



STAFF REPORT

PLANNING COMMISSION

DATE: 08/26/2019

ITEM #:

AGENDA ITEM: Approve Engineering Design and Construction Standards Manual –
APRIL 2019 Revisions

SUBMITTED BY: Jack Griffin, City Engineer

REVIEWED BY: Kristina Handt, City Administrator
Ken Roberts, Planning Director
Marty Powers, Public Works Director
Chad Isakson, Assistant City Engineer

ISSUE BEFORE THE COMMISSION: Staff respectfully requests that the Planning Commission review and recommend approval of the APRIL 2019 revisions to the Engineering Design and Construction Standards Manual.

BACKGROUND: The City maintains engineering design standards, standard specifications, and standard details for public infrastructure within the City, including streets, sanitary sewer, watermain, storm water facilities, right-of-way management and boulevard layout. This information is compiled into an Engineering Design and Construction Standards Manual for use by staff and the development community. The latest version of the Manual is dated March 2017.

The standards have been established to set minimum requirements to be met for all public infrastructure projects in the City with the intent of constructing consistent and compatible infrastructure systems throughout the community; to clearly communicate with the development community these minimum expectations and requirements; and to expedite plan design, preparation and City plan review and approvals. The engineering design standards and guidelines have been established to address the most common project elements and are to be used in conjunction with the requirements set forth by applicable codes, laws and ordinances, recognized industry standards, good engineering practice and specific project needs. Omission of reference in these standards and guidelines does not relieve responsibility for compliance with these requirements. In addition, the provisions of these standards and guidelines are not intended to prohibit the use of alternative systems, methods or components. Professional engineering judgement and ingenuity is encouraged to adapt to specific project needs. However, varying from the standards and guidelines will only be permitted with the approval of the City, after performing due diligence to ensure the design is equivalent or superior to the prescribed elements of the guideline.

PROPOSAL DETAILS/ANALYSIS: The Engineering Design and Construction Standards Manual is a living document that is reviewed and modified from time to time by City staff to adapt pro-actively to changing conditions so as to remain current, address best practices and extract additional economic value and performance as needed. Changes are often based on recommendations from Engineering, Planning, Public Works, the construction observation staff or other City staff, the development community, and other stakeholders. Changes made by the City Engineer over time are periodically brought forward as revisions to the Engineering Design and Construction Standards Manual to formalize the City's approval.

The Engineering Design and Construction Standards Manual dated APRIL 2019 includes the following revisions and updates:

1. Revised minimum street widths as detailed in the attached Engineering Design Standard red lines. Street width revisions were made per Council direction following the June 11, 2019 workshop.
2. Reconciled minor street geometric parameters.
 - Removed tangent requirement between curves along local streets.
 - Reduced the minimum intersection offset distance from 150 feet to 125 feet.
 - Increased the minimum gutter grade in cul-de-sacs from 0.5% to 1.0%.
3. Revised the bituminous wear course mix to require a higher-grade oil in the mix (Asphalt Grade C) and eliminated the practice of “saw and seal” on local streets.
4. Increased the minimum pavement section for collector streets to require 24-inches of select granular borrow.
5. Revised the concrete strength requirements from 3,900 PSI to 4,500 PSI, consistent with the new MnDOT and industry standards.
6. Revised the minimum right-of-way widths and minimum boulevards to be consistent with the approved 2040 Comprehensive Plan, Transportation Chapter and to accommodate the wider streets.
7. Revised the City standard street light fixture and pole to reflect the City’s recent change to LED lighting.
8. Added minimum utility easement width requirements for watermain, sanitary sewer and storm sewer to be consistent with existing practices.
9. Removed the requirement to have storm water facility Outlots dedicated to City ownership. The new practice will be to require drainage and utility easements over the entire Outlot.
10. Revised the Standard Detail Plates for pedestrian ramps to be consistent with the new MnDOT and ADA standards.
11. Updated the Specifications and Details to reflect MnDOT 2018 Specification updates (updated from MnDOT 2014).
12. Updated the specifications to require storm sewer televising, similar to sanitary sewer televising.
13. Reviewed and red lined the City Subdivision Ordinance, Open Space Ordinance, and Stormwater Management Ordinance design standards to be consistent with the Engineering Design Standards Manual.

FISCAL IMPACT: No fiscal impact at this time. Should the City council adopt wider street widths, the future infrastructure street and storm water construction, reconstruction and ongoing maintenance costs will increase accordingly.

RECOMMENDATION: Staff is recommending that the Planning Commission recommend approval of the APRIL 2019 revisions to the Engineering Design and Construction Standards Manual. The recommended motion for the action is as follows:

“Move to recommend approval of the APRIL 2019 revisions to the Engineering Design and Construction Standards Manual.”

ATTACHMENTS:

1. Engineering Design and Construction Standards Manual dated APRIL 2019.

**The full Engineering Design and Construction Standards Manual, dated APRIL 2019 is available for review at City Hall.*