete construction	7	3.2
New Cary signs are poor	7	3.2
Improve/add greenways	6	2.8
Widen roads	5	2.3
Bikers do not obey traffic laws	5	2.3
Need more information on C-Tran	5	2.3
Better street lighting	5	2.3
Hate speed humps	5	2.3

Appendix A

Town of Cary
2007 CTP Update Survey

Hello, my name is _____________ and I am calling for the Town of Cary. This survey is part of the Comprehensive Transportation Plan Update for the Town. Your input will be used to establish goals for the plan. Your opinion is very important to Cary.

Are you a resident of the Town of Cary?

- ❑ Yes (Continue)
- ❑ No (Stop and thank the respondent)

Are you over the age of 18?

- ❑ Yes (Continue)
- ❑ No (Ask politely to speak with someone over 18)

1. Overall, how would you rate the transportation system in Cary which includes street, pedestrian, transit, and cycling elements. Use a 9-point scale where 1 is poor and 9 is excellent, 5 is average.

1	2	3	4	5	6	7	8	9
Poor				Average				Excellent

2. How would you rate the following in Cary? Please use a 9-point scale where 1 is poor and 9 is excellent, 5 is average.

	Poor				Average				Excellent
a) Street design (lane widths, turn lanes)	1	2	3	4	5	6	7	8	9
b) Street aesthetics (appearance of the street)	1	2	3	4	5	6	7	8	9
c) Traffic safety measures	1	2	3	4	5	6	7	8	9
d) Traffic congestion	1	2	3	4	5	6	7	8	9
e) Signal system (# of signals, traffic light operation)	1	2	3	4	5	6	7	8	9
f) Condition of roads	1	2	3	4	5	6	7	8	9
g) Maintenance on arterial/primary routes	1	2	3	4	5	6	7	8	9
h) Maintenance on local & neighborhood streets	1	2	3	4	5	6	7	8	9
i) Bicycle routes	1	2	3	4	5	6	7	8	9
j) Bicycle racks and other amenities	1	2	3	4	5	6	7	8	9
k) C-Tran service (routes, schedule)	1	2	3	4	5	6	7	8	9

3. Please rate the following transportation issues for the Town of Cary? Please use a 9-point scale where 1 is least critical and 9 is most critical, 5 is neutral.

	Least Critical				Neutral				Most Critical
a) Traffic congestion/delays	1	2	3	4	5	6	7	8	9
b) Street maintenance	1	2	3	4	5	6	7	8	9
c) Pedestrian/bicycle safety	1	2	3	4	5	6	7	8	9
d) Limited public transportation service	1	2	3	4	5	6	7	8	9
e) Lack of alternative modes of travel	1	2	3	4	5	6	7	8	9
f) Bad, unsafe drivers	1	2	3	4	5	6	7	8	9
g) Other _________________________	1	2	3	4	5	6	7	8	9

4. Please rate the importance of the following ways to improve the transportation system in Cary? Please use a 9-point scale where 1 is not important and 9 is very important, 5 is neutral.

	Not Important				Neutral				Most Important
a) Widen existing streets	1	2	3	4	5	6	7	8	9
b) Widen existing freeways	1	2	3	4	5	6	7	8	9
c) Add turning lanes at intersections	1	2	3	4	5	6	7	8	9
d) Improve maintenance for roads/bridges	1	2	3	4	5	6	7	8	9
e) Build more facilities for non-motorized transportation (sidewalks, greenways, bike lanes)	1	2	3	4	5	6	7	8	9
f) Provide more bus service	1	2	3	4	5	6	7	8	9
g) Build new streets	1	2	3	4	5	6	7	8	9
h) Build new freeways	1	2	3	4	5	6	7	8	9
i) Build HOV (carpool/bus) lanes	1	2	3	4	5	6	7	8	9
j) Other ___________________________	1	2	3	4	5	6	7	8	9

5. In your opinion, what are the three most congested streets in Cary? (Ask AM/PM or both)?

1) ____ AM PM Both

2) ____ AM PM Both

3) ____ AM PM Both

6. Street improvement projects and maintenance in Cary are funded with a combination of state, federal, and local funds. Which best describes your opinion on what the Town of Cary should do toward expanding funding for Cary street maintenance and improvements? (Read all choices and check one)

- ❑ Explore all options, including the possibility of raising my taxes
- ❑ Consider redirecting existing resources from other projects to streets, but don't increase my taxes
- ❑ Things are fine the way they are now, so don't explore any changes
- ❑ No opinion
- ❑ Other (please specify) ___________________________

7. To provide better traffic flow, more choices of routes, and faster service such as police, fire, and garbage collection, the Town requires new residential developments to connect a certain number of streets. However, requiring connectivity can limit the number of cul-de-sacs and dead-end streets in neighborhoods. On a 9-point scale where 1 is strongly oppose and 9 is strongly support, what is your opinion of the connectivity requirement?

1	2	3	4	5	6	7	8	9
Strongly Oppose				Neutral				Strongly Support

8. Cary uses a variety of tools such as speed humps and narrowing lanes to slow traffic in residential areas. Which of the following options best describes your opinion regarding Cary traffic calming strategies? (Read all choices and check one)

- ❑ Continue the program at the current level
- ❑ Increase funding to the program with continued use of speed humps
- ❑ Increase funding to the program and use a wider range of traffic calming measures (chicanes, bulb-outs)
- ❑ Discontinue the program
- ❑ I don't know enough about the program

9. What is your favorite street in Cary?

Favorite Street ______________________________

Why? ______________________________

10. What three streets would you most like to see recommended for improvement as a part of the Comprehensive Transportation Plan update? Why? (i.e. 123 Street, it needs...)

1) ____________________ Why? ______________________________

2) ____________________ Why? ______________________________

3) ____________________ Why? ______________________________

11. a) Do you own a bicycle?

❑ Yes (Continue) ❑ No (Skip to #18)

b) Do you ride your bike?

❑ Yes (Continue) ❑ No (Skip to #18)

12. How would you classify your bike riding skill level?

❑ Beginner - I am still learning to bike and typically ride only on streets and sidewalks in my neighborhood, completely away from traffic.
❑ Basic - I am a casual rider. I usually prefer to ride on bike paths, greenways, and bike lanes on streets without fast-moving and heavy traffic.
❑ Intermediate - I would classify myself somewhere between basic and advanced.
❑ Advanced - I am an experienced cyclist who prefers to ride with traffic on streets rather than on striped bike lanes and paths. I think that vehicles should share the road with cyclists.

13. Do you bike to any of the following? (Read list and ask how often reading the scale)

Yes	No		Daily	Weekly	Monthly	Never	N/A
❑	❑	a) For exercise or recreation?	❑	❑	❑	❑	❑
❑	❑	b) To work?	❑	❑	❑	❑	❑
❑	❑	c) To school?	❑	❑	❑	❑	❑
❑	❑	d) To shopping or dining locations?	❑	❑	❑	❑	❑
❑	❑	e) To civic places (library, park)?	❑	❑	❑	❑	❑
❑	❑	f) To a transit stop?	❑	❑	❑	❑	❑
❑	❑	g) To a cultural event (concert, movie)?	❑	❑	❑	❑	❑
❑	❑	h) To visit friends or family?	❑	❑	❑	❑	❑

14. If made possible by improvements to the Town bike system would you ride your bike more often for? (Read list and if yes ask how often)

Yes	No		Daily	Weekly	Monthly	Never	N/A
❑	❑	a) For exercise or recreation?	❑	❑	❑	❑	❑
❑	❑	b) To work?	❑	❑	❑	❑	❑
❑	❑	c) To school?	❑	❑	❑	❑	❑
❑	❑	d) To shopping or dining locations?	❑	❑	❑	❑	❑
❑	❑	e) To civic places (library, park)?	❑	❑	❑	❑	❑
❑	❑	f) To a transit stop?	❑	❑	❑	❑	❑
❑	❑	g) To a cultural event (concert, movie)?	❑	❑	❑	❑	❑
❑	❑	h) To visit friends or family?	❑	❑	❑	❑	❑

15. Rate the following cycling options based on your comfort, where 1 is the situation where you would be least comfortable to 9 is the situation you would be most comfortable, 5 is neutral.

	Least Comfortable				Neutral				Most Comfortable
a) Cycling in a striped bike lane next to travel lanes	1	2	3	4	5	6	7	8	9
b) Cycling to the right of a wide outside lane (without bike markings) near vehicular traffic	1	2	3	4	5	6	7	8	9
c) Cycling in the travel lane (without bike markings) with vehicular traffic	1	2	3	4	5	6	7	8	9
d) Cycling on a multi-use path outside the roadway	1	2	3	4	5	6	7	8	9
e) Cycling on the greenway system away from streets	1	2	3	4	5	6	7	8	9

16. On a scale of 1 to 9, where 1 is strongly oppose and 9 is strongly support, what is your opinion on the following measures to improve Cary's bike system?

	Strongly Oppose				Neutral				Strongly Support
a) Striped bike lanes on major roadways instead of unmarked wide outside lanes	1	2	3	4	5	6	7	8	9
b) Open greenway system to night riding including enforcement and lights	1	2	3	4	5	6	7	8	9
c) Commuter use of greenways (better connections to on-road facilities)	1	2	3	4	5	6	7	8	9
d) Town-funded support facilities like drinking fountains and bike lockers	1	2	3	4	5	6	7	8	9
e) Increased bicycle education/encourage use	1	2	3	4	5	6	7	8	9

17. What three roads would you most like improved for bicycling and how would you like to see them improved (i.e. striped bike lanes, wide outside lanes, increased signage, etc.)?

1) ____________________ How ? ____________________

2) ____________________ How? ____________________

3) ____________________ How? ____________________

18. Please rate the following improvements on how effective they would be in encouraging you to cycle more than you currently do. Use a 9-point scale where 1 is not effective and 9 is very effective, 5 is neutral.

	Not Effective				Neutral				Very Effective
a) Extended greenway/trail system	1	2	3	4	5	6	7	8	9
b) Improved bike signage	1	2	3	4	5	6	7	8	9
c) Restrooms, water fountains, benches	1	2	3	4	5	6	7	8	9
d) Wide outside lanes without bike markings on major highways	1	2	3	4	5	6	7	8	9
e) Striped bike lanes on major roadways	1	2	3	4	5	6	7	8	9
f) Regular street maintenance	1	2	3	4	5	6	7	8	9
g) More public cycling events	1	2	3	4	5	6	7	8	9
h) Improved off-road connectivity between residential neighborhoods	1	2	3	4	5	6	7	8	9
i) Paved shoulders wide enough for cycling	1	2	3	4	5	6	7	8	9
j) Drainage grades flush with pavement surface	1	2	3	4	5	6	7	8	9
k) Bicycle racks	1	2	3	4	5	6	7	8	9
l) Other ____________________	1	2	3	4	5	6	7	8	9

19. On the 9-point scale, where 1 is not important and 9 is very important, how important are the following bicycle programs to maintaining a multimodal transportation system in the Town?

	Not Important 1	2	3	4	Neutral 5	6	7	8	Very Important 9
a) Safe routes to school	1	2	3	4	5	6	7	8	9
b) Bicycle events (Cary Cycling Celebration)	1	2	3	4	5	6	7	8	9
c) Safety education	1	2	3	4	5	6	7	8	9
d) Increased enforcement	1	2	3	4	5	6	7	8	9
e) Public service announcements	1	2	3	4	5	6	7	8	9

20. How often do you currently use C-Tran services?

	Daily	Weekly	Monthly	Never	N/A
Fixed route	❑	❑	❑	❑	❑
Door-to-door service	❑	❑	❑	❑	❑

21. Please rate the importance of the following items to encourage you to increase your usage of C-Tran. Use a 9-point scale where 1 is not important and 9 is very important, 5 is neutral.

	Not Important 1	2	3	4	Neutral 5	6	7	8	Very Important 9
a) All-day service to and from Raleigh	1	2	3	4	5	6	7	8	9
b) Later service in the evening	1	2	3	4	5	6	7	8	9
c) Earlier service in the morning	1	2	3	4	5	6	7	8	9
d) Environmental considerations	1	2	3	4	5	6	7	8	9
e) Higher fuel cost (save gas money)	1	2	3	4	5	6	7	8	9
f) More Park & Ride locations for parking	1	2	3	4	5	6	7	8	9
g) More print or online information on the service	1	2	3	4	5	6	7	8	9
h) More frequent service	1	2	3	4	5	6	7	8	9
i) More areas served by fixed route	1	2	3	4	5	6	7	8	9
j) Employer-sponsored transit passes	1	2	3	4	5	6	7	8	9
k) On-time performance	1	2	3	4	5	6	7	8	9
l) Benches and shelters at bus stops	1	2	3	4	5	6	7	8	9
m) Lower cost (lower fare or multi-trip discount)	1	2	3	4	5	6	7	8	9
n) One transit pass accepted by C-Tran and TTA	1	2	3	4	5	6	7	8	9
o) RDU Airport	1	2	3	4	5	6	7	8	9
p) Other ______________________	1	2	3	4	5	6	7	8	9

22. C-Tran currently has three fixed routes that run in Cary in the following areas:
- North-South Route serves Harrison Avenue, Academy Street, and Kildaire Farm Road
- East-West Route serves parts of High House Road, Chatham Street, and E. Maynard Road
- Maynard Loop Route serves the Maynard Road loop and Walnut Street to Crossroads Plaza

Name your top three areas (neighborhoods, developments, or intersections) currently not served by regular fixed route service where you think it is needed:

1) ____

2) ____

3) ____

23. On a scale of 1 to 9, where 1 is never and 9 is very often, how often do you choose not to walk somewhere because? (Read choices)

	Never 1	2	3	4	Average 5	6	7	8	Very Often 9
a) There isn't continuous sidewalks to that destination.	1	2	3	4	5	6	7	8	9
b) Traffic makes it unsafe and unpleasant (speeding cars, cars don't yield when you cross the street, smelly or noisy)	1	2	3	4	5	6	7	8	9
c) It is too far	1	2	3	4	5	6	7	8	9
d) There are many hills	1	2	3	4	5	6	7	8	9
e) I have a health condition	1	2	3	4	5	6	7	8	9
f) The neighborhood is dangerous	1	2	3	4	5	6	7	8	9
g) I have a lot to carry (kids, equipment, groceries) and need my car to haul it	1	2	3	4	5	6	7	8	9
h) I have to run many errands in many different locations and it would take too long to walk	1	2	3	4	5	6	7	8	9
i) The weather is bad (too hot, too cold, too wet, etc.)	1	2	3	4	5	6	7	8	9
j) I don't like walking	1	2	3	4	5	6	7	8	9
k) Other ________________________	1	2	3	4	5	6	7	8	9

24. On a scale of 1 to 9, where 1 is poor and 9 is excellent, 5 is average, how do you rate the sidewalks in Cary overall with regards to? (Read choices)

	Poor 1	2	3	4	Average 5	6	7	8	Excellent 9
a) Maintenance	1	2	3	4	5	6	7	8	9
b) Safety	1	2	3	4	5	6	7	8	9
c) Connectivity	1	2	3	4	5	6	7	8	9

25. Please rate the importance of the following key transportation improvements in the Town. Use a 9-point scale where 1 is no importance and 9 is utmost importance, 5 is neutral.

	No Importance 1	2	3	4	Neutral 5	6	7	8	Utmost Importance 9
a) Streets	1	2	3	4	5	6	7	8	9
b) Sidewalks	1	2	3	4	5	6	7	8	9
c) Greenways	1	2	3	4	5	6	7	8	9
d) On-road bike facilities (bike lanes, wide shoulders, signage)	1	2	3	4	5	6	7	8	9
e) Street landscaping and aesthetics	1	2	3	4	5	6	7	8	9
f) Street maintenance (fix potholes, resurface, better signage)	1	2	3	4	5	6	7	8	9
g) Neighborhood traffic safety	1	2	3	4	5	6	7	8	9
h) Transit services (more routes, less headway, dial-a-ride for seniors/disabled)	1	2	3	4	5	6	7	8	9

26. Please provide us with any additional comments and/or ideas you may have for the CTP update process:

____

____

That concludes our survey. Could you tell us about yourself.

27. Stop me when I reach your age group.

❑	❑	❑	❑	❑	❑	❑
18-25	26-35	36-45	46-55	56-65	66-75	Over 75

28. How long have you lived in Cary?

❑	❑	❑	❑	❑
Less than 2 years	2-5 years	6-10 years	11-20 years	More than 20 years

29. Do you work in Cary?

❑	❑
Yes	No

30. Please tell us the closest intersection to your home (Example: Cary Pkwy. at Harrison Ave.).

_______________________________ at _______________________________

31. Gender (by voice).

❑	❑
Male	Female

The Town of Cary thanks you for your time and input.