Eight A&S section crews were awarded in the spring of 1903 for masonry and grading, although excavation might have more accurately described work in Providence. McManus was first to begin work. Compressed air drills (foreground of image above) and pick axes were the tools of the day for dynamic labor. Portable steam drills removed the debris in descending layers, along with a crew of 50 men under McManus.

Some of the cut material formed the towering bluffs over what eventually became separate north and south bound tunnels for Route 272 (lower left image).

Completion of the A&S (1906) coincided with mandatory retirement (age 70) for the PRR’s resident Chief Engineer, William H. Brown (b. 1836 - d.1910). Born in Little Pettingell Township, Brown served the PRR for 44 years. In his 52 years as Chief, the PRR was physically transformed by a succession of engineering triumphs. Brown and McManus had concurrent careers and numerous joint projects with the PRR. For the last twenty years of Brown’s life, the two were next-door neighbors in Philadelphia’s Pennsauken Village.

No other section of the eastern A&S more fully demonstrated the Pennsylvania Railroad’s (PRR) commitment to re-shape the landscape for an optimum freight road than its seven miles through Providence Township. The gentle compound curve (on paper) became a canyon that few residents could have anticipated. The A&S bisected farms with gaping, unstable slopes. It spanned the route with twelve new road bridges (upper right image) and crossed another dozen streams. Unwilling to compromise its goal of minimal grades for trains, the A&S found no naturally accommodating corridor through Providence. The PRR incised one.

It was likely no accident that one of the nation’s most experienced railroad contractors, McManus Construction Company of Philadelphia, was awarded the arduous Providence section. Work extended westward from Quarryville, where an existing railroad branch from Lancaster hauled in materials and massive steam shovels. At least three temporary rail spurs trailed off the older railroad to supply A&S work sites. In the cuts, temporary construction track bobbed along the deepening route, requiring constant relaying to stay ahead of the track-bound shovel (center right image). McManus removed an estimated 1.3 million cubic yards of rock and earth over seven cuts, as deep as ninety feet.

William H. Brown, Chief Engineer
McManus Construction