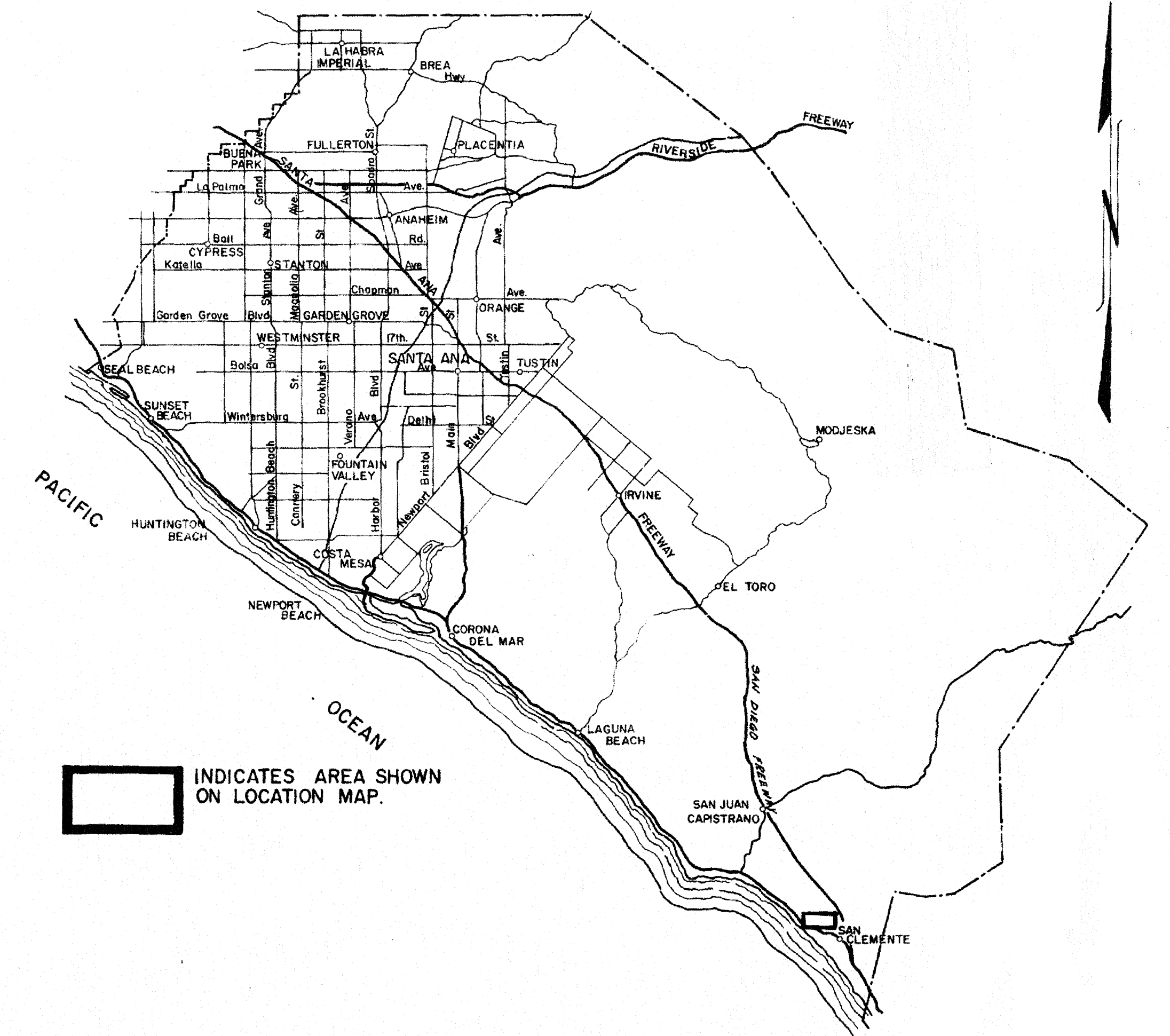
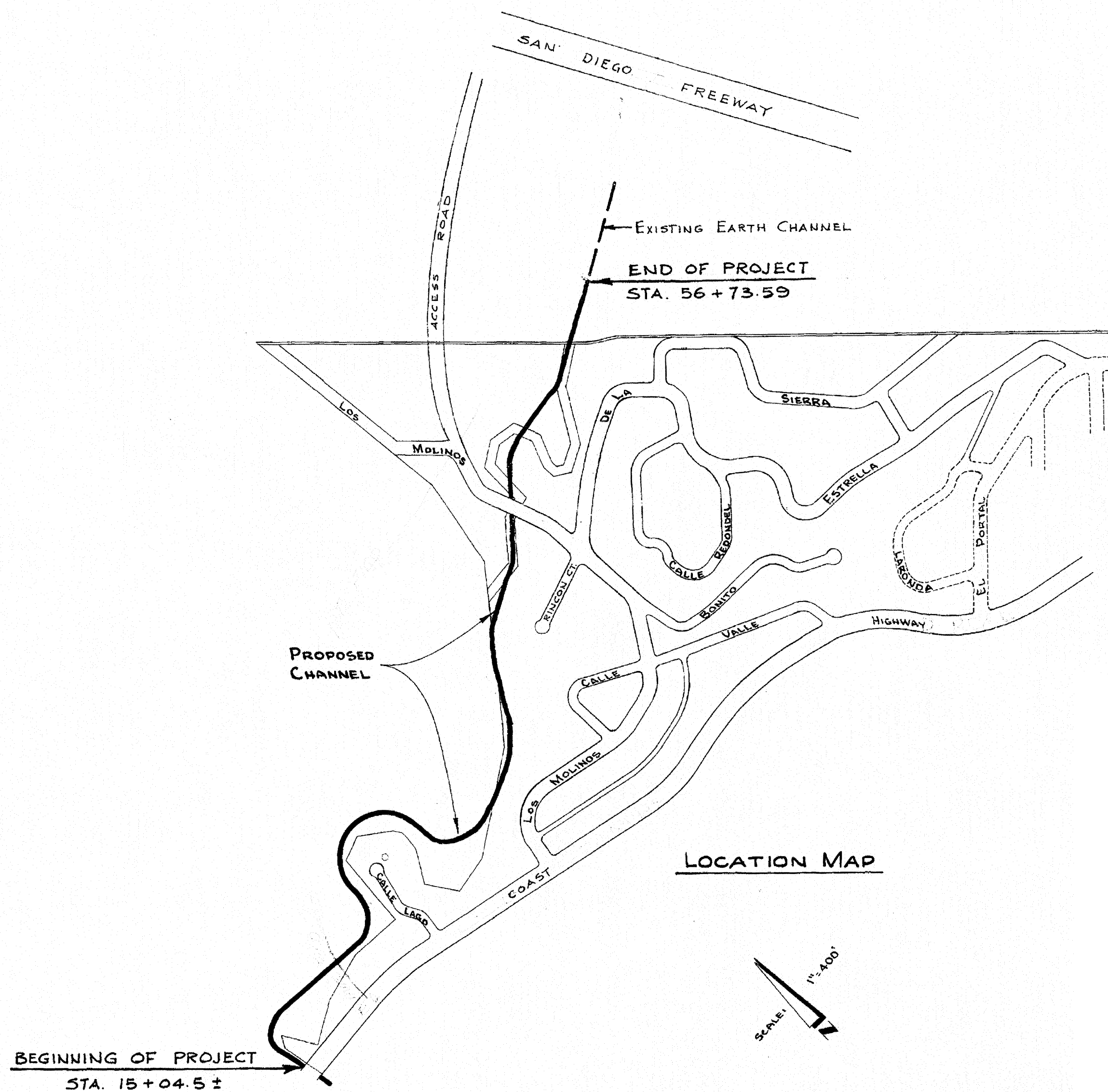




ORANGE COUNTY, CALIFORNIA

VICINITY MAP

1 inch = 4 miles

PLANS FOR
THE CONSTRUCTION OF
SEGUNDA DESHECHA CAÑADA CHANNEL
BOND PROJECT M-2
FROM COAST HIGHWAY TO SAN DIEGO FREEWAY

APPROVED: H. J. Osborne
FLOOD CONTROL ENGINEER.

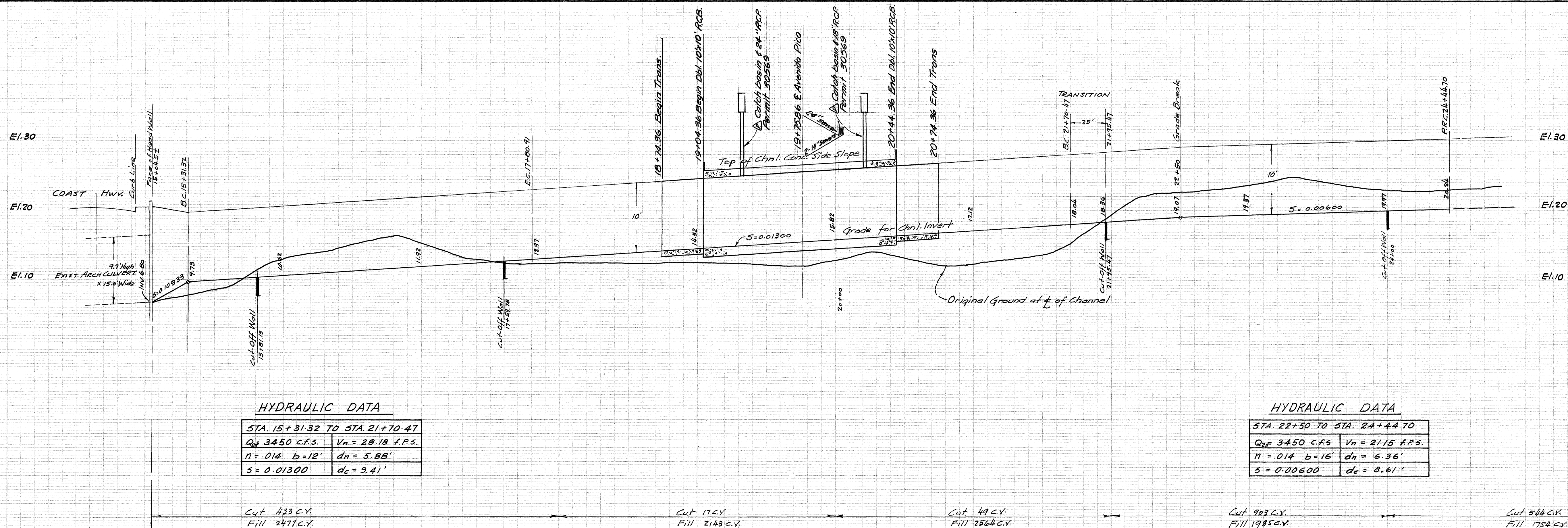
APPROVED: Edgar H. Ayer
CITY ENGINEER OF SAN CLEMENTE

APPROVED: _____
Submitted By
JENNINGS-HALDERMAN INC.
By [Signature] RCE #8793

ORANGE COUNTY FLOOD CONTROL DISTRICT
SANTA ANA CALIFORNIA

1962

DWG. NO. M02-701-1-A

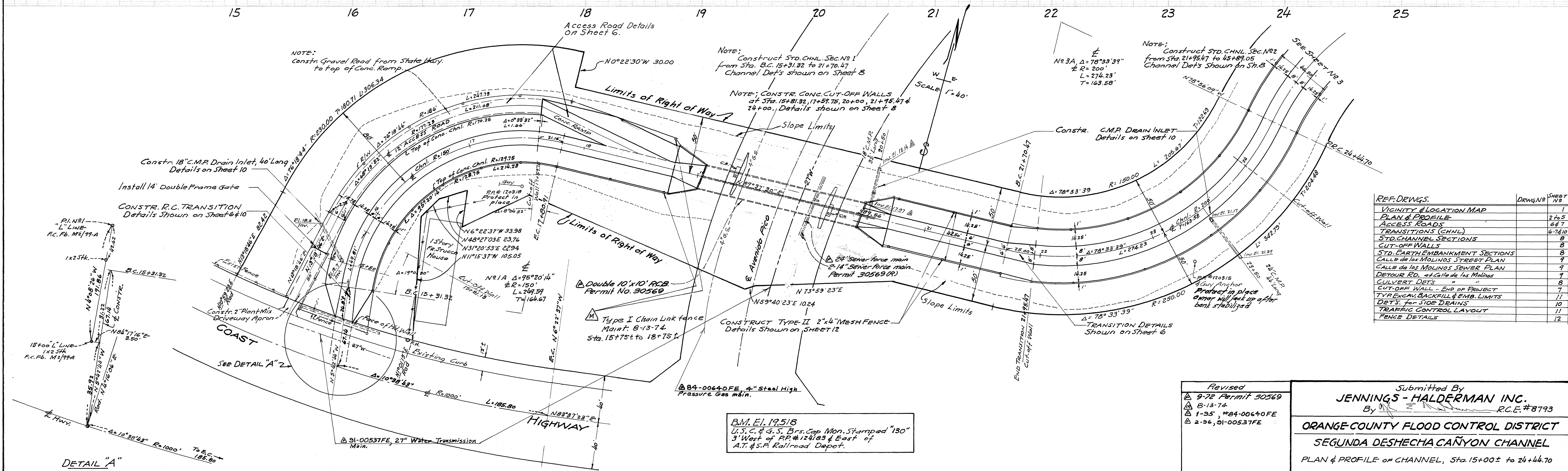


HYDRAULIC DATA

STA. 15+31.32 TO STA. 21+70.47	
$Q_p = 3450$ C.F.S.	$V_n = 28.18$ F.P.S.
$n = 0.14$	$b = 12'$
$d_n = 5.88'$	
$S = 0.01300$	$d_c = 9.41'$

HYDRAULIC DATA

STA. 22+50 TO STA. 24+44.70	
$Q_p = 3450$ C.F.S.	$V_n = 21.15$ F.P.S.
$n = 0.14$	$b = 16'$
$d_n = 6.36'$	
$S = 0.00600$	$d_c = 8.61'$



REF. DRWS.

Drawg. No.	Sheet No.
VICINITY & LOCATION MAP	1
PLAN & PROFILE	2 to 5
ACCESS ROADS	6 & 7
TRANSITIONS (CHNL.)	6-7 & 10
STD. CHANNEL SECTIONS	8
CUT-OFF WALLS	8
STD. EARTH BANKMENT SECTIONS	8
CALLE DE LOS MOLINOS STREET PLAN	9
DETOUR RD. + Calle de los Molinos	9
CULVERT DETS.	8
CUT-OFF WALL - END OF PROJECT	7
TYPE EXCAV. BACKFILL & EMB. LIMITS	11
DETS. for SIDE DRAIN	10
TRAFFIC CONTROL LAYOUT	11
FENCE DETAILS	12

Revised
 9-78 Permit 30569
 8-13-74
 1-35, #84-00640FE
 2-96, 91-00537FE

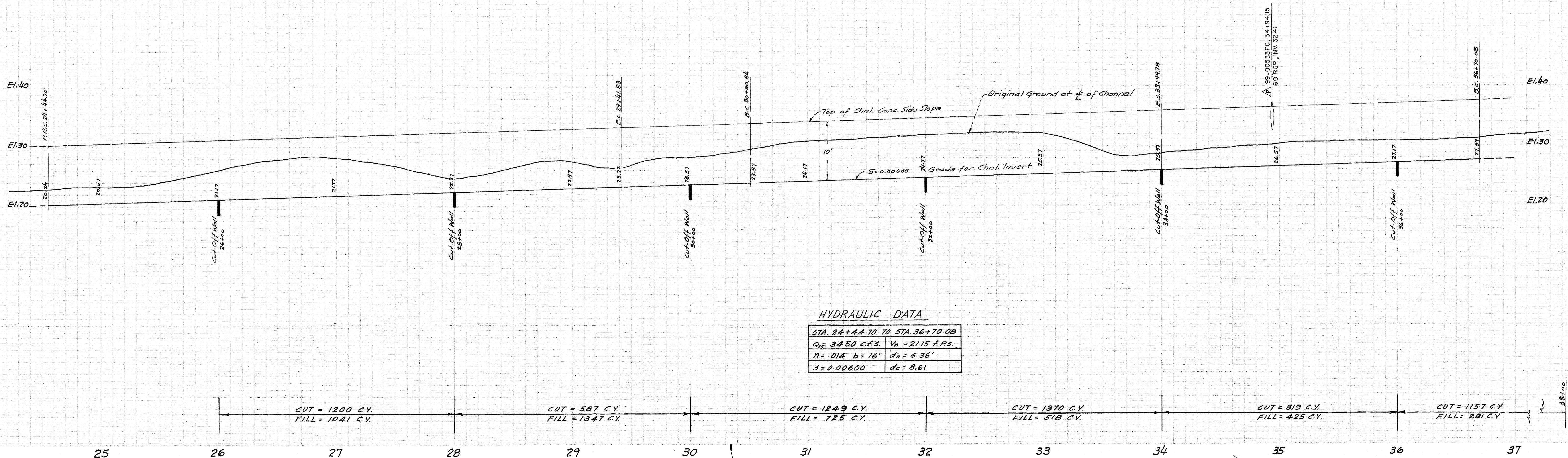
Submitted By
JENNINGS - HALDERMAN INC.
 By *[Signature]* R.C.E. #8793

ORANGE COUNTY FLOOD CONTROL DISTRICT
SEGUNDA DESHECHA CAÑON CHANNEL
 PLAN & PROFILE OF CHANNEL, Sta. 15+00± to 24+44.70

Approved *[Signature]* FLOOD CONTROL ENGINEER DATE *[Signature]*

DWG. BY: *[Signature]* CKD. BY: J.D.P. SCALE: AS SHOWN DWG. NO. 102-701-1-A

B.M. El. 19.518
 U.S.C. & G.S. Brs. Cap Mon. Stamped "130"
 3' West of P.P. #124183 & East of
 A.T. & S.F. Railroad Depot.



HYDRAULIC DATA

STA. 24+44.70 TO STA. 36+70.08			
$Q_p = 3450$ C.F.S.	$V_h = 21.15$ F.P.S.		
$n = 0.014$	$b = 16'$	$d_n = 6.36'$	
$s = 0.00600$	$d_c = 8.61$		

CUT = 1200 C.Y.
FILL = 1041 C.Y.

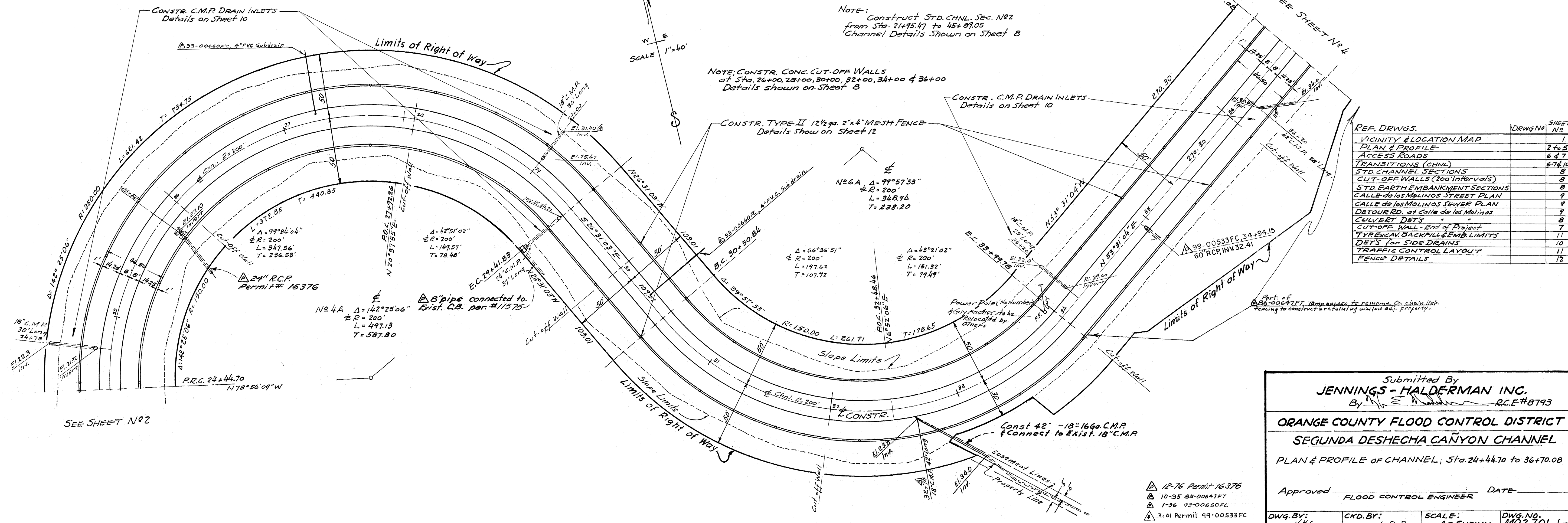
CUT = 587 C.Y.
FILL = 1347 C.Y.

CUT = 1249 C.Y.
FILL = 725 C.Y.

CUT = 1370 C.Y.
FILL = 518 C.Y.

CUT = 819 C.Y.
FILL = 425 C.Y.

CUT = 1157 C.Y.
FILL = 281 C.Y.



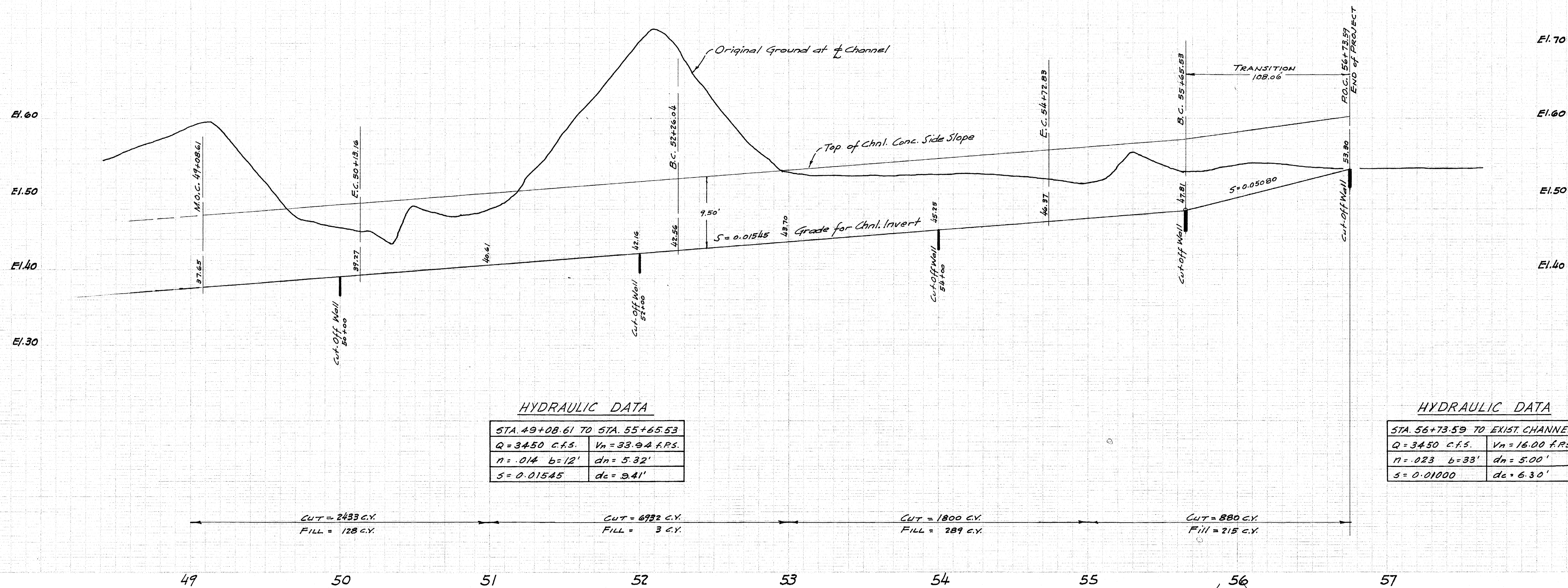
REF. DRWS.	DWG. NO.	SHEET NO.
VICINITY & LOCATION MAP		1
PLAN & PROFILE		2 to 5
ACCESS ROADS		6 & 7
TRANSITIONS (CHNL)		8
STD. CHANNEL SECTIONS		9
CUT-OFF WALLS (200' INTERVALS)		10
STD. EARTH EMBANKMENT SECTIONS		11
CALLE DE LOS MOLINOS STREET PLAN		12
DETOUR RD. at Calle de los Molinos		13
CULVERT DETS.		14
CUT-OFF WALL - End of Project		15
TYPICAL BACKFILL EMB. LIMITS		16
DETS. for SIDE DRAINS		17
TRAFFIC CONTROL LAYOUT		18
FENCE DETAILS		19

Submitted By
JENNINGS - HALDERMAN INC.
By *[Signature]* R.C.E.#8793

ORANGE COUNTY FLOOD CONTROL DISTRICT
SEGUNDA DESHECHA CANYON CHANNEL
PLAN & PROFILE OF CHANNEL, Sta. 24+44.70 to 36+70.08

Approved _____ DATE _____
FLOOD CONTROL ENGINEER

DWG. BY: *[Signature]* CKD. BY: J. D. P. SCALE: AS SHOWN DWG. NO. MDZ-101-1-A



HYDRAULIC DATA

STA. 49+08.61 TO STA. 55+65.53			
Q = 3450 C.F.S.	V _m = 33.94 F.P.S.		
n = 0.14	b = 12'	dn = 5.32'	
S = 0.01545	dc = 9.41'		

HYDRAULIC DATA

STA. 56+73.59 TO EXIST. CHANNEL			
Q = 3450 C.F.S.	V _m = 16.00 F.P.S.		
n = 0.23	b = 33'	dn = 5.00'	
S = 0.01000	dc = 6.30'		

CUT = 2433 C.Y.
FILL = 128 C.Y.

CUT = 6932 C.Y.
FILL = 3 C.Y.

CUT = 1800 C.Y.
FILL = 289 C.Y.

CUT = 880 C.Y.
FILL = 215 C.Y.

NOTE: Construct STD. CHNL. Sec. No. 3
from Sta. B.C. 48+04.6 to B.C. 55+65.53.
Channel Details Shown on Sheet 8

CONSTR. C.M.P. DRAIN INLETS
Details on Sheet 10

NOTE: CONSTR. CONC. CUT-OFF WALLS
at Sta. 50+00, 52+00, 54+00 & 55+65.53
Details shown on Sheet 8.

CONSTR. CONC. CHNL. TRANSITION
per Details shown on Sheet 7

CONSTR. R.C. CUT-OFF WALL
per Details shown on Sheet 7

NOTE: For Property Ties
See Detail below.

REF. DRWGS.	DRWG. NO.	SHEET NO.
VICINITY & LOCATION MAP		1
PLAN & PROFILE		2 to 5
ACCESS ROADS		6 & 7
TRANSITIONS (CHNL)		6-7 & 10
STD. CHANNEL SECTIONS		8
CUT-OFF WALLS (188 Intervals)		8
STD. EARTH EMBANKMENT SECTIONS		9
CALLE de las MOLINOS STREET PLAN		9
DETOUR RD. at Calle de las Molinos		9
CULVERT DET'S		8
CUT-OFF WALL - End of Project		7
TYPE EXCAV. BACKFILL EMB. LIMITS		11
DET'S for SIDE DRAINS		10
TRAFFIC CONTROL LAYOUT		11
FENCE DETAILS		12

Nº12 A Δ=39°56'04"
R=300'
L=209.10
T=109.00

B.M. El. 53.450
2x2 STAKE
P.I. No. 13 "L" LINE

DETAIL, SHOWING PROPERTY TIE
AT END OF PROJECT.

Submitted By
JENNINGS - HALDERMAN INC.
B. J. Jennings R.C.E. 8793

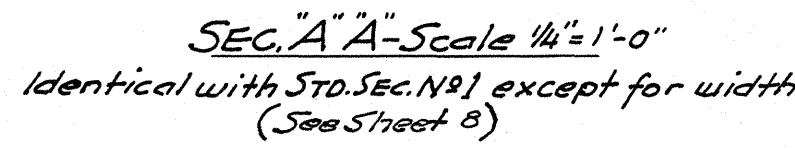
ORANGE COUNTY FLOOD CONTROL DISTRICT

SEGUNDA DESHECHA CAÑON CHANNEL

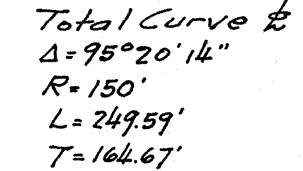
PLAN and PROFILE of CHANNEL Sta. 49+08.61 to 56+72.55

Approved _____ DATE _____
FLOOD CONTROL ENGINEER

DWG. BY: V.H.C. CKD. BY: J.D.R. SCALE: AS SHOWN DWG. NO. 102-701-1-A



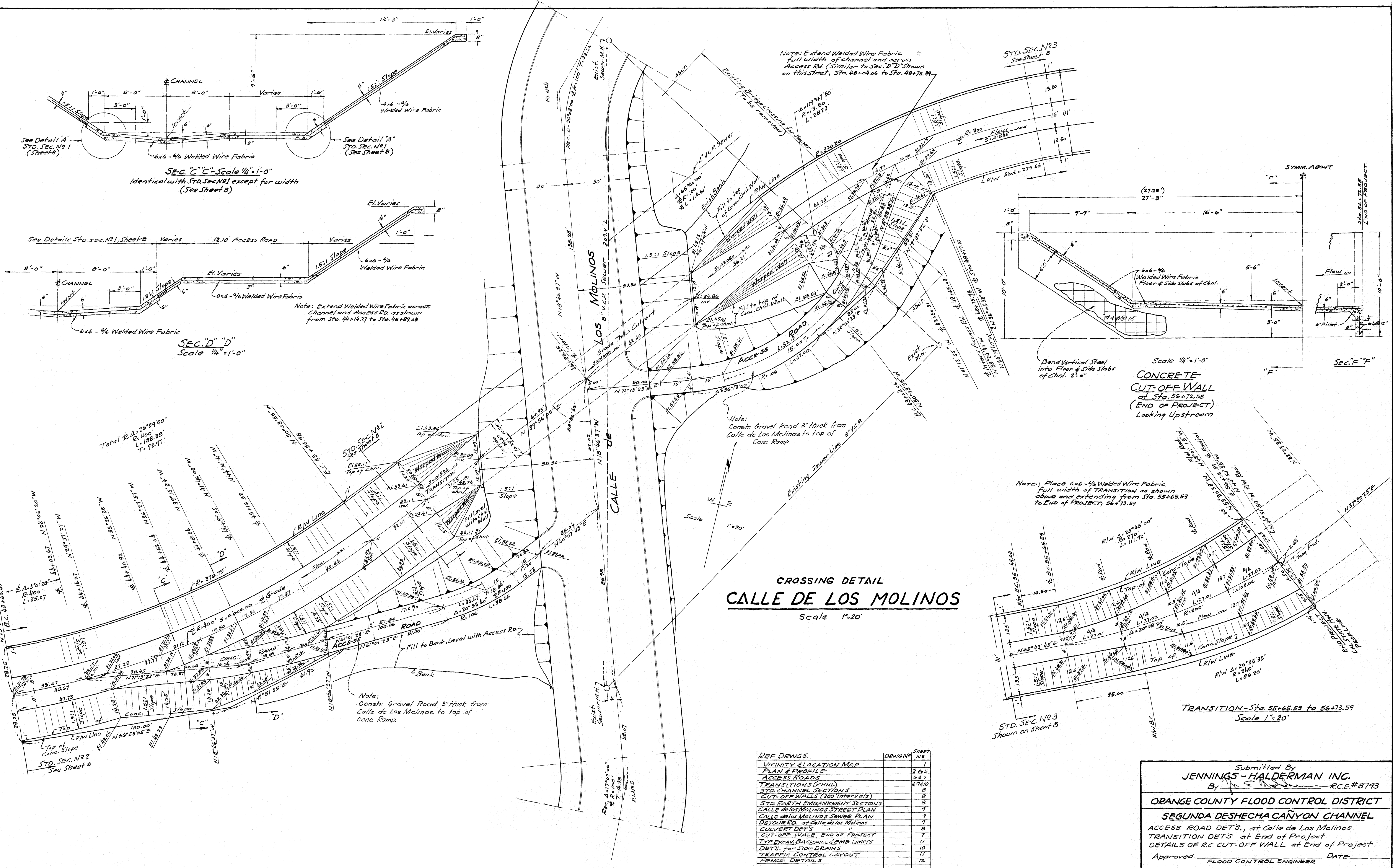
SEC. "B" "B"
Scale: $1/4" = 1'-0"$



Submitted By
JENNINGS - HALDERMAN INC.
By [Signature] R.C.E.#8793

ORANGE COUNTY FLOOD CONTROL DISTRICT
SEGUNDA DESHEGUA CAÑYON CHANNEL
DETAILS OF ACCESS RD. & CHNL. at Coast Highway
DETAILS OF CHNL. TRANSITION at Sta. 21+70.47

Approved _____ DATE _____
FLOOD CONTROL ENGINEER



CROSSING DETAIL
CALLE DE LOS MOLINOS
Scale 1"=20'

REF. DRWS.	DRWG#	SHEET
VICINITY & LOCATION MAP		1
PLAN & PROFILE		2 & 5
ACCESS ROADS		6 & 7
TRANSITIONS (CHNL)		6 & 10
STD. CHANNEL SECTIONS		8
CUT-OFF WALLS (200' Intervals)		8
STD. EARTH EMBANKMENT SECTIONS		8
CALLE DE LOS MOLINOS STREET PLAN		9
CALLE DE LOS MOLINOS SEWER PLAN		9
DETOUR RD. OF CALLE DE LOS MOLINOS		9
CULVERT DET'S		8
CUT-OFF WALL, END OF PROJECT		7
TYREX/AV. BACKFILL EMB. LIMITS		11
DET'S. FOR SIDE DRAINS		10
TRAFFIC CONTROL LAYOUT		11
FENCE DETAILS		12

Submitted By
JENNINGS-HALDERMAN INC.
By *[Signature]* R.C.E.#8793

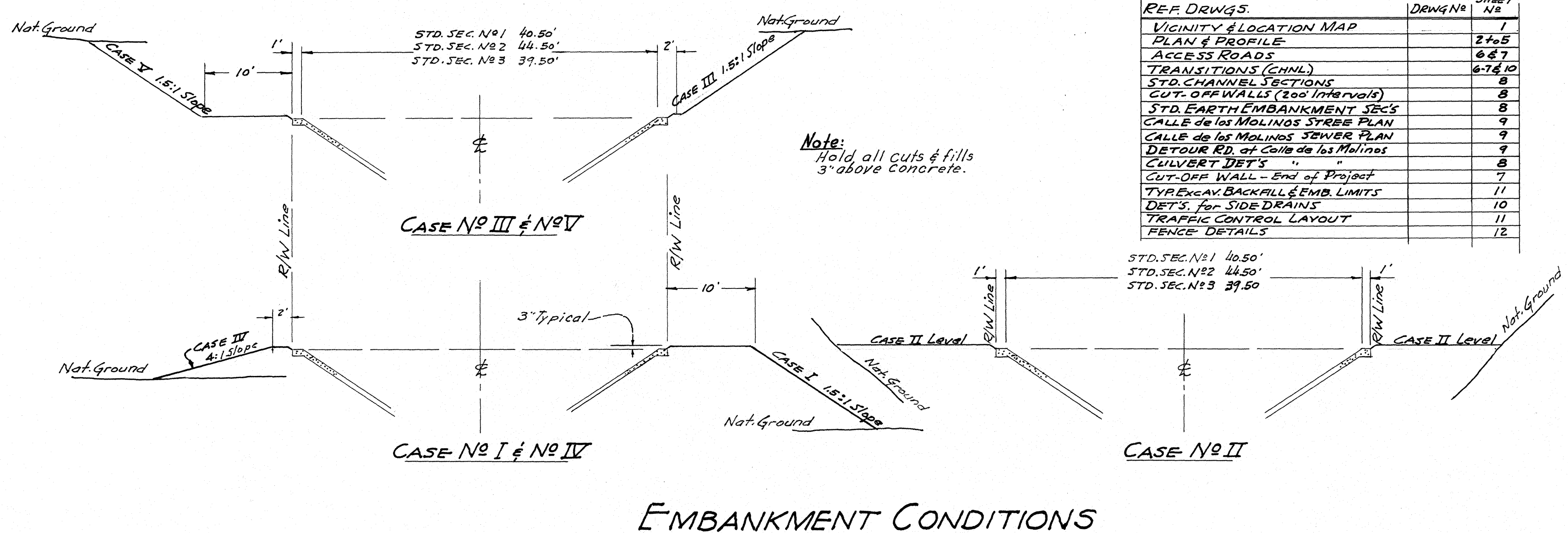
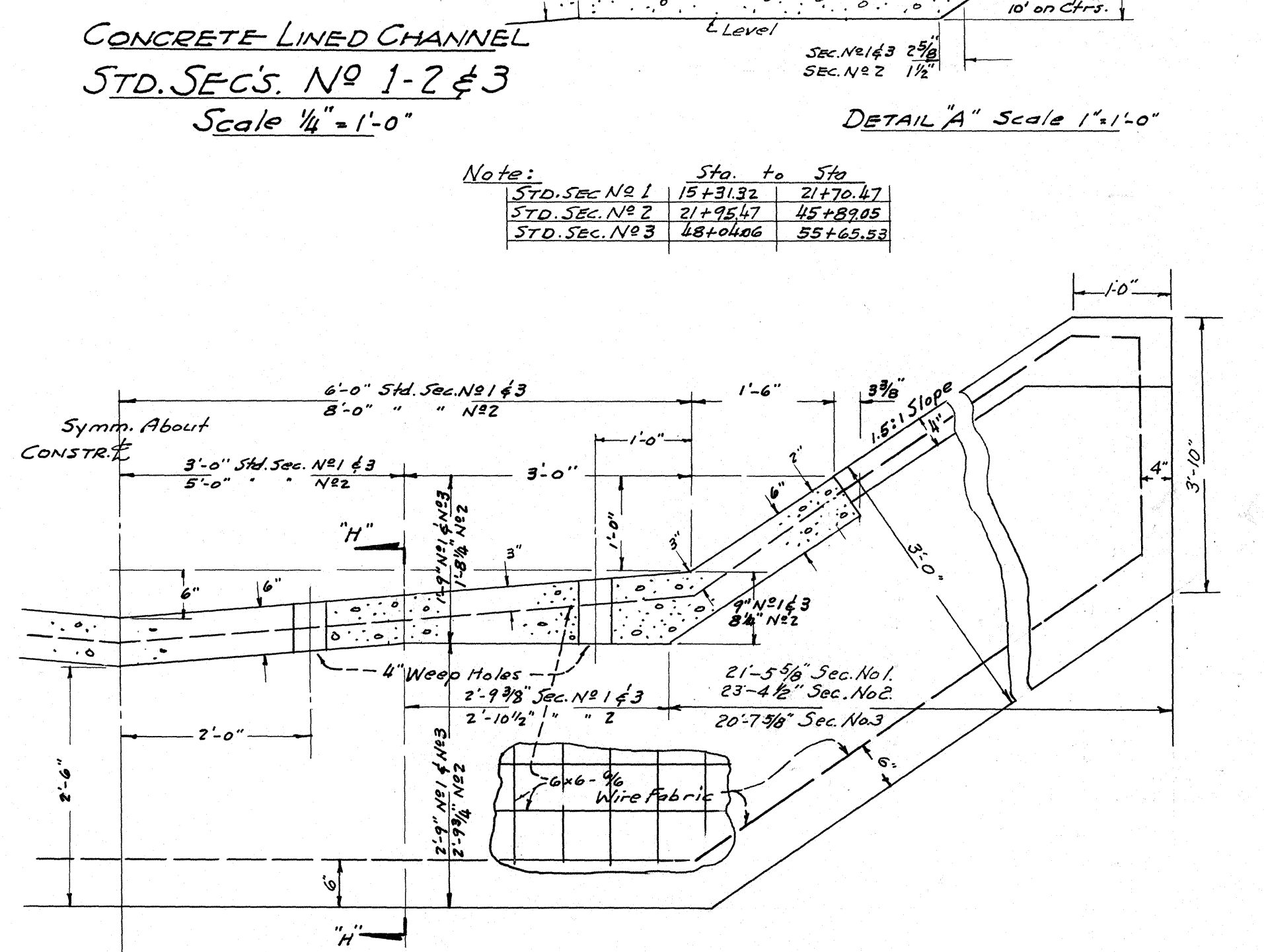
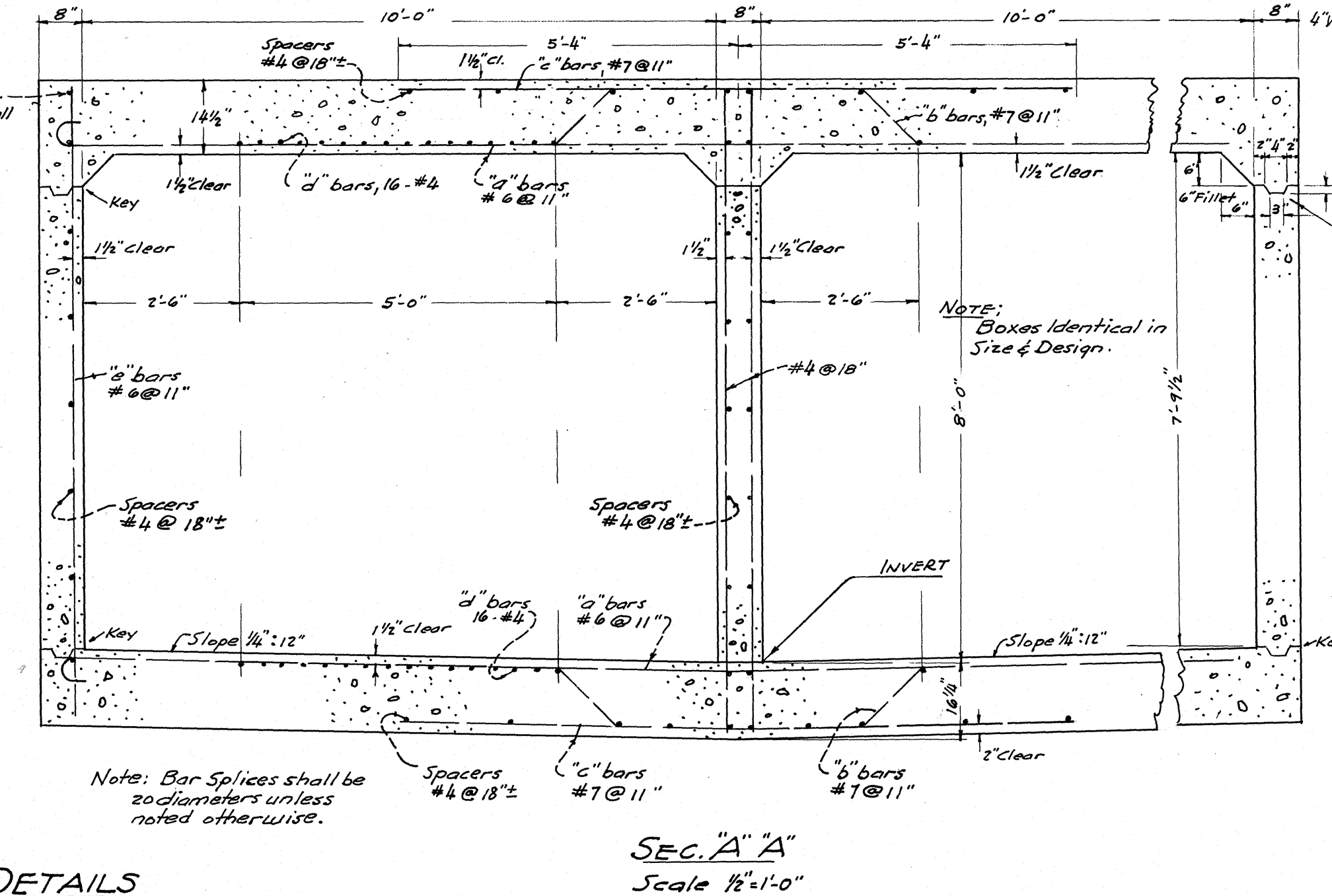
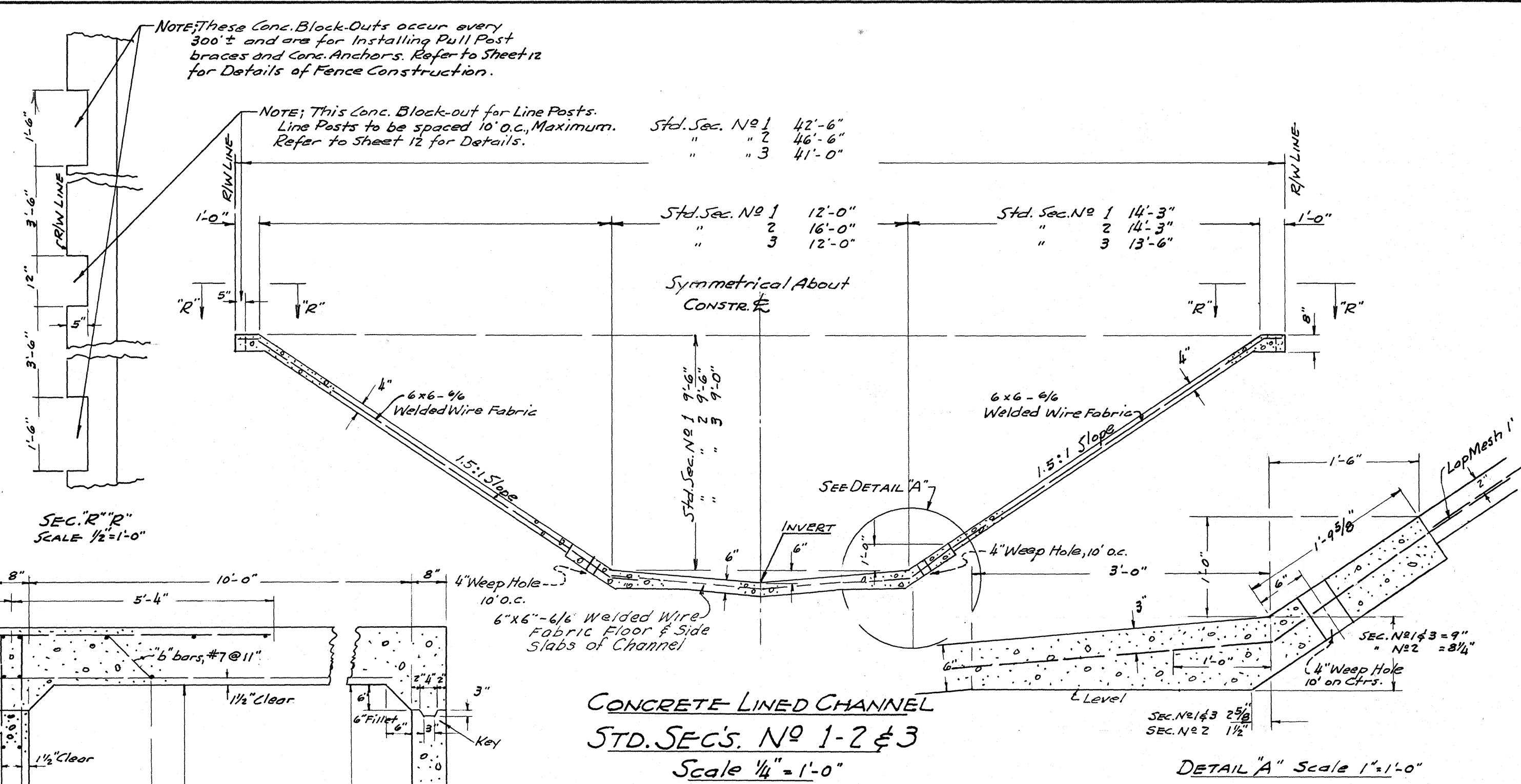
ORANGE COUNTY FLOOD CONTROL DISTRICT

SEGUNDA DESHECHA CAÑON CHANNEL

ACCESS ROAD DET'S., at Calle de Los Molinos.
TRANSITION DET'S. at End of Project.
DETAILS OF R.C. CUT-OFF WALL at End of Project.

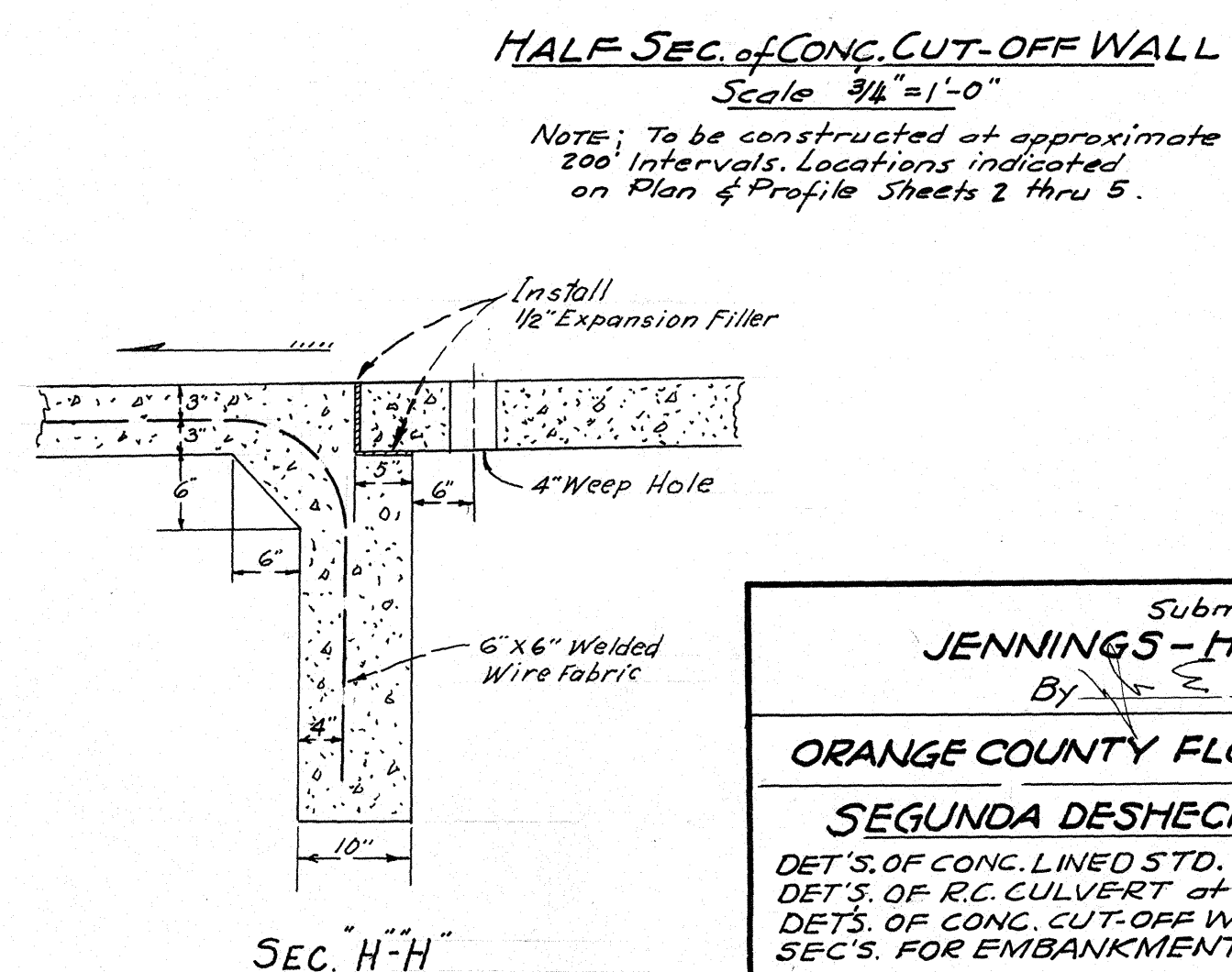
Approved _____ DATE _____
FLOOD CONTROL ENGINEER

DWG. BY: V.H.G. CKD. BY: J.D.P. SCALE: AS SHOWN DWG. NO. MOE-701-1-A



REF. DRWG'S.	DRWG. NO.	SHEET N/B.
VICINITY & LOCATION MAP		1
PLAN & PROFILE		2 of 5
ACCESS ROADS		3 of 5
TRANSITIONS (CHNL.)		6 of 10
STD. CHANNEL SECTIONS		8
CUT. OFFWALLS (200' Intervals)		8
STD. EARTH EMBANKMENT SECS		8
CALLE de los MOLINOS STREET PLAN		9
CALLE de los MOLINOS JEWEL PLAN		9
DETOUR RD. at Calle de los Molinos		9
CULVERT DETAILS		10
CUT-OFF WALL - End of Project		7
TYPE & EXCAV. BACKFILL & EMB. LIMITS		11
DETS. for SIDE DRAINS		10
TRAFFIC CONTROL LAYOUT		11
FENCE - DETAILS		12

<u>EMBANKMENT CONDITIONS</u>		<u>RIGHT SIDE</u>	
<u>LEFT SIDE</u>	<u>CASE NO.</u>	<u>RIGHT SIDE</u>	<u>CASE NO.</u>
<u>STA. to STA.</u>		<u>STA. to STA.</u>	
15+50 - 17+00	IV	15+32 - 21+75	II
17+00 - 22+50	I	21+75 - 26+10	I
22+50 - 23+80	V	26+10 - 27+50	III
2380 - 29+90	I	27+50 - 30+14	I
29+90 - 43+75	IV	30+14 - 32+40	IV
43+75 - 46+20	III	32+40 - 32+90	I
47+48 - 49+00	II	32+90 - 34+00	II
49+00 - 50+30	IV	34+00 - 39+15	IV
50+30 - 50+90	II	39+15 - 44+00	III
50+90 - 53+30	III	44+00 - 48+76	SEE SHEET 7
53+30 - ^{END} PROJ.	IV	48+76 - 49+70	III
		49+70 - 50+50	IV
		50+50 - 52+80	III
		52+80 - ^{END} PROJ.	IV



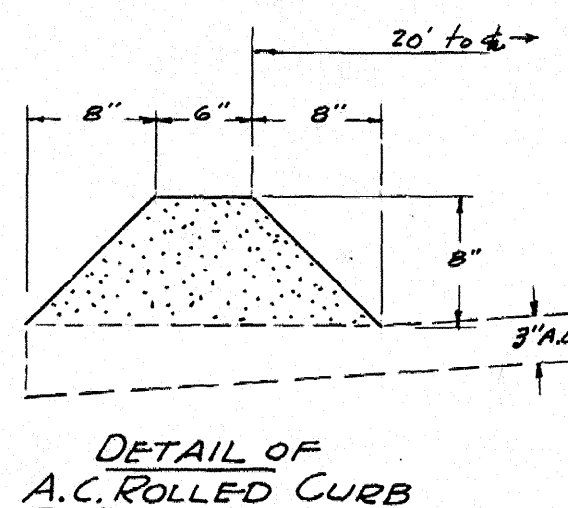
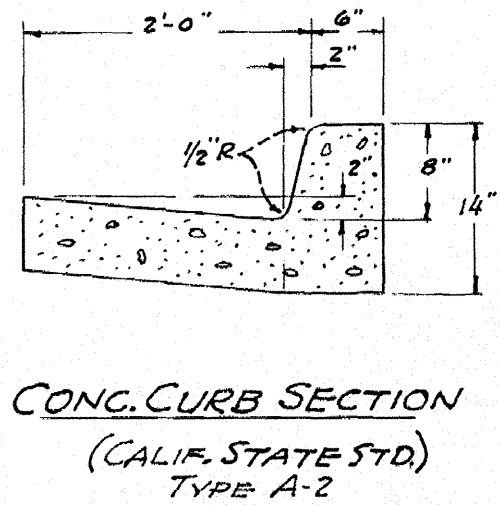
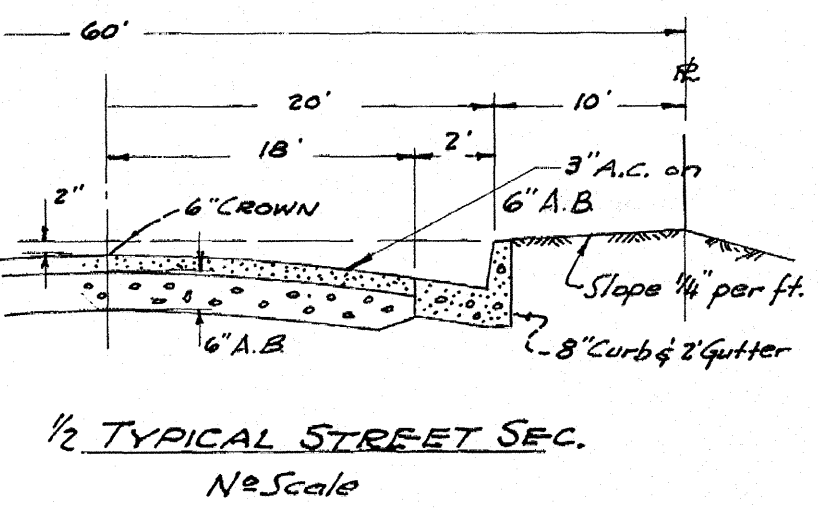
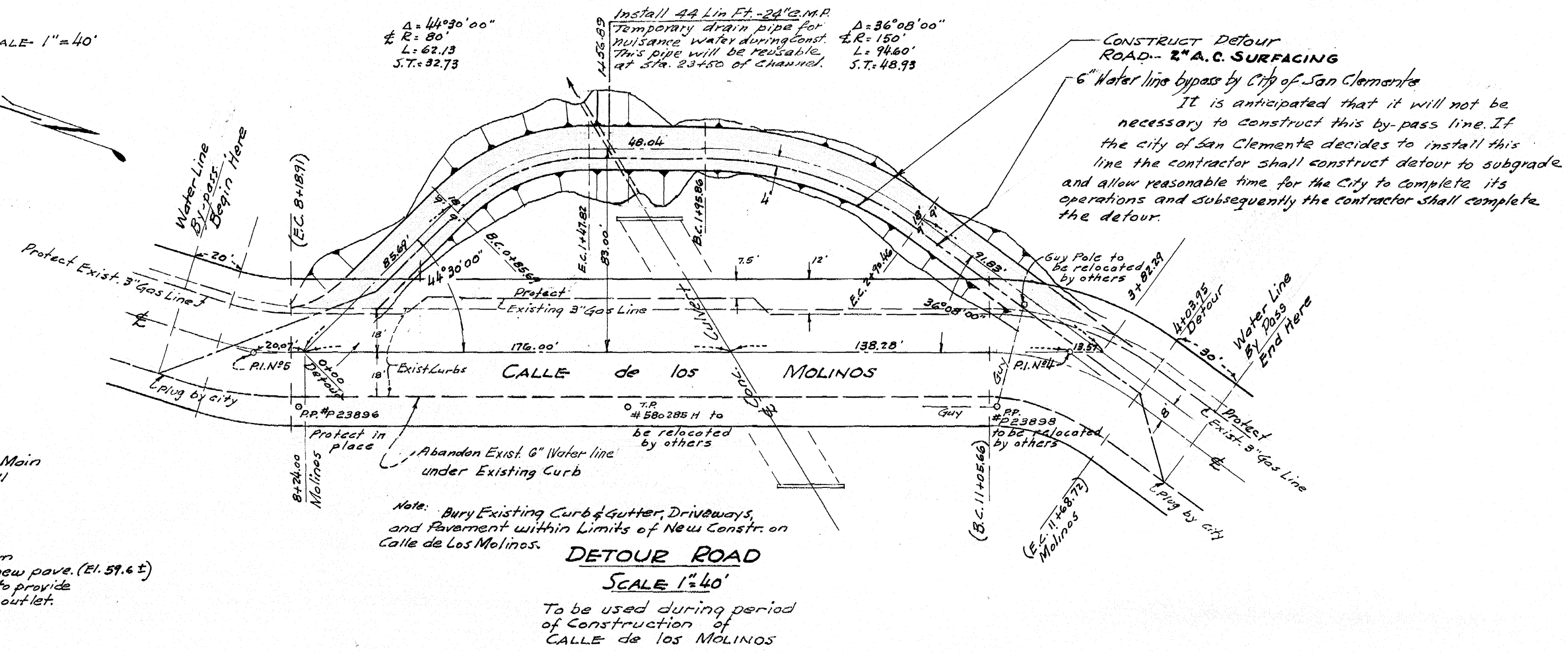
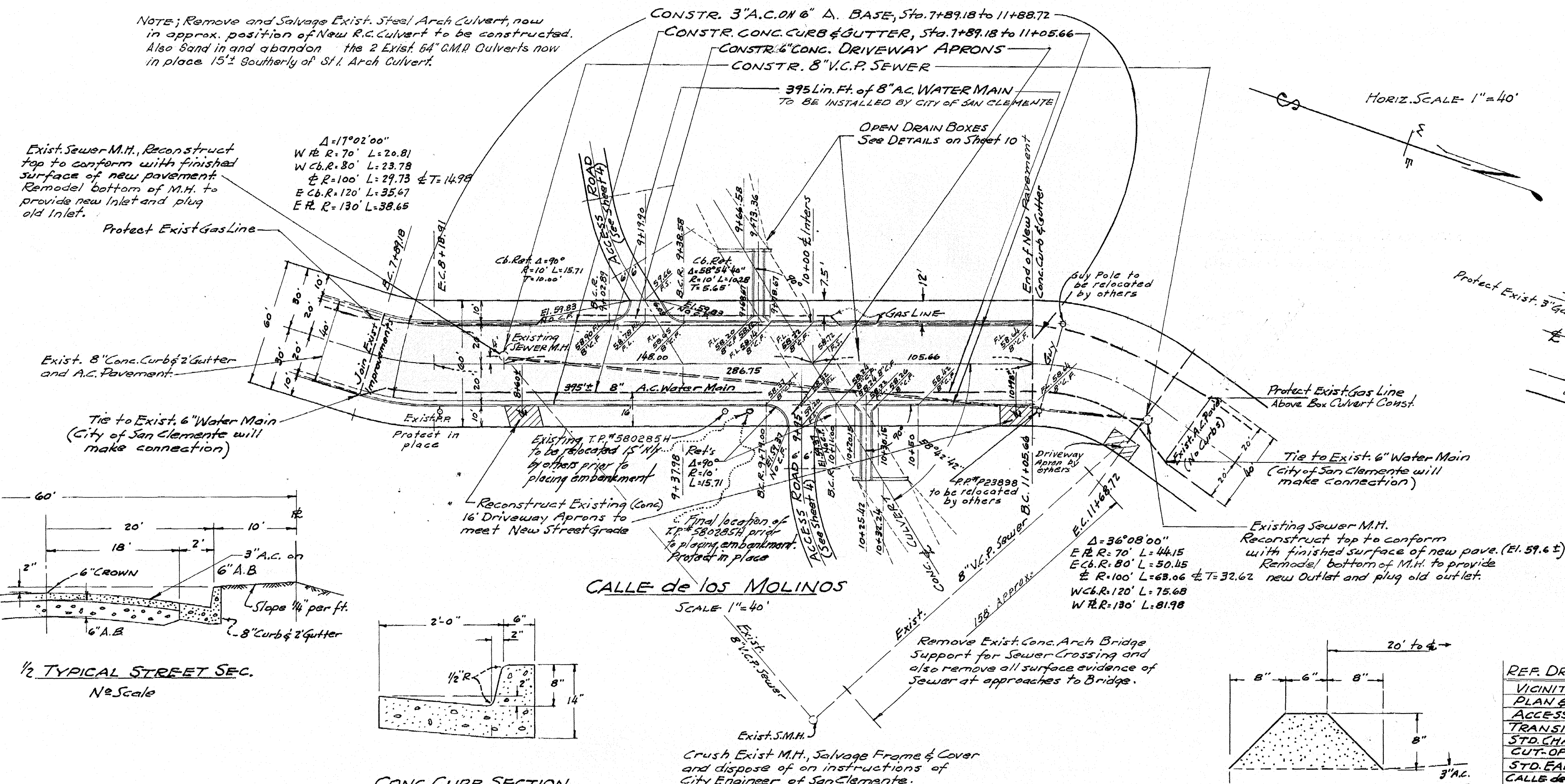
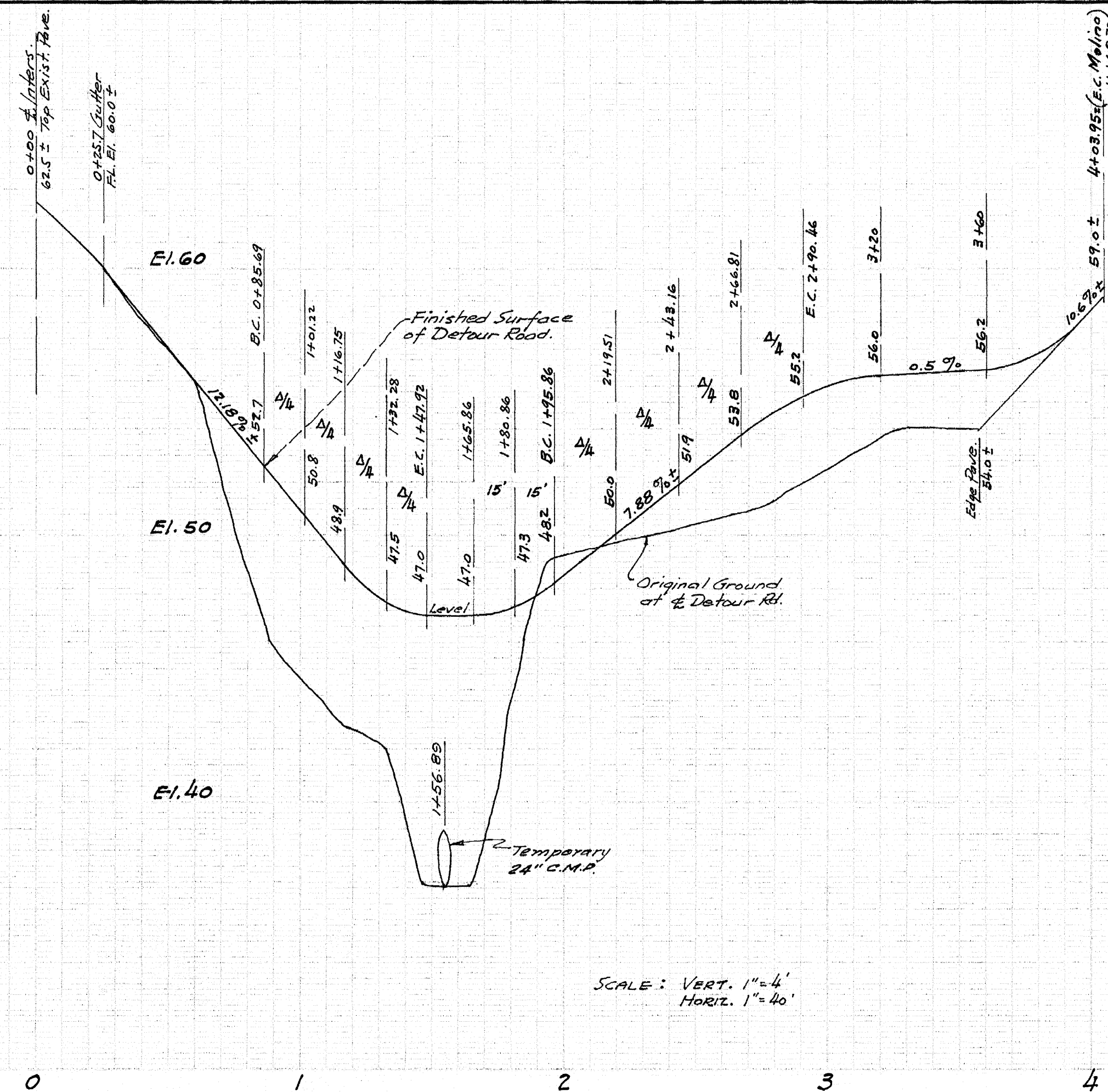
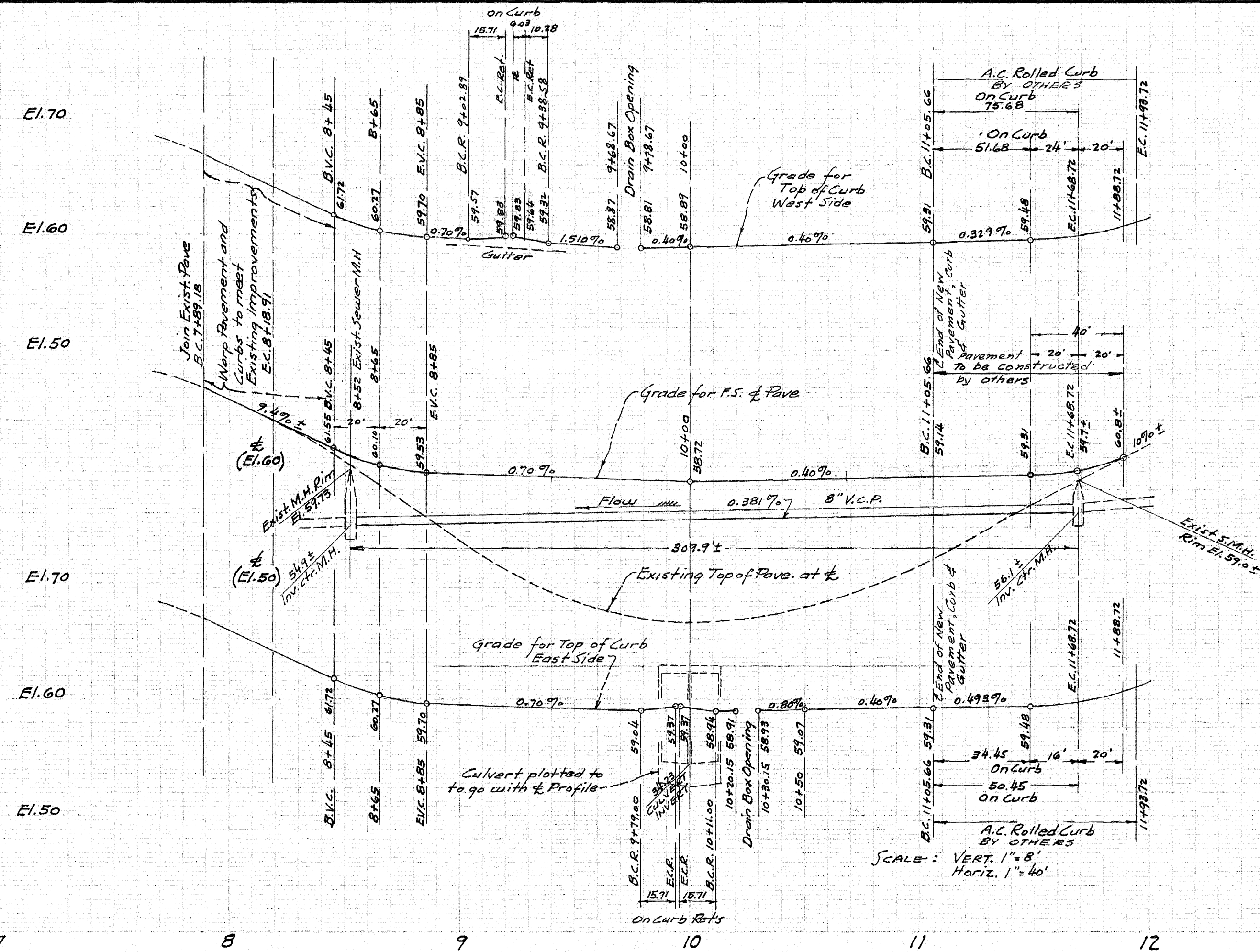
Submitted By
JENNINGS-HALDERMAN INC.
By E. Halderman R.C.E.#8793

ORANGE COUNTY FLOOD CONTROL DISTRICT

SEGUNDA DESHECHA CAÑYON CHANNEL
DET'S. OF CONC. LINED STD. CHANNEL SEC'S. No 1, 2 & 3
DET'S. OF R.C. CULVERT at Calle de Los Molinos
DET'S. OF CONC. CUT-OFF WALL (Constructed at 200' Intervals)
SEC'S. FOR EMBANKMENT CONDITIONS, CASES 1 to V

Approved _____ DATE _____
FLOOD CONTROL ENGINEER

DWG. BY: V.H.C.	CKD. BY: J. D. P.	SCALE: AS SHOWN	DWG. NO. 102-701-1-A
--------------------	----------------------	--------------------	-------------------------



REF. DRWGS.	DRWG. NO.	SHEET NO.
VICINITY & LOCATION MAP		1
PLAN & PROFILE	245	
ACCESS ROADS	647	
TRANSITIONS (CHNL)	6710	
STD. CHANNEL SECTIONS	8	
CUT-OFF WALLS (200' INTERVALS)	8	
STD. EARTH EMBANKMENT SECTIONS	8	
CALLE DE LOS MOLINOS STREET PLAN	9	
CALLE DE LOS MOLINOS SEWER PLAN	9	
DETOUR RD. at Calle de los Molinos	9	
CULVERT DETS	8	
CUT-OFF WALL - END OF PROJECT	11	
TYR EXCAV. BACKFILL & EMB. LIMITS	10	
DETS. for SIDE DRAINS	11	
TRAFFIC CONTROL LAYOUT	12	
FENCE DETAILS		

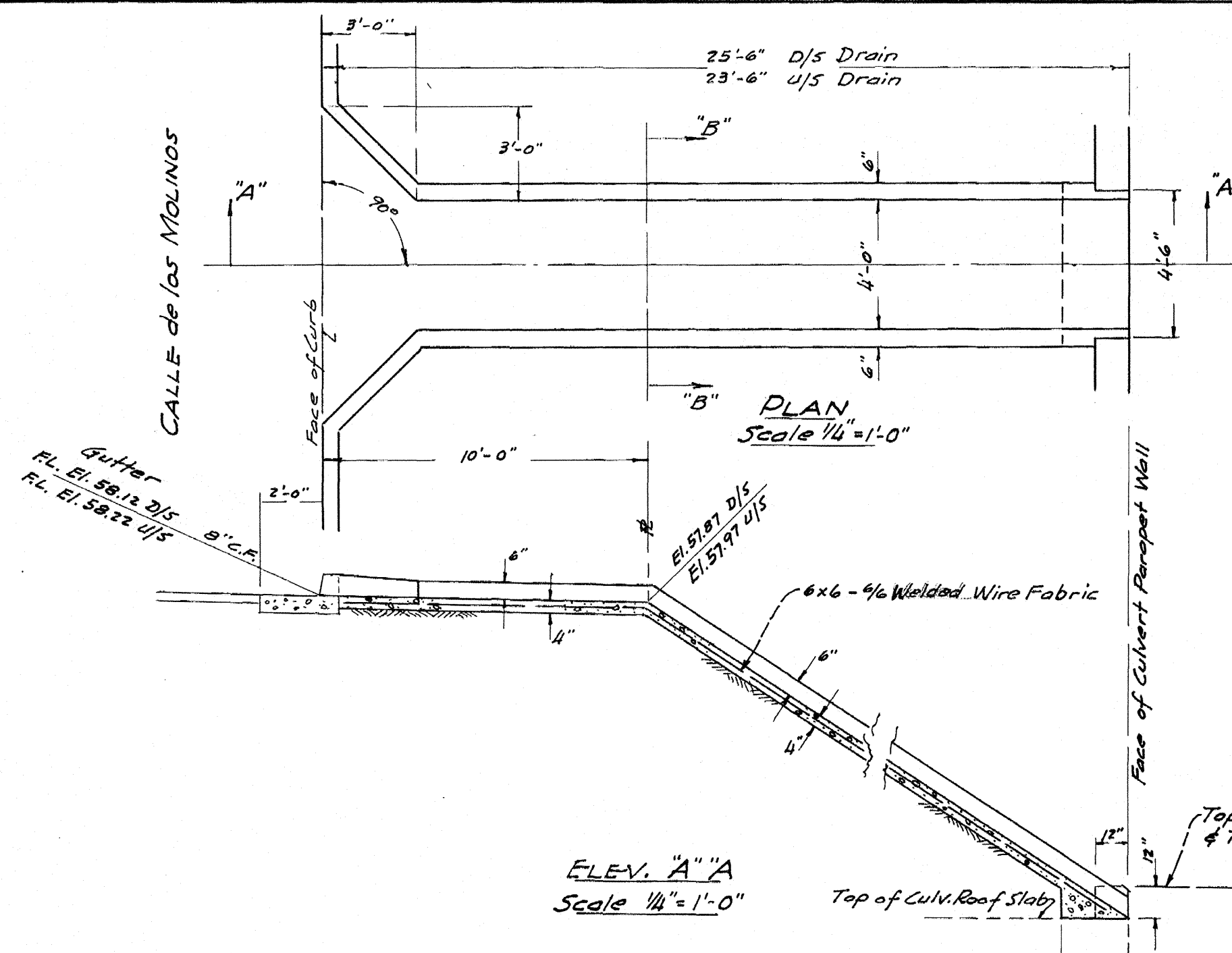
Submitted By
JENNINGS - HALDERMAN INC.
 By *[Signature]* R.C.E.#8793

ORANGE COUNTY FLOOD CONTROL DISTRICT
SEGUNDA DESHECHA CAÑON CHANNEL

PLAN and PROFILE of Calle de Los Molinos
 PLAN and PROFILE of Detour Road at Calle de Los Molinos

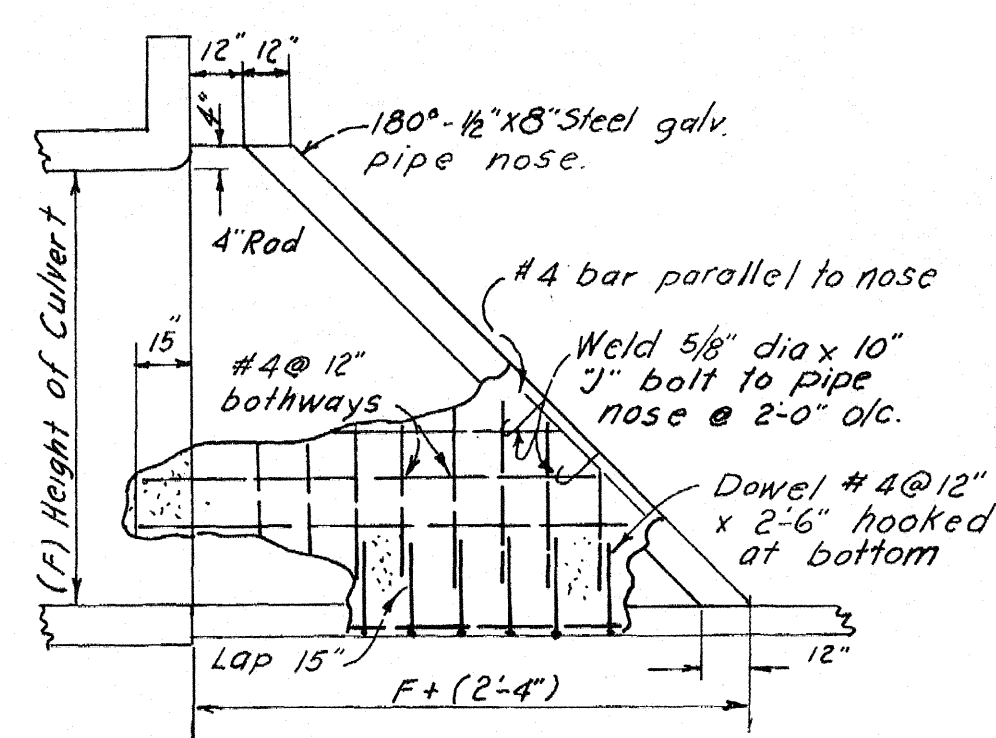
Approved _____ DATE _____
 FLOOD CONTROL ENGINEER

DWG. BY: *V.H.L.* CKD. BY: *J.D.P.* SCALE: *AS SHOWN* DWG. NO. *MOZ-701-1-A*

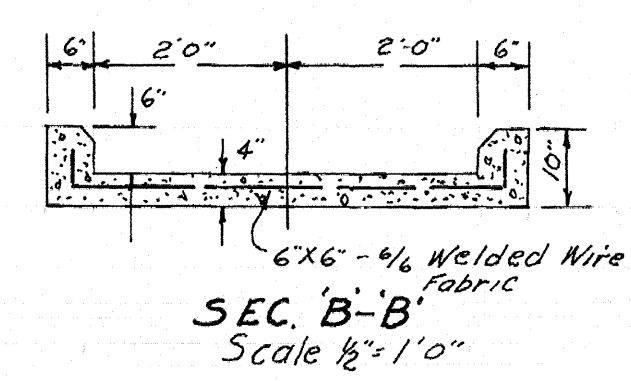


ELEV. "A" "A"
Scale 1/4"=1'-0"

DETAILS OF
OPEN DRAIN BOX
(CONCRETE)
(At Calle de Los Molinos)



DETAIL
DEBRIS WALL



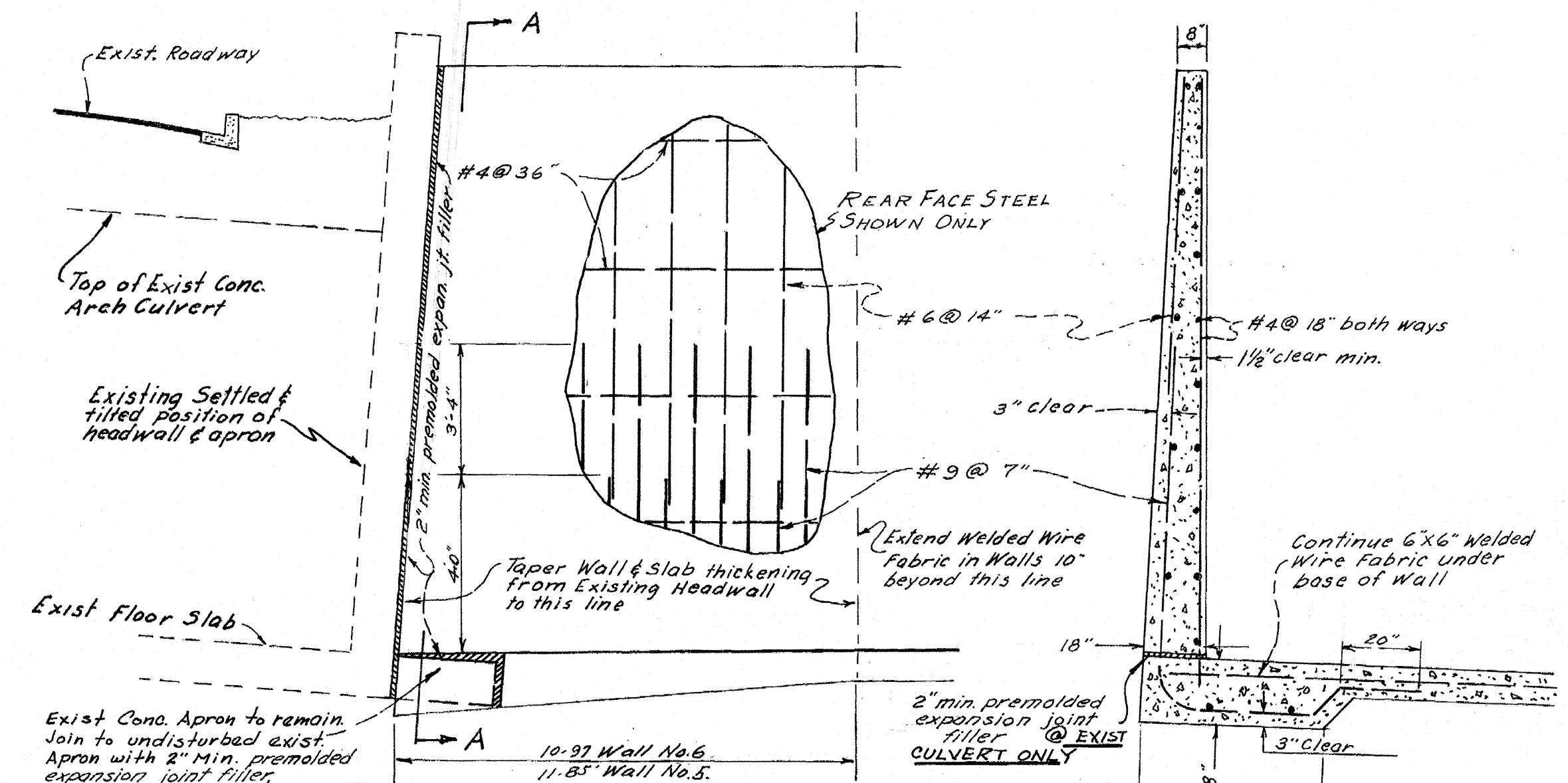
KEY DETAIL
FOR REINF. STEEL
FOR WARPED WALLS
(Use with Table below)

ELEMENT OF SLOPE	REINF. STEEL Size & Spacing
WALL NO 1	WALL 9'8" HIGH
	Front Face #4@12"
	Rear Face #4@12"
	WALL 9'5" HIGH
WALL NO 2	Front Face #4@12"
	Rear Face #4@12"
	WALL 9'2" HIGH
	Front Face #4@12"
WALL NO 3	Front Face #4@12"
	Rear Face #4@12"
	WALL 9'0" HIGH
	Front Face #4@12"

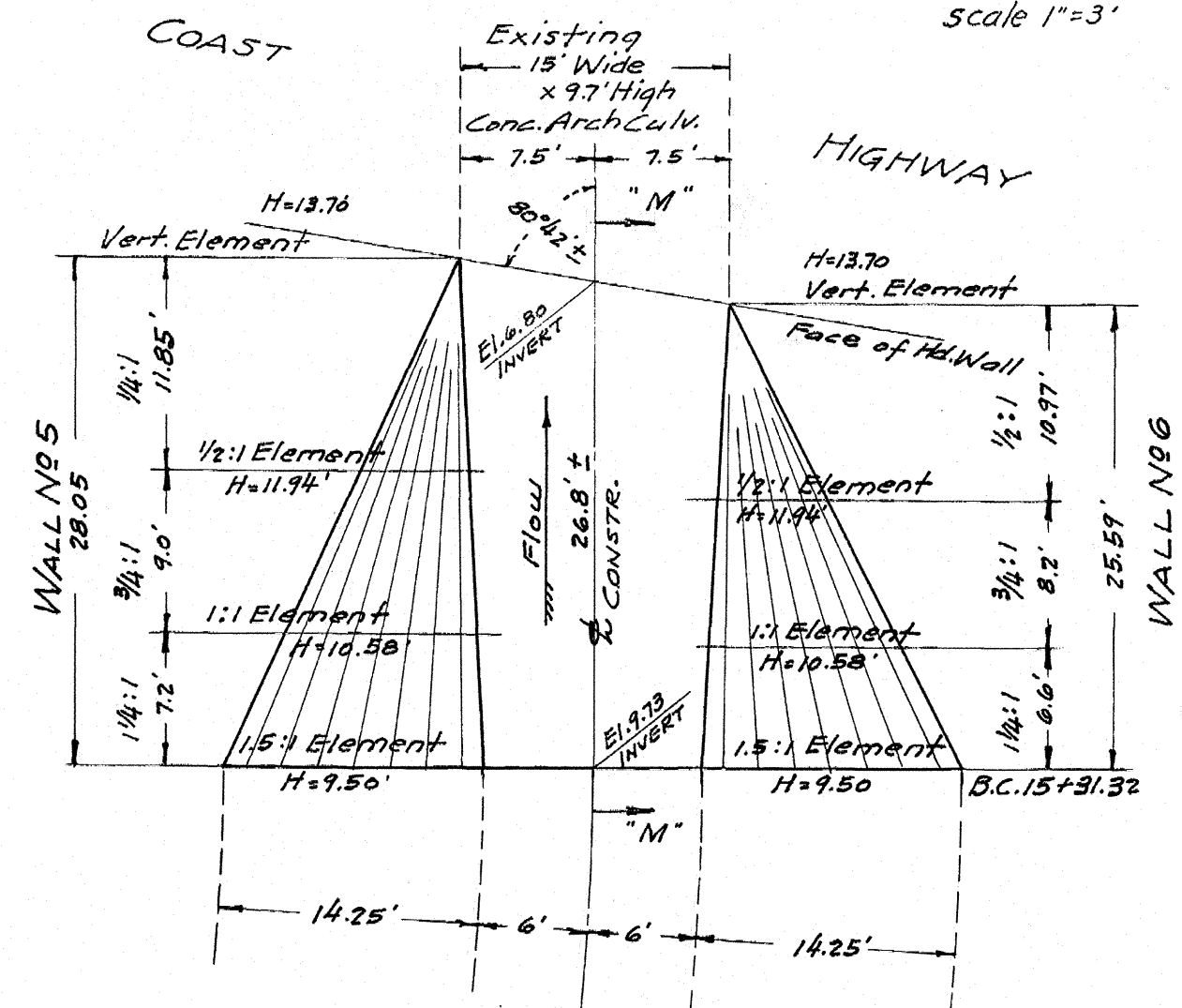
ELEMENT OF SLOPE	REINF. STEEL Size & Spacing
WALL NO 4	WALL 10'1" HIGH
	Front Face #4@12"
	Rear Face #4@12"
	WALL 9'7" HIGH
WALL NO 5	Front Face #4@12"
	Rear Face #4@12"
	WALL 9'6" HIGH
	Front Face #4@12"
WALL NO 6	Front Face #4@12"
	Rear Face #4@12"
	WALL 10'1" HIGH
	Front Face #4@12"

TYPICAL SIDE DRAIN
No Scale

PLAN of SIDE DRAIN INLET
No Scale



DETAIL OF LOWER END OF WALLS No. 5 & 6
Scale 1"=3'

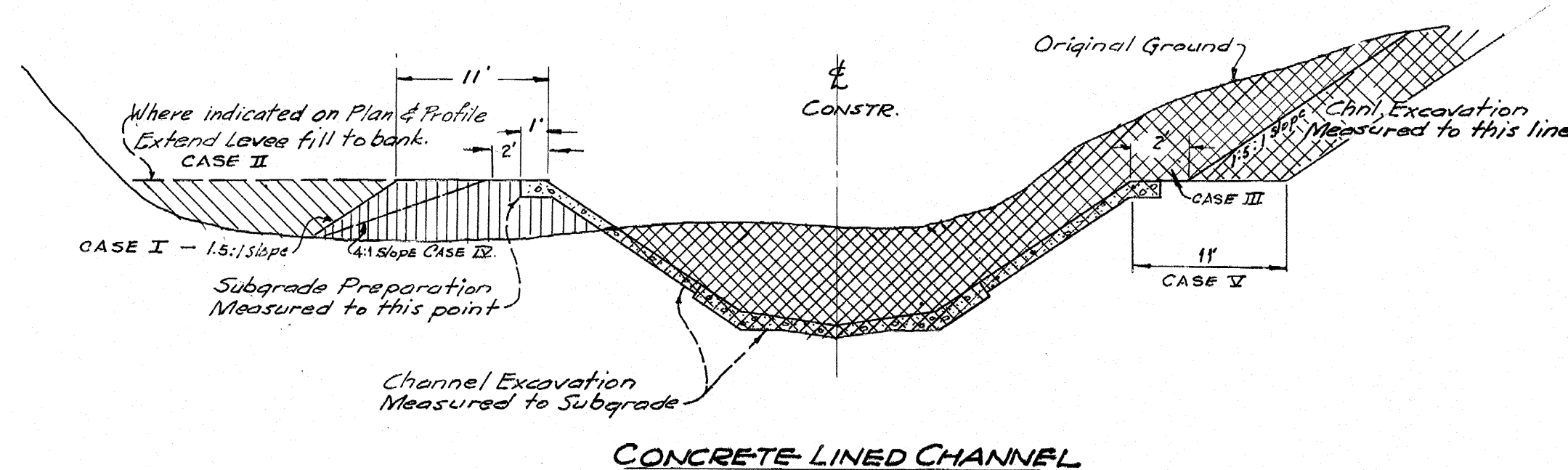
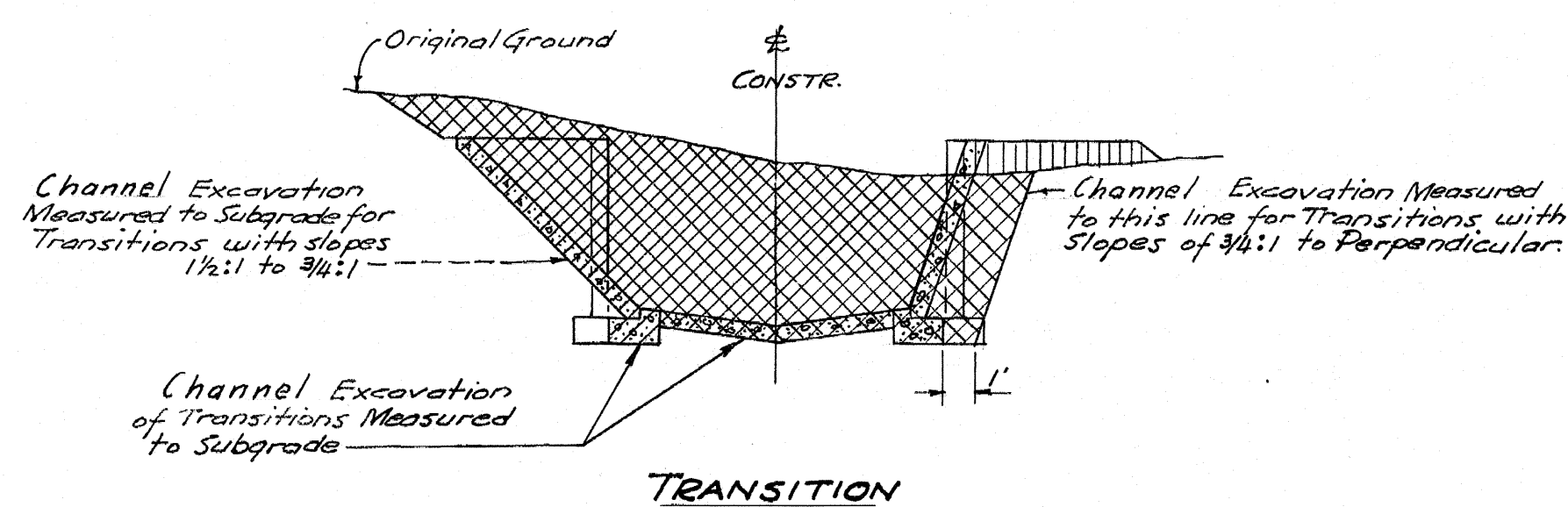
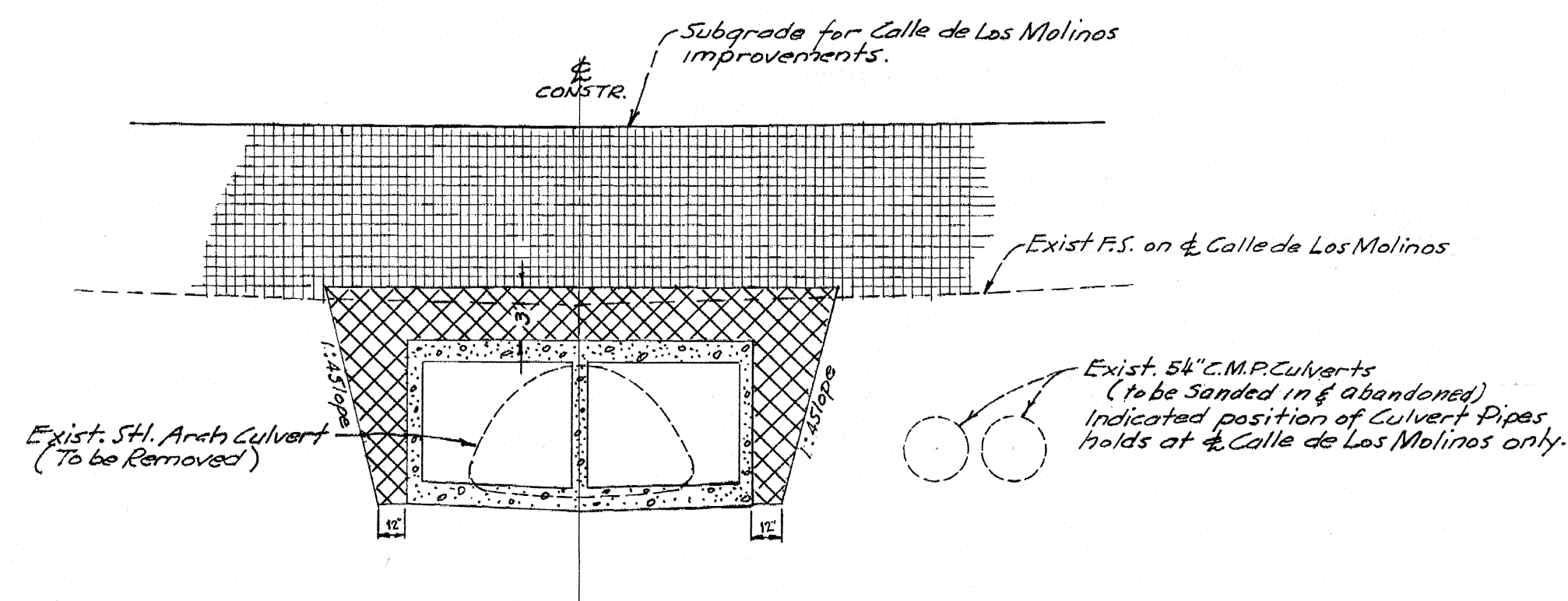
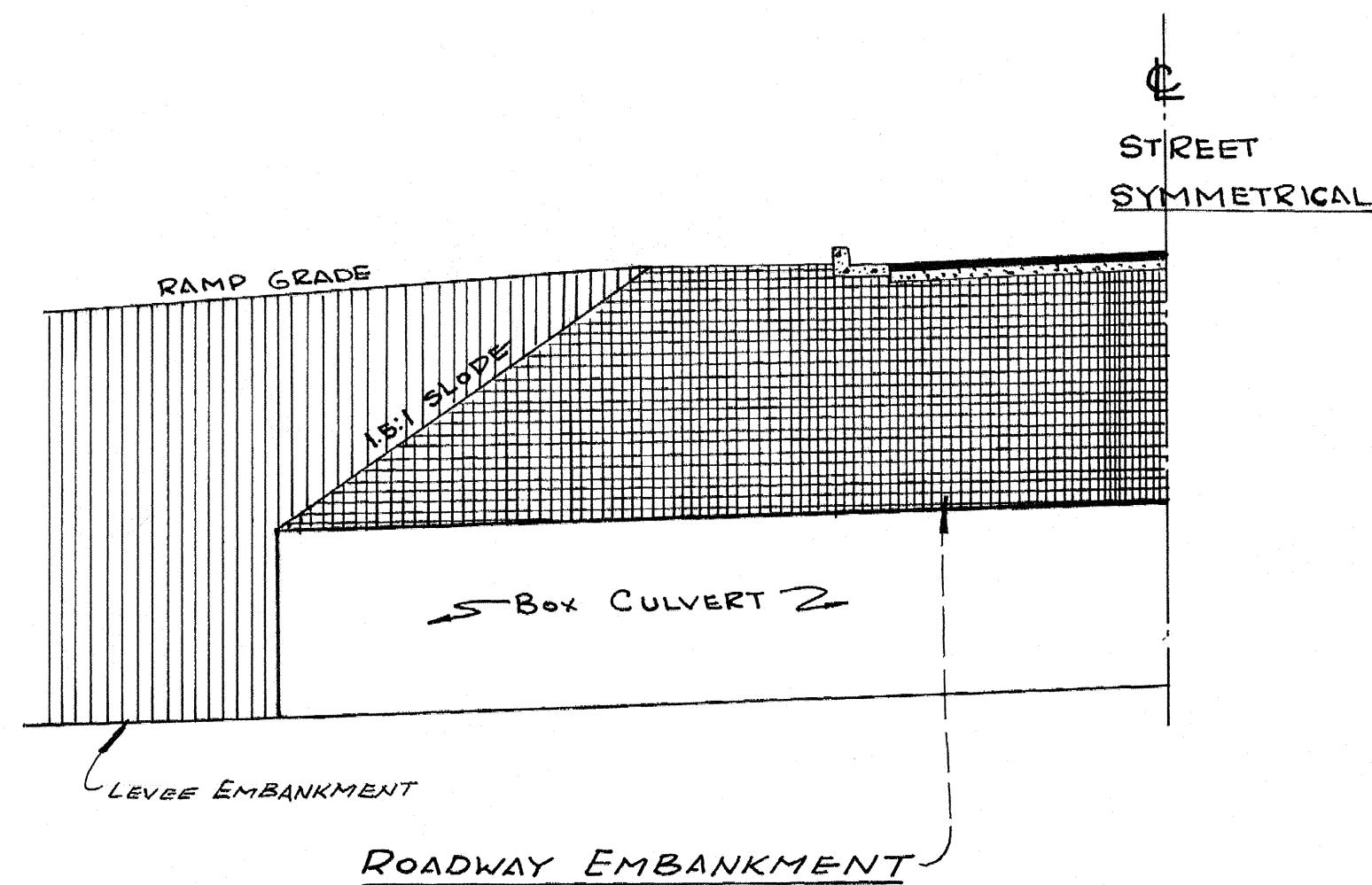


KEY DETAIL
FOR REINF. STEEL
FOR WARPED WALLS
Use with Steel Table at left.
Use 1/2 Sec. "A" Typ. for General Design.

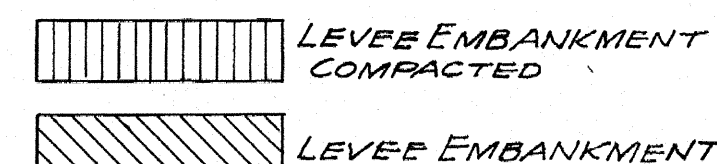
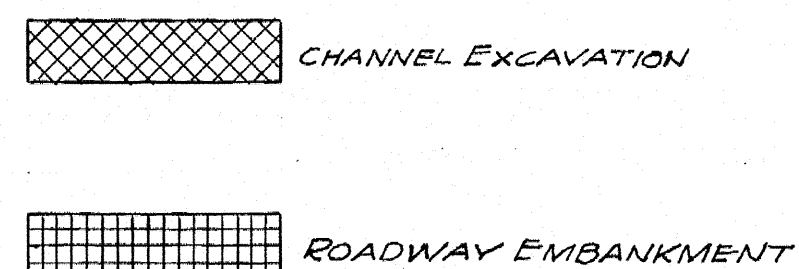
REF. DRGS.	DWG. NO.	SHEET NO.
VICINITY & LOCATION MAP		1
PLAN & PROFILE		2 & 5
ACCESS ROADS		6 & 7
TRANSITIONS (CHNL.)		8
STD. CHANNEL SECTION		9
CUT-OFF WALLS (100' Intervals)		10
STD. EARTH EMBANKMENT SEC'S		11
CALLE de los MOLINOS STREET PLAN		12
DETOUR RD. at Calle de los Molinos		13
CULVERT DET'S		14
CUT-OFF WALL - End of Project		15
TYR EXCAV. BACKFILL & EMB. LIMITS		16
DET'S for SIDE DRAINS		17
TRAFFIC CONTROL LAYOUT		18
FENCE DETAILS		19

Submitted By
JENNINGS - HALDERMAN INC.
By *[Signature]* R.C.E. 8793
ORANGE COUNTY FLOOD CONTROL DISTRICT
SEGUNDA DESHECHA CAÑON CHANNEL
TRANSITION DET'S at Calle de Los Molinos & Coast Hwy.
TYPICAL SIDE DRAIN DETAILS
OPEN DRAIN BOX DETAILS at Calle de Los Molinos
Approved _____ DATE _____
FLOOD CONTROL ENGINEER

DWG. BY: V.H.C. CKD. BY: J.D.P. SCALE: AS SHOWN DWG. NO. M02-701-1-A

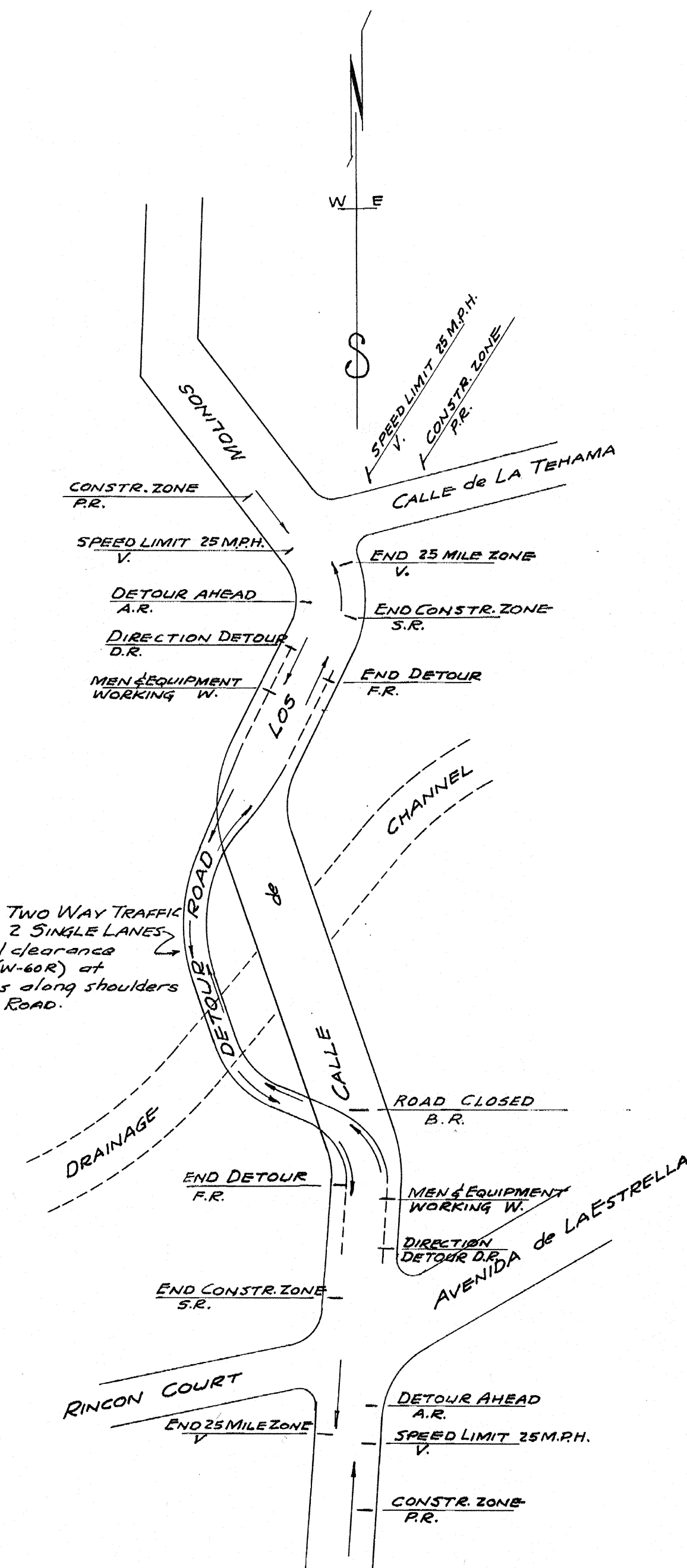


LEGEND



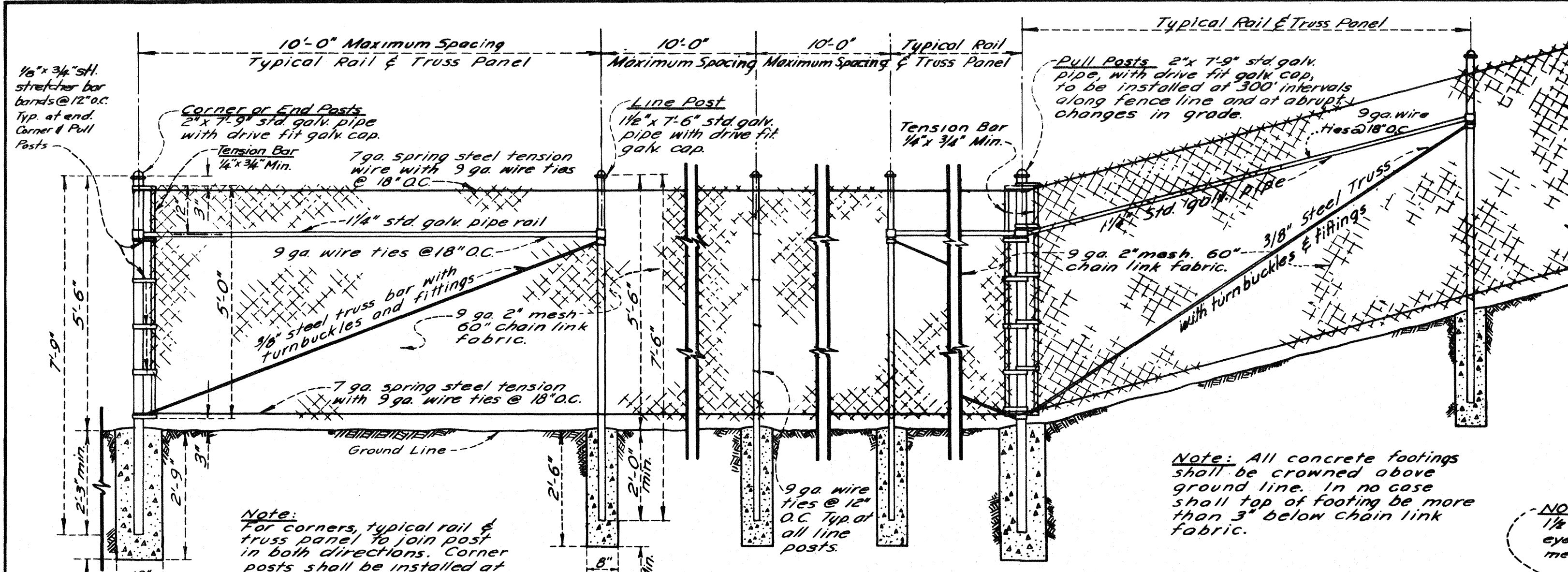
REF. DRWGS.	DRWG. NO.	SHEET NO.
VICINITY & LOCATION MAP		1
PLAN & PROFILE		2 to 5
ACCESS ROADS		6 & 7
TRANSITIONS (CHNL.)		6-7 & 10
STD. CHANNEL SECTIONS		8
CUT-OFF WALLS (200' INTERVALS)		8
STD. EARTH EMBANKMENT SECTIONS		8
CALLE DE LOS MOLINOS STREET PLAN		9
CALLE DE LOS MOLINOS SEWER PLAN		9
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TWO WAY TRAFFIC
2 SINGLE LANES
NOTE: install clearance
MARKERS (W-60R) at
25' intervals along shoulders
of Detour Road.

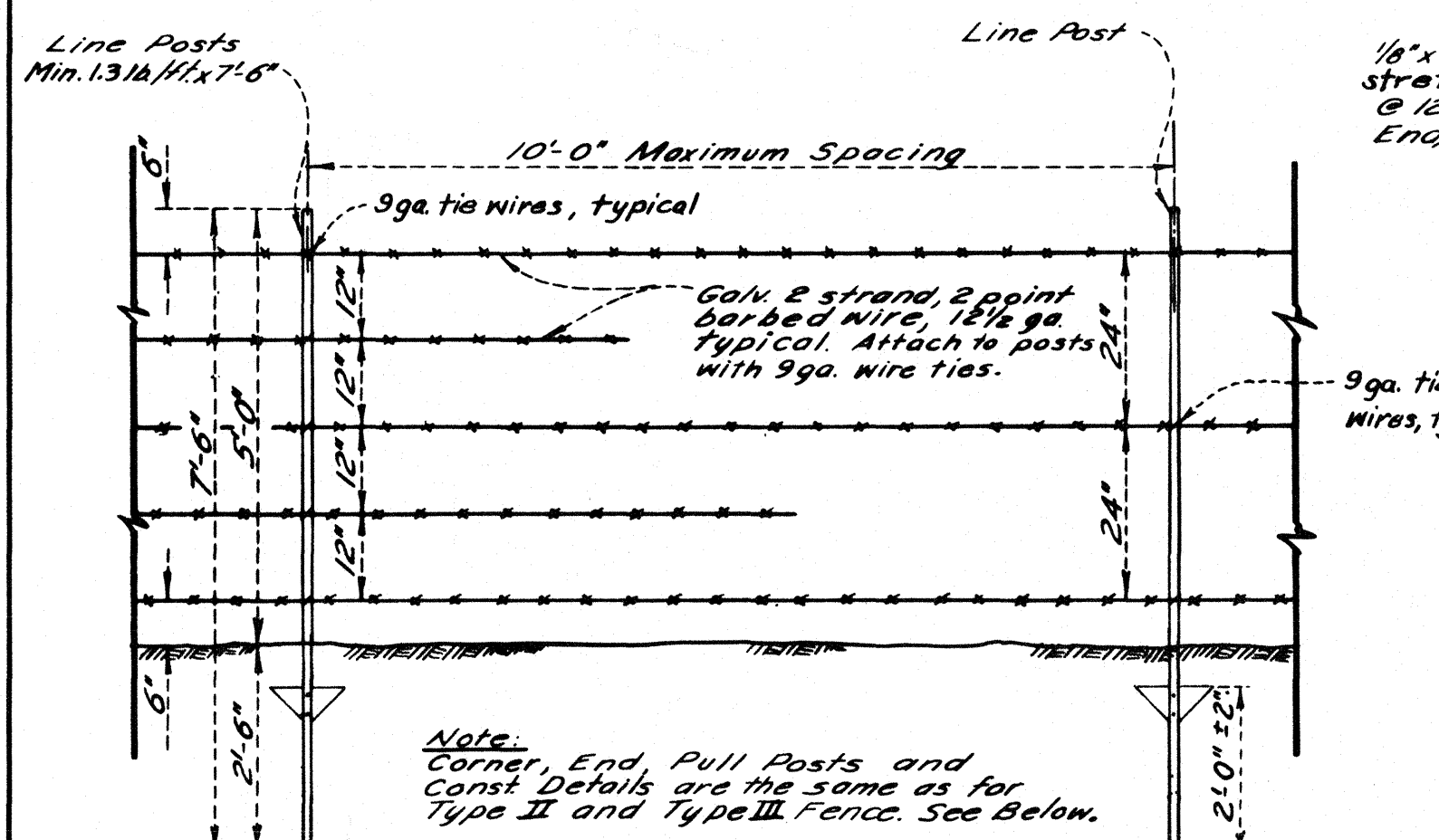


SKETCH SHOWING
TRAFFIC CONTROL LAYOUT
Scale 1"=100'
Refer to STATE OF CALIF.
Planning Manual, Part 8, B-505.1 & B-502-3N

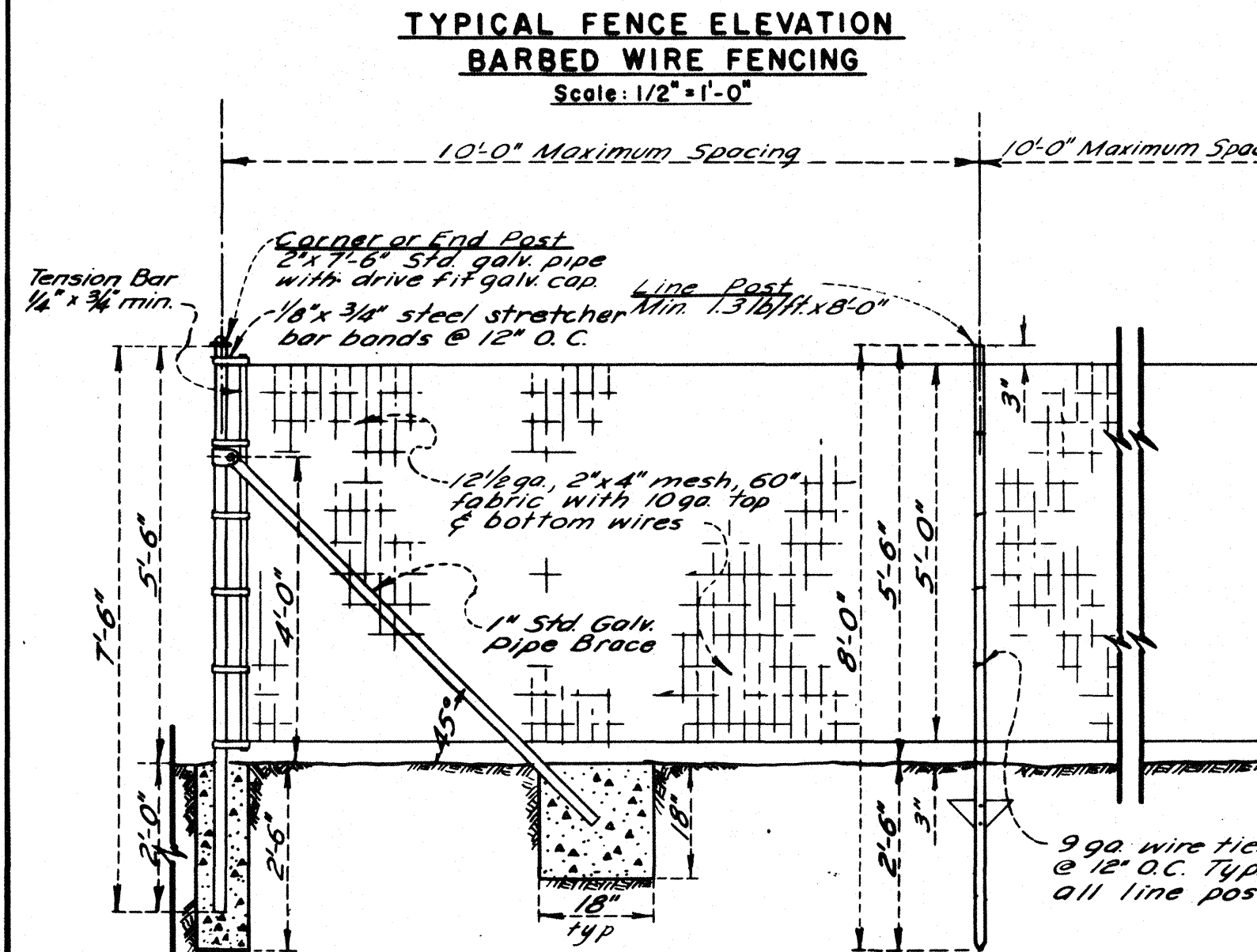
Submitted By JENNINGS - HALDERMAN INC.			
By <i>[Signature]</i> R.C.E.#8793			
ORANGE COUNTY FLOOD CONTROL DISTRICT			
SEGUNDA DESHECHA CAÑON CHANNEL			
TRAFFIC CONTROL LAYOUT for Detour at Calle de Los Molinos			
TYPICAL BACKFILL & EMBANKMENT LIMITS			
Approved _____		FLOOD CONTROL ENGINEER DATE _____	
DWG. BY: V.H.C.	CKD. BY: J.D.P.	SCALE: AS SHOWN	DWG. NO. 102-701-1-A



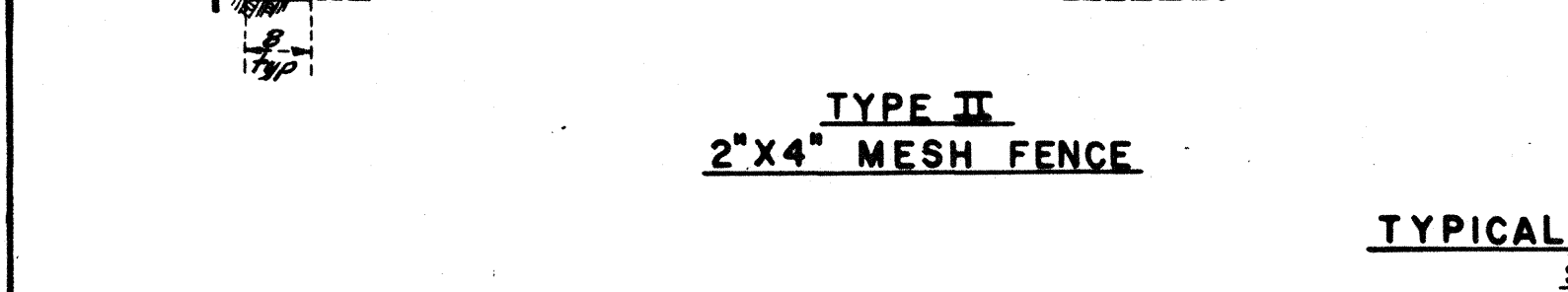
**TYPICAL CHAIN LINK
RIGHT OF WAY FENCE**
Scale: 1/2" = 1'-0"



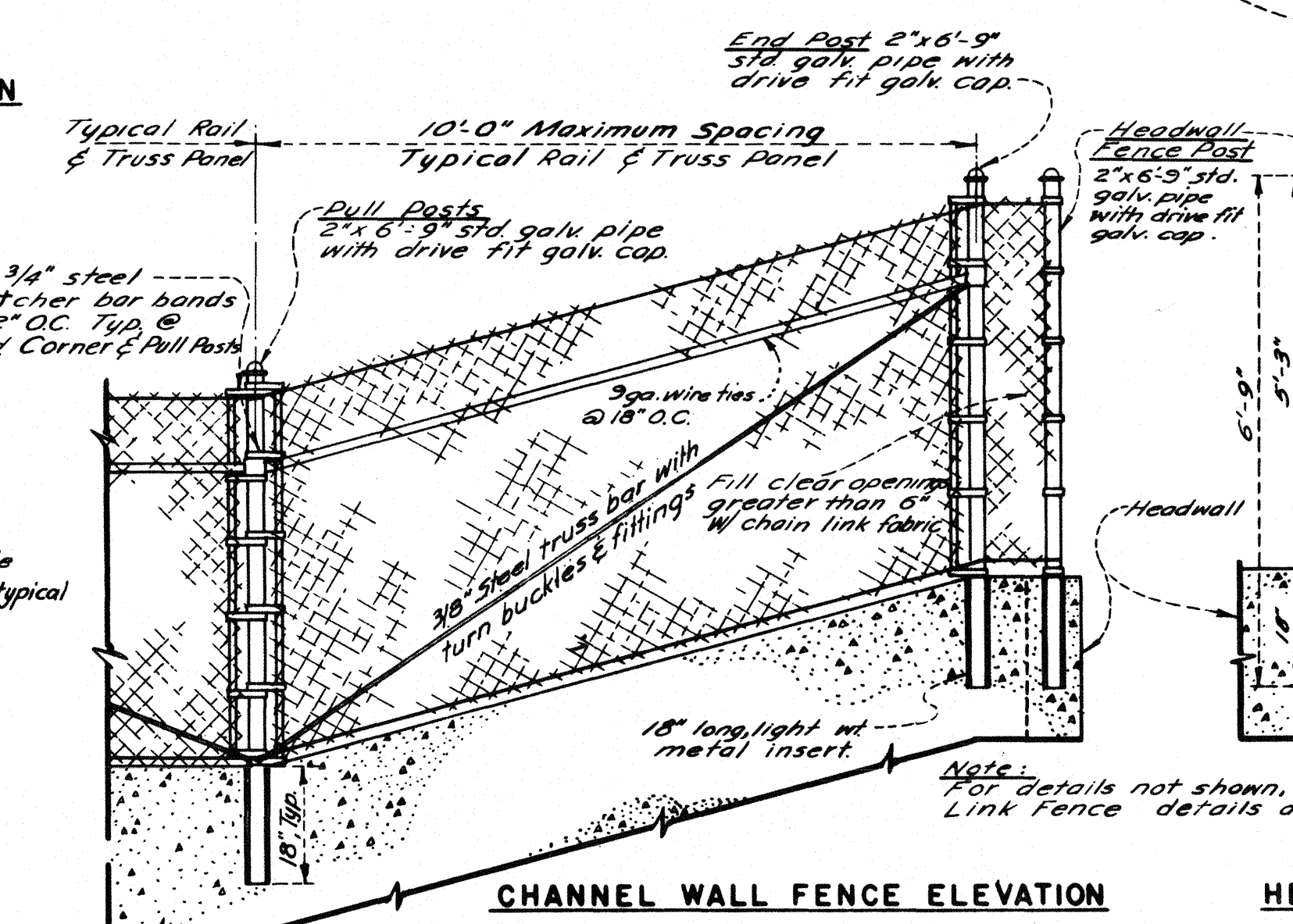
TYPE IV - 5 STRAND



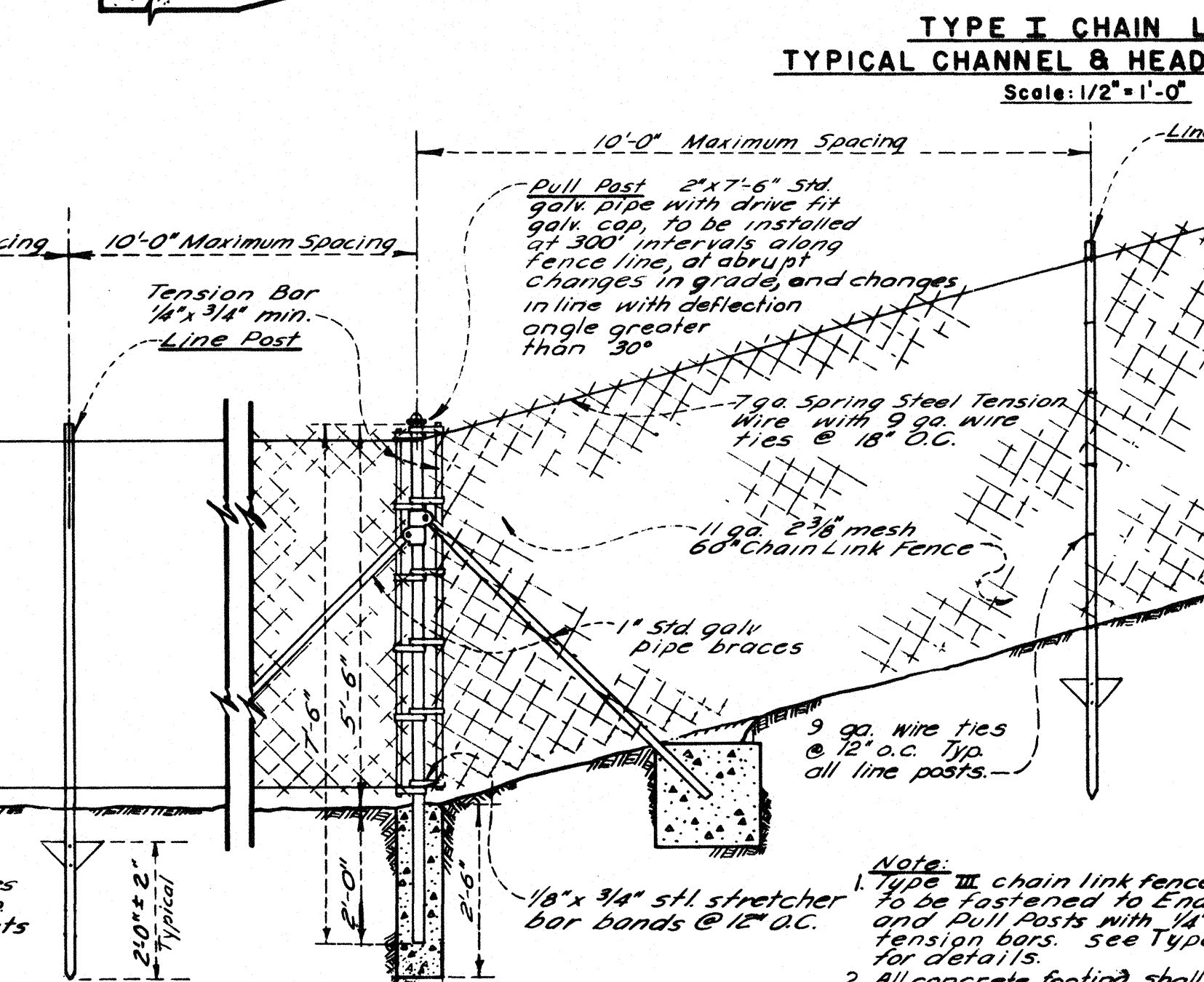
TYPE V - 3 STRAND



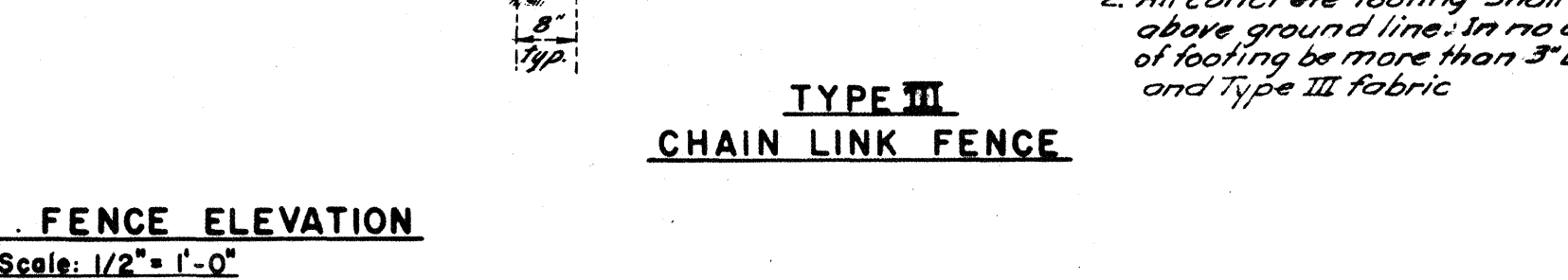
**TYPE II
2" x 4" MESH FENCE**



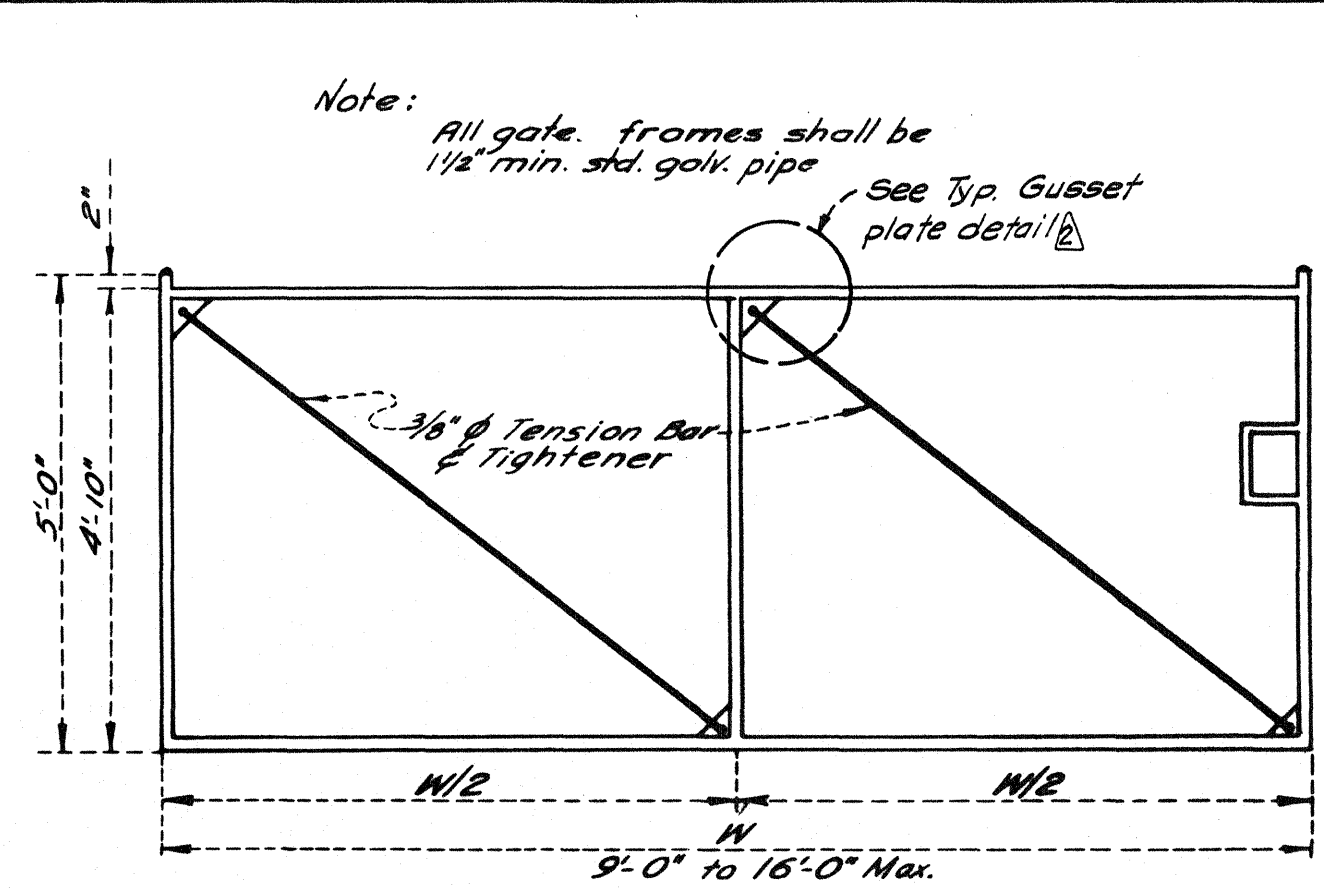
CHANNEL WALL FENCE ELEVATION



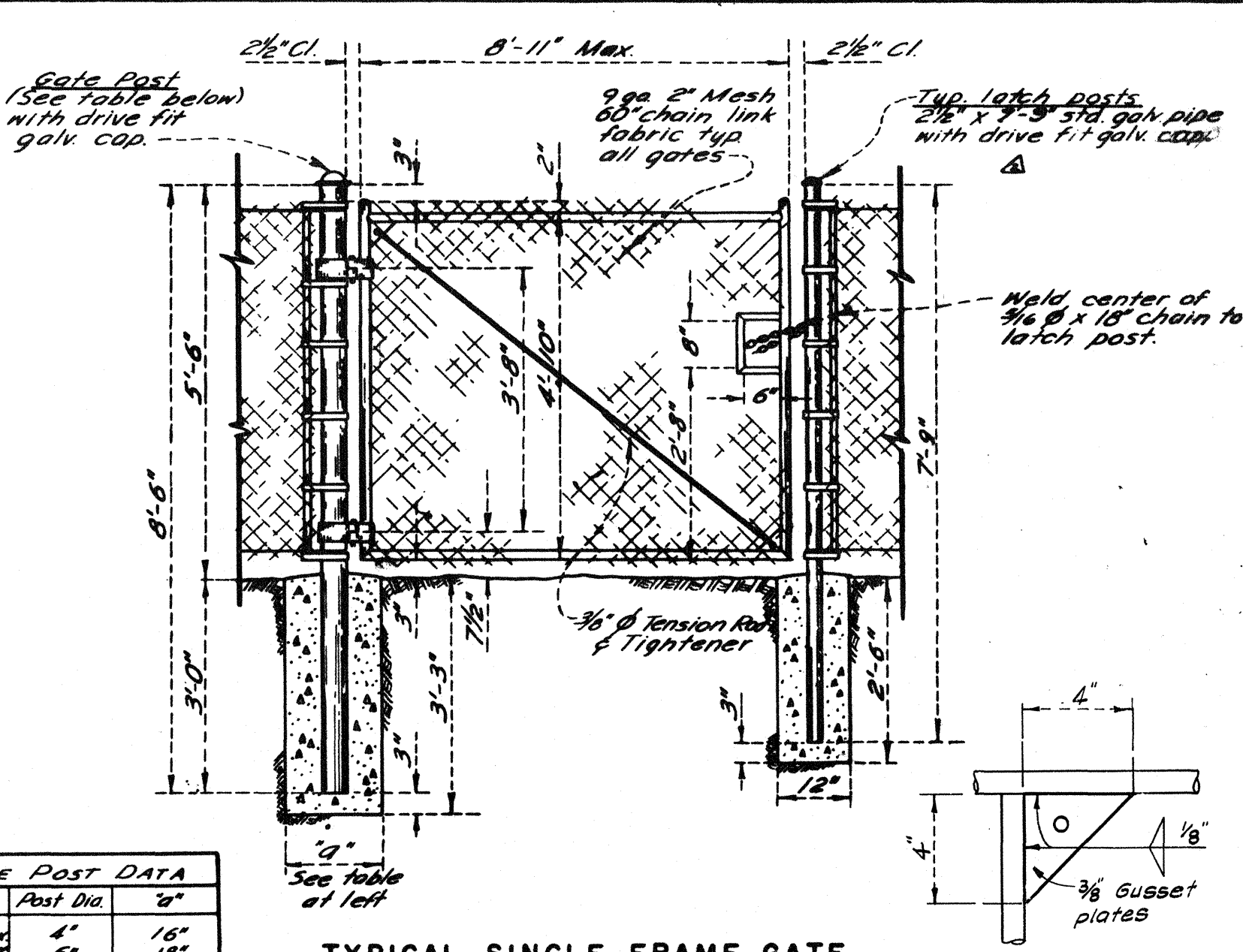
**TYPE I CHAIN LINK
TYPICAL CHANNEL & HEADWALL FENCE**
Scale: 1/2" = 1'-0"



**TYPE III
CHAIN LINK FENCE**



**TYPICAL DOUBLE FRAME
GATE DETAIL**
Scale: 1/2" = 1'-0"

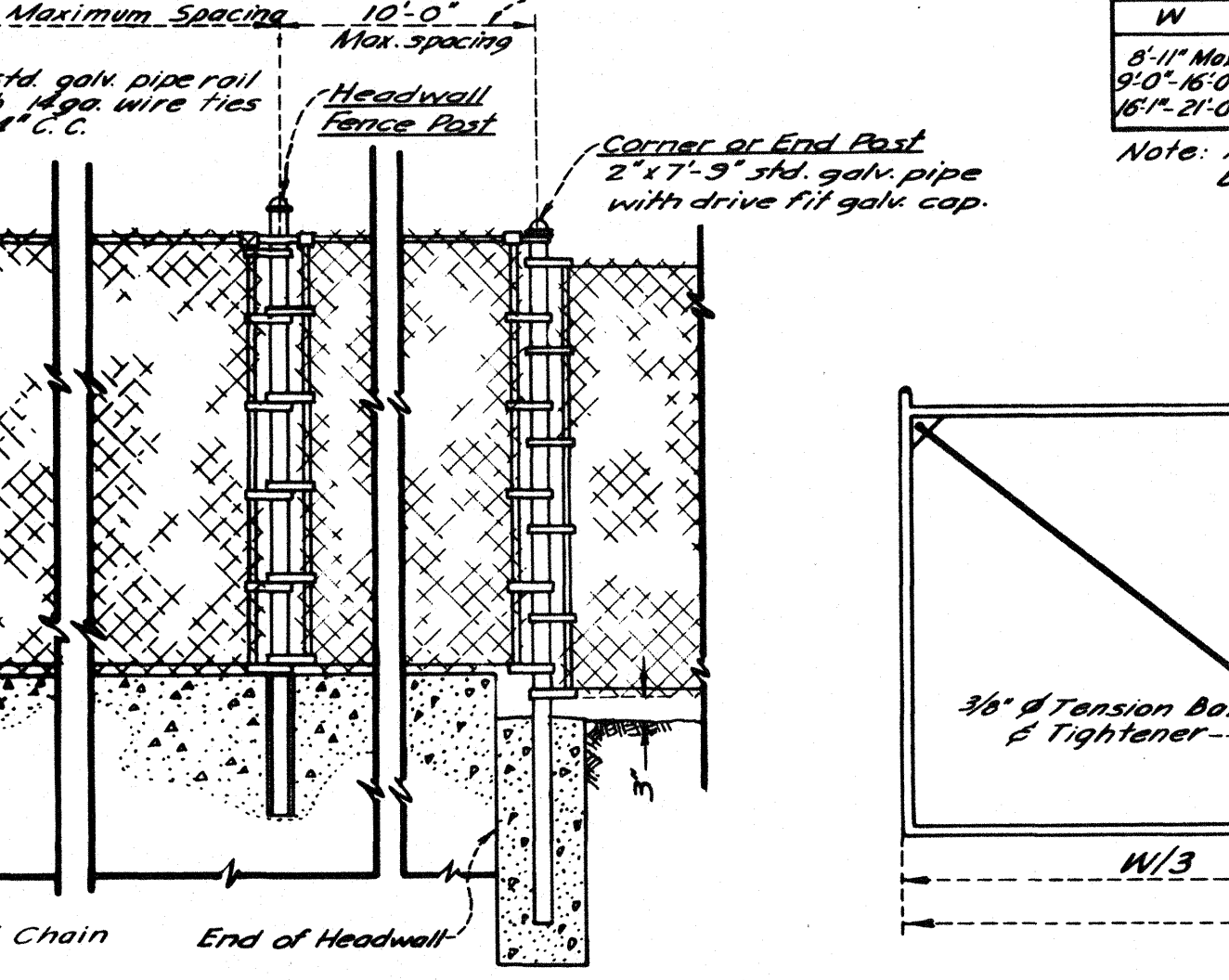


**TYPICAL SINGLE FRAME GATE
AND GATE POST DETAIL**
Scale: 1/2" = 1'-0"

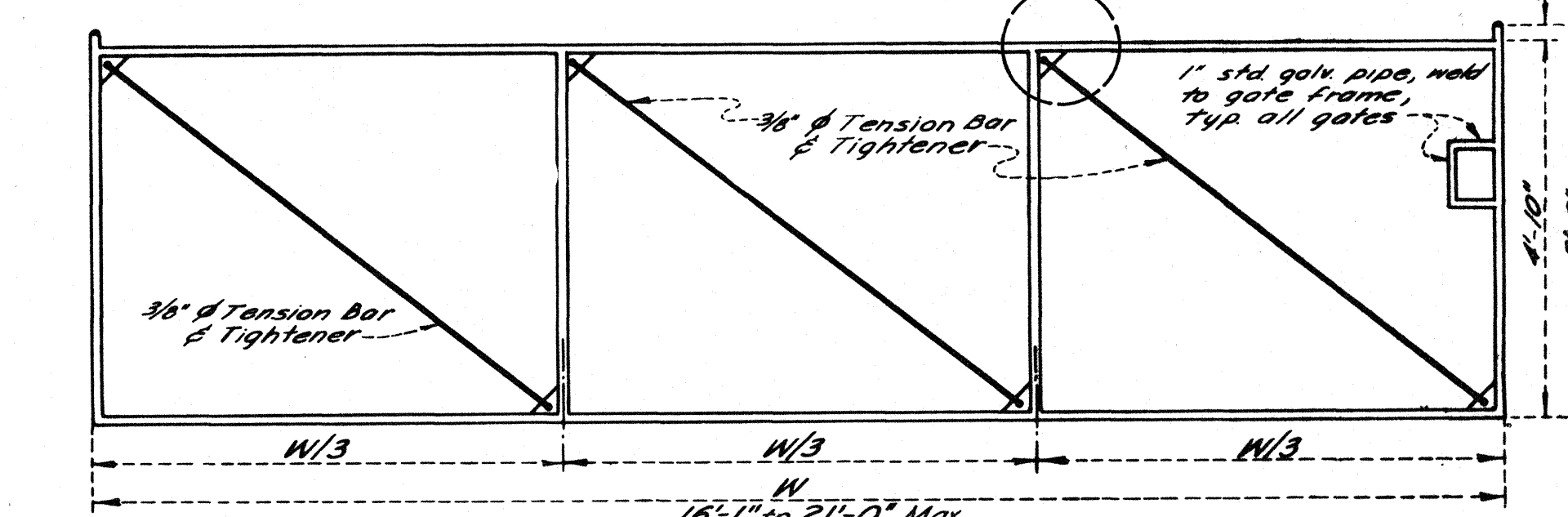
**TYPICAL GUSSET
PLATE DETAIL**
No Scale

GATE POST DATA		
W	Post Dia	"a"
8'-11" Max	4"	15"
9'-0" - 16'-0"	6"	18"
16'-1" - 21'-0"	6"	18"

Note: All gate post shall be std. galv. pipe.



HEADWALL FENCE ELEVATION

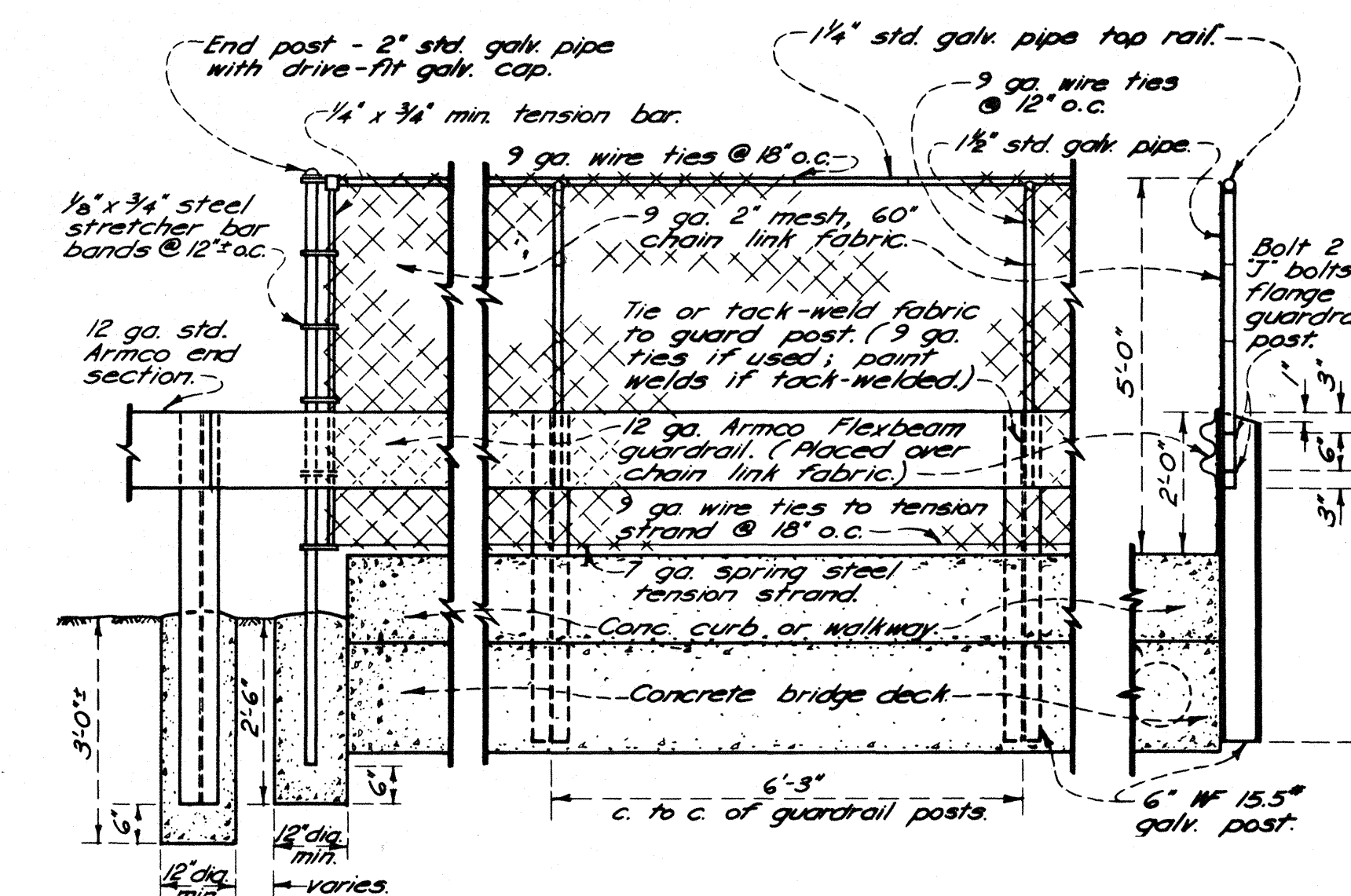


**TYPICAL TRIPLE FRAME
GATE DETAIL**
Scale: 1/2" = 1'-0"

GENERAL NOTES

- All metal parts of all type fences and gates, including fence fabrics and barbed wire, shall be new galvanized material.
- Standard steel pipe shall be of following minimum weights before galvanizing.

Naming Dia.	Wt. Lbs.
1 1/4"	2.87
1 1/2"	2.92
2"	3.65
2 1/2"	5.79
4"	10.79
6"	18.97
- Light weight metal inserts shall be sheet metal tubes with I.D. 3/4" greater than O.D. of pipe used. Posts shall be grouted into inserts using neat grout of part of cement and 2 parts of water. Post may be set in sulphur in lieu of grout if approved by Engineer.
- All gate hinges shall be heavy duty malleable iron or steel, industrial service type, 180 degree swing, of approved quality and design.
- Ground shall be graded before fence construction begins, in such a manner that top of fence follows a fairly uniform grade.



BRIDGE GUARDRAIL AND FENCE DETAIL
Scale: 1/2" = 1'-0"

REVISIONS			ORANGE COUNTY FLOOD CONTROL DISTRICT		
MARK	DATE	DESCRIPTION	SEGUNDA DESHECHA CANYON CHANNEL		
1-60		ADDED BRIDGE GUARDRAIL & FENCE DETAIL			
2-62		ADDED GUSSET DETAIL	TYPICAL FENCE AND GATE DETAIL		
DESIGNED O.M.S.			RECOMMENDED		
DRAWN N.K.S.			CHECKED O.M.S.		
SUBMITTED			DESIGN DIVISION ENGINEER		
			SCALE DATE		
			AS SHOWN JUNE 1968		
			DWG. NO. MOZ-701-1-A		