

GENERAL NOTES

- NO PERSON SHALL PERFORM ANY CONSTRUCTION ACTIVITY OR INSTALL ANY OBJECTS WITHIN THE PUBLIC RIGHTS-OF-WAY OR EASEMENTS OF THE CITY OF RIVERSIDE WITHOUT A VALID CONSTRUCTION PERMIT OR, A STREET OPENING PERMIT OR AN ENCROACHMENT PERMIT ISSUED BY THE CITY'S PUBLIC WORKS DEPARTMENT.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CLEAR THE RIGHT-OF-WAY IN ACCORDANCE WITH THE PROVISIONS OF LAW AS IT AFFECTS EACH UTILITY INCLUDING IRRIGATION LINES AND APPURTENANCES AND AT NO COST TO THE CITY.
- CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF RIVERSIDE DEPARTMENT OF PUBLIC WORKS, STANDARD DRAWINGS, ITS SUPPLEMENTAL NOTES AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CURRENT EDITION.
- THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY AND ACCEPTABILITY OF THE WORK HEREON. IN THE EVENT OF DISCREPANCIES ARISING DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY THE CITY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING OR RE-ESTABLISHING AND REFERENCING SURVEY MONUMENTS DESTROYED, DISTURBED OR BURIED AS A RESULT OF CONSTRUCTION SHOWN HEREON.
- ALL FLAGGED ELEVATIONS SHALL BE STAKED IN THE FIELD BY THE PRIVATE ENGINEER.
- THE CONTRACTOR SHALL CALL IN A LOCATION REQUEST TO UNDERGROUND SERVICE ALERT (USA), PHONE # 1-800-227-2600, TWO WORKING DAYS BEFORE DIGGING. NO CONSTRUCTION PERMIT WILL BE ISSUED BY THE PUBLIC WORKS DEPARTMENT INVOLVING EXCAVATION FOR UNDERGROUND FACILITIES UNLESS THE APPLICANT HAS BEEN PROVIDED AN INQUIRY IDENTIFICATION NUMBER BY U.S.A.
- LOCATION OF LATERALS TO BE DETERMINED IN THE FIELD AT THE DIRECTION OF THE OWNER. AVOID CONFLICT WITH PROPOSED AND/OR EXISTING FACILITIES.
- CONTRACTOR IS TO VERIFY EXISTING SEWER LOCATION AND ELEVATION PRIOR TO START OF CONSTRUCTION.
- A PLUG IS TO BE INSTALLED AND WILL REMAIN IN PLACE WHERE THE NEW SEWER CONNECTS WITH THE EXISTING SEWER UNTIL THE NEW SEWER IS ACCEPTED BY THE CITY.
- THE SEWER CONTRACTOR SHALL ADJUST MANHOLES TO FINAL GRADE AFTER PAVING IS COMPLETED.
- NO FINISH FLOOR ELEVATION SHALL BE LESS THAN 6' ABOVE THE UPPER MANHOLE RIM ELEVATION OF THE SEWER LINE SEGMENT BEING CONNECTED TO, WITHOUT HAVING A PROPER BACKWATER VALVE INSTALLED IN THE LATERAL.

NOTICE TO CONTRACTOR

THE EXISTENCE AND LOCATIONS OF ALL UNDERGROUND UTILITIES (UTILITY PIPES, STRUCTURES, ETC.) SHOWN ON THESE PLANS (MAIN LINES ONLY - NO SERVICE LATERALS) WERE ASCERTAINED BY A REVIEW OF RECORDS PROVIDED BY THESE MEMBER AGENCIES AND ARE APPROXIMATE. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY FOR UTILITIES NOT SHOWN OR NOT IN THE LOCATION SHOWN.

THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. LOCATIONS OF UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION.

CALL UNDERGROUND SERVICE ALERT (U.S.A.) 1-800-227-2600 AT LEAST 2 WORKING DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION.

LEGEND

- PROPOSED SEWER MAIN AND MH
- EXIST SEWER MAIN
- PROPOSED 4" SEWER LATERAL
- PROPOSED 8" WATER MAIN

ENGINEER'S NOTES

THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY OF DESIGN AND ACCEPTABILITY OF THE DESIGN HEREON. IN THE EVENT OF DISCREPANCIES ARISING AFTER CITY APPROVAL OR DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE PRIVATE ENGINEER FOR CLARIFICATION. THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY THE CITY.

PRIVATE ENGINEER WILL NOT BE PROVIDING INSPECTION SERVICES OR CONSTRUCTION REVIEW. THESE FUNCTIONS ARE THE RESPONSIBILITY OF THE CITY AND/OR THE GENERAL CONTRACTOR. ENGINEER ACCEPTS NO LIABILITY FOR SUCH FUNCTIONS OR WORK THEREOF.

IN THE CITY OF RIVERSIDE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA
SEWER IMPROVEMENT PLANS
 TRACT NO. 29242

WORK TO BE DONE

THESE IMPROVEMENTS CONSIST OF THE FOLLOWING WORK TO BE DONE ACCORDING TO THESE PLANS, THE CURRENT CITY OF RIVERSIDE STANDARDS AND SPECIFICATIONS, AND THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ("GREEN BOOK").

PRIVATE ENGINEER'S NOTE TO CONTRACTOR

ALL CONTRACTORS AND SUB-CONTRACTORS PERFORMING WORK SHOWN OR RELATED TO THESE PLANS SHALL CONDUCT THEIR OPERATION SO THAT ALL EMPLOYEES ARE PROVIDED A SAFE PLACE TO WORK AND THE PUBLIC IS PROTECTED. ALL CONTRACTORS AND SUB-CONTRACTORS SHALL COMPLY WITH THE "OCCUPATIONAL SAFETY AND HEALTH REGULATIONS" OF THE U.S. DEPARTMENT OF LABOR AND THE STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS "CONSTRUCTION SAFETY ORDERS". THE CIVIL ENGINEER SHALL NOT BE RESPONSIBLE IN ANY WAY FOR THE CONTRACTORS AND SUB-CONTRACTORS COMPLIANCE WITH SAID REGULATIONS AND ORDERS.

CONTRACTOR FURTHER AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB-SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION FOR THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE CIVIL ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.

THE EXISTENCE AND APPROXIMATE LOCATIONS OF ANY UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. THE CIVIL ENGINEER ASSUMES NO LIABILITY AS TO THE EXACT LOCATION OF SAID LINES NOR FOR UTILITY OR IRRIGATION LINES WHOSE LOCATIONS ARE NOT SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY AND IRRIGATION COMPANIES PRIOR TO WORK OR EXCAVATION TO DETERMINE THE EXACT LOCATIONS OF ALL LINES AFFECTING THIS WORK, WHETHER OR NOT SHOWN HEREON, AND FOR ANY DAMAGE OR PROTECTION TO THESE LINES.

DEVELOPER/OWNER

CONTINENTAL HOMES
 2237 FARADAY AVENUE, SUITE 100
 CARLSBAD, CA 92008
 ATTN: DAVID LOTHER
 760-931-1980

ENGINEER

RICK ENGINEERING COMPANY
 1223 UNIVERSITY AVE., SUITE 240
 RIVERSIDE, CA 92507
 (909) 782-0707
 CONTACT: MARTEN ANDERSON

SOILS ENGINEER

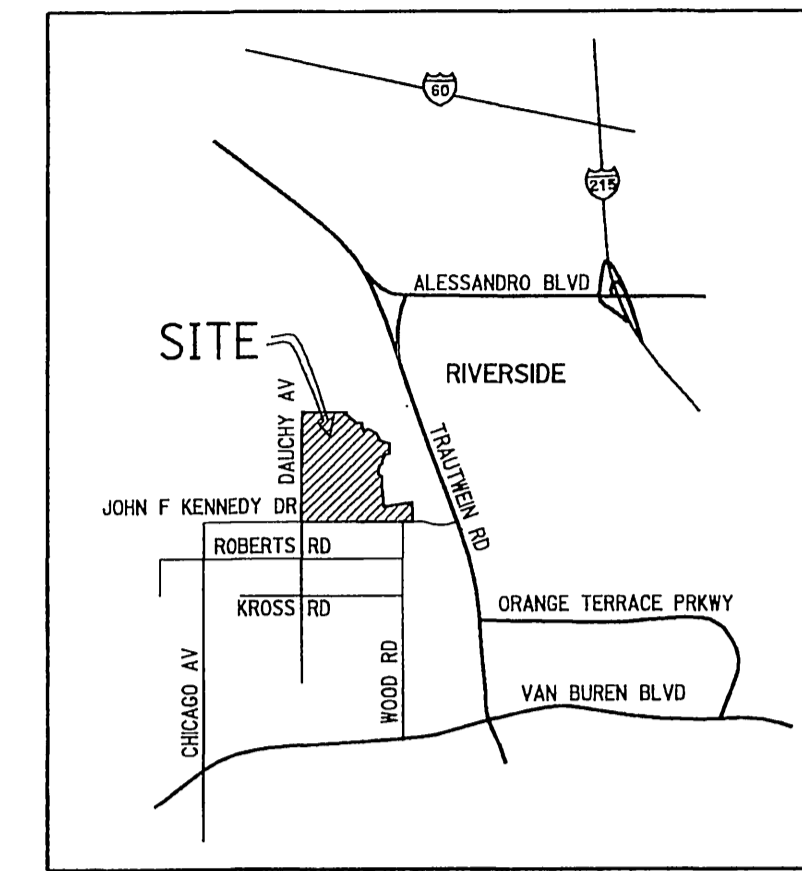
GEOCON INCORPORATED
 43280 BUSINESS PARK DR., SUITE 108
 TEMECULA, CA 92590
 ATTN: DAVID F. LEAKE OR ALI ASOR SKELLY
 909-587-8169

UTILITIES

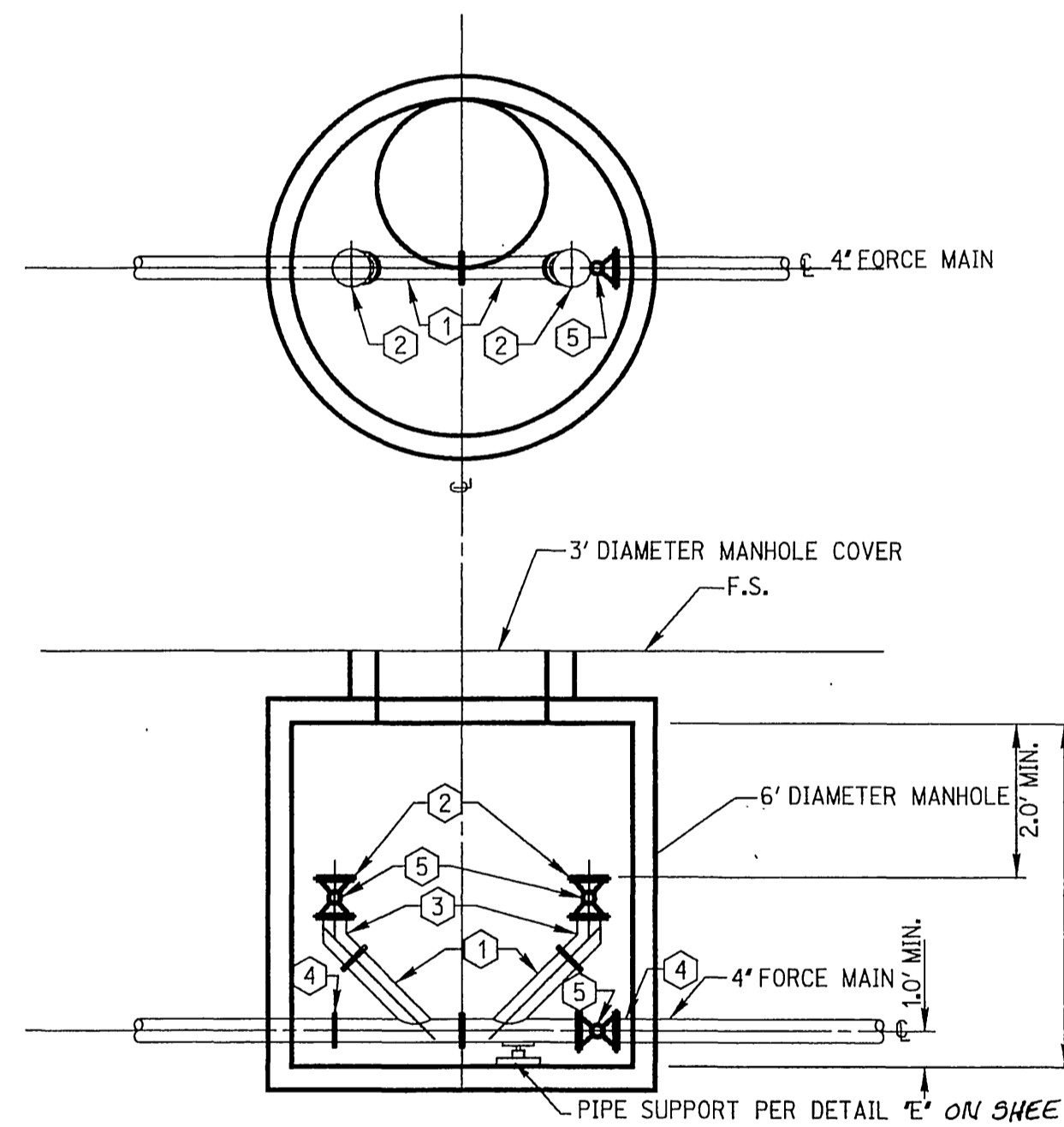
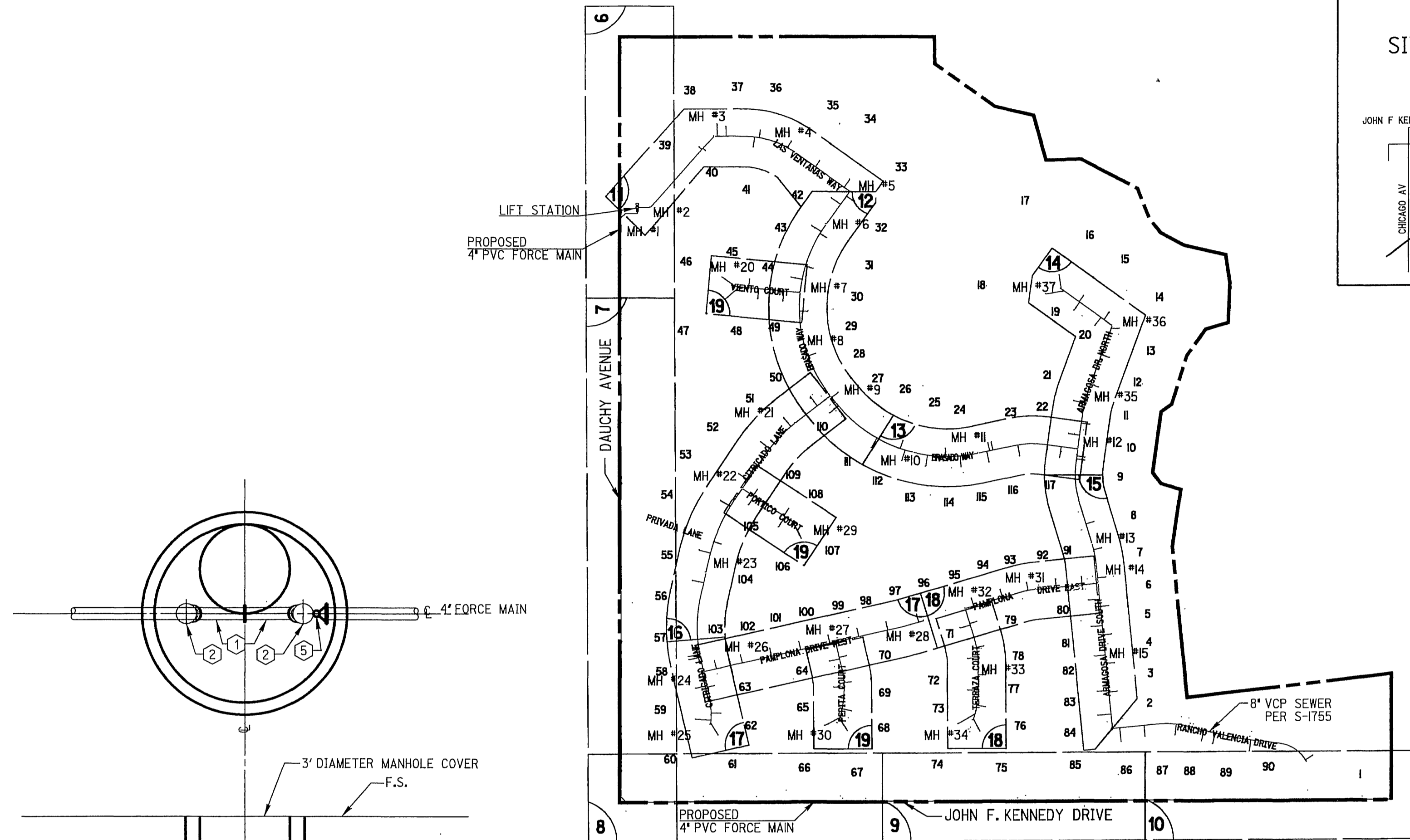
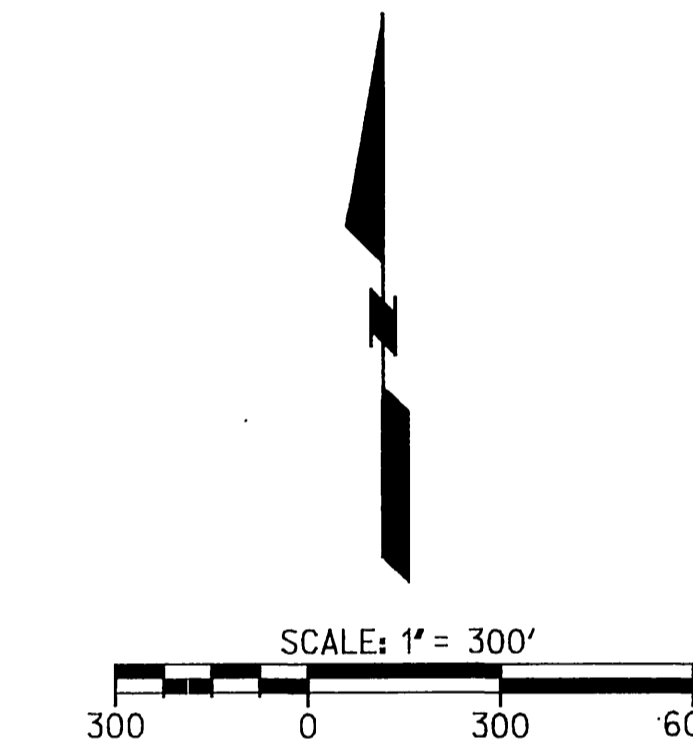
POWER:	CITY OF RIVERSIDE	909-826-5421
WATER:	WESTERN MUNICIPAL WATER DISTRICT	909-780-9764
TELEPHONE:	PACIFIC TELEPHONE CO.	909-666-5454
SEWER:	CITY OF RIVERSIDE	909-351-5440
GAS:	SOUTHERN CALIFORNIA GAS COMPANY	909-335-3919

BASIS OF BEARING

BASIS OF BEARING IS THE CENTERLINE OF JOHN F. KENNEDY DRIVE (FORMERLY ESCHSCHOLTZIA AVE.) TAKEN AS NORTH 89° 49' 45" EAST PER RECORD OF SURVEY MAP ON FILE IN BOOK 43, PAGE 6, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.



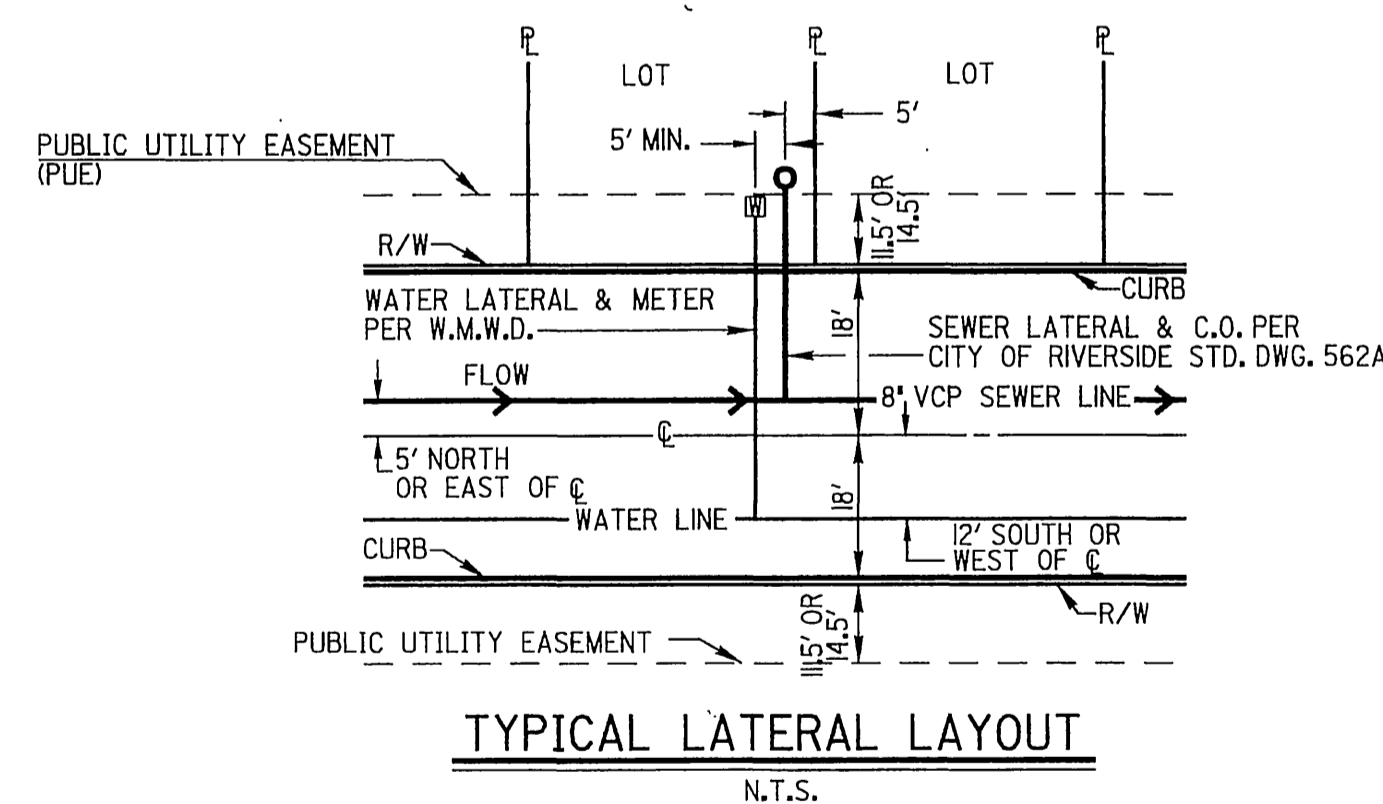
VICINITY MAP
 N.T.S.
 SECTION 18, T 3S, R 4W



FORCE MAIN CLEANING STATION NOTES

- 4" X 4" X 4" FLANGED CAST IRON 45° WYE, CLASS 150
- 2" X 4" CAST IRON REDUCING FLANGE, CLASS 150, WITH 2" THREADED PLUG
- 4" X 45° FLANGED CAST IRON ELBOW, CLASS 150
- 4" FLANGED CAST IRON COUPLING ADAPTER, DRESSER STYLE 127 (O.A.E.)
- 4" FLANGED PLUG VALVE, CLASS 150, CLOW (O.A.E.)

FORCE MAIN CLEANING STATION
 N.T.S.



CONSTRUCTION NOTES AND QUANTITY ESTIMATE

1. INSTALL 4" PVC FORCE MAIN, PIPE BEDDING PER CITY OF RIVERSIDE STD. DWG. NO. 452 (CASE 1)	4,748 LF
2. INSTALL 4" ELBOW (DEGREE AS NOTED ON PLANS)	5 EA
3. INSTALL 8" VCP SEWER MAIN, PIPE BEDDING PER CITY OF RIVERSIDE STD. DWG. NO. 452 (CASE 1)	5,885 LF
4. INSTALL 8" VCP SEWER MAIN, PIPE BEDDING PER CITY OF RIVERSIDE STD. DWG. NO. 452 (CASE 3)	364 LF
5. INSTALL 4" DIAMETER SEWER MANHOLE PER CITY OF RIVERSIDE STD. DWG. NO. 500	32 EA
6. INSTALL 4" SEWER LATERAL WITH PROPERTY LINE CLEANOUT PER CITY OF RIVERSIDE STD. DWG. NO. 562A	109 EA
7. INSTALL FORCE MAIN CLEANING STATION PER DETAIL 'D' SHEET 1	9 EA
8. INSTALL DEEP SEWER MANHOLE WITH MANHOLE SHAFT SAFETY LEDGE PER A.P.W.A. STANDARD PLAN 330-D MODIFIED ON SHT. 20	1 EA

SO. CALIFORNIA GAS COMPANY
 FOR NON-INTERFERENCE COMPLIANCE
 APPROVED BY: [Signature] DATE: 7/19/01

WESTERN MUNICIPAL WATER DIST.
 FOR NON-INTERFERENCE COMPLIANCE
 SHEETS 1 THROUGH 19
 APPROVED BY: [Signature] DATE: 6-21-01

QUESTAR GAS COMPANY
 FOR NON-INTERFERENCE COMPLIANCE
 APPROVED BY: [Signature] DATE: 6-20-01

CITY OF RIVERSIDE
 PUBLIC UTILITIES DEPARTMENT-ELECTRIC
 OVERHEAD AND UNDERGROUND
 FOR NON-INTERFERENCE COMPLIANCE
 APPROVED BY: [Signature] DATE: 6-20-01

DIG ALERT
 CALL BEFORE YOU DIG!
 1-800-227-2600
 UNDERGROUND SERVICE ALERT
 Call at least 2 working days prior to excavating.

REGISTERED PROFESSIONAL ENGINEER
 EDWARD M. BATTICAN
 No. 46804
 Exp. 6-30-03
 CIVIL
 STATE OF CALIFORNIA

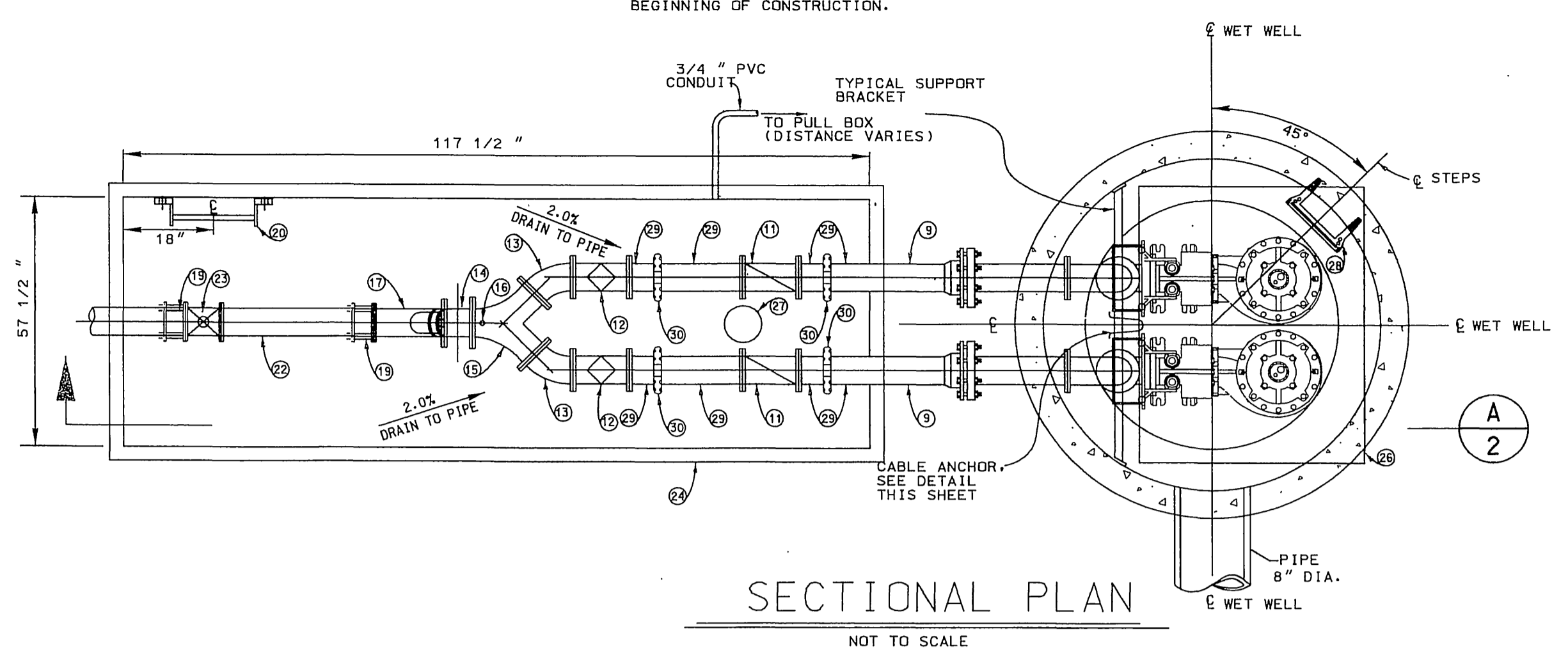
RICK ENGINEERING COMPANY
 San Diego Riverside Orange Phoenix Tucson
 1223 University Ave., Ste. 240 - Riverside, CA 92507-3418 - (909) 782-0707 - FAX (909) 782-0723 - www.rickeng.com
 CITY BUSINESS TAX CERTIFICATE NO. 35225 EXP. DATE 7/20/01

REVISIONS
 MARK REVISIONS APPR. DATE
 DESIGNED BY: NEL DRAWN BY: NEL CHECKED BY: MLA

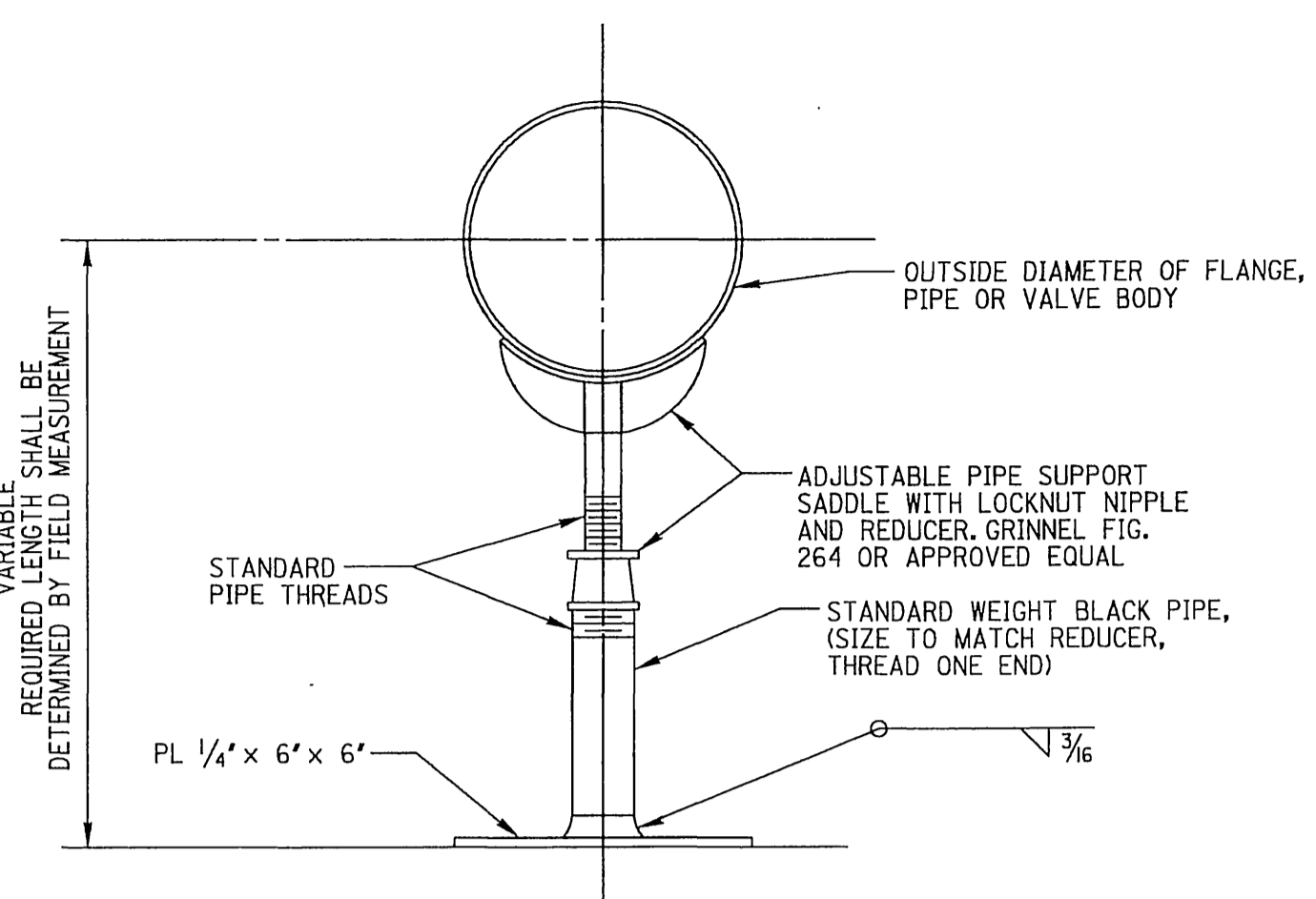
CITY OF RIVERSIDE
 PUBLIC WORKS DEPARTMENT
 APPROVED BY: [Signature] DATE: 7-31-2001

SEWER IMPROVEMENT PLANS
 TRACT NO. 29242
 TITLE SHEET
 PROJECT NO. S-1756
 SHEET 1 OF 20
 SCALE: HORIZ: 1"=300' VERT: N/A
 INDEXED 1-07-02 PLOT DATE: 19-JUN-2001

NOTE: THESE DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO BEGINNING OF CONSTRUCTION.

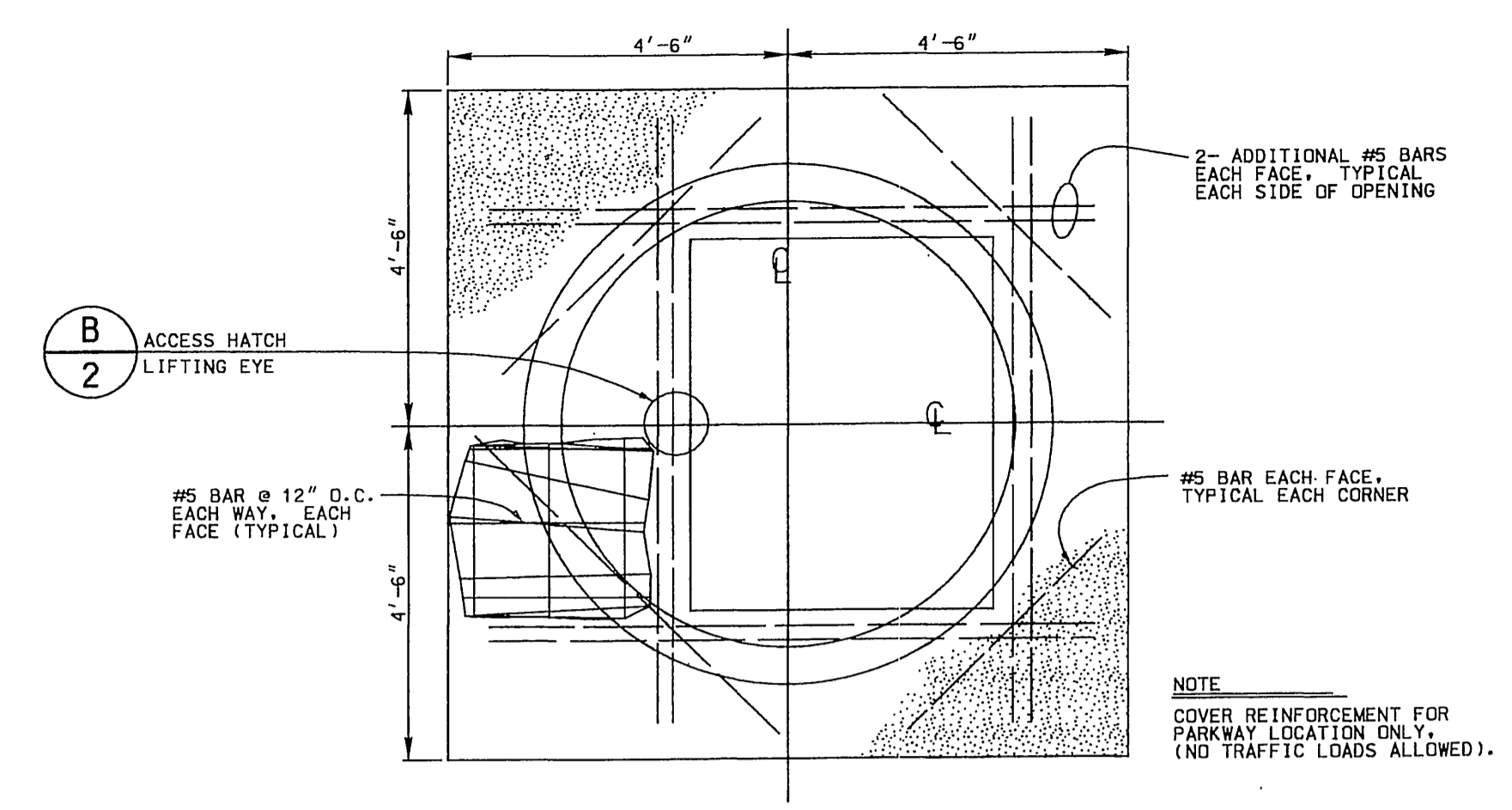


SECTIONAL PLAN
NOT TO SCALE

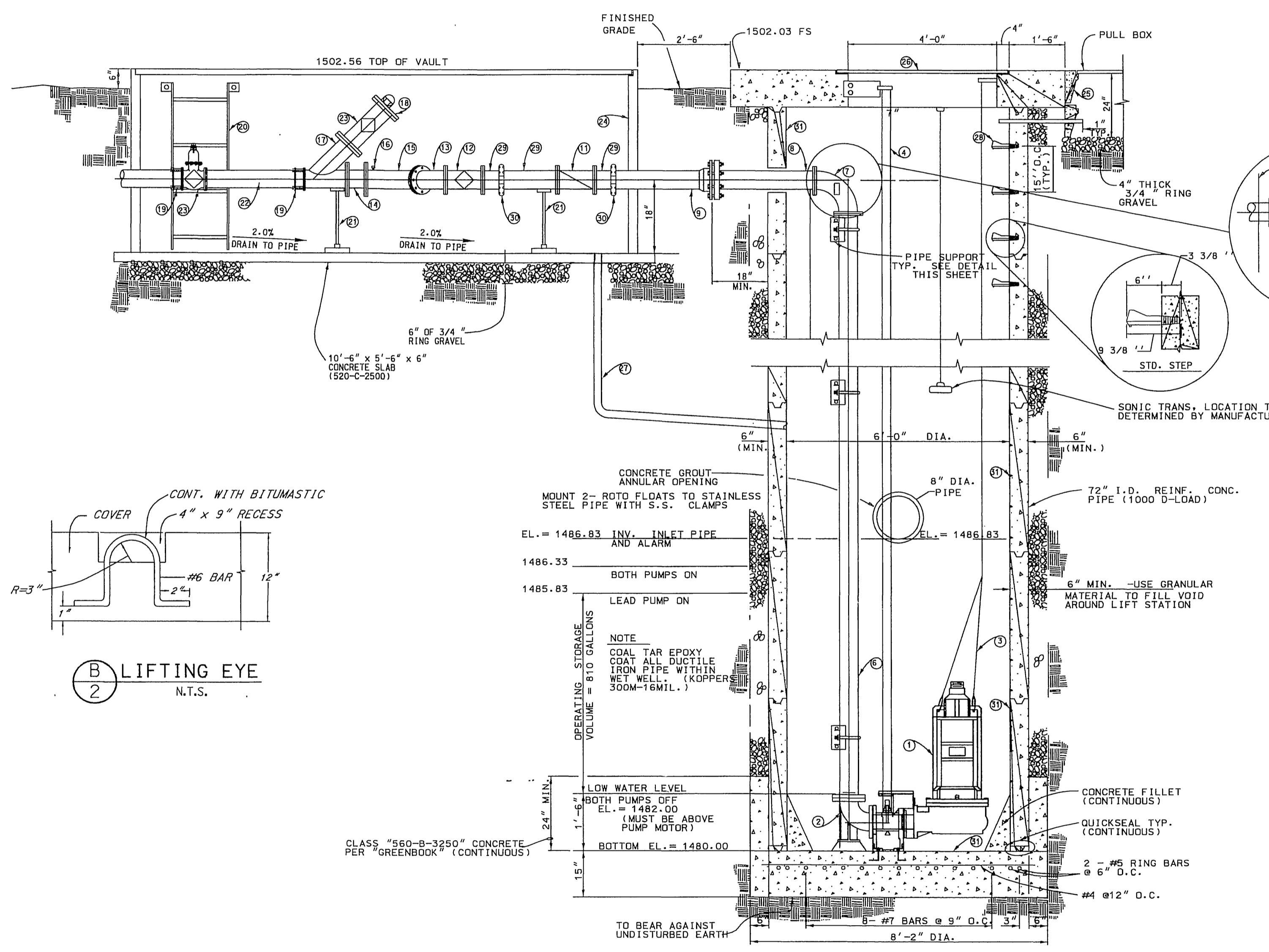


NOTE: GALVANIZE ALL PARTS AFTER FABRICATION

E PIPE SUPPORT DETAIL
N.T.S.



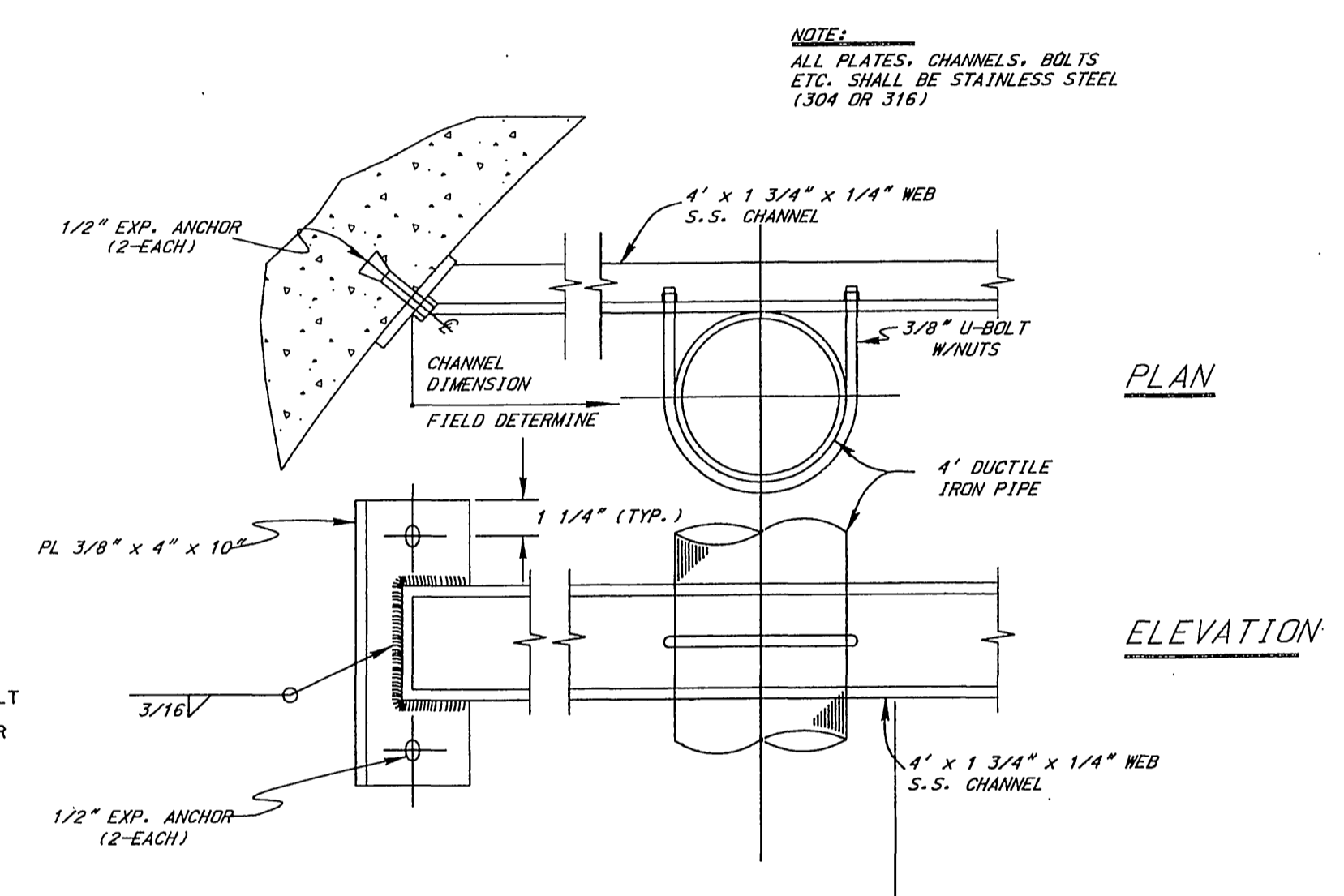
COVER REINFORCING PLAN
NOT TO SCALE



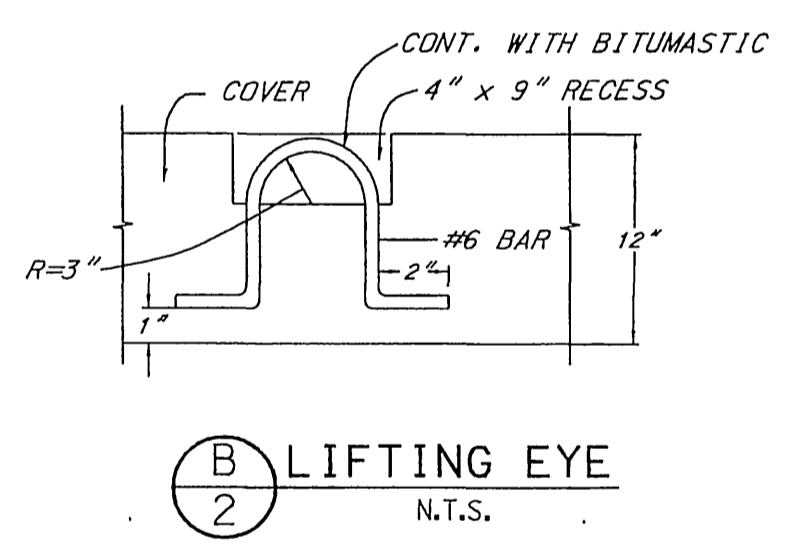
A SECTION
N.T.S.

MATERIALS DESCRIPTION

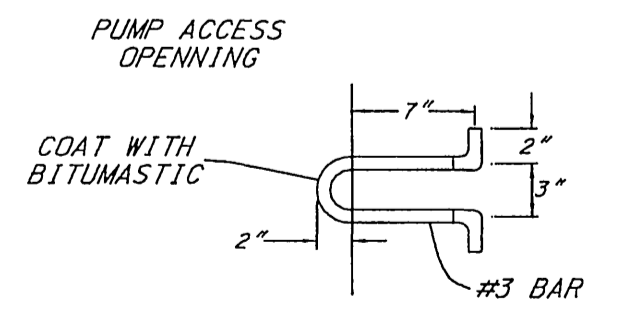
- 1 SUBMERSIBLE SEWAGE PUMP (CONTRACTOR TO SUPPLY PUMP SPECIFICATIONS AND PERFORMANCE CURVES FOR CITY APPROVAL) TDH 119 GPM @ RPM 1750
- 2 MATING 90° ELBOW FOR SLIDE-AWAY COUPLING
- 3 1/4" x 5/16" STAINLESS STEEL NYLON COVERED LIFTING CABLE WITH STAINLESS STEEL EYEBOLT
- 4 1/2" SCHEDULE 40 STAINLESS STEEL PIPE GUIDE RAILS, AS SUPPLIED BY PUMP MANUFACTURER (TO BE ADJUSTED AS NECESSARY PER PUMP MANUFACTURER'S SPECIFICATIONS)
- 5 4" DUCTILE IRON PIPE WITH FLANGED ENDS, A.N.S.I. CLASS 150
- 6 4" x 90° FLANGED DUCTILE IRON ELBOW, CLASS 150
- 7 4" x 30" LONG, FLANGE x PLAIN END DUCTILE IRON SPOOL, CLASS 150
- 8 4" DUCTILE IRON PIPE, RESTRAINED MECHANICAL JOINT x VICTAULIC END, CLASS 150
- 9 FLANGED CUSHIONED CHECK VALVE, CLASS 150, APCO 6000 (O.A.E.) w/EXTERNAL ARM
- 10 FLANGED BALLCENTRIC VALVE, CLASS 150, DEZURIK (O.A.E.) w/FULL DIAMETER OPENING
- 11 4" x 45° FLANGED DUCTILE IRON ELBOW, CLASS 150
- 12 4" FLANGED DUCTILE IRON SPOOL, CLASS 150
- 13 4" x 4" x 4" FLANGED DUCTILE IRON TRUE WYE, CLASS 150
- 14 1/4" N.P.T. TAP WITH CORPORATION STOP
- 15 4" x 4" x 4" FLANGED DUCTILE IRON WYE, CLASS 150
- 16 2" x 4" CAST IRON REDUCING FLANGE, CLASS 150, W/2" THREADED PLUG
- 17 4" FLANGED DUCTILE IRON COUPLING ADAPTER, DRESSER STYLE 127 (O.A.E.)
- 18 5 FT. LONG GALVANIZED STEEL VAULT LADDER PER ALHAMBRA FOUNDRY A-3400 (O.A.E.)
- 19 PIPE SUPPORT PER DETAIL "E" SHEET 2
- 20 4" x 24" LONG, FLANGE x PLAIN END, DUCTILE IRON SPOOL, CLASS 150
- 21 4" FLANGED PLUG VALVE, CLASS 150, CLOW (O.A.E.)
- 22 BROOKS PRODUCTS 800 SERIES PRECAST VAULT (57 1/2" W x 117 1/2" L x 96" D INSIDE DIMENSIONS) WITH ARMORED TOP SECTION AND BOLT DOWN COVER (3 PIECE TOP) (O.A.E.) INSTALL ON 10'-6" x 5'-6" x 6" CONCRETE SLAB (520-C-2500)
- 23 BROOKS PRODUCTS 67PB PRECAST PULL BOX (24" x 36" x 24" DEEP) WITH TRAFFIC COVER (O.A.E.) ALUMINUM
- 24 5" WIDE x 4" LONG DOUBLE LEAF ALUMINUM ACCESS DOOR WITH STAINLESS STEEL HARDWARE AND COMPRESSION SPRING OPERATORS, 300 P.S.F. LIVE LOAD BILCO TYPE "JD" (O.A.E.), INSTALL PER MANUFACTURER'S RECOMMENDATIONS
- 25 6" PVC DRAIN PIPE
- 26 1/2" DIA. ENCAPSULATED WITH PLASTIC STEEL STEP, PRECAST OR GROUTED IN PLACE @ 15" O.C.
- 27 4" FLANGE x VICTAULIC DUCTILE IRON PIPE SPOOL
- 28 4" VICTAULIC COUPLING
- 29 ALL WET WELL INTERIOR CONCRETE TO BE SPRAYED WITH ZEBRON / PURETHANE COATING MANUFACTURED BY ANCHEM PRODUCTS, P.O. BOX 19537, PORTLAND, OREGON 903-244-1349



TYPICAL PIPE SUPPORT BRACKET
N.T.S.



B LIFTING EYE
N.T.S.



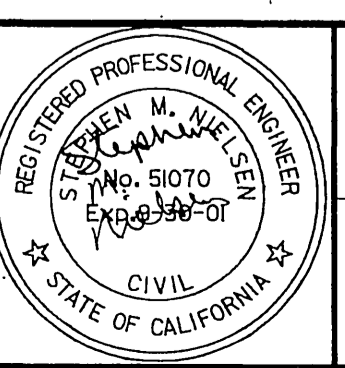
CABLE ANCHOR
N.T.S.

NOTE: CONTRACTOR SHALL OBTAIN SERVICES OF PUMP MANUFACTURER'S ENGINEERING REPRESENTATIVE TO REVIEW AND APPROVE INSTALLATION OF PUMPS. CONTRACTOR SHALL DEMONSTRATE REMOVAL AND REPLACEMENT OF BOTH PUMPS AS PART OF INSTRUCTION OF CITY'S PERSONNEL.



AS-BUILT
08/22/05

DIG ALERT
CALL BEFORE YOU DIG!
1-800-227-2600
UNDERGROUND SERVICE ALERT
Call at least 2 working days prior to excavating.



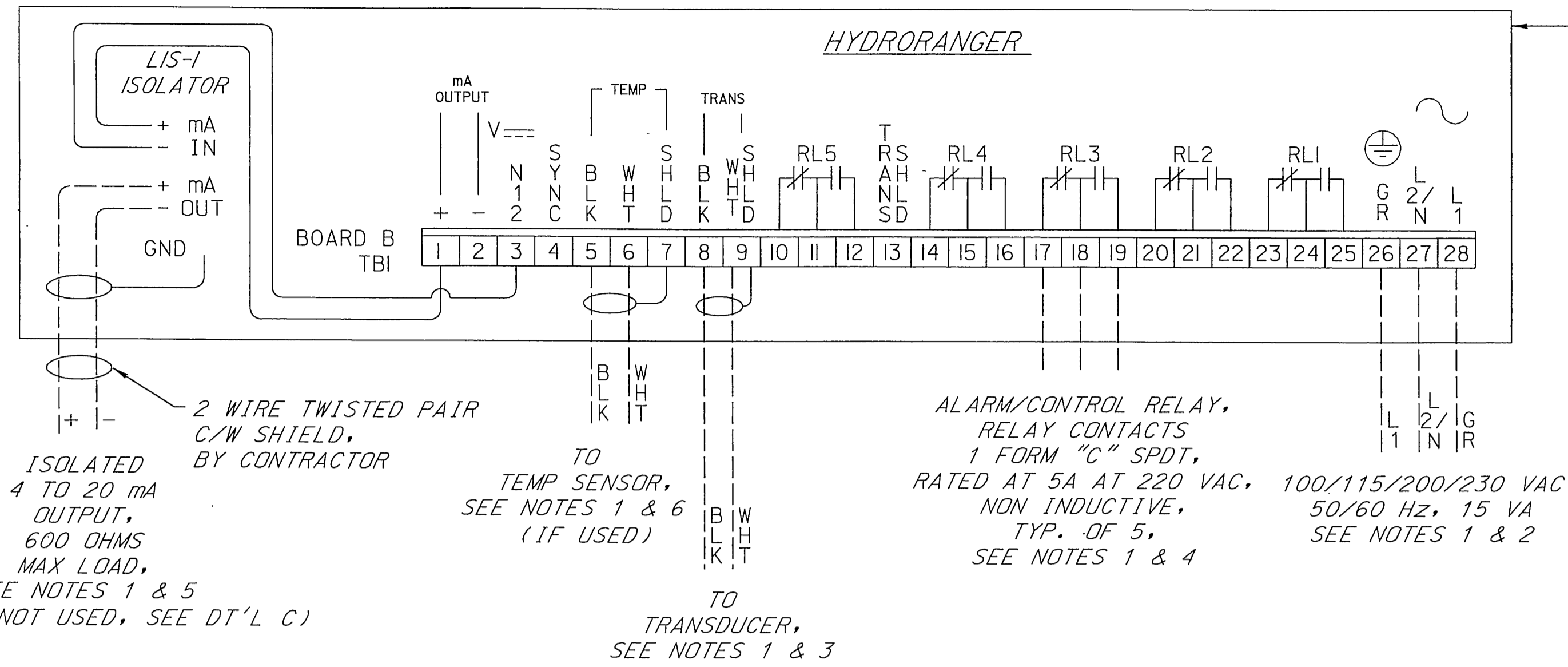
PREPARED UNDER THE DIRECTION OF
STEPHEN M. NIELSEN
REGISTERED CIVIL ENGINEER NO. 51070
EXPIRATION DATE 9-30-01

RICK ENGINEERING COMPANY
1223 UNIVERSITY AVE, SUITE 240, RIVERSIDE, CA 92507-3418
BENCH MARK
CITY OF RIVERSIDE BENCHMARK E8-A2, ELEVATION=1588.453' P.K. NAIL AND TAG IN TOP OF 35X50X20 FOOT GRANITE BOULDER, 100 FEET WESTERLY OF TRAUTWEIN ROAD AND 500 FEET NORTHERLY OF JESSE LANE.

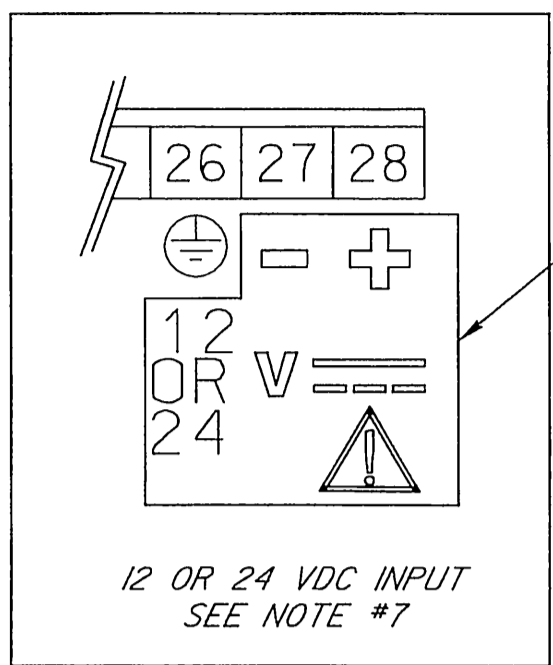
DESIGNED BY	SMN	DRAWN BY	REC	CHECKED BY	SMN
APPROVED BY	DATE	APPROVED BY	DATE	APPROVED BY	DATE
PRINCIPAL ENGINEER		TRAFFIC DIVISION		STREET SERVICES	

CITY OF RIVERSIDE
PUBLIC WORKS DEPARTMENT
APPROVED BY: R. McBratt
DATE: 7-31-2001

SEWER IMPROVEMENT PLANS
TRACT NO. 29242
DETAIL SHEET
PROJECT NO. S-1756
SHEET 2 OF 20
SCALE: HORIZ: N/A VERT: N/A
INDEXED 1-07-02 lft



MILLTRONICS HYDRORANGER, CSA APPROVED TYPE 4X RATED (SIMILAR TO EEMAC 4, NEMA 4X & IP65 RATINGS), POLYCARBONATE ENCLOSURE,

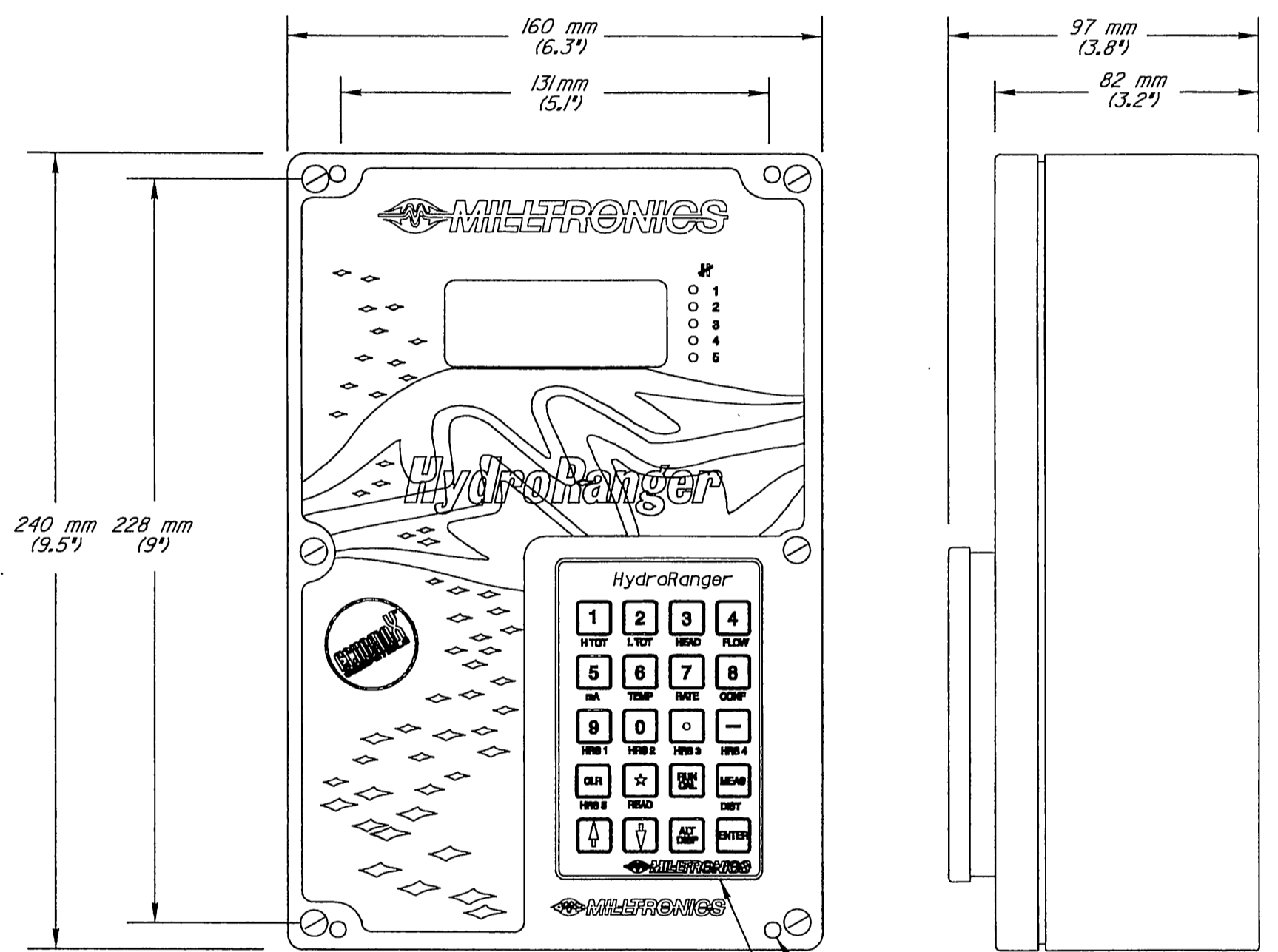


- NOTES:**
- 1) _____ DENOTES WIRING BY MILLTRONICS.
 - - - - - DENOTES WIRING BY CONTRACTOR.
 ALL WIRING MUST BE DONE IN CONJUNCTION WITH APPROVED CONDUIT BOXES, AND FITTINGS AND TO PROCEDURES IN ACCORDANCE WITH ALL GOVERNING REGULATIONS.
 - 2) SELECT CORRECT VOLTAGE VIA SELECTOR SWITCH ON BOARD B, BY CONTRACTOR.
 - 3) TRANSDUCER CABLE, COAXIAL RG-62U OR EQUIVALENT, MUST BE RUN IN A GROUNDED METAL CONDUIT OR EMT WITH NO OTHER ELECTRICAL CIRCUITS. GROUND SHIELD AT THE HYDRORANGER ONLY. FOR CABLE RUNS LONGER THAN THE TRANSDUCER CABLE SEE DETAIL "A". INSULATE SHIELD AT JUNCTIONS TO PREVENT INADVERTENT GROUNDING.
 - 4) CONTACTS OF RELAYS SHOWN IN DE-ENERGIZED ALARM CONDITION. ALL RELAYS ARE CERTIFIED FOR USE IN EQUIPMENT WHERE SHORT CIRCUIT CAPACITY OF THE CIRCUITS IN WHICH THEY ARE CONNECTED IS LIMITED BY FUSES HAVING RATINGS NOT EXCEEDING THE RATINGS OF THE RELAYS.
 - 5) ROUTE 4-20 mA CABLE IN A SEPARATE CONDUIT, ENTERING THE ENCLOSURE AS NEAR AS POSSIBLE TO THE ISOLATOR. KEEP WIRING AS SHORT AS POSSIBLE. DO NOT ROUTE CABLE ALONG TERMINAL BLOCK. KEEP SHIELD INTACT UP TO OUTPUT TERMINALS.
 - 6) CHANGE SW2 POSITION IF USING A SEPARATE TEMPERATURE SENSOR. TEMPERATURE SENSOR CABLE, BELDEN 8760 OR EQUIVALENT, MAY BE RUN IN CONDUIT WITH THE TRANSDUCER CABLE. FOR CABLE RUNS LONGER THAN THE TEMPERATURE SENSOR CABLE SEE DETAIL "B". CHANGE SW2 POSITION BACK IF THE TEMPERATURE SENSOR IS REMOVED.
 - 7) CONTRACTOR TO VERIFY THAT THE DC INPUT VOLTAGE CONFORMS TO THE "VOLTAGE STATED ON THE INPUT VOLTAGE STICKER, (ON MOTHERBOARD).
 - 8) FOR FURTHER INFORMATION REFER TO THE HYDRORANGER INSTRUCTION MANUAL OR CONTACT THE NEAREST MILLTRONICS REPRESENTATIVE.

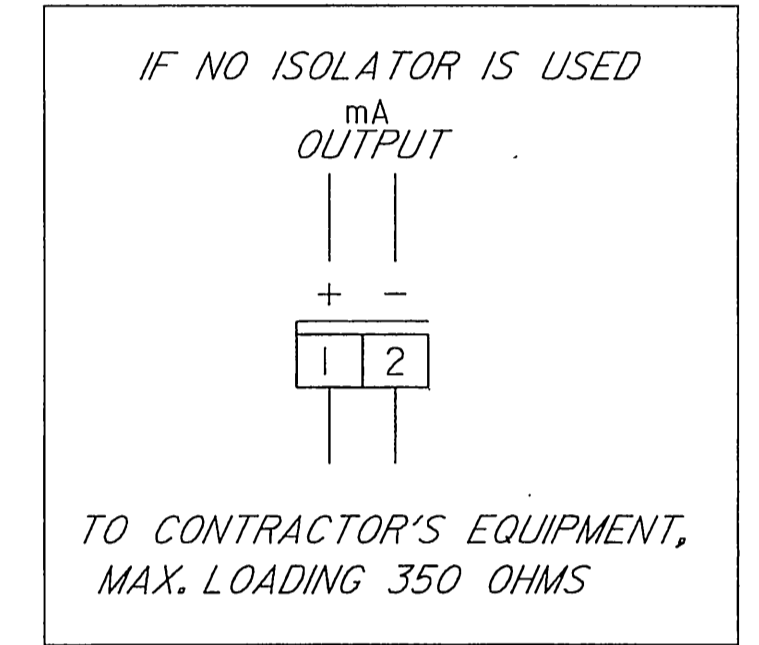
ISOLATED 4 TO 20 mA OUTPUT, 600 OHMS MAX LOAD, SEE NOTES 1 & 5 (IF NOT USED, SEE DT'L C)

ALARM/CONTROL RELAY, RELAY CONTACTS 1 FORM "C" SPDT, RATED AT 5A AT 220 VAC, 100/115/200/230 VAC 50/60 HZ, 15 VA NON INDUCTIVE, TYP. OF 5, SEE NOTES 1 & 4

TO TRANSDUCER, SEE NOTES 1 & 3

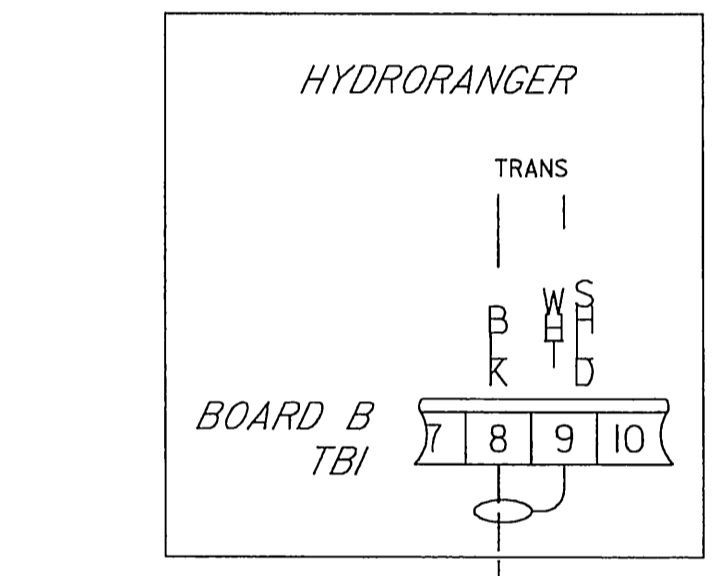


SUITABLE LOCATION FOR CONDUIT ENTRANCES IT IS RECOMMENDED USING A PUNCH FOR MAKING HOLES IN THE ENCLOSURE. 4.3 mm (0.170") DIA. MOUNTING HOLES, 4 PLACES HAND CALIBRATOR, REMOVABLE

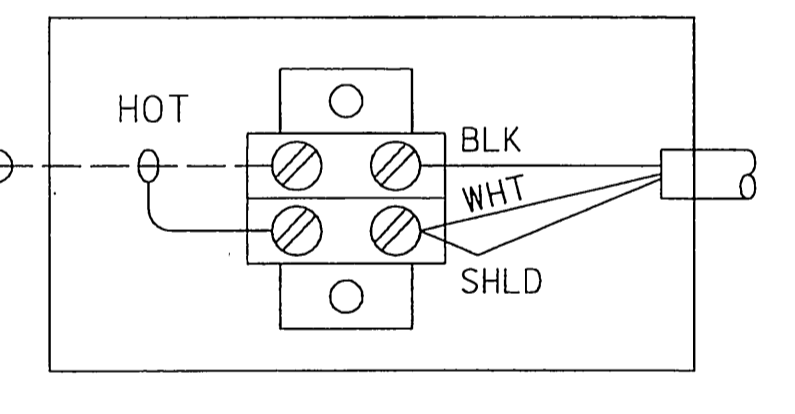


DETAIL "C"

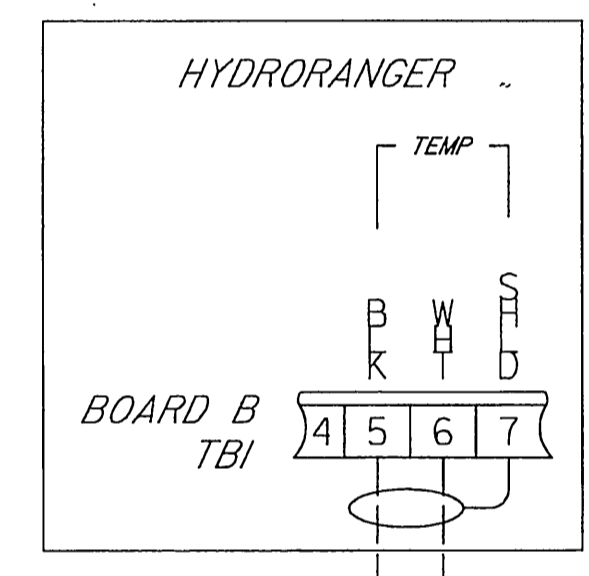
SEE INSTRUCTION MANUAL FOR PROPER OPERATION.



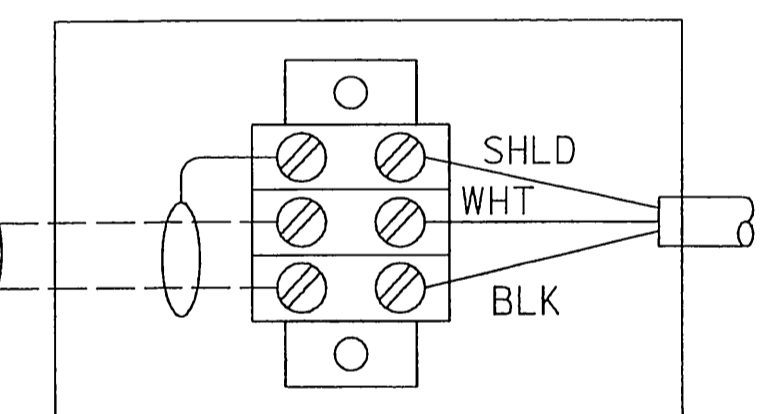
RG-62U COAXIAL CABLE MAX RUN 336 m (1200 FT.), BY CONTRACTOR, TOTAL CABLE RUN MUST NOT EXCEED 16 MICROFARADS IN CAPACITANCE, SEE NOTES 1 & 3



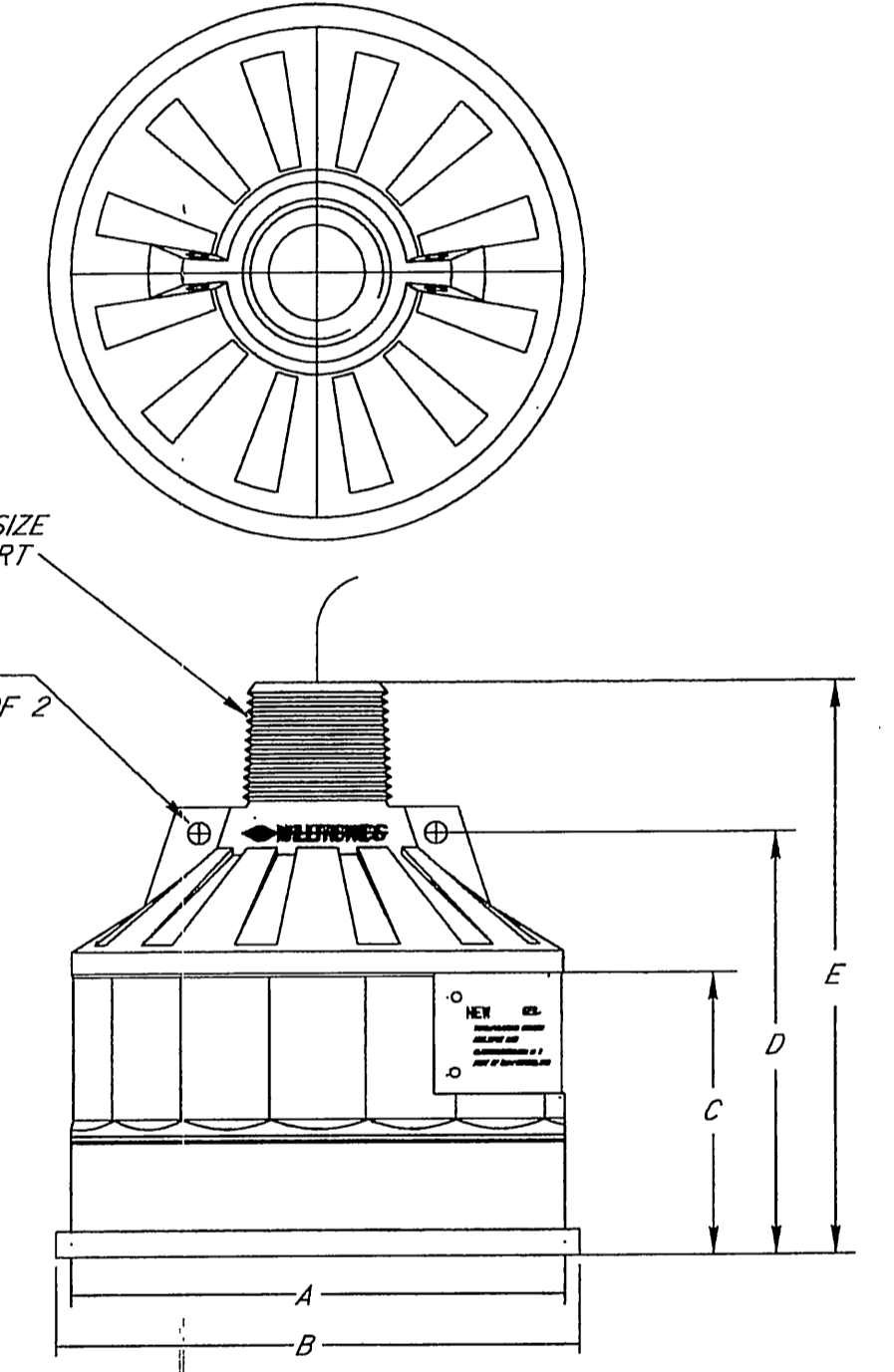
DETAIL "A"



BELDEN 8760 CABLE OR EQUIVALENT, BY CONTRACTOR, MAX RUN 336 m (1200 FT.), SEE NOTES 1 & 6

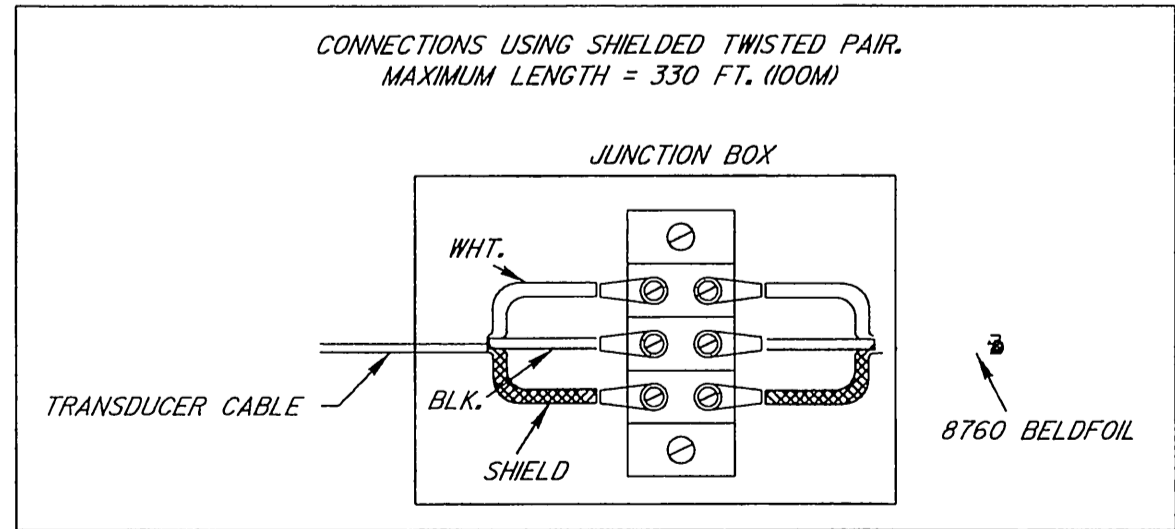
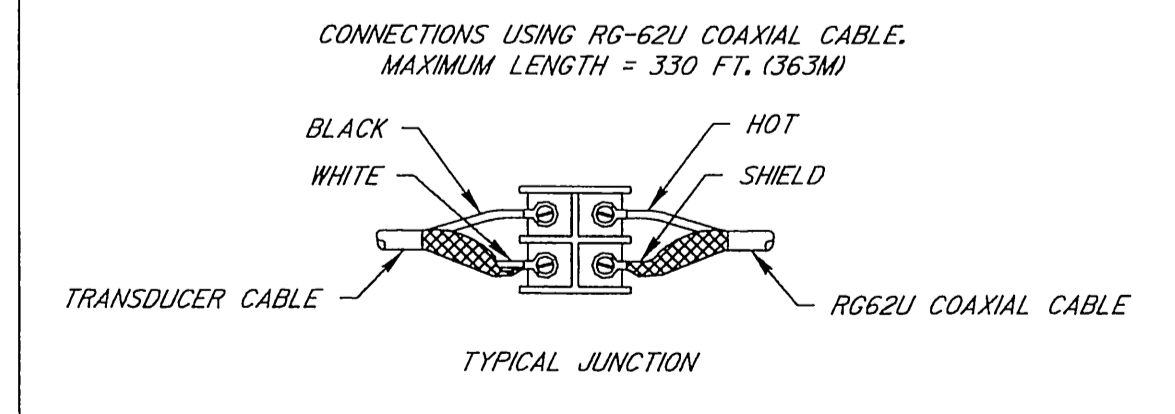


DETAIL "B"



STANDARD TRANSDUCER

1. TRANSDUCER CABLE CONNECTION MAY BE SOLDERED OR ASSEMBLED ON A TERMINAL STRIP.
2. ALL PULL BOXES, CONDUITS, AND JUNCTION BOXES MUST BE GROUNDED TO THE CONDUIT.
3. TRANSDUCER CABLE MUST BE RUN IN A GROUNDED CONDUIT SYSTEM WITH NO OTHER ELECTRICAL CIRCUITS.
4. ROUTE CONDUIT FOR LOWEST EMF INTERFERENCE FROM MOTOR DRIVES, POWER BUSES, ETC.
5. OBSERVE STANDARD WORK PRACTICES, THE NEC, AND LOCAL REGULATIONS.



TRANSDUCER TYPE	DIMENSIONS [METRIC]						THREAD SIZE	CABLE TYPE
	'A'	'B'	'C'	'D'	'E'	'F'		
XCT-8	3.2 [81.3]	3.45 [87.6]	2.6 [66.0]	3.6 [91.4]	4.8 [121.9]	0.15 [3.8]	1/4" NPT	LR29248
XCT-12	4.5 [114.3]	4.75 [120.7]	2.6 [66.0]	3.85 [97.8]	5.17 [131.3]	0.20 [5.1]	1/4" NPT	LR29248
XPS-10	3.2 [81.3]	3.45 [87.6]	2.6 [66.0]	3.6 [91.4]	4.8 [121.9]	0.15 [3.8]	1/4" NPT	YR40154
XPS-15	4.5 [114.3]	4.75 [120.7]	2.6 [66.0]	3.85 [97.8]	5.17 [131.3]	0.20 [5.1]	1/4" NPT	YR40154
XPS-30	6.6 [167.6]	6.92 [175.8]	4.58 [116.3]	6.4 [162.6]	7.7 [195.6]	0.20 [5.1]	1.5" NPT	YR40154
XPS-40	7.8 [198.1]	8.10 [205.7]	5.5 [139.7]	7.6 [193.0]	9.15 [232.4]	0.30 [7.6]	1.5" NPT	YR40154

DIG ALERT
 CALL BEFORE YOU DIG!
 1-800-227-2600
 UNDERGROUND SERVICE ALERT
 Call at least 2 working days prior to excavating.

REGISTERED PROFESSIONAL ENGINEER
 JOSEPH M. MOORE, P.E.
 No. E11023
 STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF
 M. PRAES/UBAHY AND ASSOCIATES
 EXPIRATION DATE 6/30/03

RICK ENGINEERING COMPANY
 1223 UNIVERSITY AVE SUITE 240, RIVERSIDE, CA 92507-3418
 BENCH MARK
 CITY OF RIVERSIDE BENCHMARK E8-A2, ELEVATION=1588.453' P.K. NAIL AND TAG IN TOP OF 35X50X20 FOOT GRANITE BOULDER, 100 FEET WESTERLY OF TRAUTWEIN ROAD AND 500 FEET NORTHERLY OF JESSE LANE.

MARK	REVISIONS	APPR	DATE

CITY OF RIVERSIDE
 PUBLIC WORKS DEPARTMENT
 APPROVED BY: [Signature]
 DATE: 7-31-001

SEWER IMPROVEMENT PLANS
 TRACT NO. 29242
 DETAIL SHEET
 PROJECT NO. S-1756
 SHEET 3 OF 20
 SCALE: HORIZ: N/A VERT: N/A
 FILE NO.

REGISTERED PROFESSIONAL ENGINEER
 WALTER L. ANDERSON
 No. 51313
 Exp. 8-30-08
 CIVIL
 STATE OF CALIFORNIA
 AS-BJLT
 08/22/05

GENERAL NOTES

- CONTROL PANEL IS TO BE COMPLETELY WIRED WITH ALL WIRES AND TERMINALS NUMBERED AND TERMINATED ON TERMINAL STRIPS, INCLUDING ALL WIRING BETWEEN ALL COMPONENTS COMPRISING THE ENTIRE CONTROL PANEL. WIRING DIAGRAMS ARE TO BE GIVEN TO THE CITY OF RIVERSIDE.
- MANUFACTURER OF EQUIPMENT TO BE ALLEN-BRADLEY, FURNAS, TOSHIBA, OR CUTLER-HAMMER.
- PROVIDE ALL NECESSARY CONDUITS AND REQUIRED WIRING FROM CONTROL PANEL TO THE ELECTRICAL EQUIPMENT IN THE WET WELL, AS SHOWN AND AS REQUIRED.
- TERMINAL BLOCK(S) FOR EQUIPMENT STATUS, FAILURE ALARMS, ETC. ARE TO BE FURNISHED AND INSTALLED BY THE CITY OF RIVERSIDE AT THE DEVELOPER'S EXPENSE. THE CONTRACTOR SHALL COORDINATE THIS WORK AND EQUIPMENT WITH THE CITY OF RIVERSIDE AND INCLUDE ALL COSTS IN HIS BID.
- THE CONTRACTOR MUST SUBMIT MAINTENANCE AND RECOMMENDED SPARE PARTS FOR ALL ELECTRICAL AND INSTRUMENTATION COMPONENTS. A COMPLETE PARTS LISTING WITH THE NAME, ADDRESS, AND TELEPHONE NUMBER FOR ALL THE SUPPLIERS MUST BE PROVIDED.
- THE CONTRACTOR MUST PROVIDE THE RECOMMENDED SPARE PARTS.
- THE CONTRACTOR MUST PROVIDE COMPLETE AS-BUILT DRAWINGS OF THE ELECTRICAL SYSTEM. THIS INCLUDES THE GENERAL WIRING AND THE INTERNAL WIRING OF ALL THE CONTROL PANEL COMPONENTS. THE CITY WILL REVIEW AND APPROVE THE DWGS. THE CONTRACTOR WILL MAKE ANY CHANGES AND SUBMIT FINAL SETS. COMPLETED RECORDED DWGS. ARE REQUIRED BEFORE FINAL PAYMENT IS RECEIVED BY THE CONTRACTOR.
- ALL WIRES MUST BE INDIVIDUALLY TAGGED AT EVERY TERMINATION AND INSIDE EVERY JUNCTION BOX. WIRE NUMBERING AND TAGGING SYSTEMS MUST BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL.
- THE LIFT STATION WET WELL IS A CLASS 1, DIV.1 HAZARDOUS AREA. ALL WORK AND EQUIPMENT MUST CONFORM TO THIS CLASSIFICATION.
- THE AREA WITHIN THE U.G. PRECAST CONCRETE PULL BOX IS ALSO CLASSIFIED AS A CLASS 1, DIV.1 HAZARDOUS AREA AND IS CONSIDERED AS AN EXTENSION OF THE WELL BY VIRTUE OF THE UNDERGROUND CONDUIT SYSTEMS WHICH ARE TO REMAIN OPEN AND NOT SEALED, FOR THE PURPOSE OF EASILY REMOVING AND INSTALLING THE CABLE SYSTEMS IN THE WET WELL.
- THE CONTRACTOR SHALL PROVIDE ALL MOUNTING HARDWARE FOR TRANSDUCER, FLOATS, MOUNTING SUPPORTS FOR ALL WET WELL CABLES, ETC.
- PROVIDE A CODE SIZE GROUND WIRE IN ALL CONDUITS.
- CONDUIT AND WIRING WITHIN THE CONTROL PANEL IS NOT SHOWN. PROVIDE AND INSTALL AS REQUIRED.
- PROVIDE AUX. CONTACT BLOCKS FOR H-O-A SWS TO MONITOR SWITCH POSITION.
- THE CONTRACTOR SHALL REVIEW AND CONFIRM WITH THE CITY THE EQUIPMENT TO BE PROVIDED. THE EQUIPMENT IS DESCRIBED IN SPECS. FURNISHED BY THE CITY.
- CONTRACTOR TO FURNISH AND INSTALL TELEMETRY MAST PER CITY REQUIREMENTS.

SPECIFIC NOTES

- 100AMP, 480V, NON-FUSABLE DOUBLE THROW TRANSFER SWITCH CUTLER HAMMER, TYPE DTK IN NEMA 1 ENCLOSURE.
- UNDERGROUND PRECAST PULL BOX, 24" x 36" x 24". BROOKS PRODUCTS OR EQUAL WITH TRAFFIC COVER. PROVIDE 3' MIN CABLE SLACK (COILED) IN BOX.
- EXPLOSION PROOF JUNCTION BOX (SIZE AS REQUIRED) CROUSE-HINDS TYPE EJB WITH HINGED COVER AND SUBMERSIBLE RESIN-CAST SPLICES (WIRING, TYP. OF 2). PROVIDE CABLE GRIPS FOR CORDS.
- SAME AS (3) ABOVE EXCEPT TO ACCOMMODATE WIRING FOR THE TWO WET WELL FLOATS.
- EXPLOSION PROOF JUNCTION BOX WITH SEALING COVER FOR TRANSDUCER CABLE (NO SPLICES).
- MOTOROLA MOSCAD, SUPPLIED BY CITY OF RIVERSIDE, PAID FOR BY DEVELOPER, AND INSTALLED BY CONTRACTOR IN SEPARATE CABINET INSIDE THE CONTROL PANEL.
- PROVIDE GENERATOR RECEPTACLE. KILLARK 8581/21-407 AND 8581/22-407 PLUG. PROVIDE 30' MINIMUM SJO POWER CORD.
- PROVIDE CABLE BUSHINGS FOR CONDUITS INTO WET WELL.
- CONTRACTOR SHALL PROVIDE SUITABLE YAGI ANTENNA WITH MAST FOR RTU.
- THE RTU SHALL BE PROVIDED WITH 12V BATTERY BACKUP.
- XP CONDUIT SEAL.

LEGEND

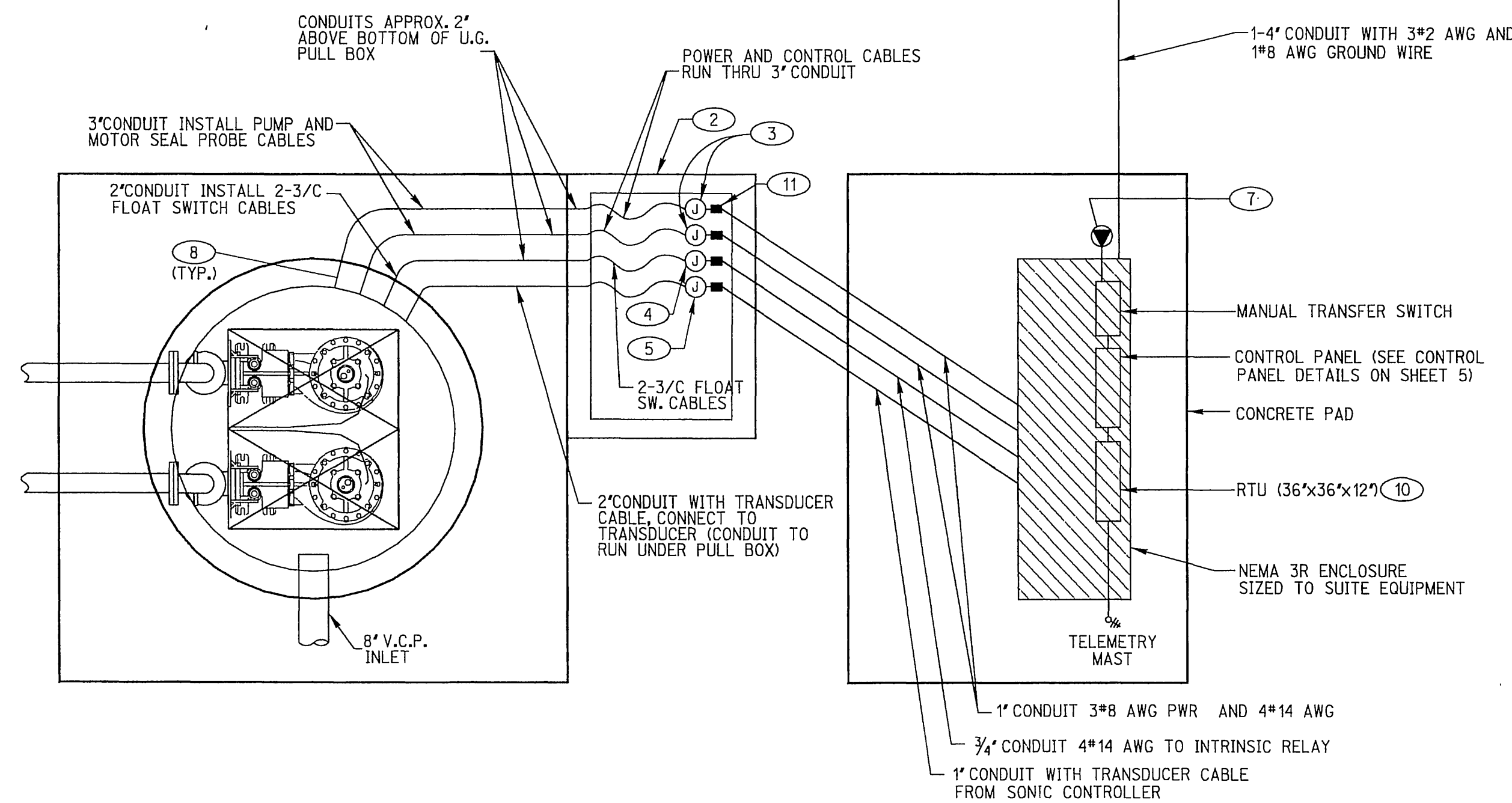
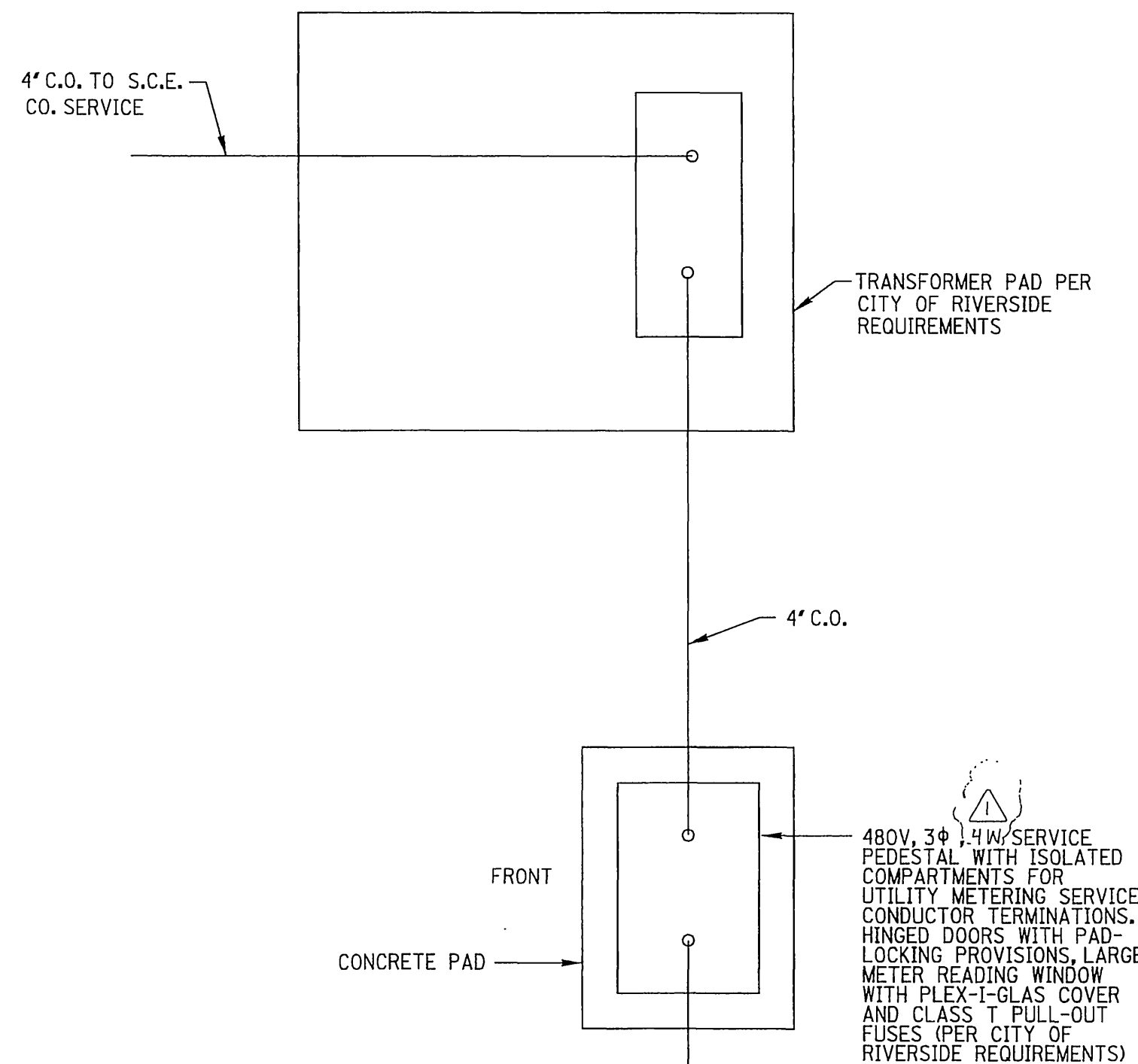
- PLAN**
- CONTROL PANEL
 - UNDERGROUND CONDUIT
 - UNDERGROUND CONDUIT, STUBBED UP
 - WALL MOUNTED JUNCTION AND/OR TERMINAL BOX (CODE SIZE)
 - 480V., 100 AMP 3W, 4P. W.P. RECEPT. MOUNTED ON EXTERIOR OF PNL ENCLOSURE
 - CABLE
 - INDICATES REFERENCE TO SPECIFIC NOTE

CONTROLS

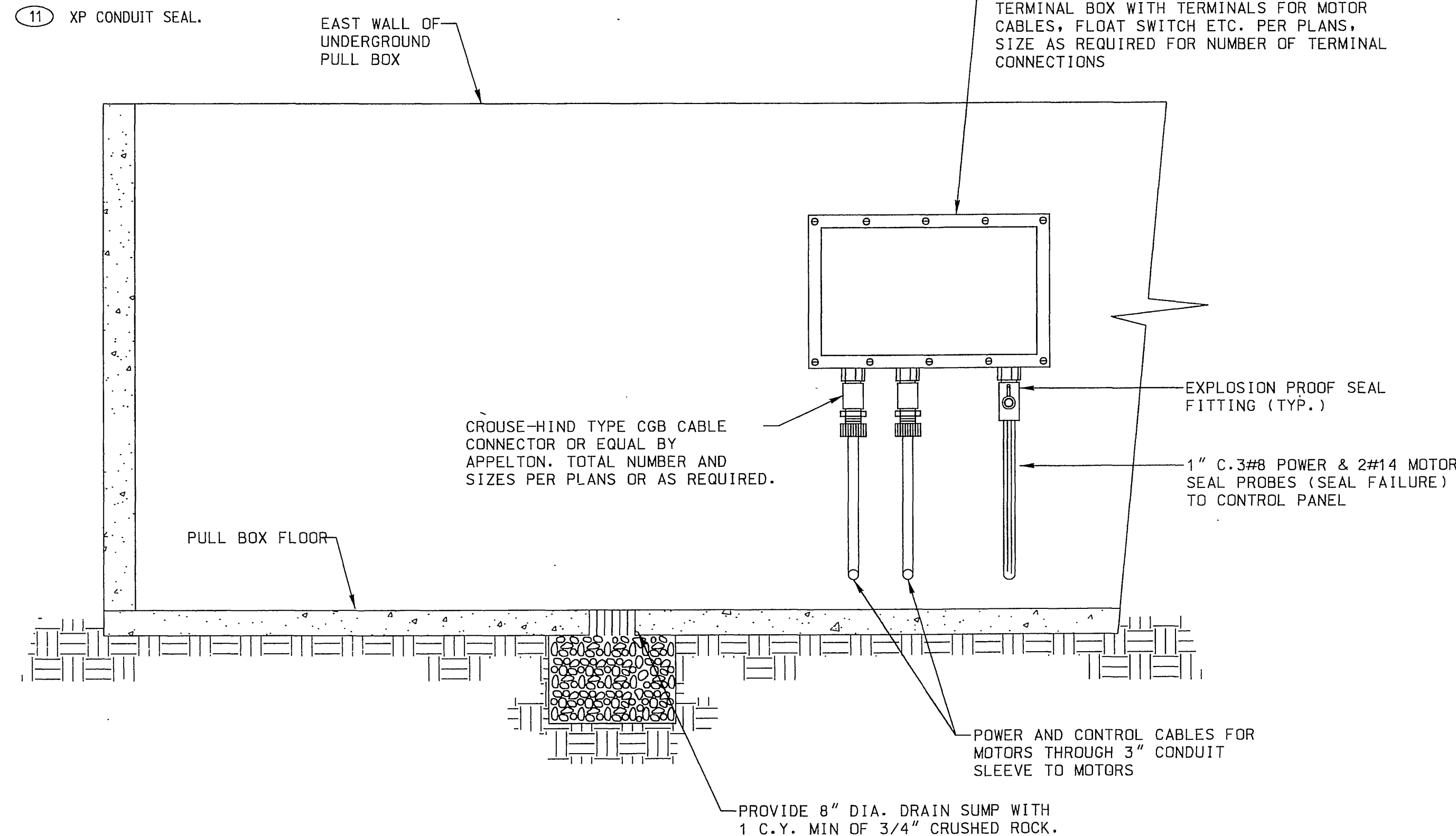
- CONTROL SWITCH
- FUSE
- TRANSFORMER
- CONTACT NORMALLY OPEN
- CONTACT NORMALLY CLOSED
- NORMALLY OPEN, MOMENTARY CONTACT PUSH BUTTON
- MOTOR OVERLOAD
- PUMP RUNNING PILOT LIGHT, AMBER LENS
- ELAPSED TIME METER
- MOTOR STARTER COIL
- PILOT LIGHT, RED LENS - INDICATES 'FAILURE'
- PILOT LIGHT, GREEN LENS - INDICATES CONTROL POWER IS 'ON'
- RELAY, R1 INDICATES RELAY DESIGNATION
- GROUND
- LIMIT SW (DOOR SWITCH)

SINGLE LINE DIAGRAM

- SERVICE METER
- 480V CIRCUIT BREAKER- 100AMP, 3-POLE
- MANUAL TRANSFER SWITCH
- 480V, 3 ϕ MAGNETIC STARTER NEMA SIZE 2
- FUSE
- TRANSFORMER
- MOTOR, H.P. INDICATED
- SWITCH



LIFT STATION POWER PLAN
SCALE: 1\"/>



TYPICAL EXPLOSION PROOF J-BOX/ TERMINAL BOX DETAIL

IN UNDERGROUND PULL BOX

N.T.S.

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UNDERGROUND SERVICE ALERT
Call at least 2 working days prior to excavating.

REGISTERED PROFESSIONAL ENGINEER
JOSEPH M. MORAN
No. E11023
ELECTRICAL
STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF
MORAES, PHAM AND ASSOCIATES
EXPIRATION DATE: 6/30/03

RICK ENGINEERING COMPANY
1223 UNIVERSITY AVE., STE. 240, RIVERSIDE CA 92507-3418
BENCH MARK
CITY OF RIVERSIDE BENCHMARK EB-A2, ELEVATION: 1588.453' P.K. NAIL AND TAG IN TOP OF 35X50X20 FOOT GRANITE BOULDER, 100 FEET WESTERLY OF TRAUTWEIN ROAD AND 500 FEET NORTHERLY OF JESSE LANE.

MARK	REVISIONS	APPR.	DATE
	REVISED METER PEDESTAL SPEC. FROM 3/13/02 TO 3/14/02		

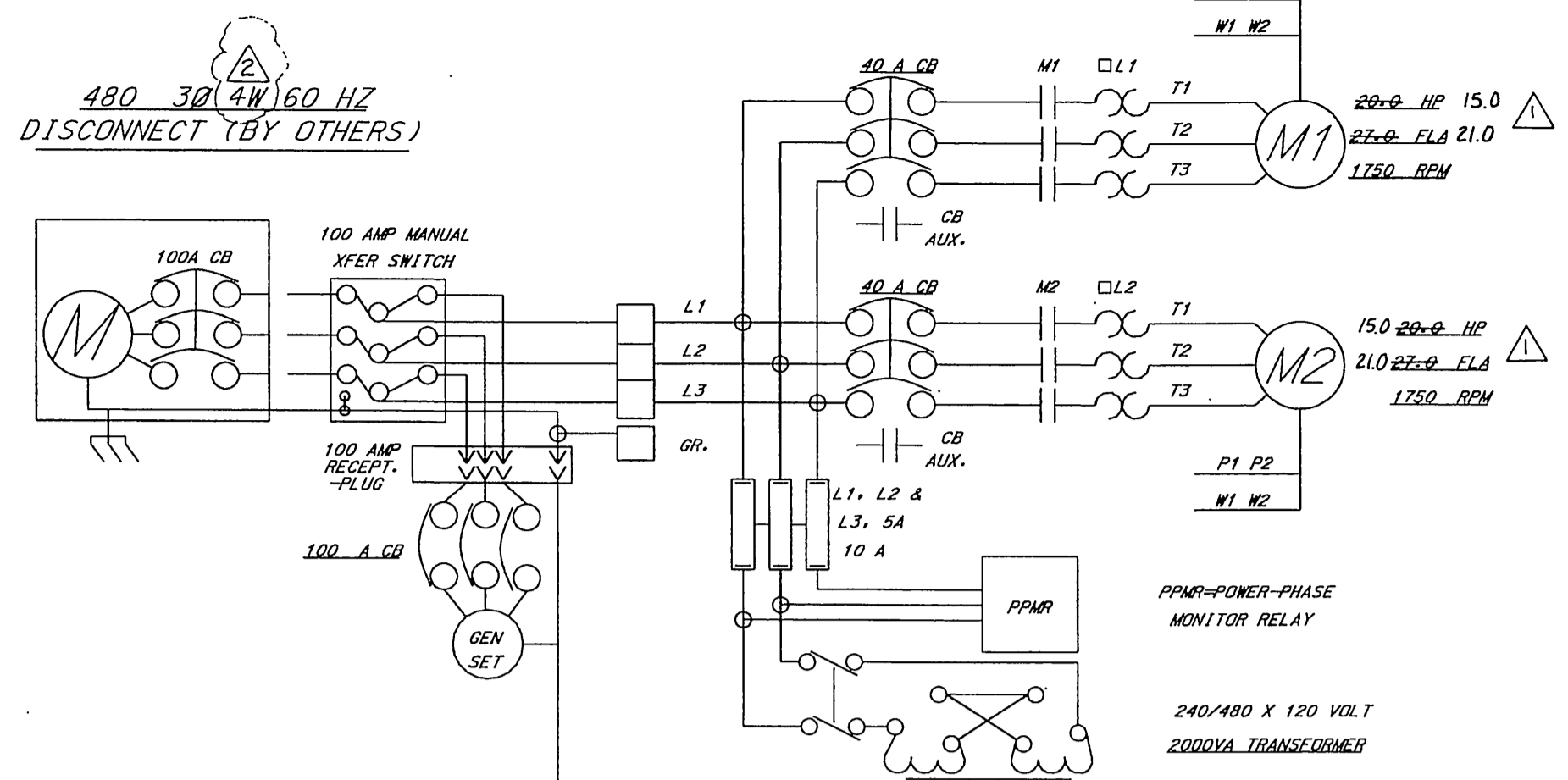
DESIGNED BY _____ DRAWN BY REC CHECKED BY _____

CITY OF RIVERSIDE
PUBLIC WORKS DEPARTMENT
APPROVED BY: [Signature]
TRAFFIC DIVISION
DEPUTY P.W. DIRECTOR: [Signature]
STREET SERVICES

SEWER IMPROVEMENT PLANS
TRACT NO. 29242
DETAIL SHEET
SCALE: HORIZ: N/A VERT: N/A

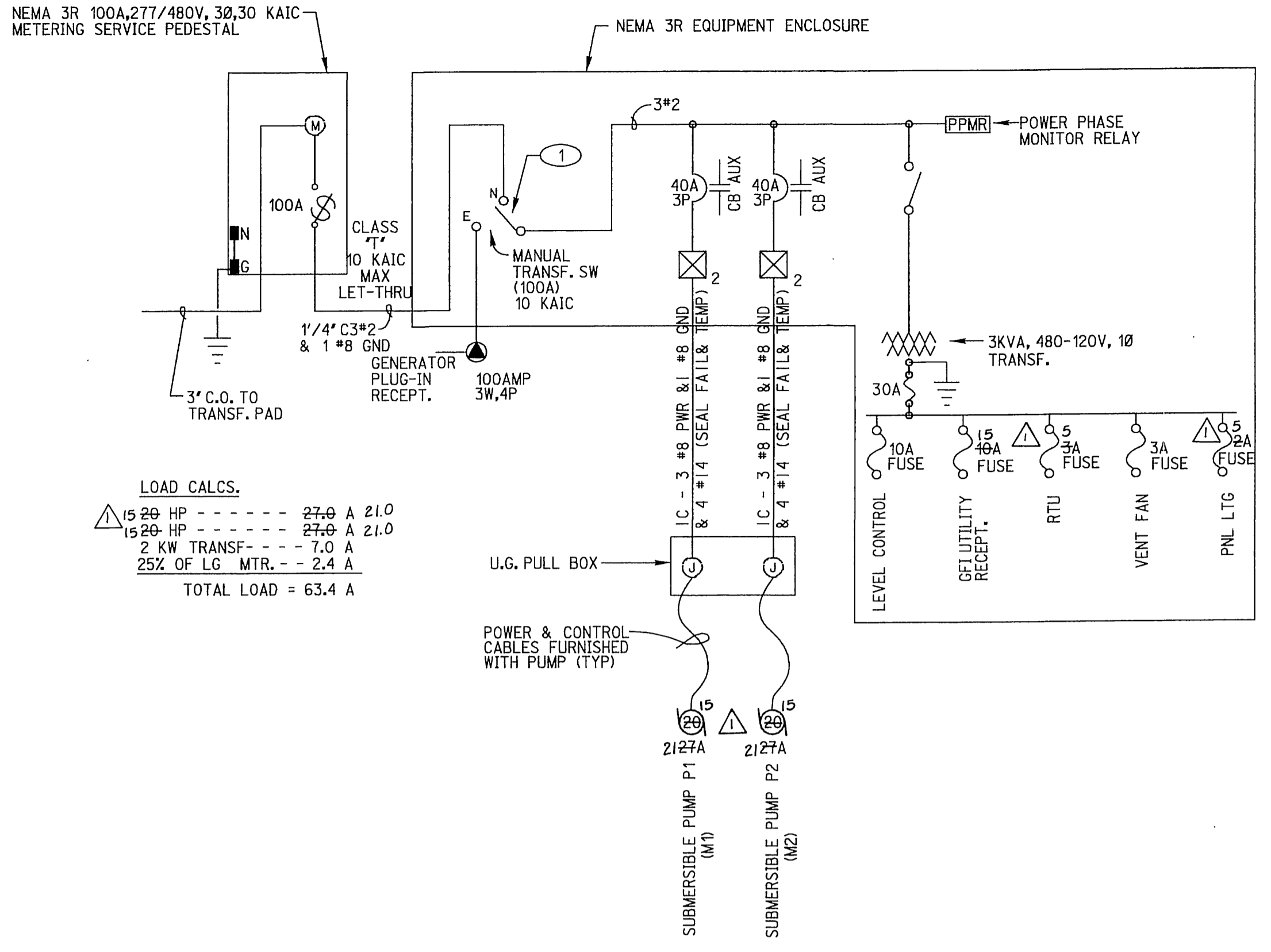
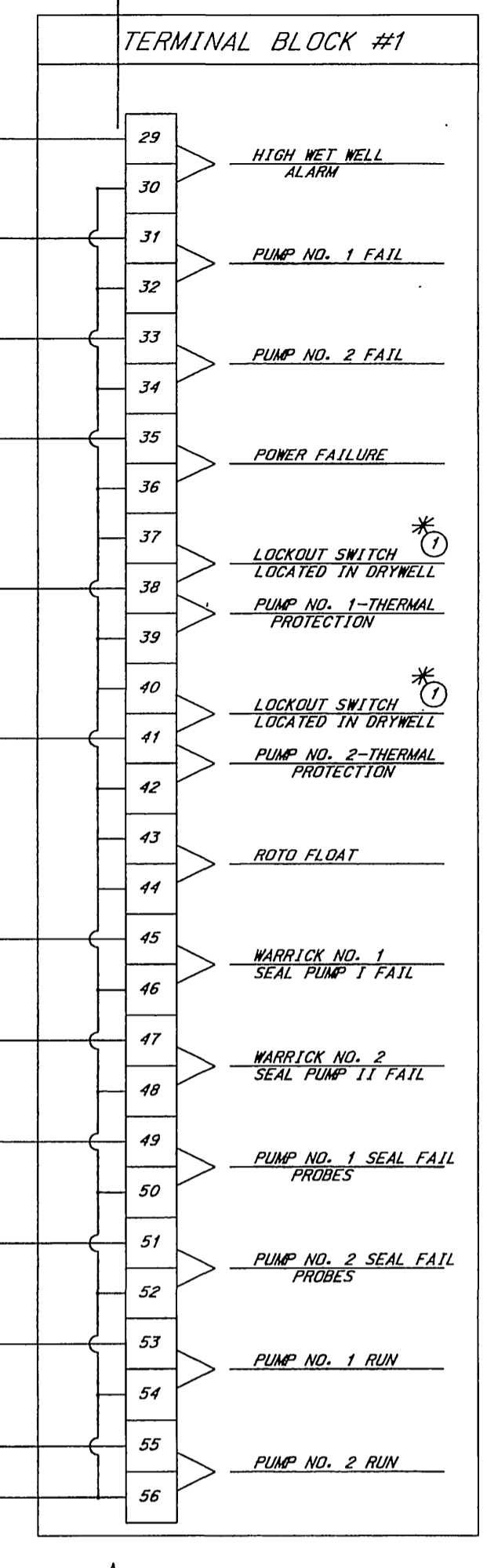
PROJECT NO. S-1756
SHEET 4 OF 20
FILE NO.

REGISTERED PROFESSIONAL ENGINEER
L. MORAN
No. 31313
Exp. 8/30/06
CIVIL
STATE OF CALIFORNIA
AS-BUILT
08/22/05



- 1P1 MOTOR #1
- 1P2 THERMAL
- 1M1 MOTOR #1
- 1M2 SEAL FAIL
- 2P1 MOTOR #2
- 2P2 THERMAL
- 2M1 MOTOR #2
- 2M2 SEAL FAIL

1 BY CITY OF RIVERSIDE, SEE NOTE #6



LOAD CALCS.
 15 HP --- 27.0 A @ 21.0
 15 HP --- 27.0 A @ 21.0
 2 KW TRANSF. --- 7.0 A
 25% OF LG. MTR. --- 2.4 A
 TOTAL LOAD = 63.4 A

LIFT STATION SINGLE LINE DIAGRAM
N.T.S.

NOTES:

1. □ DENOTES TERMINALS REQUIRING WIRES TO BE CONNECTED FROM CONTROL PANEL TO REMOTE EQUIPMENT.
2. PANEL TO BE COMPLETELY WIRED WITH ALL WIRES AND TERMINALS NUMBERED AND TERMINATED ON TERMINAL STRIPS. WIRING DIAGRAM TO BE GIVEN TO CITY OF RIVERSIDE.
3. MANUFACTURER TO BE ALLEN BRADLEY, FURNAS, TOSHIBA OR CUTLER HAMMER.
4. PROVIDE NECESSARY CONDUITS TO PUMP LOCATION FROM M.C.C. ONE FOR POWER, ONE FOR CONTROL, ONE FOR MILLTRONIC HYDRORANGER.
5. SEPARATE THE FLOAT SWITCH WIRES FEEDING INTRINSIC RELAY (WARRICK NO. 3) AND RUN IN SEPARATE 3/4" CONDUIT. SEPARATE LEADS TO WARRICK RELAY NO. 1 & NO. 2 COMING FROM SEAL PROBES AND RUN IN 3/4" CONDUIT.
6. ITEMS TO BE FURNISHED AND INSTALLED BY CITY OF RIVERSIDE AT DEVELOPERS EXPENSE INDICATED BY 1.
7. FLUORESCENT LIGHT TO BE INSTALLED IN CONTROL PANEL FOR NIGHT MAINTENANCE.

RELY:

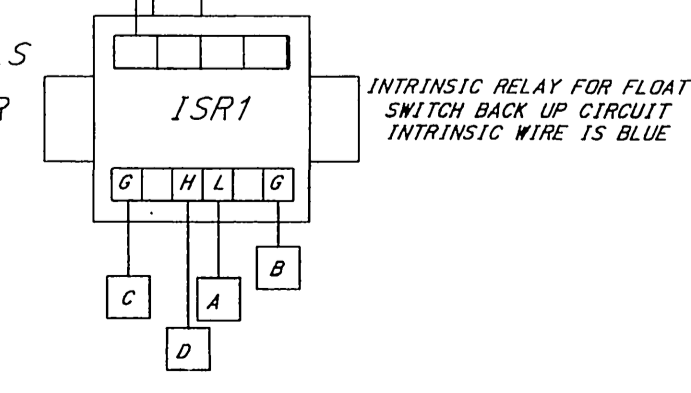
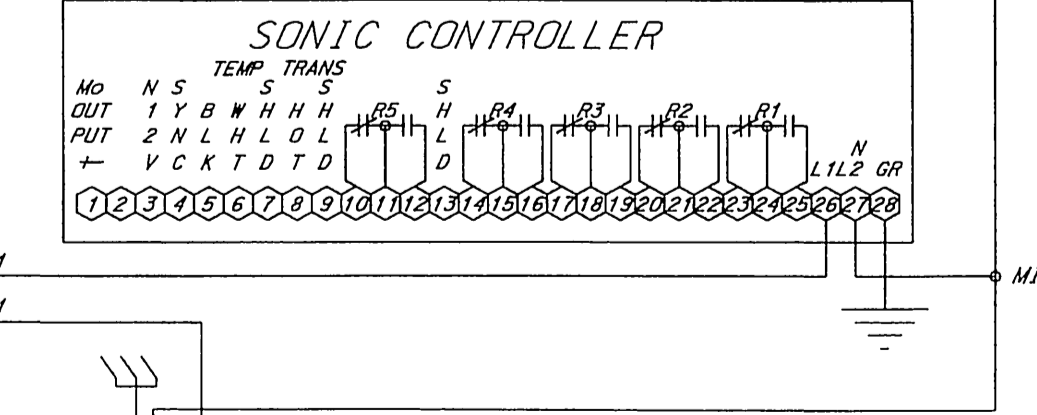
- SHALL MONITOR ONLY, NOT CONTROL
- INDICATE LOW LEVEL (D1)
- INDICATE WET WELL LEVEL ANALOG OUTPUT (D)
- INDICATE SITE ENTRY (D1)
- INDICATE AC FAILURE (D1)
- INDICATE INDIVIDUAL PUMP FAILURE (D1)
- INDICATE PUMP AUTO, PUMP NOT AUTO (D1)
- HAND SWITCH POSITION
HAND/OFF/AUTO
- INDICATE PUMP RUN STATUS (D)
- INDICATE ULTRASONIC FAILURE (D1)

CONTROLS:

HAND SHALL BYPASS LEVELS, PLC, MILLTRONICS, ETC. AND SHALL DIRECTLY ENERGIZE THE STARTERS
 -AUTO FUNCTION SHALL BE CONTROLLED BY THE PLC OR IN EVENT OF THE PLC FAILURE, THE MILLTRONICS WILL PROVIDE BACKUP CONTROL START, STOP, AND ALTERNATE LEAD AND LAG PUMPS.

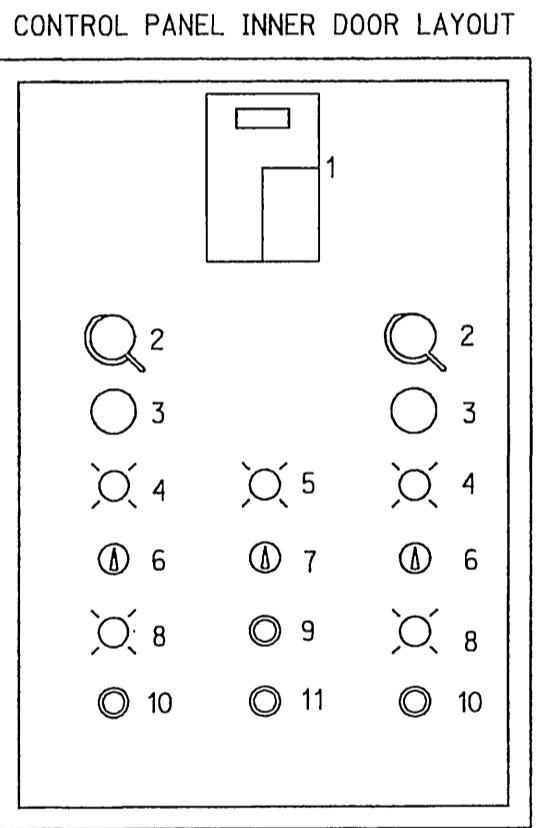
CONTROL LOGIC NOTES:

1. THE PLC WILL PERFORM THE FOLLOWING CONTROL FUNCTIONS:
2. CYCLE PUMPS ON AND OFF ACCORDING TO WET WELL LEVELS.
3. ALTERNATE LEAD AND LAG PUMPS EVERY 24 HOURS.
4. RECORD PUMP LAPPED TIME RUN HOURS.
5. PROVIDE LOW LEVEL AND HIGH LEVEL ALARMS.
6. TURN OFF PUMPS ON SEAL FAILURE.
7. TURN OFF PUMPS ON THERMAL OVERLOAD.
8. CALL LAG PUMP IN EVENT OF LEAD PUMP FAILURE.
9. RECOGNIZE ULTRASONIC LEVEL CONTROL SYSTEM FAILURE AND CLOSE ALARM CONTACT.
10. RECOGNIZE PUMP HAND SWITCH POSITION AND ADJUST CONTROL LOGIC.
11. RECOGNIZE POWER FAILURE AND CLOSE ALARM CONTACT.
12. RECOGNIZE SITE ENTRIES AND CLOSE ALARM CONTACT.
13. MILLTRONICS LEVEL CONTROLLERS SHALL PROVIDE BACKUP PUMP CONTROL IN EVENT OF PLC FAILURE.
14. ALL ALARM CONTACTS AND SIGNALS TO THE RTU WILL BE CONTROLLED BY THE PLC.

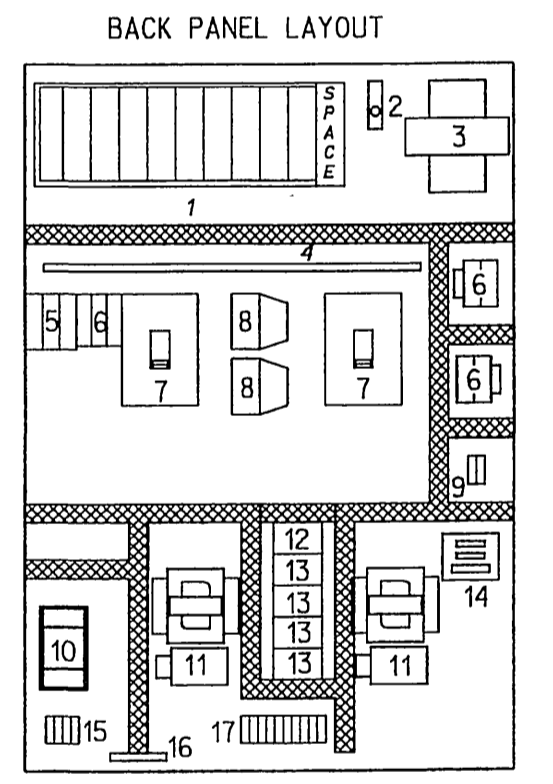


NOTE 1!
 FIELD WIRING TO TERMINALS A, B, C, AND D MUST BE ISOLATED FROM ALL OTHER VOLTAGE BY AT LEAST TWO (2) INCHES.

- EQUIPMENT
1. SONIC CONTROLLER
 2. CIRCUIT BREAKER OPERATORS
 3. ELAPSED TIME METERS
 4. MOTOR RUN PILOT LIGHT
 5. CONTROL POWER PILOT LIGHT
 6. HAND-OFF-AUTO (HOA) SWITCH
 7. LEAD-LAG SELECTOR SWITCH
 8. SEAL FAIL LIGHT
 9. LIGHT TEST PUSH BUTTON
 10. OVERLOAD RESET PUSH BUTTON
 11. SEAL FAIL TEST PUSH BUTTON



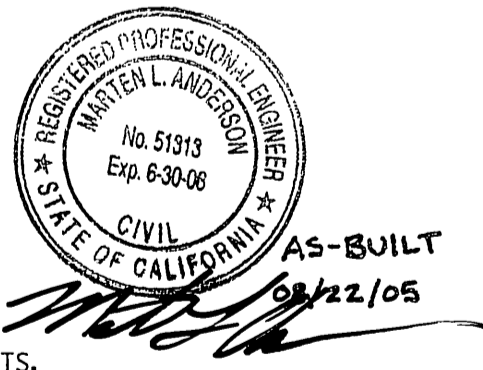
PLC AND CONTROLS PANEL LAYOUT
N.T.S.



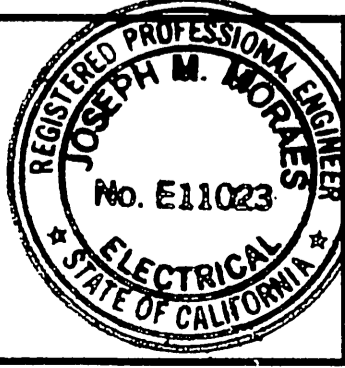
- EQUIPMENT
1. MODICON PLC
 2. CONTROL POWER SWITCH
 3. CONTROL POWER TRANSFORMER
 4. HIGH VOLTAGE BARRIER
 5. LINE VOLTAGE TERMINAL BLOCK
 6. CONTROL FUSE
 7. MOTOR CIRCUIT BREAKER
 8. SEAL FAIL RELAY
 9. CONTROL POWER TERMINAL
 10. INTRINSIC FLOAT SW. RELAY
 11. MOTOR STARTERS
 12. POWER/PHASE MONITOR RELAY
 13. CONTROL RELAY
 14. PLC DO ISOLATION TRANSFORMER
 15. INTRINSIC TERMINAL BLOCK
 16. GROUND TERMINAL BLOCK
 17. MOTOR CONTROL TERMINAL BLOCK
- = WIRE WAY

INSTRUMENTATION & CONTROL NOTES:

1. CONTROL PANEL MUST BE CUSTOM BUILT TO THE CITY REQUIREMENTS.
2. CONTRACTOR MUST SUBMIT ALL WIRING DIAGRAMS FOR REVIEW BY THE CITY PRIOR TO ASSEMBLY.
3. CONTRACTOR MUST PROVIDE THE CITY THE OPPORTUNITY TO INSPECT PANEL DURING ASSEMBLY.
4. THE PANEL SHALL BE NEMA 4X.
5. PUMPS SHALL BE CONTROLLED USING A SQUARE D PLC. NO SUBSTITUTIONS. THIS IS REQUIRED FOR STANDARDIZATION.
6. CONTRACTOR MUST SUBMIT A COPY OF THE PLC PROGRAM FOR REVIEW AND APPROVAL. A FINAL FULLY ANNOTATED PROGRAM MUST BE PROVIDED WITH THE AS-BUILT DRAWINGS.
7. WET WELL LEVEL MUST BE MONITORED USING A MILLTRONICS MULTIRANGER ULTRASONIC LEVEL METER. NO SUBSTITUTIONS. THIS IS REQUIRED FOR STANDARDIZATION.
8. THE LIFT STATION SHALL BE EQUIPPED WITH ULTRASONIC FAILURE INDICATOR.
9. THE CONTROL PANEL SHALL BE EQUIPPED WITH ACROSS THE LINE STARTING SO THE PUMPS CAN BE OPERATED MANUALLY IN THE EVENT OF PLC OR OTHER EQUIPMENT FAILURE.
10. THE CONTROL PANEL MUST BE EQUIPPED WITH MOTOROLA INTRAC 2000 RTU. THE RTU WILL COMMUNICATE WITH THE INTRAC BASE STATION AT THE WASTEWATER TREATMENT PLANT.
11. THE CONTRACTOR MUST CONNECT AND TEST THE RTU TO ESTABLISH COMMUNICATION WITH THE WASTEWATER TREATMENT PLANT BASE. THE CITY WILL INTEGRATE THE RTU INTO PLANT SCADA CONTROL SYSTEM.



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 UNDERGROUND SERVICE ALERT
 Call at least 2 working days prior to excavating.



PREPARED UNDER DIRECTION OF
 MORAES/PEREIRA AND ASSOCIATES
 EXPIRATION DATE 6/30/03

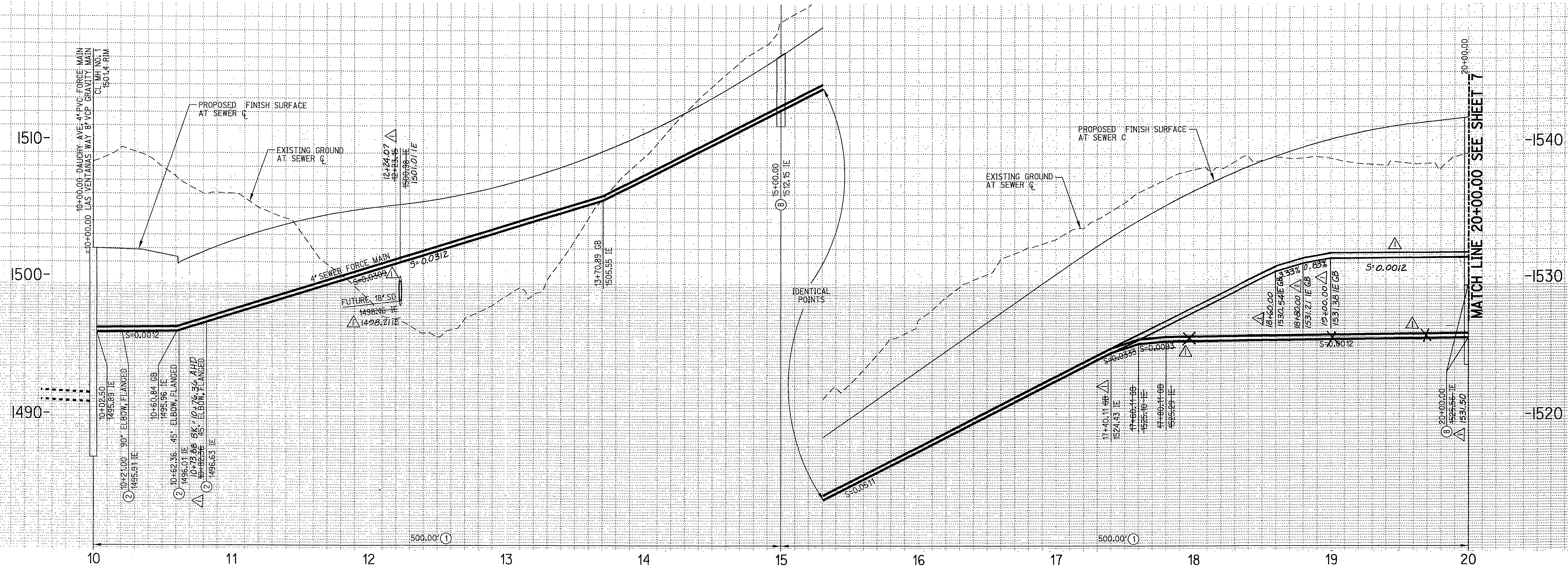
RICK ENGINEERING COMPANY
 1223 UNIVERSITY AVE., STE. 240, RIVERSIDE, CA 92507-3418
 BENCH MARK
 CITY OF RIVERSIDE BENCHMARK E8-A2, ELEVATION=1588.453' P.K. NAIL AND TAG IN TOP OF 35X50X20 FOOT GRANITE BOULDER, 100 FEET WESTERLY OF TRAUTWEIN ROAD AND 500 FEET NORTHERLY OF JESSE LANE.

REVISION NUMBER	REVISION	DATE	BY	CHECKED BY
1	REVISED METER PEDESTAL SPEC.	7/24/02	JM	JM

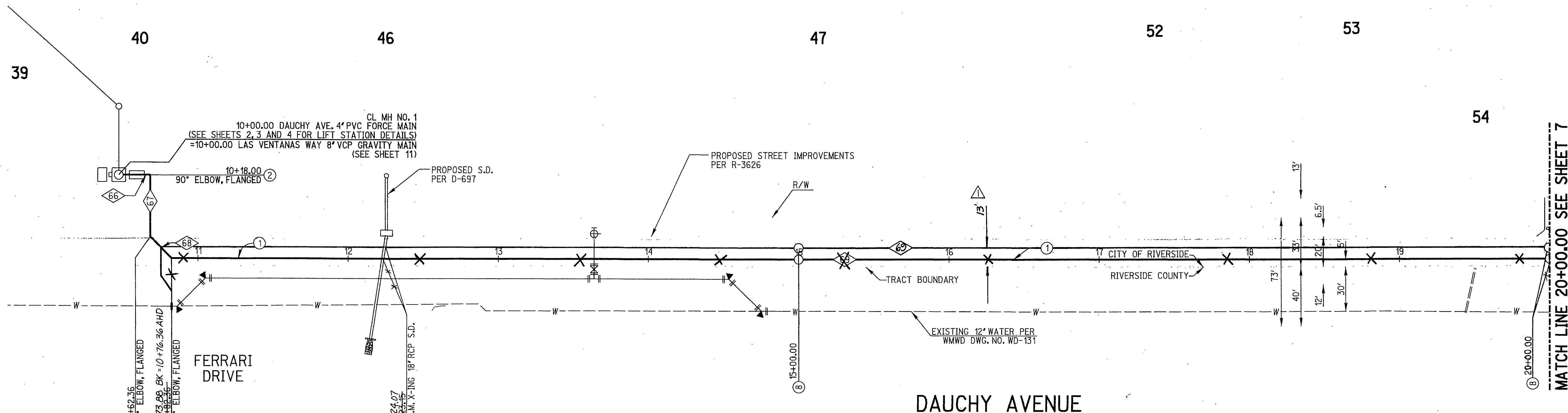
CITY OF RIVERSIDE
 PUBLIC WORKS DEPARTMENT
 APPROVED BY: R. McBrath
 DATE: 7-31-2001

SEWER IMPROVEMENT PLANS
 TRACT NO. 29242
 DETAIL SHEET
 SCALE: HORIZ: N/A VERT: N/A

PROJECT NO. S-1756
 SHEET 5 OF 20
 FILE NO.



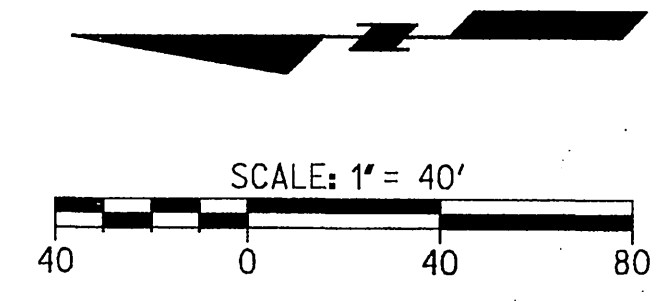
PROFILE SCALE:
 HORIZ: 1"=40'
 VERT: 1"=4'



CONSTRUCTION NOTES

- ① INSTALL 4" AWWA C-900 PVC CL 150 FORCE MAIN, PIPE BEDDING PER CITY OF RIVERSIDE STANDARD DRAWING 452 (CASE D).
- ② INSTALL 4" ELBOW (DEGREE AS NOTED ON PLANS).
- ③ INSTALL FORCE MAIN CLEANING STATION PER DETAIL 'D' SHEET 1.

SEWER DATA				
NO.	DELTA OR BRG.	RADIUS	LENGTH	REMARK
66	N 0° 00' 00" E		21.00'	
67	N 90° 00' 00" W		41.36'	
68	N 45° 00' 12" E	Δ 20-00'		11.52'
69	N 0° 00' 00" E	Δ 909-14'		923.64'



CAUTION:
 EXACT LOCATION OF EXISTING UNDERGROUND FACILITIES IS UNKNOWN. CONTRACTOR TO VERIFY IN FIELD.

DIG ALERT

CALL BEFORE YOU DIG!

1-800-227-2600
 UNDERGROUND SERVICE ALERT
 Call at least 2 working days prior to excavating.

REGISTERED PROFESSIONAL ENGINEER
 EDWARD MICHEL RATZKY
 No. 46804
 Exp. 6-30-03
 CIVIL
 STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF
 Edward M. Ratzky 7-18-01
 REGISTERED CIVIL ENGINEER NO. 46804
 EXPIRATION DATE 6-30-03

RICK ENGINEERING COMPANY

San Diego Riverside Orange Phoenix Tucson
 1223 University Ave., Ste. 240 • Riverside, CA 92507-3418 • (951)782-0707 • FAX (951)782-0723 • www.rickeng.com
 CITY BUSINESS TAX CERTIFICATE NO. 35225 EXP. DATE 7/20/01

BENCH MARK
 CITY OF RIVERSIDE BENCHMARK E8-A2, ELEVATION=1588.453' P.K. NAIL AND TAG IN TOP OF 35X50X20 FOOT GRANITE BOULDER, 100 FEET WESTERLY OF TRAUTWEIN ROAD AND 500 FEET NORTHERLY OF JESSE LANE.

DESIGNED BY	NEL	DRAWN BY	NEL	CHECKED BY	MLA
DATE	7/18/01	DATE	7/18/01	DATE	7/18/01

CITY OF RIVERSIDE
 PUBLIC WORKS DEPARTMENT

APPROVED BY
 R. M. Smith
 DEPUTY P.M. DIRECTOR
 DATE 7-31-2001

SEWER IMPROVEMENT PLANS

TRACT NO. 29242
 DAUCHY AVENUE
 10+00.00 TO 20+00.00

SCALE
 HORIZ: 1"=40' VERT: 1"=4'

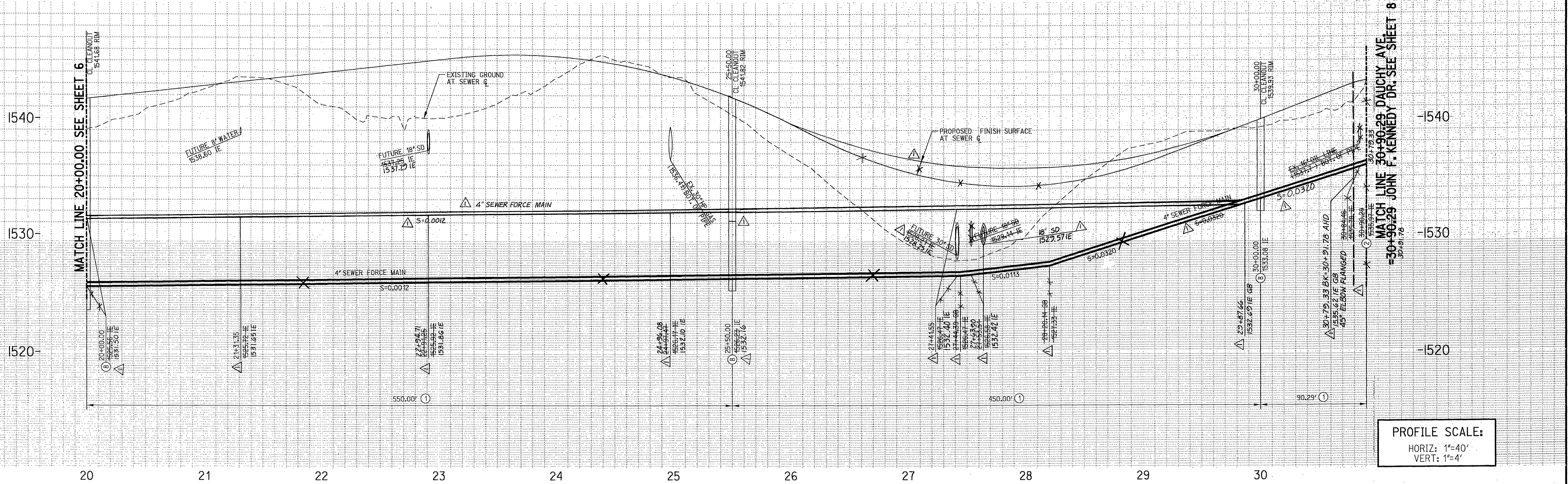
PROJECT NO.
 S-1756

SHEET 6 OF 20

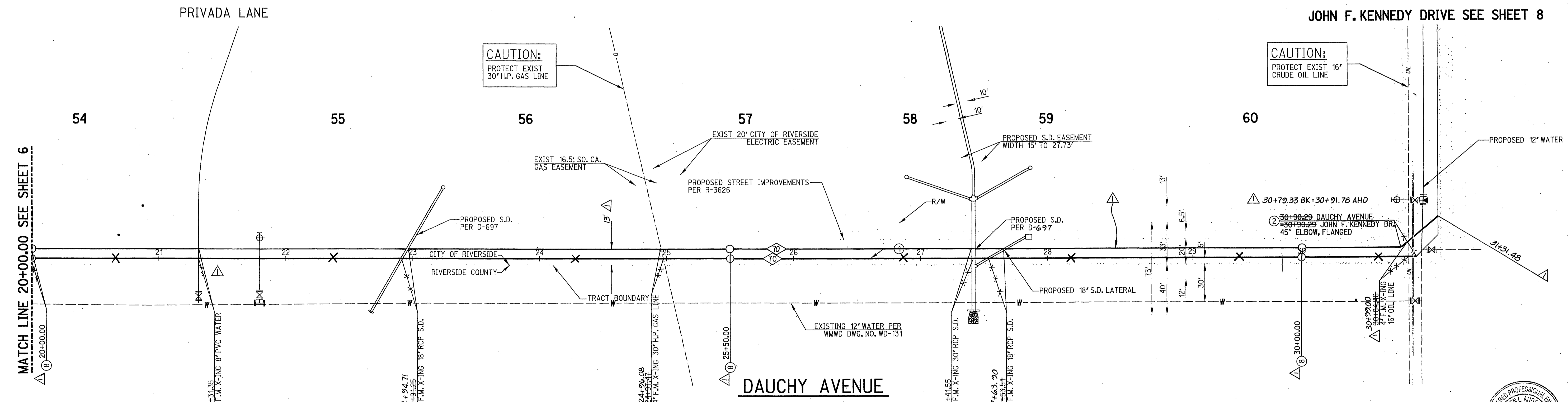
FILE NO.

REGISTERED PROFESSIONAL ENGINEER
 MARTIN L. ANDERSON
 No. 51013
 Exp. 6-30-08
 CIVIL
 STATE OF CALIFORNIA

AS-BUILT
 08/22/05

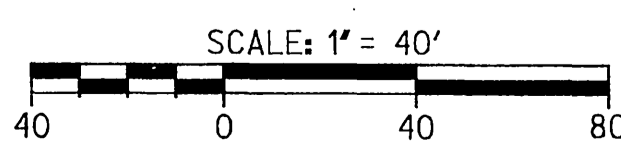


PROFILE SCALE:
 HORIZ: 1"=40'
 VERT: 1"=4'



- CONSTRUCTION NOTES**
- ① INSTALL 4" AWWA C-900 PVC CL 150 FORCE MAIN, PIPE BEDDING PER CITY OF RIVERSIDE STANDARD DRAWING 452 (CASE II).
 - ② INSTALL 4" ELBOW (DEGREE AS NOTED ON PLANS).
 - ③ INSTALL FORCE MAIN CLEANING STATION PER DETAIL 'D' SHEET I.

SEWER DATA				
NO.	DELTA OR BRG.	RADIUS	LENGTH	REMARK
①	N 0°00'12" E		4099.29'	1079.33'



CAUTION:
 EXACT LOCATION OF EXISTING UNDERGROUND FACILITIES IS UNKNOWN. CONTRACTOR TO VERIFY IN FIELD.

DIG ALERT

CALL BEFORE YOU DIG!

1-800-227-2600
 UNDERGROUND SERVICE ALERT
 Call at least 2 working days prior to excavating.

REGISTERED PROFESSIONAL ENGINEER
 EDWARD MICHEL PATTON
 No. 46804
 Exp. 6-30-03
 CIVIL
 STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF
 Edward M. Rato 7-18-01
 REGISTERED CIVIL ENGINEER NO. 46804
 EXPIRATION DATE 6-30-03

RICK ENGINEERING COMPANY

San Diego Riverside Orange Phoenix Tucson
 1223 University Ave., Ste. 240 - Riverside, CA 92507-5418 (951) 782-0750 FAX (951) 782-0723 www.rickeng.com
 CITY BUSINESS TAX CERTIFICATE NO. 35225 EXP. DATE 1/20/01

BENCH MARK
 CITY OF RIVERSIDE BENCHMARK EB-A2, ELEVATION=1588.453 P.K. NAIL AND TAG IN TOP OF 35X50X20 FOOT GRANITE BOULDER, 200 FEET WESTERLY OF TRAUTWEIN ROAD AND 500 FEET NORTHERLY OF CASSE LANE.

MOVED FORCE MAIN E'L-Y-REV. PROFILE
 EMR 10/17/01

MARK	REVISIONS	APPR. DATE

DESIGNED BY NEL DRAWN BY NEL CHECKED BY MLA

CITY OF RIVERSIDE
 PUBLIC WORKS DEPARTMENT

APPROVED BY: [Signature]
 PRINCIPAL ENGINEER
 PARK DEPARTMENT

APPROVED BY: [Signature]
 DEPUTY P.W. DIRECTOR
 STREET SERVICES

DATE: 7-31-2001

SEWER IMPROVEMENT PLANS

TRACT NO. 29242
 DAUCHY AVENUE
 20+00.00 TO 30+90.29

PROJECT NO. S-1756
 SHEET 7 OF 20

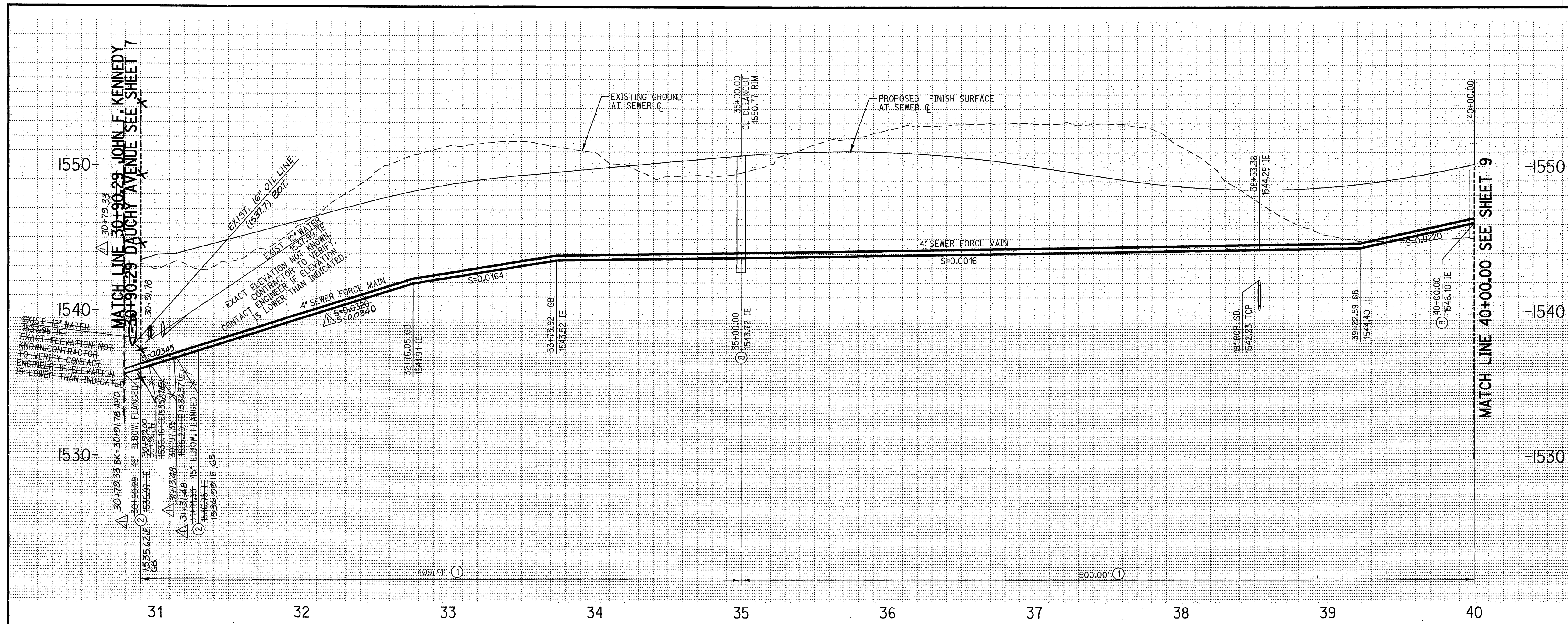
SCALE: HORIZ: 1"=40' VERT: 1"=4'

INDEXED 1-07-02 LHH

PLOT DATE: 10-JUL-2001 JN 13707A

REGISTERED PROFESSIONAL ENGINEER
 MARTIN L. ANDERSON
 No. 51915
 Exp. 6-30-06
 CIVIL
 STATE OF CALIFORNIA

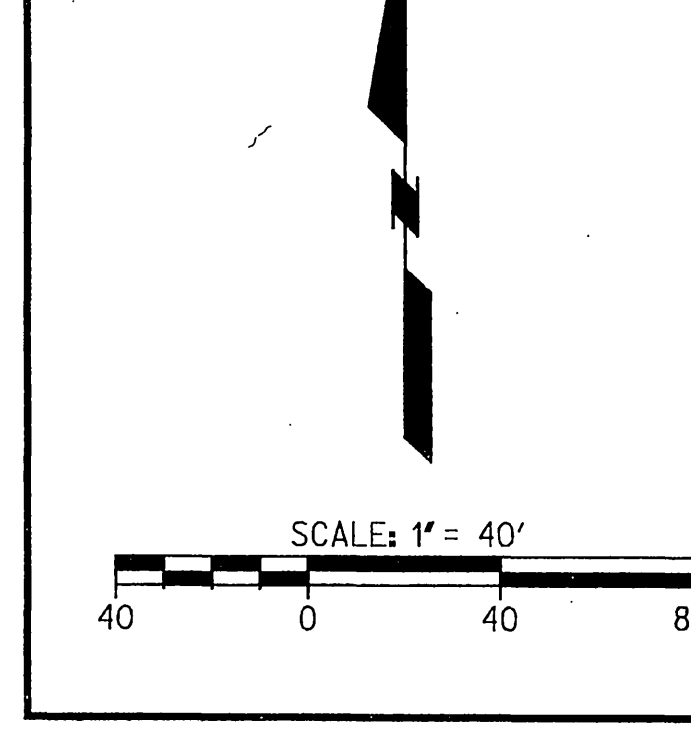
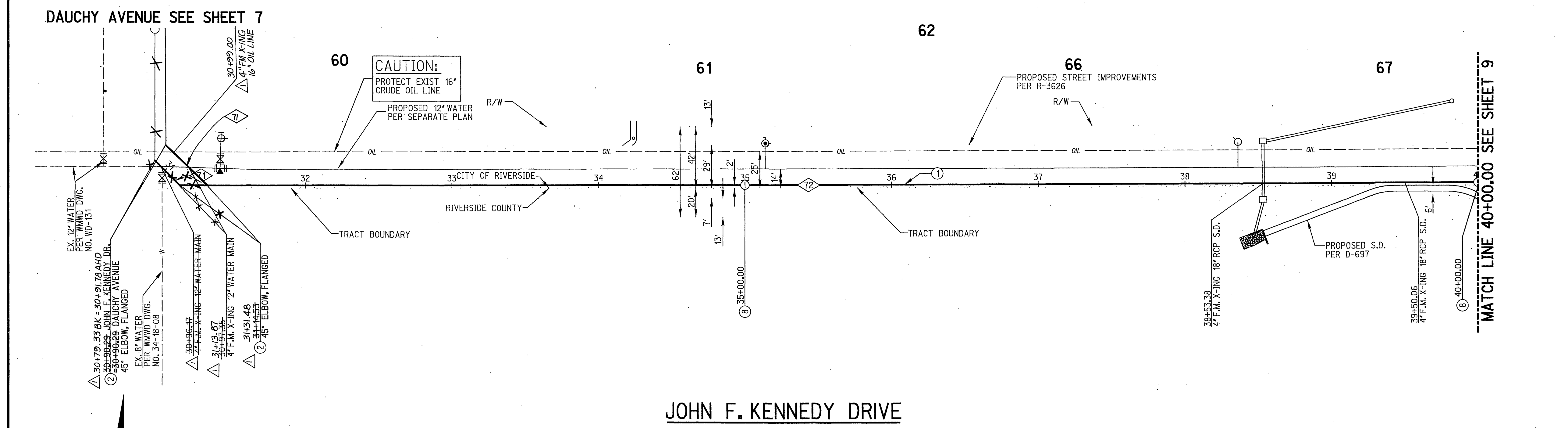
AS-BUILT
 09/22/05



PROFILE SCALE:
 HORIZ: 1"=40'
 VERT: 1"=4'

- CONSTRUCTION NOTES**
- ① INSTALL 4" AWWA C-900 PVC CL 150 FORCE MAIN, PIPE BEDDING PER CITY OF RIVERSIDE STANDARD DRAWING 452 (CASE I).
 - ② INSTALL 4" ELBOW (DEGREE AS NOTED ON PLANS).
 - ③ INSTALL FORCE MAIN CLEANING STATION PER DETAIL 'D' SHEET 1

SEWER DATA				
NO.	DELTA OR BRG.	RADIUS	LENGTH	REMARK
71	N 45° 05' 01" W		24'-24"	39.70'
72	N 89° 49' 45" E		885'-47"	868.52'



CAUTION:
 EXACT LOCATION OF EXISTING UNDERGROUND FACILITIES IS UNKNOWN. CONTRACTOR TO VERIFY IN FIELD.

DIG ALERT
 CALL BEFORE YOU DIG!
 1-800-227-2600
 UNDERGROUND SERVICE ALERT
 Call at least 2 working days prior to excavating.



PREPARED UNDER THE DIRECTION OF
 Edward M. Razican 7-18-01
 REGISTERED CIVIL ENGINEER NO. 46804
 EXPIRATION DATE 6-30-03

RICK ENGINEERING COMPANY
 San Diego Riverside Orange Phoenix Tucson
 1223 University Ave., Ste. 240 - Riverside, CA 92507-3418 • (951) 782-0707 • FAX (951) 782-0723 • www.rickeng.com
 CITY BUSINESS TAX CERTIFICATE NO. 35225 EXP. DATE 1/20/01

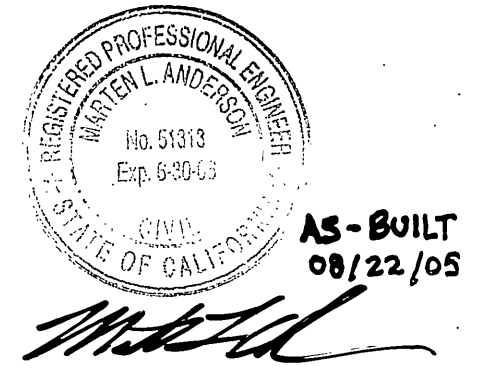
MARK	REVISIONS	APPR	DATE
	REVISED STATIONING & LOCATION AT INT. EMR 10/17/01		

CITY OF RIVERSIDE
 PUBLIC WORKS DEPARTMENT

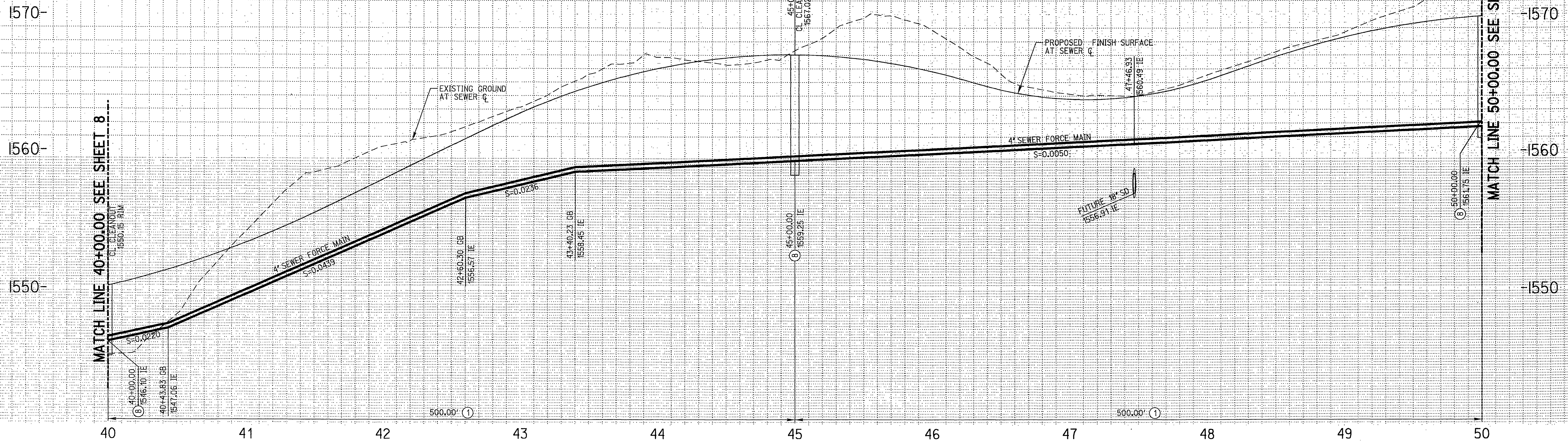
APPROVED BY: [Signature]
 DATE: 7-31-01

SEWER IMPROVEMENT PLANS
 TRACT NO. 29242
 JOHN F. KENNEDY DRIVE
 30+90.29 TO 40+00.00

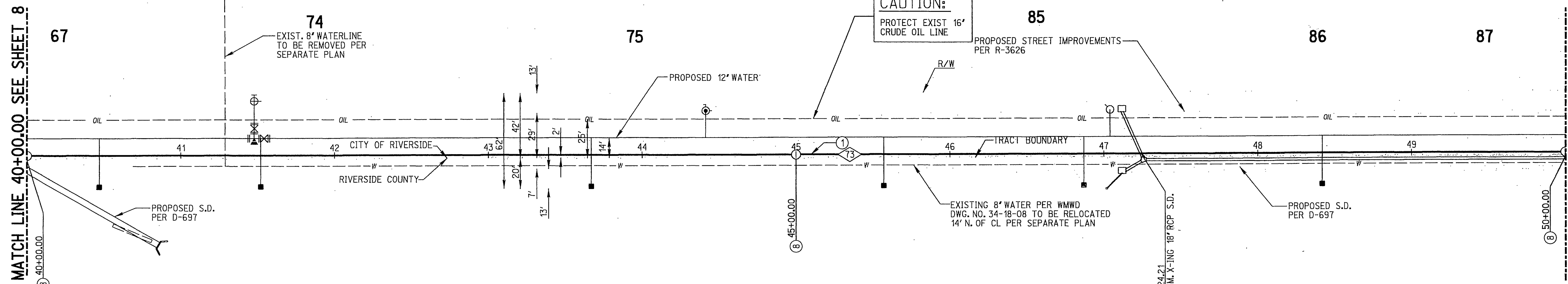
PROJECT NO. S-1756
 SHEET 8 OF 20
 FILE NO.



AS-BUILT
 08/22/05



PROFILE SCALE:
 HORIZ: 1"=40'
 VERT: 1"=4'



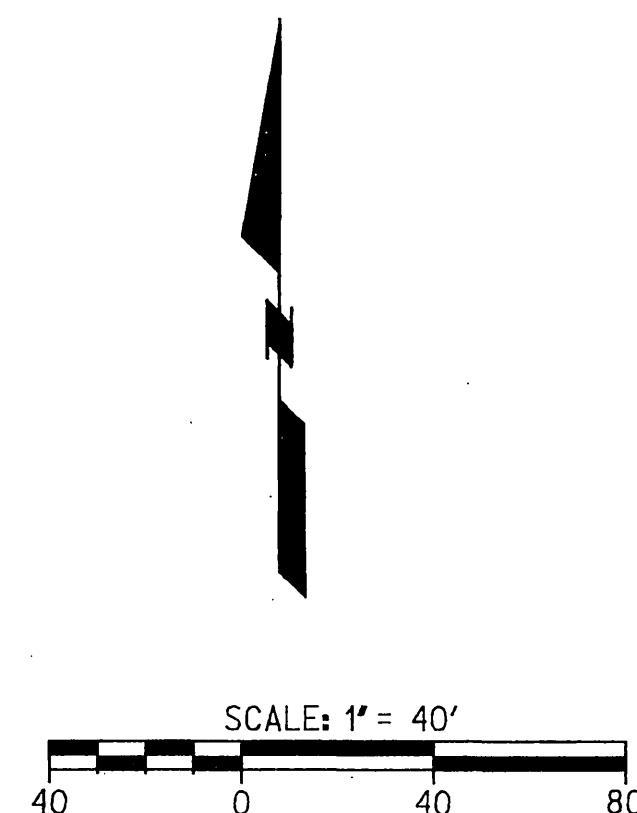
CONSTRUCTION NOTES

- ① INSTALL 4" AWWA C-900 PVC CL 150 FORCE MAIN PIPE BEDDING PER CITY OF RIVERSIDE STANDARD DRAWING 452 (CASE II).
- ② INSTALL FORCE MAIN CLEANING STATION PER DETAIL "D" SHEET I.

SEWER DATA

NO.	DELTA OR BRG.	RADIUS	LENGTH	REMARK
①	N 89° 49' 45" E		1000.00'	

JOHN F. KENNEDY DRIVE



CAUTION:
 EXACT LOCATION OF EXISTING UNDERGROUND FACILITIES IS UNKNOWN. CONTRACTOR TO VERIFY IN FIELD.

DIG ALERT
 CALL BEFORE YOU DIG!
 1-800-227-2600
 UNDERGROUND SERVICE ALERT
 Call at least 2 working days prior to excavating.

REGISTERED PROFESSIONAL ENGINEER
 EDWARD MICHEL RATICAN
 No. 46804
 Exp. 6-30-03
 CIVIL
 STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF
 Edde M. Katz 7-18-01
 REGISTERED CIVIL ENGINEER NO. 46804
 EXPIRATION DATE 6-30-03

RICK ENGINEERING COMPANY
 San Diego Riverside Orange Phoenix Tucson
 1223 University Ave., Ste. 240 • Riverside, CA 92507-3418 • (951) 782-0757 • FAX (951) 782-0721 • www.rickeng.com
 CITY BUSINESS TAX CERTIFICATE NO. 35225 EXP. DATE 7/20/01

MARK	REVISIONS	APPR	DATE

DESIGNED BY NEL DRAWN BY NEL CHECKED BY MLA

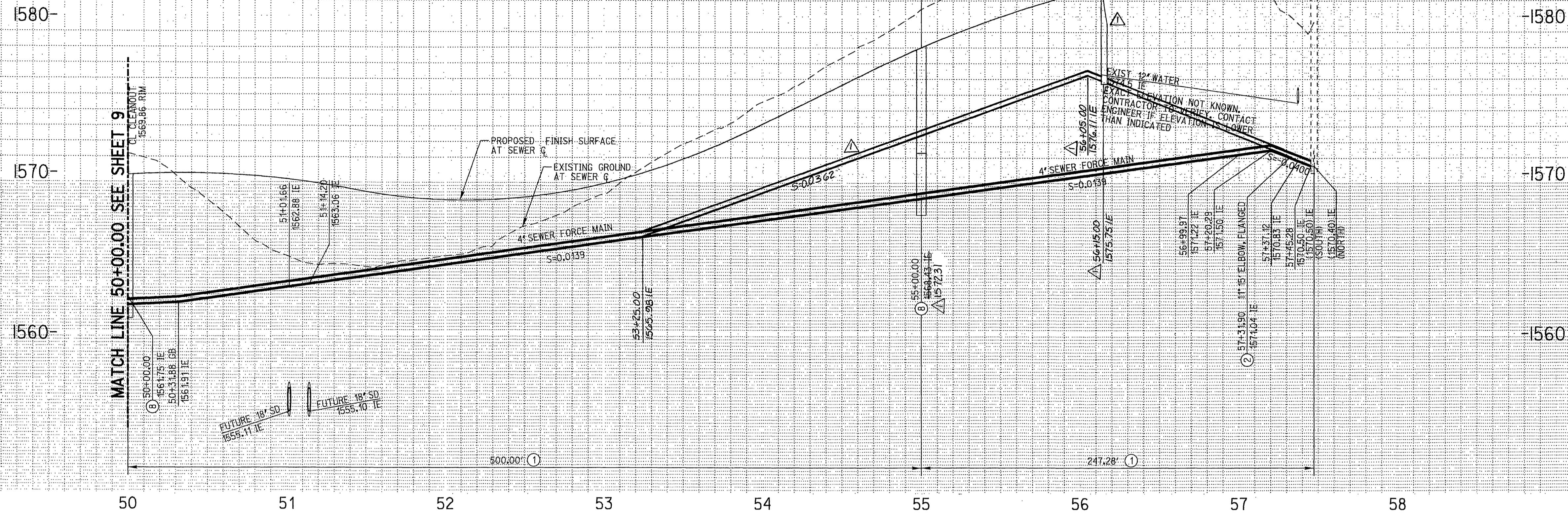
CITY OF RIVERSIDE
 PUBLIC WORKS DEPARTMENT

APPROVED BY: R. M. Smith
 DATE: 7-31-2001
 DIRECTOR OF PUBLIC WORKS

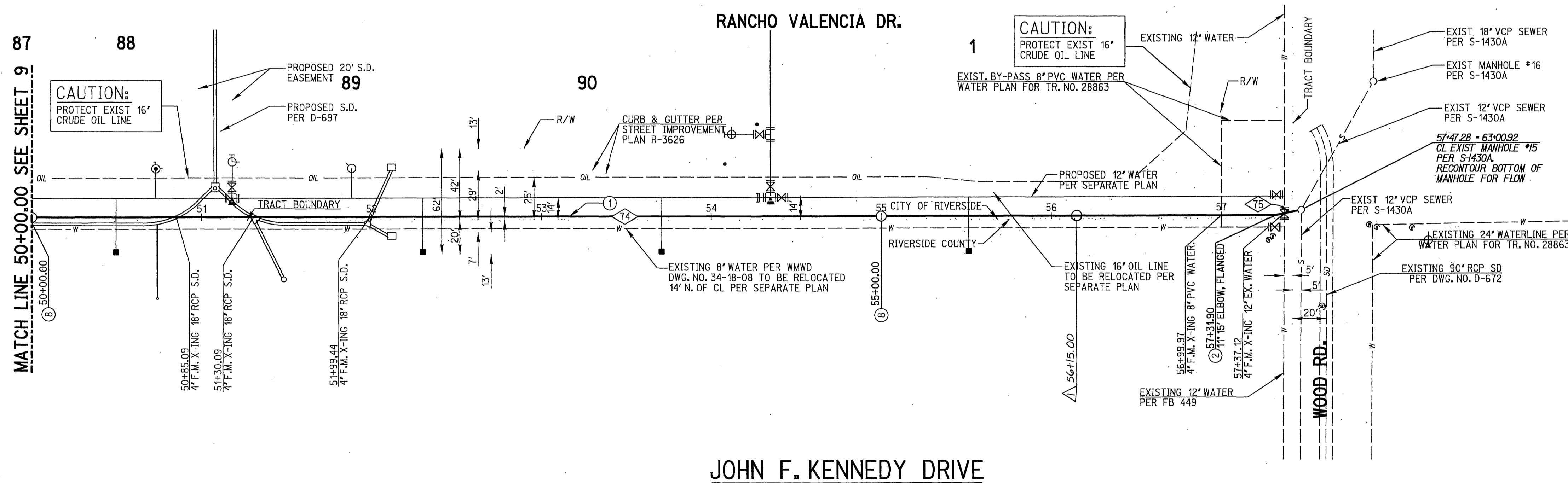
SEWER IMPROVEMENT PLANS
 TRACT NO. 29242
 JOHN F. KENNEDY DRIVE
 40+00.00 TO 50+00.00

PROJECT NO. S-1756
 SHEET 9 OF 20
 FILE NO.

REGISTERED PROFESSIONAL ENGINEER
 ANDREW L. ANDERSON
 No. 51313
 Exp. 6-30-06
 CIVIL
 STATE OF CALIFORNIA
 A5-BUILT
 08/12/05

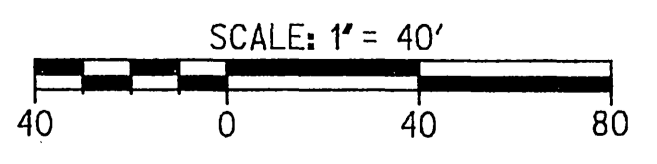


PROFILE SCALE:
 HORIZ: 1"=40'
 VERT: 1"=4'



- CONSTRUCTION NOTES**
- ① INSTALL 4" AWWA C-900 PVC CL 150 FORCE MAIN, PIPE BEDDING PER CITY OF RIVERSIDE STANDARD DRAWING 452 (CASE D).
 - ② INSTALL 4" ELBOW (DEGREE AS) NOTED ON PLANS.
 - ③ INSTALL FORCE MAIN CLEANING STATION PER DETAIL 'D' SHEET 1

SEWER DATA				
NO.	DELTA OR BRG.	RADIUS	LENGTH	REMARK
④	N 89° 49' 45" E		731.90'	
⑤	N 78° 34' 45" E		15.38'	

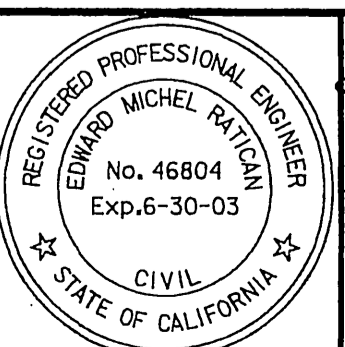


CAUTION:
 EXACT LOCATION OF EXISTING UNDERGROUND FACILITIES IS UNKNOWN. CONTRACTOR TO VERIFY IN FIELD.

DIG ALERT

CALL BEFORE YOU DIG!

1-800-227-2600
 UNDERGROUND SERVICE ALERT
 Call at least 2 working days prior to excavating.



PREPARED UNDER THE DIRECTION OF
 Edward M. Retigan
 REGISTERED CIVIL ENGINEER NO. 46804
 EXPIRATION DATE 6-30-03

RICK ENGINEERING COMPANY

San Diego Riverside Orange Phoenix Tucson
 1223 University Ave., Ste. 240 - Riverside, CA 92507-3418 - (951) 782-0707 - FAX (951) 782-0723 - www.rickeng.com
 CITY BUSINESS TAX CERTIFICATE NO. 35225 EXP. DATE 7/20/01

NO.	REVISIONS	APPR.	DATE
1	REVISE STATIONING & DEPTH EIMR 10/17/01		10/17/01

CITY OF RIVERSIDE
 PUBLIC WORKS DEPARTMENT

APPROVED BY: [Signature]
 DATE: 7-31-2001

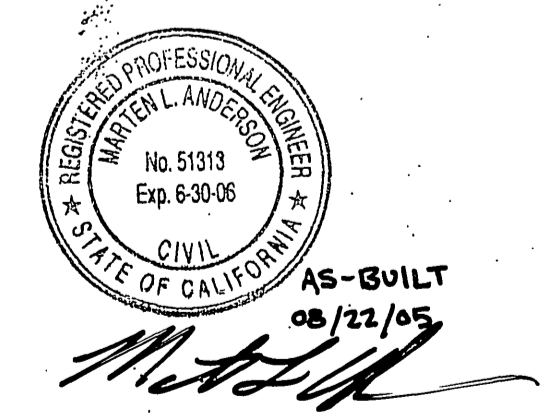
SEWER IMPROVEMENT PLANS

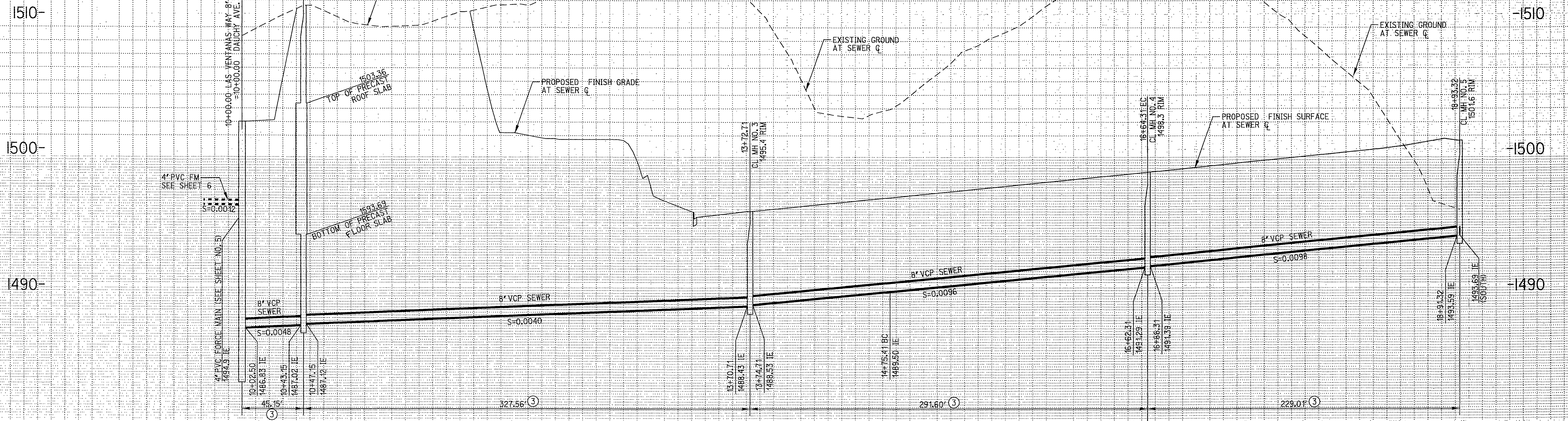
TRACT NO. 29242
 JOHN F. KENNEDY DRIVE
 50+00.00 TO 57+47.28

PROJECT NO. S-1756
 SHEET 10 OF 20

SCALE: HORIZ: 1"=40' VERT: 1"=4'

INDEXED 1-07-02 Lft

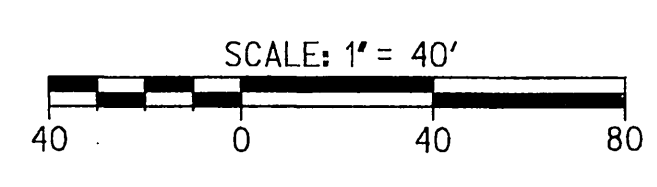
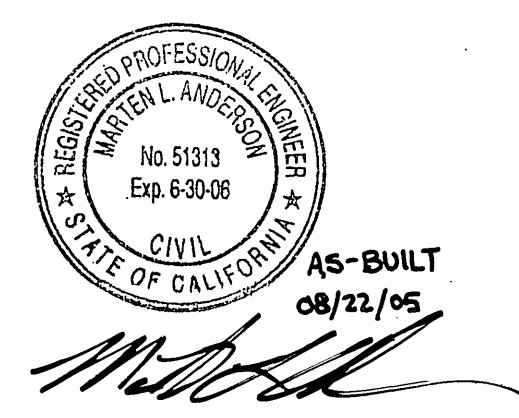
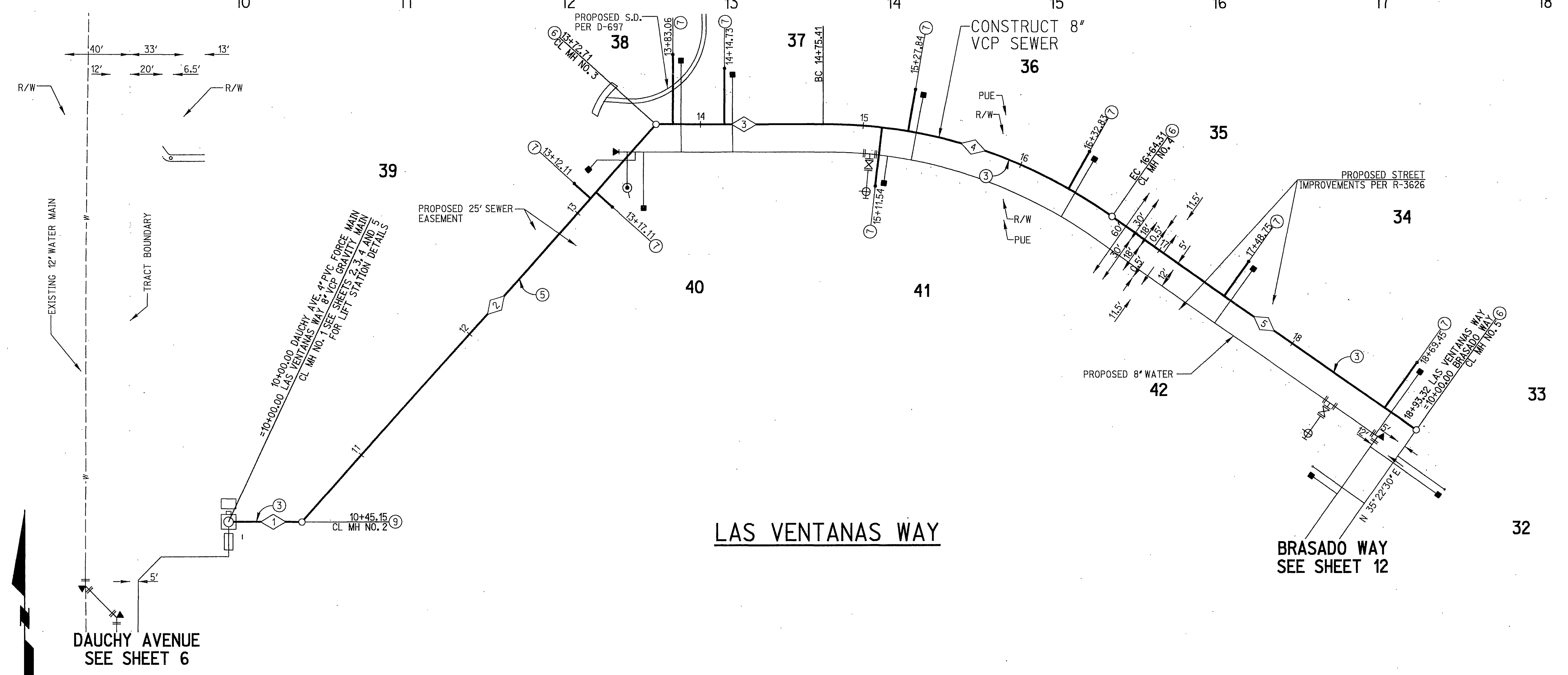




PROFILE SCALE:
 HORIZ: 1"=40'
 VERT: 1"=4'

SEWER DATA				
NO.	DELTA OR BRG.	RADIUS	LENGTH	TANGENT
1	N 89°59'50" W		45.15'	
2	N 41°40'06" E		327.56'	
3	N 89°53'18" E		102.70'	
4	35°29'12" W	305.00'	188.90'	97.59'
5	N 54°37'30" W		229.01'	

- CONSTRUCTION NOTES**
- ③ CONSTRUCT 8" V.C.P. SEWER LINE, PIPE BEDDING PER CITY OF RIVERSIDE STD. DWG. 452 (CASE 1)
 - ⑥ INSTALL SEWER MANHOLE PER CITY OF RIVERSIDE STD. DWG. 500
 - ⑦ INSTALL 4" SEWER LATERAL WITH PROPERTY LINE CLEANOUT PER CITY OF RIVERSIDE STD. DWG. NO. 562A.
 - ⑧ INSTALL DEEP SEWER MANHOLE WITH MANHOLE SHAFT SAFETY LEDGE PER A.P.W.A. STANDARD PLAN 330-0 MODIFIED ON SHT. 20

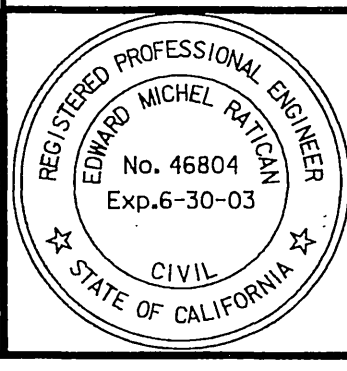


CAUTION:
 EXACT LOCATION OF EXISTING UNDERGROUND FACILITIES IS UNKNOWN. CONTRACTOR TO VERIFY IN FIELD.

DIG ALERT

CALL BEFORE YOU DIG!

1-800-227-2600
 UNDERGROUND SERVICE ALERT
 Call at least 2 working days prior to excavating.



PREPARED UNDER THE DIRECTION OF
 Edward M. Ratcan 7-18-01
 REGISTERED CIVIL ENGINEER NO. 46804
 EXPIRATION DATE 6-30-03

RICK ENGINEERING COMPANY

San Diego Riverside Orange Phoenix Tucson
 1225 University Ave., Ste. 340 • Riverside, CA 92507-3418 • (951)742-0700 • FAX (951)742-0723 • www.rickeng.com
 CITY BUSINESS TAX CERTIFICATE NO. 35225 EXP. DATE 7/20/01

BENCH MARK
 CITY OF RIVERSIDE BENCHMARK E8-A2, ELEVATION=1508.453' P.K. NAIL AND TAG IN TOP OF 35X50X20 FOOT GRANITE BOULDER, 100 FEET WESTERLY OF TRAUTWEIN ROAD AND 500 FEET NORTHERLY OF JESSE LANE.

MARK	REVISIONS	APPR	DATE

DESIGNED BY NEL DRAWN BY NEL CHECKED BY MLA

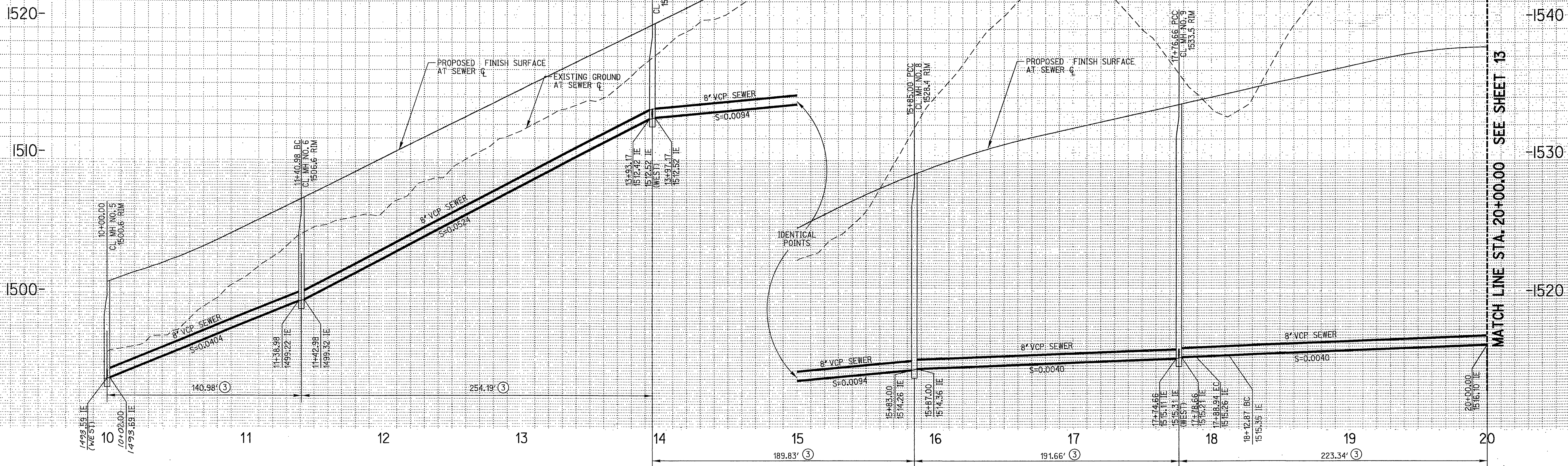
CITY OF RIVERSIDE
 PUBLIC WORKS DEPARTMENT

APPROVED BY: [Signature] DATE: 7-31-2001
 PRINCIPAL ENGINEER
 TRAFFIC DIVISION
 DEPUTY P.M. DIRECTOR
 STREET SERVICES

SEWER IMPROVEMENT PLANS

TRACT NO. 29242
 LAS VENTANAS WAY
 10+00.00 TO 18+93.32

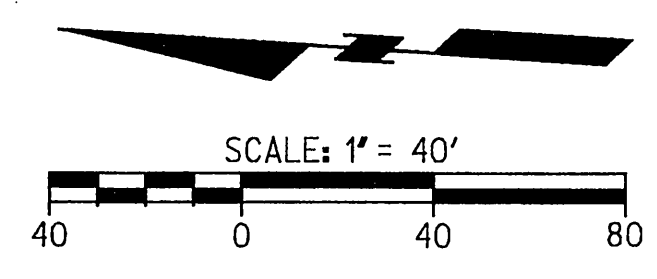
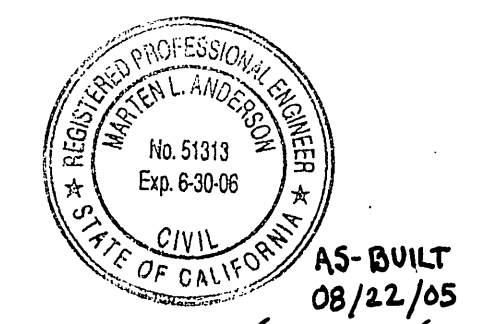
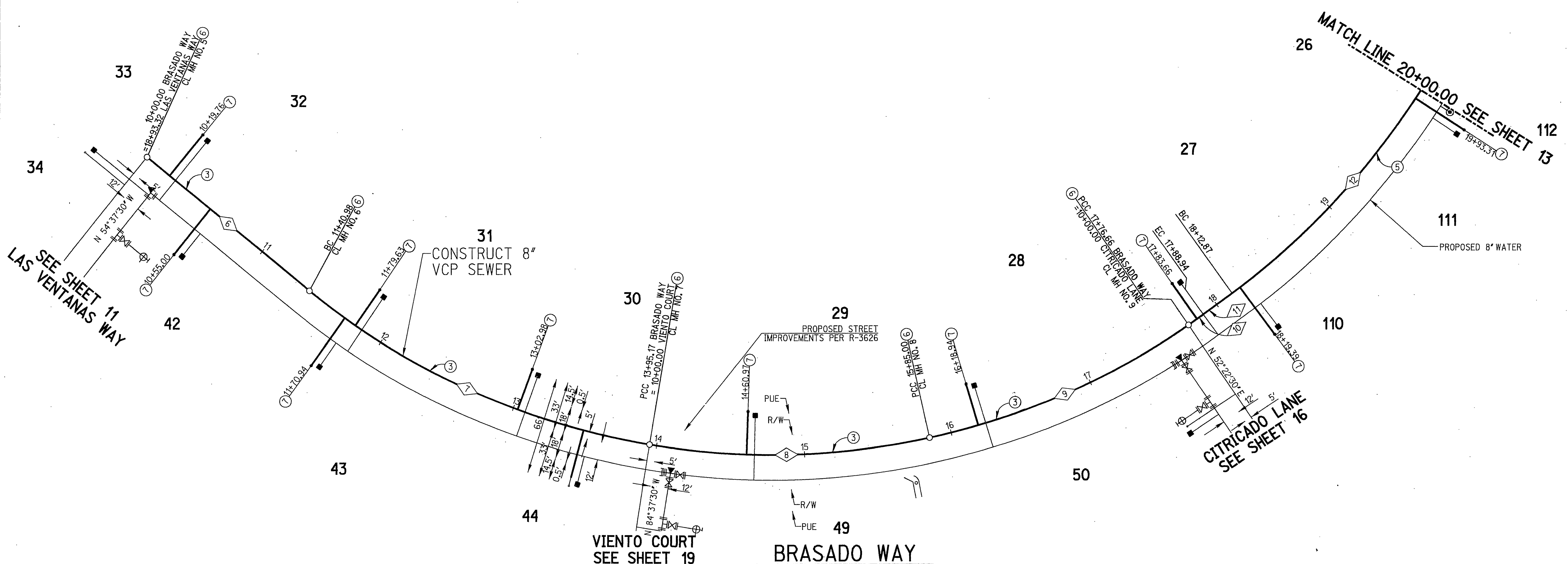
PROJECT NO. S-1756
 SHEET 11 OF 20
 SCALE HORIZ: 1"=40' VERT: 1"=4'



PROFILE SCALE:
 HORIZ: 1"=40'
 VERT: 1"=4'

SEWER DATA			
NO.	DELTA OR BRG.	RADIUS	TANGENT
1	N 35°22'30" E		140.98'
2	29°25'17"	495.00'	254.19' 129.96'
3	21°58'24"	495.00'	189.83' 96.10'
4	22°11'04"	495.00'	191.66' 97.04'
5	1°25'18"	495.00'	12.28' 6.14'
6	N 39°37'31" W		23.93'
7	21°39'35"	495.00'	187.13' 94.69'

- CONSTRUCTION NOTES**
- ③ CONSTRUCT 8" V.C.P. SEWERLINE. PIPE BEDDING PER CITY OF RIVERSIDE STD. DWG. 452 (CASE 1)
 - ⑥ INSTALL SEWER MANHOLE PER CITY OF RIVERSIDE STD. DWG. 500
 - ⑦ INSTALL 4" SEWER LATERAL WITH PROPERTY LINE CLEANOUT PER CITY OF RIVERSIDE STD. DWG. NO. 562A.



CAUTION:
 EXACT LOCATION OF EXISTING UNDERGROUND FACILITIES IS UNKNOWN. CONTRACTOR TO VERIFY IN FIELD.

DIG ALERT
 CALL BEFORE YOU DIG!
 1-800-227-2600
 UNDERGROUND SERVICE ALERT
 Call at least 2 working days prior to excavating.

REGISTERED PROFESSIONAL ENGINEER
 EDWARD MICHEL RATICAN
 No. 46804
 Exp. 6-30-03
 CIVIL
 STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF
 Edna M. Katz 7-18-01
 EDWARD M. RATICAN
 REGISTERED CIVIL ENGINEER NO. 46804
 EXPIRATION DATE 6-30-03

RICK ENGINEERING COMPANY
 San Diego Riverside Orange Phoenix Tucson
 1223 University Ave., Ste. 241 • Riverside, CA 92507-3418 • (951)922-0707 • FAX (951)922-0723 • www.rickeng.com
 CITY BUSINESS TAX CERTIFICATE NO. 35225 EXP. DATE 7/20/01

MARK	REVISIONS	APPR	DATE

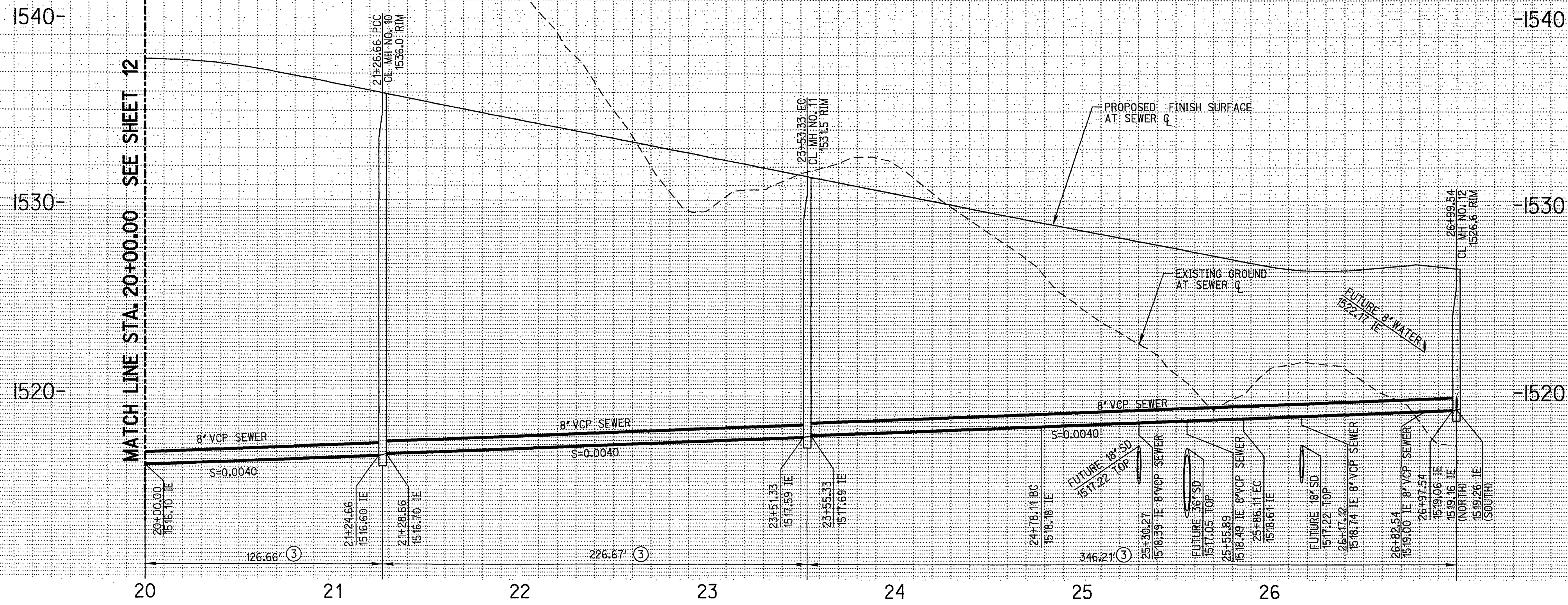
CITY OF RIVERSIDE
 PUBLIC WORKS DEPARTMENT

APPROVED BY: *R. Mc Smith*
 PRINCIPAL ENGINEER
 DATE: 7/31/2001

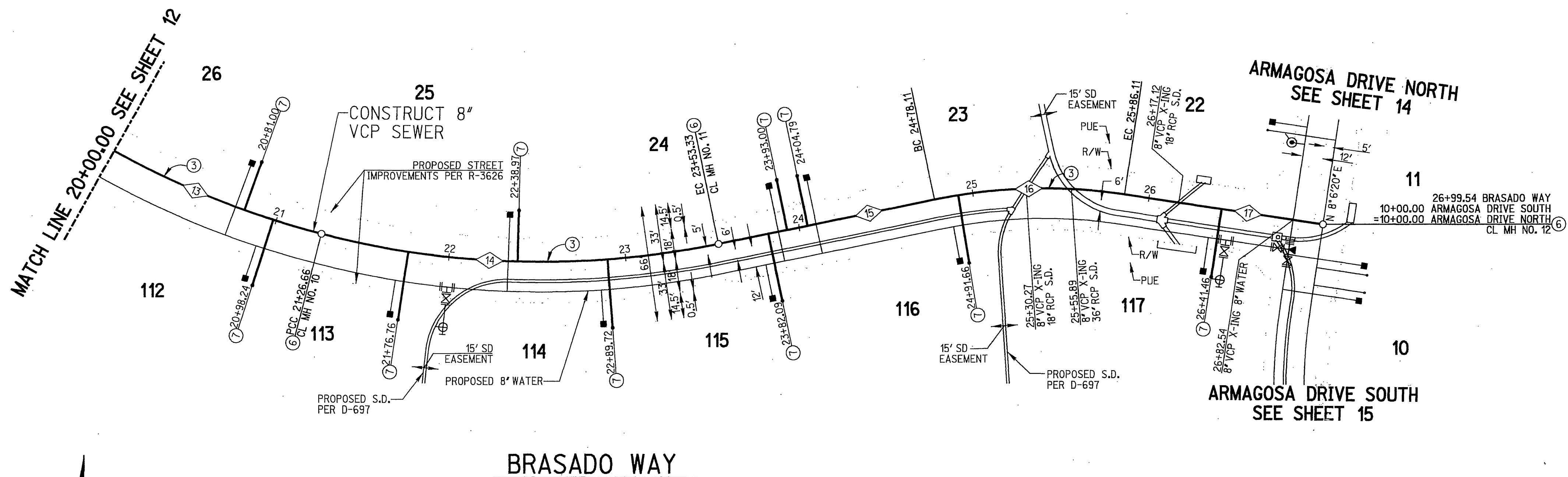
SEWER IMPROVEMENT PLANS

TRACT NO. 29242
 BRASADO WAY
 10+00.00 TO 20+00.00

PROJECT NO. S-1756
 SHEET 12 OF 20
 FILE NO.



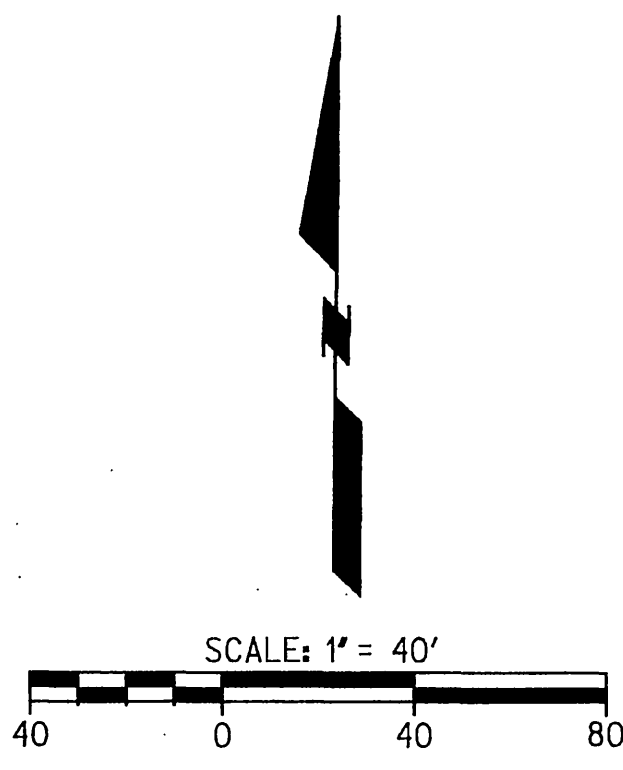
PROFILE SCALE:
 HORIZ: 1"=40'
 VERT: 1"=4'



SEWER DATA				
NO.	DELTA OR BRG.	RADIUS	LENGTH	TANGENT
13	14°39'39"	495.00'	126.66'	63.68'
14	26°14'12"	495.00'	226.67'	115.36'
15	N 77°49'03" E		124.78'	
16	20°17'17"	305.00'	108.00'	54.57'
17	N 81°53'40" W		113.43'	

CONSTRUCTION NOTES

- ③ CONSTRUCT 8" V.C.P. SEWERLINE. PIPE BEDDING PER CITY OF RIVERSIDE STD. DWG. 452 (CASE 1)
- ⑥ INSTALL SEWER MANHOLE PER CITY OF RIVERSIDE STD. DWG. 500
- ⑦ INSTALL 4" SEWER LATERAL WITH PROPERTY LINE CLEANOUT PER CITY OF RIVERSIDE STD. DWG. NO. 562A.



CAUTION:
 EXACT LOCATION OF EXISTING UNDERGROUND FACILITIES IS UNKNOWN. CONTRACTOR TO VERIFY IN FIELD.

DIG ALERT

CALL BEFORE YOU DIG!

1-800-227-2600
 UNDERGROUND SERVICE ALERT
 Call at least 2 working days prior to excavating.

REGISTERED PROFESSIONAL ENGINEER
 EDUARDO MICHEL RIVERA
 No. 46804
 Exp. 6-30-03
 CIVIL
 STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF
 EDUARDO MICHEL RIVERA 6/19/04
 REGISTERED CIVIL ENGINEER NO. 46804
 EXPIRATION DATE 6-30-03

RICK ENGINEERING COMPANY

San Diego Riverside Orange Phoenix Tucson
 1223 University Ave., Ste. 240 • Riverside, CA 92507-3418 • (951) 922-0707 • FAX (951) 922-0723 • www.rickeng.com

CITY BUSINESS TAX CERTIFICATE NO. 35225 EXP. DATE 7/20/01

BENCH MARK
 CITY OF RIVERSIDE BENCHMARK EB-A2, ELEVATION=1588.453' P.K. NAIL AND TAG IN TOP OF 35X50X20 FOOT GRANITE BOULDER, 100 FEET WESTERLY OF TRAUTWEIN ROAD AND 500 FEET NORTHERLY OF JESSE LANE.

MARK	REVISIONS	APPR	DATE

DESIGNED BY NEL DRAWN BY NEL CHECKED BY M.L.A.

CITY OF RIVERSIDE
 PUBLIC WORKS DEPARTMENT

APPROVED BY [Signature] DATE 7-31-001
 PRINCIPAL ENGINEER
 TRAFFIC DIVISION
 DEPUTY P.W. DIRECTOR
 STREET SERVICES

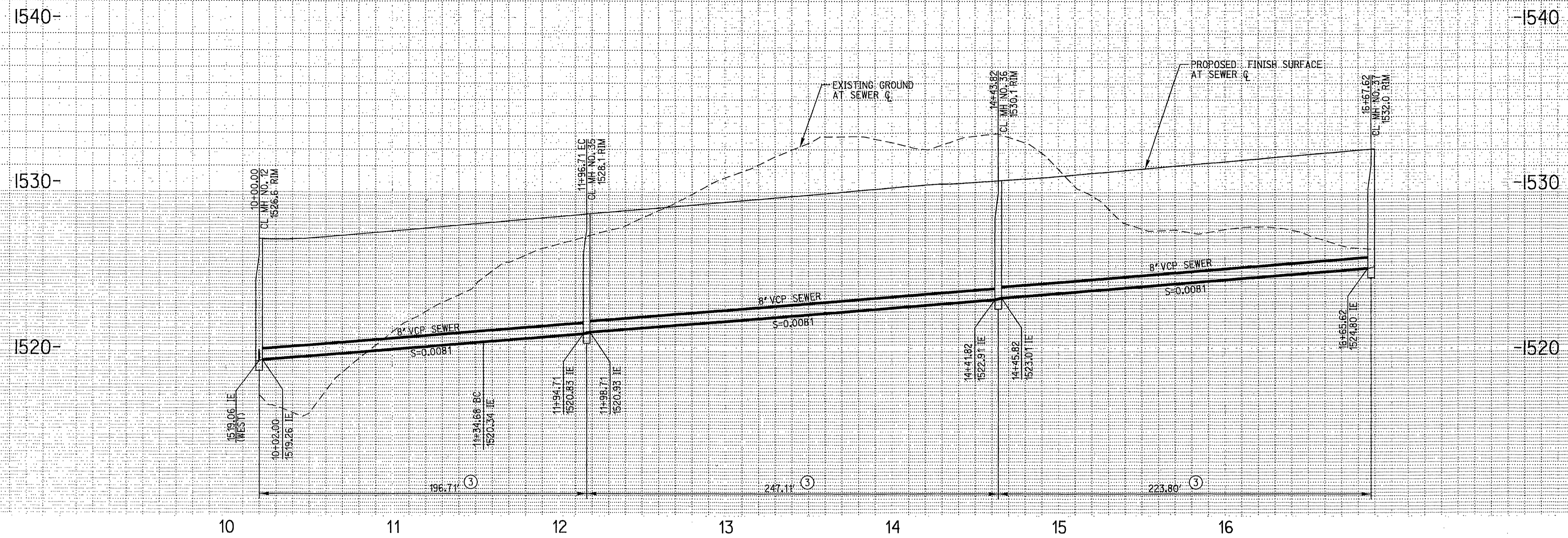
SEWER IMPROVEMENT PLANS

TRACT NO. 29242
 BRASADO WAY
 20+00.00 TO 26+99.54

SCALE
 HORIZ: 1"=40' VERT: 1"=4'

PROJECT NO. S-1756
 SHEET 13 OF 20
 FILE NO.

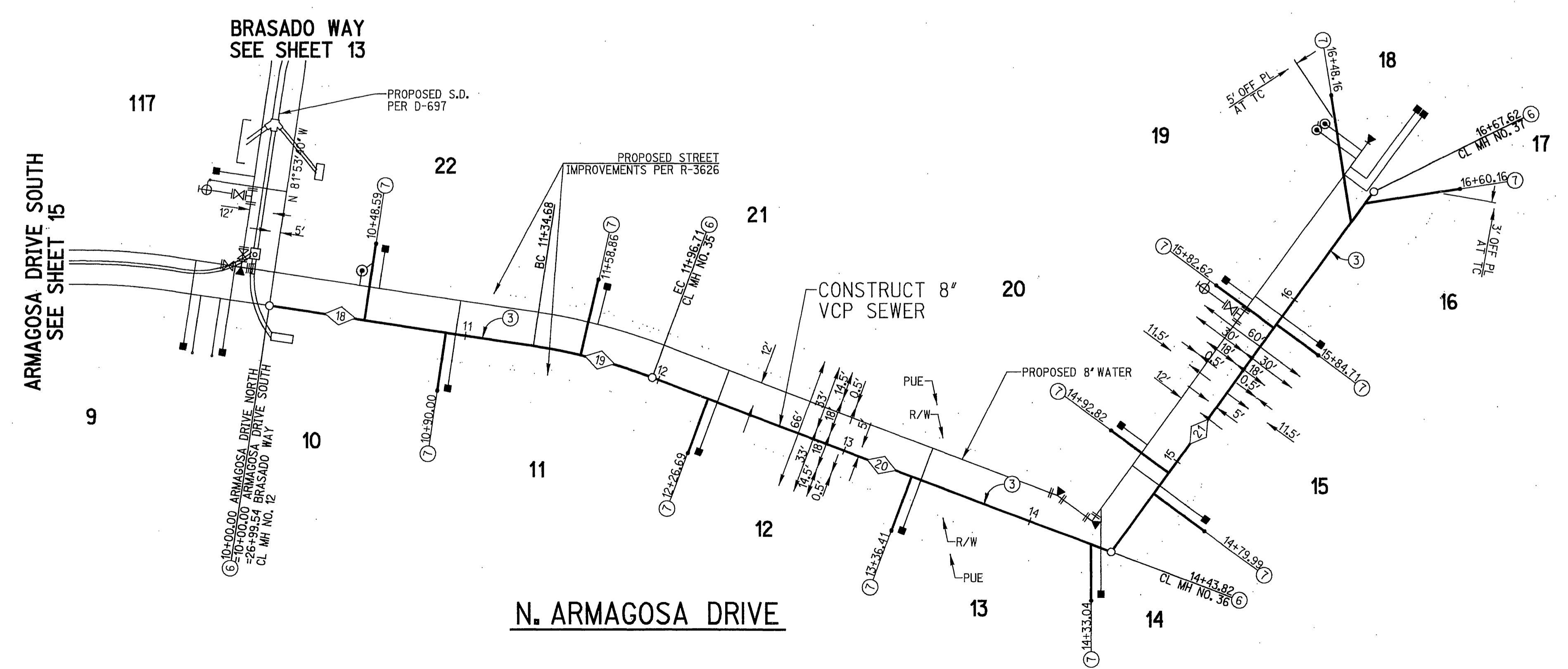
REGISTERED PROFESSIONAL ENGINEER
 MARTIN L. ANDERSON
 No. 51319
 Exp. 8-30-06
 CIVIL
 STATE OF CALIFORNIA
 AS-BUILT
 08/23/05



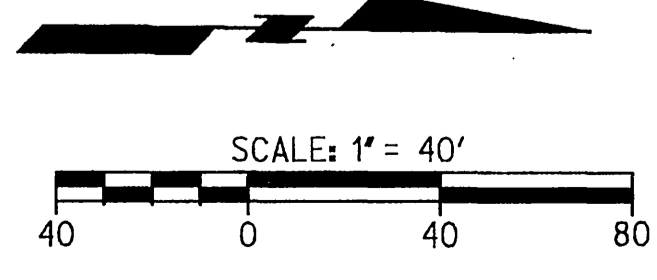
PROFILE SCALE:
 HORIZ: 1"=40'
 VERT: 1"=4'

SEWER DATA				
NO.	DELTA OR BRG.	RADIUS	LENGTH	TANGENT
18	N 8°06'20" E		134.68'	
19	12°02'48"	295.00'	62.03'	31.13'
20	N 20°09'08" E		247.11'	
21	N 54°12'30" W		223.80'	

- CONSTRUCTION NOTES**
- ③ CONSTRUCT 8" V.C.P. SEWERLINE, PIPE BEDDING PER CITY OF RIVERSIDE STD. DWG. 452 (CASE 1)
 - ⑥ INSTALL SEWER MANHOLE PER CITY OF RIVERSIDE STD. DWG. 500
 - ⑦ INSTALL 4" SEWER LATERAL WITH PROPERTY LINE CLEANOUT PER CITY OF RIVERSIDE STD. DWG. NO. 562A.



REGISTERED PROFESSIONAL ENGINEER
 MICHAEL ANDERSON
 No. 51313
 Exp. 6-30-08
 CIVIL
 STATE OF CALIFORNIA
 AS-BUILT
 08/22/06



CAUTION:
 EXACT LOCATION OF EXISTING UNDERGROUND FACILITIES IS UNKNOWN. CONTRACTOR TO VERIFY IN FIELD.

DIG ALERT
 CALL BEFORE YOU DIG!
 1-800-227-2600
 UNDERGROUND SERVICE ALERT
 Call at least 2 working days prior to excavating.

REGISTERED PROFESSIONAL ENGINEER
 EDWARD MICHAEL RAJICAN
 No. 46804
 Exp. 6-30-03
 CIVIL
 STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF
 EDWARD M. RAJICAN
 REGISTERED CIVIL ENGINEER NO. 46804
 EXPIRATION DATE 6-30-03

RIK ENGINEERING COMPANY
 1222 University Ave., Ste. 340 • Riverside, CA 92507-3418 • (951) 922-0707 • FAX (951) 922-0723 • www.rickeng.com
 CITY BUSINESS TAX CERTIFICATE NO. 35225 EXP. DATE 7/20/01
 BENCH MARK
 CITY OF RIVERSIDE BENCHMARK E8-A2, ELEVATION=1588.453' P.K. NAIL AND TAG IN TOP OF 35X30X20 FOOT GRANITE BOULDER, 100 FEET WESTERLY OF TRAUTWEIN ROAD AND 500 FEET NORTHERLY OF JESSE LANE.

MARK	REVISIONS	APPR	DATE

DESIGNED BY NEL DRAWN BY NEL CHECKED BY MLA

CITY OF RIVERSIDE
 PUBLIC WORKS DEPARTMENT

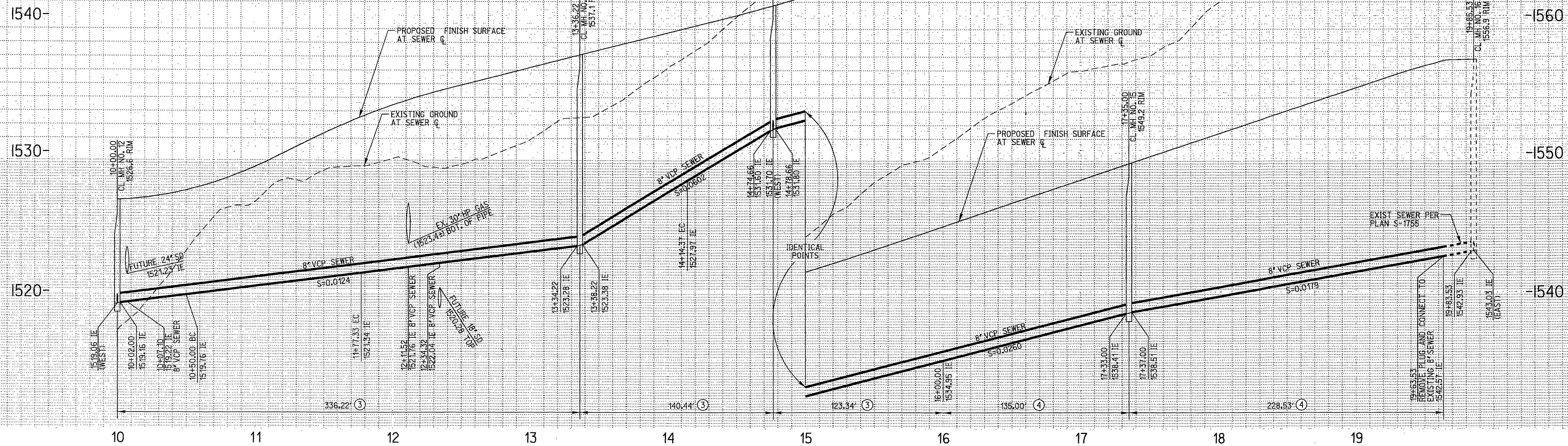
APPROVED BY	BY	DATE
PRINCIPAL ENGINEER		
TRAFFIC DIVISION		
DEPUTY P.A. DIRECTOR		
STREET SERVICES		

APPROVED BY
 R. Mc Smith
 DIRECTOR OF PUBLIC WORKS
 DATE 7-31-2001

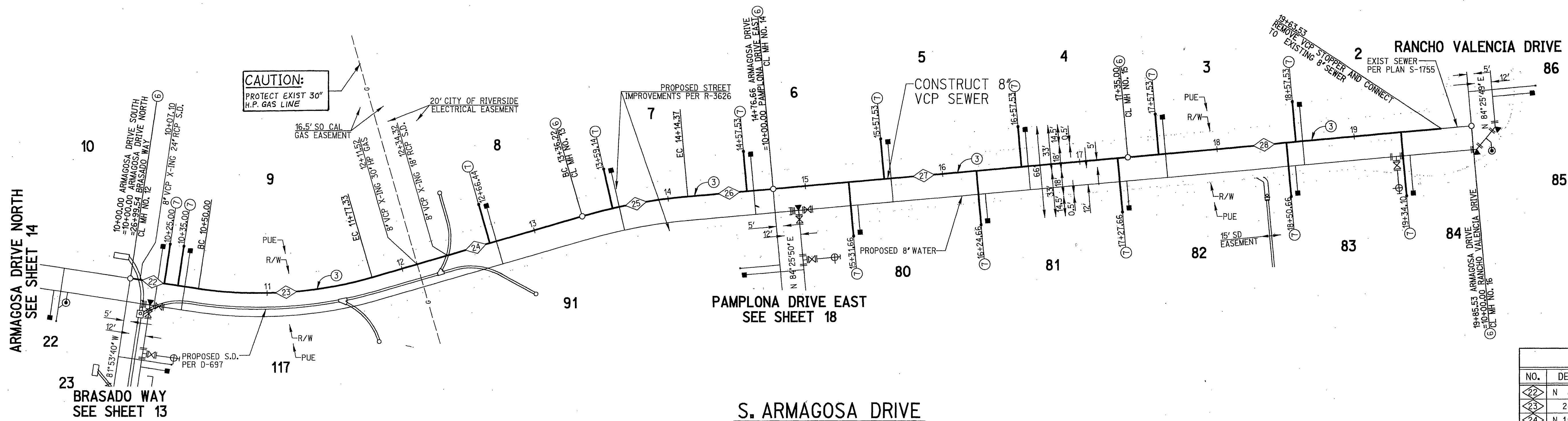
SEWER IMPROVEMENT PLANS
 TRACT NO. 29242
 ARMAGOSA DRIVE
 10+00.00 TO 16+67.62

PROJECT NO. S-1756
 SHEET 14 OF 20
 FILE NO.

SCALE
 HORIZ: 1"=40' VERT: 1"=4'



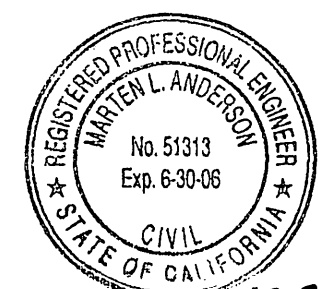
PROFILE SCALE:
 HORIZ: 1"=40'
 VERT: 1"=4'



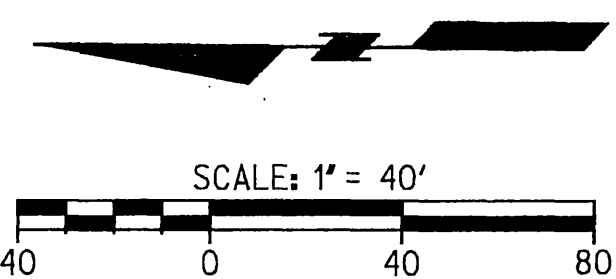
SEWER DATA				
NO.	DELTA OR BRG.	RADIUS	LENGTH	TANGENT
22	N 8°06'20" E		50.00'	
23	24°43'50"	295.00'	127.33'	64.67'
24	N 16°37'30" W		158.89'	
25	11°03'20"	405.00'	78.15'	39.20'
26	N 5°34'10" W		62.29'	
27	N 5°34'10" W		258.34'	
28	N 5°34'10" W		228.53'	

CONSTRUCTION NOTES

- ③ CONSTRUCT 8" V.C.P. SEWER LINE, PIPE BEDDING PER CITY OF RIVERSIDE STD. DWG. 452 (CASE 1)
- ④ CONSTRUCT 8" V.C.P. SEWERLINE, PIPE BEDDING PER CITY OF RIVERSIDE STD. DWG. 452 (CASE 3)
- ⑥ INSTALL SEWER MANHOLE PER CITY OF RIVERSIDE STD. DWG. 500
- ⑦ INSTALL 4" SEWER LATERAL WITH PROPERTY LINE CLEANOUT PER CITY OF RIVERSIDE STD. DWG. NO. 562A.



AS-BUILT
08/22/05

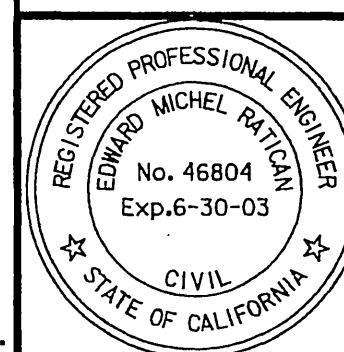


CAUTION:
 EXACT LOCATION OF EXISTING UNDERGROUND FACILITIES IS UNKNOWN. CONTRACTOR TO VERIFY IN FIELD.

DIG ALERT



1-800-227-2600
 UNDERGROUND SERVICE ALERT
 Call at least 2 working days prior to excavating.



PREPARED UNDER THE DIRECTION OF
 Edward Michel Ratzman
 REGISTERED CIVIL ENGINEER NO. 46804
 EXPIRATION DATE 6-30-03

RICK ENGINEERING COMPANY
 San Diego Riverside Orange Phoenix Tucson
 1223 University Ave., Ste. 240 • Riverside, CA 92507-3418 • (951) 982-0707 • FAX (951) 982-0723 • www.rickeng.com
 CITY BUSINESS TAX CERTIFICATE NO. 35225 EXP. DATE 7/20/01

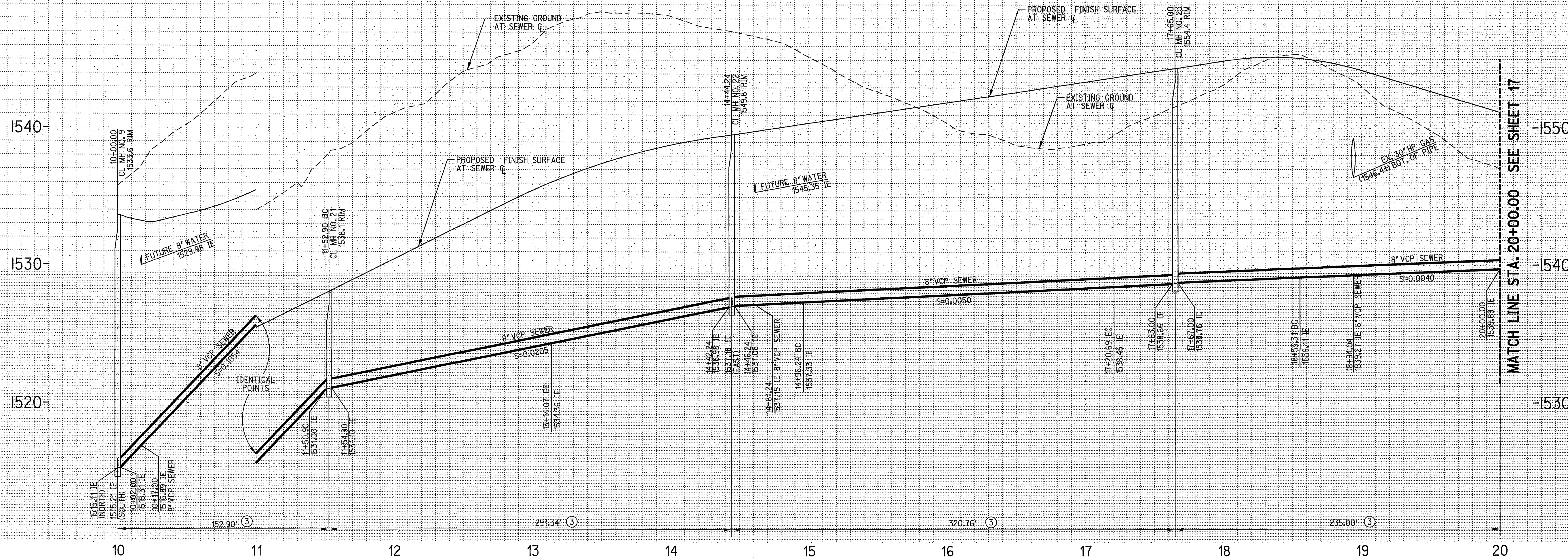
CITY OF RIVERSIDE
 PUBLIC WORKS DEPARTMENT

APPROVED BY	BY	DATE
PRINCIPAL ENGINEER		
PARK DEPARTMENT		
TRAFFIC DIVISION		
DEPUTY P.W. DIRECTOR		
STREET SERVICES		

APPROVED BY: R. McBrat
 DIRECTOR OF PUBLIC WORKS
 DATE: 7-31-2001

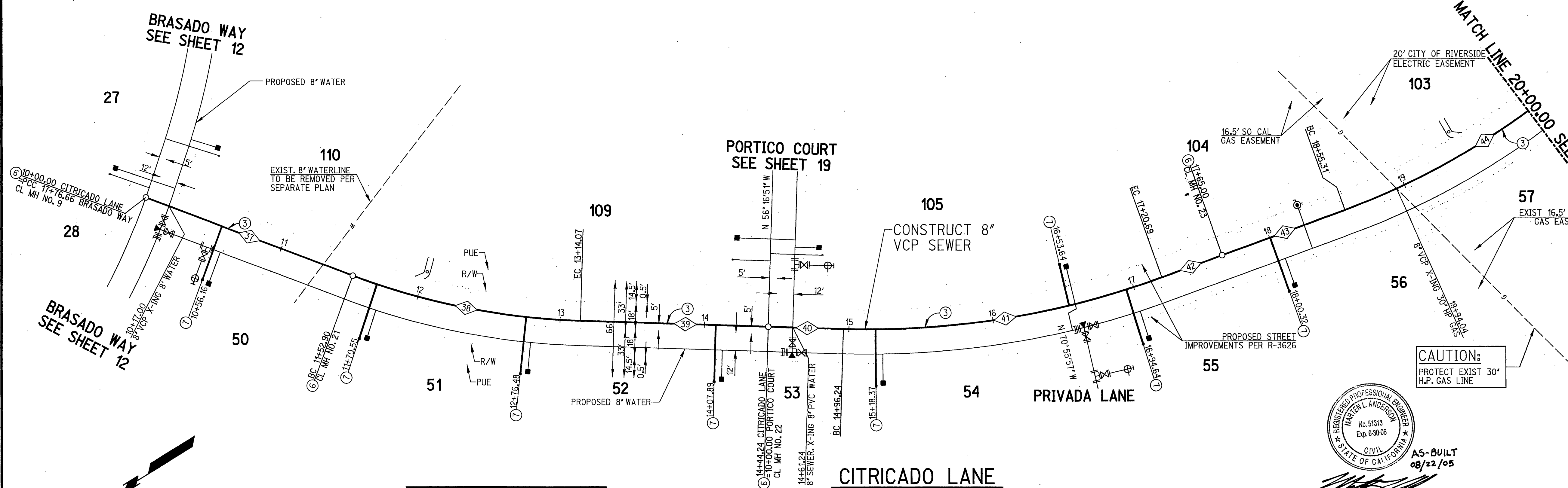
SEWER IMPROVEMENT PLANS
 TRACT NO. 29242
 ARMAGOSA DRIVE SOUTH
 10+00.00 TO 19+63.53

PROJECT NO. S-1756
 SHEET 15 OF 20
 FILE NO.

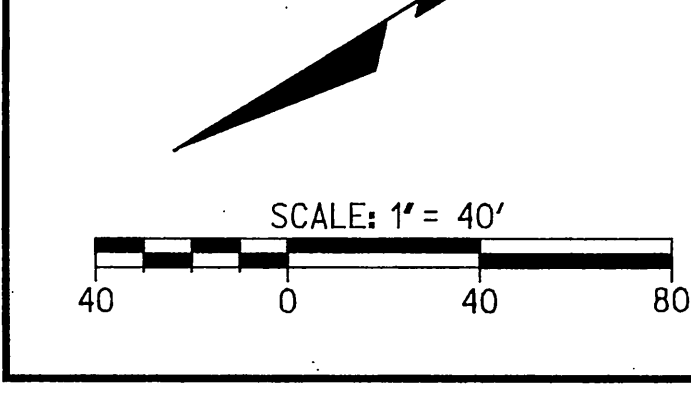


PROFILE SCALE:
 HORIZ: 1"=40'
 VERT: 1"=4'

SEWER DATA				
NO.	DELTA OR BRG.	RADIUS	LENGTH	TANGENT
37	N 52°22'30" E		152.90'	
38	18°39'21"	495.00'	161.17'	81.31'
39	N 33°43'09" E		130.17'	
40	N 33°43'09" E		52.00'	
41	21°36'49"	595.00'	224.45'	113.58'
42	N 12°06'20" E		44.31'	
43	N 12°06'20" E		90.31'	
44	16°44'53"	495.00'	144.69'	72.87'

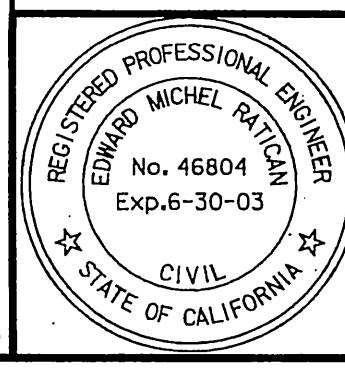


- CONSTRUCTION NOTES**
- ③ CONSTRUCT 8" V.C.P. SEWERLINE, PIPE BEDDING PER CITY OF RIVERSIDE STD. DWG. 452 (CASE 1)
 - ⑥ INSTALL SEWER MANHOLE PER CITY OF RIVERSIDE STD. DWG. 500
 - ⑦ INSTALL 4" SEWER LATERAL WITH PROPERTY LINE CLEANOUT PER CITY OF RIVERSIDE STD. DWG. NO. 562A



CAUTION:
 EXACT LOCATION OF EXISTING UNDERGROUND FACILITIES IS UNKNOWN. CONTRACTOR TO VERIFY IN FIELD.

DIG ALERT
 CALL BEFORE YOU DIG!
 1-800-227-2600
 UNDERGROUND SERVICE ALERT
 Call at least 2 working days prior to excavating.



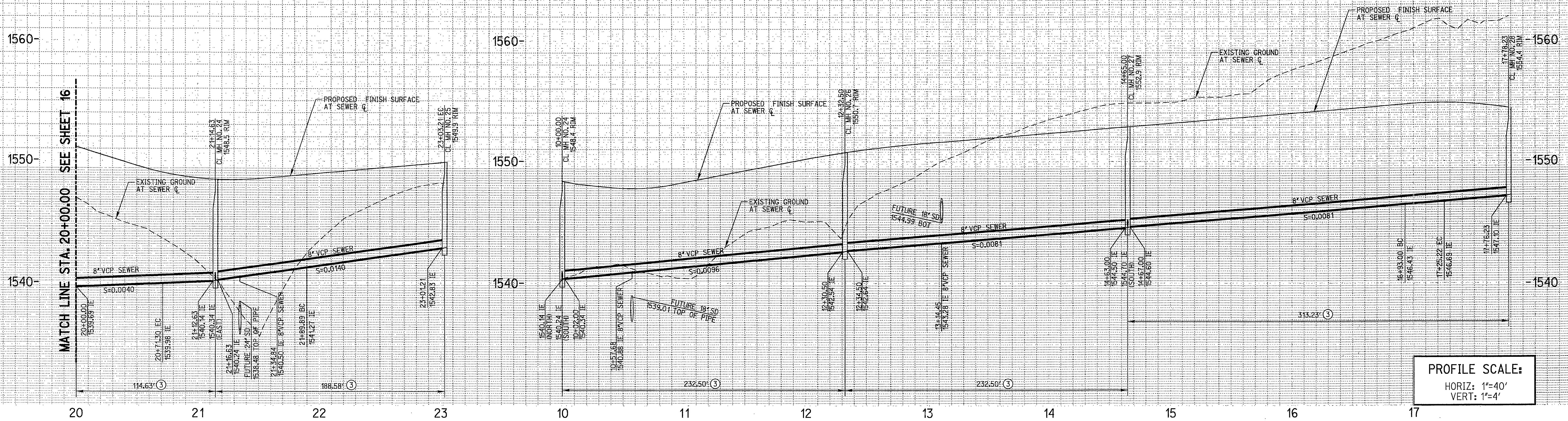
PREPARED UNDER THE DIRECTION OF
 Edward M. Ruffican
 REGISTERED CIVIL ENGINEER NO. 46804
 EXPIRATION DATE 6-30-03

RICK ENGINEERING COMPANY
 1333 University Ave., Ste. 340 - Riverside, CA 92507-3418 - (951) 983-8707 - FAX (951) 983-8723 - www.rickeng.com
 CITY BUSINESS TAX CERTIFICATE NO. 35225 EXP. DATE 1/20/01

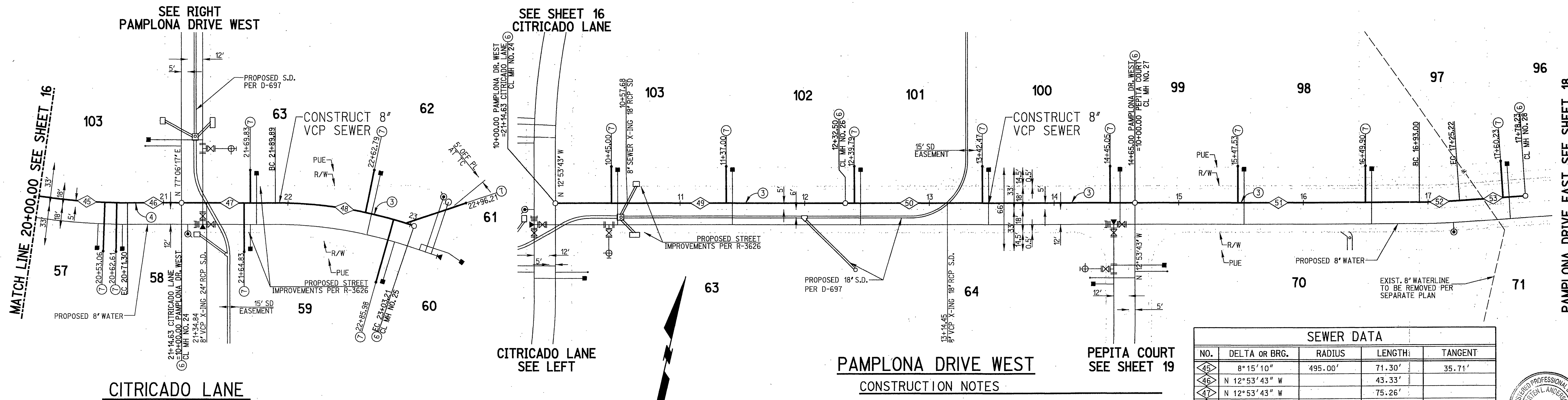
MARK	REVISIONS	APPR	DATE

CITY OF RIVERSIDE
 PUBLIC WORKS DEPARTMENT
 APPROVED BY: [Signature]
 DATE: 7-31-2001

SEWER IMPROVEMENT PLANS
 TRACT NO. 29242
 CITRICADO LANE
 10+00.00 TO 20+00.00
 SCALE: HORIZ: 1"=40' VERT: 1"=4'
 PROJECT NO. S-1756
 SHEET 16 OF 20
 FILE NO.



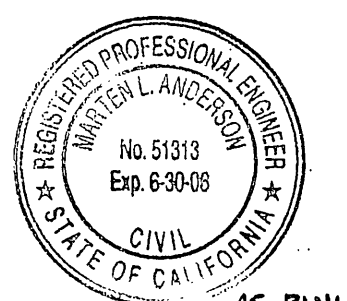
PROFILE SCALE:
HORIZ: 1"=40'
VERT: 1"=4'



PAMPLONA DRIVE WEST CONSTRUCTION NOTES

- ③ CONSTRUCT 8" V.C.P. SEWERLINE, PIPE BEDDING PER CITY OF RIVERSIDE STD. DWG. 452 (CASE 1)
- ④ INSTALL SEWER MANHOLE PER CITY OF RIVERSIDE STD. DWG. 500
- ⑤ INSTALL 4" SEWER LATERAL WITH PROPERTY LINE CLEANOUT PER CITY OF RIVERSIDE STD. DWG. NO. 562A.

SEWER DATA				
NO.	DELTA OR BRG.	RADIUS	LENGTH	TANGENT
④	8° 15' 10"	495.00'	71.30'	35.71'
⑤	N 12° 53' 43" W		43.33'	
⑥	N 12° 53' 43" W		75.26'	
⑦	18° 37' 47"	348.53'	113.32'	57.17'
⑧	N 77° 06' 17" E		232.50'	
⑨	N 77° 06' 17" E		232.50'	
⑩	N 77° 06' 17" E		228.00'	
⑪	3° 43' 47"	495.00'	32.22'	16.12'
⑫	N 73° 22' 30" E		53.01'	

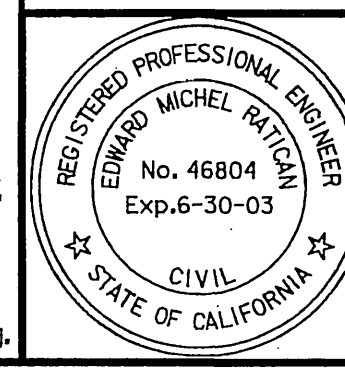


DIG ALERT



CALL BEFORE YOU DIG!

1-800-227-2600
UNDERGROUND SERVICE ALERT
Call at least 2 working days prior to excavating.



PREPARED UNDER THE DIRECTION OF
Edward M. Ruffalo
REGISTERED CIVIL ENGINEER NO. 46804
EXPIRATION DATE 6-30-03

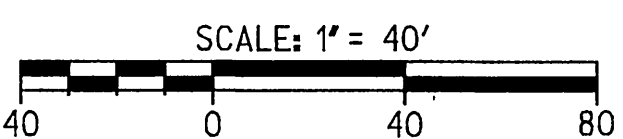
RICK ENGINEERING COMPANY
San Diego Riverside Orange Phoenix Tucson
1223 University Ave., Ste. 240 - Riverside, CA 92507-3418 • (909) 788-0707 • FAX (909) 788-0723 • www.rickeng.com
CITY BUSINESS TAX CERTIFICATE NO. 35225 EXP. DATE 7/20/01

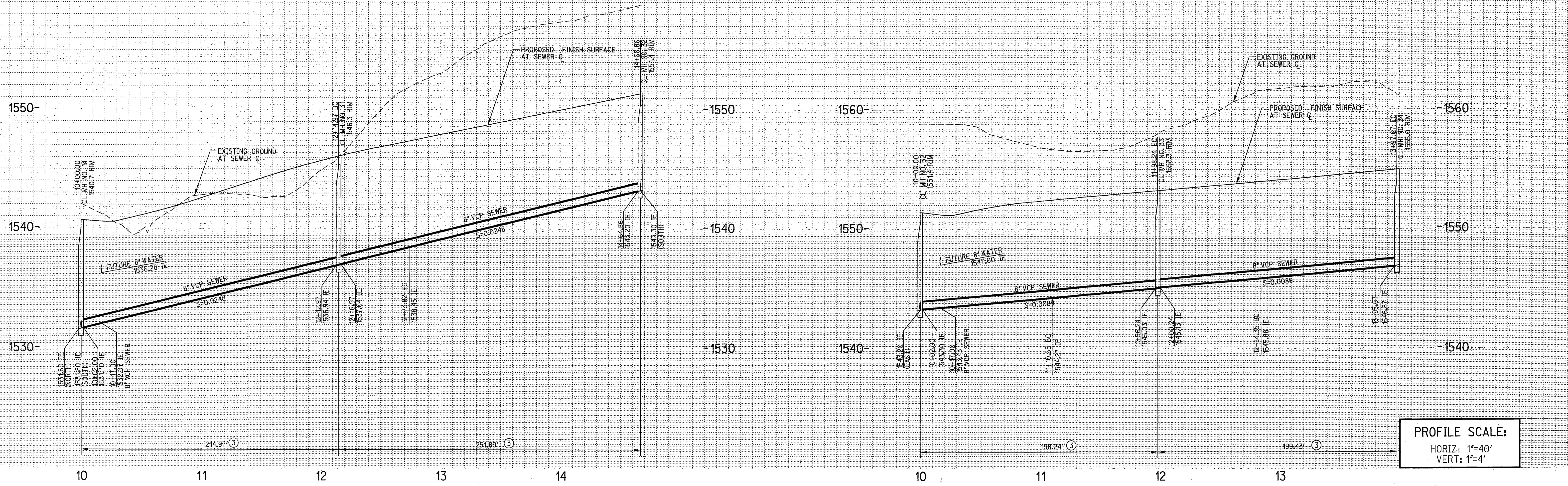
CITY OF RIVERSIDE
PUBLIC WORKS DEPARTMENT

APPROVED BY: *R. M. Beatt*
DIRECTOR OF PUBLIC WORKS
DATE: 7-31-00

SEWER IMPROVEMENT PLANS
TRACT NO. 29242
CITRICADO LANE
20+00.00 TO 23+03.21
PAMPLONA DRIVE WEST
10+00.00 TO 17+78.23

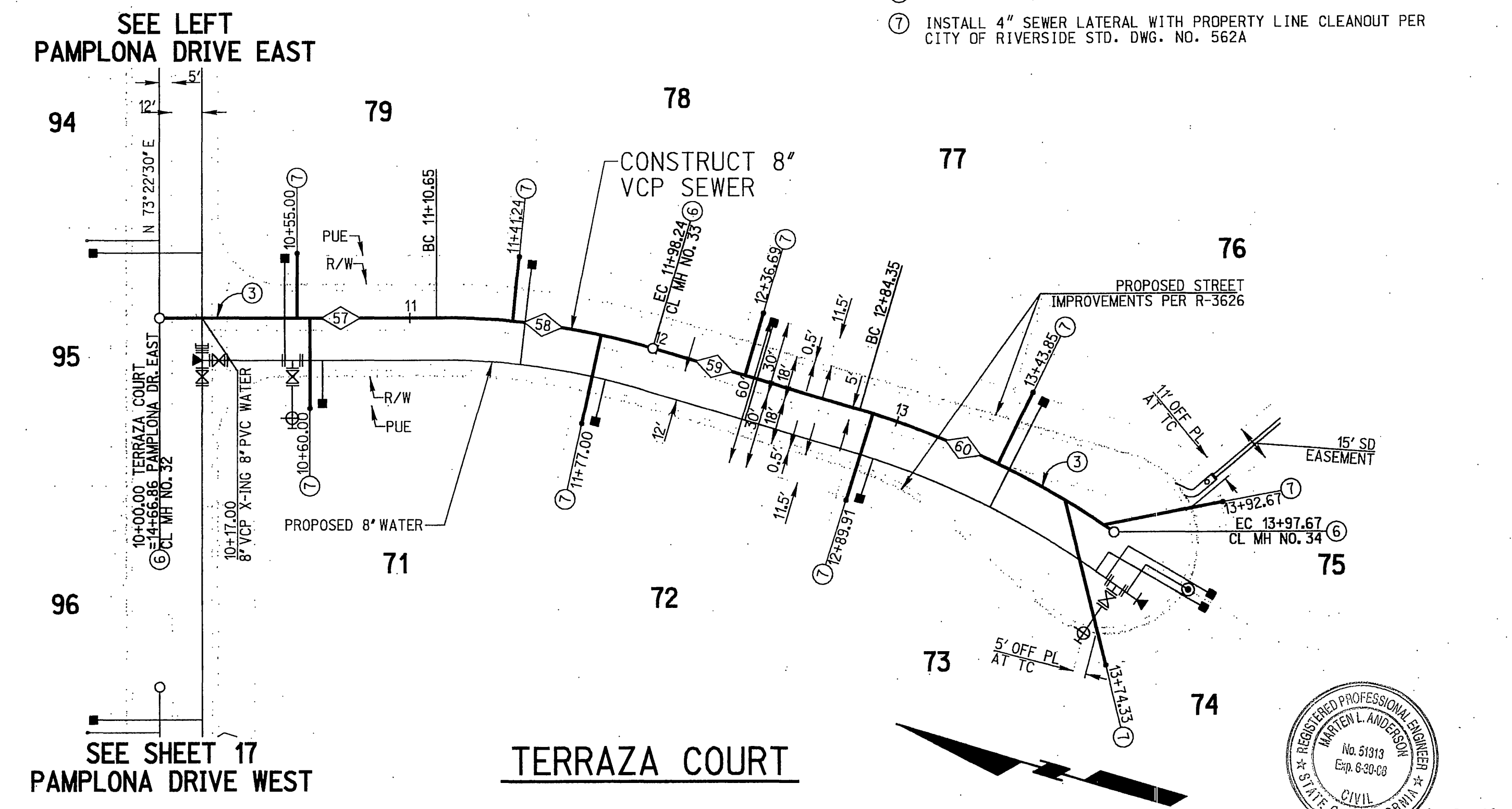
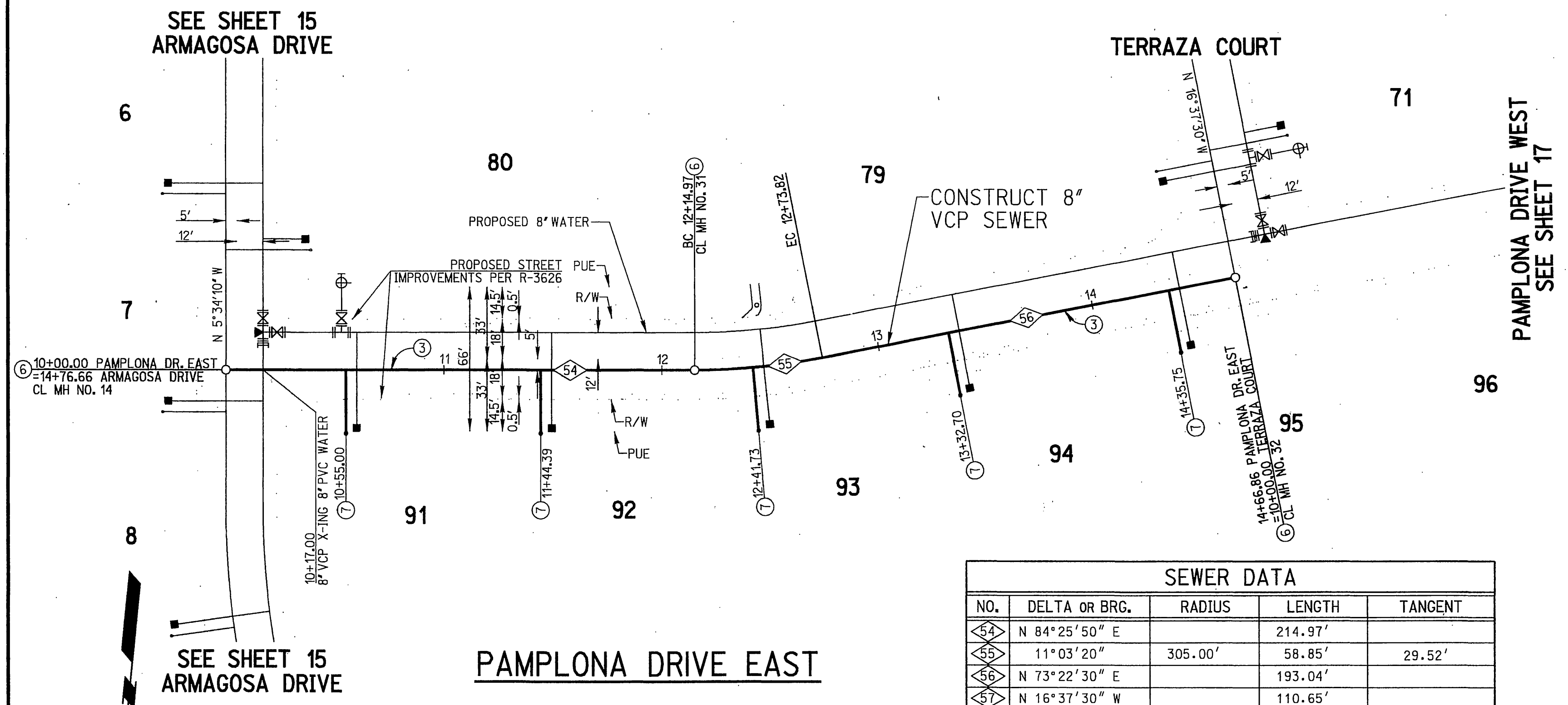
PROJECT NO. S-1756
SHEET 17 OF 20
SCALE: HORIZ: 1"=40' VERT: 1"=4'





PROFILE SCALE:
 HORIZ: 1"=40'
 VERT: 1"=4'

- CONSTRUCTION NOTES**
- ③ CONSTRUCT 8" V.C.P. SEWERLINE, PIPE BEDDING PER CITY OF RIVERSIDE STD. DWG. 452 (CASE 1)
 - ⑥ INSTALL SEWER MANHOLE PER CITY OF RIVERSIDE STD. DWG. 500
 - ⑦ INSTALL 4" SEWER LATERAL WITH PROPERTY LINE CLEANOUT PER CITY OF RIVERSIDE STD. DWG. NO. 562A



SEWER DATA				
NO.	DELTA OR BRG.	RADIUS	LENGTH	TANGENT
54	N 84°25'50" E		214.97'	
55	11°03'20"	305.00'	58.85'	29.52'
56	N 73°22'30" E		193.04'	
57	N 16°37'30" W		110.65'	
58	16°27'15"	305.00'	87.59'	44.10'
59	N 0°10'15" W		86.11'	
60	18°37'47"	348.53'	113.32'	57.17'

CAUTION:
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DIG ALERT
 CALL BEFORE YOU DIG!
 1-800-227-2600
 UNDERGROUND SERVICE ALERT
 Call at least 2 working days prior to excavating.

PREPARED UNDER THE DIRECTION OF
 EDWARD M. RAJICAN
 REGISTERED CIVIL ENGINEER NO. 46804
 EXPIRATION DATE 6-30-03

REQUIRED PROFESSIONAL ENGINEER
 EDWARD MICHEL RAJICAN
 No. 46804
 Exp. 6-30-03
 CIVIL
 STATE OF CALIFORNIA

RICK ENGINEERING COMPANY
 San Diego Riverside Orange Phoenix Tucson
 1222 University Ave., Ste. 240 • Riverside, CA 92507-0418 • (951)923-0701 • FAX (951)923-0723 • www.rickeng.com
 CITY BUSINESS TAX CERTIFICATE NO. 35225 EXP. DATE 1/20/01

BENCH MARK
 CITY OF RIVERSIDE BENCHMARK E8-A2, ELEVATION: 1588.453' P.K. NAIL AND TAG IN TOP OF 35X50X20 FOOT GRANITE BOULDER, 100 FEET WESTERLY OF TRAUTWEIN ROAD AND 500 FEET NORTHERLY OF JESSE LANE.

MARK	REVISIONS	APPR	DATE

DESIGNED BY NEL DRAWN BY NEL CHECKED BY M.E.A.

CITY OF RIVERSIDE
 PUBLIC WORKS DEPARTMENT

APPROVED BY
 PRINCIPAL ENGINEER
 PINK DEPARTMENT
 TRAFFIC DIVISION
 DEPUTY P.M. DIRECTOR
 STREET SERVICES

BY DATE
 28/ 7/27/01

APPROVED BY
 DIRECTOR OF PUBLIC WORKS
 DATE 7-31-2001

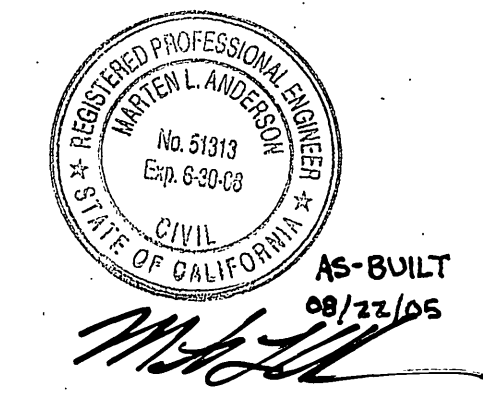
SEWER IMPROVEMENT PLANS

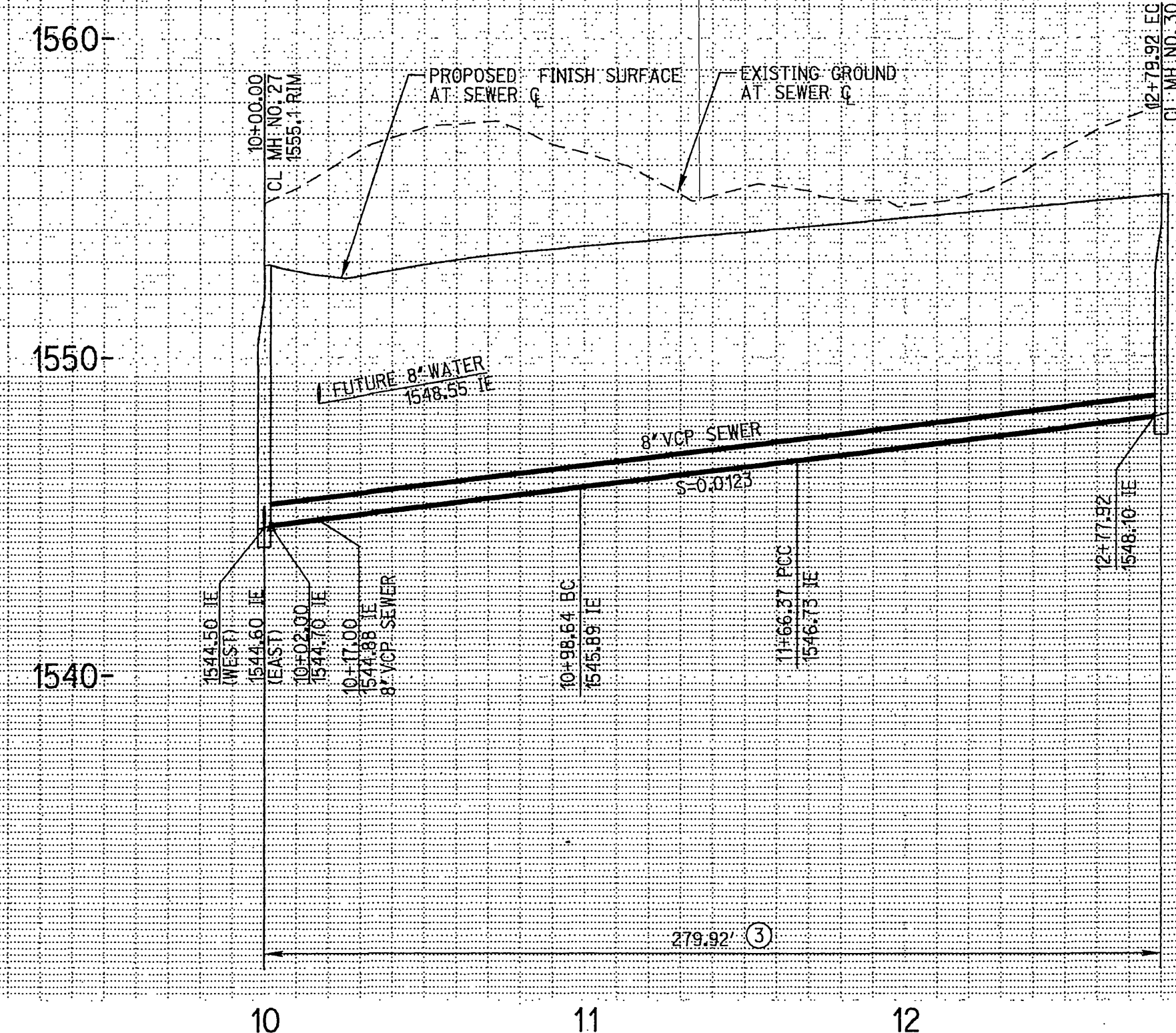
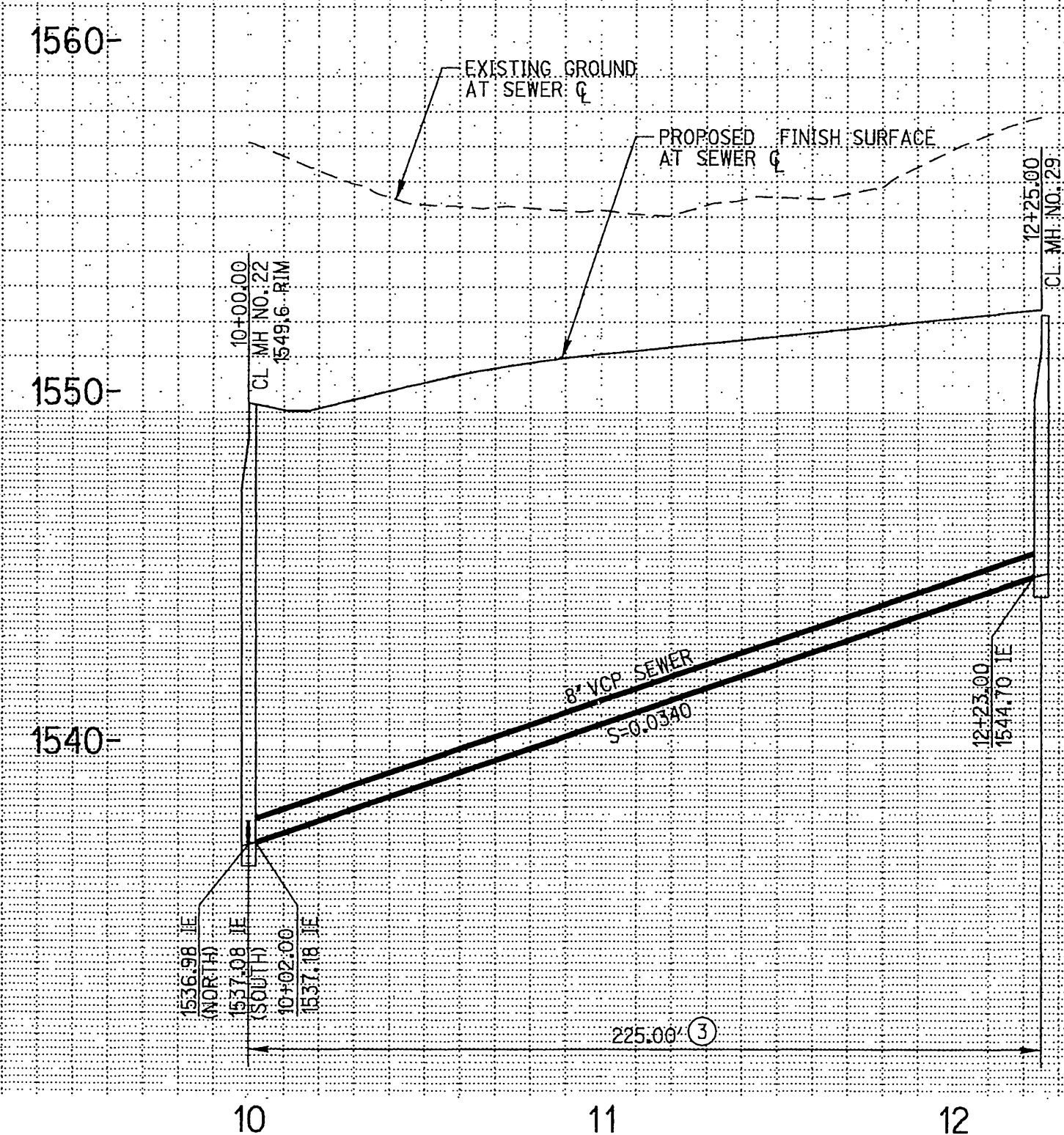
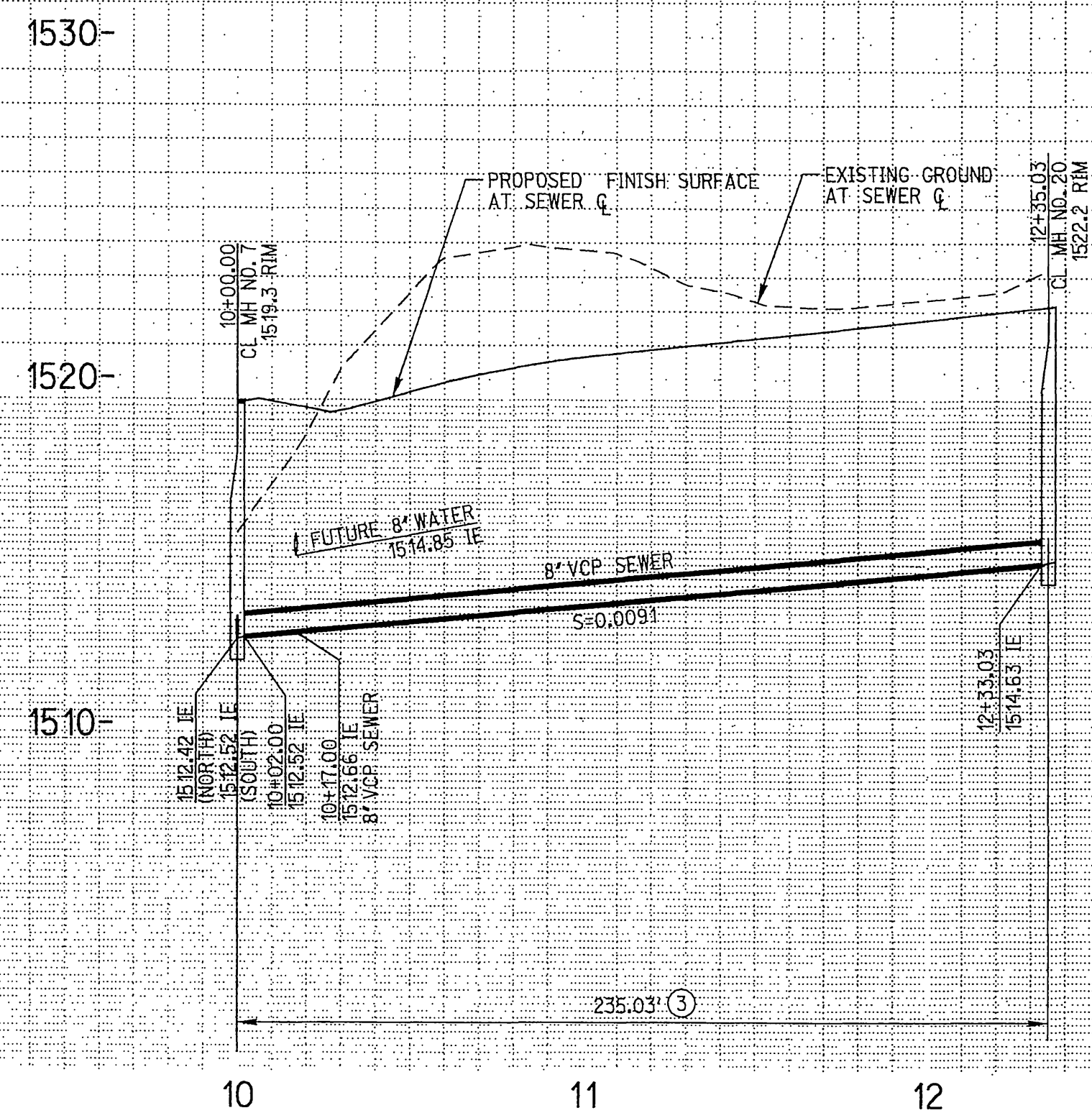
TRACT NO. 29242
 PAMPLONA DRIVE EAST
 10+00.00 TO 14+66.86
 TERRAZA COURT
 10+00.00 TO 13+97.67

PROJECT NO. S-1756
 SHEET 18 OF 20
 FILE NO.

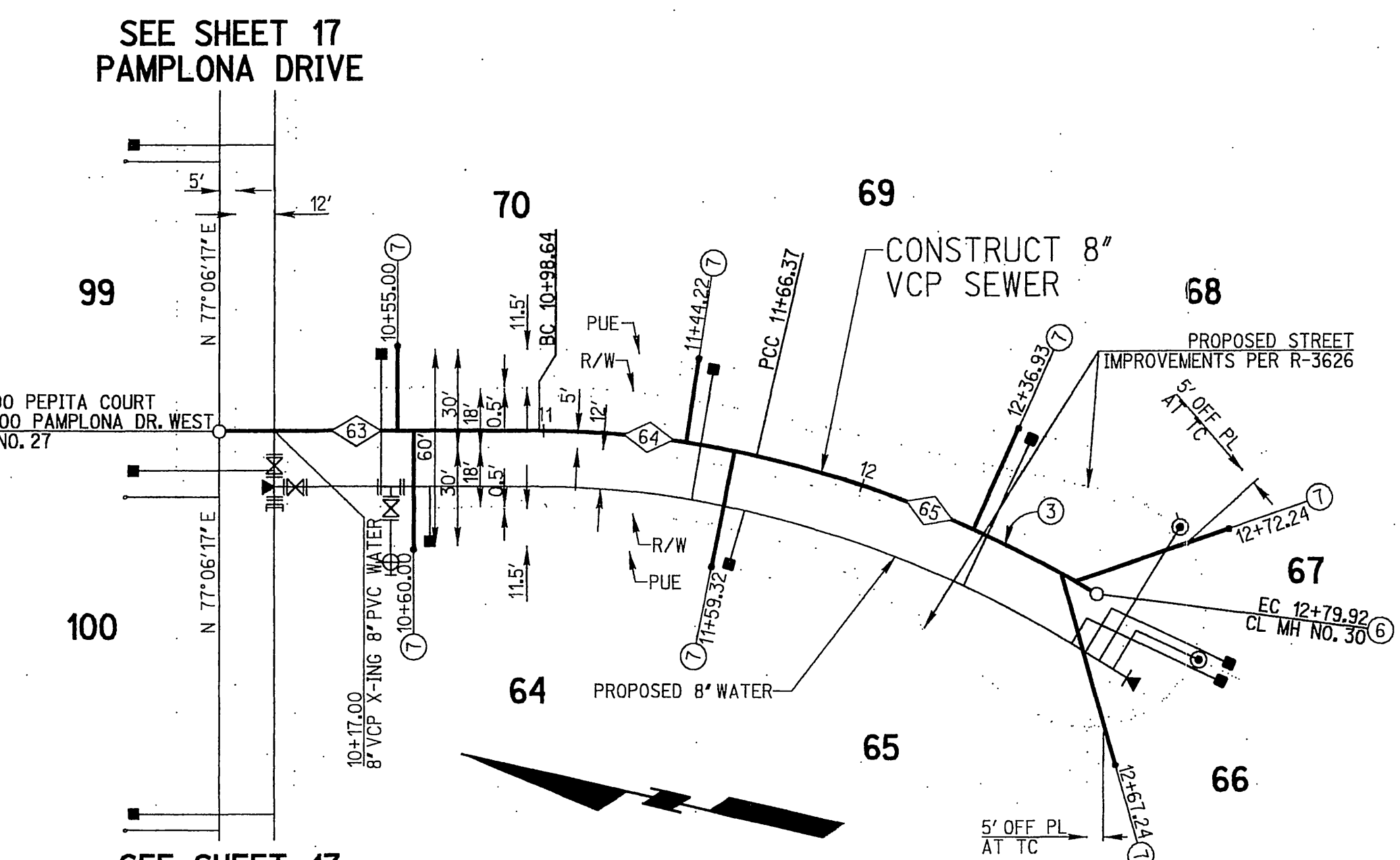
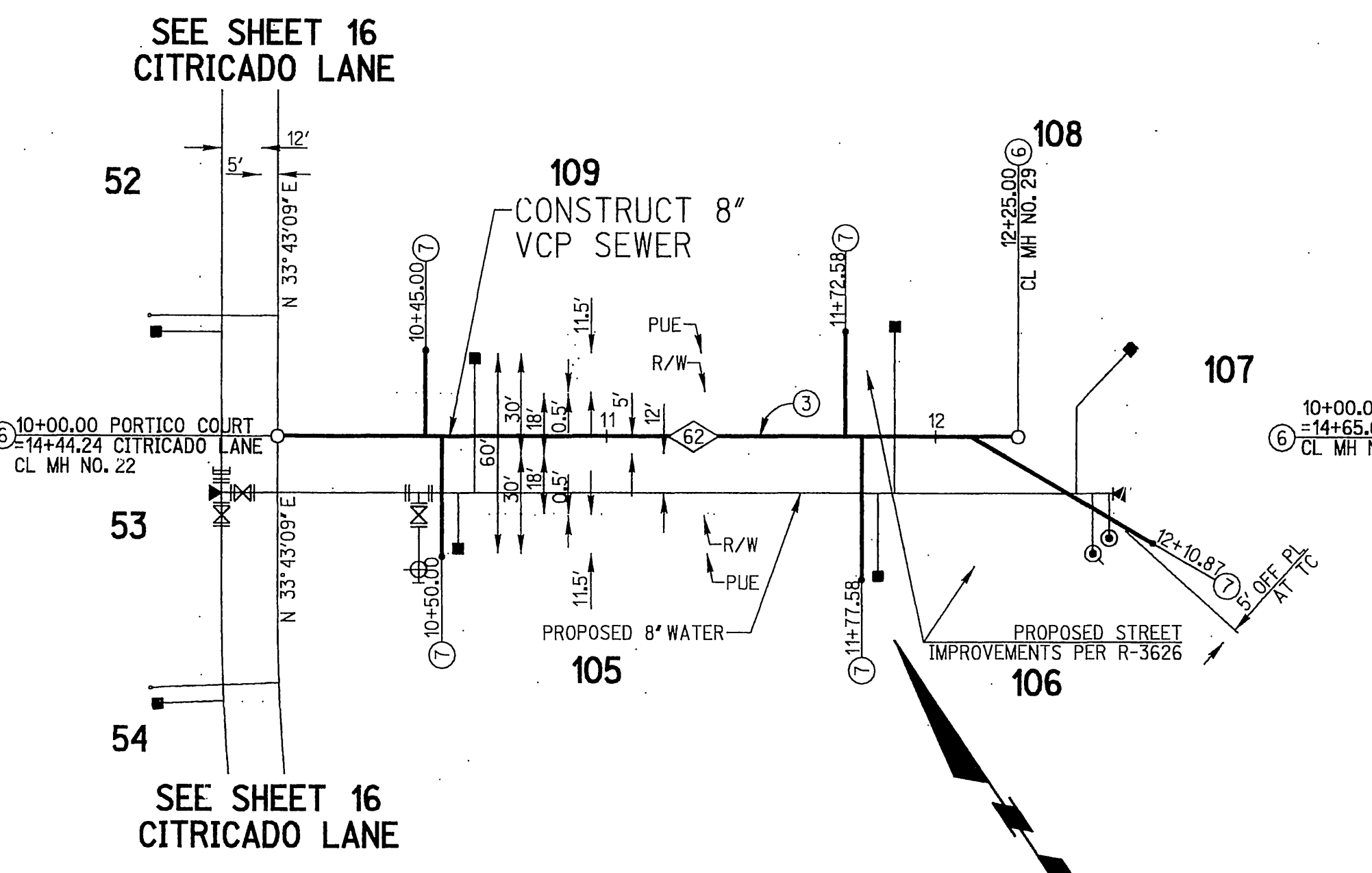
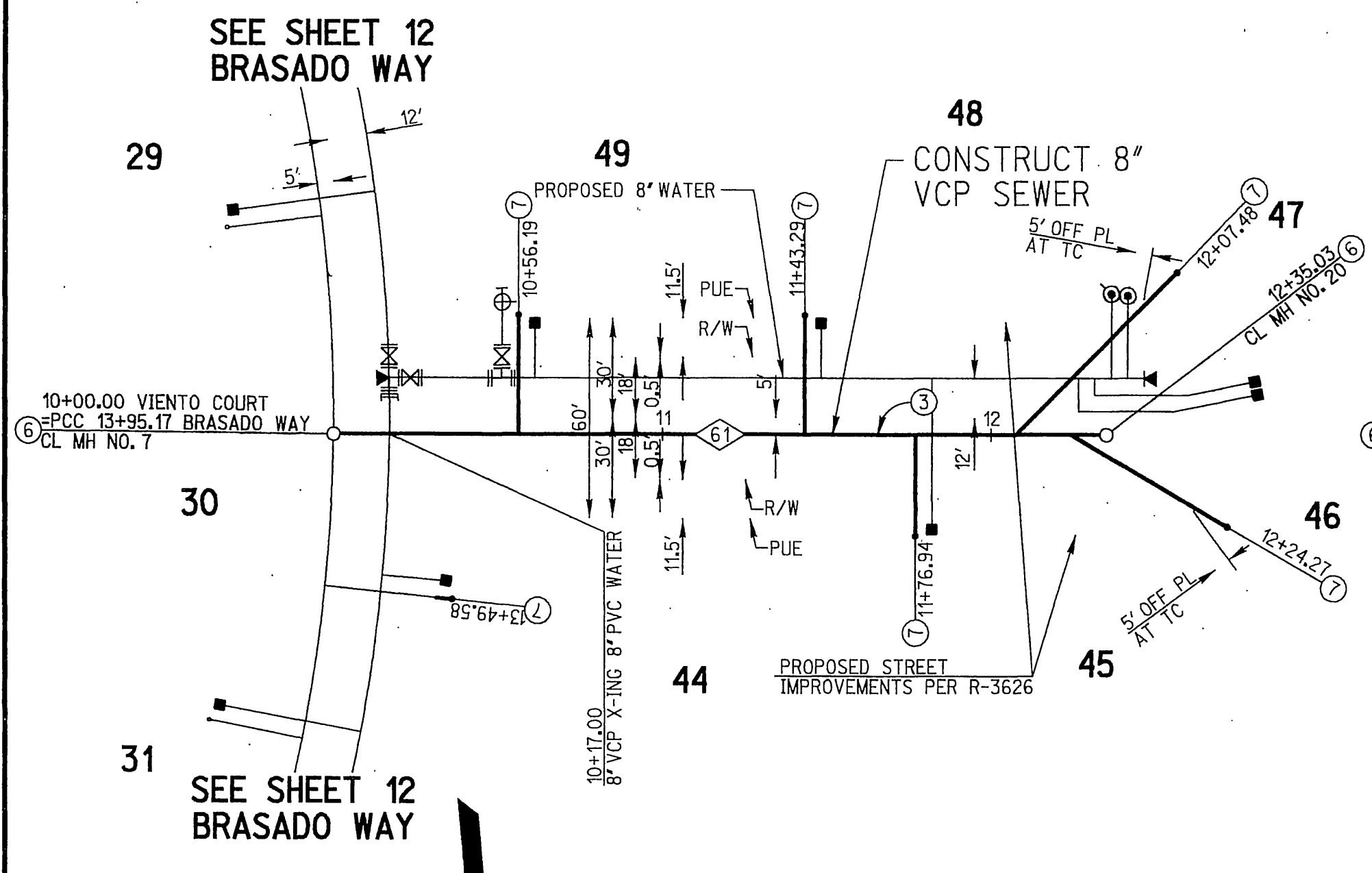
SCALE
 HORIZ: 1"=40' VERT: 1"=4'

INDEXED 1-07-02
 PLOT DATE: 19-JUN-2001 JN 13707A



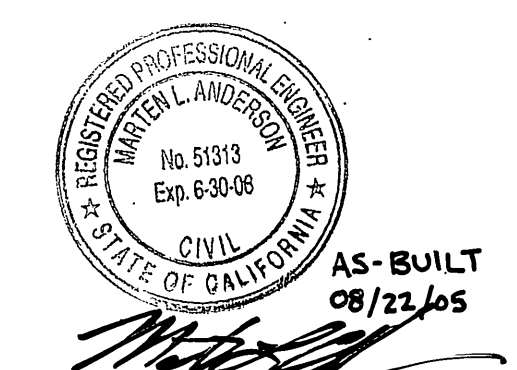


PROFILE SCALE:
HORIZ: 1"=40'
VERT: 1"=4'



SEWER DATA				
NO.	DELTA OR BRG.	RADIUS	LENGTH	TANGENT
61	N 84° 37' 30" W		235.03'	
62	N 56° 16' 51" W		225.00'	
63	N 12° 53' 43" W		98.64'	34.01'
64	12° 43' 27"	305.00'	67.73'	
65	18° 35' 26"	349.96'	113.55'	57.28'

- CONSTRUCTION NOTES**
- ③ CONSTRUCT 8" V.C.P. SEWERLINE, PIPE BEDDING PER CITY OF RIVERSIDE STD. DWG. 452 (CASE 1)
 - ⑥ INSTALL SEWER MANHOLE PER CITY OF RIVERSIDE STD. DWG. 500
 - ⑦ INSTALL 4" SEWER LATERAL WITH PROPERTY LINE CLEANOUT PER CITY OF RIVERSIDE STD. DWG. NO. 562A.



CAUTION:
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DIG ALERT
CALL BEFORE YOU DIG!
1-800-227-2600
UNDERGROUND SERVICE ALERT
Call at least 2 working days prior to excavating.

PREPARED UNDER THE DIRECTION OF
Edward M. Ruffian
REGISTERED CIVIL ENGINEER NO. 46804
EXPIRATION DATE 6-30-03

RICK ENGINEERING COMPANY
1212 University Ave., Ste. 240 • Riverside, CA 92507-3418 • (951) 943-0100 • FAX (951) 943-0723 • www.rickeng.com
CITY BUSINESS TAX CERTIFICATE NO. 35225 EXP. DATE 1/20/01

CITY OF RIVERSIDE
PUBLIC WORKS DEPARTMENT

APPROVED BY: [Signature] DATE: 7-31-2001
PRINCIPAL ENGINEER: [Signature]
TRAFFIC DIVISION: [Signature]
DEPUTY P.W. DIRECTOR: [Signature]
STREET SERVICES: [Signature]

SEWER IMPROVEMENT PLANS

TRACT NO. 29242
VIENTO CT. 10+00.00 TO 12+35.03
PEPITA CT. 10+00.00 TO 12+79.92

PROJECT NO. S-1756
SHEET 19 OF 20

SCALE: HORIZ: 1"=40' VERT: 1"=4'

INDEXED 1-07-02 PLOT DATE: 10-JUL-2001

