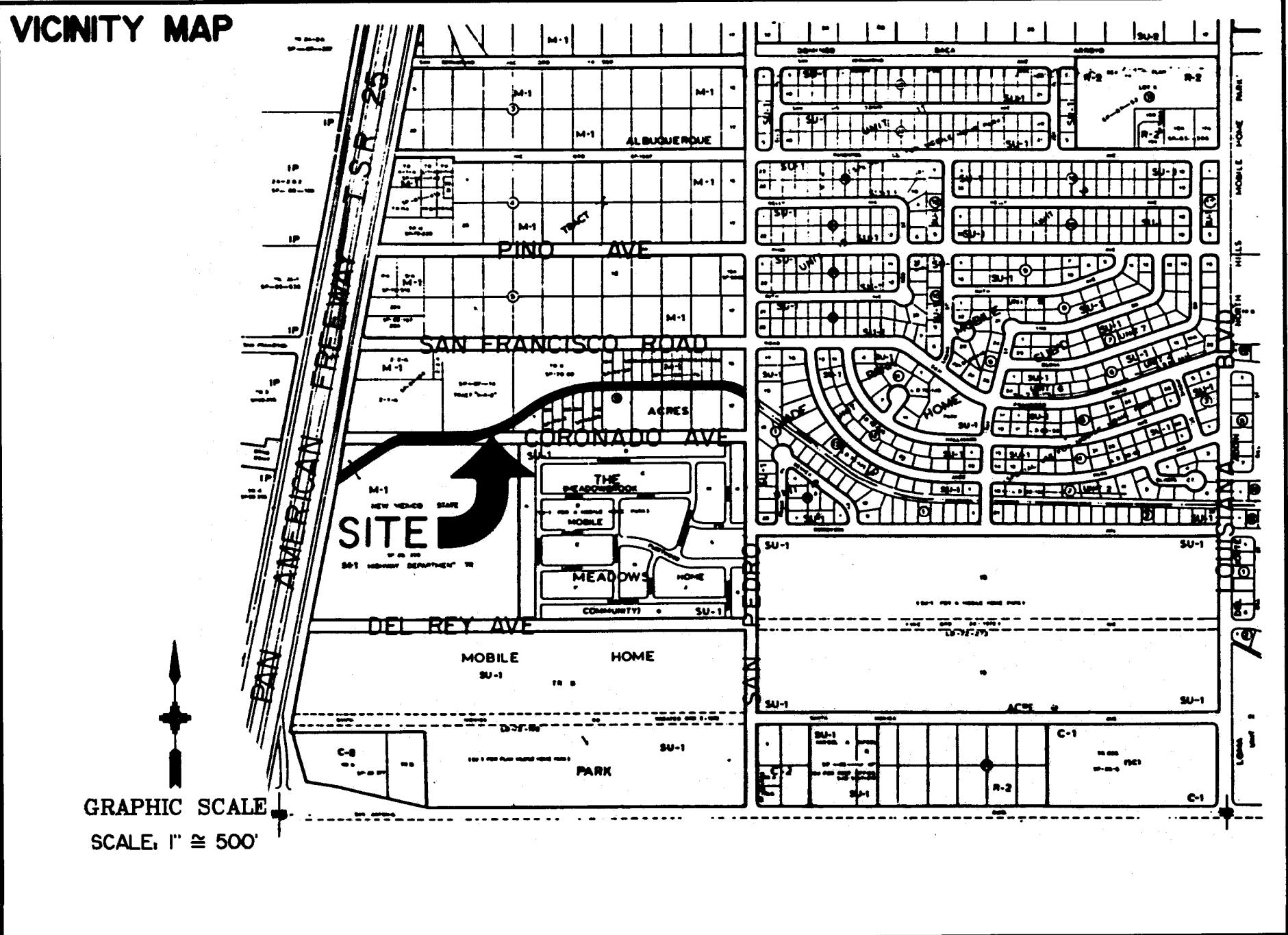


CITY OF ALBUQUERQUE, NEW MEXICO
PUBLIC WORKS DEPARTMENT
FINAL DESIGN PLANS FOR
NORTH PINO ARROYO
I-25 TO SAN PEDRO



SHEET INDEX

1	TITLE SHEET
2	CHANNEL PLAN AND PROFILE STA. 10+00 TO STA. 21+11.42
3	CHANNEL PLAN AND PROFILE STA. 21+11.42 TO STA. 34+07.09
4	SANITARY SEWER RELOCATIONS PLAN AND PROFILE
5	TYPICAL CHANNEL SECTION AND MISCELLANEOUS DETAILS
6	PIPE PENETRATION DETAILS
7	CORONADO RD. PIPE ENTRY DETAILS
8	SIDE CHANNEL DETAILS
9	RUNDOWN DETAILS
10	MISCELLANEOUS DETAILS-WATER, SEWER & RUNDOWNS
11	TRANSITION/ SPLITTER WALL DETAILS
12-17	CHANNEL CROSS-SECTIONS

GENERAL NOTES

- ALL WORK DETAILED ON THESE PLANS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION-1986 EDITION AND CURRENT UPDATES AND SUPPLEMENTAL SPECIFICATIONS IN THE CONTRACT DOCUMENTS.
- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT ONE CALL SYSTEM, INC., 260-1990, FOR LOCATION OF EXISTING UTILITIES. CONTRACTOR SHALL COORDINATE ALL UTILITY WORK INCLUDING CUT OFF OF EXISTING UTILITIES FOR NEW CONNECTIONS (FIRE PROTECTION, DOMESTIC WATER, SEWER, STORM DRAIN, GAS PIPING, ETC.) WITH ENGINEER, OWNER, AND LOCAL UTILITY REPRESENTATIVES.
- THESE DRAWINGS REFLECT INFORMATION ON UTILITIES GATHERED BY SITE INSPECTION, DISCUSSIONS WITH MUNICIPAL OFFICIALS, AND PREVIOUS CONSTRUCTION DRAWINGS. IT IS POSSIBLE THAT THE EXACT LOCATION OF LINES AND UTILITY CONNECTION POINTS IN THE VICINITY OF THE REQUIRED WORK MAY BE DIFFERENT FROM THE LOCATION SHOWN ON THIS DRAWING. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
- ALL GAS, ELECTRIC, TELEPHONE LINES, CABLES, AND APPURTENANCES ENCOUNTERED DURING CONSTRUCTION THAT REQUIRE RELOCATION SHALL BE RELOCATED BY THE RESPECTIVE UTILITY. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL NECESSARY UTILITY ADJUSTMENTS.
- IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT AND MAINTAIN IN SERVICE ALL EXISTING UTILITIES.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL REMAIN THE CONTRACTOR'S RESPONSIBILITY.
- ALL EXCAVATION/CONSTRUCTION PERMITS WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN THE CITY RIGHT-OF-WAY. AN APPROVED COPY OF THESE PLANS MUST BE SUBMITTED AT THE TIME OF APPLICATION FOR THIS PERMIT.
- THE CONTRACTOR SHALL EXERCISE REASONABLE CARE DURING CONSTRUCTION TO PREVENT THE MOVEMENT OF SEDIMENT FROM THE SITE INTO THE STREET. LOOSE SOIL STOCKPILES IN THE STREET DURING UTILITY CONNECTION ACTIVITIES SHALL BE PROTECTED FROM BEING CARRIED DOWNSTREAM BY FLOWING WATER IN THE STREET.
- DISPOSAL OF ALL WASTE MATERIAL AND UNSUITABLE MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AS SPECIFIED IN SECTION 6.14 OF THE GENERAL CONDITIONS IN THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION-1986 EDITION.
- A DISPOSAL SITE FOR ALL EXCESS EXCAVATION MATERIAL, ASPHALTIC PAVING, CONCRETE CURBS AND SIDEWALKS, ETC., SHALL BE OBTAINED BY THE CONTRACTOR IN COMPLIANCE WITH APPLICABLE ENVIRONMENTAL REGULATIONS. ALL COSTS INCURRED IN OBTAINING A DISPOSAL SITE AND HAUL THERE TO SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE.
- THE CONTRACTOR SHALL CONFINE HIS WORK TO WITHIN THE CONSTRUCTION LIMITS AND/OR PUBLIC RIGHT-OF-WAY AND SHALL PRESERVE EXISTING VEGETATION AND PRIVATE PROPERTY. OVERNIGHT PARKING OF CONSTRUCTION EQUIPMENT SHALL NOT OBSTRUCT DRIVEWAYS OR DESIGNATED TRAFFIC LANES.
- CONTRACTOR SHALL MAINTAIN ACCESS TO ADJACENT PROPERTIES DURING CONSTRUCTION. TEMPORARY ACCESS CLOSURES SHALL BE SUBJECT TO PRIOR APPROVAL BY THE PROJECT ENGINEER. CONTRACTOR SHALL SCHEDULE CLOSURES WITH AFFECTED PROPERTY OWNERS AT LEAST 24 HOURS IN ADVANCE OF CLOSURE. REFER TO SECTION 19 OF THE SPECIFICATIONS.
- CONTRACTOR SHALL NOTIFY THE ENGINEER NOT LESS THAN SEVEN (7) DAYS PRIOR TO STARTING WORK IN ORDER THAT THE ENGINEER MAY TAKE NECESSARY MEASURES TO INSURE THE PRESERVATION OF SURVEY MONUMENTS. CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE ENGINEER AND SHALL NOTIFY THE ENGINEER AND BEAR THE EXPENSE OF REPLACING ANY THAT MAY BE DISTURBED WITHOUT PERMISSION. REPLACEMENT SHALL BE DONE ONLY BY THE ENGINEER. WHEN A CHANGE IS MADE IN THE FINISHED ELEVATION OF THE PAVEMENT OR ANY ROADWAY IN WHICH A PERMANENT SURVEY MONUMENT IS LOCATED, CONTRACTOR SHALL, AT HIS OWN EXPENSE, ADJUST THE MONUMENT COVER TO THE NEW GRADE UNLESS OTHERWISE SPECIFIED. REFER TO SECTION 44 OF THE SPECIFICATIONS. REFER TO SECTION 4.4 OF THE STANDARD SPECIFICATIONS.
- EXISTING IMPROVEMENTS NOT SHOWN TO BE REMOVED UNDER THIS CONTRACT WHICH ARE DAMAGED OR DISPLACED BY THE CONTRACTOR OR HIS SUBCONTRACTORS SHALL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE.
- ALL EXISTING MANHOLES AND VALVE BOXES WITHIN THE CONSTRUCTION LIMITS SHALL BE ADJUSTED TO THE NEW FINISHED GRADE AS PART OF THE PAVING OPERATIONS.
- CONTRACTOR SHALL RESEED ALL DISTURBED SOIL AREAS WITHIN THE WORK AREA IN ACCORDANCE WITH SPECIFICATION SECTION 101I.
- ALL REINFORCED STEEL SHALL BE GRADE 60 DEFORMED BARS UNLESS OTHERWISE NOTED.
- ALL EXPOSED EDGES SHALL HAVE A 3/4" CHAMFER UNLESS OTHERWISE NOTED.
- CHANNEL REINFORCING STEEL SHALL BE SUPPORTED ON CONTINUOUS 3" HIGH SAND CHAIRS AT A MAXIMUM SPACING OF 5' O.C. PERPENDICULAR TO THE CHANNEL CENTERLINE.
- BACKFILL COMPACTION AND PAVING SHALL BE ACCORDING TO C.O.A. STD. DWG. 2465.

SCANNED BY
BY LASON

C of A PWD Maps & Records
1 2 3 4 5 6 7 8 9 10 11 12
26 40560193

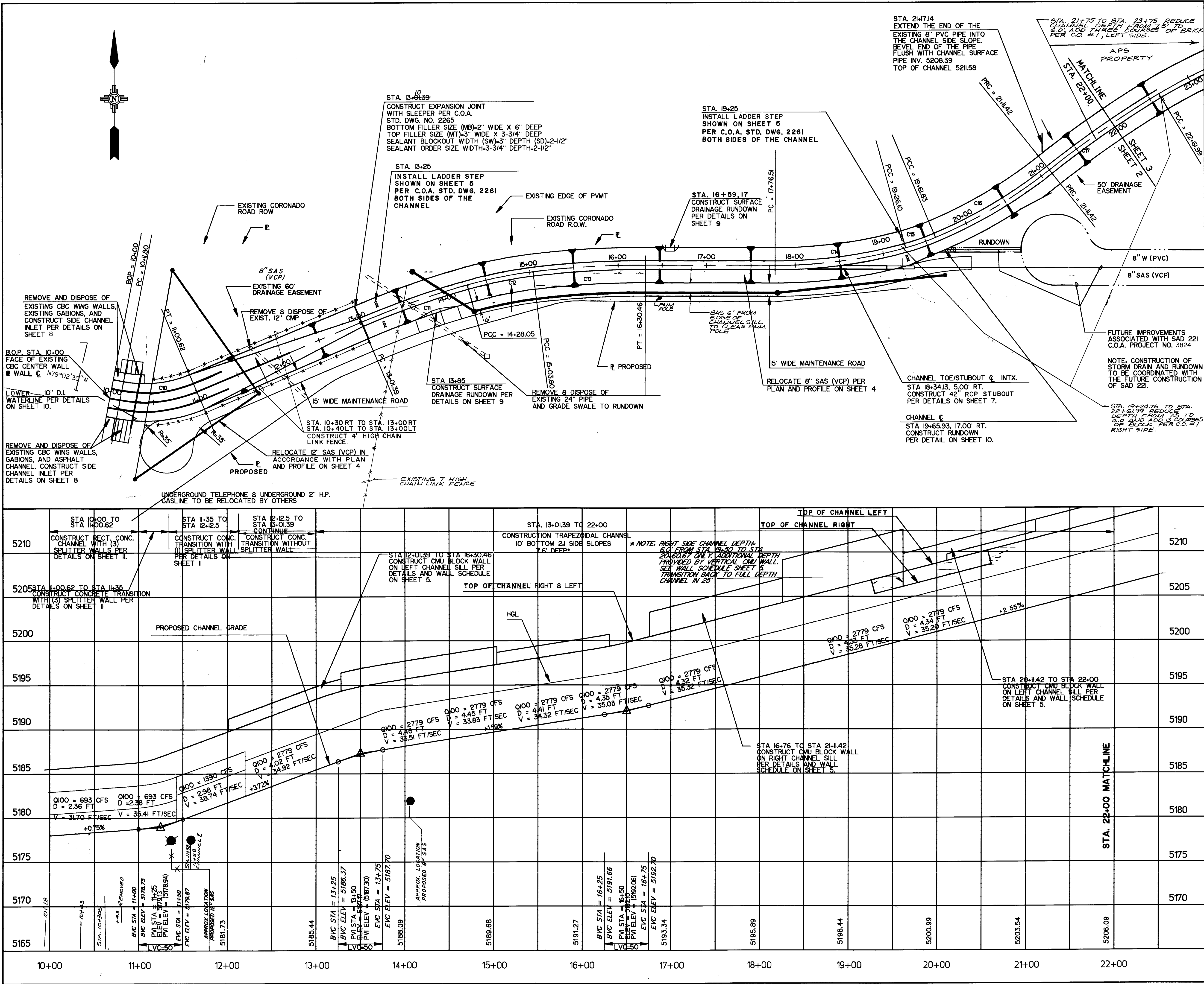
APPROVAL OF AS BUILT DRAWINGS
CHIEF CONSTRUCTION ENGINEER
Ronald P. Bohannon
DATE 4-10-93

RECORD DRAWING
I, Ronald P. Bohannon, hereby certify that these drawings have been revised in accordance with the information furnished by the City of Albuquerque PWD Construction Management Division to reflect the construction as actually accomplished.



R. P. Bohannon 1/8/93
Ronald P. Bohannon
N.M.P.E. No. 9814

REV.	SHEETS	CITY ENGINEER	DATE	USER DEPARTMENT	DATE	USER DEPARTMENT	DATE
APPROVAL OF REVISIONS							
EASTERLING & ASSOCIATES, INC. CONSULTING ENGINEERS 10131 Coors Rd., NW, Suite H-718 ALBUQUERQUE, NEW MEXICO 87114 (505) 898-8021 FAX (505) 898-8501				APPROVED FOR CONSTRUCTION CITY ENGINEER DATE 4-25-93 SHEET 1 OF 17			
PROJECT NUMBER				4056			



CHANNEL CENTERLINE CURVE DATA				
CURVE	RADIUS	LENGTH	TANGENT	DELTA
C10	50.00	88.82	63.75	33°56'30"
C11	1000.00	26.66	63.42	07°52'26"
C12	500.00	75.75	37.95	08°40'49"
C13	1000.00	26.66	63.41	07°52'26"
C14	350.00	149.59	75.26	15°25'00"
C15	275.00	35.73	17.89	07°26'39"
C16	550.00	149.59	75.26	15°25'00"
C17	150.00	150.57	75.39	07°30'06"
C18	575.00	236.92	120.15	23°30'27"
C19	150.00	150.57	75.39	07°30'06"
C20	213.24	135.26	69.99	36°20'31"

RECORD DRAWING
I, Ronald P. Bohannan, hereby certify that these drawings have been revised in accordance with the information furnished by the City of Albuquerque PWD Construction Management Division to reflect the construction as actually accomplished.

RONALD P. BOHANNAN
REGISTERED PROFESSIONAL ENGINEER
M.P.E. NO. 9814

SCANNED BY
BY LASON

C of A PWD Maps & Records
26 40560293

SCALE: 1"=50' HORZ.
1"=5' VERT.

EASTERLING & ASSOCIATES, INC.
CONSULTING ENGINEERS
10131 Coors Rd., NW, Suite H-718
ALBUQUERQUE, NEW MEXICO 87114
(505) 898-8021 FAX (505) 898-8501

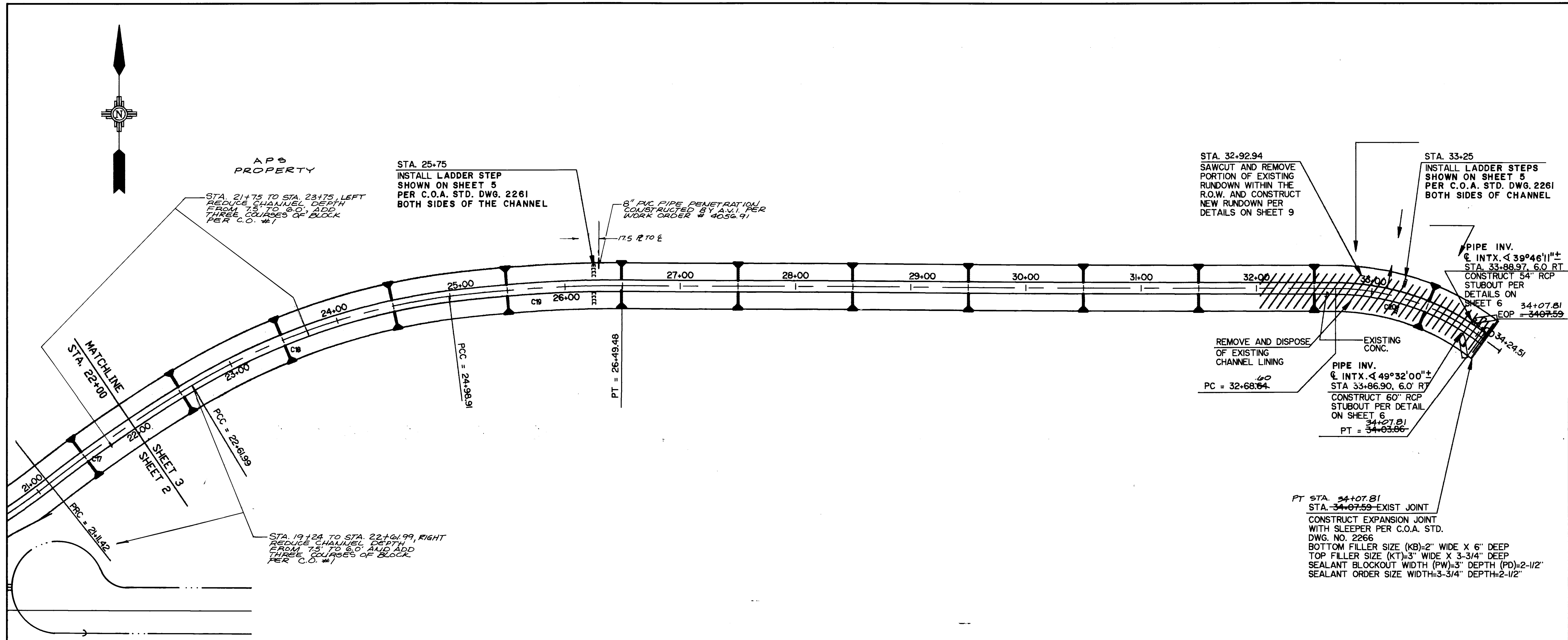
CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: **NORTH PINO ARROYO**
PLAN & PROFILE STA. 10+00 TO STA. 22+00

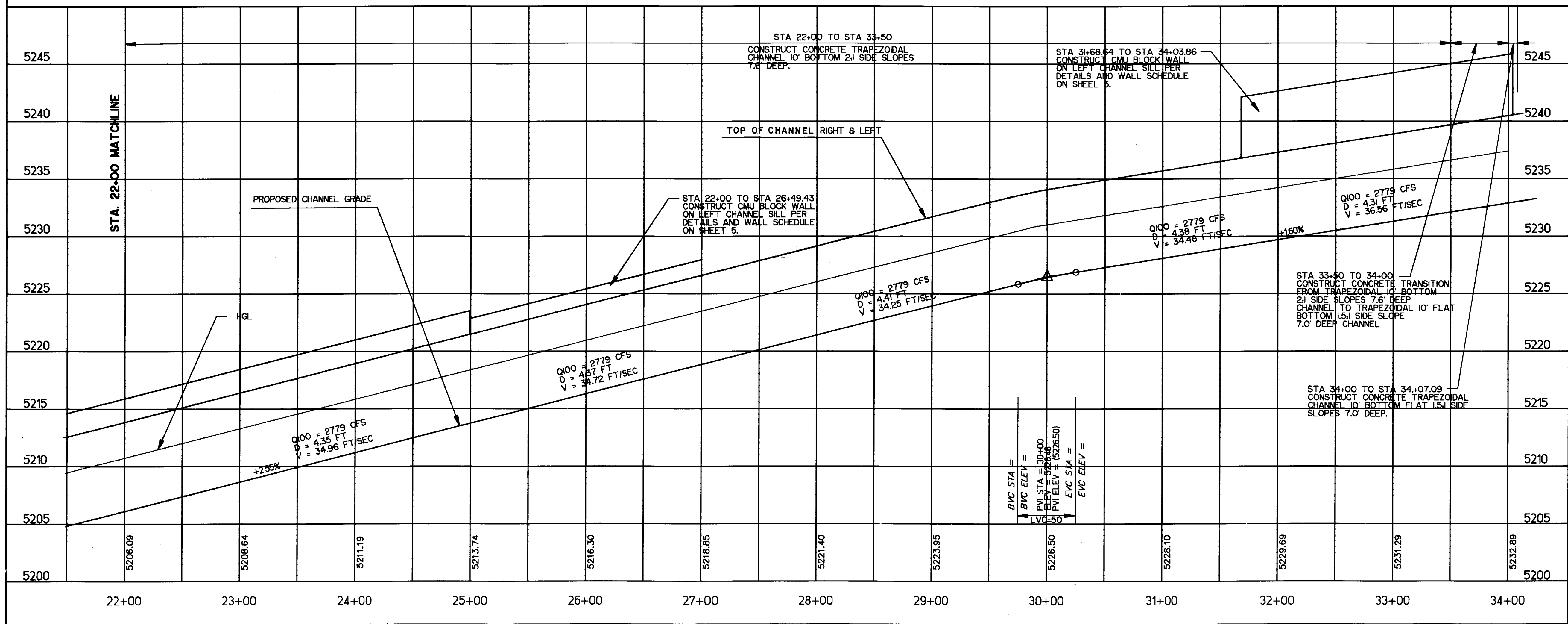
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
D.R.C. Chair	<i>[Signature]</i>	9-23-91	WATER	<i>[Signature]</i>	9-23-91
TRANS. DEV.	<i>[Signature]</i>	9-16-91	WASTE WATER	<i>[Signature]</i>	
HYDROLOGY	<i>[Signature]</i>	9-12-91			

PROJECT NO.	4056	MAP NO.	D-18	SHEET	2	OF	17
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AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEERS SEAL	
CONTRACTOR	Albuquerque Underground	ACS BRASS TABLE STAMPED II-DIB-1978	THE TABLE IS LOCATED 69 FT. SOUTH OF THE CENTERLINE OF LOS ANGELES DR. N.E. AND 30.5 FT. EAST OF THE CENTERLINE OF SAN PEDRO DR. N.E.	FIELD NOTES	DATE	NO.	DATE
INSPECTOR	DATE 9/92	DATE 9/92	DATE 9/92	DATE 9/92	DATE 9/92	DATE 9/92	DATE 9/92
VERIFICATION	DATE 9/92	DATE 9/92	DATE 9/92	DATE 9/92	DATE 9/92	DATE 9/92	DATE 9/92
RECORDED BY	NO.	RECORDED BY	NO.	RECORDED BY	NO.	RECORDED BY	NO.
RECORDED BY	NO.	RECORDED BY	NO.	RECORDED BY	NO.	RECORDED BY	NO.



CHANNEL CENTERLINE CURVE DATA				
CURVE	RADIUS	LENGTH	TANGENT	DELTA
C1	1000.00	126.66	63.42	07°52'28"
C2	1000.00	126.66	63.42	07°52'28"
C3	1000.00	126.66	63.42	07°52'28"
C4	1000.00	126.66	63.42	07°52'28"
C5	1000.00	126.66	63.42	07°52'28"
C6	1000.00	126.66	63.42	07°52'28"
C7	1000.00	126.66	63.42	07°52'28"
C8	1000.00	126.66	63.42	07°52'28"
C9	1000.00	126.66	63.42	07°52'28"
C10	1000.00	126.66	63.42	07°52'28"



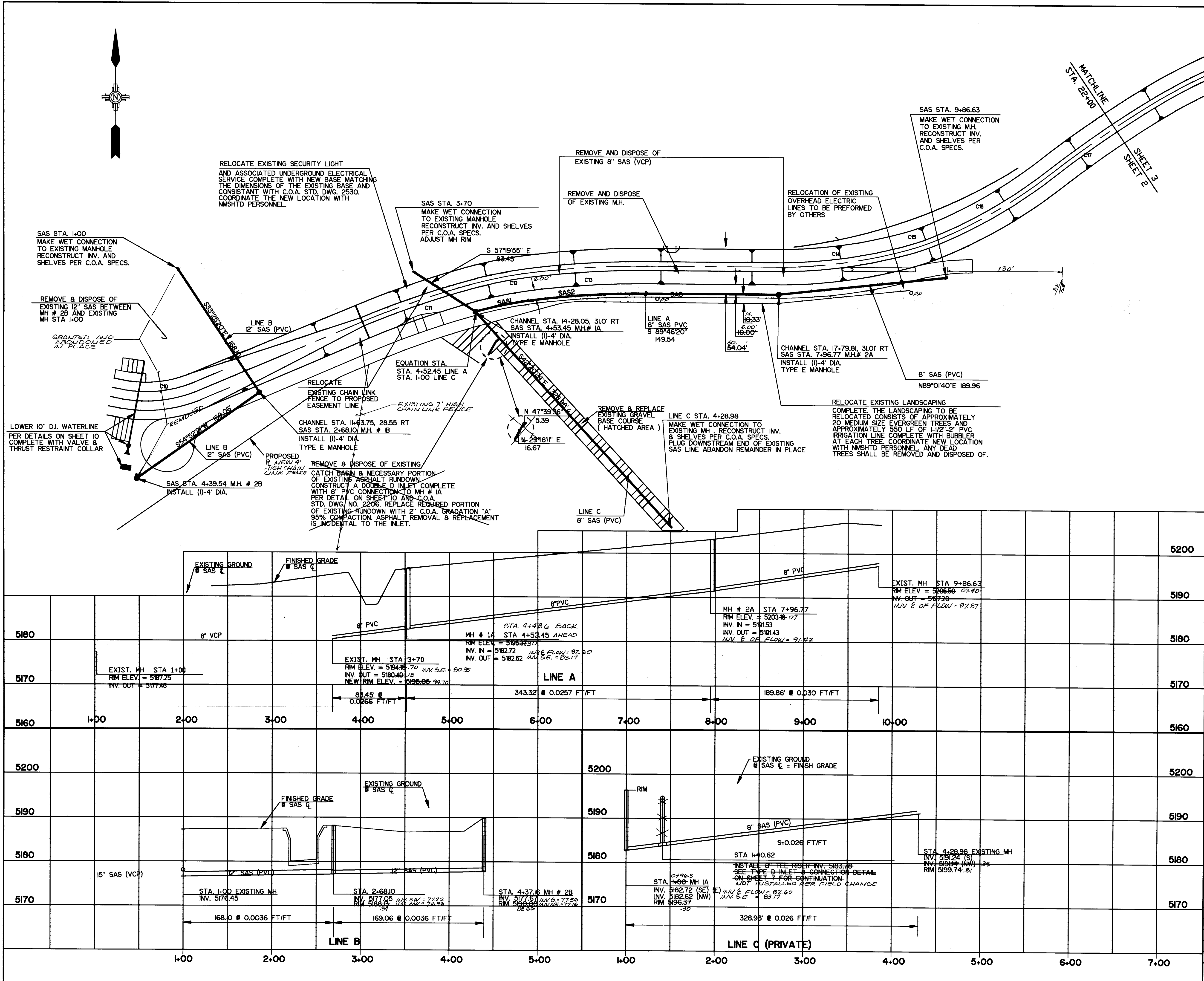
SCANNED BY
BY LASON

RECORD DRAWING
I, Ronald P. Bohanan, hereby certify that these drawings have been revised in accordance with the information furnished by the City of Albuquerque PWD Construction Management Division to reflect the condition as actually existing.

RONALD P. BOHANAN
Professional Engineer
New Mexico
9814
N.M.P.E. No. 9814

SCALE: 1"=50' HORZ.
1"=5' VERT.
C of A PWD Maps & Records
26 40560393
EASTERLING & ASSOCIATES, INC.
CONSULTING ENGINEERS
10131 Coors Rd., NW, Suite H-718
ALBUQUERQUE, NEW MEXICO 87114
(505) 898-8021 FAX (505) 898-8501

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP					
TITLE: NORTH PINO ARROYO PLAN & PROFILE STA. 22+00 TO STA. 34+07.59					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
D.R.C. Chair	<i>R. Bohanan</i>	9-23-91	WATER	<i>MD</i>	9-17-91
TRANS. DEV.	<i>R. Bohanan</i>	9-16-91	WASTE WATER	<i>MD</i>	"
HYDROLOGY	<i>C. Mudge</i>	9-12-91			
PROJECT NO. 4056			MAP NO. D-18		
SHEET 3 OF 17					



CURVE	RADIUS	LENGTH	TANGENT	DELTA
SAS1	469.00	71.05	35.5908°40'49"	
SAS2	969.00	122.73	61.45 07°15'26"	

GENERAL NOTES:

- LOCATION OF EXISTING UNDERGROUND ELECTRIC LINE WITHIN THE NMSHTD COMPOUND IS APPROXIMATE. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION. THE LINE MAY BE DE-ENERGIZED BY CONTACTING THE NMSHTD OFFICE.
- SANITARY SEWER WORK ON THE NMSHTD SITE WILL REQUIRE A PERMIT FROM CITY CODE ADMINISTRATION MECHANICAL SECTION.

SCANNED BY LASON

RECORD DRAWING
Ronald P. Bohanan, hereby certifies that these drawings have been revised in accordance with the information furnished by the City of Albuquerque PWD Construction Management Division to reflect the construction as actually accomplished.

SCALE: 1"=50' HORIZ.
1"=10' VERT.

C of A PWD Maps & Records
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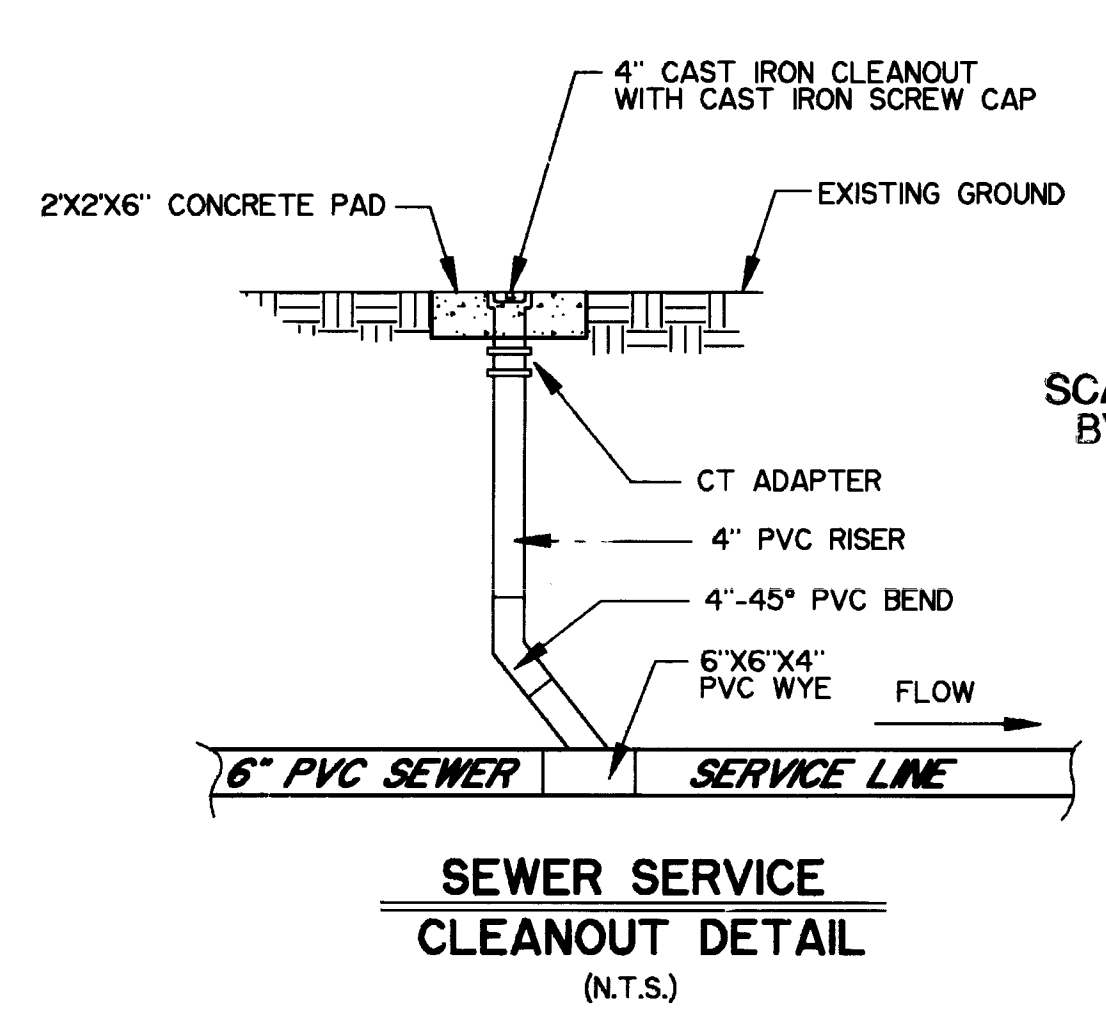
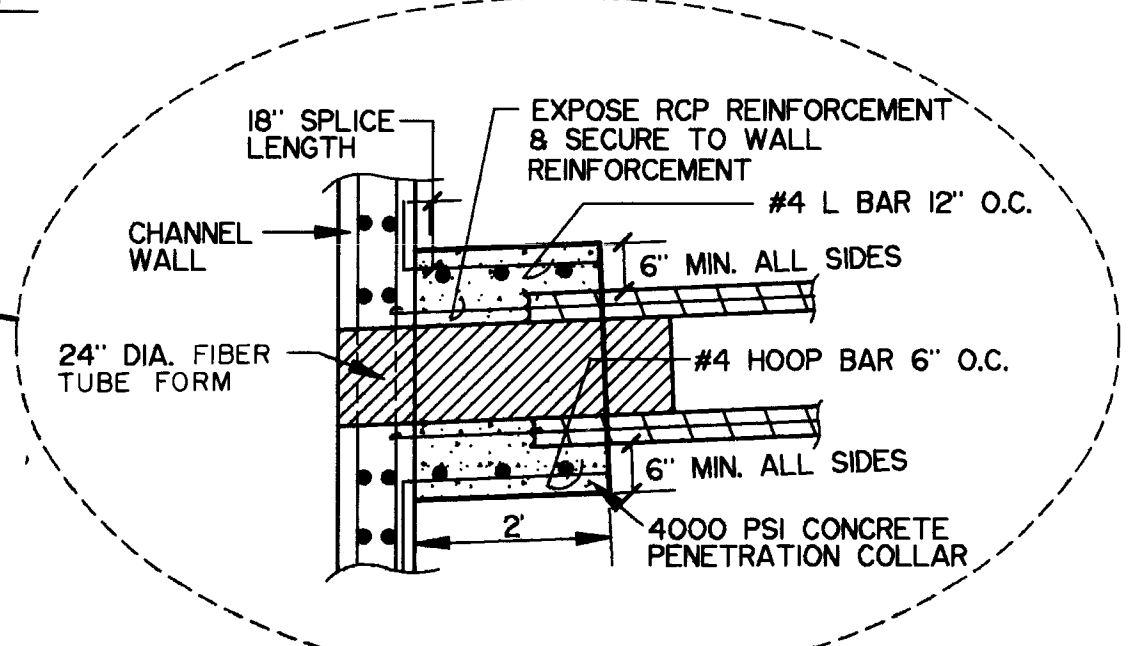
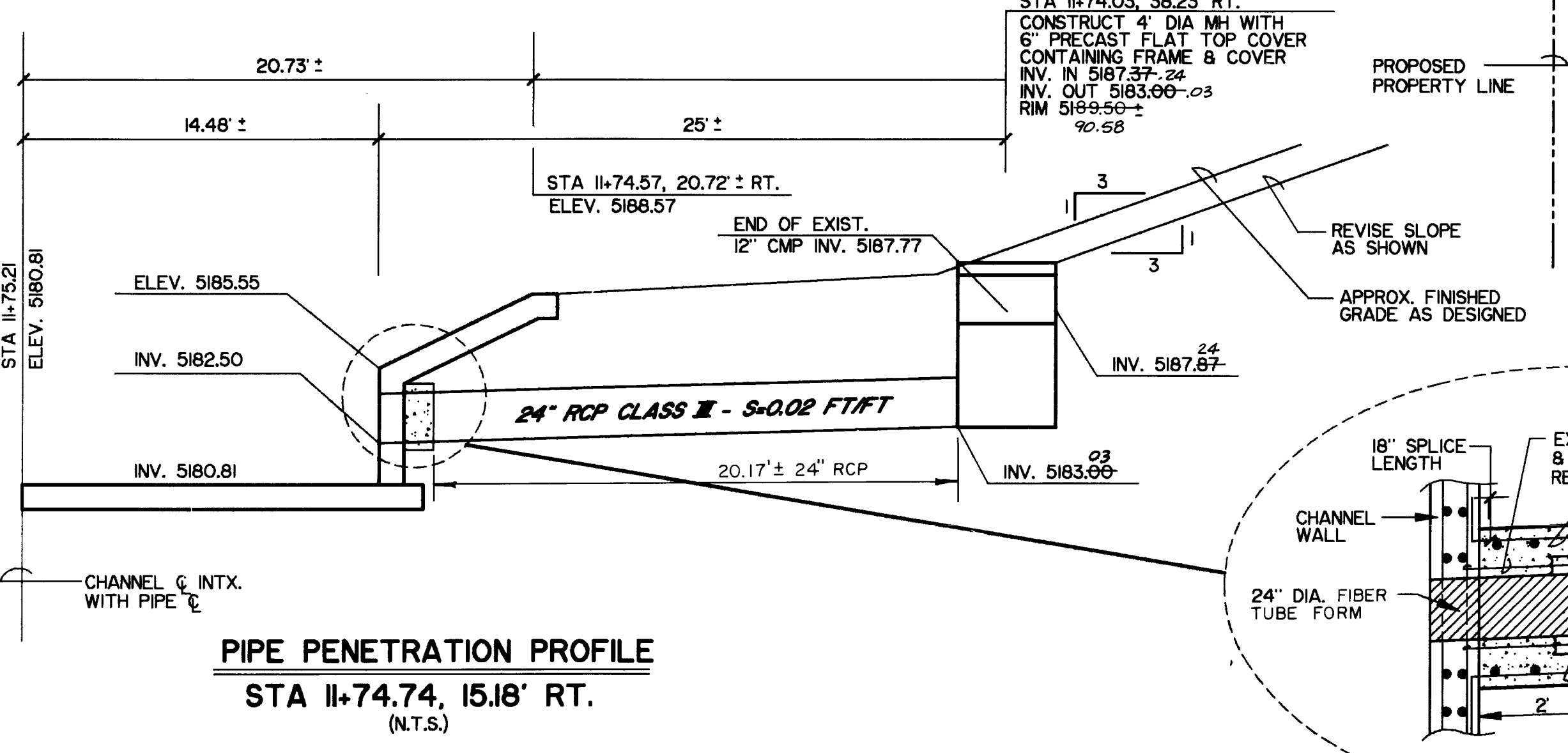
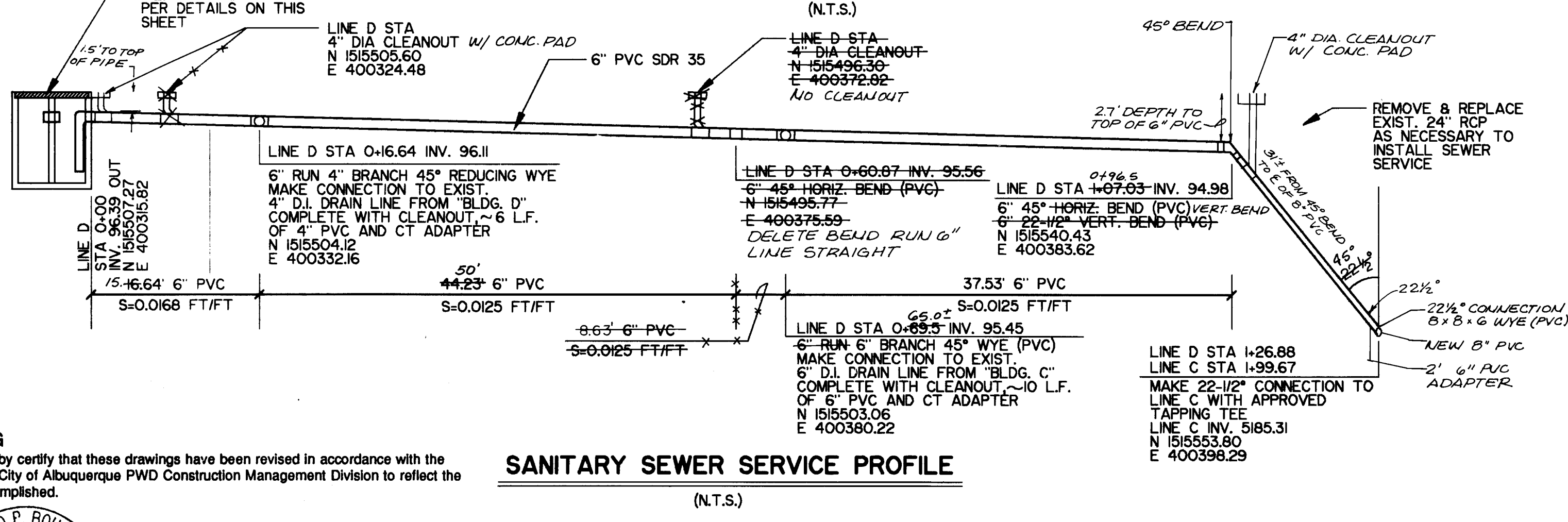
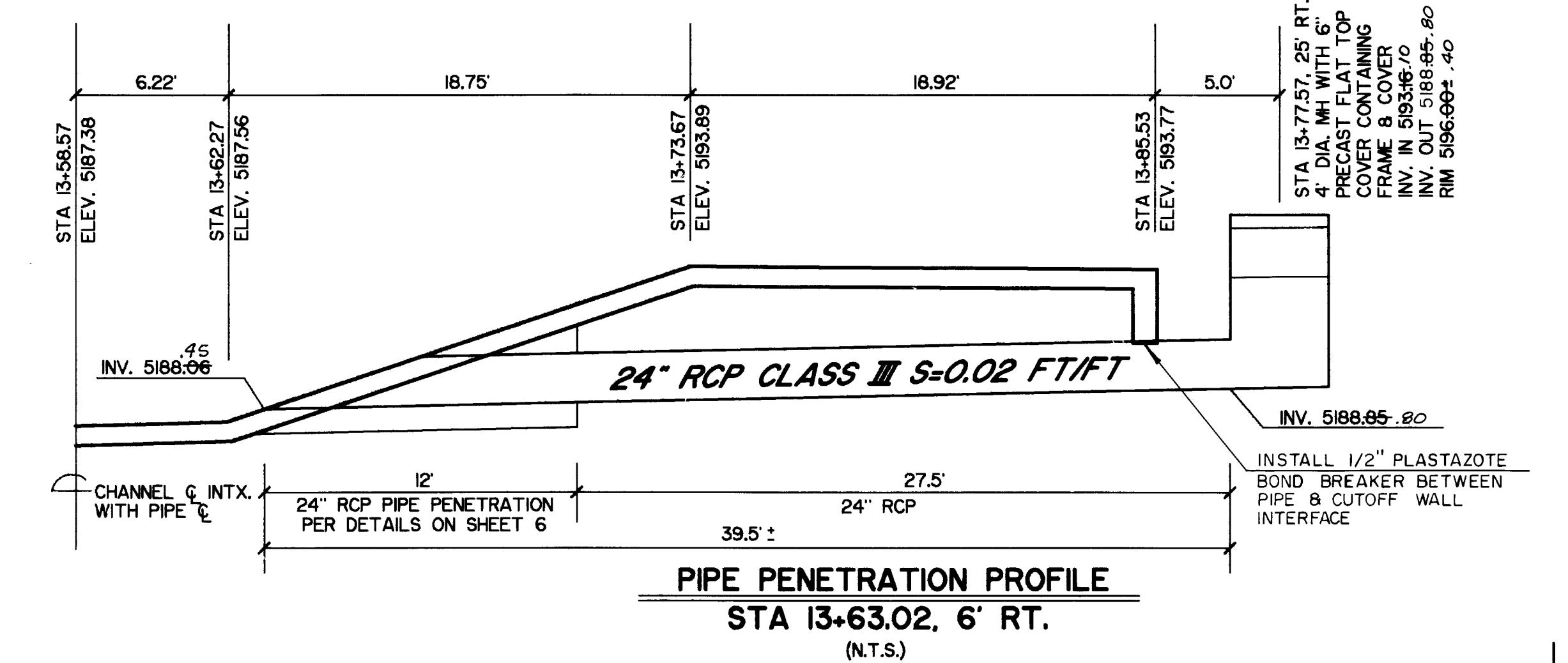
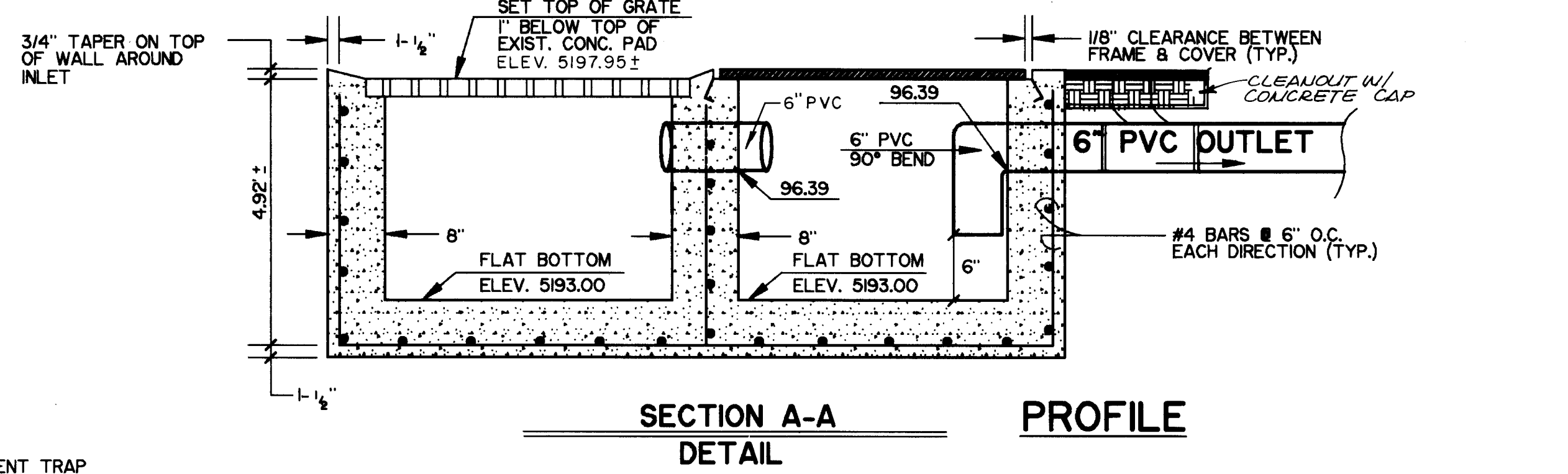
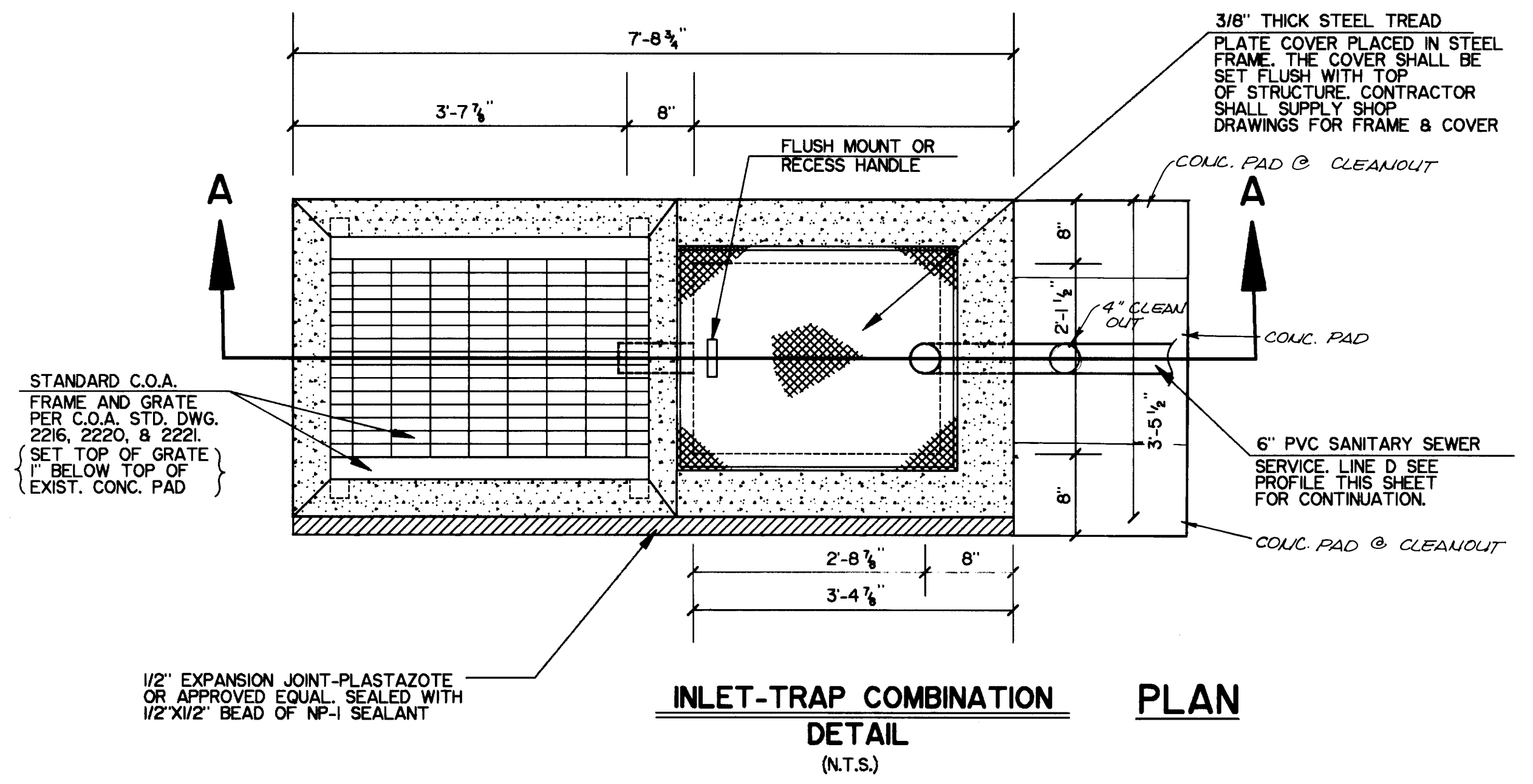
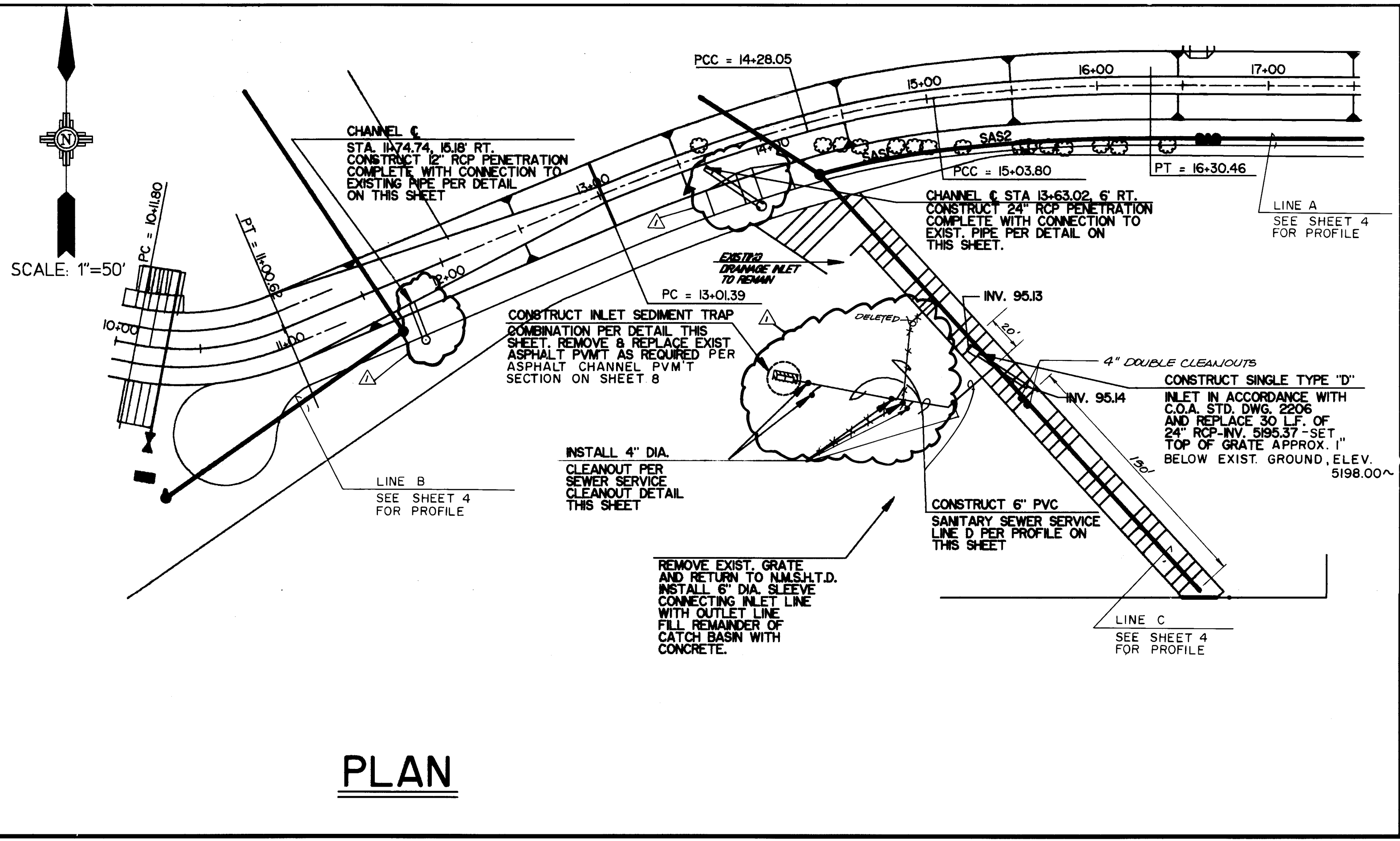
CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: **NORTH PINO ARROYO**
SANITARY SEWER / WATER RELOCATIONS
PLAN & PROFILE

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
D.R.C. Chair	<i>[Signature]</i>	9-23-91	WATER	<i>[Signature]</i>	9-17-91
TRANS. DEV.	<i>[Signature]</i>	9-16-91	WASTE WATER	<i>[Signature]</i>	"
HYDROLOGY	<i>[Signature]</i>	9-12-91			

PROJECT NO. **4056** MAP NO. **D-18** SHEET **4** OF **17**

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEERS SEAL	
CONTRACTOR	DATE	NO.	DATE	NO.	DATE	NO.	DATE
Albuquerque Underground	9/12						
INSPECTIONS	9/12						
ACCEPTANCE BY C.O.A.	9/12						
VERIFICATION BY C.O.A.	9/12						
DRAWINGS	9/12						
REVISIONS	9/12						
RECORDED BY							
NO.							



RECORD DRAWING
I, Ronald P. Bohannon, hereby certify that these drawings have been revised in accordance with the information furnished by the City of Albuquerque PWD Construction Management Division to reflect the construction as actually accomplished.



R.P. Bohannon 1/8/93
Ronald P. Bohannon
N.M.P.E. No. 9814

C of A PWD Maps & Records
26 40560493A

EASTERLING & ASSOCIATES, INC.
CONSULTING ENGINEERS
10131 Coors Rd., NW, Suite H-718
ALBUQUERQUE, NEW MEXICO 87114
(505) 898-8021 FAX (505) 898-8501

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

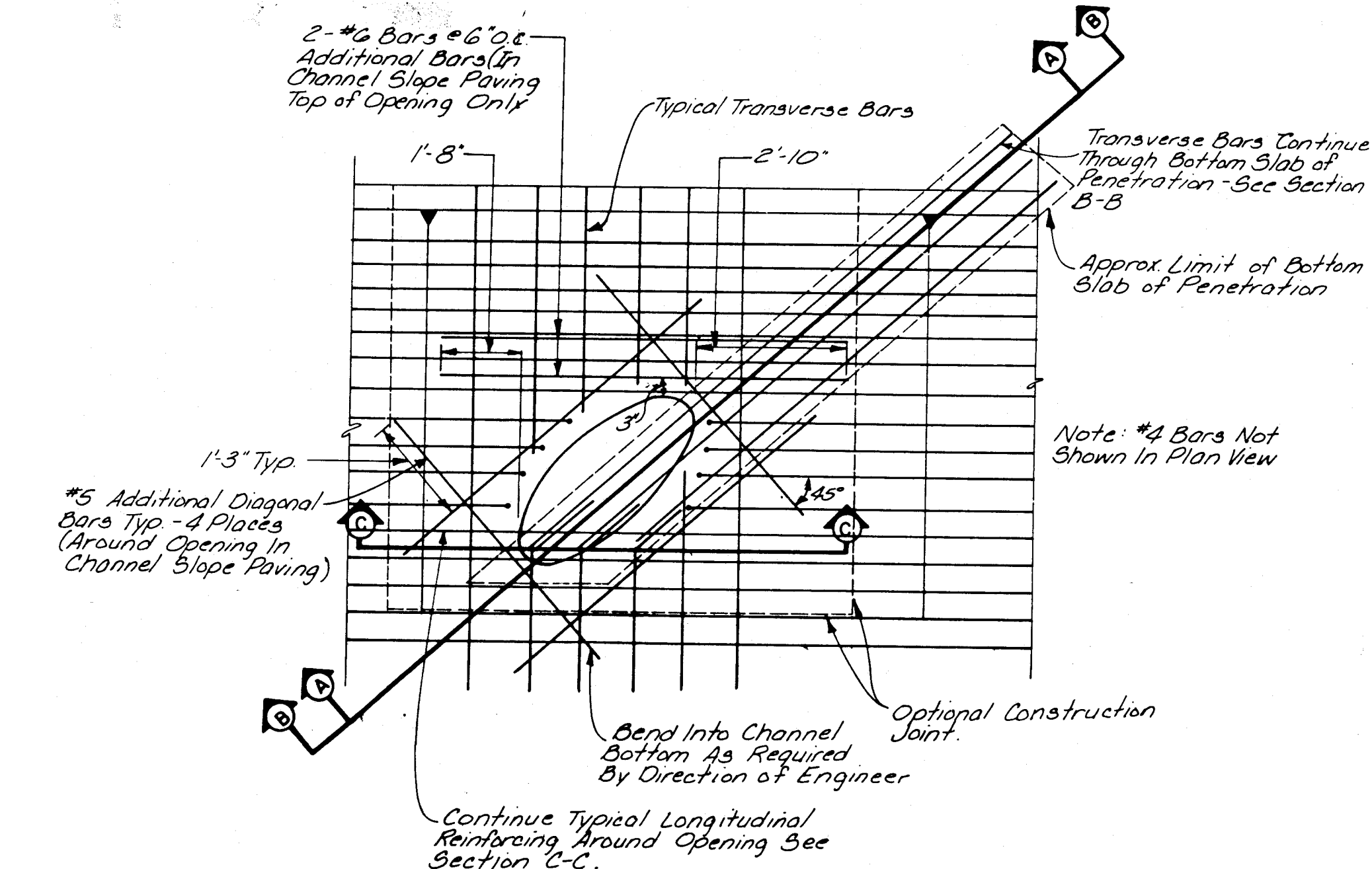
TITLE: NORTH PINO ARROYO
N.M.S.H.T.D. STORM DRAIN/SANITARY SEWER
RE-DESIGN DETAILS

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
D.R.C., Chair			WATER		
TRANS. DEV.			WASTE WATER		
HYDROLOGY					

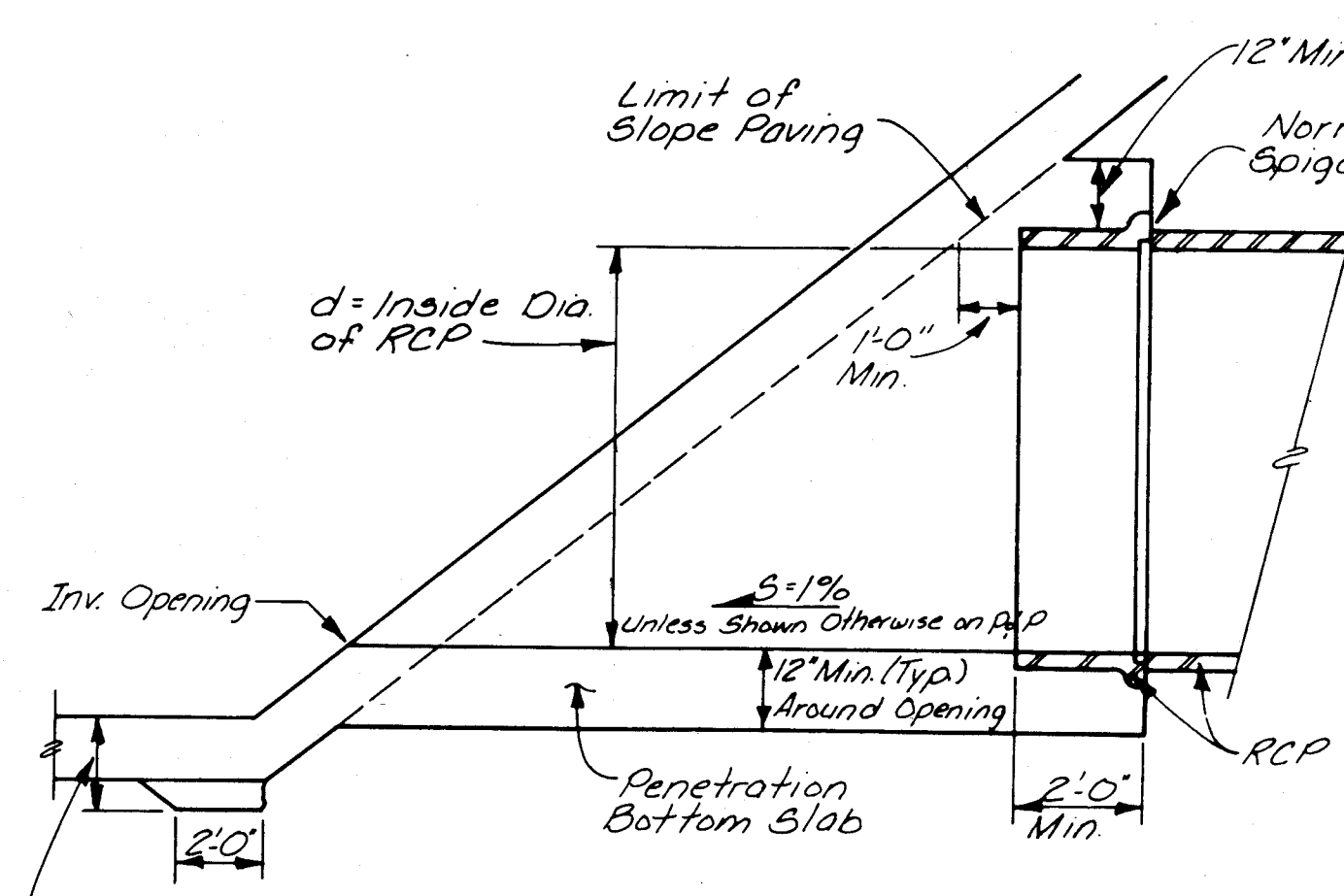
PROJECT NO. 4056 MAP NO. D-18 SHEET 4A OF 17

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL		REVISIONS		DESIGN	
CONTRACTOR	DATE	BY	DATE	NO.	DATE	NO.	DATE	NO.	DATE	NO.	DATE
Albuquerque Underground	9/12	BY	DATE								
STANDARD BY C.O.A.	9/12	BY	DATE								
INSPECTION BY C.O.A.	9/12	BY	DATE								
FIELD LANCE BY C.O.A.	9/12	BY	DATE								
VERIFICATION BY C.O.A.	9/12	BY	DATE								
CORRECTED BY	DATE	BY	DATE								
MICRO-FILM INFORMATION	DATE	BY	DATE								
RECORDED BY	DATE	BY	DATE								
NO.		BY	DATE								

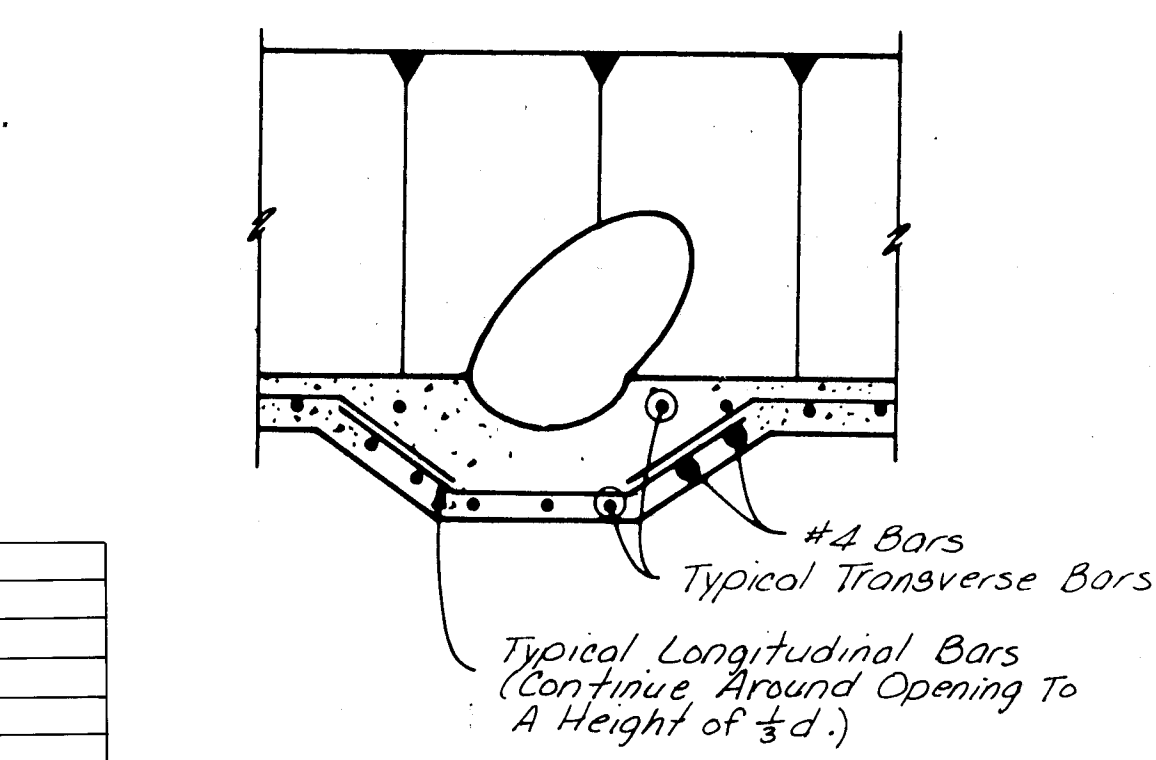
NOTE: Pipe penetration detail shown represents a 90° penetration. Therefore quantities will need to be adjusted base on the angle of penetration shown on the plans.



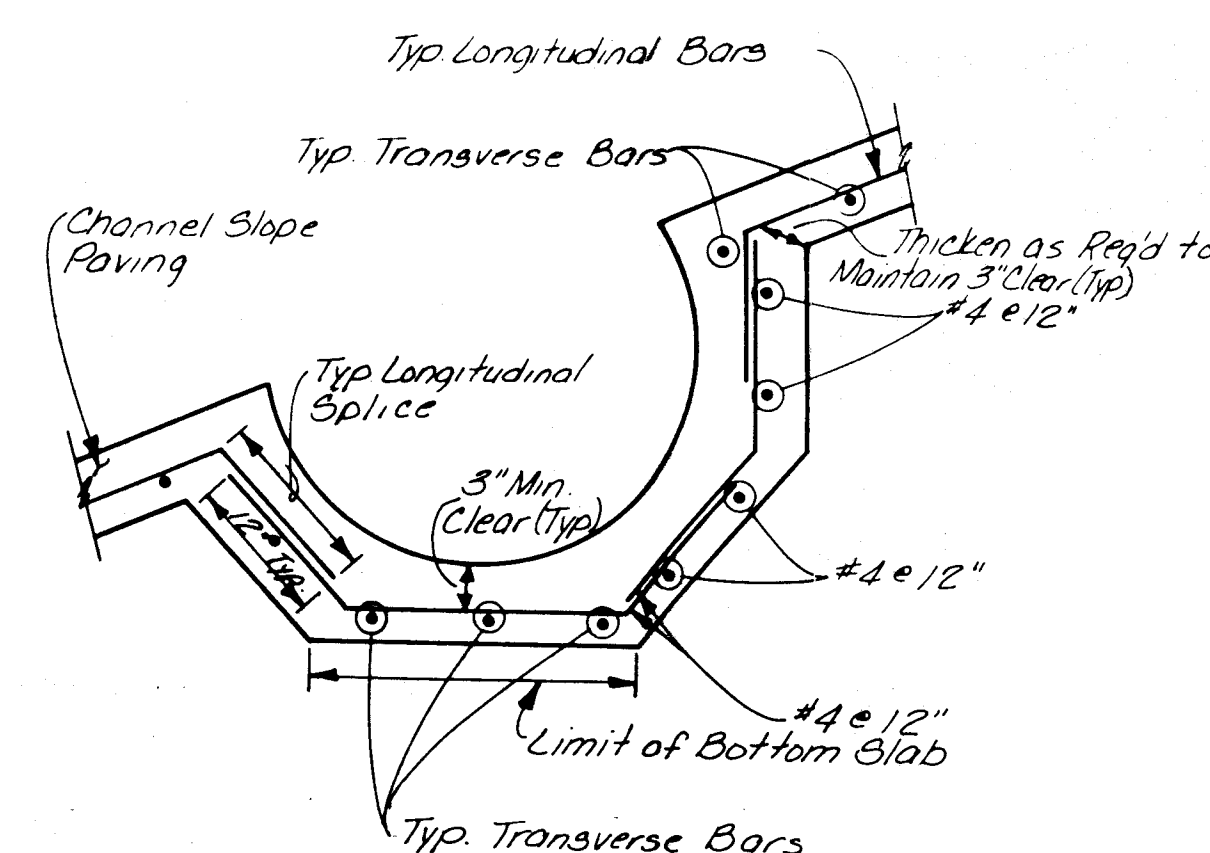
TYPICAL PIPE PENETRATION
PLAN VIEW NO SCALE



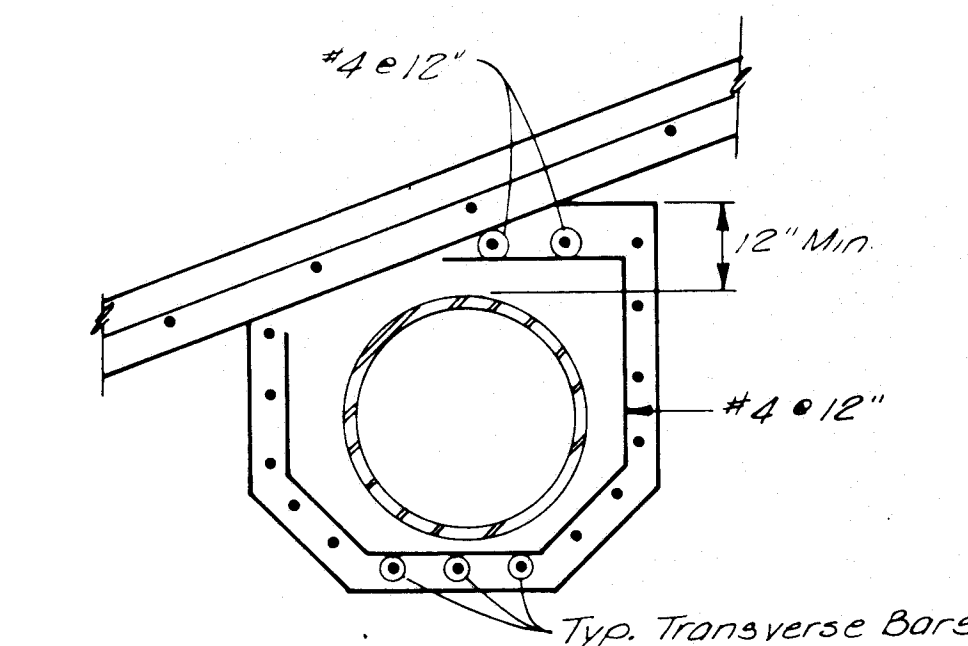
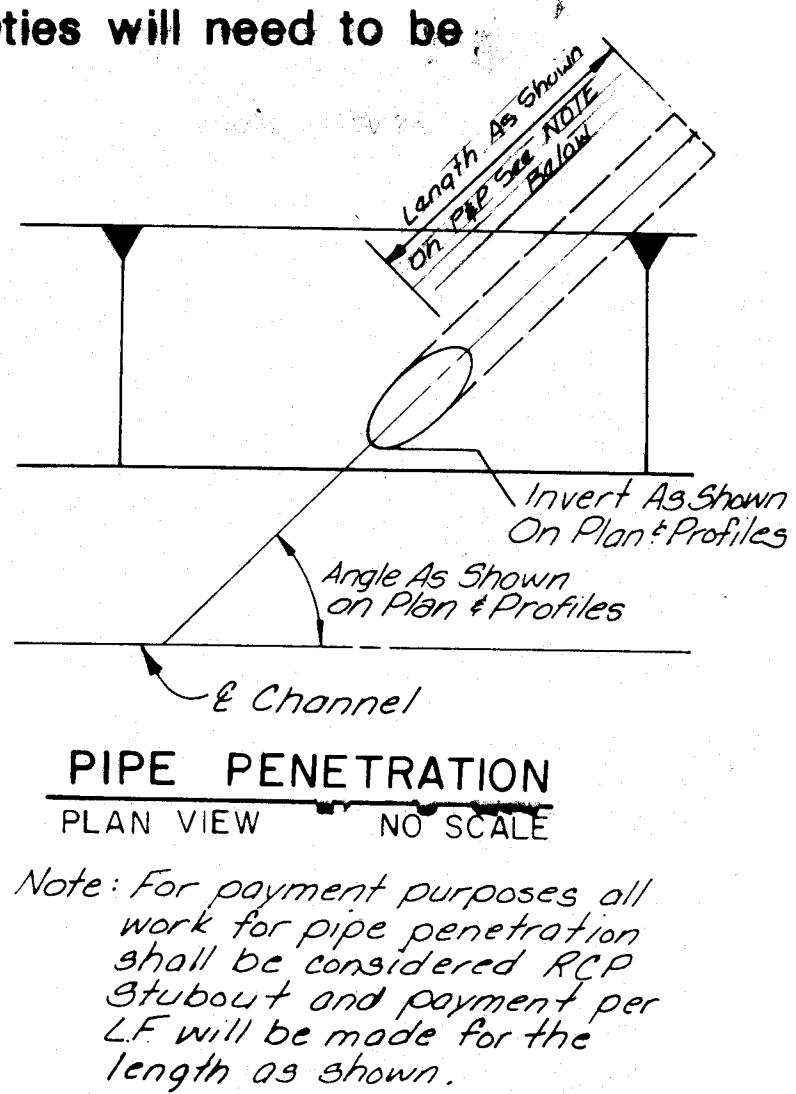
SECTION A-A
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See Section B-B for Reinforcing



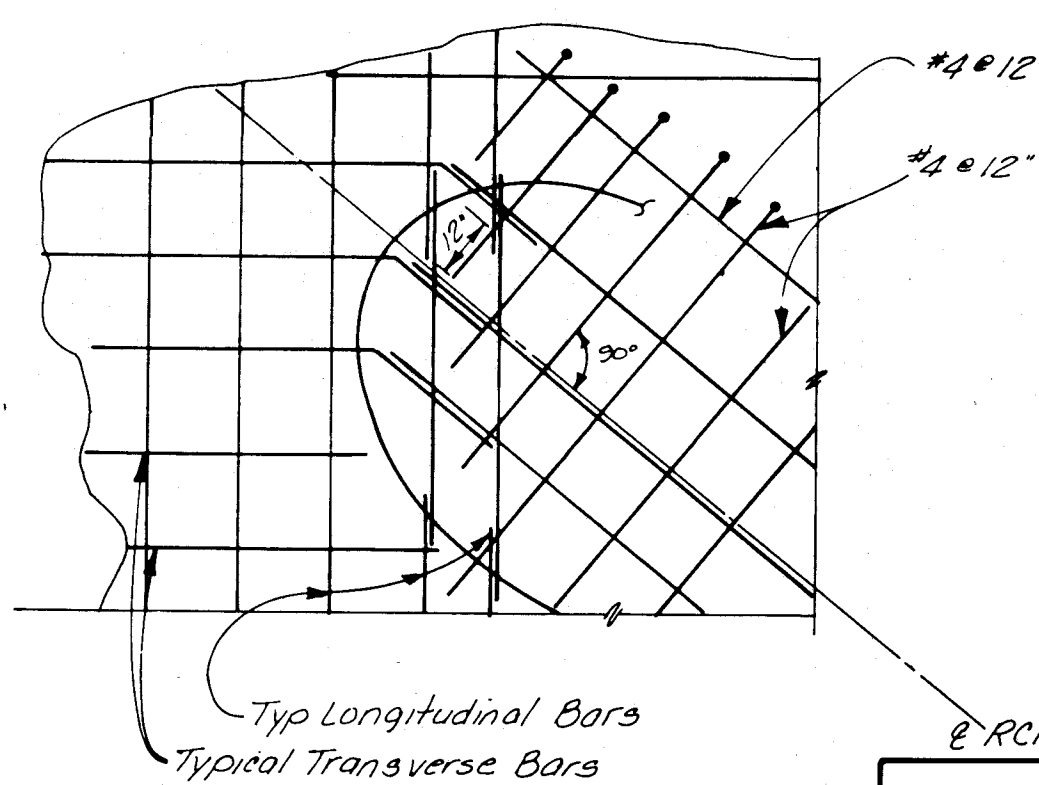
SECTION C-C
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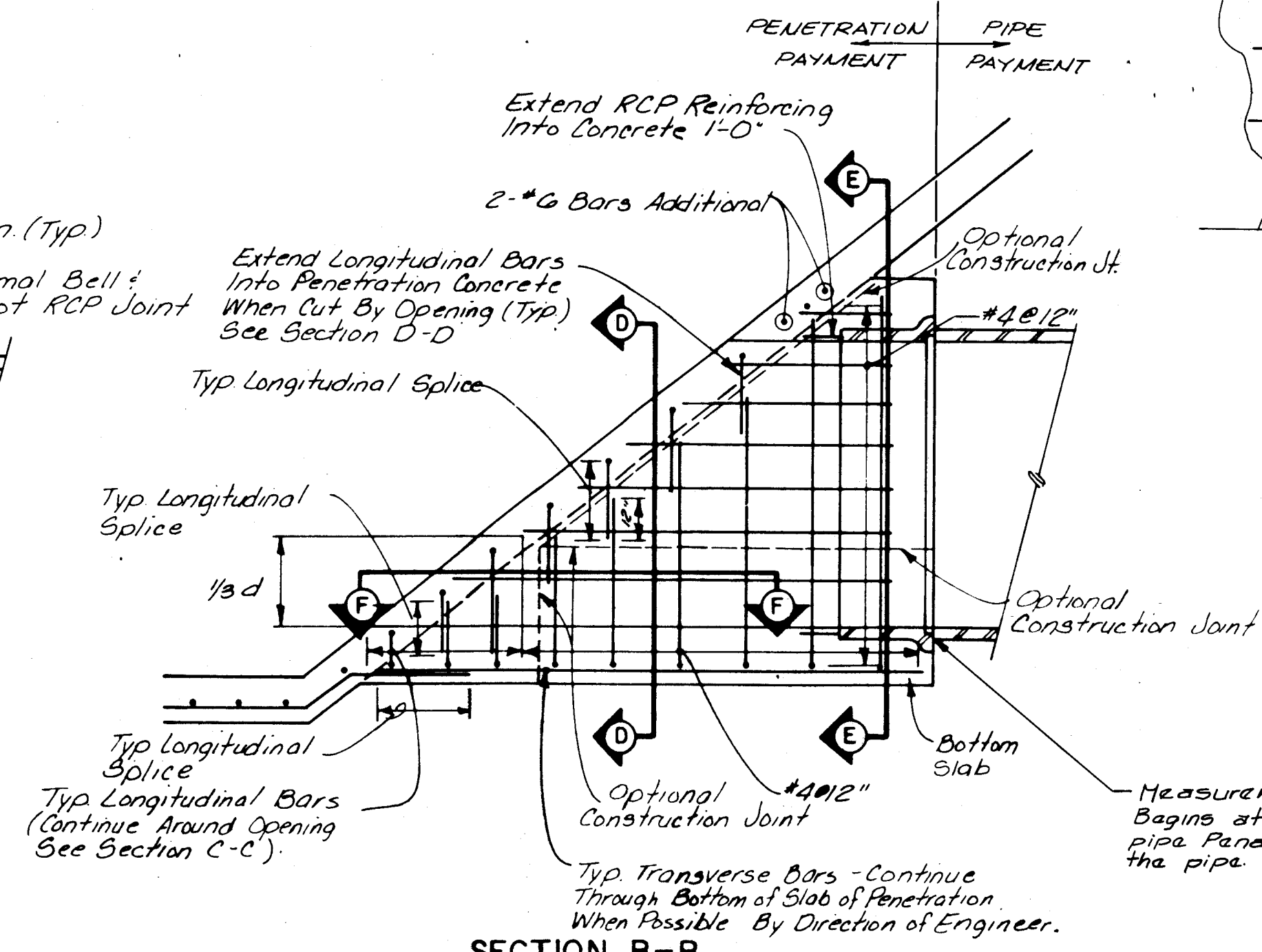
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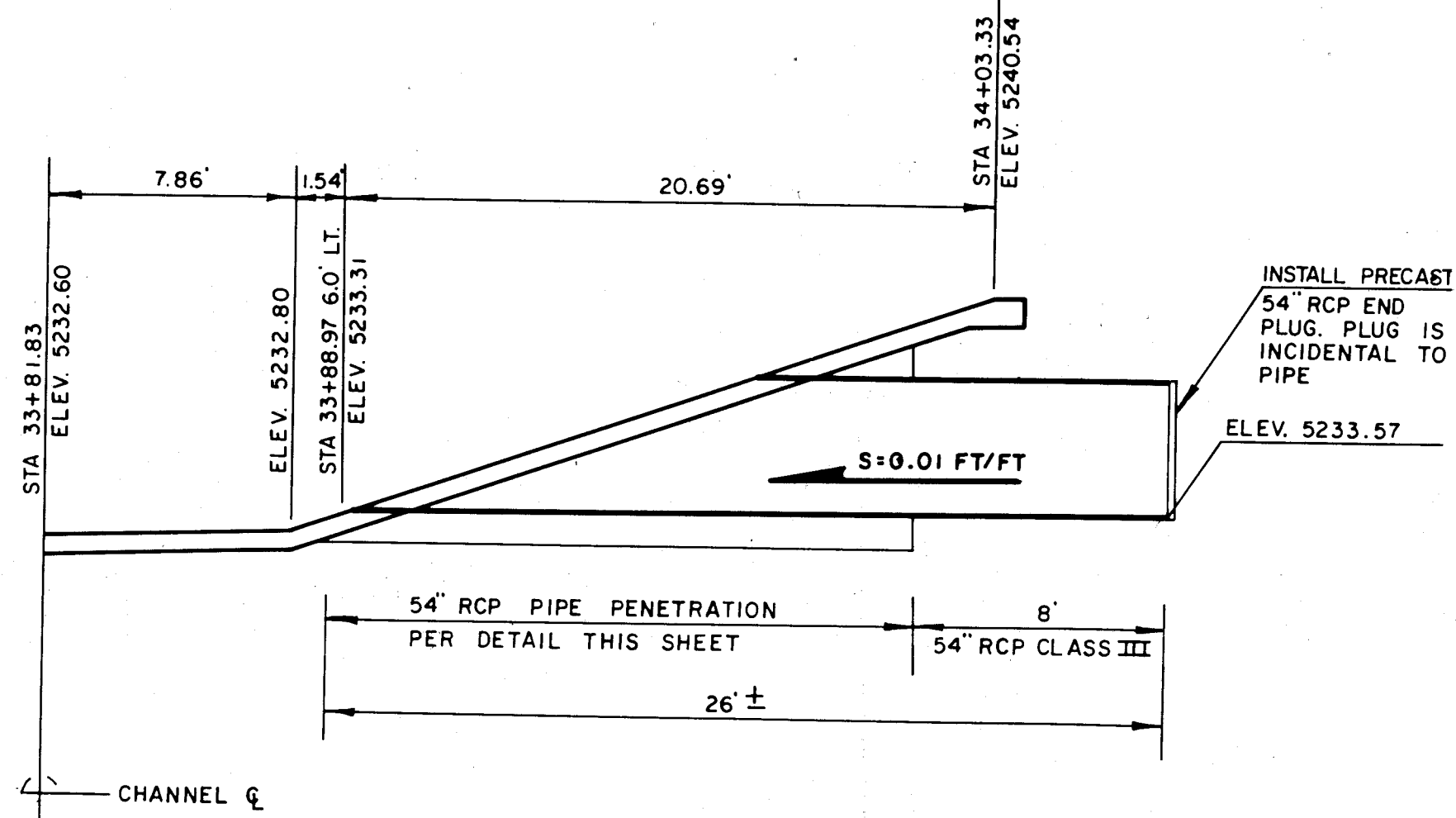
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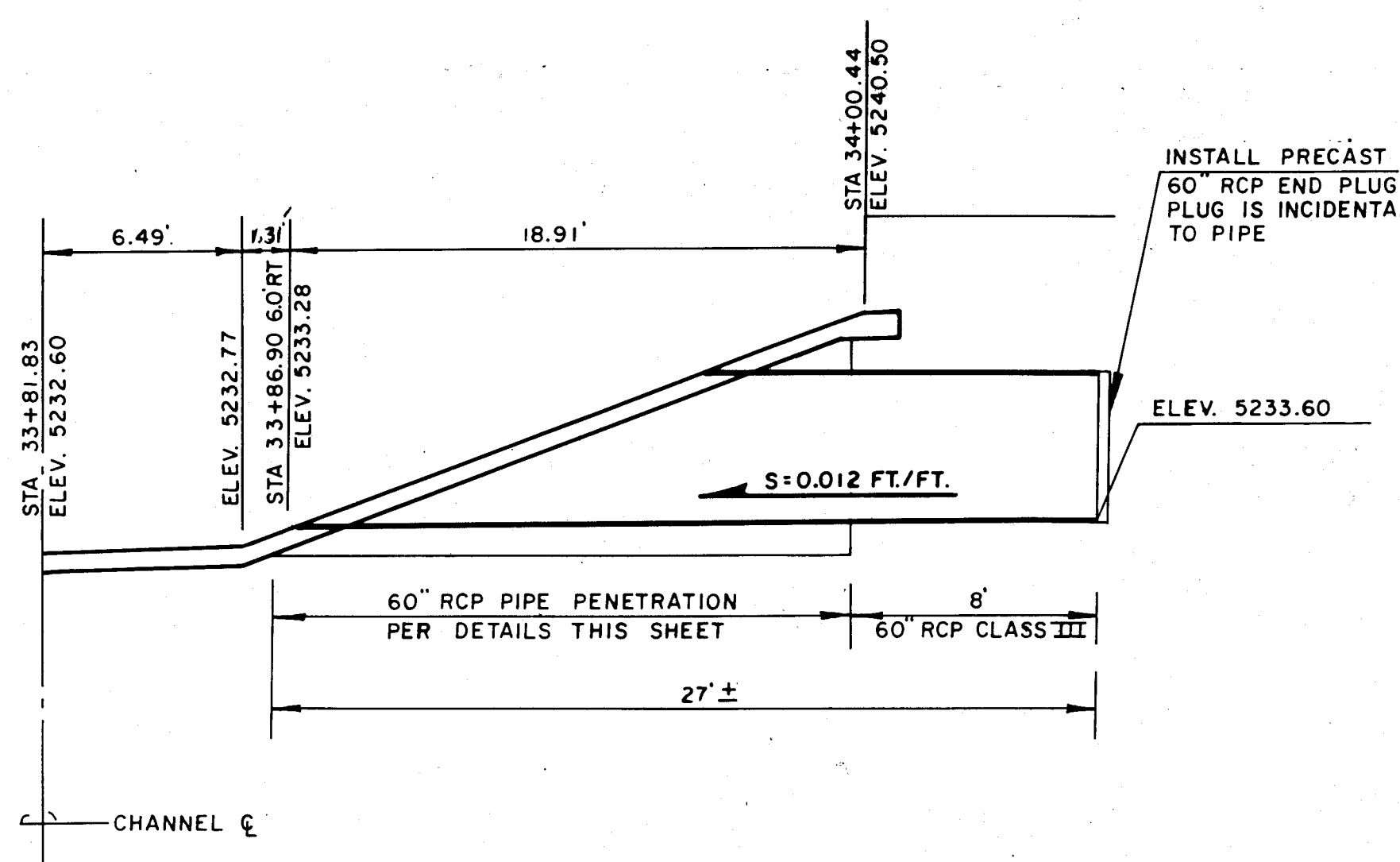
SECTION F-F
NO SCALE



SECTION B-B
NO SCALE

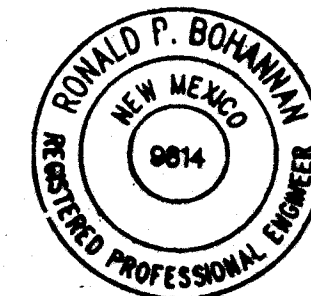


PIPE PENETRATION PROFILE
STA 33+88.97 6.0' LT. SCALE: 1"=5' HORIZ. 1"=5' VERT.



PIPE PENETRATION PROFILE
STA 33+86.90 6.0' RT. SCALE: 1"=5' HORIZ. 1"=5' VERT.

RECORD DRAWING
I, Ronald P. Bohannon, hereby certify that these drawings have been revised in accordance with the information furnished by the City of Albuquerque PWD Construction Management Division to reflect the construction as actually accomplished.

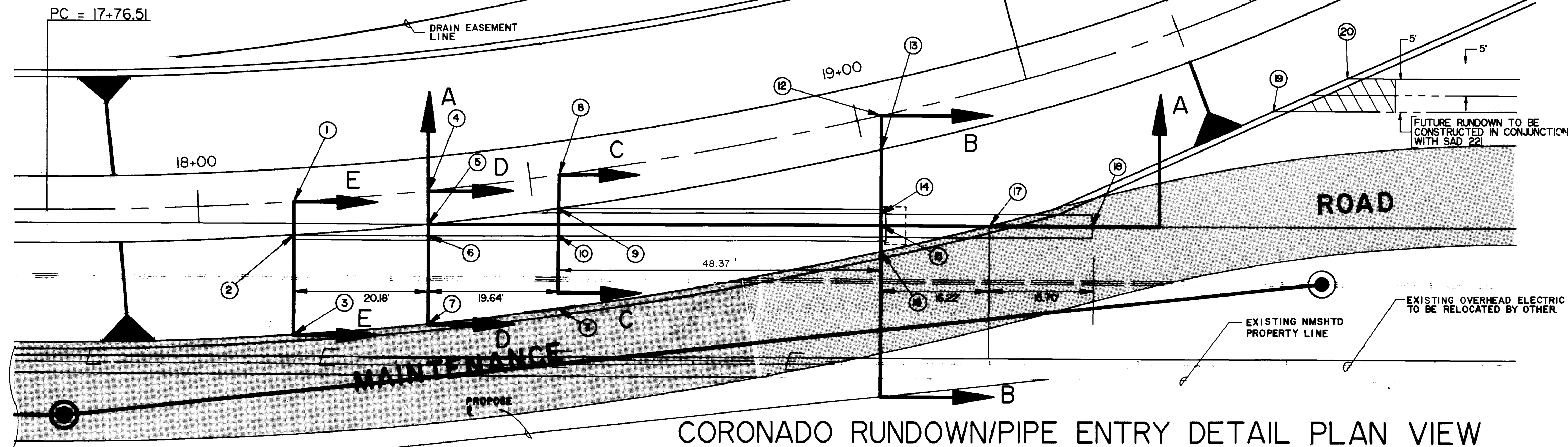
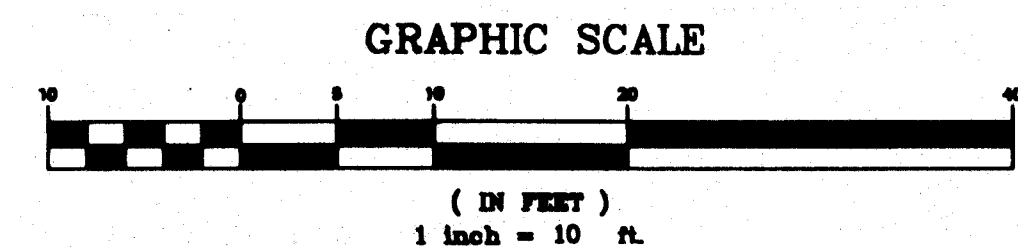


R. P. Bohannon 11/2/93
Ronald P. Bohannon
N.M.P.E. No. 9814

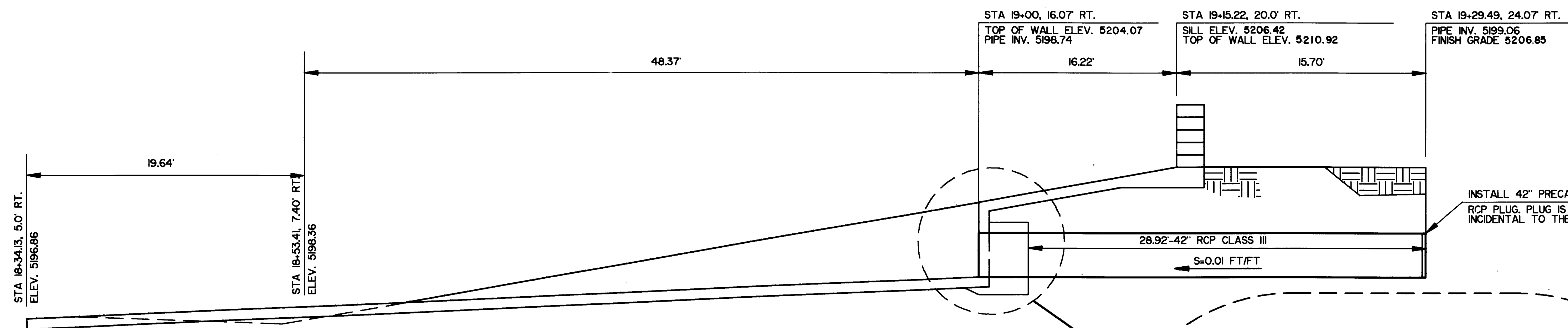
SCANNED BY
BY LASON

C of A PWD Maps & Records
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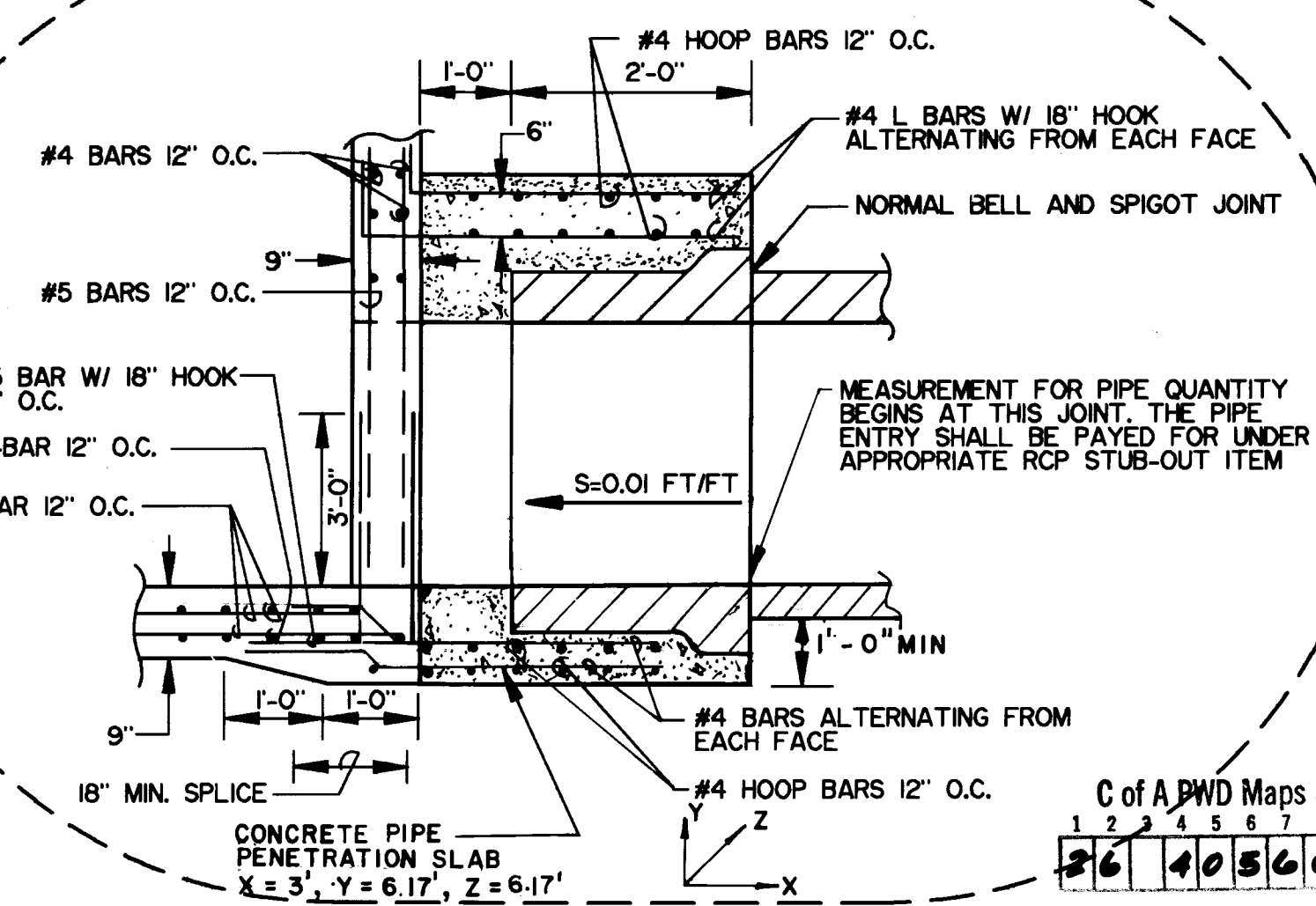
CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP					
TITLE: NORTH PINO ARROYO					
PIPE PENETRATION DETAILS					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
D.R.C. Chair	R. Bohannon	9-23-91	Water	ADH	9-27-91
Trans. Dev.	R. Bohannon	9-16-91	Waste Water	ADH	"
Hydrology	C. M. ...	9-12-91			
DRAWING NO.	4056	MAP NO.	D-18	SHEET	6 OF 17



PT NO.	STATION	OFFSET	direction	ELEV.	DESCRIPTION
1	18+14.41	0.00'	CL	5196.25	Channel inv.
2	18+14.06	5.00'	RT	5196.34	Channel toe-end rt. pipe entry wall
3	18+13.07	20.00'	RT	5203.82	Channel sill
4	18+34.66	0.00'	CL	5196.77	Channel inv.
5	18+34.13	5.00'	RT	5196.86	Channel toe
6	18+33.95	6.74'	RT	5197.72	Inside rt. pipe entry wall (top)
7	18+33.95	5.00'	RT	5197.72	Inside rt. pipe entry wall bottom
8	18+36.61	20.00'	RT	5204.42	Channel sill
9	18+54.45	0.00'	CL	5197.27	Channel inv.
10	18+53.74	5.00'	RT	5197.36	Channel toe-end rt. pipe entry wall
11	18+53.17	9.13'	RT	5199.14	Inside rt. pipe entry wall top
12	18+53.17	9.13'	RT	5198.36	Inside rt. pipe entry wall bottom
13	18+51.70	20.00'	RT	5204.80	Channel sill
14	19+03.70	0.00'	CL	5198.53	Channel inv.
15	19+02.53	5.00'	RT	5198.60	Channel toe
16	19+00.38	14.46'	RT	5203.27	Inside lt. pipe entry wall top
17	19+00.38	14.46'	RT	5198.75	Inside lt. pipe entry wall bottom
18	19+00.00	16.07'	RT	5204.07	Face pipe entry headwall top
19	19+00.00	16.07'	RT	5198.75	Face pipe entry headwall bottom
20	18+99.16	20.00'	RT	5206.01	Channel sill
21	19+15.27	20.00'	RT	5206.42	Channel sill
22	19+15.27	20.00'	RT	5198.90	Pipe inv.
23	19+29.49	24.07'	RT	5206.85	End pipe finished grade
24	19+29.49	24.07'	RT	5199.06	End pipe inv.
25	19+59.81	17.00'	RT	5206.04	Inside lt. rundown wall
26	19+71.94	17.00'	RT	5206.37	Inside rt. rundown wall



SECTION A-A
N.T.S.



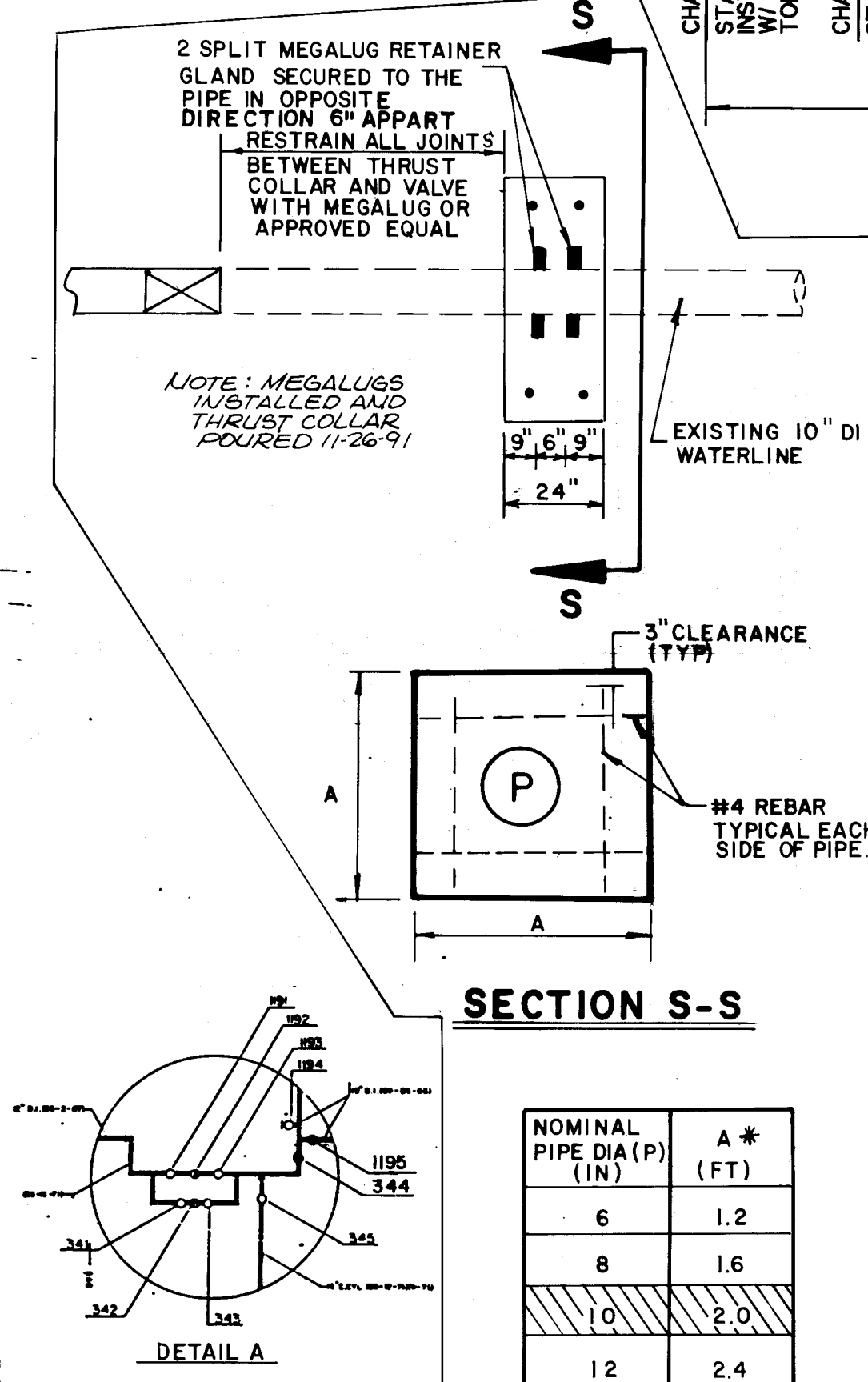
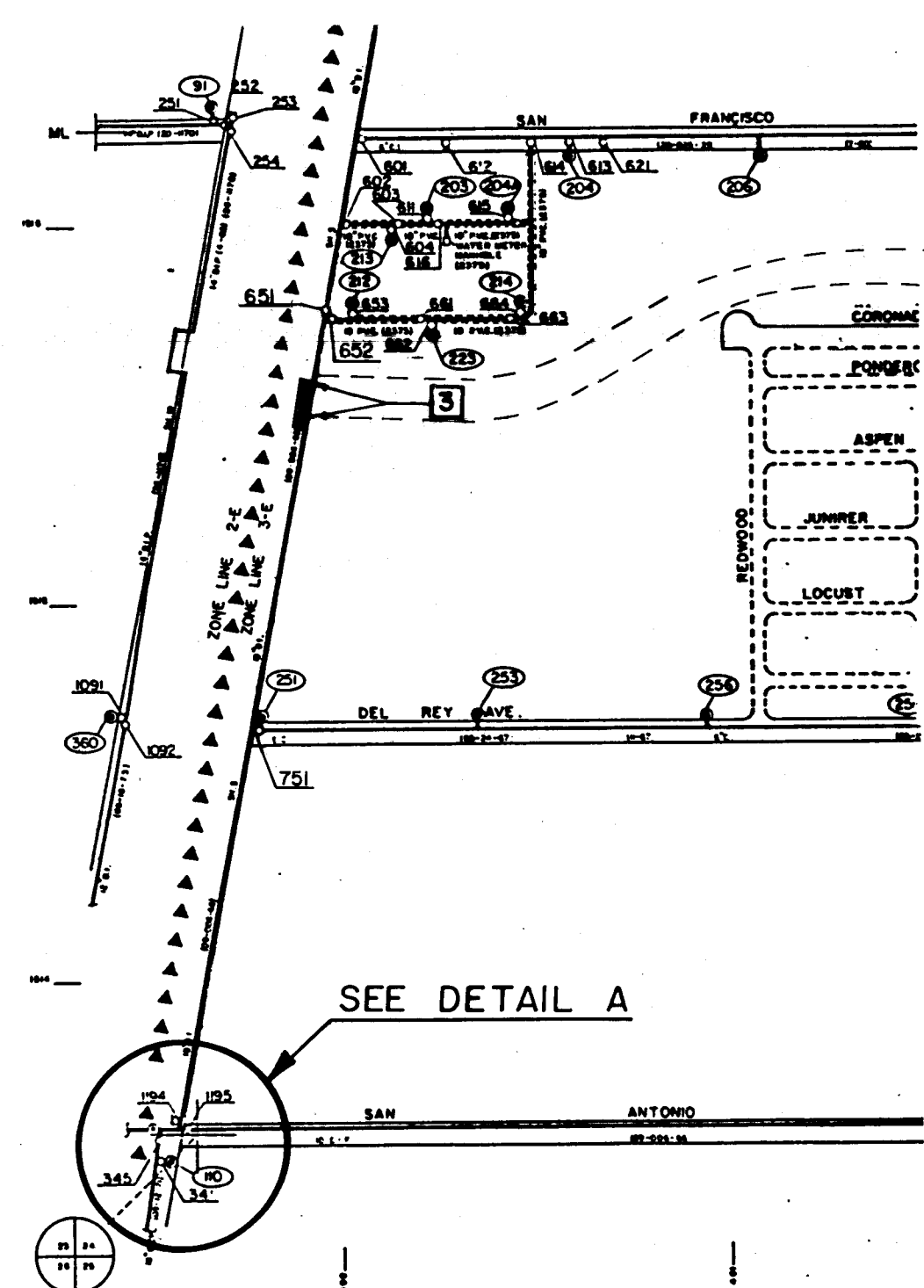
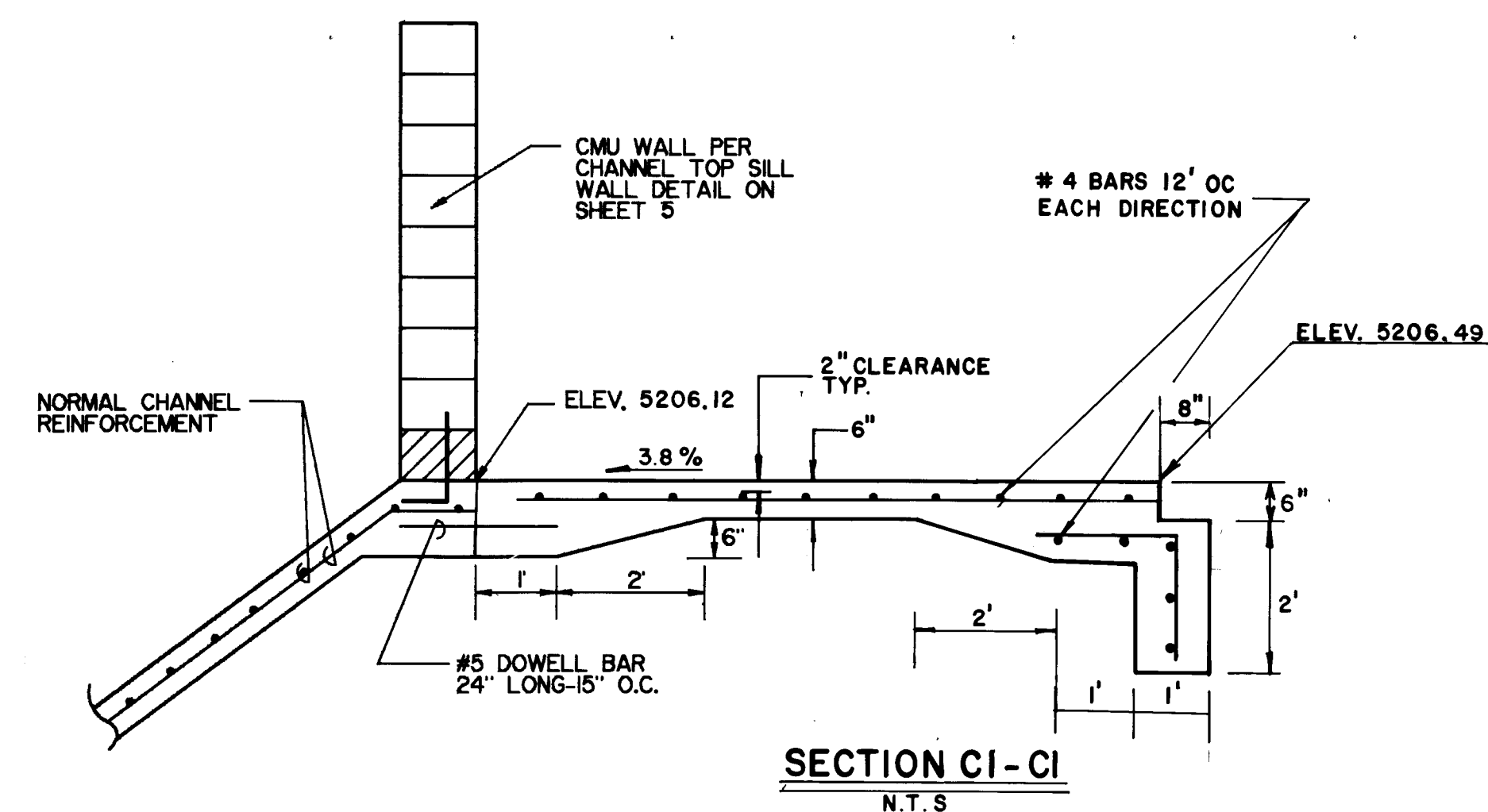
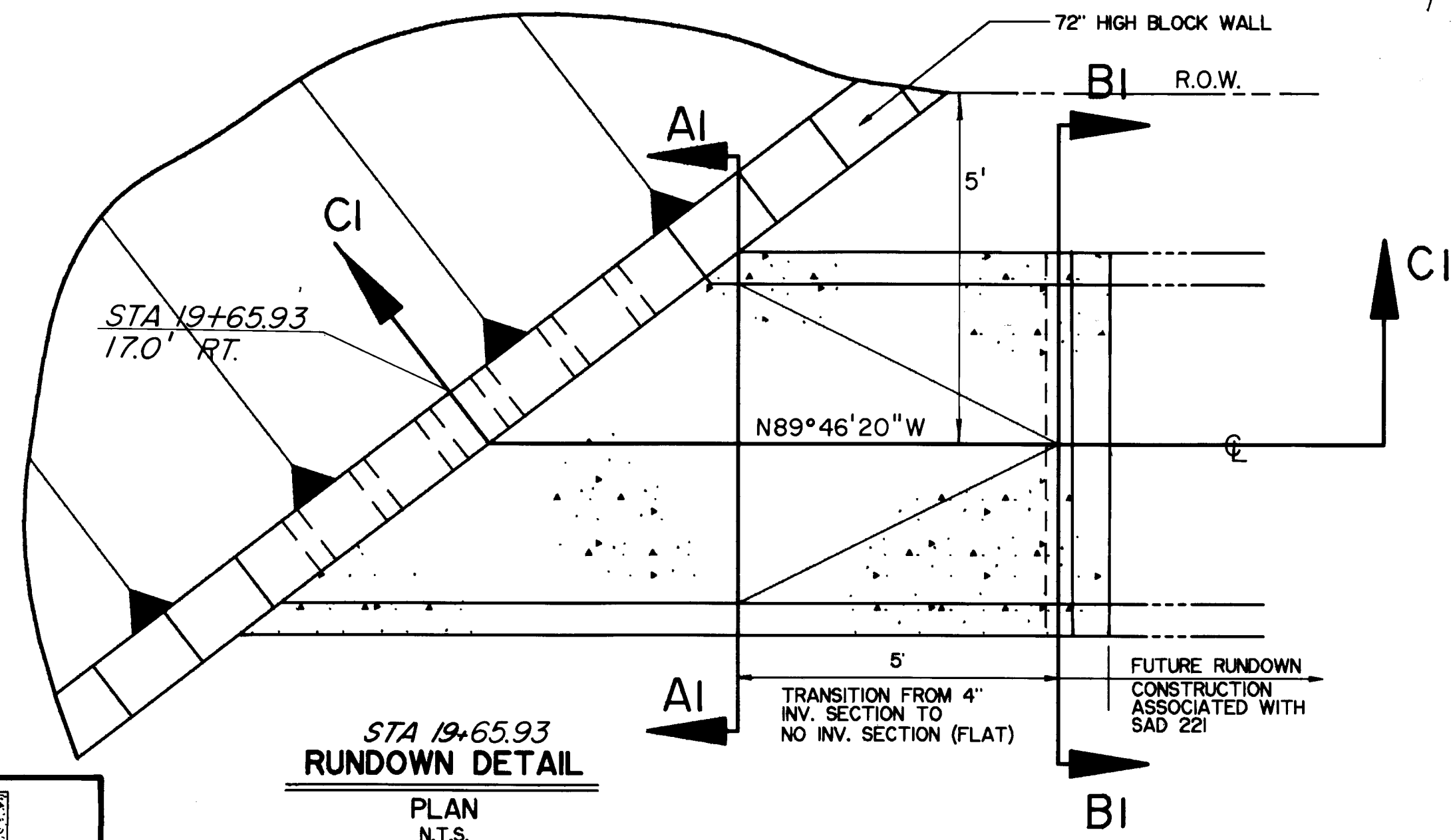
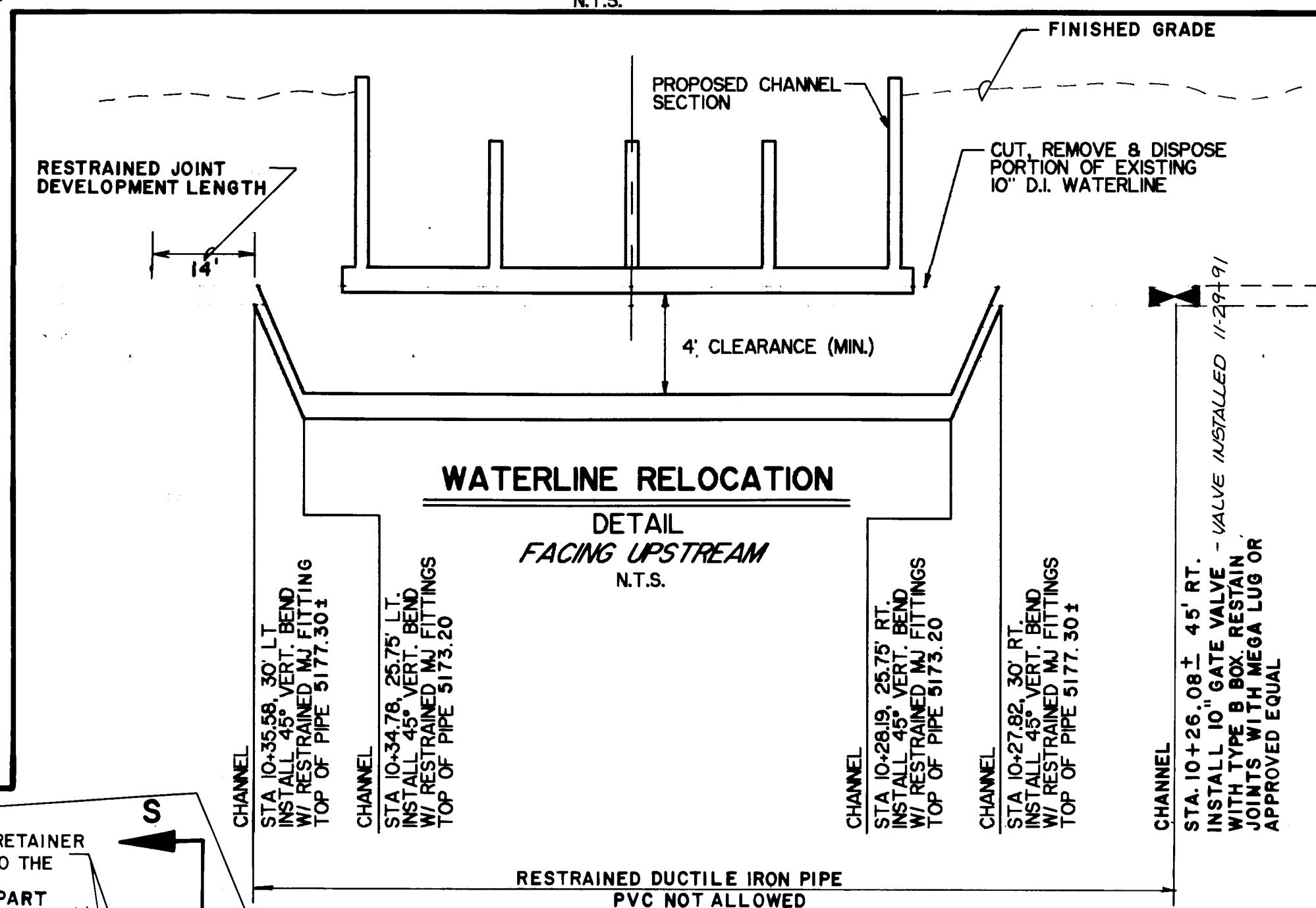
EASTERLING & ASSOCIATES, INC.
CONSULTING ENGINEERS
10331 Coors Rd., NW, Suite H-718
ALBUQUERQUE, NEW MEXICO 87114
(505) 898-8021 FAX (505) 898-8501

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP
NORTH PINO ARROYO
CORONADO ROAD
RUNDOWN/PIPE ENTRY DETAIL

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
D.R.C. Chair	R. Bohannon	9-23-91	WATER	ADD	9-12-91
TRANS. DEV.	R. Bohannon	9-16-91	WASTE WATER	ADD	
HYDROLOGY	C. Mung	9-12-91			
PROJECT NO.	4056	MAP NO.	D-18	SHEET	7 OF 17

PROJECT NO. **4056** MAP NO. SHEET **8** OF **17**

PROJECT NO. **4056** MAP NO. **D-18** SHEET **9** OF **17**



NOMINAL PIPE DIA (P) (IN)	A * (FT)
6	1.2
8	1.6
10	2.0
12	2.4

* "A" DIMENSIONS WERE DETERMINE ASSUME 150PSI DESIGN PRESSURE AND A SOIL BEARING VALUE OF 3000 LBS / FT²

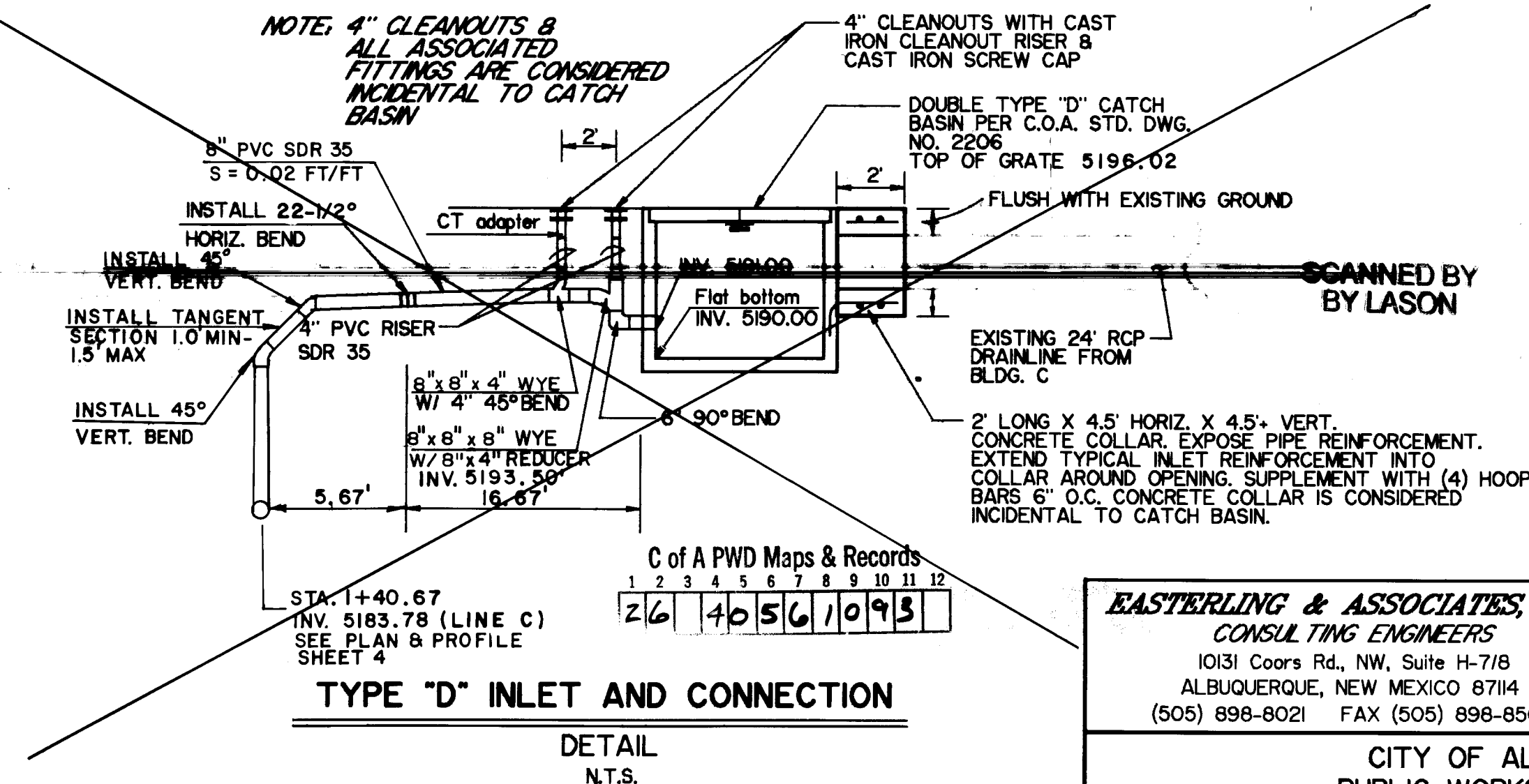
THRUST COLLAR
DETAIL
N.T.S

CONNECTIONS:

1. CONSTRUCT THRUST COLLAR RESTRAINT PER DETAIL ON THIS SHEET. THE COLLAR SHALL BE PLACED AGAINST UNDISTURBED SOIL.
2. TO INSTALL NEW 10" GATE VALVE AT 10+27.82 45 RT - CLOSE VALVES 651, 652, 751, 1195, AND 344. NOTIFY EFFECTED USERS CUT EXISTING 10" LINE AND MAKE REQUIRED CONNECTIONS. THE CONTRACTOR SHALL USE EXTREME CAUTION NOT TO DISTURB EARTH BETWEEN NEW VALVE AND THRUST COLLAR.
3. TO REMOVE EXISTING 10" W - CLOSE NEW VALVE FROM 2 AND EXISTING VALVES 651 & 652. NOTIFY EFFECTED USERS. CUT EXISTING 10" LINE AND MAKE REQUIRED CONNECTIONS.

GENERAL NOTES:

1. CONTRACTOR SHALL SCHEDULE AND COORDINATE ALL WATER SYSTEM SHUTOFFS AND CONNECTIONS WITH CITY OF ALBUQUERQUE WATER SYSTEMS AT 857-8200 A MINIMUM OF THREE (3) BUSINESS DAYS PRIOR TO PLANNED WATER SHUTOFF DATE.
2. ONLY CITY OF ALBUQUERQUE WATER SYSTEMS PERSONNEL SHALL OPERATE WATER SYSTEM VALVES AND HYDRANTS. CITY OF ALBUQUERQUE PERSONNEL WILL IMPLEMENT THE WATER SHUTOFF PLAN FOR THE CONTRACTOR BY OPENING AND CLOSING THE REQUIRED VALVES BEFORE AND AFTER THE CONNECTION IS MADE.
3. IN THE EVENT EMERGENCY SHUTOFFS ARE REQUIRED DUE TO LEAKS OR BREAKS IN WATERLINES RESULTING FROM CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CITY OF ALBUQUERQUE WATER SYSTEMS ENGINEER. THE CONTRACTOR SHALL COOPERATE FULLY WITH THE WATER SYSTEMS DEPARTMENT. THE CONTRACTOR SHALL NOTIFY ALL AFFECTED USERS OF THE EMERGENCY SHUTOFF, AND THE ESTIMATED TIME SERVICE WILL BE RESTORED.
4. TWO (2) WORKING DAYS PRIOR TO ANY PROPOSED WATER SHUT OFF(S), THE CONTRACTOR SHALL DISTRIBUTE A WRITTEN NOTICE TO THE AFFECTED OCCUPANTS LISTING: A) THE CONTRACTOR'S NAME, ADDRESS, AND LOCAL TELEPHONE NUMBER, B) DATE AND TIME, AND ESTIMATED LENGTH OF DISRUPTION OF SERVICE. THE AFFECTED AREA SHALL BE ESTABLISHED BY CITY OF ALBUQUERQUE WATER RESOURCE PERSONNEL.



DELETED SEE SHEET 4A

RECORD DRAWING

I, Ronald P. Bohannon, hereby certify that these drawings have been revised in accordance with the information furnished by the City of Albuquerque PWD Construction Management Division to reflect the construction as actually accomplished.



Ronald P. Bohanna
N.M.P.E. No. 9814

EASTERLING & ASSOCIATES, INC.
CONSULTING ENGINEERS
10131 Coors Rd., NW, Suite H-718
ALBUQUERQUE, NEW MEXICO 87114
(505) 898-8021 FAX (505) 898-8501

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE, **NORTH PINO ARROYO**
MISCELLANEOUS/ DETAILS
WATER, SEWER, AND RUNDOWNS

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
D.R.C. Chair	<i>[Signature]</i>	9-23-91	WATER	<i>[Signature]</i>	9-12-91
TRANS. DEV.	<i>[Signature]</i>	9-16-91	WASTE WATER	<i>[Signature]</i>	"
HYDROLOGY	<i>[Signature]</i>	9-12-91			

PROJECT NO. **4056**

MAP NO. **D-18**

SHEET 10 OF 17

AS BUILT INFORMATION	
CONTRACTOR <i>Albany Underground</i>	
WORK STANDARD BY <i>C.O.A.</i>	DATE <i>9/92</i>
INSPECTORS BY <i>C.O.A.</i>	DATE <i>9/92</i>
FIELD VERIFICATION BY <i>C.O.A.</i>	DATE <i>9/92</i>
DRAWINGS CORRECTED BY <i>Estelby Assoc.</i>	DATE <i>9/92</i>
MICRO-FILM INFORMATION	
RECORDED BY	DATE
NO.	

[illegible][illegible]

ENGINEER'S SEAL

6411

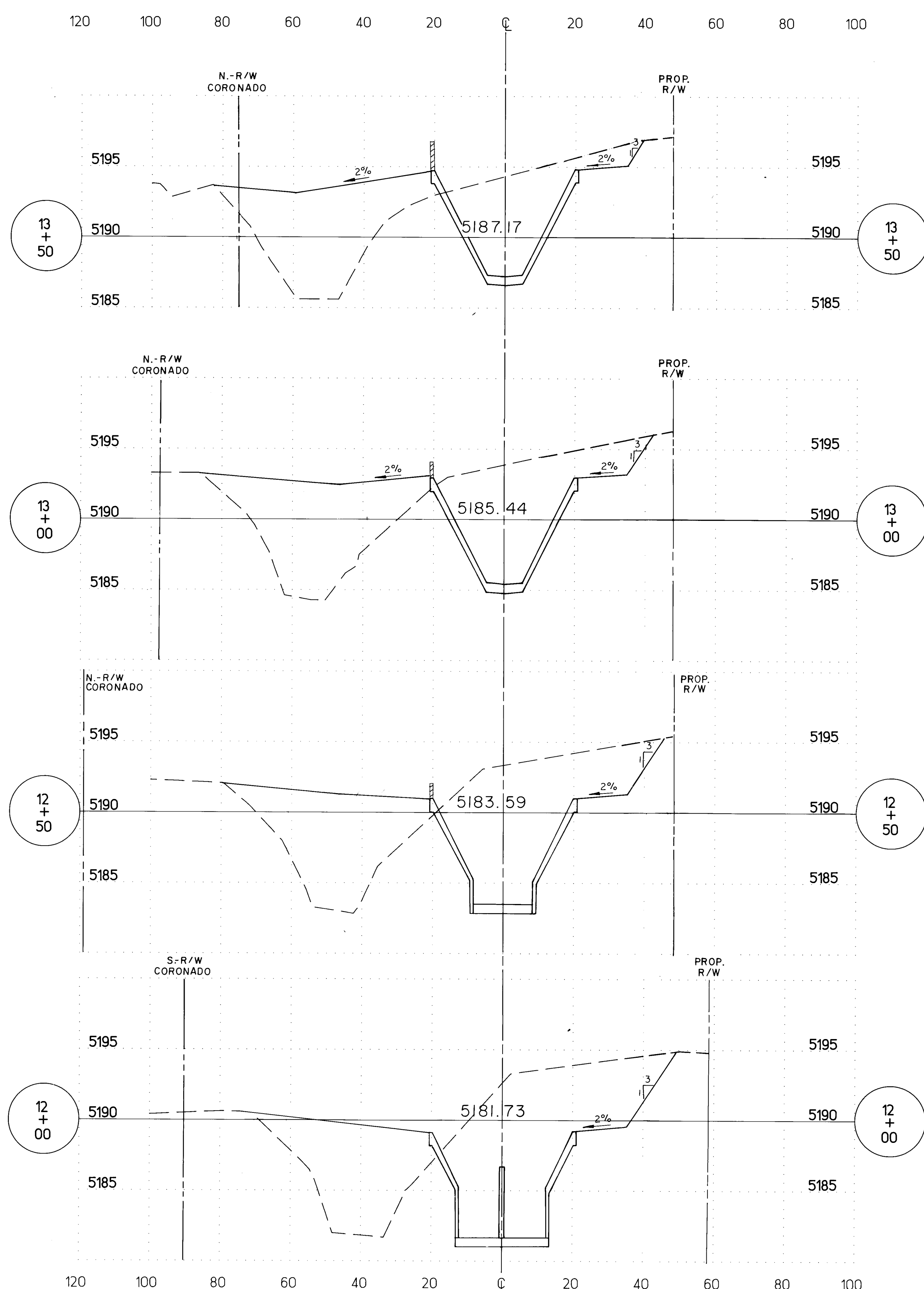
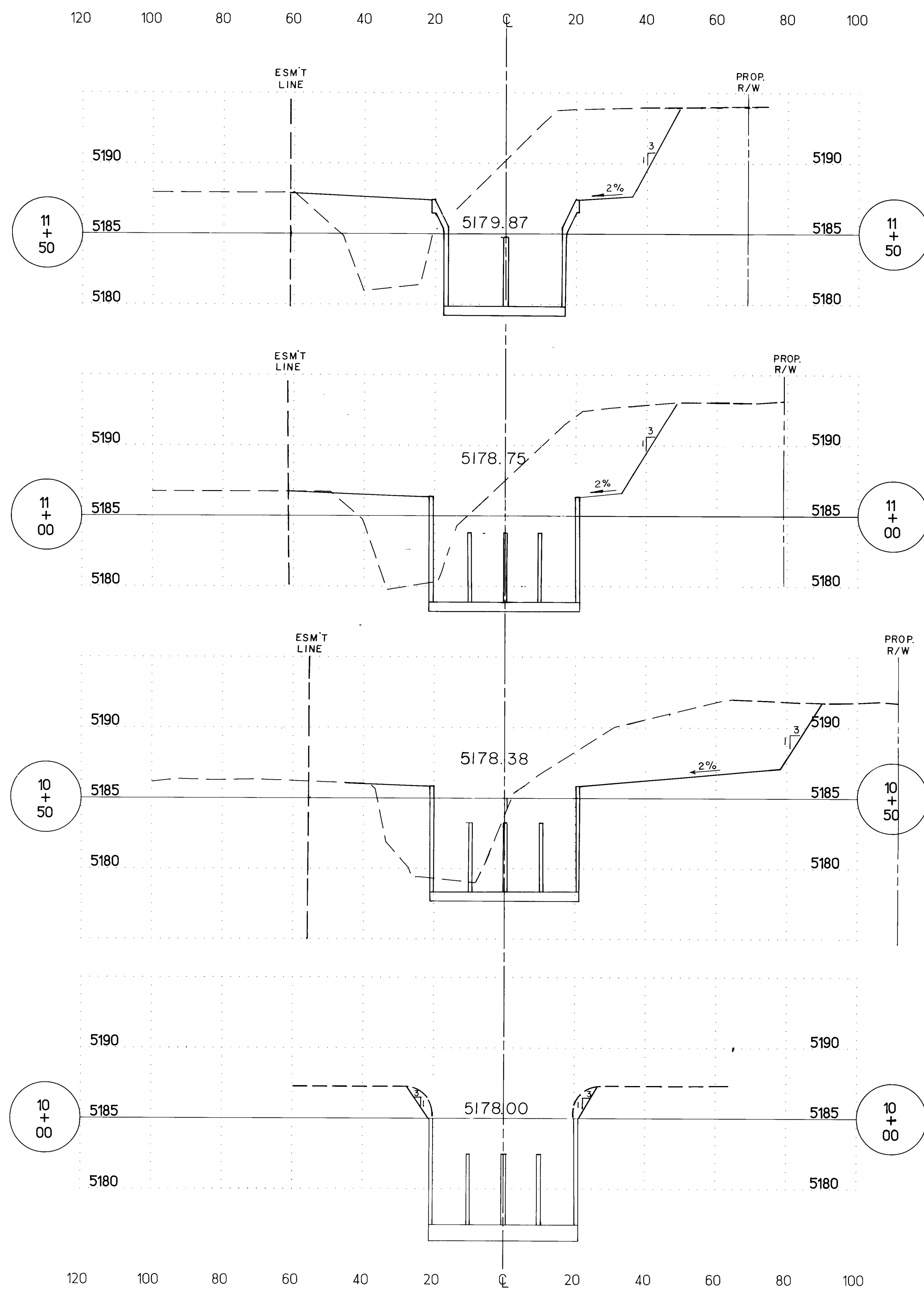
REGISTERED PROFESSIONAL ENGINEER

91

0-5

[illegible]

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP					
TITLE: NORTH PINO ARROYO					
TRANSITION/SPLITTER WALL DETAILS					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
D.R.C. Chair	<i>R. J. [Signature]</i>	<i>9-25-91</i>	WATER	<i>N. [Signature]</i>	<i>9-17-91</i>
TRANS. DEV.	<i>R. [Signature]</i>	<i>9-16-91</i>	WASTE WATER	<i>ADD</i>	..
HYDROLOGY	<i>C. [Signature]</i>	<i>9-12-91</i>			
PROJECT NO. 4056		MAP NO. D-18		SHEET 11 OF 17	



SCANNED BY
BY LASON

RECORD DRAWING
I, Ronald P. Bohrtman, hereby certify that these drawings have been revised in accordance with the information furnished by the City of Albuquerque PWD Construction Management Division to reflect the construction as actually accomplished.

R. Bohannon 1/8/93
 Ronald P. Bohannon
 N.M.P.E. No. 9814

A circular professional engineer seal for Ronald P. Bohannan, a Registered Professional Engineer in New Mexico. The seal features the text "RONALD P. BOHANNAN" around the top inner edge, "NEW MEXICO" around the bottom inner edge, and "REGISTERED PROFESSIONAL ENGINEER" around the outer edge. In the center, the license number "9814" is displayed.

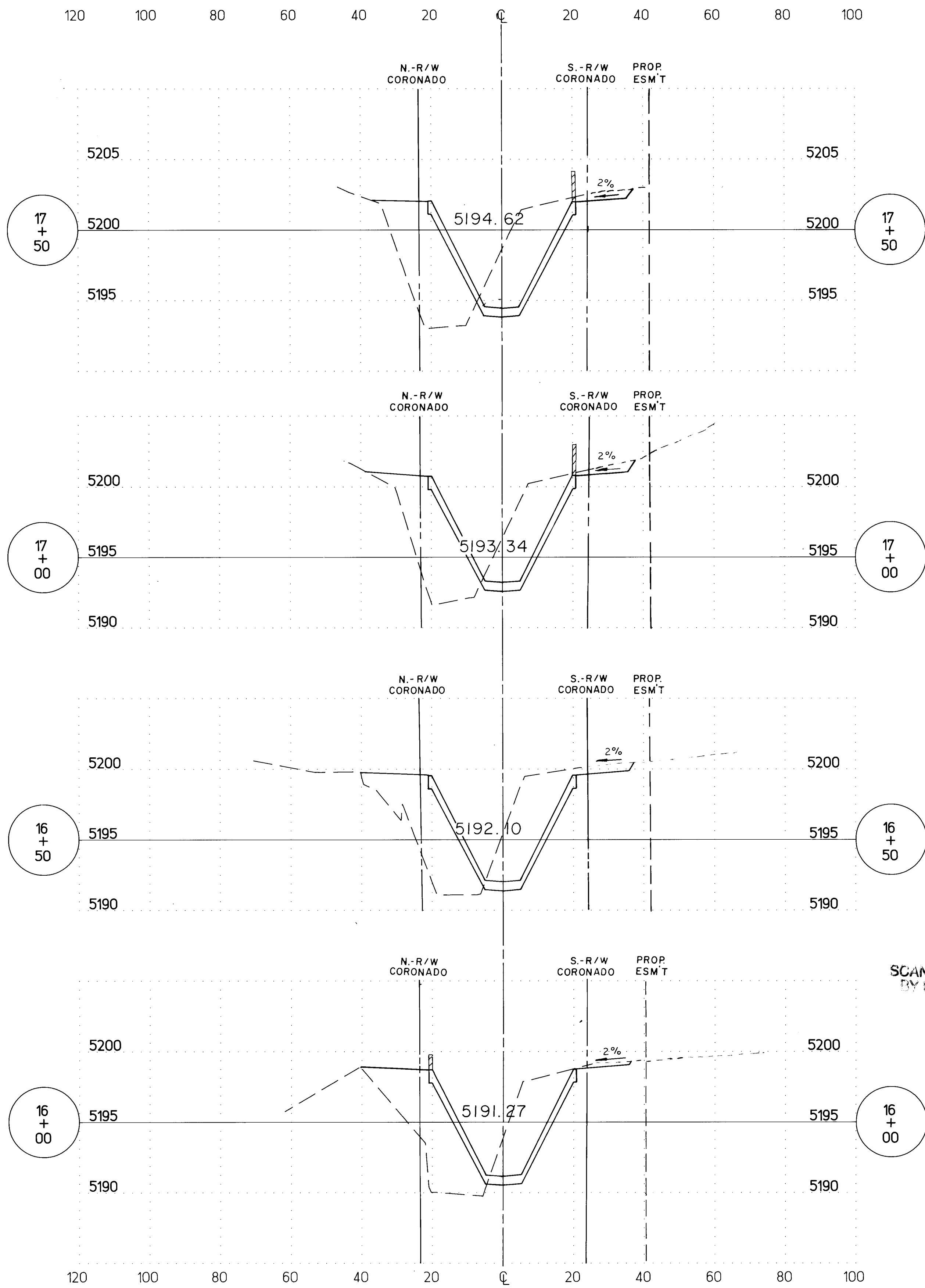
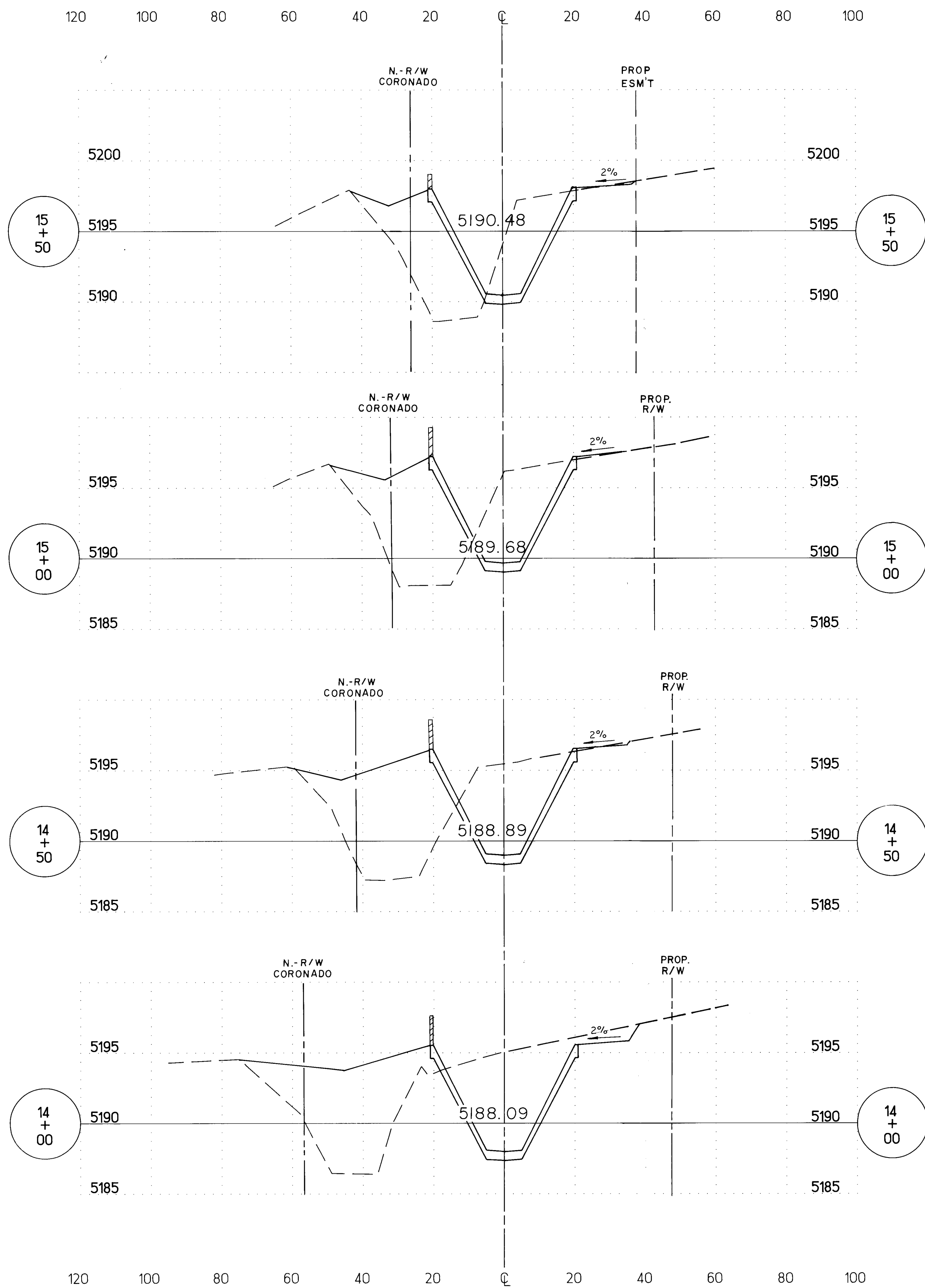
SCALE: 1"=20' HORIZ
1"=5' VERT

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP					
TITLE: NORTH PINO ARROYO CHANNEL CROSS-SECTIONS STA 10+00 TO STA 13+50					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
D.R.C. Chair			WATER	<i>[Signature]</i>	9-12-91
TRANS. DEV	<i>[Signature]</i>	9-12-91	WASTE WATER	<i>[Signature]</i>	"
HYDROLOGY	<i>[Signature]</i>	9-12-91			
PROJECT NO. 4056		MAP NO. D-18		SHEET 12 OF 17	

		ENGINEERS SEAL		SURVEY INFORMATION		BENCH MARKS	A/S BUILT INFORMATION
				NO.	BY DATE		
							CONTRACTOR'S WORK BY <u>Alfing, Underground</u> DATE <u>9/92</u>
							INSPECTOR'S ACCEPTANCE BY <u>C.O.A.</u> DATE <u>9/92</u>
							VERIFICATION BY <u>C.O.A.</u> DATE <u>9/92</u>
							DRAWN AND FORWARDED BY <u>Enealing, Asst</u> DATE <u>9/92</u>
							<u>MICRO-FILM INFORMATION</u>
							RECORDED BY DATE
							NO.

REGISTERED PROFESSIONAL ENGINEER
NEW MEXICO
6411
CARLOS S. ESTRELLA

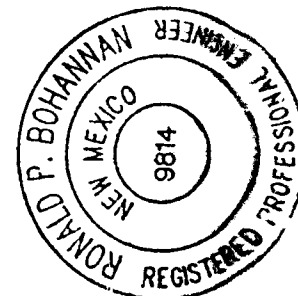
7-11



SCANNED BY
LASON

SCALE: 1"=20' HORIZ
1"=5' VERT

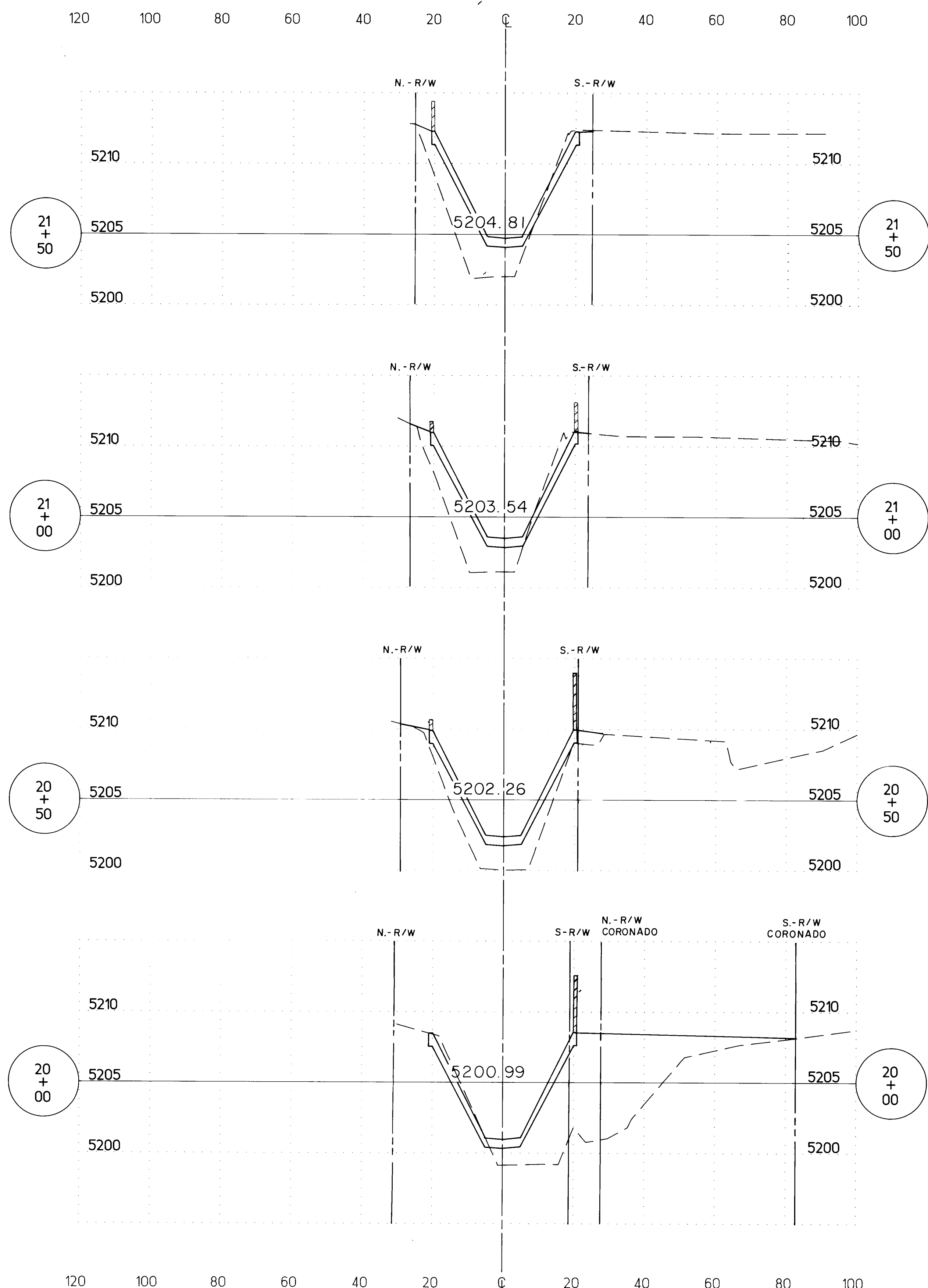
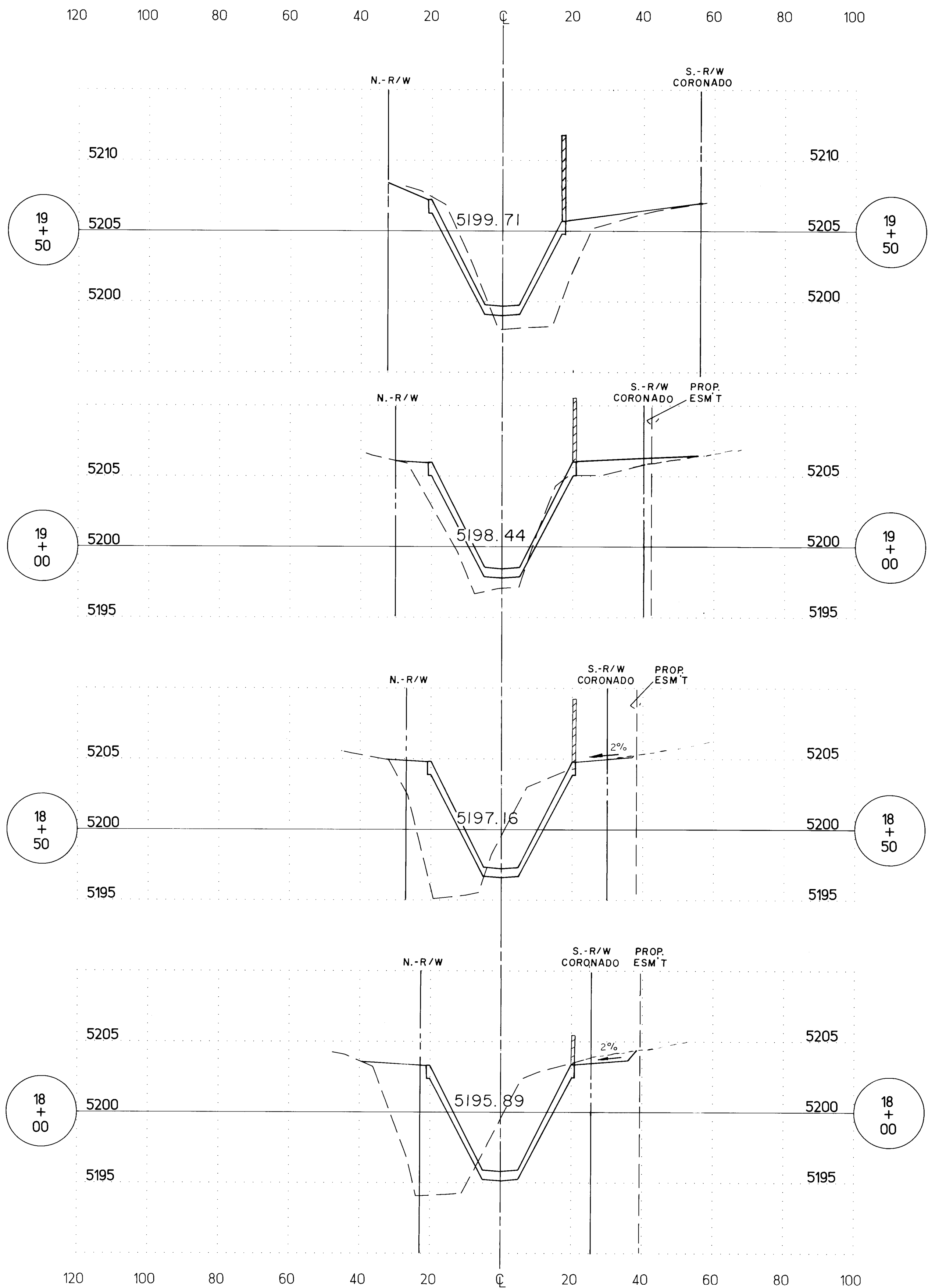
RECORD DRAWING
I, Ronald P. Bohman, hereby certify that these drawings have been revised in accordance with the information furnished by the City of Albuquerque PWD Construction Management Division to reflect the construction as actually accomplished.



R. P. Bohman 1/13/93
Ronald P. Bohman
N.M.P.E. No. 9814

AS BUILT INFORMATION				BENCH MARKS			
CONTRACTOR	Ally, Underground	WORK	DATE	NO.	BY	DATE	
STAKED BY	C.O.A.	INSPECTOR	DATE				
FIELD	BY C.O.A.	FIELD	DATE				
VERIFICATION BY	C.O.A.	VERIFICATION BY	DATE				
CORRECTED BY	DATE	CORRECTED BY	DATE				
MICRO-FILM INFORMATION				SURVEY INFORMATION			
RECORDED BY	NO.	DATE		NO.	BY	DATE	

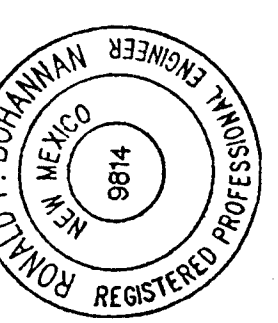
CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP			
TITLE: NORTH PINO ARROYO CHANNEL CROSS-SECTIONS STA 14+00 TO STA 17+50			
APPROVALS	ENGINEER	DATE	APPROVALS
D.R.C. Chair			WATER
TRANS. DEV.			WASTE WATER
HYDROLOGY			
PROJECT NO.	4056	MAP NO.	D-18
SHEET	13	OF	17



SCANNED BY
BY LASON

RECORD DRAWING
I, Ronald P. Bohanan, hereby certify that these drawings have been revised in accordance with the information furnished by the City of Albuquerque PWD Construction Management Division to reflect the construction as actually accomplished.

R. P. Bohanan 11/15/93
Ronald P. Bohanan
N.M.P.E. No. 9814

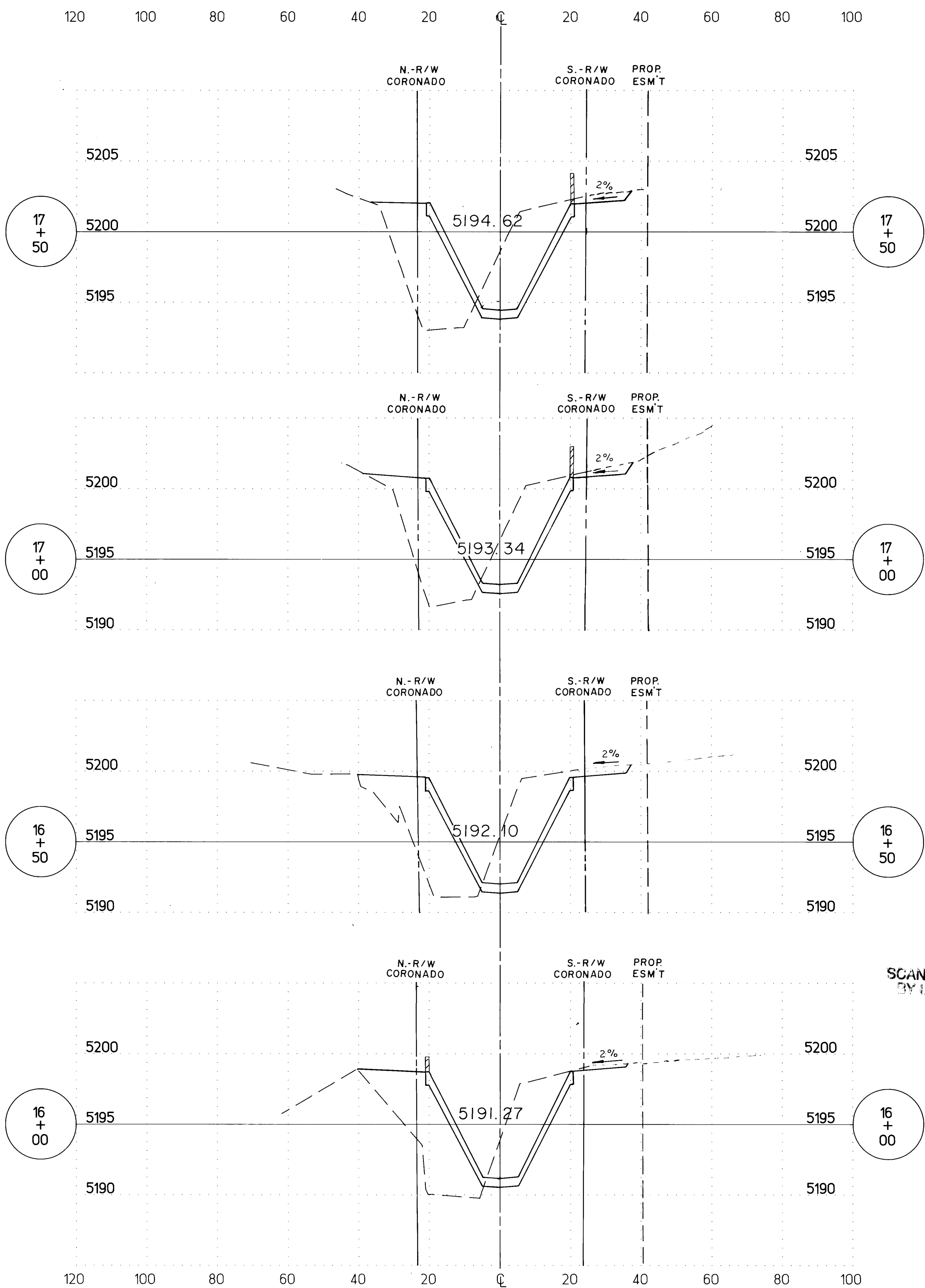
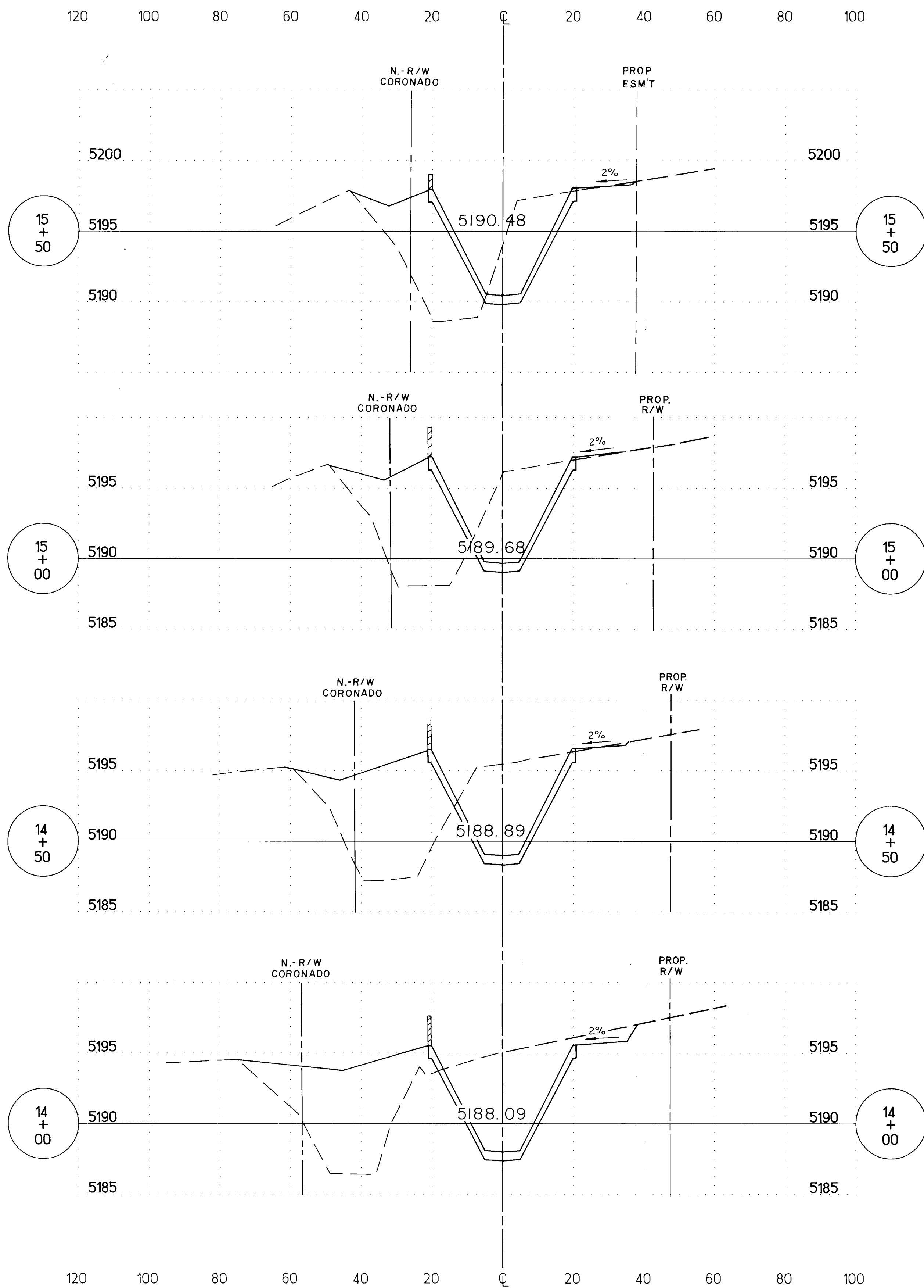


SCALE: 1"=20' HORIZ
1"=5' VERT

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP					
TITLE: NORTH PINO ARROYO CHANNEL CROSS-SECTIONS STA 18+00 TO STA 21+50					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
D.R.C. Chair	<i>[Signature]</i>	9-16-91	WATER	<i>[Signature]</i>	9-17-91
TRANS. DEV.	<i>[Signature]</i>	9-16-91	WASTE WATER	<i>[Signature]</i>	"
HYDROLOGY	<i>[Signature]</i>	9-12-91			
PROJECT NO. 4056		MAP NO. D-18		SHEET 14 OF 17	

				ENGINEERS SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
						FIELD NOTES					
						NO	BY	DATE			

26 40561493

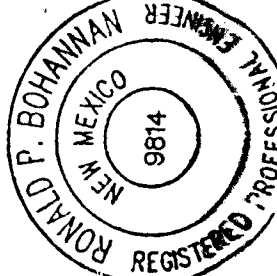


SCANNED BY
BY LASON

SCALE: 1"=20' HORIZ
1"=5' VERT

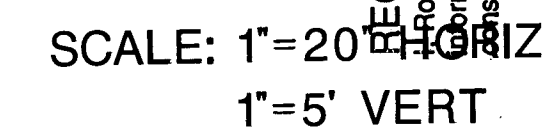
RECORD DRAWING
I, Ronald P. Bohanan, hereby certify that these drawings have been revised in accordance with the information furnished by the City of Albuquerque PWD Construction Management Division to reflect the construction as actually accomplished.

R.P. Bohanan 1/6/93
Ronald P. Bohanan
N.M.P.E. No. 9814



CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP							
TITLE: NORTH PINO ARROYO CHANNEL CROSS-SECTIONS STA 14+00 TO STA 17+50							
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE		
D.R.C. Chair			WATER		9-12-91		
TRANS. DEV		9-16-91	WASTE WATER				
HYDROLOGY		9-12-91					
PROJECT NO. 4056				MAP NO. D-18		SHEET 13 OF 17	

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	Alleg. Unknown	NO.	DATE	NO.	DATE	ENGINEER'S SEAL	
STAKED BY	C.O.A.	NO.	DATE	NO.	DATE	ENGINEER'S SEAL	
ACCEPTANCE BY	C.O.A.	NO.	DATE	NO.	DATE	ENGINEER'S SEAL	
FIELD		NO.	DATE	NO.	DATE	ENGINEER'S SEAL	
REVISION		NO.	DATE	NO.	DATE	ENGINEER'S SEAL	
CORRECTED BY	Fielding, 9/22/91	NO.	DATE	NO.	DATE	ENGINEER'S SEAL	
RECORDED BY		NO.	DATE	NO.	DATE	ENGINEER'S SEAL	



R. P. Bohannon 1/6/93
Ronald P. Bohannon
N.M.P.E. No. 9814

A circular professional engineer seal for Ronald P. Bohannan, a Registered Professional Engineer in New Mexico. The seal features the text "RONALD P. BOHANNAN" around the top inner edge, "NEW MEXICO" around the bottom inner edge, and "REGISTERED PROFESSIONAL ENGINEER" around the outer edge. In the center, the license number "9814" is displayed.

RECORD DRAWING

SCANNED BY
BY LASON

REMARKS
REVISIONS

DESIGNED BY: DSH DATE: 5-91
 DRAWN BY: BRG DATE: 5-91
 CHECKED BY: DSH, CME DATE: 5-91

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE:	NORTH PINO ARROYO CHANNEL CROSS-SECTIONS STA 22+00 TO STA 25+50
--------	--

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
O.R.C. Chair	<i>[Signature]</i>	<i>9-1-91</i>	WATER	<i>[Signature]</i>	<i>9-1-91</i>
TRANS. DEV.	<i>[Signature]</i>	<i>9-5-91</i>	WASTE WATER	<i>[Signature]</i>	<i>"</i>
HYDROLOGY	<i>[Signature]</i>	<i>9-12-91</i>			

PROJECT NO. 4056	MAP NO. D-18	SHEET 15 OF 17
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26 40561593



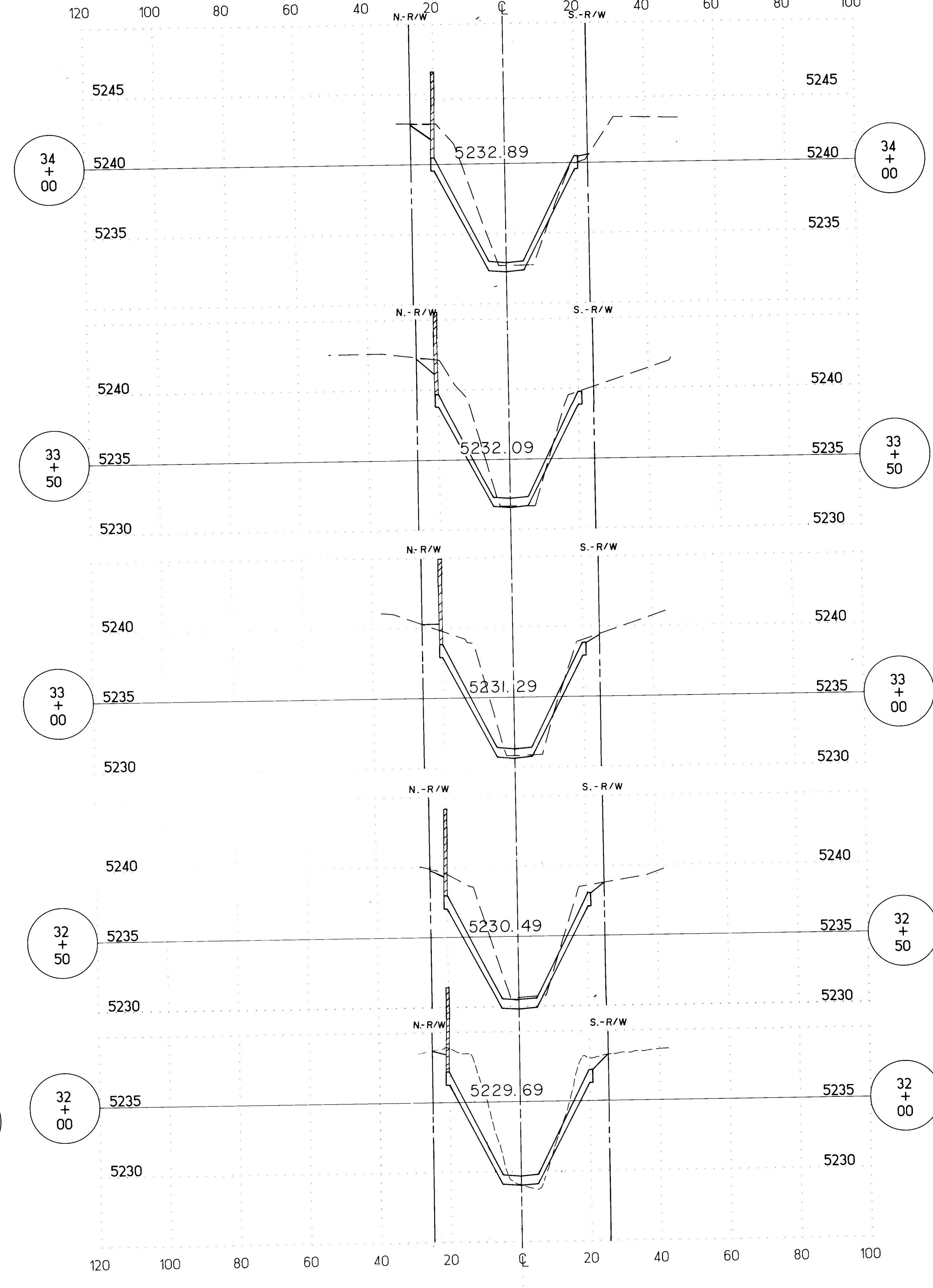
RECORD DRAWING
I, Ronald P. Bohannon, hereby certify that these drawings have been revised in accordance with the information furnished by the City of Albuquerque PWD Construction Management Division to reflect the construction as actually accomplished.

R.P. Bohannon 1/8/93
 Ronald P. Bohannon
 N.M.P.E. No. 9814



SCALE: 1"=20' HORIZ
1"=5' VERT

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP					
TITLE: NORTH PINO ARROYO CHANNEL CROSS-SECTIONS STA 26+00 TO STA 29+50.					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
D.R.C. Chair			WATER	<i>[Signature]</i>	9-17-91
TRANS. DEV	<i>[Signature]</i>	9-16-91	WASTE WATER	<i>[Signature]</i>	..
HYDROLOGY	<i>[Signature]</i>	9-17-91			
PROJECT NO. 4056		MAP NO. D-18		SHEET 16 OF 17	



CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP					
TITLE:		NORTH PINO ARROYO CHANNEL CROSS-SECTIONS STA 30+00 TO STA 34+00			
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
D.R.C. Chair	<i>[Signature]</i>		WATER	<i>[Signature]</i>	9-17-91
TRANS. DEV.	<i>[Signature]</i>	7-16-91	WASTE WATER	<i>[Signature]</i>	"
HYDROLOGY	<i>[Signature]</i>	9-13-91			
PROJECT NO. 4056		MAP NO. D-18		SHEET 17 OF 17	