

emerging needs of the Nation's cities and towns. Two parallel study efforts shall be established. Particular emphasis in one shall be placed on those social, economic, and institutional factors which affect the selection, introduction, and use of new techniques and programs to meet the social needs of the day and which underlie the emerging requirements and needs of tomorrow. Particular emphasis in the other shall be placed on developing new technologies and improved cost-reducing approaches by industry to meet social needs. Both study efforts shall consider the means of attracting and training the professional manpower required in these fields.

The substantive efforts of this advisory activity shall be focused on five major tasks:

1. *To identify the broad alternative and complementary strategies which are available for encouraging industry to develop and put into practice useful new technologies and cost-reducing approaches to the problems of housing and urban affairs.* The effort would attempt to identify the strengths and weaknesses of each strategy and the inherent risks. It will also examine the factors that have restricted the applicability of these approaches in the past, and means for overcoming these obstacles.

2. *To specify the kinds of major social, economic, political, and institutional questions that would have to be raised and answered in order to establish a reliable basis for long-range research and development plans and programs.* These questions would presumably involve review of the conceptual frameworks, the data base, and other fundamental questions which would have to be considered in mounting attacks, under HUD's leadership, upon the major problems of housing and living in metropolitan areas. The assumption is that an agenda of broad research themes could then be derived from an analysis of the questions specified, that groups of relevant research projects could be identified for each theme, and that the research projects could be ordered in terms of their feasibility, data and manpower requirements, timing, anticipated payoff, and the like.

3. *To delineate the kinds of research capabilities which HUD should either strengthen or, if lacking, seek to establish, so as to assure that its research dollars would be spent most effectively.* Presumably, such research capabilities could be national, regional, or State and local in scope and emphasis, and be both governmental and non-governmental in character. Such research capabilities could, moreover, be perceived as constituting the parts of a decentralized but coordinated national research "network" which, as a whole, would represent the broadest range of relevant, scientific and technical knowledge and skills, approaches, and emphases. Such a research "network" would also make available to HUD an additional instrument through which research findings could be widely and promptly disseminated and readily incorporated into governmental industrial and university plans and operations.

4. *To assure that the behavioral and social science research capabilities of academic institutions are optimally organized and effectively utilized in HUD's long-range research and development activities.* In this task, the strengths and weaknesses of academic research both in relation to the needs of the engineering community and to those of governmental, industrial, and non-profit research capabilities would presumably be critically and frankly assessed.

5. *To make recommendations not only to bring the many facets of urban problems into focus and define these problems more sharply, but also to mobilize and augment the capabilities now available for solving these problems, i.e., consider the applicability of a "total systems approach."*

B. In carrying out the study, the contractor shall brief advisory members on the phase of evolution in which the HUD R&D program now finds itself.

1. Past national failures to sponsor large-scale, effective research in these areas and the current near-crisis stage of urban affairs in many cities place a heavy demand on the Department for useful results over the relatively near term.

2. There is a pressing need to integrate the various social science disciplines, to refine conceptual frameworks to produce a problem orientation, and to identify and correct past deficiencies.

3. The search for necessary conditions for a powerful long-range, R&D program should be begun as soon as possible, even though much of the effort in early years must, of necessity, emphasize those activities which would allow prompt and important applications.

C. The contractor shall seek to identify, but not consider as controlling influences, the constraints imposed by tradition, present practices, and the present Federal organization and legislative authorities.