

GENERAL CONSTRUCTION NOTES:

- 1 EXISTING UTILITIES SHOWN ON THE PLAN, ARE PLOTTED FROM UTILITY RECORDS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO LOCATE AND PROTECT ALL UTILITIES WHETHER OR NOT SHOWN ON THIS PLAN.
- 2 PRIME CONTRACTOR BIDDING THIS WORK SHALL HAVE A CLASS "A" LICENSE.
- 3 ALL ELEVATIONS SHOWN ON THE PLANS SHALL BE STAKED IN THE FIELD.
- 4 CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF RIVERSIDE STANDARD DRAWINGS AND STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2009 EDITION.
- 5 CONTRACTOR SHALL PROTECT ALL BOLLARDS, MANHOLES, VALVES, ELECTROLYSIS TESTING STATIONS, WATER MONITORING WELLS AND ALL OTHER EXISTING IMPROVEMENTS IN PLACE.
- 6 ALL NECESSARY SURVEY WILL BE DONE BY THE CITY.
- 7 ALL CONNECTIONS OF NEW PIPING TO EXISTING PIPING ARE BASED ON AVAILABLE DATA AND WILL REQUIRE FIELD VERIFICATION.
- 8 ALL PIPE LENGTH ARE APPROXIMATE AND SHALL BE FIELD VERIFIED.
- 9 ALL NEW PIPING SHOWN ON THESE PLANS ARE ESTIMATED BASED ON AVAILABLE DATA. ACTUAL POSITIONING AND ROUTING WILL BE DETERMINED BASED ON FIELD CONDITIONS AND CONFLICTS WITH EXISTING PIPING AND STRUCTURES.
- 10 DUCTILE IRON PIPE AND FITTINGS SHALL BE LINED WITH AN EPOXY COATED LINING SUITABLE FOR WET WELL ENVIRONMENT, CLASS 150.
- 11 ALL INSTALLED GATE VALVES, PLUG VALVES AND CHECK VALVES WILL BE COATED WITH AN EPOXY SUITABLE TO BE USED WITH RAW SEWAGE.

CONSTRUCTION NOTES:

- 1 PROPOSED 16" DIA D.I. FLANGED, FULLY RESTRAINED PIPING SPOOL.
- 2 PROPOSED 10" DIA D.I. FLANGED, FULLY RESTRAINED PIPING SPOOL.
- 3 PROPOSED 10" DIA D.I. FLANGED 45° ELBOW.
- 4 PROPOSED 10" DIA VAL-MATIC SURGEBUSTER CHECK VALVE MODEL 7210 OR CITY APPROVED EQUAL.
- 5 3/4" DRAIN, PIPE OPEN TO ATM.
- 6 PROPOSED 16" x 16" DIA D.I. FLANGED TEE.
- 7 PROPOSED 16" DIA D.I. FLANGED 90° ELBOW.
- 8 PROPOSED 10" DIA D.I. FLANGED 90° ELBOW.
- 9 PROPOSED 10" DIA FLANGED EXPANSION JOINT, PROCO SERIES 240-AV/NP OR CITY APPROVED EQUAL.
- 10 PROPOSED 12" DIA FLANGED EXPANSION JOINT, PROCO SERIES 240-AV/NP OR CITY APPROVED EQUAL.
- 11 PROPOSED 16" x 12" DIA D.I. FLANGED ECCENTRIC REDUCER.
- 12 PROPOSED 16" x 12" DIA D.I. FLANGED REDUCING 90° BEND.
- 13 PROPOSED 16" DIA BLIND FLANGE.
- 14 PROPOSED 16" DIA D.I. FLANGED 90° LONG RADIUS ELBOW.
- 15 ABANDONED CONDUIT.
- 16 ABANDONED 16" DIA FORCE MAIN (PROTECT IN PLACE).
- 17 ABANDONED 20" DIA FORCE MAIN (PROTECT IN PLACE).
- 18 EXISTING FIBER OPTIC PULL BOX AND CABLE, PROTECT IN PLACE.
- 19 CONSTRUCT (9'W X 21' L X 3.5'D) CONCRETE PUMP PAD PER DETAIL B, SEE SHEET 2.
- 20 INSTALL 3' x 5' JENSEN PRECAST CONCRETE VAULT MODEL K3660-DP48-21 OR CITY APPROVED EQUAL (SEE NOTE 4).
- 21 INSTALL 4' x 5' JENSEN PRECAST CONCRETE VAULT MODEL K45-FP36-05 OR CITY APPROVED EQUAL (SEE NOTE 4).
- 22 EXISTING BOLLARDS, PROTECT IN PLACE.
- 23 PROPOSED 10" DIA D.I. FLANGED 90° LONG RADIUS ELBOW.
- 24 PROPOSED 16" x 10" DIA D.I. CONCENTRIC REDUCER.
- 25 PROPOSED 16" DIA D.I. FLANGED 45° ELBOW.

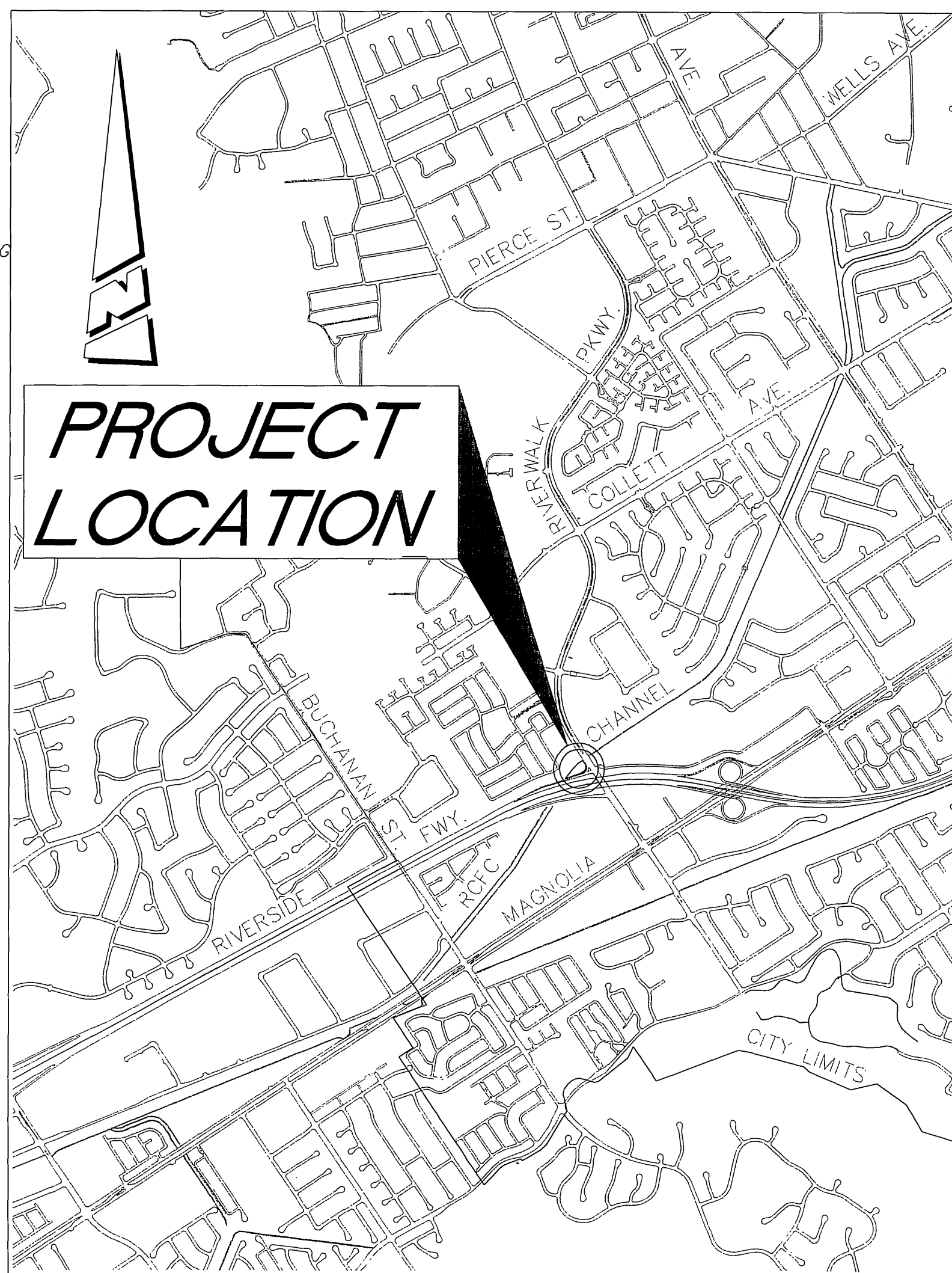
- 26 CONSTRUCT 8" THICK 10' X 10' CONCRETE PAD PER DETAIL A SHEET 2. CHEMICAL TANK TO BE 2500 GALLON SAFE TANK ASSEMBLY FROM POLY PROCESSING COMPANY, USE (6) AC-12 RESTRAINT CLIPS OR CITY APPROVED EQUAL.
- 27 EXISTING 16" DIA FORCE MAIN, SEE DWG S-1197.
- 28 PROPOSED 16" DIA DEZURIK KNIFE GATE VALVE, KGC SERIES, MANUAL ACTUATOR WITH HAND OPERATOR.
- 29 PROPOSED 16" DIA MUELLER GATE VALVE (A-2361-6) OR CITY APPROVED EQUAL.
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- 31 PROPOSED 8" DIA MUELLER GATE VALVE (A-2360-6) OR CITY APPROVED EQUAL.
- 32 PROPOSED 8" DIA VAL-MATIC SURGEBUSTER CHECK VALVE MODEL 7208 OR CITY APPROVED EQUAL.
- 33 PROPOSED 14" DIA VAL-MATIC PLUG VALVE MODEL 5814R/7E18 OR CITY APPROVED EQUAL.
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- 35 PROPOSED KPSI LEVEL TRANSDUCERS SERIES 705 (0-10PSI) 4-20MA WITH ANEROID BELLOWS OR CITY APPROVED EQUAL.
- 36 INSTALL GODWIN DRI-PRIME HL250M CRITICAL SILENCE PUMPS OR CITY APPROVED EQUAL. PUMPS SHALL BE ANCHOR BOLTED TO CONCRETE PAD
- 37 INSTALL 2" 802A WASTEWATER VAL-MATIC COMBINATION AIR VALVE OR CITY APPROVED EQUAL.
- 38 PROPOSED STILLING WELL, 6" PVC PERFORATED AT THE BASE WITH A 1.5" HOLE ABOVE FOR CONDUIT.
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- 44 INSTALL 16" FLANGED MAGNETIC FLOW METER PER SPECIFICATIONS, SPARLING TIGER MAG MODEL FM 655 OR CITY APPROVED EQUAL.
- 45 INSTALL ADJUSTABLE PIPE SUPPORT WITH BOLT, TOLCO FIGURE 316T & 318A OR CITY APPROVED EQUAL. (SEE NOTE 2 & 4)
- 46 10" FLANGED X VICTAULIC CUT-GROOVED SPOOL AND COUPLING (STYLE 31) OR CITY APPROVED EQUAL.
- 47 CORE HOLE INTO MANHOLE AND SECURE SUCTION/DISCHARGE HOSE WITH MODEL "S-316" LINK-SEAL (EPDM; LOW-DUROMETER). SIZE AS REQUIRED.
- 48 PROPOSED 10" DIA VAL-MATIC PLUG VALVE MODEL 5810R/7D16 CITY APPROVED EQUAL.
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RIVERSIDE CALIFORNIA



PUBLIC WORKS DEPARTMENT

PIERCE STREET PUMP STATION EMERGENCY DIESEL BACKUP PUMPS



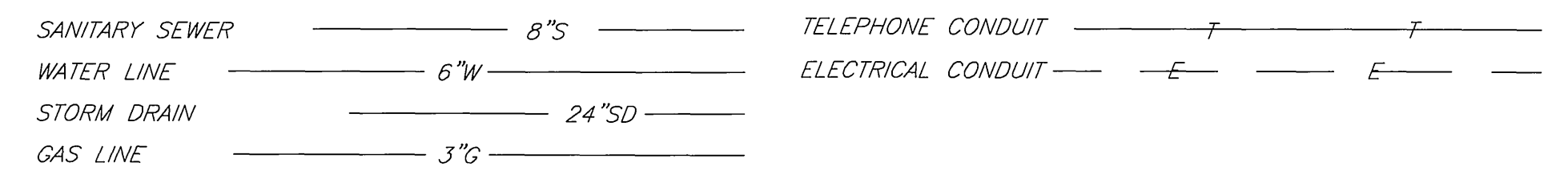
PROJECT LOCATION MAP

NO SCALE

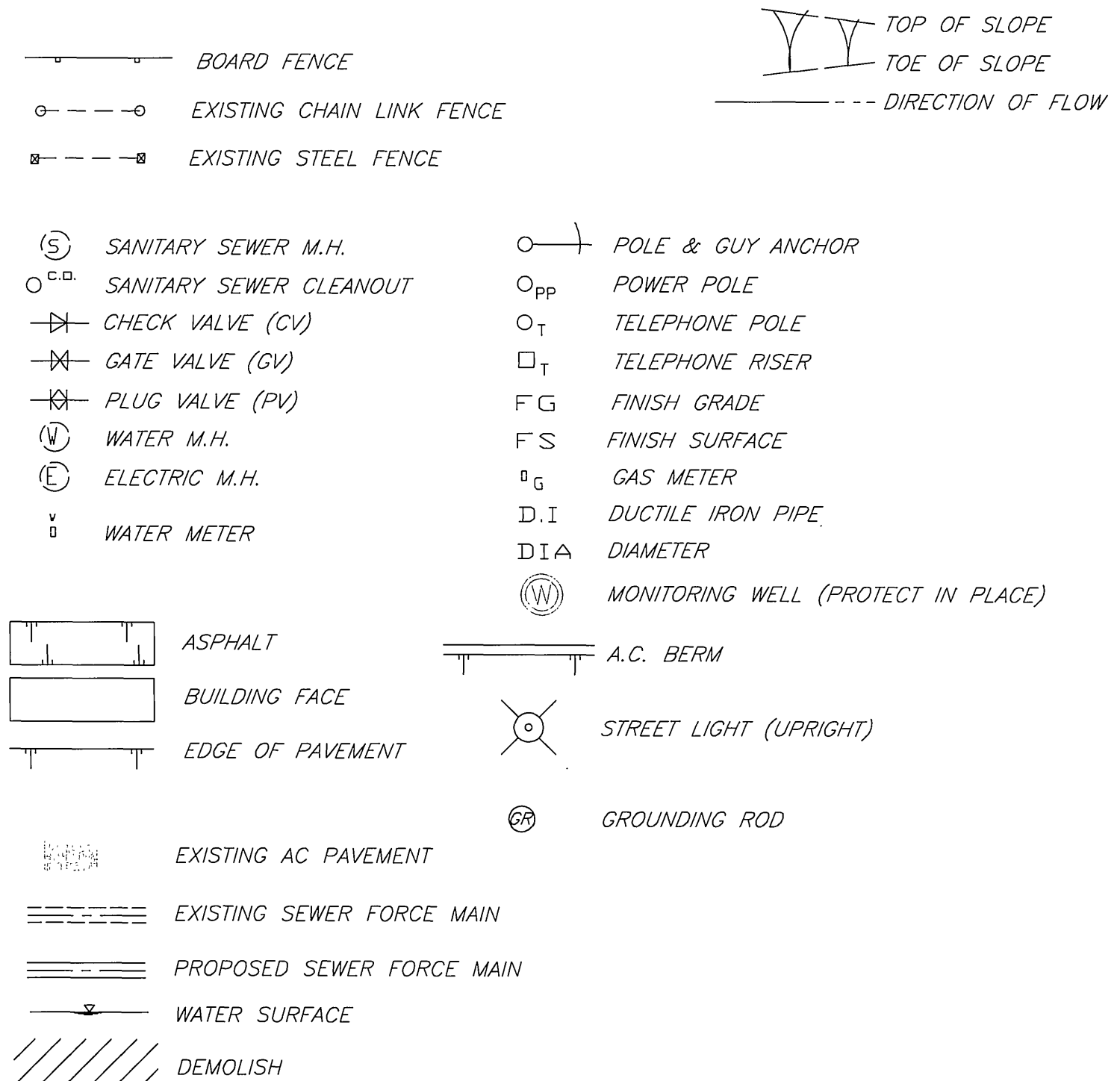
DEMOLITION NOTE:

- 1 DEMOLISH EXISTING CHEMICAL TANK CONCRETE PAD. CHEMICAL TANK TO BE RELOCATED, SEE SHEET 3 FOR NEW LOCATION.

EXISTING UNDERGROUND UTILITIES:



EXISTING TOPOGRAPHY:



PLAN SHEET INDEX:

SHEET NO.	DESCRIPTION.
1	TITLE SHEET.
2	SITE PLAN.
3	PROFILE A-A, B-B, C-C
4	PROFILE D-D, E-E, F-F, G-G
5	VALVE DETAIL

PUMP MANUFACTURER SERVICE CENTER SHALL BE WITHIN A 30 MILE RADIUS FROM THE PIERCE STREET PUMP STATION

FLOW BASIS WAS OBTAINED FROM THE ARLANZA TRUNK SEWER STUDY DATED AUGUST 2006.
Q = 7,131 GPM

ENGINE AND PUMP SHALL MEET OR EXCEED THE FOLLOWING CRITERIA:
 • TIER III ENGINE CERTIFIED BY AQMD
 • MAXIMUM NOISE LEVEL 69 DBA @ 30 FEET
 • PUMP SHALL BE AUTOMATIC SELF PRIMING UP TO 28 FEET AT SEA LEVEL
 • MINIMUM SOLIDS HANDLING 1/2 INCHES DIAMETER
 • STRUCTURAL STEEL SKID SHALL NOT EXCEED PAD DIMENSIONS
 • PUMP PADS SHALL CONFORM TO ANSI/HI STANDARDS

**FOREMAN: DISCHARGE ELEVATION 751.90 FL
WET WELL LOW WATER 671.65 FL
ELEVATION
24" FORCE MAIN LENGTH 13,862'
30" FORCE MAIN LENGTH 13,693'**

NOTES:

1. DUCTILE IRON PIPE AND FITTINGS SHALL BE LINED WITH EPOXY COATED LINING SUITABLE FOR WET WELL ENVIRONMENT, CLASS 150
2. CONTRACTOR SHALL FIELD VERIFY DIMENSIONS PRIOR TO PURCHASING OR INSTALLING PUMPS, PIPING OR STANDS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MATCH OR FIT NEW INSTALLATIONS TO EXISTING PIPING AND VALVES. ALL BRACING WITHIN THE WET WELL TO BE CORROSION RESISTANT. BRACING SUITABLE FOR THE WET WELL ENVIRONMENT.
3. CONTRACTOR SHALL HAVE ALL MATERIALS ON HAND PRIOR TO REMOVING ANY EXISTING CHECK VALVES, GATE VALVES OR PIPING WITHIN THE PUMP STATION. CONTRACTOR SHALL HAVE AT LEAST TWO VALVES OF THE TYPE BEING REPLACED AVAILABLE ON HAND AT ALL.
4. ALL VAULTS WILL HAVE A TWO PIECE BOLT DOWN COVER WITH NO MARKINGS ON LID, TRAFFIC RATED H=20 LOADING. THE 3' x 5' VAULTS WILL HAVE TWO 14" x 18" KNOCKS OUTS AT BOTH ENDS. THE 4' x 5' VAULT WILL HAVE TWO 20" x 24" KNOCKS OUTS AT BOTH ENDS.
5. CONTRACTOR SHALL INSTALL A 110 VOLT DUPLEX WITH GFCI NEMA IV BOX SINGLE PHASE 20AMP CIRCUIT AT EACH PUMP AND CHEMICAL TANK.

BENCHMARK E2-J3 P.K. NAIL AND CITY ENGINEER TAG IN THE NORTHWESTERLY CURB RETURN OF MAGNOLIA AVENUE AND PIERCE STREET. ELEVATION 694.500'	Under Ground Service Alert of Southern California Call: TOLL FREE 1-800-227-2600 TWO WORKING DAYS BEFORE YOU DIG	ENGINEER IN RESPONSIBLE CHARGE LOUIS L. YOUNG R.C.E. No. 43216, EXPIRES: 3/31/2012 DATE 09/20/2010		CITY OF RIVERSIDE, CALIFORNIA DEPARTMENT OF PUBLIC WORKS	ACCY. NO. 984332303-440301 CONST. NO. 1104888 S-2079 SHEET 1 OF 5

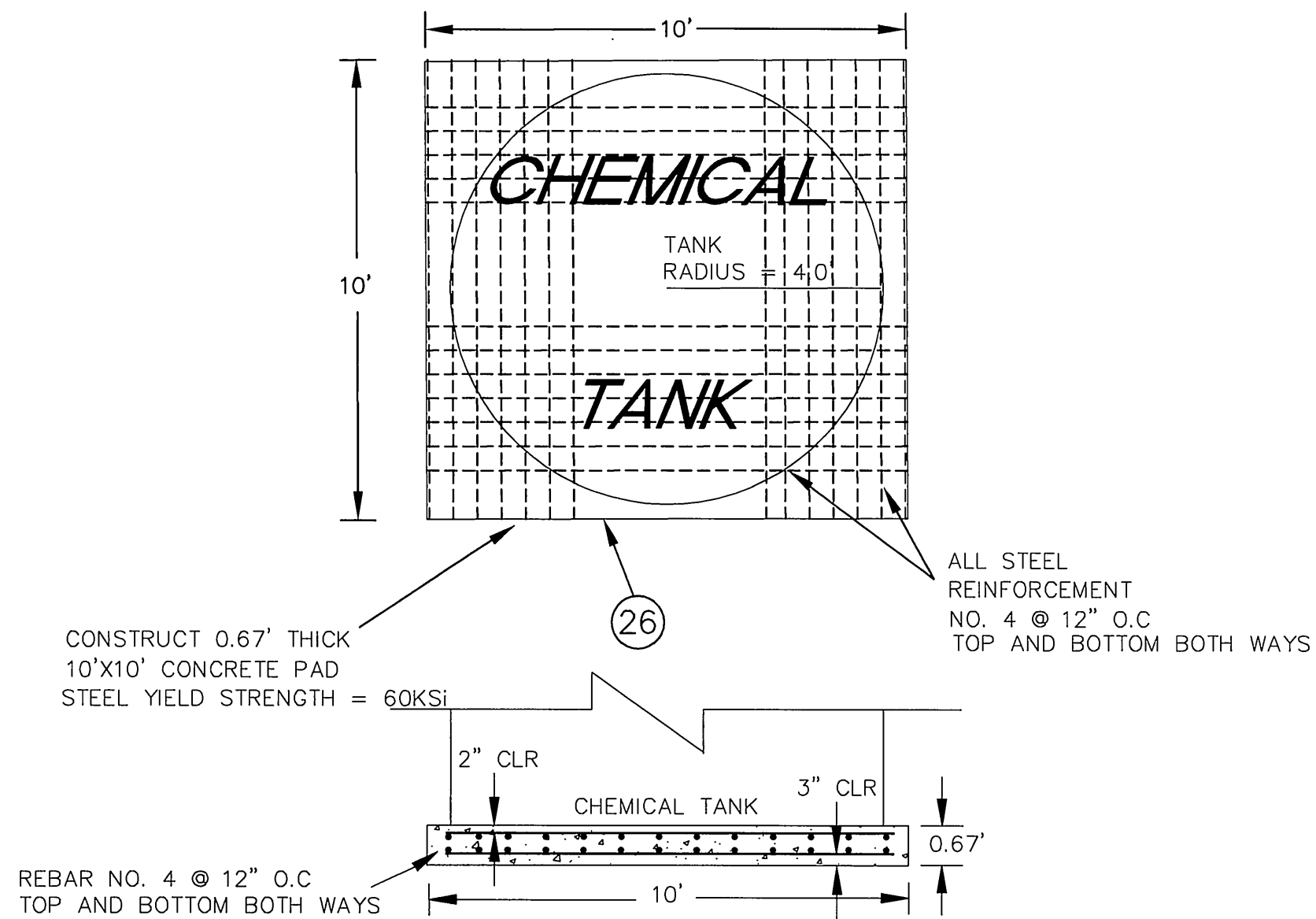
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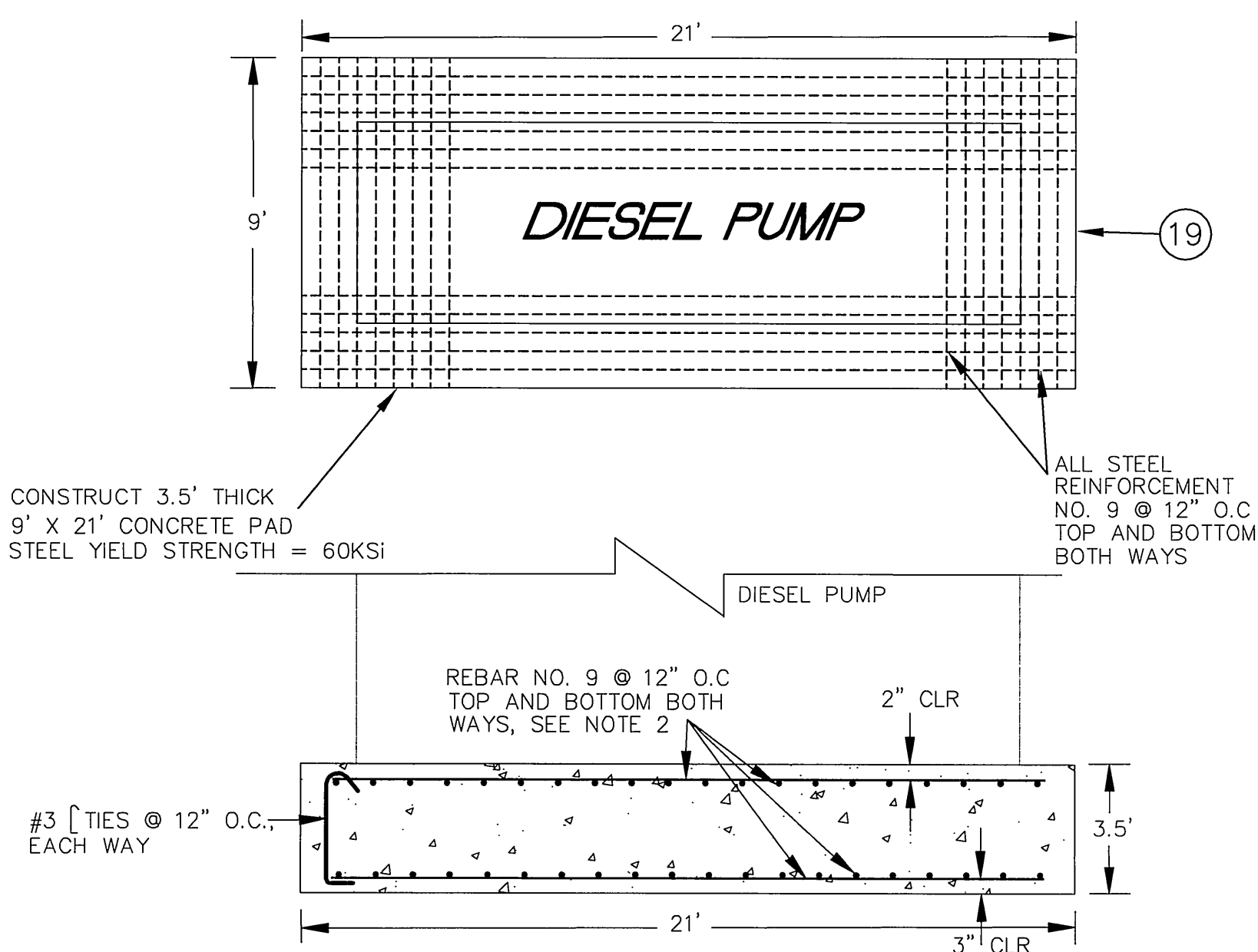
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CHEMICAL TANK PAD DETAIL A



DIESEL PUMP PAD DETAIL B



NOTE:
 1) F' C @ 28 DAYS SHALL BE 4000 PSI
 2) ADJUST BAR SPACING TO CLEAR PUMP ANCHOR BOLTS



BENCHMARK E2-J3
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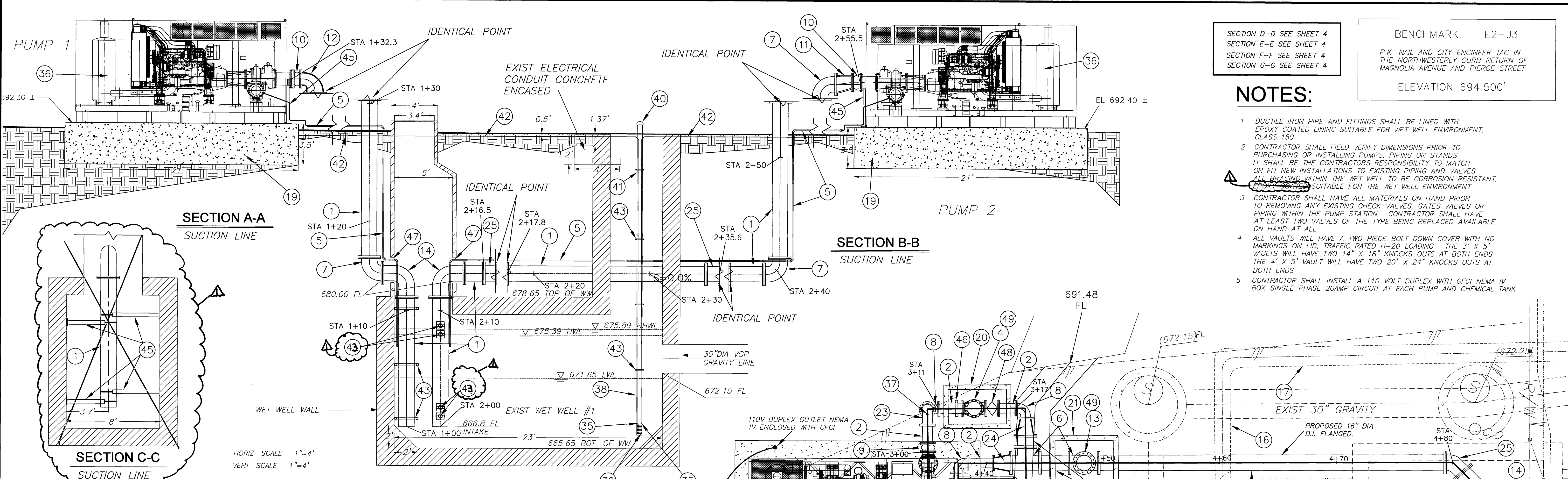
ENGINEER IN RESPONSIBLE CHARGE
 LONDON NEW JOURNAL
 R.C.E. No. 3216 EXPIRES: 3/31/2012
 DATE 09/20/2010

MARK	DESIGNED BY	LA	DRAWN BY	LA	CHECKED BY	LY
REVISIONS	APPR.	DATE				

CITY OF RIVERSIDE, CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
APPROVED BY	BY	DATE	APPROVED BY
ENGINEERING MANAGER	AS	10/1/10	CITY ENGINEER
CONSTRUCTION ADMIN.	AS	9/30/10	
WQCP MANAGER	AS	9/20/10	
SURVEY	CS	9/30/10	DATE 10/14/10

PIERCE STREET PUMP STATION - EMERGENCY DIESEL BACKUP PUMPS
 SCALE: 1"=10'

ACCT. NO. 984332303-440301
 CONST. NO. 1104998
 S-2079
 SHEET 2 OF 5



SECTION D-D SEE SHEET 4
SECTION E-E SEE SHEET 4
SECTION F-F SEE SHEET 4
SECTION G-G SEE SHEET 4

BENCHMARK E2-J3
P.K. NAIL AND CITY ENGINEER TAG IN THE NORTHWESTERLY CURB RETURN OF MAGNOLIA AVENUE AND PIERCE STREET
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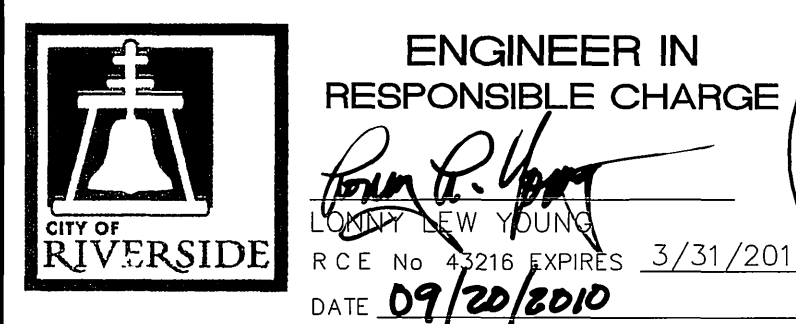
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REVISIONS	DATE	BY	APPR
DELETED SECTION C-C AND NOTE 21	09/20/10	PH	WCCP
		ES	WCCP
		WCCP	WCCP
		WCCP	WCCP

CITY OF RIVERSIDE, CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
APPROVED BY	BY	DATE	APPROVED BY
ENGINEERING MANAGER	PH	10/11/10	WCCP
CONSTRUCTION ADMIN	ES	9/30/10	CITY ENGINEER
WCCP MANAGER	WCCP	11/20/10	
SUBMITTANCE	ES	11/20/10	
PUBLIC UTILITIES			

PIERCE STREET PUMP STATION - EMERGENCY DIESEL BACKUP PUMPS

SCALE 1" = 4'

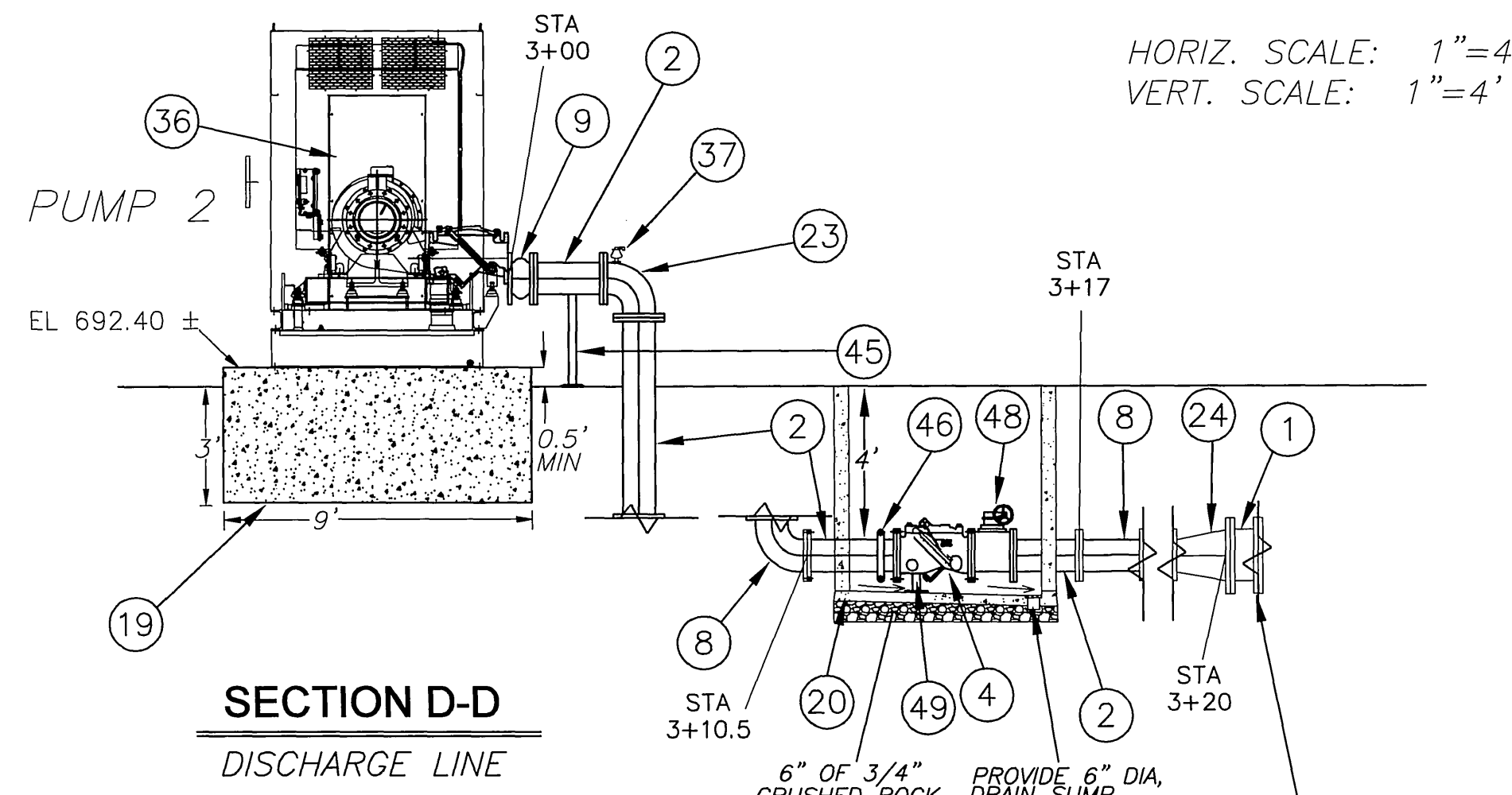
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S-2079

SHEET 3 OF 5

CONSTRUCTION NOTES:

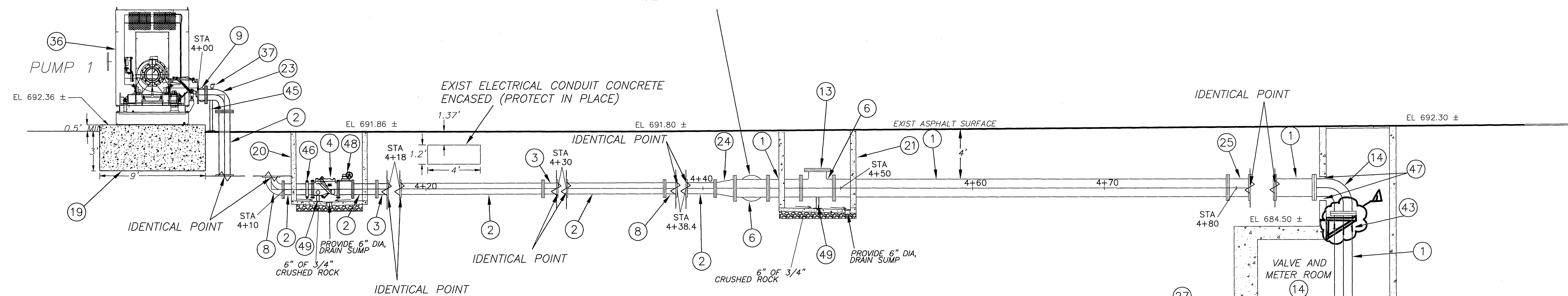
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HORIZ. SCALE: 1"=4'
VERT. SCALE: 1"=4'

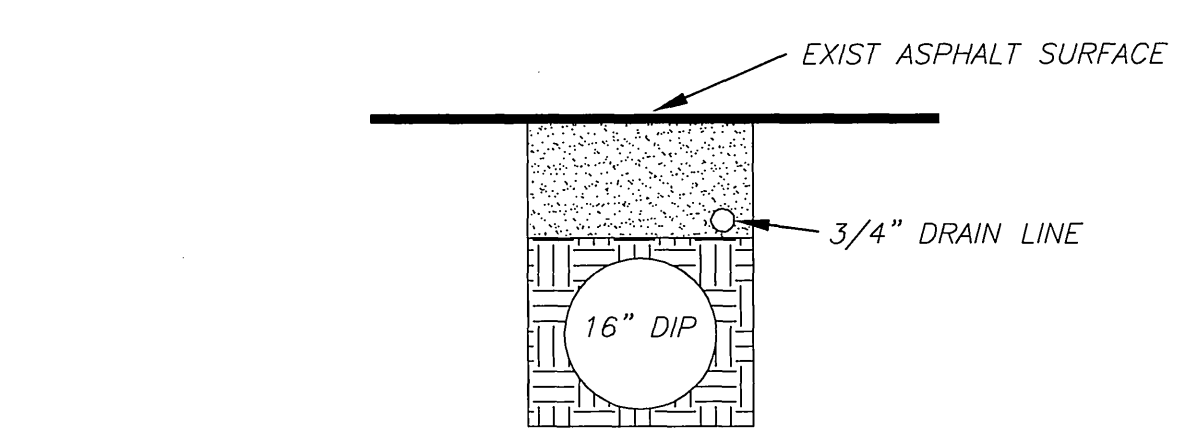
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SECTION F-F DISCHARGE LINE

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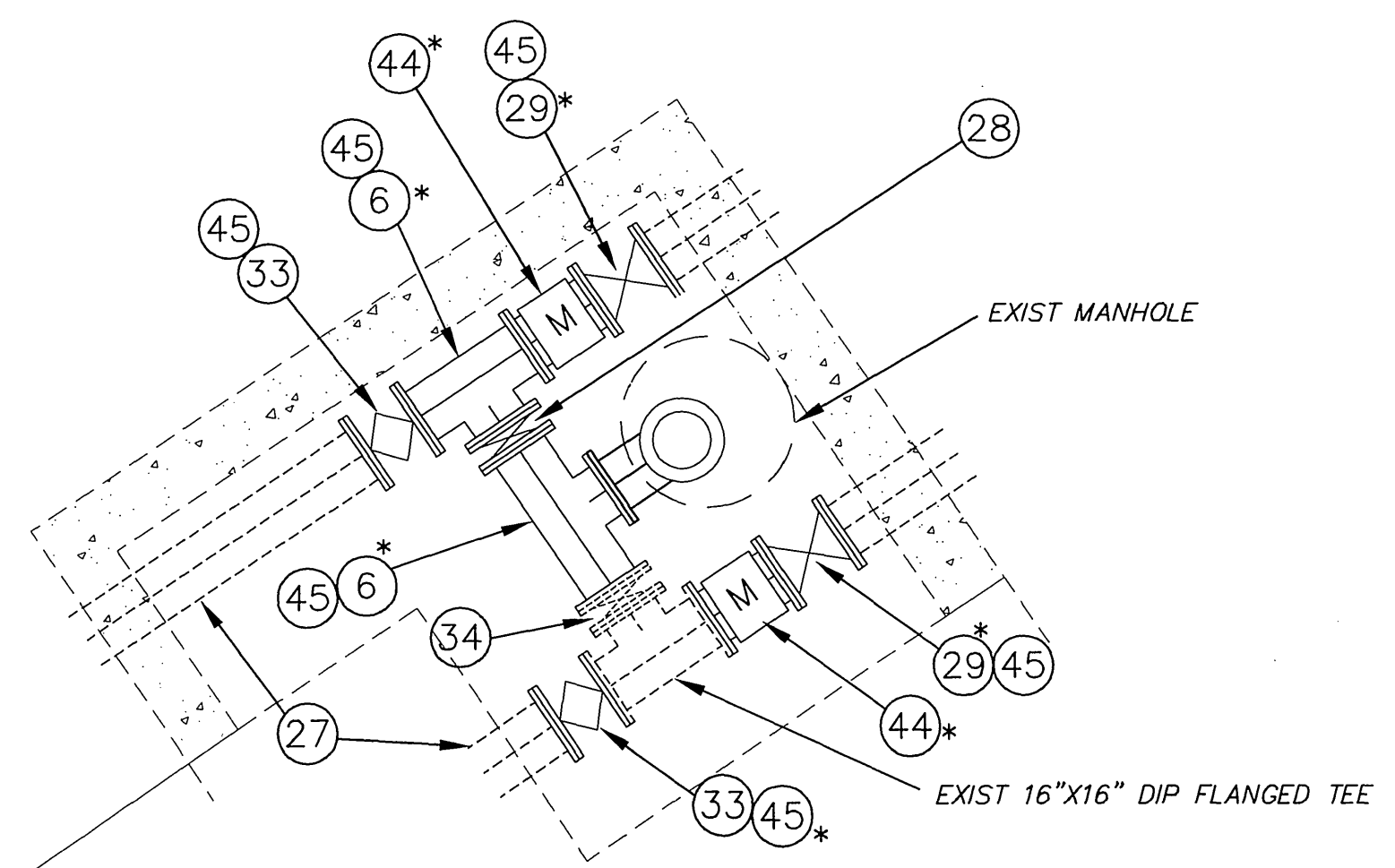
SECTION G-G SUCTION LINE

SUCTION LINE. NTS

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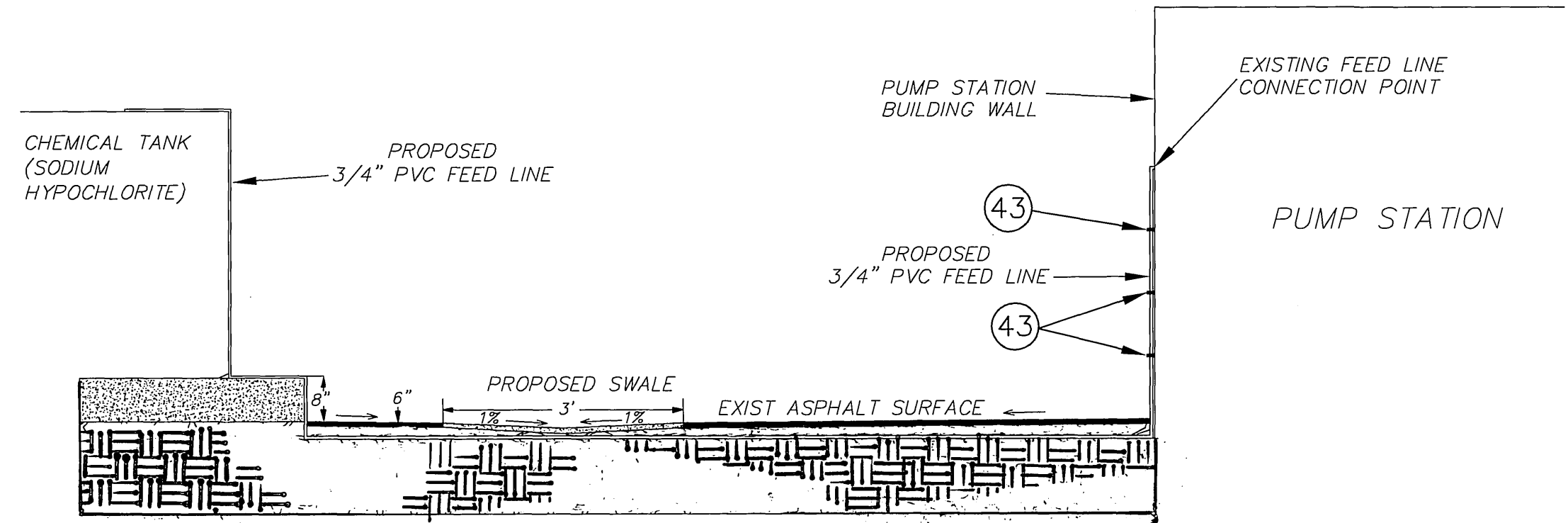
PIPE FITTINGS PROPOSED WITHIN THE VAULT AND METER ROOM SHALL BE STEEL PIPE - CMLIC EPOXY COATED.



VALVE AND METER ROOM

HORIZ. SCALE: 1"=4'
VERT. SCALE: 1"=4'

* CONTRACTOR WILL NEED TO FIELD FIT.



SECTION E-E CHEMICAL TANK FEED LINE

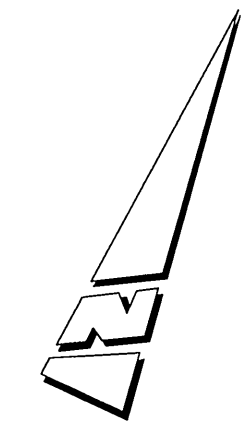
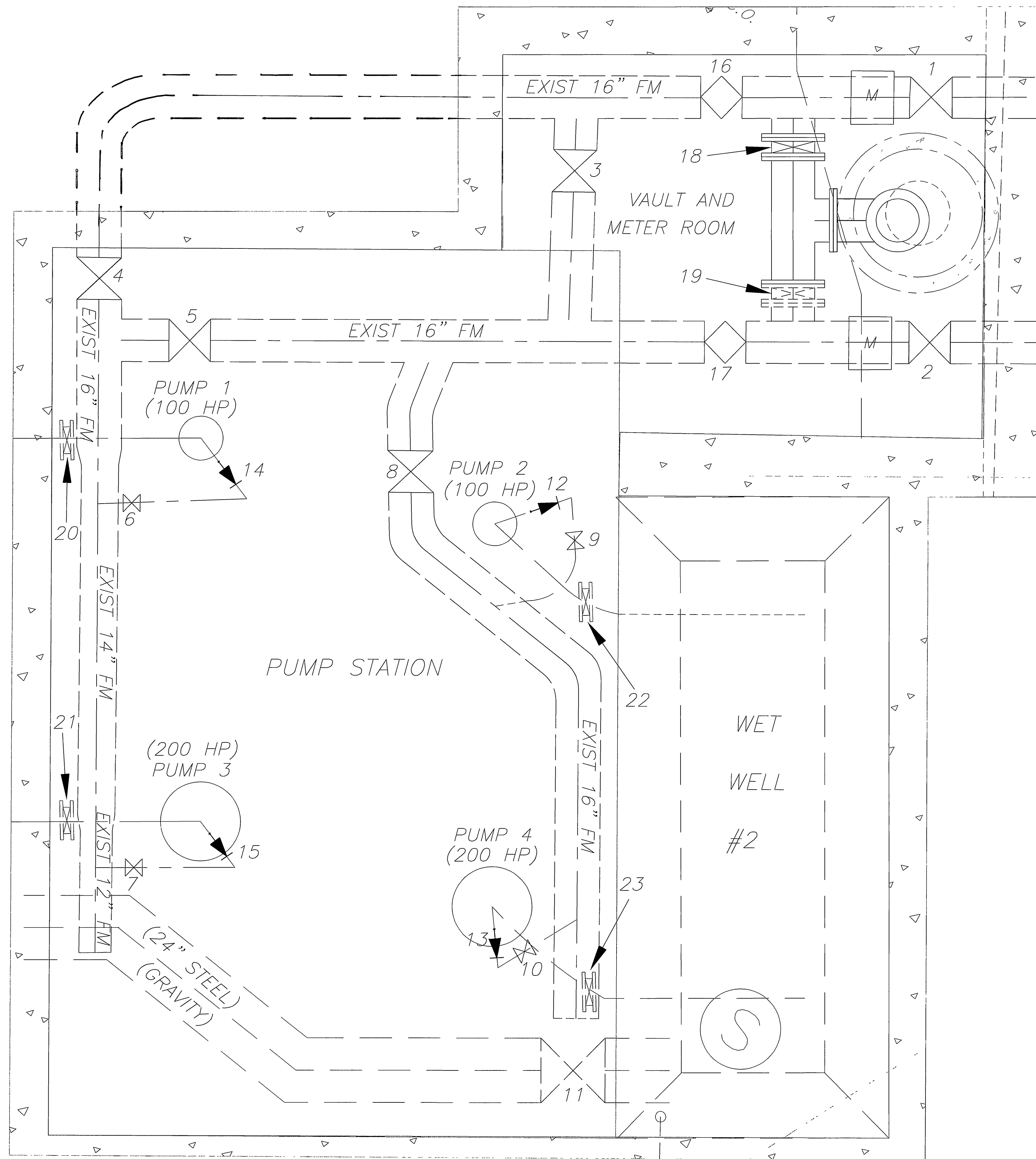
BENCHMARK E2-J3 P.K. NAIL AND CITY ENGINEER TAG IN THE NORTHWESTERLY CURB RETURN OF MAGNOLIA AVENUE AND PIERCE STREET. ELEVATION 694.500'	Under Ground Service Alert of Southern California Call: TOLL FREE 1-800-227-2600 TWO WORKING DAYS BEFORE YOU DIG	ENGINEER IN RESPONSIBLE CHARGE LONNY LEV YOUNG R.C.E. No. 43218 EXPIRES: 3/31/2012 DATE: 09/20/2010	REGISTERED PROFESSIONAL ENGINEER LONNY LEV YOUNG No. 43218 Exp. 03-31-2012 CIVIL STATE OF CALIFORNIA	CITY OF RIVERSIDE, CALIFORNIA DEPARTMENT OF PUBLIC WORKS APPROVED BY: [Signature] BY: [Signature] DATE: 10/1/10 CONSTRUCTION ADMIN. 9/30/10 WCCP MANAGER [Signature] 9/30/10 SURVEY [Signature] 9/30/10	PIERCE STREET PUMP STATION - EMERGENCY DIESEL BACKUP PUMPS SCALE: 1" = 4' SHEET 4 OF 5	ACCT. NO. 9843323203-440301 CONST. W.O. 1104888 S-2079
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VALVE TABLE					90° ELBOW. FURNISH AND INSTALL
NO	VALVE TYPE	# OF BOLTS	REPLACE VALVE	VALVE SIZES	FIELD FABRICATE
1	* GATE	16	YES	16"	NO
2	* GATE	16	YES	16"	NO
3	* GATE	16	YES	16"	NO
4	* GATE	16	YES	16"	NO
5	* GATE	16	YES	16"	NO
6	* GATE	12	YES	10"	NO
7	* GATE	12	YES	10"	NO
8	* GATE	16	YES	16"	NO
9	* GATE	8	YES	8"	NO
10	* GATE	8	YES	8"	NO
11	* GATE	20	NO	24"	NO
12	** CHECK	8	YES	8"	YES
13	** CHECK	8	YES	8"	YES
14	** CHECK	8	YES	8"	YES
15	** CHECK	8	YES	8"	YES
16	***PLUG	16	YES	14"	NO
17	***PLUG	16	YES	14"	NO
18	****KNIFE GATE	16	NEW VALVE - SEE SHT 4 VALVE & METER ROOM DETAIL	16"	NO
19	KNIFE GATE	16	NO	16"	NO
20	KNIFE GATE	16	NO	16"	NO
21	KNIFE GATE	16	NO	16"	NO
22	KNIFE GATE	16	NO	16"	NO
23	KNIFE GATE	16	NO	16"	NO

* MUELLER GATE VALVES OR CITY APPROVED EQUAL
 ** VAL-MATIC SURGEBUSTER CHECK VALVE OR CITY APPROVED EQUAL
 *** VAL-MATIC SURGEBUSTER PLUG VALVE OR CITY APPROVED EQUAL
 **** DEZURIK KNIFE GATE VALVE (FIELD FIT) OR CITY APPROVED EQUAL

NOTES:

- UNLESS OTHERWISE NOTED, PIPING AND FITTING SHALL BE DUCTILE IRON, CLASS 150, EPOXY COATED.
- CONTRACTOR SHALL FIELD VERIFY DIMENSIONS PRIOR TO PURCHASING OR INSTALLING PUMPS, PIPING OR STANDS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO MATCH OR FIT NEW INSTALLATIONS TO EXISTING PIPING AND VALVES. ALL BRACING WITHIN THE WET WELL TO BE CORROSION RESISTANT, EPOXY COATED SUITABLE FOR THE WET WELL ENVIRONMENT.
- CONTRACTOR SHALL HAVE ALL MATERIALS ON HAND PRIOR TO REMOVING ANY EXISTING CHECK VALVES, GATES VALVES OR PIPING WITHIN THE PUMP STATION. CONTRACTOR SHALL HAVE AT LEAST TWO VALVES OF THE TYPE BEING REPLACED AVAILABLE ON HAND AT ALL TIMES IN CASE ONE IS DEFECTIVE.



BENCHMARK E2-J3 P K NAIL AND CITY ENGINEER TAG IN THE NORTHWESTERLY CURB RETURN OF MAGNOLIA AVENUE AND PIERCE STREET. ELEVATION 694.500'	Under Ground Service Alert of Southern California Call TOLL FREE 1-800-227-2600 TWO WORKING DAYS BEFORE YOU DIG	ENGINEER IN RESPONSIBLE CHARGE LONNIE LEW YOUNG R C E No 43216 EXPIRES 3/31/2012 DATE 09/20/2010		CITY OF RIVERSIDE, CALIFORNIA DEPARTMENT OF PUBLIC WORKS				PIERCE STREET PUMP STATION - EMERGENCY DIESEL BACKUP PUMPS SCALE 1" = 2'	ACCT NO 984332203-440301 CONST WD 1104888 S-2079 SHEET 5 OF 5
				APPROVED BY: [Signature] ENGINEERING MANAGER CONSTRUCTION ADMIN: [Signature] WOCIP MANAGER: [Signature] SURVEY: [Signature]	BY: [Signature] DATE: 10/11/10 9/30/10 9/30/10	DATE: 10/4/10	APPROVED BY: [Signature] CITY ENGINEER		