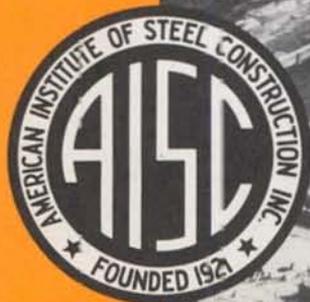


STEEL CONSTRUCTION DIGEST

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AMERICAN INSTITUTE OF STEEL CONSTRUCTION

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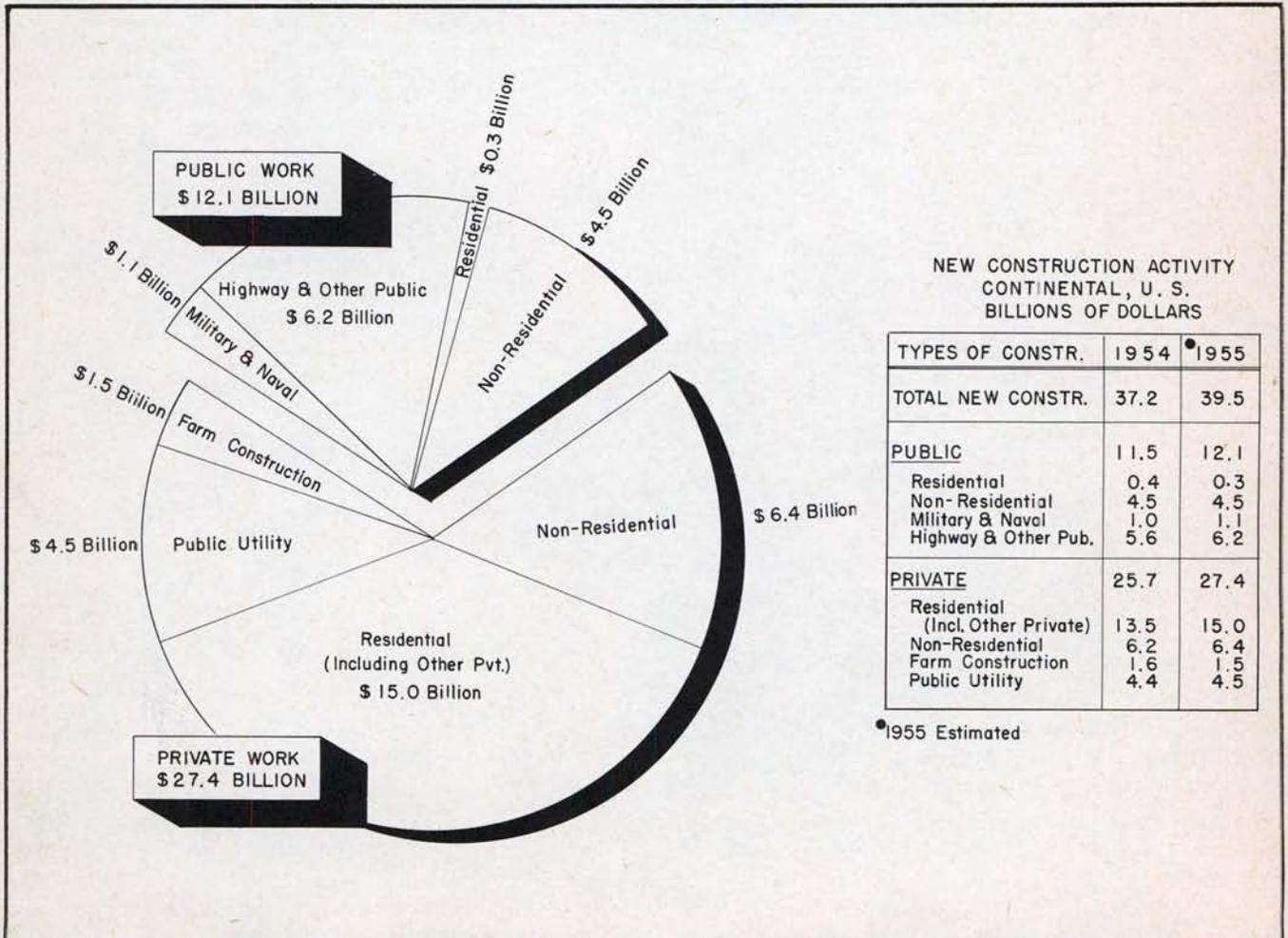
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COVER: Chicago's first major skyscraper in 20 years.
 See story on page 12.

CONTENTS

Girder Completes Near-Record Span.....	3	Chicago's New Steel-Frame Giant	12-13
Florida's Tallest Skyscraper Rises in Jacksonville	4-5	High Tensile Bolts for Atlanta's Tallest	14
Heavy Connections, Picturesque Trussing Used in Bank Addition	6-7	New Field House	15
Parking Decks of Steel	8-11	Steel Maintenance Docks for Air Force	15

THE CONSTRUCTION OUTLOOK FOR 1955



NEW CONSTRUCTION ACTIVITY
 CONTINENTAL, U. S.
 BILLIONS OF DOLLARS

TYPES OF CONSTR.	1954	1955
TOTAL NEW CONSTR.	37.2	39.5
PUBLIC	11.5	12.1
Residential	0.4	0.3
Non-Residential	4.5	4.5
Military & Naval	1.0	1.1
Highway & Other Pub.	5.6	6.2
PRIVATE	25.7	27.4
Residential (Incl. Other Private)	13.5	15.0
Non-Residential	6.2	6.4
Farm Construction	1.6	1.5
Public Utility	4.4	4.5

•1955 Estimated

GIRDER COMPLETES NEAR-RECORD SPAN

From Engineering News-Record

STEEL girders, 208 ft long, were recently raised 120 ft above water level and into position over the Buffalo Ship Canal, at Buffalo, N. Y., to complete one of the longest steel girder spans in the country.

Totaling 348 ft the span consists of a 208-ft suspended span and two 70-ft cantilevers.

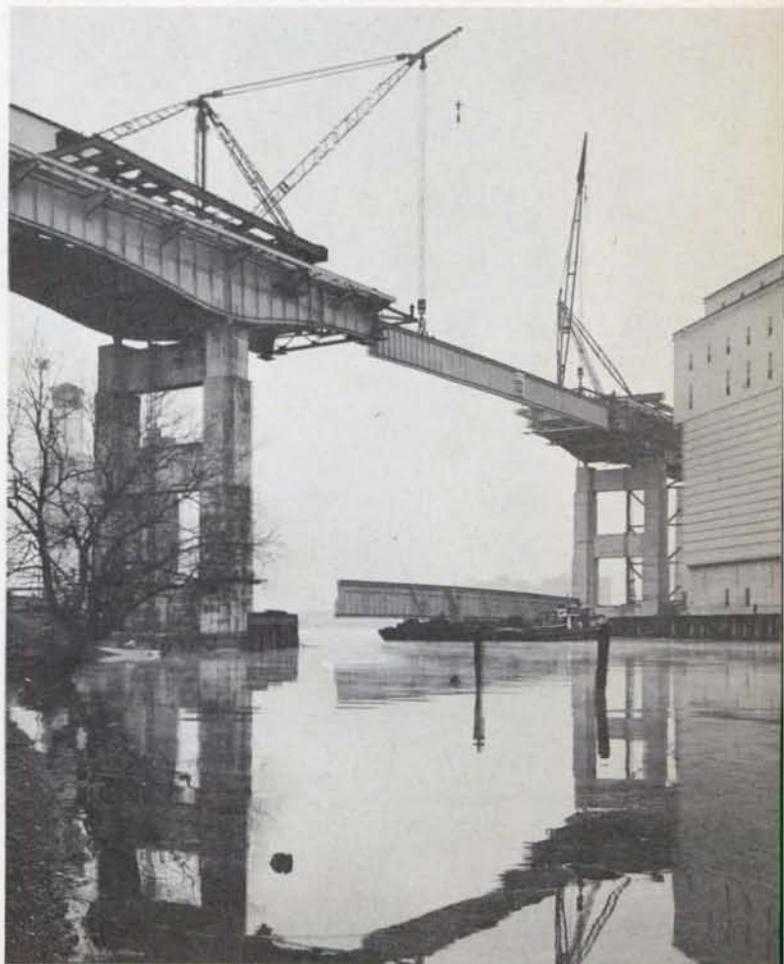
A part of a \$12 million high-level bridge, the girders each weigh 167 tons and are 12½ ft deep. Two derricks of 115 ton capacity each, atop the steel superstructure of the cantilevers, lifted the girders one at a time. Hoisted to proper position, each end was connected to the cantilevers with a steel pin, 13 in. in diameter.

Due to the extreme length of the girders, two erection frames, one at each end, steadied the girders 30 ft from the pins until tons of floor beams, stringers and bracing could be placed.

The girders were brought from Rankin, Pa., to the site by railroad in three sections and assembled on a barge. Floor material and bracing was also raised from barges to the bridge level.

The bridge being constructed by the New York State Department of Public Works, skirts the Erie lakefront and will speed the flow of traffic between urban Buffalo and its southern suburbs. It will also have a connection with the 25-mile Niagara section of the New York State Thruway through a downtown interchange.

Bethlehem Steel Company fabricated and erected the steel.



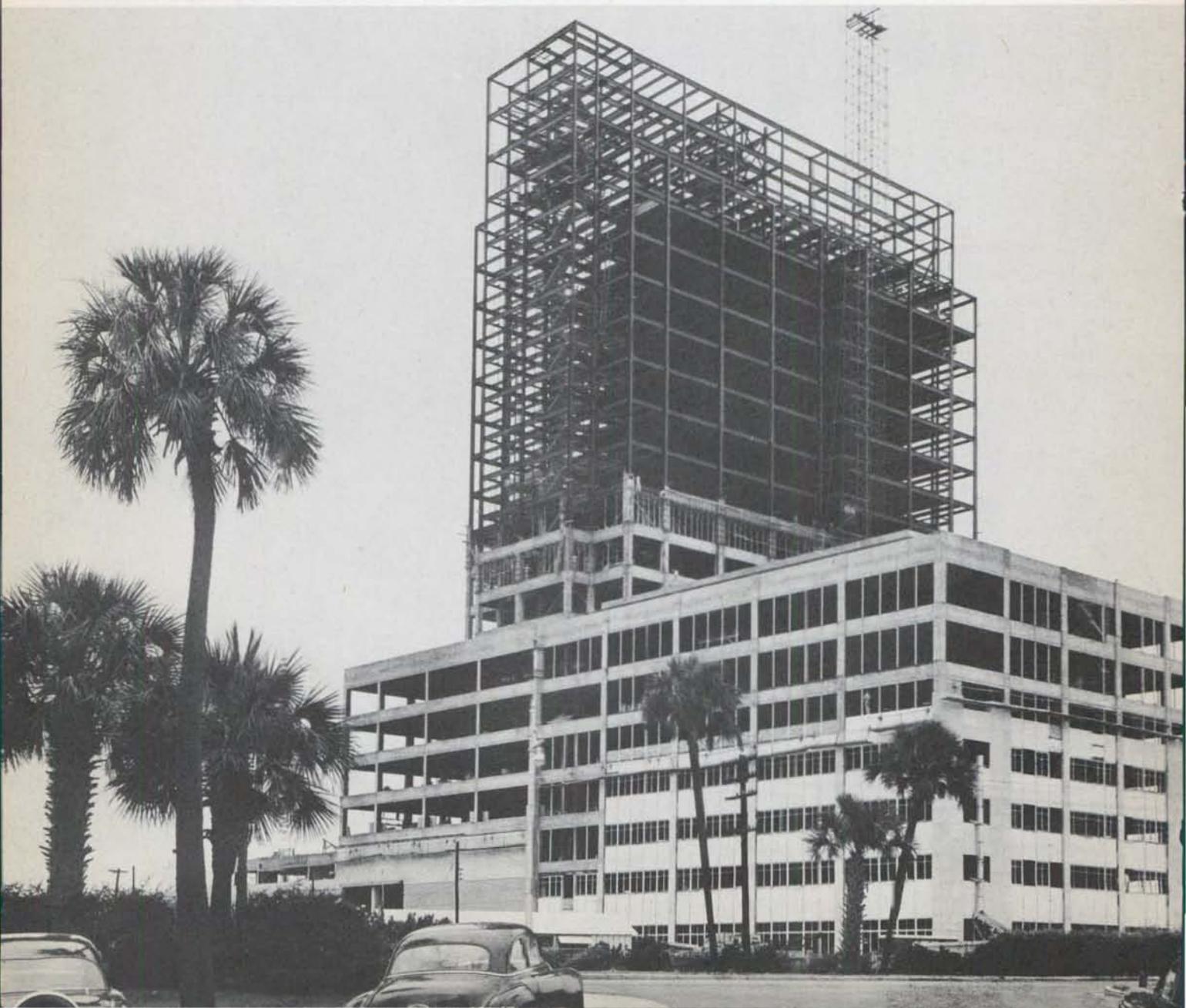
FLORIDA'S TALLEST SKYSCRAPER

By G. B. HENLEY

THE multi-million dollar Prudential Insurance Co. building on the banks of the beautiful St. Johns River at Jacksonville, Fla., will be the tallest skyscraper in the Sunshine State. High tension bolts, nuts and washers are being used in erecting the structural steel framework instead of the usual methods of riveting or welding. The Prudential and its colleague, Independent Life and Accident Insurance Co. building, also under construction in Jacksonville, are the first skyscrapers to be erected that way in the area.

The steelwork of the Prudential Building which rises 22 stories was completed in mid '54 by Ingalls Steel Construction Co. of Birmingham, Ala. The total tonnage of steel in the building was 5882 tons. The entire structure, focal point for Prudential activities in 10 South-Central states, is to be completed this spring.

One of the newest features of the building was fabrication with a new system of high tension bolts, nuts and washers, although some riveting and welding was used.



ER RISES IN JACKSONVILLE

From The Dixie Contractor

Construction men have expressed a liking for this method because it is fast and easy. Bolts are thrust through holes in the steel framing, and washers and nuts are slipped onto the bolts. Then an air wrench tightens the nuts to the correct tension.

Until a few years ago most steel frame structures were put together with rivets or by welding. The railroads were among the first to test the newer method. No structure gets a bigger sudden shock than a railroad bridge when a train comes roaring across it. The special bolts, nuts and washers took the shock very well for the railroads, and the method is now spreading across the nation.

The two insurance buildings, Prudential and Independent, are the first to use the method in Jacksonville, whose industrial growth continues at a rapid pace.

The largest and most imposing of these new buildings is the Prudential. It will cost \$25,000,000 and be 22 stories high.

The first piece of steel for the giant 6000 ton, 300-ft skeleton was swung into place November 23, 1953. This 30-ft steel column weighed seven tons. Although the boom of a towering derrick swung the column into location, six men wrestled with it before it firmly dropped into place on the foundation plate where it was bolted down.

Completion date has been set for late spring and it is expected the entire company will be moved in by June 1. The building itself takes up only one and one-half acres of the beautiful waterfront property located on the banks of the St. Johns River. The balance of the thirteen-acre site will have landscaped walks and approaches, a service entry and riverfront promenade. The recreation center to be included in this layout will have facilities for shuffleboard, horse-shoe pitching and croquet.

The Prudential company will use more than half of the building. Approximately 400,000 ft of usable floor space will be available. The Prudential will occupy the first eight floors which include the entire north wing.

The impressive structure will be faced with limestone with base course done in granite. Aluminum windows will be set off by white marble spandrels. The floors are cellular steel with a cement topping.

The entire building will be air-conditioned and will have acoustical ceilings. Nine elevators will be used, with four serving only the first eight floors. An escalator for the first, second and third floors will also be installed.

On the main floor will be an auditorium and a lounge. The lobby of the building adjoins a patio and cloister. The patio, separated from the lobby by a glass wall, will be planted with flowers and shrubs, lending a garden effect to the lobby.



The massive steel structure of the Prudential Insurance Company in Jacksonville, Fla., rises 22 stories high as skeleton for the tallest skyscraper in the state.

▲ Architects rendering of the completed \$25 million building also gives indication of the extensive landscaping program to beautify the area.

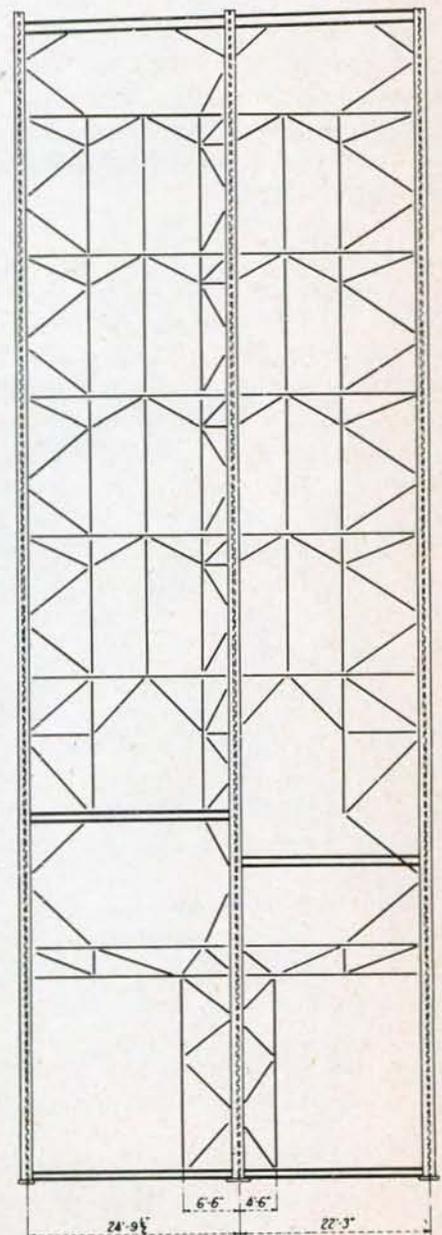
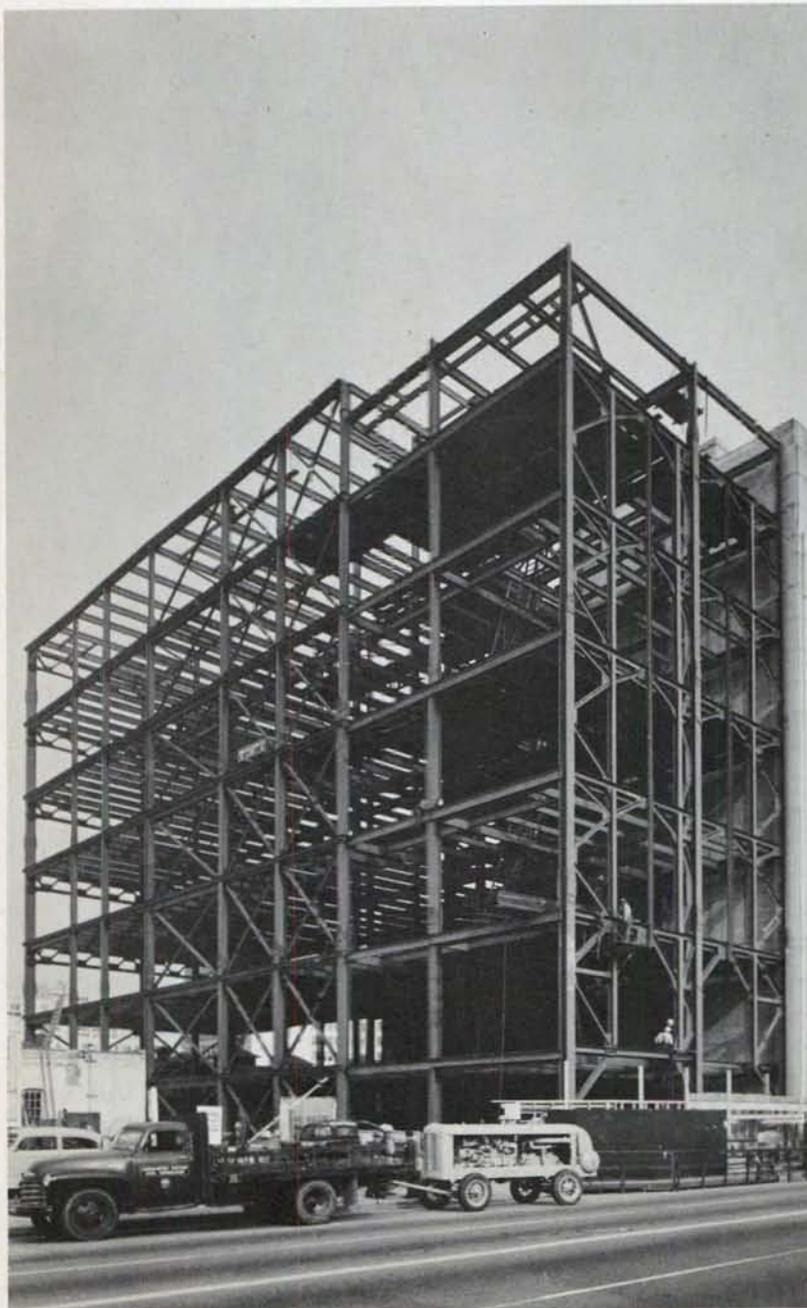
HEAVY CONNECTIONS, PICTURESQUE

From *Southwest Builder & Contractor*

A BUILDING structural system of unordinary design has been used by Parkinson, Powellson, Briney, Bernard & Woodford and Structural Engineer Joseph Sheffet in the addition to the Los Angeles Branch, Federal Reserve Bank of San Francisco, under construction at Olympic Blvd. and Olive St. There was a particularly difficult problem involved because the

north masonry wall of the existing building, which acts as a shear wall, is to be removed in order to develop uninterrupted floor space in the two units.

The problem was to provide shear resistance for the old structure and the new in the steel framing along these two walls. It is readily seen that the job imposed far more study and design work than is re-



BRACING ELEVATION
AT OLYMPIC BLVD. WALL

TRUSSING USED IN BANK ADDITION

quired for the average steel frame building and, in the process, some very heavy connections and picturesque trussing were developed.

The addition is L-shaped, adjacent to but structurally independent of the north and west sides of the existing 100 x 110 ft building. The new west wing is seven stories in height and the north wing three stories, both including an intermediate floor between the first and second floors, at the same level as the mezzanine in the original structure. There is a basement and sub-basement under the entire building.

The structural function of the wall to be removed (resistance to lateral forces) will be picked up by the existing columns, which will be reinforced and spandrel truss-braced. All of the lateral shear will be carried through the columns to the foundations below the sub-basement floor. This is equally true of the old north wall and of both walls of the new L-shaped structure (which have columns taking lateral forces in bending) where they adjoin the old building.

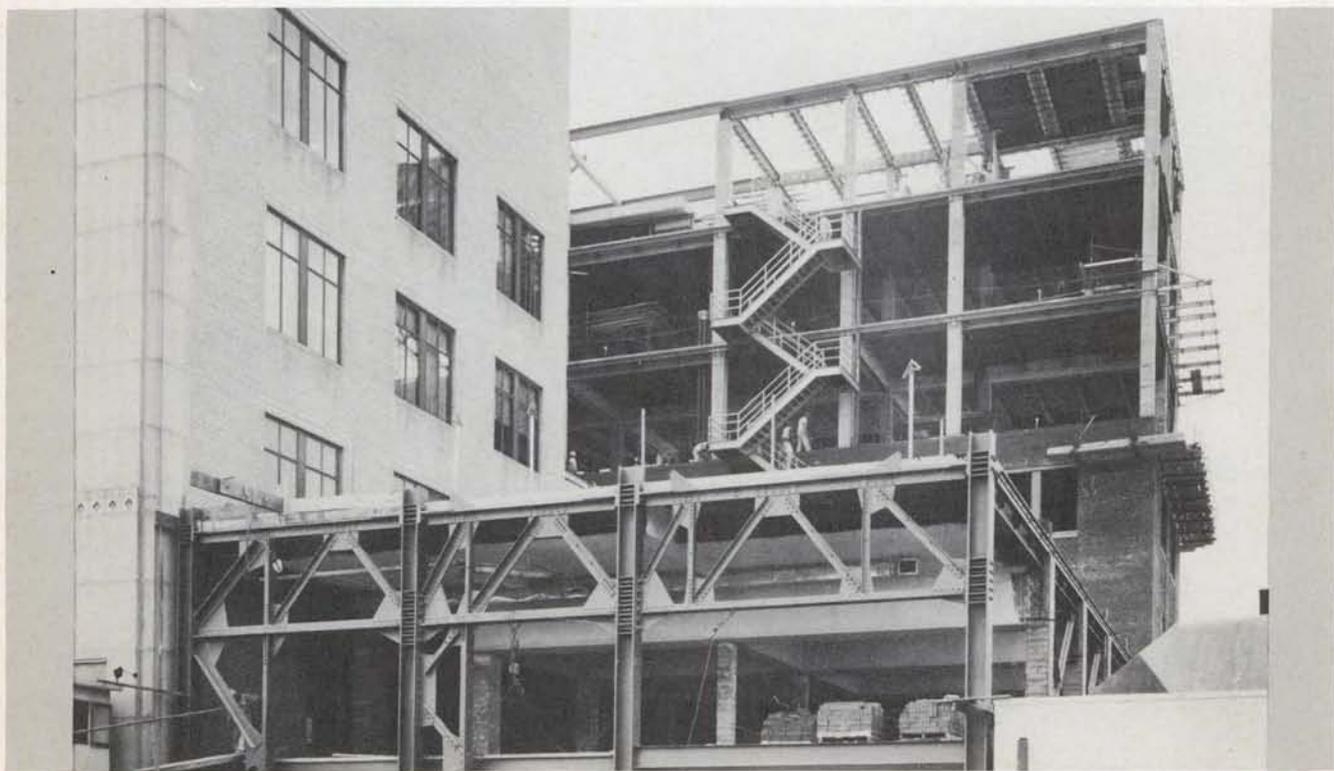
The magnitude of the stresses transferred from the trusses to the columns required connections of unusual design. In order to reduce the size of the connections to reasonable dimensions, it was determined that the tension to be resisted could be accomplished by using

bolts having high-tensile strength.

A typical connection was made with AISI C-1038 round steel rods, threaded both ends, running through both flanges of the columns and making a connection at each side. Eight 2½ in. and eight 2¼ in. bolts, 2 ft 9 in. long, were used at each heavy connection. Other field connections were made with rivets or with Dardet rivet bolts, used where small clearances made riveting difficult.

The columns in the outer walls of the new unit are not subject to bending, because of the vertical bracing system used. The Olympic Blvd. side has a particularly interesting pattern of bracing. Some girders in the north wing, to the second floor level, and in the west wing, to the intermediate floor, are used in pairs because single girders could not carry the vertical loads and stay within the depth limitations.

The 1500 tons of structural steel required for the job was fabricated and erected by the Consolidated Western Steel Division of United States Steel. Because of heavy traffic on Olympic Blvd. and Olive St., most of the erecting had to be performed within the limits of the site. This required spanning the basements temporarily with heavy girders to support the rigs, and doing the framing one bay at a time.



In the foreground is the east wall framing of the three-story north wing, which faces on Olive Street. At left is existing building and in rear the seven-story wing.

PARKING DE

By HEWITT WELLS

THE importance of providing facilities for off-street parking has become increasingly apparent in the last few years and in many communities, especially the metropolitan cities, the necessity has reached a serious economic problem.

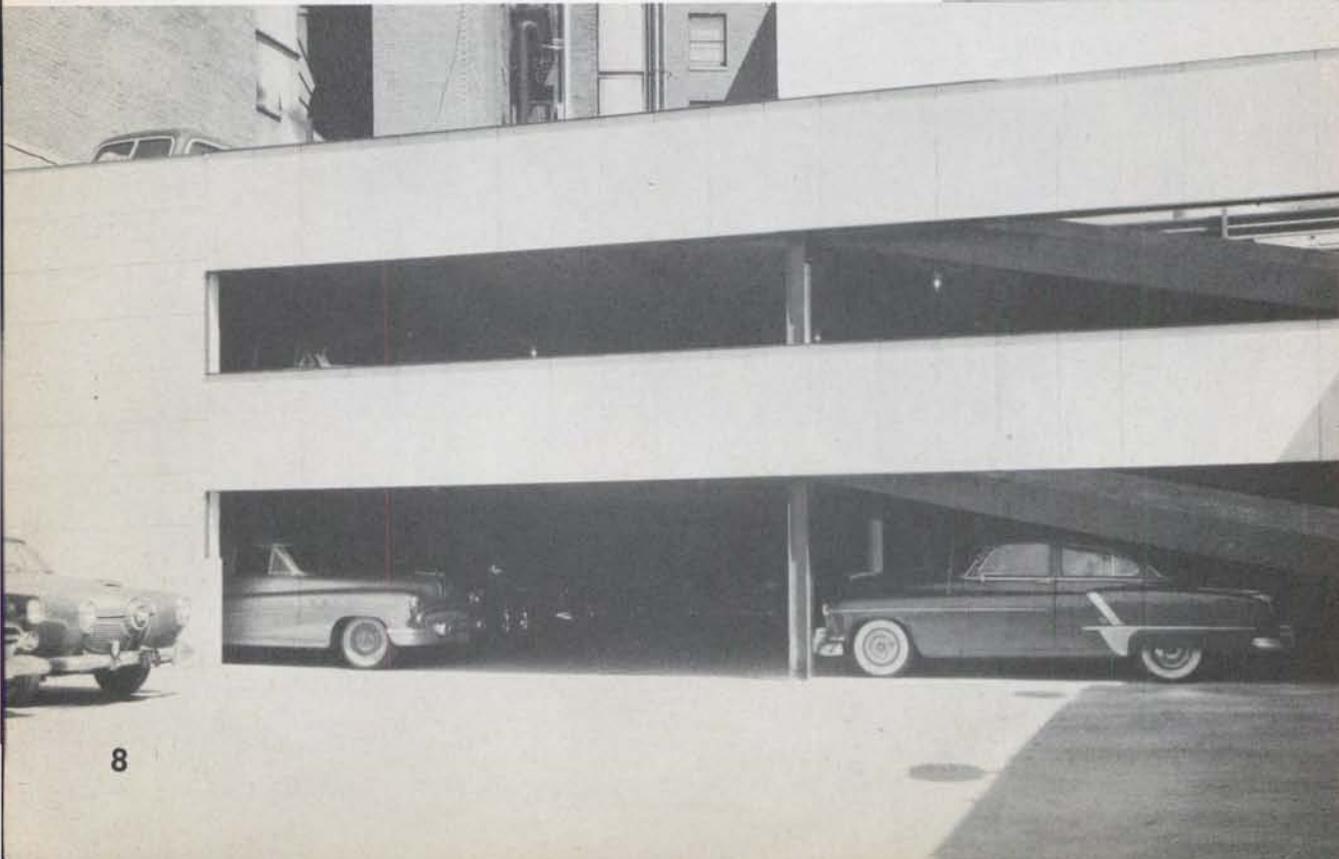
The demand for parking garages has, therefore, prompted the interest of architects, engineers and others, in the design and construction of various types, including the use of reinforced concrete and structural steel, equipped with mechanically operated lifts and elevators, etc., as well as circular and straight ramps to serve each parking deck.

These structures to be operated efficiently must have certain features which are best suited to the individual building site, including the location and width of entrances, exits, position and width of ramps, and particularly a layout and the arrangement of columns and size of bays in order to obtain the maximum number of parking stalls at each floor.

The photographs illustrate a parking deck structure of two supported floors which in effect nearly triples the parking capacity of an open parking lot.

The photographs show an open deck exposed structural steel frame parking structure where the cars are parked on each deck by the use of ramps.

Economy of construction and efficiency of operation are the elements of first consideration and when these prime re-



▲ The second floor, alley, and ramp are shown at the entrance.

◀ A portion of the structure appears to be supported by use of a space frame.

▲ An interior view of the structure shows the exposed structural steel frame and reinforced concrete.

WORKS OF STEEL

Hewitt Wells Co.



requirements are combined with simplicity of design and speed of erection, the use of structural steel is preferred.

The writer has made an extensive study of this class of construction and from accumulated data over a period of years, recommends the open type parking deck of exposed structural steel as the most efficient and economical method of providing elevated parking areas. The cost of construction of this design is substantially less than any of comparable size.

There is a great deal to be said in regard to the details and their relation to the condition of the building site and the demand for parking, etc. To enumerate a few of the essential factors, the following may be of particular interest.

The clear distance between the top of the finished floor and the underside of the deepest beam should not be less than 7 ft. The distance may, of course, be greater, but an increase in floor height will increase the grade of the ramps.

The arrangement of column spacing and size of panels should be 24 ft, or more, and in multiples of 8 ft. Three cars may be conveniently parked in a space of 24 ft, or two within 16 ft. Entrances and exists should be over 30 ft wide with deep reservoir space beyond.

Ramps should be designed 16 ft wide, that is between columns 16 ft center to center, or 24 ft wide, and at least 48 ft in length, or about 18½ per cent grade where the floor

(Continued next page)

to from a rear
ns of a ramp,
the picture.

nt shows how
ck is improved
(Photo 1).

exposed
ring the





A view of the roof shows ramp leading from second deck. A close look at curb at right shows transitions in the ramp, an important factor as cars become longer each year (Photo 4).

to floor height is about 8 ft 9 in. to 9 ft.

In a steel frame structure where the column spaces are 24 ft centers, the most economical choice of floor framing is intermediate structural steel beams spaced 8 ft centers, supporting a $3\frac{1}{2}$ in. reinforced concrete slab. The live loads recently specified by city building codes vary between 50 to 100 lbs psf, which, therefore, makes the choice of members 14 in., 16 in., or 18 in. deep wide flange type beams and girders. A system of extending or cantilevering ends of the girders to the quarter point of the adjacent span will effect a reduction in the weight of the suspended section. Wall columns and their footings may be set back into the building a distance of a foot or more and thus avoid the expense of underpinning of the party wall.

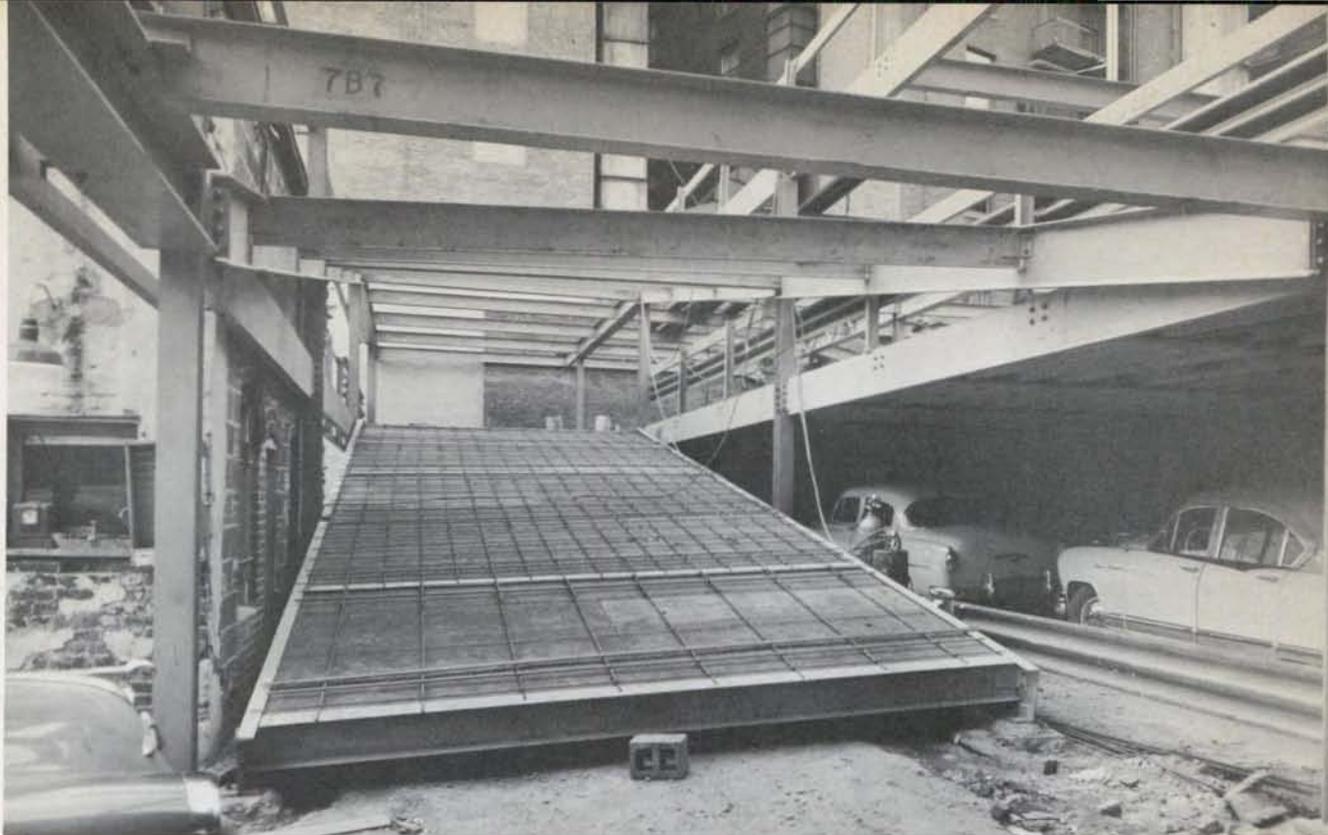
One of the several advantages in the use of the structural steel frame is the small size columns required, which for a parking structure of two or three decks are only 6 in. or 8 in. WF sections.

Careful consideration must be given to drainage and waterproofing of the slabs in order to eliminate the possibility of rain water passing to the floor below

either over the edge or through the expansion cracks in the concrete slab. This condition may be prevented by several methods, including three-ply roofing over which may be laid a 2 in. concrete wearing surface. This method, however, is expensive and furthermore increases the slab thickness and, therefore, the height from floor to floor. A lower cost method of permanent steel floor forms, which when placed over the entire area, the sheets lapped and spot welded to the top flanges of the beams, will seal the floor slab from water seepage. This latter method may also cut the cost of formwork when the steel deck is temporarily supported from the lower flanges of the steel beams. By eliminating all the shoring, it is possible to resume the operation of parking more quickly than otherwise possible.

It is necessary to build a low curb at the edge of all floor slabs in order to prevent the water and grease from seeping over the edge of the decks and the ramps.

Photographs No. 1 and 4 show the railing and the spandrel covering. It is necessary to provide a structural steel railing, consisting of 4 in. I beams, spaced 8 ft centers, having a channel for the top rail and a



Simplicity of the structural steel framing for the ramps is shown above. Cars may be parked under the deck immediately after the erection of the suspended concrete forms for the floor.

guard rail. The flexible guard rail is a standard commercial product used extensively as a device for highway safety. The standard lengths are spot welded to the I beams and bolted where sections are lapped at intermediate points.

A low cost and satisfactory spandrel covering of attractive appearance, as shown in photograph No. 1, is $\frac{3}{4}$ in. Transite or asbestos cement sheets cut to widths of 2 ft x 4 ft 6 in. The sheets are secured in position by non-corrosive metal clips placed at top and bottom in the $\frac{3}{8}$ in. wide joint and screwed into continuous 1 in. x 2 in. cypress strips.

The covering is attractive in appearance and similar to the texture and color of limestone and has on one installation received the approval of the National Capital Fine Arts Commission.

There are many other features concerning the design which should be considered and provided for, including the electrical lighting system, provision for drainage, grease traps and gutters at ground floor and at base of the ramps from top deck to roof.

The transition at the top and bottom of ramps, which consists in blending the ramp and floor grades in a short vertical curve in order to affect a more gradual change in the slope is important.

Precast concrete slabs, removable steel floor panels, bolted field connections and exposed rigid electric conduits may be considered depending upon the circumstances and requirements of the individual job.

Until recently, the building codes of many cities, and the basic building codes, recommended by authoritative national or regional groups, imposed requirements that prohibited or severely restricted the construction of garage structures.

The concept of an open type Parking Deck structure designed specifically for the short-time parking of passenger automobiles, with no facilities for the repairing or servicing of such vehicles, has gained wide acceptance in the past two years. Authorities are more and more recognizing the fact that the parking of passenger cars in close proximity to each other does not constitute a fire hazard that calls for fire-resistive walls, floors and structural framework.

CHICAGO'S NEW SKYSCRAPER

From Engineering News-Record

FOR a little more than a year, a 32,420-ton steelframe giant has been steadily growing in the windy city at Randolph Street just east of Michigan Avenue. It is the framework of Chicago's tallest and finest office building—the Mid-America Home Office of the Prudential Insurance Company of America.

In mid-November 1954, the giant attained its full height when the first column of the top floor was hoisted into place. This 27-ft column extending from the 4th floor mezzanine to the roof line above the 41st floor carried a huge American flag signaling that the skyscraper was being topped out.

Only a few days later the last piece of structural steel was hoisted into place, bolted and driftpinned, and then riveted.

Prudential's new building—the first major skyscraper built in Chicago in the past two decades—wins the accolade for being Chicago's tallest, with nearly 50 ft to spare. Its roof height will be 601 ft above Chicago Datum. The next tallest building is the 557 ft Pittsfield Building, with the Civic Opera running a close third at 555 ft. A 325-ft steel tower and television antenna is to be erected on top of the new Prudential Building.

The 41-story skyscraper including its ten-story wing to the east will contain roughly one million sq ft of rentable office space. Of this area, Prudential will occupy from 275,000 to 300,000 sq ft.

Prudential's Mid-America Home Office, staffed by 1500 employees, will occupy the fourth through the ninth floors and part of the second. The balance of space will be leased to tenants with initial occupancy scheduled for December of this year.

Under ideal weather conditions, four states—Illinois, Indiana, Wisconsin and Michigan—will be visible from the 41st floor which will be a glass-enclosed observation deck.

The building will be 100 per cent air conditioned the year round, with special provisions for personal control in individual offices. Total cooling capacity of the system will be the equivalent of six million lbs of ice melting daily, and the system will furnish six complete changes of air per hour.

Occupants of the building will have great latitude in arranging their own office space. Permanent walls on each floor will enclose a central core containing elevators and utilities. But all the other interior wall locations will be made to suit the tenants.

Exterior walls on the first floor will be faced with silver-white granite. Above they will be strips of Indiana limestone on brick backing alternating with a combination of aluminum spandrels on concrete block backing and aluminum frame windows.

There are 2617 aluminum-frame, double glazed windows with $\frac{1}{2}$ -in. separation between inner and outer panes. They are mounted to pivot 360 degrees about a vertical axis, permitting both sides to be washed from inside. Otherwise, they serve as fixed windows, with an inflatable rubber gasket acting as weather-stripping seal between the rotating and fixed frames.

A window-washer's key deflates the rubber seal, permitting the window to be rotated for washing. Then the window is locked tight by inflating the seal with a portable compressor.



CEL-FRAME GIANT

Floors below the third floor level and the service areas above are reinforced concrete construction. The remainder of the floors, some 880,000 sq ft in all are made up of cellular steel flooring topped with 2½ in. of light weight concrete which is reinforced against shrinkage and temperature stresses with welded wire fabric. The cells in the steel flooring serve as raceways for electric power and telephone outlets.

Floor-to-ceiling heights are about 4 ft less than floor-to-floor heights. The plenum permits concealed installation of ventilation duct work, piping and recessed light fixtures. It also permits all structural floor members and their fireproofing to be hidden from view, resulting in a flat, unobstructed acoustic ceiling line. Floor-to-floor height from the second through the tenth floor is 13 ft 7 in., with a 9 ft 4-in. ceiling height. From the eleventh through the thirty-seventh these dimensions are 13 ft and 9 ft respectively. They vary for other floors.

Prudential's new building has its roots deeply imbedded in Chicago's foundations. For it sits on 187 concrete caissons sunk 110 ft to bedrock. An additional 66 caissons support steel columns and framework that carry new viaducts surrounding the building.

A great deal of interest is always evidenced in the topping out of a tall skyscraper. For one thing it symbolizes the successful completion of the structural frame. The topping out of this 41-story skyscraper was no exception.

Several thousand devoted sidewalk superintendents lined Michigan Avenue to watch proceedings, in addition to a large group of civic officials and contractor officials invited to witness the operations.

This is what they saw: A column extending 27 ft from the 40th floor to the roof of the 41st floor was selected to carry an American flag as it was hoisted into place.

Like the steel delivered for the lower stories it arrived at the site among a carload of structural steel, on one of two tracks leased by the contractor. The car was spotted at the southeast corner of the building.

First operation was to pick up the column from the car and land it on a widened portion of the street. The flag was attached to the top of the column and two outriggers were attached to the bottom. Tag lines attached to the ends of the outriggers kept the column from swaying or whirling as it was hoisted to the 40th floor mezzanine.

When it got to the top it was transferred in mid-air to a second derrick which swung it into final position at the northwest corner. It was field bolted and drift-pinned between splice plates of the column below. And a pistol flare was fired, signaling the crowd below that the 41-story skyscraper had been topped out.

The first structural steel was erected Nov. 11, 1953. Locomotive cranes and a 100-ft boom crawler crane with 30-ft jibs set steel at basement and ground level. Five guy derricks, each with a 100-ft mast and 90-ft boom were needed up to the 10th floor. Above that three derricks did the job.

Over-all dimensions between outside column decreased as the building went up. They varied from 382 x 378 ft for the ground floor to 328 x 194 for the combined wing and tower section below the 10th floor, and 235 x 125 ft on the upper floors of the tower. Each derrick was anchored by eight guys, which meant that the 800 carloads of structural steel in the 41-story frame had to be scheduled for arrival when and as needed. Otherwise there would be confusion and a great deal of unnecessary booming up, down and out to miss the web of wire rope guys.

Naess and Murphy are the architects and engineers on the project. American Bridge Div. of U. S. Steel Corp. fabricated and erected the structural steel.



Cellular steel flooring is being hoisted in a big bundle to the 39th floor using the same method as that for structural pieces.

HIGH TENSILE BOLTS FOR ATLANTA'S TALLEST

By ALICE GILL

From *The Dixie Contractor*

THE multi-million dollar Fulton National Bank Building rising in Atlanta will not only be the tallest skyscraper in this city but is featuring a unique system of steel erection and a new flooring technique.

The modern banking facilities are beginning to "take shape." With the steelwork complete, the brickwork is going forward rapidly.

The steelwork of the twenty-five story building, including three basement floors, has been completed by the John F. Beasley Construction Co., of Dallas, Texas. The total tonnage of Bethlehem steel used in the building was approximately 6500 tons.

One of the newest features of the building was steel erection with high tensile bolts, nuts and washers, to replace the more common riveting or welding. Although some riveting and welding was used on the lower floors, the newer connection method was used on the remaining portion of the steelwork.

Five years ago, high strength bolts were unknown in the fabricating industry. Today, their usage has snowballed until millions of these bolts connect many hundreds of thousands of tons of new structures throughout the world.

Bolting with high tensile bolts features three distinct advantages—adaptability, strength and economy. The bolts, properly installed, are fasteners with a permanence equaling the life of the structure itself. They stay tight and will not loosen regardless of the severity or direction of the applied loads. Yet bolted structures offer the greatest simplicity for additions or alterations.

Bolting, with its elimination of hot rivets, guarantees the maximum personal safety to the erection crew. Less equipment and scaffolding is required. Bolting takes less physical effort than riveting, and controlled calibration of impact wrenches assures uniform and reliable connections. Noise, which is often objectionable, is also greatly reduced.

Through the use of Cofar, a high-strength steel form and reinforcing unit, time and cost savings have been possible on the flooring process. This new technique combines the form and reinforcing operations into one step.

The prefabricated units were placed directly on the main structural framing members with one or two lines of temporary supports being erected prior to concreting operations. Negative steel was then set in place over structural supports to provide continuity. Concrete was placed on the Cofar to complete the floor. When the concrete has set, a high strength, reinforced concrete slab results.

Fifteen sets of vertical transportation equipment will be furnished and installed by Westinghouse Electric Corp., Elevator Division. The eight main electric passenger elevators are arranged in two four-car banks. These high speed electric elevators will be the completely automatic, operatorless type, electronically controlled, featuring automatic traffic program operation. The high rise elevators will have a speed of 800 feet per minute—the fastest passenger elevators in the southeast.

The banking quarters will have two automatic elevators and one heavy duty dumbwaiter. Transportation between street level and second floor or main banking room, will be furnished by two electric stairways, which will carry 5000 persons per hour.

Erection of this skyscraper represents the first major office building in Atlanta in recent years. It will contain 527,000 sq ft, and is scheduled for completion in June, 1955.



The completed steelwork of the Fulton National Bank is shown in this view from the Marietta street side.

NEW FIELD HOUSE

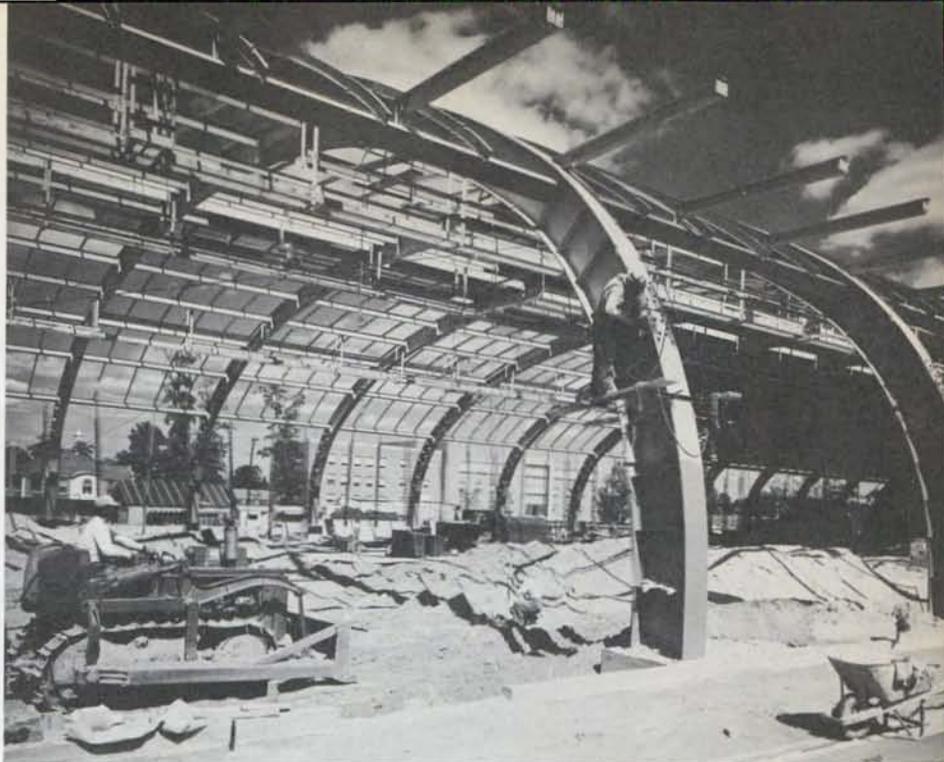
Connecticut University's new \$930,000 field house is designed to accommodate basketball courts, with a seating capacity of 5000 persons, eight squash courts and lecture rooms.

The building, elliptical in section, is 343 ft by 150 ft and 40 ft high. Construction consists of 14 rigid steel frames with the exterior walls of concrete, face brick and polished granite for main entrances. The roof is steel purlined with steel roof decking having interlocking edge ribs and stiffening ribs, the whole covered with four-ply built-up roofing over 1 in. insulating board.

It has been reported that the gross weight of the purlins and roof decking is approximately 40 percent of wood sheathing, requiring 83 percent of the joists needed on a wood roof.

The decision to design the field house in rigid steel frame was from a viewpoint of economy in material and erection.

Frederick C. Teich, Hartford, Conn., was the designer. Structural steel was fabricated and erected by City Iron Works, Inc., of Hartford.



STEEL MAINTENANCE DOCKS FOR AIR FORCE



A new type of design for a service and maintenance dock, for large land-based aircraft, is being used in Texas by the United States Air Force.

Each dock, which can be moved to any part of the airfield with ease, is comprised of four units. Each unit, made up of structural steel trusses and purlins, is covered with corrugated aluminum sheets and is designed to withstand winds of 90 mph. The roof of each unit cantilevers 40 ft to the front and has a 25 ft steel frame, completely cantilevered from the roof, to form a front wall. The roof and wall can be raised to a 45 degree angle to admit the wings of a plane and then lowered to provide shelter for mechanics. This is done electrically and takes only 90 seconds to raise and lower, the roof and wall section revolving on a steel pin. A floor, above ground level, serves as a working platform and can bear the weight of plane engines and heavy parts. Units are insulated and have both heating and air cooling equipment.

According to E. E. Shafer, of Beaumont, Texas, the designer, these are the first of this type structure ever built.



This Certifies that
Eye Jay Kay Structural Steel Co.
is an Active Member of

AMERICAN INSTITUTE
 OF
 STEEL CONSTRUCTION
 INCORPORATED

and has agreed to abide by the terms of its certificate of incorporation, By-laws and all lawful resolutions of its Executive Committee, Board of Directors and members as may be in effect.

Earle G. Brown
 PRESIDENT

M. Harvey Smedley
 SECRETARY

NINETEEN HUNDRED AND FIFTY FIVE

Membership in the American Institute of Steel Construction is symbolized by the Certificate of Membership and by the Seal of the Institute, both of which are shown on this page.

The Seal has been stenciled on structural steel work being erected by members of the Institute and is frequently printed on their letterheads. A copy of the Certificate is on display in the headquarters of each of the member companies.

The Code of Standard Practice of American Institute of Steel Construction, last revised in 1952, is frequently included by reference in purchase contracts. This assures

that every contract will be carried out with a minimum of misunderstanding.

The Institute carries on a research and engineering program to increase through technical research the fund of engineering knowledge; to promote the use of steel construction; and to stimulate through cooperative effort greater efficiency and economy in the design, fabrication, and erection of structural steel. It also compiles statistical information and publishes a number of technical volumes. These and many other services are available both to Institute members and to architectural and engineering professions throughout the country.

AMERICAN INSTITUTE OF STEEL CONSTRUCTION

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