

Georgetown Bicycle Master Plan

BIKE
GEORGETOWN 



City of Georgetown

Bicycle Master Plan

(Draft as of 7.29.2019)



Acknowledgements

Georgetown's residents have offered incredible insight and local knowledge that proved invaluable in this plan's creation, and the project team would like to extend its gratitude to each individual who participated in helping to produce a bicycle network that will serve the City for years to come.

CITY OF GEORGETOWN STAFF

Public Works

Octavio Garza, former Director
Ray Miller, Jr., Transportation
Planning Coordinator
Ed Polasek, former Transportation
Planning Coordinator
Mady Akers, Data Analyst

Planning

Sofia Nelson, Director
Nat Waggoner, Long Range Planning

Communications

Keith Hutchinson, Manager

Library

Eric Lashley, Director

City Manager's Office

Jim Briggs, General Manager of
Utilities

UNIVERSITY OF TEXAS AT AUSTIN

Project Manager

Dr. Ming Zhang, AICP

Project Assistant

Evan Scott

Project Team (2018)

Chris Bischak
Kyle Smith
Liang Chen
Louis Alcorn
Madison Graham
Nicole McGrath
Paulina Urbanowicz
Rachel Thomas
Robert Davila
Sydni Ligons
Ziqi Liu

Acknowledgements

ADVISORY SUPPORT

City of Georgetown

Kimberly Garrett, Director, Parks and Recreation

Eric Nuner, Parks and Recreation

Cari Miller, Manager, Convention and Visitors Bureau Board

Roland Waits, Police Department

Clay Shell, Fire Department

Georgetown Independent School District

Virginia Wade, Route Coordinator

David Biesheuvel, Executive Director of Construction and Development

Southwestern University

Derek Timorian, Associate Dean of Student Life

Jim Seals, Police Department

William Dunn, Police Department

TxDOT

Bonnie Sherman, Bicycle and Pedestrian Program Manager

John Peters, Assistant Area Engineer - Austin District

Williamson County

Randy Bell, Parks and Recreation

Adam Boatright, Roads and Bridges

Texas Transportation Institute

Phil Lasley, Mobility Analysis Group

Table of Contents

Acknowledgements	3
Table of Contents	5
List of Figures	8
List of Tables	10
Executive Summary	11
Vision, Goals and Objectives	11
SWOT Highlights	13
Proposed Bicycle System	14
Engineering, Education, Encouragement, Enforcement, and Evaluation Plan	16
Chapter 1: Introduction	17
1.1 Planning Purposes	17
1.2 Planning Process	18
1.2.1 Public Involvement	18
1.2.2 Online and On-Site Intercept Surveys	19
1.2.3 Field Investigation and Expert Consultation	21
Chapter 2: Current Conditions	22
2.1 Study Area	22
2.1.1 Geographic Factors	23
2.1.2 Major Barriers	23
2.1.3 Demographic Factors	27
2.2 Bicycle Demand Assessment	29
2.2.1 Key Takeaways from Community Workshops and Stakeholder Meetings	29
2.2.2 Key Takeaways from Online and Intercept Surveys	29
2.3 Bicycle Infrastructure Assessments	31
2.3.1 Existing Bicycle Facilities	32
2.3.2 Existing Infrastructure Factors	32
2.3.3 Planning & Zoning Factors	34

Table of Contents

2.4 Connectivity Assessment	36
2.5 Bicycle Level of Travel Stress Analysis	38
2.6 Crash Analysis	40
2.7 SWOT Analysis	42
2.7.1 Strengths	43
2.7.2 Weaknesses	44
2.7.3 Opportunities	45
2.7.4 Threats	46
2.8 Policy Environment Assessment	48
2.8.1 Current “5Es” Practices	48
2.8.2 Funding Constraints and Opportunities	50
2.9 Current Conditions Conclusions and Recommendations	53
Chapter 3: Recommendations	54
3.1 Vision, Goals and Objectives	54
3.2 Proposed Bicycle System	56
3.3 Proposed Plans for Focal Areas	61
3.3.1 Detailed Recommendations for Critical Nodes/Intersections	63
3.4 Phasing and Timeline	65
3.4.1 Top 10 Priority Projects	65
3.5 Recommended Treatments for Various Street Types	70
3.5.1 Major Arterial – Inner Loop	70
3.5.2 Minor Arterials- Northwest Boulevard	70
3.5.3 Local Street/Collector - 8th Street	72
3.5.4 8th Street Cycle-Track	74
3.5.5 Intersection Treatment - Maple and University	76
3.6 Bike Parking and Bike Share Recommendations	77
3.7 Policy Recommendations	81
3.7.1 General Amendments	82

Table of Contents

3.7.2 Incorporation of Biking into Other Planning Efforts	82
3.7.3 Program Recommendations	83
3.7.4 Design Standards	84
3.8 Cost Estimate	85
3.9 Decision-Making Process	86
Chapter 4: Make It Happen: Engineering, Education, Encouragement, Enforcement, and Evaluation Plan	87
4.1 Introduction	87
4.2 5E's Recommendations	89
4.2.1 Engineering	89
4.2.2 Education	90
4.2.3 Encouragement	92
4.2.4 Enforcement	93
4.2.5 Evaluation	94
4.3 Conclusions	95

List of Figures

Figure 1. Proposed Bike Network	15
Figure 2: Intercept Survey Locations	20
Figure 3: Major Bicycling Barriers	24
Figure 4. Most Unsafe Intersections in Georgetown (Source: Online Survey Responses, 2018)	26
Figure 5: Georgetown Population, 2016 (Source: American Community Survey)	27
Figure 6. Existing Off-street Trail System in Georgetown	31
Figure 7. Existing Zoning Classifications	34
Figure 8. Future Land Use - General Plan	35
Figure 9. Segments Identified as Primary Connectivity Concerns	37
Figure 10. Final BLTS Rating Map by Street Segment	39
Figure 11. Bicycle and Pedestrian Crashes in Georgetown	41
Figure 12. Georgetown Bike Share Bicycles	48
Figure 13. Proposed Network Concept Map	56
Figure 14. Proposed Bicycle Network	58
Figure 15. East View High School Safe Crossing	63
Figure 16. Mitchell Elementary and George Wagner Middle School	63
Figure 17. Georgetown and Chip Richarte High Schools	64
Figure 18. Top 10 Priority Projects	67
Figure 19: Project Prioritization	68
Figure 20. Complete List of Prioritized Projects	69
Figure 21. Current Conditions on SE Inner Loop	70
Figure 22. Before and After Treatments on Northwest Boulevard	71
Figure 23. Local Street Before and After Treatment	72
Figure 24. Holly/College St. Crossing to Bridge and Trail	73
Figure 25. Current Conditions and Potential Cycle Track in Downtown Georgetown	75

List of Figures

Figure 26. Before and After Intersection Treatment of Maple St. and University Ave.	76
Figure 27. Weighted Suitability for Bicycle Parking Priority Areas	78
Figure 28. Weighted Suitability Analysis for Bicycle Parking Priority Areas (Zoom to Downtown)	79
Figure 29. Bike-U Racks in San Gabriel Park	80
Figure 30. Example of On-Street Parking Spaces Converted to Bike Corral in Austin, TX	80
Figure 31. San Antonio Mayor Leading a Bike Ride	92
Figure 32. A new bicycle traffic counter is tested	94

List of Tables

Table 1. BLTS Ratings Utilized to Grade Georgetown, TX	39
Table 2. Mileage of Existing and Proposed Bicycle Facilities by Type	60
Table 3. Top 10 Priority Projects Descriptions	66
Table 4. Tier 1 (Top 10) Network Cost	85

EXECUTIVE SUMMARY

In 2018, the City of Georgetown began updating its 2030 Comprehensive Plan. A component of this update is the Bicycle Master Plan (the Plan), a joint effort between City staff and a project team from the University of Texas at Austin (UT Austin). An initial study of bicycling conditions in Georgetown was conducted in fall 2016 by the UT project team. This study provided a baseline for the formal planning process that began in fall 2018. To inform the plan-making, the project team engaged with the Georgetown community extensively through public workshops, online surveys, and neighborhood intercept surveys; led stakeholder meetings with City and County staff and representatives of regional and state agencies; and administered site visits across the city. In addition, the project team assembled 12 case studies of best practices from around the country and completed 11 topical reports on technical components of bicycle planning, including but not limited to crash analyses, cost estimates, and design considerations.

VISION, GOALS AND OBJECTIVES

The vision statement of the Georgetown Bicycle Master Plan describes the bicycling environment that the Plan aims to offer to Georgetown's residents and visitors. The goals and objectives specify strategies, actions, and paths toward the realization of that vision.

Executive Summary

VISION STATEMENT

Georgetown will have a safe, well-connected bicycle network that is accessible to all ages, abilities, and backgrounds; supports the local economy; and improves the experience of everyone biking in the community.

Goals	Objectives
<i>Promote safety</i> for cycling on-and off-road	<ul style="list-style-type: none"> • Prioritize bike paths that minimize conflicts with vehicle traffic. • Design intersections that prioritize protected bicycle and pedestrian crossings. • Increase awareness of and respect for bicycle riders through education and enforcement.
<i>Develop connectivity</i> across the city to provide access to popular destinations	<ul style="list-style-type: none"> • Design and build bicycle corridors that connect residential areas with the city center and major destinations. • Integrate with regional trails and bicycle networks. • Overcome barriers at critical crossing points to provide east-west and north-south connectivity across the city.
<i>Enhance equity</i> in bike access	<ul style="list-style-type: none"> • Balance the needs and interests of cycling groups and the general public. • Improve bicycle and pedestrian access around schools. • Build flat paths where possible to accommodate users of all abilities. • Expand transportation choices in underserved areas through bicycle infrastructure and connections to public transportation through first and last mile bicycle connections.
<i>Support the economy</i> through bicycling	<ul style="list-style-type: none"> • Implement bike and pedestrian-oriented urban design to increase transportation options to downtown businesses. • Promote bicycle tourism by fostering partnership between public agencies, private business, and non-profit organizations. • Ensure that commercial destinations have adequate bicycle parking. • Attract bicycle-oriented business.
<i>Foster a bicycle friendly culture</i>	<ul style="list-style-type: none"> • Educate residents about proper bicycling behaviors for bicyclists, drivers, and pedestrians. • Provide bicycle network maps and install wayfinding signage. • Pursue a Bicycle Friendly Community Designation. • Promote cycling as an easy, inexpensive way to enhance public health.

SWOT HIGHLIGHTS

A Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis was conducted based on information gathered from public engagements and field investigations. *Safety, connectivity, equity, economy, and culture* are key themes that emerged from the SWOT analysis. These themes have become key attributes of the vision and directed the formulation of goals and objectives of the Plan.

Strengths

- Bicycling for recreation is already very popular within the community.
- Recreational trails are utilized and enjoyed by residents and visitors.
- The Georgetown Public Library and the Sheraton Hotel both manage well-used public bike sharing services, and Southwestern University provides its students with on-campus bike sharing.
- Residents expressed support for additional bicycling facilities.

Opportunities

- Survey respondents stated that expansion of off-street trails would encourage bicycle use.
- Projects and infrastructure improvements that overlap with planned or proposed projects in other departments (e.g. Streets) can be prioritized for their low cost and high reward.
- There exist roads that can be utilized as a secondary low stress network to guide bikes away from major roadways.

Weaknesses

- The lack of bike lanes and bike facilities makes some residents feel unsafe while riding bikes.
- Drivers and bike riders lack knowledge and experience comfortably sharing the road.
- Most bicycle trips are recreational rather than for commuting or running errands. This is potentially due to Georgetown's proximity to a large city, its extensive parks with existing trails, and lack of bicycle infrastructure connecting popular destinations.

Threats

- Rapid development outside of Downtown does not lend itself to biking due to long distances between destinations.
- Improvements made to major arterials without incorporated bicycle infrastructure will fortify existing barriers to bike connectivity and likely create new threats.
- Lack of coordination among public agencies and private developers or advocates concerned with biking might delay or deter the implementation of City-wide bicycle system integration and infrastructure improvement.

PROPOSED BICYCLE SYSTEM

Planning and design of the bicycle network are guided by the Plan Vision, Goals, and Objectives. The essential elements of the proposed system can be characterized using the “5-4-3-2-1” framework below. A map of the proposed system is shown in Figure 1.

<p>5 types of bicycle infrastructure</p>	<p>It is not feasible nor economical to provide bicycle treatment on all streets, roadways, and intersections. The Plan proposes <i>five types of common bicycle treatments</i>: off-street path, physically protected bike lane, buffered bike lane, striped bike lane, and sharrow. Application of each type should be based on the assessment of system needs and local conditions.</p>
<p>4 sets of critical connections</p>	<p>The Plan proposes improvement to <i>four sets of critical connections</i> in order to overcome the identified bicycling barriers. The first set includes four bicycle crossing points along I-35 to improve east-west biking connectivity. The second set includes three crossing points along San Gabriel River to improve north-south connectivity in northern Georgetown. The third set includes three crossing points along University Ave. The fourth set connects Sun City to Overlook Park and Downtown while minimizing conflicts with Williams Dr.</p>
<p>3 closed bicycle loops</p>	<p>Upon completion of the four sets of critical connections, the Plan presents <i>three closed bicycle loops</i> to serve the whole of Georgetown.</p> <ul style="list-style-type: none"> • Loop 1: Central Georgetown components San Gabriel bike trail to the north and west, Maple St. and Holly St. to the east, 15th and 16th St. to the south • Loop 2: Southern Georgetown components San Gabriel bike trail to the north, Inner Loop to the east, 21st St. to the south, Wolf Ranch Pkwy. to the west • Loop 3: Northern Georgetown components San Gabriel bike trail network to the west and south, trails in Berry Springs Park to the east, Shell Rd. to the north
<p>2 corridors in central Georgetown</p>	<p><i>Two corridors</i> connect the three bicycle loops described above. They form a secondary low stress network that minimizes conflicts with Austin Ave. and 7th St., which carry large volumes of vehicular traffic. The north-south corridor follows Main St. and the east-west corridor is along 8th St. They intersect at the Square, Georgetown’s historic center.</p>
<p>1 central core</p>	<p><i>The Square</i> is the vibrant, people-centered focal point of Georgetown. The Plan aims to enhance connectivity between the Square and the rest of the city, building off of existing roads and integrating with park paths.</p>

Executive Summary

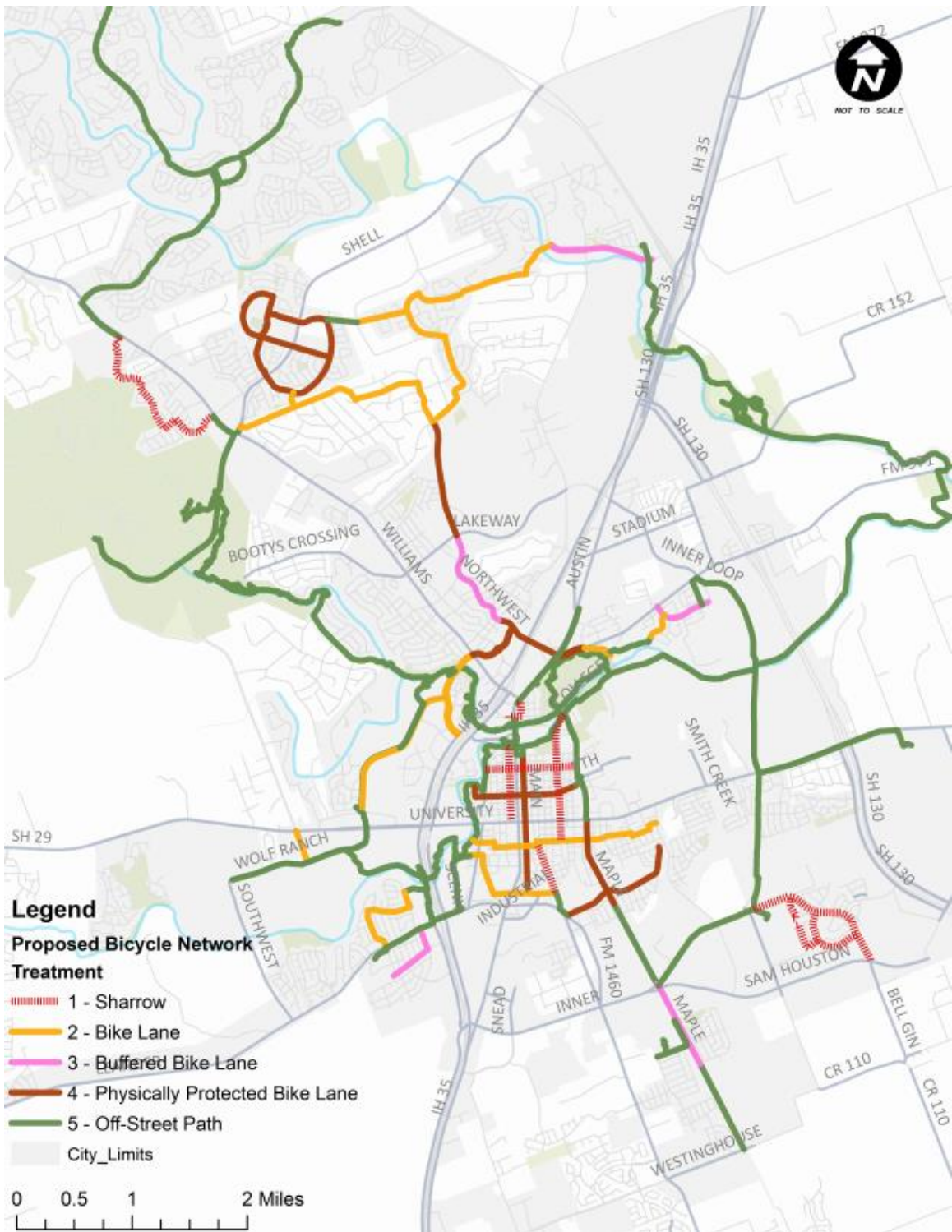


Figure 1. Proposed Bike Network

*for descriptions of the types of bike infrastructure shown in Figure 1, see page 44

ENGINEERING, EDUCATION, ENCOURAGEMENT, ENFORCEMENT, AND EVALUATION PLAN

Engineering, Education, Encouragement, Enforcement, and Evaluation make up the “5E’s” framework, the industry standard for implementing bicycle or pedestrian improvements. The City already possesses an extensive network of off-street cycling trails, which are popular among local bike riders and visitors and stimulate economic development for local businesses. The citizens of Georgetown have expressed interest in connecting the off-street trails and other key areas of the city via on-street facilities. To fulfill these requests, this plan utilizes the 5E’s framework. High level recommendations for each E are as follows:

Engineering

- Strengthen the City’s Complete Streets policy
- Adopt NACTO guidelines in all design manuals

Education

- Expand the Safe Routes to School program
- Train City engineers in bicycle facility design
- Partner with local bicycle advocacy groups to provide educational classes for adults and students

Encouragement

- Create a bicycle advisory committee
- Implement bicycle encouragement programs
- Work toward recognition as a Bicycle Friendly Community

Enforcement

- Work with the Georgetown Police Department to refresh officers on bicycle safety
- Enhance local laws and regulations to improve safety for bicyclists and all

Evaluation

- Create a bicycle and pedestrian counting program
- Implement a set of system performance measures