

Restoration Project	Description
OVERVIEW	MECA is the owner of the nationally registered historic former Dow Elementary School building that was built in 1912 and encompasses approximately 47,000 square feet of space. During the several days of the Hurricane Harvey disaster approximately 18 inches of water accumulated on the first floor, due to rainwater intrusion from the roof and brick walls below grade.
Roof Replacement or Repairs to Prevent Further Rainwater Intrusion; Possible Membrane will be added to Roof	The roof is approximately 15,700 SF and had major leaks due to the drainage system being overwhelmed and water ponding on the roof. Water entered the building around roof penetrations due to damaged flashing. Interior walls and ceilings were water damaged. The main roof surface (12,600 SF) and ancillary penetrations incurred extensive damages during Hurricane Harvey due to high winds and unprecedented amounts of rain. Water also entered around and through the exhaust vent for the former coal-fired boiler and chimney. It has been recommended by an architect to replace the roof. The restorations and repairs will be done with approval by the Texas Historic Commission. An additional membrane may be added on top of the roof to increase protection.
Boiler Mechanical Room Demolition	There is an original (but not in use) boiler mechanical room located on the lower ground floor that is below grade. Water entered the building and mechanical room through a 3' x 5' opening causing mold growth in and around the mechanical equipment. The mechanical room of coal-fired boiler, original to the building, was inundated with rain coming in through the exhaust vent and chimney. Water flooded the mechanical room and the lower level of the building for several days. Contractors suggested the mechanical equipment and associated piping and duct work should be removed.
Interior Building Restoration of Ceilings, Walls and Floors	Several rooms and hallways had damage to the doors, drywall, insulation, flooring and ceiling due to rain water intrusion from the roof. Water also entered through the brick walls, in the section of the building that is below grade. Water accumulated up to 18" deep in these areas and remained for over a week. These ceilings, walls and floors are in need of grouting, plastering and replacing of the floor tiles and doors.
Wooden Window Sills and Frames Replacement or Repairs	Wind blown rain infiltrated around the wooden window sills causing cracking, warping and deterioration to many of the wooden sills, frames, casings and moldings that caused water intrusion into the building. The 198 windows were installed in 2008 and were approved by the Texas Historic Commission.
Exterior Doors - Replacing with Original Historical Design	A total of thirteen (13) exterior wooden doors were damaged due to wind blown rain. Some of these doors warped so that they no longer fit into their frames and others began delaminating in places, compromising their structural integrity. Replacements will be done with approval by the Texas Historic Commission.
Wheelchair Ramp Restoration Dow Green	The wooden wheelchair ramp, located outside of the building in the Dow Green Pavilion area, was inundated and submerged by the accumulation of rainwater. Sections of wood are warped and beginning to deteriorate which will soon render the ramp unusable for its intended purpose.
Waterproofing Exterior Walls below Grade	Much of the rain water that flooded the ground floor penetrated through the exterior walls that are below grade. These walls will be made waterproof by installing a protective water prevention layer to the below ground exterior walls.
Waterproofing Interior Walls Ground Floor	Several interior rooms and doors were water damaged. In order to prevent more extensive flooding and damage in multiple lower level rooms during future weather events, a protective water prevention layer will also be added to the below ground interior walls.
New Drainage System around Perimeter of Buiding	The architect recommended installing a new rain water drainage system to link into the existing city storm drain to prevent future rain water penetration through the below grade exterior brick walls and ground level exterior doors.