June 11, 1969

MEMO TO EDITORS

Enclosed for your information and use is some material on OPERATION BREAKTHROUGH, the new HUD approach to volume housing production. The material includes a fact sheet about the program and statements by Secretary George Romney, Under Secretary Richard C. Van Dusen and Assistant Secretary Harold B. Finger.

GEORGE CREEEL
Director of Public Affairs
This is
OPERATION BREAKTHROUGH

OPERATION BREAKTHROUGH is a new program designed to utilize modern techniques of production, marketing and management to provide housing for all income levels through a partnership of labor, consumers, private enterprise, and local, State and Federal governments.
OPERATION BREAKTHROUGH has two major components:

. Aggregating the demand and need for housing, and identifying the land available for such housing.

. Supporting and encouraging the design, testing, evaluation, and prototype construction of innovative concepts that are now available in the industry to provide high volume production approaches to the supply of housing.

Cooperative efforts of Federal, State and local governments will be directed to the problems of market aggregation, while private industry is to be solicited for its best ideas for producing acceptable low-cost housing in quantity.

MARKET AGGREGATION

Local and state governmental bodies will undertake to develop an inventory of the housing need and demand; to identify the available land; to remove or relax the restrictive effects of building, housing and zoning codes and other regulations; to locate sources of construction financing; and to encourage the construction industry to improve labor productivity and production methods. The Department expects to give priority in allocation of operational and program funds to those areas and localities willing to undertake these activities.

PROPOSALS FROM PRIVATE INDUSTRY

A Request for Proposals (RFP) will be issued about the middle of June 1969 to any interested firm or individual, soliciting proposals for the volume production and installation of housing, including the provision of appropriate elements of site environment. The proposal preparation period is expected to be three months; a briefing session will be held in Washington for interested parties about two weeks after the RFP is issued. Proposals will be evaluated on the general basis of their suitability to provide the quantity and quality of housing desired; detailed evaluation criteria and design requirements are specified in the RFP documentation. Firms and individuals interested in receiving copies of the RFP should write to:

Director, Contracts and Agreements Division
U.S. Department of Housing and Urban Development
451 Seventh Street, S.W.
Washington, D.C. 20410

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DESIGN AND DEVELOPMENT: PHASE I

It is expected that some 12 to 20 contracts will be awarded for the opening portions of a three-phase program. The first phase will consist of a two- to four-month design and development period, to consist of final system integration design and architectural design of the system for the specific prototype cities. The length of this period and the funding level will be negotiated with each successful proposer.

PROTOTYPE CONSTRUCTION: PHASE II

The second phase will involve the construction of prototype units on one or more of eight prototype sites, located in each of the HUD regions, in climatic areas representative of the varying climates found in the nation. Specific city selections will be announced prior to Phase I contract awards. It is expected that the contract options providing for prototype construction will be exercised except where the design period clearly shows that the proposed system is too costly or incapable of providing the housing required. The number of prototypes and the contract costs will be negotiated with each successful contractor. It is expected that each system may have units constructed on each prototype site, permitting side-by-side comparison of competing units.

The prototype units will be tested to determine physical characteristics and individual and community acceptance. A testing program will be established utilizing the National Bureau of Standards, the Forest Products Laboratory, and other Federal and private organizations. The design and testing standards will be selected, identified and developed, and tests validated, under the general direction of the National Academies of Science and Engineering. Successful completion of the testing program will certify the housing system for all HUD programs.

PRODUCTION OF HOUSING: Phase III

The representatives of each of the aggregated market areas will be expected to visit the prototype units and to review the test and cost data; based on this information, they may select that construction system considered most appropriate for their particular needs. This element of competitive free enterprise requires the housing systems to be successfully marketed, to be attractive, low-cost and practical. It is the position of the Department that OPERATION BREAKTHROUGH will guarantee that a market will exist, but that it cannot guarantee that any individual system
will be selected for volume production. For those agencies and localities which have reached contractual agreement, the Department will provide priority allocation of support funds and will expedite processing of program documentation to permit rapid construction and occupancy of the housing.

IDEAS AND CONCEPTS

The innovative process is not status, and new ideas continue to be developed. Even though a given individual or firm is unable to respond to the total system requirements of OPERATION BREAKTHROUGH, the Department solicits conceptual ideas and system components for consideration for future research and development grants, or for inclusion in systems to be constructed in OPERATION BREAKTHROUGH. Proposals which are submitted for research and development consideration must be sufficiently detailed to permit evaluation on their merits. Vague statements of a "solution to the housing problem" without such supporting documentation cannot be considered at this time.

SCHEDULE

The tentative schedule for the housing system design and prototype construction program is as follows:

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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<tbody>
<tr>
<td>RFP Issued</td>
<td>June 16, 1969</td>
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<tr>
<td>Briefing Session</td>
<td>July 1, 1969</td>
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<tr>
<td>Proposals Due</td>
<td>September 12, 1969</td>
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<tr>
<td>Contract Awards</td>
<td>October 6-17, 1969</td>
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<tr>
<td>Design Period</td>
<td>Two to Four Months</td>
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<tr>
<td>Prototype Construction</td>
<td>Up to One Year</td>
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</table>

Please note: Treatment of individual situations may vary.

Individual questions regarding the program should be directed to:

Office of Assistant Secretary for Research and Technology
U.S. Department of Housing and Urban Development
451 Seventh Street, S.W.
Washington, D.C. 20410

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On May 7, 8 and 9, 1969, Secretary George Romney and his staff held meetings with the leadership of the AFL-CIO Building & Construction Trades Council, with representatives of the Urban Coalition, with governors and mayors, and with representatives of the building and construction industry. The purpose of the meetings was to outline a suggested approach to volume production of housing, Operation Breakthrough.

On the following pages is a composite of the presentations made in these meetings by Secretary Romney, Under Secretary Richard C. Van Dusen and Harold B. Finger, Assistant Secretary for Research and Technology.

Mr. Romney's presentation was devoted primarily to the main economic problems besetting the housing production industry and a general discussion of Operation Breakthrough. Mr. Van Dusen discussed the aggregation of the market, past and present housing production, and the funding of federally assisted housing. Mr. Finger discussed the technical details and timetable of Operation Breakthrough.
GEORGE ROMNEY
Secretary

As we take a look at the responsibilities we have, we're concerned about the fact that we not only haven't achieved the levels of production that were intended, but the various programs as applied over the past several decades have not met the problems in our cities.

Housing production hasn't achieved the levels that the Government's been shooting for and the current levels are depressed. We've got a very high rate of economic activity, but housing construction hasn't been high.

As a result, we've been taking a hard look at what we're supposed to do and how we can do it. We think that we need to tackle the problem in a new way.

Certainly there are many aspects of the problem beyond the physical, but if you can get one element moving right, it tends to take other things along with it. And we have concluded that the number one thing that would really start us in a new direction in meeting the city's problems, is housing.

One of the best evidences of the high demand for housing at the present time is the fact that construction has held as high as it has in a period when practically all of the factors are very expensive. Money is more expensive than it's ever been; land is several times more expensive than it's been in the past; materials have gone way up, with lumber very difficult to get and expensive.

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We don't believe that it's possible to generate the volume of housing production that we need if we continue to have a market that is fragmented by all the present local constraints.

Furthermore, we don't believe that we're going to overcome those local constraints and the fragmentation of the market unless we can offer benefits that will enable people at the local level to get rid of them.

We believe that a program that will demonstrate benefits to people at the local level, and the various groups involved, can get these local constraints eliminated and open up a housing market that will provide the opportunity for greater volume of output and therefore, a greater use of available management and technical knowledge.

So we've put together this approach.

* * *

This special program is not intended to interfere in any way with the regular programs of our Department. We expect to push those programs just as hard as we possibly can.

Because we've been losing ground in meeting housing needs in this country, despite all the programs that we've had, we felt we ought to see if there's some way to make a breakthrough to stimulate a greater volume of housing production.

The approach we've put together for new housing construction of multiple as well as single units is based on the premise that if we can break through the local constraints on housing and create a large market -- a massive market -- we can attract the industrial investments necessary to make use of modern management and technology. In that way, we would develop new housing units that would offer value and benefit to people and communities.

At a later date, we expect to make some recommendations in the rehabilitation field also, because our existing housing stock is deteriorating faster than we're replacing it.
For a successful breakthrough on a national basis, we have to stimulate the companies who are in a position to come forward with really innovative ideas in housing.

Many major firms and some smaller firms have said they're ready to get into this market in a meaningful way, providing they don't have to go around and try and get the codes in the individual cities changed, so that they've got a massive market -- a volume market.

Our basic premise is that we can get the changes that are needed, if this program results in quality housing units costing X thousand dollars less on a volume basis -- housing units that have been thoroughly tested by the best testing organizations in the country.

* * *

The governors committed themselves to working with us on this program. They indicated they would call meetings of local officials and private leadership in their states, so that we could present this same approach and get the cooperative effort that is needed. Aggregating the market would provide incentive for the use of better organization and better technology in the housing program.

The mayors indicated essentially the same thing, that they were ready and willing to cooperate, and to work with us.

The Building Trades presidents indicated that they'd like to continue to advise and consult, and if we could come up with a greater volume prospect, they were prepared to discuss new contractual relationships.

As far as the unions' national presidents were concerned, we didn't run into negative attitudes. They did point out that they're elected officials, and the people at the local level have a lot of authority in their unions; in other words, they were realistic about the fact that there has to be a change in the attitude at the business agent level.

* * *

It would be a great mistake in my opinion to come up with units, as a result of this program, that are obviously just the cheapest units
you can build, purely functional, and designed for poor people. That's the surest way to have poor people say we don't want to live there.

That's what we've found in many of our public housing projects. They're so doggone plain and drab and functional that people don't want to live there. As I've traveled around and seen some of the different public housing projects, where they've put a little more money into the aesthetic qualities of the units, both inside and outside, there's a pride of living there that results in people wanting to keep them up.

If we approach this problem of quality homes in the right way, not only will people of low income benefit, but people of moderate and higher incomes will also want to buy and live in them. Thus you won't have a stigma attached to living in a particular unit.

I don't visualize the homes we're talking about here as penetrating the moderate income and the high income levels of individual home construction to any significant extent. But I think these units must be of such quality and appearance, that some people who can afford anything would be happy to buy these units.

These must be homes that the people who are going to live in them like, and that's why we're going to check with consumers, as well as with others, in the selection we'll make.

* * *

As far as the current situation is concerned, I think the housing industry is at a depressed level. This viewpoint has been accepted by the President and the Bureau of the Budget and by the Administration. That's why we've asked for all the funding that we're authorized to ask for under current Housing Acts. We've asked for the 50 million supplemental appropriations on the 235-236 programs; we've asked for full funding for next year of the various housing programs.

But we recognize that that simply sustains housing at a level far below what we need to catch up with needs.

In my opinion, once Vietnam is over, and once we stop the inflation that keeps our economy hopped up, we're going to need some means of stimulating economic growth and development in this country.

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In my opinion, for the balance of this century, the thing that can stimulate another big surge forward, economically, is a breakthrough in housing. Because a breakthrough in housing will not only stimulate employment in the housing field, it will increase the need for public facilities of all types through the cities. And it will require production of new facilities for housing construction purposes. This can do more to stimulate economic growth and employment in the balance of this century than anything else we can do.

From the standpoint of inflation, the shortage of housing is contributing to inflation, in rising cost of homes and in rising rents. The cost of housing went up on an average of 10 percent in the past year, and during the last month for which we have figures, housing increased 9.6 percent, compared to a year ago. That's an average rate of 12 percent, or one percent a month.

Obviously, when you've got the biggest item in the family budget increasing in cost at that rate, it's contributing to the inflationary picture, and therefore, you shouldn't slow down your effort to try and reduce that shortage. The levels we've asked for are not going to reduce the shortage, but it will be much bigger if we didn't ask for this full funding.

That means we've got to rely on more natural and sound methods of stimulating economic growth. If you take a look at our economy, there isn't any undeveloped market bigger than the housing market, and it's a huge market.

I don't think we can make a breakthrough without support from Congress, in funding these programs; without the states being willing to do more than they're now doing, and without local communities willing to do more. We also must have the cooperation of the building trades and the people in industry.

We are in the fortunate situation where influential elements of every community are becoming increasingly concerned about improving the inner cities and meeting this housing need.

It isn't going to be easy, its complicated; but the need is great and I think we can demonstrate through the prototype development, that we can create an attractive and desirable environment within which to live at less cost. That will go a long ways toward enabling us to get the private sponsors and others concerned interested.

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RICHARD C. VAN DUSEN
Under Secretary

Congress has said the ten year housing goal is 26 million dwelling units, new and rehabilitated, of which 6,000,000 should be for low and moderate income families and would require some degree of public financial assistance.

Our largest housing production year was 1950, with 1,970,000 starts. But the last ten years average, from 1959 through 1968, has been less than 1,500,000 units per year.

Just a straight line projection of the 26 million unit goal would require annual production of 2,600,000, or over a million more than the average production for the last ten years. So, we obviously have to step up the volume of our production, very materially, if we have any chance of meeting these housing goals.

In terms of 2,600,000 units a year, 1,400,000 would be required simply by new family formation. Another 700,000 would be required as a result of the deterioration, and demolition, and, in some cases, casualty loss in the existing supply.

A significant component represents the extent to which existing dwelling units are overcrowded; families doubled up, and in some cases, tripled up.

There's practically no flexibility in our market today. There are almost no vacancies in rental units, and there's very little supply of single family units, and there should be some give in the market -- this represents another component.

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We have not been meeting the deficit between the demand for housing and production. The reasons for this are a series of constraints. There is a series of pure economic constraints. The availability and cost of land, labor, of materials, and of money, obviously, all are constraints on high volume housing production. So are obsolete housing and building codes, and restrictive zoning and use patterns.

We recognize that this Department is not free from blame in this respect, but the red tape and conflicting standards, which are imposed by this Department and its several components, frequently operate as a constraint to volume housing production. We know that the delays the people encounter here, and the problems of getting a project moving through our maze, result in some projects just not going forward.

Patterns of discrimination, largely racial, are a constraint to volume housing production. We think that the fragmentation of the home building industry represents a limitation on housing production capability.

One of the reasons that we have not met the obvious need for housing is that we have a fragmented market and fragmented production capacity.

This fragmentation involves the fact that we have inadequate land aggregation. A producer would have to go out and find, site by site, the location on which to build houses or multifamily units; then he's got to deal, site by site, with the zoning and building and housing codes.

Financing proceeds on a project by project basis, usually with many steps in the course of the financing of each individual project. All of this fragmentation adds up to an inability to build in volume and an inefficient use of the available labor force.

The fragmentation of our housing production and housing marketing system is one of the key elements in preventing our meeting the demands for housing.

* * * *
We have an approach which we think has some promise in meeting this housing demand.

The key to it is market aggregation. By this we mean the pooling of sponsorships and the pooling of financing into a larger group of sponsors and money, and the identification of available land on which you can build housing in volume.

If you can put together this kind of a market -- with demand, with sponsorship, with financing, and with available land -- then we think that will provide the impetus to develop new housing production systems, with more effective and more modern management and the use of more modern technology, the investment we don't have now in production facilities, and the development of new distribution, and new maintenance systems.

We think that the aggregation of a substantial market will provide assistance in the expansion of available manpower. We think the aggregation of a volume market is likely to provide some impetus in the development of new performance standards, and the development of national testing and evaluation facilities for new and innovative building systems, techniques and components.

How do you go about aggregating a market in a particular region?

One city may have two FHA sponsors, with identified sites, who are prepared to commit this volume of housing production through a pooled market. Another little city may have a small public housing program, prepared to commit 50 or 100 units to an aggregated market.

A larger city may have a local housing authority with some turnkey projects with identified sites, and the turnkey developer is prepared to participate in the aggregated market. Another city may have no interest at all. Still another city may have a local public agency which is working with five FHA sponsors on Section 236 projects, which they're prepared to commit to the aggregated market.

Then you take each of these areas with identified land and identified sponsorship, prepared to go ahead with a specific number of units, and pool that market, and the participants in the pooled...
market are prepared to deal with specific constructors of housing and suppliers of housing components.

Then, you have, instead of the fragmented hundred units here and 500 units there, and so on, a market of sufficient volume, to provide impetus for new housing production systems, more effective management, the use of more modern technology, development of production facilities superior to what we now have, the development of new systems of distribution, and improved maintenance of housing.

If all our assumptions are correct, and if we have the cooperation of the necessary elements, the impact of the development of volume housing production could be very substantial, and it could meet a broad spectrum of economic and social problems.

The first consequence would be some reduction of the real cost of housing. We're not operating under the illusion that the application of new technology in the building industry is immediately going to cut the cost way, way down. But we do think that the application of new management techniques, of new financing methods, of new technology, the development of volume production, is going to get that now rapidly-escalating cost curve under control, and that we are going to have meaningful control and reduction in the real cost of housing.

The production of quality homes, in volume, for people of all incomes is a substantial objective of this program, and one with a lot of potential impact.

Another part of the impact is the opportunity to reduce the aggregate cost in subsidizing housing for low and moderate income people. If you can hold down the cost of producing each unit, the cost in subsidy, therefore, stays down. We recognize that meeting the demand that comes from the segment of the population which cannot now afford housing, is going to require a substantial participation by the Federal Government in subsidy over a long period.

Obviously, if you can reduce the overcrowding, you can reduce congestion and urban tensions. If you build units that are attractive, in inner city and suburban locations, perhaps you can stop this drift of the affluent to the suburbs and the concentration of the poor in the ghetto, and develop a more balanced community.
The development of a volume production capability, to meet a volume market, obviously is going to create a housing industry that will be capable of producing more year round employment. This is one of the inducements to labor participation. We would hope it would also increase the job opportunities and entrepreneurial opportunities for minority groups.

We know that one of the reasons the manpower supply in the construction industry is smaller than it should be is the very legitimate fear that there won't be continuity of employment and that there just won't be enough jobs. If we can assure the existence of a volume market, we can assure the existence of more jobs over a longer and sustained period.

It also ought to provide an incentive and an impetus to develop new methods of financing. Perhaps, instead of financing construction on a project by project basis, a developer can get his financing tied to the volume of production.

The existence of this kind of a continuing high volume market, with continuing participation from this Department, should encourage continuing innovation. In other words, we will keep on with an input of new ideas and new technology.

* * *

If the initial market aggregation process works and develops a high volume capability to produce attractive housing, which will create attractive environmental situations, then we will think that the demand side is going to respond so significantly that it will put pressure on local officials -- zoning officials, code officials -- to make that kind of housing available on a very broad scale.

While you start with a market aggregation utilizing, essentially, the subsidized programs, eventually there ought to be a far broader application and a far broader market than just the subsidized market.

The Department of Housing and Urban Development is prepared to do a number of things to try to make this program a success.

Some of these are focused at the market aggregation side of the program, and the assistance the Department can provide to states, cities, and to regional councils of governments.

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We're prepared to provide staff assistance and advice and counsel, to the states and to the cities; in site identification, and market aggregation, and over the years we have been funding comprehensive planning.

We're now prepared to try to help them implement those plans, and to get some real use out of the plans that they've been developing at Federal expense. We are prepared to make available to them the knowledge about the markets which is available in our 76 FHA district offices around the country; the knowledge that our renewal and housing assistance people have about the plans for public housing, and the availability of urban renewal land.

We are prepared to give priority in the allocation of funds in the home ownership assistance program (Section 235) and the rental assistance program (Section 236) and other such subsidy programs, for areas which agree to participate in the market aggregation and in the easing of local constraints.

We are prepared, also, to earmark planning funds, and water and sewer funds, and community facility funds, for communities which will participate effectively in the market aggregation process. We're prepared to see that they have assistance from other departments of the Federal Government.

* * *

The program does involve, to a substantial extent, providing housing for low and moderate income families, and it will depend to some extent on the availability of subsidy.

The 1968 level of subsidized housing was about 150,000 starts, of which 50,000 were in public housing, about 11,000 in rent supplement, about 7,000 in rehabilitation.

In 1969, it's estimated we will produce in the neighborhood of 200,000 units through public housing, rent supplements, rental and home ownership assistance, and a larger rehabilitation program.

We've asked for the full $50 million in supplemental appropriations for 1969, for both the home ownership and rental assistance programs. We've asked for a full $100 million funding of each of those two programs and rent supplements in 1970. We've asked for increased appropriations.
for assisted rehabilitation. We've asked for increased appropriations for public housing.

If we get all of the appropriations and the contract authority we have requested, those funds would make possible a level of publicly assisted housing production in the neighborhood of 400,000 units in 1970.

We're not predicting that we're going to have 400,000 publicly assisted housing starts and rehabilitation in 1970, because there are obviously too many variables for anybody to make a responsible prediction of that kind. We don't know what's going to happen to the interest rates on mortgage financing; we don't know enough about the availability of sponsorship, or of manpower, or of material; we don't know how the weather is going to be, or whether there are going to be major strikes in the construction industry.

* * *

We're prepared, as a part of this program, to cut our red tape and we hope it will stimulate the opportunity for a higher degree of cooperation with local units of government, which includes the easing of restrictive zoning and building codes.

We hope it's going to make it easier for the industry to use innovative techniques. We hope it's going to provide incentives to do a better job in meeting this requirement for volume housing production.

We're asking the industry to develop innovative housing systems, with quality design, for safety and consumer acceptability.

We're asking for innovative proposals for site development and land preparations, and the use of modern management techniques in developing a high volume production capability.

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HAROLD B. FINGER
Assistant Secretary for Research and Technology

What we're trying to do is to define a market that's large enough so that the building and construction industry will try to examine its procedures and determine if there are better ways of doing the work. If the fragmented markets can, in some way, be pooled, the industry can see what this very large future demand is going to require.

The first part of our program is aimed at the market aggregation -- that is, the timing of the demand, the identification of possible sponsors, and of the land on which housing could be placed.

At the same time that's in process, the request for proposals would be prepared to go out to industry, with HUD supporting housing system design, evaluation and prototype construction. Basically, we are asking the industry to submit proposals, not only on the house itself, but on the effective use of land -- how housing units would be situated to make a most effective use of the available land.

In that context, we're thinking of a variety of housing types, using common services -- if possible, common community facilities -- to try to build a really good environmental situation. We're inviting industry to form consortia, or groups, that have all the capabilities needed to do that kind of work.

We expect that the proposals we receive will cover a very wide range of ideas that are now available within the industry but for which there has been no opportunity for broad application because of various constraints. We're going to try to generate the ability to apply those available concepts. We want to get this high volume production effort started as quickly as we can.

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As a result, we expect that the ideas we'll get will vary from current procedures for building. Through the market aggregation process, those current procedures would be examined to see if there are more efficient ways of doing that job.

This examination could produce a better management approach; better scheduling of labor; better scheduling of the general work tasks that are required.

Components in housing might be changed, with greater standardization than is now available. There's been great progress in this area. The question is, can there be more? Are there ideas now available in the building business to give us greater standardization?

The use of major prefab sections has been suggested, or even prefab modules. We're proposing to sponsor the support, the design of the best of these various concepts and then evaluate them.

Evaluation and prototype construction will be combined. In the evaluation process, we expect each of the proposers to come in with certain ideas which, because they haven't been applied, also haven't been fully tested or evaluated. In the requests for proposals industry will be asked to tell us what tests they think are necessary to prove out those ideas and we will support them in doing that test work.

Where additional test work is necessary, it would be accomplished by various organizations. We might ask the company to propose to do some of it. We expect to go to the Government laboratories such as the Bureau of Standards, the Forest Products Laboratory of Agriculture, and private testing laboratories.

We're also arranging with the National Academies of Science and Engineering for an examination and validation of test results and test procedures.

As a result of all of this testing of parts and subsystems, we would be prepared to say that a particular innovation is proper. But that isn't really enough of a test and for that reason we believe actual construction is the next step.
The housing prototypes will not consist of just one or two, or a half dozen, of each of the models. We're going to ask the companies for site layouts and site development. It's our feeling that there must be an opportunity to show what the whole environment looks like. Enough units must be built to really test the full environmental setup that's proposed.

We want enough prototypes to check the cost estimates. We will ask the industry to submit cost estimates on various production levels; and the minimum number of prototypes needed to really evaluate the proposed concept. Then we would go to higher production levels to determine the cost for the most efficient production level and for very high levels of production such as 30, 60 and 90 thousand units a year.

The prototypes will be used, not only to determine what the production procedure really costs, but also to evaluate the market-ability. We recognize that one of the significant constraints is the tendency of people to prefer living in the kind of place they're used to. We may decide to put up some units that are not quite the evolutionary sort of thing that we've been seeing. The prototype phase would be the real test of that.

Once the land availability and market demands are identified and the models evaluated and tested, we think the free market should be able to apply these factors to a volume-production approach.

From HUD's point of view, the use of those models should be automatically approved under other HUD procedures. There shouldn't have to be another check of technical evaluation, if there's to be FHA insurance, for example. We also believe that if we go through this evaluation process, the local community should be prepared to accept those tests and evaluations.

The testing and evaluation should give us a HUD good seal of housing approval of some kind. In effect, we say: Look, we've completed this process to show that this housing is safe, attractive, durable -- the kind of housing the people will really want to live in.

We're not trying to do away with codes. We think you must have some performance specifications. We're trying to do away with codes that are set too arbitrarily. We want them established on the
basis of the actual requirements for a house, and whether or not they are fulfilled.

We're asking each of the builders to tell us where they conform to standard codes, or model codes, and where they deviate. We would ask them to justify the deviation, or to define for us the testing needed to prove that the deviation is valid.

A third area that we're concerned about, and haven't fully thought through is, the management of the systems that are developed, and a combination of the ownership possibilities with management.

When we build a major development, with common facilities, we must know how to match peoples' ownership opportunities for the houses and the land, with the need to manage, operate and maintain the entire development.

This is an area in which we think that industry, too, will eventually have to play a very major role. There may be sponsors that have a very significant role in this kind of a maintenance approach, but eventually we hope that industry is going to have some role.

In addition, we're requesting proposals for the ideas that industry has not yet proved. On a continuing basis, we would try to encourage and, if possible, support industry in developing new approaches and new concepts that could be fed into the prototype phase when proven out, and eventually into the production phase.

Incidentally, we think that, through a wider variety of high volume production approaches, the materials and component producers may adjust their operating methods to doing things differently, perhaps using the same materials with increased efficiency.

About a month from now -- maybe a little longer than that -- we expect to be ready to send out a request for proposals to the industry.

There will be a period of three and a half to four months proposals preparation, evaluation by HUD and selection of the prototype designers and developers. We are expecting a proposal preparation period of about two months. Sometime in that period,
probably a couple of weeks after we send out the proposals, we will have a meeting with the industry -- the people who might want to submit proposals -- to discuss the proposal. I expect that not many companies will have very major questions at that point, but if they do, they will have an opportunity to discuss them.

At the time we select the prototype designers and developers, we feel we must have some input from the market aggregation phase, to define the prototype sites.

Our plan is to have eight regional prototype sites, on which we would locate various housing concepts proposed to us, selecting those that are realistically suitable for various regions.

The prototypes must be built in fairly large numbers. Each of the sites should have enough housing of a given general model or general production approach and environmental setting to evaluate the structure of the house, its durability, safety, attractiveness, and its marketability, as well as the general environmental arrangements.

We would be mixing models in each of those prototype sites and, therefore, we have the problem of good site design. The site shouldn't look like an ad hoc mixture of different designs that doesn't give a fair test of the environmental aspect of each of them.

A prototype site design phase for the site that's been selected for a particular model will be followed by prototype housing construction.

The designs that are close to application now will go into early prototype production. As a result, it's conceivable we'll have some prototypes finished in about a year from the start of the program. That may be optimistic, but I think it depends a lot on the particular concepts.

It may be almost two years before we're really through the prototype construction-evaluation phase. All through this period, we'll be testing and evaluating the building concepts. From the time we start designing some of the contractors will be testing their ideas and we'll go out to get additional tests where we can.
It's entirely possible that some of the local housing authorities and sponsors may take a look at the various designs or concepts we've picked and decide to get some of those units built on land already available. We're certainly going to encourage this because, in effect, that's another prototype. If localities are prepared to waive code requirements to do that, it will be a helpful part of the program.

We're not, in any way, stopping the ongoing activities of the building industry, or sponsors who are now in the business. To provide for the housing needs, the Department will continue to support programs that are under way or that sponsors propose. At the same time, we'll be starting to develop this program, which we hope will provide a volume production capacity greater than now exists.

We believe that through the higher volume production methods, it may be possible to get this cost increase curve, which is going up very steeply, to slow down. And we hope it may actually reverse at some point.

How long that process will take, we don't know. During the development phase the prototypes aren't going to be much cheaper than the regular methods that are available. After that time, we expect that the costs would come down.

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