

WORK PROGRAM AND SCHEDULE

ABSTRACT OF GRANT APPLICATION

The receiving body of the grant from the Department of Housing and Urban Development is the Reston Virginia Foundation for Community Programs, Inc., which is a non-profit, non-stock corporation established in 1962 to pre-plan, develop and, where appropriate, operate programs designed to meet health, educational, cultural and other community needs in Reston, Virginia and in its neighboring communities. At the present time, the Reston Foundation is operating the Lake Anne Community Center and has a staff consisting of the Executive Director of the Fund and the Director, Assistant Director and Secretary of the Community Center. The Reston Virginia Foundation for Community Programs has contracted with Reston Va., Inc. to administer the demonstration project and to engage the professional staff and consultants necessary for the project.

Objectives

The two basic goals of the demonstration project are:

1. To demonstrate how to integrate into a New Town, such as Reston, low income housing.
2. To make use of advanced techniques in determining how best to provide housing for New Towns in such a way that minimum costs are involved.

New Towns must provide a place of work and habitation for persons of every level of income. In addition, they must offer an alternative to families of low income now living in metropolitan areas. Reston is currently planning appropriate low income housing for inclusion in its next phase of development with equal access to community facilities for all persons working in Reston, regardless of income. Initial investigation indicates that it is not possible to build housing under existing methods and with presently available material that can be rented at a suitable price - that would also be compatible in planning, standards and aesthetics to that now being constructed.

The mobile home industry has demonstrated the cost savings possible in the mass production of living units. The purpose of this demonstration is to prove that similar technology and production techniques can produce permanent houses of the highest design quality and acceptability and to prove that such units can be combined to produce a handsome, liveable and practical urban environment. It is anticipated that the low cost housing units will be prefabricated, factory produced units delivered complete to the construction site and there built into various housing types.

A basic element in the project is the actual siting of the low income units to be developed in such a manner as to be an integral part of the community in close relationship to housing of other types of construction and to community facilities. The siting study is designed to locate the housing so as to achieve the most complete possible use of the community facilities by all residents. It is anticipated that from one hundred to two hundred units will initially be built in Reston and their siting studied so the experience with their use can be drawn upon in the siting and building of subsequent units in Reston and elsewhere.

Timing

It is tentatively planned that the research will start with a technical evaluation of the processes of mobile home manufacture. This part of the study will be carried out with a view to bringing together sufficient information on systems and materials to permit design to start. Preliminary schematics will follow with the development of standard requirements for the dwelling units and structural, electrical and mechanical criteria. Market requirements and social criteria for the residences being developed will be studied concurrently. These first two phases of the work are expected to take from four to five months. The next phase of design development is expected to require at least four months. The project staff and consultants will engage in extensive effort with the mobile home manufacturer to develop units completely meeting industry fabrication and assembly requirements. Preliminary production cost estimates will be prepared to develop the economic feasibility of the prototype model and different units will be developed to show variations in arrangement. The preparation of drawings and specifications and shop drawings will require at least six months. Concurrent with the production drawings phase, preliminary preparation of a site plan will be undertaken; an accurate scale model of the units will be built. Detailed site plans

and a full scale mock-up model will be produced. The final stage of the research project will consist of preparation of the final report. This report will be submitted to the Department of Housing and Urban Development prior to 20 April 1968.

Once the research study has been completed, mobile home manufacturers will be invited to bid on the production of the factory produced units to be built on the Reston site.

REVISED WORK PROGRAM

- I ADMINISTRATIVE PHASE: Continues through program process, and each report will contain a summary. Subjects necessary to cover in first quarterly report to HUD as follow:
 - 1. Detail scope of work, assignments of work and incremental costs.
 - 2. a. Complete fourth party contracts.
b. Outline future fourth party contractor requirements.

- II RESEARCH PHASE: Continues through program process, and each report will contain a summary. Subjects necessary to cover in first quarterly report to HUD as follow:
 - 1. Survey of mobile home engineering and construction technology, materials and methods.
 - 2. Examination of alternate construction techniques and possible application to mobile home construction methods to produce sectionalized housing.
 - 3. Summary examination of market and sociological data.
 - 4. Summary examination of building restrictions.

- III SCHEMATIC PHASE: First quarterly report will include:
 - 1. Conklin and Rossant schemes and evaluation.
 - 2. Selection of scheme to be developed and general specifications.
 - 3. Construction site specifications.
 - 4. Schematic siting design.

A scale model will be started of a typical unit after scheme selection. It will progressively reflect changes and refinement in detail throughout the program.

FIRST QUARTERLY REPORT TO HUD

IV PRELIMINARY PLAN PHASE

1. Receive HUD evaluation of report and apply recommendations.
2. Virginia Polytechnic Institute graduate student participation.
3. Distribute scheme and specifications to mobile home and sectionalized house industry, major materials manufacturers and associations.
4. Detailed examination of local land development minimum standards.
5. Determine most economical site development methods.
6. Site selection, survey and preliminary engineering.
7. Detailed examination of building restrictions.
8. Environmental design team.
9. Return of industry proposals and evaluation.
10. Heating, ventilation, plumbing and electrical schematics.
11. Preliminary construction cost evaluation.
12. Publish detailed examination of building codes.
13. Selection of and agreement with participating manufacturer(s). Preliminary production methods development.
14. Preliminary unit grouping and costs.
15. Household maintenance and operation costs study and projection.

SECOND QUARTERLY REPORT TO HUD

V WORKING DRAWING AND SPECIFICATION PHASE

1. Receive HUD evaluation of report and apply recommendations.
2. Receive environmental design team report.
3. Start architectural working drawings and specifications.
4. Start heating, ventilation, plumbing and electrical design.

5. Revise unit grouping.
6. Start site engineering design.
7. Continuous cost evaluation and materials and equipment research.

THIRD QUARTERLY REPORT TO HUD

Consists of 75% Working Drawings and Progress Narrative

8. Receive HUD evaluation of report and apply recommendations.
9. Start construction of typical unit sections prototype.
10. Production methods development completion.
11. Production shop drawings.
12. Start scale models; (1) unit grouping on site;
(2) typical buildings.
13. Complete working drawings, specifications, shop drawings and production plan.
14. Complete site development plans.
15. Prepare site for prototype.
16. Sales and other costs projection.
17. Construction and permanent financing costs projection.

FOURTH QUARTERLY REPORT TO HUD

Consists of complete plans and specifications, detailed cost estimate and factory production program on a 100 unit criterion; plant and on-site construction schedule using critical path method.

VI FINAL REPORTING PHASE

1. Complete typical unit sections prototype - deliver to Reston and erect.
2. Completion of scale models and report exhibits.
3. Photography.

4. Draft final report, write printing specifications and obtain printing cost estimate. Submit to HUD with three copies of draft.
5. FINAL REPORT TO HUD PRIOR TO 20 APRIL 1968.
6. Final audit.
7. Virginia Polytechnic Institute program evaluation.

VII CONSTRUCTION PHASE

The grant does not provide for production houses. It is the intention of the Participating Body to present a complete package ready for construction, including all design and firm cost proposals, of 100 houses, more or less, and proceed with the site design for another 100 houses in Reston. The first 100 house construction process will undergo thorough time study and cost analysis to perfect the system for final demonstration in the second group.