

the 1950's. Even by 1959, 78 percent of prestressed concrete producing plants in the United States were less than 5 years old. This growth was generated by a trend toward replacement of steel with concrete, but it is also related to the rise in prefabrication. The rise in demand for concrete products in general seems destined to far outdistance the rise in State and local construction by 1975.

Aluminum. Aluminum construction products have grown quite rapidly during the last few years because of their substitution for wood and other metals. Since 1948 primary aluminum has had an average annual growth rate of over 9 percent a year. Its rapidly increasing usage in such items as windows, doors, and trim has been due to its low maintenance requirements, and increasingly important factor in the material demand picture throughout the post-war period.

Growth in aluminum demand stimulated a rapid expansion in plants in the late 1950's. Some new processes, now being developed, promise capital savings of up to 50 percent. The standard reduction process, however, is still expected to produce 90 percent of the primary output in 1975. New metal to metal and metal to nonmetal bonding methods may continue to stimulate new aluminum products for use in construction. An increase in aggregate aluminum consumption of 70,000 tons is in prospect by 1975 (chart IIIId).

Other Building Materials and Products. The products of the chemical industry, aside from paints and lacquers, have come into prominent notice as construction materials since World War II. Particularly involved are plastic products. Over most of the postwar period plastics producing industries have grown at an average annual rate of almost 13 percent a year, making them the fastest growing among industries producing building materials. It has been estimated that in recent years about 18 percent of plastics output was for products used in construction. By the mid-1950's about 40 percent of these plastics were in paints, 20 percent in laminates and floor coverings, and another 20 percent in wire coatings and electrical devices. Most of the plastic products are used as substitutes for traditional materials. For example, the use of plastic flooring increased markedly at the expense of oak and maple hardwood flooring, and more recently, plastic pipe and plumbing fixtures have been competing for the markets which have been held by traditional materials.

Advances in insulation have allowed the use of thinner walls in building construction. Foamed materials, especially in glass and plastics for insulation have made possible the rise of curtain wall exteriors and prefabrication.

One of the problems in the expansion of these as well as other new products are the restrictions of local building codes. Current efforts to achieve more unified, flexible and up-to-date codes which put stress on performance rather than enumerating specific materials is a hopeful portent for the next decade.

IV. FUTURE PROSPECTS

The tripling in the volume of new State and local construction over the past 20 years reflects a greater emphasis in the postwar period on satisfying growing public needs rather than viewing construction primarily as an economic stimulus. Public construction volume has been dominated by two types of facilities—highway and educational.