



EXECUTIVE SUMMARY

- THE BUILDING FAÇADE IS IN OVERALL POOR STRUCTURAL AND WATERPROOFING CONDITION.
- SEVERAL LOCATIONS OF INTERIOR LEAKS ARE PRESENT IN THE BUILDING
- PARAPET WALLS HAVE DETERIORATED AND ARE BEGINING TO LEAN INDICATING STRUTURAL WEAKNESS AND FAILURE CONDITIONS
- BRICK MORTAR JOINTS HAVE CRACKED, DEBONDED, SCALED AND RECEDED THROUGHOUT THE BUILDING FAÇADE
- FAÇADE STAINING AND MOLD GROWTH WERE OBSERVED AT SEVERAL SECTIONS OF STONE AND CMU
- JOINT SEALANTS HAVE DEBONDED AND FAILED LEAVING THE FAÇADE OPEN TO WATER INTRUSION
- A COMPREHENSIVE RESTORATION PROGRAM IS NEEDED AND RECOMMENDED FOR THE ENTIRE BUILDING FAÇADE
- **TOTAL RECOMMENDED REPAIR BUDGET IS \$2,429,000**

The existing brick masonry façade of the original 1868/1925 building are in poor condition. The relatively newer additions are in deteriorated but generally fair condition. Several forms of age-related structural deterioration have developed such as scaled/unraveled mortar joints, heavily deteriorated parapet walls, wall cracks, deteriorated coping stones and individually cracked bricks. Structural repairs are needed to ensure the integrity of the façade elements. Postponing repairs will lead to exponentially increasing deterioration. More areas of advanced deterioration are likely to develop in the short to medium term.

The cracked, displaced, scaled, and otherwise deteriorated façade elements allow a considerable amount of water seepage absorption into the walls, which accelerates the rate of future deterioration. Waterproofing elements are provided in a building façade to reduce the levels of moisture entering into the exterior walls thus extending service life and preventing hidden and visible interior damage. The existing waterproofing measures such as joint sealants are past their useful service lives and are in need of replacement. The failed sealants/seals are direct conduits for moisture to enter deeper into the walls and into the building. Due to the age, existing levels of deterioration, and climate exposure of the building, the façade requires additional waterproofing and protective measures such as new sealants and penetrating sealers to prevent/reduce absorption of moisture into the porous masonry.

Overall, the building façade is in need of a comprehensive restoration program inclusive of structural repairs and preventive maintenance/waterproofing measures. On the following page is the summary of our main recommended repairs for the deteriorating building envelope.

PRIMARY RECOMMENDATIONS

STRUCTURAL

- Complete repoint of mortar joints on 1868/1925 building
- Rebuild heavily deteriorated masonry parapet walls
- Complete rebuild of north masonry wall from roof to floor of the 3rd level at location of interior leak
- Rebuild face brick at locations of wall cracks, displaced bricks, & heavily deteriorated mortar joints
- Replacement of individually cracked bricks
- Patch Repair of spalled sections of concrete/stone façade
- Rebuild of concrete knee wall at North entrance

PREVENTIVE MAINTENANCE AND WATERPROOFING

- Heavy duty powerwash of brick and stone façade to remove loose surface stone scaling/flaking, dirt, algae, etc. and seal entire façade with a penetrating water repellent sealer



- ALTERNATE #1 – Install new elastomeric waterproofing coating on masonry backup wall in lieu of face brick sealer at the 1868/1925 building
 - Provide new flashing at roof level coping stones
 - Remove & replace all existing joint sealants
 - Clean & coat all steel lintels
 - Wet seal of selected window glazing sealants
 - Powerwash clean and coat CMU block
 - Replace damaged/corroded gutters & downspouts
 - Clean & coat corroded metal elements
 - Remove brick and clean & coat steel lintel at bulging location at gym.

SUMMARY OF ESTIMATED CONSTRUCTION COSTS:

Following is a summary of the estimated costs for the recommended repair and maintenance program. A more detailed and line itemized estimate of cost is presented later in this report.

SUMMARY OF ESTIMATED CONSTRUCTION COSTS				
	IMPORTANT	SHORT TERM	PROGRAMMED	TOTAL
GENERAL CONDITIONS	\$108,250	\$8,500	\$6,250	\$123,000
STRUCTURAL REPAIRS	\$1,188,000	\$40,000	\$22,000	\$1,250,000
WATERPROOFING	\$614,000	\$100,000	\$82,000	\$796,000
ENGINEERING	\$69,000	\$13,000	\$4,000	\$86,000
CONSTRUCTION MANAGEMENT	\$153,000	\$12,000	\$9,000	\$174,000
TOTAL	\$2,132,250	\$173,500	\$ 123,250.00	\$2,429,000

The budget summary above assumes all recommended work to be performed at one time under one contract. Providing a single construction package inclusive of all Priority 1, 2 and 3 items will minimize the disruption of facility operations and provide the maximum benefit for the restoration investment.

PRIORITIZATION OF REPAIRS

Any Life Safety and/or Urgent work is identified separately from the prioritized items. These repairs should be performed on an urgent basis considering the specific safety or liability issues at hand.

Priority 1 - Important Repairs are recommended as soon as funds can be made available (within 1 year).
 Priority 2 - Short Term can be deferred for a few years if immediate funds are not available. However, these should be considered important work for proper maintenance of the facility and should not be deferred beyond 3 years.
 Priority 3 - Programmed repairs can be deferred beyond 3 years but should be earmarked for a time frame that is no longer than 7 years in order to keep the facility in optimal condition and minimize future repair and restoration costs.

PHASED WORK APPROACH

If a phased repair approach is desired to accommodate budgetary concerns, the prioritized items above can be combined with expected budgets and desired time frames to develop a phased, multi-year repair and restoration program. It should be kept in mind that additional costs would be incurred in a phased program resulting from breaking up the work into smaller pieces to be provided over a period of several years. Depending upon the funds available per phase and the on-going deterioration of the facility, deferral costs can add up and become substantial as compared to the one-package costs presented in this report. A phased repair approach is best developed in consideration of available and projected budgets over a reasonable period of time. Once available budgets and time frames can be determined, WTI will be happy to develop a tailored restoration program for your consideration.