

CITY OF WALNUT LEMON CREEK STORM DRAIN

GENERAL NOTES

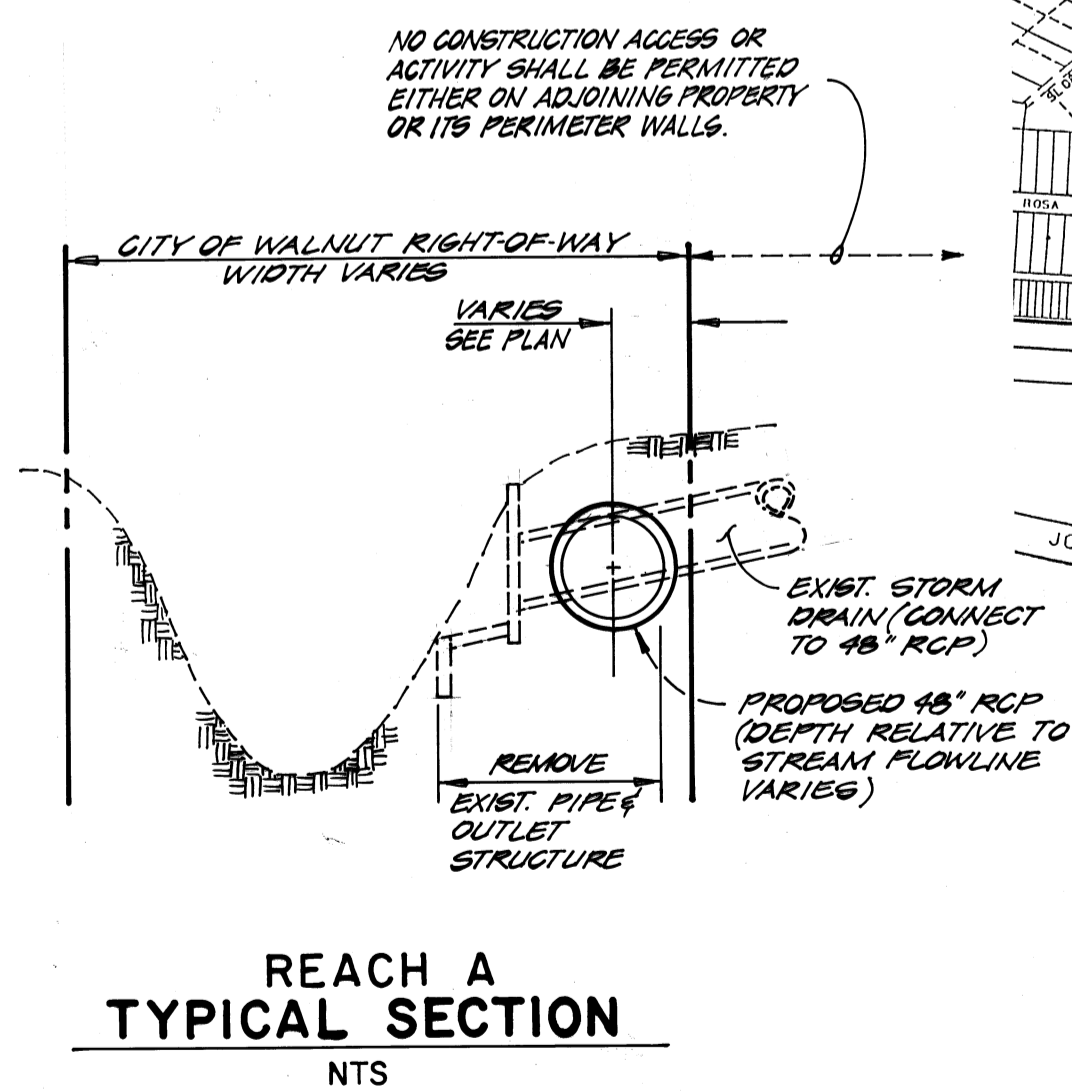
1. Elevations are in feet above U.S.C. & G.S. mean sea level datum of 1929. All work shall be in accordance with the "Standard Specifications for Public Works Construction 1994 Edition" including supplements and shall be prosecuted only in the presence of the City Engineer.
2. Approval of this plan by the City of Walnut does not constitute a representation as to the accuracy of the location, or the existence or non-existence of any underground utility, pipe or structure within the limits of this project. This note applies to all sheets.
3. Application for inspection by the City Engineer shall be made by the contractor at least forty-eight (48) hours before the services thereof will be required. Phone (909) 594-9702.
4. All construction joints in the footing of slabs and walls shall be in the same plane. No staggering of joints will be permitted.
5. No concrete shall be placed until the forms and reinforcing steel has been placed, inspected and approved.
6. Transverse reinforcement and transverse joints shall be placed at right angles (or radial) to conduit centerline except as otherwise shown on the drawings.
7. All concrete shall be portland cement concrete with an ultimate 28 days compressive strength of 3250 p.s.i.
8. All exposed edges shall be finished with a 3/4" chamfer.
9. All steel adjacent to face of concrete shall have 2 1/2" clearance unless otherwise specified.
10. Reinforcement shall be deformed bars of intermediate grade steel as per A.S.T.M. A-615.
11. All bar bends and hooks shall conform to the American Concrete Institute "Manual of Standard Practice".
12. Dimensions from face of concrete to steel are to centerline of steel unless otherwise noted.
13. All backfills and fills to be used as subgrade shall be compacted to a relative density of 90% unless otherwise specified.
14. All steel that is to be continuous shall have a minimum lap of 30 bar diameters or 18", whichever is greater.
15. All catch basins and connector pipes between catch basins to be inspected by the City Engineer.
16. Pipe shall be embedded 5 inches into all structures including inlet and headwalls, unless otherwise specified.
17. Where pipe is to be placed in fill, the fill shall be compacted to a minimum depth of 3 feet above the top of pipe prior to trenching.
18. All backfill and fill around closed conduit in street right-of-way shall be brought up to subgrade of the road or to 2 feet above the top of the conduit, whichever is less.
19. Unless otherwise specified, all local depressions shall be per American Public Works Association Standard Plan 313-0.
20. All reinforced concrete pipe shall be bedded in accordance with Los Angeles County Department of Public Works Standard Plan 3080-0.
21. Unless otherwise shown, concrete dimensions shall be measured vertically or horizontally and parallel or at right angles (or radial) to the centerline of construction.
22. This storm drain will not be accepted for maintenance until the streets have been paved, manholes brought to grade, and the system is cleaned to the satisfaction of the City Engineer.
23. A soils engineer shall certify that all fills and backfills over underground storm drains outside of st. r/w have been compacted or consolidated to a 90% density. This certification shall be submitted to the City Engineer prior to acceptance of the work by the City.
24. The contractor's attention is directed to Section 7-10.4.1 of the Standard Specifications for Public Works Construction in regard to safety orders.
25. All pipe shall be placed in a trench in natural ground and/or compacted fill. The ground level before the trenching shall be at least 3 feet above top of pipe elevation, or at finish surface elevation, whichever is less. All backfill in easements shall be compacted to the density required by the grading plan.
26. The inspector may have the option to require concrete backfill during construction when the pipe has less than one foot of cover and is subjected to heavy equipment traffic. The concrete backfill shall consist of 1:3:5 mix cement concrete poured from wall to wall of trench and from bottom of trench to a minimum depth of 4 inches over top of pipe.

CONSTRUCTION NOTES

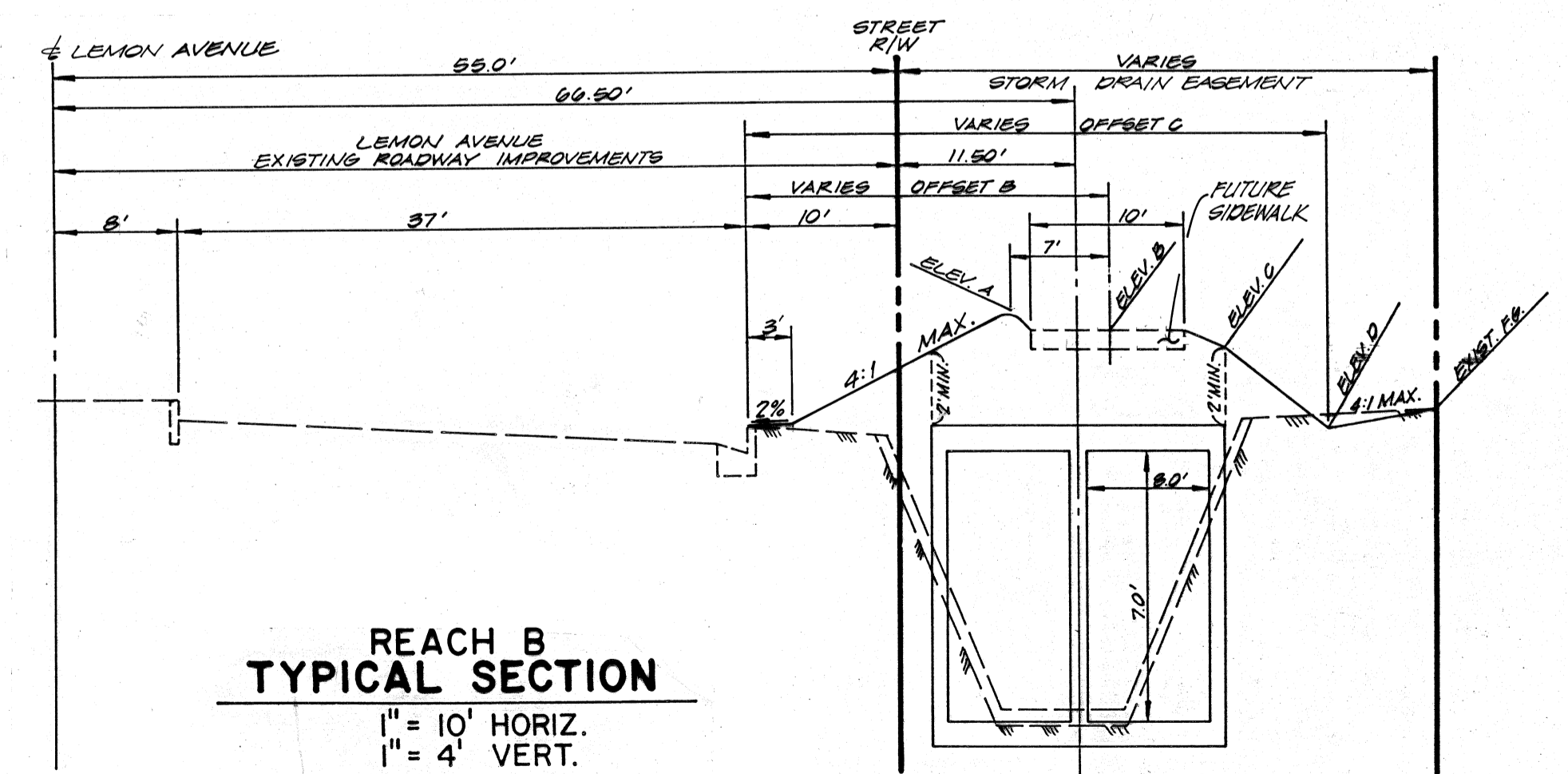
- 1 CONSTRUCT 48" R.C.P. D-LOAD PER PLAN.
 - 2 CONSTRUCT MANHOLE NO. 2 PER L.A.C.D.P.W. STD. 3021-0.
 - 3 CONSTRUCT AUTO FLAPGATE PER L.A.C.D.P.W. STD. 3061-0.
 - 4 CONSTRUCT TRANSITION STRUCTURE NO. 3 PER L.A.C.D.P.W. STD. 3042-0.
 - 5 REMOVE EXISTING 24" R.C.P.
 - 6 REMOVE EXISTING OUTLET STRUCTURE.
 - 7 REMOVE EXISTING CATCH BASIN.
 - 8 REMOVE EXISTING LOCAL DEPRESSION.
 - 9 CONSTRUCT LOCAL DEPRESSION PER A.P.W.A. STD. 313-0.
 - 10 CONSTRUCT CONCRETE CATCH BASIN PER A.P.W.A. STD. 300-1.
 - 11 CONSTRUCT CONCRETE GUTTER REPLACEMENT PER L.A.C.D.P.W. STD. 3082-0.
 - 12 CONSTRUCT JUNCTION STRUCTURE NO. 1 PER L.A.C.D.P.W. STD. NO. 3030-0.
 - 13 CONSTRUCT 24" R.C.P., 2000D.
 - 14 CONSTRUCT 30" R.C.P., 2000D.
 - 15 CONSTRUCT TRANSITION STRUCTURE PER DETAIL, SHEET 4.
 - 16 CONSTRUCT 7" WIDE CATCH BASIN, MODIFIED PER DETAIL, SHEET 4, PER A.P.W.A. STD. 300-1.
 - 17 SAWCUT AND REMOVE EXISTING CURB & GUTTER.
 - 18 SAWCUT AND REMOVE EXISTING BLOCK WALL.
 - 19 SAWCUT AND REMOVE EXISTING SIDEWALK.
 - 20 REMOVE EXISTING CONCRETE CHANNEL.
 - 21 CONSTRUCT DOUBLE 8' W X 7' H REINFORCED CONCRETE BOX CULVERT.
 - 22 CONSTRUCT 10" CONCRETE SIDEWALK (4" THICK) PER CITY OF WALNUT STD. WS-505.
 - 23 REMOVE EXISTING TIMBER BRIDGE.
 - 24 CONSTRUCT DRIVE APPROACH PER CITY OF WALNUT STD. WS-506.
 - 25 CONSTRUCT GATE PER L.A.C.D.P.W. STD. 6007-0.
 - 26 CONSTRUCT INLET STRUCTURE PER DETAIL, SHEET 7.
 - 27 REMOVE ALL SILT, ROCK AND DEBRIS FROM EXIST. DOUBLE BOX CULVERT.
 - 28 CONSTRUCT 18" R.C.P., 2750D.
 - 29 INSTALL TRASH RACK PER APWA STD. 360-0 (MODIFY FOR EXISTING RECTANGULAR INLET).
 - 30 INSTALL TRASH RACK PER L.A.C.D.P.W. STD. 3089-0.
 - 31 CONSTRUCT JUNCTION STRUCTURE NO. 3 PER L.A.C.D.P.W. STD. NO. 3032.
 - 32 CONSTRUCT PIPE CONNECTION TO EXISTING STORM DRAIN PER L.A.C.D.P.W. STD. NO. 3035-0.
- CASE III



FOR CONTINUATION OF VICINITY MAP, SEE SHEET NO. 7



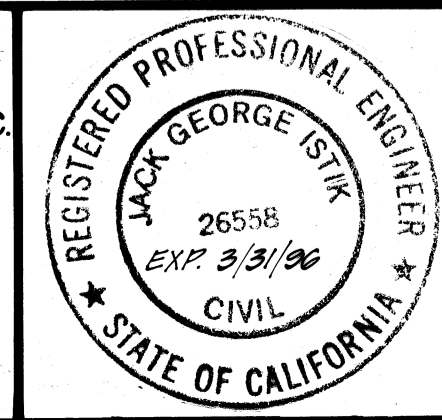
VICINITY MAP
NTS



REACH B
TYPICAL SECTION
1" = 10' HORIZ.
1" = 4' VERT.

BENCHMARK
RDBM TAG IN C.B. 5 FT. SOUTH OF B.C.R.
78 FEET NORTH & 42 FEET WEST OF C
INT. VALLEY BOULEVARD AND LEMON
AVENUE.
CG 3733 ELEV. 519.399

SOILS ENGINEER:
TRIAD GEOTECHNICAL CONSULTANTS, INC.
17231 E. RAILROAD STREET, SUITE 100
CITY OF INDUSTRY, CA 91748
818 964-2313
ATTN: FRANK STILLMAN

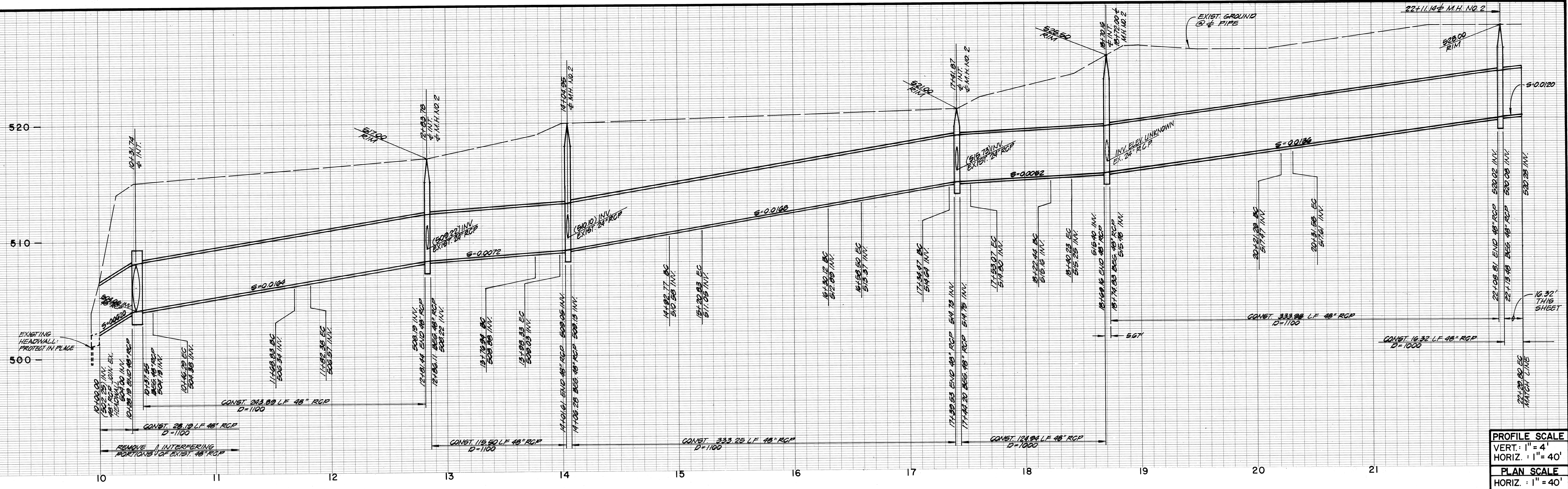


RKA
Civil Engineers Inc.
398 S. Lemon Creek Drive, Suite E
Walnut Ca. 91789
(909) 594-9702 (818) 337-8323 Fax (909) 594-2658
DATE 3/28/05

NO.	DATE	BY	DESCRIPTION	APP.D	DATE
REVISIONS					

CITY OF WALNUT
LEMON CREEK STORM DRAIN
VALLEY BOULEVARD TO LA PUENTE ROAD
TITLE SHEET

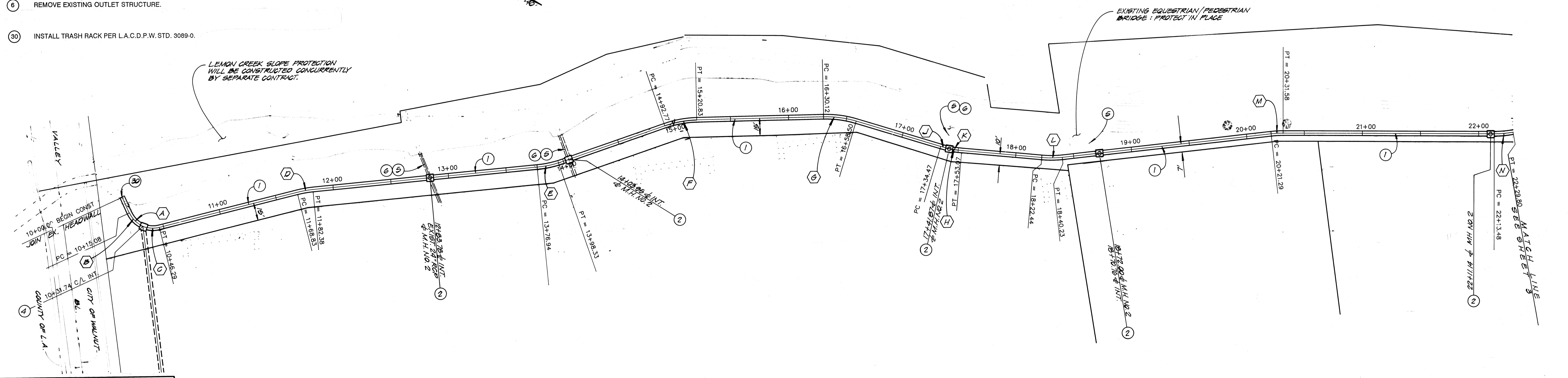
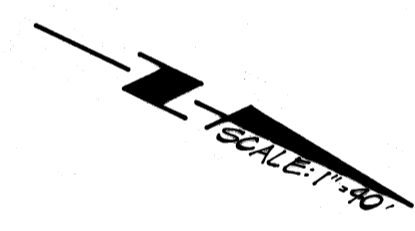
SHT 1 of 7 SHTS



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

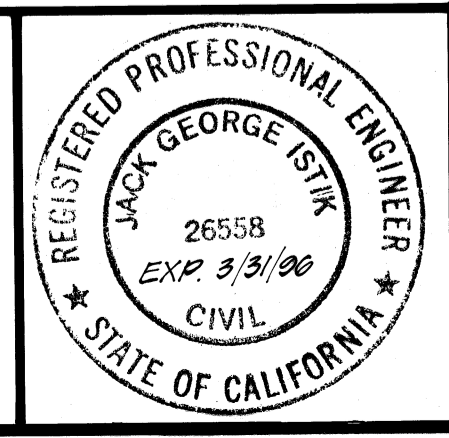
CONSTRUCTION NOTES

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- 4 CONSTRUCT TRANSITION STRUCTURE NO. 3 PER L.A.C.D.P.W. STD. NO. 3042-0.
- 5 REMOVE EXISTING 24" R.C.P.
- 6 REMOVE EXISTING OUTLET STRUCTURE.
- 30 INSTALL TRASH RACK PER L.A.C.D.P.W. STD. 3089-0.



Δ	RADIUS	LENGTH	TANGENT
A	79°28'30"	22.50'	31.21'
B	47°26'02"	22.50'	16.66'
C	37°02'37"	22.50'	14.55'
D	08°37'42"	90.00'	13.55'
E	18°36'55"	90.00'	21.39'
F	17°41'57"	90.00'	23.06'
G	18°04'01"	90.00'	25.36'
H	11°50'33"	90.00'	16.60'
I	04°42'54"	90.00'	7.40'
J	07°07'50"	90.00'	11.20'
L	11°19'20"	90.00'	17.79'
M	06°33'08"	90.00'	10.29'
N	10°23'33"	90.00'	16.32'

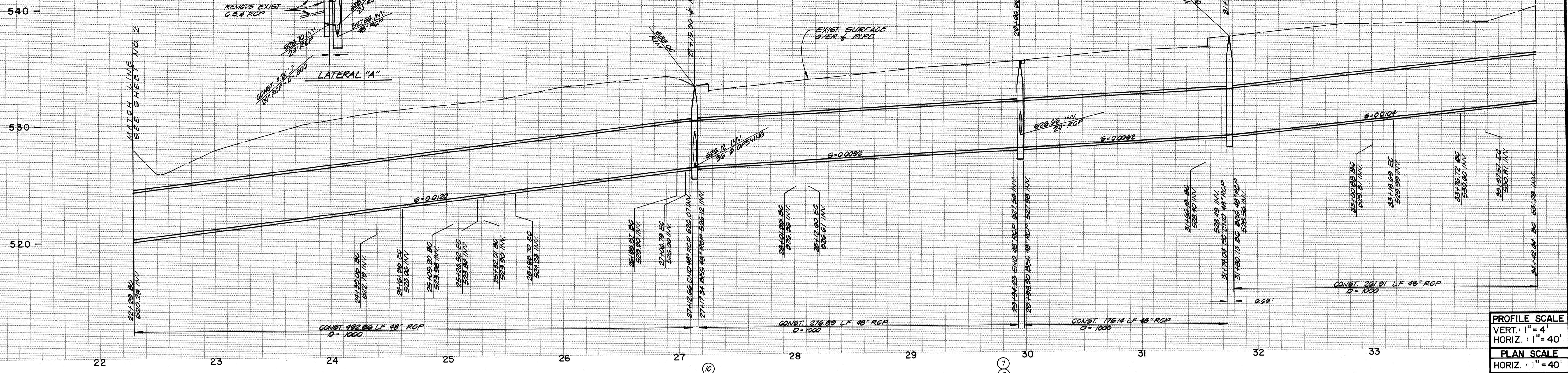
BENCHMARK
 RBDM TAG IN W'LY CURB 5FT SOUTH
 OF BCR 78FT NORTH 42FT WEST OF
 C. INT VALLEY BL & LEMON AV
 ELEV. 519.40



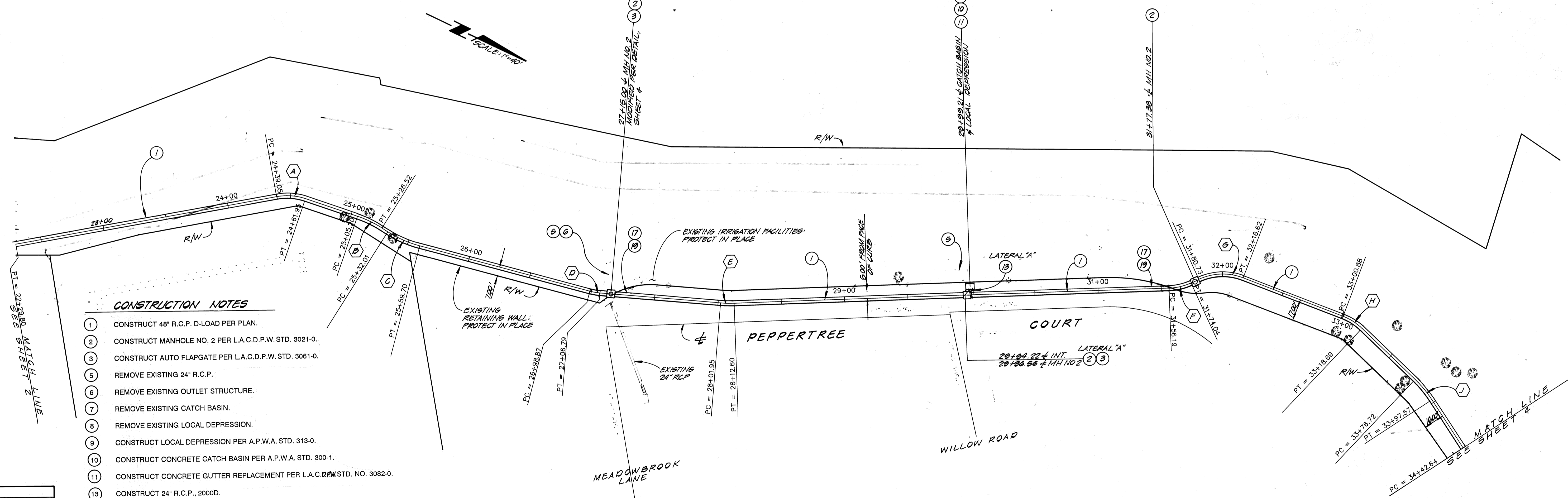
RKA
 Civil Engineers Inc.
 388 S. Lemon Creek Drive, Suite E • Walnut • California 91790
 (714) 594-9702 (818) 331-8323 FAX (714) 594-2658
 Jack G. Istik 3/28/95
 JACK G. ISTIK RCE 26558 DATE

NO.	DATE	BY	DESCRIPTION	APP'D	DATE
REVISIONS					

CITY OF WALNUT
LEMON CREEK STORM DRAIN
 STATION 10+00.00 (VALLEY BLVD.)
 TO STATION 22+29.80
 REACH A SHT 2 of 7 SHTS
 JN. 178220



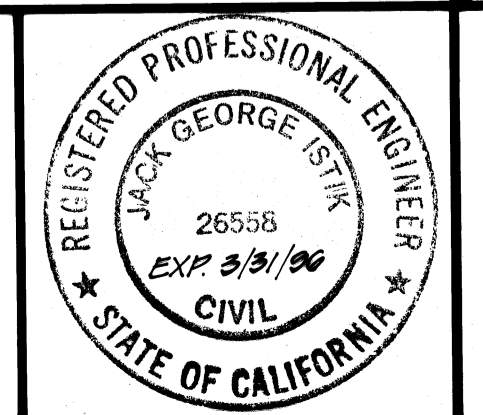
PROFILE SCALE
 VERT. : 1" = 4'
 HORIZ. : 1" = 40'
 PLAN SCALE
 HORIZ. : 1" = 40'



- CONSTRUCTION NOTES**
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 - 2 CONSTRUCT MANHOLE NO. 2 PER L.A.C.D.P.W. STD. 3021-0.
 - 3 CONSTRUCT AUTO FLAPGATE PER L.A.C.D.P.W. STD. 3061-0.
 - 5 REMOVE EXISTING 24" R.C.P.
 - 6 REMOVE EXISTING OUTLET STRUCTURE.
 - 7 REMOVE EXISTING CATCH BASIN.
 - 8 REMOVE EXISTING LOCAL DEPRESSION.
 - 9 CONSTRUCT LOCAL DEPRESSION PER A.P.W.A. STD. 313-0.
 - 10 CONSTRUCT CONCRETE CATCH BASIN PER A.P.W.A. STD. 300-1.
 - 11 CONSTRUCT CONCRETE GUTTER REPLACEMENT PER L.A.C.D.P.W. STD. NO. 3082-0.
 - 13 CONSTRUCT 24" R.C.P., 2000D.

Δ	RADIUS	LENGTH	TANGENT
A	29°09'32"	48.00'	11.70'
B	18°34'07"	90.00'	10.71'
C	17°37'45"	90.00'	13.96'
D	10°04'41"	45.00'	3.97'
E	06°46'44"	90.00'	5.33'
F	22°43'56"	45.00'	9.05'
G	45°41'25"	45.00'	18.36'
H	22°40'34"	45.00'	9.02'
J	15°16'40"	90.00'	10.48'

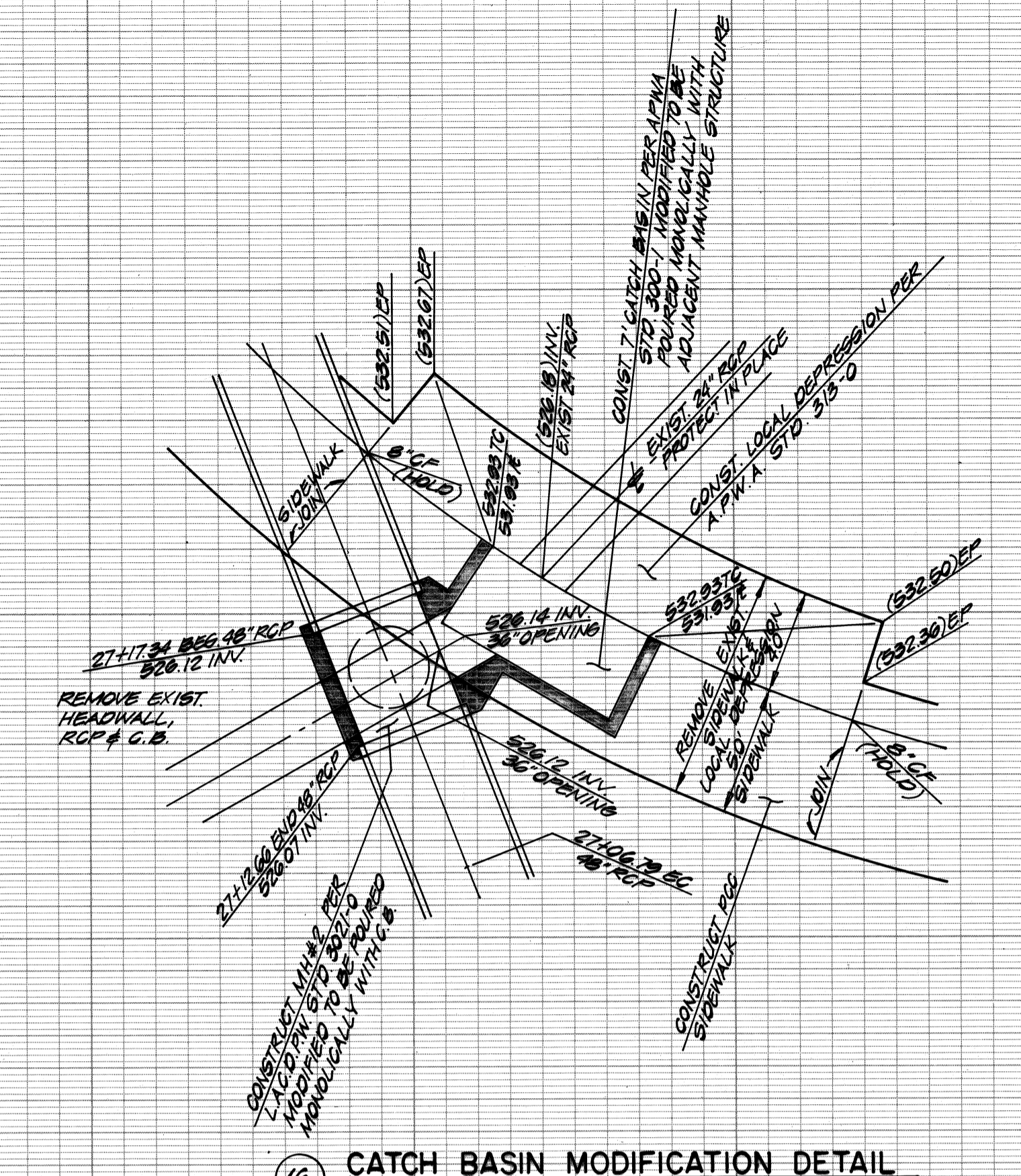
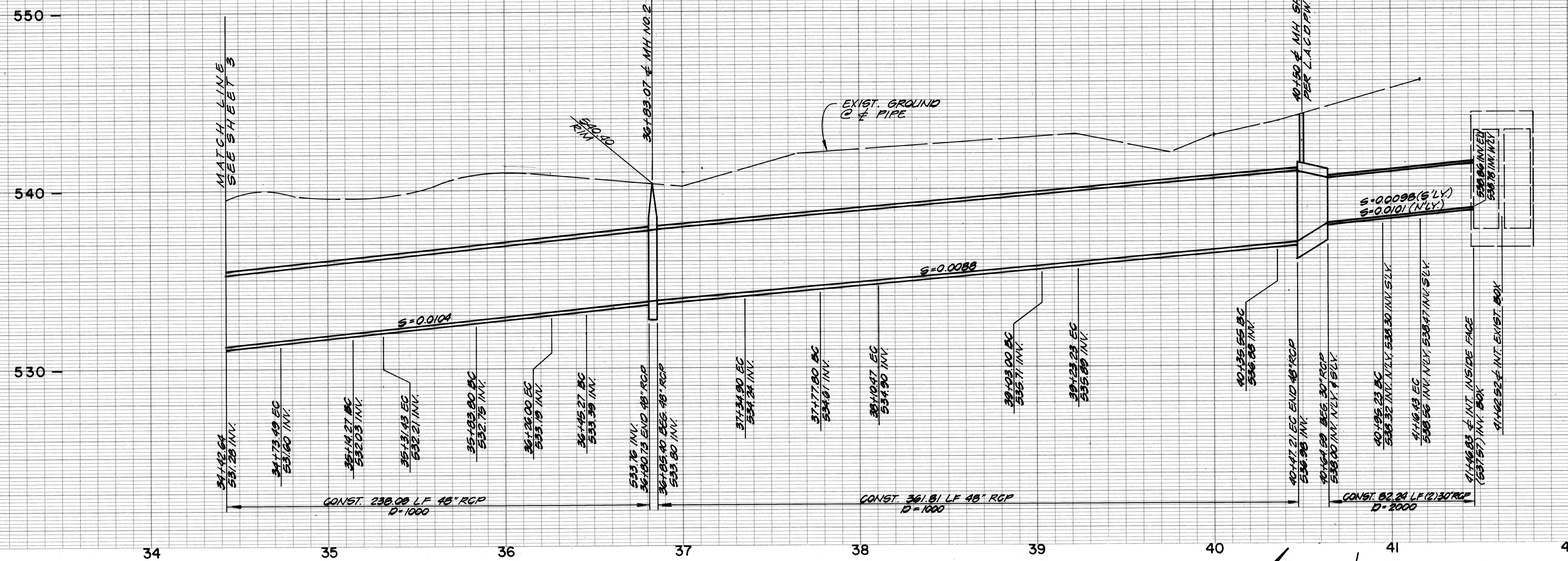
BENCHMARK
 RDBM TAG IN W'LY CURB 5FT SOUTH
 OF BCR 78FT NORTH 42FT WEST OF
 C. INT VALLEY BL & LEMON AV
 ELEV. 519.40



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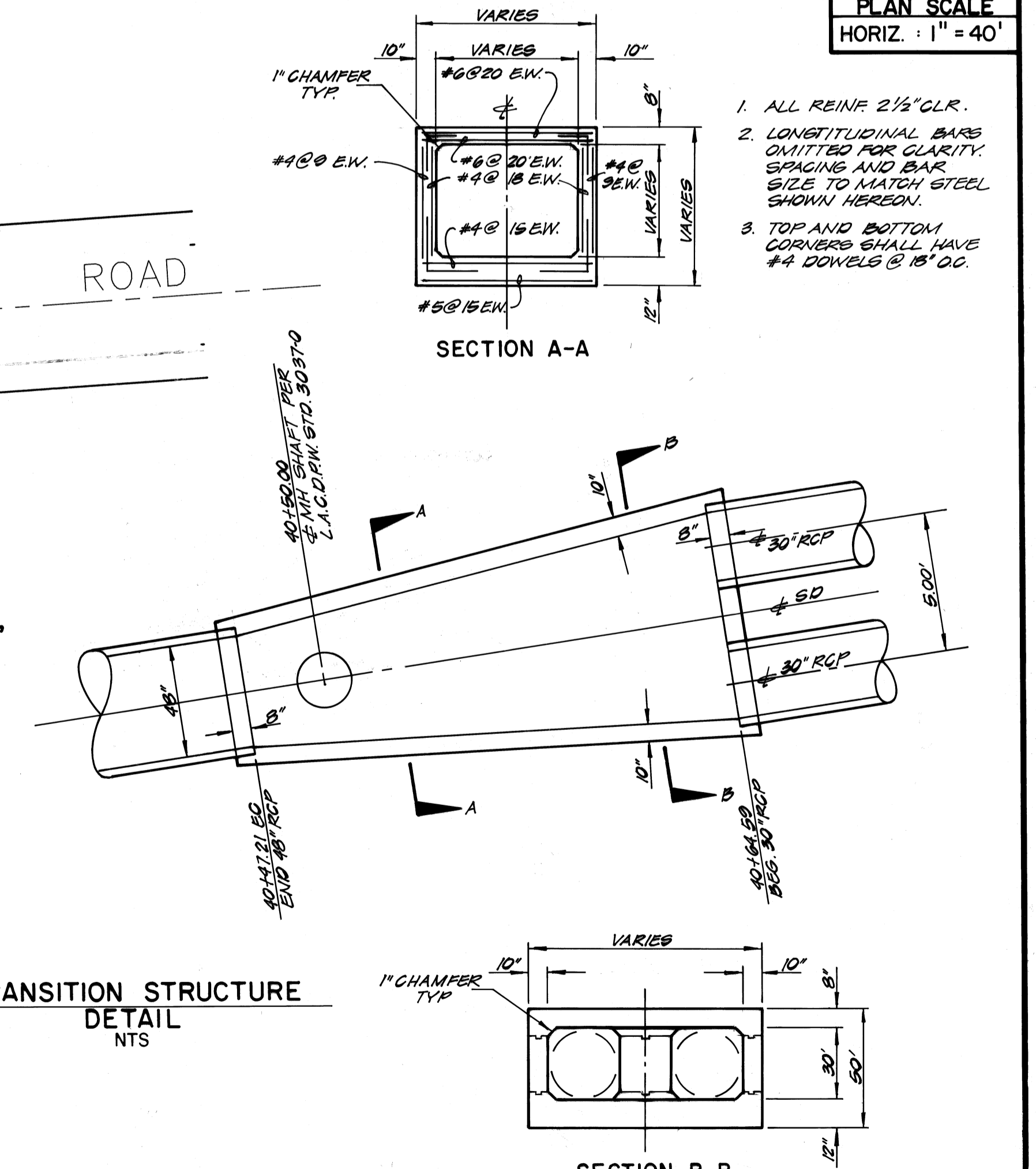
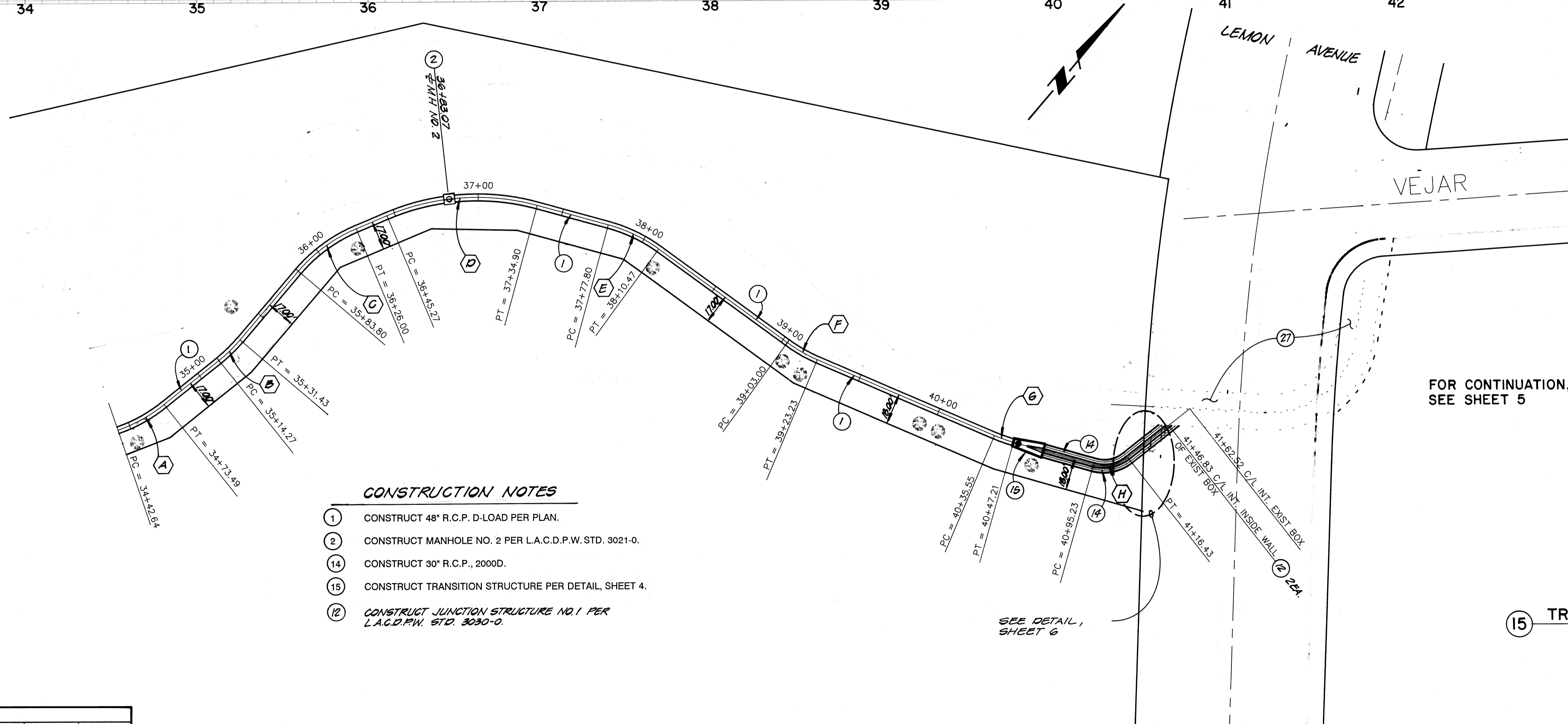
NO.	DATE	BY	DESCRIPTION	APP'D	DATE

CITY OF WALNUT
 LEMON CREEK STORM DRAIN
 STATION 22+29.30 TO STATION 34+42.64
 REACH A SHT 3 of 7 SHTS
 JN. 1/8/200



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

PLAN SCALE
HORIZ. : 1" = 40'



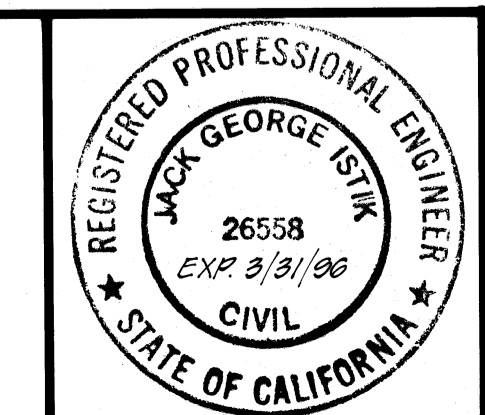
- CONSTRUCTION NOTES**
- ① CONSTRUCT 48" R.C.P. D-LOAD PER PLAN.
 - ② CONSTRUCT MANHOLE NO. 2 PER L.A.C.D.P.W. STD. 3021-0.
 - ④ CONSTRUCT 30" R.C.P., 20000.
 - ⑤ CONSTRUCT TRANSITION STRUCTURE PER DETAIL, SHEET 4.
 - ⑫ CONSTRUCT JUNCTION STRUCTURE NO. 1 PER L.A.C.D.P.W. STD. 3030-0.

Δ	RADIUS	LENGTH	TANGENT
A	13°16'40"	90.00'	22.86'
B	10°55'23"	90.00'	17.16'
C	26°51'46"	90.00'	42.20'
D	38°02'11"	135.00'	89.62'
E	20°47'44"	90.00'	32.67'
F	17°52'39"	90.00'	20.23'
G	07°25'28"	90.00'	11.66'
H	73°55'42"	22.50'	28.03'

BENCHMARK

RDBM TAG IN W'LY CURB 5FT SOUTH OF BCR 78FT NORTH 42FT WEST OF E. INT VALLEY BL & LEMON AV

ELEV. 519.40



RKA
Civil Engineers Inc.

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3/28/05
DATE

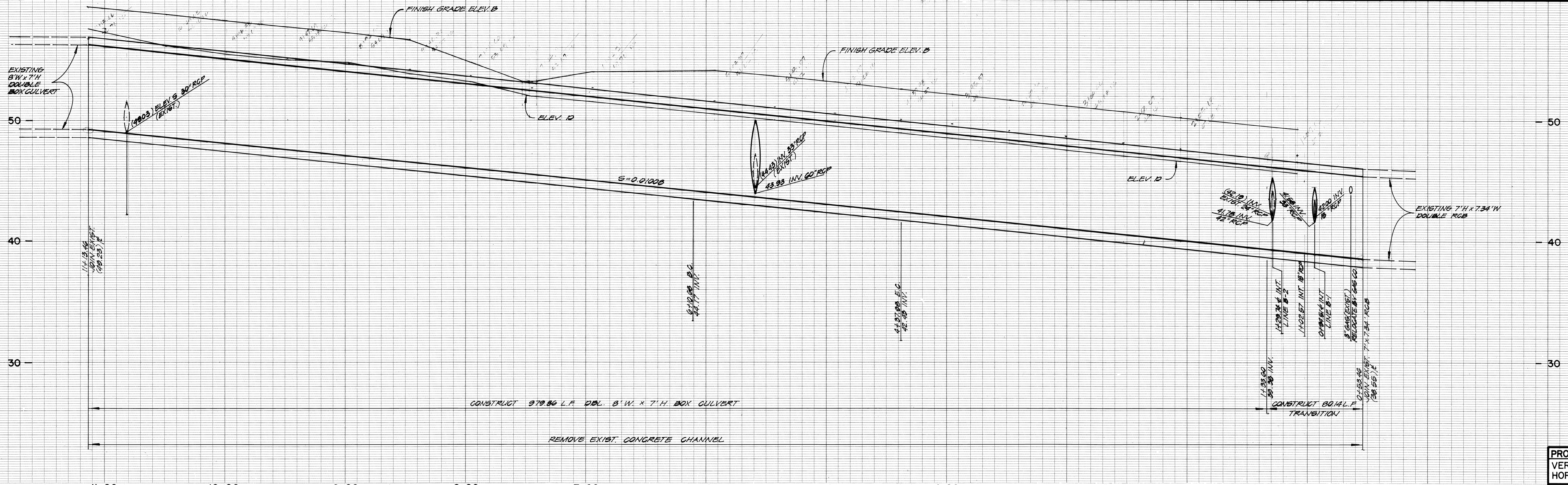
NO.	DATE	BY	DESCRIPTION	APP.	DATE

CITY OF WALNUT

LEMON CREEK STORM DRAIN
STATION 34+42.64 TO
STATION 41+75.81 (LEMON AVENUE)

REACH A SHT 4 of 7 SHTS

JN. 178260



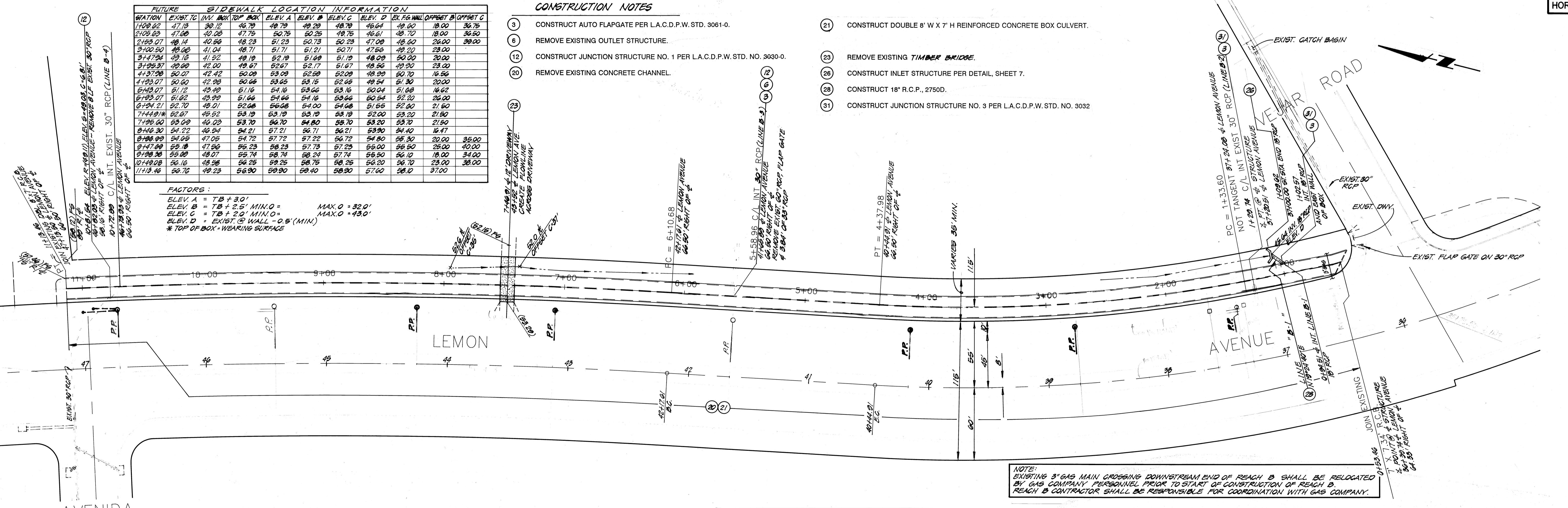
PROFILE SCALE
 VERT. : 1" = 4'
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 PLAN SCALE
 HORIZ. : 1" = 40'

FUTURE SIDEWALK LOCATION INFORMATION											
STATION	EXIST. TO INV.	BOX TOP	BOX	ELEV. A	ELEV. B	ELEV. C	ELEV. D	EX. WALL	OFFSET D	OFFSET C	
11+00.00	47.15	38.12	48.19	48.79	49.39	48.79	48.79	49.00	18.00	36.75	
2+00.00	47.00	40.00	47.75	50.25	50.25	49.75	49.61	48.70	18.00	36.90	
3+00.00	48.14	40.66	48.23	51.23	50.73	50.23	47.08	48.60	26.00	39.00	
4+00.50	49.00	41.04	48.71	51.71	51.21	50.71	47.60	49.20	23.00		
5+00.00	49.16	41.52	49.19	52.19	51.69	51.19	48.09	50.00	20.00		
6+00.00	49.60	42.00	49.67	52.67	52.17	51.67	48.56	49.00	23.00		
7+00.00	50.07	42.42	50.09	53.09	52.59	52.09	48.99	50.70	16.56		
8+00.00	50.60	42.90	50.66	53.66	53.16	52.66	49.54	51.30	20.00		
9+00.00	51.12	43.39	51.16	54.16	53.66	53.16	50.04	51.00	16.62		
10+00.00	51.62	43.99	51.66	54.66	54.16	53.66	50.54	51.20	26.00		
11+00.00	52.10	44.51	52.14	55.14	54.64	54.14	51.06	52.00	21.50		
12+00.00	52.67	45.02	52.71	55.71	55.21	54.71	52.00	53.20	21.80		
13+00.00	53.00	45.03	53.10	56.10	55.60	55.10	53.20	53.70	21.50		
14+00.00	54.22	46.04	54.21	57.21	56.71	56.21	53.90	54.40	16.47		
15+00.00	54.69	47.05	54.72	57.72	57.22	56.72	54.80	55.30	20.00	35.00	
16+00.00	55.18	47.96	55.23	58.23	57.73	57.23	55.00	56.50	25.00	40.00	
17+00.00	55.60	48.07	55.74	58.74	58.24	57.74	55.50	56.10	18.00	34.00	
18+00.00	56.16	48.56	56.25	59.25	58.75	58.25	56.20	56.70	23.00	38.00	
19+00.00	56.76	49.23	56.90	59.90	59.40	58.90	57.00	58.10	37.00		

FACTORS:
 ELEV. A = TB + 3.0'
 ELEV. B = TB + 2.5' MIN. 0 = MAX. 0 = 32.0'
 ELEV. C = TB + 2.0' MIN. 0 = MAX. 0 = 43.0'
 ELEV. D = EXIST. @ WALL - 0.5' (MIN.)
 * TOP OF BOX = WEARING SURFACE

CONSTRUCTION NOTES

- 9 CONSTRUCT AUTO FLAPGATE PER L.A.C.D.P.W. STD. 3061-0.
- 12 REMOVE EXISTING OUTLET STRUCTURE.
- 20 CONSTRUCT JUNCTION STRUCTURE NO. 1 PER L.A.C.D.P.W. STD. NO. 3030-0.
- 20 REMOVE EXISTING CONCRETE CHANNEL.
- 21 CONSTRUCT DOUBLE 8' W X 7' H REINFORCED CONCRETE BOX CULVERT.
- 23 REMOVE EXISTING TIMBER BRIDGE.
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- 31 CONSTRUCT JUNCTION STRUCTURE NO. 3 PER L.A.C.D.P.W. STD. NO. 3032



NOTE:
 EXISTING 3" GAS MAIN CROSSING DOWNSTREAM END OF REACH B SHALL BE RELOCATED BY GAS COMPANY. PERSONNEL PRIOR TO START OF CONSTRUCTION OF REACH B. REACH B CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH GAS COMPANY.

AVENIDA AMADIS

BENCHMARK
 RDBM TAG IN C.B. 5 FT. SOUTH OF B.C.R.
 78 FEET NORTH & 42 FEET WEST OF C
 INT. VALLEY BOULEVARD AND LEMON AVENUE.
 CG 3733 ELEV. 519.399



RKA
Civil Engineers Inc.
 398 S. Lemon Creek Drive, Suite E
 Walnut, Ca. 91789
 (909) 594-9702 (918) 331-8323 Fax (909) 594-2658
 DATE 3/28/05

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			REVISIONS		

CITY OF WALNUT
 LEMON CREEK STORM DRAIN
 VEJAR ROAD TO AVENIDA AMADIS
 REACH B SHT 5 of 7 SHTS
 172 E JUN. 178200

BOX SECTION NO.	/	
Design Cover	2'-0"	
Width	W	8'-0"
Height	H	7'-0"
Live Load	H-20	
Top Slab Thickness	T ₁	8.00"
Side Wall Thickness	T ₂	8.00"
Bottom Slab Thickness	T ₃	8.00"
B	Bar No. & Spacing	#4 @ 20"
Bars	Length	17'-9"
B ₁	Bar No. & Spacing	#9 @ 20"
Bars	Length	17'-9"
C	Bar No. & Spacing	#4 @ 14"
Bars	Horiz. Length	3'-8 1/2"
	Vert. Length	7'-11"
C ₁	Bar No. & Spacing	#4 @ 14"
Bars	Horiz. Length	1'-4 1/2"
	Vert. Length	2'-11"
C ₂	Bar No. & Spacing	#4 @ 14"
Bars	Horiz. Length	2'-11"
	Vert. Length	2'-1"
C ₃	Bar No. & Spacing	#4 @ 15"
Bars	Length	8'-1"
F	Bar No. & Spacing	#4 @ 19"
Bars	Length	17'-9"
F ₁	Bar No. & Spacing	#5 @ 19"
Bars	Length	17'-9"
G	Bar No. & Spacing	#4 @ 12"
Bars	Length	12'-8 1/2"
G ₁	Bar No. & Spacing	#6 @ 12"
Bars	Length	4'-6 1/2"
H	Bar No. & Spacing	#4 @ 11"
Bars	Length	6'-1"
H ₁	Bar No. & Spacing	#4 @ 11"
Bars	Length	3'-3"

NUMBER LONGITUDINAL REINFORCEMENT #4 BARS	
Top Slab (Includes Distrib.)	32
Ext. Walls	16
Int. Walls	8
Inv. Slab	25
TOTAL	81

QUANTITIES	
Concrete Cu.Yds./Lin.Ft.	1.45
Steel Lbs./Lin.Ft.	175.7

DESIGN DATA

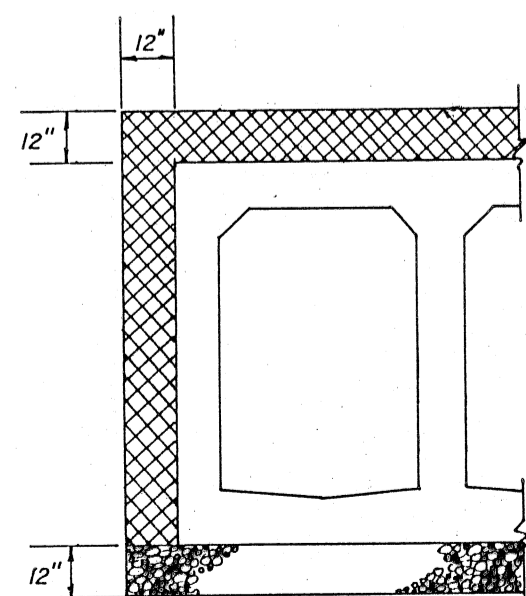
LIVE LOAD
H20-S16-44 unless otherwise noted

DEAD LOAD
Earth load per Marston's formula: $w = 110$ p.c.f.
 $K_u = K_v = 0.150$

Bd = Outside width of box plus 3 feet
Side earth 37 p.s.f. per foot of depth
Internal water pressure: 62.4 p.s.f. per foot of depth
Weight of concrete: 150 p.c.f.

ALLOWABLE STRESSES

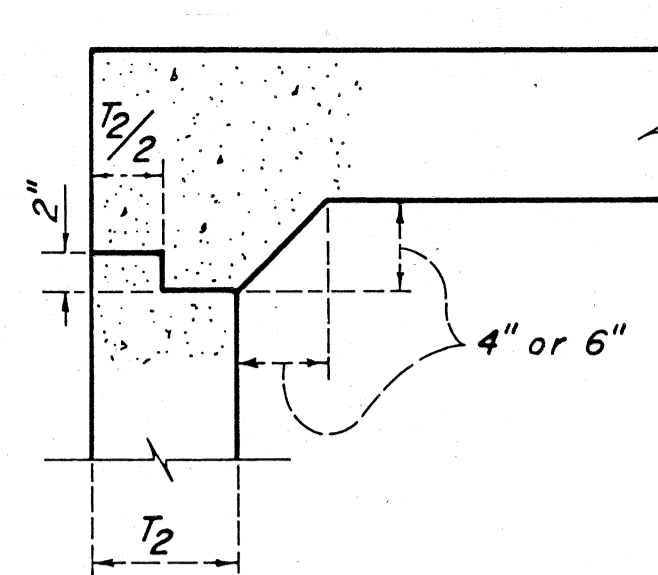
$f'_c = 4000$ p.s.i. at 28 days
 $f'_s = 1800$ p.s.i.
 $f_s = 24000$ p.s.i.
 $n = 8$
shear and bond stresses per A.C.I. 318-63



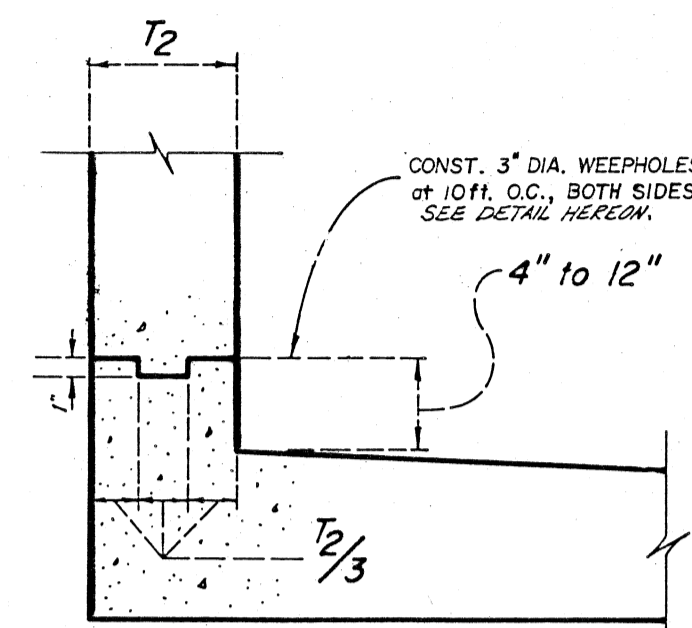
R.C.B. BACKFILL & BEDDING DETAIL
NOT TO SCALE

ADDITIONAL NOTES FOR BOX SECTIONS

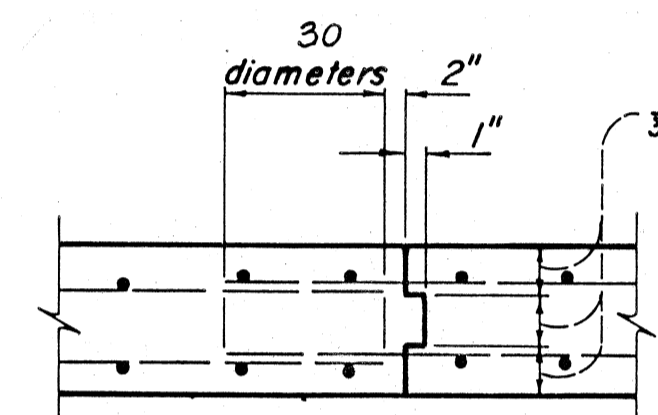
- LONGITUDINAL STEEL SHALL BE CONTINUOUS AND EXTEND THROUGH ALL CONSTRUCTION JOINTS.
- UNLESS OTHERWISE SHOWN ON THE DRAWINGS, TRANSVERSE JOINT KEYWAYS (IN BOTH SLABS AND WALLS), AS DETAILED FOR LONGITUDINAL KEYWAYS AT THE BASE OF THE WALLS, SHALL BE PLACED AT THE END OF EACH POUR, BUT THE SPACING THEREOF SHALL NOT EXCEED 50 FEET OR BE LESS THAN 10 FEET. ALL CONSTRUCTION JOINTS IN BOTTOM SLAB, TOP SLAB, AND SIDE WALLS SHALL BE IN THE SAME PLANE. NO STAGGERING OF JOINTS WILL BE PERMITTED.
- UNLESS OTHERWISE SHOWN ON THE DETAILS, IN CURVED SECTIONS TRANSVERSE BARS SHALL BE PLACED RADIALLY. STRAIGHT TRANSVERSE BARS IN TOP AND BOTTOM SLABS SHALL BE SPACED AS SHOWN ON THE TYPICAL SECTIONS: SPACING SHALL BE AT THE CENTERLINE OF THE BARREL ON THE OUTSIDE OF THE CURVE FOR DOUBLE BARREL BOXES. STRAIGHT BARS AND L-BARS IN WALLS SHALL BE SPACED AS SHOWN ON THE TYPICAL SECTIONS, WITH THE SPACING MEASURED BETWEEN THE VERTICAL LEGS OF BARS.
- AT THE BEGINNING AND ENDING OF ALL POURS, A CURTAIN OF REINFORCEMENT COMPOSED OF B, C, C₂, D, F, G, AND H BARS SHALL BE PLACED THREE INCHES FROM THE TRANSVERSE CONSTRUCTION JOINT.
- THE VERTICAL WALL STEEL IN INTERIOR WALLS AND IN THE INTERIOR FACE OF EXTERIOR WALLS MAY BE SPLICED AT THE CONSTRUCTION JOINT AT THE BASE OF THE WALL. THE SPLICES SHALL BE 30 BAR DIAMETERS IN LENGTH.
- IN ALL SECTIONS LAP C AND C₂ BARS. THE VERTICAL LENGTH OF C AND C₂ BARS HAS BEEN CALCULATED FOR A FOUR-INCH STARTER WALL. IF THE HEIGHT OF THE STARTER WALL IS VARIED, THE VERTICAL LENGTH OF THE C AND C₂ BARS SHALL BE VARIED CORRESPONDINGLY SO AS TO MAINTAIN A 30 DIAMETER LAP BETWEEN THE TWO BARS. THE LAPS SHALL BE BASED ON THE SMALLER BAR.
- CONCRETE QUANTITIES ARE BASED ON A SIX-BY-SIX INCH FILLET.
- THE CONTRACTOR SHALL HAVE THE OPTION OF PLACING THE 3 INCH DIAMETER WEEPHOLES, INDICATED ON THE "BASE OF WALL" DETAIL, ABOVE OR BELOW THE CONSTRUCTION JOINT, IF THE BOTTOM OF THE CONSTRUCTION JOINT IS AT LEAST 6 INCHES ABOVE THE BOTTOM OF THE BOX.
- THE STRUCTURE BACKFILL AND BEDDING SHALL CONFORM TO THE R.C.B. BACKFILL AND BEDDING DETAIL HEREON AND SECTIONS 200 AND 300 - 7.4 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.



TOP OF WALL

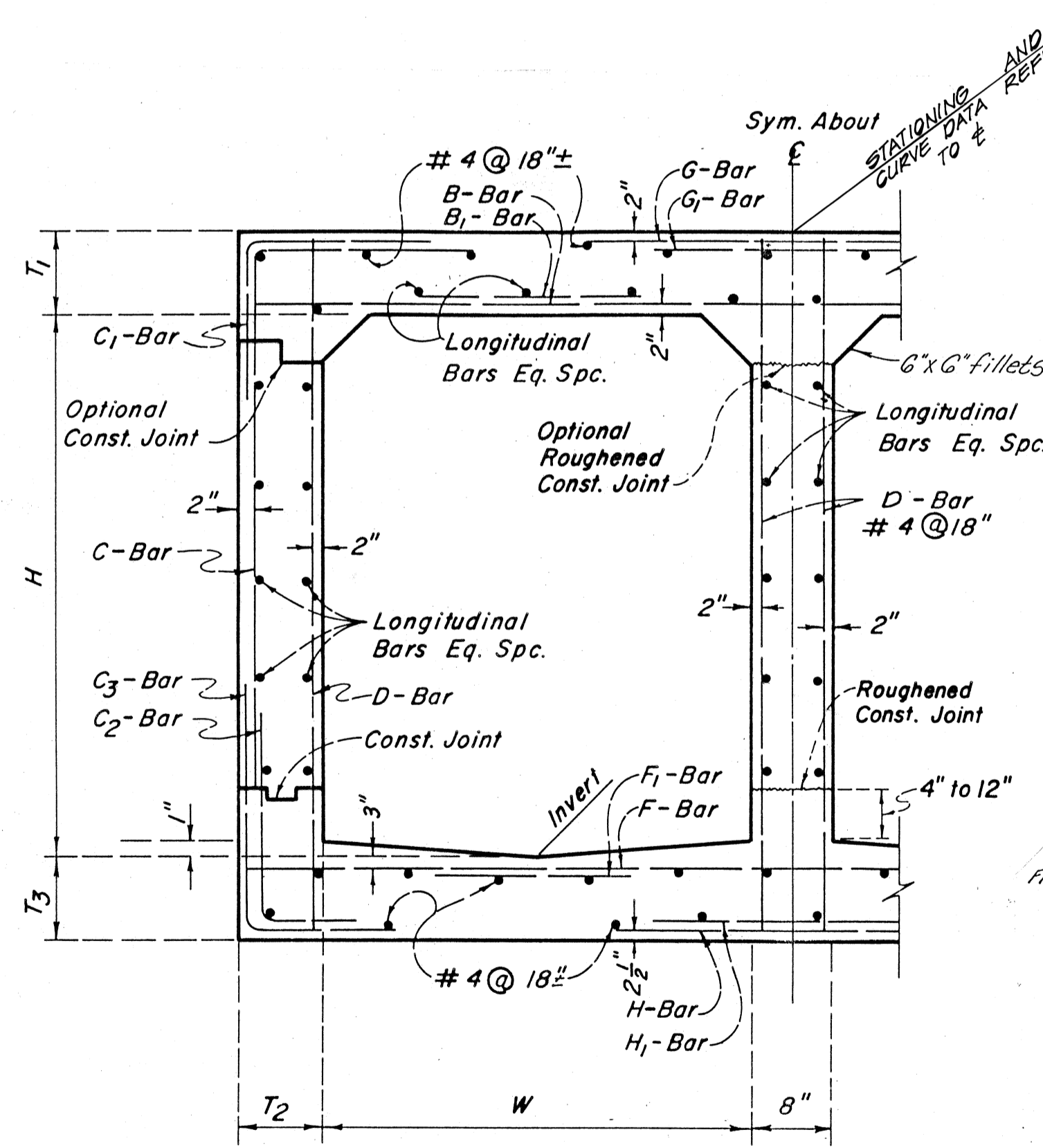


BASE OF WALL

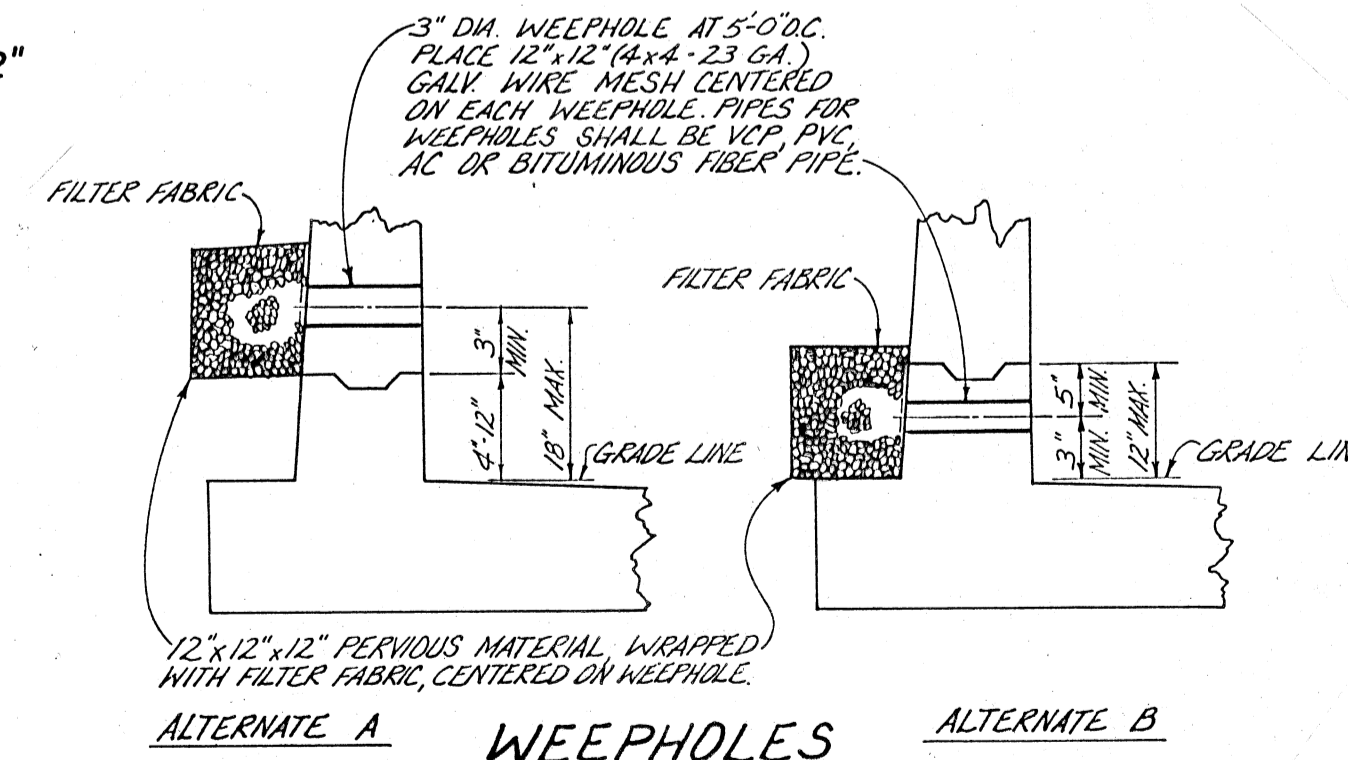


TRANSVERSE JOINT

CONSTRUCTION JOINT DETAILS NOT TO SCALE



TYPICAL R.C. BOX SECTION
NOT TO SCALE



ALTERNATE A WEEPHOLES

ALTERNATE B

SOILS NOTES

Ground water will be encountered during construction which provides associated construction problems. Depth of mud or unsuitable soils in the existing river bottom is estimated at 2 feet. The underlying soils will be in a soft condition and not suitable for working equipment without a gravel cover on the order of two feet. Actual depth of gravel required to bridge the soft soils will depend on the weight of equipment used over the gravel.

Temporary Cuts: Shoring required by the Contractor shall be designed by a structural engineer using the shear strengths and soil parameters provided in a report entitled "Geotechnical Investigation-Proposed Storm Drain-Lemon Avenue-Walnut, CA" dated April 6, 1994. Said report was prepared by Triad Geotechnical Consultants, Inc. and is on file at the office of the City Engineer. Braced shoring can be designed in accordance with Figure 1, below, where P and H are pounds and feet, respectively.

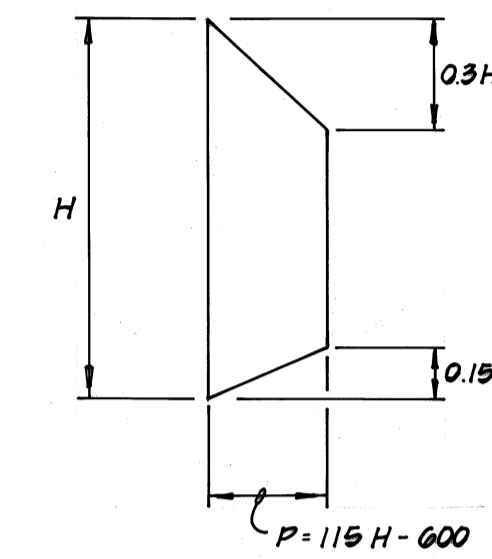
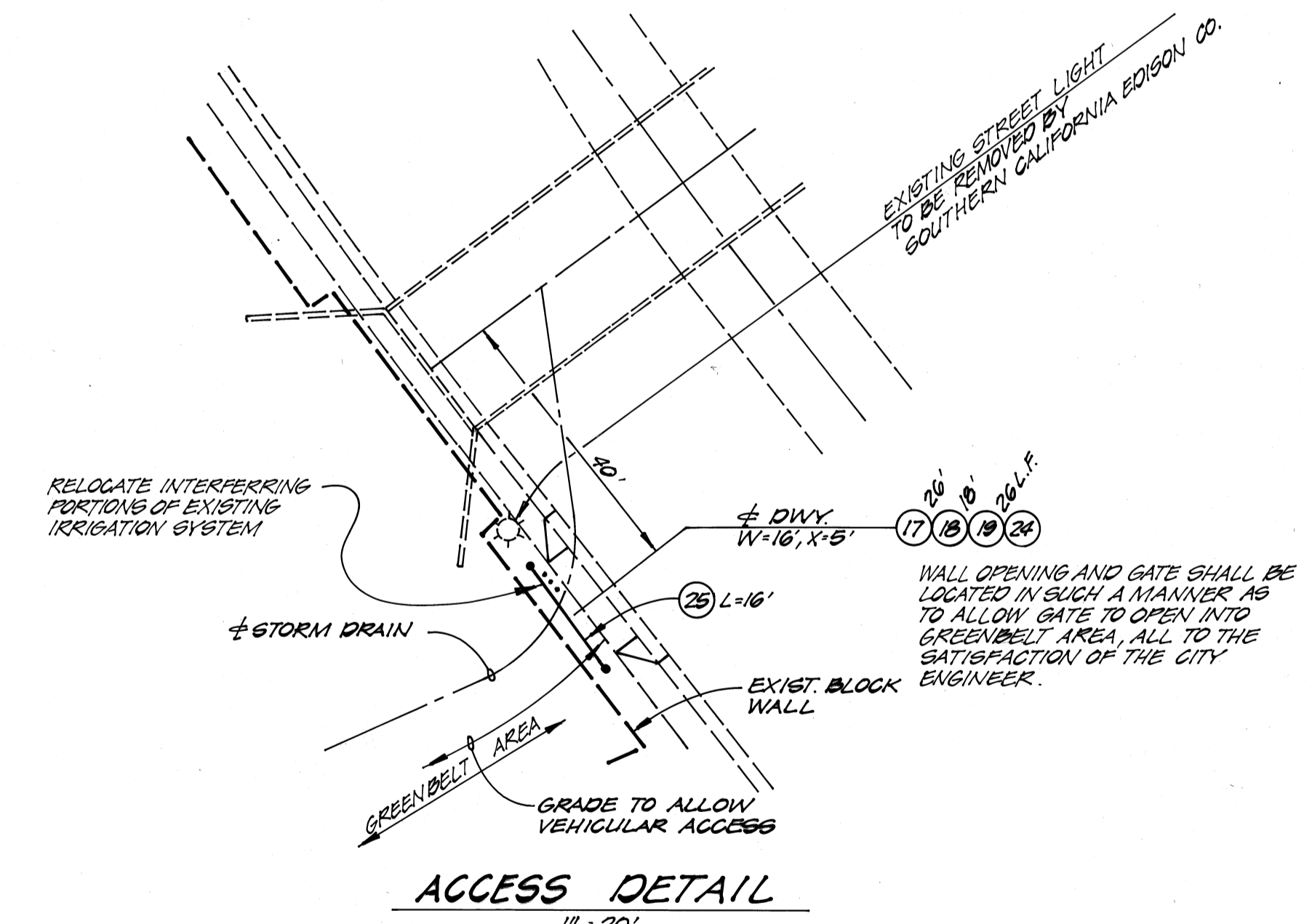


Figure 1.



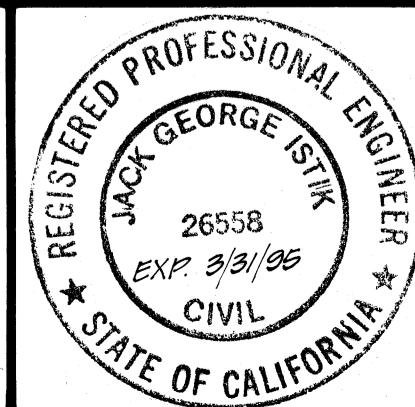
ACCESS DETAIL
1" = 20'

BENCHMARK

RDBM TAG IN C.B. 5 FT. SOUTH OF B.C.R.
78 FEET NORTH & 42 FEET WEST OF CL
INT. VALLEY BOULEVARD AND LEMON
AVENUE.

CG 3733

ELEV. 519.399



RKA
Civil Engineers Inc.
398 S. Lemon Creek Drive, Suite E
Walnut Ca. 91789
(909) 594-9702 (818) 331-8323 Fax (909) 594-2658

NO.	DATE	BY	DESCRIPTION	APP'D	DATE

CITY OF WALNUT
LEMON CREEK STORM DRAIN
VALLEY BOULEVARD TO LA PUENTE ROAD
DETAIL SHEET

REACH B SHT 6 of 7 SHTS

