



Transportation Design Manual and Complete Streets Guide

Introduction and User Guide



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MEMORANDUM



Transportation

DATE: May 20, 2024
TO: Transportation Department Staff
FROM: Andrew Singelakis, Transportation Director
SUBJECT: Effective Date of Transportation Design Manual and Complete Streets Guide

A handwritten signature in blue ink, appearing to read "Andrew Singelakis".

The Transportation Department has a continuing program, as authorized by the Transportation Development Code BCC 14.60.40, to prepare, adopt, and update design standards to establish minimum requirements for the design and construction of transportation facilities and requirements for protecting existing facilities during construction. As part of that program, the department's Design Manual has been updated.

This update to the manual, now titled the **Transportation Design Manual and Complete Streets Guide**, includes an expansion to the Design Standards, updates to the Standard Drawings, and the addition of the new Complete Streets Guide. The updated manual is available online at: <https://bellevuewa.gov/city-government/departments/transportation/permits-and-standards/transportation-design-manual>.

This manual should be incorporated for projects currently under design where the revisions can be incorporated without scope change or a cost increase to the project. Projects under construction will not utilize the new design standards and drawings unless directed to do so by the Review Engineer or Project Manager.

The effective date of this revised design manual is May 22, 2024.

Introduction

The Bellevue Transportation Design Manual and Complete Streets Guide establishes requirements for the design and development of transportation facilities in Bellevue based on a Complete Streets approach to ensure safe, reliable, equitable mobility for people using all modes of travel.

This approach places emphasis on providing safe and comfortable alternatives for non-vehicle modes to make walking, biking, and transit accessible and available throughout Bellevue in support of City codes and policies.

This manual is comprised of two volumes: Volume 1 Transportation Design Manual and Volume 2 Complete Streets Guide.

The Complete Streets approach is mandated by the Bellevue city code (BCC) as follows:

“The City of Bellevue will, to the maximum extent feasible, implement complete streets. ‘Complete streets’ means that streets provide appropriate facilities to meet the mobility needs of people of all ages and abilities who are walking, bicycling, riding transit, driving, and transporting goods. Complete streets will be implemented through the scoping, planning, design, building, operating, and maintaining an integrated and connected transportation system.” BCC 14.60.191, enacted by Ordinance 6308 on 9/16/2016.

This manual provides context for Complete Streets and the other City of Bellevue transportation-related goals and objectives. It also provides design guidance, city requirements and standards in order to meet this mandate. It is based upon and implements city, state, and national laws, codes, regulations, ordinances, plans, and policies, as well as best practices from organizations like the National Association of City Transportation Officials (NACTO) and the Institute of Transportation Engineers (ITE).

Safety, achieved through appropriate project design, is a key city goal. The design requirements contained within this manual, per BCC 14.60.191, are intended to supplement, but not be a substitute for, competent work by design professionals. In a complex urban environment, the designer of transportation facilities will need to make decisions regarding competing project elements. As this manual cannot anticipate all such situations, the design professional must therefore apply engineering analysis and sound professional judgment in the design process.

The City of Bellevue encourages creativity and context-appropriate innovations that result in a superior design. When designs are proposed that fall outside the design parameters of this manual, additional documentation will be required to record the decision-making process. Proposed deviations from these standards will be evaluated on the basis that the proposal will meet requirements for safety, financially feasible maintenance, and that it produces comparable or superior results for the user, the environment, and the public.

User Guide

This manual shall be used for new development projects, ones that modify existing developments or city right-of-way, and city-constructed projects. This manual is to be used as a resource by city staff, residents, developers, contractors, and design professionals.

This manual is comprised of two volumes each corresponding to a specific phase of project development. The following descriptions provide guidance on the content and intended audience for each part of the manual.

Volume 1: Design Manual

Volume 1 provides detailed information in the form of Design Standards and Standard Drawings.

Project Phase(s): Planning, design, construction

Target audience: City staff, developers, design professionals, developers, franchise utilities, and property owners

Contents: Design and drawing standards for compliance of materials, dimensions, and placement within the right-of-way for streets, frontage improvements, and private improvements connecting to the city right-of-way

Part 1 Design Standards

- Section 1 Introduction and General Consideration: General requirements for development of the manual, references, and plan preparation.
- Section 2 Construction Requirements for Developments: Inspection, testing, and acceptance process.
- Section 3 Street Design and Construction: Geometric design requirements for transportation facilities.
- Section 4 Traffic Engineering: Standards for signals, illumination, channelization, and traffic calming.

Part 2 Standard Drawings

Links are provided to both PDF and CAD versions of these drawings.

Appendices

Volume 2: Complete Streets Guide

Volume 2 consists of the framework and illustrated guidance for the City's multimodal transportation network.

Part 1: Transportation Policy

Part 1 provides the policy framework for the development of transportation-related facilities in Bellevue.

Project Phase(s): Scoping, planning, and design

Target audience: City staff, developers, and consultants. The public will also find value in this section.

Contents:

- Section A General Considerations: high-level information about permitting, deviation from standards, design criteria, engineering plans
- Section B Comprehensive Plan – Transportation Element: goals and policies relevant to the design, development, and implementation of streets
- Section C Complete Streets: description and importance of the city's approach to creating safe and reliable mobility options, as well as relevant Comprehensive Plan policies
- Section D Vision Zero: description of the city's initiative to eliminate fatalities and serious injuries on Bellevue streets, and relevant Comprehensive Plan policies
- Section E Multimodal Level of Service: description and overview of standards and guidelines the city uses to integrate the needs of all modes of travel, to ensure multimodal connectivity through the city.

Part 2: Complete Streets Components

Part 2 provides illustrated decision-making guidance for the public right-of-way and direction on use of general design features.

Project Phase(s): Scoping, planning and design

Target audience: City staff, consultants, design professionals, developers

Contents:

- Section A How a Complete Street comes together
- Section B Pedestrian Facilities

- Section C Bicycle Facilities
- Section D Transit Facilities
- Section E Roadway and Curb Space Facilities
- Section F Intersections
- Section G Other Key Considerations

The following tables and figures have been updated from and supersede those in adopted plans and reports:

Table 3: Sidewalk and Landscape Buffer Width Standards

Source: MMLOS Metrics, Standards & Guidelines, 2017

Table 4: Mid-Block Pedestrian Crossings

Source: MMLOS Metrics, Standards & Guidelines, 2017

Table 5: Bicycle Level of Service / Level of Traffic Stress

Source: MMLOS Metrics, Standards & Guidelines, 2017

Table 6: Bicycle Facility Components at an Intersection

Source: MMLOS Metrics, Standards & Guidelines, 2017

Table 7: Transit Stop / Station Level of Service

Source: MMLOS Metrics, Standards & Guidelines, 2017

Figure 4: Bicycle Network Map.

Source: 2009 Pedestrian & Bicycle Transportation Plan

Figure 5: Existing and Planned Mid-Block Crossings

Source: Downtown Transportation Plan, October 2013

Figure 6: Planned Sidewalk Width and Landscape Type

Source: Downtown Transportation Plan, October 2013

Figure 8: Recommended Intersection Types

Source: Downtown Transportation Plan, October 2013