

AS BUILT

12/81 AS BUILT

STATE OF FLORIDA

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

FINAL PLANS
PLANS OF PROPOSED

TAMPA SOUTH CROSSTOWN EXPRESSWAY EASTERN EXTENSION TO I-75

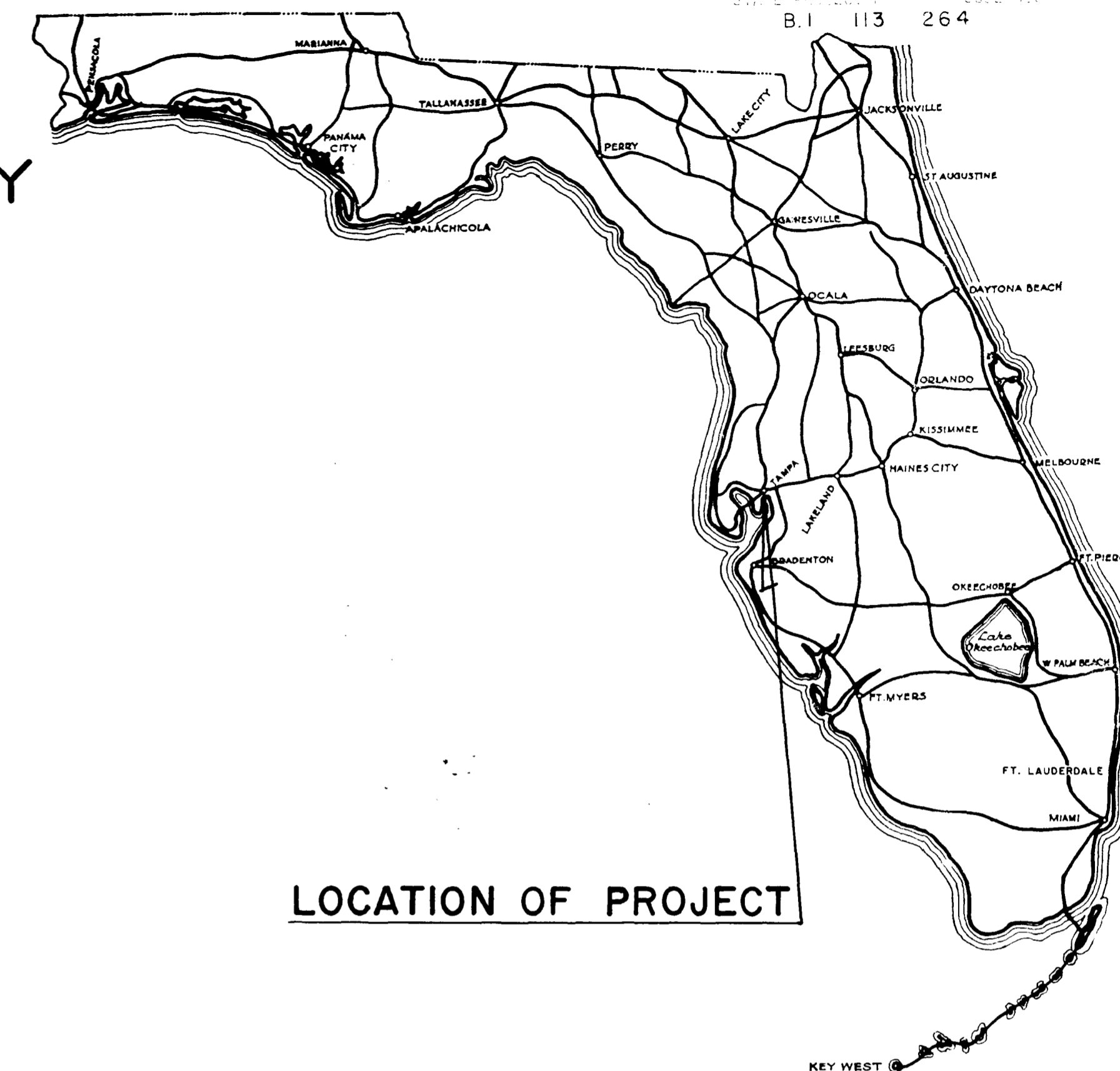
SECTION 1

CONTRACT NO. 11

CITY OF TAMPA & COUNTY OF HILLSBOROUGH
STATE ROAD NO. 618

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.
3	FLA.	2	1979	1

B.1 113 264



LOCATION OF PROJECT

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

GOVERNING SPECIFICATIONS:
STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS, DATED 1977 AND SUPPLEMENTAL SPECS. DATED JULY 1979

Submitted by
WATSON AND COMPANY
Section Engineers

By James L. Patton 10/10/79
Name Date

Approval Recommended

HOWARD, NEEDLES, TAMMEN & BERGENDOFF

Consulting Engineers

By Howard Needles Tammen & Bergendoff 10-10-79
Name Date

Approved _____ 1979

By _____

THEODORE C. TAUB, Chairman

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

THIS CONTRACT PLAN SET INCLUDES:

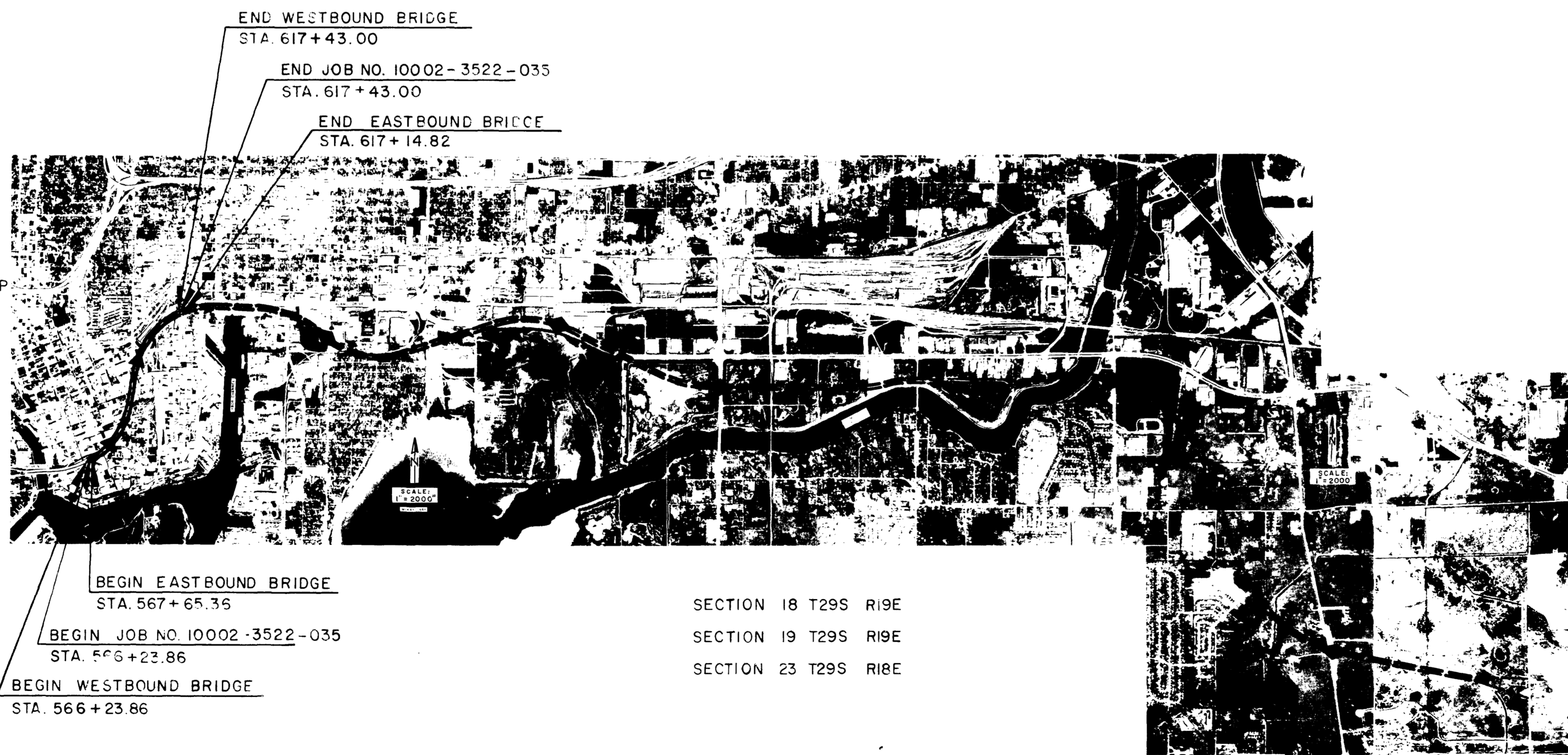
ROADWAY PLANS
STRUCTURE PLANS

For Index of Structure Plans, See Structure Plans

INDEX OF ROADWAY PLANS

SHEET NO SHEET DESCRIPTION

INDEX NO	STANDARD DRAWINGS
GRC-01-1	MISCELLANEOUS ROADWAY
BGR-01-2	GUARDRAIL CONSTRUCTION (4 SHEETS)
GSE-01-1	SUPERELEVATION DETAILS (2 SHEETS)
DSB-01	INLET, MANHOLE, AND JUNCTION BOX TYPE J AND P
DMU-01-2	MISCELLANEOUS DRAINAGE (2 SHEETS)
PCG-01	CURB, CURB AND GUTTER
FLD-01	FENCE LOCATION DETAILS
FTB-01-2	FENCE, TYPE B
PTS-01	TRAFFIC SEPARATORS
DCE-02	STANDARD ENDWALLS FOR PIPE CULVERTS
DMC-01	DRAINAGE DETAILS
DDI-03	DITCH BOTTOM INLET TYPES C, D, E AND H
PCR-01	CURB CUT RAMP



END WESTBOUND BRIDGE
STA. 617+43.00

END JOB NO. 10002-3522-035
STA. 617+43.00

END EASTBOUND BRIDGE
STA. 617+14.82

BEGIN EASTBOUND BRIDGE
STA. 567+65.35

BEGIN JOB NO. 10002-3522-035
STA. 566+23.86

BEGIN WESTBOUND BRIDGE
STA. 566+23.86

SECTION 18 T29S R19E

SECTION 19 T29S R19E

SECTION 23 T29S R18E

AS BUILT

LENGTH OF PROJECT

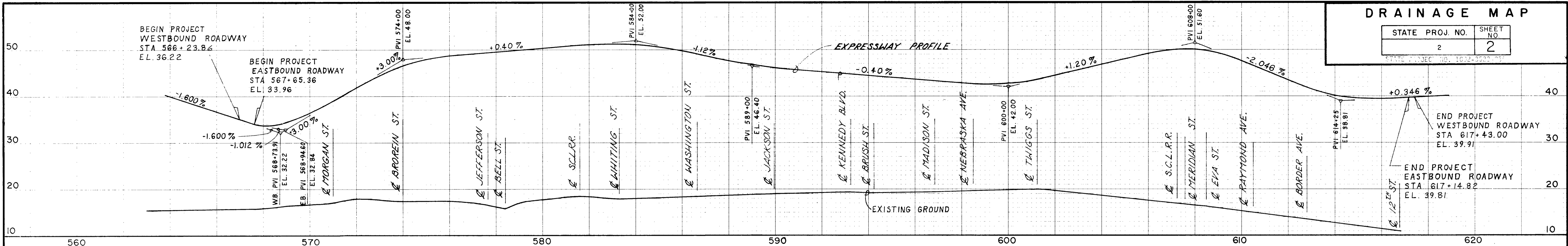
	LIN. FT.	MILES
ROADWAY		
BRIDGES	4949.46	0.937
NET LENGTH OF PROJECT	4949.46	0.937
EXCEPTIONS		
GROSS LENGTH OF PROJECT	4949.46	0.937

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
REGISTERED PROFESSIONAL ENGINEERS, SCARLETT P.O., TAMPA, FLORIDA
WORK STARTED: DECEMBER 11, 1968
COMPLETED: MAY 1, 1971
REVISIONS: AS BUILT
DATE: 10/10/79

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
REGISTERED PROFESSIONAL ENGINEERS, SCARLETT P.O., TAMPA, FLORIDA
WORK STARTED: DECEMBER 11, 1968
COMPLETED: MAY 1, 1971
REVISIONS: AS BUILT
DATE: 10/10/79

DRAINAGE MAP

STATE PROJ. NO.	SHEET NO.
2	2



LEGEND

- PROPOSED STORM SEWER
- - - EXISTING STORM SEWER
- DRAINAGE DIVIDES
- (570) STA. ALONG PROJECT



WATSON AND COMPANY SHEET 2 OF 421
 DESIGNED BY RAK TRACED BY RAK
 CHECKED BY R.H. DATE 1-5-78

AS BUILT
 1/2/81

- P-1 N- 1313165.9715
E- 353279.0973
- P-2 N- 1312955.3201
E- 353360.3680
- P-3 N- 1312524.1431
E- 354025.2954
- P-4 N- 1312922.8544
E- 354235.4626
- P-5 N- 1313292.1451
E- 354243.2202
- P-6 N- 1313161.2491
E- 353900.1295
- P-7 N- 1313372.1234
E- 353821.8340
- P-8 N- 1313497.8357
E- 353775.0789
- P-9 N- 1313534.0084
E- 354245.0272
- P-10 N- 1313602.0169
E- 354047.4350
- P-11 N- 1313678.0111
E- 354246.1030
- P-12 N- 1313704.8656
E- 354316.3074
- P-13 N- 1314093.7887
E- 354494.2197
- P-14 N- 1313884.1061
E- 354209.3375
- P-15 N- 1313880.2295
E- 353939.5977
- P-16 N- 1314152.5716
E- 353834.0139
- P-17 N- 1314255.9812
E- 354105.2284
- P-18 N- 1314364.2089
E- 354389.1526
- P-19 N- 1314636.6330
E- 354283.3069
- P-20 N- 1314528.6673
E- 354001.0573
- P-21 N- 1314424.3106
E- 353728.7257
- P-22 N- 1314408.7847
E- 35477.3694
- P-23 N- 1314736.3038
E- 354543.7012
- P-24 N- 1315011.7666
E- 354438.4430
- P-25 N- 1315279.9583
E- 354335.2747
- P-26 N- 1315448.9205
E- 354786.097
- P-27 N- 1315397.3534
E- 354939.6593
- P-28 N- 1315397.7031
E- 355165.5690
- P-29 N- 1315455.2359
E- 355194.4252
- P-30 N- 1315998.5177
E- 355695.8366



PRIMARY TRAVERSE POINTS
(SET BY L.LEE)

- H₂ N- 1313124.6837
E- 353267.2774
- H₃ N- 1313410.1412
E- 353045.5611
- H₄ N- 1314639.1809
E- 353299.0588
- H₅ N- 1315431.7920
E- 354809.1179
- H₆ N- 1315473.6217
E- 356231.0592

V₂ -ELEV = 18.512
V₅ -ELEV = 17.776

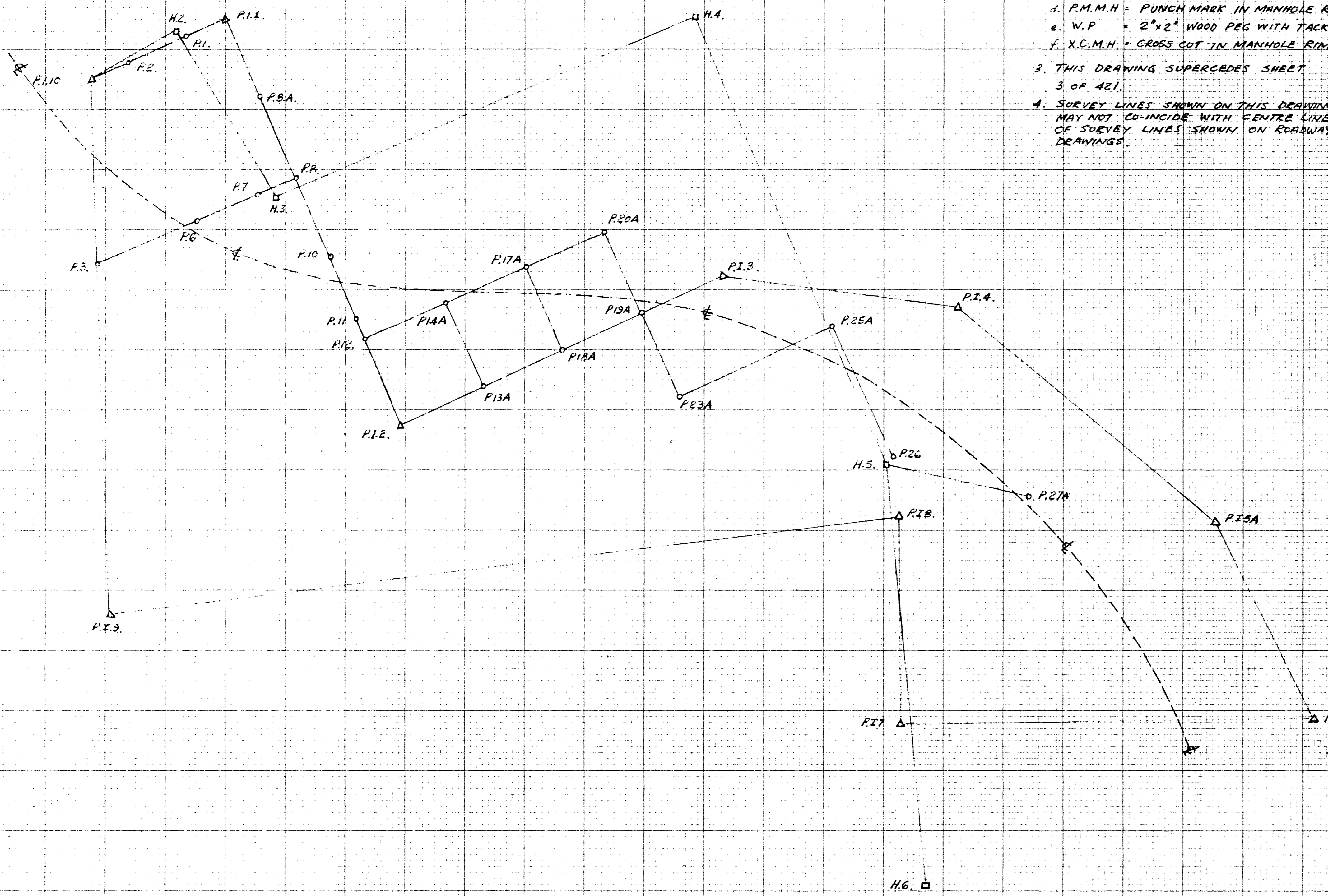
- P.I. 1 N- 1313289.8341
E- 353231.3101
- P.I. 2 N- 1313814.4380
E- 354502.7566
- P.I. 3 N- 1314900.0605
E- 354155.1831
- P.I. 4 N- 1315682.8213
E- 354291.3278
- P.I. 5 N- 1316503.0092
E- 355598.5688
- P.I. 6 N- 1316901.4643
E- 353722.3159
- P.I. 7 N- 1315450.1463
E- 355682.6881
- P.I. 8 N- 1315457.3776
E- 354388.9637
- P.I. 9 N- 1312817.0734
E- 355194.7071
- P.I. 10 N- 1312327.9558
E- 353409.5407

NOTES

1. COORDINATES ARE BASED ON N.G.S. PLANE COORDINATE SYSTEM, TRANSVERSE-MERCATOR PROJECTION, WEST ZONE OF FLORIDA, 1927 N.A.D.
2. CONVERT GRID DISTANCES TO FIELD DISTANCES BY MULTIPLYING BY GRID FACTOR (1.0000347).
3. CONVERT FIELD DISTANCES TO GRID DISTANCES BY MULTIPLYING BY GRID FACTOR (0.9999653).
4. ALL DISTANCES ARE GRID DISTANCES.
5. ALL STATIONS SHOWN \triangle ARE WATSON & CO. MAIN TRAVERSE STATIONS.
6. ALL STATIONS SHOWN \square ARE WATSON & CO. SECONDARY TRAVERSE STATIONS.
7. ALL STATIONS SHOWN \otimes ARE L.LEE ASSOCIATES, PRIMARY STATIONS.
8. PRIMARY TRAVERSE STATIONS 5"x5" CONCRETE POST WITH C.P. BRASS PLATE STAMPED THEA & M NO.
9. BENCH MARK 4"x4" CONCRETE POST WITH BRASS PLATE STAMPED THEA & B.M. NO.

AS BUILT

REVISIONS		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY TAMPA SOUTH CROSSTOWN EXPRESSWAY EASTERN EXTENSION TO I-75
Date	Description	
12/81	AS BUILT	HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS
BASE TRAVERSE CONTROL MAP		
WATSON AND COMPANY Architects - Engineers - Planners		
MADE BY <i>R.V.</i>	DATE <i>10/78</i>	TRACED BY <i>J.E.</i> DATE <i>10-78</i>
CHECKED BY <i>S.U.</i>	DATE <i>10/78</i>	SCALE: 1" = 200'
CONTRACT NO. 1.1		SHEET 3 OF 421

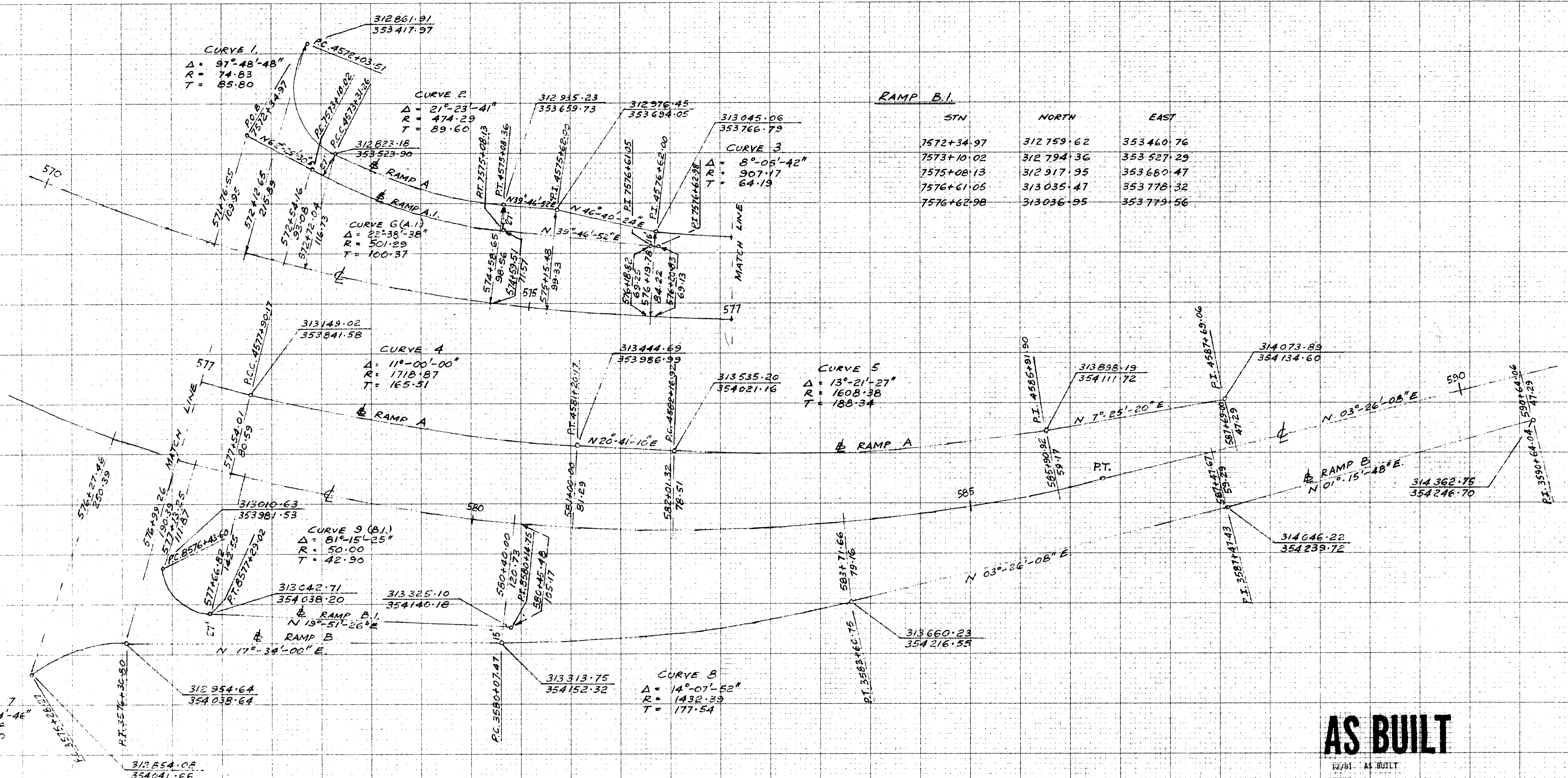


- NOTES:-
1. CONVERT FIELD DISTANCES TO GRID DISTANCES BY MULTIPLYING BY GRID FACTOR 0.9999658
 2. DESCRIPTION OF MARKS
 - a. C.M. = CONCRETE MONUMENT WITH BRASS CAP
 - b. C.F.I.B. = CROWN FOOT CUT IN BRICK
 - c. X.C.I.B. = CROSS CUT IN BRICK
 - d. P.M.M.H. = PUNCH MARK IN MANHOLE RIM
 - e. W.P. = 2"x2" WOOD PEG WITH TACK
 - f. X.C.M.H. = CROSS CUT IN MANHOLE RIM
 3. THIS DRAWING SUPERCEDES SHEET 3 OF 421.
 4. SURVEY LINES SHOWN ON THIS DRAWING MAY NOT CO-INCIDE WITH CENTRE LINE OF SURVEY LINES SHOWN ON ROADWAY DRAWINGS.

LINE	BEARING	DIST.(FT) GRID	NORTHINGS	EASTINGS	DESC ⁿ	STN.
PRIMARY CONTROL TRAVERSE						
H2-H3	N63-43-40E	644.90	313124.68	353267.28	C.M.	H2
H3-H4	N20-55-41W	1529.97	314839.18	353299.06	C.M.	H4
H4-H5	N68-34-22E	1622.18	315431.79	354809.12	C.M.	H5
H5-H6	N88-04-40E	1336.50	315476.62	356144.87	C.M.	H6
WATSON & CO. CONTROL TRAVERSE						
P11-P12	N69-03-59E	1468.30	313814.41	354602.63	C.F.I.B.	P11
P12-P13	N22-24-02W	1174.22	314900.03	354155.15	P.M.M.H.	P13
P13-P14	N09-52-20E	794.49	315682.76	354291.37	C.M.	P14
P14-P15	N43-03-56E	1123.87	316503.83	355058.79	W.P.	P15A
P15A-P16	N65-50-49E	727.09	316801.34	355722.23	C.M.	P16
P16-P17	S01-40-53W	1351.78	315450.14	355682.56	X.C.M.H.	P17
P17-P18	N89-24-09W	693.70	315457.37	354988.90	X.C.M.H.	P18
P18-P19	S04-27-15E	2648.24	312817.13	355194.58	X.C.M.H.	P19
P19-P20	N89-39-12W	1785.08	312827.93	353409.53	Nail	P20
P20-H2	N25-36-38W	329.09				
SECONDARY CONTROL TRAVERSE						
P11-P1	S21-06-23E	132.73	313165.99	353279.04	C.F.I.B.	P1
P1-P2	S21-06-23E	225.77	312955.37	353360.33	C.F.I.B.	P2
P2-P19	S21-06-23E	136.60				
P10-P3	S89-39-12E	615.70	312824.20	354025.21	P.K.Nail	P3
P3-P6	N20-22-22W	359.58	313161.29	353900.03	X.C.I.B.	P6
P6-P7	N20-22-22W	224.85	313372.07	353821.76	Nail	P7
P7-P8	N20-22-22W	134.16	313497.84	353775.05	Nail	P8
P8-P8A	S67-03-59W	291.03	313393.86	353503.23	Nail	P8A
P8A-P11	S67-03-59W	291.22				
P8-P10	N69-03-59E	291.61	313692.62	354047.41	Nail	P10
P10-P11	N69-03-59E	212.68	313678.01	354246.05	Nail	P11
P11-P12	N69-03-59E	75.15	313704.86	354316.24	Nail	P12
P12-P12	N69-03-59E	306.63				
P12-P14A	N21-26-24W	299.07	313983.24	354206.92	P.K.Nail	P14A
P14A-P17A	N21-26-24W	291.18	314254.27	354100.49	P.K.Nail	P17A
P17A-P20A	N21-26-24W	291.76	314525.84	353993.84	P.K.Nail	P20A
P12-P13A	N22-24-02W	299.33	314091.15	354488.56	P.K.Nail	P13A
P13A-P18A	N22-24-02W	291.46	314360.62	354377.49	P.K.Nail	P18A
P18A-P19A	N22-24-02W	291.82	314630.42	354266.28	P.K.Nail	P19A
P19A-P23	N22-24-02W	291.61				
P14A-P13A	N69-02-68E	301.61				
P17A-P18A	N68-53-50E	296.72				
P20A-P19A	N69-00-04E	291.82				
P19A-P23A	N69-00-04E	295.34	314736.25	354542.01	P.K.Nail	P23A
P23A-P25A	N20-47-53W	579.40	315277.89	354336.28	P.K.Nail	P25A
P25A-P26	N69-11-07E	481.22	315448.89	354786.09	Nail	P26
H5-P27A	N15-40-28E	483.33	315897.16	354939.70	Nail	P27A

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY
 TAMPA SOUTH CROSSTOWN EXPRESSWAY
 EASTERN EXTENSION TO I-75.
 HOWARD NEEDLES TAMMEN & BERGENDOFF
 CONSULTING ENGINEERS
 WATSON & COMPANY
 SECTION ENGINEERS
 BASE LINE CONTROL TRAVERSE MAP
 MADE BY J.L. DATE 3-80 TRACED BY J.L. DATE 3-80
 CHECKED BY A.P. DATE 3-80. SCALE 1" = 200'
 CONTRACT NO. 1.1. SHEET 3A OF 421.

AS BUILT
 11/17/21

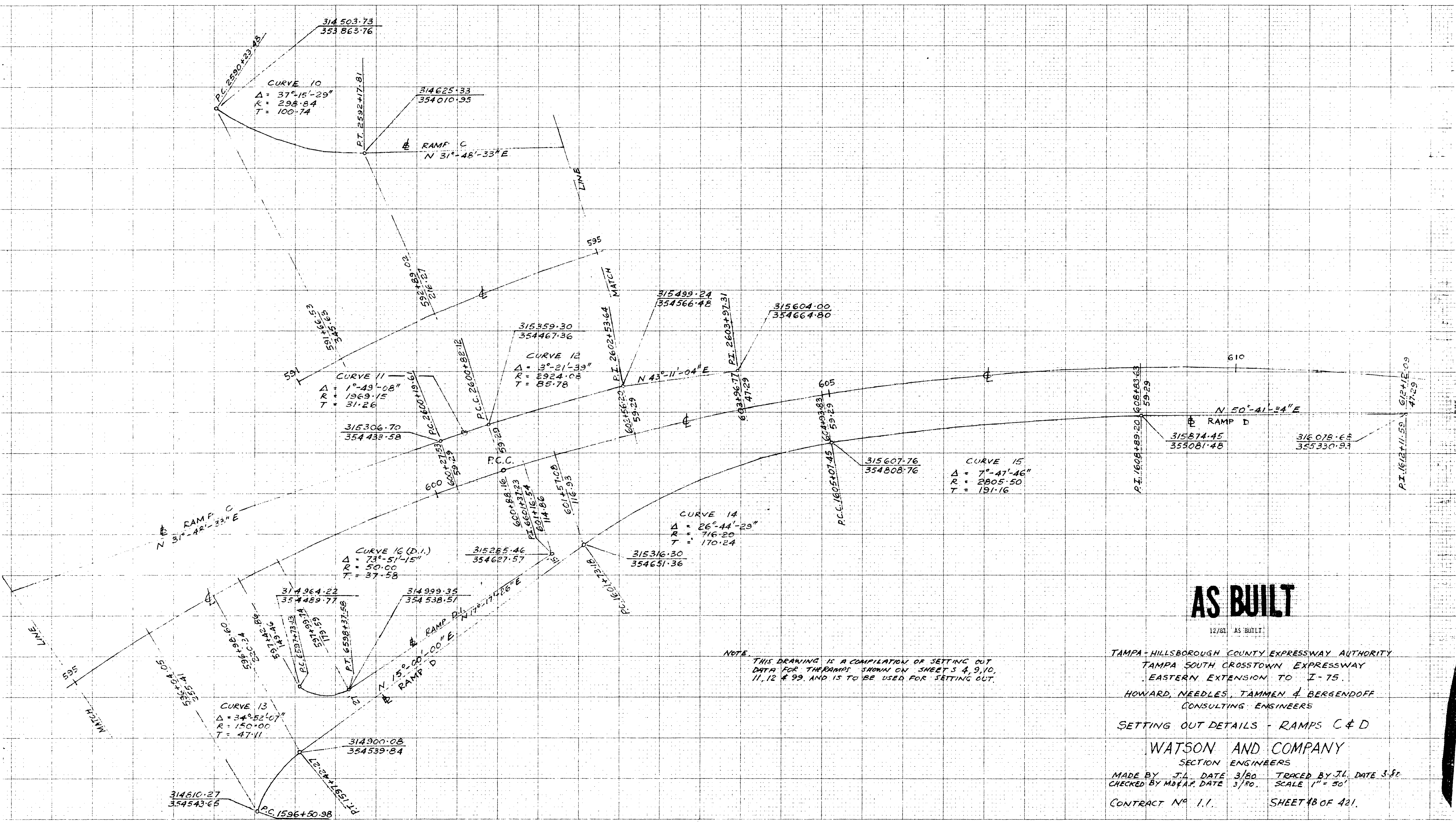


AS BUILT

12/81 AS BUILT

NOTE
 THIS DRAWING IS A COMPILATION OF SETTING OUT DATA FOR THE RAMPS SHOWN ON SHEETS 4, 9, 10, 11, 12 & 99 AND IS TO BE USED FOR SETTING OUT.

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY
 TAMPA SOUTH CROSSTOWN EXPRESSWAY
 EASTERN EXTENSION TO I-75.
 HOWARD, NEEDLES, TAMMEN & BERGENDOFF
 CONSULTING ENGINEERS
 SETTING OUT DETAILS - RAMPS A & B
 WATSON AND COMPANY
 SECTION ENGINEERS
 MADE BY J.L. DATE 3/80 TRACED BY J.L. DATE 3/80
 CHECKED BY M.G.P. DATE 3/80 SCALE 1" = 50'
 CONTRACT NO. 1.1. SHEET 4A OF 421



NOTE: THIS DRAWING IS A COMPILATION OF SETTING OUT DATA FOR THE RAMPS SHOWN ON SHEETS 4, 9, 10, 11, 12 & 99. AND IS TO BE USED FOR SETTING OUT.

AS BUILT

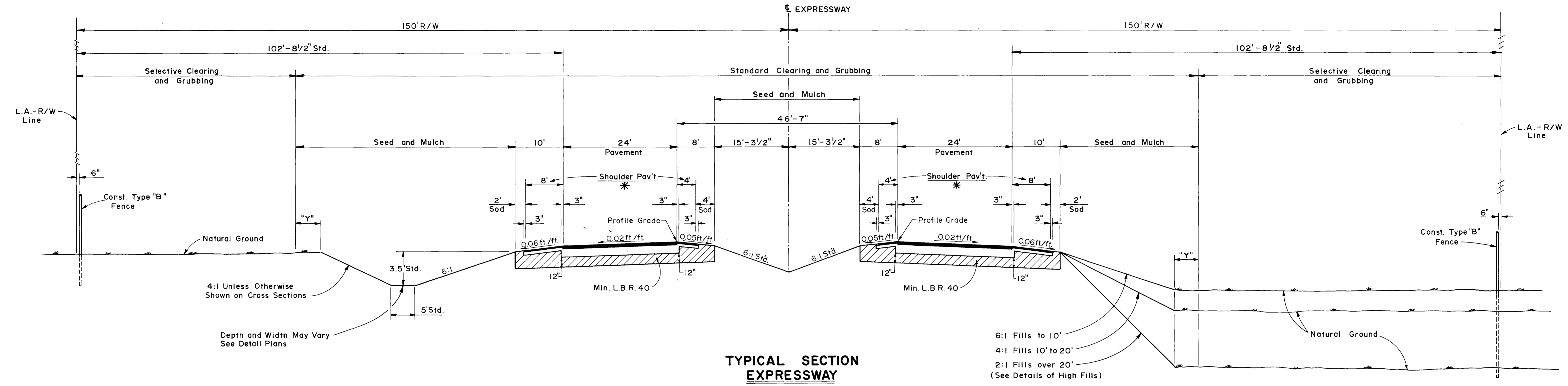
12/81 AS BUILT
 TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY
 TAMPA SOUTH CROSSTOWN EXPRESSWAY
 EASTERN EXTENSION TO I-75.
 HOWARD, NEEDLES, TAMMEN & BERGENDOFF
 CONSULTING ENGINEERS

SETTING OUT DETAILS - RAMPS C & D

WATSON AND COMPANY
 SECTION ENGINEERS

MADE BY J.L. DATE 3/80 TRACED BY J.L. DATE 3-80
 CHECKED BY M.D.A.P. DATE 3/80. SCALE 1" = 50'

CONTRACT NO. 1.1. SHEET 48 OF 421.



TYPICAL SECTION EXPRESSWAY
(DOES NOT APPLY)

EST 1979 ADT = 29,225
 EST 1989 ADT = 58,861
 EST 1999 ADT = 72,435
 K = 10%
 D = 56%
 T = 5%

"Y" = 5± or Area Disturbed During Construction

Shoulder Pav't.
 *
 Shoulder Pavement to be Limerock Base (5" Thick) Primed, With Asphaltic Concrete Friction Course, Either FC-1 (1" Thick) (Alt. A) or FC-4 (1" Thick) (Alt. B)

LIMEROCK BASE (10" THICK, DOUBLE COURSE) PRIMED, WITH TYPE-S ASPHALTIC CONCRETE 2" THICK, AND ASPHALTIC CONCRETE FRICTION COURSE, EITHER FC-1 (1" THICK) (ALT. A) OR FC-4 (1" THICK) (ALT. B)

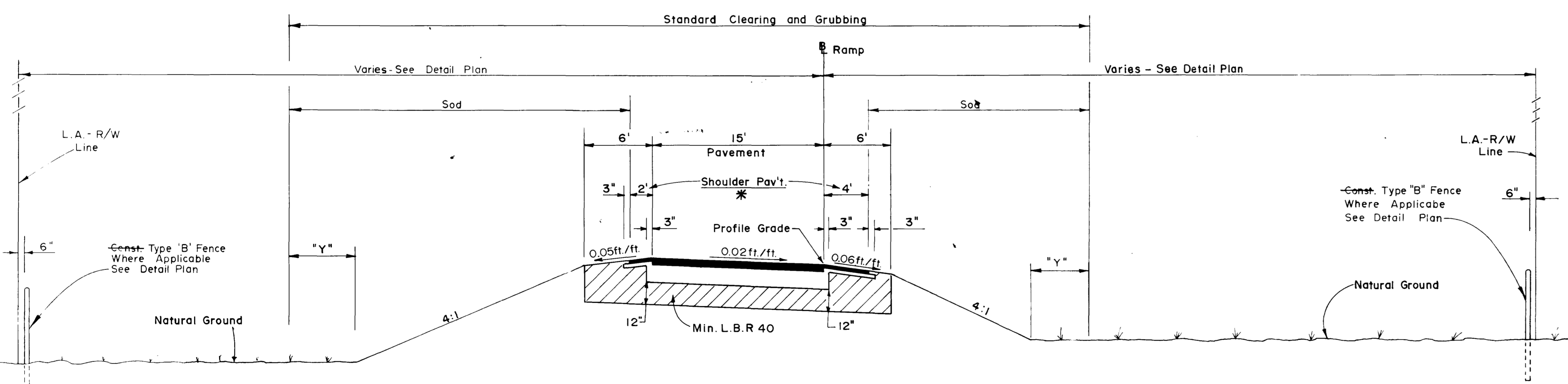
For Additional Details See Index No's. FLD-OI, FTA-OI, GRC-OI, GRT-OI, GSE-OI.

DESIGN SPEED 60 M.P.H.

6:1 Fills to 10'
 4:1 Fills 10' to 20'
 2:1 Fills over 20'
 (See Details of High Fills)

NOTES:

- All Permanent Grass Areas to Receive Topsoil Treatment or 4" Muck Blanket
- All Areas Not Noted, To Be Sodded, Shall Be Seed And Mulch.

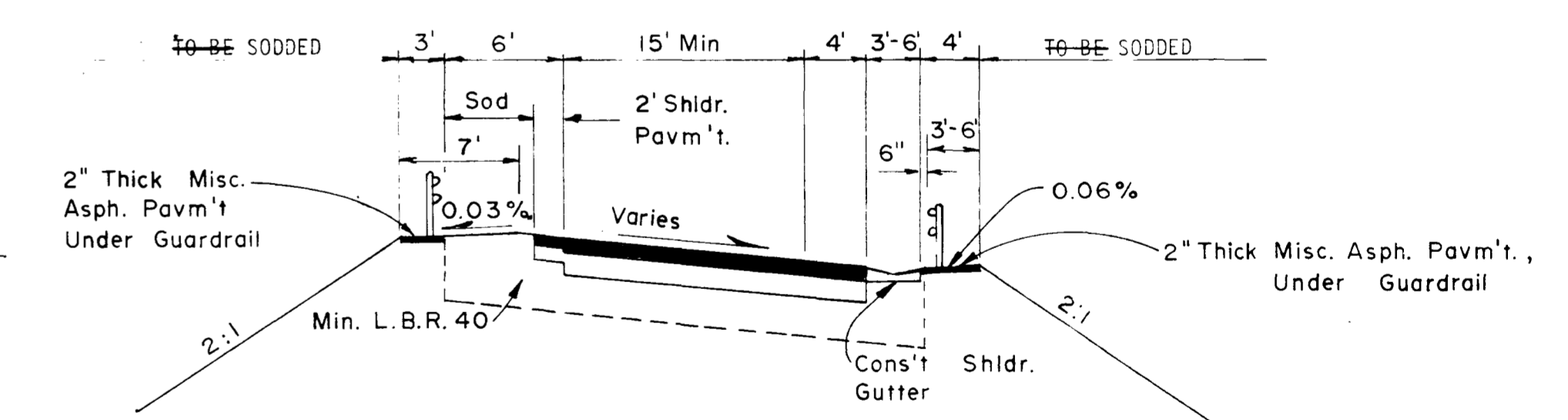


TYPICAL SECTION RAMP

LIMEROCK BASE (10" THICK, DOUBLE COURSE) PRIMED, WITH TYPE-S ASPHALTIC CONCRETE 2" THICK, AND ASPHALTIC CONCRETE FRICTION COURSE, EITHER FC-1 (1" THICK) (ALT. A) OR FC-4 (1" THICK) (ALT. B)

For Additional Details See Index No's FLD-OI, FTA-OI, GRC-OI, GRT-OI, GSE-OI.

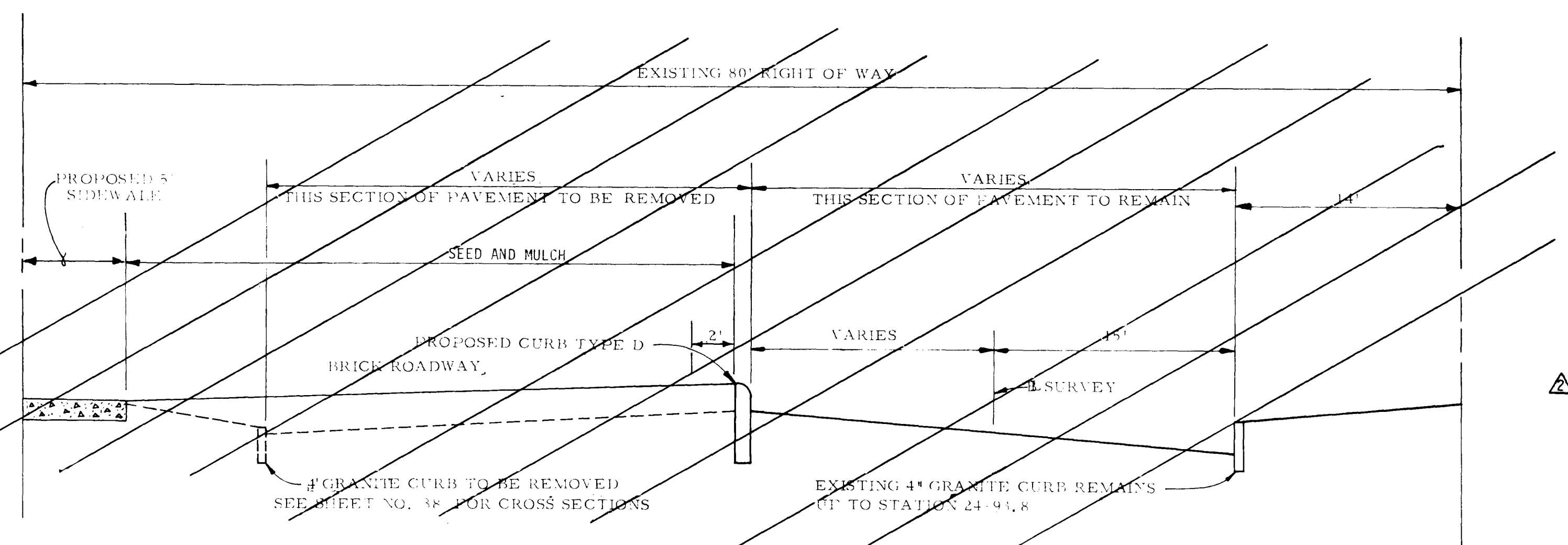
DESIGN SPEED VARIES



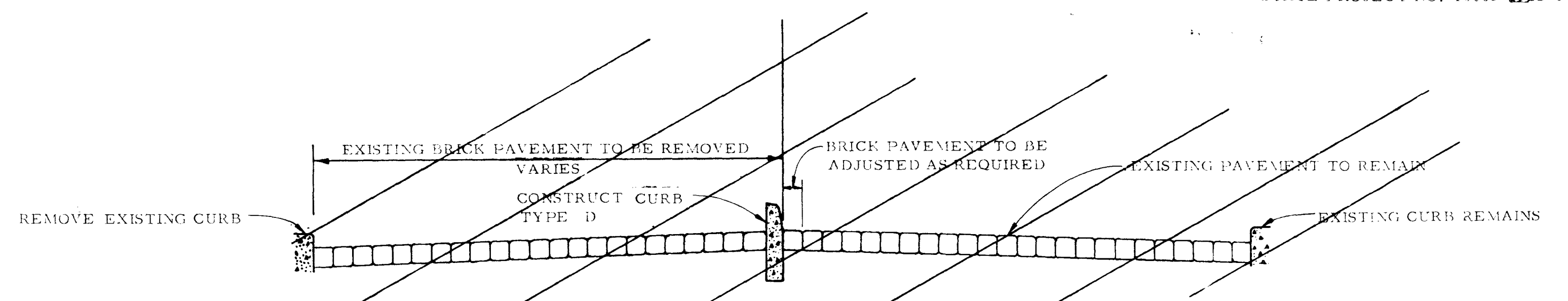
TYPICAL SECTION RAMP FOR HIGH FILLS

AS BUILT

REVISIONS		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY TAMPA SOUTH CROSSTOWN EXPRESSWAY EASTERN EXTENSION TO I-75	
Dates	Descriptions		
12/81	AS BUILT	HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS	
		TYPICAL SECTION	
		WATSON AND COMPANY	
		SECTION ENGINEERS	
MADE BY <i>R.K.</i>	DATE <i>4-79</i>	TRACED BY <i>N.L.</i>	DATE <i>4-79</i>
CHECKED BY <i>R.K.</i>	DATE <i>6/79</i>	SCALE: <i>N.T.S.</i>	
CONTRACT NO. 1.1		SHEET 5 OF 421	

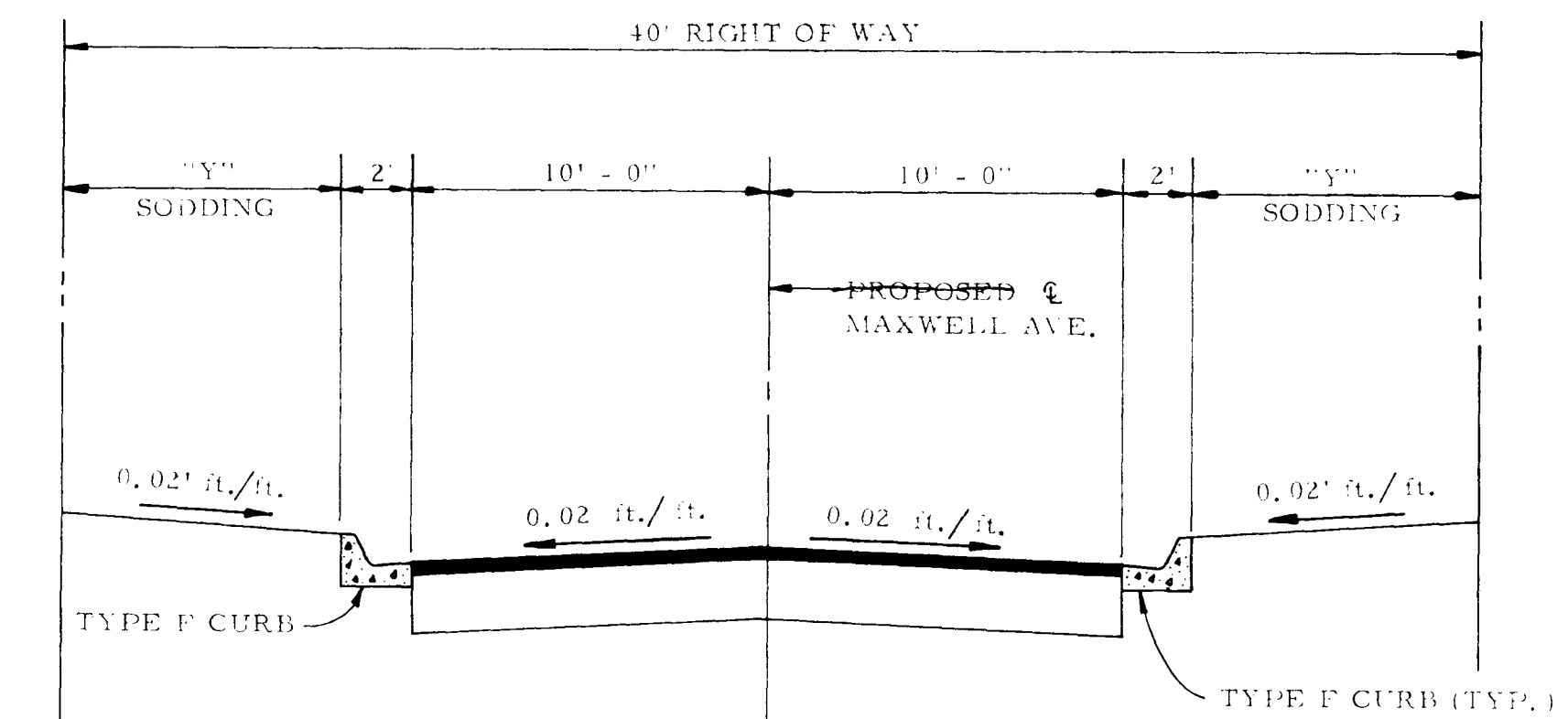


**TYPICAL SECTION
BRUSH STREET**
NOT TO SCALE



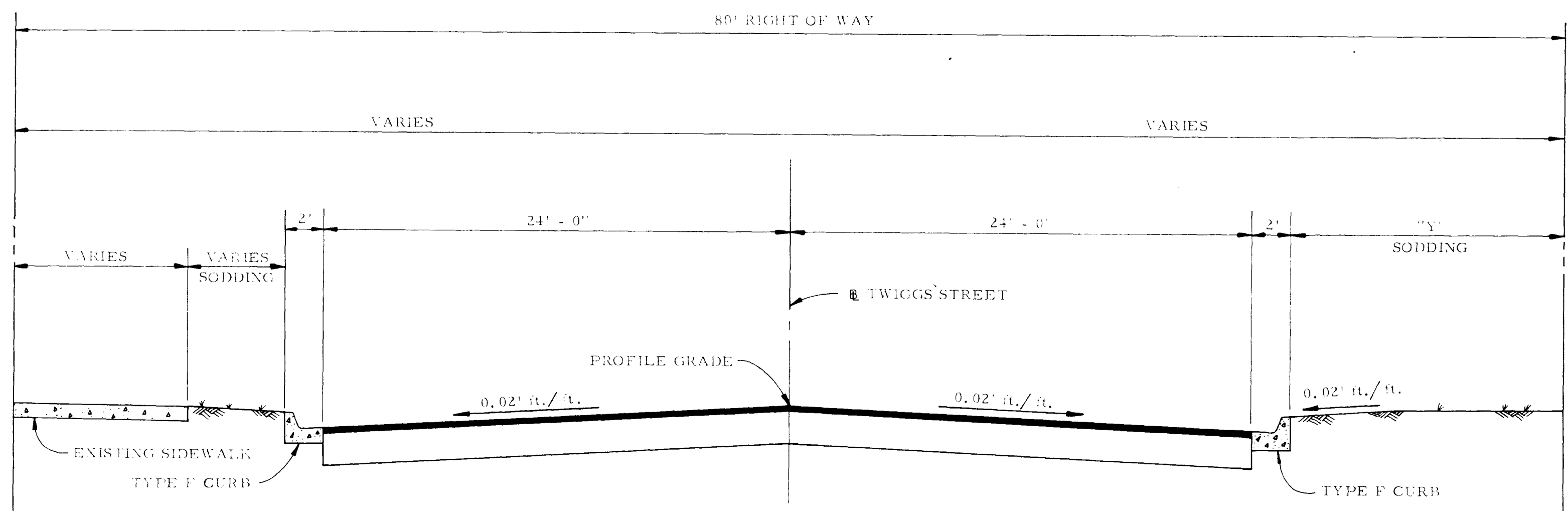
**DETAIL AT BRUSH STREET
(SHOWING STREET ADJUSTMENT)**
NOT TO SCALE

NOTE: SEE SHEET 6-A FOR AS BUILT DETAILS FOR BRUSH STREET.

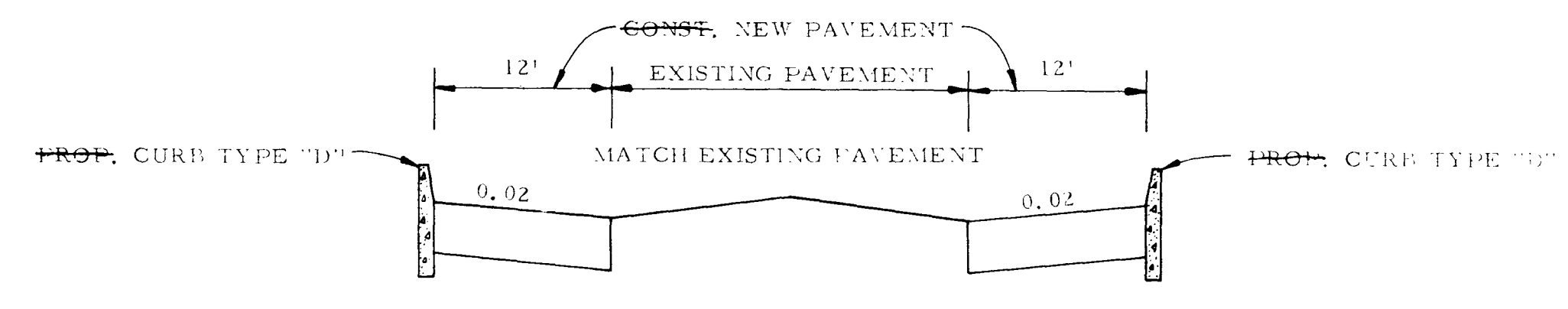


**TYPICAL SECTION
MAXWELL AVENUE**
NOT TO SCALE

"Y" = 5± Or Area Disturbed During Construction.



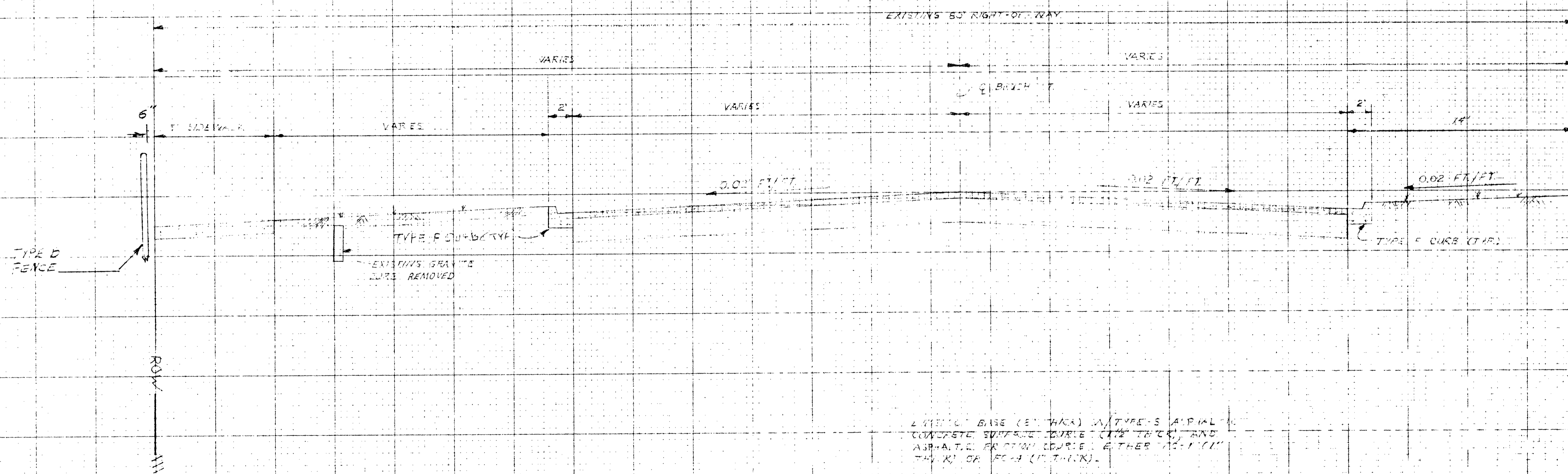
**TYPICAL SECTION
TWIGGS STREET**
NOT TO SCALE



**TYPICAL SECTION 'A-A'
BELL STREET**
NOT TO SCALE

AS BUILT

REVISIONS		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY TAMPA SOUTH CROSSTOWN EXPRESSWAY EASTERN EXTENSION TO I-75
Date	Description	
12/81	AS BUILT	HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS
TYPICAL SECTIONS		WATSON AND COMPANY
MADE BY J.R.E. DATE 8-3-79 TRACED BY J.R.E. DATE 8-4-79 CHECKED BY R.W. DATE 8-5-79 SCALE: N.T.S.		
CONTRACT NO. 1.1		SHEET 6 OF 421



2" TYPE C BASE (6" THICK) WITH TYPE S ASPHALT CONCRETE SURFACE (2" THICK) AND ASPHALT FRACTURE COURSE, EITHER 1/2" OR 3/4" (1" THICK).

THIS DRAWING IS PREPARED FROM THE TRACED SECTION AND DATA FROM THE FIELD SURVEY. THE DISTANCE BETWEEN THE SECTION POINTS SHALL BE AS SHOWN ON THE DRAWING AT ALL TIMES.

AS BUILT
AS BUILT 12/80

CROSSTOWN EXPRESSWAY
EASTERN EXTENSION
WATSON & COMPANY
TYPICAL SECTION
BRUSH STREET
JCA 3 2/81 NS 6A

SUMMARY OF PAY ITEMS

ITEM NUMBER	ITEM	UNIT	QUANTITY
101-1	MOBILIZATION	LS	1
102-1	MAINTENANCE OF TRAFFIC	LS	1
102-3	COMMERCIAL MATERIAL FOR DRIVEWAY MAINTENANCE	CY	58.0
110-1	CLEARING AND GRUBBING	LS	1
110-3	REMOVAL OF EXISTING STRUCTURES	LS	1.0
120-6	EMBANKMENT	CY	37,825
120-8	FINAL DRESSING	LS	27,995
160-4	TYPE B STABILIZATION	SY	6251.5
			4798
200-1-2	LIMEROCK BASE (8") (D-CSE)	SY	2634 3974
200-1-3	LIMEROCK BASE (10") (D-CSE)	SY	4901 4840
200-1-5	LIMEROCK BASE (5")	SY	2182 966.41
300-1-1	BITUMINOUS MATERIAL (PRIME COAT)	GAL	1336 1346.6
300-1-13	BITUMINOUS MATERIAL (PLANT MIX) (AC 20)	GAL	10285 12191
300-1-14	BITUMINOUS MATERIAL (PLANT MIX) (AC 20) FC	GAL	7859 10,874
331-72-20	TYPE S-1 ASPHALTIC CONC. (2")	SY	6725 10,639.7
331-72-20	TYPE S-1 ASPHALTIC CONC. (2")	SY	9907 10,269
337-70-74	ASPH. CONC. FRICTION COURSE (1") FC	SY	44.8 164
339-1	MISC. ASPHALT PAVEMENT	TON	4
360-1	CONCRETE APPROACH SLABS	EA	4
400-1-2	CLASS I CONCRETE (END WALLS)	CY	0.72 1.93
425-1-311	INLETS (TYPE P-1) (L 10')	EA	1
425-1-351	INLETS (TYPE P-5) (L 10')	EA	3
425-1-361	INLETS (CURB) (TYPE P-6) (L 10')	EA	8
425-1-411	INLETS (TYPE J-1) (L 10')	EA	1
425-1-521	INLETS (DT. BOTTOM) (TYPE C) (L 10')	EA	2
425-1-701	INLETS (GUTTER) (TYPE S) (L 10')	EA	5
425-2-41	MANHOLE P 7 T (L 10')	EA	6
425-2-51	MANHOLE P 7 NT (L 10')	EA	28
430-15-2	C.I. PIPE CULVERT (STANDARD) (6")	LF	3035 3190
430-1-122	CONC. PIPE CULVERT (15" SS)	LF	2213 2183
430-1-123	CONC. PIPE CULVERT (18" SS)	LF	607
430-1-124	CONC. PIPE CULVERT (24" SS)	LF	280 250
430-1-126	CONC. PIPE CULVERT (36" SS)	LF	163
520-1-7	CONC. CURB AND GUTTER (TYPE E)	LF	520 544
520-1-10	CONC. CURB AND GUTTER (TYPE F)	LF	3522 3697.5
520-2-4	CONC. CURB (TYPE D)	LF	824 1743
520-5-41	CONC. TRAFFIC SEPARATOR (TYPE 4) (4' WIDE)	LF	112 139
520-5-85	CONC. TRAFFIC SEPARATOR (TYPE 4 MOD.) (2' WIDE)	LF	125
522-1	CONC. SIDEWALK - 4" THICK	SY	588 1879
536-1-1	GUARDRAIL (ROADWAY)	LF	1207.5 1148.6
536-6	END ANCHORAGE ASSEMBLY TYPE II	EA	8
544-75-5	VEHICULAR IMPACT ATTENUATOR (HI-DRO)	EA	2
550-2	FENCING, TYPE B	LF	3569 3677.5
550-3-2	CORNER POST ASSEMBLY (TYPE B FENCE)	EA	24 28
550-4-2	PULL AND END POST ASSEMBLY (TYPE B FENCE)	EA	8
570-2	SEED AND MULCH	SY	840.5 962.8
570-3	GRASS SEED (PERMANENT TYPE)	LB.	17.32 0
570-4	MULCH MATERIAL	TON	0.69 0
570-5	FERTILIZER	TON	0.67
570-9	WATER FOR GRASS	MG	14.9
575-1-3	SODDING (ARGEN. BAHIA)	SY	13549 16020

SUMMARY OF GUARDRAIL

STATION TO STATION	LINEAL FEET		
	LEFT	RIGHT	TOTAL
4574+20 - 4576+62 RAMP A	112.5	242	354.5
		243.7	356.2
3578+96.25 - 3580+79 RAMP B	102.75	182.75	285.5
	181.2	181.2	362.4
2593+24.5 - 2594+37 RAMP C	112.5	112.5	225
1599+60.5 - 1600+73 RAMP D	112.5	112.5	225
BARRICADES			
GOVERNOR ST.		0	0
		37.5	37.5
TOTAL			1168.6

SUMMARY OF SEED & MULCH

STATION TO STATION	SQUARE YARDS		
	LEFT	RIGHT	TOTAL
23+31 - 25+62 BRUSH ST.	840.5		840.5
	962.8		962.8

SUMMARY OF SODDING

STATION TO STATION	SQUARE YARDS			
	LEFT	RIGHT	TOTAL	
4573+00 - 4574+00 RAMP A	0	111.58	111.58	115
4574+00 - 4575+00	195	58	253	510
4575+00 - 4576+00	387	250	637	890
4576+00 - 4576+55	331	194	525	691
4576+55 - 4576+80	419	342	761	870
3577+00 - 3578+00 RAMP B		132	132	269
3578+00 - 3579+00	284	457	741	546
3579+00 - 3580+00	475	648	1123	928
3580+00 - 3580+72	264	437	701	508
3580+72 - 3581+21	1211	1384	2595	1893
2591+00 - 2592+00 RAMP C		126	126	343
2592+00 - 2593+00		348	348	754
2593+00 - 2594+00		507	507	1111
2594+00 - 2594+30	273	148	421	420
2594+30 - 2594+62		571	571	1196
1598+00 - 1599+00 RAMP D	287	144	431	591
1599+00 - 1600+00	674	431	1105	1136
1600+00 - 1600+73	480	337	817	937
1600+73 - 1601+00	562	419	981	1275
NEBRASKA, TWIGGS AND BRUSH STREETS		887	887	
TOTAL			13549	16,050

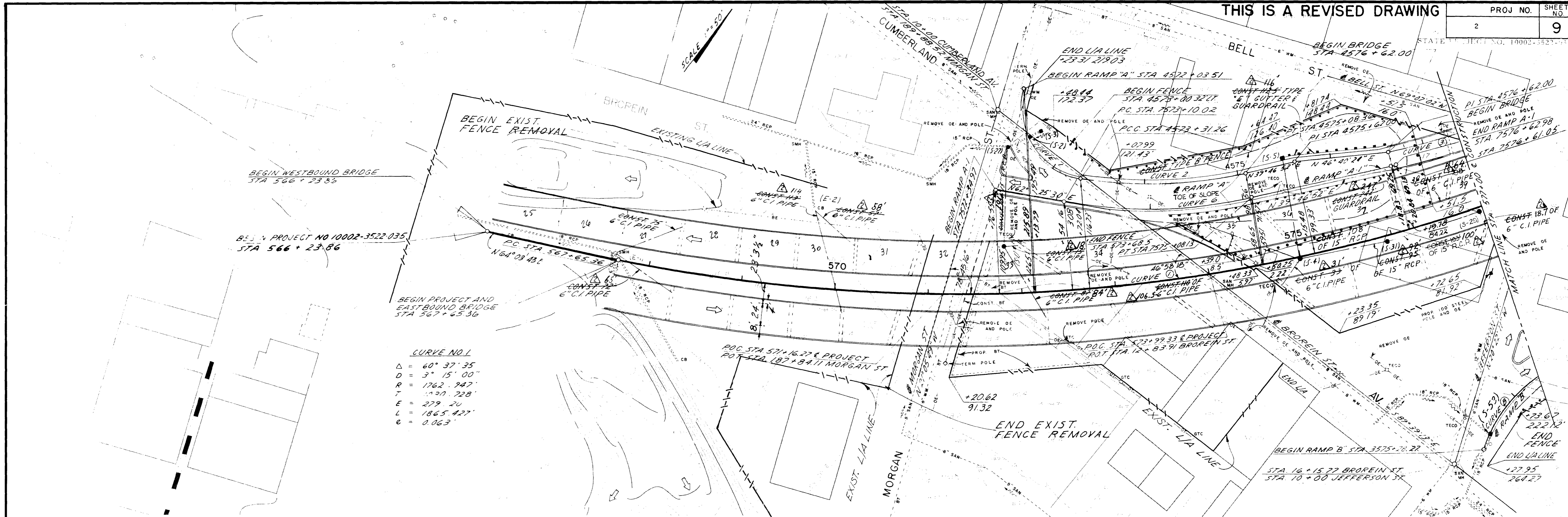
SUMMARY OF EARTHWORK

LOCATION	CUT (CY)	FILL (CY)
RAMP A	191	4535 3665.9
RAMP B	194	18666 15,863.5
RAMP C	26	11431 9075.8
RAMP D	211	3232 8538
TWIGGS ST.	689	31 0
MAXWELL AVE.	292	
TOTAL	1603	37895 37,193.4

NOTE:
 THERE IS NO DIRECT PAYMENT FOR ROADWAY EXCAVATION.
 ANY SUITABLE MATERIAL MAY BE USED IN THE EMBANKMENT AT THE OPTION OF THE CONTRACTOR.
 THE FILL QUANTITIES DO NOT INCLUDE SHRINKAGE FACTORS.

AS BUILT

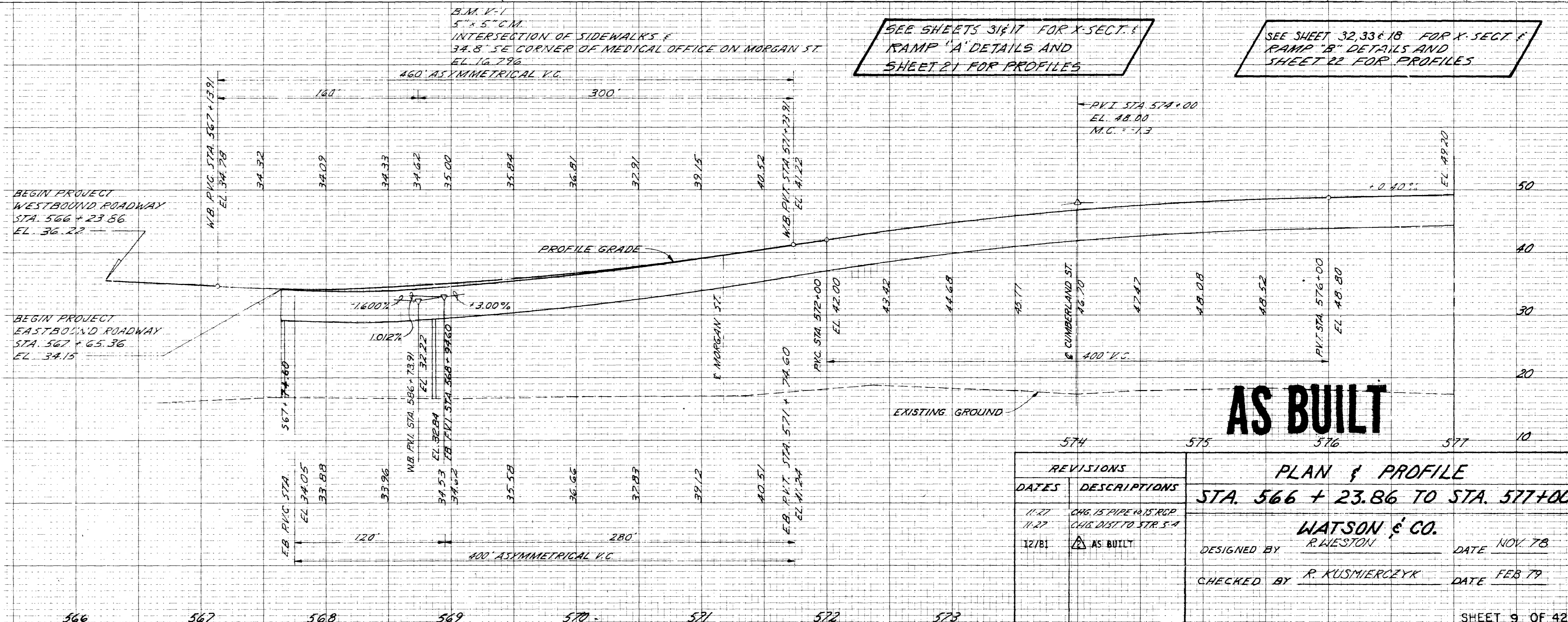
DATE	REVISIONS
11-27	120.6 CHANGED QUANT.
11-27	425-2-41 " "
11-27	425-2-51 " "
11-27	430-15-2 " "
11-27	430-1-122 " "
11-27	430-1-123 " "
11-27	ADD ITEM 430-1-126
11-27	520-1-10 CHANGE QUANT.
11-27	ADD ITEM 520-5-85
11-27	536-6 CHANGED QUANT.
11-27	CHG. TOTAL GUARDRAIL
12/81	AS BUILT



CURVE NO. 1

Δ	= 60° 37' 35"
D	= 3' 15' 00"
R	= 1762.747'
T	= 1120.728'
E	= 279.20'
L	= 1865.427'
e	= 0.063'

- GENERAL NOTES:**
- BETWEEN THE AREAS OF MORGAN ST. AND NEBRASKA AVE., CONSTRUCTION MAY NOT BE STARTED UNTIL A RELEASE HAS BEEN ISSUED WITHIN TWO WEEKS AFTER COMPLETION OF BUILDING DEMOLITION. FOR DETAILS, SEE SPECIAL PROVISIONS.
 - B.M. DATUM: NATIONAL GEODETIC VERTICAL DATUM OF 1929 ADJUSTMENT.
 - ALL EXISTING DRAINAGE STRUCTURES WITHIN LIMITS OF CONSTRUCTION TO REMAIN UNLESS OTHERWISE NOTED.
 - ALL BUILDINGS WITHIN LIMITS OF RIGHT OF WAY, UNLESS OTHERWISE NOTED, TO BE REMOVED BY OWNER.
 - UTILITY: THE CITY OF TAMPA ELECTRIC COMPANY, GENERAL MANAGER, 100 N. GORRISON ST., TAMPA, FLORIDA 33602. CITY OF TAMPA WATER AND SANITARY DEPARTMENT, GENERAL MANAGER, 100 N. GORRISON ST., TAMPA, FLORIDA 33602.
 - ALL UTILITIES TO BE REMOVED WITHIN THE LIMITS OF THE PROJECT SHALL BE RELOCATED TO THE PROPERTY OF THE CITY OF TAMPA AND WITH THE EXCEPTION OF ASPHALT OVERLAY, WHICH SHALL BE TRANSPORTED WITH REUSABLE CURBS TO THE CITY STOCKPILE YARD ON SOUTH STREET AT THE INCINERATION PLANT. CURBS SHALL BE RETURNED TO THE CENTRAL YARD DIRECTED BY THE YARD SUPERVISOR. PAINT SHALL BE INCLUDED UNDER CLEARANCE. ASPHALTIC SURFACE SHALL BE Hauled BY THE CONTRACTOR TO THE ORIGINAL GRAVELLY CENTER AND ABOUT DRIVEWAYS AND DRIVEWAYS IN THE CITY OF TAMPA WHERE THE SAME TO BE USED AS DIRECTED BY CONTRACTOR. RELOCATION OF UTILITIES, EXCEPT CITY OF TAMPA WATER AND SANITARY SEWER, IS TO BE DONE BY OTHERS.
 - RELOCATION OF UTILITIES, EXCEPT CITY OF TAMPA WATER AND SANITARY SEWER, IS TO BE DONE BY OTHERS.



REVISIONS

DATE	DESCRIPTIONS
11/27	CHG. 15" PIPE TO 12" RCP
11/27	CHG. DIST. TO STR. 5-4
12/81	AS BUILT

PLAN & PROFILE
STA. 566 + 23.86 TO STA. 577+00

WATSON & CO.

DESIGNED BY	R. WESTON	DATE	NOV. 78
CHECKED BY	R. KUSMIERCZYK	DATE	FEB 79

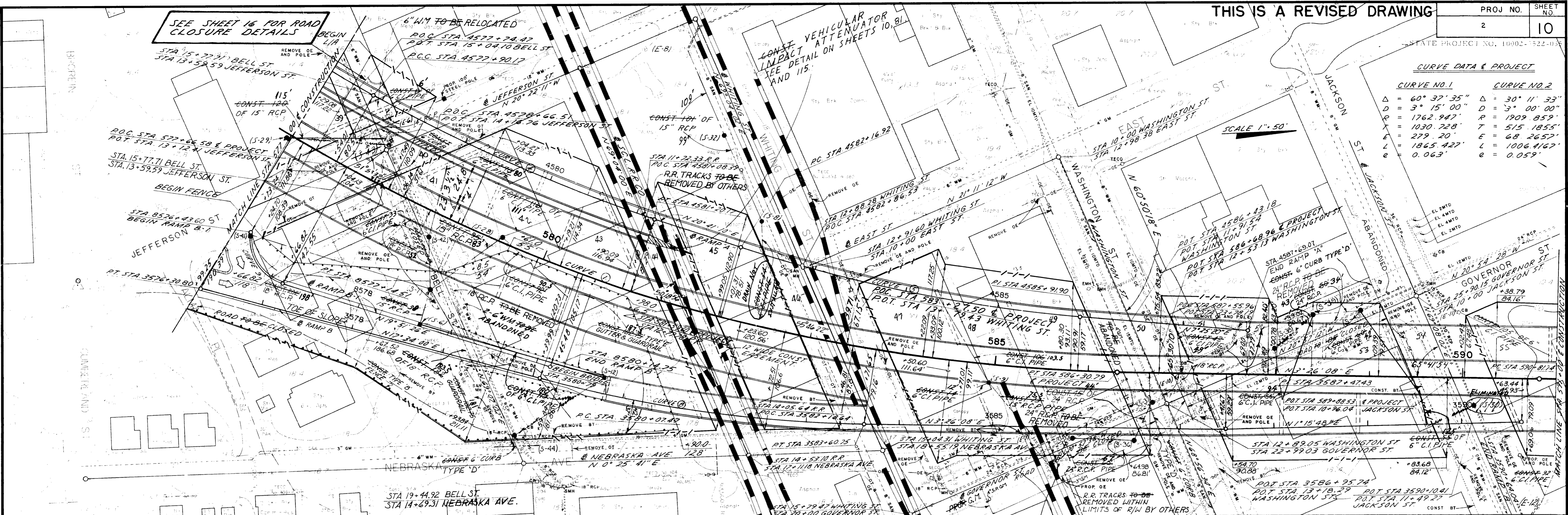
THIS IS A REVISED DRAWING

PROJ NO.	SHEET NO.
2	10

STATE PROJECT NO. 10002-522-03

CURVE DATA & PROJECT

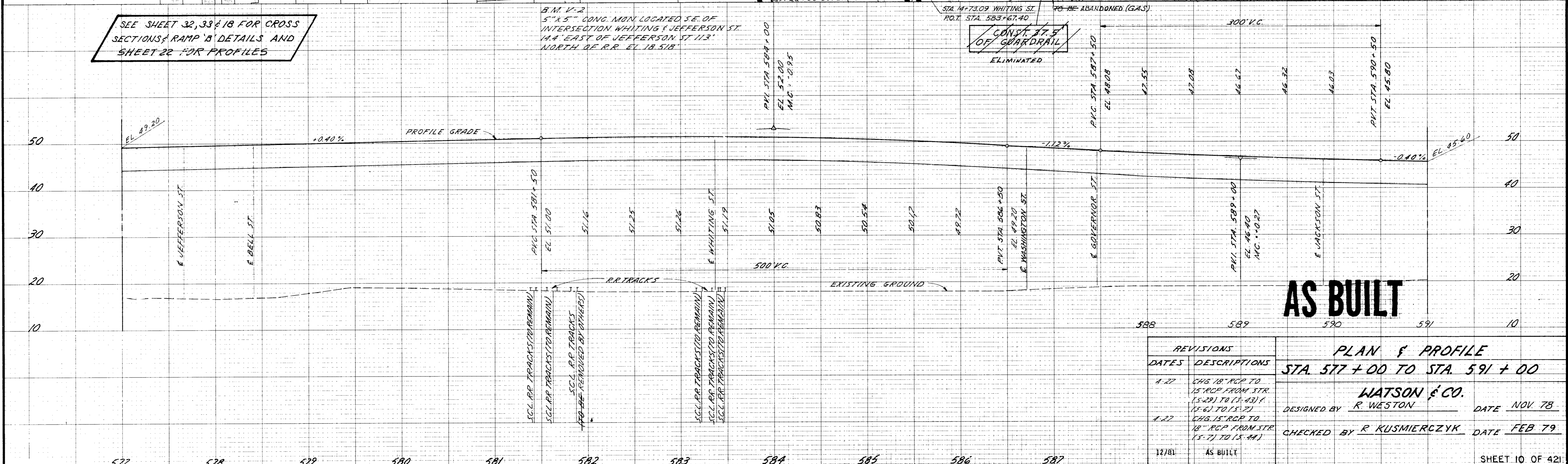
CURVE NO. 1	CURVE NO. 2
$\Delta = 60^\circ 37' 35''$	$\Delta = 30^\circ 11' 33''$
$D = 3^\circ 15' 00''$	$D = 3^\circ 00' 00''$
$R = 1762.947'$	$R = 1909.859'$
$L = 1030.728'$	$L = 515.1855'$
$E = 279.20'$	$E = 68.2652'$
$O = 1845.427'$	$O = 1006.162'$
$e = 0.063'$	$e = 0.059'$



SEE SHEET 32, 33 & 18 FOR CROSS SECTIONS & RAMP 'B' DETAILS AND SHEET 22 FOR PROFILES

B.M. V-2
5" X 5" CONG. MON. LOCATED S.E. OF INTERSECTION WHITING & JEFFERSON ST. 1/4" EAST OF JEFFERSON ST 11.3' NORTH OF R.R. EL. 18.518

CONST. 37.5' OF GUARDRAIL ELIMINATED



AS BUILT

REVISIONS

DATES	DESCRIPTIONS
1-27	CHG 18" RCP TO 15" RCP FROM STR. (15-29) TO (15-43) & (15-6) TO (15-22)
1-27	CHG 15" RCP TO 18" RCP FROM STR. (15-7) TO (15-44)
12/81	AS BUILT

PLAN & PROFILE
STA. 577 + 00 TO STA. 591 + 00

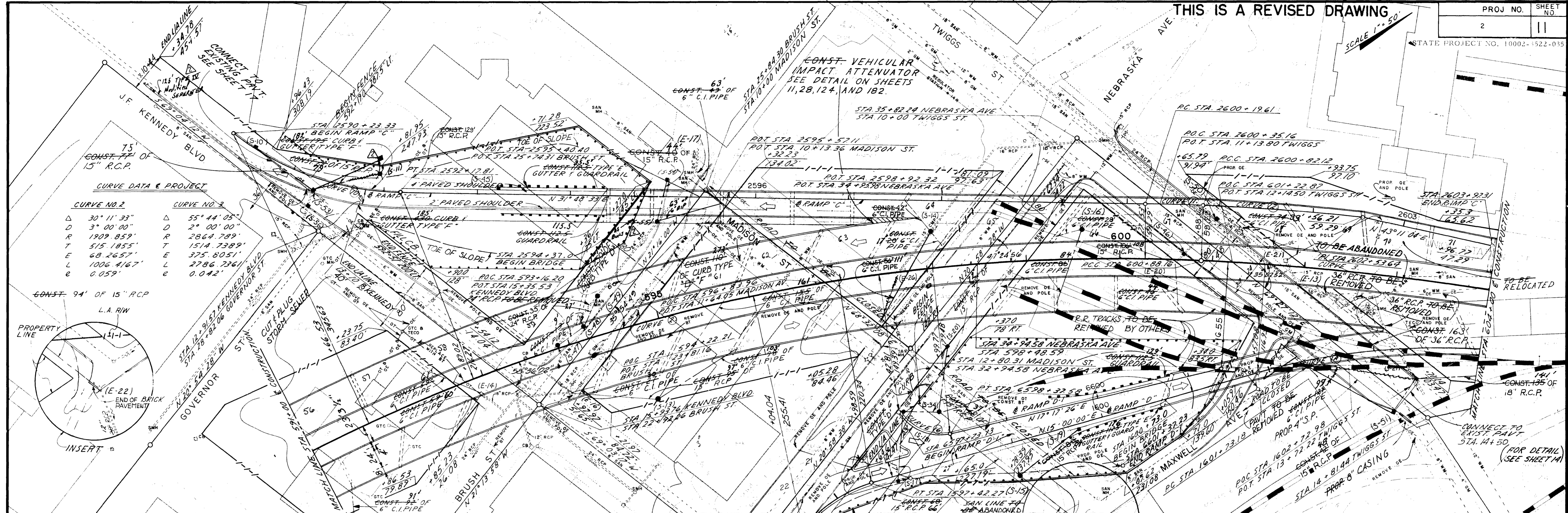
DESIGNED BY R. WESTON DATE NOV. 78

CHECKED BY R. KUSMIERCZYK DATE FEB. 79

WATSON & CO.

THIS IS A REVISED DRAWING

SCALE 1" = 50'



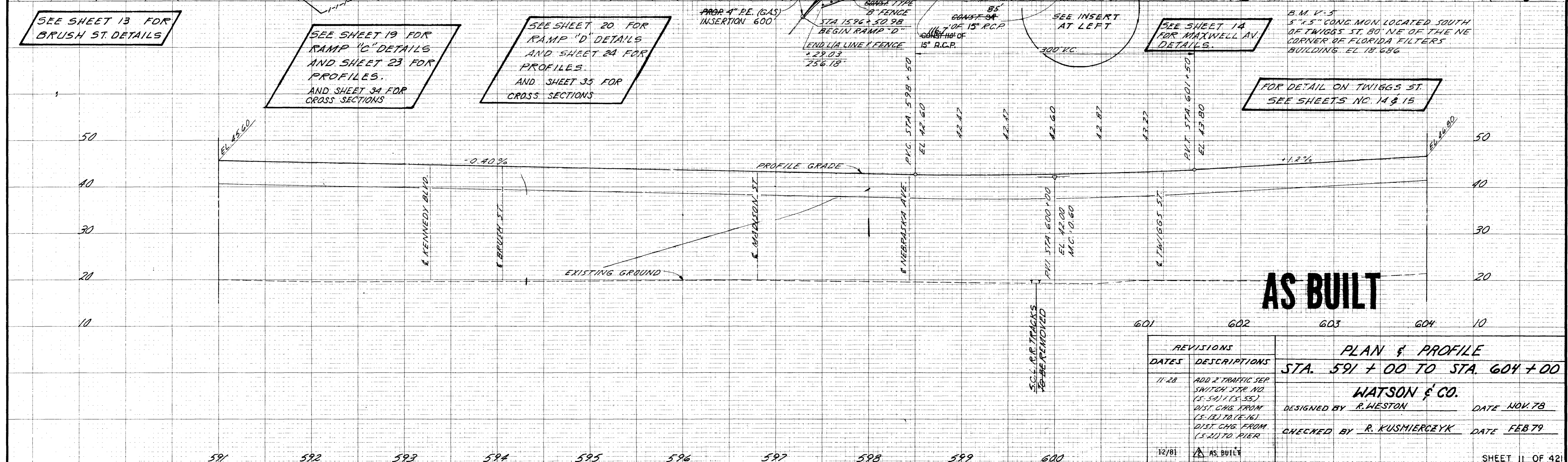
SEE SHEET 13 FOR BRUSH ST. DETAILS

SEE SHEET 19 FOR RAMP 'C' DETAILS AND SHEET 23 FOR PROFILES. AND SHEET 34 FOR CROSS SECTIONS

SEE SHEET 20 FOR RAMP 'D' DETAILS AND SHEET 24 FOR PROFILES. AND SHEET 35 FOR CROSS SECTIONS

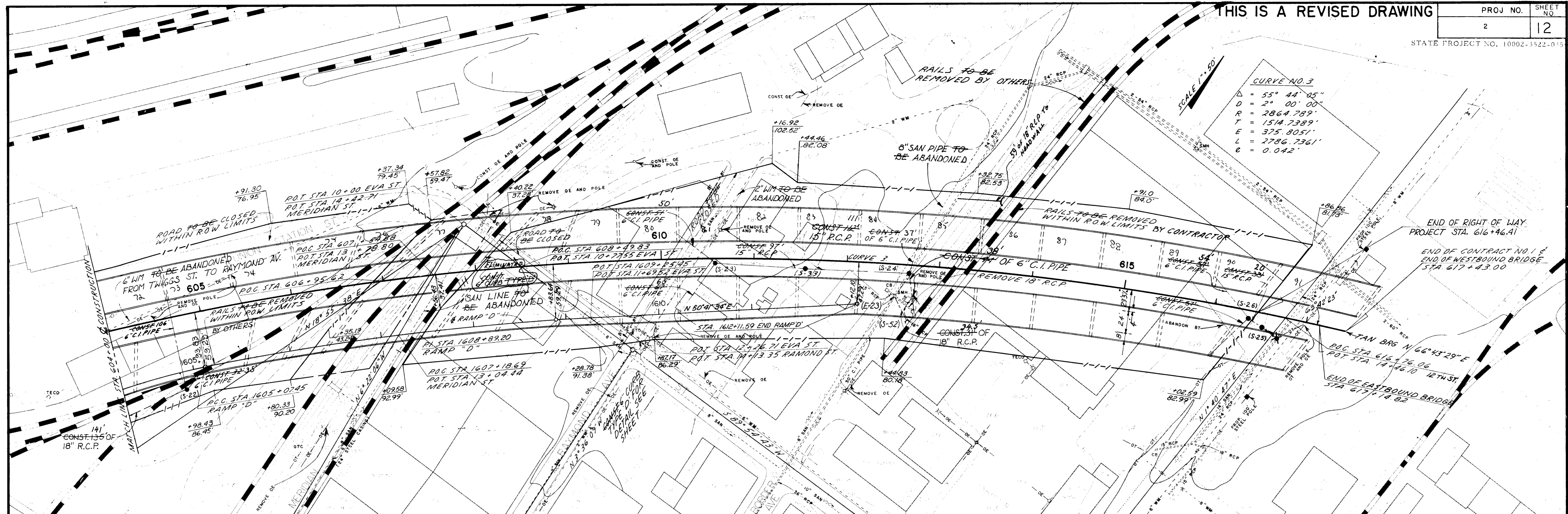
SEE SHEET 14 FOR MAXWELL AV. DETAILS.

FOR DETAIL ON TWIGGS ST. SEE SHEETS NO. 14 & 15



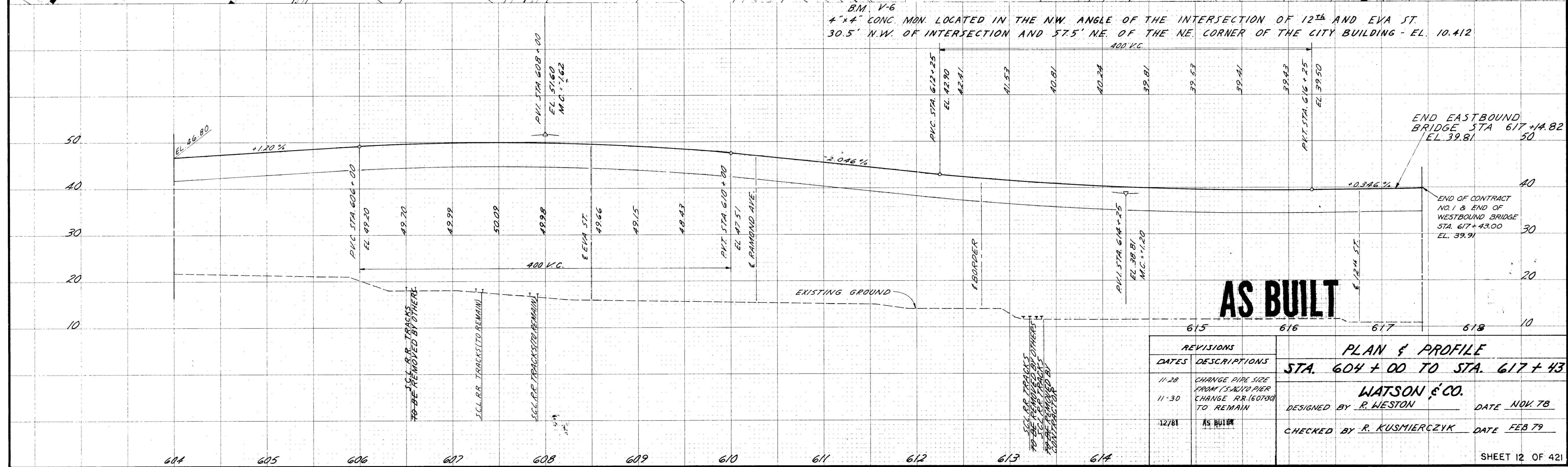
AS BUILT

PLAN & PROFILE
 STA. 591+00 TO STA. 604+00
 WATSON & CO.
 DESIGNED BY R. WESTON DATE NOV. 78
 CHECKED BY R. KUSMIERCZYK DATE FEB. 79



CURVE NO. 3
 $\Delta = 55^\circ 44' 05''$
 $D = 2^\circ 00' 00''$
 $R = 2864.789'$
 $T = 1514.7389'$
 $E = 375.8051'$
 $L = 2786.7361'$
 $e = 0.042'$

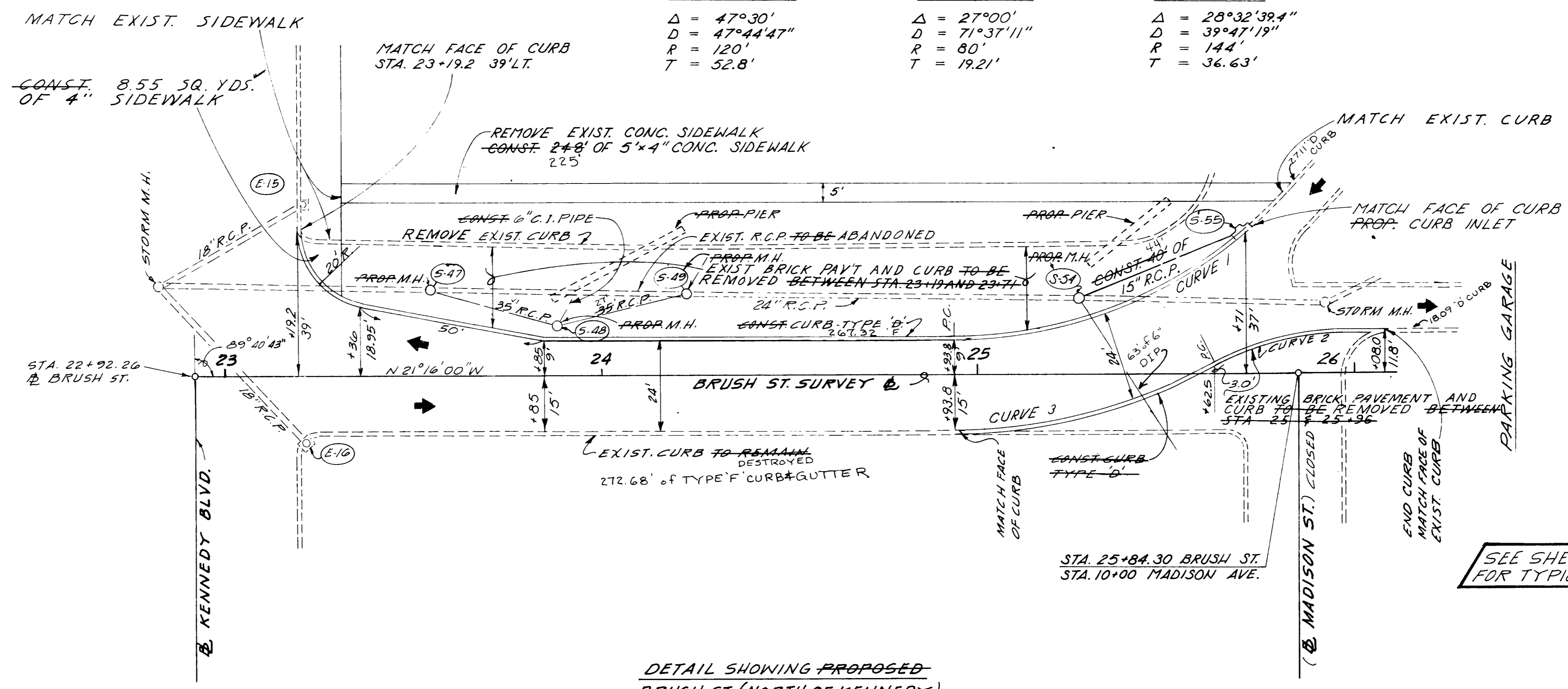
B.M. V-6
 4" x 4" CONC. MON. LOCATED IN THE NW. ANGLE OF THE INTERSECTION OF 12TH AND EVA ST.
 30.5' N.W. OF INTERSECTION AND 57.5' N.E. OF THE NE. CORNER OF THE CITY BUILDING - EL. 10.412



AS BUILT

REVISIONS		PLAN & PROFILE STA. 604 + 00 TO STA. 617 + 43
DATES	DESCRIPTIONS	
11-28	CHANGE PIPE SIZE FROM (5.25) TO PIER	WATSON & CO. DESIGNED BY R. WESTON DATE NOV. 78 CHECKED BY R. KUSMIERCZYK DATE FEB 79
11-30	CHANGE RR (60780) TO REMAIN	
12/81	AS BUILT	

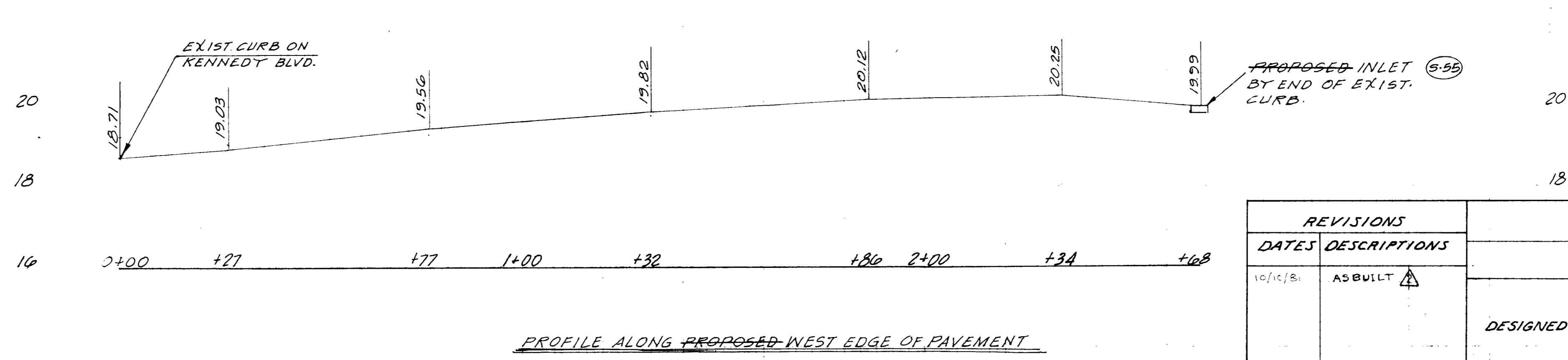
CURVE NO. 1	CURVE NO. 2	CURVE NO. 3
$\Delta = 47^{\circ}30'$	$\Delta = 27^{\circ}00'$	$\Delta = 28^{\circ}32'39.4''$
$D = 47^{\circ}44'47''$	$D = 71^{\circ}37'11''$	$D = 39^{\circ}47'19''$
$R = 120'$	$R = 80'$	$R = 144'$
$T = 52.8'$	$T = 19.21'$	$T = 36.63'$



SEE SHEET 6 + 6A FOR TYPICAL SECTIONS

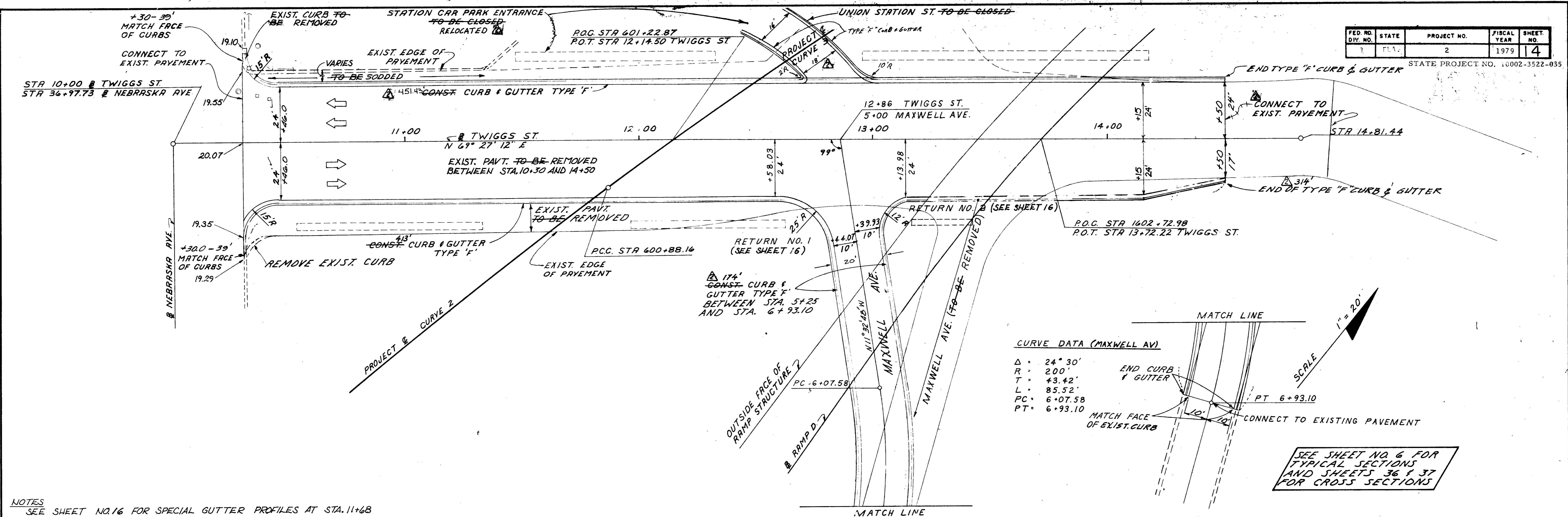
NOTE: ALL EXISTING CURBS AND BRICK PAVEMENT WHICH ARE REMOVED ARE TO REMAIN THE PROPERTY OF THE CITY, SHALL BE TRANSPORTED TO THE CITY STOCKPILE YARD ON 34th ST.

DETAIL SHOWING PROPOSED BRUSH ST. (NORTH OF KENNEDY)

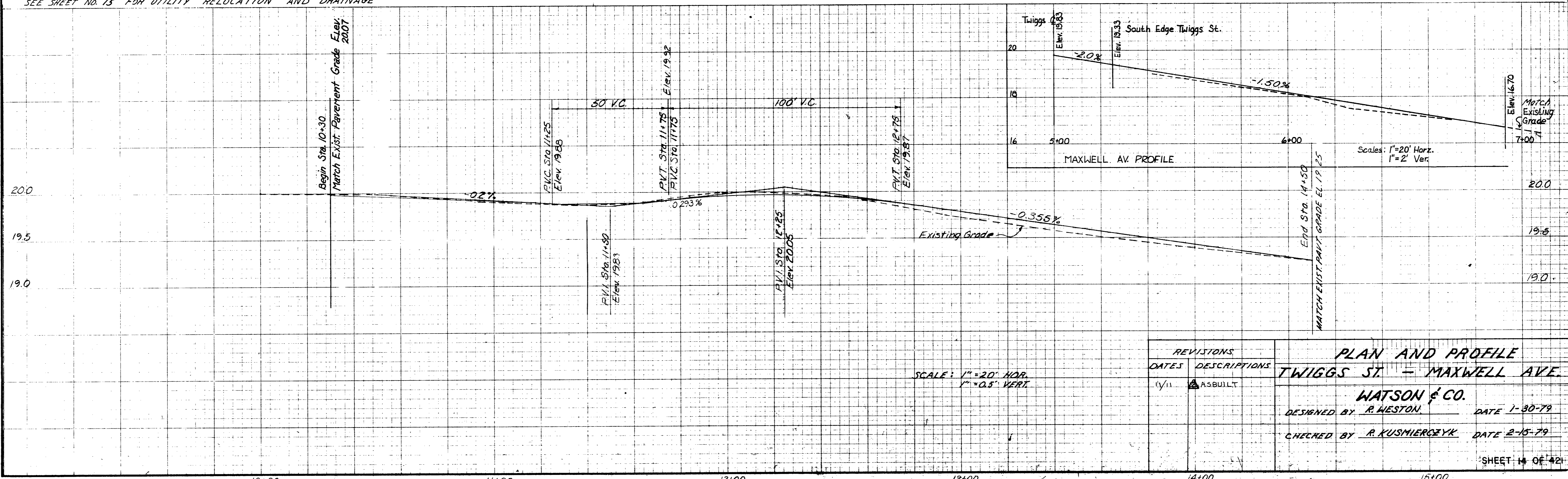


PROFILE ALONG PROPOSED WEST EDGE OF PAVEMENT

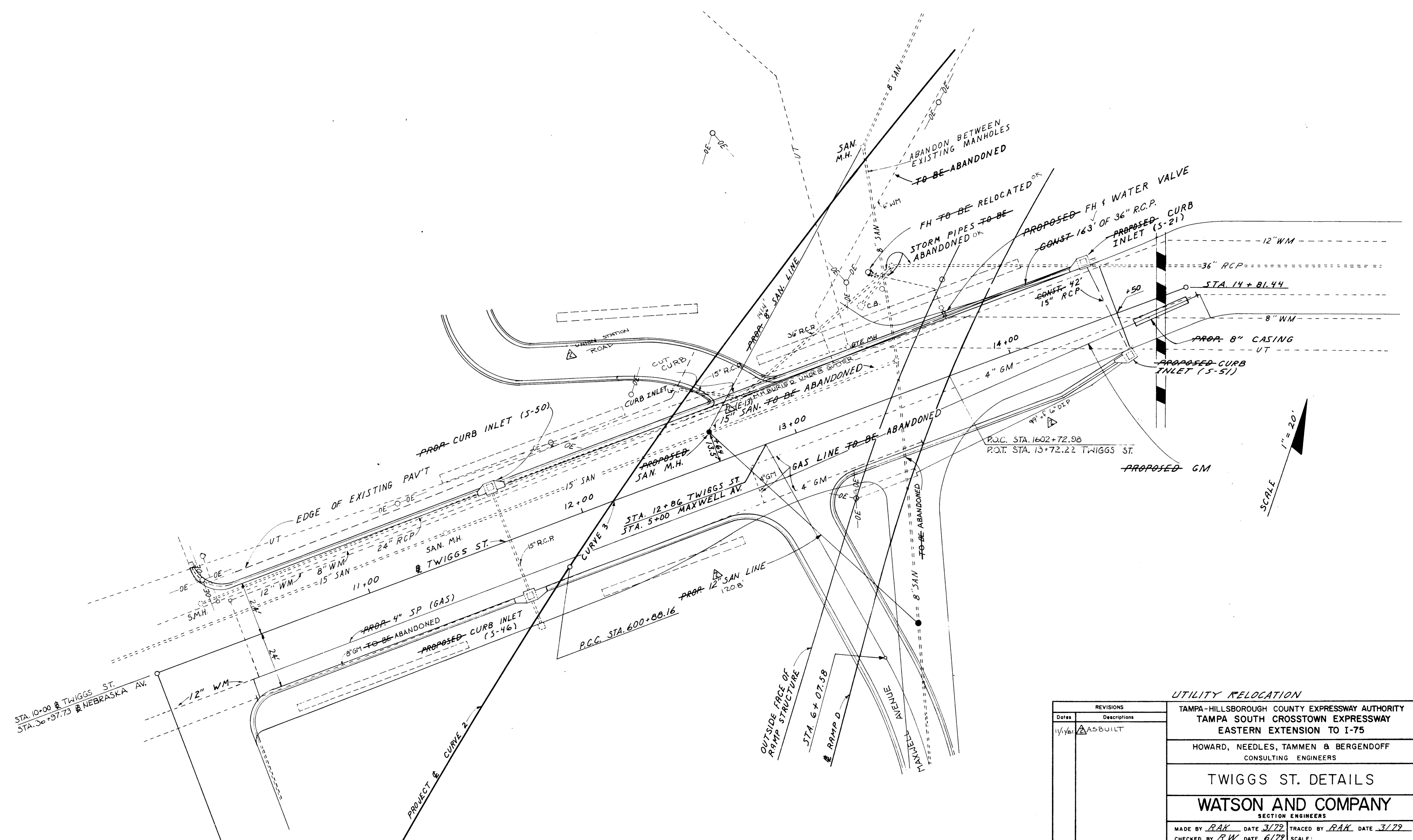
REVISIONS		PLAN & PROFILE BRUSH ST.
DATES	DESCRIPTIONS	
10/16/81	AS BUILT	WATSON & CO. DESIGNED BY R. WESTON DATE 6-15-79 CHECKED BY R. KUSMIERCEYK DATE 6-17-79



NOTES
 SEE SHEET NO. 16 FOR SPECIAL GUTTER PROFILES AT STA. 11+68
 SEE SHEET NO. 15 FOR UTILITY RELOCATION AND DRAINAGE



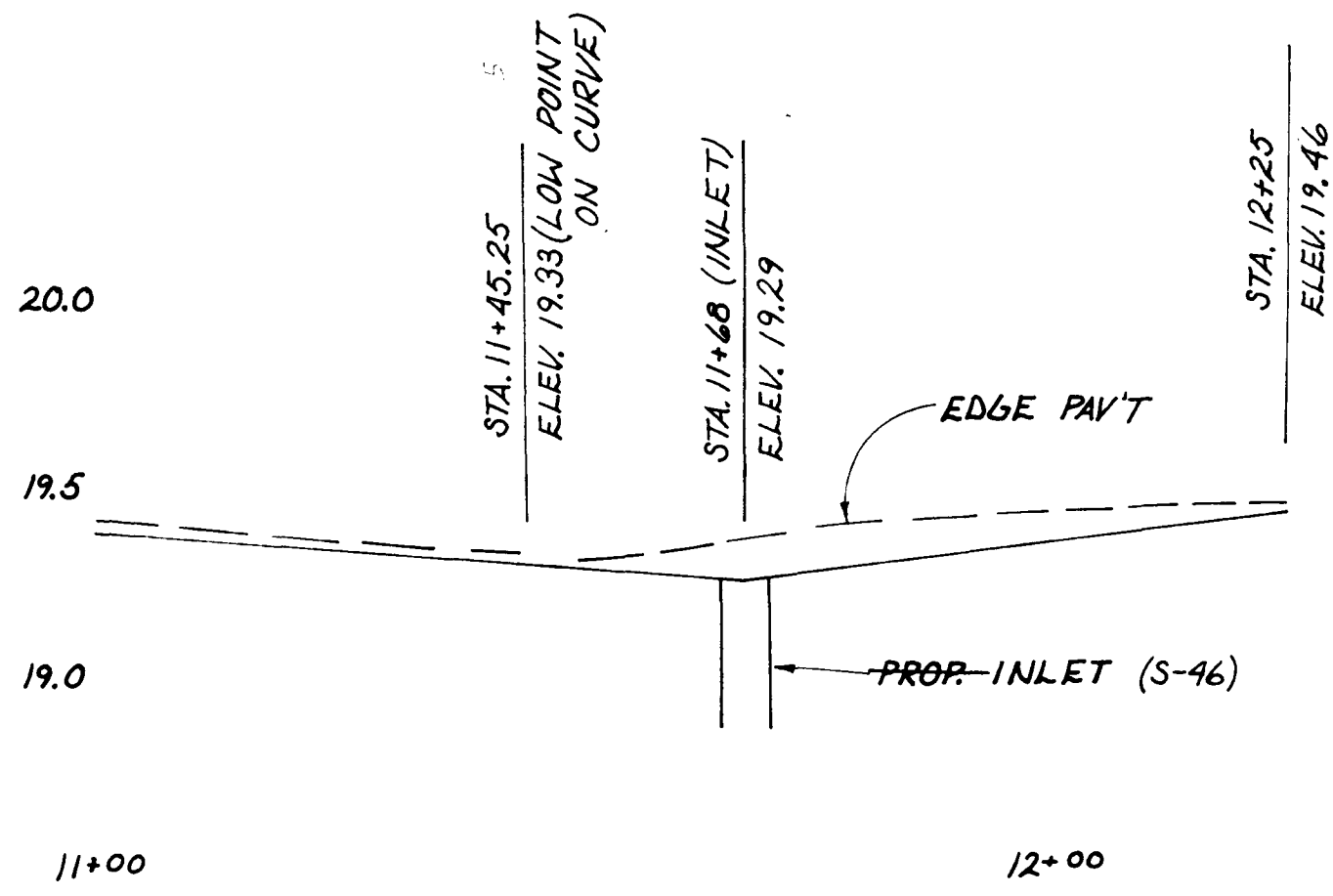
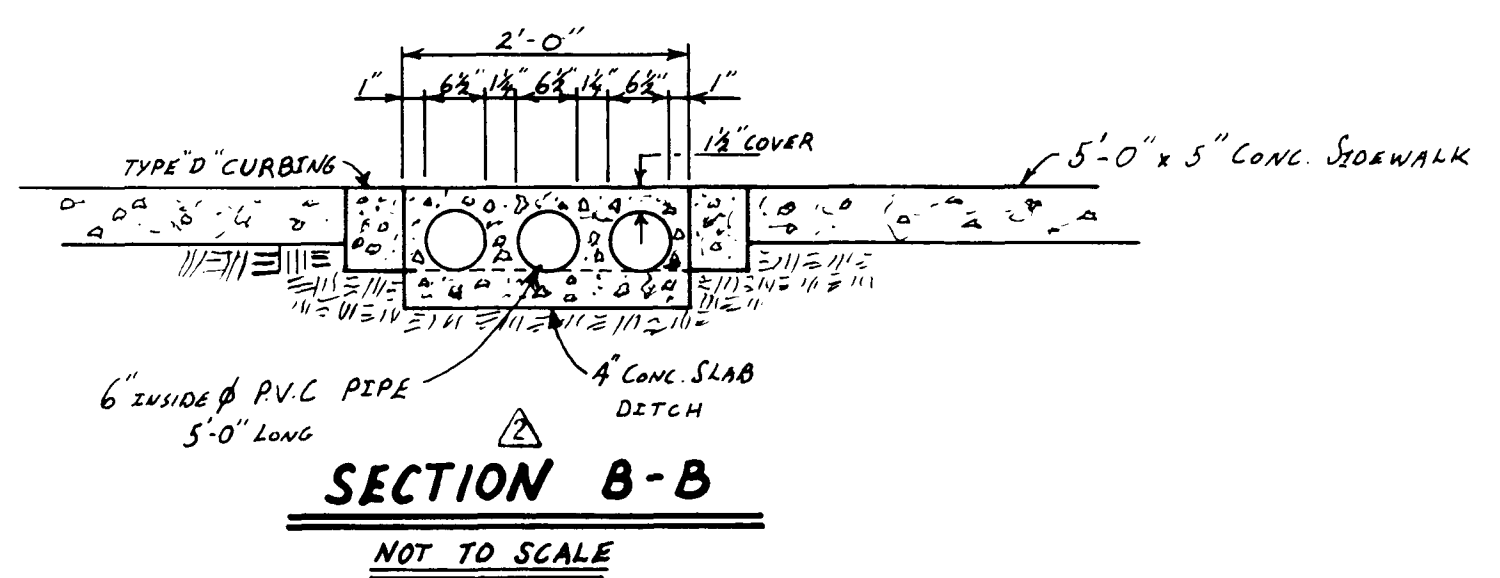
REVISIONS		PLAN AND PROFILE	
DATE	DESCRIPTION	TWIGGS ST. - MAXWELL AVE.	
11/11	AS BUILT	WATSON & CO. DESIGNED BY <u>R. WESTON</u> DATE <u>1-30-79</u> CHECKED BY <u>R. KUSMIERCZYK</u> DATE <u>2-15-79</u>	



SCALE 1" = 20'

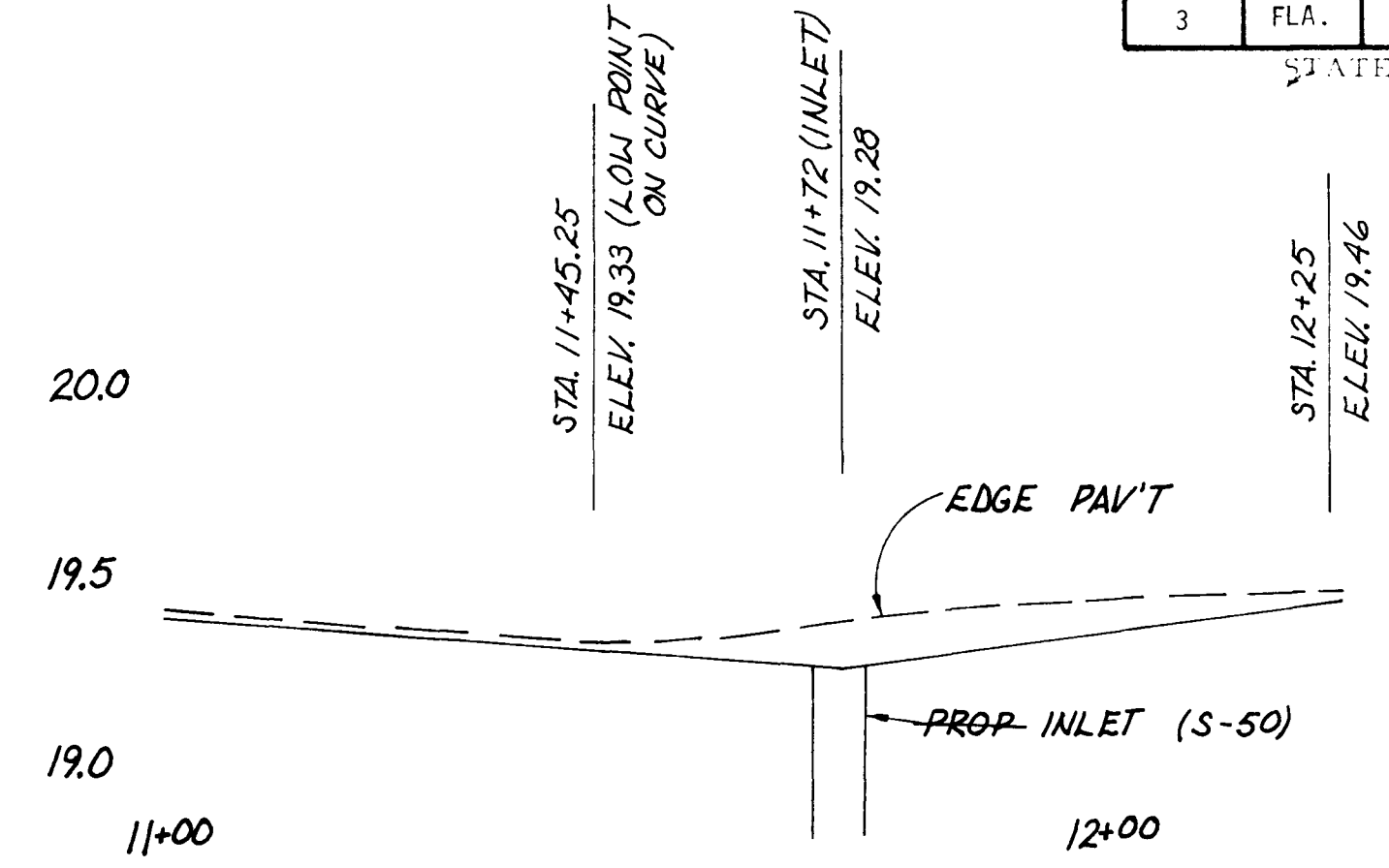
REVISIONS	
Date	Descriptions
11/28/79	ASBUILT

UTILITY RELOCATION
 TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY
 TAMPA SOUTH CROSSTOWN EXPRESSWAY
 EASTERN EXTENSION TO I-75
 HOWARD, NEEDLES, TAMMEN & BERGENDOFF
 CONSULTING ENGINEERS
TWIGGS ST. DETAILS
WATSON AND COMPANY
 SECTION ENGINEERS
 MADE BY *RAK* DATE *3/79* TRACED BY *RAK* DATE *3/79*
 CHECKED BY *RW* DATE *6/79* SCALE:
 CONTRACT NO. 1.1 SHEET 15 OF 421



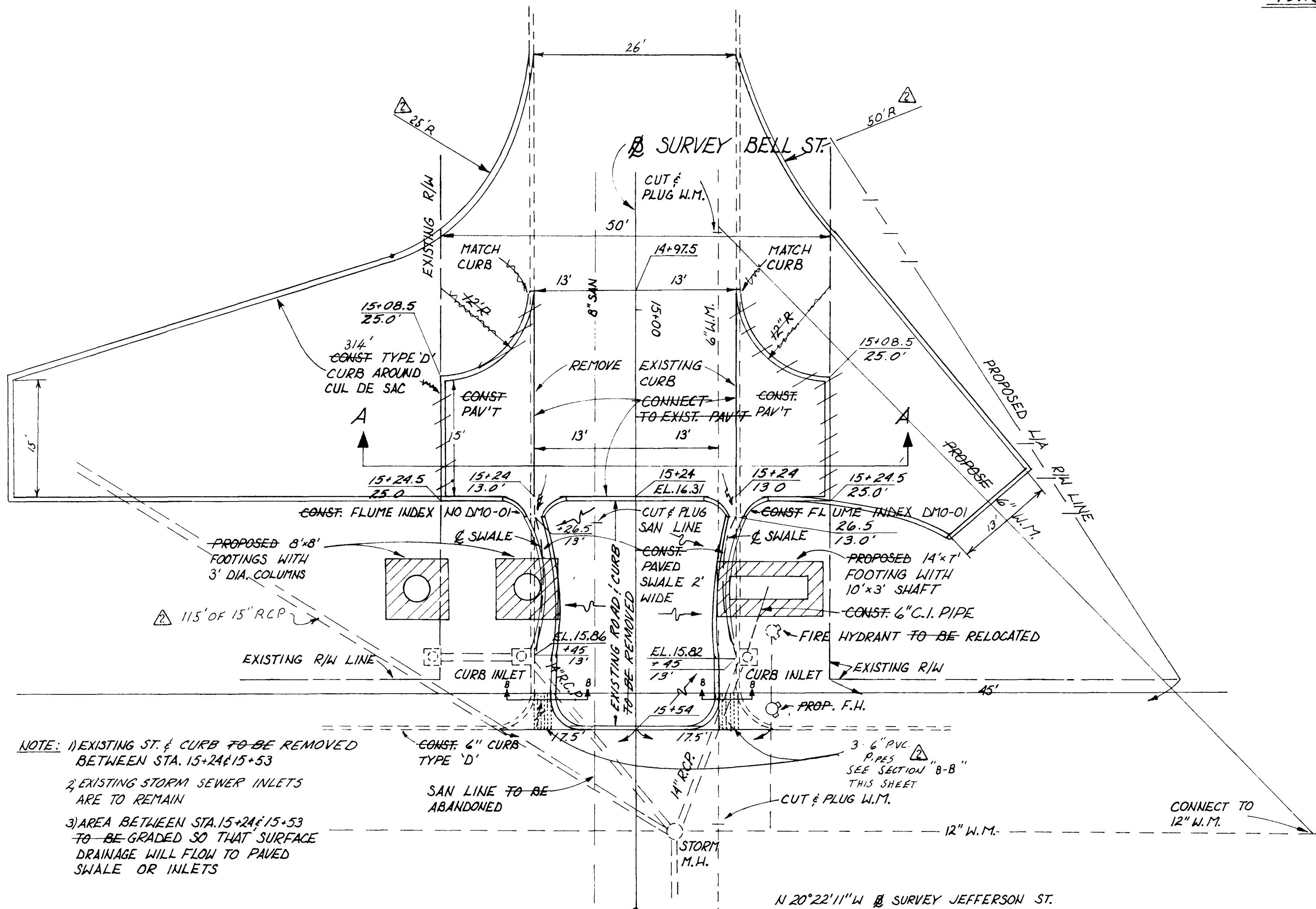
SPECIAL GUTTER PROFILE
TWIGGS ST. (SOUTH SIDE)

SCALE: HORIZ. 1"=20'
VERT. 1"=0.5'



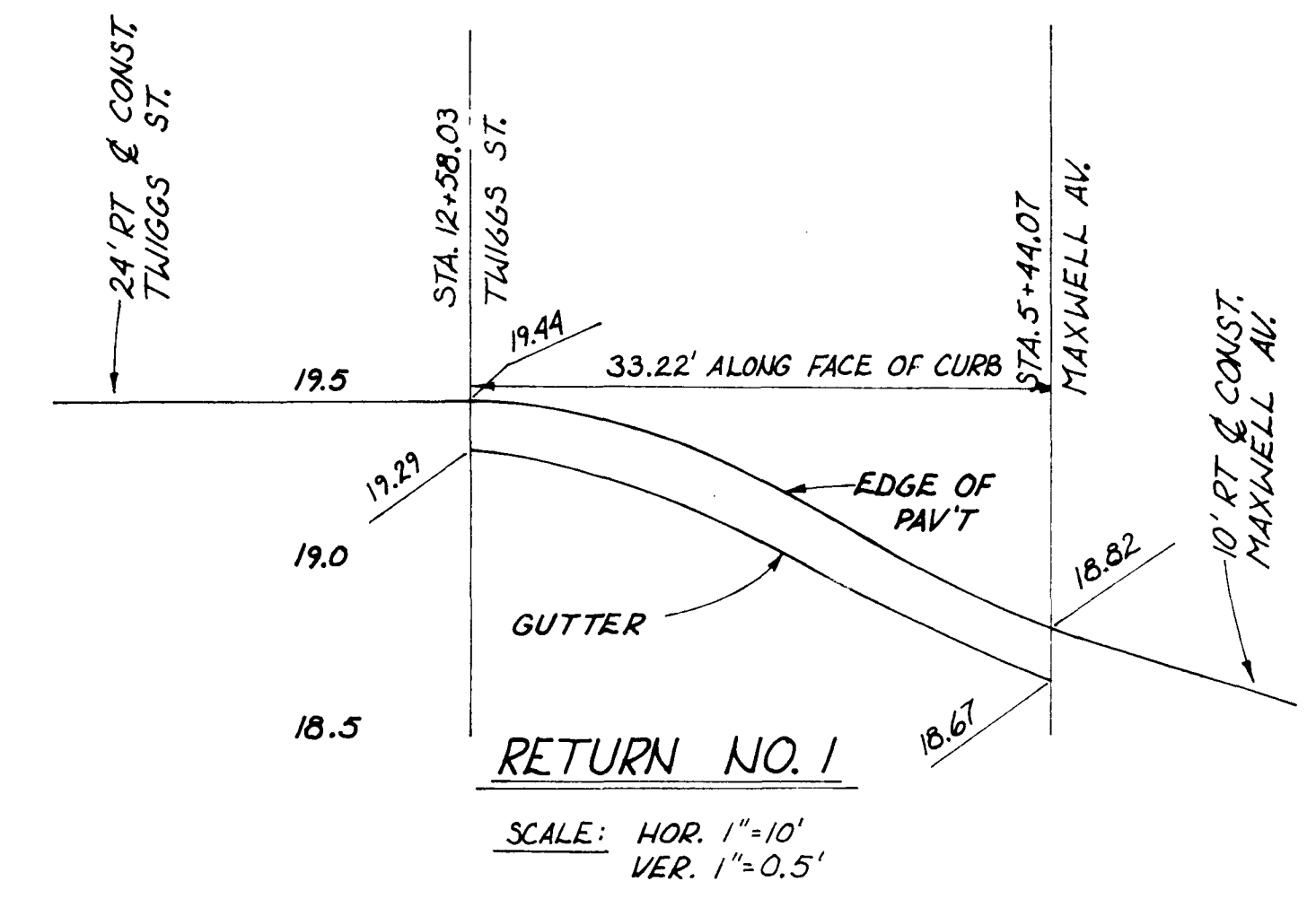
SPECIAL GUTTER PROFILE
TWIGGS ST. (NORTH SIDE)

SCALE: HORIZ. 1"=20'
VERT. 1"=0.5'

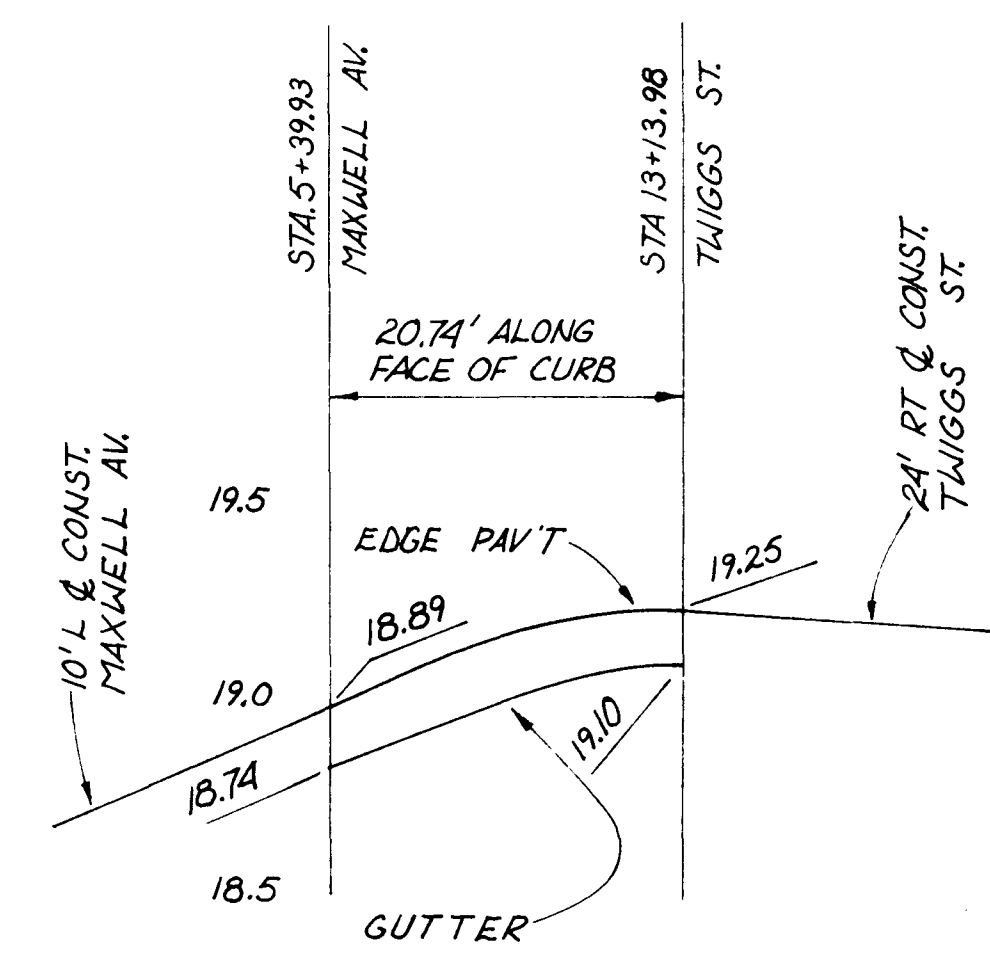


- NOTE: 1) EXISTING ST. & CURB TO BE REMOVED BETWEEN STA. 15+24 & 15+53
2) EXISTING STORM SEWER INLETS ARE TO REMAIN
3) AREA BETWEEN STA. 15+24 & 15+53 TO BE GRADED SO THAT SURFACE DRAINAGE WILL FLOW TO PAVED SWALE OR INLETS

DETAIL AT BELL ST.
CUL DE SAC
SCALE: 1"=10'

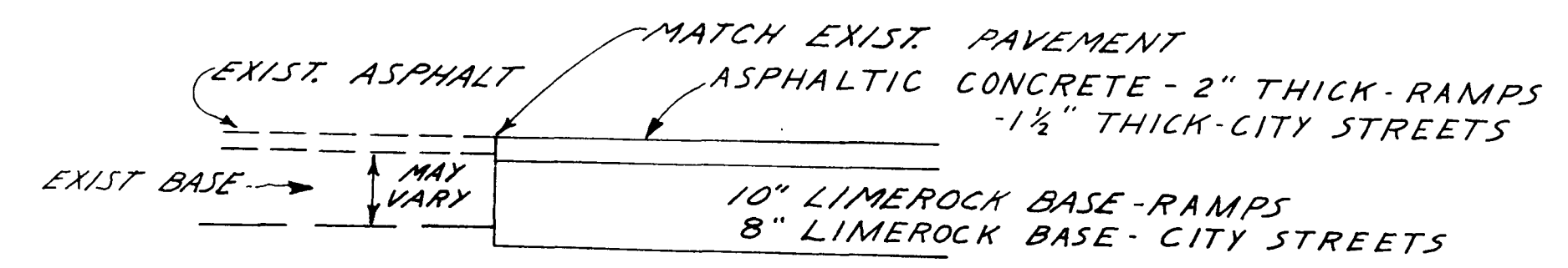


RETURN NO. 1
SCALE: HOR. 1"=10'
VER. 1"=0.5'



RETURN NO. 2
SCALE: HOR. 1"=10'
VER. 1"=0.5'

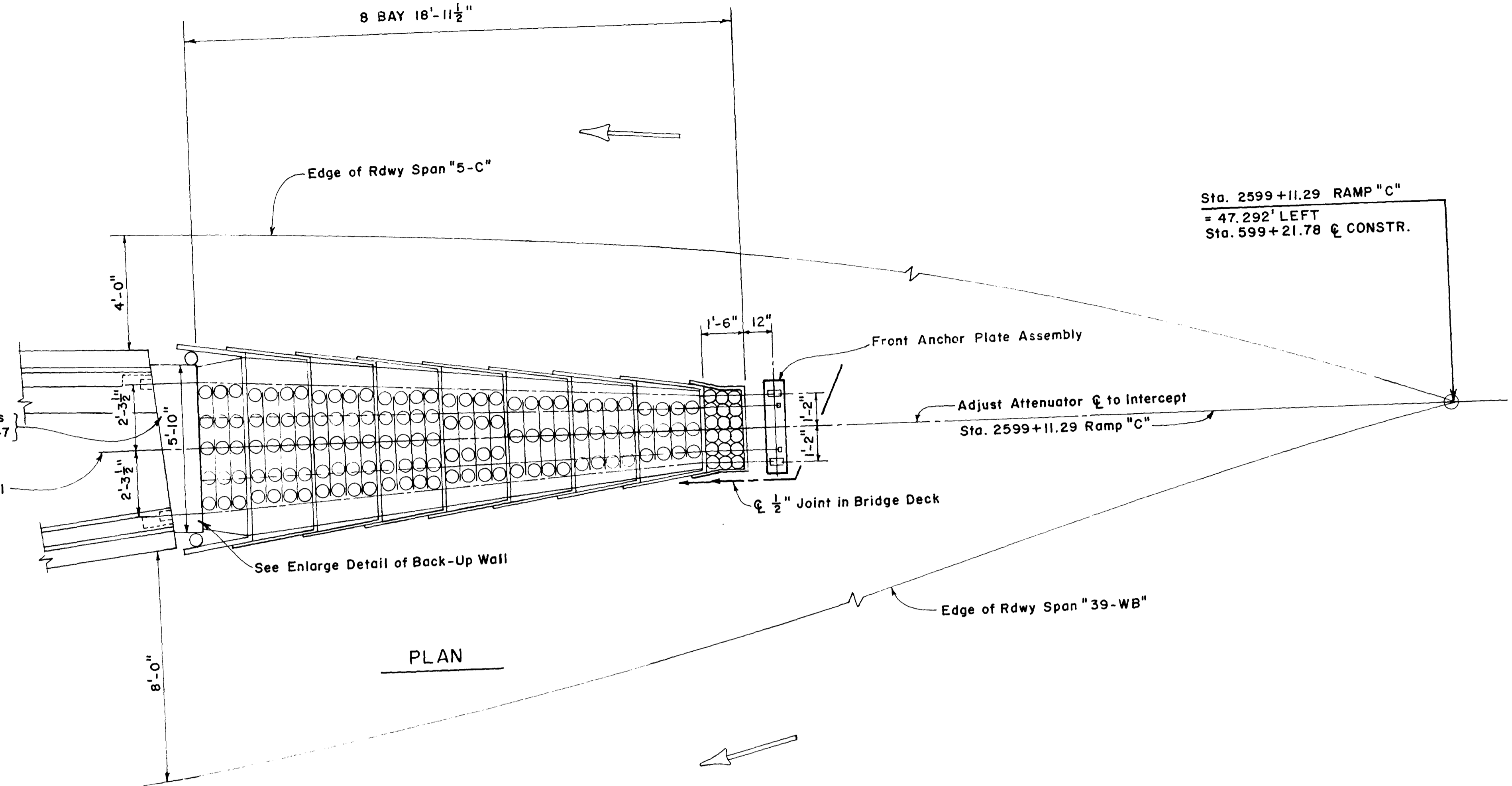
AS BUILT



DETAIL WHEN MATCHING EXIST. PAVEMENT
NOT TO SCALE

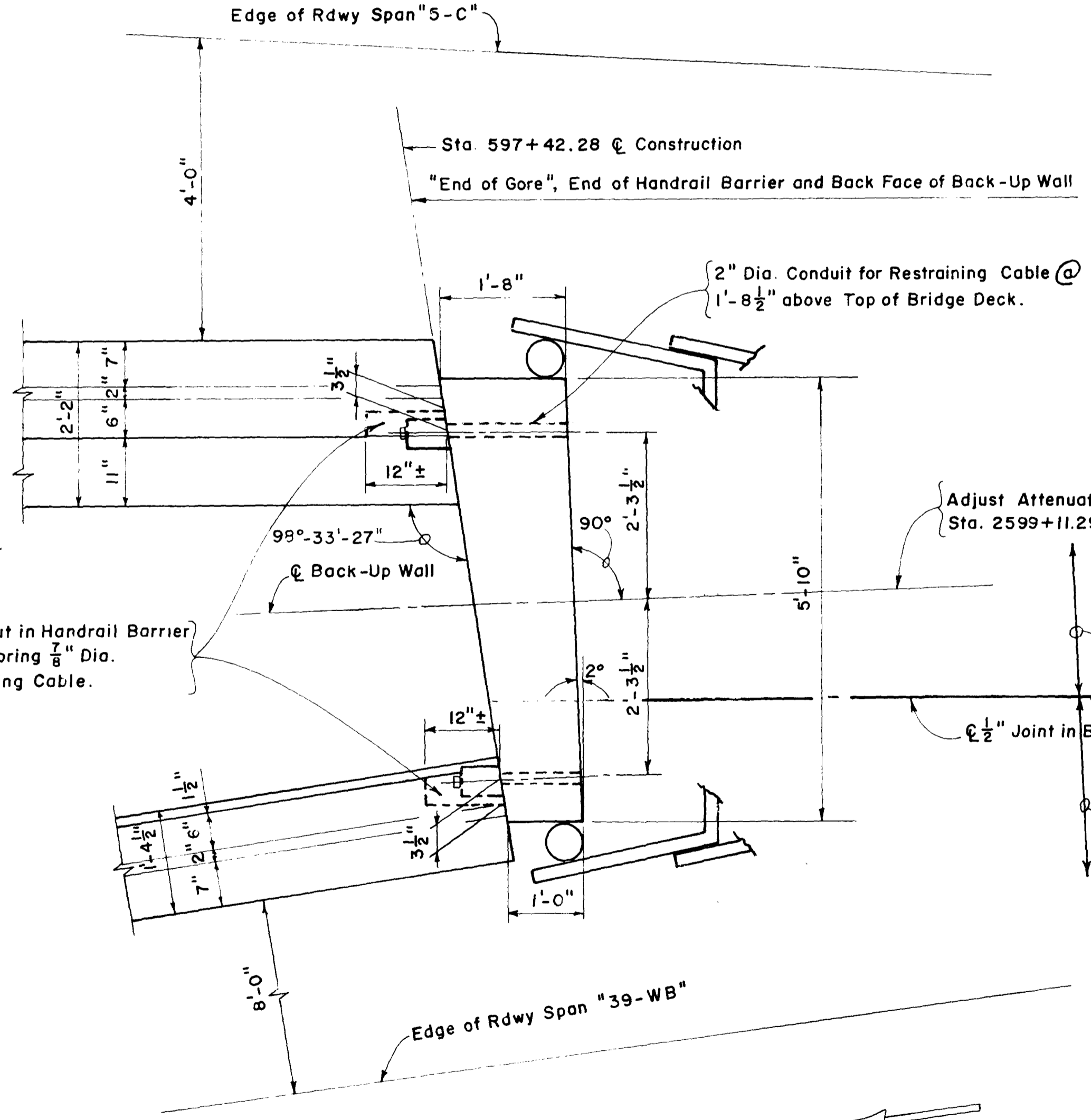
REVISIONS		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY TAMPA SOUTH CROSSTOWN EXPRESSWAY EASTERN EXTENSION TO I-75	
Date	Description	HOWARD, NEEDLES, TAMMEN & BERGENOFF CONSULTING ENGINEERS	
12/81	AS BUILT	MISC. DETAILS WATSON AND COMPANY MADE BY <u>R.W.</u> DATE <u>5-79</u> TRACED BY <u>J.R.W.</u> DATE <u>5-79</u> CHECKED BY <u>R.K.</u> DATE <u>5-79</u> SCALE: <u>AS SHOWN</u> CONTRACT NO. <u>1.1</u> SHEET <u>16</u> OF <u>421</u>	

Sta. 2599+11.29 RAMP "C"
 = 47.292' LEFT
 Sta. 599+21.78 @ CONSTR.

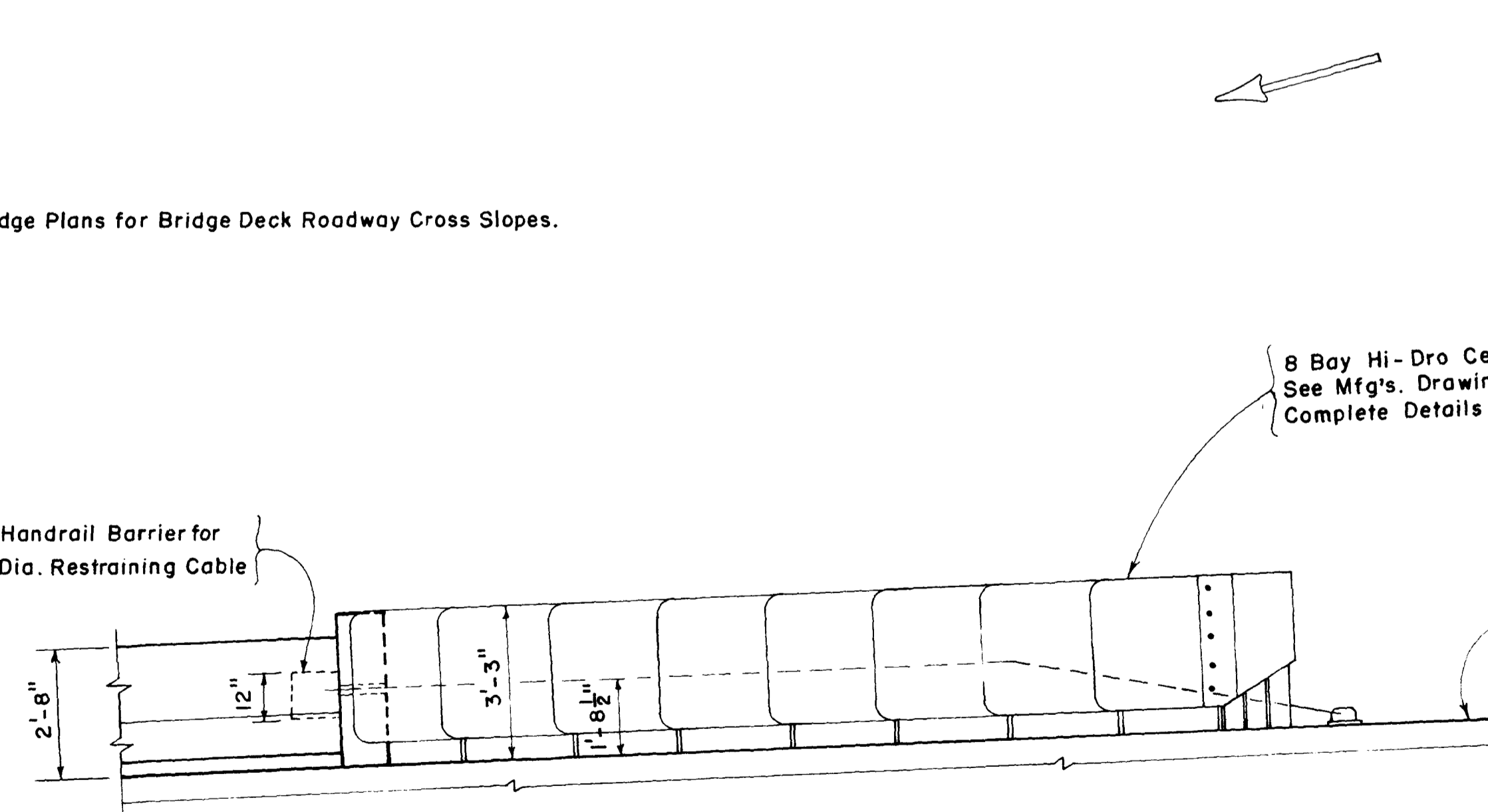


PLAN

AVERAGE G's
 55 M.P.H. 7.11 G's



BACK-UP WALL DETAILS

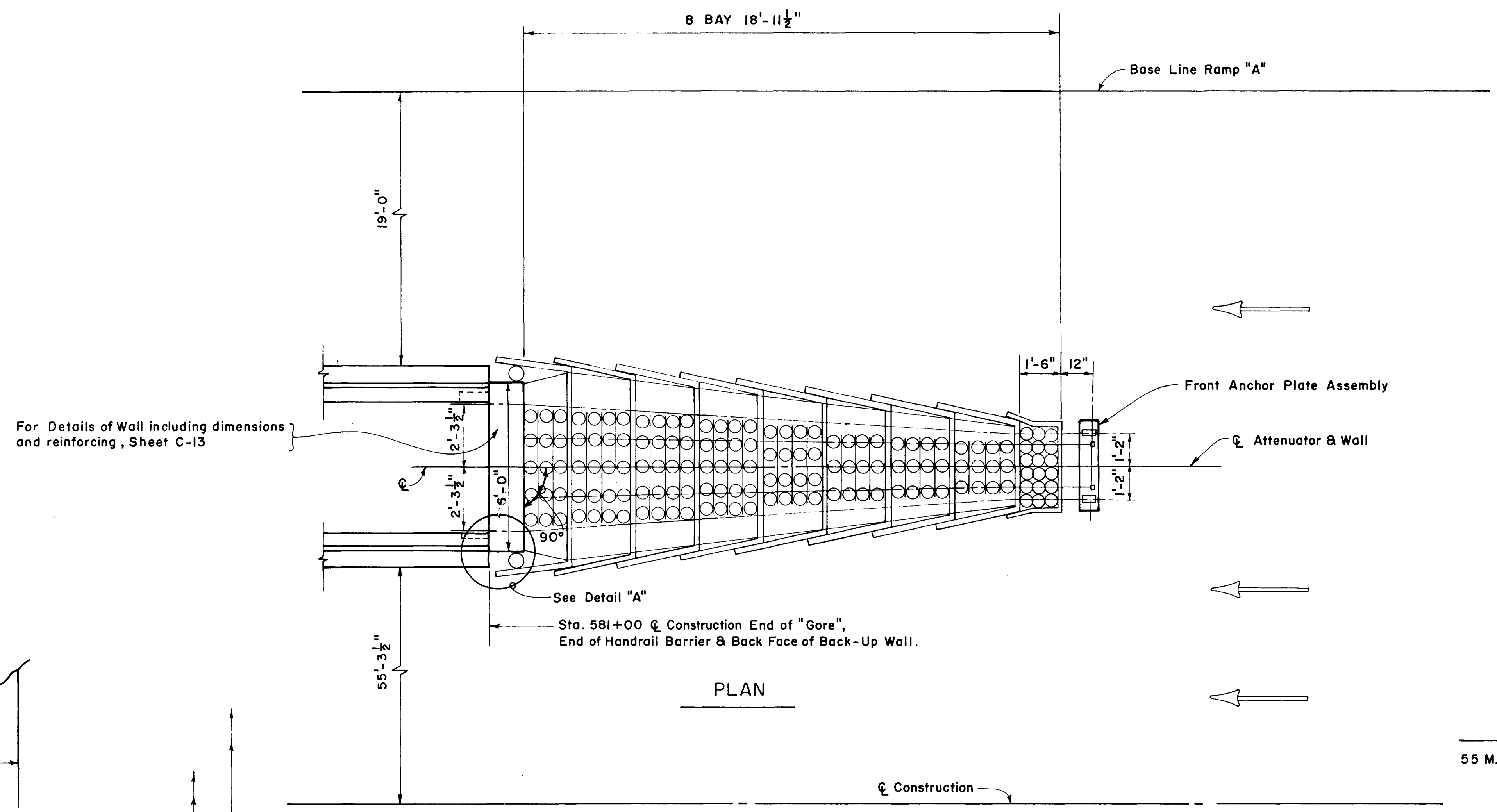


PARTIAL ELEVATION

AS BUILT

8 BAY HI-DRO CELL IMPACT ATTENUATOR

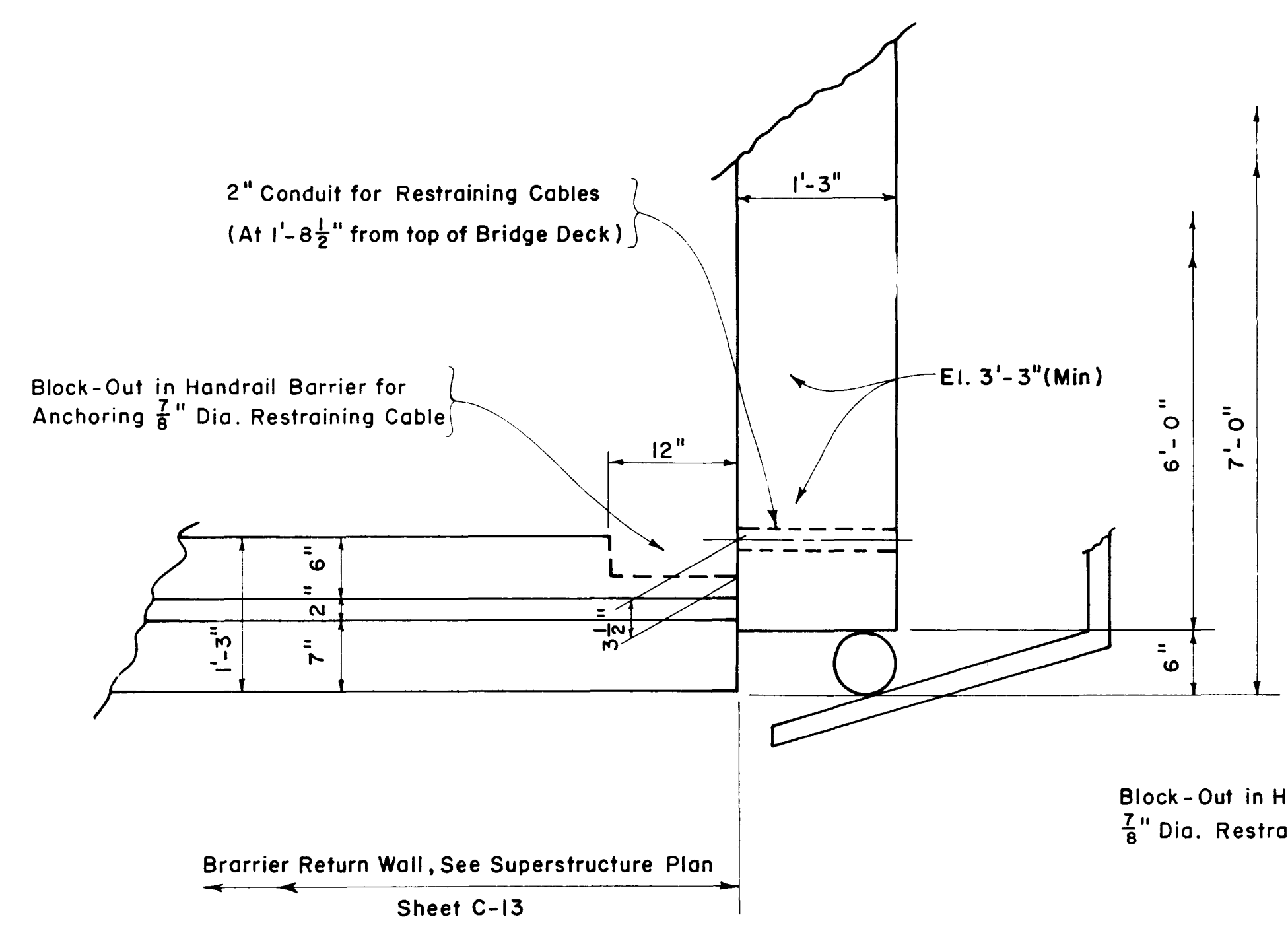
REVISIONS		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY TAMPA SOUTH CROSSTOWN EXPRESSWAY EASTERN EXTENSION TO I-75	
Date	Description	HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS	
12/81	AS BUILT	MISC. DETAILS WATSON AND COMPANY	
MADE BY	DATE	TRACED BY	DATE
CHECKED BY	DATE	SCALE:	
CONTRACT NO. 1.1		SHEET 16A OF 421	



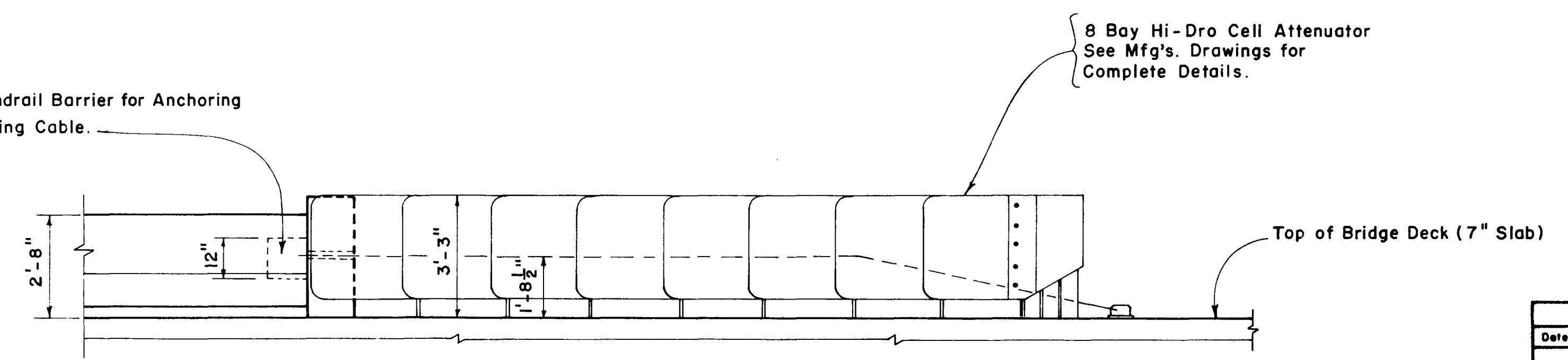
PLAN

AVERAGE G's
55 M.P.H. 7.11 G's

Bridge Deck Cross Slope .063 FT./FT. SPAN 20 WB



DETAIL "A"



PARTIAL ELEVATION

AS BUILT

REVISIONS		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY TAMPA SOUTH CROSSTOWN EXPRESSWAY EASTERN EXTENSION TO I-75 HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS
Date	Descriptions	
12/81	AS BUILT	MISC. DETAILS WATSON AND COMPANY
MADE BY _____ DATE _____		TRACED BY _____ DATE _____
CHECKED BY _____ DATE _____		SCALE: _____
CONTRACT NO. 1.1		SHEET 16 B OF 421

cdl GWB

RAMP CURVE DATA

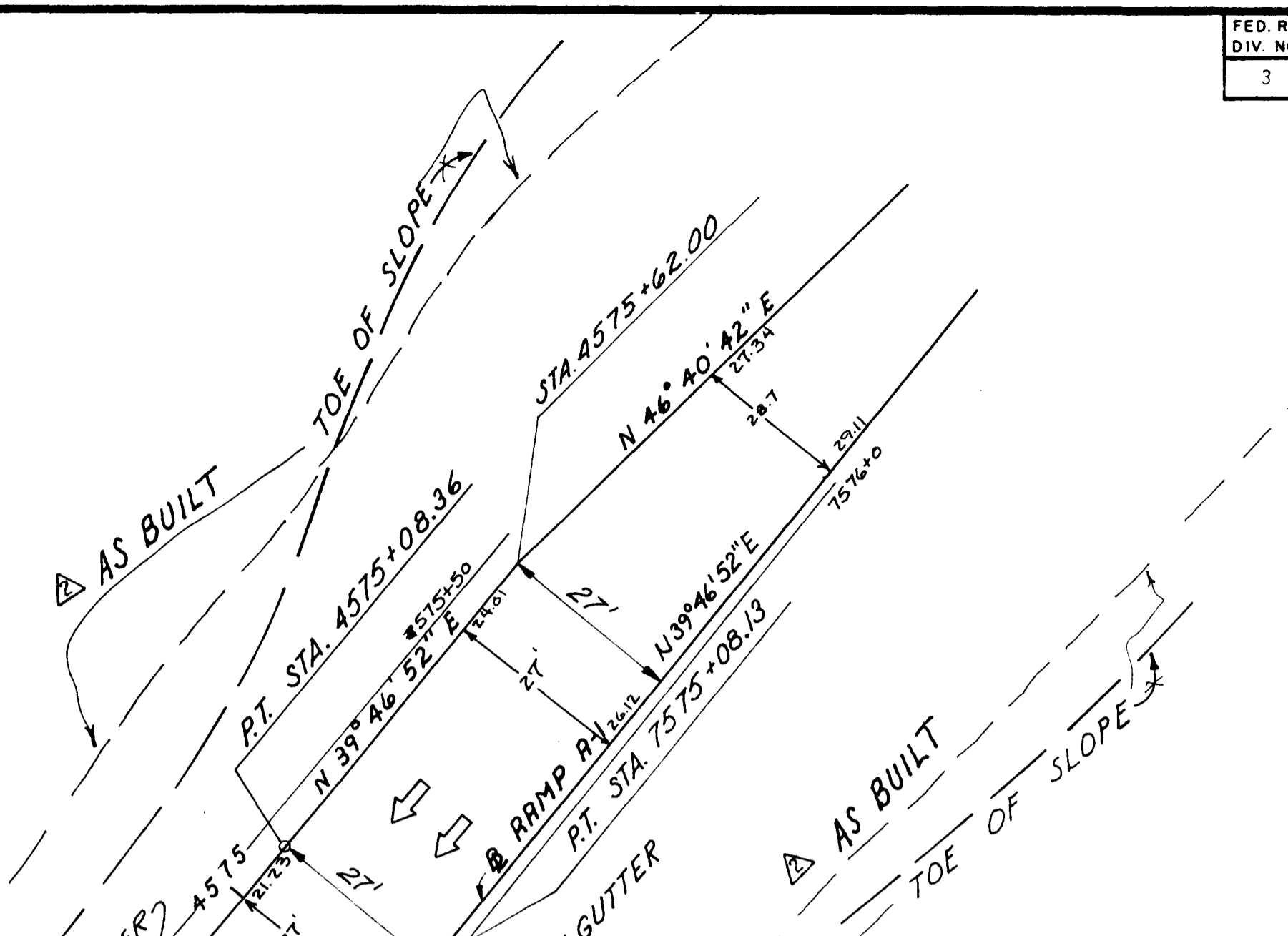
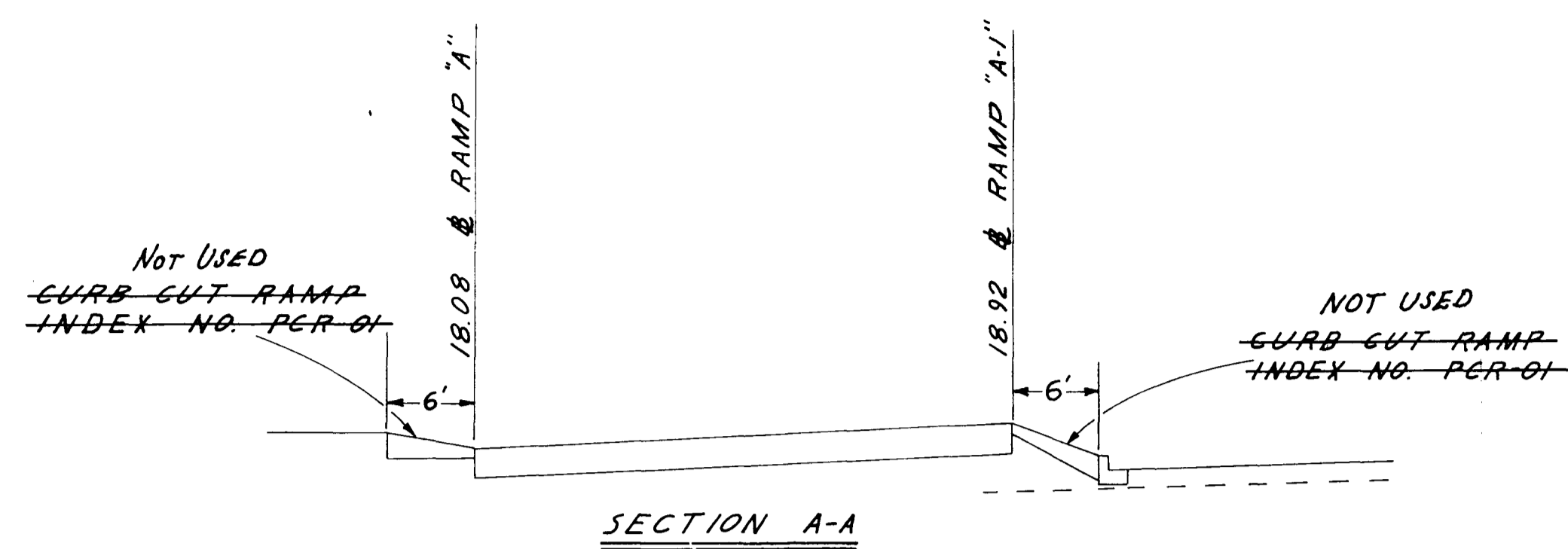
RAMP A

CURVE 1
 Δ 97°43'39"
D 76°34'05"
R 75.00
T 85.86
P.C. 4572+03.51
R.C.C. 4573+31.35

CURVE 2
 Δ 21°23'41"
D 12°04'49"
R 474.2882
T 89.5951
P.C.C. 4573+31.35
P.T. 4575+08.36

RAMP A-1

CURVE 6
 Δ 22°38'44"
D 11°25'47"
R 501.288
T 100.37
P.C. 7573+10.02
P.T. 7575+08.13



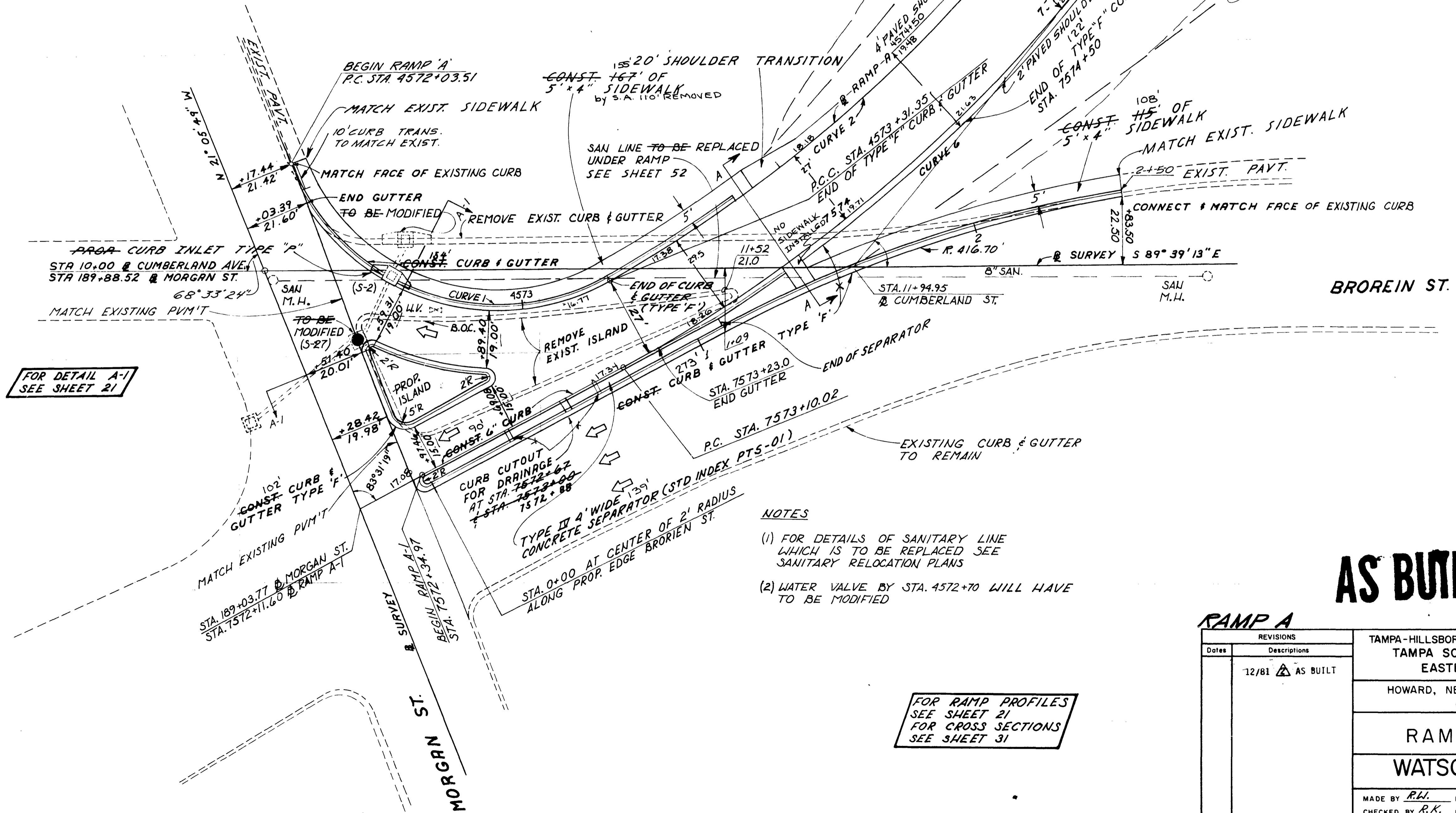
SCALE 1"=20'

CUMBERLAND ST.

BROREIN ST.

FOR DETAIL A-1 SEE SHEET 21

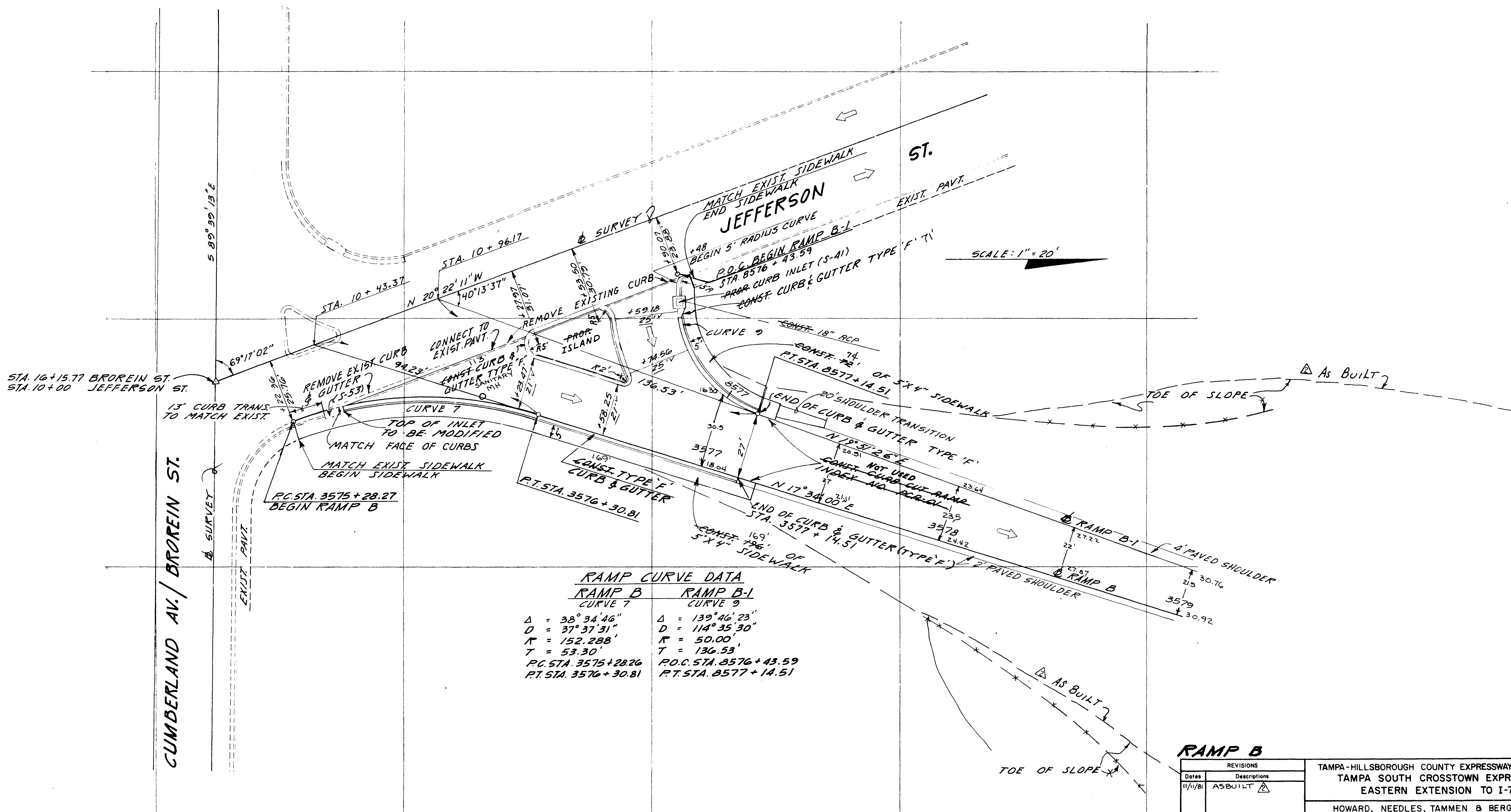
FOR RAMP PROFILES SEE SHEET 21 FOR CROSS SECTIONS SEE SHEET 31



- NOTES**
- (1) FOR DETAILS OF SANITARY LINE WHICH IS TO BE REPLACED SEE SANITARY RELOCATION PLANS
 - (2) WATER VALVE BY STA. 4572+70 WILL HAVE TO BE MODIFIED

AS BUILT

REVISIONS		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY TAMPA SOUTH CROSSTOWN EXPRESSWAY EASTERN EXTENSION TO I-75			
Date	Descriptions	HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS			
12/81	AS BUILT	RAMP TERMINAL WATSON AND COMPANY <small>SECTION ENGINEERS</small>			
MADE BY R.K.	DATE 1-79			TRACED BY D.W.L.	DATE 1-79
CHECKED BY R.K.	DATE 6-79			SCALE: AS SHOWN	
CONTRACT NO. 1.1		SHEET 17 OF 421			



RAMP CURVE DATA	
RAMP B CURVE 7	RAMP B-1 CURVE 9
$\Delta = 38^\circ 34' 46''$	$\Delta = 139^\circ 46' 23''$
$D = 37^\circ 37' 31''$	$D = 114^\circ 35' 30''$
$R = 152.288'$	$R = 50.00'$
$T = 53.30'$	$T = 136.53'$
P.C. STA. 3575 + 28.26	P.O.C. STA. 8576 + 43.59
P.T. STA. 3576 + 30.81	P.T. STA. 8577 + 14.51

FOR RAMP PROFILES
SEE SHEET 22
FOR CROSS-SECTIONS
SEE SHEETS 32 & 33

RAMP B

Date	Revisions
11/1/81	AS BUILT

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY
TAMPA SOUTH CROSSTOWN EXPRESSWAY
EASTERN EXTENSION TO I-75

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS

RAMP TERMINALS

WATSON AND COMPANY
SECTION ENGINEERS

MADE BY R.W. DATE 12-4-78 TRACED BY E.J. DATE 1-22-79
CHECKED BY R.K. DATE 2-2-79 SCALE: AS SHOWN

CONTRACT NO. 1.1 SHEET 18 OF 421

THIS IS A REVISED DRAWING

FED. RD. DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.
3	FLA.	2	1979	19

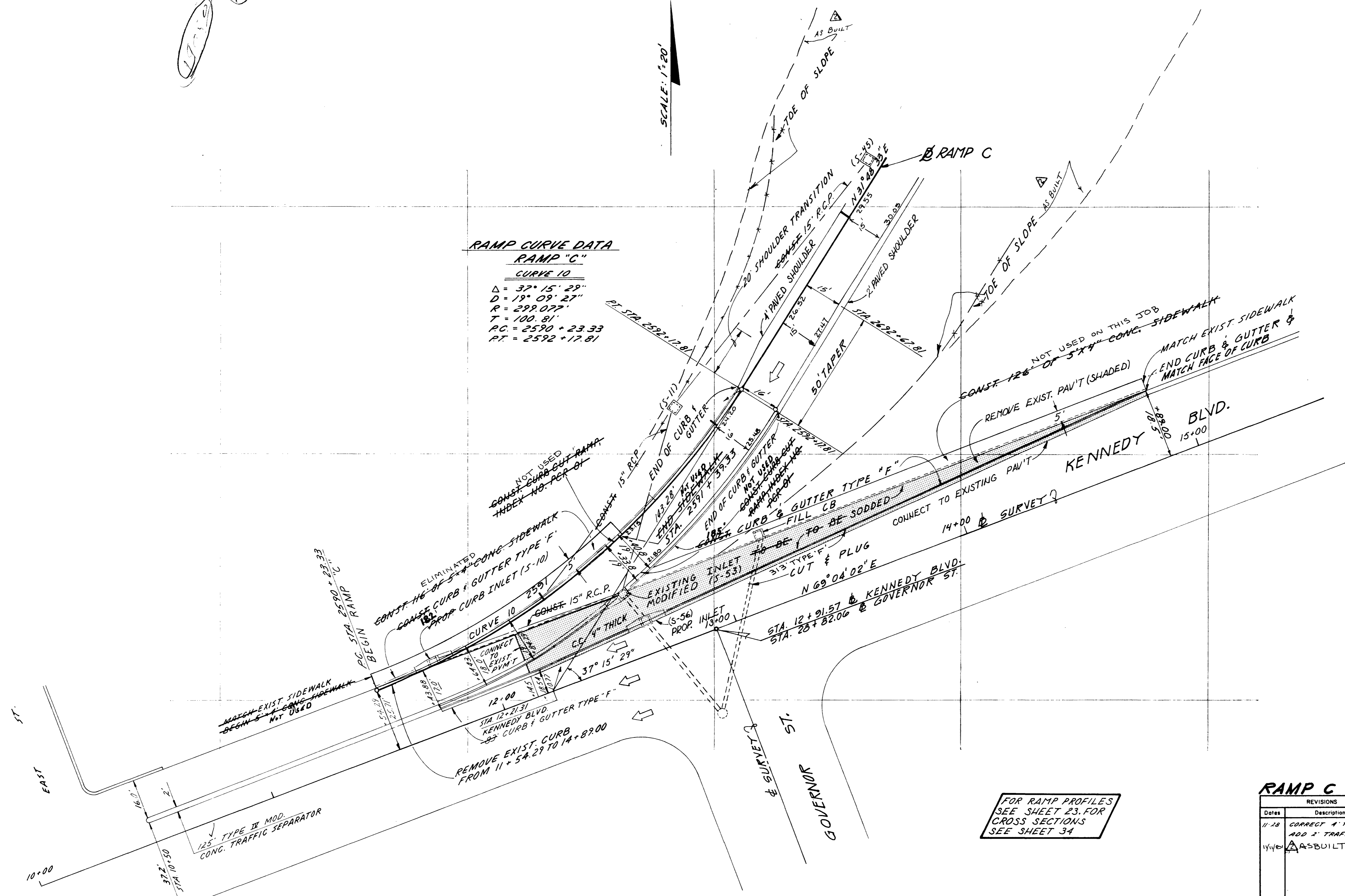
STATE PROJECT NO. 10002-3522-055



SCALE: 1"=20'

RAMP CURVE DATA
RAMP "C"

CURVE 10
 $\Delta = 37^\circ 15' 29"$
 $D = 19^\circ 09' 27"$
 $R = 299.077'$
 $T = 100.81'$
 $P.C. = 2590 + 23.33$
 $P.T. = 2592 + 17.81$



FOR RAMP PROFILES
SEE SHEET 23. FOR
CROSS SECTIONS
SEE SHEET 34

RAMP C

REVISIONS	
Date	Descriptions
11-28	CORRECT 'A' TO 'A' ADD 2' TRAFFIC SEP.
11-28	AS BUILTS

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY
TAMPA SOUTH CROSSTOWN EXPRESSWAY
EASTERN EXTENSION TO I-75

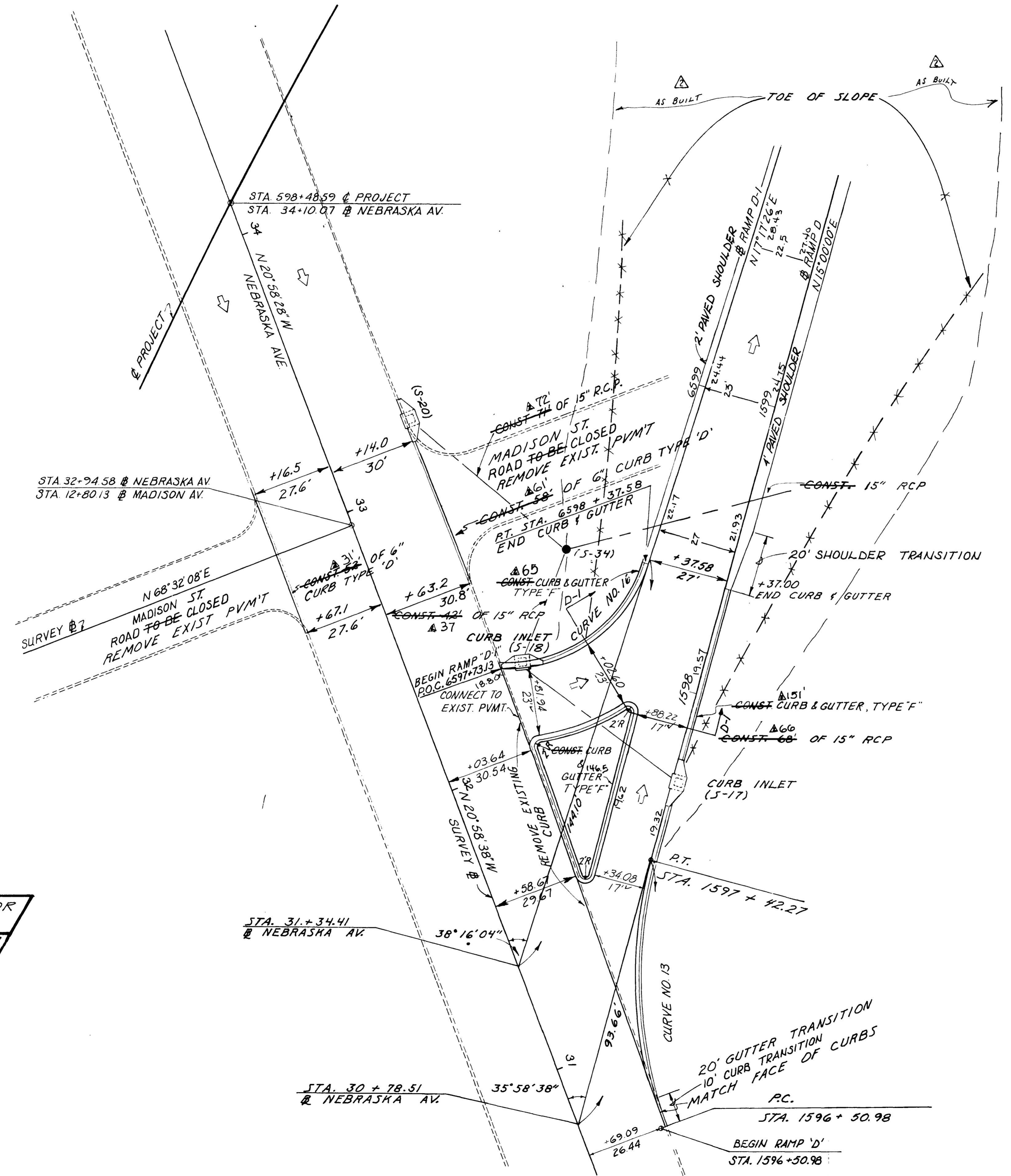
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS

RAMP TERMINALS

WATSON AND COMPANY
SECTION ENGINEERS

MADE BY P.K. DATE 1-20-79 TRACED BY E.J. DATE 1-23-79
CHECKED BY R.W. DATE 1-30-79 SCALE: AS SHOWN

CONTRACT NO. 1.1 SHEET 19 OF 421



SCALE 1" = 20'

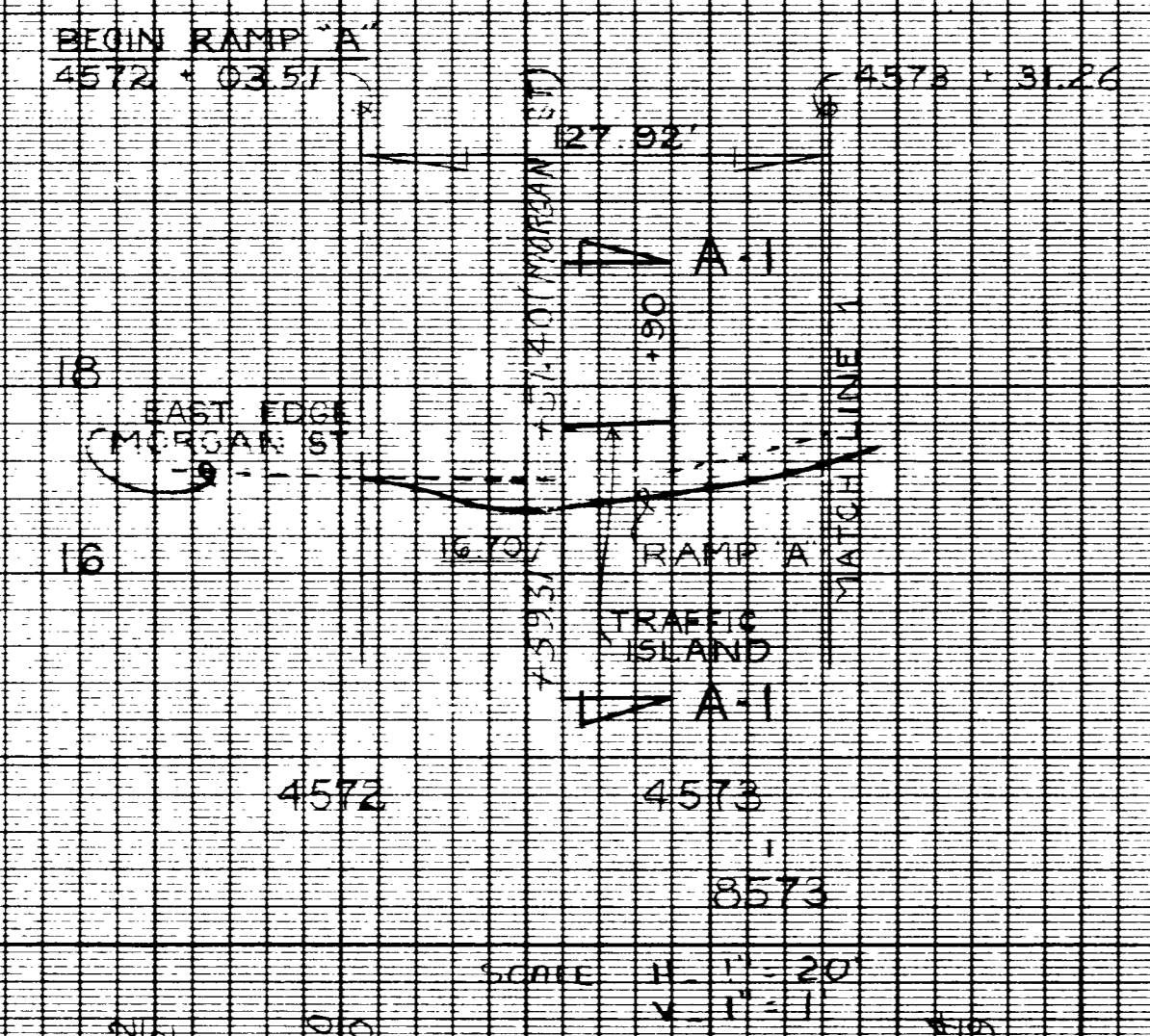
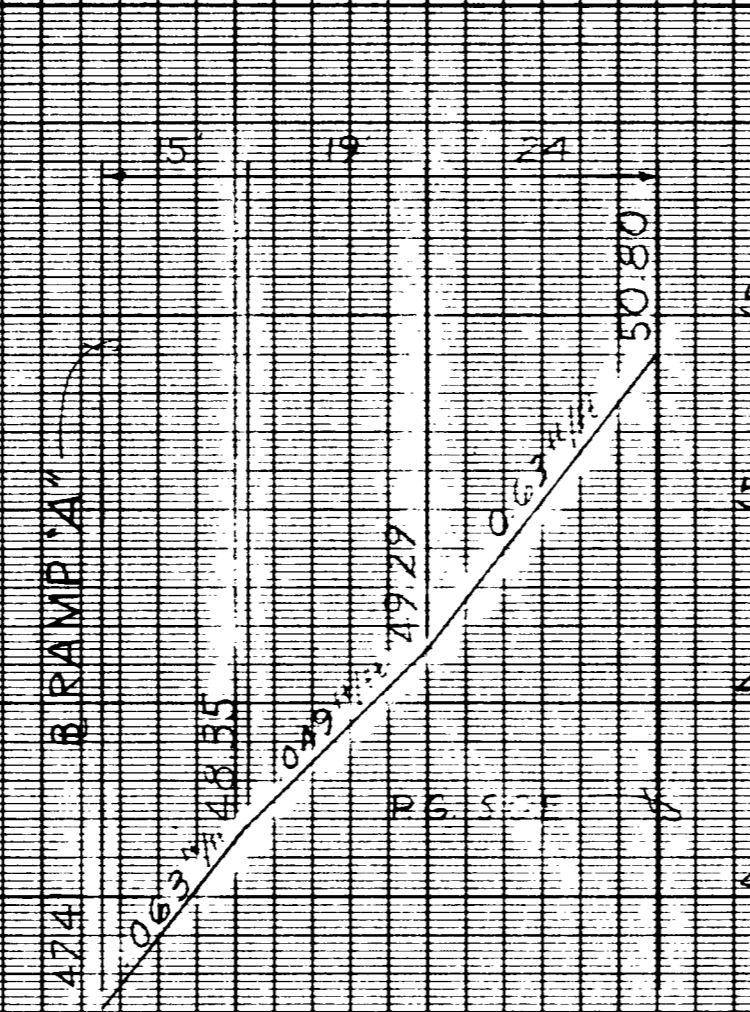
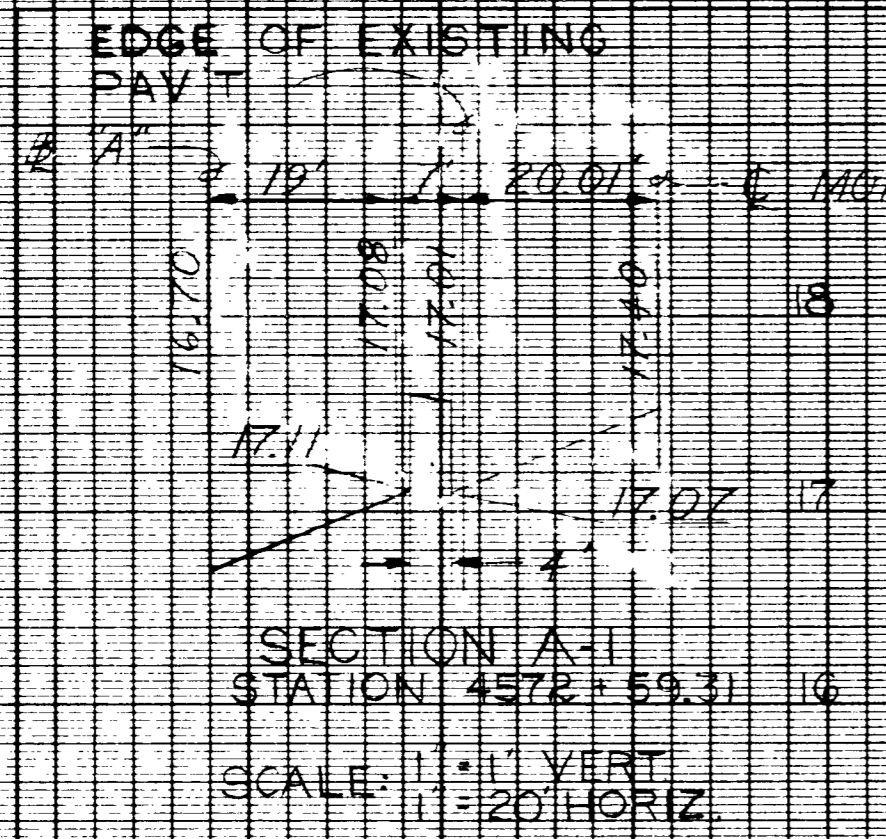
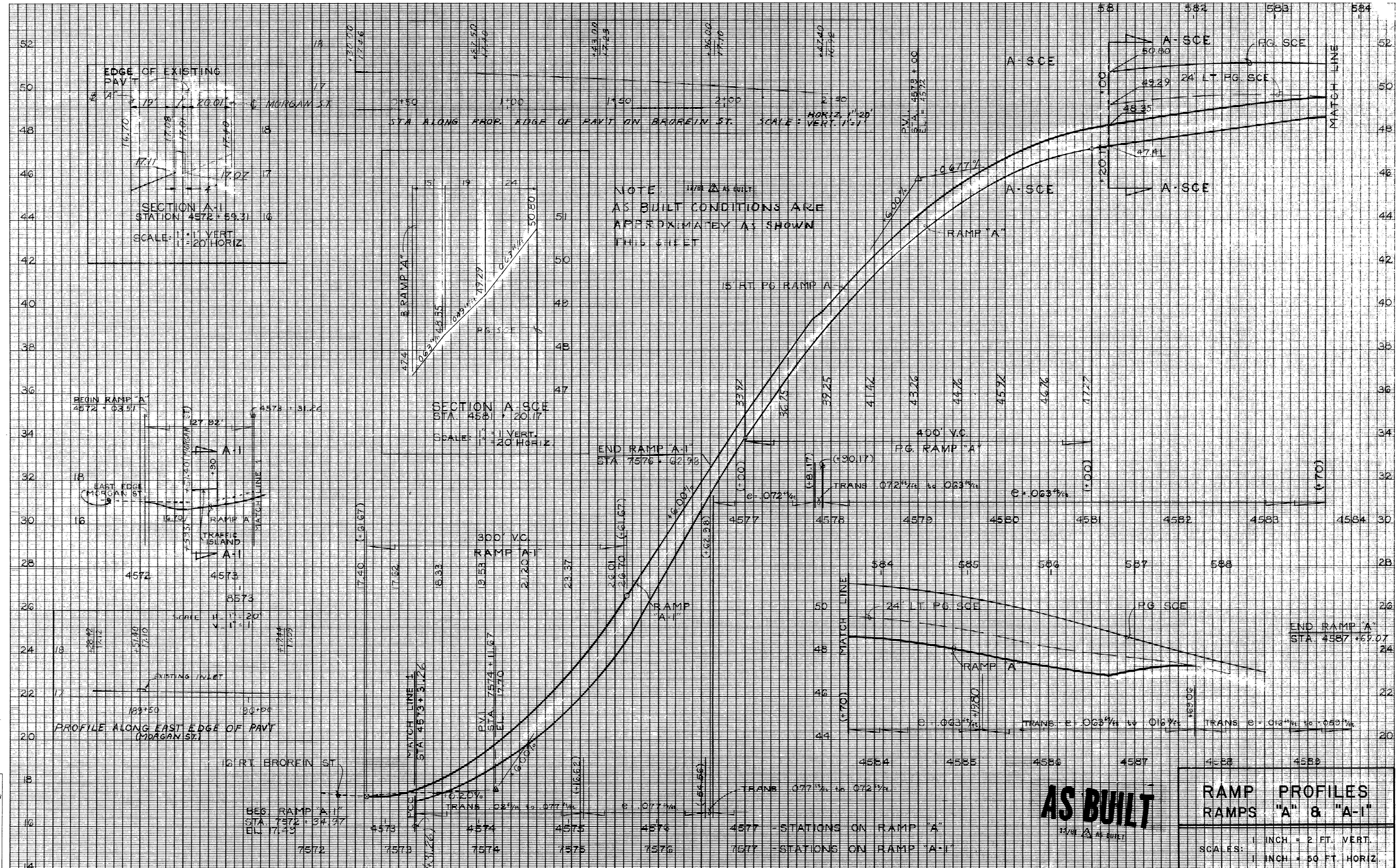
RAMP CURVE DATA

RAMP D CURVE NO. 13	RAMP D-1 CURVE NO. 16
$\Delta = 34^\circ 52' 07''$	$\Delta = 141^\circ 42' 45''$
$D = 38^\circ 11' 50''$	$D = 114^\circ 35' 30''$
$R = 150.00'$	$R = 50.00'$
$T = 47.11'$	$T = 144.04'$
$P.C. = STA. 1596 + 50.98$	$P.O.C. = 6597 + 73.13$
$P.T. = STA. 1597 + 42.27$	$P.T. = STA. 6598 + 37.58$

SEE SHEET 24 FOR RAMP PROFILES FOR CROSS-SECTION SEE SHEET 35 SEE SHEET 24 FOR DETAIL D-1

RAMP D

REVISIONS		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY TAMPA SOUTH CROSSTOWN EXPRESSWAY EASTERN EXTENSION TO I-75
Date	Descriptions	
11/1/81	AS BUILT	HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS
RAMP TERMINALS		
WATSON AND COMPANY		
MADE BY <u>R.V.</u> DATE <u>2-11-79</u>	TRACED BY <u>J.E.</u> DATE <u>7-12-79</u>	
CHECKED BY <u>B.K.</u> DATE <u>7-20-79</u>	SCALE: <u>AS SHOWN</u>	
CONTRACT NO. 1.1		SHEET 20 OF 421



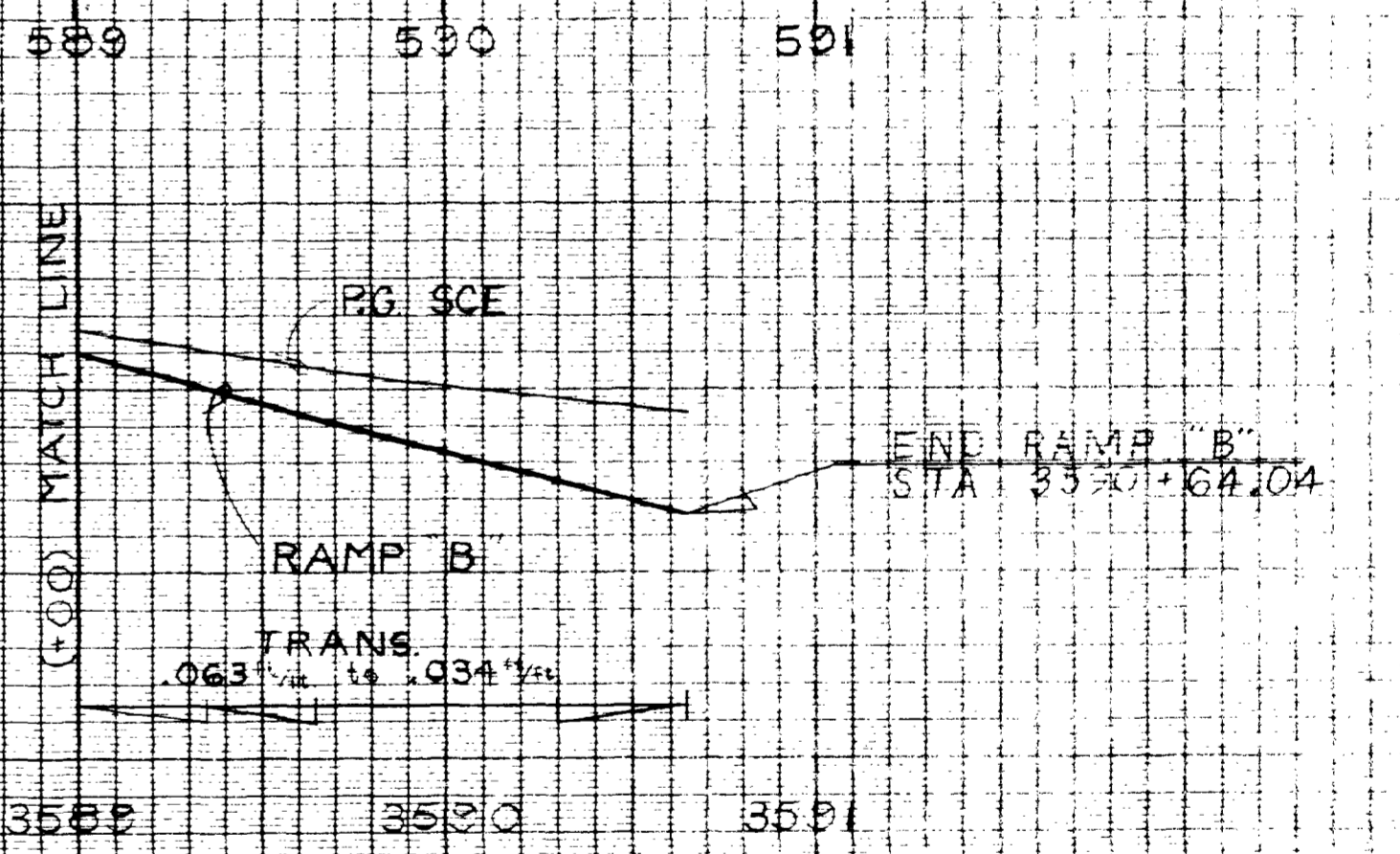
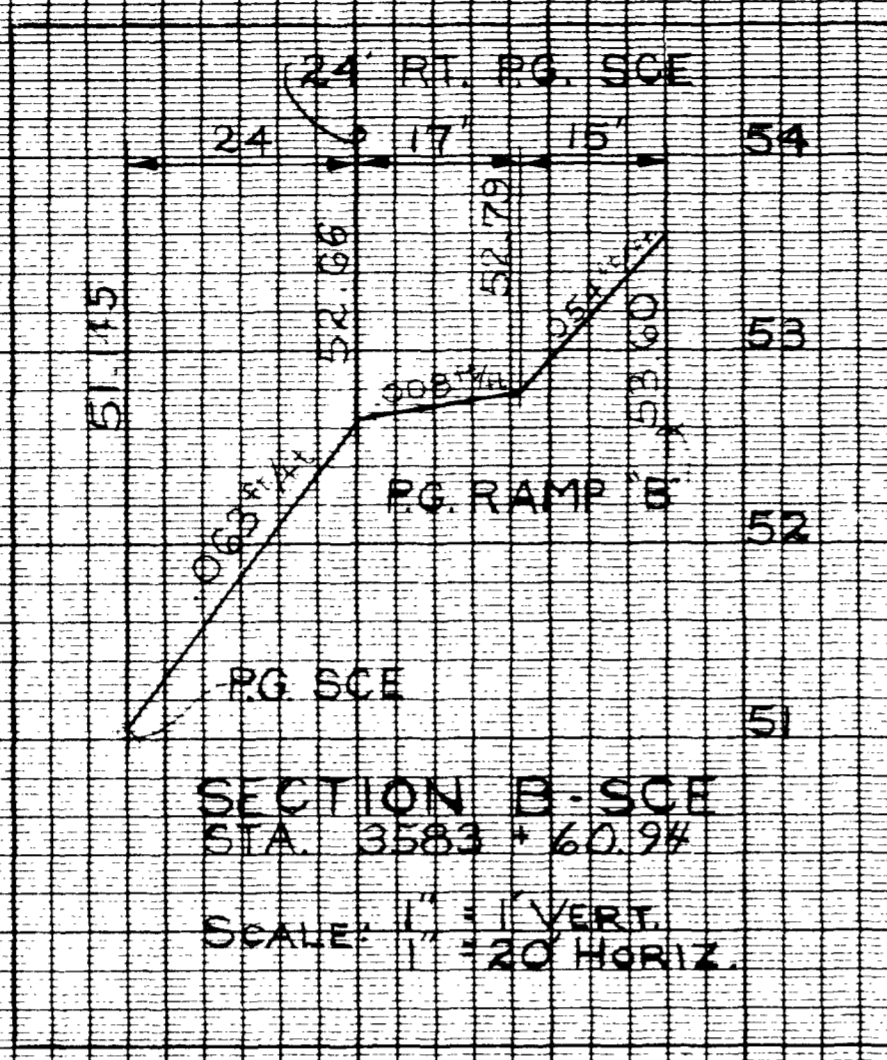
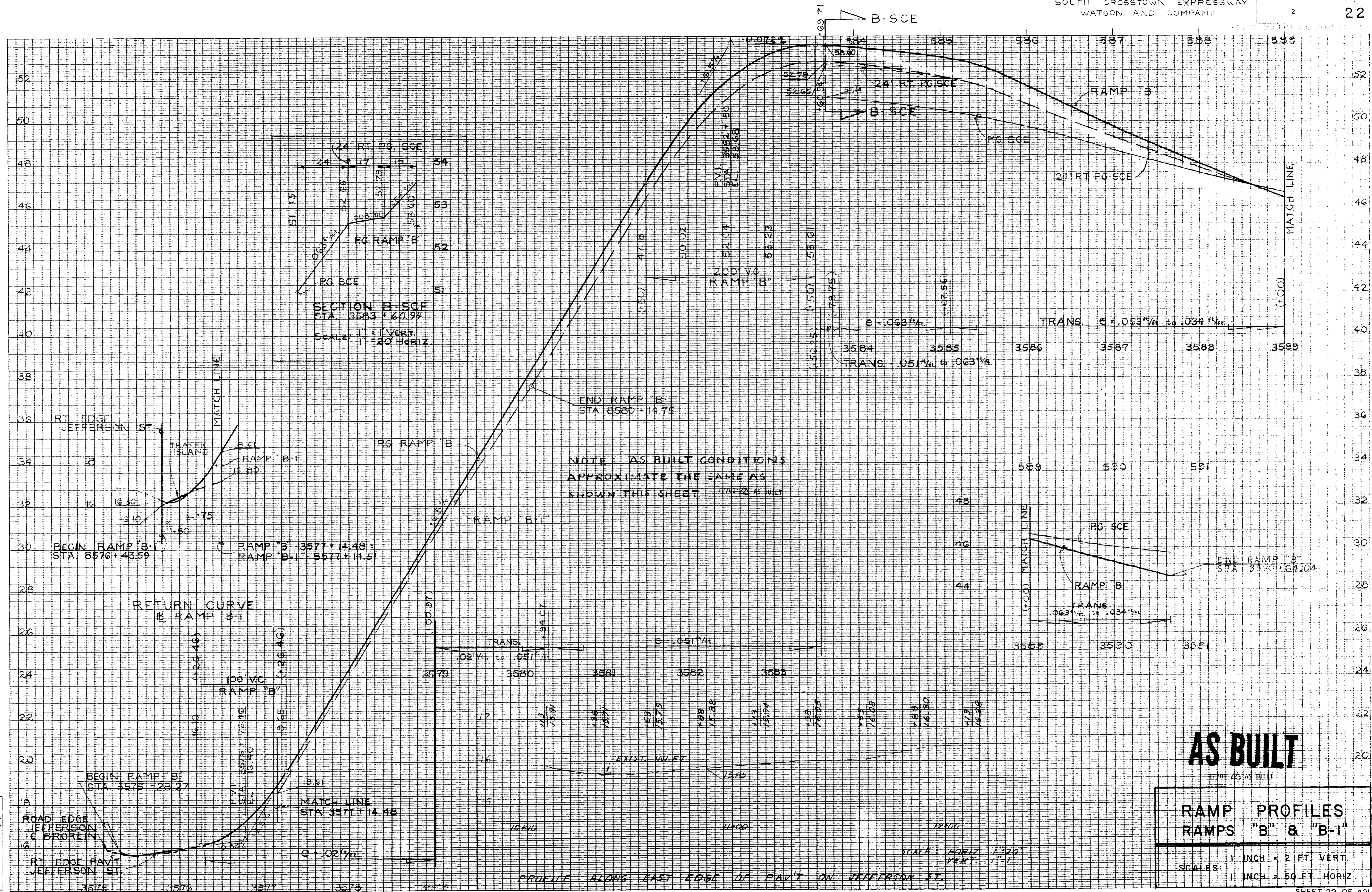
NOTE: AS BUILT CONDITIONS ARE APPROXIMATELY AS SHOWN THIS SHEET

AS BUILT

RAMP PROFILES
RAMPS "A" & "A-I"

1" = 20' VERT.
1" = 50' HORIZ.

Application No. _____
Route No. _____
Original Plotted by M.R. 3/17/78
Checked by N.L. 3-22-78
Template by _____
Area by _____
Finals Plotted by L.L. 4-14-79
Checked by R.K. 4-14-79
Area by _____
Checked by _____



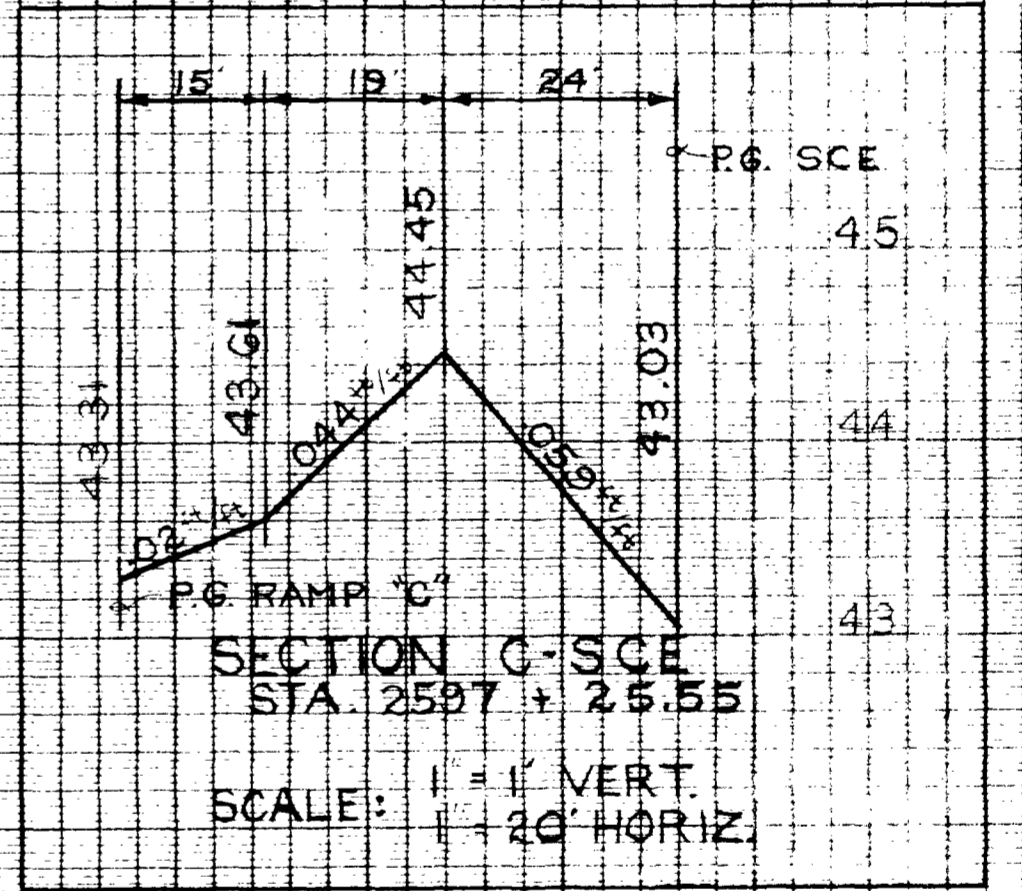
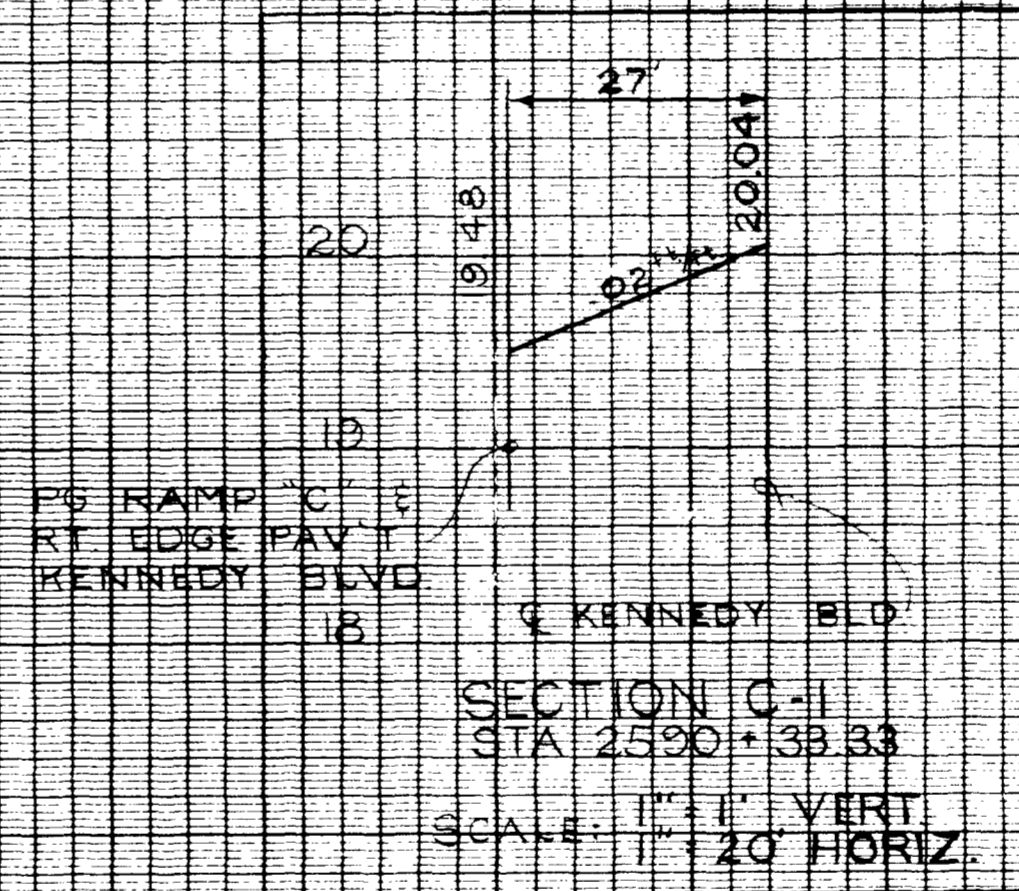
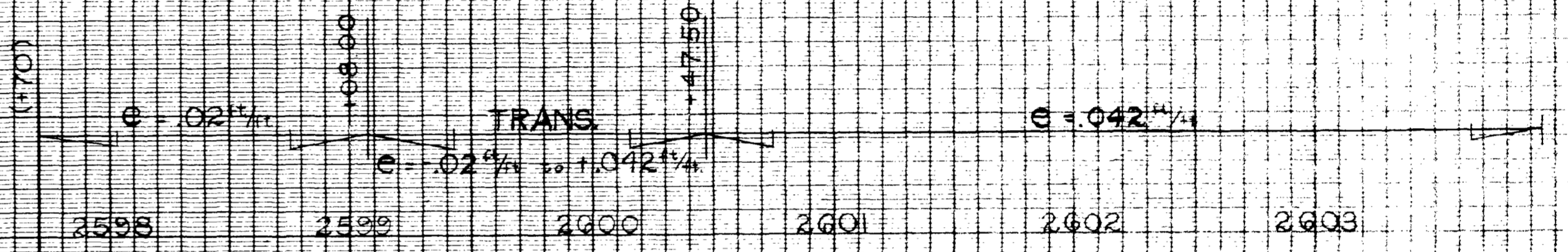
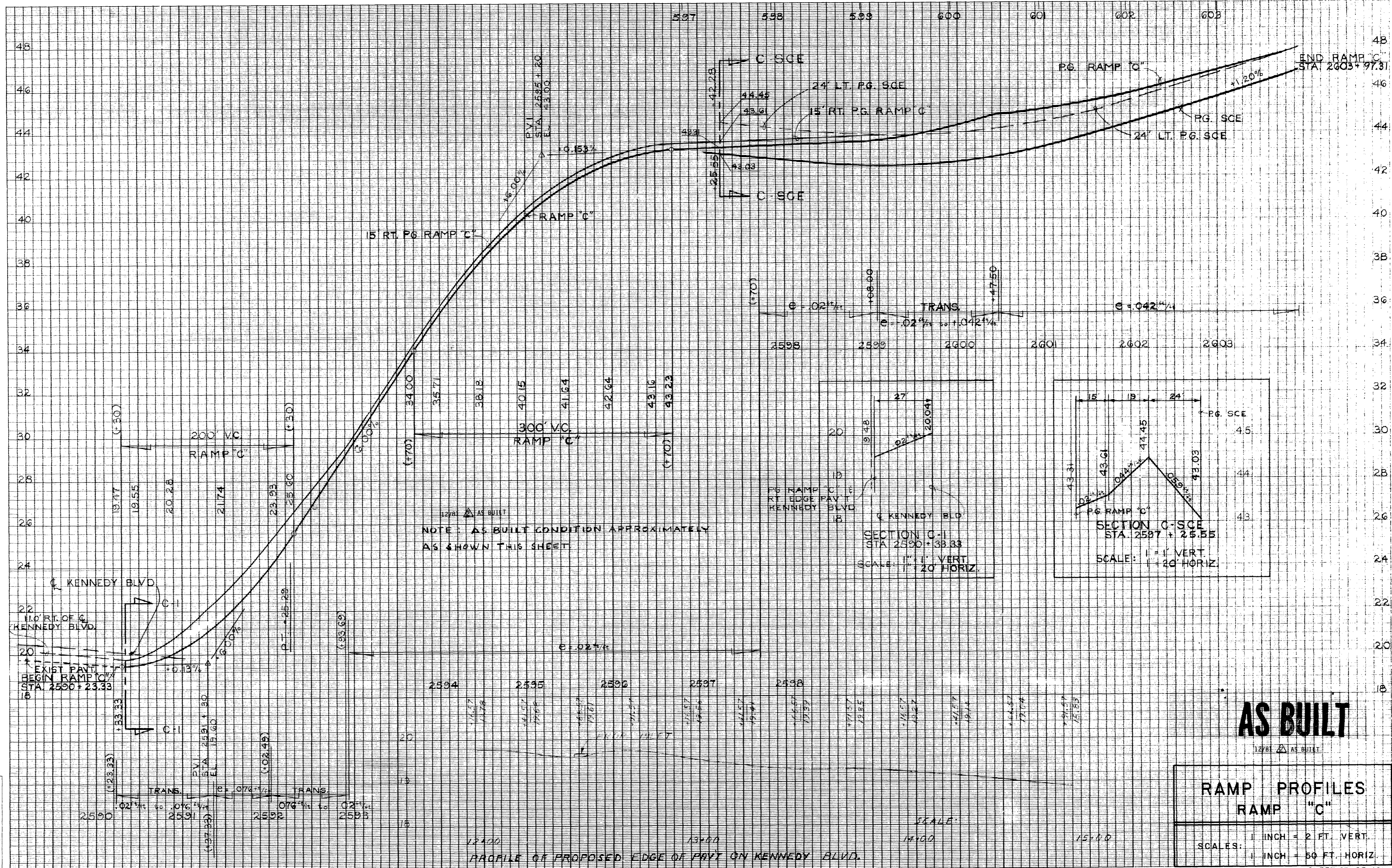
AS BUILT

**RAMP PROFILES
RAMPS "B" & "B-1"**

SCALE: 1" = 2' VERT.
1" = 50' HORIZ.

Application No. _____
Route No. _____
Original Plotted by _____
Checked by _____
Template by _____
Area by _____
Finals Plotted by _____
Checked by _____
Area by _____
Checked by _____

PROFILE ALONG EAST EDGE OF PAVT ON JEFFERSON ST.



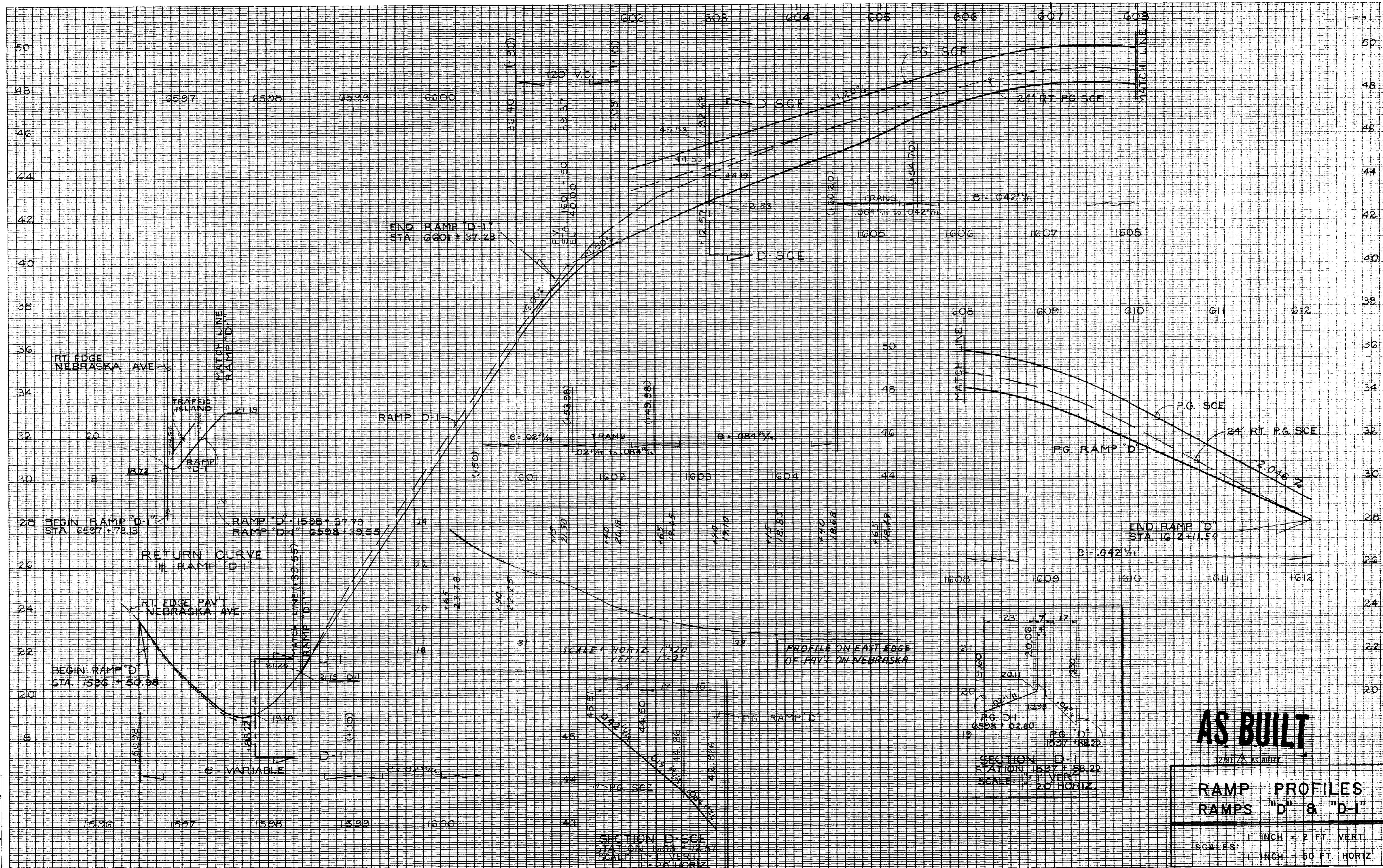
NOTE: AS BUILT CONDITION APPROXIMATELY AS SHOWN THIS SHEET

AS BUILT

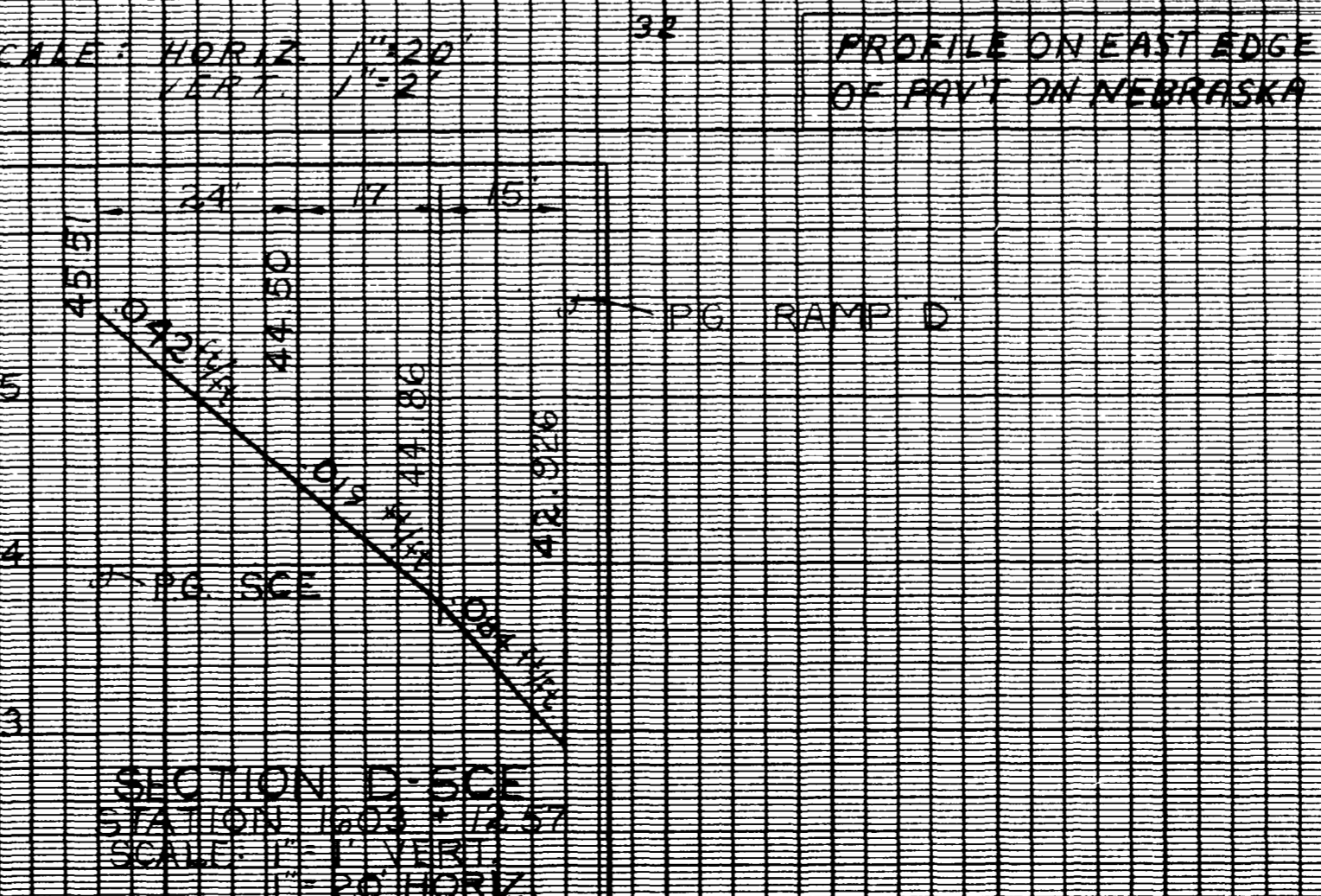
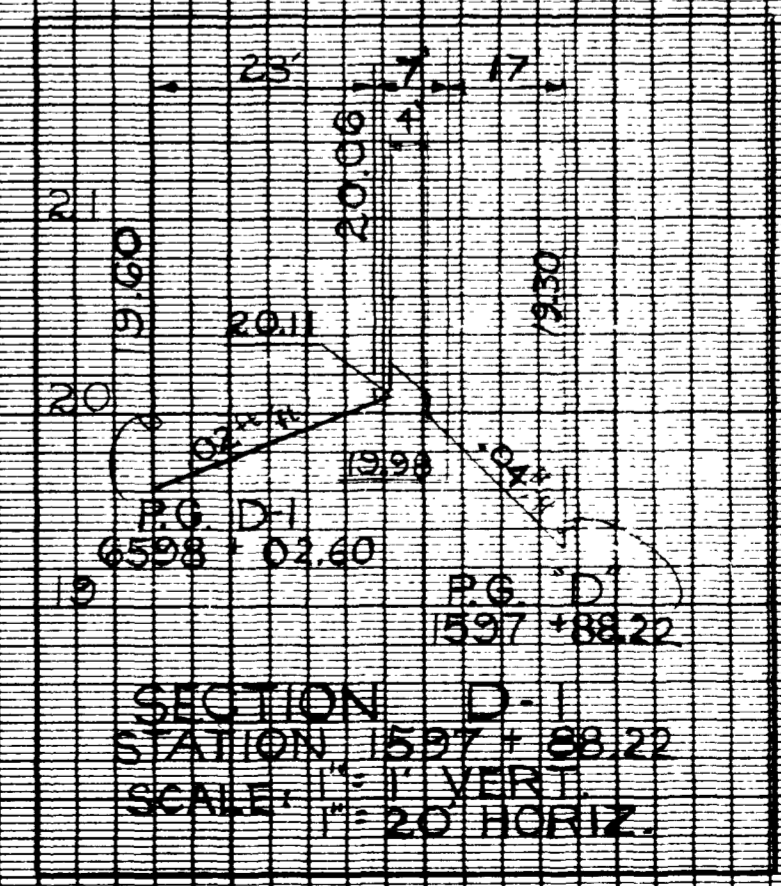
RAMP PROFILES
RAMP "C"

SCALE: 1 INCH = 2 FT. VERT.
1 INCH = 50 FT. HORIZ.

Application No. _____
Route No. M.I.P. 93
Original Plotted by M.L. 4-2-77
Checked by N.L. 3-1-77
Template by _____
Area by _____
Finals Plotted by N.L. 4-2-77
Checked by C.A.K. 4-3-79
Area by _____
Checked by _____



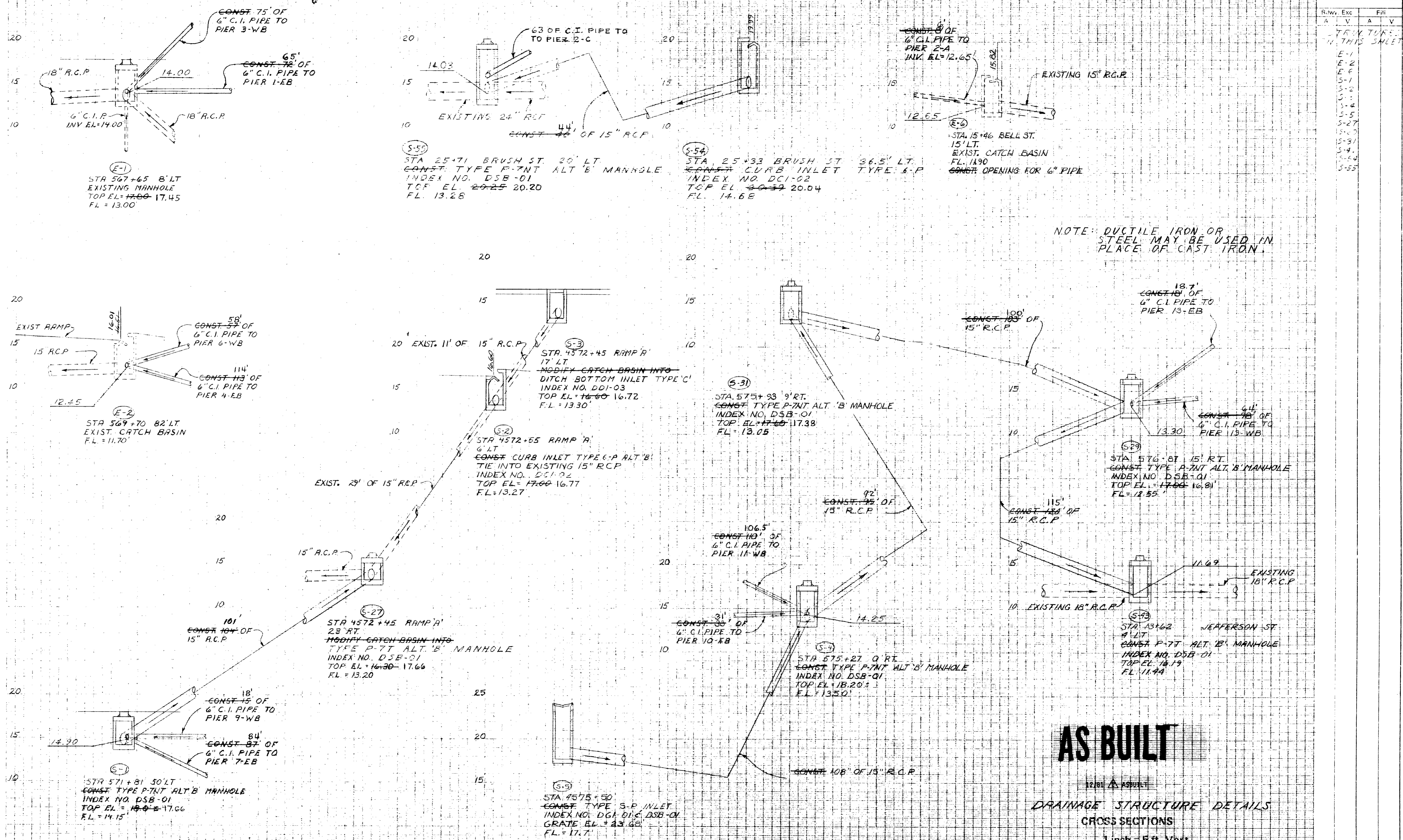
Application No. _____
 Route No. _____
 Original Plotted by N.L.P. 3-7-78
 Checked by N.L. 3-7-78
 Template by _____
 Area by _____
 Final Plotted by N.L. 4-5-79
 Checked by R.A.K. 4-10-79
 Area by _____
 Checked by _____



AS BUILT

**RAMP PROFILES
RAMP "D" & "D-1"**

1 INCH = 2 FT. VERT.
 1 INCH = 50 FT. HORIZ.



Rev.	Exc.	File
A	V	V
E-1		
E-2		
E-3		
S-1		
S-2		
S-3		
S-4		
S-5		
S-27		
S-28		
S-31		
S-4		
S-54		
S-55		

NOTE: DUCTILE IRON OR STEEL MAY BE USED IN PLACE OF CAST IRON.

AS BUILT

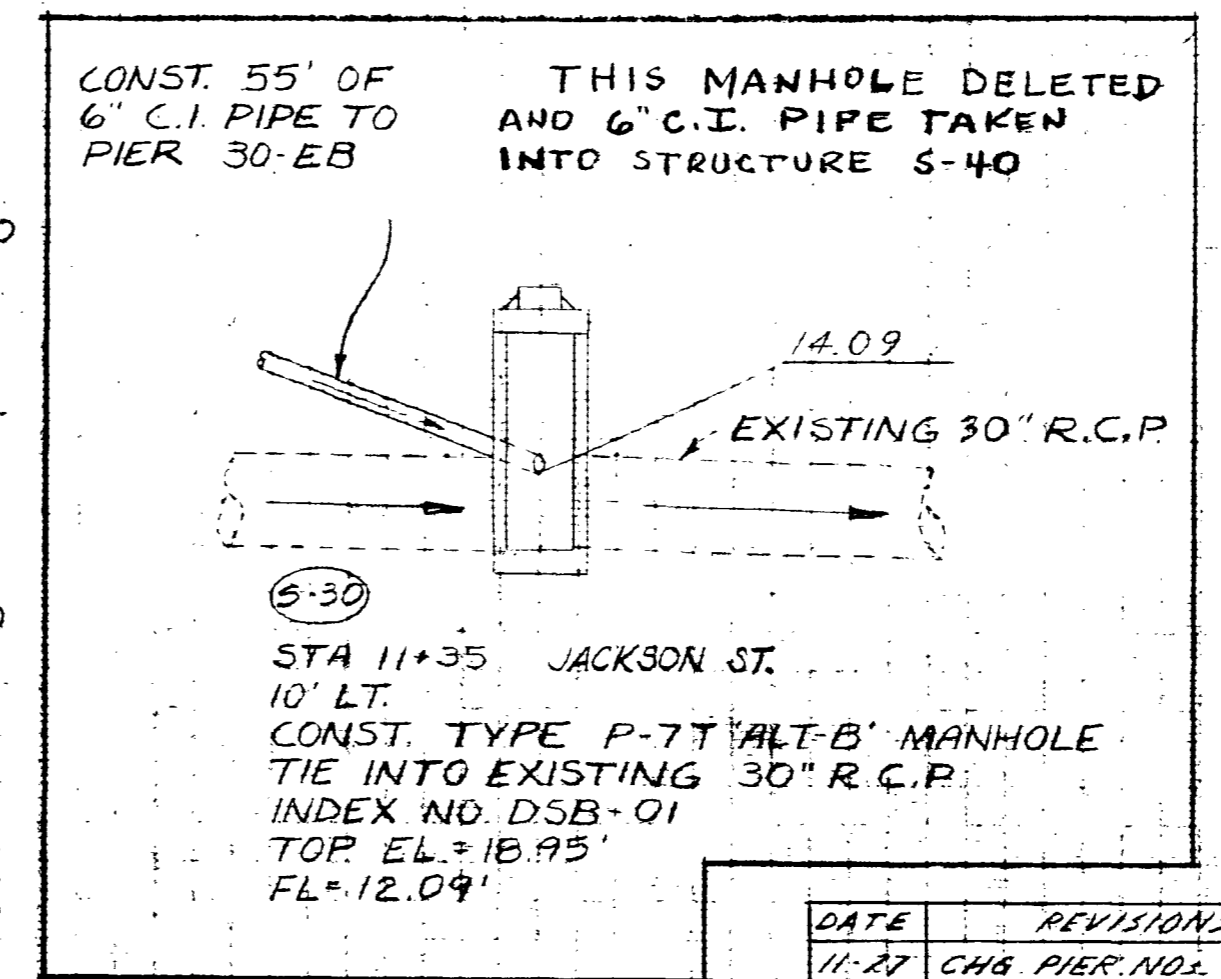
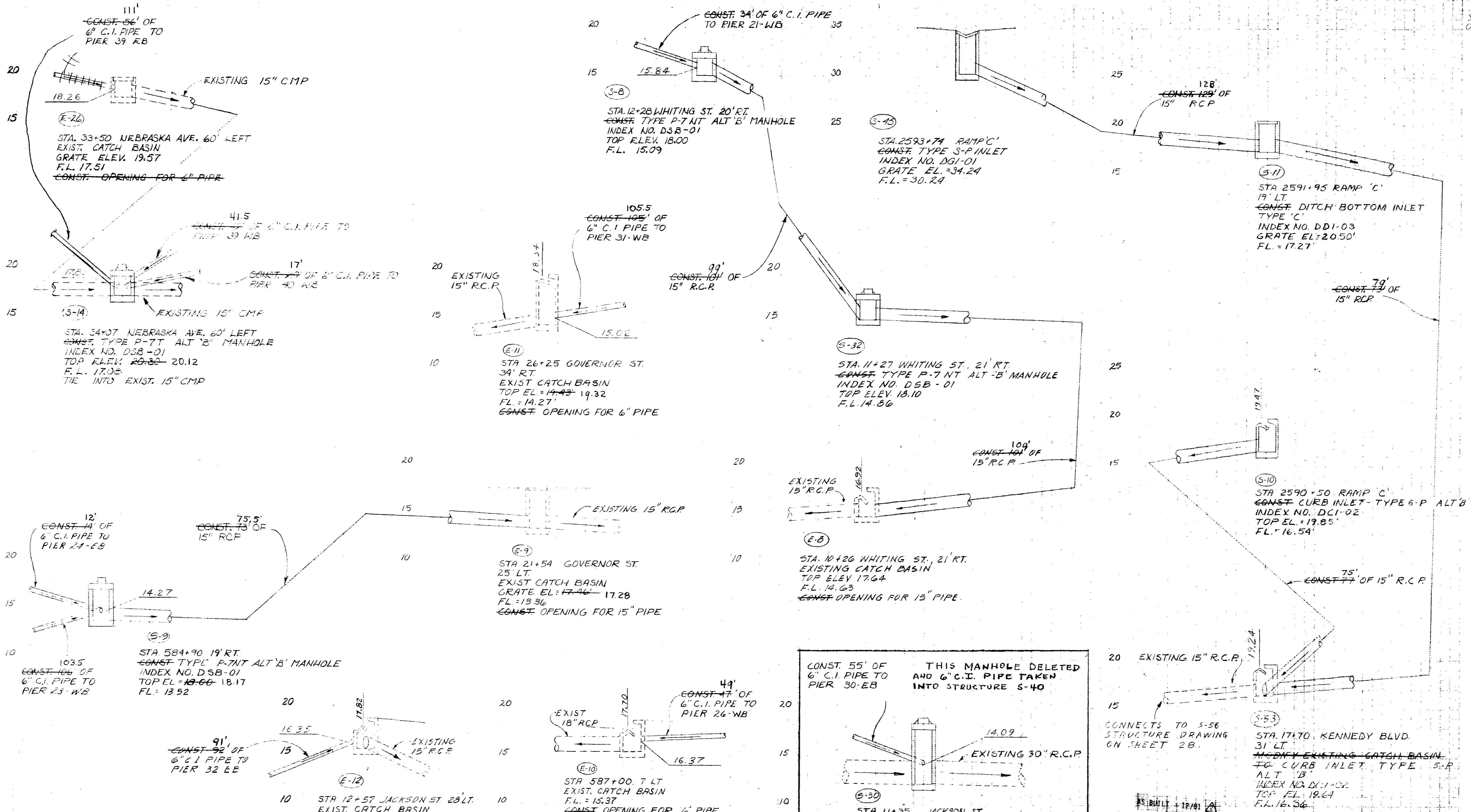
DRAINAGE STRUCTURE DETAILS
CROSS SECTIONS

Scale: 1 inch = 5 ft. Vert.
1 inch = 10 ft. Horiz.

DESIGNED BY R.K.
DATE 4-79
CHECKED BY R.W.
DATE 5-79

THIS IS A REVISED DRAWING STATE PROJECT NO. 10902-572.0-5

Rev	Exc	Fill
A	V	A
A	V	V
STRUCTURES ON THIS SHEET		
E-6		
E-9		
E-10		
E-11		
E-12		
E-13		
S-6		
S-9		
S-10		
S-11		
S-14		
S-30		
S-32		
S-45		
S-53		

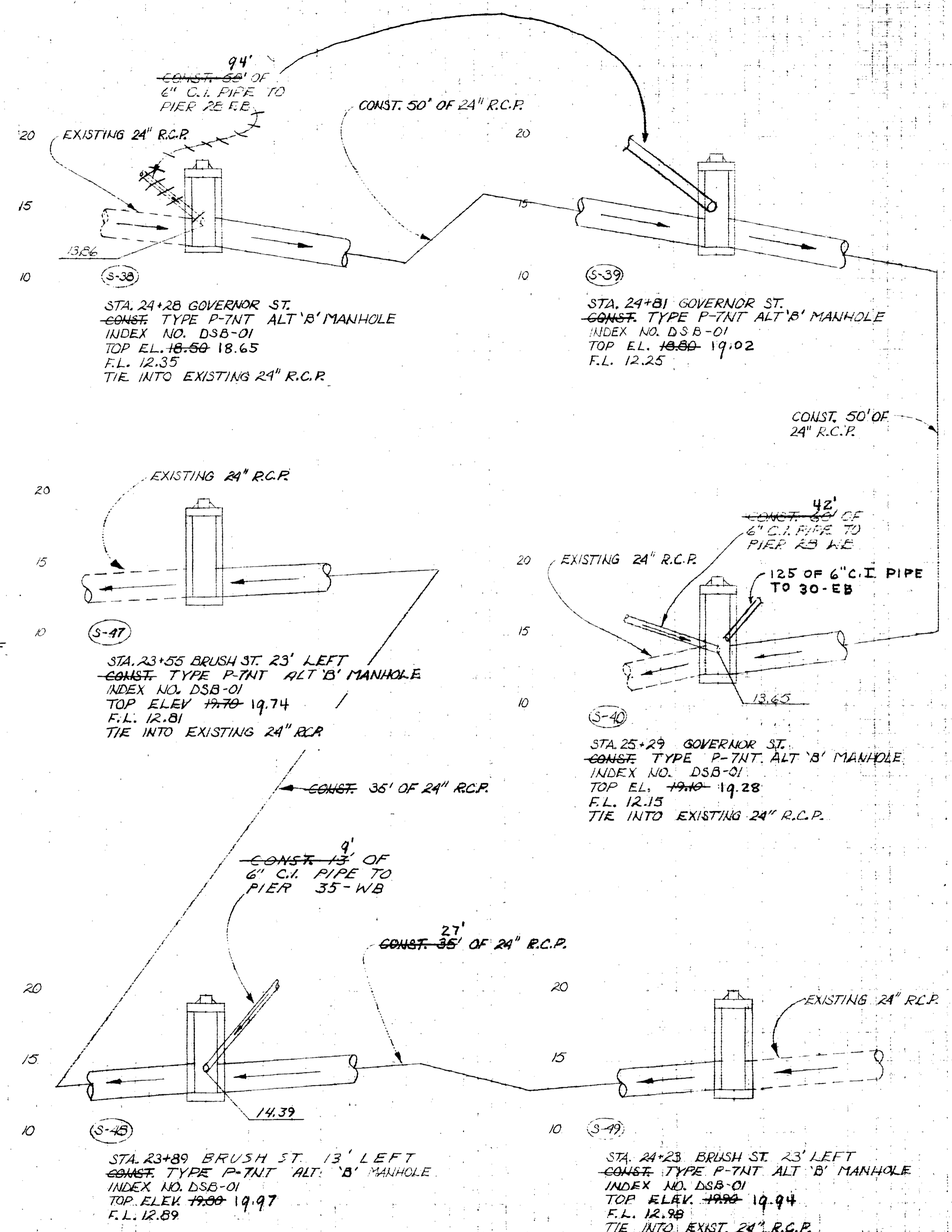
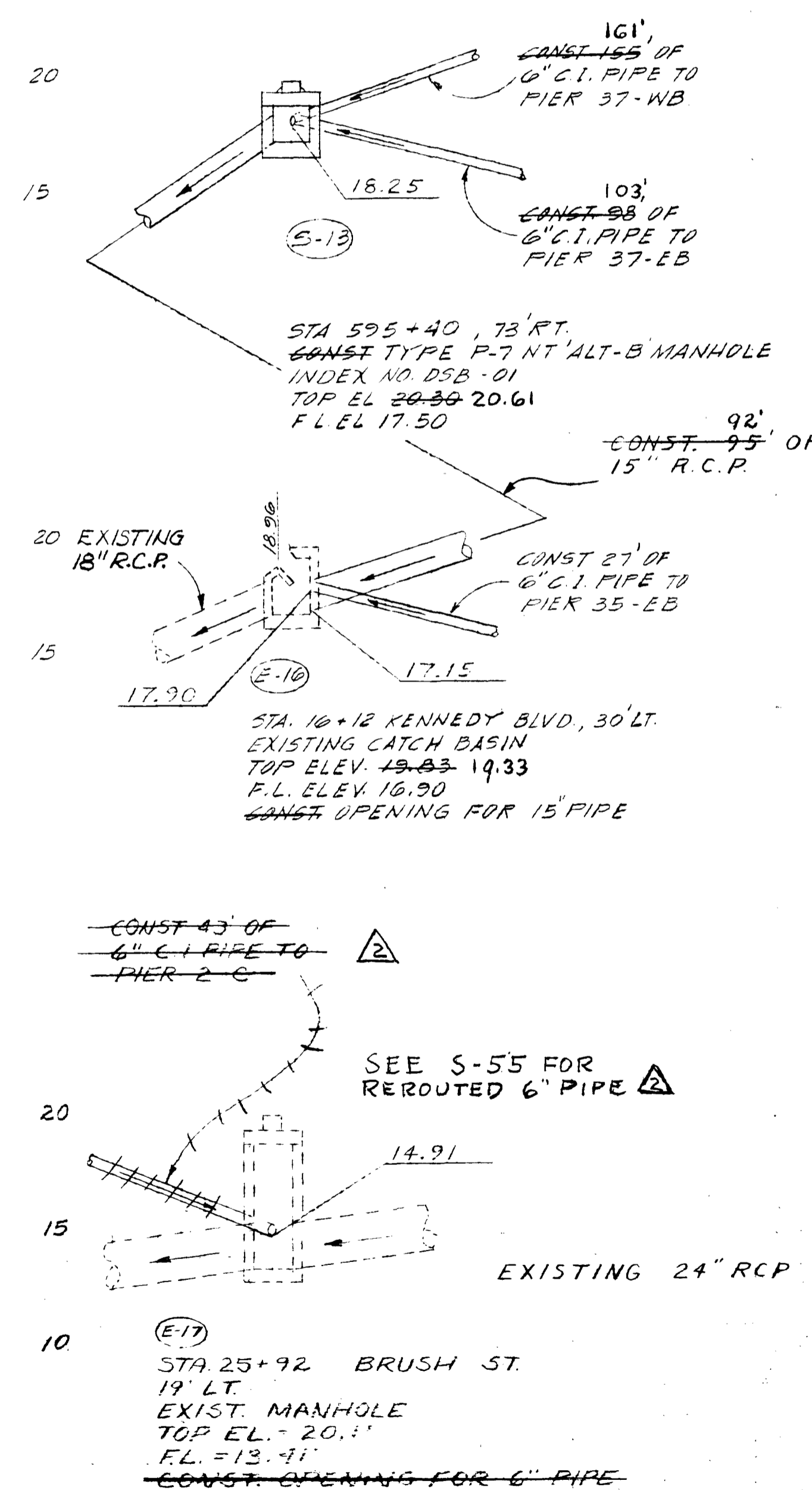
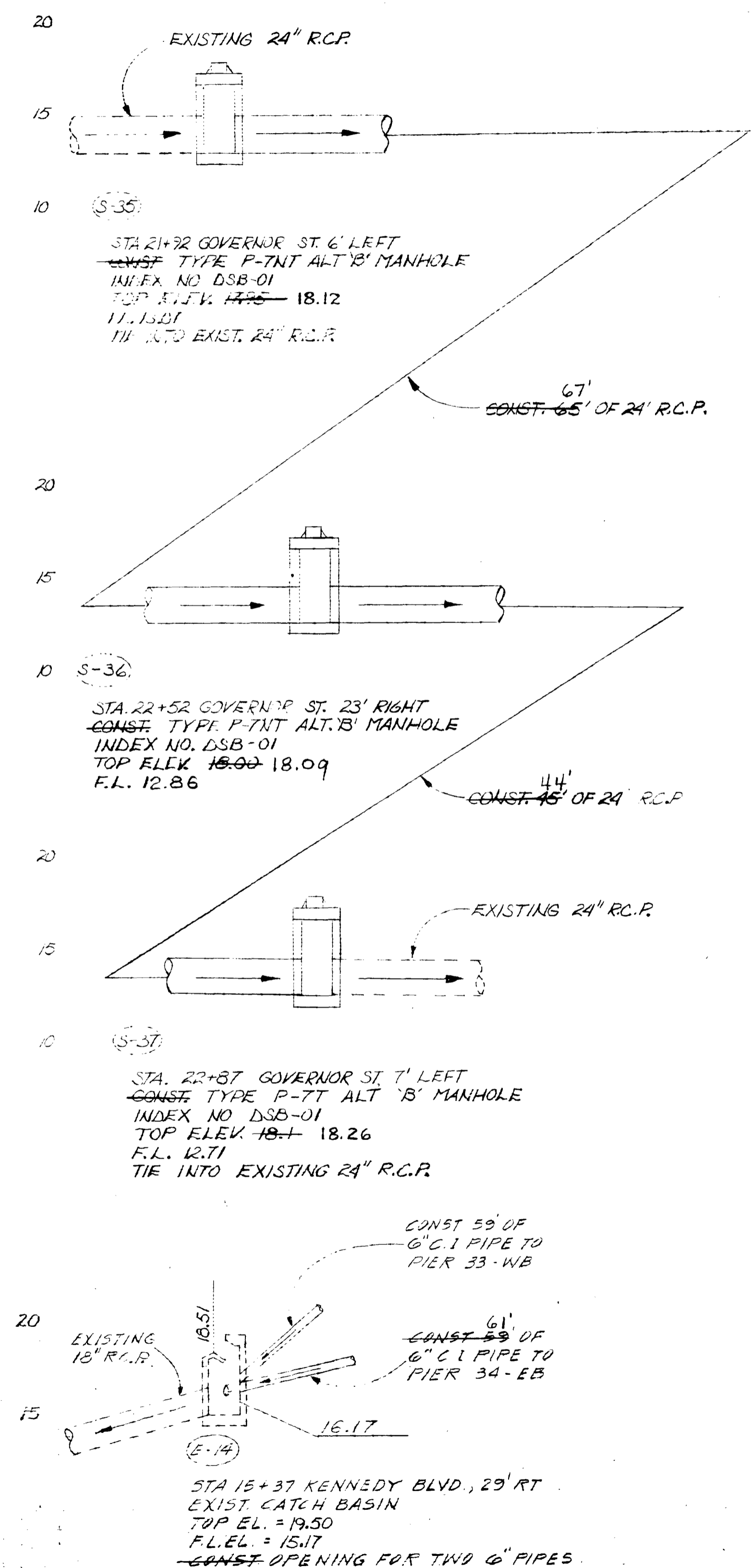


AS BUILT
DRAINAGE STRUCTURE DETAILS

DATE	REVISIONS
11-27	CHG PIER NO. CHG 15\"/>

DESIGNED BY R.K.
DATE 4-79
CHECKED BY R.W.
DATE 5-79

NO.	DESCRIPTION
E-16	
E-17	
S-12	
S-35	
S-36	
S-37	
S-38	
S-39	
S-46	
S-47	
S-48	
S-49	



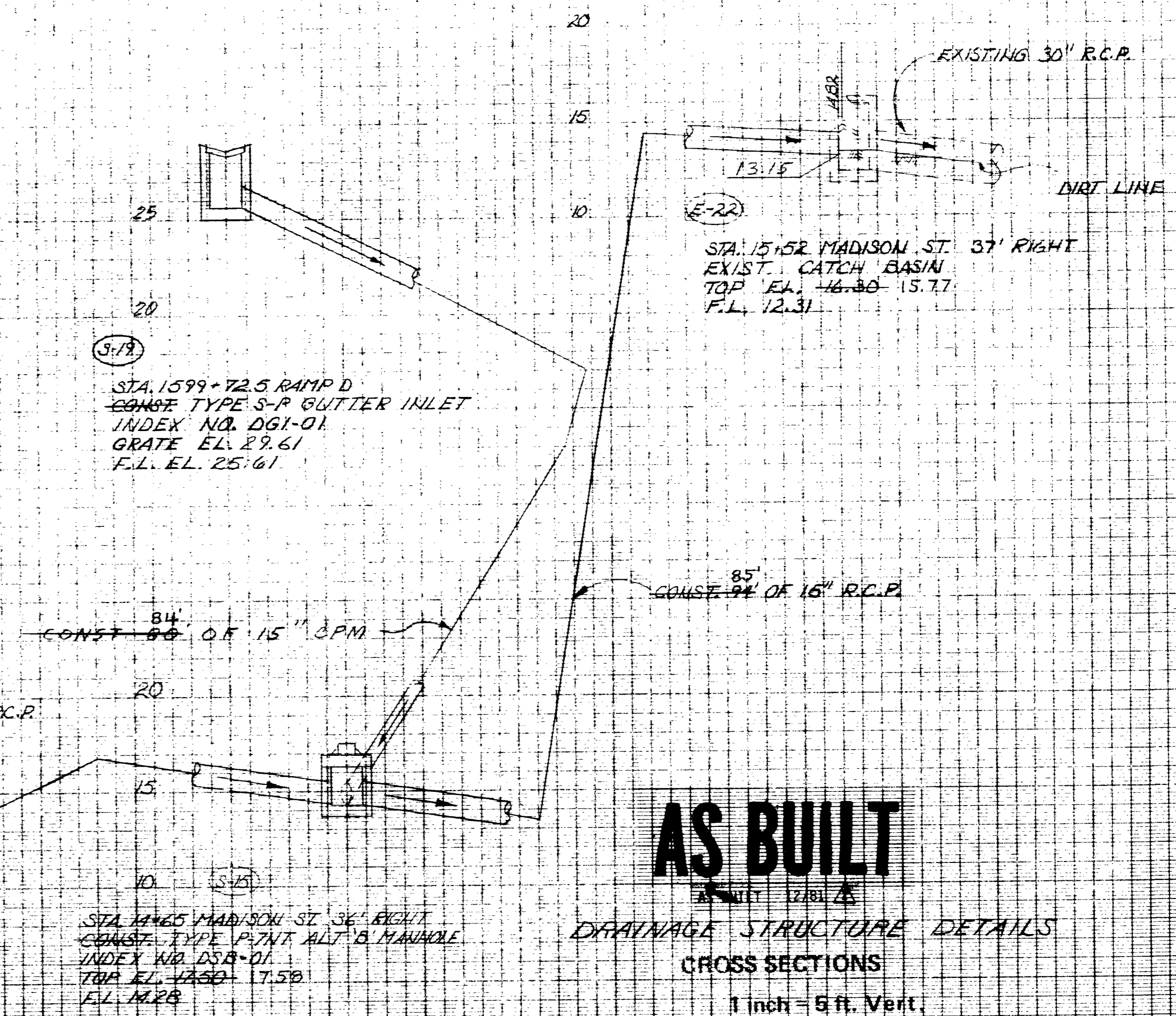
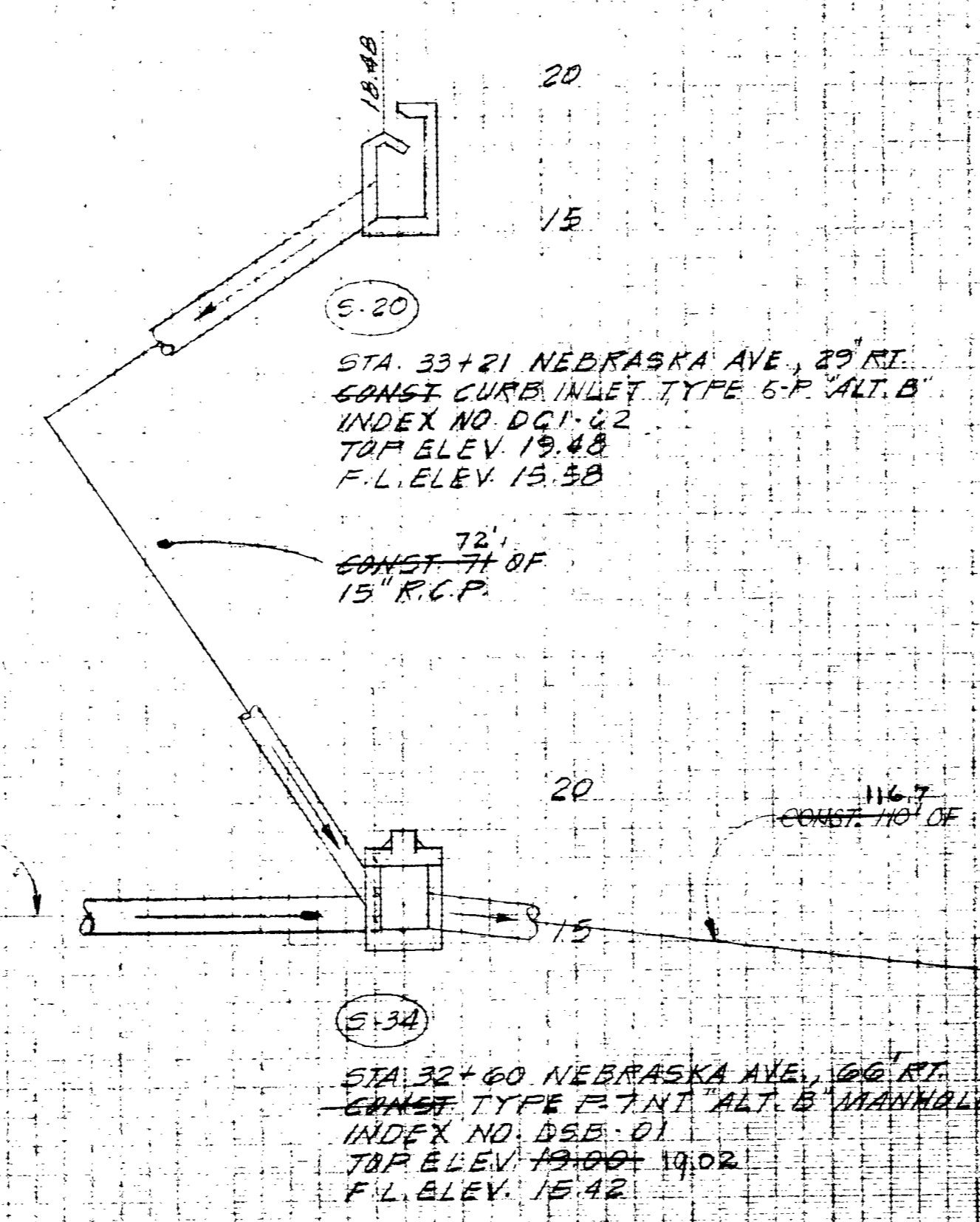
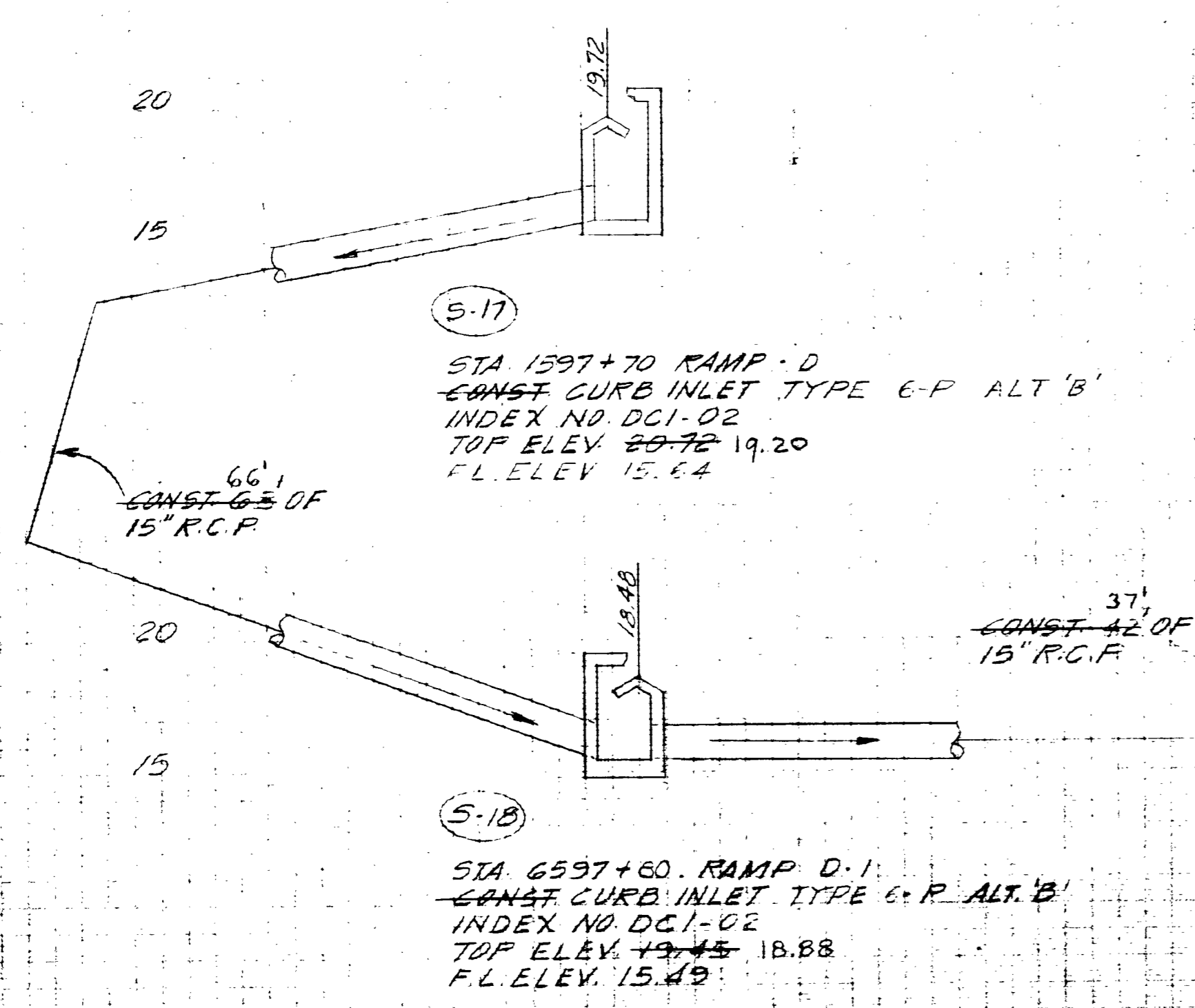
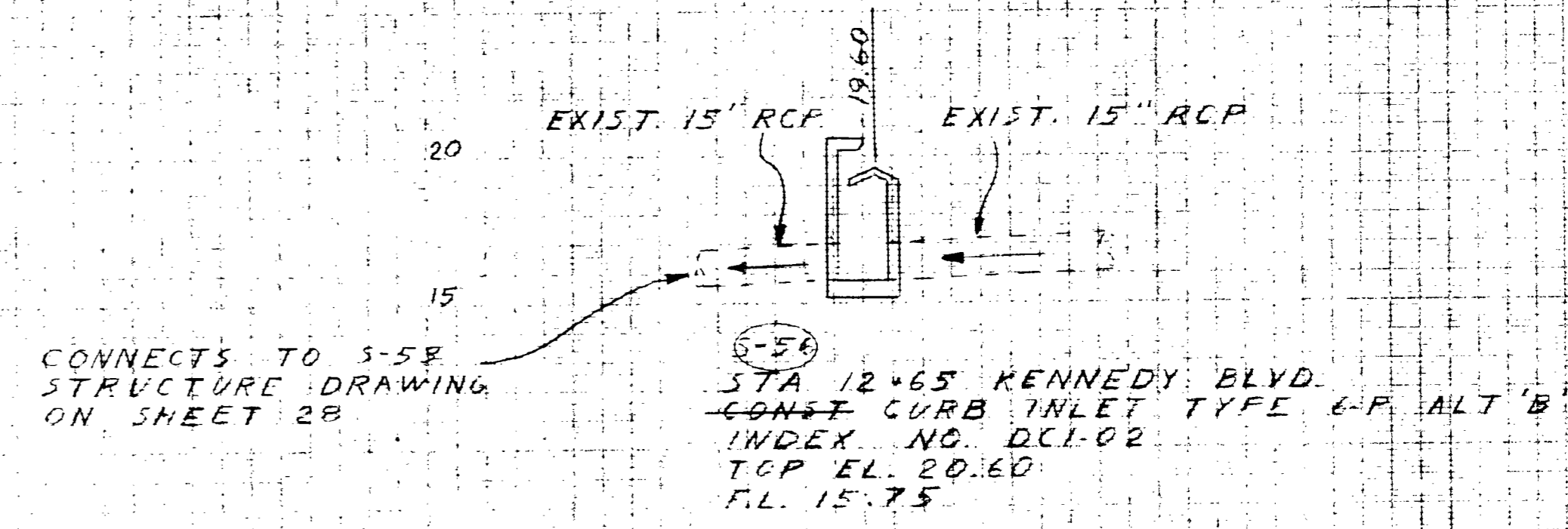
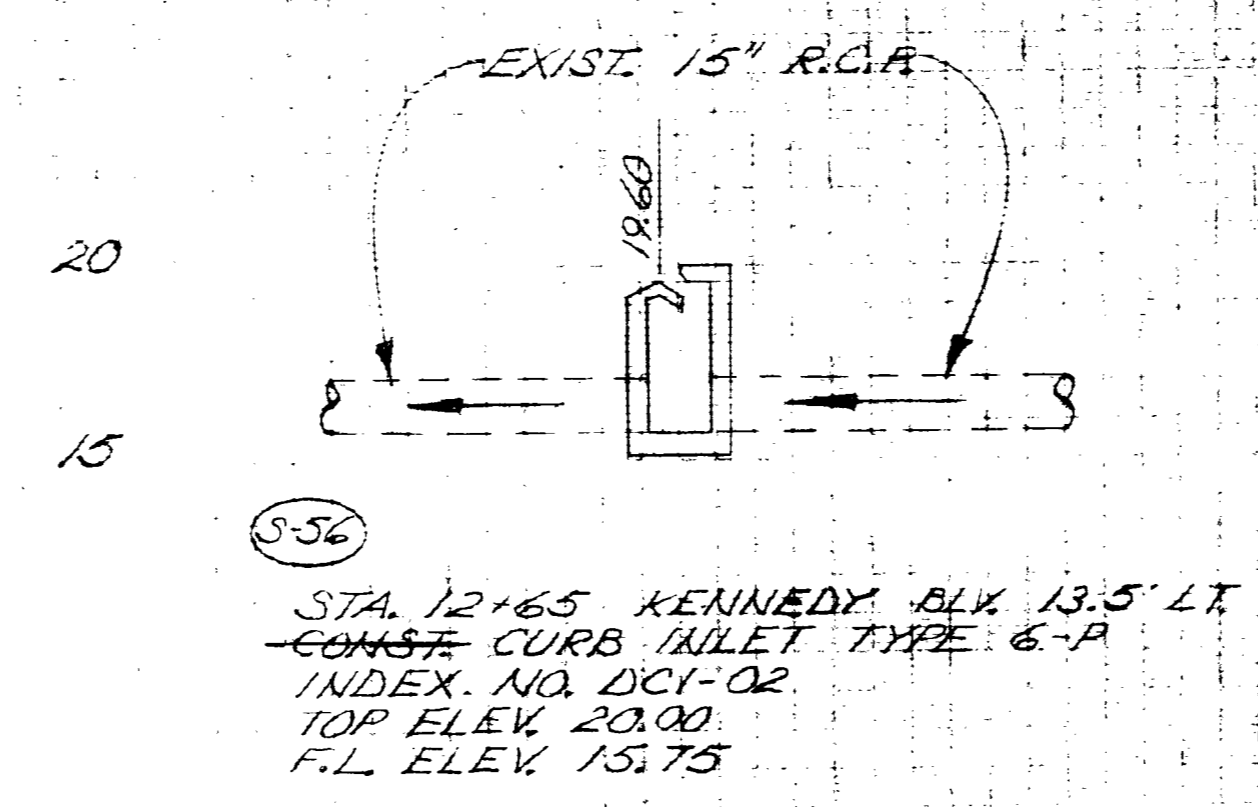
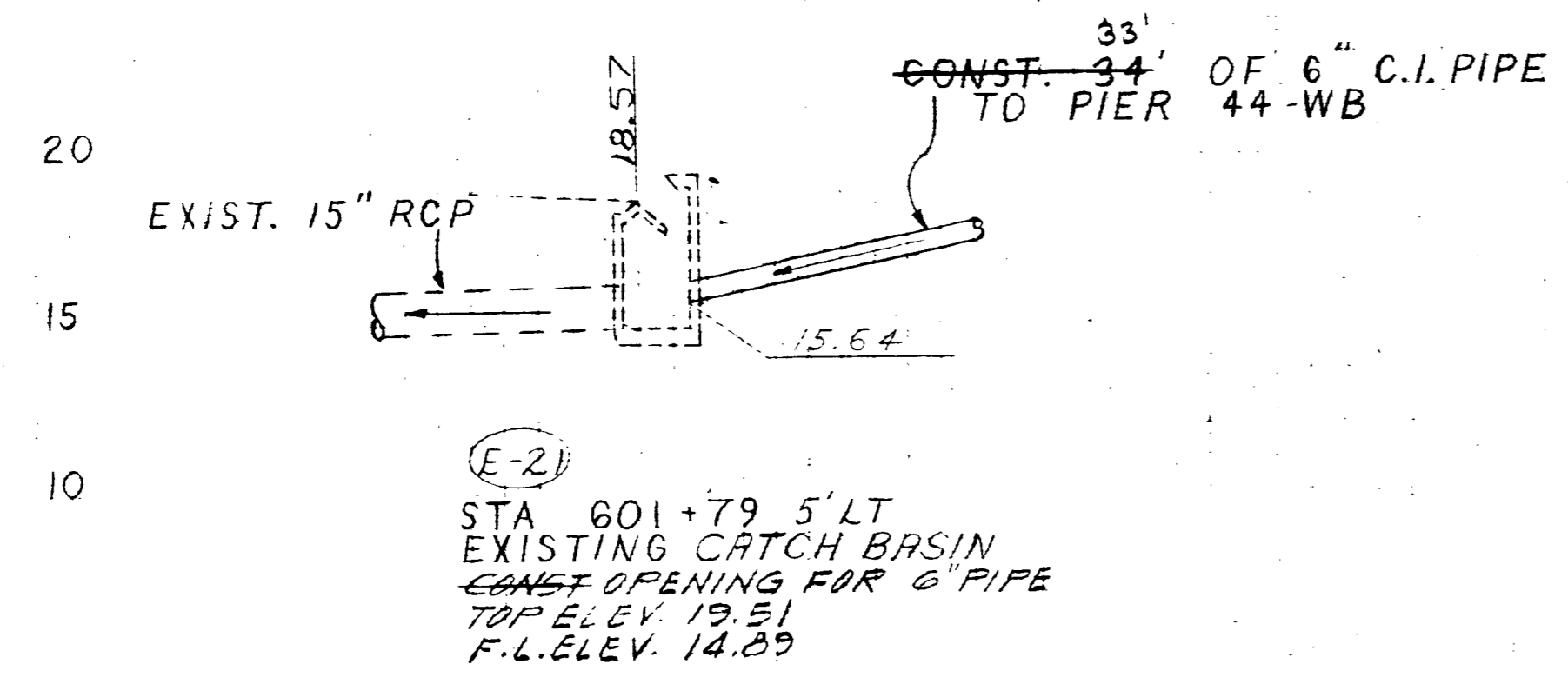
AS BUILT
 DRAINAGE STRUCTURE DETAILS
 CROSS SECTIONS
 Scale: 1" = 5 ft. Vert.
 1" = 40 ft. Horiz.

DESIGNED BY R.K.
 DATE 4-79
 CHECKED BY R.W.
 DATE 5-79

Row	Exc.	Fill
A	V	A
V	A	V

STRUCTURES ON THIS SHEET

E-21
E-22
S-15
S-17
S-18
S-19
S-34
S-56



AS BUILT

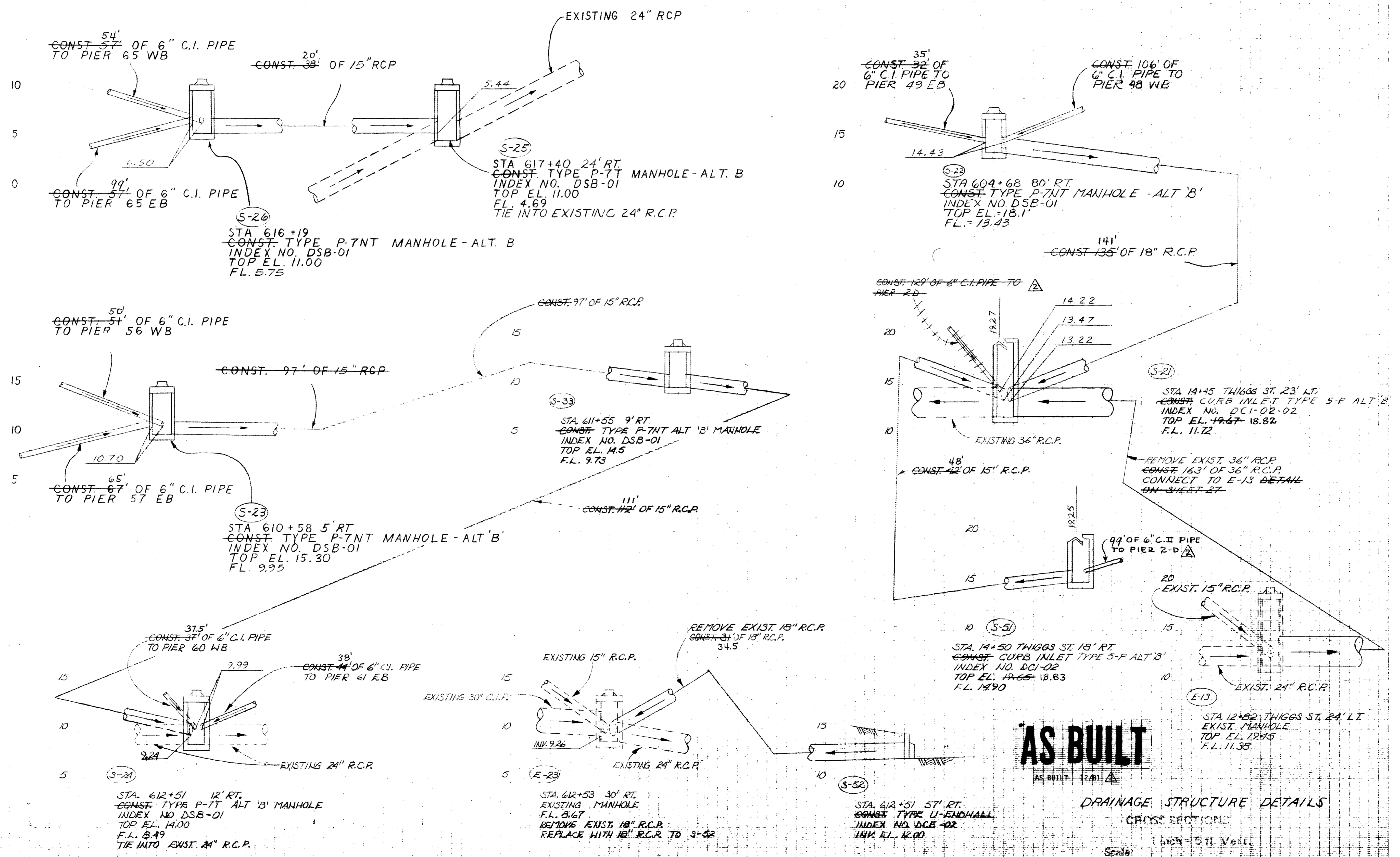
DRAINAGE STRUCTURE DETAILS
CROSS SECTIONS

Scale: 1 inch = 6 ft. Vert.
1 inch = 10 ft. Horiz.

DESIGNED BY R.K.
DATE 4-79

CHECKED BY R.W.
DATE 5-79

Drawn	Exc.	File
A	V	A
STRUCTURES ON THIS SHEET		
		E-23
		S-21
		S-22
		S-23
		S-24
		S-25
		S-26
		S-33
		S-51
		S-52
		E-13



AS BUILT

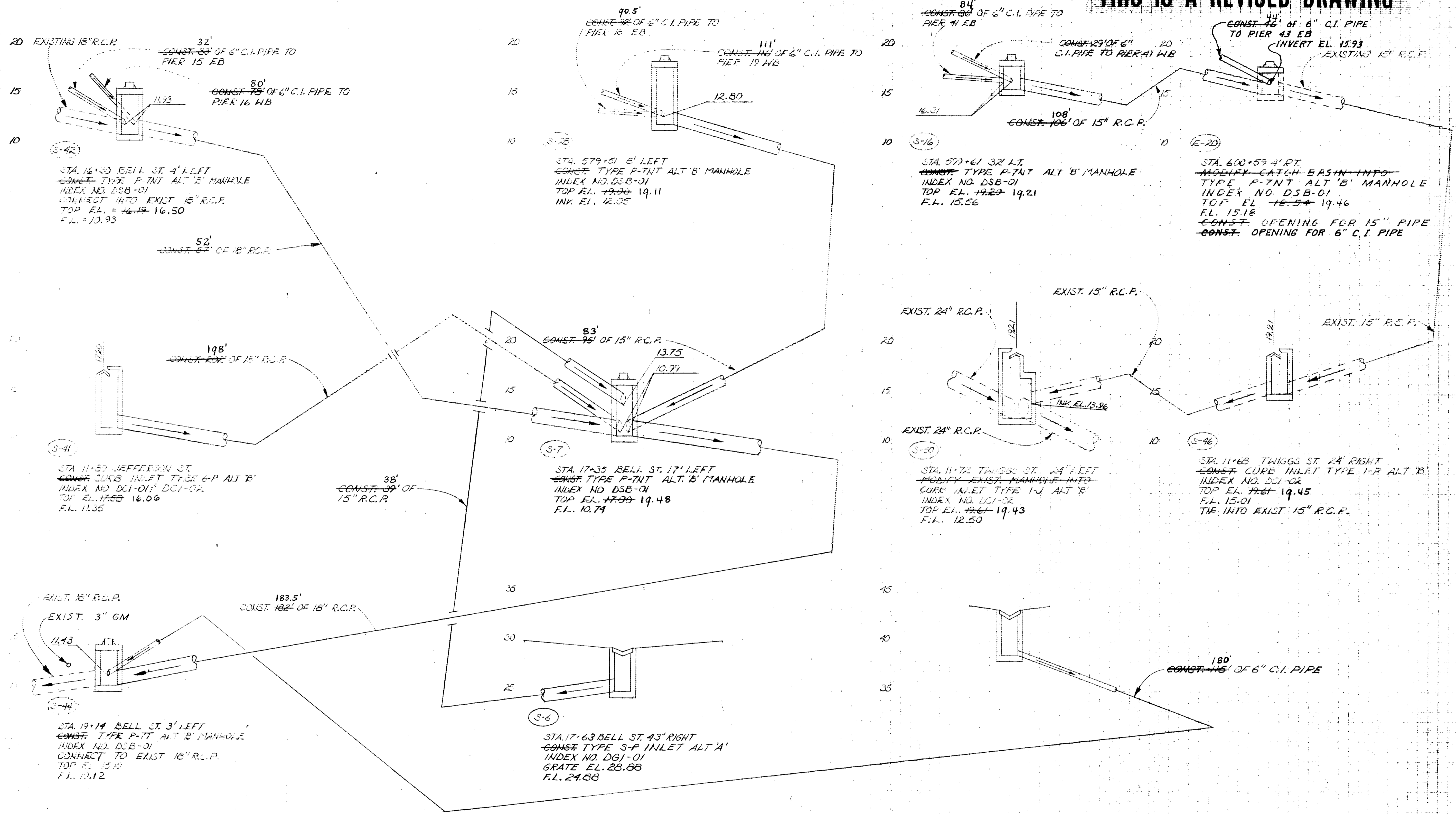
DRAINAGE STRUCTURE DETAILS

CROSS SECTION:

Scale: 1 inch = 5 ft. Vert.
1 inch = 10 ft. Horiz.

DESIGNED BY R.K.
DATE 4-79
CHECKED BY R.W.
DATE 5-79

THIS IS A REVISED DRAWING



NO.	DESCRIPTION
1	AS BUILT
2	
3	
4	
5	
6	
7	
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9	
10	
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12	
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14	
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29	
30	

AS BUILT

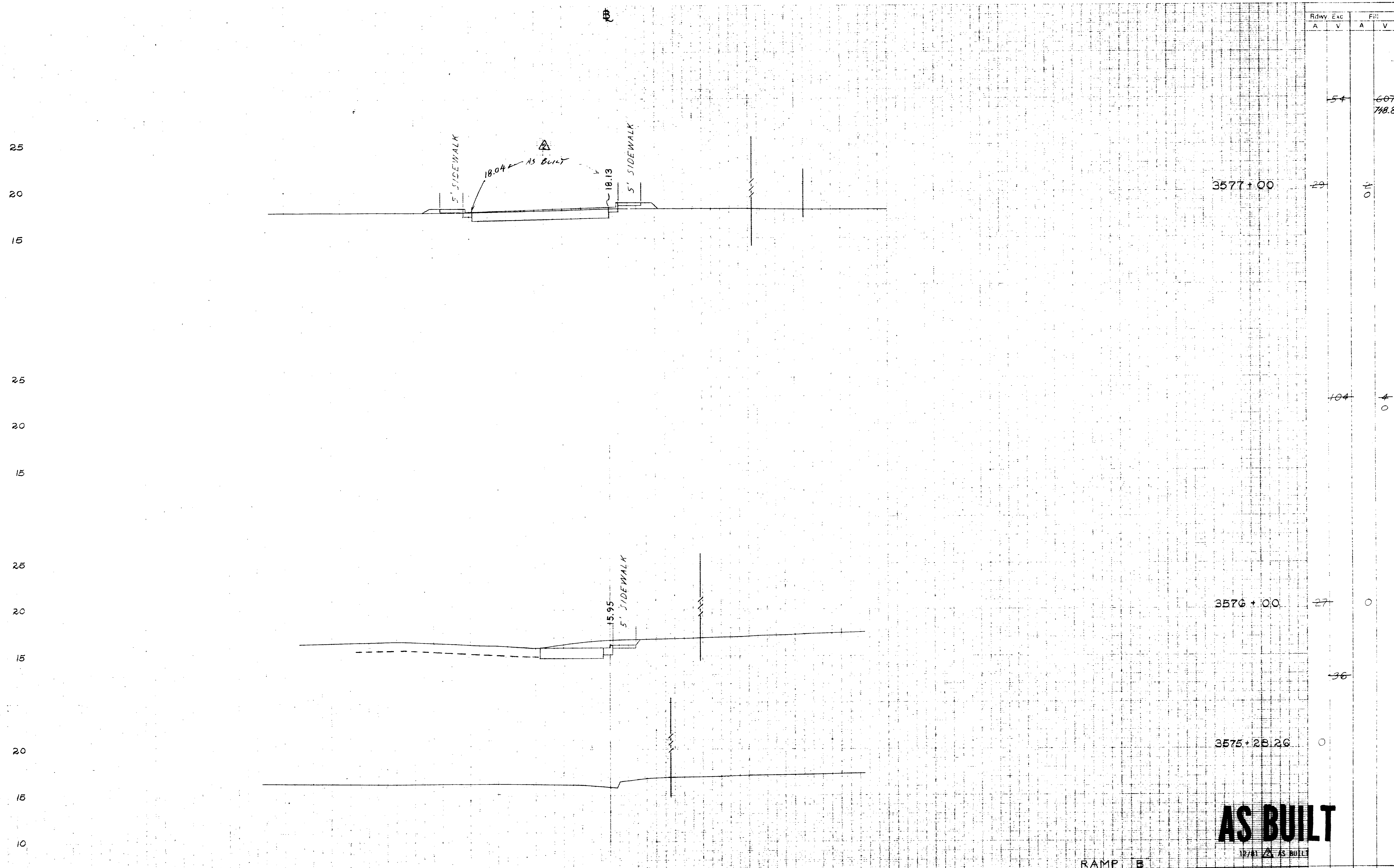
DRAINAGE STRUCTURE DETAILS

CROSS SECTIONS

Scale: 1 inch = 5 ft. Vert.
1 inch = 10 ft. Horiz.

DATE	REVISIONS
11.77	ADD 6\"/>
12.78	AS BUILT

DESIGNED BY R.K.
DATE 4-79
CHECKED BY R.W.
DATE 5-79

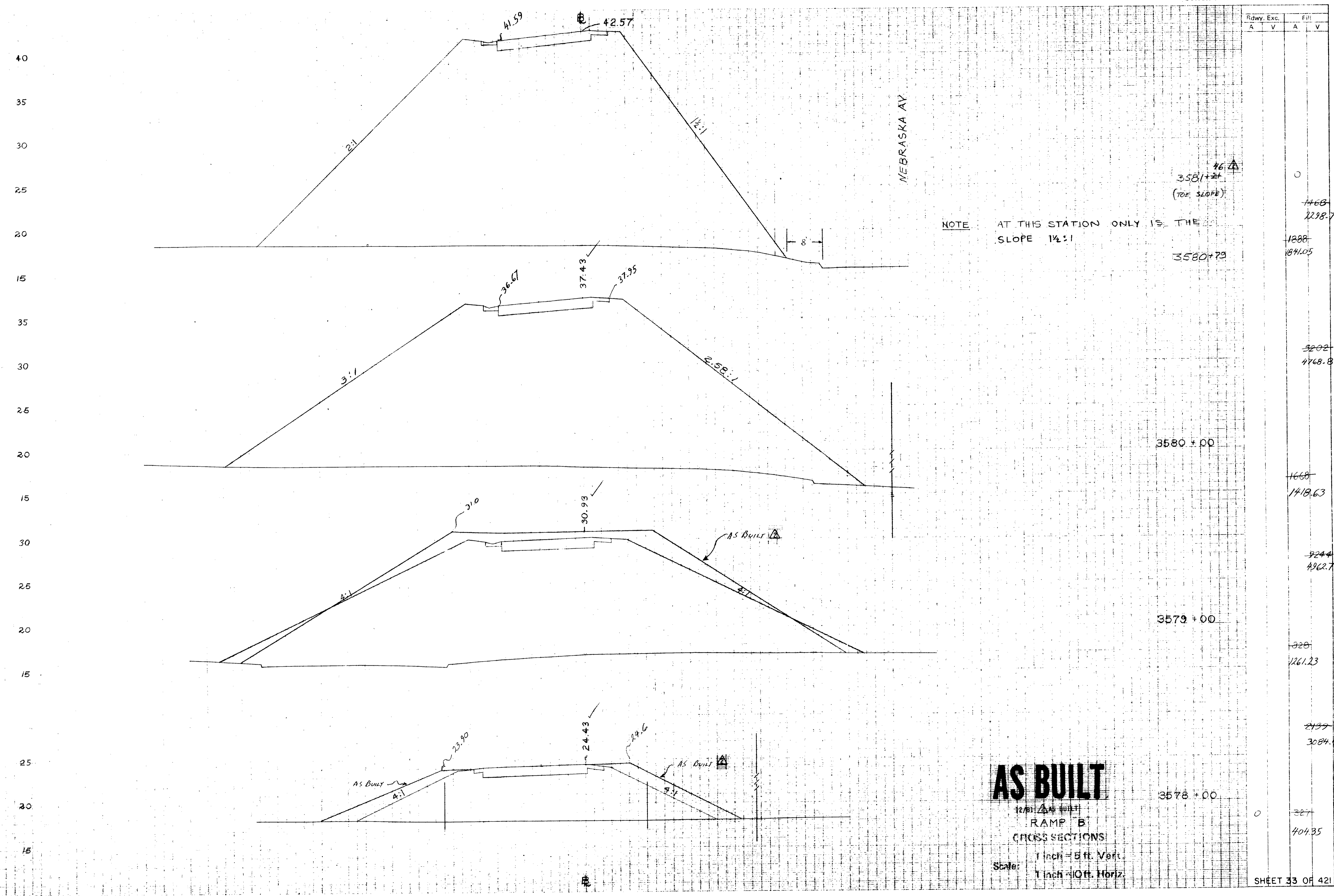


Station	Rdwy Exc		FIR	
	A	V	A	V
3577+00	54	0	607	718.8
3576+00	104	0	0	0
3575+281.26	0	0	0	0
TOTAL	194	0	1066.6	1506.34

AS BUILT
12/1/79 AS BUILT

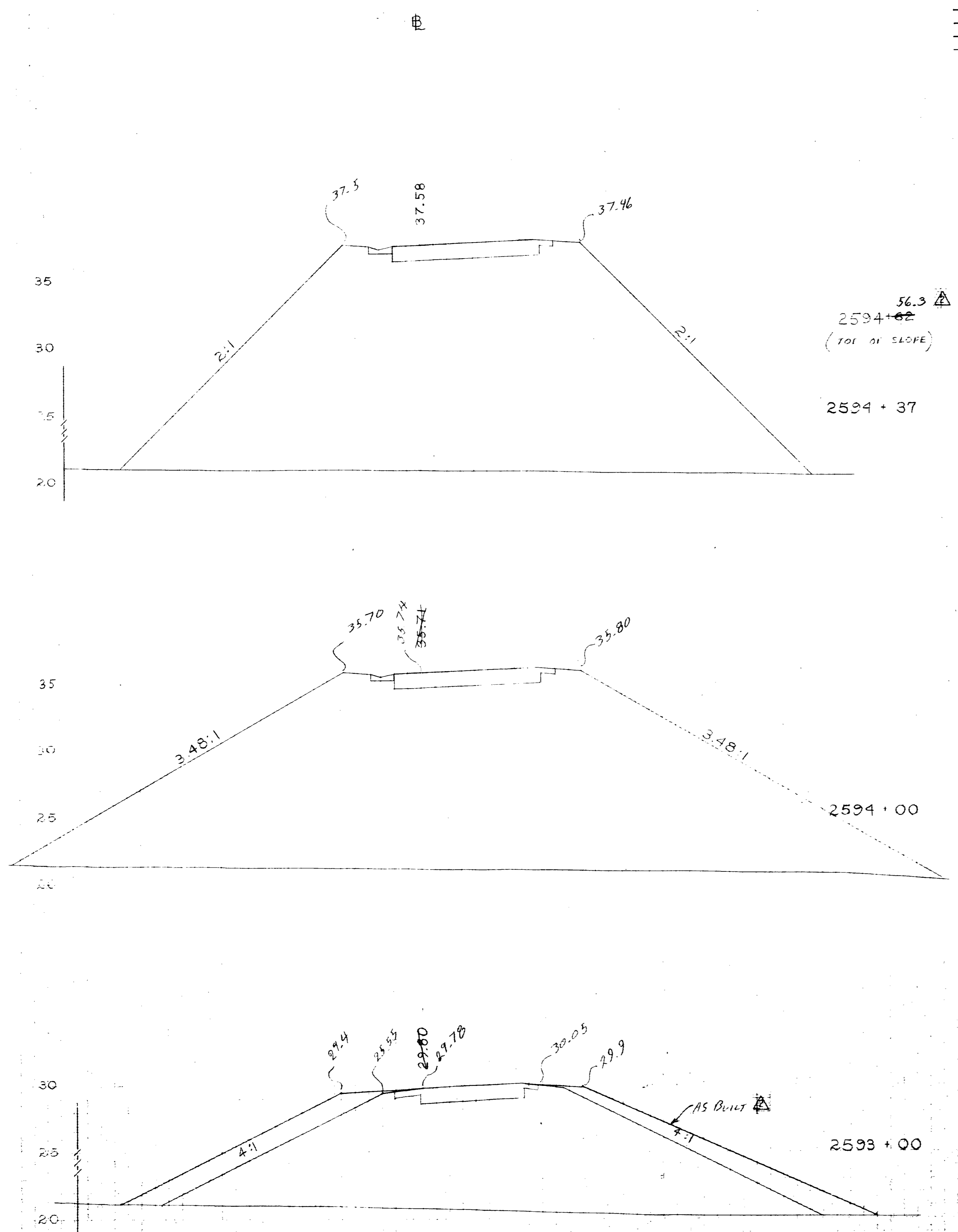
RAMP B
CROSS SECTIONS
Scale: 1 inch = 5 ft. Vert.
1 inch = 10 ft. Horiz.

DESIGNED BY R.A.
DATE 6-1-79
CHECKED BY R.A.K.
DATE 6-19-79

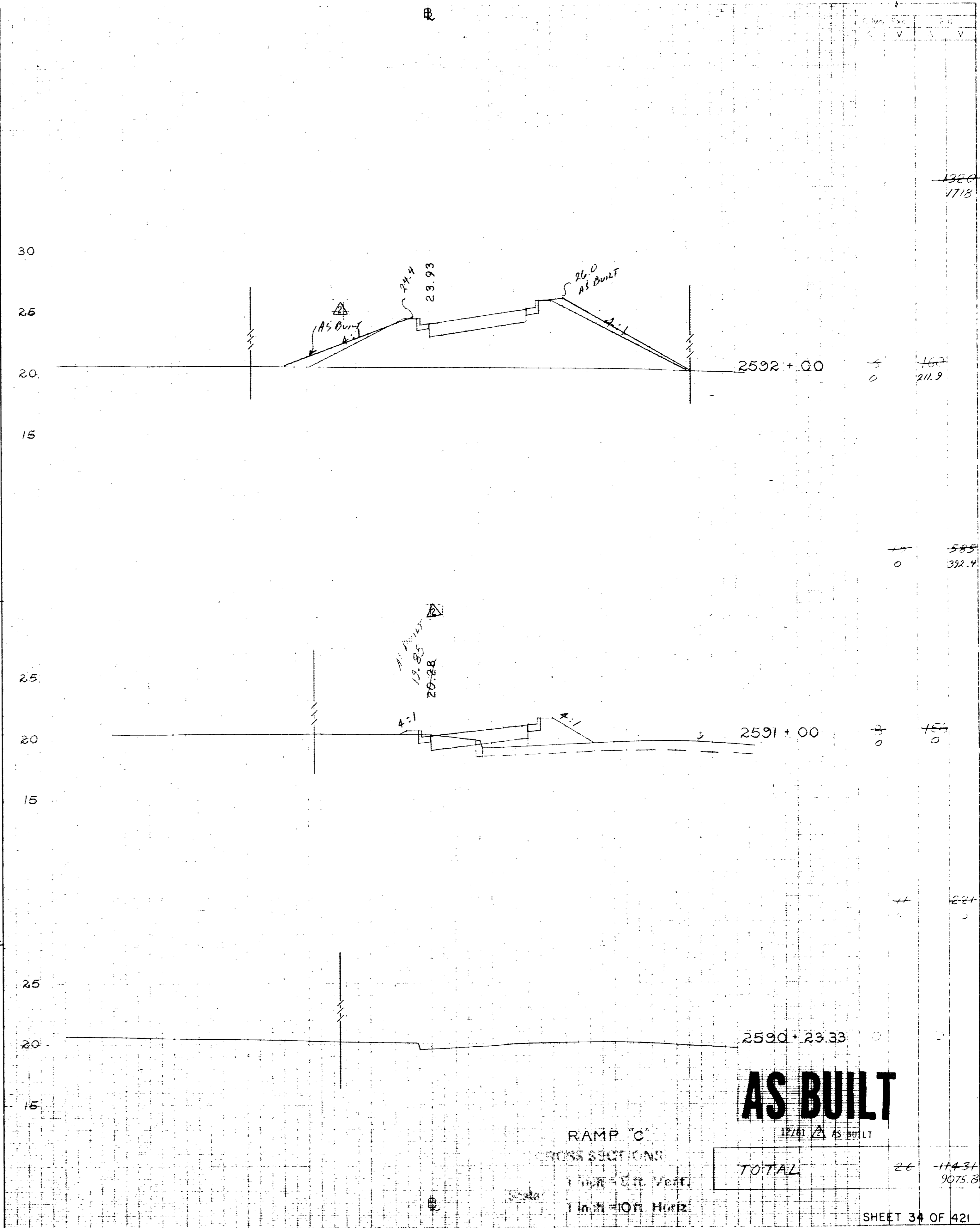


DESIGNED BY R.W.
 DATE 6-1-79
 CHECKED BY R.A.K.
 DATE 6-19-79

AS BUILT
 1/2" = 40' VERT.
RAMP B
 CROSS SECTIONS
 Scale: 1" = 5 ft. Vert.
 1" = 10 ft. Horiz.



Rdwy. Exc.		Fill	
A	V	A	V
		728	491.3
		1525	1374.9
		5229	2076.1
		1264	1658
		3365	4396
		553	75.82

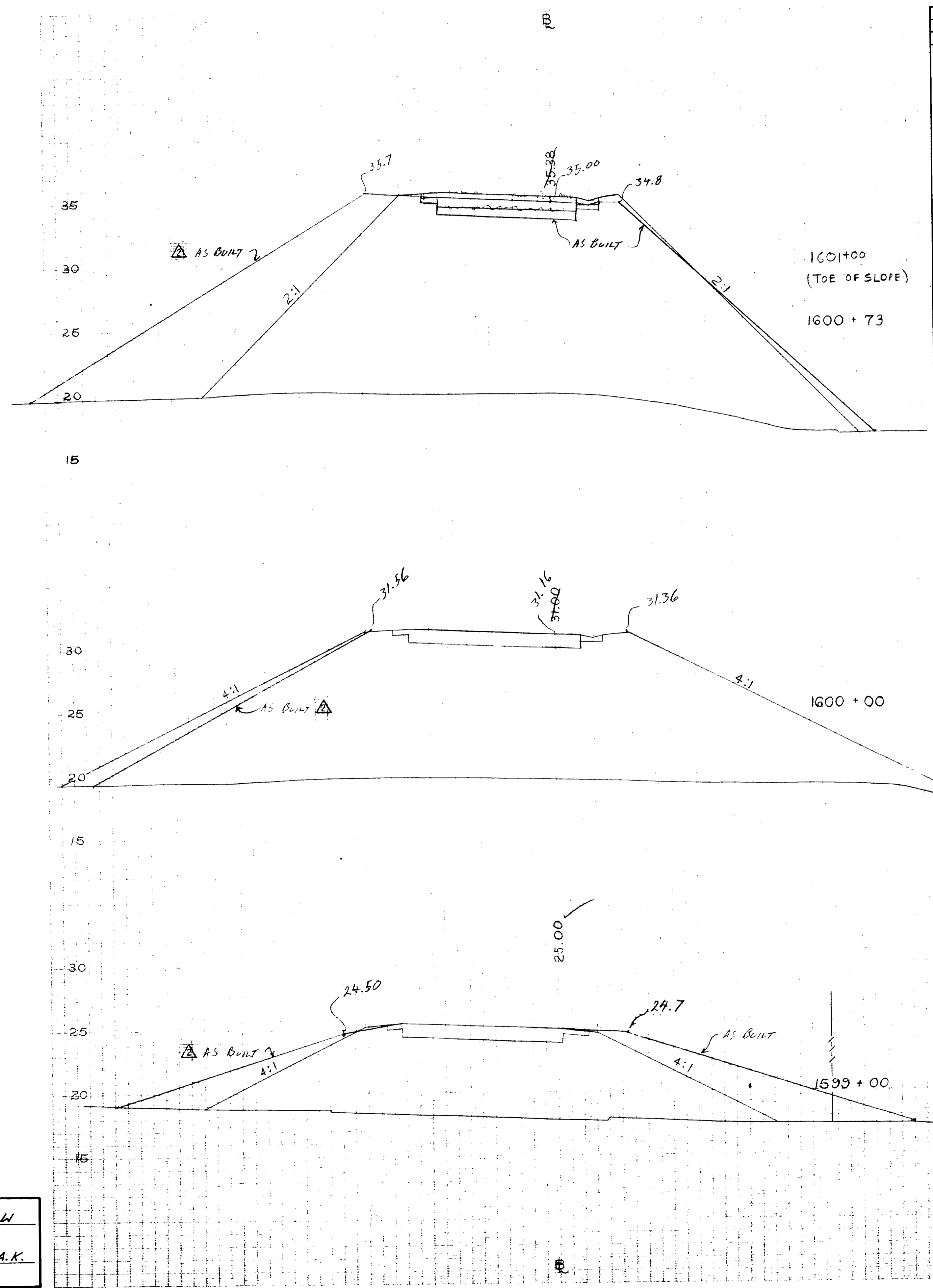


AS BUILT

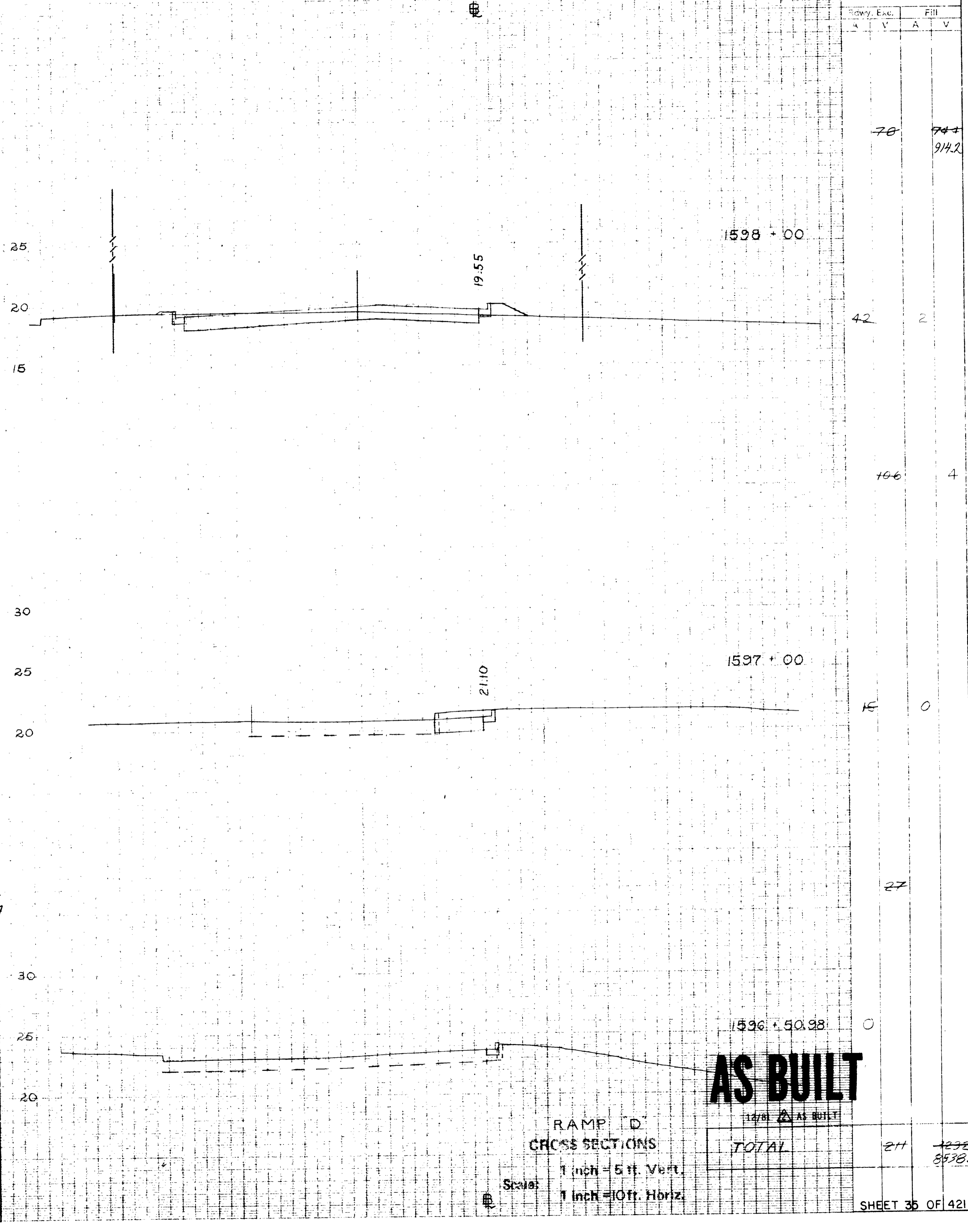
RAMP 'C'
CROSS SECTION
1 inch = 5 ft. Vert.
1 inch = 10 ft. Horiz.

TOTAL	26	11434
		9075.3

DESIGNED BY R.W.
DATE 6-1-79
CHECKED BY R.A.K.
DATE 6-19-79



Rdwy. Exc.		Fill	
A	V	A	V
		0	
		532	1566.6
		1064	692.87
		2017	3213
		1020	1092.15
		2629	2890.4
		400	491.67

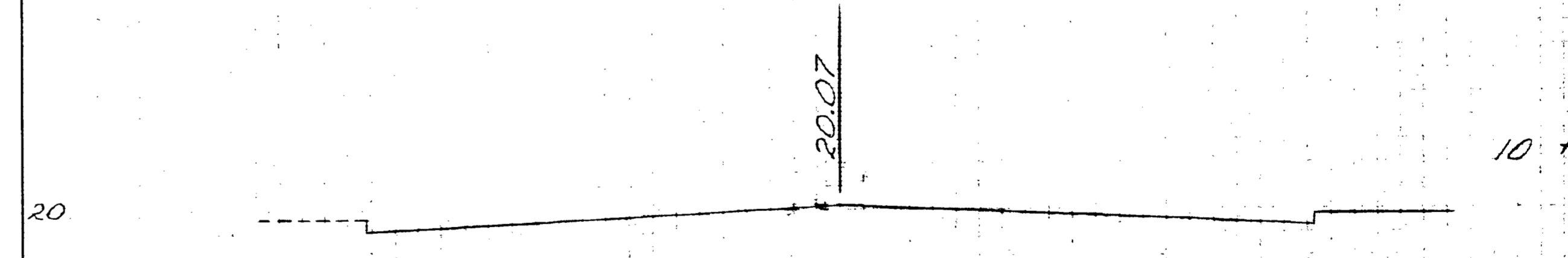
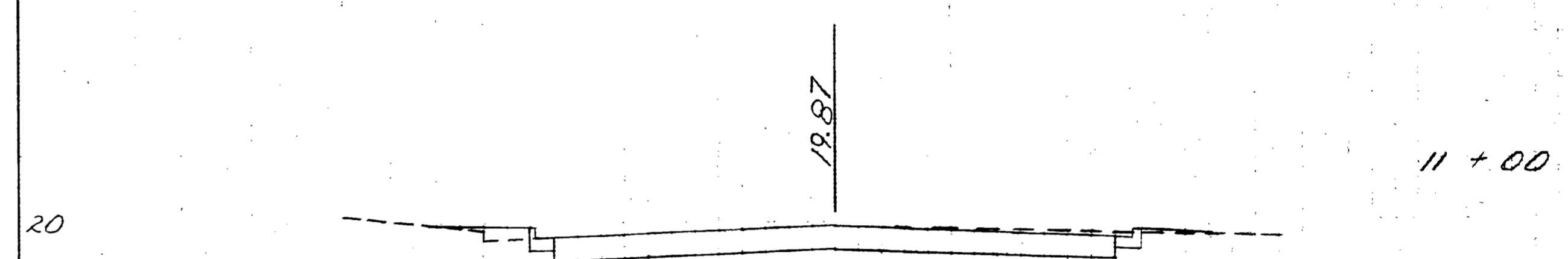
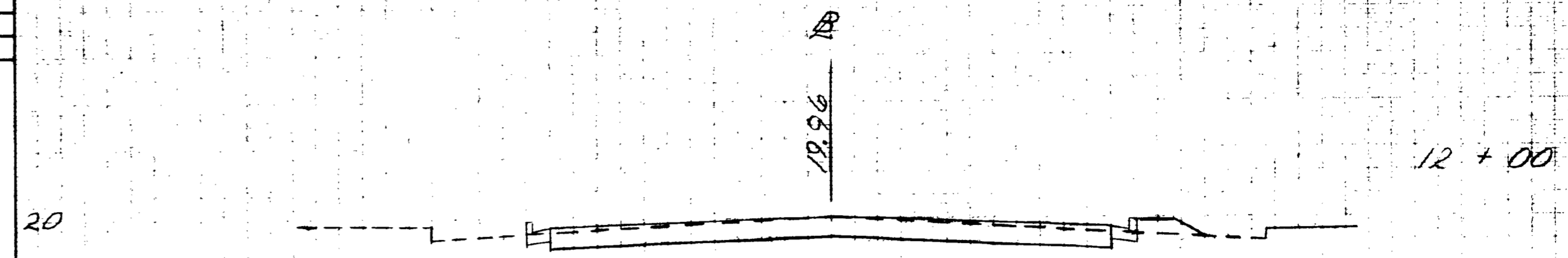
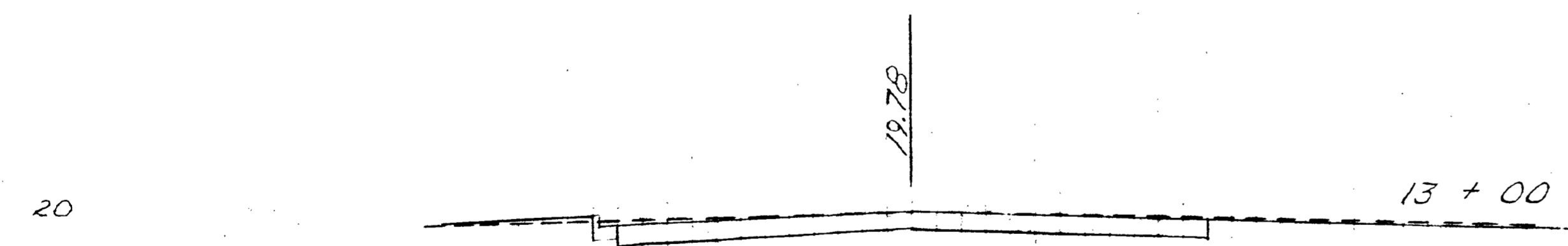
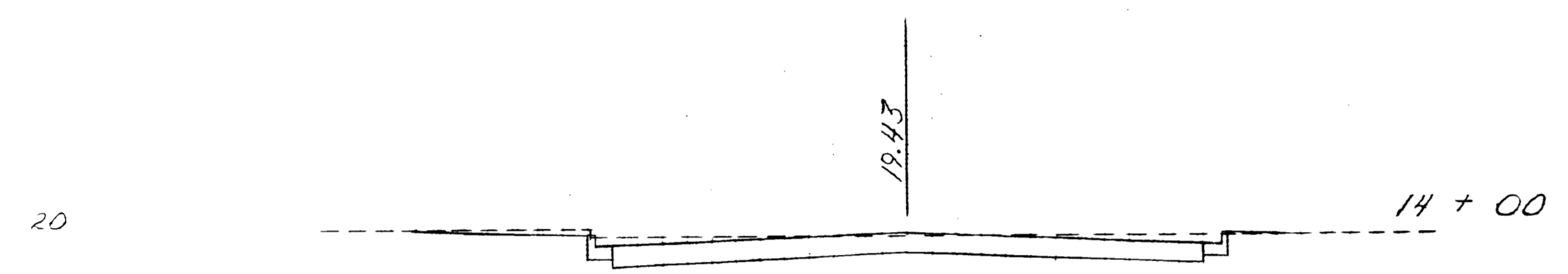
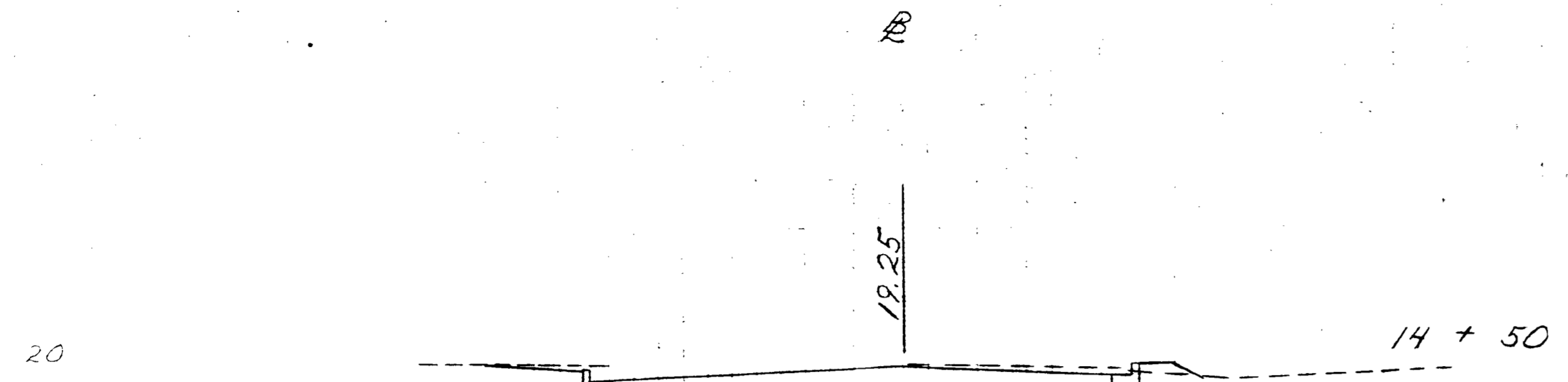


AS BUILT

RAMP 'D'
CROSS SECTIONS
Scale: 1 inch = 5 ft. Vert.
1 inch = 10 ft. Horiz.

TOTAL	211	1232
		8538.2

DESIGNED BY R.W.
DATE 6-1-79
CHECKED BY R.A.K.
DATE 6-13-79



Rdwy. Exc.		Fill	
A	V	A	V
50		2	
	96		2
54		0	
	178		
42		0	

Rdwy. Exc.		Fill	
A	V	A	V
163		11	
46		6	
	125		15
53		2	
	69		3
0		0	
TOTAL		689	31

DESIGNED BY R.W.
DATE 6-1-79

CHECKED BY R.A.K.
DATE 6-19-79

AS BUILT

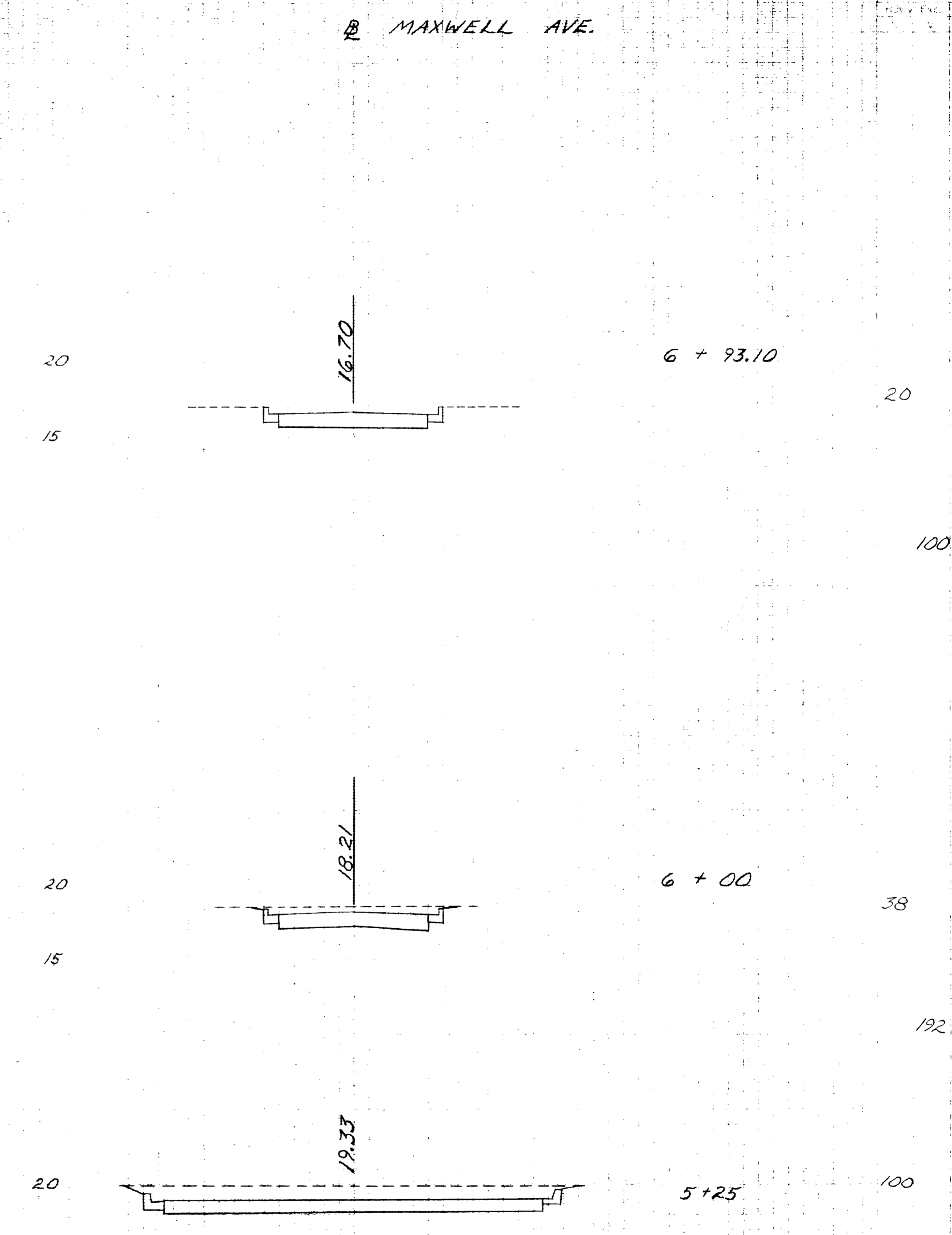
TWIGGS & ST.
CROSS SECTIONS

Scale: 1 inch = 5 ft. Vert.
1 inch = 10 ft. Horiz.

TOTAL	689	31
-------	-----	----

SHEET 36 OF 421

Rdwy. Exc.		Fill	
A	V	A	V



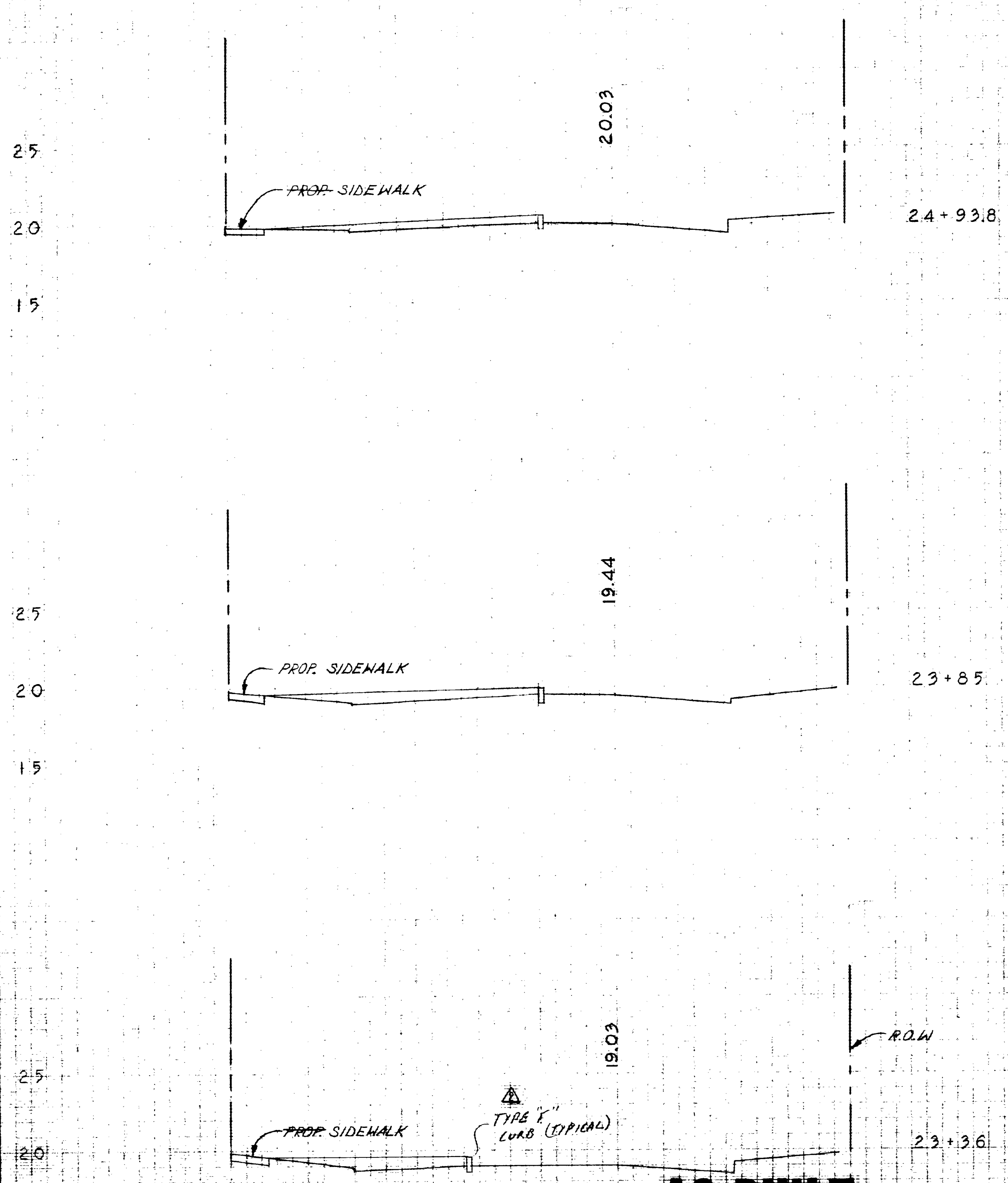
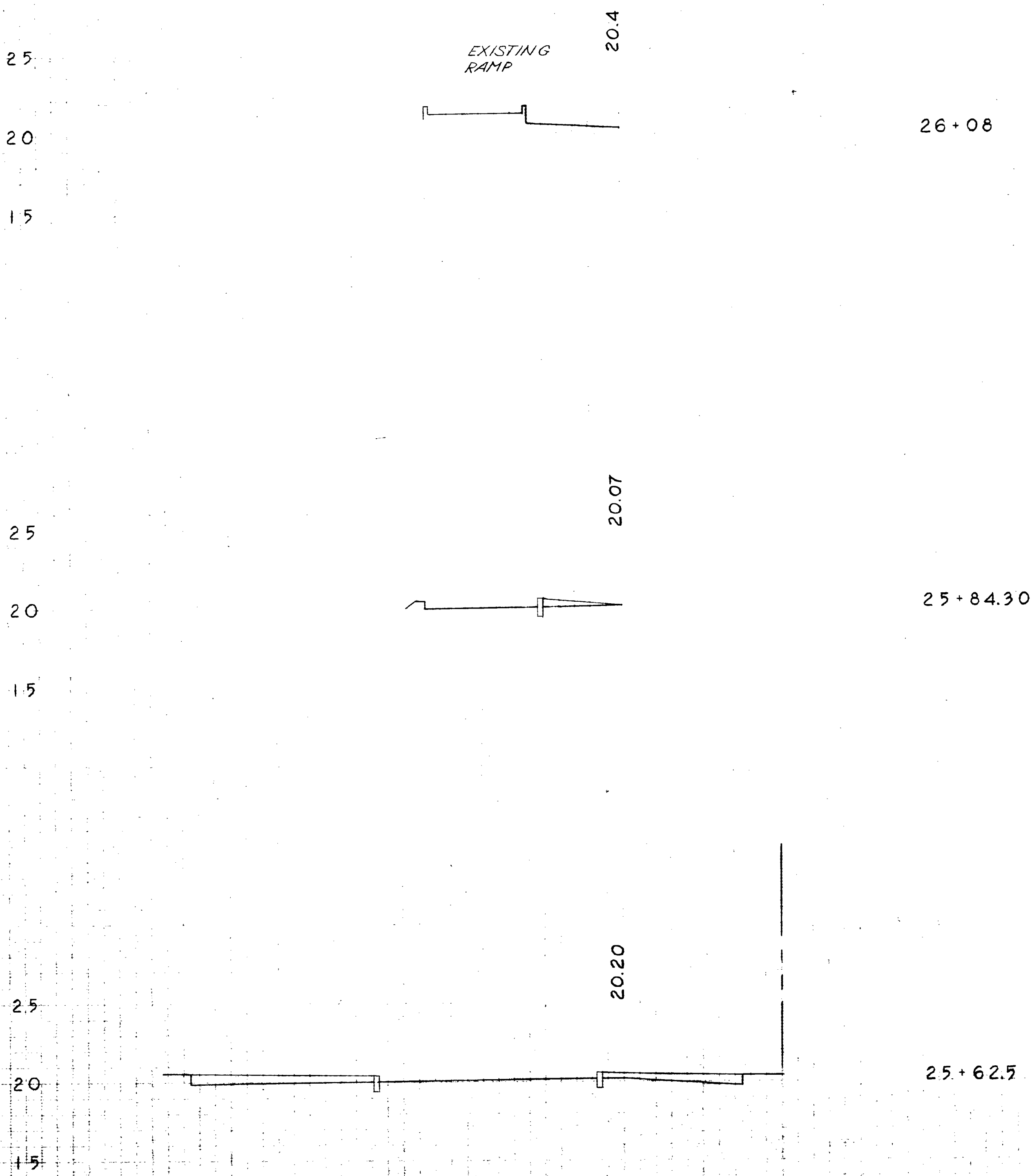
MAXWELL AVE.
 CROSS SECTIONS
 1 inch = 6 ft. Vert.
 1 inch = 40 ft. Horiz.

AS BUILT

TOTAL	292
--------------	-----

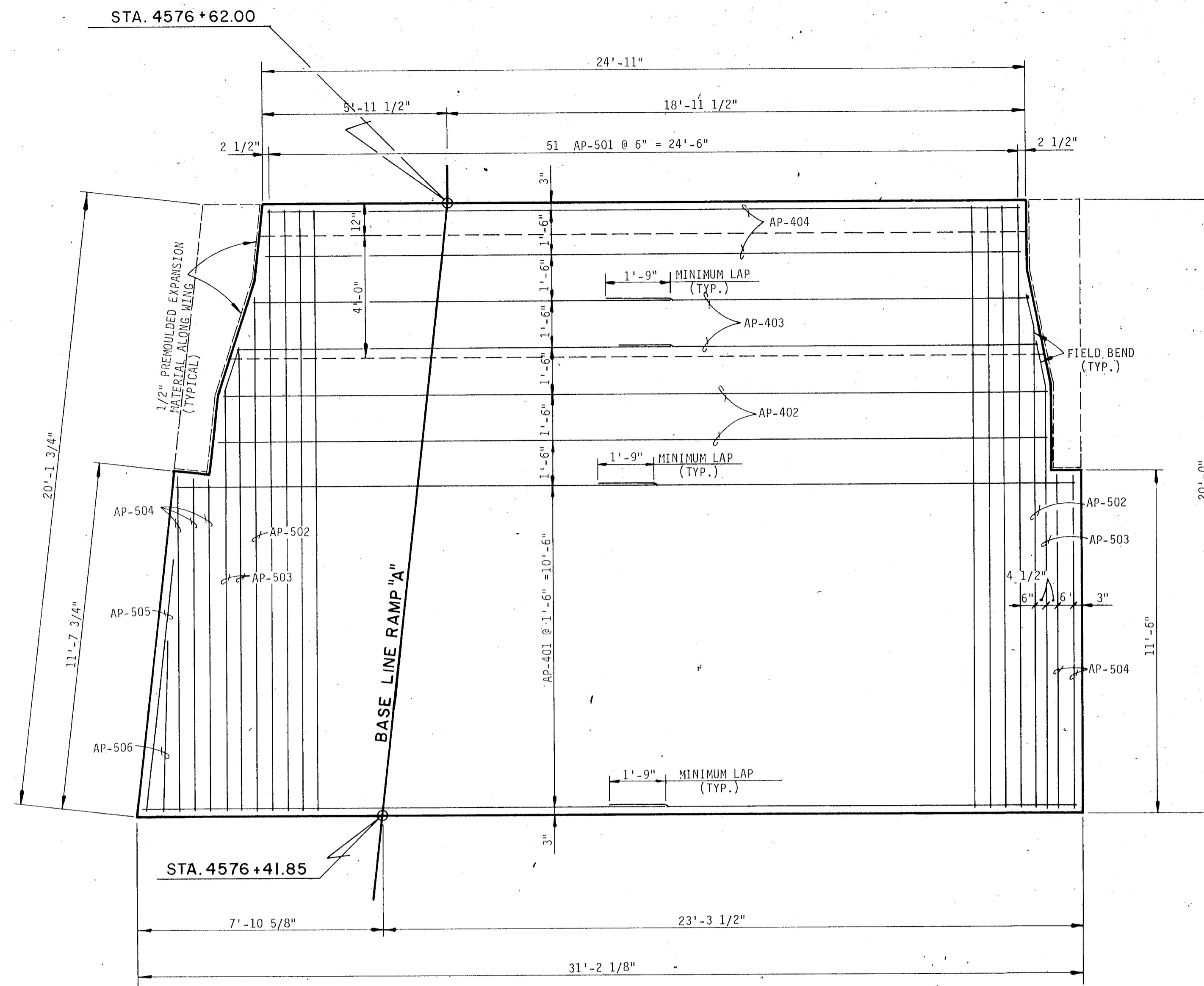
DESIGNED BY R.W.
 DATE 6-1-79
 CHECKED BY R.A.K.
 DATE 6-19-79

Rdwy Exc.		Fill	
A	V	A	V

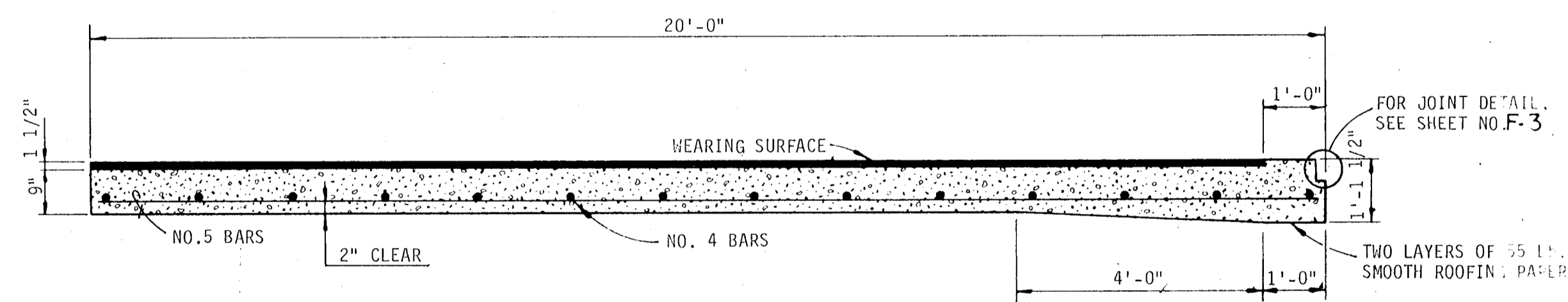


AS BUILT
 BRUSH ST.
 CROSS SECTIONS
 Scale: 1 inch = 5 ft. Vert.
 1 inch = 10 ft. Horiz.

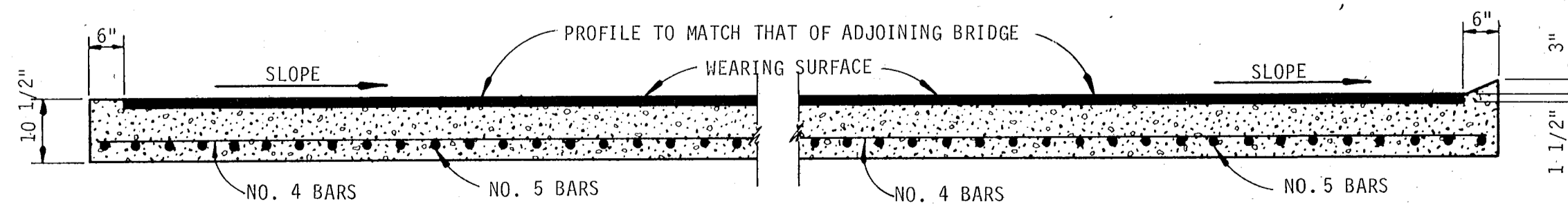
DESIGNED BY R.W.
 DATE 6-1-79
 CHECKED BY R.A.K.
 DATE 6-12-79



PLAN



SECTION A-A

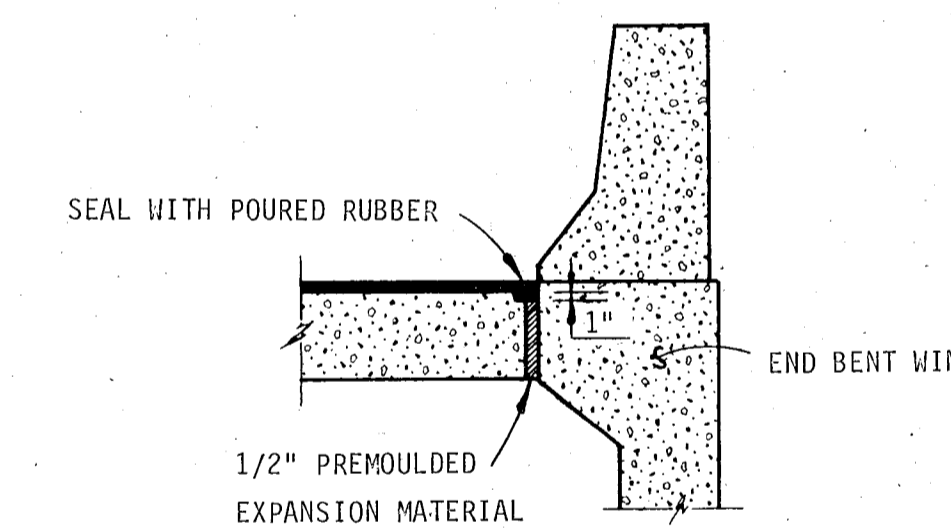


SECTION B-B

SECTION C-C

BILL OF REINFORCING STEEL			
MARK	NUMBER OF BARS	LENGTH	TYPE
AP-401	16	16'-1"	STR.
AP-402	2	27'-0"	STR.
AP-403	2	26'-2"	STR.
AP-404	2	24'-5"	STR.
AP-501	51	19'-6"	STR.
AP-502	2	16'-7"	STR.
AP-503	2	15'-0"	STR.
AP-504	5	10'-9"	STR.
AP-505	1	8'-3"	STR.
AP-506	1	5'-6"	STR.

ESTIMATE OF QUANTITIES		
ITEM	UNIT	TOTAL
CLASS II CONCRETE	C.Y.	18.95
REINFORCING STEEL	L.B.	1,449

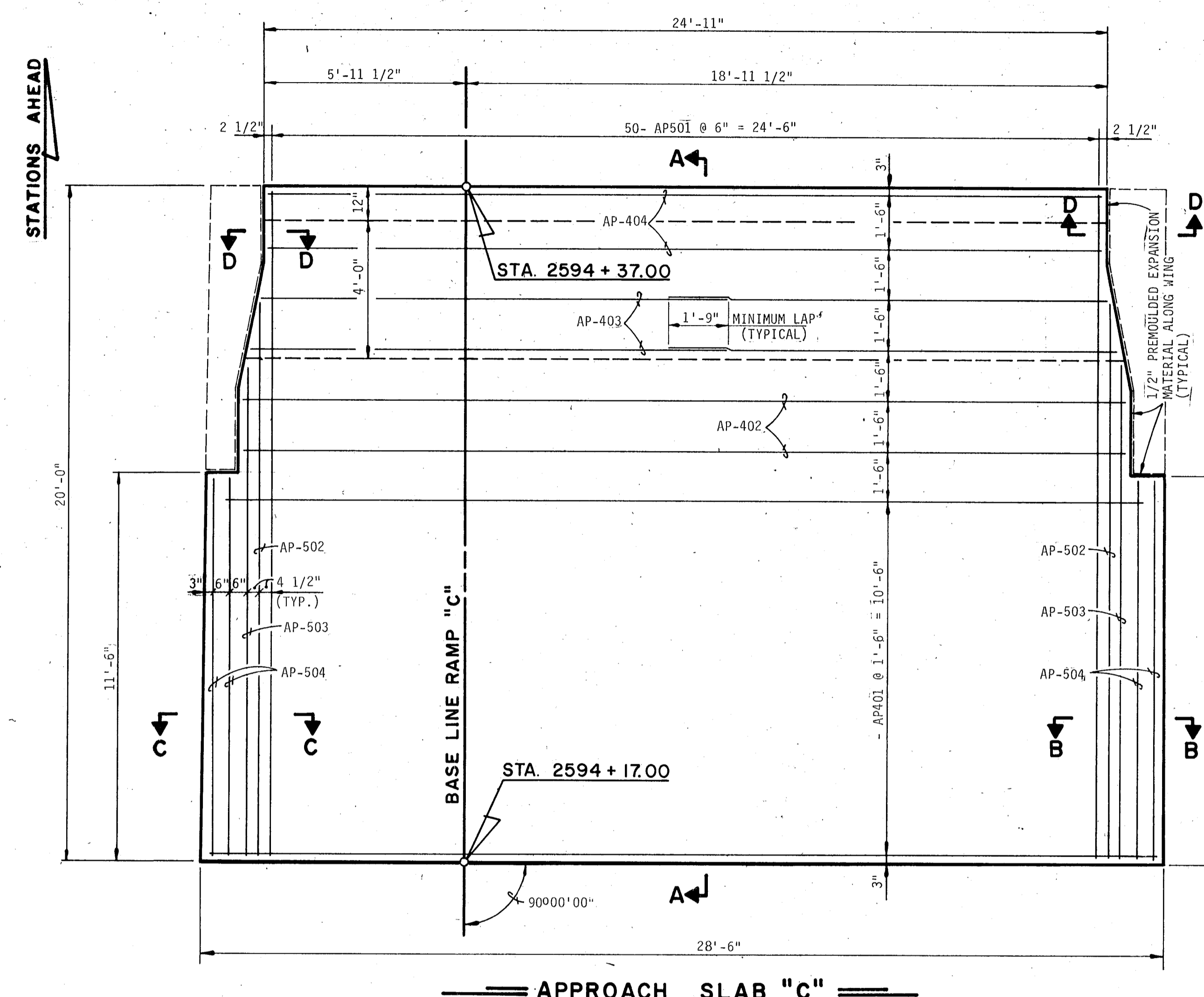
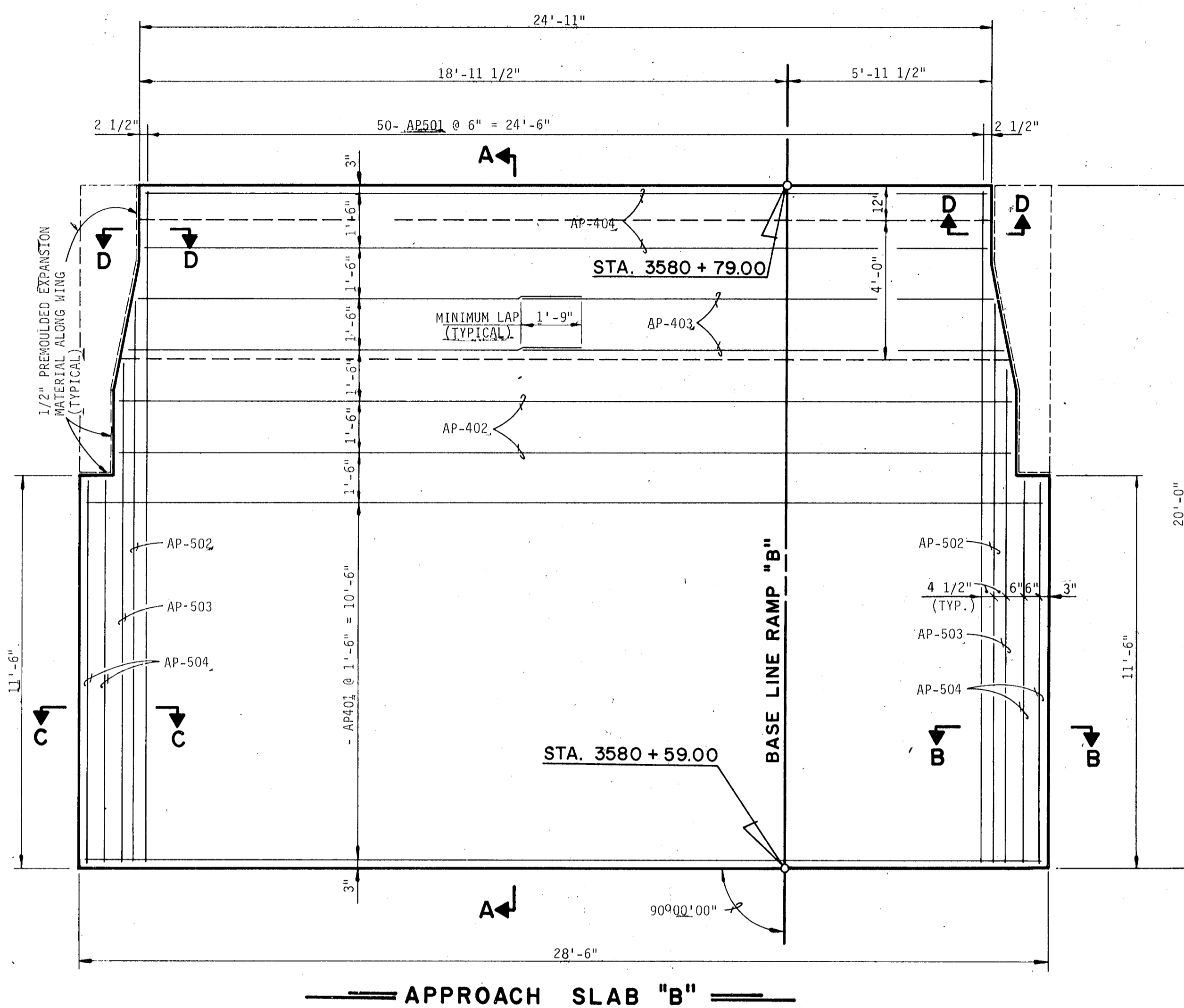


SECTION D-D

AS BUILT

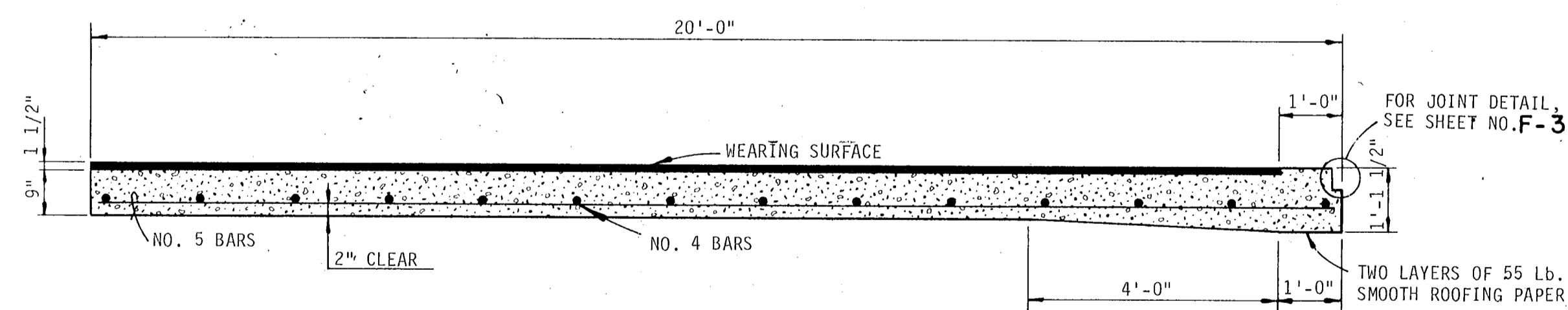
APPROACH SLAB "A"

REVISIONS		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY TAMPA SOUTH CROSSTOWN EXPRESSWAY EASTERN EXTENSION TO I-75
Date	Description	
12/81	AS BUILT	HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS
		APPROACH SLAB
		WATSON AND COMPANY Architects - Engineers - Planners
MADE BY JA	DATE '79	TRACED BY EBM DATE '79
CHECKED BY	DATE	SCALE NONE
CONTRACT NO. 1.1		SHEET 39 OF 421

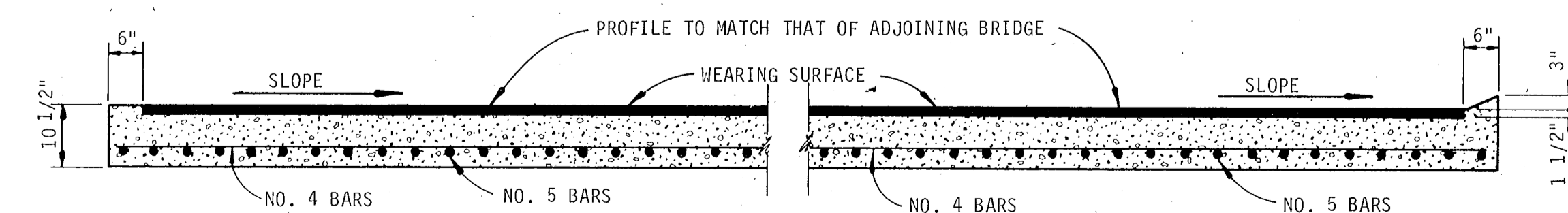


BILL OF REINFORCING STEEL				
MARK	NUMBER OF BARS		LENGTH	TYPE
	@ END BENT B	@ END BENT C		
AP-401	8	8	28'-0"	STR.
AP-402	2	2	26'-2"	STR.
AP-403	4	4	13'-2"	STR.
AP-404	2	2	24'-7"	STR.
AP-501	50	50	19'-8"	STR.
AP-502	2	2	16'-3"	STR.
AP-503	2	2	14'-3"	STR.
AP-504	4	4	11'-2"	STR.

ESTIMATE OF QUANTITIES				
ITEM	UNIT	@ END BENT B	@ END BENT C	
CLASS II CONCRETE	C.Y.	12.82	12.82	
REINFORCING STEEL	L.B.	1,388	1,388	

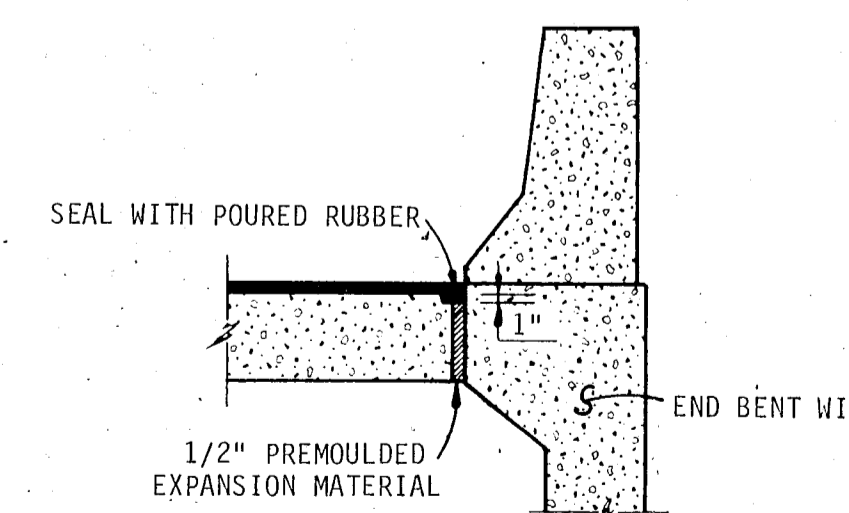


SECTION A-A



SECTION B-B

SECTION C-C

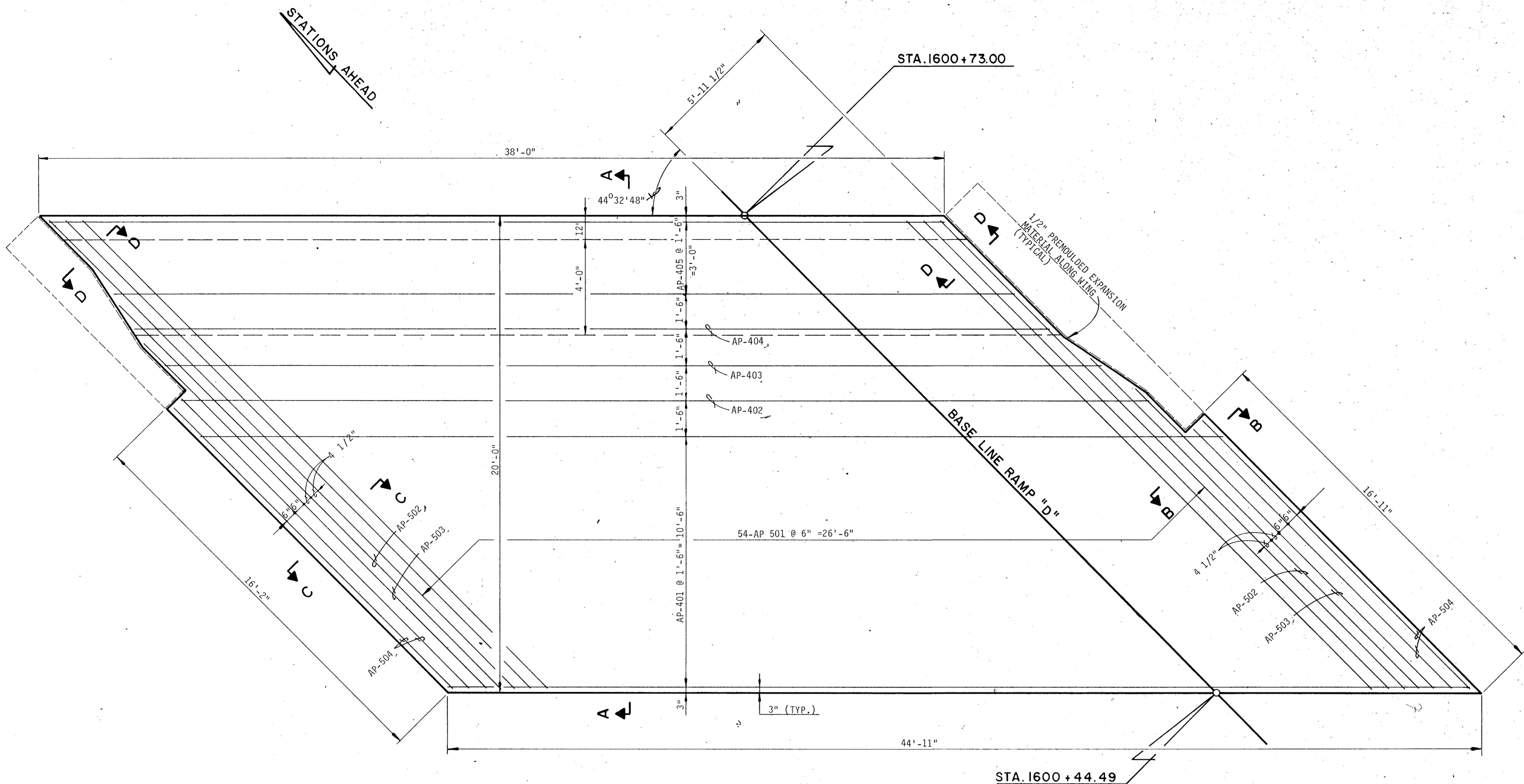


SECTION D-D

AS BUILT

APPROACH SLABS "B" AND "C"

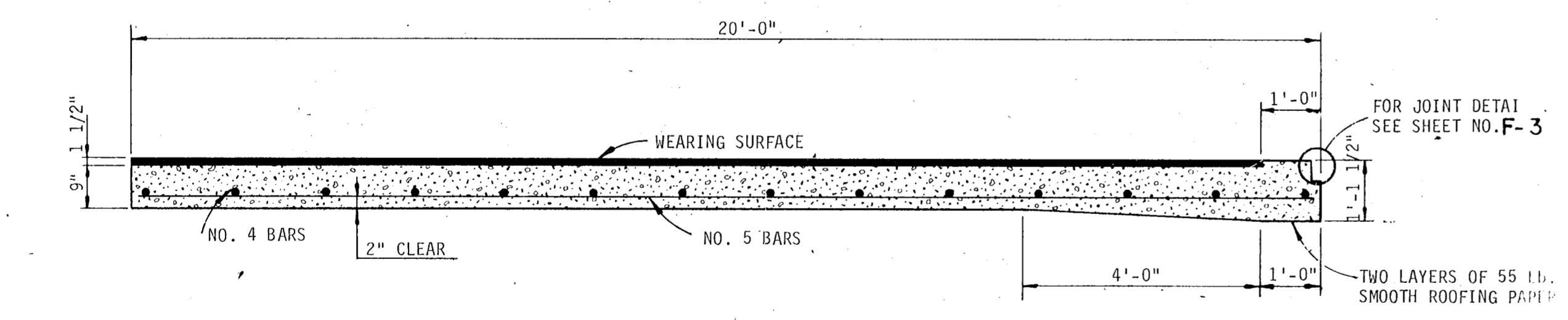
REVISIONS		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY TAMPA SOUTH CROSSTOWN EXPRESSWAY EASTERN EXTENSION TO I-75	
Date	Descriptions		
12/81	AS BUILT	HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS	
		APPROACH SLABS	
		WATSON AND COMPANY Architects - Engineers - Planners	
MADE BY	DATE	TRACED BY	DATE
W/A	79'	AWH	79'
CHECKED BY	DATE	SCALE	NONE
		CONTRACT NO.	SHEET 40 OF 421



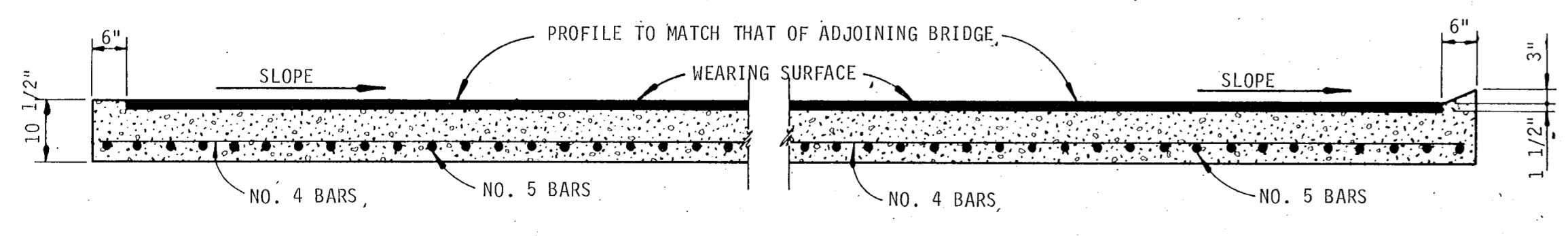
== PLAN ==

BILL OF REINFORCING STEEL			
MARK	NUMBER OF BARS	LENGTH	TYPE
AP-401	8	42'-10"	STR.
AP-402	1	40'-5"	STR.
AP-403	1	39'-3"	STR.
AP-404	1	38'-3"	STR.
AP-405	3	37'-3"	STR.
AP-501	54	27'-9"	STR.
AP-502	2	19'-4"	STR.
AP-503	2	18'-8"	STR.
AP-504	4	15'-2"	STR.

ESTIMATE OF QUANTITIES		
ITEM	UNIT	TOTAL
CLASS II CONCRETE	C.Y.	26.80
REINFORCING STEEL	L.B.	2,208

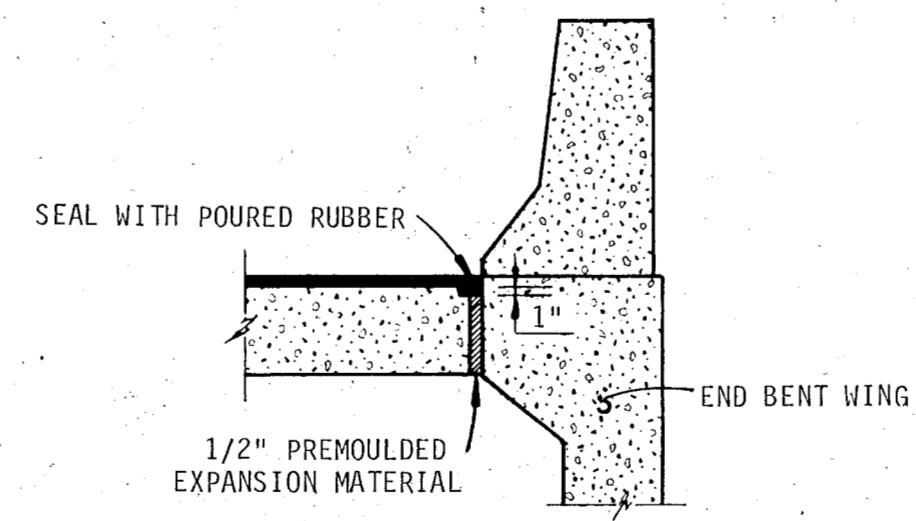


== SECTION A-A ==



== SECTION B-B ==

== SECTION C-C ==



== SECTION D-D ==

AS BUILT

APPROACH SLAB "D"

REVISIONS		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY TAMPA SOUTH CROSTOWN EXPRESSWAY EASTERN EXTENSION TO I-75
Date	Descriptions	
12/81	AS BUILT	HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS
		APPROACH SLAB
		WATSON AND COMPANY Architects - Engineers - Planners
MADE BY	DATE	TRACED BY
CHECKED BY	DATE	SCALE:
CONTRACT NO.		SHEET 41 OF 421

STATE OF FLORIDA
TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY
~~PLANS OF PROPOSED~~

**TAMPA SOUTH CROSSTOWN EXPRESSWAY
EASTERN EXTENSION TO I-75**

SECTION 1
CONTRACT NO. 1.1

**CITY OF TAMPA & COUNTY OF HILLSBOROUGH
STATE ROAD NO. 618
WATER LINE RELOCATION**



LOCATION OF PROJECT

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

GOVERNING SPECIFICATIONS:
STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS, DATED 1977 AND SUPPLEMENTAL SPECS. DATED JULY 1979

Submitted by
WATSON AND COMPANY
Section Engineers

By _____ Name _____ Date _____

AS BUILT

12/81 AS BUILT
Approval Recommended

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
Consulting Engineers

By _____ Name _____ Date _____

Approved _____ 19____

By _____
THEODORE C. TAUB, Chairman
TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

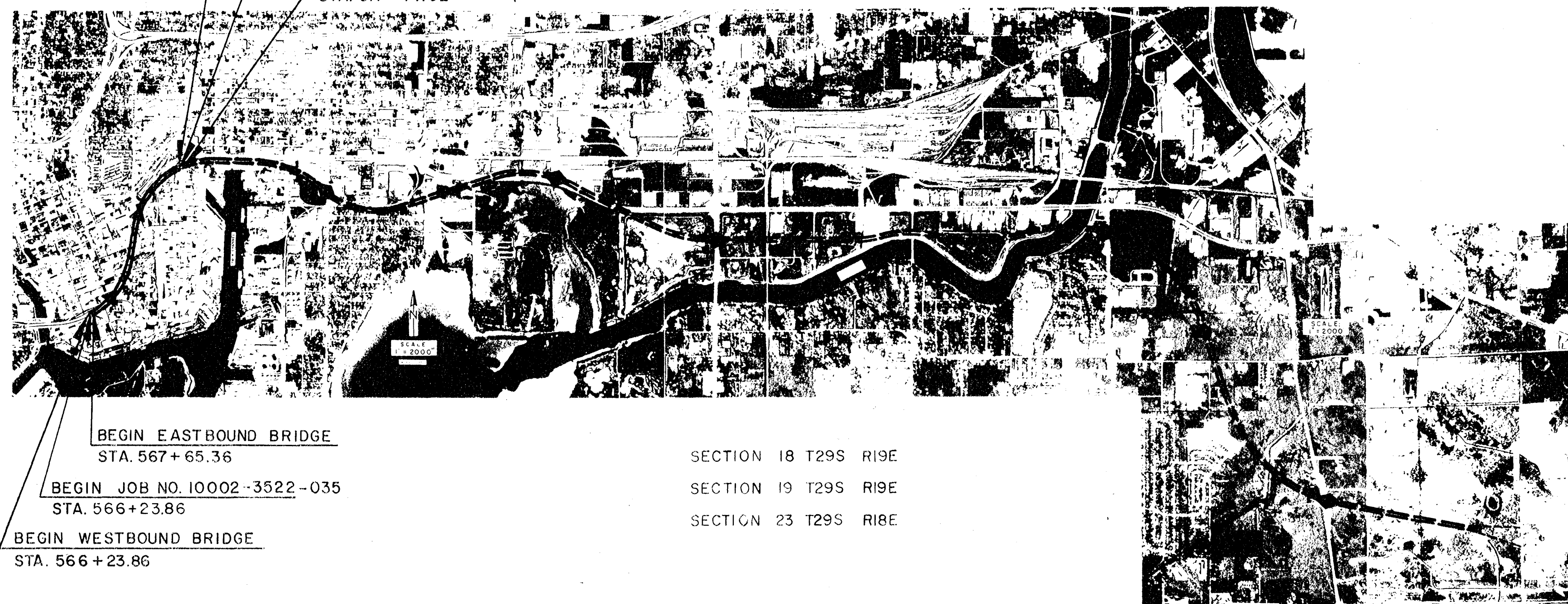
INDEX OF WATER LINE RELOCATION PLANS

SHEET NO.	SHEET DESCRIPTION
WL-1	KEY MAP
WL-2	SUMMARY OF WATERLINE QUANTITIES
WL-3 WL-5	PLAN & PROFILE

END WESTBOUND BRIDGE
STA. 617+43.00

END JOB NO. 10002-3522-035
STA. 617+43.00

END EASTBOUND BRIDGE
STA. 617+14.82



BEGIN EASTBOUND BRIDGE
STA. 567+65.36

BEGIN JOB NO. 10002-3522-035
STA. 566+23.86

BEGIN WESTBOUND BRIDGE
STA. 566+23.86

SECTION 18 T29S R19E
SECTION 19 T29S R19E
SECTION 23 T29S R18E

SUMMARY OF WATERLINE QUANTITIES				
ITEM NO.	ITEM	UNIT	QUANTITY	
1614-140-109	PVC PIPE (2")	L.F.	138 0	△
1614-140-116	DUCTILE IRON PIPE (6")	L.F.	188 131	△
1614-140-118	DUCTILE IRON PIPE (8")	L.F.	177 170A.2	△
1618-160-825	STEEL CASING (18") (JACK & BORE)	EA.	95 0	△
1642-111-18	GATE VALVE (8" C.I.)	EA.	+ 0	△
1643-121-104	TAPPING SLEEVE & VALVE (8" x 4")	EA.	+ 0	△
1643-121-112	TAPPING SLEEVE & VALVE (12" x 6")	EA.	1	
1643-121-113	TAPPING SLEEVE & VALVE (12" x 8")	EA.	+ 2	△
1643-700	ADJUST VALVE BOXES	EA.	+ 0	△
1644-114-18	FIRE HYDRANT (STANDARD)	EA.	+ 5	△
1644-814-18	RELOCATE FIRE HYDRANT (STANDARD)	EA.	2	
1644-914-18	REMOVE FIRE HYDRANT (STANDARD)	EA.	- 3	△

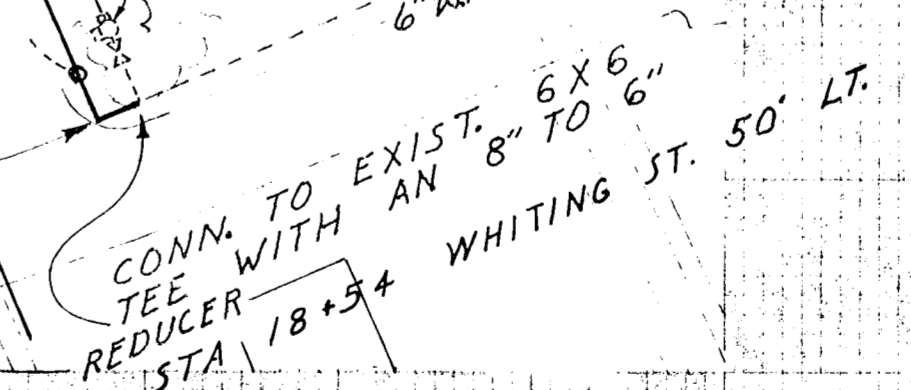
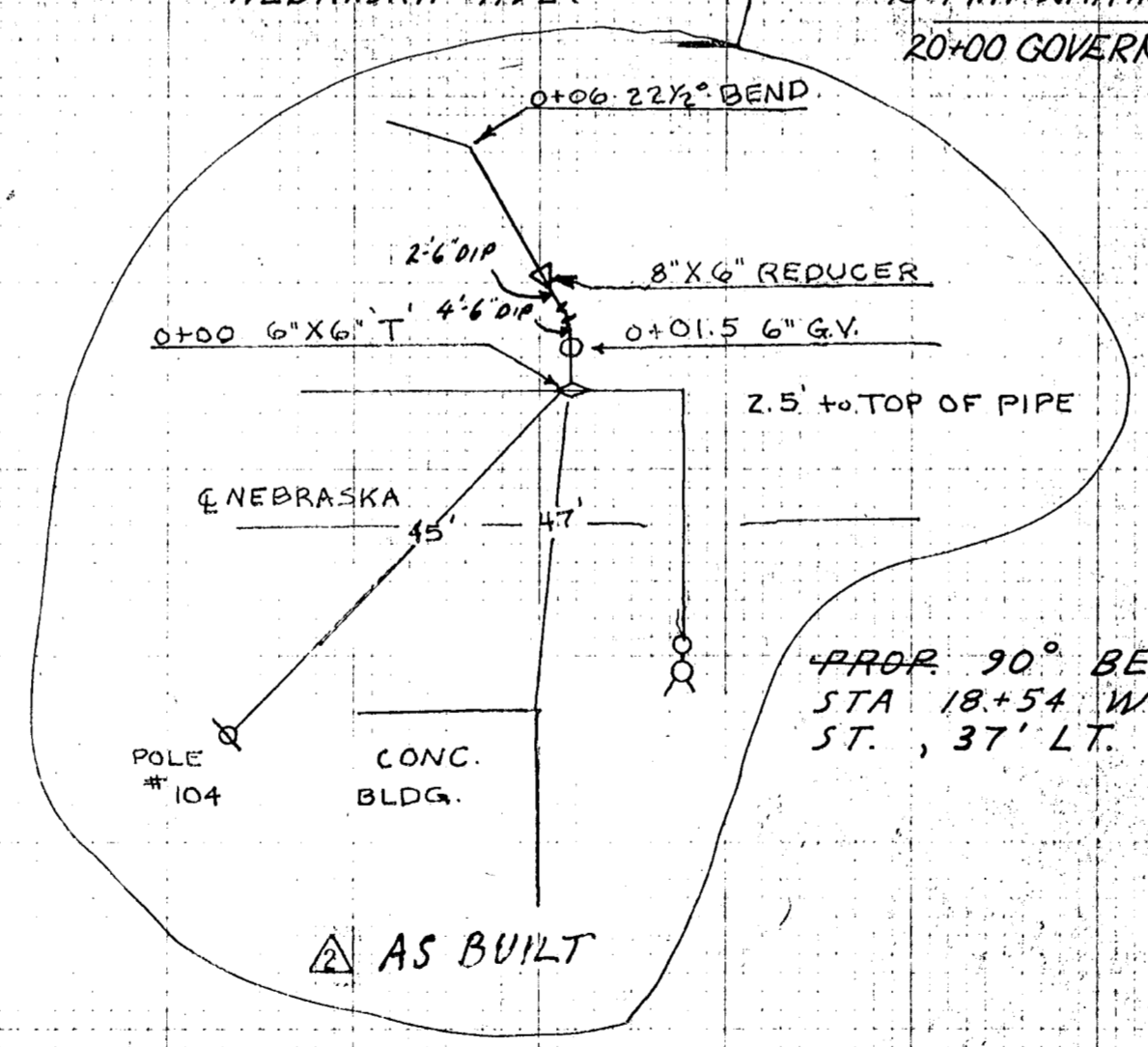
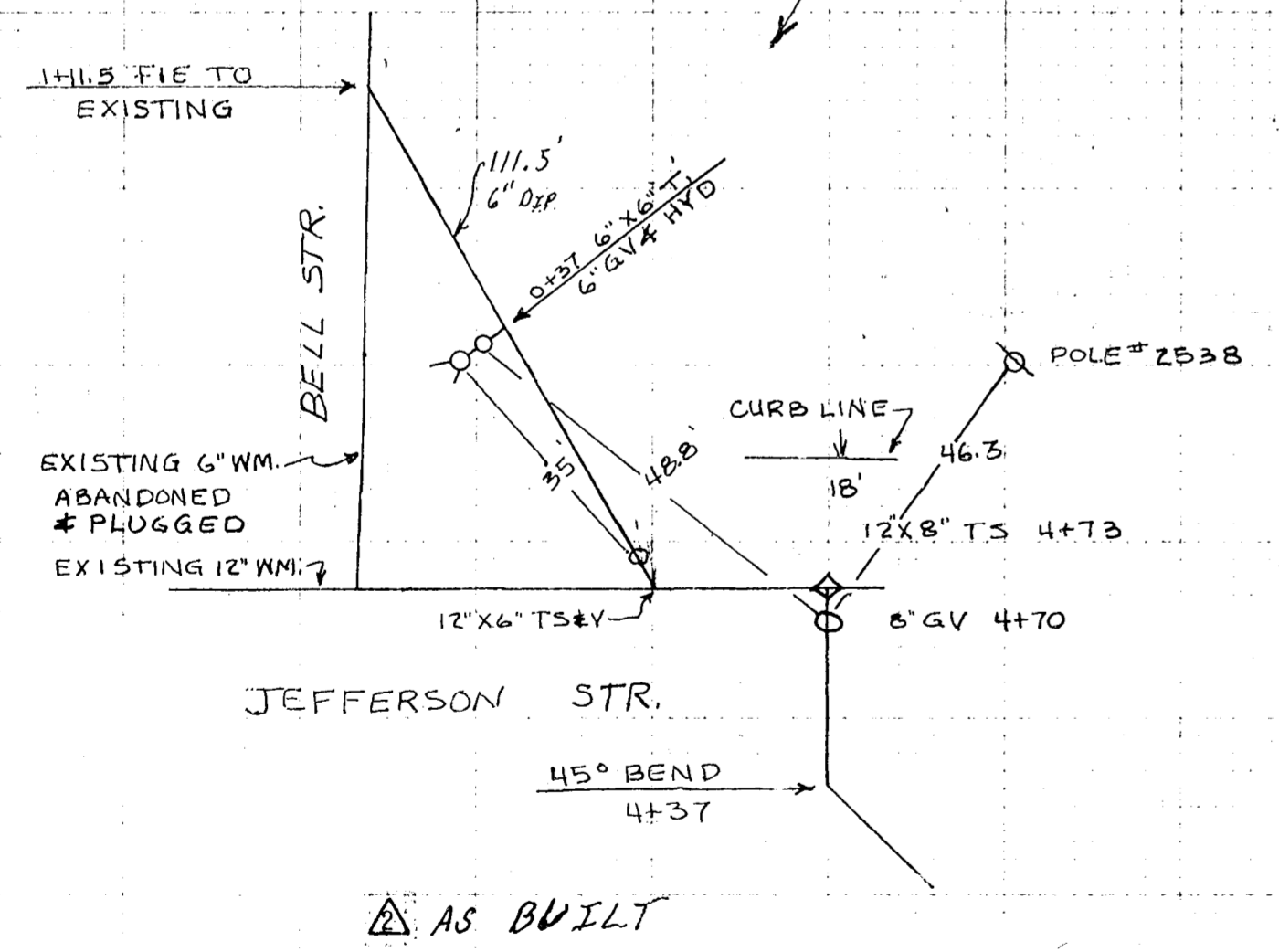
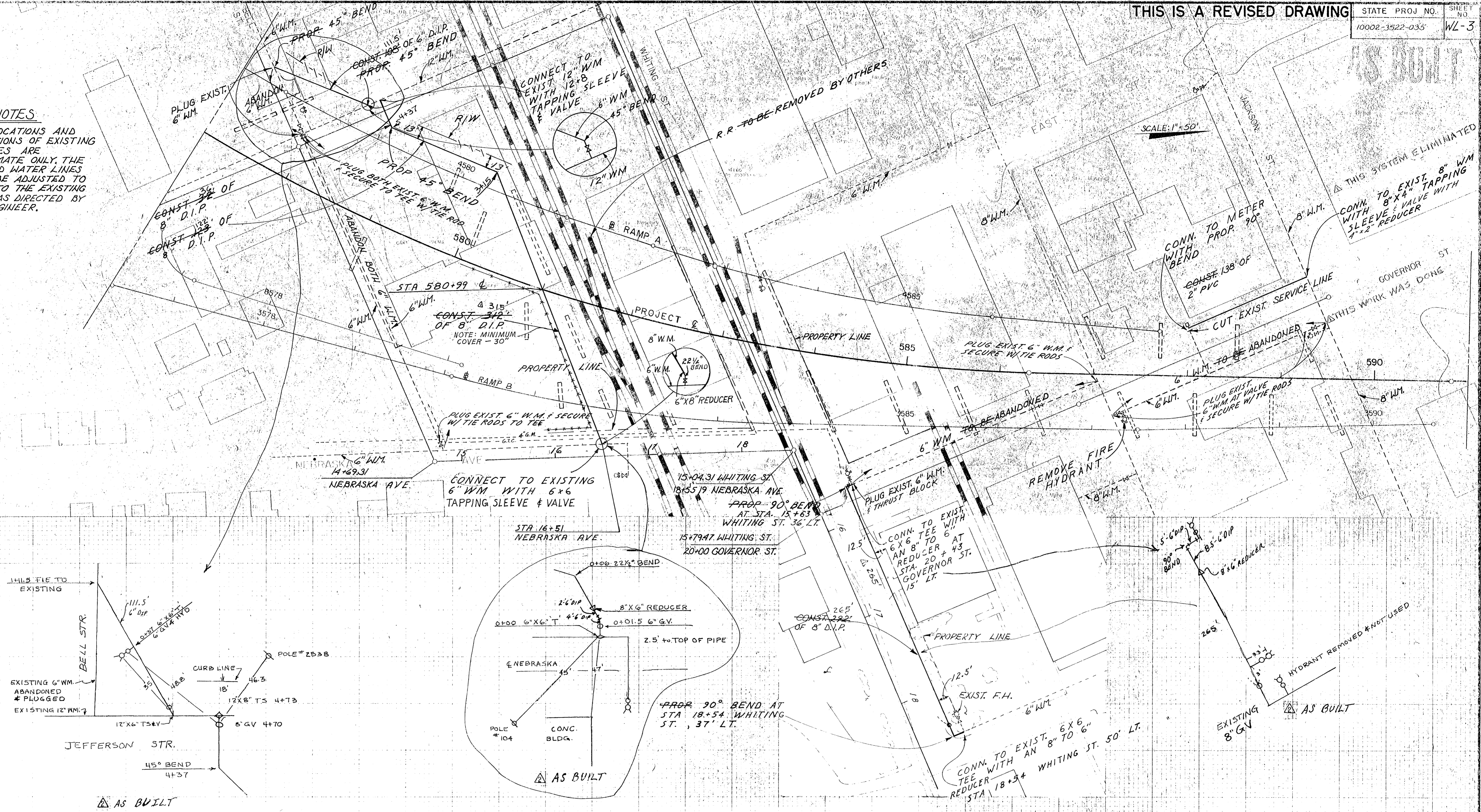
NOTE: THE BID ITEM FOR FIRE HYDRANT INCLUDES THE FIRE HYDRANT ASSEMBLY COMPLETE; INCLUDING BUT NOT LIMITED TO; ALL FITTINGS, 6" VALVE, 6" COUPLING, AND THE FIRE HYDRANT.

AS BUILT

REVISIONS		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY TAMPA SOUTH CROSSTOWN EXPRESSWAY EASTERN EXTENSION TO I-75	
Date	Description	HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS	
11-27	ITEMS & QUANT. UPDATED	SUMMARY OF QUANTITIES	
12/81	△ AS BUILT		
		WATSON AND COMPANY Architects - Engineers - Planners	
MADE BY	R.K. DATE 10/78	TRACED BY	E.S. DATE 7-16-79
CHECKED BY	S.G. DATE 10/78	SCALE:	
CONTRACT NO. 1.1		SHEET 43 OF 421	

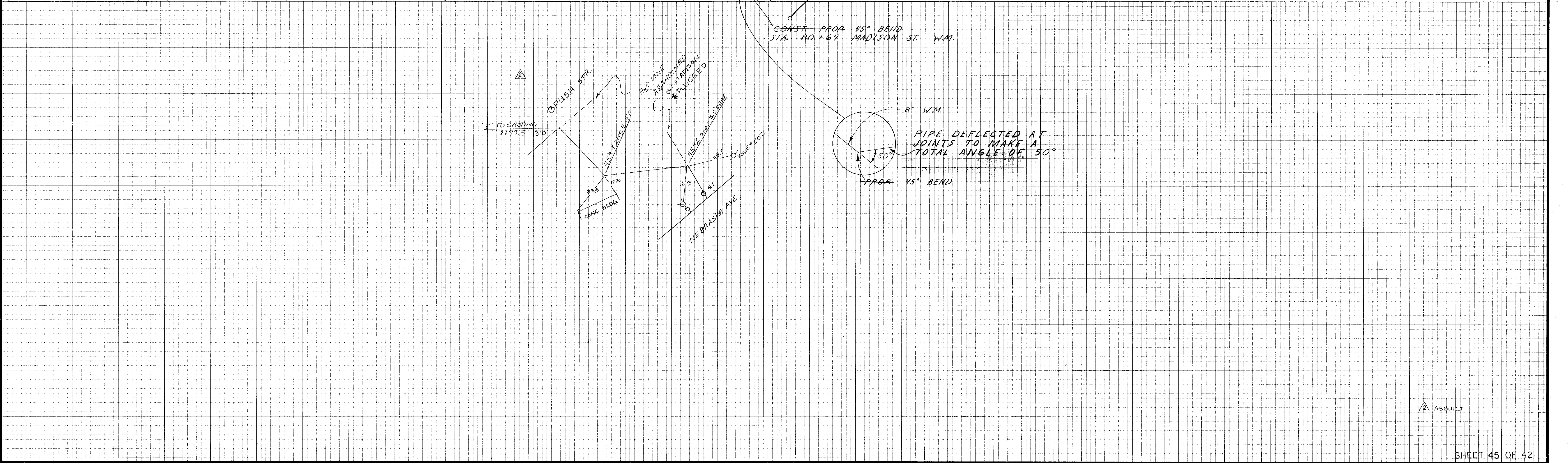
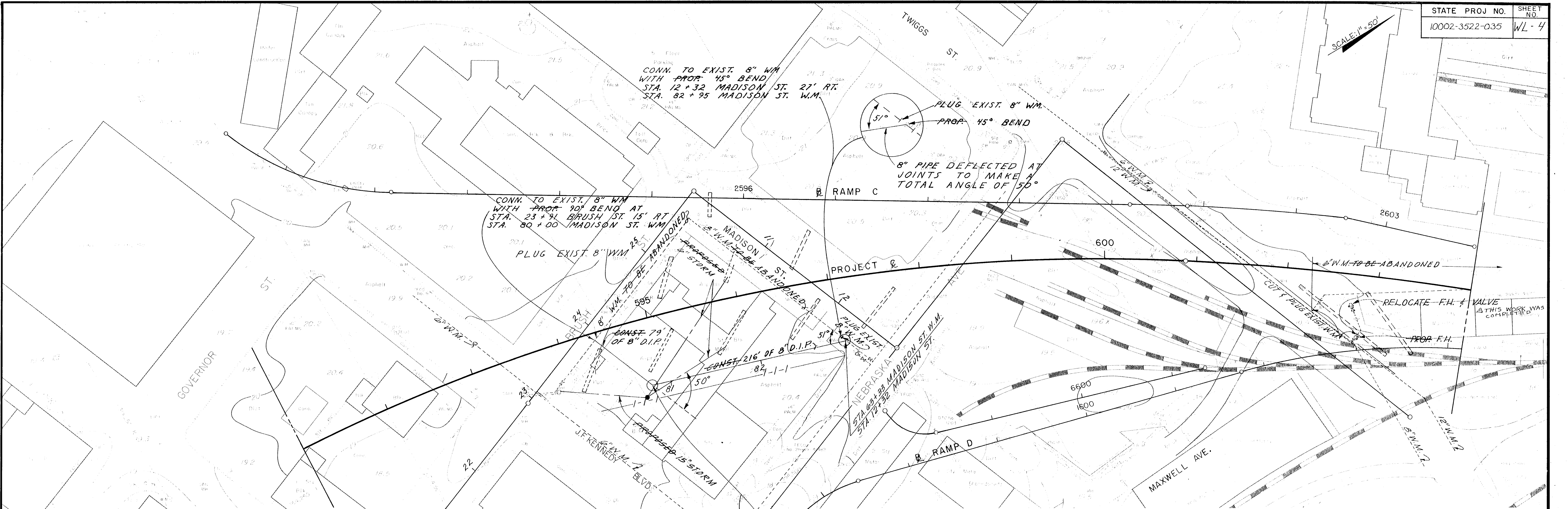
GENERAL NOTES

1. THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES ARE APPROXIMATE ONLY. THE PROPOSED WATER LINES SHALL BE ADJUSTED TO TIE INTO THE EXISTING LINES AS DIRECTED BY THE ENGINEER.



DATE	REVISIONS
11-28	ADD INFO TO SECURE PIPES ADD NOTE TO PLUG THRUST BLOCK CHG. 2" DIP TO 2" PVC ADD "VALVE" TO NOTE ON JACKSON ST.
3-11-80	RELOCATE W.M. ADD FENCE LOCATION
3-18-80	ADD GAS & TELE. LINES ON NEBRASKA AVE. CHANGE W.M. CONNECTION AT NEBRASKA AVE.

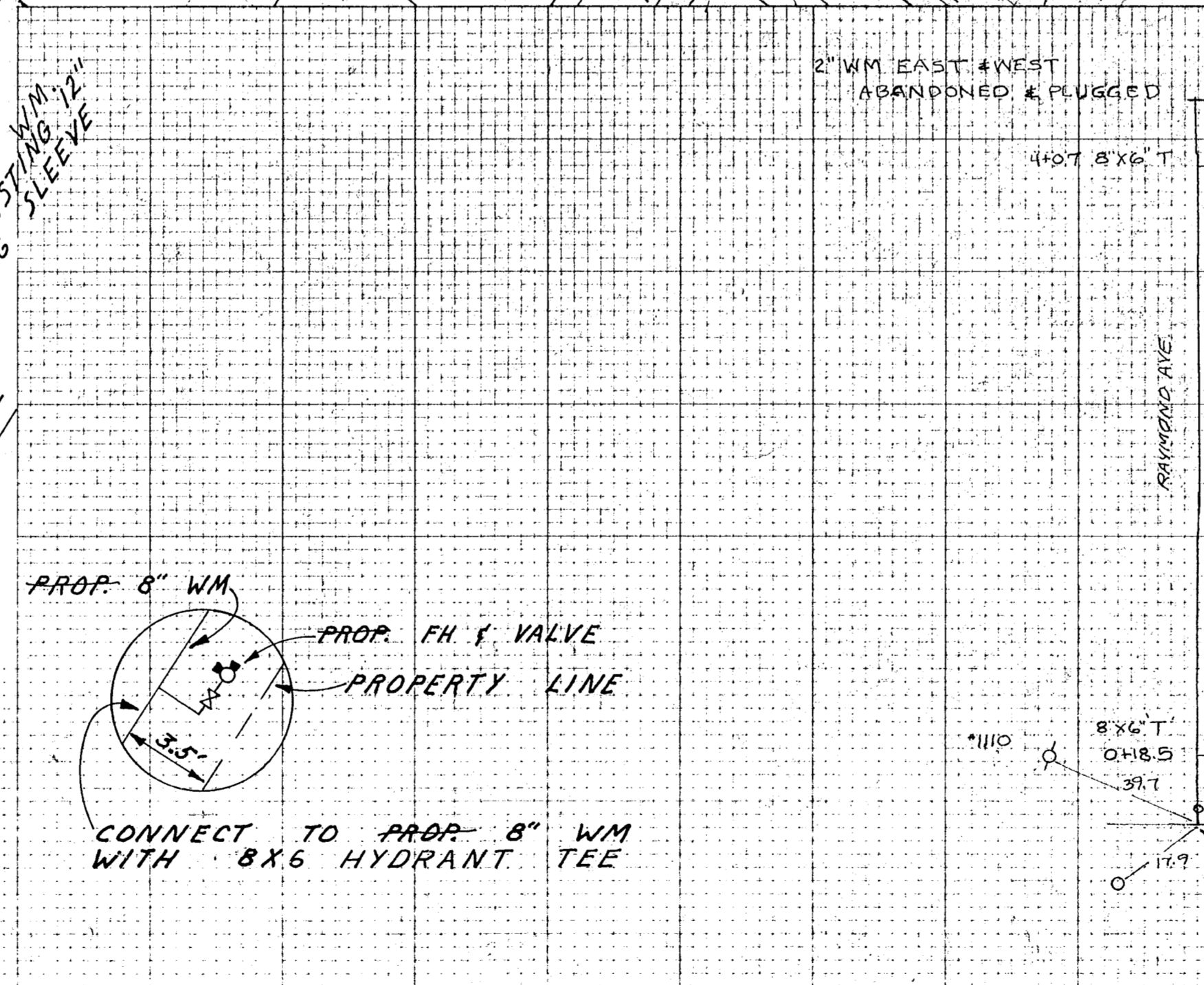
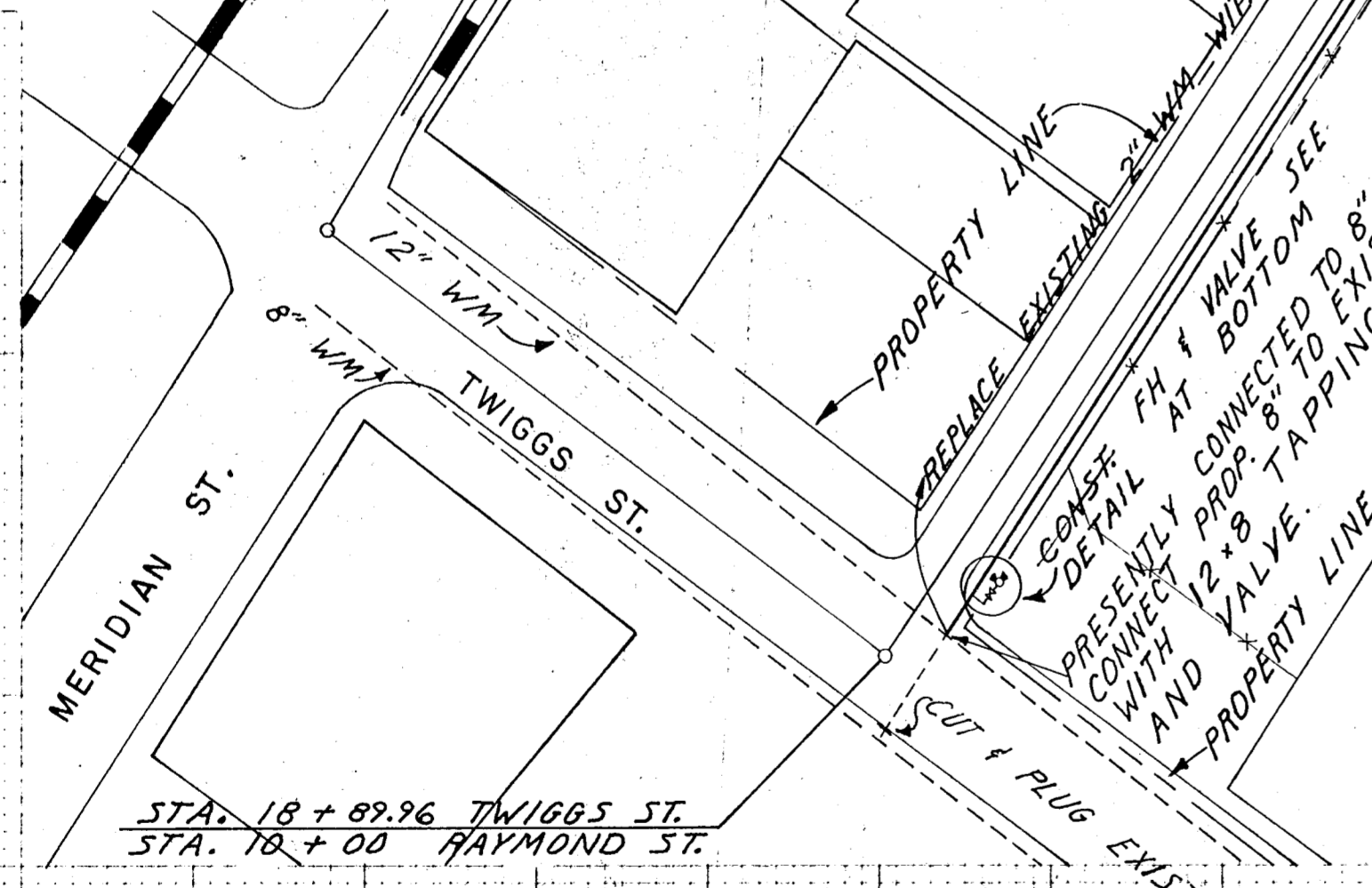
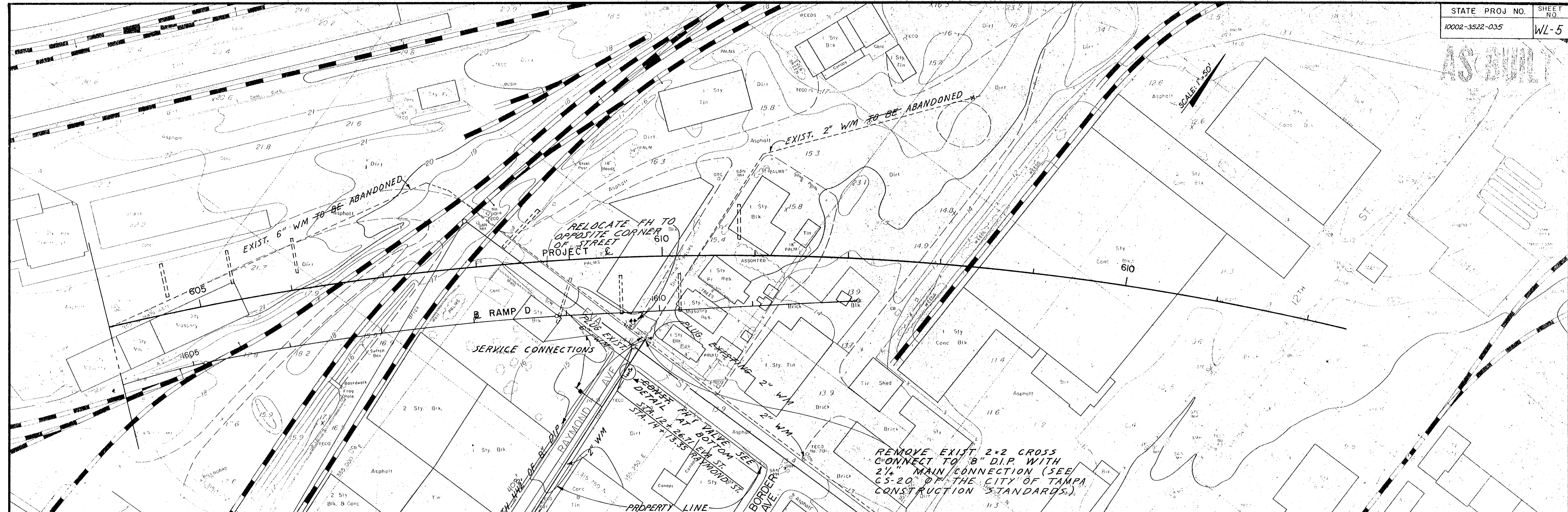
SCALE: 1" = 50'



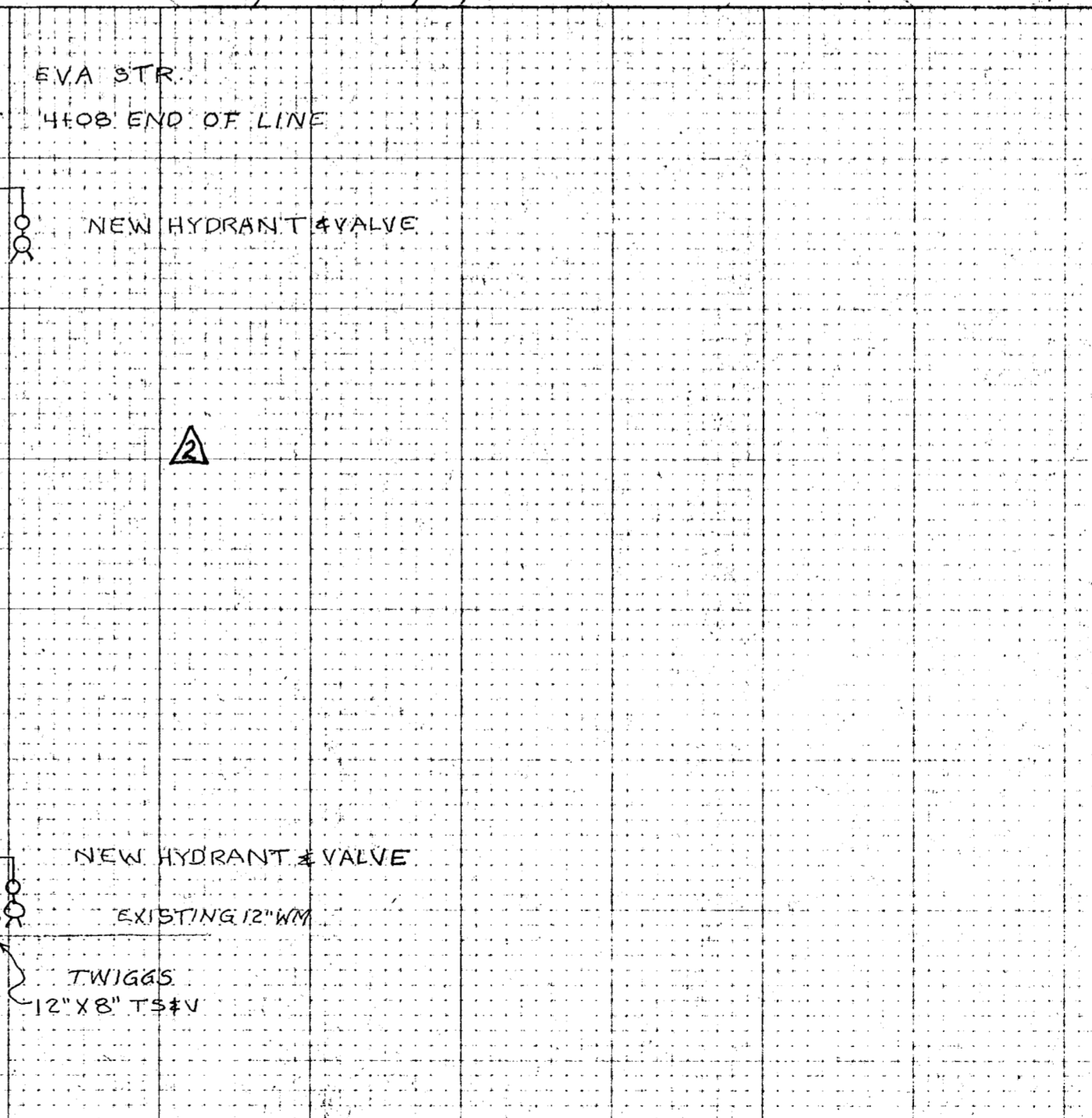
ASQUILT

AS BUILT

SCALE: 1"=50'



DETAIL FOR FH & VALVE



NOTE:
THE RECONNECTION OF SERVICE LINES ON RAYMOND AVE. SHALL BE CONSIDERED AS PART OF THE PIPE COST. MAXIMUM OF FOUR CONNECTIONS NOT SHOWN.

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.
3	FLA.	2		55-7

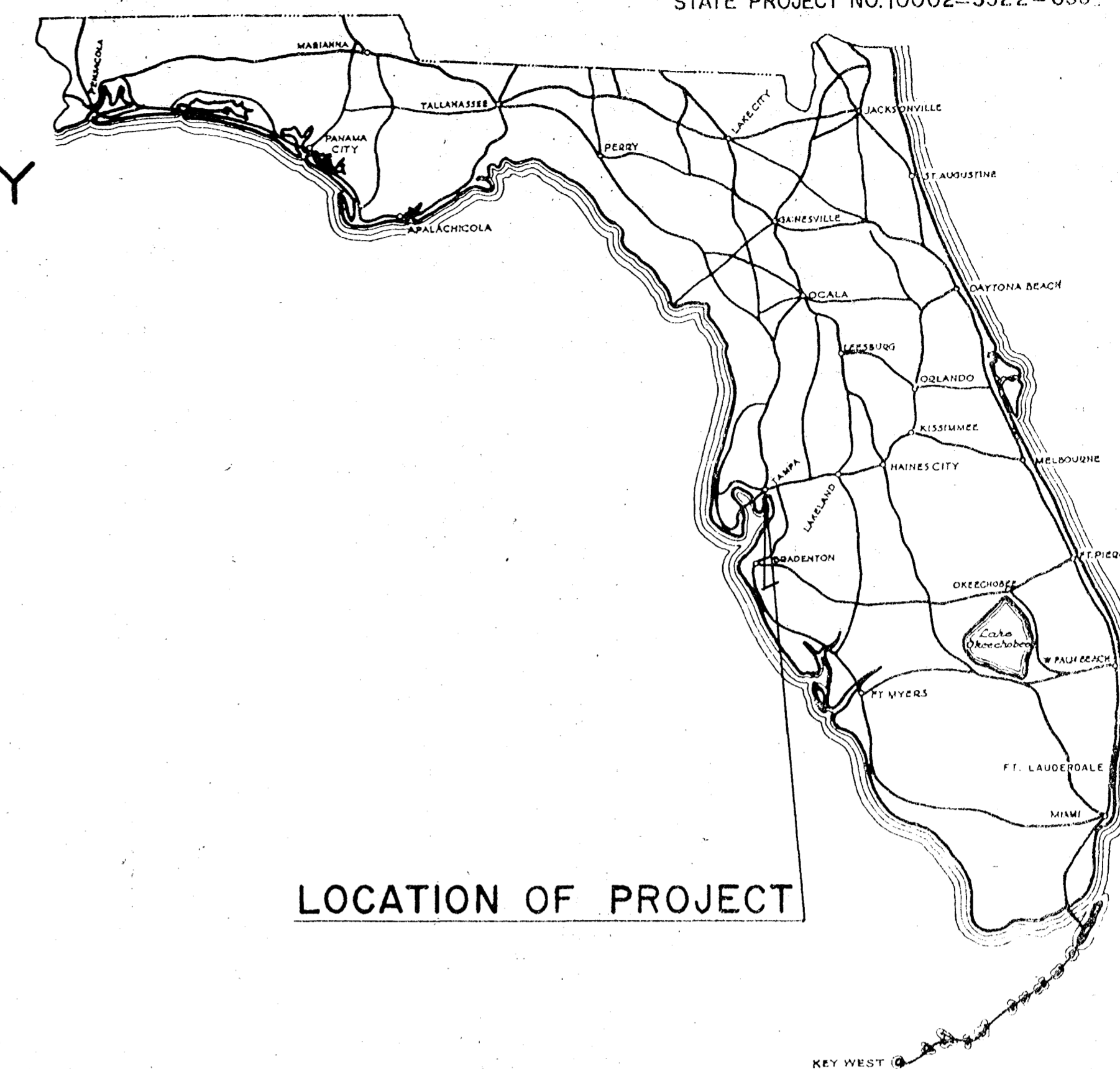
STATE PROJECT NO. 10002-3522-035

STATE OF FLORIDA
TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY
PLANS OF ^{FINAL} PROPOSED

TAMPA SOUTH CROSSTOWN EXPRESSWAY
EASTERN EXTENSION TO I-75

SECTION 1
CONTRACT NO. 11

CITY OF TAMPA & COUNTY OF HILLSBOROUGH
STATE ROAD NO. 618
SANITARY SEWER RELOCATION



LOCATION OF PROJECT

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

GOVERNING SPECIFICATIONS:
STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS, DATED 1977 AND SUPPLEMENTAL SPECS. DATED JULY 1979

Submitted by
WATSON AND COMPANY
Section Engineers

By _____ Name _____ Date _____

AS BUILT

12/81 AS BUILT

Approval Recommended
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
Consulting Engineers

By _____ Name _____ Date _____

Approved _____ 19 _____

By _____
THEODORE C. TAUB, Chairman
TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

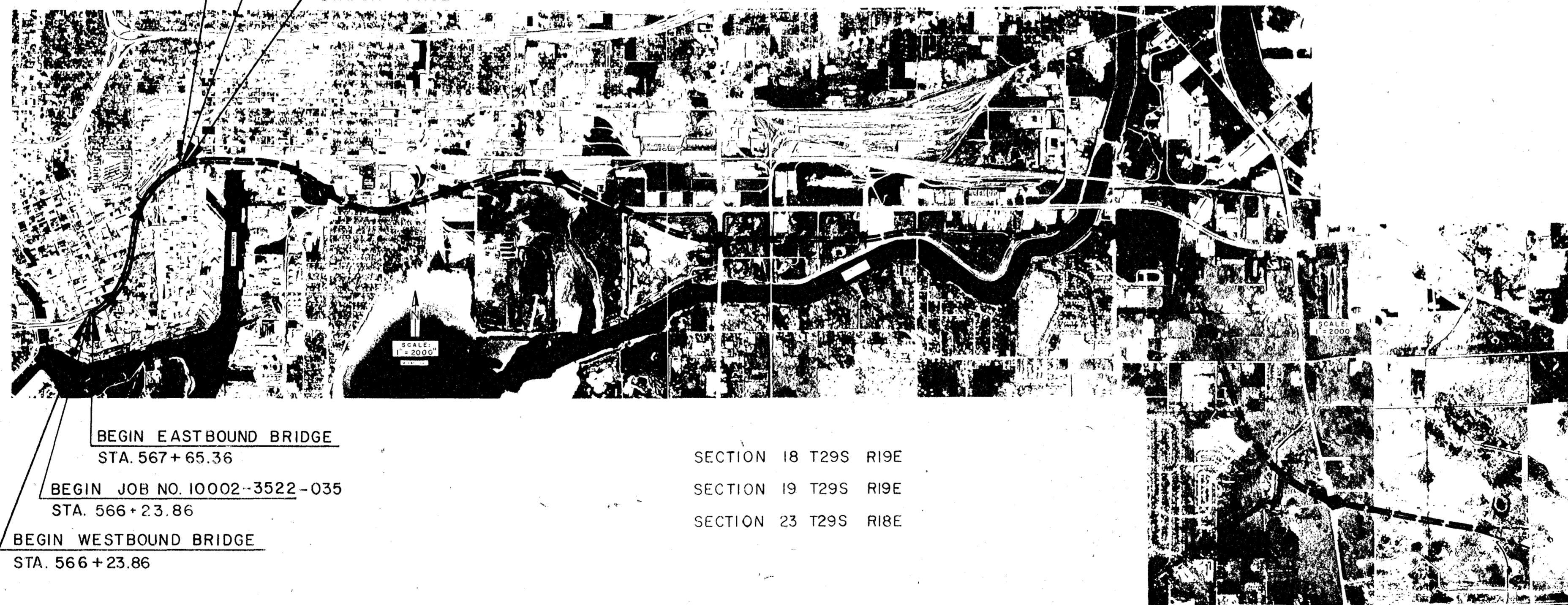
INDEX OF SANITARY SEWER RELOCATION PLANS

SHEET NO.	SHEET DESCRIPTION
SS-1	KEY MAP
SS-2	SUMMARY OF SANITARY SEWER QUANTITIES
SS-3	STANDARD DETAILS
SS-6	PLAN AND PROFILE
SS-5	
SS-9	

END WESTBOUND BRIDGE
STA. 617 + 43.00

END JOB NO. 10002-3522-035
STA. 617+43.00

END EASTBOUND BRIDGE
STA. 617+ 14.82



BEGIN EASTBOUND BRIDGE
STA. 567 + 65.36

BEGIN JOB NO. 10002-3522-035
STA. 566 + 23.86

BEGIN WESTBOUND BRIDGE
STA. 566 + 23.86

SECTION 18 T29S R19E
SECTION 19 T29S R19E
SECTION 23 T29S R18E

THIS IS A REVISED DRAWING

FED. RD. DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.
3	FLA.			55-2

STA. PROJ. 10002-3522-035

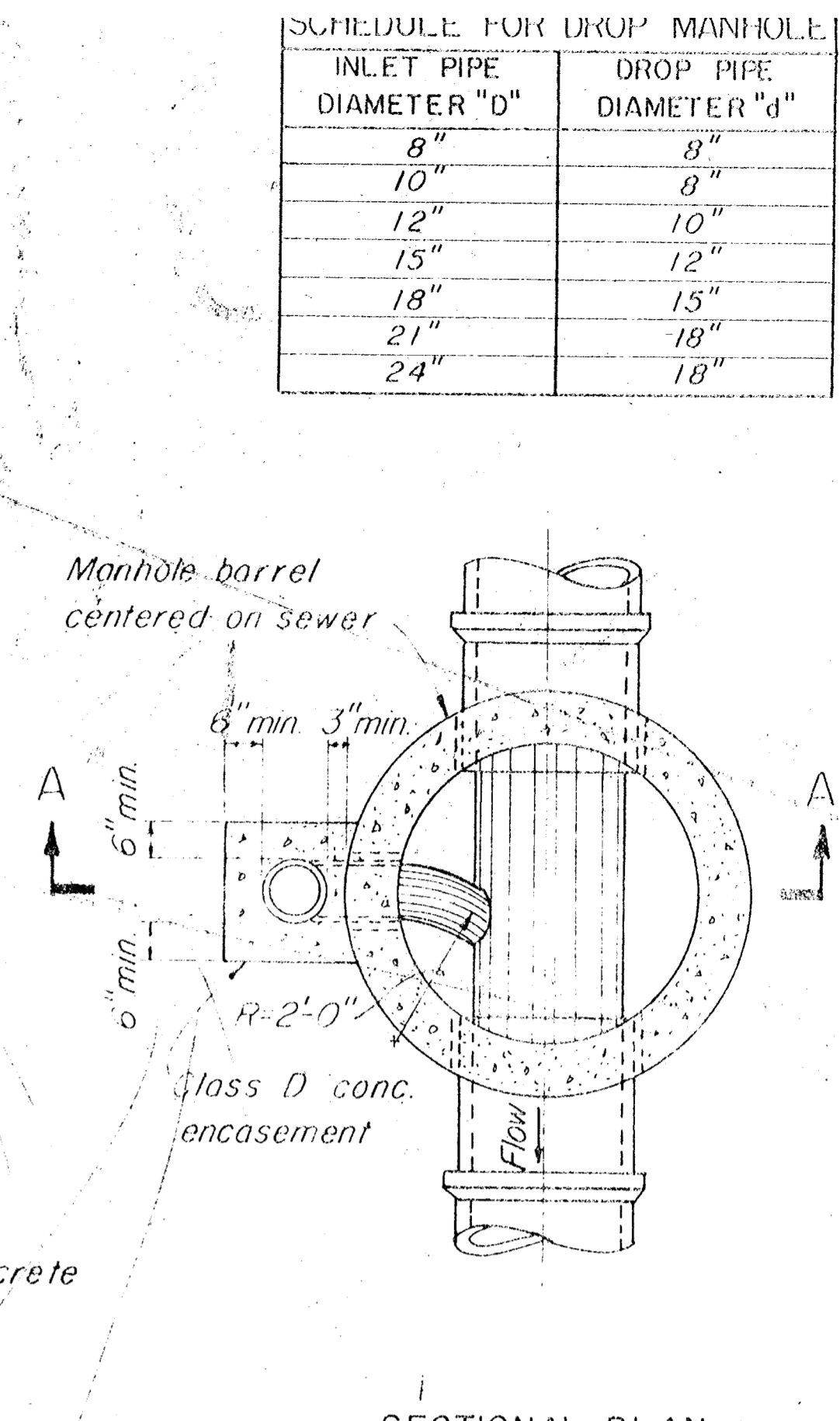
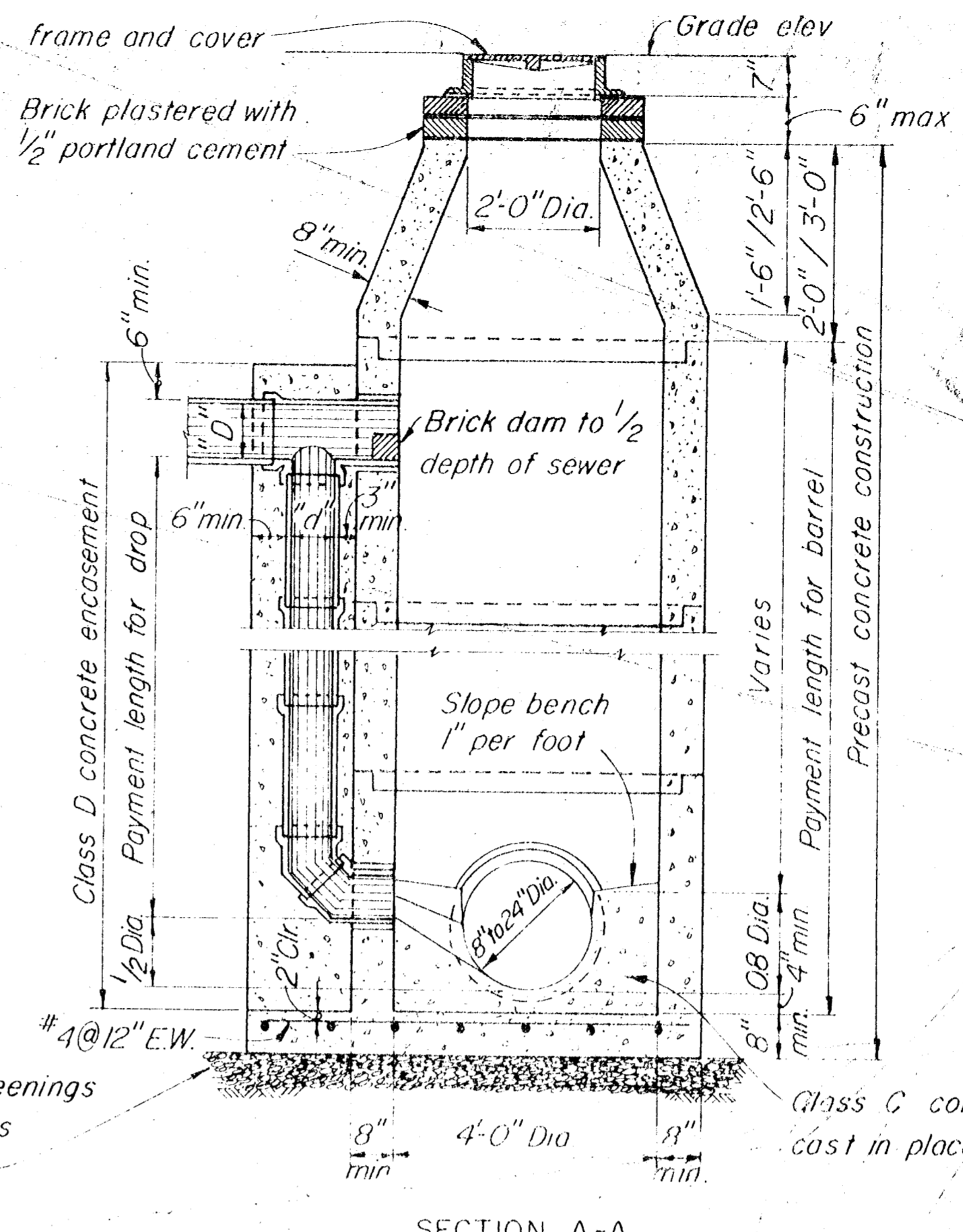
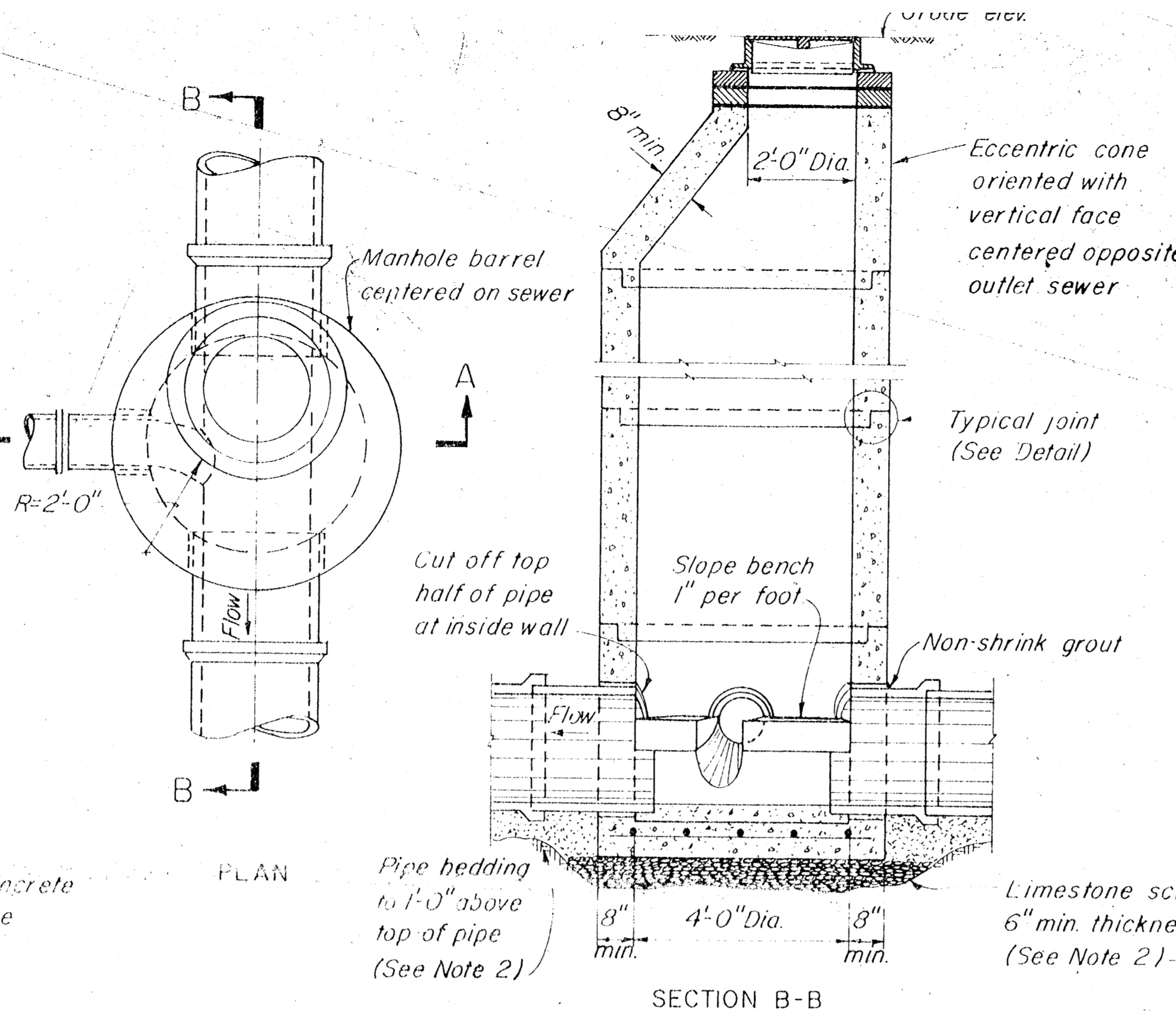
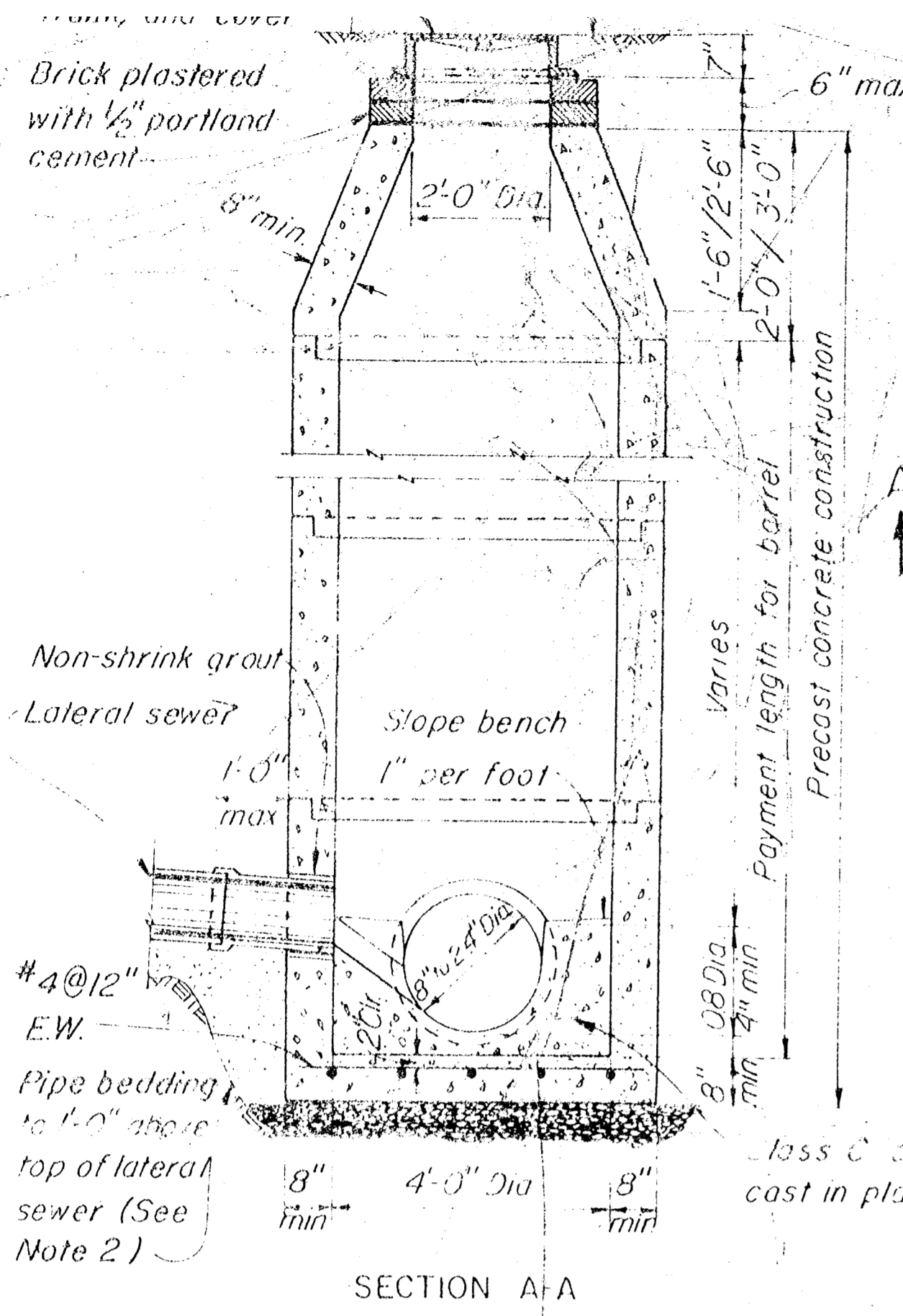
SUMMARY OF SANITARY SEWER QUANTITIES

ITEM NO.	ITEM	UNIT	QUANTITY		
1513-150-118	VITRIFIED CLAY PIPE (8")	LF	353 395.6	△	
1513-150-121	VITRIFIED CLAY PIPE (12")	LF	124 120.8	△	
1514-150-218	DUCTILE IRON PIPE (8")	LF	332		
1521-141	SHEET PILING	SF	18		
1541-111-11	MANHOLE (0'-6")	EA.	8 7	△	
1541-121-12	MANHOLE (6'-12") (STANDARD DROP)	EA.	1		
1618-160-825	STEEL CASING (18") (JACK & BORE)	EA.	26		

AS BUILT

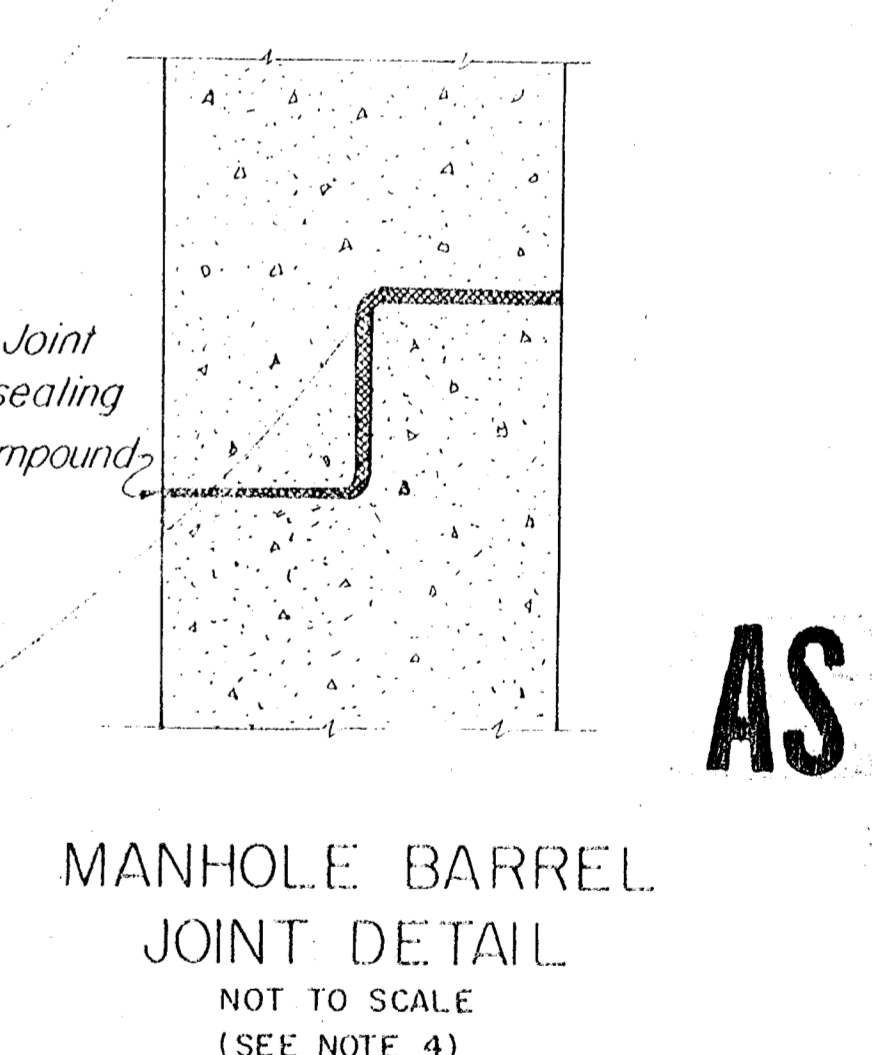
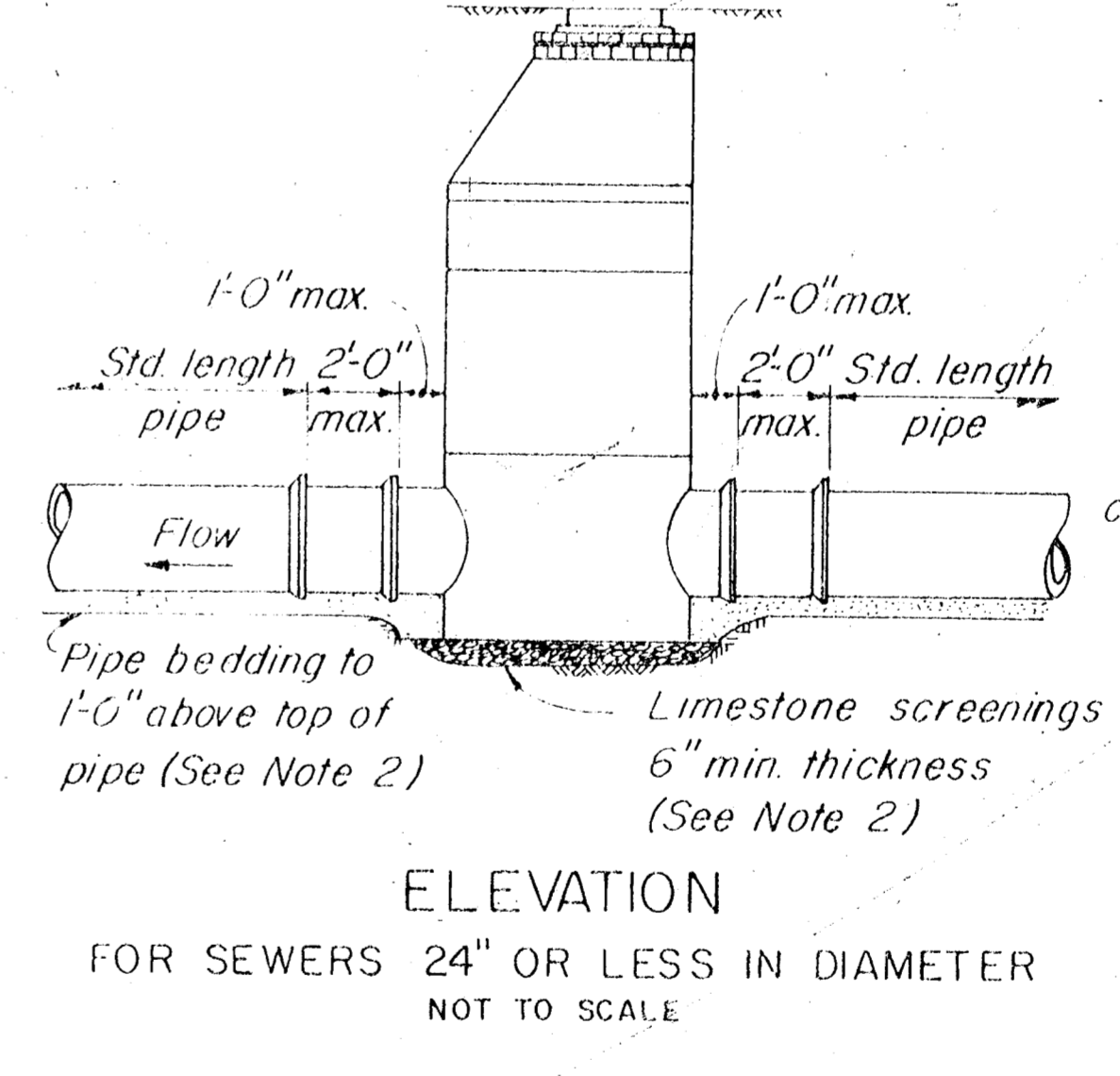
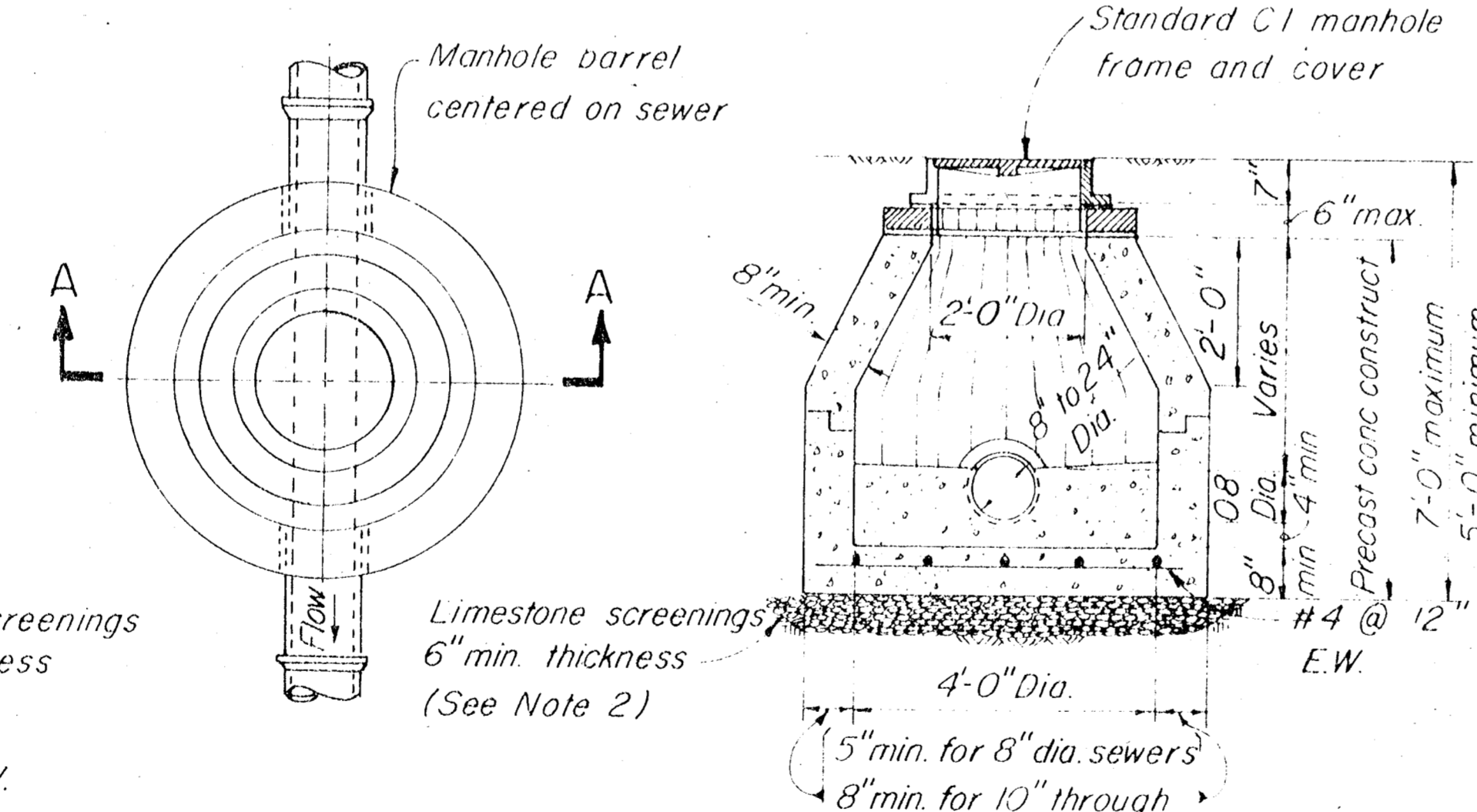
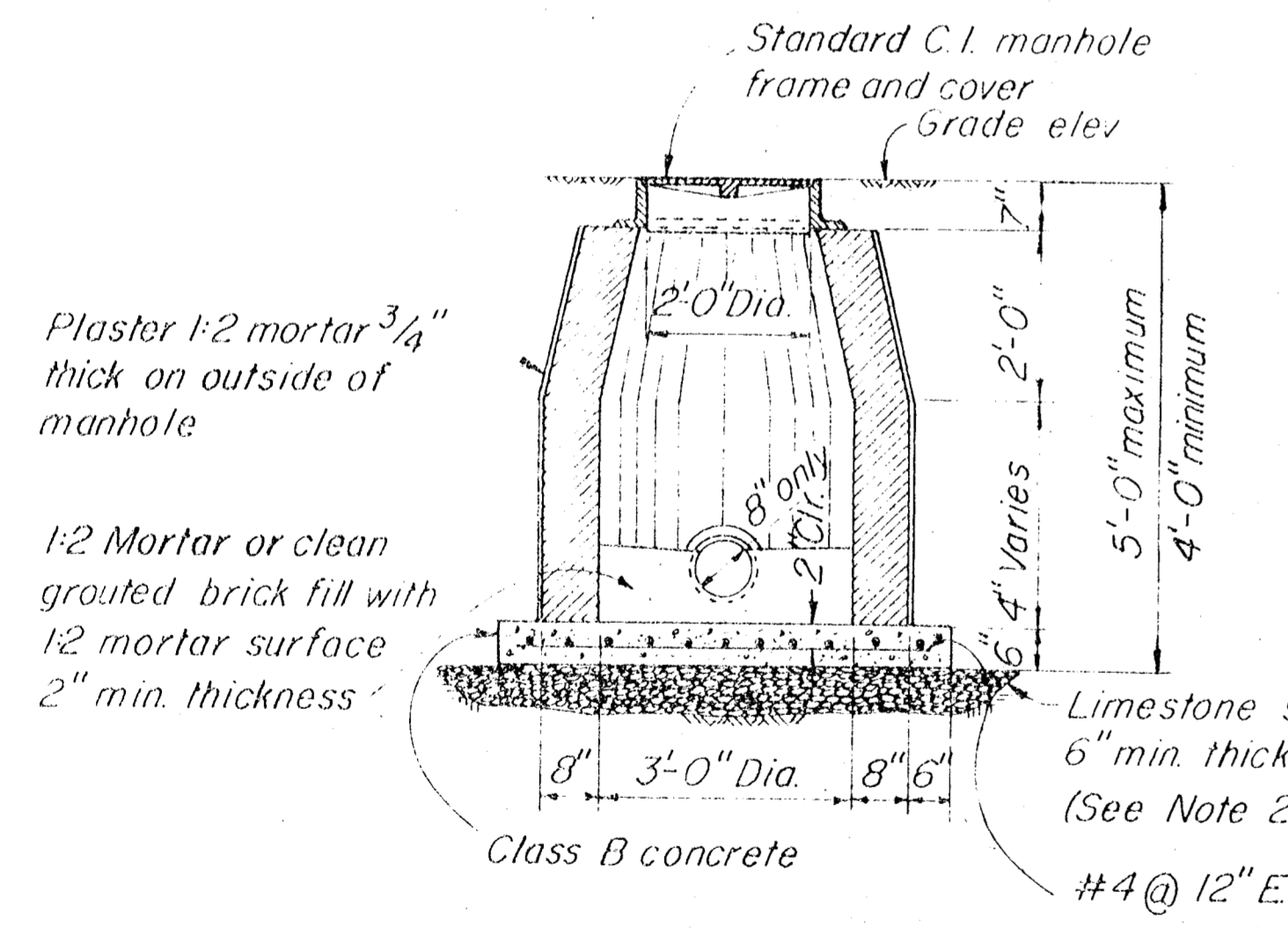
REVISIONS		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY TAMPA SOUTH CROSSTOWN EXPRESSWAY EASTERN EXTENSION TO I-75 HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS	
Date	Description		
11-27	ITEMS & QUANT. UPDATED	SUMMARY OF QUANTITIES WATSON AND COMPANY Architects - Engineers - Planners MADE BY <u>R.B.</u> DATE <u>6/78</u> TRACED BY <u>E.J.</u> DATE <u>7-16-79</u> CHECKED BY <u>J.W.</u> DATE <u>1-1-78</u> SCALE:	
12/81	△ AS BUILT		
		CONTRACT NO. 1.1 SHEET 48 OF 421	

SCHEDULE FOR DROP MANHOLE	
INLET PIPE DIAMETER "D"	DROP PIPE DIAMETER "d"
8"	8"
10"	8"
12"	10"
15"	12"
18"	15"
21"	18"
24"	18"



STANDARD MANHOLE-DEEP TYPE FOR SEWERS 24" OR LESS IN DIAMETER

STANDARD DROP MANHOLE FOR SEWERS 24" OR LESS IN DIAMETER



STANDARD MANHOLE-SHALLOW TYPE FOR SEWERS 24" OR LESS IN DIAMETER

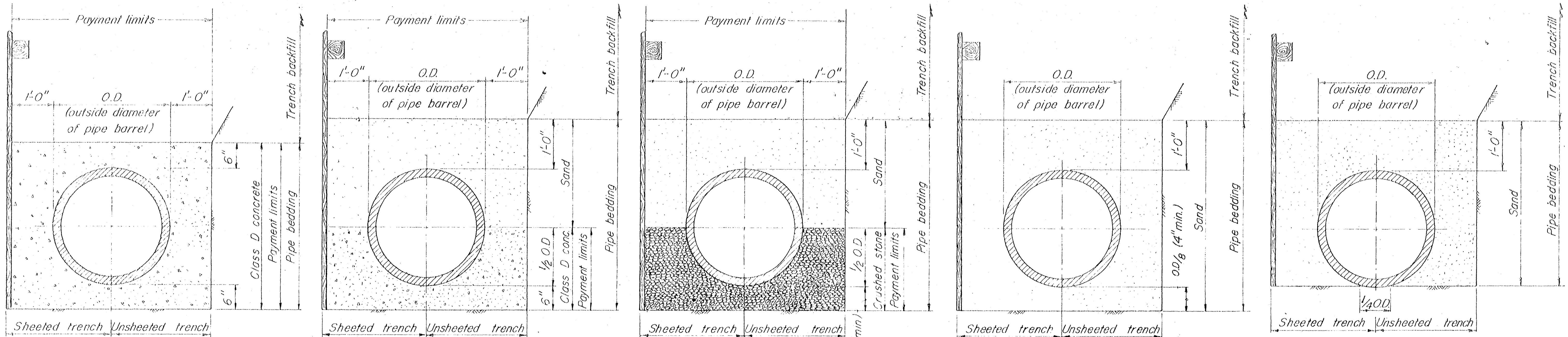
ELEVATION FOR SEWERS 24" OR LESS IN DIAMETER NOT TO SCALE

MANHOLE BARREL JOINT DETAIL NOT TO SCALE (SEE NOTE 4)

AS BUILT

- NOTES:
1. All pipe stubs from manholes for future connections or other Contract Divisions shall be provided with water tight plugs placed from within the manhole.
 2. See Specifications for materials requirements and placements and compaction of pipe bedding and limestone screenings.
 3. Standard Shallow-Type manholes with depths between a maximum of 7'-0" and a minimum of 5'-0" must have a concentric cone for the top section.
 4. All manhole joints must be sealed with an acceptable joint sealing compound regardless of whether an O-ring gasket in a preformed groove is used.
 5. Shallow-Type manholes with depths between a maximum of 5'-0" and a minimum of 4'-0" shall be constructed of brick with a 3'-0" inside diameter and concentric cone as shown above. Manholes with depths less than 4'-0" will not be accepted.

DESIGNED BY ELTON G. SMITH, P.E. # 19872 DEPUTY DIRECTOR DEPARTMENT OF SANITARY SEWERS	DESIGNED DRN: CKD: J.P.M. DATE:	APPROVED BY J.W. SILLIMAN, P.E., DIRECTOR DEPARTMENT OF SANITARY SEWERS	NO. 1 DATE REVISIONS	SCALE NO SCALE	DEPARTMENT of SANITARY SEWERS CITY of TAMPA, FLORIDA RENEWAL & REPLACEMENT	MANHOLE DETAILS
	SEWER IMPROVEMENTS					
	SHEET 49 OF 421					
	BRUNING 44-132-2597					
	12/81 AS BUILT					



CONCRETE ENCASEMENT

CLASS A BEDDING (CONCRETE CRADLE)

CLASS B BEDDING

CLASS C BEDDING

CLASS D BEDDING

PIPE BEDDING DETAILS

NOT TO SCALE

NOTES 1. All types of pipe bedding shall extend to undisturbed earth at the sides and bottom of the trench
2. Sand and crushed stone pipe bedding shall be placed and compacted in accordance with Specifications.

QUANTITIES FOR PAYMENT FOR ADDITIONAL PIPE BEDDING MATERIALS ORDERED IN WRITING BY THE ENGINEER

NOMINAL INSIDE PIPE DIAMETER (INCHES)	6	8	10	12	14	15	16	18	20	21	24	27	30	36	42	48	54	60	66	72
CUBIC YARDS OF CONCRETE PER LINEAR FOOT OF PIPE IN CONCRETE ENCASEMENT	0.141	0.167	0.191	0.216	0.229	0.255	0.252	0.279	0.300	0.314	0.383	0.427	0.472	0.588	0.693	0.797	0.929	1.027	1.150	1.279
CUBIC YARDS OF CONCRETE PER LINEAR FOOT OF PIPE IN CLASS A BEDDING (CONCRETE CRADLE)	0.071	0.084	0.096	0.109	0.115	0.128	0.126	0.150	0.150	0.170	0.192	0.214	0.236	0.294	0.345	0.399	0.455	0.514	0.575	0.640
CUBIC YARDS OF CRUSHED STONE PER LINEAR FOOT OF PIPE IN CLASS B BEDDING	0.055	0.066	0.078	0.088	0.094	0.111	0.108	0.143	0.143	0.173	0.207	0.243	0.280	0.381	0.475	0.578	0.690	0.810	0.939	1.078

NOTES FOR PAYMENT

1. Payment for additional crushed stone or class D concrete pipe bedding materials will be made only for pipe bedding ordered in writing by the Engineer.
2. Payment for surface restoration will be made for the actual quantities, as determined by the Engineer, of surface restored within the payment limits shown.
3. Payment for additional sand or crushed stone for trench stabilization, ordered in writing by the Engineer, will be made for the actual compacted volume, as determined by the Engineer, of sand or crushed stone placed within the payment limits shown.
4. Contractor shall use all surplus sand, approved as suitable, from excavations in this Contract prior to supplying sand from other sources. Payment for additional sand will be made only for sand supplied from sources other than excavations in this Contract. See Specifications for materials requirements.

NOTES:

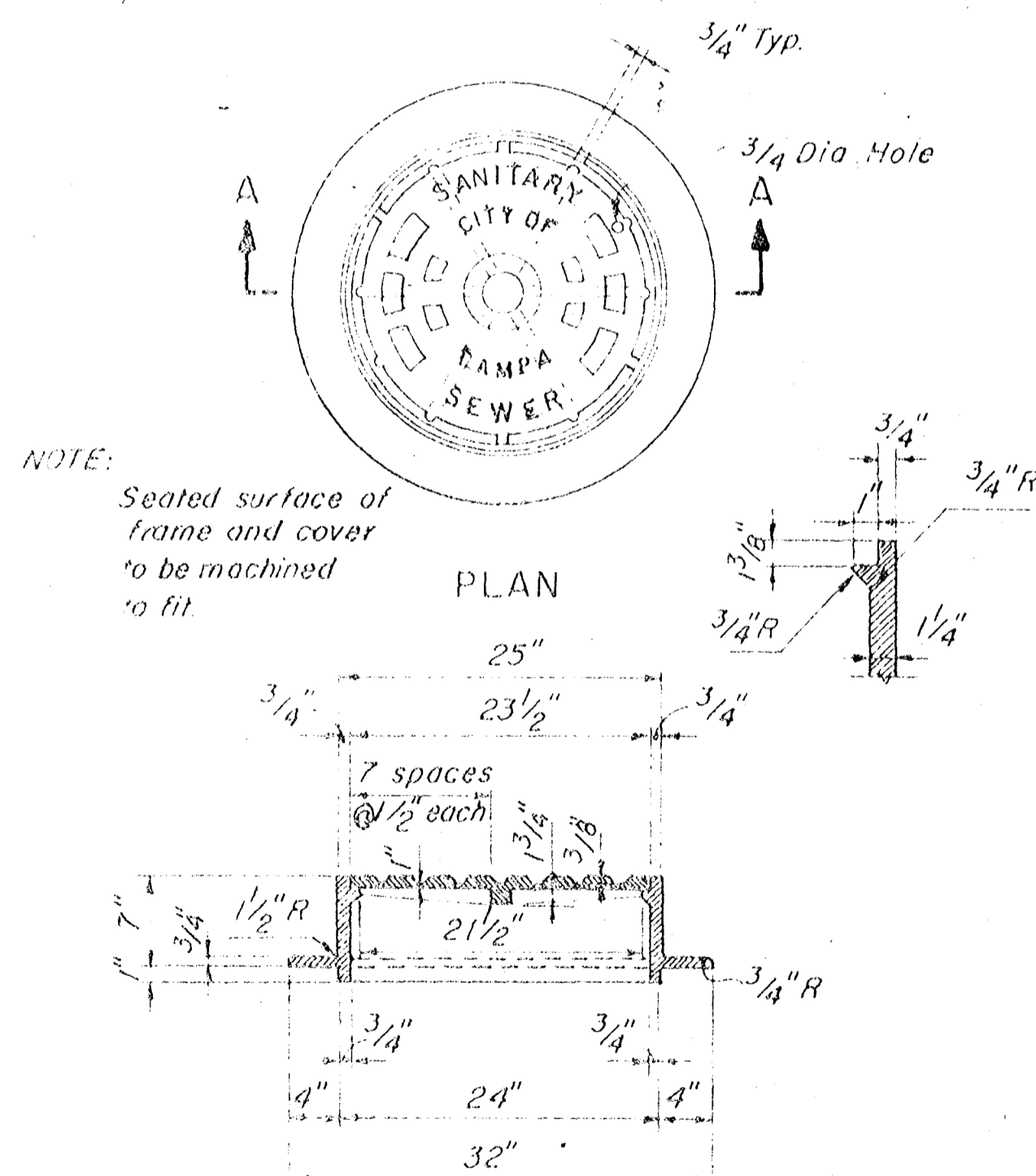
1. All casing pipes shall be welded steel pipe conforming to A.S.T.M. Des. A139 or tongue and groove reinforced concrete pipe conforming to A.S.T.M. Des. C76, class V.
2. Minimum diameter for manually excavated casing pipes shall be 36 inches.

CORRESPONDING CARRIER AND CASING PIPE SIZES

NOMINAL INSIDE DIAMETER OF CARRIER PIPE (INCHES)	6	8	10	12	14	15	16	18	20	21	24	27	30	36	42	48	54	60	66	72
MINIMUM INSIDE DIAMETER OF CASING PIPE (INCHES)	9	21	24	26	28	26	30	34	36	36	45	45	51	60	66	75	84	90	96	102

DETAIL OF JACKED CROSSINGS

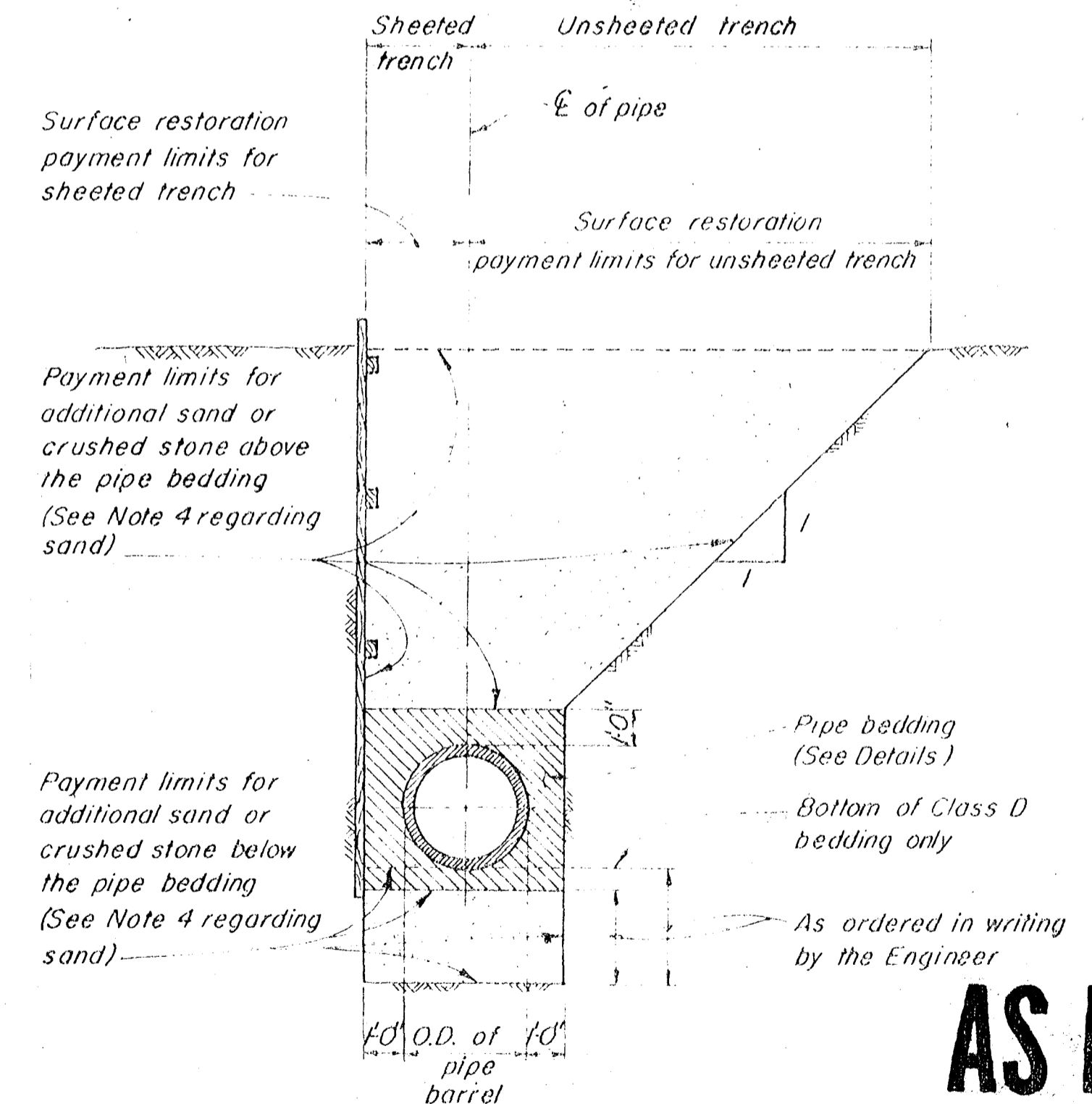
NOT TO SCALE



SECTION A-A

CAST IRON MANHOLE FRAME & COVER

ALL MANHOLES
Approx. Wt. 380#
SCALE 1" = 1'-0"



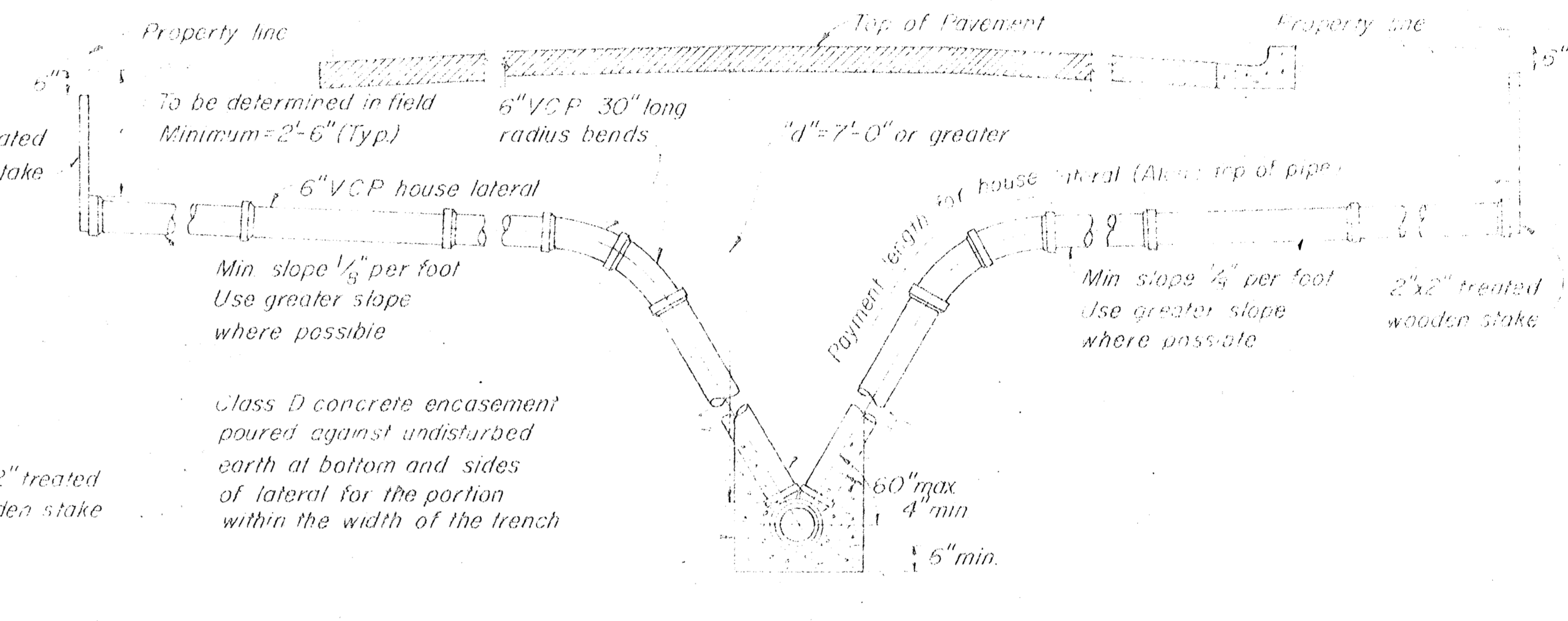
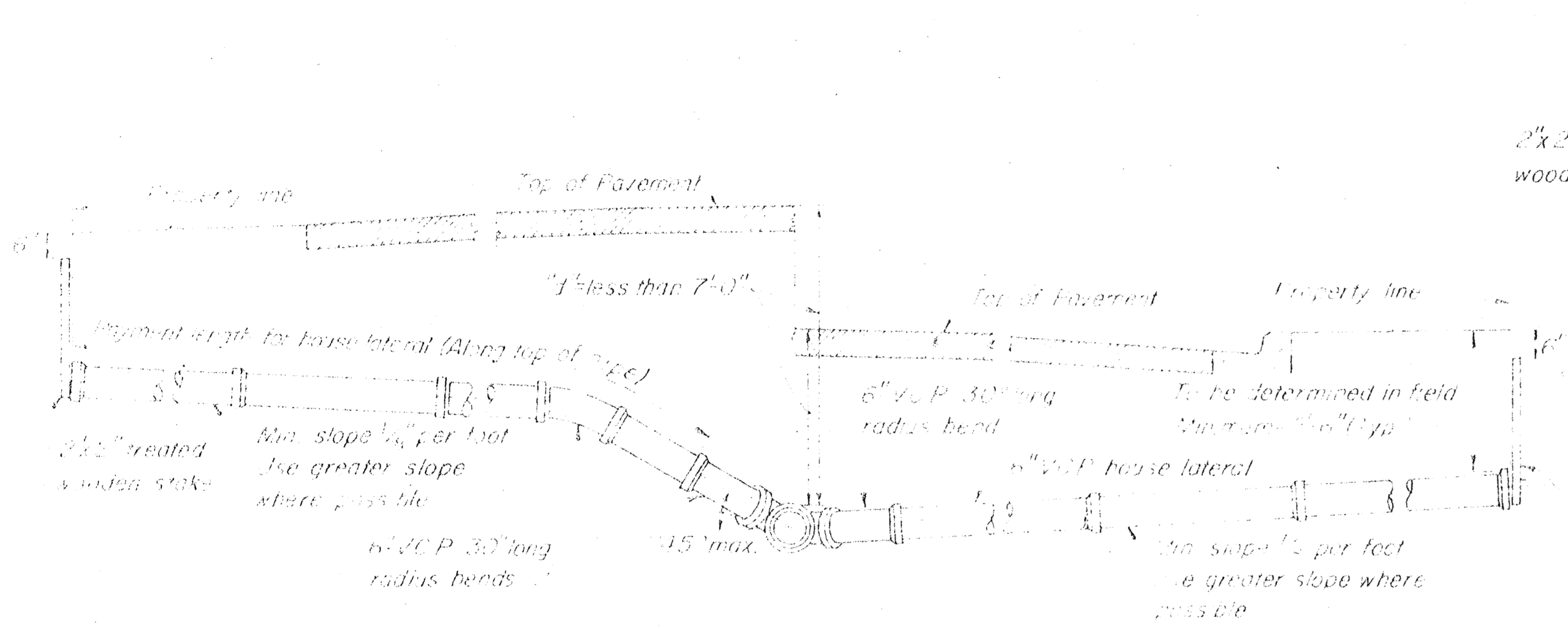
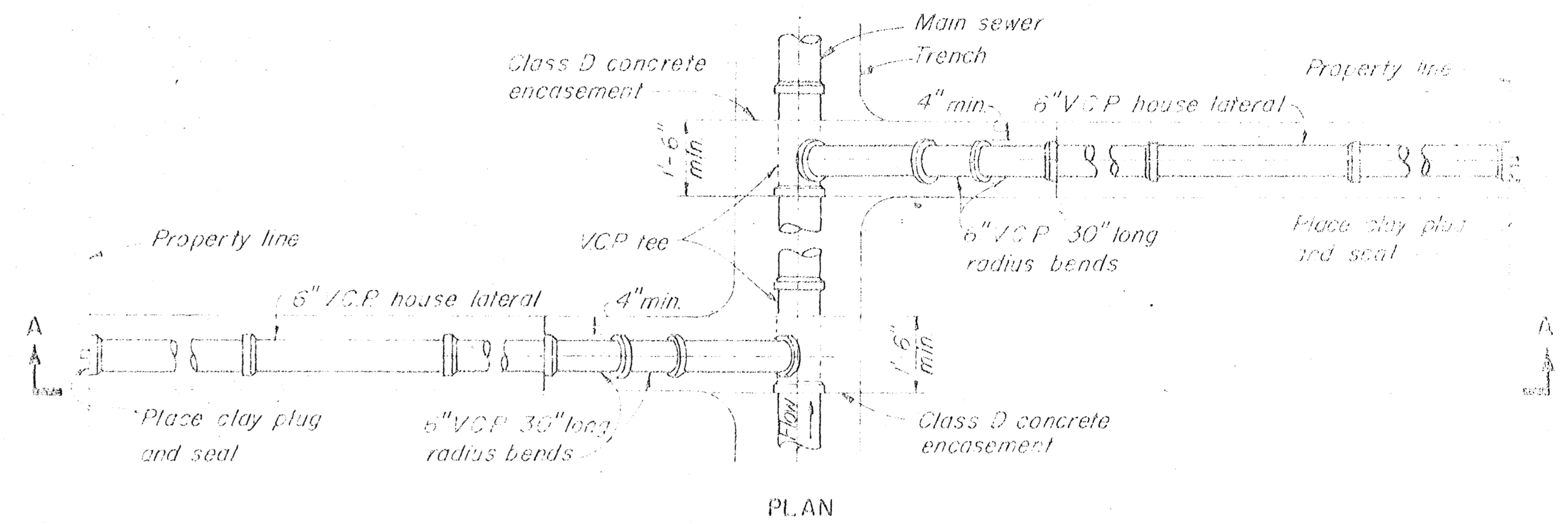
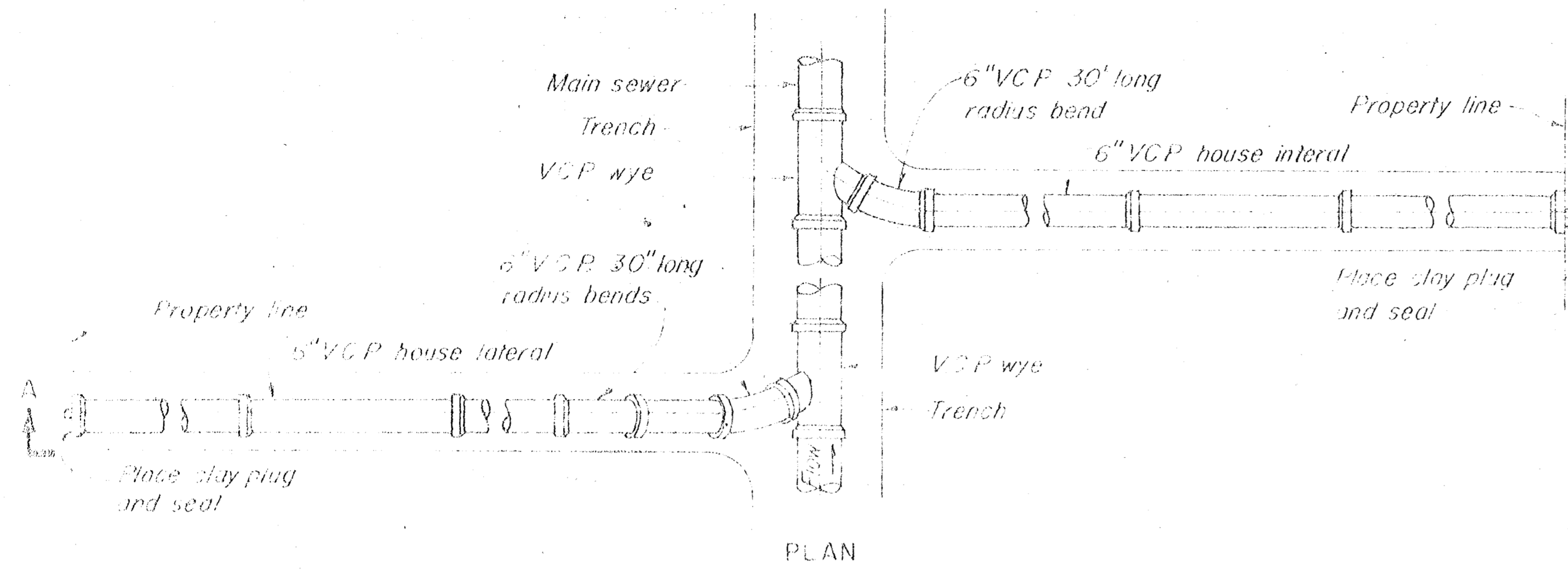
PAYMENT LIMITS FOR SURFACE RESTORATION AND ADDITIONAL SAND OR CRUSHED STONE FOR TRENCH STABILIZATION

NOT TO SCALE

AS BUILT

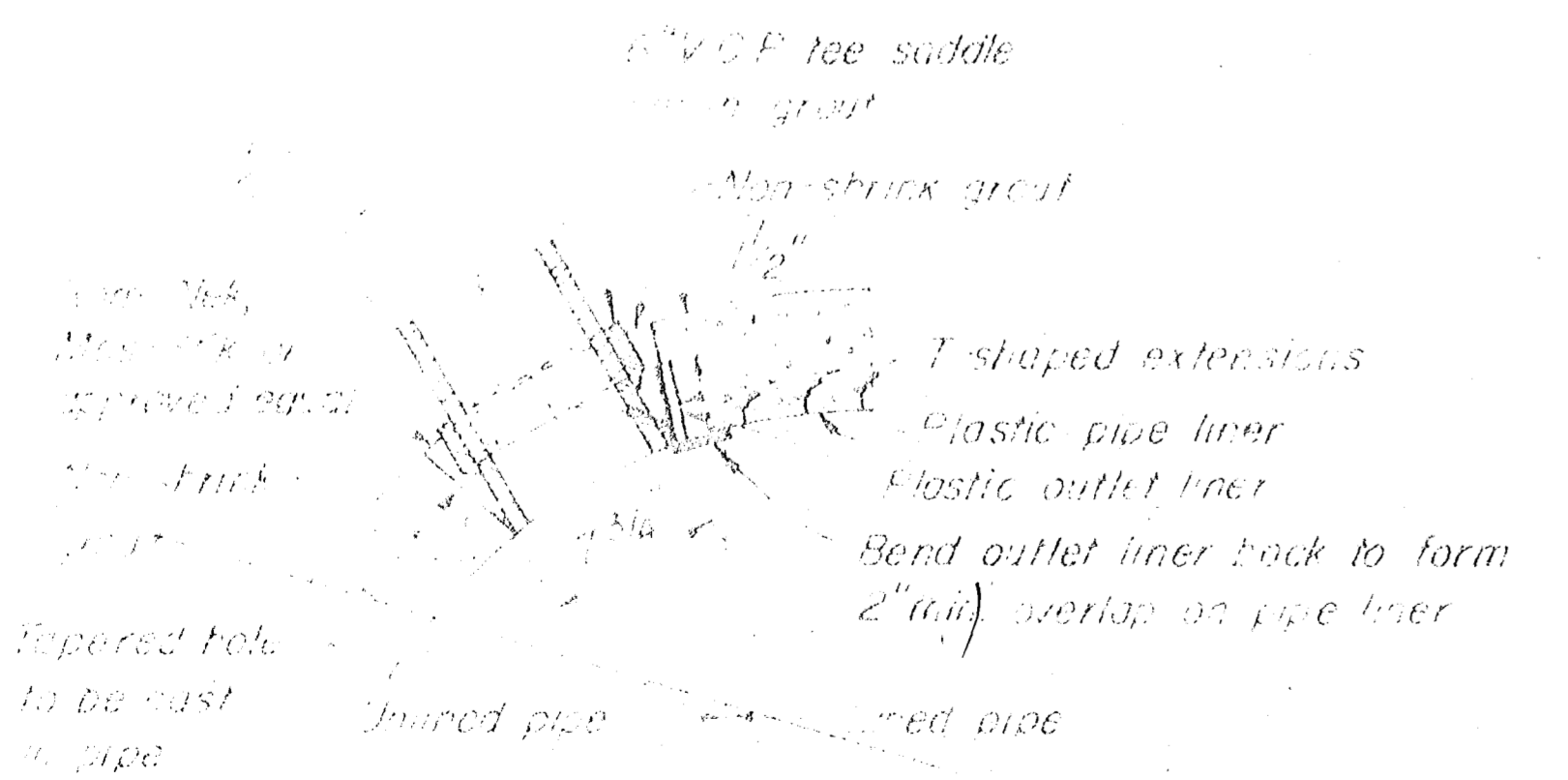
12/81 AS BUILT

 ELTON G. SMITH, P.E. # 19872 DEPUTY DIRECTOR DEPARTMENT OF SANITARY SEWERS	DES	APPROVED BY J.W. SILLIMAN, P.E., DIRECTOR DEPARTMENT OF SANITARY SEWERS	NO.	DATE	REVISIONS	SCALE NO SCALE	DEPARTMENT OF SANITARY SEWERS CITY OF TAMPA, FLORIDA	MISCELLANEOUS STANDARD DETAILS
	DIRN		1					
	CKD		2					
	DATE		3					
			4					

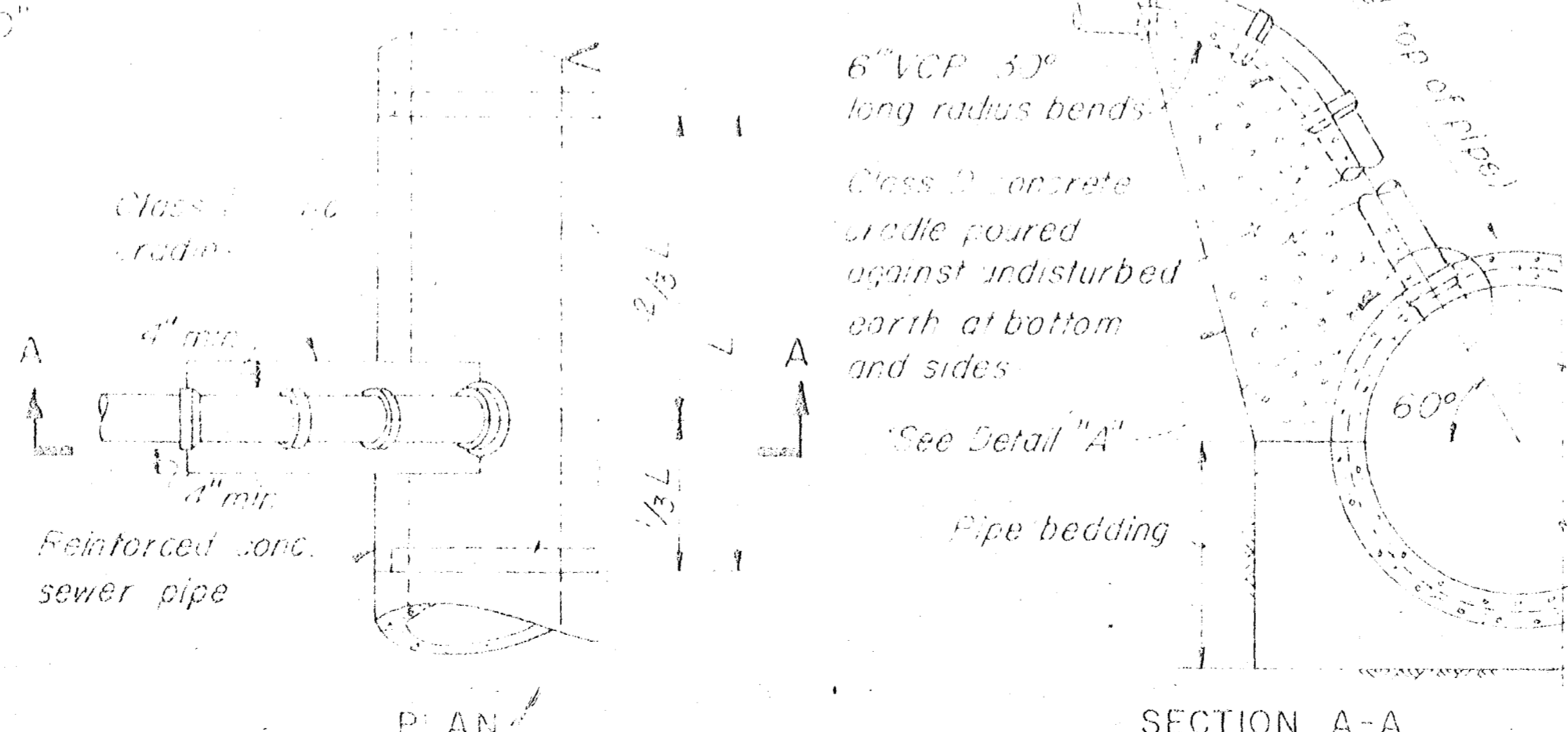


SECTION A-A
TYPE A HOUSE LATERAL DETAILS
 FOR CLAY PIPE SEWERS
 WHEN "d" IS LESS THAN 7'-0"
 SCALE 1/2" = 1'-0"

SECTION A-A
TYPE B HOUSE LATERAL DETAILS
 FOR CLAY PIPE SEWERS
 WHEN "d" IS 7'-0" OR GREATER
 SCALE 1/2" = 1'-0"



DETAIL "A"
 SCALE 1/2" = 1'-0"

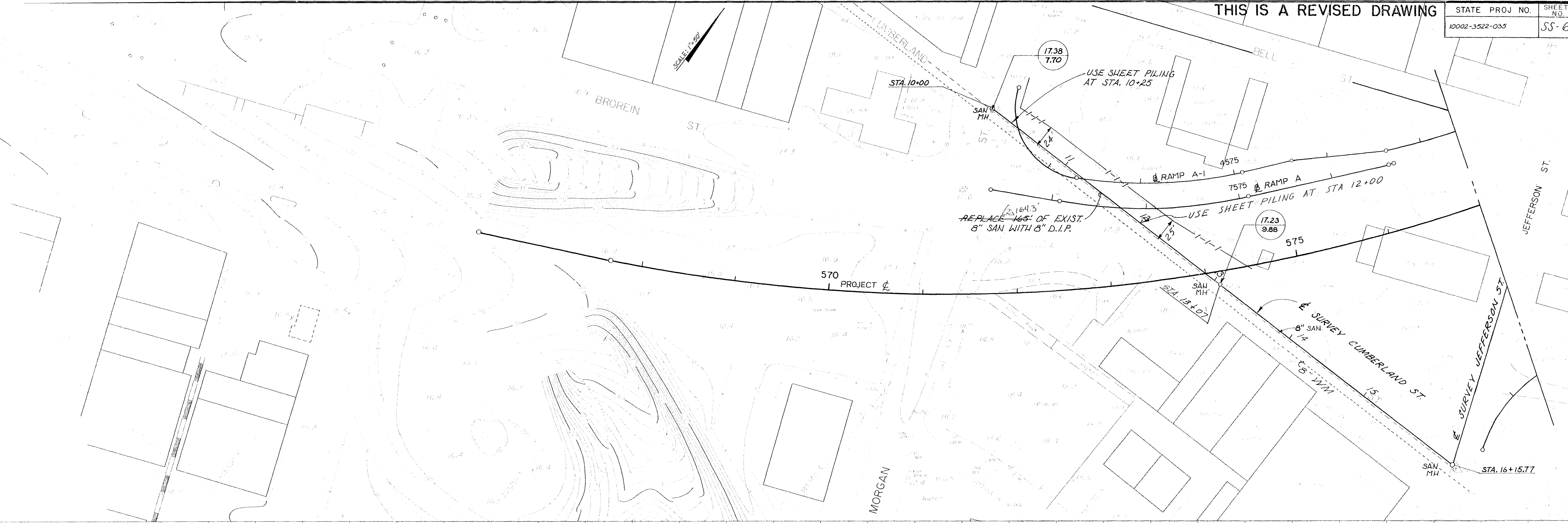


PLAN
 SECTION A-A
TYPE C HOUSE LATERAL CONNECTION DETAILS
 FOR CONCRETE PIPE SEWERS
 SCALE 1/2" = 1'-0"

- NOTES
1. The locations of house laterals as indicated by symbols on the plans are approximate only and the actual locations and slopes will be determined in the field by the Engineer.
 2. The minimum diameter of all house laterals shall be 6 inches.
 3. House laterals shall pass under drainage ditches with a minimum clearance of 18 inches from the bottom of the ditch to the top of the house lateral.

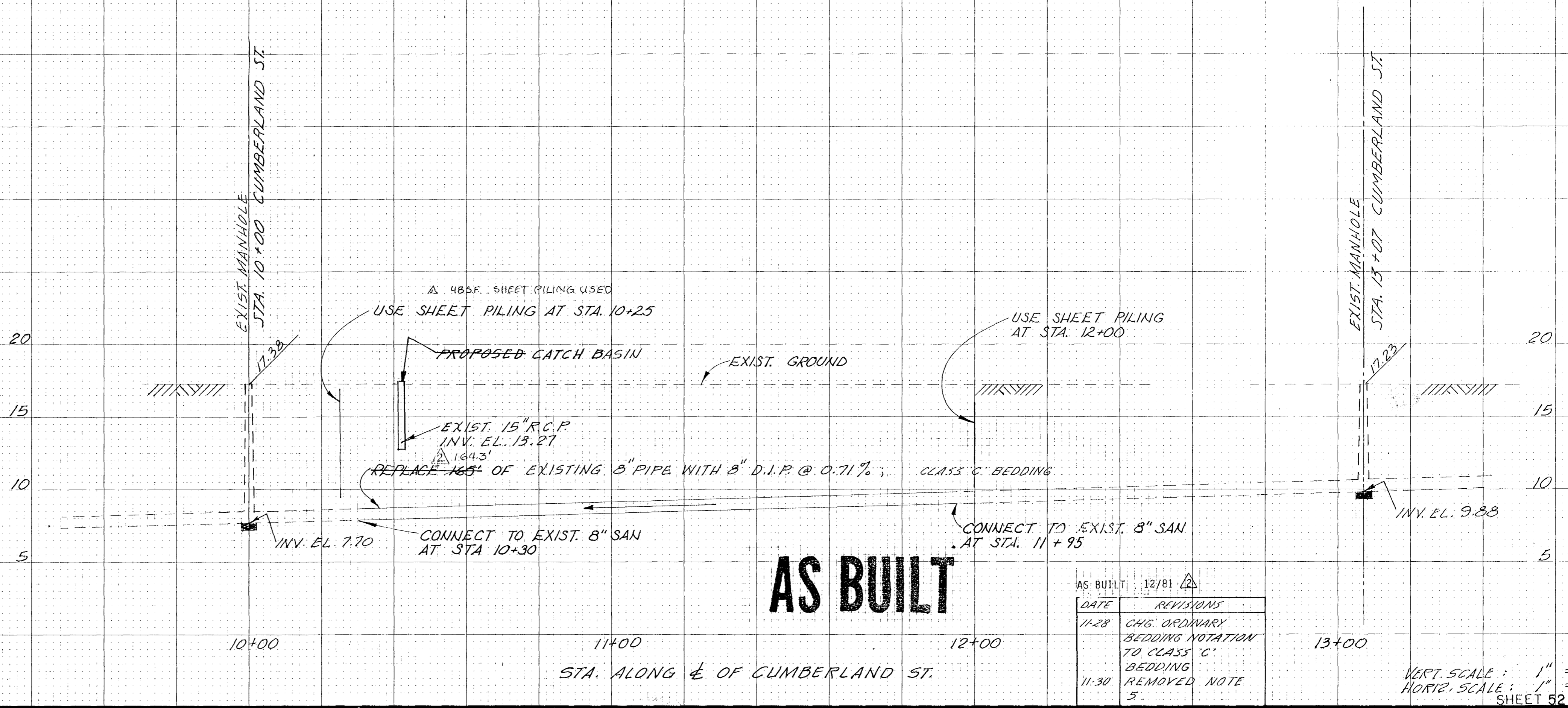
AS BUILT
 12/81 AS BUILT

 PHILIP J. SMITH, P.E. # 3872 SENIOR DIRECTOR DEPARTMENT OF SANITARY SEWERS	D'S DRN OKD DATE: MAR 25, 1975	APPROVED BY: J.W. SULLIVAN, P.E. DIRECTOR DEPARTMENT OF SANITARY SEWERS	SCALE AS SHOWN	DEPARTMENT OF SANITARY SEWERS CITY OF TAMPA, FLORIDA RENEWAL & REPLACEMENT SEWER IMPROVEMENTS	HOUSE CONNECTION DETAILS



GENERAL NOTES:

1. THE LINES AND GRADES OF EXISTING UTILITIES SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATIONS OF ALL EXISTING UTILITIES AFFECTING HIS WORK, PRIOR TO CONSTRUCTION. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT SAID UTILITIES FROM DAMAGE CAUSED BY HIS OPERATIONS, WHETHER SHOWN ON THE PLANS OR NOT.
2. THE CONTRACTOR SHALL MAINTAIN SERVICE IN ACCORDANCE WITH THE SPECS.
3. ABANDONED PIPE MAY HAVE TO BE CRUSHED OR FILLED AT THE ENGINEER'S DISCRETION.
4. TYPE AND SIZE OF SHEET PILING TO BE DETERMINED BY CONTRACTOR.



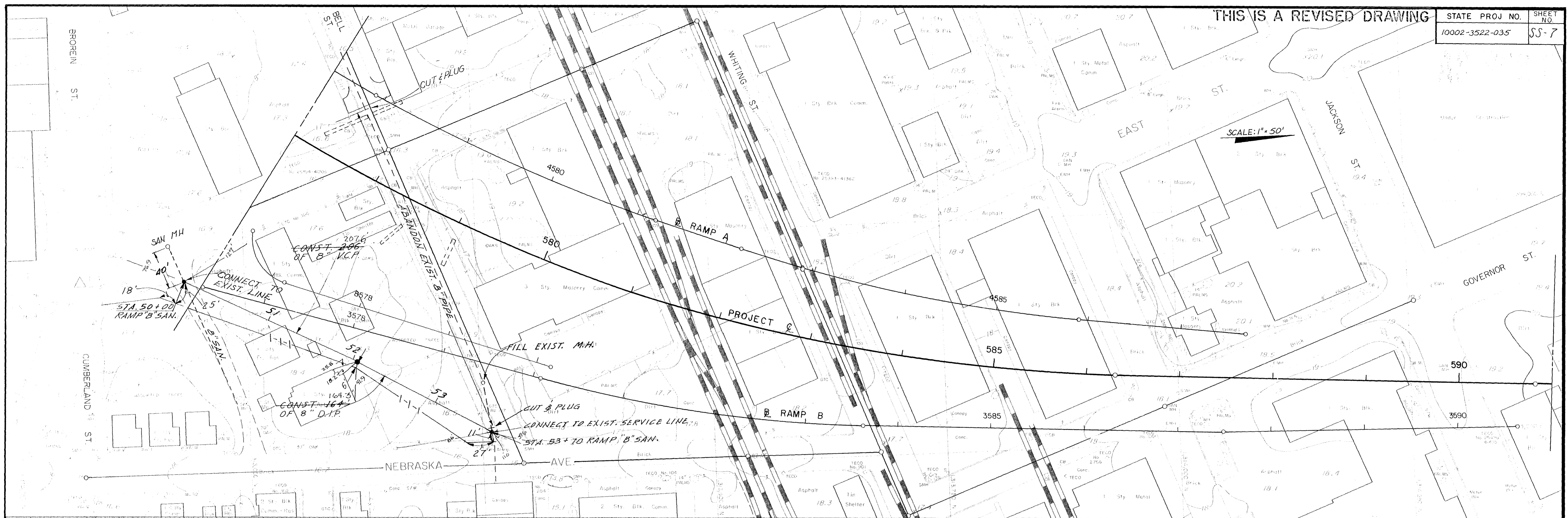
AS BUILT

DATE	REVISIONS
11-28	CHG. ORDINARY BEDDING NOTATION TO CLASS 'C' BEDDING
11-30	REMOVED NOTE 5.

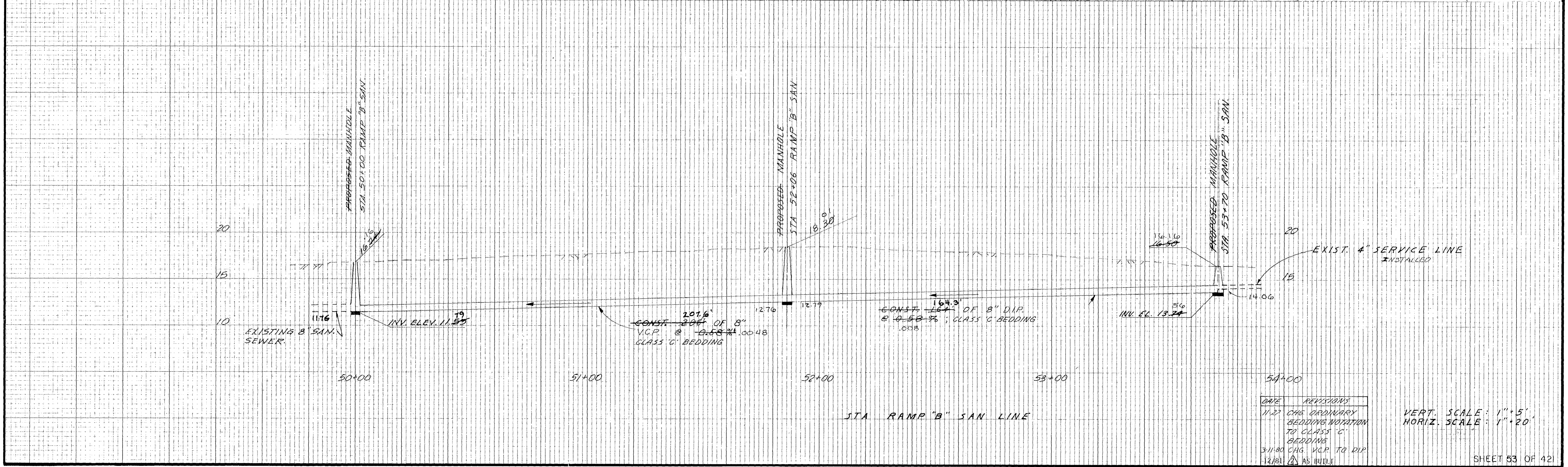
VERT. SCALE: 1" = 5'
 HORIZ. SCALE: 1" = 20'
 SHEET 52 OF 421

THIS IS A REVISED DRAWING

STATE PROJ NO. 10002-3522-035
SHEET NO. SS-7



SCALE: 1" = 50'



STA RAMP "B" SAN LINE

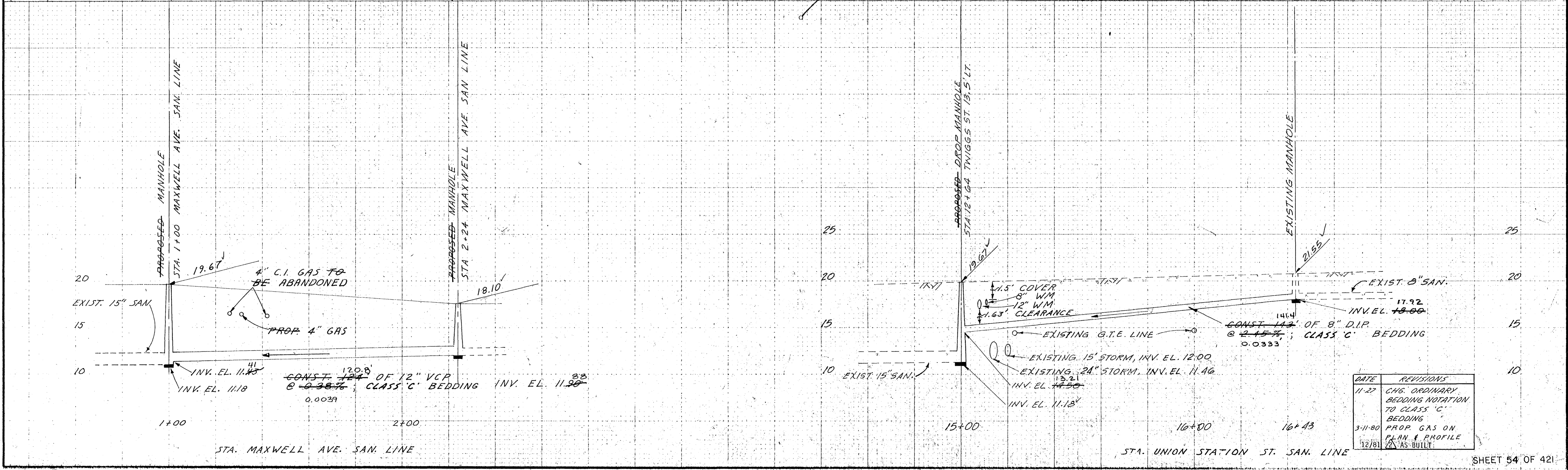
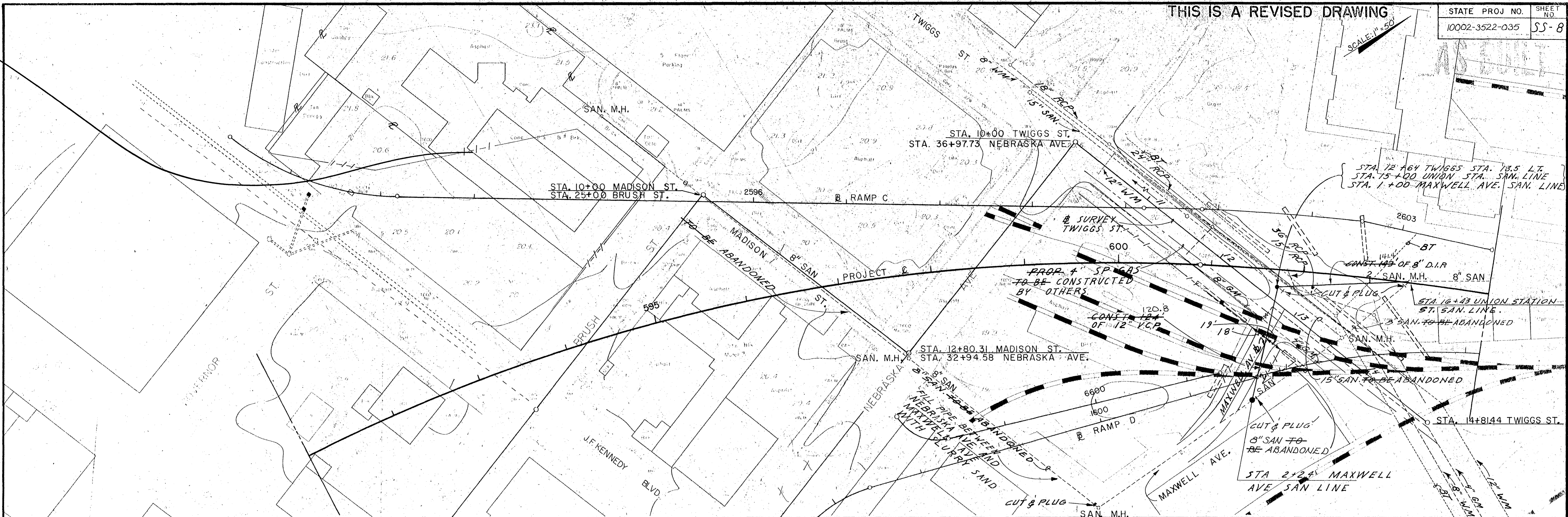
DATE	REVISIONS
11-21	CHG. ORDINARY BEDDING NOTATION TO CLASS "C"
3-11-80	CHG. V.C.P. TO DIP
12/81	AS BUILT

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

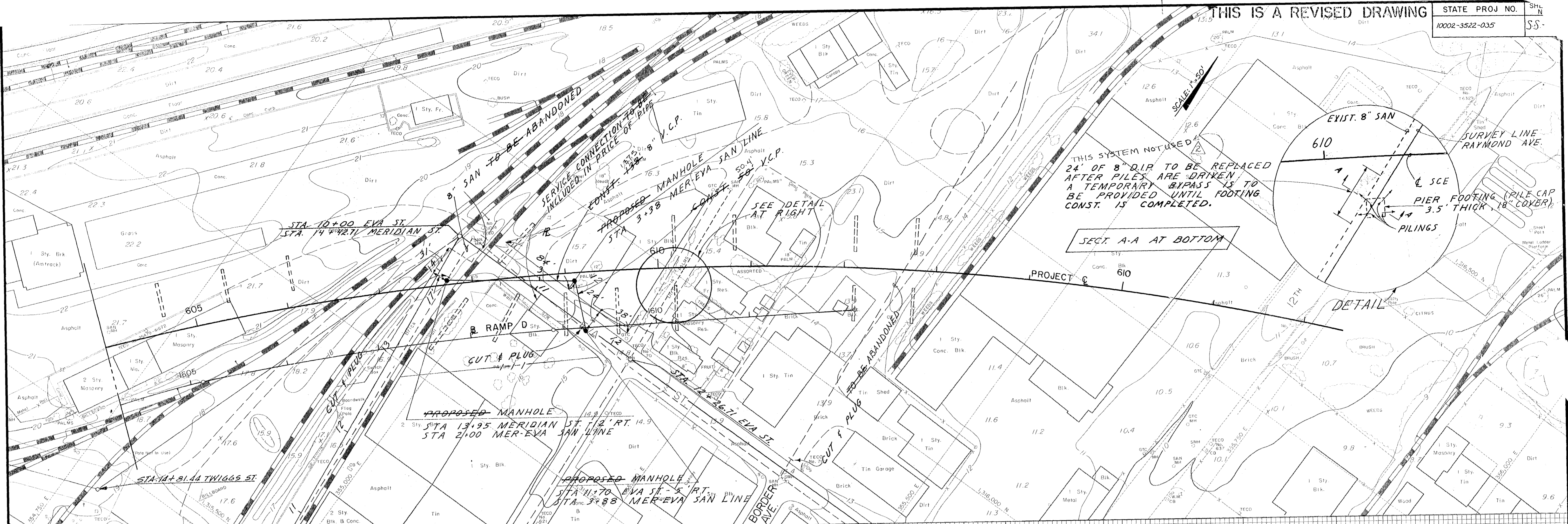
THIS IS A REVISED DRAWING

STATE PROJ. NO. 10002-3522-035
SHEET NO. SS-8

SCALE: 1" = 50'

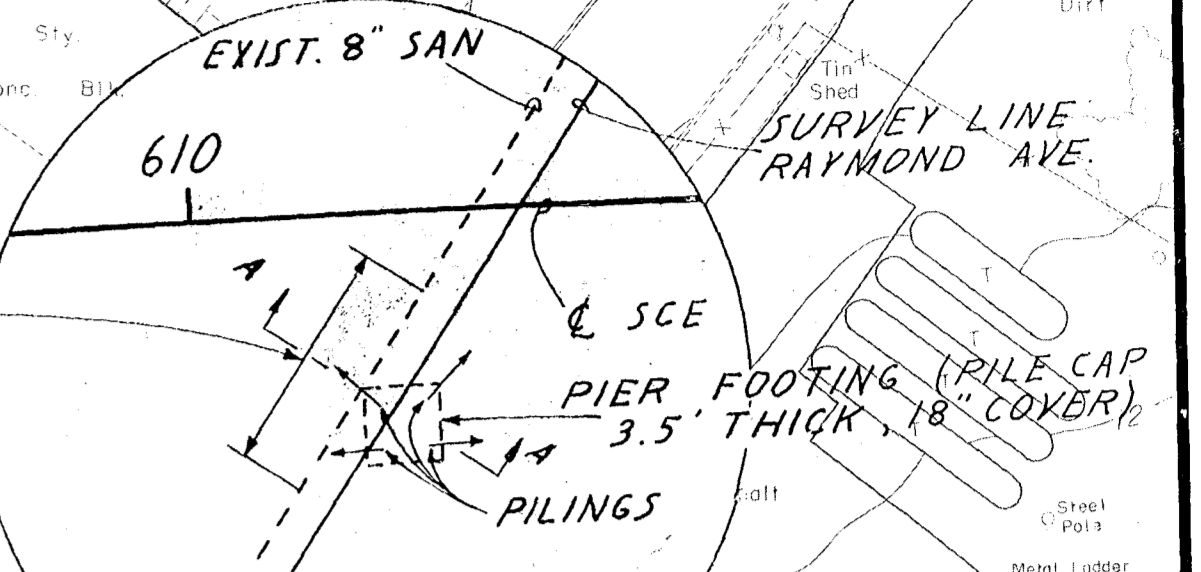


DATE	REVISIONS
11-27	CHG. ORDINARY BEDDING NOTATION TO CLASS 'C' BEDDING
3-11-80	PROP. GAS ON PLAN & PROFILE
12/81	AS-BUILT

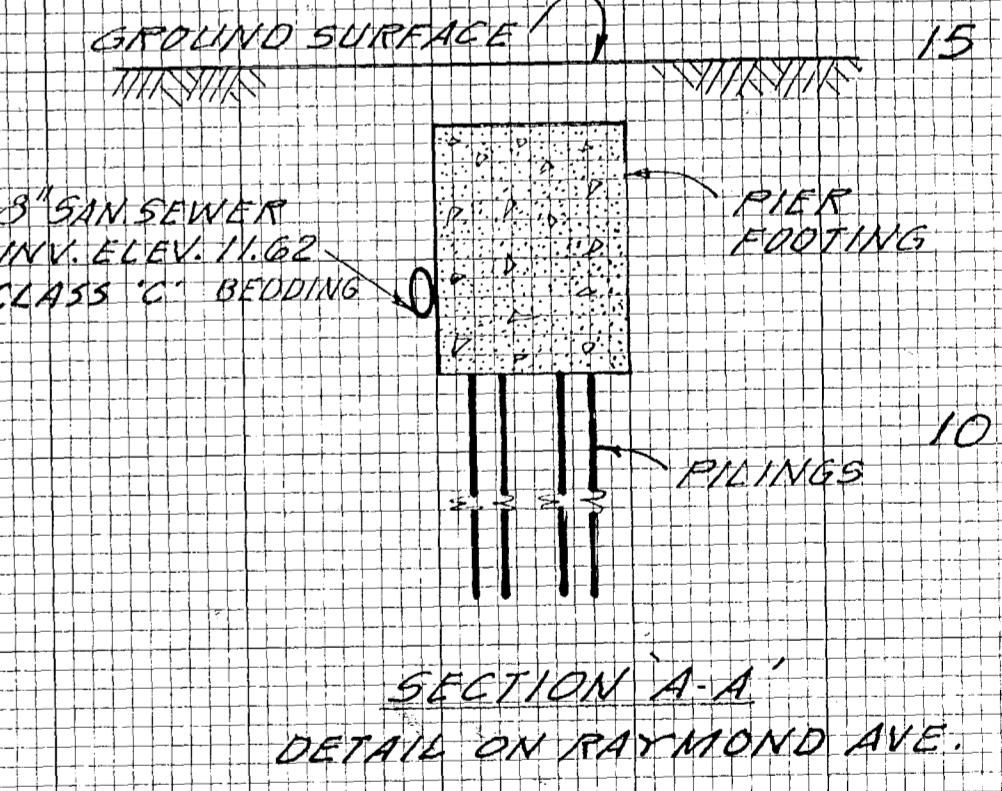
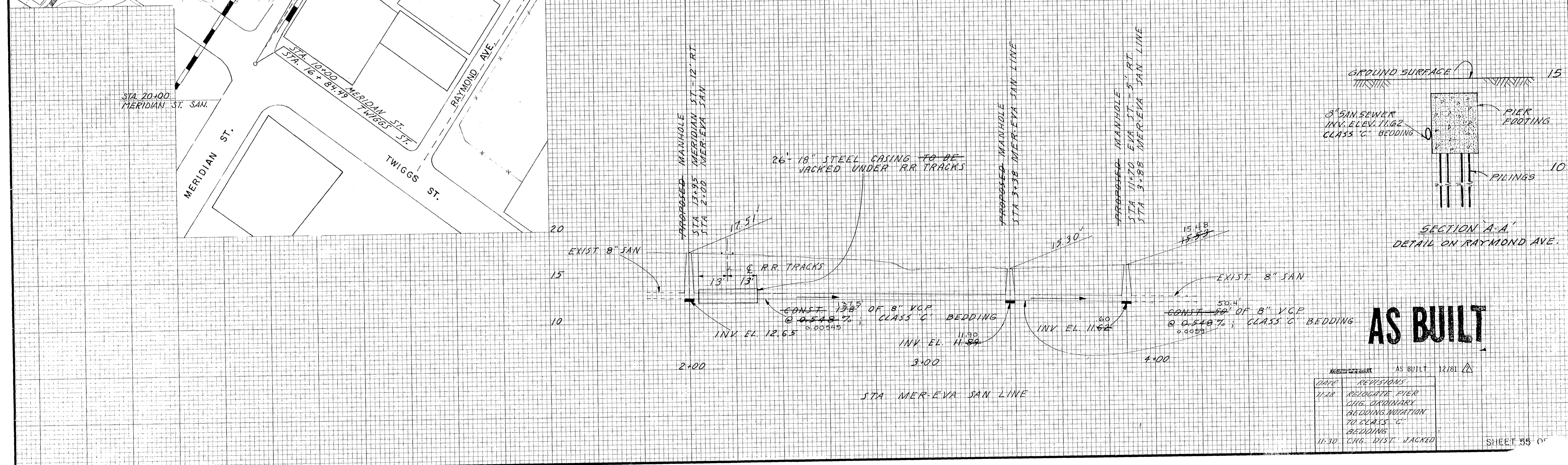


THIS SYSTEM NOTED
24' OF 8" VCP TO BE REPLACED
AFTER PILES ARE DRIVEN
A TEMPORARY BYPASS IS TO
BE PROVIDED UNTIL FOOTING
CONST. IS COMPLETED.

SECT A-A AT BOTTOM



DETAIL



AS BUILT

DATE	REVISIONS
11-28	RELOCATE PIER AND ORDINARY BEDDING NOTATION TO CLASS 'C' BEDDING
11-30	CRG. DIST. JACKED