



City of Killeen

Legislation Details (With Text)

File #: RS-22-174 **Version:** 1 **Name:** Adopt Pavement Design Manual
Type: Resolution **Status:** Passed
File created: 11/7/2022 **In control:** City Council
On agenda: 12/6/2022 **Final action:** 12/6/2022
Title: Consider a memorandum/resolution adopting the 2022 Pavement Design Manual.
Sponsors: Development Services, Engineering
Indexes:
Code sections:
Attachments: 1. Pavement Design Manual, 2. Presentation

| Date | Ver. | Action By | Action | Result |
|------------|------|-----------------------|----------|--------|
| 12/6/2022 | 1 | City Council | Approved | Pass |
| 11/29/2022 | 1 | City Council Workshop | | |

Consider a memorandum/resolution adopting the 2022 Pavement Design Manual.

DATE: **November 29, 2022**
TO: **Kent Cagle, City Manager**
FROM: **Edwin Revell, Executive Director Development Services**
SUBJECT: **Adoption of the 2022 Pavement Design Manual**

BACKGROUND AND FINDINGS:

The City is currently working to update the pavement design requirements throughout the City. The pavement design manual will allow for requirements to extend the design life of the pavement before necessary repairs will be needed. It was observed in the recent winter storms that the repair needs on the existing roadways is a high cost and will take time to "catch up." To address this issue, staff has worked to improve our design standards with the development of a new Pavement Design Manual (PDM). The City contracted with Raba Kistner Consultants, Inc. in September of 2020 to develop a PDM based on current practices and methods used in the surrounding area. The design methodology follows TXDOT's current Flexible Pavement Design System (FPS21) design software program published in 2021. This program and design methodology has been used and adopted by several cities throughout Texas. The manual requires a geotechnical analysis and pavement design for all arterial roadways. For local residential roadways there is a minimum standard table provided for areas that meet the soils requirement without a geotechnical pavement design. The adoption of this resolution will ensure all references related to the pavement design manual in City Code and published standards will be for the 2022 Pavement Design Manual.

The PDM will allow the City to better manage the design and construction of the its infrastructure and will provide clear and consistent guidance to developers.

THE ALTERNATIVES CONSIDERED:

1. Take no action
2. Request a modification or further studies to the Pavement Design Manual
3. Approve and adopt the 2022 Pavement Design Manual

Which alternative is recommended? Why?

Alternate 3 is recommended by staff. The need for improved pavement design standards will help assist the City in maintenance of the roadways by extending the time before repairs are needed.

CONFORMITY TO CITY POLICY:

This complies with City Policy as established by Chapter 26, Subdivisions and Other Property Developments, and ensures the health, safety and general welfare of the city and the safe, orderly, and healthful developments of the city. In addition, this amendment fully comports with several Comprehensive Plan recommendations including:

LU1.2 Revamp the city's transportation policies and design standards to support walkable neighborhood and safe street principles.

MC6.4 Update design standards to reduce pavement and lane widths to reduce maintenance and construction costs and slow cars down to improve safety.

FINANCIAL IMPACT:

What is the amount of the expenditure in the current fiscal year? For future years?

This action requires no expenditures at this time.

Is this a one-time or recurring expenditure?

This action requires no expenditures at this time.

Is this expenditure budgeted?

This action requires no expenditures at this time.

If not, where will the money come from?

Not applicable.

Is there a sufficient amount in the budgeted line-item for this expenditure?

This action requires no expenditures at this time.

RECOMMENDATION:

Staff recommends adopting the 2022 Pavement Design Manual to allow the City of Killeen to provide clearer

guidance to developers.

DEPARTMENTAL CLEARANCES:

Development Services
City Attorney

ATTACHED SUPPORTING DOCUMENTS:

Pavement Design Manual