

PHASE I - Before



View from the south roof stairwell looking north: ballasted EPDM roofs installed circa 1993 were at the end of their service life with multi areas of ponding and poor drainage. Multiple leaks were reported at the penthouse units. Existing railing systems did not comply with spacing of balusters per the Massachusetts State Building Code (MSBC).

PHASE I – After



View from the south roof stairwell looking north: new thermoplastic roof systems with tapered insulation and overflow drainage accommodations, new railings, walkway and deck systems. Masonry repairs and 100% repointing was performed at all the above roof line components within the Contract limits.



Southwest balcony roof: Existing railing systems did not comply with spacing of balusters per the Massachusetts State Building Code (MSBC). Severe water infiltration was reported at the apartment units below the balconies. Cast stone copings are uncovered with multiple areas of cracked and spalled stone.



Southwest balcony roof: Refurbished railing systems, new balcony waterproofing systems, new throughwall flashing systems, copper caps over all the existing cast stone copings, repainted wood balcony and transoms including wood repairs of rotted wood components.



Upper Photo: Existing cast stone pediment over the south entrance was cracked in multiple areas.

Lower Photo: Removal of the pediment revealed that there were no supporting steel elements through the masonry below, and it was set on the flashing in the lower photo. Upon removal of the stone, the brick masonry base was unstable and required rebuilding.

The brick masonry base was rebuilt, with the masonry wythes grouted and tied together with a helical tie system, steel dowels and new copper flashings were installed prior to the installation of a new cast stone pediment to replicate the existing.



Multiple leaks were reported at the apartments adjacent to the chimney walls. Plexi glass had been installed over the louvers as a temporary waterproofing measure. Spot repointing of the chimneys and sealant and mastic repairs on the adjacent copper flashing and slate roof areas were performed.



The chimneys that were included in the Phase I scope were repointed, louvers were refurbished to incorporate proper head and sill flashings, throughwall flashings at the base of the chimneys were replaced to address the water infiltration.



Several cast stone parapet stones were identified in 2009 as being potential fall hazards and removed until renovation work could be performed.



Cast stone parapet stones were flashed over with the thermoplastic roofing membrane and capped with copper. Areas of missing stone were filled in with wood blocking to minimize costs of replicating cast stone that would be covered with copper.



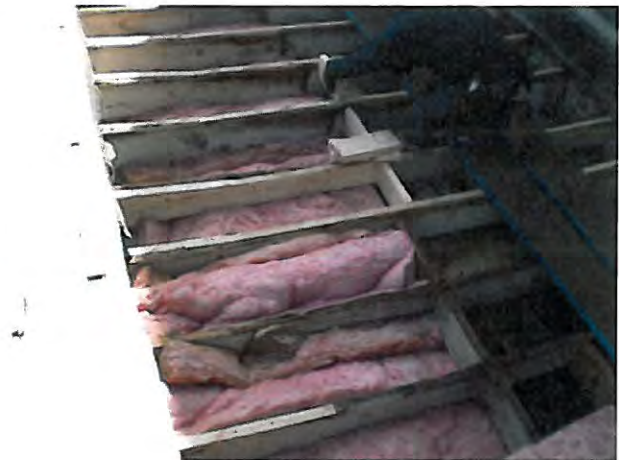
Existing metal rail baluster spacing measured 6.5", MSBC dictates the openings between balusters have to be reduced to prevent a 4" diameter ball from passing through them.



The existing rail system was refurbished and a metal "net" with approximately 2"x2" spacing added to the interior face of the balusters, which allowed for the rails to comply with MSBC code requirements.

Construction- Phase I: Additional Deterioration Conditions and Treatment Approaches

Balcony Roofs



Balcony roof replacement work: The removal of the above roof decks at the southeast balcony revealed that the roof was deflecting/sagging, and the majority of the deck and sections of the wood framing rotted.

Balcony roof replacement work: The majority of the wood deck in this area was replaced, multiple wood framing members were sistered or replaced, and wet batt insulation above the ceiling line was replaced.

Masonry

South East Balcony Wall:



Left Photo: Several areas of brick masonry were identified in the evaluation as cracked and were designated for replacement.

Upper Right Photo: Removal of the cracked brick revealed a conduit in the wall.

Lower Right Photo: During an effort to expose the conduit and remove it from the wall, a section of approximately eighty (80) brick masonry units collapsed, requiring that the brick wall be stabilized and rebuilt.

North Wall:



Upper Photo: Modified bitumen protection was applied over a section of removed loose masonry, as part of the temporary stabilization work in 2009. Prior to rebuilding the masonry, rusted steel beams pocketed within the masonry wall were prepared, primed and painted to minimize the potential of additional rusting leading to rust jacking and spalling of the brick masonry.

South Wall:



Upper Photo: Step cracking in masonry wall designated for repair.

Lower Photo: Removal of the brick masonry for the step crack revealed a metal conduit, encasing a rope which was believed to be for an old school bell. Due to the rusted steel, the masonry had to be removed for the full length of the conduit and rebuilt using a helical tie system.

Wood deterioration



Rotted wood framing components at the windows were identified through out. Rotted wood was cut out and replaced. All windows were repainted and new perimeter sealants installed.