

## 2020/ 2021 FIRE BUDGET REQUESTS BUILDING MAINTENANCE BUREAU

### For 2020:

1. HQ – Replace electric AC only RTU's (2) 5 and (1) 10 ton \$35,000 estimate – installed by TFRD Bldg maintenance
2. HQ – Replace the roof \$70,000 estimate
3. Station 9 – New roof, original to the building \$40,000 estimate
4. Station 21 – Tuck point brick and roof caps \$30,000 quote – Ohio Building Rest.
5. Station 21 – Finish replacing 15 windows \$30,000 estimate
6. Station 5 – Replace roof \$60,000 estimate
7. Station 14 – Replace kitchen \$25,000 estimate
8. Station 5 – Replace kitchen \$25,000 estimate
9. Station 18 – Replace kitchen \$30,000 estimate
10. Station 24 – apparatus floor radiant heat \$15,000 estimate
11. Station 17 – Larger extractor for double company \$15,000 estimate/ quote Belenky
12. Station 4 – 2<sup>nd</sup> extractor \$10,000 estimate/ quote Belenky
13. Station 24 – Prep and resurface roof \$35,000 estimate
14. Station 4 – Kitchen windows/ sliders \$40,000 estimate
15. Station 13 – Replace approach and parking lot \$30,000 quote from SB&H
16. Card Readers for remaining 12 buildings \$60,000 Habitec – state contract
17. Training Bureau – New burn building \$350,000 to \$750,000 – quote Bullex
18. Station 17 – Roof resurfacing and repair \$20,000 estimate
19. Station 17 – Replace windows \$15,000 estimate
20. Station 23 – Enlarge parking lot \$15,000 estimate
21. Station 25 – Repave parking lot \$5,000 estimate S.B. & H.
22. Station 17 – Refurbish Men's restroom \$5,000 estimate

### For 2021:

Budget will be the remainder of what cannot be complete in 2019 and any other priority item that comes up. The roofs on all buildings should be considered as needing replaced, the buildings listed above are experiencing current roof leaks that have been addressed with spot patching. Any of the roofs could have leaking issues at any time. An estimate to replace the roofs would be \$50,000 each.

The Plymovent exhaust system is 25 years old and would benefit by being upgraded, I've adjusted the quote from Hastings Energy (Ohio Plymovent supplier) and to replace the entire system would be \$1.1 million dollars. An alternative would be to upgrade the lower hose and nozzles (these items are where the new technology upgrades have been made) would be \$360,000 for all 72 plymovent drops we have in all of our buildings.

The total budget for the items listed above (not including the \$360,000 Plymovent upgrade) is \$1,049,560 to \$1,449,560 depending on the burn building style and size.

Fire Stations are an example of a Mission- Critical Facility and also offer a unique usage of a public building in that they are occupied 24/7 and 365 days a year, basically they never shutdown. With the continued use all mechanicals and structural components to the building need to be maintained and upgraded to help prevent catastrophic emergency repairs that would result in additional cost to the City and possibly temporarily closing a station which would affect the response times to serve the citizens of Toledo.

Toledo Fire and Rescue Department maintains 22 city buildings with a combined age of 953 years an average age of 43.3 years and a median age of 46.5 years. Our buildings range from 4 years old to 89 years old. The average life expectancy of a building (structurally) is 20 – 50 years and the mechanicals are (7-20). All but 3 of our buildings have exceeded these numbers in one way or another. With maintenance and upgrades being deferred the life span is shortened.

With 11 of the buildings (with the exception of the 3 buildings 7 years or younger not being included) have the original roof with a combined age of 522 years, average age of 47.5 years and a median age of 59 years, all have had temporary work performed to address issues of leaks. If the leaks are not addressed they develop into structural, health and occupancy concerns not to mention they are usually performed on an emergency basis and cost more and are “temporary” which more often than not become “permanent” fixes due to lack of funding. Roof leaks contribute to additional issues, for example, ceiling damage, HVAC issues, electrical issues and possible mold.

The lack of funding for Capital Improvements has lead to roofs not being replaced, and upgrades in the following areas; more efficient lighting, boilers, HVAC units, kitchens and Plymovent exhaust removal entire systems or components. Deferred Maintenance leads to total systems that do not function or have gone without upgrade or replacement beyond their useful life. Studies show that the cost to resolve a deferred maintenance issue range is \$30-\$65 per square foot compared to a new facility construction cost of \$200-\$300 per square foot. With the average inflation being 4%-6% the longer the deferred maintenance continues the more the repair will cost. The efficiency of a building and the associated mechanicals are reduced due to the lack of upgrades and complete replacement causing the City to spend more money to operate a building.

In Summary, while putting off facility maintenance allows a municipality to solve short-term funding issues, there is a cascade effect of potential problems that will ultimately impact the City. Inflation will drive the cost up the longer it is deferred. Inefficient Energy use by equipment and building systems not running properly or designed raise the cost to operate. Collateral damage due to roof leaks, HVAC, plumbing and electrical failures lead to larger issues with the system itself and/ or impact the building all leading to additional cost. There is also an increased risk to early building failure, insurance and liabilities increase due to the building condition and possible safety associated with the deferred maintenance.

Deferred Maintenance – “Is the practice of postponing maintenance activities such as repairs on both real property (i.e. infrastructure) and personal property (i.e. machinery) in order to save costs, meet budget funding levels, or realign available budget monies. The failure to perform needed repairs could lead to asset deterioration and ultimately asset impairment”.

The following are costly mistakes of Deferred Maintenance in Facilities;

1. Extensive, Long-Term Costs
2. Reduced Equipment Efficiency
3. Entire System Failure
4. Safety and Health Risk to all Occupants
5. Possibility of Fines from a Regulatory Agency
6. One Problem can Escalate into Larger Problems
7. Less Preventative Maintenance Equals Shorter Life Cycle
8. Emergency Repairs are More Costly than Planned Repairs
9. Deferred Maintenance Can Cause More Downtime
10. Deferred Maintenance Compounds at 7% a Year