



STREET MAINTENANCE SPECIAL REVENUE FUND AUDIT

Audit Report #26-02

A Report to the City of Killeen Audit Committee

Committee Chair Ramon Alvarez
Committee Members Riakos Adams
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Prepared by:

The Internal Audit Department
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April 2026

Executive Summary



AUDIT REPORT HIGHLIGHTS

Why Was This Audit Conducted?

The City Auditor conducted this audit in accordance with the requirements of Ordinance 21-055, which requires the Street Maintenance Special Revenue Fund to be audited annually by the City's internal auditor.

The City Auditor appreciates the cooperation of Engineering, Finance and Public Works staff in the completion of this audit.

Mayor and Council,

We are pleased to present this audit of the City's Street Maintenance Fee Special Revenue Fund.

Audit Objectives

The objectives of the audit were to (1) review Street Maintenance Fee Special Revenue Fund revenues and expenditures for FY 2024 and FY 2025; and (2) review street maintenance activities for FY 2024 and FY 2025. The scope of the audit included street maintenance projects funded by the Special Revenue Fund and reconstruction projects funded by Series 2022 Certificate of Obligation Bonds, which are paid down by the Special Revenue Fund.

Audit Results

Despite the extensive damage to the City's streets wrought by Winter Storm Uri, the City's overall pavement condition index (PCI) rating ticked upward in 2024 to 77, from its prior rating assessment of 76 in 2019. This was likely due, in part, to the introduction of the Mill and Overlay program in FY 2021 bolstered by the first wave of road reconstruction projects funded largely by 2022 Series Certificate of Obligation Bond proceeds. The City's current goal is to maintain the overall PCI rating of 77 assessed in 2024. However, we believe the City's continued dual-track strategy of street maintenance coupled with road reconstruction projects warrants adopting a more aspirational long-term goal of achieving an overall PCI rating of 80+ by 2040. With regard to future reconstruction projects, Engineering should consider working with Communications and Marketing to develop a dashboard for tracking individual reconstruction projects. Ideally, the dashboard would allow residents and business owners to navigate the various phases of a reconstruction project in real-time to include the impact on scheduled completion from delay factors due to weather, soil conditions, and other issues encountered during reconstruction.

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Introduction

The City Auditor conducted this performance audit of the Street Maintenance Special Revenue Fund pursuant to Article III, Chapter 40 of the City Charter, as amended May 11, 2013, and in accordance with the City Auditor’s Biannual Audit Plan, approved by the Audit Committee, September 5, 2024.

This audit was conducted in accordance with City Ordinance 21-055, which requires that the “Street Maintenance Special Revenue shall be audited twice annually, once by the City’s internal auditor and once by the external auditor.”

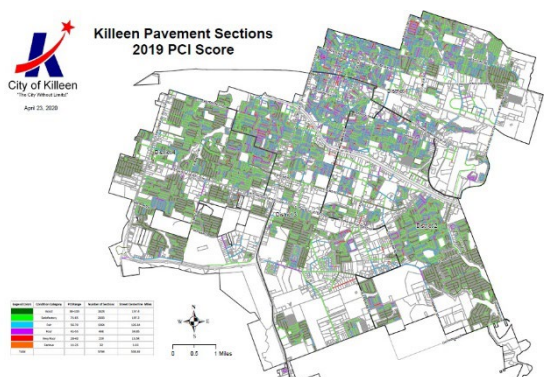
The objectives of the audit were to (1) review Street Maintenance Fee Special Revenue Fund revenues and expenditures for FY 2024 and FY 2025; and (2) review street maintenance activities for FY 2024 and FY 2025. The scope of the audit included street maintenance projects funded directly by the Special Revenue Fund and reconstruction projects funded by Series 2022 Certificate of Obligation Bonds, which are being paid down by the Special Revenue Fund.

Background

In December 2018, City Council established the Street Maintenance Fee along with the Street Maintenance Fee Special Revenue Fund. Originally set at \$1.70 per “single family equivalent,” the initial fee generated approximately \$1.7 million in revenues, which were restricted in use to street maintenance activities only. In accordance with the best practice of using limited resources to “keep good roads, good,” fee revenues were used primarily for preservation work in form of slurry seal and HA5 Mineral Bond projects on residential streets.

Pavement Condition Index (PCI) Assessment – 2019

In April 2019, City Council authorized its second PCI assessment of the City’s road system. A previous PCI assessment, conducted by Transmap in 2013 had given the City’s road system an overall PCI rating of 84. In letter grade terms, this could be considered an A-/B+ grade. The 2019 PCI assessment, again conducted by Transmap, gave the road system an overall PCI rating of 76, or a solid B grade. The 8-point decline in street conditions coincided with a steady decline in funds budgeted for street maintenance during the period. The report recommended an annual street maintenance budget of \$4.3 million to maintain the City’s overall PCI rating of 76. This was approximately \$2.5 million more than the revenue generated by the initial street maintenance fee.



Winter Storm Uri

In February 2021, Winter Storm Uri inflicted an estimated \$40 million in damages to the City's transportation infrastructure. While the streets having received slurry seal and the HA5 mineral bond treatment in the previous year fared well, the deep freeze had the effect of accelerating the deterioration in roads that were already in a state of decline. To begin addressing the damage, City Council authorized a one-time transfer of \$3 million from the Capital Improvement Fund (CIP) to conduct mill and overlay work on W.S. Young, Gateway Drive, Elms Road, and Trimmier.



Turning Point

The decline in street conditions from 2013 to 2019, punctuated by the widespread damage inflicted by Winter Storm Uri represented something of a turning point in the City's approach to street maintenance. In September 2021, City Council approved Ordinance 21-055, increasing the Street Maintenance Fee from \$1.70 to \$10 per "single family equivalent," thereby boosting annual Fee revenue from approximately \$1.7 million to nearly \$10 million. In addition, the ordinance expanded the authorized uses of the Fund to include road reconstruction and debt service on bonds issued for road reconstruction. This would allow the City to increase its street maintenance budget to the \$4.3 million recommended by Transmap and set aside the remaining revenue to accumulate funds toward road reconstruction.



In January 2022, City Council authorized the issuance and sale of "Series 2022" certificate of obligation (CO) bonds in an amount not to exceed \$24 million to be paid back with debt service payments of approximately \$1.5 million annually from the Special Revenue Fund. The remaining \$4 million+ in fee revenue left over after street maintenance expenditures and debt service payments were to be set aside for future road reconstruction projects once the Series 2022 bond money was exhausted.

As of the beginning of FY 2025, the Street Maintenance Special Revenue Fund had about \$12.5 million set aside for reconstruction to augment the \$24 million in CO bonds. The staff report for OR-22-005 listed nine priority reconstruction projects: (1) Gilmer Street; (2) Willow Springs Road; (3) Bunny Trail; (4) Watercrest Road; (5) Zephyr Road; (6) Bacon Ranch Road; (7) Bermuda Drive; (8) Rancier Road; and (9) Stagecoach Road.

From that list, the City initiated design and construction work on Gilmer Street, Bunny Trail, Willow Springs, Watercrest Road, and Stagecoach Road. In addition, the City had initiated preliminary design work on Rancier Road, Featherline Road, and Mohawk Drive.

Prior Audits

The City Auditor conducted two prior audits of the Street Maintenance Fee Special Revenue Fund. The first audit reviewed activity under the initial \$1.70 fee and recommended that management continue to stay abreast of industry developments for new products to add to its toolbox of pavement treatments. The second audit reviewed activity under the first year of the \$10 fee and recommended management increase the street maintenance budget for mill and overlay in the wake of Winter Storm Uri.

Statement of Compliance with Audit Standards

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. Those standards also require that we, as internal auditors, meet the criteria for independence. We believe that we met those independence standards and that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

Findings and Recommendations

The City Auditor’s review found that the City’s combined street maintenance and reconstruction efforts warrant adopting a long-term goal of achieving a PCI rating of 80+ by 2040. In addition, greater coordination with Communications and Marketing on reconstruction projects will assist residents in managing expectations.

The City’s overall Pavement Condition Index (PCI) rating ticked slightly upward in 2024 to 77, from the 76-rating assessed in 2019. The improvement came despite the widespread damage inflicted by Winter Storm Uri in the winter of 2021 and can be attributed, in part to the City’s Mill and Overlay program initiated in FY 2021, coupled with the first wave of Certificate of Obligation (CO) Bond-funded road reconstruction projects. As the City moves forward with its dual-track strategy of street maintenance coupled with road reconstruction, the overall PCI rating will likely continue to tick upward. Therefore, the City should consider adopting a more aspirational goal of achieving an overall PCI rating of 80+ by 2040 in place of its current goal of maintaining the status quo PCI rating of 77. With regard to future road reconstruction projects, Engineering should consider working with Communications and Marketing to develop a dashboard for tracking individual reconstruction projects. Ideally, the dashboard would allow residents and business owners to follow a reconstruction project through its various phases in real-time to include the impact on scheduled completion dates from change orders due to weather, soil conditions, and other factors encountered during reconstruction.

Special Revenue Fund – By The Numbers

The Street Maintenance Fee Special Revenue Fund showed total revenue of \$10,452,287 for FY 2024 and \$10,284,591 for FY 2025. This included Street Maintenance Fee revenue of \$9,774,059 and \$9,778,610 for FY 2024 and FY 2025, respectively, and interest revenue of \$678,228 and \$505,982 for FY 2024 and FY 2025, respectively, earned on CO 2022 Bond and Street Maintenance Fee fund balances.

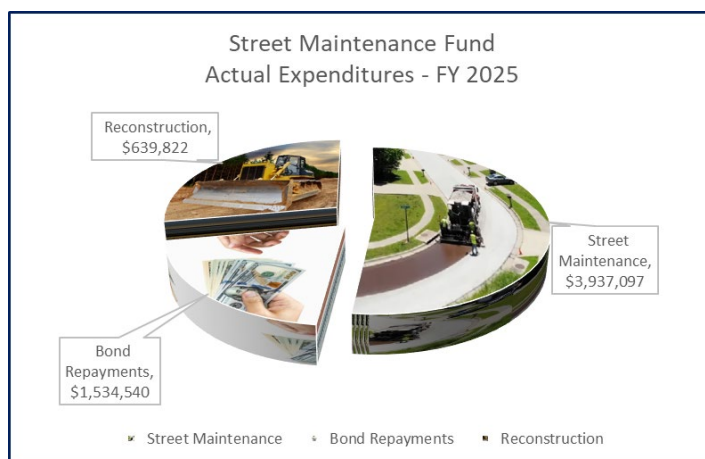
Expenditures from the Street Maintenance Fee Special Revenue Fund totaled \$7,453,345 and \$6,111,459 for FY 2024 and FY 2025, respectively. Expenditures were made from the categories authorized under Ordinance 21-055, specifically, (1) street maintenance; (2) debt service; and (3) road reconstruction.

FY 2024 expenditures for street maintenance totaled \$4,452,395 and included both rehabilitative work in the form of Mill and Overlay and preventive work in the form of slurry seal. Debt service payments on the Series 2022 CO Bond totaled \$1,531,450, and expenditures for road reconstruction totaled \$1,469,500.



Source: Financial Management System

FY 2025 expenditures for street maintenance totaled \$3,937,097 and included both rehabilitative work in the form of mill and overlay and reparative work in the form of PressurePave.



Source: Financial Management System

Debt service payments on the Series 2022 CO Bond totaled \$1,534,540. Expenditures for road reconstruction totaled \$639,822 for the Stagecoach Road and Watercrest Road projects.

Street Maintenance Activity

The Street Maintenance Fee funded a total of 54.84 centerline miles of pavement treatments in FY 2024 and FY 2025. This included a continuation of the Mill and Overlay program initiated in FY 2021, with 9.6 centerline miles of mill and overlay completed in FY 2024 and 10.04 centerline miles completed in FY 2025, for a total of 19.64 centerline miles.¹

Preventive pavement treatments in the form of Slurry Seal totaled 17 centerline miles, all of which were conducted in FY 2024. Typically, preventive treatments are applied to roads with PCI ratings of 80 and above and are in line with the industry best practice of “keeping good roads, good.”

FY 2025 saw the introduction of PressurePave. Unlike preventive treatments, such as slurry seal and HA5 Mineral Bond, the PressurePave treatment is designed to rejuvenate and preserve streets experiencing mild to moderate wear, typically those roads with PCI ratings below 70. The City completed a total of 18.2 centerline miles in PressurePave treatments.

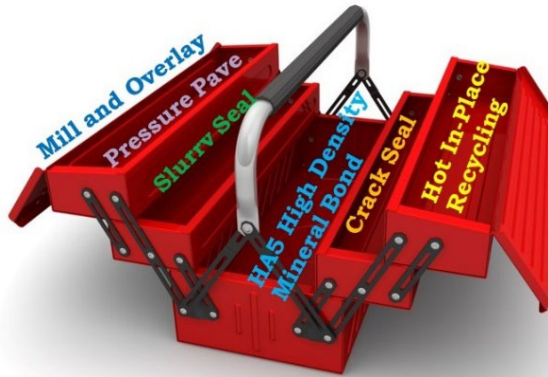


Source: Engineering and Transportation Departments

¹ Centerline miles refers to the total length of a road, regardless of the number of lanes. Total lane miles are equal to the centerline miles x the number of lanes. For example, a four-lane arterial that is two miles long has two centerline miles and eight total lane miles.

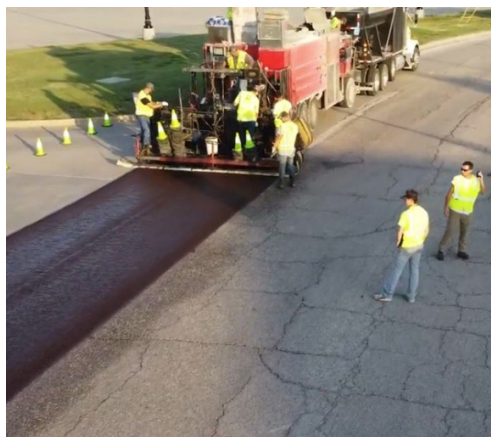
PressurePave - Expanding the Toolbox

Pavement management experts characterize the need for maintaining a broad array of options as having “the right treatment, on the right road, at the right time.” Towards that end they refer to “filling one’s toolbox” as a key best practice for executing a successful pavement management plan.



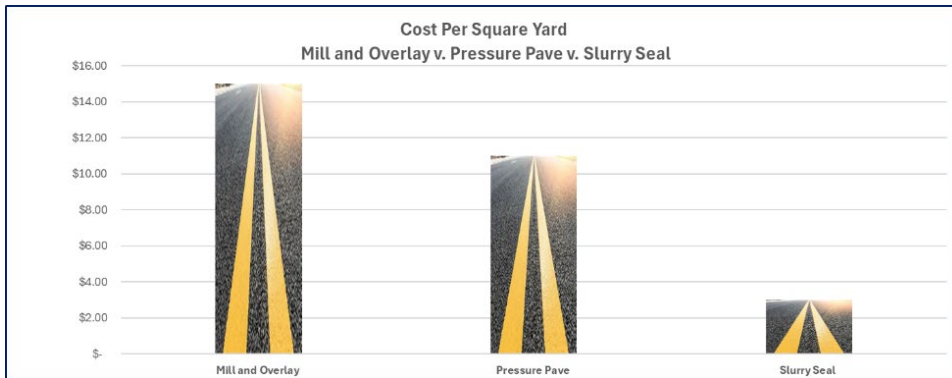
In FY 2025, the Engineering Department added PressurePave to its toolbox of pavement treatments. PressurePave is a relatively new pavement treatment, still under patent, that offers an intermediate option between preventative treatments, e.g., slurry seal and HA5 Mineral Bond, and more costly rehabilitative treatments, like mill and overlay.

The “pressure” in PressurePave refers the process of pressure-injecting a modified crackseal formula into asphalt cracks while simultaneously laying down a thin overlay to the seal the asphalt from the elements. The two-pronged process prevents water infiltration and mitigates cracking, making it an effective treatment for streets with moderate deterioration.



Source: Internet

In pavement management, the earlier the intervention, the more cost-effective the outcome, as in the old 18th Century aphorism “a stitch in time, saves nine.”



Source: City Archives

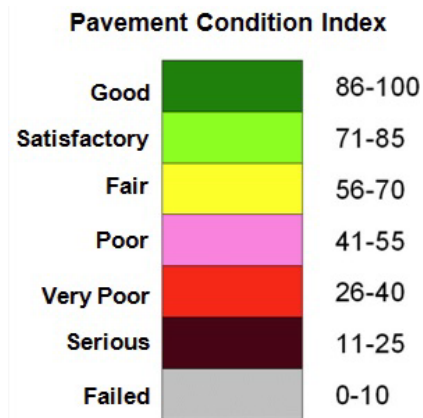
Ultimately, the addition of PressurePave to the pavement management toolbox should prove a cost-effective investment for the City to the extent that it precludes the need for more costly intervention down the road in the form of mill and overlay or reconstruction.

Pavement Condition Index Studies: Analysis and Goals

The City’s current management practice is to conduct a Pavement Condition Index (PCI) assessment every five years to evaluate the condition of the City’s network of arterials, collectors, and residential streets, and to update the City’s pavement management plan, as necessary. The current goal is to maintain an overall PCI rating of 77, which was the rating assessed in the 2024 PCI assessment by Transmap.

As noted in the introduction, the 2013 PCI assessment by Transmap assessed an overall PCI rating of 84 for the City’s network of streets. By 2019, the overall rating had declined to 76, according to the 2019 Transmap report. The decline in pavement conditions corresponded with a steady decline in budgeting for street maintenance during the period, which fell from \$820,000 in FY 2013 to \$300,000 in FY 2018.

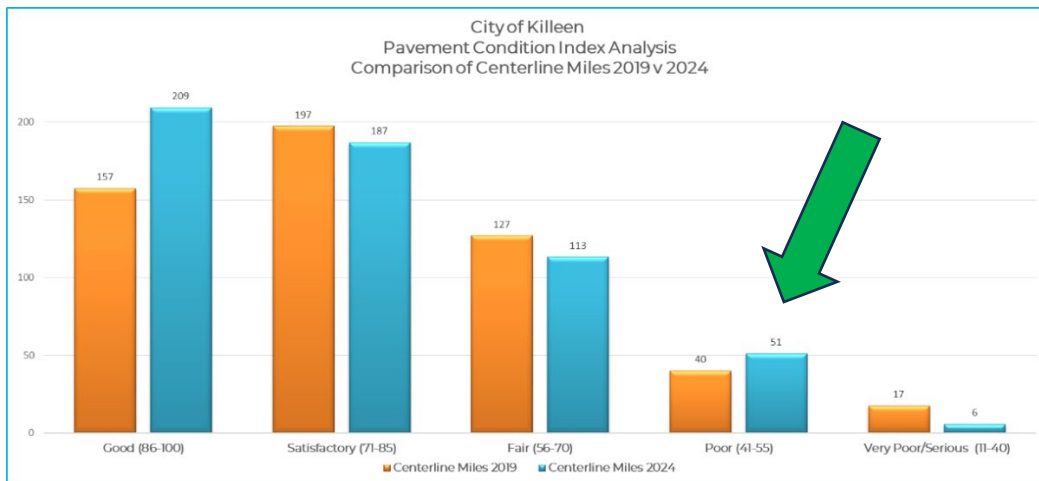
The 2019 Transmap report recommended an annual street maintenance budget of \$4.3 million to maintain an overall PCI rating of 76 for the City’s 566 centerline miles of roadway.



At the time of the report, the Street Maintenance Fee was still at \$1.70, so the \$4.3 million recommended budget was not realizable. However, the City was able to adopt the recommended budget in FY 2021 with a one-time transfer of \$3 million from the Capital Improvement Program Fund to address damage inflicted by Winter Storm Uri. In FY 2022, City Council approved the increase in the Street Maintenance Fee to \$10, which allowed the City to fully adopt the recommended budget on an annual basis.

Also in FY 2022, the City further augmented its \$4.3 million street maintenance regimen with over \$20 million in CO Bonds for road reconstruction projects, including Gilmer Street, Bunny Trail, Watercrest, and Stagecoach Road. Although these projects were still in progress when the 2024 PCI assessment was conducted, Transmap essentially gave the City advanced credit for the work-in-progress by assigning the streets a PCI score of 100, or “Good.”

With the additional investment for road reconstruction over and above Transmap’s \$4.3 million recommended budget, the overall PCI rating for the 2024 PCI assessment ticked upward, albeit slightly to 77. This suggests that the widespread damage inflicted by Winter Storm Uri dampened only to a minor extent the positive impact of the reconstruction efforts on the PCI average. This was evidenced by the fact that streets eligible for mill and overlay, i.e., those with a PCI rating of 41 to 55 or “Poor” increased only slightly during the period. This was likely due to the extensive work conducted as part of the Mill and Overlay program initiated in FY 2021, which offset the damage inflicted by Uri.

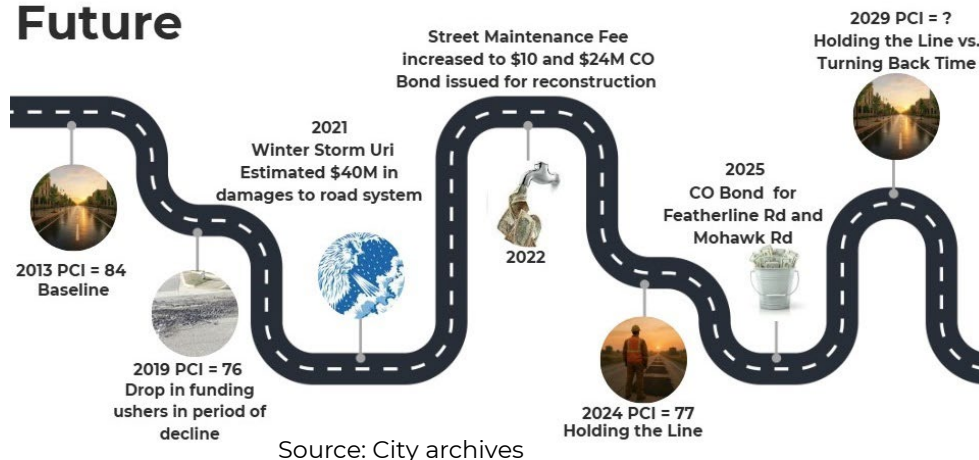


Source: 2019 and 2024 Transmap Reports

It further suggests that the City’s overall PCI rating will continue to tick upward as the City continues to augment its regular Street Maintenance program, currently at \$4.6 million, with planned reconstruction projects,

including Stagecoach Road Phase II, Willow Springs Road, Featherline Road, Mohawk Drive, Zephyr Road, Rancier Avenue and Chaparral Road.

PCI Rating: Past, Present, and Future



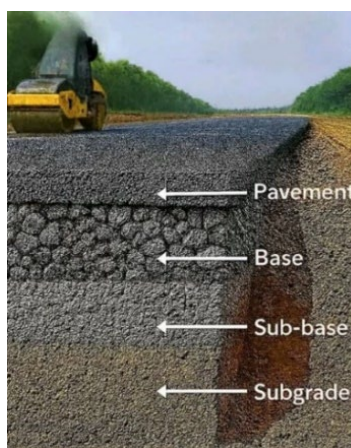
For that reason, the City should consider adopting a more aspirational long-term goal of achieving an overall PCI rating of 80+ by 2040. This would align the City's street maintenance goals with the aspirational goals of the City's Killeen 2040 Forward Comprehensive Plan. Further, it would establish Killeen as a clear leader amongst the surrounding municipalities, whose overall PCI ratings range from a low of 52 to a high of 75.

Road Reconstruction - Managing Expectations

The best laid plans of mice and men often go awry. – Robert Burns

Delays in road construction are more the rule than the exception, according to industry surveys. Recent industry surveys cite the frequency of delays in road construction projects ranging from 70 to 98 percent, with the severity of delays ranging from 20 to 40 percent beyond the original timeline. Common reasons for construction delays include weather conditions, supply-chain issues, substandard base, sub-base, and subgrade materials, and other issues encountered during excavation.

The question then is not one of chance, but rather one of severity when it comes to road construction delays. In the case of the Gilmer Street project, for example, the cumulative impact of three change orders and two years of above-average rainfall more than doubled the days



needed to complete the project from 330 to 799 days, which ultimately pushed back the original completion date of early 2025 to Spring 2026.



Source: City archives

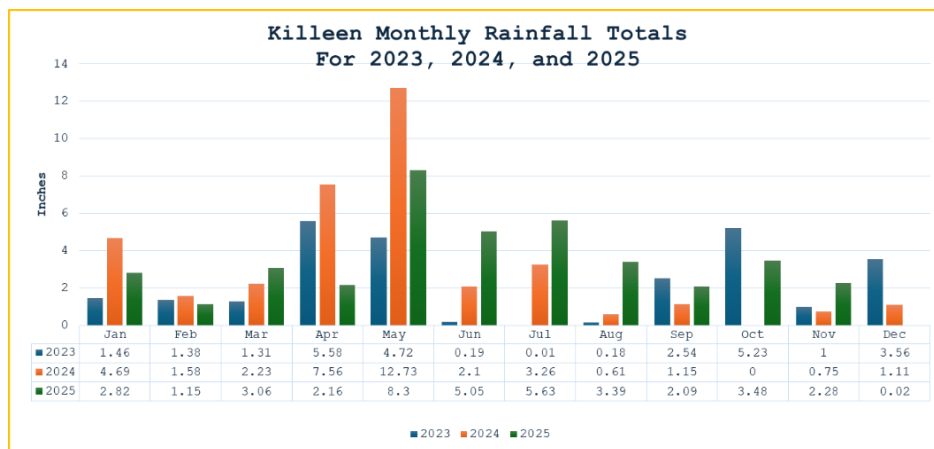
Weather Related Delays

Inclement weather, alone, accounted for more than three months of the delays experienced on both the Gilmer Street and Bunny Trail projects. While rainfall totals for 2024 and 2025 were not record breaking, they were substantially greater than the immediate years prior.



Source: City archives

Rainfall totals for May 2024, for example, were nearly triple that of May 2023.



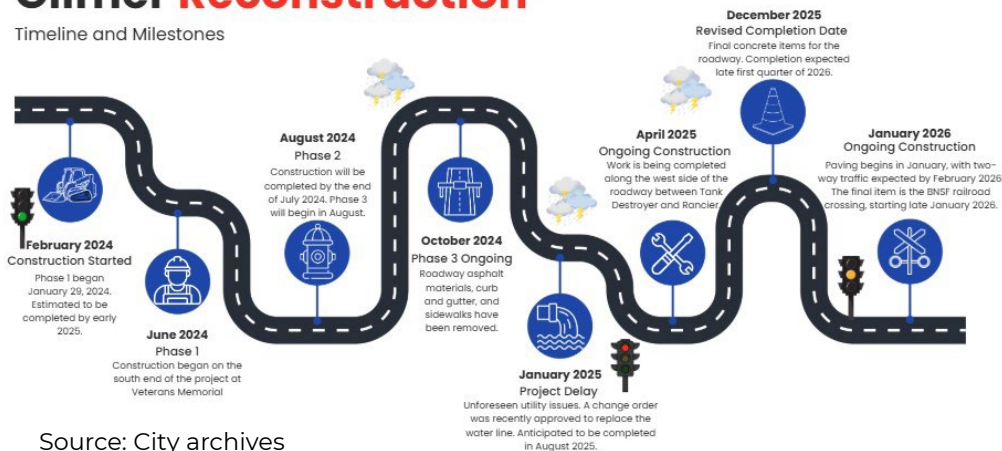
Source: Internet

What Lies Beneath – Water Mains and Soil Conditions

In addition to delays caused by inclement weather, this first wave of bond-funded reconstruction projects has experienced delays to varying degrees related to impediments encountered upon excavation. One of the more significant of those was the delay caused by a previously unknown water main encountered beneath Gilmer Street. The 4-inch water main, which according to the staff report was connected to many of the water services along Gilmer Street, needed to be relocated and replaced with a 6-inch water main. Also encountered during excavation was a damaged sewer main that needed replacement. In total, the unexpected detour resulted in the project's second change order and required that an additional 180 days or six months be added to the contract.

Gilmer Reconstruction

Timeline and Milestones



Source: City archives

In the case of the Watercrest reconstruction, substandard condition of the base in the initial remove and replace process created unforeseen delays in the search for and transport of acceptable base materials for the project. Similar problems with substandard base materials were encountered during the first phase of the Stagecoach Road reconstruction.

It should be noted that a project delay does not necessarily mean a project has fallen behind schedule. Whether or not a project is on schedule is determined not by the original estimated completion date, but by the number of contract days needed to complete the project. Change orders that result in days being added to the contract effectively reset the project's timeline. Gilmer Street's current contract-day total of 799 days means that the project is now scheduled for completion by the end of March 2026.

Coordination with Communications and Marketing

While delays are a common factor in road reconstruction projects, they nonetheless can lead to frustration when residents' expectations clash with changing realities. The City currently relies, for the most part, on its Major Road Construction Updates to communicate the status of reconstruction projects. The updates are posted periodically on the City's Engineering webpage, as well as on the City's main Facebook page.



Source: City website

While the updates are good for providing summary snapshots of the City's inventory of construction projects, they are not the best mechanism for providing a comprehensive picture of specific projects. First, the format allows for only one or two sentences per project. Second, prior updates disappear once they are replaced by a new update, making it difficult to visualize the project from beginning to end. The Department's website does also contain more detail in the quarterly reports, but again, they lack the ability to give the visitor a bird's eye view of a project at a glance.

As a possible alternative to the periodic Major Road Construction Updates, the City should consider developing a dashboard-type chart or graphics that can be updated as needed to show the life of the project from start to finish.



Gilmer Street RECONSTRUCTION

SCOPE: REBUILDING
ROADWAY AND SIDEWALKS

Current Update

- The project is finishing the paving of the roadway to open for traffic.
- The contractor will begin work on the asphalt once the plants have reopened.
- Plantings, lights, minor punch list items, and awaiting BNSF to replace the railroad crossing is all that remains.

Contact

Project Manager: Donald Wetzel
Contractor: TTG Utilities
Contact: Keith James

Timeline: Events and Milestones



Project Summary

\$ 4,957,916 Construction Contract Amount	January 2024 Construction Start Date	Original Contract Days	330 DAYS
October 2025 Original Completion Date	Change Order #1 Railroad crossing		133 DAYS
	Change Order #2 Unknown waterline		180 DAYS
	Change Order #3 Inclement weather and other issues		156 DAYS

Source: City archives

While each project is unique, there are common themes emerging related to project delays. These include inclement weather and to varying degrees base, sub-base, and sub-grade conditions encountered upon excavation. The more effectively management can communicate the likelihood and impact of these potential project delays on current projects, the better prepared residents will be for potential delays experienced on future reconstruction projects.



Watercrest

RECONSTRUCTION

SCOPE: REBUILDING ROADWAY AND SIDEWALKS

Current Update

- The contractor has completed removing and replacing the base material that was found to not meet our technical specifications. Concrete work that includes sidewalk as well as curb and gutter is progressing.
- The project was scheduled to be completed in the Spring of 2026. Delays due to weather, supplier issues, and unacceptable base has delayed this project. The contractor is looking at ways to speed up the project.

Contact

Project Manager: Donald Wetzel & Chris Hoch
 Contractor: Cash Construction, Inc
 Contact: Cristina Martinka

Timeline: Events and Milestones



Project Summary

\$ 12,462,678	October 2024	Original Contract Days	395 DAYS
Construction Contract Amount	Construction Start Date	Change Order #1 Adjust contract for "Miscellaneous Construction Items"	0 DAYS
November 2025	Original Completion Date	Change Order #2 Treating substandard base materials	121 DAYS

Source: City archives

Toward that end, Engineering should coordinate with Communications and Marketing to develop an individualized dashboard approach for updating residents on the City's ongoing road reconstruction projects. Given the number and complexity of projects ongoing at any one time, the Engineering Department may ultimately require a dedicated resource at Communications and Marketing.

Recommendations:

The City Auditor recommends the Executive Director, Engineering Department:

1. Consider adopting a long-term goal of achieving an overall PCI rating of 80+ by 2040.
2. Coordinate with Communications and Marketing on developing individualized dashboard-type website graphics for tracking the real-time progress of road reconstruction projects.

Views of Responsible Officials

Copies of the draft report were provided to the Executive Director of the Engineering Department for review and comment. There were no specific responses provided to the report's findings and recommendations; however, the Executive Director and staff provided input during the audit, which is reflected throughout this report.

Objectives, Scope, and Methodology

Objectives

The objectives of the audit were to (1) review Street Maintenance Fee Special Revenue Fund revenues and expenditures for FY 2024 and FY 2025; and (2) review street maintenance activities for FY 2024 and FY 2025.

Scope and Methodology

The scope of the audit included both street maintenance projects funded directly by the Special Revenue Fund and road reconstruction projects funded by Series 2022 CO Bonds, which are being paid down by the Special Revenue Fund.

To address the audit objectives, the City Auditor:

- Reviewed prior Street Maintenance Fee audits issued by the City Auditor.
- Reviewed Resolutions and Ordinances pertinent to Street Maintenance.
- Reviewed and analyzed the Transmap 2024 PCI assessment and compared to Transmap 2019 assessment.
- Conducted benchmark analysis of other municipalities' overall PCI ratings.
- Reviewed and analyzed revenues and expenditures for FY 2024 and FY 2025 in the Street Maintenance Fee Special Revenue Fund.
- Obtained and analyzed Major Road Construction updates from Engineering Department webpage and mapped out milestones for road reconstruction projects.
- Researched monthly rainfall totals for 2023, 2024, and 2025.
- Conducted benchmark analysis of website graphics for street maintenance.

Statement of Compliance with Audit Standards

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient and appropriate evidence, providing a reasonable basis for our findings and conclusions based on our audit objectives. Those standards also require that we, as internal auditors, meet the criteria for independence. We believe that we met those independence standards and that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

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Audit Report #26-02

A Report to the City of Killeen Audit Committee

Prepared by:

The Internal Audit Department

Matthew Grady, City Auditor

Danielle Woodward, Audit Intern

April 2026



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