

MEMORANDUM

To: Mayor and City Council

From: Kent Collins, P.E., Director of Public Works

Steve Shore, Facilities Manger

Date: November 10, 2020

Reference: Roof Replacement 265 Parkway Blvd.

2040: Pillar 0: Sustainable City Government

Goal 3: Well-maintained City Infrastructure

General Information:

- 265 Parkway Blvd was constructed in 2001.
- The roof has had numerous and continuous leaks over the years which have been patched and repaired multiple times.
- The roof was scheduled for replacement fiscal year 2021/2022.
- A destructive test investigation including a moisture scan was performed.
- Due to several deficiencies uncovered it has been determined that the roof at 265 Parkway is at risk for imminent failure in a severe weather event and needs immediate replacement.
- Public Works Department is recommending the complete roof removal and replacement for the city-owned facility at 265 Parkway Blvd. this fiscal year in the amount of \$300,000.00
- This item is being presented for discussion ahead of the regular item that is also on this agenda.

Introduction:

This item is being presented for discussion only.

Analysis:

The city-owned facility at 265 Parkway was constructed in 2001 by a private developer and the roof is original to the facility. After the city purchased the facility, maintenance and repairs have been undertaken annually. The roof was repaired at the time of purchase, and has been patched and repaired

over the years, but roof leaks continue. Staff recently commissioned a destructive test and moisture scan to identify the root causes. The primary issues with the current roof as noted by the destruction test and moisture scan are:

- High levels of moisture trapped in roof assembly.
- Moisture degradation in insulation board.
- Detached facer of insulation board from moisture trapped in roof assembly.
- Missing vapor barrier over wood deck.
- Liquid applied roofing system detached from original EDPM roof membrane from expansion of trapped moisture.
- Presence of moisture on wood deck surfaces.
- Rapid galvanic corrosion on fastening plates from trapped moisture in roof assembly.
- Galvanic corrosion on 16D nails mechanically attaching wood deck to structure.
- Obsolete insulation caused by moisture degradation.
- Moisture stains under wood deck noted during leak inspection.
- Blistering on upper roof sections.

Conclusion:

Staff had originally identified this roof for replacement next fiscal year, but recent and continued leaks throughout the building led to an investigation of the roof condition. The study was anticipated to identify exactly what repairs would be needed in the interim, as well as recommendations for the replacement next fiscal year. However, the study identified the potential for failure of the roof system under certain weather and temperature conditions, prompting the need to proceed with the replacement now to avoid safety risks.

Based on physical roof discoveries, destructive investigation, moisture scan, IBC 218, ASCE 7-10 ASTM and all applicable codes, the recommendation is to remove all roof assemblies down to the roof deck, install vapor control layer, install insulation, recovery board, base sheet, fleece back according to manufacturer's recommendation.

The work will be performed during normal hours and performed such to minimalize the disruption to City staff working on site. The contractor will provide a "floor warden" to be stationed inside the site to monitor work to ensure safety of staff. The roof replacement will take approximately one month to complete.

Legal Review:

N/A.

Fiscal Impact:

This is a work session item, so there is no fiscal impact with this item. The fiscal impact of the roof replacement, as detailed in the regular item, will be \$300,000 as provided in the fund balance of Infrastructure Maintenance Fund.

Recommendation:

This item is presented for discussion only.