

PUBLIC WORKS

Missoula City Public Works Standards and Specifications Manual

September 23, 2020



Overview

Public Works Manual Purpose:

- Provides comprehensive document for developers, contractors & engineers
- Establishes design & construction standards for City-owned and -maintained infrastructure

Overview

Process:

- Created initial draft & presented it to PW Committee July 15, 2020
- Notified contractors, engineers, and developers of draft availability for questions and comment
- Posted to Engage Missoula
- Reviewed external input and edited as appropriate
- ★ Today – Presenting final Manual
- ★ Takes effect following the adoption of MMC Title 12, Streets, Sidewalks and Public Places – expected to be Nov. 18, 2020

Chapters

- Introduction
- Chapter 1 – General Provisions
- Chapter 2 – Construction within the Right-of-Way
- Chapter 3 – Improvement Plans
- Chapter 4 – Water System
- Chapter 5 – Sanitary Sewer System
- Chapter 6 – Storm Water System
- Chapter 7 – Transportation System
- Chapter 8 – Erosion Control

Chapter 1 – General Provisions

In progress—coming later in 2020

Chapter 2 – Construction within the Right-of-Way

In progress—coming later in 2020

Chapter 3 – Improvement Plans

Defines plan requirements, design reports, external coordination, and process.

Changes:

- Added language that we intend to update the Manual annually in mid-November, as needed. (However, since we are currently working on Chapters 1 & 2, we will need to update sooner during this first year of implementation.)
- Added language clarifying that applicable Manual version will be dependent on when the project submits a Stage 3 package for review.
- Added language clarifying the differences between Site Development Projects and Public Infrastructure Projects and when the requirements of the Manual are applicable to each.
- Revised language and moved information related to the coordinate system to be used with Public Infrastructure Projects.

Chapter 3 – Improvement Plans

Changes, continued:

- Clarified language for plan view requirements, erosion control plans, ground vs. grid, accuracy of submissions, and symbology.
- Added a general timeline for City review for each of the seven stages of the submission process.
- Clarified submittal requirements for subdivision and zoning compliance reviews.
- Added language to require a plat to be incorporated into the submission information as staff needs to determine necessity of easements prior to release of plans and issuance of permits.
- Made minor changes to the stages of the Project Development Toolbox.

Chapter 4 – Water System

Incorporates existing Missoula Water standards and minor changes.

Changes:

- Added Section 4.2.5 Wet Utility Main Best Practices
- Added requirement for the engineer or a Missoula Water representative to inspect the pressure testing apparatus prior to start of test.
- Added requirement that all equipment used in a pressure test should be intended for use in potable water systems and should only be used for conducting pressure tests in potable water systems.
- Added a new specification for flange gasket materials and installation torque.
- Modified Appendix 4-A to require backflow prevention for premises that have frost free hydrants or stop and waste valves.

Chapter 5 – Sanitary Sewer System

Consolidates City's current sewer collection system administrative rules, standard details, and municipal code.

Changes:

- Added technical specifications for city-owned lift stations.
- Added references to Chapter 4 – wet utility main best practices section.
 - Provides requirements for main extensions and locations relative to other ROW infrastructure.

Chapter 6 – Storm Water System

Incorporates Storm Water Utility Code (MMC 13.27) effective April 8, 2020.

Changes:

- Clarified that green infrastructure and low-impact development are highly encouraged but not required by City.
- Clarified that geotechnical reports are required only when infiltration facilities are proposed.
- Clarified that infiltration testing can be performed by any licensed engineer with infiltration testing experience, not just geotechnical engineers.
- Updated infiltration testing procedures to better emulate the infiltration seen in dry wells and to allow them to be performed using the existing equipment available to consultants.

Chapter 6 – Storm Water System

Changes, continued:

- Removed the requirement for a groundwater study when infiltration facilities are proposed unless the Utility Engineer suspects that there may be issues with groundwater depth.
- Modified language to allow for deeper dry wells if necessary to get to highly infiltrative layer.

Chapter 7 – Transportation System

Consolidates current admin rules, standard details, and municipal code.

Changes:

- Added reference documents including Activate Missoula 2045, NACTO Urban Bikeway Design Guide, and Uniform Vehicle Code.
- Deleted edition date of reference documents and added note that City adopts most current version of all references.
- Clarified plan submittal requirements.
- Added requirement for coordination meeting with City Engineer prior to Traffic Impact Study (TIS) submittal to determine study content and assumptions.
- Added specific TIS submittal information requirements.

Chapter 7 – Transportation System

Changes, continued:

- Changed section header to “Intersection Sight Distance.” Sight distance at driveway approaches and alleys will be based on existing code while street intersections will be per AASHTO standards.
- Clarified requirements for street horizontal and vertical curves, chip seal/pavement, curb markings, street section depths, geotextile material, intersection alignment, and grading for new development.
- Changed to allow use of asphalt millings in lieu of new pavement in existing unpaved alleys. Owner/developer can still pave alleys but new standards to address drainage, etc. will apply.

Chapter 8 – Erosion Control

Incorporates Storm Water Utility Code (MMC 13.27) effective April 8, 2020.

Changes:

- No significant changes required.

Standard Drawings

Changes:

- Modified details as needed to comply with current City-accepted installation methods.
- Updated to include details by other regional cities.
 - Bioswale detail
 - Curb cut detail based on Mary Avenue experience
- Added materials requirements to ensure quality of surface improvements.
 - Telespar sign posts
 - Differing thicknesses of specific sub-base and base course materials for streets based on sub-grade quality
- Updated safety requirements
 - Better alignment with the Public Right-of-Way Access Guidelines
 - Sight distance triangle update

Standard Drawings

Changes:

- Added language depending on jurisdiction over project (i.e., MDT vs City).
- Added a 24-inch diameter combination inlet that will work for dry wells or smaller inlets.
- Updated the round storm water grate/lid detail for a bike friendly grate and an ADA grate.
- Updated storm water manhole cover detail to bring it up to current standards and match basic details of sewer manhole cover.
- Updated erosion control details to bring them up to current best practices and to match what contractors are using in project sites.

What's Next?

Pending City Council approval of changes to MMC Title 12, Streets, Sidewalks and Public Places, Manual will be:

- Adopted by administrative rule.
- Will take effect in conjunction with Title 12 changes, estimated to be Nov. 18, 2020.
- Posted on City's Public Works webpage for public access at <http://www.ci.missoula.mt.us/2708/Public-Works-Standards-Specifications-Ma>.
- Updated as needed.

Questions & Feedback

Thank you!