Brackenridge Tract
Existing Traffic Analysis
Draft Technical Memorandum

Prepared for:

Prime Strategies, Inc.

Prepared by:

klotz associates
901 South Mopac Expressway, Bldg V, Suite 220
Austin, Texas 78746

Klotz Associates Project No. 0536.001.000
July 2008

July 31, 2008

Mr. Michael Weaver
Prime Strategies, Inc.
1508 S. Lamar Blvd.
Austin, Texas 78704

Re: Traffic Analysis of Brackenridge Tract based on existing traffic and land uses.
Klotz Associates Project No. 0536.001.000

Dear Mr. Weaver:

Klotz Associates is pleased to present this draft technical memorandum of our Traffic Analysis for the Brackenridge Tract preformed for Prime Strategies, Inc. If you have questions concerning this report, please contact me at your convenience.

Sincerely,

James Schwerdtfeger, P.E.
Project Engineer

Enclosures

Brackenridge Tract
Existing Traffic Analysis
Draft Technical Memorandum

Prepared for:

Prime Strategies, Inc.

FOR REVIEW ONLY

Do not use for permitting, bidding or construction.
Engineer: James Schwerdtfeger, P.E.
Engineer Reg. No.: 97266
Date: July 2008

Prepared by

Klotz Associates, Inc.
901 South Mopac Expressway, Bldg V, Suite 220
Austin, Texas 78746

Klotz Associates Project No. 0536.001.000
July 2008

TABLE OF CONTENTS

List of Tables

Appendices

Study Purpose and Objective

This memo presents a summary of findings for a Traffic Analysis performed by Klotz Associates, Inc. for the existing Brackenridge Tract in Austin, Texas. This analysis shows how the existing traffic within the tract currently operates. The analysis did not address future development or future roadway improvements. The Site Location Map for the study area is shown in Appendix A - Exhibit 1.

Study Methodology

This study consists of two major components listed below.

- Data Collection – Peak hour turning movement counts (TMC's) were performed from 7:00 a.m. to 9:00 a.m. and 4 p.m. to 6 p.m. at eleven intersections. In addition, automatic traffic recorders (ATR's) were put in place to collect traffic volumes for a 24-hour period. The TMC's obtained Tuesday, Wednesday and Thursday were averaged for the analysis. All TMC and ATR data is included in the Brackenridge Tract Data Collection Report by AR Traffic Counting, LLC
- Analysis – An operational analysis of the surrounding roadway network was completed using the TMC's and ATR's and Synchro 7.0, a traffic simulation model. Synchro follows procedures developed in the *Highway Capacity Manual 2000* (HCS2000) and analyzes the study area in its entirety, rather than as a series of isolated intersections and driveways. The focus of this analysis is to examine existing traffic patterns and issues within the tract.

Analysis and Results

A detailed operational analysis was undertaken to evaluate each intersection's peak hour capacity and Level of Service (LOS). For the evaluation of existing conditions, Measures of

Effectiveness (MoE's) were utilized such as intersection delay and LOS associated with this delay. The intersection delay is the average control delay for the signalized intersection and is calculated by taking a volumes-weighted average of all the delays occurring at the intersection. LOS refers to the operational conditions within a traffic stream and their perception by motorists in terms of delay, freedom to maneuver, traffic interruptions, comfort, convenience, and safety. There are six LOS capacity conditions for each roadway facility. These are designated from "A" to "F," with "A" representing a free-flow optimal condition and "F" representing a congested unstable flow condition. Table 1 presents the general criteria associated with each LOS reported for signalized and unsignalized intersections obtained from HCS2000.

TABLE 1
Definitions of Level of Service (LOS) Criteria

Level of Service	Delay Range for Signalized Intersections (sec/veh)	Delay Range for Unsignalized Intersections (sec/veh)	Description
A	≤10	≤ 10	Very low delays, nearly free traffic flow
B	>10 and <20	> 10 and ≤ 15	Good Traffic Flow, more vehicles stop than LOS A
C	>20 and <35	> 15 and ≤ 25	Stable traffic flow, significant number of vehicles stop
D	>35 and <55	> 25 and ≤ 35	Noticeable traffic congestion, longer delays and queue lengths
E	>55 and <80	> 35 and ≤ 50	Unstable traffic flow, significant congestion, traffic near roadway capacity
F	>80	> 50	Unacceptable delay, extremely unstable flow, heavy congestion, traffic exceeds capacity

Detailed Synchro output is included in the appendices to this report. For purpose of analysis, the signal timings were obtained from the City of Austin. The Traffic Signal Timing and Phasing Sheets are included in Appendix B.

Table 4 below presents the delay and LOS simulation results per intersection for the 2008 Existing Condition peak hours.

TABLE 2
Analysis Results for 2008 Existing Conditions

Intersection		2008 EXISTING CONDITIONS			
		AM Peak Hour		PM Peak Hour	
		MOE	LOS	MOE	LOS
Loop 1 SBFR	7th Street	3.0	A*	1.6	A*
Enfield Rd	Exposition Blvd	48.4	D	51.6	D
Lake Austin Blvd	7th Street	2.2	A*	2.2	A*
Lake Austin Blvd	Enfield Rd	3.5	A*	9.0	A*
Lake Austin Blvd	Exposition Blvd	12.8	B	21.3	C
Lake Austin Blvd	Loop 1 SBFR	26.9	C	19.0	B
Lake Austin Blvd	Red Bud Trail	10.4	B	90.3	F
Loop 1 NBFR	Enfield Rd	26.8	C	38.5	D
Loop 1 SBFR	Enfield Rd	68.1	E	59.5	E
Scenic Dr	Bonnie Rd	5.2	A*	3.4	A*
Westlake Dr	Red Bud Trail	51.5	F*	61.4	F*
5th/6th Street	Loop 1 Exit Ramp	89.3	F*	37.7	E*

* Unsignalized intersection

2008 Existing Condition Summary

The existing condition analysis show several congested locations. Currently, the Westlake Drive and Red Bud Trail intersection operates at LOS F during both the AM and PM peak

hours. The poor LOS is largely caused by the heavy left turning movements from Westlake Drive to Red Bud Trail. Lake Austin Boulevard at Red Bud Trail operates at LOS F during the PM peak hour. The poor LOS at this intersection is caused by the heavy left turn movement from Lake Austin Boulevard to Red Bud Trail. Overall, the LOS during the PM peak hour for Lake Austin Boulevard at Loop 1 SBFR is B. Most vehicular movements through this intersection experience minimal delay. However, due to the backup of traffic trying to merge onto the southbound mainlanes of Loop 1, the left-turn movement from westbound Lake Austin Boulevard experiences undue delays. The intersection of 5th and 6th Streets with the northbound Loop 1 exit ramp show a poor LOS during the AM peak hour due to a high number of vehicles turning right onto 5th Street to access downtown. Detailed Synchro output results for all analyzed intersections are included in Appendix C.

References

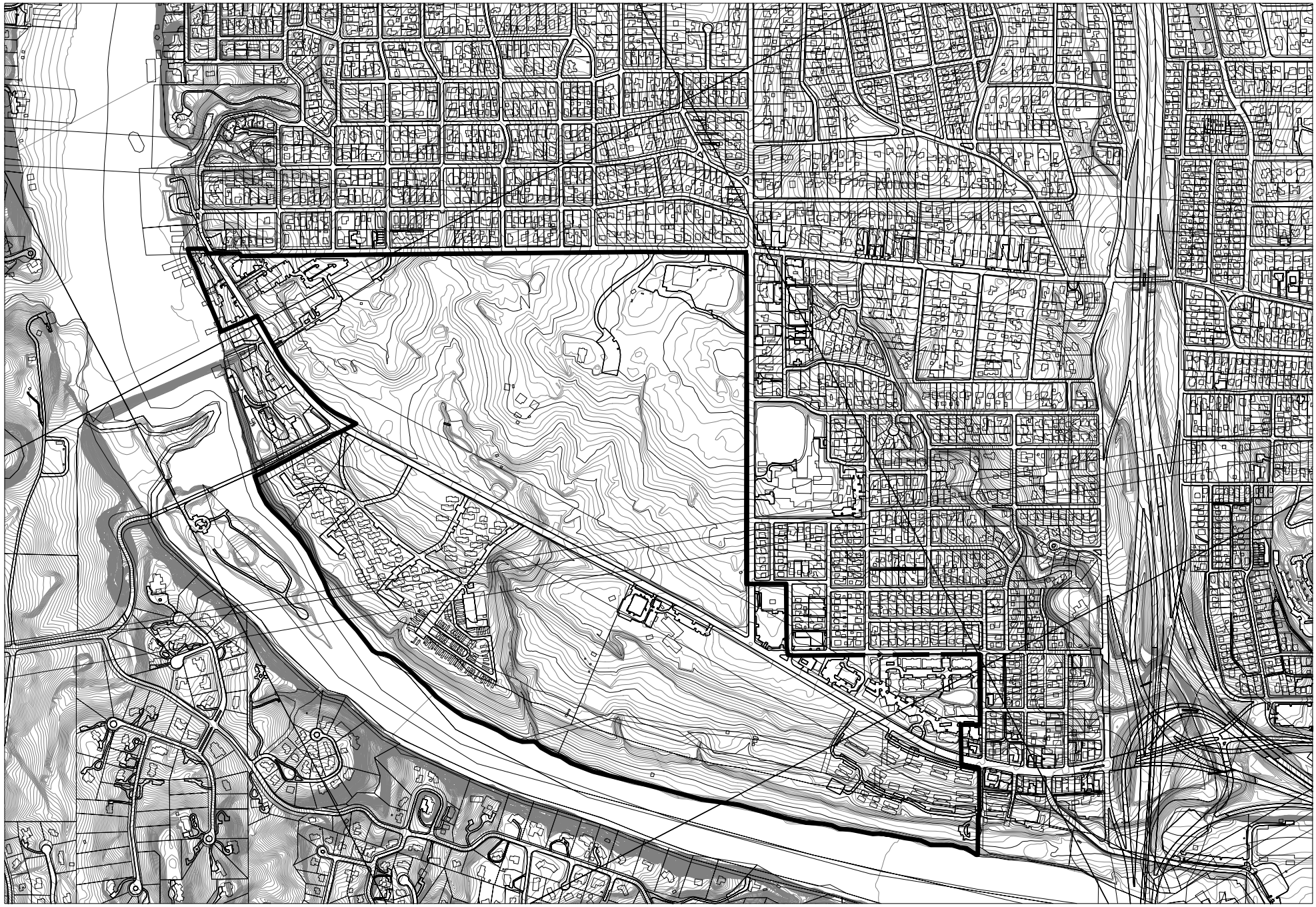
1. Highway Capacity Manual 2000, Transportation Research Board, National Research Council, Washington, DC, 2000.

2. Synchro, Version 7, Traffic Signal Coordination Software, Trafficware Ltd., Sugar Land, TX, 2006.

APPENDIX A – EXHIBITS

Exhibit 1 Site Location Map

Exhibit 2 AM & PM Peak Hours and 24-Hour Traffic Counts



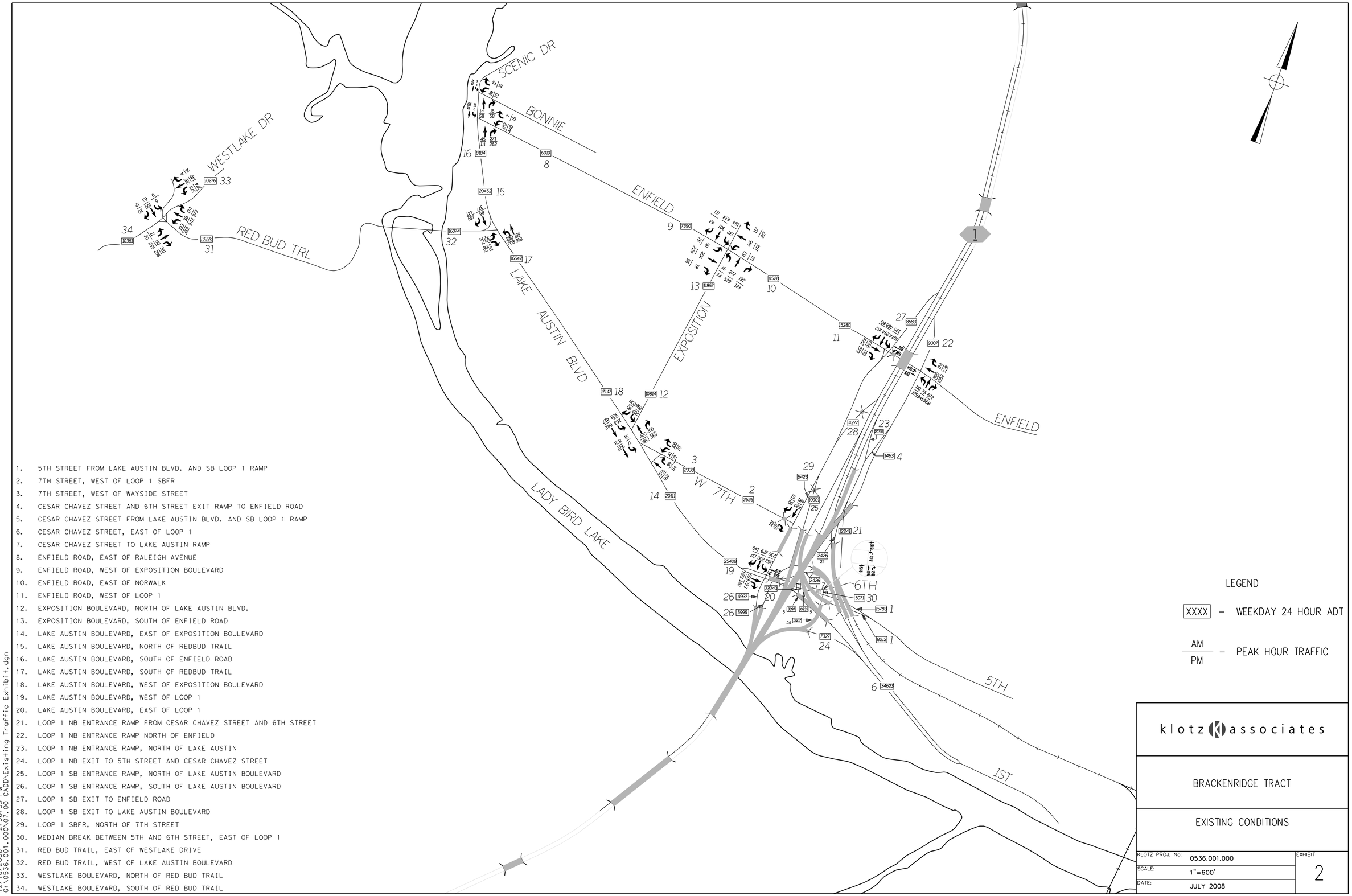
TBG

UT Brackenridge Tract

0 250' 500' 1000' 2000'

SCALE: 1"=1000'

NORTH



1. 5TH STREET FROM LAKE AUSTIN BLVD. AND SB LOOP 1 RAMP
2. 7TH STREET, WEST OF LOOP 1 SBFR
3. 7TH STREET, WEST OF WAYSIDE STREET
4. CESAR CHAVEZ STREET AND 6TH STREET EXIT RAMP TO ENFIELD ROAD
5. CESAR CHAVEZ STREET FROM LAKE AUSTIN BLVD. AND SB LOOP 1 RAMP
6. CESAR CHAVEZ STREET, EAST OF LOOP 1
7. CESAR CHAVEZ STREET TO LAKE AUSTIN RAMP
8. ENFIELD ROAD, EAST OF RALEIGH AVENUE
9. ENFIELD ROAD, WEST OF EXPOSITION BOULEVARD
10. ENFIELD ROAD, EAST OF NORWALK
11. ENFIELD ROAD, WEST OF LOOP 1
12. EXPOSITION BOULEVARD, NORTH OF LAKE AUSTIN BLVD.
13. EXPOSITION BOULEVARD, SOUTH OF ENFIELD ROAD
14. LAKE AUSTIN BOULEVARD, EAST OF EXPOSITION BOULEVARD
15. LAKE AUSTIN BOULEVARD, NORTH OF REDBUD TRAIL
16. LAKE AUSTIN BOULEVARD, SOUTH OF ENFIELD ROAD
17. LAKE AUSTIN BOULEVARD, SOUTH OF REDBUD TRAIL
18. LAKE AUSTIN BOULEVARD, WEST OF EXPOSITION BOULEVARD
19. LAKE AUSTIN BOULEVARD, WEST OF LOOP 1
20. LAKE AUSTIN BOULEVARD, EAST OF LOOP 1
21. LOOP 1 NB ENTRANCE RAMP FROM CESAR CHAVEZ STREET AND 6TH STREET
22. LOOP 1 NB ENTRANCE RAMP NORTH OF ENFIELD
23. LOOP 1 NB ENTRANCE RAMP, NORTH OF LAKE AUSTIN
24. LOOP 1 NB EXIT TO 5TH STREET AND CESAR CHAVEZ STREET
25. LOOP 1 SB ENTRANCE RAMP, NORTH OF LAKE AUSTIN BOULEVARD
26. LOOP 1 SB ENTRANCE RAMP, SOUTH OF LAKE AUSTIN BOULEVARD
27. LOOP 1 SB EXIT TO ENFIELD ROAD
28. LOOP 1 SB EXIT TO LAKE AUSTIN BOULEVARD
29. LOOP 1 SBFR, NORTH OF 7TH STREET
30. MEDIAN BREAK BETWEEN 5TH AND 6TH STREET, EAST OF LOOP 1
31. RED BUD TRAIL, EAST OF WESTLAKE DRIVE
32. RED BUD TRAIL, WEST OF LAKE AUSTIN BOULEVARD
33. WESTLAKE BOULEVARD, NORTH OF RED BUD TRAIL
34. WESTLAKE BOULEVARD, SOUTH OF RED BUD TRAIL

LEGEND

XXXX – WEEKDAY 24 HOUR ADT

AM / PM – PEAK HOUR TRAFFIC

klotz associates

BRACKENRIDGE TRACT

EXISTING CONDITIONS

KLOTZ PROJ. No:	0536.001.000
SCALE:	1"=600'
DATE:	JULY 2008

EXHIBIT 2

12/18/2008 2:56:33 PM
G:\0536.001.000\07.00 CADD\Existing Traffic Exhibit.dgn

APPENDIX B – TIMING AND PHASING SHEETS

- Enfield @ Exposition
- Exposition @ Lake Austin
- Atlanta (Loop 1 SBFR) @ Lake Austin
- Lake Austin @ Red Bud Trail
- Enfield @ Winsted (Loop 1)

TRAFFIC SIGNAL INTERSECTION:	DATE:	GRP:	LOC:	VRS:	HUB:	ZONE:	SEC:	ENGINEER:	CITY OF AUSTIN
Enfield @ Exposition	5/5/2008		751E						TRAFFIC SIGNAL TIMING & PHASING SHEETS

4 + 2 + RINGS

PHASE 1	RING 1:	2, a, 4, b
	RING 2:	6, a, 8, b
PHASE 2	RING 1:	1, a, 2, b, 3, c, 4, d
	RING 2:	6, a, 5, b, 8, c, 7, d
PHASE 3	RING 1:	2, a, 4, b, 6, c, 8, d
	RING 2:	5, a, 7, b, 1, c, 3, d

4 + 2 + PHASEMODE

STARTUP	2, 6
REDSTRT	1, 3 - 5, 7 - 10
PED	2, 4, 6, 8
YELFLASH	
FLASH/ENT	
FLASH/EXIT	

4 + 1 + ACT CONFIG

	#1	#2	#3	#4	#5
PHASE	1	2	3	4	
OVERLAP	1	1	1	1	
PREEMPT	1	1	1	1	
CABINET	3	3	3	3	
DETECTOR	2	2	2	2	
COORD	1	1	1	1	

1 + ACTIVE CONTROL PARAMETERS

CONTROL MODE:	SCHEDULE			
MAN PLN:	5	FREE PLN:	20	DFSCHED: 1

4 + 7 + MISC

TRANSITION MODE:	3:30
SYNCHRO MODE:	BEST
MAX DWELL TIME:	0

4 + 2 + COORD CONFIG

START UP FLASH:	1
RED REVERT:	2
FLASH CLR:	6

2 + 3 + PL # + PLAN MODE

PL	PLAN MODE	MAX GRN	PH DATA	PH SEQ	OL DATA	ACT CONF	ENA	OFF	VAR	CYCLE	HOLD / YLD
1	COORD	MAX I	1	1	1	1	A	10	5	65	2, 6
2	COORD	MAX I	2	1	1	3	D	91	5	130	3, 8
3	COORD	MAX I	2	1	1	3	B	120	5	130	4, 7
5											
6											
7											
8											
9											
20	FREE	MAX I	1	1	1	1					
33	FLASH										

SCHEDULE

EV	ENA	HR	M	S	M	T	W	T	F	S	PL	SPECIAL FUNCTIONS 1	2	3	4	5	6	7	8	AUXILIARY 1	2	3	4
1	ENA	0	0	X	X	X	X	X	X	X	33												
2	ENA	6	0	X	X	X	X	X	X	X	1												
3	ENA	6	30		X	X	X	X	X		2												
4	ENA	9	0		X	X	X	X	X		1												
5	ENA	15	30		X	X	X	X	X		3												
6	ENA	19	30	X	X	X	X	X	X	X	1												
7																							
8																							
9																							
10																							
11																							
12																							

PRIORITY SEQUENCE

	PHASES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
TABLE	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TABLE	2																				
TABLE	3																				
TABLE	4																				

NOTE: ZERO DENOTES THE HIGHEST PRIORITY

PED PRAMS & FLAGS

PHASES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ENABLE	X	X	X	X																
CALLPHAS	2	4	6	8																
OVERLAP																				

VEH PARAMETERS

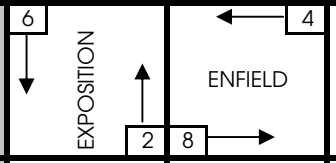
DETECTORS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ENABLE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CALL	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
EXTEND	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X
ADD INIT																				
RED LOCK																				
YEL LOCK																				

VEH FLAG

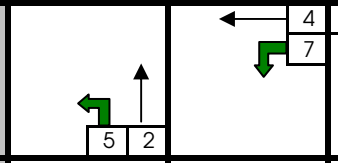
	1	5	2	6	3	7	4	8	2	6	4	8	6	2	8	4	5	1	7	3
CALL PHASE																				
SWTCH PHAS																				
OVERLAP																				
DELAY																				

SIGNAL PHASING DIAGRAM - (SECONDS)

PLAN 1



PLAN 2



PLAN 3

PLAN						
1	27 + 4 + 2	26 + 4 + 2	+	+	+	+
	+	+	+	+	+	+
	+	+	+	+	+	+
	+	+	+	+	+	+
2	26 + 4 + 2	24 + 4 + 2	25 + 4 + 2	31 + 4 + 2	+	+
3	31 + 4 + 2	26 + 4 + 2	28 + 4 + 2	21 + 4 + 2	+	+
	+	+	+	+	+	+
	+	+	+	+	+	+
5	+	+	+	+	+	+
	+	+	+	+	+	+

FLAGS	PHASES	PHASE DATA TABLE # 1	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
OMITPHAS	1, 3, 5, 7, 9, 10																			
OMIT PED	1, 3, 5, 7, 9, 10																			
MIN RECAL	2, 4, 6, 8																			
MAXRECAL		PHASE TIMING	SB LT	NB EXPOSITION	WB LT	EB ENFIELD	NB LT	SB EXPOSITION	EB LT	WB ENFIELD										
SOFT RCL																				
CDT'L SRVC																				
PED RECAL		MIN GREEN		8.0		14.0		8.0		14.0										
DUAL ETRY	2, 4, 6, 8	PASSAGE		2.0		2.0		2.0		2.0										
SIMGAP	2, 4, 6, 8	MAXGRN 1		40.0		40.0		40.0		40.0										
REDREST	.	MAXGRN 2		30.0		30.0		30.0		30.0										
AUTO PED	2, 4, 6, 8	CONDSERV		0.0		0.0		0.0		0.0										
REST WALK		YEL CHG		4.0		4.0		4.0		4.0										
PED RECY		RED CLR		2.0		2.0		2.0		2.0										
RED LOCK		WALK		6.0		6.0		6.0		6.0										
YEL LOCK		PED CLR		13.0		13.0		13.0		13.0										
NO EXT		ADDED INI																		
NO ADD INI		TIME TO RED																		
NOGAPRED		TIME BEFOR																		
NOMAX LOK		MAX INIT GRN																		

2+ 3 + PL # +	PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
MIN SPLIT	PLAN 1		14		14		14		14											MIN	PLAN																
NOM SPLIT	CYCLE 65		33		32		33		32											NOM	CYCLE																
MAX SPLIT			50		50		50		50											MAX																	
	PLAN 2	11	11	11	11	11	11	11	11											MIN	PLAN																
	CYCLE 130	31	32	37	30	32	31	30	37											NOM	CYCLE																
NOTE:		50	50	50	50	50	50	50	50											MAX																	
PLAN 20 =	PLAN 3	11	11	11	11	11	11	11	11											MIN	PLAN																
FREE MODE	CYCLE 130	34	42	27	27	42	34	27	27											NOM	CYCLE																
PLAN 33 =		50	50	50	50	50	50	50	50											MAX																	
FLASH MODE	PLAN																			MIN	PLAN																
	CYCLE																			NOM	CYCLE																
																				MAX																	

Change ONLY the following:		1	2	3	4	5	6	7	8	9	10	11		29	30	31	32	33	34	35	36	
INPUT CHANNELS	FUNCTION TYPE													VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	
	FUNCTION INDEX													13	14	15	16	17	18	19	20	
	UNIT													1	1	1	1	1	1	1	1	
	CONNECTOR / BUI													C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	
	PIN													56	47	58	49	39	43	41	45	
	CHANNEL IN 1																					
	CHANNEL IN 2																					
	LOGIC																					

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
OUTPUT CHANNELS	FUNCTION TYPE																					
	FUNCTION INDEX																					
	CONNECTOR / BUI 1																					
	PIN 1																					
	CONNECTOR / BUI 2																					
	PIN 2																					
	CONNECTOR / BUI 3																					
	PIN 3																					

PHASES		TYPE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
OVERLAP CONFIGURATION P = PRIMARY S = SECONDARY M = MODIFIED	OVL A	2	P																		
		141	P																		
			S																		
			M																		
	OVL B	2	P																		
		141	P																		
			S																		
			M																		
	OVL C	2	P																		
		141	P																		
			S																		
			M																		
	OVL D	2	P																		
		141	P																		
			S																		
			M																		
	OVL E	2	P																		
	OVL F	2	P																		
	OVL G	2	P																		
	OVL H	2	P																		
	OVL I	2	P																		
	OVL J	2	P																		
	OVL K	2	P																		
	OVL L	2	P																		
	OVL M	2	P																		
	OVL N	2	P																		
	OVL O	2	P																		
	OVL P	2	P																		

OVERLAP SETTINGS			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	FLAGS / PARAM	ENABLE																
		PED OVERLAP																
		FLASH YELLOW																
		ALT FLASH HZ																
	FLAGS	RECALL PRIMARY																
		RECALL SEC																
		PED RECALL																
		PED RECYCLE																
		AUTO EXTEND																
	PARAMETERS	MIN GREEN																
		MAX GREEN																
		GREEN CLEAR																
		YEL CLEAR																
		RED CLEAR																
		WALK																
		PED CLEAR																
		RESERVICE																

PRE - EMPT		1	3	4	5	6
PRE EMPT FLAGS	ENABLE					
	NO MEM LOK					
	MAN ENABLE					
	NO OVER FLSH					
	NO OVER NEXT					
	OMIT IN DELAY					
	RE MAX PRES					
	PED NOT DARK					
TIME	MIN PRESENCE					
	DELAY					

SETTINGS		1	3	4	5	6
TIMING	STRT MIN GRN					
	STRT WALK					
	STRT PED CLR					
PHASE FLAGS	ENT 1 PHASE					
	ENT 2 PHASE					
	DWELL PHASE					
	INITIAL DWELL					
	DWELL PED					
	RECAL PHASE					
	EXIT PHASE					

FLAGS	PHASES
OMITPHAS	9, 10
OMIT PED	1, 3, 5, 7, 9, 10
MIN RECAL	1, 2, 3, 4, 5, 6, 7, 8
MAXRECAL	1, 2, 5, 6
SOFT RCL	
CDT'L SRVC	
PED RECAL	
DUAL ETRY	
SIMGAP	
REDREST	.
AUTO PED	2, 4, 6, 8
REST WALK	
PED RECY	
RED LOCK	
YEL LOCK	
NO EXT	
NO ADD INI	
NOGAPRED	
NO RANGE	
NOMAX LOK	1, 2, 3, 5, 6, 8

PHASE DATA TABLE # 2	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
PHASE TIMING	SB LT	NB EXPOSITION	WB LT	EB ENFIELD	NB LT	SB EXPOSITION	EB LT	WB ENFIELD										
MIN GREEN	18.0	18.0	13.0	13.0	18.0	18.0	13.0	13.0										
PASSAGE	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0										
MAXGRN 1	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0										
MAXGRN 2	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0										
CONDSERV	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0										
YEL CHG	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0										
RED CLR	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0										
WALK		6.0		6.0		6.0		6.0										
PED CLR		13.0		13.0		13.0		13.0										
ADDED INI																		
TIME TO RED																		
TIME BEFOR																		
MIN GAP																		
MAX INIT GRN																		

FLAGS	PHASES	**PHASE DATA TABLE # 3**	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
OMITPHAS	5, 9, 10																			
OMIT PED	1 ,3, 5, 7, 9, 10																			
MIN RECAL	3, 4, 7, 8																			
MAXRECAL		PHASE TIMING	SB LT	NB EXPOSITION	WB LT	EB ENFIELD		SB EXPOSITION	EB LT	WB ENFIELD										
SOFT RCL																				
CDT'L SRVC																				
PED RECAL		MIN GREEN	5.0	5.0	5.0	5.0		5.0	5.0	5.0										
DUAL ETRY		PASSAGE	2.0	2.0	2.0	2.0		2.0	2.0	2.0										
SIMGAP		MAXGRN 1	15.0	50.0	30.0	40.0		40.0	40.0	30.0										
REDREST	.	MAXGRN 2	12.0	30.0	20.0	25.0		45.0	25.0	25.0										
AUTO PED	2, 4, 6, 8	CONDSERV	0.0	0.0	0.0	0.0		0.0	0.0	0.0										
REST WALK		YEL CHG	4.0	4.0	4.0	4.0		4.0	4.0	4.0										
PED RECY		RED CLR	1.0	1.0	1.0	1.0		1.0	1.0	1.0										
RED LOCK		WALK		6.0		6.0		6.0		6.0										
YEL LOCK		PED CLR		13.0		13.0		13.0		13.0										
NO EXT		ADDED INI																		
NO ADD INI		TIME TO RED																		
NOGAPRED		TIME BEFOR																		
NO RANGE		MIN GAP																		
NOMAX LOK		MAX INIT GRN																		

FLAGS	PHASES	**PHASE DATA TABLE # 4**	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
OMITPHAS																				
OMIT PED																				
MIN RECAL																				
MAXRECAL		PHASE TIMING																		
SOFT RCL																				
CDT'L SRVC																				
PED RECAL		MIN GREEN																		
DUAL ETRY		PASSAGE																		
SIMGAP		MAXGRN 1																		
REDREST		MAXGRN 2																		
AUTO PED		CONDSERV																		
REST WALK		YEL CHG																		
PED RECY		RED CLR																		
RED LOCK		WALK																		
YEL LOCK		PED CLR																		
NO EXT		ADDED INI																		
NO ADD INI		TIME TO RED																		
NOGAPRED		TIME BEFOR																		
NO RANGE		MIN GAP																		
NOMAX LOK		MAX INIT GRN																		

NOTES:

TRAFFIC SIGNAL INTERSECTION:	DATE:	GRP:	LOC:	VRS:	HUB:	ZONE:	SEC:	ENGINEER:	CITY OF AUSTIN
Exposition @ Lake Austin	5/5/2008		750C						TRAFFIC SIGNAL TIMING & PHASING SHEETS

N

4 + 2 + RINGS

PHASE 1	RING 1:	1, 2, a, 3, 4, b
	RING 2:	3, 4, b, 5, 6, b
PHASE 2	RING 1:	
	RING 2:	

4 + 2 + PHASEMODE

STARTUP	2, 6
REDSTRT	1, 3 - 5, 7 - 10
PED	2, 4, 6, 8
YELFLASH	
FLASHENT	
FLASHEXIT	

4 + 1 + ACT CONFIG

	#1	#2	#3	#4	#5
PHASE	1				
OVERLAP	1				
PREEMPT	1				
CABINET	3				
DETECTOR	2				
COORD	1				

1 + ACTIVE CONTROL PARAMETERS

CONTROL MODE:	SCHEDULE				
MAN PLN:	1	FREE PLN:	1	DFSCHED:	1

4 + 7 + MISC

TRANSITION MODE:	3:30
SYNCHRO MODE:	BEST
MAX DWELL TIME:	0

4 + 2 + COORD CONFIG

START UP FLASH:	1
RED REVERT:	2
FLASH CLR:	5

2 + 3 + PL # + PLAN MODE

PL	PLAN MODE	MAX GRN	PH DATA	PH SEQ	OL DATA	ACT CONF	ENA	OFF	VAR	CYCLE	HOLD / YLD
1	COORD	NONE	1	1	1	1	A	46	5	65	2, 6
2	COORD	NONE	1	1	1	1	A	11	5	65	2, 6
3											
4	COORD	NONE	1	1	1	1	A	78	5	90	2, 6
5											
6	COORD	NONE	1	1	1	1	A	78	5	90	2, 6
7											
8											
9											
10											
20	FREE	MAX I	2	1	1	1					
33											

SCHEDULE

EV	ENA	HR	M	S	M	T	W	T	F	S	PL	SPECIAL FUNCTIONS 1	2	3	4	5	6	7	8	AUXILIARY 1	2	3	4
1	ENA	0	0	X	X	X	X	X	X	X	20												
2	ENA	6	30		X	X	X	X	X		2												
3	ENA	8	0	X						X	6												
4	ENA	9	0		X	X	X	X	X		1												
5	ENA	15	30		X	X	X	X	X		4												
6	ENA	19	0	X	X	X	X	X	X	X	20												
7																							
8																							
9																							
10																							
11																							
12																							

PRIORITY SEQUENCE

PHASES		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
TABLE	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TABLE	2																				
TABLE	3																				
TABLE	4																				

NOTE: ZERO DENOTES THE HIGHEST PRIORITY

PED PRAMS & FLAGS

PHASES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ENABLE	X	X	X	X																
CALLPHAS	2	8	6	8																
OVERLAP																				

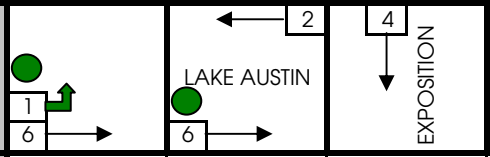
VEH PARAMETERS

DETECTORS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ENABLE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CALL	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
EXTEND	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ADD INIT																				
RED LOCK																				
YEL LOCK																				

VEH FLAG

	1	5	2	6	3	4	4	8	2	6	4	8								
CALL PHASE																				
SWTCH PHAS																				
OVERLAP																				
DELAY																				

SIGNAL PHASING DIAGRAM - NUMBERS REPRESENT GREEN TIME (SECONDS)



PLAN								PLAN
1	8 + 4 + 1	24 + 4 + 1	18 + 4 + 1					
2	11 + 4 + 1	21 + 4 + 1	18 + 4 + 1					
3	9 + 4 + 1	21 + 4 + 1	20 + 4 + 1					
4	19 + 4 + 1	31 + 4 + 1	25 + 4 + 1					
PLAN								PLAN

FLAGS	PHASES	PHASE DATA TABLE # 1	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
OMITPHAS	5, 7, 9 - 20																			
OMIT PED	1, 3, 5, 7, 9 - 20																			
MIN RECAL	1, 2, 6	PHASE TIMING	EB L/T	WB LAKE AUSTIN	DUMMY PHASE	SB EXPOSITION		EB LAKE AUSTIN		N - S PEDS										
MAXRECAL	1																			
SOFT RCL																				
CDT'L SRVC																				
PED RECAL		MIN GREEN	7.0	15.0	3.0	10.0		10.0		10.0										
DUAL ETRY	4, 8	PASSAGE	2.5	4.0	1.0	2.0		2.5		1.0										
SIMGAP	2, 6	MAXGRN 1	8.0	35.0	8.0	25.0		35.0		25.0										
REDREST		MAXGRN 2	8.0	35.0	8.0	25.0		35.0		25.0										
AUTO PED	2, 3, 4, 6, 8	CONDSERV	0.0	0.0	0.0	0.0		0.0		0.0										
REST WALK		YEL CHG	4.0	4.0	4.0	4.0		4.0		4.0										
PED RECY		RED CLR	1.0	1.0	1.0	1.0		1.0		1.0										
RED LOCK		WALK		5.0		6.0		5.0		8.0										
YEL LOCK	3,4	PED CLR		17.0		12.0		17.0		12.0										
NO EXT		ADDED INI																		
NO ADD INI		TIME TO RED																		
NOGAPRED		TIME BEFOR																		
NOMAX LOK		MAX INIT GRN																		

2+ 3 + PL # +	PHASE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		PHASE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
MIN SPLIT	PLAN	1	12	20		15		20		15											MIN	PLAN																			
NOM SPLIT	CYCLE	65	13	29		23		42		23											NOM	CYCLE																			
MAX SPLIT			20	75		30		75		30											MAX																				
	PLAN	2	12	20		15		20		15											MIN	PLAN	6	12	20		15		20		15										
	CYCLE	65	16	26		23		42		23											NOM	CYCLE	90	24	36		30		60		30										
			16	75		30		75		30											MAX			24	75		40		75		40										
NOTE:	PLAN																				MIN	PLAN																			
PLAN 20 =	CYCLE																				NOM	CYCLE																			
FREE MODE																					MAX																				
PLAN 33 =	PLAN	4	12	20		15		20		15											MIN	PLAN																			
FLASH MODE	CYCLE	90	24	36		30		60		30											NOM	CYCLE																			
			24	75		40		75		40											MAX																				

Change ONLY the following:		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
INPUT CHANNELS	FUNCTION TYPE																					
	FUNCTION INDEX																					
	UNIT																					
	CONNECTOR / BUI																					
	PIN																					
	CHANNEL IN 1																					
	CHANNEL IN 2																					
	LOGIC																					
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**
OUTPUT CHANNELS	FUNCTION TYPE																					
	FUNCTION INDEX																					
	CONNECTOR / BUI 1																					
	PIN 1																					
	CONNECTOR / BUI 2																					
	PIN 2																					
	CONNECTOR / BUI 3																					
	PIN 3																					

PHASES		TYPE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
P = PRIMARY S = SECONDARY M = MODIFIED OVERLAP CONFIGURATION	OVL A	2	P																		
		141	P																		
			S																		
			M																		
	OVL B	2	P																		
		141	P																		
			S																		
			M																		
	OVL C	2	P																		
		141	P																		
			S																		
			M																		
	OVL D	2	P																		
		141	P																		
			S																		
			M																		
	OVL E	2	P																		
	OVL F	2	P																		
	OVL G	2	P																		
	OVL H	2	P																		
	OVL I	2	P																		
	OVL J	2	P																		
	OVL K	2	P																		
	OVL L	2	P																		
	OVL M	2	P																		
	OVL N	2	P																		
	OVL O	2	P																		
	OVL P	2	P																		

OVERLAPS			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
OVERLAP SETTINGS	FLAGS / PARAM	ENABLE																
		PED OVERLAP																
		FLASH YELLOW																
		ALT FLASH HZ																
	FLAGS	RECALL PRIMARY																
		RECALL SEC																
		PED RECALL																
		PED RECYCLE																
		AUTO EXTEND																
	PARAMETERS	MIN GREEN																
		MAX GREEN																
		GREEN CLEAR																
		YEL CLEAR																
		RED CLEAR																
		WALK																
		PED CLEAR																
		RESERVICE																

PRE - EMPT		1	3	4	5	6
PRE EMPT FLAGS	ENABLE					
	NO MEM LOK					
	MAN ENABLE					
	NO OVER FLSH					
	NO OVER NEXT					
	OMIT IN DELAY					
	RE MAX PRES					
	PED NOT DARK					
TIME	MIN PRESENCE					
	DELAY					

SETTINGS		1	3	4	5	6
TIMING	STRT MIN GRN					
	STRT WALK					
	STRT PED CLR					
PHASE FLAGS	ENT 1 PHASE					
	ENT 2 PHASE					
	DWELL PHASE					
	INITIAL DWELL					
	DWELL PED					
	RECAL PHASE					
	EXIT PHASE					

FLAGS	PHASES
OMITPHAS	5, 7, 9 - 20
OMIT PED	1, 3, 5, 7, 9 - 20
MIN RECAL	1, 2, 6
MAXRECAL	
SOFT RCL	
CDT'L SRVC	
PED RECAL	
DUAL ETRY	
SIMGAP	
REDREST	
AUTO PED	1 - 20
REST WALK	
PED RECY	
RED LOCK	
YEL LOCK	3,4
NO EXT	
NO ADD INI	
NOGAPRED	
NO RANGE	
NOMAX LOK	

PHASE DATA TABLE # 2	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
PHASE TIMING	EB L/T	WB LAKE AUSTIN	DUMMY PHASE	SB EXPOSITION		EB LAKE AUSTIN		N - S PEDS										
MIN GREEN	8.0	15.0	3.0	10.0		10.0		10.0										
PASSAGE	2.5	4.0	1.0	2.0		2.5		1.0										
MAXGRN 1	8.0	35.0	8.0	20.0		35.0		20.0										
MAXGRN 2	8.0	35.0	8.0	20.0		35.0		20.0										
CONDSERV	0.0	0.0	0.0	0.0		0.0		0.0										
YEL CHG	4.0	4.0	4.0	4.0		4.0		4.0										
RED CLR	1.0	1.0	1.0	1.0		1.0		1.0										
WALK		5.0		6.0		5.0		8.0										
PED CLR		17.0		12.0		17.0		12.0										
ADDED INI																		
TIME TO RED																		
TIME BEFOR																		
MIN GAP																		
MAX INIT GRN																		

FLAGS	PHASES	**PHASE DATA TABLE # 3**	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
OMITPHAS	5, 7		EB L/T	WB LAKE AUSTIN	DUMMY PHASE	SB EXPOSITION		EB LAKE AUSTIN		N - S PEDS										
OMIT PED	1, 3, 5, 7																			
MIN RECAL	1, 2, 6																			
MAXRECAL	1, 2, 4, 6, 8	PHASE TIMING																		
SOFT RCL																				
CDT'L SRVC																				
PED RECAL		MIN GREEN	8.0	15.0	3.0	10.0		10.0		10.0										
DUAL ETRY		PASSAGE	2.5	4.0	1.0	2.0		2.5		2.0										
SIMGAP		MAXGRN 1	18.0	38.0	8.0	22.0		20.0		22.0										
REDREST		MAXGRN 2	18.0	38.0	8.0	20.0		20.0		35.0										
AUTO PED	1, 2, 3, 4, 5, 6, 7, 8	CONDSERV																		
REST WALK		YEL CHG	4.0	4.0	4.0	4.0		4.0		4.0										
PED RECY		RED CLR	1.0	1.0	1.0	1.0		1.0		1.0										
RED LOCK		WALK		8.0		8.0				8.0										
YEL LOCK	3, 4	PED CLR		17.0		12.0				12.0										
NO EXT		ADDED INI																		
NO ADD INI		TIME TO RED																		
NOGAPRED		TIME BEFOR																		
NO RANGE		MIN GAP																		
NOMAX LOK		MAX INIT GRN																		

FLAGS	PHASES	**PHASE DATA TABLE # 4**	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
OMITPHAS																				
OMIT PED																				
MIN RECAL																				
MAXRECAL		PHASE TIMING																		
SOFT RCL																				
CDT'L SRVC																				
PED RECAL		MIN GREEN																		
DUAL ETRY		PASSAGE																		
SIMGAP		MAXGRN 1																		
REDREST		MAXGRN 2																		
AUTO PED		CONDSERV																		
REST WALK		YEL CHG																		
PED RECY		RED CLR																		
RED LOCK		WALK																		
YEL LOCK		PED CLR																		
NO EXT		ADDED INI																		
NO ADD INI		TIME TO RED																		
NOGAPRED		TIME BEFOR																		
NO RANGE		MIN GAP																		
NOMAX LOK		MAX INIT GRN																		

NOTES:

TRAFFIC SIGNAL INTERSECTION:	DATE:	GRP:	LOC:	VRS:	HUB:	ZONE:	SEC:	ENGINEER:	CITY OF AUSTIN
Atlanta @ Lake Austin	5/5/2008		430C					JONATHAN	**TRAFFIC SIGNAL TIMING & PHASING SHEETS**

N

4 + 2 + RINGS

PHASE 1	RING 1:	1, 2, a, 3, 4, b
	RING 2:	5, 6, a, 7, 8, b
PHASE 2	RING 1:	
	RING 2:	

2 + 3 + PL # + PLAN MODE

4 + 2 + PHASEMODE

STARTUP	2, 6
YELSTRT	
REDSTRT	1, 3 - 5, 7 - 20
PED	2, 4, 6, 8
YELFLASH	
ALTFLASH	

4 + 1 + ACT CONFIG

	#1	#2	#3	#4	#5
PHASE	1				
OVERLAP	1				
PREEMPT	1				
CABINET	3				
DETECTOR	2				
COORD	1				

1 + ACTIVE CONTROL PARAMETERS

CONTROL MODE:	REMOTE			
MAN PLN:	1	FREE PLN:	1	DFSCHED: 1

4 + 7 + MISC

TRANSITION MODE:	3:30
SYNCHRO MODE:	BEST
MAX DWELL TIME:	0

4 + 2 + COORD CONFIG

START UP FLASH:	1
RED REVERT:	2
FLASH CLR:	5

PL	PLAN MODE	MAX GRN	PH DATA	PH SEQ	OL DATA	ACT CONF	ENA	OFF	VAR	CYCLE	HOLD / YLD
1	COORD	MAX I	1	1	1	1	A	16	5	90	2, 6
2	COORD	MAX I	1	1	1	1	A	16	5	90	2, 6
3	COORD	MAX I	2	1	1	1	A	15	5	90	2, 6
4											
5											
6	COORD	MAX I	2	1	1	1	A	15	5	90	2, 6
7											
8											
9											
10											
20	FREE	MAX I	4	1	1	1					
33											

SCHEDULE

EV	ENA	HR	M	S	M	T	W	T	F	S	PL
1	ENA	0	0	X	X	X	X	X	X	X	20
2	ENA	6	30		X	X	X	X	X		2
3	ENA	9	0		X	X	X	X	X		1
4	ENA	9	0	X						X	6
5	ENA	15	0						X		3
6	ENA	15	30		X	X	X	X			3
7	ENA	19	0		X	X	X	X	X		1
8	ENA	20	0	X	X	X	X	X	X	X	20
9											
10											
11											
12											

SPECIAL FUNCTIONS: 1 2 3 4 5 6 7 8

AUXILIARY: 1 2 3 4

PRIORITY SEQUENCE

PHASES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
TABLE 1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TABLE 2																				
TABLE 3																				
TABLE 4																				

NOTE: ZERO DENOTES THE HIGHEST PRIORITY

PED PRAMS & FLAGS

PHASES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ENABLE	X	X	X	X																
CALLPHAS	2	4	6	8																
OVERLAP																				

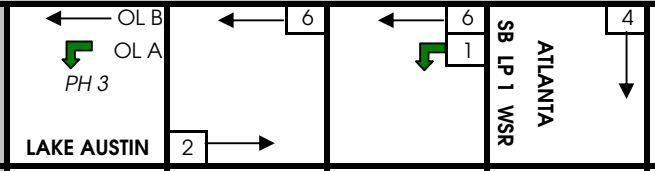
VEH PARAMETERS

DETECTORS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ENABLE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CALL	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
EXTEND	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ADD INIT																				
RED LOCK																				
YEL LOCK																				

VEH FLAG

CALL PHASE	1	5	2	6	3	7	4	8	2	6	4	8								
SWTCH PHAS																				
OVERLAP																				
DELAY																				

SIGNAL PHASING DIAGRAM - (SECONDS)



PLAN						
1	10 + 5 + 1	16 + 5 + 1	20 + 5 + 1	20 + 5 + 1		
2	10 + 5 + 1	24 + 5 + 1	12 + 5 + 1	20 + 5 + 1		
3	12 + 5 + 1	18 + 5 + 1	20 + 5 + 1	16 + 5 + 1		
6	12 + 5 + 1	18 + 5 + 1	20 + 5 + 1	16 + 5 + 1		
PLAN						

FLAGS	PHASES
OMITPHAS	5, 7 - 20
OMIT PED	1, 3, 5, 7, 9 - 20
MIN RECAL	2, 3, 4, 6
MAXRECAL	
SOFT RCL	
CDT'L SRVC	
PED RECAL	
DUAL ETRY	
SIMGAP	
REDREST	
AUTO PED	1 - 20
REST WALK	
PED RECY	
RED LOCK	
YEL LOCK	4
NO EXT	
NO ADD INI	
NOGAPRED	
NOMAX LOK	1, 3, 4

PHASE DATA TABLE # 1	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
PHASE TIMING	WB LT LAKE AUSTIN	EB LAKE AUSTIN	WB, WB LT DBL CYCLE	SB LP 1 WSR ATLANTA		WB LAKE AUSTIN												
MIN GREEN	5.0	10.0	10.0	5.0		10.0												
PASSAGE	2.0	2.0	2.0	2.0		2.0												
MAXGRN 1	50.0	65.0	16.0	30.0		65.0												
MAXGRN 2	50.0	65.0	16.0	30.0		65.0												
CONDSERV	0.0	0.0	0.0	0.0		0.0												
YEL CHG	5.0	5.0	5.0	5.0		5.0												
RED CLR	1.0	1.0	1.0	1.0		1.0												
WALK				5.0		5.0												
PED CLR				19.0		10.0												
ADDED INI																		
TIME TO RED																		
TIME BEFOR																		
MAX INIT GRN																		

2+ 3 + PL # +	PHASE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
MIN SPLIT	PLAN	1	15	15	12	18		25	12	18										
NOM SPLIT	CYCLE	90	26	22	16	26		48	16	26										
MAX SPLIT			36	40	26	36		60	26	36										
	PLAN	2	12	20	12	18		25	12	18										
	CYCLE	90	18	30	16	26		48	16	26										
			30	50	26	36		60	26	36										
NOTE: PLAN 20 = FREE MODE PLAN 33 = FLASH MODE	PLAN	3	15	20	12	12		30	12	12										
	CYCLE	90	26	24	18	22		50	18	22										
			41	40	30	35		75	30	35										
	PLAN																			
	CYCLE																			

		MIN																		
		NOM																		
		MAX																		
		MIN																		
		NOM																		
		MAX																		
		MIN																		
		NOM																		
		MAX																		
		MIN																		
		NOM																		
		MAX																		

PHASE																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
PLAN																					
CYCLE																					
PLAN																					
CYCLE																					

Change ONLY the following:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
INPUT CHANNELS																					
FUNCTION TYPE																					
FUNCTION INDEX																					
UNIT																					
CONNECTOR / BUI																					
PIN																					
CHANNEL IN 1																					
CHANNEL IN 2																					
LOGIC																					

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
OUTPUT CHANNELS																					
FUNCTION TYPE	OVL	PHASE	PED	NONE	PHASE	PED	NONE	OVL	PED	NONE	NONE	NONE									
FUNCTION INDEX	1	2	2	3	4	4	5	2	6	7	8	8									
CONNECTOR / BUI 1																					
PIN 1																					
CONNECTOR / BUI 2																					
PIN 2																					
CONNECTOR / BUI 3																					
PIN 3																					

PHASES		TYPE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
P = PRIMARY S = SECONDARY M = MODIFIED OVERLAP CONFIGURATION	OVL A	2	P	X		X															
		141	P																		
			S																		
			M																		
	OVL B	2	P			X			X												
		141	P																		
			S																		
			M																		
	OVL C	2	P																		
		141	P																		
			S																		
			M																		
	OVL D	2	P																		
		141	P																		
			S																		
			M																		
	OVL E	2	P																		
	OVL F	2	P																		
	OVL G	2	P																		
	OVL H	2	P																		
	OVL I	2	P																		
	OVL J	2	P																		
	OVL K	2	P																		
	OVL L	2	P																		
	OVL M	2	P																		
	OVL N	2	P																		
	OVL O	2	P																		
	OVL P	2	P																		

OVERLAPS			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
OVERLAP SETTINGS	FLAGS / PARAM	ENABLE	X	X														
		PED OVERLAP																
		FLASH YELLOW																
		ALT FLASH HZ																
	FLAGS	RECALL PRIMARY																
		RECALL SEC																
		PED RECALL																
		PED RECYCLE																
		AUTO EXTEND																
	PARAMETERS	MIN GREEN																
		MAX GREEN																
		GREEN CLEAR																
		YEL CLEAR	5	5	0	0	0	0	0	3	3	3	3	3	3	3	3	3
		RED CLEAR	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		WALK																
		PED CLEAR																
		RESERVICE																

PRE - EMPT		1	3	4	5	6
PRE EMPT FLAGS	ENABLE				X	
	NO MEM LOK				X	
	MAN ENABLE					
	NO OVER FLSH					
	NO OVER NEXT					
	OMIT IN DELAY					
	RE MAX PRES					
	PED NOT DARK					
TIME	MIN PRESENCE					
	DELAY				1	

SETTINGS		1	3	4	5	6
TIMING	STRT MIN GRN					
	STRT WALK					
	STRT PED CLR				14	
PHASE FLAGS	ENT 1 PHASE				2	
	ENT 2 PHASE				6	
	DWELL PHASE				2, 6	
	INITIAL DWELL					
	DWELL PED					
	RECAL PHASE					
	EXIT PHASE				4	

FLAGS	PHASES
OMITPHAS	5, 7 - 20
OMIT PED	1, 3, 5, 7, 9 - 20
MIN RECAL	2, 4, 6
MAXRECAL	1, 3
SOFT RCL	
CDT'L SRVC	
PED RECAL	
DUAL ETRY	
SIMGAP	
REDREST	
AUTO PED	1 - 20
REST WALK	
PED RECY	
RED LOCK	
YEL LOCK	
NO EXT	
NO ADD INI	
NOGAPRED	
NO RANGE	
NOMAX LOK	1, 3, 4

PHASE DATA TABLE # 2	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
PHASE TIMING	WB LT LAKE AUSTIN	EB LAKE AUSTIN	WB, WB LT DBL CYCLE	SB LP 1 WSR ATLANTA		WB LAKE AUSTIN												
MIN GREEN	5.0	6.0	5.0	5.0		6.0												
PASSAGE	2.0	2.0	2.0	2.0		2.0												
MAXGRN 1	50.0	65.0	25.0	30.0		65.0												
MAXGRN 2	50.0	65.0	16.0	30.0		65.0												
CONDSERV	0.0	0.0	0.0	0.0		0.0												
YEL CHG	5.0	5.0	5.0	5.0		5.0												
RED CLR	1.0	1.0	1.0	1.0		1.0												
WALK				5.0		5.0												
PED CLR				19.0		10.0												
ADDED INI																		
TIME TO RED																		
TIME BEFOR																		
MIN GAP																		
MAX INIT GRN																		

FLAGS	PHASES	**PHASE DATA TABLE # 3**	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
OMITPHAS																				
OMIT PED																				
MIN RECAL																				
MAXRECAL		PHASE TIMING																		
SOFT RCL																				
CDT'L SRVC																				
PED RECAL		MIN GREEN																		
DUAL ETRY		PASSAGE																		
SIMGAP		MAXGRN 1																		
REDREST		MAXGRN 2																		
AUTO PED		CONDSERV																		
REST WALK		YEL CHG																		
PED RECY		RED CLR																		
RED LOCK		WALK																		
YEL LOCK		PED CLR																		
NO EXT		ADDED INI																		
NO ADD INI		TIME TO RED																		
NOGAPRED		TIME BEFOR																		
NO RANGE		MIN GAP																		
NOMAX LOK		MAX INIT GRN																		

FLAGS	PHASES	**PHASE DATA TABLE # 4**	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
OMITPHAS	3, 5, 7 - 20																			
OMIT PED	1, 3, 5, 7, 9 - 20																			
MIN RECAL	2, 4, 6																			
MAXRECAL		PHASE TIMING																		
SOFT RCL																				
CDT'L SRVC																				
PED RECAL		MIN GREEN	5.0	10.0	10.0	5.0		10.0												
DUAL ETRY	2, 6	PASSAGE	2.0	2.0	2.0	2.0		2.0												
SIMGAP	2, 6	MAXGRN 1	20.0	40.0	16.0	25.0		40.0												
REDREST		MAXGRN 2	50.0	65.0	16.0	30.0		65.0												
AUTO PED	1 - 20	CONDSERV	0.0	0.0	0.0	0.0		0.0												
REST WALK		YEL CHG	5.0	5.0	5.0	5.0		5.0												
PED RECY		RED CLR	1.0	1.0	1.0	1.0		1.0												
RED LOCK		WALK				5.0		5.0												
YEL LOCK	4	PED CLR				19.0		10.0												
NO EXT		ADDED INI																		
NO ADD INI		TIME TO RED																		
NOGAPRED		TIME BEFOR																		
NO RANGE		MIN GAP																		
NOMAX LOK	1, 3, 4	MAX INIT GRN																		

PH 1: WB LT LAKE AUSTIN
PH 2: EB LAKE AUSTIN
PH 3: WB, WB LT DBL CYCLE
PH 4: SB LP 1 WSR ATLANTA
PH 6: WB LAKE AUSTIN

NOTES:

TRAFFIC SIGNAL INTERSECTION:	DATE:	GRP:	LOC:	VRS:	HUB:	ZONE:	SEC:	ENGINEER:	CITY OF AUSTIN
Lake Austin @ Red Bud Trail	1/15/2208		749C					JONATHAN	**TRAFFIC SIGNAL TIMING & PHASING SHEETS**

N

4 + 2 + RINGS

PHASE 1	RING 1:	1, 2, a, 3, 4, b
	RING 2:	5, 6, a, 7, 8, b
PHASE 2	RING 1:	
	RING 2:	

4 + 2 + PHASEMODE

STARTUP	
REDSTRT	2, 4, 6, 8
PED	2, 4, 6, 8
YELFLASH	
FLASH/ENT	
FLASH/EXIT	

4 + 1 + ACT CONFIG

	#1	#2	#3	#4	#5
PHASE	1				
OVERLAP	1				
PREEMPT	1				
CABINET	3				
DETECTOR	2				
COORD	1				

1 + ACTIVE CONTROL PARAMETERS

CONTROL MODE:	SCHEDULE				
MAN PLN:	1	FREE PLN:	1	DFSCHED:	1

4 + 7 + MISC

TRANSITION MODE:	3:30
SYNCHRO MODE:	BEST
MAX DWELL TIME:	0

4 + 2 + COORD CONFIG

START UP FLASH:	1
RED REVERT:	2
FLASH CLR:	6

2 + 3 + PL # + PLAN MODE

PL	PLAN MODE	MAX GRN	PH DATA	PH SEQ	OL DATA	ACT CONF	ENA	OFF	VAR	CYCLE	HOLD / YLD
1	FREE	MAX I	1	1	1	1					
2											
3											
4											
5											
6											
7											
8											
9											
10											
20	FREE	MAX I	1	1	1	1					
33											

SCHEDULE

EV	ENA	HR	M	S	M	T	W	T	F	S	PL
1	ENA	0	0	X	X	X	X	X	X	X	20
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											

SPECIAL FUNCTIONS: 1 2 3 4 5 6 7 8

AUXILIARY: 1 2 3 4

PRIORITY SEQUENCE

PHASES		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
TABLE	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TABLE	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TABLE	3																				
TABLE	4																				

NOTE: ZERO DENOTES THE HIGHEST PRIORITY

PED PRAMS & FLAGS

PHASES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ENABLE	X	X	X	X																
CALLPHAS	2	4	6	8																
OVERLAP																				

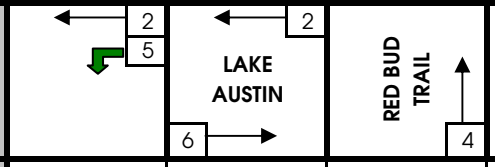
VEH PARAMETERS

DETECTORS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ENABLE	X	X	X	X	X	X	X	X	X	X	X	X	X							
CALL	X	X	X	X	X	X	X	X	X	X	X	X	X							
EXTEND	X	X	X	X	X	X	X	X	X	X	X	X	X							
ADD INIT																				
RED LOCK																				
YEL LOCK																				

VEH FLAG

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CALL PHASE	1	5	2	6	3	7	4	8			4		2							
SWTCH PHAS																				
OVERLAP																				
DELAY		5																		

SIGNAL PHASING DIAGRAM - NUMBERS REPRESENT GREEN TIME (SECONDS)



PLAN								
1	+ 4 + 1	+ 4 + 1	+ 4 + 1					
2								
3								
4								

PLAN								
3								
4								

FLAGS	PHASES
OMITPHAS	1, 3, 7 - 20

PHASE DATA TABLE

PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18

			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
OMIT PED	1 - 5, 7 - 20	# 1																		
MIN RECAL	2, 6	PHASE TIMING		WB LAKE AUSTIN		NB RED BUD	WB "P"L/T	EB LAKE AUSTIN												
MAXRECAL																				
SOFT RCL																				
CDT'L SRVC																				
PED RECAL		MIN GREEN		20.0		5.0	5.0	10.0												
DUAL ETRY		PASSAGE		2.0		3.0	2.0	2.0												
SIMGAP		MAXGRN 1		45.0		22.0	25.0	45.0												
REDREST		MAXGRN 2		60.0		45.0	25.0	60.0												
AUTO PED		CONDSERV		0.0		0.0	0.0	0.0												
REST WALK		YEL CHG		4.0		4.0	4.0	4.0												
PED RECY		RED CLR		1.0		1.0	1.0	1.0												
RED LOCK		WALK						5.0												
YEL LOCK		PED CLR						20.0												
NO EXT		ADDED INI																		
NO ADD INI		TIME TO RED																		
NOGAPRED		TIME BEFOR																		
NOMAX LOK	1, 3 - 5, 7, 8	MAX INIT GRN																		

2+ 3 + PL # +	PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
MIN SPLIT	PLAN																		
NOM SPLIT	CYCLE																		
MAX SPLIT																			
NOTE: PLAN 20 = FREE MODE PLAN 33 = FLASH MODE	PLAN																		
	CYCLE																		
	PLAN																		
	CYCLE																		
	PLAN																		
	CYCLE																		

	PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
MIN	PLAN																		
NOM	CYCLE																		
MAX																			
MIN	PLAN																		
NOM	CYCLE																		
MAX																			
MIN	PLAN																		
NOM	CYCLE																		
MAX																			
MIN	PLAN																		
NOM	CYCLE																		
MAX																			

Change ONLY the following:		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
INPUT CHANNELS	FUNCTION TYPE																					
	FUNCTION INDEX																					
	UNIT																					
	CONNECTOR / BUI																					
	PIN																					
	CHANNEL IN 1																					
	CHANNEL IN 2																					
	LOGIC																					

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
OUTPUT CHANNELS	FUNCTION TYPE																					
	FUNCTION INDEX																					
	CONNECTOR / BUI 1																					
	PIN 1																					
	CONNECTOR / BUI 2																					
	PIN 2																					
	CONNECTOR / BUI 3																					
	PIN 3																					

PHASES		TYPE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	OVL A	2	P																		
			P																		
		141	S																		

	OVERLAPS	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
FLAGS / PARAM	ENABLE																
	PED OVERLAP																
	FLASH YELLOW																

P = PRIMARY S = SECONDARY M = MODIFIED

OVERLAP CONFIGURATION

		M																			
OVL B	2	P																			
	141	P																			
		S																			
		M																			
OVL C	2	P																			
	141	P																			
		S																			
		M																			
OVL D	2	P																			
	141	P																			
		S																			
		M																			
OVL E	2	P																			
OVL F	2	P																			
OVL G	2	P																			
OVL H	2	P																			
OVL I	2	P																			
OVL J	2	P																			
OVL K	2	P																			
OVL L	2	P																			
OVL M	2	P																			
OVL N	2	P																			
OVL O	2	P																			
OVL P	2	P																			

OVERLAP SETTINGS

FLAGS	ALT FLASH HZ																				
	RECALL PRIMARY																				
	RECALL SEC																				
	PED RECALL																				
	PED RECYCLE																				
	AUTO EXTEND																				
PARAMETERS	MIN GREEN																				
	MAX GREEN																				
	GREEN CLEAR																				
	YEL CLEAR																				
	RED CLEAR																				
	WALK																				
	PED CLEAR																				
	RESERVICE																				

PRE - EMPT		1	3	4	5	6
PRE EMPT FLAGS	ENABLE					
	NO MEM LOK					
	MAN ENABLE					
	NO OVER FLSH					
	NO OVER NEXT					
	OMIT IN DELAY					
	RE MAX PRES					
	PED NOT DARK					
TIME	MIN PRESENCE					
	DELAY					

SETTINGS		1	3	4	5	6
TIMING	STRT MIN GRN					
	STRT WALK					
	STRT PED CLR					
PHASE FLAGS	ENT 1 PHASE					
	ENT 2 PHASE					
	DWELL PHASE					
	INITIAL DWELL					
	DWELL PED					
	RECAL PHASE					
	EXIT PHASE					

FLAGS	PHASES	PHASE DATA TABLE # 2	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
OMITPHAS																				
OMIT PED																				
MIN RECAL																				
MAXRECAL		PHASE TIMING																		
SOFT RCL																				
CDT'L SRVC																				
PED RECAL		MIN GREEN																		
DUAL ETRY		PASSAGE																		
SIMGAP		MAXGRN 1																		
REDREST		MAXGRN 2																		
AUTO PED		CONDSERV																		
REST WALK		YEL CHG																		
PED RECY		RED CLR																		
RED LOCK		WALK																		
YEL LOCK		PED CLR																		
NO EXT		ADDED INI																		
NO ADD INI		TIME TO RED																		
NOGAPRED		TIME BEFOR																		
NO RANGE		MIN GAP																		
NOMAX LOK		MAX INIT GRN																		

FLAGS	PHASES	PHASE DATA TABLE # 3	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
OMITPHAS																				
OMIT PED																				
MIN RECAL																				
MAXRECAL		PHASE TIMING																		
SOFT RCL																				

CDT'L SRVC																				
PED RECAL		MIN GREEN																		
DUAL ETRY		PASSAGE																		
SIMGAP		MAXGRN 1																		
REDREST		MAXGRN 2																		
AUTO PED		CONDSERV																		
REST WALK		YEL CHG																		
PED RECY		RED CLR																		
RED LOCK		WALK																		
YEL LOCK		PED CLR																		
NO EXT		ADDED INI																		
NO ADD INI		TIME TO RED																		
NOGAPRED		TIME BEFOR																		
NO RANGE		MIN GAP																		
NOMAX LOK		MAX INIT GRN																		

FLAGS	PHASES	**PHASE DATA TABLE # 4**	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
OMITPHAS																				
OMIT PED																				
MIN RECAL																				
MAXRECAL		PHASE TIMING																		
SOFT RCL																				
CDT'L SRVC																				
PED RECAL		MIN GREEN																		
DUAL ETRY		PASSAGE																		
SIMGAP		MAXGRN 1																		
REDREST		MAXGRN 2																		
AUTO PED		CONDSERV																		
REST WALK		YEL CHG																		
PED RECY		RED CLR																		
RED LOCK		WALK																		
YEL LOCK		PED CLR																		
NO EXT		ADDED INI																		
NO ADD INI		TIME TO RED																		
NOGAPRED		TIME BEFOR																		
NO RANGE		MIN GAP																		
NOMAX LOK		MAX INIT GRN																		

NOTES:

TRAFFIC SIGNAL INTERSECTION:	DATE:	GRP:	LOC:	VRS:	HUB:	ZONE:	SEC:	ENGINEER:	CITY OF AUSTIN
Enfield @ Winsted	4/29/2008		211D						TRAFFIC SIGNAL TIMING & PHASING SHEETS

N

4 + 2 + RINGS

PHASE		
4	RING 1:	1, a, 2, b, 4, c, 5, d, 6, e, 7, f
	RING 2:	
6	RING 1:	2, a, 12, b, 6, c, 7, d, 8, e, 10, f
	RING 2:	

2 + 3 + PL # + PLAN MODE

4 + 2 + PHASEMODE

STARTUP	
REDSTRT	1 - 30
PED	1 - 30
YELFLASH	
FLASH/ENT	
FLASH/EXIT	

4 + 1 + ACT CONFIG

	#1	#2	#3	#4	#5
PHASE	1	2	3	4	
OVERLAP	1	1	1	1	
PREEMPT	1	1	1	1	
CABINET	2	2	2	2	
DETECTOR	2	2	2	2	
COORD	1	1	1	1	

1 + ACTIVE CONTROL PARAMETERS

CONTROL MODE:	SCHEDULE			
MAN PLN:	3	FREE PLN:	1	DFSCHED: 1

4 + 7 + MISC

TRANSITION MODE:	3:30
SYNCHRO MODE:	BEST
MAX DWELL TIME:	0

4 + 2 + COORD CONFIG

START UP FLASH:	1
RED REVERT:	2
FLASH CLR:	6

PL	PLAN MODE	MAX GRN	PH DATA	PH SEQ	OL DATA	ACT CONF	ENA	OFF	VAR	CYCLE	HOLD / YLD
1	COORD	MAX I	4	1	1	4	B	73	5	90	2
2	COORD	NONE	4	1	1	4	B	18	5	130	2
3	COORD	NONE	4	1	1	4	B	51	5	130	2
4	COORD	NONE	4	1	1	4	B	13	5	75	2
5	COORD	NONE	4	1	1	4	B	32	5	130	2
6											
7											
8											
9											
11											
20	FREE	MAX I	4	1	1	4					
21											

SCHEDULE

EV	ENA	HR	M	S	M	T	W	T	F	S	PL	SPECIAL FUNCTIONS 1	2	3	4	5	6	7	8	AUXILIARY 1	2	3	4
1	ENA	0	0	X	X	X	X	X	X	X	4												
2	ENA	6	30		X	X	X	X	X		2												
3	ENA	9	0		X	X	X	X	X		5												
4	ENA	11	0		X	X	X	X	X		5												
5	ENA	13	0		X	X	X	X	X		1												
6	ENA	15	30		X	X	X	X	X		3												
7	ENA	19	0		X	X	X	X	X		4												
8																							
9																							
10																							
11																							
12																							

PRIORITY SEQUENCE

PHASES		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
TABLE	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TABLE	2																				
TABLE	3																				
TABLE	4																				

NOTE: ZERO DENOTES THE HIGHEST PRIORITY

PED PRAMS & FLAGS

PHASES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ENABLE	X	X	X	X	X	X														
CALLPHAS	0	0	0	0	0	0														
OVERLAP	13	14	15	16	11	12														

VEH PARAMETERS / VEH FLAGS

DETECTORS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ENABLE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CALL	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
EXTEND	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ADD INIT																				
RED LOCK																				
YEL LOCK																				
CALL PHASE	1	5	2	6	3	7	4	8	2	6	4	8	8	10	12	13	11	12	7	9
SWTCH PHAS																				
OVERLAP																				
DELAY														5						

SIGNAL PHASING DIAGRAM - (SECONDS)

PLAN	OL C / OL A / OLF / OLI — ADV CLEARANCE (PHASE 1)	OL C / OL H / OL G — 2 — ENFIELD	SB WINSTED (LOOP 1) — 4 — OL H / OL G	OL B / OL E / OL G — ADV CLEARANCE (PHASE 5)	OL C / OL D / 6 / OL E / OL G — ENFIELD	OL C / OL D / OLF / 7 / OLI — NB NEWFIELD (LOOP 1)
1	5 + 4 + 1	8 + 4 + 1	10 + 4 + 1	5 + 4 + 1	20 + 4 + 1	12 + 4 + 1
2	5 + 4 + 1	22 + 4 + 1	30 + 4 + 1	5 + 4 + 1	17 + 4 + 1	21 + 4 + 1
3	5 + 4 + 1	10 + 4 + 1	10 + 4 + 1	5 + 4 + 1	57 + 4 + 1	13 + 4 + 1
4	5 + 4 + 1	8 + 4 + 1	9 + 4 + 1	5 + 4 + 1	12 + 4 + 1	6 + 4 + 1
5	5 + 4 + 1	19 + 4 + 1	25 + 4 + 1	5 + 4 + 1	27 + 4 + 1	19 + 4 + 1
PLAN						
	+ +	+ +	+ +	+ +	+ +	+ +
	+ +	+ +	+ +	+ +	+ +	+ +

FLAGS	PHASES	PHASE DATA TABLE # 4	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
OMITPHAS	3, 8 - 20																			
OMIT PED																				
MIN RECAL	1, 2, 4, 5, 6, 7																			
MAXRECAL	1, 2, 5, 6, 7	PHASE TIMING	ADV BRIDGE CLR	EB ENFIELD		SB Lp 1 - Winsted	ADV BRIDGE CLR	WB ENFIELD	NB Lp 1 - Newfield											
SOFT RCL																				
CDT'L SRVC																				
PED RECAL		MIN GREEN	5.0	5.0		5.0	5.0	5.0	5.0											
DUAL ETRY		PASSAGE	0.0	2.0		2.0	0.0	1.0	2.0											
SIMGAP		MAXGRN 1	5.0	40.0		65.0	5.0	70.0	50.0											
REDREST		MAXGRN 2	5.0	40.0		65.0	5.0	70.0	50.0											
AUTO PED	1 - 20	CONDSERV	0.0	0.0		0.0	0.0	0.0	0.0											
REST WALK		YEL CHG	4.0	4.0		4.0	4.0	4.0	4.0											
PED RECY		RED CLR	1.0	1.0		1.0	1.0	1.0	1.0											
RED LOCK		WALK																		
YEL LOCK		PED CLR																		
NO EXT	1, 5	ADDED INI																		
NO ADD INI		TIME TO RED																		
NOGAPRED		TIME BEFOR																		
NOMAX LOK		MAX INIT GRN																		

2+ 3 + PL # +	PHASE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		PHASE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
MIN SPLIT	PLAN	1	10	10		10	10	10	10												MIN	PLAN	5	10	10		10	10	10	10											
NOM SPLIT	CYCLE	90	10	13		15	10	25	17												NOM	CYCLE	130	10	24		30	10	32	24											
MAX SPLIT			10	25		30	10	35	25												MAX			10	30		60	10	50	30											
	PLAN	2	10	10		10	10	10	10												MIN	PLAN	8	10	10		10	10	10	10											
	CYCLE	130	10	27		35	10	22	26												NOM	CYCLE	75	10	13		15	10	13	14											
			10	30		60	10	30	40												MAX			10	26		30	10	25	23											
NOTE: PLAN 20 = FREE MODE PLAN 33 = FLASH MODE	PLAN	3	10	10		10	10	10	10												MIN	PLAN																			
	CYCLE	130	10	15		15	10	62	18												NOM	CYCLE																			
			10	30		35	10	80	30												MAX																				
	PLAN	4	10	10		10	10	10	10												MIN	PLAN	11	10	10		10	10	10	10											
	CYCLE	75	10	13		14	10	17	11												NOM	CYCLE	150	10	16		24	10	72	18											
			10	26		30	10	25	23												MAX			10	30		35	10	85	30											

Change ONLY the following:		1	2	3	4	5		27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
INPUT CHANNELS	FUNCTION TYPE							PED	PED	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH		
	FUNCTION INDEX							5	6	13	14	15	16	17	18	19	20	21	22	23		
	UNIT							1	1	1	1	1	1	1	1	1	1	1	1	1		
	CONNECTOR / BUI							C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S		
	PIN							73	74	41	41	39	39	40	40	42	42	40	39	41		
	CHANNEL IN 1																					
	CHANNEL IN 2																					
	LOGIC																					

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
OUTPUT CHANNELS	FUNCTION TYPE	OVL	OVL	ovlped	OVL	OVL	ovlped	OVL	OVL	ovlped	OVL	OVL	ovlped	OVL	OVL	ovlped	ovlped					
	FUNCTION INDEX	1	2	13	5	6	15	3	4	14	7	8	16	9	10	11	12					
	CONNECTOR / BUI 1	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S					
	PIN 1	16	12	10	7	4	2	32	29	27	24	21	19	97	94	88	85					
	CONNECTOR / BUI 2	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S					
	PIN 2	17	13	none	8	5	none	33	30	none	25	22	none	98	95	none	none					
	CONNECTOR / BUI 3	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S					
	PIN 3	18	15	11	9	6	3	34	31	28	26	23	20	99	96	90	87					

P = PRIMARY S = SECONDARY M = MODIFIED

OVERLAP CONFIGURATION

PHASES	TYPE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
OVL A	2	P	X	X										X	X					
	TYP	P																		
		M																		
		S																		
OVL B	2	P				X	X			X		X								
	TYP	P																		
		M																		
		S																		
OVL C	2	P	X	X	X			X	X		X		X	X	X					
	TYP	P																		
		M																		
		S																		
OVL D	2	P			X			X	X		X		X							
	TYP	P																		
		M																		
		S																		
OVL E	2	P					X	X					X	X						
OVL F	2	P	X						X	X	X									
OVL G	2	P		X	X	X	X	X				X	X	X	X					
OVL H	2	P		X	X	X						X			X					
OVL I	2	P	X						X	X	X									
OVL J	2	P																		
OVL K	2	P	X	X	X			X	X		X									
OVL L	2	P		X	X	X	X	X				X	X	X						
OVL M	2	P	X	X										X	X					
OVL N	2	P				X	X			X		X								
OVL O	2	P					X	X					X	X						
OVL P	2	P	X						X	X	X									

OVERLAPS		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
OVERLAP SETTINGS	FLAGS / PARAM ENABLE	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X
	FLAGS / PARAM PED OVERLAP											X	X	X	X	X	X
	FLAGS / PARAM FLASH YELLOW																
	FLAGS / PARAM ALT FLASH HZ																
	FLAGS RECALL PRIMARY																
	FLAGS RECALL SEC											X	X				
	FLAGS PED RECALL																
	FLAGS PED RECYCLE																
	FLAGS AUTO EXTEND																
	PARAMETERS MIN GREEN																
	PARAMETERS MAX GREEN																
	PARAMETERS GREEN CLEAR																
	PARAMETERS YEL CLEAR	4	4	4	4	4	4	4	4	4	4	0	0	0	0	0	0
	PARAMETERS RED CLEAR	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0
	PARAMETERS WALK											34	34	4	4	4	4
	PARAMETERS PED CLEAR											12	12	10	14	10	14
	PARAMETERS RESERVICE																

PRE - EMPT	1	3	4	5	6
PRE EMPT FLAGS ENABLE					
PRE EMPT FLAGS NO MEM LOK					
PRE EMPT FLAGS MAN ENABLE					
PRE EMPT FLAGS NO OVER FLSH					
PRE EMPT FLAGS NO OVER NEXT					
PRE EMPT FLAGS OMIT IN DELAY					
PRE EMPT FLAGS RE MAX PRES					
PRE EMPT FLAGS PED NOT DARK					
TIME MIN PRESENCE					
TIME DELAY					

SETTINGS	1	3	4	5	6
TIMING STRT MIN GRN					
TIMING STRT WALK					
TIMING STRT PED CLR					
PHASE FLAGS ENT 1 PHASE					
PHASE FLAGS ENT 2 PHASE					
PHASE FLAGS DWELL PHASE					
PHASE FLAGS INITIAL DWELL					
PHASE FLAGS DWELL PED					
PHASE FLAGS RECAL PHASE					
PHASE FLAGS EXIT PHASE					

FLAGS	PHASES
OMITPHAS	
OMIT PED	
MIN RECAL	
MAXRECAL	
SOFT RCL	
CDT'L SRVC	
PED RECAL	
DUAL ETRY	
SIMGAP	
REDREST	
AUTO PED	
REST WALK	
PED RECY	
RED LOCK	
YEL LOCK	
NO EXT	
NO ADD INI	
NOGAPRED	
NO RANGE	
NOMAX LOK	

PHASE DATA TABLE #	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
PHASE TIMING																		
MIN GREEN																		
PASSAGE																		
MAXGRN 1																		
MAXGRN 2																		
CONDSERV																		
YEL CHG																		
RED CLR																		
WALK																		
PED CLR																		
ADDED INI																		
TIME TO RED																		
TIME BEFOR																		
MIN GAP																		
MAX INIT GRN																		

FLAGS	PHASES	PHASE DATA TABLE #	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
OMITPHAS																				
OMIT PED																				
MIN RECAL																				
MAXRECAL		PHASE TIMING																		
SOFT RCL																				
CDT'L SRVC																				
PED RECAL		MIN GREEN																		
DUAL ETRY		PASSAGE																		
SIMGAP		MAXGRN 1																		
REDREST		MAXGRN 2																		
AUTO PED		CONDSERV																		
REST WALK		YEL CHG																		
PED RECY		RED CLR																		
RED LOCK		WALK																		
YEL LOCK		PED CLR																		
NO EXT		ADDED INI																		
NO ADD INI		TIME TO RED																		
NOGAPRED		TIME BEFOR																		
NO RANGE		MIN GAP																		
NOMAX LOK		MAX INIT GRN																		

FLAGS	PHASES	PHASE DATA TABLE #	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
OMITPHAS																				
OMIT PED																				
MIN RECAL																				
MAXRECAL		PHASE TIMING																		
SOFT RCL																				
CDT'L SRVC																				
PED RECAL		MIN GREEN																		
DUAL ETRY		PASSAGE																		
SIMGAP		MAXGRN 1																		
REDREST		MAXGRN 2																		
AUTO PED		CONDSERV																		
REST WALK		YEL CHG																		
PED RECY		RED CLR																		
RED LOCK		WALK																		
YEL LOCK		PED CLR																		
NO EXT		ADDED INI																		
NO ADD INI		TIME TO RED																		
NOGAPRED		TIME BEFOR																		
NO RANGE		MIN GAP																		
NOMAX LOK		MAX INIT GRN																		

NOTES:

OLK IS THE E - W PEDS ON THE WEST SERVICE ROAD NORTH SIDE. **LS 12**

OLK IS THE E - W PEDS ON THE EAST SERVICE ROAD SOUTH SIDE. **LS 11**

APPENDIX C - SYNCHRO OUTPUT

2008 Existing Conditions AM Peak Hour

2008 Existing Conditions PM Peak Hour

Synchro Output - 2008 Existing Conditions AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	181	0	0	429	90
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.79	0.92	0.92	0.79	0.79
Hourly flow rate (vph)	0	229	0	0	543	114
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				882		
pX, platoon unblocked						
vC, conflicting volume	600	238	657			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	600	238	657			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	70	100			
cM capacity (veh/h)	432	763	926			

Direction, Lane #	EB 1	SB 1	SB 2	SB 3
Volume Total	229	217	217	223
Volume Left	0	0	0	0
Volume Right	229	0	0	114
cSH	763	1700	1700	1700
Volume to Capacity	0.30	0.13	0.13	0.13
Queue Length 95th (ft)	32	0	0	0
Control Delay (s)	11.7	0.0	0.0	0.0
Lane LOS	B			
Approach Delay (s)	11.7	0.0		
Approach LOS	B			

Intersection Summary			
Average Delay	3.0		
Intersection Capacity Utilization	28.2%	ICU Level of Service	A
Analysis Period (min)	15		

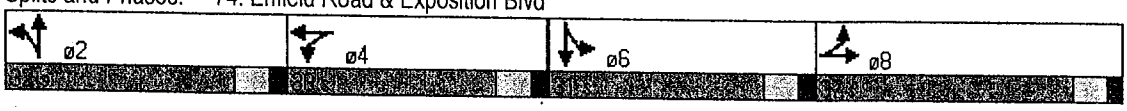
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↑↕			↕↑↕			↕↑↕			↕↑↕	
Volume (vph)	59	204	78	63	145	117	35	272	192	132	301	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.966			0.946			0.942			0.986	
Flt Protected		0.991			0.990			0.996			0.986	
Satd. Flow (prot)	0	3388	0	0	3315	0	0	3321	0	0	3441	0
Flt Permitted		0.991			0.990			0.996			0.986	
Satd. Flow (perm)	0	3388	0	0	3315	0	0	3321	0	0	3441	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29			75			95			7	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		218			2828			357			551	
Travel Time (s)		5.0			64.3			7.0			10.7	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	66	227	87	70	161	130	39	302	213	147	334	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	380	0	0	361	0	0	554	0	0	529	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split			Split			Split			Split		
Protected Phases	8	8		4	4		2	2		6	6	
Permitted Phases												
Minimum Split (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Total Split (s)	37.0	37.0	0.0	30.0	30.0	0.0	32.0	32.0	0.0	31.0	31.0	0.0
Total Split (%)	28.5%	28.5%	0.0%	23.1%	23.1%	0.0%	24.6%	24.6%	0.0%	23.8%	23.8%	0.0%
Maximum Green (s)	31.0	31.0		24.0	24.0		26.0	26.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-2.0	-2.0	0.0	-2.0	-2.0	0.0	-2.0	-2.0	0.0	-2.0	-2.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Flash Dont Walk (s)	13.0	13.0		13.0	13.0		13.0	13.0		13.0	13.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		33.0			26.0			28.0			27.0	
Actuated g/C Ratio		0.25			0.20			0.22			0.21	
v/c Ratio		0.43			0.50			0.70			0.73	
Control Delay		39.2			40.3			54.2			54.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		39.2			40.3			54.2			54.4	
LOS		D			D			D			D	

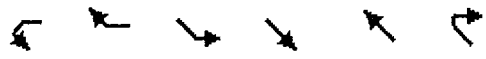
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		39.2			40.3			54.2			54.4	
Approach LOS		D			D			D			D	

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 91 (70%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle: 100
Control Type: Pretimed
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 48.4 Intersection LOS: D
Intersection Capacity Utilization 61.0% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 74: Enfield Road & Exposition Blvd

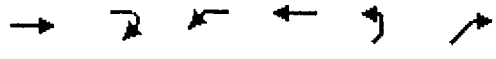




Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Volume (veh/h)	0	100	17	929	550	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.90	0.90	0.90	0.90	0.92
Hourly flow rate (vph)	0	111	19	1032	611	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				164		
pX, platoon unblocked	0.88					
vC, conflicting volume	1165	306	611			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	905	306	611			
tC, single (s)	6.9	7.0	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	84	98			
cM capacity (veh/h)	236	687	957			

Direction, Lane #	WB 1	SE 1	SE 2	NW 1	NW 2
Volume Total	111	363	688	306	306
Volume Left	0	19	0	0	0
Volume Right	111	0	0	0	0
cSH	687	957	1700	1700	1700
Volume to Capacity	0.16	0.02	0.40	0.18	0.18
Queue Length 95th (ft)	14	2	0	0	0
Control Delay (s)	11.2	0.7	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	11.2	0.2		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	41.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	17	0	41	100	0	99
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.92	0.90	0.90	0.92	0.90
Hourly flow rate (vph)	19	0	46	111	0	110
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			19		221	19
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			19		221	19
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		100	90
cM capacity (veh/h)			1591		743	1056

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	19	157	110
Volume Left	0	46	0
Volume Right	0	0	110
cSH	1700	1591	1056
Volume to Capacity	0.01	0.03	0.10
Queue Length 95th (ft)	0	2	9
Control Delay (s)	0.0	2.3	8.8
Lane LOS		A	A
Approach Delay (s)	0.0	2.3	8.8
Approach LOS			A

Intersection Summary			
Average Delay	4.6		
Intersection Capacity Utilization	17.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Volume (veh/h)	41	0	0	929	550	99
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.92	0.92	0.90	0.90	0.90
Hourly flow rate (vph)	46	0	0	1032	611	110
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				319		
pX, platoon unblocked	0.90					
vC, conflicting volume	1182	361	721			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	978	361	721			
tC, single (s)	6.9	7.0	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	79	100	100			
cM capacity (veh/h)	221	633	870			

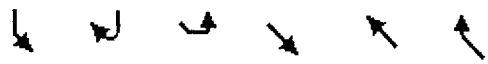
Direction, Lane #	WB 1	NE 1	SE 1	SE 2	NW 1	NW 2
Volume Total	46	516	516	407	314	
Volume Left	46	0	0	0	0	
Volume Right	0	0	0	0	110	
cSH	221	1700	1700	1700	1700	
Volume to Capacity	0.21	0.30	0.30	0.24	0.18	
Queue Length 95th (ft)	19	0	0	0	0	
Control Delay (s)	25.5	0.0	0.0	0.0	0.0	
Lane LOS	D					
Approach Delay (s)	25.5	0.0		0.0		
Approach LOS	D					

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	35.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	182	7	45	271	7	55
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	194	7	48	288	7	59
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	121	48			48	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	121	48			48	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	78	99			100	
cM capacity (veh/h)	872	1024			1566	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1
Volume Total	201	48	288	66
Volume Left	194	0	0	7
Volume Right	7	0	288	0
cSH	877	1700	1700	1566
Volume to Capacity	0.23	0.03	0.17	0.00
Queue Length 95th (ft)	22	0	0	0
Control Delay (s)	10.3	0.0	0.0	0.9
Lane LOS	B			A
Approach Delay (s)	10.3	0.0		0.9
Approach LOS	B			

Intersection Summary			
Average Delay	3.5		
Intersection Capacity Utilization	26.8%	ICU Level of Service	A
Analysis Period (min)	15		



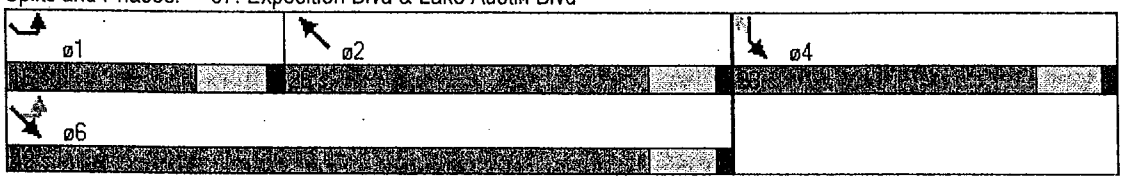
Lane Group	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Volume (vph)	207	90	236	642	400	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	180	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	25	25	25			25
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850			0.950	
Flt Protected	0.950			0.987		
Satd. Flow (prot)	1770	1583	0	3493	3362	0
Flt Permitted	0.950			0.572		
Satd. Flow (perm)	1770	1583	0	2024	3362	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		96			145	
Link Speed (mph)	35			35	35	
Link Distance (ft)	2718			3614	164	
Travel Time (s)	52.9			70.4	3.2	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	220	96	251	683	426	213
Shared Lane Traffic (%)						
Lane Group Flow (vph)	220	96	0	934	639	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type		Perm	pm+pt			
Protected Phases	4		1	6	2	
Permitted Phases		4	6			
Minimum Split (s)	23.0	23.0	9.0	23.0	26.0	
Total Split (s)	23.0	23.0	16.0	42.0	26.0	0.0
Total Split (%)	35.4%	35.4%	24.6%	64.6%	40.0%	0.0%
Maximum Green (s)	18.0	18.0	11.0	37.0	21.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Walk Time (s)	5.0	5.0		6.0	5.0	
Flash Dont Walk (s)	13.0	13.0		12.0	16.0	
Pedestrian Calls (#/hr)	0	0		0	0	
Act Effct Green (s)	19.0	19.0		38.0	22.0	
Actuated g/C Ratio	0.29	0.29		0.58	0.34	
v/c Ratio	0.43	0.18		0.64	0.52	
Control Delay	21.2	6.7		10.1	14.9	

Lane Group	SBL	SBR	SETL	SETR	NWTL	NWTR
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	21.2	6.7		10.1	14.9	
LOS	C	A		B	B	
Approach Delay	16.8			10.1	14.9	
Approach LOS	B			B	B	

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 65
Offset: 11 (17%), Referenced to phase 2:NWT and 6:SETL, Start of Green
Natural Cycle: 60
Control Type: Pretimed
Maximum v/c Ratio: 0.64
Intersection Signal Delay: 12.8 Intersection LOS: B
Intersection Capacity Utilization 63.5% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 67: Exposition Blvd & Lake Austin Blvd



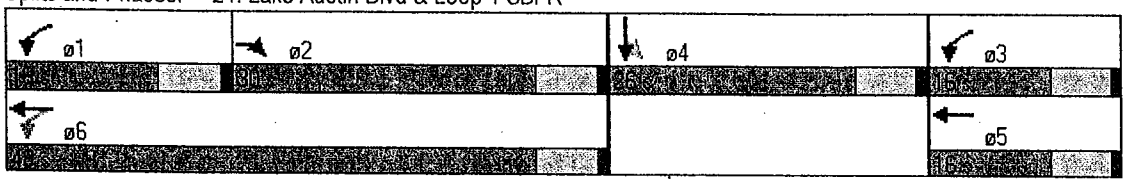
Lane Group	EBR	EBR2	WBL	WBT	SBL	SBT	SBR	ø1	ø3	ø5	ø6
Lane Configurations											
Volume (vph)	693	223	356	654	268	200	137				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900				
Storage Length (ft)	0		100		0		0				
Storage Lanes	2		1		1		0				
Taper Length (ft)	25		25		25		25				
Lane Util. Factor	0.88	1.00	1.00	0.95	1.00	0.95	0.95				
Flt	0.850					0.940					
Flt Protected			0.950		0.950						
Satd. Flow (prot)	2787	0	1770	3539	1770	3327	0				
Flt Permitted			0.950		0.950						
Satd. Flow (perm)	2787	0	1770	3539	1770	3327	0				
Right Turn on Red		Yes					Yes				
Satd. Flow (RTOR)	42					149					
Link Speed (mph)				35		35					
Link Distance (ft)				248		882					
Travel Time (s)				4.8		17.2					
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.92				
Adj. Flow (vph)	770	248	396	727	298	222	149				
Shared Lane Traffic (%)											
Lane Group Flow (vph)	1018	0	396	727	298	371	0				
Enter Blocked Intersection	No	No	No	No	No	No	No				
Lane Alignment	Right	Right	Left	Left	Left	Left	Right				
Median Width(ft)				12		12					
Link Offset(ft)				0		0					
Crosswalk Width(ft)				16		16					
Two way Left Turn Lane											
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Turning Speed (mph)	35	9	15		15		9				
Turn Type	custom		custom		Perm						
Protected Phases	2		1 3	5 6		4		1	3	5	6
Permitted Phases	2		6		4						
Minimum Split (s)	20.0				26.0	26.0		10.0	10.0	21.0	21.0
Total Split (s)	30.0	0.0	34.0	64.0	26.0	26.0	0.0	18.0	16.0	16.0	48.0
Total Split (%)	33.3%	0.0%	37.8%	71.1%	28.9%	28.9%	0.0%	20%	18%	18%	53%
Maximum Green (s)	24.0				20.0	20.0		12.0	10.0	10.0	42.0
Yellow Time (s)	5.0				5.0	5.0		5.0	5.0	5.0	5.0
All-Red Time (s)	1.0				1.0	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-2.0	0.0	-2.0	-2.0	-2.0	-2.0	0.0				
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lead/Lag	Lag							Lead			
Lead-Lag Optimize?	Yes							Yes			
Walk Time (s)					5.0	5.0				5.0	5.0
Flash Dont Walk (s)					15.0	15.0				10.0	10.0
Pedestrian Calls (#/hr)					0	0				0	0
Act Effct Green (s)	26.0		60.0	60.0	22.0	22.0					
Actuated g/C Ratio	0.29		0.67	0.67	0.24	0.24					
v/c Ratio	1.22		0.34	0.31	0.69	0.40					
Control Delay	138.9		7.4	6.7	40.4	18.1					

Lane Group	EBR	EBR2	WBL	WBT	SBL	SBT	SBR	ø1	ø3	ø5	ø6
Queue Delay	0.0		0.0	0.0	0.0	0.0					
Total Delay	138.9		7.4	6.7	40.4	18.1					
LOS	F		A	A	D	B					
Approach Delay				6.9		28.0					
Approach LOS				A		C					

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 16 (18%), Referenced to phase 2:EBR and 6:WBTL, Start of Green
Natural Cycle: 90
Control Type: Pretimed
Maximum v/c Ratio: 1.22
Intersection Signal Delay: 59.8 Intersection LOS: E
Intersection Capacity Utilization 76.6% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 24: Lake Austin Blvd & Loop 1 SBFR

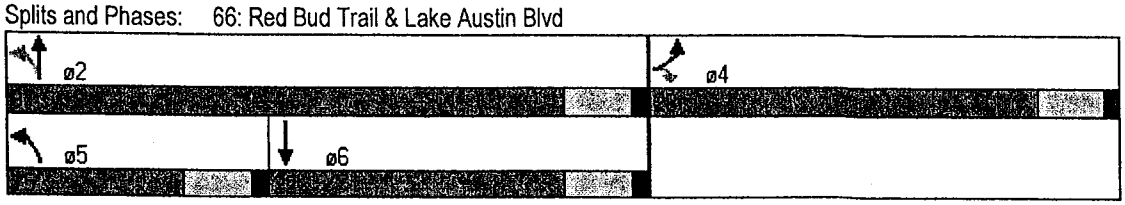


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	292	593	280	159	85	159
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	130	0			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.912	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1787	1599	1787	1881	1716	0
Flt Permitted	0.950		0.338			
Satd. Flow (perm)	1787	1599	636	1881	1716	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		624			144	
Link Speed (mph)	30			35	35	
Link Distance (ft)	1643			3614	549	
Travel Time (s)	37.3			70.4	10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	307	624	295	167	89	167
Shared Lane Traffic (%)						
Lane Group Flow (vph)	307	624	295	167	256	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	
Detector Template	Left	Right	Left	Thru	Thru	
Leading Detector (ft)	20	20	20	100	100	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	20	20	20	6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)				94	94	
Detector 2 Size(ft)				6	6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type		Perm	pm+pt			
Protected Phases	4		5	2	6	
Permitted Phases		4	2			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Detector Phase	4	4	5	2	6	
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	21.0	21.0	9.0	21.0	21.0	
Total Split (s)	28.0	28.0	15.0	37.0	22.0	0.0
Total Split (%)	43.1%	43.1%	23.1%	56.9%	33.8%	0.0%
Maximum Green (s)	23.0	23.0	10.0	32.0	17.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	None	None	
Walk Time (s)					5.0	
Flash Dont Walk (s)					11.0	
Pedestrian Calls (#/hr)					0	
Act Effct Green (s)	15.6	15.6	25.3	25.3	10.3	
Actuated g/C Ratio	0.32	0.32	0.51	0.51	0.21	
v/c Ratio	0.54	0.67	0.51	0.17	0.54	
Control Delay	18.2	5.6	11.3	8.0	13.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	18.2	5.6	11:3	8.0	13.5	
LOS	B	A	B	A	B	
Approach Delay	9.7			10.1	13.5	
Approach LOS	A			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 49.2			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 10.4		Intersection LOS: B	
Intersection Capacity Utilization 57.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 66: Red Bud Trail & Lake Austin Blvd

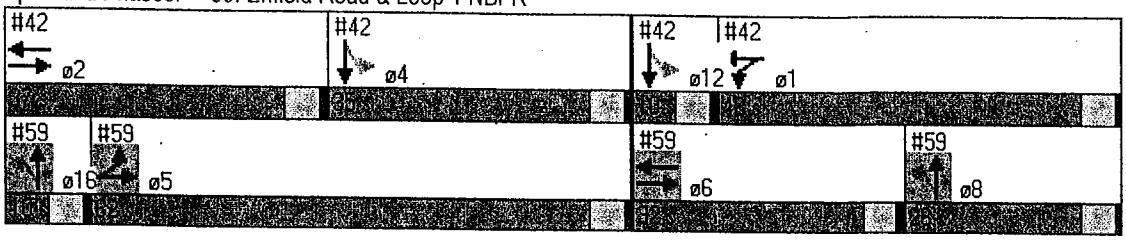


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	232	1256	0	0	396	174	110	75	672	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	0.88	1.00	1.00	1.00
Frt					0.954				0.850			
Flt Protected		0.992					0.950					
Satd. Flow (prot)	0	3511	0	0	3376	0	1770	1863	2787	0	0	0
Flt Permitted		0.552					0.950					
Satd. Flow (perm)	0	1954	0	0	3376	0	1770	1863	2787	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					49				190			
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		480			411			383			103	
Travel Time (s)		10.9			9.3			10.4			2.8	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.92	0.92	0.92
Adj. Flow (vph)	237	1282	0	0	404	178	112	77	686	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1519	0	0	582	0	112	77	686	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot						Perm		Perm			
Protected Phases	5	5 6			6			8 16				
Permitted Phases							8 16		8 16			
Minimum Split (s)	10.0				19.0							
Total Split (s)	62.0	94.0	0.0	0.0	32.0	0.0	36.0	36.0	36.0	0.0	0.0	0.0
Total Split (%)	47.7%	72.3%	0.0%	0.0%	24.6%	0.0%	27.7%	27.7%	27.7%	0.0%	0.0%	0.0%
Maximum Green (s)	57.0				27.0							
Yellow Time (s)	4.0				4.0							
All-Red Time (s)	1.0				1.0							
Lost Time Adjust (s)	-1.0	-1.0	0.0	0.0	-1.0	0.0	-1.0	-1.0	-1.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag				Lead							
Lead-Lag Optimize?	Yes				Yes							
Act Effct Green (s)		86.0			28.0		32.0	32.0	32.0			
Actuated g/C Ratio		0.66			0.22		0.25	0.25	0.25			
v/c Ratio		0.79			0.76		0.26	0.17	0.83			
Control Delay		6.9			51.0		41.4	39.8	42.8			
Queue Delay		1.5			0.0		0.0	0.0	0.0			
Total Delay		8.5			51.0		41.4	39.8	42.8			
LOS		A			D		D	D	D			
Approach Delay		8.5			51.0			42.4				
Approach LOS		A			D			D				

Intersection Summary

Area Type:	Other
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 18 (14%), Referenced to phase 1:WBTL and 6:, Start of Green	
Natural Cycle: 95	
Control Type: Pretimed	
Maximum v/c Ratio: 1.11	
Intersection Signal Delay: 26.8	Intersection LOS: C
Intersection Capacity Utilization 74.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 59: Enfield Road & Loop 1 NBFR



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	658	139	296	253	0	0	0	0	1074	294	162
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.91	0.91	0.95
Frt		0.974									0.976	
Flt Protected					0.974					0.950	0.974	
Satd. Flow (prot)	0	3481	0	0	3481	0	0	0	0	1626	3255	0
Flt Permitted					0.596					0.950	0.974	
Satd. Flow (perm)	0	3481	0	0	2130	0	0	0	0	1626	3255	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18									17	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		2828			480			1352			197	
Travel Time (s)		64.3			10.9			26.3			3.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.92	0.92	0.92	0.94	0.94	0.94
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	0	700	148	315	269	0	0	0	0	1143	313	172
Shared Lane Traffic (%)										50%		
Lane Group Flow (vph)	0	848	0	0	584	0	0	0	0	571	1057	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type				Prot						Perm		
Protected Phases		2		1	2 1						4 12	
Permitted Phases										4 12		
Minimum Split (s)		19.0		10.0								
Total Split (s)	0.0	37.0	0.0	48.0	85.0	0.0	0.0	0.0	0.0	45.0	45.0	0.0
Total Split (%)	0.0%	28.5%	0.0%	36.9%	65.4%	0.0%	0.0%	0.0%	0.0%	34.6%	34.6%	0.0%
Maximum Green (s)		32.0		43.0								
Yellow Time (s)		4.0		4.0								
All-Red Time (s)		1.0		1.0								
Lost Time Adjust (s)	0.0	-1.0	0.0	-1.0	-1.0	0.0	0.0	0.0	0.0	-1.0	-1.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag		Lead		Lag								
Lead-Lag Optimize?		Yes		Yes								
Act Effct Green (s)		33.0			77.0					41.0	41.0	
Actuated g/C Ratio		0.25			0.59					0.32	0.32	
v/c Ratio		0.95			0.36					1.11	1.05dl	
Control Delay		71.8			2.2					115.9	75.8	
Queue Delay		0.0			0.0					0.0	0.0	
Total Delay		71.8			2.2					115.9	75.8	
LOS		E			A					F	E	
Approach Delay		71.8			2.2						89.9	
Approach LOS		E			A						F	

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 18 (14%), Referenced to phase 1:WBTL and 6:, Start of Green

Natural Cycle: 95

Control Type: Pretimed

Maximum v/c Ratio: 1.11

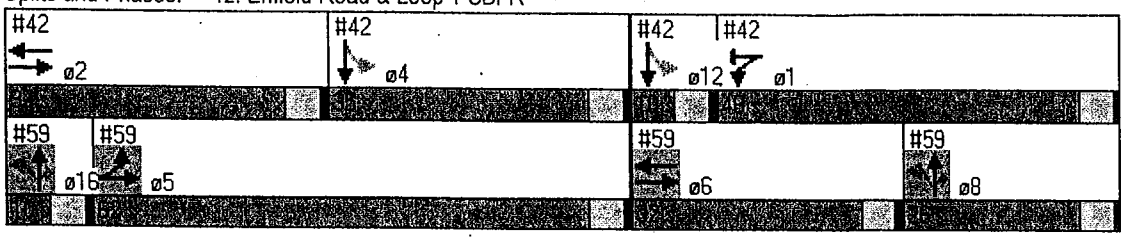
Intersection Signal Delay: 68.1 Intersection LOS: E

Intersection Capacity Utilization 78.8% ICU Level of Service D

Analysis Period (min) 15

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 42: Enfield Road & Loop 1 SBFR



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	0	0	0	59	0	12	0	14	16	5	26	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	66	0	13	0	16	18	6	29	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	78	73	29	64	64	24	29			33		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	78	73	29	64	64	24	29			33		
tC, single (s)	7.2	6.6	6.2	7.2	6.6	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	93	100	99	100			100		
cM capacity (veh/h)	890	808	1037	920	818	1043	1565			1559		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	0	79	33	34
Volume Left	0	66	0	6
Volume Right	0	13	18	0
cSH	1700	938	1565	1559
Volume to Capacity	0.00	0.08	0.00	0.00
Queue Length 95th (ft)	0	7	0	0
Control Delay (s)	0.0	9.2	0.0	1.2
Lane LOS	A	A		A
Approach Delay (s)	0.0	9.2	0.0	1.2
Approach LOS	A	A		

Intersection Summary			
Average Delay	5.2		
Intersection Capacity Utilization	16.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	109	20	193	38	174	11	110	381	375	287	4
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	5	116	21	205	40	185	12	117	405	399	305	4

Direction, Lane #	EB 1	WB 1	WB 2	NE 1	SW 1	SW 2
Volume Total (vph)	143	205	226	534	399	310
Volume Left (vph)	5	205	0	12	399	0
Volume Right (vph)	21	0	185	405	0	4
Hadj (s)	-0.05	0.53	-0.54	-0.42	0.53	0.02
Departure Headway (s)	9.2	8.9	7.8	7.5	8.3	7.8
Degree Utilization, x	0.36	0.51	0.49	1.11	0.92	0.67
Capacity (veh/h)	367	397	453	482	425	453
Control Delay (s)	17.3	19.4	16.8	102.6	52.8	23.8
Approach Delay (s)	17.3	18.0		102.6	40.1	
Approach LOS	C	C		F	E	

Intersection Summary			
Delay	51.5		
HCM Level of Service	F		
Intersection Capacity Utilization	83.9%	ICU Level of Service	E
Analysis Period (min)	15		

Synchro Output – 2008 Existing Conditions PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	101	0	0	481	51
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	0	111	0	0	529	56
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				882		
pX, platoon unblocked						
vC, conflicting volume	557	204	585			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	557	204	585			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	86	100			
cM capacity (veh/h)	463	806	993			

Direction, Lane #	EB 1	SB 1	SB 2	SB 3
Volume Total	111	211	211	162
Volume Left	0	0	0	0
Volume Right	111	0	0	56
cSH	806	1700	1700	1700
Volume to Capacity	0.14	0.12	0.12	0.10
Queue Length 95th (ft)	12	0	0	0
Control Delay (s)	10.2	0.0	0.0	0.0
Lane LOS	B			
Approach Delay (s)	10.2	0.0		
Approach LOS	B			

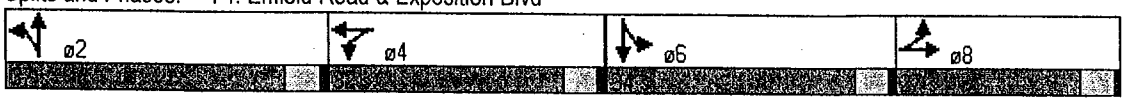
Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	23.3%	ICU Level of Service	A
Analysis Period (min)	15		

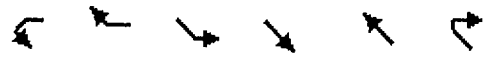
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↑			↕↑			↕↑			↕↑	
Volume (vph)	75	224	96	111	174	217	74	529	123	184	434	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.964			0.935			0.975			0.982	
Flt Protected		0.991			0.989			0.995			0.987	
Satd. Flow (prot)	0	3415	0	0	3305	0	0	3467	0	0	3464	0
Flt Permitted		0.991			0.989			0.995			0.987	
Satd. Flow (perm)	0	3415	0	0	3305	0	0	3467	0	0	3464	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29			135			18			10	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		218			2828			357			551	
Travel Time (s)		5.0			64.3			7.0			10.7	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	78	233	100	116	181	226	77	551	128	192	452	86
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	411	0	0	523	0	0	756	0	0	730	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Split			Split			Split			Split		
Protected Phases	8	8		4	4		2	2		6	6	
Permitted Phases												
Minimum Split (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Total Split (s)	27.0	27.0	0.0	32.0	32.0	0.0	37.0	37.0	0.0	34.0	34.0	0.0
Total Split (%)	20.8%	20.8%	0.0%	24.6%	24.6%	0.0%	28.5%	28.5%	0.0%	26.2%	26.2%	0.0%
Maximum Green (s)	22.0	22.0		27.0	27.0		32.0	32.0		29.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0	0.0	-1.0	-1.0	0.0	-1.0	-1.0	0.0	-1.0	-1.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Flash Dont Walk (s)	13.0	13.0		13.0	13.0		13.0	13.0		13.0	13.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		23.0			28.0			33.0			30.0	
Actuated g/C Ratio		0.18			0.22			0.25			0.23	
v/c Ratio		0.65			0.64			0.85			0.90	
Control Delay		51.8			29.9			55.0			63.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		51.8			29.9			55.0			63.7	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		D			C			D			E	
Approach Delay		51.8			29.9			55.0			63.7	
Approach LOS		D			C			D			E	

Intersection Summary
Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 120 (92%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle: 100
Control Type: Pretimed
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 51.6 Intersection LOS: D
Intersection Capacity Utilization 80.5% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 74: Enfield Road & Exposition Blvd

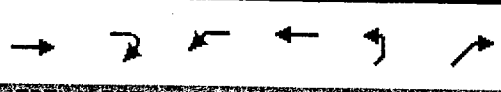




Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Volume (veh/h)	0	70	31	878	993	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.90	0.90	0.90	0.90	0.92
Hourly flow rate (vph)	0	78	34	976	1103	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				164		
pX, platoon unblocked						
vC, conflicting volume	1660	552	1103			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1660	552	1103			
tC, single (s)	6.9	7.0	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	84	94			
cM capacity (veh/h)	83	475	623			

Direction, Lane #	WB 1	SE 1	SE 2	NW 1	NW 2
Volume Total	78	360	650	552	552
Volume Left	0	34	0	0	0
Volume Right	78	0	0	0	0
cSH	475	623	1700	1700	1700
Volume to Capacity	0.16	0.06	0.38	0.32	0.32
Queue Length 95th (ft)	15	4	0	0	0
Control Delay (s)	14.1	1.8	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	14.1	0.6		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	50.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	31	0	22	70	0	114
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	32	0	23	73	0	119
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			32		151	32
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			32		151	32
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		100	89
cM capacity (veh/h)			1580		829	1041

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	32	96	119
Volume Left	0	23	0
Volume Right	0	0	119
cSH	1700	1580	1041
Volume to Capacity	0.02	0.01	0.11
Queue Length 95th (ft)	0	1	10
Control Delay (s)	0.0	1.8	8.9
Lane LOS		A	A
Approach Delay (s)	0.0	1.8	8.9
Approach LOS			A

Intersection Summary			
Average Delay	5.0		
Intersection Capacity Utilization	17.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Volume (veh/h)	22	0	0	878	993	114
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.92	0.92	0.90	0.90	0.90
Hourly flow rate (vph)	24	0	0	976	1103	127
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				319		
pX, platoon unblocked						
vC, conflicting volume	1654	615	1230			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1654	615	1230			
tC, single (s)	6.9	7.0	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	72	100	100			
cM capacity (veh/h)	88	432	557			

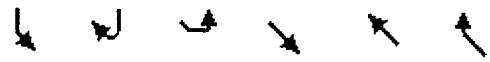
Direction, Lane #	WB 1	SE 1	SE 2	NW 1	NW 2
Volume Total	24	488	488	736	494
Volume Left	24	0	0	0	0
Volume Right	0	0	0	0	127
cSH	88	1700	1700	1700	1700
Volume to Capacity	0.28	0.29	0.29	0.43	0.29
Queue Length 95th (ft)	26	0	0	0	0
Control Delay (s)	60.9	0.0	0.0	0.0	0.0
Lane LOS	F				
Approach Delay (s)	60.9	0.0		0.0	
Approach LOS	F				

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	41.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	440	15	111	262	11	107
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	463	16	117	276	12	113
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	253	117			117	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	253	117			117	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	37	98			99	
cM capacity (veh/h)	730	935			1472	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1
Volume Total	479	117	276	124
Volume Left	463	0	0	12
Volume Right	16	0	276	0
cSH	735	1700	1700	1472
Volume to Capacity	0.65	0.07	0.16	0.01
Queue Length 95th (ft)	122	0	0	1
Control Delay (s)	18.6	0.0	0.0	0.8
Lane LOS	C			A
Approach Delay (s)	18.6	0.0		0.8
Approach LOS	C			

Intersection Summary			
Average Delay	9.0		
Intersection Capacity Utilization	44.9%	ICU Level of Service	A
Analysis Period (min)	15		

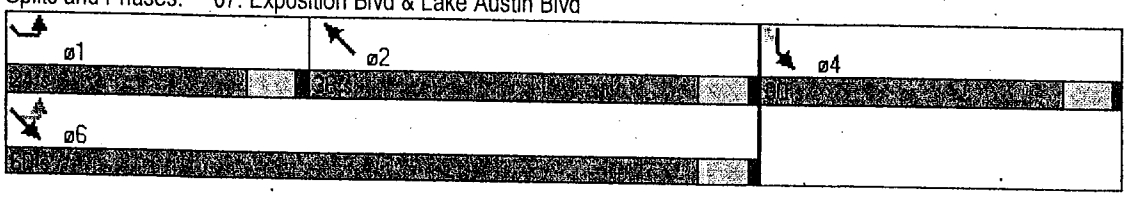


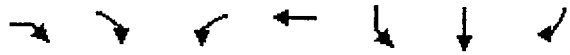
Lane Group	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Volume (vph)	286	208	328	427	662	363
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	180	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	25	25	25			25
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850			0.947	
Flt Protected	0.950			0.979		
Satd. Flow (prot)	1770	1583	0	3465	3352	0
Flt Permitted	0.950			0.565		
Satd. Flow (perm)	1770	1583	0	2000	3352	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		224			127	
Link Speed (mph)	35			35	35	
Link Distance (ft)	2718			3614	164	
Travel Time (s)	52.9			70.4	3.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	308	224	353	459	712	390
Shared Lane Traffic (%)						
Lane Group Flow (vph)	308	224	0	812	1102	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type		Perm	pm+pt			
Protected Phases	4		1	6	2	
Permitted Phases		4	6			
Minimum Split (s)	23.0	23.0	9.0	23.0	26.0	
Total Split (s)	30.0	30.0	24.0	60.0	36.0	0.0
Total Split (%)	33.3%	33.3%	26.7%	66.7%	40.0%	0.0%
Maximum Green (s)	25.0	25.0	19.0	55.0	31.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Walk Time (s)	5.0	5.0		6.0	5.0	
Flash Dont Walk (s)	13.0	13.0		12.0	16.0	
Pedestrian Calls (#/hr)	0	0		0	0	
Act Effct Green (s)	26.0	26.0		56.0	32.0	
Actuated g/C Ratio	0.29	0.29		0.62	0.36	
v/c Ratio	0.60	0.36		0.52	0.86	
Control Delay	33.4	5.4		9.7	38.1	

Lane Group	SBL	SBR	SEL	SET	NWT	NWR
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	33.4	5.4		9.7	38.1	
LOS	C	A		A	D	
Approach Delay	21.6			9.7	38.1	
Approach LOS	C			A	D	

Intersection Summary
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 78 (87%), Referenced to phase 2:NWT and 6:SETL, Start of Green
Natural Cycle: 60
Control Type: Pretimed
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 25.1 Intersection LOS: C
Intersection Capacity Utilization 77.1% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 67: Exposition Blvd & Lake Austin Blvd





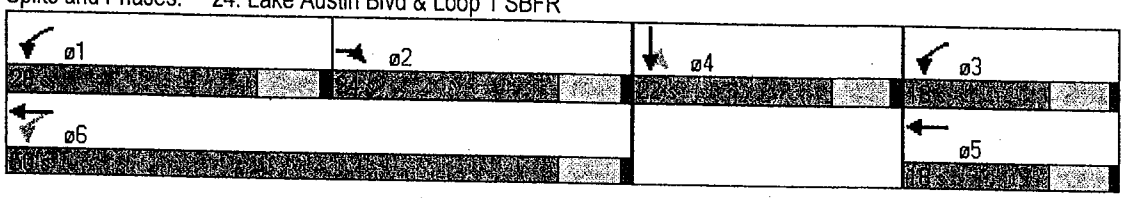
Lane Group	EBR	EBR2	WBL	WBT	SBL	SBT	SBR	ø1	ø3	ø5	ø6
Lane Configurations											
Volume (vph)	523	280	468	1139	230	219	140				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900				
Storage Length (ft)	0		100		0		0				
Storage Lanes	2		1		1		0				
Taper Length (ft)	25		25		25		25				
Lane Util. Factor	0.88	1.00	1.00	0.95	1.00	0.95	0.95				
Frt	0.850					0.942					
Flt Protected			0.950		0.950						
Satd. Flow (prot)	2814	0	1787	3574	1787	3367	0				
Flt Permitted			0.950		0.950						
Satd. Flow (perm)	2814	0	1787	3574	1787	3367	0				
Right Turn on Red		Yes					Yes				
Satd. Flow (RTOR)	82					123					
Link Speed (mph)				35		35					
Link Distance (ft)				248		882					
Travel Time (s)				4.8		17.2					
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97				
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%				
Adj. Flow (vph)	539	289	482	1174	237	226	144				
Shared Lane Traffic (%)											
Lane Group Flow (vph)	828	0	482	1174	237	370	0				
Enter Blocked Intersection	No	No	No	No	No	No	No				
Lane Alignment	Right	Right	Left	Left	Left	Left	Right				
Median Width(ft)				12		12					
Link Offset(ft)				0		0					
Crosswalk Width(ft)				16		16					
Two way Left Turn Lane											
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Turning Speed (mph)	35	9	15		15		9				
Turn Type	custom		custom		Perm						
Protected Phases	2		1 3	5 6		4		1	3	5	6
Permitted Phases	2		6		4						
Minimum Split (s)	20.0				22.0	22.0		10.0	10.0	18.0	21.0
Total Split (s)	24.0	0.0	44.0	68.0	22.0	22.0	0.0	26.0	18.0	18.0	50.0
Total Split (%)	26.7%	0.0%	48.9%	75.6%	24.4%	24.4%	0.0%	29%	20%	20%	56%
Maximum Green (s)	18.0				16.0	16.0		20.0	12.0	12.0	44.0
Yellow Time (s)	5.0				5.0	5.0		5.0	5.0	5.0	5.0
All-Red Time (s)	1.0				1.0	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-2.0	0.0	-2.0	-2.0	-2.0	-2.0	0.0				
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lead/Lag	Lag							Lead			
Lead-Lag Optimize?	Yes							Yes			
Act Effct Green (s)	20.0		64.0	64.0	18.0	18.0					
Actuated g/C Ratio	0.22		0.71	0.71	0.20	0.20					
v/c Ratio	1.20		0.38	0.46	0.66	0.48					
Control Delay	129.0		6.2	6.3	43.4	23.3					
Queue Delay	0.0		0.0	0.0	0.0	0.0					
Total Delay	129.0		6.2	6.3	43.4	23.3					

Lane Group	EBR	EBR2	WBL	WBT	SBL	SBT	SBR	ø1	ø3	ø5	ø6
LOS	F		A	A	D	C					
Approach Delay				6.3		31.1					
Approach LOS				A		C					

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 15 (17%), Referenced to phase 2:EBR and 6:WBTL, Start of Green
Natural Cycle: 75
Control Type: Pretimed
Maximum v/c Ratio: 1.20
Intersection Signal Delay: 44.0 Intersection LOS: D
Intersection Capacity Utilization 76.8% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 24: Lake Austin Blvd & Loop 1 SBFR

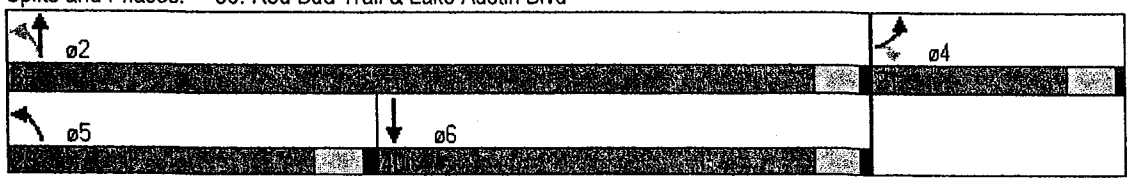


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	274	461	708	168	377	441
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	130	0			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25	25	25			25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.927	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1805	1615	1805	1900	1761	0
Flt Permitted	0.950		0.100			
Satd. Flow (perm)	1805	1615	190	1900	1761	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		485			78	
Link Speed (mph)	30			35	35	
Link Distance (ft)	1643			3614	549	
Travel Time (s)	37.3			70.4	10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	288	485	745	177	397	464
Shared Lane Traffic (%)						
Lane Group Flow (vph)	288	485	745	177	861	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	
Detector Template	Left	Right	Left	Thru	Thru	
Leading Detector (ft)	20	20	20	100	100	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	20	20	20	6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)				94	94	
Detector 2 Size(ft)				6	6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type		Perm	pm+pt			
Protected Phases	4		5	2	6	
Permitted Phases		4	2			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Detector Phase	4	4	5	2	6	
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	21.0	21.0	9.0	21.0	21.0	
Total Split (s)	21.0	21.0	29.0	69.0	40.0	0.0
Total Split (%)	23.3%	23.3%	32.2%	76.7%	44.4%	0.0%
Maximum Green (s)	16.0	16.0	24.0	64.0	35.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	Min	Min	
Walk Time (s)					5.0	
Flash Dont Walk (s)					11.0	
Pedestrian Calls (#/hr)					0	
Act Effct Green (s)	16.6	16.6	65.0	65.0	36.0	
Actuated g/C Ratio	0.19	0.19	0.73	0.73	0.40	
v/c Ratio	0.86	0.70	1.26	0.13	1.14	
Control Delay	61.0	9.3	158.0	4.1	104.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	61.0	9.3	158.0	4.1	104.8	
LOS	E	A	F	A	F	
Approach Delay	28.6			128.4	104.8	
Approach LOS	C			F	F	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 89.6			
Natural Cycle: 110			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.26			
Intersection Signal Delay: 90.3		Intersection LOS: F	
Intersection Capacity Utilization 111.2%		ICU Level of Service H	
Analysis Period (min) 15			

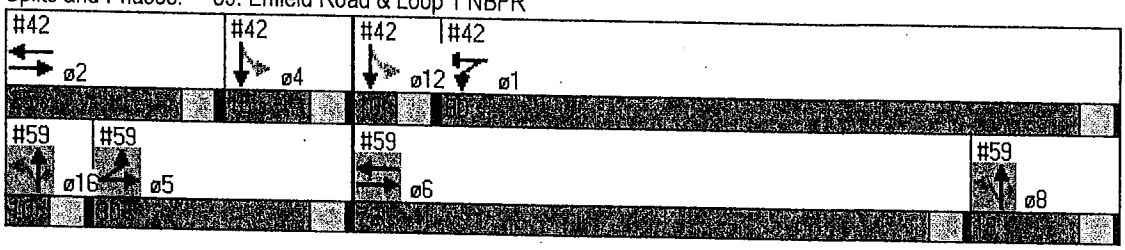
Splits and Phases: 66: Red Bud Trail & Lake Austin Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	86	446	0	0	1052	529	329	345	588	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	0.88	1.00	1.00	1.00
Frt					0.950				0.850			
Flt Protected		0.992					0.950					
Satd. Flow (prot)	0	3546	0	0	3396	0	1787	1881	2814	0	0	0
Flt Permitted		0.530					0.950					
Satd. Flow (perm)	0	1894	0	0	3396	0	1787	1881	2814	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					101				606			
Link Speed (mph)		30			30			25			55	
Link Distance (ft)		480			411			383			103	
Travel Time (s)		10.9			9.3			10.4			1.3	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	89	460	0	0	1085	545	339	356	606	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	549	0	0	1630	0	339	356	606	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot						Perm		Perm			
Protected Phases	5	5 6			6			8 16				
Permitted Phases							8 16		8 16			
Minimum Split (s)	10.0				19.0							
Total Split (s)	30.0	102.0	0.0	0.0	72.0	0.0	28.0	28.0	28.0	0.0	0.0	0.0
Total Split (%)	23.1%	78.5%	0.0%	0.0%	55.4%	0.0%	21.5%	21.5%	21.5%	0.0%	0.0%	0.0%
Maximum Green (s)	25.0				67.0							
Yellow Time (s)	4.0				4.0							
All-Red Time (s)	1.0				1.0							
Lost Time Adjust (s)	-1.0	-1.0	0.0	0.0	-1.0	0.0	-1.0	-1.0	-1.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag				Lead							
Lead-Lag Optimize?	Yes				Yes							
Act Effct Green (s)		94.0			68.0		24.0	24.0	24.0			
Actuated g/C Ratio		0.72			0.52		0.18	0.18	0.18			
v/c Ratio		0.34			0.89		1.03	1.03	0.60			
Control Delay		1.5			33.6		108.4	106.8	6.2			
Queue Delay		0.0			0.0		0.0	0.0	0.0			
Total Delay		1.5			33.6		108.4	106.8	6.2			
LOS		A			C		F	F	A			
Approach Delay		1.5			33.6			60.3				
Approach LOS		A			C			E				

Intersection Summary	
Area Type:	Other
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 51 (39%), Referenced to phase 1:WBTL and 6:, Start of Green	
Natural Cycle: 110	
Control Type: Pretimed	
Maximum v/c Ratio: 1.16	
Intersection Signal Delay: 38.5	Intersection LOS: D
Intersection Capacity Utilization 89.1%	ICU Level of Service E
Analysis Period (min) 15	

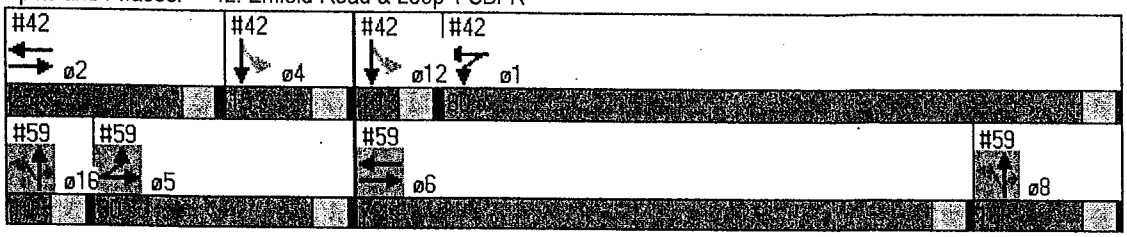
Splits and Phases: 59: Enfield Road & Loop 1 NBFR



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	422	279	810	693	0	0	0	0	195	468	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.91	0.91	0.95
Frt		0.940									0.979	
Flt Protected					0.974					0.950	0.998	
Satd. Flow (prot)	0	3393	0	0	3516	0	0	0	0	1643	3379	0
Flt Permitted					0.655					0.950	0.998	
Satd. Flow (perm)	0	3393	0	0	2365	0	0	0	0	1643	3379	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		103									11	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		2828			480			1352			197	
Travel Time (s)		64.3			10.9			26.3			3.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	444	294	853	729	0	0	0	0	205	493	84
Shared Lane Traffic (%)										10%		
Lane Group Flow (vph)	0	738	0	0	1582	0	0	0	0	184	598	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type				Prot						Perm		
Protected Phases		2		1	2 1						4 12	
Permitted Phases										4 12		
Minimum Split (s)		19.0		10.0								
Total Split (s)	0.0	25.0	0.0	80.0	105.0	0.0	0.0	0.0	0.0	25.0	25.0	0.0
Total Split (%)	0.0%	19.2%	0.0%	61.5%	80.8%	0.0%	0.0%	0.0%	0.0%	19.2%	19.2%	0.0%
Maximum Green (s)		20.0		75.0								
Yellow Time (s)		4.0		4.0								
All-Red Time (s)		1.0		1.0								
Lost Time Adjust (s)	0.0	-1.0	0.0	-1.0	-1.0	0.0	0.0	0.0	0.0	-1.0	-1.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag		Lead		Lag								
Lead-Lag Optimize?		Yes		Yes								
Act Effct Green (s)		21.0			97.0					21.0	21.0	
Actuated g/C Ratio		0.16			0.75					0.16	0.16	
v/c Ratio		1.16			0.68					0.69	1.08	
Control Delay		133.1			4.2					66.2	110.6	
Queue Delay		0.0			0.9					0.0	0.0	
Total Delay		133.1			5.1					66.2	110.6	
LOS		F			A					E	F	
Approach Delay		133.1			5.1						100.2	
Approach LOS		F			A						F	

Intersection Summary	
Area Type:	Other
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 51 (39%), Referenced to phase 1:WBTL and 6:, Start of Green	
Natural Cycle: 110	
Control Type: Pretimed	
Maximum v/c Ratio: 1.16	
Intersection Signal Delay: 59.5	Intersection LOS: E
Intersection Capacity Utilization 89.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 42: Enfield Road & Loop 1 SBFR



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	0	0	0	70	0	10	0	58	58	5	41	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	0	0	0	77	0	11	0	64	64	5	45	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	163	184	45	152	152	96	45			127		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	163	184	45	152	152	96	45			127		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	91	100	99	100			100		
cM capacity (veh/h)	791	708	1025	813	737	961	1563			1459		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	0	88	127	51
Volume Left	0	77	0	5
Volume Right	0	11	64	0
cSH	1700	829	1563	1459
Volume to Capacity	0.00	0.11	0.00	0.00
Queue Length 95th (ft)	0	9	0	0
Control Delay (s)	0.0	9.9	0.0	0.8
Lane LOS	A	A		A
Approach Delay (s)	0.0	9.9	0.0	0.8
Approach LOS	A	A		

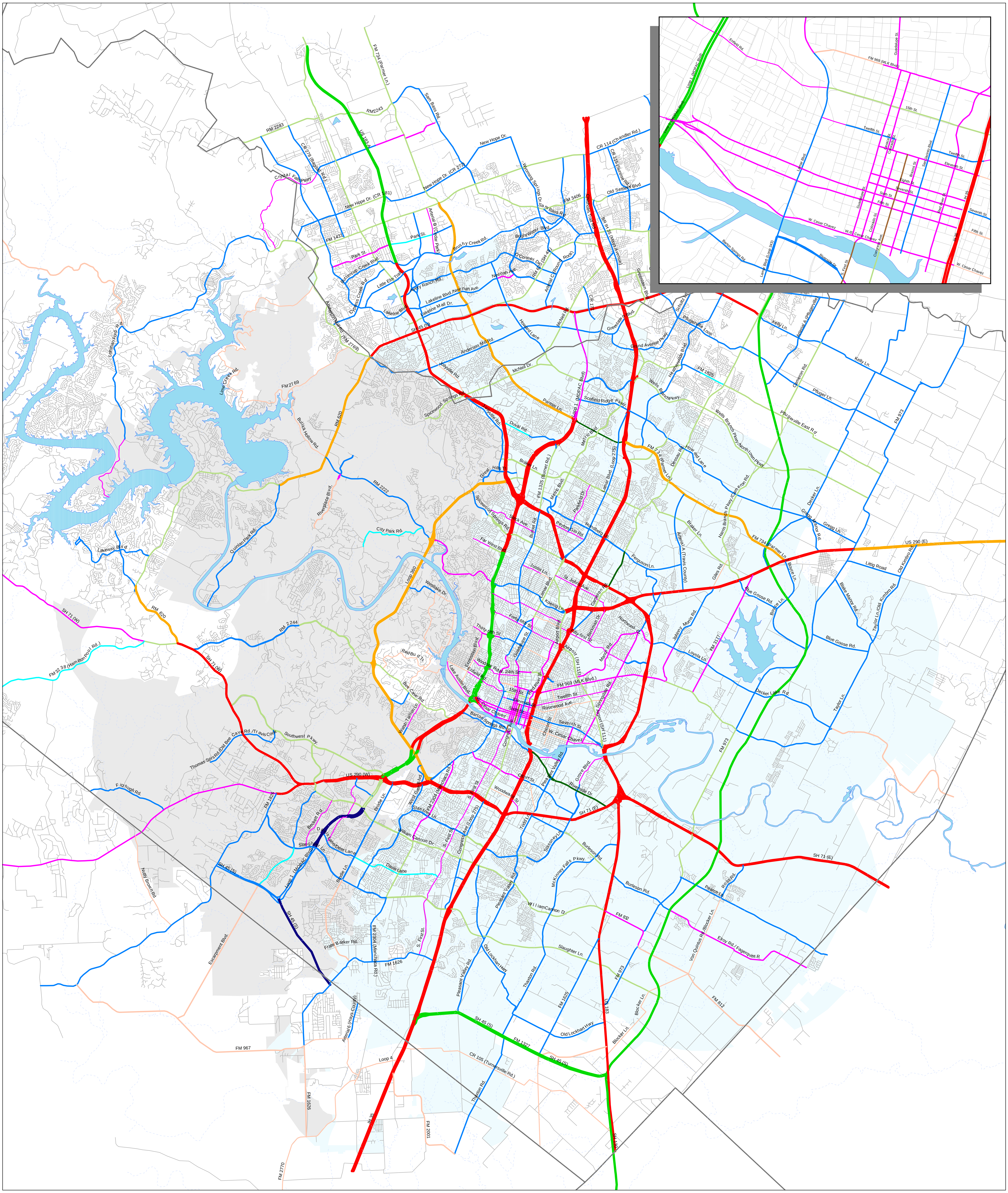
Intersection Summary			
Average Delay	3.4		
Intersection Capacity Utilization	17.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	9	63	12	352	159	279	20	235	296	274	140	14
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	9	64	12	359	162	285	20	240	302	280	143	14

Direction, Lane #	EB 1	WB 1	WB 2	NE 1	SW 1	SW 2
Volume Total (vph)	86	359	447	562	280	157
Volume Left (vph)	9	359	0	20	280	0
Volume Right (vph)	12	0	285	302	0	14
Hadj (s)	-0.05	0.52	-0.43	-0.30	0.52	-0.05
Departure Headway (s)	9.3	8.3	7.3	7.5	8.6	8.0
Degree Utilization, x	0.22	0.82	0.91	1.18	0.67	0.35
Capacity (veh/h)	370	359	487	482	408	439
Control Delay (s)	14.9	38.4	46.8	125.4	26.1	14.1
Approach Delay (s)	14.9	43.1		125.4	21.8	
Approach LOS	B	E		F	C	

Intersection Summary			
Delay	61.4		
HCM Level of Service	F		
Intersection Capacity Utilization	82.9%	ICU Level of Service	E
Analysis Period (min)	15		

B3. CITY OF AUSTIN 2025 METROPOLITAN AREA TRANSPORTATION PLAN (AMATP): ROADWAY RECOMMENDATIONS CENTRAL ROADWAY RECOMMENDATIONS; SUMMARY OF CHANGES FROM CAMPO 2025 TRANSPORTATION PLAN



2025 Austin Metropolitan Area Transportation Plan

Adopted by Austin City Council on June 7, 2001 (As Amended August 5, 2003)

FWY
PWY 6
PWY 4
EXP 6
MAD 8
MAD 6
MAD 4
MAD 2
MAU 6
MAU 4
MAU 2
MNR 4
MNR 2

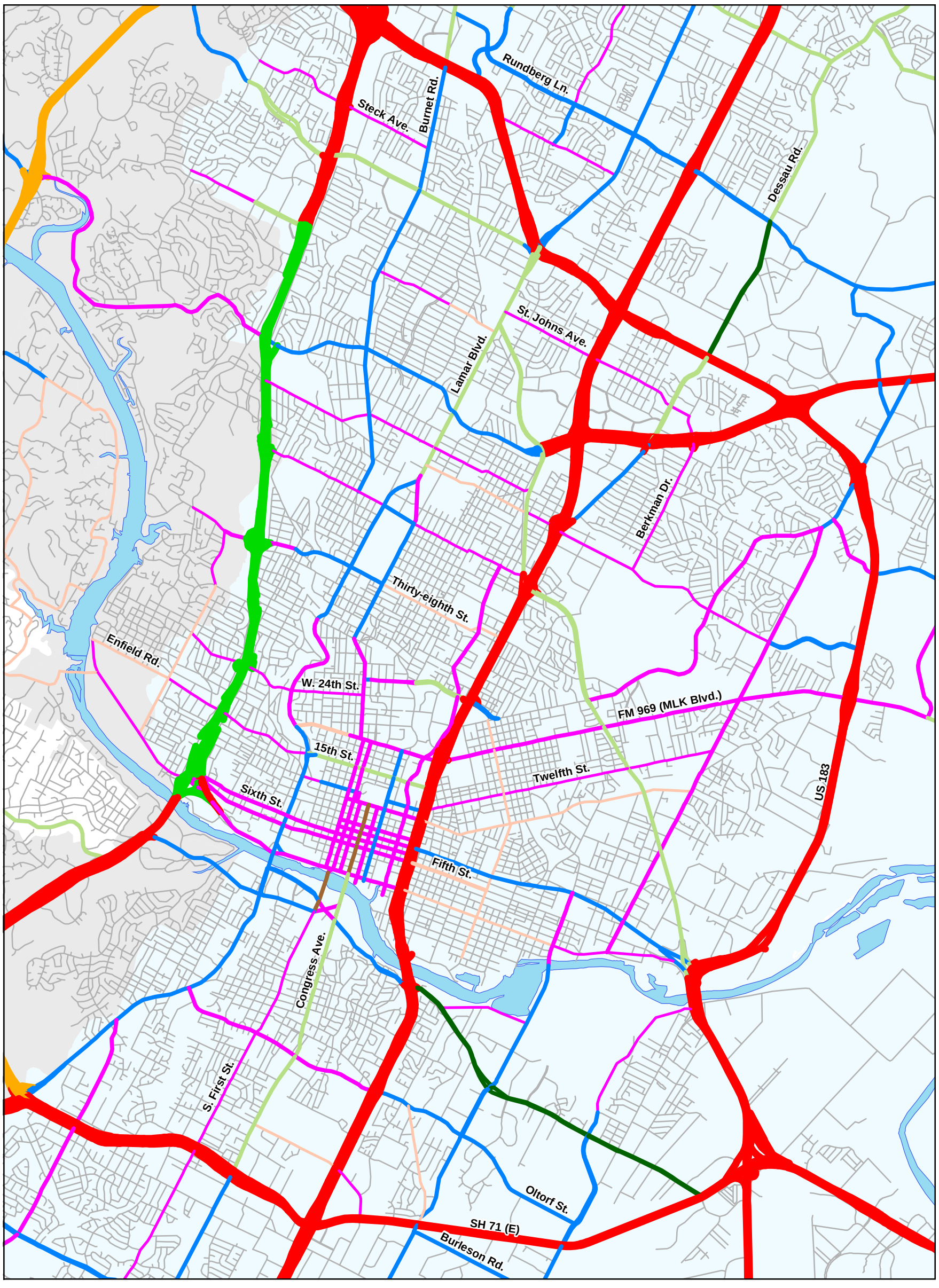
City of Austin Jurisdiction
Desired Development Zone
Drinking Water Protection Zone

N

0 2,300 4,600 9,200 13,800
Feet

This map has been produced by the City of Austin for the sole purpose of aiding regional planning and is not warranted for any other use. No warranty is made regarding its accuracy or completeness.

Produced by City of Austin
Transportation, Planning and Sustainability Department
Long Range Land Use and Transportation Planning
September 17, 2004 mlp



2025 Austin Metropolitan Area Transportation Plan

Central

City of Austin Jurisdiction

- Desired Development Zone
- Drinking Water Protection Zone

AMATP

FWY	MAD 8	MAU 6
PWY 6	MAD 6	MAU 4
PWY 4	MAD 4	MAU 2
EXP 6	MAD 2	MNR 4
		MNR 2

N

2,400 0 2,400 4,800 Feet

This map has been produced by the City of Austin for the sole purpose of aiding regional planning and is not warranted for any other use. No warranty is made regarding its accuracy or completeness.

Produced by City of Austin
Transportation, Planning and Sustainability Department
Long Range Land Use and Transportation Planning
September 20, 2004 mlp

2025 Austin Metropolitan Area Transportation Plan Summary

Summary of City of Austin 2025 AMATP changes from the CAMPO 2025 Transportation Plan
Adopted by Austin City Council, June 7, 2001

The Austin City Council adopted the TPS Staff Recommended 2025 AMATP Update with some amendments, as Ordinance No. 010607-48. Those voting aye were Mayor Watson, Mayor Pro Tem Goodman, and Council Members Alvarez, Slusher and Wynn. Those abstaining were Council Members Griffith and Thomas. Since that time Council has amended the Plan on August 16, 2001; August 23, 2001; September 27, 2001; and May 23, 2002.

Currently there are five roadway amendments pending consideration by City Boards and Commissions: 38 ½ Street, Manor Road, Dessau Road, Riverplace Boulevard, and RM 2222/Koenig Lane.

Specific Roadway Changes

The Council has adopted the CAMPO 2025 roadway size and functional classifications, except those described in Table 1 (see below). Some roadway segments were deleted or downgraded from the CAMPO 2025 Plan. The currently adopted 2025 AMATP reflects these changes, as of September 27, 2001.

It should be noted that **extensive changes were made to the "Remarks" sections of many roads**. In general these changes can be described as follows:

- All roadway segments with portions located in the Barton Springs Edwards Aquifer (BSEA) Recharge Zone, BSEA Contributing Zone, and the Northern Edwards Aquifer (NEA) Recharge Zone have the remark "Recommend compliance with US Fish and Wildlife Service guidelines and standards (Attachment 1) to ensure non-degradation and water quality protection." For roadway segments located only in the NEA Recharge Zone the remark reads: "Recommend compliance with TNRCC Edwards Rules 30 TAC 213." Finally, all these roadway segments have a remark noting compliance with Attachment 2, which outlines City of Austin roadway construction process and standards if expenditure of bond monies are anticipated in the Drinking Water Protection Zone.
- All segments of Loop 1 were adopted with the Remark "Adopt as currently exists. Size and ROW to be determined at a later date." This is also reflected in Table 1.
- The Remark "CAMPO to explore ways to improve public safety without taking out businesses or damaging the environment" was added on Lamar Blvd. (W. Anderson – 51st St., Town Lake – Ben White Blvd.), Airport Blvd. (N. Lamar – IH 35, Manor – US 183), and S. 1st St. (Cesar Chavez – FM 1626.)
- The Remark "Design and ROW to be determined during Corridor Planning. Minimize ROW acquisition and design consistent with Corridor Plan process, while maintaining ability to acquire ROW for bicycle, pedestrian, public safety, and urban design amenities" was added to Airport Blvd. (N. Lamar Blvd. – US 183), Burnet Rd. (RM 2222 – 45th St.), and Lamar Blvd/Loop 275 (US 183 – Justin Ln., W. 5th – US 290).
- The CAMPO Bike Route System column now supplements the adopted Austin Bicycle Plan, by specific roadway segment.
- Additional remarks were added to various segments, and are too numerous to include in this summary. The complete 2025 AMATP should be consulted to identify modifications to the Remarks in the CAMPO 2025 Plan.

Policy & Process Recommendations Adopted by City Council

The City's 2025 AMATP Update and subsequent amendments were conveyed under the signature of the City Manager advising the CAMPO Transportation Policy Board of the City's Plan adoption, conditions and amendments, for their consideration in the December 2003 CAMPO Plan Update. The City Council requested that CAMPO re-examine all proposed road expansions in the DWPZ to ensure that they protect safety while at the same time making any roadway expansions consistent with Austin's growth management policies. The City Council also requested that the roadway upgrades not be constructed until the applicable series of reviews are completed and the environmental impacts are adequately addressed. Finally, the City Council established a six-month process to recommend changes in AMATP 2025 to CAMPO by December 2001. This target date was extended to allow for a more thorough study. City staff worked with Urban Transportation Commission, Environmental Board, and Planning Commission, to evaluate the environmental suitability of proposed roadway recommendations. On October 9, 2002, as the final step in this process, the Planning Commission unanimously approved the staff-recommended Environmental Suitability Matrix.

TABLE 1. Summary of City 2025 AMATP Changes in Road Size or Classification from CAMPO 2025 Plan
(as Adopted by Austin City Council, June 7, 2001, Ordinance No. 010607-48)

ROADWAY	SEGMENT	EXISTING 1997*	CAMPO 2025*	City AMATP 2025*	SOURCE OF RECOMMENDED CHANGES
Barton Springs Rd.	Loop 1 - Robert E. Lee Rd.	MNR 4	MAU 4	**MAD 4**	Council, B&C, CM, Staff [3]
Braker Ln.	Jollyville Rd. - US 183 (N)	MAD 4	MAD 8	**MAD 6**	Council, B&C, CM, Staff [2]
Braker Ln./Blue Goose Rd.	Parmer - FM 973	--	MAD 4	**Delete**	Council, B&C, CM, Staff [2]
Bullick Hollow Rd.	FM 2769 - RM 620	MNR 2	MNR 4	**MNR 2**	Council, B&C, CM, Staff [3]
City Park Rd.	Emma Long Park - RM 2222	MNR 2	MNR 4	**MAD 2**	Council, B&C, CM, Staff [3]
Congress Ave.	Ben White - Stassney	MAU 4	MAD 6	**MAD 4**	Council, B&C, CM, Staff [3]
Davis Ln.	Loop 1 – Slaughter Ln.	MAD 0/4	MAD 6	**Delete**	Council, B&C, CM, Staff [3]
Duval Rd.	US 183 - Whispering Valley Dr.	MAD 2	MNR 4	**MAD 2**	Council, B&C, Staff [5]
	Whispering Valley Dr. - Loop 1 (N)	MAU 4/ MAD 4	MAD 4	**MAU 4/ MAD 4**	Council, B&C, Staff [5]
FM 1826	US 290 (W) – Slaughter Ln.	MNR 2	MAD 8	**MAD 4**	Council [4]
S. First St.	Barton Springs Rd. – US 290	MNR 4	MAD 4	**Existing**	Council, 8-23-01
	US 290 - Stassney	MNR 4	MAD 4	**Existing**	Council, 8-23-01
51st St.	N. Lamar Blvd. - Airport Blvd.	MNR 2/3	MNR 4	**MNR 2/3**	Council, B&C, CM, Staff [3]
Frate Barker Rd.	Brodie - Manchaca	MNR 2	MAD 4	**Delete**	Council, 9-27-01
	SH 45 (S) - Brodie	--	MAD 4	**Delete**	Council, 9-27-01
Howard Ln./ CR 175	Parmer LN. - Brushy Creek Road	--	MAD 4	**Delete**	Council, B&C, CM, Staff [3]
	Brushy Creek Rd. - Davis Springs Rd. /Avery Ranch Blvd.	--	MAD 4	**Delete**	Council, B&C, CM, Staff [3]
Justin Ln.	Woodrow Ave. - N. Lamar Blvd.	MNR 2	MNR 4	**MNR 2**	Council, B&C, CM, Staff [3]
Lamar Blvd./Loop 343	Riverside -- Barton Springs Rd.	MAD 4	MAD 6	**Exists**	Council, 8-23-01
	Barton Springs Rd.- Manchaca	MAD 4	MAD 6	**Exists**	Council, 8-23-01
	Manchaca – US 290 (W)	MAD 4	MAD 6	**Exists**	Council, 8-23-01

Loop 1 (MOPAC Blvd.)	SH 45 - Parmer Ln.	MAU 4	Toll FWY 6/HOV	**MAU 4**	Council, B&C, CM, Staff [1]
	Parmer - Far West Blvd.	FWY 6	FWY6/HOV	**FWY 6**	Same
	Far West – Town Lake	PKY 6	PKY 6/HOV	**PKY 6**	Same
	Town Lake – Loop 360	FWY 6	FWY6/HOV	**FWY 6**	Same
	Loop 360 – US 290	PKY 6	FWY6/HOV	**PKY 6**	Same
	US 290 – William Cannon	MAD 6	FWY 6/HOV	**MAD 6**	Same
	William Cannon – Slaughter	PKY 4	PKY 6/HOV	**PKY 4**	Same
	Slaughter – SH 45	MAD 4	PKY 6	**MAD 4**	Same
Northeast Drive	US 290(E) - Manor Rd.	MNR 2	MNR 2	**Delete**	Council, B&C, Staff [5]
Parkfield Dr.	Braker Ln. - Rundberg Ln.	MNR 2/4	MAD 4	**MNR 2/4**	Council, B&C, CM, Staff [3]
Parmer Ln.	US 290 -FM 973	--	--	**Delete**	Council, B&C, CM, Staff [2]
RM 2222/ Koenig/ Allandale Rd.	Loop 360 - Loop 1	MAU 4	MAD 4	**MAU 4**	Council, B&C, CM, Staff [3]
SH 45 (S)	FM 1626 – IH 35	--	Toll PKY 6	**Delete**	Council [4]
Steck Ave.	Mesa Dr. - Loop 1	MNR 4	MAD 4	**MNR 4**	Council, B&C, CM, Staff [3]
	Loop 1 - Burnet Rd.	MNR 4	MAD 4	**MNR 4**	Council, B&C, CM, Staff [3]
US 290 (W)	Fitzhugh Rd. – FM 1826	MAU 4	FWY 6	**MAU 4**	Council [4]
	Study Boundary – Fitzhugh Rd.	MAU 4	FWY 6	**MAU 4**	Council (8-16-01)

***Key to Road Classifications** (see CAMPO 2025 Plan glossary for definitions)

Abbreviation	Classification
FWY	Freeway
HOV	High Occupancy Vehicle Lane
MNR	Minor Arterial
MAD	Major Arterial Divided
MAU	Major Arterial Undivided
PKY	Parkway

Table 1 Notes:

[1]Staff and City Manager recommended that no change be considered until the CAMPO PAC (Policy Advisory Committee, now "Transportation Policy Board," or "CAMPO TPB") had completed further evaluation of alternatives. Planning Commission recommended that no additional right-of-way be taken for improvements to Loop 1 and that HOV lanes be taken from the main lanes. Council adopted the 2025 AMATP Update with Loop 1 as the roadway that exists. **All segments of Loop 1 were adopted with the Remark "Adopt as currently exists. Size and ROW to be determined at a later date."**

[2]Parmer and Braker lane realignments were recommendations of Travis County and City of Austin staff, in response to subdivision activity. These were recommended by the Boards and Commissions, and adopted by Council June 7, 2001.

[3]These roadway changes were originally recommended by City of Austin Department staff, endorsed and recommended by the Boards and Commissions, and adopted by Council June 7, 2001.

[4]These changes were adopted by Council June 7, 2001 based on their own deliberations.

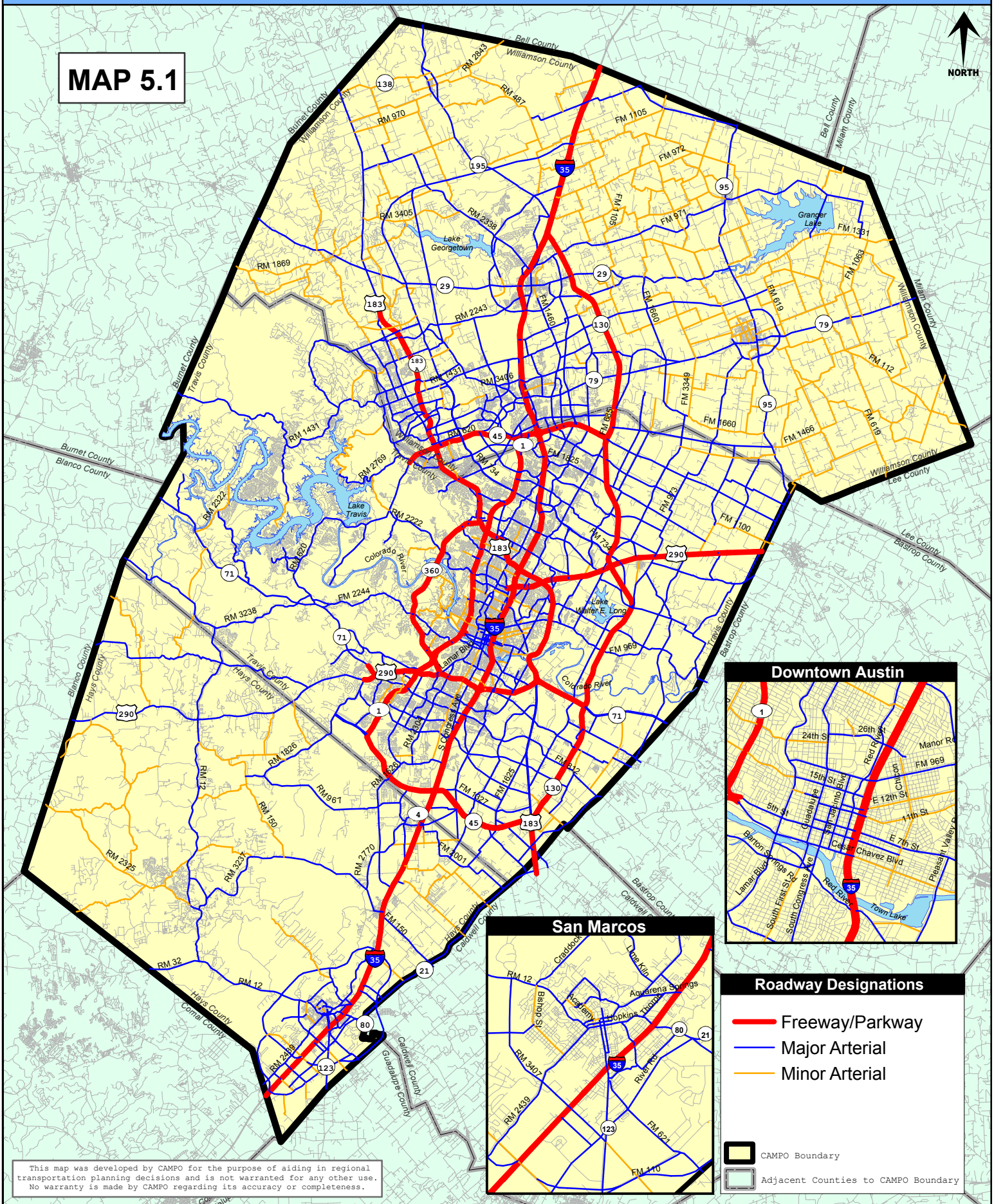
[5]AMATP 2nd Quarter Amendment Cycle 2002. Duval Road requested by citizens; Northeast Drive requested by Environmental Board

(April 17, 2002), Urban Transportation Commission (April 15, 2002), and Planning Commission (April 24, 2002). Adopted by Council May 23, 2002.

Learn More: AMATP Frequently Asked Questions
AMATP Plan: Entire adopted roadway table (.pdf, 106kb) | Adopted map (.pdf, 833kb).
Return to TPSD **Long Range Transportation Planning**
Go to **TPSD Home Page** (Transportation, Planning & Sustainability Dept.)

B4. CAPITAL AREA METROPOLITAN PLANNING ORGANIZATION (CAMPO) 2030 REGIONAL ROADWAY SYSTEM; CAMPO 2030 REGIONAL ROADWAY SYSTEM: WEST TRAVIS

2030 Regional Roadway System



This map was developed by CAMPO for the purpose of aiding in regional transportation planning decisions and is not warranted for any other use. No warranty is made by CAMPO regarding its accuracy or completeness.

CAMPO
Capital Area Metropolitan Planning Organization

DATE: October 2005

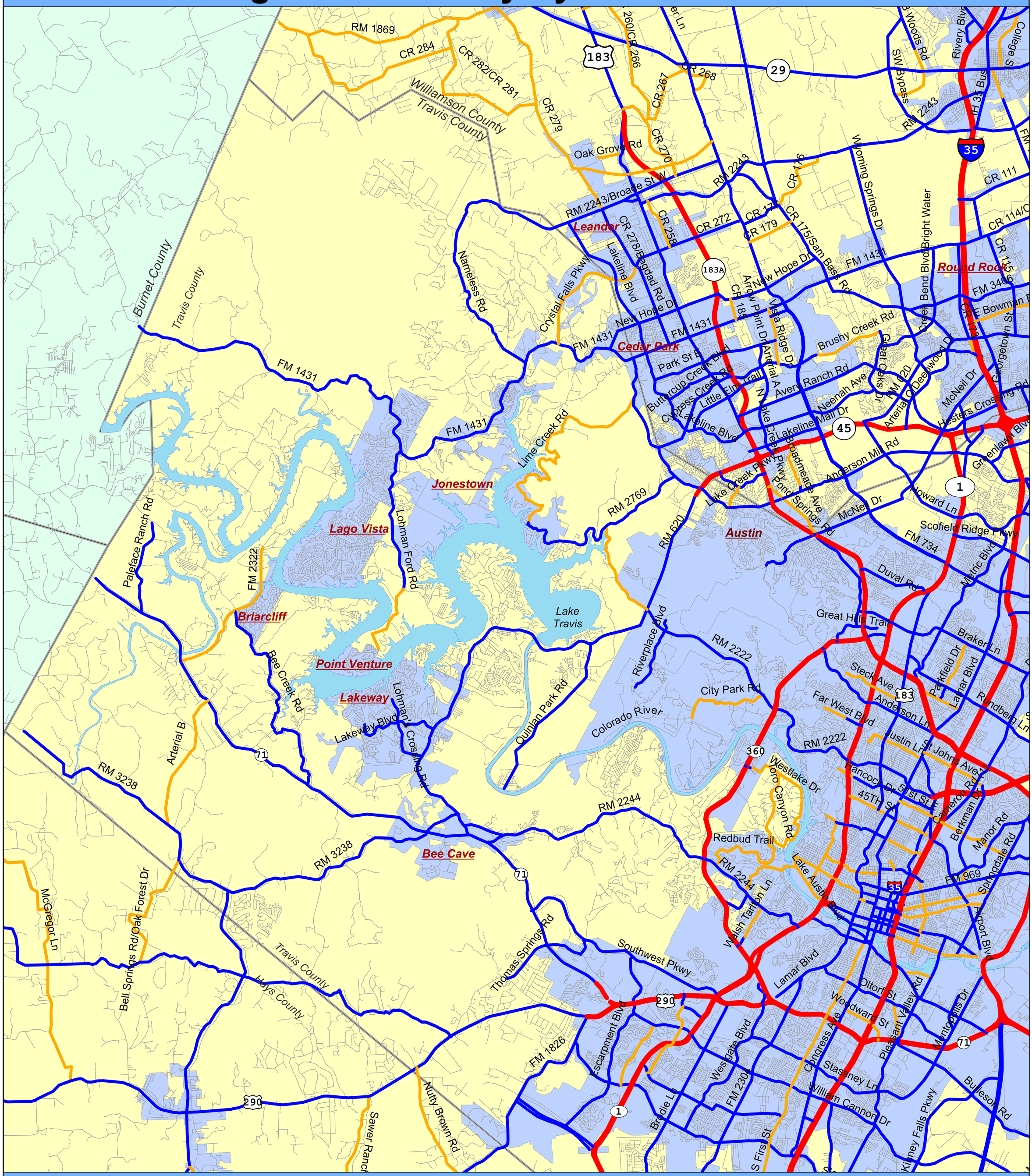
State Plane 1983
Central Texas
Feet

0 0.5 1 2 3 4
Miles

C:\2005GISPROJECTS\2030MobilityPlan\FinalDraft\2030RegionalRoadwaySystem(Map5.1).mxd

Interstate Highways
State Highways
US Highways
RM/FM Roads

2030 Regional Roadway System: West Travis



This map was developed by CAMPO for the purpose of aiding in regional transportation planning decisions and is not warranted for any other use. No warranty is made by CAMPO regarding its accuracy or completeness.

CAMPO
Capital Area Metropolitan Planning Organization

State Plane 1983
Central Texas
Feet

DATE: November 2005

Freeway/Parkway
Major Arterial
Minor Arterial

CAMPO Boundary
Adjacent Counties to CAMPO Boundary

0 0.2 0.4 0.8 1.2 1.6
Miles

Interstate Highways
State Highways
US Highways
RM/FM Roads

Map 5.6

NORTH

B5. CAPITAL METRO: ALL SYSTEMS GO LONG-RANGE TRANSIT PLAN; CENTRAL AUSTIN CIRCULATOR – LONG CENTER SPUR AND EAST RIVERSIDE ABIA PROPOSAL

All Systems Go Long-Range Transit Plan — 2025

The All Systems Go Long-Range Transit Plan addresses the pressures of regional population growth in the Greater Austin area, estimated to double in the next 25 years. Thousands of citizens helped create the plan, which includes Capital MetroRail, Capital MetroRapid, expanded Local and Express bus services, more Park & Ride locations and possible future rail services in Central Texas.

Legend

Capital MetroRail

The Red Line will run on 32-miles of existing freight tracks between Leander and Downtown Austin. It will provide convenient service for suburban and central Austin residents in 2009.

Capital MetroRail Potential Future Service*

Future extensions are being studied along existing Capital Metro freight tracks from Downtown to Manor and beyond. Future extensions along TxDOT's abandoned MoKan corridor also are possible.

Circulators

When Capital MetroRail service begins, Local and special shuttle bus service will connect customers to and from key destinations.

Future Connections Study Area

Capital Metro is reviewing transit circulator alternatives, such as a modern streetcar,* to serve the University of Texas, the Capitol Complex, Mueller Community and Downtown Austin.

Capital MetroRapid

Sleek new high-tech buses "talk" to traffic signals, shortening bus travel times by as much as 20 percent. Capital MetroRapid stops feature "real time" next bus signs, giving customers the exact arrival time of their next bus.

Express & Local Bus

Both services will be expanded as part of the Long-Range Transportation Plan.

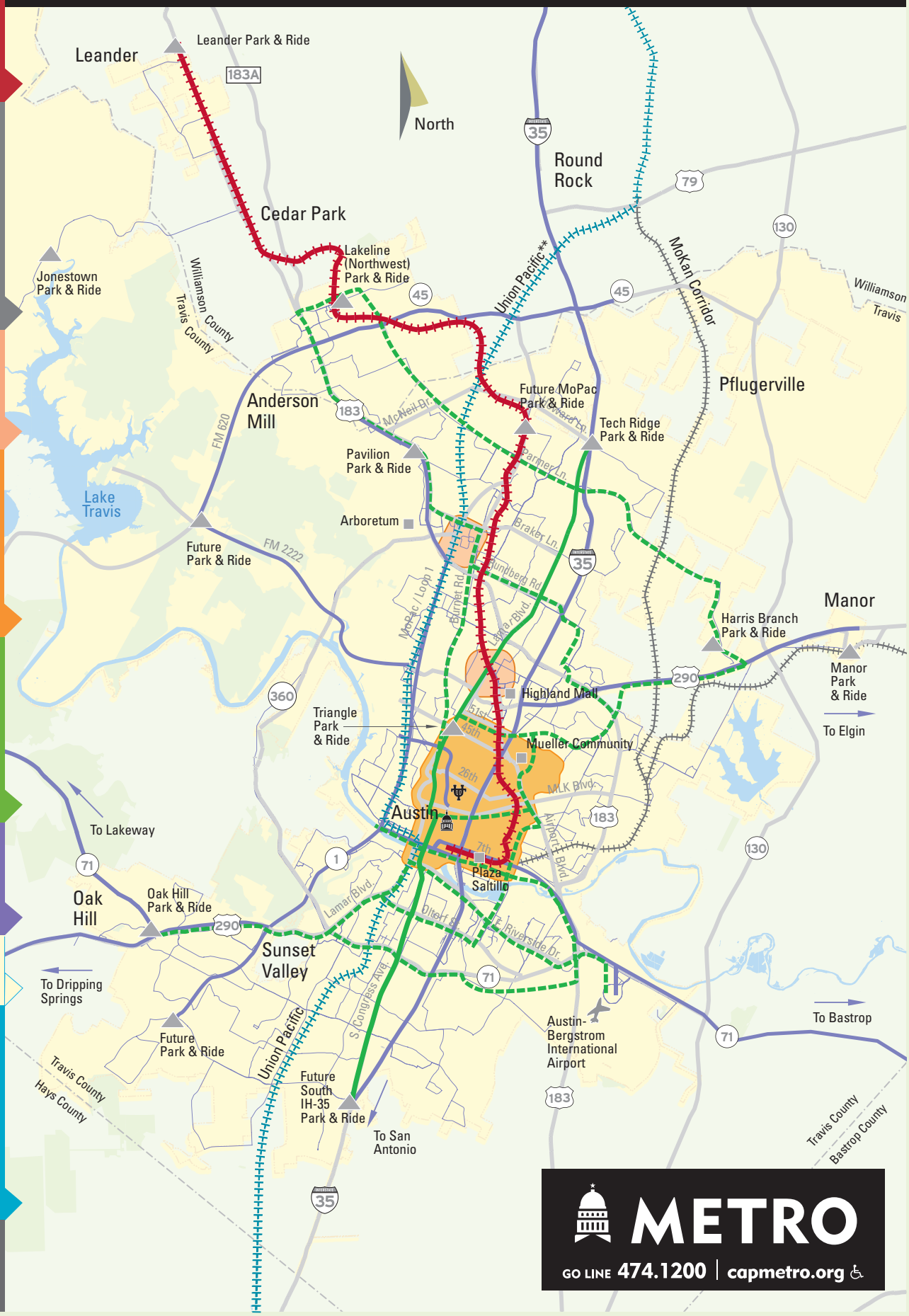
Capital Metro Service Area

Regional Commuter Rail**

A proposal by the Austin-San Antonio Intermunicipal Commuter Rail District would use existing tracks along MoPac Expressway to serve north and south Austin, and also would connect to Georgetown, San Marcos and San Antonio.

*Any potential future rail service would require a referendum.

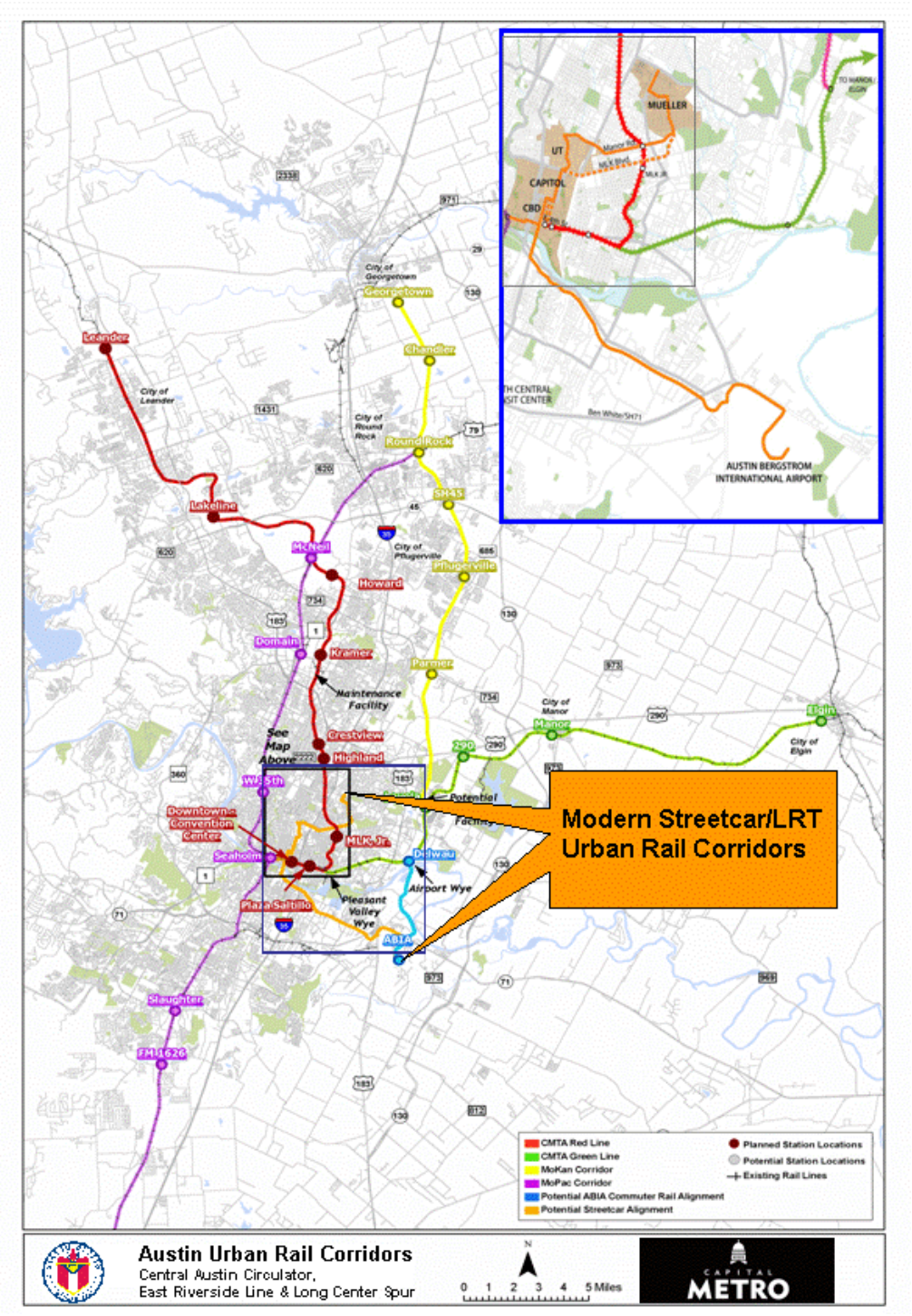
**Being planned by the Austin-San Antonio Intermunicipal Commuter Rail District.



METRO

GO LINE 474.1200 | capmetro.org

Figure 1:
Proposed Urban Rail Corridors[2]



[2] Base map provided by Capital Metropolitan Transit Authority, Lokwood, Andrews & Newman, Inc., August 2008.

B6. CITY OF AUSTIN 1988 BICYCLE PLAN: (EXCERPTED) RECOMMENDATIONS FOR LOOP 1; LAKE AUSTIN BLVD.; ENFIELD ROAD/15TH STREET; EXPOSITION BLVD.; RED BUD TRAIL; W. CESAR CHAVEZ STREET; 5TH STREET; 6TH STREET

Austin Bicycle Plan Recommendations

Including All ATS Jurisdicitions

Route - Seg.	Segment Start, End	Priority	Stress Rating	Rec. Facility	Existing Facility	Avail. Pavement Width	New Pavement Required	2020 AMATP Classification
218.11	US 183 to Morrow St.	2	4.3	bl5	sl12	62	0	MAD 6
218.07	Peyton Gin to Fairfield Dr.	2	4.3	wc15	sl12	65	0	Existing
218.02	Parmer Ln. to Yager Lane	2	4.7	sh6	NONE	42	10	Existing
	Loop 1 (Mopac Blvd.)							
434.10	Town Lake to RM 2244	2	5	Path	NONE		0	FWY 4/HOV
434.15	Slaughter Ln. to SH 45	2	4.3	bl6	NONE		12	Existing
434.14	Wilam Cannon to Slaughter Ln.	2	4	bl6	NONE		12	Existing
434.13	US 290 (W) to Wilam Cannon	2	4.3	Path	NONE		0	FWY 4
434.12	Loop 360 to US 290 (W)	1	5	bl6	NONE		12	Existing
434.11	RM 2244 to Loop 360	2	5	Path	NONE		0	FWY 4/HOV
434.09	RM 2222 to Town Lake	2	5	Path	NONE		0	PKY 6/HOV
434.08	Far West to RM 2222	2	5	Path	NONE		0	PKY 6/HOV
434.07	Spicewood Springs to Far West	2	5	Path	NONE		0	FWY 6/HOV
434.06	Steck to Spicewood Springs	2	5	Path	NONE		0	FWY 6/HOV
434.05	US 183 (N) to Steck	2	5	Path	NONE		0	FWY 6/HOV
434.04	Braker to US 183 (N)	2	5	bl6	NONE		12	Existing
434.03	Burnet Le. to Braker	2	5	bl6	NONE		12	Existing
434.02	Parmer Ln. to Burnet La	2	5	bl6	NONE		12	Existing
434.01	SH 45 (N) to Parmer Ln	2	5	Path	NONE		0	FWY 4
	Loop 360							
9.13	Loop 1 to Lamar Blvd.	1	2	sh8	sh8	80	0	Existing
9.08	Westlake Dr. to Bee Caves Rd./RM 2244	1	2	sh8	sh8	80	0	Existing
9.01	Loop 1 to US 183	1	4.7	bl5	sl12	48	4	Existing
9.10	Lost Creek to Westbank Dr.	1	2	sh8	sh8	80	0	Existing
9.11	Westbank Dr. to Walsh Tarleton	1	2	sh8	sh8	80	0	Existing
9.02	US 183 to Mountain Ridge	1	2	sh8	sh8	80	0	Existing
9.03	Mountain Ridge to Great Hills	1	2	sh8	sh8	80	0	Existing
9.04	Great Hills to Spicewood Springs Rd.	1	2	sh8	sh8	80	0	Existing
9.05	Spicewood Springs Rd. to Lakewood Dr.	1	2	sh8	sh8	80	0	Existing
9.06	Lakewood Dr. to FM 2222	1	2	sh8	sh8	80	0	Existing
9.09	Bee Caves Rd./RM 2244 to Lost Creek	1	2	sh8	sh8	80	0	Existing
9.12	Walsh Tarleton to Loop 1	1	2	sh8	sh8	80	0	Existing
9.07	FM 2222 to Westlake Dr.	1	2	sh8	sh8	80	0	Existing
23.07	Great Hills to Mountain Ridge	1	2	sh8	sh8	80	0	Existing
64.12	Lost Creek to Westbank Dr.	1	2	sh8	sh8	80	0	Existing
	MLK Blvd. / FM 969							
44.03	Greenwood Ave to Springdale Rd.	1	4.7	sh8	NONE	44	12	Existing
44.02	Airport Blvd. to Greenwood Ave.	1	4	bl5	sl12	60	2	Existing
44.04	Tannehill / Webberville Rd. to US 183 (S)	1	3.7	sh6	sl12	60	2	Existing
44.05	US 183 (S) to Johnny Morris Rd.	1	3.7	sh8	sl12	60	6	Existing
44.06	Johnny Morris Rd. to Decker Lane	1	3.7	sh6	sl12	60	2	Existing
241.08	Springdale Rd to Tannehill /Webberville Rd.	2	4.3	wc15	sl12	60	0	Existing
	Mopac Ped/Bike Bridge							
364.04	W. 1st St. to Stratford	1	1	Path	Path	14	0	none
	Northland Dr.							
23.21	Highland Hills Crt. to Parkcrest Dr.	1	3.3	sh6	sl12	48	4	
	RM 2222							
419.06	Loop 360 to Lakewood Drive	2	4.7	wc15	NONE	48	0	MAD 4

*WC = Wide Curb, BL = Bike Lane, SH = Shoulder, SL = Shared Lane, TC = Traffic Calming or Bike Lanes
** Stress Rating: 1=ver low (for all bicyclists), 2=low, 3=moderate, 4=high, 5=very high (may not be suitable for bicycle use)

Austin Bicycle Plan Recommendations

Including All ATS Jurisdicitions

Route - Seg.	Segment Start, End	Priority	Stress Rating	Rec. Facility	Existing Facility	Avail. Pavement Width	New Pavement Required	2020 AMATP Classification
29.05	Northwood Rd. to Hartford Rd.	1	2.3	bl5	wc14	30	0	
29.01	Bull Creek Rd. to 35th St	1	3.7	bl5	sl12	40	0	
29.04	29th St. to Northwood Rd.	1	3.3	bl5	sl12	27	3	
29.03	34th Street to 29th St.	1	2.3	bl5	TC/TM	28	2	
38.02	Bull Creek Rd. to 35th St.	1	3.7	wc14	sl12	40	0	
40.06	Northwood Rd. to 29th St.	1	3.7	wc14	sl12	27	3	
	Jester Blvd.							
22.01	RM 2222 to Beauford Dr. / Arterial 8	1	1.7	bl5	wc14	61	0	Existing
	Johnny Morris Rd.							
67.06	Loyola Lane to FM 969	1	3.3	bl6	NONE	22	10	MAD 4
67.05	Point North Dr. to Loyola Lane	1	2	bl6	wc15	30	2	MAD 4
	Jollyville Rd./Pond Springs							
21.02	McNeil Drive to Balcones Woods Dr.	1	4.3	bl6	sl12	60	2	Existing
21.03	Balcones Woods Dr. to Great Hills Tr.	1	4.3	bl6	sl12	60	2	Existing
21.01	US 183 to McNeil Drive	1	4	wc15	sl12	26	2	Existing
	Jones Rd.							
25.27	Pack Saddle Pass to Buffalo Pass	1	3.3	bl5	NONE	44	6	
255.01	Buffalo Pass Dr. to Manchaca Rd.	2	3.3	bl5	NONE	44	6	
255.02	Westgate Blvd. to Pack Saddle Pass	2	3	bl5	NONE	44	6	
	Justin Lane							
22.21	Burnet Rd. to Woodrow Ave.	1	1	bl6	bl6	40	0	MNR 4
22.22	Woodrow Ave. to Lamar Blvd.	1	1	bl6	bl6	40	0	MNR 4
	Kennelwood Rd.							
212.04	Scenic Dr. to Rockmoor Ave.	2	1.7	TC	wc14	30	0	
	Kramer Lane							
12.01	FM 1325 to Metric	1	4	bl6	NONE	44	8	
12.02	Metric to Lamar Blvd.	1	4	wc16	NONE	44	6	
	Kromer St.							
41.03	Fairfield Dr. to Beckett St.	1	1.7	TC	wc14	30	0	
	La Crosse Ave.							
334.01	Mopac to Veloway	1	1.7	bl5	wc16	48	0	none
334.02	Dahlgreen Ave. to 1st intrscn E. Escarpment	1	2	bl5	wc16	48	0	none
334.03	Escarpment to 1st intrscn E. Escarpment	1	2	bl5	wc16	48	0	none
334.04	Dahl Green to Mopac	1	2	bl5	wc16	48	0	none
	Ladera Norte							
22.10	Backtrail Dr. to Far West Blvd.	1	1.7	TC	wc14	40	0	
	Lafayette Ave.							
358.01	E. 26th St. to E. 38 1/2 St.	1	1.7	TC	wc15	30	0	none
	Lake Austin Blvd.							
25.07	Exposition to Hearn	1	4.3	bl5	NONE	45	5	Existing
25.08	Hearn to Veterans	1	4.3	bl5	NONE	45	5	Existing
52.06	Hearn to Loop 1	1	1	bl5	bl4	55	0	Existing
52.05	Red Bud Trail to Exposition	1	3.7	sh4	NONE	45	3	Existing
364.07	Enfield Rd. / Scenic Dr. to Redbud Trail	1	3.3	bl6	NONE	47	5	MNR 4

*WC = Wide Curb, BL = Bike Lane, SH = Shoulder, SL = Shared Lane, TC = Traffic Calming or Bike Lanes
** Stress Rating: 1=ver low (for all bicyclists), 2=low, 3=moderate, 4=high, 5=very high (may not be suitable for bicycle use)

Austin Bicycle Plan Recommendations

Including All ATS Jurisdicitions

Route - Seg	Segment Start, End	Priority	Stress Rating	Rec. Facility	Existing Facility	Avail. Pavement Width	New Pavement Required	2020 AMATP Classification
Eberhart Lane								
78.03	S. 1st St. to Congress Ave.	1	1	wc14	bl5	44	0	
78.02	Cooper Lane / Speer Lane to S. 1st St.	1	1.7	wc14	wc14	44	0	
Edgecliff Terrace								
51.28	Travis Park to Travis Heights Blvd	1	1.7	wc14	wc14	40	0	
Edgemont Dr.								
23.27	Balcones to Glen Rose Dr.	1	1.3	TC	wc15	30	0	none
W Elliot St.								
47.28	Lamar to Georgian	1	1.7	TC	wc14	30	0	
Emerald Forest Dr.								
31.58	Aberdeen to Stassney Lane	1	1	wc14	bl5	44	0	
31.59	Stassney Lane to Speer Lane	1	1	wc14	bl6	44	0	
362.01	Speer Lane to William Cannon Dr.	1	1.7	TC	wc16	44	0	
Enfield Rd. / 15th St.								
48.02	Pecos St. to Exposition Blvd.	1	2	bl5	wc16	40	0	Existing
48.03	Exposition Blvd. to Forest Tr.	1	3.3	bl5	NONE	40	10	Existing
48.01	Lake Austin Blvd. / Scenic Dr. to Pecos St.	1	2	bl5	wc16	38	0	Existing
48.04	Forest Tr. to Loop 1	1	3.3	bl5	NONE	40	10	Existing
48.05	Loop 1 to Hartford Rd.	1	3.3	bl5	NONE	40	10	Existing
239.01	Hartford Rd. to Woodlawn Blvd	2	4	bl5	NONE	40	10	Existing
239.02	Woodlawn Blvd. to Lamar Blvd.	2	4	bl5	NONE	40	10	Existing
239.03	Lamar Blvd. to West Ave.	2	4	bl5	sl12	72	0	Existing
239.04	West Ave. to Red River	2	4.3	bl5	NONE	60	10	Existing
239.05	Red River to IH-35	2	4.3	bl5	NONE	60	10	Existing
Englewood Dr.								
31.55	Philco Dr. to Orland Blvd.	1	2.3	wc14	wc14	30	0	
31.56	Orland Blvd. to Aberdeen	1	2.3	wc14	wc14	40	0	
Escarpment Blvd.								
3.06	La Crosse Blvd. to SH 45	1	2.3	bl6	NONE	64	0	MAD 4
3.04	Davis Ln. to Slaughter Ln.	1	2.7	bl6	NONE	64	0	MAD 4
3.02	Convict Hill to Williamson Creek (CL)	1	1.7	bl5	NONE	64	0	MAD 4
3.01	William Cannon Rd. to Convict Hill	1	2.7	bl6	NONE	64	0	MAD 4
3.03	Williamson Creek (CL) to Davis Ln.	1	2	bl5	NONE	64	0	MAD 4
3.05	Slaughter Ln. to La Crosse Blvd.	1	2	bl5	NONE	64	0	MAD 4
Eskew Dr.								
62.09	Copano to Croftwood	1	1.7	TC	wc14	44	0	
Exposition Blvd.								
25.01	35th St. to Westover Road	1	3.3	bl5	wc16	40	0	Existing
25.06	Enfield Rd. to Lake Austin Blvd.	1	1	bl5	bl5	46	0	Existing
25.02	Westover Rd. to Windsor Rd.	1	1	bl5	bl5	40	0	Existing
25.03	Windsor Rd. to Bridle Path	1	1	bl5	bl6	39	0	Existing
25.05	Bridle Path to Enfield Rd.	1	1	bl5	bl6	39	0	Existing
25.04	Bridle Path to Bridle Path	1	1	bl5	bl6	39	0	Existing
Fairfield Dr.								
16.06	Ohlen Rd. to Kromer	1	2	wc14	wc14	30	2	

*WC = Wide Curb, BL = Bike Lane, SH = Shoulder, SL = Shared Lane, TC = Traffic Calming or Bike Lanes
** Stress Rating: 1=ver low (for all bicyclists), 2=low, 3=moderate, 4=high, 5=very high (may not be suitable for bicycle use)

Austin Bicycle Plan Recommendations

Including All ATS Jurisdictions

Route - Seg.	Segment Start, End	Priority	Stress Rating	Rec. Facility	Existing Facility	Avail. Pavement Width	New Pavement Required	2020 AMATP Classification
23.05	Lost Horizon to Great Hills	1	2.7	*wc14*	wc14	44	0	
	Rainey St.							
51.22	Davis St to Holly St	1	1.7	*TC*	wc14	34	0	
51.23	Holly St. to Cummings St	1	1.7	*TC*	wc14	34	0	
	Ralph Ablanedo Dr.							
45.05	Peaceful Hill Ln. to Cullen Ln.	1	2.7	*TC*	NONE	25	3	none
	Raywood Dr.							
31.42	Cumberland to Barton Skwy	1	1.7	*TC*	wc14	30	0	
	Red Bud Trail							
13.02	Little Bee Creek to Forest View Dr.	1	2.7	*bl5*	wc14	30	0	Existing
52.02	Westlake Drive to Forrest View Dr.	1	4	*sh6*	NONE	20	12	Existing
52.03	Forrest View Dr. to Stratford Dr.	1	2.7	*sh4*	wc16	40	0	Existing
52.04	Stratford Dr. to Lake Austin Blvd.	1	3.7	*sh4*	sl12	24	4	Existing
	Red River St.							
51.08	Duncan Lane to 26th St	1	3.7	*bl5*	sl12	62	0	Existing
51.20	E. Cesar Chavez St. to Davis St.	1	2.7	*wc14*	wc14	40	0	
51.15	7th St. to 6th St.	1	3.7	*bl6*	NONE	59	0	Existing
51.14	10th St. to 7th St.	1	3.7	*bl5*	sl12	40	0	Existing
51.19	3rd St. to E. Cesar Chavez St.	1	1.7	*bl5*	wc14	40	0	Existing
51.18	4th St. to 3rd St.	1	2.7	*bl5*	sl12	40	0	Existing
51.17	5th St. to 4th St.	1	3	*bl5*	NONE	60	0	Existing
51.12	15th St. to 12th St.	1	3.3	*bl5*	NONE	60	0	Existing
51.10	Manor Rd. to MLK	1	3	*bl5*	sl12	62	0	Existing
51.09	26th St to Manor Rd.	1	3	*bl5*	sl12	62	0	Existing
51.05	41st St. to 38 1/2th St.	1	3.3	*bl5*	sl12	48	2	Existing
51.04	43rd St. to 41st St.	1	3.3	*bl5*	NONE	70	0	Existing
51.03	45th St. to 43rd St.	1	3.3	*bl5*	NONE	40	10	Existing
51.02	Clarkson St. to 45th St.	1	1.7	*TC*	NONE	28	2	
51.16	6th St. to 5th St.	1	3.7	*bl6*	NONE	59	0	Existing
51.13	12th St. to 10th St.	1	3	*bl5*	NONE	60	0	Existing
51.07	Harris Lane to Duncan Lane	1	3.3	*bl5*	sl12	48	2	Existing
51.06	38 1/2th St. to Harris Lane	1	3.3	*bl5*	sl12	48	2	Existing
51.11	MLK to 15th St.	1	3	*bl5*	sl12	46	4	Existing
52.25	5th St. to 7th St.	1	3.7	*bl6*	NONE	60	0	Existing
	Redd St.							
25.24	Banister Lane to Manchaca Rd.	1	2	*wc14*	wc14	30	0	
74.01	Banister Lane to Mt. Vernon Dr.	1	2	*wc14*	wc14	30	0	
	Reinli St.							
365.02	IH 35 to Cameron Rd	1	1.7	*bl5*	NONE	44	0	none
	Republic of Texas Blvd.							
367.02	Southwest Pkwy. to Travis Country Circle	1	2.7	*bl5*	NONE	44	6	none
	Ridgewood Dr.							
15.02	Stratford Dr. to Sugar Shack	1	1.7	*wc14*	wc14	30	0	
15.03	Sugar Shack to George B. Halley	1	1.7	*wc14*	wc14	40	0	

*WC = Wide Curb, BL = Bike Lane, SH = Shoulder, SL = Shared Lane, TC = Traffic Calming or Bike Lanes
** Stress Rating: 1=ver low (for all bicyclists), 2=low, 3=moderate, 4=high, 5=very high (may not be suitable for bicycle use)

Austin Bicycle Plan Recommendations

Including All ATS Jurisdicitions

Route - Seg.	Segment Start, End	Priority	Stress Rating	Rec. Facility	Existing Facility	Avail. Pavement Width	New Pavement Required	2020 AMATP Classification
214.06	Ohlen Road to Steck Avenue	2	4.7	wc15	NONE	84	0	Existing
214.05	US 183 to Ohlen Road	2	4	wc15	sl12	60	0	Existing
214.09	FM 2222 to 49th St/Woodrow Ave.	2	4.3	wc15	sl12	48	0	MAD 4
214.08	Anderson Ln. to FM 2222	2	4	wc15	sl12	60	0	Existing
Cameron Rd / Dessau Rd								
228.06	Coronado Hills Dr. to St. Johns Ave.	2	4	bl6	NONE	67	5	MAD 6
228.05	Ferguson Lane to Rutherford Lane	2	3	bl6	NONE	60	12	MAD 6
228.07	St. Johns Ave. to US 290	2	4	bl6	NONE	68	4	MAD 6
228.08	US 290 to Renli	2	4.3	bl6	NONE	40	12	MAD 4
228.04	Rundberg Lane to Ferguson Lane	2	3	bl6	NONE	60	12	MAD 6
228.09	Renli to 51st St.	2	4.3	bl6	NONE	40	12	MAD 4
Cameron Road								
57.13	Rutherford Lane to U.S. 183	1	2.7	bl6	NONE	60	12	MAD 6
57.14	US 183 to Coronado Hills Dr.	1	4	bl6	NONE	67	5	MAD 6
217.07	Rundberg Lane to Ferguson Lane	2	3	bl6	NONE	60	12	MAD 6
Cannonleague Dr.								
362.05	Matthews Ln. to Bissel Ln.	1	1.3	TC	wc16	40	0	none
362.06	Bissel Ln. to Stanley Ave.	1	2.3	TC	NONE	25	3	none
362.10	Stanley Ave. to Cannonwood Ln.	1	1.3	TC	NONE	30	0	none
Cardinal Lane								
70.02	S. 5th St. to S. 1st St.	1	2.3	TC	sl12	26	4	
70.01	Garden Villa Lane to S. 5th St.	1	1.7	TC	wc14	30	0	
Casey								
31.49	Banister Lane to Mt. Vernon Dr.	1	1.7	TC	wc14	30	0	
W César Chávez St.								
47.58	Colorado to Congress Ave.	1	4.3	bl6	NONE	50	12	Existing
47.60	Colorado to Brazos	1	3	bl6	NONE	60	0	Existing
56.01	Colorado St. to Brazos	1	4.3	wc15	NONE	50	8	Existing
247.08	Pleasant Valley Rd. to E. 7th St.	2	3.7	wc15	NONE	44	4	MNR 4
247.06	IH 35 to Brushy St	2	4	wc14	sl12	36	0	Existing
247.01	Mopac to Lamar Blvd.	2	4.7	wc15	NONE	45	2	Existing
247.02	Lamar Blvd. to San Antonio St.	2	4	wc15	wc15	60	0	Existing
247.03	San Antonio St. to Colorado St.	2	4	wc15	wc15	60	0	Existing
247.04	Brazos to Trinity	2	3	wc15	NONE	60	0	Existing
247.05	Trinity St. to IH 35	2	4.3	wc15	NONE	60	0	Existing
247.07	Brushy St. to Pleasant Valley	2	3	wc14	wc14	36	0	Existing
Cherry Lane								
212.06	Rockmoor Ave. to Bridle Path Rd.	2	1.3	TC	wc14	30	0	
Cherrywood Rd.								
59.03	34th St. to Manor Rd.	1	1	wc14	bl5	40	0	
59.01	Wilshire Blvd. to Anchor Lane/E. 38-1/2 St.	1	1.3	wc14	wc14	30	0	
59.02	Anchor Lane/E. 38-1/2 St. to 34th St.	1	1.7	wc14	wc14	40	0	
Chestnut Ave.								
59.04	Manor Rd. to 12th St.	1	1.7	wc14	wc14	40	0	

*WC = Wide Curb, BL = Bike Lane, SH = Shoulder, SL = Shared Lane, TC = Traffic Calming or Bike Lanes
** Stress Rating: 1=ver low (for all bicyclists), 2=low, 3=moderate, 4=high, 5=very high (may not be suitable for bicycle use)

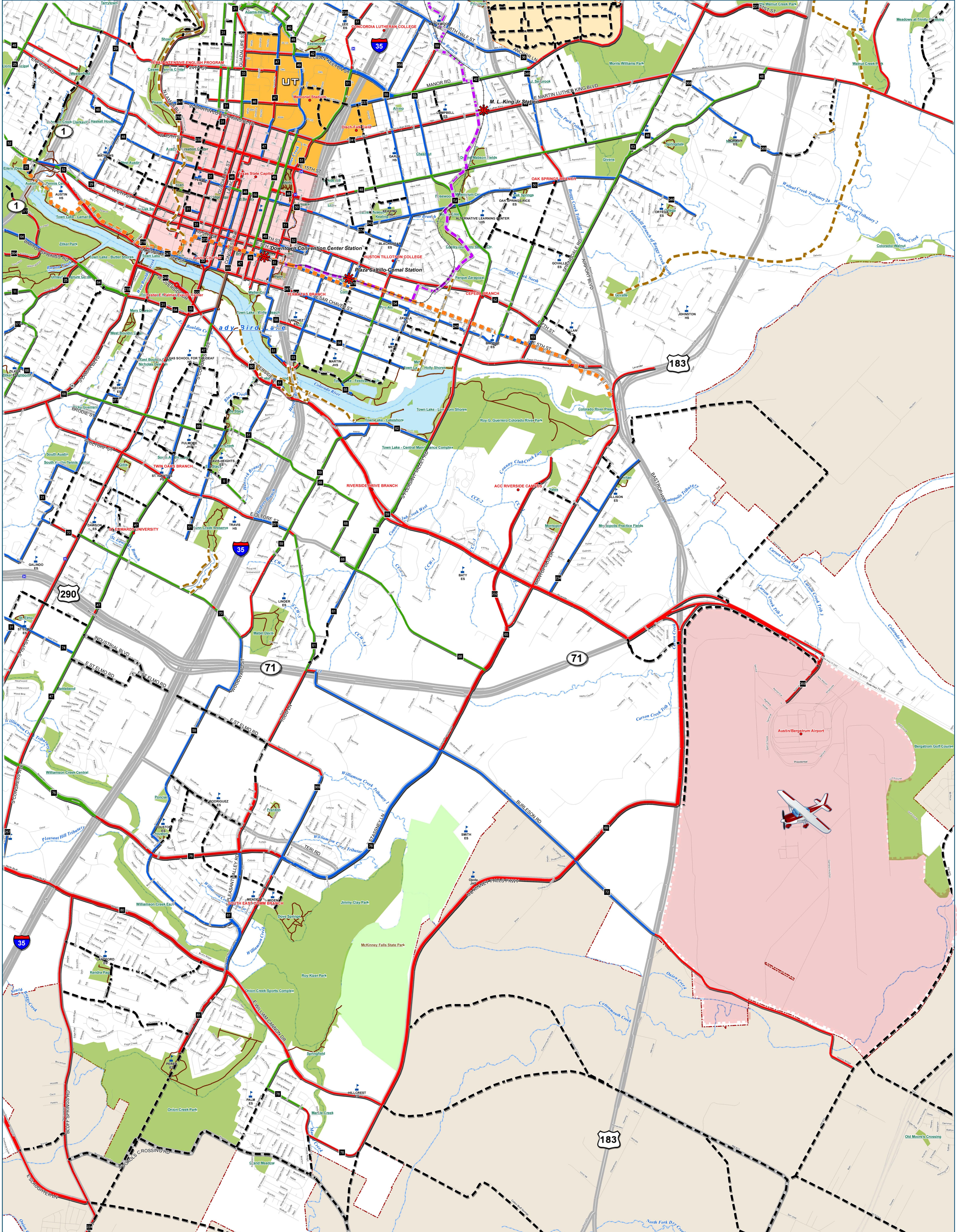
Austin Bicycle Plan Recommendations

Including All ATS Jurisdicitions

Route - Seg.	Segment Start, End	Priority	Stress Rating	Rec. Facility	Existing Facility	Avail. Pavement Width	New Pavement Required	2020 AMATP Classification
374.14	Brazos to Trinity	1	1.7	bl5	wc14	60	0	none
	51st St.							
30.02	Guadalupe St. to Duval	1	3.7	wc15	NONE	40	8	MNR 4
30.07	Berkman Dr. to Springdale Rd.	1	3.7	bl5	NONE	40	10	Existing
30.05	Harmon Ave. to IH 35	1	4	bl5	NONE	40	10	Existing
30.01	Lamar Blvd. to Guadalupe St.	1	3.3	wc15	sl12	60	0	MNR 4
30.04	Airport to Harmon Ave.	1	3.7	wc15	NONE	40	8	Existing
30.03	Duval to Airport	1	3.7	wc15	NONE	40	8	MNR 4
30.06	IH 35 to Berkman Dr.	1	1	bl6	bl6	66	0	Existing
231.01	Springdale Rd to US 183	2	3.7	bl6	sl12	48	4	Existing
376.01	Woodrow to Grover	1	3	bl6	wc15	30	2	none
	53 1/2 St.							
28.08	Bruning Ave. to Harmon Ave.	1	1.7	bl5	wc14	40	0	
	53rd St.							
28.05	North Loop Blvd to Duval St.	1	3	bl5	NONE	39	11	Existing
28.06	Duval St. to Bruning Ave.	1	3	bl5	NONE	39	11	Existing
S	**5th St.**							
31.40	Oltorf St. (W) to Cumberland Rd.	1	2	wc14	wc14	30	0	
31.39	Mary St. (W) to Oltorf St. (W)	1	2	wc14	wc14	30	0	
31.38	Annie St. to Mary St. (W)	1	2.3	wc14	wc14	30	0	
52.11	West Ave. to Nueces	1	2.7	bl6	sl12	59	0	Existing
52.15	Trinity St. to Red River St.	1	2.7	bl6	sl12	60	0	Existing
52.07	Loop 1 to Campbell St.	1	1	bl5	bl5	44	0	Existing
52.08	Campbell St. to West Lynn	1	4	bl6	sl12	44	0	Existing
52.10	Lamar Blvd to West Ave.	1	3.7	bl6	sl12	59	0	Existing
52.09	West Lynn to Lamar Blvd.	1	4	bl6	sl12	44	0	Existing
52.12	Nueces to Congress Ave.	1	2.7	bl6	sl12	59	0	Existing
52.14	San Jacinto to Trinity St.	1	2.7	bl6	sl12	59	0	Existing
52.13	Congress Ave. to San Jacinto	1	2.7	bl6	sl12	59	0	Existing
245.06	Tillery St. to Springdale Rd.	2	1.3	bl5	wc14	44	0	
	6th St.							
52.24	Trinity St. to Red River St.	1	3.3	bl6	NONE	58	0	Existing
52.19	West Ave. to Nueces	1	4.3	bl6	NONE	58	0	Existing
52.26	Red River St. to Brushy St.	1	2.7	bl5	wc14	40	0	Existing
52.16	Loop 1 to W. Lynn St.	1	3.3	bl5	wc14	40	0	Existing
52.18	Lamar Blvd. to West Ave.	1	4.3	bl6	sl12	60	0	Existing
52.17	W. Lynn St. to Lamar Blvd.	1	4	bl5	sl12	40	0	Existing
52.20	Nueces to Congress Ave.	1	4.3	bl6	NONE	58	0	Existing
52.21	Congress Ave. to Brazos	1	4.3	bl6	NONE	58	0	Existing
52.23	San Jacinto to Trinity St.	1	4.3	bl6	NONE	58	0	Existing
52.22	Brazos to San Jacinto	1	4.3	bl6	NONE	58	0	Existing
	7th St.							
31.32	Nueces to West	1	2	wc14	wc14	60	0	
52.31	Chicon St. to Webberville Rd.	1	4.3	bl6	NONE	51	11	MAD 4
52.28	Red River St. to Brushy St.	1	3.3	bl6	sl12	60	0	Existing
52.29	Brushy St. to Waller	1	4	bl6	NONE	52	10	MAD 4
52.33	Pleasant Valley to Springdale Rd.	1	4	bl6	sl12	52	0	MAD 4
52.30	Waller to Chicon St.	1	4	bl6	NONE	52	10	MAD 4

*WC = Wide Curb, BL = Bike Lane, SH = Shoulder, SL = Shared Lane, TC = Traffic Calming or Bike Lanes
** Stress Rating: 1=ver low (for all bicyclists), 2=low, 3=moderate, 4=high, 5=very high (may not be suitable for bicycle use)

B7. CITY OF AUSTIN BICYCLE PLAN UPDATE: DRAFT EXISTING BIKE LANES, DRAFT EXISTING FACILITIES; DRAFT EXISTING AND PROPOSED ROUTES; DRAFT SOUTHEAST EXISTING AND PROPOSED ROUTES; DRAFT SOUTHWEST EXISTING AND PROPOSED ROUTES



Legend

- Austin City Limits
- 2 mile ETJ
- 5 mile ETJ
- Outside of ETJ
- Railroads
- Hospitals
- Bicycle Destinations
- Commuter Rail Stops
- State Parks
- City of Austin Parks
- Travis County Parks
- Trails
- No Facility
- Off-Street
- Shoulder Lane
- Wide Curb Lane
- Bike Lane
- Capital Metro
- Proposed Routes
- Trails Proposed
- Lance Armstrong Bikeway

1 0.5 0 1 Miles

SCALE

NORTH

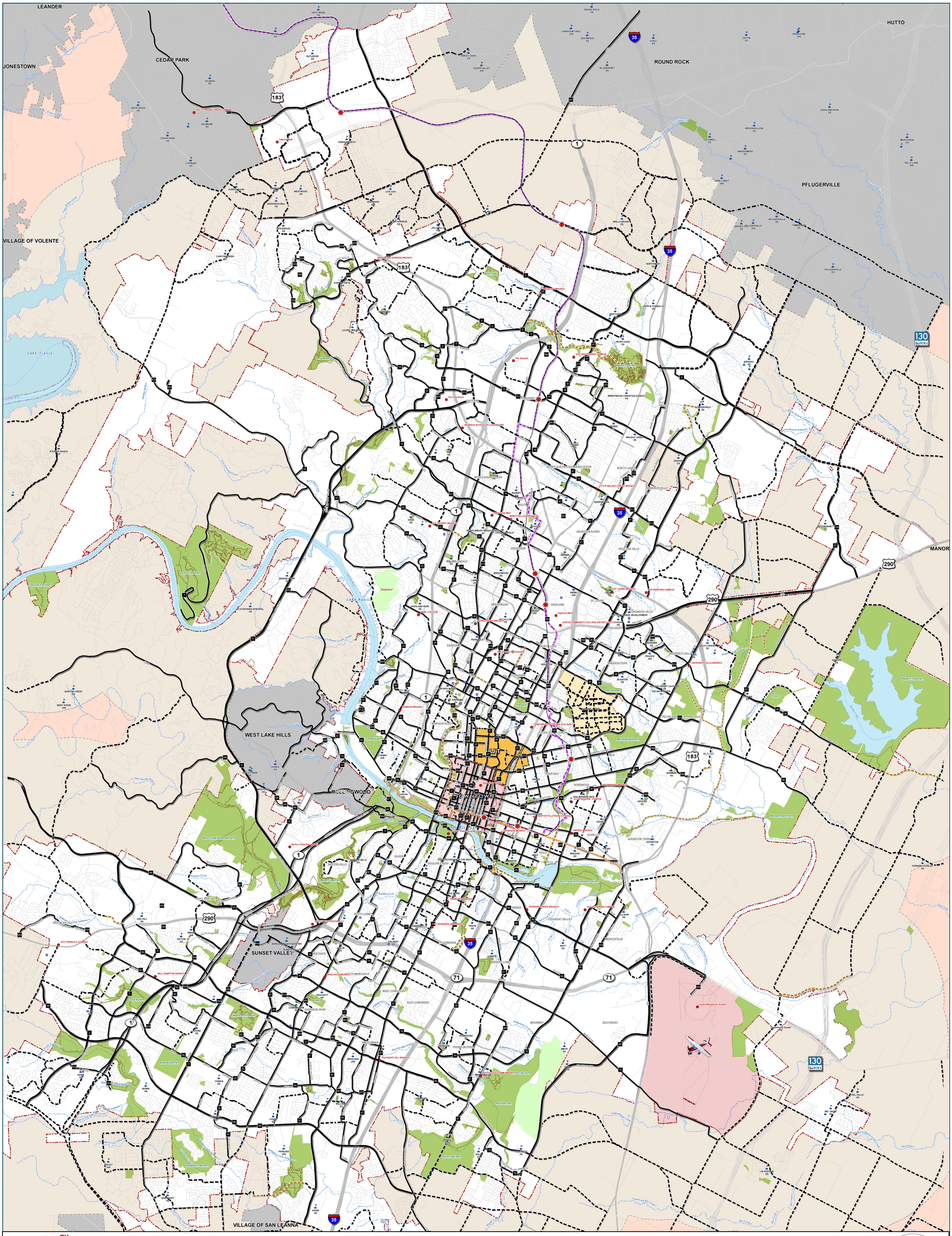
CITY OF AUSTIN FOUNDED 1839

DRAFT

HALFF

SOUTH EAST EXISTING AND PROPOSED ROUTES

CITY OF AUSTIN BICYCLE PLAN UPDATE



Legend

Austin City Limits	Hospitals	State Parks	Existing Routes
2 mile ETJ	Bicycle Destinations	City of Austin Parks	Capital Metro
5 mile ETJ	Commuter Rail Stops	Travis County Parks	Proposed Routes
Outside of ETJ	Schools	Trails	Trails Proposed
Railroad			Lance Armstrong Bikeway

1 0.5 0 1 2 3 Miles

SCALE

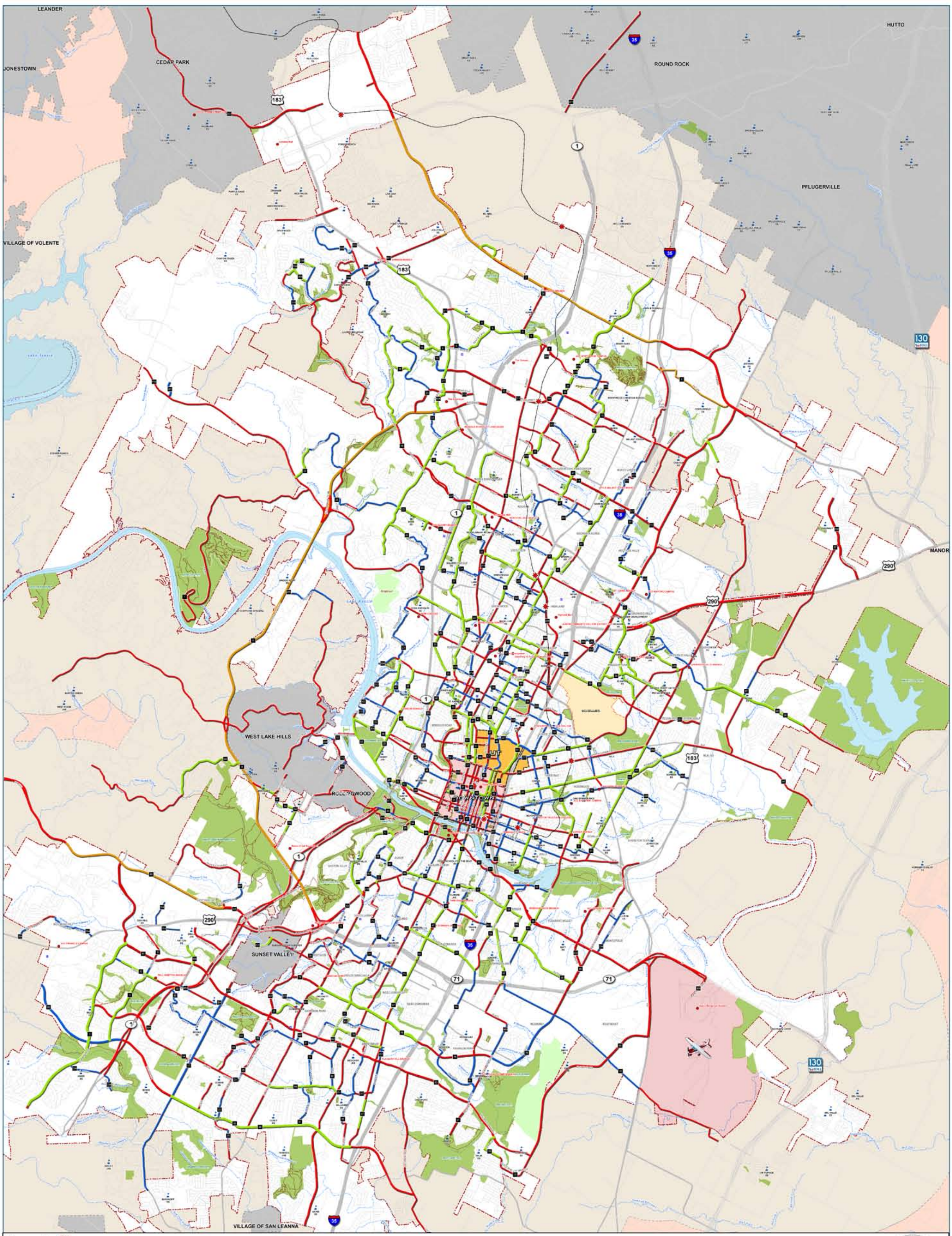
NORTH

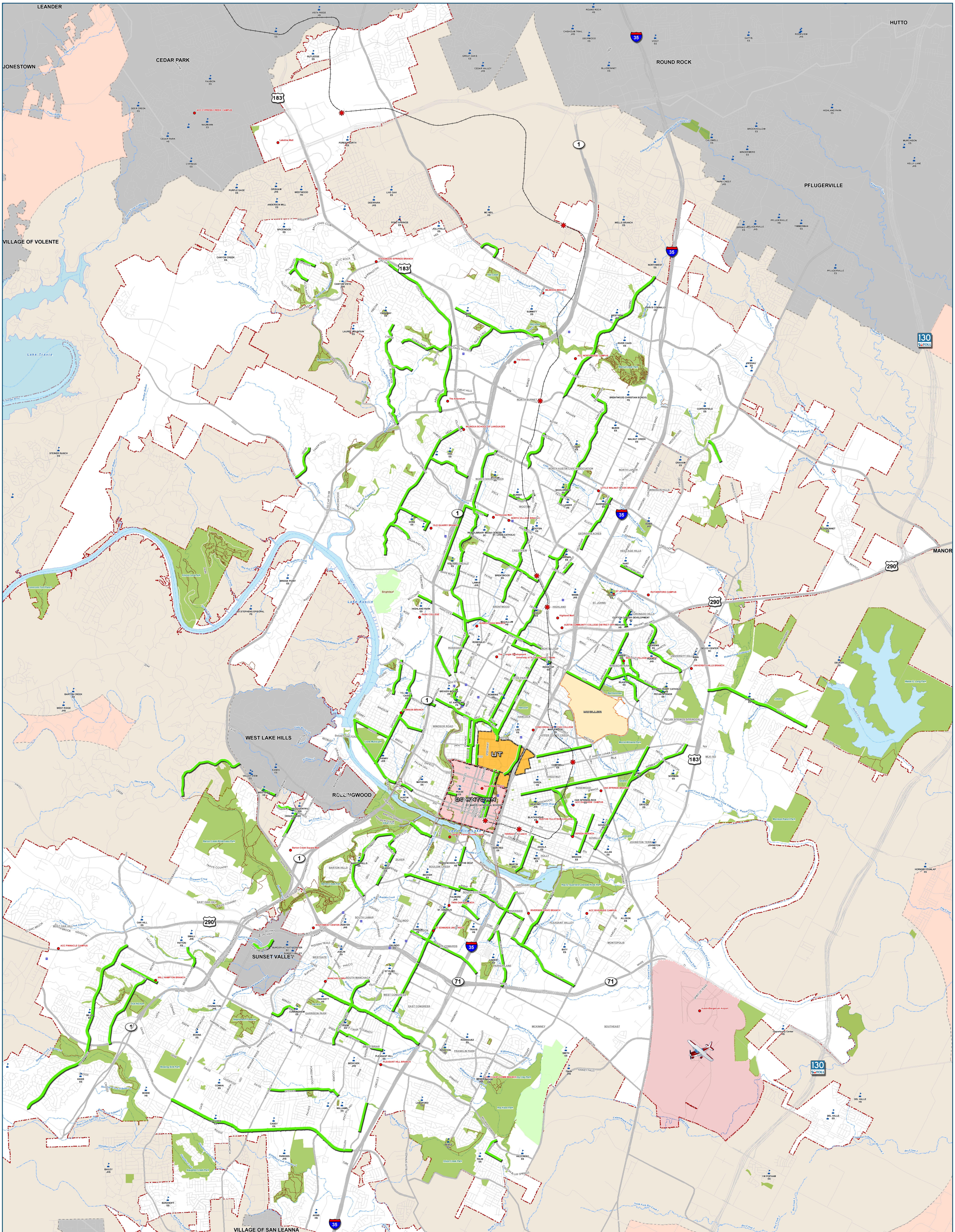
DRAFT

HALFF

EXISTING AND PROPOSED ROUTES

CITY OF AUSTIN BICYCLE PLAN UPDATE


LEANDER
CEDAR PARK
JONESTOWN
VILLAGE OF VOLENTE
ROUND ROCK
HUTTO
PFLUGERVILLE
MANOR
WEST LAKE HILLS
ROLLINGWOOD
SUNSET VALLEY
VILLAGE OF SAN LEANNA
183
1
35
290
71
130
Legend
Austin City Limits
2 mile ETJ
5 mile ETJ
Outside of ETJ
Railroad
Hospitals
Bicycle Destinations
Commuter Rail Stops
Schools
State Parks
City of Austin Parks
Travis County Parks
Trails
No Facility
Off-Street
Shoulder Lane
Wide Curb Lane
Bike Lane
1 0.5 0 1 2 3 Miles
SCALE
NORTH
DRAFT
HALFF
EXISTING FACILITIES
CITY OF AUSTIN BICYCLE PLAN UPDATE



Legend

Austin City Limits	Hospitals	State Parks	Bike Lane
2 mile ETJ	Bicycle Destinations	City of Austin Parks	
5 mile ETJ	Commuter Rail Stops	Travis County Parks	
Outside of ETJ	Schools	Trails	
Railroad			

1 0.5 0 1 2 3 Miles

SCALE

NORTH

DRAFT

HALFF

EXISTING BIKE LANES

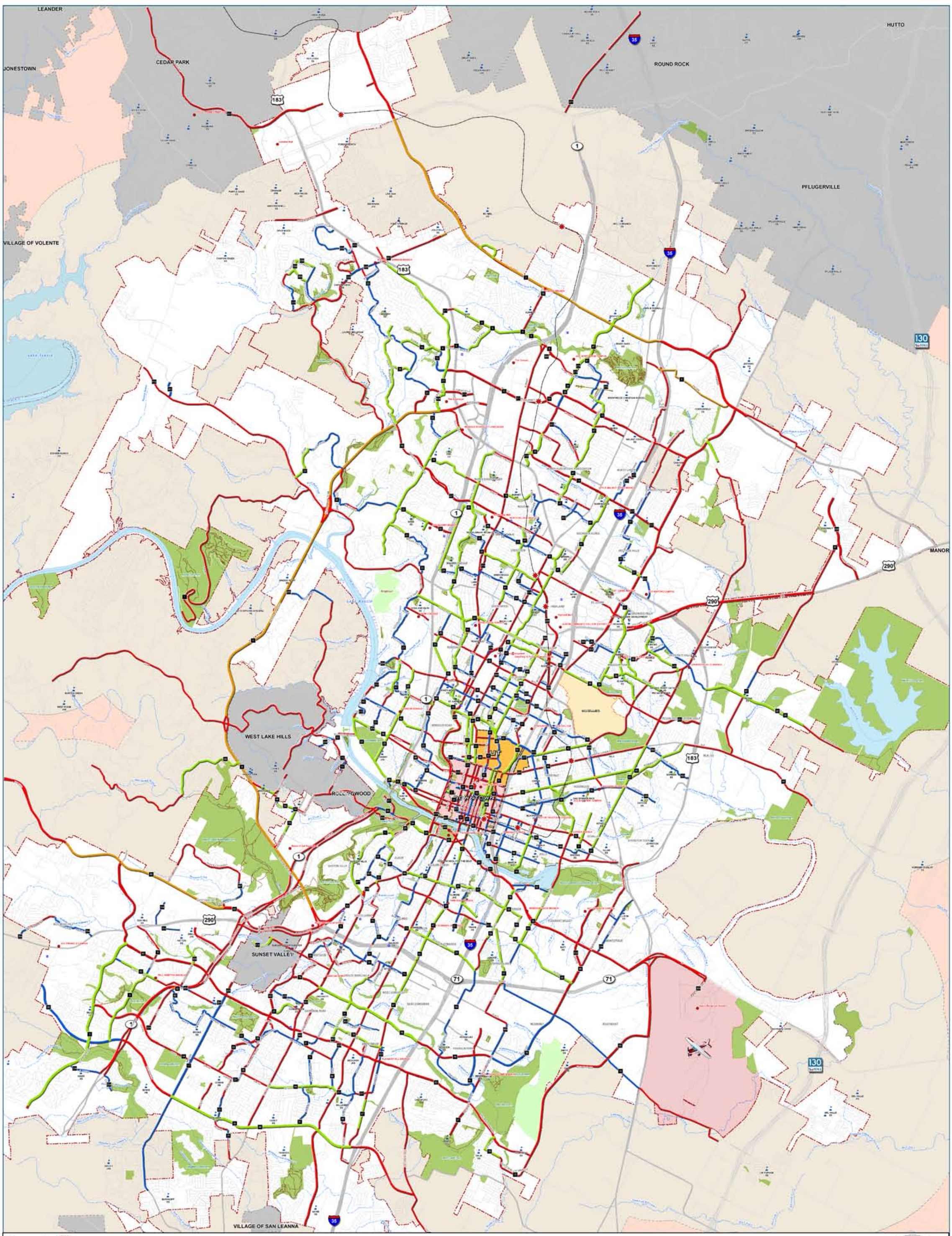
CITY OF AUSTIN BICYCLE PLAN UPDATE

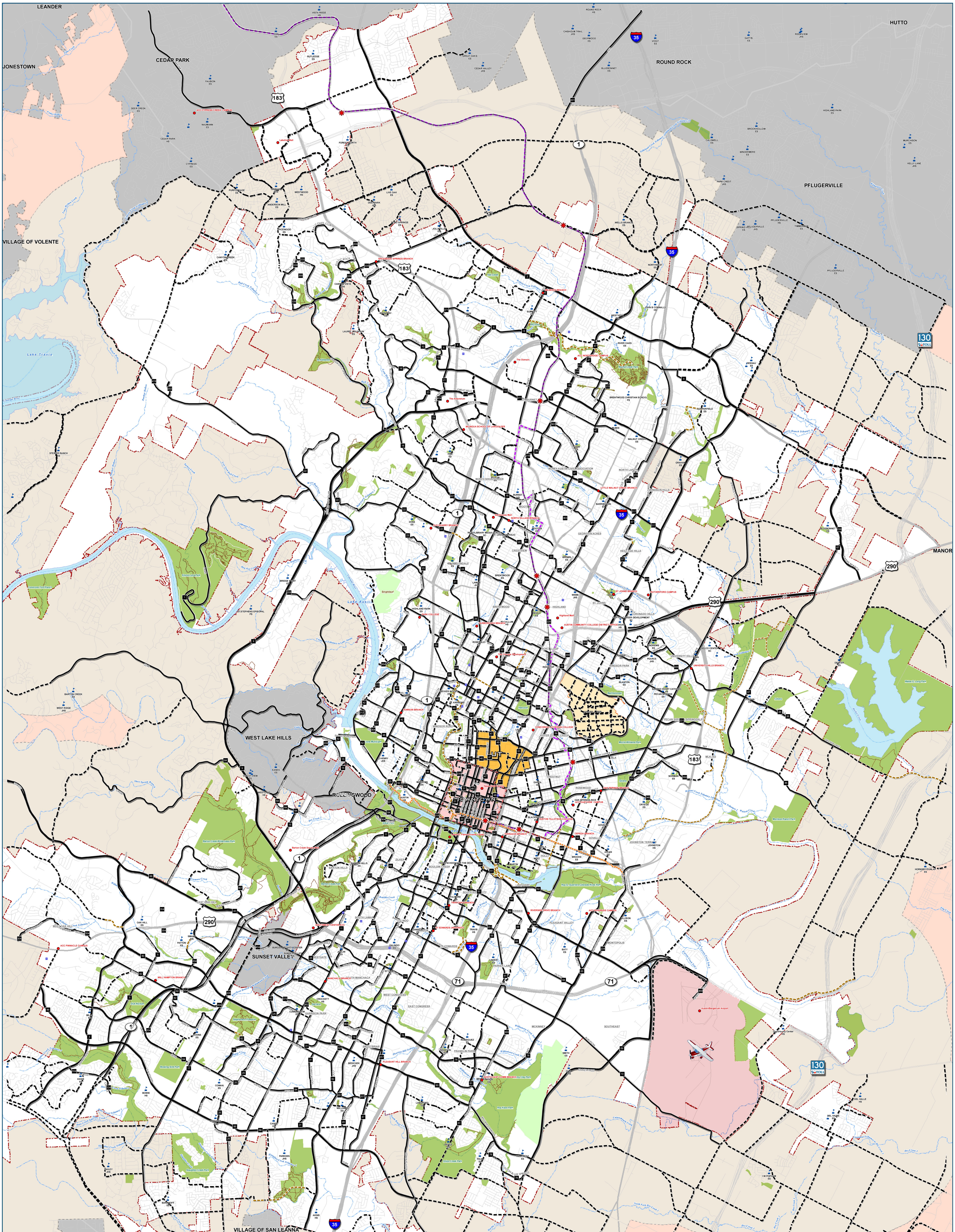
DRAFT

HALFF

EXISTING BIKE LANES

CITY OF AUSTIN BICYCLE PLAN UPDATE


LEANDER
CEDAR PARK
JONESTOWN
VILLAGE OF VOLENTE
ROUND ROCK
HUTTO
PFLUGERVILLE
MANOR
WEST LAKE HILLS
ROLLINGWOOD
SUNSET VALLEY
VILLAGE OF SAN LEANNA
183
1
35
290
71
130
Legend
Austin City Limits
2 mile ETJ
5 mile ETJ
Outside of ETJ
Railroad
Hospitals
Bicycle Destinations
Commuter Rail Stops
Schools
State Parks
City of Austin Parks
Travis County Parks
Trails
No Facility
Off-Street
Shoulder Lane
Wide Curb Lane
Bike Lane
1 0.5 0 1 2 3 Miles
SCALE
NORTH
DRAFT
HALFF
EXISTING FACILITIES
CITY OF AUSTIN BICYCLE PLAN UPDATE



Legend

Austin City Limits	Hospitals	State Parks	Existing Routes
2 mile ETJ	Bicycle Destinations	City of Austin Parks	Capital Metro
5 mile ETJ	Commuter Rail Stops	Travis County Parks	Proposed Routes
Outside of ETJ	Schools	Trails	Trails Proposed
Railroad			Lance Armstrong Bikeway

1 0.5 0 1 2 3 Miles

SCALE

NORTH

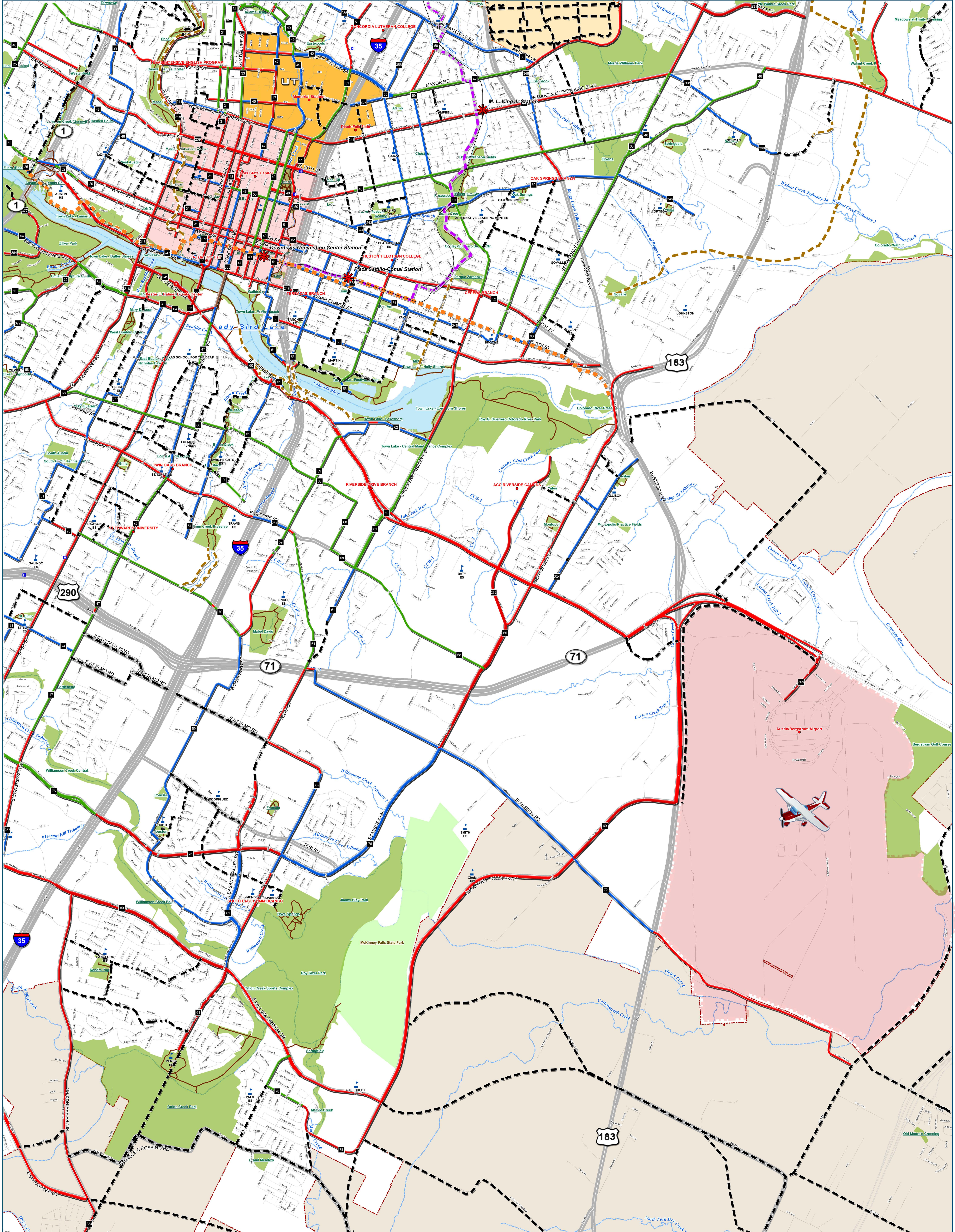
CITY OF AUSTIN FOUNDED 1839

DRAFT

HALFF

EXISTING AND PROPOSED ROUTES

CITY OF AUSTIN BICYCLE PLAN UPDATE



Legend

Austin City Limits	Hospitals	State Parks	No Facility
2 mile ETJ	Bicycle Destinations	City of Austin Parks	Off-Street
5 mile ETJ	Commuter Rail Stops	Travis County Parks	Shoulder Lane
Outside of ETJ		Trails	Wide Curb Lane
Railroads			Bike Lane

- Capital Metro
- Proposed Routes
- Trails Proposed
- Lance Armstrong Bikeway

SCALE: 1 — 0.5 — 0 — 1 Miles

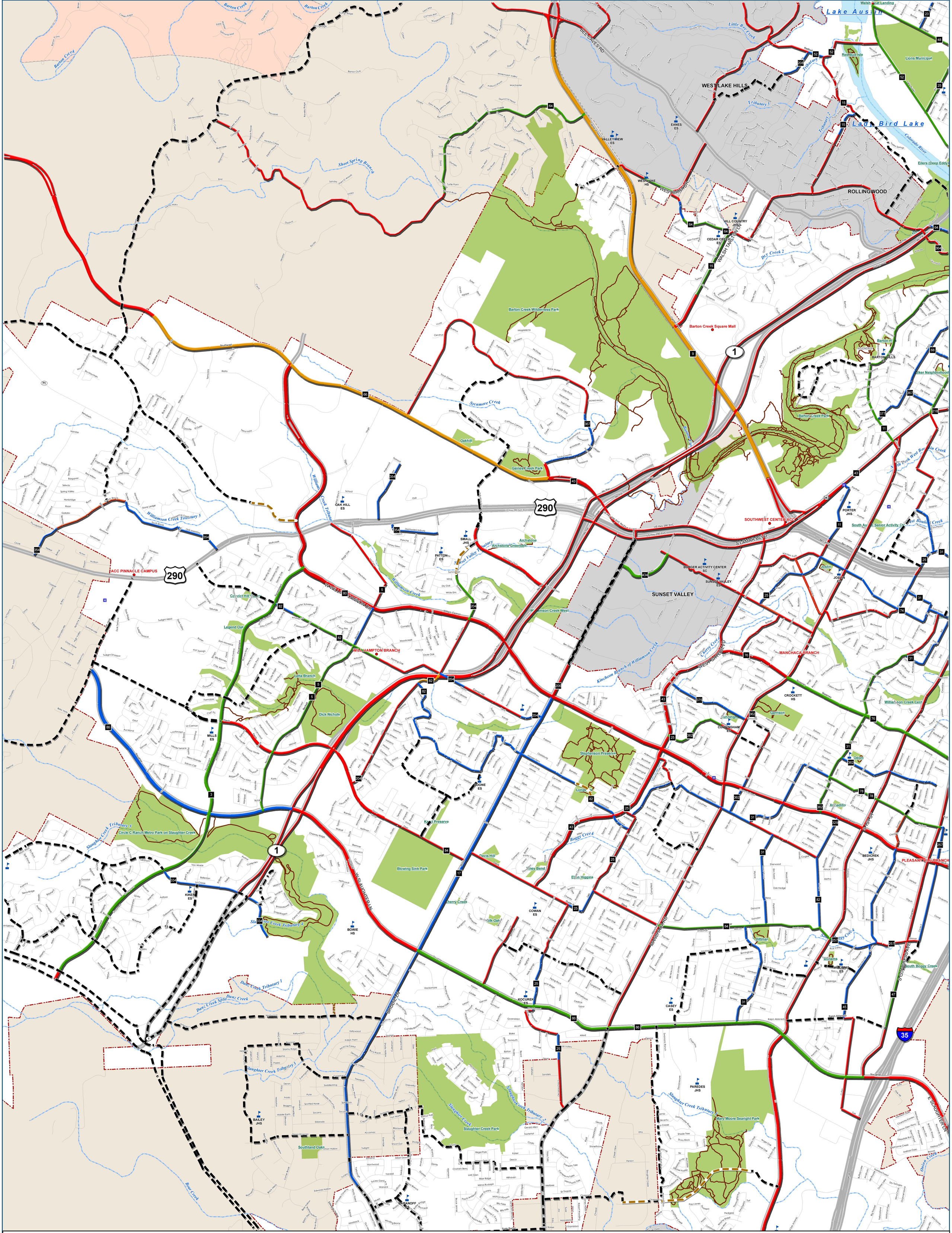
NORTH

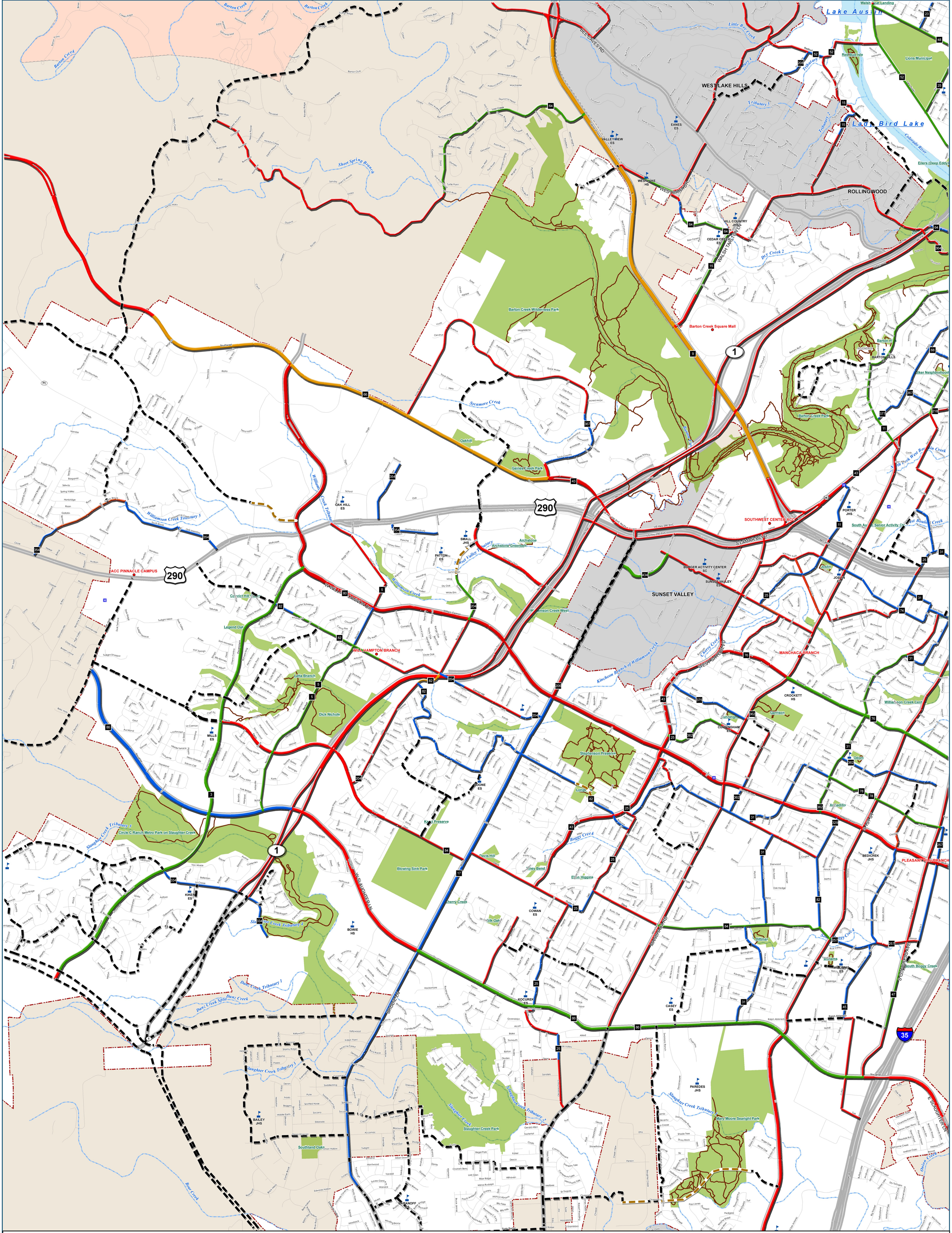
DRAFT

HALFF

SOUTH EAST EXISTING AND PROPOSED ROUTES

CITY OF AUSTIN BICYCLE PLAN UPDATE


Barton Creek
Short Spring Branch
Lost Creek
Lake Austin
Walsh Boat Landing
Red Bud Isle
Lions Municipal
Little Bee Creek
Tributary 4
Tributary 3
Tributary 2
Lady Bird Lake
Colorado River
Eilers (Deep Eddy)
BEE CAVES RD
WEST LAKE HILLS
EANES ES
VALLEYVIEW ES
WEST LAKE HS
WESTBANK DR
ROLLINGWOOD
HILL COUNTRY JHS
CEDAR CREEK ES
WALSH TARLTON LN
Dry Creek 2
Barton Creek Wilderness Park
Barton Creek Square Mall
Barton Creek Park
BARTON HILLS ES
Walker Neighborhood
Sycamore Creek
Oakhill
Gaines Creek Park
Williamson Creek Tributary 5
OAK HILL ES
SMALL JHS
PATTON ES
Archstone
Archstone Greenbelt
Sunset Valley Tributary
Williamson Creek
SOUTHWEST CENTER ACC
S LAMAR BLVD
PORTER JHS
South Austin Senior Activity Ctr
BURGER ACTIVITY CENTER SC
SUNSET VALLEY ES
SUNSET VALLEY
Joslin
JOSLIN ES
ACC PINNACLE CAMPUS
Convict Hill Greenbelt
WILLIAM CANNON DR
Williamson Creek West
Legend Oak
WILLIAMSON CREEK
Latta Branch
Dick Nichols
MILLS ES
Kent Preserve
Stephenson Preserve
BOONE ES
Longview
Kincheon Branch of Williamson Creek
WEST GATE BLVD
CROCKETT HS
Garrison
CUNNINGHAM ES
Odom
Archadillo
Circle C Ranch Metro Park on Slaughter Creek
KIKER ES
Slaughter Creek Tributary 4
Blowing Sink Park
Davis Hill
Elsa Higgins
Cherry Creek
COWAN ES
BOWIE HS
W SLAUGHTER LN
Danz Creek Tributary 1
Danz Creek Split
Danz Creek
Slaughter Creek Tributary 3
BAILEY JHS
Southland Oaks
Slaughter Creek
Slaughter Creek Park
Slaughter Creek Tributary 2
BARANOFF
KOCUREK ES
BRODIE LN
WANG BLVD
Pittmar
WILLIAMS ES
South Boggy Creek
CASEY ES
PAREDES JHS
Mary Moore Searight Park
S CONGRESS AVE
E SLAUGHTER LN
Onion Creek
Bear Creek
Boggy Creek 4
Boggy Creek 3
PLEASANT HILL BRANCH
BEDICHEK JHS
Williamson Creek Tributary 3
Williamson Creek Tributary 4
Williamson Creek Tributary 5
Danz Creek Tributary 2
Danz Creek Tributary 3
Danz Creek Tributary 4
Danz Creek Tributary 5
Slaughter Creek Tributary 1
Slaughter Creek Tributary 2
Slaughter Creek Tributary 3
Slaughter Creek Tributary 4
Slaughter Creek Tributary 5
Boggy Creek Tributary 1
Boggy Creek Tributary 2
Boggy Creek Tributary 3
Boggy Creek Tributary 4
Boggy Creek Tributary 5
Cherry Creek Tributary 1
Cherry Creek Tributary 2
Cherry Creek Tributary 3
Cherry Creek Tributary 4
Cherry Creek Tributary 5
Kincheon Branch of Williamson Creek Tributary 1
Kincheon Branch of Williamson Creek Tributary 2
Kincheon Branch of Williamson Creek Tributary 3
Kincheon Branch of Williamson Creek Tributary 4
Kincheon Branch of Williamson Creek Tributary 5
Williamson Creek Tributary 1
Williamson Creek Tributary 2
Williamson Creek Tributary 3
Williamson Creek Tributary 4
Williamson Creek Tributary 5
Williamson Creek Tributary 6
Williamson Creek Tributary 7
Williamson Creek Tributary 8
Williamson Creek Tributary 9
Williamson Creek Tributary 10
Williamson Creek Tributary 11
Williamson Creek Tributary 12
Williamson Creek Tributary 13
Williamson Creek Tributary 14
Williamson Creek Tributary 15
Williamson Creek Tributary 16
Williamson Creek Tributary 17
Williamson Creek Tributary 18
Williamson Creek Tributary 19
Williamson Creek Tributary 20
Williamson Creek Tributary 21
Williamson Creek Tributary 22
Williamson Creek Tributary 23
Williamson Creek Tributary 24
Williamson Creek Tributary 25
Williamson Creek Tributary 26
Williamson Creek Tributary 27
Williamson Creek Tributary 28
Williamson Creek Tributary 29
Williamson Creek Tributary 30
Williamson Creek Tributary 31
Williamson Creek Tributary 32
Williamson Creek Tributary 33
Williamson Creek Tributary 34
Williamson Creek Tributary 35
Williamson Creek Tributary 36
Williamson Creek Tributary 37
Williamson Creek Tributary 38
Williamson Creek Tributary 39
Williamson Creek Tributary 40
Williamson Creek Tributary 41
Williamson Creek Tributary 42
Williamson Creek Tributary 43
Williamson Creek Tributary 44
Williamson Creek Tributary 45
Williamson Creek Tributary 46
Williamson Creek Tributary 47
Williamson Creek Tributary 48
Williamson Creek Tributary 49
Williamson Creek Tributary 50
Williamson Creek Tributary 51
Williamson Creek Tributary 52
Williamson Creek Tributary 53
Williamson Creek Tributary 54
Williamson Creek Tributary 55
Williamson Creek Tributary 56
Williamson Creek Tributary 57
Williamson Creek Tributary 58
Williamson Creek Tributary 59
Williamson Creek Tributary 60
Williamson Creek Tributary 61
Williamson Creek Tributary 62
Williamson Creek Tributary 63
Williamson Creek Tributary 64
Williamson Creek Tributary 65
Williamson Creek Tributary 66
Williamson Creek Tributary 67
Williamson Creek Tributary 68
Williamson Creek Tributary 69
Williamson Creek Tributary 70
Williamson Creek Tributary 71
Williamson Creek Tributary 72
Williamson Creek Tributary 73
Williamson Creek Tributary 74
Williamson Creek Tributary 75
Williamson Creek Tributary 76
Williamson Creek Tributary 77
Williamson Creek Tributary 78
Williamson Creek Tributary 79
Williamson Creek Tributary 80
Williamson Creek Tributary 81
Williamson Creek Tributary 82
Williamson Creek Tributary 83
Williamson Creek Tributary 84
Williamson Creek Tributary 85
Williamson Creek Tributary 86
Williamson Creek Tributary 87
Williamson Creek Tributary 88
Williamson Creek Tributary 89
Williamson Creek Tributary 90
Williamson Creek Tributary 91
Williamson Creek Tributary 92
Williamson Creek Tributary 93
Williamson Creek Tributary 94
Williamson Creek Tributary 95
Williamson Creek Tributary 96
Williamson Creek Tributary 97
Williamson Creek Tributary 98
Williamson Creek Tributary 99
Williamson Creek Tributary 100
Legend
Austin City Limits
2 mile ETJ
5 mile ETJ
Outside of ETJ
Railroads
Hospitals
Bicycle Destinations
Commuter Rail Stops
State Parks
City of Austin Parks
Travis County Parks
Trails
No Facility
Off-Street
Shoulder Lane
Wide Curb Lane
Bike Lane
Capital Metro
Proposed Routes
Trails Proposed
Lance Armstrong Bikeway
1 0.5 0 1 Miles
SCALE
NORTH
DRAFT
SOUTH WEST EXISTING AND PROPOSED ROUTES
CITY OF AUSTIN BICYCLE PLAN UPDATE
HALFF


Barton Creek
Short Spring Branch
Lost Creek
Lake Austin
Walsh Boat Landing
Red Bud Isle
Lions Municipal
Little Bee Creek
Tributary 4
Tributary 3
Tributary 2
Lady Bird Lake
Colorado River
Eilers (Deep Eddy)
BEE CAVES RD
WEST LAKE HILLS
EANES ES
VALLEYVIEW ES
WEST LAKE HS
WESTBANK DR
ROLLINGWOOD
HILL COUNTRY JHS
CEDAR CREEK ES
WALSH TARLTON LN
Dry Creek 2
Barton Creek Wilderness Park
Barton Creek Square Mall
Barton Creek Park
BARTON HILLS ES
Walker Neighborhood
Sycamore Creek
Oakhill
Gaines Creek Park
Williamson Creek Tributary 5
OAK HILL ES
SMALL JHS
PATTON ES
Archstone
Archstone Greenbelt
Sunset Valley Tributary
Williamson Creek
SOUTHWEST CENTER ACC
S LAMAR BLVD
PORTER JHS
South Austin Senior Activity Ctr
BURGER ACTIVITY CENTER SC
SUNSET VALLEY ES
SUNSET VALLEY
Joslin
JOSLIN ES
ACC PINNACLE CAMPUS
Convict Hill Greenbelt
WILLIAM CANNON DR
Williamson Creek West
Legend Oak
WILLIAMSON CREEK
Latta Branch
Dick Nichols
MILLS ES
Kent Preserve
Stephenson Preserve
BOONE ES
Longview
Kincheon Branch of Williamson Creek
WEST GATE BLVD
CROCKETT HS
Garrison
CUNNINGHAM ES
Odom
Archadillo
Circle C Ranch Metro Park on Slaughter Creek
KIKER ES
Slaughter Creek Tributary 4
Blowing Sink Park
Davis Hill
Elsa Higgins
Cherry Creek
COWAN ES
BOWIE HS
W SLAUGHTER LN
Danz Creek Tributary 1
Danz Creek Split
Danz Creek
Slaughter Creek Tributary 3
BAILEY JHS
Southland Oaks
Slaughter Creek
Slaughter Creek Park
Slaughter Creek Tributary 2
BARANOFF
KOCUREK ES
BRODIE LN
WANG BLVD
Pittmar
WILLIAMS ES
South Boggy Creek
CASEY ES
PAREDES JHS
Mary Moore Searight Park
S CONGRESS AVE
E SLAUGHTER LN
Onion Creek
Bear Creek
Boggy Creek 4
Boggy Creek 3
PLEASANT HILL BRANCH
BEDICHEK JHS
Williamson Creek Tributary 3
Williamson Creek Tributary 4
Williamson Creek Tributary 5
Danz Creek Tributary 2
Danz Creek Tributary 3
Danz Creek Tributary 4
Danz Creek Tributary 5
Slaughter Creek Tributary 1
Slaughter Creek Tributary 2
Slaughter Creek Tributary 3
Slaughter Creek Tributary 4
Slaughter Creek Tributary 5
Boggy Creek Tributary 1
Boggy Creek Tributary 2
Boggy Creek Tributary 3
Boggy Creek Tributary 4
Boggy Creek Tributary 5
Cherry Creek Tributary 1
Cherry Creek Tributary 2
Cherry Creek Tributary 3
Cherry Creek Tributary 4
Cherry Creek Tributary 5
Kincheon Branch of Williamson Creek Tributary 1
Kincheon Branch of Williamson Creek Tributary 2
Kincheon Branch of Williamson Creek Tributary 3
Kincheon Branch of Williamson Creek Tributary 4
Kincheon Branch of Williamson Creek Tributary 5
Williamson Creek Tributary 1
Williamson Creek Tributary 2
Williamson Creek Tributary 3
Williamson Creek Tributary 4
Williamson Creek Tributary 5
Williamson Creek Tributary 6
Williamson Creek Tributary 7
Williamson Creek Tributary 8
Williamson Creek Tributary 9
Williamson Creek Tributary 10
Williamson Creek Tributary 11
Williamson Creek Tributary 12
Williamson Creek Tributary 13
Williamson Creek Tributary 14
Williamson Creek Tributary 15
Williamson Creek Tributary 16
Williamson Creek Tributary 17
Williamson Creek Tributary 18
Williamson Creek Tributary 19
Williamson Creek Tributary 20
Williamson Creek Tributary 21
Williamson Creek Tributary 22
Williamson Creek Tributary 23
Williamson Creek Tributary 24
Williamson Creek Tributary 25
Williamson Creek Tributary 26
Williamson Creek Tributary 27
Williamson Creek Tributary 28
Williamson Creek Tributary 29
Williamson Creek Tributary 30
Williamson Creek Tributary 31
Williamson Creek Tributary 32
Williamson Creek Tributary 33
Williamson Creek Tributary 34
Williamson Creek Tributary 35
Williamson Creek Tributary 36
Williamson Creek Tributary 37
Williamson Creek Tributary 38
Williamson Creek Tributary 39
Williamson Creek Tributary 40
Williamson Creek Tributary 41
Williamson Creek Tributary 42
Williamson Creek Tributary 43
Williamson Creek Tributary 44
Williamson Creek Tributary 45
Williamson Creek Tributary 46
Williamson Creek Tributary 47
Williamson Creek Tributary 48
Williamson Creek Tributary 49
Williamson Creek Tributary 50
Williamson Creek Tributary 51
Williamson Creek Tributary 52
Williamson Creek Tributary 53
Williamson Creek Tributary 54
Williamson Creek Tributary 55
Williamson Creek Tributary 56
Williamson Creek Tributary 57
Williamson Creek Tributary 58
Williamson Creek Tributary 59
Williamson Creek Tributary 60
Williamson Creek Tributary 61
Williamson Creek Tributary 62
Williamson Creek Tributary 63
Williamson Creek Tributary 64
Williamson Creek Tributary 65
Williamson Creek Tributary 66
Williamson Creek Tributary 67
Williamson Creek Tributary 68
Williamson Creek Tributary 69
Williamson Creek Tributary 70
Williamson Creek Tributary 71
Williamson Creek Tributary 72
Williamson Creek Tributary 73
Williamson Creek Tributary 74
Williamson Creek Tributary 75
Williamson Creek Tributary 76
Williamson Creek Tributary 77
Williamson Creek Tributary 78
Williamson Creek Tributary 79
Williamson Creek Tributary 80
Williamson Creek Tributary 81
Williamson Creek Tributary 82
Williamson Creek Tributary 83
Williamson Creek Tributary 84
Williamson Creek Tributary 85
Williamson Creek Tributary 86
Williamson Creek Tributary 87
Williamson Creek Tributary 88
Williamson Creek Tributary 89
Williamson Creek Tributary 90
Williamson Creek Tributary 91
Williamson Creek Tributary 92
Williamson Creek Tributary 93
Williamson Creek Tributary 94
Williamson Creek Tributary 95
Williamson Creek Tributary 96
Williamson Creek Tributary 97
Williamson Creek Tributary 98
Williamson Creek Tributary 99
Williamson Creek Tributary 100
Legend
Austin City Limits
2 mile ETJ
5 mile ETJ
Outside of ETJ
Railroads
Hospitals
Bicycle Destinations
Commuter Rail Stops
State Parks
City of Austin Parks
Travis County Parks
Trails
No Facility
Off-Street
Shoulder Lane
Wide Curb Lane
Bike Lane
Capital Metro
Proposed Routes
Trails Proposed
Lance Armstrong Bikeway
1 0.5 0 1 Miles
SCALE
NORTH
DRAFT
SOUTH WEST EXISTING AND PROPOSED ROUTES
CITY OF AUSTIN BICYCLE PLAN UPDATE
HALFF

B8. TBG MEMO: BRT

MEMORANDUM

TO: Cooper Robertson & Partners

FROM: Kimberly Doerle
Mindy Cooper
DATE: 03.04.2009
PROJECT: UT Brackenridge Tract
PROJECT NO.: A08220

SUBJECT: Bus Rapid Transit

FOR:

- ☒ YOUR USE
- ☐ APPROVAL
- ☐ REVIEW/COMMENT
- ☐ INFORMATION ONLY
- ☐ AS REQUESTED

REMARKS:

Bus Rapid Transit, or BRT, is a term used for a public transportation system that uses a high quality bus service, and accompanying improvements to infrastructure, vehicles and scheduling above the ordinary bus line. BRT is intended to offer users the quality of rail transit, at a lower cost. BRT systems could travel within existing roadway lanes, or in a designated lane. Below is some research done on BRT system requirements, existing systems and information on station design.

- All busways fall within one of two types: "On-street" or "Off-street"

1. BRT Design – On Street

- On-street types;
  - 1 - Mixed-flow lanes (operates alongside other traffic types)
  - 2 - Mixed flow lanes with queue jumpers (same as above, but with additional lane to allow for passing at a traffic bottlenecks such as intersections)
  - 3 - On-street bus lanes (lanes dedicated to bus-only use)
  - 4 - Bus-only streets (entire roadway is dedicated to BRT).

- On-street types can employ various types of physical separation. Separation strategies include medians, bollards, curbing, walls & fencing.

- Examples of on-street BRT systems include:
  - 1 - Boston: Silver Line & Washington Line (predominantly on-street bus lanes)
  - 2 - Eugene, OR: EmX Green Line (combination mixed-flow lanes with queue jumpers & on-street bus lanes)

- 3 - Las Vegas: North Las Vegas MAX (combination mixed-flow lanes with queue jumpers & on-street bus lanes)
- 4 - Los Angeles: Metro Rapid (all mixed flow lanes)

2. BRT Design – Off Street

- Off-street types include;
  - 1 - Expressway bus lanes (HOV lanes)
  - 2 - At-grade transitways (for example, on abandoned rail lines)
  - 3 - Grade-separated transitways. (elevated or tunneled busways)

- Examples of off-street BRT systems include:
  - 1 - Miami: South Dade Busway (at-grade transitway)
  - 2 - Pittsburgh: East Busway (predominantly grade-separated transitway)
  - 3 - Ottawa: Transitway (mix of on & off-street, but predominantly grade-separate transitway)

- Minimum lane width is dependent upon lane type & bus size, but general rule of thumb is:
  - 11' width minimum for 8.5' wide buses.
  - 12' – 13' = ideal lane width.

- Turning lane requirements: 45' radius minimum

3. BRT Station Design

- Minimum station spacing = 1 per mile of BRT line

- Minimum station length:
  - 50' long for 40 – 45' buses
  - 65' long for 60' articulated buses

- Minimum loading dimensions (provide 2 loading positions):
  - 100' for 40' – 45' buses
  - 140' – 150' for 60' buses

4. Photos from existing BRT systems (please see next page)

- Boston:

Photo by itdp, Flickr

Photo by MDOT

- Ecuador

Photo by Transalt.org

- Las Vegas

Photo by SoCalMetro, Flickr

Photo by Nevada DOT

- Los Angeles

Photo by LAWad, Flickr

Photo by SoCalMetro, Flickr