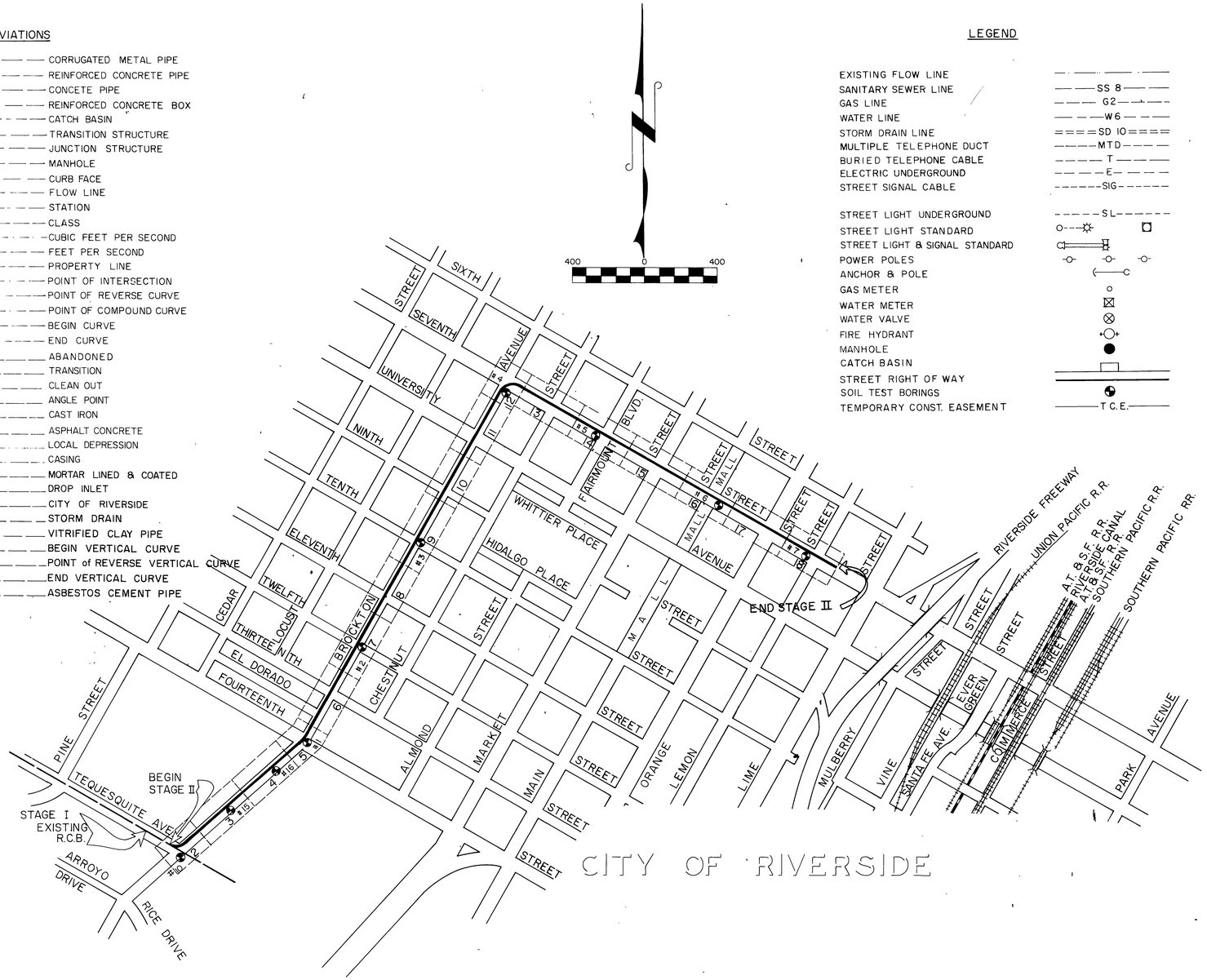
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

ABBREVIATIONS

C.M.P	CORRUGATED METAL PIPE
R.C.P.	REINFORCED CONCRETE PIPE
C.P.	CONCETE PIPE
R.C.B.	REINFORCED CONCRETE BOX
C.B.	CATCH BASIN
T.S.	TRANSITION STRUCTURE
J.S.	JUNCTION STRUCTURE
M.H	MANHOLE
C.F	CURB FACE
F.L.	FLOW LINE
STA.	STATION
CL	CLASS
C.F.S	CUBIC FEET PER SECOND
F.P.S.	FEET PER SECOND
P.L.	PROPERTY LINE
P.I.	POINT OF INTERSECTION
P.R.C.	POINT OF REVERSE CURVE
P.C.C.	POINT OF COMPOUND CURVE
B.C.	BEGIN CURVE
E.C.	END CURVE
ABAND.	ABANDONED
TRANS.	TRANSITION
C.O	CLEAN OUT
∠ PT.	ANGLE POINT
C.I.	CAST IRON
AC	ASPHALT CONCRETE
L.D.	LOCAL DEPRESSION
CSG	CASING
M.L. & C.	MORTAR LINED & COATED
D.I.	DROP INLET
C/R	CITY OF RIVERSIDE
S.D.	STORM DRAIN
V.C.P.	VITRIFIED CLAY PIPE
B.V.C.	BEGIN VERTICAL CURVE
P.R.V.C.	POINT of REVERSE VERTICAL CURVE
E.V.C.	END VERTICAL CURVE
A.C.P.	ASBESTOS CEMENT PIPE



LEGEND

EXISTING FLOW LINE	
SANITARY SEWER LINE	SS 8
GAS LINE	G2
WATER LINE	W6
STORM DRAIN LINE	SD 10
MULTIPLE TELEPHONE DUCT	MTD
BURIED TELEPHONE CABLE	T
ELECTRIC UNDERGROUND	E
STREET SIGNAL CABLE	SIG
STREET LIGHT UNDERGROUND	SL
STREET LIGHT STANDARD	
STREET LIGHT & SIGNAL STANDARD	
POWER POLES	
ANCHOR & POLE	
GAS METER	
WATER METER	
WATER VALVE	
FIRE HYDRANT	
MANHOLE	
CATCH BASIN	
STREET RIGHT OF WAY	
SOIL TEST BORINGS	
TEMPORARY CONST. EASEMENT	T.C.E.

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GENERAL NOTES:

1. ELEVATIONS SHOWN ARE IN FEET ABOVE THE U.S.G.S. MEAN SEA LEVEL DATUM.
2. DIMENSIONS FOR LOCATING CATCH BASINS ARE MEASURED FROM CURB RETURN TO CENTER LINE OF CATCH BASIN, UNLESS OTHERWISE SHOWN.
3. LOCATIONS OF CATCH BASIN CONNECTOR PIPE JUNCTIONS WITH CATCH BASINS AS SHOWN ON THE DRAWINGS ARE SCHEMATIC. IT IS INTENDED THAT SUCH JUNCTIONS BE LOCATED AT THE DOWNSTREAM ENDS OF THE CATCH BASINS, UNLESS OTHERWISE SHOWN. IN ALL CASES, THE EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER TO MEET FIELD CONDITIONS
4. EXISTING UTILITIES SHALL BE PROTECTED IN PLACE BY THE CONTRACTOR, UNLESS OTHERWISE NOTED.
5. LOCATIONS SHOWN ON THE PLANS FOR EXISTING SANITARY SEWER HOUSE CONNECTIONS ARE APPROXIMATE ONLY.
6. ALL OPENINGS RESULTING FROM CUTTING OR PARTIAL REMOVAL OF EXISTING CULVERTS, PIPES OR SIMILAR STRUCTURES SHALL BE SEALED WITH 6 INCHES OF CLASS "B" CONCRETE, NOTED ON THE DRAWINGS AS "PLUG", UNLESS OTHERWISE NOTED.
7. ALL CURBS, GUTTERS, SIDEWALKS, DRIVEWAYS AND OTHER IMPROVEMENTS SHALL BE RECONSTRUCTED TO THEIR ORIGINAL GRADE, ELEVATION AND LOCATION UNLESS OTHERWISE NOTED.
8. SOIL TEST BORING FOR THIS PROJECT WERE MADE DECEMBER 1971.
9. PIPE CONNECTIONS TO MAIN LINE SHALL CONFORM TO STANDARD DRAWINGS J.S. NO. 3 OR J.S. NO. 4, UNLESS OTHERWISE SHOWN.
10. REQUIRED CONCRETE PIPE COLLARS ARE SHOWN ON CATCH BASIN PROFILE SHEETS.
11. PROPOSAL I STORM DRAIN LINE CONSISTS OF REINFORCED CONCRETE PIPE ONLY PROPOSAL II STORM DRAIN LINE CONSISTS OF REINFORCED CONCRETE BOX AND REINFORCED CONCRETE PIPE.
12. PAVEMENT REPLACEMENT SHALL BE 4" OF ASPHALTIC CONCRETE AND 6" OF CLASS 3 BASE.

D-293

J. F. DAVIDSON ASSOCIATES
CIVIL ENGINEERS - SURVEYORS - PLANNERS
RIVERSIDE, CALIFORNIA

APPROVED BY: John W. Canty
REGISTERED CIVIL ENGINEER NO. 17550
DATE: September 17, 1973

REVISIONS			
REF.	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

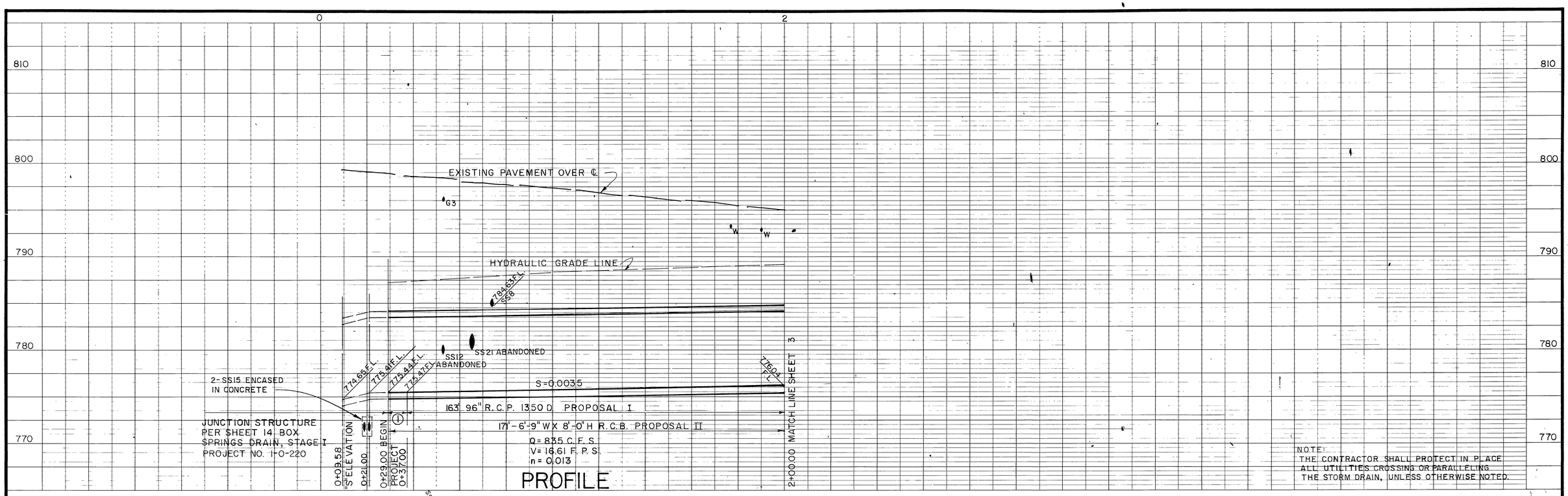
DESIGNED BY:
DRAWN BY:
DATE DRAWN:
CHECKED BY:
APPROVED BY: John W. Bryant
CHIEF ENGINEER R.E. NO. 8822
DATE: 6-27-74

BOX SPRINGS DRAIN
STAGE II
TITLE SHEET
1970 STORM DRAIN BOND ISSUE PROJECT NO. 6

PROJECT NO. 1-0-220
DRAWING NO. 1-291
SHEET NO. 1 OF 71

AS BUILT

D-293



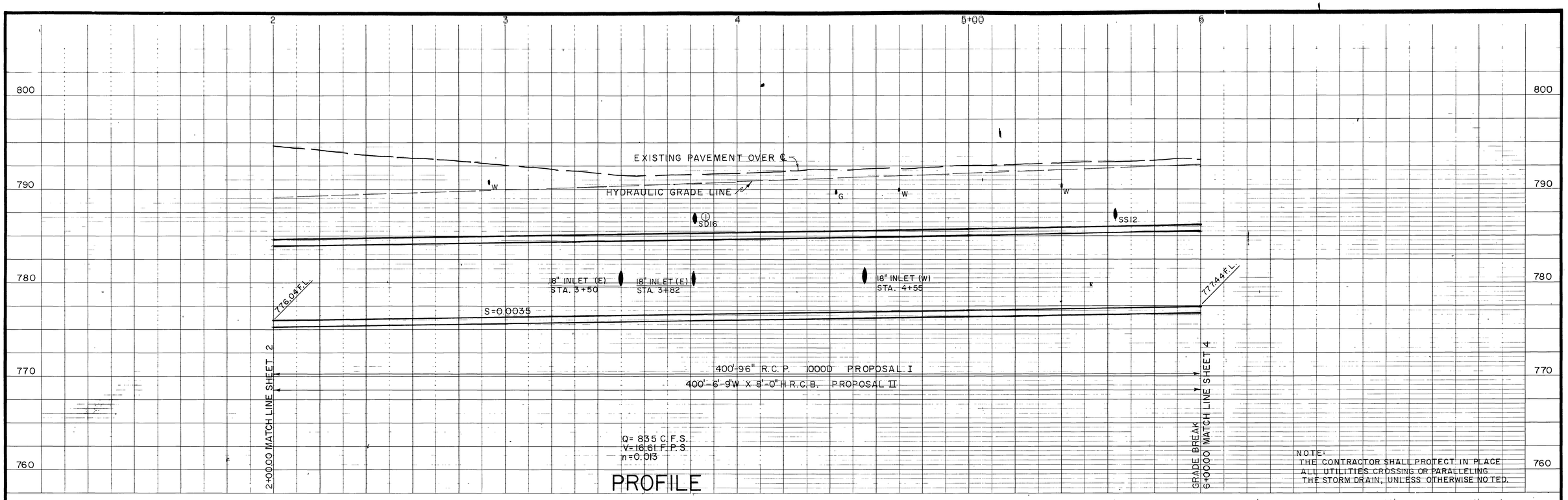
NOTE:

1. PROPOSAL I STA. 0+29.00 TO 0+37.00 T. S. NO. 1 6'-9" W X 8'-0" H R.C.B. TO 96" R.C.P.
2. REMOVE TIMBER BULKHEAD

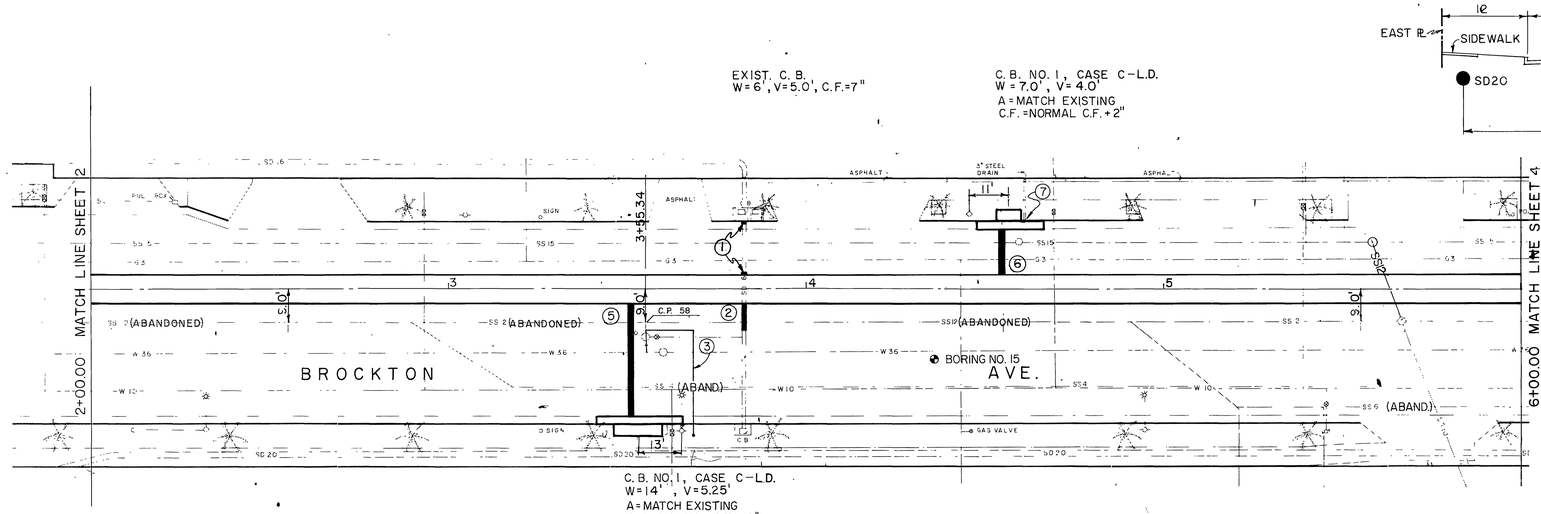
D-293

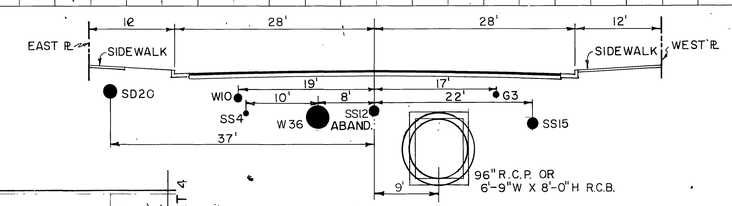
BENCH MARK C.P. 27 NAIL AND FLASH IN PATCH AT INTERSECTION BROCKTON & TEQUESQUITE EL. 798.28	J. F. DAVIDSON ASSOCIATES CIVIL ENGINEERS - SURVEYORS - PLANNERS RIVERSIDE, CALIFORNIA	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	BOX SPRINGS DRAIN STAGE II STA.00+29 TO STA. 2+00	PROJECT NO. 1-0-220
SCALE: 1" = 5' VERTICAL 1" = 20' HORIZONTAL	APPROVED BY: John W. Canty	No Change	DESIGNED BY: / DRAWN BY: / DATE DRAWN: / CHECKED BY:	1970 STORM DRAIN BOND ISSUE PROJECT NO. 6	DRAWING NO. 1-291
DATE:	DATE: September 17, 1973 REGISTERED CIVIL ENGINEER NO. 17550	REF. DESCRIPTION APPR. DATE	APPROVED BY: Robert Bryant CHIEF ENGINEER R.E. NO. 8822 DATE: 6-27-74		SHEET NO. 2 OF 71

AS BUILT



PROFILE





CROSS SECTION
STATION 4+00.00

10 0 10 FEET

NOTES:

1. REMOVE INTERFERING PORTIONS OF EXISTING SD16 AND PLUG.
2. STA. 3+82.00 CONNECT 6' OF 18" R.C.P. CL IV
3. PROPOSED BLOW OFF RELOCATION BY THE CITY OF RIVERSIDE
4. SEE SHEET 19 FOR CONNECTOR PIPE PROFILES
5. STA. 3+50.00 CONNECT 35' OF 18" R.C.P. CL IV
6. STA. 4+55.00 CONNECT 17' OF 18" R.C.P. CL IV
7. REMOVE INTERFERING PORTIONS OF EXISTING 3" PIPE, INSTALL 45° ELBOW AND CONNECT TO CATCH BASIN WITH 2' OF 3" STEEL PIPE

PLAN
1"=20'
20' 0 20'

BENCH MARK C.P. 58 NAIL & FLASH 300 FT. NORTH OF TEQUESQUITE ON BROCKTON. EL. 791.354

SCALE: 1" = 5' VERTICAL
1" = 20' HORIZONTAL

DATE:

J. F. DAVIDSON ASSOCIATES
CIVIL ENGINEERS - SURVEYORS - PLANNERS
RIVERSIDE, CALIFORNIA

APPROVED BY: John W. Carty
REGISTERED CIVIL ENGINEER NO. 17550
DATE: September 17, 1973

REVISIONS			
REF.	DESCRIPTION	APPR.	DATE
	No Change		

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY:
DRAWN BY:
DATE DRAWN:
CHECKED BY:

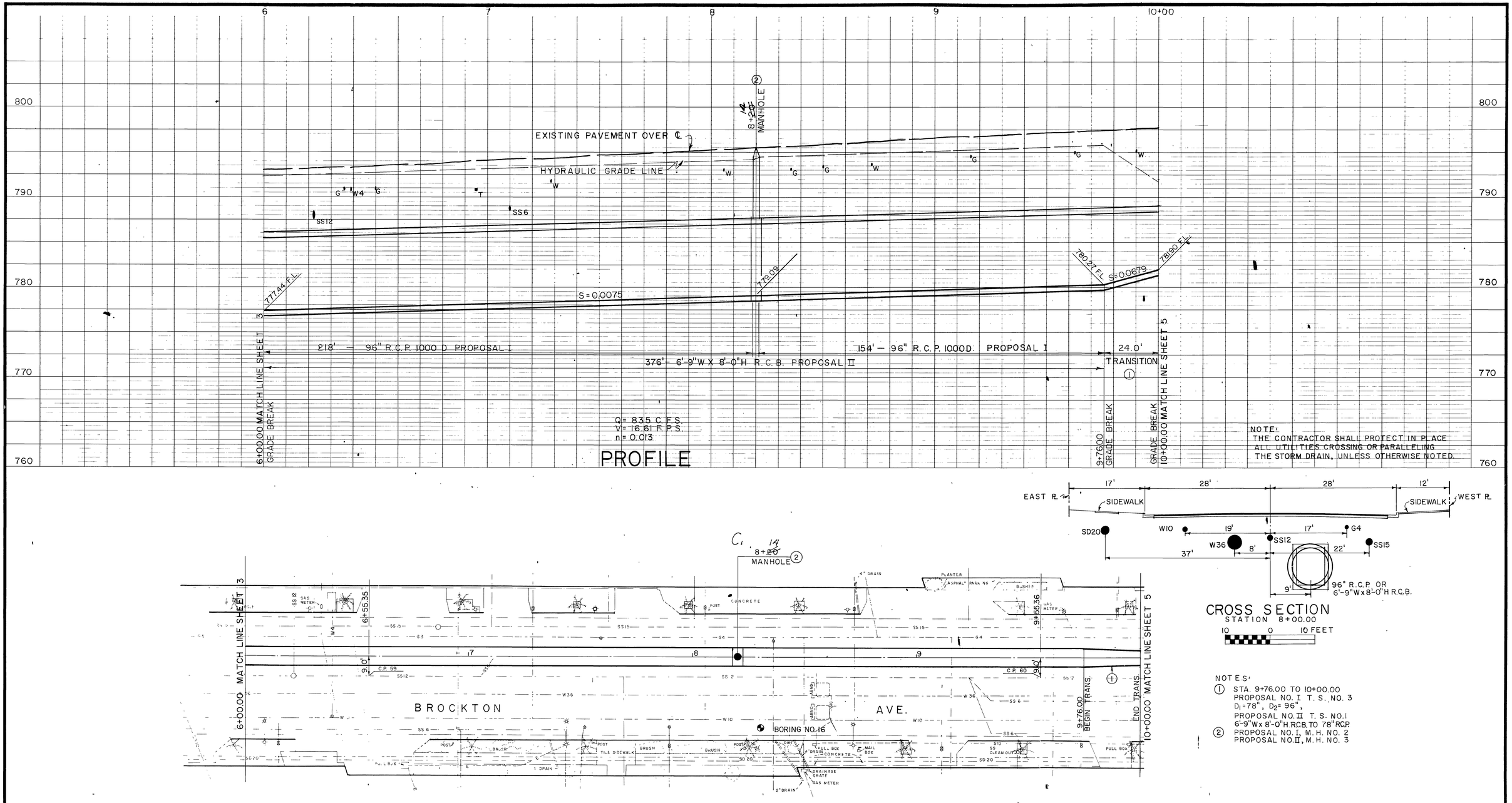
APPROVED BY: John A. Bryant
CHIEF ENGINEER R.E. NO. 8822
DATE: 6-27-74

BOX SPRINGS DRAIN
STAGE II
STA. 2+00 TO STA. 6+00
1970 STORM DRAIN BOND ISSUE PROJECT NO. 6

PROJECT NO. 1-0-220
DRAWING NO. 1-291
SHEET NO. 3 OF 71

D-293

AS BUILT



NOTES:

1. STA. 9+76.00 TO 10+00.00
   PROPOSAL NO. I T. S. NO. 3
   D_1=78", D_2= 96",
   PROPOSAL NO. II T. S. NO. 1
   6'-9"Wx 8'-0"H R.C.B. TO 78" R.C.P.
2. PROPOSAL NO. I, M. H. NO. 2
   PROPOSAL NO. II, M. H. NO. 3

D-293

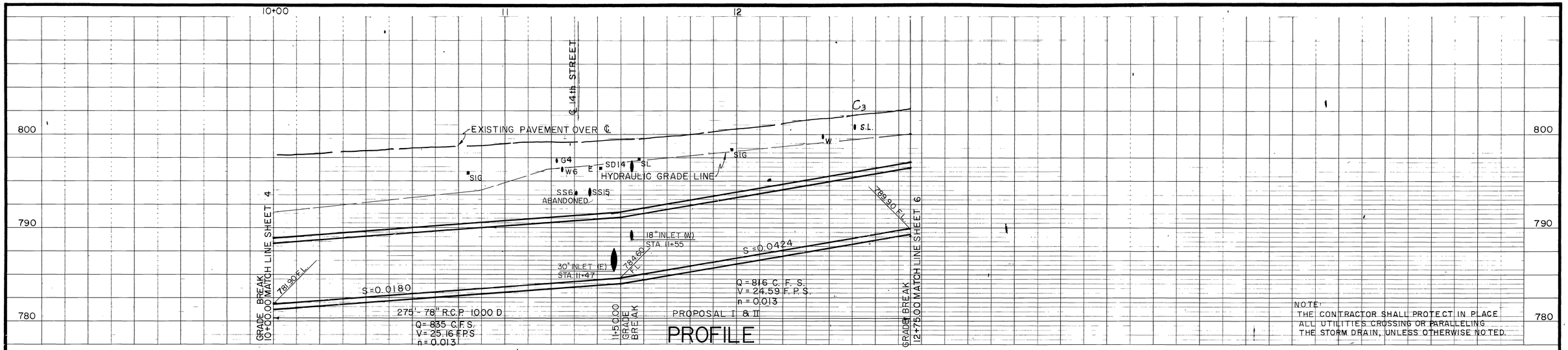
PLAN

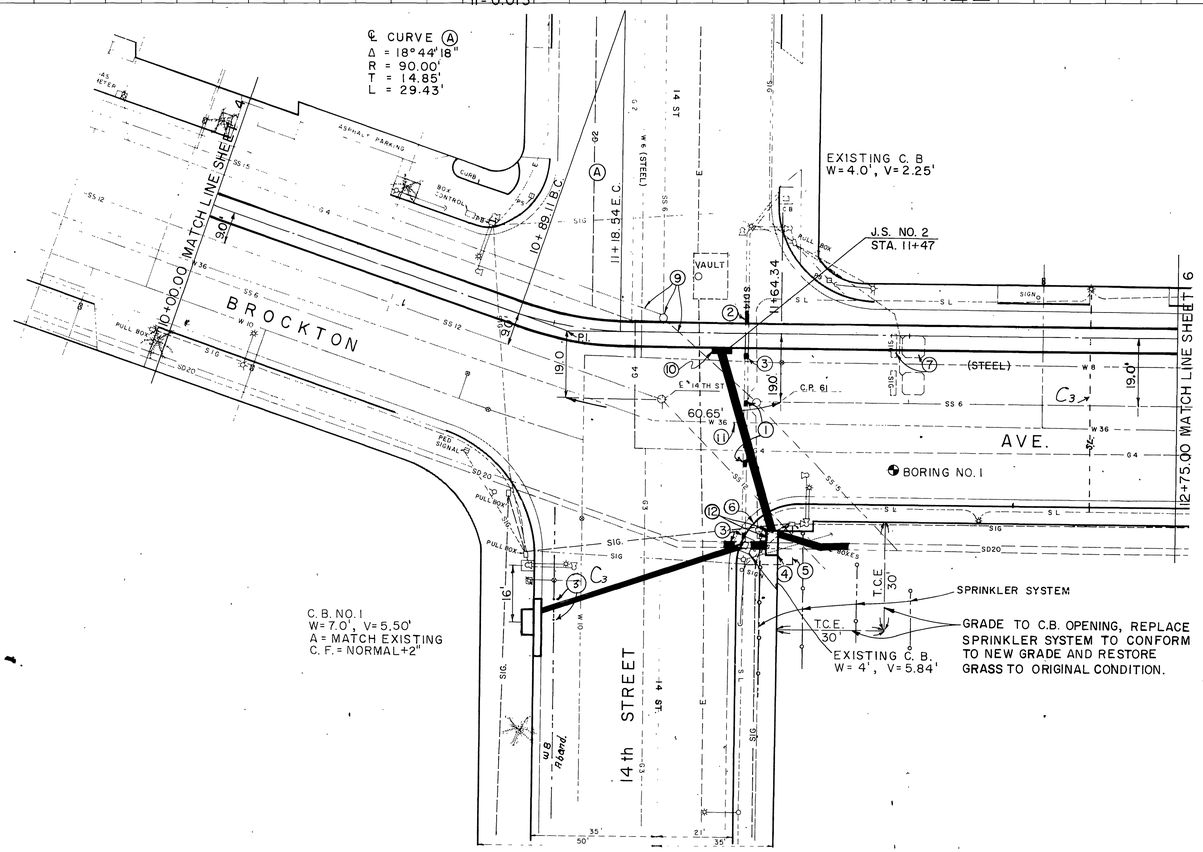
1"=20'

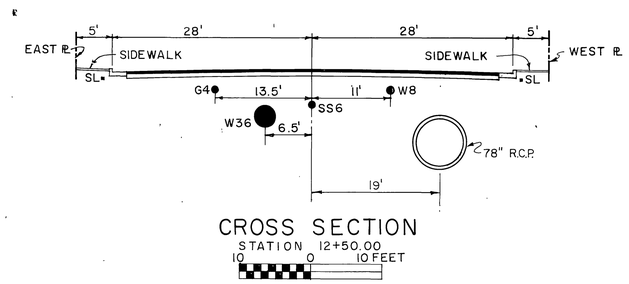
20' 0 20'

BENCH MARK C.P. 59 NAIL & FLASH 600 FT. NORTH OF TEQUESQUITE ON BROCKTON. EL. 793.400	J. F. DAVIDSON ASSOCIATES CIVIL ENGINEERS - SURVEYORS - PLANNERS RIVERSIDE, CALIFORNIA	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	BOX SPRINGS DRAIN STAGE II STA. 6+00 TO STA. 10+00 1970 STORM DRAIN BOND ISSUE PROJECT NO. 6	PROJECT NO. 1-0-220
SCALE: 1"= 5' VERTICAL 1"=20' HORIZONTAL	APPROVED BY: John W. Canty REGISTERED CIVIL ENGINEER NO. 17550	C1 M.H. Sta. Change — APPR. DATE 6-76	DESIGNED BY: DRAWN BY: DATE DRAWN: CHECKED BY:	APPROVED BY: John W. Bryant CHIEF ENGINEER R.E. NO. 8822 DATE: 6-27-74	DRAWING NO. 1-291
DATE:	DATE: September 17, 1973	REF. DESCRIPTION APPR. DATE			SHEET NO. 4 OF 71

AS BUILT







NOTES:

1. REMOVE INTERFERING PORTIONS OF EXISTING 14" PIPE & PLUG ENDS.
2. STA. 11+55.00 REMOVE INTERFERING PORTIONS OF EXISTING 14" PIPE CONNECT 8' OF 18" R.C.P. CLASS IV
3. C2 PLUG EXISTING PIPES
4. CONNECT 62' OF 18" R.C.P. CLASS IV TO S.W. SIDE OF EXISTING C.B. RESHAPE BOTTOM OF EXISTING C.B. TO FLOW N.E. CONNECT EXISTING C.B. TO PROP. C.B. NO. 1 WITH C2 OF 30" R.C.P. CLASS III. CONSTRUCT C.B. NO. 1, W=7.0, V=9.5', C.F.=6" NO L.D., WITH THE TOP LEVEL WITH THE EXISTING SIDEWALK. THE C.B. OPENING SHALL BE ON THE N.E. SIDE AND THE SURROUNDING AREA GRADED TO DRAIN INTO C.B. OPENING. CONNECT TO MAINLINE WITH 57' OF 30" R.C.P. CLASS III. REMOVE INTERFERING PORTIONS OF EXISTING 20" S.D. AND CONNECT 20' OF 21" R.C.P. CL. III.
5. RELOCATE INTERFERING TRAFFIC SIGNAL CABLE
6. REMOVE AND REPLACE INTERFERING CURB & GUTTER AND SIDEWALK
7. REMOVE AND REPLACE SIGNAL DETECTOR UNITS. DELIVER ABAND. SIGNAL PLATES TO C/R.
8. SEE CONNECTOR PIPE PROFILE ON SHEET NO. 19.
9. RELOCATE SEWER MANHOLE & SEWER LINE, SEE SHEET 36.
10. STA. 11+47 J.S. NO. 2 A=16° 00' 00" B=30" C=5.00' D=78" E=2.17' F=3.21' G=1.07' L=43.69' S=785.30 R=785.40
11. NOTIFY FRED LANTZ, C/R PUBLIC UTILITIES AT 787-7509 48 HRS. BEFORE TRENCHING OVER W36.
12. CONSTRUCT REVERSED C.B. NO. 1 FLUSH WITH EDGE OF EXISTING SIDEWALK AND PEDESTRIAN SIGNAL. FILL AREA BETWEEN N.W. SIDE C.B. NO. 1 AND EXISTING SIDEWALK WITH 4" CLASS "B" CONCRETE.

D-293

BENCH MARK C.P. 61 TOP OF CONC. MON. IN WELL AT NORTH R/W OF FOURTEENTH & BROCKTON, DOWN 1.13. EL. 799.475

SCALE: 1" = 5' VERTICAL, 1" = 20' HORIZONTAL

DATE:

J. F. DAVIDSON ASSOCIATES
CIVIL ENGINEERS - SURVEYORS - PLANNERS
RIVERSIDE, CALIFORNIA

APPROVED BY: John W. Canty
REGISTERED CIVIL ENGINEER NO. 17550
DATE: September 17, 1973

REVISIONS			
C3	Add W8 & S.L. as shown	11/77	6-74
C2	Length of Pipe change See (2) & (4)	11/77	6-74
REF.	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

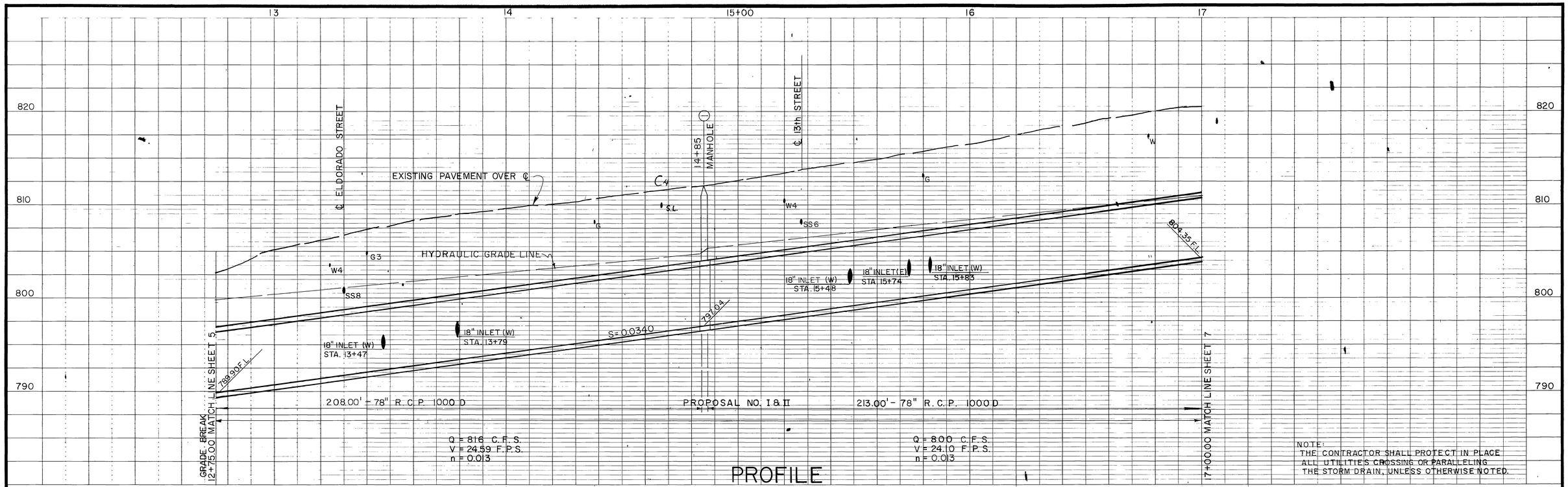
DESIGNED BY:
DRAWN BY:
DATE DRAWN:
CHECKED BY:

APPROVED BY: John V. Bryant
CHIEF ENGINEER R.E. NO. 8822
DATE: 6-27-74

BOX-SPRINGS DRAIN
STAGE II
STA. 10+00 TO STA. 12+75
1970 STORM DRAIN BOND ISSUE PROJECT NO. 6

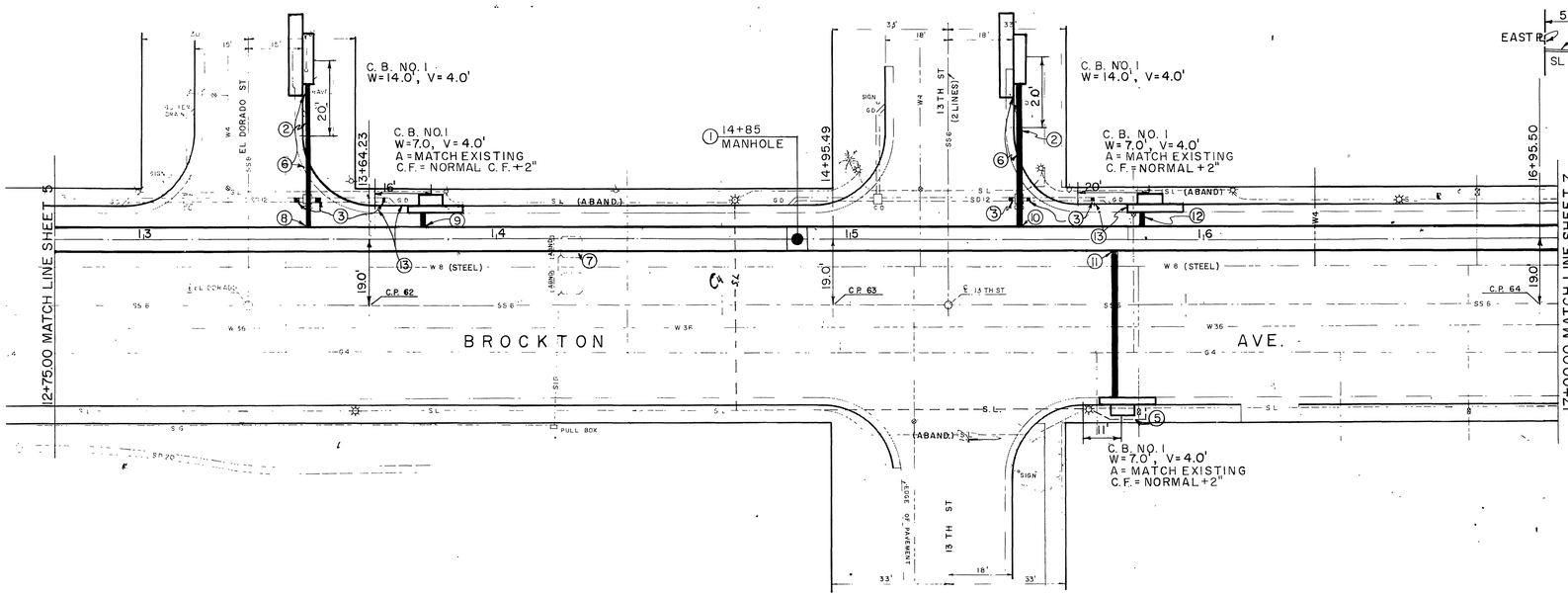
PROJECT NO. 1-0-220
DRAWING NO. 1-291
SHEET NO. 5 OF 71

AS BUILT



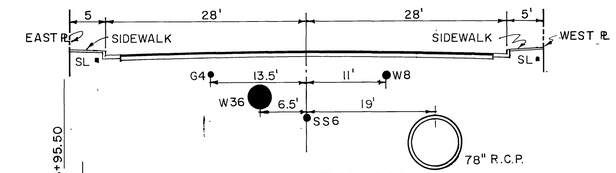
NOTE:
THE CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN, UNLESS OTHERWISE NOTED.

PROFILE



PLAN

1"=20'



CROSS SECTION

STATION 16+00.00

10 0 10 FEET

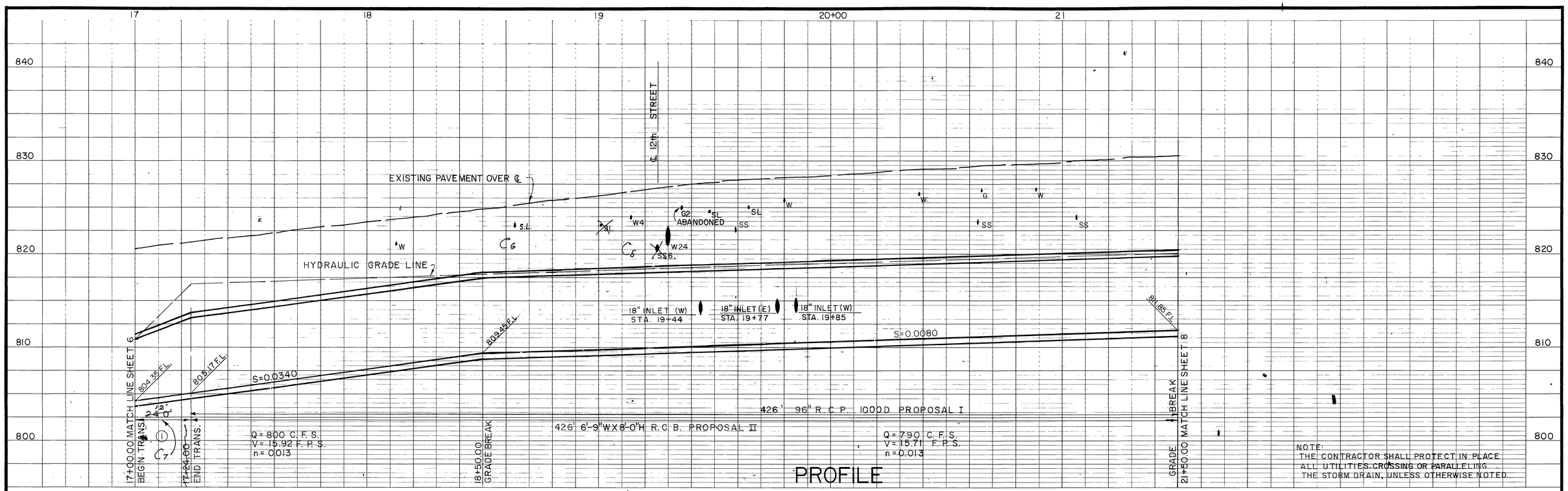
NOTES:

1. PROPOSAL NO. I & II, M.H. NO. 2
2. REMOVE EXISTING 12" PIPE & CLEANOUT
3. PLUG EXISTING 12" PIPE
4. SEE SHEET 19 FOR CONNECTOR PIPE PROFILES
5. RELOCATE INTERFERING STREET LIGHT CABLE AROUND C. B. NO. 1
6. REMOVE AND REPLACE INTERFERING CURB & GUTTER.
7. REMOVE & REPLACE SIGNAL DETECTOR UNIT. DELIVER ABAND. SIGNAL PLATES TO C/R.
8. STA. 13+47 CONNECT 41' OF 18" R.C.P. CLASS IV
9. STA. 13+79 CONNECT 11' OF 18" R.C.P. CLASS IV
10. STA. 15+48 CONNECT 41' OF 18" R.C.P. CLASS IV
11. STA. 15+74 CONNECT 43' OF 18" R.C.P. CLASS IV
12. STA. 15+83 CONNECT 11' OF 18" R.C.P. CLASS IV
13. REMOVE & REPLACE CURB & GUTTER

D-293

BENCH MARK C.P. 63 TOP OF CONC. MON. SOUTH R/W OF THIRTEENTH & BROCKTON, DOWN 1.02. EL. 812.492	J. F. DAVIDSON ASSOCIATES CIVIL ENGINEERS - SURVEYORS - PLANNERS RIVERSIDE, CALIFORNIA	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	BOX SPRINGS DRAIN STAGE II STA. 12+75 TO STA. 17+00 1970 STORM DRAIN BOND ISSUE PROJECT NO. 6	PROJECT NO. 1-0-220
SCALE: 1" = 5' VERTICAL 1" = 20' HORIZONTAL	APPROVED BY: John W. Canty REGISTERED CIVIL ENGINEER NO. 17550	C4 S.L. Added	DESIGNED BY: DRAWN BY: DATE DRAWN: CHECKED BY:	APPROVED BY: John W. Bryant CHIEF ENGINEER R.E. NO. 8822 DATE: 6-27-74	DRAWING NO. 1-291
DATE:	DATE: September 17, 1973	REF. DESCRIPTION APPR. DATE			SHEET NO. 6 OF 71

AS BUILT



NOTES:

1. STA. 17+00.00 TO 17+~~24~~ 12.00 Changed to 12' T.S. No. 3 PROPOSAL NO. 1, T.S. NO. 3 Added 12' of 96" R.C.P. 1000-D D_2=78", D_1=96", PROPOSAL NO. II, T.S. NO. 1 78" R.C.P. TO 6'-9"WX8'-0"H R.C.B.
2. REMOVE EXISTING 12" PIPE & CLEANOUT
3. PLUG EXISTING 12" PIPE
4. SEE SHEET 20 FOR CONNECTOR PIPE PROFILES
5. RELOCATE INTERFERING STREET LIGHT CABLE AROUND C.B. NO. 1.
6. REMOVE AND REPLACE INTERFERING CURB & GUTTER.
7. REMOVE INTERFERING PORTIONS OF ABANDONED PIPE.
8. STA. 19+44.00 CONNECT 34' OF 18" R.C.P. CL. IV
9. STA. 19+77.00 CONNECT 44' OF 18" R.C.P. CL. IV
10. STA. 19+85.00 CONNECT 12' OF 18" R.C.P. CL. IV
11. REMOVE & REPLACE CURB & GUTTER.

D-293

PLAN

1"=20'

20' 0 20'

BENCH MARK C.P. 65 TOP OF CONC. MON. NORTH R/W OF TWELFTH & BROCKTON. EL. 827.837 DOWN 0.74'

SCALE: 1" = 5' VERTICAL 1" = 20' HORIZONTAL

DATE:

J. F. DAVIDSON ASSOCIATES
CIVIL ENGINEERS - SURVEYORS - PLANNERS
RIVERSIDE, CALIFORNIA

APPROVED BY: John W. Canty
REGISTERED CIVIL ENGINEER NO. 17550

DATE: September 17, 1973

REVISIONS			
C7	Length changed see note 1	H.M.	6-76
C6	S.L. Added	H.M.	6-76
C5	S.L. & SS6 Crossed out as shown	H.M.	6-76
REF.	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

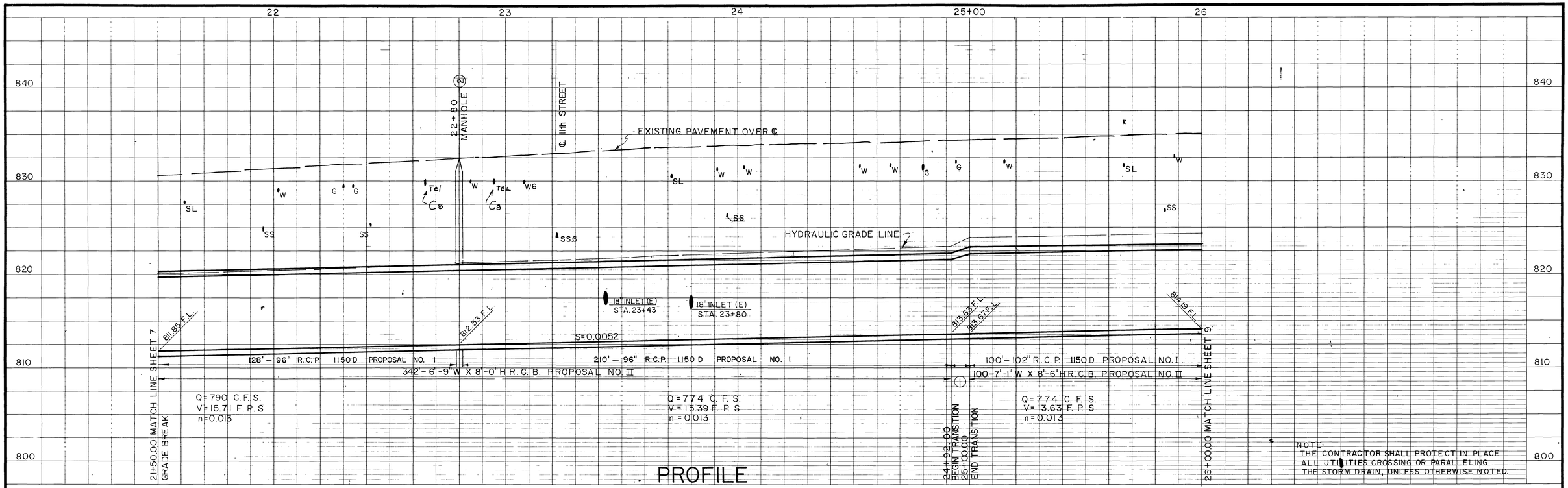
DESIGNED BY:
DRAWN BY:
DATE DRAWN:
CHECKED BY:

APPROVED BY: John W. Bryant
CHIEF ENGINEER R.E. NO. 8822
DATE: 6-27-74

BOX SPRINGS DRAIN
STAGE II
STA. 17+00 TO STA. 21+50
1970 STORM DRAIN BOND ISSUE PROJECT NO. 6

PROJECT NO. 1-0-220
DRAWING NO. 1-291
SHEET NO. 7 OF 71

AS BUILT



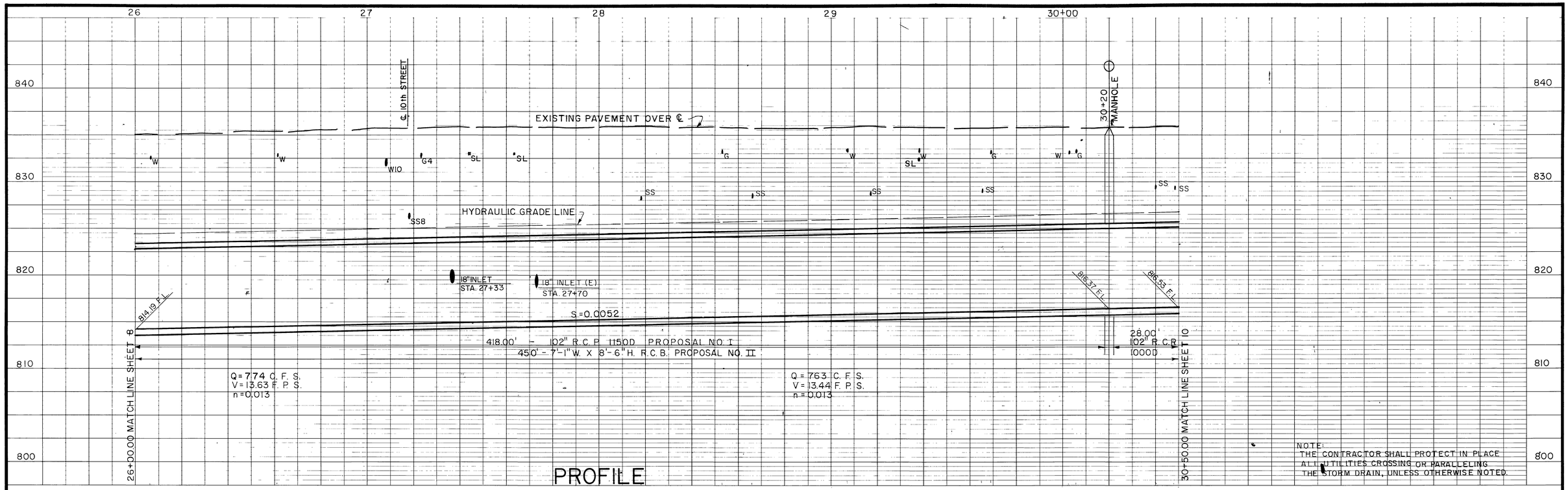
NOTE

1. STA. 24+92.00 TO 25+00.00
   PROPOSAL NO. I, T.S. NO. 3
   D_1=102", D_2=96",
   PROPOSAL NO. II, T.S. NO. 2
   6'-9" W X 8'-0" H TO 7'-1" W X 8'-6" H
2. PROPOSAL NO. I, M.H. NO. 2
   PROPOSAL NO. II, M.H. NO. 3
3. SEE SHEET 20 & SHEET 22 FOR CONNECTOR PIPE PROFILES
4. REMOVE EXISTING 12" PIPE AND CLEANOUT.
5. REMOVE INTERFERING PORTIONS OF ABAND. PIPE
6. STA. 23+43.00 CONNECT 66' OF 18" R.C.P. CL IV
7. STA. 23+80.00 CONNECT 44' OF 18" R.C.P. CL IV
8. REMOVE & REPLACE CURB & GUTTER
9. PLUG EXISTING 12" PIPE & CLEANOUT

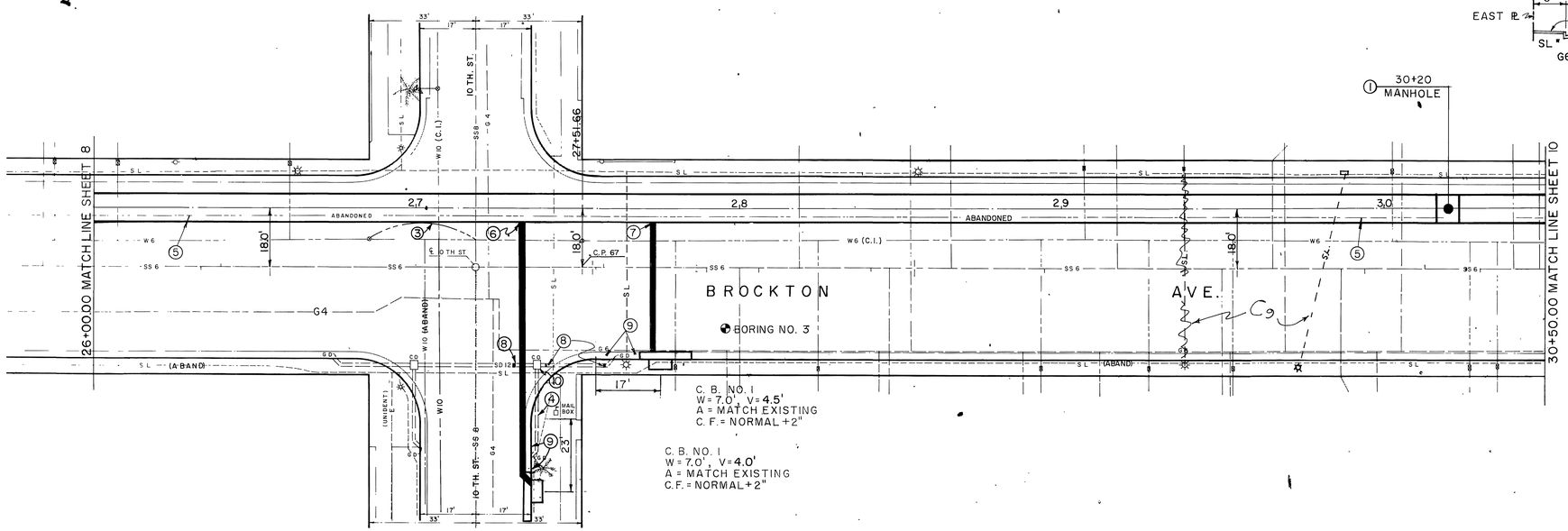
D-293

BENCH MARK C.P. 66 TOP OF CONC MON. IN WELL AT NORTH R/W ELEVENTH & BROCKTON, DOWN 0.56. EL. 833.514	J. F. DAVIDSON ASSOCIATES CIVIL ENGINEERS - SURVEYORS - PLANNERS RIVERSIDE, CALIFORNIA	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	BOX SPRINGS DRAIN STAGE II STA. 21+50 TO STA. 26+00 1970 STORM DRAIN BOND ISSUE PROJECT NO. 6
SCALE: 1" = 5' VERTICAL 1" = 20' HORIZONTAL	APPROVED BY: John W. Canty REGISTERED CIVIL ENGINEER NO. 17550	C8 Tel. Line Added — H.M. 6-76	DESIGNED BY: DRAWN BY: DATE DRAWN: CHECKED BY:	PROJECT NO. 1-0-220 DRAWING NO. 1-291 SHEET NO. 8 OF 71
DATE:	DATE: September 17, 1973	REF. DESCRIPTION APPR. DATE	APPROVED BY: John W. Bryant CHIEF ENGINEER R.E. NO. 8822 DATE: 6-27-74	

AS BUILT

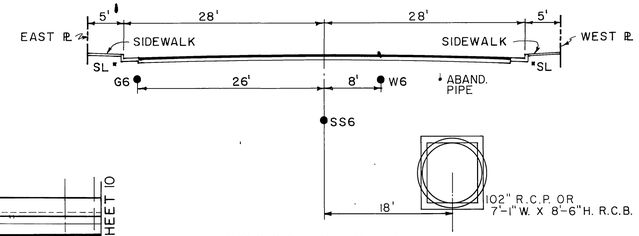


PROFILE



PLAN

1"=20'



CROSS SECTION

STATION 29+00.00

10 0 10 FEET

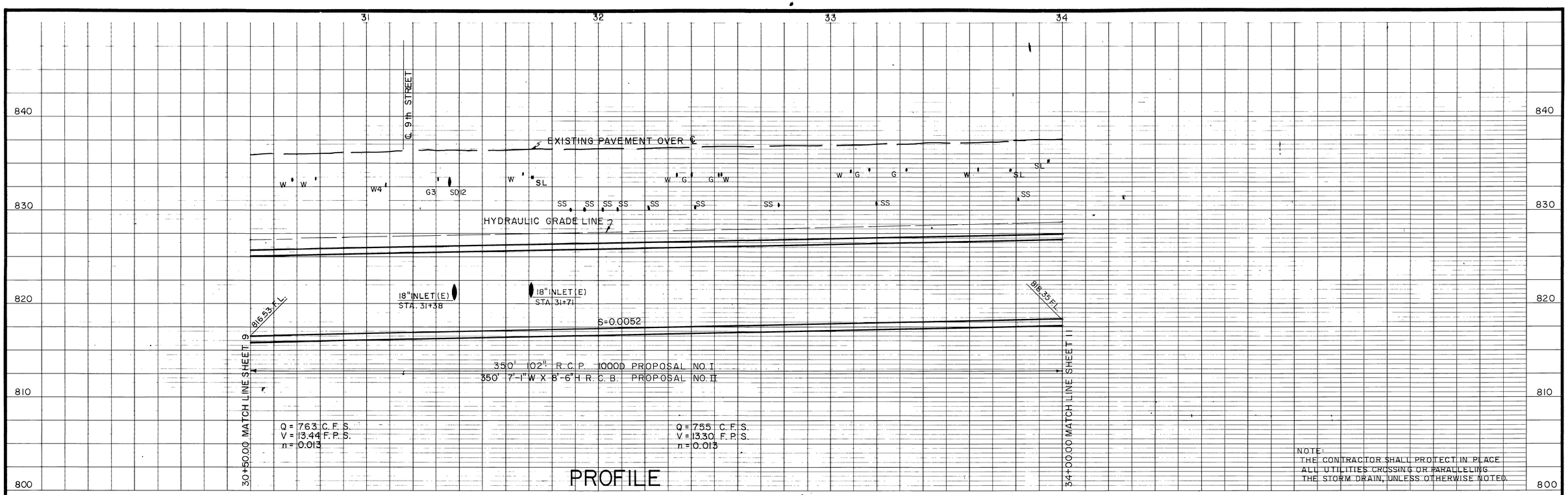
NOTES:

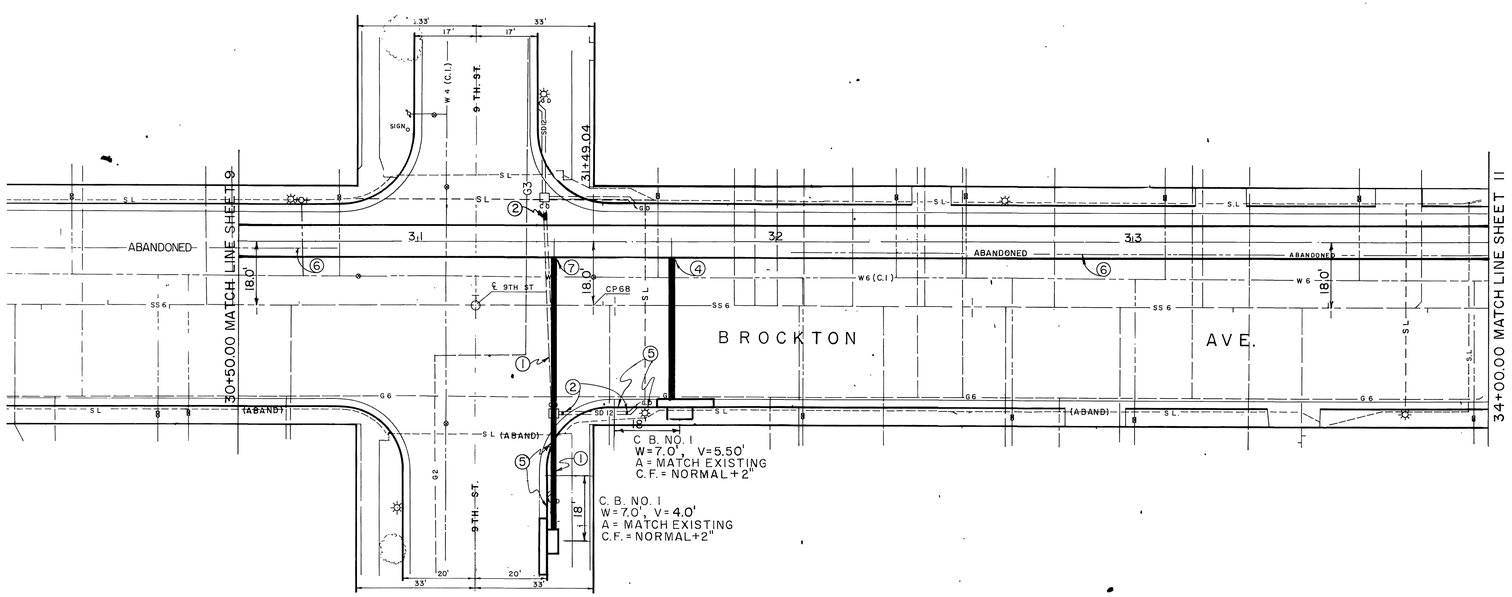
1. PROPOSAL NO. I, M. H. NO. 2
   PROPOSAL NO. II, M. H. NO. 3
2. SEE SHEET 20 & SHEET 22 FOR CONNECTOR PIPE PROFILES
3. W6 TO BE RELOCATED BY OTHERS.
4. REMOVE EXISTING 12" PIPE.
5. REMOVE INTERFERING PORTIONS OF ABANDONED PIPE
6. STA. 27+3300 CONNECT 80' OF 18" R.C.P. CL. IV
7. STA. 27+7000 CONNECT 44' OF 18" R.C.P. CL. IV
8. PLUG EXISTING 12" PIPE
9. REMOVE & REPLACE CURB & GUTTER
10. REMOVE EXISTING 12" PIPE & CLEANOUT

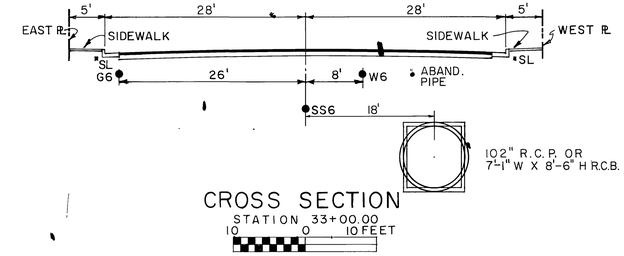
D-293

BENCH MARK C.P. 67 TOP OF CONC. MON. IN WELL AT NORTH R/W TENTH & BROCKTON, DOWN 0.62 EL. 835.710	J. F. DAVIDSON ASSOCIATES CIVIL ENGINEERS - SURVEYORS - PLANNERS RIVERSIDE, CALIFORNIA	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	BOX SPRINGS DRAIN STAGE II STA. 26+00 TO STA. 30+50 1970 STORM DRAIN BOND ISSUE PROJECT NO. 6	PROJECT NO. 1-0-220
SCALE: 1"=5' VERTICAL 1"=20' HORIZONTAL	APPROVED BY: John W. Canty REGISTERED CIVIL ENGINEER NO. 17550	C9 T.S. Crossed out S.L. Added 6-74	DESIGNED BY: DRAWN BY: DATE DRAWN: CHECKED BY:	APPROVED BY: John W. Bryant CHIEF ENGINEER R.E. NO. 8822 DATE: 6-27-74	DRAWING NO. 1-291
DATE:	DATE: September 17, 1973	REF. DESCRIPTION APPR. DATE			SHEET NO. 9 OF 71

AS BUILT







CROSS SECTION
STATION 33+00.00
10 0 10 FEET

NOTES:

1. REMOVE EXISTING 12" PIPE AND CLEANOUT
2. PLUG EXISTING 12" PIPE
3. SEE SHEET 20 FOR CONNECTOR PIPE PROFILES
4. STA. 31+71.00 CONNECT 44'-18" R.C.P. CL. IV.
5. REMOVE AND REPLACE CURB & GUTTER
6. REMOVE INTERFERING PORTIONS OF ABANDONED PIPE
7. STA. 31+38.00 CONNECT 76' OF 18" R.C.P. CL. IV

D-292

PLAN

1" = 20'

20' 0 20'

BENCH MARK C.P. 68 TOP OF CONC. MON. IN WELL AT NINTH & BROCKTON, DOWN 0.62. EL. 836.383

SCALE: 1" = 5' VERTICAL
1" = 20' HORIZONTAL

DATE:

J. F. DAVIDSON ASSOCIATES
CIVIL ENGINEERS - SURVEYORS - PLANNERS
RIVERSIDE, CALIFORNIA

APPROVED BY: John W. Canty
REGISTERED CIVIL ENGINEER NO. 17550
DATE: September 17, 1973

REVISIONS			
	No Change		
REF.	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

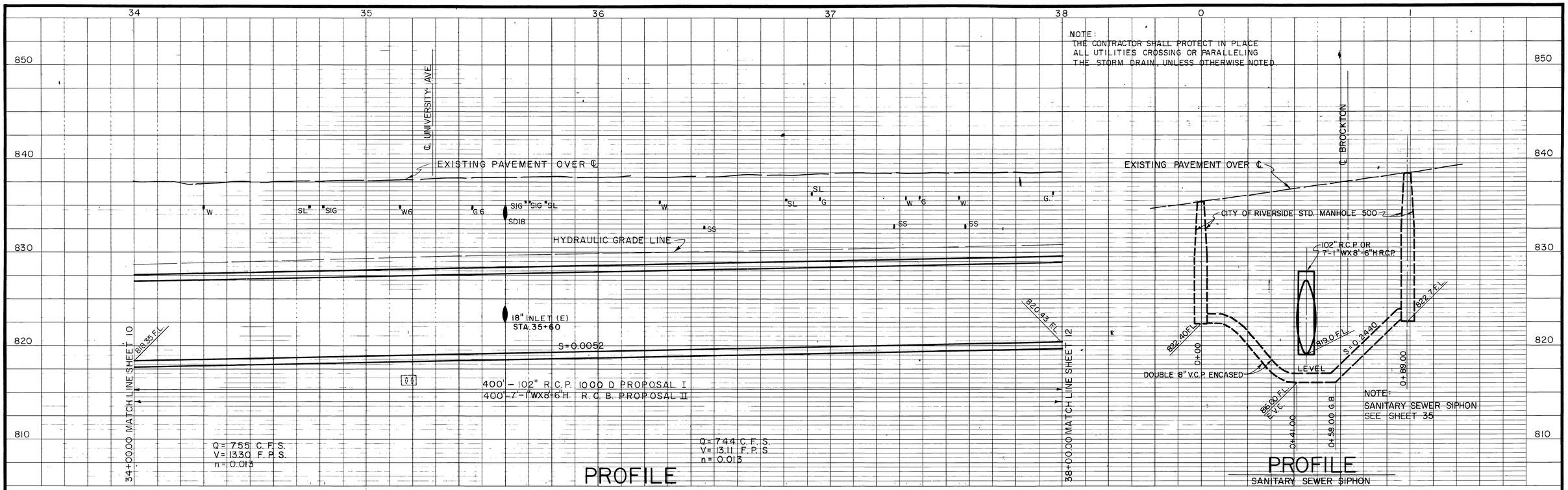
DESIGNED BY:
DRAWN BY:
DATE DRAWN:
CHECKED BY:

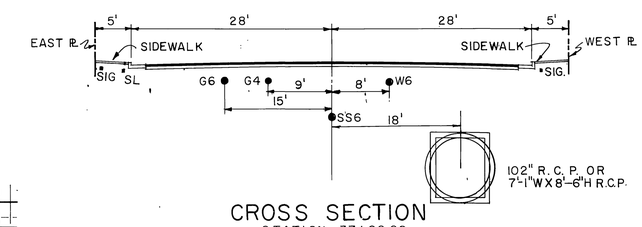
APPROVED BY: John W. Bryant
CHIEF ENGINEER R.E. NO. 8822
DATE: 6-27-74

BOX SPRINGS DRAIN
STAGE II
STA. 30+50 TO STA. 34+00
1970 STORM DRAIN BOND ISSUE PROJECT NO. 6

PROJECT NO. 1-0-220
DRAWING NO. 1-291
SHEET NO. 10 OF 71

AS BUILT





CROSS SECTION
STATION 37+00.00
10 0 10 FEET

NOTE

1. STA. 35+60 REMOVE INTERFERING PORTIONS OF EXISTING 18" PIPE AND CONNECT 16' OF 18" R.C.P. CL. IV. SEE SHEET 21 FOR CONNECTOR PIPE PROFILE.
2. PLUG EXISTING 18" PIPE.
3. CONSTRUCT SANITARY SEWER SIPHON, SEE SHEET 35.

D-293

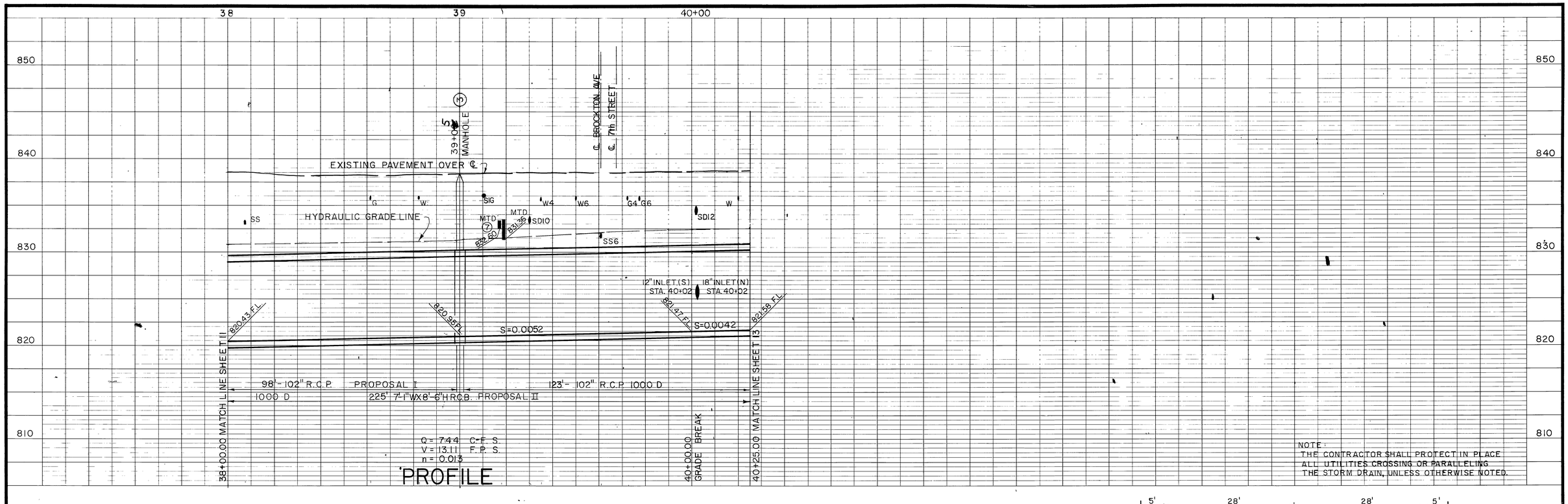
PLAN
1"=20'
20' 0 20'

BENCH MARK C.P. 69 TOP OF PIPE MON. IN WELL SOUTH R/W OF EIGHTH & BROCKTON, DOWN 0.20 EL. 837.626	J. F. DAVIDSON ASSOCIATES CIVIL ENGINEERS - SURVEYORS - PLANNERS RIVERSIDE, CALIFORNIA	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
SCALE: 1" = 5' VERTICAL 1" = 20' HORIZONTAL	APPROVED BY: John W. Canty REGISTERED CIVIL ENGINEER NO. 17550	C10 Changed SIG alignment — REF. / DESCRIPTION / APPR. / DATE: 6-76	DESIGNED BY: DRAWN BY: DATE DRAWN: CHECKED BY: APPROVED BY: John W. Bryant, CHIEF ENGINEER R.E. NO. 8822 DATE: 6-27-74
DATE:	DATE: September 17, 1973		

BOX SPRINGS DRAIN
STAGE II
STA. 34+00 TO STA. 38+00
1970 STORM DRAIN BOND ISSUE PROJECT NO. 6

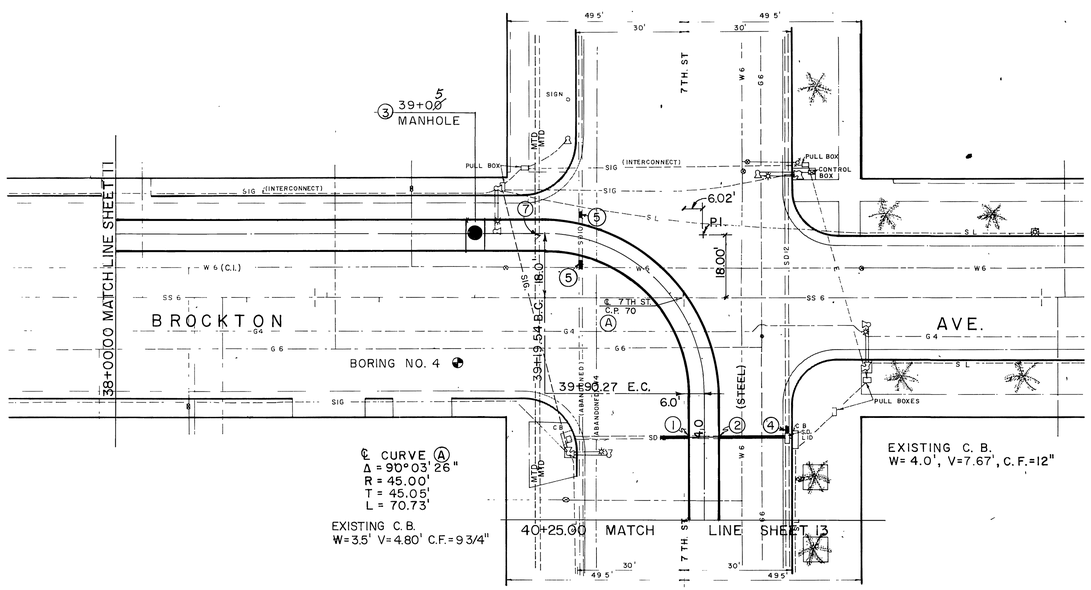
PROJECT NO. 1-0-220
DRAWING NO. 1-291
SHEET NO. 11 OF 71

AS BUILT



PROFILE

NOTE:
THE CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN, UNLESS OTHERWISE NOTED.



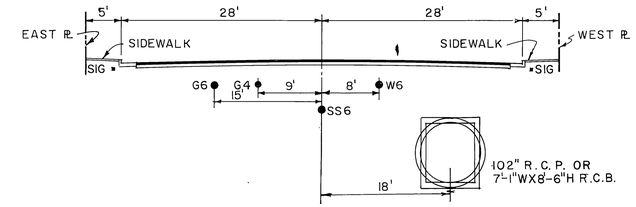
PLAN

1"=20'

20' 0 20'

NOTES:

1. STA. 40+02.00 REMOVE INTERFERING PORTIONS OF EXISTING 12" PIPE AND CONNECT 8' OF 12" R.C.P. CL. IV
2. STA. 40+02.00 CONNECT 19' OF 18" R.C.P. CL. IV.
3. PROPOSAL NO. I, M. H. NO. 2
   PROPOSAL NO. II, M. H. NO. 3
4. PLUG EXISTING PIPE
5. REMOVE INTERFERING PORTION OF 10" PIPE AND PLUG EACH SIDE OF TRENCH
6. SEE SHEET 21 FOR CONNECTOR PIPE PROFILES
7. PACIFIC TELEPHONE, CALL 684-0071 BEFORE EXCAVATION.

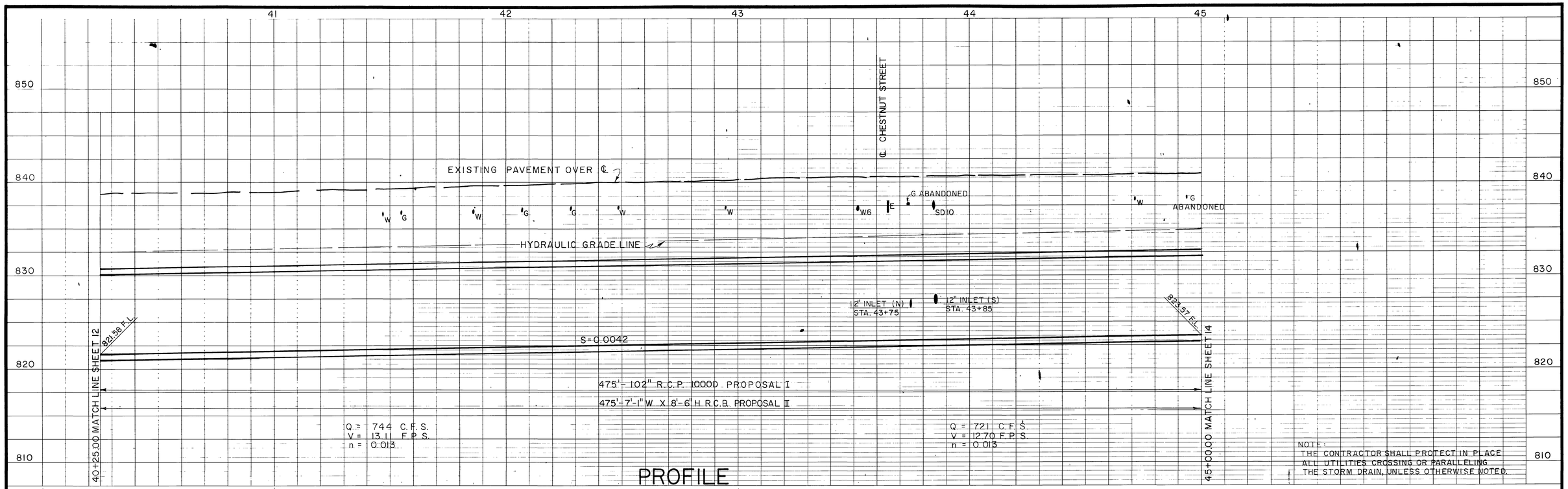


CROSS SECTION
STATION 38+90.00
10 0 10 FEET

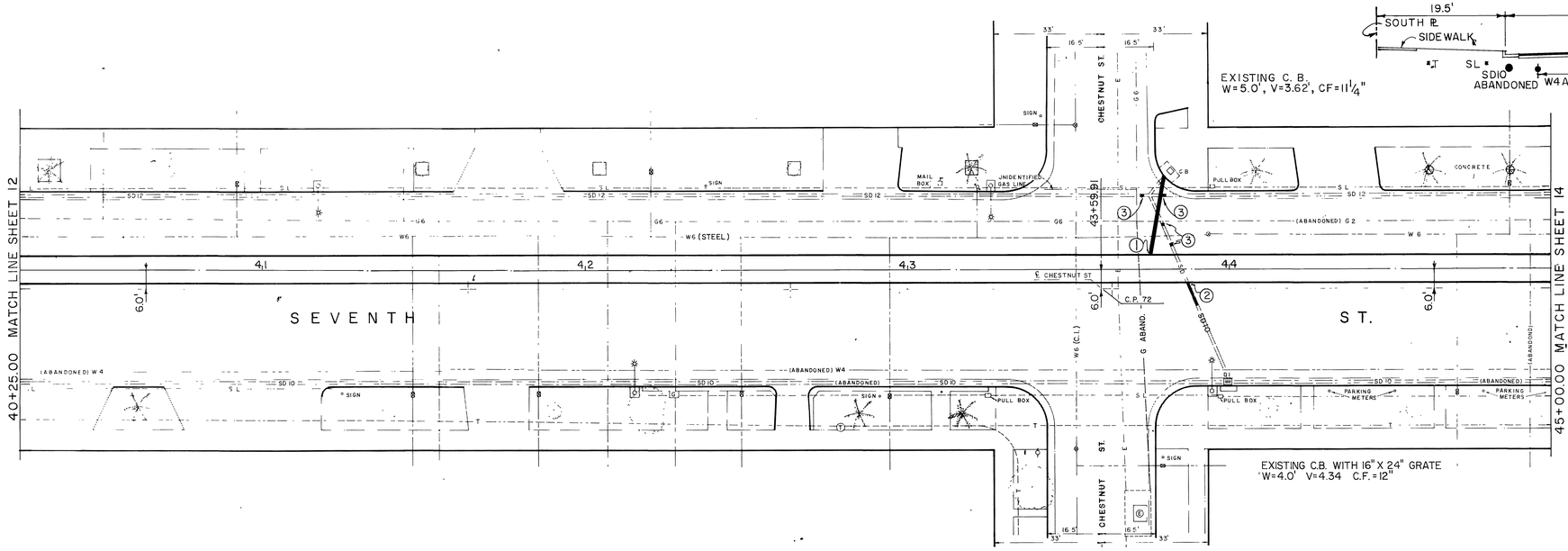
D-293

BENCH MARK C.P.70 TOP OF 2 INCH PIPE AT SEVENTH & BROCKTON IN WELL, DOWN 0.28. EL. 838.534	J. F. DAVIDSON ASSOCIATES CIVIL ENGINEERS - SURVEYORS - PLANNERS RIVERSIDE, CALIFORNIA	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	BOX SPRINGS DRAIN STAGE II STA.38+00 TO STA.40+25 1970 STORM DRAIN BOND ISSUE PROJECT NO. 6	PROJECT NO. 1-0-220
SCALE: 1" = 5' VERTICAL 1" = 20' HORIZONTAL	APPROVED BY: John W. Canty REGISTERED CIVIL ENGINEER NO. 17550	C11 Change M.H. Sta. to 39+05 — N.M. 6-76	DESIGNED BY: DRAWN BY: DATE DRAWN: CHECKED BY:	APPROVED BY: John W. Bryant CHIEF ENGINEER R.E. NO. 8822 DATE: 6-27-74	DRAWING NO. 1-291
DATE:	DATE: September 17, 1973	REF. DESCRIPTION APPR. DATE			SHEET NO. 12 OF 71

AS BUILT

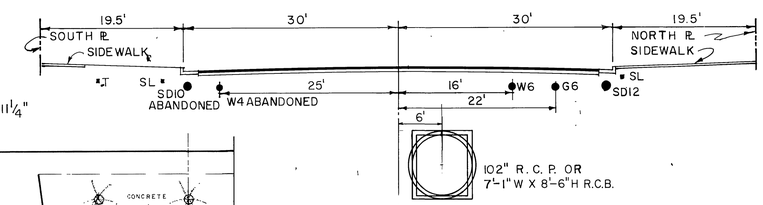


PROFILE



PLAN

1"=20'



CROSS SECTION

STATION 43+00.00

10 0 10 FEET

NOTES:

1. STA. 43+75.00 CONNECT 25' OF 12" R.C.P. CL IV
2. STA. 43+85.00 REMOVE INTERFERING PORTION OF 10" PIPE & CONNECT 12' OF 12" R.C.P. CLASS IV
3. REMOVE INTERFERING PORTION OF EXISTING PIPES AND PLUG.
4. SEE SHEET 21 FOR CONNECTOR PIPE PROFILES

D-293

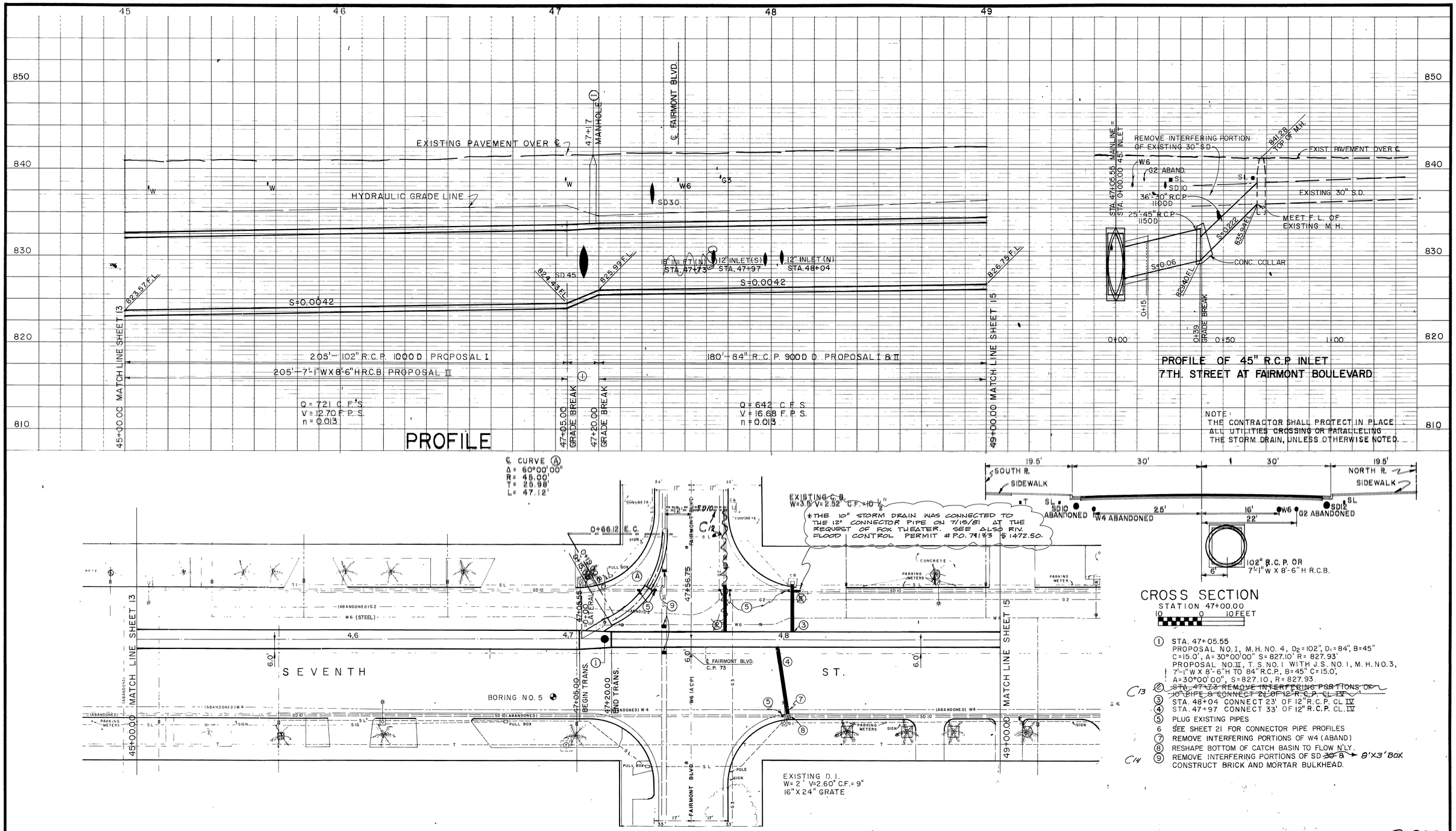
BENCH MARK C.P. 72 CENTER OF CAP CL. OF CHESTNUT & SEVENTH EL. 840.433	J. F. DAVIDSON ASSOCIATES CIVIL ENGINEERS - SURVEYORS - PLANNERS RIVERSIDE, CALIFORNIA	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	BOX SPRINGS DRAIN STAGE II STA. 40+25 TO STA. 45+00 1970 STORM DRAIN BOND ISSUE PROJECT NO. 6
SCALE: 1" = 5' VERTICAL 1" = 20' HORIZONTAL	APPROVED BY: John W. Canty REGISTERED CIVIL ENGINEER NO. 17550	No Change REF. DESCRIPTION APPR. DATE	DESIGNED BY: DRAWN BY: DATE DRAWN: CHECKED BY:	APPROVED BY: John W. Bragant CHIEF ENGINEER R.E. NO. 8822 DATE: 6-27-74
DATE:	DATE: September 17, 1973			

PROJECT NO. 1-0-220

DRAWING NO. 1-291

SHEET NO. 13 OF 71

AS BUILT



*AS BUILT 6-14-90 B.M.

D-293

BENCH MARK C.P. 73 CENTER OF CAP CL. OF FAIRMOUNT & SEVENTH EL. 841.732	J. F. DAVIDSON ASSOCIATES CIVIL ENGINEERS - SURVEYORS - PLANNERS RIVERSIDE, CALIFORNIA	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
SCALE: 1" = 5' VERTICAL 1" = 20' HORIZONTAL	APPROVED BY: John W. Cantley REGISTERED CIVIL ENGINEER NO. 17550	C14 Changed Note (9) — 6-27-74 C13 Crossed Out Note (2) — 6-27-74 C12 Found SD 10 As Shown — 6-27-74 REF. DESCRIPTION — APPR. DATE	DESIGNED BY: DRAWN BY: DATE DRAWN: CHECKED BY: APPROVED BY: John A. Bryant, CHIEF ENGINEER R.E. NO. 8822 DATE: 6-27-74
DATE:	DATE: September 17, 1973		

BOX SPRINGS DRAIN

STAGE II

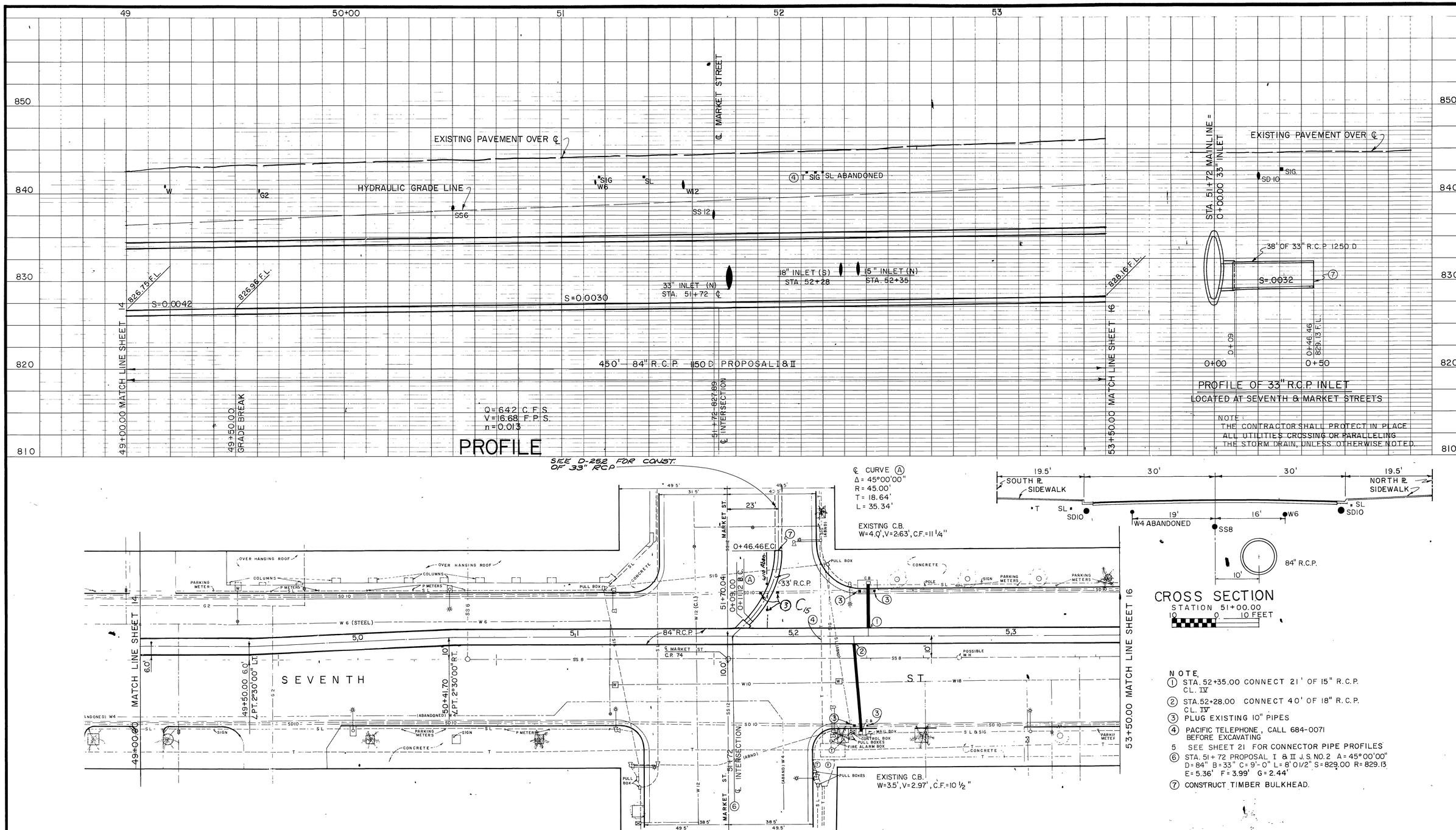
STA. 45+00 TO STA. 49+00

1970 STORM DRAIN BOND ISSUE PROJECT NO. 6

PROJECT NO. 1-0-220

DRAWING NO. 1-291

SHEET NO. 14 OF 71



NOTE

1. STA. 52+35.00 CONNECT 21' OF 15" R.C.P. CL. IV
2. STA. 52+28.00 CONNECT 40' OF 18" R.C.P. CL. IV
3. PLUG EXISTING 10" PIPES
4. PACIFIC TELEPHONE, CALL 684-0071 BEFORE EXCAVATING
5. SEE SHEET 21 FOR CONNECTOR PIPE PROFILES
6. STA. 51+72 PROPOSAL I & II J.S. NO. 2 A=45°00'00" D=84" B=33" C=9'-0" L=8'0 1/2" S=829.00 R=829.13 E=5.36' F=3.99' G=2.44'
7. CONSTRUCT TIMBER BULKHEAD.

D-293

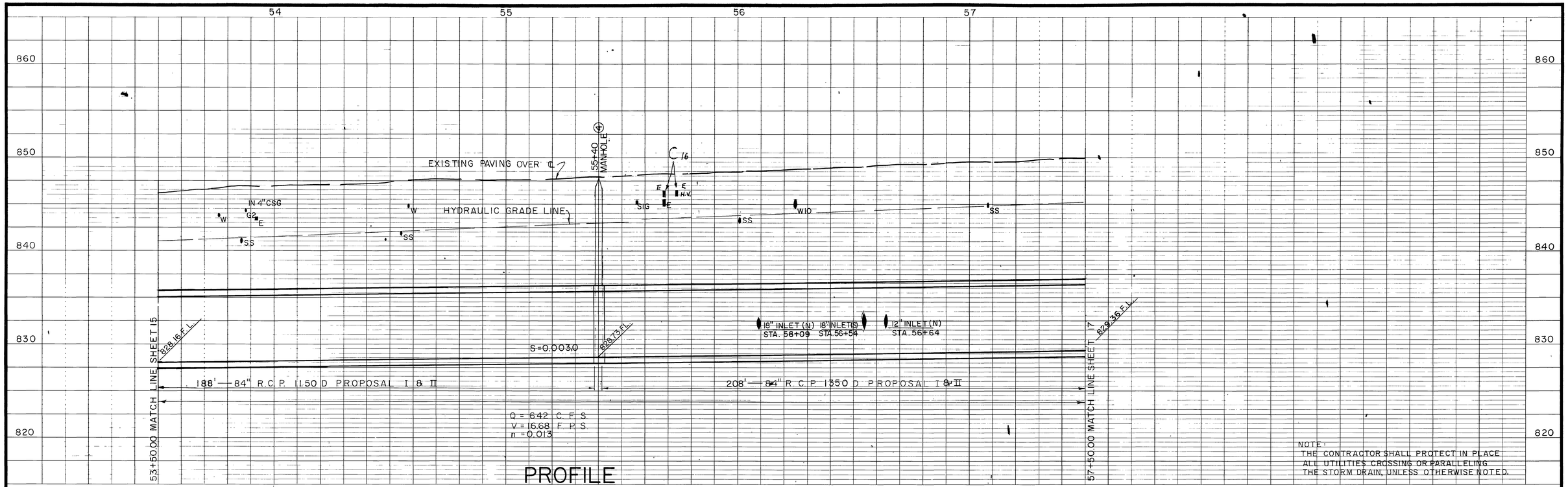
PLAN

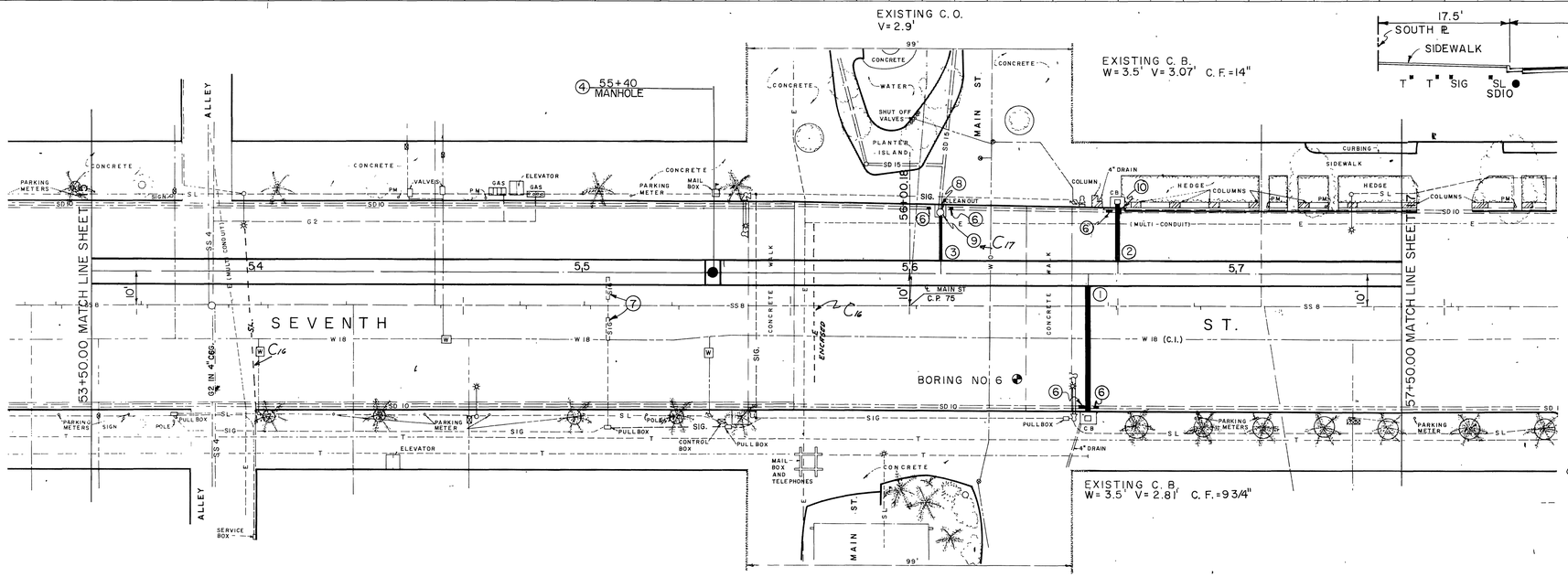
1"=20'

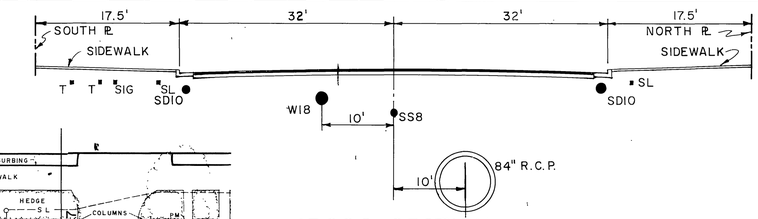
20' 0 20'

BENCH MARK C.P. 74 EAST SIDE OF RIM OF M.H. CL. MARKET & SEVENTH. EL. 844.443	J. F. DAVIDSON ASSOCIATES CIVIL ENGINEERS - SURVEYORS - PLANNERS RIVERSIDE, CALIFORNIA	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	BOX SPRINGS DRAIN STAGE II STA. 49+00 TO STA. 53+50 1970 STORM DRAIN BOND ISSUE PROJECT NO. 6	PROJECT NO. 1-0-220
SCALE: 1" = 5' VERTICAL 1" = 20' HORIZONTAL	APPROVED BY: John W. Canty REGISTERED CIVIL ENGINEER NO. 17550	C15 W10 Aban & Plug as shown A.M. 6-76	DESIGNED BY: DRAWN BY: DATE DRAWN: CHECKED BY:	APPROVED BY: John W. Bryant CHIEF ENGINEER R.E. NO. 8822 DATE: 6-27-74	DRAWING NO. 1-291
DATE:	DATE: September 17, 1973	REF. DESCRIPTION APPR. DATE			SHEET NO. 15 OF 71

AS BUILT







CROSS SECTION
STATION 55+00.00
10 0 10 FEET

NOTES:

1. STA. 56+54.00 CONNECT 41' OF 18" R.C.P. CL. IV
2. STA. 56+64.00 CONNECT 21' OF 12" R.C.P. CL. IV
3. STA. 56+09.00 CONNECT 17' OF 18" R.C.P. CL. IV SEE SHEET 22 FOR CONNECTOR PIPE PROFILE
4. PROPOSAL NO. I, II M.H. NO. 2
5. SEE SHEET 21 FOR CONNECTOR PIPE PROFILES
6. PLUG EXISTING 10" PIPE.
7. REMOVE SIGNAL DETECTOR UNITS AND REPLACE WITH LOOPS. DELIVER ABAND. SIGNAL PLATES TO C/R.
8. REMOVE EXIST. CLEANOUT AND SALVAGE FOR ITEM 9.
9. M.H. NO. 1 *NOT CONSTRUCTED EXIST. CLEANOUT UTILIZED* — C17
10. CONNECT 10" SD TO 12" R.C.P. LATERAL WITH J.S. NO. 2 A=90°00'00" B=10" C=2.00' D=12" E=1.17' F=.32' G=.24' L=3.17' S=844.65 R=846.04

D-293

PLAN

1"=20'

20' 0 20'

BENCH MARK C.P. 75 NAIL & TIN CL MAIN & SEVENTH. EL. 848.625	
SCALE: 1" = 5' VERTICAL 1" = 20' HORIZONTAL	
DATE:	

J. F. DAVIDSON ASSOCIATES
CIVIL ENGINEERS - SURVEYORS - PLANNERS
RIVERSIDE, CALIFORNIA

APPROVED BY: John W. Canty
REGISTERED CIVIL ENGINEER NO. 17550
DATE: September 17, 1973

REVISIONS

REF.	DESCRIPTION	APPR.	DATE
C17	M.H. No. 1, not constr. Exist. used	A.M.	6-74
C16	E. and S.L. Found, Location as shown	A.M.	6-74

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

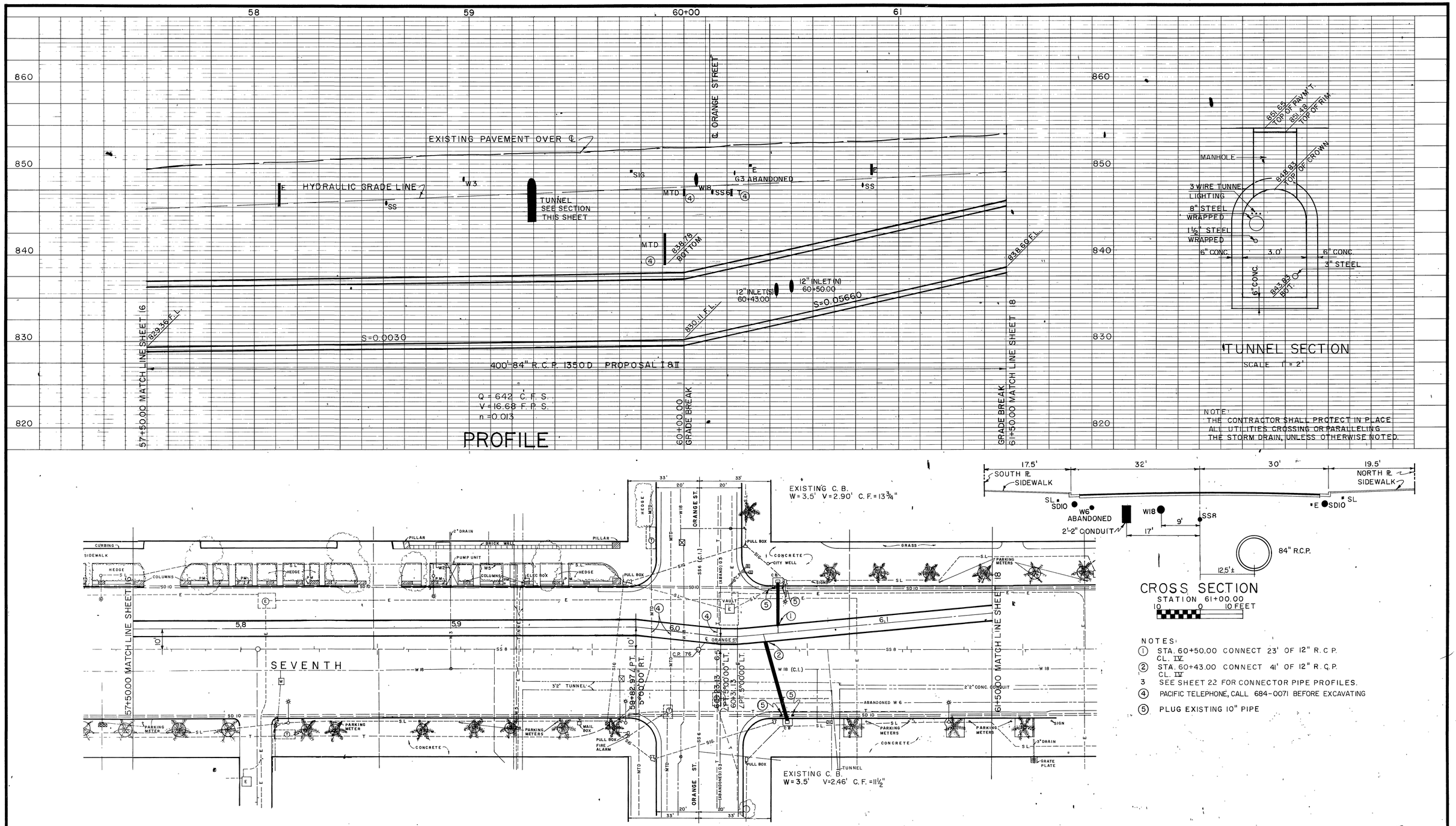
DESIGNED BY:
DRAWN BY:
DATE DRAWN:
CHECKED BY:

APPROVED BY: Robert Bryant
CHIEF ENGINEER R.E. NO. 8822
DATE: 6-27-74

BOX SPRINGS DRAIN
STAGE II
STA. 53+50 TO STA. 57+50
1970 STORM DRAIN BOND ISSUE PROJECT NO. 6

PROJECT NO. 1-0-220
DRAWING NO. 1-291
SHEET NO. 16 OF 71

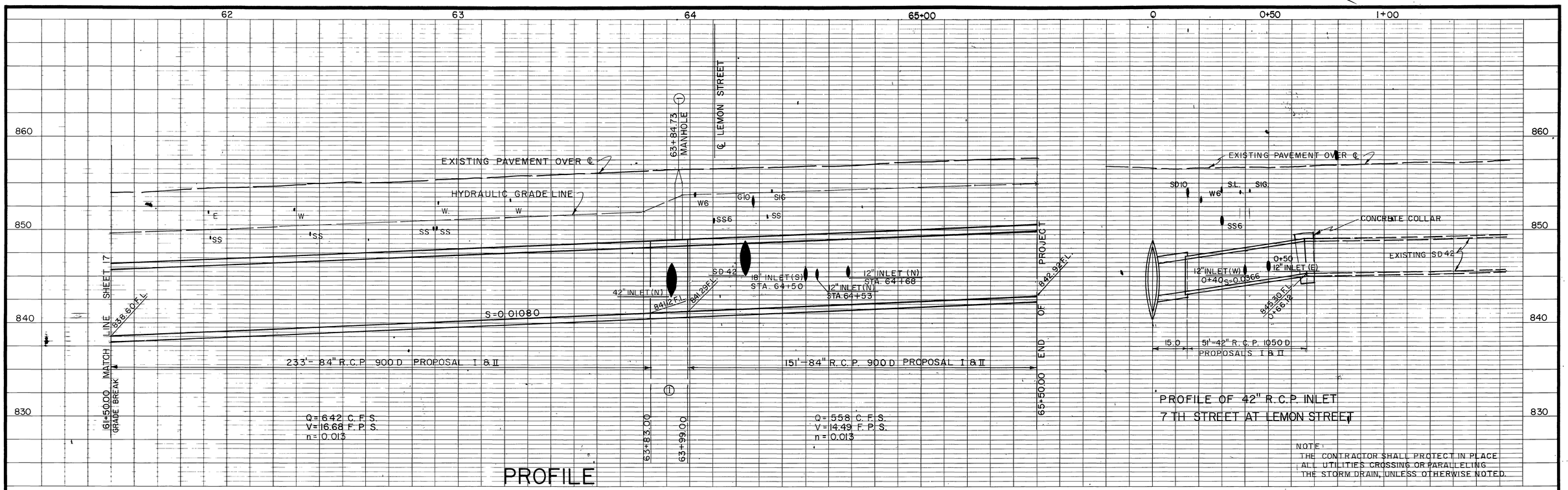
AS BUILT

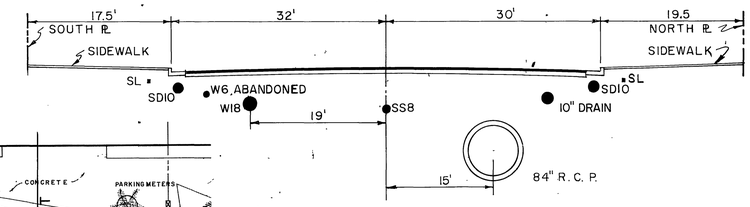


D-293

BENCH MARK C.P. 76 WEST SIDE OF RIM OF M.H. CL ORANGE & SEVENTH. EL. 852.589	J. F. DAVIDSON ASSOCIATES CIVIL ENGINEERS - SURVEYORS - PLANNERS RIVERSIDE, CALIFORNIA	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	BOX SPRINGS DRAIN	PROJECT NO. 1-0-220
SCALE: 1" = 5' VERTICAL 1" = 20' HORIZONTAL	APPROVED BY: John W. Cantz REGISTERED CIVIL ENGINEER NO. 17550	No Change	DESIGNED BY: DRAWN BY: DATE DRAWN: CHECKED BY:	STAGE II STA. 57+50 TO STA. 61+50	DRAWING NO. 1-291
DATE:	DATE: September 17, 1973	REF. DESCRIPTION APPR. DATE	APPROVED BY: John W. Bryant CHIEF ENGINEER R.E. NO. 8822 DATE: 6-27-74	1970 STORM DRAIN BOND ISSUE PROJECT NO. 6	SHEET NO. 17 OF 71

AS BUILT





CROSS SECTION
STATION 65+00.00
10 0 10 FEET

NOTES:

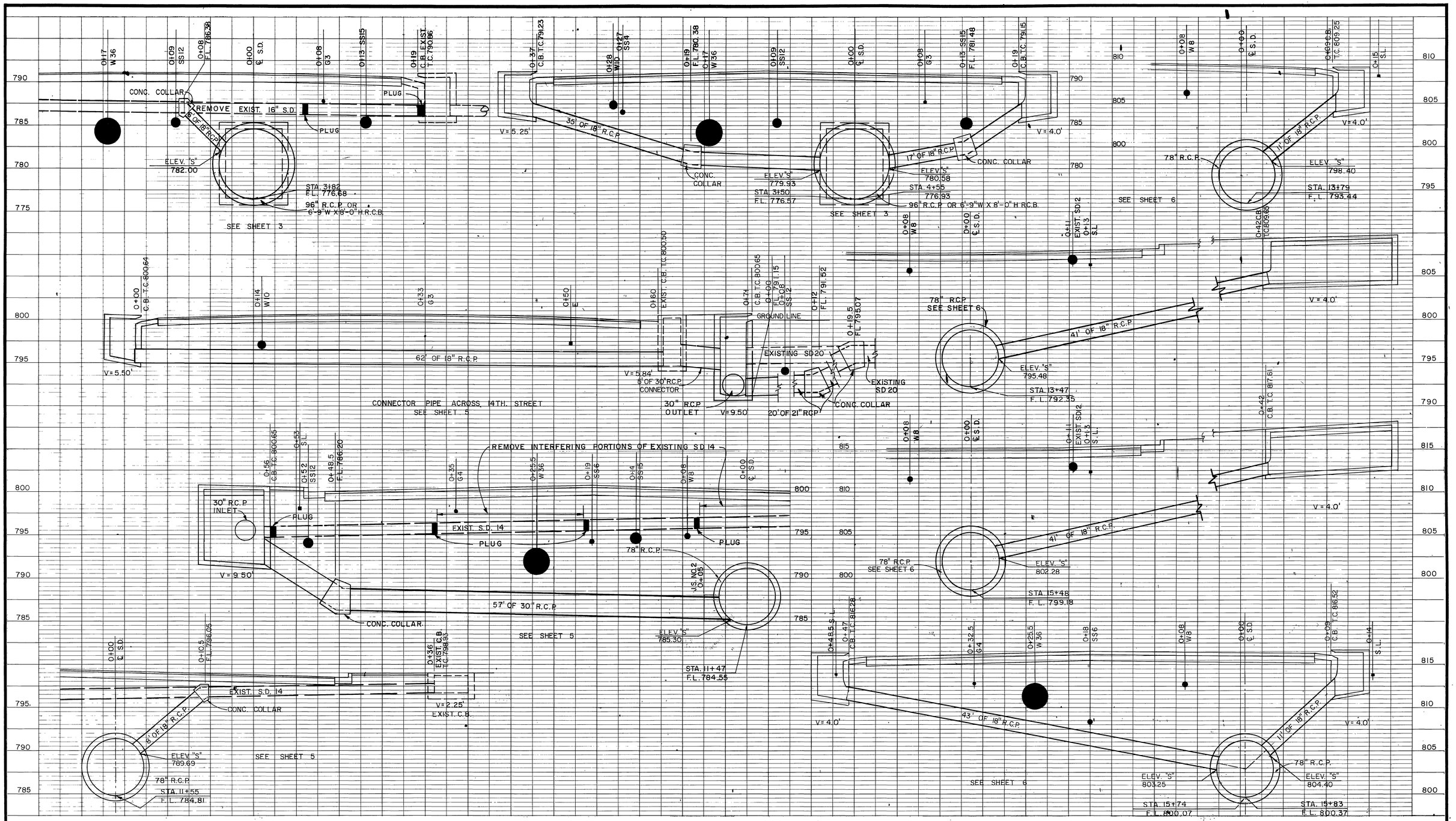
1. STA. 63+84.73 PROPOSAL I & II M.H. NO. 4, D=84", B=42", C=15.0', A=30°00'00", S=843.00, R.=843.41
2. STA. 64+50 CONNECT 48' OF 18" R.C.P. CL. IV
3. STA. 64+53 CONNECT 12' OF 12" R.C.P. CL. IV
4. SEE SHEET 22 FOR CONNECTOR PIPE PROFILES.
5. REMOVE INTERFERING PORTIONS OF EXISTING 42" PIPE AND CONNECT 3' OF 12" R.C.P. CL. IV
6. REMOVE INTERFERING PORTIONS OF EXISTING 12" PIPE AND CONNECT 4' OF 12" R.C.P. CL. IV
7. REMOVE INTERFERING PORTION OF SD 42 AND CONSTRUCT BRICK & MORTAR BULKHEAD.
8. PLUG 10" PIPE
9. REMOVE INTERFERING PORTIONS OF W6 (ABAND.)
10. STA. 65+50.00 END OF 84" R.C.P. INSTALL TIMBER BULKHEAD.
11. STA. 64+68 REMOVE INTERFERING PORTIONS OF EXISTING SD 10 AND CONNECT 10' OF 12" R.C.P. CL. IV.

D-293

PLAN
1"=20'
20' 0 20'

BENCH MARK C.P. 77 EAST SIDE OF RIM OF M.H. CENTERLINE LEMON & SEVENTH. EL. 856.657	J. F. DAVIDSON ASSOCIATES CIVIL ENGINEERS - SURVEYORS - PLANNERS RIVERSIDE, CALIFORNIA	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	BOX SPRINGS DRAIN STAGE II STA. 61+50 TO STA. 65+50 1970 STORM DRAIN BOND ISSUE PROJECT NO. 6
SCALE: 1" = 5' VERTICAL 1" = 20' HORIZONTAL	APPROVED BY: John W. Canty REGISTERED CIVIL ENGINEER NO. 17550	C18 Changed ℄ by 2' as shown — REF. DESCRIPTION APPR. DATE	DESIGNED BY: DRAWN BY: DATE DRAWN: CHECKED BY: APPROVED BY: John W. Bryant CHIEF ENGINEER R.E. NO. 8822 DATE: 6-27-74	PROJECT NO. 1-0-220 DRAWING NO. 1-291 SHEET NO. 18 OF 71
DATE:	DATE: September 17, 1973			

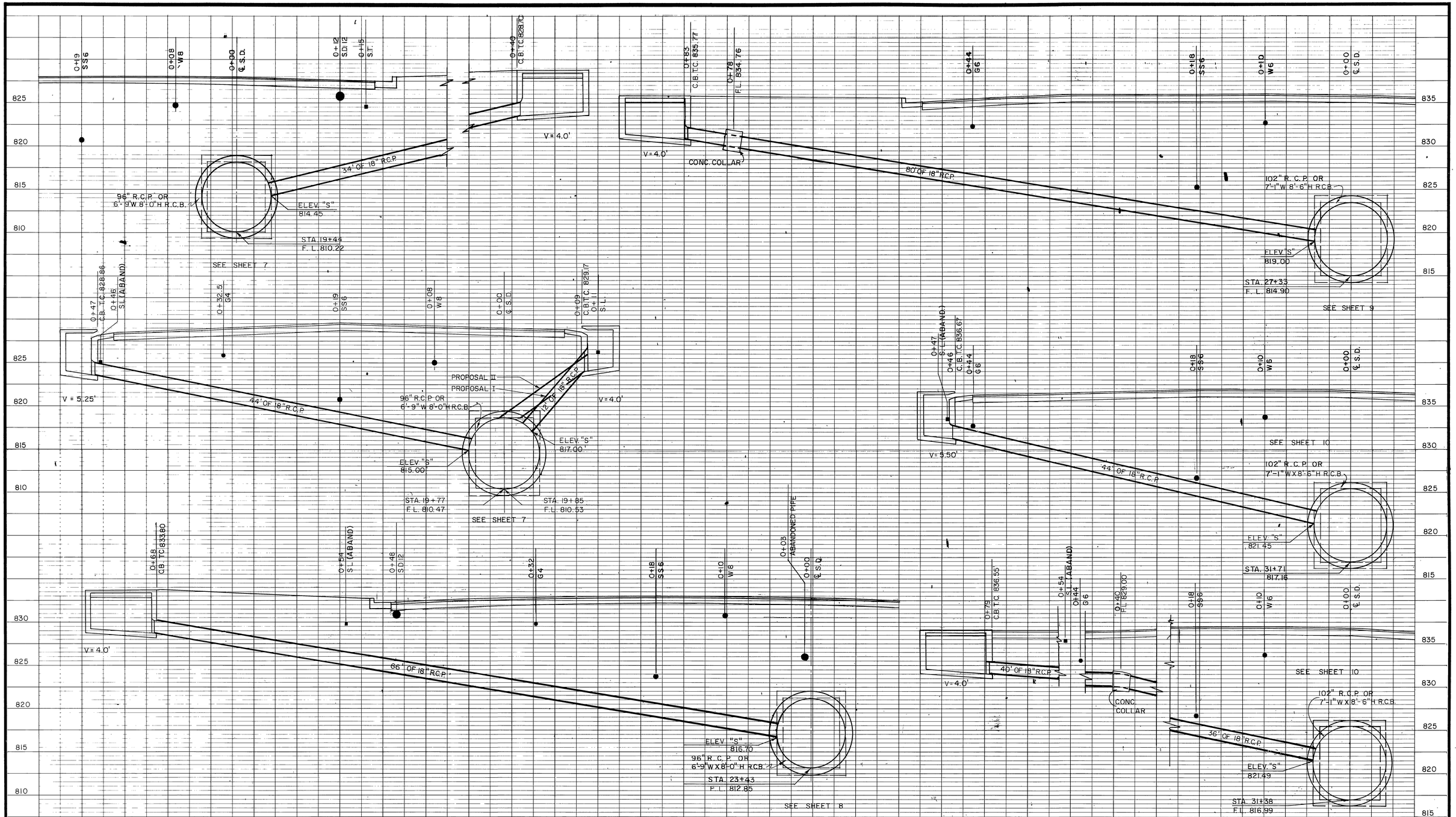
AS BUILT



D-293

BENCH MARK	J. F. DAVIDSON ASSOCIATES CIVIL ENGINEERS - SURVEYORS - PLANNERS RIVERSIDE, CALIFORNIA	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	BOX SPRINGS DRAIN STAGE II CONNECTOR PIPE PROFILES 1970 STORM DRAIN BOND ISSUE PROJECT NO. 6	PROJECT NO. 1-0-220
SCALE: 1" = 5' V DEPTH NOT TO SCALE	APPROVED BY: John W. Centy REGISTERED CIVIL ENGINEER NO. 17550	No Change REF. DESCRIPTION APPR. DATE	DESIGNED BY: DRAWN BY: DATE DRAWN: CHECKED BY:		DRAWING NO. 1-291
DATE:	DATE: September 17, 1973		APPROVED BY: John W. Bryant CHIEF ENGINEER R.E. NO. 8822 DATE: 6-27-74		SHEET NO. 19 OF 71

AS BUILT



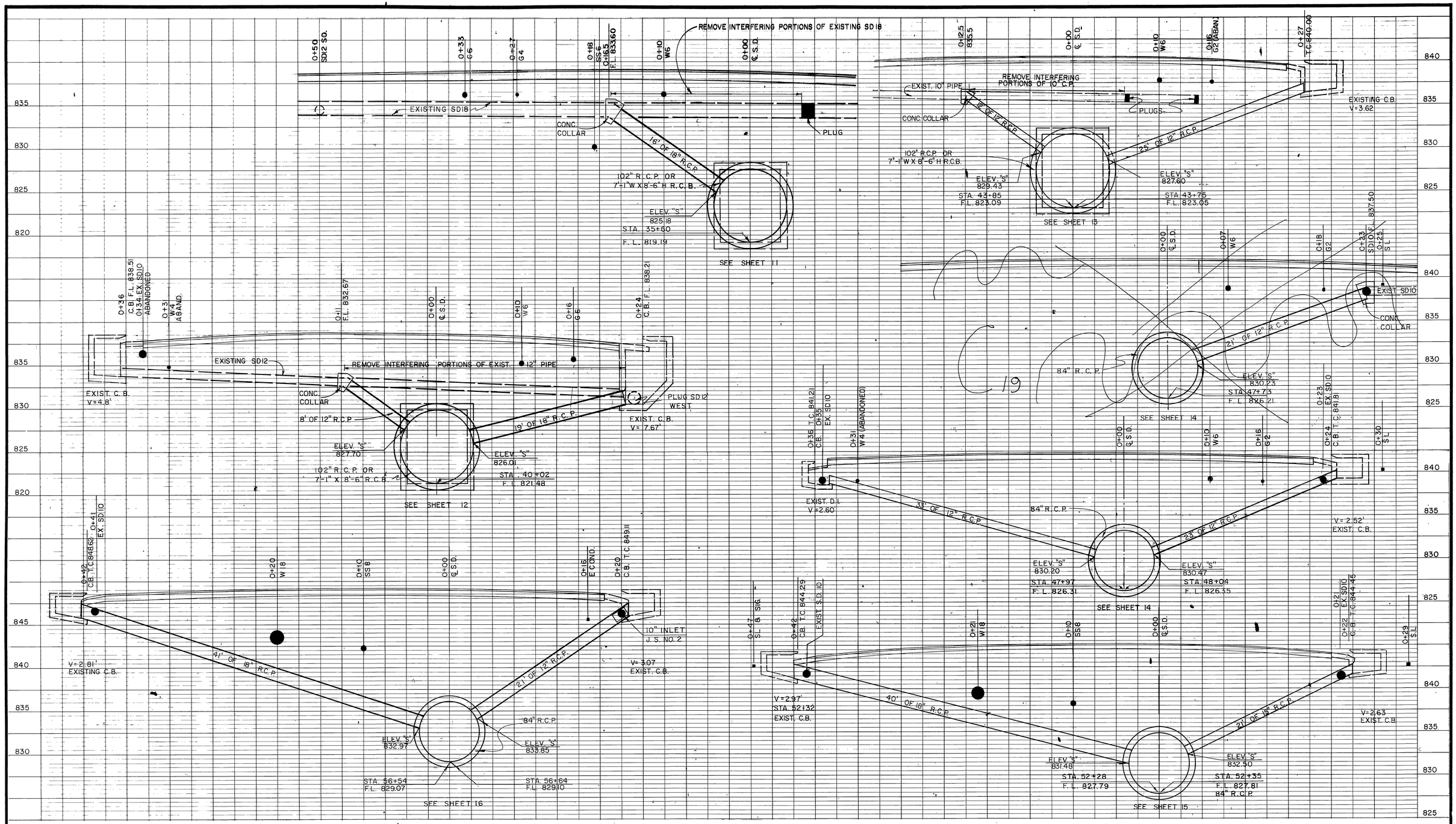
D-293

BENCH MARK	J. F. DAVIDSON ASSOCIATES CIVIL ENGINEERS - SURVEYORS - PLANNERS RIVERSIDE, CALIFORNIA	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
SCALE: 1" = 5' V DEPTH NOT TO SCALE	APPROVED BY: John W. Canty REGISTERED CIVIL ENGINEER NO. 17550		DESIGNED BY: DRAWN BY: DATE DRAWN: CHECKED BY:
DATE:	DATE: September 17, 1973	REF. / DESCRIPTION / APPR. / DATE No Change	APPROVED BY: John W. Bryant CHIEF ENGINEER R.E. NO. 8822 DATE: 6-27-74

BOX SPRINGS DRAIN
STAGE II
CONNECTOR PIPE PROFILES
1970 STORM DRAIN BOND ISSUE PROJECT NO. 6

PROJECT NO. 1-0-220
DRAWING NO. 1-291
SHEET NO. 20 OF 71

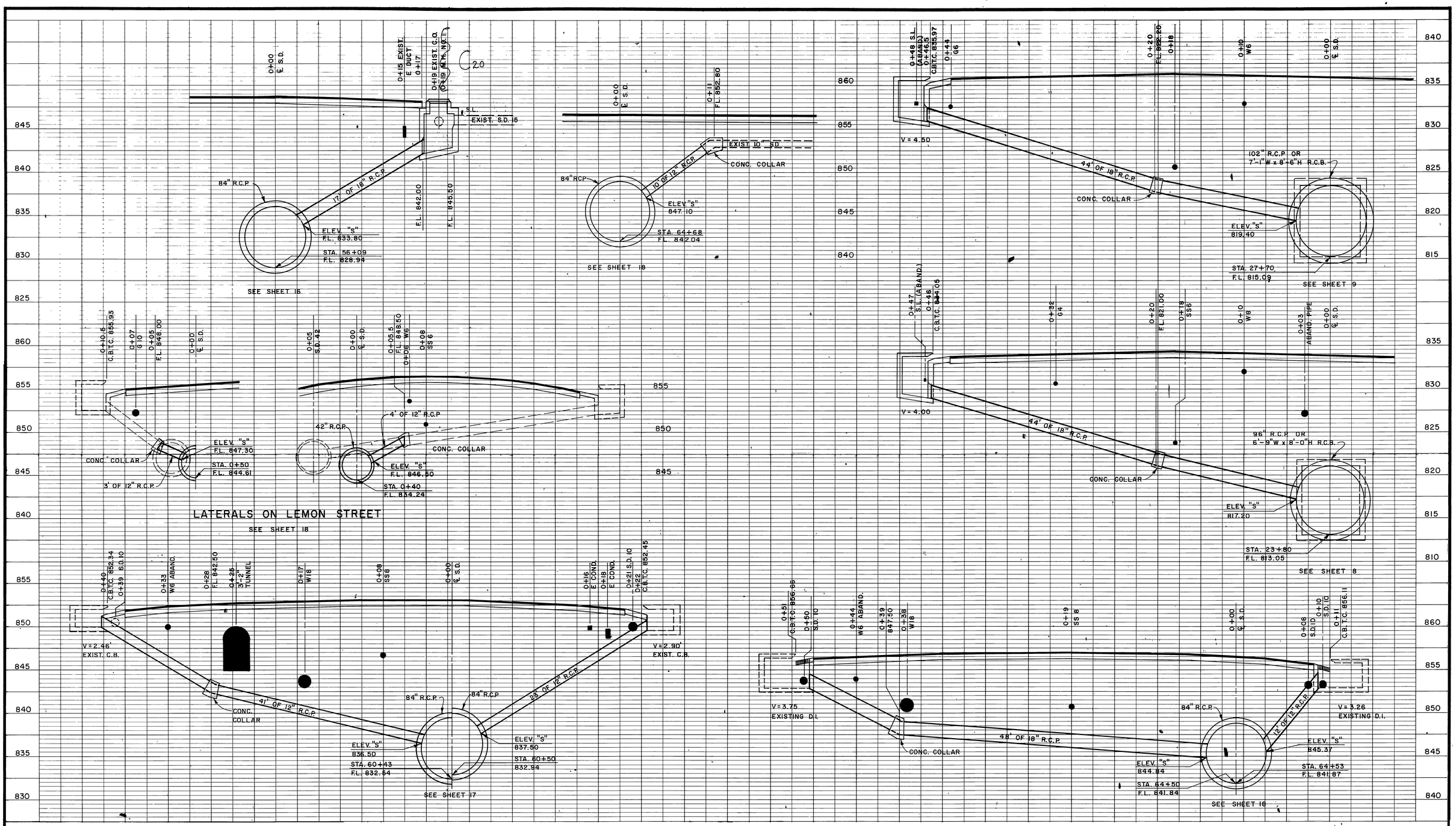
AS BUILT



D-293

BENCH MARK	J. F. DAVIDSON ASSOCIATES CIVIL ENGINEERS - SURVEYORS - PLANNERS RIVERSIDE, CALIFORNIA	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	BOX SPRINGS DRAIN STAGE II CONNECTOR PIPE PROFILES 1970 STORM DRAIN BOND ISSUE PROJECT NO. 6	PROJECT NO. 1-0-220
SCALE: 1" = 5' V DEPTH NOT TO SCALE	APPROVED BY: John W. Cantey REGISTERED CIVIL ENGINEER NO. 17550	C19 Not Constructed A.M. 6-74 REF. DESCRIPTION APPR. DATE	DESIGNED BY: DRAWN BY: DATE DRAWN: CHECKED BY:	APPROVED BY: John W. Bryant CHIEF ENGINEER R.E. NO. 8822 DATE: 6-27-74	DRAWING NO. 1-291
DATE:	DATE: September 17, 1973				SHEET NO. 21 OF 71

AS BUILT



HORIZ. SCALE: 1" = 5'
V DEPTH NOT TO SCALE

D-293

REVISIONS			
C20	Not Constructed		6-74
REF.	DESCRIPTION	APPR.	DATE

AS BUILT

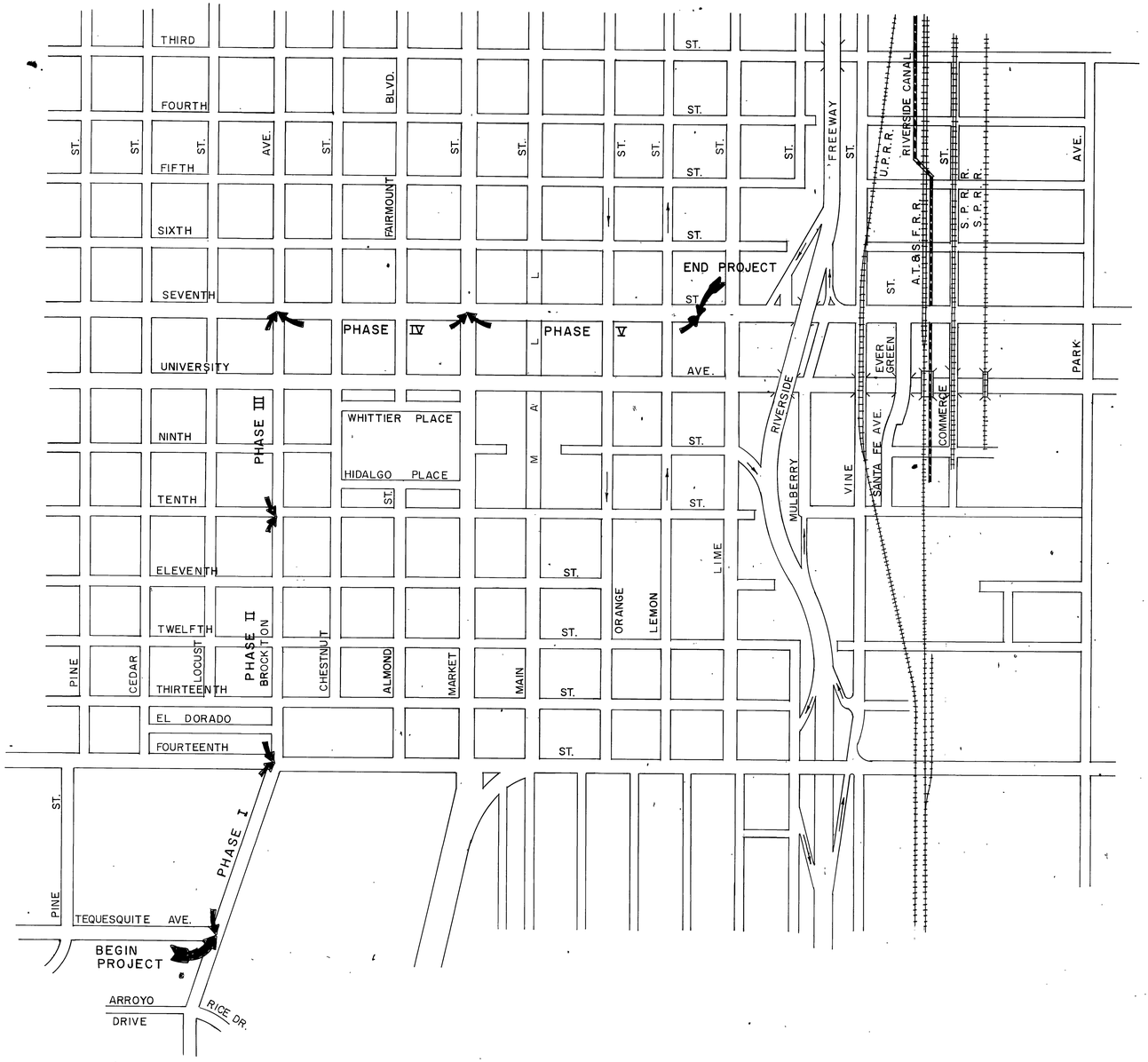
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY:
DRAWN BY: R.A.A.
DATE DRAWN:
CHECKED BY:

APPROVED BY: John W. Bryant
CHIEF ENGINEER R.E. NO. 8822
DATE: 6-27-74

BOX SPRINGS DRAIN
STAGE II
CONNECTOR PIPE PROFILES
1970 STORM DRAIN BOND ISSUE PROJECT NO. 6

PROJECT NO. 1-0-220
DRAWING NO. 1-291
SHEET NO. 22 OF 71



GENERAL NOTES

1. THE CONTRACTOR SHALL CONSTRUCT THE STORM DRAIN FACILITIES IN STAGES AS SHOWN ON THESE PLANS.
2. CONSTRUCTION WORK MAY PROCEED IN ANY ONE OF THE NONCONTIGUOUS STAGES. CONSTRUCTION IN CONTIGUOUS STAGES MAY NOT PROCEED UNTIL GIVEN APPROVAL BY THE ENGINEER.
3. ACCESS TO PRIVATE PROPERTY SHALL BE AS SET FORTH IN THE SPECIFICATIONS.
4. THESE ARE MINIMUM SIGNING REQUIREMENTS. ADDITIONAL SIGNS MAY BE REQUIRED TO FACILITATE PUBLIC SAFETY AND TRAFFIC FLOW IF DEEMED NECESSARY BY THE ENGINEER.
5. REQUIREMENTS FOR FLAGMEN: IF SITUATIONS WARRANT (GENERAL NOTE 4) A FLAGMAN OR FLAGMEN SHALL BE UTILIZED; WEARING RED FLOURESCENT VEST AND POSSESSING C-28 SIGN (SLOW & STOP). POST C-9R SIGNS IN ADVANCE OF AREA.
6. DELINEATORS = PADDLES, SMALL BARRICADES OR EQUAL. CONES WILL NOT BE ALLOWED. MAXIMUM SPACING TO BE 25 FEET.
7. CLASS I BARRICADES SHALL HAVE W-21 OR FLASHER FOR REFLECTORIZATION. CLASS II BARRICADES SHALL HAVE FLASHERS.
8. BEFORE COMMENCING ANY WORK AT A SIGNALIZED INTERSECTION, THE CONTRACTOR IS TO NOTIFY THE TRAFFIC DIVISION 72 HOURS PRIOR TO STARTING WORK.
9. ALL TRAFFIC CONTROL SIGNS SHALL CONFORM TO THE CURRENT STATE OF CALIFORNIA UNIFORM SIGN CHART AS LAST REVISED. (THE MINIMUM SIGN IS ALLOWED.)
10. THE CONTRACTOR MUST OBTAIN WRITTEN APPROVAL FROM THE ENGINEER PRIOR TO VARIANCES FROM THE ABOVE STANDARD SIGNS.
11. FOR SPECIAL REQUIREMENTS IN PHASE I SEE DETAILED SPECIFICATIONS-TRAFFIC CONTROL.

D-293

400' 0' 400'

BENCH MARK	J. F. DAVIDSON ASSOCIATES CIVIL ENGINEERS - SURVEYORS - PLANNERS RIVERSIDE, CALIFORNIA	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
SCALE: 1" = 400'	APPROVED BY: John W. Canty REGISTERED CIVIL ENGINEER NO. 17550		DESIGNED BY: / DRAWN BY: / DATE DRAWN: / CHECKED BY:
DATE:	DATE: September 17, 1973	REF. / DESCRIPTION / APPR. / DATE	APPROVED BY: John W. Bryant CHIEF ENGINEER R.E. NO. 8822 DATE: 6-27-74

BOX SPRINGS DRAIN

STAGE II

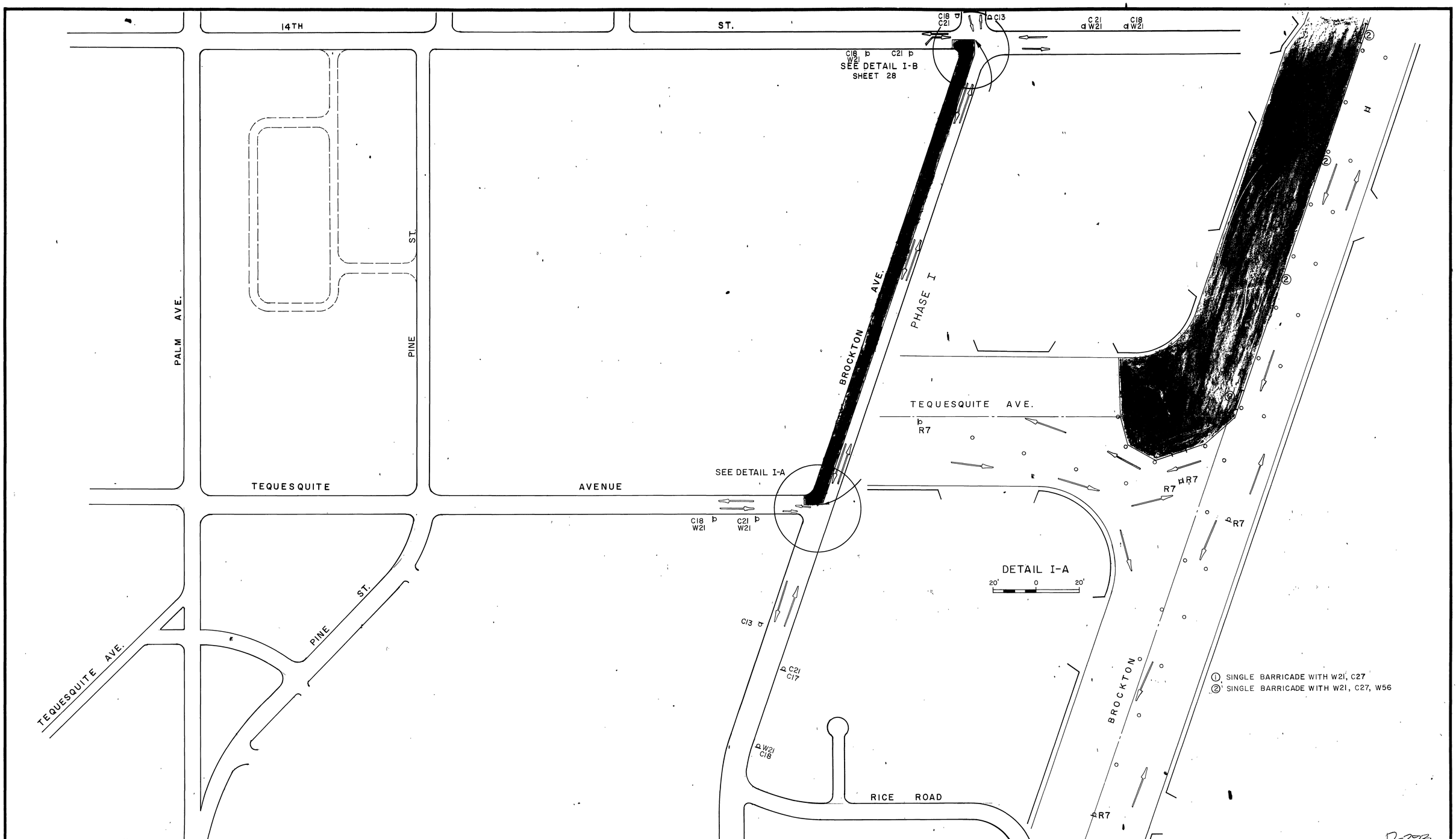
TRAFFIC PLAN

1970 STORM DRAIN BOND ISSUE PROJECT NO. 6

PROJECT NO. 1-0-220

DRAWING NO. 1-291

SHEET NO. 23 OF 71

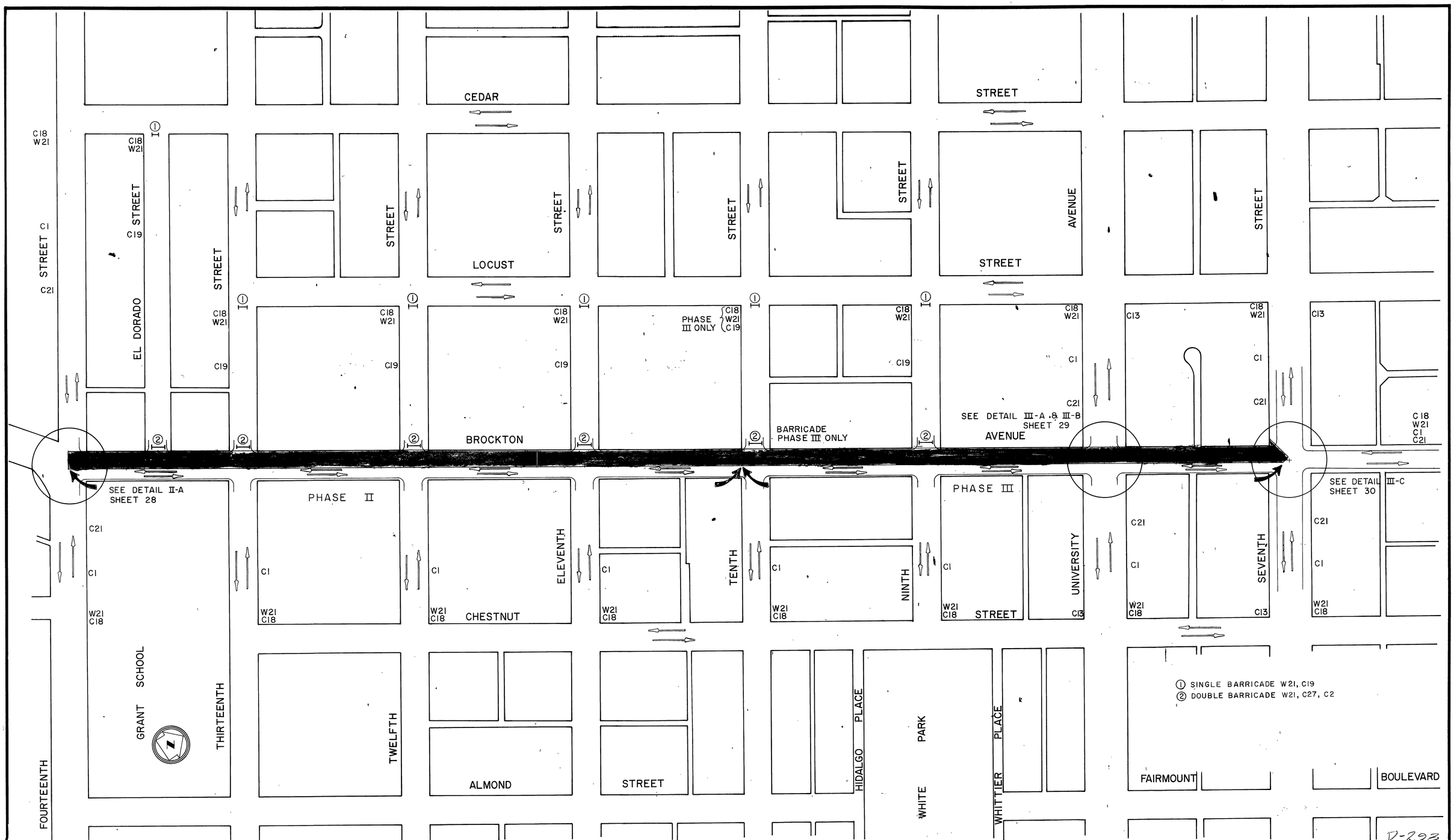


PLAN

1" = 100'

100 0 100

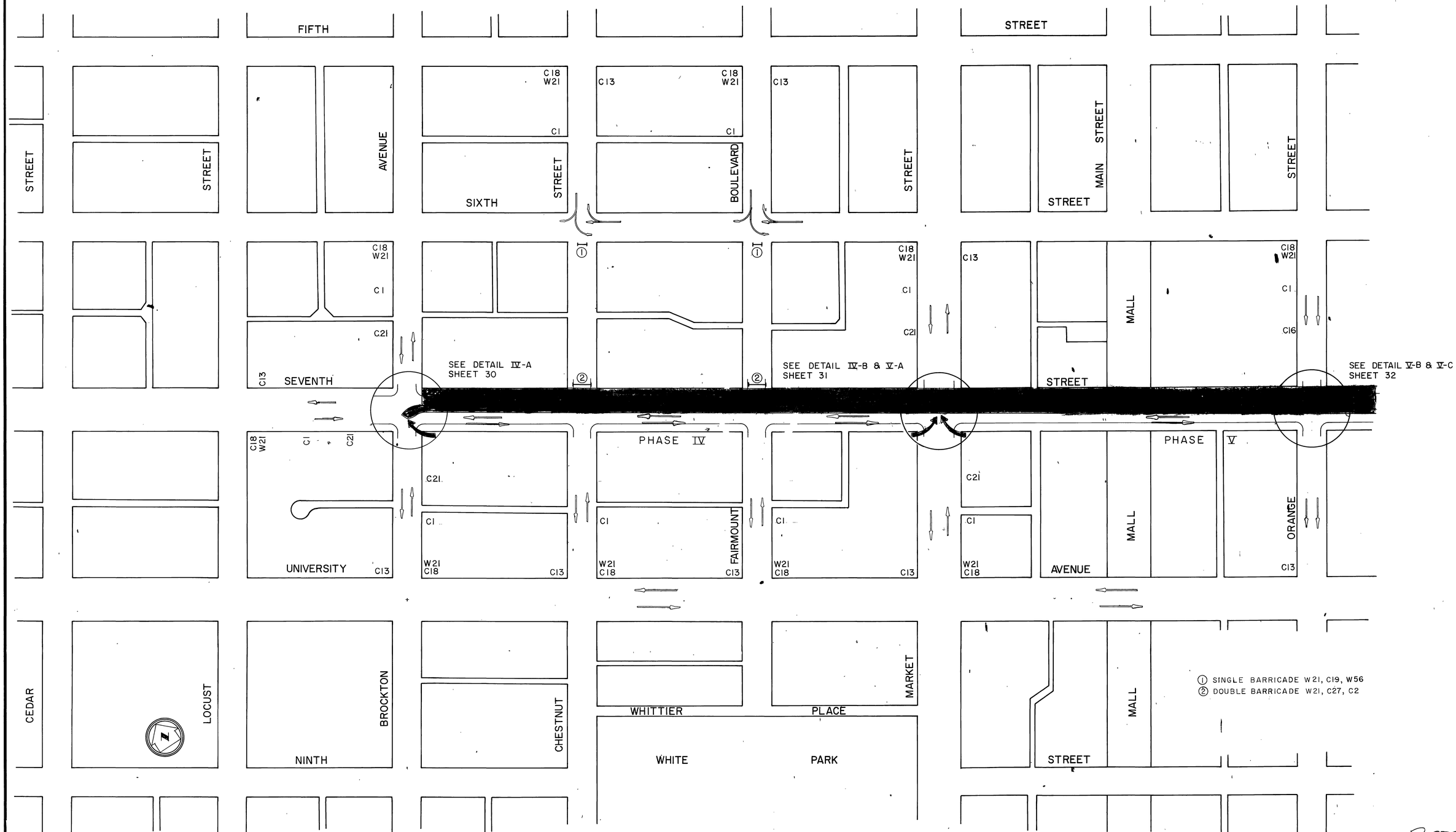
BENCH MARK	**J. F. DAVIDSON ASSOCIATES** CIVIL ENGINEERS - SURVEYORS - PLANNERS 3426 TENTH STREET RIVERSIDE, CALIFORNIA 714-686-0844	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	BOX SPRINGS DRAIN STAGE II CONSTRUCTION SIGNING PHASE I 1970 STORM DRAIN BOND ISSUE PROJECT NO. 6
SCALE:	APPROVED BY: John W. Canty REGISTERED CIVIL ENGINEER NO. 17550	REF. DESCRIPTION APPR. DATE	DESIGNED BY: DRAWN BY: DATE DRAWN: CHECKED BY:	PROJECT NO. 1-0-220
DATE:	DATE: September 17, 1973		APPROVED BY: John W. Bryant CHIEF ENGINEER R.E. NO. 8822 DATE: 6-27-74	DRAWING NO. 1-291 SHEET NO. 24 OF 71



BENCH MARK	J. F. DAVIDSON ASSOCIATES CIVIL ENGINEERS - SURVEYORS - PLANNERS RIVERSIDE, CALIFORNIA	REVISIONS REF. DESCRIPTION APPR. DATE	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
SCALE: 1" = 100'	APPROVED BY: John W. Canty REGISTERED CIVIL ENGINEER NO. 17550		DESIGNED BY: DRAWN BY: DATE DRAWN: CHECKED BY:
DATE:	DATE: September 17, 1973		APPROVED BY: John H. Bryant CHIEF ENGINEER/R.E. NO. 8822 DATE: 6-27-74

BOX SPRINGS DRAIN
STAGE II
CONSTRUCTION SIGNING PHASE II & III
1970 STORM DRAIN BOND ISSUE PROJECT NO. 6

PROJECT NO. 1-0-220
DRAWING NO. 1-291
SHEET NO. 25 OF 71



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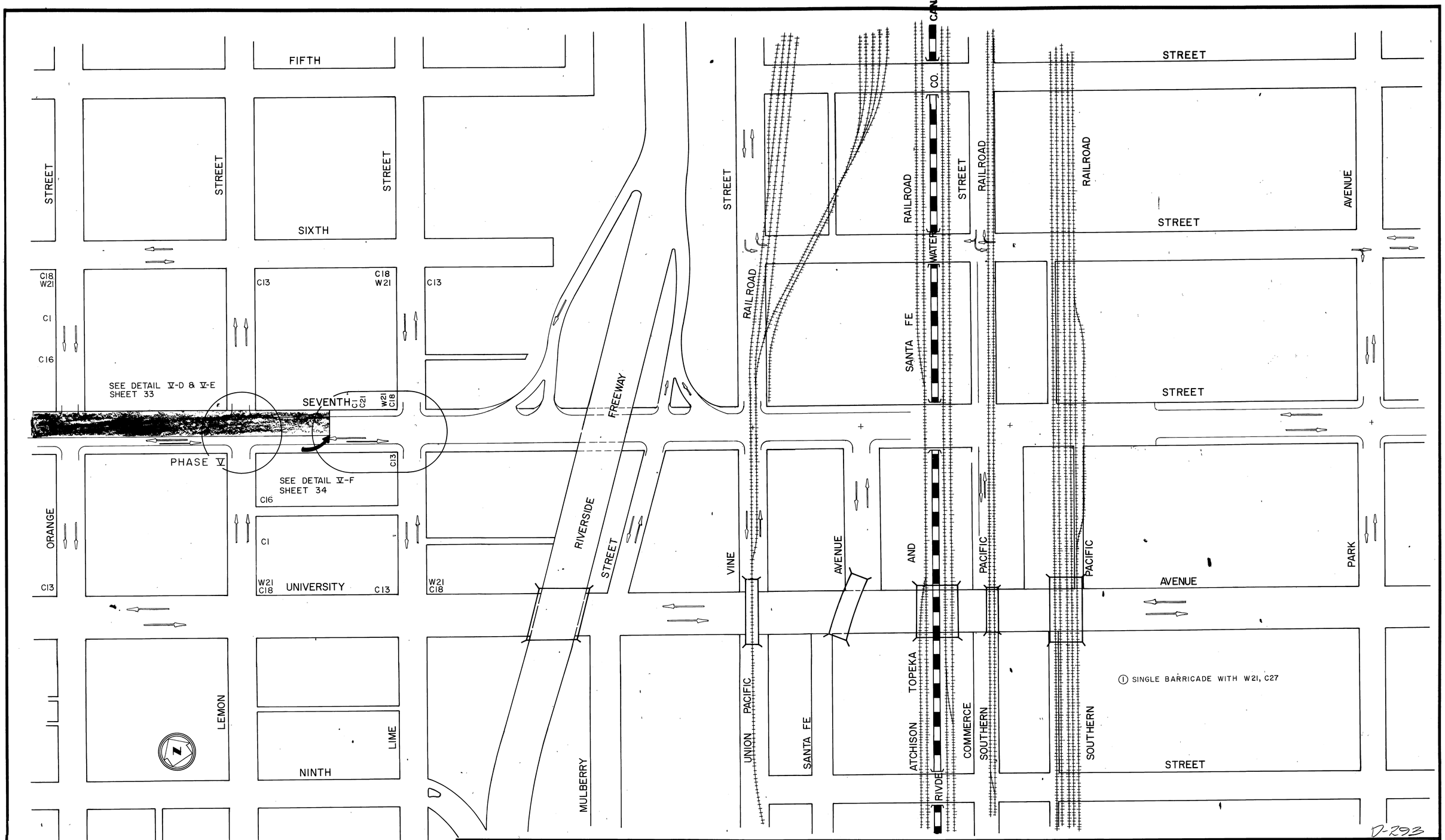
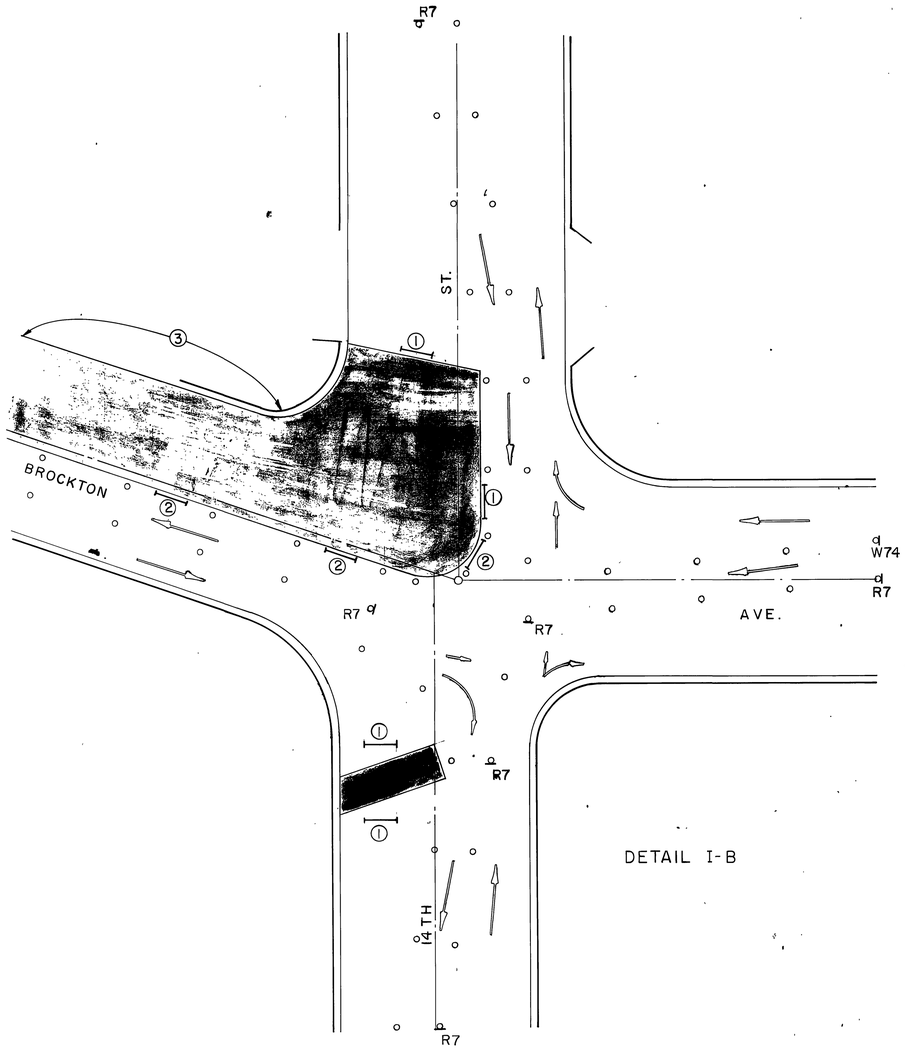
BENCH MARK	J. F. DAVIDSON ASSOCIATES CIVIL ENGINEERS - SURVEYORS - PLANNERS RIVERSIDE, CALIFORNIA	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	BOX SPRINGS DRAIN STAGE II CONSTRUCTION SIGNING PHASE IV & V 1970 STORM DRAIN BOND ISSUE PROJECT NO. 6	PROJECT NO. 1-0-220
SCALE: 1" = 100'	APPROVED BY: John W. Canty REGISTERED CIVIL ENGINEER NO. 17550	REF. / DESCRIPTION / APPR. / DATE	DESIGNED BY: DRAWN BY: DATE DRAWN: CHECKED BY:	APPROVED BY: John W. Bryant CHIEF ENGINEER R.E. NO. 8822	DRAWING NO. 1-291
DATE:	DATE: September 17, 1973			DATE: 6-27-74	SHEET NO. 26 OF 71

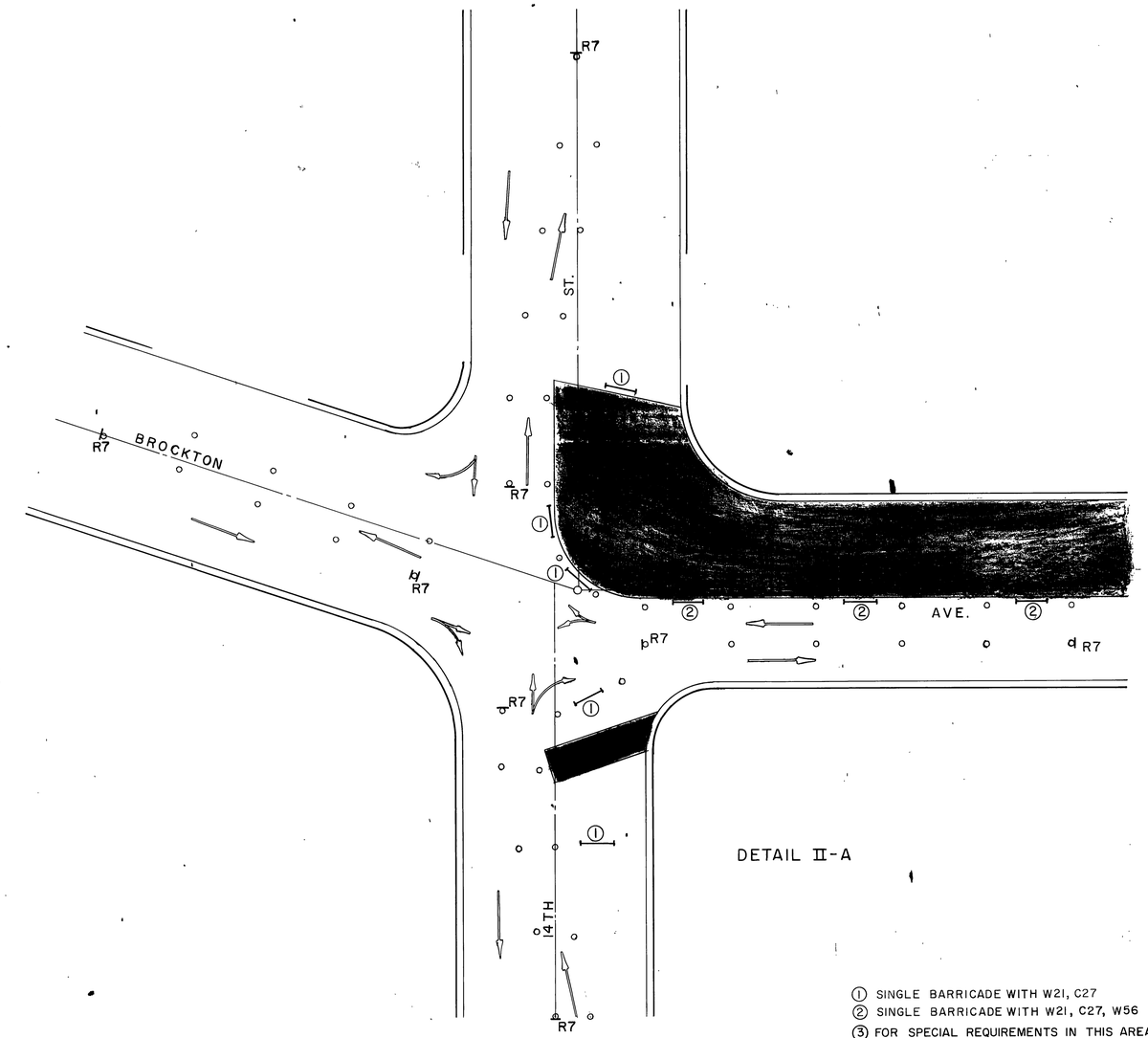


D-293

BENCH MARK	J. F. DAVIDSON ASSOCIATES CIVIL ENGINEERS - SURVEYORS - PLANNERS RIVERSIDE, CALIFORNIA	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	BOX SPRINGS DRAIN STAGE II CONSTRUCTION SIGNING PH. V 1970 STORM DRAIN BOND ISSUE PROJECT NO. 6	PROJECT NO. 1-0-220
SCALE: 1" = 100'	APPROVED BY: John W Canty REGISTERED CIVIL ENGINEER NO. 17550	REF. DESCRIPTION APPR. DATE	DESIGNED BY: DRAWN BY: DATE DRAWN: CHECKED BY:		DRAWING NO. 1-291
DATE:	DATE: September 17, 1973		APPROVED BY: John W Bryant CHIEF ENGINEER R.E. NO. 8822 DATE: 6-27-74		SHEET NO. 27 OF 71



DETAIL I-B



DETAIL II-A

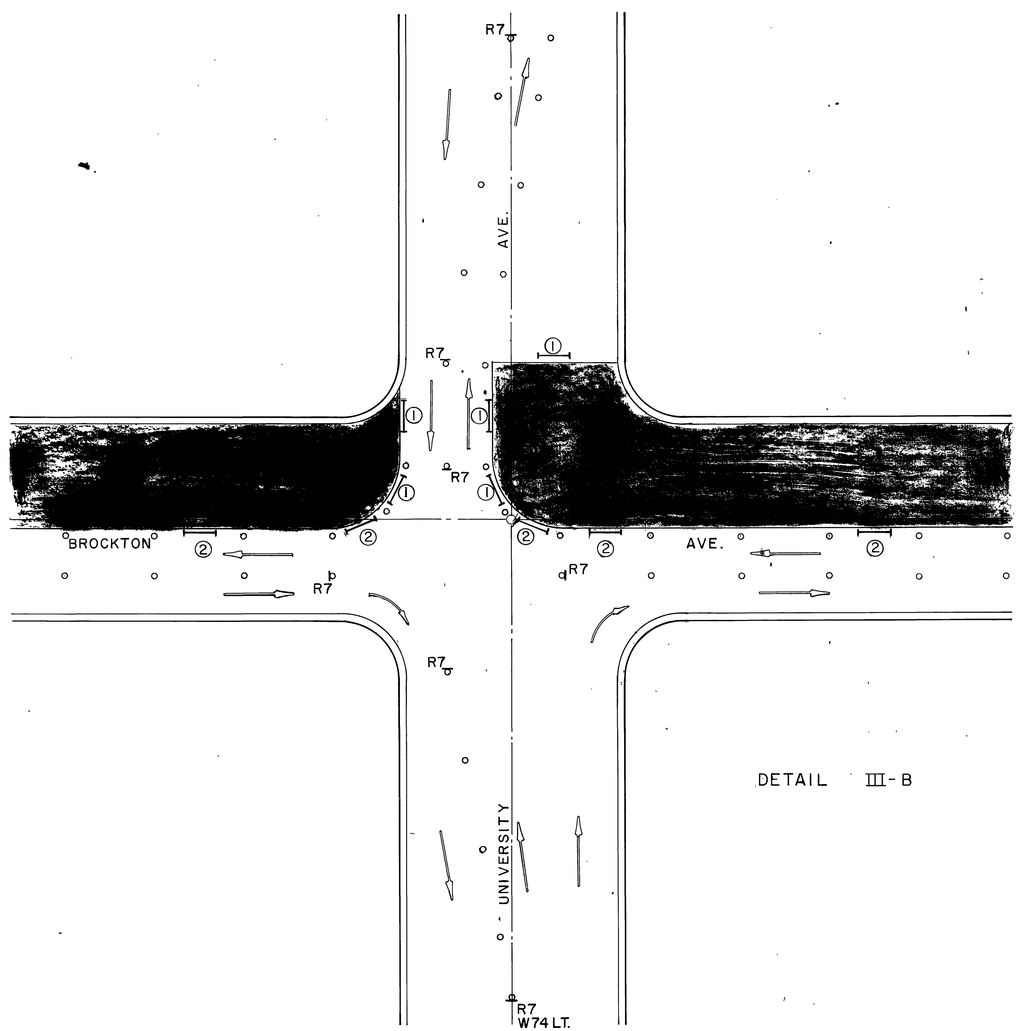
① SINGLE BARRICADE WITH W21, C27
② SINGLE BARRICADE WITH W21, C27, W56
③ FOR SPECIAL REQUIREMENTS IN THIS AREA SEE DETAILED SPECIFICATIONS-TRAFFIC CONTROL.

D-293

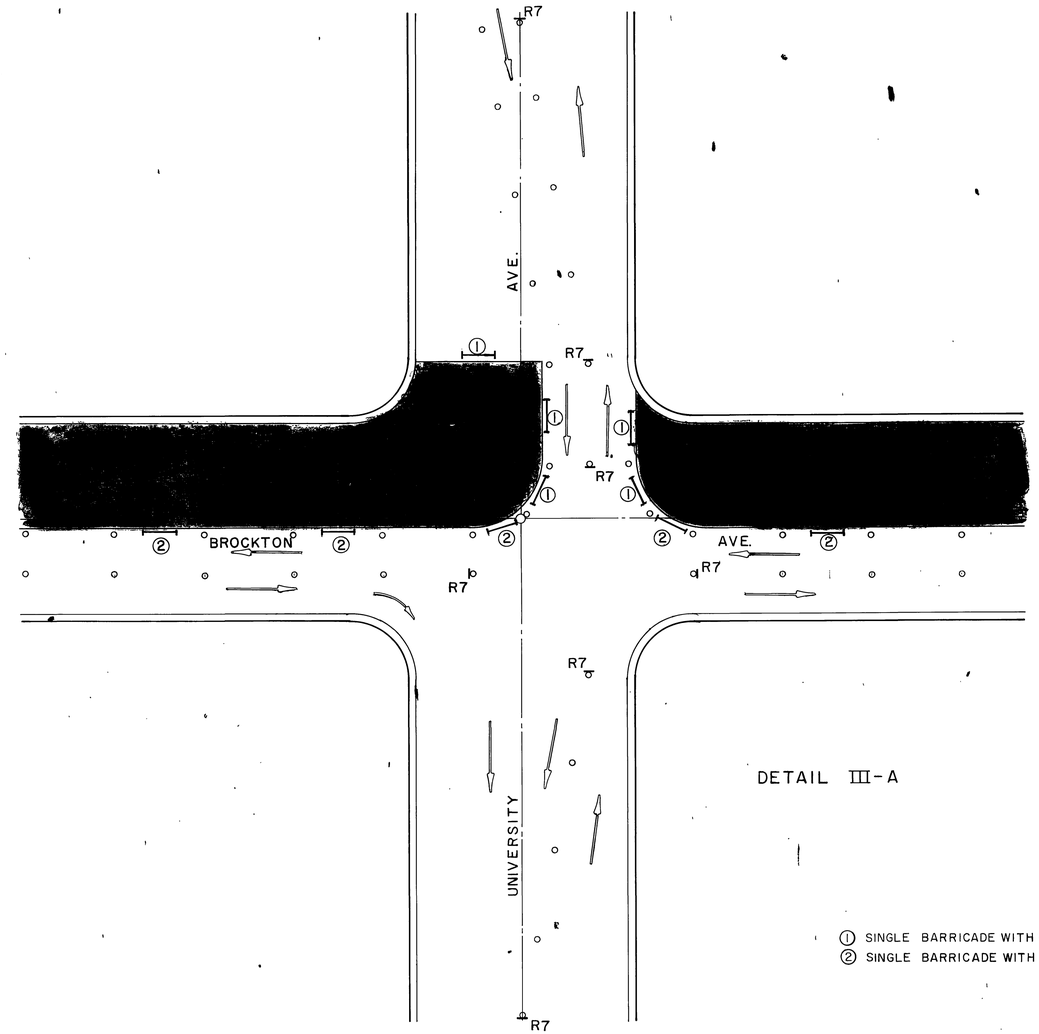
BENCH MARK	J. F. DAVIDSON ASSOCIATES CIVIL ENGINEERS - SURVEYORS - PLANNERS RIVERSIDE, CALIFORNIA	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
SCALE: 1" = 20'	APPROVED BY: John W. Canty REGISTERED CIVIL ENGINEER NO. 17550		DESIGNED BY:
DATE:	DATE: September 17, 1975	REF. / DESCRIPTION / APPR. / DATE	DRAWN BY: / DATE DRAWN: / CHECKED BY:
			APPROVED BY: John R. Bryant CHIEF ENGINEER R.E. NO. 8822 DATE: 6-27-74

BOX SPRINGS DRAIN
STAGE II
CONSTRUCTION SIGNING DETAILS
1970 STORM DRAIN BOND ISSUE PROJECT NO. 6

PROJECT NO. 1-0-220
DRAWING NO. 1-291
SHEET NO. 28 OF 71



DETAIL III-B

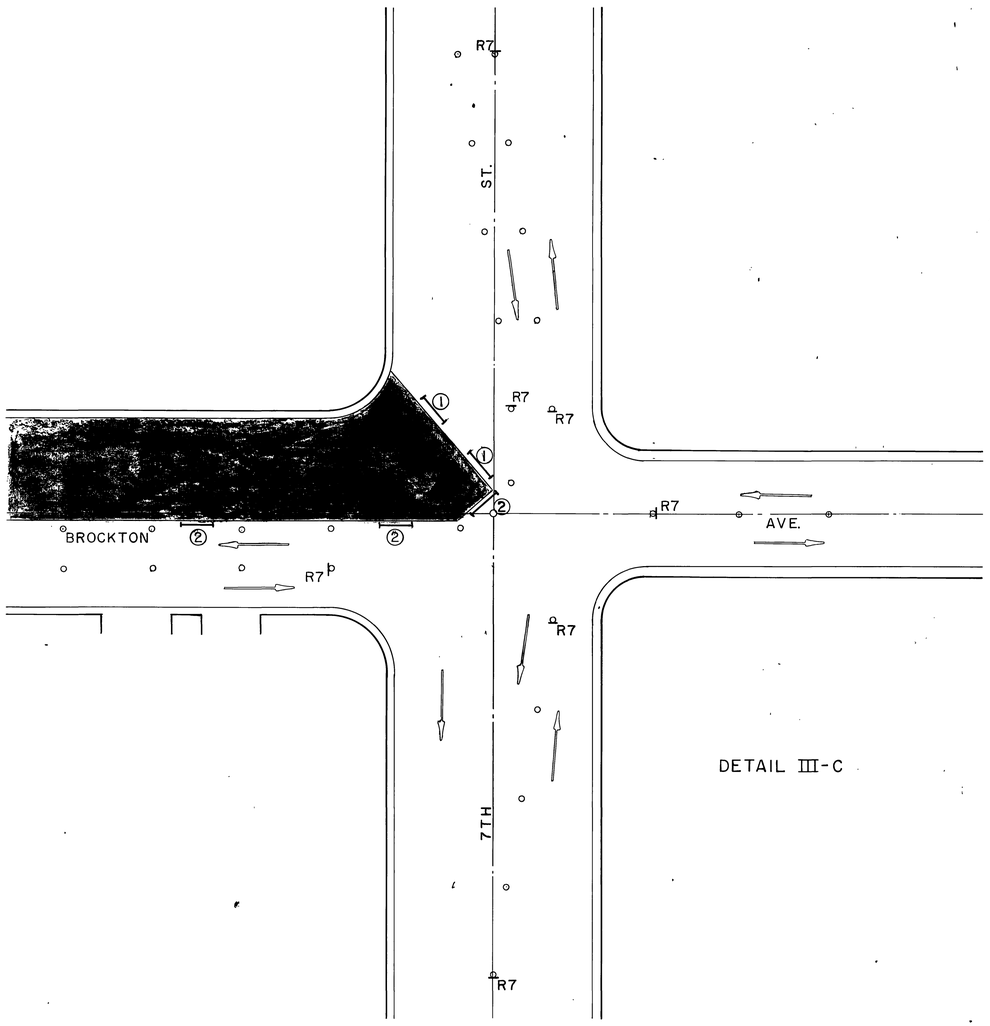


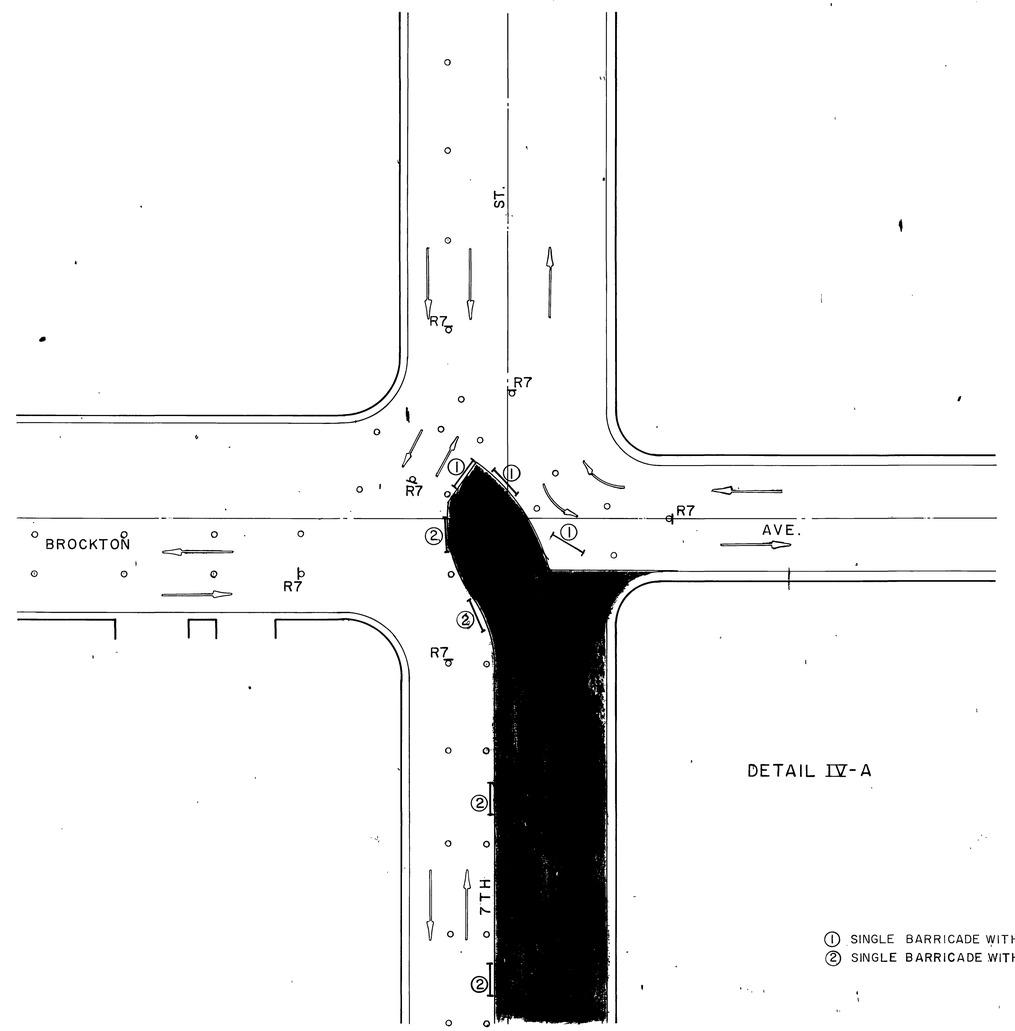
DETAIL III-A

① SINGLE BARRICADE WITH W21, C27
② SINGLE BARRICADE WITH W21, C27, W56

D-293

BENCH MARK	J. F. DAVIDSON ASSOCIATES CIVIL ENGINEERS - SURVEYORS - PLANNERS RIVERSIDE, CALIFORNIA	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	BOX SPRINGS DRAIN STAGE II CONSTRUCTION SIGNING DETAILS 1970 STORM DRAIN BOND ISSUE PROJECT NO. 6	PROJECT NO. 1-0-220
SCALE: 1" = 20'	APPROVED BY:	REF. / DESCRIPTION / APPR. / DATE	DESIGNED BY: / DRAWN BY: / DATE DRAWN: / CHECKED BY:		DRAWING NO. 1-291
DATE:	DATE: September 17, 1973 REGISTERED CIVIL ENGINEER NO. 17550		APPROVED BY: CHIEF ENGINEER R.E. NO. 8822 DATE: 6-27-74		SHEET NO. 29 OF 71

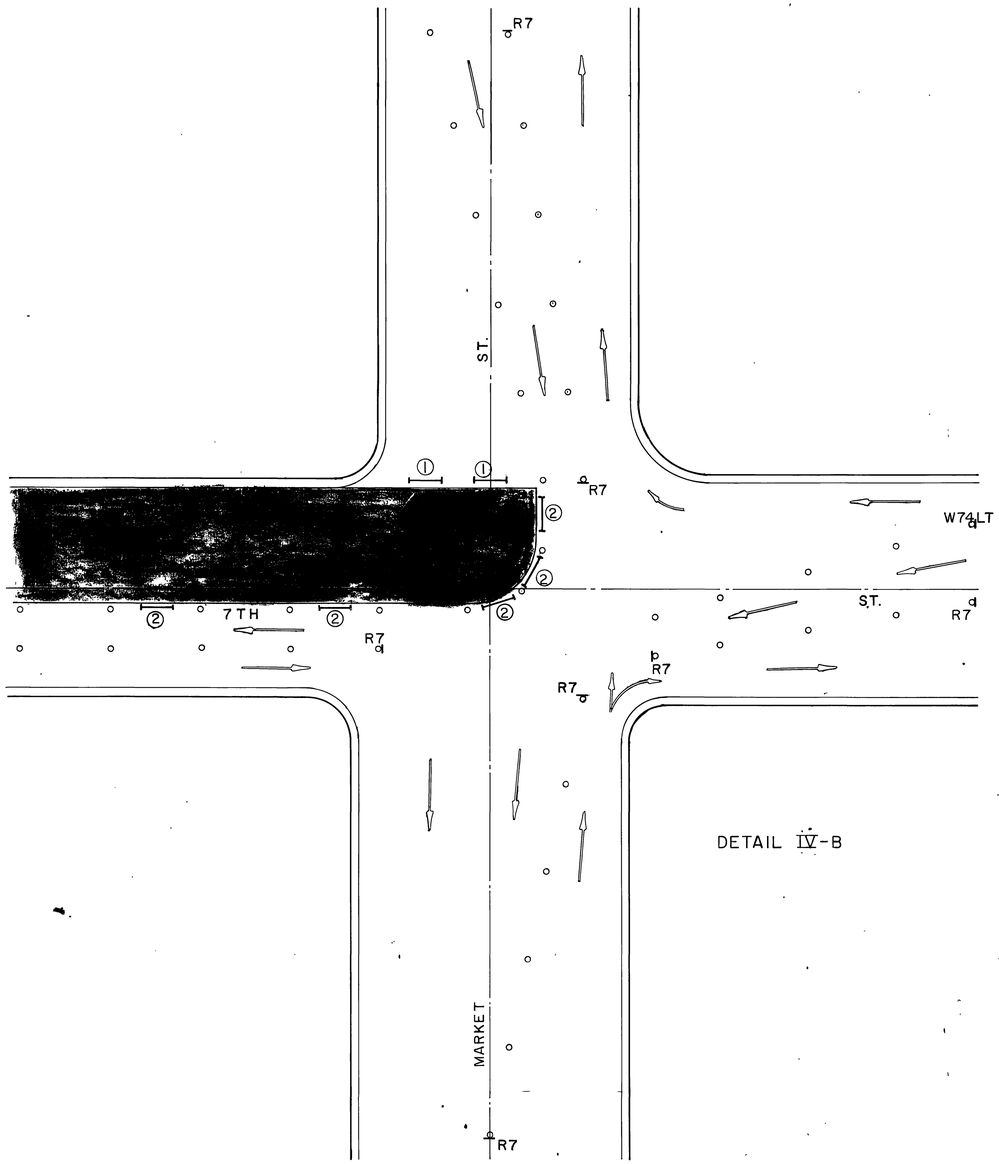




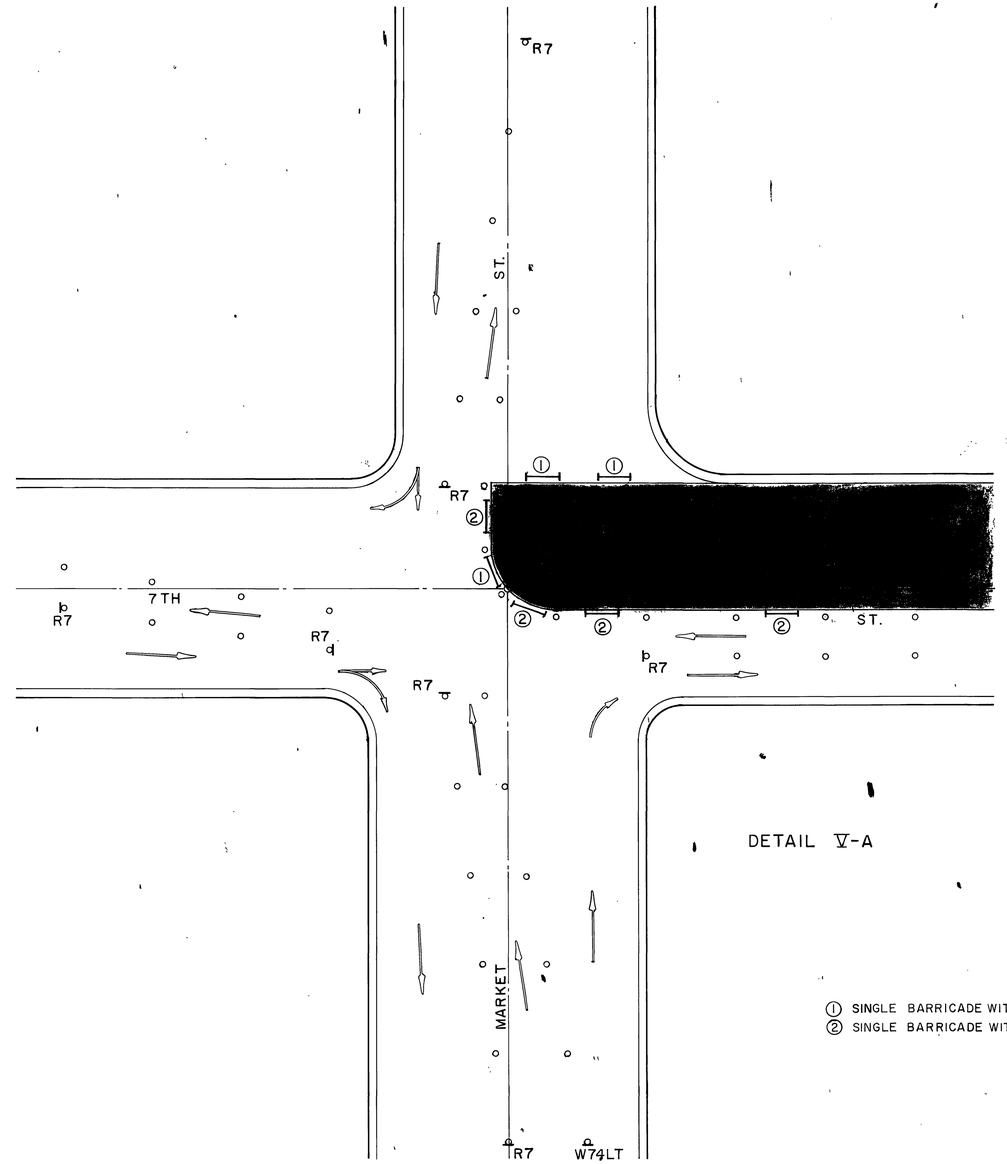
① SINGLE BARRICADE WITH W21, C27
② SINGLE BARRICADE WITH W21, C27, W56

D-293

BENCH MARK	J. F. DAVIDSON ASSOCIATES CIVIL ENGINEERS - SURVEYORS - PLANNERS RIVERSIDE, CALIFORNIA	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	BOX SPRINGS DRAIN STAGE II CONSTRUCTION SIGNING DETAILS 1970 STORM DRAIN BOND ISSUE PROJECT NO. 6	PROJECT NO. 1-0-220
SCALE: 1" = 20'	APPROVED BY: John W. Canty REGISTERED CIVIL ENGINEER NO. 17550	R.E.F. / DESCRIPTION / APPR. / DATE	DESIGNED BY: DRAWN BY: DATE DRAWN: CHECKED BY:	APPROVED BY: John W. Bryant CHIEF ENGINEER R.E. NO. 8822	DRAWING NO. 1-291
DATE:	DATE: September 17, 1973			DATE: 6-27-74	SHEET NO. 30 OF 71



DETAIL IV-B

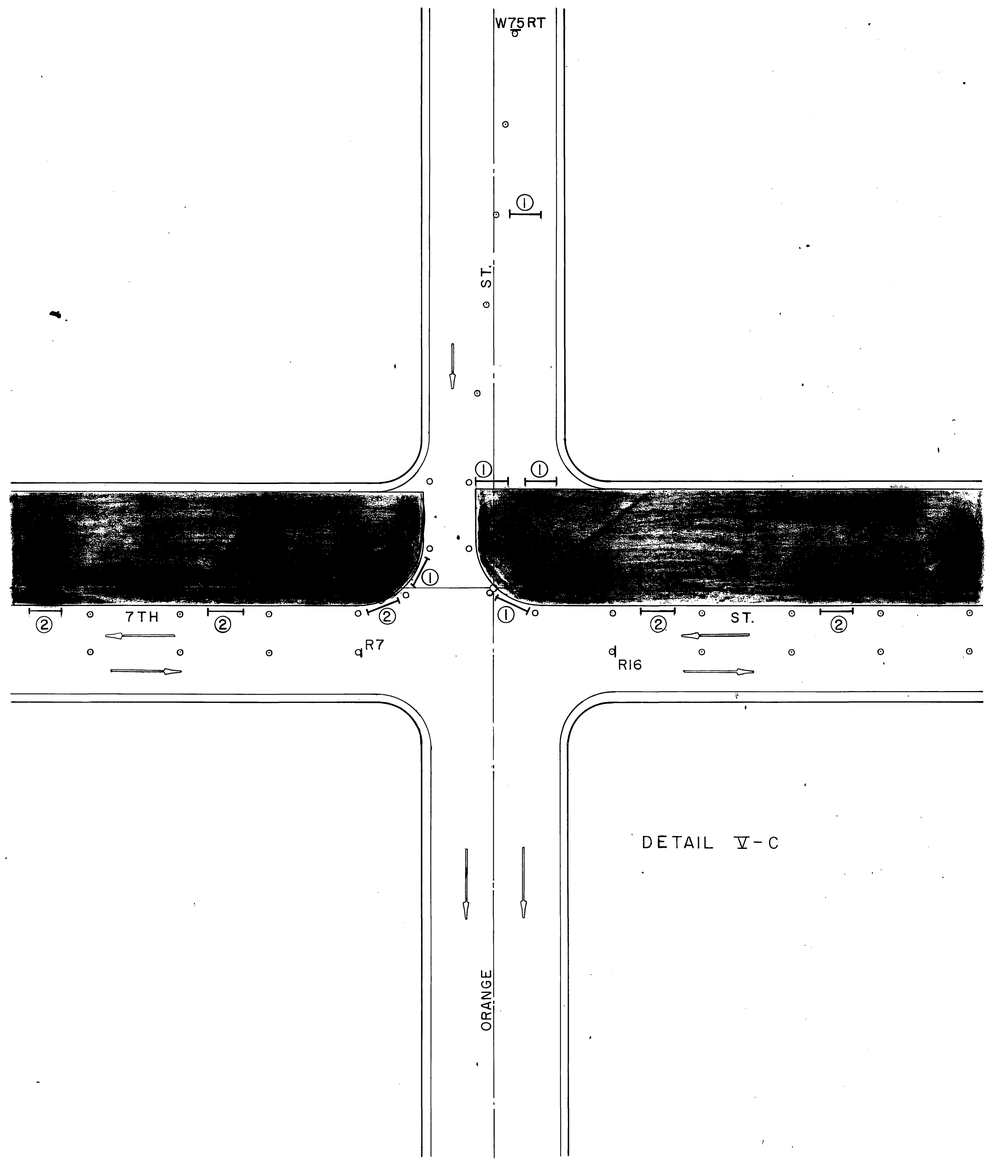


DETAIL V-A

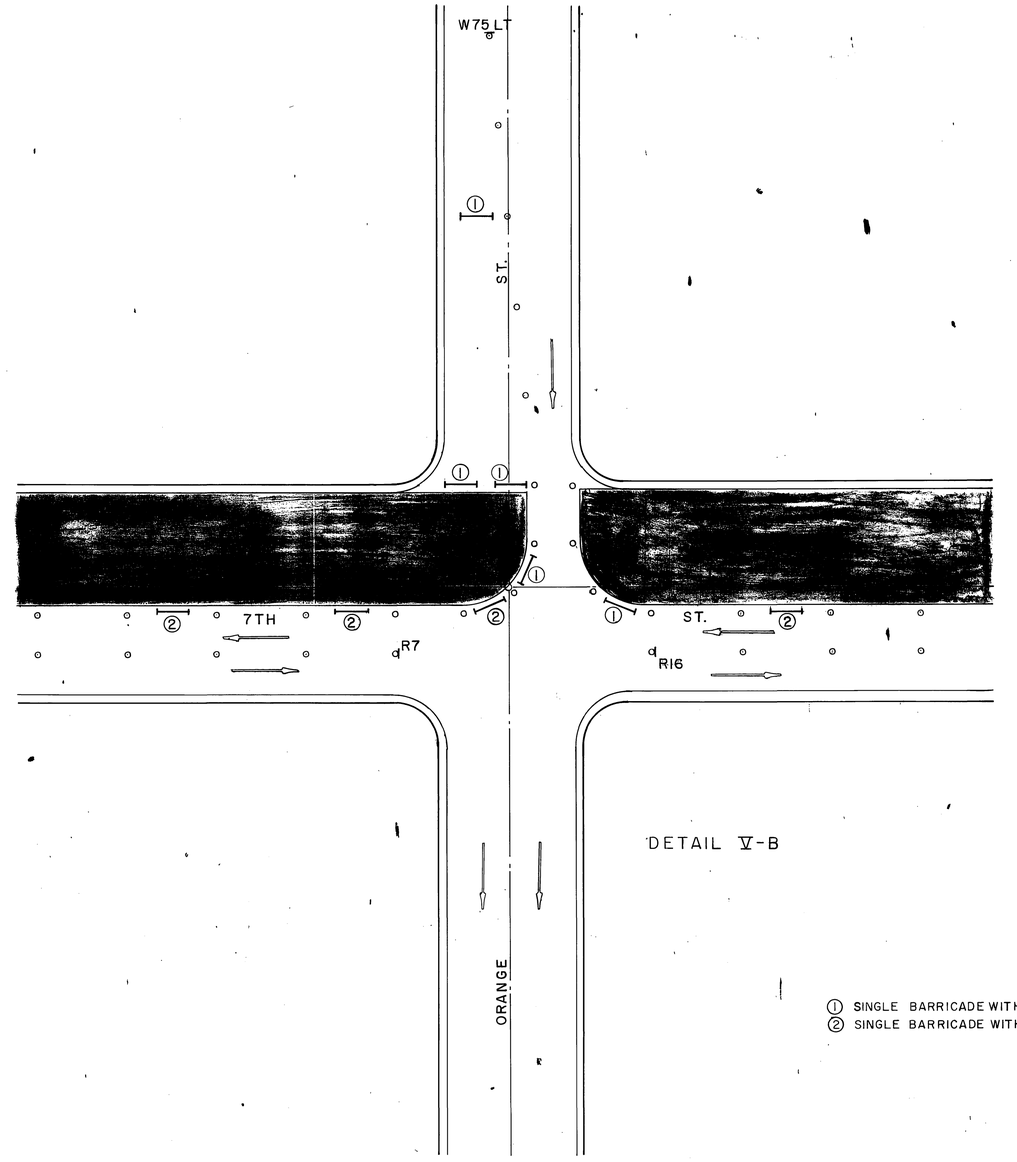
① SINGLE BARRICADE WITH W21, C27
② SINGLE BARRICADE WITH W21, C27, W56

D-293

BENCH MARK	J. F. DAVIDSON ASSOCIATES CIVIL ENGINEERS - SURVEYORS - PLANNERS RIVERSIDE, CALIFORNIA	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	BOX SPRINGS DRAIN STAGE II CONSTRUCTION SIGNING DETAILS 1970 STORM DRAIN BOND ISSUE PROJECT NO. 6	PROJECT NO. 1-0-220
SCALE: 1" = 20'	APPROVED BY: John W. Canty REGISTERED CIVIL ENGINEER NO. 17550	REF. / DESCRIPTION / APPR. / DATE	DESIGNED BY: DRAWN BY: DATE DRAWN: CHECKED BY:		DRAWING NO. 1-291
DATE:	DATE: September 17, 1973		APPROVED BY: John W. Bryant CHIEF ENGINEER R.E. NO. 8822 DATE: 6-27-74		SHEET NO. 31 OF 71



DETAIL V-C

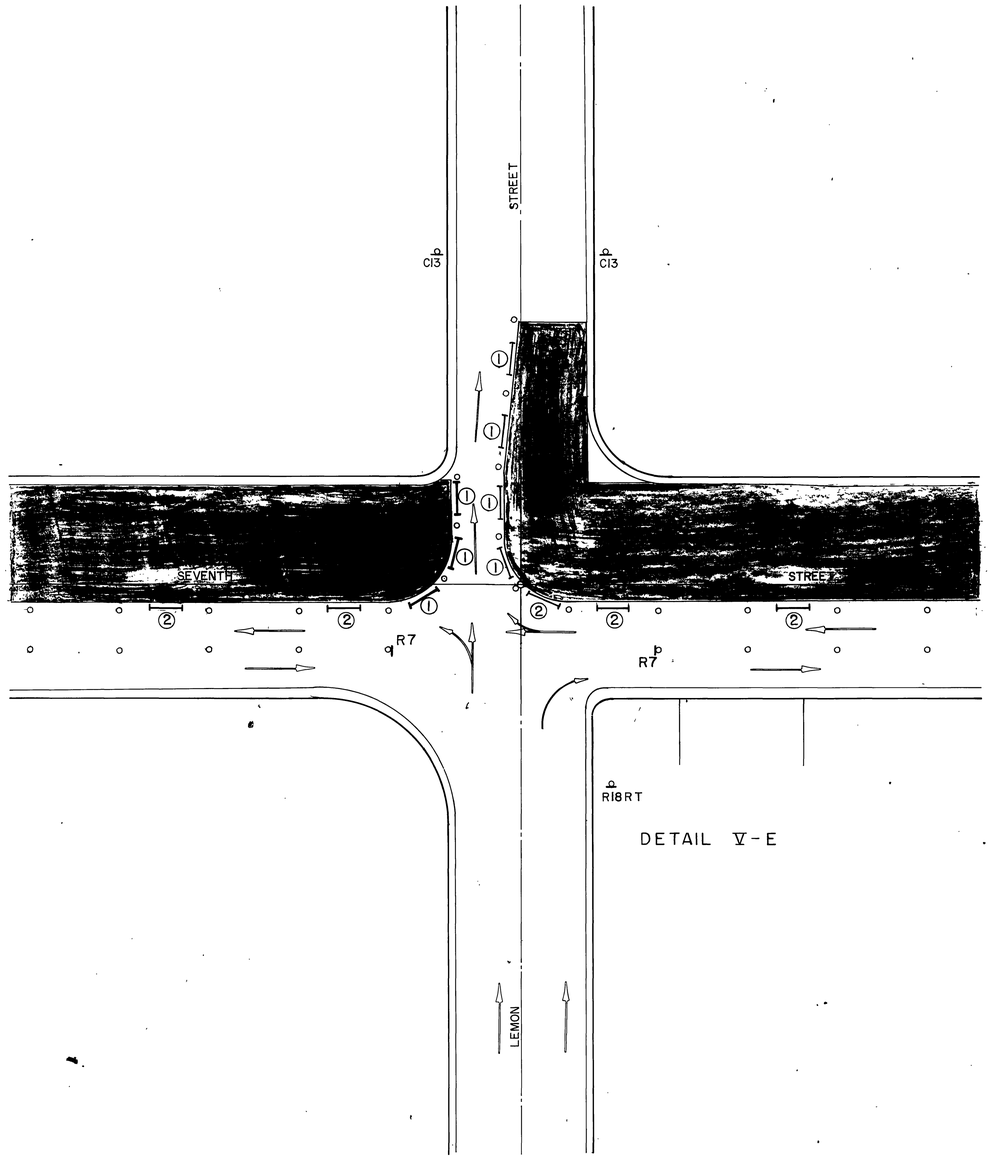


DETAIL V-B

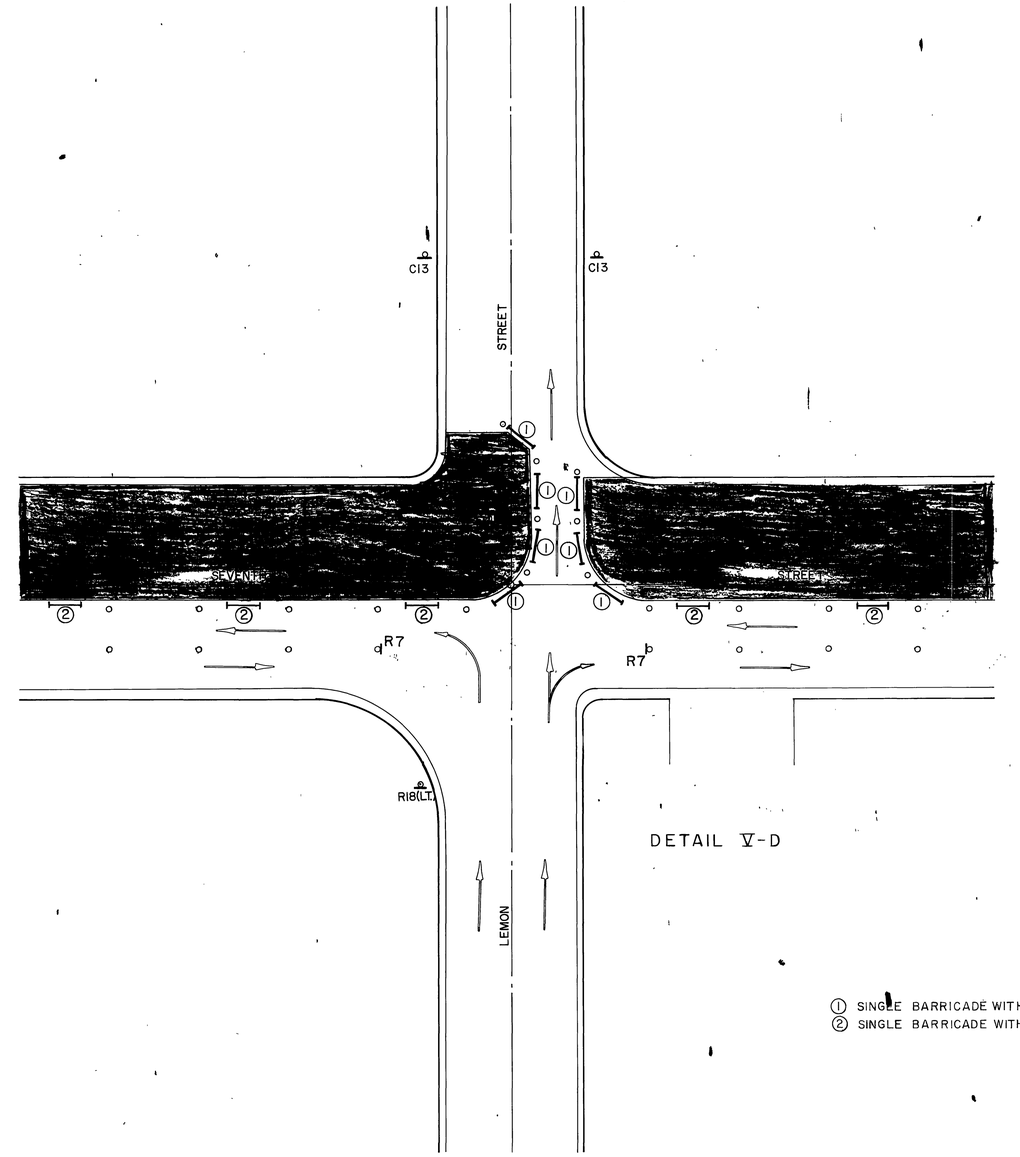
① SINGLE BARRICADE WITH W21, C27
② SINGLE BARRICADE WITH W21, C27, W56

D-293

BENCH MARK	J. F. DAVIDSON ASSOCIATES CIVIL ENGINEERS - SURVEYORS - PLANNERS RIVERSIDE, CALIFORNIA	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	BOX SPRINGS DRAIN STAGE II CONSTRUCTION SIGNING DETAILS 1970 STORM DRAIN BOND ISSUE PROJECT NO. 6	PROJECT NO. 1-0-220
SCALE: 1" = 20'	APPROVED BY: John W. Canty REGISTERED CIVIL ENGINEER NO. 17550	REF. / DESCRIPTION / APPR. / DATE	DESIGNED BY: DRAWN BY: DATE DRAWN: CHECKED BY:		DRAWING NO. 1-291
DATE:	DATE: September 17, 1973		APPROVED BY: John W. Bryant CHIEF ENGINEER R.E. NO. 8822 DATE: 6-27-74		SHEET NO. 32 OF 71



DETAIL V-E

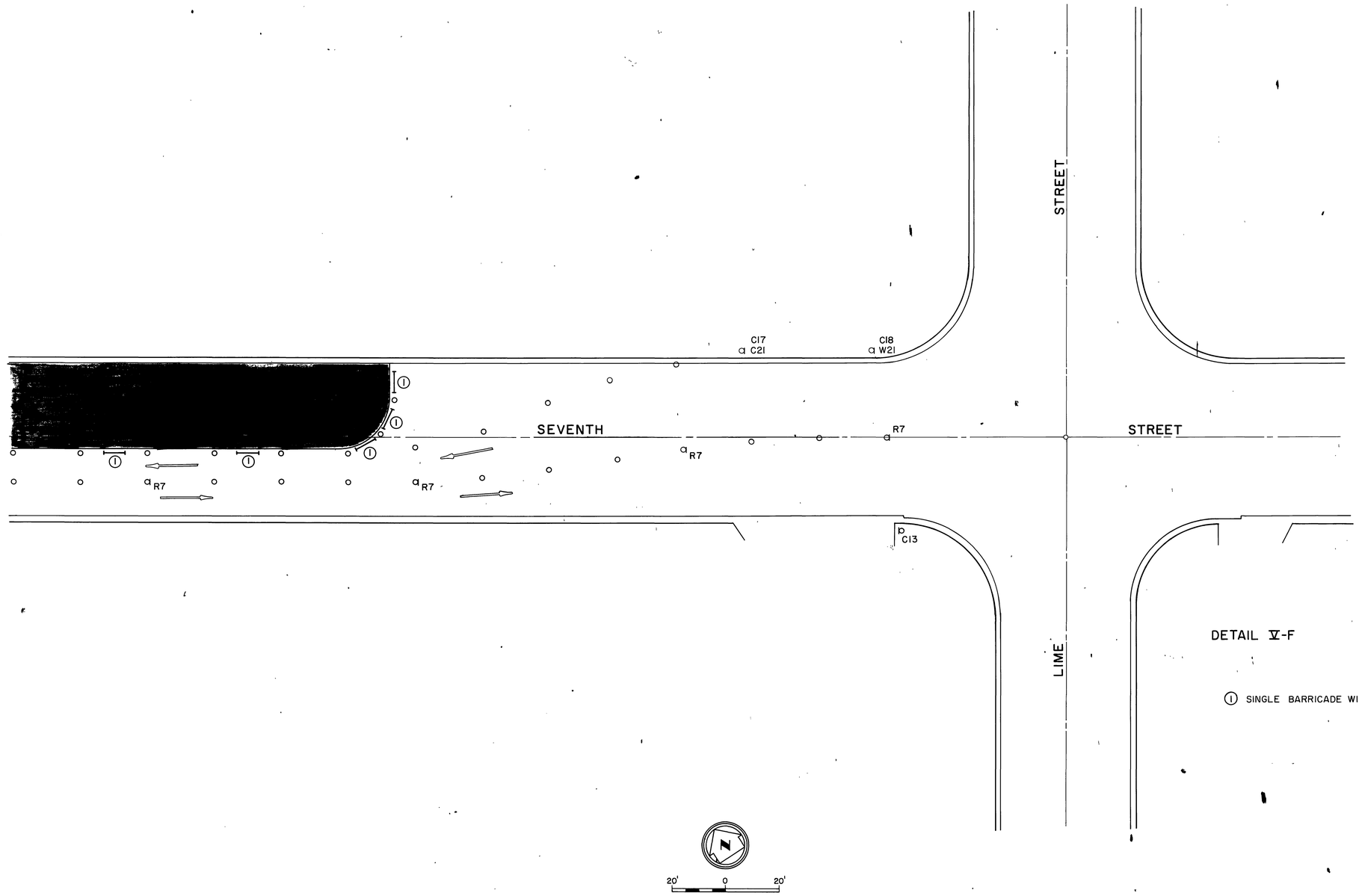


DETAIL V-D

① SINGLE BARRICADE WITH W21, C27
② SINGLE BARRICADE WITH W21, C27, W56

D-293

BENCH MARK	J. F. DAVIDSON ASSOCIATES CIVIL ENGINEERS - SURVEYORS - PLANNERS RIVERSIDE, CALIFORNIA	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	BOX SPRINGS DRAIN STAGE II CONSTRUCTION SIGNING DETAILS 1970 STORM DRAIN BOND ISSUE PROJECT NO. 6	PROJECT NO. 1-0-220
SCALE: 1" = 20'	APPROVED BY: John W. Carty REGISTERED CIVIL ENGINEER NO. 17550	REF. / DESCRIPTION / APPR. / DATE	DESIGNED BY: DRAWN BY: DATE DRAWN: CHECKED BY:	APPROVED BY: John W. Bryant CHIEF ENGINEER R.E. NO. 8822	DRAWING NO. 1-291
DATE:	DATE: September 17, 1975			DATE: 6-27-74	SHEET NO. 33 OF 71



D-293

REVISIONS			
REF.	DESCRIPTION	APPR.	DATE

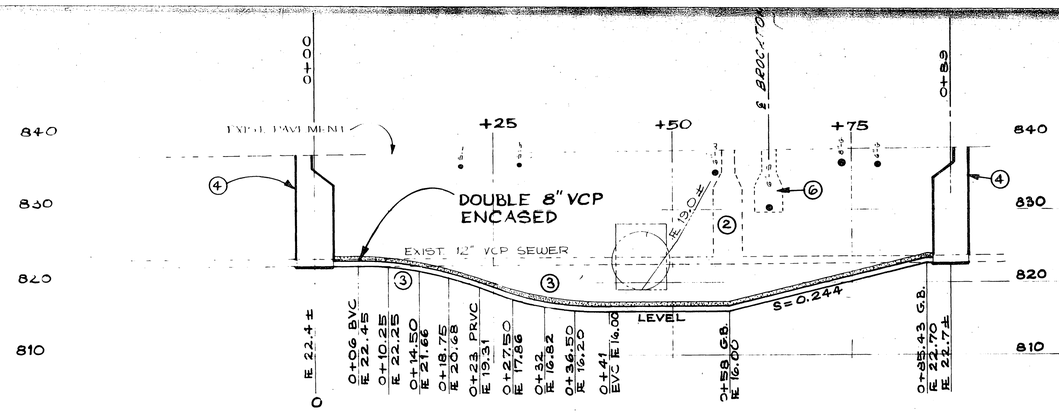
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

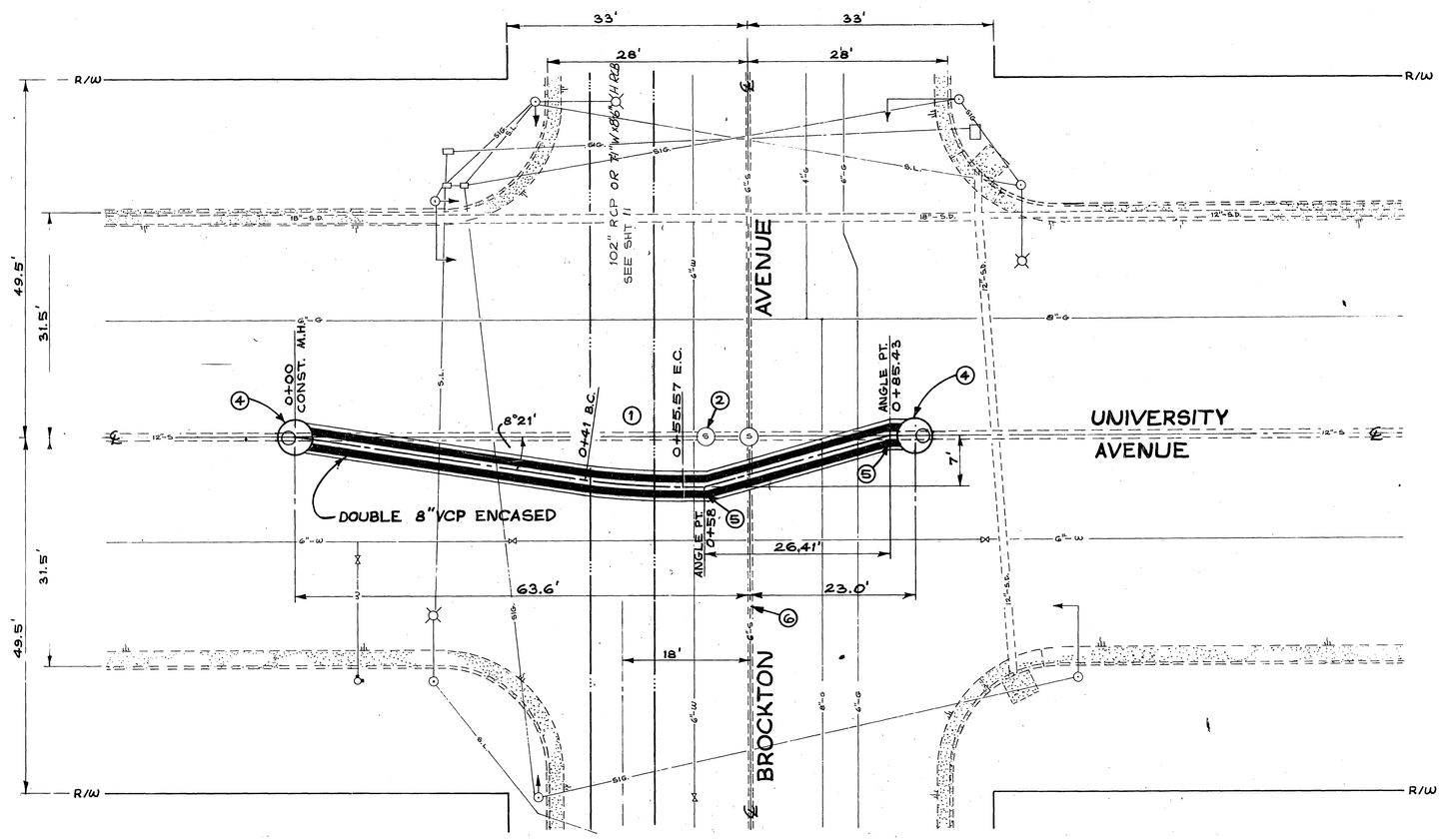
DESIGNED BY:
DRAWN BY: R.A.S.
DATE DRAWN:
CHECKED BY:

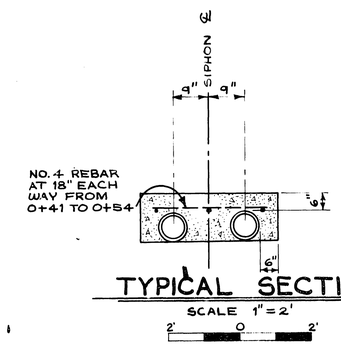
APPROVED BY: John W. Bryant
CHIEF ENGINEER R.E. NO. 8822
DATE: 6-27-74

BOX SPRINGS DRAIN
STAGE II
CONSTRUCTION SIGNING DETAILS
1970 STORM DRAIN BOND ISSUE PROJECT NO. 6

PROJECT NO. 1-0-220
DRAWING NO. 1-291
SHEET NO. 34 OF 71







TYPICAL SECTION

SCALE 1" = 2'

2' 0 2'

1. SEWER CURVE DATA
   R = 100' Δ = 8°21' T = 7.3' L = 14.57'
2. REMOVE TOP OF MANHOLE. SALVAGE FRAME AND COVER, PLUG PIPE, AND BACKFILL WITH SAND.
3. VERTICAL CURVES; R = 50'±. USE 2' LENGTHS OF 8" VCP.
4. CITY OF RIVERSIDE STD. MANHOLE 500. PRECAST CONCRETE, 5' I.D.
5. USE 1/8 BENDS (22'1/2°) ROLLED.
6. 6" SEWER TO REMAIN IN SERVICE.

D-293

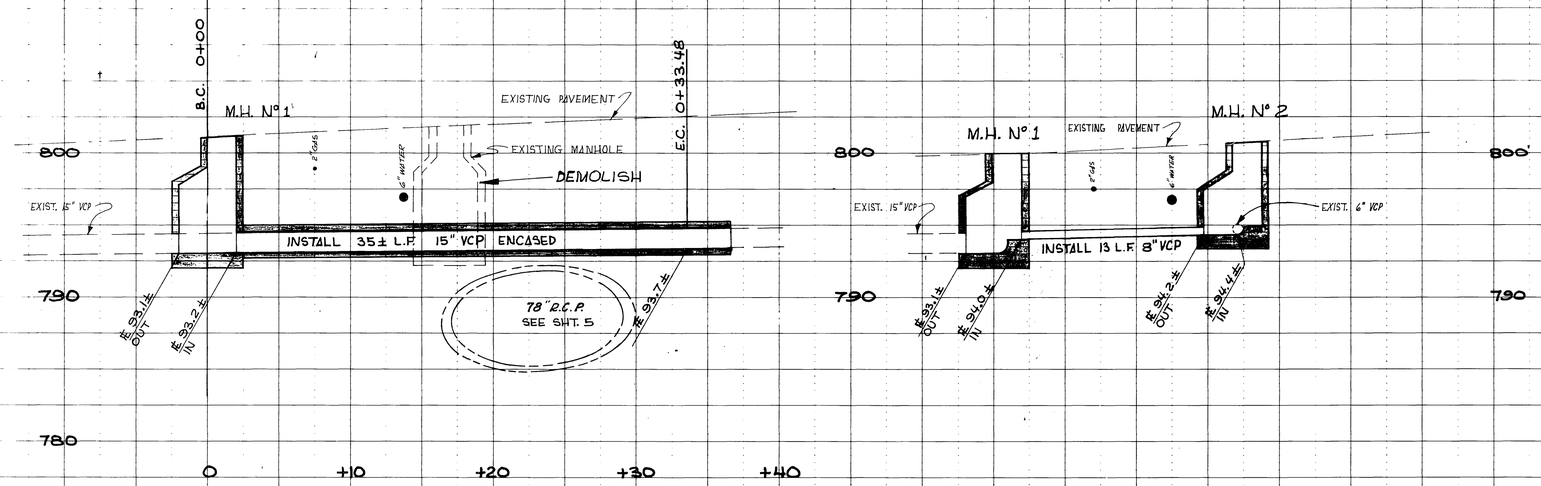
CITY OF RIVERSIDE DWG. NO. S-897

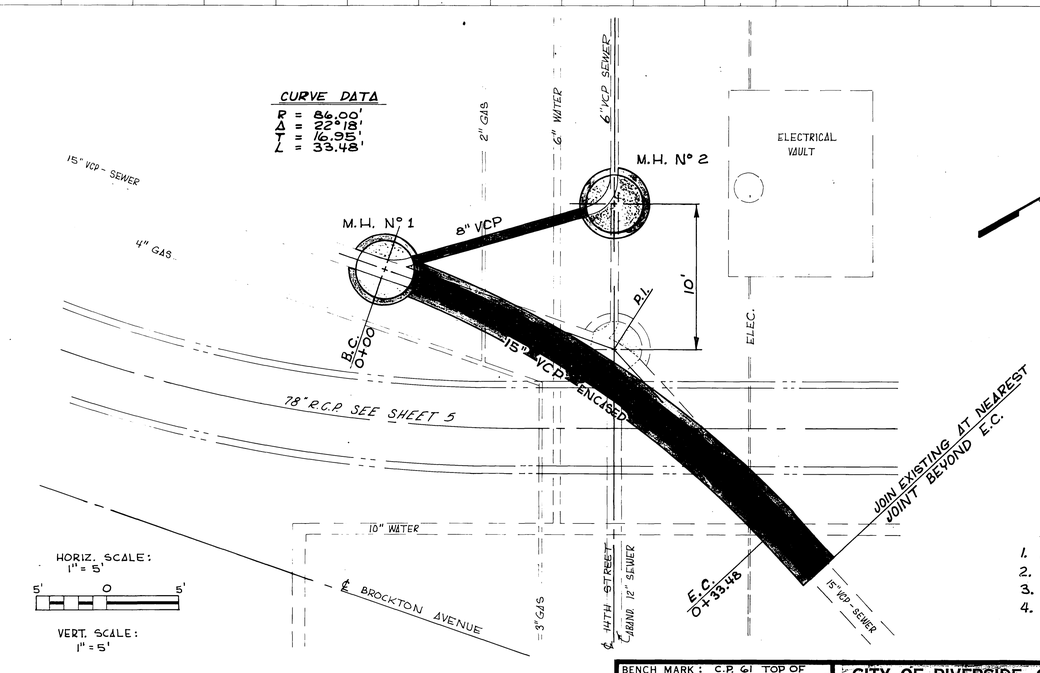
BENCH MARK C.P.69 TOP OF PIPE MON. IN WELL SOUTH R/W OF EIGHTH & BROCKTON, DOWN 0.20 EL. 837.626 SCALE PLAN 1"=10' PROFILE 1"=10' DATE	CITY OF RIVERSIDE, CALIFORNIA PUBLIC WORKS DEPARTMENT APPROVED BY / BY / DATE PRINCIPAL ENGINEER / 1/30 ~~PARK DEPARTMENT~~ TRAFFIC DIVISION CHIEF PUB. WKS. ENGR.	APPROVED BY DIRECTOR OF PUBLIC WORKS DATE	REVISIONS REF. / DESCRIPTION / APPR. / DATE	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT DESIGNED BY DRAWN BY R.W. Barry DATE DRAWN FEB. 1973 CHECKED BY	APPROVED BY CHIEF ENGINEER REG. NO. 8822 DATE 6-27-74

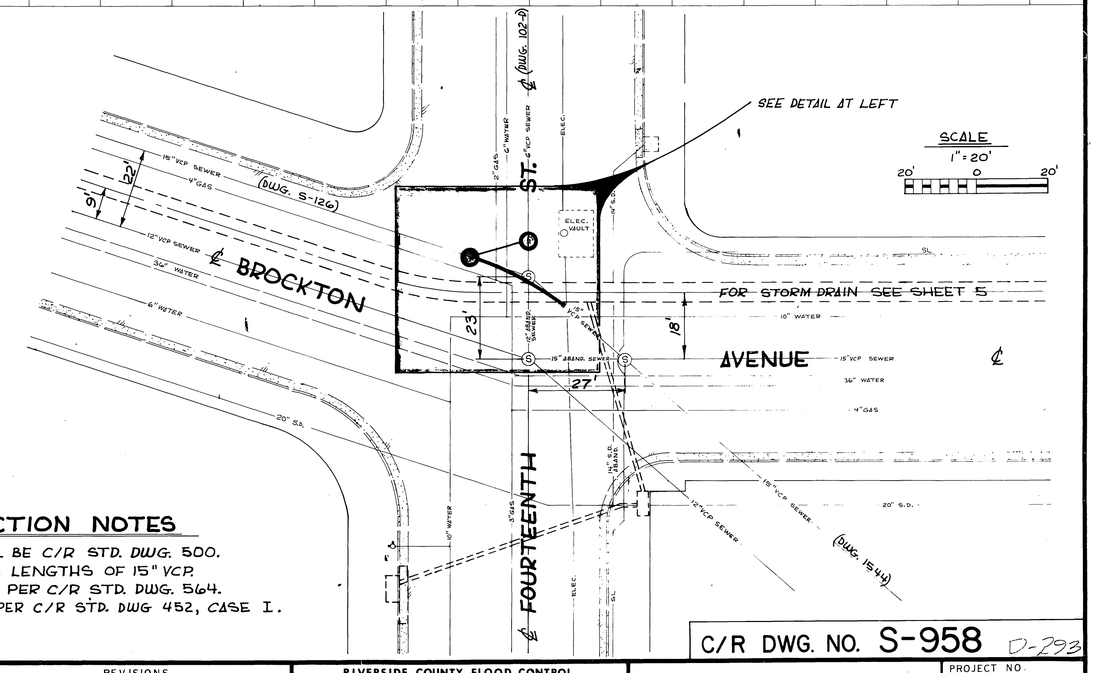
BOX SPRINGS DRAIN
STAGE II
SEWER RELOCATION
UNIVERSITY AVE. AT BROCKTON AVE.
1970 STORM DRAIN BOND ISSUE PROJECT NO. 6

PROJECT NO 1-0-220
DRAWING NO 1-29i
SHEET NO 35 OF 71

AS BUILT







CONSTRUCTION NOTES

1. MANHOLES SHALL BE C/R STD. DWG. 500.
2. USE 3' MAXIMUM LENGTHS OF 15" VCP.
3. ENCASE 15" VCP PER C/R STD. DWG. 564.
4. INSTALL 8" VCP PER C/R STD. DWG 452, CASE I.

C/R DWG. NO. S-958 D-293

BENCH MARK: C.P. 61 TOP OF CONC. MON. IN WELL AT NORTH R/W OF FOURTEENTH AND BROCKTON, DOWN 1.13'. ELEV. 799.475	CITY OF RIVERSIDE, CALIFORNIA PUBLIC WORKS DEPARTMENT	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	BOX SPRINGS DRAIN STAGE II	PROJECT NO. 1-0-220
SCALE: AS SHOWN	APPROVED BY / BY / DATE / APPROVED BY		DESIGNED BY: RWS	SEWER RELOCATION BROCKTON AVE. AT 14th ST	DRAWING NO. 1-291
DATE: SEPT. 1973	PRINCIPAL ENGINEER / BARK DEPARTMENT / TRAFFIC DIVISION / CHIEF PUB. WKS. ENGR. / DIRECTOR OF PUBLIC WORKS / DATE	REF. / DESCRIPTION / APPR. / DATE	DRAWN BY: R.W. Barry / DATE DRAWN: 10-73 / CHECKED BY: DCH	1970 STORM DRAIN BOND ISSUE PROJECT NO. 6	SHEET NO. 36 OF 71

APPROVED BY: John W. Bryant, CHIEF ENGINEER R.E. NO. 8822, DATE: 6-27-64

AS BUILT