



PAVEMENT DESIGN MANUAL

RS-22-174

November 29, 2022

Background

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- ❑ September 2020, the City contracted with Raba Kistner Consultants, Inc. to Develop an updated Pavement Design Manual
- ❑ On September 20, 2022, Council directed staff to work with a stakeholder group to review the proposed code updates to Chapter 26 and separate out the Pavement Design Manual into a separate agenda item.
- ❑ On October 24, 2022 a stakeholder meeting occurred to review the proposed Pavement Design Manual.

Pavement Design Manual

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- ❑ Based on TXDOT FPS21 design software program
 - ❑ Used by TXDOT and Cities throughout Texas
- ❑ Required for all city street, alleys, and rehabilitation of existing streets
- ❑ Asphalt roadways shall be designed for a 20-year service life
 - ❑ Time to first Overlay is 20 years

Pavement Design Manual

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- ❑ Promotes a Geotechnical analysis for all local residential roadways and requires analysis for all arterials
- ❑ Minimum Asphalt Thickness is 3" for local residential roadways without analysis, and a minimum of 2" with a full analysis.
 - ❑ City of Round Rock's minimum is 3" for all Roadways.
 - ❑ Williamson County/Austin/Pflugerville minimum is 2" Asphalt over 14" Base for local Roadways.
 - ❑ City currently requires 1.5" Asphalt over 8" Base for local Roadways.

Alternatives Considered

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The City Council has three (3) alternatives. The Council may:

- ☐ Take no action
- ☐ Request a modification or further studies to the Pavement Design Manual
- ☐ Adopt the 2022 Pavement Design Manual

Staff Recommendation

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- Staff recommends that the City Council Adopt the Pavement Design Manual