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16. Abstract  This report presents the results of the May 1994 survey of the automobile user panel established to assist in monitoring the traffic impacts of the North Central Expressway (NCE) reconstruction in the Dallas District. Overall, researchers detected a few small changes in travel patterns and operating conditions. However, the majority of panelists continued to believe that their travel patterns were not impacted significantly by construction. Generally, the few individuals who believed they had altered their travel patterns actually reported departure times, travel times, and/or other travel characteristics in May 1994 that differed from what they reported in October 1992. The May 1994 survey also included questions about the lane closures that occurred on the NCE in February and March 1994.					
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**U.S. 75 NORTH CENTRAL EXPRESSWAY RECONSTRUCTION:  
LEMMON/OAK LAWN/PEAK SCREEN LINE AUTOMOBILE USER PANEL,  
MAY 1994 SURVEY RESULTS**

by

Gerald L. Ullman, P.E.  
Assistant Research Engineer  
Texas Transportation Institute

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The Texas A&M University System  
College Station, Texas 77843-3135



## **IMPLEMENTATION STATEMENT**

This report presents the results of the May 1994 survey of the automobile user panel established to assist in monitoring the traffic impacts of the North Central Expressway (NCE) reconstruction. The report will be useful to officials at TxDOT who receive requests from media personnel and others about motorist perceptions and behaviors during the lengthy reconstruction process. It should be noted that the percentage of panelists who perceive changes in their travel patterns, although currently a fraction of the total panel group, continues to grow slightly over time. Furthermore, traffic conditions that existed during the NCE lane closures in February and March 1994 was perceived to have generated significant additional congestion and changes in travel behavior of a large proportion of the panelists who responded to the survey. Therefore, additional ongoing monitoring of motorist perceptions and patterns in the corridor seems warranted at this time.



## **DISCLAIMER**

This study was conducted in cooperation with the Texas Department of Transportation. This report is not intended to constitute a standard, specification, or regulation, and does not necessarily reflect the official views and policies of the Texas Department of Transportation. This report is not intended for construction bidding or permit purposes. Mr. Gerald L. Ullman (P.E. #66876) was the supervising engineer responsible for the preparation of the report.





## TABLE OF CONTENTS

LIST OF TABLES .....	x
LIST OF FIGURES .....	x
SUMMARY .....	xi
INTRODUCTION .....	1
STUDY METHODOLOGY .....	3
RESULTS .....	5
Total Trip-making Characteristics .....	5
Work Trip Characteristics .....	8
Perceptions of NCE Lane Closures in February 1994 .....	14
Other Comments and Suggestions .....	19
CONCLUSION .....	21
REFERENCES .....	23
APPENDIX A: OCTOBER 1993 SURVEY FORM .....	25
APPENDIX B: PANEL COMMENTS .....	31

## LIST OF TABLES

Table 1.	Comparison of Total Trip-making Activity .....	6
Table 2.	Perceived Changes in Weekly Trip-making Activity .....	7
Table 3.	Average Weekly Trip-making Rates on NCE for Subjects Who Believed They were Making Fewer NCE Trips .....	8
Table 4.	Median Departure Times to and from Work .....	9
Table 5.	Perceived Changes in Departure Times .....	9
Table 6.	Average Travel Times to and From Work .....	10
Table 7.	Perceived Changes in Travel Times .....	11
Table 8.	Perceived Versus Actual Travel Time Increases to and from Work .....	12
Table 9.	Intermediate Stops Made to and from Work .....	13
Table 10.	Work Trip Mode Choice Distributions .....	13
Table 11.	Roadway Utilization: Home-to-Work Trip .....	15
Table 12.	Roadway Utilization: Work-to-Home Trip .....	16
Table 13.	Perceived Increases in Travel Time During NCE Lane Closures .....	18
Table 14.	Responses to NCE Lane Closure Congestion .....	19

## LIST OF FIGURES

Figure 1.	North Central Expressway Corridor in Dallas, Texas .....	2
Figure 2.	Average Panel Ratings of Additional Congestion in February 1994 .....	18

## SUMMARY

The results of the May 1994 survey of automobile panelists indicate that NCE construction had a small but detectable impact upon motorist travel patterns and driving conditions. Overall, average weekly trip-making activity of the new and original panel members was unchanged between October 1992 and May 1994. However, the average weekly trip frequency by the original panelists on the NCE decreased significantly. Over one-half of the panelists thought they were making significantly fewer trips on the NCE, and reported making an average of 23 to 32 percent fewer trips on the NCE in May 1994 than in October 1992.

Overall, average travel times to and from work for both panel groups indicate no significant increase between October 1992 and May 1994. However, a significant proportion of the panel believed that their travel times to and from work had increased since October 1992. The perceptions of these panel members appeared to match their reported behavior, with the average travel times of this segment of the panel increasing 2 to 3 minutes since October 1992.

The relative roadway utilization for work trips in the NCE corridor changed very little between the October 1992 and May 1994 surveys for the new panelists. Original panelists, however, reported using the NCE less frequently for work trips in May 1994.

Nearly one-half of the panelists believed that the lane closures that occurred on the NCE during February and March 1994 had increased travel times significantly, by an average of 14 to 19 minutes. However, these estimates by panel members were 5 to 15 minutes longer than the actual increases in travel time observed during traffic monitoring activities in March 1994. Some panel members also reported increases in travel times on the nearby roadways that averaged 11 to 16 minutes. In comparison, actual travel times on the NCE frontage road and Dallas North Tollway increased only slightly in March 1994. Of those panelists who reported altering their travel behavior because of the NCE lane closures, 82 percent reportedly changed routes, whereas 42 percent reported leaving earlier in order to complete a trip on time.



## INTRODUCTION

This report is the ninth in a series documenting the biannual surveys of a "panel" of automobile drivers using the North Central Expressway (NCE) corridor in Dallas, Texas. This panel was created in June, 1990, immediately prior to the start of NCE reconstruction on the section between Woodall Rogers Freeway to the south and the Lyndon B. Johnson (I-635) Freeway to the north. Figure 1 illustrates the corridor. The purpose of a periodical survey of the panel is to obtain information on the actual and perceived traffic impacts of the reconstruction project by the motoring public, as well as current public opinion regarding the Texas Department of Transportation's (TxDOT's) efforts to maintain as high a standard of traffic mobility during reconstruction as possible.

The initial panel was created via a mail-out survey to motorists who use the NCE corridor. This identification was accomplished through a license plate study conducted along a screen line at Northwest Highway (Loop 12). The license plate study yielded an initial panel of over 1,800 members. Unfortunately, panel attrition was extremely high during its approximate two-and-a-half year lifespan, such that fewer than 400 members were participating by October 1992. A second license plate study was performed in October 1992 along a screen line roughly following the cross streets of Lemmon, Oak Lawn, Peak, and Haskell near the Dallas central business district (see Figure 1). From this second study, another 1,253 motorists agreed to serve as panel members. Initial data were collected from these panel members in October 1992 regarding their basic travel patterns and were summarized in a recent report (1). In keeping with the biannual schedule, panelists were again surveyed in May 1994.

The May 1994 survey also queried panel members about the effect of a temporary closure of one of the travel lanes in each direction of NCE south of Mockingbird Lane. This temporary closure occurred February through March 1994. Researchers asked panel members to recall, to the extent possible, how their travel was impacted during that period of time. Researchers also questioned panel members about any changes in their travel patterns they may have made to cope with the traffic impacts that resulted from the temporary closure.

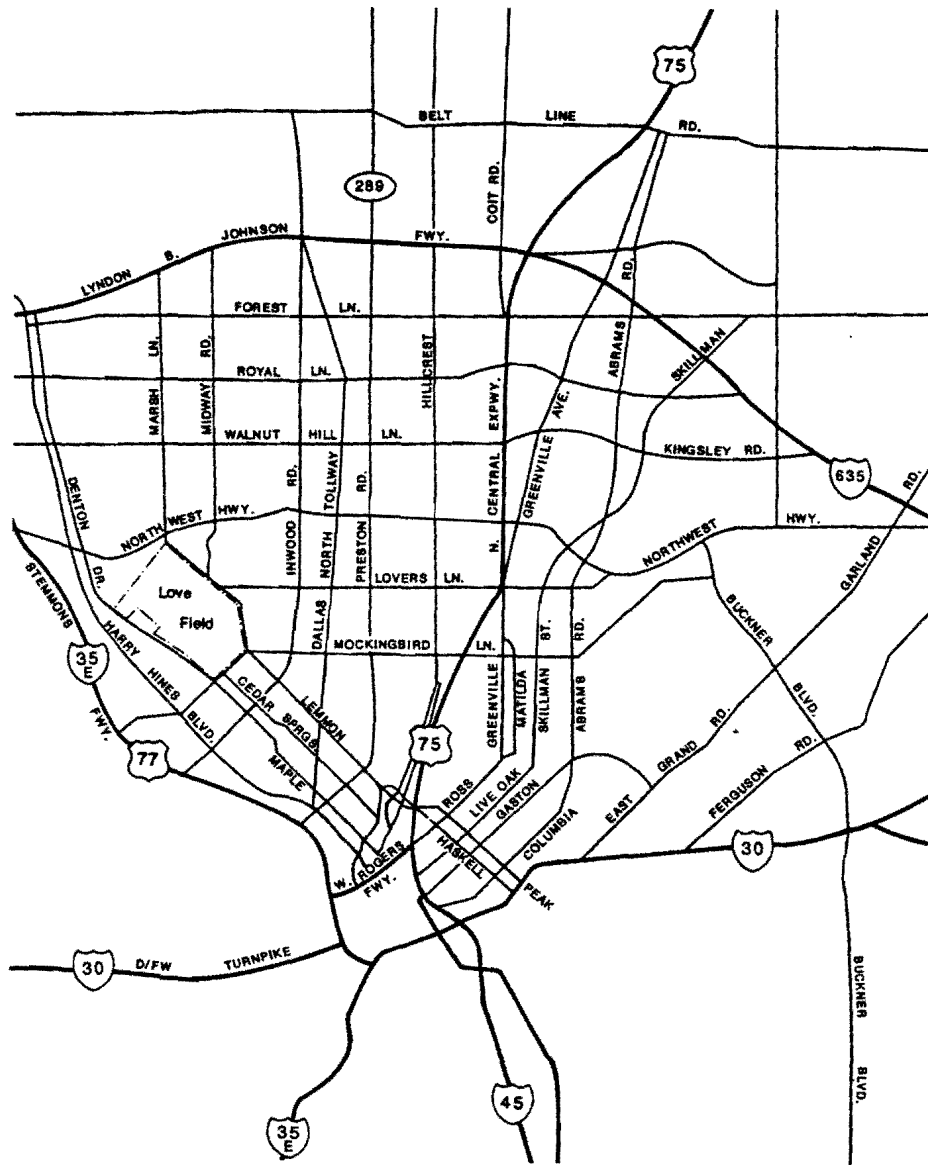


Figure 1. North Central Expressway Corridor in Dallas, Texas

## STUDY METHODOLOGY

A two-part survey instrument was sent to both new (those recruited in October 1992) and original (those recruited in June 1990) panelists; the first part requested information on the panelists' overall trip-making activity (i.e., the number of trips being made per week for various reasons), the number of trips per week made on the North Central Expressway, and perceptions as to whether they had changed the frequency of these trips. In this way it is possible to observe how actual changes in motorists' behavior and their perceptions of these changes correlate. Questions concerning the temporary lane closures on the NCE in February and March 1994 were also included in this part of the survey. A copy of the survey instrument from May 1994 is provided in Appendix A.

The second part of the survey was devoted to home-to-work and work-to-home commuting perceptions and behaviors. In this part of the survey, panelists were queried as to the following:

- Departure times,
- Travel times,
- Number and types of intermediate stops on the way to and from work,
- Mode of travel (driving alone, carpooling, etc.), and
- Use of other roadways in the corridor.

Panelists were also asked explicitly whether they believed their departure times and travel times had changed since October 1992. In this way, the correlation between their perceptions and actual changes in behavior (comparing their responses between surveys) could be examined.





## RESULTS

### Total Trip-making Characteristics

Panel members returned a total of 599 completed surveys in May 1994 (257 from the original panel, 342 from the new panel). Table 1 presents the average number of trips per week reported by the new and original panelists for the May 1994 and the October 1992 surveys. Statistically, no significant changes occurred with respect to total trip-making activity for either panel group. Likewise, no statistically significant change occurred in the average number of trips made per week on the NCE by the original panelists. However, the average number of trips on the NCE to and from work for the new panel group decreased significantly (by an average of 0.6 trips per week). Likewise, the total average weekly trip-making frequency on the NCE was also significantly lower for the new panel group (an average of 0.7 trips per week). Presented in terms of the percentage of total trips being made by the new panel members, utilization of the NCE decrease by an average of 8 percent (i.e., 39 percent of all trips in October 1992 compared to 31 percent of all trips in May 1994).

In comparison to these actual trip-making frequencies, panelists' perceptions of the changes they have made in their weekly trip-making activity are presented in Table 2. Relative to October 1992, 66 percent of the new and original panelists felt they were making the same number of trips in May 1994. This is down slightly from the 71 to 75 percent of the panelists who felt this way in October 1993 (2). Panelists' perceptions concerning changes in their trip-making frequency on NCE are also summarized in Table 2. A substantial percentage of both panel groups (48 percent of the original panel members, 56 percent of the new panel members) felt that they were making fewer trips on the Expressway in May 1994 than they made in October 1992. These values are also somewhat higher than the 47 and 45 percent of the original and new panel member groups, respectively, who felt this way when surveyed in October 1993 (2).

**Table 1. Comparison of Total Trip-making Activity**

Type of Trip	Total Trips/Wk		NCE Trips/Wk		Percent of Total Trips on NCE	
	Oct. 92	May 94	Oct. 92	May 94	Oct. 92	May 94
<b>New Panel:</b>						
To/from work	5.5	5.4	1.9	2.0	35	37
Other work-related	1.8	1.8	0.7	0.8	39	44
To/from school or daycare	0.9	0.6	0.2	0.2	22	33
To/from social activity	2.6	2.8	0.7	0.8	27	29
To/from shopping	1.3	1.7	0.3	0.3	23	24
To/from personal business	<u>1.2</u>	<u>1.4</u>	<u>0.3</u>	<u>0.4</u>	<u>25</u>	<u>21</u>
<b>TOTAL</b>	13.3	13.7	4.1	4.5	31	33
<b>Original Panel:</b>						
To/from work	5.5	5.0	2.7	2.1*	49	42
Other work-related	1.5	1.7	0.6	0.4	40	24
To/from school or daycare	0.5	0.5	0.1	0.1	20	20
To/from social activity	2.1	2.3	0.7	0.6	33	26
To/from shopping	1.5	1.5	0.4	0.3	27	20
To/from personal business	<u>1.1</u>	<u>1.3</u>	<u>0.3</u>	<u>0.3</u>	<u>27</u>	<u>23</u>
<b>TOTAL</b>	12.2	12.3	4.8	3.8*	39	31

\* Rate is significantly lower than in October 1992 (based on test of means @  $\alpha = 0.05$ )

**Table 2. Perceived Changes in Weekly Trip-making Frequency:  
May 1994 Versus October 1992 Conditions**

Perceived Change	Percent of Responses	
	New Panel	Original Panel
Total Trips Per Week:		
Making more trips	17	15
Making same trips	66	66
Making fewer trips	17	19
Trips Per Week on NCE:		
Making more trips	12	13
Making same trips	32	39
Making fewer trips	56	48

In order to evaluate the correlation between panelist perceptions and actual changes in their travel behavior, Table 3 presents the average NCE utilization rates for members of both panel groups who felt they were using the NCE less in May 1994 than in October 1992. As shown in Table 3, new panel members who felt they were making fewer trips on NCE reported an average of 1.0 fewer trips per week on the NCE in May 1994. This represents a 32 percent reduction in weekly trip-making frequency on the NCE. Similarly, the average weekly trip-making rate for original panelists who felt they were making fewer trips on the NCE in May 1994 reported an average of 0.6 fewer trips per week on the NCE (a 23 percent reduction from the frequency reported in October 1992). Therefore, it appears that perceptions of lower NCE use by those in both the new and the original panel group

were consistent with their actual behavior. In addition, it appears that motorist travel patterns in the corridor are beginning to be affected by the ongoing reconstruction of the NCE.

**Table 3. Average Weekly Trip-making Rates on NCE for Subjects Who Believed They were Making Fewer NCE Trips**

	New Panelists			Original Panelists		
	October 1992	May 1994	Difference	October 1992	May 1994	Difference
Trips/Week on North Central Expressway	3.1	2.1*	-1.0	2.6	2.0	-0.6

\* Rate is significantly lower ( $\alpha = 0.05$ ) than reported in October 1992

### Work Trip Characteristics

#### Departure Times

Table 4 presents the median departure times to and from work reported by the new and original panelists in the October 1992 and May 1994 surveys. The median departure time from home to work was slightly (10 minutes) later in May 1994 for the original panel members. In contrast, the median home-to-work departure time of the new panel group in May 1994 was identical to that reported in October 1992. This trend was reversed for the work-to-home trips. New panel members reported a median departure time from work to home in May 1994 that was 5 minutes earlier than reported in October 1992, whereas the median departure time from work to home for the original panel members in May 1994 remained identical to that reported in October 1992.

Panelists were asked directly whether they felt that they were making work trips earlier, at the same time, or later in May 1994 than they had in October 1992. The results, shown in Table 5, indicate that most panelists (68 to 82 percent) perceived no change in their departure time patterns.

**Table 4. Median Departure Times to and From Work**

Panel Group	Home-to-Work Trips		Work-to-Home Trips	
	October 1992	May 1994	October 1992	May 1994
New Panelists	7:30 am	7:30 am	5:20 pm	5:15 pm
Original Panelists	7:20 am	7:30 am	5:00 pm	5:00 pm

**Table 5. Perceived Changes in Departure Times**

Perceived Change in Departure Time	Percent of Responses	
	New Panel	Original Panel
Home-to-Work Trip: Leaving Earlier	21	18
Leaving at the Same Time	68	70
Leaving Later	11	12
Work-to-Home Trip: Leaving Earlier	9	9
Leaving at the Same Time	82	85
Leaving Later	9	6

It should be noted that the percentage of new panel members who indicated they were leaving for work earlier in May 1994 than in October 1992 was lower than the percentage who felt this way

in October 1993 (when 26 percent believed they were leaving earlier than in October 1992). It is quite apparent that the reconstruction of the NCE still has not had a dramatic effect upon commuter departure time decisions to and from work.

Travel Times

Average travel times reported by panelists in October 1992 and May 1994 are presented in Table 6. In most cases, the average travel time to and from work reported by the panelists did not change significantly from that reported in October 1992. The only significant change involved a 3.2 minute reduction reported by the original panel members for the home-to-work trip. It should be noted that none of the averages reported in Table 6 for the May 1994 were any greater than the averages reported for October 1992.

**Table 6. Average Travel Times to and From Work**

Panel Group	Home-to-Work Trips		Work-to-Home Trips	
	October 1992	May 1994	October 1992	May 1994
New Panelists	27.5 min	26.0 min	29.1 min	26.6 min
Original Panelists	29.1 min	25.9 min*	32.3 min	29.5 min

\* Rate is significantly lower ( $\alpha = 0.05$ ) than reported in October 1992 based on test of means

Panelists' perceptions as to how their travel times to and from work changed since October 1992 are summarized in Table 7. Table 7 suggests that between one-fourth and one-third of both panel groups believe travel times to and from work have increased since October 1992, despite the fact that the averages reported in Table 6 did not indicate such a trend in travel times. However,

However, these percentages are actually slightly less than the percentages recorded for the October 1993, indicating that perceptions have not worsened over the six months since that earlier survey.

**Table 7. Perceived Changes in Travel Times**

Perceived Change in Travel Times to and from Work	Percent of Responses	
	New Panel	Original Panel
Home-to-Work Trip: Shorter Travel Time	10	9
Same Travel Time	54	67
Longer Travel Time	36	24
Work-to-Home Trip: Shorter Travel Time	10	9
Same Travel Time	59	66
Longer Travel Time	31	25

Table 8 illustrates how the perceptions of motorists who believe they were travelling to and from work for a longer period of time in May 1994 compare to the actual changes in travel times they reportedly experienced between October 1992 and May 1994. Generally speaking, the amount by which panel members stated their travel times had increased between October 1992 and May 1994 (e.g., 5 minutes longer, 10 minutes longer) corresponded fairly closely to the differences in travel times reported by these same panelists in October 1992 and May 1994. From these data, it would appear that the panel members are perceiving the impacts of NCE construction upon their commuting trips fairly accurately.

**Table 8. Perceived Versus Actual Travel Times Increases to and From Work:  
October 1992 to May 1994**

Panel Group	Home-to-Work Trips		Work-to-Home Trips	
	Average Perceived Increase (min)	Average Actual Increase (min)	Average Perceived Increase (min)	Average Actual Increase (min)
New Panelists	7.5	6.9	5.1	6.7
Original Panelists	5.6	2.3	3.4	4.8

Intermediate Stops to and from Work

Averages of the number of stops each panel group made on the way to and from work are presented in Table 9. On average, neither the new nor the original panel members reported making stops with significantly more or less frequency during either the home-to-work or work-to-home trips.

Choice of Travel Mode

Table 10 compares panelists' choices regarding travel modes used for work trips in October 1992 and May 1994. Because the panelists were originally identified through a license plate survey of automobiles travelling in the corridor, these values do not necessarily reflect the corridor-wide mode choice distributions. However, this statistic does provide a means of monitoring any changes in mode choice by these groups of drivers.

The October 1993 data reported in Table 10 does not suggest any significant shift away from single-occupant vehicles into carpools or other alternative travel modes. Single-occupant vehicle usage changed one percent or less for both the new and the original panel members.



**Table 9. Intermediate Stops Made to and from Work**

	New Panel		Original Panel	
	October 1992	May 1994	October 1992	May 1994
Home-to-Work Trip: School or daycare	0.53	0.56	0.43	0.39
Shopping	0.23	0.33	0.20	0.24
Social	0.35	0.24	0.20	0.19
Personal Business	<u>0.50</u>	<u>0.52</u>	<u>0.35</u>	<u>0.31</u>
TOTAL	1.61	1.65	1.18	1.13
Work-to-Home Trip: School or daycare	0.37	0.38	0.22	0.33
Shopping	0.88	0.86	0.81	0.76
Social	0.83	0.86	0.41	0.61
Personal Business	<u>0.72</u>	<u>0.89</u>	<u>0.57</u>	<u>0.67</u>
TOTAL	2.80	2.99	2.01	2.37

**Table 10. Work Trip Mode Choice Distributions**

	New Panel		Original Panel	
	October 1992	May 1994	October 1992	May 1994
Drive Alone	93%	94%	91%	91%
Carpool	6%	4%	5%	6%
Other	1%	2%	5%	3%

## Roadway Utilization

Tables 11 and 12 illustrate panel utilization of the various North/South roadways in the NCE corridor for trips to and from work. With respect to both home-to-work and work-to-home trips, the results indicate that NCE usage was unchanged for the new panelists between October 1992 and May 1994. In contrast, NCE utilization for both the home-to-work and work-to-home trips decreased significantly for the original panel members during that period of time. However, since the reported frequency of work trips in total was also down significantly for the original panel members, the fairly large decrease in average weekly utilization (about a 1.0 trip-per-week decrease) converts into a less dramatic (but still significant) reduction in the relative utilization of the NCE for the original panel members. The reduced relative utilization of the NCE was countered by increased use of several of the arterial streets in the corridor, most notably Skillman/Live Oak, Greenville/Ross, and Preston. Interestingly, the relative utilization of the Dallas North Tollway was also slightly lower than reported in October 1992 (although the change was not enough to be considered statistically significant).

## **Perceptions of NCE Lane Closures in February 1994**

The May 1994 survey instrument that was sent to the panel members included several questions relating to travel conditions in February and March 1994. During these months, the contractor performed some preliminary work in the median of the NCE that necessitated the closure of one of the three travel lanes in each direction of travel south of Mockingbird Lane. Although this closure lasted only a few weeks, it provided an opportunity for transportation officials to see how motorists were going to be able to cope with a capacity reduction of this magnitude in a few years when reconstruction activities require the lane closures for a much longer duration of time.

In an attempt to explore how motorists perceived the adverse impacts of this capacity reduction, as well as how they adjusted during that period, survey questions asked panel members to rate the severity of additional congestion created by the lane closure. They were also asked to

**Table 11. Roadway Utilization: Home-to-Work Trips**

	Ave. Trips/Wk		% of Total Trips	
	October 1992	May 1994	October 1992	May 1994
<b>New Panelists:</b>				
NCE	1.8	1.7	35	36
Dallas N. Tollway	1.0	0.8	20	17
Skillman/Live Oak	0.6	0.6	12	13
Greenville/Ross	0.5	0.5	9	11
Abrams/Gaston	0.4	0.3	8	6
Hillcrest/Cole	0.4	0.5	8	11
Preston	<u>0.4</u>	<u>0.3</u>	<u>8</u>	<u>6</u>
<b>TOTAL</b>	5.1	4.7	100	100
<b>Original Panelists:</b>				
NCE	2.6	1.6*	45	42
Dallas N. Tollway	0.6	0.4	12	10
Skillman/Live Oak	0.4	0.4	7	10
Greenville/Ross	0.4	0.3	8	8
Abrams/Gaston	0.4	0.3	7	8
Hillcrest/Cole	0.5	0.3	11	8
Preston	<u>0.5</u>	<u>0.5</u>	<u>10</u>	<u>14</u>
<b>TOTAL</b>	5.1	3.8	100	100

\* Rate is significantly lower than in October 1992 ( $\alpha = 0.05$ )

**Table 12. Roadway Utilization: Work-to-Home Trips**

	Ave. Trips/Wk		% of Total Trips	
	October 1992	May 1994	October 1992	May 1994
<b>New Panelists:</b>				
NCE	1.7	1.6	36	36
Dallas N. Tollway	0.9	0.8	19	18
Skillman/Live Oak	0.5	0.4	10	9
Greenville/Ross	0.4	0.6	9	14
Abrams/Gaston	0.5	0.3	9	6
Hillcrest/Cole	0.4	0.5	8	11
Preston	<u>0.4</u>	<u>0.3</u>	<u>9</u>	<u>6</u>
<b>TOTAL</b>	4.8	4.5	100	100
<b>Original Panelists:</b>				
NCE	2.3	1.4*	46	40
Dallas N. Tollway	0.8	0.4	16	11
Skillman/Live Oak	0.4	0.3	7	8
Greenville/Ross	0.3	0.4	5	11
Abrams/Gaston	0.3	0.3	6	8
Hillcrest/Cole	0.5	0.4	11	11
Preston	<u>0.5</u>	<u>0.4</u>	<u>9</u>	<u>11</u>
<b>TOTAL</b>	4.9	3.6	100	100

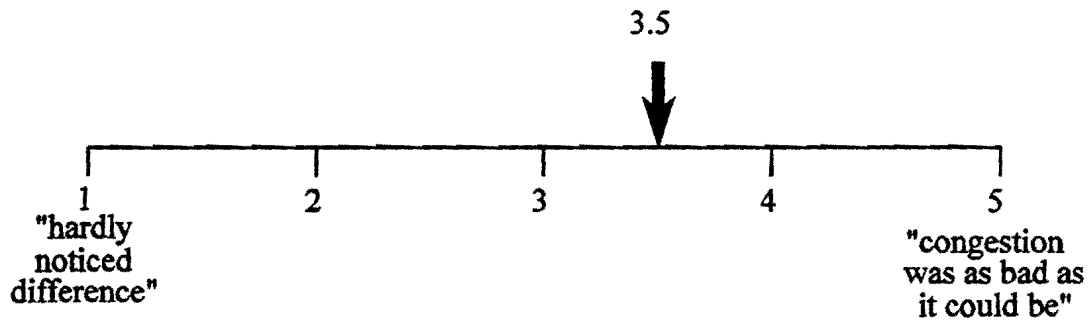
\* Rate is significantly lower than in October 1992 ( $\alpha = 0.05$ )

estimate how much longer their trips on the NCE and on nearby streets took them during the peak period and during other times of the day, and to identify what types of actions they took in response to these travel impacts (e.g., found a different roadway, left earlier, carpooled, rode the bus, etc.).

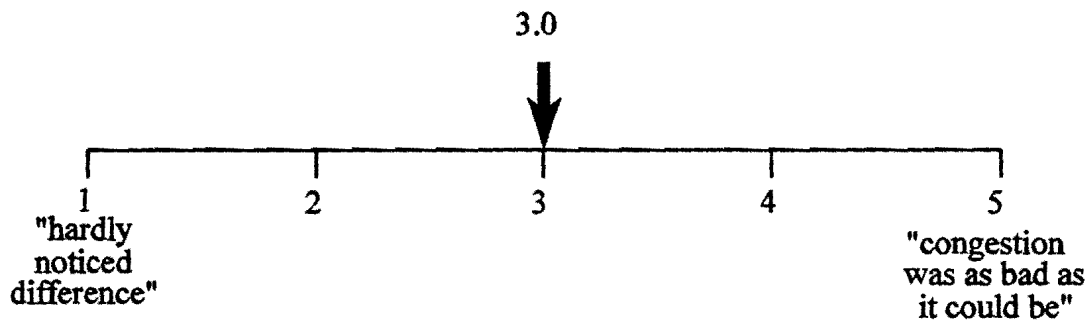
Figure 2 presents two line graphs illustrating the average ratings of the severity of congestion caused by the capacity reduction on the NCE during February and March 1994. The top graph is the average rating given by panel members of the traffic conditions on the NCE, whereas the lower graph is the average rating for roadways near the NCE. Ratings tended to be similar for both panel groups; consequently, the values in Figure 2 reflect the combined responses of both groups. Overall, panel members apparently perceived some degradation in travel conditions both on the NCE and on nearby roadways in the corridor during these months. As would be expected, the level of impact was rated as slightly more severe on the NCE itself as compared to the impacts on nearby roadways. Although the average rating value reported by panel members was fairly moderate, approximately 20 percent of the panel members who returned the survey circled a "5" on their survey form ("congestion was as bad as it could have been") for travel on the NCE. In comparison, only nine percent of the subjects gave the travel impacts on roadways near the NCE a rating of 5.

Table 13 summarizes panelist perceptions as to the impact of the NCE lane closures upon travel times on the NCE and nearby roadways. As in Figure 2, the responses by both new and original panelists were similar enough overall to be combined. Furthermore, these values represent only those panelists who indicated some additional travel time value on the survey form. It should be noted that a significant percentage of the panelists (50 to 60 percent) did not respond to this particular question. It is not known whether they had not perceived any increase in travel time, could not remember conditions a few months back, or did not understand the question. Those who responded to this question indicated a fairly hefty increase in travel time during both peak period (i.e., rush hour) and non-peak periods. Also, panel members indicated a fairly substantial increase in travel time during the lane closures on roadways near the NCE. The values reported are consistent with

expectations, however, in that peak period increases were generally higher than non-peak period increases, and increases on the NCE itself were somewhat higher than on nearby roadways.



Additional Congestion on the NCE



Additional Congestion on Roadways near the NCE

Figure 2. Average Panel Ratings of Additional Congestion in February 1994

Table 13. Perceived Increases in Travel Time During NCE Lane Closures

Time Period	Average Travel Time Increase on the NCE (min)	Average Travel Time Increase on other Roadways (min)
"During rush hour"	18.9	15.8
"During other times of the day"	14.0	10.8

The final question included in this section on the NCE lane closure impacts queried panel members about their changes in travel behavior in response to the increased congestion and delay. Panel members were asked to indicate which of the actions listed in Table 14 they had taken in response to the additional congestion generated as a result of the NCE lane closures. Again, a sizeable percentage of the panel (21 percent) did not respond to the question, indicating that they had not changed their travel patterns, did not understand the question, or responded in a way not listed on the survey form (panel members were only asked to check which of the actions listed they had taken). Panel members were told to check more than one action if it applied.

Of those panel members who indicated taking some action in response to the increased congestion during the lane closures, the vast majority (82 percent) reportedly changed their choice of travel route. Meanwhile, 43 percent of the panel also reported leaving earlier to make a particular trip. Only a small fraction (3 percent) of the panel members reported riding the bus or carpooling/vanpooling in response to the increased congestion.

**Table 14. Responses to NCE Lane Closure Congestion**

Response	Percent of Panel Members
"used a different roadway"	82
"left earlier"	43
"took the bus"	2
"carpooled/vanpooled"	1

**Other Comments and Suggestions**

At the bottom of each survey sent to panel members is a note telling them to provide any other comments, complaints, and suggestions they might have concerning the ongoing construction activity on the NCE. Appendix B contains the individual comments received. In general, the comments were distributed among the following categories:

- Complaints about traffic conditions (20%),
- Compliments about construction progress, traffic conditions, etc. (14%),
- Suggestions for improving travel conditions (9%),
- Other changes in travel behavior not captured by the survey (8%),
- Questions (4%), and
- Other miscellaneous comments (45%).

The fact that the number of compliments received from the survey was almost as great as the number of complaints about conditions should be taken by TxDOT, the North Central Mobility Task Force, and other transportation agencies in the region as a good indication that their efforts to maintain mobility and positive public image in the region during NCE construction are working.



## SUMMARY

The results of the May 1994 survey of automobile panelists indicate that NCE construction has had a small but detectable impact upon motorist travel patterns and driving conditions. The following is a list of the specific findings from the survey:

- Overall, average weekly trip-making activity of the new and original panel members was unchanged between October 1992 and May 1994. However, the average weekly trip frequency on the NCE decreased significantly for the original panelists. This reduction in NCE use occurred primarily for work-related trips. These results are consistent with the changes in traffic volumes recorded on the NCE and on other routes in the corridor in May 1994 (3).
- In May 1994, approximately two-thirds of the panel members felt they were making the same number of trips per week overall relative to October 1992. However, only one-third of the panel believed that they were making as many trips on the NCE in May 1994 as they had been making in October 1992, whereas over one-half of the panelists indicated they thought they were making significantly fewer trips on the NCE. These panelists actually reported making an average of 23 to 32 percent fewer trips on the NCE in May 1994 than in October 1992, indicating that the perceptions of these panelists were consistent with the actual changes observed in their trip-making behavior.
- Home-to-work median departure times were essentially unchanged between the October 1992 and May 1994 surveys for both the original and the new panelists. In general, panelists' perceptions verified that few departure time changes had been made since October 1992; more than two-thirds of the panelists believed that they had not changed departure times.
- Overall, average travel times to and from work indicate no significant increase between October 1992 and May 1994. In fact, the only statistically change detected in travel times was an average 3.2-minute decrease reported by the original panelists for the home-to-work

trip. Despite the lack of an increase in the average travel time for the entire panel, a significant proportion of the panel did believe that their travel times to and from work had increased since October 1992. The perceptions of these panel members appeared to match their reported behavior, with the average travel times of this segment of the panel increasing an average of 2 to 3 minutes between October 1992 and May 1994.

- No statistically significant changes occurred in the number of stops made to and from work between October 1992 and May 1994. Likewise, the distribution of travel modes used for trips to and from work was unchanged between the two surveys.
- The relative roadway utilization for work trips in the NCE corridor changed very little between the October 1992 and May 1994 surveys for the new panelists. Original panelists, however, reported using the NCE less frequently for work trips in May 1994. Again, this supports the reduction in peak period traffic volumes observed on the NCE and the corresponding increase in volumes on other roadways in the corridor in May 1994 (3).
- Panelist ratings of the severity of the additional congestion caused by the closure on travel lanes on the NCE in February and March 1994 indicate that the closures did have a significant adverse impact on the NCE as well as on nearby roadways (due to diversion from the NCE). Furthermore, nearly one-half of the panel believed that the lane closures had increased travel times significantly, by an average of 14 to 19 minutes. These estimates were 5 to 15 minutes longer than the actual increases in travel time observed during traffic monitoring activities in March 1994 (4). Some panel members also reported increases in travel times on the nearby roadways that averaged 11 to 16 minutes. In comparison, actual travel times on the NCE frontage road and Dallas North Tollway increased only slightly in March 1994 (4).
- Of those panelists who reported altering their travel behavior because of the NCE lane closures, 82 percent reportedly changed routes, whereas 42 percent reported leaving earlier in order to complete a trip on time.

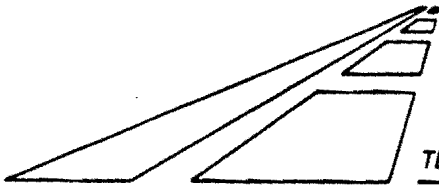
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**APPENDIX A: MAY 1994 SURVEY FORM**





May 21, 1994

Dear Motorist:

Thank you for continuing to participate on the user panel regarding travel conditions and patterns in the North Central Expressway corridor. We have presented the findings of the last survey to the Texas Department of Transportation and other transportation agencies in Dallas. They are relying on that and other information to decide how to best accommodate motorist's travel needs throughout construction. Your input is very important, because you and the other members of the panel know best how travel conditions are being affected by the lengthy but necessary construction project.

We have prepared a follow-up survey to again assess your travel patterns in the North Dallas area. It asks many of the same questions as before, so that we can see if your travel has changed over time. The survey consists of two parts: the first requests general information about all of your tripmaking, while the second requests more specific information about your trips to and from work.

Please take a few moments, fill out the survey, and return it in the postage-paid envelope provided. Those of you who indicated that you do not work outside of your home need only complete part 1 of the survey. The information will remain confidential, only summaries of the data will be released. If you do not wish to participate in additional travel surveys in the future, please let us know on the back of the survey forms.

This month, the Texas Engineering Experiment Station (TEES), another part of the Texas A&M University System, is writing a story on the travel impacts of the North Central Expressway construction project. They will publish this story in their magazine *Windows* that is sent to various individuals within the A&M system and to others throughout the country. As always, we refuse to give out the names and addresses of panel members to others. However, if you have any comments or experiences regarding the effects of Expressway construction that you would like to share directly with the authors, you may do so by contacting Mr. John Mark Dempsey of TEES at (409)845-6715. As always, we thank you for your participation in this important research effort.

May 1994 **PART 1: NORTH CENTRAL EXPRESSWAY CORRIDOR TOTAL TRAVEL SURVEY**

1. Has your place of residence changed since October 1992?    \_\_\_ yes \_\_\_ no
2. During your most recent work week (Monday - Friday), how many separate round trips by passenger vehicle (car, van, or pickup truck) did you make for the following purposes? Please indicate the total number of trips made, as well as the number of those trips made using the North Central Expressway.

	<u>Total Trips per week</u>	<u>Total trips per week on North Central Expressway</u>
to/from work	---	---
other work-related	---	---
to/from school/child daycare	---	---
to/from social/recreation/eat a meal	---	---
to/from shopping	---	---
to/from personal business (bank, doctor, etc.)	---	---
to/from bus stop	---	---

3. Overall, do you believe that you are making more trips, the same number of trips, or fewer trips per week now than you were in October 1992?  
 \_\_\_ more                    \_\_\_ the same                    \_\_\_ fewer
4. Do you believe you are using the North Central Expressway more often, the same, or less than you were in October 1992?  
 \_\_\_ more often                    \_\_\_ the same                    \_\_\_ less often

\*\*\*\*\*  
 In January and February 1994, one lane in each direction on the Expressway was closed from Mockingbird Ln. south to perform certain roadway construction activities. Please try to recall your travel experiences during the month of February as you answer the following questions.

5. On a scale from 1 to 5, how were traffic conditions affected on North Central Expressway during the month of February (if you did not use the Expressway, please skip to question 7)?

1	2	3	4	5
hardly noticed difference				congestion was as bad as it could be

6. How much longer did trips seem to take on the Expressway during February?  
 \_\_\_\_\_ minutes during the rush hour                    \_\_\_\_\_ minutes during other times of the day
7. On a scale from 1 to 5, how much worse would you say traffic conditions on roads near North Central Expressway were during the month of February than they were during other months of Expressway construction?

1	2	3	4	5
hardly noticed difference				congestion was as bad as it could be

8. How much longer did trips seem to take on roadways near the Expressway during February?  
 \_\_\_\_\_ minutes during the rush hour                    \_\_\_\_\_ minutes during other times of the day
9. What changes did you make because of traffic conditions on the Expressway or on roadways nearby (check all that apply)?  
 \_\_\_\_\_ used a different roadway    \_\_\_\_\_ left earlier    \_\_\_\_\_ took the bus    \_\_\_\_\_ carpooled or vanpooled
10. On the back of this survey, please make any other comments you have about North Central Expressway construction.



**PART 2: NORTH CENTRAL EXPRESSWAY WORK TRIP SURVEY**

1. **Have you changed work locations since October 1992?** \_\_\_ yes \_\_\_ no
  
2. **When do you typically leave your home to go to work?** \_\_\_\_\_ AM or PM (circle one)  
 Has this time changed since October 1992?  
 \_\_\_ Yes, I leave \_\_\_\_\_ minutes earlier now.  
 \_\_\_ Yes, I leave \_\_\_\_\_ minutes later now.  
 \_\_\_ No, I have not changed my departure time.
  
3. **How much time does your trip from home to work typically take you?** \_\_\_\_\_ minutes  
 Has this time changed since October 1992?  
 \_\_\_ Yes, it is \_\_\_\_\_ minutes longer now.  
 \_\_\_ Yes, it is \_\_\_\_\_ minutes shorter now.  
 \_\_\_ No, it has not changed.
  
4. **When do you typically leave your work to go home?** \_\_\_\_\_ AM or PM (circle one)  
 Has this time changed since October 1992?  
 \_\_\_ Yes, I leave \_\_\_\_\_ minutes earlier now.  
 \_\_\_ Yes, I leave \_\_\_\_\_ minutes later now.  
 \_\_\_ No, I have not changed my departure time.
  
5. **How long does your trip from work to home typically take you?** \_\_\_\_\_ minutes  
 Has this time changed since October 1992?  
 \_\_\_ Yes, it is \_\_\_\_\_ minutes longer now.  
 \_\_\_ Yes, it is \_\_\_\_\_ minutes shorter now.  
 \_\_\_ No, it has not changed.
  
6. **How many times per week do you make each of the following types of stops on the way to and from work?**

	<u>From home to work</u>	<u>From work to home</u>
school/child daycare	___	___
shopping	___	___
personal business	___	___
social/recreation/eat a meal	___	___
  
7. **How do you typically make your trips between home and work? (check one)**  
 \_\_\_ drove alone \_\_\_ carpool/vanpool (with \_\_\_ people) \_\_\_ bus \_\_\_ other
  
8. **How many times per week do you typically use any of these roads on your way to and from work?**

	<u>From home to work</u>	<u>From work to home</u>
North Central Expressway	___	___
Skilman/Live Oak St.	___	___
Abrams Rd./Gaston Ave.	___	___
Greenville/Ross Ave.	___	___
Hillcrest/Cole/McKinney Ave.	___	___
Preston Rd.	___	___
Dallas North Tollway	___	___



## **APPENDIX B: PANEL COMMENTS**



## SUGGESTIONS

- I thought Greenville was going to be an alternate corridor downtown during Central construction. On Friday, May 27, I took Greenville. A utility laying activity at Greenville and Walnut caused a significant delay. A backup occurred from Walnut all the way to LBJ. I believe City of Dallas Police should be used or coordinated with to direct traffic when one lane open on Greenville is unavoidable.
- It would help so much if the traffic lights could be timed on service roads to allow vehicles to flow without stopping at every one.
- Traffic would move a lot better if the secondary road were clear. This means no construction on these access routes, enforce the existing parking restrictions, time the lights to aid traffic flow. Perform periodic follow up reports to be sure all facets are working to aid traffic.
- Some improvements have been made; however they are minimal. You could be doing so much more to improve traffic flow—example—close the on-ramp just north of Mockingbird; FIX the lights at Mockingbird; and let all that bottleneck traffic get onto Central in a designated lane. Such a simple solution.
- Traffic seems to flow reasonably well. I think they should accelerate construction and though this may be inconvenient in the short run, in the long run things will improve more quickly. Until Central is done, I'll take the Tollway every time.
- Need more public announcements (newspaper or radio & TV) of lane closures before they happen and signs at intersections of alternate routes (i.e. Skillman, Abrams) of lane closures. It does not do any good to put a sign by Central Expressway or on Central Expressway of lane closures if you're already stuck in the traffic.
- Should be working 3 shifts (24 hrs/day) to complete work on this type of road. Need to get workers working rather than standing around most of time.
- Would like to see more advance notice about changes/blockages/rerouting of frontage roads and other roads intersecting Central's frontage roads. For example, rerouting of Mockingbird at its intersection of frontage road confuses drivers--I've seen many drivers in the wrong lanes. I recommend you 'advertise' upcoming changes in Dallas Morning News and other newspapers like Observer, Park Cities News, and Park Cities People.
- If you are going to close a lane, traffic seems to run smoother if it is closed all the way starting at downtown, or NW Hwy. the closure further down causes horrible congestion.
- Advance notice signs about construction or lanes that are closed would be nice!
- Live Oak and Ross Avenue reversible lanes are good. I wish the traffic lights could be better timed. The fact that you tried to keep two lanes open on 75 is good. I know you cannot avoid closing one lane or both, diverting traffic on the service road when the bridges will be torn down. I am watching with intense interest how you are doing it. I know you are trying to do work on holidays, weekends, or in the evenings. If you are not, then you should consider it. Widening Skillman to three lanes each way from Fisher Road to Mockingbird, will be most beneficial. Adding a left turn lane from there to Live Oak will help a lot too. But I doubt this is the time to do it. Widening Abram Road to three lanes each way from Mockingbird to Gaston Avenue will also help. Widening the segment we already have the right of way now, and do it as segments as right -of-way is obtained, trees cut. Widen overpass at Abram Road over LBJ and Skillman over LBJ. Extend the widened Skillman from Whitehurst to LBJ, southbound leaving the old segment as left turn to Audelia. On Whitehurst, add one lane form traffic to turn into the shopping center and theater and one lane eastbound on Whitehurst for right turn into Skillman. Audelia to Audelia should be tunnelled. Build shoulders and pedestrian paths on both sides of Skillman from Abram intersection to LBJ.

## GENERAL COMMENTS

- Central Expwy should have been decked as 35 in Austin. It works. Should not have been widened in my opinion-- somebody goofed big time.
- In making trips to McKinney or most any reason for traveling north is made on Skillman or Abrams which is terribly congested at Mockingbird and Skillman and most all the way up Abrams in rush hour traffic. Most of my delays are from LBJ south on Central to McCommas where I exit so I try to avoid that except late at night. Coming off Central exiting at Mockingbird is really dangerous and narrow.
- Surprised that traffic jam occurred North of Walnut Hill. Most work had seemed complete. Seemed like someone goofed and did not get their work done during major construction.
- I think the construction on 75 is moving along great. I'm frustrated w/the traffic on Mockingbird.
- It seems that there is a lot of blockage that doesn't seem to be necessary based on what appears to be going on.
- It forced me to reevaluate my job situation and I changed jobs so I would not have to go anywhere near Central or any of its alternate routes. Life is too short to live it so stressed out because of traffic.
- On ramps going North at Haskell & Fitzhugh exits are hazardous because of hill.
- During the day I use the Tollway to go to town (my office near Presbyterian Hospital). I use Greenville during the day a good bit--rather than Central.
- My experiences with congestion on 75 in the last few months have been more from NW Hwy to 635. I do most of my travel on 75 during the day.
- Since I'm in outside sales, traffic slows my production. I know congested areas and avoid them. Timing works.
- I avoid this expressway like the plague!
- It looks like it's coming along very well, but I'll be glad when it's done.
- As I am sure you know, lane closures create serious bottlenecks that spill onto other arterials (Skillman, Hillcrest, McKinney, Greenville, etc.). Single lanes are a real mess.
- It is increasingly difficult for me to cross Central. I used to use the McCommas bridge frequently but have learned to avoid it & in some cases have reduced the lunch trips to Greenville Ave. Getting onto & off of Central & Central's traffic flow has seemed generally the same for work access purposes.
- Construction seems to moving along well. How this effects each individual is up to the attitude & understanding of each driver. If you take it in stride, make necessary adjustments to your schedule, it can be no big deal. But, like so many of today's generation, they tend to throw tantrums about many things instead of doing something constructive. This is just another part of life.
- The traffic has greatly increased on my neighborhood streets: Greenville & Skillman.
- The most congestion for me was prior to the Mockingbird Exit. However, this seems to have been alleviated since the entrance ramps were closed. It will be great when finished, hope I live to see it.

- Some mornings the traffic from 30 on to I45/US 75 is so congested we take the Main St. exit. The return trip takes a tad longer because the lights under the freeway have changed to accommodate more traffic. Until South Central is complete--we will not use it. One lane traffic is a killer.
- During the times I have used North Central, I've had no problems with the construction slowing me down. Have not used it during heavy traffic.
- On most days, the expressway seems to be very smooth. The entrance only lanes I usually use have been taken away, but it seems to be no problem w/ the makeshift acceleration lanes. It's a little scary at night if you're not familiar with the detours and changed lanes near the expressway.
- Since the one lane has been taken away, trips take too long on Central. It gets progressively worse as you get into rush hour. If I leave home or work especially early, I will give Central a chance if the traffic is light. If its heavy, I use alternate routes.
- HURRY!!!
- Since approximately 8/93 I have stopped using Central Expy except for the new 1 mile strip between Royal Ln. & Walnut Hill for shopping, entertainment, etc. Other than that, I drive miles out of the way to avoid Central & the traffic & confusion.
- I get on Central southbound off Mockingbird East. The traffic on Central is great as it opens up going south just before Mockingbird, apparently. It's the traffic/construction on Mockingbird travelling west that is outrageous!--particularly the mess just before Central on the East side. HELP! It's what's added 5 min (I was being conservative) to my drive time--not Central! I'm looking into helicopter pools.
- Congestion has eased since the middle of May, but will be really bad in mid-August to early September.
- I try to avoid Central whenever possible because you never know what lanes are going to be closed, etc. I do like the more complete part just south of Forest with the wider lanes and new walls. I am looking forward to when the exit ramp for Coit will be completed since that is what I would use.
- During the past week I have noticed numerous violations of red lights. On Monticello, a car drove on the wrong side of the street went through two red lights on both service roads. Another afternoon waiting for lights to change at Southwestern to cross Expressway, a car in left lane which is for left turn only ran two red lights and went straight on Southwestern. Something needs to be done about the people committing multiple traffic violations at one intersection.
- Once again my concern is after it is finished, as per Richardson, Plano, to Allen: The finished paint job last about 1 year and looks trashy after that. Landscape is not maintained and cleaned up. What happened to that nice sod. It is now covered in 3-4 ft of weeds. If you didn't notice it's June and it hasn't been mowed since last year (through Allen). Can you please respond back on these concerns.
- Traffic has seemed to become less congested in the past 2 months. I have begun using Central regularly once again.
- It's bad. I stay away whenever possible.
- Conditions can vary greatly from day to day. Generally, congestion all along my routes has grown increasingly worse in the last five years. Woodall Rogers on to Regal Row on Stemmons is much, much worse in the mornings. Entering Central can be a life threatening experience. Tie-ups when construction is going on can be interminable bumper to bumper situations. I will do anything possible to avoid getting caught in these situations.

- Twice a week I ride the bus home, i.e. SMU/Casa Linda Mockingbird/White Rock-East and lately when the driver crosses Central Expressway on Monticello, he looks north on Central and detours from the service road north to Monticello east to McMillan and left to Mockingbird avoiding Central regardless of congestion. Earlier this year the driver of the above bus was stopped by a car out of gas in the one lane between Monticello and Mockingbird, forcing him to reverse back to Monticello. The time was about 5:20 P.M. For personal reasons, I quit driving my personal car in May 1993, having a company vehicle at my disposal when I get to work. During the day in my company vehicle, on company shopping trips, I find it convenient to detour to the east on Mockingbird rather than attempt it all the way to Northwest Highway Loop 12. Returning to work in company vehicle from Northwest highway, I find the congestion more manageable moving south on Central to Hall/Routh exit.
- The TX Dept of Hwys is not adequately using all the service road facilities available at main intersections with Central Expressway. At Mockingbird, Lovers Lane, and other intersections there are some paved lanes available and not being used. Barricades prevent their use. Where possible those lanes should be used for left, straight, and right turns. The traffic pile-up at these intersections is terrible. Also on Greenville at Walnut Hill Ln a contractor has two of three lanes blocked going south on Greenville when he could have gotten by with one lane.
- Getting from Skillman to Central on Mockingbird often took much longer than my trip on Central from Mockingbird to Haskell.
- Seems as if the construction is an ongoing thing. We have been in the area for 2 yrs, and Central Expressway has been the pits to travel. I am glad that other ways are being developed to keep us off of Central Expressway. Thanks to those who saw this vision. Maybe once it is finished it will be great. But for the present time travel on Central Expressway and a few side roads is what I try to avoid.
- By the time Central is finished they will have to start over again as they are not widening it enough to accommodate today's travelers/commuters never mind tomorrow's. It would have been less expensive in the long run to have widened it more in the first place than it will be to start over again.
- I work at Monticello & Central and lately at lunch hour, with all the construction near this area, Central has been very congested. This makes any errands that I need to run during my lunch hour take a lot more time.
- I avoid Central at all cost!!!
- The wait going either N/S or E/W on Central/Mockingbird is the bottleneck. Waiting through 3-5 lights is not at all uncommon with a wait of 5-15 minutes. Not sure if changes in the signal could help. Overall the construction seems well planned & well communicated to those travelling.
- When construction was primarily in north Dallas, I really felt little impact. Now that the construction has moved into my area, it is slowing my commute. Closing and/or altering of on and off ramps is confusing.
- There have been restricted lanes both north and southbound on Central from Mockingbird to Lovers. I have left Central and Knox and travelled either on McKinney or Greenville/Matilda. With the difficulty at the Central and Mockingbird intersection, Greenville is the best alternative. It is also experiencing back-ups as others are leaving Central.
- I do not understand the congestion between Forest and LBJ during most work days.
- We do not mind the extra congestion on Central if expansion continues on schedule. We must continue the subway/rail under Central.
- I travel to/from work on Live Oak and have had two accidents (caused by others) since January. It is extremely dangerous. Even police cars drive in the wrong "reversible lane." Central hasn't been that bad, except lengthy delays getting through the Mockingbird/Central stop lights.



- Increase in surface road congestion seemed mostly due to new construction constricting roadway rather than sheer numbers of vehicles but construction was caused by freeway improvement projects.
- Temporary entrances that don't leave enough room for a car to enter the freeway (example Forest Lane Northbound) are extremely dangerous! Barriers put up before 9 am are extremely frustrating! Little by little we are getting there...but that back-up at SB Central and LBJ at 8:30 am is awful...but it's still faster than any other alternate route!
- A.M. rush hour, I stopped taking Mockingbird to go west to the expressway heading downtown all together. I avoid the DISTRESSWAY! At all other times of the day, prior to pm rush hour, I will occasionally use Central.
- The backup on Woodall northbound is greatly reduced but the backup on Central when it squeezes to 2 lanes is taking 10-15 mins to go thru. My friends and I will gladly write a \$500-\$1000 check each to hurry the project up!
- The construction on Central affects the toll road tremendously.
- Overall, going well. Aside from construction, slow drivers contributing most to slow-downs. Speed limit of 55 is too slow for non-construction areas. When drivers can move easily, they should be allowed to.
- I use alternate routes. I never use North Central Expressway.
- My problem is that the best way for me to get to work (7:30-8:00) would be to enter SB Central at Monticello and to return NB Central with the Monticello exit. Since both of these exits have closed, I take alternate routes anyway. The "new" Central is actually much less convenient to residents who live south of 635.
- North Central construction seems to be as well organized as it can be. I always drive it during rush hour and avoid it during the rest of the day. On the rare occasions when I drive the tollway I am amazed at the congestion. People moved off Central to the Tollway because they expected Central to be awful. As long as they think it is, Central will be a good rush hour route. Can we keep it a secret? The traffic help vans are much appreciated.
- The busy spots or congestion seems to change from one location to another. Currently in the morning, from where I get on at Arapaho, the traffic is congested until I get to LBJ. Then it picks up to 60 mph until Walnut. It continues slow to Mockingbird. After Mockingbird traffic moves 60 mph. I've also noticed the volume of traffic increasing and decreasing during the construction. On the way home traffic is slow from downtown to Mockingbird. After Mockingbird, the speed picks up to 60 mph until Walnut. Then the speed picks up again to 60 mph north of LBJ. Traffic going home is much worse than when going downtown in morning.
- They are doing a great job by holding the traffic moving south from Beltline to Meadow Road in the AM. Traffic is heavily congested in PM for no real apparent reason, so I use an alternate route via Royal to Skillman to Forest Lane going home at end of day.

## COMPLIMENTS

- As per construction, you have done a good job marking changes. The problem lies with the people on the road who won't yield the right of way. It appears we have more traffic on Central now than we had previously.
- I take Skillman to Llano to Greenville to Ron each morning. In the evenings, I take Ron to Matilda to Mockingbird to Skillman. With the traffic lights better synchronized and the reversible lanes my commute takes approximately 5 minutes less than before. Somebody is doing something right! Good job!
- It is extremely pleasant through Richardson.

- It's great to see it happening. Can't wait to have 8 lanes from Plano to Downtown in the next few years.
- I honestly was surprised that the Mockingbird - Downtown delay was remedied as quickly as it was. I get on Central to Downtown at Mockingbird. The actual delay wasn't on Central but getting on Central--awful congestion on westbound Mockingbird to get on Central. I took Abrams to Live Oak to Downtown during the worst times, but now go on Central again--much better. Thanks!
- I think you have been aware of the problems and have attempted to ameliorate the effects by:
  - limiting the length of the single lane areas (primarily in McCommas area)
  - limiting closures to non-rush hours
  - posting sign boards.
 I have been impressed with the rapid progress you are making on Central. Keep up the good work.
- In general, I believe the job being done is good.
- I feel you are doing a great job considering the volume of traffic and the work being done.
- Traffic management on NC during construction, to this point, has been far better than expected. It seems that the construction activities have resulted in fewer accidents, causing, generally, fewer delays. Before the construction started, I seldom used the NC due to congestion caused by accidents; using the tollway almost exclusively. I now travel NC about half time.
- I think that, overall, the construction has gone pretty smoothly, as far as minimizing impacts at rush hour. Although it does take longer--it could be worse. I avoid Central at non-rush hour since it is so congested when it's down to one lane.
- No one dilly-dallied about construction. Once it began, it began in earnest. There were radical visible changes immediately. This is good for morale. If there's a disruption, it helps to know work is proceeding aggressively.
- Driving the north part of the expressway has been very satisfactory. Detours were not difficult during construction. Now that it is completed, we really get to Dallas in a hurry! Only thing--traffic speeds at 75 mph instead of 65!
- Keep up the good work. It has improved.
- They are doing a great job. My hat's off to the contractor.
- The Coit Road "flyover" is very impressive and fun to drive. Central north of Northpark is really starting to take shape. Good job!
- In general, I think you are handling the project very well. I am pleased to see the project moving along and am looking forward to its completion.
- New entrances are wonderful (such as Walnut Hill Northbound).
- I appreciate the electronic signs stationed on Central that advise lane closure in advance. I know, in advance, when not to drive Central.
- The new exit ramp for Coit Road (New Central) is wonderful!!
- We were not affected by lane closures as we do not travel during rush hour. All in all, the construction is having remarkably little effect on traffic. Good job!

## **CHANGES IN TRAVEL BEHAVIOR**

- The main thing the construction has done is to make me get a toll tag and use the N Dallas Tollway.
- I now work off of Lemmon & don't go anywhere near Central--thank God!
- Broke down & got a tolltag.
- I am in sales and travel all over the Metroplex. Even when Central Expwy is the most direct route, I avoid it whenever possible & take the Tollway, etc.
- We use the toll road much more now on a daily basis. For our trips in East Dallas we go down Live Oak to Abrams or Skillman or Greenville. We no longer use any part of Central until we are north of LBJ. Generally I take the toll road to LBJ--LBJ to north central and travel north. But all this is during the day as we go to the job site around lunch.
- Mockingbird from the Tollway to Central was impossible. I used Beverly Drive to move east-west.
- I use Coit Road to Forest Lane and then the service road to get to a studio near Northaven Road--once a week. At present, there is a bottleneck at the point where Central ramp exits to Forest Lane. The first time I experienced this situation, it took 15 minutes to travel about one block to Forest Lane. I have not taken this route since then.
- This survey is difficult to answer because I increasingly avoid Central whenever practical, particularly if I have any reason to believe a lane is blocked. In the evenings, 5:30 to 8 PM I will take the leg from Woodall Rogers to the Knox Street exit provided I do not see traffic stacking up to enter Central from Woodall Rogers. If traffic is observed to be backing up, I divert my route home to either Pearl or Ross.
- Often times I would exit at Mockingbird to Greenville Ave and go out Greenville to Campbell and most evenings go home the same way.
- I take the Forest Lane exit & turn right on Coit. The design of the bridge walls (that cross Central) is dangerous--I can't see the traffic--this is very bad.
- I shifted from Skillman to Abrams in AM.
- The construction on Central has caused traffic to be unpredictable, but usually too heavy so I no longer drive on it to work. Coming home from work--I get off at 3:15--lanes are closed to one lane until 3:30 so traffic is usually impossible and I exit either on Bryan or Monticello. I used to could be home by 3:30--now I seldom arrive before 4:00 PM.
- I have really encountered no problems about Central while under construction. I always leave home at 0545. Therefore, the traffic is not chaotic. Leaving work at 3:00 or 5:00 pm I take the Dallas Tollway en route home. I don't have the stress I used to have while travelling on expressway.

## **COMPLAINTS**

- I have stopped using the widen-75 telephone update information since it's unreliable and days behind in its message! The side streets seem to be doing more construction and its very infuriating to avoid Central and get delayed BIG TIME on close to Central side streets. EX:--lane reduction at Blackburn and Greenville, Mockingbird and Greenville, along Know Street, the service road along Central in Park Cities and Greenville. The coordination efforts STINK! If you're going to inconvenience us--get more work done! Its frustrating to sit in line on Central and then after 30 min find that 2 or 3 guys are doing something. If you're going to close lanes--get some major work done--20 guys and get the job done!!! Don't piddle around!!

- It is VERY difficult to understand why the work on N. Central Expressway takes so long! California has already repaired their roads. An early completion bonus certainly helped. Central Expressway is becoming a disgrace to Dallas & Texas.
- Why when they started to tear up the expressway did they have to tear up everything else, too. Streets not connected with Central are all torn up too. Preston Rd., Greenville Ave., Park Lane, Forest Lane. It is terrible!
- Secondary right-of-way & utility construction is affecting me as much as actual travel on Central. Frequent changes in access road lanes are confusing. Lane restriction signing is adequate but often ignored by motorists.
- The congestion at the Mockingbird exit is unbelievably bad. Hopefully it will improve soon. At times there are up to 30 cars waiting to turn left (eastbound) off of Central on to Mockingbird.
- The traffic on Central is a nightmare. It has been for as long as I can remember (that's many years) and it has only gotten worse. I write this as we inch along on Central from Richardson to downtown Dallas on Tues. June 7 at 8 a.m. The morning buses have been late leaving Richardson for the past week, the delays on Central are long and the bus seldom gets downtown when the schedule says it will. In the afternoon, three of the 201 buses zip through downtown between 5 p.m. and 5:10 p.m. The first two of these are often nearly empty. The next bus is 15 to 30 minutes later (my stop is Harwood & San Jacinto). I leave work at 5 p.m. from 2001 Ross and I am never home before 6 p.m.--usually 6:15 or after. Perhaps DART is doing the best it can. The a.m. service is usually tolerable, but surely I'll go to heaven when I die for I have served my time in hell on Central for the past ten years.
- It was frustrating to be on a single lane when no apparent work was being performed. It appears that the lane closures were more pervasive than necessary.
- Since the first of 1994 I have been continuously frustrated by the horrible traffic. My morning commute is slowed dramatically, but I leave at 7:15 from Southwestern to downtown. The afternoons are worse. It typically takes me 40-45 minutes and there are no faster ways (believe me--I've tried them all). I continue to fill these questionnaires out to voice my message. Please hurry up!
- I think most projects of this type are hampered by an infestation of bureaucrats, eggheads, and would-be engineers. DART is the very worst.
- I feel that it is extremely unfortunate that after all this trouble there will be the same # of lanes on the Expressway. I feel that political pressures on an inept city council precluded the adoption of a proper engineering solution to the problems w/NC Expressway.
- Traffic continues to speed far beyond established limit. Traffic continues to run the light at this intersection on Abrams. Crossing Abrams by way of Sondra-Monticello STILL only allows three cars, max, to get across.
- I was disappointed that the promise about always keeping two (2) lanes of traffic open during construction could not be kept. Please don't make unqualified promises or statements.
- Lack of speed control is still a problem. Entering Central southbound at 0630 am at the Royal Lane access, traffic is typically moving at 60 mph to 70 mph. The southbound access at Royal Lane is uphill. From a turn at Royal, acceleration to 45 or 50 mph uphill is pushing and entering Central with traffic at 60 to 70 mph is a test. There are still no speed limit signs in these construction areas.
- The entrance ramp from LBJ to southbound central not only causes huge delays it is very unsafe. That section of the central project should be a priority due to the danger of the ramp. The ramp has been unsafe for months yet that does

not seem to be a priority. Somebody will get killed or severely injured because that ramp is staying unsafe for such a long period of time and it will be the fault of whoever prioritizes where work is done.

- I drove on a crossroad (University) over Central the other day, which I took after waiting in a backed up line at Mockingbird, and the backup waiting was aggravating. It took me 20-25 minutes to get somewhere approximately 3 miles from my house. This was leaving at 6:00 from my house.
- The intersection of Mockingbird and Central is an abomination! I am really tired of it, but it just gets worse. Now we can't go west on Yale through SMU--thanks loads! The 2-lane access road NB at Mockingbird combined with the timing of the lights, is more than sufficient to extract the contents of a dozen eggs simultaneously, if you get my meaning. I intend to change jobs as soon as possible so as to avoid Central entirely.
- The traffic lights on the service roads do not let enough traffic through on the green light. Traffic is backing up onto Central from the exit ramps at Mockingbird and University because of the one lane service road and the short lights. This is very dangerous!
- The entrance ramp to southbound central from LBJ Freeway is a death trap. There is no merging lane in which to speed up and merge with southbound traffic, which is usually moving at a high rate of speed. Fix that entrance so I can get to work faster!! I mean it!!
- I don't understand why cement has to be painted. This looks like it takes time from actually building the freeway. I see roads in other cities such as Houston or the new ones in San Antonio that have designs in them and look attractive. None of these have been painted!
- It is absurd to close the bridge at Yale and reduce traffic on University to one lane while Mockingbird and Lover's are already at a near stand-still crossing Central at rush hour. The Park Cities area is cut-off from East Dallas! The traffic on Lovers, University, and Mockingbird is unmanageable due to closing of access to service roads (w of Central between NW Highway and Mockingbird). Somehow you have managed to stop traffic in both directions.
- Notification signs not located to warn drivers about conditions on Central in time to alter driving patterns. On my last trip, I was deep in the "jam" when the notification sign warned me of congestion.
- It is upsetting to still see no progress on the roadway near Northpark. I see this as a major future problem! I would imagine there will be many negative comments about the entire North Central project due to this one small section of the roadway.
- They are & were slow in opening the flyover at Forest Lane to Coit. The ramps have been usable for 8 to 10 months yet they remain closed wasting 10 minutes of my time each day.  $40 \text{ weeks} * 4 \text{ times} = 160 * 10 \text{ min} = 27 \text{ hours}$  for the period that they were unnecessarily closed!!
- I am disappointed that a U-turn lane was not built into the crossover at Plano Parkway. This is the busiest intersection north of 635, yet you did build a U-turn lane at Midpark.
- It seems that construction has taken longer than estimated. Driving Central every day, I could observe that the contractor wasted a lot of time by not pouring concrete and working on the middle barrier when it would have speeded up construction by doing so. The contractor should be penalized for wasting time and dragging out the completion.
- I thought that the completion of the overhead ramp northbound at Forest going northbound on Coit would work for me. It is absolutely useless. What a waste of money. The slug of lights and traffic from 5:00 pm to 6:00 pm between Forest & 635 on Coit brings you to a dead stop! I tried this and it cost me 10 to 15 minutes extra although I live up Coit. I still use the Midpark exit and cross over and up Waterview.

## QUESTIONS

- I understand work is going to begin soon on 3 major East-West connectors--Park, Walnut Hill Ln. & University? I'm concerned, since I use Royal, that Royal is going to become impossible to use once traffic is diverted there. Is there any way to stagger the work on the East-West connectors?
- I realized the new temporary lighted medians are expensive, but why are they "all of a sudden" necessary?
- What impact will the 70 million gallon water storage are have on Turtle Creek with the RUN OFF of the new Central?
- Will the Service Road overhang be as significant as the Hwy 281 is in San Antonio near the zoo?
- When will the Pacific St. (downtown) rebuild be complete?--Hopefully long before Rail is complete?
- Where (what interchange) will the Hand Rail & trolley cross if it is going to the West End &/or Fair Park? If the trolley is going to go on the other side of Pacific, why not use the old underground rail yards near (old KRLD) TV Studio underneath Pacific, Elm, Main, Commerce, Jackson, & Wood Street & come up near the Convention Center? There is a 100 car storage area under Wood & Jackson near the 1600 block. A Great Place for "UNDERGROUND DALLAS."
- Construction is completed in many areas south of LBJ. Why not open up those extra lanes to ease traffic? (#1583)
- Traffic has been restricted because of landscaping between Walnut Hill and forest. why is landscaping being done at this point of construction?
- Why can't you do construction at night?
- The part of Central north of Walnut Hill to south of LBJ has been completed for about 2 months, why have more than 2 lanes not been opened for traffic?
- Why, why, why does the construction extend so far? Localize it & don't spread it out.