Construction of St. Philip the Apostle Catholic School began in 1954 and was completed on September 5, 1955 with the Sisters of the Holy Spirit staffing the school. His Excellency Bishop Thomas K. Gorman dedicated the building on September 18, 1955. In September of 1987, a large new wing connected to the east end of the school was completed which included a cafeteria, Gym, Library, Computer Lab, Science Lab, and additional classrooms. The school celebrated 50 years of service to the community in 2005.

St. Augustine Catholic School opened in 1957 with three primary classrooms with the Sisters of the Holy Spirit asked to staff it. The school building was dedicated in 1958. Addition of a cafeteria, gym, and Middle School building was around 1985. The school celebrated 50 years of service to the community in 2007.

On October 17, 2014, Cardinal Keven J. Farrell announced the combining of the two Catholic Schools into a new academy-model school serving elementary and middle school students in Pleasant Grove. The new St. Philip & St. Augustine Catholic Academy opened for the 2105-16 school year in newly renovated and expanded facilities on the present day St. Philip campus at 8151 Military Parkway. The second phase of the construction began in the Spring of 2018 and included five new classrooms and a teacher's lounge to facilitate the growing number of students in the community. Three of these spaces also serve as a storm shelter. With the additional classroom space, we can be sure that our best days are yet to come.