

# SANITARY SEWER LIFT STATION AND FORCE MAIN

LATERALS 317 - 322  
SOUTHWEST INTERCEPTOR

TO SERVE

## WHEATLAND ADDITION

SEDGWICK COUNTY, KANSAS

CITY OF WICHITA, KANSAS

M.E. LINDEBAK CITY ENGINEER

CITY PROJECT NO. 468-76-245-82286-000-000-001

INDEX NO. 741546

July 1993

### BENCHMARKS

1. R.R. Spike in Utility Pole at NW Cor. Wheatland Addition  
Elev. = 124.06 City Datum
2. " " on Top of W. Curb Eisenhower  
60' N. of C.L. MacArthur.  
Elev. = 123.46 City Datum
3. Top of Iron in Thimble at C.L. Hoover & MacArthur.  
Elev. = 122.45 City Datum

### INDEX

1. Cover Sheet
2. Benefit District Map
- 3,4. Force Main Plan & Profile
5. Details - Force Main & Lift Station
6. Details - Standby Generator & Air Release Manhole
7. Wet Well Details - Smith & Loveless
8. Wet Well Details - H.F.E. Process

### NOTES:

1. 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 667-2470  
THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:

CABLEVISION	262-4270 OR 263-2061
K.P. & L. GAS SERVICE COMPANY	263-7511
KANSAS GAS & ELECTRIC	264-1141
ARKLA GAS COMPANY	942-8350 OR 263-8161
SOUTHWESTERN BELL TELEPHONE COMPANY	1-571-2611
CITY OF WICHITA WATER DEPARTMENT	268-4908
CITY OF WICHITA SEWER MAINTENANCE	268-4071

2. TRAFFIC WILL NOT BE AFFECTED IN THIS AREA OF CONSTRUCTION, EXCEPT IN AREAS OF OPEN EXCAVATION IN MACARTHUR RD., WHERE THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE SUITABLE WARNING DEVICES, FLASHERS AND/OR BARRICADES.

3. 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.

4. 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.

5. THE 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, TRIMMING, CLEARING AND GRUBBING SHALL BE CONSIDERED SUBSIDIARY AND NOT PAID FOR SEPARATELY.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY 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.

7. 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 AND SCADA SYSTEM AS INDICATED ON THE SITE PLAN COMPLETE IN PLACE AND IN OPERATION. SUCH LUMP SUM BID SHALL INCLUDE THE COST OF CONSTRUCTING AND/OR INSTALLING COMPACTED FILL, CONCRETE PAD, ACCESS DRIVE, 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.

8. CONTRACTOR SHALL FURNISH AND INSTALL A METER RACK TO SUPPORT THE DISCONNECT AND METER ENCLOSURES IN A LOCATION APPROVED BY THE ENGINEER.

9. A 2" CONDUIT SHALL BE INSTALLED UNDERGROUND FROM THE DISCONNECT SWITCH LOCATED ON THE ELECTRIC 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 ELECTRIC SERVICE PEDESTAL. A 3/4" CONDUIT SHALL BE INSTALLED UNDERGROUND FROM THE LIFT STATION MODULE TO THE GENERATOR. FROM GENERATOR TO SERVICE POLE FOR PURPOSES OF ALARM CABLE ROUTING. THE ELECTRICAL POWER SUPPLY TO THE METER BASE MUST BE UNDERGROUND. ALL ELECTRICAL WIRING SHALL CONFORM TO LOCAL, STATE AND N.E.C.

10. THE CONTRACTOR SHALL INSTALL 2 - 3/4" RGS CONDUITS FROM THE LIFT STATION CONTROL CENTER TO THE SCADA SYSTEM CONTROL ENCLOSURE.

11. 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.

12. THE CONTRACTOR SHALL CONTACT K.G. & E. (ED KOEHLER, 261-6893) TO MAKE ARRANGEMENTS FOR ELECTRICAL SERVICE.

13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ARRANGEMENTS WITH ARKLA GAS COMPANY (JERRY WATKINS, 342-8350) FOR EXTENSION OF GAS SERVICE TO THE LIFT STATION SITE, AND 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.

14. FITTINGS AND CONCRETE THRUST BLOCKS SHALL BE CONSIDERED SUBSIDIARY TO THE INSTALLATION OF THE FORCE MAIN AND NOT PAID FOR SEPARATELY.

15. FORCE MAIN WARNING SIGNS SHALL BE PLACED AT THE FOLLOWING STATIONS: 0+25, 6+00, 11+85 AND 13+25.

16. THE CONTRACTOR SHALL RESTORE ALL DITCHES, SWALES, ROAD SHOULDERS, ENTRANCES AND BANK LINES TO THEIR ORIGINAL SLOPES AND GRADES EXCEPT AS SHOWN OTHERWISE.

### IMPROVEMENT DISTRICT DESCRIPTION

LOTS 1 THROUGH 47 INCLUSIVE, BLOCK "A"  
LOTS 1 THROUGH 19 INCLUSIVE, BLOCK "B"  
LOTS 1 THROUGH 11 INCLUSIVE, BLOCK "C"  
LOTS 1 THROUGH 28 INCLUSIVE, BLOCK "D"  
LOTS 1 THROUGH 65 INCLUSIVE, BLOCK "E"  
LOTS 1 THROUGH 8 INCLUSIVE, BLOCK "F"  
LOTS 1 THROUGH 20 INCLUSIVE, BLOCK "G"  
LOTS 1 THROUGH 20 INCLUSIVE, BLOCK "H"  
IN WHEATLAND ADDITION

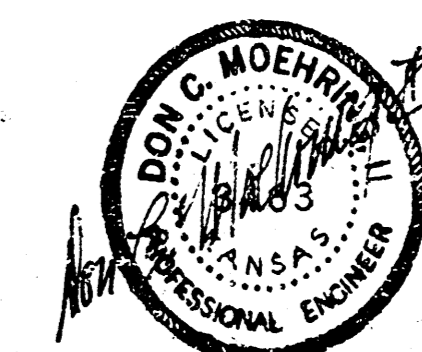
AND ALSO

PARCEL 1, DESCRIBED AS BEGINNING AT THE NORTHEAST CORNER OF SEC. 15, T28S, R1W OF THE 6TH P.M., SEDGWICK COUNTY, KANSAS; THENCE S. 00°00'00" E., ALONG THE EAST LINE OF THE NE 1/4 OF SAID SEC. 15, A DISTANCE OF 647.99'; THENCE N. 90°00'00" W., A DISTANCE OF 599.97'; THENCE N. 00°00'00" E., A DISTANCE OF 641.67'; THENCE N. 89°23'50" E., A DISTANCE OF 600.00' TO THE POINT OF BEGINNING.

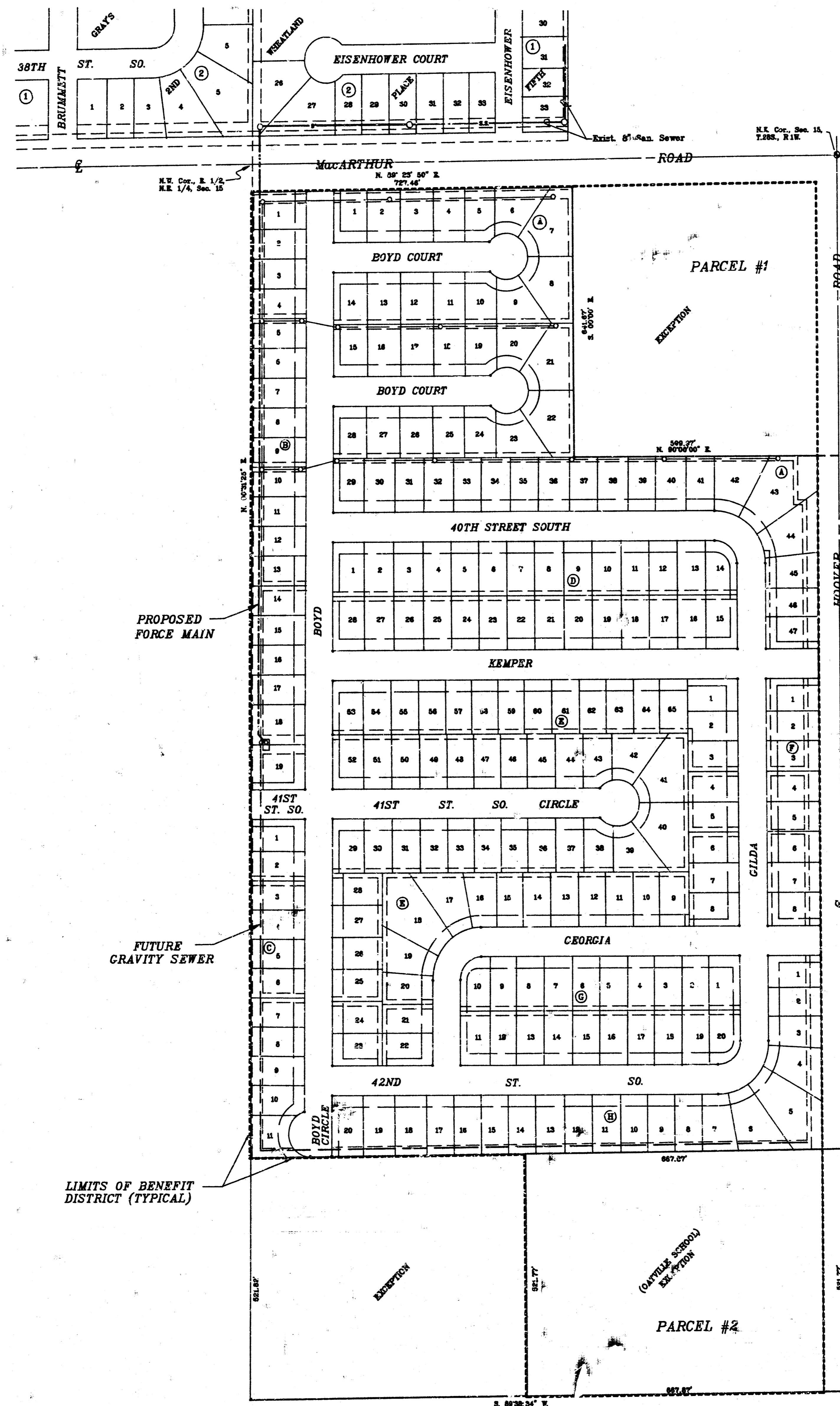
AND ALSO

PARCEL 2, DESCRIBED AS BEGINNING AT THE SOUTHEAST CORNER OF THE NE 1/4 OF SEC. 15, T28S, R1W OF THE 6TH P.M., SEDGWICK COUNTY, KANSAS; THENCE WEST ALONG THE SOUTH LINE OF SAID NE 1/4, A DISTANCE OF 667.87'; THENCE NORTH PARALLEL WITH THE EAST LINE OF SAID NE 1/4, A DISTANCE OF 521.77'; THENCE EAST, A DISTANCE OF 667.87' TO A POINT IN THE EAST LINE OF SAID NE 1/4; THENCE SOUTH 521.77' TO THE POINT OF BEGINNING.

Baked 1-28-94  
JKB  
As Ref. Plan



MOEHRING & ASSOCIATES  
CONSULTING ENGINEERS  
WICHITA



WHEATLAND ADDITION  
SEDWICK COUNTY, KANSAS

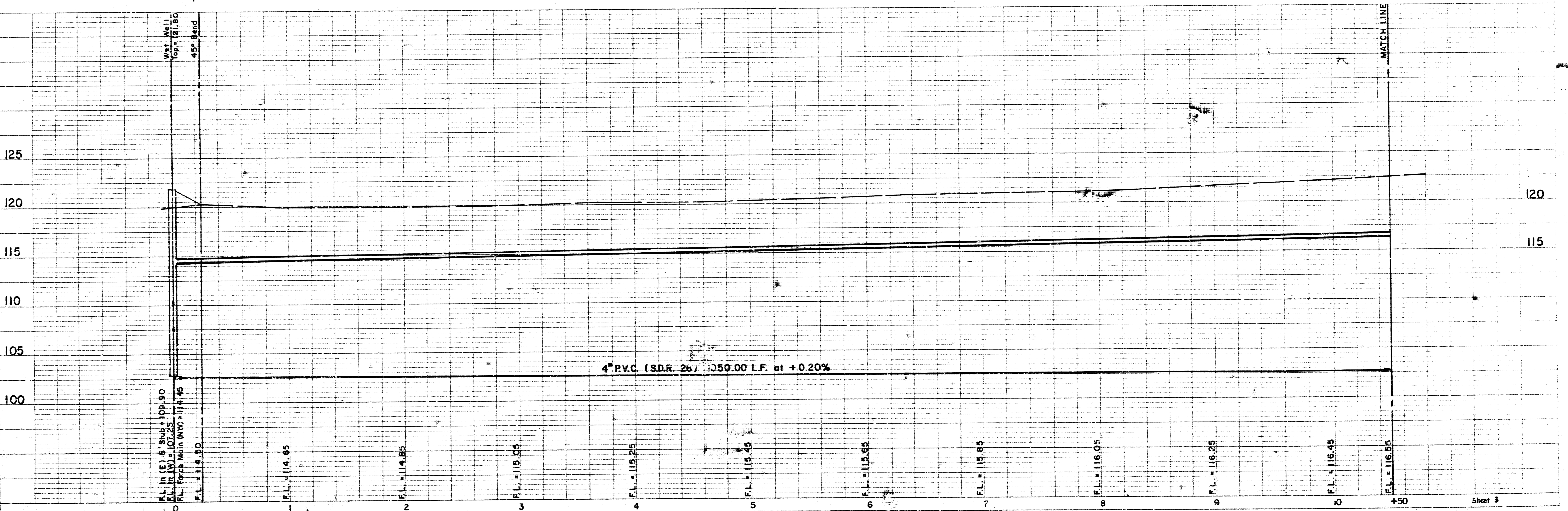
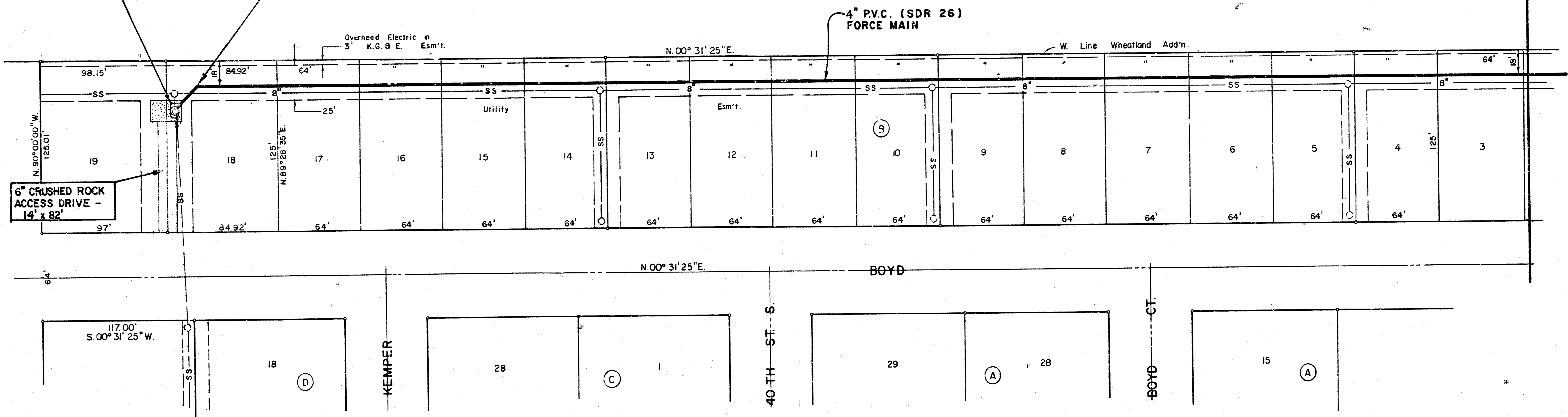
1" = 150'

LIFT STATION AND FORCE MAIN  
BENEFIT DISTRICT MAP

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

STA. 0+00  
 BEGIN FORCE MAIN AT  
 WET WELL CENTERLINE.  
 SEE SHEET 5.  
 1-8" STUB (ENE), 8' LONG  
 F.L. = 109.90

STA. 0+24.75  
 1-4" D.I.C.L. M.J.  
 45° BEND W/  
 THRUST BLOCKS.

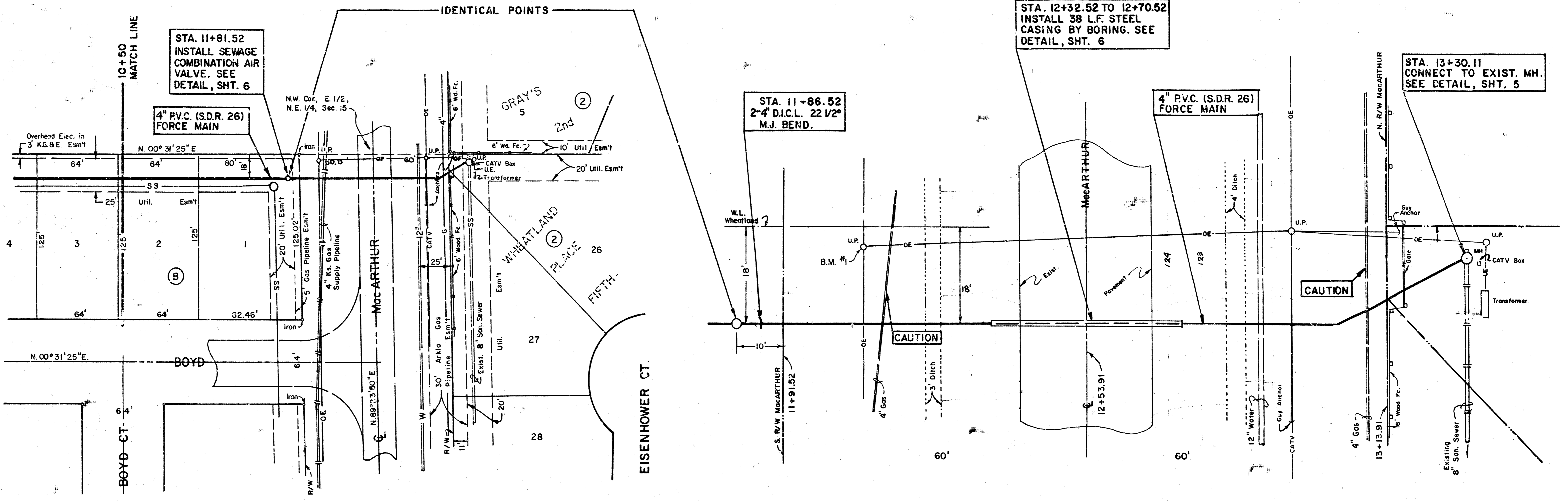


PLAN  
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 IN CHARGE: [blank]

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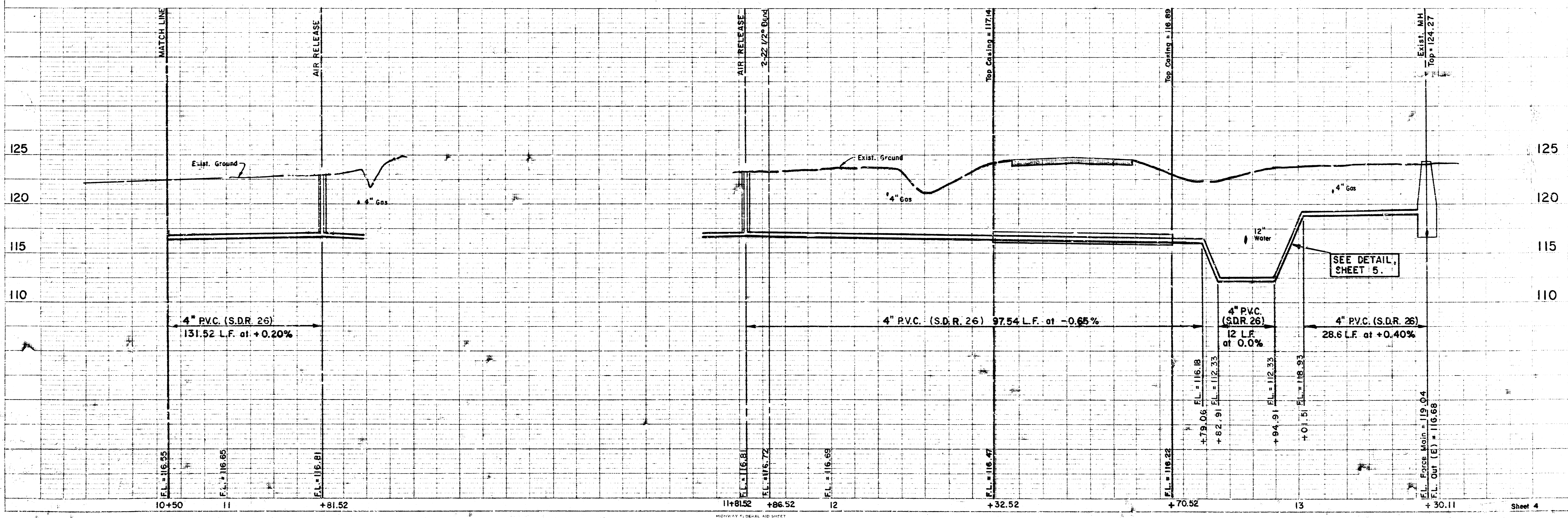
1" = 40' Horiz.  
1" = 5' Vert.

1" = 10' Horiz.  
1" = 5' Vert.



PLAN  
SHOWING  
ROUTE LOCATION, LOCATION OF CURBS  
AND SIDEWALKS, AND THE WAY THROUGH

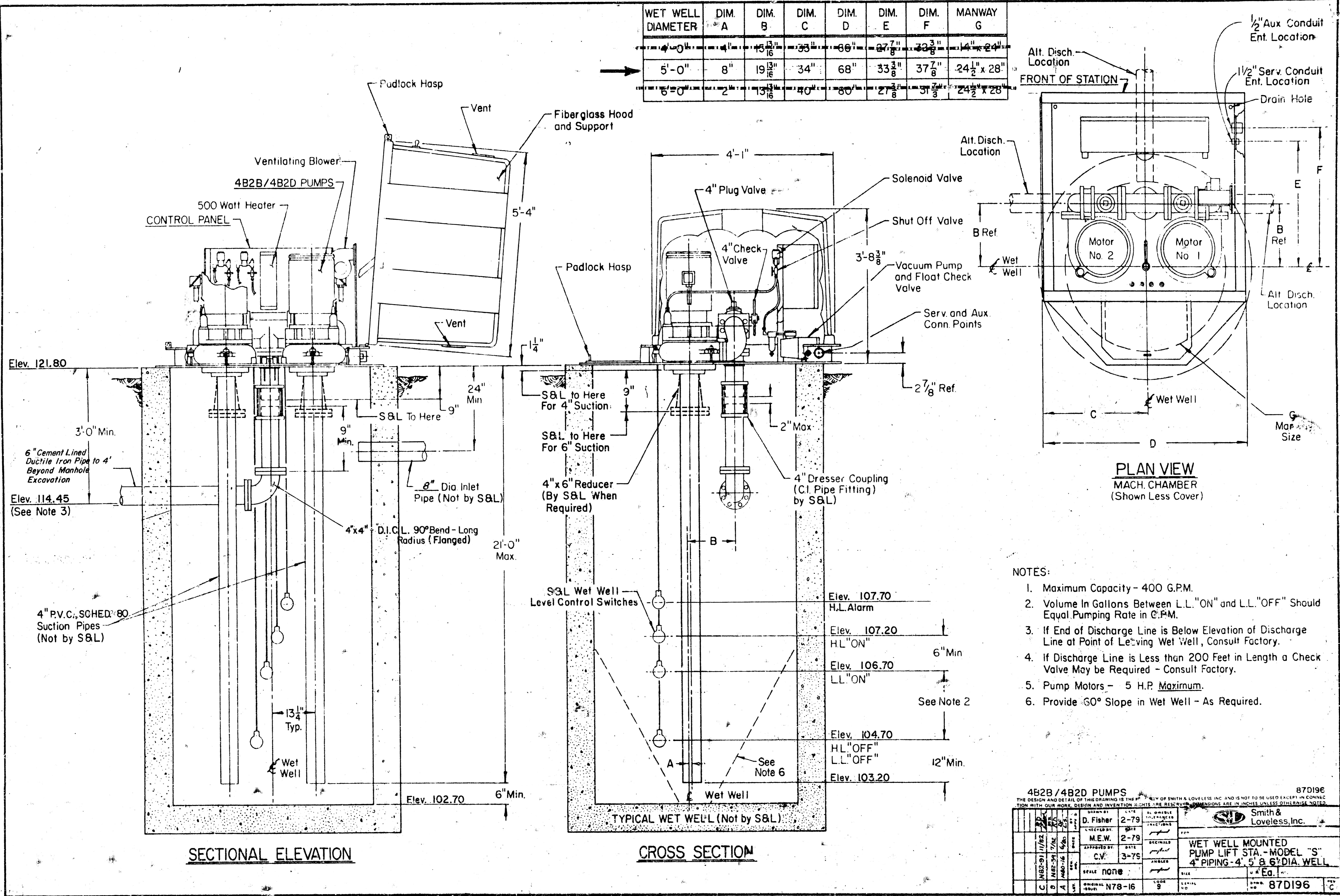
PROFILES  
SHOWING  
VERTICAL ALIGNMENT, GRADES, AND  
ELEVATIONS OF THE FORCE MAIN





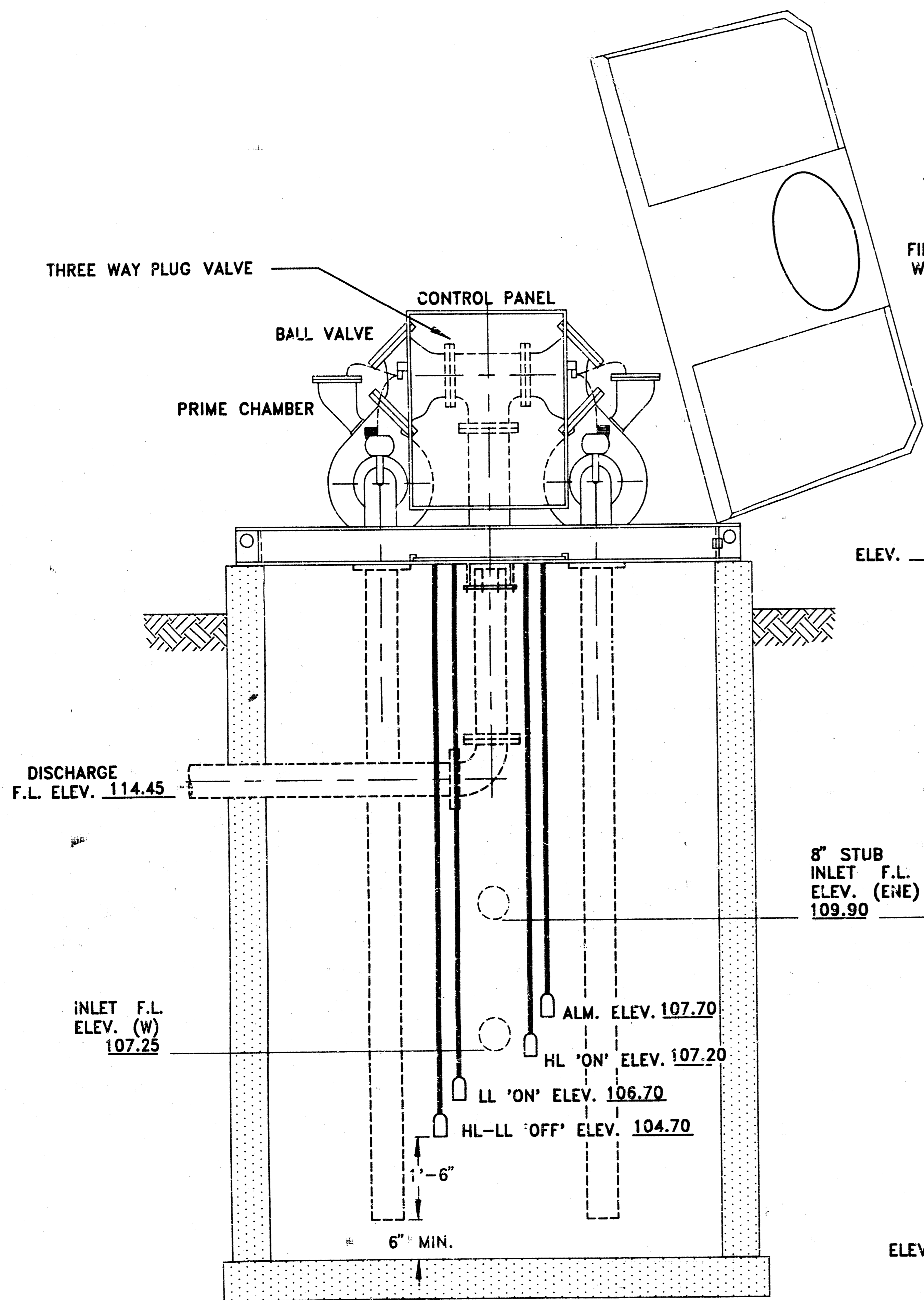


WET WELL DIAMETER	DIM. A	DIM. B	DIM. C	DIM. D	DIM. E	DIM. F	MANWAY G
4'-0"	8"	19 <sup>3</sup> / <sub>16</sub> "	34"	68"	27 <sup>7</sup> / <sub>8</sub> "	33 <sup>3</sup> / <sub>8</sub> "	14" x 24"
5'-0"	8"	19 <sup>3</sup> / <sub>16</sub> "	34"	68"	33 <sup>3</sup> / <sub>8</sub> "	37 <sup>7</sup> / <sub>8</sub> "	24 <sup>1</sup> / <sub>2</sub> " x 28"
6'-0"	2"	13 <sup>1</sup> / <sub>16</sub> "	40"	80"	27 <sup>1</sup> / <sub>8</sub> "	31 <sup>7</sup> / <sub>8</sub> "	24 <sup>1</sup> / <sub>2</sub> " x 28"

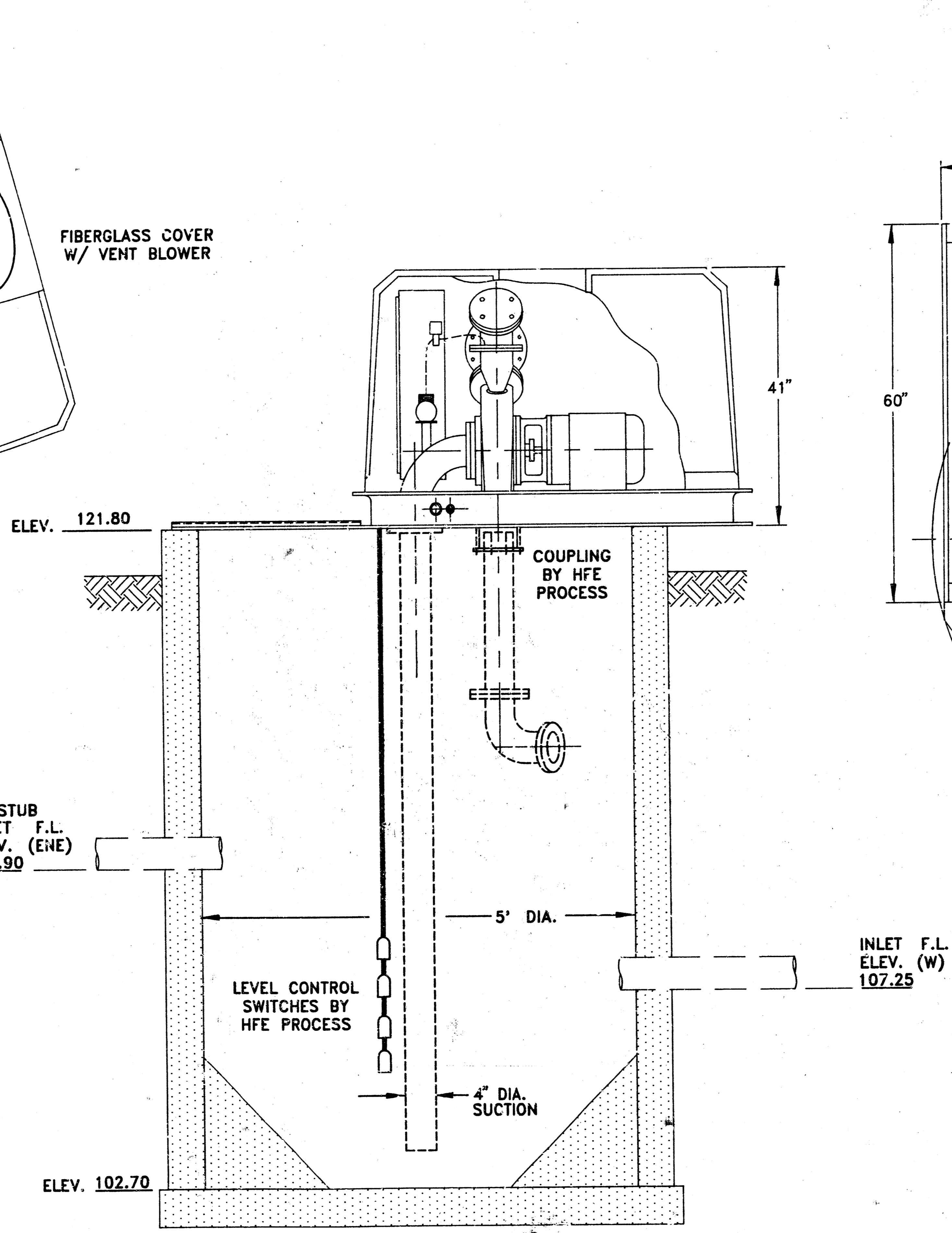


- NOTES:
1. Maximum Capacity - 400 G.P.M.
  2. Volume In Gallons Between L.L."ON" and L.L."OFF" Should Equal Pumping Rate in G.P.M.
  3. If End of Discharge Line is Below Elevation of Discharge Line at Point of Leaving Wet Well, Consult Factory.
  4. If Discharge Line is Less than 200 Feet in Length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

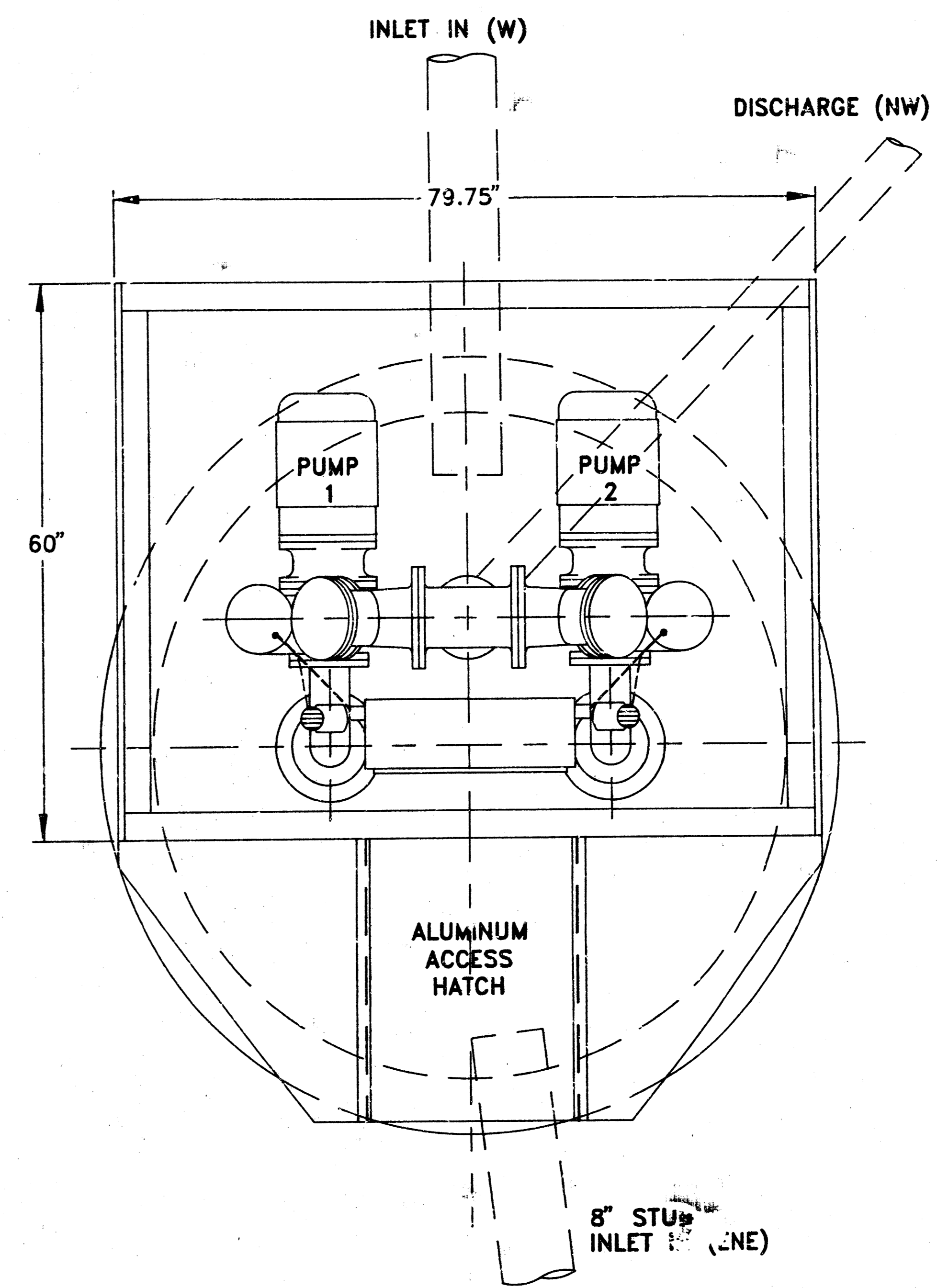
4B2B/4B2D PUMPS				870196	
THE DESIGN AND DETAIL OF THIS DRAWING IS THE PROPERTY OF SMITH & LOVELESS, INC. AND IS NOT TO BE USED EXCEPT IN CONNECTION WITH OUR WORK. DESIGN AND INVENTION RIGHTS ARE RESERVED. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.					
DESIGNED BY	D. Fisher	DATE	2-79	APPROVED BY	SMITH & LOVELESS, INC.
SECRETARY	M.E.W.	DATE	2-79	REVISIONS	
APPROVED BY	C.V.	DATE	3-75	SCALE	NONE
SCALE	NONE	CODE	N78-16	SIZE	8 1/2" x 11"
					870196



FRONT ELEVATION



SIDE ELEVATION



PLAN VIEW

NOTES: 500 WATT HEATER - STD.  
 250 CFM VENT FAN - STD.  
 2" & .75" SERVICE CONN.

H.F.E. PROCESS

14-1-4-8