

SANITARY SEWER and SANITARY SEWER LIFT STATION and FORCE MAIN

LATERAL 281, SOUTHWEST INTERCEPTOR

CITY OF WICHITA, KANSAS

M. E. LINDEBAK CITY ENGINEER

CITY PROJECT NO. 468 - 76 - 245 - 81948 - 000 - 000 - 001
INDEX NO. 740621

DECEMBER 1990

IMPROVEMENT DISTRICT DESCRIPTION

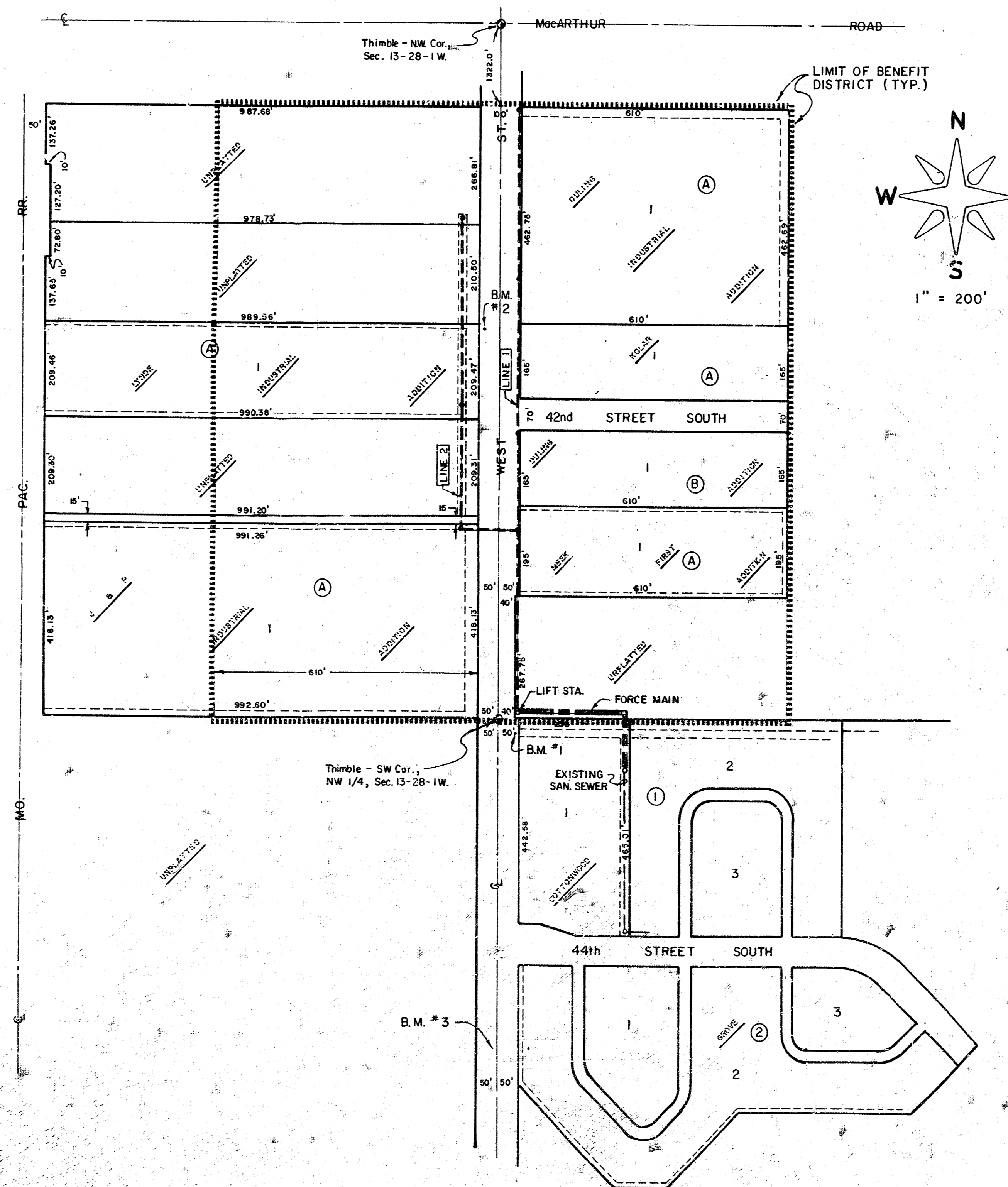
LOT 1, BLOCK A, DULING INDUSTRIAL ADDITION
LOT 1, BLOCK A & LOT 1, BLOCK B, DULING-KOLAR ADDITION
LOT 1, BLOCK A, MEEK FIRST ADDITION
THE EAST 610' OF LOT 1, BLOCK A, J & P INDUSTRIAL ADDITION
THE EAST 610' OF LOT 1, BLOCK A, LYNDE INDUSTRIAL ADDITION

AN UNPLATTED TRACT IN THE NORTHWEST QUARTER OF SECTION 13, TOWNSHIP 28 SOUTH, RANGE 1 WEST OF THE 6th P.M., DESCRIBED AS: THE WEST 660 FEET OF THE SOUTH HALF OF THE SOUTH HALF OF SAID NORTHWEST QUARTER, EXCEPT THE NORTH 395 FEET AND EXCEPT STREET RIGHT-OF-WAY.

AN UNPLATTED TRACT IN THE NORTHEAST QUARTER OF SECTION 14, TOWNSHIP 28 SOUTH, RANGE 1 WEST OF THE 6th P.M., DESCRIBED AS: THE EAST 660 FEET OF SAID NORTHEAST QUARTER, EXCEPT THE NORTH 1322 FEET AND EXCEPT THE SOUTH 418.13 FEET AND EXCEPT THE NORTH 209.46 FEET OF THE SOUTH 851.91 FEET AND EXCEPT STREET RIGHT-OF-WAY.

NOTES.

- CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF TWENTY-FOUR (24) HOURS TO UTILITY COMPANIES PRIOR TO STARTING ANY EXCAVATION AS FOLLOWS:
KANSAS ONE-CALL 1-800-344-7233
THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:
CABLEVISION 262-4270 OR 263-2061
K.P. & I. GAS SERVICE COMPANY 263-7511
KANSAS GAS & ELECTRIC 264-1141
ARKLA GAS COMPANY 942-8350 OR 263-0761
SOUTHWESTERN BELL TELEPHONE COMPANY 1-571-2611
CITY OF WICHITA WATER DEPARTMENT 268-4908
CITY OF WICHITA SEWER MAINTENANCE 268-4071
- INTERURBAN TRAFFIC GENERATED OUTSIDE THE PROJECT AREA IS TO BE CARRIED THROUGH CONSTRUCTION. LOCAL BUSINESS OR APARTMENT TRAFFIC GENERATED WITHIN THE PROJECT AREA IS TO BE CARRIED THROUGH CONSTRUCTION.
- UNDERGROUND UTILITY SERVICE LINES AND OVERHEAD UTILITY POLE LINES ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.
- RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE AND SITE LOCATION. LOCATIONS THAT, IN THE OPINION OF THE ENGINEER, WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED.
ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOOD PLAIN WOULD REQUIRE A KANSAS STATE BOARD OF AGRICULTURE PERMIT. ANY MATERIAL DUMPED IN WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORPS. OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS WOULD REQUIRE ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.
- THE SANITARY SEWER AND FORCE MAIN SHALL BE CONSTRUCTED ON THE ALIGNMENT SHOWN BY THE PLANS. HEDGE, TREES AND SHRUBS IN EASEMENTS OR PUBLIC RIGHT-OF-WAY WHICH ARE IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR WITH THE ENGINEER'S APPROVAL. TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE SAVED AND PROTECTED FROM DAMAGE. THE COST FOR ANY NECESSARY TREE REMOVAL, TIMING, CLEARING AND GRUBBING SHALL BE CONSIDERED SUBSIDIARY AND NOT PAID FOR SEPARATELY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPER IRONS. THE CONTRACTOR WILL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.
- THE LUMP SUM PRICE BID FOR FURNISHING AND INSTALLING LIFT STATION WITH STANDBY POWER MODULE AND MISCELLANEOUS APPURTENANCES COMPLETE IN PLACE SHALL INCLUDE ALL COSTS FOR FURNISHING AND INSTALLING THE LIFT STATION AND STANDBY POWER MODULE AS INDICATED ON THE SITE PLAN COMPLETE IN PLACE AND IN OPERATION. SUCH LUMP SUM BID SHALL INCLUDE THE COST OF INSUPPORTING AND/OR INSTALLING COMPACTED FILL, CONCRETE PAD, ACCESS DRIVE AND CURVE, ELECTRICAL PEDESTAL, ELECTRICAL CONDUIT, ELECTRICAL WIRING, DISCONNECT SWITCH, ELECTRICAL POWER SUPPLY, NATURAL GAS FUEL SUPPLY, FINISHED GRADING AND ANY OTHER INCIDENTALS NECESSARY TO COMPLETE THE WORK.
- CONTRACTOR SHALL FURNISH AND INSTALL A METER RACK TO SUPPORT THE DISCONNECT AND METER ENCLOSURES IN A LOCATION APPROVED BY THE ENGINEER.
- A 2" CONDUIT SHALL BE INSTALLED UNDERGROUND FROM THE DISCONNECT SWITCH LOCATED ON THE ELECTRICAL SERVICE PEDESTAL TO THE LIFT STATION MODULE AND FROM THE LIFT STATION MODULE TO THE STANDBY POWER MODULE AND FROM THE STANDBY POWER MODULE TO THE DISCONNECT SWITCH LOCATED ON THE ELECTRICAL SERVICE PEDESTAL. A 3/4" CONDUIT SHALL BE INSTALLED UNDERGROUND BETWEEN THE LIFT STATION MODULE AND THE ELECTRICAL SERVICE PEDESTAL TO FACILITATE CONNECTION OF THE ALARM SYSTEM BY OTHERS. THE ELECTRICAL POWER SUPPLY TO THE METER BASE MUST BE UNDERGROUND. ALL ELECTRICAL WIRING SHALL CONFORM TO THE CITY OF WICHITA CODE.
- A UL LISTED LIGHTNING ARRESTOR SHALL BE INSTALLED AFTER THE DISCONNECT SWITCH FOR VOLTAGE SURGE PROTECTION OF THE AUTOMATIC TRANSFER SWITCH AND ALL SECONDARY WIRING.
- THE DRIVE APPROACH TO THE LIFT STATION AND ALSO THE 2 - 6' GATES (12" OPENING) SHALL BE CONSTRUCTED AS INDICATED ON THE PLAN AND SHALL BE INCLUDED AS PART OF THE LUMP SUM PRICE BID FOR FURNISHING AND INSTALLING LIFT STATION.
- THE CONTRACTOR SHALL CONTACT K.G. & E. (MIKE PRUITT, 261-6257) TO MAKE ARRANGEMENTS FOR ELECTRICAL SERVICE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ARRANGEMENTS WITH ARKLA GAS COMPANY (JERRY WATKINS, 942-8350) FOR EXTENSION OF GAS SERVICE TO THE LIFT STATION SITE, AND FOR PAYMENT OF COSTS OF SUCH EXTENSION AND METER SETTING. LOCATION OF METER TO BE ACCEPTABLE TO ARKLA GAS COMPANY AND TO THE CITY OF WICHITA SEWER MAINTENANCE DEPT.
- FITTINGS AND CONCRETE THRUST BLOCKS SHALL BE CONSIDERED SUBSIDIARY TO THE INSTALLATION OF THE FORCE MAIN AND NOT PAID FOR SEPARATELY.
- FORCE MAIN WARNING SIGNS SHALL BE PLACED AT THE FOLLOWING STATIONS: 2+30 AND 3+38.
- UNLESS OTHERWISE SPECIFIED ON THE PLANS, MANHOLES MAY BE TYPE "P", "C", OR "D" MANHOLES. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS.
- THE CONTRACTOR SHALL RESTORE ALL DITCHES, SHALES, ROAD SHOULDERS, ENTRANCES AND BANK LINES TO THEIR ORIGINAL SLOPES AND GRADES EXCEPT AS SHOWN OTHERWISE.



BENCHMARKS

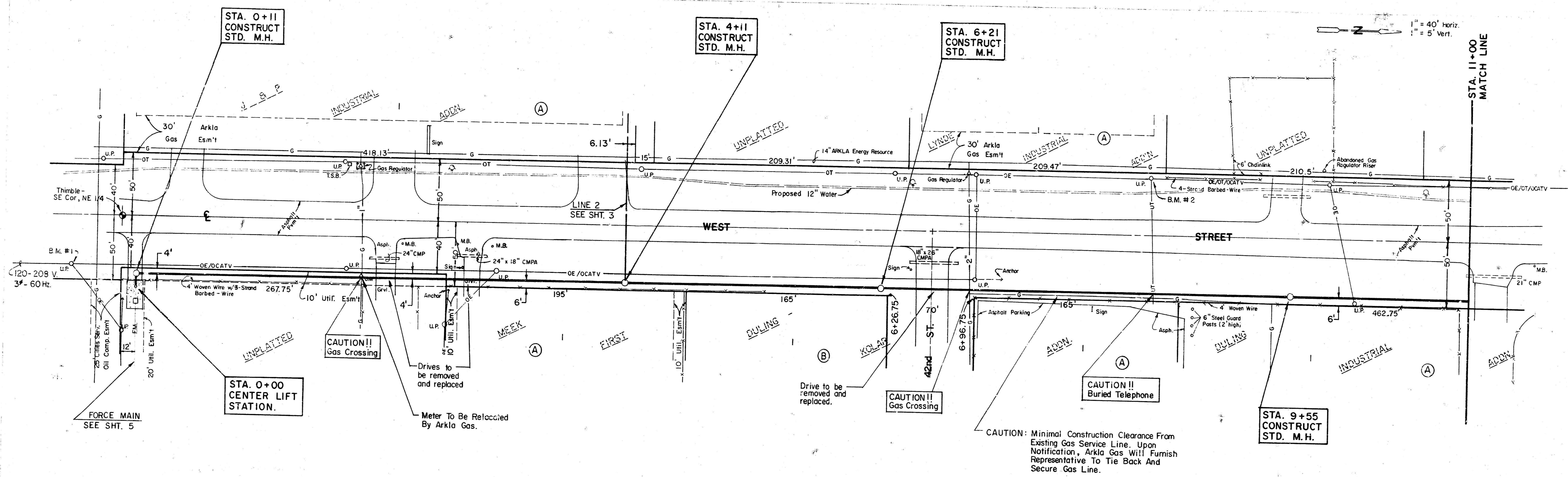
- R.R. Spike in utility pole 40' S. & 40' E. of E. 1/4 Cor., Sec. 14-28-1W. Elev. = 94.13 City Datum
- R.R. Spike in E. face utility pole 10' S. & 5' E. of NE property cor., Lynde Industrial Addition. Elev. = 96.26 City Datum
- "O" on E. hubguard R.C.B. under West St., approx. 250' S. of 44th St. South. Elev. = 94.18 City Datum

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4	Plan & Profile - Line 2
5	Plan & Profile - Force Main
6	Site Plan & Details, Force Main & Lift Station
7	Stand-by Generator
8,9	Lift Station

Booked 2-19-92

MOEHRING & ASSOCIATES CONSULTING ENGINEERS WICHITA



LINE 1

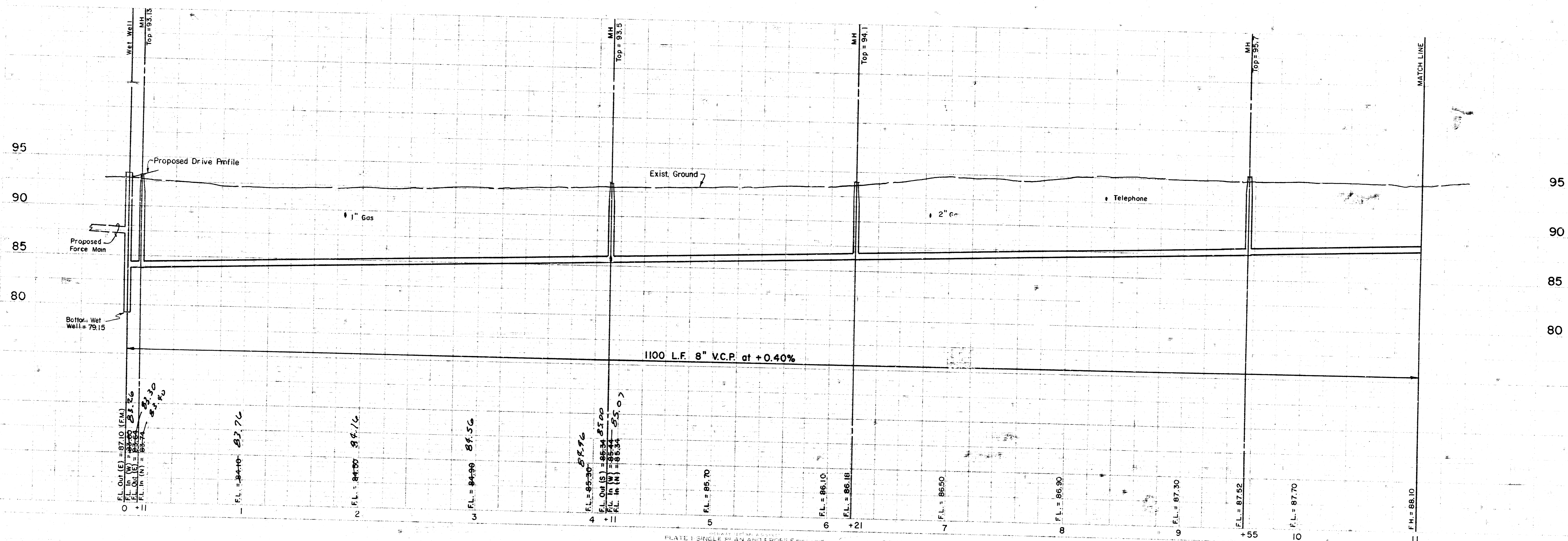


PLATE 1 SINGLE PLAN AND PROFILE FULL LINE

MOEHRING & ASSOCIATES CONSULTING ENGINEERS

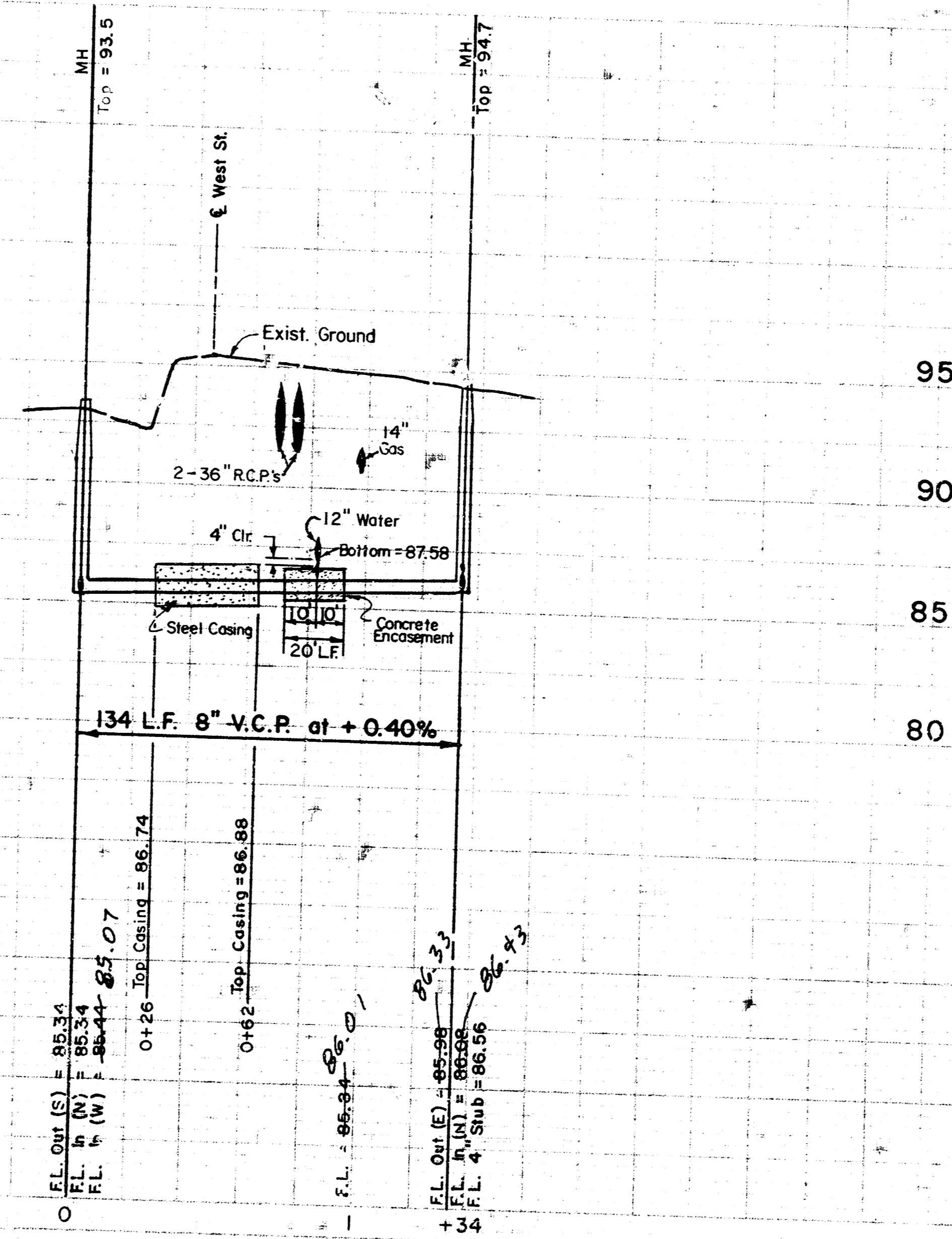
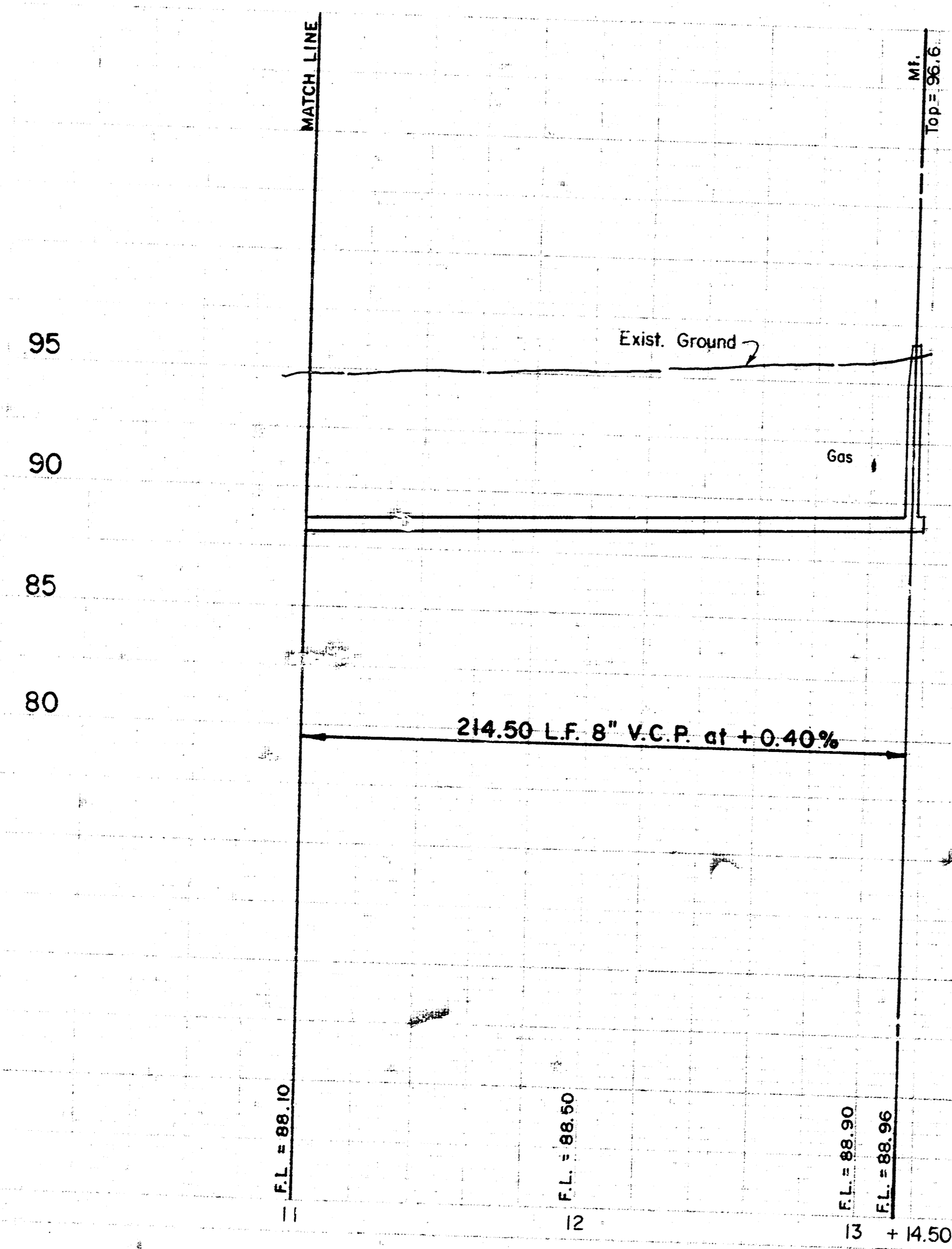
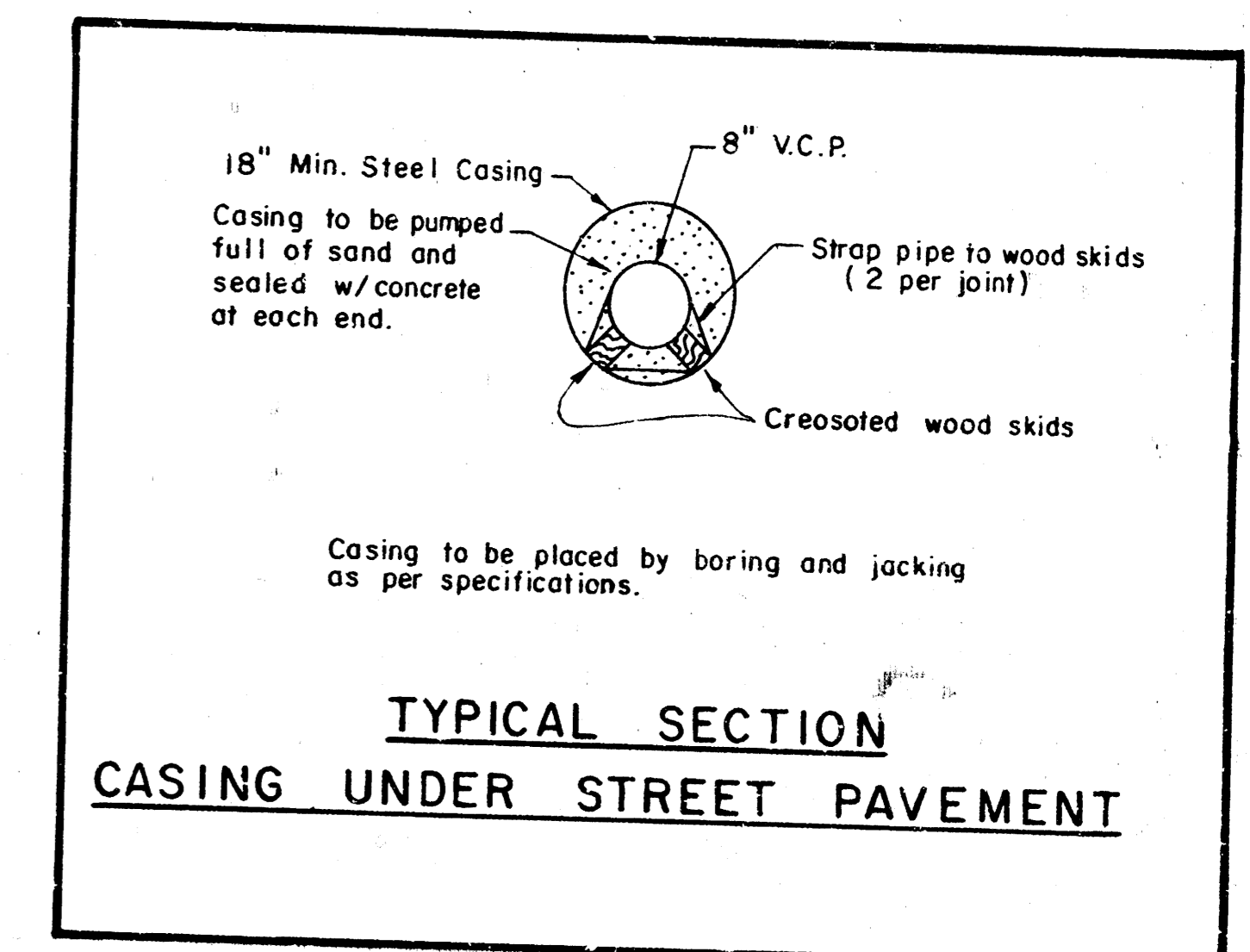
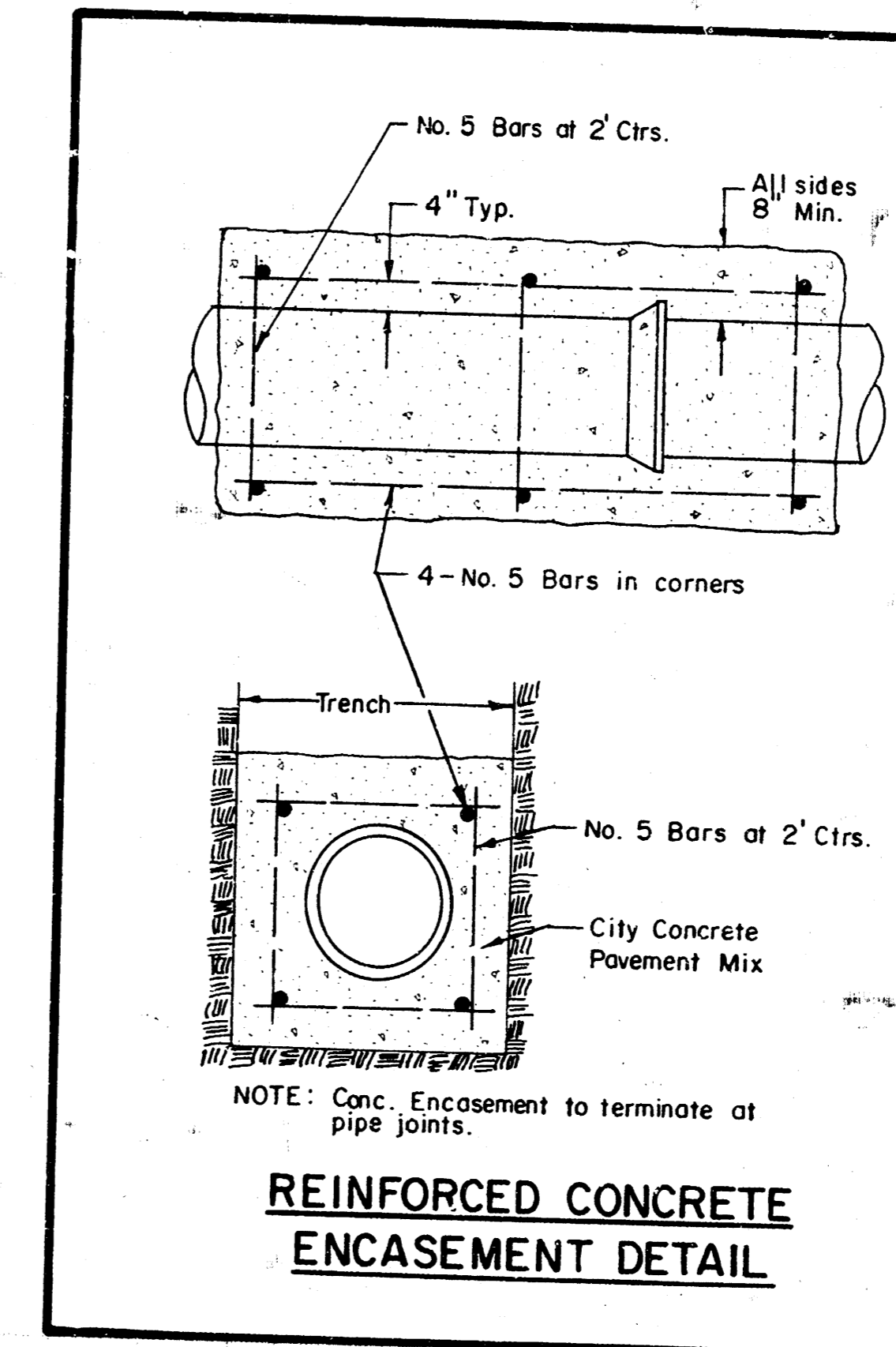
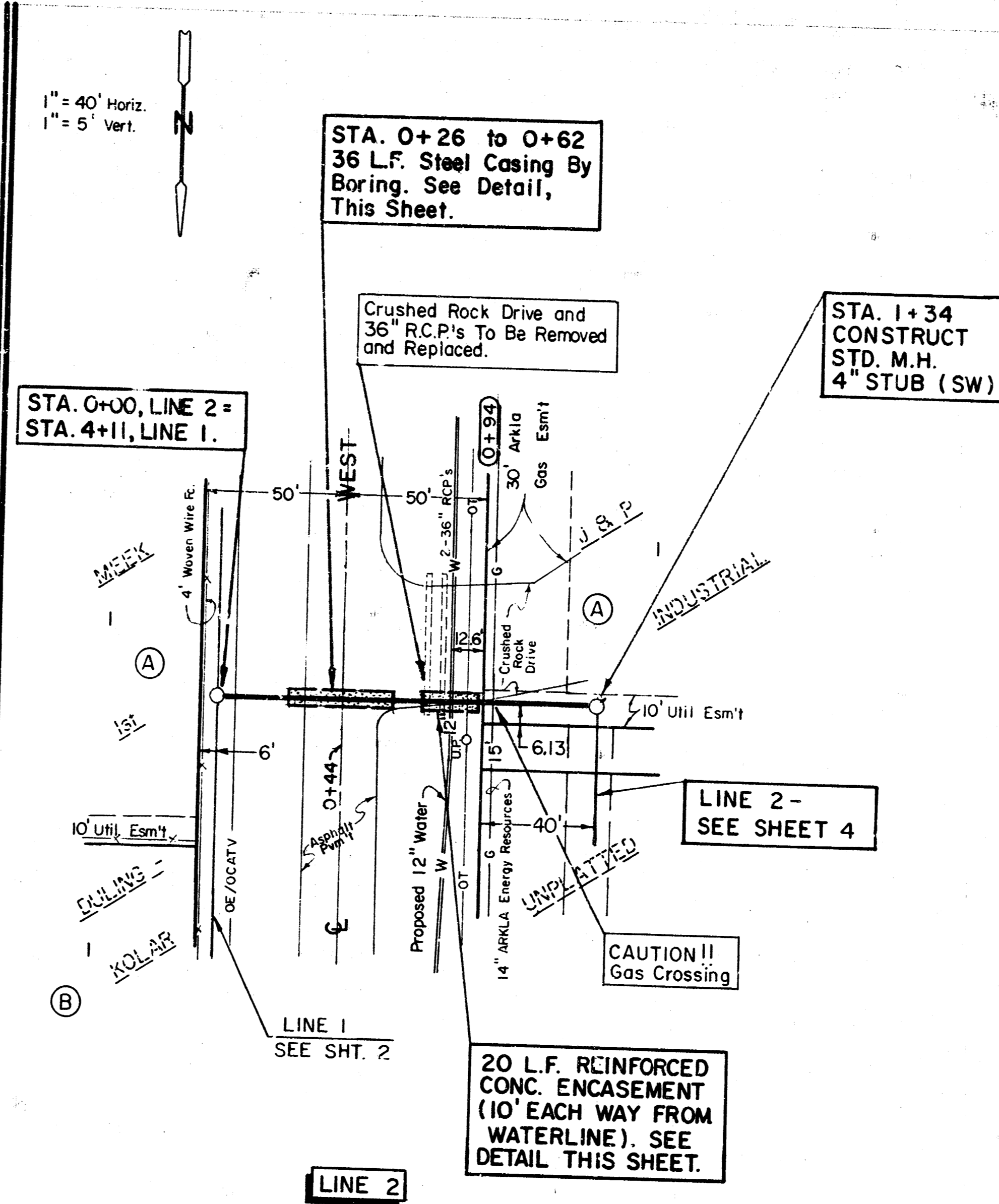
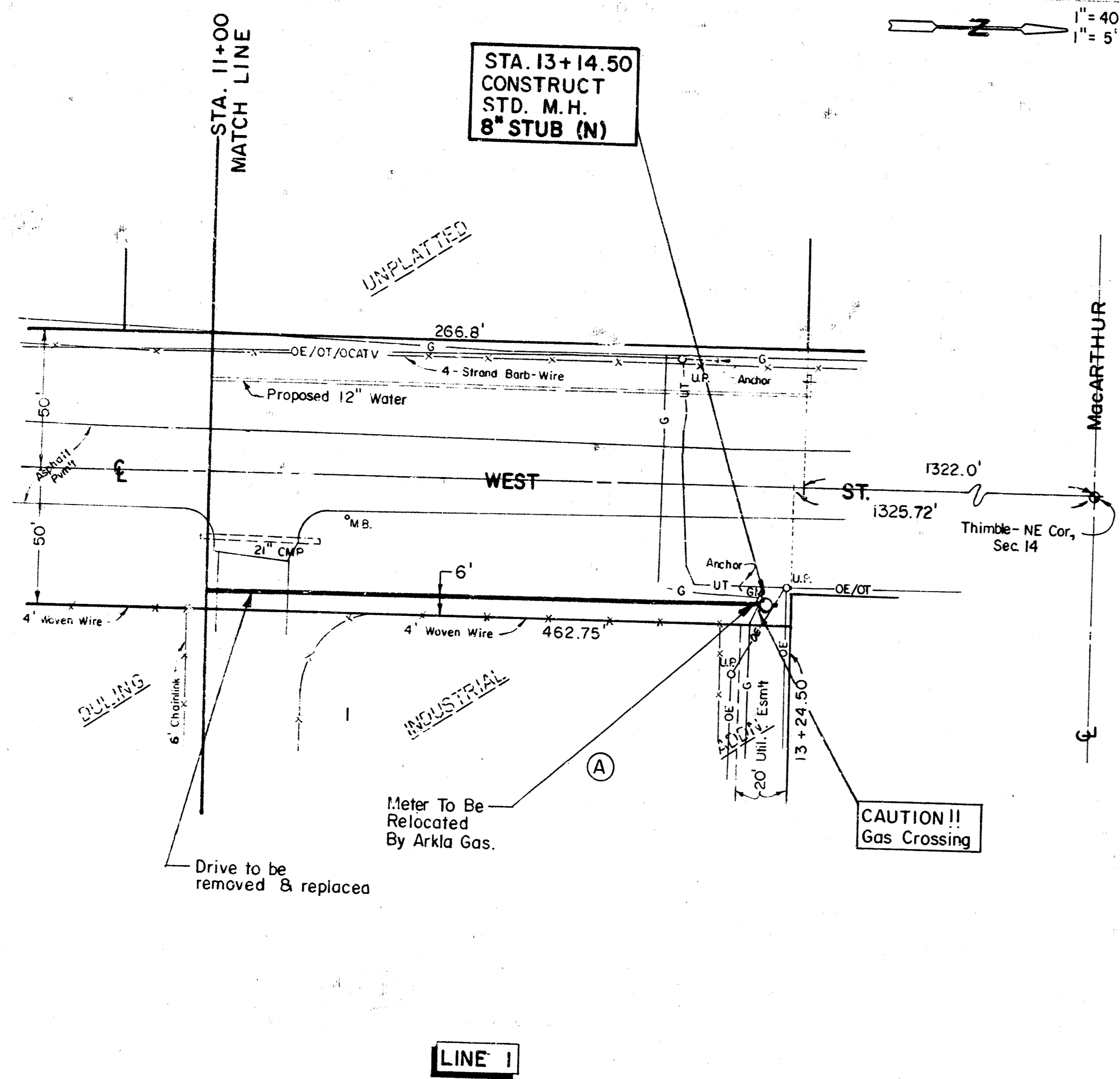
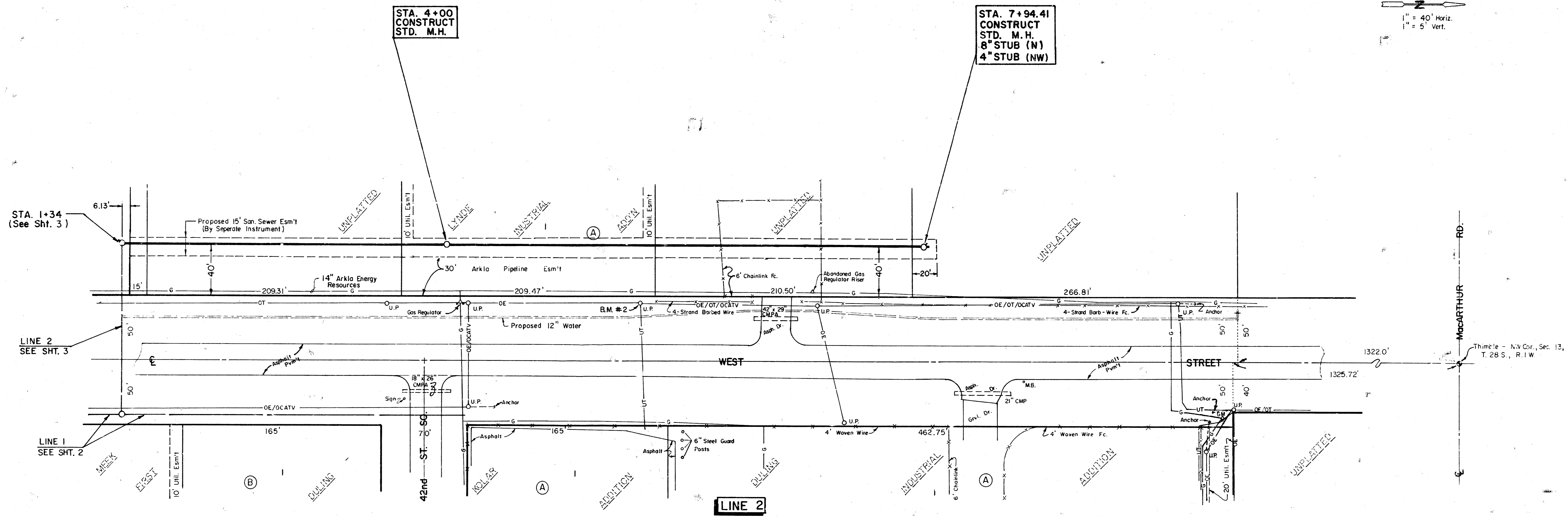


PLATE SINGLE PLAN AND PROFILE



1" = 40' Horiz.
1" = 5' Vert.

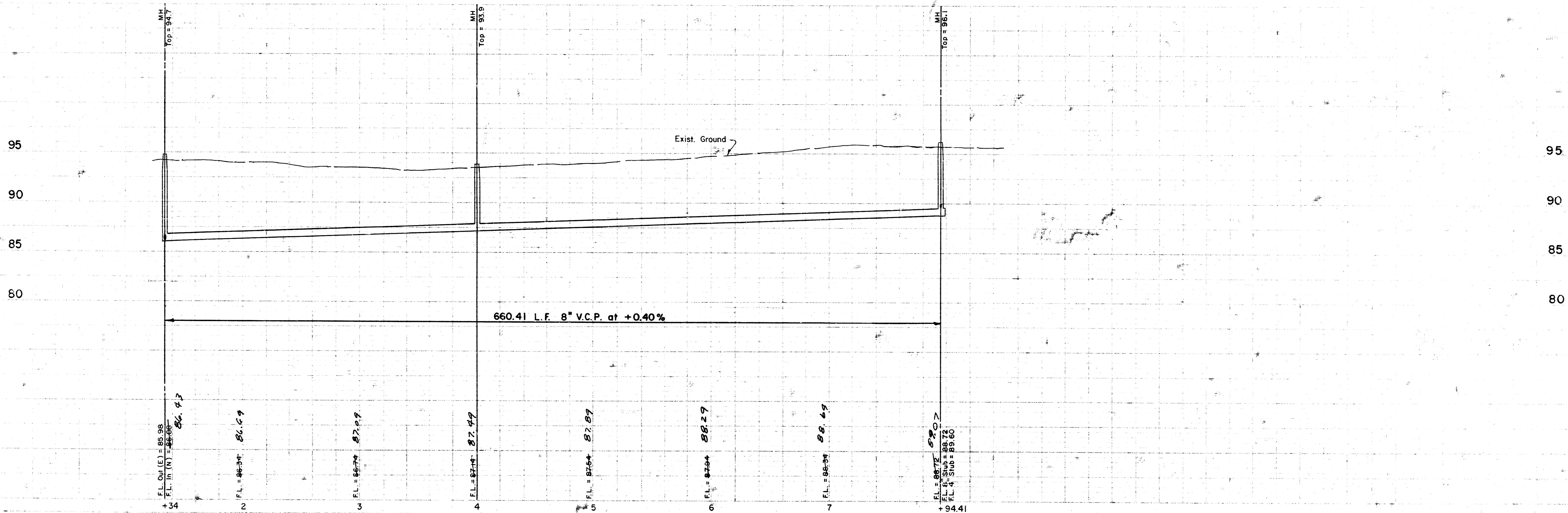
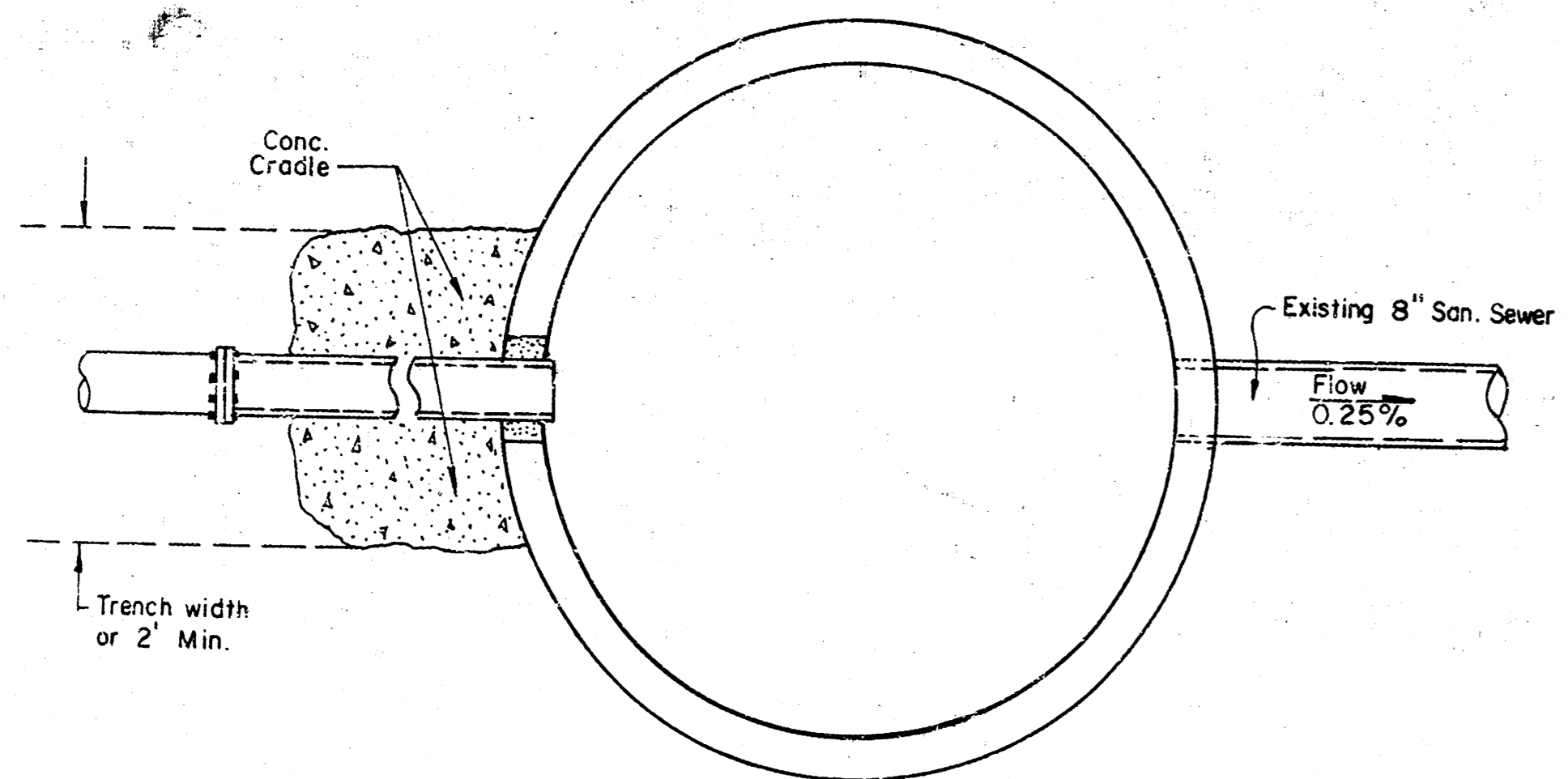


PLATE IN SINGLE PLAN AND PROFILE ELEVATION

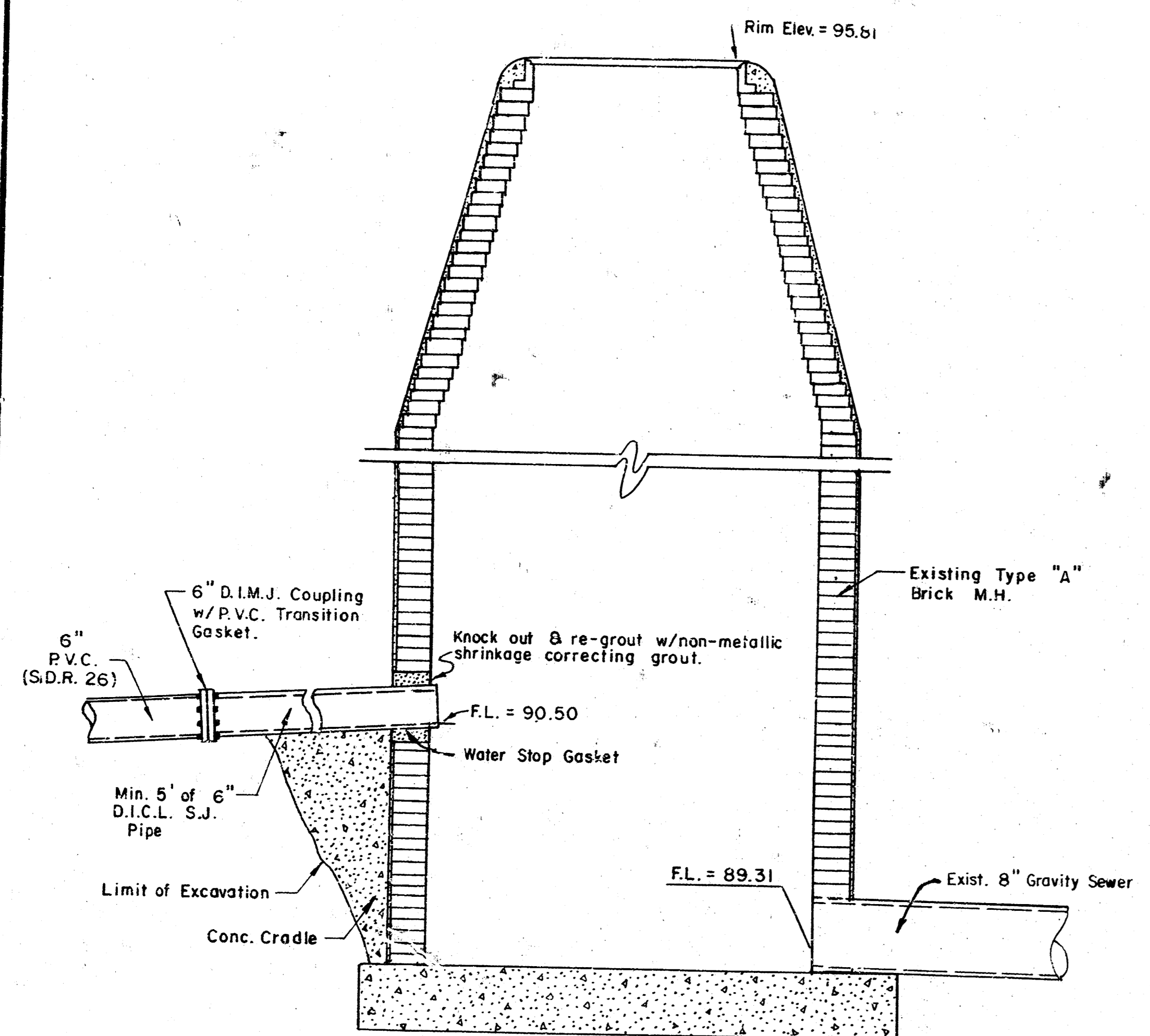
MOHRING & ASSOCIATES CONSULTING ENGINEERS

PROJ. NO. 468-76-245-81943-000-001

Sheet 4

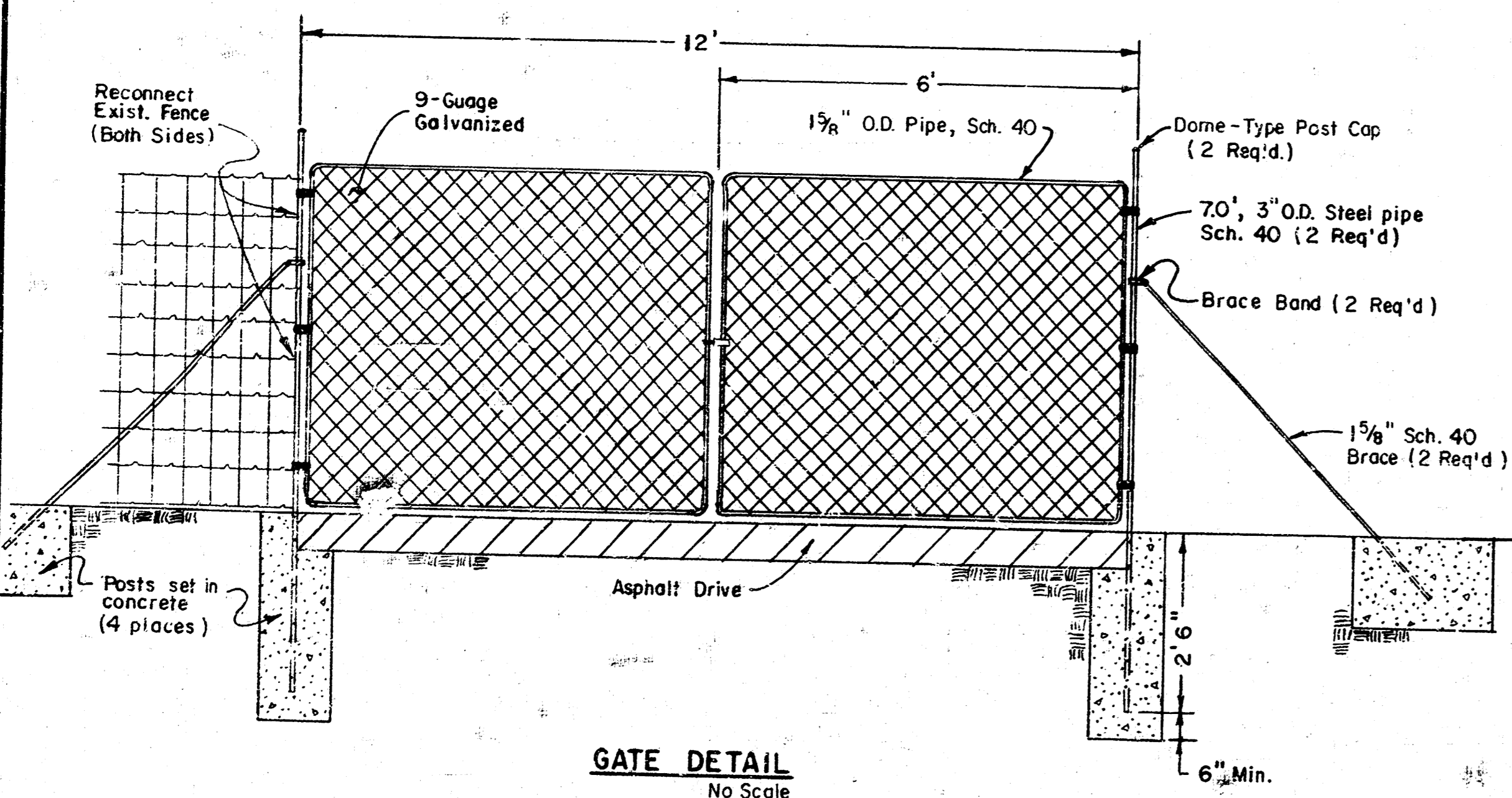


PLAN



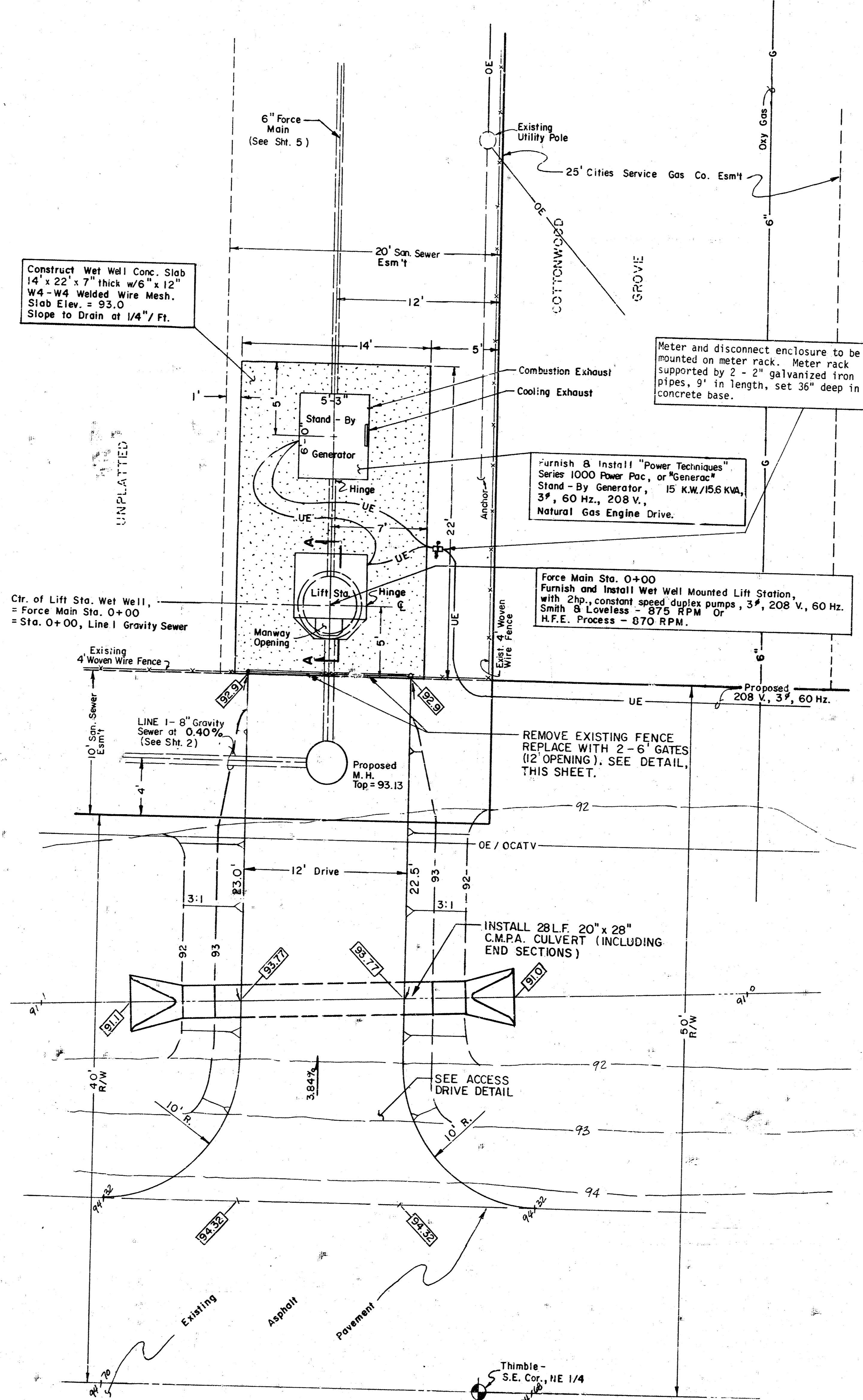
SECTION

RECEIVING MANHOLE CONNECTION DETAIL
No Scale



GATE DETAIL
No Scale

1" = 5'
 OE = Overhead Electric
 OCATV = Overhead Cable TV
 UE = Underground Electric



Construct Wet Well Conc. Slab
 14' x 22' x 7" thick w/6" x 12"
 W4-W4 Welded Wire Mesh.
 Slab Elev. = 93.0
 Slope to Drain at 1/4" / Ft.

Furnish & install "Power Techniques"
 Series 1000 Power Pac, or "Generac"
 Stand-By Generator, 15 KW/15.6 KVA,
 3 ϕ , 60 Hz, 208 V,
 Natural Gas Engine Drive.

Force Main Sta. 0+00
 Furnish and install Wet Well Mounted Lift Station,
 with 2hp, constant speed duplex pumps, 3 ϕ , 208 V, 60 Hz.
 Smith & Loveless - 875 RPM Or
 H.F.E. Process - 870 RPM.

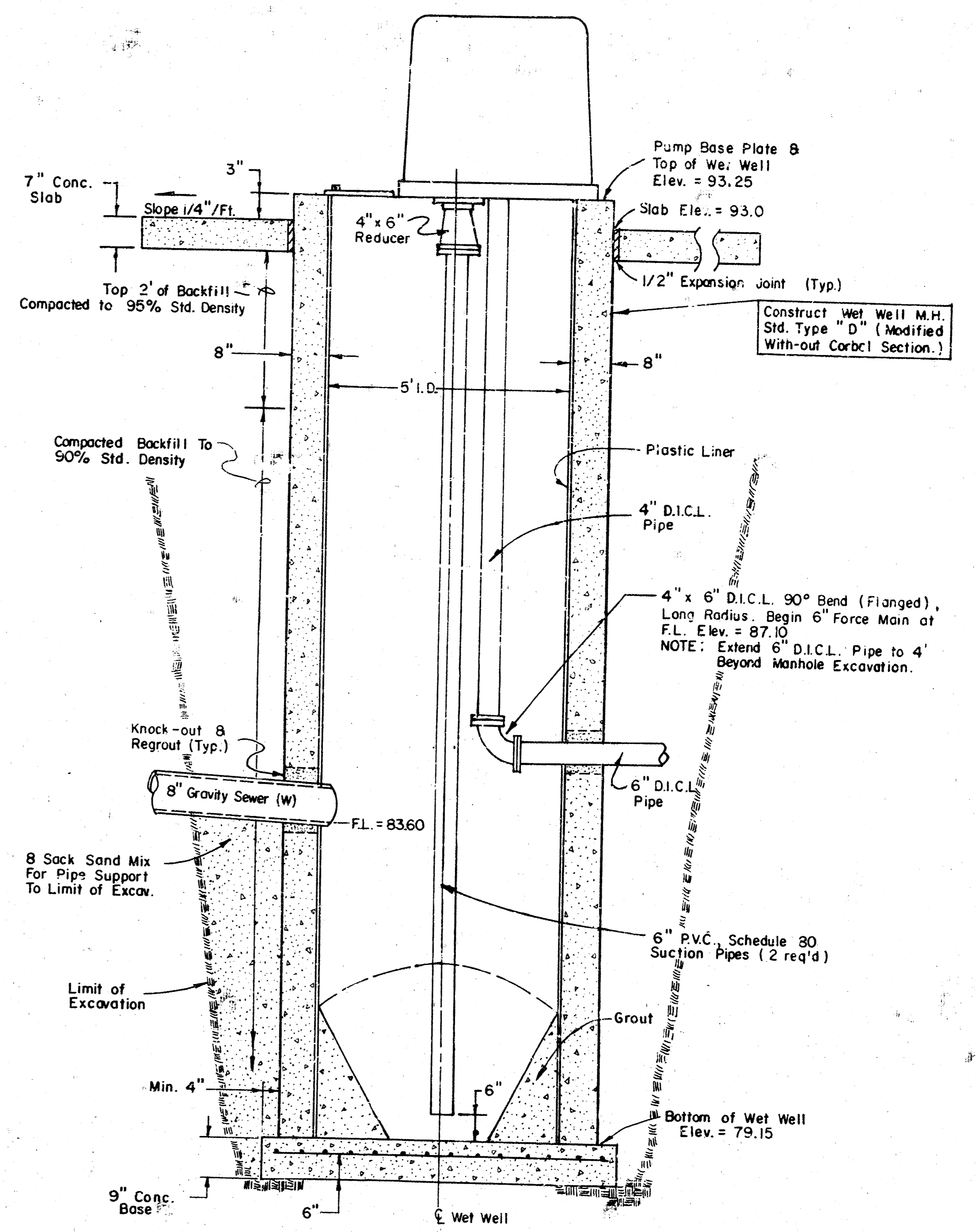
Clr. of Lift Sta. Wet Well,
 = Force Main Sta. 0+00
 = Sta. 0+00, Line 1 Gravity Sewer

REMOVE EXISTING FENCE
 REPLACE WITH 2-6' GATES
 (12 OPENING). SEE DETAIL,
 THIS SHEET.

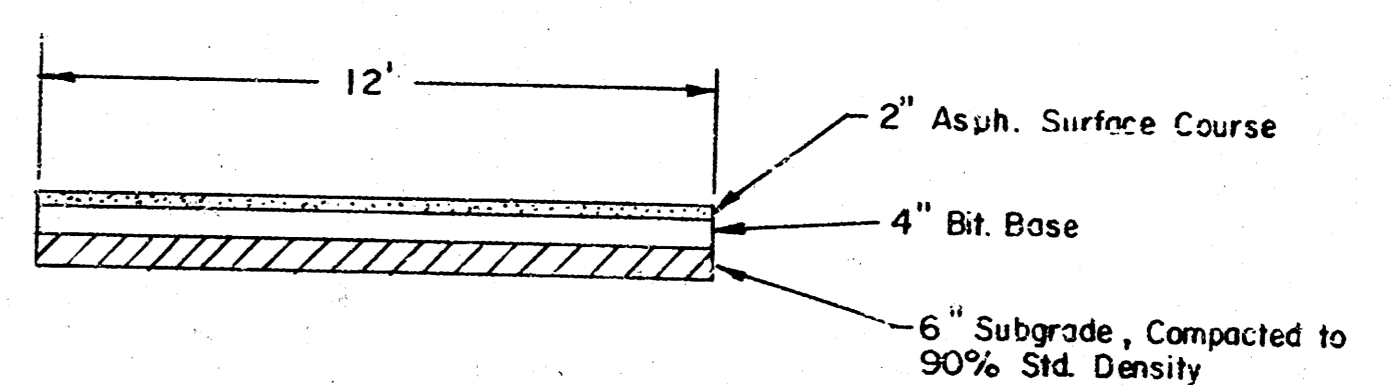
INSTALL 28" L.F. 20" x 28"
 C.M.P.A. CULVERT (INCLUDING
 END SECTIONS)

SEE ACCESS
 DRIVE DETAIL

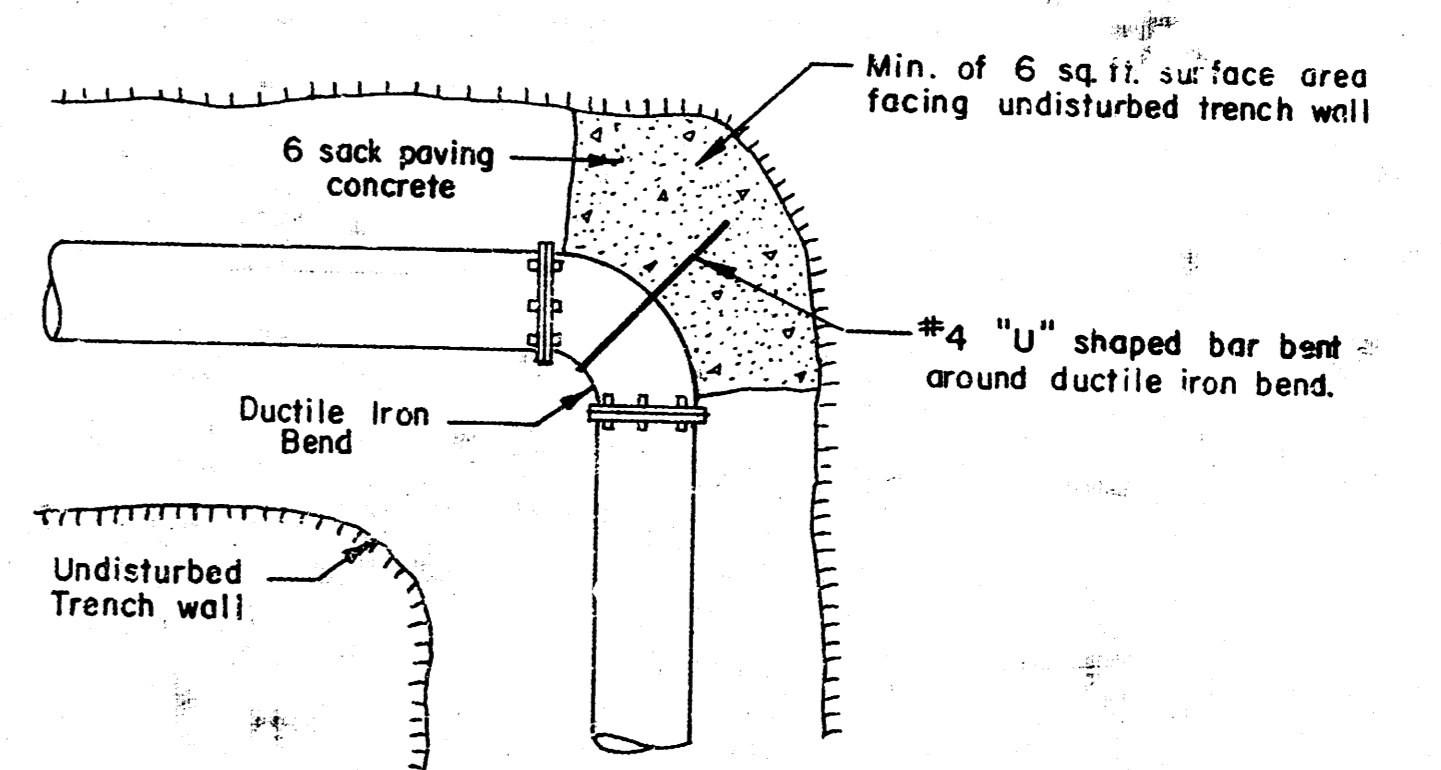
Thimble -
 S.E. Cor. 1/4"



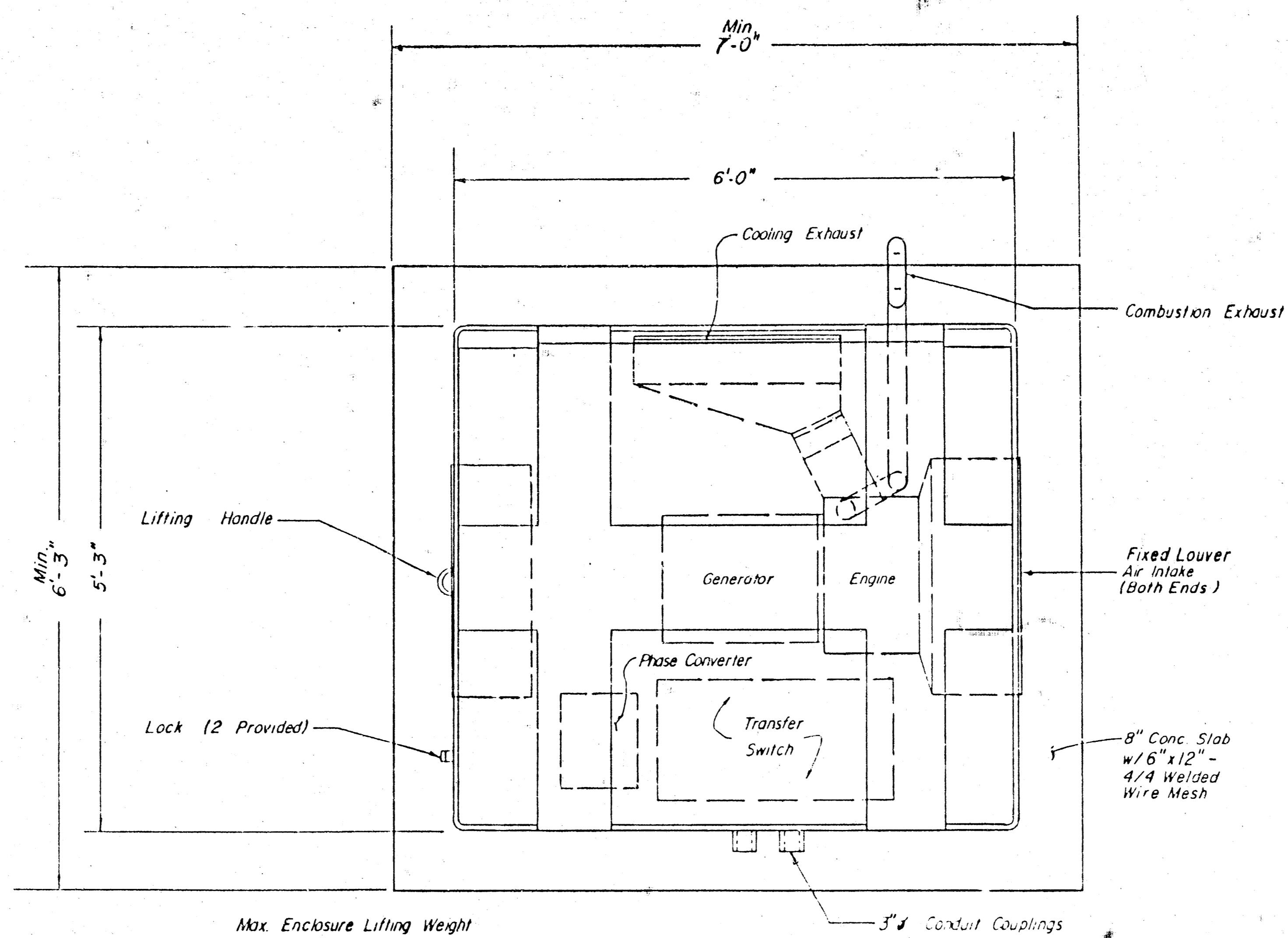
SEC. A-A
 LIFT STATION
 SECTIONAL ELEVATION
 No Scale



ACCESS DRIVE DETAIL
 No Scale



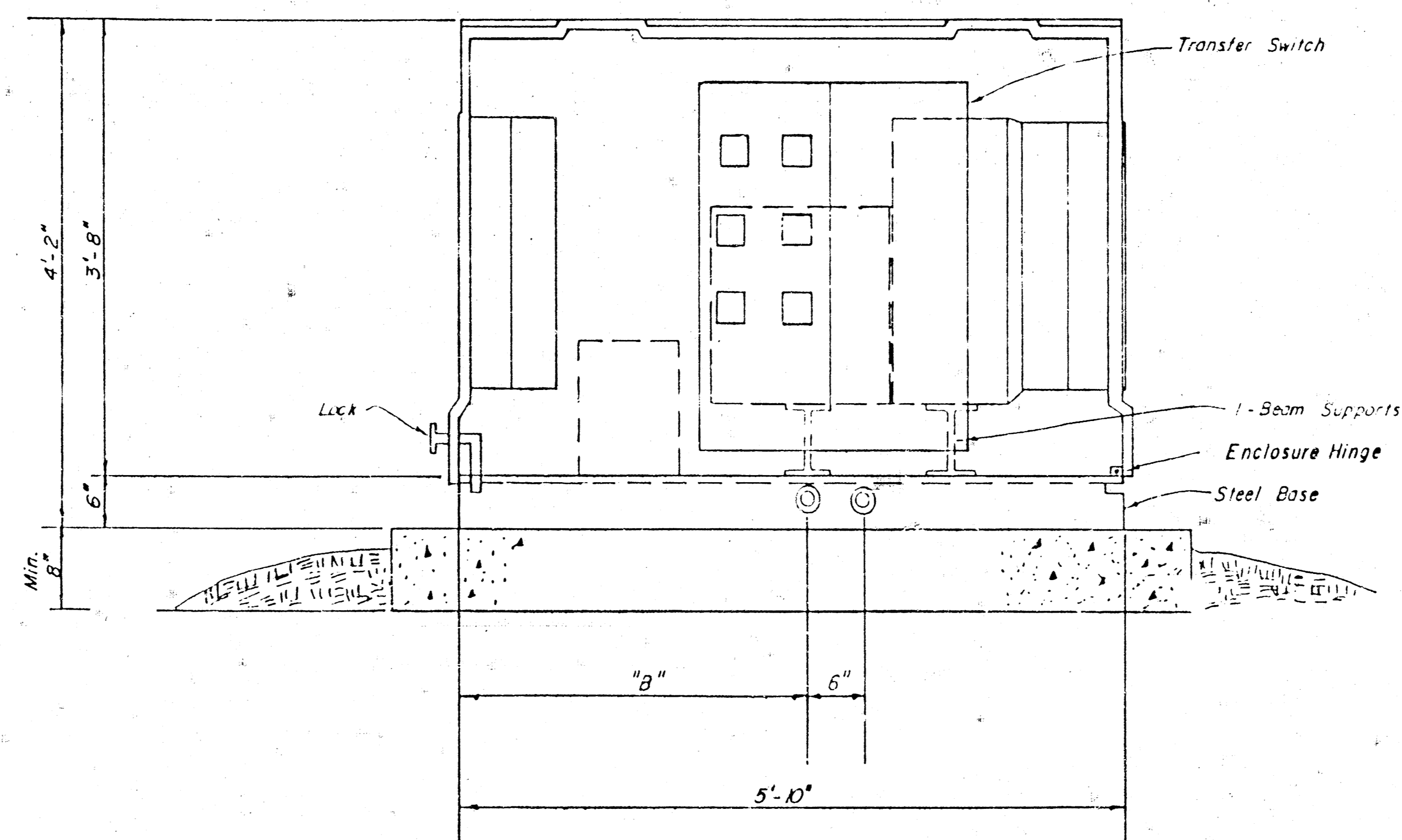
THRUST BLOCK DETAIL
 No Scale



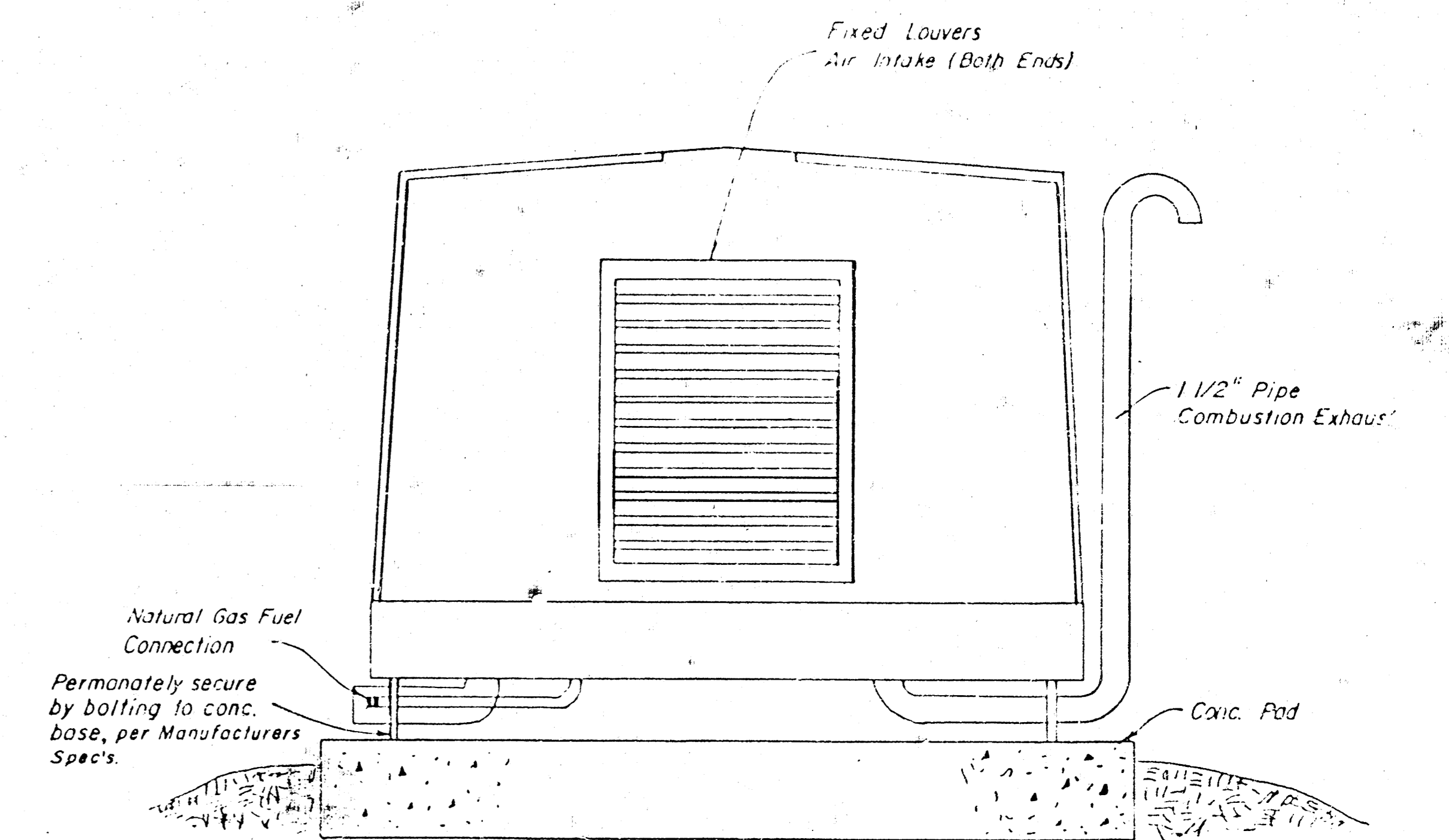
Max. Enclosure Lifting Weight Not To Exceed 40lbs. At Lifting Handle.

TOP VIEW

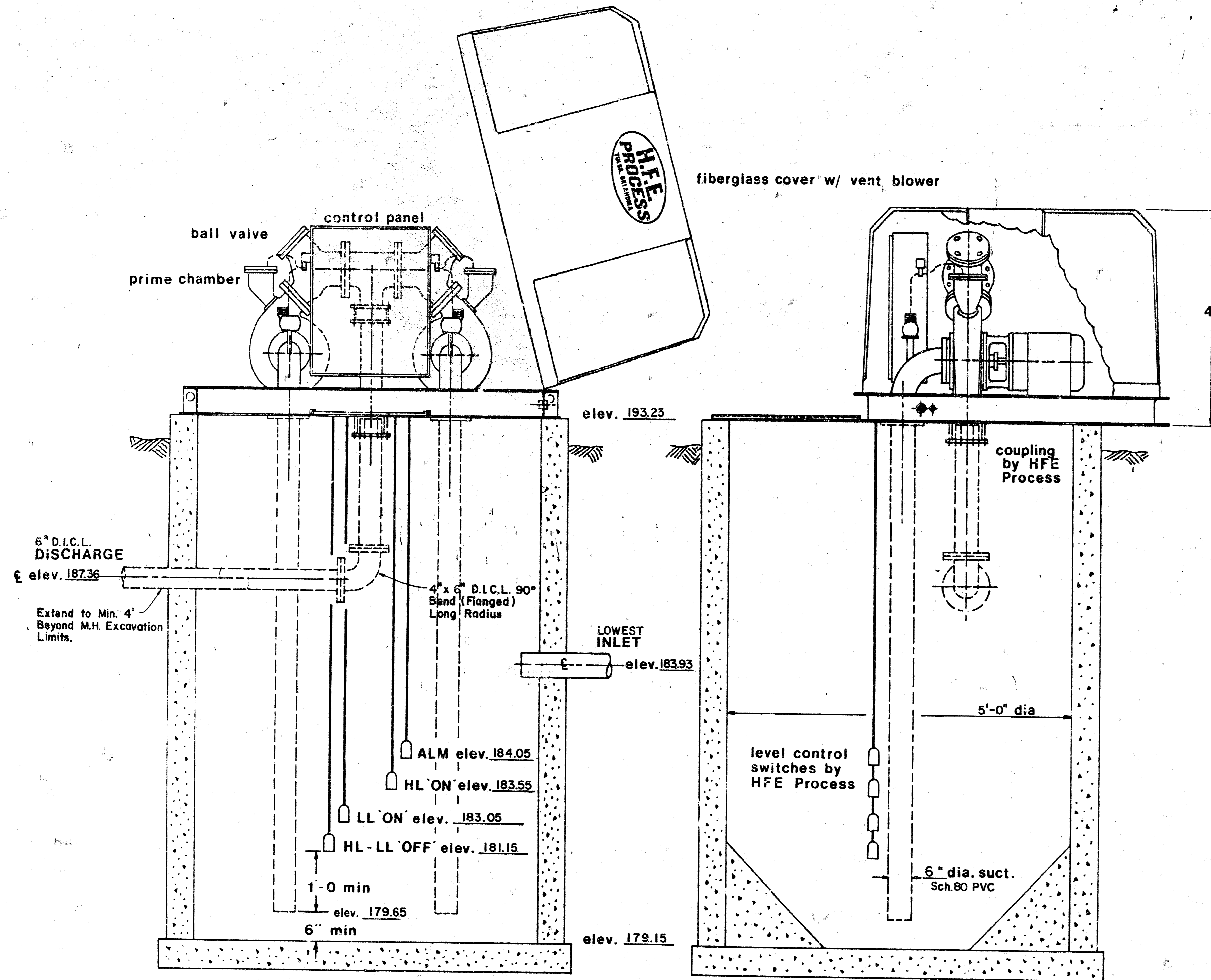
STAND-BY GENERATOR DETAILS
 STANNARD POWER EQUIPMENT CO.
 SERIES 1000 (NOW POWER TECHNIQUES, INC.)
 (N.T.S.)



SECTIONAL ELEVATION

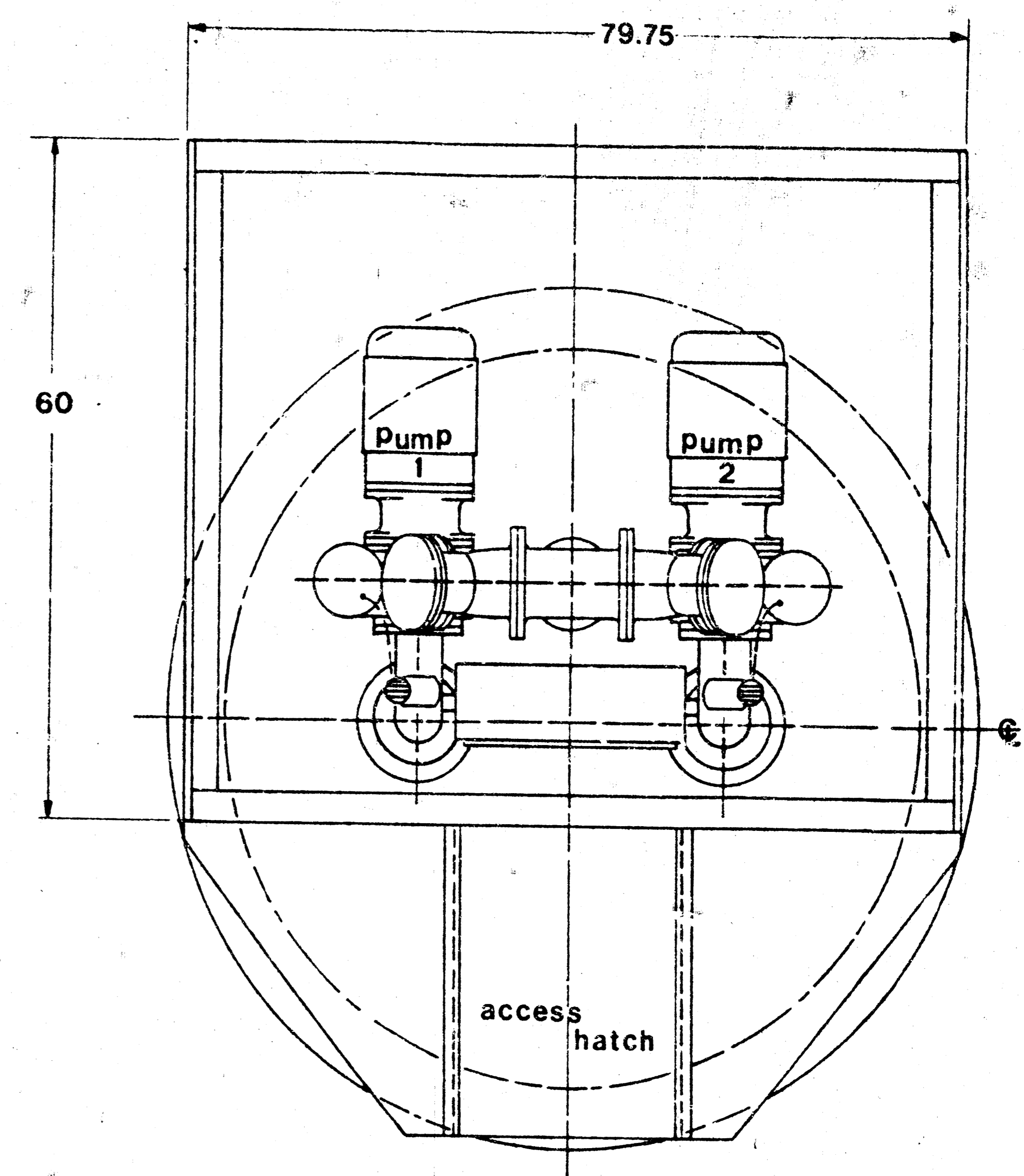


END VIEW



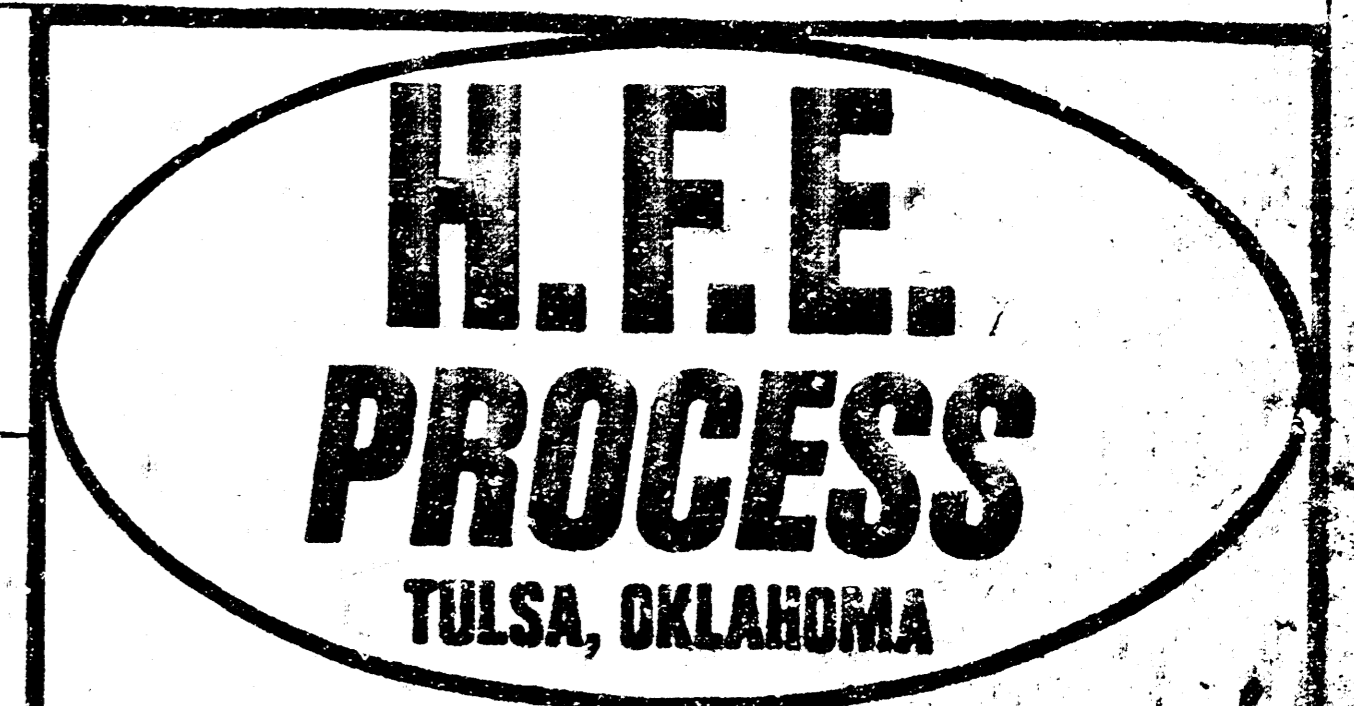
FRONT ELEVATION

SIDE ELEVATION

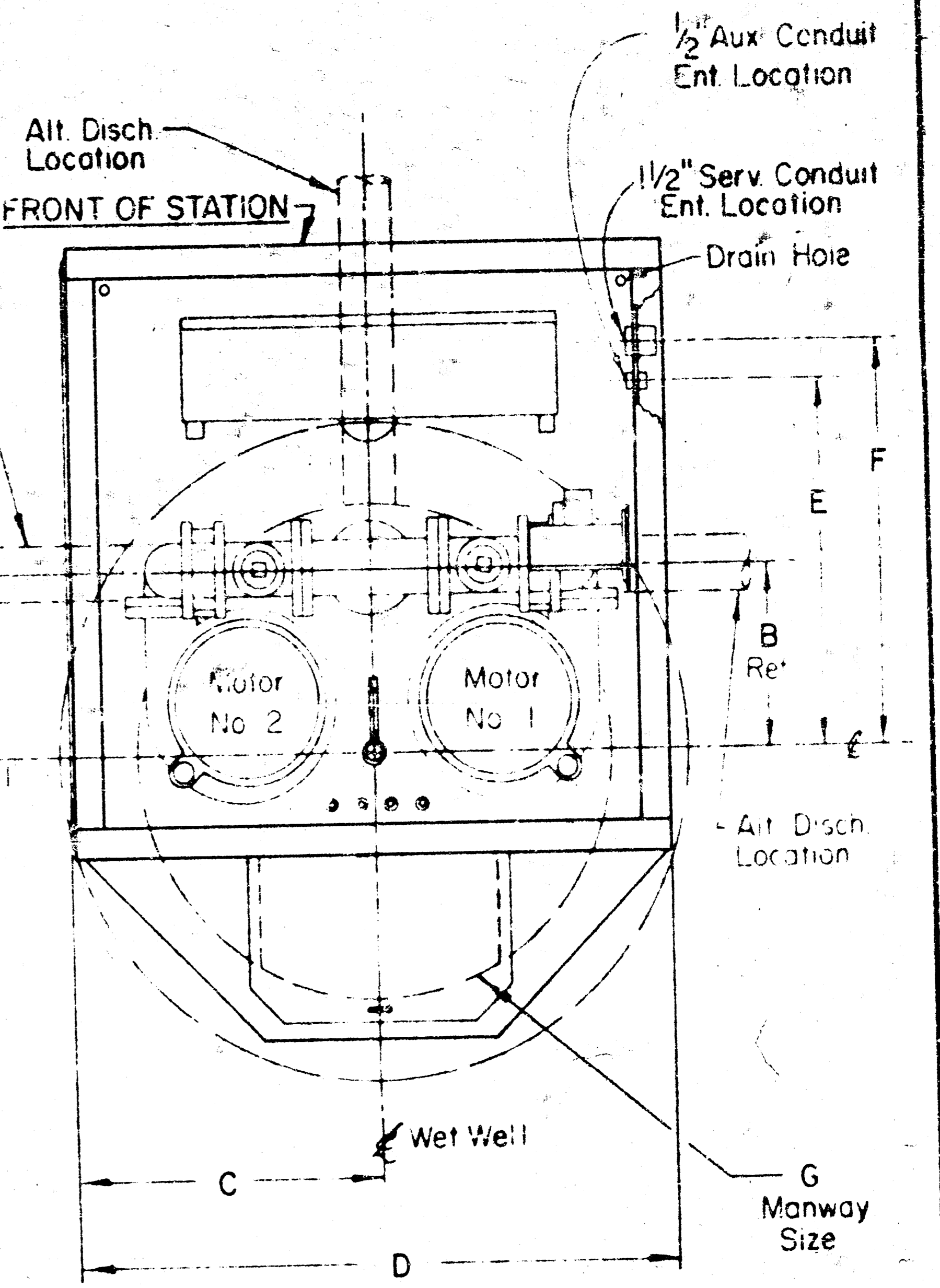
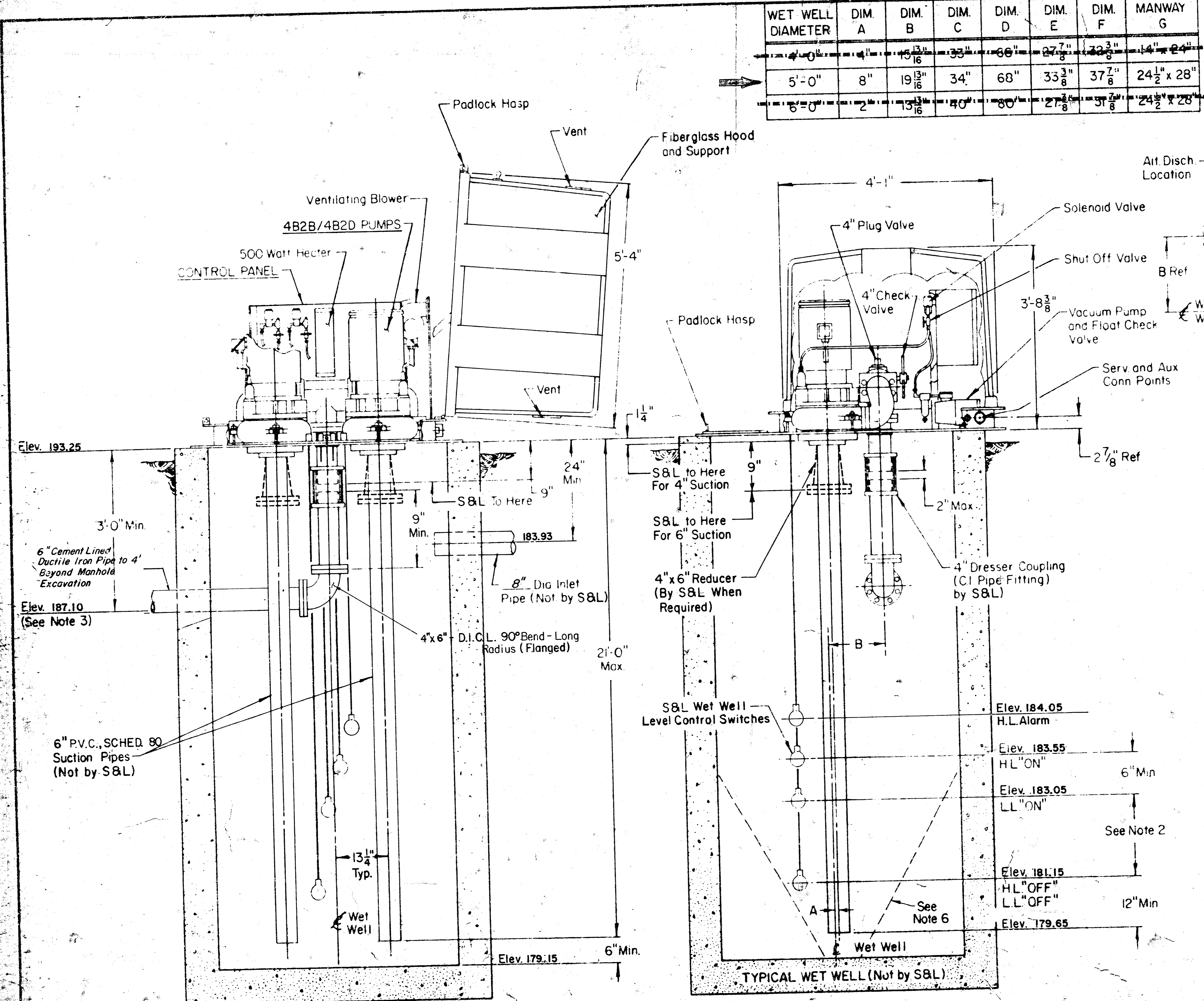


PLAN VIEW

NOTES: 500 watt heater - std.
250 cfm vent fan - std.
1.5 & .75" service conn.



WET WELL DIAMETER	DIM. A	DIM. B	DIM. C	DIM. D	DIM. E	DIM. F	MANWAY G
4'-0"	8"	19 13/16"	34"	68"	33 3/8"	37 7/8"	24 1/2" x 28"
5'-0"	8"	19 13/16"	34"	68"	33 3/8"	37 7/8"	24 1/2" x 28"
6'-0"	8"	19 13/16"	34"	68"	33 3/8"	37 7/8"	24 1/2" x 28"



PLAN VIEW
MACH. CHAMBER
(Shown Less Cover)

NOTES:

1. Maximum Capacity - 400 G.P.M.
2. Volume in Gallons Between L.L. "ON" and L.L. "OFF" Should Equal Pumping Rate in G.P.M.
3. If End of Discharge Line is Below Elevation of Discharge Line at Point of Leaving Wet Well, Consult Factory.
4. If Discharge Line is Less than 200 Feet in Length a Check Valve May be Required - Consult Factory.
5. Pump Motors - 20 H.P. Maximum.
6. Provide 60° Slope in Wet Well - As Required.

SECTIONAL ELEVATION

CROSS SECTION

4B2B/4B2D PUMPS 87D196

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DESIGNED BY	D. Fisher	DATE	2-79
CHECKED BY	M.E.W.	DATE	2-79
APPROVED BY	C.V.	DATE	3-79
SCALE	none	COPY	3
ORIGINAL FILE NO.	N78-16	DATE	87D196

Smith & Loveless, Inc.

WET WELL MOUNTED PUMP LIFT STA. - MODEL 'S'
4" PIPING - 4" 5" 6" DIA. WELLS

Scale: 1/4" = 1'-0"