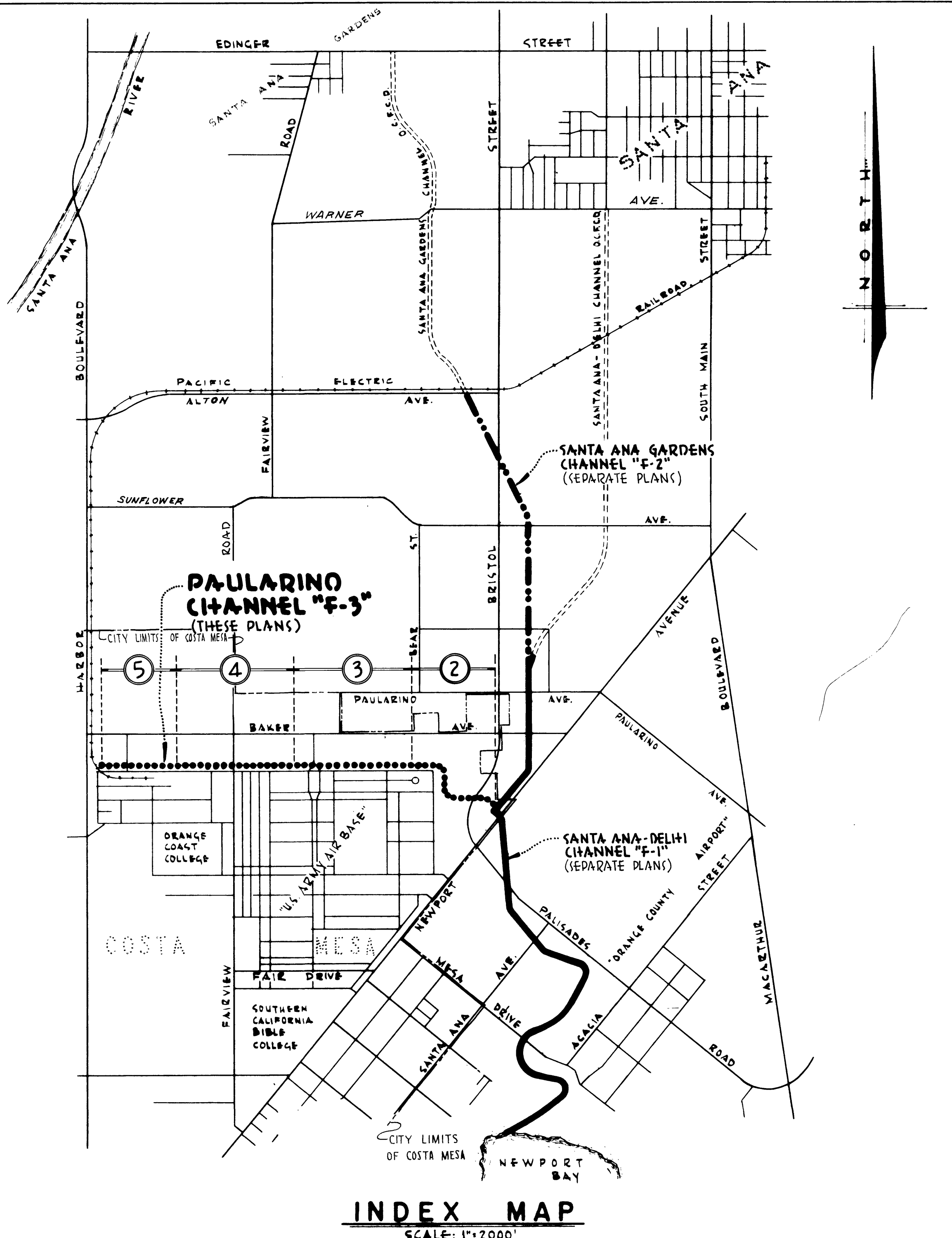


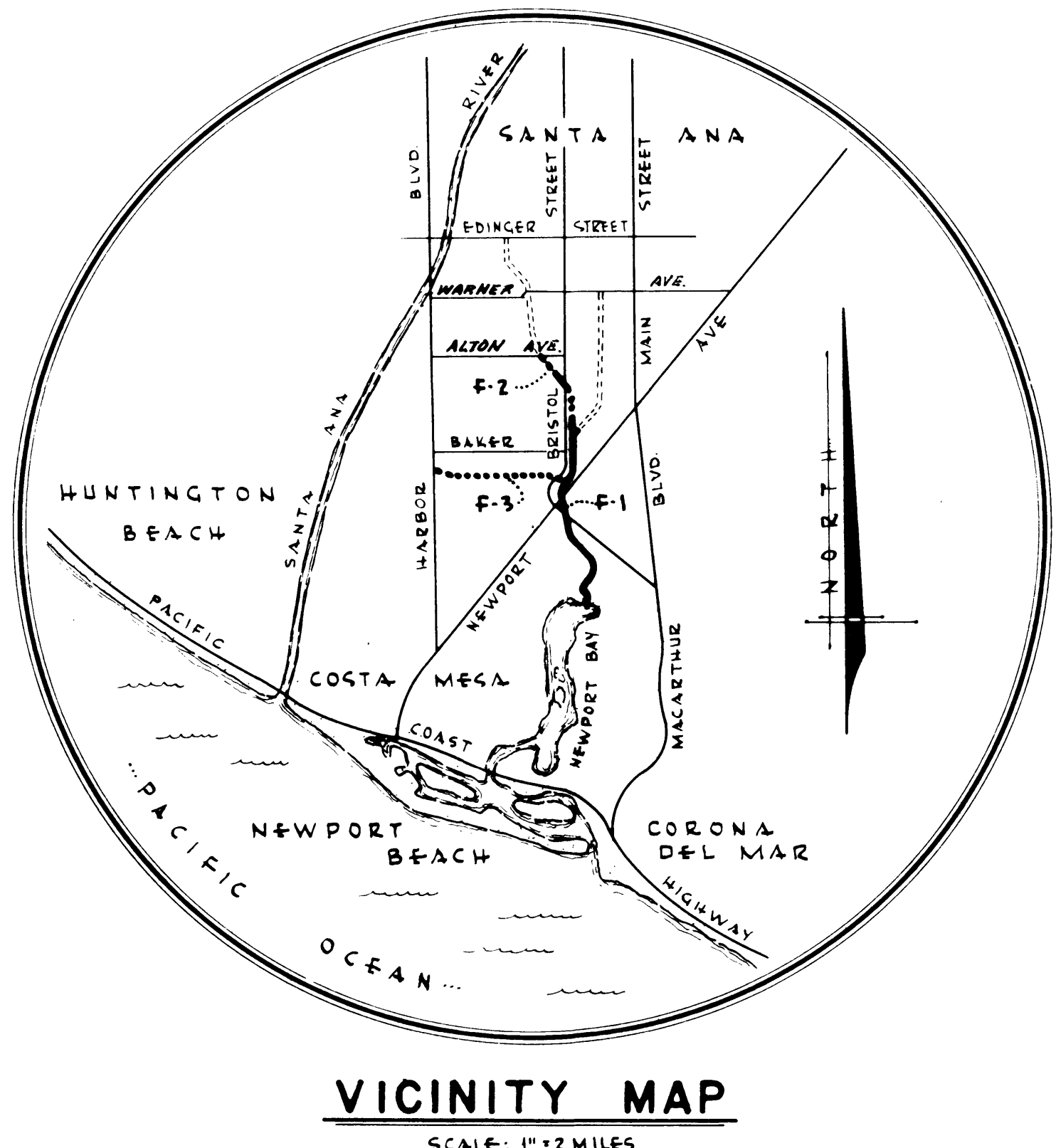
IMPROVEMENT PLANS
PAULARINO CHANNEL "F-3"

ORANGE COUNTY FLOOD CONTROL DISTRICT
STATE OF CALIFORNIA

SCALE: AS SHOWN
DATE: JANUARY, 1960



PREPARED IN THE OFFICE
OF
Boyle
ENGINEERING
CONSULTING ENGINEERS
331 SPURGEON BUILDING
SANTA ANA CALIFORNIA
PHONE KIMBERLY 7-4471



APPROVALS

APPROVED FOR "BOYLE ENGINEERING"
THIS 8 DAY OF Jan., 1960
A.M. Ficker
A.M. FICKER, REG. CIVIL ENGR. NO. 8844

APPROVED FOR "THE ORANGE CO. FLOOD CONTROL DISTRICT"
THIS 11 DAY OF Jan., 1960
H. D. Doherty
FLOOD CONTROL ENGR.

APPROVED FOR "THE CITY OF COSTA MESA"
THIS 24 DAY OF Jan., 1960
R. Southworth
CITY ENGINEER

PAULARINO CHANNEL "F-3"
ORANGE COUNTY FLOOD CONTROL DISTRICT
STATE OF CALIFORNIA

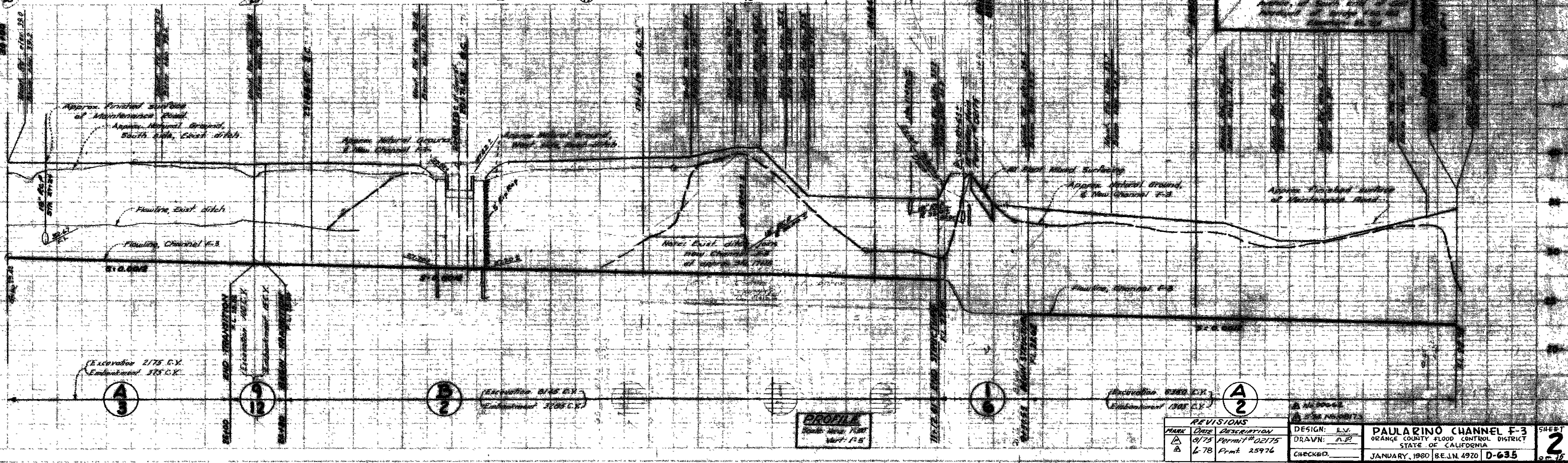
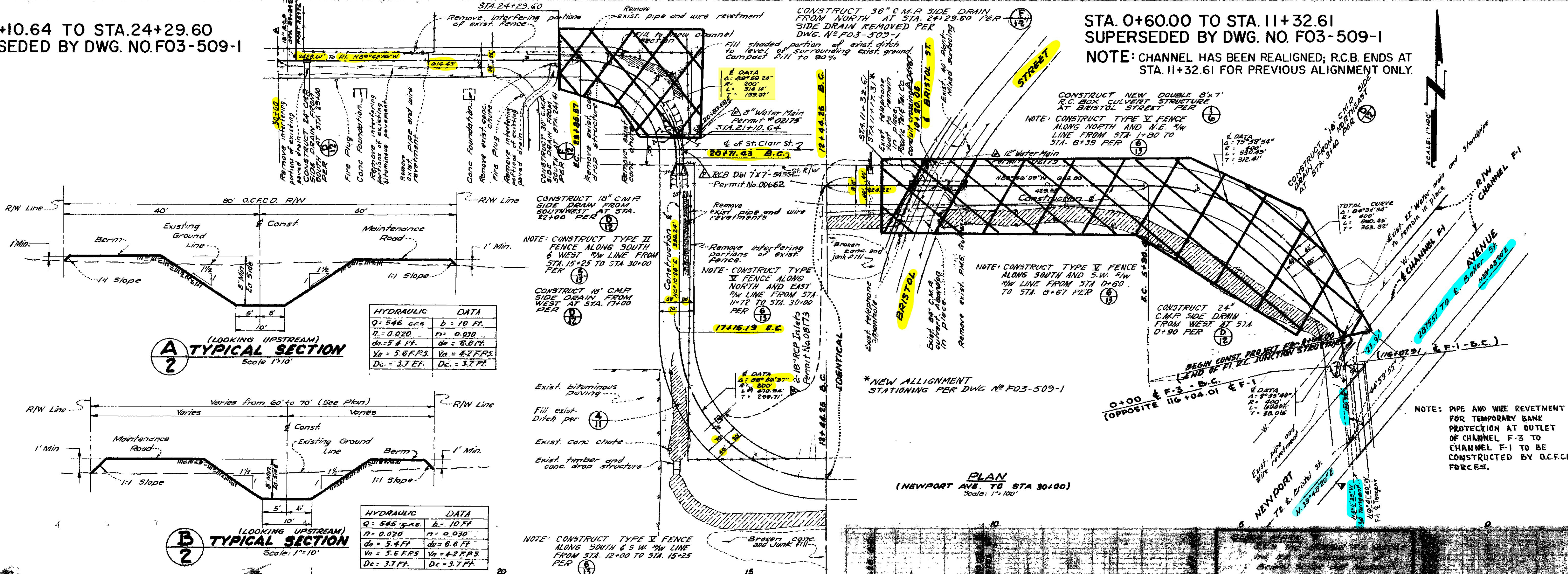
DESIGN L.W.	BOYLE ENGINEERING	SHEET 1 OF 15 SHEETS
DRAWN A.P. & C.V.B.	SANTA ANA, CALIF.	
CHECKED	DATE JAN. 1960 J. H. 4920	

D-635

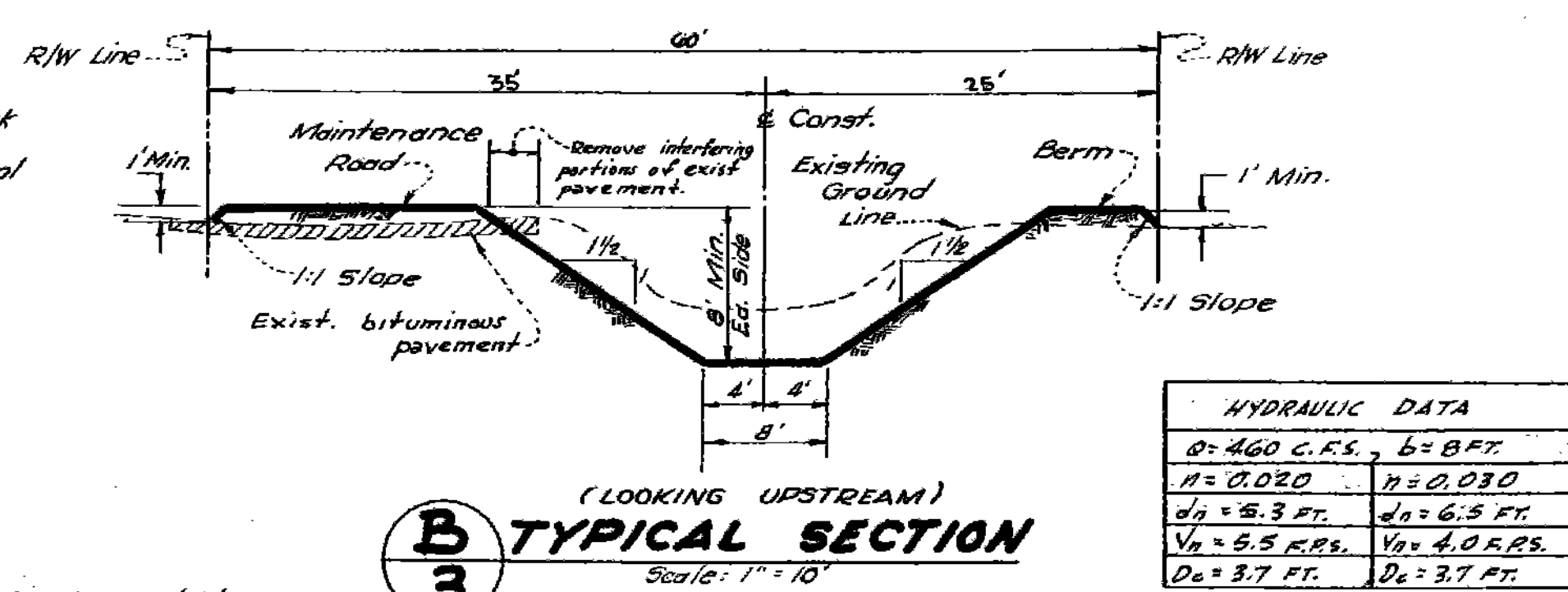
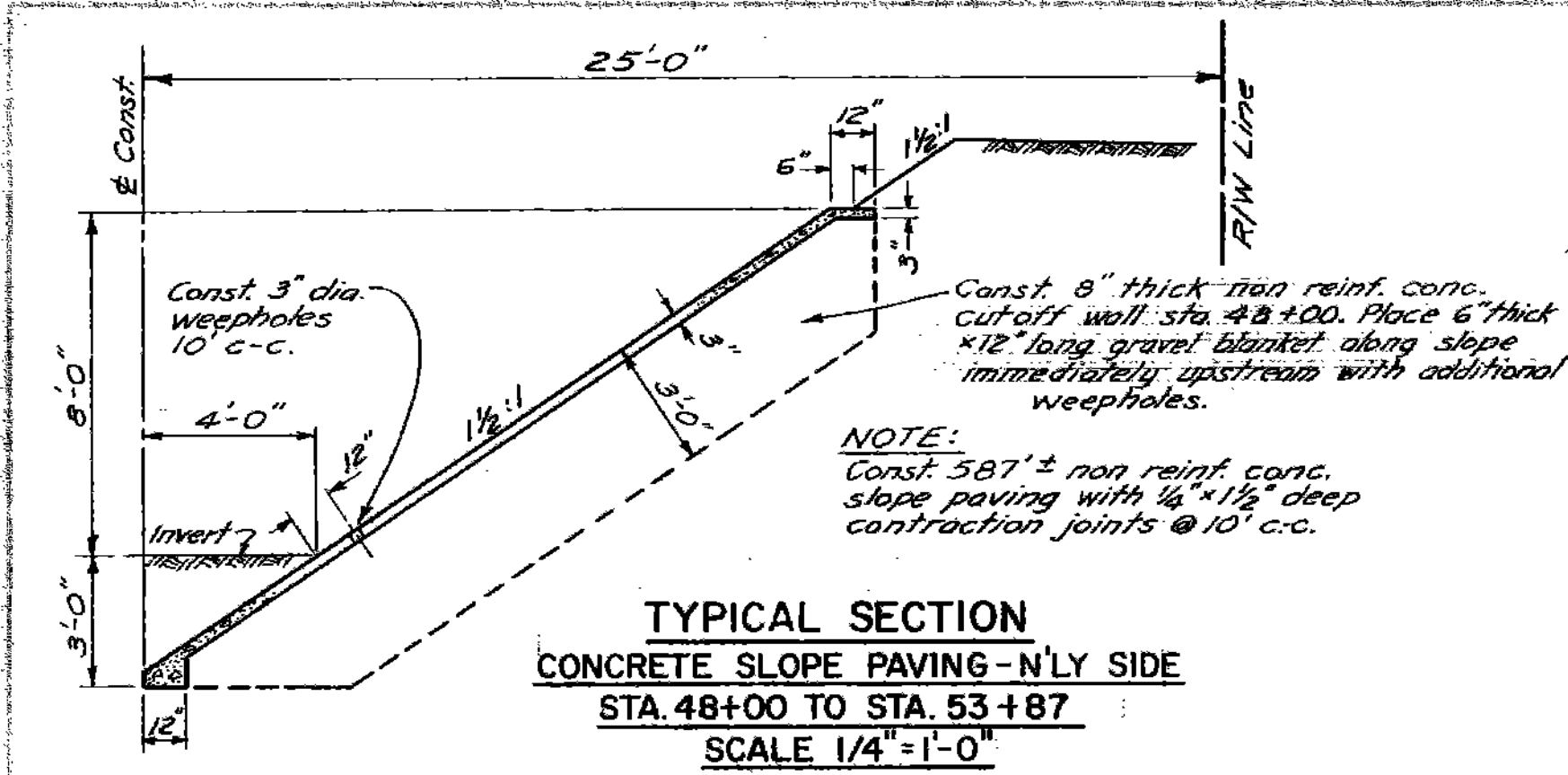
STA. 21+10.64 TO STA. 24+29.60
SUPERSEDED BY DWG. NO. F03-509-1

STA. 0+60.00 TO STA. 11+32.61
SUPERSEDED BY DWG. NO. F03-509-1

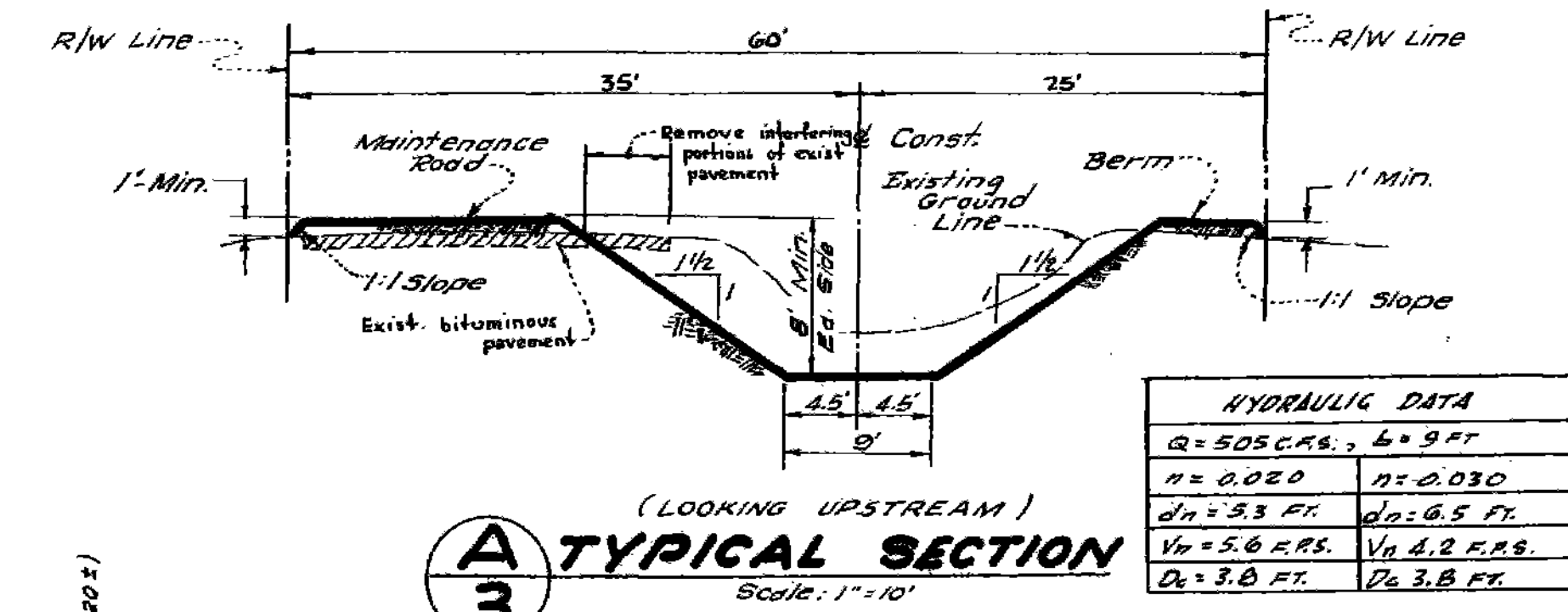
NOTE: CHANNEL HAS BEEN REALIGNED; R.C.B. ENDS AT
STA. 11+32.61 FOR PREVIOUS ALIGNMENT ONLY.



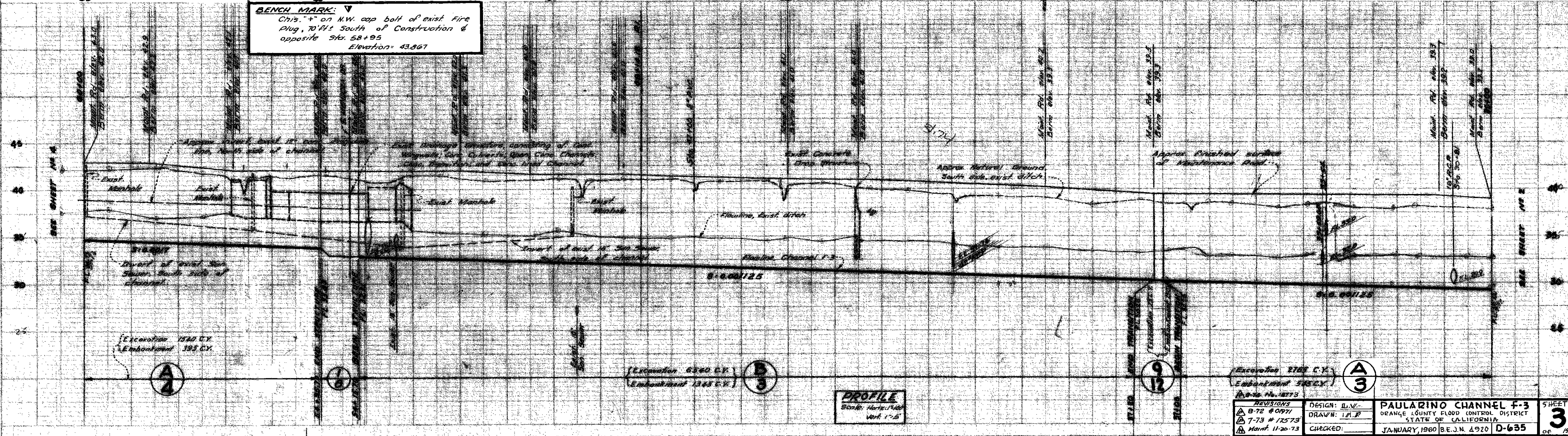
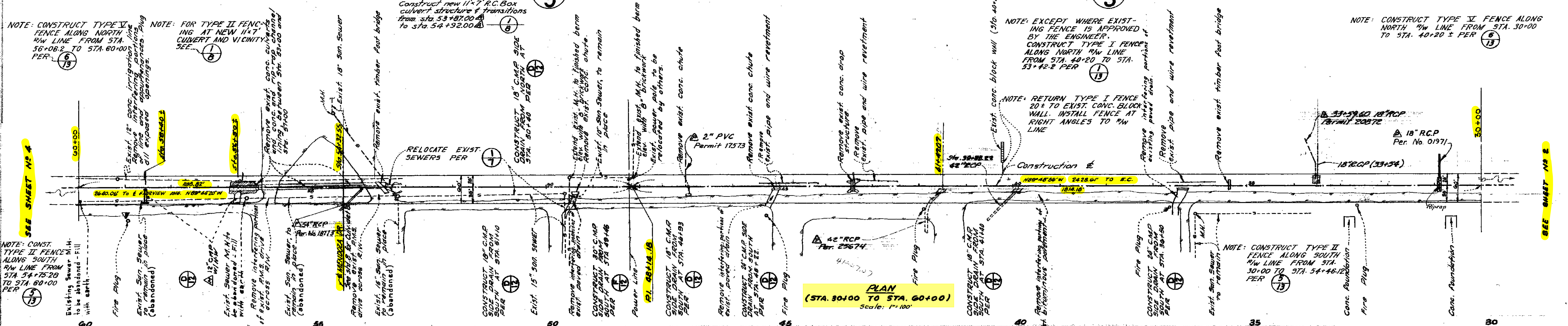
REVISIONS			DESIGN: L.V.			DRAWN: A.P.			CHECKED: _____			PAULARINO CHANNEL F-3			SHEET 2 95/75
MARK	DATE	DESCRIPTION										ORANGE COUNTY FLOOD CONTROL DISTRICT			
												STATE OF CALIFORNIA			
Δ	6/75	Permit # 02175										JANUARY, 1980 B.E.L.N. 4920 D-635			
Δ	6/78	Permit 25976													



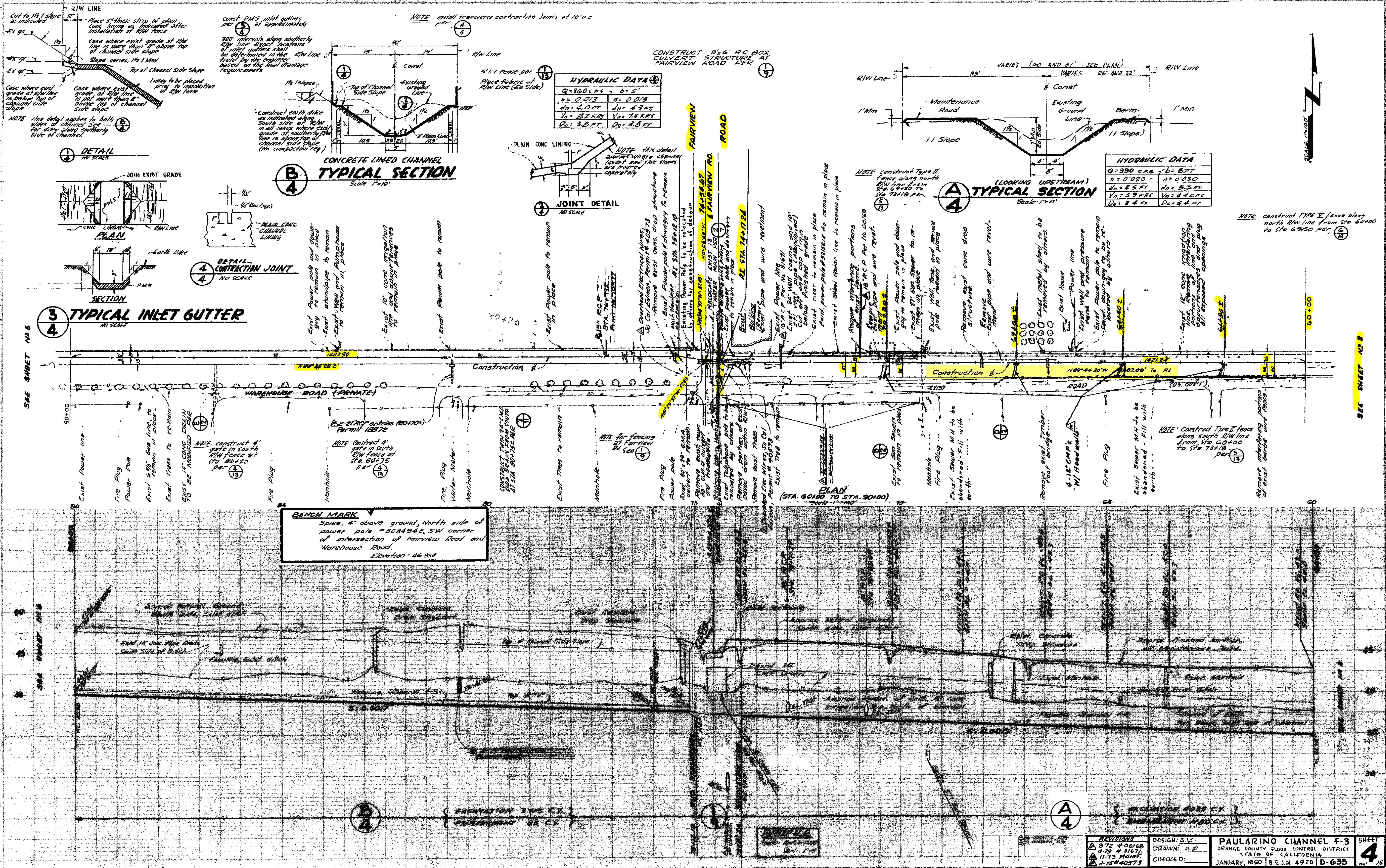
HYDRAULIC DATA	
Q = 460 C.F.S.	b = 8 FT.
n = 0.020	n = 0.030
d _h = 5.3 FT.	d _h = 6.5 FT.
V _h = 5.5 F.P.S.	V _h = 4.0 F.P.S.
D _h = 3.7 FT.	D _h = 3.7 FT.

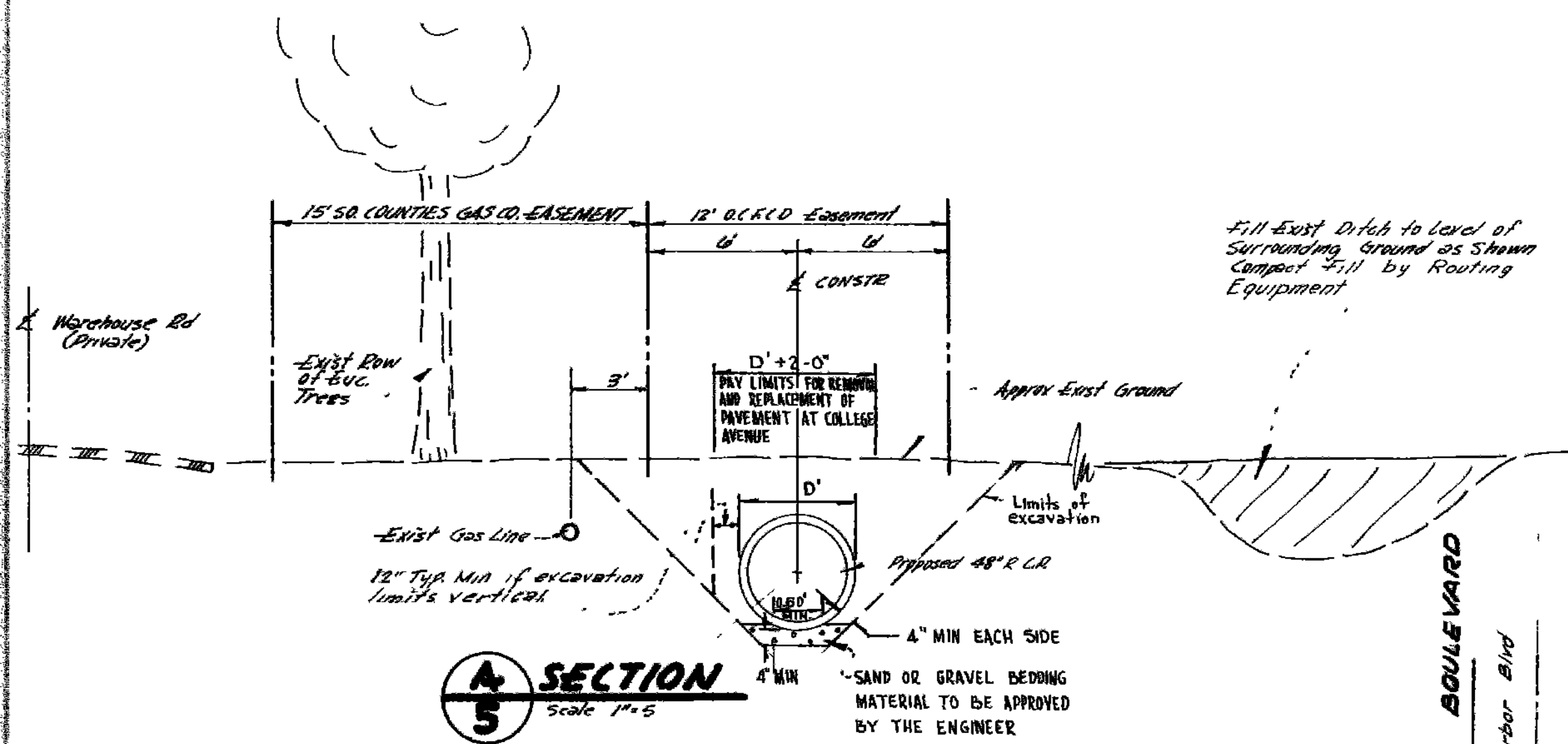


HYDRAULIC DATA	
Q = 505 C.F.S.	b = 9 FT.
n = 0.020	n = 0.030
d _h = 5.3 FT.	d _h = 6.5 FT.
V _h = 5.6 F.P.S.	V _h = 4.2 F.P.S.
D _h = 3.6 FT.	D _h = 3.6 FT.



REVISIONS		DESIGN: L.V.	PAULARINO CHANNEL F-3	SHEET 3
Δ	8-72 #0471			
Δ	7-73 #12573	CHECKED:	JANUARY 1960 B.E.J.N. 2920 D-635	OF 15





HARBOR BOULEVARD

1021.40' W
1' Harbor Blvd

SECESTROM R.R. SPUR

EXIST. PRIVATE ROAD
18\"/>

STA 101+00.00
END 48\"/>

EXIST. PRIVATE ROAD
18\"/>

STA 101+00.00
END 48\"/>

EXIST. PRIVATE ROAD
18\"/>

STA 101+00.00
END 48\"/>

EXIST. PRIVATE ROAD
18\"/>

STA 101+00.00
END 48\"/>

EXIST. PRIVATE ROAD
18\"/>

STA 101+00.00
END 48\"/>

EXIST. PRIVATE ROAD
18\"/>

STA 101+00.00
END 48\"/>

EXIST. PRIVATE ROAD
18\"/>

STA 101+00.00
END 48\"/>

EXIST. PRIVATE ROAD
18\"/>

STA 101+00.00
END 48\"/>

EXIST. PRIVATE ROAD
18\"/>

STA 101+00.00
END 48\"/>

EXIST. PRIVATE ROAD
18\"/>

STA 101+00.00
END 48\"/>

EXIST. PRIVATE ROAD
18\"/>

STA 101+00.00
END 48\"/>

EXIST. PRIVATE ROAD
18\"/>

STA 101+00.00
END 48\"/>

EXIST. PRIVATE ROAD
18\"/>

STA 101+00.00
END 48\"/>

EXIST. PRIVATE ROAD
18\"/>

STA 101+00.00
END 48\"/>

EXIST. PRIVATE ROAD
18\"/>

STA 101+00.00
END 48\"/>

EXIST. PRIVATE ROAD
18\"/>

STA 101+00.00
END 48\"/>

EXIST. PRIVATE ROAD
18\"/>

STA 101+00.00
END 48\"/>

EXIST. PRIVATE ROAD
18\"/>

STA 101+00.00
END 48\"/>

EXIST. PRIVATE ROAD
18\"/>

STA 101+00.00
END 48\"/>

EXIST. PRIVATE ROAD
18\"/>

STA 101+00.00
END 48\"/>

EXIST. PRIVATE ROAD
18\"/>

STA 101+00.00
END 48\"/>

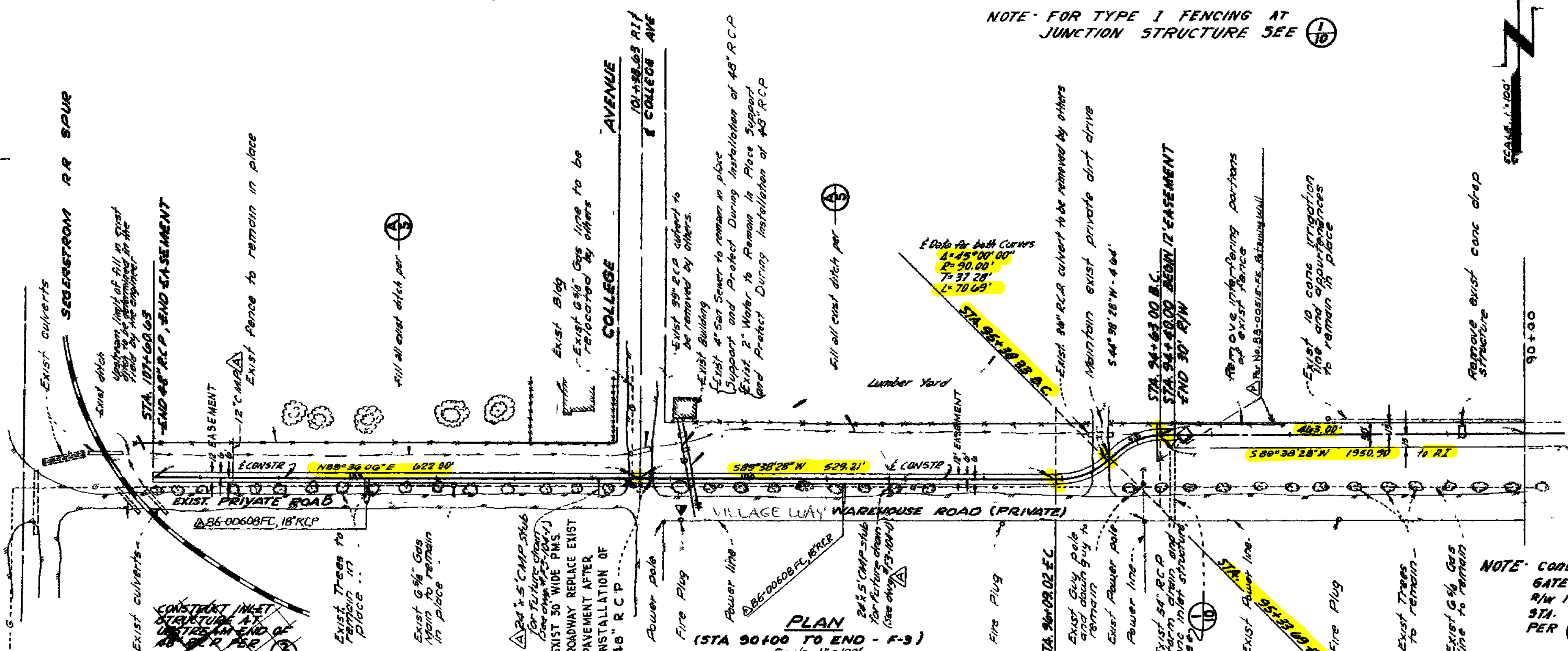
EXIST. PRIVATE ROAD
18\"/>

STA 101+00.00
END 48\"/>

CONSTRUCT E.C. MANHOLE FROM
STA 101+00.75 TO STA 101+18.25
AND 36\"/>

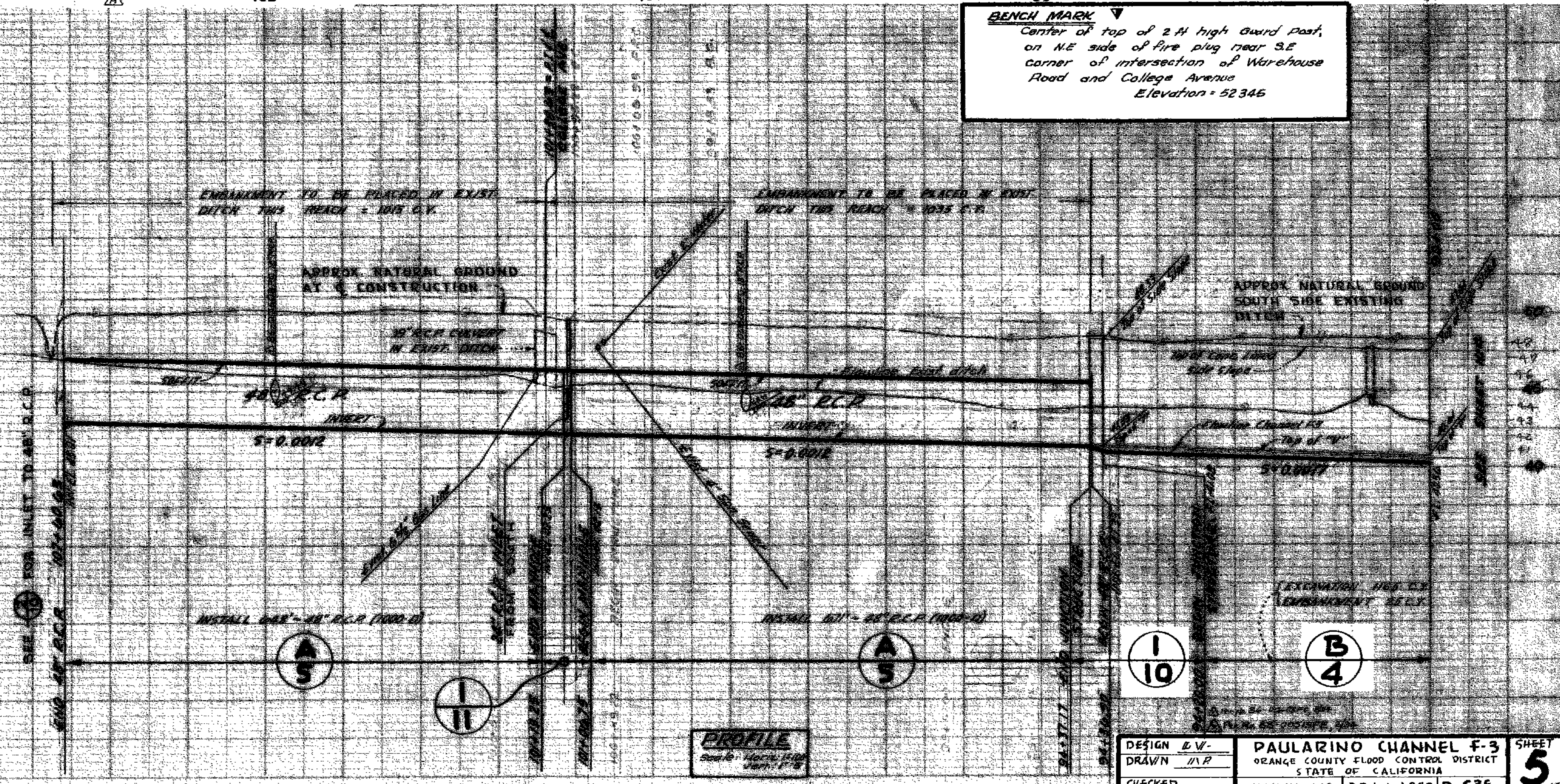
CONSTRUCT R.C. JUNCTION STRUCTURE
FROM STA 94+20.00 TO STA 94+37.17
PER 10

NOTE: FOR TYPE I FENCING AT
JUNCTION STRUCTURE SEE 10



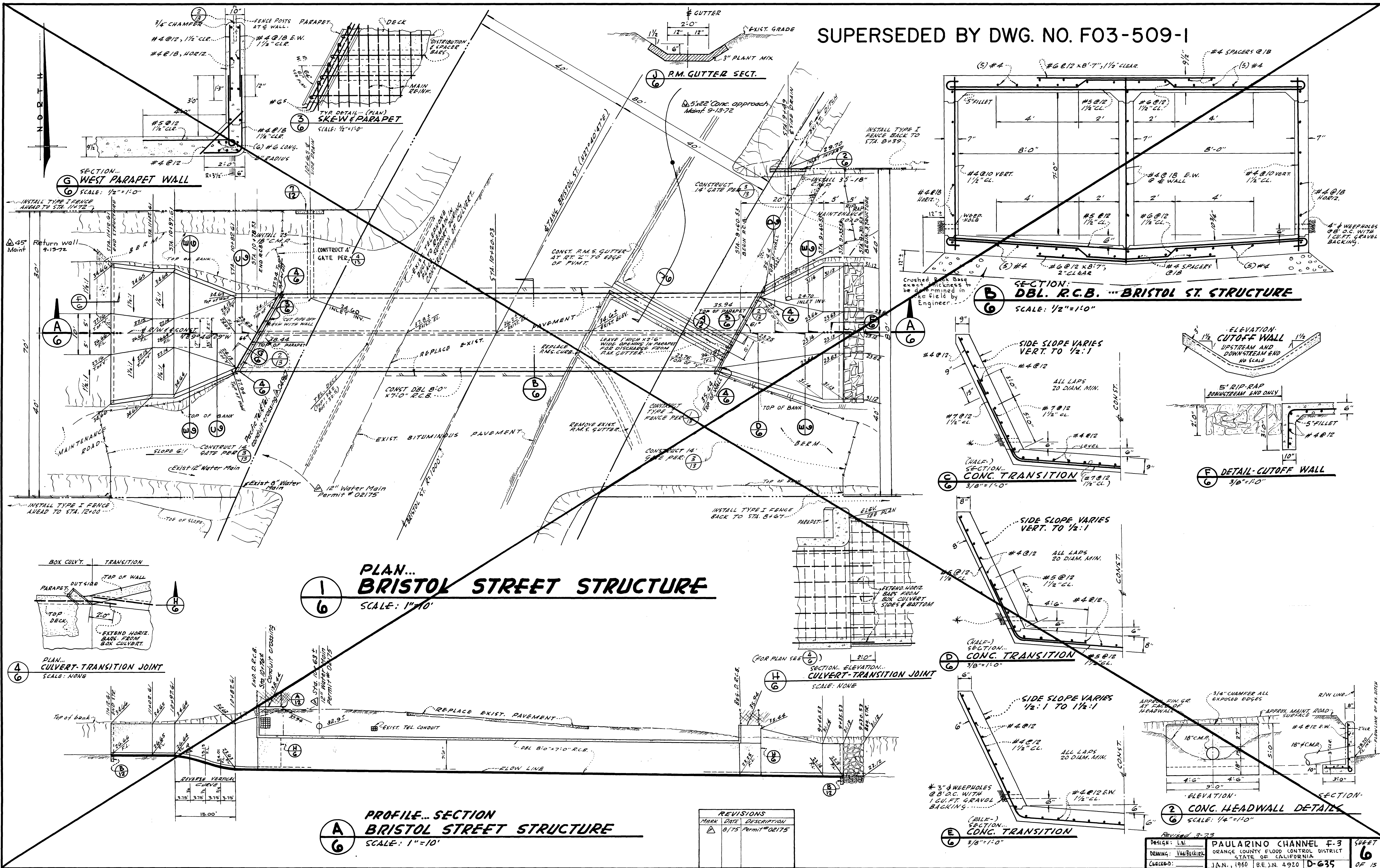
NOTE: CONSTRUCT 4\"/>

BENCH MARK
Center of top of 2 ft high wood post,
on NE side of fire plug near SE
corner of intersection of Warehouse
Road and College Avenue
Elevation = 52.346

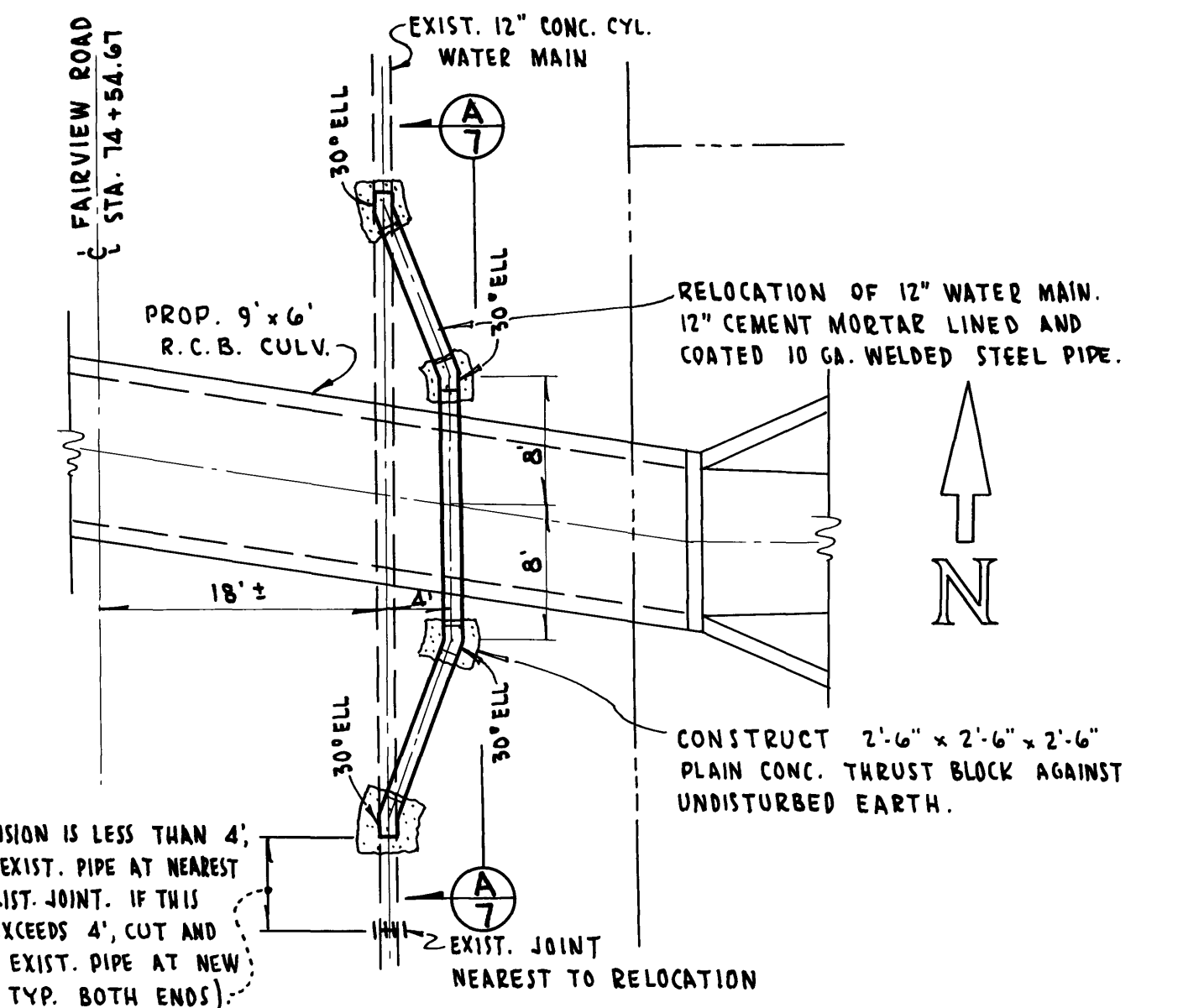
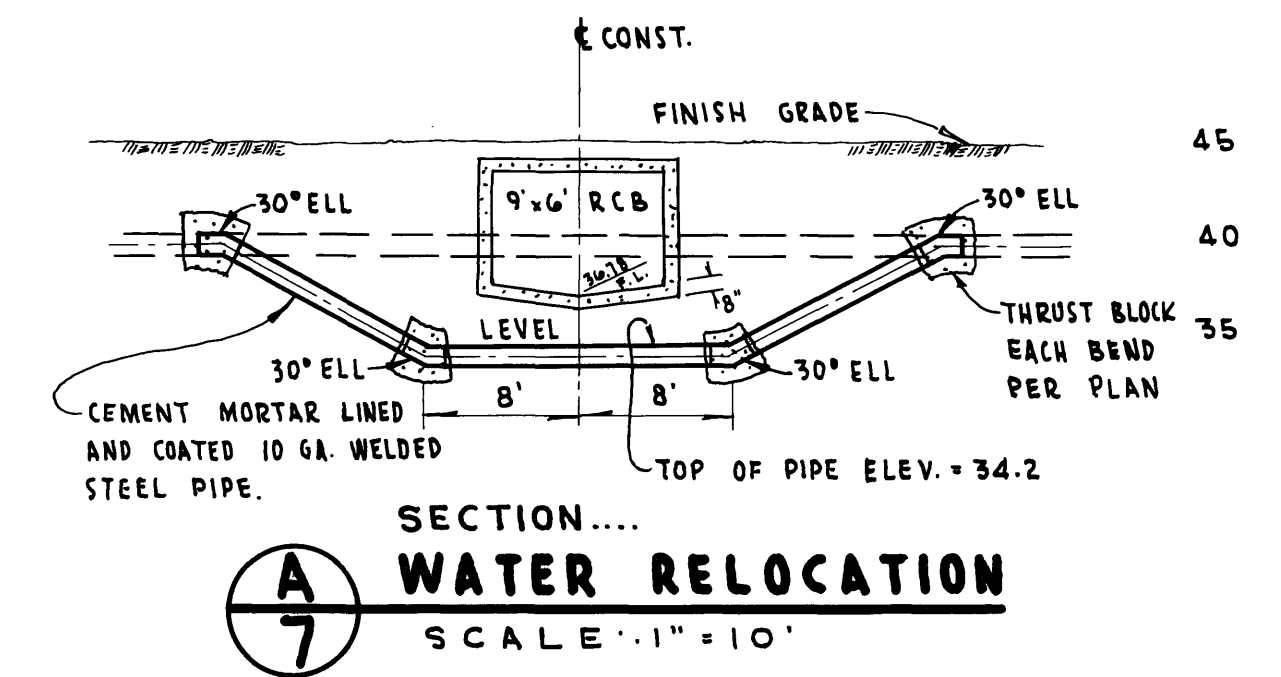
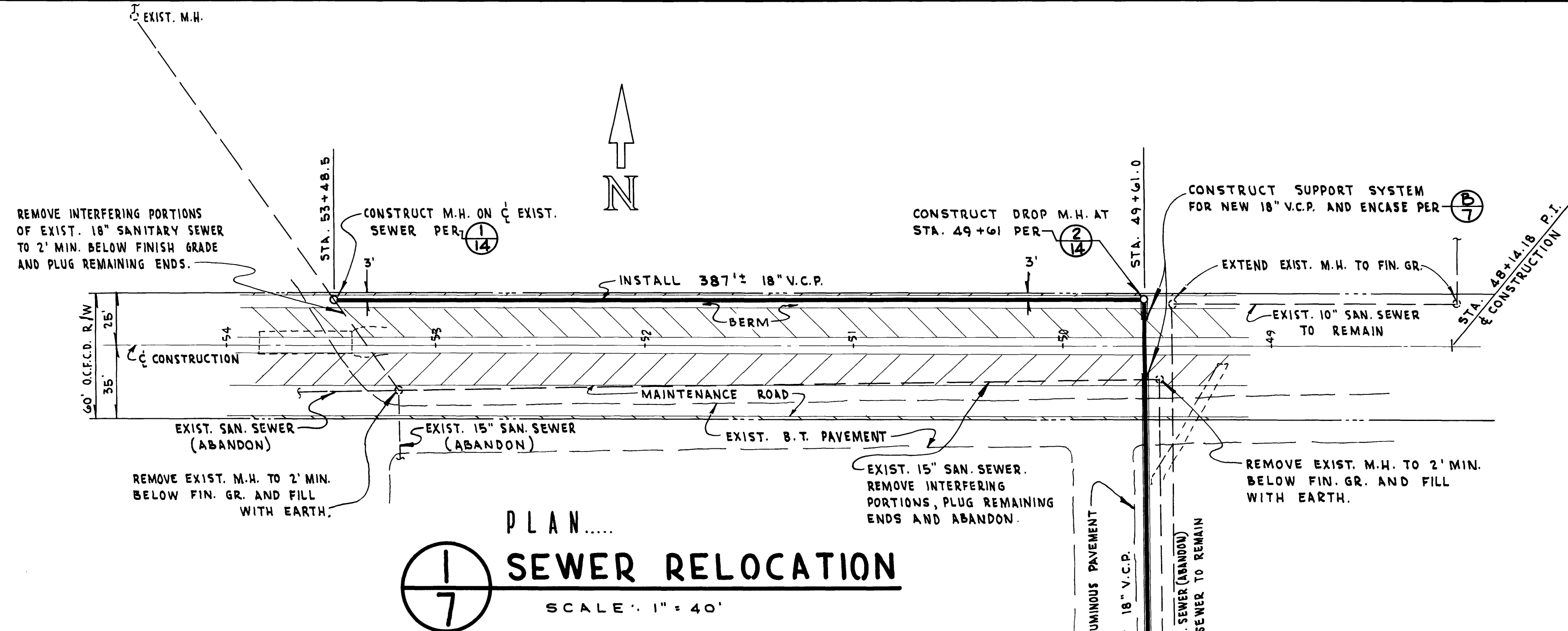


DESIGN E.V.
DRAWN J.P.
CHECKED
PAULARINO CHANNEL F-3
ORANGE COUNTY FLOOD CONTROL DISTRICT
STATE OF CALIFORNIA
JANUARY, 1960
SHEET 5
F03-701-1-A

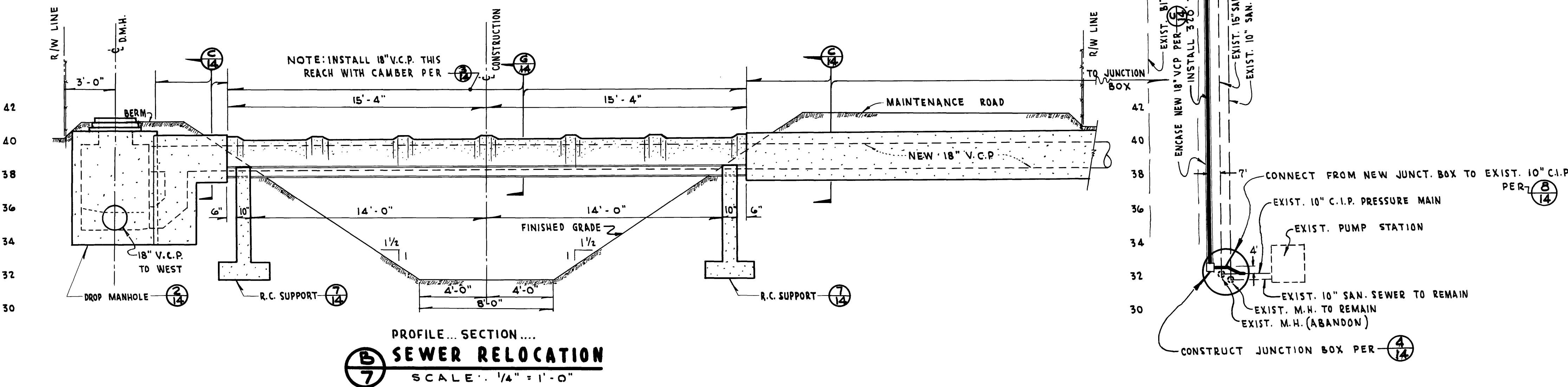
SUPERSEDED BY DWG. NO. F03-509-1



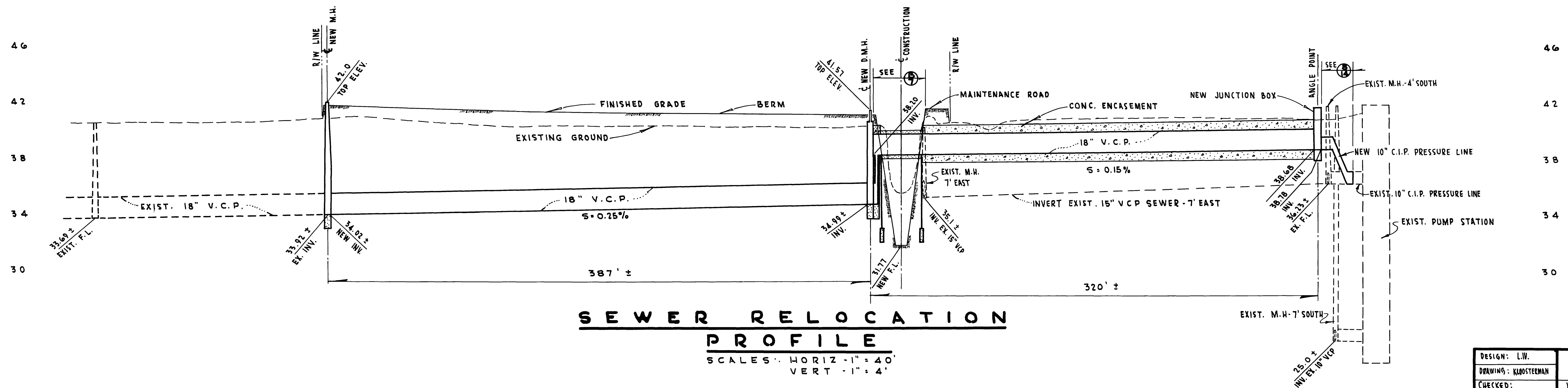
NOTE:
For concrete slope paving
sta. 48+00 to sta. 53+87,
see typical section sheet 3.



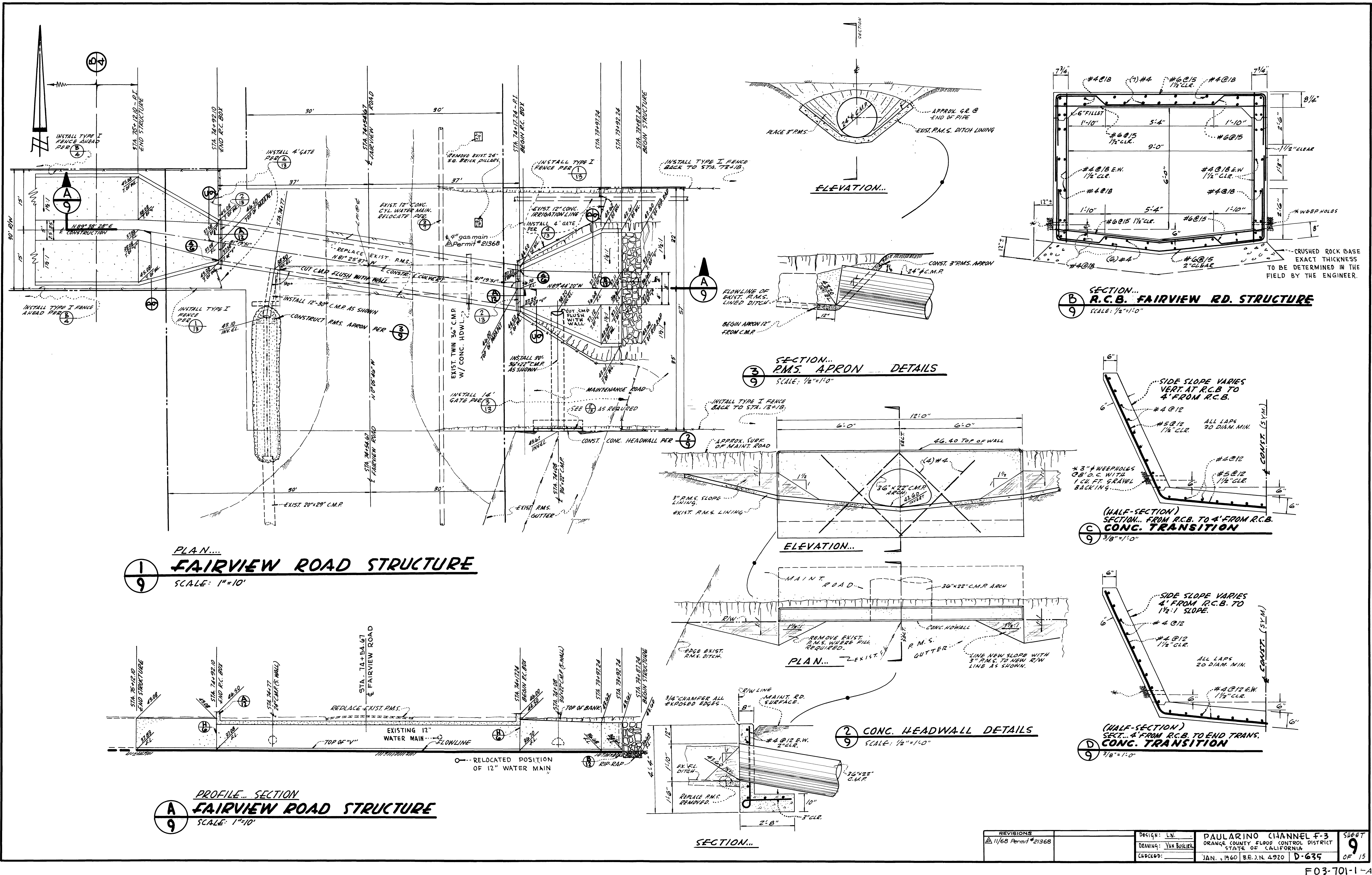
PLAN....
2
12\"/>

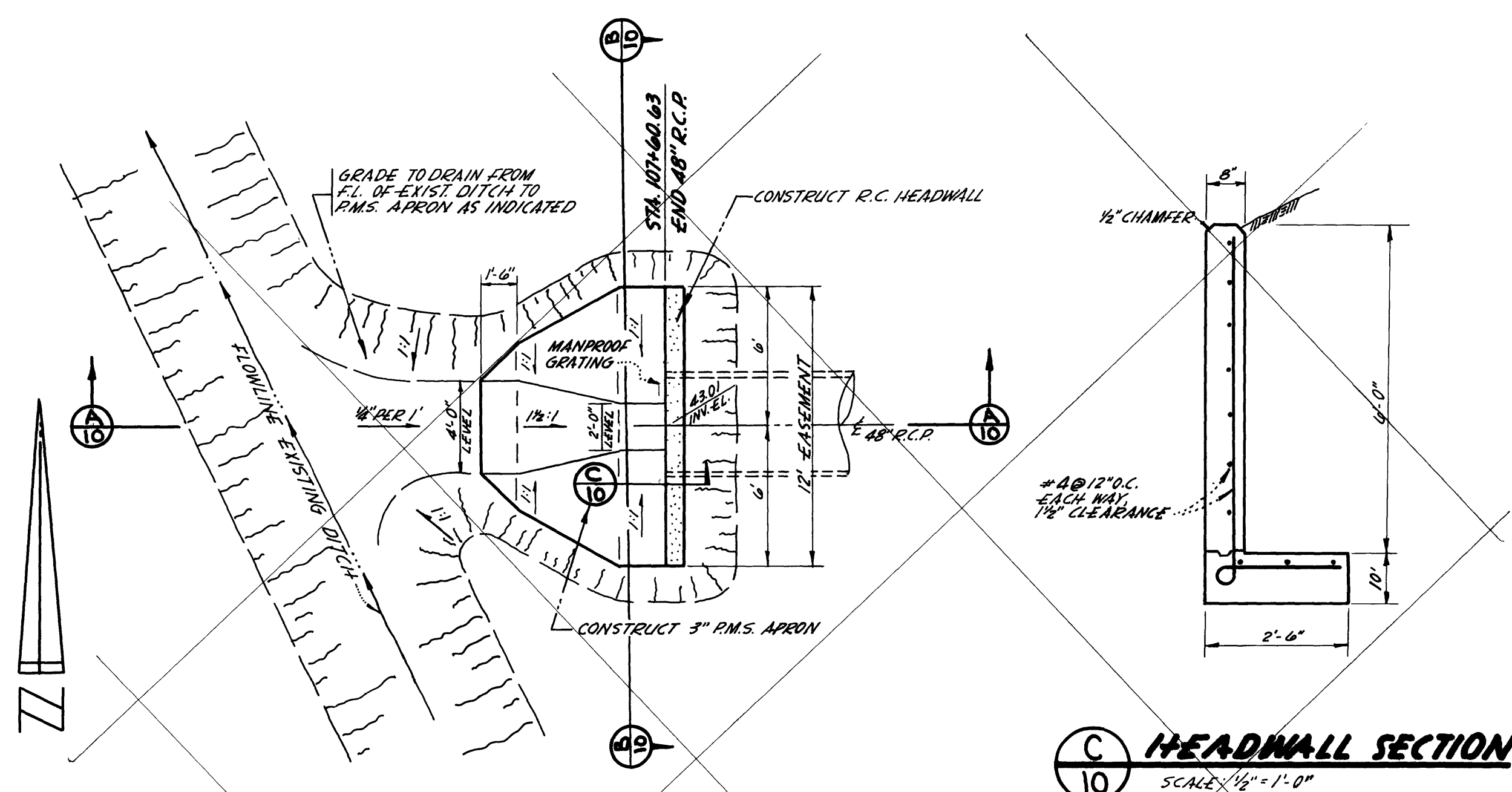


PROFILE... SECTION....
7
SEWER RELOCATION
SCALE: 1/4\"/>

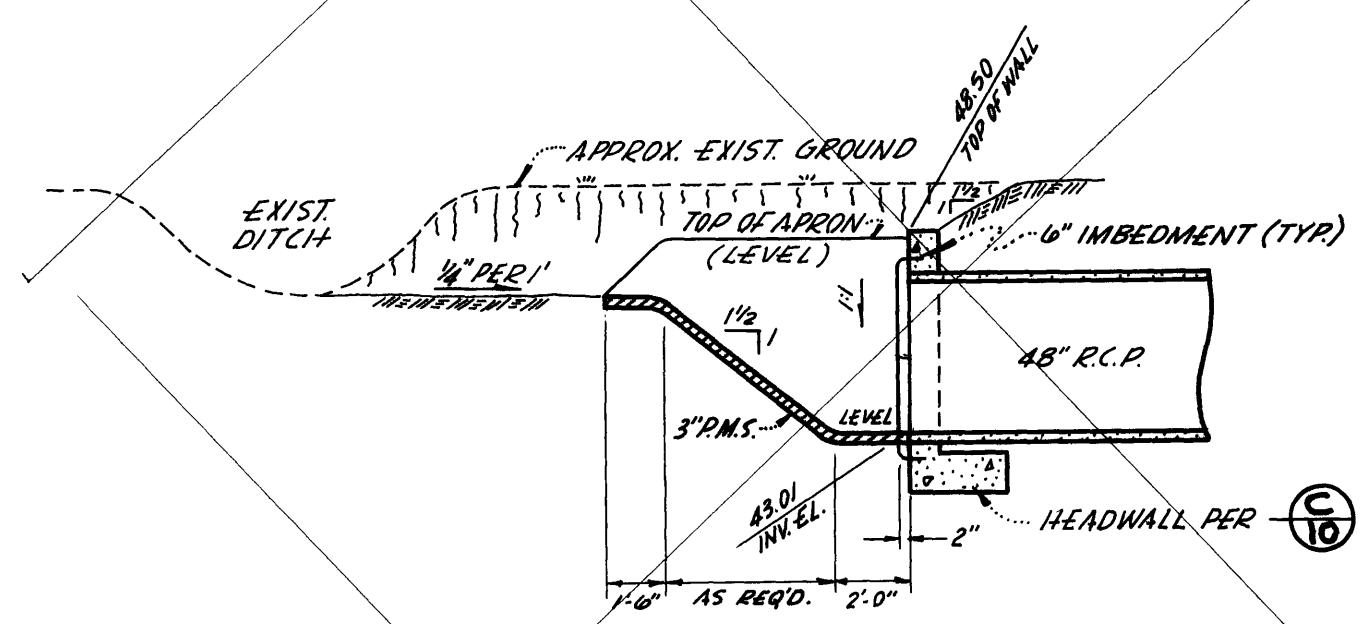


SEWER RELOCATION
PROFILE
SCALE: HORIZ. 1\"/>

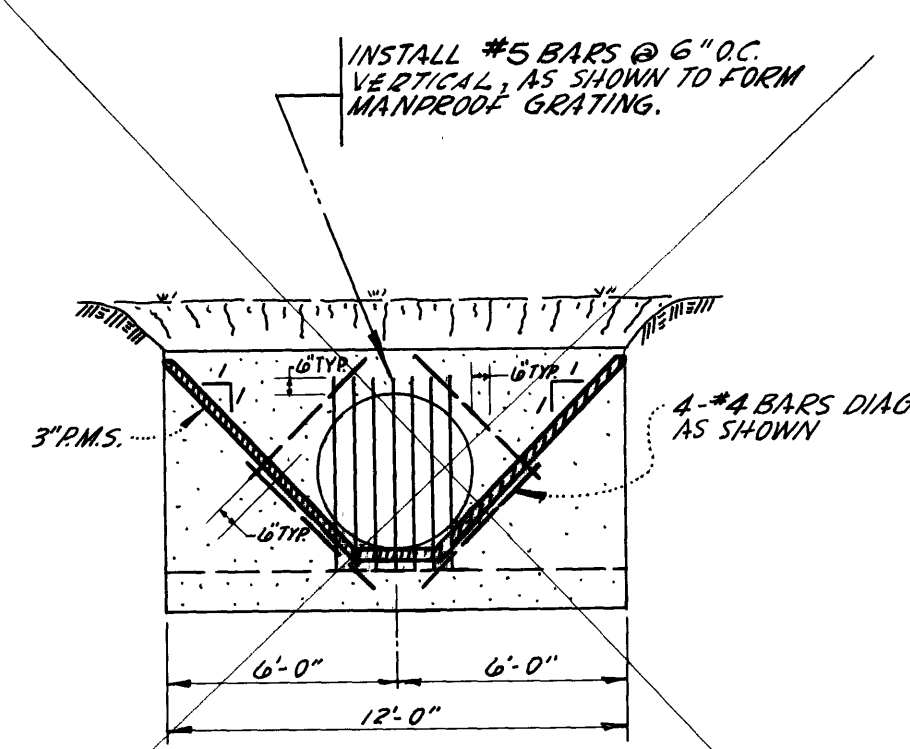




PLAN...
SCALE: 1"=5'

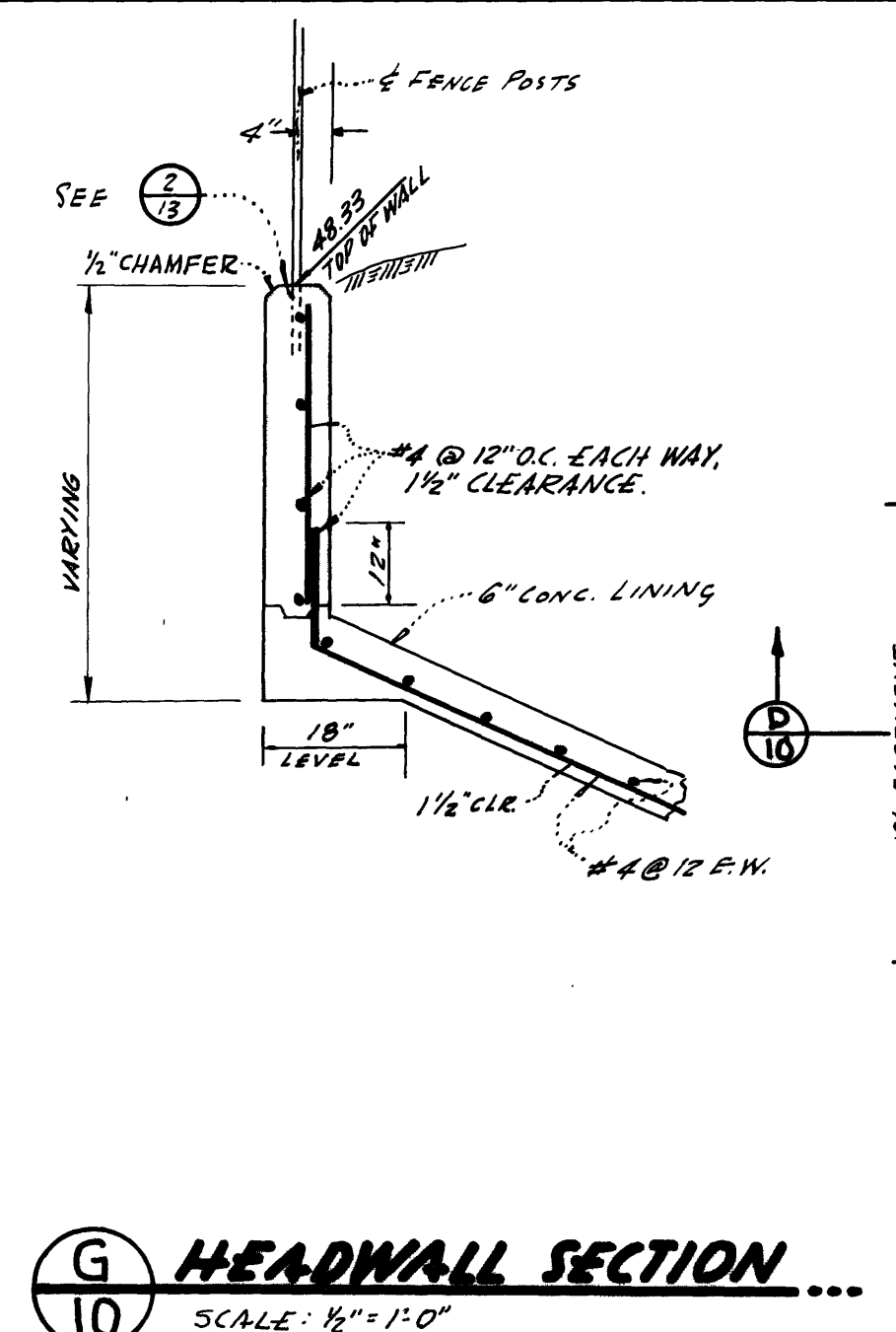


A
10
PROFILE SECTION...
SCALE: 1"=5'

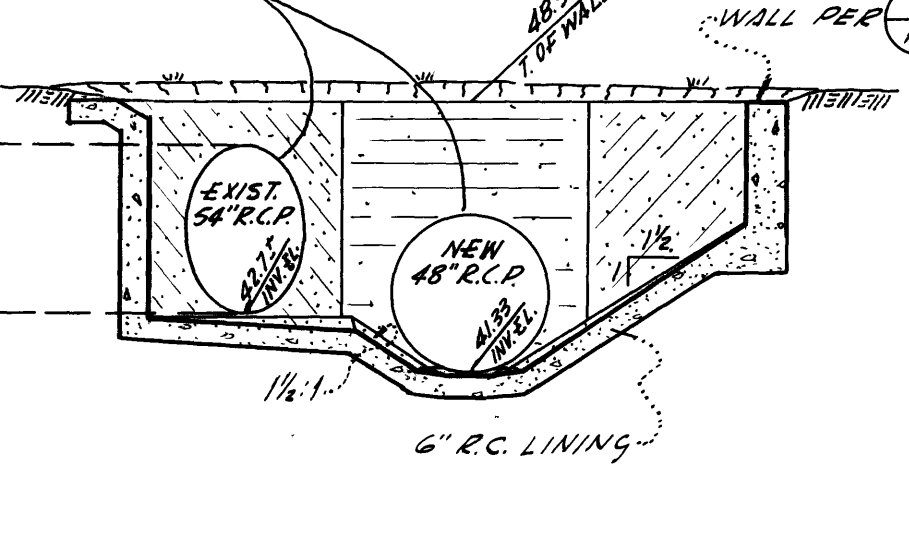
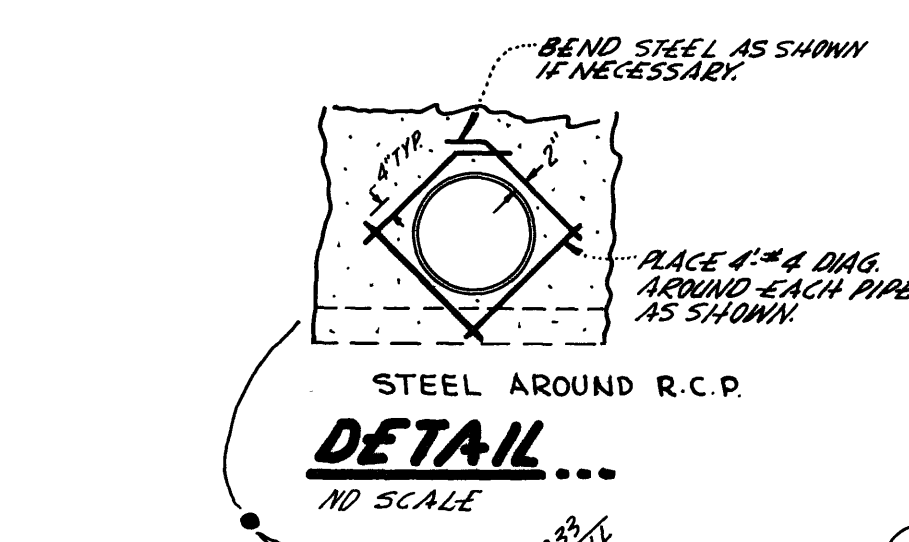


B
10
ELEVATION SECTION...
SCALE: 1"=5'

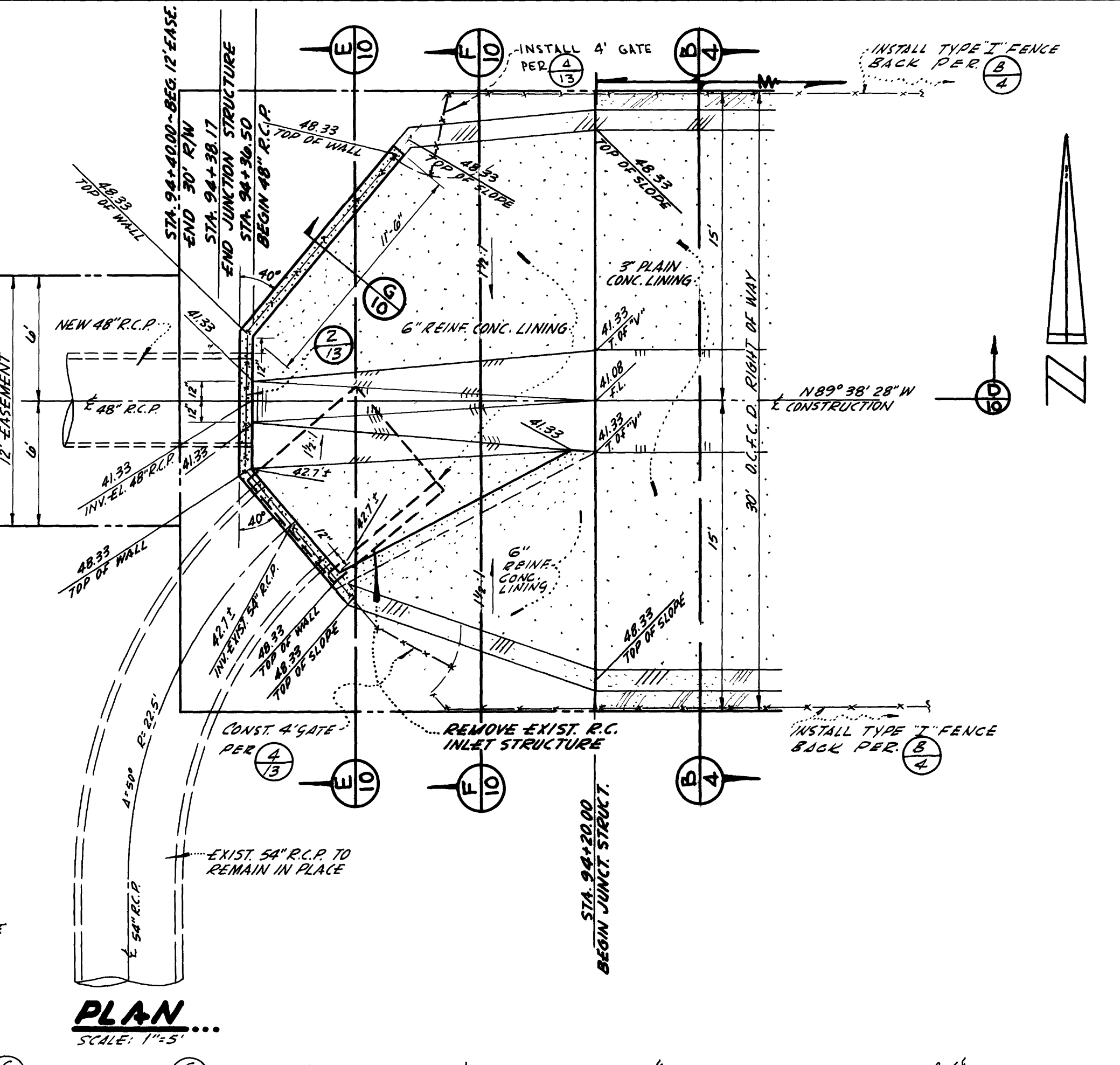
UPSTREAM END OF CONSTRUCTION
2
10
INLET STRUCTURE...
SCALE: AS NOTED



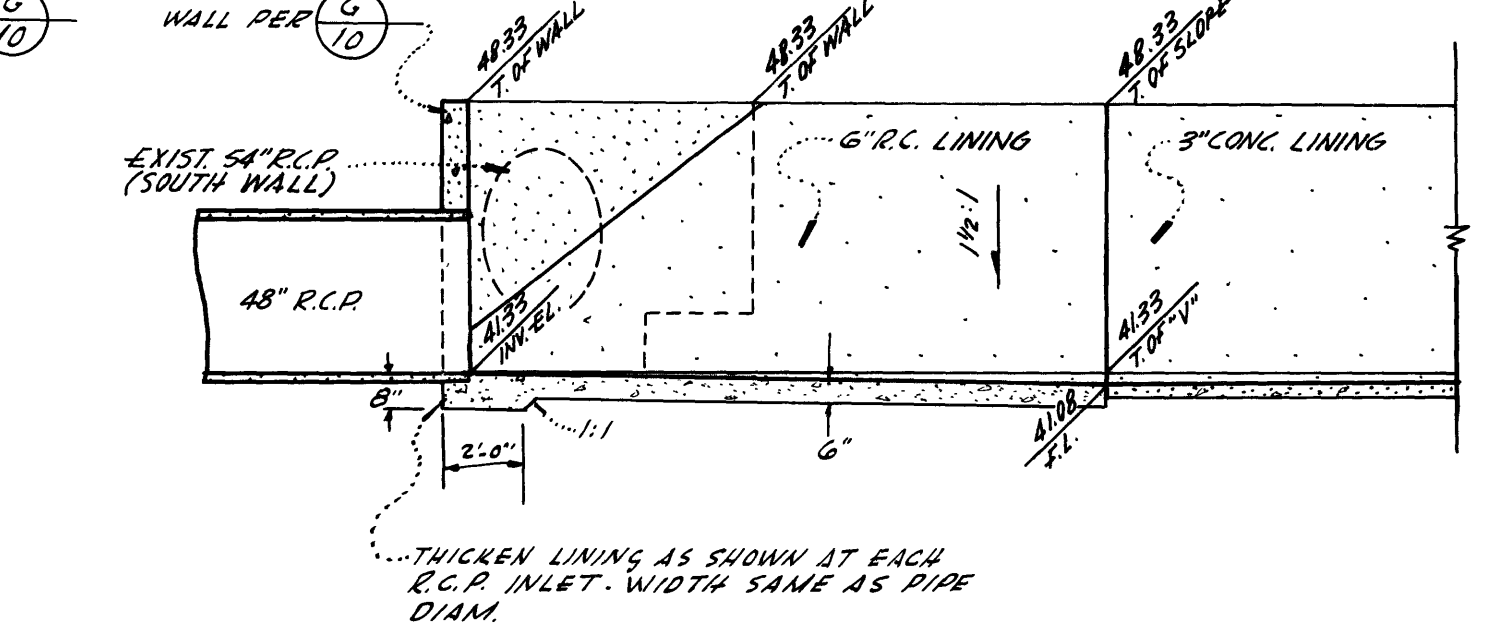
G
10
HEADWALL SECTION...
SCALE: 1/2"=1'-0"



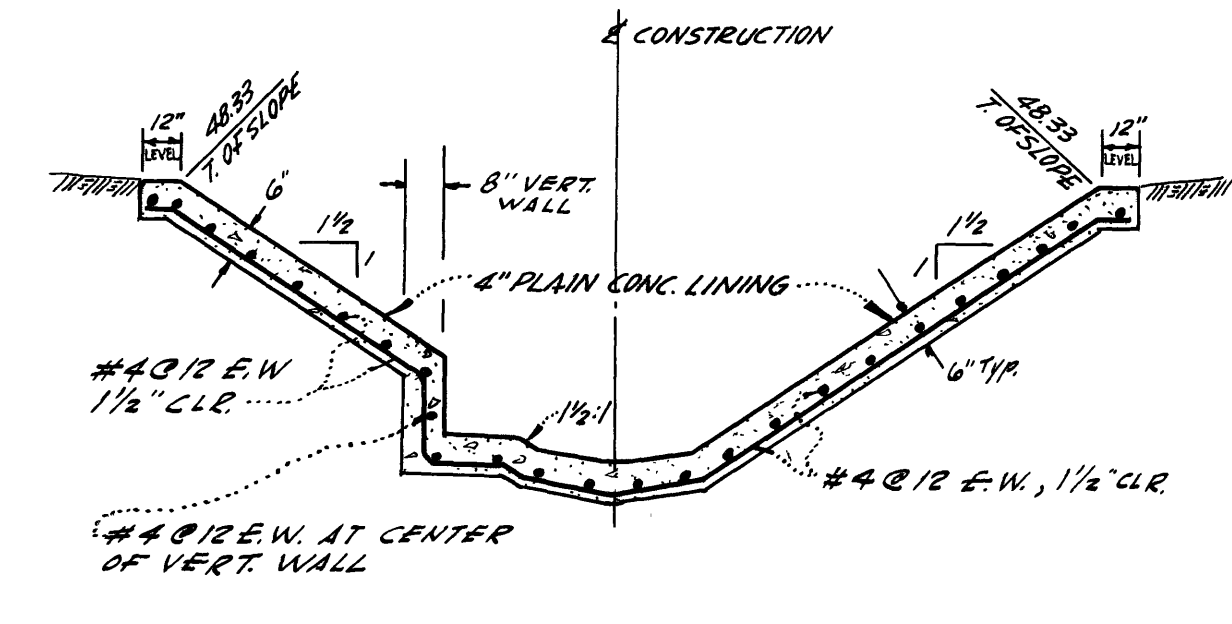
E
10
ELEVATION SECTION...
SCALE: 1"=5'



PLAN...
SCALE: 1"=5'

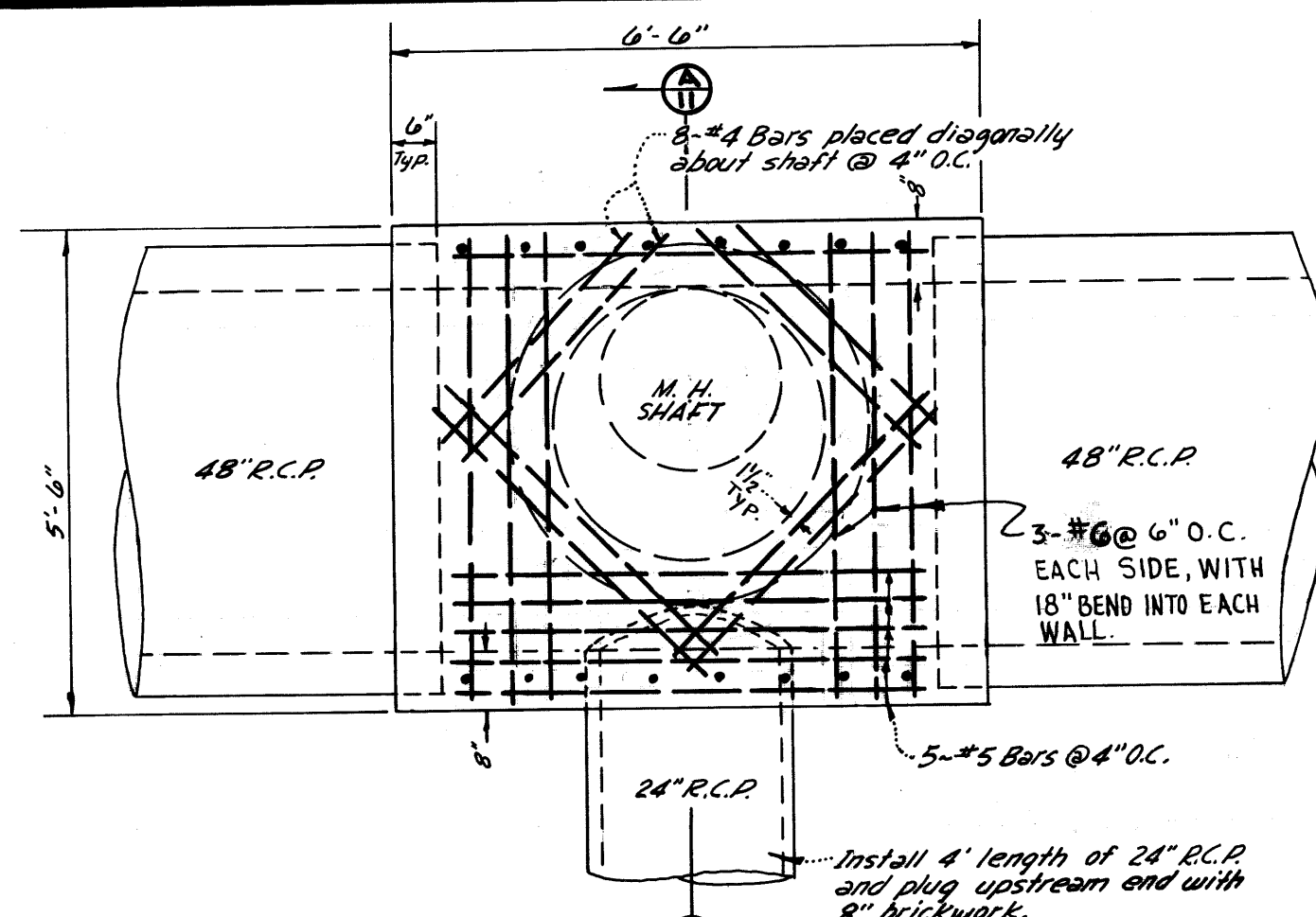
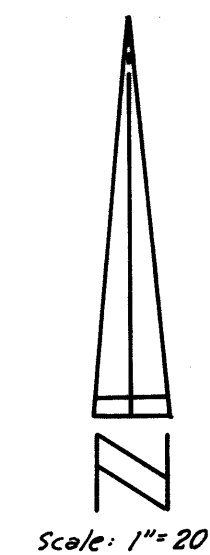


D
10
PROFILE SECTION...
SCALE: 1"=5'

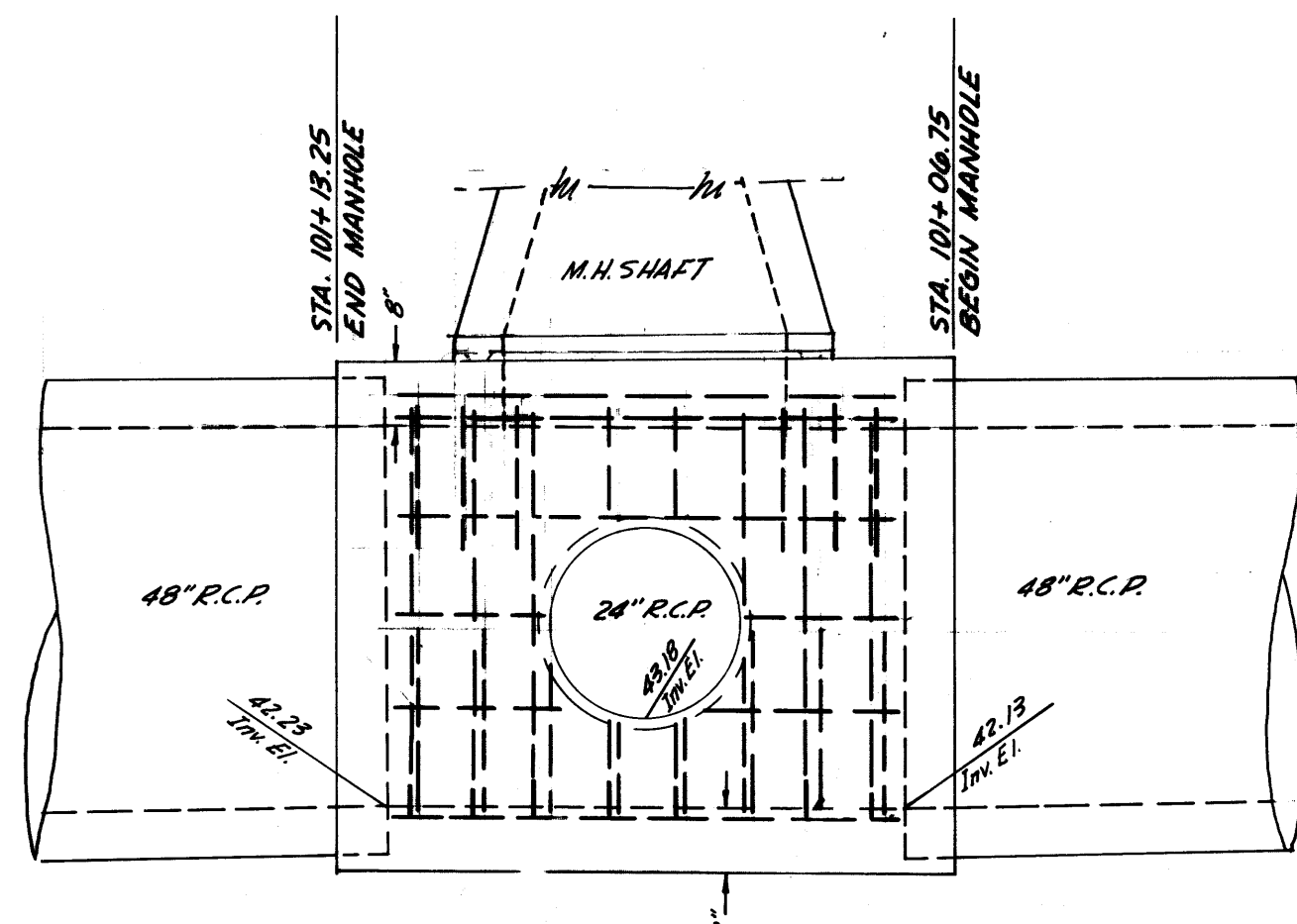


F
10
ELEVATION SECTION...
SCALE: 1"=5'

BETWEEN STA. 94+20.00 & STA. 94+38.17
1
10
JUNCTION STRUCTURE...
SCALE: AS NOTED

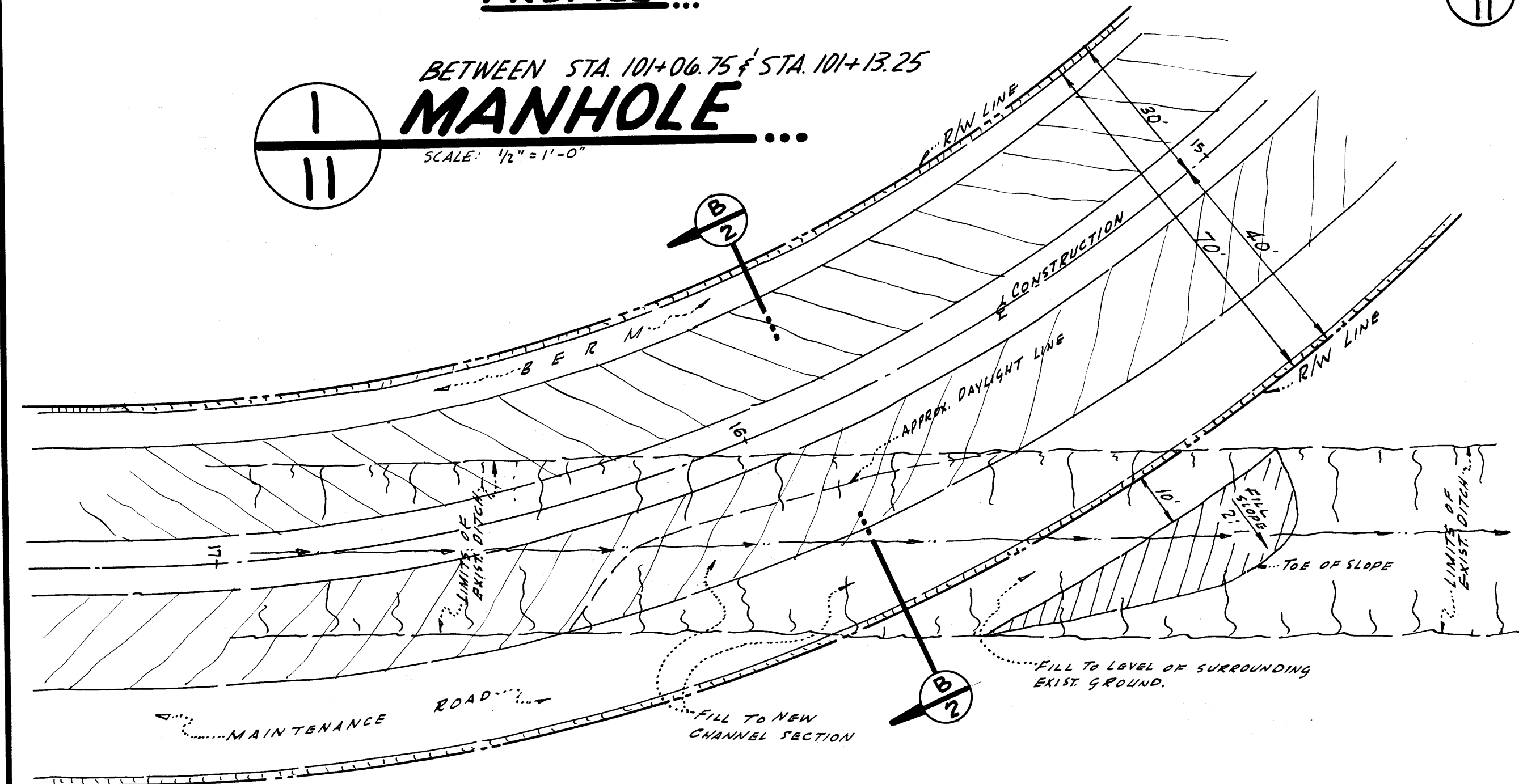


PLAN...

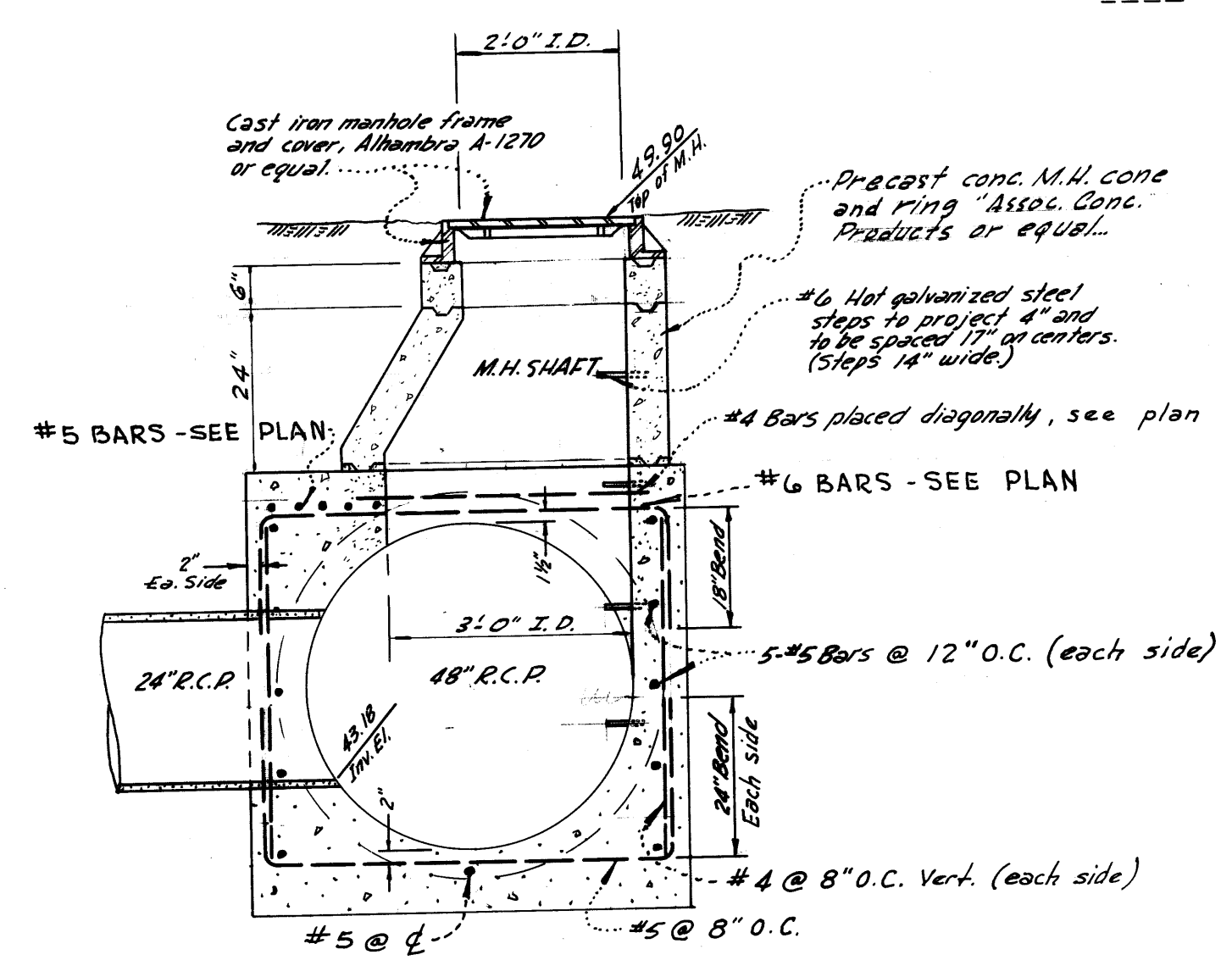


PROFILE...

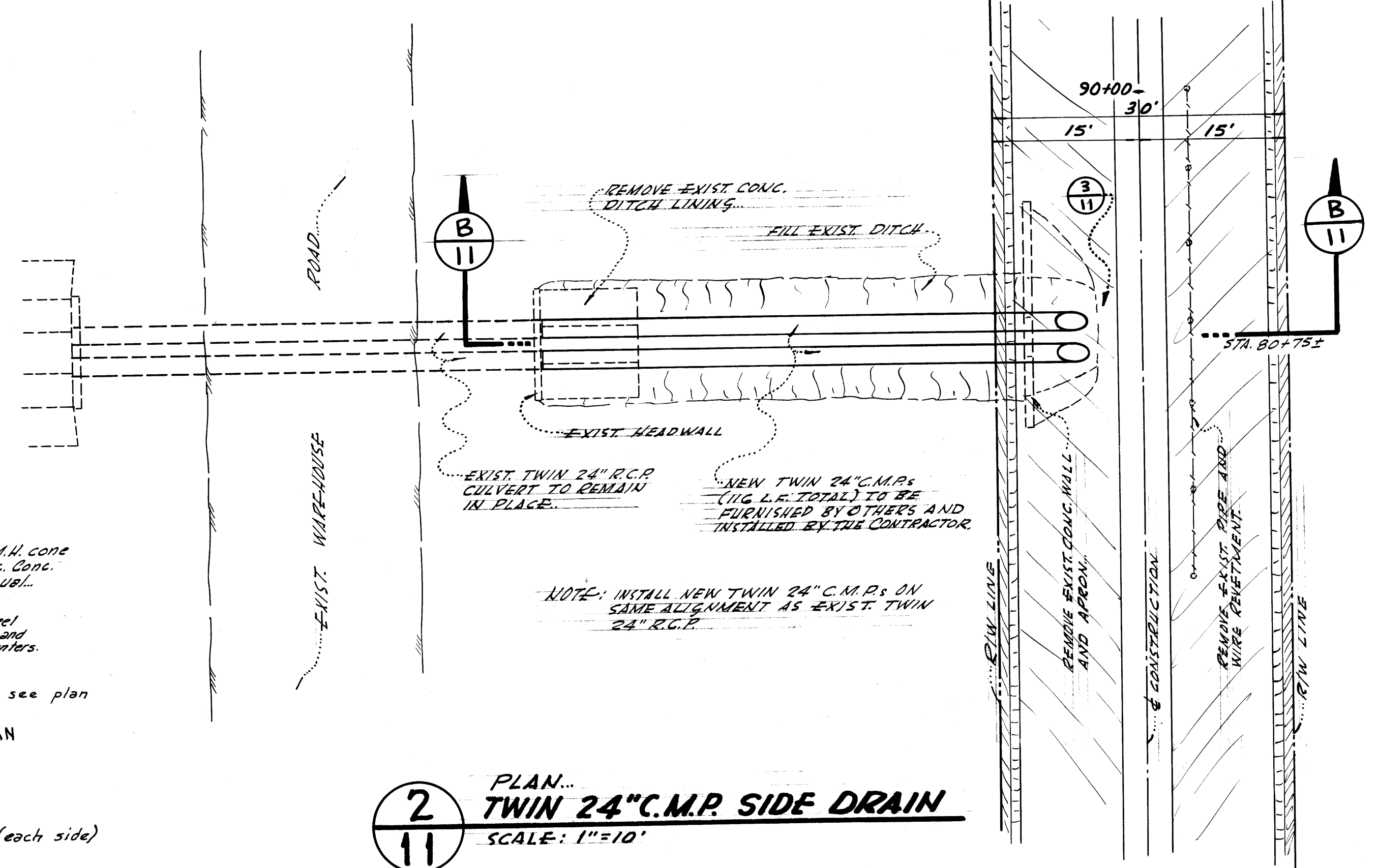
BETWEEN STA. 101+06.75 & STA. 101+13.25
MANHOLE
SCALE: 1/2"=1'-0"



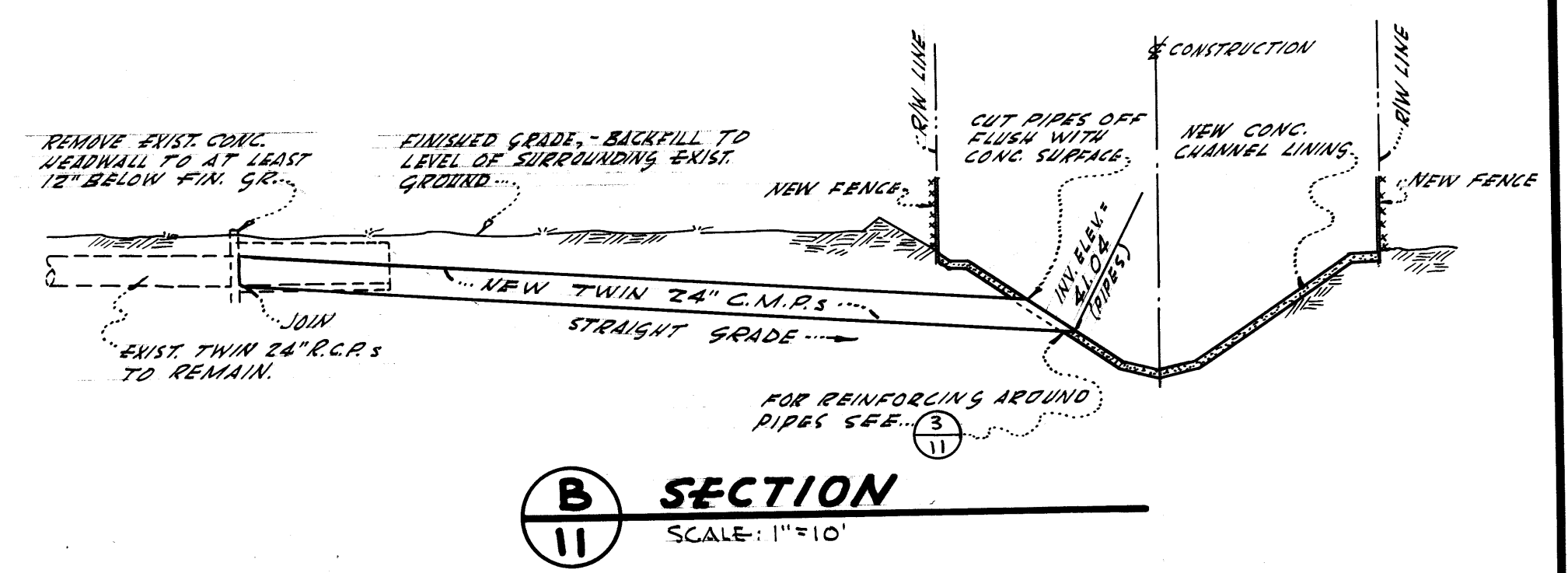
4 FILL DETAIL
SCALE: 1"=20'



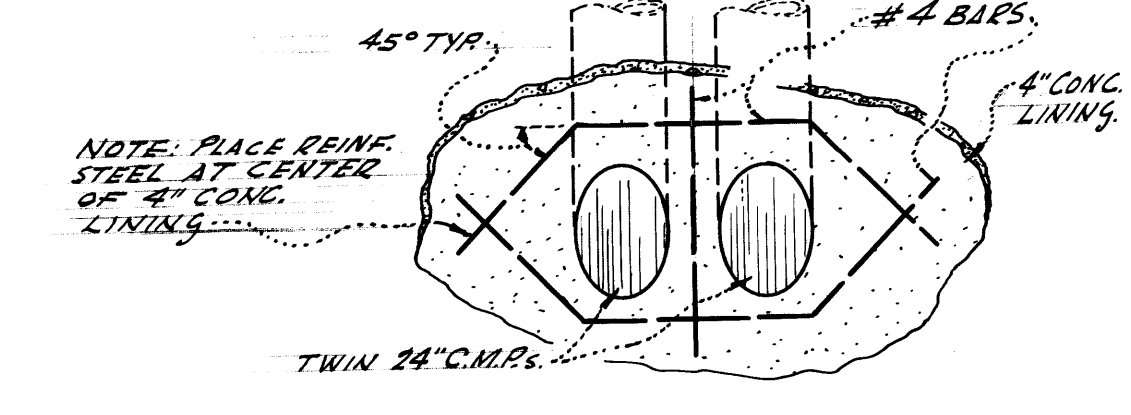
A ELEVATION SECTION



2 PLAN... TWIN 24" C.M.P. SIDE DRAIN
SCALE: 1"=10'

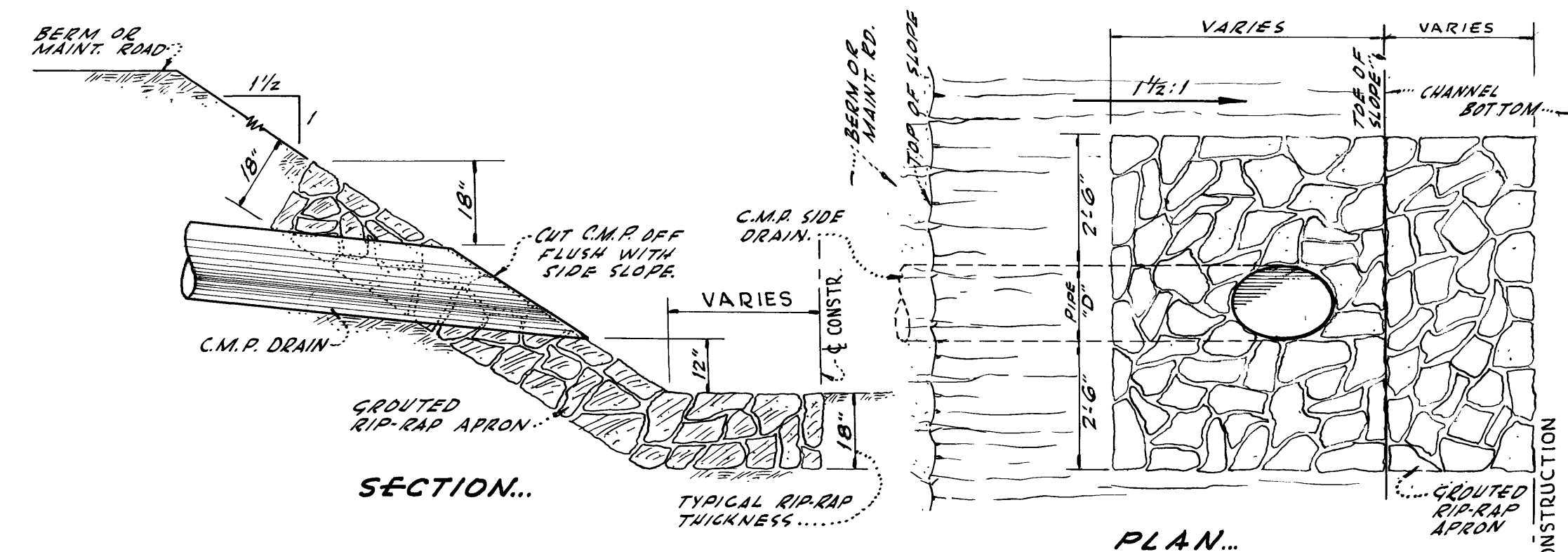


B SECTION
SCALE: 1"=10'

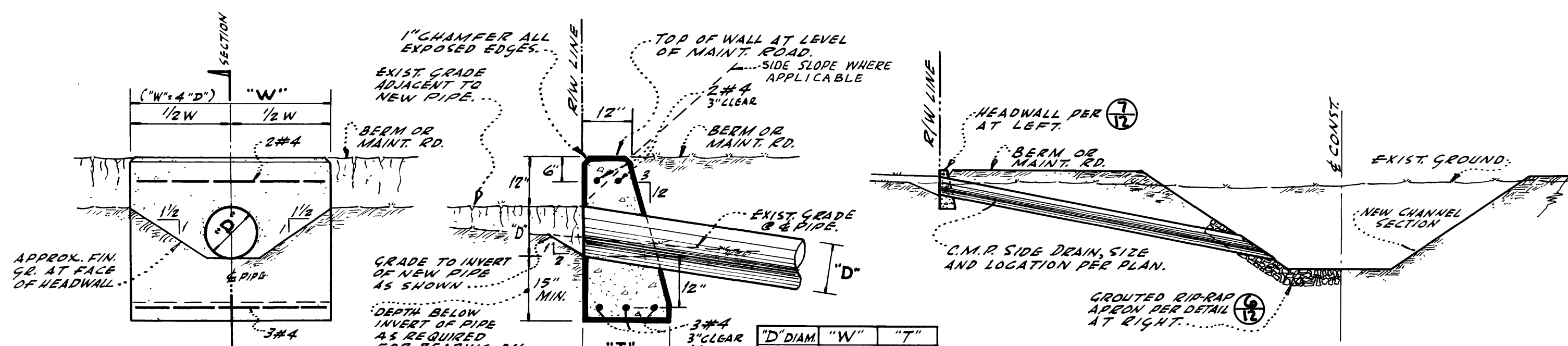


3 REINFORCING DETAIL
NO SCALE

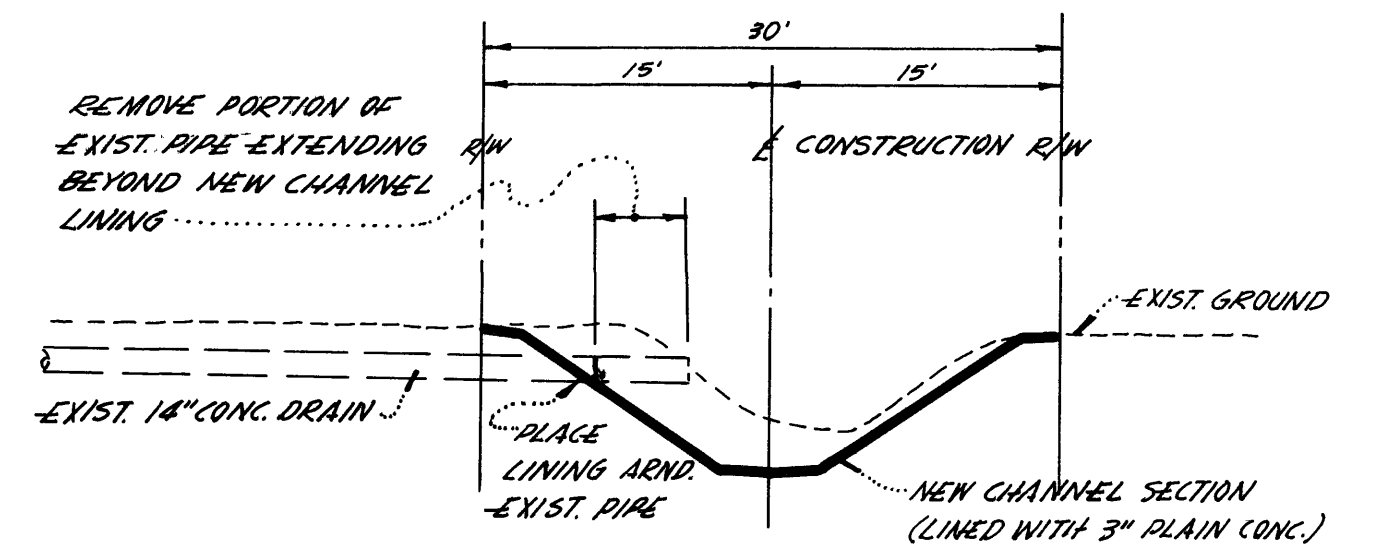
DESIGN: LW	PAULARINO CHANNEL F-3	SHEET
DRAWN: MB	ORANGE COUNTY FLOOD CONTROL DISTRICT	11
CHECK: MB	STATE OF CALIFORNIA	OF 15
	JANUARY, 1960	B.E. J.N. 4920 D-635



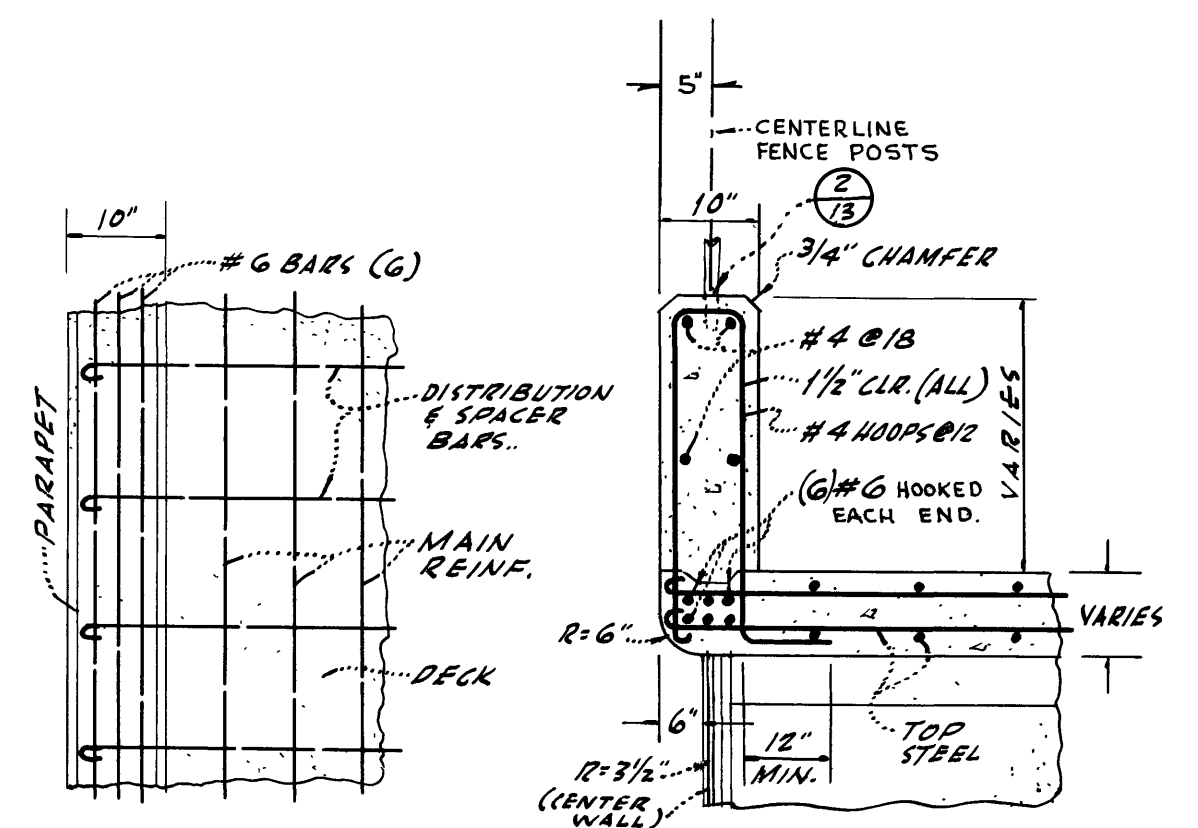
6 DETAIL... SIDE DRAIN OUTLET
SCALE: 3/8"=1'-0"



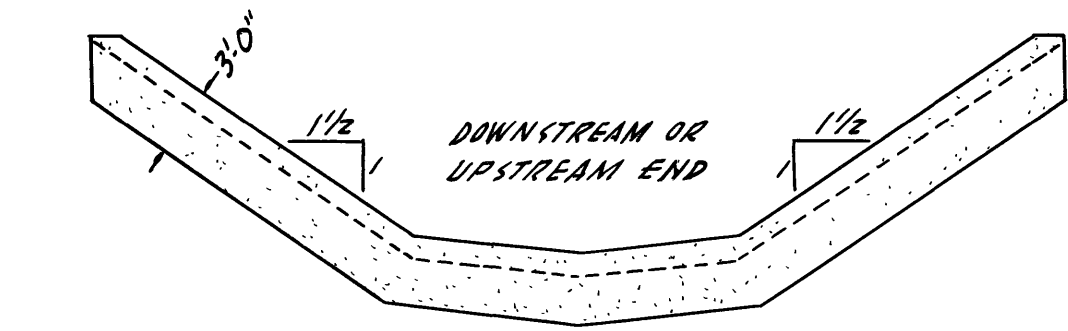
SECTION... TYPICAL SIDE DRAIN INSTALLATION
NO SCALE...



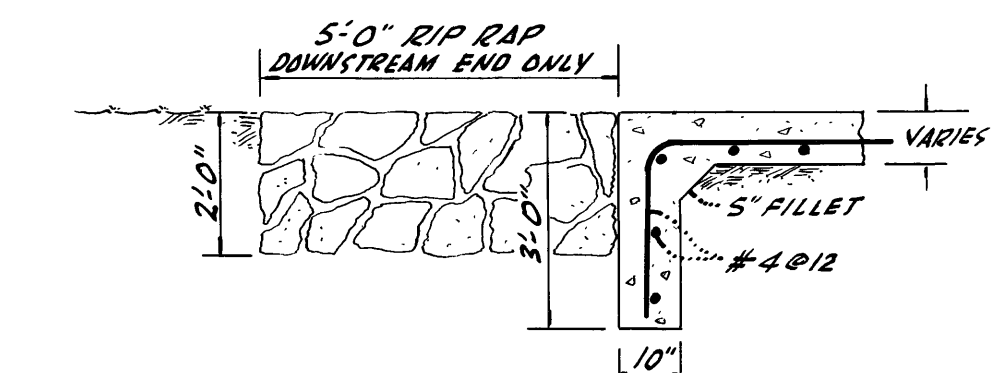
SECTION AT STA. 80+48
EXIST. SIDE DRAIN MODIFICATION
SCALE: 1"=10'



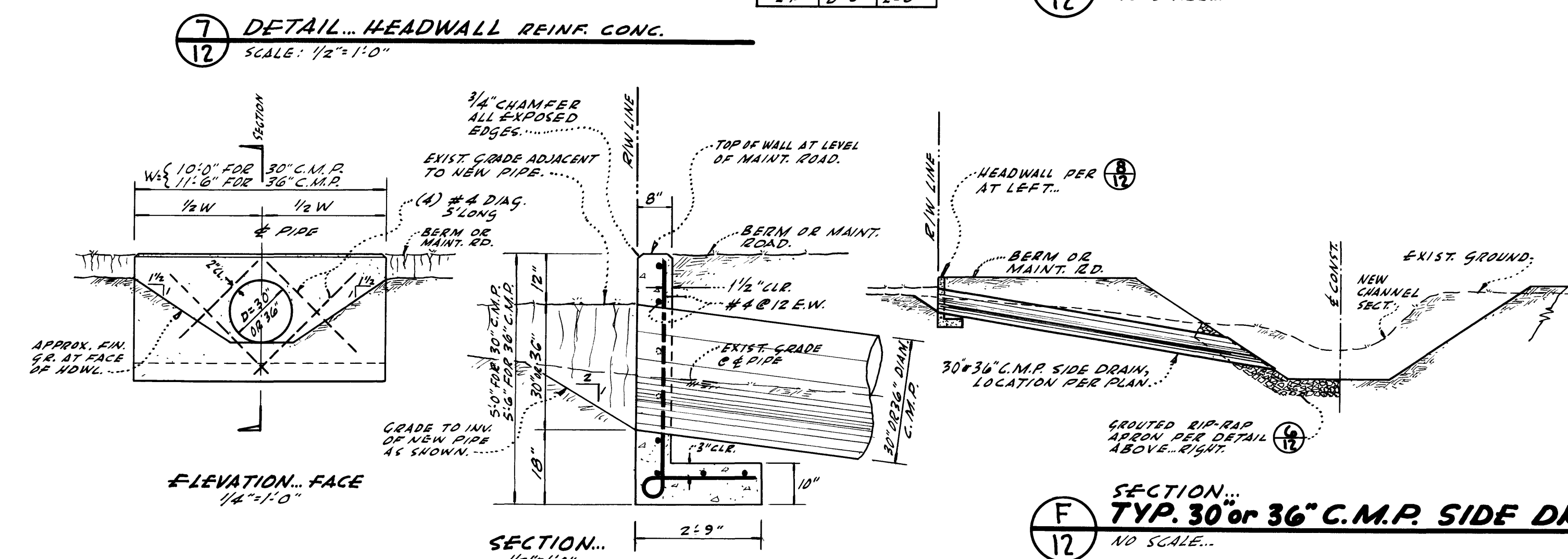
3 PLAN... (NO SKEW) DECK & PARAPET
SCALE: 1/2"=1'-0"



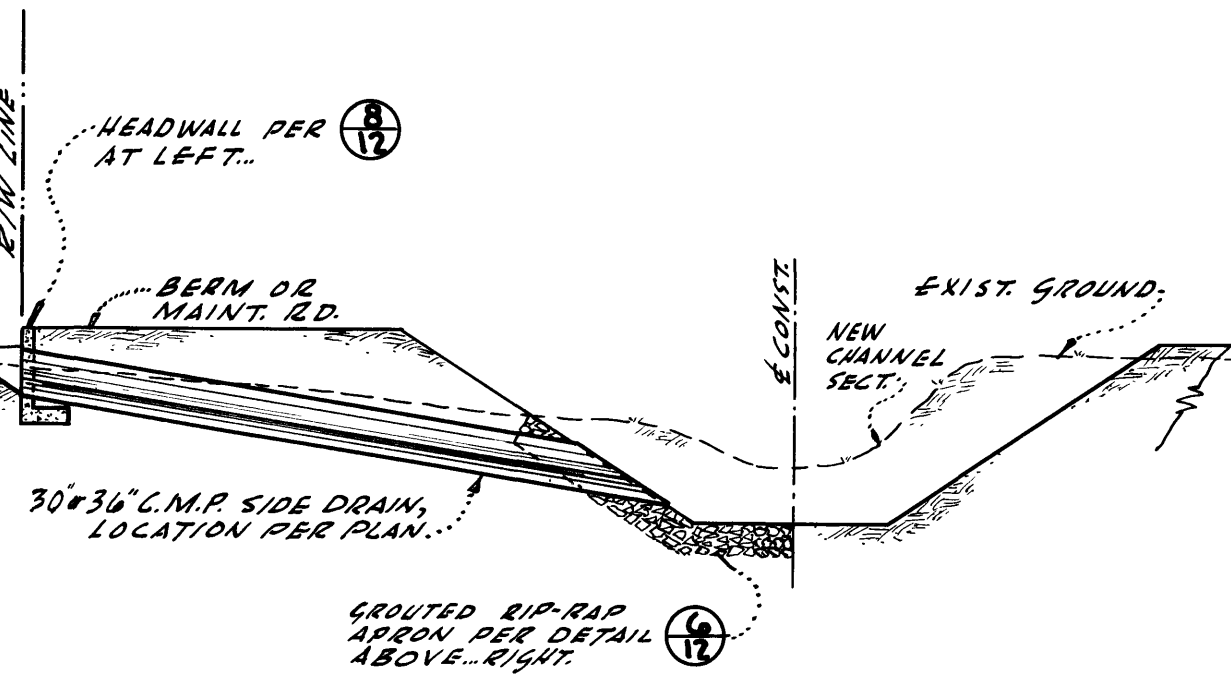
4 ELEVATION... CUTOFF WALL...
SCALE: 1/8"=1'-0"



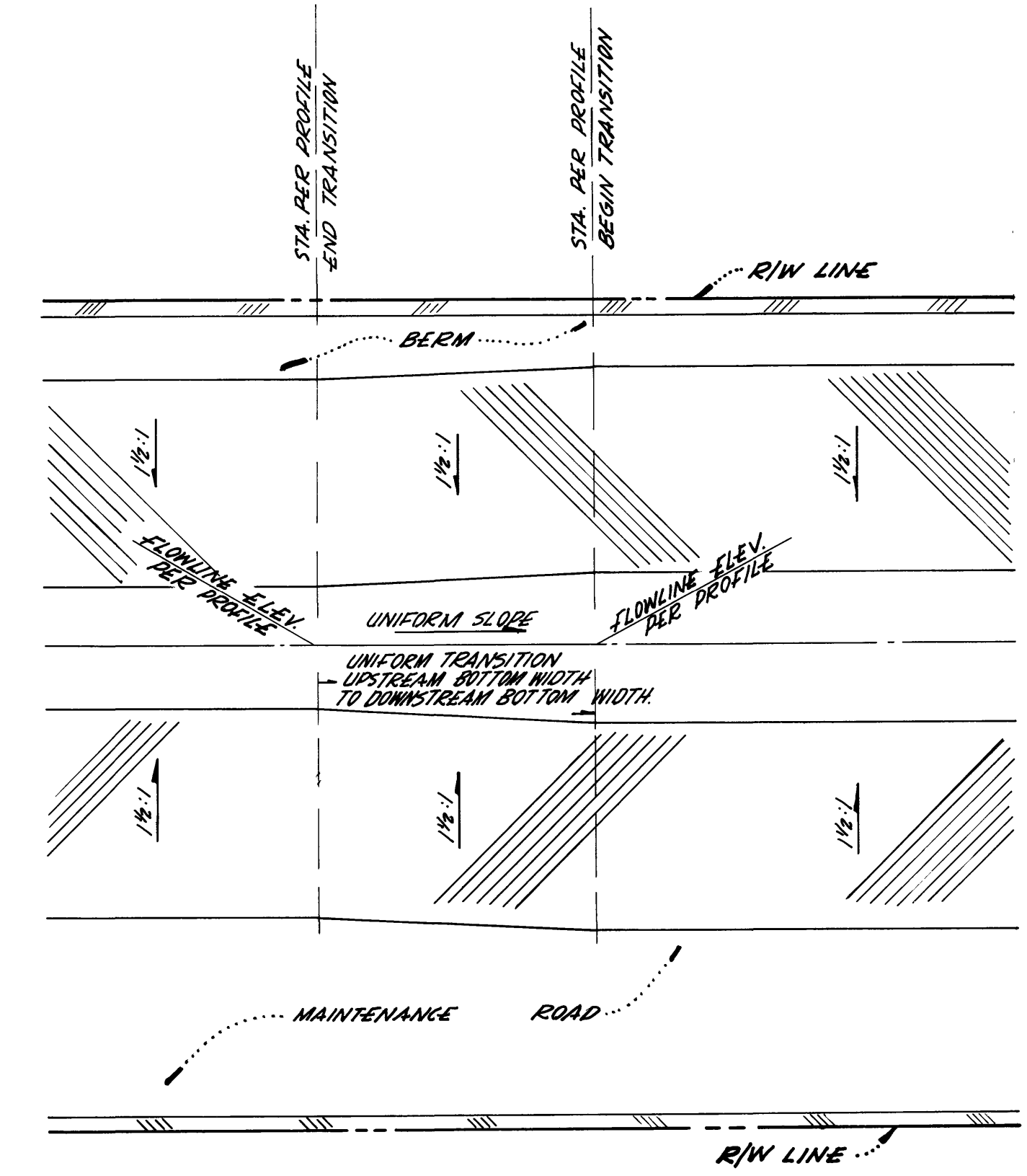
5 SECTION... CUTOFF WALL
SCALE: 3/8"=1'-0"



8 DETAIL... HEADWALL REINF. CONC.
SCALE: AS SHOWN

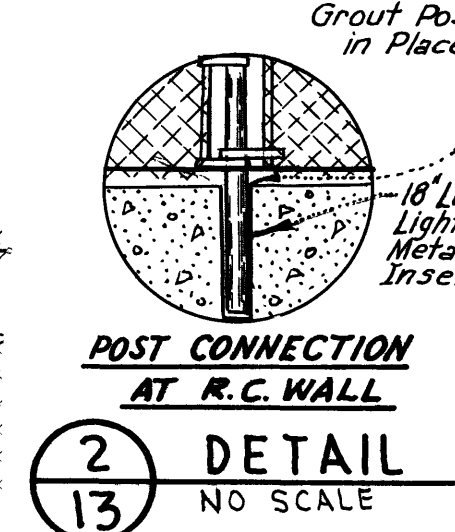
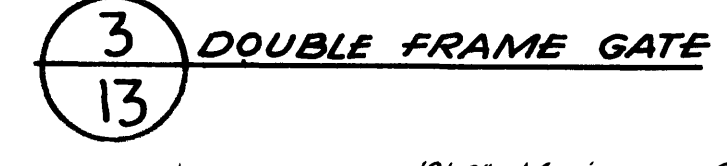
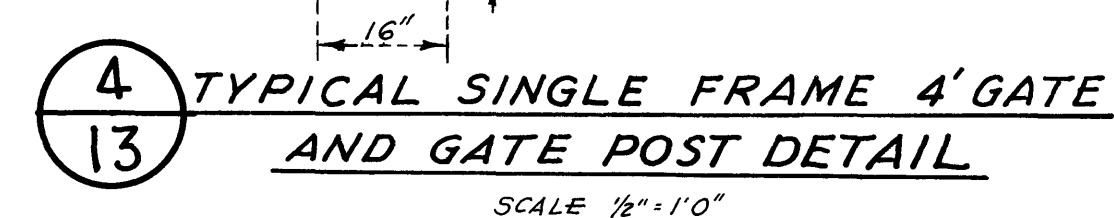
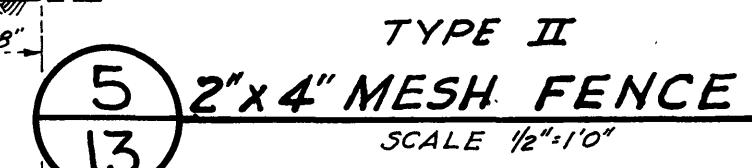
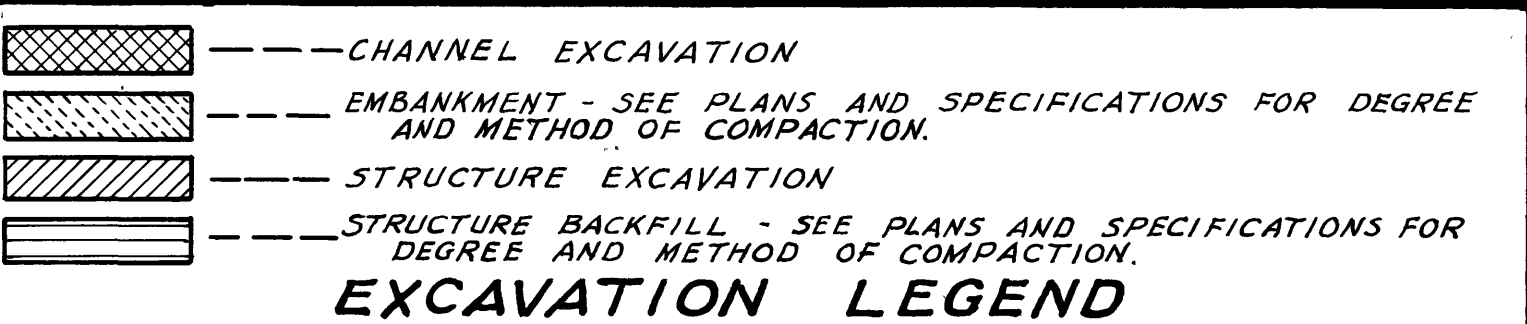


SECTION... TYP. 30 or 36" C.M.P. SIDE DRAIN
NO SCALE...



9 PLAN... TYPICAL EARTH TRANSITION
NO SCALE...

STRUCT.	EXCAVATION	BACKFILL
R.C. CULVERTS		
CONCRETE TRANSITIONS (IN STRUCTURES) AND DROP STRUCTURE		NO BACKFILL FOR TRANSITIONS OR DROP STRUCTURES
R.C. CUTOFF WALLS AT TRANSITIONS		
R.C. CUTOFF WALLS AT TRANSITIONS		
R.C. RETAINING WALLS AND HEADWALLS		
PLAIN CONC. LINED CHANNEL		
EARTH CHANNEL		

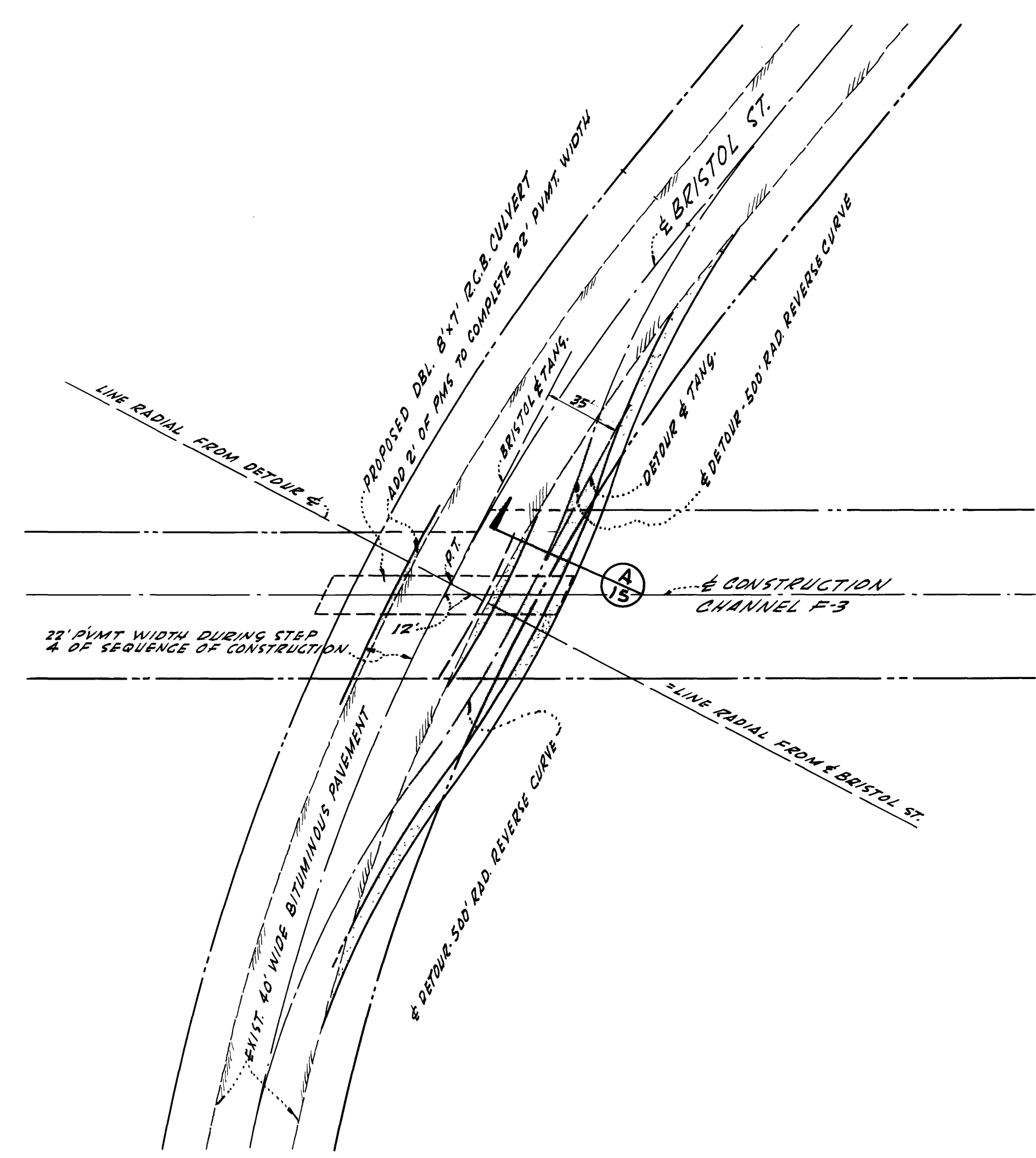
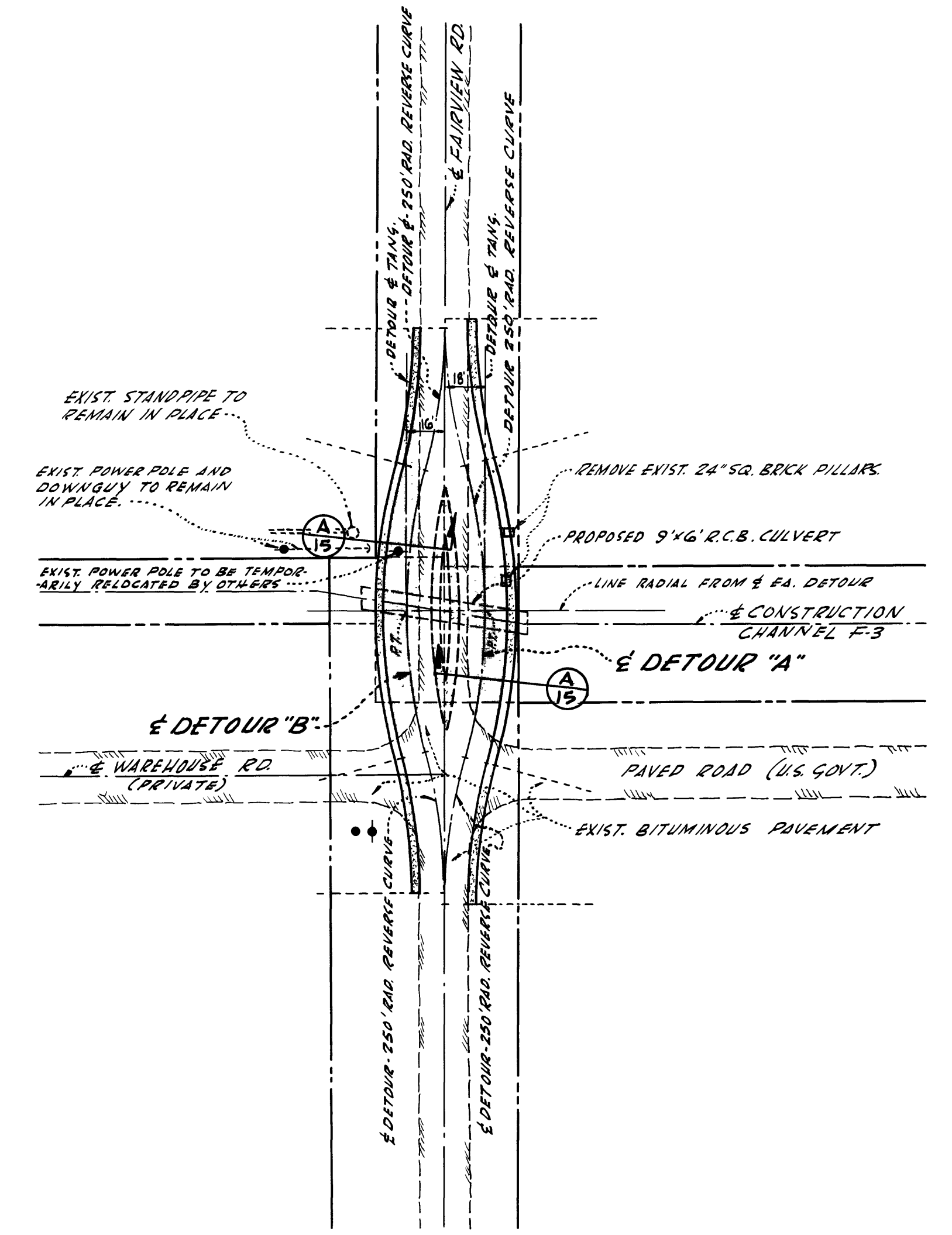
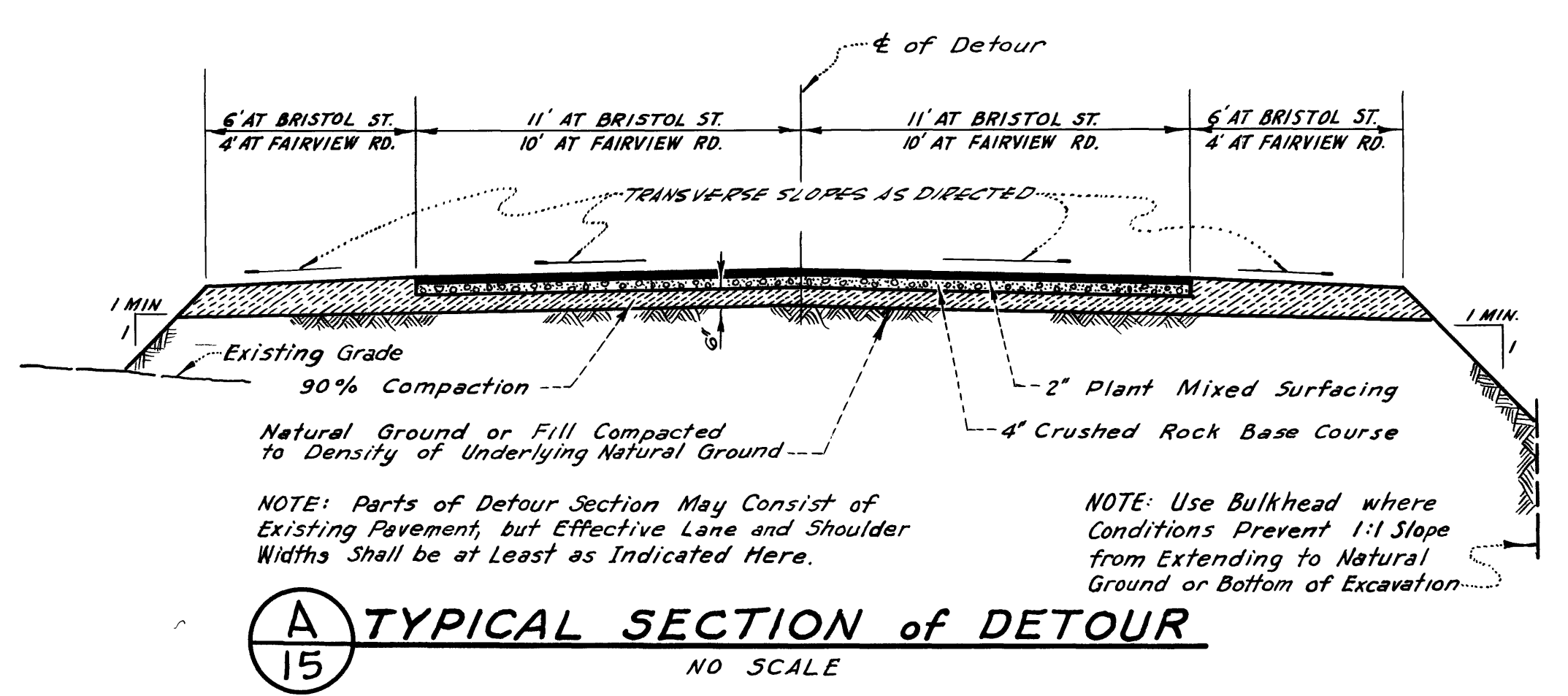
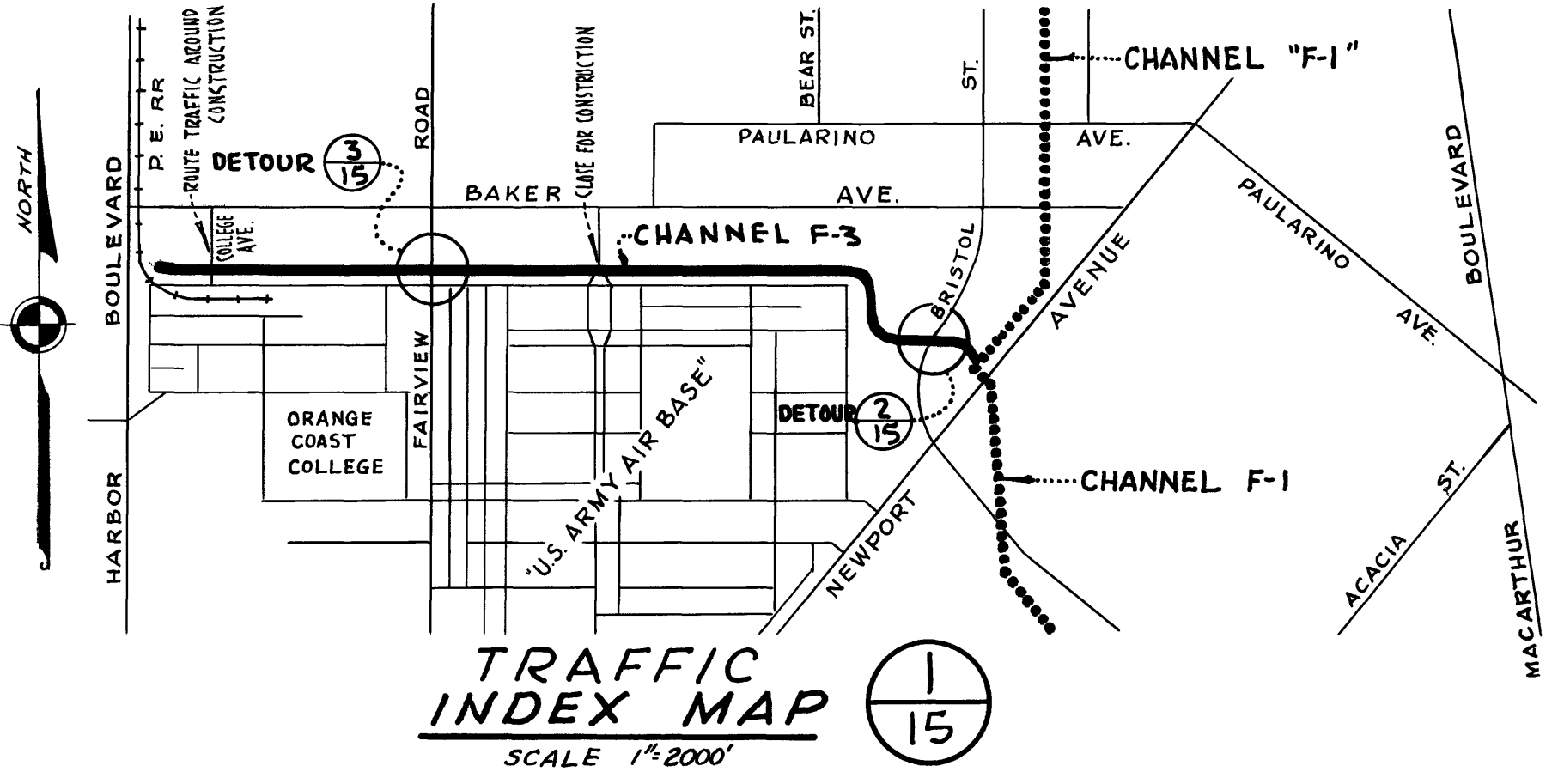


1. All Metal Parts of Fences and Gates, including Fence Fabrics, shall be New Galvanized Material.
2. Standard Steel Pipe shall be of Following Minimum Weights before Galvanizing:

Nominal Diam.	Lbs./Lin. Ft.
1"	1.68
1 1/4"	2.27
1 1/2"	2.72
2"	3.65
2 1/2"	5.79
4"	10.79
6"	18.97
3. Light weight metal inserts shall be sheet metal tubes with I.D. 3/4" greater than O.D. of pipe used. Posts shall be set in inserts in neat grout, using 1 part cement to 2 parts water. Posts may be set in sulfur in lieu of grout, if appr. by spec.
4. All gate hinges shall be heavy duty malleable iron or steel industrial service type 180 degree swing, of approved quality and design.
5. Ground shall be graded before fence construction begins, such a manner that top of fence follows a uniform grade.
6. Where fencing follows R/W Line, fabric or...

1/2" x 3/4" Steel Stretcher Bar Bands,
 @ 12" o.c. Typical at All End, Corner, ...
 & Pull Posts.

Nominal Diam.	Lbs./Lin.
1"	1.68
1 1/4"	2.27
1 1/2"	2.72
2"	3.65
2 1/2"	5.79
4"	10.79
6"	18.97



PLAN...
3 FAIRVIEW ROAD DETOUR
15 SCALE: 1"=50'

PLAN...
2 BRISTOL ST. DETOUR
15 SCALE: 1"=50'

- FAIRVIEW RD. DRAINAGE STRUCTURE: SEQUENCE OF CONST.
- STEP 1.... CONST. DETOUR "A"
- " 2.... CONST. WESTERLY HALF OF NEW 9'x6' R.C.B.
- " 3.... CONST. DETOUR "B" OVER COMPLETED WESTERLY HALF OF R.C.B.
- " 4.... REMOVE DETOUR "A" AND CONSTRUCT REMAINING EASTERLY HALF OF R.C.B.
- " 5.... REMOVE DETOUR "B" AND RESTORE FAIRVIEW ROAD TO ITS ORIGINAL FORM AND CONDITION OR BETTER.
- " 6.... CONSTRUCT REMAINDER OF STRUCTURE.

- BRISTOL ST. DRAINAGE STRUCTURE SEQUENCE OF CONSTRUCTION.
- STEP 1.... CONSTRUCT DETOUR AS SHOWN.
- " 2.... CONST. WESTERLY 70' OF NEW 8'x7' R.C.B.
- " 3.... REPLACE P.V.M.T. OVER PARTION OF R.C.B. CONSTRUCTED UNDER STEP 2 & ADD P.M.S. AS REQUIRED TO WESTERLY SIDE OF BRISTOL ST.
- " 4. REMOVE DETOUR & CONST. REMAINING E 1/2 PORTION OF R.C.B.
- " 5. RESTORE BRISTOL ST. AND ADJACENT GROUND OUTSIDE O.C.F.C.D. R/W TO ITS ORIGINAL FORM & CONDITION OR BETTER.
- " 6. CONSTRUCT REMAINDER OF STRUCTURE.