PUBLIC STORM DRAIN IMPROVEMENT PLANS
PARCEL MAP NO. 13724
FOOTHILL MARKETPLACE

GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THESE PLANS. THE CITY OF RANCHO CUCAMONGA STANDARDS AND THE STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION - 1991 EDITION. CONTRACTOR SHALL BE FAMILIAR WITH AND SHALL BE RESPONSIBLE FOR ADHERENCE TO THESE STANDARDS AND SPECIFICATIONS.

2. ALL PIPELINES OR SUB-STRUCTURES OF ANY KIND, TELEPHONE OR POWER POLES, WATER METERS, VALVES, FIRE HYDRANTS, ETC. SHOWN OR NOT SHOWN ON THESE PLANS WITHIN THE RIGHT - OF - WAY LIMITS OR IN ADJACENT AREAS WHERE IMPROVEMENT WORK IS TO BE DONE SHALL BE REMOVED, RELOCATED OR PROTECTED IN PLACE AS REQUIRED AT NO COST TO THE CITY OF RANCHO CUCAMONGA.

3. ANY CONTRACTOR PERFORMING WORK ON THIS PROJECT SHALL FAMILIARIZE HIMSELF WITH THE SITE AND SHALL BE SOLELY RESPONSIBLE FOR ANY DAMAGE TO EXISTING FACILITIES RESULTING DIRECTLY OR INDIRECTLY FROM HIS OPERATIONS, WHETHER OR NOT SUCH FACILITIES ARE SHOWN ON THESE PLANS.

4. A PERMIT SHALL BE OBTAINED FROM THE CITY OF RANCHO CUCAMONGA ENGINEERING DEPARTMENT PRIOR TO ANY ENCROACHMENT OR CONSTRUCTION WITHIN CITY OF RANCHO CUCAMONGA EASEMENT OR RIGHT- OF- WAY.

5. ALL GRADE STAKES SHALL BE SET BY THE CONTRACTOR OR ENGINEER. PAVING STAKES SHALL BE SET AT HINGE POINTS. EDGE OF PAVEMENT, EDGE OF PAVEMENTS POINTS WITHIN 0.01 FOOT OF SUB-GRADE ELEVATION AND AT NOT MORE THAN 50 FOOT INTERVALS. ADDITIONAL PAVING STAKES MAY BE REQUIRED BY CITY ENGINEER AS NEEDED AT WARPED OR VERTICAL CURVE AREAS.

6. ALL SEWER, WATER, ELECTRICAL, GAS, PHONE OR OTHER UTILITY LATERALS, MAINS, OR CROSSINGS SHALL BE CONSTRUCTED PRIOR TO PAVING.

7. COMPACTION TESTS OF EMBANKMENT CONSTRUCTION, TRENCH BACKFILL, COMPACTING ORIGINAL GROUND AND ALL SUB- GRADES SHALL BE PERFORMED AT NO COST TO THE CITY OF RANCHO CUCAMONGA. A WRITTEN REPORT WITH THESE COMPACTION TESTS SHALL BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL PRIOR TO THE PLACEMENT OF BASE MATERIALS AND/OR SURFACING.

8. ON THOSE CONNECTOR PIPES WHERE CHANGE IN GRADE IS NOT INDICATED, IT IS ASSUMED THAT THE CONNECTOR PIPE CAN BE LAID ON A STRAIGHT GRADE FROM THE CATCH BASIN TO THE STORM DRAIN WITHOUT INTERFERENCE WITH UTILITIES.

9. WHERE CONNECTOR PIPE HAD A GRADE CHANGE EXCEEDING 5 45' OR DIFFERS IN DIAMETER FROM THAT OF EXISTING PIPE, THE USE OF A CONCRETE COLLAR AS PER L.A.C.F.C.D. STD. DWG. 2-D393 SHALL BE INCORPORATED.

10. WHERE UTILITIES ARE INDICATED ON THE DRAWINGS TO BE SUPPORTED, SAID SUPPORTS SHALL BE IN ACCORDANCE WITH L.A.C.F.C.D. STANDARD DRAWING 2-D173.1,2,3, UNLESS OTHERWISE INDICATED.

11. CONTRACTOR SHALL POSSESS A "CLASS A" LICENSE, (GENERAL ENGINEERING CONTRACTOR) IN ACCORDANCE WITH THE PROVISIONS OF THE CONTRACTOR'S LICENSE LAW (CALIFORNIA BUSINESS AND PROFESSIONS CODE, SECTION 7000 ET. SEQ.) AND RULES AND REGULATIONS ADOPTED PURSUANT THERETO AT THE TIME THIS CONTRACT IS AWARDED.

12. THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS TO DETERMINE THE EXACT LOCATION AND DEPTH OF UTILITIES, EXCEPT SANITARY SEWER. AFTER THE EXACT LOCATION OF A UTILITY HAS BEEN DETERMINED, THE GRADE AND ALIGNMENT OF THE CONNECTOR PIPE WILL BE STAKED SO AS TO CLEAR THE UTILITY.

13. ESTIMATE OF QUANTITIES IS PROVIDED BY THE ENGINEER ONLY FOR THE CONVENIENCE OF THE DEVELOPER. THE CONTRACTOR SHALL MAKE HIS OWN DETERMINATION OF CONSTRUCTION QUANTITIES BEFORE SUBMITTING A BID. ANY ITEM OF WORK REQUIRED BY THESE PLANS WHICH IS NOT SPECIFICALLY LISTED IN THE ESTIMATE OF QUANTITIES SHALL BE CONSIDERED AS INCLUDED IN THE OTHER ITEMS OF WORK.

14. CITY APPROVAL OF PLANS DOES NOT RELIEVE THE DEVELOPER FROM RESPONSIBILITY FOR THE CORRECTION OF ERRORS AND OMISSIONS DISCOVERED DURING CONSTRUCTION. UPON REQUEST, THE REQUIRED PLAN REVISIONS SHALL BE PROMPTLY SUBMITTED TO THE CITY ENGINEER FOR APPROVAL.

15. WORK SITE AND EXTERIOR STREET SHALL BE IN A NEAT, CLEAN, HAZARD FREE, ORDERLY THROUGHOUT CONSTRUCTION. SITE SHALL BE CLEANED UPON REQUEST OF THE INSPECTOR.

16. CONTACT UNDERGROIUND SERVICE ALERT 1- 800- 422- 4133 AND THE FOLLOWING UTILITY COMPANIES AS REQUIRED, 2 WORKING DAYS PRIOR TO EXCAVATION.

SAN GABRIEL VALLEY MUNICIPAL WATER DISTRICT
MR. BOB STALLINGS (213) 969- 2718
FOR BASE LINE ROAD CONSTRUCTION

GENERAL TELEPHONE (800) 422- 4132
FOR UNDERGROUND SERVICE

SOUTHERN CALIFORNIA GAS COMPANY (714) 529- 2889
2191 E. BIRCH STREET (714) 529- 7070
BREA, CA 92621

CUCAMONGA COUNTY WATER DISTRICT (714) 987- 2591
9641 SAN BERNARDINO ROAD
RANCHO CUCAMONGA, CA 91730

METROPOLITAN WATER DISTRICT (714) 593- 7474
P.O. BOX 54153
LOS ANGELES, CA 90054

PACIFIC TELEPHONE COMPANY (714) 999- 5639

17. THE STANDARD PLANS AND/OR DRAWINGS AS LISTED HEREON SHALL BE CONSIDERED A PART OF THE CONTRACT DRAWINGS AND SHALL BE ON THE JOB SITE AT THE TIME OF CONSTRUCTION.

18. THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER'S OFFICE AT LEAST 3 WORKING DAYS PRIOR TO THE START OF ANY CONSTRUCTION FOR CONSTRUCTION STAKING.

19. TRAFFIC CONTROL AND SAFETY SHALL BE MAINTAINED BY THE CONTRACTOR IN ACCORDANCE WITH THE STANDARDS OF THE STATE OF CALIFORNIA BUSINESS, TRANSPORTATION AND HOUSING DEPARTMENT (S.A.F.E.) "MANUAL OF TRAFFIC CONTROL FOR CONSTRUCTION AND MAINTENANCE WORK", 1989 EDITION, AND THE SPECIAL PROVISIONS. TRAFFIC CONTROL AND SAFETY DEVICES SHALL BE PLACED AND MAINTAINED TO THE SATISFACTION OF THE ENGINEER. NO SUCH DEVICES SHALL BE REMOVED OR RELOCATED WITHOUT APPROVAL OF THE ENGINEER.

20. PRIOR TO PERFORMING ANY EXCAVATION ON THIS PROJECT, THE CONTRACTOR SHALL SUBMIT SHORING DRAWINGS TO THE CITY ENGINEER FOR APPROVAL. IF SUCH SHORING DOES NOT CONFORM TO STATE OF CALIFORNIA CONSTRUCTION SAFETY ORDERS DEALING WITH EXCAVATIONS AND TRENCHES AS ISSUED BY THE DIVISION OF INDUSTRIAL SAFTEY, THEN SHORING CALCULATIONS AND DRAWINGS SHALL BE PREPARED BY A CALIFORNIA REGISTERED CIVIL ENGINEER.

21. EXISTING UTILITIES SHALL BE MAINTAINED IN PLACE BY THE CONTRACTOR UNLESS OTHERWISE NOTED. ALL PIPELINES OR SUBSTRUCTURES OF ANY KIND, TELEPHONE OR POWER POLES, WATER METERS, VALVES, FIRE HYDRANTS, ETC. SHOWN OR NOT SHOWN ON THESE PLANS WITHIN THE RIGHT-OF-WAY LIMITS OR IN ADJACENT AREAS WHERE IMPROVEMENT WORK IS TO BE DONE SHALL BE REMOVED, RELOCATED OR PROTECTED IN PLACE AS REQUIRED AT NO COST TO THE CITY OF RANCHO CUCAMONGA.

22. PRIVATE AND PUBLIC UTILITIES, IF SHOWN, REFLECT AVAILABLE RECORD DATA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL LINES AFFECTING THE PROJECT WORK AND FOR ANY DAMAGE OR PROTECTION TO THESE LINES. PRIOR TO STARTING CONSTRUCTION OF THIS PROJECT, THE CONTRACTOR SHALL UNCOVER ALL EXISTING UTILITY LINES AFFECTING THIS WORK.

23. LOCATIONS SHOWN ON THE CONTRACT DRAWINGS FOR EXISTING SANITARY SEWER HOUSE CONNECTIONS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL FIELD LOCATE LATERALS.

24. UTILITIES DESIGNATED BY THE SYMBOL WILL BE REMOVED BY THE OWNER AND THE OWNER WILL REINSTALL A NEW SECTION OF THE AFFECTED UTILITY AT A LOCATION IN CLOSE PROXIMITY TO, BUT WHICH DOES NOT PHYSICALLY INTERFERE WITH THE PROPOSED STORM DRAIN CONDUIT AND APPURTENANT STRUCTURES.

25. PRIOR TO DELIVERY OF REINFORCED CONCRETE PIPE TO THE PROJECT SITE, THE CONTRACTOR SHALL ARRANGE FOR A CERTIFICATE OF COMPLIANCE FROM THE MANUFACTURER THAT THE PIPE MEETS THE TESTING REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

26. THE CONTRACTOR SHALL VERIFY THE EXISTING FLOWLINE ELEVATIONS PRIOR TO STORM DRAIN CONSTRUCTION. AFTER VERIFICATION, ALL CONSTRUCTION MUST PROCEED FROM DOWNSTREAM TO UPSTREAM TERMINUS. ANY CHANGE IN GRADE MUST BE PROPOSED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.

27. STATIONS SHOWN ON THE CONTRACT DRAWINGS ARE ALONG THE CENTERLINE OF THE CONDUIT, OR ON A LINE NORMAL TO THE CENTERLINE OF THE CONDUIT, EXCEPT WHERE NOTED OTHERWISE.

28. STATIONS AND INVERT ELEVATIONS OF PIPE SHOWN ON THE PROFILES ARE AT THE FACE OF THE CONDUIT, UNLESS OTHERWISE SHOWN.

29. ALL P.C.C. REMOVALS SHALL BE SAWCUT.

30. ALL OPENINGS RESULTING FROM THE CUTTING OR PARTIAL REMOVAL OF EXISTING CULVERTS, PIPES OR SIMILAR STRUCTURES SHALL BE ABANDONED BY THE CONTRACTOR UPON APPROVAL OF THE ENGINEER IN CONFORMANCE WITH SECTION 306-5 OF THE STANDARD SPECIFICATIONS.

31. THE CONTRACTOR SHALL REMOVE ALL WATER MAIN P.C.C. THRUST BLOCKS THAT INTERFERE WITH CONSTRUCTION AND REPLACE SAME PER CUCAMONGA COUNTY WATER DISTRICT STANDARDS.

32. THE CHANGE IN GRADE OF THE CONNECTOR PIPE MAY OCCUR EITHER OVER OR UNDER AN EXISTING UTILITY. THE PARTICULAR UTILITY AT WHICH THE CHANGE IN GRADE OCCURS, IS NOTED ON THE PROJECT DRAWINGS. AT LOCATIONS WHERE UTILITY CROSSINGS ARE MARKED O, THE CONNECTOR PIPE GRADE WILL BREAK OVER THE UTILITY AT LOCATIONS WHERE UTILITY CROSSINGS ARE MARKED U, THE CONNECTOR PIPE GRADE WILL BREAK UNDER THE UTILITY.

33. ALL RESURFACING, CURBS, GUTTERS, SIDEWALKS, DRIVEWAYS AND OTHER EXISTING IMPROVEMENTS TO BE RECONSTRUCTED SHALL BE CONSTRUCTED AT THE SAME ELEVATION AND LOCATION AS THE
34. EXISTING IMPROVEMENTS, UNLESS OTHERWISE NOTED.

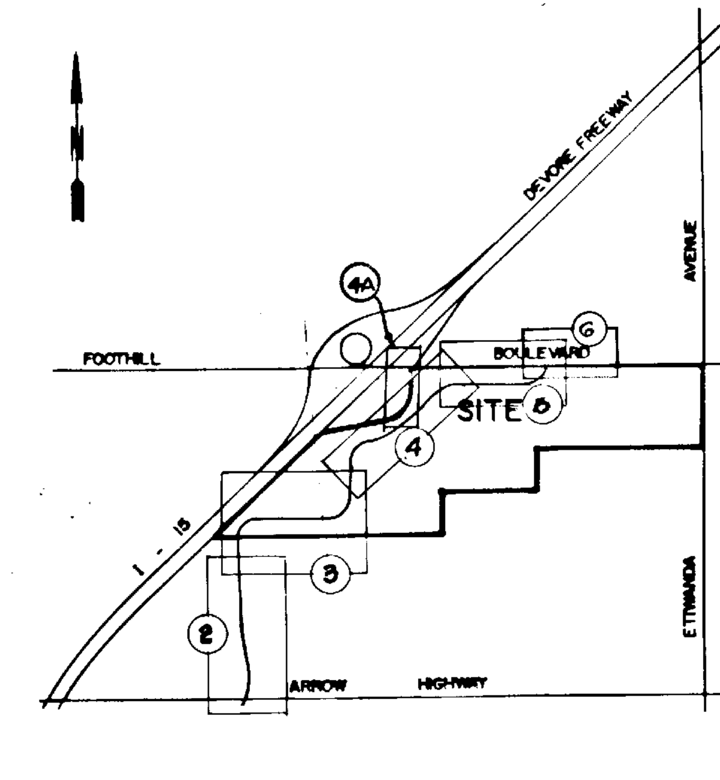
35 USE FULL-DEPTH HEADER FOR VERTICAL FACES OF P.C.C. CONSTRUCTION.

36. WITHIN 3 WORKING DAYS AFTER FINAL SURFACING IS PLACED, ALL MANHOLE, JUNCTION CHAMBER AND VALVE BOX FRAMES AND COVERS SHALL BE ADJUSTED BY THE CONTRACTOR TO FINISH GRADE. THIS IS TO BE DONE PRIOR TO PLACING SEAL COAT. AFTER SAID TIME, THE CITY WILL ADJUST THE ABOVE ITEM AT THE CONTRACTOR'S EXPENSE.

37. TRENCH BACKFILL SHALL HAVE A MINIMUM OF 90 PERCENT RELATIVE COMPACTION BELOW THE STREET ZONE AS VERIFIED BY TESTS TO THE SATISFACTION OF THE ENGINEER.

38. AT THE TIME OF COMPACTING THE BASEMENT SOIL AND PREPARING SUBGRADE, IF THE MOISTURE CONTENT IS SUCH THAT THE SPECIFIED RELATIVE COMPACTION CANNOT BE OBTAINED OR THE SUBGRADE IS YIELDING, THE FOLLOWING REMEDIAL ACTION SHOULD BE PROVIDED:
   A. REMOVE EXCESS MOISTURE BY SCARIFYING AND AERATING OR
   B. EXCAVATE UNSTABLE AREAS AND BACKFILL WITH SUITABLE MATERIAL OR BASE OR
   C. INCREASE THE AGGREGATE BASE SECTION OR
   D. STABILIZE THE BASEMENT SOIL WITH SUITABLE ADDITIVES, OR
   E. PROVIDE AN ALTERNATIVE METHOD SUITALBE TO THE CITY ENGINEER.

39. JUNCTION CHAMBER COVERS SHALL BE LEFT AT LEAST 6 INCHES BELOW SUBGRADE AND BROUGHT TO FINAL GRADE UPON COMPLETION OF STREET PAVING. FINAL FRAME SEATING SHALL BE 1/8 INCH BELOW ASPHALT SURFACE.



VICINITY MAP
NOT TO SCALE

BENCHMARK:

S.B.C.B.M. 01111 ELEV. 1197.957 (1982)
1" RND. HEAD BOLT IN N.E. CORNER CONCRETE BASE OF TRAFFIC CONTROL BOX LOCATED AT S.W. CORNER OF FOOTHILL BLVD. AND ETIWANDA AVE.

BASIS IF BEARINGS:

CENTERLINE OF FOOTHILL BOULEVARD SHOWN AS N 89°40'06" W PER RECORD OF SURVEY R.S. B. 39/92

CONSTRUCTION NOTES & ESTIMATED QUANTITIES.

No.	Note	Quantity
10	JOIN RCP TO EXISTING RCB PER DETAIL ON SHEET 2	1 EA.
11	CONSTRUCT MANHOLE B PER CITY STD. NO. 511.	11 EA.
12	CONSTRUCT 42" RCP ~ "D" LOAD PER PROFILE	1,725 L.F.
13	CONSTRUCT 48" RCP ~ "D" LOAD PER PROFILE	308 L.F.
14	CONSTRUCT 54" RCP ~ "D" LOAD PER PROFILE	1,000 L.F.
15	PLUG END OF PIPE WITH BRICK & MORTAR.	2 EA.
16	CONSTRUCT J. STRUCTURE "A" PER CITY STD. NO. 508	1 EA.
17	CONSTRUCT 2000 'D' 18" RCP	378 L.F.
18	CONSTRUCT MANHOLE A PER CITY STD. NO. 510.	1 EA.
30	CONSTRUCT 30" RCP ~ "D" LOAD PER PROFILE	367 L.F.
31	CONSTRUCT 36" RCP ~ "D" LOAD PER PROFILE	209 L.F.
32	~~CONSTRUCT MANHOLE "B" PER CITY STD. 511~~	EA.
33	CONSTRUCT 3.5' WIDE INLET TYPE OS PER CALTRANS STD. D72.	2 EA.
34	CONSTRUCT 10' WIDE INLET TYPE OL PER CALTRANS STD. D72.	1 EA.
35	CONSTRUCT CATCH BASIN PER DETAIL ON SHT. NO. 6	8 EA.
36	CONSTRUCT 3/8" THK. (MIN. 3.52' INSIDE DIA.) STEEL PIPE SLEEVE FOR JACKING OF 36" RCP PER CALTRANS STD. SPECIFICATIONS.	100 L.F.
37	CONSTRUCT 1/2" THK. (MIN. 2.96' INSIDE DIA.) STEEL PIPE SLEEVE FOR JACKING OF 30" RCP PER CALTRANS STD. SPECIFICATIONS.	109 L.F.

△1 PIPE CONNECTION TO EX. 42" RCP STORM DRAIN PER CITY OF RANCHO CUCAMONGA STD PLAN NO. 333, CASE 1, DR 98-06 AND DETAIL ON STORM DRAIN PLAN SHEET 5 OF 6 (30 OF 43).

REGISTERED PROFESSIONAL ENGINEER HONG CAO No. 047118 Exp 12/31/99 CIVIL STATE OF CALIFORNIA — ONLY △1

REGISTERED PROFESSIONAL ENGINEER WILHELM JOHN MAHL No. 42549 CIVIL STATE OF CALIFORNIA

Description of Revision	Date	City Approval
△1 PIPE CONNECTION TO EX. 42" RCP STORM DRAIN DR 98-06 BY TRITECH ASSOCIATES, INC.	4-1-99	OFJ

CITY OF RANCHO CUCAMONGA

STORM DRAIN IMPROVEMENTS
LINE A (PUBLIC)
FOOTHILL BOULEVARD
PARCEL MAP 13724

APPROVED BY CITY ENGINEER: William J. O'Neil — DATE: 1-10-92 — R.C.E. NO. 24953

IN CASE OF EMERGENCY, NOTIFY:

SOILS ENGINEER:
ZEISER GEOTECHNICAL, INC.
200 BAKER STREET
SUITE 101
COSTA MESA, CA 92626
PHONE: (714) 755-1355

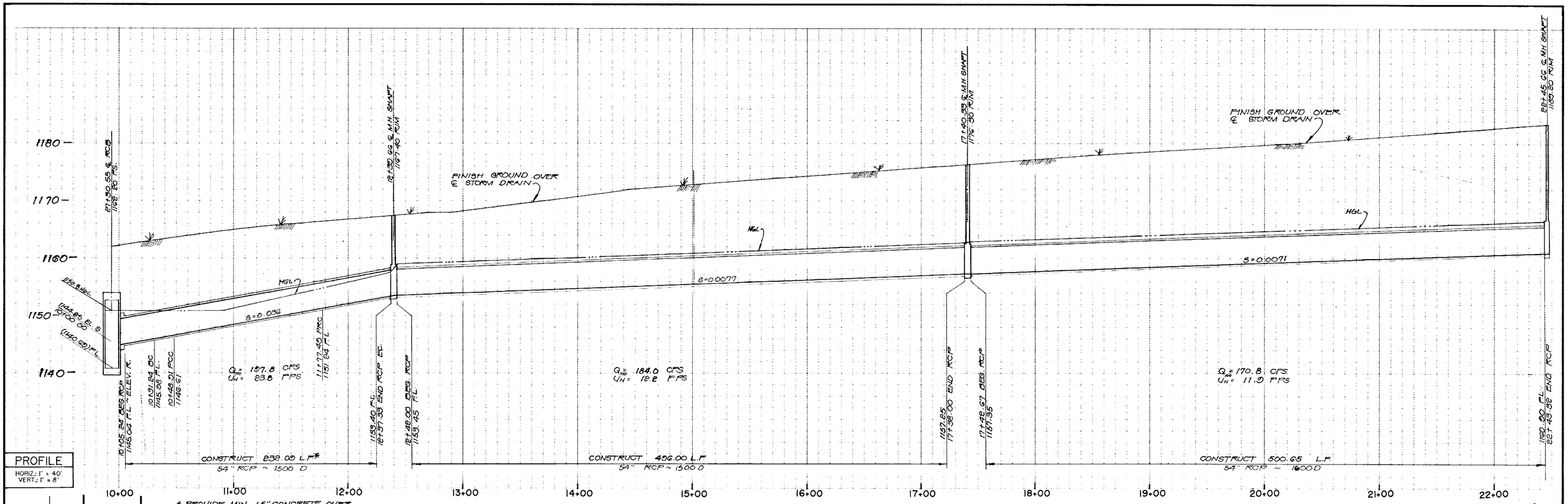
OWNER:
THE WATTSON COMPANY
3620 BIRCH STREET,
SUITE 100
NEWPORT BEACH, CA 92660
PHONE: (714) 759-1583

DESIGN BY: V.C.
DRAWN BY: A.O.E.
CHECKED BY:

THE KEITH COMPANIES
R.C.E. NO. 42549
DATE 12-7-91 JOB NO.

RECOMMENDED
SHEET 1 OF 6
DRAWING NO. 1468-D

Sheet 25 of 43



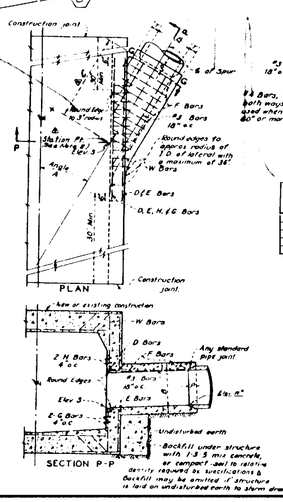


TABLE
for dimensions and bar sizes

B (inches)	T (inches)	G & H	F Bars
24	6	8	
27	6½	9	
30	7	9½	
33	7½	10	
36	8	10½	
42	9	11	
48	10	12	

#5 @ 6" o.c.

NOTES

1. Values for A, B and C are shown on the project drawings. Elevation R and Elevation S are shown when required per Note 8.
2. Stations specified on drawings apply at the intersection of center lines of main line and laterals, except that stations for catch basin connection pipe apply at inside wall of structure.
3. Reinforcing steel shall be per: 2-D11, straight bars 1½" clear from face of concrete unless otherwise shown.
   W bars are of size and spacing specified for wall steel on plan, and shall be cut in center of opening and bent into top and bottom of junction structure.
   Omit W bars when soffit of spur is 12" or less below soffit of main line, and omit C bars when invert of spur is 12" or less above flow of main line.
4. Junction structure shall be poured monolithically with main line storm drain, manhole or transition.
5. Floor of structure shall be steel troweled to the spring line.
6. f'_c = 3000 psi at 28 days.
7. Embedment, P, shall be 5" for B = 96" or less and 8" for B over 96".
8. When Elevation R and Elevation S are not shown on the project drawings inlet opening shall fall 6 inches below the soffit, and inlet pipe shall be laid on a straight grade from main line to catch basin or to grade break in inlet line.
   Elevation S shall be shown on the project drawings when inlet opening falls more than 6 inches below the soffit, and inlet pipe shall be laid on a straight grade as stated above.
   Elevation R shall be shown on the project drawings only when a stub is to be provided for future construction of inlet pipe.

JUNCTION STRUCTURE (10)
REF. TO LACFCD STD. NO. 2-0169

BENCHMARK:
S.B.C.B.M. 01111 ELEV. 1197.957 (1988)
1" RND. HEAD BOLT IN N.E. CORNER CONCRETE BASE OF TRAFFIC CONTROL BOX LOCATED AT S.W. CORNER OF FOOTHILL BLVD. AND ETIWANDA AVENUE.

⬡	DELTA	RADIUS	LENGTH	TANGENT
Ⓐ	45°00'00"	22.50'	17.67'	9.38'
Ⓑ	11°20'01"	650.00'	128.58'	64.50'
Ⓒ	11°25'44"	300.00'	59.84'	30.08'

CONSTRUCTION NOTES:

(10) JOIN RCP TO EXIST. RCB PER DETAIL (A=45°, B=54', C=5.24')
(11) CONSTRUCT M.H. 13 PER CITY STD. NO. 511.
(14) CONSTRUCT 54" RCP ~ "D" LOAD PER PROFILE

REGISTERED PROFESSIONAL ENGINEER
WILHELM JOHN NEIL
No. 42549
Exp. 3-31-94
CIVIL
STATE OF CALIFORNIA

DESCRIPTION OF REVISION	DATE	CITY APPROVAL

CITY OF RANCHO CUCAMONGA

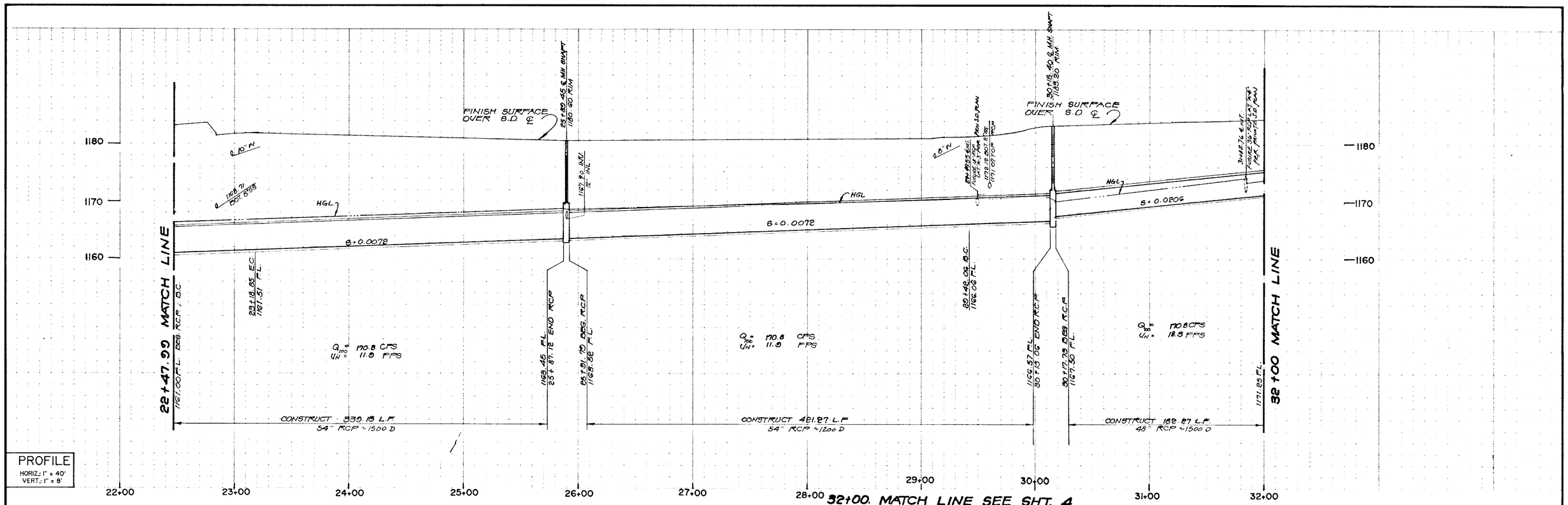
STORM DRAIN IMPROVEMENT PLAN
LINE A
STA. 10+00 TO STA. 22+47.99
PARCEL MAP NO. 13724

APPROVED BY CITY ENGINEER: William J. Neil — DATE 3-24-94 — R.C.E. NO. 24953

DESIGN BY: V.C.
DRAWN BY: A.E.
CHECKED BY: B.M.
DATE: 5-1-92
R.C.E. NO. 42549
JOB NO. 11416.00
RE COPIE NEED
SHEET 2 OF 6
DRAWING NO. 1468-D

BORDER AND TITLE BLOCK SET-UP - 121(0.340)PF1, 11416.2102, 26-Mar-91 09:15 AM / 11416.00-999

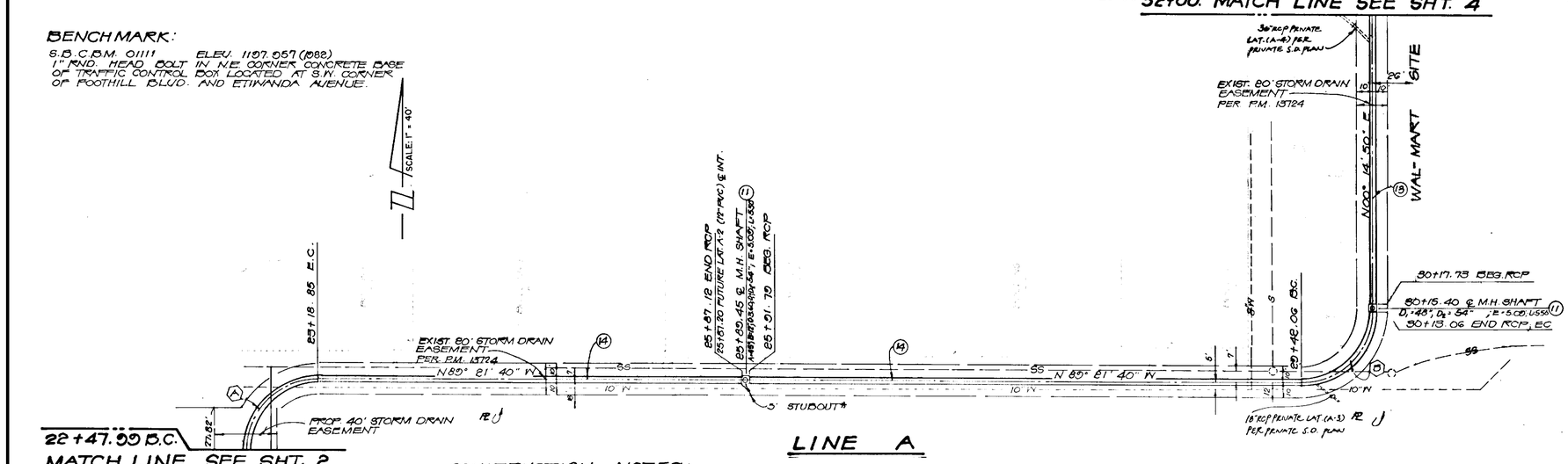
Sheet 26 of 43



PROFILE
HORIZ.: 1" = 40'
VERT.: 1" = 8'

32+00. MATCH LINE SEE SHT. 4

BENCHMARK:
S.B.C.B.M. 01111 ELEV. 1197.957 (1982)
1" RND. HEAD BOLT IN N.E. CORNER CONCRETE BASE OF TRAFFIC CONTROL BOX LOCATED AT S.W. CORNER OF FOOTHILL BLVD. AND ETIWANDA AVENUE.



22+47.99 B.C.
MATCH LINE SEE SHT. 2

LINE A

	DELTA	RADIUS	LENGTH	TANGENT
(A)	90° 15' 34"	45.00'	70.86'	45.18
(B)	90° 23' 30"	45.00'	70.99'	45.31

CONSTRUCTION NOTES:

(11) CONSTRUCT MANHOLE "B" PER CITY STD NO. 511
(14) CONSTRUCT 54" RCP ~ "D" LOAD PER PROFILE.
(13) CONSTRUCT 48" RCP ~ "D" LOAD PER PROFILE.

* IF CONSTRUCTION OF LATERALS IS NOT CONCURRENT WITH THE MAIN LINE CONSTRUCTION, LATERAL STUBS ARE TO BE CAPPED WITH BRICK AND MORTAR PLUG FOR FUTURE STORM DRAIN CONNECTIONS.

REGISTERED PROFESSIONAL ENGINEER
WILHELM JOHN MAUL
No. 42549
Exp. 2-2-96
CIVIL
STATE OF CALIFORNIA

DESCRIPTION OF REVISION	DATE	CITY APPROVAL

CITY OF RANCHO CUCAMONGA

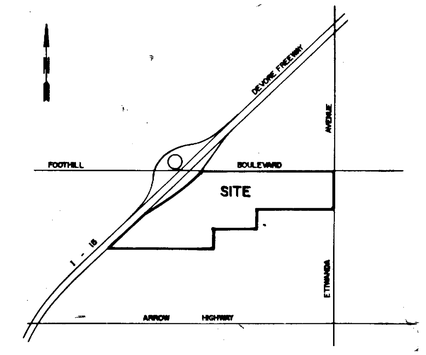
STORM DRAIN IMPROVEMENT PLAN
LINE A
STA. 22+47.99 TO 32+00.00
PARCEL MAP NO. 13724

APPROVED BY CITY ENGINEER William J. Neil DATE 2-24-94 R.C.E. NO. 24953
DESIGN BY: V.C.
DRAWN BY: A.E.
CHECKED BY: B.M.
R.C.E. NO. 42549
DATE: 2-24-94 JOB NO. 11416.00
RECOMMENDED
SHEET 3 OF 6
DRAWING NO. 1468-D99

BORDER AND TITLE BLOCK SET-UP - 121(0.340)PF: 11416 2102 26-Mar-91 09:15 AM / 11415.00-999

CUCAMONGA COUNTY WATER DISTRICT
SEWER IMPROVEMENT PLANS
FOR
PARCEL MAP NO. 13724

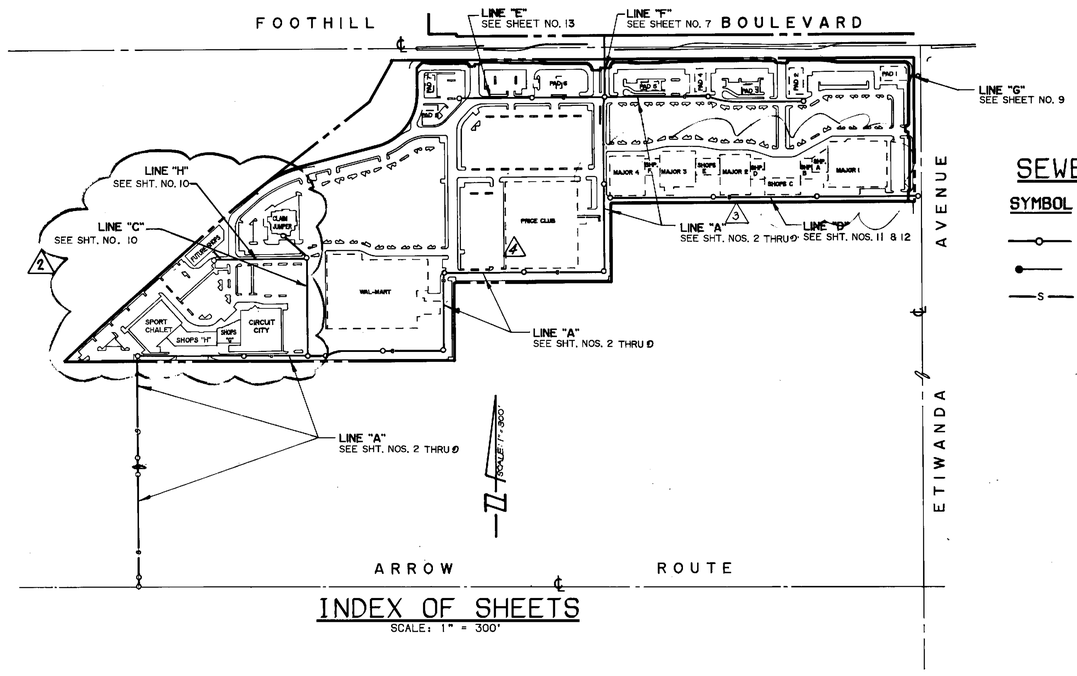
NOTE: QUANTITIES SHOWN ARE FOR PERMIT PURPOSES ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN ESTIMATE FOR BIDDING AND SHALL BID A COMPLETE JOB. CONTRACTOR SHALL ALSO ADVISE OWNER AND ENGINEER OF ANY APPARENT DISCREPANCIES IN ESTIMATES.



VICINITY MAP
NOT TO SCALE

SEWER GENERAL NOTES

1. ALL SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CUCAMONGA COUNTY WATER DISTRICT STANDARDS AND SPECIFICATIONS.
2. CONTRACTOR SHALL RETURN A LEGIBLE AND CLEAN SET OF "AS-BUILT" DRAWINGS TO THE CUCAMONGA COUNTY WATER DISTRICT.
3. ALL SEWER LINES SHALL BE V.C.P. (VITRIFIED CLAY PIPE) AND SHALL CONFORM TO THE SPECIFICATIONS OF THE CUCAMONGA COUNTY WATER DISTRICT. SLOPE FOR V.C.P. SHALL BE 0.4% OR GREATER.
4. ANY CONTRACTOR PERFORMING WORK ON THIS PROJECT SHALL FAMILIARIZE HIMSELF WITH THE SITE AND SHALL BE SOLELY RESPONSIBLE FOR ANY DAMAGE TO EXISTING FACILITIES RESULTING DIRECTLY OR INDIRECTLY FROM HIS OPERATIONS, WHETHER OR NOT SUCH FACILITIES ARE SHOWN ON THESE PLANS.
5. ALL 4" HOUSE LATERAL CONNECTIONS SHALL BE CONNECTED TO THE MAIN LINE BY MEANS OF A WYE CONNECTION UNLESS NOTED OTHERWISE.
6. A PERMIT WILL BE REQUIRED FROM THE CITY OF RANCHO CUCAMONGA ROAD DEPARTMENT PRIOR TO ANY CONSTRUCTION WITHIN STREET RIGHT-OF-WAY.
7. DEVELOPER SHALL HAVE HIS ENGINEER VERIFY MANHOLE ELEVATIONS PRIOR TO PAVEMENT OF STREETS TO ALLOW FOR CHANGES IN CONSTRUCTION OF THE MANHOLE, IF NECESSARY.
8. ANY CHANGES RESULTING IN A CHANGE OF MANHOLE DEPTH OR CHANGES CONCERNING SEWER CONSTRUCTION SHALL BE REPORTED TO THE CUCAMONGA COUNTY WATER DISTRICT.
9. BACKWATER VALVES SHALL BE REQUIRED ON ALL SERVICE LATERALS WHICH CONNECT TO THE DISTRICT'S SEWER SYSTEM IN ACCORDANCE WITH STANDARD SPECIFICATIONS, SECTION 16, PG. S16-1, PROVISION 16-01, OF THE CUCAMONGA COUNTY WATER DISTRICT.
10. SAND BEDDING AND SAND BACKFILL IN PIPE ZONE IS REQUIRED UNLESS NATIVE MATERIAL IS SUITABLE AS DETERMINED BY THE DISTRICT.
11. CONTRACTOR IS RESPONSIBLE FOR SECURING FROM THE CUCAMONGA COUNTY WATER DISTRICT COPIES OF THE STANDARD SPECIFICATIONS FOR THE INSTALLATION OF THE PROPOSED SEWER SYSTEM.
12. SEPARATION BETWEEN WATER MAINS AND SANITARY SEWER LINES SHALL CONFORM TO THE STATE OF CALIFORNIA ENVIRONMENTAL HEALTH CODE, TITLE 22, SECTION 64630-C.
13. GREASE INTERCEPTORS ARE REQUIRED FOR THE PROPER HANDLING OF LIQUID WASTE CONTAINING GREASE, SAND AND/OR NON-DOMESTIC SOLIDS. AN APPROVED TYPE INTERCEPTOR SHALL BE INSTALLED TO COMPLY WITH CUCAMONGA COUNTY WATER DISTRICT STANDARDS 16-02.
14. CONTRACTOR SHALL NOTIFY THE CUCAMONGA COUNTY WATER DISTRICT AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION.
15. APPROVAL OF THIS PLAN BY THE CUCAMONGA COUNTY WATER DISTRICT DOES NOT CONSTITUTE A REPRESENTATION OF THE ACCURACY OR THE EXISTENCE OF ANY UNDERGROUND FACILITY.
16. SEWER CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING MANHOLE CHANNEL GUARDS IN ALL SEWER SYSTEMS AS DIRECTED BY THE DISTRICT.



INDEX OF SHEETS
SCALE: 1" = 300'

SEWER LEGEND

SYMBOL	DESCRIPTION
—o—	MANHOLE
—●	CLEAN-OUT
—S—	8" V.C.P. SEWER MAIN

CONSTRUCTION NOTES

ITEM	DESCRIPTION	QUANTITY	
21	CONSTRUCT 8" V.C.P. SEWER MAIN PER CCWD STD. DWG. 30.	8,500 ~~8,174~~	L.F.
22	CO CONSTRUCT 30" VCP SEWER MAIN	2 577	L.F.
23	CONSTRUCT 48" STANDARD MANHOLE PER CCWD STD. DWG. 18.	24 ~~23~~	EA.
24	CONSTRUCT 60" STANDARD DROP MANHOLE PER CCWD STD. DWG. 19.	1	EA.
25	CONNECT TO EXISTING MANHOLE.	2	EA.
26	CONSTRUCT 60" STANDARD MANHOLE PER CCWD STD. DWG. 18	2	EA.
27	CAP & PLUG 8" SEWER FOR FUTURE CONNECTION.	2	EA.
28	CONSTRUCT 4" V.C.P. SEWER LATERAL PER CCWD STD. DWG. 15 AND 25.	~~1150~~ ~~1062~~ 2 1396	L.F.
29	CONSTRUCT 6" V.C.P. SEWER LATERAL PER CCWD STD. DWG. 15 AND 25.	333	L.F.
30	CONSTRUCT STANDARD CLEAN-OUT PER CCWD STD. DWG. 21.	2 3 4	EA.
31	PLUG END OF PIPE WITH BRICK AND MORTAR CAP.	1	EA.

GENERAL NOTES - CALTRANS

An encroachment permit is required before any work may begin in or near the State right of way.

All work within the State right of way shall conform to the latest STATE STANDARD PLANS & SPECIFICATIONS or as directed by the State's representative (Standards other than State must be pre-approved and justified).

No equipment or materials may be stored on the State right of way.

Where survey monuments exist, such monuments shall be protected or shall be referenced and reset pursuant to Business and Professions Code, Sections 8700 to 8805 (Land Surveyor's Act).

The pavement must be saw-cut 2' minimum from the edge of pavement. The saw-cuts must be perpendicular or parallel to the State highway centerline.

All signing, striping and pavement markings shall be in conformance with the current edition of the TRAFFIC MANUAL, published by the State of California, Department of Transportation, and the SPECIAL PROVISIONS. All pavement markings shall be thermoplastic unless otherwise noted on the plans.

The location of all signs shall be determined in the field by the State's representative.

All conflicting striping and pavement markings not shown on the plans shall be removed from the pavement by sandblasting by the contractor.

All conflicting signs shall be either removed or relocated by the contractor. Relocatable signs shall be installed as specified on the plans of as determined in the field by the State's representative.

All signs, roadside markers, electroliers, etc., shall be protected and/or replaced in-kind according to the current State Standard Plans and the current Traffic Manual, at no cost to the State.

NOTE: 2 & 3 BY FUSCOE ENGINEERING, (714) 474-1960

5	RELOCATE PROPOSED 4" LATERAL	4/29/92	
4	ADD 4" LATERALS AND C.O.	7/29/92	
3	REVISE EAST END LAT. LOCATIONS	7/29/92	
2	REVISE WEST END LAT. LOCATIONS, AND LINE "H"	7/29/92	
1	ADDED EXIST. 8" WATERLINE IN FOOTHILL	7/29/92	

B.B.C.B.M. 01111
ELEV. 1197.967 (1982)
1" RND. HEAD BOLT IN N.E. CORNER CONCRETE BASE OF TRAFFIC CONTROL BOX LOCATED AT S.W. CORNER OF FOOTHILL BLVD. AND ETIWANDA AVENUE

THE KEITH COMPANIES
- PLANNING
- CIVIL
- LANDSCAPE
- ARCHITECTURE
- LAND SURVEYING
- CONSTRUCTION MANAGEMENT

8989 ROCHELLE, CUCAMONGA, CA 91730 (714) 945-0800

Wilhelm Maul 9991
WILHELM J. MAUL R.C.E. 42549 EXP. 3/31/92 DATE

A DEVELOPMENT BY
THE WATTSON COMPANY
3620 BIRCH STREET, SUITE 100
NEWPORT BEACH, CALIFORNIA 92660
PHONE: (714) 757-7776
FAX : (714) 757-7788

June 8, 1992
James F. Cline Jr.
CUCAMONGA COUNTY WATER DISTRICT
ENGINEERING DEPARTMENT
(714) 987-2591

DESIGNED BY	DRAWN BY	CHECKED BY
RDK	AOE	CCWD

SCALE 1" = 300'
WORK ORDER No.

CUCAMONGA COUNTY WATER DISTRICT
SEWER IMPROVEMENT PLANS
PARCEL MAP NO. 13724

DRAWING No. CD - 122
92-S4-1
SHT. 1 OF 13

REGISTERED PROFESSIONAL ENGINEER WILHELM JOHN MAUL No. 42549 Exp. 2-21-96 CIVIL STATE OF CALIFORNIA

**** SEWER TITLE SHEET ******** - 165[0.340]PF: 11416 2602 05-Sep-91 03:37 PM / 11416.00-999
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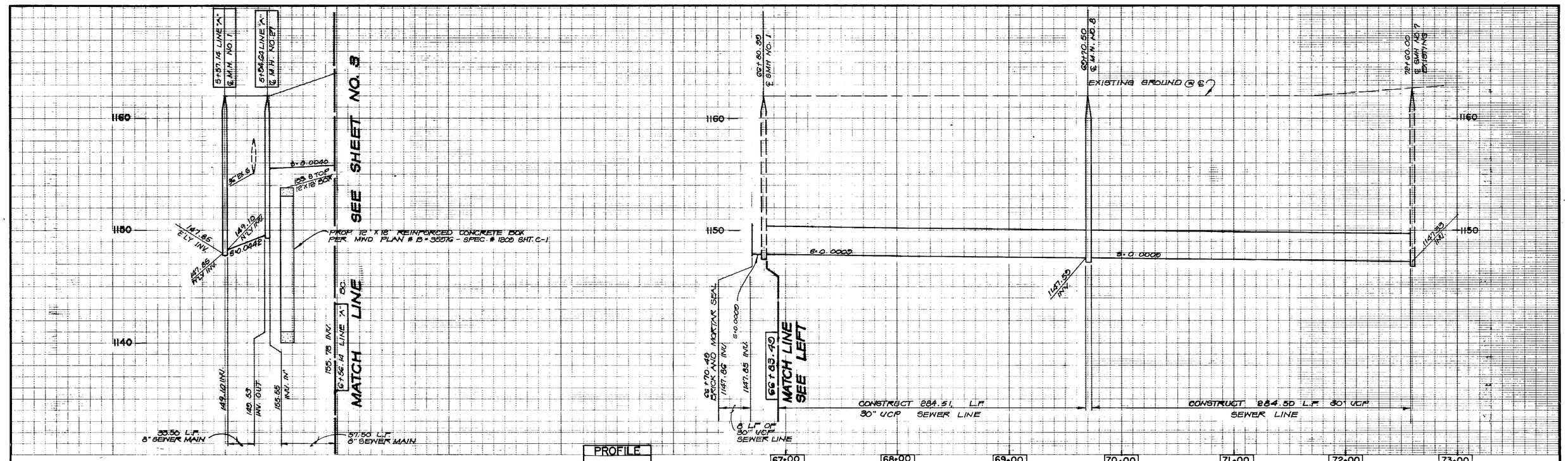
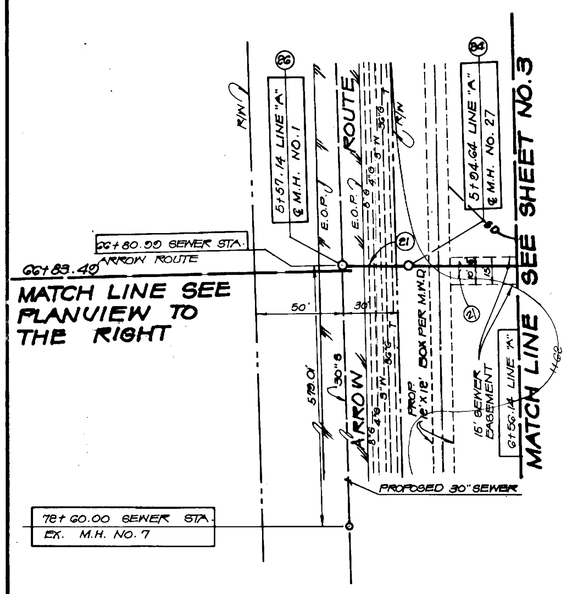
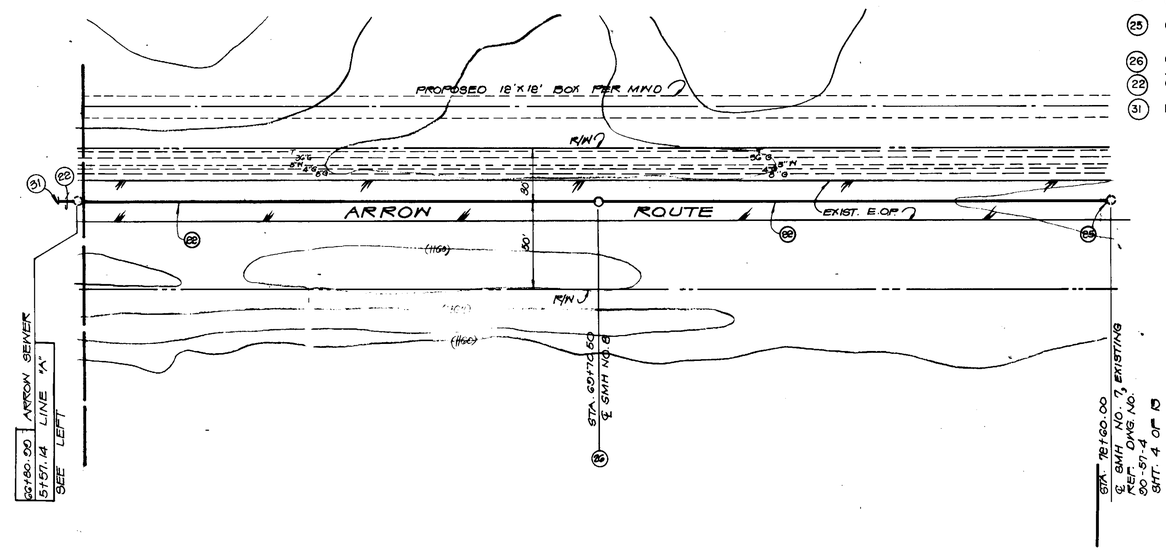


PROFILE
HORIZ.: 1" = 40'
VERT.: 1" = 4'





CONSTRUCTION NOTES

(21) CONSTRUCT 8" V.C.P. SEWER MAIN PER CCWD STD. DWG. 30

(24) CONSTRUCT 60" STANDARD DROP MANHOLE PER CCWD STD. DWG. NO. 19

(25) CONNECT TO EXISTING MANHOLE

(26) CONSTRUCT 60" STANDARD MANHOLE

(22) CONSTRUCT 30" VCP SEWER MAIN

(31) PLUG END OF PIPE WITH BRICK AND MORTAR CAP

SCALE: 1" = 40'

REGISTERED PROFESSIONAL ENGINEER WILHELM JOHN HAUL No. 42549 Exp. 3-31-96 CIVIL STATE OF CALIFORNIA

REV.	DESCRIPTION	DATE	APP'D

BENCH MARK
S.B.C.B.M. 01111
ELEV. 1197.957 (1988)
1" RND. HEAD BOLT IN N.E. CORNER CONCRETE BASE OF TRAFFIC CONTROL BOX LOCATED AT S.W. CORNER OF FOOTHILL BLVD. AND ETIWANDA AVENUE

THE KEITH COMPANIES
Wilhelm Haul 9-9-91
WILHELM J. HAUL R.C.E. 42549 EXP. 3/31/92 DATE

A DEVELOPMENT BY
THE WATTSON COMPANY
3620 BIRCH STREET, SUITE 100
NEWPORT BEACH, CALIFORNIA 92660
PHONE: (714) 757-7776
FAX : (714) 757-7788

DATE APPROVED June 3, 1992
BY ENGINEER
CUCAMONGA COUNTY WATER DISTRICT
ENGINEERING DEPARTMENT
9641 SAN BERNARDINO ROAD, CUCAMONGA, CA. 91730
(714) 987-2591

DESIGNED BY	DRAWN BY	CHECKED BY
RDK	AOE	CCWD

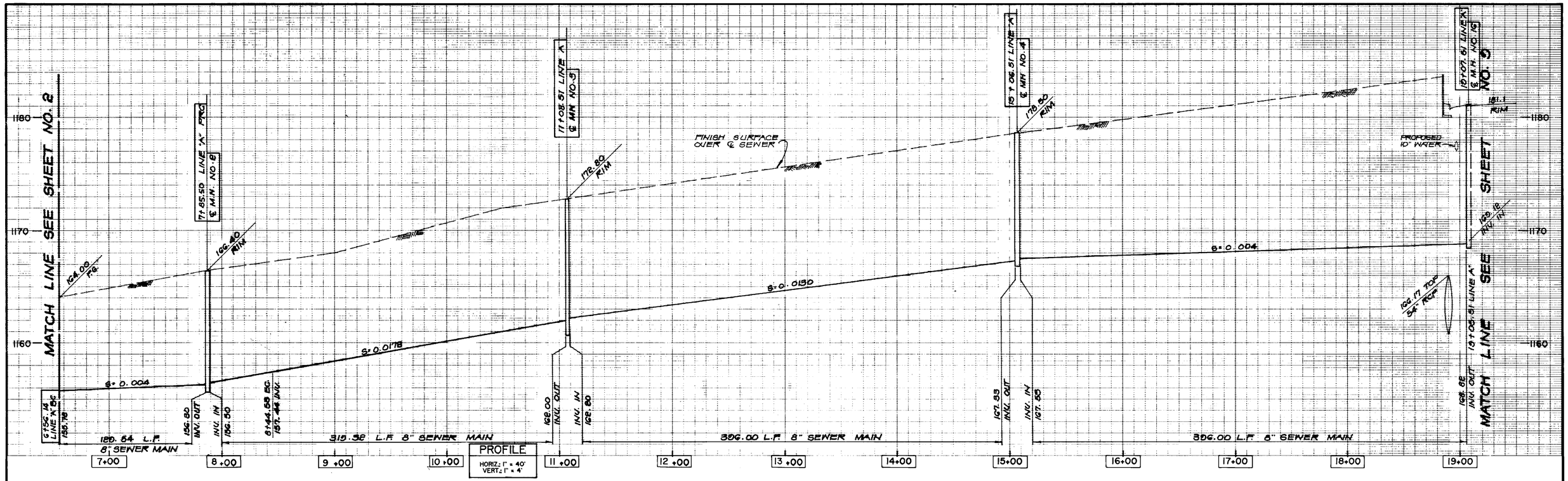
SCALE 1" = 40'
WORK ORDER No.

CUCAMONGA COUNTY WATER DISTRICT
SEWER IMPROVEMENT PLANS
LINE "A" STA. 10+00.00 TO 19+53.30
PARCEL MAP NO. 13724

DRAWING No. 92-54-2
SHT. 2 OF 13

P40 SEWER TITLE BLOCK ANNOTATION - 165(0.340)PF: 11416 2603 06-Sep-91 03:15 PM / 11416.00-9

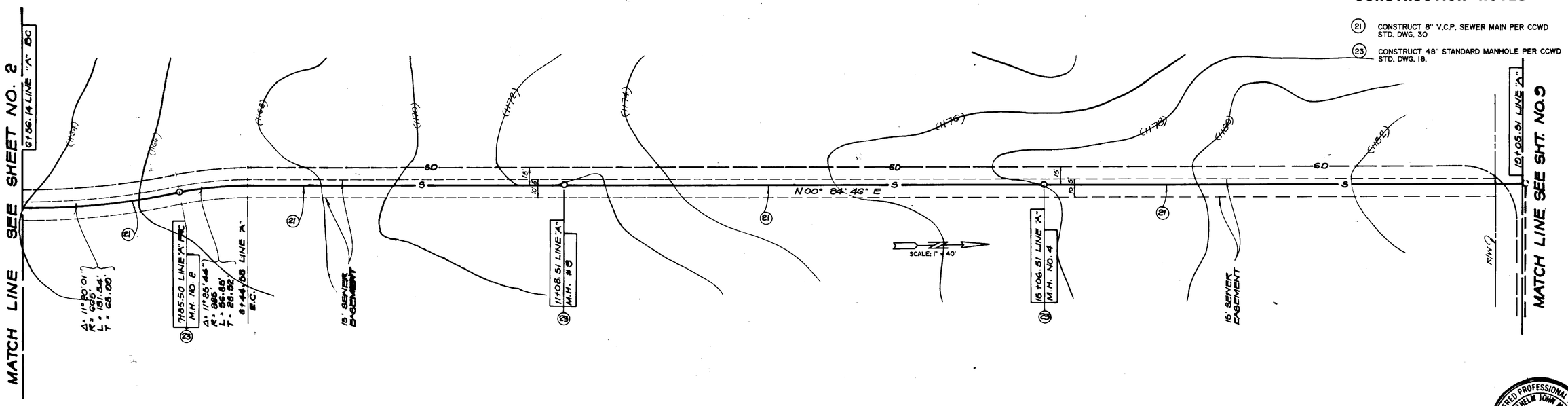
AS BUILT



CONSTRUCTION NOTES

(21) CONSTRUCT 8" V.C.P. SEWER MAIN PER CCWD STD. DWG. 30

(23) CONSTRUCT 48" STANDARD MANHOLE PER CCWD STD. DWG. 18.



REGISTERED PROFESSIONAL ENGINEER
WILHELM JOHN MAUL
No. 42549
Exp. 3-31-96
CIVIL
STATE OF CALIFORNIA

REV.	DESCRIPTION	DATE	APP'D

BENCH MARK
S.B.C.B.M. 01111
ELEV. 1197.957 (1982)
1" RND. HEAD BOLT IN N.E. CORNER CONCRETE BASE OF TRAFFIC CONTROL BOX LOCATED AT S.W. CORNER OF FOOTHILL BLVD. AND ETIWANDA AVENUE

THE KEITH COMPANIES
2900 REDHILL COSTA MESA, CA 92626 (714) 540-2500
Wilhelm Maul 9-9-91
WILHELM J. MAUL R.C.E. 42549 EXP. 3/31/92 DATE

A DEVELOPMENT BY
THE WATTSON COMPANY
3620 BIRCH STREET, SUITE 100
NEWPORT BEACH, CALIFORNIA 92660
PHONE: (714) 757-7776
FAX : (714) 757-7788

DATE APPROVED June 3, 1992
BY James F. Cline Jr.
ENGR.
CUCAMONGA COUNTY WATER DISTRICT
ENGINEERING DEPARTMENT
9641 SAN BERNARDINO ROAD, CUCAMONGA, CA. 91730
(714) 987-2591

DESIGNED BY	DRAWN BY	CHECKED BY
RDK	AOE	CCWD

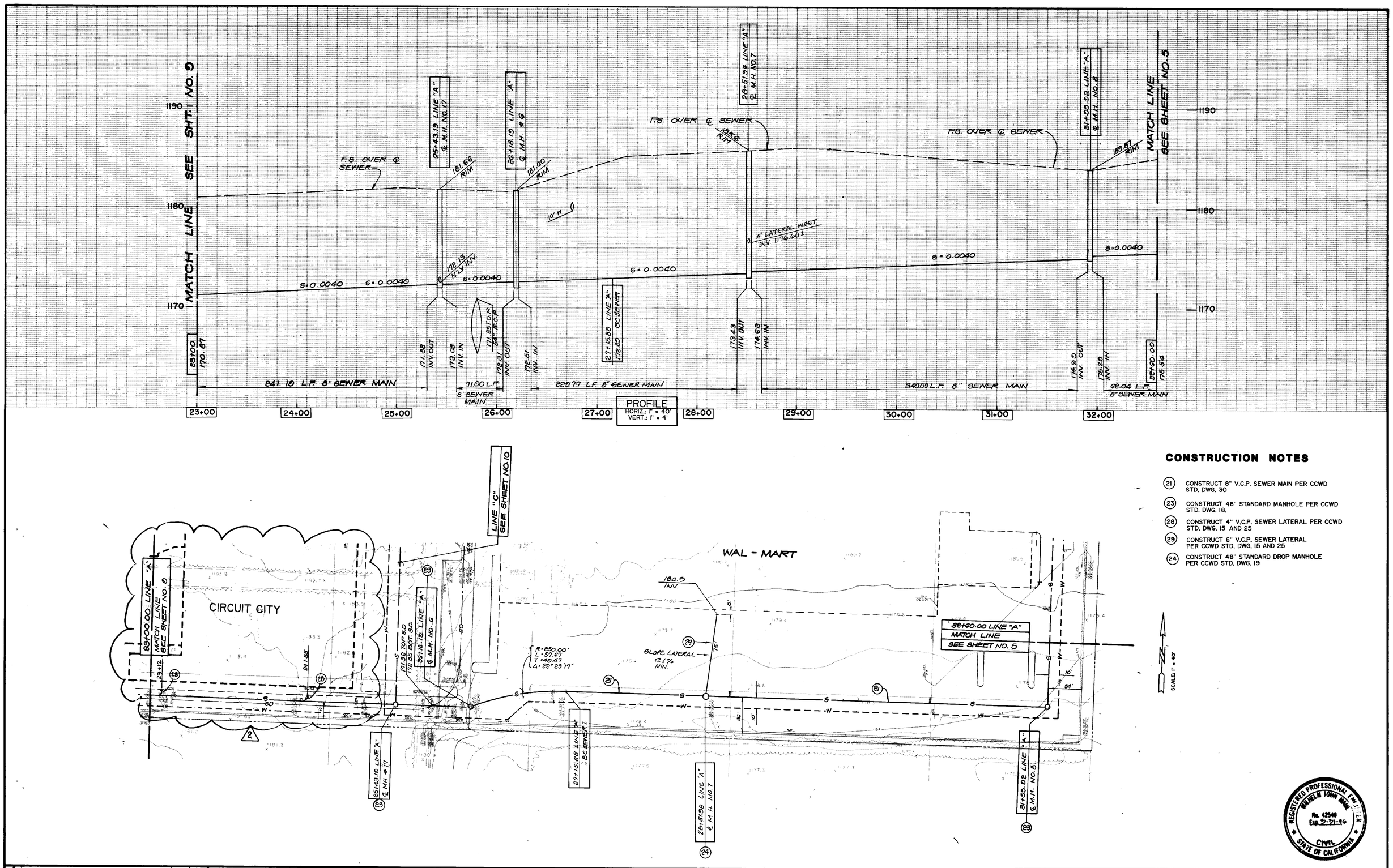
SCALE 1" = 40'
WORK ORDER No.

CUCAMONGA COUNTY WATER DISTRICT
SEWER IMPROVEMENT PLANS
LINE "A" STA. 19+53.30 TO 24+00.00
PARCEL MAP NO. 13724

DRAWING No. 92-54-3
SHT. 3 OF 13

P40 SEWER TITLE BLOCK ANNOTATION - 165(0.340)PF; 11416 2603 05-Sep-91 03:15 PM / 11416.00-999

AS BUILT



CONSTRUCTION NOTES

(21) CONSTRUCT 8" V.C.P. SEWER MAIN PER CCWD STD. DWG. 30

(23) CONSTRUCT 48" STANDARD MANHOLE PER CCWD STD. DWG. 18.

(28) CONSTRUCT 4" V.C.P. SEWER LATERAL PER CCWD STD. DWG. 15 AND 25

(29) CONSTRUCT 6" V.C.P. SEWER LATERAL PER CCWD STD. DWG. 15 AND 25

(24) CONSTRUCT 48" STANDARD DROP MANHOLE PER CCWD STD. DWG. 19

REGISTERED PROFESSIONAL ENGINEER WILHELM JOHN MAUL No. 42549 Exp. 3-31-92 CIVIL STATE OF CALIFORNIA

REV.	DESCRIPTION	DATE	APP'D
2	ELIMINATE LATERAL LOCATION.	7/19/91	

BENCH MARK

S.B.C.B.M. 01111
ELEV. 1197.957 (1982)
1" RND. HEAD BOLT IN N.E. CORNER CONCRETE BASE OF TRAFFIC CONTROL BOX LOCATED AT S.W. CORNER OF FOOTHILL BLVD. AND ETIWANDA AVENUE

THE KEITH COMPANIES
• PLANNING • CIVIL • ENGINEERING • LANDSCAPE ARCHITECTURE • LAND SURVEYING • CONSTRUCTION MANAGEMENT
2990 REDHILL COSTA MESA, CA 92626 (714) 540-0800

Wilhelm Maul 9-9-91
WILHELM J. MAUL R.C.E. 42549 EXP. 3/31/92 DATE

A DEVELOPMENT BY
THE WATTSON COMPANY
3620 BIRCH STREET, SUITE 100
NEWPORT BEACH, CALIFORNIA 92660
PHONE: (714) 757-7776
FAX : (714) 757-7788

DATE APPROVED June 3, 1992
BY James J. Cline
ENGINEERING SUPERVISOR

CUCAMONGA COUNTY WATER DISTRICT
ENGINEERING DEPARTMENT
9641 SAN BERNARDINO ROAD, CUCAMONGA, CA. 91730
(714) 987-2591

DESIGNED BY	DRAWN BY	CHECKED BY
RDK	AOE	CCWD

SCALE 1" = 40'
WORK ORDER No.

CUCAMONGA COUNTY WATER DISTRICT

SEWER IMPROVEMENT PLANS

LINE "A" STA. 23+00.00 TO 32+60.00

PARCEL MAP NO. 13724

DRAWING No. 92-54-4

SHT. 4 OF 13

P40 SEWER TITLE BLOCK ANNOTATION - 16510.3401PF: 11416 2603 06-Sep-91 03:15 PM / 11416.00-999

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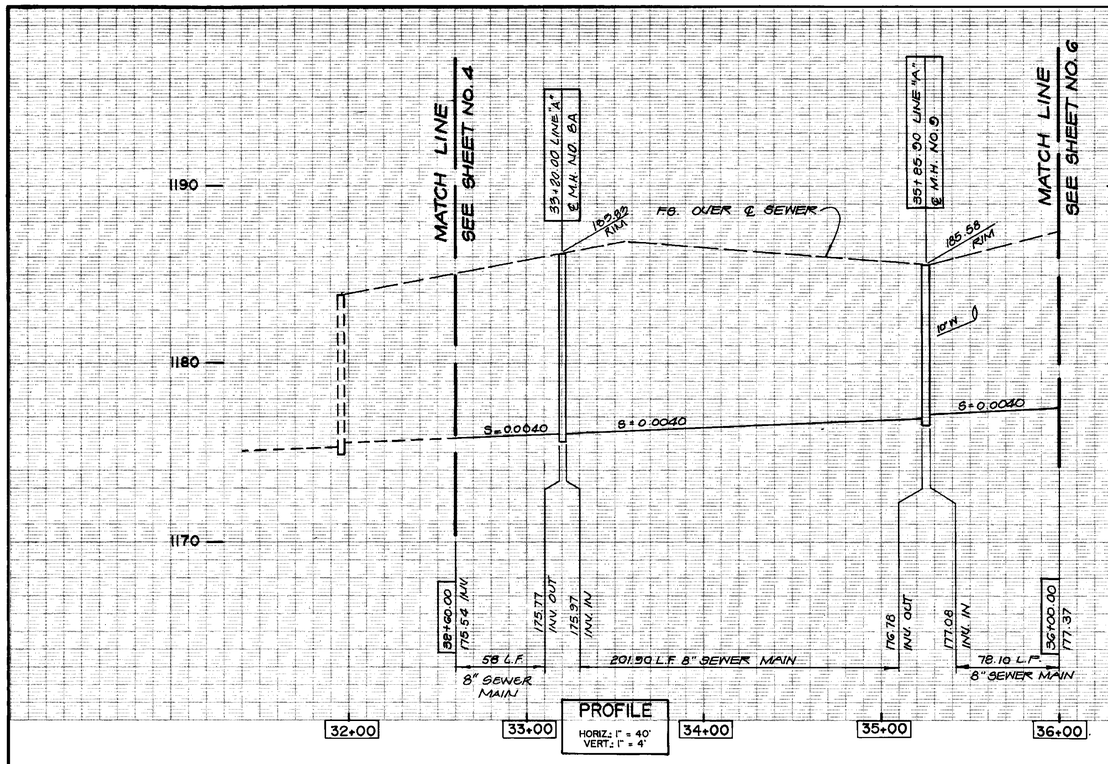

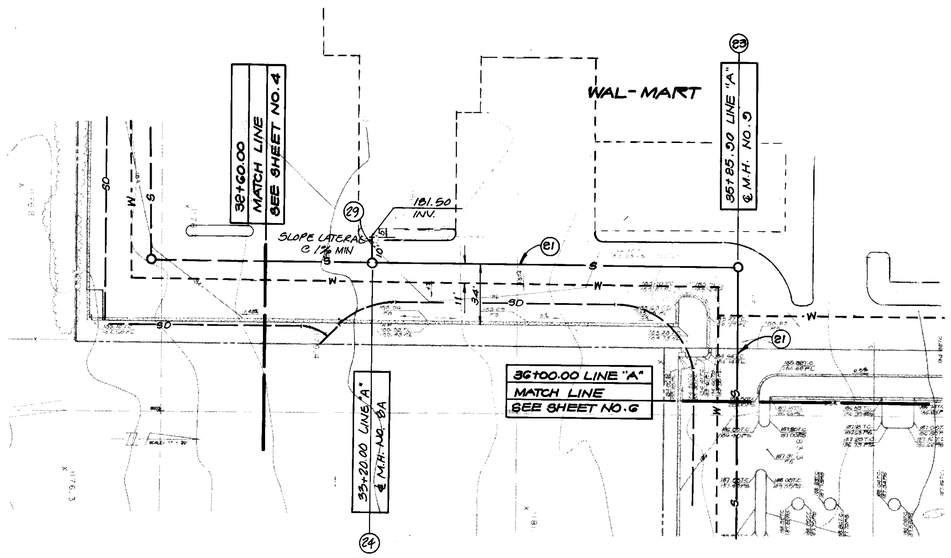

CONSTRUCTION NOTES

(21) CONSTRUCT 8" V.C.P. SEWER MAIN PER CCWD STD. DWG. 30.

(23) CONSTRUCT 48" STANDARD MANHOLE PER CCWD STD. DWG. 18.

(24) CONSTRUCT 48" STANDARD DROP MANHOLE PER CCWD STD. DWG. 19

(29) CONSTRUCT 4" V.C.P. SEWER LATERAL PER CCWD STD. DWG. 15 AND 25

REGISTERED PROFESSIONAL ENGINEER WILHELM JOHN MAUL No. 42549 Exp. 3-31-92 CIVIL STATE OF CALIFORNIA

REV.	DESCRIPTION	DATE	APP'D
△			
△			
△			
△			
△			

BENCH MARK

S.B.C.B.M. 01111
ELEV. 1197.957 (1962)
1" RND. HEAD BOLT IN N.E. CORNER CONCRETE BASE OF TRAFFIC CONTROL BOX LOCATED AT S.W. CORNER OF FOOTHILL BLVD. AND ETIWANDA AVENUE

THE KEITH COMPANIES
-PLANNING -CIVIL -ENGINEERING -LANDSCAPE ARCHITECTURE -LAND SURVEYING -CONSTRUCTION MANAGEMENT
2595 REDHILL COSTA MESA, CA 92626 (714) 540-9669

Wilhelm Maul 9-9-91
WILHELM J. MAUL R.C.E. 42549 EXP. 3/31/92 DATE

A DEVELOPMENT BY
THE WATTSON COMPANY
3620 BIRCH STREET, SUITE 100
NEWPORT BEACH, CALIFORNIA 92660
PHONE: (714) 757-7776
FAX : (714) 757-7788

DATE APPROVED June 3, 1992
BY [signature]
ENGINEERING SUPERVISOR
CUCAMONGA COUNTY WATER DISTRICT
ENGINEERING DEPARTMENT
9641 SAN BERNARDINO ROAD, CUCAMONGA, CA. 91730
(714) 987-2591

DESIGNED BY	DRAWN BY	CHECKED BY
RDK	AOE	CCWD

SCALE 1" = 40'
WORK ORDER No.

CUCAMONGA COUNTY WATER DISTRICT
SEWER IMPROVEMENT PLANS
LINE "A" STA. 32+60.00 TO 36+00.00
PARCEL MAP NO. 13724

DRAWING No. 92-54-5
SHT. 5 OF 13

P40 SEWER TITLE BLOCK ANNOTATION - 165[0.3401]PF; 11416 2603 06-Sep-91 03:15 PM / 11416.00-999
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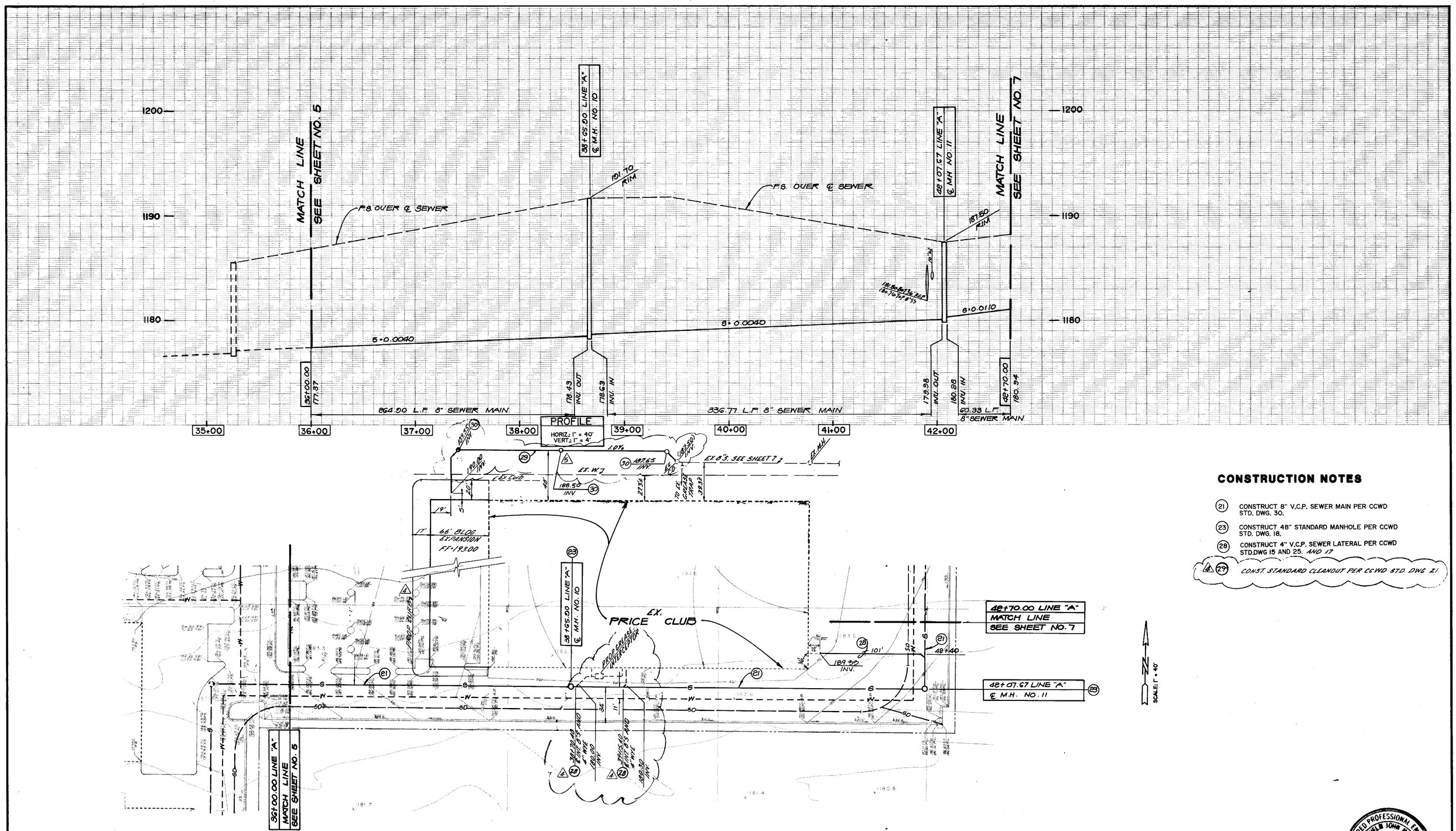

CONSTRUCTION NOTES

(21) CONSTRUCT 8" V.C.P. SEWER MAIN PER CCWD STD. DWG. 30.

(23) CONSTRUCT 48" STANDARD MANHOLE PER CCWD STD. DWG. 18.

(28) CONSTRUCT 4" V.C.P. SEWER LATERAL PER CCWD STD.DWG 15 AND 25. AND 17

(4) (29) CONST. STANDARD CLEANOUT PER CCWD STD. DWG 21.

REGISTERED PROFESSIONAL ENGINEER
WILHELM JOHN MAUL
No. 42549
Exp. 3-31-96
CIVIL
STATE OF CALIFORNIA

REV.	DESCRIPTION	DATE	APPD
5	RELOCATE PROPOSED 4" LATERAL	8/22/96	
4	ADD THREE 4" LATERALS AND TWO C.O.	7/29/96	

BENCH MARK
B.B.C.B.M. 01111
ELEV. 1197.957 (1982)
1" RND. HEAD BOLT IN N.E. CORNER CONCRETE BASE OF TRAFFIC CONTROL BOX LOCATED AT S.W. CORNER OF FOOTHILL BLVD. AND ETIWANDA AVENUE

THE KEITH COMPANIES
-PLANNING -CIVIL ENGINEERING -LANDSCAPE ARCHITECTURE -LAND SURVEYING -CONSTRUCTION MANAGEMENT
2995 REDHILL COSTA MESA, CA 92626 (714)540-6900
Wilhelm Maul 9-9-91
WILHELM J. MAUL R.C.E. 42549 EXP. 3/31/92 DATE

A DEVELOPMENT BY
THE WATTSON COMPANY
3620 BIRCH STREET, SUITE 100
NEWPORT BEACH, CALIFORNIA 92660
PHONE: (714) 757-7776
FAX : (714) 757-7788

DATE APPROVED June 3, 1992
BY [signature]
ENGINEERING SUPERVISOR
CUCAMONGA COUNTY WATER DISTRICT
ENGINEERING DEPARTMENT
9641 SAN BERNARDINO ROAD, CUCAMONGA, CA. 91730
(714) 987-2591

DESIGNED BY	DRAWN BY	CHECKED BY
RDK	AOE	CCWD

SCALE 1" = 40'
WORK ORDER No.

CUCAMONGA COUNTY WATER DISTRICT
SEWER IMPROVEMENT PLANS
LINE "A" STA. 36+00.00 TO 42+70.00
PARCEL MAP NO. 13724

DRAWING No. 92-54-6
SHT. 6 OF 13

P40 SEWER TITLE BLOCK ANNOTATION - 165(0.340)PF; 11416 2603 05-Sep-91 03:15 PM / 11416.00-999

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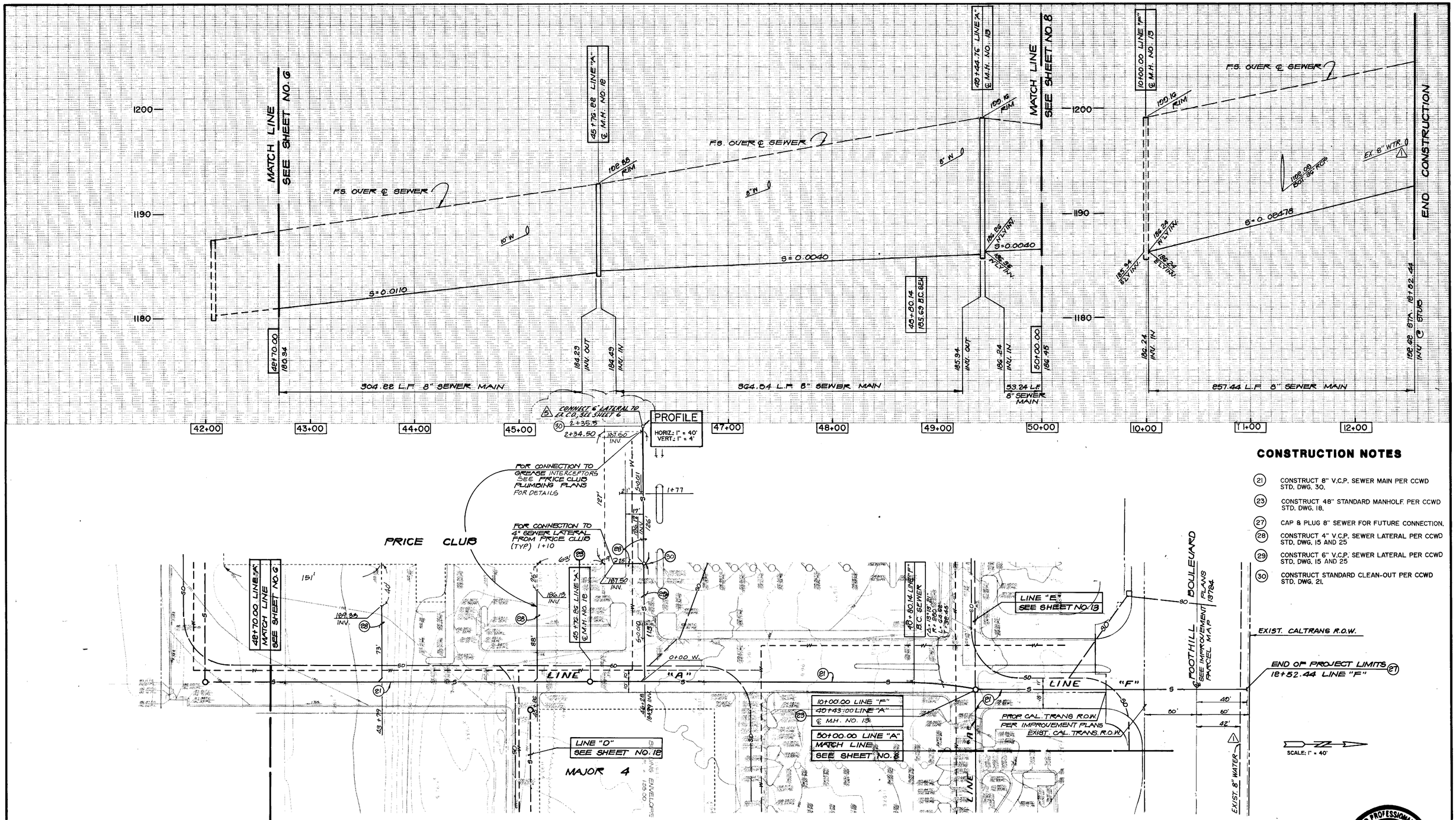

CONSTRUCTION NOTES

(21) CONSTRUCT 8" V.C.P. SEWER MAIN PER CCWD STD. DWG. 30.

(23) CONSTRUCT 48" STANDARD MANHOLE PER CCWD STD. DWG. 18.

(27) CAP & PLUG 8" SEWER FOR FUTURE CONNECTION.

(28) CONSTRUCT 4" V.C.P. SEWER LATERAL PER CCWD STD. DWG. 15 AND 25

(29) CONSTRUCT 6" V.C.P. SEWER LATERAL PER CCWD STD. DWG. 15 AND 25

(30) CONSTRUCT STANDARD CLEAN-OUT PER CCWD STD. DWG. 21.

REGISTERED PROFESSIONAL ENGINEER WILHELM JOHN HAUL No. 42549 Exp. 3-31-92 CIVIL STATE OF CALIFORNIA

REV.	DESCRIPTION	DATE	APP'D
3			
2			
1			
0	CONNECT 4" LATERAL TO EX. C.O.	9/9/91	
1	ADDED EXIST. 8" WATERLINE IN FOOTHILL	7/24/91	

BENCH MARK
S.B.C.B.M. 01111
ELEV. 1197.957 (1982)
3" RND. HEAD BOLT IN N.E. CORNER CONCRETE BASE OF TRAFFIC CONTROL BOX LOCATED AT S.W. CORNER OF FOOTHILL BLVD. AND ETIWANDA AVENUE

THE KEITH COMPANIES
2995 REDHILL COSTA MESA, CA 92626 (714) 540-9900
PLANNING · CIVIL ENGINEERING · LANDSCAPE ARCHITECTURE · LAND SURVEYING · GEOTECHNICAL · CONSTRUCTION MANAGEMENT

Wilhelm Haul 9-9-91
WILHELM J. HAUL R.C.E. 42549 EXP. 3/31/92 DATE

A DEVELOPMENT BY
THE WATTSON COMPANY
3620 BIRCH STREET, SUITE 100
NEWPORT BEACH, CALIFORNIA 92660
PHONE: (714) 757-7776
FAX : (714) 757-7788

DATE APPROVED June 3, 1992
BY James J. Pike Jr.
ENGINEERING SUPERVISOR
CUCAMONGA COUNTY WATER DISTRICT
ENGINEERING DEPARTMENT
9641 SAN BERNARDINO ROAD, CUCAMONGA, CA. 91730
(714) 987-2591

DESIGNED BY	DRAWN BY	CHECKED BY
RDK	AOE	CCWD

SCALE 1" = 40'
WORK ORDER No.

CUCAMONGA COUNTY WATER DISTRICT
SEWER IMPROVEMENT PLANS
LINE "A" STA. 42+70.00 TO 50+00.00 — LINE "F" STA. 10+00.00 TO 12+59.44
PARCEL MAP NO. 13724

DRAWING No. 92-54-7
SHT. 7 OF 13

P40 SEWER TITLE BLOCK ANNOTATION - 165(0.340)PF: 11416 2603 06-Sep-91 03:15 PM / 11416.00-999

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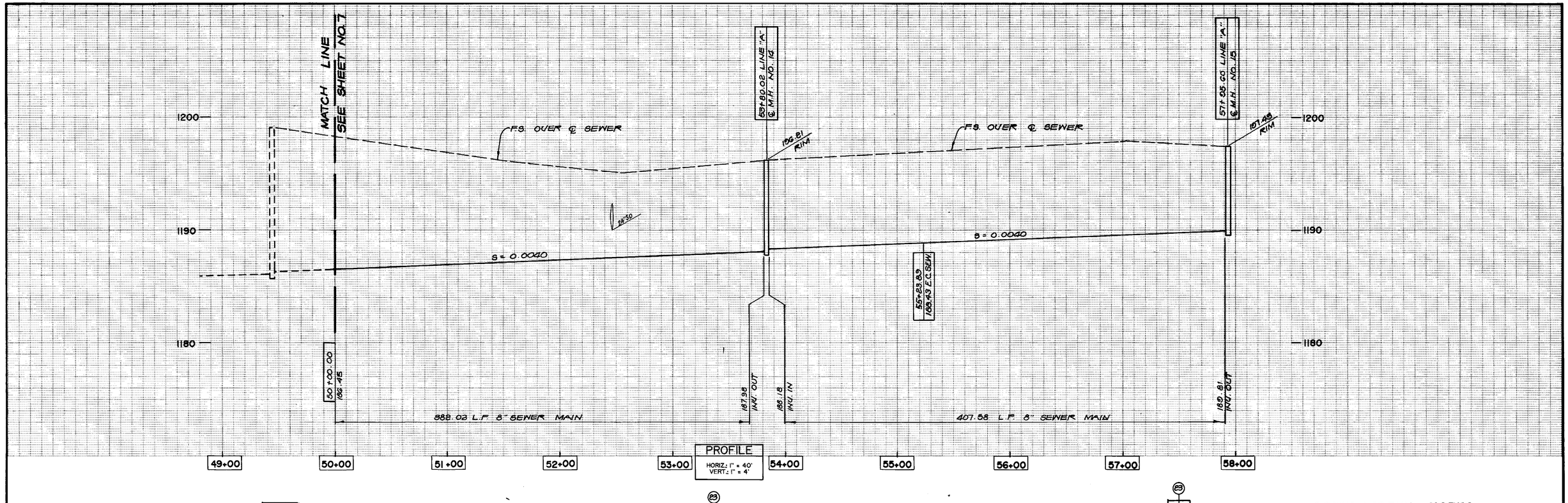
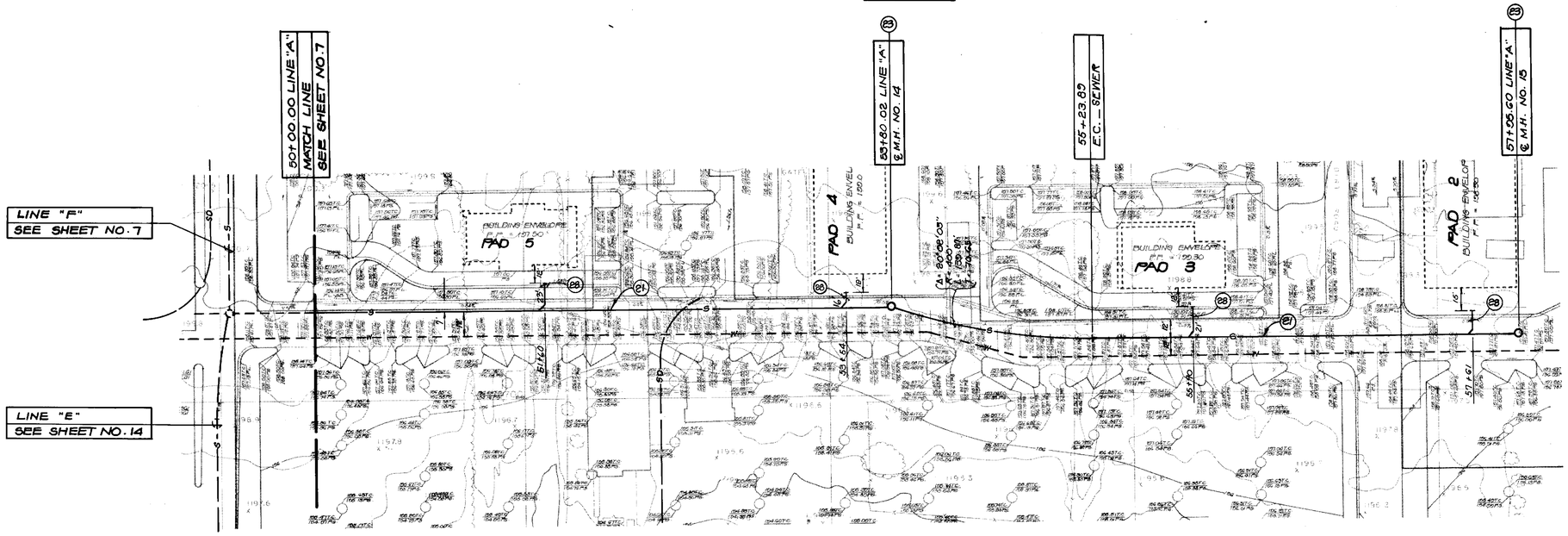




CONSTRUCTION NOTES

(21) CONSTRUCT 8" V.C.P. SEWER MAIN PER CCWD STD. DWG. 30.

(23) CONSTRUCT 48" STANDARD MANHOLE PER CCWD STD. DWG. 18.

(28) CONSTRUCT 4" V.C.P. SEWER LATERAL PER CCWD STD. DWG. 15 AND 25

SCALE: 1" = 40'

REGISTERED PROFESSIONAL ENGINEER
WILHELM JOHN MAUL
No. 42549
Exp. 3-31-96
CIVIL
STATE OF CALIFORNIA

REV.	DESCRIPTION	DATE	APP'D

BENCH MARK
S.B.C.B.M. 01111
ELEV. 1197.957 (1982)
1" RND. HEAD BOLT IN N.E. CORNER CONCRETE BASE OF TRAFFIC CONTROL BOX LOCATED AT S.W. CORNER OF FOOTHILL BLVD. AND ETIWANDA AVENUE

THE KEITH COMPANIES
-PLANNING -CIVIL ENGINEERING -LANDSCAPE ARCHITECTURE -LAND SURVEYING -CONSTRUCTION MANAGEMENT
2990 REDHILL COSTA MESA, CA 92626 (714) 540-0800
Wilhelm Maul 9-9-91
WILHELM J. MAUL R.C.E. 42549 EXP. 3/31/92 DATE

A DEVELOPMENT BY
THE WATTSON COMPANY
3620 BIRCH STREET, SUITE 100
NEWPORT BEACH, CALIFORNIA 92660
PHONE: (714) 757-7776
FAX : (714) 757-7788

DATE APPROVED June 3 1992
BY James J. Cline Jr.
ENGINEERING SUPERVISOR
CUCAMONGA COUNTY WATER DISTRICT
ENGINEERING DEPARTMENT
9641 SAN BERNARDINO ROAD, CUCAMONGA, CA. 91730
(714) 987-2591

DESIGNED BY	DRAWN BY	CHECKED BY
RDK	AOE	CCWD

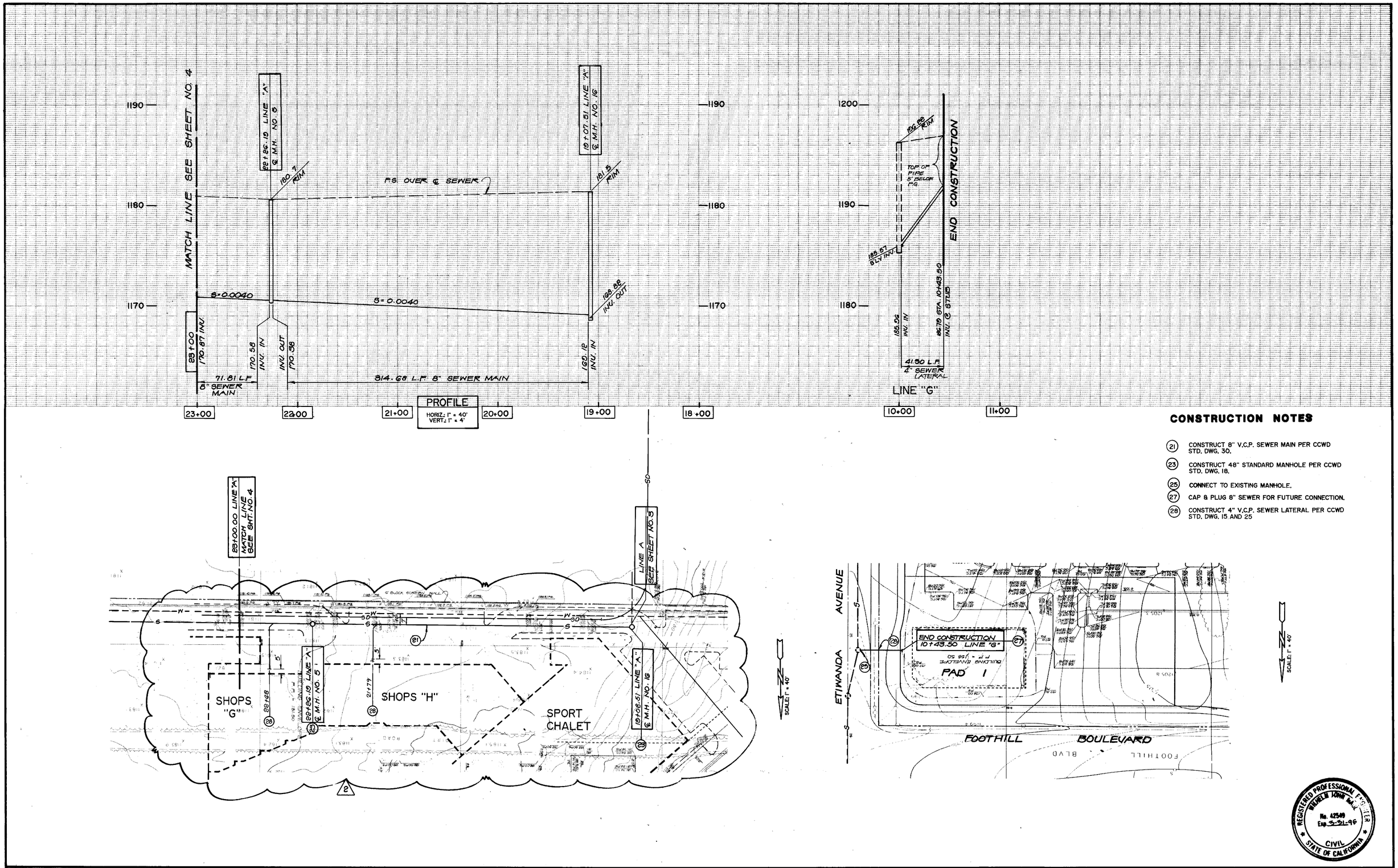
SCALE 1" = 40'
WORK ORDER No.

CUCAMONGA COUNTY WATER DISTRICT
SEWER IMPROVEMENT PLANS
LINE "A" STA. 50+00.00 TO 57+95.65
PARCEL MAP NO. 13724

DRAWING No. 92-SA-8
SHT. 8 OF 13

P40 SEWER TITLE BLOCK ANNOTATION - 165(0.340)PF: 11416 2603 06-Sep-91 03:15 PM / 11416.00-999

AS BUILT



CONSTRUCTION NOTES

(21) CONSTRUCT 8" V.C.P. SEWER MAIN PER CCWD STD. DWG. 30.

(23) CONSTRUCT 48" STANDARD MANHOLE PER CCWD STD. DWG. 18.

(25) CONNECT TO EXISTING MANHOLE.

(27) CAP & PLUG 8" SEWER FOR FUTURE CONNECTION.

(28) CONSTRUCT 4" V.C.P. SEWER LATERAL PER CCWD STD. DWG. 15 AND 25

REGISTERED PROFESSIONAL ENGINEER WILHELM JOHN MAUL No. 42549 Exp. 3-31-96 CIVIL STATE OF CALIFORNIA

REV.	DESCRIPTION	DATE	APP'D
2	REVISE LATERAL LOCATIONS & BLDG. LAYOUT	9/19/93	[illegible]

BENCH MARK
S.B.C.B.M. 01111
ELEV. 1197.957 (1982)
1" RND. HEAD BOLT IN N.E. CORNER CONCRETE BASE OF TRAFFIC CONTROL BOX LOCATED AT S.W. CORNER OF FOOTHILL BLVD. AND ETIWANDA AVENUE

THE KEITH COMPANIES
-PLANNING -CIVIL ENGINEERING -LANDSCAPE ARCHITECTURE -LAND SURVEYING -CONSTRUCTION MANAGEMENT
2995 REDHILL COSTA MESA, CA 92626 (714) 540-0800
Wilhelm Maul 9-9-91
WILHELM J. MAUL R.C.E. 42549 EXP. 3/31/92 DATE

A DEVELOPMENT BY
THE WATTSON COMPANY
3620 BIRCH STREET, SUITE 100
NEWPORT BEACH, CALIFORNIA 92660
PHONE: (714) 757-7776
FAX : (714) 757-7788

DATE APPROVED June 3, 1992
BY [signature]
ENGINEERING SUPERVISOR
CUCAMONGA COUNTY WATER DISTRICT
ENGINEERING DEPARTMENT
9641 SAN BERNARDINO ROAD, CUCAMONGA, CA. 91730
(714) 987-2591

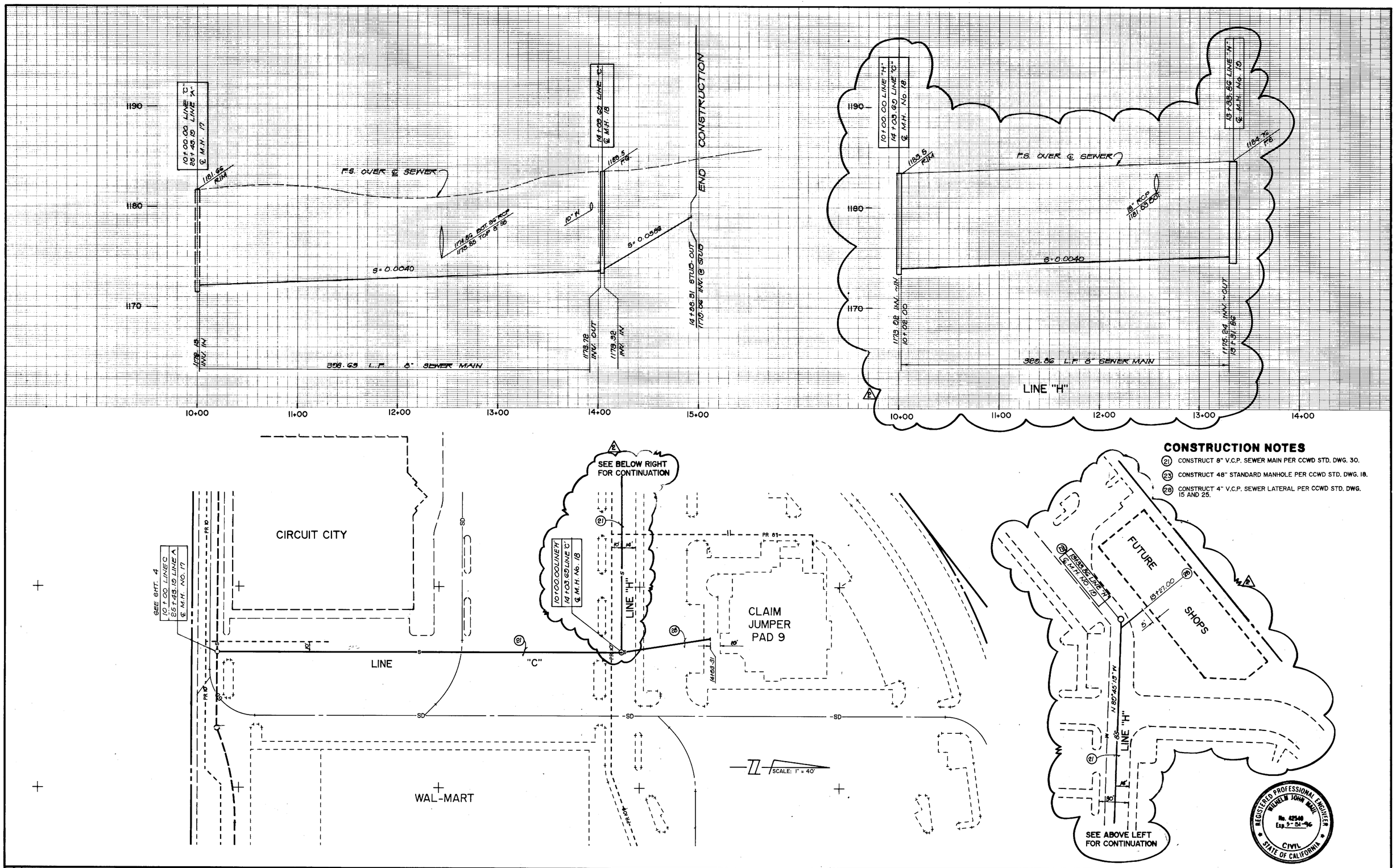
DESIGNED BY	DRAWN BY	CHECKED BY
RDK	AOE	CCWD

SCALE 1" = 40'
WORK ORDER No.

CUCAMONGA COUNTY WATER DISTRICT
SEWER IMPROVEMENT PLANS
LINE "A" STA. 19+07.51 TO 23+00.00 — LINE "G" STA. 10+00.00 TO 10+43.50
PARCEL MAP NO. 13724

DRAWING No. 92-54-9
SHT. 9 OF 13

P40 SEWER TITLE BLOCK ANNOTATION - 165[0.340]PF: 11416 2603 06-Sep-91 03:15 PM / 11416.00-999



CONSTRUCTION NOTES

(21) CONSTRUCT 8" V.C.P. SEWER MAIN PER CCWD STD. DWG. 30.

(23) CONSTRUCT 48" STANDARD MANHOLE PER CCWD STD. DWG. 18.

(28) CONSTRUCT 4" V.C.P. SEWER LATERAL PER CCWD STD. DWG. 15 AND 25.

REV.	DESCRIPTION	DATE	APP'D
2	ADD LINE "H".	3/19/92	

BENCH MARK
S.B.C.B.M. 01111
ELEV. 1197.957 (1982)
1" RND. HEAD BOLT IN N.E. CORNER CONCRETE BASE OF TRAFFIC CONTROL BOX LOCATED AT S.W. CORNER OF FOOTHILL BLVD. AND ETIWANDA AVENUE

THE KEITH COMPANIES
-PLANNING -CIVIL ENGINEERING -LANDSCAPE ARCHITECTURE -LAND SURVEYING -CONSTRUCTION MANAGEMENT
2985 REDHILL COSTA MESA, CA 92626 (714) 540-6999
Wilhelm Maul 3-18-92
WILHELM J. MAUL R.C.E. 42549 EXP. 3/31/92 DATE

A DEVELOPMENT BY
THE WATTSON COMPANY
3620 BIRCH STREET, SUITE 100
NEWPORT BEACH, CALIFORNIA 92660
PHONE: (714) 757-7776
FAX : (714) 757-7788

DATE APPROVED June 3, 1992
BY James F. Clair Jr.
ENGINEER DIRECTOR
CUCAMONGA COUNTY WATER DISTRICT
ENGINEERING DEPARTMENT
9641 SAN BERNARDINO ROAD, CUCAMONGA, CA. 91730
(714) 987-2591

DESIGNED BY	DRAWN BY	CHECKED BY
TLK	AOE	CCWD

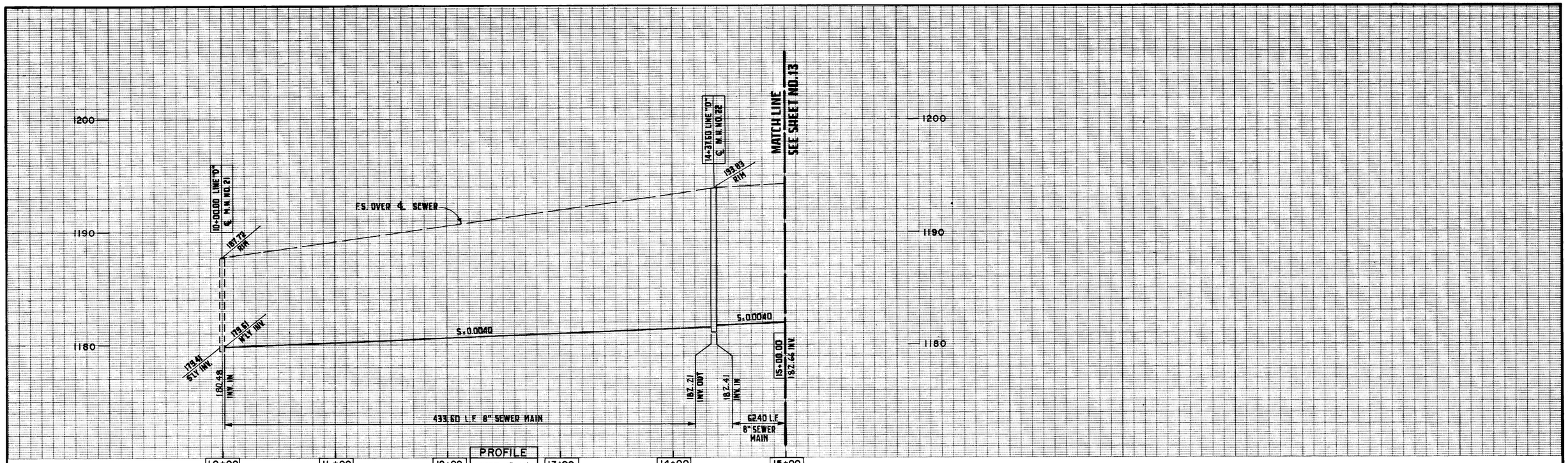
SCALE
WORK ORDER No.

CUCAMONGA COUNTY WATER DISTRICT
SEWER IMPROVEMENT PLANS
LINE "C" STA. 10+00.00 TO 14+98.31
PARCEL MAP NO. 13724

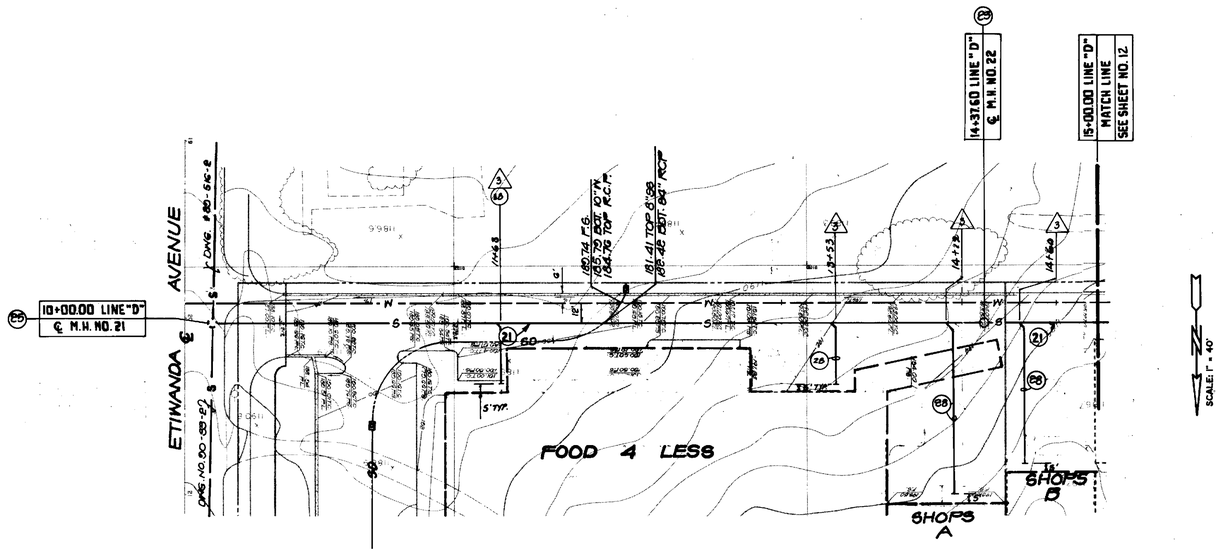
DRAWING No. 92-54-10
SHT. 10 OF 13

240+ ON-SITE SEWER TO CLAIM JUMPER - 121 (0.340) PF: 11416 2604 18-Mar-92 07:11 PM / 11416.00-999

AS BUILT



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



CONSTRUCTION NOTES

(21) CONSTRUCT 8" V.C.P. SEWER MAIN PER CCWD STD. DWG. 30.

(23) CONSTRUCT 48" STANDARD MANHOLE PER CCWD STD. DWG. 18

(25) CONNECT TO EXISTING MANHOLE

(26) CONSTRUCT 4" V.C.P. SEWER LATERAL PER CCWD STD. DWG. 15 AND 25

REGISTERED PROFESSIONAL ENGINEER WERNER W. JOHN HAUL No. 42549 Exp. 3-31-94 CIVIL STATE OF CALIFORNIA

REV.	DESCRIPTION	DATE	APP'D
5	REVISE EAST END LAT. LOCATIONS	7/9/92	

BENCH MARK
B.B.C.B.M. 01111
ELEV. 1197.957 (1982)
1" RND. HEAD BOLT IN N.E. CORNER CONCRETE BASE OF TRAFFIC CONTROL BOX LOCATED AT S.W. CORNER OF FOOTHILL BLVD. AND ETIWANDA AVENUE

THE KEITH COMPANIES
-PLANNING -CIVIL -ENGINEERING -SURVEYING -MAPPING -ARCHITECTURE -LAND SURVEYING -CONSTRUCTION MANAGEMENT
8980 REDWILL COSTA MESA, CA 92626 (714) 540-9990
Wilhelm Haul 4-9-91
WILHELM J. HAUL R.C.E. 42549 EXP. 3/31/92 DATE

A DEVELOPMENT BY
THE WATTSON COMPANY
3620 BIRCH STREET, SUITE 100
NEWPORT BEACH, CALIFORNIA 92660
PHONE: (714) 757-7776
FAX : (714) 757-7788

DATE APPROVED June 3, 1992
BY James H. Cline Jr.
ENGINEERING SUPERVISOR
CUCAMONGA COUNTY WATER DISTRICT
ENGINEERING DEPARTMENT
9641 SAN BERNARDINO ROAD, CUCAMONGA, CA. 91730
(714) 987-2591

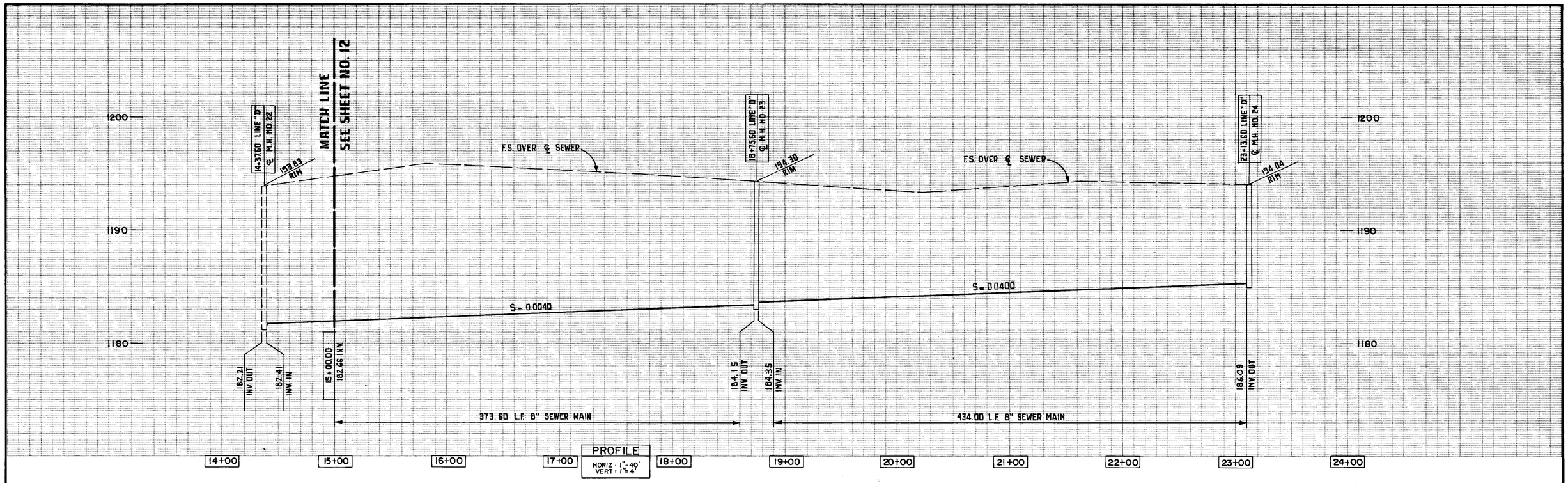
DESIGNED BY	DRAWN BY	CHECKED BY
RDK	AOE	CCWD

SCALE: 1" = 40'
WORK ORDER No.

CUCAMONGA COUNTY WATER DISTRICT
SEWER IMPROVEMENT PLANS
LINE "D" STA. 10+00.00 TO 15+00.00
PARCEL MAP NO. 13724

DRAWING No. 92-54-11
SHT. 11 OF 13

.540* SEWER TITLE BLOCK ANNOTATION - 165(0.340)PF: 11415 2603 05-Sep-91 03:15 PM / 11416.00-999



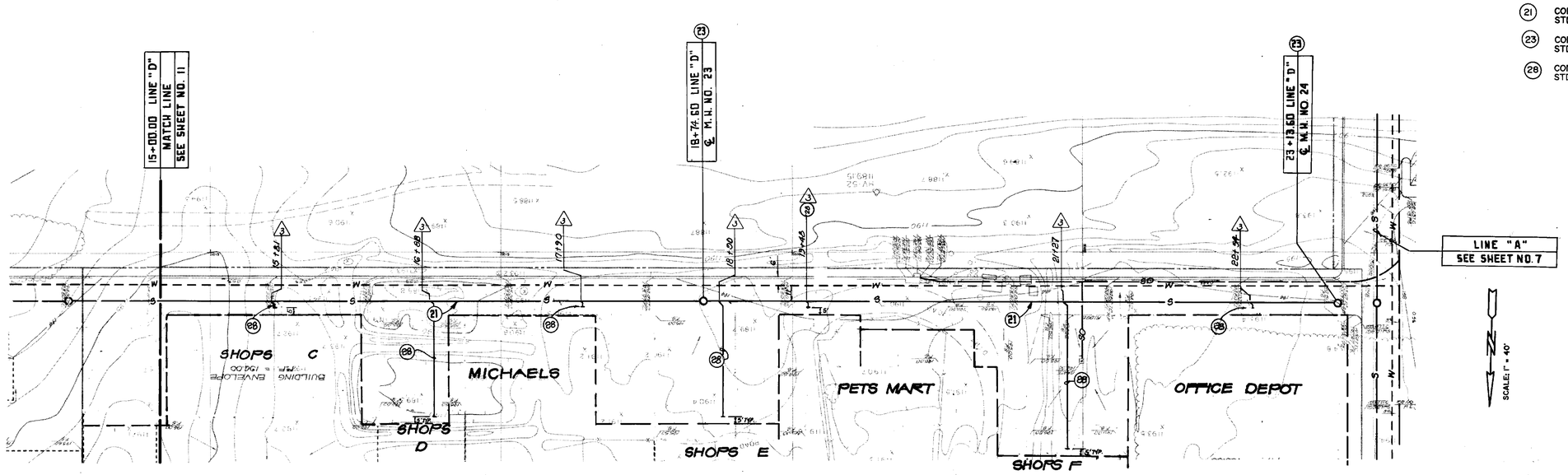
PROFILE
HORIZ: 1" = 40'
VERT: 1" = 4'

CONSTRUCTION NOTES

(21) CONSTRUCT 8" V.C.P. SEWER MAIN PER CCWD STD. DWG. 30.

(23) CONSTRUCT 48" STANDARD MANHOLE PER CCWD STD. DWG. 18

(28) CONSTRUCT 4" V.C.P. SEWER LATERAL PER CCWD STD. DWG. 15 AND 25.



REGISTERED PROFESSIONAL ENGINEER
WILHELM JOHN MAUL
No. 42549
Exp. 3-31-94
CIVIL
STATE OF CALIFORNIA

REV.	DESCRIPTION	DATE	APPD
3	REVISE EAST END LATERALS LOCATIONS	8/6/93	

BENCH MARK
S.B.C.B.M. 01111
ELEV. 1197.957 (1982)
1" RND. HEAD BOLT IN N.E. CORNER CONCRETE BASE OF TRAFFIC CONTROL BOX LOCATED AT S.W. CORNER OF FOOTHILL BLVD. AND ETIWANDA AVENUE

THE KEITH COMPANIES
-PLANNING
-CIVIL ENGINEERING
-LANDSCAPE ARCHITECTURE
-LAND SURVEYING
-CONSTRUCTION MANAGEMENT
2900 REDHILL COSTA MESA, CA 92626 (714) 540-0900
Wilhelm Maul 9-9-91
WILHELM J. MAUL R.C.E. 42549 EXP. 3/31/92 DATE

A DEVELOPMENT BY
THE WATTSON COMPANY
3620 BIRCH STREET, SUITE 100
NEWPORT BEACH, CALIFORNIA 92660
PHONE: (714) 757-7776
FAX : (714) 757-7788

DATE APPROVED June 3, 1992
BY James H. Cline Jr.
ENGINEERING SUPERVISOR
CUCAMONGA COUNTY WATER DISTRICT
ENGINEERING DEPARTMENT
9641 SAN BERNARDINO ROAD, CUCAMONGA, CA. 91730
(714) 987-2591

DESIGNED BY	DRAWN BY	CHECKED BY
RDK	AOE	CCWD

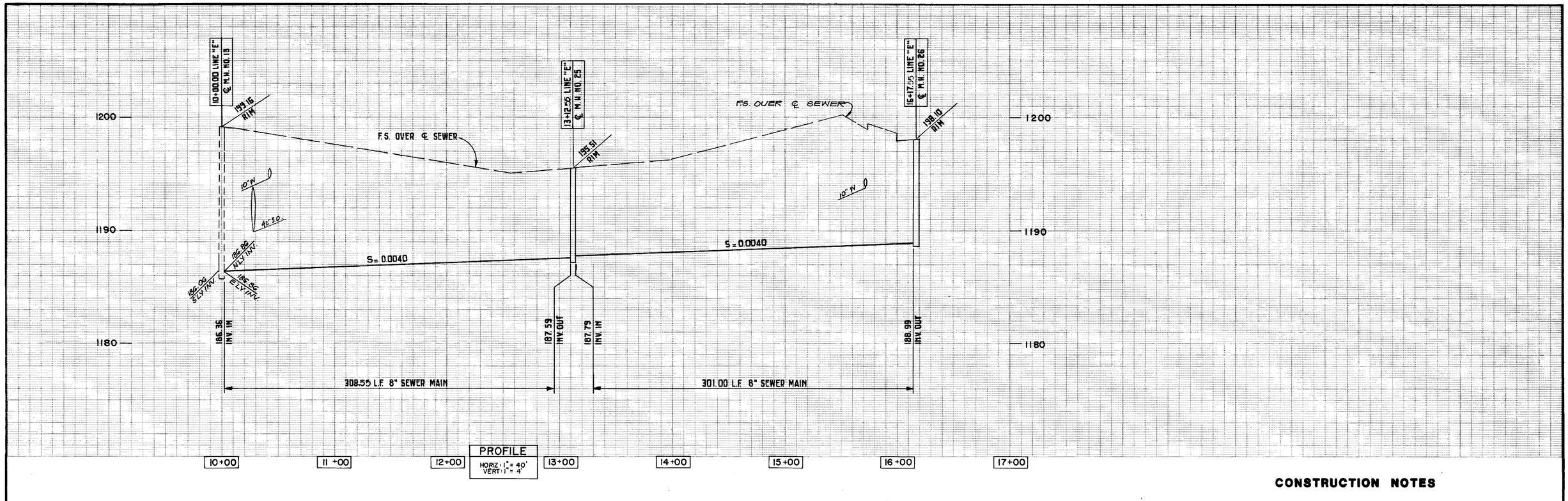
SCALE 1" = 40'
WORK ORDER No.

CUCAMONGA COUNTY WATER DISTRICT
SEWER IMPROVEMENT PLANS
LINE "D" STA. 15+00.00 TO 23+13.60
PARCEL MAP NO. 13724

DRAWING No. 92-S4-12
SHT. 12 OF 13

40* SEWER TITLE BLOCK ANNOTATION - 165(0.340)PF: 11416 2603 06-Sep-91 03:15 PM / 11416.00-999

AS BUILT



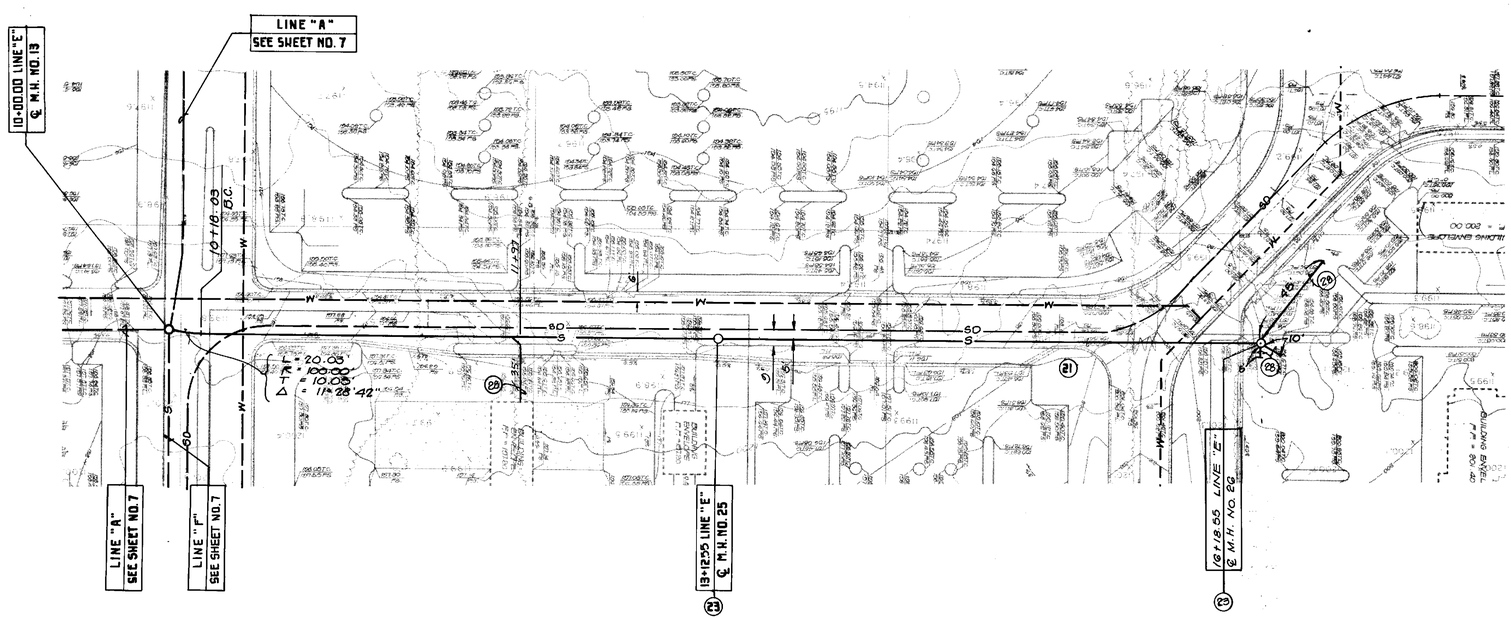
PROFILE
HORIZ: 1" = 40'
VERT: 1" = 4'

CONSTRUCTION NOTES

(21) CONSTRUCT 8" V.C.P. SEWER MAIN PER CCWD STD. DWG. 30.

(23) CONSTRUCT 48" STANDARD MANHOLE PER CCWD STD. DWG. 18

(28) CONSTRUCT 4" V.C.P. SEWER LATERAL PER CCWD STD. DWG. 15 AND 25



SCALE: 1" = 40'

REGISTERED PROFESSIONAL ENGINEER
WILHELM JOHN MAUL
No. 42549
Exp. 3-31-96
CIVIL
STATE OF CALIFORNIA

REV.	DESCRIPTION	DATE	APP'D

BENCH MARK
S.B.C.B.M. 01111
ELEV. 1197.957 (1962)
1" RND. HEAD BOLT IN N.E. CORNER CONCRETE BASE OF TRAFFIC CONTROL BOX LOCATED AT S.W. CORNER OF FOOTHILL BLVD. AND ETIWANDA AVENUE

THE KEITH COMPANIES
-PLANNING -CIVIL -ENGINEERING -LANDSCAPE ARCHITECTURE -LAND SURVEYING -CONSTRUCTION MANAGEMENT
2986 REDHILL COSTA MESA, CA 92626 (714) 540-0600
Wilhelm Maul 8-9-91
WILHELM J. MAUL R.C.E. 42549 EXP. 3/31/92 DATE

A DEVELOPMENT BY
THE WATTSON COMPANY
3620 BIRCH STREET, SUITE 100
NEWPORT BEACH, CALIFORNIA 92660
PHONE: (714) 757-7776
FAX : (714) 757-7788

DATE APPROVED June 3, 1992
BY James G. Chen Jr.
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CUCAMONGA COUNTY WATER DISTRICT
ENGINEERING DEPARTMENT
9641 SAN BERNARDINO ROAD, CUCAMONGA, CA. 91730
(714) 987-2591

DESIGNED BY	DRAWN BY	CHECKED BY
RDK	AOE	CCWD

SCALE 1" = 40'
WORK ORDER No.

CUCAMONGA COUNTY WATER DISTRICT
SEWER IMPROVEMENT PLANS
LINE "E" STA. 10+00.00 TO 16+17.42
PARCEL MAP NO. 13724

DRAWING No. 92-54-13
SHT. 13 OF 13

P40* SEWER TITLE BLOCK ANNOTATION - 16510.3401PF; 11416 2503 06-Sep-91 03:15 PM / 11415.00-999