Between 1907 and 1912 about 500 houses were built. The first was completed for an opening ceremony in 1908. The last houses to be completed were the larger ones at the west end of the estate at the top of Carless Avenue.

Nettelfold and Martin’s vision was for an inclusive estate, where manual workers and skilled artisans would live alongside professionals and prosperous members of the business community. The plan was to include a wide range of houses, from smaller two-bedroom terraces through to substantial semi-detached houses with five bedrooms. One of the earliest residents was the renowned arts-and-crafts silversmith Bernard Cuerrier (1877–1956).

Martin’s designs for the houses combine some of the features of the arts-and-crafts movement with those of Port Sunlight and Bourneville. The basic themes of the estate are the regular use of front-facing gables over the main bedrooms and the extensive use of cream-painted stucco, providing a contrast with the ubiquitous red brick. The two-tone houses with the stucco upper storeys are particularly attractive. Other effective architectural devices include the imaginative use of brick arches and the decision to use opening window casements based on six-pane, side-hinged lights and two-pane, top-hinged lights.

Having established an architectural language, Martin managed to generate a wide variety of houses throughout the estate. It is difficult to find any two houses that are identical. Ingenious variation of plan-form, combined with the imaginative and careful positioning of each building, is handled very effectively. In accordance with garden city principles, the landscaping of the whole estate is integral with the house designs. All the roads are tree-lined with grass verges, and Carless Avenue opens out to include two semi-circular open spaces known as the Spinney, with the houses set back to form two crescents.

The estate offices at the Circle became the administrative hub where rents were paid and provided a base for a small direct workforce engaged in routine maintenance. By the 1960s a number of the houses were owned independently. The estate was designated a conservation area in 1970, and the buildings within the Circle were listed, along with the particularly attractive gas-entrance dwellings on Ravenhurst Road opposite the Moor Pool.

In 2006 an Article 4 (2) Direction was approved, as 30 years of independent improvements had led to an erosion of character. All elevations visible from the street are covered by the direction, which specifies that planning permission is now required for external doors, windows, porches, small extensions, roof alterations (including dormers and rooflights), off-street parking areas, access ramps, aerials, satellite dishes, gates, walls, fences, and the painting of pebbledash and brickwork. Although it is perhaps too soon to be able to assess the impact of the direction, it has been welcomed by local residents keen to maintain the special character of the estate.

Once the majority of houses were in private ownership, Harborne Tenants was taken over. The estate is now administered by the national property company Grainger, which is keen to build on some of the amenity spaces. The centenary celebrations were overshadowed by the prospect of new buildings being squeezed into allotments and areas currently occupied by garages.

Tucked away a few miles west of Birmingham city centre and a short walk from Harborne High Street, Moorpool is one of the country's least-known garden suburbs. It was the product of the progressive thinking associated with the liberal non-conformist tradition, which flourished in Birmingham in the second half of the 19th century. Many of the key industrialists were keen philanthropists, using their fortunes to transform Birmingham into a place where education, arts and housing reform could flourish. The Nettelfolds, the N in GSN (Guest, Ken and Nettelfold), and the Chamberlains were two such families with a direct involvement in the Moorpool project.

John Sutton Nettelfold (1866–1950) was the first chairman of the Birmingham housing committee. He commissioned the local architect Frederick Martin to create proposals for a low-density housing scheme on a 56-acre site centred on the old Moor Pool, which had been purchased for £15,000 by Harborne Tenants Ltd. Harborne Tenants was an experimental partnership scheme by which the tenants could eventually progress towards ownership. Original rents for the smaller properties were generally low, at between 4s 8d and 11s a week.

Frederick Martin's father William Martin had been co-founder of the famous Birmingham practice Chamberlain and Martin, which was responsible for such fine buildings as the School of Art (1881) on Margaret Street. William Martin had been the city's public works architect, responsible for at least 40 of the famous board schools. One of Frederick Martin's first important commissions after he joined his father's practice was his terracotta masterpiece known locally as the Telephone Exchange (1896) on Newhall Street (Grade I).

Martin's master plan for the Moorpool Estate was based on a gently curving axis running uphill in a westerly direction from the Harborne Railway bridge to Lordwood Road (along what became Moorpool Avenue and Carless Avenue). At the halfway point he proposed a community hall, some shops and the estate offices enclosed within what became the Circle. The community hall included a smokers' room and a skittle alley overlooking two tennis courts in the centre of the Circle. Other community amenities were to include a bowling green next to the old Moor Pool and space for allotments to supplement the gardens of the smaller properties.

Off the main axis smaller roads were given directional names such as North Gate and East Pathway. Carless Avenue was named after a small wood that bore the name of an old landowning family, and High Brow was the name given to the road that rises up from Carless Avenue to join North Gate. Margaret Grove was named after Nettelfold's wife (nee Chamberlain), who cut the first sod for the estate in 1907.