RT. FA-30
SB1-29

SEC. 21, 21B

FEDERAL-AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO
FA30 SB129	21	BUREAU PUTNAM	118	1
		ILLINOIS PROJECT	F-7 (30)	

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED FEDERAL AID HIGHWAY

SCALES
- PLAN 1 INCH 50 FT.
- PROFILE, HOR. 1 INCH 50 FT.
- PROFILE, VERT. 1 INCH 10 FT. & 20 FT.
- CROSS-SECTIONS 1 INCH 5 FT. & 10 FT.

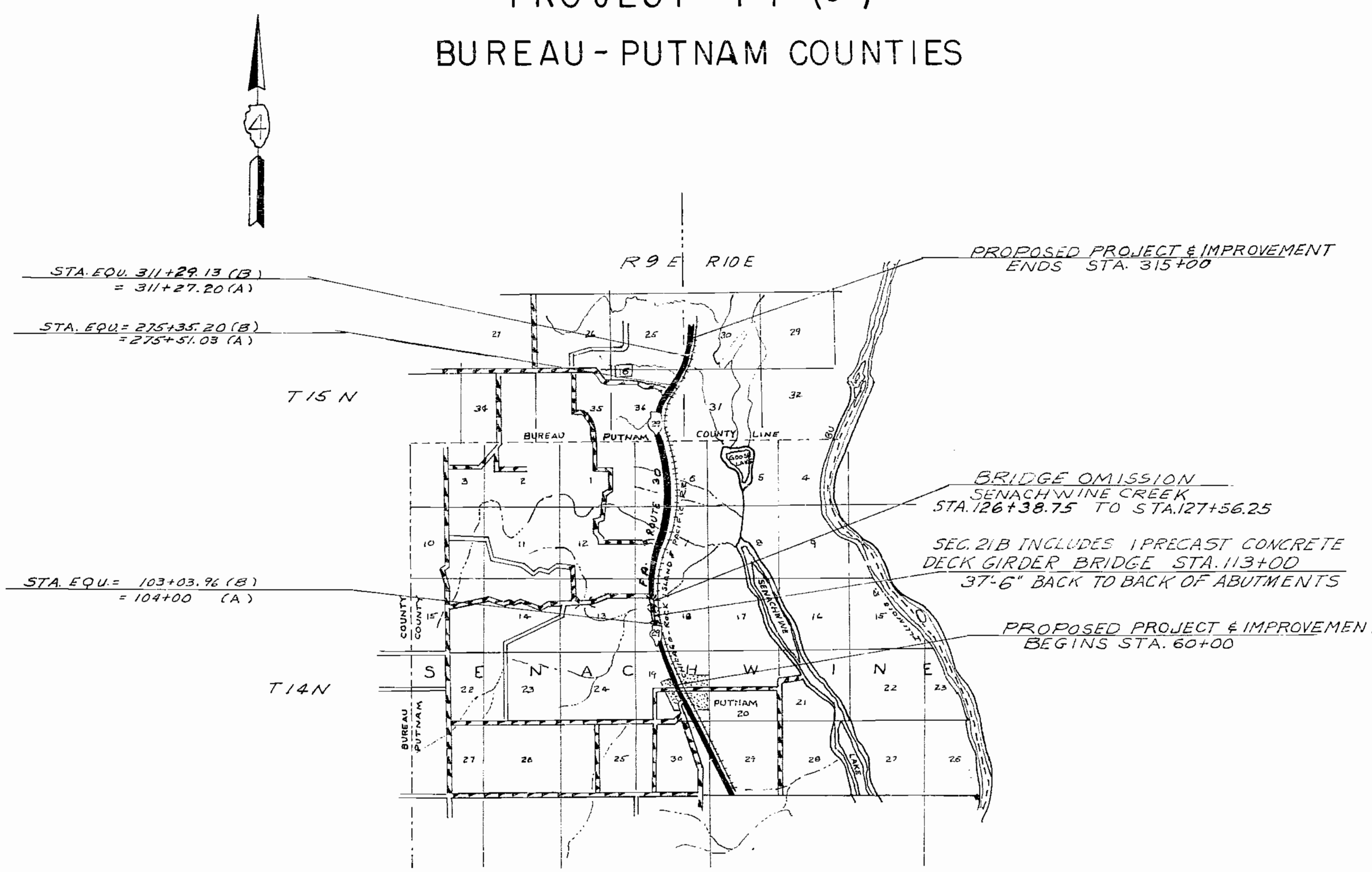
INDEX OF SHEETS
SEE SHEET NO. 4

F.A. ROUTE 30 (SB129)

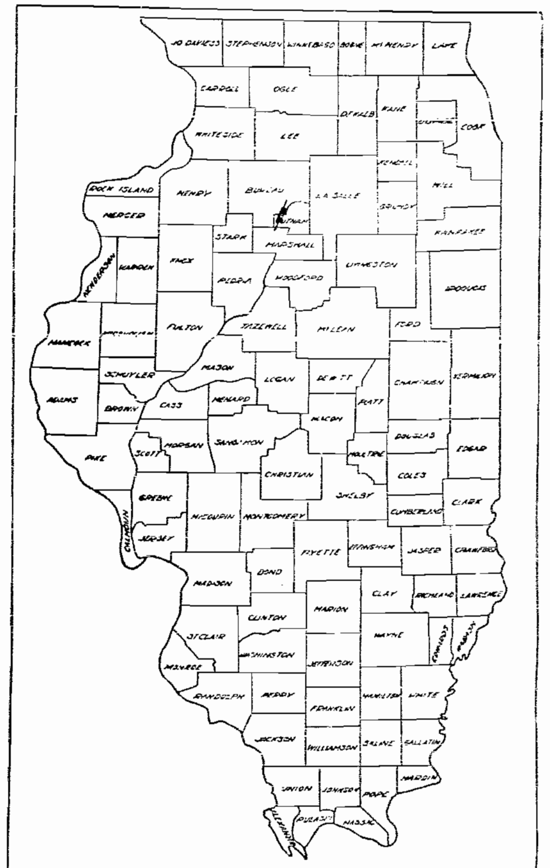
SECTION 21, 21B

PROJECT F-7 (30)

BUREAU - PUTNAM COUNTIES



GROSS LENGTH = 25,390.06 FEET
NET LENGTH OF PROJECT & IMPROVEMENT = 25,272.56 FEET = 4.786 MILES



LOCATION OF SECTION INDICATED THUS:—

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS

SUBMITTED *Dec 13* 19*62*
SM Costello
DISTRICT ENGINEER

EXAMINED *December 31* 19*62*
[signature]
ENGINEER OF ROAD PLANS AND CONTRACTS

PASSED *December 31* 19*62*
[signature]
ENGINEER OF DESIGN

APPROVED *December 31* 19*62*
[signature]
CHIEF HIGHWAY ENGINEER

APPROVED *December 31* 19*62*
[signature]
DIRECTOR

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

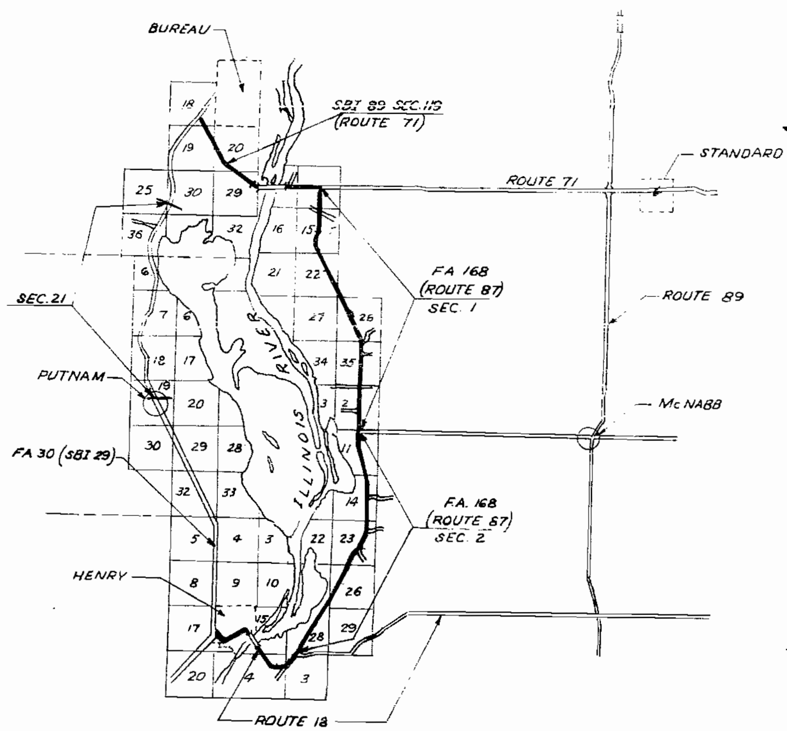
APPROVED

DIVISION ENGINEER DATE

JOB NO 22786

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 30	21	PUTNAM-BUREAU	118	2

PROPOSED DETOUR INDICATED THUS —



QUANTITIES FOR REPAIR OF DETOUR

S.B.I. 89 (MARKED 71) SEC. 119 (STA. 42+55 TO 151+86)
(EXISTING BITUMINOUS SURFACE ON FLEXIBLE BASE) SURFACE 20' WIDTH
2.068 MILES - 4% PATCHING - 4% REWORKING - 100% SEAL COAT

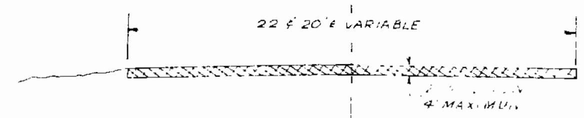
PATCHING 1000 SQ. YD.
REWORKING 1000 SQ. YD.
SEAL COAL 24265 SQ. YD.
BITUMINOUS SEAL COAT @ 0.22 GAL./SQ. YD. = 5310 GALLON
SEAL COAT AGGREGATE @ 22#/SQ. YD. = 268 TON
COVER COAT AGGREGATE @ 22#/SQ. YD. = 11 TON
BITUMINOUS MATERIAL COVER COAT 440 GALLON
(a) BITUMINOUS SURFACE TREATMENT (SUBCLASS A 2)
1000 SQ. YD. @ 0.22 GAL./SQ. YD. = 220 GALLON
(b) REWORK EXISTING BITUMINOUS SURFACE
1000 SQ. YD. @ 0.22 GAL./SQ. YD. = 220 GALLON

F.A. 168 (MARKED 87) SEC. 1 AND SEC. 2 (STA. 32+19 TO 626+28)
(EXISTING BITUMINOUS SURFACE ON FLEXIBLE BASE) SURFACE 22' WIDTH
11.159 MILES - 2% PATCHING - 2% REWORKING - 50% SEAL COAT

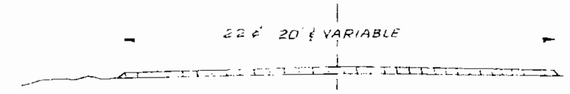
PATCHING 2880 SQ. YD.
REWORKING 2880 SQ. YD.
SEAL COAT 72,000 SQ.YD.
BITUMINOUS SEAL COAT @ 0.22 GAL./SQ. YD. = 15,840 GALLON
SEAL COAT AGGREGATE @ 22#/SQ. YD. = 797 TON
COVER COAT AGGREGATE @ 22#/SQ. YD. = 32 TON
BITUMINOUS MATERIAL COVER COAT 1268 GALLON
(a) BITUMINOUS SURFACE TREATMENT (SUBCLASS A 2)
2880 SQ. YD. @ 0.22 GAL./SQ. YD. = 634 GALLON
(b) REWORK EXISTING BITUMINOUS SURFACE
2880 SQ. YD. @ 0.22 GAL./SQ. YD. = 634 GALLON

QUANTITIES (DETOUR REPAIR)

ROUTE	SECTION	Patching SQ. YD.	Rework Exist. Surface SQ. YD.	Bit. Mat. Seal Coat GALLON	Seal Coat Agg. TON	Cover Coat Agg. TON	Bit. Mat. CC A-2 GALLON
SBI 89 (MARKED 71)	119	1000	1000	5310	268	11	440
F.A. 168 (MARKED 87)	1 AND 2	2880	2880	15840	797	32	1268
	TOTAL	3880	3880	21150	1065	43	1708

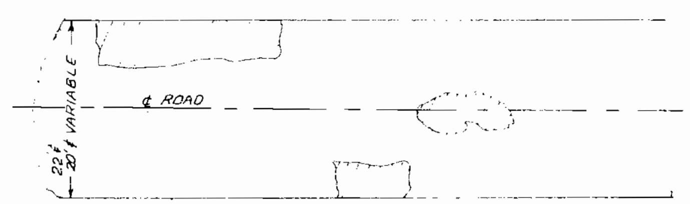


TYPICAL CROSS SECTION
REWORKING EXISTING SURFACE

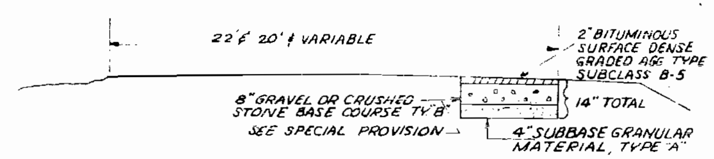


TYPICAL CROSS SECTION
BITUMINOUS SURFACE TREATMENT SUBCLASS A-2

FULL WIDTH OR ONE LANE AS APPLICABLE

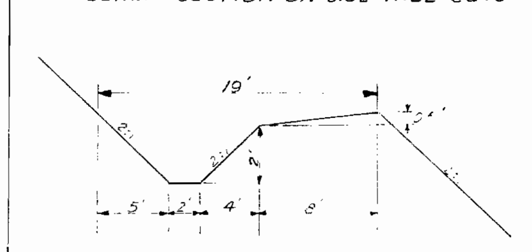


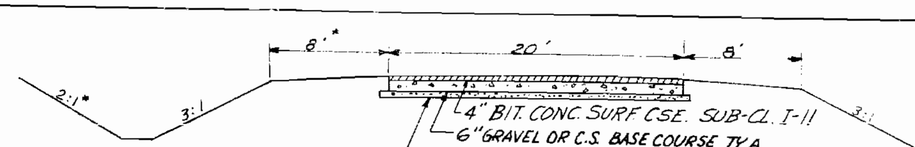
PLAN VIEW
TYPICAL LOCATION OF PATCHES



TYPICAL CROSS SECTION
PATCHING

BERM SECTION ON SIDE HILL CUTS





*OR AS SHOWN ON STATION X SECTIONS

TEMPORARY CONNECTION STA. 315+00 - 320+93.46

TYPICAL CROSS SECTIONS

FA ROUTE 30

Highway Classification: 293-M-70 (1983)

Maximum Grade 2.00%

Length of Maximum Grade 1100 ft.

Minimum Stopping Sight Distance 1070 ft.

Minimum Horizontal Radius 3819.72 ft.

Sta. 60+00 to 112+41.50)
Sta. 113+58.50 to 125+91.05)- Standard 2175 22 FT. WIDE 9 INCHES THICK
Sta. 128+03.95 to 315+00)

Sta. 112+41.50 to 112+81.50)
Sta. 113+18.50 to 113+58.50)- Standard 1909-3
Sta. 125+91.05 to 126+38.75)
Sta. 127+56.25 to 128+03.95)

Survey Line is Centerline of Proposed Improvement

Profile Grade Line is at Centerline of Pavement

NOTE:

THE THICKNESS OF BITUMINOUS MIXTURE SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE BITUMINOUS MIXTURE IS PLACED.

THE NOMINAL THICKNESS FOR SUCH FOR SUB-BASE GRANULAR MATERIAL AND GRAVEL OR CRUSHED STONE SHOULDERS TYPE A; BASE AND SURFACE COURSES ARE SHOWN ON THE TYPICAL SECTIONS, STANDARDS, SCHEDULES OR SPECIAL DETAILS. THE CONSTRUCTED THICKNESS OF THE ABOVE ITEMS SHALL NOT BE LESS THAN 90 PER CENT OF THE NOMINAL THICKNESS AT ANY LOCATION.

NOTE:
TWO (2) SIGNS CONFORMING TO STANDARD 2158-1 SHALL BE MOUNTED AT LOCATIONS SHOWN ON PLAN SHEETS

NOTE:
STANDARD 2175 REPLACES STANDARD 2064R WHEREVER SHOWN ON THE PLANS.

SUBMITTED Dec. 7, 1962 M J Siebrasse
EXAMINED
EXAMINED R. E. Ferrbour
EXAMINED 13 Dec. 62 A.B. Litvin
DATE Dec 13 D.M. Coates

12-18-62 Revised Std. 2064R & 2175

FA 30 21E 21B PUTNAM-BUREAU 118 3

SUMMARY OF QUANTITIES

NON-FEDERAL PARTICIPATION	SECTION 21 PUTNAM	SECTION 21 BUREAU	SECTION 21 B	TOTAL	UNIT	ITEM	CODE NUMBER
--	80	151	--	231	IN DIA	TREE REMOVAL 6" TO 15"	010001
-	396	347	--	743	IN DIA	TREE REMOVAL OVER 15"	010002
--	14	--	--	14	IN DIA	TREE REMOVAL SPECIAL 6" TO 15"	010003
--	133	--	--	133	IN DIA	TREE REMOVAL SPECIAL OVER 15"	010004
--	17.8	17.9	--	35.7	ACRES	TREE REMOVAL ACRES	010005
1375	334203	186925	--	522,503	CU YD	EARTH EXCAVATION	011001
--	[illegible]	[illegible]	--	60330	CU YD	UNSUITABLE EARTH REMOVAL	011015
--	310	44	530	884	CU YD	CHANNEL EXCAVATION	012001
--	32131	18334	--	50465	CU YD	POROUS GRANULAR EMBANKMENT	019001
--	165	--	--	165	CU YD	POROUS GRANULAR BACKFILL	021001
--	11500	[illegible]	--	16310	TONS	SUBBASE GRANULAR MATERIAL TYPE "A"	024001
--	1514	[illegible]	--	2130	TONS	GRAVEL OR CRUSHED STONE SHOULDERS TYPE "B"	026003
--	276	--	--	276	CU YD	TOP SOIL	027001
--	[illegible]	[illegible]	--	[illegible]	TONS	GRAVEL OR CRUSHED STONE BASE COURSE TYPE "A"	029001
--	200	[illegible]	--	275	TONS	GRAVEL OR CRUSHED STONE BASE COURSE TYPE "B"	029003
209	708	297	--	1214	TONS	GRAVEL OR CRUSHED STONE SURFACE COURSE TYPE "A"	036001
21150	--	--	--	21150	GALS	BITUMINOUS MATERIALS (SEAL COAT)	037001
1065	--	--	--	1065	TONS	SEAL COAT AGGREGATE	037002
43	--	--	--	43	TONS	COVER COAT AGGREGATE	038003
1708	--	--	--	1708	GALS	BITUMINOUS MATERIALS (COVER COAT) A-2	038006
960	--	470	--	1430	GALS	BITUMINOUS MATERIALS (PRIME COAT) 1-11	046001
39	--	--	--	39	TONS	AGGREGATE (PRIME COAT) 1-11	046002
1080	--	299	16	1395	TONS	BITUMINOUS CONCRETE SURFACE COURSE I-11	046007
--	43240	[illegible]	--	[illegible]	SQ YD	P.C.C. PAVEMENT - 9 INCH	048007
--	420	--	--	420	SQ YD	P.C.C. PAVEMENT 16-1/2 - 10-1/2 INCH	048011
--	31	[illegible]	--	[illegible]	UNITS	REMOVING AND REPLACING CURING COVERING	048018
--	43242	10016	--	[illegible]	SQ YD	PAVEMENT FABRIC	048019
--	2	1	--	3	EACH	REMOVING EXISTING STRUCTURES	049001
--	--	--	55	55	CU YD	CLASS A EXCAVATION FOR STRUCTURES	050001
--	--	--	270	270	CU YD	CLASS B EXCAVATION FOR STRUCTURES	050002
--	--	--	1665	1665	SQ FT	PRECAST CONCRETE BRIDGE SLAB	051009
--	--	--	1.3	1.3	CU YD	HANDRAIL CONCRETE	052001
--	190.3	[illegible]	[illegible]	514.0	CU YD	CLASS X CONCRETE	052003
--	--	4.3	--	4.3	CU YD	CLASS X CONCRETE (OUTLETS)	052013
--	88.0	53.3	--	141.3	CU YD	CLASS X CONCRETE (HEADWALLS)	052016
--	43671	18016	20	61707	SQ YD	PROTECTIVE COAT	052021
--	--	72	--	72	LIN FT	PIPE CULVERTS TYPE 1A 30"	058011
--	--	124	--	124	LIN FT	PIPE CULVERTS TYPE 1A 42"	058012
--	--	134	--	134	LIN FT	PIPE CULVERTS TYPE 2A 12"	058026
--	168	[illegible]	--	[illegible]	LIN FT	PIPE CULVERTS TYPE 2A 24"	058030
--	90	240	--	330	LIN FT	PIPE CULVERTS TYPE 2A 36"	058034
--	144	350	--	494	LIN FT	PIPE CULVERTS TYPE 2A 42"	058035
--	[illegible]	--	--	[illegible]	LIN FT	PIPE CULVERTS TYPE 2A 48"	058036
--	[illegible]	--	--	[illegible]	LIN FT	PIPE CULVERTS TYPE 2A 60"	058039
--	[illegible]	--	--	172	LIN FT	PIPE CULVERTS TYPE 2A R.C.P. 3 90"	058113
--	30	--	--	30	LIN FT	PIPE CULVERTS TYPE 1 15"	058199
--	94	[illegible]	--	[illegible]	LIN FT	PIPE CULVERTS TYPE 1 18"	058200
--	134	[illegible]	--	[illegible]	LIN FT	PIPE CULVERTS TYPE 1 24"	058202

Revised 12/14/62: in SUMMARY OF QUANTITIES add 20 Sq Yd Protective Coat under Section 21B and changed total from 61687 to 61707 W.S.
12-20-62 Added Railroad Protective Services to Summary of Quantities. GAC

SUMMARY OF QUANTITIES (CONTINUED)

NON-FEDERAL PARTICIPATION	SECTION 21 PUTNAM	SECTION 21 BUREAU	SECTION 21 B	TOTAL	UNIT	ITEM	CODE NUMBER
--	222	--	--	222	LIN FT	PIPE CULVERTS TYPE 2 18"	058222
--	340	--	--	340	LIN FT	PIPE CULVERTS TYPE 2 24"	058225
--	40	--	--	40	LIN FT	PIPE CULVERTS TYPE 2 30"	058227
--	120	--	--	120	LIN FT	PIPE CULVERTS TYPE 2 36"	058229
--	64564	34000	[illegible]	[illegible]	POUNDS	REINFORCEMENT BARS	059001
--	--	--	2112	2112	LIN FT	FURNISHING CREOSOTED PILES 20' TO 30'	[illegible]
--	--	--	400	400	LIN FT	FURNISHING CREOSOTED PILES OVER 30'	[illegible]
--	--	--	1	1	EACH	TEST PILE TIMBER	[illegible]
--	--	--	2512	2512	LIN FT	DRIVING TIMBER PILES	[illegible]
--	--	--	1	1	EACH	NAME PLATES	[illegible]
--	[illegible]	--	--	[illegible]	LIN FT	CORRUGATED METAL PIPE 18"	063005
--	108	--	--	[illegible]	LIN FT	CORRUGATED METAL PIPE 24"	063007
28	—	--	--	28	LIN FT	CORRUGATED METAL PIPE ARCHES, SPAN 43, RISE 27	[illegible]
--	922	--	--	922	LIN FT	PIPE UNDERDRAIN 6"	[illegible]
--	--	225	--	225	LIN FT	CONCRETE GUTTER, TYPE C	080004
--	13582	3829	--	17411	SQ YD	PAVEMENT REMOVAL	082001
--	200	--	--	200	LIN FT	GUTTER REMOVAL	082004
--	2310	310	--	2620	LIN FT	PAVED DITCH 3'	091002
--	150	293	--	443	LIN FT	PAVED DITCH 4'	091003
--	76	40	--	116	LIN FT	PAVED DITCH (SPECIAL)	091015
--	1750	2100	--	3850	LIN FT	STEEL PLATE BEAM GUARD RAIL	094001
--	--	560	--	560	LIN FT	REMOVE RESET GUARD RAIL	094005
--	125	--	--	125	EACH	GUARD POST REMOVAL	096003
--	15	--	--	15	EACH	REMOVE AND RESET GUARD POSTS	096004
--	400	370	--	770	LIN FT	WOOD GUARD RAIL REMOVAL	092002
--	22	44	--	66	LIN FT	PIPE HANDRAIL	100001
--	97	49	--	146	EACH	FURNISH AND ERECT RIGHT OF WAY MARKERS	104001
--	22.0	9.1	--	31.1	ACRES	TEMPORARY SEEDING	110001
--	22.0	9.1	--	31.1	ACRES	COMPLETE SEEDING	110004
--	3.5	1.5	--	5	TONS	FERTILIZER NUTRIENTS	110005
--	88	36	--	124	TONS	STRAW FOR ASPHALT COATED MULCH	111002
--	8800	3600	--	12400	GALS	EMULSIFIED ASPHALT	111003
--	721.2	105.8	--	827	SQ YD	SODDING	112001
--	734	400	--	1,134	SQ YD	JUTE MATTING	[illegible]
--	319.2	61.8	--	381	TONS	INCIDENTAL BITUMINOUS SURFACING	Z00142
--	1	1	--	2	EACH	PERMANENT BARRICADES	Z00176
3880	—	—	--	3880	SQ YD	REWORKING EXISTING SURFACE	Z00206
--	32	--	--	32	LIN FT	REINFORCED CONCRETE RADIUS PIPE [illegible]	Z00342
--	17	9	--	[illegible]	EACH	PERMANENT SURVEY MARKERS TYPE I	Z00350
--	1092	208	-	1300	GALS	BITUMINOUS MATERIALS (PRIME COAT)	Z00353
3880	—	—	--	[illegible]	SQ YD	PATCHING	[illegible]
--	--	--	[illegible]	[illegible]	GALS	EMULSIFIED SAND MIX	Z01070
--	--	--	2	2	GALS	PENETRATING PRIMER	Z01071
--	256	72	--	[illegible]	EACH	DELINEATORS	[illegible]
	1			1	L. SUM	RAILROAD PROTECTIVE SERVICES	Z01065

Rev. 1-29-63-Code No. 091022 Changed to 091015

QUANTITIES NOT SHOWN ELSEWHERE ON PLANS

FA 3C ... SHEET NO. 118 4

INDEX OF SHEET

ENTRANCES & SIDE ROADS

TYPE	LOCATION	WIDTH (FEET)	LENGTH (FEET) FROM E.P.	GR OR CR ST BSE CSE (TONS TYA (6")	GR OR CR ST (TONS TYB (6")	GR OR CR ST SURF CS TY A (TONS) (6" COMP)	INCIDENTAL BIT SURF (TONS)	BIT MATLS PR CT (GALS)
COM ENT. RT.	59+95	20	41		43		12.3	44
SIDE RD. LT.	70+00	20	328	(8")413			91.0	317
RES. ENT. LT.	75+27	10	47			19	3.1	10
SIDE RD. RT.	76+93	18	83		74		21.9	76
RES. ENT. LT.	91+50	10	120			37	3.1	10
FIELD E. LT.	110+63	10	3		3		1.0	3
F.E. LT.	121+80 TO 122+50	10	3		3		1.0	3
SIDE RD. LT.	123+00	18	232	198			58.5	202
SIDE RD RT	123+00	18	101		61	21	17.8	62
RES ENT LT	143+09	10	797			209	3.1	10
FIELD E. RT	143+09	10	3		3		1.0	3
FIELD E. LT	164+23	10	3		3		1.0	3
FIELD E. RT	164+23	10	3		3		1.0	3
SIDE RD LT	169+47	18	595		61	385	18.2	63
RES ENT LT	173+00	10	75			26	3.1	10
FIELD ENT LT	176+00	10	3		3		1.0	3
COM. ENT. RT	176+00	14	65			31	3.6	11
FIELD E. LT.	185+30	10	3		3		1.0	3
COM. ENT. LT.	193+45	29	50			47	5.5	17
COM. ENT. LT.	194+10	29	50			47	5.5	17
RES. ENT. LT.	195+30	10	70			25	3.1	10
RES. ENT. LT.	197+20	10	74			26	3.1	10
COM. ENT. RT.	201+65	14	103			44	3.6	11
SIDE RD. LT.	216+00	18	208	(8")241			53.6	195
FIELD E. LT.	232+40	10	3		3		1.0	3
FIELD E. RT.	232+40	10	3		3		1.0	3
COM. ENT. LT.	261+00	14	73			34	3.6	11
FIELD E. RT.	261+00	10	3		3		1.0	3
SIDE RD. LT.	276+00	18	320	164		(8")124	48.5	167
FIELD E. RT.	285+25	10	3		3		1.0	3
RES. ENT. LT.	289+79	10	69			25	3.1	10
FIELD E LT.	305+50	10	3		3		1.0	3
COM. ENT. RT.	306+50	14	300			114	3.6	11
TEMP. COM.	315-321±	20	600	(6")507				
4 MAIL BOX TURNOUTS				30				
TOTALS				1593	275	1214	381	1300

SUMMARY OF SODDING (QUANTITIES SHOWN ELSEWHERE)

SODDING BOTH SIDES PAVED DITCH	418 SQ. YDS. (SHOWN ON PLAN SHEETS)
SODDING ENDS OF PIPE CULVERT	409 SQ. YDS. (SHOWN ON SHEET)
TOTAL	827 SQ. YDS.

SUB-BASE---GRANULAR MATERIAL, TYPE A

STATION TO STATION	LENGTH	WIDTH	SQ YDS	TONS @ 410C/CY.
60+00 to 69+00	900'	24'	2400	546.7
69+00 to 72+00	300'	24'	800	182.2
72+00 to 80+00	800'	24'	2133	485.9
80+00 to 103+06	2306'	24'	6144	1398.5
104+00 to 112+82	882'	24'	2352	535.7
113+00 to 126+39	1321'	24'	3523	802.5
127+56 to 167+00	3944'	24'	10517	2395.5
167+00 to 170+00	300'	24'	800	182.2
170+00 to 183+50	1350'	24'	3600	820.0
183+50 to 191+00	750'	24'	2000	455.6
191+00 to 199+50	850'	24'	2267	516.5
199+50 to 212+50	1300	24'	3467	789.7
212+50 to 275+51	6301'	24'	16760	3817.2
275+51 to 283+00	749'	24'	1997	454.9
283+00 to 292+00	900'	24'	2400	546.7
292+00 to 311+27	1927'	24'	5141	1171.7
311+27 to 313+00	173'	24'	461	105.0
313+00 to 315+00	200'	24'	533	121.4
SRD. LT. 216+00	206'	22'	503	116.0
315+00 to 321+00 (CONNCTN)	600'	22'	1477	334.1
(ALL 4") TOTAL = 184+00 to 185+15 (7")				16779.0 531.0

total 16310.0

TREE REMOVAL

LOC.	STA.	6"-15" DIA	OVER 15" DIA	SPECIAL 6"-15" DIA	SPECIAL OVER 15" DIA
26' LT.	73+75			18"	
13' LT.	74+38				42"
15' RT.	75+30				42"
50' LT.	75+65				40"
30' RT.	76+80	7"			
30' RT.	76+82	9"			
36' RT.	78+00		17"		
34' RT.	78+16	8"			
20' LT.	91+15		26"		
22' LT.	91+40		25"		
121 LT.	91+80		43"		
10' LT.	92+00		18"		
10' LT.	92+10		17"		
1' RT	116+05		16"		
2' LT.	117+60		16"		
3' LT.	117+70		18"		
3' LT.	118+65	18"			
20' RT.	169+50	14"			
20' RT.	169+50	14"			
121 RT.	269+60	(STUMP)	24"		
18' RT.	172+65		19"		
25' LT.	172+70		33"		
2' LT.	173+20		57"		
25' LT.	173+60	14"			
15' RT.	186+07		16"		
15' RT	188+10		17"		
16' RT.	189+60		17"		
15' RT.	190+50		19"		
25' LT.	267+60	12"			
25' LT.	267+65	9"			
25' LT.	267+80	12"			
20' LT.	267+90		19"		
℄	267+95	8"			
℄	267+95	14"			
3' LT.	267+03		42"		
3' RT.	268+00		16"		
4' RT	268+00	9"			
10' RT.	268+10		39"		
21' RT.	268+14		39"		
21' RT.	268+16		29"		
22' RT.	268+16	12"			
30' RT.	268+25		32"		
10' LT.	268+30		16"		
11' LT.	268+31		17"		
15' LT.	268+32		16"		
15' LT.	268+34	9"			
21' RT.	268+70	(STUMP)	44"		
30' RT.	268+75	14"			
30' RT.	268+77	7"			
57 LT.	287+30	7"			
57' LT.	287+35	7"			
57' LT.	287+90	8"			
56' LT.	287+50	10"			
56' LT.	291+30		19"		
56' LT.	291+40		18"		
60' LT.	291+50	12"			
TOTALS		231	749	14	129

TREE REMOVAL - ACRES 35.7 ACRES (ALSO LISTED ON SEPERATE PLAN SHEETS)

GRAVEL OR CRUSHED STONE SHOULDERS TYPE B

NET LENGTH ON PLANS = 25272.56'

- BRIDGE (SEC 21B) 37.0'
- MAILBOX TURNOUTS 209.0' — 1603.00
- SIDE ROADS AND ENTRANCES 1357.0'

NET SHOULDERS 23,669.56'

236.7 STA. @ 9 TONS/STA. = 2130 TONS

SUMMARY CLASS X CONC., RE. BARS, C.M. PIPE (QUANT. ARE ON PLANS)

ITEM	CONCRETE CLASS X MOWL	OUTLET	HDRAIL	REINF. BARS	C.M. METAL PIPE 18"	C.M. METAL PIPE 24"
APPROV. SCHEDULE	141.9			8360		
BOX CULV. & SP. DR. STRS.	372.8			62770	55	108
BRIDGE (SEC 21B) 135.6			1.8	7830		
APPR. SLABS (BR # 113)	3.0 (INCL. PILE CAPS)			13578		
APPR. SLABS (BR # 127)	3.6 (INCL. PILE CAPS)			13918		
"C" GUTTR. OUTLET (STA 304)		4.0				
TOTALS	524.8	141.9	4.0	1.8	106456	88 108

FURNISHING & ERECTING RIGHT OF WAY MARKERS

LOCATION	STA	NO.	LOCATION	STA.	NO.	LOCATION	STA.	NO.
60 LT.	67+71.3	1	70 LT. PC	168+15.78	1	55 LT.	PC253+2	1
96 RT	68+03	1	70 RT	168+15.78	1	70 RT	253+29.1	1
60 LT	69+17.7	1	70 LT	167 82	1	50 RT	259+00	1
35 LT	PC 0+93.5	1	60± LT	166 77	1	50 LT	269+00	1
35 RT	0+82.7	1	48.5 RT	C 80	1	55 LT	269+00	1
95 RT	1+60	1	40 LT	1 00	1	55 LT	269+50	1
35 LT	PT 3+99.33	1	40 LT	2 90	1	70 LT	269+50	1
25 LT	4+00	1	60 LT	170 10	1	77 RT	269+00	1
60 LT	70+50.2	1	70 RT	169 98	1	75 RT	268+00	1
60 LT	71+97.4	1						
60 LT	73+20	1	60 LT	172 00	1	74 LT	268+00	1
60 LT	PC 74+98.6	1	65 LT	173.50	1	55 LT	271+00	1
97 RT	74+98.6	1	65 LT	174 48.11 PT	1	55 LT	274+00	1
60 LT	78+00	1	65 LT	176 00	1	50 LT	275+00	1
60 LT	84+00	1	50 LT	179 00	1	70 RT	PT275+85.00	1
100 LT	84+00	1	70 RT	174 48.11	1	40 LT	0+75.5	1
110 LT	84+30	1	50 LT	185 00	1	40 RT	0+85.3	1
50 LT	86+00	1	60 LT	187 00	1	40 LT	1+30.5	1
50 LT	90+00	1	60 LT	195 00	1	40 RT	1+92.3	1
86 RT	88+47.2	1	85 LT	197 00	1	70 LT	1+72	1
84 RT	88+47.2	1	70 RT	185 00	1	70 RT	1 42	1
65 LT	94+00	1	70 RT	185 00	1	50 LT	276 74	1
65 LT	94+00	1	90 LT	200 83	1	50 LT	278 00	1
55 RT	95+00	1	190 LT	201 65	1	40 LT	280 00	1
51.6 RT	99+00	1	190 LT	202 00	1	97.5 LT	280 00	1
55 LT	384+00	1	120 LT	203 00	1	159 LT	280 00	1
55 LT	PT 101 96.93	1	195 LT	PC2C4 29.69	1	77.5 LT	284 00	1
52 RT	101+96.93	1	70 RT	204 29.69	1	100 LT	285 00	1
50 LT	EOI 103+3.96	1	415 LT	206 50	1	120 LT	286/00	1
50 LT	111+00	1	415 LT	207+35	1	61.5 LT	287/00	1
60 LT	112/00	1	125 LT	208/60	1	75± RT	285+00	1
55 RT	112/00	1	75 RT	206/92	1	77± RT	290/00	1
70 RT	112/00	1	175 LT	210/12	1	64 LT	290/50	1
60 LT	114/00	1	75 RT	210/23	1	85 LT	292/00	1
55 LT	115/00	1	275 LT	211/50	1	85 LT	293/00	1
55 LT	120/00	1	275 LT	212/00	1	66.5 LT	294/00	1
70 RT	120/00	1	60 LT	213-25	1	66.1 RT	294/83.5	1
95 RT	C490.4	1	70 RT	PT215/78.18	1	77 RT	PT295/77.25	1
45 LT	1+82.33	1	70 LT	217/50	1	65 LT	301/00	1
30 LT	PT2/48.03	1	184 LT	217/50	1	72 RT	303/00	1
90 LT	PT2/48.03	1	75 LT	220/00	1	70 LT	303/00	1
70 LT	122/57.8	1	65 LT	225/00	1	77 LT	306/00	1
70 RT	127/00	1	70 RT	225/00	1	75 LT	307/00	1
70 RT	128/00	1	65 LT	228/00	1	65 LT	PT311/27.25	1
70 LT	128/00	1	55 LT	230/00	1	100 RT	PT311/27.25	1
60 LT	128/00	1	55 LT	240-30	1	100 LT	312/00	1
60 LT	140/00	1	70 RT	235/00	1	230 LT	312/00	1
70 RT	139/00	1	60 LT	241/00	1	305.5 LT	321/00	1
70 LT	150/00	1	60 LT	251/00	1	TOTAL		147
70 RT	151/00	1	70 RT	245/00	1			

DELINEATORS

LT.	SIDE	NO.	RT.	SIDE	NO.
79/50	85/50	13	81/00	85/50	12
91/50	101/50	21	99/00	99/00	17
137/50	142/50	25	131/00	165/50	70
145/00	151/00	17	154/00	197/50	1
151/00	165/50	28	210/50	211/50	3
215/00	216/00	3	213/50	215/00	3
223/50	226/50	7	273/50	277/00	1
LT&RT 0/50-1/50 S.R. LT	216/00	6	227/00	249/00	13
237/00	247/50	22	264/00	269/50	12
265/00	269/50	12	293/50	295/50	11
LT & RT 245-42/00 S.R. LT	276/00	8	SR. RT. 306/50		7
297+50 - 298+50	3				
305/00-305/50	2		SUB TOTAL RT.		157
SUB TOTAL	183		SUB TOTAL LT.		183
			TOTAL		330

STEEL PLATE BEAM GUARD RAIL

250 LT. 68+90 - 255 LT. 69+90	62.5 LIN FT
127.5 - 165' LT. 122+32	37.5 LIN FT
LT. 125+69 - 126+26.5	62.5 LIN FT
RT. 127+88 - 128+50.5	62.5 LIN FT
RT. 127+88 - 128+50.5	62.5 LIN FT
RT. 215+66 - 223+00	750 LIN FT
LT. 216+80 - 223+00	650 LIN FT
LT. 289+00 - 304+50	150 LIN FT
RT. 289+00 - 304+50	725 LIN FT
RT. 304+75 - 314+00	925 LIN FT
TOTAL	3,850 LIN FT

PERMANENT SURVEY MARKERS

STA 66+00	EACH	STA 169+00	EACH	STA 260+00	EACH
PC STA 74+98.57	EACH	PT STA 174+98.11	EACH	STA 268+00	EACH
STA 84+00	EACH	STA 189+00	EACH	PT. STA 275+37.20	EACH
STA 99+00	EACH	PC STA 204+28.63	EACH	STA 286+00	EACH
PT STA 101+96.90	EACH	STA 214+00	EACH	PC STA 295+83.5	EACH
STA 118+00	EACH	PT STA 215+74.13	EACH	STA 304+00	EACH
STA 133+00	EACH	STA 228+00	EACH	P.T. STA 311+27.25	EACH
STA 148+00	EACH	STA 241+00	EACH	STA 314+00	EACH
PC STA 163+15.03	EACH	PC STA 253+20.64	EACH		
		TOTAL	30 EACH		

12-18-62 Brought Stds. up to date. GHS
Revised Std. 2064 R & 2175 and moved from Sheet 2 & 2A.

14+44 (SEC. 20)
22' P.C.C. PVT. IN PLACE (SEC. 20)

24" P.C.ULV. IN PLACE
USFL 513.2
DSFL 512.8

PROJECT F-7(30)
BEGIN IMPROVEMENT
STA. 60+00 =
STA. 14+00 (PLANS F.A. 30 SEC. 20)

TRUSTEES OF SCHOOL DIST. No. 534

SCHOOL YARD

T14N - R10E - 4th P.M.
SECTION 19

CHARLES W. READ ET. AL.

P.C. CONCRETE PAVEMENT 9"
STA. 60+00 TO STA. 112+41.25 = 12,577.8 SQ. YDS.
STA. 113+58.75 TO STA. 125+91.05 = 3,012.7 SQ. YDS.
STA. 128+03.95 TO STA. 315+00 = 45,667.5 SQ. YDS.
ENTIRE PROJECT TOTAL = 61,258 SQ. YDS.

FOR PROPOSED SIDEROAD DETAIL SEE SHEET 23

Sta. 69+00
P. Culv., Ty. 2A, 24" x 66 Lin. Ft.
2 Hdwls., Std. 1976 D-24-2
2.0 Cu. Yd. Class "X" Conc. (Hdwl.)
70 Lbs. Reinf. Bars

℄ OF PROPOSED IMPROVEMENT

STEEL PLATE BEAM GUARD RAIL 62.5 LIN. FT.

T.R. 216 ADT 408 (1960)

CHARLES W. READ ET. AL.

FA 30 21 BUREAU - PUTNAM 118 5
STA. 60+00 TO STA. 75+00

RELOCATED T.A. 216

T.R. 216 — 16' BITUMINOUS PAVT. IN PLACE

P.C. 74+38.60

4'x6' R.C. BOX CULV. IN PLACE TO BE REMOVED

SIGN 2158-1

16' PAVEMENT IN PLACE

SBI 29

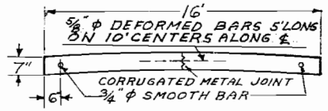
2'x2' BOX CULV. EXISTING TO BE REMOVED

CELLAR

TEMP. CONNECTION To BE REMOVED

R.R. ROW LINE

CHICAGO, ROCK ISLAND & PACIFIC R.R.

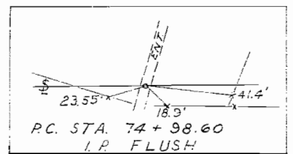


TYPICAL SECTION EXISTING PAVEMENT

TEMPORARY SEEDING = 31.1 ACRE (ENTIRE PROJECT)
COMPLETE SEEDING = 31.1 ACRE (ENTIRE PROJECT)
FERTILIZER NUTRIENTS (160#/ACRE) = 5.0 TONS
STRAW FOR ASPHALT COATED MULCH (2 TONS/ACRE) = 124 TONS
EMULSIFIED ASPHALT (100 GALS./TON OF STRAW) = 12400 GALLONS
SODDING (SEE DETAIL) = 409 SQ. YDS.

PAVEMENT REMOVAL (THIS SHEET)
STA. 60+00 to STA. 75+00 = 2667 SQ. YDS.

PLAN SCALE: 1" = 50'
PROFILE SCALES:
HOR. 1" = 50'
VER. 1" = 5'

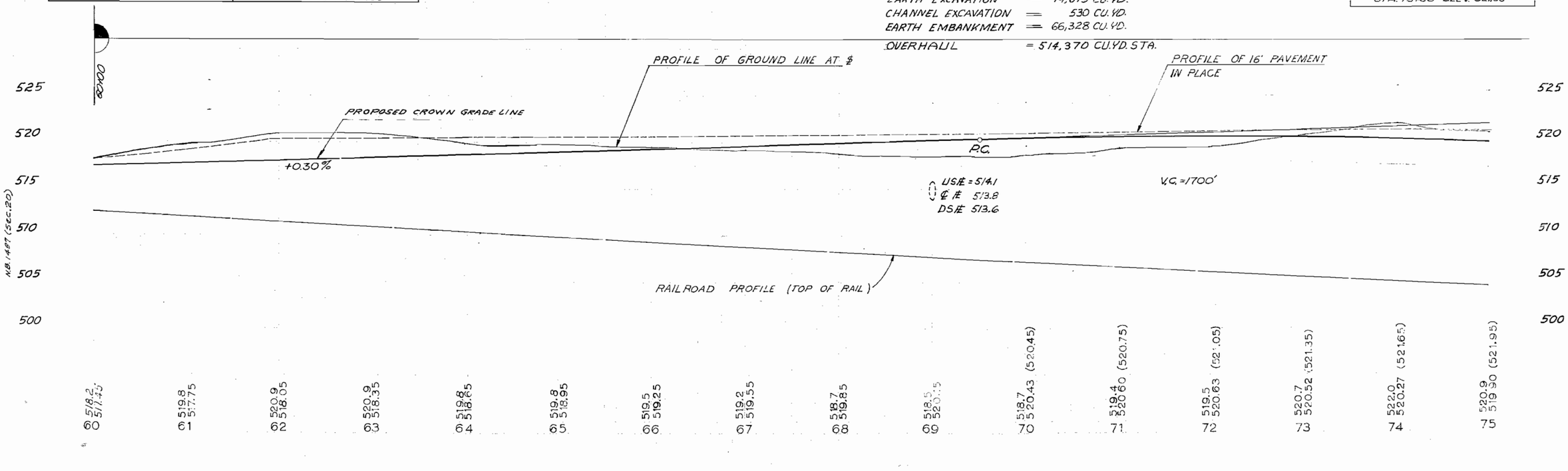


P.C. STA. 74 + 98.60
I.P. FLUSH

BM # 100
VERTICAL BOLT TOP SOUTH WINGWALL, WEST ABUTMENT BRIDGE. 103 FEET RIGHT STA. 75+39 ELEV. 521.86

B.M. NO. 1	USCE BM 67 - CAP ON POST
VERT. SPIKE ROOT 60" TREE 64' RT. STA. 21+59 (SEC. 20) ELEV. 514.79	131 FT. SE OF NE COR. OF METH. CHURCH SE COR. CHURCH YARD ELEV. 526.28

EARTH EXCAVATION = 74,679 CU. YD.
CHANNEL EXCAVATION = 530 CU. YD.
EARTH EMBANKMENT = 66,328 CU. YD.
OVERHAUL = 514,370 CU. YD. STA.



J. MAURER 8-58

1591
N.B. 1487 (SEC. 20)

T14N - R10E - 4PM

SECTION 19

FA30 21 BUREAU-PUTNAM 118 6

STA. 75+00 TO STA. 90+00

LT. STA. 75+27
PIPE CULV. TY. 1
24" 30 LIN. FT.

CHARLES W. READ ET AL

PROPOSED R.O.W.

60'

150 LIN. FT. PAVED DITCH (4')

℄ PROP. IMP.

SMALL LEVEE

B.M. #100

TIMBER BRIDGE

R.R. R.O.W.

RT. STA. 76+45
PIPE CULV. TY. 2
24" 60 LIN. FT.

ADT 34 (1960)

SBI 29

16' PAVEMENT IN PLACE

LIMITS OF CHANNEL CHNG. AGMT. S-C.C. 1

2-CC.

℄ OF PROPOSED CHANNEL CHANGE

HOMER W. STROSNIDER ET. AL.

LIMITS OF CONSTRUCTION AGREEMENT 3-BA

P.I. 88+73.27

℄ OF PROPOSED 46" R.C. PIPE STA. 85+25
SEE SH. 26 & 27 FOR DETAILS
& QUANTITIES IN THIS AREA.

4-BA

50' Summit

REMOVE EXISTING CONC. RETAIN. WALL

SODDING
LT. 78+00 - 79+50 133 SQ. YDS.
(Split on Each Side of paved Ditch)

TREE REMOVAL - ACRES
LT. & RT. 78+60 - 90+90 = 4.0 ACRES

F.A. RTE. 30
℄ CURVE DATA
P.I. = 88+73.27
Δ = 26° 59'
D = 1° - 00'
T = 1374.67'
R = 5729.58'
L = 2698.33'
E = 162.70'
P.C. = 74+98.60
P.T. = 101+96.93
S.E. = 0.02 FT/FT.
SA. = 74+49 TO 75+49 AND 101+47 TO 102+47

REMOVAL OF EXISTING STRUCTURE
BRIDGE 40' SPAN
R.C. GIRDER WITH
R.C. ABUTS. & R.C. WINGS
1 EACH STA. 85+60±

PAVEMENT REMOVAL (THIS SHEET)
STA. 75+00 TO STA. 88+20 = 2270 SQ. YDS.

TAN
22.25°
4'
I.P.
12.00
23.19'
P.O.T. STA. 85+53.0
IRON PIN 4' RT. (TAN)

WOOD GUARD RAIL REMOVAL
RT. 84+60 - 85+20 = 60 L.F.
RT. 85+79 - 86+14 = 40 L.F.
RT. 84+54 - 85+54 = 100 L.F.
RT. 85+96 - 86+56 = 60 L.F.

88+72.4 R.O.W. 55'

PLAN SCALE: 1" = 50'
PROFILE SCALES:
HOR. 1" = 50'
VER. 1" = 5'

B.M. # 100
V. BOLT TOP S. WING WALL
W. ABUTMENT BRIDGE
103' RT. STA. 76+39
ELEVATION 521.86

B.M. # 99
CHISELED Δ TOP OF
WEST WING WALL
NO. BRIDGE ABUTMENT
34' RT. STA. 85+74
ELEVATION 501.52

W. END OF WOODEN BRIDGE (522.2)

+0.30%

-2.00%

V.C. 1700'

GROUND LINE AT ℄

PROPOSED CROWN GRADE LINE

RAILROAD PROFILE (TOP OF RAIL)

PROFILE OF 16' PAVEMENT IN PLACE

P.T.

USE 482.5
℄ 482.2
DSE 482.0

	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
	520.9	519.8	517.8	520.6	520.6	515.1	503.6	500.8	487.3	489.3	487.6	503.5	515.9	502.6	497.7	496.4
	519.90 (521.95)	519.39 (522.25)	518.75 (522.55)	517.96 (522.85) P.T.	517.05 (520.85)	515.99 (518.85)	514.80 (515.85)	513.47 (514.85)	512.02 (512.85)	510.43 (510.85)	508.70 (508.85)	506.83 (506.65)	504.85	502.85	500.85	498.85

520 515 510 505 500 495 490 485 480

J. MAURER 8-58

1591

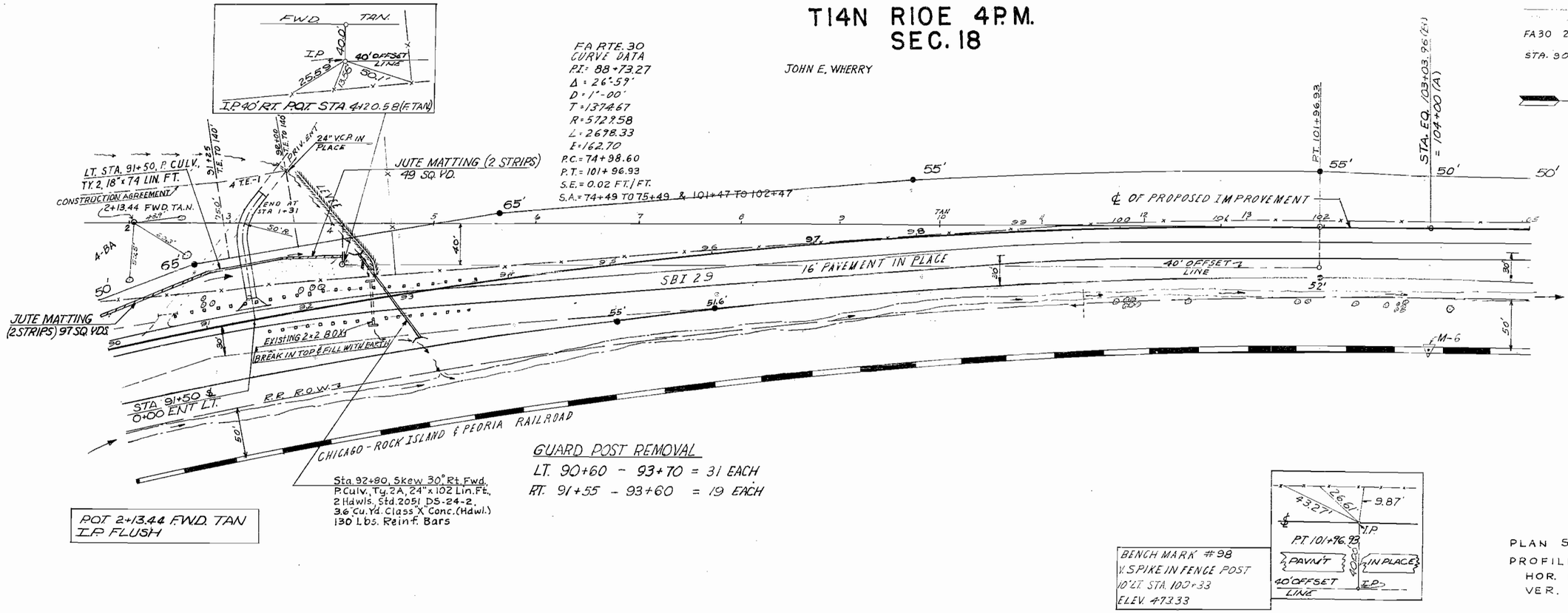
T14N R10E 4P.M.
SEC. 18

JOHN E. WHERRY

FA 30 21 BUREAU PUTNAM 118 7

STA. 90+00 TO STA. 125+00

F.A. RTE. 30
CURVE DATA
P.I. = 88+73.27
Δ = 26°-59'
D = 1°-00'
T = 1374.67
R = 5727.58
L = 2678.33
E = 162.70
P.C. = 74+98.60
P.T. = 101+96.93
S.E. = 0.02 FT./FT.
S.A. = 74+49 TO 75+49 & 101+47 TO 102+47



GUARD POST REMOVAL
LT. 90+60 - 93+70 = 31 EACH
RT. 91+55 - 93+60 = 19 EACH

Sta 92+80, Skew 30° Rt. Fwd.
P. Culv., Ty. 2A, 24" x 102 Lin. Ft.,
2 Hawls, Std. 2051 DS-24-2,
3.6 Cu. Yd. Class "X" Conc. (Hdwl.)
130 Lbs. Reinf. Bars

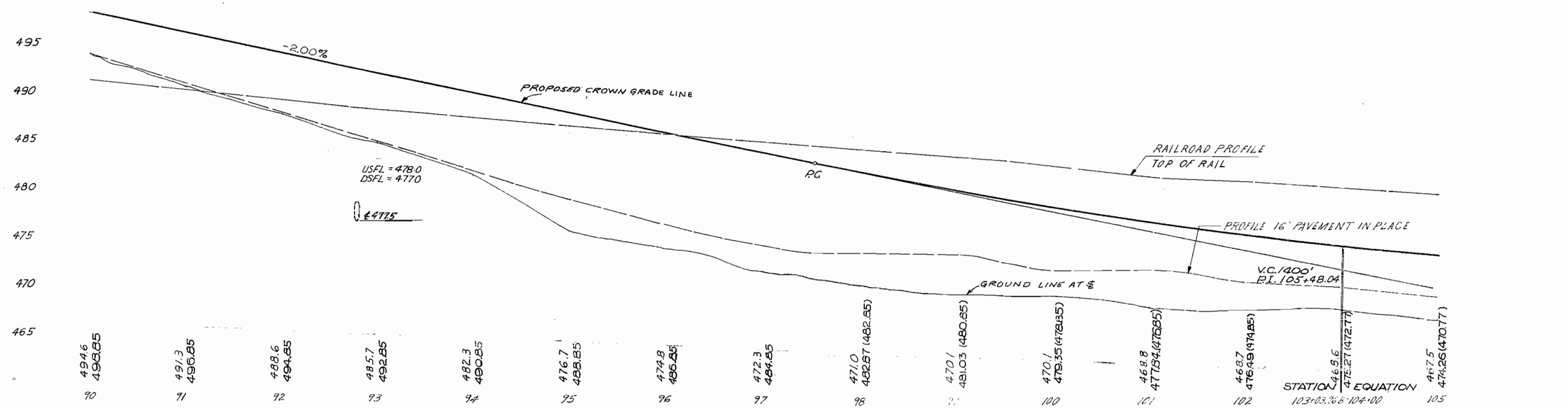
POT 2+13.44 F.W.D. TAN
I.P. FLUSH

BENCH MARK #98
V. SPIKE IN FENCE POST
10' LT. STA. 100+33
ELEV. 473.33

PLAN SCALE: 1" = 50'
PROFILE SCALES:
HOR. 1" = 50'
VER. 1" = 5'

J. MAURER 8-58 JAM 5-60

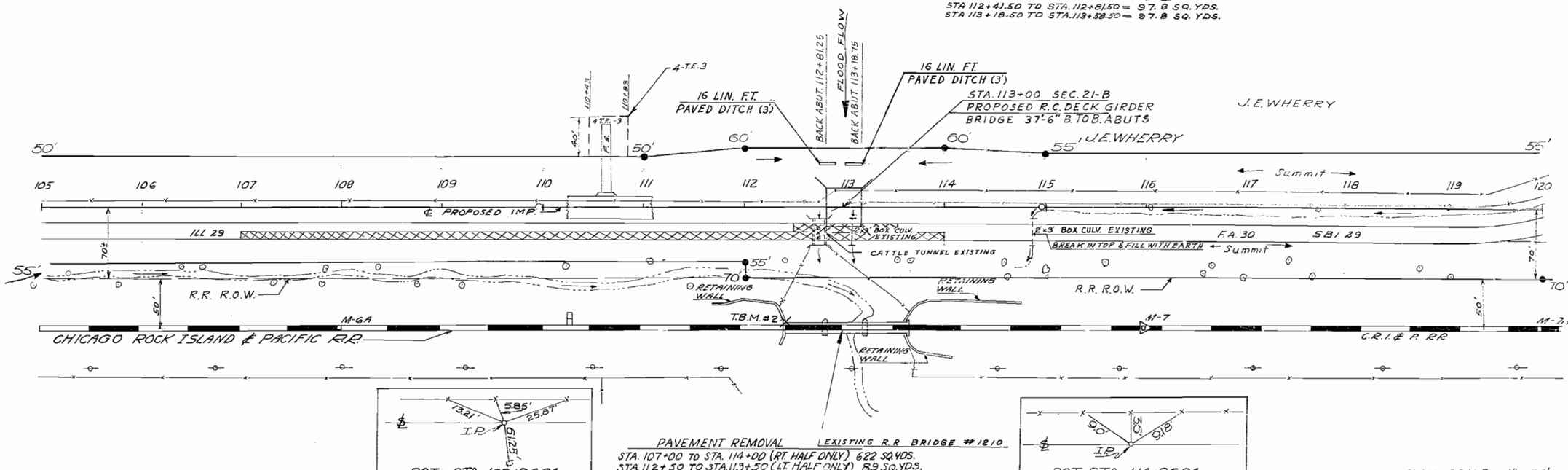
159



T14N R10E 4P.M.
SEC. 18

P.C. CONCRETE PAVEMENT 16½"-10½"-16½"
BRIDGE APPROACHES — METHOD II
STA 112+41.50 TO STA. 112+81.50 = 97.8 SQ. YDS.
STA 113+18.50 TO STA. 113+58.50 = 97.8 SQ. YDS.

FA 3021 & 21B | BUREAU-PUTNAM | 118 | 8
STA 105+00 TO STA 120+00



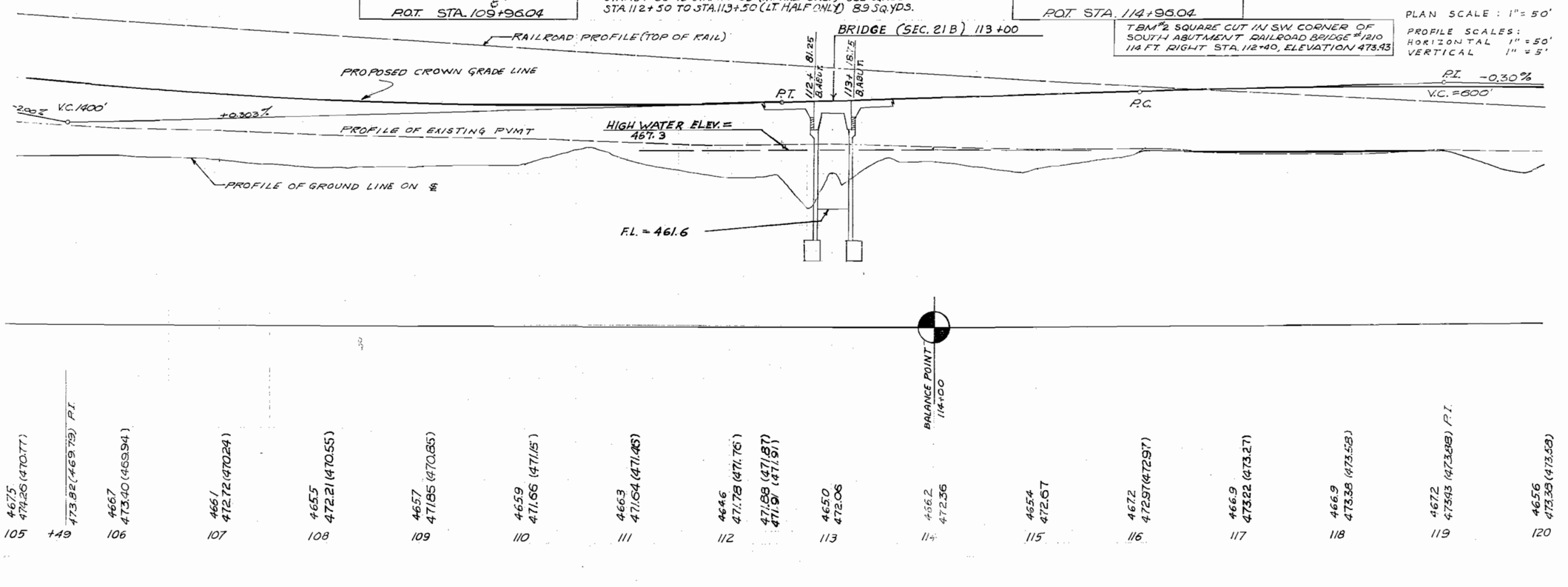
P.O.T. STA. 109+96.04

PAVEMENT REMOVAL — EXISTING R.R. BRIDGE #1210
STA. 107+00 TO STA. 114+00 (RT. HALF ONLY) 622 SQ.YDS.
STA 112+50 TO STA. 113+50 (LT. HALF ONLY) 89 SQ.YDS.

P.O.T. STA. 114+96.04

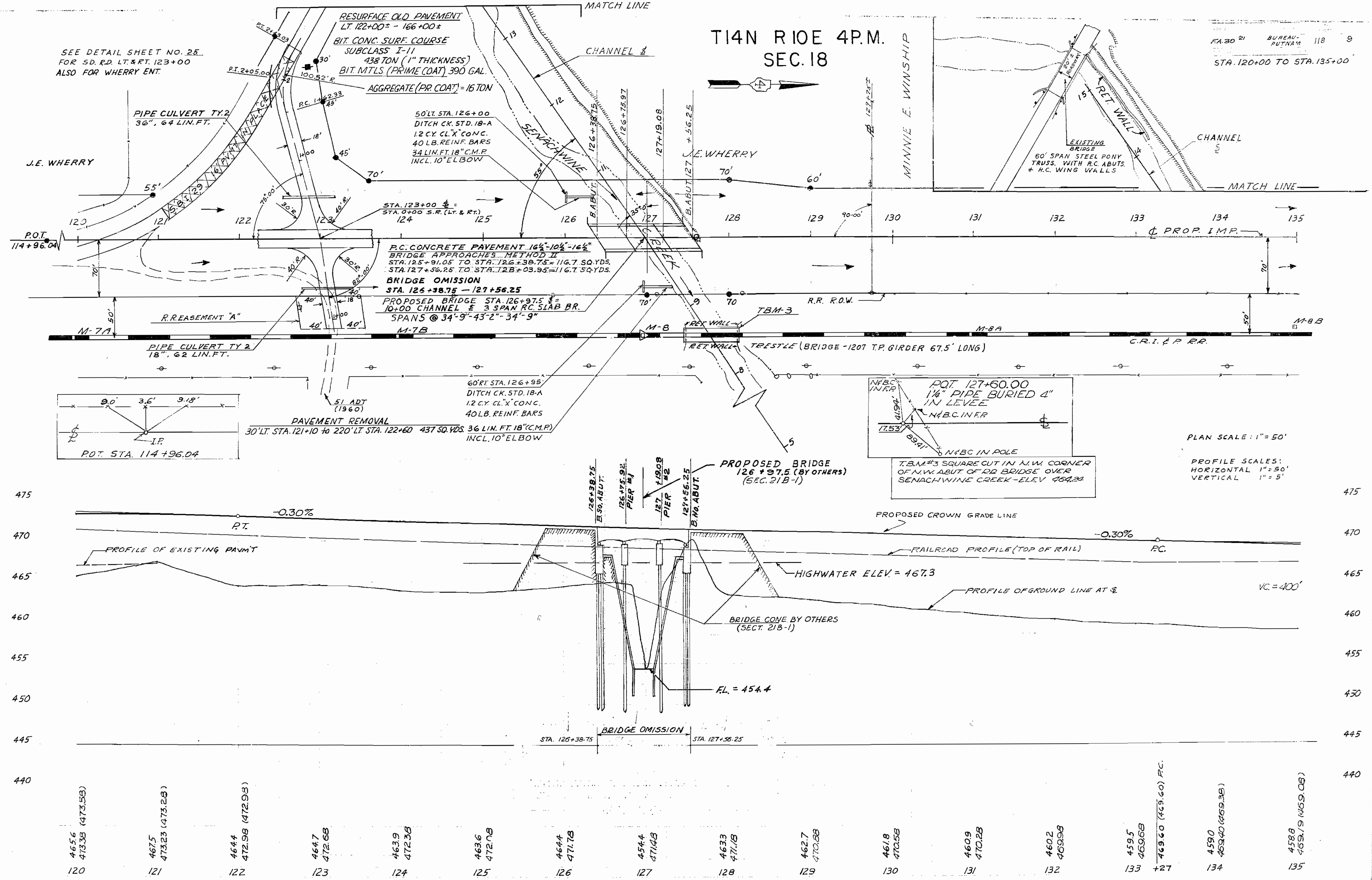
TBM #2 SQUARE CUT IN SW CORNER OF SOUTH ABUTMENT RAILROAD BRIDGE #1210
114 FT. RIGHT STA. 112+40, ELEVATION 473.43

PLAN SCALE : 1" = 50'
PROFILE SCALES:
HORIZONTAL 1" = 50'
VERTICAL 1" = 5'



J. MAURER 8-58 J. A. M. 5-60

1591



T14N R10E 4P.M.
SEC. 18
F.A. 30 21 BUREAU-PUTNAM 118 9
STA. 120+00 TO STA. 135+00
MATCH LINE
RESURFACE OLD PAVEMENT
LT. 122+00± - 166+00±
BIT. CONC. SURF. COURSE
SUBCLASS I-11
438 TON (1" THICKNESS)
BIT. MTLS (PRIME COAT) 390 GAL.
AGGREGATE (PR COAT) = 16 TON
SEE DETAIL SHEET NO. 25
FOR SD. RD. LT. & RT. 123+00
ALSO FOR WHERRY ENT.
CHANNEL ℄
PIPE CULVERT TY. 2
36", 64 LIN. FT.
J.E. WHERRY
50' LT. STA. 126+00
DITCH CK. STD. 18-A
1.2 C.Y. CL. "X" CONC.
40 LB. REINF. BARS
34 LIN. FT. 18" C.M.P.
INCL. 10° ELBOW
SENACHWINE CREEK
126+38.75
126+75.97
127+19.08
127+56.25
MINNIE E. WINSHIP
EXISTING BRIDGE
60' SPAN STEEL PONY TRUSS. WITH R.C. ABUTS. & R.C. WING WALLS
RET. WALL
CHANNEL ℄
STA. 123+00 ℄ = STA. 0+00 S.R. (LT. & RT.)
P.O.T. 114+96.04
℄ PROP. IMP.
P.C. CONCRETE PAVEMENT 16½"-10½"-16½"
BRIDGE APPROACHES METHOD II
STA. 125+91.05 TO STA. 126+38.75 = 116.7 SQ. YDS.
STA. 127+56.25 TO STA. 128+03.95 = 116.7 SQ. YDS.
BRIDGE OMISSION
STA. 126+38.75 — 127+56.25
PROPOSED BRIDGE STA. 126+97.5 ℄ = 10+00 CHANNEL ℄ 3 SPAN R.C. SLAB BR.
SPANS @ 34'-9"-43'-2"-34'-9"
R.R. EASEMENT "A"
R.R. R.O.W.
TBM-3
M-7A
M-7B
M-8
M-8A
M-8B
RET. WALL
TRESTLE (BRIDGE - 1207 T.P. GIRDER 67.5' LONG)
C.R.I. & P. RR.
PIPE CULVERT TY 2
18", 62 LIN. FT.
60' RT. STA. 126+95
DITCH CK. STD. 18-A
1.2 C.Y. CL. "X" CONC.
40 LB. REINF. BARS
36 LIN. FT. 18" (C.M.P.)
INCL. 10° ELBOW
51 ADT (1960)
PAVEMENT REMOVAL
30' LT. STA. 121+10 to 220' LT. STA. 122+60 437 SQ. YDS.
P.O.T. STA. 114+96.04
POT 127+60.00
1¼" PIPE BURIED 4" IN LEVEE
N & B.C. IN F.R.
N & B.C. IN POLE
T.B.M. #3 SQUARE CUT IN N.W. CORNER OF N.W. ABUT. OF RR BRIDGE OVER SENACHWINE CREEK - ELEV. 464.34
PLAN SCALE: 1" = 50'
PROFILE SCALES:
HORIZONTAL 1" = 50'
VERTICAL 1" = 5'
PROPOSED BRIDGE
126+97.5 (BY OTHERS)
(SEC. 21B-1)
126+38.75 B. SO. ABUT.
126+75.92 PIER #1
127+19.08 PIER #2
127+56.25 B. NO. ABUT.
-0.30%
P.T.
PROPOSED CROWN GRADE LINE
-0.30%
P.C.
PROFILE OF EXISTING PAVM'T
RAILROAD PROFILE (TOP OF RAIL)
HIGHWATER ELEV. = 467.3
PROFILE OF GROUND LINE AT ℄
V.C. = 400'
BRIDGE CONE BY OTHERS (SECT. 21B-1)
F.L. = 454.4
BRIDGE OMISSION
STA. 126+38.75
STA. 127+56.25
475 470 465 460 455 450 445 440
465.6 473.38 (473.58) 120
467.5 473.23 (473.28) 121
464.4 472.98 (472.98) 122
464.7 472.68 123
463.9 472.38 124
463.6 472.08 125
464.4 471.78 126
454.4 471.48 127
463.3 471.18 128
462.7 470.88 129
461.8 470.58 130
460.9 470.28 131
460.2 469.98 132
459.5 469.68 133
469.60 (469.60) P.C. +27
459.0 469.40 (469.38) 134
458.8 469.19 (469.08) 135
J. MAURER 8-58
J.A.M.
1591

FA-30 21 BUREAU-PUTNAM 118 10

STA. 135+00 TO STA. 150+00

T14N R10E 4P.M.

SEC 18

SEC 7

SEE DETAIL SHEET NO. 24
FOR RES. ENT. LT. STA. 143+09

12+00

11+00

55' LT. STA. 143+09, P. CULV.,
TY. 2, 36" x 64 LIN. FT.

MINNIE E. WINSHIP

88°-20'

60'

60

70'

135 136 137 138 139 140 141 142 144 145 146 147 148 149 150

℄ PROP. IMP.

143+09.0 = 10+00.0
RES. ENTR. LT.

MAIL BOX TURNOUT, METHOD S

70'

70'

TBM #4

70' R.R. R.O.W.

55' RT. STA. 143+09, P. CULV.
TY. 2, 24" x 60 LIN. FT.

35' 35'

9+00

R.R. EASEMENT "B"

35' 35'

M-8 B 50'

HANDCAR SIDING

M-9

M-9B

50'

R.R. SIGNAL

CHICAGO ROCK ISLAND & PACIFIC RAILROAD

T. B. M. #5

℄

P.O.T. 143+05.00
½" BOLT, W/1" SQ. HD. BURIED 8"

84.46'

68.72'

71.16'

N & BC. IN F.P.

TBM #4 HUB. IN F.P.
70' RT. ℄ STA 143+16 ±
ELEVATION 457.93

T.B.M. #5 "CHISELED IN N.E. CORNER
SEMAPHORE M1203 - 108' RT. STA.
149+30 ELEV. = 461.30

PLAN SCALE: 1" = 50'

PROFILE SCALES:
HOR. 1" = 50'
VER. 1" = 5'

J.A.M. 5-60

159/ AERIAL

475 470 465 460 455 450 445 440

V.C. 400'
-0.30%

P.T.

0.00%

PROPOSED CROWN GRADE LINE

0.00%

RAILROAD PROFILE (TOP OF RAIL)

PROFILE OF GROUND LINE AT ℄

458.8 469.9 (469.08)
135 +27
469.15 (469.00) P.I.

458.8 469.06 (469.00)
136

458.2 469.00 (469.00)
137 +27
469.00 (469.00) P.T.

457.9 469.00
138

457.2 469.00
139

456.8 469.00
140

456.3 469.00
141

456.0 469.00
142

455.5 469.00
143

455.5 469.00
144

455.0 469.00
145

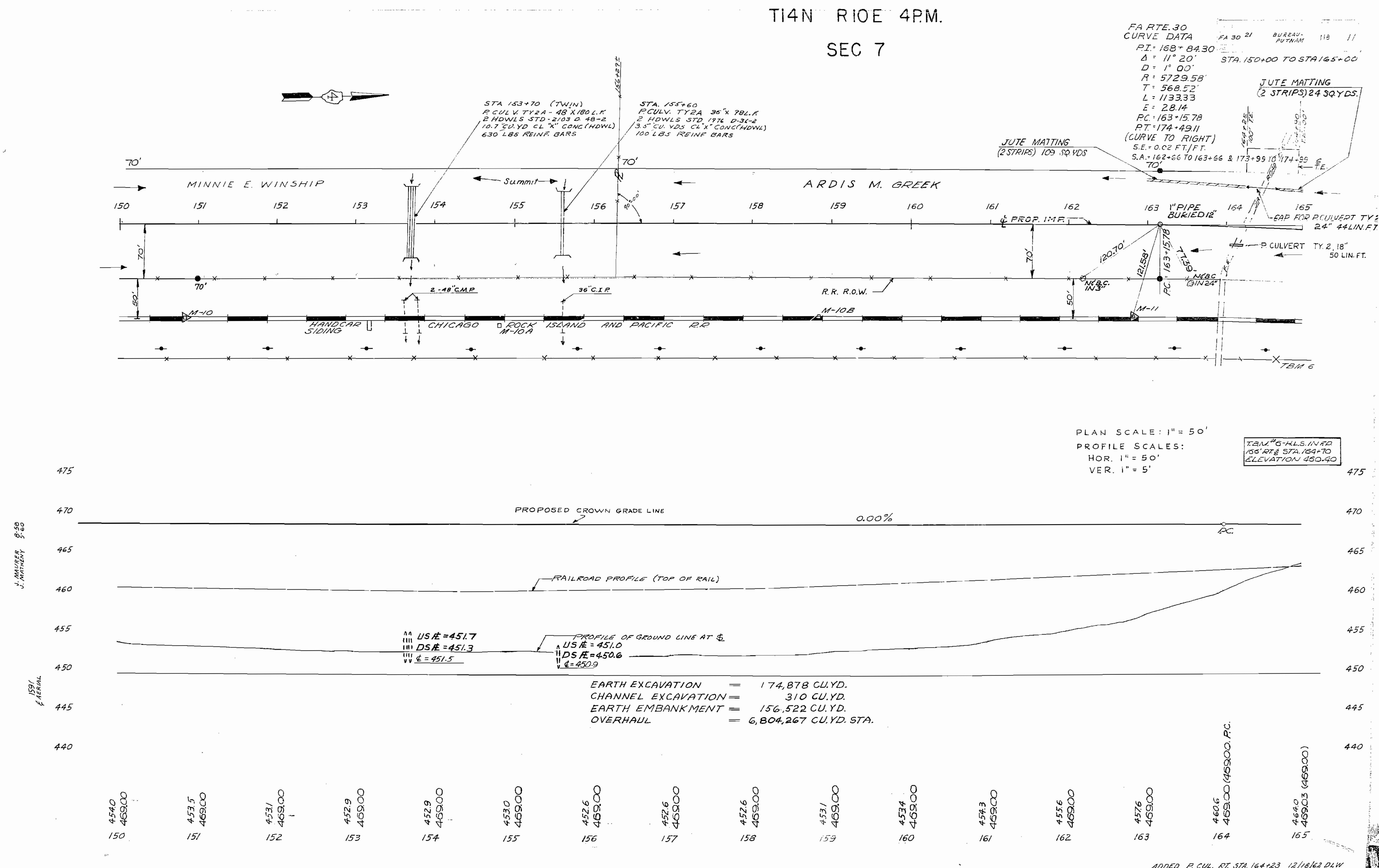
455.0 469.00
146

454.7 469.00
147

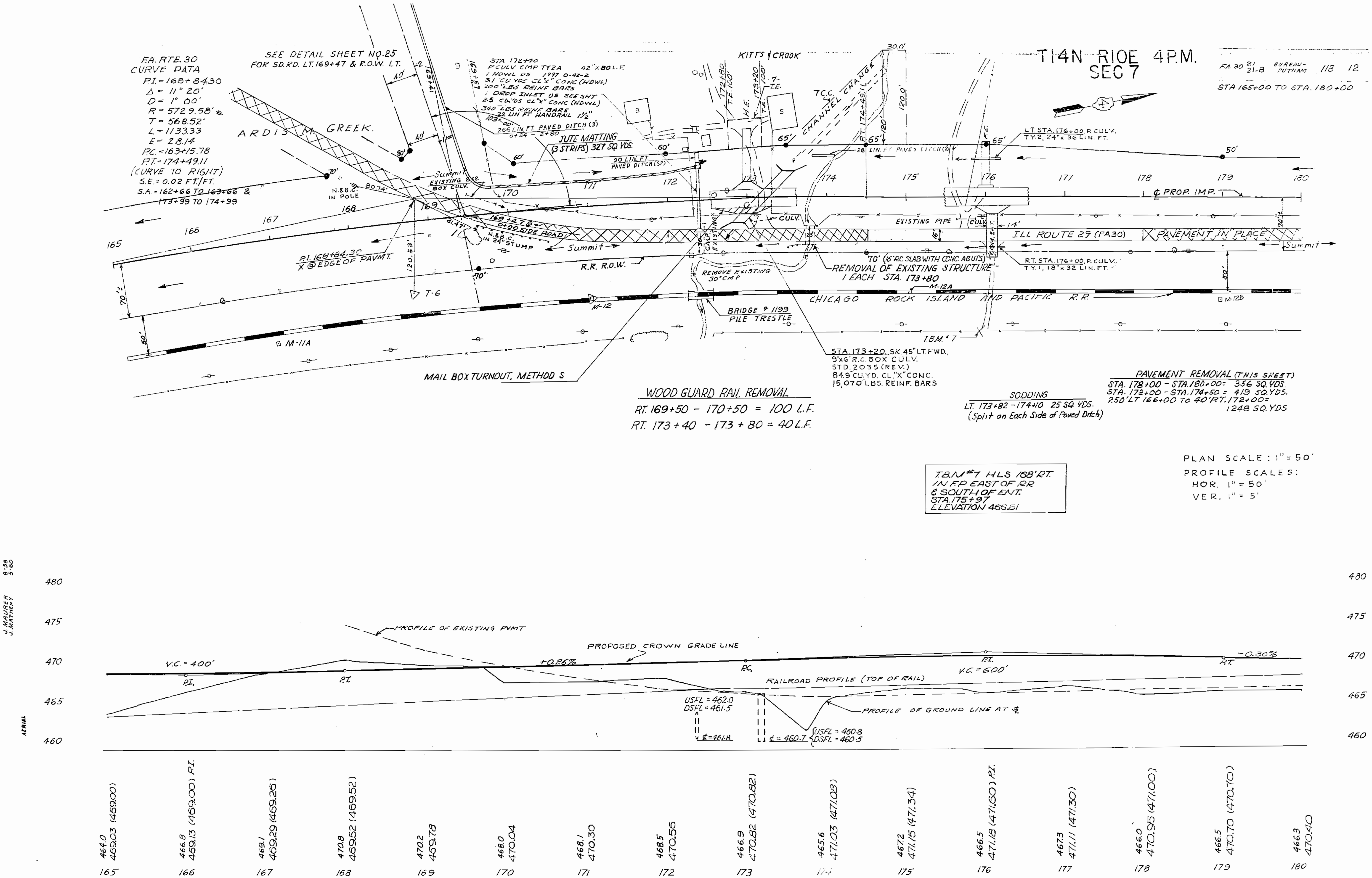
454.4 469.00
148

454.2 469.00
149

454.0 469.00
150



T14N R10E 4P.M.
SEC 7
FA RTE. 30
FA 30 21 BUREAU-PUTNAM 118 11
STA. 150+00 TO STA 165+00
CURVE DATA
P.I. = 168+84.30
Δ = 11° 20'
D = 1° 00'
R = 5729.58'
T = 568.52'
L = 1133.33
E = 28.14
P.C. = 163+15.78
P.T. = 174+49.11
(CURVE TO RIGHT)
S.E. = 0.02 FT./FT.
S.A. = 162+66 TO 163+66 & 173+99 TO 174+99
JUTE MATTING (2 STRIPS) 24 SQ.YDS.
JUTE MATTING (2 STRIPS) 109 SQ.YDS
STA 153+70 (TWIN)
P. CULV. TY.2A - 48" X 180 L.F.
2 HDWLS STD-2103 D 48-2
10.7 CU.YD CL "X" CONC (HDWL)
630 LBS REINF. BARS
STA. 155+60
P.CULV. TY.2A 36" X 78 L.F.
2 HDWLS STD. 1976 D-36-2
3.5 CU. YDS CL "X" CONC (HDWL)
100 LBS REINF BARS
156+29.5
MINNIE E. WINSHIP
ARDIS M. GREEK
Summit
150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165
1" PIPE BURIED 12"
℄ PROP. IMP.
CAP FOR P.CULVERT TY.2 24" 44 LIN.FT.
P CULVERT TY.2 18" 50 LIN. FT.
120.70'
121.58'
163+15.78
P.C.
N.&B.C. IN 3"
N.&B.C. G IN 24"
2-48" C.M.P.
36" C.I.P.
R.R. R.O.W.
M-10
M-10A
M-10B
M-11
HANDCAR SIDING
CHICAGO ROCK ISLAND AND PACIFIC R.R.
TBM 6
70'
50'
PLAN SCALE: 1" = 50'
PROFILE SCALES:
HOR. 1" = 50'
VER. 1" = 5'
T.B.M. #6-H.L.S. IN R.R. 156' RT. ℄ STA. 164+70 ELEVATION 460.40
475 470 465 460 455 450 445 440
PROPOSED CROWN GRADE LINE
0.00%
P.C.
RAILROAD PROFILE (TOP OF RAIL)
PROFILE OF GROUND LINE AT ℄
US FL = 451.7
DS FL = 451.3
℄ = 451.5
US FL = 451.0
DS FL = 450.6
℄ = 450.9
EARTH EXCAVATION = 174,878 CU.YD.
CHANNEL EXCAVATION = 310 CU.YD.
EARTH EMBANKMENT = 156,522 CU.YD.
OVERHAUL = 6,804,267 CU.YD. STA.
J. MAURER 8-58
J. MATHENY 5-60
1591 ℄ AERIAL
454.0 469.00 150
453.5 469.00 151
453.1 469.00 152
452.9 469.00 153
452.9 469.00 154
453.0 469.00 155
452.6 469.00 156
452.6 469.00 157
452.6 469.00 158
453.1 469.00 159
453.4 469.00 160
454.3 469.00 161
455.6 469.00 162
457.6 469.00 163
460.6 469.00 (469.00) P.C. 164
464.0 469.03 (469.00) 165
ADDED P. CUL. RT. STA. 164+23 12/18/62 DLW



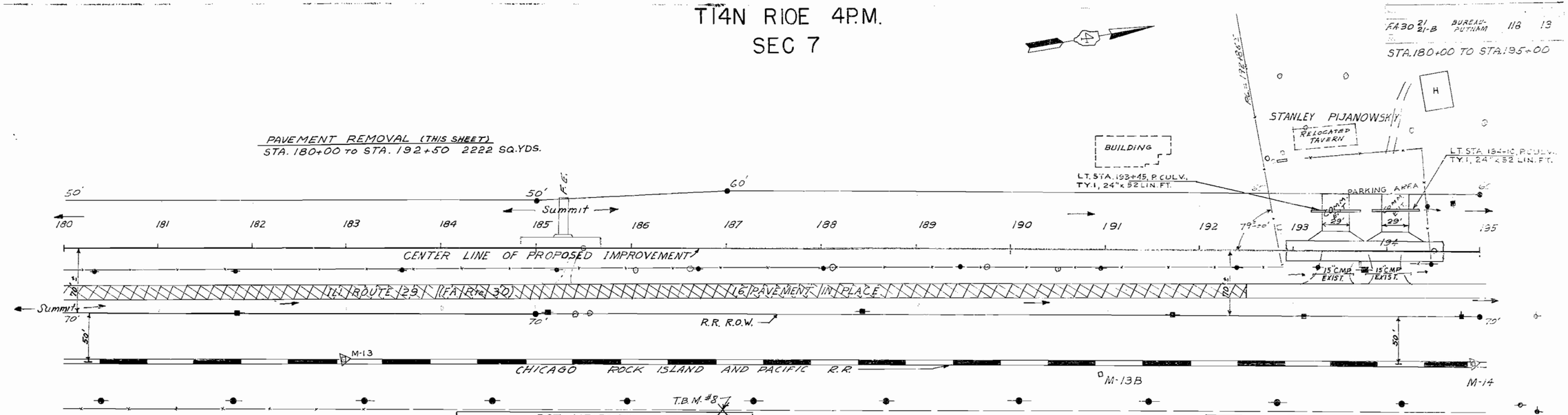
T14N R10E 4P.M. SEC 7
FA 30 21 21-B BUREAU-PUTNAM 118 12
STA 165+00 TO STA. 180+00
F.A. RTE. 30
CURVE DATA
P.I. = 168+84.30
Δ = 11° 20'
D = 1° 00'
R = 5729.58'
T = 568.52'
L = 1133.33
E = 28.14
P.C. = 163+15.78
P.T. = 174+49.11
(CURVE TO RIGHT)
S.E. = 0.02 FT./FT.
S.A. = 162+66 TO 163+66 & 173+99 TO 174+99
SEE DETAIL SHEET NO.25
FOR SD.RD. LT. 169+47 & R.O.W. LT.
ARDIS M. CREEK
KITTS CROOK
CHANNEL CHANGE
JUTE MATTING
(3 STRIPS) 327 SQ. YDS.
20 LIN. FT. PAVED DITCH (SP)
LT. STA. 176+00, P. CULV. TY.2, 24" x 36 LIN. FT.
RT. STA. 176+00, P. CULV. TY.1, 18" x 32 LIN. FT.
28 LIN. FT. PAVED DITCH (3)
EXISTING PIPE
ILL ROUTE 29 (FA30)
PAVEMENT IN PLACE
PROP. IMP.
Summit
EXISTING BOX CULV.
N.&B.C. IN POLE
N.&B.C. IN 24" STUMP
169+47.6 = 0+00 SIDE ROAD
P.I. 168+84.30
X @ EDGE OF PAVMT.
R.R. R.O.W.
REMOVE EXISTING 30" CMP
REMOVAL OF EXISTING STRUCTURE
1 EACH STA. 173+80
70' (16' RC SLAB WITH CONC. ABUTS)
BRIDGE # 1199 PILE TRESTLE
CHICAGO ROCK ISLAND AND PACIFIC R.R.
T.B.M. # 7
M-11A
M-12
M-12A
M-12B
T-6
STA. 173+20 SK. 45° LT. FWD.
9'x6' R.C. BOX CULV.
STD. 2035 (REV.)
84.9 CU. YD. CL. "X" CONC.
15,070 LBS. REINF. BARS
MAIL BOX TURNOUT, METHOD S
WOOD GUARD RAIL REMOVAL
RT. 169+50 - 170+50 = 100 L.F.
RT. 173+40 - 173+80 = 40 L.F.
SODDING
LT. 173+82 - 174+10 25 SQ YDS.
(Split on Each Side of Paved Ditch)
PAVEMENT REMOVAL (THIS SHEET)
STA. 178+00 - STA. 180+00 = 356 SQ. YDS.
STA. 172+00 - STA. 174+50 = 419 SQ. YDS.
250' LT 166+00 TO 40' RT. 172+00 = 1248 SQ. YDS.
T.B.M. #7 HLS 168' RT.
IN F.P. EAST OF R.R.
& SOUTH OF ENT.
STA. 175+97
ELEVATION 466.81
PLAN SCALE: 1" = 50'
PROFILE SCALES:
HOR. 1" = 50'
VER. 1" = 5'
PROFILE OF EXISTING PVMT
PROPOSED CROWN GRADE LINE
V.C. = 400'
+0.26%
V.C. = 600'
-0.30%
RAILROAD PROFILE (TOP OF RAIL)
PROFILE OF GROUND LINE AT ℄
USFL = 462.0
DSFL = 461.5
℄ = 461.8
℄ = 460.7
USFL = 460.8
DSFL = 460.5
480
475
470
465
460
464.0 469.03 (469.00) 165
466.8 469.13 (469.00) P.I. 166
469.1 469.29 (469.26) 167
470.8 469.52 (469.52) 168
470.2 469.78 169
468.0 470.04 170
468.1 470.30 171
468.5 470.56 172
466.9 470.82 (470.82) 173
465.6 471.03 (471.08) 174
467.2 471.15 (471.34) 175
466.5 471.18 (471.60) P.I. 176
467.3 471.11 (471.30) 177
466.0 470.95 (471.00) 178
466.5 470.70 (470.70) 179
466.3 470.40 180
J. MAURER 8-58
J. MATHENY 5-60
AERIAL

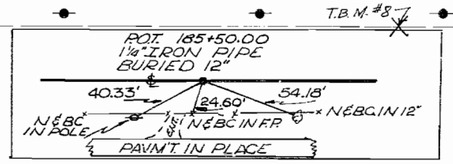
T14N R10E 4P.M.
SEC 7

FA 30 21/21-B BUREAU-PUTNAM 118 13

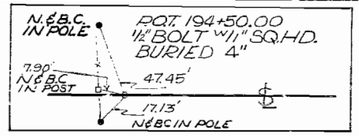
STA. 180+00 TO STA. 195+00

PAVEMENT REMOVAL (THIS SHEET)
STA. 180+00 TO STA. 192+50 2222 SQ.YDS.

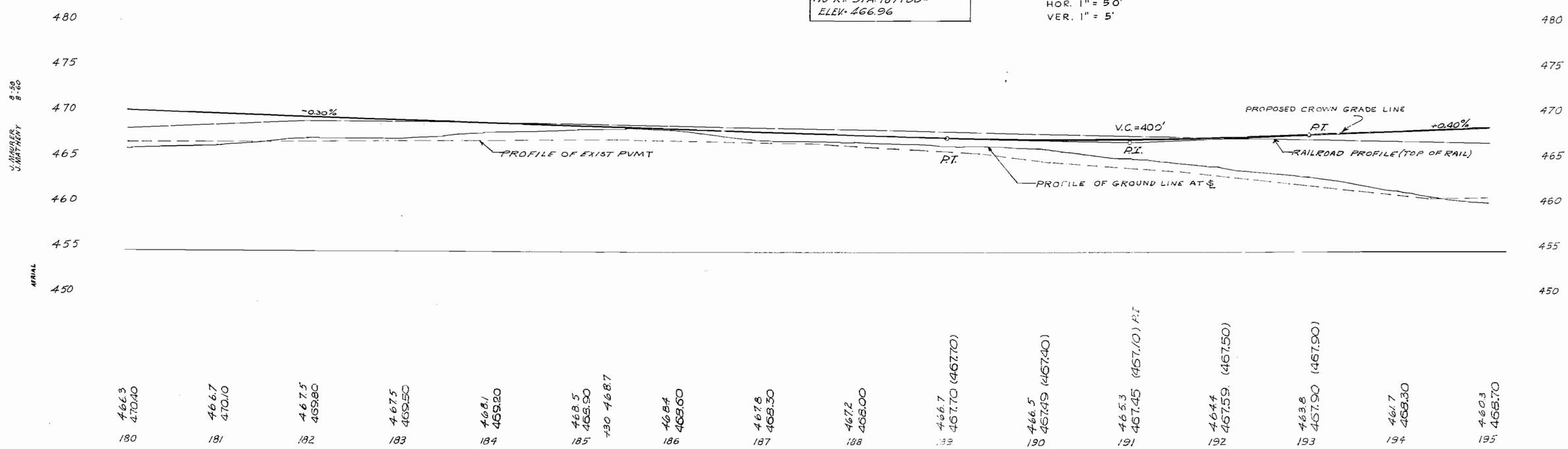




T.B.M. #8 HLS IN F.P. E. OF RR.
170' RT. STA. 187+00±
ELEV. 466.96

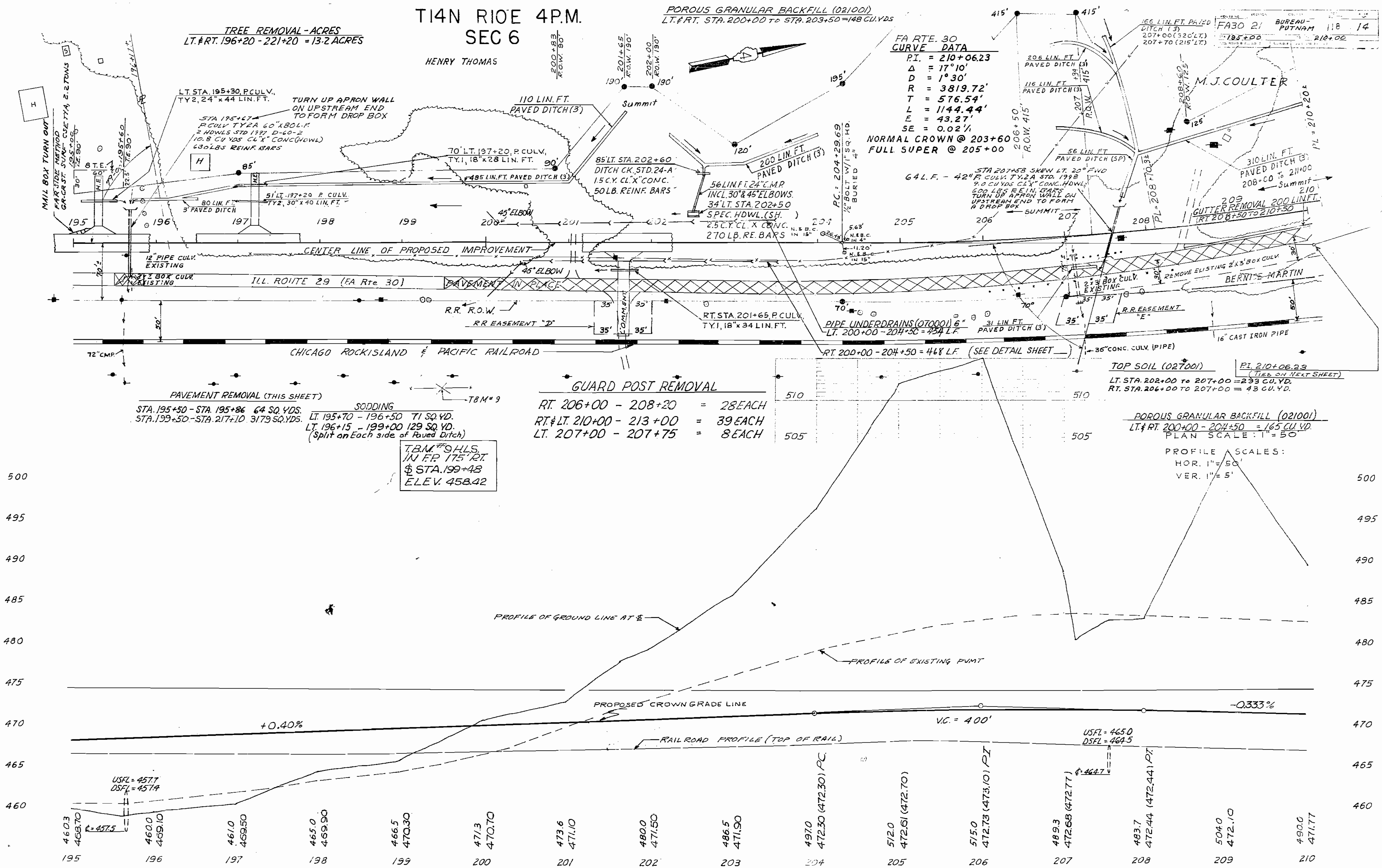


PLAN SCALE: 1" = 50'
PROFILE SCALES:
HOR. 1" = 50'
VER. 1" = 5'

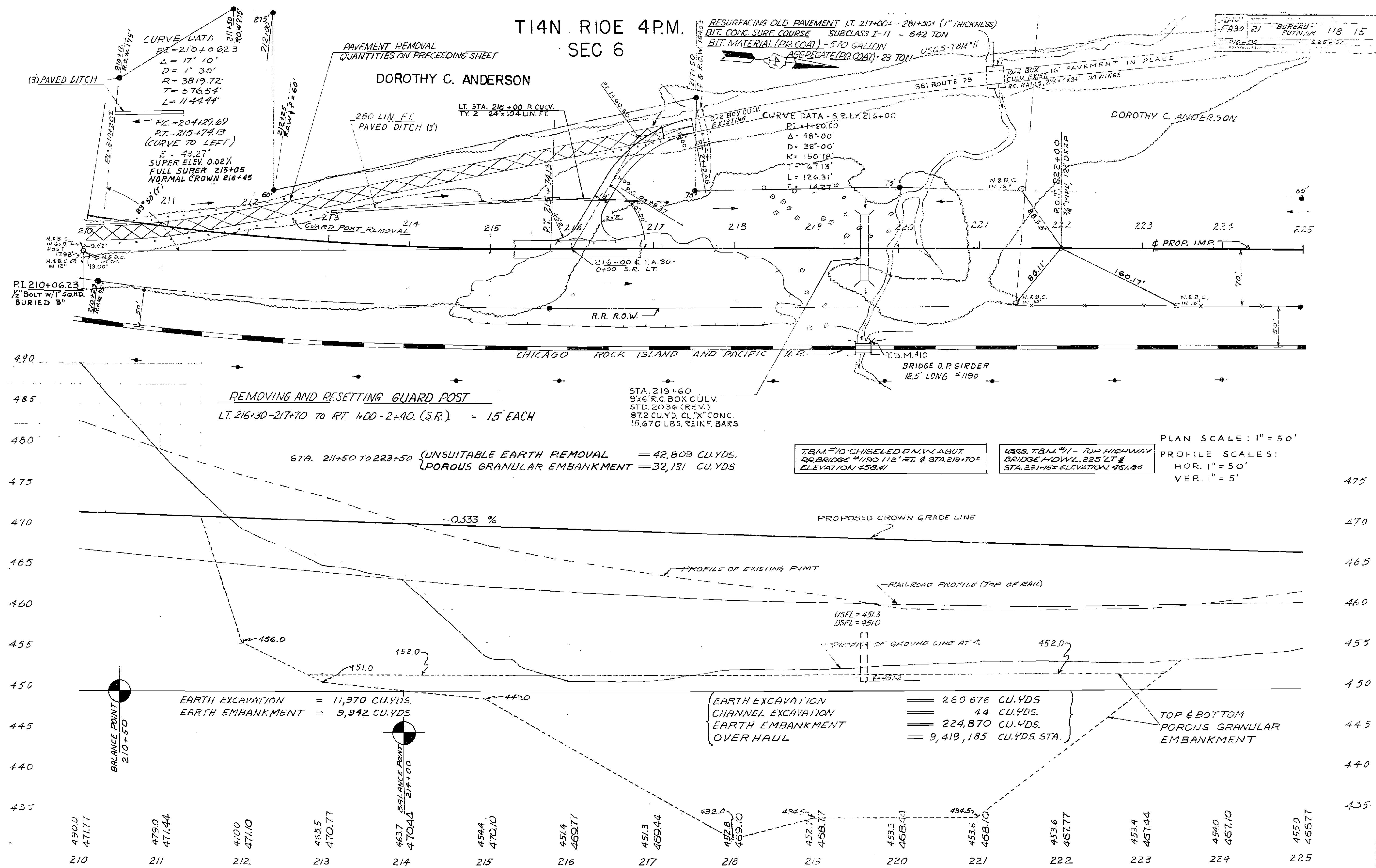


J. MACHER 8-58
J. MATHENY 8-60

AERIAL



T14N R10E 4P.M.
SEC 6
HENRY THOMAS
TREE REMOVAL - ACRES
LT.&RT. 196+20 - 221+20 = 13.2 ACRES
POROUS GRANULAR BACKFILL (021001)
LT.&RT. STA. 200+00 TO STA. 203+50 = 148 CU.YDS
FA RTE. 30
CURVE DATA
P.I. = 210+06.23
Δ = 17°10'
D = 1°30'
R = 3819.72'
T = 576.54'
L = 1144.44'
E = 43.27'
SE = 0.02'/'
NORMAL CROWN @ 203+60
FULL SUPER @ 205+00
FA30 21
BUREAU - PUTNAM
118
14
195+00
210+00
M.J. COULTER
BERNICE MARTIN
LT. STA. 195+30, P.CULV. TY2, 24"x44 LIN.FT.
TURN UP APRON WALL ON UPSTREAM END TO FORM DROP BOX
STA 195+67 P.CULV TY2A 60"x80 L.F.
2 HDWLS STD 1997 D-60-2
10.8 CU YDS CL"X" CONC(HDWL)
630 LBS REINF. BARS
110 LIN.FT. PAVED DITCH (3')
70' LT. 197+20, P.CULV. TY.1, 18"x28 LIN.FT.
485 LIN.FT. PAVED DITCH (3')
80 LIN.FT. 3' PAVED DITCH
51' LT. 197+20 P.CULV. TY2, 30"x40 LIN.FT.
MAIL BOX TURN OUT
FAR SIDE METHOD
GR.CR.ST. SURF. C.SE.TYA, 2.2 TONS
85' LT. STA. 202+60
DITCH CK. STD. 24-A
1.5 C.Y. CL."X" CONC.
50 LB. REINF. BARS
56 LIN.FT. 24" C.M.P.
INCL. 30° & 45° ELBOWS.
34' LT. STA. 202+50
SPEC. HDWL. (SH.)
2.5 C.Y. CL. X CONC.
270 LB. RE. BARS
200 LIN.FT. PAVED DITCH (3')
Summit
45° ELBOW
CENTER LINE OF PROPOSED IMPROVEMENT
12" PIPE CULV. EXISTING
2'x3' BOX CULV. EXISTING
ILL. ROUTE 29 (FA Rte 30)
PAVEMENT IN PLACE
R.R. R.O.W.
R.R. EASEMENT "D"
RT. STA. 201+65, P.CULV. TY.1, 18"x34 LIN.FT.
PIPE UNDERDRAINS (070001) 6"
LT. 200+00 - 204+50 = 454 L.F.
RT. 200+00 - 204+50 = 468 L.F. (SEE DETAIL SHEET)
CHICAGO ROCKISLAND & PACIFIC RAILROAD
72" CMP.
P.C. = 204+29.69
64 L.F. - 42" P. CULV. TY.2A STD. 1998
STA 207+58 SKEW LT. 20° FWD
56 LIN.FT. PAVED DITCH (SP)
206 LIN.FT. PAVED DITCH (3')
116 LIN.FT. PAVED DITCH (3')
166 LIN.FT. PAVED DITCH (3)
310 LIN.FT. PAVED DITCH (3')
208+00 To 211+00
GUTTER REMOVAL 200 LIN.FT.
RT 208+50 TO 210+50
REMOVE EXISTING 2'x3' BOX CULV.
2'x3' BOX CULV. EXISTING
R.R. EASEMENT "E"
31 LIN.FT. PAVED DITCH (3')
36" CONC. CULV. (PIPE)
16" CAST IRON PIPE
PL. 210+06.23
TOP SOIL (027001)
LT. STA. 202+00 TO 207+00 = 233 CU.YD.
RT. STA. 206+00 TO 207+00 = 43 CU.YD.
POROUS GRANULAR BACKFILL (021001)
LT.& RT. 200+00 - 204+50 = 165 CU.YD.
PLAN SCALE: 1"=50'
PROFILE SCALES:
HOR. 1"=50'
VER. 1"=5'
PAVEMENT REMOVAL (THIS SHEET)
STA. 195+50 - STA. 195+86 64 SQ.YDS.
STA. 199+50 - STA. 217+10 3179 SQ.YDS.
SODDING
LT. 195+70 - 196+50 71 SQ.YD.
LT. 196+15 - 199+00 129 SQ.YD.
(Split on Each side of Paved Ditch)
T.B.M. #9 HLS.
IN F.P. 175' RT.
€ STA. 199+48
ELEV. 458.42
GUARD POST REMOVAL
RT. 206+00 - 208+20 = 28 EACH
RT.& LT. 210+00 - 213+00 = 39 EACH
LT. 207+00 - 207+75 = 8 EACH
PROFILE OF GROUND LINE AT €
PROFILE OF EXISTING PVMT
PROPOSED CROWN GRADE LINE
+0.40%
V.C. = 400'
-0.333%
RAILROAD PROFILE (TOP OF RAIL)
USFL = 457.7
DSFL = 457.4
USFL = 465.0
DSFL = 464.5
J. MAURER
J.A.M.
AERIAL



T14N R10E 4P.M.
SEC 6
FA30 21 BUREAU-PUTNAM 118 15
RESURFACING OLD PAVEMENT LT. 217+00± - 281+50± (1" THICKNESS)
BIT. CONC. SURF. COURSE SUBCLASS I-11 = 642 TON
BIT MATERIAL (PR.COAT) = 570 GALLON
AGGREGATE (PR.COAT) = 23 TON
USGS-TBM #11
CURVE DATA
P.I.=210+06.23
Δ= 17° 10'
D= 1° 30'
R= 3819.72'
T= 576.54'
L= 1144.44'
P.C.=204+29.69
P.T.=215+74.13
(CURVE TO LEFT)
E = 43.27'
SUPER ELEV. 0.02%
FULL SUPER 215+05
NORMAL CROWN 216+45
(3') PAVED DITCH
PAVEMENT REMOVAL
QUANTITIES ON PRECEEDING SHEET
DOROTHY C. ANDERSON
280 LIN. FT. PAVED DITCH (3')
LT. STA. 216+00 P. CULV. TY. 2 24"x104 LIN. FT.
2x2 BOX CULV. EXISTING
CURVE DATA - S.R. LT. 216+00
P.I. = 1+60.50
Δ = 48°-00'
D = 38°-00'
R = 150.78'
T = 67.13'
L = 126.31'
E = 14.27'
SBI ROUTE 29
10x4 BOX CULV. EXIST.
16' PAVEMENT IN PLACE
RC. RAILS 2½x1x24", NO WINGS
DOROTHY C. ANDERSON
GUARD POST REMOVAL
216+00 ⊈ F.A.30 = 0+00 S.R. LT.
℄ PROP. IMP.
P.O.T. 222+00
¾" PIPE 12" DEEP
N.S.B.C. IN 12"
N.S.B.C. IN 10"
P.I. 210+06.23
½" BOLT W/1" SQ.HD. BURIED 3"
R.R. R.O.W.
CHICAGO ROCK ISLAND AND PACIFIC R.R.
T.B.M. #10
BRIDGE D.P. GIRDER 18.5' LONG #1190
REMOVING AND RESETTING GUARD POST
LT. 216+30-217+70 TO RT. 1+00-2+40. (S.R.) = 15 EACH
STA. 219+60
9'x6' R.C. BOX CULV.
STD. 2036 (REV.)
87.2 CU.YD. CL."X" CONC.
15,670 LBS. REINF. BARS
STA. 211+50 TO 223+50 UNSUITABLE EARTH REMOVAL = 42,809 CU.YDS.
POROUS GRANULAR EMBANKMENT = 32,131 CU.YDS
T.B.M. #10-CHISELED D.N.W. ABUT. RR.BRIDGE #1190 112' RT. ⊈ STA.219+70± ELEVATION 458.41
USGS. T.B.M. #11 - TOP HIGHWAY BRIDGE H.D.W.L. 225' LT ⊈ STA. 221+15± ELEVATION 461.86
PLAN SCALE: 1" = 50'
PROFILE SCALES:
HOR. 1" = 50'
VER. 1" = 5'
-0.333 %
PROPOSED CROWN GRADE LINE
PROFILE OF EXISTING PVMT
RAILROAD PROFILE (TOP OF RAIL)
USFL = 451.3
DSFL = 451.0
PROFILE OF GROUND LINE AT ⊈
456.0
452.0
451.0
449.0
452.0
EARTH EXCAVATION = 11,970 CU.YDS.
EARTH EMBANKMENT = 9,942 CU.YDS.
BALANCE POINT 210+50
BALANCE POINT 214+00
EARTH EXCAVATION = 260 676 CU.YDS.
CHANNEL EXCAVATION = 44 CU.YDS.
EARTH EMBANKMENT = 224,870 CU.YDS.
OVERHAUL = 9,419,185 CU.YDS. STA.
TOP & BOTTOM POROUS GRANULAR EMBANKMENT
432.0
434.5
434.5
490 485 480 475 470 465 460 455 450 445 440 435
490.0 471.77 210
479.0 471.44 211
470.0 471.10 212
465.5 470.77 213
463.7 470.44 214
454.4 470.10 215
451.4 469.77 216
451.3 469.44 217
452.8 469.10 218
452.1 468.77 219
453.3 468.44 220
453.6 468.10 221
453.6 467.77 222
453.4 467.44 223
454.0 467.10 224
455.0 466.77 225

SBI 29 16' PVMT

T14N R10E 4P.M.
SEC 6

FA 30 21 BUREAU PUTNAM 118 16
STA. 225+00 TO STA. 240+00

DOROTHY C. ANDERSON

DOROTHY C. ANDERSON

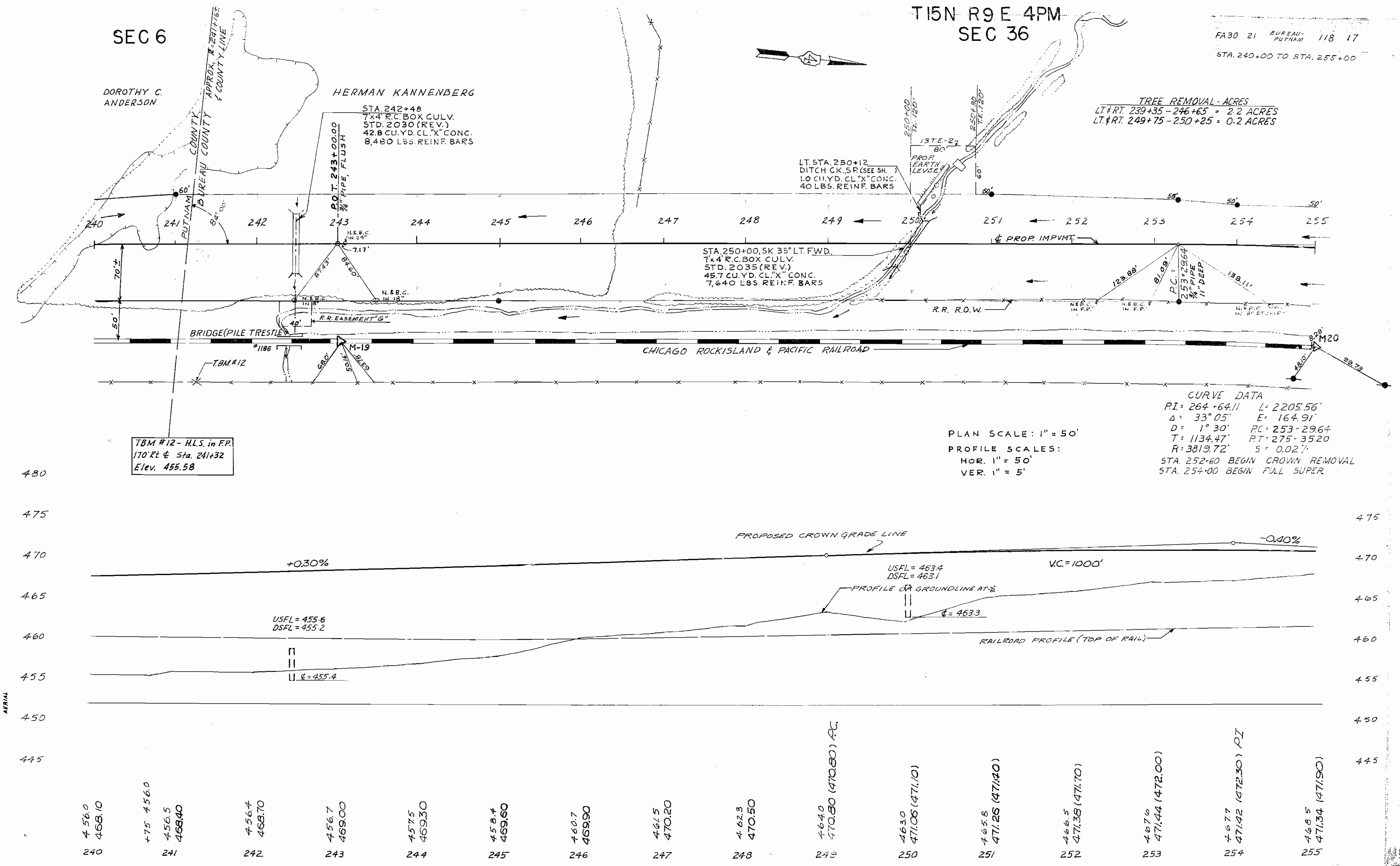
232+20 T.E. 100'
12 T.E.
232+60 T.E. 100'
40'
F.E.
45'
LT. STA. 232+40, P. CULV., TY. 2, 18" x 36 LIN. FT.
65'
55'
P.I. T. 235+00
¾" PIPE, 12" DEEP
55'
Summit
225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240
℄ PROP. IMP.
±70'
50'
R.R. R.O.W.
101.76'
76.02'
70.58'
N. 88 E. IN 24"
N. 8 E. IN 0"
N. 8 E. IN 12"
25'
23'
25'
25'
R.R. EASEMENT "F"
M18
CHICAGO ROCK ISLAND & PACIFIC RAILROAD

PLAN SCALE: 1" = 50'
PROFILE SCALES:
HOR. 1" = 50'
VER. 1" = 5'

470
465
460
455
450
AERIAL

-0.333 %
VC = 400'
+0.30%
PROPOSED CROWN GRADE LINE
RAILROAD PROFILE (TOP OF RAIL)
PROFILE OF GROUNDLINE AT ℄

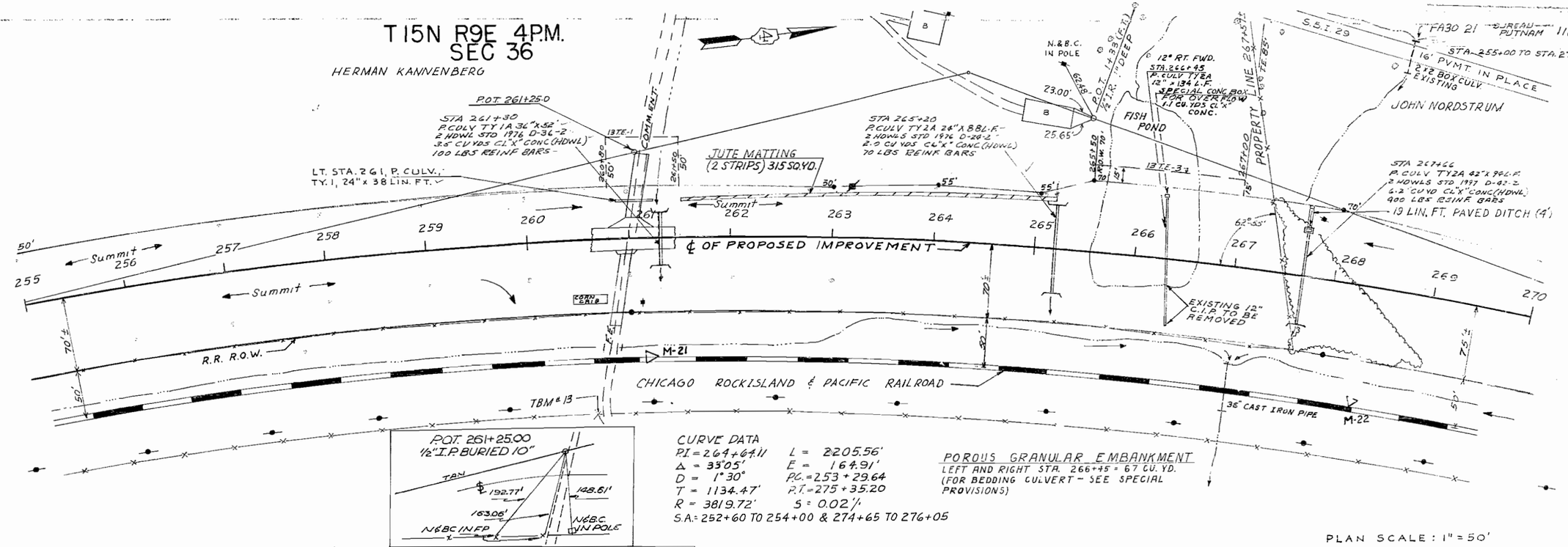
225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240
455.0 466.77	455.5 466.44	457.0 466.10	458.0 465.77 (465.77) P.C.	457.6 465.52 (465.44)	458.0 465.42 (465.10) P.I.	458.0 465.48 (465.40)	458.5 465.70 (465.70) P.T.	459.2 466.00	459.5 466.30	495.6 466.60	458.6 466.90	457.5 467.20	456.7 467.50	456.6 467.80	456.0 468.10



SEC 6
T15N R9E 4PM
SEC 36
FA30 21 BUREAU-PUTNAM 118 17
STA. 240+00 TO STA. 255+00
DOROTHY C. ANDERSON
HERMAN KANNENBERG
PUTNAM COUNTY
BUREAU COUNTY
APPROX. COUNTY LINE
STA. 242+48
7×4' R.C. BOX CULV.
STD. 2030 (REV.)
42.8 CU. YD. CL. "X" CONC.
8,480 LBS. REINF. BARS
P.O.T. 243+00.00
¾" PIPE, FLUSH
TREE REMOVAL - ACRES
LT. & RT. 239+35 - 246+65 = 2.2 ACRES
LT. & RT. 249+75 - 250+25 = 0.2 ACRES
LT. STA. 250+12
DITCH CK. S.P. (SEE SH.)
1.0 CU. YD. CL. "X" CONC.
40 LBS. REINF. BARS
PROP. EARTH LEVEE
STA. 250+00, SK 35° LT. FWD.
7×4' R.C. BOX CULV.
STD. 2035 (REV.)
45.7 CU. YD. CL. "X" CONC.
7,640 LBS. REINF. BARS
℄ PROP. IMPVMT.
R.R. ROW.
R.R. EASEMENT "G"
BRIDGE (PILE TRESTLE)
CHICAGO ROCKISLAND & PACIFIC RAILROAD
M-19
M20
T.B.M. #12
TBM #12 - H.L.S. in F.P.
170' Rt. ℄ Sta. 241+32
Elev. 455.58
PLAN SCALE: 1" = 50'
PROFILE SCALES:
HOR. 1" = 50'
VER. 1" = 5'
CURVE DATA
P.I. = 264+64.11
Δ = 33° 05'
D = 1° 30'
T = 1134.47'
R = 3819.72'
L = 2205.56'
E = 164.91'
P.C. = 253+29.64
P.T. = 275+35.20
S = 0.02'/'
STA. 252+60 BEGIN CROWN REMOVAL
STA. 254+00 BEGIN FULL SUPER
PROPOSED CROWN GRADE LINE
+0.30%
-0.40%
V.C. = 1000'
USFL = 463.4
DSFL = 463.1
PROFILE OF GROUNDLINE AT ℄
℄ = 463.3
USFL = 455.6
DSFL = 455.2
℄ = 455.4
RAILROAD PROFILE (TOP OF RAIL)
480
475
470
465
460
455
450
445
456.0 468.10 240
+75 456.0
456.5 468.40 241
456.4 468.70 242
456.7 469.00 243
457.5 469.30 244
458.4 469.60 245
460.7 469.90 246
461.5 470.20 247
462.3 470.50 248
464.0 470.80 (470.80) P.C. 249
463.0 471.06 (471.10) 250
465.8 471.26 (471.40) 251
466.5 471.38 (471.70) 252
467.0 471.44 (472.00) 253
467.7 471.42 (472.30) P.I. 254
468.5 471.34 (471.90) 255

T15N R9E 4P.M.
SEC 36

HERMAN KANNENBERG

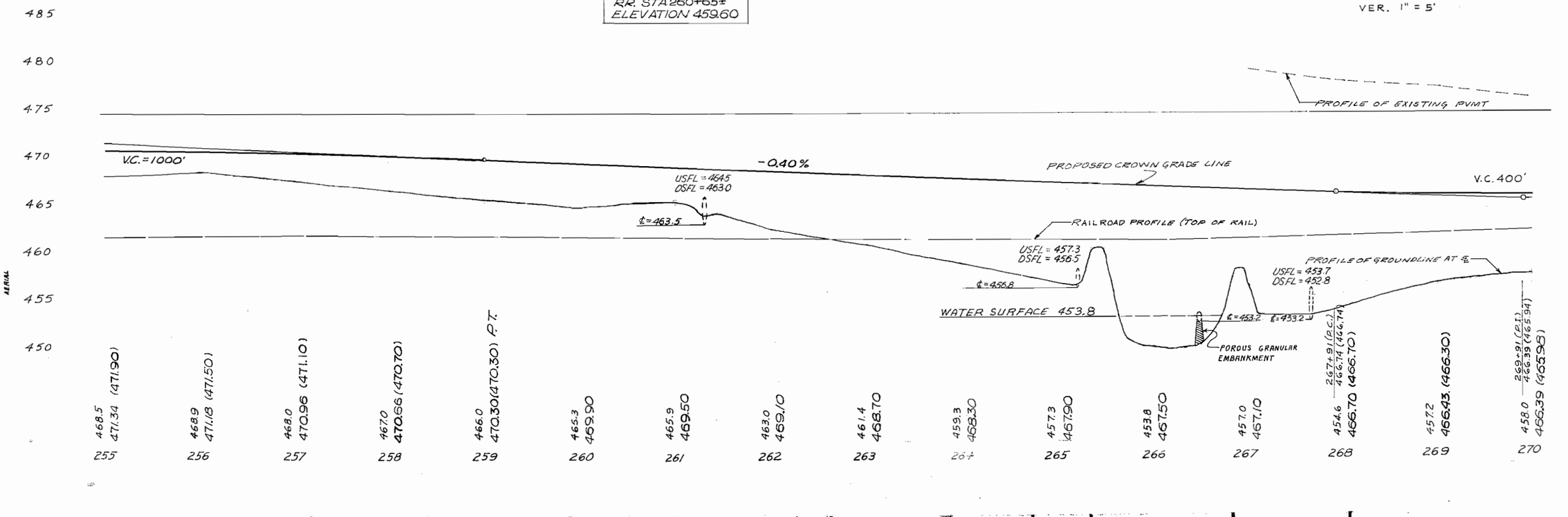


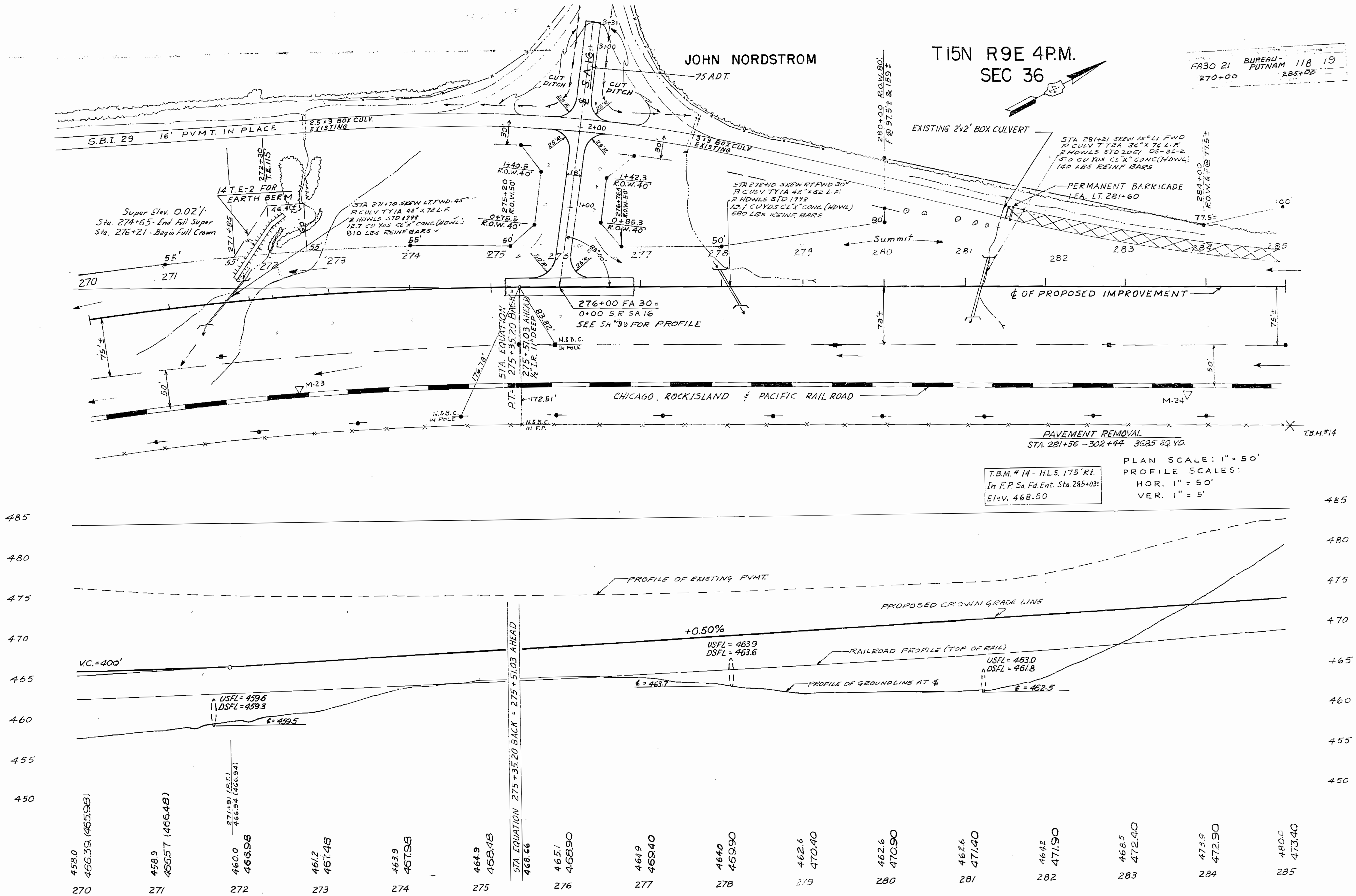
T.BM. #13 H.S. 170' RT. ℄ IN F.P. EAST OF RR. STA 260+65± ELEVATION 459.60

CURVE DATA
PI = 264+64.11 L = 2205.56'
Δ = 33°05' E = 164.91'
D = 1°30' P.C. = 253 + 29.64
T = 1134.47' P.T. = 275 + 35.20
R = 3819.72' S = 0.02'/.
S.A.: 252+60 TO 254+00 & 274+65 TO 276+05

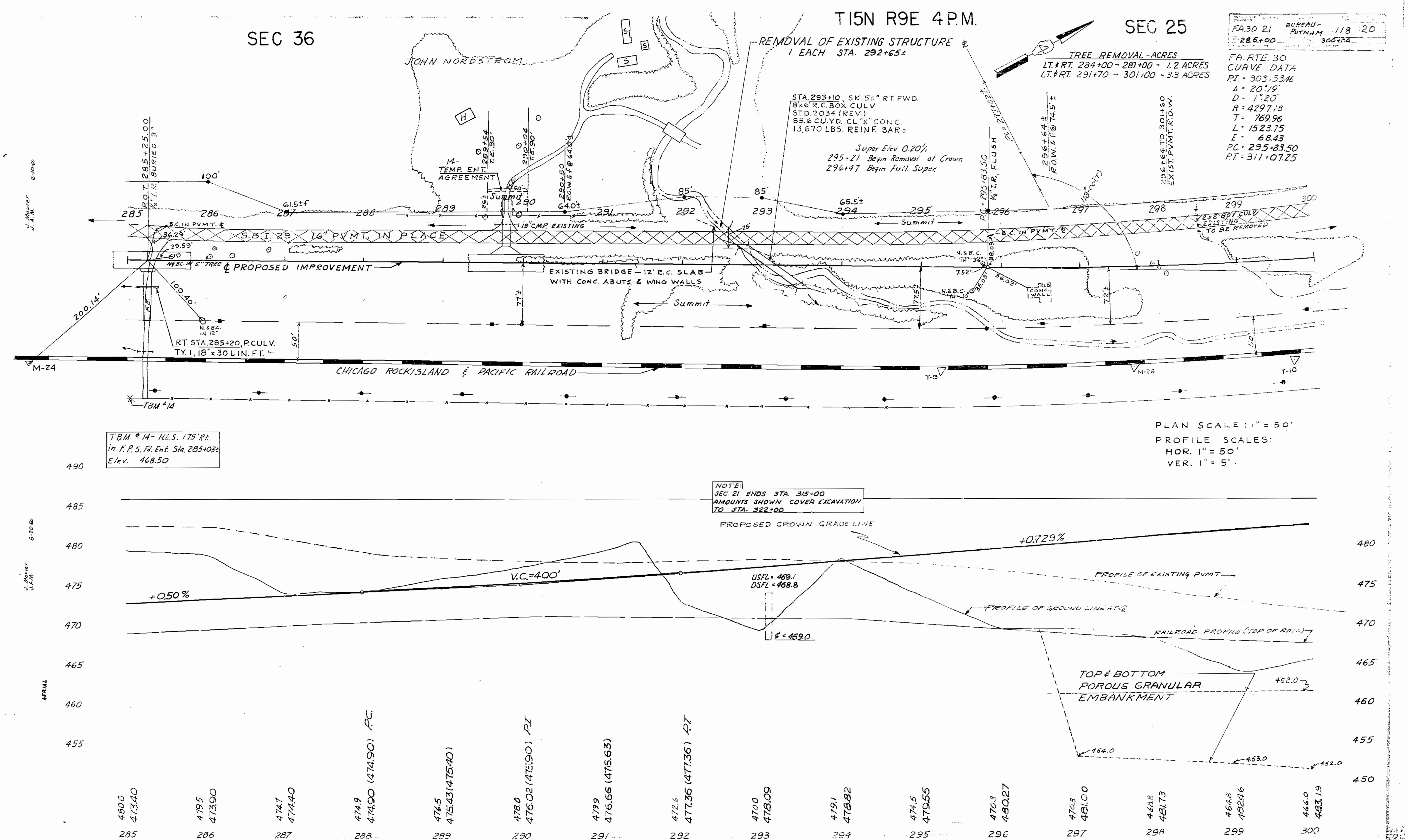
POROUS GRANULAR EMBANKMENT
LEFT AND RIGHT STA. 266+15 = 67 CU. YD.
(FOR BEDDING CULVERT – SEE SPECIAL PROVISIONS)

PLAN SCALE: 1" = 50'
PROFILE SCALES:
HOR. 1" = 50'
VER. 1" = 5'

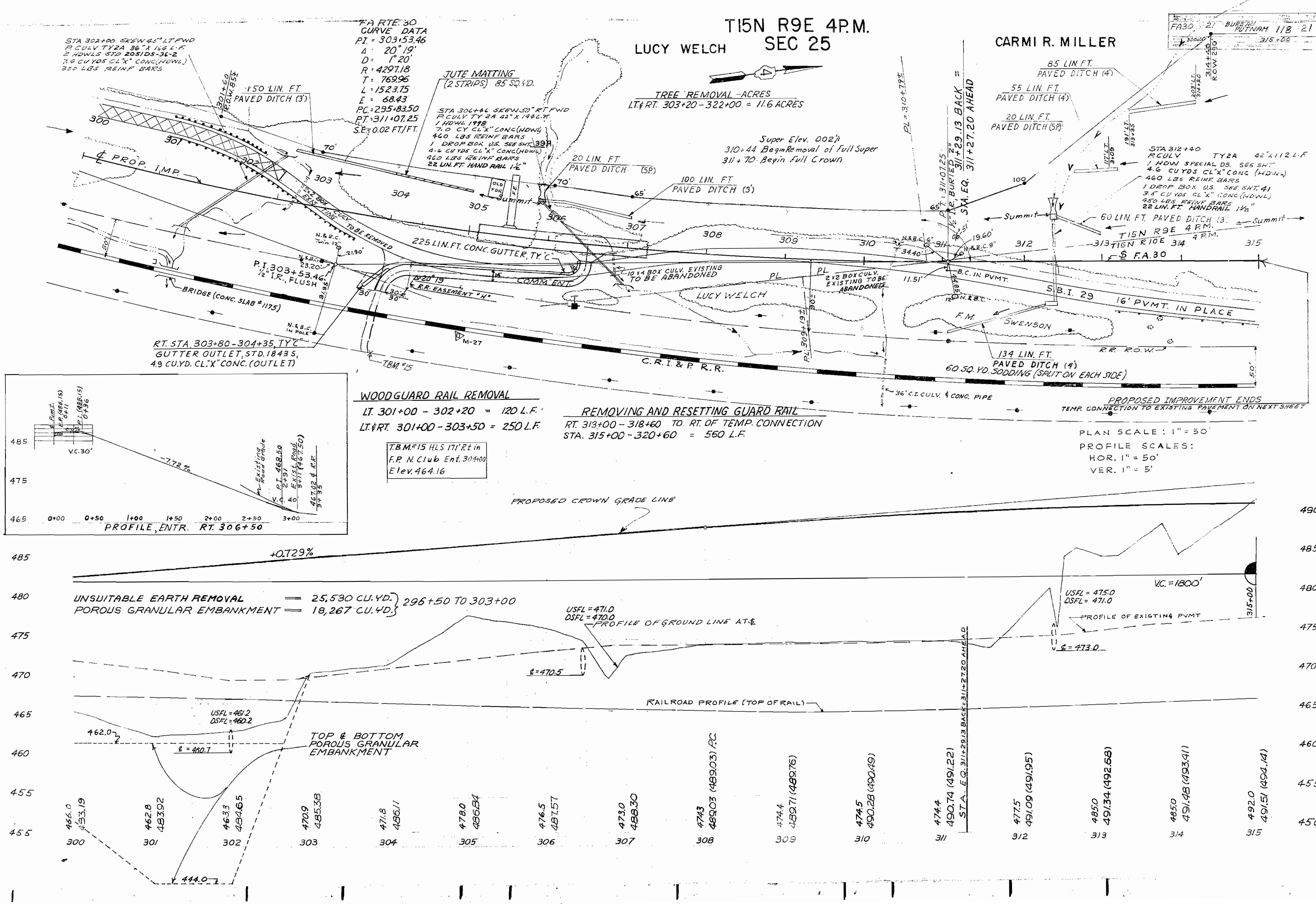




T15N R9E 4P.M.
SEC 36
FA30 21 BUREAU-PUTNAM 118 19
270+00 285+00
JOHN NORDSTROM
75 ADT
S.A 16
CUT DITCH
S.B.I. 29 16' PVMT. IN PLACE
2.5 x 3 BOX CULV. EXISTING
3 x 3 BOX CULV EXISTING
EXISTING 2'x2' BOX CULVERT
280+00 R.O.W. 80' F @ 97.5± & 159±
STA 281+21 SKEW 15° LT FWD R CULV TY 2A 36" x 76 L.F. 2 HDWLS STD 2061 05-36-2 5.0 CU YDS CL "X" CONC (HDWL) 140 LBS REINF BARS
PERMANENT BARRICADE 1 EA. LT. 281+60
284+00 R.O.W. R+@ 77.5±
STA 278+10 SKEW RT FWD 30° R CULV TY 1A 42" x 52 L.F. 2 HDWLS STD 1998 10.1 CU YDS CL "X" CONC (HDWL) 680 LBS REINF BARS
STA 271+70 SKEW LT FWD 45° R CULV TY 1A 42" x 72 L.F. 2 HDWLS STD 1998 12.7 CU YDS CL "X" CONC (HDWL) 810 LBS REINF BARS
14 T.E-2 FOR EARTH BERM
Super Elev. 0.02'/'
Sta. 274+65 - End Full Super
Sta. 276+21 - Begin Full Crown
Summit
℄ OF PROPOSED IMPROVEMENT
276+00 FA 30 = 0+00 S.R SA 16
SEE SH 99 FOR PROFILE
STA. EQUATION 275+35.20 BACK 275+51.03 AHEAD
P.T.
CHICAGO, ROCK ISLAND & PACIFIC RAIL ROAD
PAVEMENT REMOVAL
STA. 281+56 - 302+44 3685 SQ. YD.
T.B.M. # 14 - H.L.S. 175' Rt. In F.P. So. Fd. Ent. Sta. 285+03± Elev. 468.50
PLAN SCALE: 1" = 50'
PROFILE SCALES:
HOR. 1" = 50'
VER. 1" = 5'
PROFILE OF EXISTING PVMT.
PROPOSED CROWN GRADE LINE
+0.50%
V.C. = 400'
RAILROAD PROFILE (TOP OF RAIL)
PROFILE OF GROUNDLINE AT ℄
USFL = 459.6 DSFL = 459.3 ℄ = 459.5
USFL = 463.9 DSFL = 463.6 ℄ = 463.7
USFL = 463.0 DSFL = 461.8 ℄ = 462.5
STA. EQUATION 275+35.20 BACK = 275+51.03 AHEAD
458.0 466.39 (465.98) 270
458.9 466.57 (466.48) 271
271+91 (P.T.) 466.94 (466.94)
460.0 466.98 272
461.2 467.48 273
463.9 467.98 274
464.9 468.48 275
STA. EQUATION 468.66
465.1 468.90 276
464.9 469.40 277
464.0 469.90 278
462.6 470.40 279
462.6 470.90 280
462.6 471.40 281
464.2 471.90 282
468.5 472.40 283
473.9 472.90 284
480.0 473.40 285
J. MAURER J.A.M.



F.A.30 21 BUREAU-PUTNAM 118 20
285+00 300+00
T15N R9E 4 P.M.
SEC 36
SEC 25
JOHN NORDSTROM
REMOVAL OF EXISTING STRUCTURE
1 EACH STA. 292+65±
TREE REMOVAL - ACRES
LT. & RT. 284+00 - 281+00 = 1.2 ACRES
LT. & RT. 291+70 - 301+00 = 3.3 ACRES
F.A. RTE. 30
CURVE DATA
P.I. = 303+53.46
Δ = 20°19'
D = 1°20'
R = 4297.18
T = 769.96
L = 1523.75
E = 68.43
P.C. = 295+83.50
P.T. = 311+07.25
STA. 293+10, SK. 55° RT. FWD.
8'x6' R.C. BOX CULV.
STD. 2034 (REV.)
85.6 CU. YD. CL. "X" CONC.
13,670 LBS. REINF. BARS
Super Elev 0.20%
295+21 Begin Removal of Crown
296+47 Begin Full Super
P.O.T. 285+25.00
½" I.R. BURIED 3"
14-
TEMP. ENT.
AGREEMENT
289+54 T.E. 90'
290+04 T.E. 90'
290+50 R.O.W. & ℄ @ 64.0'±
P.C. 295+83.50
½" I.R. FLUSH
296+64± R.O.W. & ℄ @ 74.5'±
296+64 TO 301+60 EXIST. PVMT. R.O.W.
S.B.I. 29 16' PVMT. IN PLACE
B.C. IN PVMT. ℄
18" CMP EXISTING
℄ PROPOSED IMPROVEMENT
EXISTING BRIDGE - 12' R.C. SLAB
WITH CONC. ABUTS. & WING WALLS
Summit
2'x2' BOX CULV. EXISTING TO BE REMOVED
OLD CONC. WALL
RT. STA. 285+20, P. CULV.
TY. 1, 18" x 30 LIN. FT.
CHICAGO ROCK ISLAND & PACIFIC RAILROAD
M-24
M-26
T-9
T-10
TBM #14
PLAN SCALE: 1" = 50'
PROFILE SCALES:
HOR. 1" = 50'
VER. 1" = 5'
TBM # 14 - H.L.S. 175' Rt.
in F.P.S. Fd. Ent. Sta. 285+03±
Elev. 468.50
NOTE:
SEC. 21 ENDS STA. 315+00
AMOUNTS SHOWN COVER EXCAVATION
TO STA. 322+00
PROPOSED CROWN GRADE LINE
+0.729%
+0.50%
V.C. = 400'
USFL = 469.1
DSFL = 468.8
℄ = 469.0
PROFILE OF EXISTING PVMT
PROFILE OF GROUND LINE AT ℄
RAILROAD PROFILE (TOP OF RAIL)
TOP & BOTTOM
POROUS GRANULAR
EMBANKMENT
462.0
454.0
453.0
452.0
490
485
480
475
470
465
460
455
450
P.C.
P.I.
P.T.
480.0 473.40
479.5 473.90
474.7 474.40
474.9 474.90 (474.90)
476.5 475.43 (475.40)
478.0 476.02 (475.90)
479.9 476.66 (476.63)
472.6 477.36 (477.36)
470.0 478.09
479.1 478.82
474.5 479.55
470.3 480.27
470.3 481.00
468.8 481.73
464.8 482.46
466.0 483.19
285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300


T15N R9E 4P.M.
SEC 25
LUCY WELCH
CARMI R. MILLER
FA 30 | 21 | PUTNAM | 118 | 21
F.A. RTE. 30
CURVE DATA
P.I. = 303+53.46
Δ = 20°19'
D = 1°20'
R = 4297.18
T = 769.96
L = 1523.75
E = 68.43
P.C. = 295+83.50
P.T. = 311+07.25
S.E. = 0.02 FT/FT.
STA 302+00 SKEW 45° LT FWD
P. CULV TY 2A 36" X 164 L.F.
2 HDWLS STD 2051DS-36-2
7.9 CU YDS CL "X" CONC (HDWL)
300 LBS REINF BARS
150 LIN. FT. PAVED DITCH (3')
JUTE MATTING
(2 STRIPS) 85 SQ. YD.
STA 306+46 SKEW 50° RT FWD
P. CULV TY 2A 42" X 144 L.F.
1 HDWL 1998
7.0 CY CL "X" CONC (HDWL)
460 LBS REINF BARS
1 DROP BOX U.S. SEE SHT. 39A
4.6 CU YDS CL "X" CONC (HDWL)
460 LBS REINF BARS
22 LIN. FT. HAND RAIL 1½"
TREE REMOVAL - ACRES
LT. & RT. 303+20 - 322+00 = 11.6 ACRES
Super Elev. .002'/'
310+44 Begin Removal of Full Super
311+70 Begin Full Crown
20 LIN. FT. PAVED DITCH (SP.)
100 LIN. FT. PAVED DITCH (3')
85 LIN. FT. PAVED DITCH (4')
55 LIN. FT. PAVED DITCH (4')
20 LIN. FT. PAVED DITCH (SP.)
½" I.R. BURIED 2"
311+29.13 BACK =
STA. EQ. 311+27.20 AHEAD
STA 312+40
P. CULV TY 2A 42" X 112 L.F.
1 HDW SPECIAL DS. SEE SHT.
4.6 CU YDS CL "X" CONC (HDWL)
460 LBS REINF BARS
1 DROP BOX U.S. SEE SHT. 41
3.5 CU YDS CL "X" CONC (HDWL)
250 LBS REINF BARS
22 LIN. FT. HANDRAIL 1½"
60 LIN. FT. PAVED DITCH (3')
Summit
T15N R9E 4 P.M.
T15N R10E 4 P.M.
℄ F.A. 30
℄ PROP. IMP.
225 LIN. FT. CONC. GUTTER, TY. "C"
10 x 4 BOX CULV. EXISTING TO BE ABANDONED
2 x 2 BOX CULV. EXISTING TO BE ABANDONED
COMM. ENT.
R.R. EASEMENT "H"
P.I. 303+53.46
½" I.R., FLUSH
BRIDGE (CONC. SLAB # 1175)
RT. STA. 303+80 - 304+35, TY. "C"
GUTTER OUTLET, STD. 1843 S,
4.9 CU. YD. CL. "X" CONC. (OUTLET)
LUCY WELCH
F.M. SWENSON
B.C. IN PVMT.
S.B.I. 29
16' PVMT. IN PLACE
R.R. ROW
C.R.I. & P. R.R.
134 LIN. FT.
PAVED DITCH (4')
60 SQ. YD. SODDING (SPLIT ON EACH SIDE)
36" C.I. CULV. & CONC. PIPE
T.B.M. #15
PROPOSED IMPROVEMENT ENDS
TEMP. CONNECTION TO EXISTING PAVEMENT ON NEXT SHEET
WOODGUARD RAIL REMOVAL
LT. 301+00 - 302+20 = 120 L.F.
LT. & RT. 301+00 - 303+50 = 250 L.F.
REMOVING AND RESETTING GUARD RAIL
RT. 313+00 - 318+60 TO RT. OF TEMP. CONNECTION
STA. 315+00 - 320+60 = 560 L.F.
T.B.M. #15 HLS 171' Rt in
F.P. N. Club Ent. 304+00
Elev. 464.16
PLAN SCALE: 1" = 50'
PROFILE SCALES:
HOR. 1" = 50'
VER. 1" = 5'
PROFILE, ENTR. RT. 306+50
-7.72%
V.C. 30'
V.C. 40'
PROPOSED CROWN GRADE LINE
+0.729%
V.C. = 1800'
UNSUITABLE EARTH REMOVAL = 25,530 CU. YD.
POROUS GRANULAR EMBANKMENT = 18,267 CU. YD.
296+50 TO 303+00
USFL = 471.0
DSFL = 470.0
PROFILE OF GROUND LINE AT ℄
USFL = 475.0
DSFL = 471.0
PROFILE OF EXISTING PVMT
℄ = 473.0
℄ = 470.5
RAILROAD PROFILE (TOP OF RAIL)
USFL = 461.2
DSFL = 460.2
462.0
℄ = 460.7
TOP & BOTTOM
POROUS GRANULAR
EMBANKMENT
444.0
STA. EQ. 311+29.13 BACK = 311+27.20 AHEAD
466.0 483.19 300
462.8 483.92 301
463.3 484.65 302
470.9 485.38 303
471.8 486.11 304
478.0 486.84 305
476.5 487.57 306
473.0 488.30 307
474.3 489.03 (489.03) P.C. 308
474.4 489.71 (489.76) 309
474.5 490.28 (490.49) 310
474.4 490.74 (491.22) 311
477.5 491.09 (491.95) 312
485.0 491.34 (492.68) 313
485.0 491.48 (493.41) 314
492.0 491.51 (494.14) 315

T15N R9E 4P.M.
SEC 25

FA30 21 BUREAU PUTNAM 118 22
STA. 315+00 TO STA 330+00

TEMPORARY CONNECTION
BIT. CONCRETE SURFACE CRSE. SUBCLASS I-11, 4" = 299 TON
BIT. MATERIAL PRIME COAT = 470 GALLON (@ 0.35 GAL./SQ. YD.)

TEMP CONNECTION
CURVE DATA
P.I. = 1+50.86 =
316+50.86 on ℄ FA30
Δ = 15°-00'
D = 5°-00'
R = 1145.92'
L = 300.00'
T = 150.86'
E = 9.89'
P.T. = 3+00
P.C. = 0+00
S.E.: STA 0+00 = 0.00%
TO STA. 1+50 = +0.05%
TO STA. 3+00 = 0.00%

PROJECT F-7(30)
PROPOSED IMPROVEMENT ENDS
STA. 315+00

CARMI R. MILLER
FLORENCE FORBECK
SE¼ OF NE¼ SEC. 25 T15N R9E
SW¼ OF NW¼ SEC. 30 T15N R10E
F.M. SWENSON
POWER LINE
96°00'
323+90±
17 TE.

P.O.T. 320+00.00
½" I.R., FLUSH

℄ F.A. 30
℄ PROPOSED ULTIMATE IMPROVEMENT
S.B.I. 29 16' PAVEMENT IN PLACE
PAVEMENT REMOVAL
320+16 - 320+93 137 SQ. YDS.
SIGN 2158-I
TEMP CONNECTION TO PAVEMENT IN PLACE
PAV. REMOVAL RT. 319+00 7 SQ. YDS.
319+76 - 320+16 BREAK PAVM'T 7 I SQ. YD. (3"-1" EDGE OLD PVMT)
L 50' TAPER
NOT PAY ITEM
T-11
M-30
M-29
MILE POST 117
C.R.I. & P. R.R.
R.R. R.O.W.
STA. 319+00 (RT. 34'-94')
PIPE CULVERT TY I
24" × 60 LIN. FT.
TBM - ℄

TEMP CONNECTION
CURVE DATA
P.I. = 4+51.04 = 78.14 RT.
319+42.47 ℄ FA30
Δ = 16°-30'
D = 5°-30'
R = 1041.74'
L = 300.00'
T = 151.04'
E = 10.90'
P.R.C. = 3+00
P.T. = 6+00
S.E.: STA. 3+00 = 0.00%
TO STA. 4+50 = -0.05%
TO STA. 6+00 = 0.00%

T.B.M. #16-H.L.S. 205' Rt. in
F.P. E.R.R. 316+00
Elev. 459.55

T.B.M. #17-HOR. LAG SCREW IN R.R. TRESTLE
BRIDGE #1168 WEST SIDE, 126' RT. STA.
334+50 ELEV. 456.81

N.E.B.C. IN 2"
N.E.B.C. IN 4"
N.E.B.C. IN 24" STUMP
326+00.00 P.O.T.
½" I.R., FLUSH

PLAN SCALE : 1" = 50'
PROFILE SCALES:
HOR. 1" = 50'
VER. 1" = 5'

TEMPORARY CONNECTION (NORTH END SEC. 21)
P.C. 0.00%
V.C. = 300'
P.C.C. -2.10%
V.C. = 300'
P.T. +1.80%

	0	1	1+50	2	3	4	+50	5	6
	(315+00.0) 491.57	491.16 (491.5)	490.72 (491.57) P.I.	490.11 (490.46)	488.36	486.91 (486.26)	486.67 (485.21) P.I.	486.76 (486.11)	(320+93.5±) 487.91

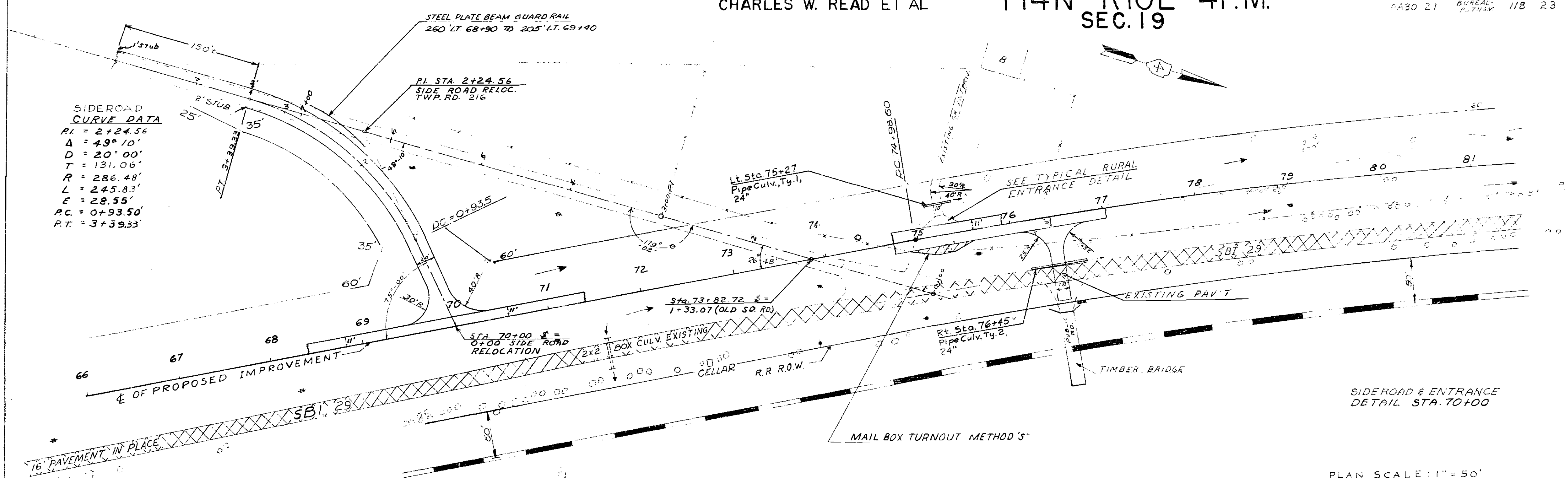
PROFILE OF GROUNDLINE AT ℄
+0.72%
PROPOSED CROWN GRADE LINE
V.C. 1800'
-1.20%
PROFILE OF EXISTING PVMT
USFL = 483.0
DSFL = 482.5
℄ = 482.8
R.R. GRADE TOP OF RAIL

	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330
	492.0	504.0	512.0	522.0	519.0	530.0	520.0	525.0	523.0	512.0	510.5	510.2	511.0	500.0	484.5	472.0
	491.51 (494.14)	491.44 (494.57)	491.26 (495.50) P.I.	490.97 (494.90)	490.57 (493.20)	490.07 (492.00)	489.46 (490.80)	488.74 (489.60)	487.92 (488.40)	486.99 (487.20)	485.95 (486.00)	484.80 (484.80) P.T.	483.60	482.40	481.20	480.00 (480.00) P.C.
	466.7		467.2	467.6		468.4				467.0		468.2				467.4

AERIAL

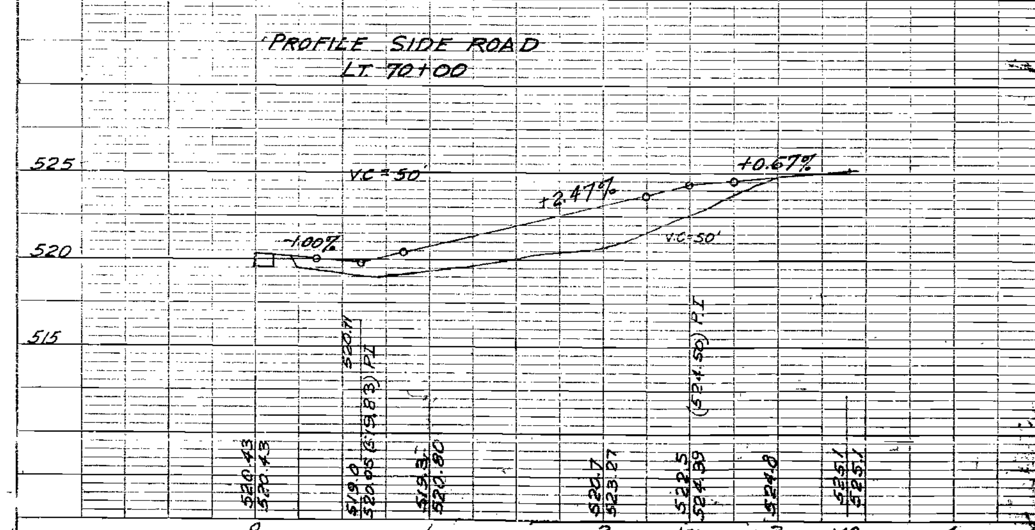
CHARLES W. READ ET AL — T14N R10E 4P.M. SEC. 19

FA30 21 BUREAU-PUTNAM 118 23



PLAN SCALE: 1" = 50'

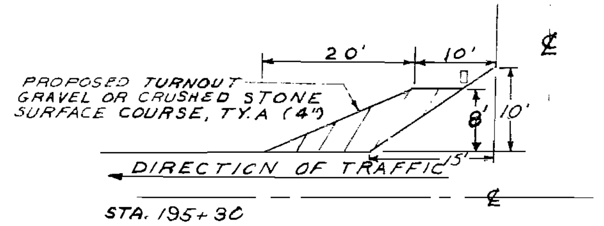
PROFILE SCALES:
HOR. 1" = 50'
VER. 1" = 5'



DETAIL OF MAIL BOX TURNOUT

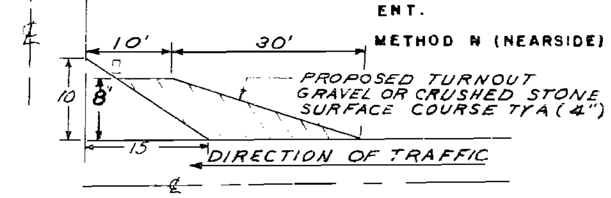
FOR TYP. ENT. WITH TAPERED RETURNS
(SEE EN IV)

TURNOUT ON FAR SIDE OF ENT.
METHOD F (FARSIDE)

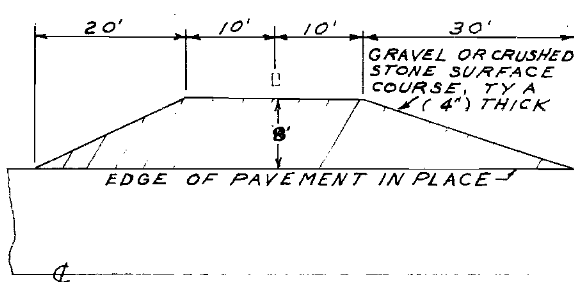


STA. 195+30

TURNOUT ON NEAR SIDE OF ENT.
METHOD N (NEARSIDE)



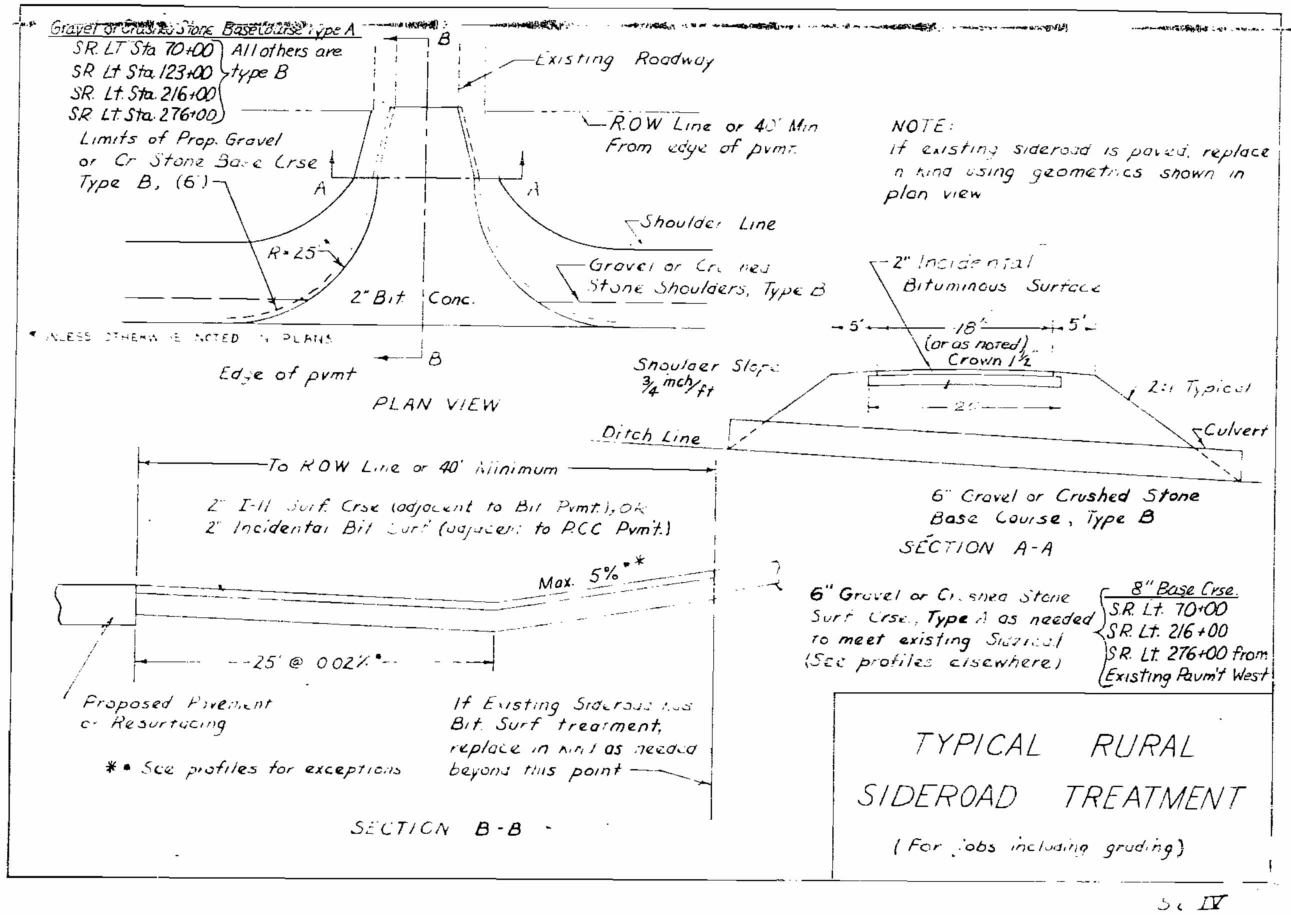
FULL MAIL BOX TURNOUT
METHOD S (STANDARD)



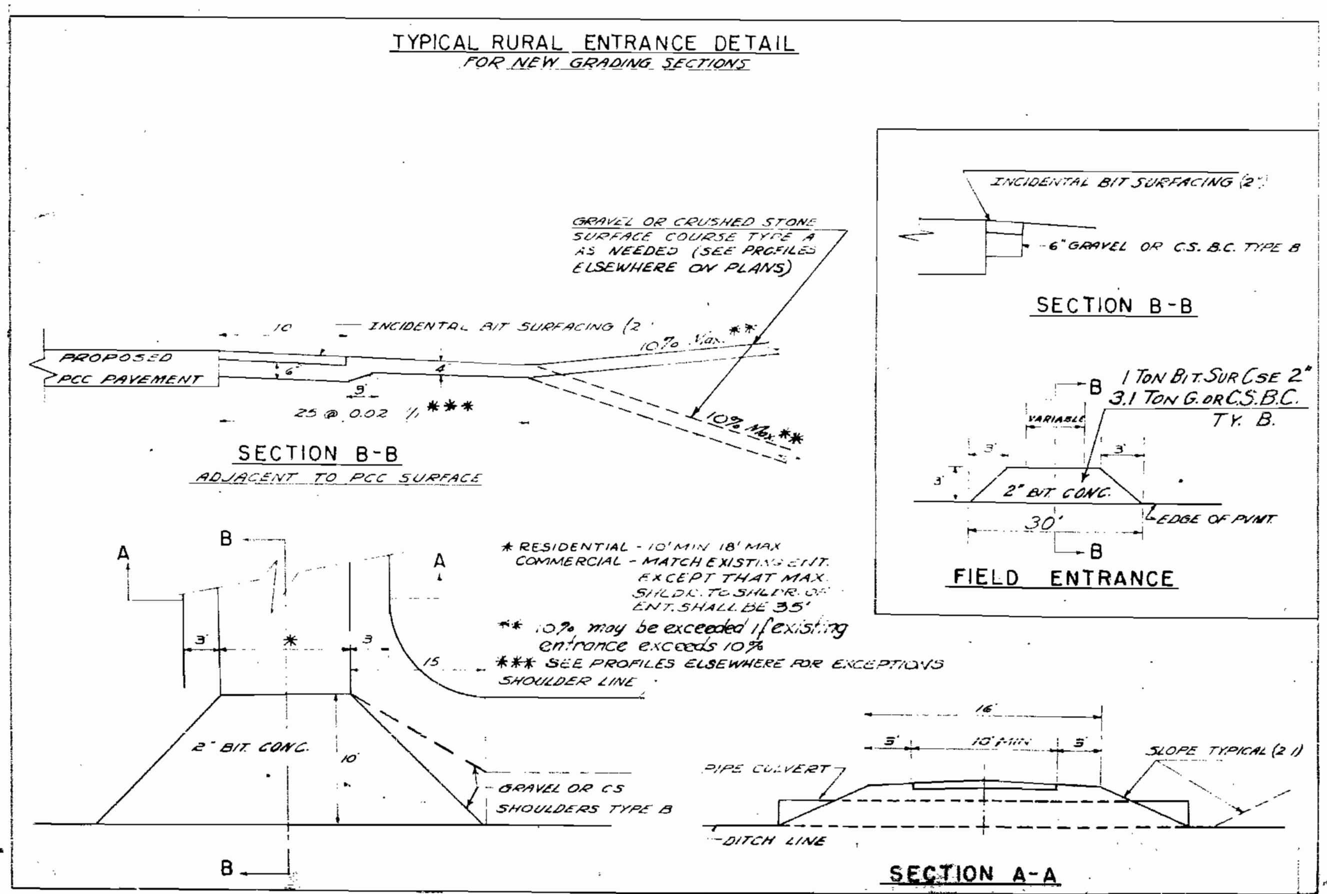
STA. 75+27
STA. 142+64
STA. 173+00

QUANTITIES FOR MAIL BOX TURNOUTS
GR. OR CR. ST. SURF. CSE. TYPE A

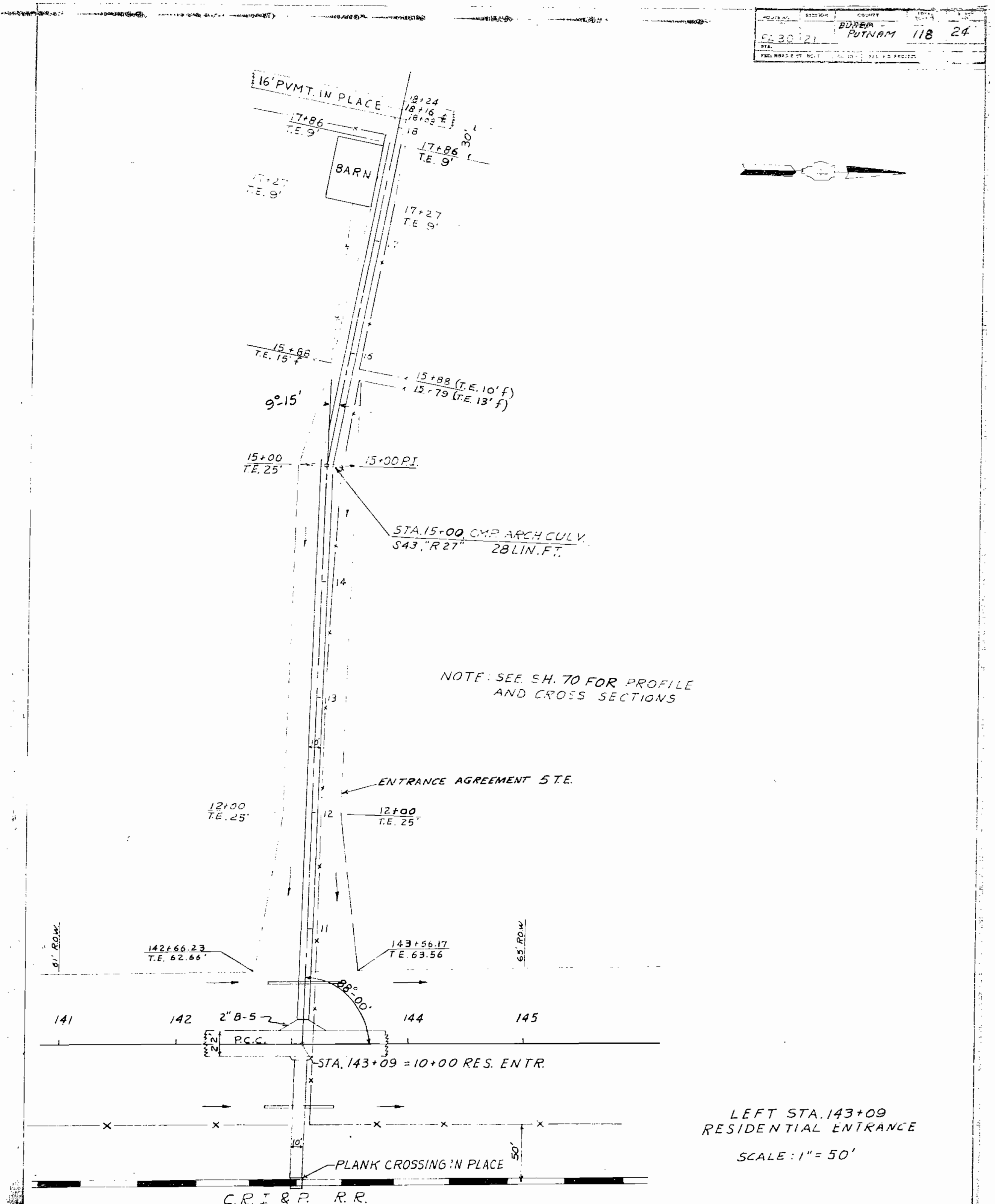
METHOD	WID. FT.	AREA SQ. YD.	1½	2	2½	3	3½	4"
			INCHES IN THICKNESS — TONS					
F	6	[illegible]	0.5	[illegible]	0.9	.1	.3	1.4
	7	[illegible]	.7	[illegible]	1.2	.4	1.6	1.9
	8	[illegible]	.8	[illegible]	.4	1.7	[illegible]	2.2
N	6	[illegible]	0.8	1.1	1.4	1.7	.9	.2
	7	..56	1.0	1.4	1.7	.1	.4	2.7
	8	14.222	1.2	1.6	2.0	2.4	2.8	3.2
S	6	30.000	2.6	3.4	4.3	5.	6.0	6.8
	7	35.000	3.0	4.0	5.0	6.0	7.0	8.0
	8	40.000	3.4	4.6	5.7	6.8	8.0	9.1



TYPICAL RURAL SIDEROAD TREATMENT
(For jobs including grading)
PLAN VIEW
Existing Roadway
ROW Line or 40' Min From edge of pvmt.
Shoulder Line
Gravel or Crushed Stone Shoulders, Type B
2" Bit Conc.
Edge of pvmt
Limits of Prop. Gravel or Cr Stone Base Crse Type B, (6")
R=25'
NOTE: If existing sideroad is paved, replace in kind using geometrics shown in plan view
2" Incidental Bituminous Surface
18' (or as noted) Crown 1½"
Shoulder Slope ¾ inch/ft
2:1 Typical
Ditch Line
Culvert
6" Gravel or Crushed Stone Base Course, Type B
SECTION A-A
To ROW Line or 40' Minimum
Max. 5% **
25' @ 0.02%
Proposed Pavement or Resurfacing
** See profiles for exceptions
If Existing Sideroad has Bit Surf treatment, replace in kind as needed beyond this point
6" Gravel or Crushed Stone Surf Crse, Type A as needed to meet existing Sideroad (See profiles elsewhere)
8" Base Crse.
SR Lt. 70+00
SR Lt. 216+00
SR Lt. 276+00 from Existing Pavm't West
SR LT Sta. 70+00
SR Lt Sta. 123+00
SR Lt Sta. 216+00
SR Lt Sta. 276+00
All others are type B
SECTION B-B

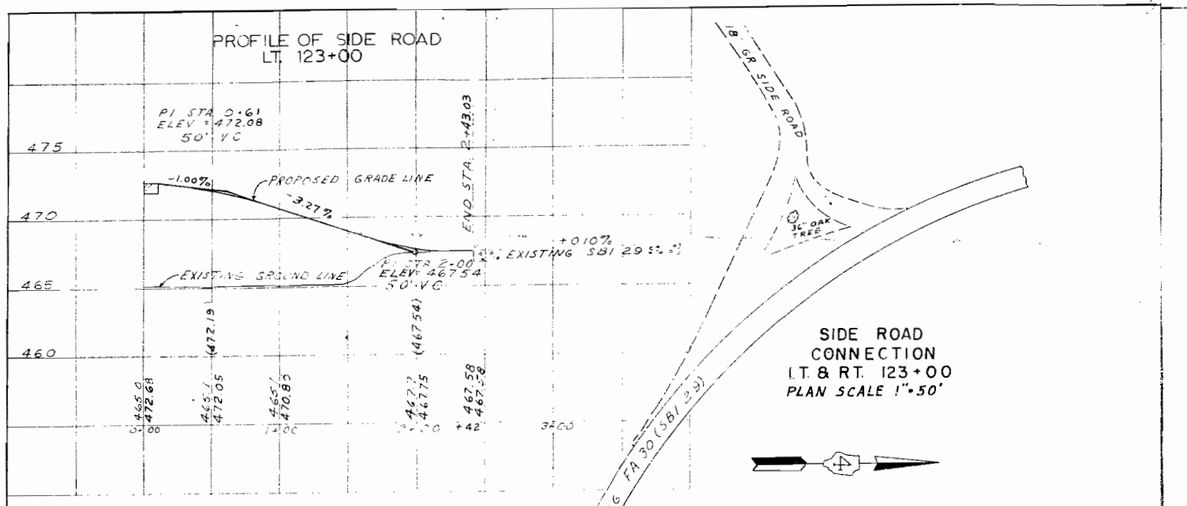


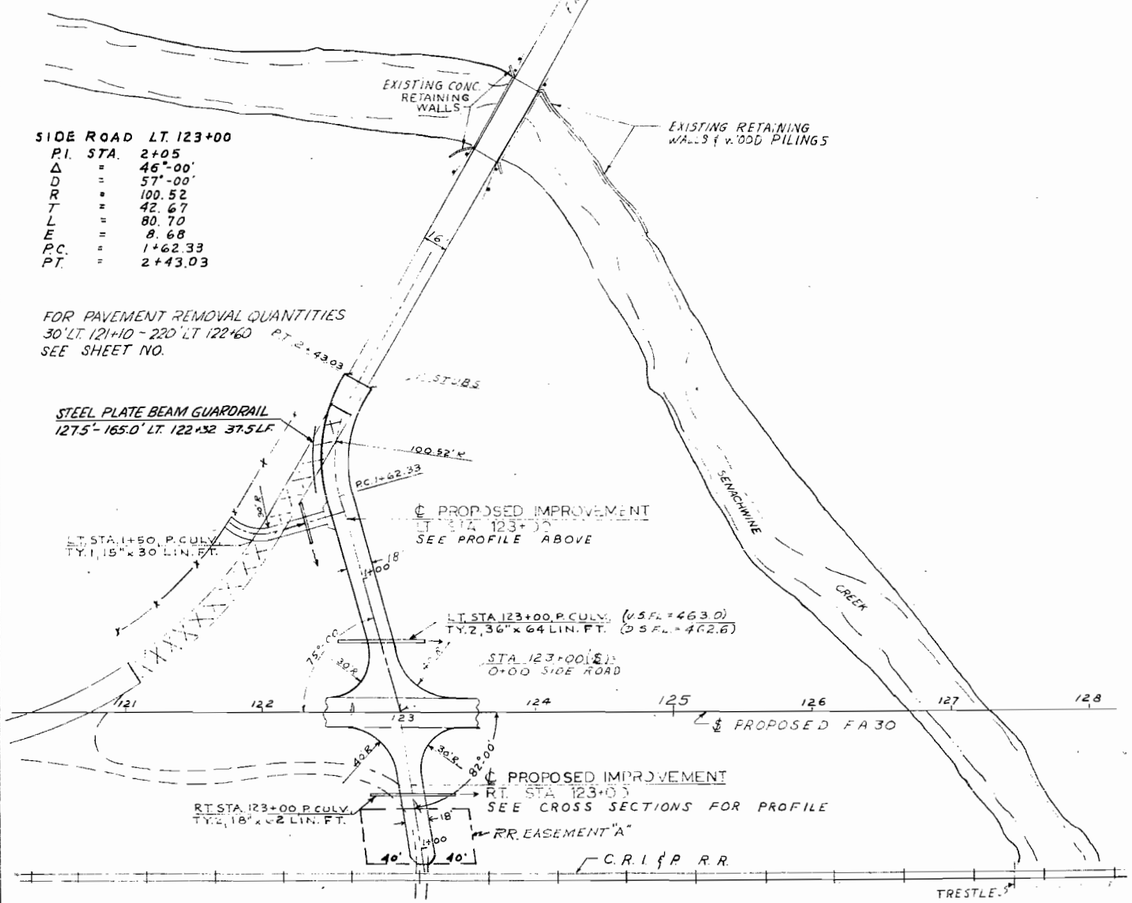
TYPICAL RURAL ENTRANCE DETAIL
FOR NEW GRADING SECTIONS
GRAVEL OR CRUSHED STONE SURFACE COURSE TYPE A AS NEEDED (SEE PROFILES ELSEWHERE ON PLANS)
INCIDENTAL BIT SURFACING (2")
PROPOSED PCC PAVEMENT
25 @ 0.02 % ***
10% Max. **
SECTION B-B
ADJACENT TO PCC SURFACE
* RESIDENTIAL - 10' MIN 18' MAX
COMMERCIAL - MATCH EXISTING ENT. EXCEPT THAT MAX. SHLDR. TO SHLDR. OF ENT. SHALL BE 35'
** 10% may be exceeded if existing entrance exceeds 10%
*** SEE PROFILES ELSEWHERE FOR EXCEPTIONS
SHOULDER LINE
2" BIT. CONC.
GRAVEL OR CS SHOULDERS TYPE B
PIPE CULVERT
DITCH LINE
SLOPE TYPICAL (2:1)
SECTION A-A
INCIDENTAL BIT SURFACING (2")
6" GRAVEL OR CS. B.C. TYPE B
SECTION B-B
1 TON BIT. SUR. CSE 2"
3.1 TON G. OR C.S.B.C. TY. B.
2" BIT CONC.
EDGE OF PVMT
FIELD ENTRANCE



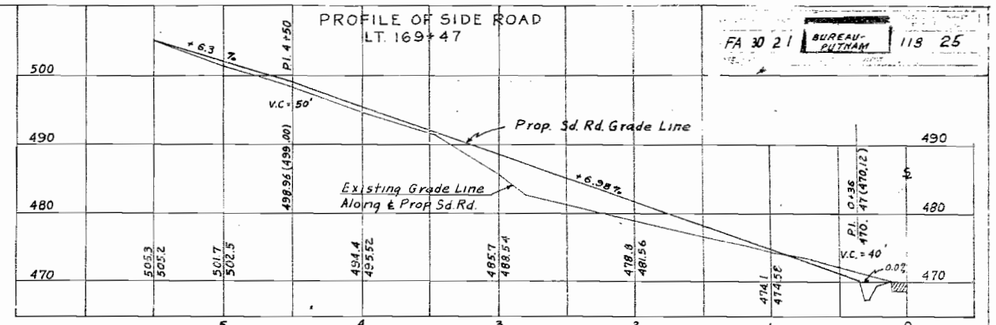
PUTNAM
118
24
16' PVMT. IN PLACE
BARN
9°15'
15+00 P.I.
STA. 15+00 CMP ARCH CULV. S43 "R27" 28 LIN. FT.
NOTE: SEE SH. 70 FOR PROFILE AND CROSS SECTIONS
ENTRANCE AGREEMENT 5 T.E.
142+66.23 T.E. 62.66'
143+56.17 T.E. 63.56
88°00'
141
142
144
145
P.C.C.
STA. 143+09 = 10+00 RES. ENTR.
PLANK CROSSING IN PLACE
C.R.I. & P. R.R.
LEFT STA. 143+09
RESIDENTIAL ENTRANCE
SCALE: 1" = 50'

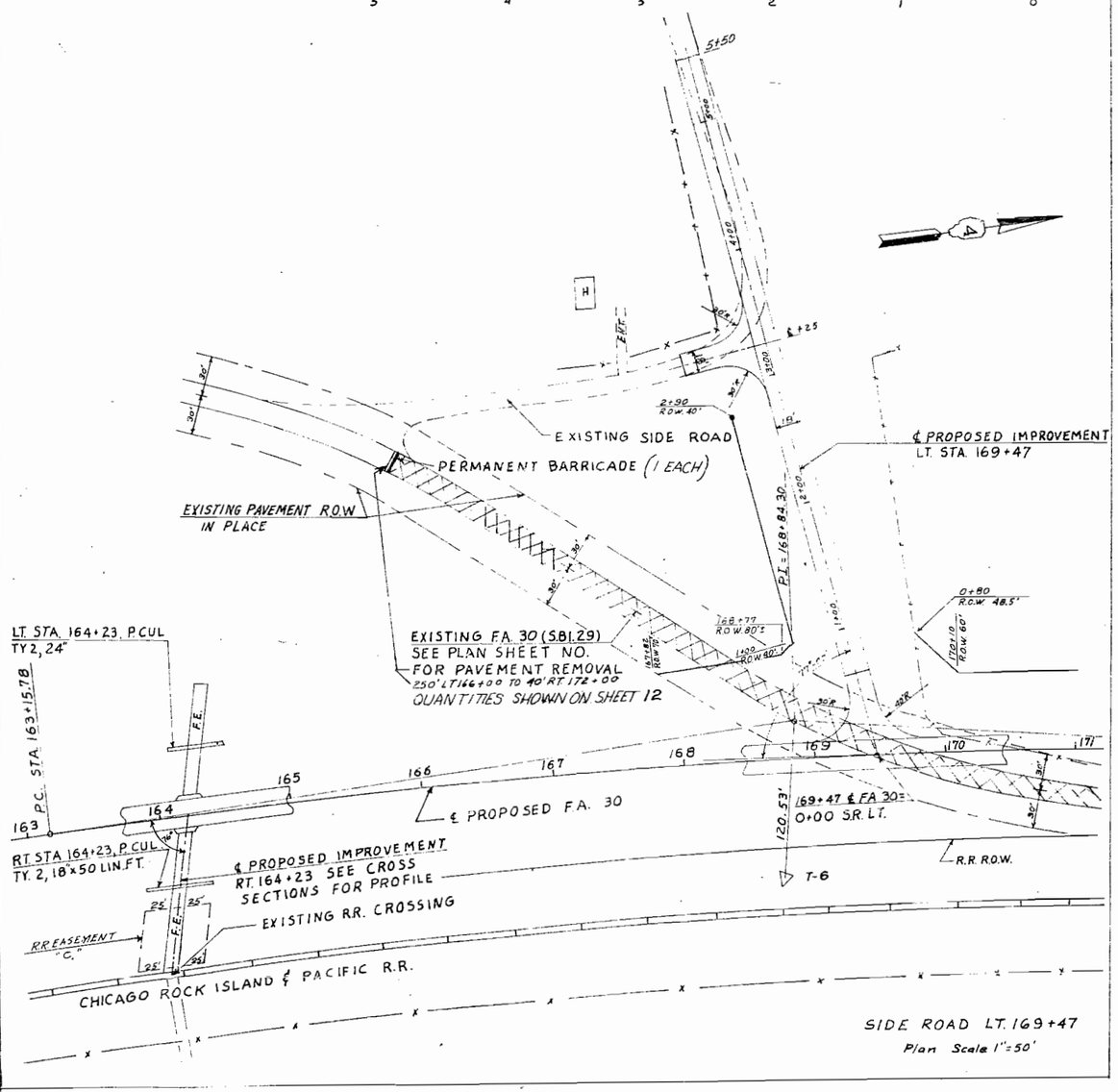
PROFILE OF SIDE ROAD LT. 123+00





PROFILE OF SIDE ROAD LT. 169+47





SIDE ROAD LT. 169+47
Plan Scale 1"=50'

FA 30 21 PUTNAM-BUREAU 118 26

Survey Line Curve Data
PI = 88+73.27
Δ = 26°-59'
D = 1°-00'
T = 1374.67'
R = 5729.58'
L = 2698.33'
E = 162.70
PC = 74+98.60
PT = 101+96.93
S.E. = 0.02 Ft/Ft

82+37.5 CC = 139'

PI 81+88

84+00 ROW 60' 100'

84+30 ROW 110', BAFCC 180'

CHANNEL CHANGE LINE

CONSTRUCTION AGREEMENT LINE

N

81+00 ROW 60'

CENTER LINE OF PROPOSED CHANNEL CHANGE

PROPOSED RIGHT OF WAY LINE

117°00'

5'

TANGENT

DROP INLET
16.0 CU.YD. CLASS "X" CONC. (HDWL) USFL = 482.5
1350 LBS. REINF BARS

REINF. CONC. RADIAL PIPE 96" × 32 LIN.FT.

DITCH CHECK, DES. #18-A,
1.2 CU.YD. CLASS "X" CONC.
40 LBS. REINF. BARS

86+00 ROW 60'

18" CMP × 18 LIN.FT (INCL. 30° ELBOW)

4 @ 44°-18.53' RADIAL PIPE SECTIONS

81+00

SURVEY LINE OF PROPOSED IMPROVEMENT

82+00

83+00

84+00

85+00

86+00

PIPE CULVERT, TY. 2A, RCP, 3, 96" × 172 LIN.FT.

JUTE MATTING (2 STRIP) 945 SQ.YD.
(60' LT. 84+40 – 41' LT. 85+50)

+40 Ditch Check 60' Lt. +456 Pipe Pt. 81.1' Lt.

+25 ℄ CUV

+40 Ditch Check 72' Rt.

+79 DS Hdwl. 53.2' Rt.

45°00'

EXISTING BRIDGE ON SKEW,
R.C. THRU GIRDER WITH
20' R.C. SLAB & 1" I-11 SURF.,
R.C. RAILS, 3'-8" × 1'-7" × 40'-6",
R.C. WINGS, 15' & 37½ × 12" THICK.

16' PAV'T. IN PLACE

HEADWALL
29.3 CU.YD. CLASS "X" CONC. (HDW.), DSE = 482.0
1790 LBS. REINF BARS

APPROXIMATE RR R.O.W.

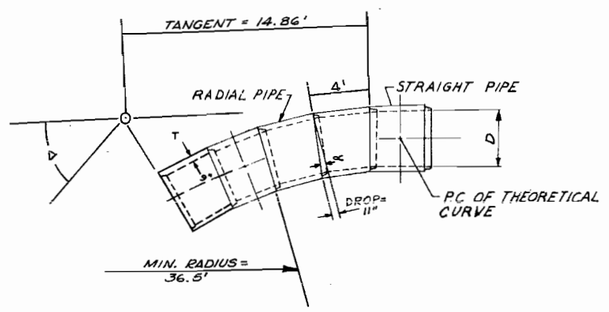
JUTE MATTING (2 STRIP) = 34 SQ.YD.

24" CMP × 32 LIN.FT.

DITCH CHECK, DESIGN #24-A
1.5 CU.YD. CLASS "X" CONC
50 LBS. REINF. BARS

NOTE: PIPE CULVERT TO BE CONSTRUCTED ON CURVE IS TO CONFORM TO THE DETAILS SHOWN ON THIS SHEET.

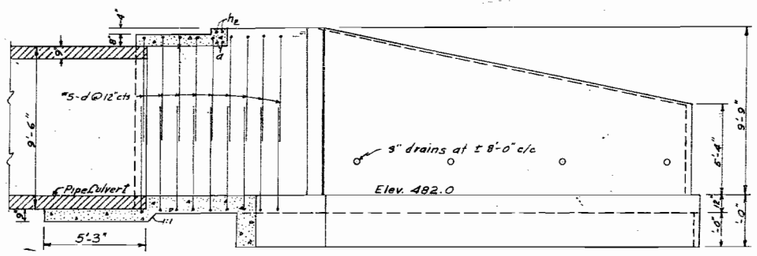
1) MIN RADIUS FOR 96" DIA. PIPE = 36.5 FT.
2) ANGLE ∝ FOR ONE 4 FT. SECTION OF PIPE
$\tan \alpha = \frac{4}{R + D/2 + T}$: WHERE D = 96" = 8.0' T = 9" = 0.75'
$\tan \alpha = 0.09697$ & ∝ = 5°-32.32'
3) DROP = (D+2T) TAN ∝ = 0.9212 FT. = 11.054"
4) Δ = Σ ∝ = (No. of Pipe)(5° 32.32') = 8(5.5386°) = 44°-18.53'
5) L = (No. of Pipe)(4 - ½ DROP) = 8(4 - 0.4606) = 28.32'
6) TANGENT LENGTH = R TAN ½ Δ = 36.5(.40716) = 14.86'



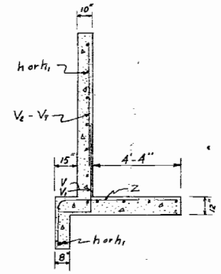
96" R.C. PIPE CULVERT
STA 85+25, SK 45° RT FWD.
F.A. Route 30 (SBI Rte 29) SEC. 21
PUTNAM CO.
SCALE 1" = 20' AUGUST 1961

REVISED CONCRETE RADIUS PIPE 12-31-62

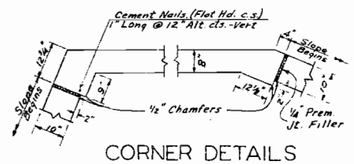
F.A.30 21 PUTNAM-BUREAU 118 27
F-71( )



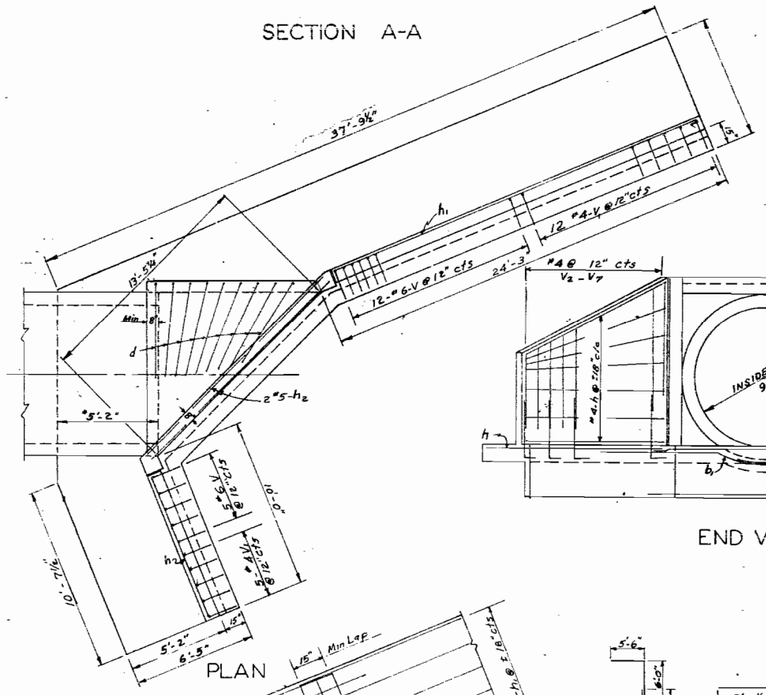
SECTION A-A



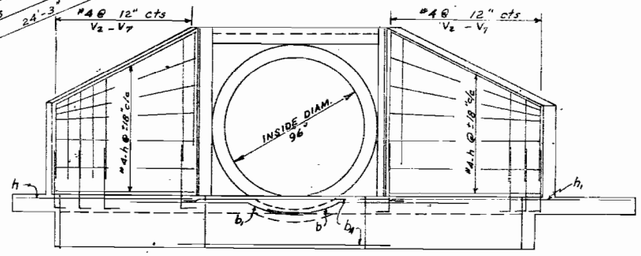
SECTION THRU WING



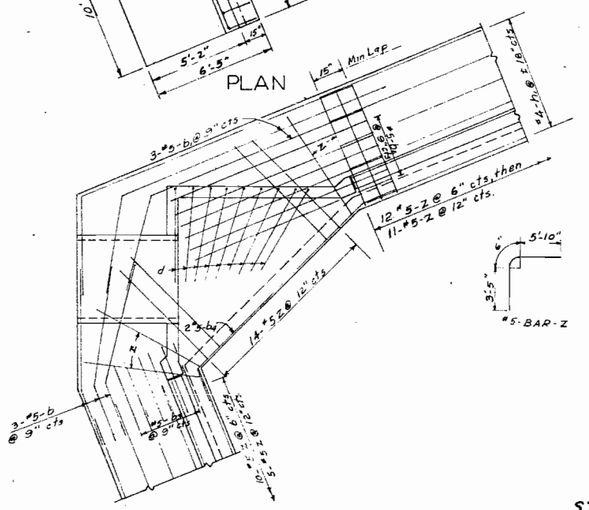
CORNER DETAILS



PLAN



END VIEW



PLAN OF FOOTING

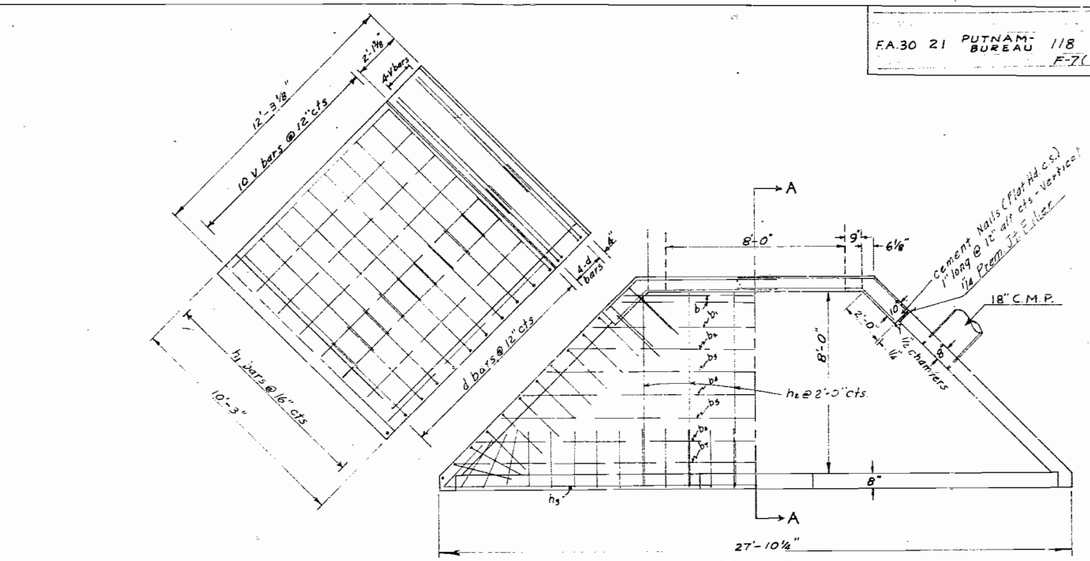
DOWNSTREAM HEADWALL
96" DIAM. PIPE CULVERT
STA-85+25 - 45° SKEW - RT. FWD.

ONE HEADWALL
BILL OF MATERIALS

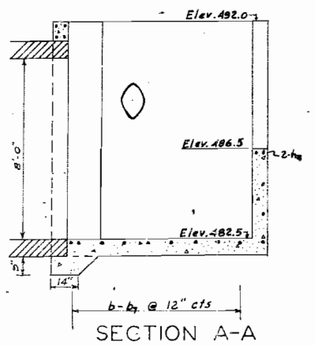
Bar	No.	Size	Length	Shape
d	3	#6	15'-0"	
b	3	#5	10'-0"	
b₁	3	#5	21'-3"	
b₂	5	#5	11'-9"	
b₃	5	#5	3'-3"	
b₄	2	#5	17'-0"	
d	20	#5	11'-6"	
h	10	#4	9'-0"	
h₁	10	#4	23'-0"	
h₂	2	#6	15'-0"	
V	17	#6	5'-0"	
V₁	17	#4	5'-0"	
V₂	6	#4	8'-3"	
V₃	6	#4	7'-6"	
V₄	5	#4	6'-9"	
V₅	6	#4	6'-0"	
V₆	5	#4	5'-3"	
V₇	6	#4	4'-6"	
Z	67	#5	9'-9"	

Class "X" Conc(Hdwl)Cu. Yds. = 29.3
Reinforcement Bars Lbs. = 1,790

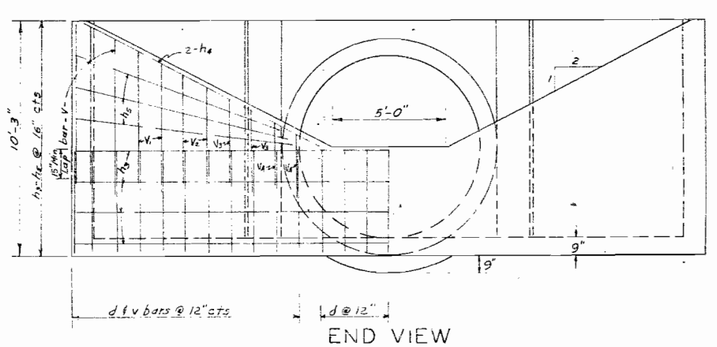
SCALE 1"=4'



PLAN



SECTION A-A



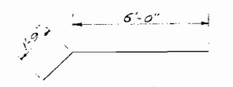
END VIEW

ONE DROP INLET
BILL OF MATERIALS

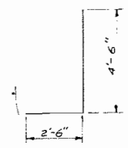
Bar	No.	Size	Length	Shape
b	2	#5	11'-9"	
b₁	1	#5	14'-6"	
b₂	1	#5	16'-6"	
b₃	1	#5	18'-6"	
b₄	1	#5	20'-6"	
b₅	1	#5	22'-6"	
b₆	1	#5	24'-6"	
b₇	1	#5	26'-6"	
d	57	#5	7'-0"	
h	8	#5	7'-9"	
h₁	16	#4	9'-9"	
h₂	6	#5	8'-6"	
h₃	5	#5	27'-6"	
h₄	4	#5	11'-6"	
h₅	6	#4	9'-6"	
V	34	#5	6'-9"	
V₁	4	#5	5'-6"	
V₂	4	#5	4'-6"	
V₃	4	#5	3'-6"	
V₄	4	#5	2'-6"	

Class "X" Conc.(Hdwl.)Cu.Yds 16.0
Reinforcement Bars Lbs. 1350

SCALE 1"=3'



#5-Bar-h

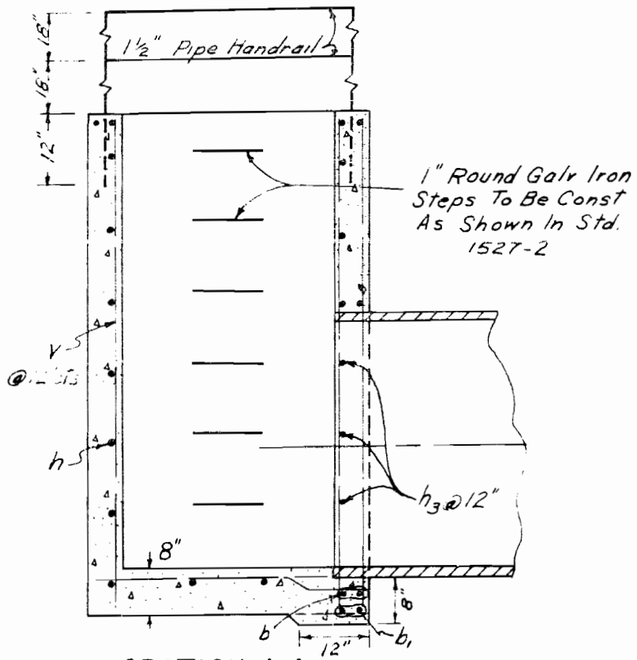


#5-Bar-d

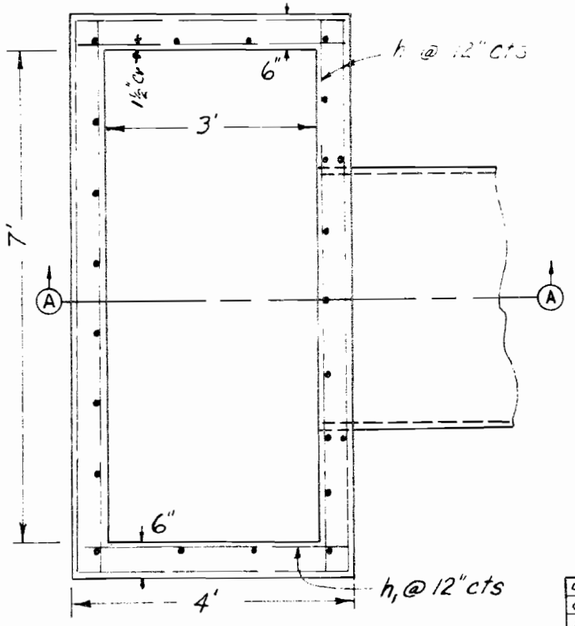
UPSTREAM DROP INLET
96" DIAM. PIPE CULVERT
STA-85+25 - 45° SKEW - RT. FWD.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

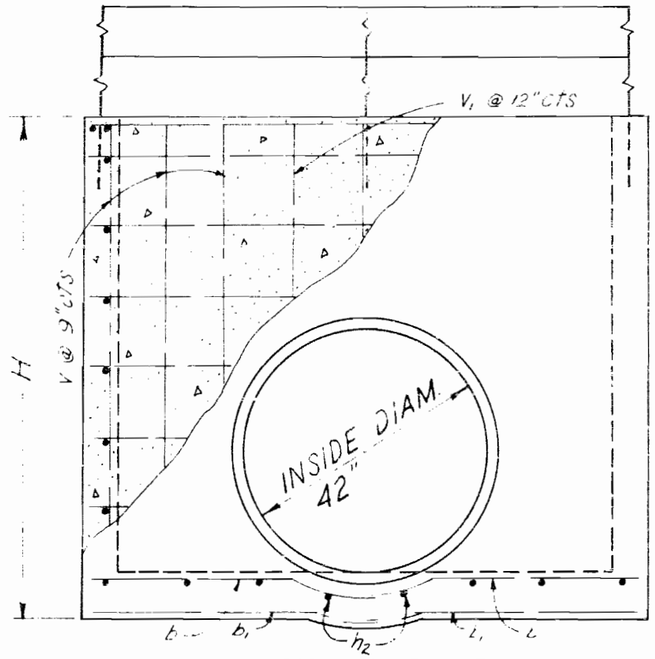
FA30 21 BUREAU, PUTNAM 118 28
F-7( )



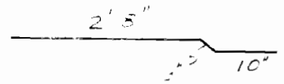
SECTION A-A



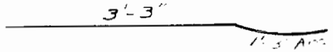
PLAN



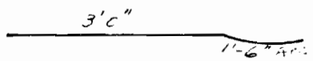
INSIDE END VIEW



*5 BAR h_2



*5 BAR b_1



*5 BAR b

COMPUTED	W.I.O.	8-23-61
CHECKED	R.G.R.	10-5-61
DRAWN	W.I.O.	8-23-61
CHECKED		

H = 5'-2"
Left Sta. 172+40

ONE DROP BOX
BILL OF MATERIALS

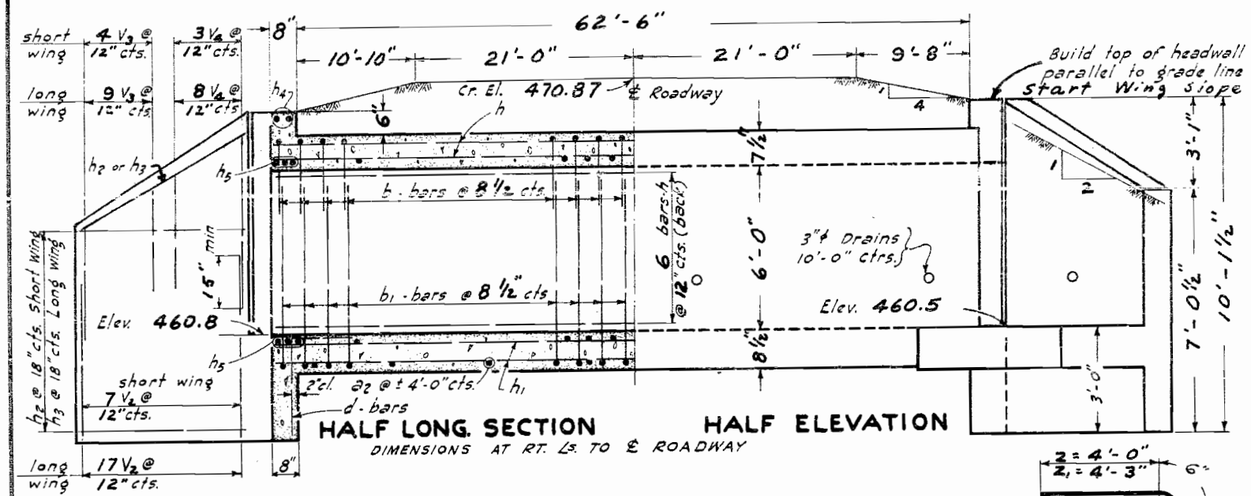
BAR	No.	SIZE	LENGTH
h	13	#5	7'-9"
h_1	18	#5	3'-0"
h_2	2	#5	3'-9"
h_3	6	#5	2'-0"
V	27	#5	5'-0"
V_1	3	#5	0'-9"
b	4	#5	4'-6"
b_1	4	#5	4'-6"
Class "X" Concrete 3.0 Yds			2.5
Reinforcement Bars Lbs			340
Pipe Handrail 1½" Lin. Ft			22

REINFORCED CONC. DROP BOX
42" DIAM. PIPE CULVERT
RIGHT ANGLES

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

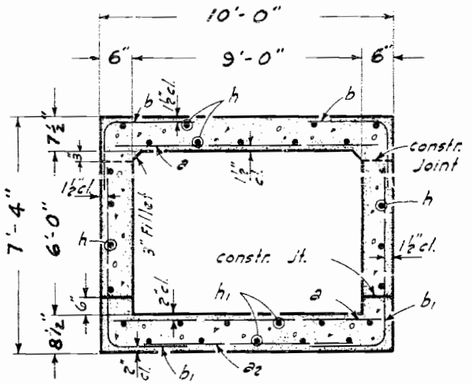
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FA 30	21	BUREAU PUTNAM	118	29
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- E-71( )		

SHEET NO 29 SHEETS

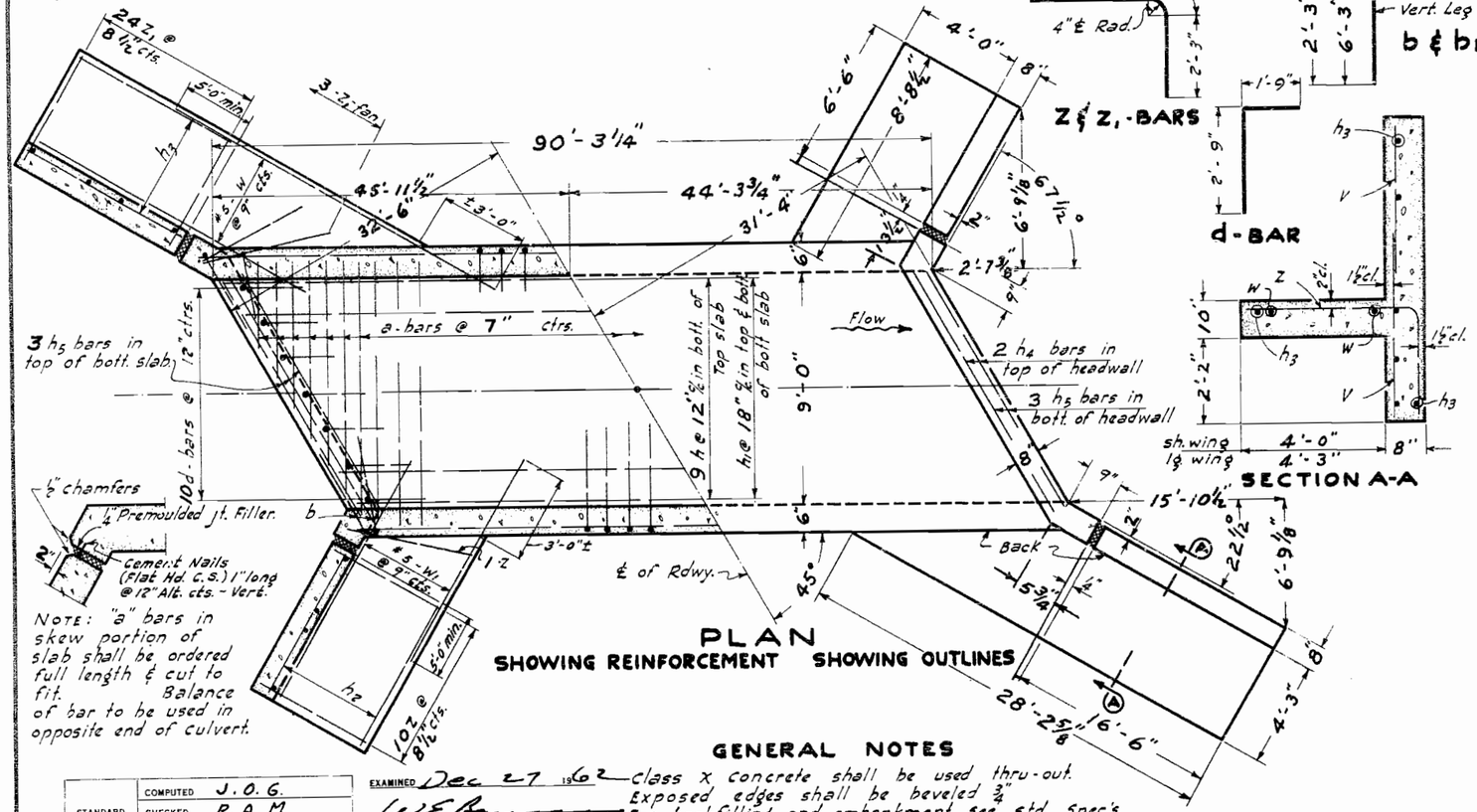


HALF LONG. SECTION HALF ELEVATION

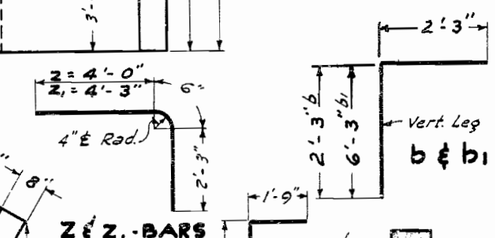
DIMENSIONS AT RT. LS. TO ℄ ROADWAY



SECTION THRU BARREL



PLAN
SHOWING REINFORCEMENT SHOWING OUTLINES



SECTION A-A

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH
a	304	# 7	9'-8"
a2	23	#4	6'-3"
b	250	# 5	4'-6"
b1	250	# 5	8'-6"
d	20	#4	4'-6"
h	100	#5	23'-9"
h1	56	#5	23'-9"
h2	18	#4	6'-3"
h3	18	#4	16'-3"
h4	4	#6	13'-9"
h5	12	#6	13'-9"
V2	48	#4	5'-0"
V3	26	#4	4'-6"
V4	22	#4	6'-0"
W	12	#5	19'-6"
W1	12	#5	10'-3"
Z	22	#4	6'-9"
Z1	54	#4	7'-0"
Class "X" Concrete cu. Yds.			84.9
Reinforcement bars Lbs.			15,070

NOTE: "a" bars in skew portion of slab shall be ordered full length ℄ cut to fit. Balance of bar to be used in opposite end of culvert.

NOTE:- All bars shall be round ASTM A 305-49. The size number is the number of ⅛ inches in the nominal diameter.

GENERAL NOTES

Class X concrete shall be used thru-out.
Exposed edges shall be beveled ¾"
For backfilling and embankment see std. Spec's.
Waterproofing shall be applied to top Slab, back of wingwalls and backs of outside walls in accordance with Article 51.21 of the Std. Specification

STANDARD	COMPUTED	J. O. G.
	CHECKED	R. A. M.
	DRAWN	B. H. Wood.
	CHECKED	
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED Dec 27 1962
BUREAU ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

fs = 20,000 #/a"
fc = 1200 #/a"
n = 10
H - 20 LOADING

F.A. 30(S.B.I. 29) SEC 21
STA 173+20
45° SKEW LT. FWD.

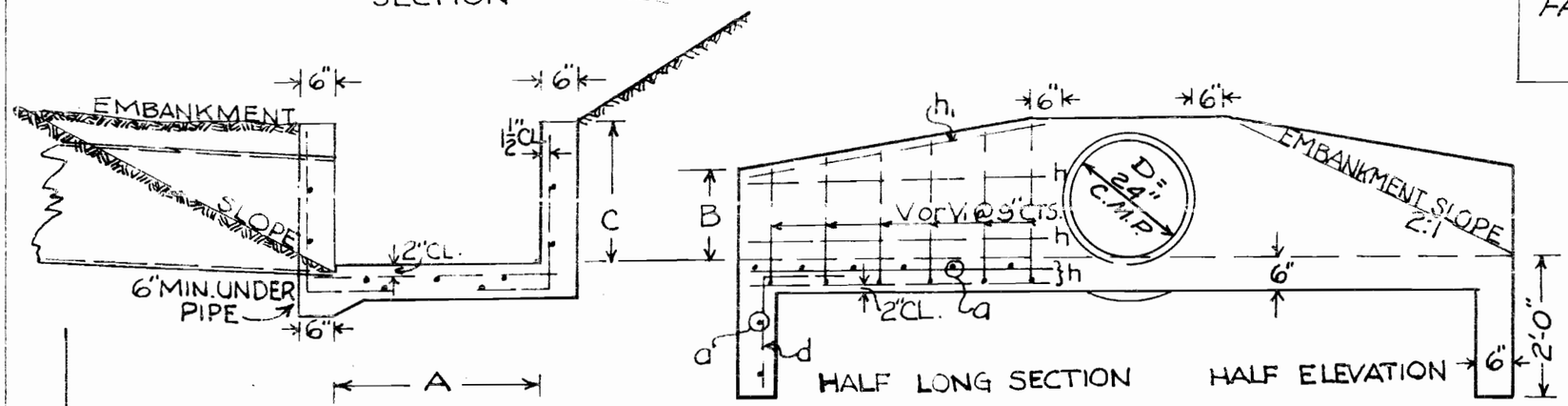
Footing & Reinf. Revised - 11-50 - J.S.M.

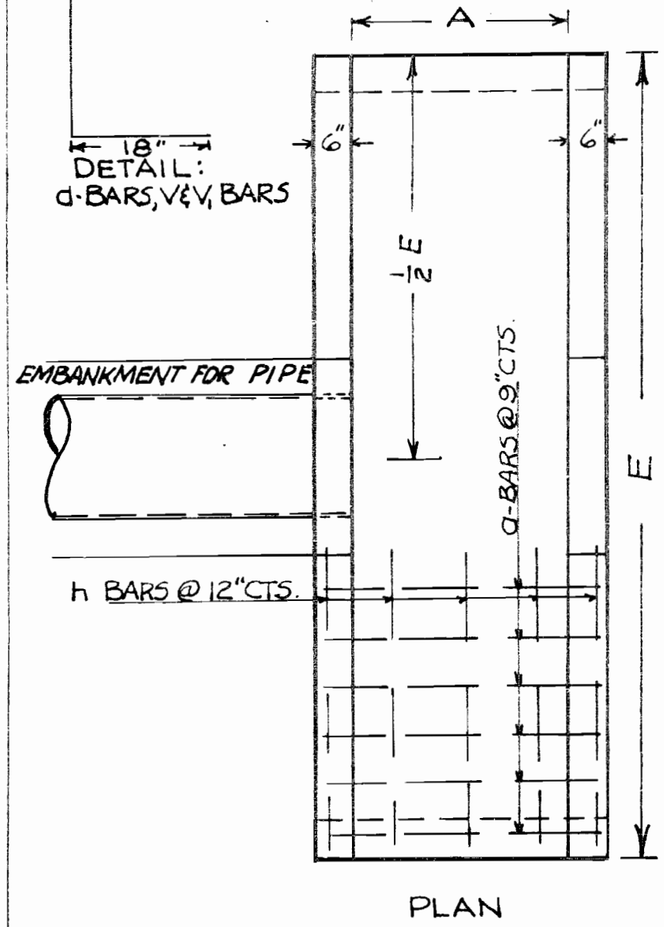
STANDARD 2035 REVISED

Add note on water proofing 1-8-63 M.S.

FA30 21 BUREAU, PUTNAM 118 30
F-7( )

SECTION





LBS. REINF. BARS	TABLE											CU. YD. CL. X CONC.
	A	B	C	D	E	#a	#h	#h₁	#V	#V₁	#d	
134	2'-0"	12"	1'-6"	12"	8'-6"	15-2-9	8-8-0	4-3-6	12-2-6	11-3-0	6-3-0	0.97
205	3'-0"	15"	2'-0"	18"	11'-0"	19-3-9	9-10-6	4-4-6	15-3-0	14-3-6	8-3-0	1.70
270	4'-0"	18"	2'-6"	24"	13'-6"	22-4-9	9-13-0	4-5-6	19-3-6	17-4-0	10-3-0	2.50
359	5'-0"	21"	3'-0"	30"	16'-0"	26-5-9	9-15-6	4-6-6	22-4-0	20-4-6	12-3-0	3.47
439	6'-0"	24"	3'-6"	36"	18'-6"	29-6-9	9-18-0	4-7-6	25-4-6	22-5-0	14-3-0	4.60

NOTE: CLASS X CONCRETE SHALL BE USED THROUGHOUT. ALL REINFORCEMENT BARS SHALL BE NO. 4 DEFORMED BARS.

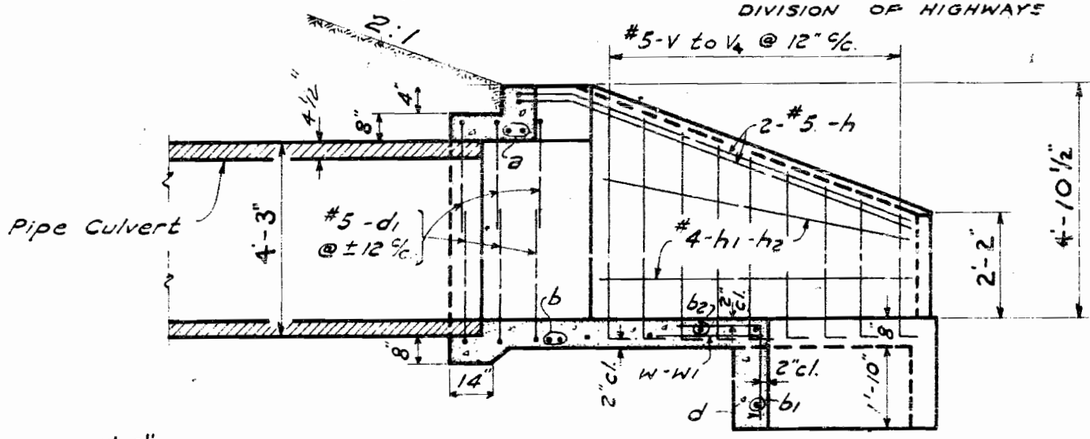
34' L.T. 202+50
SPECIAL OUTLET HEADWALL
F.A. RTE 30 SEC. 21
COUNTY Putnam
SCALE: 1"=2'-0"

REVISED 9-11-61 BY G.D.M.

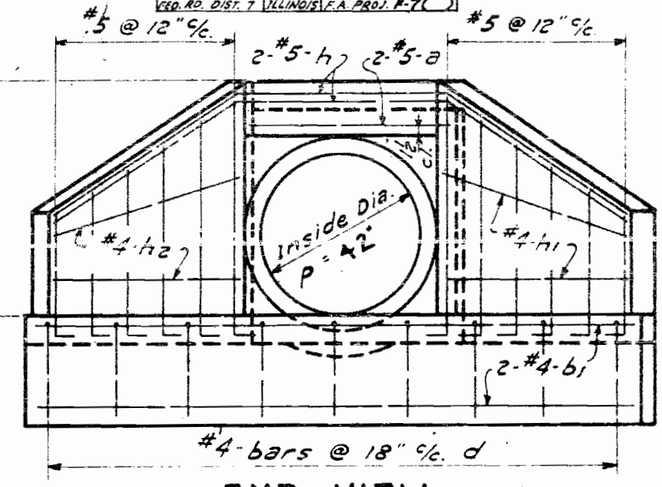
He-I

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

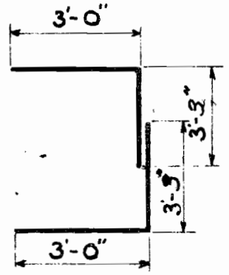
RT. NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA30	21	PUTNAM	11.	31
FED. RD. DIST. 7		ILLINOIS F.A. PROJ. R-7( )		



SECTION A-A

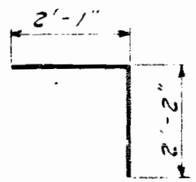


END VIEW

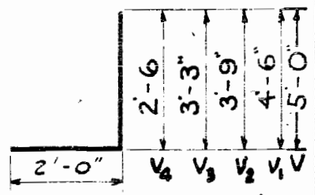


BARS - d1

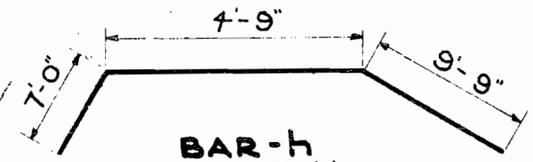
PLAN



BAR - d



BARS - V-V1 etc.



BAR - h
Bend in field

NOTE - All bars shall be round ASTM A305-49. The size number is the number of ⅛ inches in the nominal diameter.

ONE HEADWALL
BILL OF MATERIAL

BAR	No.	SIZE	LENGTH
a	2	#5	5'-0"
b	2	#5	6'-6"
b1	2	#4	16'-9"
b2	1	#4	13'-6"
b3	1	#4	10'-3"
b4		#4	
d	12	#4	4'-3"
d1	4	#5	6'-3"
h	2	#5	21'-6"
h1	2	#4	9'-3"
h2	2	#4	6'-9"
V	3	#5	7'-0"
V1	4	#5	6'-6"
V2	3	#5	5'-9"
V3	3	#5	5'-3"
V4	4		4'-6"
W	1	#4	5'-0"
W1	1	#4	4'-0"
Class "X" Conc. (Hdwl.) Cu. Yds			4.5
Reinforcement Bars Lbs.			300

STANDARD	COMPUTED	L.A.Wilson
	CHECKED	L.E.Philbrook
	DRAWN	J.S.Maleckl
	CHECKED	L.A.W.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED Dec 21 62
BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

Rev. Reinf. Bars - Jan. 51

~NOTES~
Class X Concrete shall be used throughout.
Build tops of headwalls parallel to grade line.

20° Skew
207+58

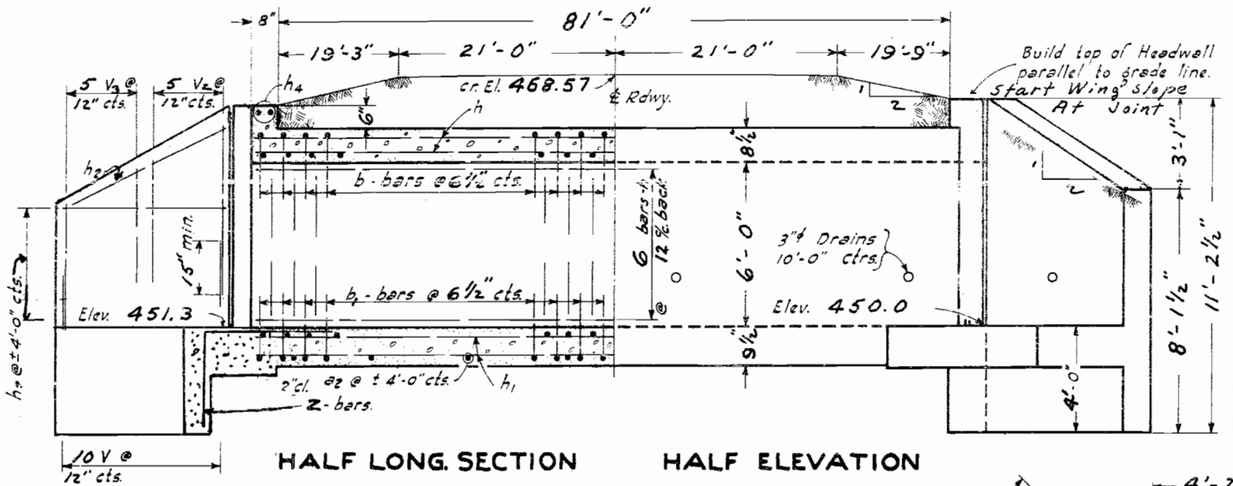
REINFORCED CONC. HEADWALLS
42" [redacted] DIAM.
PIPE CULVERTS
SKEWED WITH ROADWAY

STANDARD 1998

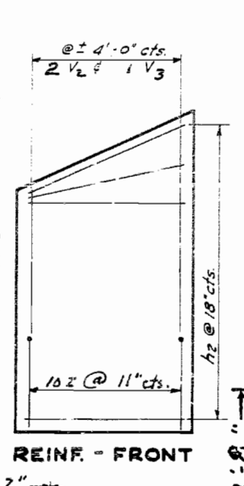
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	NO.
FA30	21	PUTNAM BUREAU	118	32
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT: F-7( )		

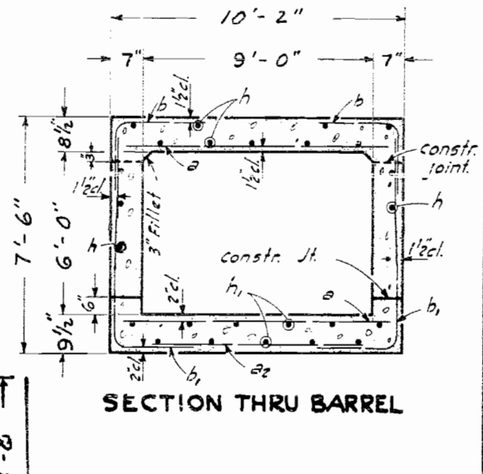
SHEET NO. 32
SHEETS



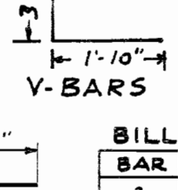
HALF LONG. SECTION HALF ELEVATION



REINF. - FRONT

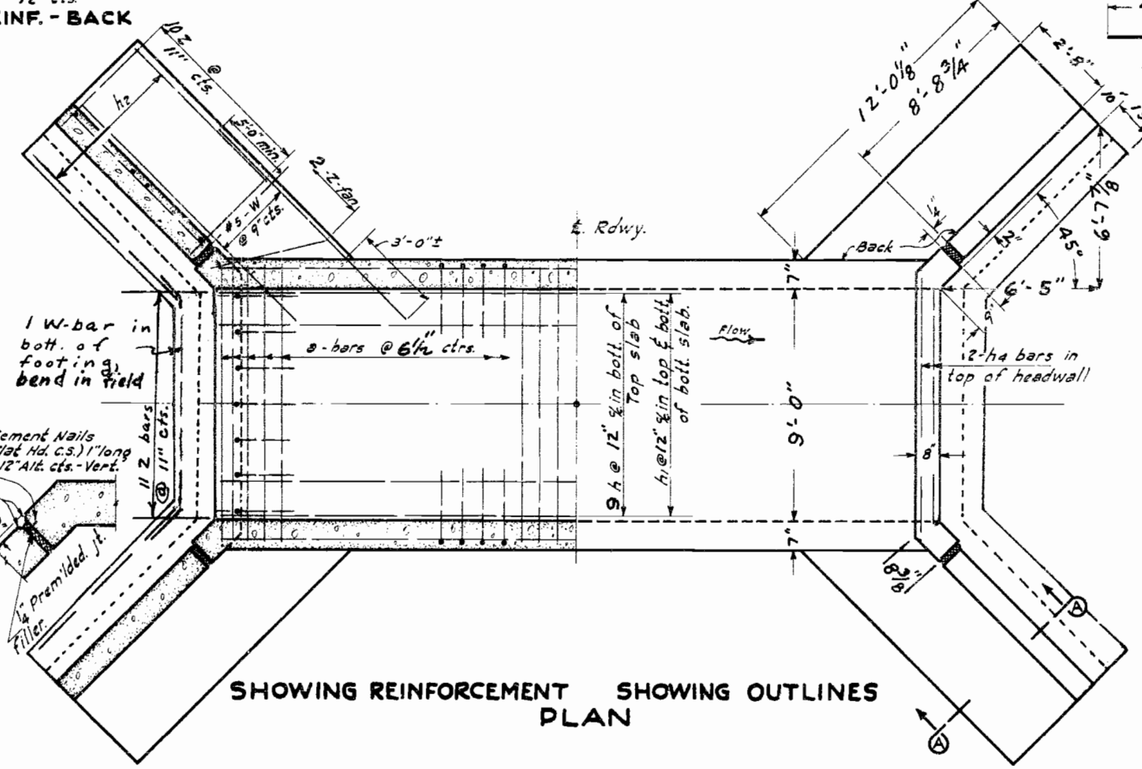


SECTION THRU BARREL

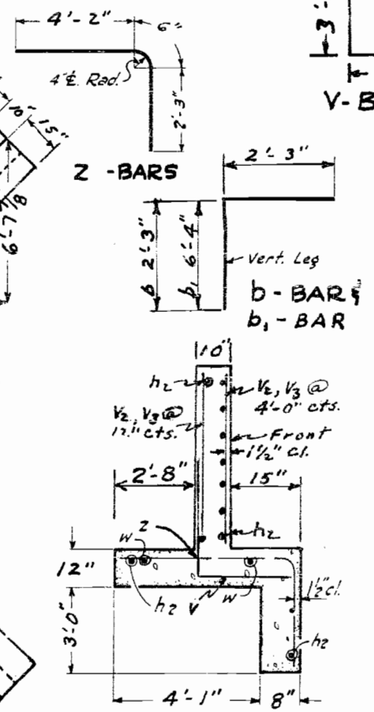


V-BARS

REINF. - BACK



SHOWING REINFORCEMENT SHOWING OUTLINES
PLAN



SECTION A-A

BILL OF MATERIAL

BAR	No.	SIZE	LENGTH
a	304	#7	9'-10"
a2	22	#4	6'-6"
b	304	#5	4'-6"
b1	304	#5	8'-7"
h	75	#5	28'-6"
h1	60	#5	28'-6"
h2	44	#4	8'-6"
h4	4	#6	9'-9"
V	40	#4	5'-6"
V2	28	#4	5'-3"
V3	24	#4	3'-9"
W	26	#5	11'-6"
Z	70	#4	8'-0"
Class "X" Concrete cu. Yds.			87.2
Reinforcement bars Lbs.			15,670

NOTE:- All bars shall be round ASTM A305-49. The size number is the number of ⅛ inches in the nominal diameter.

F.A. 30 (S.B.I. 29) SEC. 21
STA. 219+60

STANDARD	COMPUTED	J. O. G.
	CHECKED	R. A. M.
	DRAWN	B. H. Wood.
	CHECKED	
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED Dec 27 1962
BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

GENERAL NOTES

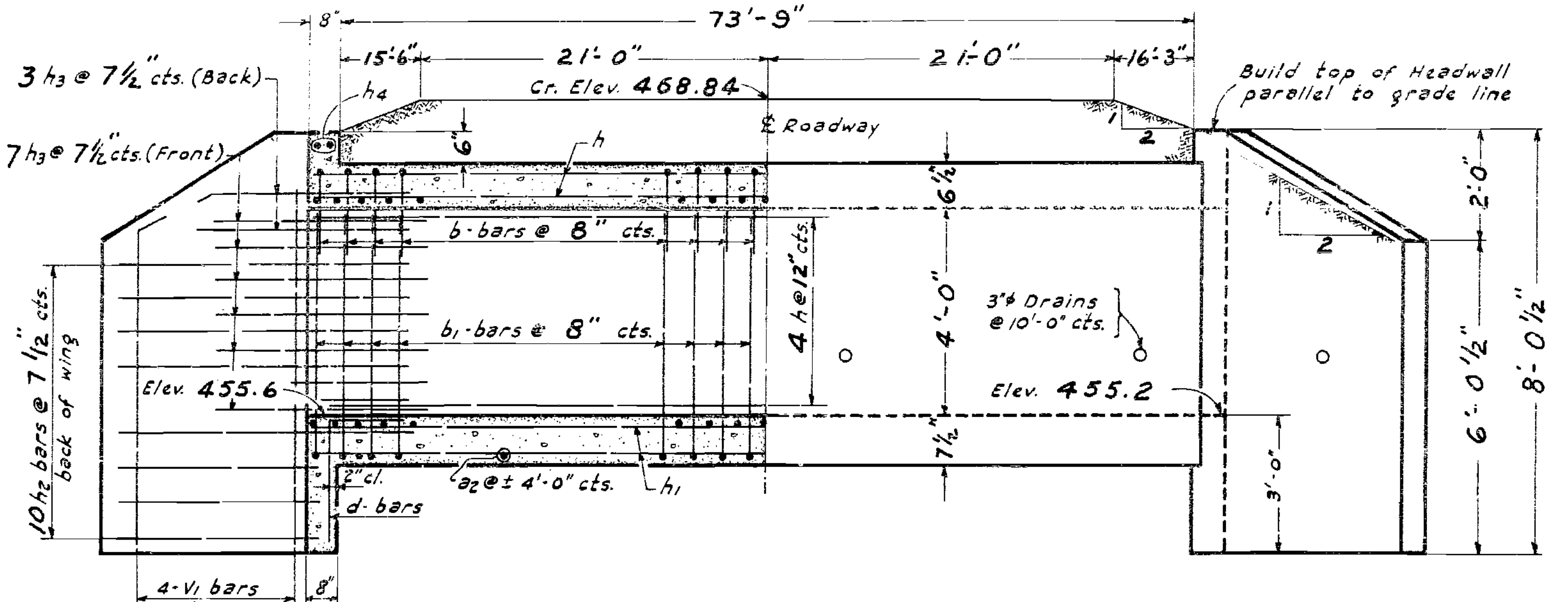
Class X concrete shall be used thru-out.
Exposed edges shall be beveled ¾"
For backfilling and embankment see standard specifications.
Water proofing shall be applied to top slab, backs of wingwalls and backs of outside walls in accordance with Article 51.21 of the Std. Specification.

f_s = 20,000 #/□"
f_c = 1200 #/□"
n = 10
H-20 LOADING

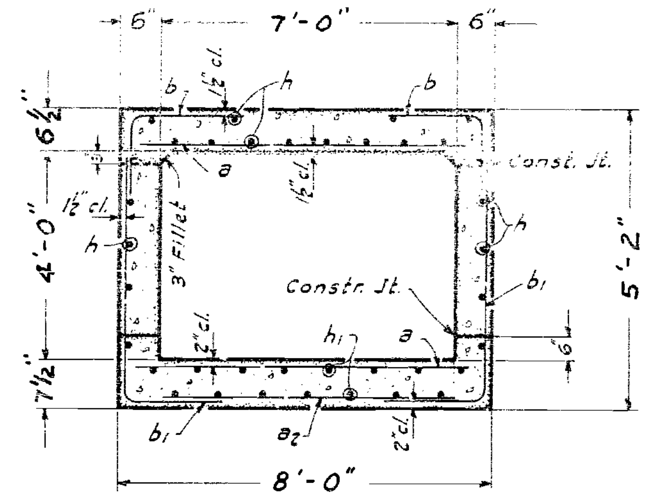
Footing & Reinf. Revised - 11-50 - J.S.M.

STANDARD 2036 REVISED

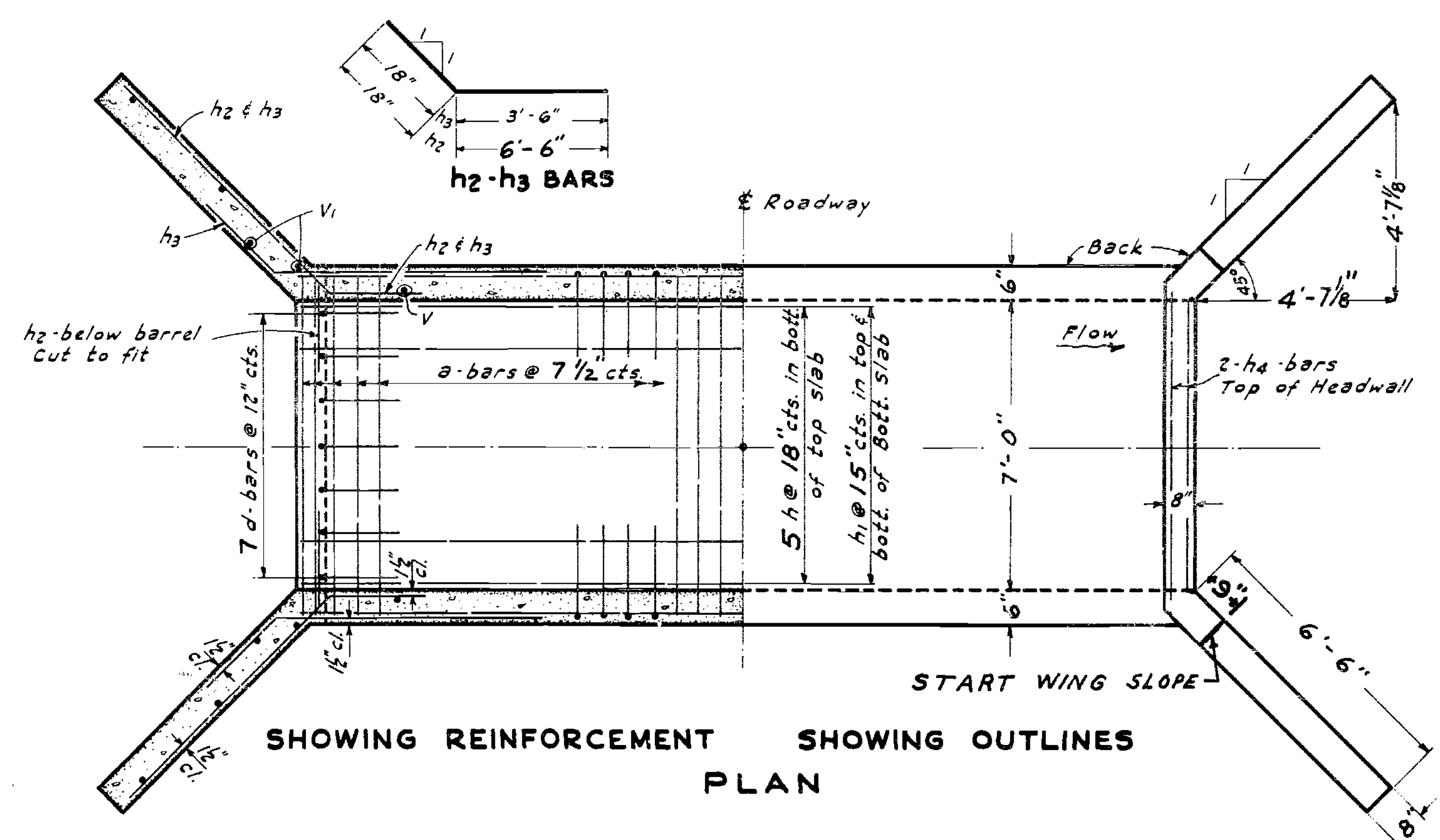
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS



HALF LONG. SECTION HALF ELEVATION



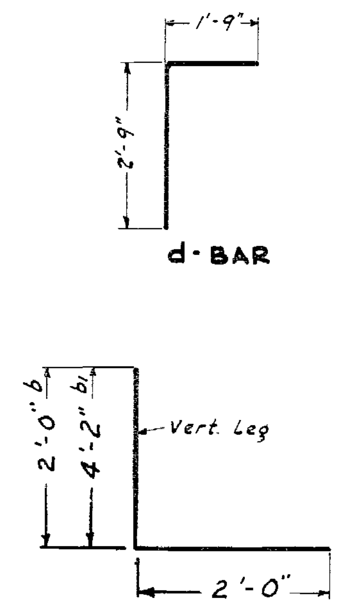
SECTION THRU BARREL



h2-h3 BARS

SHOWING REINFORCEMENT SHOWING OUTLINES

PLAN



d-BAR

b-b1 BARS

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH
a	240	#6	7'-8"
a2	20	#4	4'-9"
b	226	#5	4'-0"
b1	226	#5	6'-2"
V1	16	#4	7'-0"
d	14	#4	4'-6'
h	51	#5	26'-3"
h1	42	#5	26'-3"
h2	40	#5	8'-0"
h3	40	#5	5'-0"
h4	4	#6	7'-9"
Class "X" Concrete		Cu. Yds.	42.8
Reinforcement Bars		Lbs.	8,480

NOTE:- All bars shall be round ASTM A305-49. The size number is the number of ⅛ inches in the nominal diameter.

GENERAL NOTES

Class X Concrete shall be used through-out.
Culvert walls and slab may be poured monolithically.
Exposed edges shall be beveled ¾"
The wing walls shall be poured monolithically with barrel for a distance of six feet along the barrel.

f_s = 20,000 #/□"
f_c = 1200 #/□"
n = 10
H20 LOADING

STANDARD	COMPUTED	J.O.G. 9-8-61
	CHECKED	R.A.M. 9-27-61
	DRAWN	J.S. Malecki
	CHECKED	
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED Dec 27 1962
BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

F.A. 30(S.B.I. 29) SEC. 21
STA. 242+48

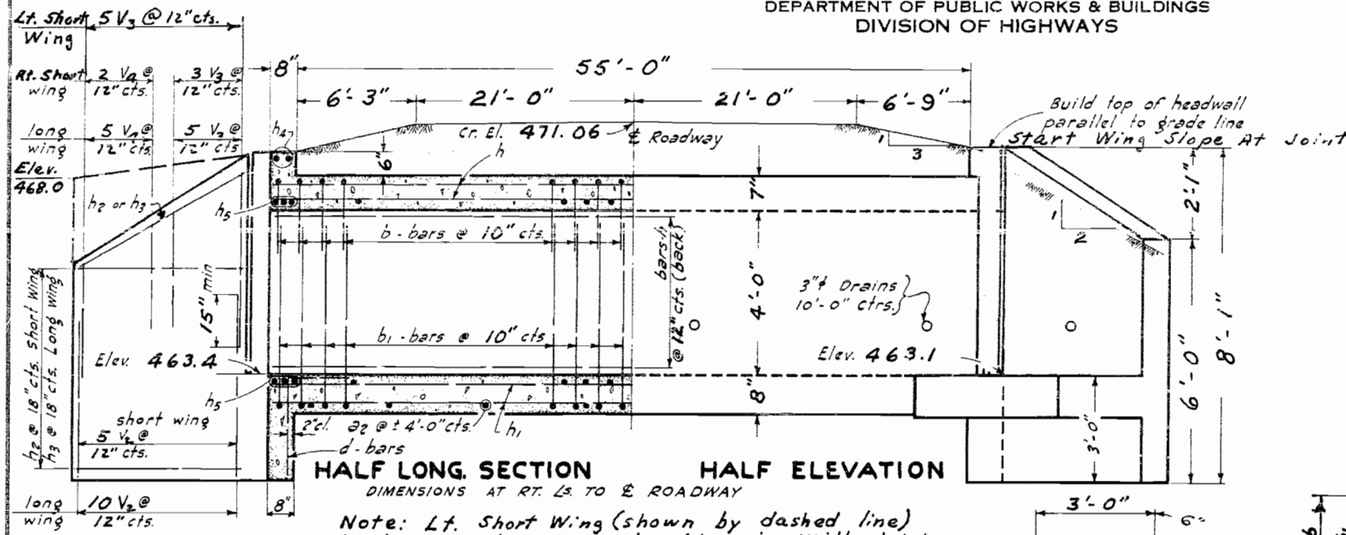
Reinf. Revised - 11-50 - J.S.M.

STANDARD 2030 REVISED

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROAD DISTRICT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA30	21	BUREAU PUTNAM	118	34
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT F-7( )		

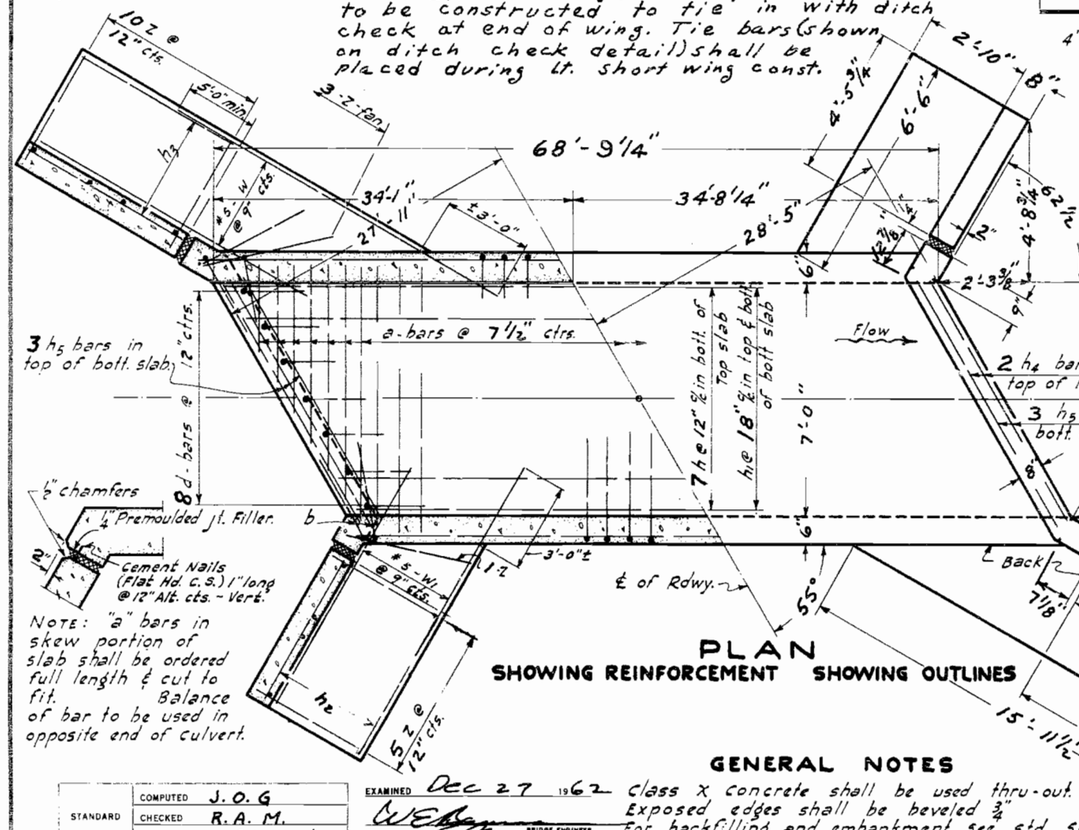
SHEET NO. 34 SHEETS



HALF LONG. SECTION HALF ELEVATION

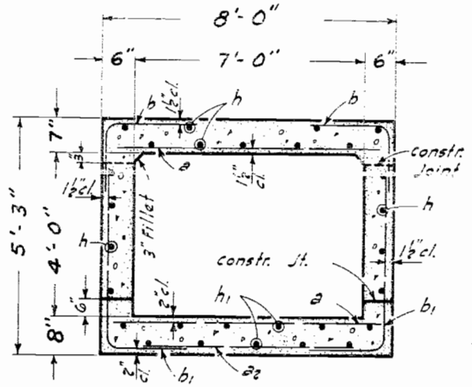
DIMENSIONS AT RT. ℒs TO ℄ ROADWAY

Note: Lt. Short Wing (shown by dashed line) to be constructed to tie in with ditch check at end of wing. Tie bars (shown on ditch check detail) shall be placed during Lt. short wing const.

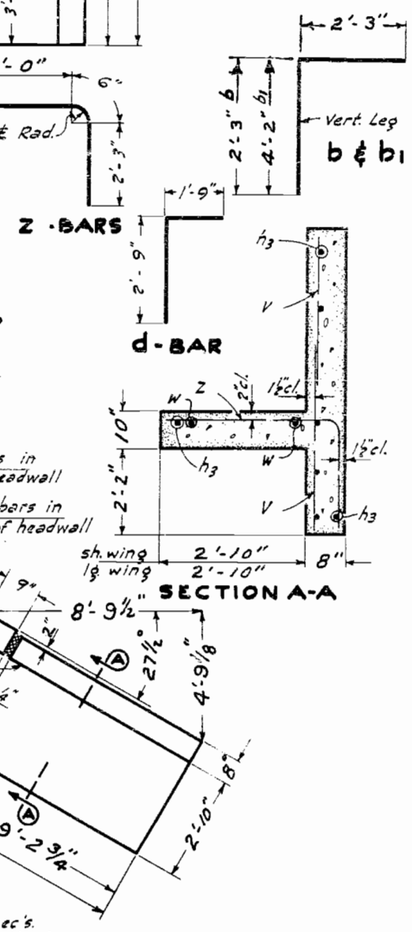


PLAN
SHOWING REINFORCEMENT SHOWING OUTLINES

NOTE: "a" bars in skew portion of slab shall be ordered full length & cut to fit. Balance of bar to be used in opposite end of culvert.



SECTION THRU BARREL



SECTION A-A

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH
a	216	#6	7'-8"
a2	18	#4	4'-3"
b	162	#5	4'-6"
b1	162	#5	6'-5"
d	16	#4	4'-6"
h	57	#5	24'-0"
h1	36	#5	24'-0"
h2	14	#4	4'-3"
h3	16	#4	9'-0"
h4	4	#6	9'-6"
h5	12	#6	9'-6"
V2	30	#4	5'-0"
V3	18	#4	4'-0"
V4	12	#4	2'-9"
W	8	#5	14'-6"
W1	8	#5	9'-6"
Z	38	#4	5'-9"
Class "X" Concrete Cu. Yds.			45.7
Reinforcement bars Lbs.			7640

NOTE:- All bars shall be round ASTM A305-49. The size number is the number of 1/8 inches in the nominal diameter.

GENERAL NOTES

Class X concrete shall be used thru-out.
Exposed edges shall be beveled 3/4"
For backfilling and embankment see std. Spec's.
Waterproofing shall be applied to top slab, back of wingwalls and backs of outside walls in accordance with Article 51.21 of the Std. Specification

STANDARD	COMPUTED	J. O. G
	CHECKED	R. A. M.
	DRAWN	B. H. Wood
	CHECKED	
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED Dec 27 1962 BRIDGE ENGINEER
PASSED ENGINEER OF DESIGN
APPROVED CHIEF HIGHWAY ENGINEER

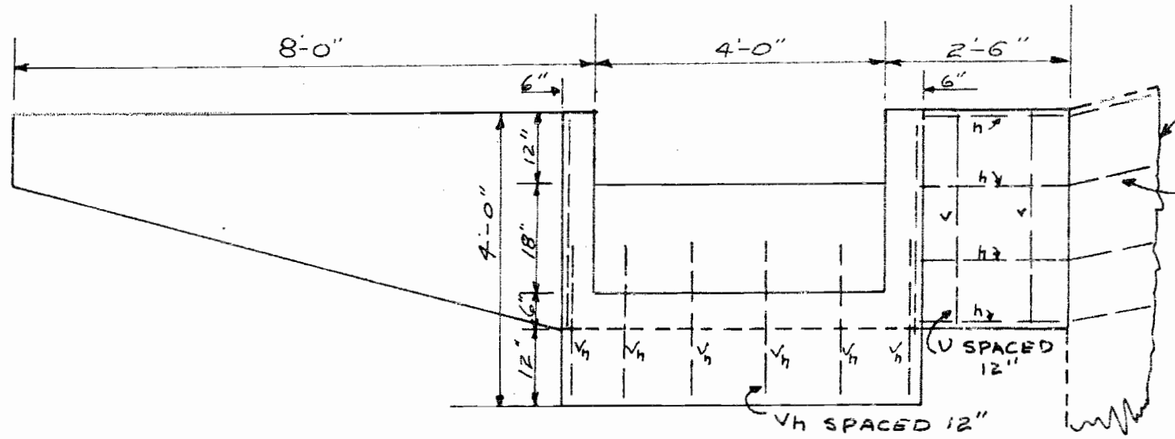
f_s = 20,000 #/□"
f_c = 1200 #/□"
n = 10
H-20 LOADING

F.A. 30 (S.B.I. 29) SEC. 21
STA. 250+00
35° SKEW LT. FWD.

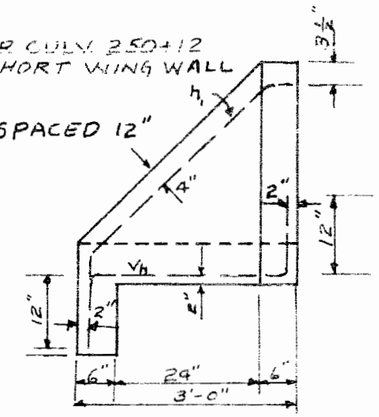
Footing & Reinf. Revised - 11-50 - J.S.M.

STANDARD 2035 REVISED

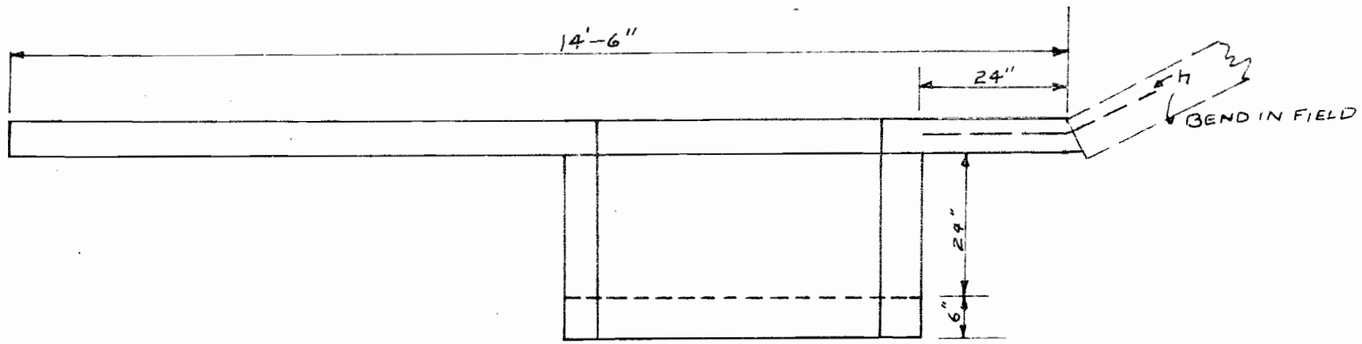
FA30 21 BUREAU PUTNAM 118 35
F-7( )



DOWNSTREAM VIEW



END VIEW



PLAN VIEW

BILL OF MTLS

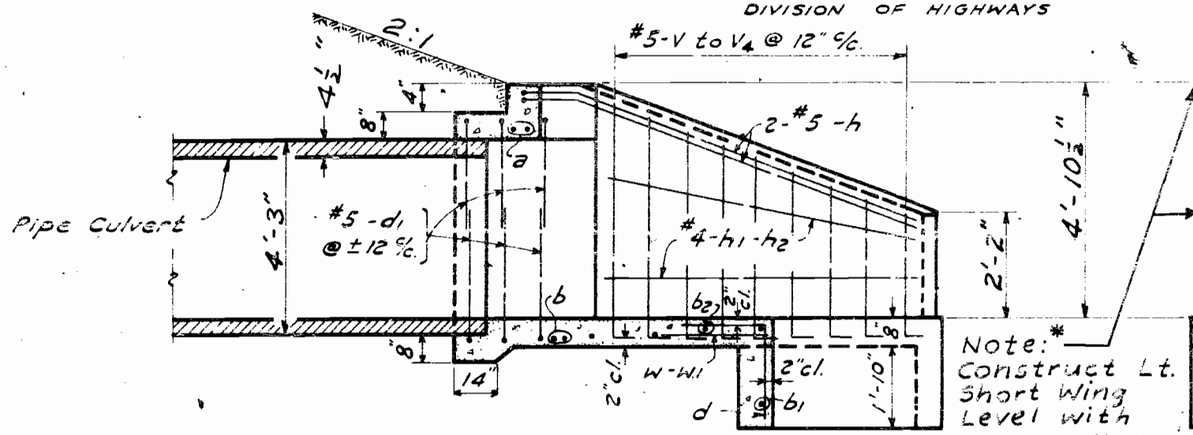
Bar	No.	Size	Length
h	4	#4	3'-6"
h1	2	#4	4'-0"
V	2	#4	2'-9"
Vh	6	#4	4'-8"
C.Y. "X" CONC. CULVERT			1.0
REINF. BARS LBS			40

NOTE: h Tie bars shall be placed 1'-6"± into short wing wall of AR Culv Sta 250+00 during construction. Tie steel shall be left exposed 2'-0"± to tie this ditch check to short wall.

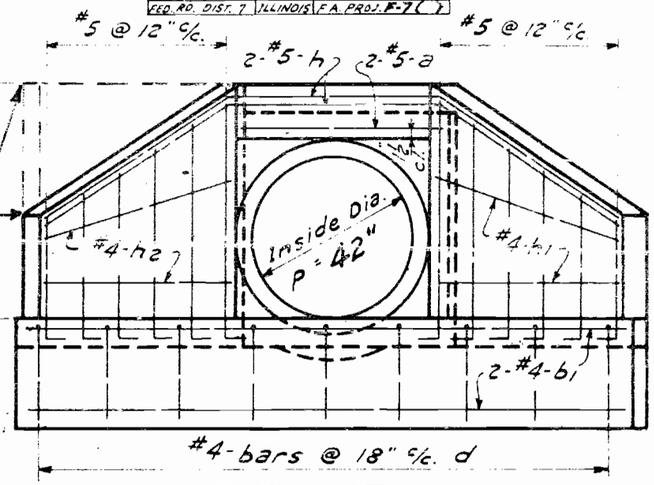
SPECIAL DITCH CHECK LT. 250+12

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

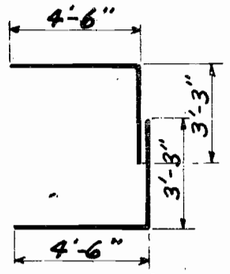
RT. NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA30	21	BUREAU, PUTNAM	118	36
FED. RD. DIST. 7		ILLINOIS F.A. PROJ. F-7( )		



SECTION A-A

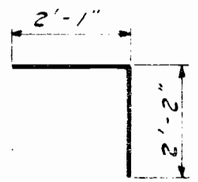


END VIEW

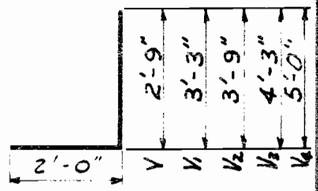


BARS - d1

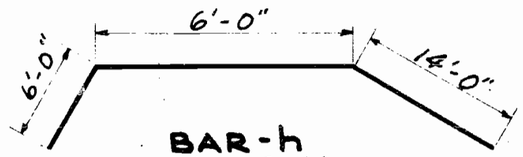
PLAN



BAR - d



BARS - V-V1 etc.



BAR - h
Bend in field

NOTE :- All bars shall be round ASTM A305-49. The size number is the number of ⅛ inches in the nominal diameter.

ONE HEADWALL BILL OF MATERIAL

BAR	No.	SIZE	LENGTH
a	2	#5	6'-0"
b	2	#5	8'-3"
b1	2	#4	21'-9"
b2	1	#4	18'-3"
b3	1	#4	14'-3"
b4	1	#4	10'-3"
d	15	#4	4'-3"
d1	10	#5	7'-9"
h	2	#5	26'-3"
h1	2	#4	13'-9"
h2	2	#4	5'-6"
V	5	#5	4'-9"
V1	4	#5	5'-3"
V2	4	#5	5'-9"
V3	4	#5	6'-3"
V4	3	#5	7'-0"
W	1	#4	13'-0"
W1	1	#4	5'-3"
Class "X" Conc. (Hdwl) Cu. Yds.			6.3
Reinforcement Bars Lbs.			400

STANDARD	COMPUTED	L.A.Wilson
	CHECKED	L.E.Philbrook
	DRAWN	J.S.Maleckl
	CHECKED	L.A.W.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED Dec 7 62
PASSED — BRIDGE ENGINEER
APPROVED — ENGINEER OF DESIGN
CHIEF HIGHWAY ENGINEER

Rev. Reinf. Bars - Jan. 51

~NOTES~
Class X Concrete shall be used throughout.
Build tops of headwalls parallel to grade line.
*Add 0.1 Cu.Yd. Conc. & 10 lbs. Reinf. Bars for Non-Std. Wing on Lt.

Skew 45°
271+70

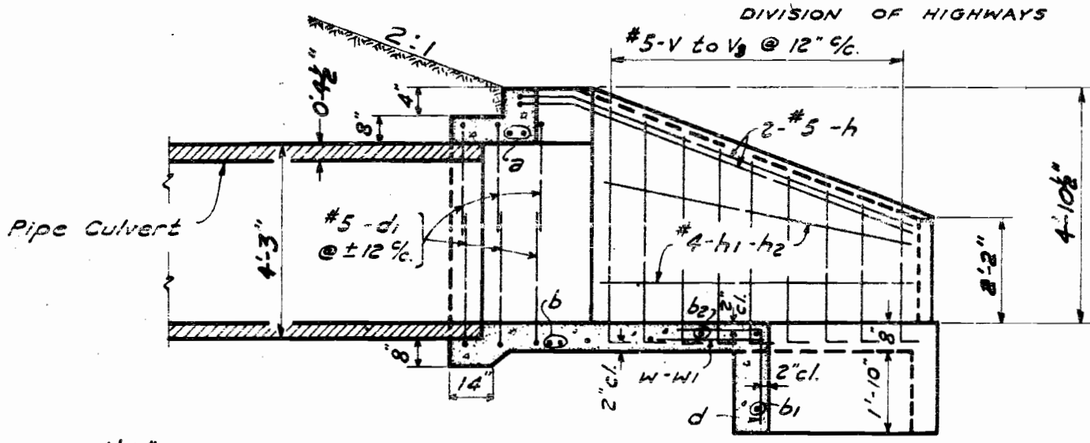
REINFORCED CONC. HEADWALLS 42" [redacted] DIAM. PIPE CULVERTS SKEWED WITH ROADWAY

STANDARD 1998

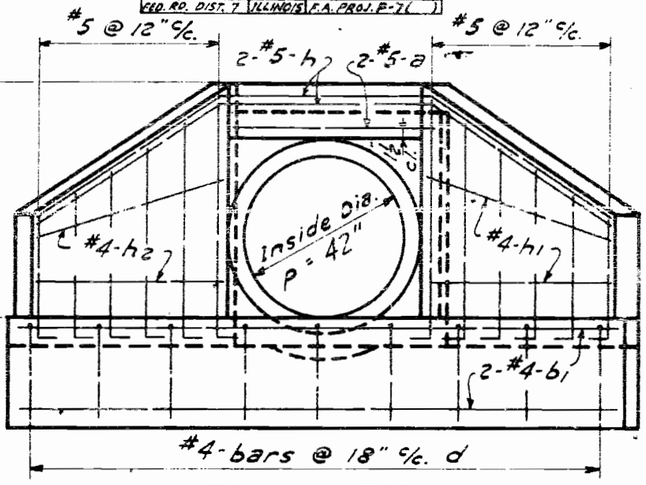
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

RT. NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA30	21	BUREAU PUTNAM	118	37
FED. RD. DIST. 7		ILLINOIS	F.A. PROJ. F-7( )	

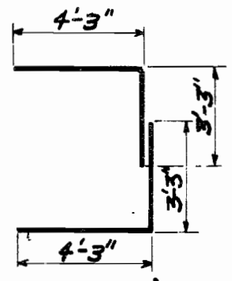
SHEET 37 OF 11



SECTION A-A

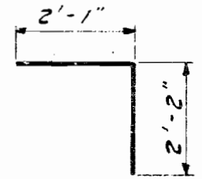


END VIEW

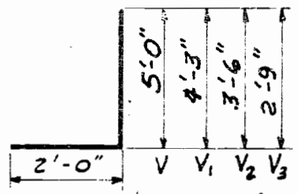


BARS - d1

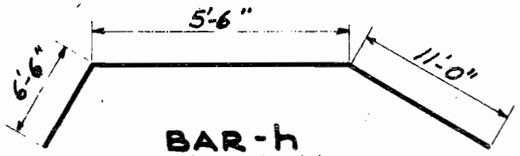
PLAN



BAR - d



BARS - V-V1 etc.



BAR - h
Bend in field

NOTE :- All bars shall be round ASTM A305-49. The size number is the number of ⅛ inches in the nominal diameter.

ONE HEADWALL
BILL OF MATERIAL

BAR	No.	SIZE	LENGTH
a	2	#5	5'-3"
b	2	#5	6'-9"
b1	2	#4	18'-0"
b2	1	#4	15'-6"
b3	1	#4	12'-9"
b4	1	#4	10'-3"
d	12	#4	4'-3"
d1	6	#5	7'-6"
h	2	#5	23'-0"
h1	2	#4	11'-0"
h2	2	#4	6'-6"
V	3	#5	7'-0"
V1	5	#5	6'-3"
V2	5	#5	5'-6"
V3	5	#5	4'-9"
W	1	#4	5'-6"
W1	1	#4	3'-3"
Class "X" Conc (Hdwl.) Cu. Yds.			5.05
Reinforcement Bars Lbs.			340

STANDARD	COMPUTED	L.A.Wilson
	CHECKED	L.E.Philbrook
	DRAWN	J.S.Maleckl
	CHECKED	L.A.W.
SPECIAL	ASSEMBLED	
	CHECKED	

Rev. Reinf. Bars - Jan. 51

EXAMINED Dec 27 62
PASSED BRIDGE ENGINEER
APPROVED ENGINEER OF DESIGN
CHIEF HIGHWAY ENGINEER

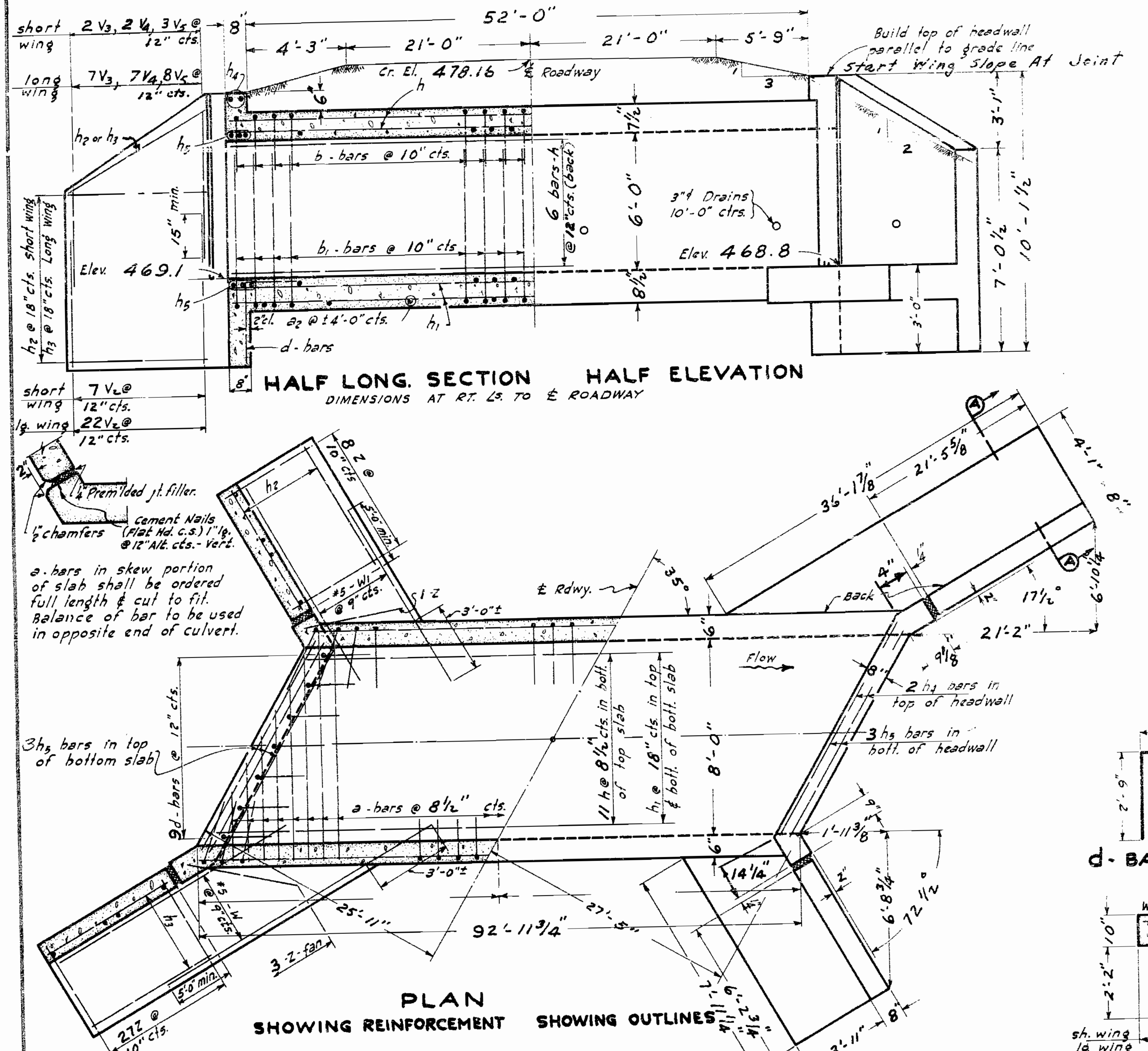
~NOTES~
Class X Concrete shall be used throughout.
Build tops of headwalls parallel to grade line.

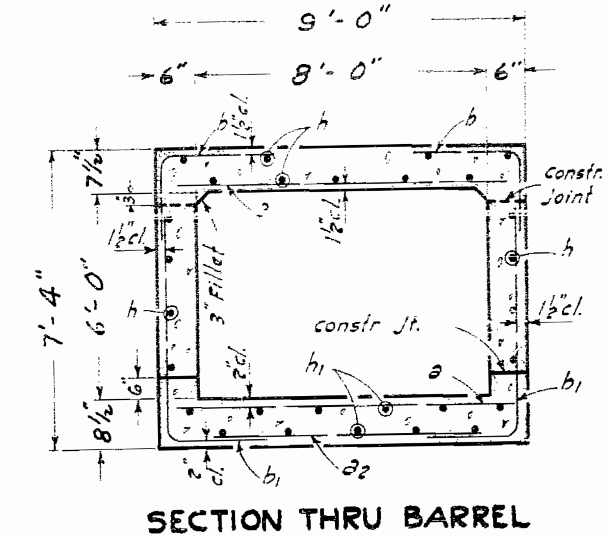
30° Skew
278+10

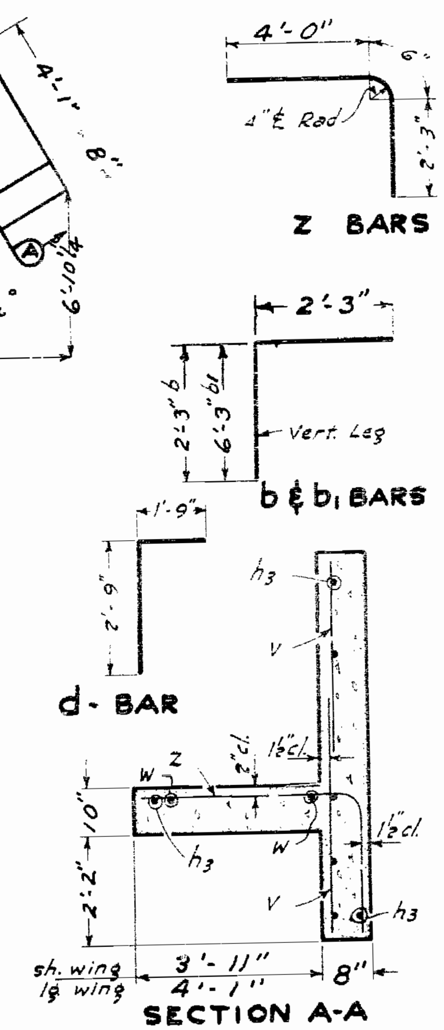
REINFORCED CONC. HEADWALLS
42" [redacted] DIAM.
PIPE CULVERTS
SKEWED WITH ROADWAY

STANDARD 1998

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS







BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH
a	258	#7	8'-8"
a2	24	#4	5'-3"
b	224	#5	4'-6"
b1	224	#5	8'-6"
d	18	#4	4'-6"
h	108	#5	24'-6"
h1	52	#5	24'-6"
h2	18	#4	6'-0"
h3	18	#4	21'-2"
h4	4	#6	15'-3"
h5	12	#6	15'-3"
V2	58	#4	5'-0"
V3	18	#4	4'-0"
V4	18	#4	5'-0"
V5	22	#4	6'-0"
W	12	#5	22'-3"
W1	12	#5	9'-8"
Z	78	#4	6'-9"
Class "X" Concrete		Cu. Yds.	85.6
Reinforcement Bars		Lbs.	13,670

NOTE :- All bars shall be round ASTM A305-49. The size number is the number of ⅛ inches in the nominal diameter.

STANDARD	COMPUTED	R.A.M.
	CHECKED	J.O.G.
	DRAWN	B.H. WOOD.
	CHECKED	
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED Dec 27 1962

BRIDGE ENGINEER

PASSED

ENGINEER OF DESIGN

APPROVED

CHIEF HIGHWAY ENGINEER

GENERAL NOTES

Class X concrete shall be used thru-out.
Exposed edges shall be beveled ¾".
For backfilling & embankment, see standard specifications.

Water proofing shall be applied to top slab, back of wingwalls and backs of outside walls in accordance with Article 51.21 of the Standard Specifications

f_s = 20,000 #/□"
f_c = 1200 #/□"
n = 10
H-20 LOADING

F.A. 30 (S.B.I. 29) SEC. 21
STA. 293+10
55° SKEW RT. FWD.

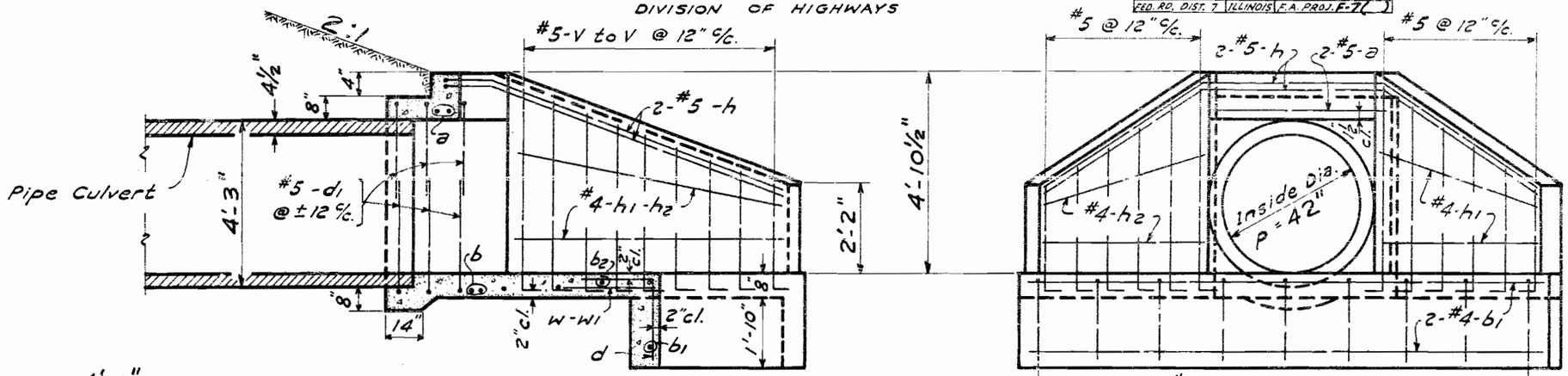
Footing + Reinf. Revised - 11-50 ~ J.S.M.

STANDARD 2034 REVISED

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

RT. NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA30	21	BUREAU PUTNAM	118	39
FED. RD. DIST. 7		ILLINOIS	F.A. PROJ. F-7( )	

SHEET 39 OF 11

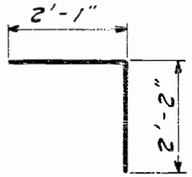


SECTION A-A

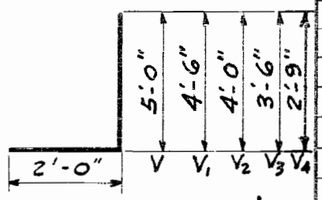
END VIEW

BARS - d1

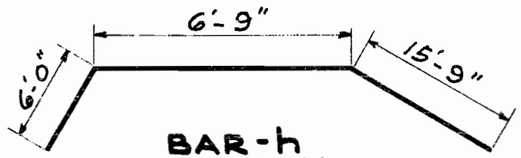
PLAN



BAR - d



BARS - V-V1 etc.



BAR - h
Bend in field

NOTE :- All bars shall be round ASTM A305-49. The size number is the number of ⅛ inches in the nominal diameter.

ONE HEADWALL
BILL OF MATERIAL

BAR	No.	SIZE	LENGTH
a	2	#5	6'-9"
b	2	#5	8'-6"
b1	2	#4	24'-0"
b2	1	#4	20'-0"
b3	1	#4	16'-3"
b4	1	#4	12'-6"
d	16	#4	4'-3"
d1	12	#5	7'-3"
h	2	#5	28'-6"
h1	2	#4	15'-9"
h2	2	#4	5'-9"
V	4	#5	7'-0"
V1	4	#5	6'-6"
V2	4	#5	6'-0"
V3	4	#5	5'-6"
V4	6	#5	4'-9"
W	1	#4	8'-0"
W1	1	#4	5'-0"
Class "X" Conc. (Hdwl.) Cu. Yds.			7.0
Reinforcement Bars Lbs.			460

STANDARD	COMPUTED	L.A. Wilson
	CHECKED	L.E. Philbrook
	DRAWN	J.S. Malecki
	CHECKED	L.A.W.
SPECIAL	ASSEMBLED	
	CHECKED	

Rev. Reinf. Bars ~ Jan. 51

EXAMINED Dec 27 62
BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

~NOTES~
Class X Concrete shall be used throughout.
Build tops of headwalls parallel to grade line.

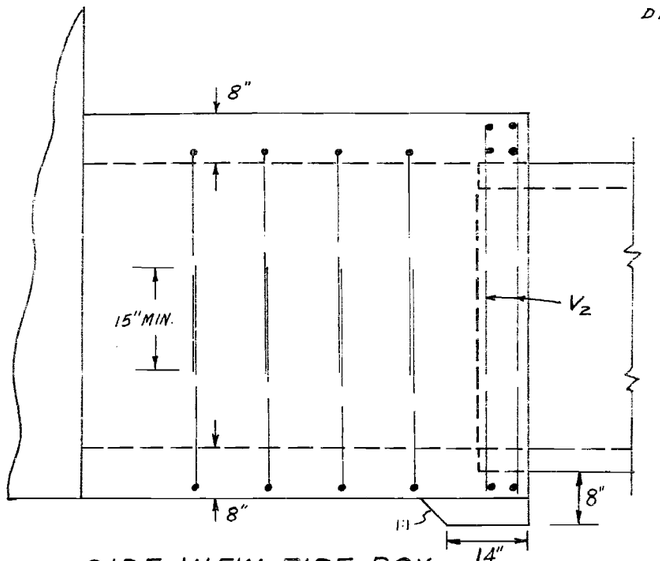
REINFORCED CONC. HEADWALLS
42" [redacted] DIAM.
50° SKEW PIPE CULVERTS
SKEWED WITH ROADWAY

D.S. HDWL. STA. 306+46

STANDARD 1998

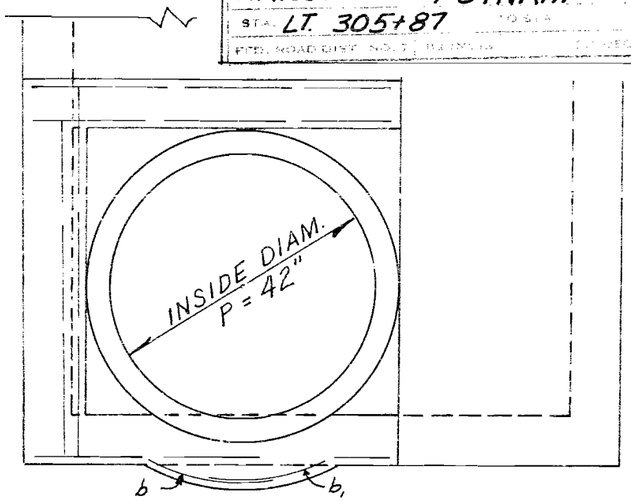
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	SHEET NO.
F.A.30 21	BUREAU PUTNAM	118	39-A
STA. LT 305+87			
FED. ROAD DIST. NO. 7	ILLINOIS		

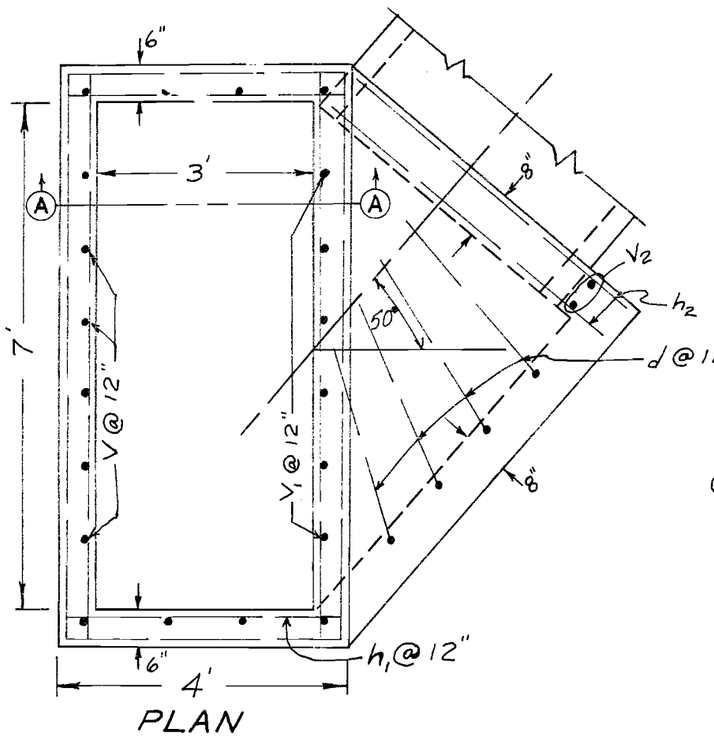


SIDE VIEW PIPE BOX

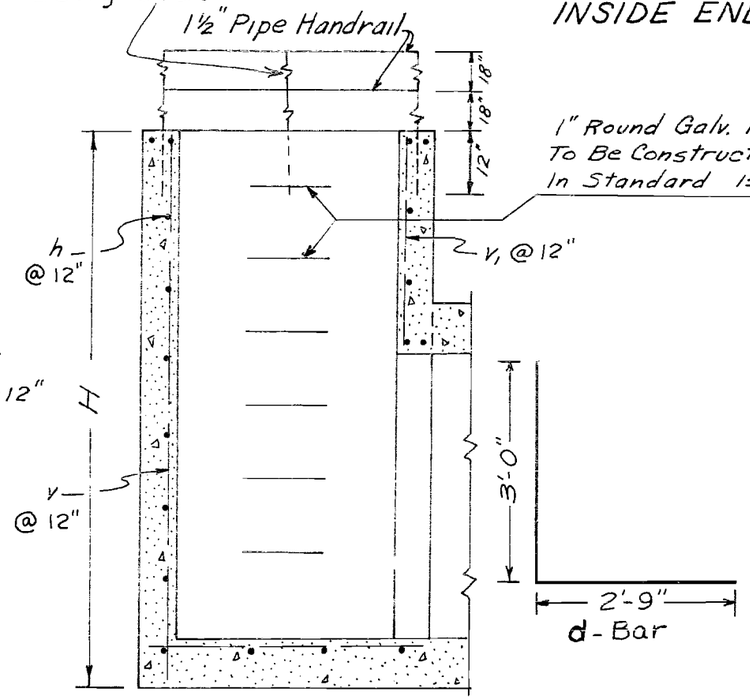
Note:
Add Stanchion at
Mid-Point on Each
Long Side



INSIDE END VIEW



PLAN



SECTION A-A

H = 7'-8"

Left Sta. 305+87

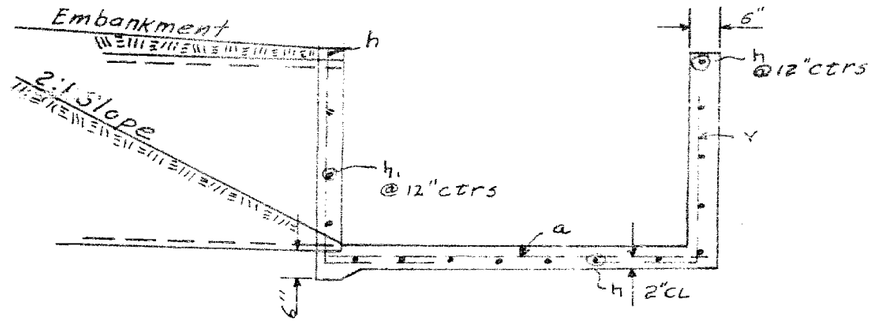
ONE DROP BOX
BILL OF MATERIALS

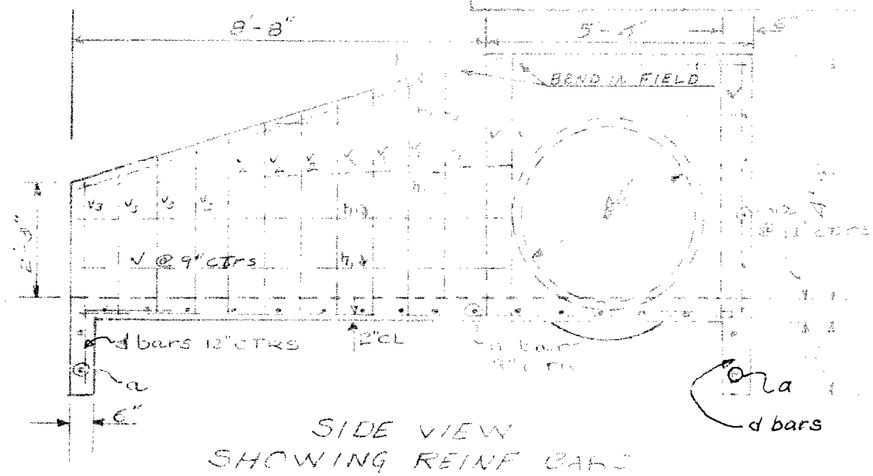
BAR	No.	SIZE	LENGTH
h	18	#5	7'-9"
h_1	24	#5	3'-9"
h_2	4	#5	4'-9"
v	14	#5	7'-6"
V_1	6	#5	2'-9"
V_2	2	#5	5'-0"
d	8	#5	5'-9"
b	2	#5	3'-6"
b_1	2	#5	3'-0"
Class "X" Concrete Cu Yds			4.6
Reinforcement Bars Lbs.			460
Pipe Handrail, 1½" Lin. Ft.			22

COMPUTED	W10	8-16-61
CHECKED	R.C.R.	8-17-61
DRAWN	W10	8-18-61
CHECKED		

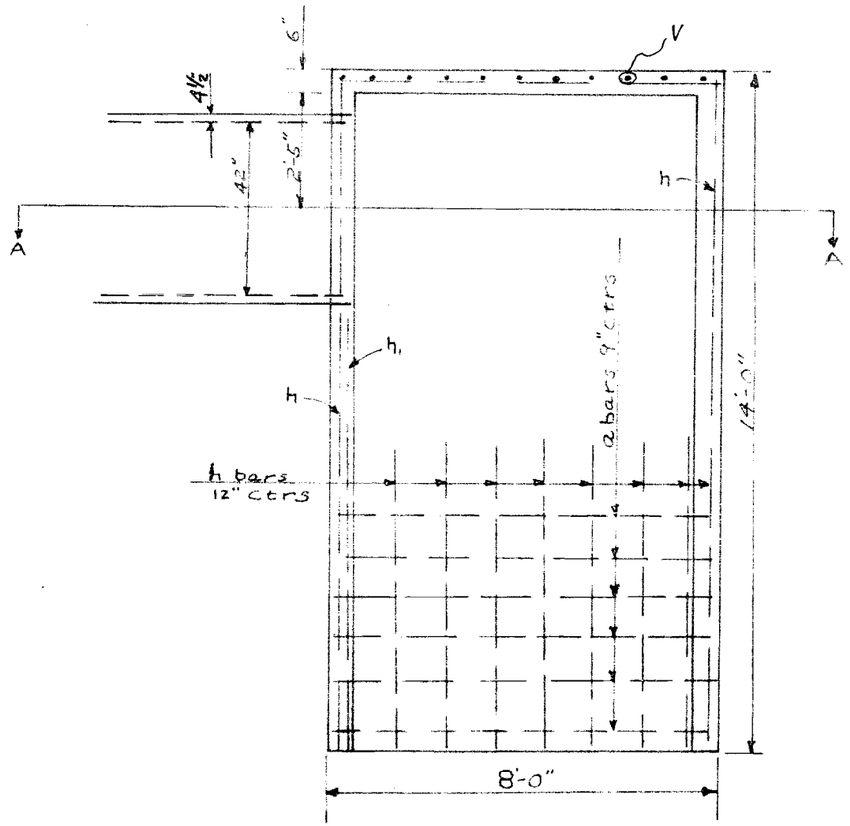
REINFORCED CONC. DROP BOX
42" DIAM. PIPE CULVERT
50° SKEW

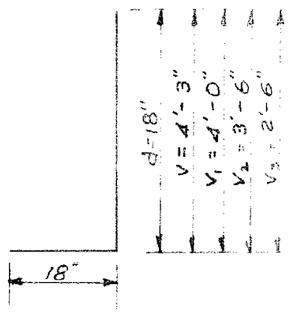
FA30 21 BUREAU PUTNAM 118 40
F-7( )





SIDE VIEW
SHOWING REINF BARS





DETAILS
d, V, V1, V2, V3

LIST OF MATERIALS

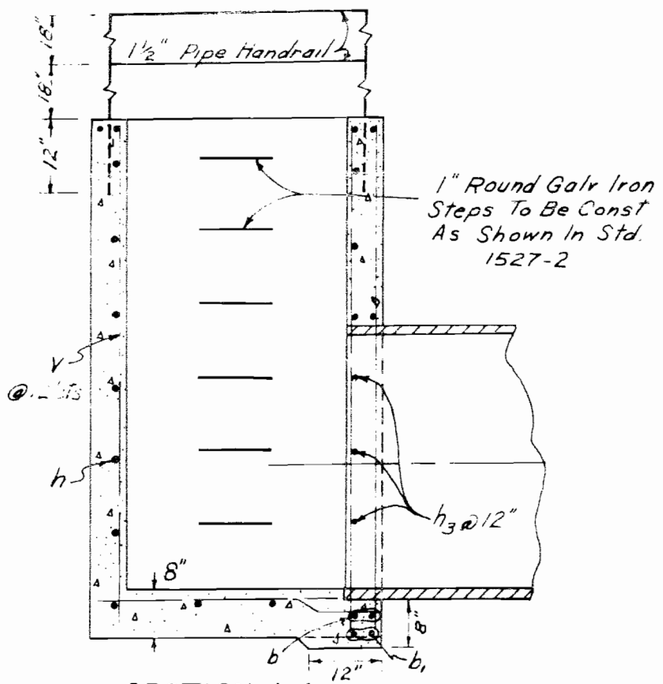
BAR	NO.	SIZE	LEN.
a	27	#4	1'-1"
h	14	#3	14'-3"
h1	3	#4	2'-6"
V	25	#3	5'-1"
V1	4	#3	5'-5"
V2	8	#3	5'-0"
V3	8	#4	4'-0"
d	16	#3	3'-6"

Class 'X' Conc. 4.6 cu yds
Reinf 1321 s 460 lgs

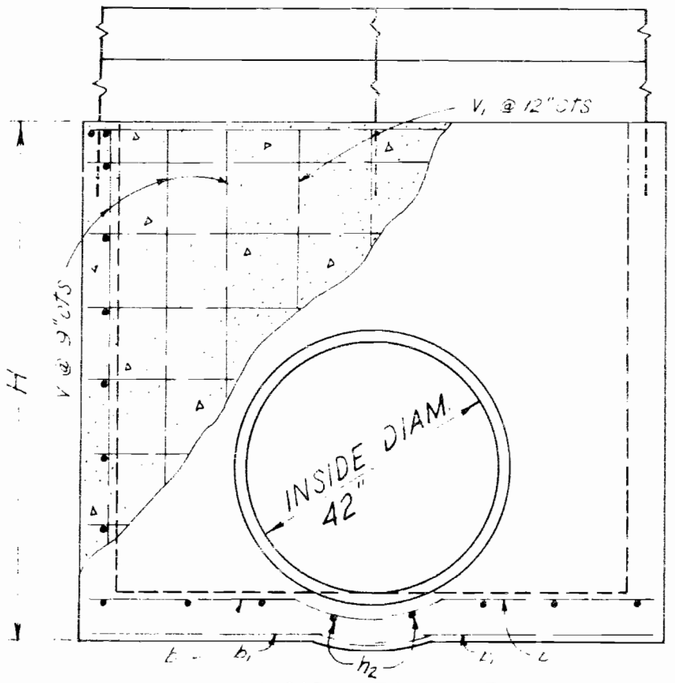
SPECIAL D.S. HEADWALL
F.A. RTE. 30 SEC. 21
COUNTY BUREAU
RT. STA. 312+40

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

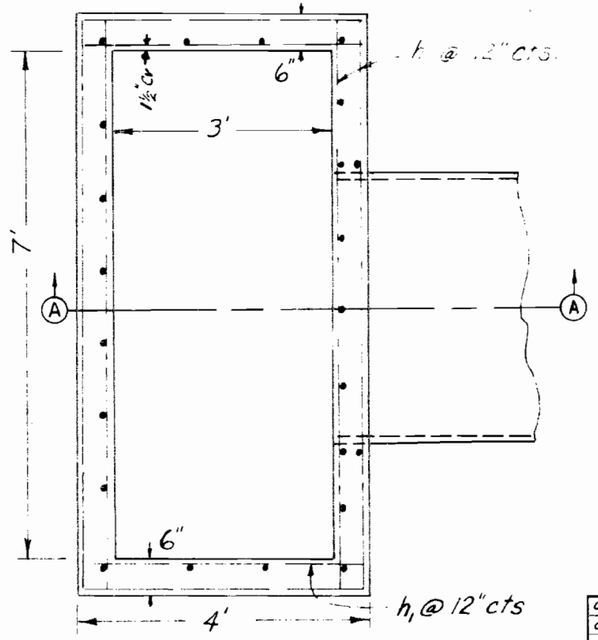
FA30 21 BUREAU PUTNAM 118 41
F-7( )



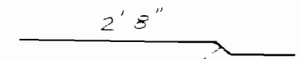
SECTION A-A



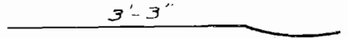
INSIDE END VIEW



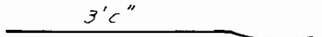
PLAN



*5 BAR h_2



*5 BAR b_1



*5 BAR b

ONE DROP BOX
BILL OF MATERIALS

BAR	No.	SIZE	LEN-FT
h	17	#5	7'-9"
h_1	22	#5	3'-3"
h_2	2	#5	3'-9"
h_3	6	#5	2'-0"
V	22	#5	7'-6"
V_1	3	#5	3'-3"
b	4	#5	4'-6"
b_1	4	#5	4'-6"
Class "X" Concrete cu.yds.			3.5
Reinforcement Bars Lbs.			450
Pipe Handrail, 1½" Lin.Ft.			22

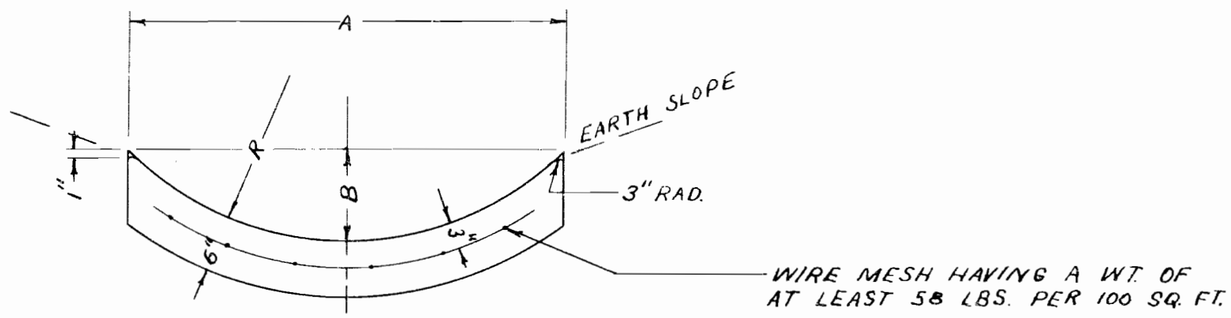
COMPUTED	W.I.C.	8-22-61
CHECKED	RCR	10-5-61
DRAWN	W.I.C.	8-23-61
CHECKED		

H = 7'-8"
Left Sta. 312+40

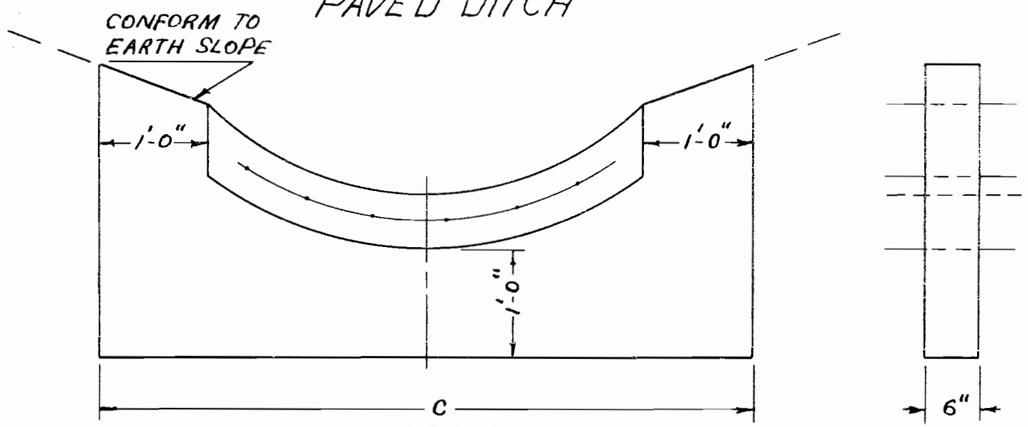
REINFORCED CONC. DROP BOX
42" DIAM. PIPE CULVERT
RIGHT ANGLES

ROUTE NO.	SEC.		TOTAL SHEETS	SHEET NO.
FA30	21	BUREAU PUTNAM	118	42
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT F-7( )		

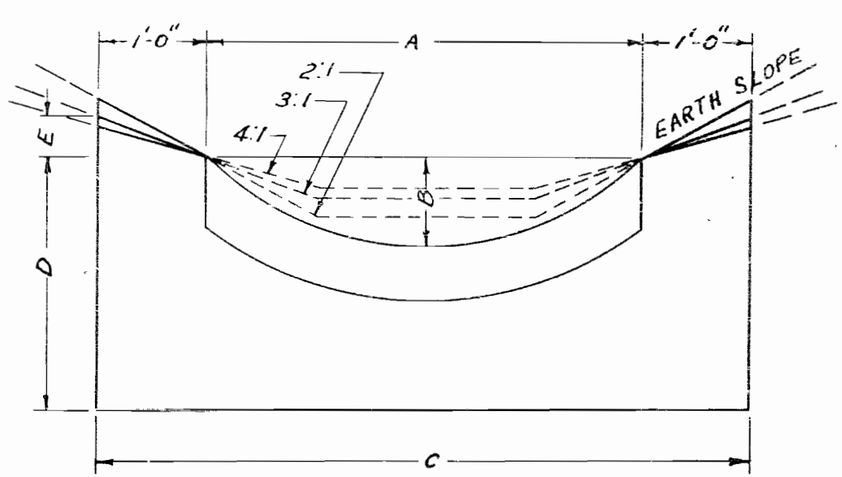
DETAIL OF PAVED DITCHES



PAVED DITCH



ANCHOR WALL



SCALE: $\frac{3}{4}$" = 1'-0"

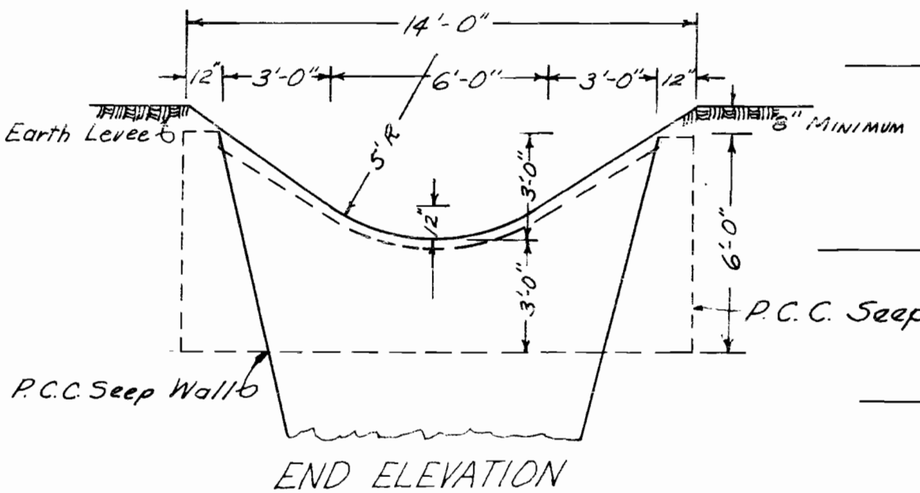
ANCHOR WALLS SHALL BE BUILT (1) AT THE BEGINNING AND END OF EACH SERIES (2) AT BOTH ENDS OF EACH ENTRANCE CULVERT WHERE PAVED DITCH IS LOCATED AND AT INTERVALS OF NOT MORE THAN 100 LINEAL FEET ALONG PAVED DITCH.

WHEN A PAVED DITCH IS SHOWN ON THE PLANS ADJACENT TO AN ENTRANCE CULVERT THE LAST 5 FEET ON THE UPSTREAM END SHALL BE SHAPED TO FIT THE CULVERT TO INSURE DRAINAGE THRU THE CULVERT.

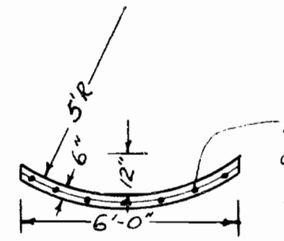
ANCHOR WALLS AND WIRE MESH SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR PAVED DITCH AND NO EXTRA COMPENSATION WILL BE ALLOWED.

DESIGN	A	B	C	D	R	E		
						2:1	3:1	4:1
3'	3'-0"	8"	5'-0	2'-2"	2'-0"	6"	4"	3"
4'	4'-0"	10"	6'-0"	2'-4"	2'-9¾"	6"	4"	3"

FA30 21 BUREAU PUTNAM 118 43
F-7 ( )

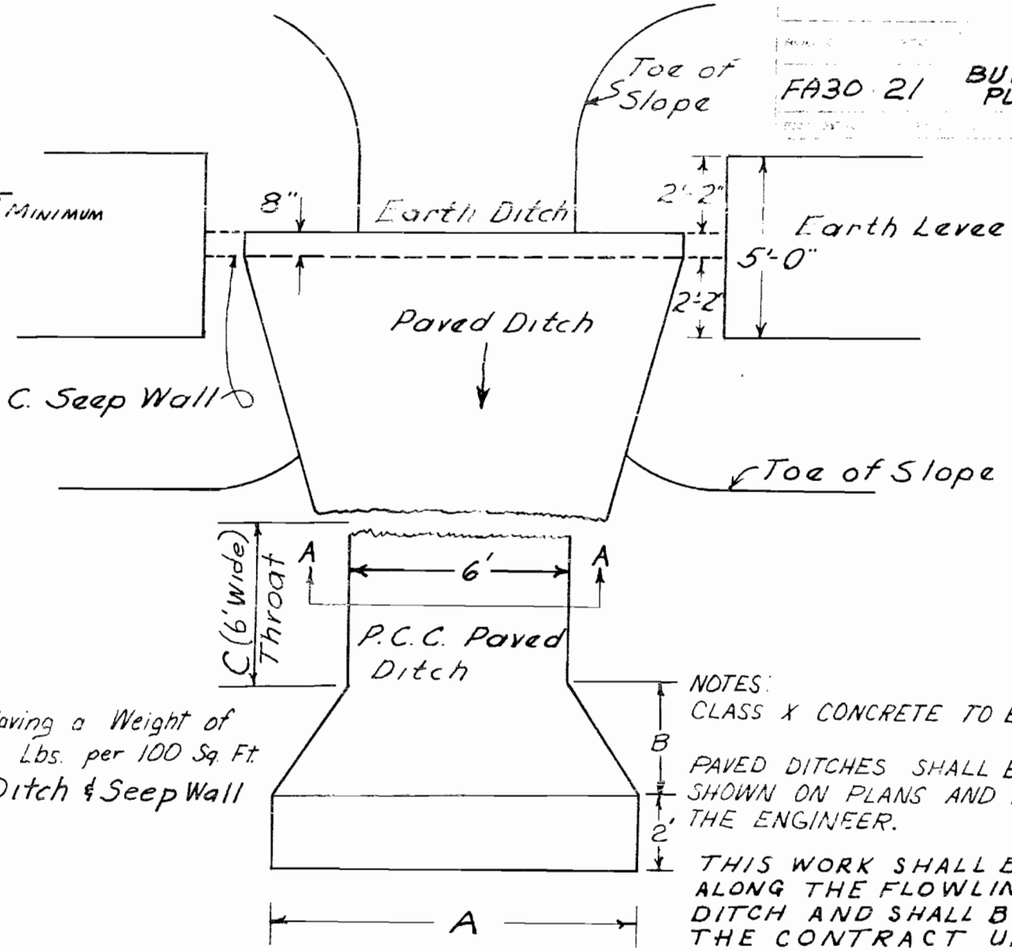


END ELEVATION



Wire Mesh Having a Weight of at Least 58 Lbs. per 100 Sq. Ft. In Paved Ditch & Seep Wall

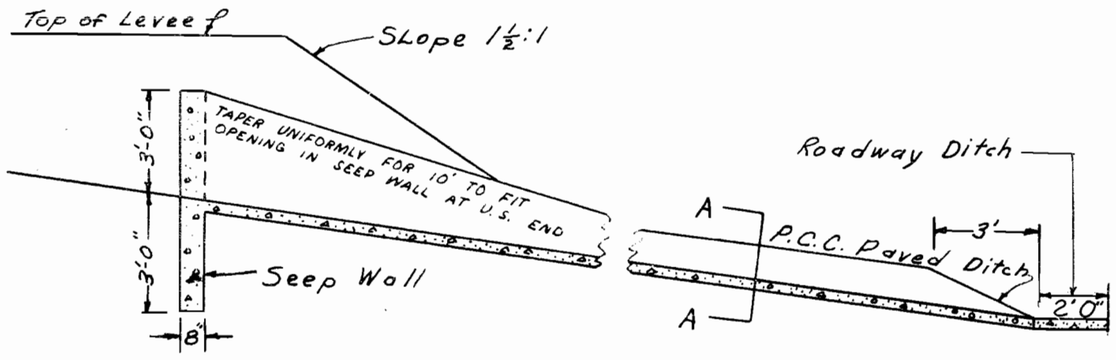
SECTION A-A



NOTES:
CLASS X CONCRETE TO BE USED THROUGHOUT

PAVED DITCHES SHALL BE BUILT AT LOCATIONS SHOWN ON PLANS AND WHERE DESIGNATED BY THE ENGINEER.

THIS WORK SHALL BE MEASURED ALONG THE FLOWLINE OF THE PAVED DITCH AND SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LINEAL FOOT FOR PAVED DITCH, SPECIAL WHICH PRICE SHALL INCLUDE ALL CONCRETE AND WIRE MESH AS SHOWN.



LONGITUDINAL SECTION

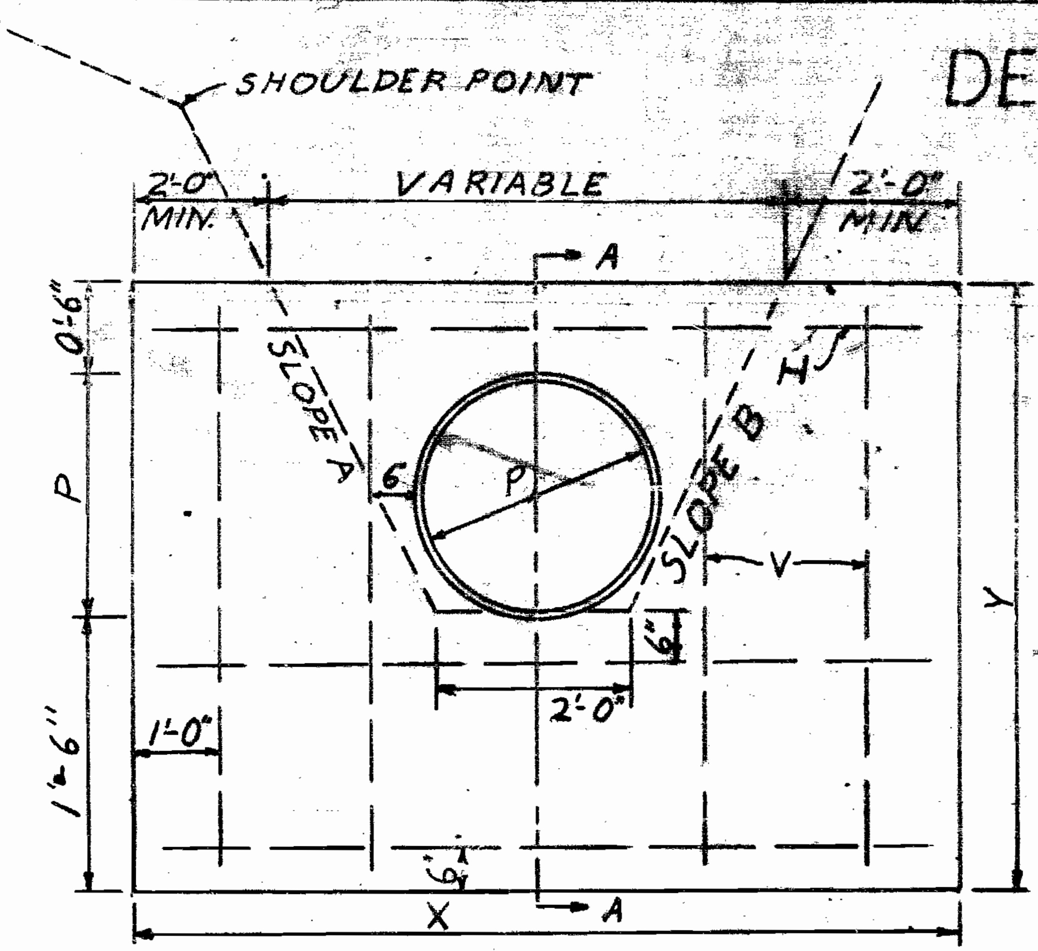
Sta. (Lt)	A	B	C (Throat)	Lin. Ft.
172+40	8'	3'	5'	20'
95' Lt. 208+00 To 38' Lt. 207+58	17'	10'	34'	56'
305+87	8'	3'	5'	20'
312+40	8'	3'	5'	20'
Total				116'

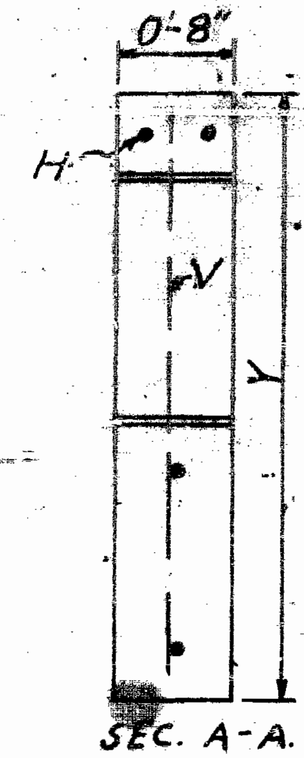
PAVED DITCH, SPECIAL
F.A. ROUTE 30 SECTION 21

Scale 1"=4'

DETAIL OF DITCH CHECK

NOT TO SCALE



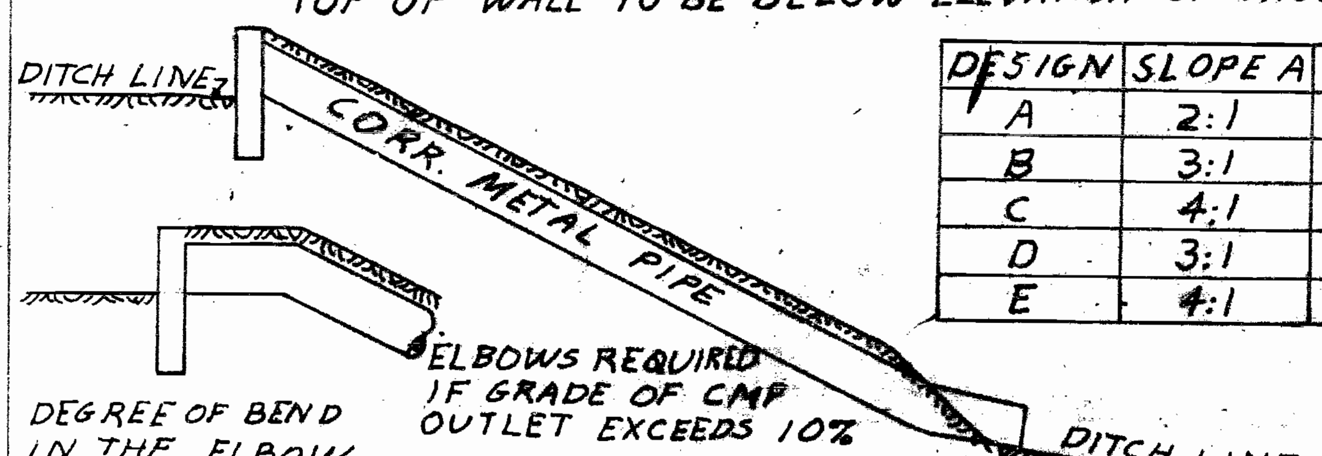


CLASS "X" CONCRETE TO BE USED.
ALL REINFORCING BARS #4.
LENGTH AND SIZE CORR METAL PIPE AS SHOWN ON PLANS.

UNIT PRICE BID PER LINEAL FOOT OF CORRUGATED METAL PIPE SHALL INCLUDE ALL ELBOWS AND CONNECTIONS.

DESIGN	P	X	Y	CONCRETE	REINFORCING BARS		
12-A	12"	12'-0"	3'-0"	0.9 CU. YD.	40#	4H BARS [illegible]	4V BARS 2'-6"
12-B	12"	13'-6"	3'-0"	1.0 CU. YD.	40#	4H BARS 13'-0"	4V BARS 2'-6"
12-C	12"	15'-0"	3'-0"	1.1 CU. YD.	50#	4H BARS 14'-6"	4V BARS 2'-6"
12-D	12"	15'-0"	3'-0"	1.1 CU. YD.	50#	4H BARS 14'-6"	4V BARS 2'-6"
12-E	12"	16'-6"	3'-0"	1.2 CU. YD.	50#	4H BARS 16'-0"	4V BARS 2'-6"
15-A	15"	13'-0"	3'-3"	0.9 CU. YD.	40#	4H BARS 12'-6"	4V BARS 2'-9"
15-B	15"	14'-9"	3'-3"	1.2 CU. YD.	40#	4H BARS 14'-3"	4V BARS 2'-9"
15-C	15"	16'-6"	3'-3"	1.3 CU. YD.	50#	4H BARS 16'-0"	4V BARS 2'-9"
15-D	15"	16'-6"	3'-3"	1.3 CU. YD.	50#	4H BARS 16'-0"	4V BARS 2'-9"
15-E	15"	18'-3"	3'-3"	1.4 CU. YD.	50#	4H BARS 17'-9"	4V BARS 2'-9"
18-A	18"	14'-0"	3'-6"	1.2 CU. YD.	40#	4H BARS 13'-6"	4V BARS 3'-0"
18-B	18"	16'-0"	3'-6"	1.3 CU. YD.	50#	4H BARS 15'-6"	4V BARS 3'-0"
18-C	18"	18'-0"	3'-6"	1.5 CU. YD.	50#	4H BARS 17'-6"	4V BARS 3'-0"
18-D	18"	18'-0"	3'-6"	1.5 CU. YD.	50#	4H BARS 17'-6"	4V BARS 3'-0"
18-E	18"	20'-0"	3'-6"	1.7 CU. YD.	60#	4H BARS 19'-6"	4V BARS 3'-0"
24-A	24"	16'-0"	4'-0"	1.5 CU. YD.	50#	4H BARS 15'-6"	4V BARS 3'-6"
24-B	24"	18'-6"	4'-0"	1.7 CU. YD.	60#	4H BARS 18'-0"	4V BARS 3'-6"
24-C	24"	21'-0"	4'-0"	2.0 CU. YD.	60#	4H BARS 20'-6"	4V BARS 3'-6"
24-D	24"	21'-0"	4'-0"	2.0 CU. YD.	60#	4H BARS 20'-6"	4V BARS 3'-6"
24-E	24"	23'-6"	4'-0"	2.2 CU. YD.	70#	4H BARS 23'-0"	4V BARS 3'-6"
30-A	30"	18'-0"	4'-6"	1.9 CU. YD.	60#	4H BARS 17'-6"	4V BARS 4'-0"
30-B	30"	21'-0"	4'-6"	2.2 CU. YD.	70#	4H BARS 20'-6"	4V BARS 4'-0"
30-C	30"	24'-0"	4'-6"	2.6 CU. YD.	70#	4H BARS 23'-6"	4V BARS 4'-0"
30-D	30"	24'-0"	4'-6"	2.6 CU. YD.	70#	4H BARS 23'-6"	4V BARS 4'-0"
30-E	30"	27'-0"	4'-6"	2.9 CU. YD.	80#	4H BARS [illegible]	4V BARS 4'-0"

TOP OF WALL TO BE BELOW ELEVATION OF SHOULDER

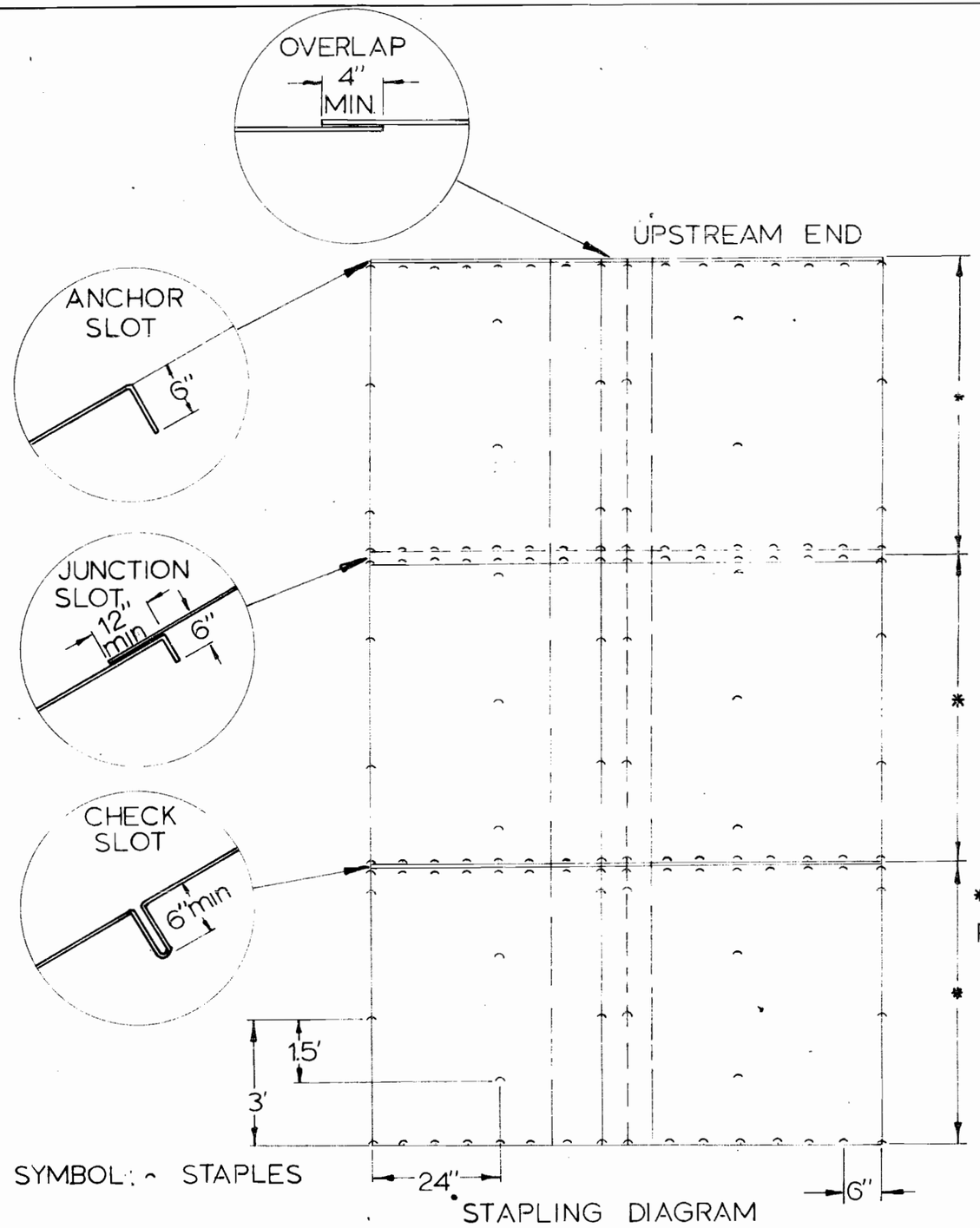


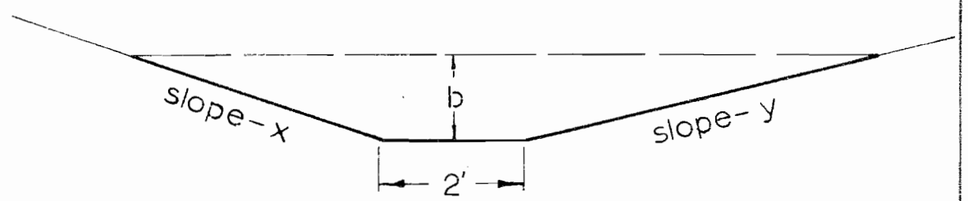
DESIGN	SLOPE A	SLOPE B
A	2:1	2:1
B	3:1	2:1
C	4:1	2:1
D	3:1	3:1
E	4:1	3:1

DEGREE OF BEND IN THE ELBOW SHALL BE AS THE ENGINEER DESIGNATES

FA30 21 PUTNAM - BUREAU 118 45

F-7( )





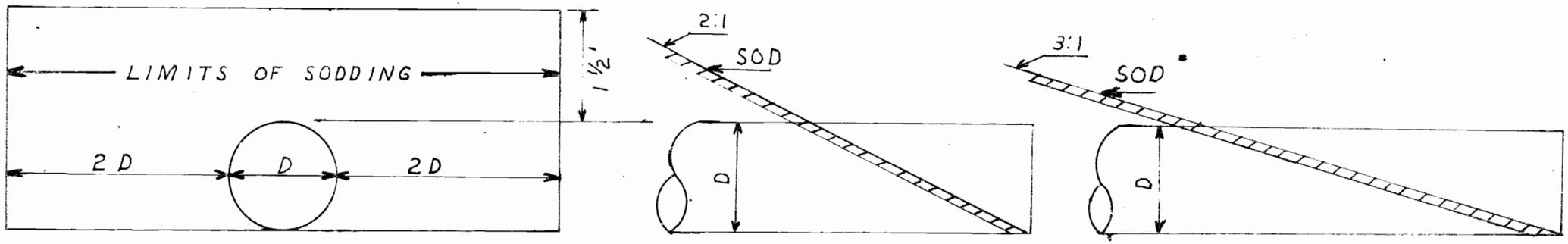
SLOPE. (x)	SLOPE (y)	DIMENSION – b	
		2 strips	3 strips
4:1	4:1	8.2"	13.6"
3:1	4:1	9.3"	15.4"
2:1	4:1	10.7"	17.6"
3:1	3:1	10.8"	17.7"
2:1	3:1	12.6"	20.8"
2:1	2:1	15.2"	25.1"

SQ. YD. MATTING PER STATION	
2 strips	3 strips
85.2	125.9

JUTE MATTING FOR DITCH LINING

Ju - I

ROUTE NO.	MCD.	COUNTY	SHEET	SHEETS
FA30 21		BUREAU PUTNAM	118	46
PROJ. NO.	SEC. NO.	ILLIN.	PROJECT	F-7( )



KIND	STA.	SIZE
ENT.	LT. 91+50	18" ✓
ENT.	LT. 122+30	15" ✓
S.RD.	LT. 123+00	36" ✓
S.RD.	RT. 123+00	18" ✓
ENT.	LT. 143+09	36" ✓
ENT.	LT. 143+09	ARCH ✓
ENT.	RT. 164+23	18" ✓
ENT.	RT. 176+00	18" ✓
ENT.	LT. 197+20	18" ✓
ENT.	LT. 197+20	30" ✓
ENT.	RT. 201+65	18" ✓
ENT.	LT. 232+40	18" ✓
ENT.	RT. 285+20	18" ✓

D.= DIAM OF PIPE- INCHES	NUMBER OF CULVERTS	SODDING AT TWO ENDS OF PIPE			
		SQ. YDS. 2:1 SLOPE	TOTAL REQUIRED	SQ. YDS. 3:1 SLOPE	TOTAL REQUIRED
15	1	8.6	8.6	11.8	
18	8	10.8	86.4	15.4	
24	11	17.5	192.5	23.9	
30	1	24.9	24.9	34.0	
36	2	33.4	66.8	56.4	
27"x43" ARCH	1	29.8	29.8	40.9	
			409.0		

TOTAL (ALL PIPES) = 409 SQ. YDS.

KIND	STA.	SIZE
ENT.	LT. 75+27	24" ✓
S.RD.	RT. 76+45	24" ✓
ENT.	RT. 143+09	24" ✓
ENT.	LT. 164+23	24" ✓
ENT.	LT. 176+00	24" ✓
ENT.	LT. 193+45	24" ✓
ENT.	LT. 194+10	24" ✓
ENT.	LT. 195+30	24" ✓
S.RD.	LT. 216+00	24" ✓
ENT.	LT. 261+00	24" ✓
TEMP. CONN	RT. 319+00	24" ✓

SODDING AT ENTRANCE OR SIDE ROAD CULVERTS

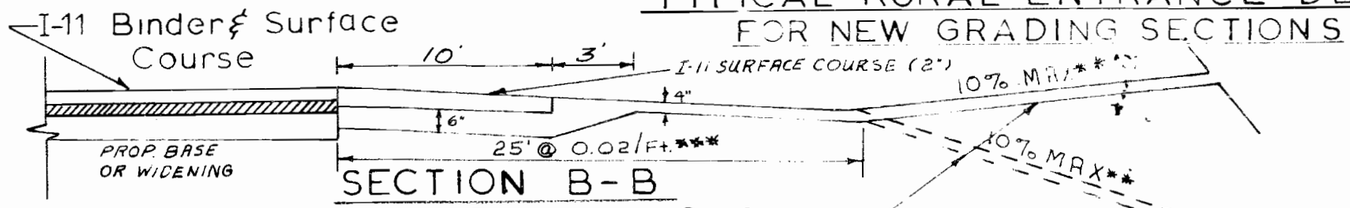
NOT DRAWN TO SCALE

11-1-61

So-I

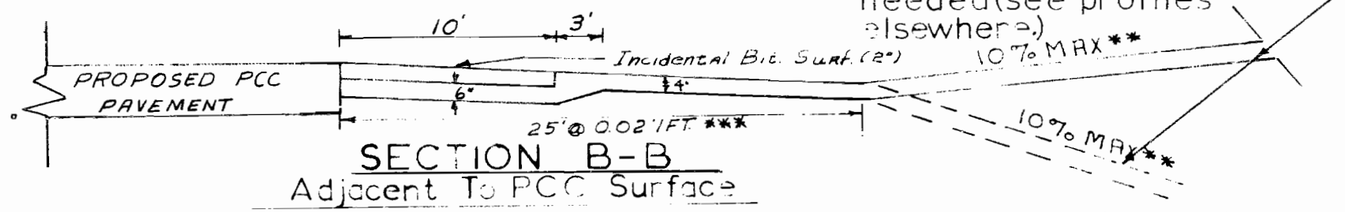
TYPICAL RURAL ENTRANCE DETAIL
FOR NEW GRADING SECTIONS

FA 30 21 BUREAU PUTNAM 118 47
F-7( )

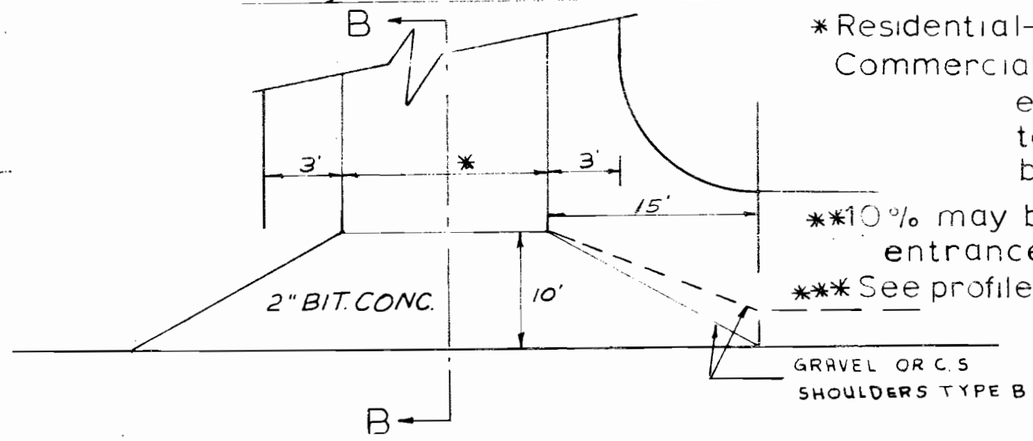


SECTION B-B
Adjacent To Bituminous Surface

Gravel or crushed stone surface course ty A as needed (see profiles elsewhere.)



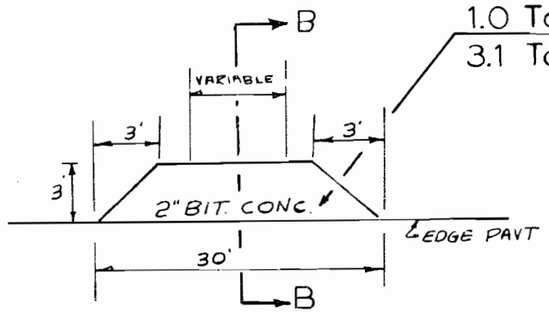
SECTION B-B
Adjacent To PCC Surface



* Residential—10' min–18' max
Commercial—match existing ent. except that max. shldr. to shldr of ent. shall be 35'

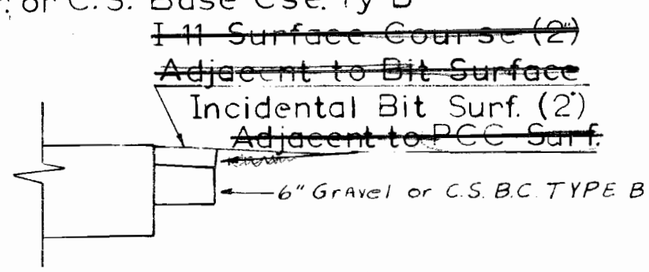
** 10% may be exceeded if existing entrance exceeds 10%

*** See profiles elsewhere for excpts



FIELD ENTRANCE

1.0 Ton Bit. Sur. Cse. 2"
3.1 Tons Gr. or C.S. Base Cse. Ty B



SECTION B-B

INC. BIT. SURFACE COURSE "TON"

Entrance Width	SHLDR WIDTH 6	7	8	9	10	11
10	1.4	1.8	2.2	2.6	3.1	3.6
12	1.5	1.9	2.3	2.8	3.3	3.8
14	1.7	2.1	2.5	3.0	3.5	4.1
16	1.8	2.3	2.7	3.2	3.8	4.4
18	2.0	2.4	2.9	3.5	4.0	4.6
20	2.1	2.6	3.1	3.7	4.3	4.9
22	2.3	2.8	3.3	3.9	4.5	5.2
24	2.4	3.0	3.5	4.1	4.8	5.4
26	2.6	3.1	3.7	4.3	5.0	5.7
28	2.7	3.3	3.9	4.6	5.3	6.0
29	2.8	3.4	4.0	4.7	5.4	6.1

GRAVEL or C S S C TY. A "TONS"

Reconstructed Entrance Leng.	ENTRANCE WIDTH 10	12	14	16	18	20	22	24	26	28	29
25	13.5	15.0	16.6	18.2	19.7	21.3	22.8	24.4	25.9	27.5	28.3
27	14.0	15.6	17.3	19.0	20.6	22.3	23.9	25.6	27.3	28.9	29.7
28	14.2	16.0	17.7	19.4	21.1	22.8	24.5	26.2	27.9	29.6	30.5
30	14.7	16.6	18.4	20.2	22.0	23.8	25.6	27.4	29.2	31.0	31.9
32	15.3	17.2	19.1	21.0	22.9	24.8	26.7	28.6	30.5	32.4	33.4
34	15.8	17.8	19.8	21.8	23.8	25.8	27.8	29.8	31.9	33.9	34.9
36	16.3	18.4	20.5	22.6	24.7	26.8	28.9	31.1	33.2	35.3	36.3
38	16.8	19.0	21.2	23.4	25.6	27.8	30.1	32.3	34.5	36.7	37.8
40	17.3	19.6	21.9	24.2	26.5	28.9	31.2	33.5	35.8	38.1	39.3
42	17.8	20.2	22.6	25.0	27.5	29.9	32.3	34.7	37.1	39.5	40.7
44	18.3	20.8	23.3	25.8	28.4	30.9	33.4	35.9	38.4	41.0	42.2
46	18.8	21.4	24.0	26.7	29.3	31.9	34.5	37.1	39.8	42.4	43.7
48	19.3	22.0	24.7	27.5	30.2	32.9	35.6	38.3	41.1	43.8	45.2
50	19.8	22.6	25.5	28.3	31.1	33.9	36.7	39.6	42.4	45.2	46.6
52	20.3	23.2	26.2	29.1	32.0	34.9	37.9	40.8	43.7	46.6	48.1
54	20.8	23.8	26.9	29.9	32.9	35.9	39.0	42.0	45.0	48.0	49.6
56	21.3	24.5	27.6	30.7	33.8	37.0	40.1	43.2	46.3	49.5	51.0
58	21.8	25.1	28.3	31.5	34.7	38.0	41.2	44.4	47.6	50.9	52.5
60	22.3	25.7	29.0	32.3	35.7	39.0	42.3	45.6	49.0	52.3	54.0
62	22.8	26.3	29.7	33.1	36.6	40.0	43.4	46.9	50.3	53.7	55.4
*											

* Beginning at edge of pavement

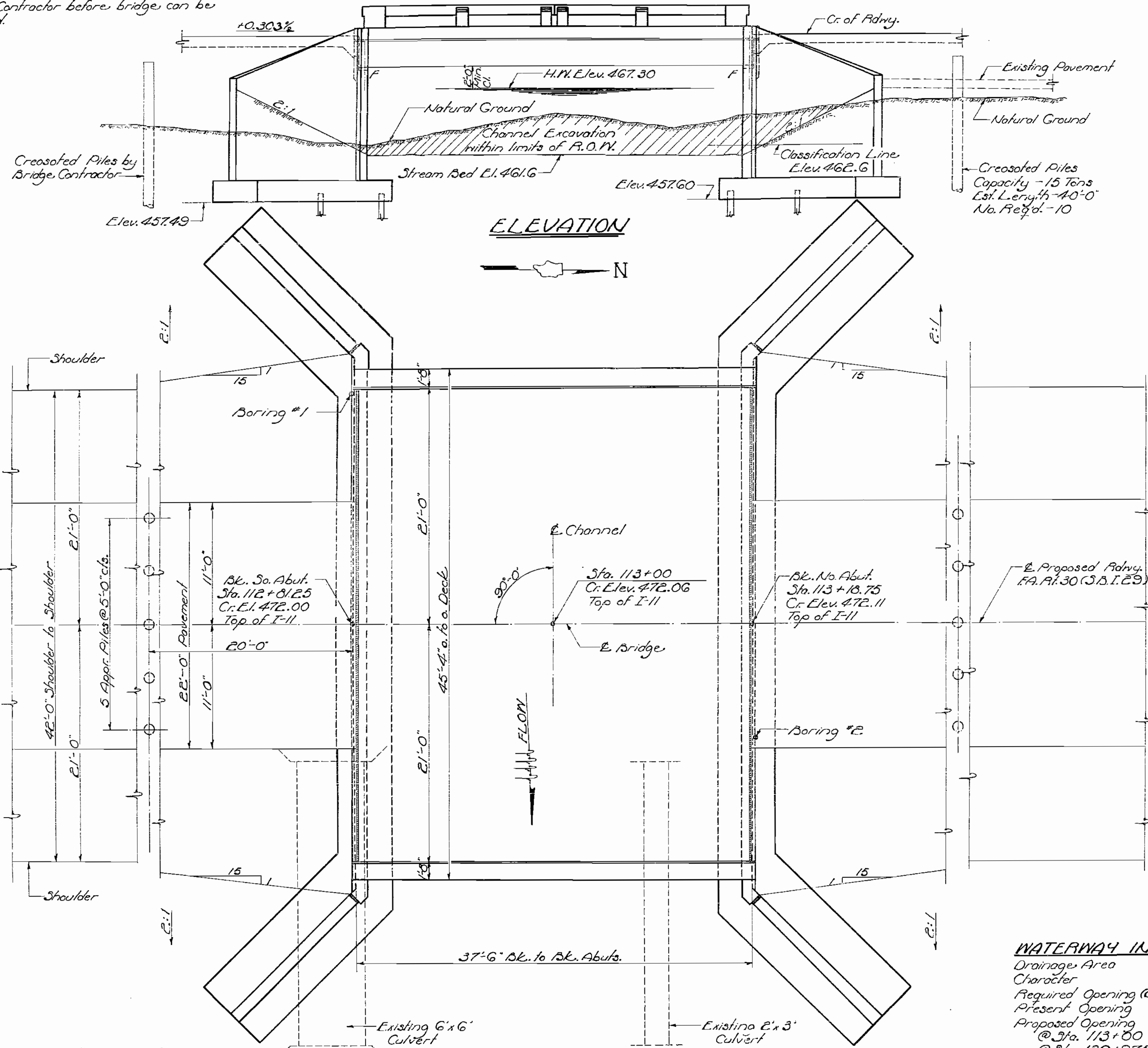
1-9-62

B.M. Temporary B.M. #2 - square cut in S.W. corner of South Abutment of R.R. Bridge #1210 114' Rt. Sta. 112+50 Elev. 473.43.
Existing Culverts 6'x6' and 2'x3' shall be removed by Bridge Contractor before bridge can be constructed.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A. 30	21-B	PUTNAM BUREAU	118	48
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-	F-7(30)	

SHEET NO. 1
4 SHEETS



GENERAL NOTES

Class X Concrete shall be used throughout except in handrails.

The handrail concrete in rail posts and railing shall be poured in separate operations.

The Contractor shall drive 1 test pile near S. Abut. as directed by the Engineer before ordering remainder of piles.

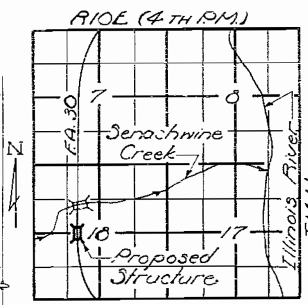
For backfill behind abutments held at the top by Superstructure, see Article 50.10 of the Standard Specifications.

The following surfaces of the bridge shall be waterproofed; backs of abutment and wingwalls from ground surface to top of footing.

Waterproofing shall be done in accordance with Article 51.21 of the Standard Specifications.

Bridge Deck Sealant Surface Course shall be applied to the entire bridge deck and 2 inches up on both curbs. See Special Provision.

Protective Coat shall be applied to the inside face and top of curbs.



LOCATION PLAN

STATION 113+00
BUILT 196 BY
STATE OF ILLINOIS
F.A. RT. 30 ~ SEC. 21-B
F.A. PROJ. F-7(30)
LOADING H20-S16

NAME PLATE
For Lettering See Std. 2113

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Channel Excavation	Cu. Yd.			530
Emulsion - Sand Mixture	Gal.	90		90
Bituminous Concrete Surface Course Sub-Class I-11 (1½" Thick)	Tons	16		16
Penetrating Primer	Gal	2		2
Class A Excavation for Structures	Cu. Yd.		55	55
Class B Excavation for Structures	Cu. Yd.		278	278
Precast Concrete Bridge Slab	Sq. Ft.	1665		1665
Handrail Concrete	Cu. Yd.	1.9		1.9
Class X Concrete	Cu. Yd.	4.2	131.4	135.6
Reinforcement Bars	Pound	620	7210	7830
Creosoted Piles	Lin. Ft.		2512	2512
Test Piles (Timber)	Each		1	1
Name Plates	Each	1		1
Protective Coat	Sq. Yd.	20		20

WATERWAY INFORMATION

Drainage Area 23 000 Acres
Character Rolling
Required Opening (25 Yrs.) 800 Sq. Ft.
Present Opening None
Proposed Opening
@ Sta. 113+00 200 Sq. Ft.
@ Sta. 126+97.5 600 Sq. Ft.
Total Proposed Opening 800 Sq. Ft.

DESIGN STRESSES (FIELD)

fc - 1400 p.s.i. Super.
fc - 1000 p.s.i. Sub.
fs - 20 000 p.s.i. Reinf.

vc - 75 p.s.i. Footing
n - 10
LOADING H20-S16-44

STRESSES (PRECAST UNITS)

fc - 4500 p.s.i.
fc - 1800 p.s.i.
fs - 20 000 p.s.i.
n - 8

DESIGNED C.W. Gluck		EXAMINED	W.E. Baumann, ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
CHECKED R.R. Taylor		PASSED	ENGINEER OF DESIGN
DRAWN C.W.G.	W.J. Jacobs	APPROVED	W. Bartelsmeyer, CHIEF HIGHWAY ENGINEER
CHECKED K.K.T.			

Oct 6 1961

GENERAL PLAN & ELEVATION
SENACHWINE CREEK OVERFLOW
PROJ. F-7(30)
F.A. RT. 30 ~ SEC. 21B
PUTNAM COUNTY
STA. 113+00

Revised 12/14/62 In TOTAL BILL OF MATERIAL removed items Bituminous Materials (Prime Coat) 15 Gallons, Removal of Existing Structures 2 Each and Bridge Deck Sealant 173 Sq. Yd.; added items Emulsion-Sand Mixture 90 Gallons, and Penetrating Primer 2 Gallons. In GENERAL NOTES added note "Bridge Deck Sealant Surface Course ..." and added note for Protective Coat. Add 20 Sq. Yd. of Protective Coat in BILL OF MATERIAL. W.S.

DIETZGEN NO. 141 IMPERIAL

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 30	218	PUTNAM BUREAU	118	49

SHEET NO. 2
4 SHEETS

So. Boring No. 1 Abut
Station 112+81
Offset 20' Lt. of ℄

Ground Surface 464.0

Elevation	Stratum	N	Qu t/s.f.	w (%)
0	Medium Dark Brown Sandy CLAY LOAM			
		2	0.8 S	--
-5		7	0.7 S	---
457.5	Medium Dark Brown Sandy LOAM	5	---	-
455.0	Loose Brown Well Graded SAND and GRAVEL			
-10		8	---	-
		2	---	-
-15		5	---	--
		3	---	-
-20		5	---	-
	Medium Brown Poorly Graded Rounded Fine SAND	19	---	-
440.0	Dense Brown Poorly Graded Rounded Fine SAND			
-25		35	---	--
437.5	Medium Brown Poorly Graded Rounded Fine SAND	22	---	-
-30		27	---	-
432.5	Dense Brown Well Graded Rounded SAND (Some GRAVEL)	60	---	--
-35		40	---	--
		87	---	--
-40		28	---	---
-45				

So. Boring No. 1 Abut (continued)
Station 112+81
Offset 20' Lt. of ℄

Elevation	Stratum	N	Qu t/s.f.	w (%)
-40	Dense Brown Well Graded Rounded SAND (Some GRAVEL)			
		30	---	--
-45		28	---	--
		40	---	--
-50		45	---	--
412.5	Very Dense Brown Well Graded Rounded SAND and GRAVEL	90	---	--
-55		65	---	--
406.0	Hard Gray Sandy CLAY LOAM (TILL)	67	---	--
-60				
403.5	End of Boring	95	4.0 S	---

Note; Water Content Comparable to Boring No. 2

No. Boring No. 2 Abut
Station 113+19
Offset 10' Rt. of ℄

Ground Surface 464.90

Elevation	Stratum	N	Qu t/s.f.	w (%)
	Medium Dark Brown Silty LOAM			
		11	0.7 S	23
-5		7	1.2 S	--
		7	0.8 B	--
-10		3	0.7 E	---
		4	0.6 S	--
450.9	Loose Brown Poorly Graded Rounded Fine SAND			
-15		7	---	-
448.4	Loose Brown Well Graded Rounded SAND and Gravel	10	---	16
-20		4	---	-
		6	---	--
439.9 / -25	Medium Gray Silty CLAY LOAM	8	---	-
437.9	Medium Brown Poorly Graded Rounded Fine SAND	23	---	26
-30		32	---	--
		19	---	--
-35		24	---	--
		21	---	--
425.9	Medium Brown Well Graded Rounded SAND			
-40		25	---	--
-45				

No. Boring No. 2 Abut (continued)
Station 113+19
Offset 10' Rt. of ℄

Elevation	Stratum	N	Qu t/s.f.	w (%)
-40	Medium Brown Well Graded Rounded SAND			
		23	---	-
-45		25	---	-
418.4	Dense Brown Well Graded Rounded SAND	32	---	-
-50		35	---	--
		62	---	-
410.9	Dense Brown Well Graded Rounded SAND and GRAVEL			
-55		33	---	-
407.9	Hard Gray Sandy Gravelly CLAY LOAM (Till)	54	----	11
-60				
404.4	End of Boring	75	4.0 E	---

DESIGNED	C.W. Gluck
CHECKED	R.K. Taylor
DRAWN	C.W.G. ol jacobs
CHECKED	R.K.T.

Oct 6 1961

EXAMINED W.E. Baumann
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES

PASSED E.F. Bluet
ENGINEER OF DESIGN

APPROVED R.R. Bartelsmeyer
CHIEF HIGHWAY ENGINEER

N - Standard Penetration Test - Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140# hammer falling 30".

Qu - Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight - %.

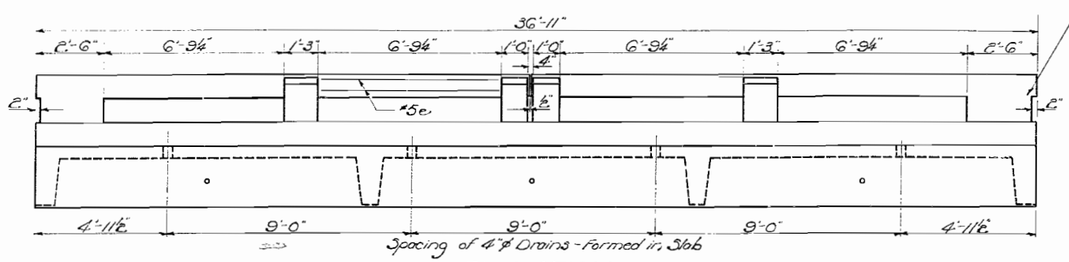
Type failure:
B - Bulge Failure
S - Shear Failure
E - Estimated Value

BORING DATA
F.A. RT. 30 ~ SEC. 218
PUTNAM COUNTY
STA. 113+00

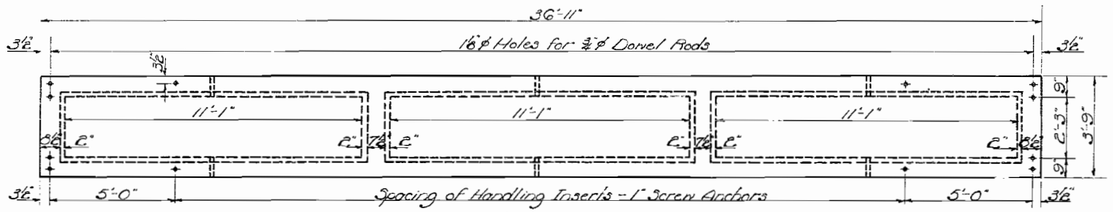
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F.A. 30	21B	PUTNAM BUREAU	113	50
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

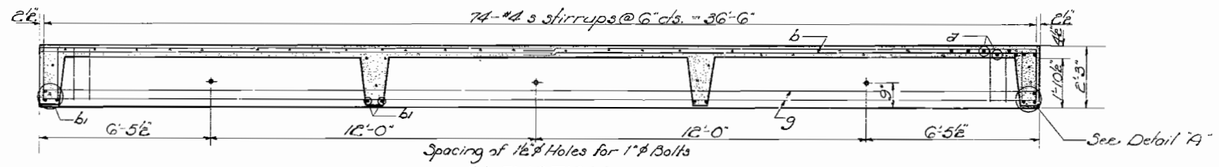
SHEET NO. 3
4 SHEETS



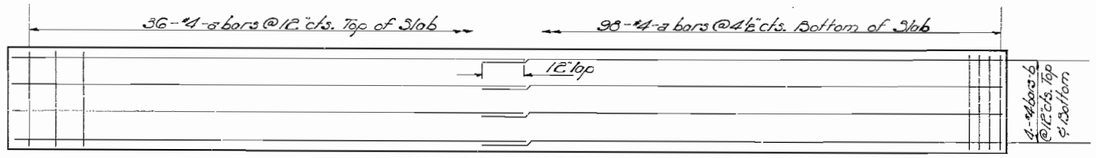
ELEVATION



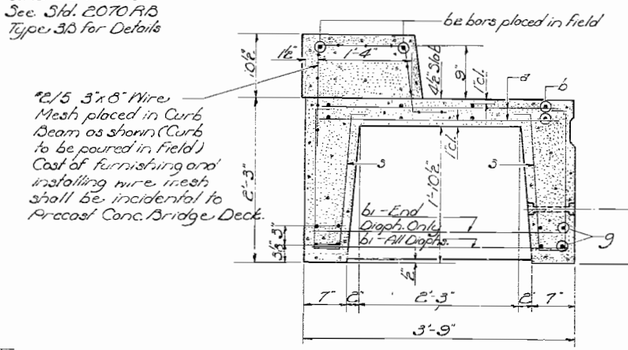
PLAN



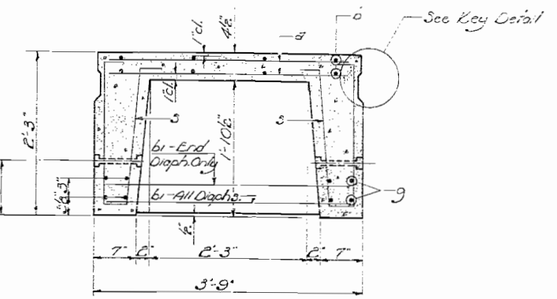
ELEVATION
SECTION ALONG ℄ BEAM



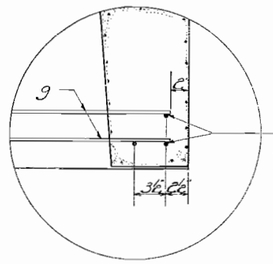
PLAN
SHOWING SLAB REINFORCEMENT



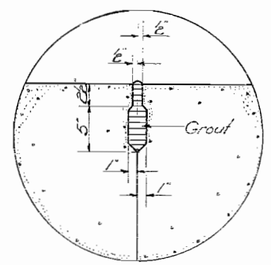
SECTION THRU CURB UNIT
2 Required



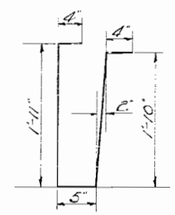
SECTION THRU INTERIOR UNIT
10 Required



DETAIL "A"

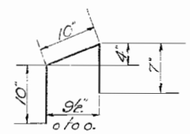


KEY DETAIL

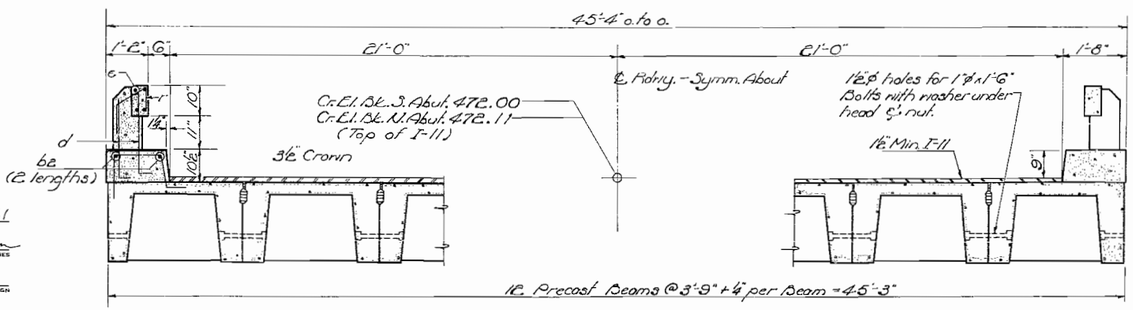


BAR-s

BAR-d



BAR-r



CROSS SECTION

SECTION THRU ABUTMENTS

BILL OF MATERIAL
ONE PRECAST BEAM

Bar	No.	Size	Length	Weight
a	134	#4	3'-3"	291
b	76	#4	18'-10"	201
b1	10	#4	3'-6"	34
g	8	#11	36'-7	1555
s	148	#4	4'-10"	478
Class X Concrete		Cu. Yd.		5.8
Reinforcement Bars		Lb.		2643
Total Weight of Beam		Lb.		23490

BILL OF MATERIAL
CURB & HANDRAIL

Bar	No.	Size	Length	Shape
be	8	#5	19'-0"	—
d	52	#5	6'-6"	⌊
c	16	#5	17'-4"	—
r	84	#4	2'-3"	⌐
Class X Concrete			Cu. Yd.	4.2
Handrail Concrete			Cu. Yd.	1.9
Reinforcement Bars			Lb.	620

DESIGNED	C. W. Glick
CHECKED	R. K. Taylor
DRAWN	C. W. G. M. J. Jacobs
CHECKED	R. K. T.

Oct 6 1961

EXAMINED W. E. Bunman
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES

PASSED E. E. Shenk
ENGINEER OF DESIGN

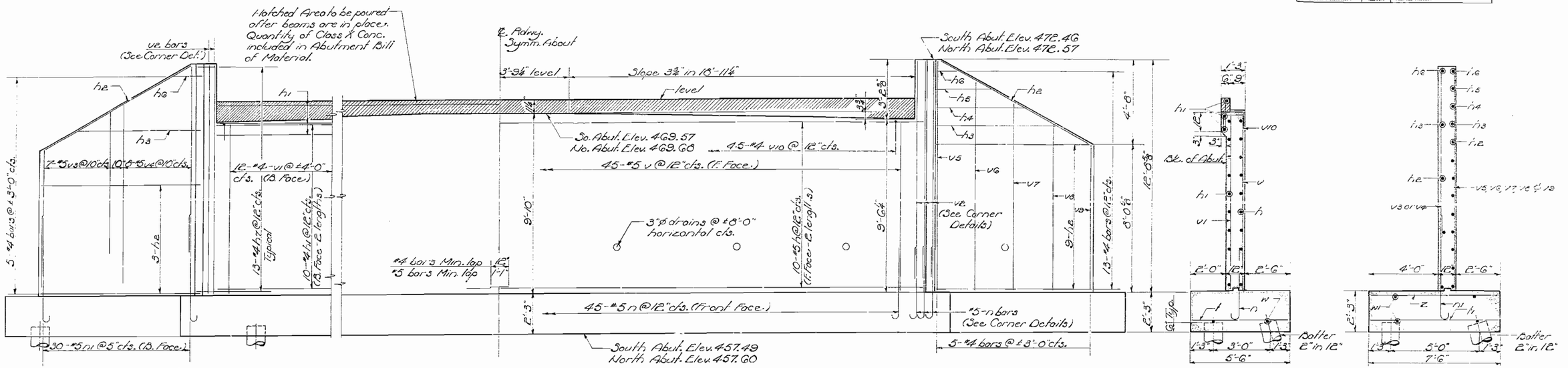
APPROVED V. P. Bartholomew
CHIEF HIGHWAY ENGINEER

SUPERSTRUCTURE
F.A.RT. 30 - SEC. 21B
PUTNAM COUNTY
STA. 113+00

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 30	21B	PUTNAM BUREAU	113	57
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 4
4 SHEETS

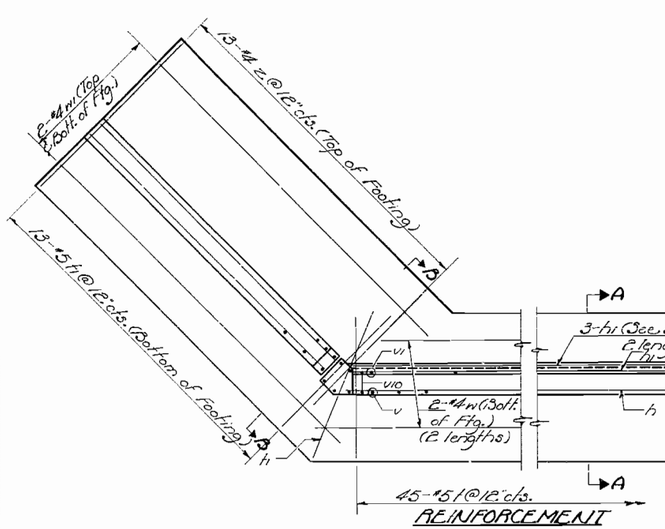


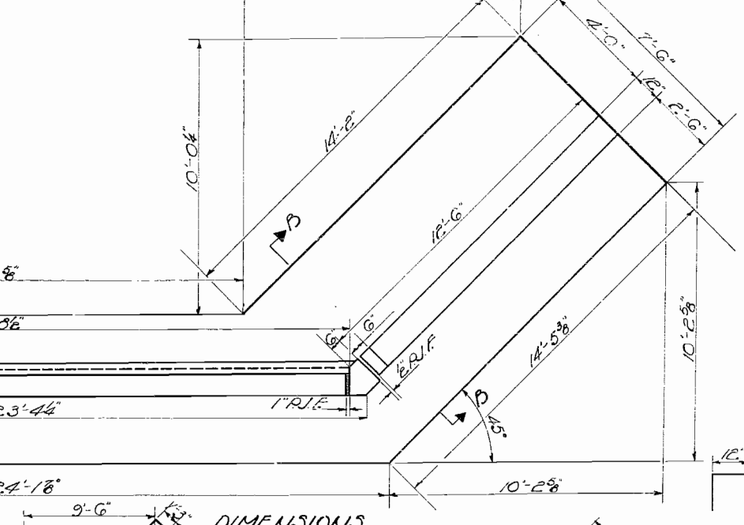
BACK REINFORCEMENT

ELEVATION

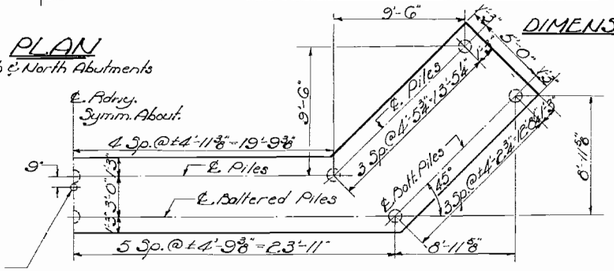
SECTION A-A

SECTION B-B



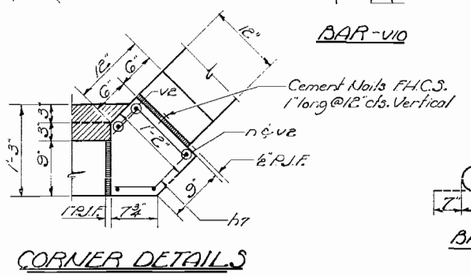


PLAN
South & North Abutments



PILE SPACING

DIMENSIONS



BAR-v10

BAR-h7

BARS n & n1

PILE DATA
Type: Creosoted
Capacity: 20 Tons
Estd. Length: 33 Ft.
No. Req'd.: 64 +/- Test Pile.

DESIGNED	C.W. Glick
CHECKED	R.K. Taylor
DRAWN	C.W.G. w/ Jacobs
CHECKED	R.K.T.

OCT 6 1961
EXAMINED H.C. Baumann, ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED E.A. Bleuer, ENGINEER OF DESIGN
APPROVED [illegible], CHIEF HIGHWAY ENGINEER

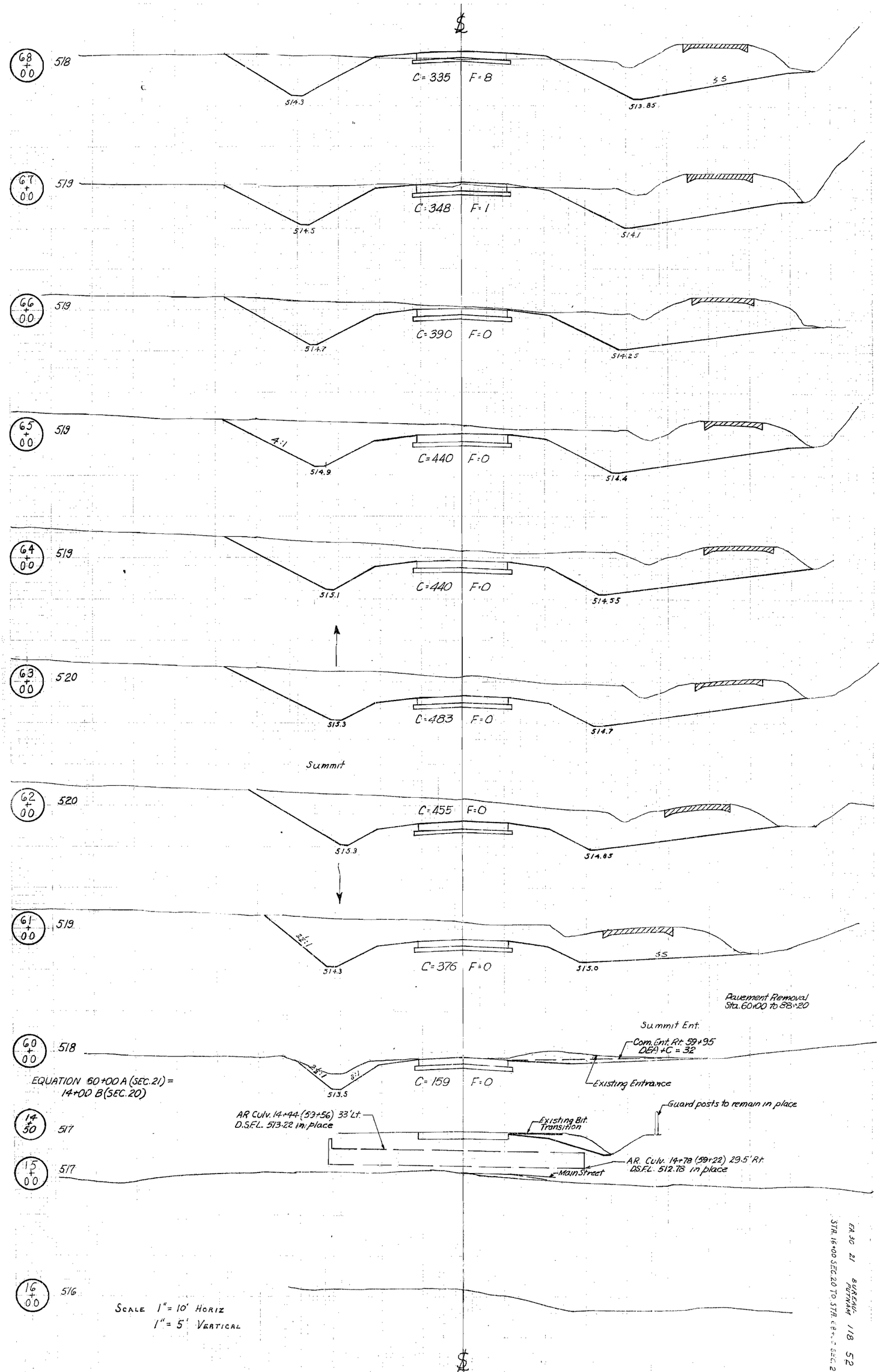
2 ABUTMENTS
BILL OF MATERIAL.

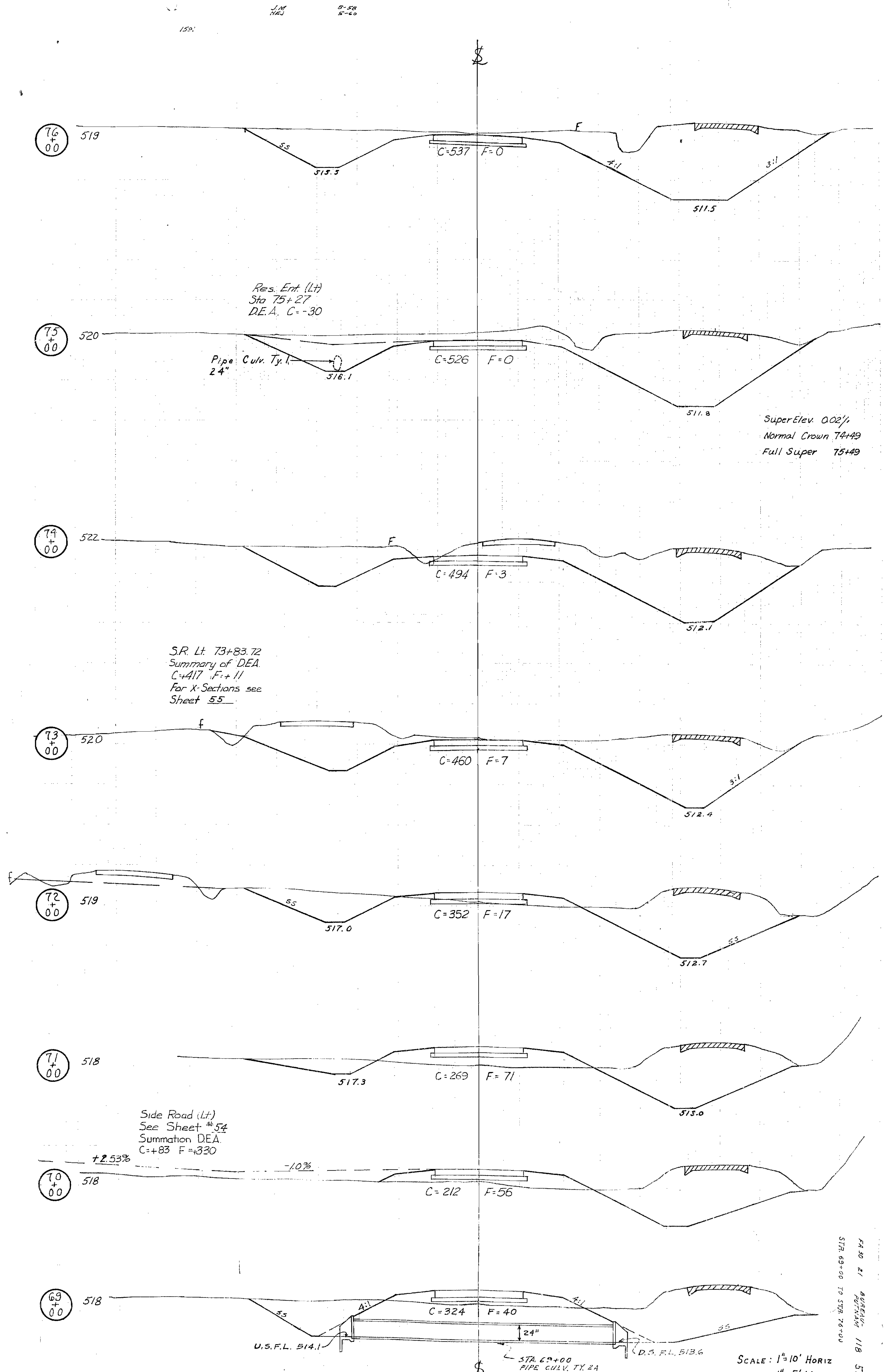
Bar	No.	Size	Length	Shape
h	40	#5	23'-2"	—
h1	52	#4	23'-0"	—
h2	56	#4	16'-3"	—
h3	6	#4	9'-6"	—
h4	4	#4	7'-0"	—
h5	4	#4	4'-6"	—
h6	8	#4	1'-9"	—
h7	52	#4	2'-3"	⊃
n	102	#5	4'-4"	⊔
n1	120	#5	6'-4"	⊔
t	90	#5	5'-3"	—
h1	36	#5	7'-3"	—
v	90	#5	9'-3"	—
v1	24	#4	9'-3"	—
v2	20	#5	12'-6"	—
v3	28	#5	7'-6"	—
v4	32	#5	9'-9"	—
v5	4	#4	12'-5"	—
v6	4	#4	11'-3"	—
v7	4	#4	10'-1"	—
v8	4	#4	8'-0"	—
v9	4	#4	7'-9"	—
v10	90	#4	2'-6"	⊏
n	8	#4	24'-6"	—
n1	16	#4	14'-6"	—
z	52	#4	7'-3"	—
Class X Concrete			Cu Yd.	13.4
Reinforcement Bars			Lb.	7210
Creosoted Piles			Lin. Ft.	2,112
Test Piles (Timber)			Each	1
Class A Excav. Struct.			Cu Yd.	55
Class B Excav. Struct.			Cu Yd.	276

ABUTMENTS
F.A. RT. 30 - SEC. 21B
PUTNAM COUNTY
STA. 113+00

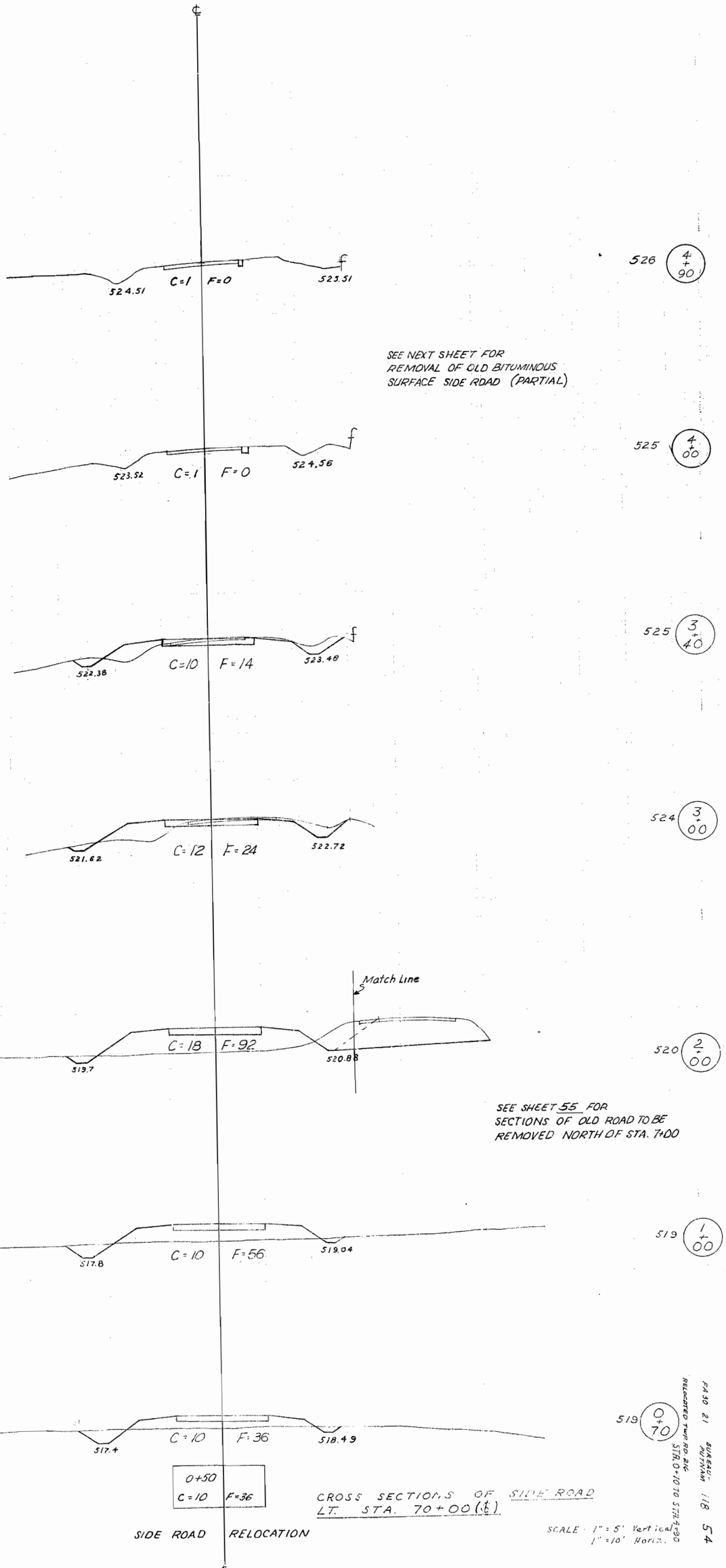
J. Meyer D.P.C. & M.E.J. 8-58 5-60

1591

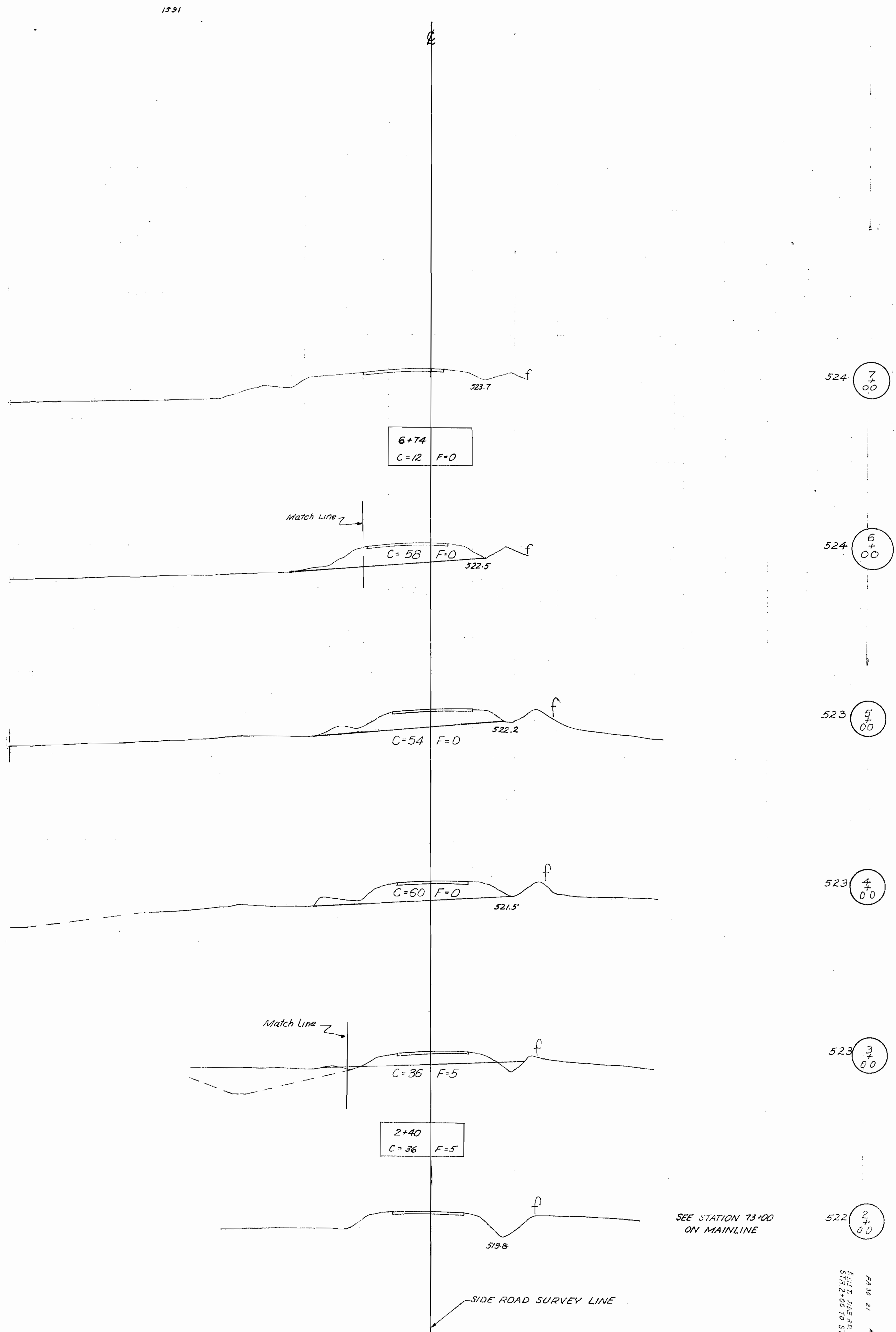




J.M.
HEJ
8-58
5-60
76+00
519
515.5
C=537
F=0
4:1
3:1
511.5
Res. Ent. (Lt)
Sta 75+27
D.E.A. C=-30
75+00
520
Pipe Culv. Ty. I
24"
516.1
C=526
F=0
511.8
SuperElev. 0.02'/'
Normal Crown 74+49
Full Super 75+49
74+00
522
C=494
F=3
512.1
S.R. Lt. 73+83.72
Summary of D.E.A.
C+417 F+11
For X-Sections see
Sheet 55
73+00
520
C=460
F=7
3:1
512.4
72+00
519
517.0
C=352
F=17
512.7
71+00
518
517.3
C=269
F=71
513.0
Side Road (Lt)
See Sheet #54
Summation D.E.A.
C=+83 F=+330
+2.53%
-1.0%
70+00
518
C=212
F=56
69+00
518
4:1
C=324
F=40
24"
U.S.F.L. 514.1
D.S. F.L. 513.6
STA. 69+00
PIPE CULV. TY. 2A
FA 30 21 BUREAU-PUTNAM 118 53
STA. 69+00 TO STA. 76+00
SCALE: 1"=10' HORIZ
1"=5' VERT.

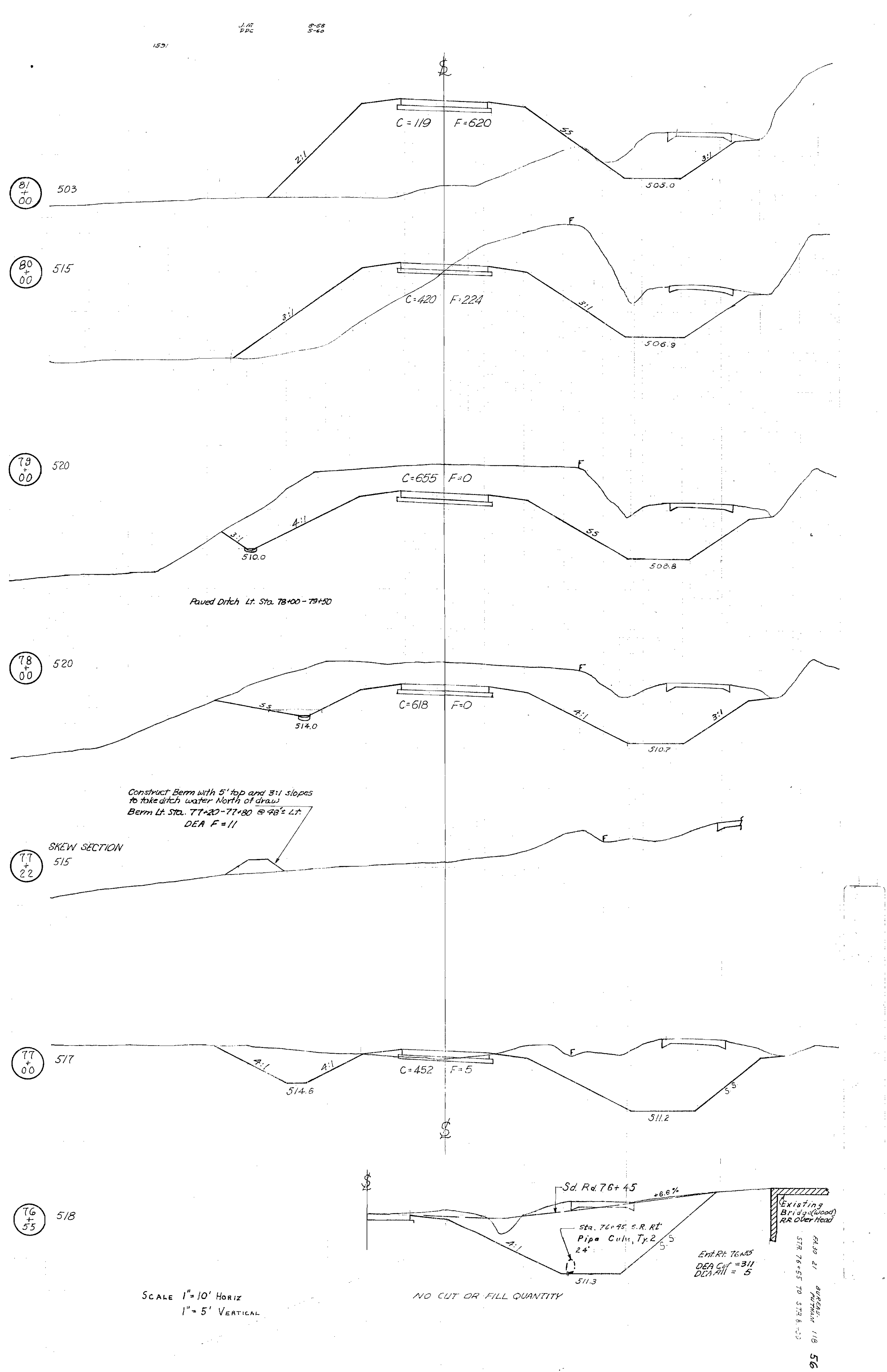

℄
526 4+90
524.51
C=1
F=0
523.51
SEE NEXT SHEET FOR
REMOVAL OF OLD BITUMINOUS
SURFACE SIDE RDAD (PARTIAL)
525 4+00
523.52
C=1
F=0
524.56
525 3+40
522.38
C=10
F=14
523.48
524 3+00
521.62
C=12
F=24
522.72
Match Line
520 2+00
519.7
C=18
F=92
520.88
SEE SHEET 55 FOR
SECTIONS OF OLD ROAD TO BE
REMOVED NORTH OF STA. 7+00
519 1+00
517.8
C=10
F=56
519.04
519 0+70
517.4
C=10
F=36
518.49
0+50
C=10
F=36
SIDE ROAD RELOCATION
CROSS SECTIONS OF SIDE ROAD
LT. STA. 70+00 (℄)
SCALE 1"=5' Vertical
1"=10' Horiz.
FAS 21 BUREAU-PUTNAM 118 54
RELOCATED TWP RD 216
STA. 0+10 TO STA. 4+90

EXIST. SIDE RD. STA. 73+83
STA. 2+00 TO STA. 7+00

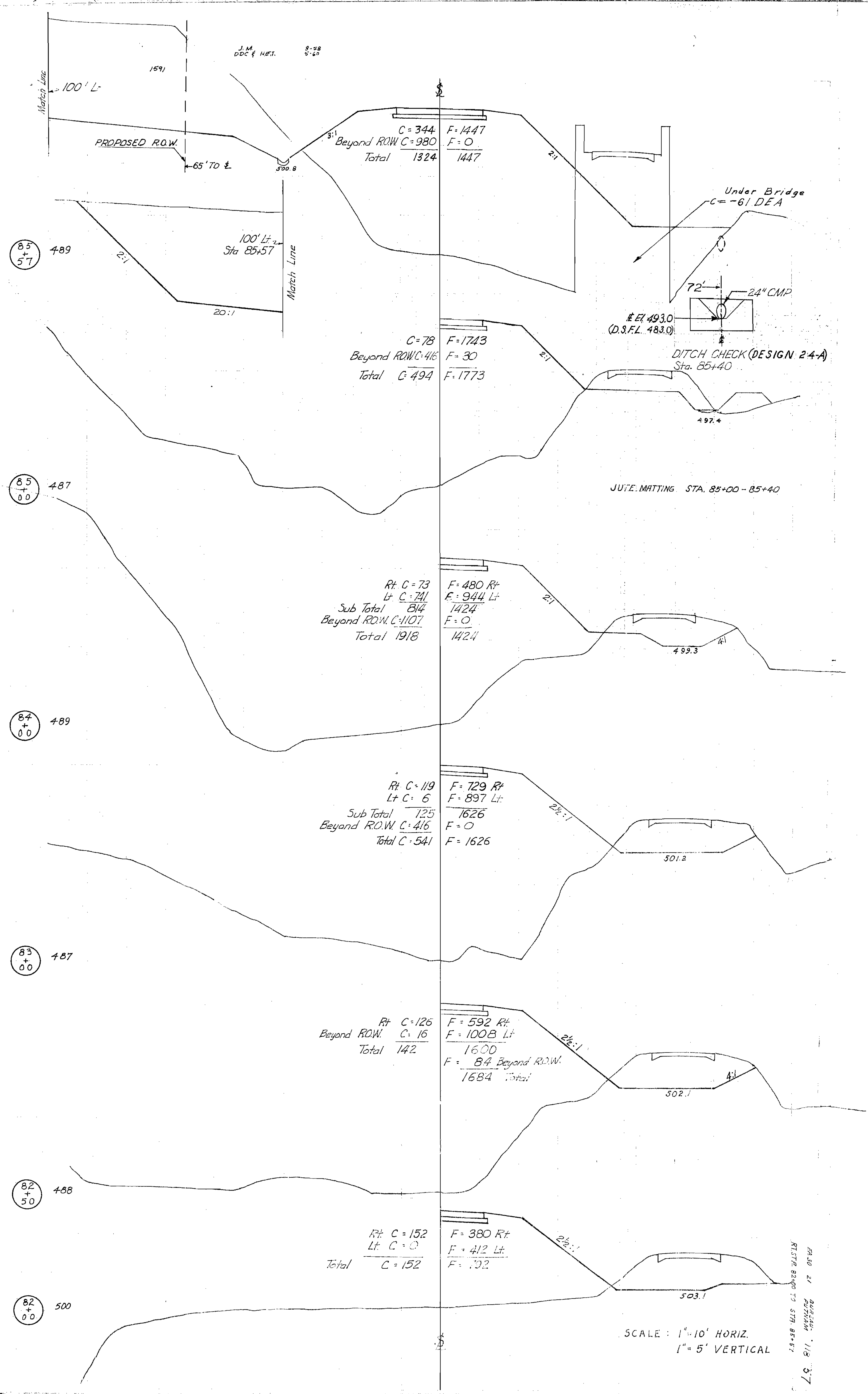


CROSS SECTIONS OF EXISTING SIDE ROAD
LT. STA. 73+83.72 ℄ = STA. 1+33.07 SIDE ROAD

SCALE: 1" = 5' VERTICAL
1" = 10' HORIZ.



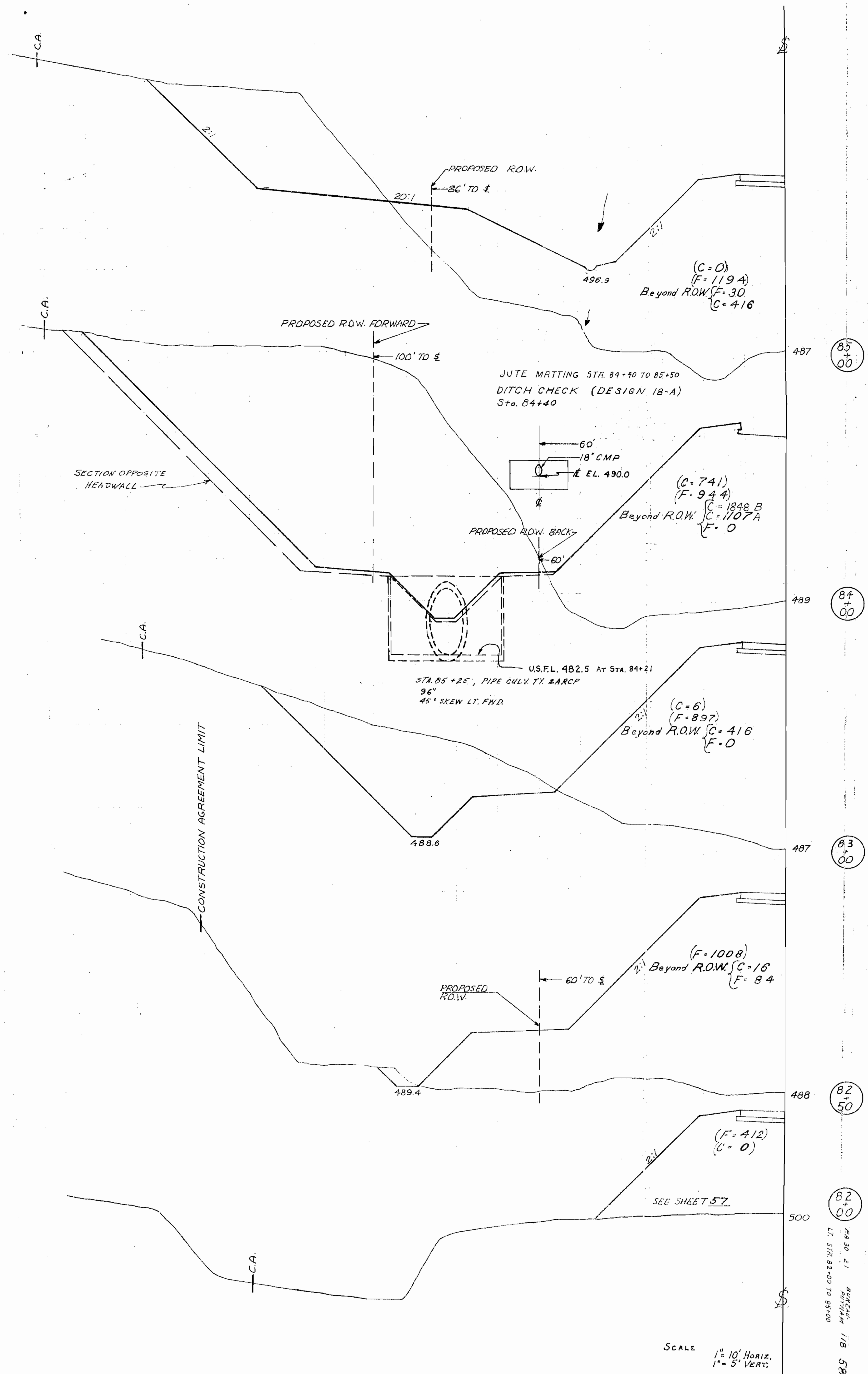
F.A. 30 21 BUREAU-PUTNAM 118 56
STA. 76+55 TO STA. 8...
J.M. DDC
8-58 5-60
1531
81+00 503
C=119 F=620
2:1
5.5
3:1
505.0
80+00 515
C=420 F=224
3:1
3:1
506.9
79+00 520
C=655 F=0
4:1
3:1
510.0
5.5
508.8
Paved Ditch Lt. Sta. 78+00 - 79+50
78+00 520
C=618 F=0
5.5
514.0
4:1
3:1
510.7
Construct Berm with 5' top and 3:1 slopes to take ditch water North of draw
Berm Lt. Sta. 77+20 - 77+80 @ 48'± Lt.
DEA F=11
SKEW SECTION
77+22 515
77+00 517
4:1
4:1
514.6
C=452 F=5
5.5
511.2
76+55 518
Sd. Rd. 76+45
+6.6%
Sta. 76+45 S.R. Rt.
Pipe Culv. Ty. 2
24"
4:1
5.5
511.3
Existing Bridge (Wood) R.R. Over Head
Ent. Rt. 76+55
DEA Cut = 311
DEA Fill = 5
NO CUT OR FILL QUANTITY
SCALE 1" = 10' HORIZ
1" = 5' VERTICAL



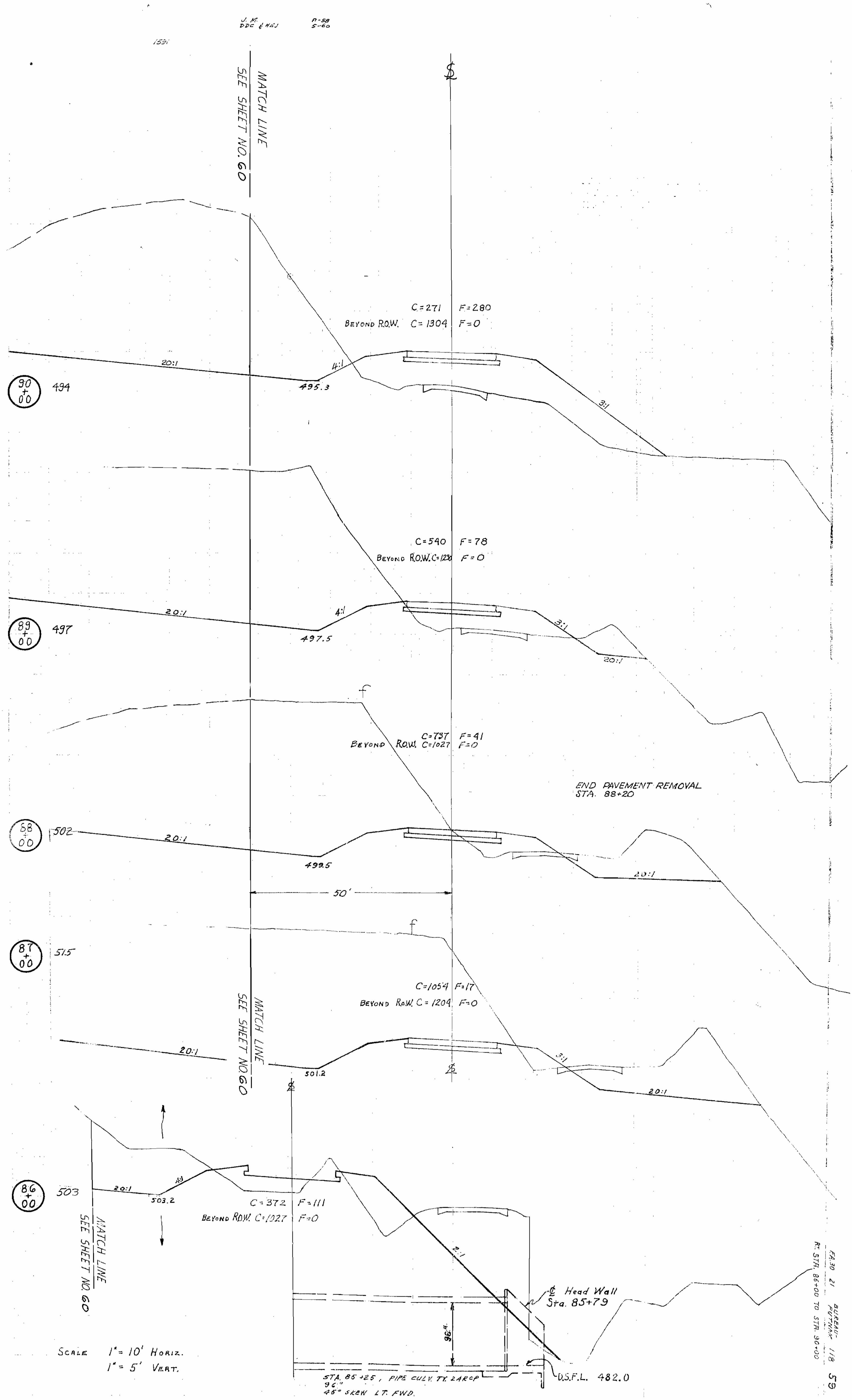
Match Line
100' Lt
1591
J.M. DDC & HET.
8-58 5-60
PROPOSED R.O.W.
65' TO ℄
500.8
3:1
C = 344 F = 1447
Beyond R.O.W. C = 980 F = O
Total 1324 1447
2:1
Under Bridge
C = -61 DEA
100' Lt
Sta 85+57
Match Line
2:1
20:1
85+57 489
72'
24" CMP
℄ El. 493.0
(D.S.F.L. 483.0)
DITCH CHECK (DESIGN 24-A)
Sta. 85+40
C = 78 F = 1743
Beyond ROW C = 416 F = 30
Total C = 494 F = 1773
2:1
497.4
85+00 487
JUTE MATTING STA. 85+00 - 85+40
Rt C = 73 F = 480 Rt
Lt C = 741 F = 944 Lt
Sub Total 814 1424
Beyond R.O.W. C = 1107 F = O
Total 1918 1424
2:1
499.3
4:1
84+00 489
Rt C = 119 F = 729 Rt
Lt C = 6 F = 897 Lt
Sub Total 125 1626
Beyond R.O.W. C = 416 F = O
Total C = 541 F = 1626
2½:1
501.2
83+00 487
Rt C = 126 F = 592 Rt
Beyond R.O.W. C = 16 F = 1008 Lt
Total 142 1600
F = 84 Beyond R.O.W.
1684 Total
2½:1
4:1
502.1
82+50 488
Rt C = 152 F = 380 Rt
Lt C = O F = 412 Lt
Total C = 152 F = 792
2½:1
503.1
82+00 500
SCALE: 1" = 10' HORIZ.
1" = 5' VERTICAL
FA 30 21 BUREAU-PUTNAM 118 57
RT. STA. 82+00 TO STA. 85+57

J. MAURER 8-58
J.A.M. 8-60

1591



F.A. 30 21 BUREAU-PUTNAM 118 58
LT. STA. 82+00 TO 85+00



J.K.
DDC & HEJ
P-58
5-60
MATCH LINE
SEE SHEET NO. 60
C=271 F=280
BEYOND R.O.W. C=1304 F=0
20:1
4:1
495.3
3:1
494
90+00
C=540 F=78
BEYOND R.O.W. C=1236 F=0
20:1
4:1
497.5
3:1
20:1
497
89+00
C=737 F=41
BEYOND R.O.W. C=1027 F=0
END PAVEMENT REMOVAL
STA. 88+20
502
88+00
20:1
499.5
20:1
50'
87+00
51.5
C=1054 F=17
BEYOND R.O.W. C=1204 F=0
20:1
501.2
3:1
20:1
MATCH LINE
SEE SHEET NO. 60
86+00
503
20:1
503.2
4:1
C=37.2 F=111
BEYOND R.O.W. C=1027 F=0
2:1
MATCH LINE
SEE SHEET NO. 60
℄ Head Wall
Sta. 85+79
36"
STA. 85+25, PIPE CULV. TY. 2 ARCP
96"
45° SKEW LT. FWD.
D.S.F.L. 482.0
SCALE 1" = 10' HORIZ.
1" = 5' VERT.
F.A. 30 21 BUREAU-PUTNAM 118 59
RT. STA. 86+00 TO STA. 90+00

FA.30 21 BUREAU-PUTNAM 118 GO

LT. STA. 86+00 TO 90+00

90+00 | 494 | 89+00 | 497 | 88+00 | 502 | 87+00 | 515 | 86+00 | 503

JUTE MAT STA. 90+00-91+13

50' R.O.W.

MATCH LINE
SEE SHEET NO. 58

MATCH LINE
SEE SHEET NO. 59

C=1304 F=0

C=1230 F=0

C=1027 F=0

C=1204 F=0

C=1027 F=0

4:1

20:1

2:1

C.A.

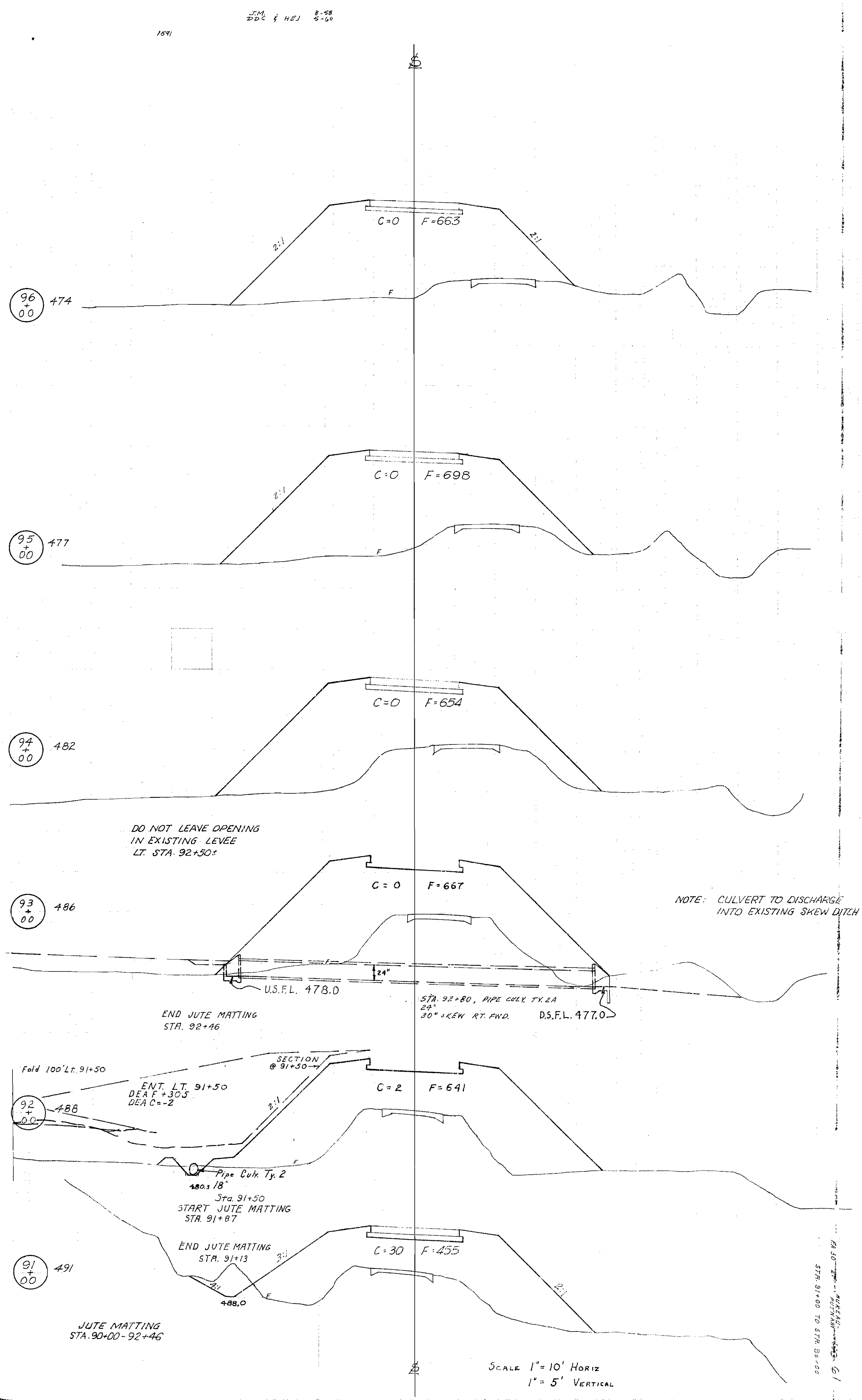
THIS MATERIAL MUST REMAIN IN PLACE TO PREVENT WATER FROM FLOWING AWAY FROM ℄

CONSTRUCTION AGREEMENT LIMIT

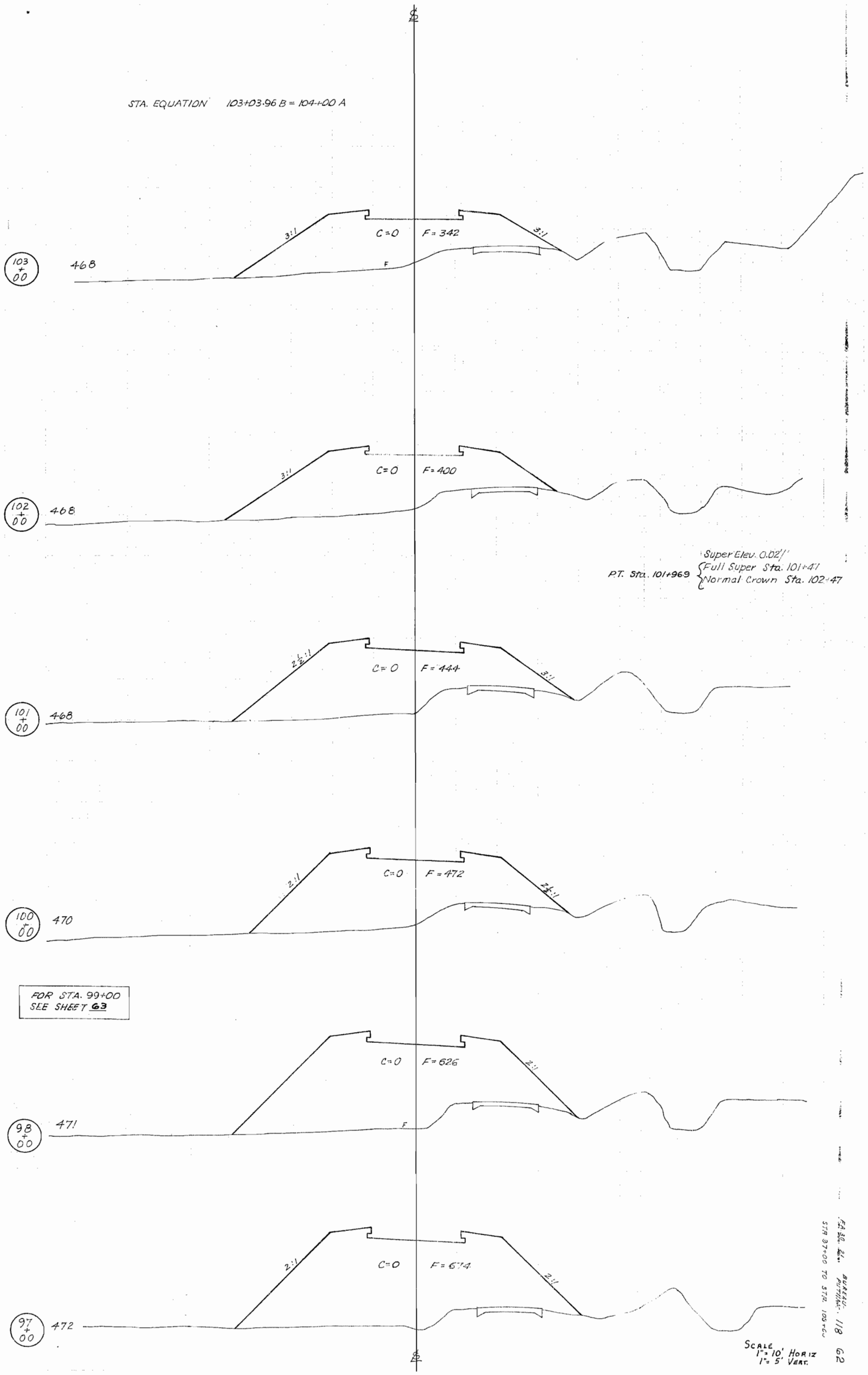
END JUTE MATTING
STA. 85+50

FOR EARTHWORK QUANTITIES
SEE SHEET 58

SCALE: 1"= 10' HORIZ.
1"= 5' VERTICAL

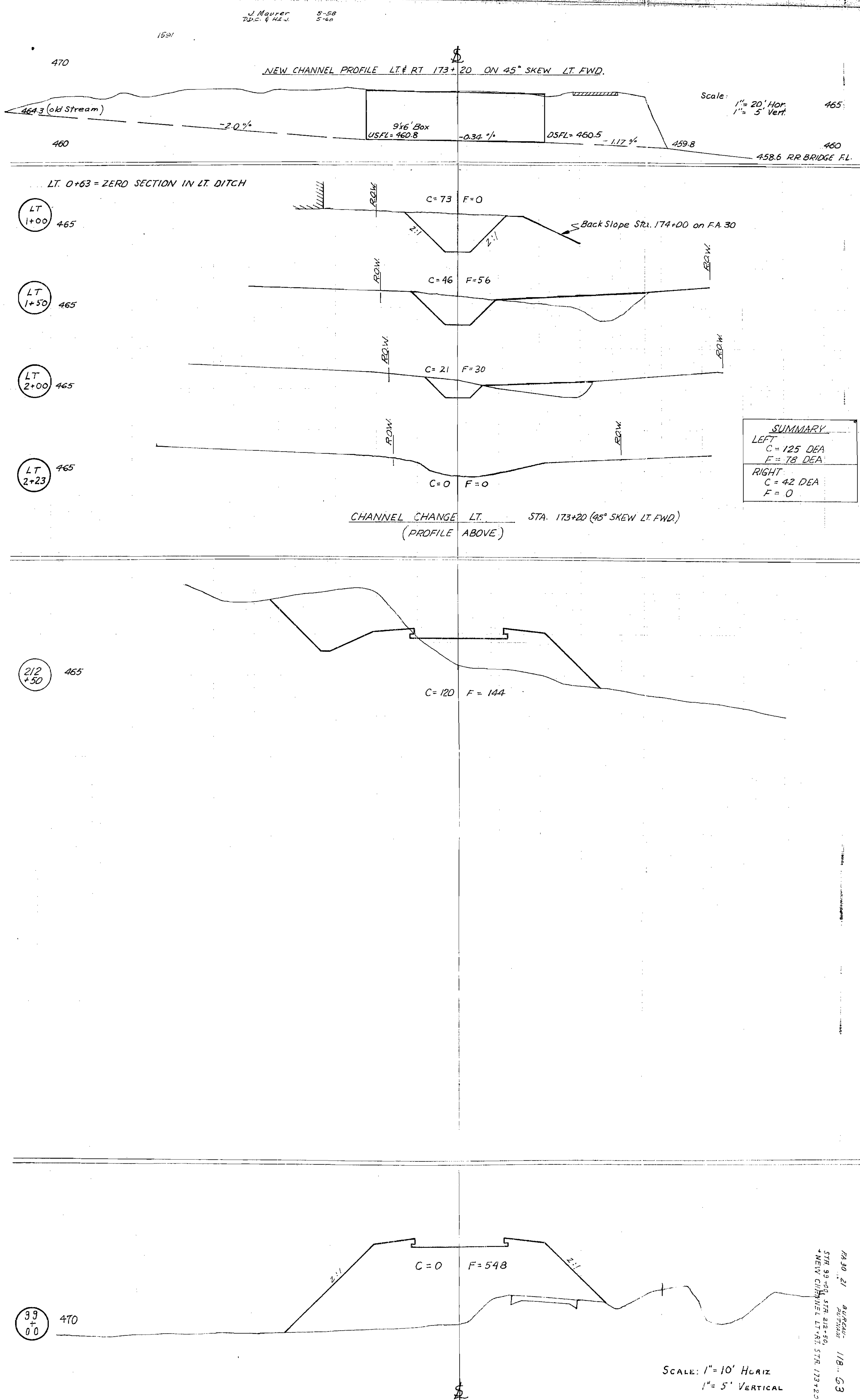

J.M. DDC & HEJ 8-58 5-60
1591
C=0 F=663
2:1
96+00 474
F
C=0 F=698
95+00 477
C=0 F=654
94+00 482
DO NOT LEAVE OPENING IN EXISTING LEVEE LT. STA. 92+50±
C = 0 F = 667
93+00 486
NOTE: CULVERT TO DISCHARGE INTO EXISTING SKEW DITCH
24"
U.S.F.L. 478.0
STA. 92+80, PIPE CULV. TY. 2A 24" 30° SKEW RT. FWD.
D.S.F.L. 477.0
END JUTE MATTING STA. 92+46
Fold 100' LT. 91+50
SECTION @ 91+50
ENT. LT. 91+50
DEA F +305
DEA C=-2
C = 2 F = 641
92+00 488
Pipe Culv. Ty. 2 18"
480.3
Sta. 91+50
START JUTE MATTING STA. 91+87
END JUTE MATTING STA. 91+13
3:1
C=30 F=455
91+00 491
488.0
JUTE MATTING STA. 90+00 - 92+46
SCALE 1" = 10' HORIZ
1" = 5' VERTICAL
STA. 91+00 TO STA. 96+00
61

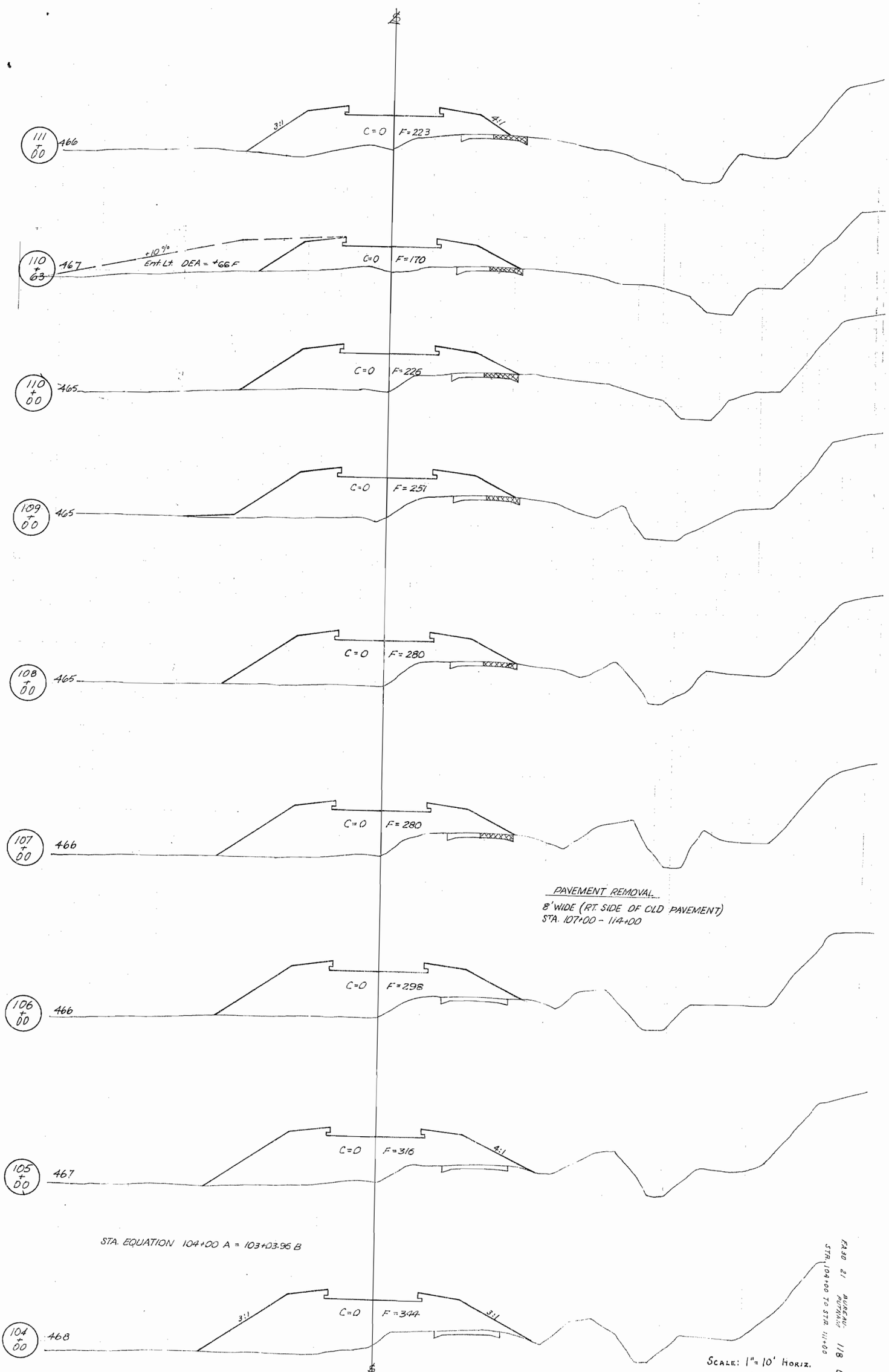
STA. EQUATION 103+03.96 B = 104+00 A



SCALE
1" = 10' HORIZ
1" = 5' VERT.

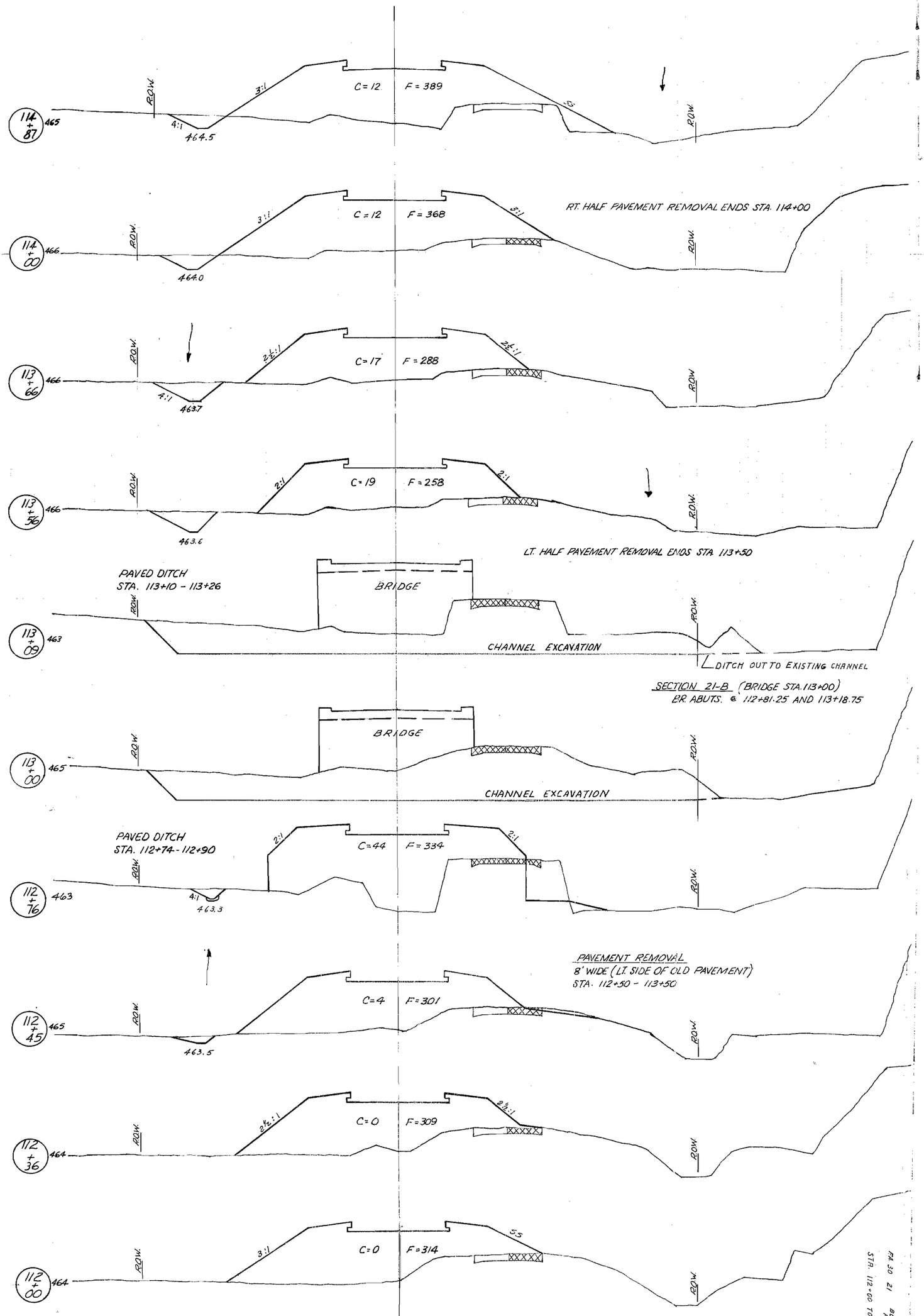
STA 97+00 TO STA 103+00


J. Maurer 8-58
T.D.C. & H.E.J. 5-60
1591
NEW CHANNEL PROFILE LT.& RT. 173+20 ON 45° SKEW LT. FWD.
Scale: 1" = 20' Hor. 1" = 5' Vert.
470
465
464.3 (old Stream)
-2.0%
9'x6' Box
USFL = 460.8
-0.34%
DSFL = 460.5
-1.17%
459.8
460
458.6 RR BRIDGE F.L.
LT. 0+63 = ZERO SECTION IN LT. DITCH
LT 1+00
C = 73 F = 0
Back Slope Sta. 174+00 on F.A. 30
2:1
ROW
LT 1+50
C = 46 F = 56
LT 2+00
C = 21 F = 30
LT 2+23
C = 0 F = 0
SUMMARY
LEFT
C = 125 DEA
F = 78 DEA
RIGHT
C = 42 DEA
F = 0
CHANNEL CHANGE LT. STA. 173+20 (45° SKEW LT. FWD.)
(PROFILE ABOVE)
212+50
C = 120 F = 144
99+00
C = 0 F = 548
FA 30 21 BUREAU-PUTNAM 118 - 63
STA. 99+00, STA. 212+50, + NEW CHANNEL LT.+RT. STA. 173+20
SCALE: 1" = 10' HORIZ 1" = 5' VERTICAL



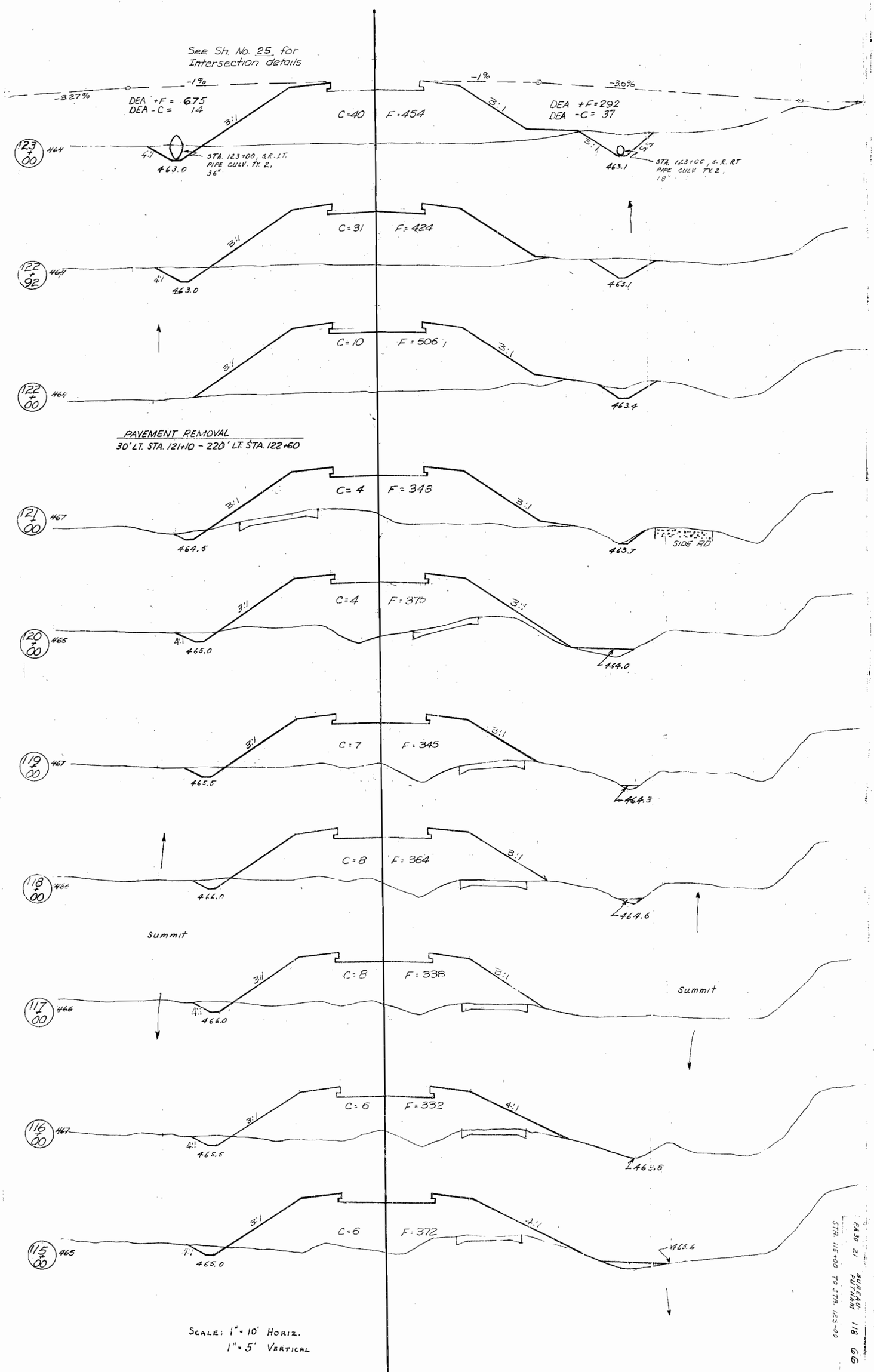
SCALE: 1" = 10' HORIZ.
1" = 5' VERT.

FA 30 21 BUREAU PUTNAM 118 64
STR. 104+00 TO STR. 114+00

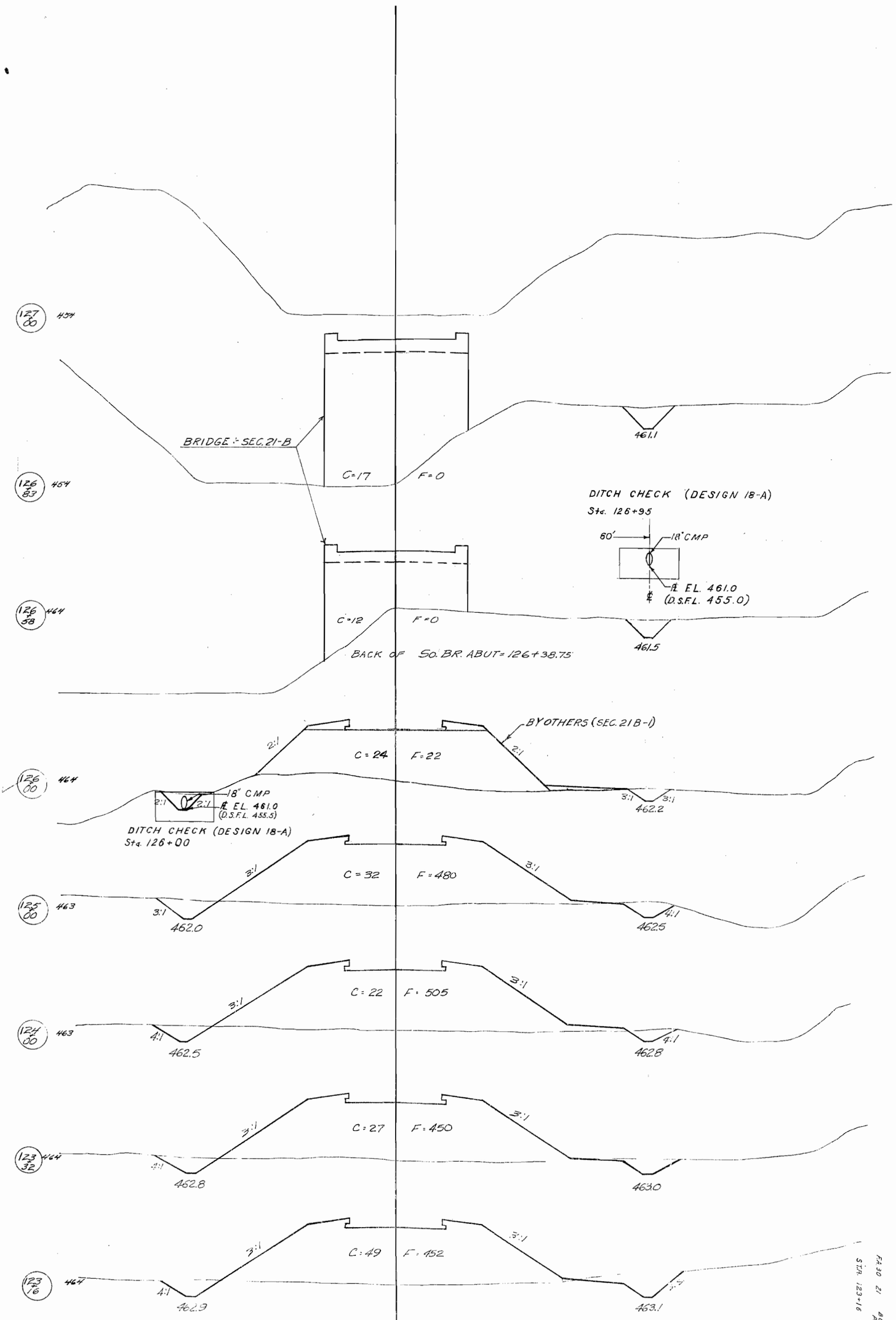


SCALE: 1" = 10' HORIZ.
1" = 5' VERT.

FM 30 21 BUREAU PUTNAM 118
STA. 112+00 TO STA. 114+87


See Sh. No. 25 for Intersection details
-3.27%
-1%
DEA +F = 675
DEA -C = 14
3:1
C=40
F=454
-1%
-30%
DEA +F=292
DEA -C= 37
123+00
464
4:1
463.0
STA. 123+00, S.R. LT. PIPE CULV. TY. 2, 36"
463.1
STA. 123+00, S.R. RT PIPE CULV. TY 2, 18"
C=31
F=424
122+92
464
463.0
463.1
C=10
F=506
122+00
464
463.4
PAVEMENT REMOVAL
30' LT. STA. 121+10 - 220' LT. STA. 122+60
C=4
F=348
121+00
467
464.5
463.7
SIDE RD
C=4
F=375
120+00
465
465.0
464.0
C=7
F=345
119+00
467
465.5
464.3
C=8
F=364
118+00
466
466.0
464.6
Summit
C=8
F=338
117+00
466
466.0
Summit
C=6
F=332
116+00
467
465.5
463.6
C=6
F=372
115+00
465
465.0
463.6
SCALE: 1" = 10' HORIZ.
1" = 5' VERTICAL
FAS 21 BUREAU 118 66
STA. 115+00 TO STA. 123+00

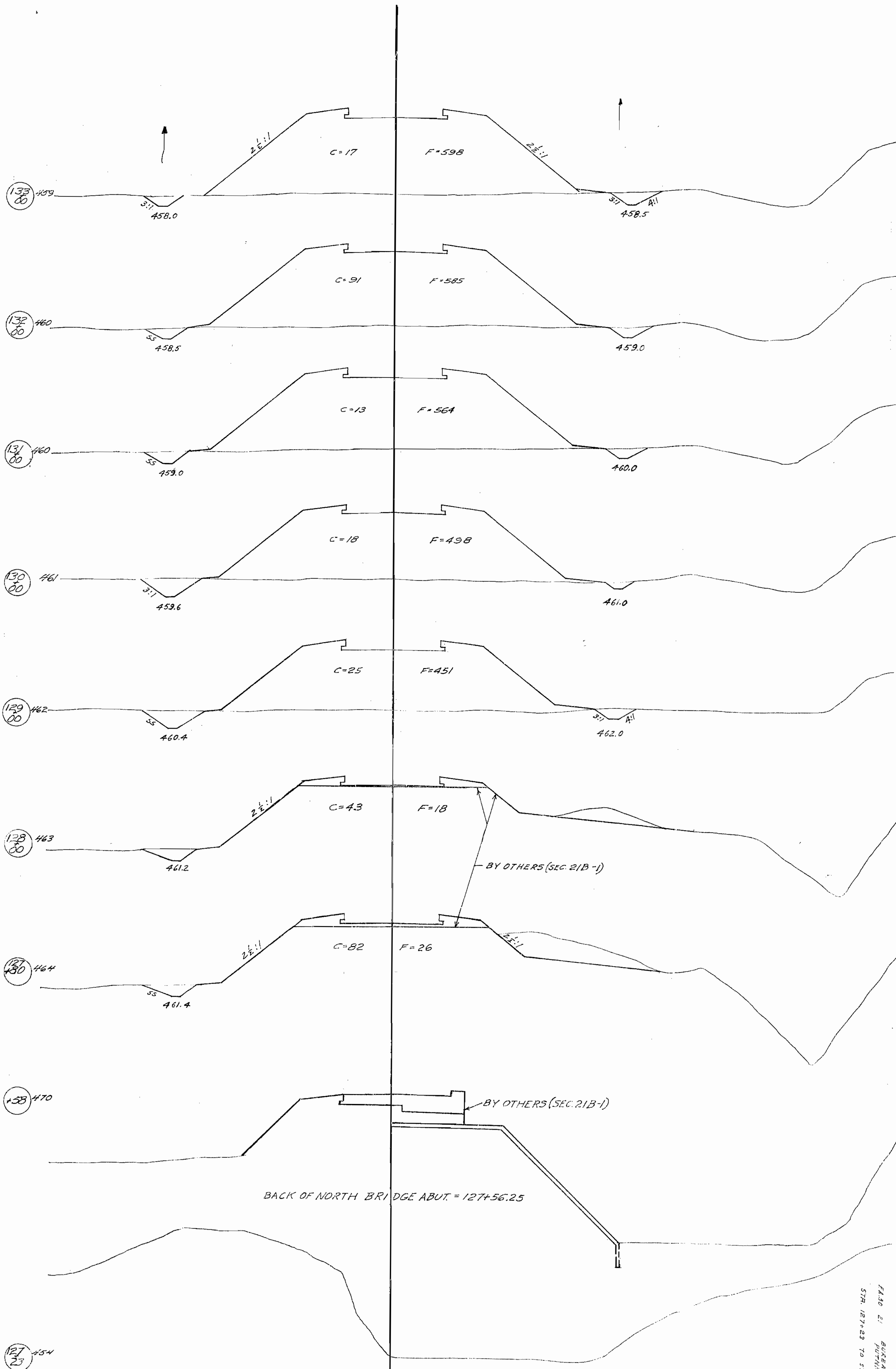
CESCRPK 9-59



SCALE: 1"=10' HORIZ.
1"=5' VERTICAL

FA 30 21 BRUNSWICK
STA. 123+16 TO STA. 127+00

CES CAPK 9-59



SCALE: 1" = 10' HORIZ.
1" = 5' VERTICAL

FA 30 21 BUREAU-PUTNAM 118 68
STA. 127+23 TO STA. 133+00

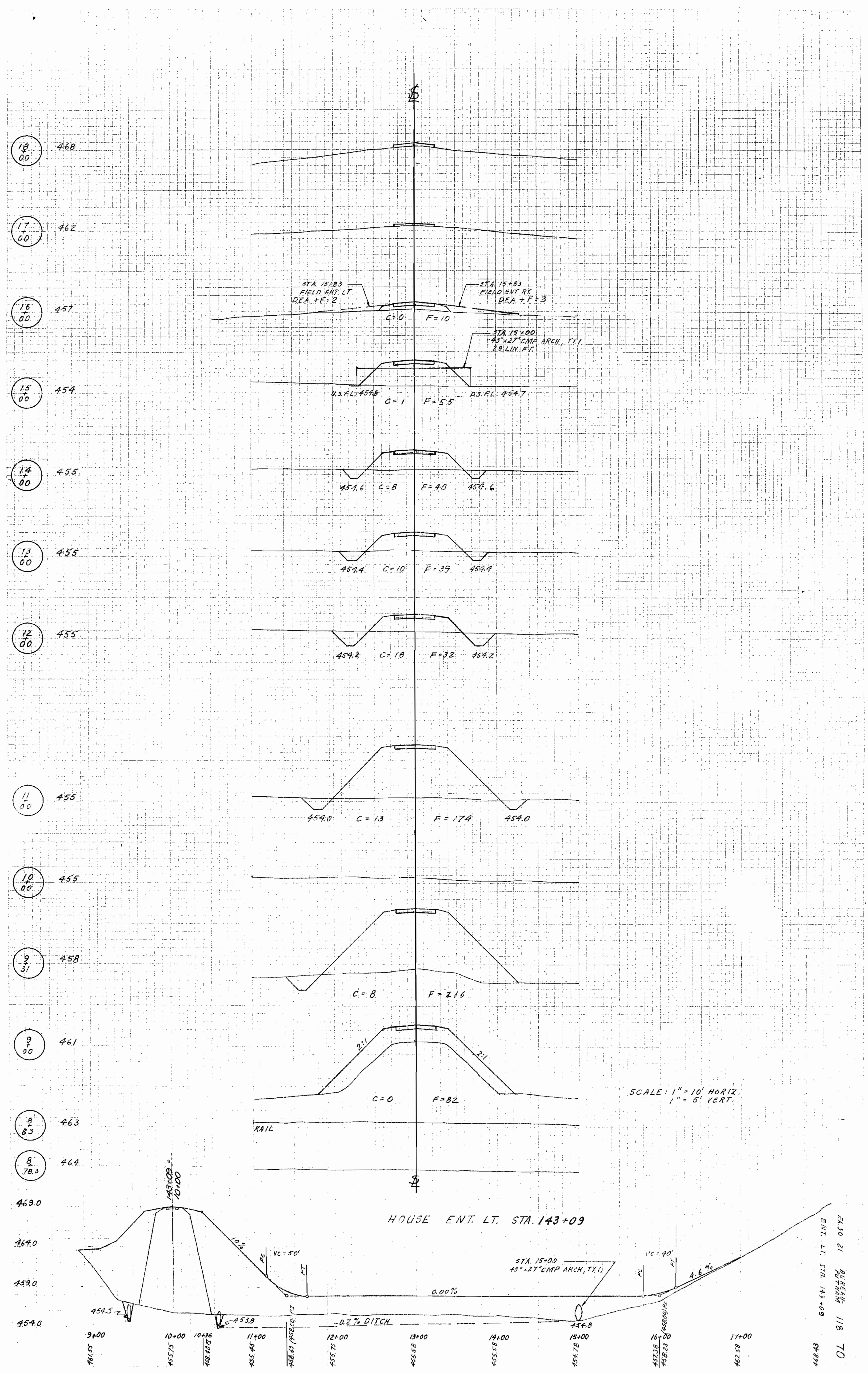
FA 30 21 BUREAU PUTNAM 118 69

STA. 134+00 TO STA. 143+00

SCALE: 1" = 10' HORIZ.
1" = 5' VERTICAL

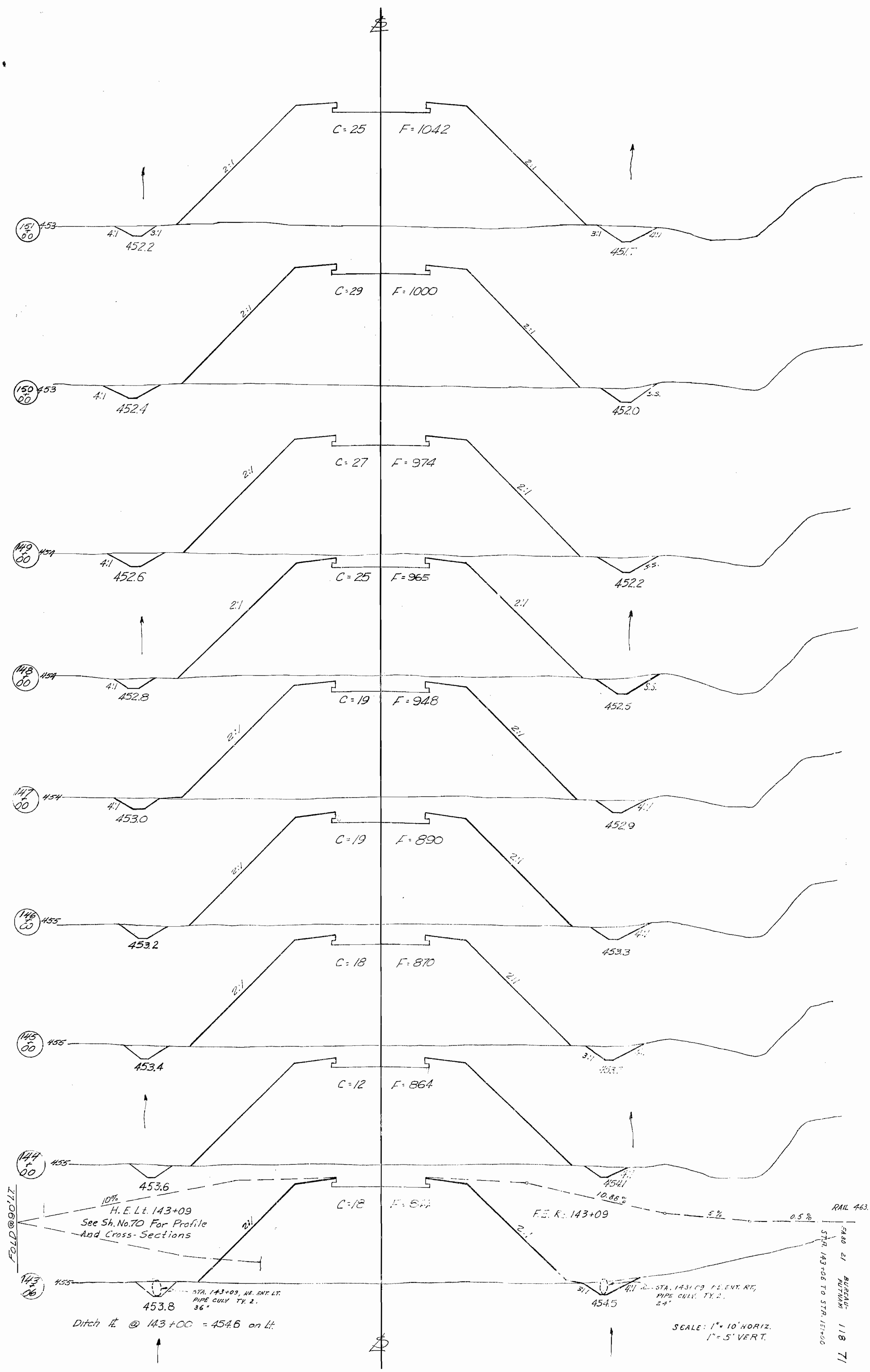
143+00	142+00	141+00	140+00	139+00	138+00	137+00	136+00	135+00	134+00	
454.5	454.9	455.3	455.7	456.1	456.5	456.9	457.3	457.7	458.1	
4:1	4:1	4:1	4:1	4:1	4:1	4:1	4:1	4:1	4:1	
3:1									3:1	
2:1	2:1	2:1	2:1	2:1	2:1	2:1	2:1	2:1	2:1	
F = 856	F = 808	F = 779	F = 726	F = 698	F = 646	F = 610	F = 562	F = 583	F = 606	
C = 16	C = 14	C = 12	C = 15	C = 21	C = 27	C = 26	C = 29	C = 15	C = 17	
1:2	1:2	1:2	1:2	1:2	1:2	1:2	1:2	1:2	1:2	
453.8	454.4	455.0	455.6	456.2	456.5	456.8	457.1	457.4	457.7	
3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1	
455	456	456	456	457	457	458	458	458	459	
143+00	142+00	141+00	140+00	139+00	138+00	137+00	136+00	135+00	134+00	

ROUTES 30-59



18+00 468
17+00 462
16+00 457
STA. 15+83 FIELD ENT. LT. DEA. + F = 2
STA. 15+83 FIELD ENT. RT. DEA. + F = 3
C = 0 F = 10
15+00 454
STA. 15+00 43"x27" CMP ARCH, TY. I 28 LIN. FT.
U.S.F.L. 454.8 C = 1 F = 5.5 D.S.F.L. 454.7
14+00 455
454.6 C = 8 F = 40 454.6
13+00 455
454.4 C = 10 F = 39 454.4
12+00 455
454.2 C = 18 F = 32 454.2
11+00 455
454.0 C = 13 F = 174 454.0
10+00 455
9+31 458
C = 8 F = 216
9+00 461
2:1
2:1
C = 0 F = 82
SCALE: 1" = 10' HORIZ. 1" = 5' VERT.
8+83 463
RAIL
8+78.3 464
469.0
464.0
459.0
454.0
143+09 = 10+00
HOUSE ENT. LT. STA. 143+09
10%
PC VC = 50' PT
STA. 15+00 43"x27" CMP ARCH, TY. I.
0.00%
VC = 40' PC PT
4.6%
454.5
453.8
-0.2% DITCH
454.8
(458.00) PI
(458.00) PI
9+00 10+00 10+36 11+00 12+00 13+00 14+00 15+00 16+00 17+00
461.55 455.75 458.40 PT 455.45 458.63 455.75 455.58 455.58 454.78 457.38 458.23 462.58 468.43
F.A. 30 21 BUREAU-PUTNAM 118 70
ENT. LT. STA. 143+09

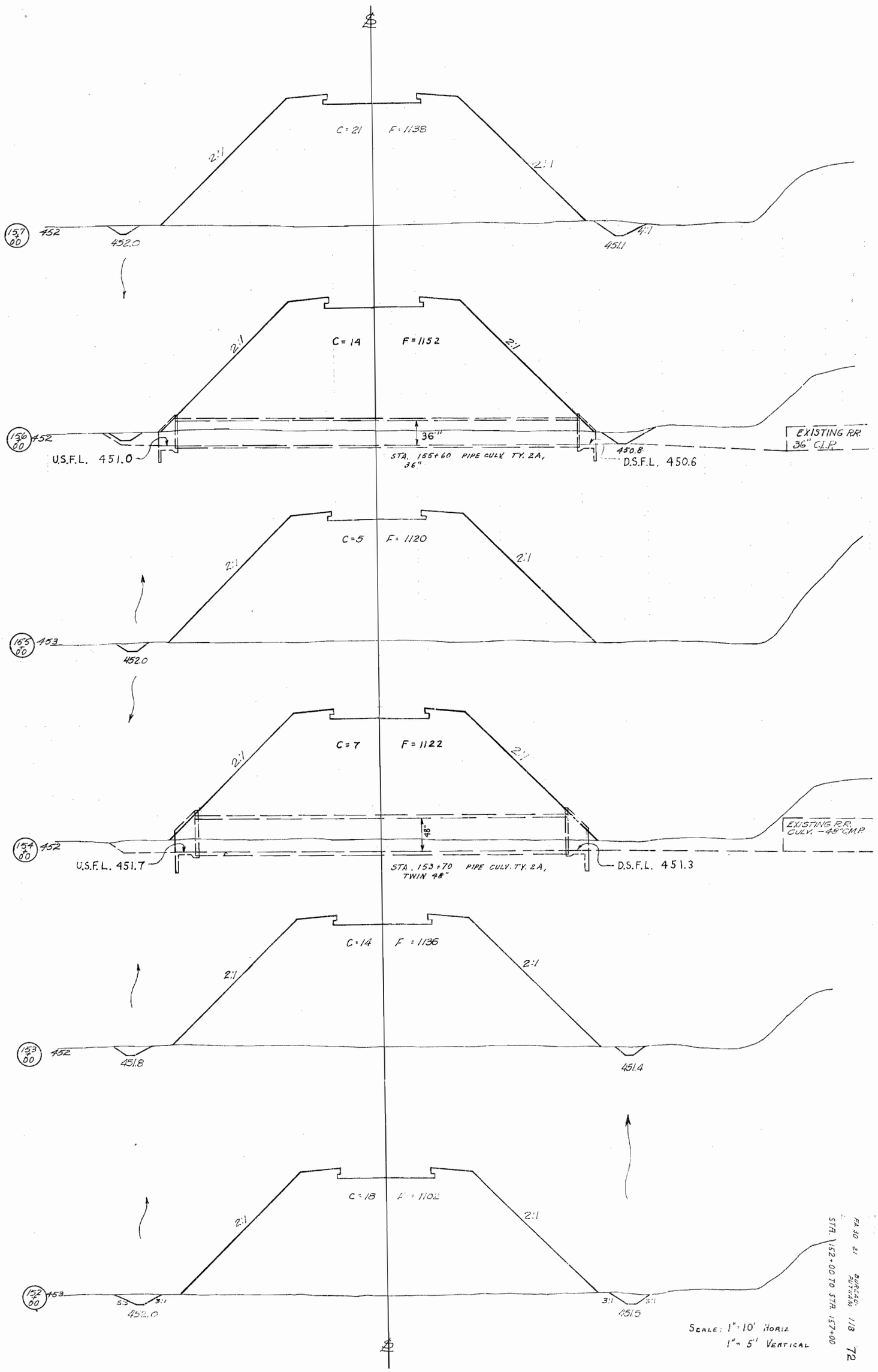
CES & APK 9-59

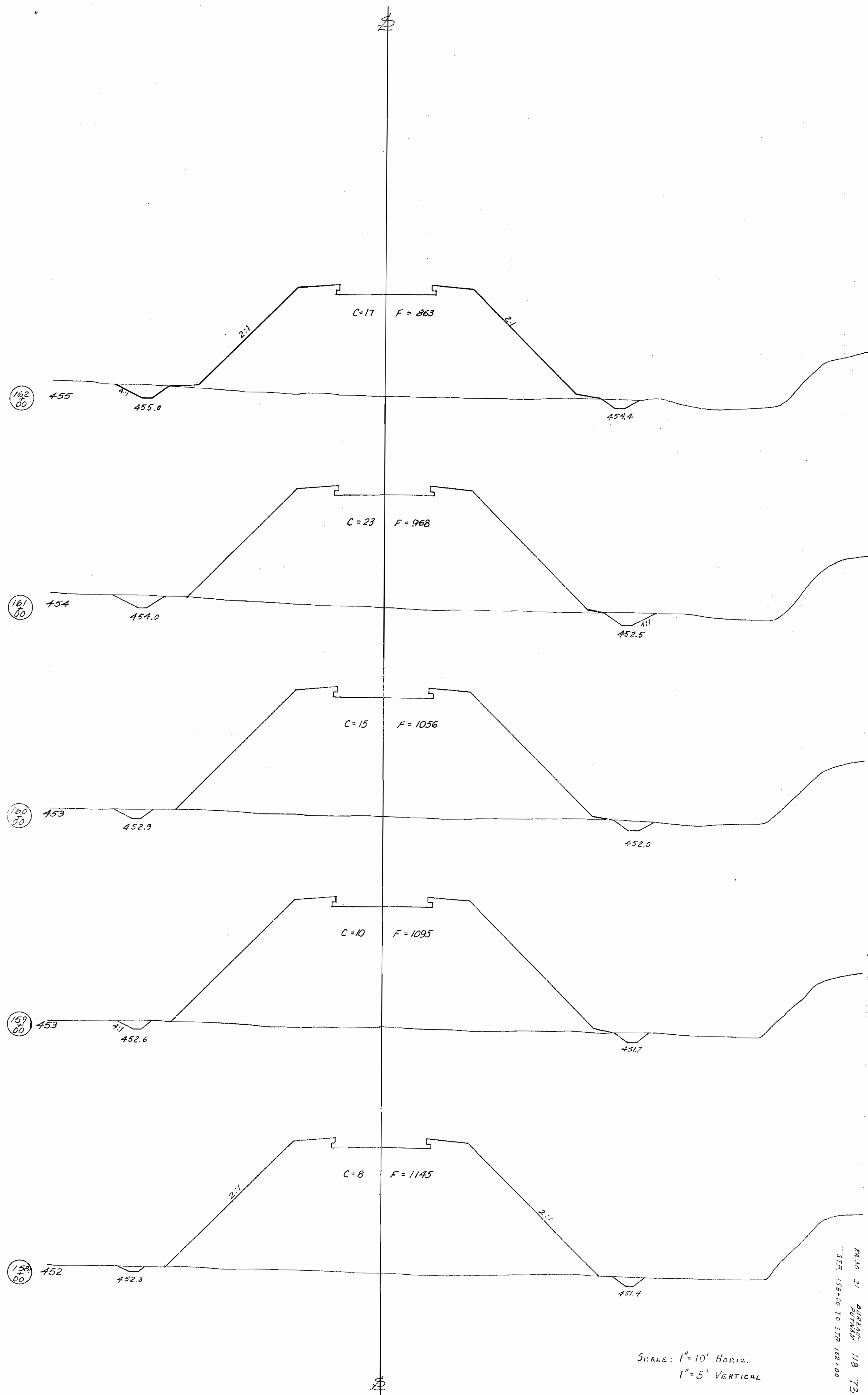


Ditch ℄ @ 143+00 = 454.6 on Lt.

SCALE: 1" = 10' HORIZ.
1" = 5' VERT.

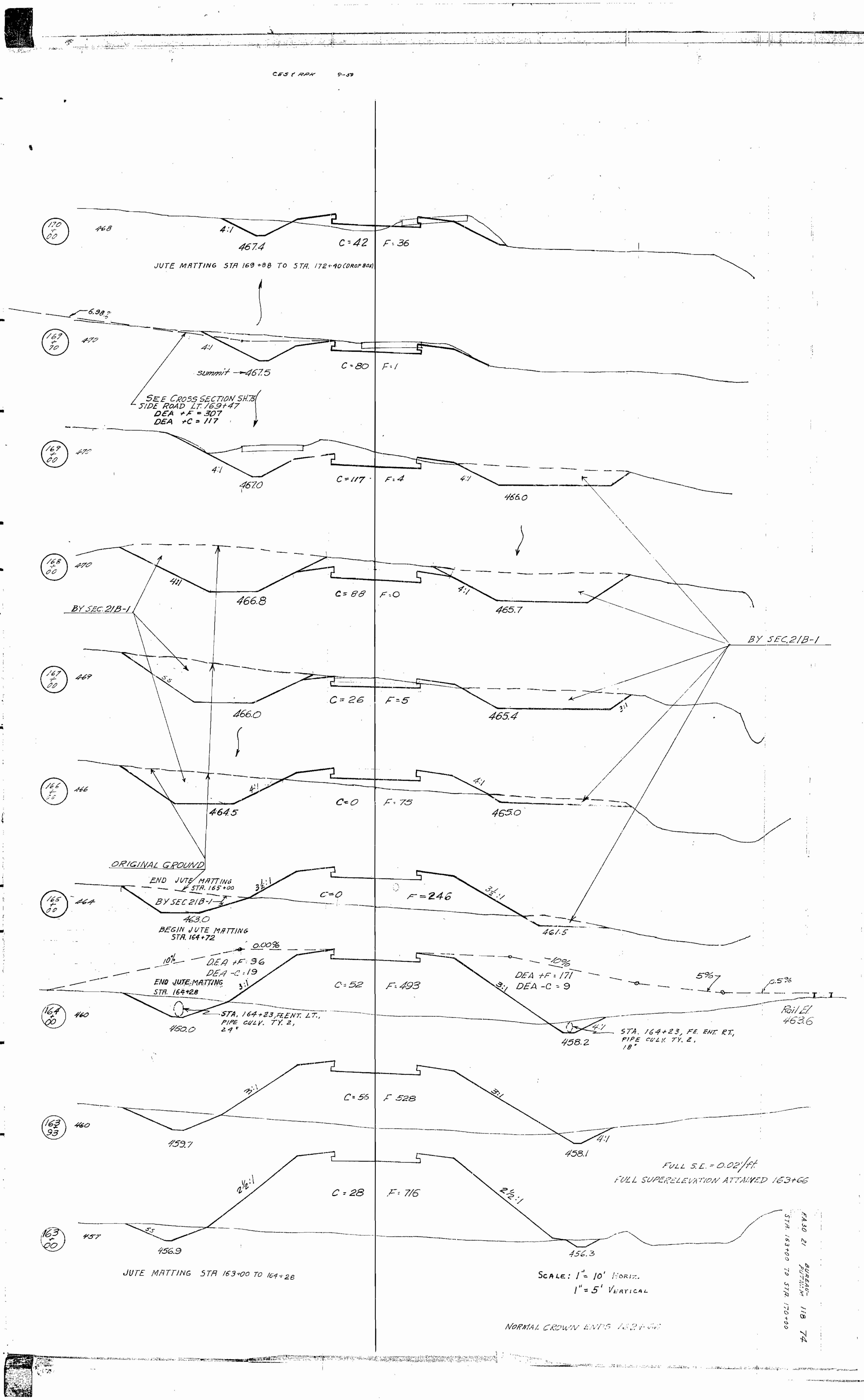
FA 30 21 BUREAU-PUTNAM 118 71
STA. 143+06 TO STA. 151+00

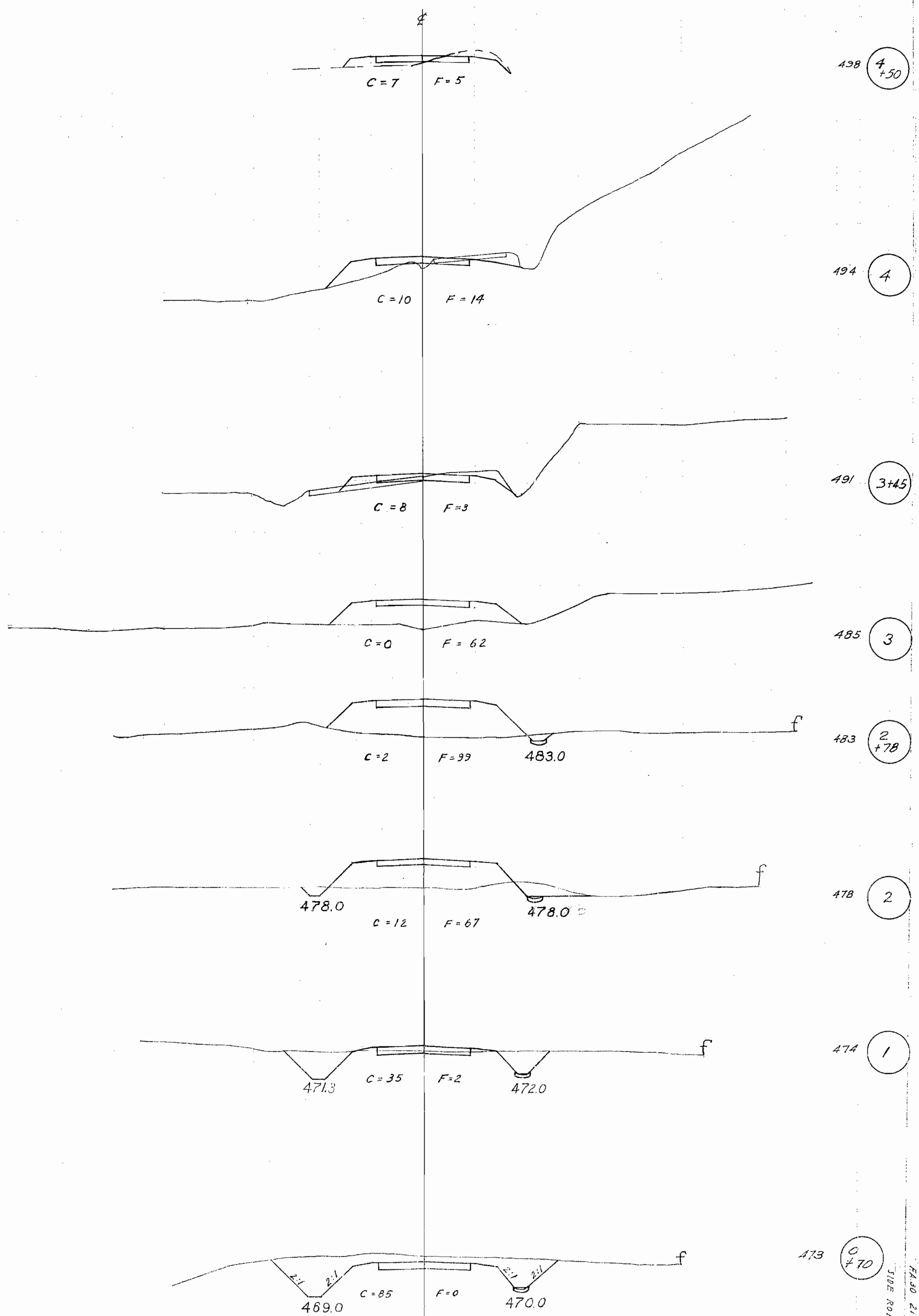

C = 21
F = 1138
2:1
2:1
157+00
452
452.0
451.1
4:1
C = 14
F = 1152
2:1
2:1
156+00
452
36"
U.S.F.L. 451.0
STA. 155+60 PIPE CULV. TY. 2A, 36"
450.8
D.S.F.L. 450.6
EXISTING RR. 36" C.I.P.
C = 5
F = 1120
2:1
2:1
155+00
453
452.0
C = 7
F = 1122
2:1
2:1
154+00
452
48"
U.S.F.L. 451.7
STA. 153+70 PIPE CULV. TY. 2A, TWIN 48"
D.S.F.L. 451.3
EXISTING R.R. CULV. - 48" C.M.P.
C = 14
F = 1136
2:1
2:1
153+00
452
451.8
451.4
C = 18
F = 1102
2:1
2:1
152+00
453
5:1
3:1
452.0
3:1
3:1
451.5
SCALE: 1" = 10' HORIZ
1" = 5' VERTICAL
STA. 152+00 TO STA. 157+00
FA 30 21 BURGAW 1/8 72



SCALE: 1" = 10' HORIZ.
1" = 5' VERTICAL

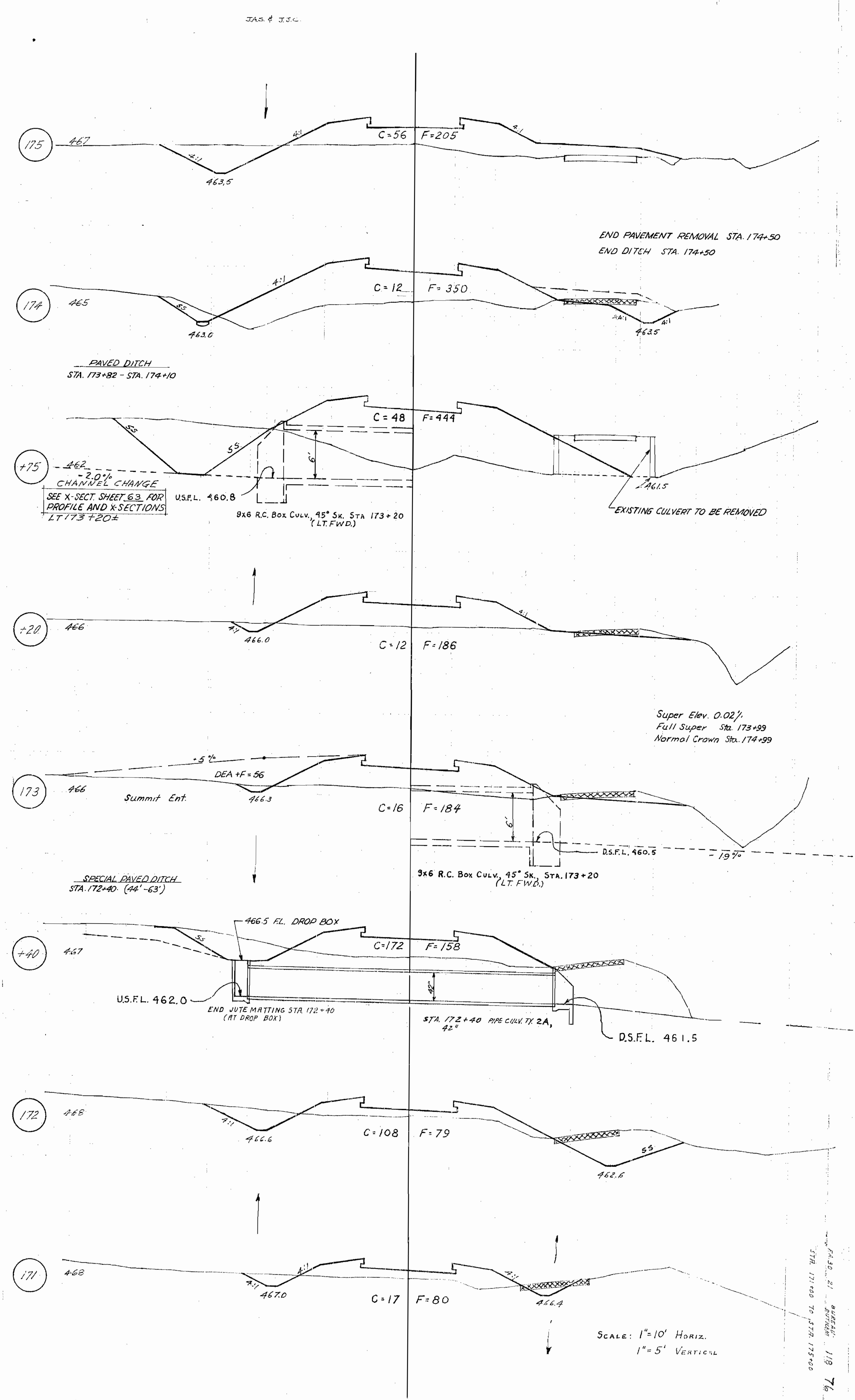
FA 30 21 BUREAU-PUTNAM 118 73
STA. 158+00 TO STA. 162+00


CES & APK 9-59
170+00
468
4:1
467.4
C=42
F:36
JUTE MATTING STA 169+88 TO STA. 172+40 (DROP BOX)
6.98%
169+70
470
4:1
summit → 467.5
C=80
F:1
SEE CROSS SECTION SH.75
SIDE ROAD LT. 169+47
DEA +F = 307
DEA +C = 117
169+00
470
4:1
467.0
C=117
F:4
4:1
466.0
168+00
470
4:1
466.8
C=88
F:0
4:1
465.7
BY SEC.21B-1
BY SEC.21B-1
167+00
469
5:5
466.0
C=26
F=5
465.4
3:1
166+56
466
4:1
464.5
C=0
F:75
4:1
465.0
ORIGINAL GROUND
END JUTE MATTING STA. 165+00
165+00
464
3½:1
BY SEC 21B-1
463.0
C=0
F=246
3½:1
461.5
BEGIN JUTE MATTING STA. 164+72
0.00%
10%
DEA +F:96
DEA -C:19
END JUTE MATTING STA. 164+28
3:1
C:52
F:493
-10%
DEA +F:171
DEA -C:9
3:1
5%
0.5%
164+00
460
STA. 164+23, FE.ENT. LT., PIPE CULV. TY. 2, 24"
460.0
4:1
458.2
STA. 164+23, FE. ENT. RT., PIPE CULV. TY. 2, 18"
Rail El 463.6
163+93
460
3:1
C:56
F 528
3:1
459.7
4:1
458.1
FULL S.E. = 0.02'/ft.
FULL SUPERELEVATION ATTAINED 163+66
163+00
457
2½:1
C=28
F:716
2½:1
5:5
456.9
456.3
JUTE MATTING STA 163+00 TO 164+28
SCALE: 1" = 10' Horiz.
1" = 5' Vertical
NORMAL CROWN ENDS 162+66
F.A.30 21 BUREAU-PUTNAM 118 74
STA. 163+00 TO STA. 170+00



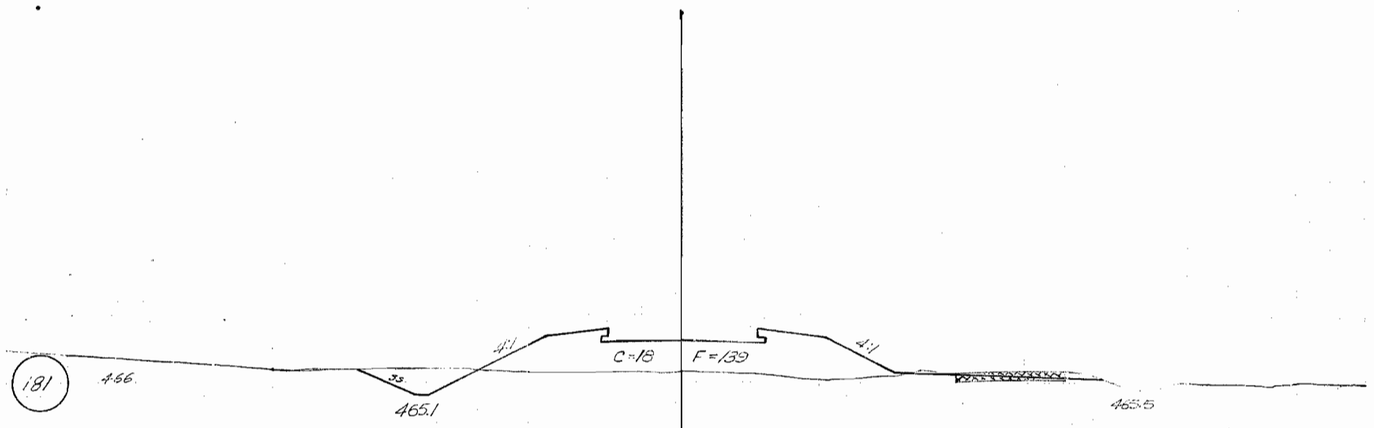
Scale: 1" = 10' Horiz.
1" = 5' Vertical

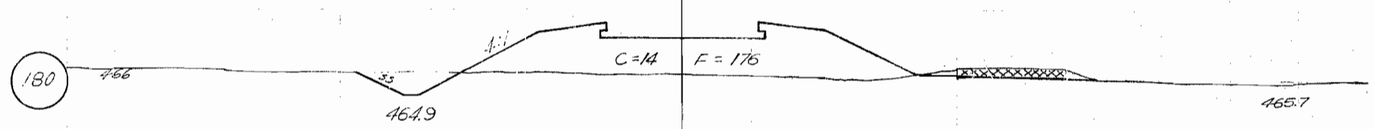
SIDE ROAD LT. 169+47
(Angle 103° turned fwd ℄ to Lt. from tan to curve @ sta 169+47)

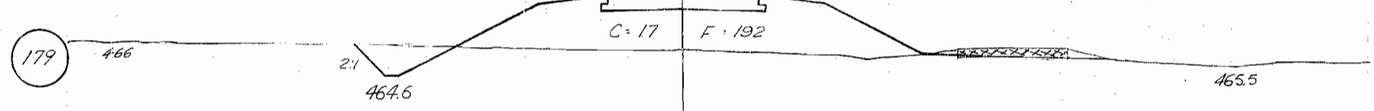


F.A. 30 21 BUREAU PUTNAM 118 76
STA. 171+00 TO STA. 175+00
JAS. & J.J.C.
175
467
463.5
4:1
C=56
F=205
END PAVEMENT REMOVAL STA. 174+50
END DITCH STA. 174+50
174
465
463.0
5S
4:1
C=12
F=350
463.5
PAVED DITCH
STA. 173+82 - STA. 174+10
+75
462
-2.0%
CHANNEL CHANGE
SEE X-SECT. SHEET 63 FOR
PROFILE AND X-SECTIONS
LT 173+20±
U.S.F.L. 460.8
9x6 R.C. Box Culv., 45° Sk. Sta 173+20
(LT. FWD.)
C=48
F=444
461.5
EXISTING CULVERT TO BE REMOVED
+20
466
466.0
C=12
F=186
Super Elev. 0.02%
Full Super Sta. 173+99
Normal Crown Sta. 174+99
173
466
Summit Ent.
+5%
DEA+F=56
466.3
C=16
F=184
D.S.F.L. 460.5
-19%
9x6 R.C. Box Culv., 45° Sk., Sta. 173+20
(LT. FWD.)
SPECIAL PAVED DITCH
STA. 172+40 (44'-63')
+40
467
466.5 FL. DROP BOX
U.S.F.L. 462.0
END JUTE MATTING STA. 172+40
(AT DROP BOX)
C=172
F=158
42"
STA. 172+40 PIPE CULV. TY. 2A,
42"
D.S.F.L. 461.5
172
468
466.6
C=108
F=79
462.6
171
468
467.0
C=17
F=80
466.4
SCALE: 1"=10' HORIZ.
1"=5' VERTICAL

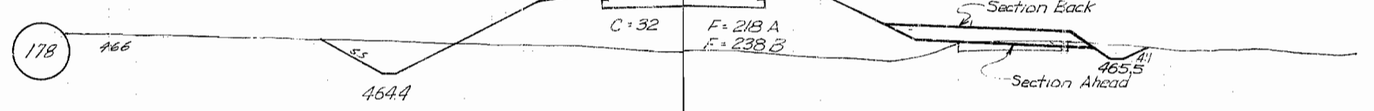
J.A.S. & J.J.C.

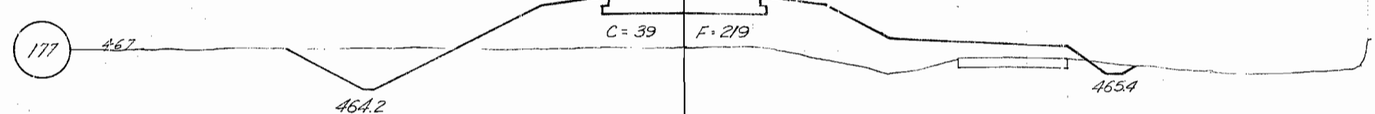


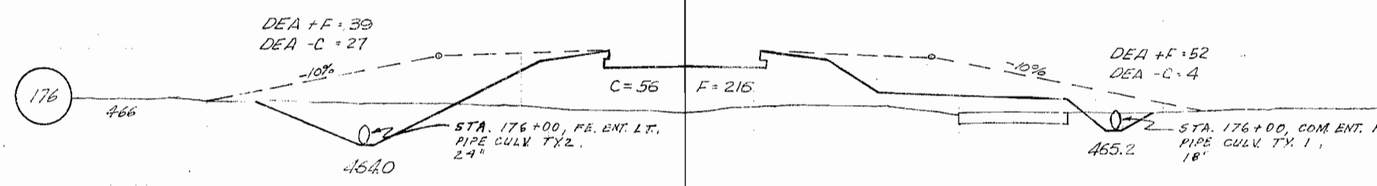


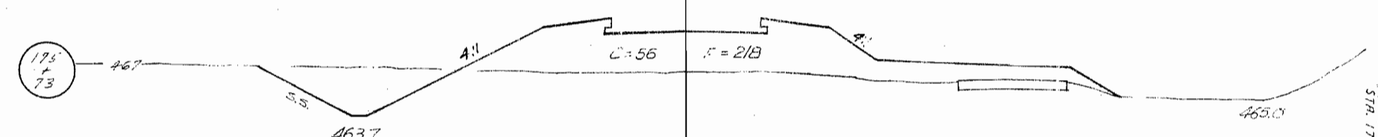


Pavement Removal
Sta 178+00 ahead
to Sta 192+50









SCALE: 1"=10' HORIZ.
1"=5' VERTICAL

STA. 175+73 TO STA. 181+20

FA 30 21 BUREAU 118 77

STA. 182+00 TO STA. 187+00

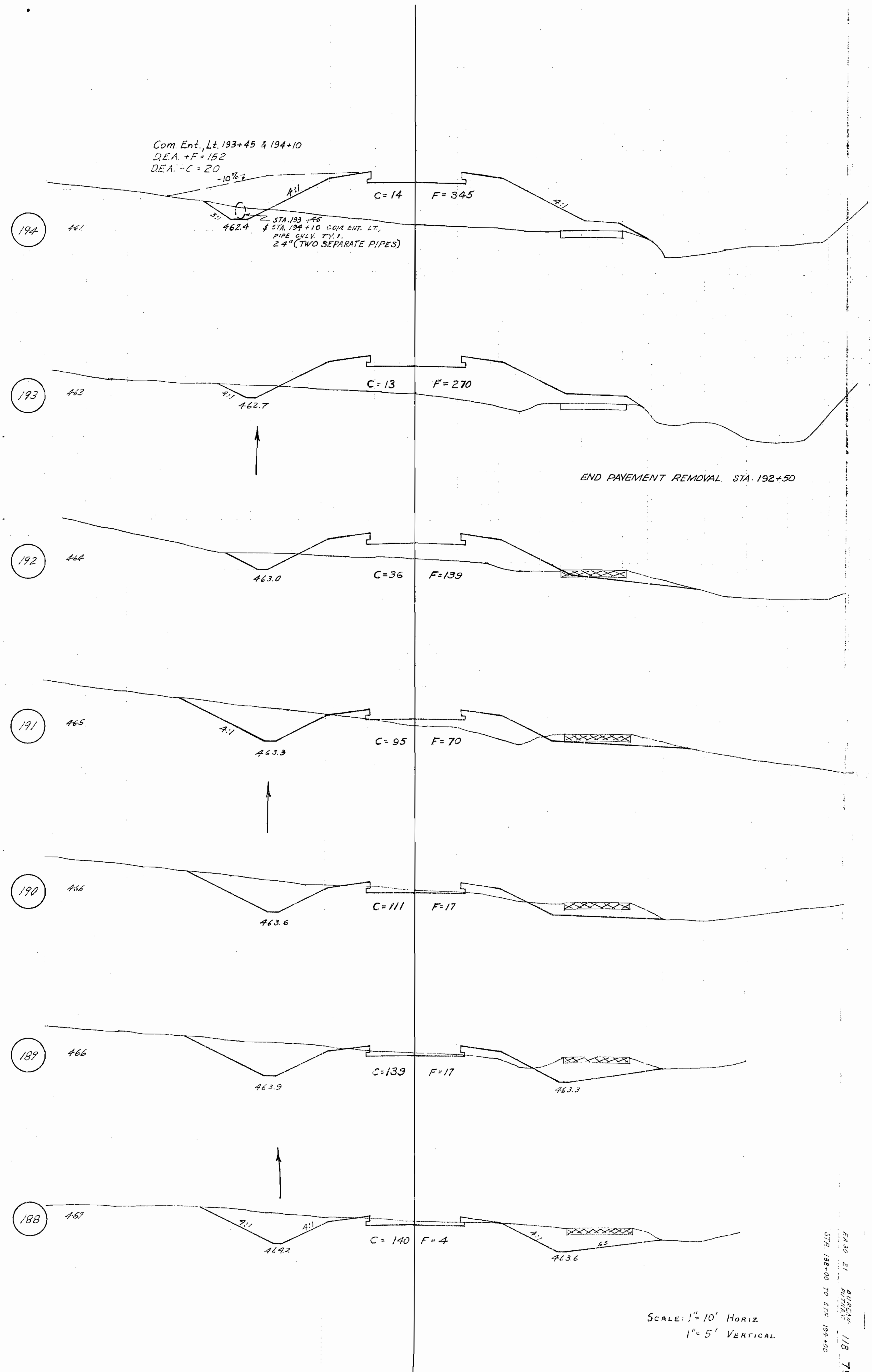
SCALE: 1" = 10' HORIZ.
1" = 5' VERTICAL

	187	186	+30	185	184	183	182
	467	468	468	468	468	467	467
	4:1	S.S.	DEA -C: 24			4:1	3:1
	464.5	464.8	summit - 466.0	465.9	465.7	465.5	465.3
	4:1	S.S.					3:1
C	135	224	396	130	92	75	52
F	1.3	1.1	1.0	1.0	1.2	1.32	1.82
	463.9	464.2	464.4	464.5	464.8	465.1	465.4
	4:1						4:1

TAS 1.222

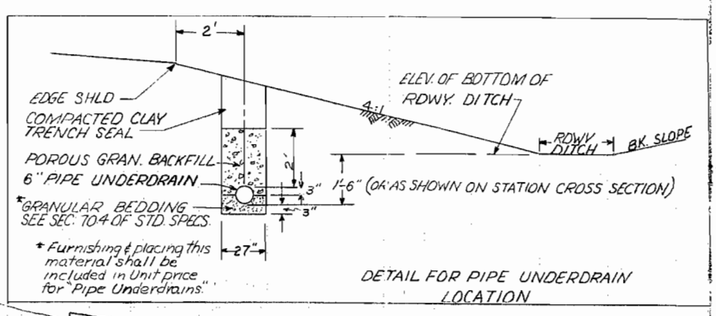
FA 30 21 BUREAU PUTNAM 118 79
STA. 188+00 TO STA. 194+00

JAS & JJC



Scale: 1" = 10' Horiz
1" = 5' Vertical

JAS & JJG



200 — 471 — 473.5 — 5:1 — 465.8 — Outlet 6" pipe Underdrain Elev. = 466.0 — C = 310 — F = 43 — Outlet 6" pipe Underdrain Elev. = 465.0

PAVEMENT REMOVAL
STA. 199+50 -- STA. 214+30

199 — 466 — 470.0 — 3:1 — 464.4 — END OF SODDING — C = 112 — F = 240

198 — 465 — 467.0 — 3:1 — 463.0 — C = 80 — F = 300

H.E. Lt. 197+20
D.E.A.+F = 92
D.E.A.-C = 25
-6.7%

197 — 461 — 463.0 — 4:1 — 461.6 — C = 36 — F = 518
STA. 197+20 H.E. ENT. LT., PIPE CULV. TY. 1, 18"
STA. 197+20 H.E. ENT. LT., PIPE CULV. TY. 2, 30"

PAVED DITCH
STA. 196+15 - 201+65

SODDING
STA. 196+15 - 199+00

196 — 460 — 460.0 — C = 6 — F = 562 — 3:1

PAVED DITCH
STA. 195+70 - STA. 196+50

PAVEMENT REMOVAL
STA. 195+50 - STA. 195+86

+67 — 459 — U.S.F.L. 457.7 — STA. 196+67 PIPE CULV. TY 2A 60" — D.S.F.L. 457.4

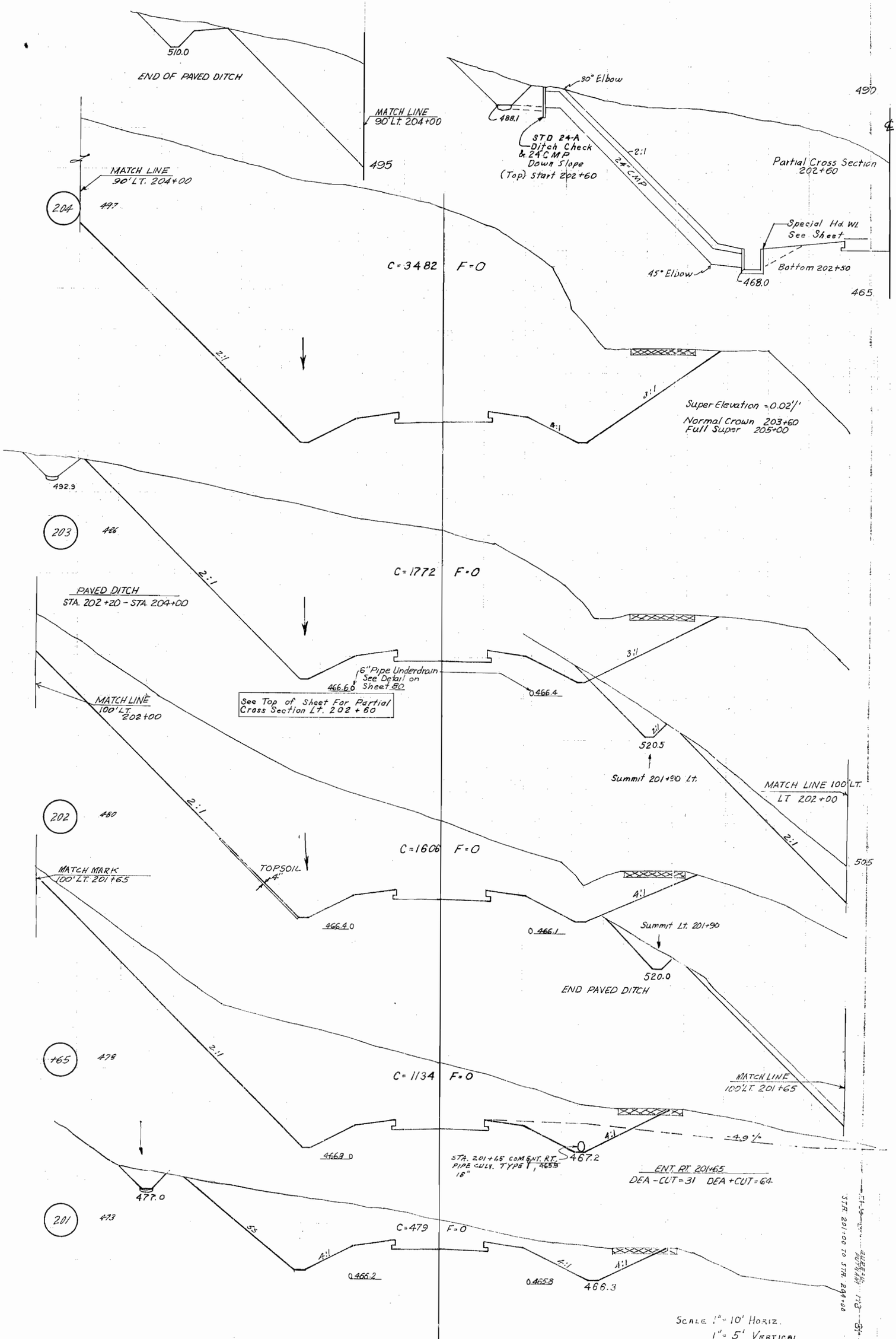
H.E. Lt. 195+30
D.E.A.+F = 79
D.E.A.-C = 12
-10%
2:1

195 — 460 — 460.5 — STA. 195+30 H.E. ENT. LT., PIPE CULV. TY. 2, 24" — 4:1 — C = 21 — F = 504 — 4:1

SCALE 1" = 10' HORIZ
1" = 5' VERTICAL

FA 30 21 BUREAU PUTNAM 118 80
STA. 195+00 TO STA. 202+00

JAS & JJC


510.0
END OF PAVED DITCH
MATCH LINE
90' Lt. 204+00
495
MATCH LINE
90' LT. 204+00
204
497
C=3482 F=0
2:1
3:1
4:1
30° Elbow
488.1
STD 24-A
Ditch Check
& 24 CMP
Down Slope
(Top) Start 202+60
2:1
24" CMP
490
Partial Cross Section
202+60
Special Hd. Wl.
See Sheet
45° Elbow
468.0
Bottom 202+50
465
Super Elevation = 0.02'/'
Normal Crown 203+60
Full Super 205+00
492.9
203
486
C=1772 F=0
PAVED DITCH
STA. 202+20 - STA. 204+00
6" Pipe Underdrain
See Detail on
Sheet 80
466.6
See Top of Sheet For Partial
Cross Section Lt. 202+60
466.4
MATCH LINE
100' LT.
202+00
3:1
1:1
520.5
Summit 201+90 Lt.
MATCH LINE 100' LT.
LT 202+00
202
480
C=1606 F=0
2:1
MATCH MARK
100' LT. 201+65
TOPSOIL
4"
4:1
505
466.4.0
466.1
Summit Lt. 201+90
520.0
END PAVED DITCH
+65
478
C=1134 F=0
MATCH LINE
100' LT. 201+65
4663.0
4:1
-4.9 %
STA. 201+65 CONC. ENT. RT.
PIPE CULV. TYPE I, 465.9
18"
467.2
ENT. RT. 201+65
DEA -CUT = 31 DEA +CUT = 64
477.0
201
473
C=479 F=0
5%
4:1
466.2
466.8
466.3
STA. 201+00 TO STA. 204+00
Scale 1" = 10' Horiz.
1" = 5' Vertical

FA. 30 21 BUREAU-PUTNAM 118 82

STA. 205+00

SCALE: 1"=10' HORIZ.
1"=5' VERTICAL

Match Line 110' Left

205 512

510.7

2:1

C=7616 F=0

4:1

468.7

4:1

469.3 - summit

3:1

512 205

535

Match Line 110' Left STA. 205+00

FA 30 21 BUREAU-PUTNAM 118 83

STA. 206+00

SCALE: 1" = 10' HORIZ.
1" = 5' VERTICAL

Match Line 170' Left

206 514

2:1

511.5

2:1

C = 12,654 F = 0

514 206

553.0

Match Line 170' Left Sta 206+00

535

4:1

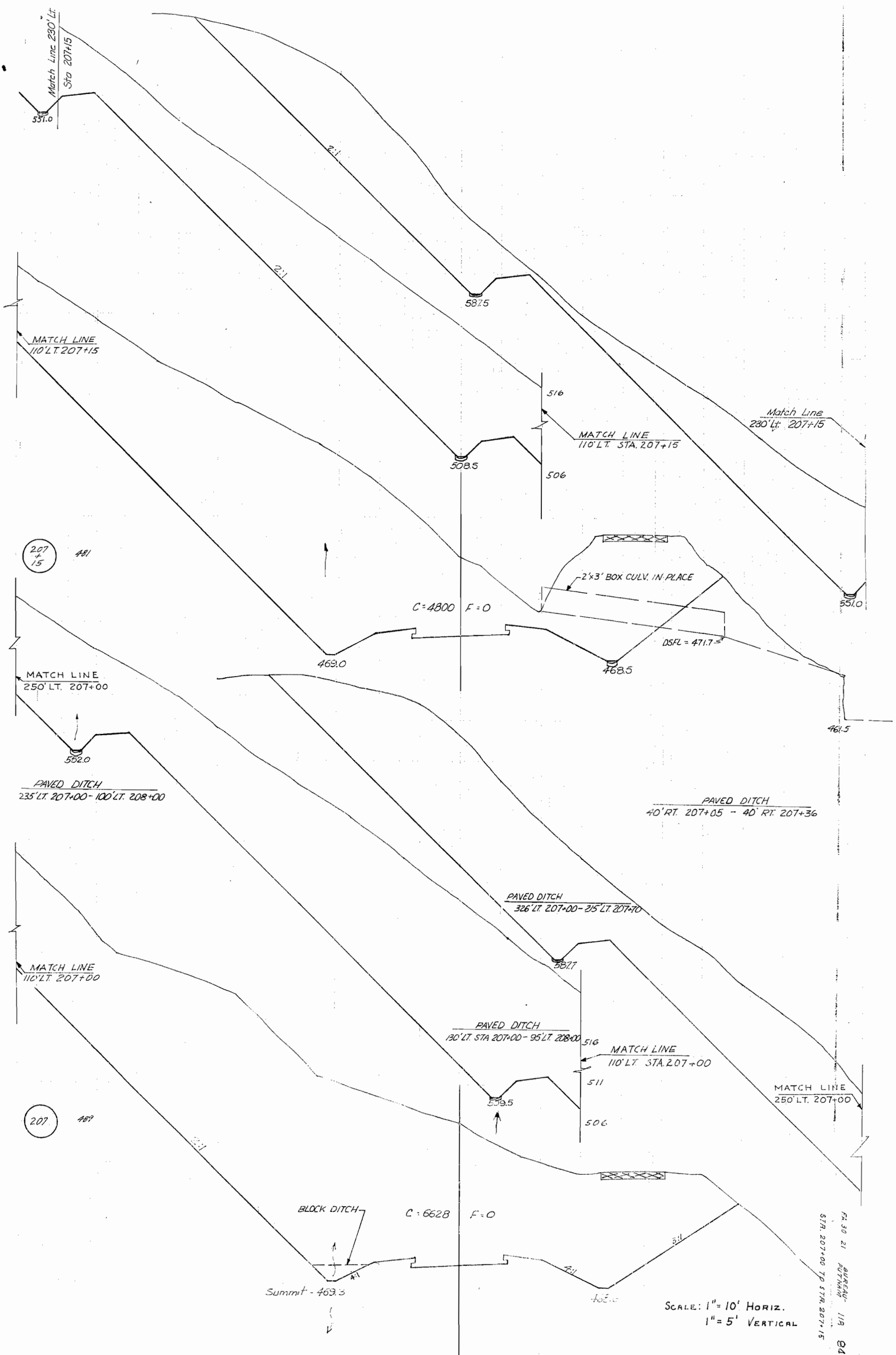
469.0

4:1

3:1

469.0

JAS & JJC

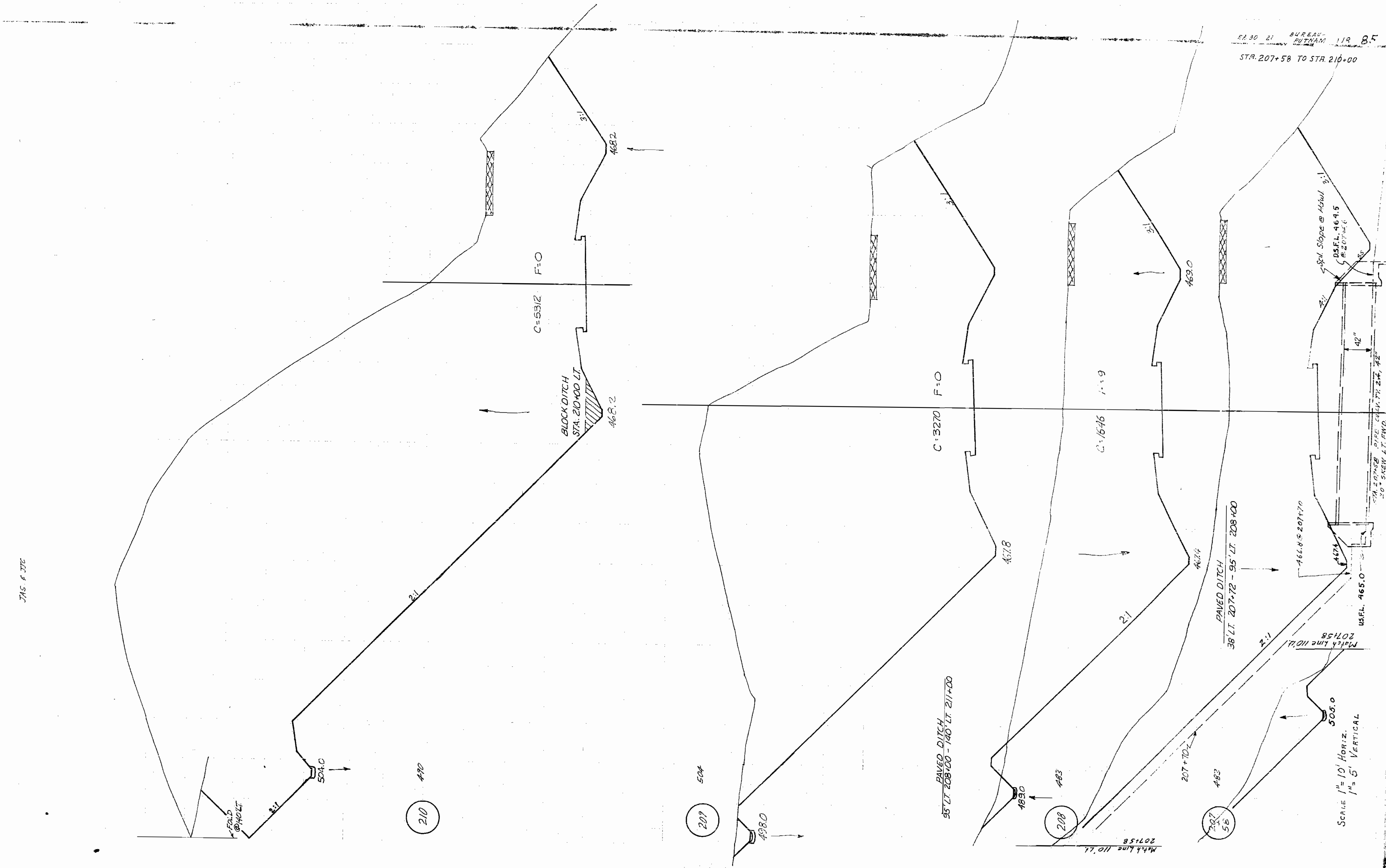


SCALE: 1" = 10' HORIZ.
1" = 5' VERTICAL

FA 30 21 BUREAU OF PUBLIC ROADS
STA. 207+00 TO STA. 207+15

84

STA. 207+58 TO STA. 210+00



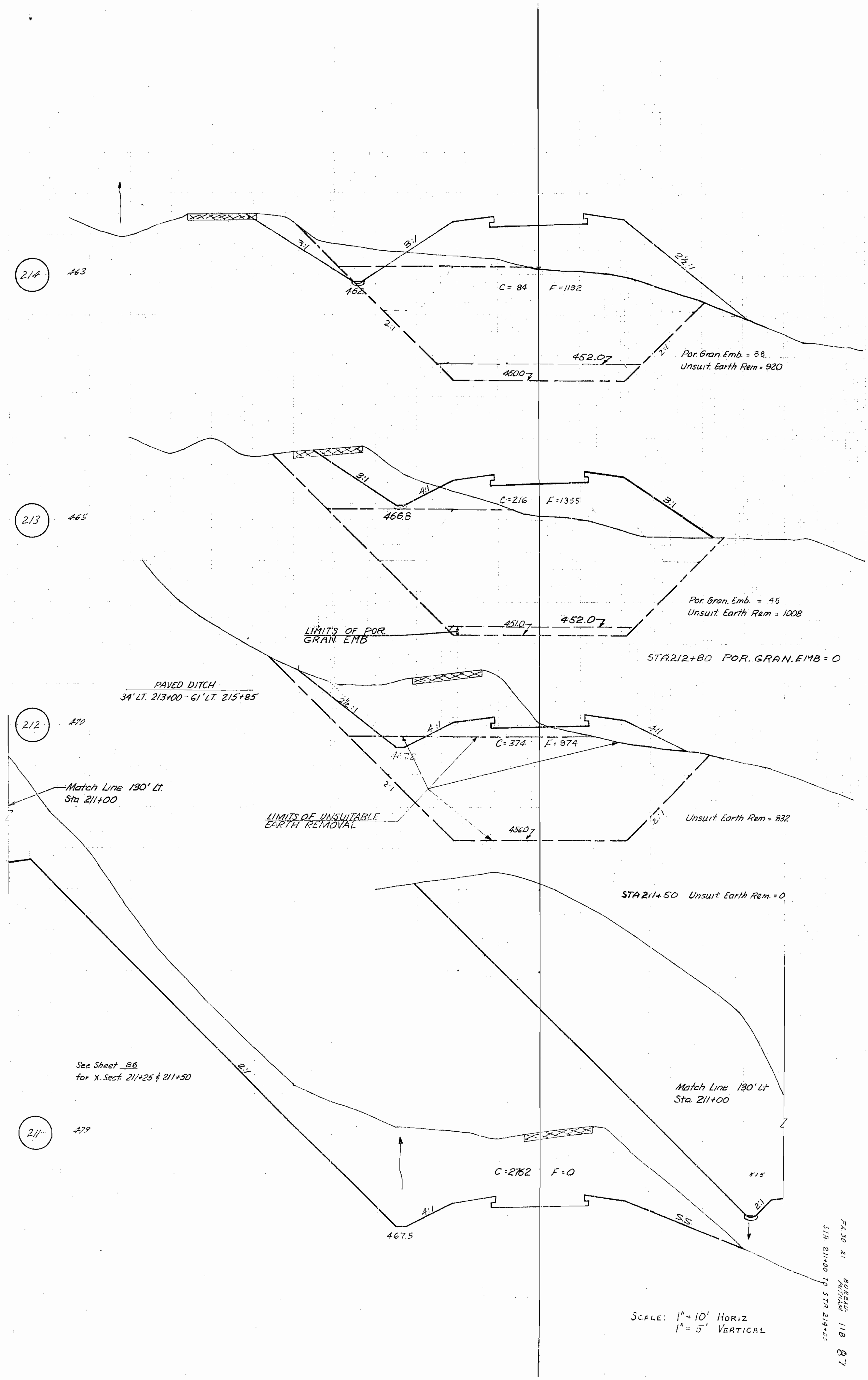
Scale 1" = 10' Horiz.
1" = 5' Vertical

FA 30 21 BUREAU-PUTNAM 118 86

STA. 211+25 TO STA. 211+50

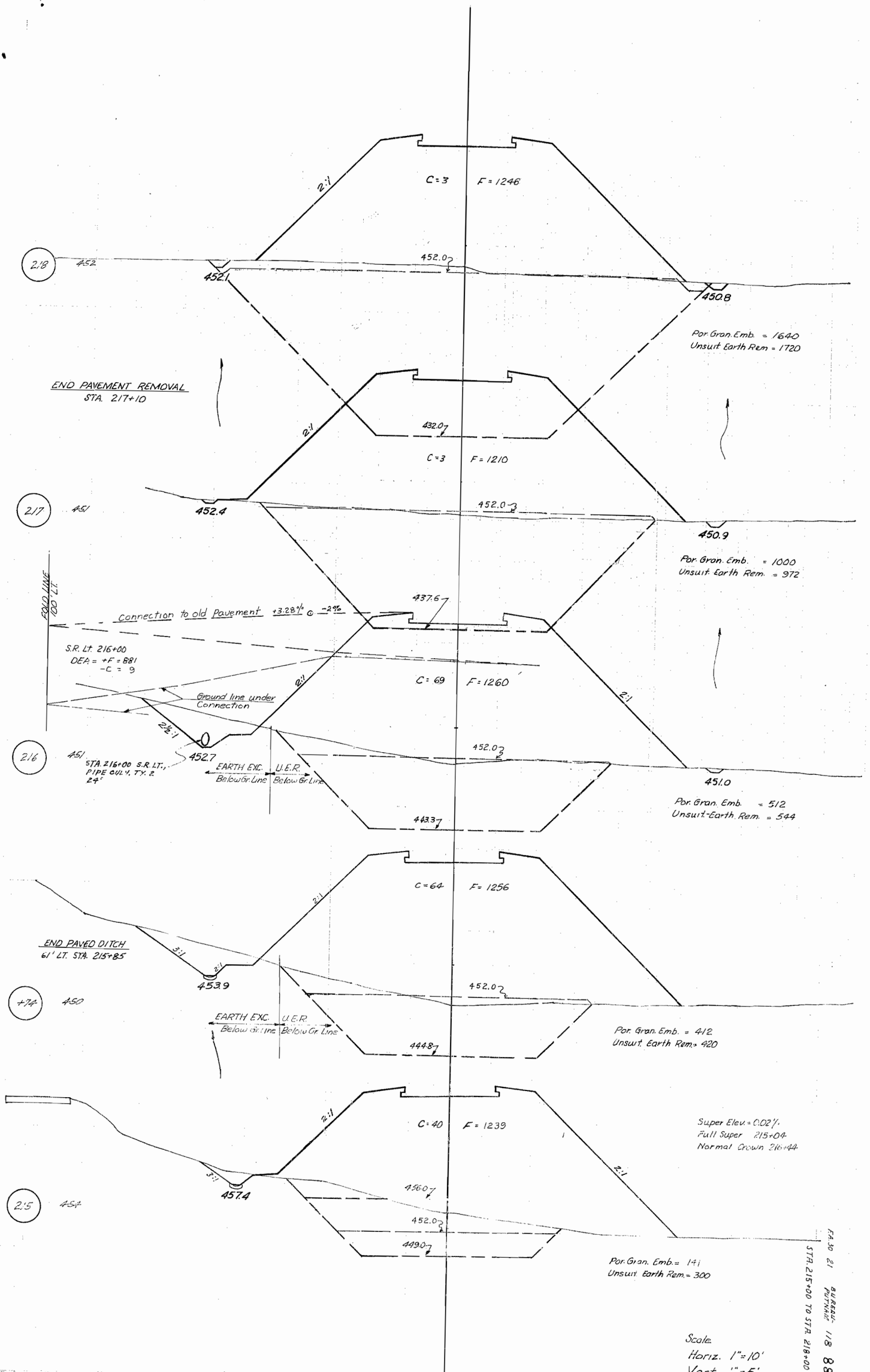
SCALE 1" = 10' HORIZ.
1" = 5' VERTICAL

JAS & JJC

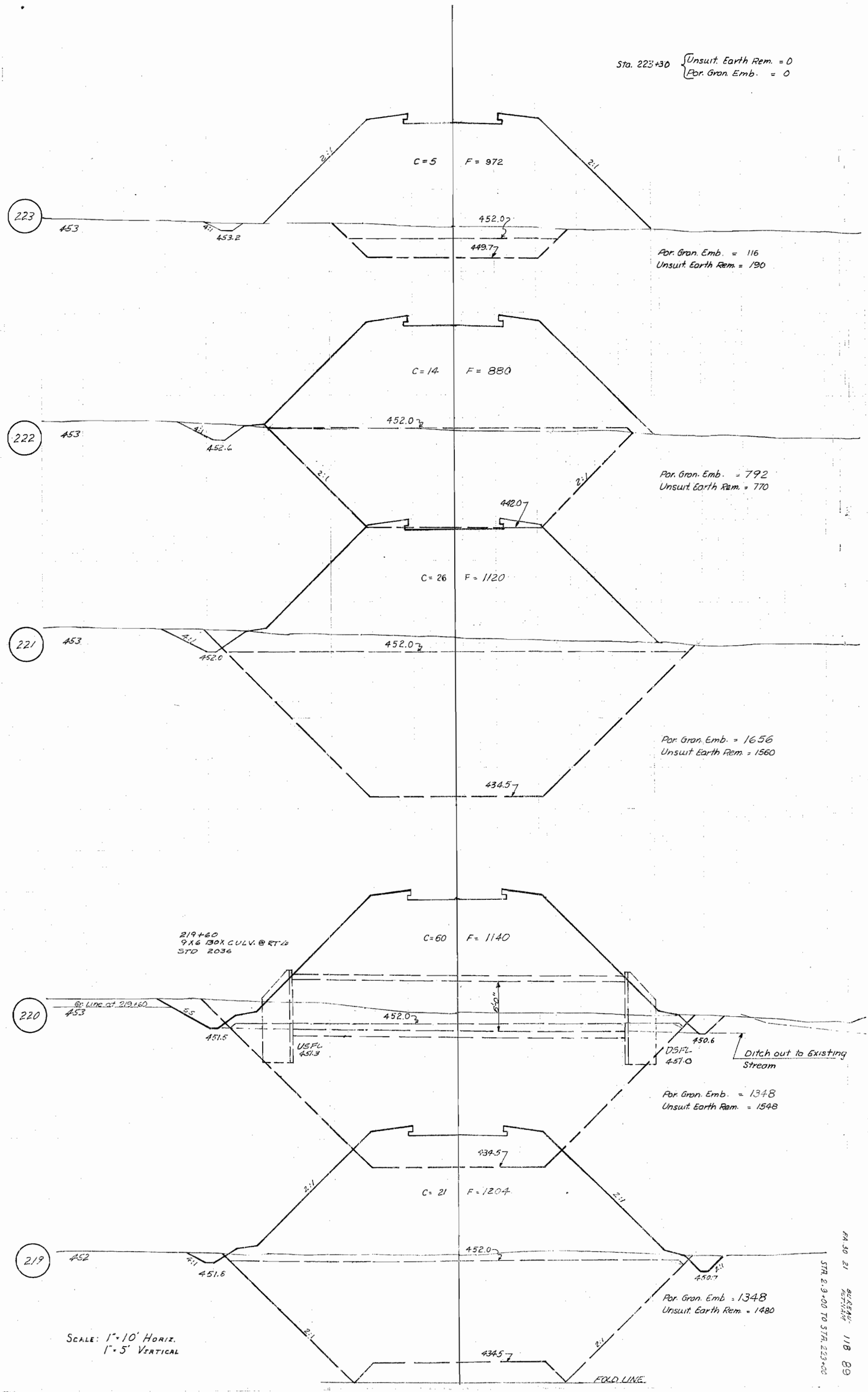


214
463
3:1
3:1
2½:1
462
C = 84
F = 1192
2:1
2:1
452.07
450.07
Por. Gran. Emb. = 88
Unsuit. Earth Rem = 920
213
465
3:1
4:1
466.8
C = 216
F = 1355
3:1
451.07
452.07
LIMITS OF POR. GRAN. EMB
Por. Gran. Emb. = 45
Unsuit. Earth Rem = 1008
STA 212+80 POR. GRAN. EMB = 0
PAVED DITCH
34' LT. 213+00 - 61' LT. 215+85
212
470
2½:1
4:1
C = 374
F = 974
4:1
2:1
2:1
Match Line 130' Lt.
Sta 211+00
LIMITS OF UNSUITABLE EARTH REMOVAL
456.07
Unsuit. Earth Rem = 832
STA 211+50 Unsuit. Earth Rem. = 0
See Sheet 86
for X-Sect. 211+25 & 211+50
2:1
211
479
Match Line 130' Lt
Sta. 211+00
C = 2762
F = 0
515
4:1
2:1
S.S.
467.5
Scale: 1" = 10' Horiz
1" = 5' Vertical

JAS & JJC



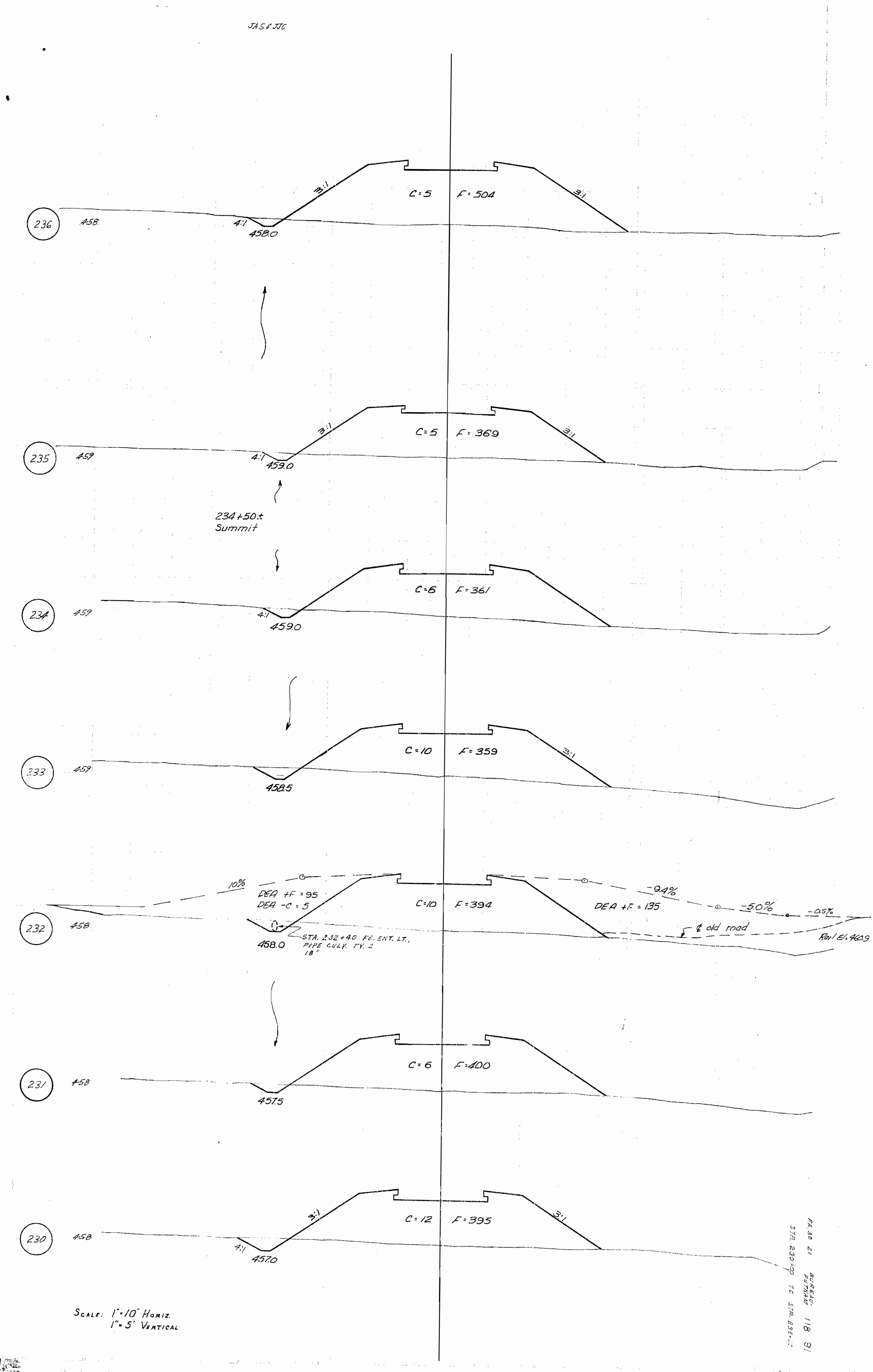
F.A. 30 21 BURKE-PUTNAM 118 88


Sta. 223+30 {Unsuit. Earth Rem. = 0
Por. Gran. Emb. = 0
223
453
453.2
C = 5
F = 972
452.0
449.7
Por. Gran. Emb. = 116
Unsuit. Earth Rem. = 190
222
453
452.6
C = 14
F = 880
452.0
442.0
Por. Gran. Emb. = 792
Unsuit. Earth Rem. = 770
221
453
452.0
C = 26
F = 1120
452.0
434.5
Por. Gran. Emb. = 1656
Unsuit. Earth Rem. = 1560
219+60
9'X6' BOX C.U.L.V. @ RT. ∠
STD 2036
220
℄ Line at 219+60
453
451.5
US.FL.
451.3
C = 60
F = 1140
452.0
6.0'
450.6
DS.FL.
447.0
Ditch out to Existing Stream
Por. Gran. Emb. = 1348
Unsuit. Earth Rem. = 1548
434.5
219
452
451.6
C = 21
F = 1204
452.0
450.7
Por. Gran. Emb. = 1348
Unsuit. Earth Rem. = 1480
434.5
FOLD LINE
SCALE: 1" = 10' HORIZ.
1" = 5' VERTICAL
STA. 219+00 TO STA. 223+00
FA 30 21 BUREAU 118 89

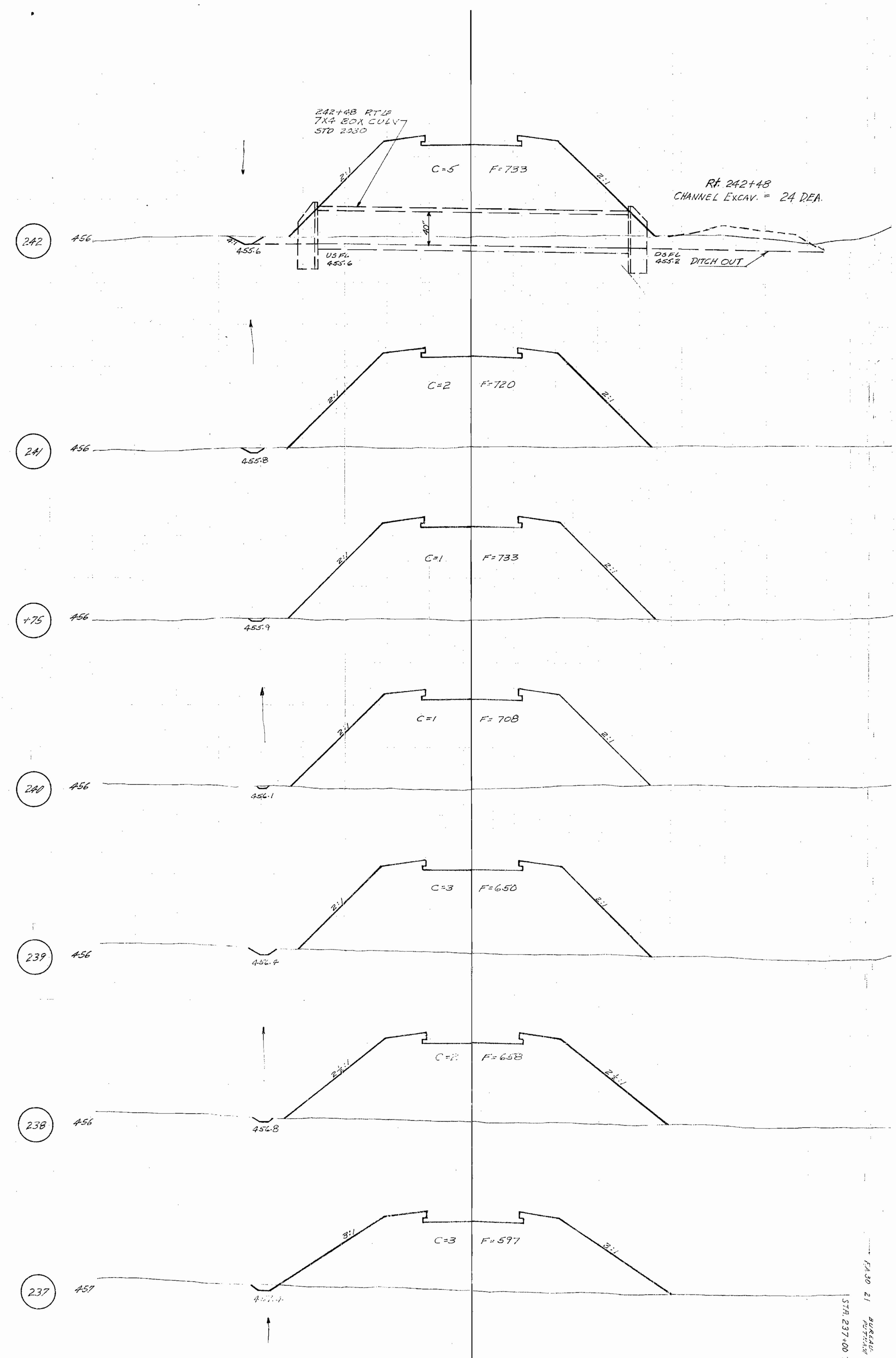
FA 30 21 BUREAU-PUTNAM 118 90

STA. 224+00 TO STA. 229+00

SCALE: 1"=10' HORIZ.
1"=5' VERTICAL


JAS & JJC
236
458
4:1
458.0
3:1
C=5
F=504
3:1
235
459
4:1
459.0
3:1
C=5
F=369
3:1
234+50±
Summit
234
459
4:1
459.0
C=6
F=361
233
459
458.5
C=10
F=359
3:1
232
458
10%
DEA +F = 95
DEA -C = 5
458.0
STA. 232+40 FE. ENT. LT.,
PIPE CULV. TY. 2
18"
C=10
F=394
DEA +F = 135
-9.4%
-5.0%
-0.5%
℄ old road
Rail El. 460.9
231
458
457.5
C=6
F=400
230
458
4:1
457.0
3:1
C=12
F=395
3:1
SCALE: 1"=10' HORIZ.
1"=5' VERTICAL
F.A. 30 21 BUREAU-PUTNAM 118 91
STR. 230+00 TO STR. 236+00

JAS & JJC

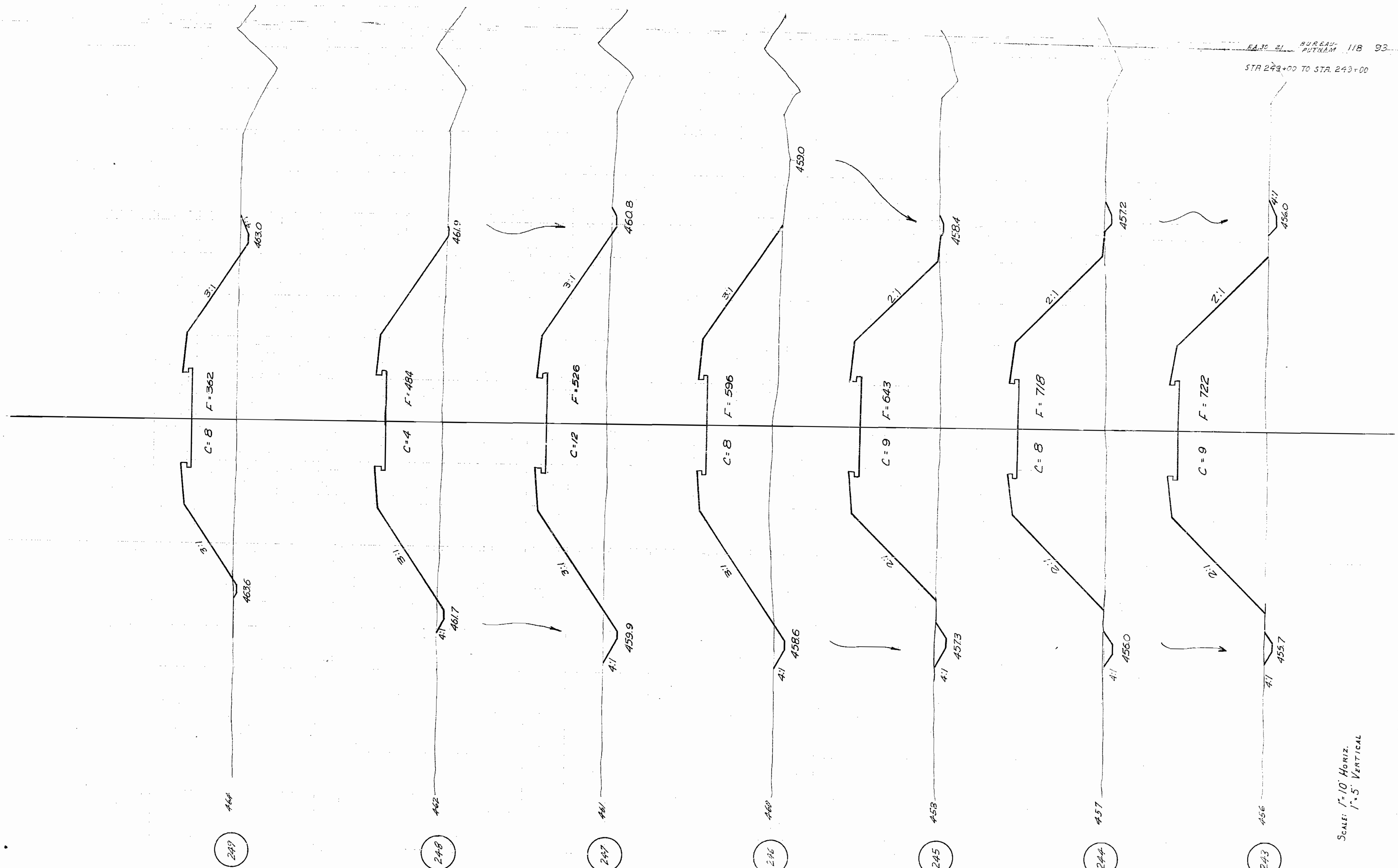


Scale: 1" = 10' Horiz.
1" = 5' Vertical

F.A. 30 21 BUREAU-PUTNAM 11B 92
STA. 237+00 TO STA. 242+00

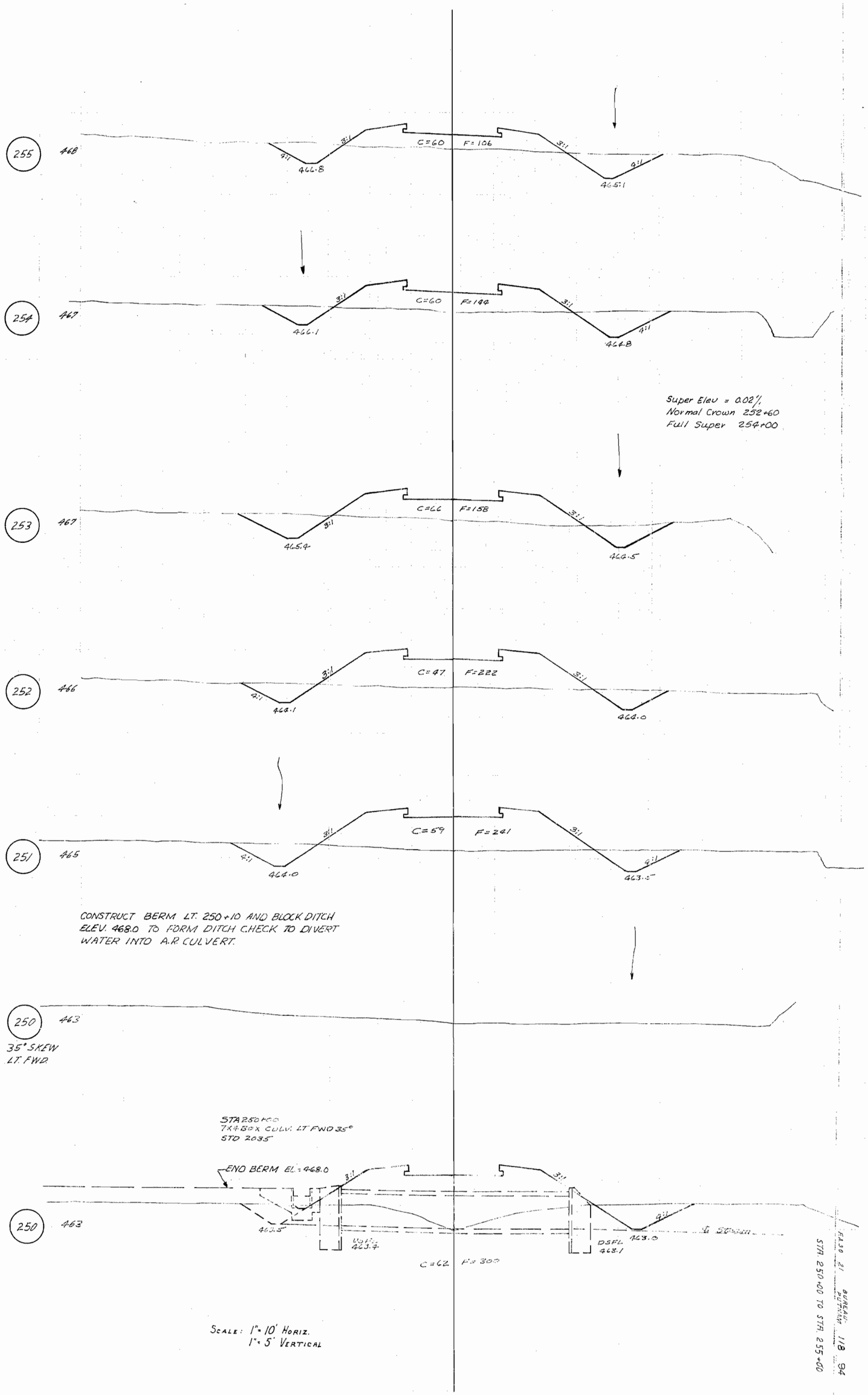
F.A.30 21 BUREAU-PUTNAM 118 93

STA 243+00 TO STA. 249+00



SCALE: 1"=10' HORIZ.
1"=5' VERTICAL

JAS & JJC

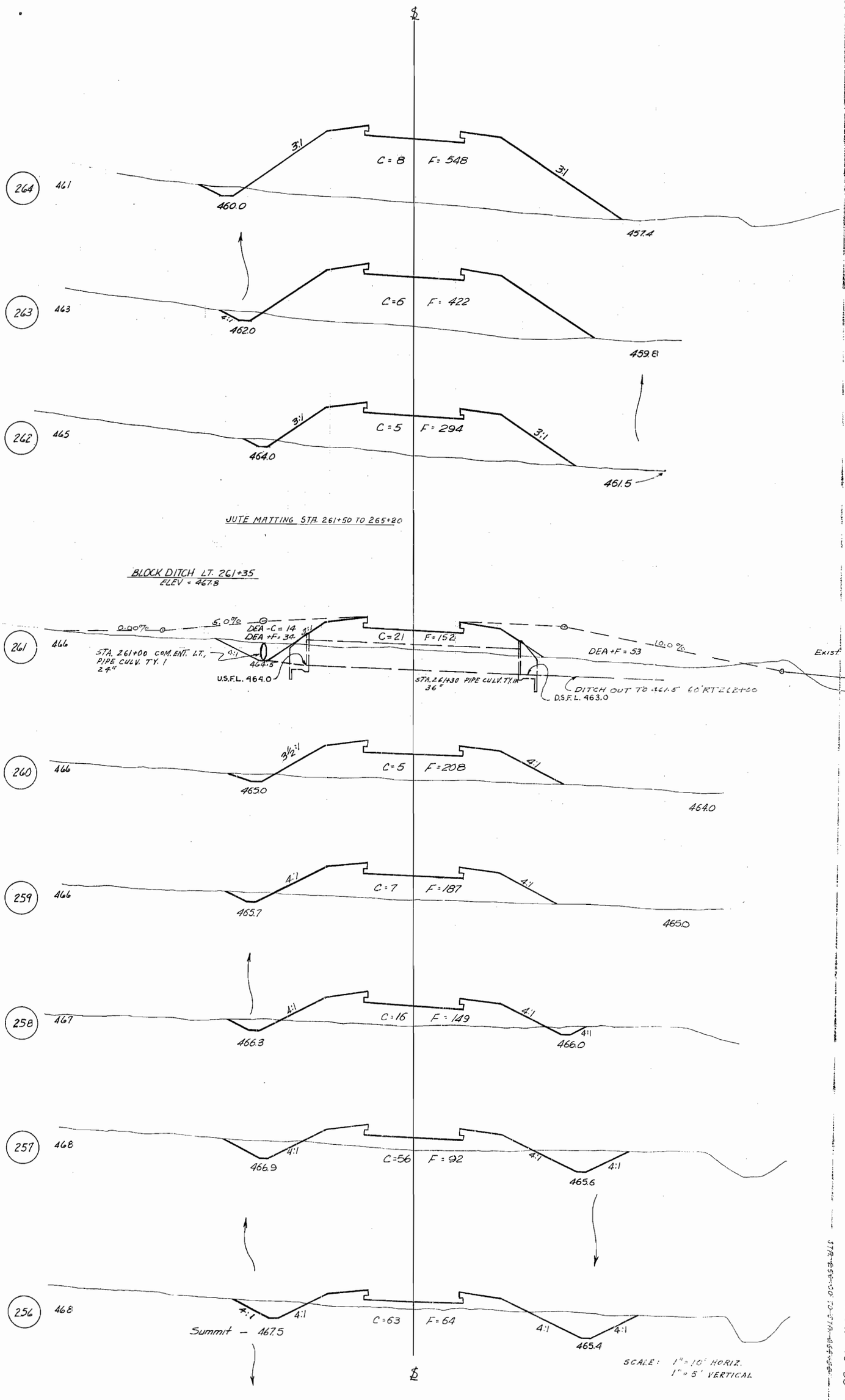


STA 250+00 TO STA 255+00

FAS 30 21 BUREAU 118 94

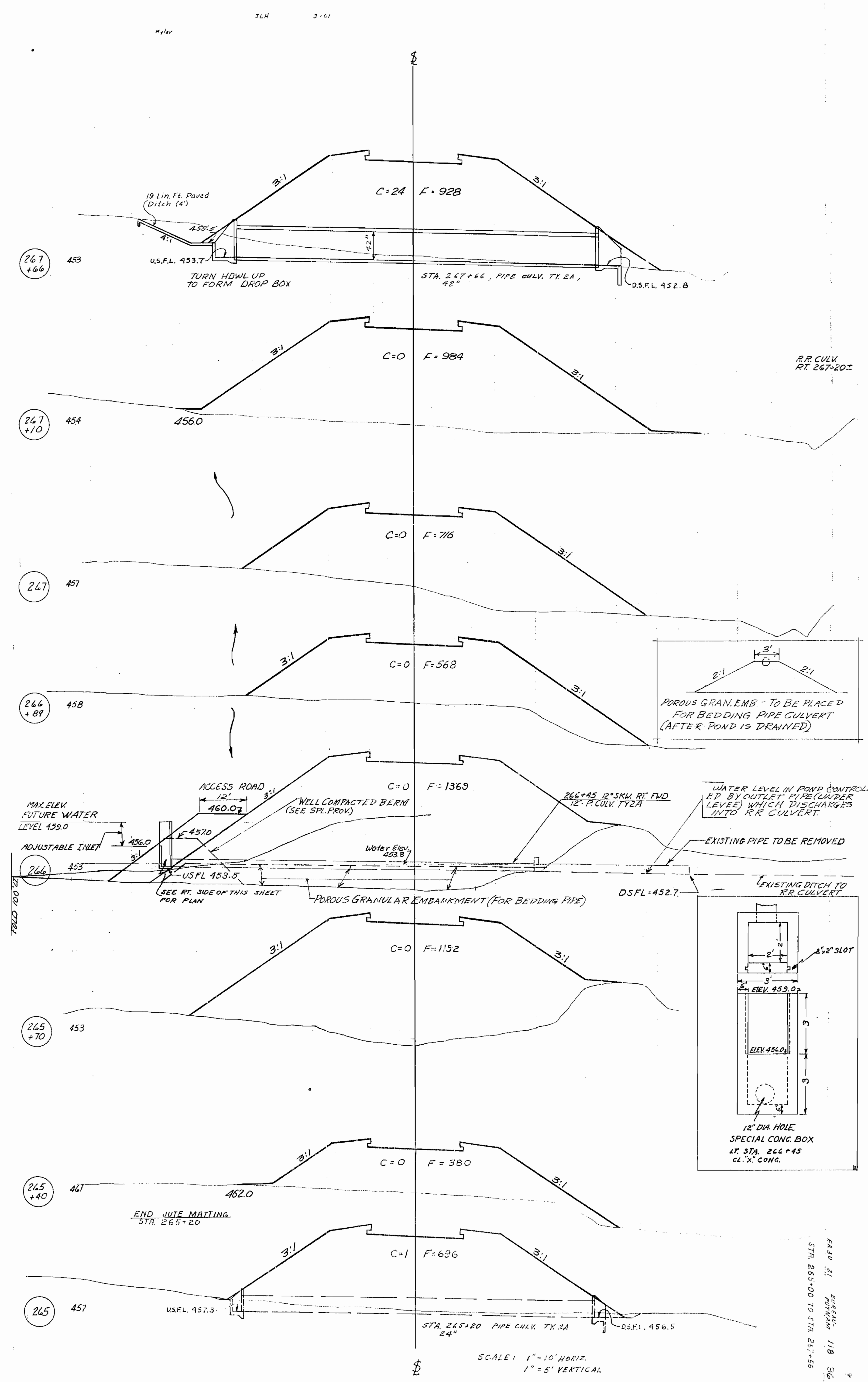
J.L.H. 3-61

Mylar



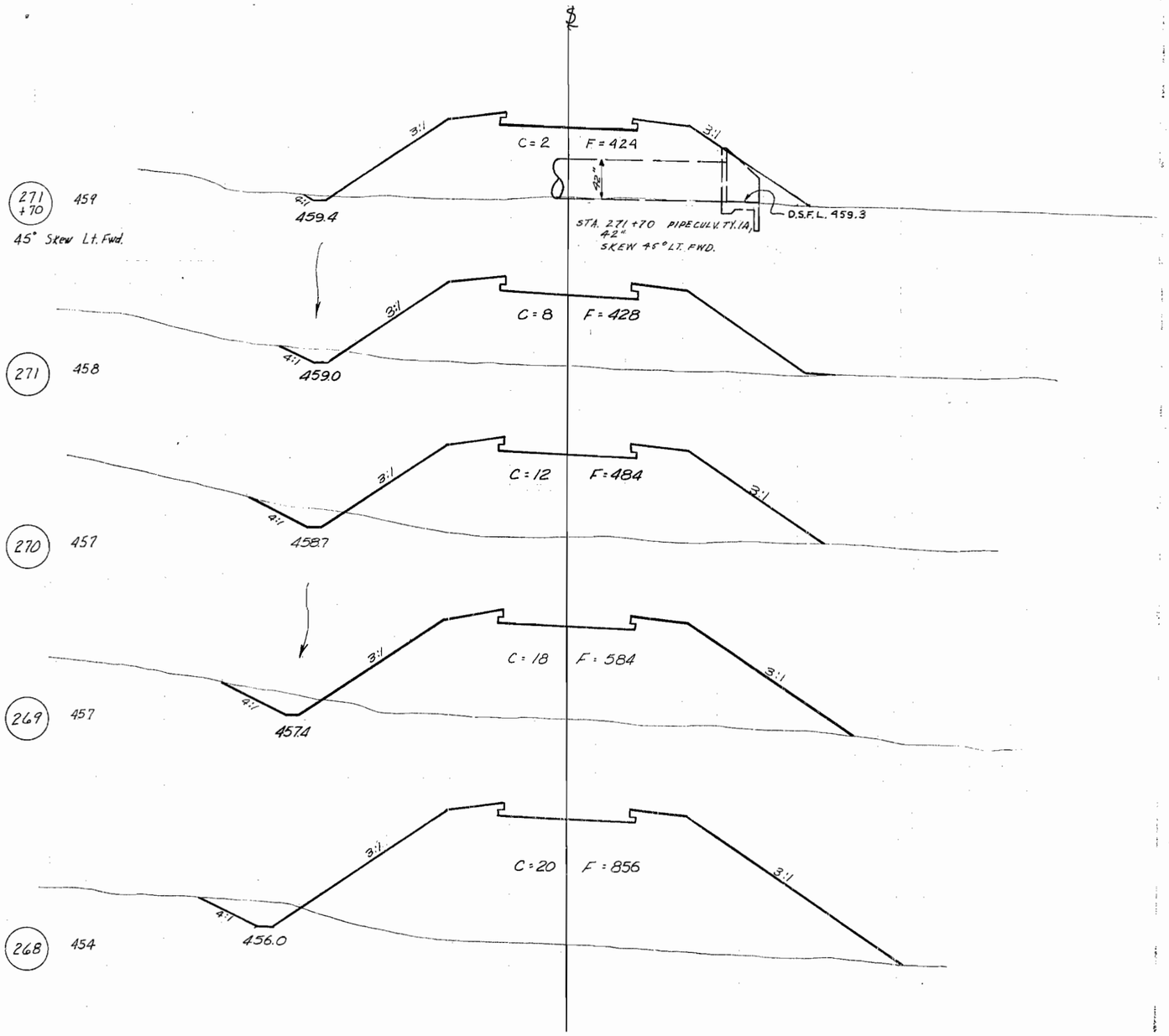
FA 30 21 BUREAU PUTNAM 1/8 95

STA. 259+00 TO STA. 265+20


JLH 3-61
Mylar
19 Lin. Ft. Paved Ditch (4')
453.5
4:1
U.S.F.L. 453.7
TURN HOWL UP TO FORM DROP BOX
STA. 267+66, PIPE CULV. TY. 2A, 42"
D.S.F.L. 452.8
C=24 F=928
3:1
42"
267+66 453
C=0 F=984
267+10 454
456.0
R.R. CULV. RT. 267+20±
C=0 F=716
267 457
C=0 F=568
266+89 458
POROUS GRAN. EMB. - TO BE PLACED FOR BEDDING PIPE CULVERT (AFTER POND IS DRAINED)
3'
2:1
ACCESS ROAD 12'
460.0
C=0 F=1369
WELL COMPACTED BERM (SEE SPL. PROV.)
266+45 12° SKW. RT. FWD 12" P. CULV. TY2A
WATER LEVEL IN POND CONTROLLED BY OUTLET PIPE (UNDER LEVEE) WHICH DISCHARGES INTO R.R. CULVERT.
EXISTING PIPE TO BE REMOVED
MAX. ELEV. FUTURE WATER LEVEL 459.0
ADJUSTABLE INLET
456.0
457.0
Water Elev. 453.8
266 453
USFL 453.5
SEE RT. SIDE OF THIS SHEET FOR PLAN
POROUS GRANULAR EMBANKMENT (FOR BEDDING PIPE)
DSFL = 452.7
EXISTING DITCH TO R.R. CULVERT
FOLD 100 CL.
C=0 F=1192
265+70 453
2"x2" SLOT
2'
3'
ELEV. 459.0
ELEV. 456.0
3
12" DIA. HOLE
SPECIAL CONC. BOX
LT. STA. 266+45
CL. "X" CONC.
C=0 F=380
265+40 467
462.0
END JUTE MATTING STA. 265+20
C=1 F=696
265 457
U.S.F.L. 457.3
STA. 265+20 PIPE CULV. TY. 2A 24"
D.S.F.L. 456.5
SCALE: 1" = 10' HORIZ. 1" = 5' VERTICAL
FA 30 21 BUREAU-PUTNAM 118 96
STA. 265+00 TO STA. 267+66

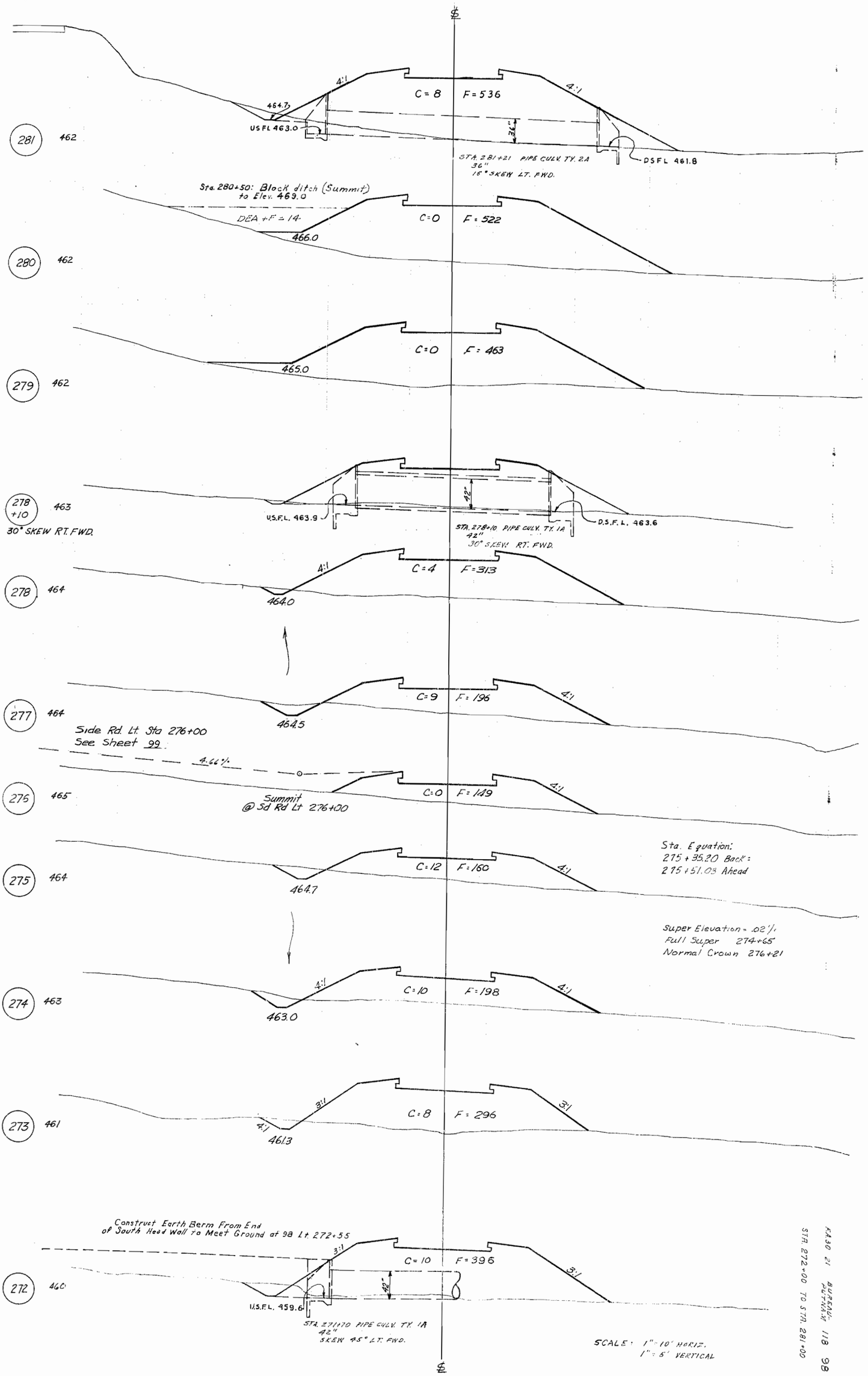
JLH 3-61

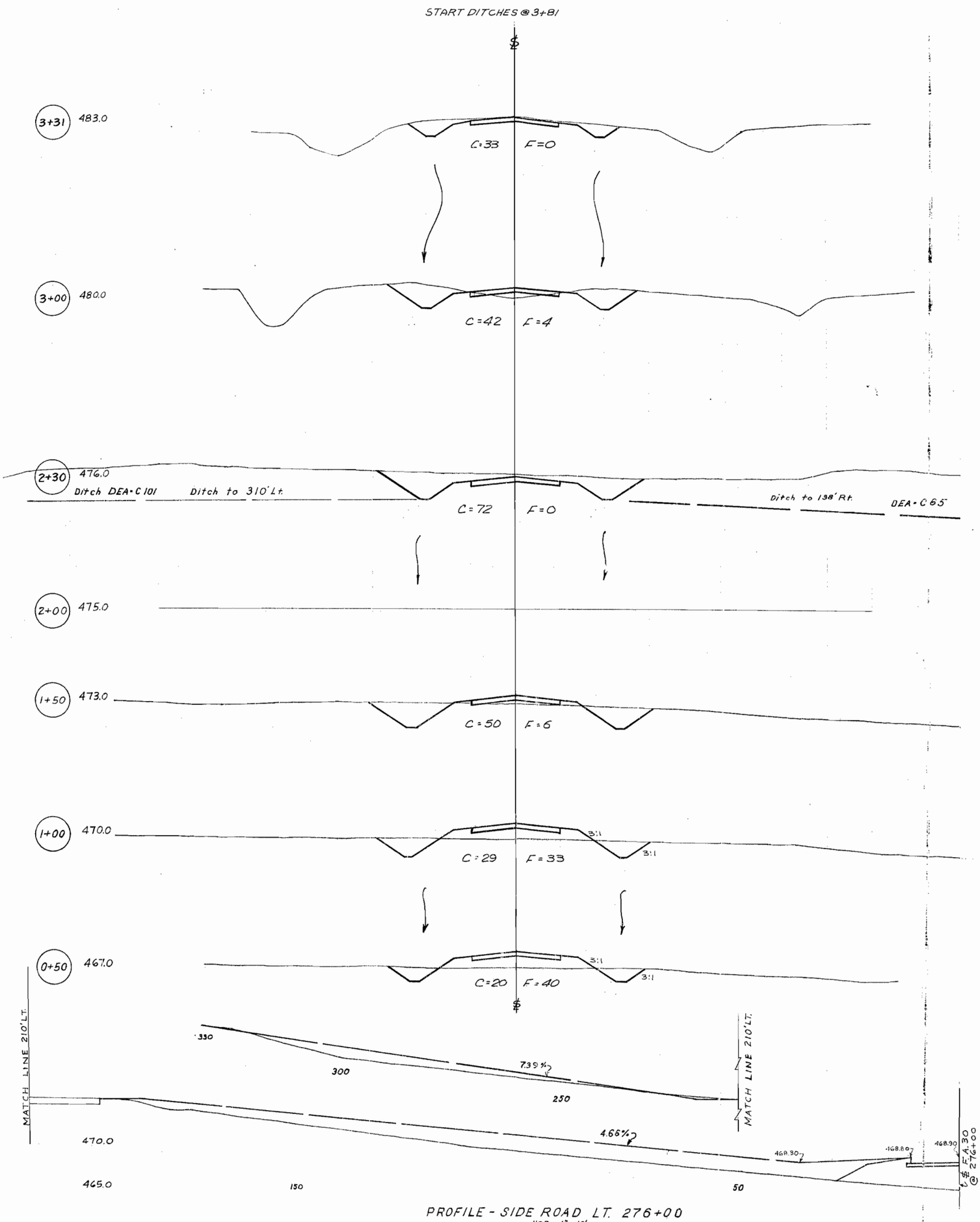
Mylar



SCALE: 1"=10' HORIZ.
1"= 5' VERTICAL

FA 30 21 BUREAU PORTAGE 118 97
STR. 268+00 TO STR. 271+70


℄
281
462
4:1
464.7
US FL 463.0
C = 8
F = 536
4:1
36"
STA. 281+21 PIPE CULV. TY. 2A
36"
15° SKEW LT. FWD.
D S F L 461.8
Sta. 280+50: Block ditch (Summit)
to Elev. 469.0
DEA + F = 14
466.0
280
462
C=0
F = 522
279
462
C=0
F = 463
465.0
278
+10
463
30° SKEW RT. FWD.
U.S.F.L. 463.9
42"
D.S.F.L. 463.6
STA. 278+10 PIPE CULV. TY. 1A
42"
30° SKEW RT. FWD.
278
464
4:1
464.0
C = 4
F = 313
277
464
C=9
F = 196
4:1
464.5
Side Rd. Lt. Sta 276+00
See Sheet 99
4.66%
275
465
Summit
@ Sd Rd Lt 276+00
C=0
F = 149
4:1
Sta. Equation:
275 + 35.20 Back =
275 + 51.03 Ahead
275
464
C=12
F = 160
4:1
464.7
Super Elevation = .02%
Full Super 274+65
Normal Crown 276+21
274
463
4:1
463.0
C=10
F = 198
4:1
273
461
3:1
4:1
461.3
C=8
F = 296
3:1
Construct Earth Berm From End
of South Head Wall to Meet Ground at 98 Lt. 272+55
272
460
3:1
C=10
F = 396
3:1
42"
U.S.F.L. 459.6
STA. 271+70 PIPE CULV. TY. 1A
42"
SKEW 45° LT. FWD.
SCALE: 1" = 10' HORIZ.
1" = 5' VERTICAL
℄
FA 30 21 BUREAU PLAN NO. 118 98
STA. 272+00 TO STA. 281+00

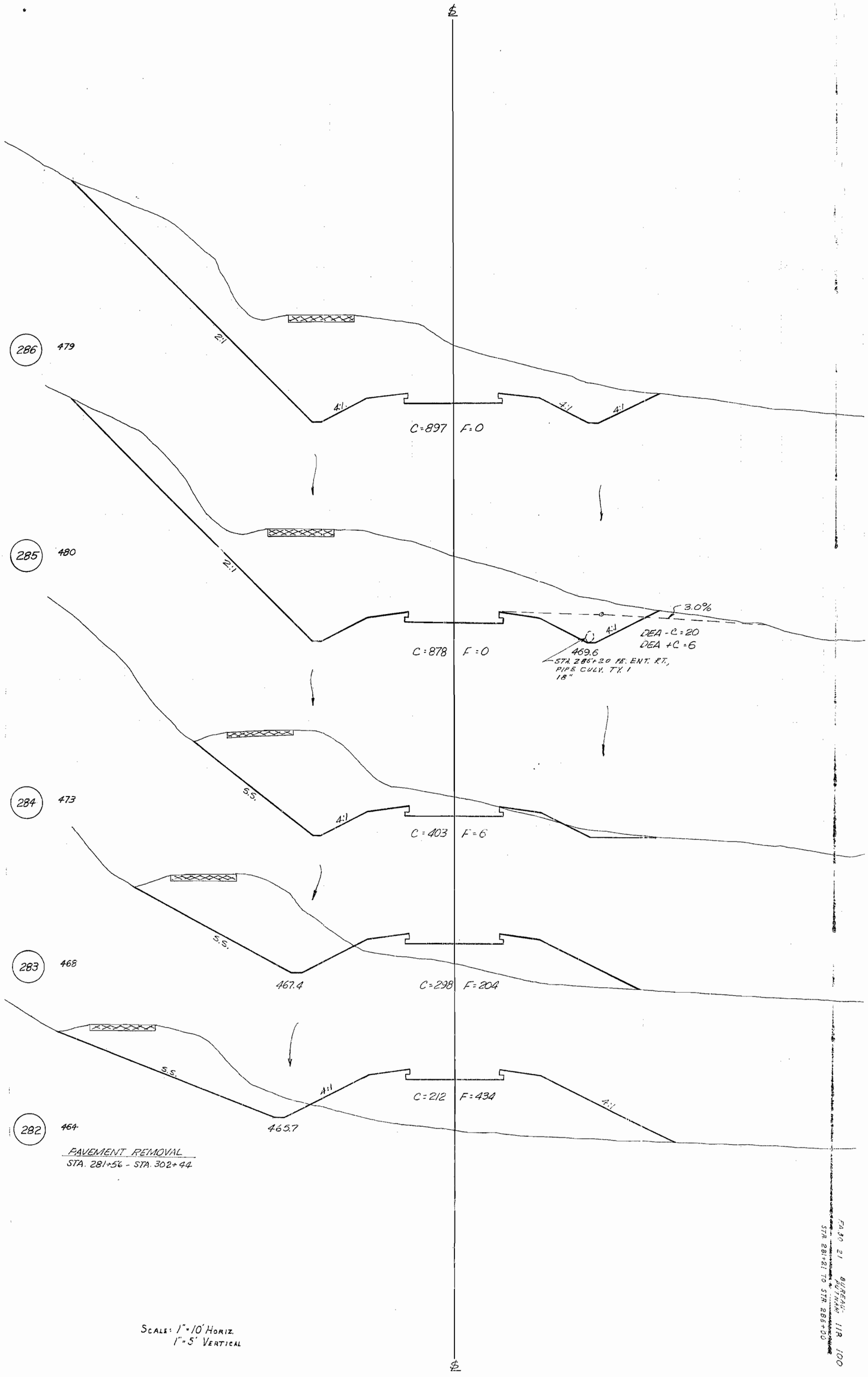


PROFILE - SIDE ROAD LT. 276+00

Scale: HOR. 1" = 10'
VER. 1" = 5'

SCALE: 1" = 10' HORIZ.
1" = 5' VERTICAL

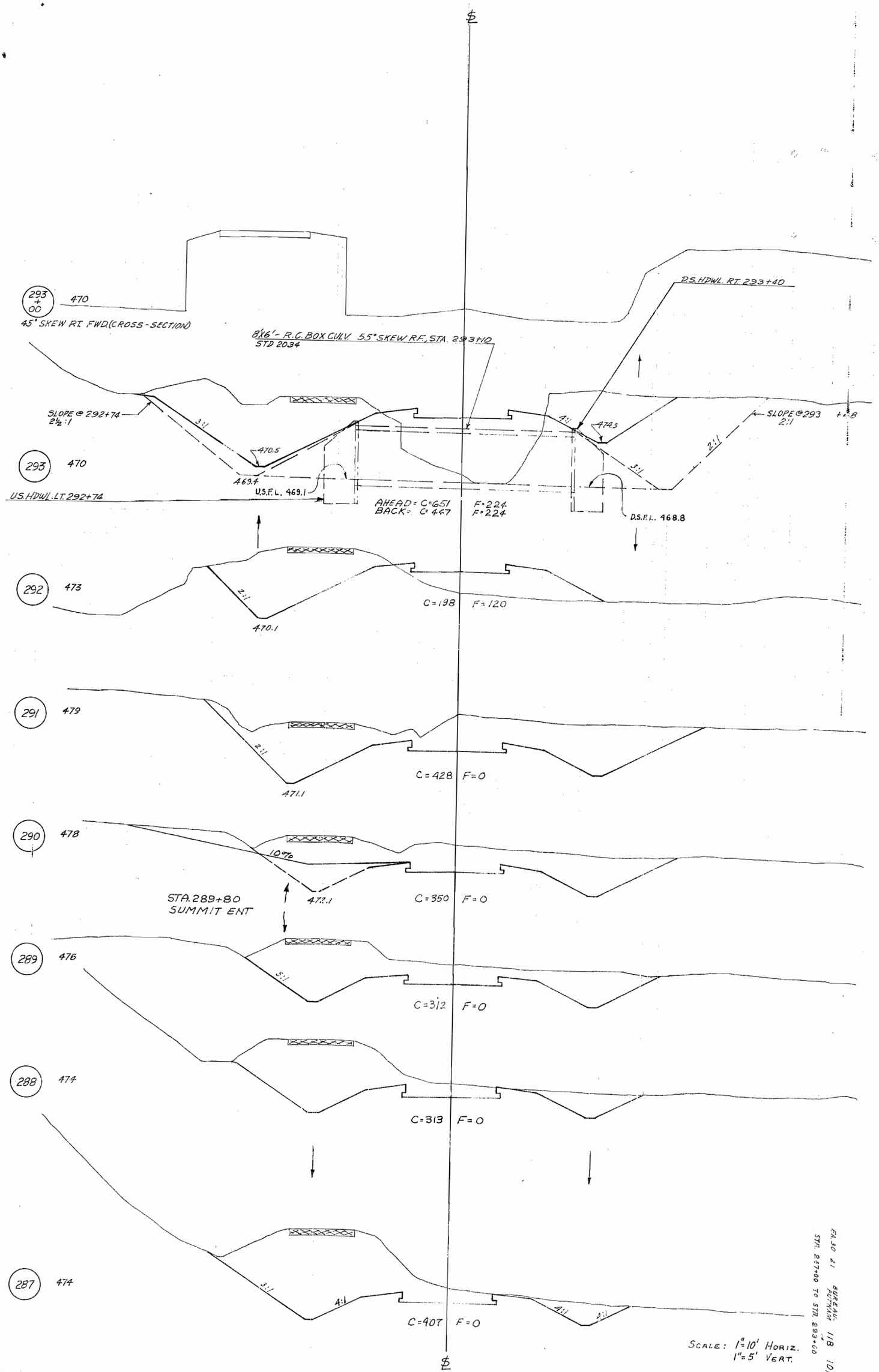
FA 30 21 BUREAU OF ROADS 118 99
SIDE ROAD LT. 276+00



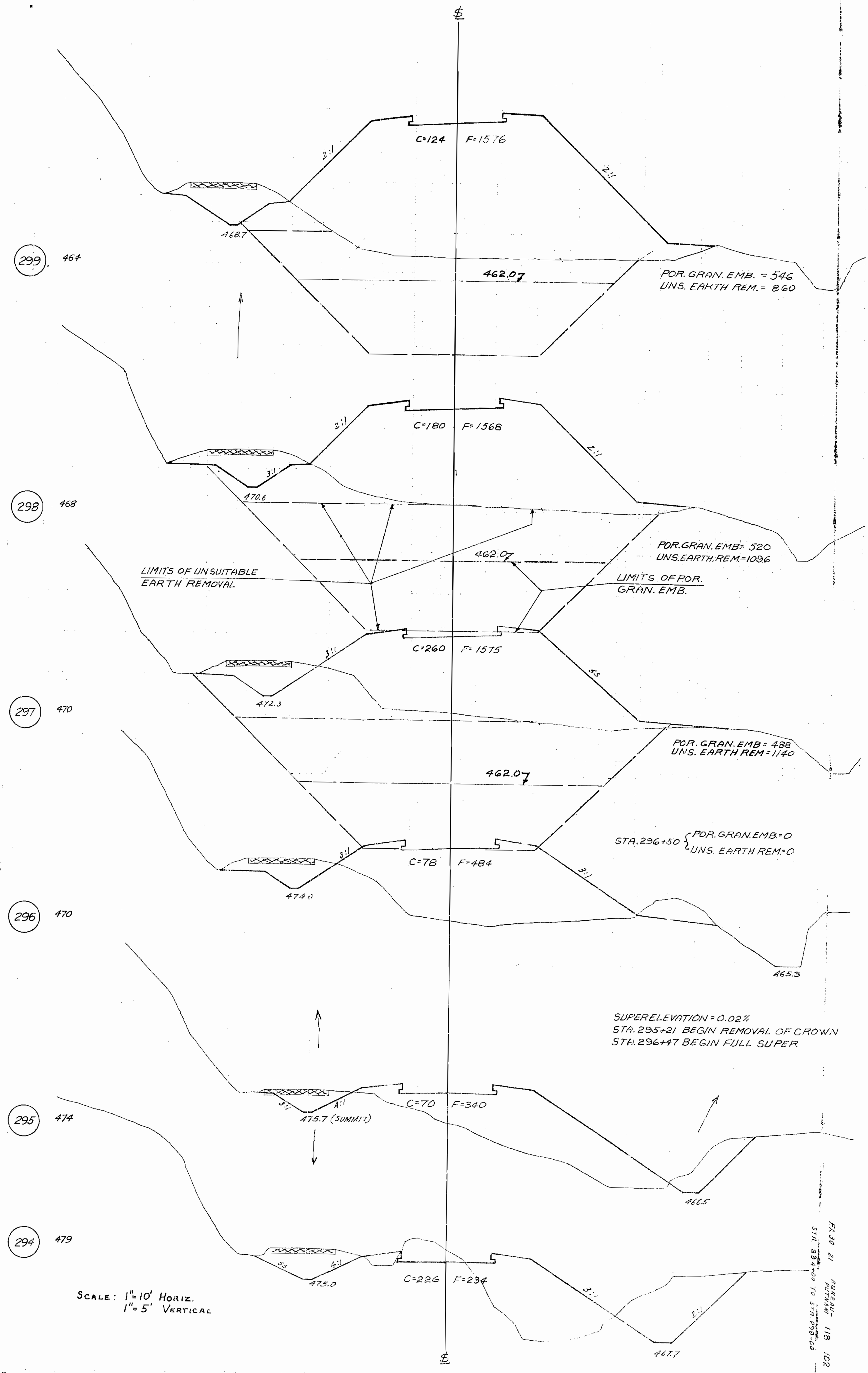
PAVEMENT REMOVAL
STA. 281+56 - STA. 302+44

SCALE: 1"=10' HORIZ.
1"=5' VERTICAL

FA 30 21 BUREAU-PUTNAM I IR 100
STA 281+21 TO STA 285+00



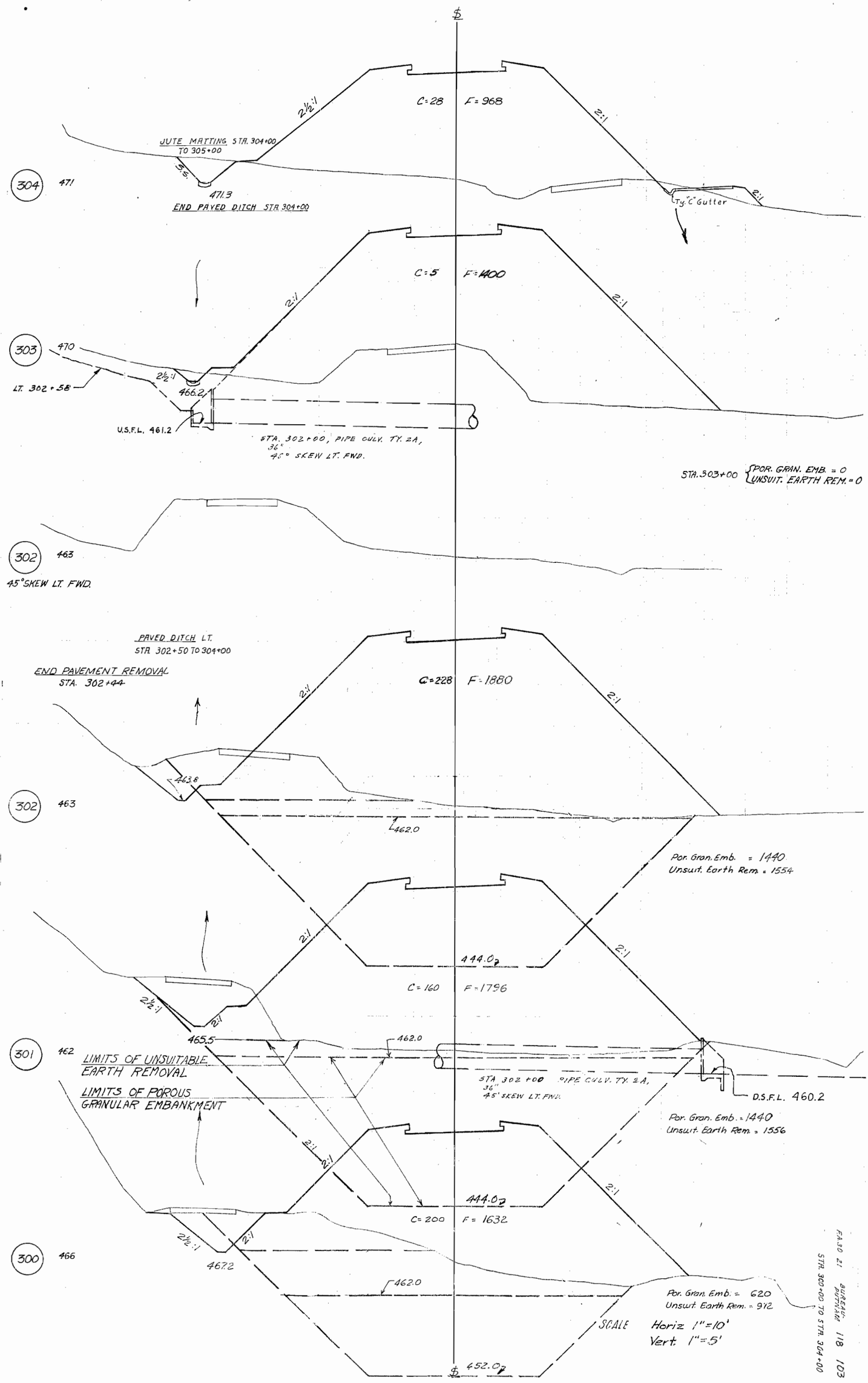
FA 30 21 BUREAU OF PUBLIC ROADS 118 101
STA. 287+00 TO STA. 293+60



FA 30 21 BUREAU-PUTNAM 118 102
STA. 294+00 TO STA. 299+00

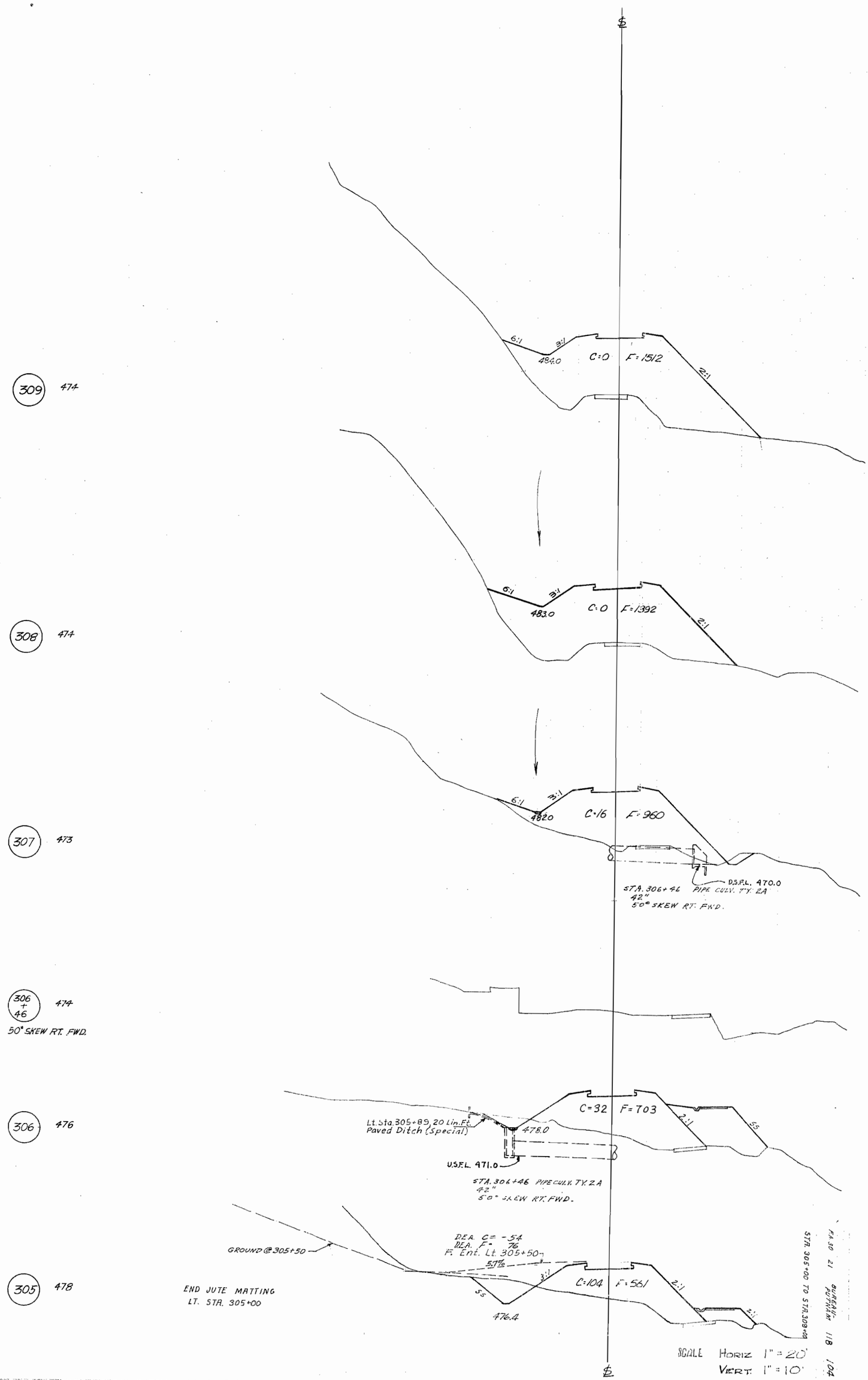
DC. & J.L.H. 1-5-61

Milcor

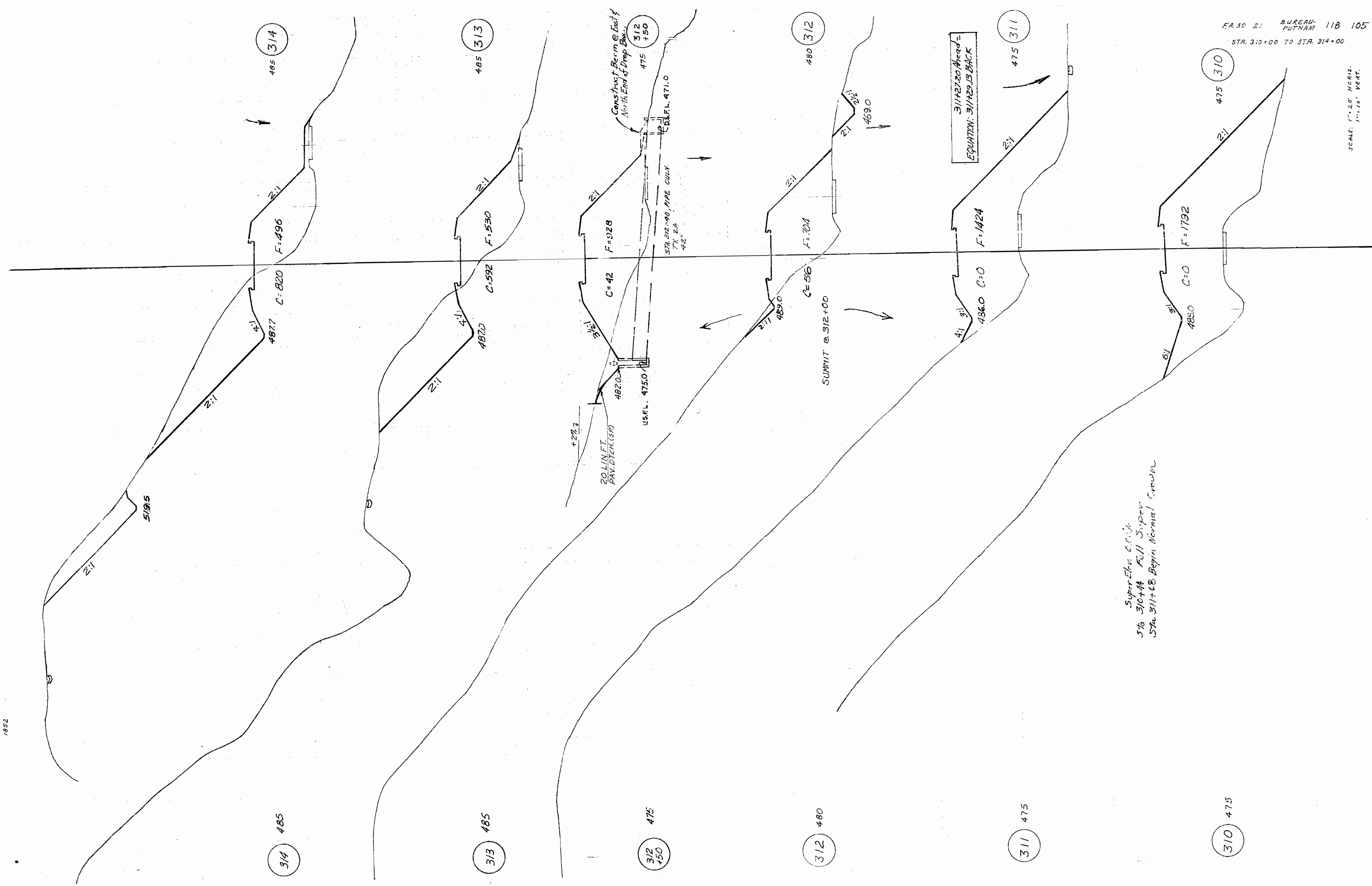


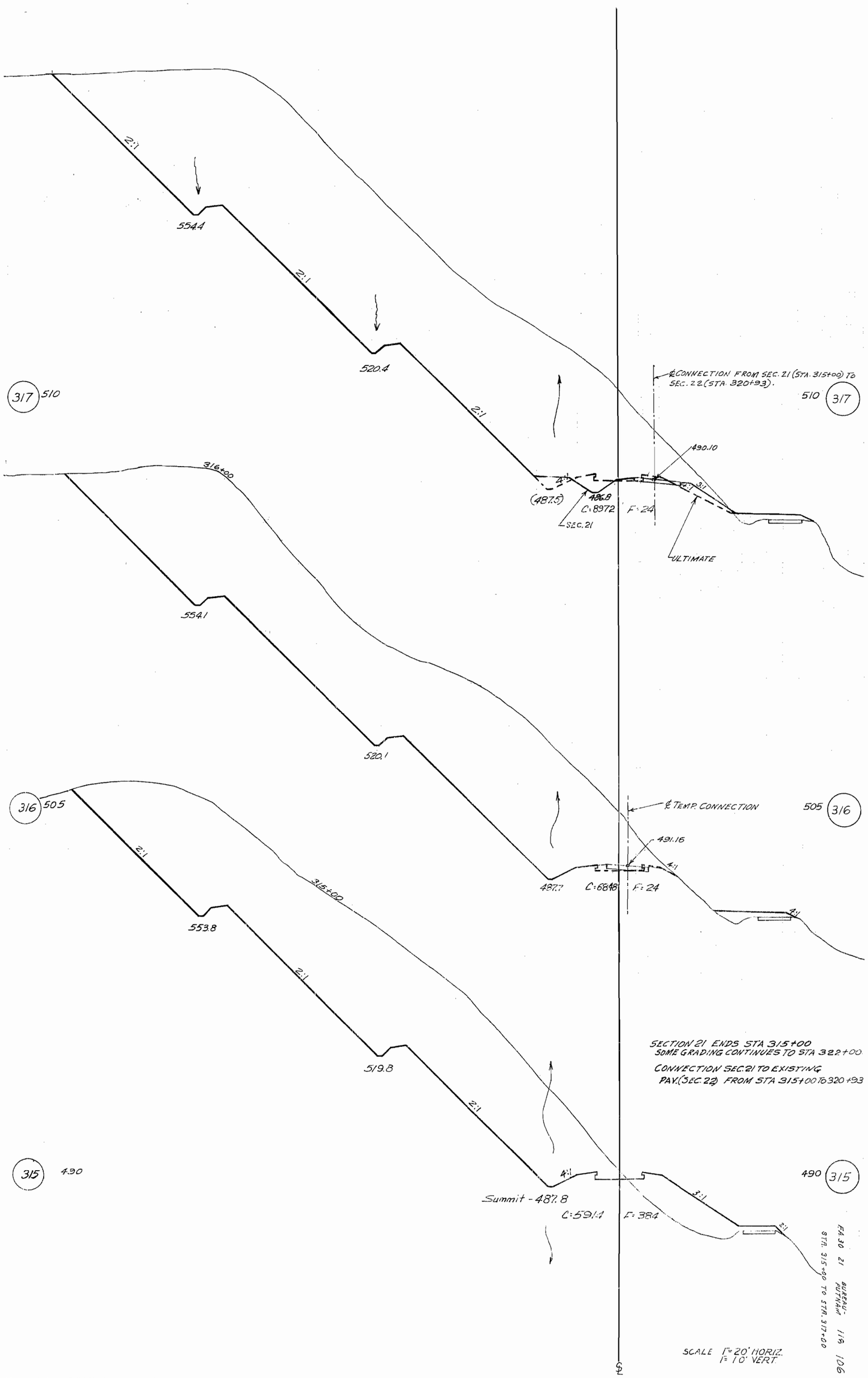
DC&JLH I-561

Nilsen

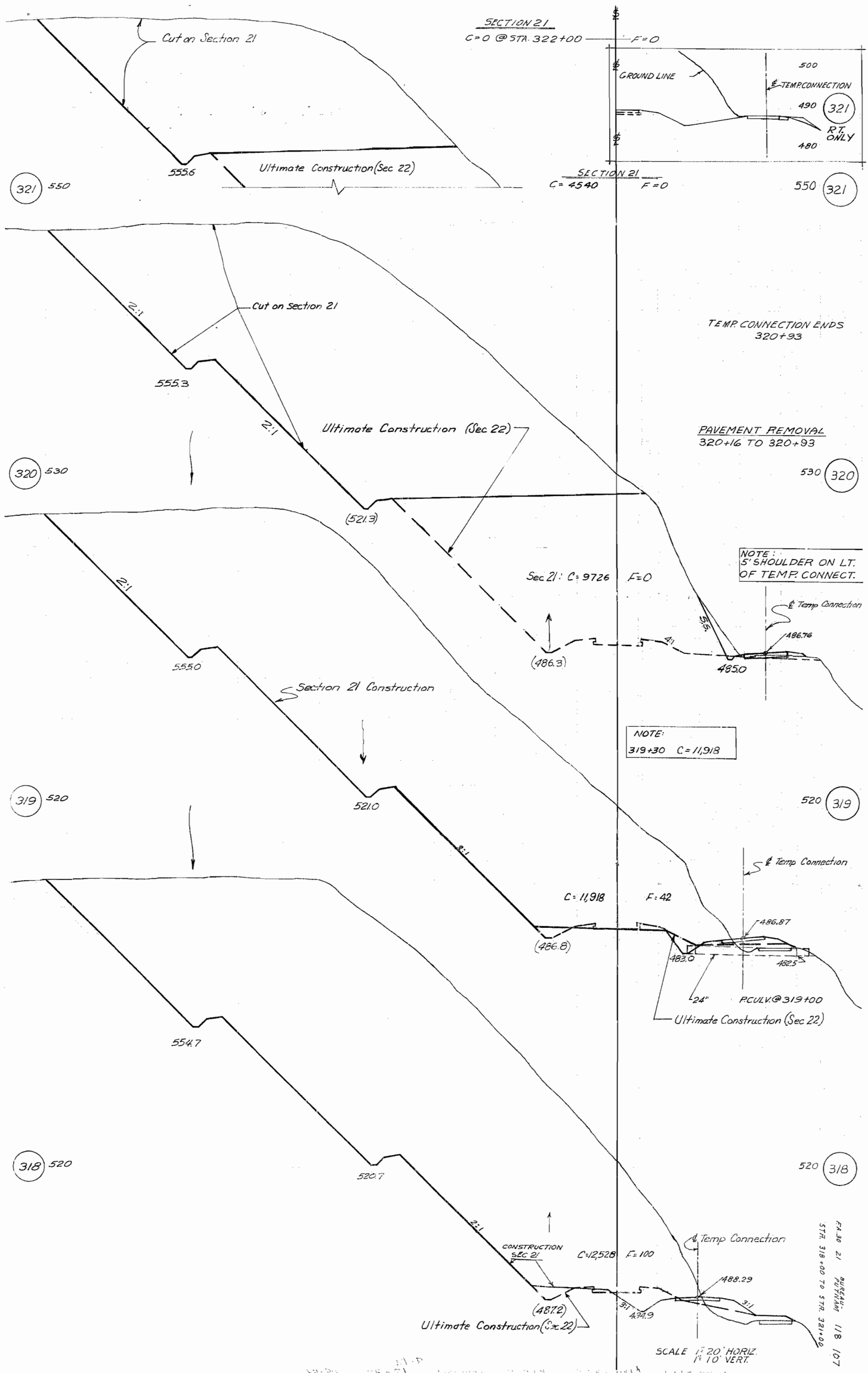


F.A.30 21 BUREAU-PUTNAM 118 105
STA. 310+00 TO STA. 314+00





FA 30 21 BUREAU-PUTNAM 119
STA. 315+00 TO STA. 317+00


SECTION 21
C=0 @ STA. 322+00
F=0
GROUND LINE
500
℄ TEMP. CONNECTION
490
321
RT. ONLY
480
SECTION 21
C= 4540
F=0
550
321
Cut on Section 21
555.6
Ultimate Construction (Sec 22)
321
550
TEMP. CONNECTION ENDS
320+93
PAVEMENT REMOVAL
320+16 TO 320+93
530
320
2:1
Cut on Section 21
555.3
2:1
Ultimate Construction (Sec 22)
(521.3)
320
530
NOTE:
5' SHOULDER ON LT.
OF TEMP. CONNECT.
Sec 21: C= 9726
F=0
℄ Temp Connection
486.76
(486.3)
485.0
2:1
555.0
Section 21 Construction
NOTE:
319+30 C= 11,918
520
319
521.0
℄ Temp Connection
C= 11,918
F= 42
486.87
(486.8)
483.0
482.5
24"
PCULV. @ 319+00
Ultimate Construction (Sec 22)
554.7
318
520
520.7
CONSTRUCTION
SEC 21
C=12,528
F=100
℄ Temp Connection
488.29
(487.2)
484.9
Ultimate Construction (Sec 22)
SCALE 1"=20' HORIZ.
1"=10' VERT.
FA 30 21 BUREAU PLAN 118 107
STA. 318+00 TO STA. 321+00