PRESIDENT'S SECRETARY'S FILE
Subject File.
Hyde Park: Val-Kill:
Swimming Pool
Box 140

Hasbrouck Company N.Y.

Pool as designed	7130.00
Alternate design (filter and pumping from stream)	6500.00
	600
	7100

I think the use of brook water is excellent. But it is not necessary to fill pool in 12 hours or even 24 hours so it will be changed only once or twice in summer. Therefore a smaller motor or pipe may serve as well.

Try to get the estimate down to $6,000 by further study of drawings.

FWR

EPHONE CALEDONIA 8888

DESIGNING
SANITATION
CONSTRUCTION
WATERPROOFING
TILING

HASBROUCK COMPANY, INC.
SWIMMING POOL ENGINEERS
CONSULTANTS, ENGINEERS & BUILDERS
101 PARK AVENUE
NEW YORK

PUMPS
FILTERS
HEATERS
FIXTURES
STERILIZATION

Copy of this letter sent to Mr. Nagle

April 19, 1935

Captain Edwin P. Lock, Jr.
United States Department of the Interior
National Park Service
Navy Building
Washington, D. C.

Dear Captain Lock:

Confirming my telephone communication with you of even date and at your request as to the cost of the well together with the pump and all necessary fittings such as 4" drop pipe, brass double acting cylinder and the necessary drop rods with couplings, the setting of the pump installed and working together with electrical connections would cost Nine Hundred Forty-Five Dollars ($945).

We do not feel that this extra cost is necessary.

In your specifications you call for a rate of flow from the well of 35 gallons per minute for filling, which would mean a period of approximately 21 hours for filling. In our proposal in taking the water from the stream we have figured the rate of flow at 60 gallons per minute both for filling and recirculating, which would bring the time of filling to approximately 12 hours. There is another question that must be considered and that is that no one can positively guarantee the flow of a well. There is no way possible that one can be assured of any such flow. This is particularly so where the well is to be drilled through rock. There is no telling how far you will have to go in depth to intercept a strata of water which will give this flow of 35 gallons a minute. In discussing the well question with the local well drillers, they feel that there is a very good chance of getting this amount of water, but it is strictly a matter of guess work and good fortune. On the other hand, there is no question involved as to the amount of water that we can get from the stream. You will note in our recommendations that we have not figured the well in our proposal so that if the well is to be drilled, the cost of same as above mentioned must be added to our figure of $6,500.

As to the efficiency of this recommendation of putting in a filtration plant, there is no question involved as to the clarity of the water and as to the bacteriological analysis of same. You have in this installation a miniature municipal filtration plant which is the general practice for the supplying of drinking water in nearly all of the large cities where water works are involved and I strongly recommend the installation.

Very sincerely yours,

M. F. Hasbrouck

HASBROUCK COMPANY, Inc.

MFH:TF

LEPHONE CALEDONIA 8888

DESIGNING
SANITATION
CONSTRUCTION
WATERPROOFING
TILING

HASBROUCK COMPANY, INC.
SWIMMING POOL ENGINEERS
CONSULTANTS, ENGINEERS & BUILDERS
101 PARK AVENUE
NEW YORK

PUMPS
FILTERS
HEATERS
FIXTURES
STERILIZATION

April 19, 1935

Captain Edwin P. Lock, Jr.
White House
Washington, D. C.

Dear Sir:

This is to confirm my personal interview with you and Mr. Nagle at Mr. Nagle's office under date of April 18, at which time the construction of the swimming pool on President Roosevelt's Estate at Hyde Park was discussed. Certain suggestions were made and at your request, we are setting forth those items which we suggested as follows:

That the pool be poured in one continuous operation. We strongly recommend a monolithic job, especially for a pool of this size; also that all corners of the base where the wall comes in contact with the floor to have a 4" cove, which cove is to be incorporated into the original pour. That all four corners be constructed so as to form a 2' radius as a safeguard against possible fracture from frost. We suggest the substitution of a stone gutter in place of troweled finish cement. To substitute Hudson River blue stone flag walk in place of crab orchard, the reason for this being that all surrounding stone in place is of this same character which is a local product and will conform to all walks and general surroundings. We understand that the Government specification for crab orchard is from 1" to 1½" in thickness. We do not feel that this thickness of stone has sufficient body to stand up on a sand base without possible rocking and fracture under any severe impact. The stone that we suggest would be not less than from 2" to 2½" in thickness.

All fittings such as gutter drains, inlets, outlets and ladder to be of brass instead of chromium plated and galvanized iron. To construct the springboard supports of concrete, covering same with blue stone to conform with the walk around the springboard platform, doing away with a possible rust condition which in turn would cause a stain on the walk area. To use terra cotta bell and spigot 4" pipe around the perimeter of the pool for the gutter drains in place of cast iron. This pipe to be laid on firm base down to pool excavated area so as to overcome all possibility of settlement and breakage due to the placing of fill which is characteristic of work of this kind where the pipes are hung on the pool structure. All vertical lines from the gutter drains down to the tile drains to be of cast iron. To change the location of the main control valve and build a pit so that this valve can be accessible if at any time it is necessary to clean the gate chamber due to sediment which collects and which causes a leakage through the gate area. The main discharge pipe to be of cast iron up to the point of control valve, from which point terra cotta pipe is to run to a point of discharge. We strongly suggest that the contour of the pool be changed so that the main drain will be at the end of the pool instead of under the floor and suggest one main drain instead of two.

To reconsider the digging of a well and in place of a well supply, to pump the water from the present stream, put in a filtration plant and as discussed with yourself and Mr. Nagle, this would guarantee you a body of water which will at all times be clear and would give the job water of a temperature which is quite necessary for the use that this pool is to be put to. The piping would be so arranged as to utilize this filtration plant as a recirculating system which would eliminate the weekly emptying and filling of the pool, taking into consideration that the well water would be of a temperature which will come to the pool in the neighborhood of 50 degrees and would take considerable time for the water to warm up due to atmospheric conditions. We strongly recommend this change.

Our estimate for the job complete which we would guarantee for a period of a year against all mechanical and structural defects is Six Thousand Five Hundred Dollars ($6,500). The time of completion will be six weeks, weather permitting, or thirty-six working days. At the request of yourself, we further submit a price of $1.00 per cubic yard for all necessary backfill for the filling up to grade of all excess material necessary, it being understood that the excavation from the new pool is to be placed in the old pool area. Such necessary fill as is required to be taken from the present sand bank on the premises and placed where necessary.

This estimate is based and given as an alternate incorporating such suggestions as above mentioned as compared with the plans and specifications sent us. We feel that the foregoing recommendations would be of great benefit to the job and in turn bring about an economy of cost and operation. There will be a considerable saving in the cost of operation due to the fact that the deep well pump will have a 5 horse power motor as against the 2 horse power for recirculating and pumping purposes. If the suggestions above made are accepted and the contract awarded to us, a set of plans and specifications showing the changes will be sent you for your acceptance.

Respectfully submitted,

HASBROUCK COMPANY, Inc.

M. F. Hasbrouck

By President

MFH:TF

P.S. In discussing with you the specifications as regards paragraph 14 in reference to the well, you call for 35 gallons perminute during a twenty-four hours' continuous pumping. This we understand was not meant as a guarantee that the contractor was to supply 35 gallons a minute at a depth of 80 feet for we both agreed that there was no way humanly possible for anyone to guarantee the flow of water when digging a well through rock. As related to you, I have discussed the well proposition with the local well diggers and they feel that this can be done but that the result as called for can in no way be guaranteed. As we do not wish to have any misunderstanding in this matter, we are again bringing it to your attention. In figuring the job according to your specifications, we have figured on

driving an 8" well to a depth of 80 feet, but we cannot guarantee the flow. If the water is there, the pump will deliver the amount of water specified.

If any decision is arrived at by Monday, will you be good enough to telephone us so that we can make the necessary preparations and save time, as the question of time is an important factor for the completion of the job before Decoration Day.

H. C. Inc.

C O P Y

April 19, 1935

United States Department of the Interior
National Park Service
Navy Building
Washington, D. C.

Gentlemen: ATTENTION: MR. JOHN L. NAGLE, ASSISTANT CHIEF

We herewith submit for your consideration and acceptance our bid for the installation of a swimming pool at the home of President Roosevelt in Hyde Park, New York, according to the blue prints and outlined specifications mailed to this office under date of April 16, in the sum of Seven Thousand One Hundred Thirty Dollars ($7,130.).

Respectfully submitted,

HASBROUCK COMPANY, Inc.

M. F. Hasbrouck

By President

MFH:TF

Excavation 400 yds @ 1.25 — 400.00

Gravel Mech. 600 yds @ .80 — 480.00

Bull dozer $30.00 per day

Shovel $50.00 " " (+50 moving)

4 yd dump truck $2.55/hr

1 bag mixer $12.00 per day

Crushed Stone $2.25/yd Fob. site

Washed Sand $2.00/yd Fob

Lumber

1X8 $36.00/m Fob

2X4 40.00/m Fob

1X5

3000' pnc. 1X8

3000 " 2X4

300 " 1X5

2 Kegs nails @ 4.50

Cement 80¢ bag

Wire 10¢ lb

Steel $70.00/ton

Common labor 40¢/hr

Mechanics " 100/hr

60
25
64 30 52.0
19.2 0 18

(1-2)

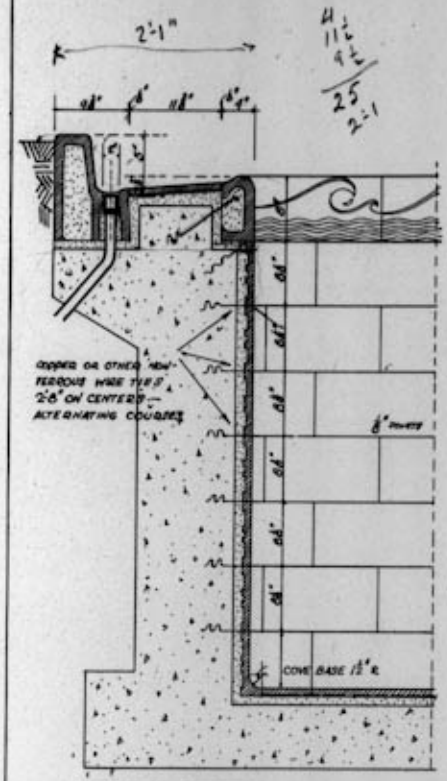
	Contractors Estimate		Our Estimate
General Conditions	300		300
Concrete, including steel, forms lining + finishing	(90 CY) 2868	can save 9 CY @ 12 = $108	(81 CY) 2630
Plumbing, drainage + gravel	1338		1200
Flagstone	370		410
Copper flashing	(170 ft) 170	can save $100	(60 ft) 60
Spring board + ladder	120		150
Excavation	397		350
Dampproofing	50	Figures underlined	50
Plaster Exp jts.	45	in red appear	45
Wrecking old pool	50	reasonable. Other	50
Pump house	150	figures arrived	150
Paint	60	at by independent	60
Electric service	230	check.	230
Sterilizer	250		250
Well + pump	735		735
	$7133		$6670
	208		
	$6825	Check within $155	

Materials

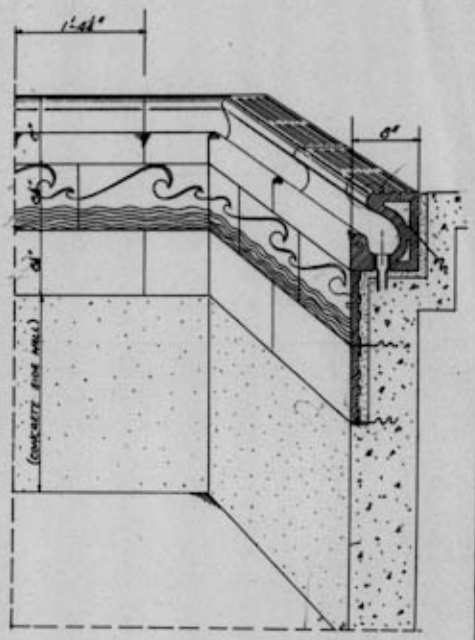
Concrete	81 C.Y. @ 9.00	730	730
Steel	14000 lbs @ .035	490	490
Forms	1500 sq ft @ .10	150	150
Masonite	750 sq ft. @ .10	80	80
			1450
Flagstone	1370 sq ft. @ .20	270	270
2" WI pipe	120 lin ft. @ .35	40	
3" WI pipe	160 lin ft. @ .70	110	
3" C.I pipe	200 lin ft. @ .70	140	
4" C.I. pipe	10 lin ft. @ .35	10 say	
6" C.I pipe	60 lin ft. @ .80	50	
8" T.C. pipe	100 lin ft. @ .50	50	
4" T.C. tile	170 lin ft. @ .20	40	
Grand fill	10 C.Y. @ 3.00	30	
		470	470
Copper flashing	60 lin ft @ .80	50	50
Spring board and ladder			150

Labor.

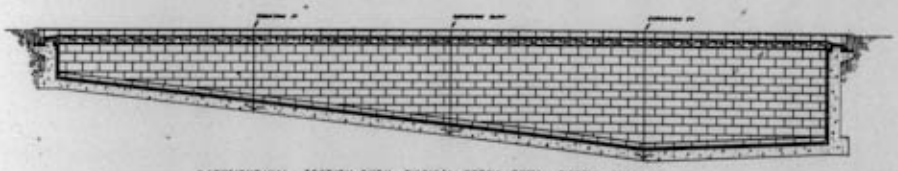
Concrete	81 C.Y.	@ 3.00	240	
Steel	14000 lbs.	@ .015	210	
Forms	1500	@ .30	450	
Masonite	750	@ .10	80	
Curved Corners			50	
Finishing			150	
				1180
Flagstone	1370 sq ft.	@ .10	140	140
Pipe	730 Lin ft.	@ 1.00	730	730
Copper flashing	60 Lin ft.	@ .20	10	10
Excavation + backfill	350 C.Y.	@ 1.00	350	350



STANDARD SEAT SCUM GUTTER —
SIDES AND BOTTOM OF POOL FACED WITH MACHINE MADE TERRA COTTA BACKED BACK ASHLAR — WHITE 8"x16"x1"



PART ELEVATION AND SECTION OF TERRA COTTA SCUM GUTTER WITH POLYCHROME TERRA COTTA FASCIA COURSES AS APPLIED TO CONCRETE SWIMMING POOL CONSTRUCTION.



— LONGITUDINAL SECTION THRU TYPICAL TERRA COTTA FACED POOL —

FEDERAL SEABOARD TERRA COTTA CORP
10 EAST 40TH ST. NEW YORK

January 1, 1934.

SPECIFICATIONS

FURNISH EXTRUDED TERRA COTTA as required to produce the complete pool and scum gutter as indicated on the Architect's drawings or specified. All Terra Cotta shall be erected by the Contractor for the pool.

Expansion Joints: Concrete crib sides and bottom construction shall be provided with approved copper or lead bellows expansion joints which shall be filled solid with an approved elastic joint compound. The Terra Cotta joints are to be continuous at expansion joints.

Clearence: Clearance between concrete and back of Terra Cotta to be not less than 1", unless otherwise shown on Manufacturer's drawings.

Anchors: Copper or other non-ferrous wire anchors shall be cast in concrete. Where 8"x1'4½" Terra Cotta units are used, space anchors 2'8⅛" on centers alternating courses.

Setting: All Terra Cotta to be backed up solid with mortar leaving no voids. Bed and end joints to be buttered with mortar over the entire surface and tightly shoved.

Joints: Mortar joints to be not less than 1/8" or more than 3/16" wide and are to be struck when set to a slightly concave joint, using a standard glass or porcelain jointing tool.

Clay: All Terra Cotta shall be of best quality and shall be produced from selected fire clays, pulverized and screened to remove impurities, and shall have not less than 30% of grog or grit content, so as to produce a block of the required straightness, accuracy and finish.

Thickness: Blocks shall be not less than 1" thick at lugs, or as shown on approved Terra Cotta drawings.

Color: The surface finish of all Terra Cotta shall be a high fire ceramic glaze, of color or colors to be selected by the Architect, subject to the usual ceramic variation. The Architect reserves the right to use three different colors, but in no event more than one color on each block, except when marked on drawings.

Scope: The Manufacturer shall furnish all necessary scum gutter, cove, base, marking strips, depth or distance numerals, and standard size blocks for cutting where required.

Type: All standard extruded Terra Cotta shall be 8" high and 1'4½" long, exclusive of mortar joints. The backs shall have lugs and be scored. Bed joints, ends and backs are to be free from glaze so as to provide a proper bonding surface.

Straightness: The exposed glazed surface of each Terra Cotta block shall not vary at any point more than 1/16" from a true plane.

Grinding: So as to assure accuracy of side and end dimensions and uniform sharp parallel mortar joints, grind (after firing) the two sides of each block simultaneously on parallel carborundum wheels, then grind the ends square in like manner. The allowed tolerance in height of block shall not be more than 1/32" over or under the specified size.

Packing: All blocks shall be packed in suitable heavy corrugated containers, protecting the edges against chipping in transit or on the job. All Terra Cotta shall be carefully piled, under cover or covered with tarpaulin, by the Pool Contractor.

Cutting: All cutting of blocks shall be done on the job by the Pool Contractor with a motor-driven carborundum saw - this to assure clean, straight joints.

Manufacturer: The extruded Terra Cotta shall be produced by the Federal Seaboard Terra Cotta Corporation, or by a manufacturer of established reputation, producing material equal in size, quality and color.

EDGAR V. ANDERSON
25 MARKET STREET
POUGHKEEPSIE, NEW YORK

April 18, 1935.

Cafe Lock

Mrs. Henry Morgenthau Jr.,
3447 Kalorama Road, N.W.,
Washington, D. C.

Dear Mrs. Morgenthau:--

I am submitting a bid this Saturday noon to Captain Edwin P. Lock Jr., at the White House, for the construction of a swimming pool for President Roosevelt on his VallKill property.

We are submitting this estimate in accordance first of all with a plan and specifications which the Department of Buildings and Structures have submitted to us, also asking us to submit an estimate on an alternate design on the pool itself, which would be more economical and still meet the requirements which they have set up.

On the alternate proposition, I am submitting an estimate on the pool as designed by Mr. Gilbert Fish, a Consulting Enginner of New York, who has had some connections with the Government in connection with pool construction.

I thought also I would submit an estimate on a pool of the same size as called for, but as constructed for you at Wiccopee, that is without the scum gutter, but providing weep holes for this purpose under the flagstone coping.

The reason I am writing you, is that I feel we can save money using the design which we used for you, but incorporate all the other features, that is of water supply, grading, flagstone walk etc., as called for by the specifications and plans which we have received.

I thought you might wish to talk this over with the President, if your pool has been satisfactory, knowing that he is familiar with it.

EVA/K

Very sincerely,

Edgar V. Anderson.

Memorandum for E. R. from 8.7.4

Our pool has been very satisfactory. It has no scum gutter, but instead weep holes as this was less expensive, but very few people use our pool and in view of the fact that yours is used by large numbers, Henry and I believe that you will find it remains clean with a scum gutter.

WALLACE & TIERNAN CO. INC.
CHLORINE CONTROL AND CHEMICAL FEED DEVICES
NEWARK, NEW JERSEY
OFFICES IN PRINCIPAL CITIES

April 18, 1935

3419 Morrison St. N. W.
Washington, D. C.

Captain P. Lock
The White House
Washington, D. C.

Re: Proposed Pool, Hyde Park, New York

Dear Sir:

We are pleased to quote you below on suitable equipment for sterilization of the swimming pool at Hyde Park, New York.

On one W&T Chloroclock as described in Technical Publication #77 attached we are pleased to quote you a price of FIVE HUNDRED FIFTY DOLLARS ($550.00) f.o.b. Hyde Park, New York. Quotation includes supervision of the installation by one of our engineers, initial supply of sterilizing solution and a testing outfit for determining residual chlorine in the pool water. Our engineer will also instruct the pool operator in the proper use of the chloroclock and testing equipment.

On one Rotor Chlorinator to feed chlorine gas as described in Technical Publication #157 and including services and accessories noted in the preceeding paragraph we are pleased to quote a price of NINE HUNDRED SEVENTY-NINE DOLLARS ($979.00), f.o.b. Hyde Park.

Sterilizing solution for use with the Chloroclock is shipped by us in three gallon carboys from Bebbit, New Jersey.

Shipment of either of the above machines can be made one week following receipt of your order at our factory at Newark, New Jersey.

Quotations are subject to the terms and conditions printed at the foot of this sheet.

Please advise us if we can be of assistance,

Very truly yours,
R. C. Clement
WALLACE & TIERNAN CO. INC.
R.C.Clement, District Mgr.

This quotation is subject to thirty day acceptance and to the usual terms of payment: net sixty days from date of invoice; title to remain in us until the equipment is paid for in full. Sales tax, if any, to be added.
Wallace & Tiernan Co. Inc. warrants for a period of one year after shipment that the apparatus shipped, of our manufacture, is free from defects in workmanship and materials, but its liability is limited to the replacement f. o. b. Newark, N. J., of the defective parts thereof.

WALLACE & TIERNAN

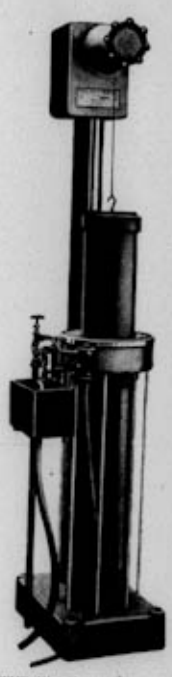
COMPANY, INCORPORATED

NEWARK, NEW JERSEY

BOSTON, BRIDGEPORT, BUFFALO, CHARLOTTE, CHATTANOOGA, CHICAGO, CLEVELAND, COLUMBUS, DALLAS, DENVER, DETROIT, HOUSTON, INDIANAPOLIS, JACKSONVILLE, KANSAS CITY, KNOXVILLE, LEXINGTON, LOS ANGELES, MADISON, MINNEAPOLIS, OKLAHOMA CITY, OMAHA, PHILADELPHIA, PITTSBURGH, ROANOKE, SAN FRANCISCO, SEATTLE, ST. LOUIS, SYRACUSE, WASHINGTON, D. C.
WALLACE & TIERNAN, LTD., TORONTO, CANADA
WALLACE & TIERNAN, LTD., WINNIPEG, CANADA
WALLACE & TIERNAN, LTD., MONTREAL, CANADA
WALLACE & TIERNAN, LTD., LONDON, ENGLAND

TECHNICAL PUBLICATION NUMBER 77

THE W&T CHLORO-CLOCK



THE W & T CHLORO-CLOCK

WATER supplies at camps, on private estates, at institutions and where consumption is relatively small, are readily chlorinated with the W&T chloro-clock. Small swimming pools can be adequately sterilized with this equipment.

The chloro-clock is designed to accurately feed small quantities of prepared sterilizing solution. Such solutions are generally available and, where the daily water consumption does not justify the installation of larger types of chlorine gas control apparatus, are to be recommended.

The apparatus operates on the displacement principle, the control being obtained from a clock-work mechanism which actuates an arm from which a displacing cylinder is suspended. The rate of solution feed is adjusted by means of a pendulum lever and is arranged so that the contents of the cylinder container can be discharged at varying rates as required from 20 hours to 8 days. A water supply under pressure feeds the small constant level box into which the solution drops. The same water supply also operates an injector which draws from the constant level box and applies the diluted sterilizing solution to the desired point of application.

The chloro-clock is started in operation by turning on the water supply and moving a lever which starts the clock mechanism in motion. Raising the weighted cylinder for filling the container jar automatically winds the clock mechanism.

Height: 67 in. Width: 12 in. Depth: 18 in.

Shipping Weight: 400 lbs.

Printed in U.S.A.

Specifications

The equipment shall be a self-contained unit mounted on a cast-iron base and with suitable metal support. It shall be suitable for feeding a hypochlorite sterilizing solution of definite strength and shall operate on the displacement principle, the control being obtained from a clock-work mechanism which actuates an arm from which a displacing cylinder is suspended. The rate of feed of solution shall be adjustable by means of a pendulum lever so arranged that the contents of the cylinder container can be discharged at varying rates as required from 20 hours to 8 days.

Where the sterilizing solution must be applied against a positive pressure, the equipment shall be provided with an injector operated by an external water supply under pressure and drawing from a constant level float box so placed as to receive the sterilizing solution that flows from the cylinder container.

All parts of the equipment with which the chlorine sterilizing solution comes in contact shall be of materials resistant to the action of sterilizing solution. All parts of the clock-work mechanism shall be properly protected but easily accessible and so designed that raising the weighted displacement cylinder will automatically wind the clock mechanism.

Guarantee: The apparatus shall be guaranteed against all inherent mechanical defects for a period of one year from date of shipment from factory.

Height: 67 inches. Floor Area: 16 inches by 18 inches.

Shipping Weight: 400 pounds.

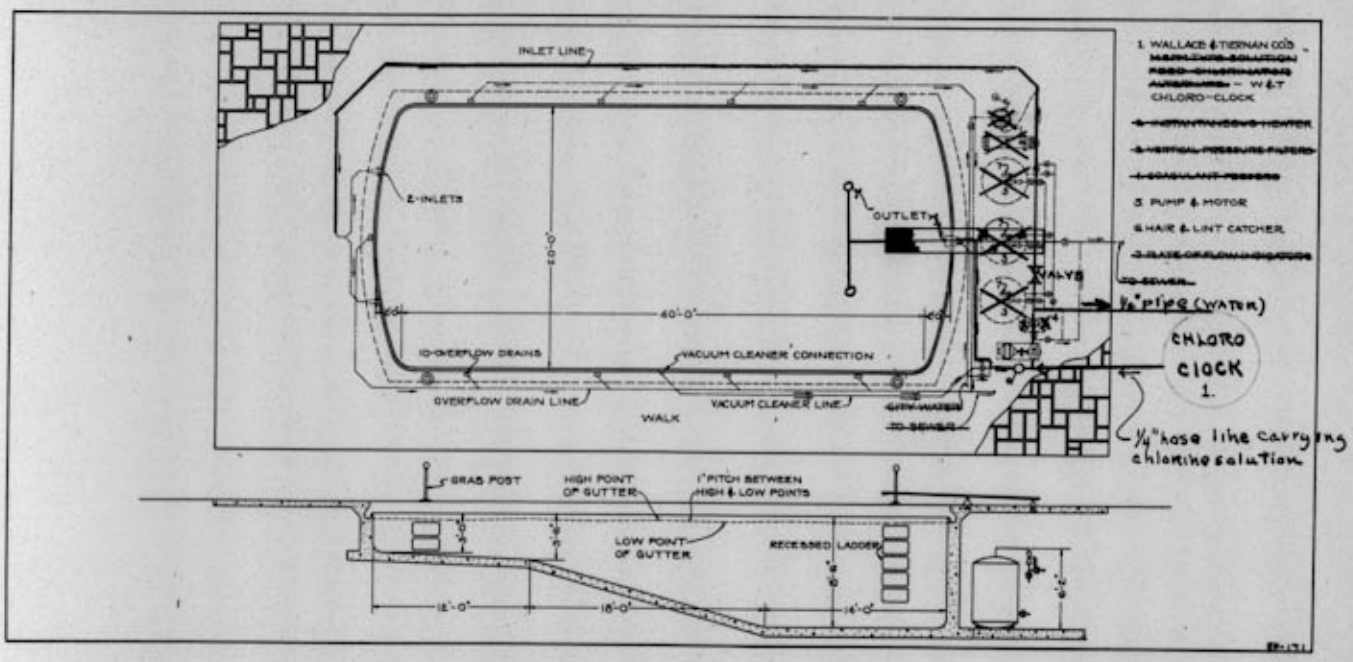
Partial List of W & T Chloro-Clock Installations

Water Supplies

COLORADO	Lafayette	Rocky Mt. Fuel Co.
	Silt	Municipal Water Department
DELAWARE	Bethany Beach	War Barracks
INDIANA	French Lick	French Lick Springs Hotel Co.
KANSAS	Erie	Forestry Fish & Game Commission
MASSACHUSETTS	Cummington	Meadowbrook Lodge
MINNESOTA	Maple Plain	Maple Hill Farm
	Marcell	Camp Idlewood
NORTH CAROLINA	Brevard	Camp Carolina, Inc.
		Camp Chickasaw
OHIO	Lowellville	Sharon Steel Hoop Co.
PENNSYLVANIA	Erie	Water Works
VIRGINIA	Fort Union	Military Academy
	Hot Springs	Virginia Hot Springs Co.
CANADA	Toronto	Western Tech. Comm. School

Swimming Pools

CONNECTICUT	Greenwich	C. W. Howard Estate
ILLINOIS	Chicago	Jewish Peoples Institute
	Antioch	Paschendale Farms
	Lake Forest	Ahlschlager Private Pool
KENTUCKY	Versailles	Margaret Hall, Inc.
MAINE	Cumberland	Spaulding Besber
NEW JERSEY	Bayonne	Junior High School
	Orange	Y. M. C. A.
NEW YORK	Glen Cove	G. D. Pratt Residence
	Stewart Manor	Stewart Manor Club
WISCONSIN	Merrill	C. F. Mittag
	Oconomowoc	Uhrig Pool


INLET LINE
2-INLETS
OUTLET
VALVE
40'-0"
10-OVERFLOW DRAINS
VACUUM CLEANER CONNECTION
OVERFLOW DRAIN LINE
VACUUM CLEANER LINE
WALK
1. WALLACE & TIERNAN CO'S
CHLORO-CLOCK
3. PUMP & MOTOR
6. HAIR & LINT CATCHER
1/4" pipe (WATER)
CHLORO CLOCK 1.
1/4" hose line carrying chlorine solution
GRAB POST
HIGH POINT OF GUTTER
1" PITCH BETWEEN HIGH & LOW POINTS
LOW POINT OF GUTTER
RECESSED LADDER
12'-0"
18'-0"
14'-0"

WALLACE & TIERNAN

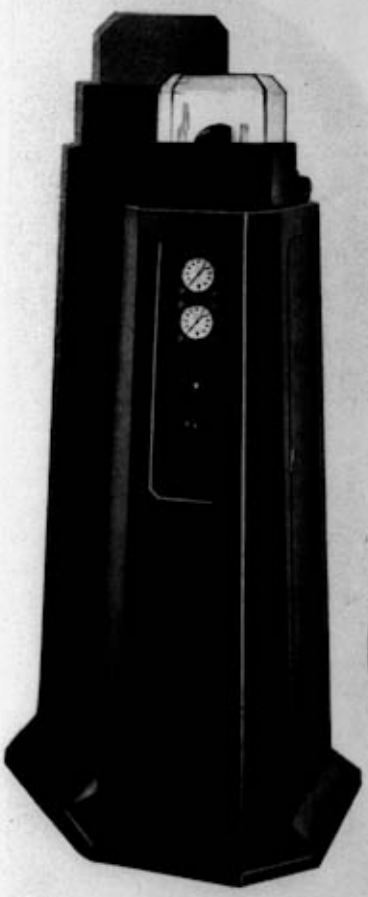
COMPANY, INCORPORATED

NEWARK, NEW JERSEY

BOSTON, COLUMBUS, KANSAS CITY, OKLAHOMA CITY, BRIDGEPORT, DALLAS, KNOXVILLE, SEATTLE, BUFFALO, PHILADELPHIA, DENVER, LEXINGTON, ST. LOUIS, CHARLOTTE, PITTSBURGH, SYRACUSE, DETROIT, LOS ANGELES, CHATTANOOGA, CHICAGO, INDIANAPOLIS, MADISON, ROANOKE, WASHINGTON, D. C., CLEVELAND, JACKSONVILLE, MINNEAPOLIS, SAN FRANCISCO,

WALLACE & TIERNAN, LTD., TORONTO, CANADA
WALLACE & TIERNAN, LTD., WINNIPEG, CANADA
WALLACE & TIERNAN, LTD., MONTREAL, CANADA
WALLACE & TIERNAN, LTD., LONDON, ENGLAND

TECHNICAL PUBLICATION 157



the new W&T "Rotor"
VISIBLE VACUUM CHLORINATOR

Since the development of the Visible Vacuum principle of chlorinator operation some ten years ago, there has been an insistent demand for the application of this principle to units of low chlorine capacity. With the introduction of the "Rotor" Visible Vacuum Chlorinator this exclusive W&T method of chlorine control is available, with all its advantages, to water supplies as small as 10,000 gallons per day—to small swimming pools—and for other similar installations.

With the unique revolving Volumetric meter it is now a simple matter to secure accurate control of as little as .03 pounds of chlorine per 24 hours. Three interchangeable chlorine meters

.03 to 0.5 pounds per 24 hours capacity
.10 to 1.6 " " " " "
.3 to 5.0 " " " " "

cover the complete range from a minimum of .03 to a maximum of 5.0 pounds of chlorine per day and with variable speed control provide a feed ratio of 17:1 with any one meter.

A particularly desirable feature of this apparatus is the ease with which it can be converted from manual to semi-automatic (automatic start and stop) or full automatic (automatic start and stop and automatic proportioning of chlorine flows) operation in the field with the addition of a few accessories.

As with other Visible Vacuum chlorinators, the control parts are always in plain view under the glass bell jar. By simply removing this bell jar these parts are immediately accessible for cleaning, adjustment or repair. Minor irregularities in operation, should any occur, are immediately observed and corrected and have no opportunity to develop into serious difficulties requiring major repairs or factory overhaul.

Substitution of visible hydraulic compensation for mechanical chlorine pressure reducing devices eliminates one of the most prolific sources of chlorinator troubles and expense. With the chlorine metered under a vacuum, leaks are practically impossible, while the improved design allows the use of chlorine resistant materials—hard rubber, glass, silver, platinum, etc., in the construction of all parts coming into contact with moist chlorine.

In the past, over 4,000 Visible Vacuum chlorinators have established enviable records for dependability and satisfactory operation with low maintenance costs. Exhaustive experiment and field scale installations demonstrate that the new "Rotor" is in every way their equal in performance and economy of operation.

Specifications

The Chlorinator shall be of the Solution Feed Visible Vacuum Type in which the Chlorine is metered under a partial vacuum.

It shall be pedestal mounted and the working parts of the apparatus such as Chlorine Pressure Reducing Valve, Chlorine Meter and Vacuum Relief shall be mounted under a glass bell jar in a hard rubber tray provided with a water seal, and shall be plainly visible while in operation. Furthermore, all these parts shall be readily accessible without the necessity of removing any bolts or screws.

The chlorine pressure reducing and constant flow valve shall be of the float operated type, utilizing water as a diaphragm.

The chlorine meter shall be of the Revolving Volumetric Type (specify whether for hydraulic or electric motor operation) and shall be accurate to within 4% of the true delivery of chlorine on all flows within its working range.

Wallace & Tiernan Co., Inc., warrant for a period of one year after shipment that the apparatus shipped is free from defects in workmanship and materials, but its liability is limited to the replacement f. o. b. Newark, N. J., of the defective parts thereof.

Width: 19½"; Depth: 22½"; Height: 54½";
Shipping Weight: 500-600 lbs.

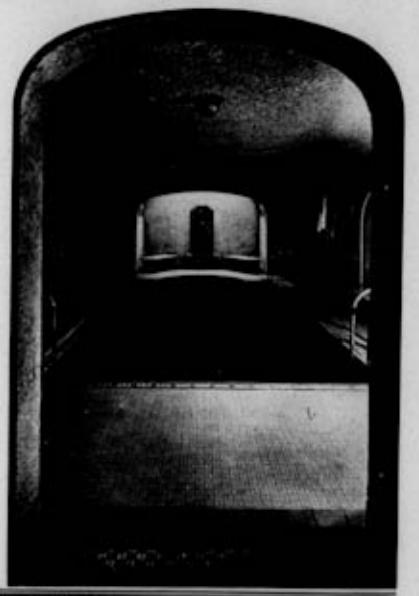
At Your Service

In 41 District Offices and Service Headquarters, W&T maintain a nation-wide field staff experienced in sanitary and industrial work. They are prepared to study and advise you on any problem pertaining to the application of chlorine or ammonia. Feel free to call on them.

Wallace & Tiernan
COMPANY, INCORPORATED
Manufacturers of Chlorine and Ammonia Control Apparatus
NEWARK, NEW JERSEY

Printed in U. S. A.

the PRIVATE POOL *and* PLUNGE



Harmonizing with the landscape—a foil for any creative plan the architect may advance or the owner's tastes dictate—a unique setting for any entertainment function, and a source of healthy sport and recreation—the outdoor pool is the "finishing touch" to any estate. The private plunge—that luxury of ancient royal families—returns to the modern American home—and swimming becomes a year round sport and recreation.

Regardless of other features, the beauty of a swimming pool lies in the appearance of the water and the cleanliness of the pool. Outdoor pools—and even indoor pools—exposed to sunshine invariably favor the luxuriant growth of the blue green algae—which are unsightly and objectionable to bathers.

Harmless as these growths are, they give the pool the appearance of being unclean and the water an objectionable off color—a dullness instead of a crystal brilliance. A beautiful pool can have its attractiveness very seriously marred by neglect in controlling biologic growths of this kind. If their development is not checked they may impart to the water a characteristic fishy or grassy odor which is most objectionable to bathers. Chlorine, besides being an economical sterilizer, is the one most effective way of preventing these algae growths.

Private pools which are not used for several days can be kept free of algae by operating the recirculating pump a short period each day and applying chlorine to the recirculated water in sufficient quantities to control growths. The expense is slight.

SWIM IN DRI

Clear, sparkling—PURE water is, however, an essential, for health as well as appearance. It is a condition taken for granted by the owner when he commissions the architect and today the private pool owner insists that he, his family and his guests "Swim in Drinking Water."

The addition of clean water to the pool is not alone sufficient. Provision must be made not only to sterilize the water as added, but to maintain, regardless of contamination disseminated by the bathers or introduced from other sources, an absolutely pure water in the pool itself. Health authorities everywhere are unanimous in saying that only by chlorination is this absolute purity secured—because only chlorination can provide residual sterilizing action that persists in the pool itself.

"From all available information the addition of chlorine . . . by use of proper apparatus is today the most satisfactory method of pool disinfection. It is possible not only to completely disinfect the entire body of water in the pool with chlorine, but also maintain in the pool water at all times a residual amount of disinfectant to sterilize immediately any dangerous pollution disseminated by bathers . . . The Committee recommends the use of chlorine . . . ," so states the report of the Joint Committee on Bathing Places of the American Public Health Association and the Conference of State Sanitary Engineers, after five years intensive study.

Just as chlorination is the preferred method of swimming pool disinfection, so W&T apparatus is the preferred chlorinator.

"Swimming Pool water is essentially drinking water," said the Surgeon General of the U. S. Army—"and as such must be measured by drinking water standards."

WALLACE & TIERNAN CO., INC.

NKING WATER

No finer criterion of the dependability of W&T apparatus could be found than this—200,000,000 people throughout the world today rely on W&T chlorinators for protection from water borne diseases. Thirty-five hundred American municipalities sterilize their drinking water with it—over two thousand five hundred swimming pools are chlorinated with it.

Andrew W. Mellon, Secretary of the U. S. Treasury; G. W. Williams, President Marmon Motor Co.; S. L. Doheny, Jr. and innumerable others of national prominence find W&T apparatus the ideal method for the sterilization of their private swimming pools.

Harvard University, Yale, the Universities of Southern California, Washington, Georgia, Chicago, Illinois—are just a few of the leading schools that have investigated the subject with every facility at their command and have chosen W&T chlorinators for their swimming pools.

Prominent architects throughout the country are insisting on W&T equipment. The Medinah Athletic Club, Chicago, tribute to the genius of W. W. Aschlager, Architect of Chicago, includes a W&T chlorinated swimming pool and Mr. Aschlager uses W&T apparatus on his own private pool. Ben Marshall, another prominent Chicago architect, includes W&T apparatus on his own pool. Louis E. Gallade of New York City specified W&T equipment for the University of Delaware; Hackensack, N. J., Y. M. C. A.; Passaic, N. J., Y. W. C. A.; Skidmore College, Saratoga Springs, N. Y.; New Rochelle, N. Y., Y. M. and Y. W. C. A. pools. The Meridian Hills Country Club and the Highland Golf and Country Club

pools (Foltz, Osler & Thomson, Architects), are chlorinated with W&T apparatus. Another prominent New York Architect, John F. Jackson, specified W&T equipment on the Jamestown Y. M. C. A.; Colgate University and Tonawanda High School swimming pools. "Who's Who" of architecture could be no more impressive than the list of those architects who, not once but repeatedly include W&T chlorinators on swimming pools of their creation.

Operation of W&T chlorinators is simplicity itself and may be placed in the hands of the gardener or other outside man. No technical knowledge is necessary.

Not only is chlorination the most effective means of pool disinfection but it is in every respect the most inexpensive. The average pool water is completely sterilized at a cost of less than fifty cents a million gallons.

W&T service is the direct responsibility of more than 100 graduate engineers. The nearest of our forty-two District Offices is at your service.

•

SOME W&T PRIVATE SWIMMING POOL INSTALLATIONS

H. W. Robinson	Beverly Hills, Cal.	P. R. Gardiner	Weston, Ontario
Thos. May	Beverly Hills, Cal.	Chas. T. Fisher Estate	Gross Isle, Mich.
Dr. J. B. Watkins	Jackson, Ga.	H. J. Riter Estate	Montclair, N. J.
Hon. Allen F. Moore	Monticello, Ill.	E. T. Foley	White Bear, Minn.
R. H. Wilcox Estate	Grand Rapids, Mich.	Peter Berkey	Lake City, Minn.
J. F. Bell	Wayzata, Minn.	Lloyd Frank	Portland, Ore.
G. G. G. Peckham Estate	Cleveland, Ohio	I. D. Kline Estate	St. Louis, Mo.
W. W. Knight Estate	Toledo, Ohio	Emerson Carey	Hutchinson, Kan.
G. F. Tyler Estate	Elkins Park, Pa.	S. F. T. Brock Estate	Bryn Mawr, Pa.
Dr. Lamp	New Eagle, Pa.	Howard J. Heinz	Pittsburgh, Pa.
Boeing Estate	Seattle, Wash.	A. G. Kahn	Little Rock, Ark.
O. C. Harvey, Jr.,	Beckley, W. Va.	Roy D. Keehn	Lake Forest, Ill.
Alex B. Uhrig	Oconomowoc, Wis.		

SWIM IN DRINKING WATER

WALLACE & TIERNAN

MANUFACTURERS OF CHLORINE AND AMMONIA CONTROL APPARATUS

NEWARK, N. J.

BRANCHES IN PRINCIPAL CITIES

PRINTED IN U.S.A.

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
EASTERN DIVISION, BRANCH OF ENGINEERING
WASHINGTON

OFFICE OF CHIEF OF DIVISION

April 16, 1935.

Hasbrouck Company,
101 Park Avenue,
New York City.

Gentlemen:

Following recent conversations relative to the construction of a new swimming pool at the Hyde Park estate, for the President, I am pleased to transmit herewith a set of blueprints and a draft of the specifications indicating the general lines along which it is desired a pool be built. Please understand that the information contained hereon is intended to cover a complete installation, in working order, and any minor omissions in the drawings or specifications will have to be supplied. Please also understand that this work is of a purely personal nature, and the National Park Service is not officially connected with it. I am handling the engineering work personally at the request of Captain Edwin P. Lock, Jr., White House.

Some of the drawings were hastily prepared, and the figured dimensions should govern wherever possible, instead of scaled distances.

It is desired that your bid covering the construction of the pool as indicated by the accompanying papers be in Captain Lock's hands at the White House by noon, Saturday, April 20. A bid is desired on the indicated construction; but if you so elect, you may submit an additional bid for any design which may occur to you as being better adapted to local conditions. Please be sure to include with your alternative bid a description of any departures from indicated construction.

Any questions or any requests for additional information may be addressed to me until Thursday at 5:00 P.M., after which time to Captain Lock at the White House.

Should you wish to visit the estate to examine the site of the work, you will be permitted to enter the grounds upon presentation of this letter. A test pit has been dug on the site of the proposed pool which indicates that the earth is a sandy gravel at a depth of 11 feet.

As this is in no way a Government contract, the right is reserved to discuss any matters with any of the invited bidders after the time set for opening, or to award the contract as may best suit the needs and convenience of the President's family.

Very truly yours,

Encl.399152. JLN:AA

John L. Nagle,
Assistant Chief.

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
EASTERN DIVISION, BRANCH OF ENGINEERING
OFFICE OF CHIEF OF DIVISION
WASHINGTON

April 16, 1935.

Mr. Gilbert D. Fish,
50 West 50th Street,
New York City.

Gentlemen:

Following recent conversations relative to the construction of a new swimming pool at the Hyde Park estate, for the President, I am pleased to transmit herewith a set of blueprints and a draft of the specifications indicating the general lines along which it is desired a pool be built. Please understand that the information contained hereon is intended to cover a complete installation, in working order, and any minor omissions in the drawings or specifications will have to be supplied. Please also understand that this work is of a purely personal nature, and the National Park Service is not officially connected with it. I am handling the engineering work personally at the request of Captain Edwin P. Lock, Jr., White House.

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Very truly yours,

John L. Nagle,
Assistant Chief.

Encl. 399154. JLN:AA

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
EASTERN DIVISION, BRANCH OF ENGINEERING

OFFICE OF CHIEF OF DIVISION WASHINGTON April 16, 1935.

James Baird Company,
810 - 18th Street, N.W.,
Washington, D. C.

Gentlemen:

Following recent conversations relative to the construction of a new swimming pool at the Hyde Park estate, for the President, I am pleased to transmit herewith a set of blueprints and a draft of the specifications indicating the general lines along which it is desired a pool be built. Please understand that the information contained hereon is intended to cover a complete installation, in working order, and any minor omissions in the drawings or specifications will have to be supplied. Please also understand that this work is of a purely personal nature, and the National Park Service is not officially connected with it. I am handling the engineering work personally at the request of Captain Edwin P. Lock, Jr., White House.

Some of the drawings were hastily prepared, and the figured dimensions should govern wherever possible instead of scaled dimensions.

It is desired that your bid covering the construction of the pool as indicated by the accompanying papers be in Captain Lock's hands at the White House by noon, Saturday, April 20. A bid is desired on the indicated construction; but if you so elect, you may submit an additional bid for any design which may occur to you as being better adapted to local conditions. Please be sure to include with your alternative bid a description of any departures from indicated construction.

Any questions or any requests for additional information may be addressed to me until Thursday at 5:00 P.M., after which time to Captain Lock at the White House.

Should you wish to visit the estate to examine the site of the work, you will be permitted to enter the grounds upon presentation of this letter. A test pit has been dug on the site of the proposed pool which indicates that the earth is a sandy gravel at a depth of 11 feet.

As this is in no way a Government contract, the right is reserved to discuss any matters with any of the invited bidders after the time set for opening, or to award the contract as may best suit the needs and convenience of the President's family.

Very truly yours,

John L. Nagle,
Assistant Chief.

Encl. 399153.JLN:AA

1. WORK TO BE DONE. - The work to be done under this contract consists in furnishing all labor, machinery, equipment and materials and constructing therewith in accordance with these specifications and the accompanying plans, a swimming pool complete.

The work comprises, among other things, the following major items:

Excavation and grading, draining of existing pool, reinforced concrete, a new well and pumps sufficient for a complete circulating system, a purification system, plumbing and drainage, a pump house, a spring board and ladder, and all incidental work necessary to complete the pool and place it in operation.

2. LABOR. - The Contractor shall be responsible and shall conform to all regulations in regard to the employment of labor. In general, local labor in the vicinity of Hyde Park shall be used to the maximum extent.

3. CONTRACT DRAWINGS. - The following drawings form a part of and are supplementary to these specifications:

Plans and Details - Two Drawings
Photostat of An Architectural Perspective
Photostat of Purification System - Two Drawings

4. WORKING DRAWINGS. - The Contractor shall prepare all detailed working drawing necessary for the manufacture of the material which shallbe submitted for approval. The working drawings shall be in sufficient detail to facilitate the erection of the material in the field.

5. EXCAVATION AND GRADING. - All excavation shall be to the depth indicated on the drawings. Any overdepth in foundation excavation shall be backfilled with concrete at the Contractor's expense unless such overdepth shall have been previously ordered. All backfill shall be deposited in 6-inch layers thoroughly tamped and puddled if directed.

The Contractor shall grade all of the area within six feet of the outer edge of the flagstone walk. Beyond the edge of this grading the banks shall slope 1-1/2 to 1 to the natural ground.

Sodding and lamiscape work is not included in this contract.

6. REINFORCED CONCRETE. - All concrete shall develop a strength of 3000 pounds per sq. inch in 28 days. It shall be mixed in the approximate proportions of 1:1-1/2:3-1/2, but shall contain not less than seven (7) bags of cement per cubic yard of concrete measured in place.

The forms for all exposed surfaces of concrete shall be lined with masonite or some other approved material. The scum gutter and curb and pavement shall receive a smooth hard trowel finish.

All reinforcing steel shall be deformed bars rolled from new steel billets made by the open hearth process.

7. JOINTS. - Copper expansion joints shall be placed as indicated on the drawings and all joints shall be thoroughly sealed with an approved mastic material.

8. SPRINGBOARD & LADDER. - All pipe in the ladder and spring board frame shall be galvanized. The diving board shall be of clear vertical grain Oregon Pine in one piece free from flaws and it shall be covered with cocoa mat for its full length.

9. PAINT. - All exposed surfaces of concrete of the pool shall be painted with an approved paint of an approved color. The paint shall be suitable for the purpose and as many coats as necessary for a first class paint job shall be applied. The backs of all walls shall be dampproofed with an approved material.

10. DRAINING OLD POOL. - The side walls of the existing pool shall be punched through in at least four places to permit the free passage of sub-surface water.

The pool shall then be filled with excavated material from the new pool and shall be brought to the grade indicated by the contours on the drawings.

11. PUMP HOUSE. - The Contractor shall design a pump house of sufficient capacity to house all of the equipment necessary for the operation of the pool. ~~The heating system is not to be installed at this time; however, the Contractor shall provide sufficient space for its future installation.~~

The pump house shall be neat in appearance and shall harmonize with the surrounding landscape.

Crab Orchard or equal

12. FLAGSTONE. - The flagstone shall be ~~a local material~~ laid on a sand bed in random ashlar of approximate sizes indicated on the drawings.

13. PLUMBING. - Cast-iron bell and spigot water pipe conforming to Federal Specification WW-P-421, Type I, Class 150 shall be used for all water supply and re-circulating pipes and for the pool drain up to the 8-inch gate valve. All joints in cast iron water pipe shall be made with lead and jute in the most approved manner, the lead to be not less than 2 inches deep, to be run with one pouring and to be caulked flush with the bell. All fittings for cast iron water pipe shall conform to A.W.W.A. Specifications, Class D.

Extra heavy cast iron soil pipe, conforming to Federal Specification WW-P-401 shall be used for the scum gutter drains and at such other points as may be noted on the drawings. All joints in cast iron soil pipe shall be made with lead andjute in the most approved manner.

Galvanized wrought iron pipe,conforming to Federal Specification WW-P-441, Class A, shall be used for all piping above the floor of the pump house and at such other points as may be noted on the plans. All joints in wrought iron pipe shall be made with properly cut tapered threads with all burrs removed and pipe ends reamed. Pipe joint compound shall be applied to the male threads only and care shallbe taken that none of it gets inside

of the pipe.

The main outlet drains shall be Josam, Type 596 M with chromium plated brass tops.

The scum gutter drains shall be Josam, Type 2282½ all brass with chrome plate top.

The inlets for the recirculating system shall be Josam, Type 2253 H with cast iron bodies and chrome plated brass strainers.

The brass goose neck inlet nozzle for the well supply pipe shall be of approved design.

14. WELL. - The Contractor shall drill an 8-inch deep well at the location for the pump house noted on the drawings, the well to have a capacity of not less than 35 gallons per minute during 24 hours continuous pumping. The Contractor shall submit complete specifications of the well he proposes to drill, but in general it must be cased with wrought iron casing to solid rock and provision be made to prevent the entrance of surface contamination. An approved strainer shall be provided if required. The bid shall be based on a well 80 feet in depth.

15. DEEP WELL PUMP. - The deep well pump shall have a capacity of 35 gallons per minute against the static and friction head necessary to deliver the water to the pool and shall be designed to operate continuously for 24 hour periods.

The pump cylinder shall be all brass, with galvanized wrought iron drop pipe and ash or galvanized iron pump rods and shall be arranged so that the plunger and all valves can be withdrawn without removing the cylinder from the well.

The pump head shall be of the enclosed gear, self oiling type and shall be driven by a 220 volt, 60 cycle single phase motor of suitable size through a "V" belt or silent chain.

The Contractor shall submit detailed drawings and specifications of the pumping equipment he proposes to furnish for approval before proceeding with the installation.

16. CIRCULATING PUMP. - The circulating pump shall be of the single stage centrifugal type, direct connected to a 220 volt, 60 cycle single phase motor, and shall have a capacity of 35 gallons per minute. The pump shall be made intergral with the motor frame and shall require no base plate or flexible coupling, the impeller being mounted directly on the motor shaft. The Contractor shall submit detailed drawings and specifications of the pump he proposes to furnish for approval.

17. CHLORINATOR. - The Contractor shall provide chlorinating system of the type shown on the accompanying photostat. The solution shall be fed by means of an adjustable motor driven pump, the piping to be so arranged that the solution can be injected into either the supply pipe from the well or the discharge pipe from the circulating pump. Detailed drawings and specifications of the chlorinating system proposed to be furnished shall be submitted for approval.

1B. ELECTRICAL. - This work consists of the furnishing and installing of the following material and equipment:

1. A feeder in an underground conduit indicated on the drawing. The feeder shall be of rubber covered lead covered cable of sufficient capacity for the motors to be supplied. The feeder shall connect to the existing 220 Volt, 60 cycle alternating current system in the present dwelling house through a fused Safety switch in order to properly protect the feeder. The proper location of the safety switch shall be determined in the field.

2. A safety switch and a starter for each motor in the pump house. The starter shall be fully enclosed and of proper design to meet the requirements of each individual motor. The starters and safety switches shall be installed in an approved location and complete in every detail.

3. The required number and size of motors suitable for operating the particular equipment. The motors shall be of the general purpose type. All details of construction and performance shall be in accordance with the latest standards of the A.I.E.E. and N.E.M.A.

4. All wire, cable and their connections to the various equipment.

The entire installation shall conform in every detail with the following rules and requirements:

(a) The National Electric Code of the National Board of Fire Underwriters.

(b) The rules and requirements of thelocal Electric Company supplying the current.

(c) The rules and regulations of the local Electric Code.

(d) The Standardization rules of the American Institute of Electrical Engineers.

(e) The Standardization rules of the National Electrical Manufacturers Association.

SUMMARY OF BIDS ON
HYDE PARK SWIMMING POOL

Bidders	Bid on Pool as Designed	Bid on Alternate Design
Hasbrouck Company, Inc., 101 Park Avenue, New York, N.Y.	$ 7,150.00	$ 6,500.00
James Baird Company, Inc., Otis Building, Washington, D. C.	7,620.00	7,113.00
Edgar V. Anderson, 25 Market Street, Poughkeepsie, N.Y.	8,459.00	* 7,998.00

(*) Deductions: - Anderson's alternate design.
Omitting scum gutter & using
weep holes - - - - - - - - - $587.00
Substituting bluestone for
Crab Orchard - - - - - - - - 405.00
Total Deductions - - - - $ 992.00 7,006.00

SUMMARY OF BIDS ON
HYDE PARK SWIMMING POOL

Bidders	Bid on Pool as Designed	Bid on Alternate Design
Hasbrouck Company, Inc., 101 Park Avenue, New York, N.Y.	$ 7,130.00	$ 6,500.00
James Baird Company, Inc., Otis Building, Washington, D. C.	7,620.00	7,113.00
Edgar V. Anderson, 25 Market Street, Poughkeepsie, N.Y.	8,459.00	* 7,998.00
(*) Deductions: - Anderson's alternate design. Omitting scum gutter & using weep holes - - - - - - - - - $597.00 Substituting bluestone for Crab Orchard - - - - - - - - 401.00 Total Deductions - - - - $ 998.00		7,006.00

SUMMARY OF BIDS ON
HYDE PARK SWIMMING POOL

Bidders	Bid on Pool as Designed	Bid on Alternate Design
Hasbrouck Company, Inc., 101 Park Avenue, New York, N.Y.	$ 7,130.00	$ 6,500.00
James Baird Company, Inc., Otis Building, Washington, D. C.	7,620.00	7,113.00
Edgar V. Anderson, 25 Market Street, Poughkeepsie, N.Y.	8,459.00	* 7,998.00

(*) Deductions: - Anderson's alternate design.
Omitting scum gutter & using
weep holes - - - - - - - - - $587.00
Substituting bluestone for
Crab Orchard - - - - - - - - 405.00
Total Deductions - - - - $ 992.00 7,006.00

James Baird & Co

Pool as per specifications	7620.00
Alternate design	7113.00

James Baird Company, Inc.
Builders

101 Park Avenue
New York

Otis Building
Washington, D. C

Reynolds Building
Winston Salem, N. C.

711 Monroe Street
Ann Arbor, Mich.

James Baird
Abner L. Roe
John C. Baird
Henry S. Marshall
C. E. Reich

Washington, D. C.

April 20, 1935

Captain E. P. Lock, Jr.
Executive Mansion
Washington, D. C.

Dear Sir:

We propose to furnish all labor, materials, tools, power, appliances, etc. to complete the construction of the Swimming Pool at Hyde Park, New York, in accordance with plans and specifications furnished by your office for the sum of SEVEN THOUSAND SIX HUNDRED TWENTY ($7,620.00) DOLLARS.

If the circulating line can be used as a fill line, using the circulating nozzles for fill heads, deduct ONE HUNDRED ($100.00) DOLLARS.

With reference to the alternative plan of using the stream water instead of deep well water for filling the pool, we feel that the cost of such equipment to properly filter and treat the stream water would be considerably more expensive than the cost of the deep well, and the pump, and that the turbidity of the stream water at times would be such that it would be impossible to use the water without providing equipment for settling.

We wish to thank you for the opportunity of bidding this job, and hope that we can be of assistance to you.

Very truly yours,

JAMES BAIRD COMPANY

Henry S. Marshall
Vice President

HSM:M
cc Code Authority

March 29, 1936

Mr. Lorenzo S. Winslow, Architect
1800 E Street, N. W.
Washington, D. C.

Dear Mr. Winslow:

We propose to furnish all labor, materials, tools, power, appliances, etc. to complete the proposed swimming pppl at Hyde Park, New York, in accordance with your plans, and verbal instructions modifying these plans, especially as pertains to the mechanical layout, on the following bases:

1. For constructing the complete swimming ppol together with all mechanical work, exclusive of a recirculating system for the pool water, and heating equipment, for the sum of

($ 7,333.00)

2. For constructing the complete swimming pool together with a recirculating system for the pool water, and recirculating pump, and leaving provisions for future installation of heating equipment, the sum of

($ 7,608.00)

3. For constructing the complete swimming pool including the recirculating system for the pool water and the heating system, the sum of

($ 8,763.00)

We list below the possible changes which could be made in the present plans without materially changing the design or usefullness of the pool; which would be deductions from the above lump sum bids:

A.	Eliminate masonite lining for forms.	$ 100.00
B.	Redesign of concrete footings and reinforcing.	175.00
C.	Omit outlet boxes for future lamp standards.	50.00
D.	Reduce area of flagstone.	170.00
E.	Eliminate copper expansion joint at junction between wall and footing and in bottom slab joints.	100.00

Edgar V Anderson Poughkeepsie

Pool as designed		$ 8459.00
Alternate design		7998.00
Deduction:		
Omit scum gutter + use weep holes	587.00	
Substitute blue stone for Crab Orchard	405.00	992
	Net low	$ 7006.00

LEPHONE 2720

EDGAR V. ANDERSON
BUILDER
GENERAL CONTRACTOR
25 MARKET STREET
POUGHKEEPSIE, N. Y.

April 19th, 1935.

Cap. Edwin P. Look,
The White House,
Washington, D. C.

Dear Sir:--

I propose to construct the Swimming Pool in accordance with the plans and specifications which you have furnished, for the sum of $8,459.00.

As an alternate, we are pleased to quote a price according to the design prepared by Mr. Gilbert D. Fish of New York, of $7,998.00.

Both of the above quotations include a complete finished job, except that we have not figured on finished grading and seeding, and also we have not provided the extra fill which would be necessary to bring the new grade over the old tank, up to the proposed finished lines. We have figured only on using the excavated material for filling purposes.

We have also figured on the Artesian Well 80' deep with 8" casing, the well to be double cased and grouted to prevent inseepage.

I have figured on a pump house with concrete foundations, frame walls and roof covered with wood shingles, painting only the trim on this building, but not painting nor staining the shingles. If the shingles were to be stained a dark Creasote color, it would probably cost about $12.00 extra.

In either case, according to Mr. Fish's suggestion, we could do away entirely with the scum gutters and construct weepholes, using flagstone coping, which would finish the top of the concrete walls, placing these weepholes at about 4' intervals, each weephole to be about 2" high and 8" long, occurring at the water line of the pool. In general, all the weepholes are under the flagstone paving, along the outside of the pool, and we place in gravel fill to take care of the water which would normally go into the scum gutters. I have used this scheme myself very satisfactorily in the pool which I built for Mr. Henry Morgenthau Jr., six years ago.

For omitting of the scum gutters, and providing weepholes in either design, we can make a deduction of $587.00.

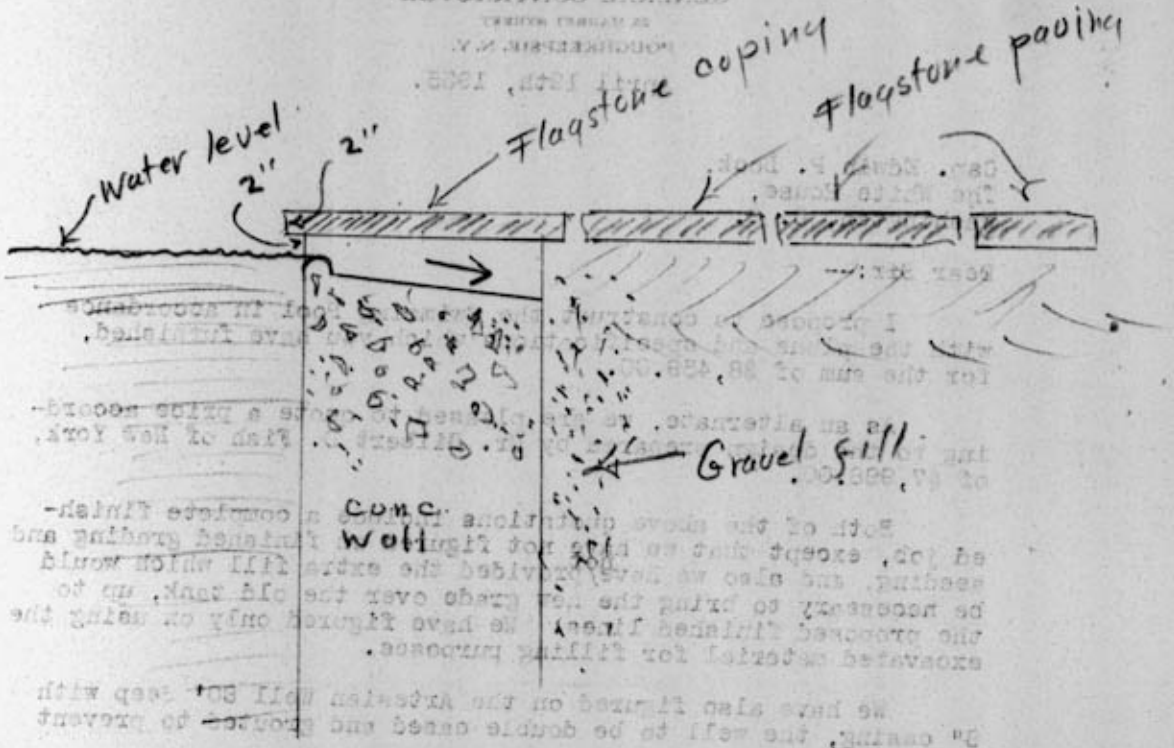
I would suggest as a substitute for the Crab Orchard paving, the use of North River bluestone flagging, laid in the same pattern and manner specified, at a saving or deduction in price of $405.00

EVA/K

Very truly yours,

Edgar V. Anderson.

over


Water level
2"
2"
Flagstone coping
Flagstone paving
Gravel fill
Conc. wall

GILBERT D. FISH
CONSULTING ENGINEER
50 WEST 50TH STREET
NEW YORK

April 18, 1935

Captain Edwin P. Lock, Jr.
White House
Washington, D.C.

OUTDOOR SWIMMING POOL, HYDE PARK, NEW YORK

Dear Captain Lock:

At Mr. Nagle's request, I have gone over the plans and specifications for the proposed pool and find them fully in accordance with good practice and also economical. I would, however, suggest a few minor changes for consideration, as listed later in this letter.

Further in accordance with Mr. Nagle's request, I have called in a general contractor, Mr. E. V. Anderson of Poughkeepsie, who has gone over the plans with me and is preparing to submit a proposal in Friday afternoon's mail. I understand that Mr. Anderson will bid on plans and specifications without exception, and will also submit an alternate bid based on the proposed modifications listed below.

Mr. Anderson has been established in general contracting for a long time and is very well known. He is located nearer to Hyde Park than any other contractor having suitable experience in swimming pool construction, and of course he is thoroughly familiar with local conditions including the local labor market. He constructed the Vassar College Sports Building and Swimming Pool Building, with which this office was professionally connected two years ago, and a large concrete pool which he built as part of that operation was a very creditable bit of monolithic concrete construction. About five years ago he built Mr. Morgenthau's swimming pool a few miles from Poughkeepsie, and I understand that the President's family have done considerable swimming in that pool.

The suggested modifications are as follows:

1. Omit all expansion and construction joints to permit pouring the entire pool in one continuous operation. I think that this is wise in the case of a small pool and affords better protection against loss of water due to seepage. All concrete pools built under our supervision, except some large ones, have been poured monolithic.

2. Change wall section as indicated on attached sketch, making footings integral with wall, reducing the amount of vertical wall reinforcement, but avoiding any spacing greater than 12", turning water-face reinforcement into heel of footing for greater security, and reducing wall thickness to 8".

3. Omit scum drain pipes for economy, providing narrow channels through the rim at intervals to permit surface drainage into soil adjoining pool. This device has been found to work very well, and has the advantage of avoiding a permanently slippery condition of the rim which is apt to accompany the use of the rim as a scum gutter.

4. Round off the four vertical corners of the pool to avoid stress concentration with possible resultant cracks.

5. Add integral waterproofing to the concrete mix to improve workability and density. At very slight extra cost this so improves the pouring properties that it greatly helps to avoid voids when pouring thin walls with closely spaced reinforcement, and also makes a denser concrete.

6. Apply no cement finish to floor slab. Screed the floor and float finish if necessary for reasonable smoothness, but do not trowel. Rub down inside face of wall with carborundum.

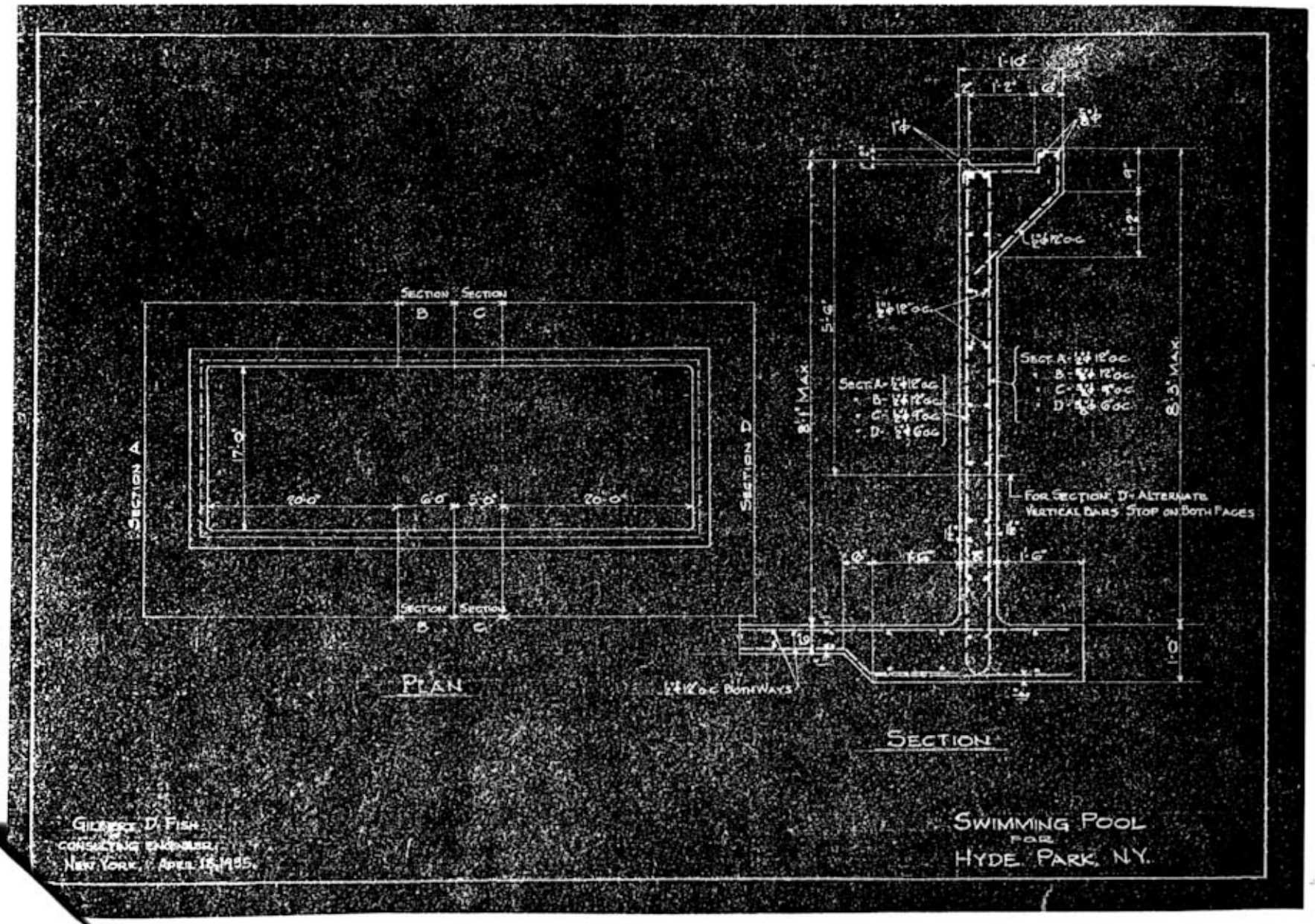
The above suggestions are partly for quality and partly for economy. I think they should somewhat improve the result without adding to the cost, and I hope that the estimates will show some cost saving in favor of the changes. It is understood that in case Mr. Anderson handles this job, I will personally visit the site to inspect reinforcement and forms before concrete is poured and will witness the mixing and pouring of the concrete in case it is done in a single operation.

Hoping that you will receive satisfactory proposals and that my comments may prove to be of some value,

Yours very truly,

Gilbert D. Fish

CC - Mr. John L. Nagle
Mr. E. V. Anderson


SECTION B
SECTION C
SECTION A
SECTION D
17'-0"
20'-0"
6'-0"
5'-0"
20'-0"
PLAN
1'-10"
1'-2"
6"
1'-6"
1'-0"
8'-1" MAX
5'-6"
8'-3" MAX
9"
1'-2"
1'-6"
1'-0"
SECT. A- B- C- D-
FOR SECTION D- ALTERNATE VERTICAL BARS STOP ON BOTH PAGES
BOTHWAYS
SECTION
GILBERT D. FISH
CONSULTING ENGINEER,
NEW YORK, APRIL 15, 1935.
SWIMMING POOL
FOR
HYDE PARK, N.Y.

~~Want to~~ ask you about something ?

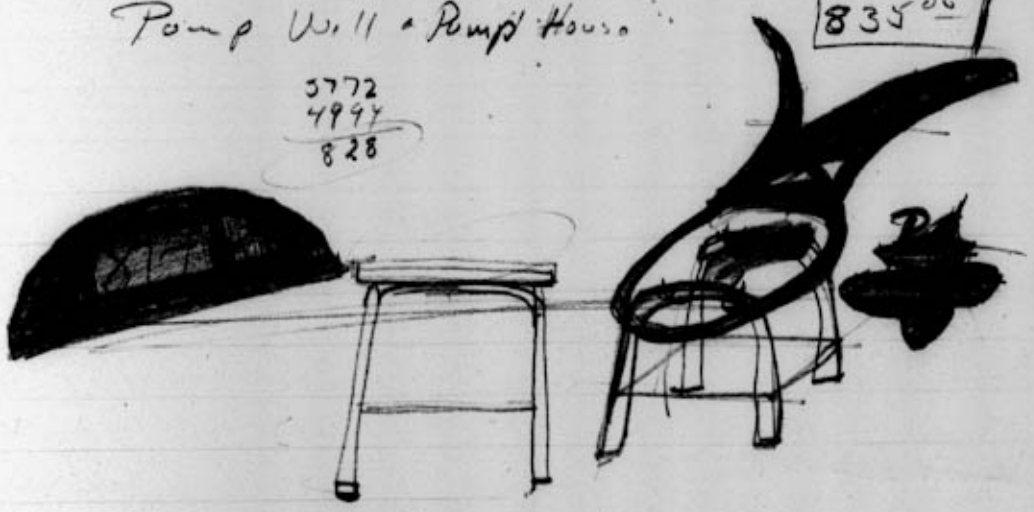
Swimming Pool Data

8" Well 3.25 / ft
$45.00 for casing

6" Well $2.75 / ft
$25.00 casing

Pump Well & Pump House

5772
4944
828



Copy from Schelling-Busch, Inc.
101 Park Avenue
New York, N. Y.

June 6, 1934

BUDGET ESTIMATE
OF
HYDE PARK SWIMMING POOL

1. Excavation, Pumping & Rough Grading . . .	$ 872.00
2. Concrete Swimming Pool	2,710.00
3. Native Stone Coping	252.00
4. Plumbing & Drainage	425.00
5. Well, Pump House & Pump	882.00
6. Superintendence & Insurance	200.00
	$ 5,339.00
Profit - 10%	534.00
	$ 5,873.00

The Office of SCHELLING-BUSCH *Incorporated*
BUILDERS
LEXINGTON 2-4900 101 PARK AVE. N.Y.

June 22nd, 1934

Dear Mr. Gugler:-

In compliance with your request to find some method to reduce the cost of the Hyde Park Swimming Pool, I have made some changes and believe the cost will now be:

1. Excavation & Rough Grading	$ 380.00
2. Concrete Swimming Pool	1,925.00
3. Native Stone Coping	108.00
4. Plumbing & Drainage	350.00
5. Superintendence, Insurance & Overhead	300.00
6. Cleaning Site & Finish Grading	400.00
	$3,463.00

The above figures have been reached by omitting the rounded corners on the pool, reducing the depth slightly, changing the profile of the gutter, reducing the width of the coping, fitting the coping at random, reducing the pipe sizes, omitting the rubbing of concrete and having the clearing of the site and finish grading done by the gardeners. The changes recommended will not reduce the usefulness of the pool in the slightest.

The pool equipment now existing can be transferred to the new pool. ~~If the existing house water supply can be used, it will cost from $200.00 to $400.00.~~ If found inadequate, a new well, well house and pump may be installed for a minimum of $700.00.

We will charge only what the actual costs amount to, without any profit. We have not as yet investigated the local conditions sufficiently to guarantee the above figures, but we can confirm them at once if you feel the price is satisfactory.

Many thanks for the fun of working with you on this project.

well & well house
electricity
pedestal
removing shrubs
replacing shrubs

Yours very truly,
SCHELLING-BUSCH, INC.
George Schelling

Mr. Eric Gugler
101 Park Avenue
New York, N. Y.

7

Note:

The attached figures do no include the sodding over the fill in the old pool, the moving of trees or bushes, ~~or other landscape work.~~

The Office of SCHELLING-BUSCH *Incorporated*
BUILDERS
LEXINGTON 2-4900 101 PARK AVE. N.Y.

June 22nd, 1934

Dear Mr. Gugler:-

I asked for estimates from two standard pool erectors after giving them full information on owner and property, and the lowest of these two figures increased my estimate to $6,280.00 for the same work, an increase of about $2,800.00.

Yours very truly,
SCHELLING-BUSCH INC.

George Schelling

P. O. Box 146

Telephones {7-7901 / 7-7902

Eastern Representative
EARL H. PRICE
157 North Easton Road
Glenside, Penn.

Nashville, Tenn.

March 21st. 1935.

$350.00
less 200 lin' of
2" coping

Mr. Lorenzo S. Winslow,
1800 "E" Street, N.W.,
Washington, D.C.

Dear Mr. Winslow:

Your letter received and the quantity of approximately 700 sq. ft. of stone tells me that your design would build a pool 25' x 75' with a 3'0" border around the top.

50
150
200 lin'
coping

Allowing a 12" wide coping and 2'0" for walk, using 2" stone for the border or coping and 1" stone for the walk design, all this stone could be delivered to the location you mention, fully cut to design ready for installation for the sum of approximately Three Hundred Fifty ($350.00) Dollars.

If you design steps leading into the pool instead of ladders which has been very satisfactorily done on some very nice jobs recently, this would be extra.

The above figure includes your selection of colors and the same quality of stone as used at the White House.

Two photographs of work recently done are enclosed for your use.

Assuring you confidence in the matter and with kindest personal regards, I am

EHP.B

Respectfully yours,

CRAB ORCHARD STONE CO. INC.

By Earle H. Price

Of the above deductions we believe that it would be unwise to accept the deduction for the elimination of the masonite inasmuch as we feel that the use of the material will be worth considerably more than One Hundred Dollars to the job in appearance and sanitary condition.

We hope that the above estimate is satisfactory to you, and that we can be associated with you on this project.

Very truly yours,

JAMES BAIRD COMPANY

Henry J. MacLean

Vice President

HSM:M

PITTSBURGH, PA.
OLIVER BUILDING

CHICAGO, ILL.
FIRST NATIONAL BANK BUILDING

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GEORGIA 6565

1 — 42" CLEAR WATER CHAMBER
PRESSURE TYPE
SWIMMING POOL CLARIFICATION
FILTER TYPE S
WITH BRASS HEADER,
COMPLETE WITH JENKINS VALVES
FOR INLET, OUTLET, WASH, WASTE
AND REWASH, WITH BRASS WASH
OUT PIPE AND 7 GRADED LAYERS
OF FILTER MATERIAL TO CONFORM TO
A. W. W. ST'DS, DELIVERED TO WHITE
HOUSE, SET IN FILTER ROOM, READY
TO BE CONNECTED UP TO PRESENT
SYSTEM. (CONNECTION TO PRESENT SYSTEM
TO BE MADE BY GOVERMENT) $641.—

SCAIFE TYPE

Send together with print

11828

PATE

5 POI

SUPER

1

NO CONCRETE FILL

The type "S" filter—a modern design—needs no concrete fill—cheaper to install—lighter in weight—requires no buried manifolds and laterals—a quality filter.

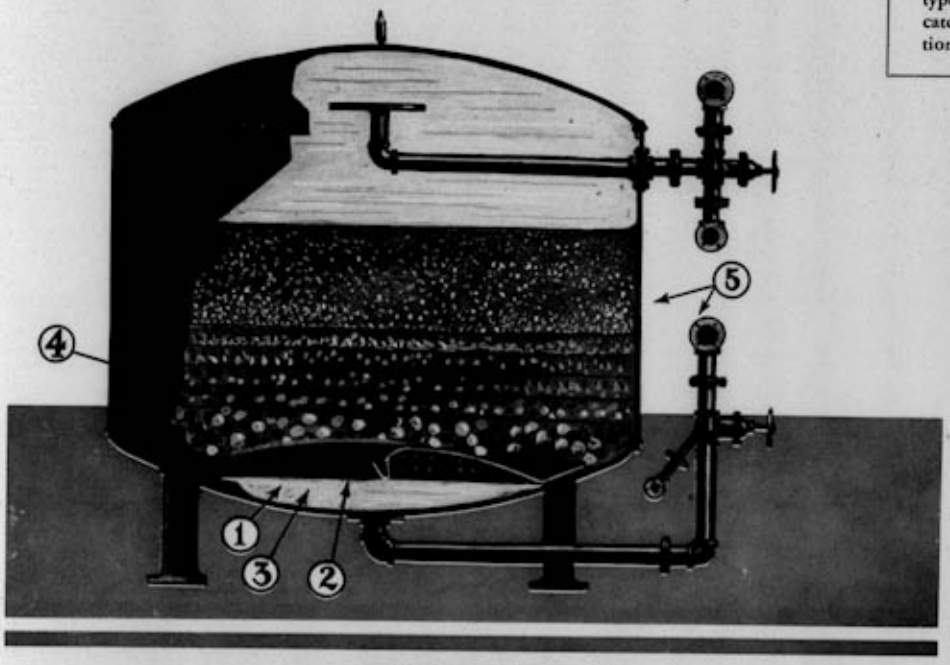
2

LONGER LIFE

The type "S" filter eliminates pipe manifolds and laterals. Its arched distributor hood is made of the same thickness of material as the filter tank. No part of it is buried in hard concrete. Its underdrain life is equivalent to the life of the filter tank.

SANI

The type "S" f
water chamber
utor hood and
No unsanitary cr
as so often occu
type of design.
catch dirt. No
tion. Sanitary.



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Water Softening and Purification Systems

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OAKMONT, PA.

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SIPHON CONTINUOUS
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HOUSEHOLD

Water Filters

MUNICIPAL
INDUSTRIAL
GRAVITY
PRESSURE
SWIMMING POOL
HOUSEHOLD

SPECIFICATIONS
FOR
HYDE PARK SWIMMING POOL

June 6th, 1934

SPECIFICATIONS June 6th, 1934
FOR
HIDE PARK SWIMMING POOL

MATERIALS:

1. **Portland Cement:**

Portland cement shall be of American manufacture conforming to the "Standard Specifications for Portland Cement" (Serial Designation C9-30) of the American Society of Testing Materials, and subsequent revisions thereof.

2. **Fine Aggregate:**

Fine aggregate shall consist of sand having clean, hard, durable uncoated grains, free from deleterious substances.

Fine aggregate shall range in size from fine to course within the limits indicated below, percentage by weight:

Passing through No. 4 sieve 100%
Passing through No. 50 sieve , not more than 80%)
not less than 10%)
Passing through No. 100 sieve, when screened dry,
not more than 5%
Volume removed by sedimentation, not more than 5%

3. **Coarse Aggregate:**

Coarse aggregate shall consist of crushed stone, gravel, air-colled blast furnace slag, or other approved inert materials with similar characteristics, or combination thereof, having clena, hard, durable, uncoated particles, free from deleterious matter.

Coarse aggregate shall range in size from fine to coarse within the following percentages, by weight:

Passing a 1" sieve .....Not less than 95%
Passing a 1/2" sieve .....Not more than 75%)
Not less than 40%)
Passing a No. 4 sieve .....Not more than 5%

Bank or pit-run aggregate in its original state shall not be used.

4. **Mixing Water:**

Mixing water shall be free from oil, acid, and injurious amounts of vegetable matter, alkalies or other salts.

5. **Steel Reinforcement:**

Steel rods or bars used for reinforcing shall be billet-steel of intermediate grade or rail-steel.

Reinforcement bars shall conform to the area and equivalent sizes shown on or called for on the general plans or detailed drawings.

PROPORTIONING:

6. **General:**

The unit of measure shall be the cubic foot. Ninety-four pounds (94 lbs.), one (1) sack or one-fourth(1/4) barrel of portland cement shall be assumed as one (1) cubic foot.

7. **Measuring Ingredients:**

The method of measurement shall be such as to secure the specified proportions in each batch. The aggregates shall be measured separately by volume or weight. In volume measurement, the fine aggregate and the course aggregate shall be measured loose, as thrown into the measuring device, due allowance being made for bulking. The water shall be so measured as to insure the desired quantity in successive batches.

8. Water-Cement Ratio:
The proportioning of materials shall be based on the requirements for a plastic and workable mix containing not more than six (6) gallons of water per sack (94 pounds) of cement to produce a concrete having a 28 day compressive strength of 3000 pounds per square inch. This quantity of water must not be exceeded. Water in the aggregate must be included in the quantity specified and subtracted from the amount added to the mixture.

9. Moisture in Aggregate:
Moisture in the aggregate shall be measured by methods satisfactory to the Engineer which will give results within one pound for each 100 pounds of aggregate.

10. Slump:
The slump shall be within the following limits: minimum, 2 inches, maximum 5 inches. Slump tests shall be made whenever directed by the Engineer.

11. Workability:
The mixture shall be such as to produce concrete that can be worked readily into the corners and angles of the forms and around the reinforcement without excessive spading. The workability will be controlled by adding or deducting fine or coarse aggregate but in no case shall the amount of coarse aggregate be such as to produce harshness in placing or honey-combing in the structure.
That combination of fine and coarse aggregate which will produce the desired workability will vary with the grading of the aggregates, but in no case shall more than one part of fine to one part of coarse be used.

12. Trial Batches:
Full-sized trial batches shall be made in the mixer, using the aggregates selected for the job to establish the correct proportions of the mix to give proper workability and maintaining the water-cement ratio and slump as specified. An initial trial batch shall be made based on the proportion by dry compact volume of 1:2:3, proper allowance being made for loose measurement and the effect of bulking due to moisture. If the desired workability is not obtained, then the combination of the fine and coarse aggregates shall be adjusted within the limits specified until the mix meets with the approval of the Engineer.

MIXING:
13. Machine Mixing:
The mixing of conrete shall be done in a batch mixer of approved type, which will insure a uniform distribution of the materials throughout the mass, so that the mixture is uniform in color and homogeneous. The mixer shall be equipped with suitable charging hopper, water storage, and a water-measuring device controlled from a case which can be kept locked and so constructed that the water can be discharged only while the mixer is being charged. The entire contents of the drum shall be discharged before recharging. The mixer shall be cleaned at frequent intervals while in use. The volume of the mixed material per batch shall not exceed the manufacturer's rated capacity of the mixer.

14. Time of Mixing:
The mixing of each batch shall continue not less than one minute after all the materials, including the water, are in the mixer.

15. Hand Mixing:
Hand mixing will not be permitted.

16. Retempering:
The retempering of concrete which has partially hardened, that is, remixing with or without additional cement, aggregate, or water will not be permitted.

DEPOSITING CONCRETE:

17. General:
Before depositing any concrete, all debris shall be removed from the space to be occupied by the concrete, all steel reinforcing shall be secured in its proper location, all forms shall be thoroughly wetted except in freezing weather, and all form work and steel reinforcing shall be inspected and approved by the Engineer. Forms shall not be oiled.

18. Handling and Placing:
Concrete shall be handled from the mixer to the place of final deposit as rapidly as practicable by methods which shall prevent the separation or loss of the ingredients. It shall be deposited in the forms as nearly as practicable in its fina position to avoid rehandling. It shall be so deposited as to maintain, until the completion of the unit, a plastic surface approximately horizontal. The concrete shall be placed in a manner that will avoid accumulation of hardened concrete on the forms or metal reinforcement. Under no circumstances shall concrete that has partially hardened be deposited in the work.

19. Compacting:
Concrete during and immediately after depositing shall be thoroughly compacted by means of suitable tools. For thin walls or inaccessible portions of the forms, where rodding or forking is impracticable, the concrete shall be assisted into place by tapping or hammering the forms opposite the freshly deposited concrete. The concrete shall be thoroughly worked around the reinforcement, and around embedded fixtures and into corners of the forms.

20. Protecting and Curing:
Exposed surfaces of concrete shall be protected from premature drying by being covered with burlap or sand, which must be kept continually wet by sprinkling or by other methods that may be approved by the Engineer. The damp burlap or sand shall be placed as soon as the concrete is hard enough not to be marred by the process, and the sprinkling must continue for a period of not less than ten days, and, in case the Engineer requires it, for a longer period.

21. Temperature:
Concrete when deposited shall have a temperature not below 50° Fahrenheit and not above 100° Fahrenheit. In freezing weather, suitable means shall be provided for maintaining the concrete at a temperature not lower than 50° Fahrenheit, for not less than 72 hours after placing, or until the concrete has thoroughly hardened. The methods of heating the materials and protecting the concrete shall be approved by the Engineer. Salt, chemicals, or other foreign materials shall not be mixed with the concrete for the purpose of preventing freezing.

22. Depositing Against Other Concrete:
Before depositing new concrete on or against concrete which has hardened, the forms shall be retightened, the surface of the hardened concrete shall be throughly cleaned of foreign matter and laitance, and saturated with water, and shall be roughened as required by the Engineer. The new concrete placed in contact with hardened or partially hardened concrete shall contain an excess of mortar to insure bond. To insure the excess of mortar at the juncture of the hardened and the newly deposited concrete, the cleaned and saturated surfaces of the hardened concrete, including vertical and inclined surfaces, shall first be slushed with a coating of neat cement grout against which the new concrete shall be placed before the grout has attained its initial set.

23. Floor Finish:
After the concrete has been brought to the established grade, by means of a strikeboard, it shall be floated with a wood float in a manner that will thoroughly compact it and provide a smooth, even surface. The surface shall then be lightly steel troweled. The troweling should be followed with a light brushing with a hair brush to give a non-slip finish.

24. Wall Finish:
Immediately after the forms are removed, all projections and irregularities on the exposed surfaces ahll be removed and all cavities neatly filled with a 1-1½ portland cement and sand mortar. Plasteringoof the surface will not be permitted. The surface shall be finished by wetting and thoroughly rubbing with a carborundum brick. The top of the wall should be left gritty to prevent slipping.

FORMS:
25. General:
Forms shall conform to the shape, lines and dimensions of the concrete as called for in the plans. Lumber used in the forms for exposed surfaces shall be dressed to a uniform thickness, and shall be free from loose knots or other defects. Joints in forms shall be horizontal or vertical. For unexposed surfaces, rough lumber may be used. Lumber once used in forms should have nails withdrawn, and surfaces to be in contact with concrete thoroughly cleaned before being used again.

METAL REINFORCEMENT:
26. Cleaning:
Metal reinforcement, before being placed, shall be thoroughly cleaned of mill and rust scale and of coatings that will destroy or raduce the bond. Reinforcement appreciably reduced in section shall be rejected. Where there is delay in depositing concrete, reinforcement shall be reinspected and, when necessary, cleaned.

27. Bending:
Reinforcement shall be carefully formed to the dimensions as indicated on the plans. Cold bends shall be made around a pin having a diameter of six or more times the least dimension of the reinforcement bars.

28. Straightening:
Metal reinforcement shall not be bent or straightened in a manner that will injure the material. Bars with kinks or bends not shown in the plans shall not be used. Heating of reinforcement will be permitted only when the entire operation is approved by the Engineer.

29. Placing:

Metal reinforcement shall be accurately positioned and secured against displacement by using annealed iron wire of not less than No. 18 gauge or suitable clips at intersections, and shall be supported by concrete or metal chairs or spacers, or metal hangers, unless otherwise shown on the plans. The minimum clear distance between any bar and the nearest concrete face shall not be less than 2 inches to insure protection against moisture.

Wire mesh used in the floor slab shall be lapped not less than six (6) inches on all sides and securely wired.

Wherever it is necessary to splice bar reinforcement otherwise than as shown in the plans, the character of the splice shall be decided by the Engineer on the basis of safe bond stress and the stress in the reinforcement at the splice.

JOINTS:

30. Construction Joints:

When necessary to provide construction joints not indicated on the plans, such joints shall be located and formed so as to not impair the strength and to least impair the appearance of the structure. Where conditions require, the joints shall be reinforced as directed by the Engineer in order to secure the necessary bond strength.

31. Expansion Joints:

Expansion joints in the floor and walls shall be spaced as shown. [redacted] The joints shall be filled with an approved tar or asphaltic filler which will not run in hot weather and become brittle when cold nor be affected adversely by water. The wall joints shall be proveded with a crimped copper strip to serve as a water stop.

Dear Capt. Cook;

Sorry not to be here to see you. Here are a few details about the place.

You can take dirt off the top of the hill if you want to...but I imagine it has a stone base...and the President has put on a lot of crushed stone a number of times to make the road hard, so the cars do not go down out of sight in the early spring. If they take the dirt off the hill it will have to be fixed after with a good base and gravel.

I want the shrubs moved and planted again by a man that knows his business, the roots can eaisly be damaged and when they are replanted they must have good soil, peat moss and fertlizer. It is too dangerous to leave them out of the ground for two or three weeks. I just as soon have them planted as they are taken out back by the fence at the shop. The Woodland Free Service men will probably move them as cheeply as any one..and they know the business. They have planted the trees for me. Mr. Barnes or Prichard. Phone Pough; 2858

The men can get drinking water from an outside faucett over by the garage. If they do not like this water they can get some at the Presidents farm at the end of our lane leading on to the highway.

The pump house is to go where we decided when you were here.

The front line of the pool is to be in line with the porch of the house.

The electric wire from the pole in front of the shop has to go through the circle back of the house and back of that button ball tree. There will be a cellar under the new addition so the electric wires can not go there.

The water level of the brook in July and Aug and Sept. is below the cement dam under the bridge....No water goes over the dam in summer.
They will need to know this when they put the pipe down if they are to get the water for the pool from the brook. Below the bridge there is only a few inches of water in the summer.

Mrs. Roosevelts little gas stand (to give people work, no profit) is a short way from our gate.... If any of the men want food Nellie will be glad of the job....Gas and oil also

I will be home Friday of this week.

Nancy Cook

ESTIMATES

Item	Contractors Estimate		Our Estimate
General Conditions	$300.00		$300.00
Concrete, including Steel, Forms, Lining & Finishing	(90 cy) 2,868.00	Can Save 9 cy @ .12 $108.00	(81 cy) 2,630.00
Plumbing, Drainage & Gravel	1,338.00		1,200.00
Flagstone	370.00		410.00
Copper Flashing	(170 ft) 170.00	Can Save $100.00	(60 ft.) 60.00
Spring Board & Ladder	120.00		150.00
Excavation	397.00		350.00
Damproofing	50.00	Figures	50.00
Plastic Expansion Joints	45.00	underlined	45.00
Wrecking old Pool	50.00	appear	50.00
Pump House	150.00	reasonable.	150.00
Paint	60.00	Other figures	60.00
Electric Service	230.00	arrived at by	230.00
Sterilizer	250.00	independent	250.00
Well & Pump	735.00	check.	735.00
	$7,133.00		$6,670.00
Totals ---	208.00		
	$6,825.00	Check within $155.00	

James Baird Company, Inc.
Builders

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New York

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Washington, D. C

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711 Monroe Street
Ann Arbor, Mich.

James Baird
Abner L. Roe
John C. Baird
Henry S. Marshall
C. E. Reich

Washington, D. C.

March 29, 1935

Mr. Lorenzo S. Winslow, Architect
1800 N Street, N. W.
Washington, D. C.

Dear Mr. Winslow:

We propose to furnish all labor, materials, tools, power, appliances, etc. to complete the proposed swimming pool at Hyde Park, New York, in accordance with your plans, and verbal instructions modifying these plans, especially as pertains to the mechanical layout, on the following bases:

1. For constructing the complete swimming ppol together with all mechanical work, exclusive of a recirculating system for the pool water, and heating equipment, for the sum of

Seven Thousand Three Hundred Thirty Three ($ 7,333.00)

2. For constructing the complete swimming pool together with a recirculating system for the pool water, and recirculating pump, and leaving provisions for future installation of heating equipment, the sum of

Seven Thousand Six Hundred Eight & 00/100 ($ 7,608.00)

3. For constructing the complete swimming pool including the recirculating system for the pool water and the heating system, the sum of

Eight Thousand Seven Hundred Sixty-Three ($ 8,763.00)

We list below the possible changes which could be made in the present plans without materially changing the design or usefullness of the pool; which would be deductions from the above lump sum bids:

A.	Eliminate masonite lining for forms.	$ 100.00
B.	Redesign of concrete footings and reinforcing.	175.00
C.	Omit outlet boxes for future lamp standards.	50.00
D.	Reduce area of flagstone.	170.00
E.	Eliminate copper expansion joint at junction between wall and footing and in bottom slab joints.	100.00

James Baird Company, Inc.

Of the above deductions we believe that it would be unwise to accept the deduction for the elimination of the masonite inasmuch as we feel that the use of the material will be worth considerably more than One Hundred Dollars to the job in appearance and sanitary condition.

We hope that the above estimate is satisfactory to you, and that we can be associated with you on this project.

Very truly yours,

JAMES BAIRD COMPANY

Henry S. MacDow

Vice President

HSM:M

James Baird Co

Pool - Hyde Park.

BID. No 1 - Complete pool with all mechanical except recirculating piping and pump and heating Equipment.

(1)	General Conditions. - Equipment, Insurance, Shed, Supervision	300 -
(2)	Excavation	397 -
(3)	Concrete, steel, forms.	2513 -
(4)	Masonite form lining	160 -
(5)	Drain Tile & gravel	88 -
(6)	Dampproof outside of walls - 2 Coat mastic	50 -
(7)	Finish Pool Walls, floor, Scum gutter	195 -
(8)	Plastic Expansion Joints	45 -
(9)	Copper " "	170 -
(10)	Wreck old pool walls -	50 -
(11)	Pump House	150 -
(12)	Ladders, Spring Board.	120 -
(13)	Paint - Inside of pool - (2 Coats "Bay State")	60 -
(14)	Electric Service	230 -
(15)	Flagstone	370 -
(16)	Mechanical { Piping (no circulating) 1175 - Elevation 35 - Sterilizer - Sol. Hypoch. 250 .	1500 -
(17)	Well & Pump.	735 -
		$7,133 -
	Contingency &	200
		$7,333 -

Bid No. 2

Total Bid No. 1	7,333-
Add. Circulating Piping	150-
" " " Pump	125-
	$7,608

Bid No. 3

Total Bid No. 2	$7608-
Add. Boiler, Burner, Tank	1,075-
" 20' Brick Stack	80-
	$8,763

ARTESIAN WATER SUPPLIES

PUMPS AND PUMPING EQUIPMENT

Warren F. Feller

Water Well Driller

Rhinebeck, New York

Phone 16-F-7

March 16, 1935

Captain E. P. Lock Jr.
White House
Washington, D. C.

Dear Sir:

#1 Job: Capacity 27 Gallons per minute - Depth to 95 ft.

1 Myers V2960 M Self Oiling Power Head equipped with 1½ Century H. P. Motor-60 Cycle 110 V.A.C.Single Phase	$239.00
1 Myers Fig.2897 Brass Lined double acting cylinger size 3¼" x 12" x 54"	60.00
1 Fig.2747-3" Silent Line Check Valve	12.00
80 ft. Fig.2762 with rectangular Wood Rod complete with all couplings, size 2 3/4" x 1 1/16"	37.60
80 ft. 3½" Galv. drop pipe	45.60
	$394.20

Requiring 3" Galv pipe discharge from pump to pool @ 49¢ per foot

ARTESIAN WATER SUPPLIES

PUMPS AND PUMPING EQUIPMENT

Warren F. Feller

Water Well Driller

Rhinebeck, New York

Phone 26-F-7

March 16, 1935

#2 Job Capacity 36 Gallons per minute - Depth to 95 ft.

1 Myers V2960 M Pump with 2 H. P. Motor like #1 Head	$264.00
1 Fig. 2897 Cylinder size 3 3/4" x 12" x 55"	73.00
1 Fig. 2747- 3" Check Valve	12.00
80 ft. Fig. 2762 Wood Rod, size 3½" x 1 3/8"	59.20
80 ft. 4" Galv. Drop Pipe	53.60
	$461.80

Necessary length of 3" Discharge pipe from pump to pool @ 49¢ per foot

The above are two separate estimates of the swimming pool job at Hyde Park.

Very truly yours,

Warren F. Feller

Joseph L. Fimbel

QUIET MAY
AUTOMATIC OIL BURNER

Plumbing-Tinning-Heating

Oil Burners

Office 558
Residence 877

Poughkeepsie, N. Y.

March 19, 1935

Captain E. P. Locke
White House
Washington, D. C.

Dear Sir:

As per our conversation I have studied the pump situation in reference to your purposed Swimming Pool at the Val-Kill Cottage and have given it very serious consideration. I have checked through several makes of pumps bearing in mind the use to which you will put them. Namely they will have to be operated for a period of twnety-four hours steadily without any stops, and I am inclosing an estimate for two pumps that I can recommend.

The Hoosier Heavy Duty is a low speed pump with a 18" stroke. In my opinion the wear will naturally be considerable less on this pump than any other pump.

The Myers pump has a 12" stroke with a double action cylinder which gives you the same capacity as the Hoosier pump using a two horse power motor instead of a five horse power motor on the Hoosier. I believe this pump will also give you very good service but is a faster speed pump than the Hoosier.

You will find below approximate estimates on both Hoosier and Myers pumps, both of these pumps have a capacity of 1800 gallons per hour.

Hoosier

Figure 500 Heavy Duty Pump 1800 gallons with five H. P. motor	$500.00
1- 4½ x 30 all brass 18" stroke cylinder	60.00
80 ft. 2½" wood rod	75.00
80 ft. 4½" drop pipe	75.00
50 ft. 2½" discharge pipe, fittings & excavation	40.00
100 ft. 3 wire lead covered cable No. 4 installed	100.00
Total labor for plumber, electric work for pump and piping	100.00
	$1040.00

Myers

E. P. Locke March 19, 1935 J. L. Finbel

Myers

Figure 2639 1900 gallons per hour discharging in open tank two horse power motor	$260.00
1- Double action all brass cylinder 12" stroke 3½ x 55"	75.00
80 ft wood rod	55.00
80 ft 4" drop pipe	65.00
50 ft. 2½" discharge pipe including excavating and pipe fittings	40.00
100 ft 3 wire No. 8 lead covered cable installed	75.00
Total plumbers and electircal work for pump all piping and wiring	100.00
	$670.00

I trust this is the information you desire, and if I can be of further service to you please call on me as I am pleased to assist in any way possible.

Trusting to hear from you, I am,

Very truly yours,

Joseph L. Finbel

Joseph L. Finbel

JLF:M

10-276

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF NATIONAL PARK SERVICE
EASTERN DIVISION, BRANCH OF PLANS AND DESIGN

COMPUTATION SHEET

SHEET ____ OF ____
MADE BY [illegible]
CHECKED BY 3/21/37.
(INITIAL AND DATE)

*** 5—5500

Subject:

Tabulation.

	Heating Plant.	Operating Cost. Heating.	Operating Cost. Water	Pump Equip.
24 hours	811 cu	$ 7.30	$ 4.20	612 cu
18 hours.	897 cu	$ 6.98	do	do.
6 hours.	1675 cu	$ 6.38	do	do.

10-976

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF NATIONAL PARK SERVICE
EASTERN DIVISION, BRANCH OF PLANS AND DESIGN

COMPUTATION SHEET

SHEET ____ OF ____
MADE BY ____
CHECKED BY ____ (INITIAL AND DATE)

Subject: Operating Costs.

Oil @ 7¢ per gal
Elec @ 7¢ per KW.

24 hour heating Basis.

Oil for Burner 3.55 g.p.h. x 7¢ x 24 hours	=	5.96
1/2 HP Burner Motor = 400 w = .4 KW x 7¢ x 24 "	=	.67
1/2 HP Circ. Motor = 400 w = .4 KW x 7¢ x 24 "	=	.67
		*7.30

*7.30 to heat pool per 24 hour period.

18 hour heating Basis.

Oil for Burner 4.72 gph. x 7¢ x 18 hours	=	5.96
1/2 HP. Burner 400 w = .4 KW x 7¢ x 18	=	.51
1/2 HP Circ. Motor " " " "	=	.51
		*6.98

*6.98 to heat pool over 18 hour period.

To operate well pump.

3. HP. Motor on pump = 2.5 KW per hour to operate
.07
*.175 per hour
24 hours to fill pool.
*4.20 to fill pool.

10-976

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF NATIONAL PARK SERVICE
EASTERN DIVISION, BRANCH OF PLANS AND DESIGN

COMPUTATION SHEET

SHEET ____ OF ____
MADE BY Andre
CHECKED BY 3/21/35
(INITIAL AND DATE)

Subject: Estimated Costs on Pumping Equipment

1-	Fairbanks Morse 123 G Deep Well pump with 3 HP. Motor 220 V. A.C 1φ with 12" stroke 2100 gph pump @ 80' head	408.00
1-	3"x 12"x 40" Fairbanks Morse "ERB" double acting brass lined cylinder	40.00
1-	3" Brass check Valve	12.00
80 L	Lockow steel sucker rod	41.00
80 L	3" steel deep pipe	43.00
	Safety switch	15.00
	Wiring & motor 100' @ 15¢	15.00
	Pump house & pool 100' 3" pipe @ 38¢	38.00
		$612.00

10-276

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF NATIONAL PARK SERVICE
EASTERN DIVISION, BRANCH OF PLANS AND DESIGN

COMPUTATION SHEET

SHEET ____ OF ____
MADE BY ____
CHECKED BY ____ (INITIAL AND DATE)

Subject: Estimated Cost for Heating Equipment for Heating Pool Water.

2 tons plant.	3-W-9-0 Ideal Red flash Boiler	351.00
	Oil burner & 275 gal indoor tank	300.00
	Piping 200'. 3" @ 38¢	72.00
	3" Hot. Circulator (Thrush Co)	73.00
	Wiring & Burner & Circulator	15.00
		$811.00

1½ ton plant.	3-W-12-0 Ideal Red flash Boiler	437.00
	Oil burner & Tank (275)	300.00
	Piping as above	72.00
	3" Circulator (Thrush Co)	73.00
	Wiring as above	15.00
		$897.00

10-276

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF NATIONAL PARK SERVICE
EASTERN DIVISION, BRANCH OF PLANS AND DESIGN

COMPUTATION SHEET

SHEET ____ OF ____
MADE BY Andrae
CHECKED BY 3/21/35 (INITIAL AND DATE)

Subject: Swimming Pool.

24 hours to heat pool
75° Outside Temp.
50° Water Temp.
40,000 gal pool capacity.

$\frac{40\,000}{24}$ = 1670 gal per hour
× 8.33
13760 # water per hr
× 25° rise
344,000 B.T.U. req'd per hour.

24 hours to heat.

Using an Ideal #3 Redflash Oil Burning Boiler
2370 # × 150 = 357000 B.T.U.
3-W-9-0

$\frac{25}{8.3}$ # Oil Min Cap. of burner. = 3 gal of oil per min minimum cap of burner.

Boiler 54 1/4" long 45 3/4" wide 63" high.

@ 70% efficiency 1 gal oil = 98000 B.T.U.
$\frac{344\,000}{98000}$ B.T.U. per hour req'd. = 3.55 gal per hour req'd.
$\frac{3.55}{24}$ hours
85 gal oil to heat pool.

18 hours to heat. $\frac{40000}{18}$ = 2220 gal per hour
× 8.33
18500 # per hour
× 25° rise
462000 B.T.U. req'd. per hour.

Using an Ideal #3 Redflash Oil Burning Boiler
3-W-12-0 3200 # × 150 = 480000 B.T.U.
$\frac{34.3}{8.3}$ # Oil Min. Cap. of Burner. = 4 gal of oil per min burner cap.

Boiler 72 1/4" long 45 3/4" wide 63" high.

$\frac{462\,000}{98000}$ = 4.72 gal oil per hour req'd
× 18 hours
85 gal oil req'd.

Swimming Pool.

Operating Costs.

Oil Burner to heat pool 14 gal per hr @ 7¢ = .98

3/4 HP motor 600 w @ .07 kw = .6 × 7 .042

3/4 Circ Pumps 600 w @ .07 kw = .6 × 7 .042

Cost to heat pool per hour. $1.064

6 hrs period.

6

$6.384

to heat pool.

3 H.P. Motor on well pumps.

3 HP = 2400 w = 2.5 kw × .07 = $ .175 per hour

24

$ 4.20 to fill pool

Andrew

Pool Heating

6 hours to heat pool water
75° Outside temps.
50° Water Temps.
40,000 gal pool capacity.

$\frac{40000}{6}$ = 7000 gal per hour
8.33
58,000 # water per hour
25° rise
1,400,000 B.T.U. per hr.

5-W-17-0 #5 Ideal Red Flash Oil Burning Boiler
9370 × 150 = 1,405,500 B.T.U output.
$\frac{100}{8}$ # oil per hour Min Burner capacity = 12½ gp hr.

136 in. long 60" wide 65 inches high.

70% efficiency 1 gal oil = 98,000 B.T.U.
$\frac{1,400,000 \text{ BTU.}}{98000}$ = 14 gal oil per hour
6 hours
84 gal oil to heat pool

77 [illegible]

Boiler Equipment.

5-10-17-0	Ideal Red Flash boiler.	1250 —
6 [illegible] paid.	Oil Burner & 275 gal Storage Tank	300 —
	Piping 100' @ 38¢	38 —
	2" Hot Water circulator (Thrush Co).	72 00
	Wiring to Burner & circulator 100' @ 15¢	15 00
		$1675 00

Estimate - H. P. Swimming Pool

HHD

Excavation - 333 cu. yds @ 1.00 $333.00

Reinf. Concrete - 64 cu. yds. @ ~~30.00~~ 25.00 $1600.00

Gravel or sand fill - 32 cu yds. @ 2.50 $80.00

Stone Coping - 150 sq. ft

Stone walks - 590 sq. ft
Laying only 740 " " @ .10 $75.00
Concrete fill - 44 sq. yards @ 1.00 $44.00
Construction of Scum Gutter
132 lineal feet @ .50 $65.00

16 - scum gutter drains - 3" @ 10.00 $160.00

2 - floor drains - 6" - brass @ 15.00 $30.00

2 - gate valves. { 6" @ 35.00
2½" @ 10.00

Water inlet head 20.00 $65.00

2- Galvanized iron ladders @ 25.00 50.00

1- spring board. 30.00

130 lineal feet of 6" T.C. drain pipe @ 1.50 195.00
(Including excavation and fill)

50 lineal feet of 2½" supply pipe @ 1.00 50.00
(Including excavation and fill)

Drilling 5" well - 100 ft. deep ? 350.00

Pump equipment ? $200.00
550

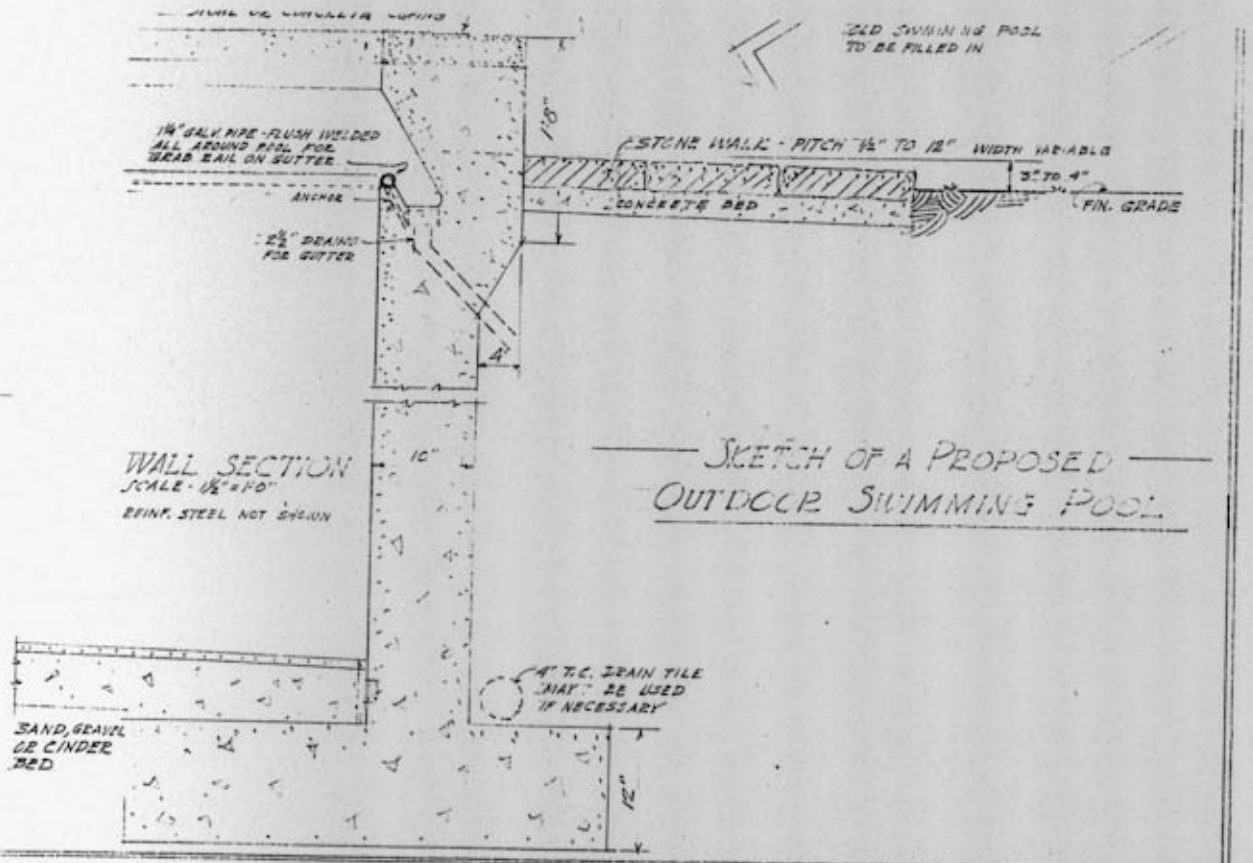
Well and Pump House ? $100.00

Total cost $3427.00

Contingencies - 10% 342.00

$3769.00

Moving shrubbery
grading
putting shrubbery back - grass seeding
Electricity



For entire document please
Check with the Archivist on Duty

ECKARDT V. ERKESEN, PRESIDENT
DE FOREST GRANT, CHAIRMAN BOARD OF DIRECTORS
PETER C. OLSEN, FIRST VICE-PRES. & GEN'L. M'G'R.
KARL MATHIASEN, SEC'Y-TREAS.
HARRY LEE KING, VICE-PRESIDENT
WILLIAM MATHIASEN, VICE-PRESIDENT

FEDERAL SEABOARD TERRA COTTA CORPORATION

ARCHITECTURAL TERRA COTTA MANUFACTURERS

F S T C

SUCCESSORS TO
NEW JERSEY TERRA COTTA CO.
FEDERAL TERRA COTTA CO.
SOUTH AMBOY TERRA COTTA CO.

TELEPHONE ASHLAND 4-1220

10 EAST 40TH STREET
NEW YORK

March 21, 1935.

Lorenzo S. Winslow, Esquire,
United States Department
of the Interior,
1800 E Street, N.W.,
Washington, D.C.

7333
495
6838

Proposal No. 6439

7133
6670
7174

CONDITIONS

1. THIS PROPOSAL IS GOOD FOR ACCEPTANCE FOR A PERIOD NOT EXCEEDING THIRTY DAYS FROM DATE.
2. All agreements are contingent upon strikes, lockouts, accidents or delays beyond our control.
3. This proposal does not include ANCHORS OR SUPPORTS of any description. Nor does it include flashings, salt glazed coping or flue lining.
4. The time required for the execution of the work will depend upon factory conditions at the time the order and drawings are received.
5. Details must conform to the scale drawings on which the proposal is based, and normal architectural terra cotta construction shall be used.
6. If required, the service of an experienced fitter will be supplied at prevailing rate of wages, plus board and traveling expenses from plant and return.
7. If a surety bond is required in connection with the contract, the amount of the premium must be added to the contract price.
8. No specific or pro-rated charges for the use of telephones, general office expense, stenographer, watchman or temporary structures are included in the proposal. No allowance is made for pro-rated charges of any sort or description.
9. Where delivery is made "at the building," it means that the material is passed over the side of the truck, at the curb line of the street.
10. The Federal Seaboard Terra Cotta Corp. will select carrier.
11. The above conditions shall take precedence over any conflicting provisions contained in any plans, specifications or other documents and are a part of this proposal.
12. This proposal is based on the acceptance of a sample for color of this Company's manufacture.
13. Modeling to be executed in this Company's studio, unless otherwise specified.

Dear Sir:

We propose, subject to accompanying conditions, to furnish the Architectural Terra Cotta glazed finish for Swimming Pool Building to be erected for ..... at Hyde Park, N.Y., as per drawings by Lorenzo S. Winslow Architect for the sum of Five hundred ninety- - - -

FEDERAL SEABOARD TERRA
10 EAST 40TH

ACKARDT V. ERKESSEN, PRESIDENT
DE FOREST GRANT, CHAIRMAN BOARD OF DIRECTORS
PETER C. OLSEN, FIRST VICE-PRES. & GEN'L M'G'R.
KARL MATHIASEN, SEC'Y-TREAS.
HARRY LEE KING, VICE-PRESIDENT
WILLIAM MATHIASEN, VICE-PRESIDENT

FEDERAL SEABOARD TERRA COTTA CORPORATION

ARCHITECTURAL TERRA COTTA MANUFACTURERS

F S T C

SUCCESSORS TO
NEW JERSEY TERRA COTTA CO.
FEDERAL TERRA COTTA CO.
SOUTH AMBOY TERRA COTTA CO.

TELEPHONE
ASHLAND 4-1220

10 EAST 40TH STREET
NEW YORK

March 21, 1935.

Lorenzo S. Winslow, Esquire,
U.S. Department of the Interior,
1800 E Street, N.W.,
Washington, D.C.

Dear Mr. Winslow:

It was a great pleasure to receive your letter of March 20th.

We are also pleased to submit herewith a proposal for furnishing out type of seat gutter for swimming pool.

This proposition is on the basis of one course only of Terra Cotta below it.

We have also included cost of stencilled wave ornament as shown on our detail, enclosed.

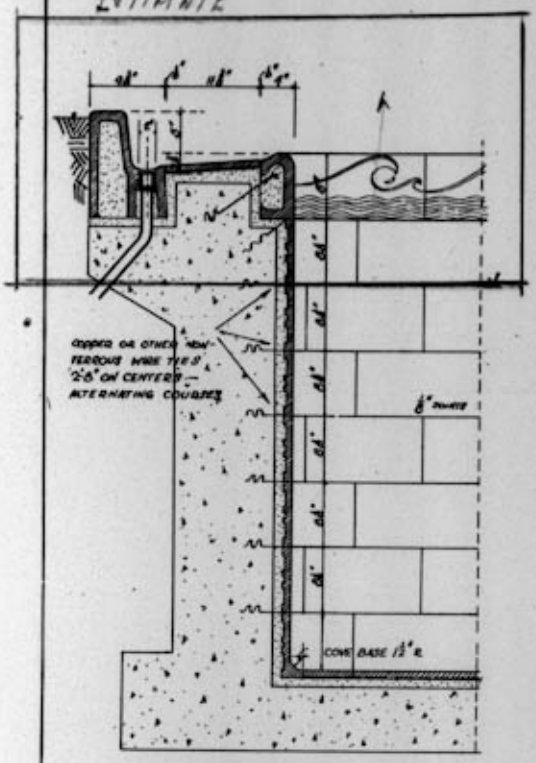
Thanking you cordially for the opportunity of bidding.

Very truly yours,
FEDERAL SEABOARD TERRA COTTA CORPORATION,

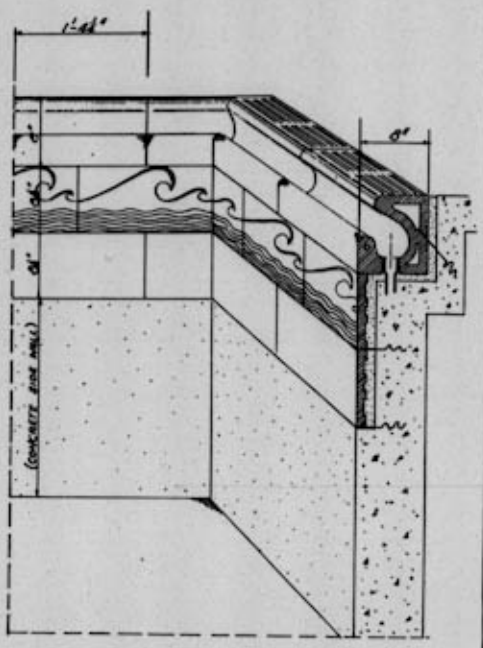
H. L. King,
Sales Manager.

NRA
WE DO OUR PART

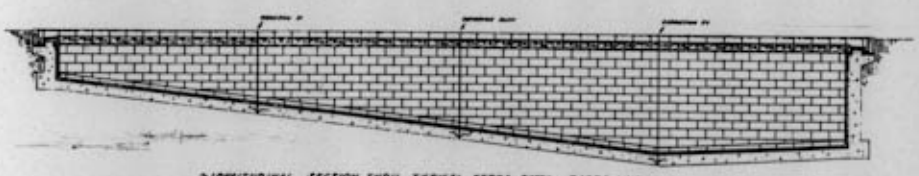
ESTIMATE #



STANDARD SEAT SCUM GUTTER — SIDES AND BOTTOM OF POOL FACED WITH MACHINE MADE TERRA COTTA SCORED BACK ASHLAR — UNITS 8"x16½"x1"



PART ELEVATION AND SECTION OF TERRA COTTA SCUM GUTTER WITH POLYCHROME TERRA COTTA FASCIA COURSES AS APPLIED TO CONCRETE SWIMMING POOL CONSTRUCTION.



— LONGITUDINAL SECTION THRU TYPICAL TERRA COTTA FACED POOL —

FEDERAL SEABOARD TERRA COTTA CORP
10 EAST 40TH ST. NEW YORK

TERRA COTTA SPECIFICATIONS
FOR SWIMMING POOL CONSTRUCTION.

January 1, 1935.

FURNISH EXTRUDED TERRA COTTA as required to produce the complete pool and scum gutter as indicated on the Architect's drawings or specified. All Terra Cotta shall be erected by the Contractor for the pool.

Expansion Joints: Concrete crib sides and bottom construction shall be provided with approved copper or lead bellows expansion joints which shall be filled solid with an approved elastic joint compound. The Terra Cotta joints are to be continuous at expansion joints.

Clearence: Clearance between concrete and back of Terra Cotta to be not less than 1", unless otherwise shown on Manufacturer's drawings.

Anchors: Copper or other non-ferrous wire anchors shall be cast in concrete. Where 8"x1'4½" Terra Cotta units are used, space anchors 2'6½" on centers alternating courses.

Setting: All Terra Cotta to be backed up solid with mortar leaving no voids. Bed and end joints to be buttered with mortar over the entire surface and tightly shoved.

Joints: Mortar joints to be not less than 1/8" or more than 3/16" wide and are to be struck when set to a slightly concave joint, using a standard glass or porcelain jointing tool.

Clay: All Terra Cotta shall be of best quality and shall be produced from selected fire clays, pulverized and screened to remove impurities, and shall have not less than 30% of grog or grit content, so as to produce a block of the required straightness, accuracy and finish.

Thickness: Blocks shall be not less than 1" thick at lugs, or as shown on approved Terra Cotta drawings.

Color: The surface finish of all Terra Cotta shall be a high fire ceramic glaze, of color or colors to be selected by the Architect, subject to the usual ceramic variation. The Architect reserves the right to use three different colors, but in no event more than one color on each block, except when marked on drawings.

Scope: The Manufacturer shall furnish all necessary scum gutter, cove, base, marking strips, depth or distance numerals, and standard size blocks for cutting where required.

Type: All standard extruded Terra Cotta shall be 8" high and 1'4½" long, exclusive of mortar joints. The backs shall have lugs and be scored. Bed joints, ends and backs are to be free from glaze so as to provide a proper bonding surface.

Straightness: The exposed glazed surface of each Terra Cotta block shall not vary at any point more than 1/16" from a true plane.

Grinding: So as to assure accuracy of side and end dimensions and uniform sharp parallel mortar joints, grind (after firing) the two sides of each block simultaneously on parallel carborundum wheels, then grind the ends square in like manner. The allowed tolerance in height of block shall not be more than 1/32" over or under the specified size.

Packing: All blocks shall be packed in suitable heavy corrugated containers, protecting the edges against chipping in transit or on the job. All Terra Cotta shall be carefully piled, under cover or covered with tarpaulin, by the Pool Contractor.

Cutting: All cutting of blocks shall be done on the job by the Pool Contractor with a motor-driven carborundum saw - this to assure clean, straight joints.

Manufacturer: The extruded Terra Cotta shall be produced by the Federal Seaboard Terra Cotta Corporation, or by a manufacturer of established reputation, producing material equal in size, quality and color.

April 2, 1935

My dear Mrs. Roosevelt:

We have made a detailed study of the Hyde Park swimming pool and arrived at what we believe to be a fairly accurate cost estimate. We have also received a bid from the James Baird Company, which built the White House pool. Its bid is based upon doing the work at cost and without profit. Its prices on materials are based upon list prices less dealers' discounts which amount to as much as 40% on some items. A comparison between the Baird Company's basic bid and our own figures on the items covered is attached. If our office were doing the work, we would add at least $1,000 for overhead and contingencies. Baird Company has added $200.

We agree with the proposed deductions B, C, D & E that they have suggested to bring the basic bid to $6,838.00.

This does not include a circulating system for the chlorinator or the necessary additional grading to finish the job.

These two items are estimated as follows:

Circulating system and pump . . .	$275.00
Finish, grading & planting . . .	600.00
	$875.00

This brings the total cost without heating to $7,713.00.

We would recommend the circulating system for the chlorinator very strongly. I doubt if the chlorinator would prove satisfactory without it. It would be necessary to draw down the pool and pump water in every time chlorination was necessary, and then one would not be sure of the chlorine distribution. The circulation system would insure even distribution. Also the operating cost of the small circulating pump would be much less than that of the large well pump.

A heating plant would be very easily attached to the circulating system should you decide to do so at a later date. The estimated cost of the heating plant is $1,155.00 I am informed that

the temperature of the well water is around 40 degrees. I doubt if the air will warm it sufficiently. However, it would be worthwhile trying the pool without the heater and adding it later if found necessary.

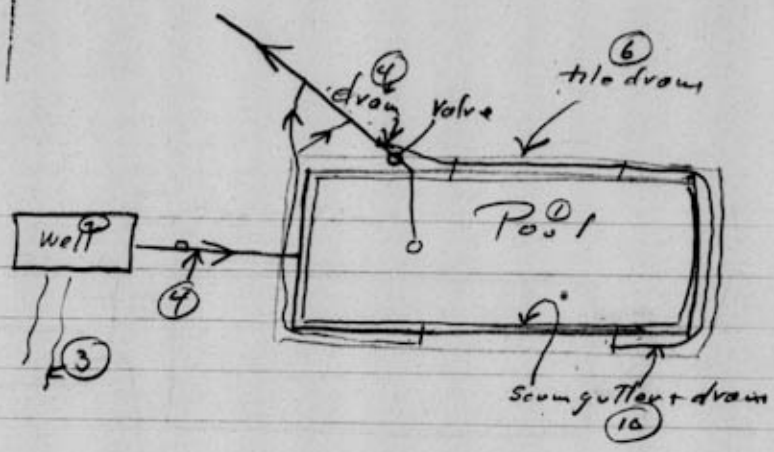
We believe the pool as designed represents the least outlay to insure satisfactory operation and minimum upkeep.

Respectfully yours,

E. P. Lock Jr.
E. P. LOCK, Jr.,
Captain, C. E.

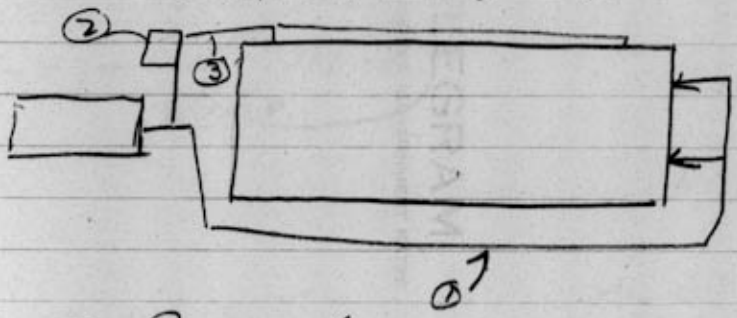
Mrs. Franklin D. Roosevelt

The White House.



1	Pool	2338.00
2	Well + Pump house	885.00
3	Electric Wiring	180.00
4	Plumbing (3" + 8" pipes etc)	435.00
5	Excavation	475.00
6	Drain tile	85.00
7	Expansion joints + copper	115.00
8	Wrecking old pool	50.00
9	Damp proofing	50.00
10	Scum gutter + drains	500.00
11	Supervision + Ins etc	300.00
12	Contingencies	200.00
		5613.00
		2100
		$ 7,713
		2,000 (5713

Extra Items



1	Pipe + valves	240.00
2	Chlorinating system	250.00
3	" " (pump + circulator)	275.00
4	Masonite	160.00
5	Finish Pool wall	195.00
6	Painting	60.00
7	Flagstone walk	200.00
8	Spring board + ladders	120.00
		1500.00

9	Heating system	1155.00
10	Additional grading	600.00

STANDARD FORM No. 14A
APPROVED BY THE PRESIDENT
MARCH 18, 1929

TELEGRAM

OFFICIAL BUSINESS—GOVERNMENT RATES

FROM

The White House
Washington

U.S. GOVERNMENT PRINTING OFFICE: 1934

Base Pool – 5613.00
Pool with Chlorinator - 6103.00
Pool " " and circulating 6379.00
Paint, walk around & fence - 7113.00
Grading + grass seed 7713.00
Total

F. R.-
If you should decide to want to do this I will have $2,000.00 to help
N. C.

1013

Summary

1. Bare Pool 5613.00

2. Pool with chlorinator 6103.00

3 Pool " " + circulating 6379.00

4 Paint walk + Finish etc 7113.00

5 Finish Pool with grading + Heating system } 8868.00

7113.00
600.00 grading
7713.00

Please give back to Capt Lock

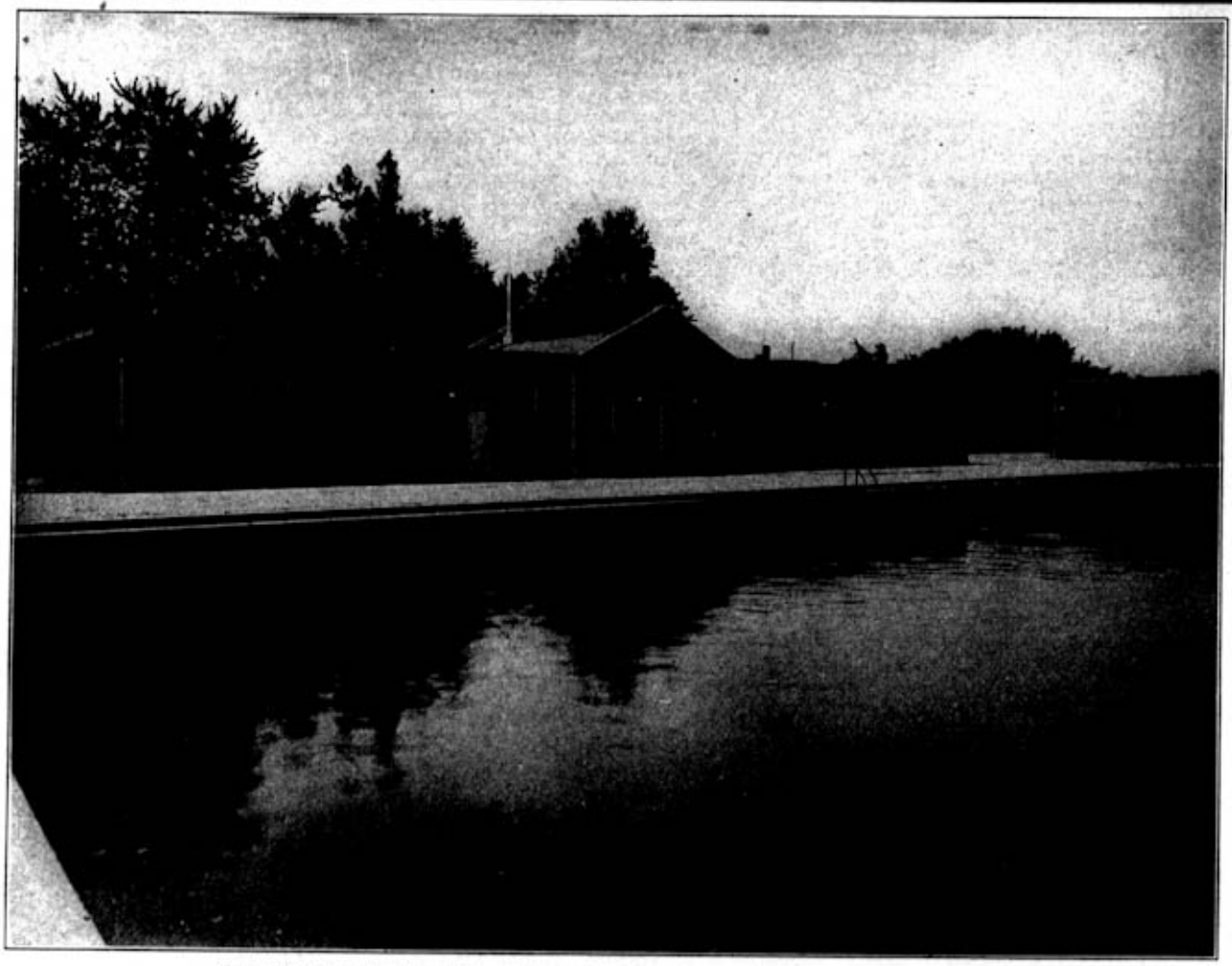
A.I.A FILE NO. 29C—3-12-35—Swimming Pool Drains

BLAKE Sectional Catalog No. 225

ILLUSTRATIVE AND DESCRIPTIVE OF

Swimming Pool Drains and Fittings of Every Character

Highest Quality and Guaranteed Products



Swimming Pool for Colored Population—Washington, D. C.—Equipped with Blake Fittings

BLAKE SPECIALTY CO., Rock Island, Illinois

Also manufacturers of Grease Traps — Roof, Shower, Garage, Hospital, Floor and Industrial Drains and Special Plumbing Fittings—including an Extensive Line of Carrier Chairs, Hangers and Drainage Fittings for Wall Hung Closets, Lavatories and Urinals.

Write for Catalog—

Printed in U. S. A.

Copyright March, 1935—Blake Specialty Co.

A.I.A. FILE NO. 29C—3-12-35—Swimming Pool Drains

BLAKE—Modern Swimming Pool Equipment

Modern swimming pools are being very rapidly installed all over the country, and in order to have them function properly as a health producer they must be installed and operated in a sanitary manner.

On page three is shown a design of a modern swimming pool equipped with Blake Fittings that have been especially developed for this purpose.

A general arrangement of all fittings and piping, together with a description of the recommended equipment and operation of the pool, is given on opposite page.

Design of Blake Swimming Pool

The design shown is for a 20x60-foot pool, which is, at present, almost a standard pool for pools built both indoors and outdoors where space is limited. Much larger Pools are being built where space permits or requirements demand it.

The depths of various pools vary to suit the conditions of the bathers. No standard for this is possible.

A 20x60-foot pool of average depth holds about 50,000 gallons of water.

Arrangement for Piping

The arrangement of piping shown is adapted for use with any type of apparatus where the water is heated, purified and used over and over again.

Water Supply: The tank is initially filled by passing the water through the sterilizing apparatus and heater into the tank through pipe C and the inlet fittings 202 or 203, at the two ends of the pool, below the surface of the water, thereby producing a good distribution.

Water Outlet: The water is circulated out of the tank into the heating and sterilizing apparatus through the bottom outlet drains 511 and the pipes E. This arrangement, in combination with the inlet connections, produces an ideal circulation in the pool.

Scum and Floor Drains: The scum which accumulates on the surface is drained off into the sewer through the scum gutter drains 701 and pipe B. The water from the floor is drained through drains 202 or 203, also into pipe B.

By removing the strainer from these drains, access to this pipe is had for removing any stoppage that may be caused by the scum. The pipe B is connected to the inner side of a trap and gives a free connection to the sewer at all times without any intermediate valves.

Sewer Connection: By opening the valve, the pipe F leading from drains 511 and closing the valve in pipe E, the pool can be emptied into the sewer. These valves are easily accessible from the manhole shown.

Vaccuum Piping: Two conveniently located vaccum hose connections 204C are shown. These are arranged to receive a plug attached to the end of the hose. These pipes are connected to any suitable vaccuum pump.

Operating Equipment

The following is a general outline of the necessary equipment for operating pools:

Filtration: In order to meet the requirement of clear water, it becomes incumbent to have filters. The quartz type appears to give the best results. The filtering area should be one square foot for every 1200 gallons of pool capacity, thereby filtering all the water in the pool every 12 hours. Arrangements should be made to wash the filters into the sewer every 24 hours.

Heating: The temperature of the pool should be kept from 68° to 72° F., and a suitable heater should be installed for the purpose.

The difference in temperature assumed between the pool, the flow line, and the return line, taken in connection with the quantity of water in the pool, gives the total heat loss, from which a suitable heater can be figured. Automatic temperature controlling devices are very essential to the economic operation of a modern pool.

Sterilizing: There are three well developed sterilizing processes, all of which accomplish the desired results when rightly handled. They are as follows:

Ultra Violet Ray Process: The Ultra Violet Ray Process acts like sunlight and consists of passing water through containers in which the water comes in close contact with Ultra Violet Rays thrown off by Quartz Vapor Arc Lamps. These rays destroy the pathogenic germ life present in the water.

Ozone Process: The Ozone Process consists of producing Ozone in a container by means of electricity and discharging it into the water, which becomes impregnated with it and the bacteria is thus destroyed.

Chlorine Process: The Chlorine Process consists of dosing the water, after it leaves the filter, with a pre-determined amount of liquid chlorine. Chlorine has been known as a very high-grade destroyer of bacteria. There are several automatic appliances for feeding the proper amount of chlorine into the water.

Circulation Pump: A motor-driven turbine pump is best suited for circulating the water. It should have sufficient capacity for handling the entire contents of the pool in eight hours.

Vacuum Pump: A standard motor-driven vacuum pump should be provided, with sufficient capacity to operate a 2-inch hose.

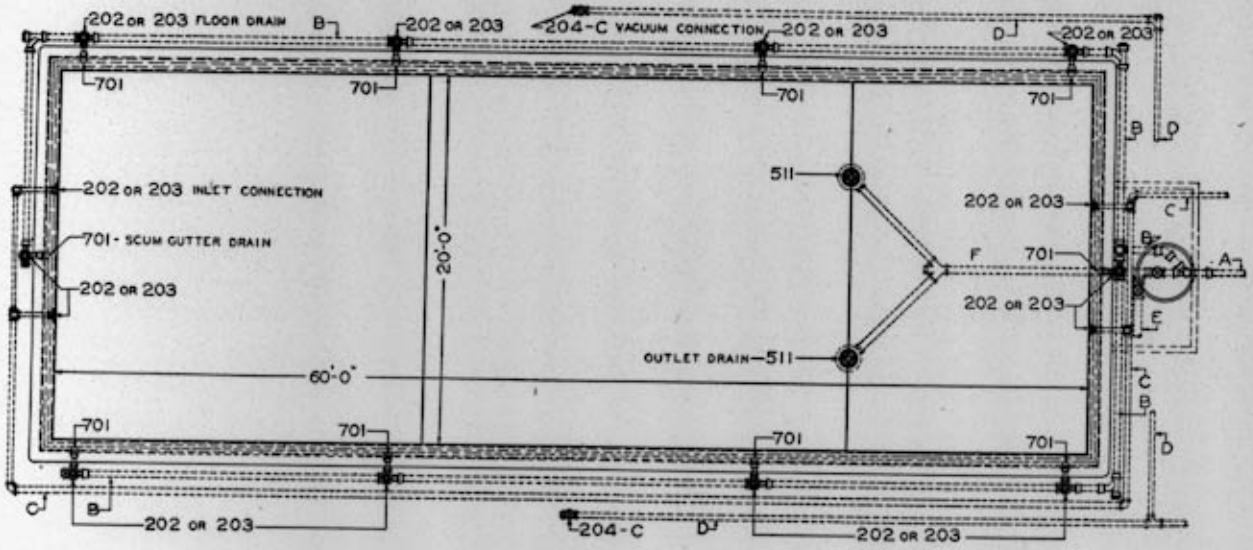
Recommended Fittings for 20x60-Foot Pool

Screwed Pipe:

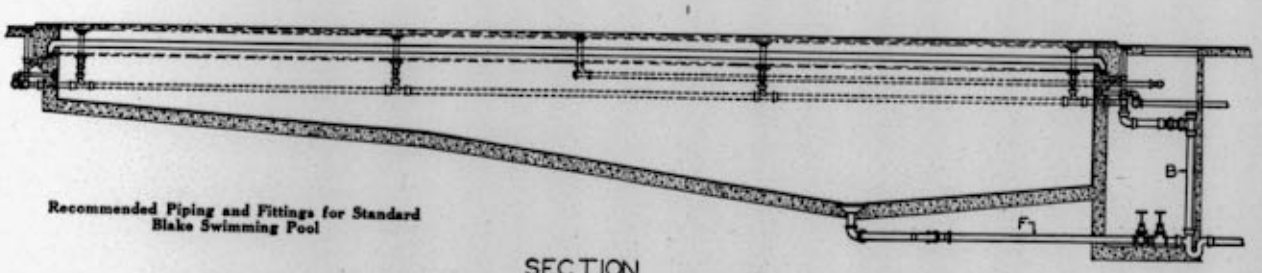
8	2-inch 701C Scum Gutter Drains
8	2-inch 202C or 203C Floor Drains
4	2-inch 202C or 203C Inlets
2	4-inch 511C Circular Bottom Drains
2	2-inch 204C Vacuum Connections

Bell and Spigot Pipe:

8	2-inch 701B Scum Gutter Drains
8	2-inch 202A or 203A Floor Drains
4	2-inch 202A or 203A Inlets
2	4-inch 511A Circular Bottom Drains
2	2-inch 204C Vacuum Connections



PLAN



SECTION

Recommended Piping and Fittings for Standard Blake Swimming Pool

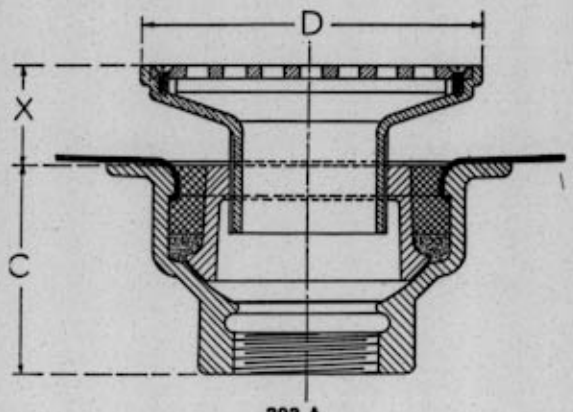
BLAKE
SWIMMING POOL FLOOR AND INLET DRAINS
Completely Adjustable

The Blake Floor and Inlet Drains are adjustable vertically 1-inch, and have a tilting adjustment of 15° in any direction. These movements permit the surface of the strainer being placed level with the pool floor or wall, no matter how it slopes or how inaccurate the pipe connections are made.

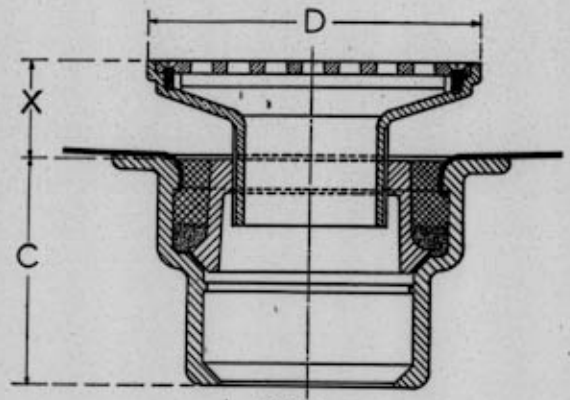
Strainers are removable for cleaning.

A lead sheet is caulked into the top of the fitting, so as to prevent a seepage around it.

Red brass strainers, furnished either plain, polished or nickel-plated. Furnished in 2-inch and 3-inch sizes.



202-A



202-C

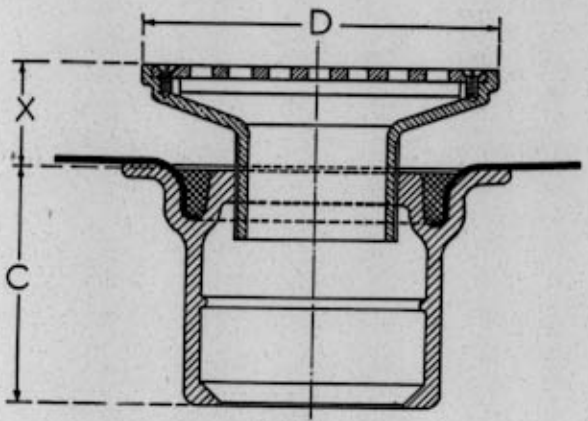
LIST PRICES

No.	Size	C	D	X	Plain or N. P.	With Galv. Body	All Brass	Add for Chrome Plating	Wt.
202-A	2"	3⅛"	5"	1"	$ 7.50	$ 8.50	$12.00	$ .80	6 lbs.
202-A	3"	3½"	6"	1⅛"	10.50	12.00	16.50	1.00	8 lbs.
202-C	2"	3⅛"	5"	1"	7.50	8.50	12.00	.80	6 lbs.
202-C	3"	3½"	6"	1⅛"	10.50	12.00	16.50	1.00	8 lbs.

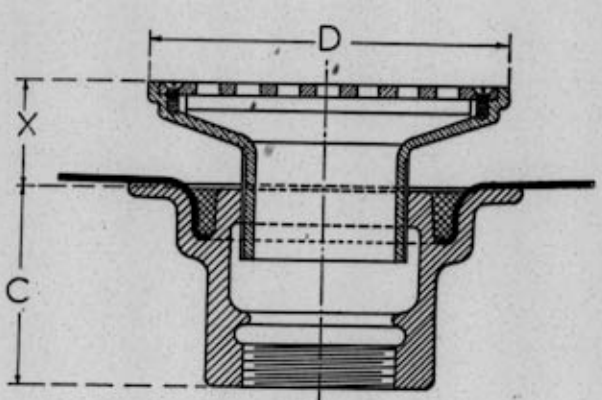
The X dimension is the minimum. The amount of the adjustment is 1-inch in all cases. Regular slots or 7/32-inch round holes are furnished, as desired. Strainers with slots will be furnished unless otherwise ordered.

Weep Holes can be furnished when specified, but if Drains are placed below water line, be sure and specify "No Weep Holes."

BLAKE
SWIMMING POOL FLOOR AND INLET DRAINS
Semi-Adjustable



203-A



203-C

These Blake Floor and Inlet Drains are adjustable vertically 1-inch, and have arrangement for connecting caulking sheet lead to the body of the connection so as to prevent seepage around it.

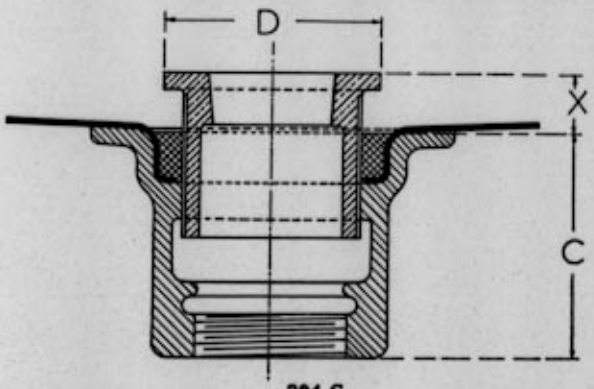
The strainers are made of red brass, and are removable for cleaning. Regular slots or 3/16-inch holes are furnished in the strainers, as desired. Made in 2-inch and 3-inch sizes, and furnished either polished brass or nickel-plated.

LIST PRICES

No.	Size	C	D	X	Plain or N. P.	With Galv. Bodies	All Brass	Add for Chrome Plating	Wt.
203-A	2"	2⅞"	5"	1"	$ 7.50	$ 8.50	$12.00	$ .80	5 lbs.
203-A	3"	3"	6"	1⅛"	10.00	12.00	16.50	1.00	7 lbs.
203-C	2"	3⅜"	5"	1"	7.50	8.50	12.00	.80	5 lbs.
203-C	3"	3½"	6"	1⅛"	10.50	12.00	16.50	1.00	7 lbs.

WHEN DRAINS ARE USED BELOW WATER LINE, BE SURE AND SPECIFY "NO WEEP HOLES"

BLAKE
VACUUM CONNECTION FOR SWIMMING POOL



204-C

This Blake Vacuum Connection for Swimming Pools is made in 2-inch size only, with female threaded outlet, having the dimensions following:

C	D	X	Wt.
3⅛"	3"	¾"	4 lbs.

The brass center is adjustable 1-inch vertically, the minimum dimensions being given. It is made tight in the flange by caulking. A sheet of lead is also fastened to it by the same caulking, thereby making it proof against seepage around it.

The brass center is made with a taper for the hose connection or threaded for I. P. Made in polished brass or nickel-plated, as desired.

LIST PRICES

Polished Brass or N. P.	$6.00	All Brass	$8.00
With Galv. Body	6.50	For Chrome Plating, add	1.00

BLAKE SWIMMING POOL FITTINGS

K-702—Blake Cast Iron Inlet Connection with Polished Brass or Nickel-Plated Brass Adjustable Head

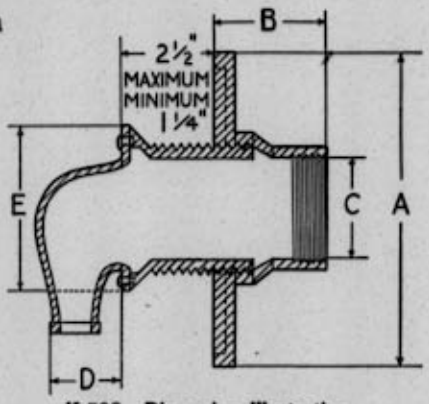
K-702

Flashing Rings are Extra

This is our K-25S cast iron Pan fitted with a brass screw neck inlet head.

Body is tapped for I. P. connection and arranged for flashing ring, if desired.

Specify "No Weep Holes" if used below Water Line.



K-702—Dimension Illustration

MEASUREMENTS AND LIST PRICES

Size	A	B	C	D	E	Regular	Galvanized Body	All Brass	Weight	Flashing Rings Add to List
1½-in.	7½	2¼	1½	1¼	4	$11.00	$12.00	$15.00	8½ lbs.	$1.00
2 -in.	7½	2¼	2	1¼	4	11.00	12.00	15.00	8½ lbs.	1.00
3 -in.	9	2½	3	1½	4½	12.00	13.00	16.50	10½ lbs.	1.10
4 -in.	10½	2½	4	1½	5½	13.00	14.50	18.00	13 lbs.	1.00

If exposed inlet head is to be chromium plated, add $1.50 to above list prices.

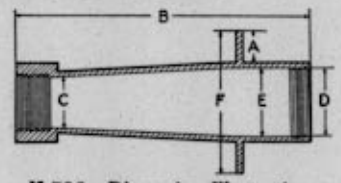
K-706—Blake Cast Iron Inlet or Outlet Connection for Use With Any of Our Swimming Pool Drains or Inlet or Outlet Heads

K-706

Made in cast iron in sufficient length to go through wall of pool.

Furnished black or galvanized. Outlet end is tapped for 2-inch I. P., while other end is tapped to receive various drain heads.

Body and flange is made square, providing a good and immovable anchorage in the concrete.



K-706—Dimension Illustration

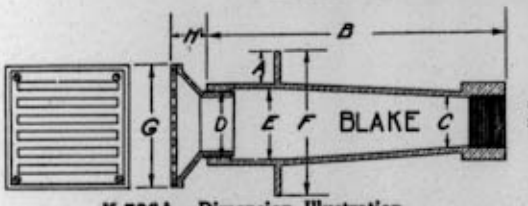
MEASUREMENTS

A	B	C	D	E	F
1	13½	2	2	2½	5

LIST PRICES

Size	Black	Galvanized	All Brass	Weight
2-inch	$4.75	$6.25	$10.50	10 lbs.

K-706A—Blake Cast Iron Inlet or Outlet Connection with 4x4 Square Brass Screw Neck Head and Strainer



K-706A—Dimension Illustration

This is the same connection as K-706, except that it is shown with Strainer Head attached. Larger square or round Strainer Heads can be supplied.

MEASUREMENTS IN INCHES

A	B	C	D	E	F	G	H	Wt.
1	13½	2	2	2½	5	4	1½	12 lbs.

LIST PRICES

	Japanned	Galv.	All Brass	Chrome Add	White Metal Strainer Add
Size 2—4"x4" Str.	$8.50	$10.00	$14.30	$ .60	$1.80

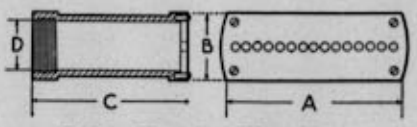
BLAKE SWIMMING POOL FITTINGS

Blake All-Brass Underwater Inlet Connections for Swimming Pool

With inlet connections, such as are shown herewith, a spray of fresh water may be had under the top of pool water. K-703 is arranged with a series of holes for supply, and if straight connection is not wanted the K-704 45-degree connector will provide space for other water lines that may be in the way if straight connection were made.

K-705 shows another form of inlet connection with extended flaring outlet.

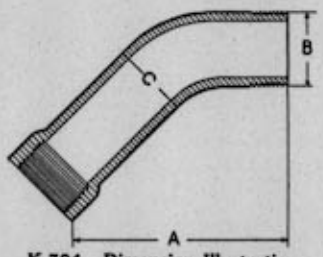
K-703



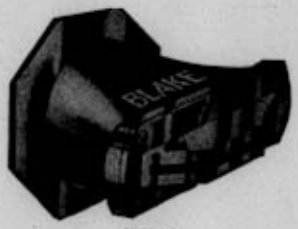
K-703—Dimension Illustration

A—9 inches B—1½ inches
C—4¼ inches D—2 inches I. P.

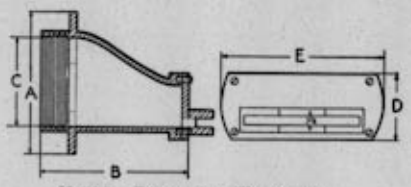
K-704



K-704—Dimension Illustration



K-705



K-705—Dimension Illustration

A—5 inches B—4 inches D—1½ inches
E—5 inches

LIST PRICES

	Size	Weight	Price
K-703	2-inch	4 lbs.	$8.00

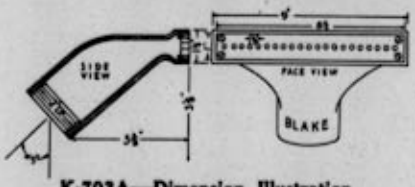
If face is to be Chromium Plated, add $ .70.

	Size	Weight	Price
K-705	2½-inch	5 lbs.	$9.50

If Chromium Plated, add $1.00.

	Size	Black	Galvanized	All Brass	Weight
K-704	2-inch	$1.00	$1.35	$3.00	3 lbs.

K-703A—Blake All Brass Underwater Inlet Connection



K-703A—Dimension Illustration

For Swimming Pool

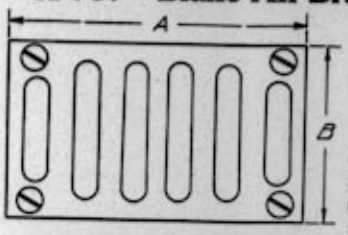
Built to provide a spray of fresh water under the surface of the pool, and so arranged that its construction will avoid other water lines. If the holes are wanted larger, use a file.

LIST PRICES

Size	Nickel Plated	Chromium Plated	Weight
K-703A—2-inch	$10.50	$11.30	5 lbs.

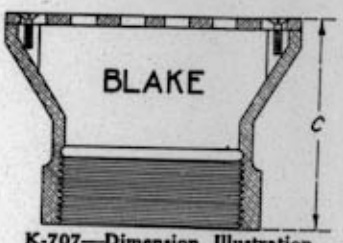
BLAKE—Gutter Drains

K-707—Blake All Brass Gutter Drain



BRASS BODY AND STRAINER

Can be furnished with concave face plate if desired, but is regularly furnished with flat plate and outlet tapped 2-inch female pipe thread, unless otherwise ordered.

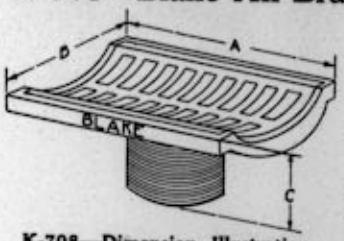


K-707—Dimension Illustration

LIST PRICES AND DIMENSIONS

Size—I. P.	A	B	C	Wt.	Price	Add to List Price Chrome	Add to List Price White Metal
1½ or 2"	3¾	2¼	2¾	1¾ lbs.	$4.50	$ .60	$1.50
2½"	5⅜	2½	2¾	2¾ lbs.	7.00	1.00	2.75
3"	5⅜	2½	2¾	3 lbs.	7.00	1.00	2.75

K-708—Blake All Brass Concave Gutter Drain



K-708—Dimension Illustration

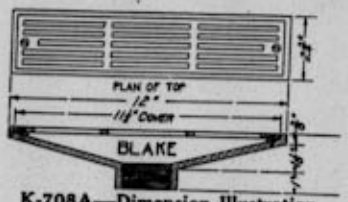
Furnished in 3 sizes.

Outlet can be furnished female I. P. if so ordered.

LIST PRICES AND DIMENSIONS

Size	A	B	C	Pol. or N. P.	Add for Chrome	Wt.
3"	7½	7	3	$10.00	$1.00	10 lbs.
2"	5½	4	3	7.00	1.00	6 lbs.
1½" or 2"	5	2½	3	6.00	.80	4 lbs.

K-708A—Blake All Brass Semi-Narrow Scum Gutter Drain

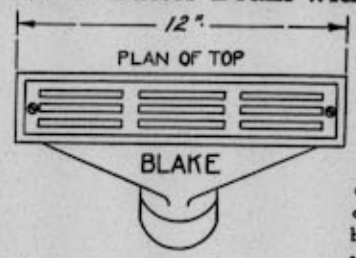


K-708A—Dimension Illustration

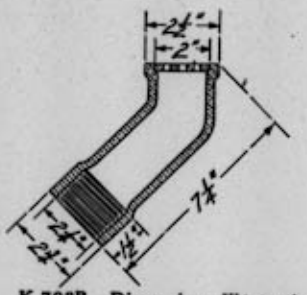
Can be furnished with concave or flat strainer, but flat strainer will be shipped regularly.

		Wt.
Price, Pol. Brass or N. P. top	$8.00	3 lbs.
Same with Chrome Plated top	9.00	

K-708B—Blake All Brass Narrow Scum Gutter Drain with 45 degree Outlet



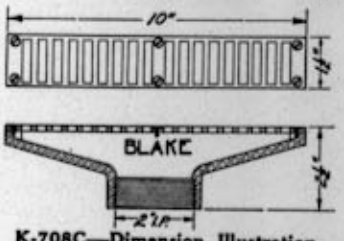
Can be furnished with concave or flat strainer, but flat strainer will be shipped regularly.



K-708B—Dimension Illustration

		Wt.
Price, Pol. Brass or N. P. top	$15.00	4½ lbs.
Same with Chrome Plated top	16.00	

K-708C—Blake All Brass Narrow Scum Gutter Drain



K-708C—Dimension Illustration

Can be furnished with concave or flat strainer, but flat strainer will be shipped regularly.

		Wt.
Price, Pol. Brass or N. P. top	$7.00	2¾ lbs.
Same with Chrome Plated top	8.00	

Numerical Index

Page

Introduction 2
Layout Recommended for Piping and Fittings for Standard Pool 3
202A—Floor and Inlet Drains—Adjustable 4
202C—Floor and Inlet Drains—Adjustable 4
203A—Floor and Inlet Drains—Semi-Adjustable 5
203C—Floor and Inlet Drains—Semi-Adjustable 5
204C—Vacuum Connection 5
511A—Circular Floor and Pool Bottom Drains—Heavy 10
511C—Circular Floor and Pool Bottom Drains—Heavy 10
K-511S—Main Outlet Drain—with Safety Pan 10
K-512—Gutter Drain—Plain—Extra Heavy 9
701B—Scum Gutter Drain—Completely Adjustable 9
701C—Scum Gutter Drain—Completely Adjustable 9
701D—Scum Gutter Drain—Completely Adjustable 9
701E—Scum Gutter Drain—Completely Adjustable 9
701W—Scum Gutter Drain—with Bottom Outlet 9
K-702—Inlet Connection—Adjustable Head 6
K-703—Underwater Inlet Connections 7
K-703A—Underwater Inlet Connections 7
K-704—Underwater Inlet Connections 7
K-705—Underwater Inlet Connections 7
K-706—Inlet or Outlet Connection 6
K-706A—Inlet or Outlet Connection 6
K-707—Gutter Drain 8
K-708—Gutter Drain—Concave 8
K-708A—Scum Gutter Drain—Semi-Narrow 8
K-708B—Scum Gutter Drain—Narrow with 45 Degree Outlet 8
K-708C—Scum Gutter Drain—Narrow 8
K-710—Pool Outlet Drain 11

Summary Index

Page

Connections — Vacuum 5
Inlet—Adjustable Head 6
Inlet or Outlet 6
Underwater Inlet 7

Drains—Circular Floor and Pool Bottom—Heavy 10
Floor and Inlet—Adjustable 4
Floor and Inlet—Semi-Adjustable 5
Gutter 8
Gutter—Concave 8
Gutter—Plain—Extra Heavy 9
Main Outlet with Safety Pan 10
Outlet 11
Scum Gutter Narrow 8
Scum Gutter—Narrow with 45 Degree Outlet 8
Scum Gutter—Semi-Narrow 8
Scum Gutter—Bottom Outlet 9
Scum Gutter Completely Adjustable 9

Introduction 2

Layout Recommended for Piping and Fitting for Standard Pool 3

OUR TERMS OF SALE

Two per cent discount for cash on 10th of month for shipments made from 16th to end of previous month, and on 25th for shipments made from 1st to 15th, inclusive, of current month or 30 days net. Checks will be returned if these terms are not followed.

All agreements or contracts made by us are contingent upon strikes, fires, accidents, war or other causes beyond our control.

An interest charge of 6% will be made against all past due accounts.

All shipments are at the risk of the purchaser, and our responsibility ceases when we receive a clear receipt from the carrier.

All shipments of a value of $5.00 or less will be subject to an extra service charge of 10%, with 15c as a minimum. No invoice will be made for less than 25c.

All of our products are of high quality, thoroughly tested, inspected, and guaranteed against defect, with our name placed on every piece for identification. If, therefore, you receive from us any material that proves defective, we will cheerfully replace without charge—but no allowance will be made for labor or damages.

If defective material is altered by the customer, in attempting to use it he will do so at his own risk, as we will not be responsible for any consequential damages or replacement without charge. We must be notified.

In every case of defective material the full measure of damages will be the price of the material or replacement thereof.

Promise of shipping dates are estimated, but not guaranteed.

Weights shown in catalog are approximate, and, also, lack guarantee.

All claims must be made within five days after receipt of material.

When orders have been filled correctly, as specified, no credit will be allowed for goods returned, unless our consent has been received, and all goods so returned will, if accepted, be credited at the cost or prevailing price, whichever is lower at the time, less a minimum handling and accounting charge of 15% and less all freight and cartage expenses incurred.

On all slow-moving or partly special material not suitable to return to our stock, special arrangements must be made with us for handling and carrying charges (which may run from 25% to 50% discount on the price of the material) before returning. If any material returned to us will need refinishing to again make it saleable, such labor or additional material will also be deducted from credit.

Goods made up special and not regularly listed in our catalog remain your property and must be paid for.

If orders for special goods are cancelled after work has been started, all costs accrued will be charged and must be paid for.

All credits for returned material will be on basis of merchandise credits only and to be absorbed by purchases of other of our material.

On all parcel post shipments, insurance, in addition to postage, will be charged.

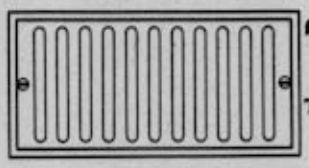
We reserve the right to change any or all of our prices without notice.

Sales Tax—Any Sales or Mfgrs. Tax imposed under any existing or future statutes shall be added to the price herewith effective and shall be paid by the buyer.

BE SURE OF QUALITY — Look for the name "BLAKE" cast in every item of the Blake Line

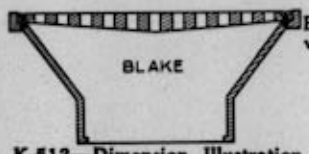
When you want Dependable Merchandise—SPECIFY "BLAKE"
25 Years of Experience is behind these Products

K-512—Blake Extra Heavy Plain Gutter Drain



for 2, 3 or 4-inch screw or Soil Pipe Outlet

5"x10" Top
Total depth 4½ inches



Made in all Iron, all Brass or Cast Iron Body with Brass Top.

K-512—Dimension Illustration

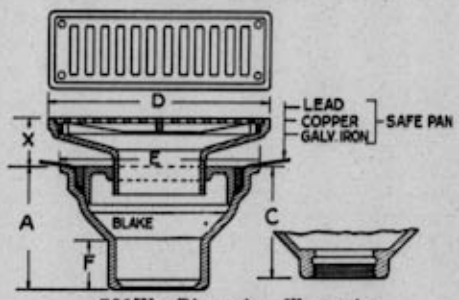
LIST PRICES

All Iron	Galv.	Jap.	Galv.	All Brass	Weight
		With Pol. Brass or N. P. Top			
$5.00	$6.75	$9.00	$10.75	$13.00	11 lbs.

Add for Chrome Plating top $1.00.

701W—Blake Scum Gutter Drain

with Bottom Outlet and 2⅜"x10" Strainer Face and with angular adjustment up to 15° degrees in any Direction



701W—Dimension Illustration

This is exactly the same drain as our 701E, with the exception that this one is bottom outlet while 701E is with angle side outlet.

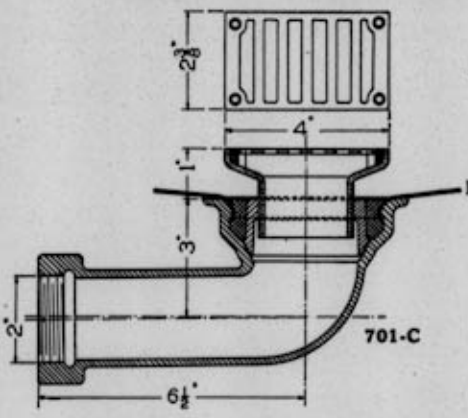
Bottom outlet can be furnished for soil or screw pipe, as shown.

LIST PRICES

Size	Strainer	Polished Brass or N. P.	All Brass	Wt.
701W—2-inch	2⅜"x10"	$7.50	$10.00	6 lbs.

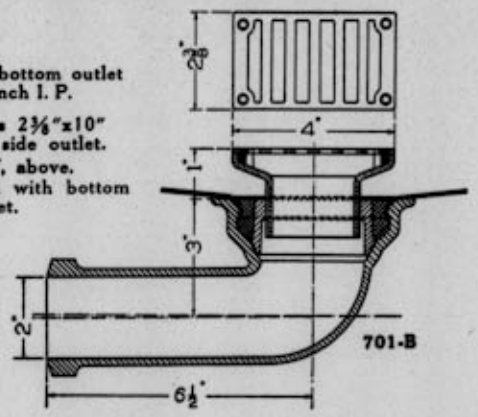
For Chromium Plating, add $1.00.

BLAKE—Scum Gutter Drains—Completely Adjustable



No. 701-D has bottom outlet tapped 2-inch I. P.

No. 701-E has 2⅜"x10" strainer and side outlet. See 701W, above. For same drain with bottom outlet.



These Blake Scum Gutter Drains are made in 2-inch sizes only, which is the size best adapted for the best designed gutters. The strainer is long and narrow, and is adjustable in both a vertical and angular direction. The angular adjustment is 15° any direction, while the vertical adjustment is 1-inch. The dimension given in the cuts is for the lowest position.

The advantage of these adjustments is to be able to place the strainer in line with the bottom of the gutter, even if the roughing-in is improperly done.

A lead pan is caulked into the top of the drain at the same time as the angular adjustment is fastened to anchor it into the concrete and prevent seepage around the body of the drain.

When the strainer is removed there is a full size opening for cleaning. These are made with either plain or nickel-plated strainers, as per the following list:

LIST PRICES

No.	Size	Strainer	Plain or N. P.	Wt.	No.	Size	Strainer	Plain or N. P.	Wt.
701-B	2-inch	2⅜x4	$5.00	9 lbs.	701-D	2-inch	2⅜x4	$4.50	9 lbs.
701-C	2-inch	2⅜x4	5.25	9 lbs.	701-E	2-inch	2⅜x10	8.00	10 lbs.

Chrome Plating add 10% to above list prices.

Heavy Circular Floor and Pool Bottom Drains

The Blake Heavy Circular Floor and Pool Bottom Drain bodies are made of heavy cast iron, and they can be furnished with either cast iron or red brass grates and rims.

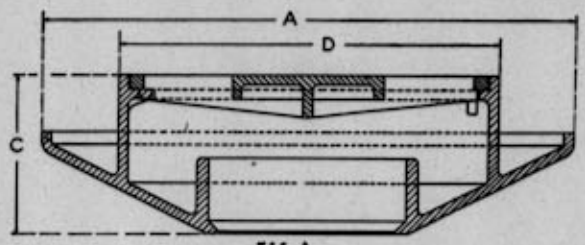
Any of these grates will stand a load of 2,000 pounds, thereby making them adaptable for places where they are subject to heavy loading, such as trucking, etc.

They are made with wide flanges, suitable for anchoring into concrete without any clamping arrangement.

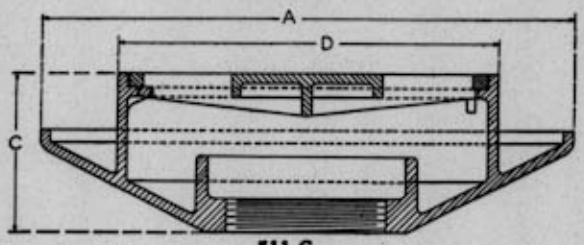
No dirt can fall directly from the grate into the drain pipe, as the center of the grate over this is solid, and any dirt entering the grate falls directly into the dirt catcher surrounding the pipe which is provided for this purpose.

Made with bell or female threaded outlet.

A denotes bell outlet. C denotes tapped outlet.



511-A



511-C

LIST PRICES

		A	D	C	With Cast Iron Grate	Brass Rim & Grate Plain	Brass Rim & Grate N. P.	Wt.
3"	511-C	14"	10"	4¼"	$14.50	$27.00	$29.00	28 lbs.
3"	511-A	14"	10"	4¼"	14.50	27.00	29.00	28 lbs.
4"	511-C	14"	10"	4¼"	14.50	27.00	29.00	28 lbs.
4"	511-A	14"	10"	4¼"	14.50	27.00	29.00	28 lbs.
5"	511-C	21"	16"	5⅜"	28.00	52.00	56.00	100 lbs.
5"	511-A	21"	16"	5⅜"	28.00	52.00	56.00	100 lbs.
6"	511-C	21"	16"	5⅜"	29.00	53.00	57.00	100 lbs.
6"	511-A	21"	16"	5⅜"	29.00	53.00	57.00	100 lbs.

For Chromium Plating, Brass Rim and Strainers, add 5% to N. P. List Prices.

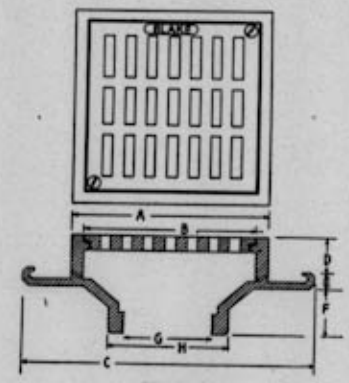
K-511S—Blake Swimming Pool Main Outlet Drain with Safety Pan

Flashing Ring is Extra

This Drain is the same as our K-42J, except that it has a 10-inch square frame with an 8-inch strainer. It can also be furnished with hinged strainer at extra list as shown below.

Can also be furnished with outlet for soil pipe, but this will make total depth about 1¼ inch more. If this drain is ordered for swimming pool outlet do not fail to specify—"no weep holes."

Made for 2, 3 or 4-inch screw or soil pipe connection.



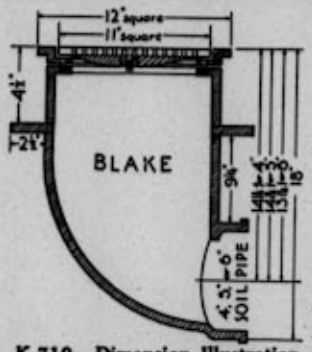
K-511S

LIST PRICES

Size	Black All Iron	Galvanized All Iron	With Polished Black Body	Brass Top Galv. Body	All Brass	For Hinged Strainer, Add	For Flashing Ring, Add	Weight
2-inch	$10.00	$13.50	$16.50	$19.50	$27.00	$1.50	$1.50	30 lbs.
3-inch	10.00	13.50	16.50	19.50	27.00	1.50	1.50	30 lbs.
4-inch	10.00	13.50	16.50	19.50	27.00	1.50	1.50	30 lbs.

REPAIR PARTS

	Black	Galvanized	All Brass
Body Only, for 2, 3 or 4-inch size	$6.50	$8.50	$18.00
Strainer and head only	4.00	5.00	7.00
Strainer only	2.50	3.50	5.50



K-710—Dimension Illustration

K-710—Blake Swimming Pool Outlet Drain

Screw or Hub Side Outlet

Made extra heavy cast iron with 12"x12" square brass top and 11" round brass strainer.

The body has an anchor flange, as illustrated.

Made with 4, 5 and 6-inch outlets.

LIST PRICES

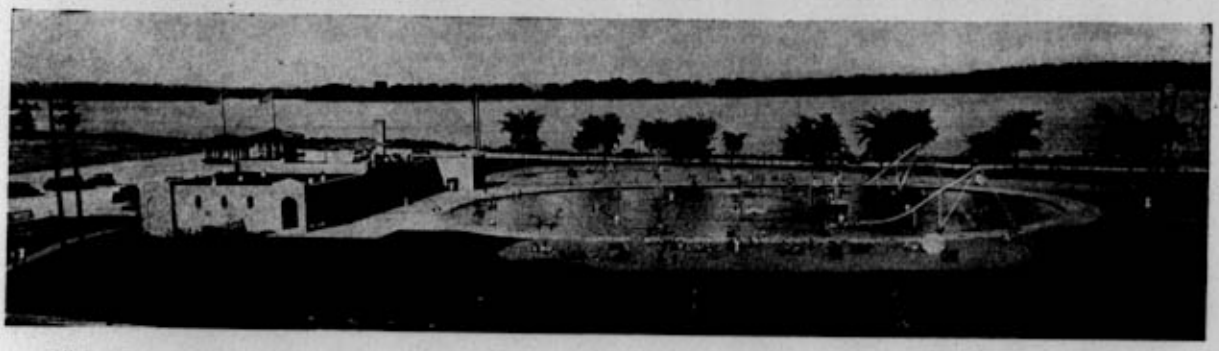
Size of Outlet	All Cast Iron	All Cast Iron Galv.	Black Iron with Brass Top	Galvanized Iron with Brass Top	Add for Chromium Plated Top	Add for White Metal Top	Weight
4-inch	$34.00	$45.50	$43.00	$52.50	$4.00	$9.00	85 lbs.
5-inch	34.00	45.50	43.00	52.50	4.00	9.00	85 lbs.
6-inch	34.00	45.50	43.00	52.50	4.00	9.00	85 lbs.

The American Public Is Demanding More Modern Swimming Pools

They Become the Popular Recreation Centers of Parks, Clubs, Schools and Community Centers

Swimming Pool of McKinley High School, Washington, D. C.
Architect—Thos. M. Medford, Washington, D. C.
Equipped with Blake Fittings, sold through E. G. Schafer Co., Washington, D. C.

Blake Swimming Pool Fittings offer many Superior Advantages in Sanitation, Economical Installation and Operation



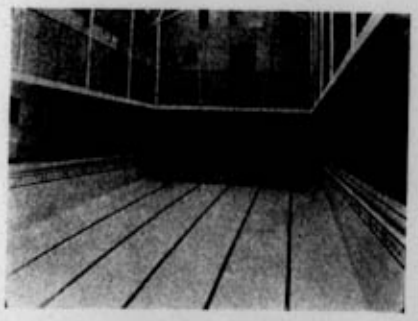
Clinton, Iowa, Municipal Swimming Pool—Walter Earle Bort, architect—C. E. Armstrong & Sons, plumbing and heating contractor.

The popularity of sanitary, supervised swimming pools is ample evidence of the appreciation of the people of all ages to justify the comparatively moderate expenditure to afford so much real pleasure and beneficial exercise.

For swimming today is recognized, and very often prescribed by the world's most famous doctors, as one of the most essential factors in body building, health-giving exercise.

The demand for swimming pools is here—municipal pools for the general populace, private pools for those who can afford them, as well as the ever-growing agitation by patrons of clubs, schools, hotels and resorts for both indoor and out-door pools.

Because of the exceptional interest manifested in Swimming Pools, we are showing a few installations including our fittings, which we hope may prove of benefit. Also a number of swimming pool plans which suggest various methods of providing swimming pool facilities.



The new Gym Pool of the Stout Institute at Menomonie, Wisconsin. H. H. Hobbs Supply Co., of Eau Claire, Wisconsin, was the jobber. Stout Institute is a state institution.

In many cases the cost of maintenance may be kept down to almost a negligible amount by taking advantage of natural conditions. For example: a nearby brook or spring may supply an abundance of clean water for at least a part of the season—this may be augmented with city water supply, or through filtration and recirculation, used continuously.

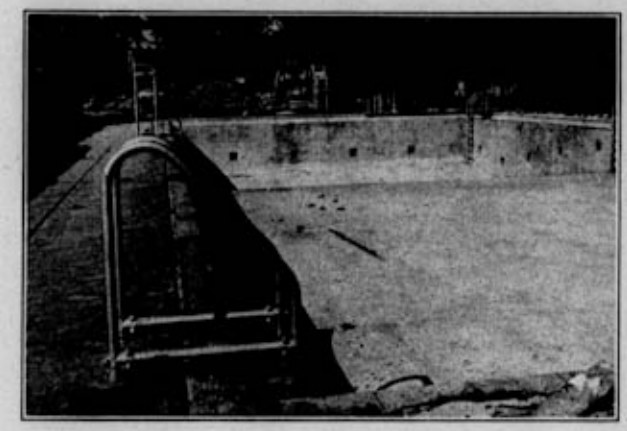
Swimming Pool locations need not be confined to parks, but may be conveniently located in thickly populated areas. Many cities are finding it expedient to build a number of smaller pools in separated locations rather than try to accommodate the crowds in a large central pool.

To properly prescribe and service the installation of the varied demand for swimming pools is the work of competent architects and plumbers.

However, the Blake Engineering Department can be of genuine assistance because of their wide experience in servicing hundreds of pools of all kinds and under so widely varied conditions. Their knowledge of fittings and the functions which they will perform, their conception of the problems to be faced, and their understanding of administrative conditions often to be met, gives them a fund of information which is available to you for the asking.

Blake Fittings are built specifically for the work they are expected to perform. They meet every requirement of sanitation, and they are factory tested for strength and durability. The reputation of Blake Fittings has been achieved over many years of satisfying performance—ample proof of your security in specifying Blake Fittings throughout.

Three New Pools at Rochester, N. Y., Supply Wading and Swimming Facilities



Three new conveniently located pools will supply healthful outdoor recreation under the best of sanitary conditions for youngsters and grownups alike. Blake fittings have been installed.

At left — The North Side Pool — Genesee Valley Park.

During vacation periods Rochester's swimming pools are a haven of refuge from the summer heat for the children and a source of gratifying anticipation of an evening plunge for the older folks.

F. H. CARROLL—Chief Engineer
Rochester, N. Y. Monroe County Emergency Work Bureau

At right — The South Side Pool — Genesee Valley Park.

Great interest has been exhibited by other cities in Rochester's plan of providing what might be termed "neighborhood swimming pools." Rochester has brought the pools to the people—placing them in strategic positions so that all may enjoy the benefits of swimming.

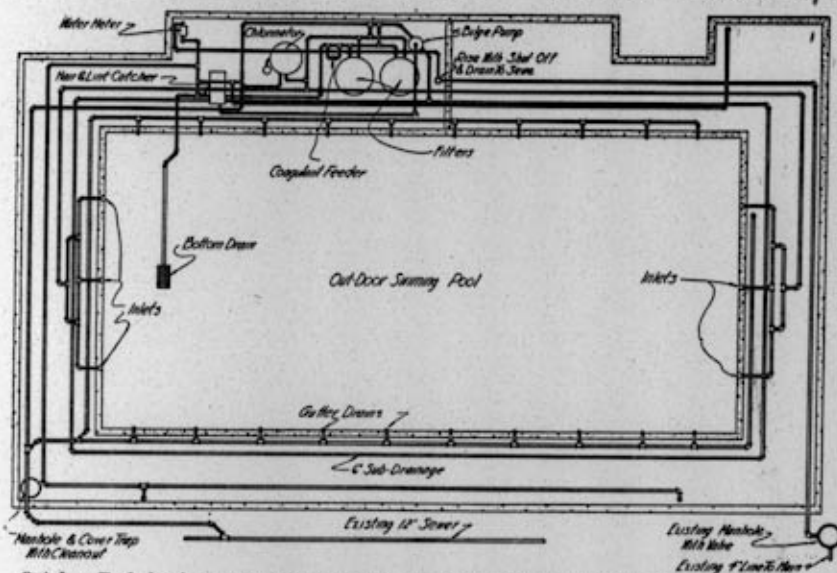
Below—Two views of Seneca Park Pool.

Blake Fittings play an important part in the entire system of all these pools and do their part in contributing to the happiness and safeguarding the health of those who enjoy the privileges provided by the City of Rochester.

Diagrams for Contemplated Installations

Suggest wide variety of construction plans and various types of layout to conform with available water supply and maintenance funds

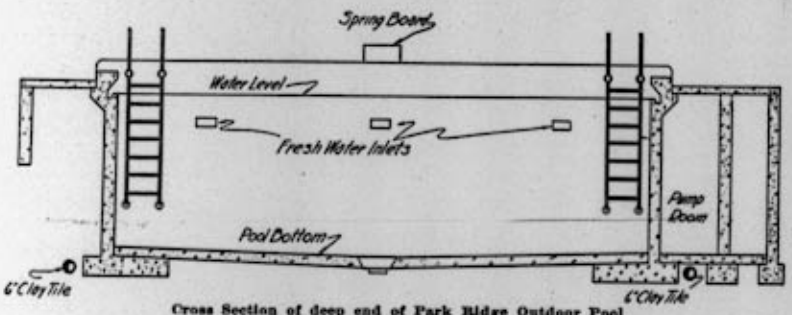
Plumbing equipment, though not in evidence to the casual observer, is of the most vital importance in swimming pool construction, and because most of the fittings are set in concrete it is doubly important that their quality and efficiency in operation be predetermined.



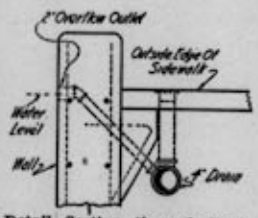
Out-door Pool showing some of the important Plumbing Equipment of Park Ridge, Illinois, Pool Size 50x100 feet. Total cost $50,000.

Blake Fittings bear an enviable record in swimming pool achievement, largely because drainage forms the major problem in construction — a subject our engineers have mastered through many years of constant association with most of the major building operations in the country.

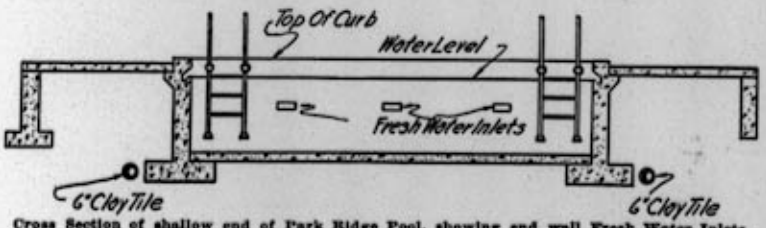
We are also prepared to make any Special Fittings or Drains to service peculiar conditions that may arise in any construction.



Cross Section of deep end of Park Ridge Outdoor Pool



Detail Section through Pool Wall, showing alternate scheme for overflow outlets instead of scum gutter.



Cross Section of shallow end of Park Ridge Pool, showing end wall Fresh Water Inlets.

Illustrations reproduced through the courtesy of Plumbing & Heating Contractors Trade Journal

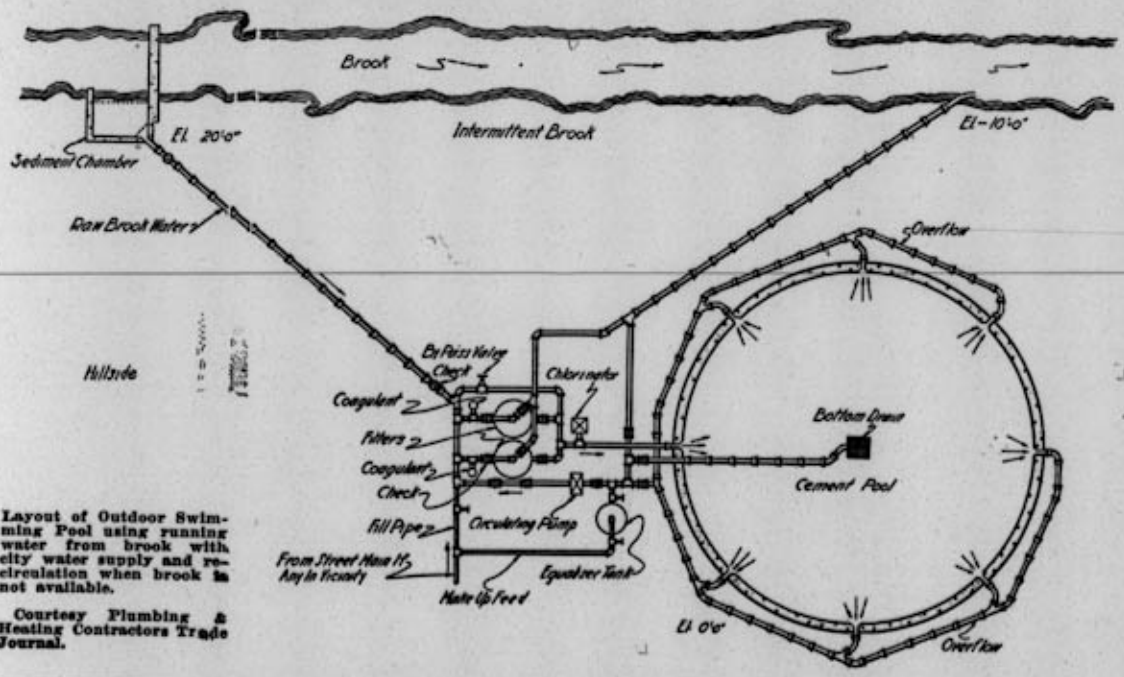
The "Old Swimming Hole" Modernized

Out of doors, shallow at the edges, deep in the middle—to accommodate "little tots" as well as their big brothers and sisters, modernized with concrete and specialized plumbing fittings so it is entirely sanitary—a safe place for all to enjoy the greatest of all American Sports—Swimming.

Through the courtesy of the Plumbers and Heating Contractors Trade Journal we show a picture of the new swimming pool at Urbana, Ill., which will accommodate 2,000 people. Below a layout showing the practicability of using water supply from a nearby stream, augmented by city water and recirculation and filtration when natural supply is not available. With modifications this plan may be used for the more economical method of obtaining the entire water supply from a stream, if available.

The Blake Engineering Department has a wide variety of swimming pool plans from which you may select a layout to fit your local conditions. They will also be glad to suggest the most efficient intake and drainage fittings if you send blue prints of the pool which you have planned.

New Swimming Pool at Urbana, Illinois. Courtesy—Plumbing & Heating Contractors Trade Journal



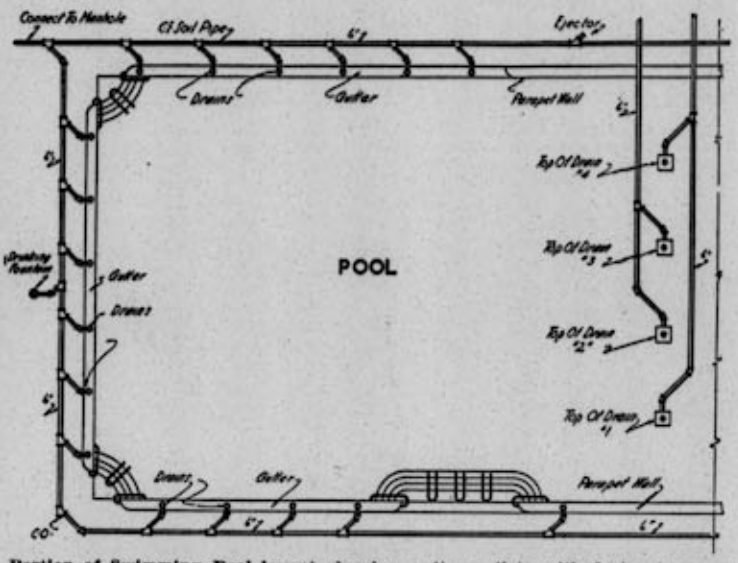
Layout of Outdoor Swimming Pool using running water from brook with city water supply and recirculation when brook is not available.

Courtesy Plumbing & Heating Contractors Trade Journal.

Blake Fittings Promote Sanitation in Bath House—Pump House and Pool

Sanitation should be the first consideration in planning a Swimming Pool.

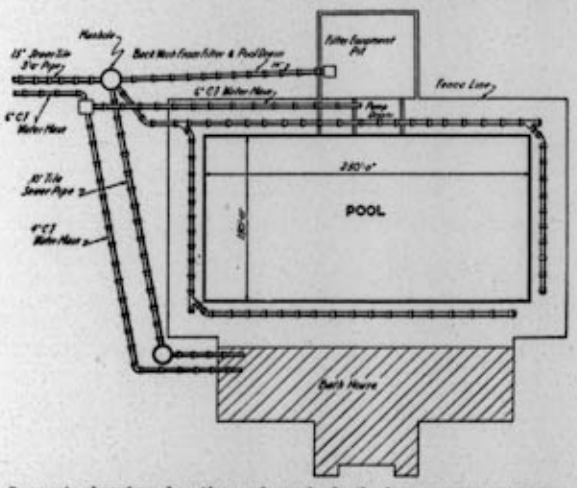
Every phase of construction from the water intake to the water discharge should be thoroughly checked by competent sanitary engineers to make sure that every precaution is taken to provide cleanliness. This precaution will be well repaid in public approval and the popularity of the pool.



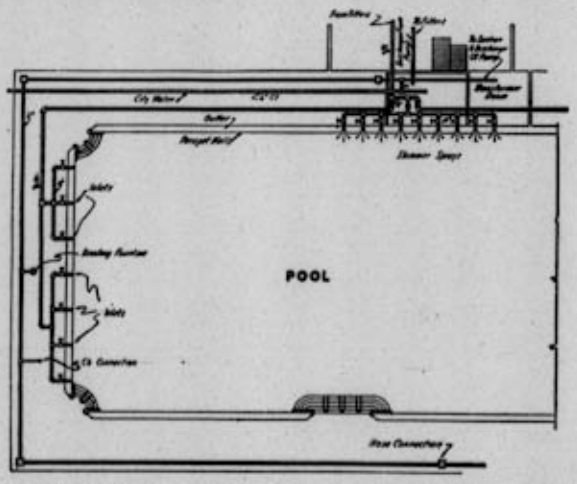
Portion of Swimming Pool layout showing gutter outlets with drains to sewer and pool drains to circulation pump—Courtesy Plumbers & Heating Contractors Trade Journal.

Proper fittings to assure thorough circulation and drainage are essential — there should be no "dead spots" in the pool for water to become stagnated — intake should be so arranged that the bottom water as well as the surface is kept active—efficient skimming drains should be installed to keep the surface free from scum and debris—bottom drains should be of a type to insure thorough drainage and promote the scrubbing action so desirable in maintaining a uniformly clean pool.

Let us Co-operate with you by suggesting the most efficient fittings for YOUR SWIMMING POOL



Layout showing location of pool, bath house, pump room and filter pit, as well as sewer and water mains—Courtesy Plumbers & Heating Contractors Trade Journal.



Populer method of water supply at ends and side of pool is shown in above layout—Courtesy Plumbers & Heating Contractors Trade Journal.

Blake Specialty Co. ✤ Rock Island, Illinois

CONTRACT FOR

CONSTRUCTION OF SWIMMING POOL, ETC.,

VAL-KIL ESTATE

HYDE PARK, NEW YORK.

Copy 2 of 3.

CONTRACT FOR CONSTRUCTION OF SWIMMING POOL, ETC.,
VAL-KIL ESTATE, HYDE PARK, NEW YORK.

These Articles of Agreement entered into by and between Anna Eleanor Roosevelt, hereinafter referred to as the Owner, party of the first part, and Matthew F. Hasbrouck, of Stone Ridge, New York, hereinafter referred to as the Contractor, party of the second part, WITNESSETH:

ARTICLE I. In consideration of payments more particularly described in ARTICLE III hereof, the Contractor will furnish all labor, materials, plant, and equipment, and therewith build and construct and place in complete and perfect operating condition the swimming pool as indicated on the drawings and specifications which were transmitted to the Contractor by letter dated April 16, 1935, modified, however, by the two drawings dated April 26, 1935, prepared by the Contractor, and letters from the Contractor dated April 19, 1935 and April 25, 1935. (Copies of the drawings, specifications, and the letters just referred to are attached hereto and made a part hereof.)

ARTICLE II. In accordance with his letter of April 19, 1935, the Contractor agrees to replace or repair any defective mechanical parts, and to repair any structural defects, all without expense to the Owner, where such mechanical or structural defects develop within one year from the date of completion of the pool.

ARTICLE III. In consideration of the work described in ARTICLE I above, and the guaranty of ARTICLE II above, both well and truly done, the Owner will pay to the Contractor the sum of SIX THOUSAND FIVE HUNDRED DOLLARS ($6,500) in partial payments as follows:

FOUR THOUSAND DOLLARS ($4,000) when the concrete of the bottom and walls of the pool has been poured and the major parts of the purification and circulation system have been delivered and set in place; and

TWO THOUSAND FIVE HUNDRED DOLLARS ($2,500) when the swimming pool has been completed in accordance with this contract and placed in operating condition, and satisfactory evidence has been placed in the hands of the Owner to the effect that all the Contractor's obligations arising in connection with the work covered by these Articles of Agreement have been paid.

ARTICLE IV. All of the work of this contract shall be completed by June 15, 1935.

ARTICLE V. All of the work executed under these Articles of Agreement shall be done in conformity with and in the spirit of such of the rules and regulations of the National Recovery Administration and of the Federal Emergency Administration of Public Works as may be legally applicable.

ARTICLE VI. The Contractor shall be responsible for and shall pay all liabilities incurred by him for services and materials used in the prosecution of his work done under these Articles of Agreement, and upon completion thereof, shall furnish the Owner with a release of liens.

ARTICLE VII. The Owner will be represented by Captain E. P. Lock, Jr., Corps of Engineers, U. S. Army, who with his advisers and assistants, shall have access to the work at all times. The said Captain Lock will pass upon the fitness, adequacy, sufficiency, and compliance with specified requirements, of all materials and workmanship entering into the work covered by these Articles of Agreement; and his decision respecting those matters shall be final and binding upon both parties hereto.

IN WITNESS WHEREOF, the parties aforesaid have on this 29th day of April, 1935, placed their signatures hereon (signed in triplicate).

Two witnesses as to signature of Anna Eleanor Roosevelt.

Wilson Searles

E.H. Johnson

Anna Eleanor Roosevelt

Anna Eleanor Roosevelt.

Two witnesses as to signature of Matthew F. Hasbrouck.

Albert E. Millikan

Raymond Parker

Matthew F. Hasbrouck

Matthew F. Hasbrouck

TELEPHONE CALEDONIA 8525

DESIGNING
SANITATION
CONSTRUCTION
WATERPROOFING
TILING

HASBROUCK COMPANY, INC.
SWIMMING POOL ENGINEERS
CONSULTANTS, ENGINEERS & BUILDERS
101 PARK AVENUE
NEW YORK

PUMPS
FILTERS
HEATERS
FIXTURES
STERILIZATION

April 25, 1935

Mr. John L. Nagle, Assistant Chief
United States Department of the Interior
National Park Service
Navy Building
Washington, D. C.

My dear Mr. Nagle:

Pursuant to our conversation over the long distance telephone under date of April 24 and complying with your request, the breakdown of the different items as suggested to you in my letter of April 19 are as follows:

If 2' radius corners are incorporated in the work, add the sum of $40.

Stone gutter instead of cement gutter, add $100.

Hudson River blue stone in place of Crab Orchard, deduct $200.

Brass gutter drains in place of chromium plated, deduct the sum of $45.

Brass ladders in place of galvanized ladders, add the sum of $85.

Stone supports for springboards in place of galvanized iron, deduct $20.

Gutter drainage line of T.C. in place of cast iron, deduct the sum of $160.

One drain instead of two drains, deduct the sum of $25.

Filtration plant together with recirculating pump and chlorinating device in place of deep well equipment, deduct the sum of $405.

The above deductions and additions make the difference of $630 between the figure submitted in your specifications and those suggestions which were mentioned in my letter under date of April 19 and incorporated in our price of $6,500.

We are in receipt of your advice through the mail and also over the radio from the Navy Station as follows:

"RELATIVE INFORMATION DESIRED TO REFER TO IN CONTRACT MENTIONED THIS MORNING ON TELEPHONE PLEASE ALSO INCLUDE PROPOSED STRUCTURAL DESIGN OF WALLS AND BOTTOM OF POOL SHOWING THICKNESS OF WALLS COMMA ARRANGEMENTS OF REINFORCEMENT

JOHN L NAGLE"

These plans are being sent you tonight and will undoubtedly reach you as requested.

You will note that the steel shown is more equally distributed and although I have not figured the tonnage, I am inclined to believe, on a rough guess, that it is approximately the same within reason, although there will be more labor attached to placing the steel as it will necessitate more handling and tieing, but it is a small matter and I do not care to raise any question regarding this item as I would prefer to see a more equal distribution, particularly so where the temperature is such a factor as it is in an outdoor pool.

The filters will be assembled by us, which is our regular practice. The shells are made of 3/16" new rolled plates. All piping in connection with filtration operation is galvanized iron; tanks to be of the pressure type, 36" in diameter, two in number, of the manifold system with brass streiners, these strainers to carry copper alloy specially manufactured and adapted for this work. Sand will be of Cape May material and washed quartz graduated in four layers.

The pump will be as manufactured by the American Steel Pump Company of Battle Creek, Michigan, or Ingersoll-Rand motor-driven, direct connected. This pump will be equipped with one horse power motor of General Electric or equal, characteristics as specified. This mechanical unit will be designed to deliver 60 gallons a minute against a 30' head, when operating for filling purposes. For recirculating and back-washing, there will be an increase of 10% in flow. The piping for the filters will be so arranged that the recirculating pump will be used for back-washing purposes, one at a time. It is for this reason that two units are being placed and the pump so designed to take care of this condition.

We are making every effort to get these plans to you and ask that you be a little lenient in asking for the design of the pump house until a very near future date, but I can assure you that it will be in accordance with your ideas and will be of a rustic nature.

You will note that we are placing the mechanical equipment in the pump house located as shown on the plan behind a clump of small pines and very close to two maples which have 12" butts. I mention this to try to give you an idea as to location. The suction line will be run out to the stream and will be placed in an intake chamber, which chamber will be made up of screens in which area the suction pipe will be placed together with a foot valve. This intake chamber to be entirely covered by 1" gravel so as to allow for the passing of the watter, but will not allow the passing of anything larger than what will come into and clog the impellors in the pump.

After my conversation with you on the telephone, I immediately went to Hyde Park and made the necessary surveys to get my elevations and locations as to the placing of pump house, discharge lines and intakes. I have also made all arrangements for the placing of an excavating shovel and will be working on the job Monday morning, weather permitting. I would appreciate quick action on the steel layout as we will be ready for same within the next week and as we are anxious to get everything completed before Decoration Day, we want to take advantage of every

minute that can be had to facilitate operations and completion.

Any further information or any plans which you are desirous of getting will be in your hands at the earliest possible moment upon advice from you.

Very sincerely yours,

HTH:TF

HASBROUCK COMPANY, Inc.

TELEPHONE CALEDONIA 8325

DESIGNING
SANITATION
CONSTRUCTION
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HASBROUCK COMPANY, INC.
SWIMMING POOL ENGINEERS
CONSULTANTS, ENGINEERS & BUILDERS
101 PARK AVENUE
NEW YORK

PUMPS
FILTERS
HEATERS
FIXTURES
STERILIZATION

April 19, 1935

Copy of this letter sent to Captain Lock

United States Department of the Interior
National Park Service
Navy Building
Washington, D. C.

Gentlemen: ATTENTION: MR. JOHN L. NAGLE, ASSISTANT CHIEF

This is to confirm my personal interview with you at your office under date of April 18, at which time the construction of the swimming pool on President Roosevelt's Estate at Hyde Park was discussed. Certain suggestions were made and at your request, we are setting forth those items which we suggested as follows:

That the pool be poured in one continuous operation. We strongly recommend a monolithic job, especially for a pool of this size; also that all corners of the base where the wall comes in contact with the floor to have a 4" cove, which cove is to be incorporated into the original pour. That all four corners be constructed so as to form a 2' radius as a safeguard against possible fracture from frost. We suggest the substitution of a stone gutter in place of troweled finish cement. To substitute Hudson River blue stone flag walk in place of crab orchard, the reason for this being that all surrounding stone in place is of this same character which is a local product and will conform to all walks and general surroundings. We understand that the Government specification for crab orchard is from 1" to 1½" in thickness. We do not feel that this thickness of stone has sufficient body to stand up on a sand base without possible rocking and fracture under any severe impact. The stone that we suggest would be not less than from 2" to 2½" in thickness.

All fittings such as gutter drains, inlets, outlets and ladder to be of brass instead of chromium plated and galvanized iron. To construct the springboard supports of concrete, covering same with blue stone to conform with the walk around the springboard platform, doing away with a possible rust condition which in turn would cause a stain on the walk area. To use terra cotta bell and spigot 4" pipe around the perimeter of the pool for the gutter drains in place of cast iron. This pipe to be laid on firm base down to pool excavated area so as to overcome all possibility of settlement and breakage due to the placing of fill which is characteristic of work of this kind where the pipes are hung on the pool structure. All vertical lines from the gutter drains down to the tile drains to be of cast iron. To change the location of the main control valve and build a pit so that this valve can be accessible if at any time it is necessary to clean the gate chamber due to sediment which collects and which causes a leakage through the gate area. The main discharge pipe to be of cast iron up to the point of control valve, from which point terra cotta pipe is to run to a point of discharge. We strongly suggest that the contour of the pool be changed so that the main drain will be at the end of the pool instead of under the floor and suggest one main drain instead of two.

To reconsider the digging of a well and in place of a well supply, to pump the water from the present stream, put in a filtration plant and as discussed with yourself and Captain Lock, this would guarantee you a body of water which will at all times be clear and would give the job water of a temperature which is quite necessary for the use that this pool is to be put to. The piping would be so arranged as to utilize this filtration plant as a recirculating system which would eliminate the weekly emptying and filling of the pool, taking into consideration that the well water would be of a temperature which will come to the pool in the neighborhood of 50 degrees and would take considerable time for the water to warm up due to atmospheric conditions. We strongly recommend this change.

Our estimate for the job complete which we would guarantee for a period of a year against all mechanical and structural defects is Six Thousand Five Hundred Dollars ($6,500). The time of completion will be six weeks, weather permitting, or thirty-six working days. At the request of Captain Lock, we further submit a price of $1.00 per cubic yard for all necessary backfill for the filling up to grade of all excess material necessary, it being understood that the excavation from the new pool is to be placed in the old pool area. Such necessary fill as is required to be taken from the present sand bank on the premises and placed where necessary.

This estimate is based and given as an alternate incorporating such suggestions as above mentioned as compared with the plans and specifications sent us. We feel that the foregoing recommendations would be of great benefit to the job and in turn bring about an economy of cost and operation. There will be a considerable saving in the cost of operation due to the fact that the deep well pump will have a 5 horse power motor as against the 2 horse power for recirculating and pumping purposes. If the suggestions above made are accepted and the contract awarded to us, a set of plans and specifications showing the changes will be sent you for your acceptance.

Respectfully submitted,

HASBROUCK COMPANY, Inc.

By M. F. Hasbrouck

President

MFH:TF

P.S. In discussing with you the specifications as regards paragraph 14 in reference to the well, you call for 35 gallons per minute during a twenty-four hours' continuous pumping. This we understand was not meant as a guarantee that the contractor was to supply 35 gallons a minute at a depth of 80 feet for we both agreed that there was no way humanly possible for anyone to guarantee the flow of water when digging a well through rock. As related to you, I have discussed the well proposition with the local well diggers and they feel that this can be done but that the result as called for can in no way be guaranteed. As we do not wish to have any misunderstanding in this matter, we are again bringing it to your attention. In figuring the job according to your specifications, we have figured on

driving an 8" well to a depth of 80 feet, but we cannot guarantee the flow. If the water is there, the pump will deliver the amount of water specified.

H. C. Inc.

Hyde Park

TELEPHONE CALEDONIA 6325

DESIGNING
SANITATION
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WATERPROOFING
TILING

HASBROUCK COMPANY, INC.
SWIMMING POOL ENGINEERS
CONSULTANTS, ENGINEERS & BUILDERS
101 PARK AVENUE
NEW YORK

PUMPS
FILTERS
HEATERS
FIXTURES
STERILIZATION

April 19, 1935

Copy of this letter sent to Captain Lock

United States Department of the Interior
National Park Service
Navy Building
Washington, D. C.

Gentlemen: ATTENTION: MR. JOHN L. NAGLE, ASSISTANT CHIEF

We herewith submit for your consideration and acceptance our bid for the installation of a swimming pool at the home of President Roosevelt in Hyde Park, New York, according to the blue prints and outlined specifications mailed to this office under date of April 16, in the sum of Seven Thousand One Hundred Thirty Dollars ($7,130.).

Respectfully submitted,

HASBROUCK COMPANY, Inc.

By M. F. Hasbrouck
President

MFH:TF

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
EASTERN DIVISION, BRANCH OF ENGINEERING
WASHINGTON

OFFICE OF CHIEF OF DIVISION

April 16, 1935.

Hasbrouck Company,
101 Park Avenue,
New York City.

Gentlemen:

Following recent conversations relative to the construction of a new swimming pool at the Hyde Park estate, for the President, I am pleased to transmit herewith a set of blueprints and a draft of the specifications indicating the general lines along which it is desired a pool be built. Please understand that the information contained hereon is intended to cover a complete installation, in working order, and any minor omissions in the drawings or specifications will have to be supplied. Please also understand that this work is of a purely personal nature, and the National Park Service is not officially connected with it. I am handling the engineering work personally at the request of Captain Edwin P. Lock, Jr., White House.

Some of the drawings were hastily prepared, and the figured dimensions should govern wherever possible instead of scaled distances.

It is desired that your bid covering the construction of the pool as indicated by the accompanying papers be in Captain Lock's hands at the White House by noon, Saturday, April 20. A bid is desired on the indicated construction; but if you so elect, you may submit an additional bid for any design which may occur to you as being better adapted to local conditions. Please be sure to include with your alternative bid a description of any departures from indicated construction.

Any questions or any requests for additional information may be addressed to me until Thursday at 5:00 P.M., after which time to Captain Lock at the White House.

Should you wish to visit the estate to examine the site of the work, you will be permitted to enter the grounds upon presentation of this letter. A test pit has been dug on the site of the proposed pool which indicates that the earth is a sandy gravel at a depth of 11 feet.

As this is in no way a Government contract, the right is reserved to discuss any matters with any of the invited bidders after the time set for opening, or to award the contract as may best suit the needs and convenience of the President's family.

Very truly yours,

John L. Nagle,
Assistant Chief.

Encl 399152.

1. [illegible]. - The work to be done under this contract consists in furnishing all labor, machinery, equipment and materials and constructing therewith in accordance with these specifications and the accompanying plans, a swimming pool complete.

The work comprises, among other things, the following major items:

Excavation and grading, draining of existing pool, reinforced concrete, a new well and pumps sufficient for a complete circulating system, a purification system, plumbing and drainage, a pump house, a spring board and ladder, and all incidental work necessary to complete the pool and place it in operation.

2. LABOR. - The Contractor shall be responsible and shall conform to all regulations in regard to the employment of labor. In general, local labor in the vicinity of Hyde Park shall be used to the maximum extent.

3. CONTRACT DRAWINGS. - The following drawings form a part of and are supplementary to these specifications:

Plans and Details - Two Drawings
Photostat of an Architectural Perspective
Photostat of Purification System - Two Drawings

4. WORKING DRAWINGS. - The Contractor shall prepare all detailed working drawings necessary for the manufacture of the material which shallbe submitted for approval. The working drawings shall be in sufficient detail to facilitate the erection of the material in the field.

5. EXCAVATION AND GRADING. - All excavation shall be to the depth indicated on the drawings. Any overdepth in foundation excavation shall be backfilled with concrete at the Contractor's expense unless such overdepth shall have been previously ordered. All backfill shall be deposited in 6-inch layers thoroughly tamped and puddled if directed.

The Contractor shall grade all of the area within six feet of the outer edge of the flagstone walk. Beyond the edge of this grading the banks shall slope 1-1/2 to 1 to the natural ground.

Sodding and landscape work is not included in this contract.

6. REINFORCED CONCRETE. - All concrete shall develop a strength of 3000 pounds per sq. inch in 28 days. It shall be mixed in the approximate proportions of 1:1-1/2:3-1/2, but shall contain not less than seven (7) bags of cement per cubic yard of concrete measured in place.

The forms for all exposed surfaces of concrete shall be lined with masonite or some other approved material. The scum gutter and curb and pavement shall receive a smooth hard trowel finish.

All reinforcing steel shall be deformed bars rolled from new steel billets made by the open hearth process.

7. JOINTS. - Copper expansion joints shall be placed as indicated on the drawings and all joints shall be thoroughly sealed with an approved mastic material.

8. SPRINGBOARD & LADDER. - All pipe in the ladder and spring board frame shall be galvanized. The diving board shall be of clear vertical grain Oregon Pine in one piece free from flaws and it shall be covered with cocoa mat for its full length.

9. PAINT. - All exposed surfaces of concrete of the pool shall be painted with an approved paint of an approved color. The paint shall be suitable for the purpose and as many coats as necessary for a first class paint job shall be applied. The backs of all walls shall be dampproofed with an approved material.

10. DRAINING OLD POOL. - The side walls of the existing pool shall be punched through in at least four places to permit the free passage of sub-surface water.

The pool shall then be filled with excavated material from the new pool and shall be brought to the grade indicated by the contours on the drawings.

11. PUMP HOUSE. - The Contractor shall design a pump house of sufficient capacity to house all of the equipment necessary for the operation of the pool. ~~The heating system is not to be installed at this time, however, the Contractor shall provide sufficient space for future installation.~~

The pump house shall be neat in appearance and shall harmonize with the surrounding landscape.

12. FLAGSTONE. - The flagstone shall be ~~substantial~~ Crab Orchard or equal laid on a sand bed in random ashlar of approximate sizes indicated on the drawings.

13. PLUMBING. - Cast-iron bell and spigot water pipe conforming to Federal Specification WW-P-421, Type I, Class 150 shall be used for all water supply and re-circulating pipes and for the pool drain up to the 8-inch gate valve. All joints in cast iron water pipe shall be made with lead and jute in the most approved manner, the lead to be not less than 2 inches deep, to be run with one pouring and to be caulked flush with the bell. All fittings for cast iron water pipe shall conform to A.W.W.A. Specifications, Class D.

Extra heavy cast iron soil pipe, conforming to Federal Specification WW-P-401 shall be used for the scum gutter drains and at such other points as may be noted on the drawings. All joints in cast iron soil pipe shall be made with lead andjute in the most approved manner.

Galvanized wrought iron pipe,conforming to Federal Specification WW-P-441, Class A, shall be used for all piping above the floor of the pump house and at such other points as may be noted on the plans. All joints in wrought iron pipe shall be made with properly cut tapered threads with all burrs removed and pipe ends reamed. Pipe joint compound shall be applied to the male threads only and care shallbe taken that none of it gets inside

of the pipe.

The main outlet drains shall be Josam, Type 596 M with chromium plated brass tops.

The scum gutter drains shall be Josam, Type 2282½ all brass with chrome plate top.

The inlets for the recirculating system shall be Josam, Type 2253 H with cast iron bodies and chrome plated brass strainers.

The brass goose neck inlet nozzle for the well supply pipe shall be of approved design.

14. WELL. - The Contractor shall drill an 8-inch deep well at the location for the pump house noted on the drawings, the well to have a capacity of not less than 35 gallons per minute during 24 hours continuous pumping. The Contractor shall submit complete specifications of the well he proposes to drill, but in general it must be cased with wrought iron casing to solid rock and provision be made to prevent the entrance of surface contamination. An approved strainer shall be provided if required. The bid shall be based on a well 80 feet in depth.

15. DEEP WELL PUMP. - The deep well pump shall have a capacity of 35 gallons per minute against the static and friction head necessary to deliver the water to the pool and shall be designed to operate continuously for 24 hour periods.

The pump cylinder shall be all brass, with galvanized wrought iron drop pipe and ash or galvanized iron pump rods and shall be arranged so that the plunger and all valves can be withdrawn without removing the cylinder from the well.

The pump head shall be of the enclosed gear, self oiling type and shall be driven by a 220 volt, 60 cycle single phase motor of suitable size through a "V" belt or silent chain.

The Contractor shall submit detailed drawings and specifications of the pumping equipment he proposes to furnish for approval before proceeding with the installation.

16. CIRCULATING PUMP. - The circulating pump shall be of the single stage centrifugal type, direct connected to a 220 volt, 60 cycle single phase motor, and shall have a capacity of 35 gallons per minute. The pump shall be made intergral with the motor frame and shall require no base plate or flexible coupling, the impeller being mounted directly on the motor shaft. The Contractor shall submit detailed drawings and specifications of the pump he proposes to furnish for approval.

17. CHLORINATOR. - The Contractor shall provide chlorinating system of the type shown on the accompanying photostat. The solution shall be fed by means of an adjustable motor driven pump, the piping to be so arranged that the solution can be injected into either the supply pipe from the well or the discharge pipe from the circulating pump. Detailed drawings and specifications of the chlorinating system proposed to be furnished shall be submitted for approval.

18. ELECTRICAL. - This work consists of the furnishing and installing of the following material and equipment:

1. A feeder in an underground conduit indicated on the drawing. The feeder shall be of rubber covered lead covered cable of sufficient capacity for the motors to be supplied. The feeder shall connect to the existing 220 Volt, 60 cycle alternating current system in the present dwelling house through a fused safety switch in order to properly protect the feeder. The proper location of the safety switch shall be determined in the field.

2. A safety switch and a starter for each motor in the pump house. The starter shall be fully enclosed and of proper design to meet the requirements of each individual motor. The starters and safety switches shall be installed in an approved location and complete in every detail.

3. The required number and size of motors suitable for operating the particular equipment. The motors shall be of the general purpose type. All details of construction and performance shall be in accordance with the latest standards of the A.I.E.E. and N.E.M.A.

4. All wire, cable and their connections to the various equipment.

The entire installation shall conform in every detail with the following rules and requirements:

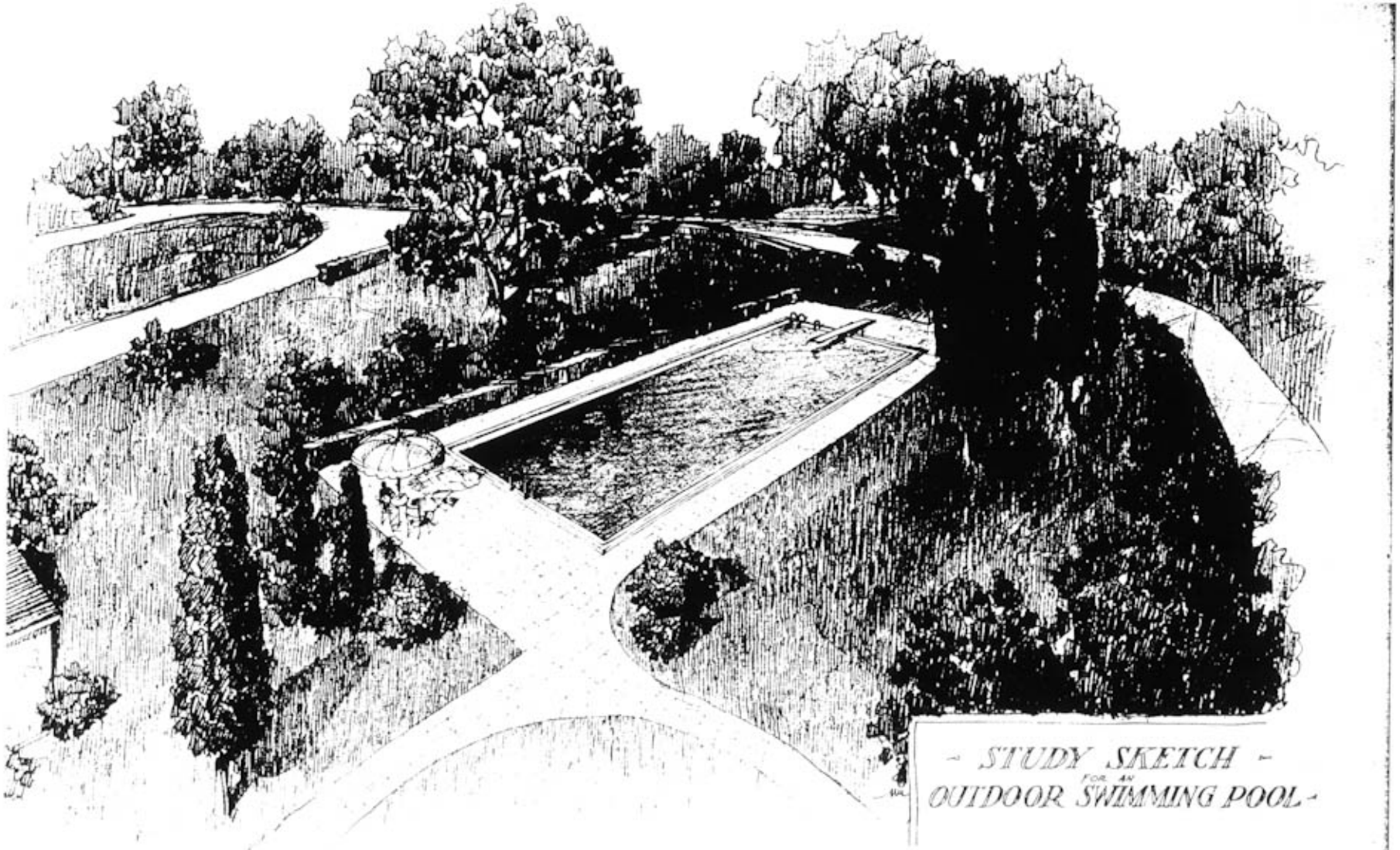
(a) The National Electric Code of the National Board of Fire Underwriters.

(b) The rules and requirements of theLocal Electric Company supplying the current.

(c) The rules and regulations of the local Electric Code.

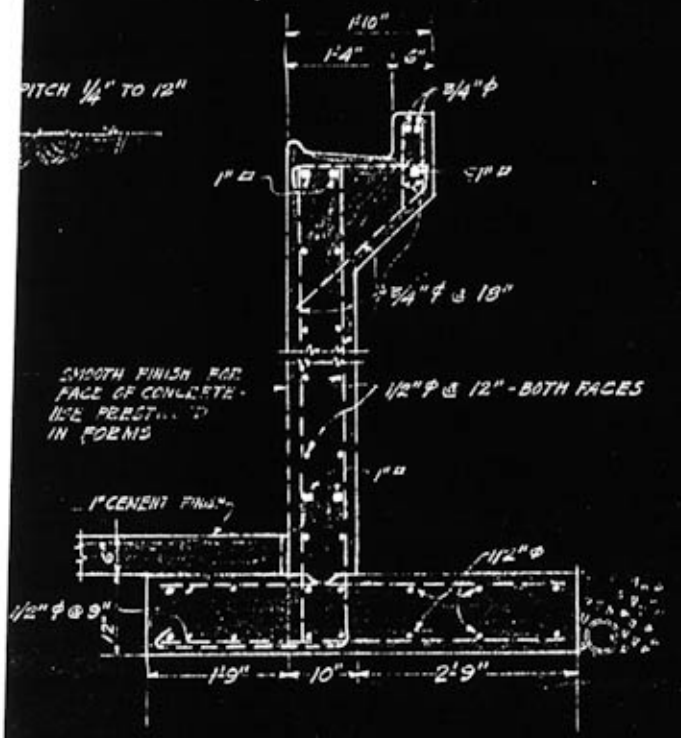
(d) The Standardization rules of the American Institute of Electrical Engineers.

(e) The Standardization rules of the National Electrical Manufacturers Association.



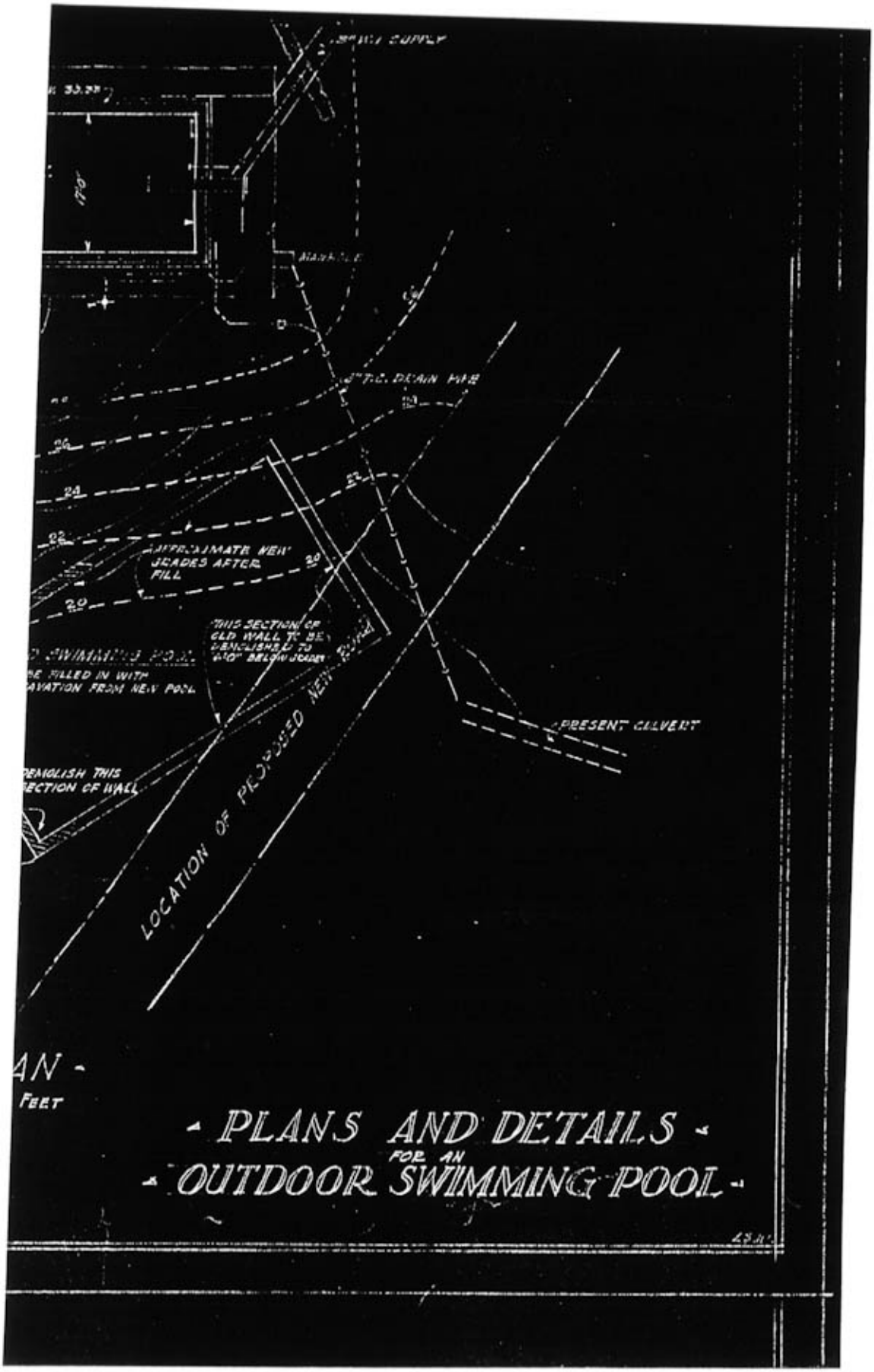
- STUDY SKETCH -
FOR AN
OUTDOOR SWIMMING POOL -

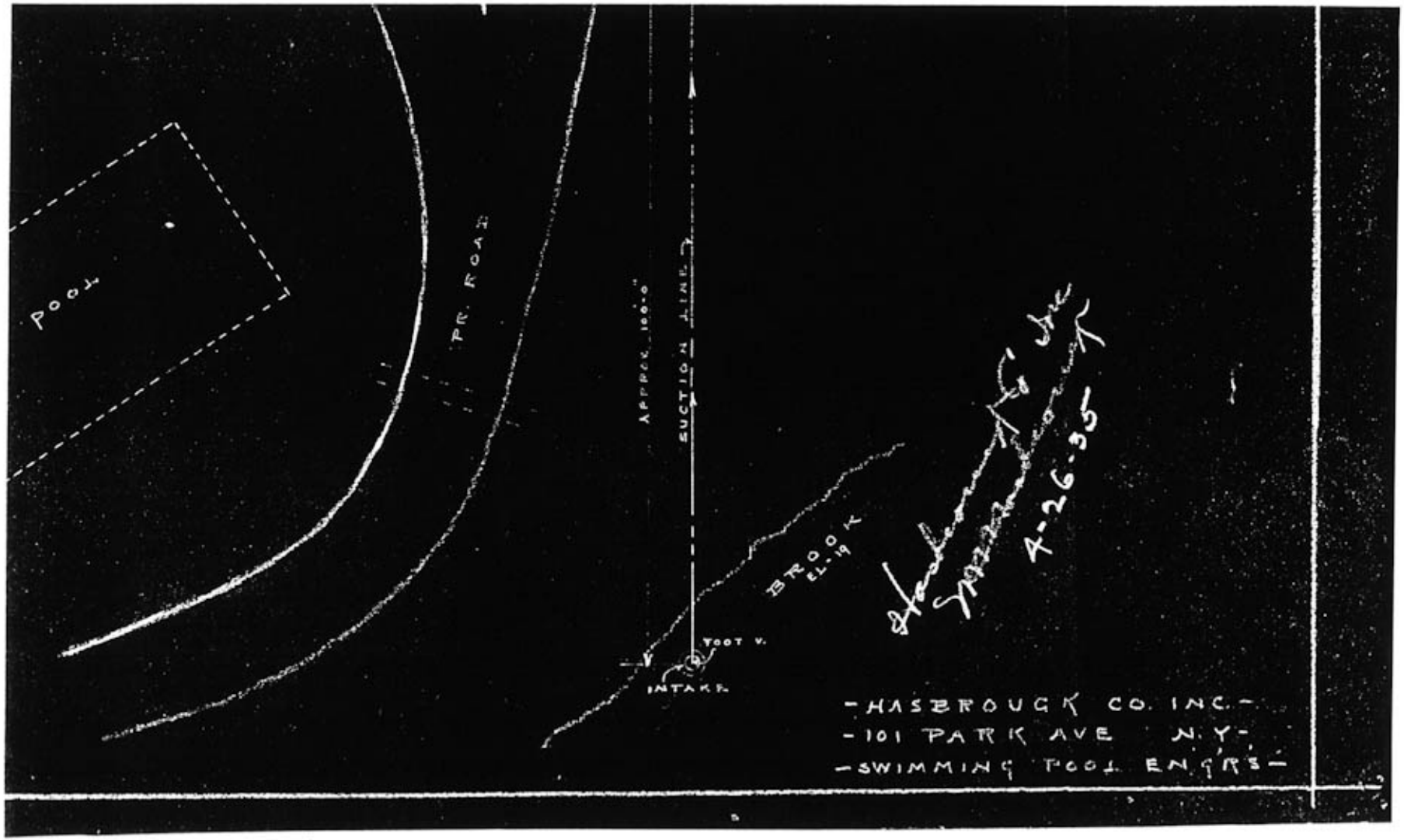
SECTION C-C



SECTION B-B

- PLANS AND DETAILS -
- FOR AN -
- OUTDOOR SWIMMING POOL -


PRESENT CULVERT
LOCATION OF PROPOSED NEW POOL
APPROXIMATE NEW GRADES AFTER FILL
THIS SECTION OF OLD WALL TO BE DEMOLISHED TO 410" BELOW GRADE
DEMOLISH THIS SECTION OF WALL
FEET
PLANS AND DETAILS
FOR AN
OUTDOOR SWIMMING POOL


POOL
PE. ROAD
APPROX. 100'-0"
SUCTION LINE
BROOK
EL. 19
FOOT V.
INTAKE
-HASBROUCK CO. INC.-
-101 PARK AVE N.Y.-
-SWIMMING POOL ENGRS-
4-26-35

TYPICAL WALL SECTION
VARIES AS TO DEPTHS
SCALE 3/4"=1'0"

NOTES

ALL STEEL DEFORMED ROUND RODS
ALL STEEL TO LAP 40 DIA.
ALL TIE WIRES TO BE BENT BACK
FROM INSIDE FORMS

Approved for Issue
4-26-35

HASBROUCK CO. INC.
101 PARK AVE. N.Y.
SWIMMING POOL ENGR'S.