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ON THE COVER

Newly elected officers of New York State Association of Architects, Inc., 17 October 1958. Standing left to right: 3rd Vice President, S. Elmer Chambers; 2nd Vice President, Frederick H. Voss; Treasurer, Martyn N. Weston; President, Harry M. Prince; Executive Director, Joseph F. Addonizio; Secretary, Simeon Heller; 1st Vice President, John W. Briggs.

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The attractiveness of a classroom at the new Immaculate Conception School at Fayetteville, N. Y., is heightened by ‘HAYDITE’ walls. The stacked blocks were easily painted in pastel tones without the use of a primer coat. Architects: Peterson, Hueber and Hares. Structural Engineer: Stewart H. Snyder. General Contractor: A. Gressani Construction Company. ‘HAYDITE’ blocks furnished by Barnes and Cone.

At the Holy Cross School at Dewitt, N. Y., ‘HAYDITE’ blocks are featured as the walls in the functional gymnasium which also will double as the auditorium. Architects: Peterson, Hueber and Hares. Structural Engineer: Thomas M. Farmer. General Contractor: A. Gressani Construction Company. ‘HAYDITE’ blocks from Barnes and Cone.

Even-textured stacked ‘HAYDITE’ block walls enhance the corridor at the Immaculate Conception School.

The ‘HAYDITE’ blocks in corridors at the Holy Cross School were alternated, in contrast to the stacked blocks used throughout at the Immaculate Conception School.

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FROM THE DESK OF THE PRESIDENT

This season of the year is far more than a mere period of festival and revelry or the opening of another year in the flight of time. It is a season of self-examination, self-judgment and thankfulness.

It is a time to think not only of oneself, but of peace and blessedness for all mankind and a prayer for the time not far distant when men shall form one bond of brotherhood; when arrogance and misunderstanding shall have passed away and friendship and fellowship strengthened between all the inhabitants of our precious land.

To those who during the past year have given of themselves so freely and unselfishly towards the advancement of our aims, go the indebtedness of all of us and the wish that this solemn season inspire us to an ever greater consciousness of the purpose of our work and our aspirations.

HARRY M. PRINCE, President
The First Methodist Church of Auburn is another striking example of the use of Lenroc Sawed-Bed Ashlar. Originally, this project was designed for brick and limestone, due to the tight building budget.

The Architects asked for Lenroc Sawed-Bed Ashlar and cut stone as an alternate. Because of the small difference in contract price, the Church and Architect both agreed on Lenroc and were particularly pleased with the final result. Permanence, beauty and low maintenance are reasons why more than one out of six of today’s churches are constructed of stone... and there is no finer stone than Lenroc.

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SECRETARIES PLEASE NOTE!

As we approach the end of our calendar year, I am going to talk "shop" with the officers, and particularly to the secretaries, of the constituent organizations of N.Y.S.A.A. I am not unmindful of the fact that without the kind cooperation and loyal support of the officers and secretaries, the state association could not function as effectively as it does.

I wish to discuss at this time a number of matters in which we can work more closely together. I shall name a few, not necessarily in the order of their importance, but rather as a general list of items in which we have a mutual interest. Secretaries, therefore, please take note!

**Rosters**—It is absolutely essential that all membership rosters are maintained up to date as to names and correct addresses. Once a year *Empire State Architect* publishes a complete listing of all paid-up members of our constituent chapters and societies. These members are also subscribers of *Empire State Architect* and are entitled to receive the publication. Frequently, complaints reach the executive offices that neither the publication nor our mail is received. It would be helpful if all changes of addresses are reported as soon as they are known.

**Other Roster Changes**—New members, additions, resignations, deaths, members dropped, transferred or otherwise added or removed from the rolls should also be reported immediately. In our files of about 2,000 members, we have about 300 names of those who serve on N.Y.S.A.A. committees and whose addresses are important for our records.

**Committee Chairmen**—Send us the names and addresses of all of your committee chairmen. The knowledge of who these key people are will provide a "direct line" of communication whenever any subject pertaining to their activities may arise.

**Officers' Elections**—We would appreciate being advised as soon as elections of officers take place in your chapter or society, as well as the dates of these elections. It is important to have the correct information since numerous communications are directed to your officers during the course of the year.

**State Directors**—We should be notified as soon as it occurs of the election or appointment of state directors who are to represent your organization, so that meeting notices and minutes may reach the proper persons.

**Meeting Dates**—Dates of all your business meetings or special functions should be sent to our executive offices. Some organizations prepare their schedules for their meetings well in advance. Such information will prevent conflict in N.Y.S.A.A. directors' or committee meetings or conferences. Incidentally, if the presence of any of our officers or the executive director is desired for the purpose of addressing or conferring with your group, invitations should be sent in sufficient time to assure their attendance.

**Bulletins or Publications**—Please place us on your regular mailing list for the receipt of your chapter or society bulletins or other publications, so that we may be kept fully informed of your activities. Perhaps, we can from time to time contribute suggestions and news items of interest to your membership. Then again, we may be able to reproduce some of your bulletin items in the *Empire State Architect* for everyone to read.

I recommend two final matters for the immediate consideration of all constituent organizations:

1. Send your recommendations for legislative proposals as requested by the Legislative Committee, but only after your chapter or society has given full consideration to these proposals. The beginning of the legislative season in Albany is closely at hand.

2. You have been requested by the By-Laws Committee to submit your recommendations by not later than December 31, 1958. Your early submissions will give the committee ample time to study all your proposals.

May I express the hope that all of the above suggestions will receive the earnest consideration of the officers and particularly the secretaries, so that we can work together for a greater and stronger N.Y.S.A.A. in the year ahead.

My best wishes to all for a happy holiday season and a bright new year.

*Executive Director*

[Signature]
As is not uncommon in the selection of a site for an automobile showroom, the owners of Belgrave Motors, Inc., chose a location in the midst of an "Automobile Row" for this new branch building.

Basic among the problems faced in the design of the structure was the creation of a "showcase" for an automobile which would direct attention to the product, rather than be just another salesroom in the already crowded "row." The site too, (at the crest of a hill, with the roadway and property breaking away from the basic site at the midpoint of the building line), aided in the selection of a pentagonal plan. In consequence, Belgrave Motors is now able to concentrate its display by placing one vehicle at the apex of the pentagon which is therefore completely visible from each of three approaches to the building.

The carport element, employed for used car display, is extremely light and airy in appearance so that it may in no way overpower the display. Paint colors closely related to plant coloring were selected to further create the illusion of a completely outdoors unit. The columns supporting the structure are painted in a forest green, structural beams in a light cocoa with the open web joists in a citrus yellow. The roof of corrugated plastic is white in color, and although the cars are under shelter which permits a minimum of maintenance, they are not subject to color distortion during either daylight hours or periods of artificial illumination.

The shape of the carport, a modified "S" plan, was selected to satisfy the necessity of providing an unobstructed view of the showroom proper, and at the same time bring the carport to the maximum line of structure permitted under the Zoning Ordinance. This form permits the staggering of vehicles, and provides the maximum display facility for each of the twelve cars which it shelters.

The shape of the sign tower which serves to totally relate all elements of the design, was a natural outgrowth of the type of lettering designed for the sign itself and the desire to provide the sign on each of the two faces of the tower.
The program for the Champlain Junior-Senior High School is typical of the requirement for a medium sized Central School District in the State. As designed the building will serve 350 students, with the general-use facilities sized to accommodate a population of 550. Addition of standard classrooms is all that is required to meet this capacity.

The Board of Education working with the State Education Department established space requirements for a full curriculum which had to be organized within a tight budget imposed by the financial capacity of a very rural area and its attendant limits on bonded indebtedness and State aid. The required balance was obtained by a compact plan and simplicity of structure while retaining optimum standards in materials and finishes to insure minimum future maintenance costs.

The site for the project is large and will provide for all future needs of the School District. Sloping gently to the south, the land posed no unusual problems. The building is based on a simple one-story bearing wall scheme housing the 7th and 8th grade juniors in the front wing and 9th through 12th grade seniors occupying the classroom wings to the north. The usual facilities are provided for specialized teaching in Science, Art, Music, Homemaking, Industrial Arts and Agricultural Arts, with noisy shops and music isolated from the general academic areas. A library is centrally located as are the administrative and health suits. Physical Education is housed in a large gymnasium with folding bleachers which can be divided by a motorized folding partition to provide two teaching stations. The sloping floor auditorium seats 350 and for larger groups, or when the enrollment increases, seating can be provided in the cafeteria area which expands the auditorium by the opening of a folding partition. This arrangement does away with the waste of a large auditorium yet allows for total seating of 550 for special occasions.

The kitchen has large storage facilities below since it is to serve as a central kitchen for the two other schools in the district.

Exterior will be face brick and the aluminum sash will have insulating double glazing. Interior walls and partitions will be integrally colored light weight block, structural glazed tile base throughout and ceramic tile wainscots in toilet and shower rooms. Floors will be vinyl tile generally, with terrazzo in the corridors, quarry tile in the kitchen, ceramic tile in toilets and showers and wood in the gymnasium, stage and industrial arts shop. Acoustic tile ceilings will be installed throughout, aluminum entrance doors and frames, forced hot water heating and fluorescent lighting.

Cost of the project is estimated at $1,050,000.00 with the building construction $850,000.00. An additional $150,000.00 would increase the classroom facilities to accommodate 550 pupils for a total building construction cost of $1,000,000.00.
Previous articles in this series appeared in the March-April and May-June 1958 issues of the Empire State Architect. In Part 2, Methods of Preliminary Underground Exploration were discussed in detail, including necessary information for test boring reports. This installment summarizes the soil classification systems used in civil engineering and covers the simple field identification tests that may be used to identify the principal types of soil.

Methods of Classifying Soils

A soil classification system is an arrangement of different soils into groups having similar properties. The objective behind the use of a classification system is to be able to predict the engineering behavior of a given soil upon the basis of a few simple tests and their correlation with field experience. However, it is emphasized that it has not been found possible to develop a universal system of classification since there are many different properties of soil of interest to engineers, and many different combinations of these properties in any natural soil deposit. As a matter of fact, the majority of soil classification systems do not contain the properties that are most important from the viewpoint of the foundation engineer. For example, standard classification systems do not contain data on relative density or consistency of natural soil formations. This may be satisfactory for use in highway or airfield subgrade construction but is of no value for foundation engineering.

The essential elements of the various methods of classifying soils are summarized below:

1. Descriptive Soil Classification

   This method consists of a general description of soil based on field examination and supplemented, if necessary, by laboratory testing. Some confusion has always existed in classification by soil types because of lack of uniformity of soil terminology. To be of value, descriptive soil classification should include information on grain properties and compactness for coarse-grained soils and plasticity, consistency and dry strength for fine-grained soils.

   In writing the basic description, the predominating type is written as the noun with the other types as adjectives. For example, a soil mixture which has a predominance of silt, some sand and a trace of clay would be called a clayey, sandy silt or a silt with some sand and a trace of clay.

2. Geological Classification

   This system is based on the geologic history of soil deposits and consists of two major subdivisions—residual and transported soils. Residual soils are developed from the parent rock over which they now lie. Transported soils are classified according to the mode of transportation, such as alluvial, lacustrine, marine, aeolian and glacial.

3. Grain Size Classification

   This system is based on grain size classification and distribution. It is suitable for classification of coarse-grained soils for certain engineering projects but is not adequate for fine-grained soils.

   The following table lists three different classifications based on grain diameter:

<table>
<thead>
<tr>
<th>M.I.T.</th>
<th>U.S. Bureau of Soils</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
<td>2mm - .005mm</td>
<td>2mm - .005mm</td>
</tr>
<tr>
<td>Silt</td>
<td>.060mm - .002mm</td>
<td>.060mm - .005mm</td>
</tr>
<tr>
<td>Clay</td>
<td>Finer than .002mm</td>
<td>Finer than .005mm</td>
</tr>
</tbody>
</table>

4. Atterberg Limits

   The Swedish soil scientist, Atterberg, established four stages of soil consistency of fine-grained soils and defined the following limits:

<table>
<thead>
<tr>
<th>Stage</th>
<th>Boundary or Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid</td>
<td>Liquid Limit</td>
</tr>
<tr>
<td>Plastic</td>
<td>Plastic Limit</td>
</tr>
<tr>
<td>Semi-solid</td>
<td>Shrinkage Limit</td>
</tr>
<tr>
<td>Solid</td>
<td></td>
</tr>
</tbody>
</table>

   Each limit is defined by the water content that produces a specified consistency and is determined by laboratory tests. The Atterberg limits are generally used to distinguish soils with similar grain size distributions but different properties. These limits permit estimates of compressibility, permeability, rate of volume change and shear strength of cohesive soils.

5. Airfield Classification (AC System)

   This system uses the results of grain size analyses and Atterberg Limit tests to group soils as to suitability for pavement foundations.

6. Public Roads Classification (PR System)

   This system also uses the results of grain size analyses and Atterberg Limit tests. Soils are divided into 8 groups, depending upon their suitability for sub-grade use. There are 3 groups of coarse-grained soils, 4 groups of fine-grained soils, and 1 group of highly inorganic soils.

7. Civil Aeronautics Administration Classification System

   The CAA actually uses three independent classification systems—one for classification of soils for airport construction, one for pavement design and a third for textural classification for agronomic purposes.

   Only the first of these systems will be covered here due to its importance in classifying sub-grade soils for airports. In this system, soils are divided into groups based upon the results of the mechanical analyses and Atterberg Limit

\[1\] Associate Professor of Civil Engineering, Syracuse University Consulting Soils Engineer
tests. Two major categories, granular and fine-grained, are used with a total of 13 groups.

These seven soil classification systems cover the more important methods of classifying soils as used by the civil engineer. Adequate descriptive soil classification when supplemented with geological data, is of paramount importance to the foundation engineer. With this data, he can make preliminary estimates of the engineering properties of soil which are essential to proper foundation planning.

Field Identification of Soils

Correct soil identification in the field based on visual inspection and certain simple field tests is important for preliminary indication of engineering properties and for proper soil control.

For identification purposes, all soils may be divided into five basic types or combinations of these types. Natural soils in most cases are found to exist as combinations or mixtures of these basic types. These five basic soil types, with a brief description of each, are as follows:

1. Gravel—Gravel is a coarse-grained, cohesionless material with particle size ranging from about 1/4 inch to 6 or 8 inches in diameter. Pieces larger than 6 or 8 inches are called boulders.

2. Sand—Sand is a coarse-grained, cohesionless soil with grain size varying from about 1/4 inch to 0.05mm.

3. Silt—Silt consists of mineral grains ranging from about 0.05 to 0.002mm in size. It is a fine-grained soil with little or no plasticity and having little or no dry strength.

4. Clay—Clay is composed principally of flat particles finer than 0.002 mm and ranging well down into colloidal sizes, which are the principal cause of plasticity. Plasticity and dry strength are affected by shape and mineral composition of the particles.

5. Organic Matter—Organic matter consists of partly decomposed vegetation as in peats or of finely divided vegetable matter as in organic silts.

Accurate identifications and carefully written descriptions of soils encountered in the field are of immeasurable value to the engineer who deals with soils. The following simple tests can be performed without equipment and are of paramount importance in identifying and describing soils:

1. Visual Inspection
   a. Grain size, grain shape and gradation of coarse-grained, cohesionless soils.
   b. Texture and color of fine-grained soils. Organic soils are distinguished by their coarse, fibrous texture and dark color.

2. Dilatancy or Shaking Test
   This test aids in the identification of fine-grained soils.
   Prepare a pat of moist soil and shake horizontally in the hand, observing if water comes to the surface of the specimen, making it appear shiny or glossy. Then gently squeeze the sample between the fingers to determine the ease with which the moisture leaves the surface, giving it a dull appearance. Repeat this operation several times, using different water contents if necessary.
   If shaking easily brings water to the surface and squeezing causes the surface moisture to disappear, there is a high mobility or rapid reaction. This is the case with typical inorganic silts or very fine sands. If the surface shows no change in appearance during shaking and squeezing, there is virtually no mobility. No reaction indicates a clay or organic material.

3. Feel Test
   Rub soil specimen between fingers to determine whether gritty or soapy. Basically, inorganic silts feel gritty, whereas clays feel soapy.

4. Breaking Test
   Dry a specimen of fine-grained material and break with the fingers. High dry strength indicates a highly plastic inorganic clay. Low dry strength indicates an inorganic silt or a silty sand.

5. Plasticity Test
   Remove coarse particles and prepare a moist pat. Roll pat out with palm of hand on a flat surface into threads of approximately 1/8 inch diameter. Remold and roll out again, repeating this procedure until the moisture loss causes the thread to crumble when rolled. The lowest moisture content at which the soil can be rolled into a thread 1/8 inch in diameter without breaking or crumbling is called the plastic limit.
   Note the toughness of the threads as the plastic limit is reached and test to see if the crumbled pieces can be remolded. This gives an indication as to the degree of plasticity.
   Certain soils, such as fine sands, are non-plastic; that is, no plastic limit can be determined.

6. Odor Test
   Organic soils, fresh from the ground, usually have a distinctive odor which aids in their identification. Heating a wet sample will intensify the odor.

7. Shine Test
   Rub a dry or damp sample with a knife blade or finger nail. A glossy or shiny surface indicates a highly plastic clay.
   In addition to the basic soil types, the architect and engineer should also be familiar with the following soil names, since they are commonly encountered:
   Varroed clays are sedimentary deposits consisting of alternate thin layers of silt and clay.
   Loess is a fine-grained, wind-blown deposit of relatively uniform size.
   Marl is a water-deposited silt or clay containing calcium carbonate and usually organic matter.
   Glacial till is a heterogeneous mixture of clay, silt, sand, gravel and boulders.
   Topsoil is a surface soil capable of supporting plant life.
   Bentonite is a fat clay formed by chemical alteration of volcanic ash. Bentonite has high shrinkage and expansion properties.
   Hardpan is a hard cemented material which does not soften when wet.
   Quicksand is a condition and not a soil. A saturated sand becomes "quick" when an upward flow at a gradient of approximate unity occurs at its surface.

An article on the purpose of laboratory soil tests will appear in a later issue.
ECONOMISTS are often accused of a sort of intellectual dispersion—a tendency to fly off in all directions in their opinions of the outlook. At the moment, the charge seems to be baseless, because the 212 economists polled by F. W. Dodge Corporation in its latest annual opinion survey are practically unanimous in expecting 1959 to show improvement in the major business indicators.

This is in sharp contrast to last year's survey, where opinions were quite mixed, and where a strong undertone of recession thinking ran through the comments which many of the economists added to their numerical forecasts. The thinking in the current survey is that the recession is over, and that 1959 will be characterized by steadily rising output and continued inflation.

The degree of unanimity as to direction is shown by the estimates of gross national product. Of the 212 economists, all but two think that G. N. P. at the end of 1959 will be above the mid-1958 level. Similarly, only four think that the Federal Reserve index of industrial production will be below the June 1958 level at the end of 1959.

Whereas in last year's survey the word "recession" appeared frequently in the comments, it has been replaced in the current comments by "boom" and "inflation." This is not to imply that the economists think the latter conditions are wholesome; several call attention to the more unpleasant aspects of booms and what may come afterward.

There is no gainsaying the fact, however, that practically all the economists think 1959 will be a good year for the economy, whatever may come afterward. This feeling is so strong that there seems to be little point in analyzing it at length.

Of more value, perhaps, is a brief review of the negative side, since the comments do suggest that there are soft spots to be bolstered and pitfalls to be avoided. Among those most frequently mentioned were:

- Inflation and run-away boom, with a counter-action sometime after 1959.
- Possible cutting off of the recovery by excessive credit restriction, most often mentioned in connection with the housing outlook.
- Prospects for a relatively slow decline in the number of unemployed.
- A possible lag in recovery of capital expenditures from the "relatively low" levels of today.
- The question of consumer acceptance of the new automobile models.
- A continuing profit squeeze facing many businesses.
- Rising government deficits, high taxes and restrictive tax structure.
- Constantly rising wage rates.

The words of one economist seem to sum up the feelings of most: "I'm convinced the over-all recovery is genuine and 1959 will be well above 1958 in many business measures but look for continued adjustments, reflected in persistently high unemployment, shrinking bank and business liquidity, lagging profit margins, a new moderate farm recession, and a slow pick-up in new plant and equipment expenditures. The fear of inflation will continue to spread but prices will not rise too rapidly until over-all private spending starts to mount along with government deficits."

The difference in outlook between the current survey and the one last year is pointed up by some of the things the economists failed to stress this year. Last year, for instance, the possibility of a tax cut intrigued the economists; this year, they seem to have given it up as hopeless. In the outlook for 1958, the possibility of widespread strikes loomed large; this subject is hardly mentioned for 1959. Two other subjects which were prominent in last year's survey, but which are scarcely mentioned this year, were a possible reduction of defense spending, and uncertainty about the stock market.

International affairs, which have often played a large part in the comments on earlier surveys, are very much subordinated to domestic considerations this year. A few economists state that their opinions "assume no change in the international situation" or words to that effect, but none stresses foreign affairs as a positive factor in the outlook.

There are, of course, differences of opinion as to the extent of business improvement in 1959. There seem to be two principal schools of thought. One group would agree with the economist who said: "We are heading into another boom, stimulated by growing population (war babies reaching college, job-taking, marriage age), defense, inflation." The other line of reasoning was expressed thus: "Despite our optimism about certain segments of the economy, we are not forecasting that 1959 will be a 'boom' year, although business generally will be at much higher levels than those experienced in 1958. The coming year will be somewhat below the long term growth line." Reasons given for this conclusion were persistent unemployment and a relatively low level of capital expenditures.

The prospect of continued inflation was dominant throughout the comments, but again, some economists foresaw sharp price increases, while others felt that the 1959 outlook was for only moderate inflation. But virtually all the economists agreed that the course of prices would be upward, and many of those who held that the 1959 increases would not be serious noted that more rapid inflation was in prospect for later years.

* * *

Unfortunately, economics is not an exact science, and because of its complexity and the important influence of psychological considerations, it may never become exact. It is entirely possible, for instance, that a good forecast (good at the time it is made, that is) may itself become part of the chain of cause and effect, and produce counter-actions which make the forecast turn out to be wrong. While there is a place
for "model building" and mathematical projections, it is possible for them to go far astray in forecasting. Some of our economists do a highly scientific job of making up their projections; others undoubtedly use intuition or "hunches," if you prefer. The practice of economics is both an art and a science, and there is value in each approach.

It is not easy to analyze the numerical forecasts. There is always a wide spread of opinion on degree, and often on direction of movement, as well. There is no particular magic in the median of the forecasts, although it is a handy analytical device. Experience in past years indicates that the median forecasts are pretty good at indicating direction of movement, although they are conservative in that they tend to underestimate the actual magnitude of movements, both upward and downward.

But the numerical forecasts, coupled with the flavoring of the qualitative comments, offer an unquestionably valuable look ahead. It would have been impossible to study last year's survey, for instance, without realizing that a danger period lay ahead, and we reported that there was "considerable concern" over the outlook for 1958, with the words "decline" and "recession" appearing frequently, and with no "real optimism for the immediate future." This turned out to be a valid assessment of the short-term outlook.

Things are quite different this year's survey, and that alone is a significant and valuable indicator of the outlook for 1959. The economists are saying, quite clearly, that they think 1959 will be a good year, substantially better than 1958, although it will not be without its problems.

The economists participating in the current survey include 28 in financial organizations and insurance companies, 93 from other business firms, 49 from colleges and universities, and 13 from government, the remaining 29 are consultants or members of trade and research organizations.

GENERAL COMMENTS

Comments on specific questions are included with the discussion of those questions below. A large number of respondents commented on the general business outlook, and the following quotations are typical of the views expressed.

"1959 will see continued economic recovery based on high personal consumption expenditures, a larger volume of durable goods purchases, a continued high level of construction expenditures, and large government spending."

"Record government spending for defense, large federal deficits, rapid recovery in industrial production, expected record construction activity, and high personal income are the important factors that will lead to new GNP peaks in 1959."

"The economy seems to be starting a general recovery. There will be some setbacks in 1958 and 1959 and the rate of recovery may be unsatisfactory to some individuals. However, a slower recovery may be evidence of greater strength and stability in the long run."

"I am concerned about the current state of the money market and its near term effect on business. Two key industries, housing and automobiles, will be directly and adversely affected by a continuation of current money market conditions."s

"It appears that the recovery is proceeding vigorously and that it will continue to do so."s

"The recession is now definitely over. Continuing sound recovery through 1959 is anticipated. But a return during 1959 to boom conditions and to levels above the long-term trend seems unlikely."s

"1959 a prelude to 'boom' and possible reaction in mid- or late 1960. Inflation push will gain momentum as year proceeds."s

"1959 will be another year when the bears will have to run for cover. The typical characteristics accompanying a cyclical recovery will be in full play throughout 1959."

"Ruling out of consideration a major war, I would expect the foundation for a major boom to be laid in 1959. I think the boom will not be apparent that early. If the boom is not checked I think it will be the greatest in our history."

"I believe 1959 will be the best year to date."

"Here we go again."

DETAILS OF REPLIES

The economists surveyed were asked to present specific forecasts for the remainder of 1958 and for 1959 for several major economic indicators. A total of 212 economists replied. A few omitted replies to some parts of some questions, but there were more than 200 replies to each part of each question. The lowest response, as usual, was on the question of new construction, perhaps reflecting the comment of one economist who said, "But you folks (Dodge) are the experts on this!"

1. GROSS NATIONAL PRODUCT

On the average, the economists think the gross national product will rise steadily through the remainder of 1958 and 1959. The median rise works out at $5 billion each quarter on a seasonally adjusted annual rate basis, reaching $460 billion at the end of 1959. This would be an increase of 7 per cent over the figure for the second quarter of 1958 (the latest available at the time the questionnaire was mailed) and an increase of 5 per cent during 1959. All but two of the economists placed the total at the end of 1959 above the second quarter 1958 level, with most of them putting it substantially higher. There is a wide variation in the individual figures for the fourth quarter of 1959, with no "most popular" or modal number; in fact, just as many economists picked $480 billion as chose the median figure of $460 billion. The middle 50 per cent range (that is, the range covered by 25 per cent of the total replies on each side of the median) for the fourth quarter of 1959 ran from $449 billion to $473 billion.

With regard to the pattern of change, the vast majority of the economists (86 per cent) saw a steady upward trend throughout the six quarters forecast. Another 9 per cent saw a decline in the second half of 1959, following a rise up to that point, and 3 per cent felt that the second half would level off, following a rise. The other 2 per cent were scattered among various patterns.

2. CONSUMER PRICES

Almost all the economists think that the consumer price index will rise steadily during 1959. Only 11 thought that the index at the end of 1959 would be below the June, 1958 level. The median forecast for December, 1959 is 125.5, compared with 123.7 last June. The middle 50 per cent range of the December, 1959 figures is from 124.5 to 126.5. The range of the forecasts, incidentally, extends considerably further upward than downward; 27 of the economists put the December, 1959 figure anywhere from 128 to 133, whereas only two put it below 123. Several of the economists indicated their belief that food prices would have a restraining influence, tending to offset to some extent rises in other prices.

The pattern of individual forecasts was similar to that for G. N. P. A steady upward movement in the consumer price index was indicated by 84 per cent of the economists. Another 8 per cent forecast an

* Omitted from this draft.

(Continued on Page 31.)
ARCHITECTS' INGENUITY ASSURES QUALITY DESPITE MANY BARRIERS

CHARLES ROCKWELL ELLIS, A.I.A.
Chairman, Publications Committee
New York State Association of Architects

(EDITOR'S NOTE: In this current multi-billion-dollar public and private building era, scores of individuals and community groups are dealing with architects for the first time. This is the third in a series of six articles explaining the roles and responsibilities of the architect.)

"The first thing an architect does in working on a proposed building is to prepare a program . . . A program is like a tripod, with three legs . . . One leg is the number of people to be involved—whether it's a home or a school or an office building or whatever; the second is the use the building is to be put to, and the third is the economics involved.

"That third leg of the tripod—the economics—is always too short, no matter for whom the building is designed.

"The trick of the architect is to fit all three of these things together to make a well-rounded, 'level' unit."

This analogy was cited as a thumbnail description of the role of the architect amid the present vast building programs involving billions of dollars and innumerable schools, cultural facilities, and commercial buildings.

It further points up what must become an adage in modern construction: "Before you do anything else, consult an architect." Or, as one manufacturer of heating and ventilating equipment stresses in its advertising: "When you're thinking of buildings or remodeling, call in an architect at the earliest planning stage."

In this modern age, the successful architect must thrive on challenge for surely challenges exist in plenty. With building costs high and desirable vacant land in short supply, he must call on his ingenuity to provide even better buildings at a reasonable price.

He must analyze and interpret the requirements of his client and translate them into a building—all within the reasonable limits imposed by the budget available for the project and all in accord with the local building code.

And, to the durability, adequacy and convenience of a building, he adds that intangible ingredient—good design.

Take the virtual guarantee of the American Institute of Architects:

"A competent architect's services insure good design and good construction . . . convenience and comfort because of careful planning . . . ease in securing a mortgage loan at a good rate . . . money's worth in material and labor . . . low operating and maintenance cost."

From another source comes an outline of a test the successful architect must pass in this competitive age.

"Has he a good sense of economy? Does he know where to economize? Does he appreciate that utility is the first consideration and economy second? Has he the ability to prepare designs calling for materials which will require the least outlay for maintenance?"

"Is he economical, but not to the point that durability is sacrificed so that the resulting maintenance costs are unusually high?"

With technology continuously producing different construction products and new equipment, the architect must necessarily be a person of common sense and practicability. He must have the combination of caution and courage in a rare mixture—to assure progressiveness that is yet consistent with durability and design.

As stated in the oft-repeated keynote to a recent presentation on the subject:

"The modern architect brings to any project a vast knowledge of design and construction technique. And, he is able to draw upon and coordinate the skills of professional engineers in planning the installation of all types of modern mechanical equipment."

(The fourth article will discuss the special skills and training of an architect which enable him to bring together in harmony some 125 different trades and professions needed in creating a single building.)

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By

Warren L. Henderson

Regarding folks—one trouble with ‘em
Is lacking proper sense of rhythm,
Quite overlooking that pulsation
Is dominant throughout creation.
The cosmic law that rules our fate
Says ups and downs must alternate.

So every hill slopes to a hollow
And obviously it must follow
That steady onward plodding will
Surmount, for you, another hill.
Yet at each summit there will be
A horde of men who fail to see
The valley trails that lie beyond.
At every warning they respond,
"Values have reached a new plateau.
Where precedents no longer go,
Don’t talk to us of pending woe."

But since to up-and-down we’re fated,
How can its rigor be abated
Perhaps a way to overcome it
Is moderation at the summit.
Not sparing energy nor hope
When dealing with a downward slope . . . — “Donley Devices”

Buffalo - Western New York Chapter

The final meeting of the ’57-’58 year was held at the
Park Lane Restaurant May 14th. Some twenty-six
committees were heard from. The following slate of
officers was nominated and elected unanimously:
President—W. Newell Reynolds; Vice President—Guy
H. Baldwin; Secretary-Treasurer—M. Russell Turley;
Director of NYSAA—Roswell E. Pfohl; Chapter Di­
rectors—Milton Milstein; Stanley Podd; Mortimer
Murphy.

G. Morton Wolfe formally installed W. Newell
Reynolds as new President of the Chapter and a
motion was made, seconded and carried that the Chap­
ter express its appreciation and gratitude to Robert
Stoll for his fine work as President. The newly-elected
President presented membership certificates as
Cor
porate Membere to William Brynollson and Warren
Neal Wittek.

Testimonial Dinner for G. Morton Wolfe

One of our members has completed 50 years as a
practicing architect.

To remain in any gainful enterprise for 50 years is
a substantial accomplishment. But through mistakes
in bidding, wars, depressions and recessions, to have
survived 50 years as a practicing architect without hav­
ing been maimed by a client or contractor or without
having fallen off a building under construction is
worthy of public attention.

Few persons in Buffalo devote more of their time
to public service than G. Morton Wolfe. These organi­
zations were invited to the dinner:
Buffalo - Western New York Chapter,
American Institute of Architects
Building Code Revision Committee, City of Buffalo
Chamber of Commerce Construction Committee
Erie County Chapter, New York State Society of
Professional Engineers
Niagara Frontier Builders Association, Inc.
Producers Council
Building Trade Union Officials
Construction Industry Employers Association

Testmaster was Frederick C. Backus. Speakers
were: Cliff Fichtner, of the Chamber of Commerce,
George Sturges, for the Building Trades Unions,
Thomas Justin Imbs, for the Chapter, Frank J. Weber,
for the building materials dealers, and G. Morton
Wolfe, honored guest.

The testimonial dinner to G. Morton Wolfe was
on Thursday, October 9, 1958 at 6:30 P.M. in the Em­
pire State Room of the Hotel Statler-Hilton.

When more than 400 representatives of the building industry
gathered in Hotel Statler Hilton, Buffalo, recently to pay
tribute to G. Morton Wolfe in honor of his 50 years of
architectural practice in Buffalo, a lounging chair, “in which
to enjoy his tributes,” was presented him by Fred W. Rein­
hold (left), president of Anchor Concrete Products, Inc.,
Buffalo. Mr. Wolfe relaxes in his chair, while W. Newell
Reynolds, president of the Buffalo - Western New York Chap­
ter, A.I.A. (center), and Trevor W. Rogers, past president
of the New York State Association of Architects, look on.

A tentative schedule of Chapter meetings has been
planned for the year ’58-’59 which promises much of
value to the membership. Topics for discussion at the
regular bi-monthly meetings include Buffalo Re-De­
velopment, Practice of Architecture, a speech by a Na­tional A.I.A. officer, and Public Relations. There will
be in addition a social meeting and other meetings to
cover special situations.

Public Relations Program

Frederick C. Backus’ Public Relations Committee
engaged the services of Mr. Jack Moore as P.R. Coun­
sel for the year ending May 31, 1959. Each meeting of
our committee with Mr. Moore generates new ideas
and possibilities in a very exhilarating manner.

Our program is taking its 1958-59 pattern but tim­
ing cannot be set too far in advance because new
events and opportunities for Public Relations arrive
unannounced at times, but we are counting on the
following action:
1. One fine public luncheon with prominent Buffalo,
Erie County and State dignitaries and legislators.
2. Many appearances on Radio and TV.
3. A working agreement with the press.
4. One Annual exhibit comparable to the Buffalo
Fine Arts show.

Empire State Architect
5. Civic activity by our members.
6. Civic appointments from our membership.
8. Promotional work at University of Buffalo.
9. Many other activities that now lie dormant in all our minds but which we expect to bring to light.

**EASTERN NEW YORK CHAPTER**

The first meeting of the Chapter for '58-'59 was a gala occasion including golf, liquid refreshments, dinner and dancing held at the Wollerts Roost Country Club, Albany on September 21th.

Officers for the year '58-'59: President, J. Charles Cataldo; Vice-President, Frank J. Matzke; Secretary, Daniel Klinger; Treasurer, E. Gilbert Barker; Director, James A. Mero; Director, John J. Quackenbush; Director, Bailey M. Cadman; Director for the State Association, Bailey M. Cadman.

A worthwhile idea appears in the September issue of the Chapter "Newsletter": a list of the thirty Chapter committees, each chairman and an accompanying form to be returned to the President indicating each member's 1st, 2nd, and 3rd choice of committee. Elsewhere in the Newsletter is a recommendation made during an Executive Committee meeting that committees be composed of members residing or practicing in a local geographic area in order to foster the convenient meeting of each committee at least once a month between Chapter meetings, (luncheon meetings, etc.).

**NEW YORK CHAPTER**

Public Relations

Three nationally syndicated newspaper articles and a half-hour television program on CBS have kept the Chapter's public relations program in high gear during recent weeks and contributed to greater understanding of the profession not only in this area but throughout the United States.

Through the Chapter's public relations counsel interviews were arranged for Associated Press with three members on school construction trends. The article, now appearing in the nation's newspapers, points out among other things that "Today's schools are better designed because there are greater numbers of highly competent architectural firms in the school field today than ever before in U. S. history."

The school story also reveals that school building costs have been held down, and the monumental type of school is a thing of the past, and that such spaces as shops, physical education facilities and auditoriums are all necessary teaching spaces, not frills.

The second story, also appearing in major papers in this area and throughout the United States, carries the headline, "Building Your Dream House Needed:

Planning to build your own dream house? Play it safe—have an architect at your side to ward off any and all possible nightmares." The story then details for two pages the function of architects in designing houses.

The third article concerned the many problems of skyscraper construction in New York. It too has been widely used.

The television program took up the subject, "How can we win the fight against slums?" Ron Cochran, distinguished news commentator, was moderator and Chapter members Arthur C. Holden and Kenneth M. Young; James H. Scheuer, President of the Citizens Housing and Planning Council; and Sidney Freiberg, President of the Morningside Heights Property Association, made up the panel.

(Continued on Page 26.)

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The New York State Concrete Masonry Association assured continuation of the Student's Assistance Fund for deserving architectural students when a second check in the amount of $1,000 was presented the New York State Association of Architects, who administer the fund. Alden C. McGuire, Rochester (left), chairman of the Scholarship Committee for the New York State Concrete Masonry Association, is shown presenting the check to George Bain Cummings, Binghamton, Chairman of the Scholarship Committee for the New York State Association of Architects. The first $1,000 check was presented the Architects for a scholarship fund just a year ago. During the year, 14 students in schools of architecture at Columbia, Cornell, Cooper Union, Syracuse, Pratt, and Rensselaer Polytechnic Institute received aid from the fund. This is the first Scholarship Fund set up in the construction industry in New York State.

New officers of the New York State Concrete Masonry Association, elected at their annual meeting at the Hotel Roosevelt in New York in October: Ben H. Palmer, Jr., Southern Tier Concrete Products Co., Alfred, vice-president; Alfred L. Cossett, Cossett Concrete Products, Inc., Hamilton, president; William F. Fagan, Picone Bros., Brooklyn, treasurer; and Edward Spevack, Smithtown Concrete Products Corp., Smithtown, secretary.
WESTFIELD ACADEMY & CENTRAL SCHOOL
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DUANE LYMAN & ASSOCIATES, Architects
The use of brick is the perfect answer to today's demand for naturally durable and beautiful building materials. And they offer an almost unlimited range of colors and textures to fit any decorative scheme.
The show was secured to help publicize "Planning and Community Appearance," the report just issued in book form by a joint committee of the Chapter and of the New York regional chapter of the American Institute of Planners. Mr. Frantz, public relations account executive for the Chapter, is now engaged in getting the widest possible publicity not only for this book but also for the planning philosophy which it states so well.

Honor and Awards
August P. Petrillo, President of the Building Stone Institute announced that the Institute's 1958 Award for outstanding contributions to the field of Architecture was presented to Otto R. Eggers, partner in the firm of Eggers and Higgins. The inscription reads: "In recognition of a long and distinguished career in the field of Architecture and for his use of natural stone to create noble de-

SYRACUSE SOCIETY
Guided Missiles Get Group Started
The year's activities began with a lunchon meeting, September 11th at the Yates, with the feature speaker tracing the history of guided missiles. Newly re-elected President Edwin "Ed" Bruce spoke words of welcome to the large group present. Program Chairman and 1st V. P. Robert T. "Bob" Clark presented the speaker at the first semi-monthly meeting: J. R. Cavanagh, engineer associated with G-E's Electronics Park, Syracuse.

Beginning with the shooting of rockets by the defenders of Peking, China in 1220 to stave off the Mongol horde, our speaker outlined, with the help of slides, the erratic development of "guided missiles." Mr. Cavanagh concluded by showing a sound movie in color of a successful "Atlas" launching which occurred last December at Cape Canaveral. Recorded on the sound track were the pep talk of the test personnel at the site and their jubilant cheers as she took-off for South Africa or so.

Future Society programs promise to be equally interesting: Syracuse's Department of Planning, the Kansas City—80 Project, a Public Relations Panel, a talk by a local real estate expert, etc.

By the time this font goes to press, the annual joint Architects'—P.E.'s—Land Surveyors' Clambake on September 18th will be only a happy memory. To top last year's
successful turnout, well over 200 clam-eaters of several categories will have to appear.

James "Jim" Glavin and Harley McKee have been named co-chairmen of a committee to plan the annual social event of the Society, December 4th.

WESTCHESTER CHAPTER

Dick Hayes' Restaurant, White Plains was the locale of the first fall meeting of the Chapter, September 16th. We quote from the Westchester "Blueprint" announcement of the meeting's program: "Noise—The Care and Feeding of a Decibel!"

A discussion in the field of Architectural Acoustics will be conducted by Mr. Michael J. Kodaras, acoustical consultant. The speaker's background in the field covers innumerable aspects from pure acoustical design to neighborhood noise surveys—his projects have run the gamut from Westchester schools to Burmese broadcasting studios. With noise control increasing in both social and economic importance and concerning many vocations from the architect to the psychologist, we are pleased to be able to afford the membership this opportunity of hearing and questioning a specialist in another of the related fields of our ever-specializing profession.

The following are excerpts from Chapter President Millard Whiteside's observations at the National A.I.A. Convention. (Other Chapter delegates were Gerson Hirsch and Fred Sutton.)

"Fred Sutton arrived in Cleveland prior to the others as a representative at the Construction Specifications Institute meeting. That organization is developing better relations between supplier and the profession in specification preparation. Whiteside arrived in Cleveland Monday and attended the Dodge Corporation cocktail party where he 'met friends and influenced people' toward a possible future candidacy of a Westchester member for a national organization office.

"All delegates were present at the opening meeting on Tuesday. Vincent Kling gave the keynote address and William Tabler, noted hotel Architect, discussed "Building's Chaotic Codes." Kling advocated the formation of a research bureau financed by the profession who would endeavor to prepare unbiased reports on new building materials.

Architects are creating new design techniques which are bringing older but structurally sound buildings up-to-date. Notice the before and after views. You will find that Davidson Architectural Porcelain Panels bring forth that "pleasant impression" of business personality in any type of structure. Whether for new buildings, or modernization, check into Davidson Architectural Porcelain—the modern building material.

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that schools today do not teach that which the profession needs. In the discussion period, Hirsch suggested that Architectural school and office training should alternate an education period with a work period. As usual, there was no satisfactory solution.

"Whiteside attended a panel discussion 'How to Set Up an Office.' 'New Fields of Architectural Research' was held simultaneously.

Among the constituents materials, Tabler's address dwelt mainly with the extreme and costly contradictions prevalent in building codes.

"Tuesday afternoon Hirsch attended a forum on education. One educator proved that education for Architecture takes too long. Another educator convinced all that training for Architecture didn't take long enough. Finally, Architect Cecil A. Alexander proved

These were rather nebulous discussions which got nobody nowhere anyhow.

"The Wednesday morning meeting was devoted to routine business. Following this, Dr. Margaret Head talked on 'The Anthropologist Looks at Architecture.' Her presentation generally was very witty and is recommended reading in the AIA Convention Report.

"When the Nominating Committee made its report, Gerson Hirsch withdrew from the race for National Treasurer, and commended the work of the only remaining candidate, the incumbent Kastendieck.

"Hirsch and Whiteside attended a panel discussion: 'Developing Today's Building Program' and listened intently for an hour and a half to education consultants and management consultants who 'were not there to drum up business but suggest that Architects should always hire consultants.'

"An Honor Award to deserving members of certain chapters is held by these chapters. Although Westchester was unsuccessful on efforts in this direction, perhaps with a different approach or a little more effort, we might put it over. In anticipation of an increase in such awards programs by chapters, the Institute has set up five standard awards that may be used which include printed scrolls and engraved plaques. Attendance at meetings was a thoroughly discussed item. Many ideas which are now used by other chapters were explained. Included were dinner meetings which would include wives. Following dinner the wives would go to another room to hear an interior decorator, flower arranger, or to play bridge. Some chapters include in the annual dues the cost of several dinners each year. Dues in our chapter are not high compared to the majority of chapters.

"Thursday evening was the annual banquet. The AIA gold medal was presented to John Wellborn Root, who accepted with a dull speech. The new officers were announced."

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increase in the first half, followed by a levelling or a decline in the second half, and 3 per cent took an opposite point of view, seeing a level first half and a rise in the second half. The remainder were scattered among various other patterns.

3. WHOLESALE PRICES

The forecasts of the economists for the wholesale price index are similar to those for consumer prices, although the upward movement indicated is not quite as strong. In July of this year the index stood at 119.2, and the median forecast of the economists is that it will rise to 121.0 by the end of 1959. The middle 50 per cent range goes from 120.0 to 122.0 for December, 1959, but once again the total range extends much further upward than down. Twenty-three of the economists set the final figure at 124 or higher, while only ten put it below 119. Again, several of the economists indicated their belief that food prices would be level or down, with other wholesale prices increasing.

4. AVERAGE HOURLY WAGES

Here the economists were more nearly unanimous than on any topic in any earlier survey, to the best of our recollection. As usual, they were not asked for numerical forecasts, but were asked to state whether they thought next year's wage trend would be up, down or unchanged in three categories; durable and non-durable manufacturing and building construction. For durable goods manufacturing, the opinions were solidly upward; no economist thought wages would go down, only three thought they would be substantially unchanged; and all the rest said "up."

On wage rates in non-durable manufacturing, again no economist thought they would go down; 21 thought they would be unchanged, and the rest saw an up-trend. Opinions of building wage trends were surprising only in that two economists actually indicated a down-trend; 18 saw no change, and the remainder forecast an up-trend.

5. INDUSTRIAL PRODUCTION

The economists expect industrial production to rise somewhat faster than gross national product next year. In view of the fact that the index of industrial production is based on physical volume, while G.N.P. is in current dollars, this forecast may at first glance seem inconsistent with their strong expectation of continued inflation. The inconsistency is only apparent, however; since industrial production fell much more sharply than G.N.P. in the recent recession, it is not unreasonable to expect it to recover more rapidly.

The index of industrial production stood at 134 in July, 1958. The median forecast of the economists is that it will rise steadily to 147 by the end of 1959. That would be an increase of 10 per cent over the whole period, and 5 per cent during 1959. The degree of unanimity is not too high for the end of 1959, however, and the middle 50 per cent range extends from 141 to 150. The largest number of economists, incidentally, picked 150 for December, 1959; 25 of them made this the modal figure.

The pattern of the forecasts was again quite similar to that for G.N.P., although not quite so strongly upward. Some 82 per cent saw the index of industrial production rising steadily. Another 13 per cent...
predicted a rise in the first half of 1959, followed by a levelling off (6 per cent) or a decline (7 per cent). Only 3 per cent indicated a steady downward movement, and the remainder were scattered among other patterns.

6. EXPENDITURES FOR NEW PLANT AND EQUIPMENT

The median forecast of the economists is that plant and equipment spending in 1959 will total $33 billion. This would imply an increase of 6 per cent over the latest official forecast of $31 billion for 1958. The middle 50 per cent range of the estimates ran from $32 billion to $34 billion, with a clear preference for $33 billion (47 replies gave this figure).

7. TOTAL NEW CONSTRUCTION

On the average, the economists look for a modest increase in expenditures for new construction. In the first half of 1958 construction spending was reported at an annual rate of $48.3 billion. For the second half, the median estimate is $49.1 billion, with an increase to $50.0 billion in the first half of 1959 and to $50.5 billion in the second half of 1959. The middle 50 per cent range goes from $49.3 to $52.0 billion. Here, again, the total range emphasizes high, rather than low, figures, with 28 of the economists putting the second half of 1959 at $53 billion or higher, while only 11 picked $48 billion or lower.*

8. NEW HOUSING STARTS

The economists are not particularly optimistic about the number of privately financed non-farm housing starts for 1959. The median estimate for the second half of 1958 is 1,100,000 on an annual rate basis, with the first half of 1959 at the same rate and the second half at 1,075,000. The middle 50 per cent range for the second half of 1959 runs from 1,000,000 to 1,150,000. The pattern of the individual forecasts is radically different from those for the major economic series. It will be recalled that more than 80 per cent of the economists expected a steady rise in G.N.P., industrial production and consumer prices. But only 33 per cent predicted a steady increase in housing starts, and 22 per cent foresaw a steady decline. The remainder were divided fairly evenly among seven other patterns. Nine per cent thought that the first half of 1959 would be down, with the second half up, and 7 per cent thought the pattern would be exactly the opposite.

Several of the economists noted in their comments that lower housing starts were not inconsistent with rising business, in view of the possible effects of tight money. As one commented, "this is just what happened in 1957."

9. PERSONAL CONSUMPTION EXPENDITURES

In the first half of 1958 personal consumption expenditures ran at the annual rate of 287.2 billion. The median estimate of the economists is that the second half 1958 rate will be $291 billion, and that the full year 1959 figure will be $300 billion. The modal figure for 1959 is also $300 billion, with 36 of the economists choosing this total. The middle 50 per cent range runs from $294 billion to $305 billion. October 27, 1958

* It should be kept in mind that this is the forecast of the economists polled by F. W. Dodge Corporation, and it is not to be confused with the construction forecast made by the Dodge organization itself.
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