



**CONTROL POINTS**

- C.P. #23 N-1692950.261, E-1601756.502  
#4 Bar 17' North and 206' West of 135th Street West and 13th Street North  
96.30' East to PK Nail in South Face of Power Pole  
117.67' West-SouthWest to PK Nail in North Face of Power Pole  
154.54' West to PK Nail in South Face of Power Pole
- C.P. #25 N-1691565.692, E-1601948.980  
#4 Bar West of 135th Street West and 1/4 Mile South of 13th Street North  
56.52' East to PK Nail in South Face of Power Pole  
106.24' South to PK Nail in East Face of Power Pole  
192.50' North to PK Nail in East Face of Power Pole
- C.P. #27 N-1690284.336, E-1602250.802  
#4 Bar 250' East of Centerline of 135th Street West and 1/2 Mile South of  
13th Street North  
40' North to East-West Tree Row
- C.P. #43 N-1693014.753, E-1604589.749  
3/4" Iron Pipe at South 1/4 Corner of Section 12, TWP 27 S, R 2 W.
- C.P. #44 N-1693355.798, E-1606956.420  
3/4" Iron Pipe in Thimble at South East Corner of Section 12, TWP 27 S, R 2 W
- C.P. #45 N-1690675.916, E-1604750.1640  
#4 Bar in Grass Cul-de-sac of 1100 Azure Lane
- C.P. #46 N-1690477.639, E-1607249.634  
#4 Bar in Thimble at the SE Corner of the NE 1/4 of Section 13,  
TWP 27 S, R 2 W

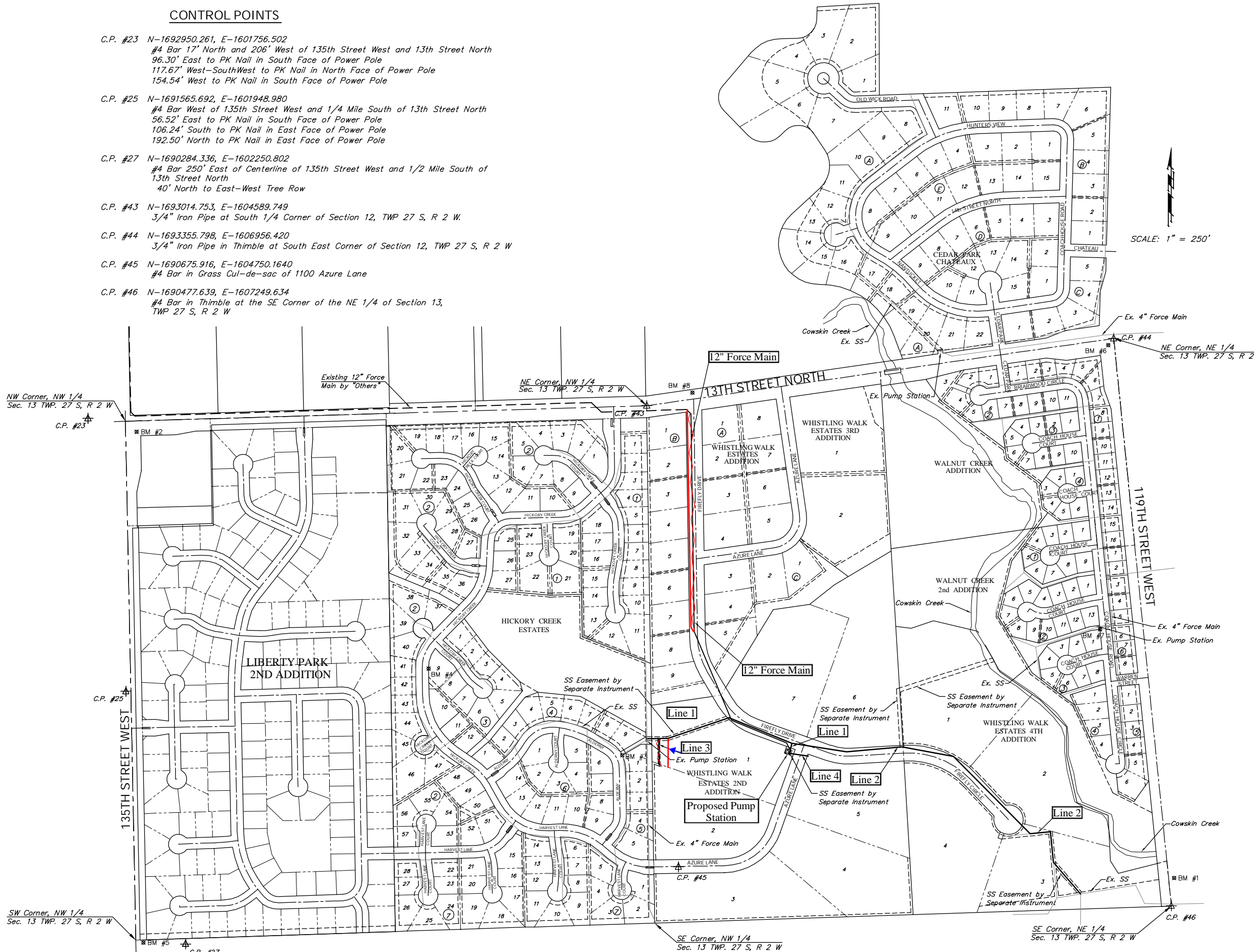
**BENCHMARKS**

- BM #1 - City of Wichita Disc @ 119th Street West & Cowskin Creek Bridge, Located on the SE Corner at Top of Hubguard Elev. = 1339.22 (MSL Datum)
- BM #2 - City of Wichita Disc @ SE Corner of 135th Street West & 13th Street North, 56' S and 55' E of C. of Both. Elev. = 1355.23 (MSL Datum)
- BM #3 - "C" Cut on South Edge of Concrete Entrance to Lift Station, 0.5'± East of East Edge of Manhole Adjacent to Northwest Corner of Lot 1, Block 5 in the Hickory Creek Addition. Elev. = 1343.00 (MSL Datum)
- BM #4 - "C" Cut on Top of Curb at PC on Hickory Creek at East Side of Lot 9, Block 3, Hickory Creek Addition. Elev. = 1349.61 (MSL Datum)
- BM #5 - City of Wichita Disc @ 135th Street West & 1/2 Mile South of 13th Street North, 39.00' E of CL of 135th Street West 18.00' S of East-West Hedge Row Elev. = 1347.11 (MSL Datum)
- BM #6 - City of Wichita Disc @ the SW Corner of 119th Street West & 13th Street North Elev. = 1349.59 (MSL Datum)
- BM #7 - "C" Cut on the Top of Curb in the NE Corner of Lot 1, Block 3 of the Walnut Creek 2nd Addition Elev. = 1336.35 (MSL Datum)
- BM #8 - City of Wichita Disc @ 13th Street North & Firefly Drive, 38.5' N of C. of 13th Street North @ the C. of Firefly Drive Elev. = 1332.92 (MSL Datum)

**LIST OF UTILITY COMPANIES**

Contractor will be required to provide a minimum advance notice of forty-eight (48) hours to utility companies prior to excavation or working adjacent to utilities.

TYPE	OWNER	PHONE #
Notifier Service	Kansas One-Call	687-2470
TV	Cox Communications	262-0661
Electric	Westar Energy	383-8650
Gas	Kansas Gas Service	832-3169
Gas	Aquila	942-0096
Telephone	Southwestern Bell Telephone Company	268-2245
Water	City of Wichita Water Department	268-4563
Sewer	City of Wichita Sewer Maintenance	268-4024



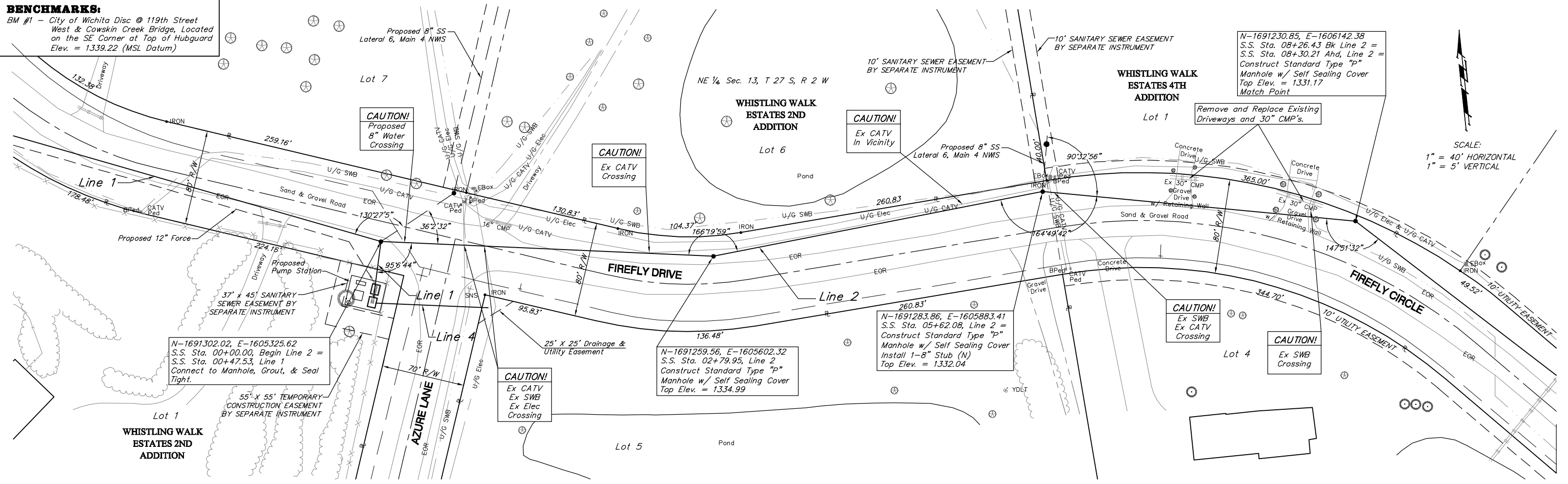
PROJECT NUMBER 468-83136		SHEET NAME KEYSHEET		ENGINEERING DIRECTORY F:\IN\PLANT	
DESIGN TPV	DRAWN STAFF	APPROVED JFB	DATE April 2002	SCALE NOTED	BAUGHMAN NO 00-08-E789

MAIN 5 OF THE NW INTERCEPTOR SEWER, PHASE 2  
**KEYSHEET**  
NORTHWEST TREATMENT PLANT COLLECTION SYSTEM IMPROVEMENTS

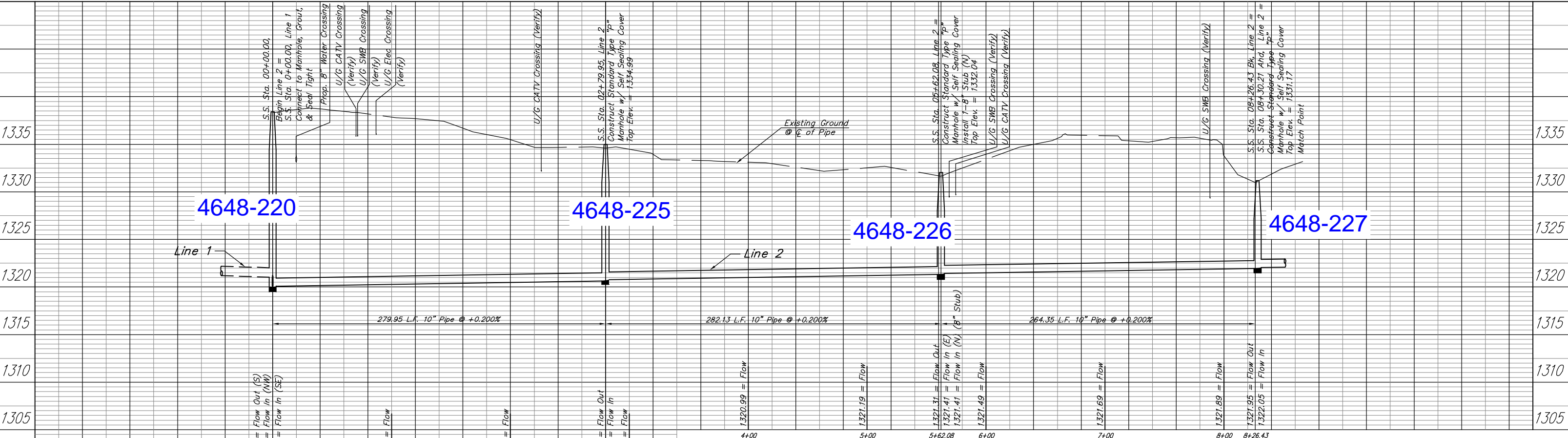
**BAUGHMAN COMPANY, P.A.**  
ENGINEERING, SURVEYING, & PLANNING  
316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211



**BENCHMARKS:**  
 BM #1 - City of Wichita Disc @ 119th Street West & Cowskin Creek Bridge, Located on the SE Corner at Top of Hubguard Elev. = 1339.22 (MSL Datum)



SCALE:  
 1" = 40' HORIZONTAL  
 1" = 5' VERTICAL



PROJECT NUMBER <b>468-83136</b>		SHEET NAME SS02a		ENGINEERING DIRECTORY F:\NW PLANT\SS	
DESIGN TPV	DRAWN STAFF	APPROVED JFP	DATE April 2002	SCALE NOTED	BAUGHMAN NO 00 09 P799

MAIN 5 OF THE NW INTERCEPTOR SEWER, PHASE 2  
**LINE 2**

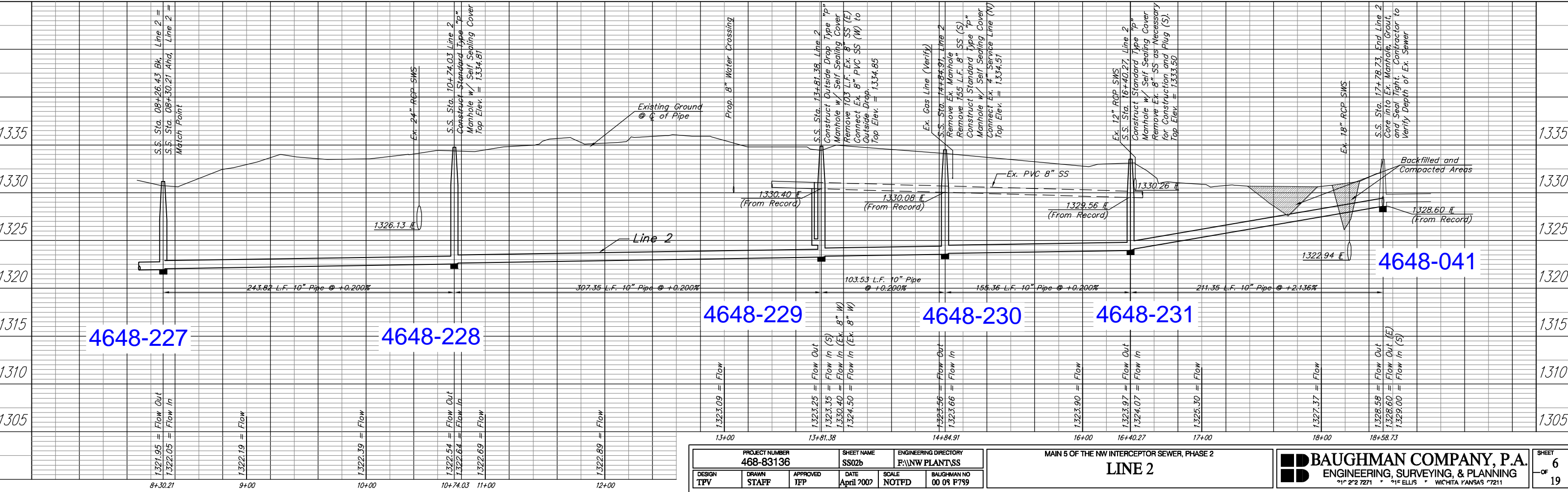
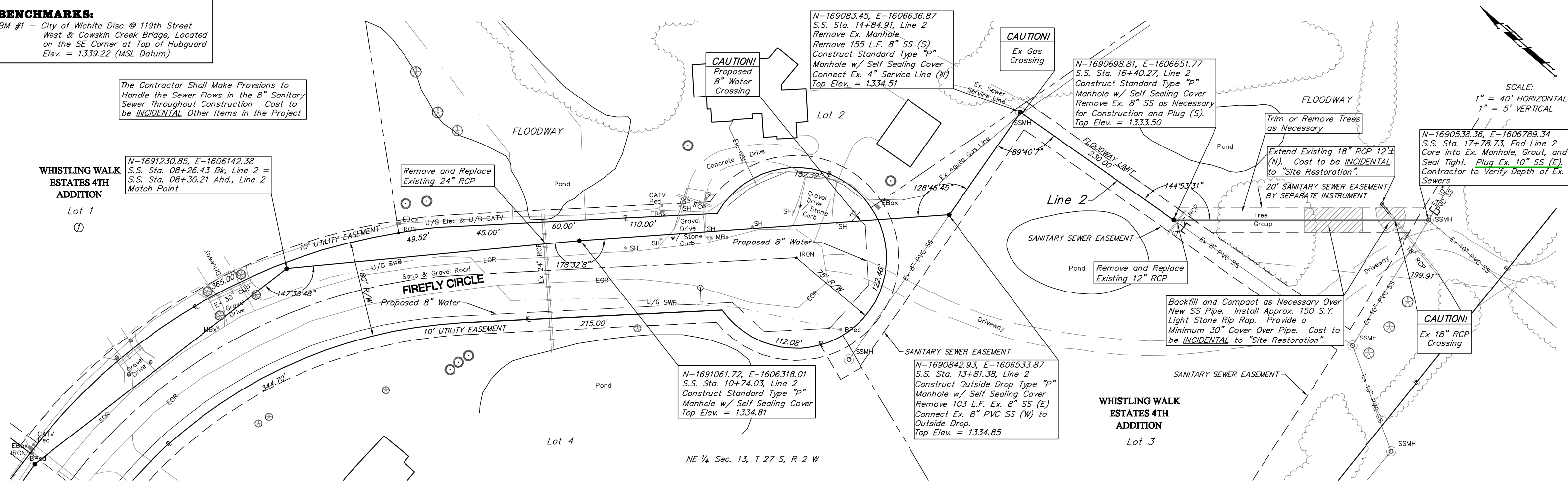
**BAUGHMAN COMPANY, P.A.**  
 ENGINEERING, SURVEYING, & PLANNING  
 2122 7271 • 21F ELLIS • WICHITA KANSAS 67211

SHEET **5** OF **19**

**BENCHMARKS:**  
 BM #1 - City of Wichita Disc @ 119th Street  
 West & Cowskin Creek Bridge, Located  
 on the SE Corner at Top of Hubguard  
 Elev. = 1339.22 (MSL Datum)

The Contractor Shall Make Provisions to  
 Handle the Sewer Flows in the 8" Sanitary  
 Sewer Throughout Construction. Cost to  
 be INCIDENTAL Other Items in the Project

**WHISTLING WALK  
 ESTATES 4TH  
 ADDITION**  
 Lot 1  
 ①



4648-229

4648-228

4648-227

4648-230

4648-231

4648-041

PROJECT NUMBER 468-83136		SHEET NAME SS02b		ENGINEERING DIRECTORY P:\NW PLANT\SS	
DESIGN TPV	DRAWN STAFF	APPROVED JFP	DATE April 2002	SCALE NOTED	BAUGHMAN NO 00 09 F799

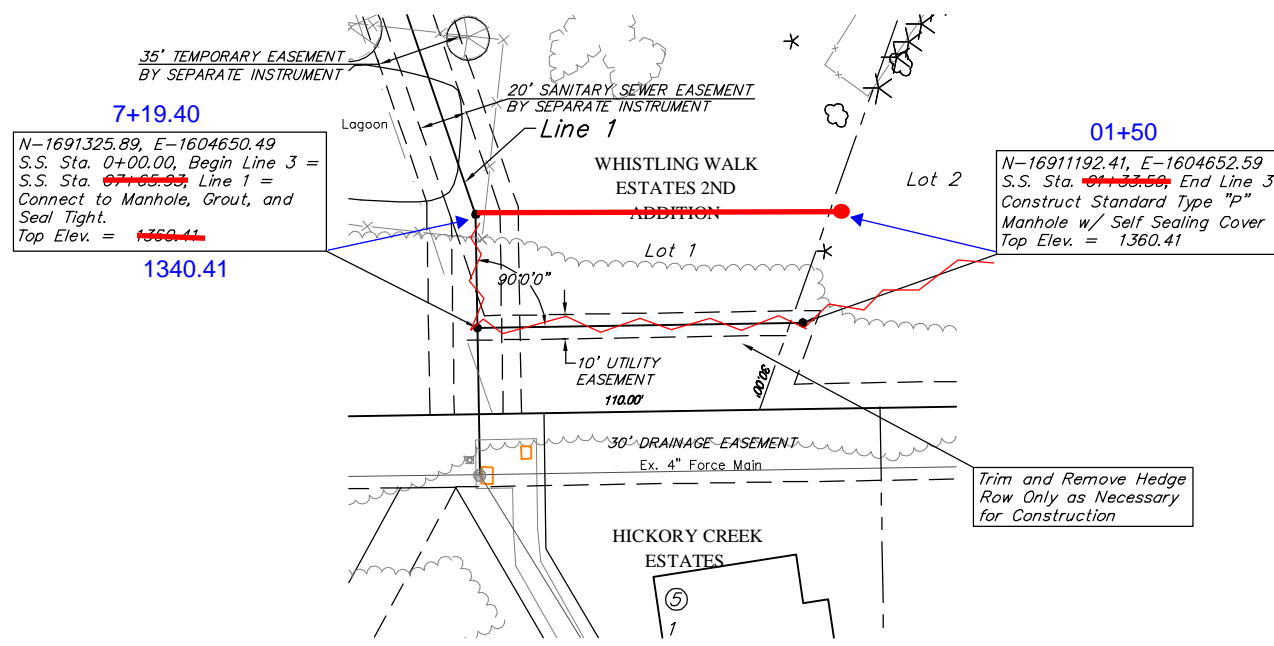
MAIN 5 OF THE NW INTERCEPTOR SEWER, PHASE 2  
**LINE 2**

**BAUGHMAN COMPANY, P.A.**  
 ENGINEERING, SURVEYING, & PLANNING  
 2122 2121 • 21F ELLIS • WICHITA KANSAS 67211

SHEET  
6  
OF  
19

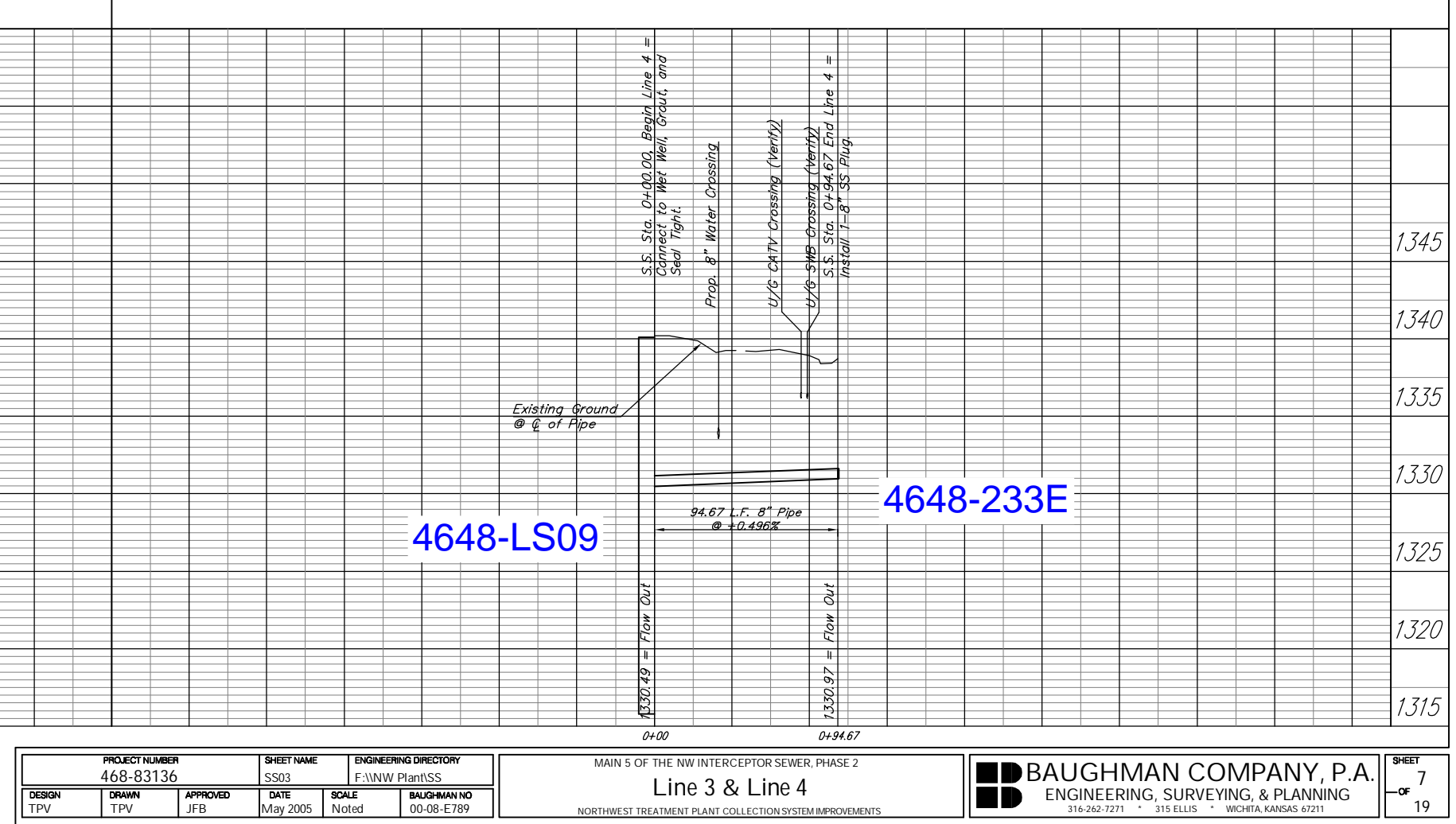
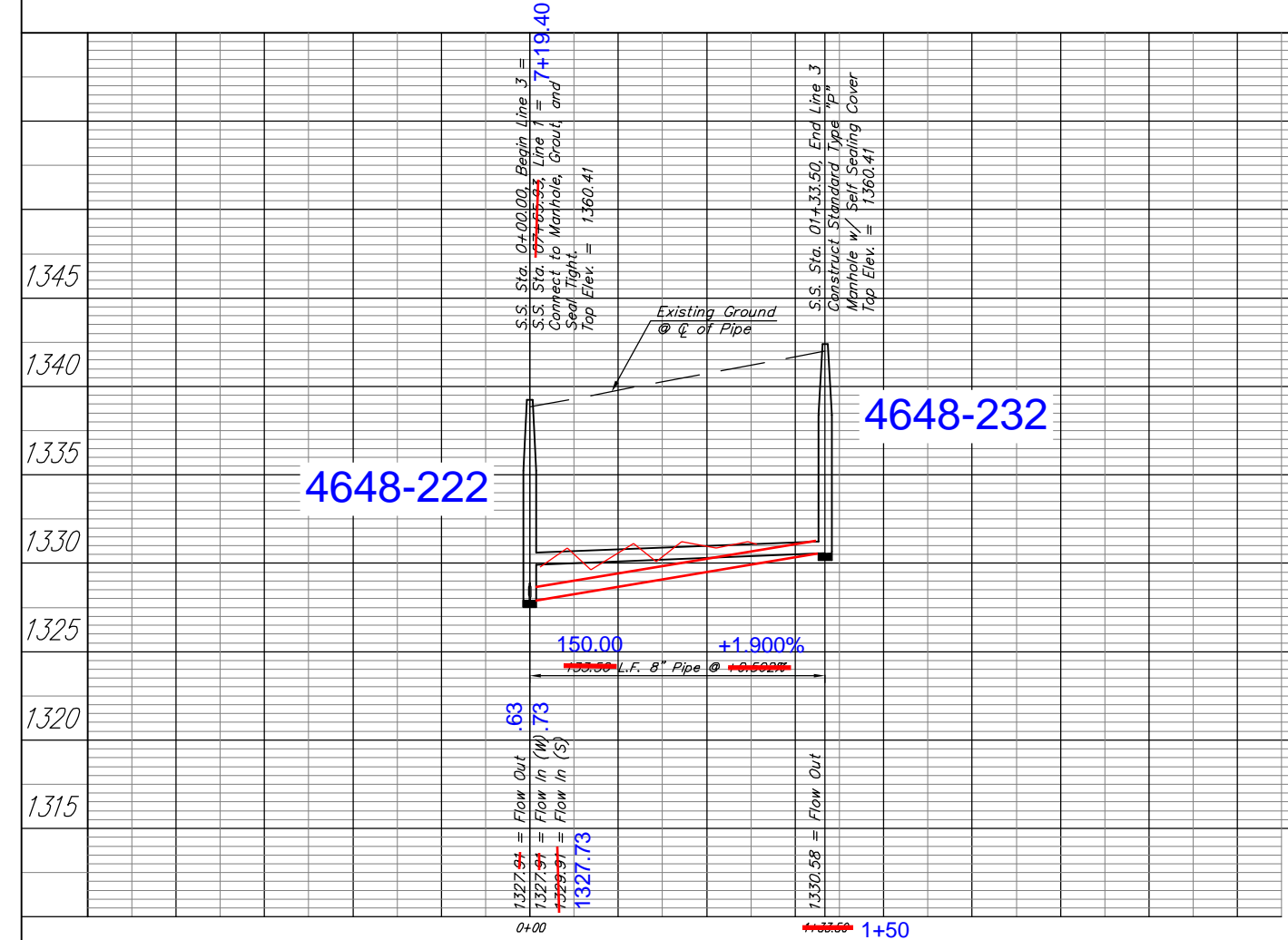
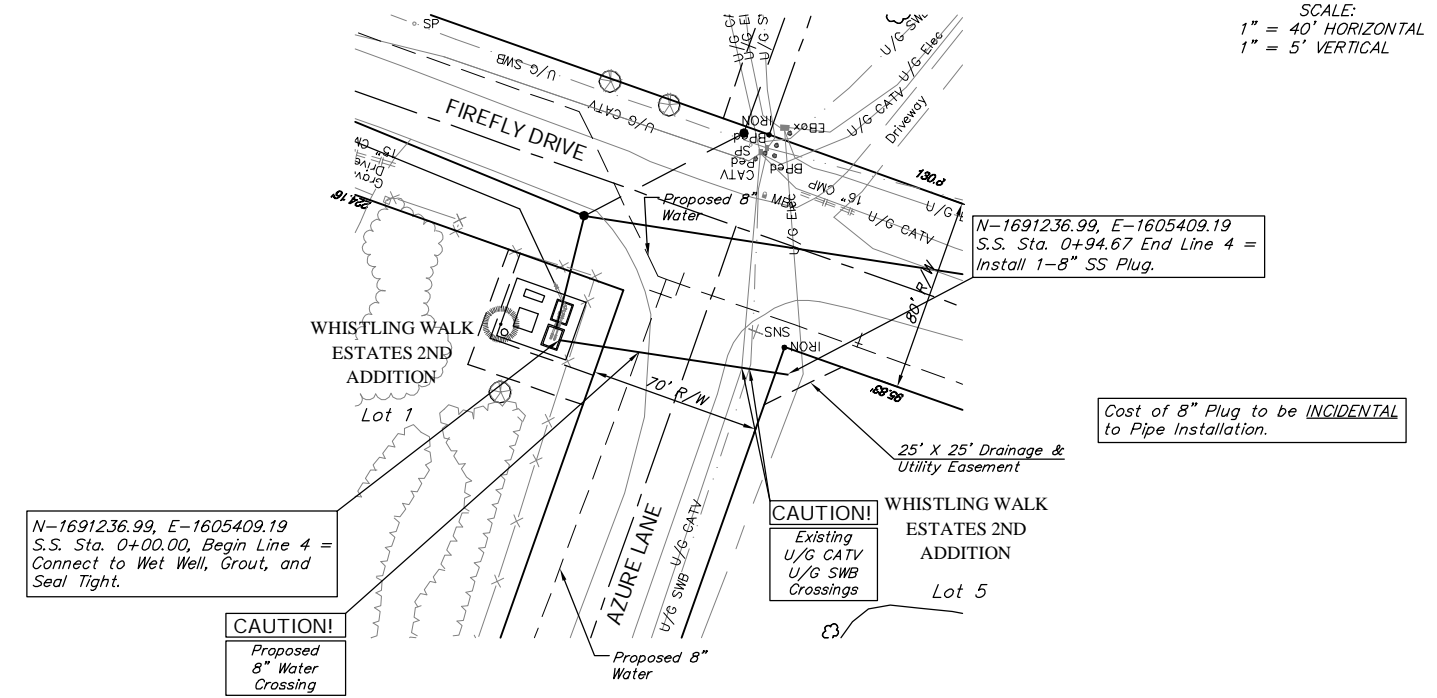
**BENCHMARKS:**  
 BM #3 - "□" Cut on South Edge of Concrete Entrance to Lift Station, 0.5'± East of East Edge of Manhole Adjacent to Northwest Corner of Lot 1, Block 5 in the Hickory Creek Addition.  
 Elev. = 1343.00 (MSL Datum)

SCALE:  
 1" = 40' HORIZONTAL  
 1" = 5' VERTICAL

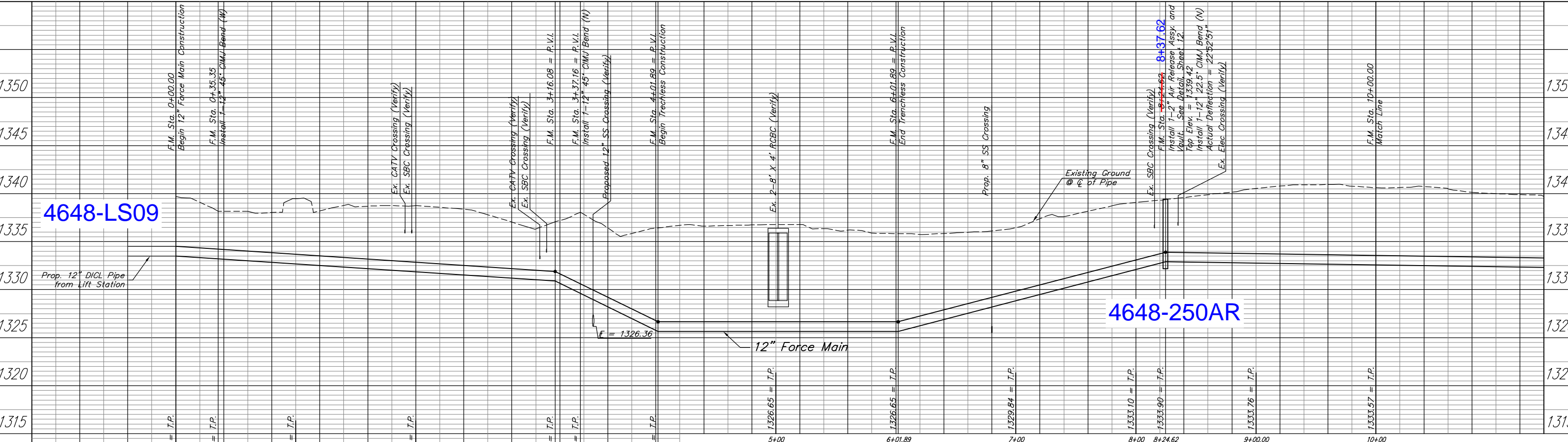
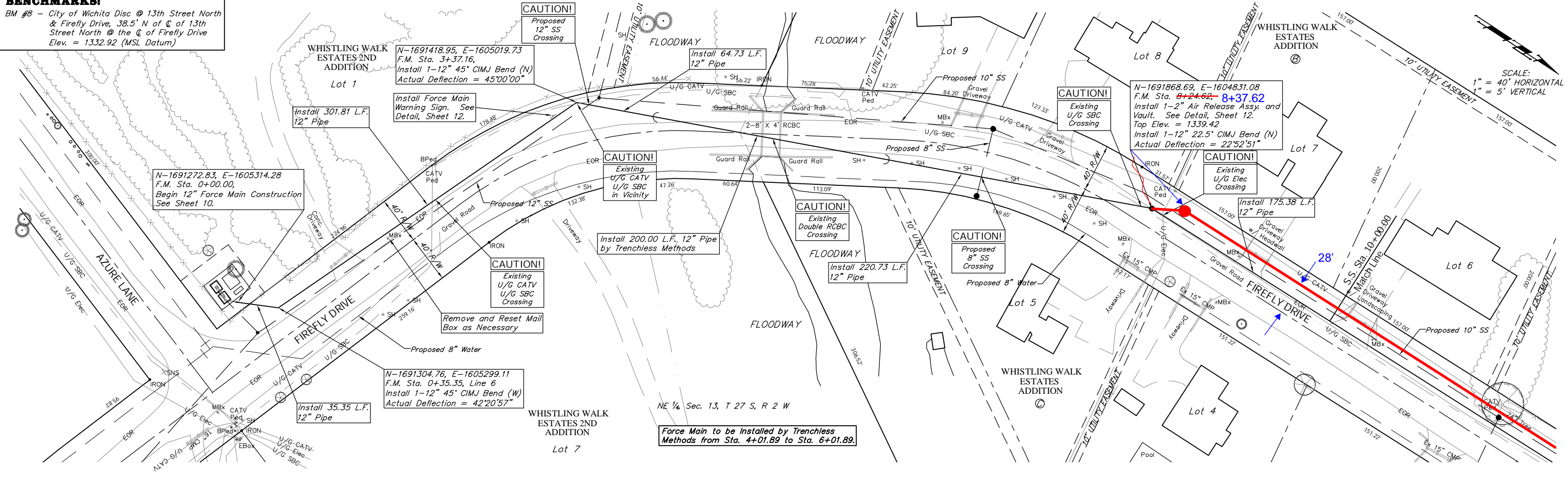


**BENCHMARKS:**  
 BM #3 - "□" Cut on South Edge of Concrete Entrance to Lift Station, 0.5'± East of East Edge of Manhole Adjacent to Northwest Corner of Lot 1, Block 5 in the Hickory Creek Addition.  
 Elev. = 1343.00 (MSL Datum)

SCALE:  
 1" = 40' HORIZONTAL  
 1" = 5' VERTICAL



**BENCHMARKS:**  
 BM #8 - City of Wichita Disc @ 13th Street North & Firefly Drive, 38.5' N of C of 13th Street North @ the C of Firefly Drive Elev. = 1332.92 (MSL Datum)

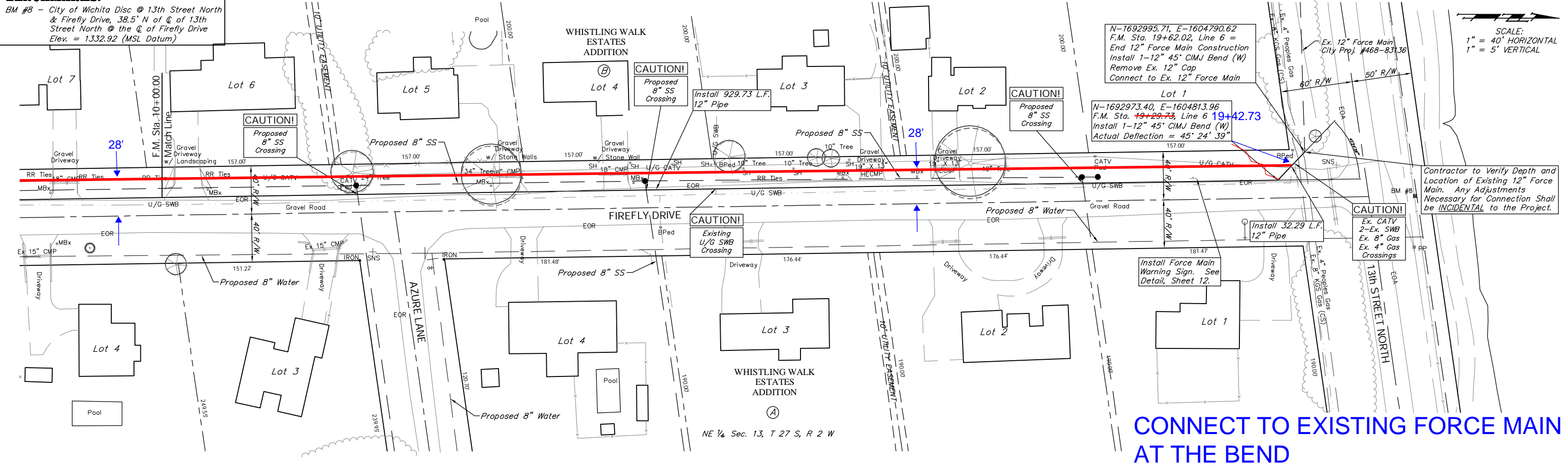


4648-LS09

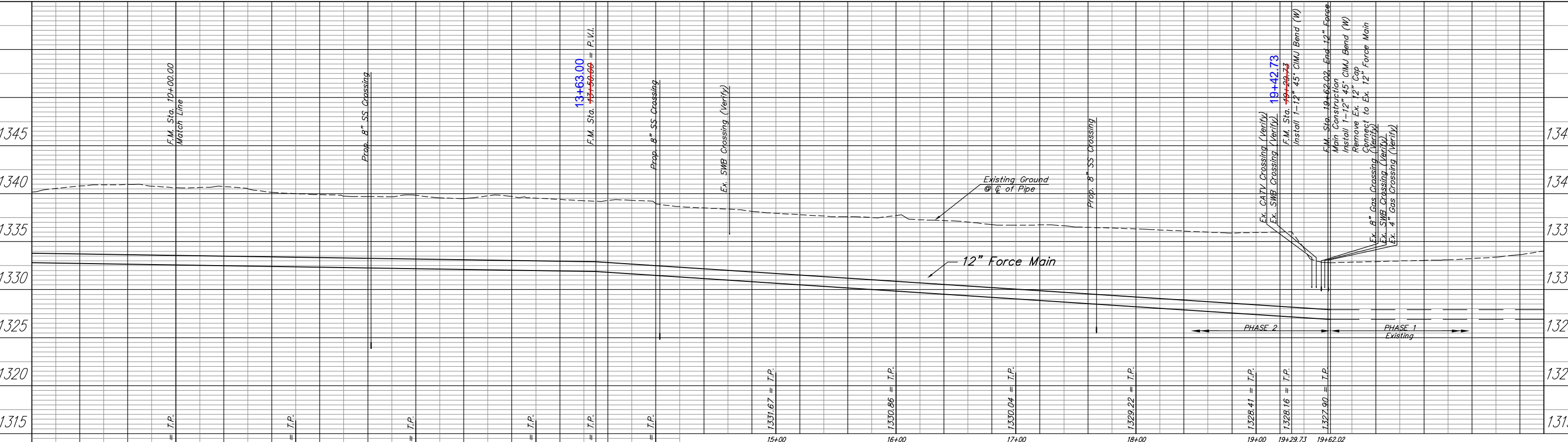
4648-250AR

PROJECT NUMBER 468-83136		SHEET NAME FM01		ENGINEERING DIRECTORY F:\NWV PLANT\FM	
DESIGN TPV	DRAWN TPV	APPROVED JFB	DATE April 2002	SCALE Noted	BAUGHMAN NO 00-08-E789
MAIN 5 OF THE NW INTERCEPTOR SEWER, PHASE 2			12" FORCE MAIN		
NORTHWEST TREATMENT PLANT COLLECTION SYSTEM IMPROVEMENTS			BAUGHMAN COMPANY, P.A. ENGINEERING, SURVEYING, & PLANNING 316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211		

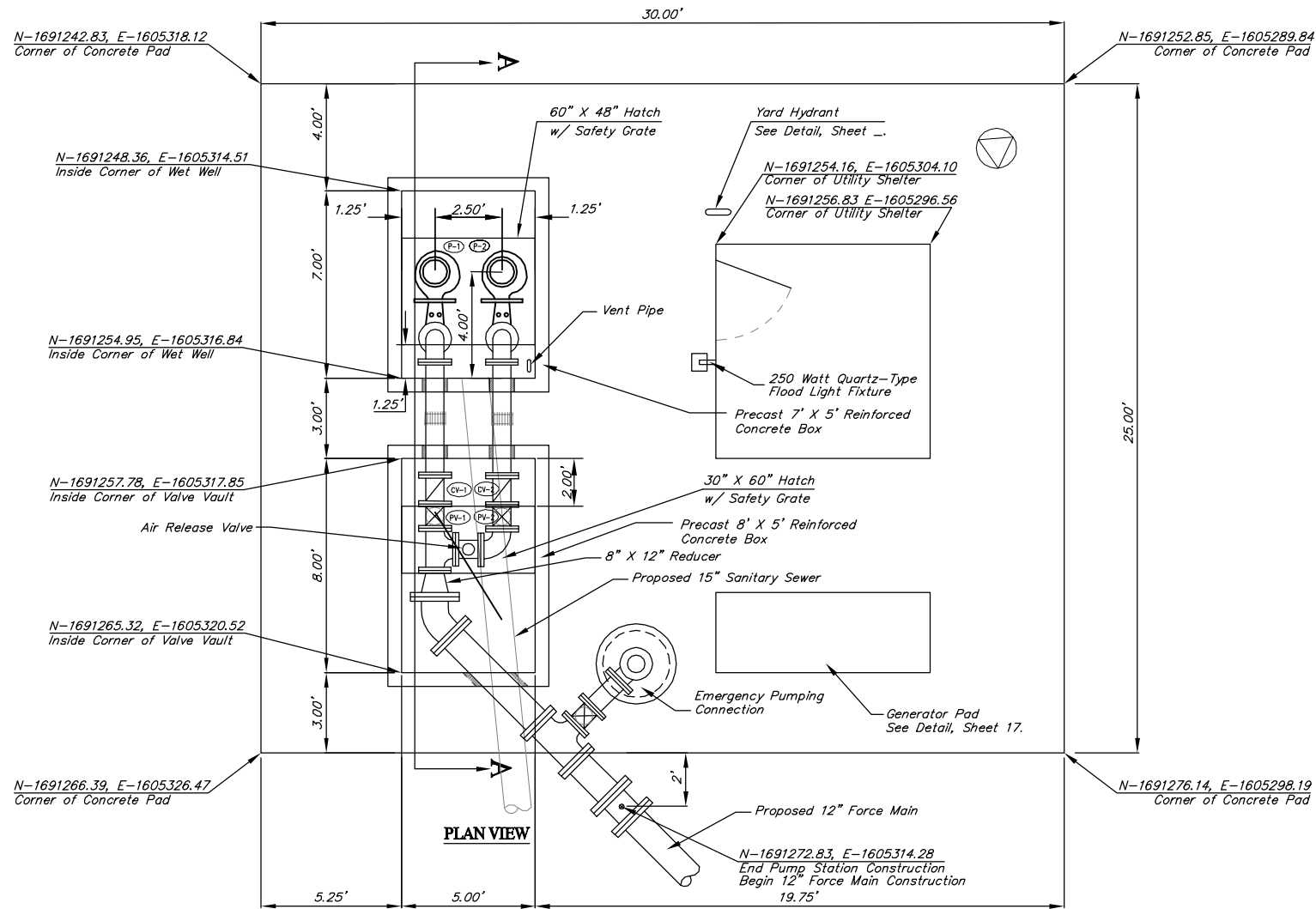
**BENCHMARKS:**  
 BM #8 - City of Wichita Disc @ 13th Street North & Firefly Drive, 38.5' N of @ of 13th Street North @ the @ of Firefly Drive Elev. = 1332.92 (MSL Datum)



**CONNECT TO EXISTING FORCE MAIN AT THE BEND**

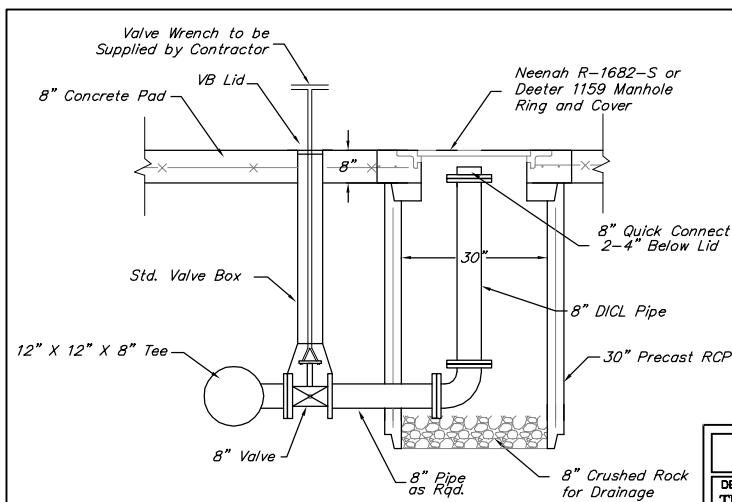


PROJECT NUMBER 468-83136		SHEET NAME FM02		ENGINEERING DIRECTORY F:\NW PLANT\FM	
DESIGN TPV	DRAWN TPV	APPROVED JFB	DATE April 2002	SCALE Noted	BAUGHMAN NO 00-08-E789
PROJECT TITLE MAIN 5 OF THE NW INTERCEPTOR SEWER, PHASE 2			SHEET NUMBER 9 OF 19		
PROJECT TITLE 12" FORCE MAIN			FIRM NAME BAUGHMAN COMPANY, P.A.		
PROJECT TITLE NORTHWEST TREATMENT PLANT COLLECTION SYSTEM IMPROVEMENTS			FIRM ADDRESS 316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211		

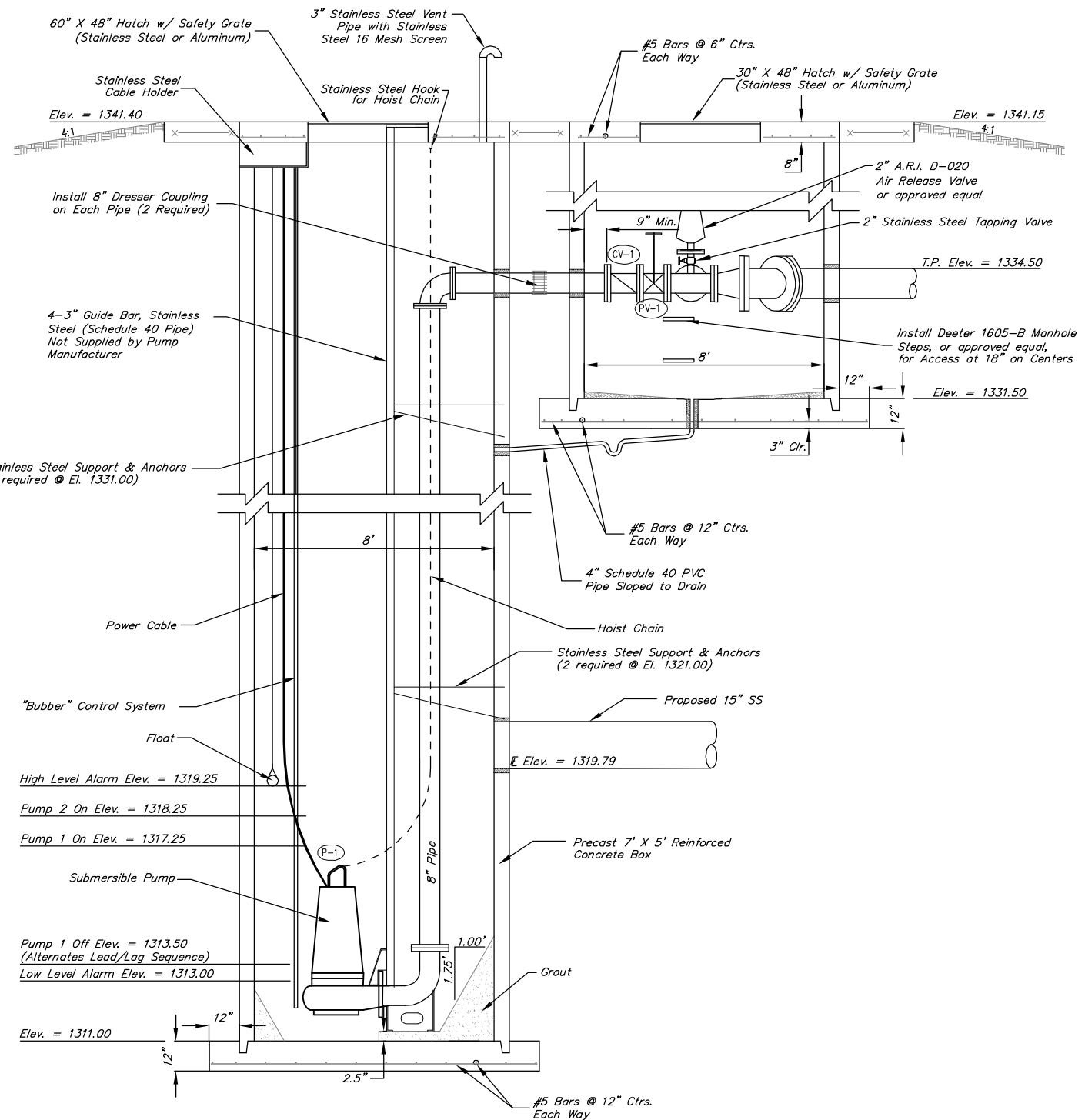


- The Price Bid for Furnishing and Installing the Lift Station, including the Wet Well, Valve Vault, and Other Miscellaneous Appurtenances, shall include all costs for furnishing and installing the Lift Station as indicated in the Plans Complete in Place and in Operation. This Price shall include the cost of constructing and/or installing compacted subgrade, concrete pavement, electrical conduit, electrical wiring, disconnect switch, pump controls, electrical power supply, finished grading, landscaping, fencing, and any other incidentals necessary to complete the work and place the lift station into satisfactory operation. The Price Bid shall include all sanitary sewer pipe and force main extended outside the slab as shown in the site plan and details.
- All Force Main Piping shall be ductile iron (flanged) to 5' outside the structures, unless otherwise noted. All interior piping shall be cement lined and epoxy coated ductile iron pipe.
- Pipe penetrations thru the wet well, valve vault, and concrete pad shall be grouted watertight with non-shrink grout and water stop gaskets as required.
- The contractor shall perform an exfiltration test on the complete wet well. The wet well shall be tested individually by securely plugging all inlet and outlet pipes. The wet well shall be filled to its full depth and then observed for at least six (6) hours. Exfiltration loss from the 6-foot diameter wet well shall not exceed the rate of 1.70 gallons per foot of wet well depth per day. If exfiltration exceeds the maximum limits, the contractor shall repair the leaks and defects, and then retest.
- The contractor shall support all piping inside the wet well and valve vault as required.
- All hardware inside the wet well and valve vault, including but not limited to the guide bar, hoist chain, chain catch, hooks, nuts, bolts, etc. shall be stainless steel. Nylon rope will not be allowed in the wet well.
- Wet well and valve vault design shall be subject to the same design requirements as precast manholes.
- The interior of the wet well shall be coated with a sanitary sewer manhole coating as manufactured by Ravens Lining Systems, Themec Company, or approved equal.
- Backfill around the wet well and under the valve vault and pad shall be a low volume change material compacted to 95% ASTM D-1557.

- The contractor shall coordinate with Westar Energy and Aquila Energy to extend electric and gas services to the pump station site. The contractor shall verify the electrical and gas service costs & requirements PRIOR to bidding. The contractor shall allow a minimum of 3 weeks for these services to be completed. ALL COST INCURRED TO EXTEND THESE SERVICES TO THE SITE SHALL BE INCIDENTAL TO OTHER ITEMS IN THE PROJECT.
- The contractor shall verify all requirements and dimensions of the generator pad with the generator supplier prior to construction.
- No electrical connections will be allowed within the wet well.
- Contact Tim Hopwood with the City of Wichita Sewer Treatment Plant at 303-8787 PRIOR to lift station start-up.
- The contractor shall be responsible for all permit and review fees.
- The utility shelter shall be painted to blend into the surroundings.



**EMERGENCY PUMPING CONNECTION**  
 Contractor to contact Tim Hopwood with the Wichita Sewer Treatment Plant at 303-8787 to coordinate type of Quick Connect to be used.



**SECTION A-A**  
(No Scale)

4648-LS09

**PLUG VALVE SCHEDULE**

MARK	LOCATION	STATUS	SIZE	FITTINGS	OPERATOR
PV-1	VALVE VAULT	NEW	8"	FLANGE	GEARED OPERATOR W/ EXTENSION & 2" NUT
PV-2	VALVE VAULT	NEW	8"	FLANGE	GEARED OPERATOR W/ EXTENSION & 2" NUT

**CHECK VALVE SCHEDULE**

MARK	LOCATION	STATUS	SIZE	FITTINGS	OPERATOR
CV-1	VALVE VAULT	NEW	8"	FLANGE	LEVER & SPRING
CV-2	VALVE VAULT	NEW	8"	FLANGE	LEVER & SPRING

**PUMP SCHEDULE**

MARK	TYPE	GPM	HEAD (FT)	EFF. %	HP	RPM	ELECT.
P-1	SUBMERSIBLE	920	46.0	60% MIN.	20	1750	460/58/3
P-2	SUBMERSIBLE	920	46.0	60% MIN.	20	1750	460/58/3

PROJECT NUMBER 468-83136		SHEET NAME LIFT STA		ENGINEERING DIRECTORY F:\NW Plant\Details	
DESIGN TPV	DRAWN TPV	APPROVED JFP	DATE April 2002	SCALE Ncr	BAUGHMAN NO 00 09 F759

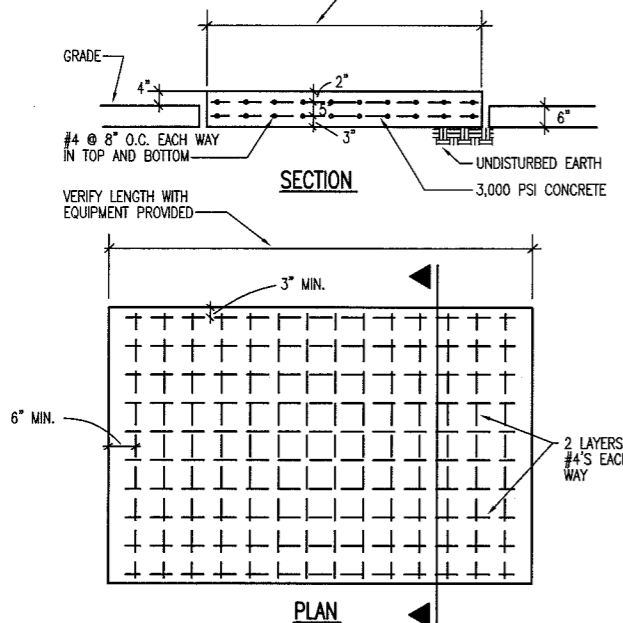
MAIN 5 OF THE NW INTERCEPTOR SEWER, PHASE 2  
**LIFT STATION DETAILS**

**BAUGHMAN COMPANY, P.A.**  
 ENGINEERING, SURVEYING, & PLANNING  
 2122 2721 • 21F ELLIS • WICHITA KANSAS 67211

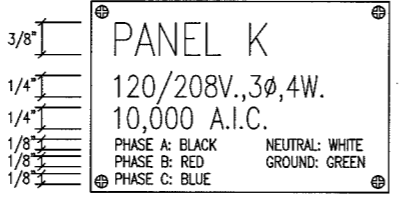
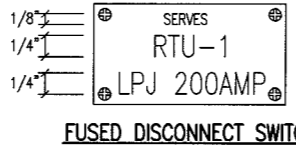
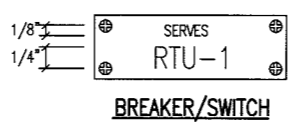
SHEET  
10  
OF  
19

PAD BY G.C./E.C. TO VERIFY ALL REQUIREMENTS WITH EQUIPMENT PROVIDED PRIOR TO G.C. POURING PAD.

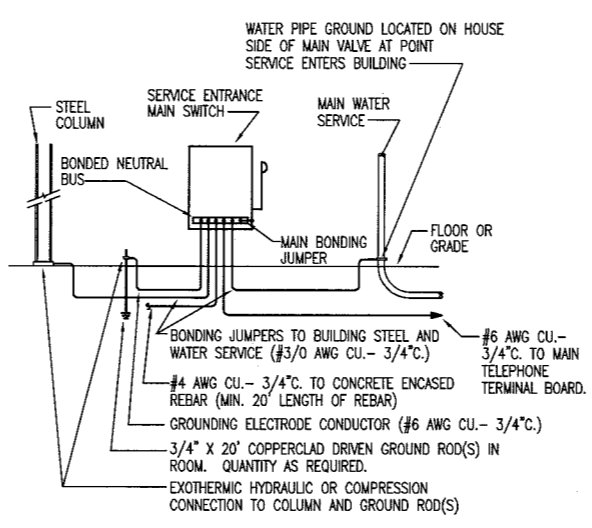
NOTE: THICKNESS & STEEL MUST BE SIZED PER GENERATOR SIZE.



1 ENGINE GENERATOR PAD DETAIL  
NO SCALE

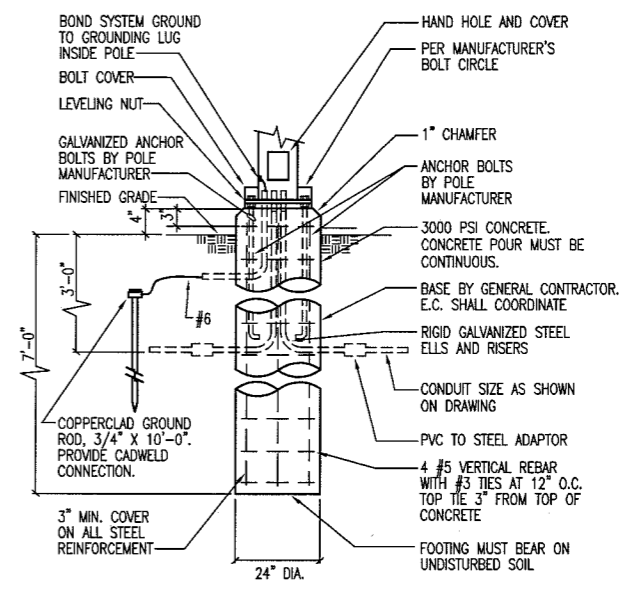


2 TYPICAL NAME PLATES  
NO SCALE



NOTE: PROVIDE OTHER GROUND CONNECTIONS AS SPECIFIED IN N.E.C. ARTICLE 250.50 (2002).

3 SYSTEM GROUNDING DETAIL - DISCONNECT  
NO SCALE



4 POLE BASE DETAIL  
N.T.S. FIXTURE 'S1'

65KW, 277/480V, 3Ø, 4W. NATURAL GAS GENSET WITH 125A. MAIN CIRCUIT BREAKER. GENSET TO BE PROVIDED WITH SOUND ATTENUATED WEATHERPROOF ENCLOSURE, AND CRITICAL SILENCER FOR A QUIET SITE.

NATURAL GAS SERVICE AND CONNECTION TO GENSET BY OTHERS. GENSET SUPPLIER SHALL COORDINATE STARTUP WITH GAS CONNECTION SCHEDULE.

PVC COATED R.G.S. STEEL ELLS AND RISERS SHALL BE USED. ALL CONDUITS INSTALLED ABOVE GRADE EXTERIOR TO THE BUILDING SHALL BE PVC COATED R.G.S. PER SPECIFICATIONS SECTION 16110. CONDUITS INSTALLED INSIDE THE UTILITY SHED SHALL BE R.G.S.

PROVIDE CONNECTIONS AT GENERATOR FOR BATTERY CHARGER (L-4), JACKET HEATER (L-6), COOLANT HEATER (L-10) AND CONTROLS FROM A.T.S. AS REQUIRED. COORDINATE CIRCUIT SIZES FOR EQUIPMENT AND CONTROL CABLING REQUIREMENTS WITH GENERATOR MANUFACTURER PRIOR TO INSTALLATION.

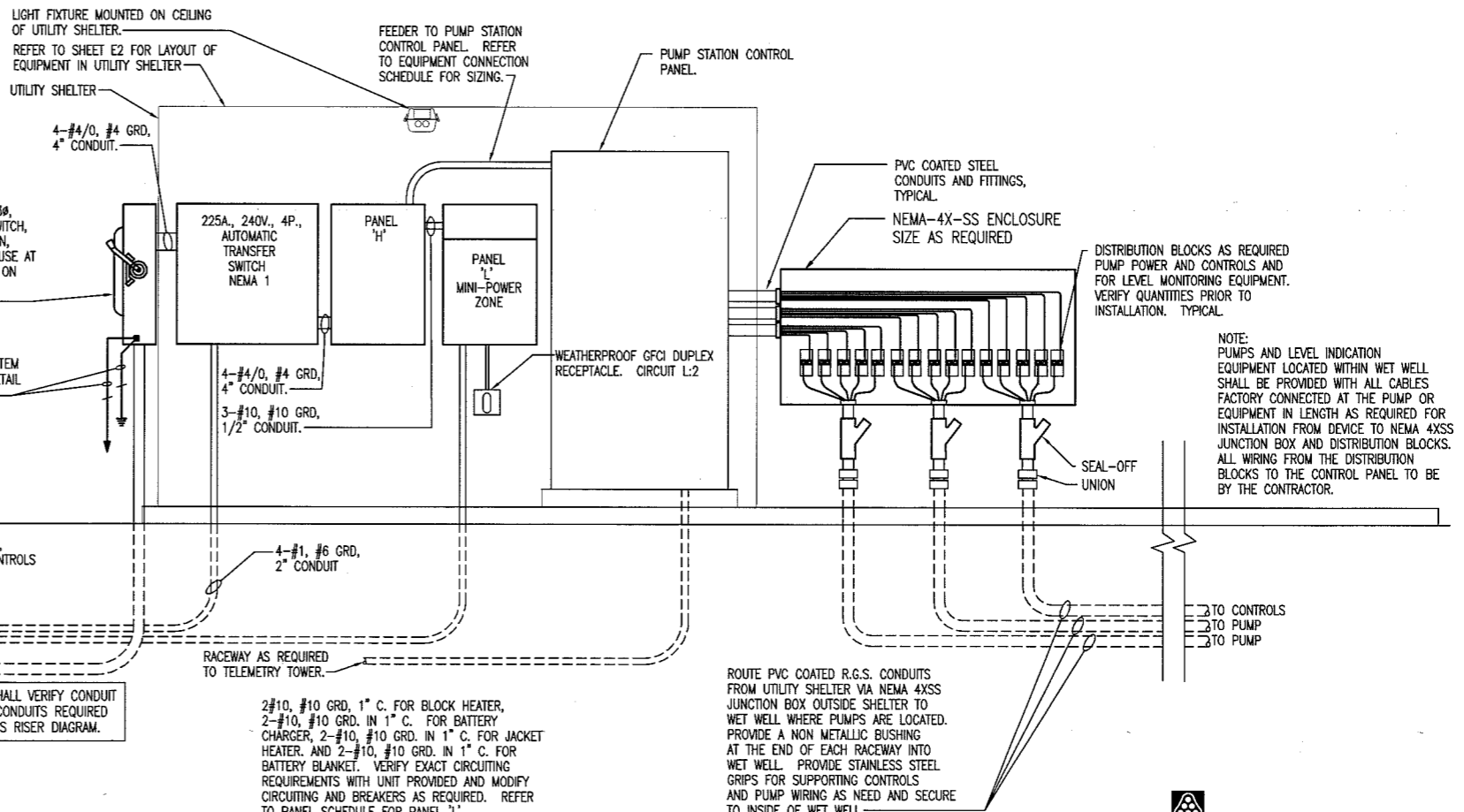
200A, 600V, 3Ø, DISCONNECT SWITCH, S.E. RATED, S/N, NEMA 4XSS FUSE AT 200A. MOUNT ON EXTERIOR OF BUILDING.

REFER TO SYSTEM GROUNDING DETAIL 3/E1.

#6 TO 3/4\"/>

RACEWAYS AS REQUIRED FOR BLOCK HEATER, BATTERY CHARGER, JACKET HEATER, AND CONTROLS

ELECTRICAL CONTRACTOR SHALL VERIFY CONDUIT QUANTITIES NEEDED. ALL CONDUITS REQUIRED MAY NOT BE SHOWN IN THIS RISER DIAGRAM.



2#10, #10 GRD, 1\"/>

ROUTE PVC COATED R.G.S. CONDUITS FROM UTILITY SHELTER VIA NEMA 4XSS JUNCTION BOX OUTSIDE SHELTER TO WET WELL WHERE PUMPS ARE LOCATED. PROVIDE A NON METALLIC BUSHING AT THE END OF EACH RACEWAY INTO WET WELL. PROVIDE STAINLESS STEEL GRIPS FOR SUPPORTING CONTROLS AND PUMP WIRING AS NEED AND SECURE TO INSIDE OF WET WELL.

NOTE: PUMPS AND LEVEL INDICATION EQUIPMENT LOCATED WITHIN WET WELL SHALL BE PROVIDED WITH ALL CABLES FACTORY CONNECTED AT THE PUMP OR EQUIPMENT IN LENGTH AS REQUIRED FOR INSTALLATION FROM DEVICE TO NEMA 4XSS JUNCTION BOX AND DISTRIBUTION BLOCKS. ALL WIRING FROM THE DISTRIBUTION BLOCKS TO THE CONTROL PANEL TO BE BY THE CONTRACTOR.

A ELECTRICAL RISER DIAGRAM  
NO SCALE SERVICE VOLTAGE: 277/480V, 3Ø, 4W.

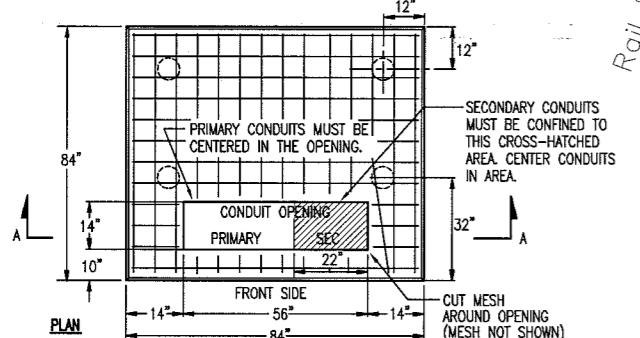
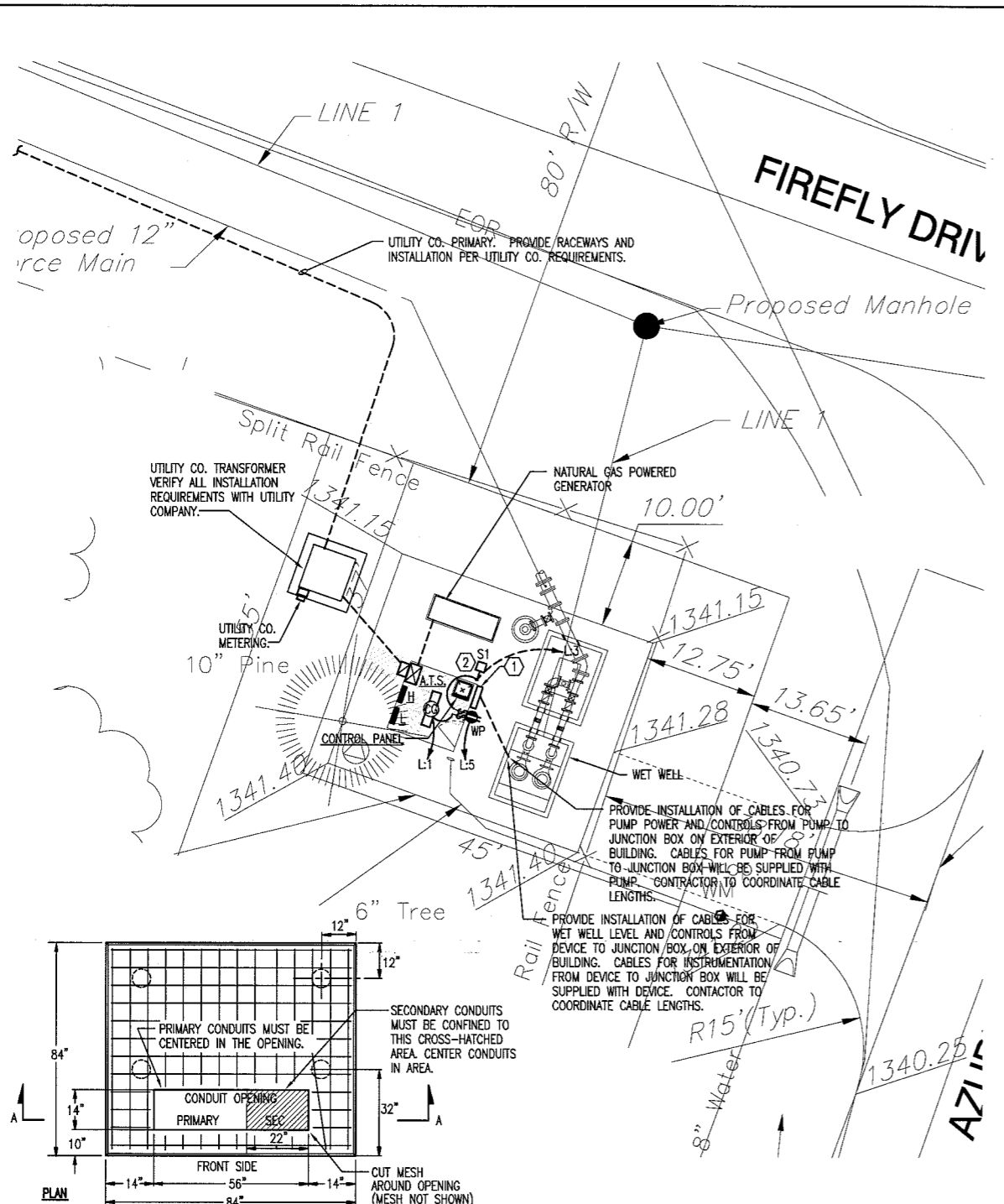
DSMR. OPER. ROB. SCALE: 1=96.0000  
E:\1999\99452\019\99452-019 E1 SCHEDULES 06-01-2005 12:31:05 am

PROJECT NUMBER 468-83136		SHEET NAME E1		ENGINEERING DIRECTORY E:\1999\99452\019	
DESIGN R.DB	DRAWN R.DB	APPROVED	DATE April 2002	SCALE AS SHOWN	BAUGHMAN NO 00-08-E789

MAIN 5 OF THE NW INTERCEPTOR SEWER, PHASE 2  
**LIFT STATION DETAILS**  
NORTHWEST TREATMENT PLANT SYSTEM IMPROVEMENTS

**BAUGHMAN COMPANY, P.A.**  
ENGINEERING, SURVEYING, & PLANNING  
316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

SHEET  
OF



- NOTES:**
- VERIFY PAD LOCATION, DIMENSIONS & ALL REQUIREMENTS WITH LOCAL UTILITY CO.
  - THE TOP OF THE TRANSFORMER PAD SHALL RECEIVE A SMOOTH TROWEL FINISH. THE CORNERS AND EDGES SHALL BE ROUNDED OR BEVELLED.
  - THE CONCRETE SHALL BE A MINIMUM OF 3,000 LB. MIX.
  - CONTRACTOR SHALL EXTEND FORMS DOWN TO AT LEAST 3" BELOW AVERAGE GROUND LINE.
  - TOP OF CONDUITS SHALL BE FLUSH WITH TOP OF PAD.
  - THE CONDUIT OPENING SHALL BE FREE AND CLEAR OF CONCRETE.
  - PILLARS ARE FORMED BY AUGERING AN 8" DIAMETER HOLE TO A DEPTH OF UNDISTURBED EARTH. A SEPARATOR, SUCH AS TAR PAPER, SHOULD BE PLACED BETWEEN THE PILLAR AND THE PAD SO THE PAD CAN BE LEVELLED AT A LATER TIME IF NECESSARY.

**TRANSFORMER PAD DETAIL**  
NO SCALE

### EQUIPMENT CONNECTION SCHEDULE

PROCESS EQUIPMENT CONNECTIONS											
UNIT DESIG.	UNIT VOLTAGE	H.P.	FLA	KVA	CIRCUIT NUMBER	BRK SW FUSE	CONDUIT SIZE	TRIP	DEVICES	FEEDER DESCRIPTION OR SEE THE FEEDER SCHEDULE	REMARKS OR SEE THE INDICATED NOTES BELOW
CP	480/3	20	50.6	42.05	H2	80	3	100	70	3"	1 3 #3 AWG THHN; #8 AWG GND; 1-1/4" C.
P	480/3	20	27.0	22.44	CP-1	60	3	60	40	3"	1 3 #4 AWG THHN; #10 AWG GND; 1-1/4" C.
EF	120/1	.5	9.8	1.176	L7	20	1				1 2 #12 AWG THHN; #12 AWG GND; 1/2" C.
UH	208/1	14.4	2.985	L9	25	2	30	20	2		1 2 #10 AWG THHN; #10 AWG GND; 1/2" C.

① ALL CONNECTIONS AND ELECTRICAL EQUIPMENT LISTED IN SCHEDULE SHALL BE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. FIELD VERIFY CONNECTION REQUIREMENTS AND EQUIPMENT PROVIDED BY OTHERS PRIOR TO ROUGH-IN.

② REFER TO MECHANICAL DRAWINGS AND SPECIFICATIONS FOR THE REQUIREMENTS ASSOCIATED WITH WIRING AND CONNECTIONS OF INTERLOCKING, THERMOSTAT LOCATIONS, EXHAUST FAN CONTROL SWITCHES, AND OTHER CONTROLS OF MECHANICAL EQUIPMENT.

③ PROVIDE A 4in. SQUARE JUNCTION BOX WITH A 20A, 1 POLE, 277V, HORSEPOWER RATED MANUAL MOTOR STARTER WITH OVERLOADS (EQUAL TO SQUARE 'D' F01), A CLASS CC FUSE HOLDER (EQUAL TO BUSSMAN #HPF), AND FUSE (EQUAL TO BUSSMAN FNO-R). SIZE FUSE PER MANUFACTURER'S RECOMMENDATION. PROVIDE WITH APPROPRIATE COVERPLATE.

④ PROVIDE A 30A, 1 POLE, 125V, HORSEPOWER RATED TOGGLE SWITCH WITH A 125V, 3/4 HP RATED FUSTAT (EQUAL TO BUSSMAN #50Y), SIZE FUSE PER MANUFACTURER'S RECOMMENDATION.

⑤ STARTER AND POWER FACTOR CORRECTION CAPACITORS SHALL BE PROVIDED AS PART OF CP-1. CONTRACTOR TO PROVIDE WIRING FROM CP-1 TO DISTRIBUTION BLOCKS IN JUNCTION BOX LOCATED OUTSIDE BUILDING AND CONNECT PUMP SUPPLIED CABLING AS REQUIRED.

⑥ PROVIDE CONNECTION TO EXHAUST FAN PROVIDED WITH UTILITY SHED AS REQUIRED. PROVIDE INTERLOCK WITH LOUVERS IF REQUIRED.

⑦ PROVIDE CONNECTION TO UNIT HEATER IN UTILITY SHED AS REQUIRED. VERIFY LOCATION PRIOR TO ROUGH-IN.

### LIGHTING FIXTURE SCHEDULE (P.E.C.)

FIXT. LTR. CATALOG NUMBER	MANUFACTURER CATALOG NUMBER	MANUFACTURER CATALOG NUMBER	MANUFACTURER CATALOG NUMBER	DESCRIPTION	LAMP TYPE	LENS/LOUVER/FINISH	W	L	D
CG	WILLIAMS 92-4-232-A	COLUMBIA LUN4-232-EB8-PAF	LITHONIA DM-232-PAF	METALLUX VT2-232DR-DL	4" DAMP LABEL F032/B35	WHITE			.8771 4.333
S1	KIM 1A/AR5/250HPS/DB-P			CUT-OFF TYPE V/DKBRZ	250W HPS				1.333 1.875 .6667

① GENERAL CONTRACTOR SHALL PROVIDE FIREPROOFING AROUND RECESSED FIXTURES INSTALLED IN FIRE RATED CEILING PER U.L. REQUIREMENTS. ELECTRICAL CONTRACTOR WILL COORDINATE.

② LIGHT FIXTURES SHALL BE PROVIDED WITH ELECTRONIC BALLASTS. COMPACT FLUORESCENT ELECTRONIC BALLASTS SHALL HAVE END-OF-LIFE PROTECTION CIRCUIT TO PREVENT WELDING OF LAMPS IN SOCKETS OR LAMP BREAKAGE. SEE THE SPECIFICATIONS. ALL FLUORESCENT LAMPS SHALL BE LOW MERCURY AND SHALL MEET ALL E.P.A. GUIDELINES FOR PASSING 'TCLP' TESTS.

③ PROVIDE FIXTURE WITH INTEGRAL PHOTOCCELL.

④ MANUFACTURERS LISTED IN THIS SCHEDULE OR APPROVED BY WRITTEN ADDENDUM WILL BE THE ONLY APPROVED MANUFACTURERS TO BID THE LIGHTING FIXTURES FOR THIS PROJECT. CONTRACTORS AND SUPPLIERS USING PRICING FROM MANUFACTURERS NOT LISTED ON SCHEDULE OR BY ADDENDUM DO SO AT THEIR OWN RISK.

⑤ LIGHT FIXTURE SELECTIONS ARE BASED ON THE MANUFACTURER IN THE LEFT MOST COLUMN AS LISTED IN THE SCHEDULE. FIXTURES APPROVED AS EQUALS IN THIS SCHEDULE OR BY ADDENDUM SHALL BE EQUAL TO THE UNIT SPECIFIED IN THE LEFT MOST COLUMN, IE: SPRING LOADED LATCHES, POST PAINTED FINISH, AND PHOTOMETRICS.

#### MINI-POWER ZONE L

208/120 VOLTS, 3 PHASE, 4 WIRE  
50 AMP MAIN BRK, WALL MTD.  
50000 AIC LABELED

CIRC NO.	LOAD V. A.	LOAD TYPE	LOAD DESCRIPTION	AMP SIZE	TRIP	LOAD TYPE	LOAD V. A. NO.
1	140	SW	PUMP STATION LIGHTING	1	20	A	200
3	300	SW	EXTERIOR LIGHTING	1	20	B	20
5	200	SW	EXTERIOR RECEPTACLE	1	20	C	15
7	1176	SW	EF-1	1	20	A	20
9	2895	SW	UH-1	2	25	B	15
11						C	
13						A	
15						B	
17						C	

#### PANELBOARD: H

480/277 VOLTS, 3 PHASE, 4 WIRE  
200 AMP MAIN BRK, SURFACE MTD.  
50000 AIC LABELED

CIRC NO.	LOAD V. A.	LOAD TYPE	LOAD DESCRIPTION	AMP SIZE	TRIP	LOAD TYPE	LOAD V. A. NO.
1			MINI-POWER ZONE L	3	25	A	80
2			CP-1	1	20	B	20
3						C	
4						A	
5						B	
6						C	
7		SW	SPARE	1	20	A	20
8		SW	SPARE	1	20	B	20
9		SW	SPARE	1	20	C	20
10		SW	SPARE	1	20	A	20
11		SW	SPARE	1	20	B	20
12		SW	SPARE	1	20	C	20
13		SPACE				A	
14		SPACE				B	
15		SPACE				C	
16		SPACE				A	
17		SPACE				B	

① 15 KVA MINI-POWER ZONE COMBINATION PANEL/TRANSFORMER, 480V. PRIMARY WITH 120/208V, 3-PHASE, 4-WIRE SECONDARY. 12 POLE PANEL.

② VERIFY CIRCUITING REQUIREMENTS WITH GENERATOR PROVIDED PRIOR TO ORDERING PANEL AND BREAKERS.

### SYMBOL LIST

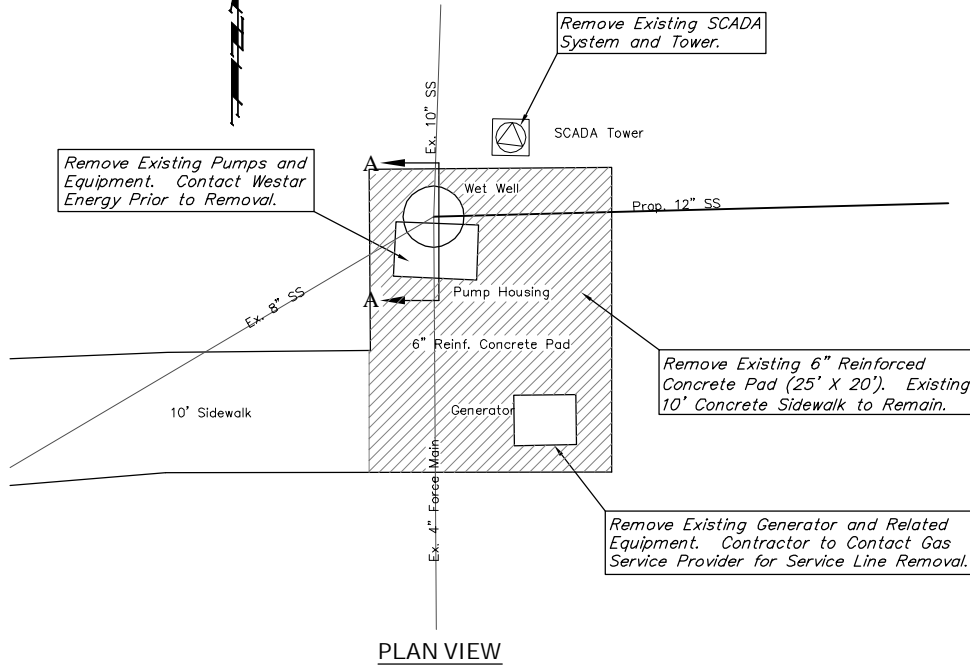
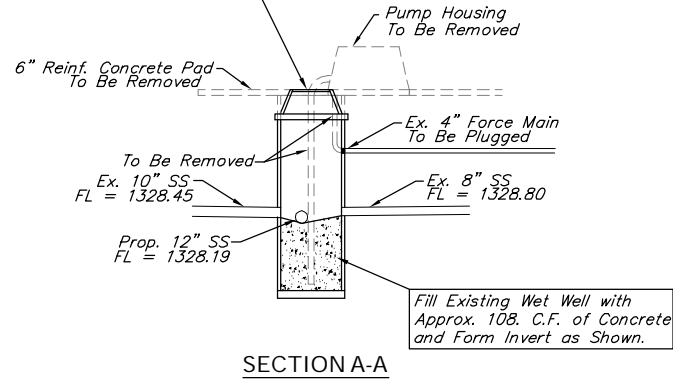
SYMBOL	DESCRIPTION	MOUNTING
⊖	STRIP LIGHT FIXTURE & FIXTURE LETTER	CEILING
⊕	SWITCHES (1-POLE, 2-POLE, 3-WAY, 4-WAY)	46" AFF UON
WP	WEATHERPROOF	
CT	SEE GENERAL NOTE 9	
AFF	ABOVE FINISHED FLOOR	
UON	UNLESS OTHERWISE NOTED	
⊕	GROUND FAULT DUPLEX RECEPTACLE	17" AFF UON
□	SPECIAL DEVICE (AS NOTED)	
⊞	JUNCTION BOX	
⊞	FUSTAT BUSS #SSY	
—A	BRANCH CIRCUIT PANEL & PANEL DESIG.	72" TO TOP
—	CONDUIT RUN 2#12 & 1#12 GRD.-1/2" C. GEN NOTE 16	CEIL./WALL
—	CONDUIT RUN 2#12 & 1#12 GRD.-3/4" C. GEN NOTE 16	EARTH/FLOOR
—	MASTER/SLAVE FIXTURE WHIP	CEILING
—	CONDUIT RUN 2 CIRCUITS, 3#12 & 1#12 GRD.-3/4" C.	EARTH/FLOOR
—	CONDUIT RUN PARTIAL CIRCUIT	
—	SEE GENERAL NOTE 7 & 8	
—	CONDUIT RUN TWO (2) CIRCUITS PHASE CONDUCTORS (#12 UON)	CEIL./WALL
—	NEUTRAL CONDUCTOR (#12 UON)	
—	SWITCH LEGS (#12 UON)	
—	GROUND CONDUCTOR (#12 UON)	
—	ISOLATED GROUND CONDUCTOR (#12 UON)	

- ### GENERAL NOTES
- ALL ELECTRICAL WORK SHALL COMPLY WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) & THE AMERICANS WITH DISABILITIES ACT (ADA).
  - REFER TO RELATED ARCHITECTURAL, MECHANICAL, AND STRUCTURAL DRAWINGS FOR RELATED INFORMATION.
  - REFER TO THE SPECIFICATIONS FOR DATA NOT ON THE DRAWINGS.
  - E.C. SHALL REFER TO MECHANICAL DRAWINGS AND SPECIFICATIONS FOR THE REQUIREMENTS ASSOCIATED WITH WIRING AND CONNECTION OF INTERLOCKING AND CONTROLS OF MECHANICAL UNITS AND THERMOSTAT LOCATIONS.
  - COORDINATE OUTLET BOX LOCATIONS WITH MASONRY TO MINIMIZE CUTTING OF BRICK OR BLOCK.
  - ALL MOUNTING HEIGHTS TO CENTERLINE OF ITEM UNLESS OTHERWISE NOTED. VERIFY ALL OUTLET LOCATIONS ON THE JOB PRIOR TO ROUGH-IN.
  - CONDUIT RUN W/CONDUCTORS AS INDICATED & GROUND WIRE SIZED PER N.E.C. 250-122 (2002). CONDUIT SIZE AS REQUIRED.
  - WHEN INCREASED CONDUCTOR SIZES ARE SHOWN ON THE PLANS, THE LARGER CONDUCTOR SIZE SHALL BE USED THROUGHOUT THE LENGTH OF THE CIRCUIT, INCLUDING NEUTRAL AND GROUND.

DSNR: OPER: RDB SCALE: 1=96.0000  
 EX: 1999\99452\019\99452-019 E2 PLAN 05-27-2005 03:58:23 pm

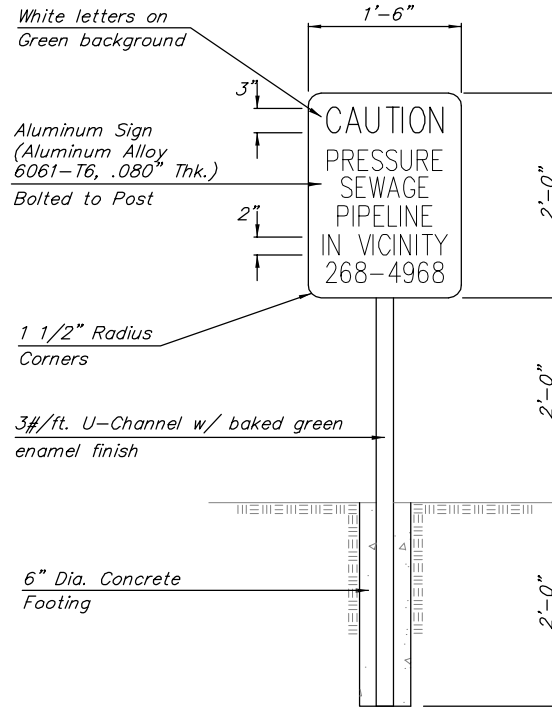


Remove Top 2' of Existing Wet Well. Construct Flat Manhole Top, Adjustment Ring, Frame, and Lid.



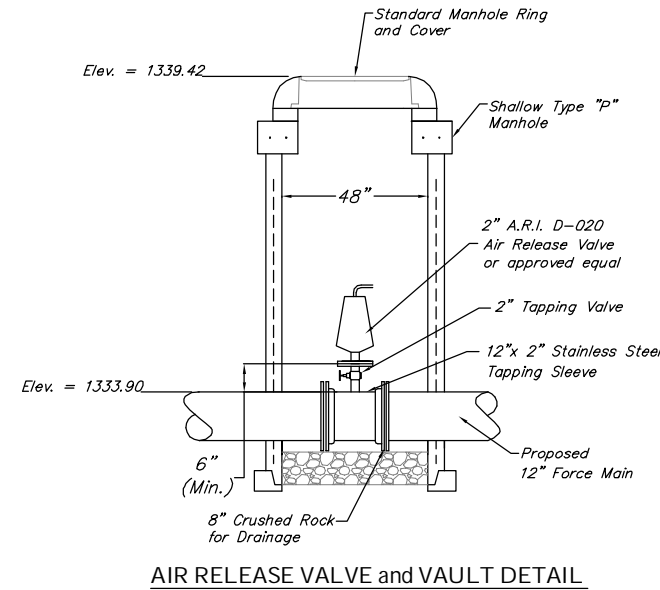
# HICKORY CREEK PUMP STATION DEMOLITION PLAN

1. Salvaged Items Shall be Cleaned and Stockpiled on Site for the Engineers Inspection. Acceptable Items Shall be Delivered to the City of Wichita Sewage Treatment. Contact Tim Hopwood at 303-8787 to coordinate.
2. The Contractor Shall Clean the Wet Well and Dispose of the Solids and the Cleaning Materials in a Manner as approved by the Engineer Prior to Filling the Wet Well with Concrete.
3. Prior to Beginning Salvage/Demolition of the Existing Pump Station, the Contractor Shall Contact the Utility Companies to Request that all Utility Services be Disconnected. All necessary Costs to be paid by the Contractor.
4. The Lump Sum Bid Item for Pump Station Demolition Shall Include the Removal/ Abandonment of All Piping and Structures. All Costs for Maintaining Sewage Flows Shall also be Included in this Bid Item.
5. The Contractor Shall Give the City of Wichita Water & Sewer Department a Minimum of 48 Hours Notice Prior to the Demolition of the Pump Station.
6. Sewage Flow Shall not be Diverted Through the New Pipes or Manholes Until Testing has been Completed and Accepted.
7. The Contractor Shall Thoroughly Flush the Force Main with Clean Water. Once the Force Main is Clean, the Contractor Shall Remove the First 5 L.F. and Cap the 4" Line with CIMJ Caps.
8. All Concrete Rubble and Other Unsalvageable Material Shall be Completely Removed from the Site and the Contractor Shall Sod all of the Areas Disturbed by the Demolition. Cost to be INCIDENTAL to "Site Restoration".

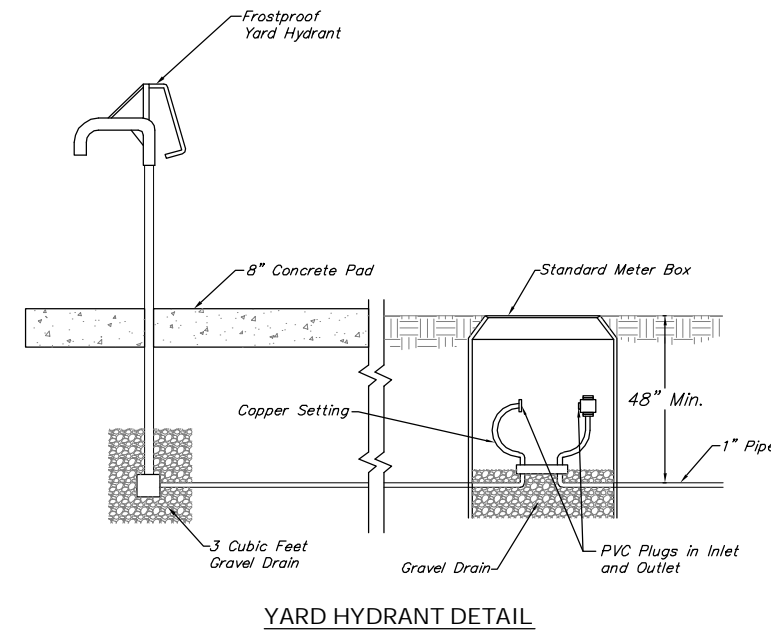


## FORCE MAIN WARNING SIGN DETAIL

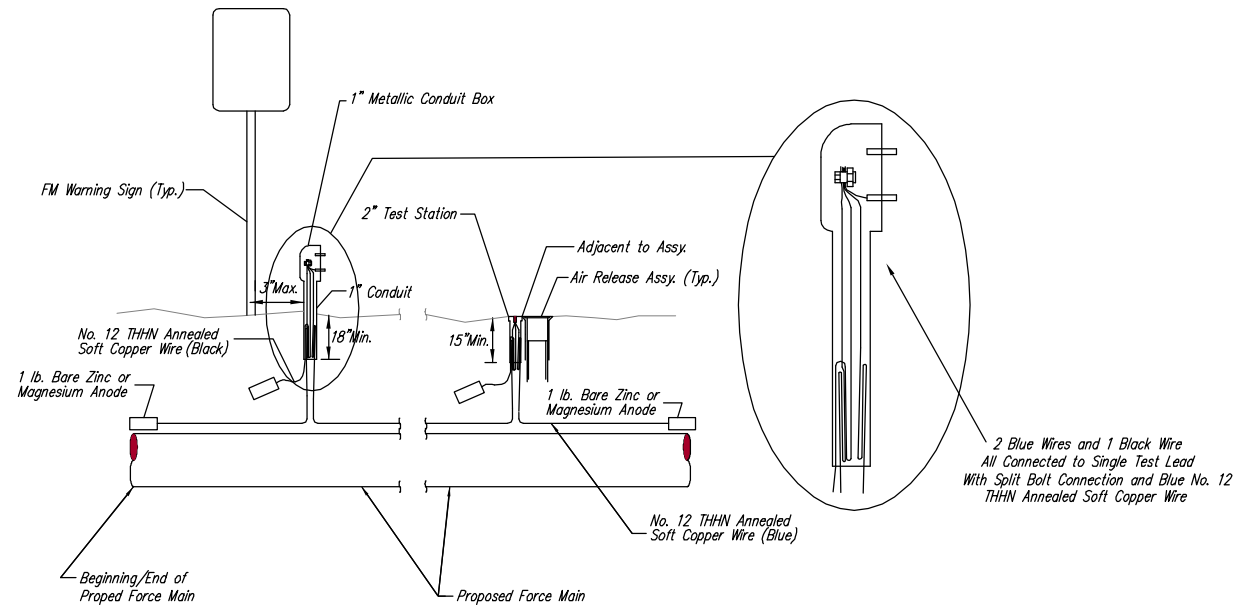
Note: Install Metal Warning Signs at Locations as Shown on the Plans. Exact Locations of Warning Signs shall be Approved by the Engineer.



## AIR RELEASE VALVE and VAULT DETAIL



## YARD HYDRANT DETAIL



## TRACER WIRE

Conductive type pipe locator/tracer wire shall be installed to locate all waterline pipe regardless of pipe material. The wire shall extend the entire length of the proposed pipe. The wire shall be taped to the waterline and pulled with the pipe. Split-bolt connectors shall be used at splice locations. Electrical tape shall cover all splices so no bare wire is exposed. Test stations shall be installed adjacent to all fire hydrants along the waterline and at blowoffs or valves near the ends of the waterlines. Any exceptions to the location of test stations shall be approved by the engineer. At each test station, the tracer wire shall be connected to a 1 lb. Zinc or magnesium anode. Anodes shall also be attached to the tracer wire at both the beginning and the end of the proposed waterline. A typical layout of the tracer wire and test station is provided in the above figure.

## WIRE

The tracer wire shall be Blue No. 12 THHN annealed soft copper wire with thermal plastic insulation. The insulation shall be heat, oil, and gasoline resistant as manufactured by Temple Electric or approved equal. To allow for grade adjustment, a minimum of 12" of excess wire shall be coiled at the bottom of the test station for all wires. The insulation sheathing shall be removed such that 1" bare copper wire is exposed at all points of connection. Contractor shall attach wire being installed with proposed water main to any tracer wire installed with adjacent waterline projects.

## TEST STATIONS

The test station for fire hydrant applications shall be a 1 inch galvanized conduit style test station as manufactured by AGRA Industries with a removable solid cover having two leads extending from the face or approved equal. The test station for valve applications shall be 2 inch flush style test station T2PS3B as manufactured by HANDLEY Industries or approved equal. The conduit style shall be attached to a 1 inch rigid galvanized conduit with a minimum length of 36" and plastic end bushing. The flush style shall have the word "Force Main" stamped or molded into the lid. All test stations shall be manufactured using molded blue tops or sufficiently coated with blue enamel paint. The tracer wire and the anode wire shall be installed to allow 10 inches of wire within the test station. In concrete environments such as sidewalks or in the downtown area the contractor shall use the flush style test station. The location of all test stations shall be approved by the engineer, recorded, and shown in the as-built drawings.

## ANODES

The anodes shall be 1 lb. bare zinc or magnesium. The anodes shall be buried at the same elevation as the waterline at each test station. The anodes shall be connected to Black No. 12 THHN annealed soft copper wire which shall be extended to the test station.

## TRACER WIRE DETAIL

COST IS SUBSIDIARY TO PIPE INSTALLATION

PROJECT NUMBER 468-83136		SHEET NAME Misc 2		ENGINEERING DIRECTORY F:\NW Plant\Details	
DESIGN TPV	DRAWN TPV	APPROVED JFB	DATE Aug 2002	SCALE None	BAUGHMAN NO 00-08-E789

MAIN 5 OF THE NW INTERCEPTOR SEWER, PHASE 2  
**MISCELLANEOUS DETAILS**  
NORTHWEST TREATMENT PLANT COLLECTION SYSTEM IMPROVEMENTS

**BAUGHMAN COMPANY, P.A.**  
ENGINEERING, SURVEYING, & PLANNING  
316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

SHEET  
14  
OF  
19