TRACT 19411-1
OFFSITE STORM DRAIN PLANS
CITY OF RIVERSIDE, CALIFORNIA

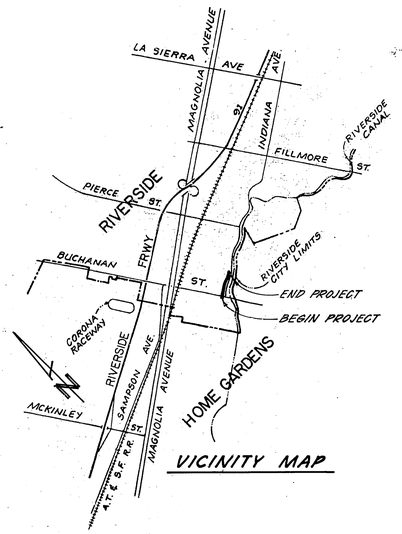
GENERAL NOTES:

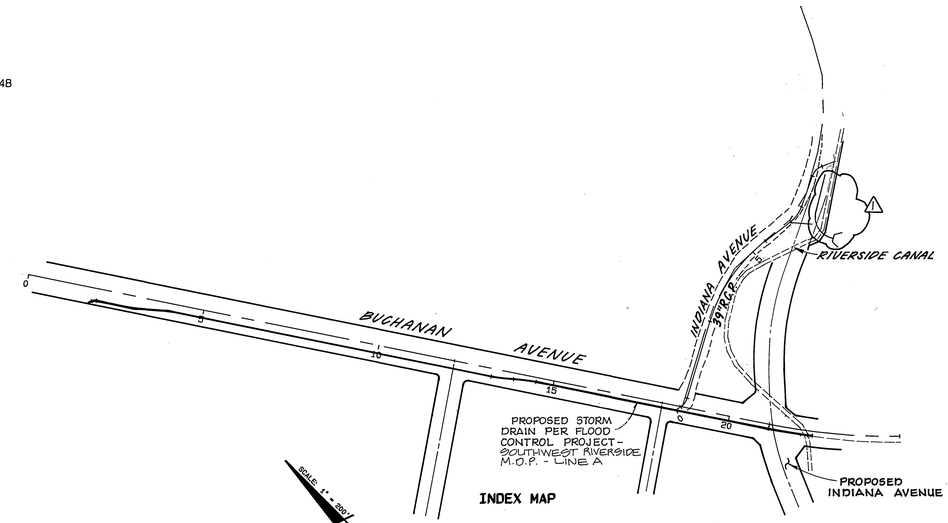
1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CLEAR THE RIGHT-OF WAY IN ACCORDANCE WITH THE PROVISIONS OF THE LAW AS IT AFFECTS EACH UTILITY INCLUDING IRRIGATION LINES AND APPURTENANCES AND AT NO COST TO THE CITY.
2. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF RIVERSIDE DEPARTMENT OF PUBLIC WORKS, STANDARD DRAWINGS, STANDARD DRAWING NO. 10 AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CURRENT EDITION.
3. QUANTITIES SHOWN ARE FOR INFORMATION ONLY AND THE CITY OF RIVERSIDE IS NOT RESPONSIBLE FOR THEIR ACCURACY.
4. ALL FLAGGED ELEVATIONS SHALL BE STAKED IN THE FIELD BY THE PRIVATE ENGINEER.
5. ANY TRAFFIC CONTROL STRIPING OBLITERATED AND/OR BADLY WORN DURING CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR WITHIN FIVE DAYS AFTER NOTIFICATION FROM THE CITY INSPECTOR.
6. THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY AND ACCEPTABILITY OF THE WORK HEREON. IN THE EVENT OF DISCREPANCIES ARISING DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY THE CITY.
7. THE CONTRACTOR SHALL CALL IN A LOCATION REQUEST TO UNDERGROUND SERVICE ALERT (USA), PHONE NO. 1-800-422-4133, TWO WORKING DAYS BEFORE DIGGING. NO CONSTRUCTION PERMIT WILL BE ISSUED BY THE PUBLIC WORKS DEPARTMENT UNLESS THE APPLICANT HAS BEEN PROVIDED AN INQUIRY INDENTIFICATION NUMBER BY U.S.A.
8. THE DEVELOPER SHALL BE RESPONSIBLE FOR PRESERVING OR RE-ESTABLISHING AND REFERENCING SURVEY MONUMENTS DESTROYED, DISTURBED OR BURIED AS A RESULT OF CONSTRUCTION SHOWN HEREON.
9. CONTRACTOR TO PROVIDE A SET OF RIVERSIDE COUNTY FLOOD CONTROL STANDARD DRAWINGS TO CITY INSPECTION PERSONNEL AT THE TIME A CONSTRUCTION PERMIT IS APPLIED FOR FROM THE PUBLIC WORK DEPT.

NOTIFICATIONS

NOTE: THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES 48 HOURS PRIOR TO STARTING CONSTRUCTION OR EXCAVATION.

CITY OF RIVERSIDE	(714) 782-5341
PACIFIC BELL (FRED DUVAL)	(714) 666-5454
SOUTHERN CALIFORNIA GAS CO.	1-(800) 422-4133
UNDERGROUND SERVICE ALERT	1-(800) 422-4133
WESTERN MUNICIPAL WATER DISTRICT	(714) 780-2450





CONSTRUCTION NOTES AND QUANTITY ESTIMATE

(1)	CONSTRUCT 18" RCP (2000D MINIMUM)	82 L.F.
(2)	CONSTRUCT 39" RCP (1350D)	858 L.F.
(3)	CONSTRUCT T.S. NO 3 PER RCFC STD TS 303	1 EA.
(4)	CONSTRUCT MH. NO. 1 PER RCFC STD MH 251	1 EA.
(5)	CONSTRUCT CB NO 1 PER RCFC STD CB 100	1 EA.
(6)	CONSTRUCT INLET TYPE X PER RCFC STD CB 108	1 EA.
(7)	REMOVE EXISTING PCC AND BACKFILL CANAL	360 LF.
⚠ (8)	~~CONSTRUCT HEADWALL AND DEBRIS RACK PER DETAILS SHEET 3 (STATION 8+67.56)~~ REMOVE HEADWALL AND DEBRIS RACK	~~1 EA.~~
⚠ (9)	CONSTRUCT P.C.C. CANAL b=8' z=1 (SEE SECTION A-A, SHEET 2 OF 3)	230 L.F.±

PRIVATE ENGINEER'S NOTICE TO CONTRACTORS

CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
THE EXISTENCE AND APPROXIMATE LOCATIONS OF UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS WERE DETERMINED BY A SEARCH OF AVAILABLE PUBLIC RECORDS. THE CONTRACTOR SHALL POTHOLE REFERENCED UTILITY LINES PRIOR TO CONSTRUCTION TO VERIFY EXACT LOCATION OF SAID UTILITIES. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UNDERGROUND UTILITIES OR STRUCTURES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES SHOWN AND ANY OTHER UTILITIES OR STRUCTURES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.
CONTRACTOR SHALL VERIFY ALIGNMENT AND GRADE PRIOR TO PLACEMENT OF PIPE AND NOTIFY ALBERT A. WEBB ASSOCIATES IN THE EVENT OF CONFLICTING UTILITIES OR DISCREPANCY IN JOIN ELEVATIONS.

REGISTERED PROFESSIONAL ENGINEER — ARTHUR HUBERT WEBB — No 11842 Exp. 12-31-92 — CIVIL — STATE OF CALIFORNIA

* AS BUILT 10-23-89 Beet!

BENCH MARK:
RIVERSIDE CO. 601-30-69 STD. BRASS DISK STAMPED J 38-1924 0.5 MI. NE ALONG THE AT&SFRR FROM THE SIGNAL TOWER AT MAY, RIVERSIDE COUNTY, 120' SE OF TP #44-C, 20'S/O TELEGRAPH LINE, 13' N/O AT&SFRR AT CULVERT B-20, 6"X1' CONCRETE HEADWALL. EL. 697.682

UNAUTHORIZED CHANGES & USES
CAUTION: THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

CITY OF RIVERSIDE — OVERHEAD & UNDERGROUND — APPROVED BY: Michael J. Faille — Date: 7/5/88 — VOID ONE YEAR FROM THIS DATE

CITY OF RIVERSIDE — WATER SYSTEM — APPROVED BY: R. McGrath — Date: 6-10-88 — VOID ONE YEAR FROM THIS DATE

SOUTHERN CALIFORNIA GAS CO. — APPROVED BY: G. Tucker — DATE: 6-6-88

PACIFIC BELL TELEPHONE — APPROVED BY: D. A. Hollister — DATE: 7-11-88

ALBERT A. WEBB ASSOCIATES
CIVIL ENGINEERS
3788 McCRAY STREET
RIVERSIDE, CALIFORNIA
(714) 686-1070
REGISTRATION EXPIRES: 12/31/89
R.C.E. No. 11842 — DATE: 6-8-88

MARK	REVISIONS	APPR.	DATE
⚠	REVISED DRAINAGE INLET & ADDED TRAP. CHANNEL W/GROUTED RSP W/W. OF 48" C.M.P. D.I. (SEE SHEETS 2 & 3 FOR DETAILS)	WW	9/19/89

DESIGNED BY MG DRAWN BY MG CHECKED BY JM

CITY OF RIVERSIDE
PUBLIC WORKS DEPARTMENT

	BY	DATE
APPROVED		
PRINCIPAL ENGINEER	—	—
PARK DEPARTMENT	—	—
TRAFFIC DIVISION	—	—
CHIEF P. W. ENGINEER	WW	4-19

APPROVED BY: PUBLIC WORKS DIRECTOR — DATE: 4/20/89

TRACT 19411-1
OFFSITE STORM DRAIN PLANS

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

ACCOUNT NO. D-550
SHEET 1 OF 3
86-256

Filed WW 9/19/89

CITY OF RIVERSIDE TITLE SHEET - 12[0,45]PF: 3828 1152 10-Mar-88 08:59 AM / 3828.2-13
INDEXED 4-27-89 GH

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

FINISH & EXISTING SURFACE OVER ℄ STORM DRAIN

STA. 0+00 INDIANA AVE. STORM DRAIN
STA. 18+38.50 LINE A
PER SOUTH RIVERSIDE
M.D.P. DRAWING NO. 1-472

RIM=741.2

12" W.

G2

36.5 LF 12" W

REMOVE CONCRETE BULK HEAD JOIN EXISTING 39" R.C.P.

SG1D 733.40 FF

S=0.0312

30" R.C.P.

S=0.002G

728.58

728.40

G2

262.19'~ 39" R.C.P. (1350D)

N.H. #1
STA. 2+66.19
RIM=746.9

H.G.L.

S=0.0268

735.30

735.42 GRADE CHANGE

STA. 2+62.19 B.C.

STA. 2+66.19 B.C.

HYDRAULIC DATA
Q = 100 C.F.S.
V = 12 FT/S.

361.89'~ 39" R.C.P. (1350D)

STA. 6+12.52

6123.56 M.H. NO. 4

~40± LF 12" W EX PER D.S. 3091-5 NOT FIELD VERIFIED

7633 F.H.W. NOT FIELD VERIFIED EX. 6" W

S=0.0268

754.08

760.07 GRADE CHANGE

HYDRAULIC DATA
Q = 100 C.F.S.
V = 20 FT/S.

745.27

745 LF

HYDRAULIC DATA
Q = 100 C.F.S.
V = 12 FT/S.

STA. 6+28.08

STA. 6+39.58

STA. 8+67.56

233.98'~ 39" R.C.P. 1350 D

TOP OF EXISTING CANAL

℄ EXISTING CANAL

765

745

STRAIGHT GRADE TO BACK OF EXIST. CURB

1% MIN.

Q = 100 cfs
V = 4 FPS

4" CLASS 'A' R.C.C. W/6"x6"x10GA W.W.M.

0.5%

4' 8' 4'

⚠ SECTION A-A
N.T.S.

PROFILE
40' 0 40'

CONSTRUCTION NOTES

1. CONSTRUCT 18" RCP (2000D MIN.)
2. CONSTRUCT 39" RCP (1350D)
3. CONSTRUCT M.H. NO 4 PER RCFC STD MH 254
4. CONSTRUCT MH. NO. 1 PER RCFC STD MH 251
5. CONSTRUCT CB NO 1 PER RCFC STD CB 100
6. CONSTRUCT INLET TYPE X PER RCFC STD CB 108 USING 48" C.M.P. AND NO GRATE
7. REMOVE EXISTING PCC AND BACKFILL CANAL
8. ~~CONSTRUCT HEADWALL AND DEBRIS RACK PER DETAILS SHEET 5 (STATION 8+67.56)~~ ⚠ REMOVE HEADWALL AND DEBRIS RACK.
9. CONSTRUCT P.C.C. CANAL b=8' Z=1

PROPOSED 36" S.D. PER FLOOD CONTROL CONTRACT

0+00 INDIANA AVE STORM DRAIN =18+38.50 LINE A PER SOUTH RIVERSIDE M.D.P. DWG. NO. 1-472

BUCHANAN ST.

MIX

12" W. TO BE ABANDONED

N 78°38'05" W L=15.84'

PRIVATE PROPERTY

EXIST. R/W

FUTURE R/W

B.C. STA. 0+15.84
E.C. STA. 0+46.97
1 N61°43'10"E L=210.22'

LOCATION OF 12" WATERLINE PER CITY OF RIVERSIDE DRAWINGS D.S. 3081-4 & 05-3581-5 NOT FIELD VERIFIED

RANDOM SURVEY LINE

EX. R/W

DEMOLISH LINING OF CANAL TO BE ABANDONED. BACKFILL AND COMPACT TO 90% PROVIDE FOR NOMINAL SURFACE DRAINAGE.

EXIST. R/W

INDIANA AVENUE

PROPOSED INDIANA AVENUE

FUTURE CONSTRUCTION

PROPOSED CONSTRUCTION PER C/R PLAN R-2959

R/W

CITY OF RIVERSIDE WATER DEPT. RIGHT OF WAY

SEE PROFILE SHEET 3

M.H. No. 4 STA. 6+28.08 L=39.50' Δ=5°46'09" R=390.00' STA. 6+67.58 B.C.

E.C. STA 6+65.49

STA 7+10.88 E.C.

B.C. STA 1+10

N60°26'50"E L=90.17

N 29°33'10" W L=88.81'

ELECTRICAL OVERHEAD

STA 6+12.52

⚠ SEE WESTERLY DRAINAGE INLET HEREON

EXISTING CANAL

PROPOSED 48" R.C.P. 2000D

PLAN 40' 0 40'

EXCAVATE AREA W/1½:1 SIDE SLOPES AND PLACE 1/4 TON (MIN.) GROUTED RIP-RAP PER CAL TRANS STANDARDS, RIP-RAP SHALL BE 3' DEEP MIN.

R=60' Δ=82°±

CITY OF RIVERSIDE WATER DEPT. R/W

REMOVE AND DISPOSE OF EXISTING HEADWALL AND DEBRIS RACK & INSTALL 48" GRATE ON TOP OF 48" CMP DROP INLET.

PROPOSED EASEMENT IN FAVOR OF CITY OF RIVERSIDE.

60.64 FL

62.53± FL

64.44± FL

66.01± FL

GRADE FLOW LINE TO DRAIN INTO CANAL INLET (3.7%±). REPLANT FLOW LINE WITH NATIVE PLANTS UPON COMPLETION.

⚠ WESTERLY DRAINAGE INLET

CURVE DATA				
	Δ	R	L	T
(C)	39°38'45"	45.00'	31.14'	16.22'
(D)	33°57'35"	440.00'	260.79'	134.35'
(E)	35°13'55"	90.00'	55.34'	28.58'
(F)	54°07'55"	45.00'	42.52'	22.99'

BENCHMARK: RIVERSIDE CO. 601-30-69 STD. BRASS DISK STAMPED J 38-1924 0.5 MILES NE ALONG THE A.T. & S.F.R.R. FROM THE SIGNAL TOWER AT MAY, RIVERSIDE COUNTY, 120' SE OF T.P. #44-C, 20' S/O TELEGRAPH LINE, 13' N/O A.T. & S.F.R.R. AT CULVERT B-20, 6" X 1' CONCRETE HEADWALL. EL. 697.682

* AS BUILT 10-25-89 BAE!

ARTHUR HUBERT WEBB No 11242 Exp. 12-31-03 REGISTERED CIVIL ENGINEER

CITY OF RIVERSIDE
OVERHEAD & UNDERGROUND
APPROVED BY: Michael J. Tarlli Date: 7/5/88 VOID ONE YEAR FROM THIS DATE

CITY OF RIVERSIDE
WATER SYSTEM
APPROVED BY: R. Mc Grath Date: 6-10-88 VOID ONE YEAR FROM THIS DATE

SOUTHERN CALIFORNIA GAS CO.
APPROVED BY: C.A. Parker DATE: 6-6-88

PACIFIC BELL TELEPHONE
APPROVED BY: J.P. Wellington DATE: 7-11-88

CITY OF RIVERSIDE
PUBLIC WORKS DEPARTMENT

APPROVED	BY	DATE
PRINCIPAL ENGINEER		
PARK DEPARTMENT	—	—
TRAFFIC DIVISION	—	—
CHIEF P.W. ENGINEER		4-19

APPROVED BY: Bruce Beck
PUBLIC WORKS DIRECTOR
DATE: 4/20/89

REVISIONS:	APPR.	DATE
⚠ REVISED DRAINAGE INLET & ADDED TRAP. CHANNEL W/GROUTED R.S.P. W'LY. OF 48" C.M.P. D.I.		9/19/89

APPROVED BY: [signature] DATE: 9/29/89
REGISTERED CIVIL ENGINEER NO. 11842

APPROVED BY: DATE:

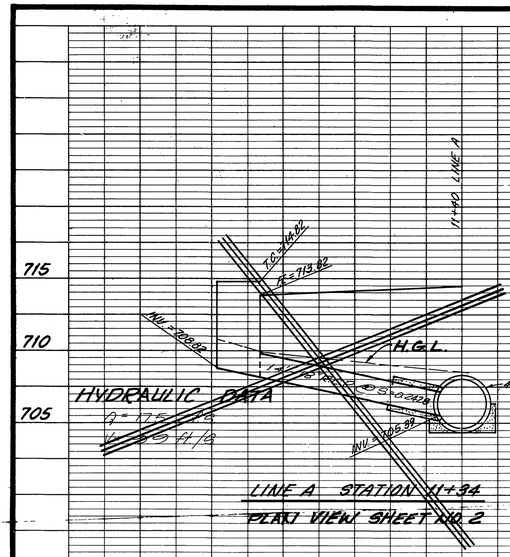
ALBERT A. WEBB ASSOCIATES
CIVIL ENGINEERS
3788 McCRAY STREET
RIVERSIDE, CALIFORNIA
(714) 686-1070

SCALE: VERT.: 1"= 4' HORIZ.: 1"= 40'
DATE SEPT. 1987
BENCH MARK: SEE ABOVE FOR BENCHMARK

TRACT 19411-1
OFFSITE STORM DRAIN PLANS

ACCOUNT NO. D-550
SHEET 2 OF 3
86-256

INDEXED 4-27-89



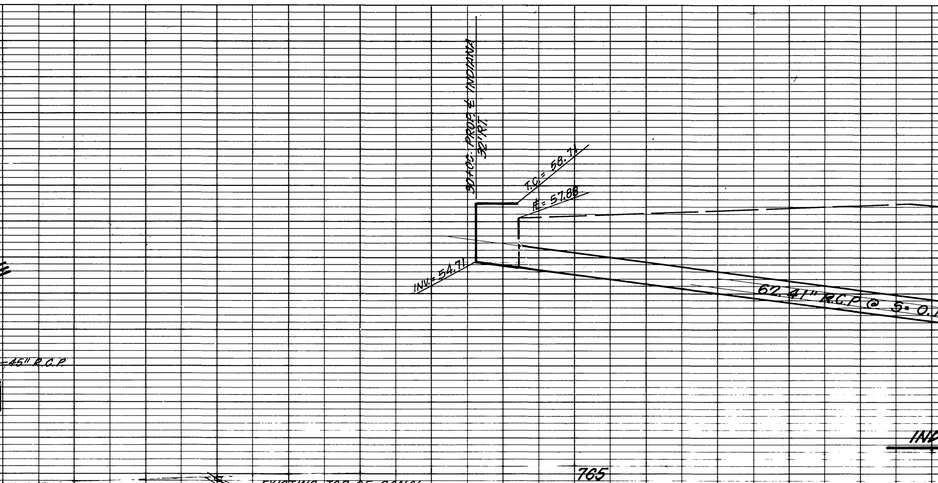
HYDRAULIC DATA

Q = 175 cfs

V = 15.41 f/s

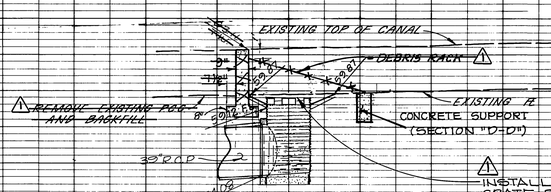
LINE A STATION 11+34

PLAN VIEW SHEET NO. 2



INDIANA AVE. STORM DRAIN STATION 6+40

PLAN VIEW SHEET NO. 2



STATION 8+67.56

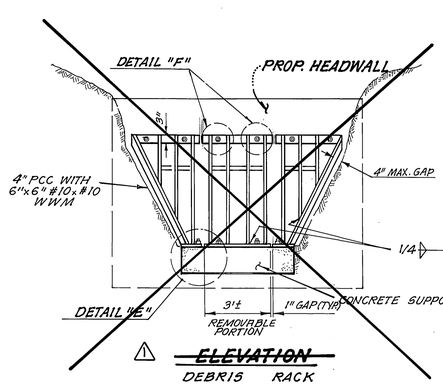
PLAN VIEW SHEET NO. 2

SECTION B-B

INSTALL GRATE ON EXIST. 48" DROP INLET. GRATE SHALL BE CONSTRUCTED SUBSTANTIALLY AS THE DEBRIS RACK EXCEPT MAX. OPENINGS SHALL BE 6". THE GRATE SHALL BE MOUNTED ON THE 48" D.I. AS SHOWN ON C/R STD. 912 FOR C.S.P. INLET

746.93 IE, G.B.

5' 0 5'



~~ELEVATION~~

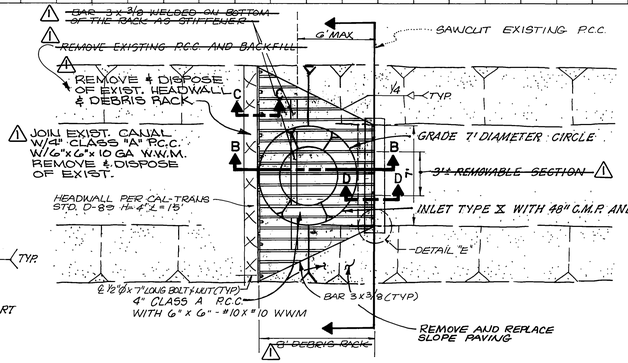
DEBRIS RACK

~~BAR 3"x 3/8" WELDED ON BOTTOM OF THE RACK AS STIFFENER~~

REMOVE EXISTING PCC AND BACKFILL

REMOVE & DISPOSE OF EXIST. HEADWALL & DEBRIS RACK

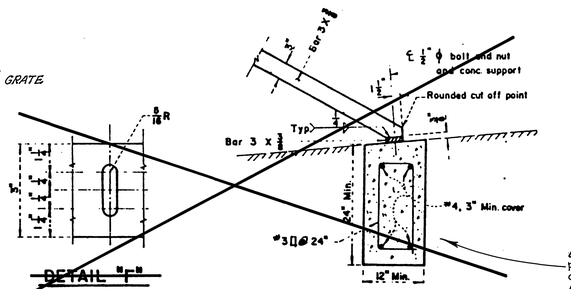
JOIN EXIST. CANAL W/4" CLASS "A" P.C.C. W/6"x6"x10 GA W.W.M. REMOVE & DISPOSE OF EXIST.



STATION 8+67.56

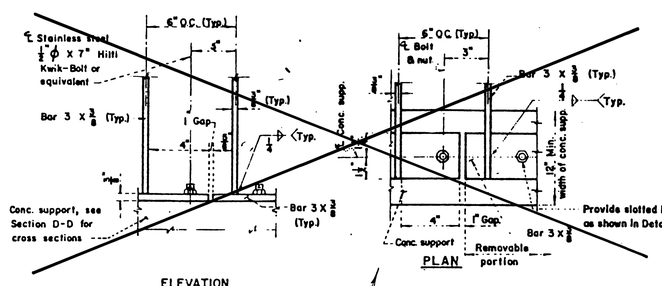
PLAN VIEW SHEET NO. 2

5' 0 5'



(APPLIES TO THE TOP AND BOTTOM BARS OF THE REMOVABLE PORTION ONLY)

~~SECTION D-D~~

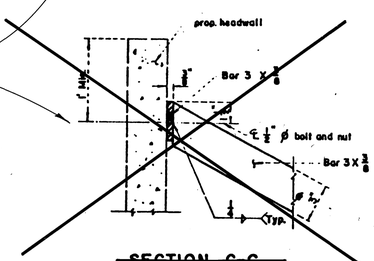


ELEVATION

PLAN

DETAIL "E"

REMOVE AND DISPOSE OF EXISTING HEADWALL AND DEBRIS RACK



~~SECTION C-C~~

(TYPICAL EXCEPT ON REMOVABLE PORTION)

NOTES

1. GALAVANIZE ALL EXPOSED FERROUS PARTS AFTER FABRICATION.
2. IF FIELD WELDS ARE NECESSARY, USE GALVICON, GALAVALLOY OR DISTRICT APPROVED EQUAL FOR COATING.
3. ALL BOLTS SHALL BE 1/2 INCH IN DIAMETER AND 7 INCHES IN LENGTH. ON REMOVABLE PORTION OF THE RACK, USE STAINLESS STEEL BOLTS AND NUTS.

DETAILS NOT TO SCALE

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* AS BUILT 10-23-89 PBerl

PROFESS. ENGR'S SEAL — ARTHUR HUBERT WEBB — No 11042 Exp. 12-31-89 — CIVIL — STATE OF CALIF.

CITY OF RIVERSIDE OVERHEAD & UNDERGROUND	Michael J. Taulli — Date: 7/5/88 — APPROVED BY: — VOID ONE YEAR FROM THIS DATE
CITY OF RIVERSIDE WATER SYSTEM	R. McGrath — Date: 6-10-88 — APPROVED BY: — VOID ONE YEAR FROM THIS DATE
SOUTHERN CALIFORNIA GAS CO.	E. F. Nuckles — 6-6-88 — APPROVED BY: — DATE
PACIFIC BELL TELEPHONE	D. D. Hilyer — 7-11-88 — APPROVED BY: — DATE

CITY OF RIVERSIDE
PUBLIC WORKS DEPARTMENT

APPROVED	BY	DATE
PRINCIPAL ENGINEER		
PARK DEPARTMENT		
TRAFFIC DIVISION		
CHIEF P.W. ENGINEER		

APPROVED BY: Barry Bark — PUBLIC WORKS DIRECTOR — DATE: 4/20/89

APPROVED BY: A. Hubert Webb — REGISTERED CIVIL ENGINEER NO. 11842 — DATE: 9/29/87

APPROVED BY: — DATE:

REF.	REVISIONS DESCRIPTION	APPR.	DATE
1	REVISED DRAINAGE INLET & ADDED TRAP. CHANNEL W/GROUTED R.S.P. W'LY. OF 48" C.M.P. D.I.	WW	9/10/89

ALBERT A. WEBB ASSOCIATES
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SCALE: HORIZ. 1" = 5' VERT. 1" = 5'
DATE: SEPT. 1987
BENCH MARK: SEE ABOVE FOR BENCHMARK

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ACCOUNT NO. D-550
SHEET 3 OF 3
86-256

FILED

INDEXED 4-27-89 LH