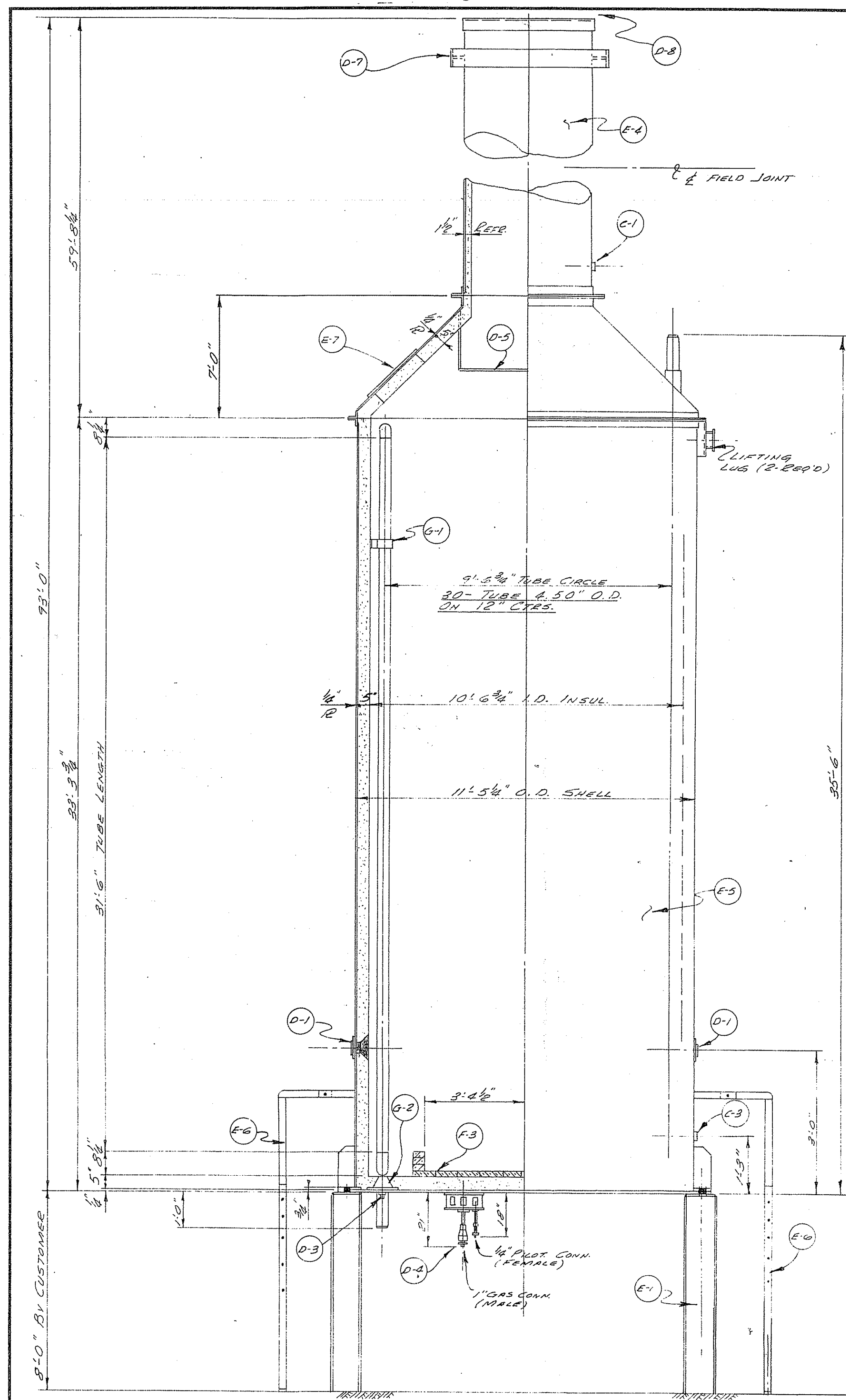


V.P.
4915-1-F-3-1-1
IF-301

DRAWING NUMBER

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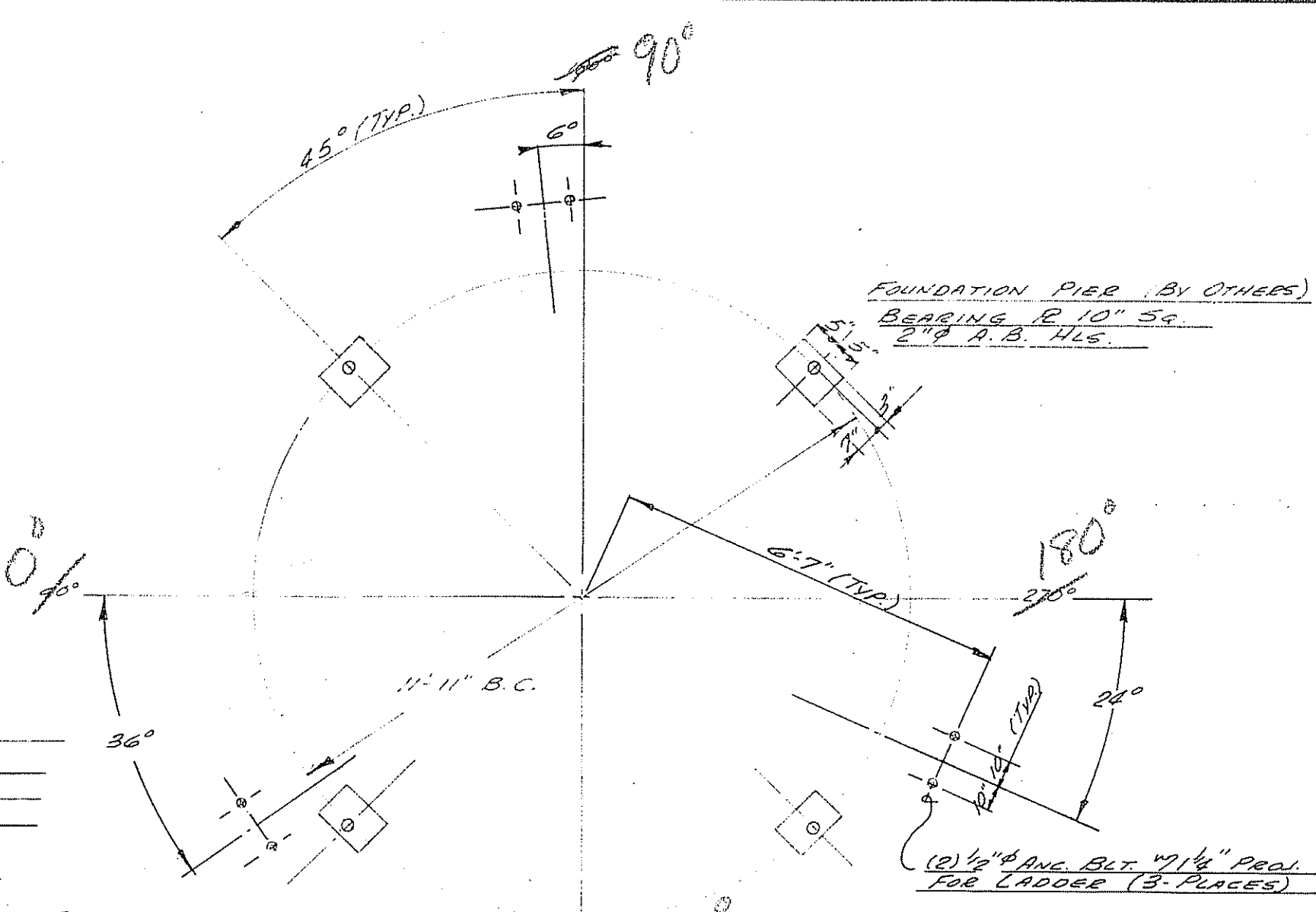
DRAWING NUMBER



DIAGRAMMATIC SECTIONAL ELEVATION
NOTE:
SEE SECTION THRU FIREBOX FOR EXACT
ORIENTATIONS OF COMPONENTS

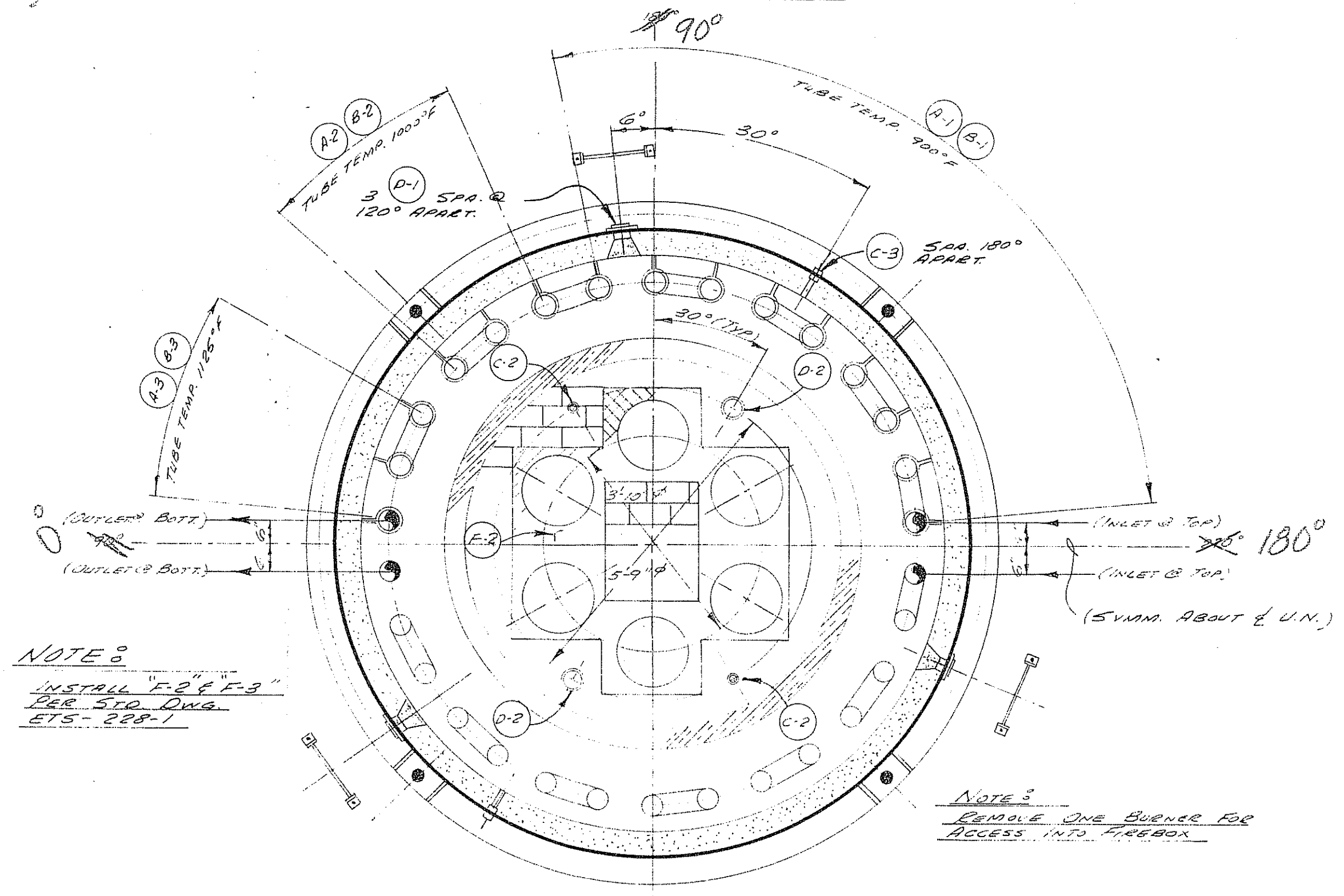
(TYP. LOADING @ EA. COL.)
E.O. LOAD: 436,700#
WIND LOAD: 41,000#
WIND SHEAR: 3,010#
E.O. SHEAR: 6,325#

TOTAL LOADING @ BASE OF STEEL
DEAD LOAD COIL EMPTY = 98,800#
DEAD LOAD COIL FULL OF WATER = 97,800#
WIND TOTAL O.T.M. = 459,700#
EARTH QUAKE TOTAL O.T.M. = 439,500#



ANCHOR BOLT LAYOUT &
FOUNDATION LOADING
WIND LOAD BASIS: PER ASA 150.1 FOR BLYTHEVILLE
ARRANGEMENTS

NOTE:
INSTALL F-2 & F-3
SEE 510 DWG.
ETS-228-1



SECTION THRU FIREBOX
(SHOWING ORIENTATION)
Plant

COIL DATA

DESIGN CONDITIONS:
TEMP: 250°F MAX. FLUID TEMPERATURE AT 15.00 M.M.
BTU PER HR ABSORPTION
PRESSURE: 2,750 P.S.I.G.
TUBE METAL TEMPERATURE: SEE SECT THRU FIREBOX
HYDROSTATIC TEST: 4,125 P.S.I.G.
WELDING: PER SPEC (PER BECHTEL FORM 79 V.P. 4915-1-F-3-1-1 100% X-RAY OF ALL WELDS)

SCHEDULE OF PIPE

| IDENT | QTY | DESCRIPTION |
|-------|-----|--|
| A-1 | 18 | 4.50" O.D. x 0.237" A.W. ALLOY L.P. PER A.S.T.M. SPEC. A-213 GR. F-5 |
| A-2 | 6 | DITTO "A-1" EXCEPT 0.390" M.W. |
| A-3 | 6 | DITTO "A-1" EXCEPT 0.380" M.W. |

SCHEDULE OF FITTINGS

| IDENT | QTY | DESCRIPTION |
|-------|-----|--|
| B-1 | 18 | 8" I.P.S. SCH. 40 (0.237" A.W.) ALLOY L.P. PER A.S.T.M. SPEC. A-213 GR. W.P.S. |
| B-2 | 6 | CAST IRON BAND TO FIT 4.50" O.D. x 0.390" M.W. TUBE 12" C.T.S. PER A.S.T.M. SPEC. A-213 GR. C-2B BECHTEL SPEC. 116-200 |
| B-3 | 4 | DITTO "B-2" EXCEPT 0.380" M.W. |

MISCELLANEOUS CONNECTIONS

| IDENT | QTY | DESCRIPTION |
|-------|-----|--|
| C-1 | 1 | 1" 3000# F.S. CRG. (SCRD.) IN STACK |
| C-2 | 2 | 1" 3000# F.S. CRG. (SCRD.) IN FLOOR ON 4" IS. FOR STEAM TRAP CONN. |
| C-3 | 2 | 1" 3000# F.S. CRG. (SCRD.) IN RADIANT SECTION FOR DRAFT GAUGE |

MISCELLANEOUS ITEMS

| IDENT | QTY | DESCRIPTION |
|-------|-----|--|
| D-1 | 3 | OBSERVATION DOOR |
| D-2 | 2 | FLOOR SIGN FOOT |
| D-3 | 14 | 1" DIA. STUD BUSHING W/ 2" TH. LATH ONE END & 1/2" HEX. NUT (WELD ONE END OF STUD TO RETURN FITTING) |
| D-4 | 6 | JOHN ENK. BURNER TYPE VBMR-12 W/ TUBS |
| D-5 | 1 | ALLOY (B5-12) BAFFLE |
| D-6 | 1 | 5/8" PIPE ANCHORS IN FLOOR SECTION ONLY ON 6" C.T.S. |
| D-7 | 1 | PAINTER TROLLEY & RAIL W/ 3/8" SS. CABLE TO GAUGE |
| D-8 | 1 | RAIN HOOD ON STACK (NOT SHOWN) 410SS |

GENERAL NOTES & STRUCTURE

E-1 FOUNDATION TO BE DESIGNED & CONSTRUCTED BY CUSTOMER
E-2 HEATER TO BE CONSTRUCTED IN ACCORDANCE W/ ECONO-THERM GEN SPEC "V.1"
E-3 WELDED OUTSIDE SURFACES TO BE SAND BLASTED & PAINTED PER BECHTEL SPEC. F-504 SHT-3
E-4 4" O.D. STEEL LINED STACK 1/2" MIN. TH. PLATE SHELL
E-5 (3) LADDERS TO OBSERVATION DOOR
E-6 1" 55 PILING CODE
E-7 1" LECO

(1) APPROVED
(1A) APPROVED FOR FABRICATION AS MARKED, REVISED DWG. NOT REQ'D.
(2) APPROVED FOR FABRICATION AS MARKED, REVISED DWG. REQ'D.
(3) NOT APPROVED, REVISED DWG. REQ'D.

This approval of general compliance with our requirements does not relieve Supplier of responsibility to furnish material or equipment meeting all service and dimensional requirements stipulated on purchase order.

BECHTEL CORPORATION
Date: 3/3/65 By: J.M.

IF-301

V.P.-4915-1-F-3-1-1

EQUIP. NO. IF-301

ECONO-THERM CORPORATION
P.O. BOX 7158 4502 SO. GALVESTON TULSA 5, OKLAHOMA PHO. HI 6-4491

TITLE
ASSEMBLY & CONTROL DRAWING

DWN. TH. CKD. RBE. APP. JED. SCALE NONE. DWG. NO. ETC-121-1. REV. 1. DATE 1-18-65. DATE 2-26-65. DATE 2/26/65.

| INSULATION COMPONENTS | | ALLOY TUBE SUPPORT CASTINGS | |
|-----------------------|---|-----------------------------|-------------------------------------|
| IDENT | DESCRIPTION | IDENT | DESCRIPTION |
| F-1 | 1 1/2" LUMINITE, NAVIDA, VERMICULITE, EDGE THICKNESS AS SHOWN | G-1 | 30 TUBE GUIDE OR ETS-421G-B |
| F-2 | BURNER GRATE 2 1/2" TH. AROUND BURNERS | G-2 | 14 TUBE SUPPORT STOOD OR ETS-681S-1 |
| F-3 | 4 1/2" 2 1/2" FIRST QUALITY FIRE BRICKS IN FLOOR & DIRECTION WALL | | |

CUSTOMER NAME
BECHTEL CORPORATION

P.O. NUMBER:
4915-1-F-3-AC

ITEM NUMBER:
IF-301

SERVICE & DUTY:
15.00 MM. BTU / HR. AMMONIA CONVERTER START-UP HEATER

PLANT & LOCATION:
CONTINENTAL OIL CO. BLYTHEVILLE, ARKANSAS

| REV. | BY | CHKD. | DATE | REVISIONS | DESCRIPTION |
|------|----|-------|------|-----------|-------------|
| | | | | | |

TH RBE
REVISED PER APPROVAL

#94202

DRAWING NUMBER
4915-ID-Q-73
IF-301

DRAWING NUMBER

DRAWING NUMBER

DRAWING NUMBER

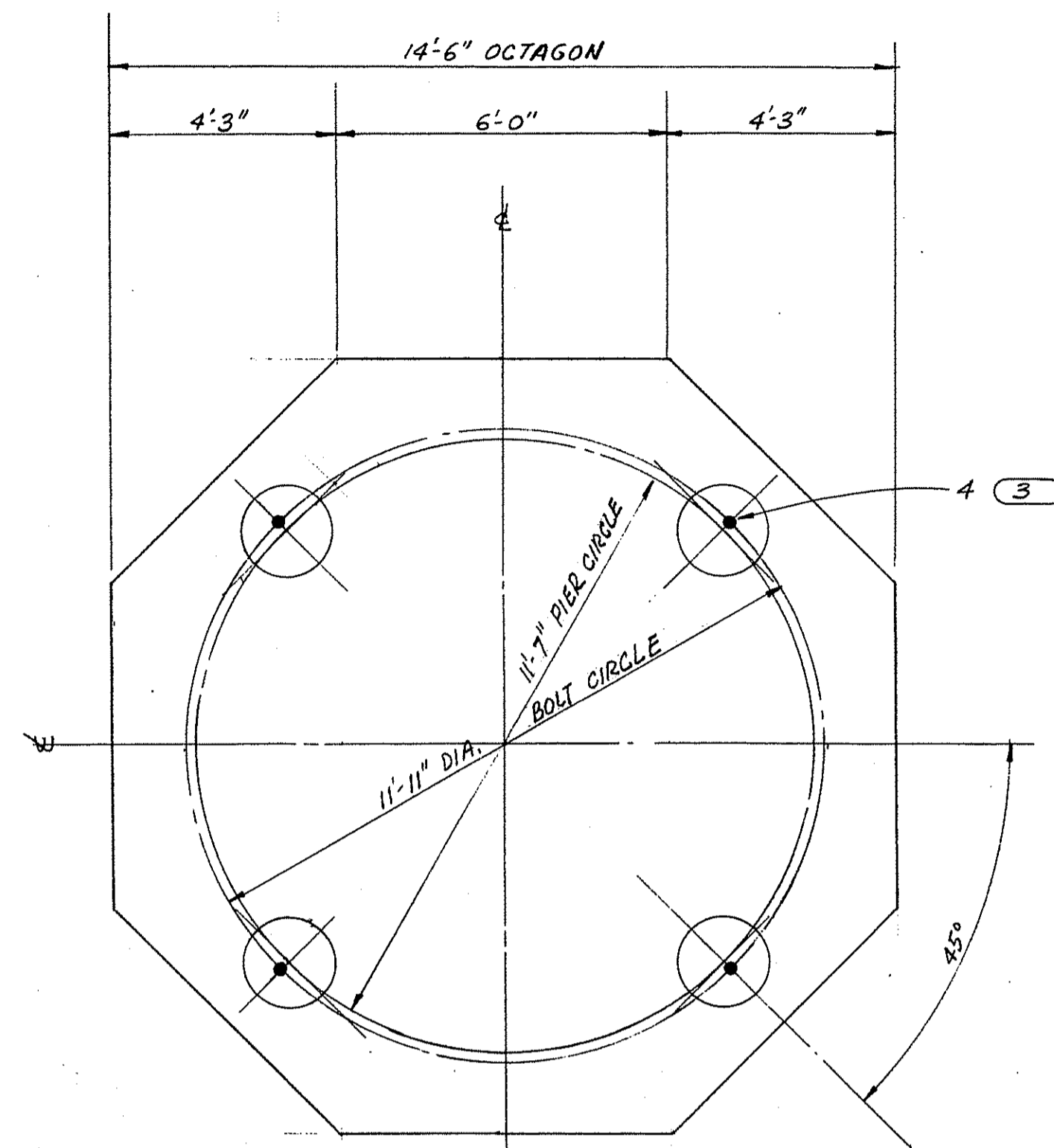
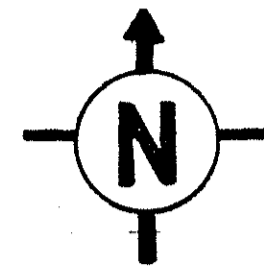
REVISION NUMBER 01/28/84

PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REVISION NUMBER 01/28/84

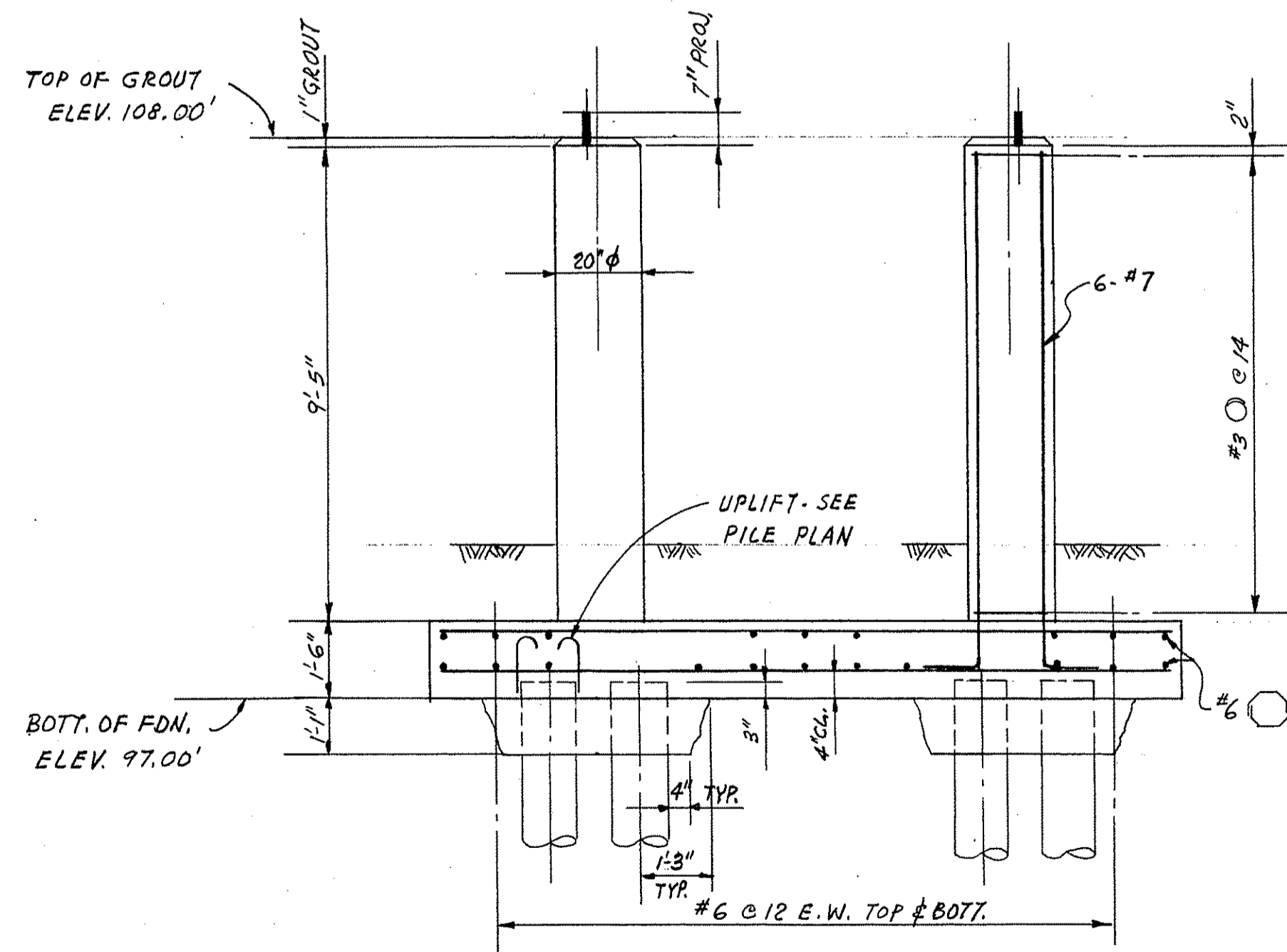
PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REVISION NUMBER 01/28/84

PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
REVISION NUMBER 01/28/84

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PLAN



SECTION

SIZE D (ASA)

LIST OF MATERIAL

| ITEM | QUAN. | DESCRIPTION | ORDER NO. |
|------|-------|---|-----------|
| 1 | 13 | CU. YDS CONCRETE (3,000 P.S.F.) | 10-3 |
| 2 | 1-LOT | REINFORCING BARS. | |
| | | NO. | |
| | | LBS. | |
| 3 | 4 | 1 3/4" x 36" (L) LONG TYPE 2 ANCHOR BOLTS WITH 2 CPSF HEX. NUTS (6" TH'D) | |

GENERAL NOTES

- FOR LOCATION SEE PLOT PLAN DWG. 12-A-21.
- FOR CONCRETE DESIGN & CONSTRUCTION NOTES SEE DWG. 1A-Q-134.

REFERENCE DRAWINGS

| | |
|--------------------------------------|-------------------|
| PLOT PLAN | 12-A-21 |
| CONCRETE DESIGN & CONSTRUCTION NOTES | 1A-Q-134 |
| ANCHOR BOLTS | D-Q-510 |
| PILE PLAN | 1E-Q-2 |
| HEATER IF-301 | U.P. 4915 1-F-3-1 |

MAX. CALCULATED PILE LOADS IN TONS

| | |
|----------------------------|------|
| DEAD + LIVE (OPER.) | 9.0 |
| DEAD + LIVE (OPER. + WIND) | 19.3 |
| UPLIFT | 1.0 |
| STABILITY RATIO | > 2 |

| NO. | DATE | REVISIONS | BY | CHK'D | DATE | ENGR. | CLIENT |
|-----|------|-------------------------|----|-------|------|-------|--------|
| 1 | | ISSUED FOR CONSTRUCTION | HW | RW | 3/82 | | |

SCALE 3/8" = 1'-0"
DESIGNED JS
DRAWN HW

BECHTEL CORPORATION
SAN FRANCISCO

CONTINENTAL OIL COMPANY
1000 T/D AMMONIA PLANT
BLYTHEVILLE ARKANSAS

FOUNDATION FOR IF-301

| JOB No. | DRAWING No. | REV. |
|---------|-------------|------|
| 4915 | ID-Q-73 | 0 |