



To: ARTS MPO, City of Augusta

From: Alta Planning + Design: Joe Gilpin, Steve Bzomowski

Date: January 27, 2023

Re: ARTS MPO Regional Bicycle and Pedestrian Plan 2023 Update: Review of Augusta Street and Road Design Technical Manual

Introduction

Alta was scoped to review the current draft of the Augusta Street and Road Design Technical Manual last updated in 2018. Per conversations with City Staff, the MS Word version of the document was annotated and commented within by Alta staff. These comments and annotations represent reactions to the existing format and subject matter of the document. It became apparent during review that there were several main themes that would be better addressed in memo format and left as items to address as the City completes its update of the document in future months.

Themes

Complete Streets Principles

Should the City, County or MPO adopt any kind of a Complete Streets Policy, Resolution or Ordinance, the Street and Road Design Technical Manual is a natural first step in making better streets a reality. There were several themes that stood out within the document that allows it to fall short of providing complete streets for the community. GDOT currently has a statewide Complete Streets Policy.

Right of Way Requirements

Section 2 on right of way requirements provides overall right of way width and roadway pavement width. This is a minimal amount of information to guide the ultimate configuration and function of the facility. Lane configurations, lane widths, presence of sidewalk, vegetated buffers, bicycle facilities, etc are not provided. Alta has provided more detailed feedback on this section including recommending design/posted speed. Lane widths are typically 12 feet or greater throughout the document. Best practice allows down to 10 feet in width with no safety or capacity implications. This will allow the available right of way to provide more service to residents whether this space is being used for bike facilities, additional landscaping or other amenities. The City may wish to define exact roadway cross-sections to minimize any confusion and inconsistency.

Speed

There is growing recognition of the link between speeds and roadway safety. Streets with higher posted and design speeds tend to have more crashes than those with lower travelled speeds. As a document that will guide the future of the City, the Manual would do well to influence design practices to set appropriate posted and design speeds in urban and suburban areas where intersection/driveway density and the presence of vulnerable road users exists. Alta recommends that the City adopt a policy where the street not be designed for faster speeds than the posted speed. See NACTO's "Speed Limits Guide" for additional discussion. This issue may need accompanying policy work.

Connection to Bike/Ped Plans

The ARTS MPO Bike/Ped Plan update is currently being completed. This document recommends specific facility types on specific streets to create a layered network of bicycle and pedestrian facilities. The Street and Road Design Technical Manual should support and reference the Bike/Ped Plan and ideally provide direction to users of the Manual to help clarify about what facilities need to be included in roadway projects. Ideally all collector and arterial roadways in Augusta should have consideration for pedestrian and bicycle facilities. This link is not made in the current version of the Manual. Both of the linked example manuals (on the following page) do an excellent job of defining facilities present in each roadway section.

Specific Standards for Bikeways

Alta recommends that beyond establishing where bikeways should be provided, that they should have key dimensions identified in the document. Overall, Alta recommends that at a minimum the AASHTO Guide for the Development of Bicycle Facilities be referenced; however, this document is currently 10 years old and has been in the process of update for several years. The 5th Edition of the Guide should be referenced as a future standard.

Residential Streets

Neighborhoods that are attractive places with slow moving traffic are typically the most inviting and encourage children to play and travel independently. The Manual should do more to promote these principles through narrower streets, traffic calming. Additionally, either here, or in the Land Subdivision Regulations, the subject of neighborhood street connectivity should be addressed to maximize connection points at least by sidewalk to improve walking conditions.

Pedestrian Safety

There is little directly addressing pedestrian safety in the current version of the Manual. Specific subjects that could be covered are reducing crossing distances, provision of improved crossings, max distance between crossings, or crossings to be provided by a project at the discretion of the City Engineer.

Intersection Design

It is unclear if the Manual is to be used for intersection design. There are requirements listed for deceleration lanes, traffic analysis, etc. We recommend that roundabouts be the first consideration for future intersection retrofits and new builds. Pedestrian and bicycle safety and comfort should be a primary component of intersection design.

Corner Design

Alta noted some items for consideration in corner radii design. Much of this could be a more complex discussion of design and control vehicles, or it could be simplified to incorporate more complex ideas and analysis into tabular format with corner radii required for various street widths taking into account available maneuvering space and effective turning radius. Mountable truck apron corners could even be applied to allow heavy vehicle movement while keeping the intersection compact for vehicles.



Additional References for Consideration

Model Design Manual for Living Streets (open source and available to be used with citation)

<http://www.modelstreetdesignmanual.com/chapters.html>

NACTO Speed Limits Guide

<https://nacto.org/publication/city-limits/>

Public Rights of Way Accessibility Guide (PROWAG)

<https://www.regulations.gov/document/ATBCB-2011-0004-0347>

Example Street Design Manuals

Kalamazoo, MI

<http://www.imaginekalamazoo.com/projects/streetdesignmanual/>

Salt Lake City, UT (see street typologies)

<https://www.slc.gov/transportation/wp-content/uploads/sites/11/2022/08/Salt-Lake-City-Street-Intersection-Typologies-Design-Guide-FINAL-February-2022-Reduced-Size.pdf>