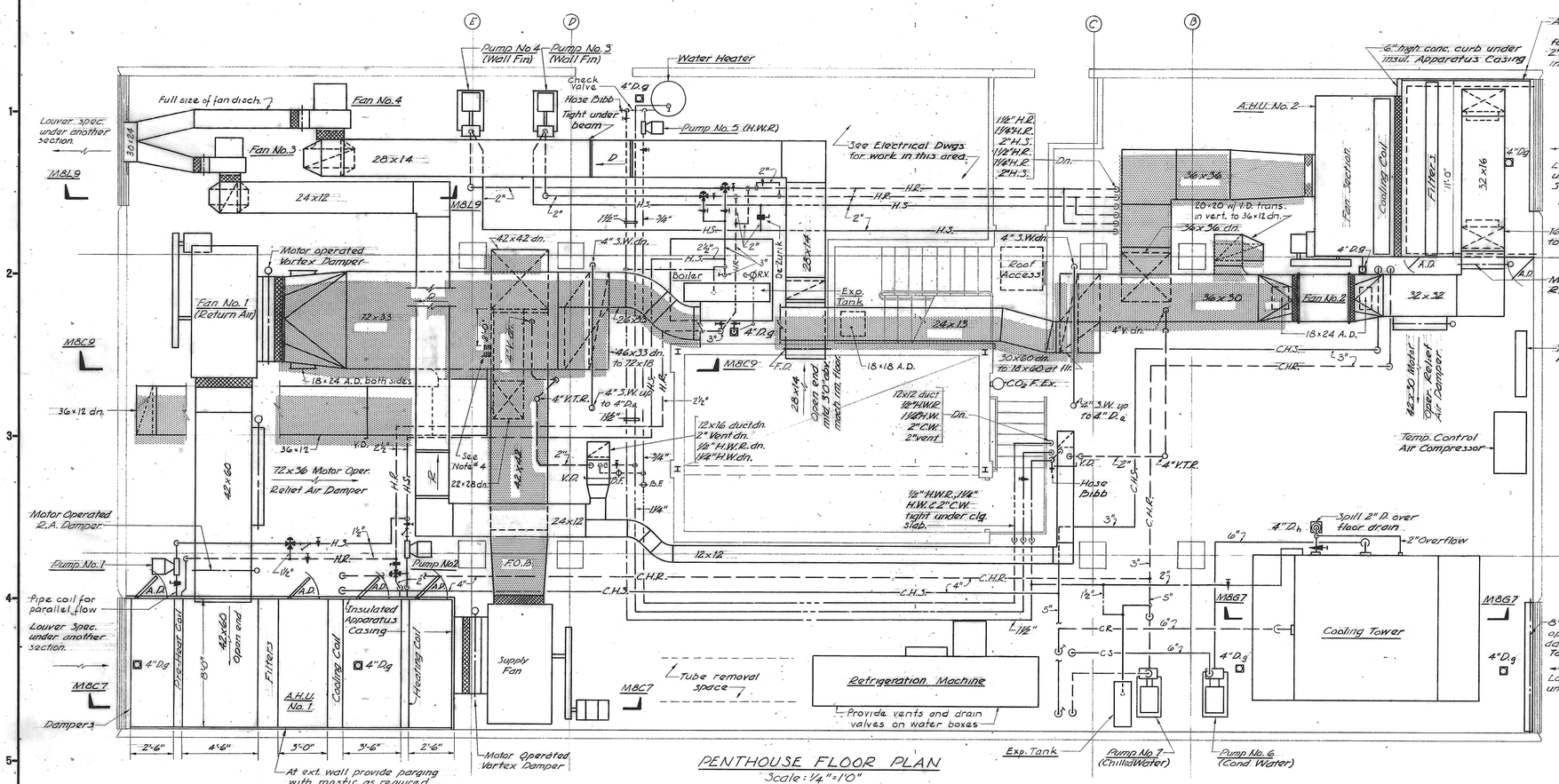
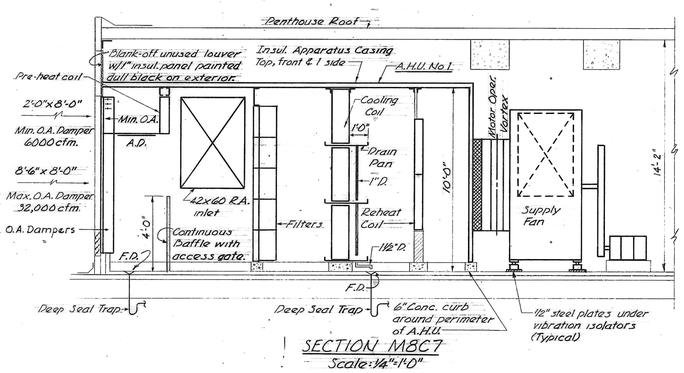
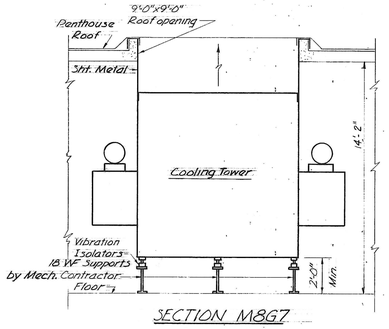



PENTHOUSE FLOOR PLAN
Scale: ¼"=1'0"




SECTION M8C7
Scale: ¼"=1'0"




SECTION M8G7
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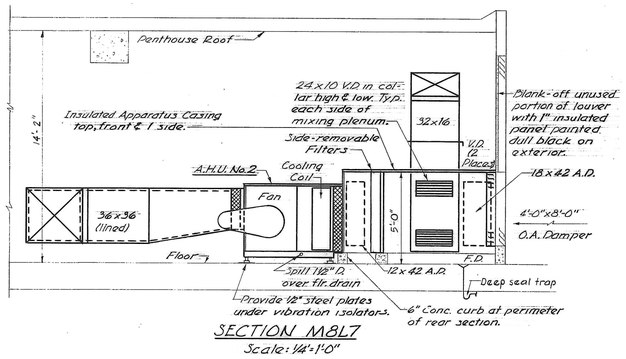


SECTION M8L7
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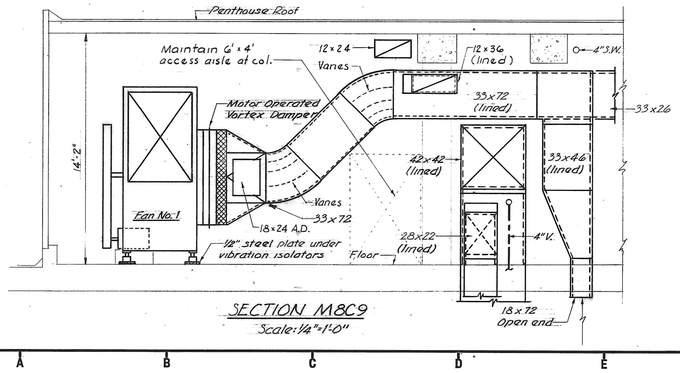
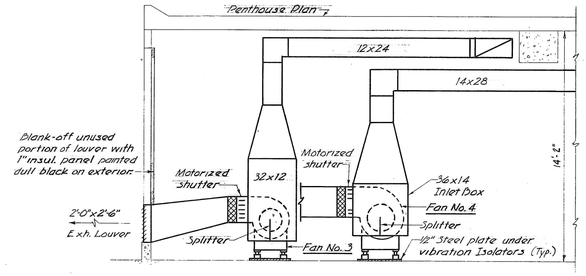



SECTION M8C9
Scale: ¼"=1'0"




SECTION M8L9
Scale: ¼"=1'0"

## EQUIPMENT CAPACITIES

Refrigeration Machine - Exclusive of water required for any auxiliaries, the machine shall have the capacity to cool 354 gpm from 54°F to 42°F. when supplied with 530 gpm of 85°F. condenser water. Minimum evaporator temperature 33.8°F. Maximum pressure drops: thru cooler 12 ft. $H_2O$ and thru condenser 19 ft. $H_2O$. Fouling factor thru cooler and condenser 0.0005.

Cooling Tower - Tower shall have the capacity to cool 530 gpm from 95°F. to 85°F at 79°W.B. Maximum pressure drop at spray manifold 5 psi.

Boiler - The electric boiler shall have an output capacity of 1,433,000 Btu/hr.

A.H.U. No.1 - This built-up unit, located in the penthouse, serving the exterior air conditioning system, shall have a capacity of 32,000 cfm with 6,000 cfm minimum O.A. The supply fan shall have 30 HP motor operating against 3½" total S.P. Approximate wheel diam. 49".

Cooling Coil: 32,000 cfm cooled from 80°D.B.-64.5°W.B. to 49.5°D.B. - 48.7°W.B. with 3 coils having minimum total face area of 62 sq. ft. supplied with 242 gpm of 42°F. water. Maximum pressure drops: Air-0.70" $H_2O$, Water-4 ft. $H_2O$.

Preheat Coil: 6,000 cfm heated from 5°F. to 40°F. with 1 coil having minimum total face area of 12 sq. ft. supplied with 12 gpm of 190°F. water. Maximum pressure drops: Air - 0.10" $H_2O$, Water - 1.0 ft. $H_2O$. (Minimum 2 rows)

Reheat Coil: 32,000 cfm heated from 70°F. to 90°F. with 2 coils having minimum total face area of 41 sq. ft. supplied with 35 gpm of 190°F water. Maximum pressure drops: Air-0.15" $H_2O$, Water - 2.0 ft. $H_2O$.

Filters: As specified, maximum overall size 8'-0" wide by 9'-6" high.

A.H.U.No.2 - This cabinet unit with prefabricated casing for mixing and filter section, located in penthouse, serving interior air conditioning system, shall have a capacity of 14,400 cfm with 4,000 cfm min. O.A. The supply fan shall have 15 HP motor operating against 2¾" total S.P. Approx. wheel diam. 22½".

Cooling Coil: 14,400 cfm cooled from 81.5°D.B.-66.5°W.B. to 50.5°D.B.-49.7°W.B. with 1 coil having min. total face area of 28 sq.ft. supplied with 112 gpm of 42°F. water. Max. pressure drops: Air-0.70" $H_2O$, Water- 6.0 ft. $H_2O$.

Filters: As specified, maximum overall size 10'-6" wide by 4'14" high.

Fan No.1 - This type "a" fan, located in penthouse, serving return air for A.H.U.No.1, shall have a capacity of 30,000 cfm at 1½" S.P. with 10 HP motor, belt drive and approx. wheel diam. of 54".

Fan No.2 - This type "c" fan, located in penthouse, serving return air for A.H.U.No.2, shall have a capacity of 13,000 cfm at 1½" S.P. with 7½ HP direct drive motor operating at 1150 rpm and approx. casing diam. of 36".

Fan No.3 - This type "b" fan, located in penthouse, serving toilet exhaust, shall have a capacity of 2210 cfm at 1½" S.P. with 1½ HP motor, belt drive and approx. wheel diam. of 15".

Fan No.4 - This type "b" fan, located in penthouse, serving elevator machine room ventilation, shall have a capacity of 3,000 cfm at 1"S.P. with 1½ HP motor, belt drive and approx. wheel diam. of 18".

Fan No.5 - This type "d" fan, located in ground flr. transformer room in exist. Campbell Bldg., serving transformer ventilation, shall have a capacity of 190 cfm at 0.10"S.P. with 1/25 HP motor.

Pump No.1 - This type "a" pump, located in penthouse, serving A.H.U.No.1 preheat coil, shall have a capacity of 12 gpm at 20 ft. head with minimum 1/2 HP motor, 1750 rpm.

Pump No.2 - This type "a" pump, located in penthouse, serving A.H.U.No.1 reheat coil, shall have a capacity of 35 gpm at 20 ft. head with minimum 1/2 HP motor, 1750 rpm.

Pump No.3 - This type "b" pump, located in penthouse, serving north and east zones of wall fin radiation, shall have a capacity of 30 gpm at 40 ft. head with 1 HP motor, 1750 rpm.

Pump No.4 - This type "b" pump, located in penthouse, serving south and west zones of wall fin radiation, shall have same capacity as Pump No.3.

Pump No.5 - This pump, located in penthouse serving domestic hot water recirculation, shall have a capacity of 3 gpm at 12 ft. head with 1/6 HP motor, 1725 rpm.

Pump No.6 - This type "b" pump, located in penthouse, serving condenser water, shall have a capacity of 530 gpm at 60 ft. head with 15 HP motor, 1750 rpm.

Pump No.7 - This type "b" pump, located in penthouse, serving chilled water, shall have a capacity of 354 gpm at 50 ft. head with 10 HP motor, 1750 rpm.

## NOTES

1. All shaded ductwork this drawing shall be lined with 1" thick acoustic duct lining.
2. In general, all piping in Penthouse shall be 9'-0" min. above Penthouse floor.
3. Insulated panels at rear of exterior louvers shall be pre-fabricated.
4. Locate pitot tube (VC-1) and pressure sensor (SPR-1) at side of 42 x 42 duct where indicated.

## REVISIONS

| NO. | DATE | ITEM | REF. |
|---|---|---|---|

FIRM: H. ADAMS
DESIGNED BY: GHZ
DRAWN BY: ACP
CHECKED BY: AEW
APPROVED BY: KVB

SEAL: H.A. JOB NO. N-16
STATE OF MARYLAND — KENNETH V. BELTZ — REGISTERED PROFESSIONAL ENGINEER

STRUCTURAL ENGINEERING
VAN RENSSELAER P. SAXE
1701 ST. PAUL ST. BALTO, MD. 21202

MECHANICAL-ELECTRICAL ENGINEERING
HENRY ADAMS, INC.
2315 ST. PAUL ST. BALTO, MD. 21218

CHRISTIE, NILES & ANDREWS
22 W. Pennsylvania Ave. Towson, Maryland 21204
1747 31st Street, N.W. Washington, D.C. 20007
ARCHITECTS

# OFFICE BUILDING FOR NOTTINGHAM FARMS INC.

102 W. PENNSYLVANIA AVE.
TOWSON, MARYLAND 21204

PENTHOUSE FLOOR PLAN

| | |
|---|---|
| JOB NO. | 6522 |
| SCALE | AS NOTED |
| DATE | SEPT. 27, 1966 |
| LAST REV. | |

M-8

MICROFILMED