MAINLINE STORM DRAIN IMPROVEMENT PLAN

WAL–MART

AT
CANYON SPRINGS
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 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 DBAWING #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. BEFORE THE RIP RAP IS ACCEPTED, AS PLACED, AT THE OUTLET OF ANY DRAINAGE STRUCTURE, IT SHALL BE TESTED UNDER FLOWS AS CLOSE AS POSSIBLE TO DESIGN CONDITIONS WITH WATER OBTAINED FROM FIRE HYDRANTS IN THE IMMEDIATE AREA.
5. 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.
6. 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 INVOLVING EXCAVATION FOR UNDERGROUND FACILITIES UNLESS THE APPLICANT HAS BEEN PROVIDED AN INQUIRY IDENTIFICATION NUMBER BY U.S.A.
7. 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.
8. THE BASIS OF BEARINGS IS THE CENTERLINE OF EUCALYPTUS AVENUE BEARING SOUTH 89°50'09" EAST PER R/S 62/53-56, RIVERSIDE COUNTY RECORDS.

HOLD HARMLESS INDEMNIFICATIONCLAUSE

THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT INCLUDING SAFETY OF ALL PERSON 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 COUNTY OF RIVERSIDE, THE OWNER, AND THE PRIVATE ENGINEERS HARMLESS FOR ANY AND ALL LIABILITY; REAL OR ALLEGED, IN CONNECTION WITH PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

EXISTING UNDERGROUND STRUCTURES

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPE STRUCTURES OR CONDUITS SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNERS OF THE UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING WORK. CONTRACTOR FURTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UNDERGROUND UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN OR NOT SHOWN ON THESE PLANS.

NOTICE TO CONTRACTOR

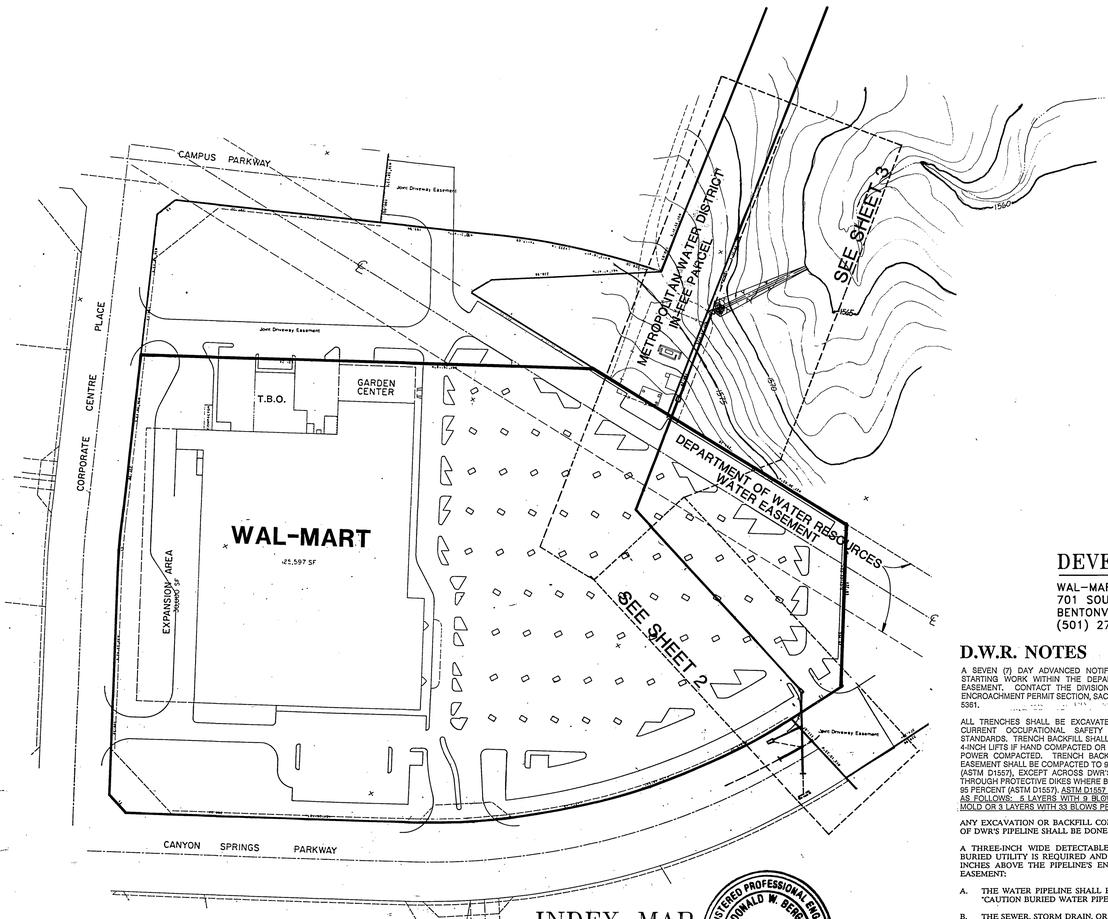
CONTRACTOR SHALL VERIFY ALL CONDITIONS. AND DIMENSIONS AND SHALL REPORT ALL DISCREPANCIES TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.

NOTIFICATIONS

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	(213) 250-6000
DEPARTMENT OF WATER RESOURCES	(916) 653-6898
EASTERN MUNICIPAL WATER DISTRICT - JIM WYATT:	(714) 925-7676 EXT. 225
GENERAL TELEPHONE:	1-(800) 422-4133
SOUTHERN CALIFORNIA GAS COMPANY:	1-(800) 422-4133
UNDERGROUND SERVICE ALERT:	1-(800) 422-4133
CITY OF RIVERSIDE; PUBLIC WORKS DEPT:	(714) 782-5341

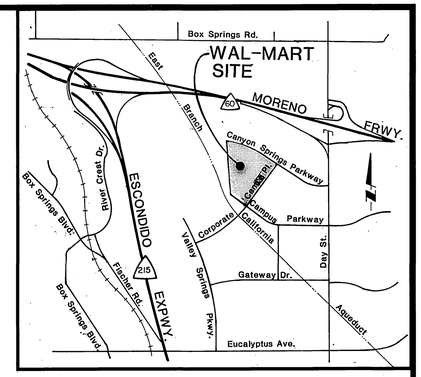
CONSTRUCTION NOTES & QUANTITY ESTIMATE

	ITEM	UNIT	QUANTITY
(1)	INSTALL 42" RCP (1000-D)	LF	604
(2)	INSTALL 36" RCP (1000-D)	LF	75
(3)	INSTALL 27" RCP (1000-D)	LF	68
(5)	INSTALL 18" RCP (2000-D)	LF	4731 △
(6)	CONSTRUCT MANHOLE AX PER CITY OF RIVERSIDE STD 430	EA	3
(7)	CONSTRUCT MANHOLE JM PER CITY OF RIVERSIDE STD 432	EA	1
(8)	CONSTRUCT CONCRETE COLLAR PER CITY OF RIVERSIDE STD 424	EA	3
(9)	RECONSTRUCT C.B. PER CITY OF RIVERSIDE STD 405	EA	1
(10)	CONSTRUCT PIPE BEDDING PER CITY OF RIVERSIDE STD. NO. 452 (CASE 1)		
(11)	CONSTRUCT JUNCTION STRUCTURE TYPE "B" PER CITY OF RIVERSIDE STD. NO. 421	1	
(12)	CONSTRUCT CONCRETED ROCK. USE 12" DIA. ROCK TO A DEPTH OF 2'.		
(13)	CONSTRUCT JUNCTION STRUCTURE PER CITY OF RIVERSIDE STD. 423	EA	3



INDEX MAP

SCALE: 1"=100'



VICINITY MAP

UTILITY AGENCIES

SEWER, STORM DRAIN

CITY OF RIVERSIDE
COMMUNITY DEVELOPMENT/ENGR.
3900 MAIN STREET
RIVERSIDE, CALIFORNIA 92501
CONTACT:

WATER

EASTERN MUNICIPAL WATER DISTRICT
2045 SAN JACINTO STREET
P.O. BOX 8300
SAN JACINTO, CALIFORNIA 92383
(714) 925-7676

GOVERNING AGENCIES

COMMUNITY DEVELOPMENT /ENGINEERING

CITY OF RIVERSIDE
COMMUNITY DEVELOPMENT/ENGR.
3900 MAIN STREET
RIVERSIDE, CALIFORNIA 92501
CONTACT:

EASEMENT

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET
P.O. BOX 942836
SACRAMENTO, CALIFORNIA 94236
(916) 653-6898

ADJACENT IN-FEE PARCEL

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
1111 SUNSET BOULEVARD
P.O. BOX 54153
LOS ANGELES, CALIFORNIA 90054
(213) 250-6000

DEVELOPER/OWNER

WAL–MART STORES,INC.
701 SOUTH WALTON BOULEVARD
BENTONVILLE, ARKANSAS 72716
(501) 273-4000

CIVIL ENGINEER

GREINER, INC.
5225 CANYON CREST DRIVE
SUITE 253
RIVERSIDE, CALIFORNIA 92507
(714) 788-7746

SOILS ENGINEER

TWINING LABORATORIES
2527 FRESNO STREET
FRESNO, CALIFORNIA 93721
(209) 268-7021

D.W.R. NOTES

A SEVEN (7) DAY ADVANCED NOTIFICATION IS REQUIRED PRIOR TO STARTING WORK WITHIN THE DEPARTMENT OF WATER RESOURCES' EASEMENT. CONTACT THE DIVISION OF LAND AND RIGHT OF WAY, ENCROACHMENT PERMIT SECTION, SACRAMENTO, CALIFORNIA AT (916) 653-5361.

ALL TRENCHES SHALL BE EXCAVATED TO COMPLY WITH THE MOST CURRENT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION STANDARDS. TRENCH BACKFILL SHALL BE PLACED IN NO GREATER THAN 4-INCH LIFTS IF HAND COMPACTED OR NO GREATER THAN 8-INCH LIFTS IF POWER COMPACTED. TRENCH BACKFILL COMPACTION WITHIN DWR'S EASEMENT SHALL BE COMPACTED TO 90 PERCENT RELATIVE COMPACTION (ASTM D1557), EXCEPT ACROSS DWR'S ROADWAY, EMBANKMENTS, AND THROUGH PROTECTIVE DIKES WHERE BACKFILL COMPACTION SHALL MEET 95 PERCENT (ASTM D1557) ASTM D1557 SECTION 10.4.4 SHALL BE MODIFIED AS FOLLOWS: 5 LAYERS WITH 9 BLOWS PER LAYER IF USING 'A' 4-INCH MOLD OR 3 LAYERS WITH 33 BLOWS PER LAYER IF USING A 6-INCH MOLD.

ANY EXCAVATION OR BACKFILL COMPACTION WITHIN THREE FEET OF DWR'S PIPELINE SHALL BE DONE BY USING HAND HELD TOOLS.

A THREE-INCH WIDE DETECTABLE WARNING TAPE OVER EACH BURIED UTILITY IS REQUIRED AND SHOULD BE A MINIMUM OF 18 INCHES ABOVE THE PIPELINE'S ENTIRE DISTANCE WITHIN DWR'S EASEMENT:

A. THE WATER PIPELINE SHALL BE BLUE AND IMPRINTED WITH "CAUTION BURIED WATER PIPELINE."
B. THE SEWER, STORM DRAIN, OR WASTE WATER PIPELINE SHALL BE GREEN AND IMPRINTED WITH "CAUTION BURIED _____ PIPELINE".
C. THE ELECTRIC, STREET LIGHTING, FOR TRAFFIC SIGNALS CONDUIT WARNING TAPE SHALL BE RED AND IMPRINTED WITH "CAUTION BURIED _____ CONDUIT".

PRIOR APPROVAL SHALL BE OBTAINED BEFORE CROSSING OVER DWR'S PIPELINE WITH HEAVY EQUIPMENT AT UNIMPROVED AREAS.

SHEET INDEX

SHEET 1.....TITLE SHEET
SHEET 2.....MAINLINE STORM DRAIN (WAL–MART SITE)
SHEET 3.....OFF–SITE MAINLINE STORM DRAIN AND INTERIM CHANNEL

REGISTERED PROFESSIONAL ENGINEER — DONALD W. BERGH — NO. 28949 — EXP. 3-31-95 — CIVIL — STATE OF CALIFORNIA

"AS-BUILT" 12/2/94 KPM

DEPARTMENT OF WATER RESOURCES

APPROVED BY: _____ DATE _____

BENCH MARK: RIV. CO.:B.M.

BRASS DISK MARKED 600-47-68, IS 1.7 MILES NW ALONG THE AT & SF RAILWAY FROM THE STATION @ MARCH FIELD, SET BETWEEN THE TRACK AND INTERSTATE 215, 64.5' SW OF THE SW EDGE OF THE HIGHWAY, 43.6' NE OF THE NE RAIL OF TRACK, 20' SE OF POST, IRON B.M. DISK SET ON TOP OF A CONCRETE POST 0.4' ABOVE THE GROUND.

ELEVATION = 1536.119

CALL TOLL FREE 1–800–422–4133 In Southern California
Two working days before you dig.

E.M.W.D.

APPROVED BY: Victor J. Barnes DATE 7/14/92

Greiner

BUSINESS TAX CERT. NO. 102995
EXP. DATE: 7–1–92

Greiner, Inc.
5225 Canyon Crest Drive
Building 200, Suite 253
Riverside, California 92507–6323
(714)788–7746
FAX: (714)788–5002

PLANS PREPARED UNDER THE DIRECTION OF: DONALD W. BERGH

EXPIRATION DATE: 3–31–95 R.C.E. NO. 28949 DATE: 6-2-92

MARK	REVISIONS	APPR.	DATE
△	REVISE LATERAL "B" LOCATION AND	MM	11/10/92

DESIGNED BY: D.G. DRAWN BY: T.A.G. CHECKED BY: D.B.

FOR

CITY OF RIVERSIDE
PUBLIC WORKS DEPARTMENT

APPROVED BY	DATE	BY
PRINCIPAL ENGINEER	10/8/92	SC
PARK DEPARTMENT	———	———
TRAFFIC DIVISION	———	———
CHIEF P.W. ENGINEER	10/8/92 10/16/92	RM/C VJK

APPROVED BY: _____ PUBLIC WORKS DIRECTOR

DATE: 10/15/92

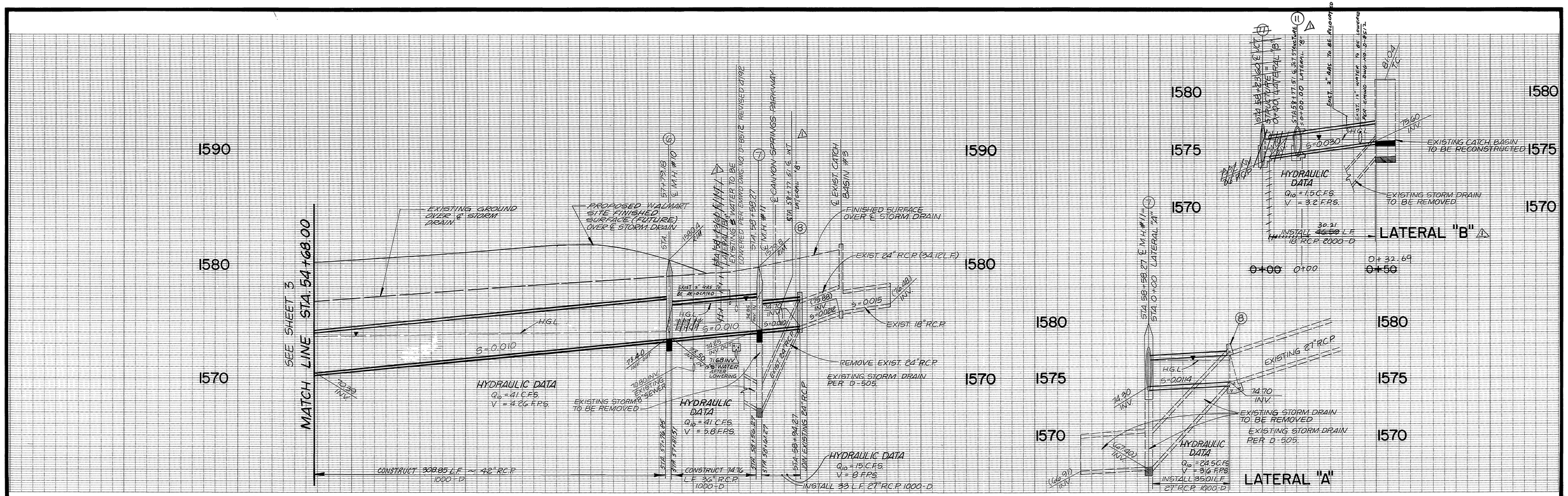
CANYON SPRINGS
PARCEL MAP NO. 19617
C-14-912
WAL–MART
MAINLINE STORM DRAIN IMPROVEMENTS
TITLE SHEET

SCALE: NOTED

ACCOUNT NO.
D-614

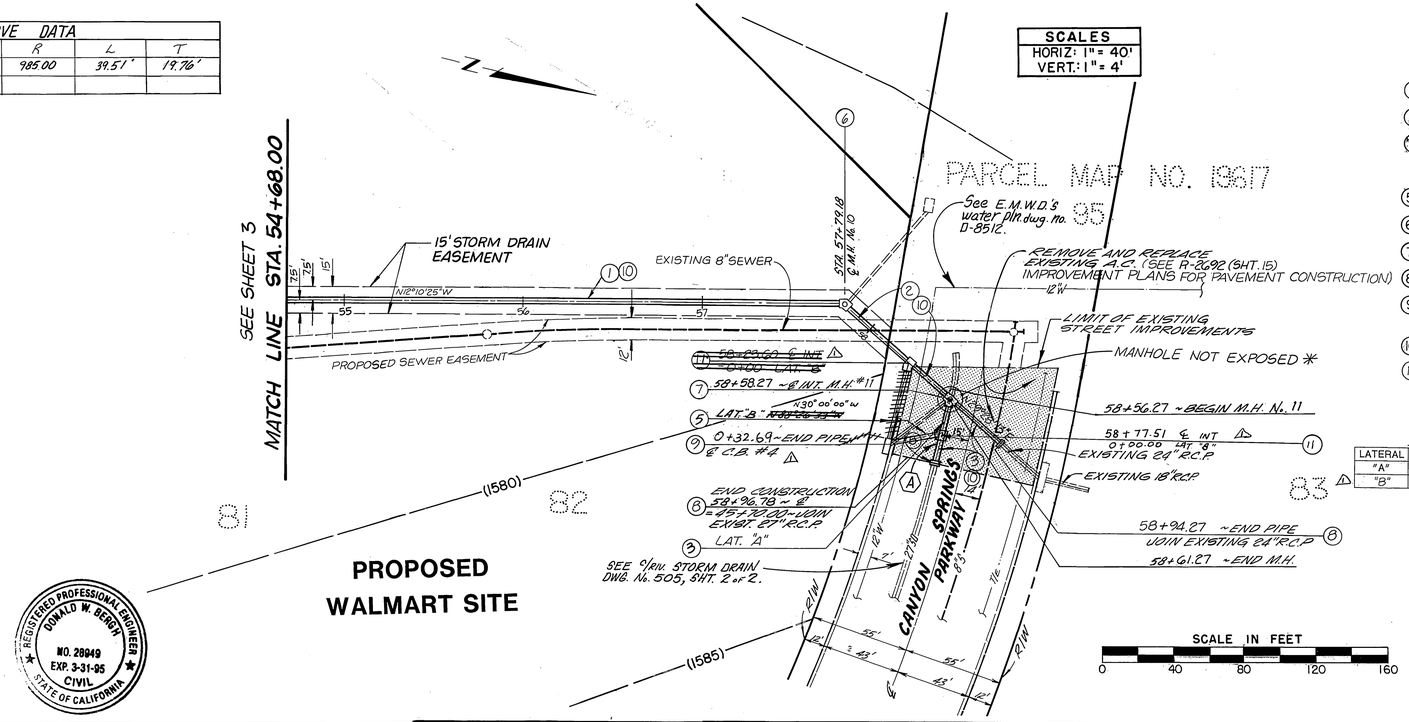
SHEET 1 OF 3

INDEXED 1-14-93 GH



CURVE DATA				
	Δ	R	L	T
(A)	2°17'54"	985.00	39.51'	19.76'

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



CONSTRUCTION NOTES

1. INSTALL 42" RCP
2. INSTALL 36" RCP
3. INSTALL 27" RCP
5. INSTALL 18" RCP
6. CONSTRUCT MANHOLE AX PER CITY OF RIVERSIDE STD DWG No.430
7. CONSTRUCT MANHOLE JM PER CITY OF RIVERSIDE STD DWG No.432
   SEE CHART BELOW FOR STD. PLAN DATA
8. CONSTRUCT CONCRETE COLLAR PER CITY OF RIVERSIDE STD DWG No.424
9. RECONSTRUCT C.B. PER CITY OF RIVERSIDE STD DWG No.405
   (W = 10', V = 7')
10. CONSTRUCT PIPE BEDDING PER CITY OF RIVERSIDE STD DWG No.452 (Case I)
11. CONSTRUCT JUNCTION STRUCTURE TYPE "B" PER CITY OF RIVERSIDE STD. NO.421, SEE CHART BELOW FOR STD. PLAN DATA

LATERAL	STATION	A	B	C'	D1	D2	E'	L'	Elev."R"	Elev."S"		
"A"	58+58.27	60°	27"	4.3'	27"	36"	4.3'	5.0'	1573.89	1573.80	(7)	M.H. - JM
"B"	~~58+29.50~~	60°	18"	~~8.5'~~	~~3.0"~~	—	~~9.5'~~	2.6'	~~1574.20~~	~~1573.82~~	(11)	J.S. - B
	58+77.51			2.9'	27"		2.2'		1574.69	1574.62		

* "AS-BUILT" 6-3-94

DEPARTMENT OF WATER RESOURCES	CALL TOLL FREE 1-800-422-4133 In Southern California. Two working days before you dig.	E.M.W.D.	BENCH MARK: RIV. CO.; B.M. BRASS DISK MARKED 600-47-68, IS 1.7 MILES NW ALONG THE AT & SF RAILWAY FROM THE STATION @ MARCH FIELD, SET BETWEEN THE TRACK AND INTERSTATE 215, 64.5' SW OF THE SW EDGE OF THE HIGHWAY, 43.6' NE OF THE NE RAIL OF TRACK, 20' SE OF POST, IRON B.M. DISK SET ON TOP OF A CONCRETE POST 0.4' ABOVE THE GROUND. ELEVATION = 1536.119	Greiner, Inc. 5225 Canyon Crest Drive Building 200, Suite 253 Riverside, California 92507-6323 (714) 788-7746 FAX: (714) 788-5002
APPROVED BY: DATE		APPROVED BY: Victor L. Bennett 7/16/92 DATE	PLANS PREPARED UNDER THE DIRECTION OF: EXPIRATION DATE: 3-31-95 R.C.E. NO. 28949 DONALD W. BERGH DATE 6-7-92	

MARK	REVISIONS	APPR.	DATE
1	REVISE LATERAL "B" LOCATION AND	JW	10/12/92

DESIGNED BY D.G. DRAWN BY T.A.G. CHECKED BY D.B.

CITY OF RIVERSIDE
PUBLIC WORKS DEPARTMENT

	APPROVED BY	DATE	BY
	PRINCIPAL ENGINEER	10/8/92	
	PARK DEPARTMENT	—	—
	TRAFFIC DIVISION	—	—
	CHIEF P.W. ENGINEER	10/8/92	
		10/8/92	

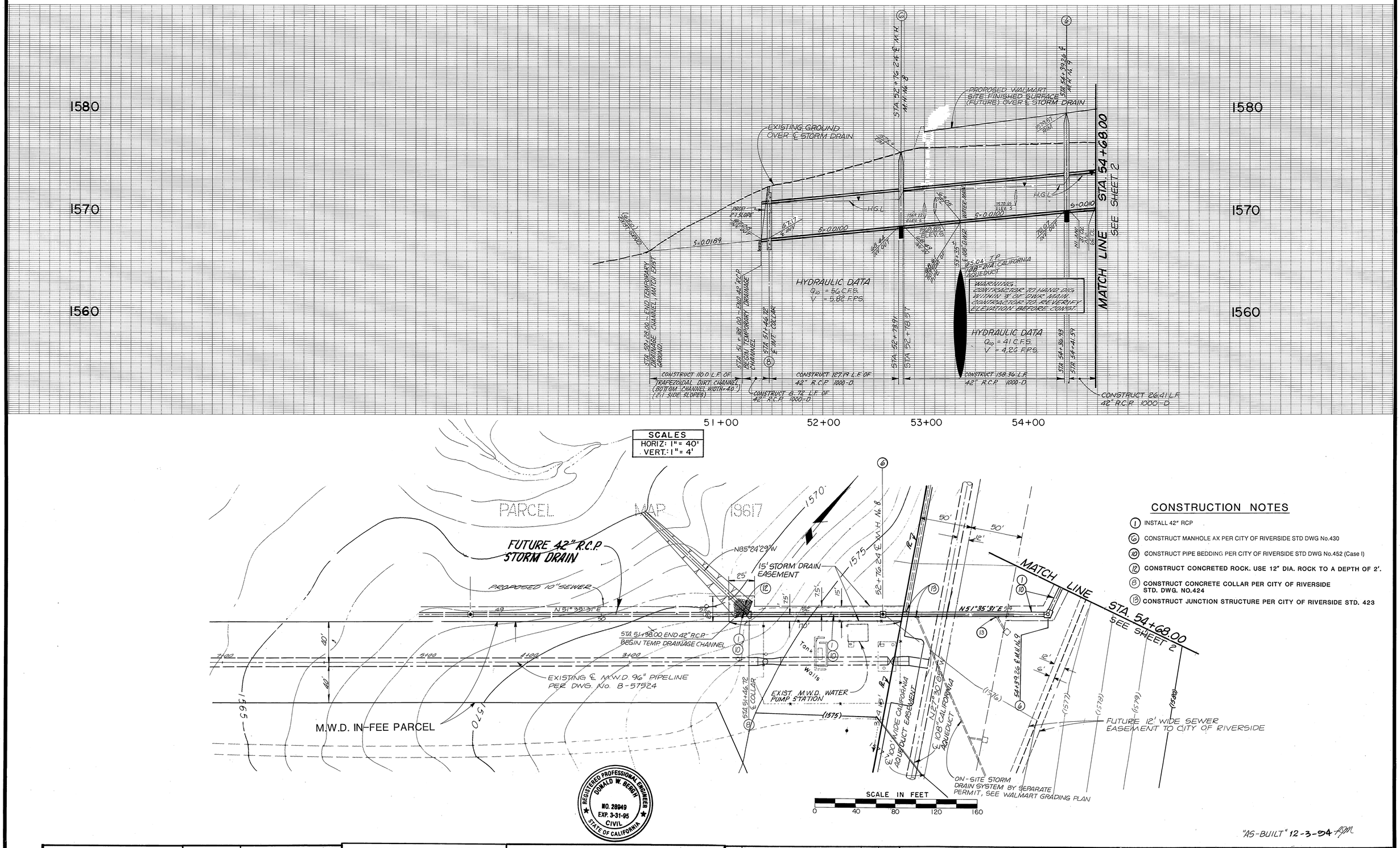
APPROVED BY
PUBLIC WORKS DIRECTOR
DATE 10/12/92

CANYON SPRINGS
PARCEL MAP NO. 19617
C-14-912
WAL-MART
MAINLINE STORM DRAIN IMPROVEMENTS
STA. 54+68.00 TO STA. 58+96.78

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

ACCOUNT NO. D-614
SHEET 2 OF 3

INDEXED 1-14-93 GH



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13. CONSTRUCT JUNCTION STRUCTURE PER CITY OF RIVERSIDE STD. 423

"AS-BUILT" 12-3-94 AM

DEPARTMENT OF WATER RESOURCES

APPROVED BY: _____ DATE _____

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(714) 788-7746
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PLANS PREPARED UNDER THE DIRECTION OF: DONALD W. BERGH

EXPIRATION DATE: 3-31-95 R.C.E. NO. 28949 DATE 2-7-92

MARK	REVISIONS	APPR.	DATE

DESIGNED BY D.G. DRAWN BY T.A.G. CHECKED BY D.B.

CITY OF RIVERSIDE
PUBLIC WORKS DEPARTMENT

APPROVED BY	DATE	BY
PRINCIPAL ENGINEER	10/8/92	
PARK DEPARTMENT	—	—
TRAFFIC DIVISION	—	—
CHIEF P. W. ENGINEER	10/8/92	
	10/9/92	

APPROVED BY _____

PUBLIC WORKS DIRECTOR

DATE 10/12/92

CANYON SPRINGS

PARCEL MAP NO. 19617
C-14-912

WAL-MART

MAINLINE STORM DRAIN IMPROVEMENTS
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SHEET 3 OF 3

INDEXED 1-94-93 GH