STATE OF VERMONT

CITIES OF BARRE & MONTPELIER

BERLIN, VERMONT

CONSTRUCTION PLANS

FOR

BARRE - MONTPELIER AIRPORT

GRADING, DRAINAGE, LIGHTING AND PAVING

10 JUNE 1950

SUMMARY OF QUANTITIES

ITEM NO.	ITEM	QUANTITIES
P-152	UNCLASSIFIED EXCAVATION	20,000 C.Y.
P-152	SCARIFYING, RESHAPE & COMPACT	21,700 C.Y.
P-213	PENETRATION MACADAM BASE COURSE	21,700 S.Y.
P-403	KEYSTONE AGGREGATE SURFACE TREATMENT	4,650 TON
P-405	BITUMINOUS MATERIAL	96,900 GALS.
P-602	BITUMINOUS PRIME COAT	13,400 GALS
P-604	BITUMINOUS SEAL COAT (COVER AGG)	1,500 TON.
P-604	BITUMINOUS SEAL COAT	45,000 GAL.
D-704	8" STANDARD STRENGTH CLAY PIPE	325 L.F.
D-701B	REMOVE AND RELAY UNDER-DRAIN	800 L.F.
D-702	15" STANDARD STRENGTH REIN. CONC. CUL.	325 L.F.
D-705	POROUS BACKFILL NO. 2.	400 C.Y.
D-751	DROP INLET	9 EA.
D-751A	LOWER OR RAISE EXISTING C.B. GRATES	3 EA.
D-751B	REMOVE EXISTING CATCH BASIN	3 EA.
T-901	SEEDING - PREPARING SURFACE	5.8 ACRES
T-901	SEEDING - FERTILIZING	5.8 ACRES
T-901	SEEDING - SOWING SEED	5.8 ACRES
T-905	TOPSOILING	2900 C.Y.
L-108	AIRPORT CABLE TRENCH	8,900 L.F.
L-108	AIRPORT UNDERGROUND CABLE	9,000 L.F.
L-109A	TESTING RUNWAY ELEC. INSTALLATION AND REPAIRING THRESHOLD LIGHTS	LUMP SUM
AL-114	INSTALLATION OF AIRPORT LIGHTS	73 EA.

INDEX TO DRAWINGS

TITLE	SHEET NO.
TITLE & APPROVAL SHEET - QUANTITIES & INDEX	1
LOCATION MAP & PROPERTY PLAN	2 & 2A
LOG OF BORINGS & TYPICAL SECTIONS	3
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PLAN & PROFILE NW-SE RUNWAY	6
PLAN AT INTERSECTION	7
LIGHTING PLAN & MASTER PLAN	8 & 8A
CROSS SECTIONS NW-SE RUNWAY	9-18 INC.

CIVIL AERONAUTICS ADMINISTRATION

APPROVED _____ DIRECTOR
DATE _____ AIRPORT ENGINEERING SERVICE

APPROVED _____ SUPERINTENDENT
DATE _____ AIRPORTS BRANCH

APPROVED _____ DISTRICT AIRPORT ENG'R.
DATE _____

VERMONT AERONAUTICS COMMISSION

APPROVED _____ CHAIRMAN
DATE July 7, 1950

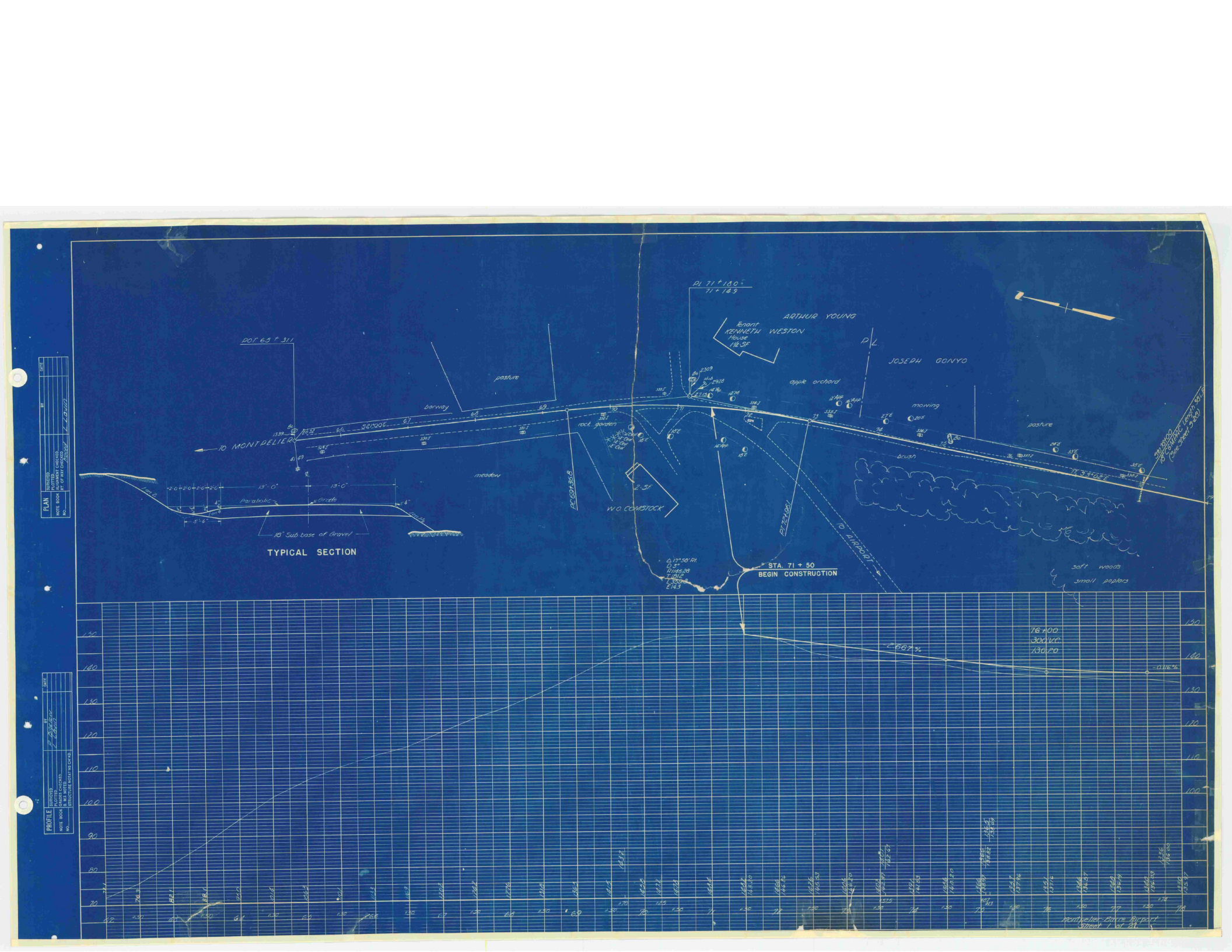
APPROVED _____ DIRECTOR
DATE June 28, 1950

CITIES OF BARRE & MONTPELIER

APPROVED Anson F. Barber Mayor City
DATE 28 June 1950 Harvey M. Wesley Mayor City

PREPARED BY

JOHN D. COOK, ENGINEER BARRE, VERMONT
DATE 28 June 1950 John D. Cook
Reg. Engineer


PLAN
PROFILE
POT 69 + 311
10 MONTPELIER
barway
pasture
rock garden
meadow
W.O. COMSTOCK
ARTHUR YOUNG
Tenant
KENNETH WESTON
House
PI 71 + 180 =
71 + 149
JOSEPH CONYO
apple orchard
mowing
brush
soft woods
small poplars
TO AIRPORT
STA. 71 + 50
BEGIN CONSTRUCTION
TYPICAL SECTION
parabolic
18" Sub base of Gravel
76+00
300' V.C.
136.20
-0.67%
-0.16%
Montpelier Barre Airport
Sheet 1 of 2

State of Vermont — Department of Highways

MONTPELIER-BARRE AIRPORT — F. A. P. No.

FORM ENG. 1A — EARTHWORK SHEET NO. 1 of 4 — 1941

V.C.	% Grade	STATION	PROFILE: ELEVATION On Grades	PROFILE: ELEVATION On V Curves	PROFILE: Correction for Vertical Curve	DIST.	Total Excavation Earth and Rock: AREA	Total Excavation Earth and Rock: CU. YDS.	Balance and Rock Excavation: AREA	Balance and Rock Excavation: CU. YDS.	Embankment: AREA	Embankment: CU. YDS.	Shaping Course of Gravel: AREA	Shaping Course of Gravel: CU. YDS.
		62+0												
		+50												
		63												
		+50												
		64												
		+50												
		65												
		+50												
		66												
		+50												
		67												
		+50												
		68												
		+50												
		69												
		+50												
		+70												
		70												
		+25												
		+50												
		+75												
		71												
		+50	148.20			50	23	109			11	52		
		72	146.86			50	27	101			28	104		
		+50	145.53			50	6	41			89	164	0	185
		73	144.20			50	0	6			95	145	0	0
		+50	142.87			50					62	115	0	0
		+51.5	142.67			25					11	12		
		74	141.53			25	0				31	73		
		+50	140.20		0	50	6	6			9	21		
		75	138.86	138.97	+0.11	50	26	71	0	1	236	557		
		+07	138.68	138.82	+0.14	7	10	27	10	1	17	5		
		+13	138.32	138.69	+0.17	6	0	1	0	1	26	5		
		+50	137.53	137.96	+0.43	37	0				22	25		
		76	136.20	137.16	+0.96	50	5	3			16	65		

State of Vermont — Department of Highways

Montpelier - Barre Airport — F. A. P. No.

FORM ENG. 1A — EARTHWORK SHEET NO. 2 of 4 — 1941

V.C.	% Grade	STATION	PROFILE ELEVATION On Grades	On V Curves	Correction for Vertical Curve	DIST.	Total Excavation Earth and Rock AREA	CU. YDS.	Balance and Rock Excavation AREA	CU. YDS.	Embankment AREA	CU. YDS.	Shaping Course of Gravel AREA	CU. YDS.
		91+50	146.64			50					22			
		92	147.87			50					45	74		
	+2.40%	+50	149.10		0	✓					57	91		
		93	150.33	150.29	-0.04	✓					35	54	C 1	
		+50	157.56	151.40	-0.16	✓					6	8	E 0	
300' V.C.													F 849	
													Fac. 1.12	
		94	152.79	152.42	-0.37	✓					36	70		
		+50	153.62	153.46	-0.16	✓					116	76		
		95	154.45	154.41	-0.04	✓					74	111		
		+50	155.78		0	✓					115	173		
		96	156.11			✓					135	204		
	+1.660%	+50	156.94			✓					128	216		
		+76	157.37			26					111	180		
		97	157.77			24					118	128	C 0	
		+50	158.60			50					118	271	E 0	
		98	159.43			✓					145	246	F 2574	
		+50	160.26			✓					142	236	Fac. 1.12	
		99	16109			✓					150	236		
		+50	161.92			✓					163	245		
		100	162.75			✓					166	234		
		+50	163.58			✓					172	227		
		101	164.41			✓					148	226		
		+50	165.24			✓					146	220		
		102	166.07			✓					142	220		
		+50	166.90			✓					141	221	C 0	
		103	167.73			✓					134	205	E 0	
		+50	168.56			✓					130	203	F 2445	
		104	169.39			✓					122	188	Fac. 1.12	
		+50	170.22			✓					95	183		
		105	171.05		0	✓					101	177		
		+50	171.88	172.01	+0.13	✓					90	208		
		106	172.71	173.25	+0.54	✓					102	176		
		+50	173.54	174.75	+1.21	✓					140	224		
300' V.C.														
		107	175.98	176.52	+0.54	✓					111	184		
	+4.890%	+50	178.43	178.56	+0.13	✓					85	138		
											57	133		
		CARRIED FORWARD												
		COLUMN FOOTINGS												

V.C.	% Grade	STATION	PROFILE ELEVATION On Grades	On V Curves	Correction for Vertical Curve	DIST.	Total Excavation Earth and Rock AREA	CU. YDS.	Balance and Rock Excavation AREA	CU. YDS.	Embankment AREA	CU. YDS.	Shaping Course of Gravel AREA	CU. YDS.
		107+50	178.43	178.56	+0.13	50					59			
		108	180.88		0	✓					32	84		
		+50	183.32			✓					28	65	C 0	30
		+73	184.44			23					0	16	E 0	0
		109	185.86		0	27					0		F 1069	
		+07	186.11		-0.00	7	0	0			10		Fac. 1.12	
		+50	188.21	188.10	-0.11	43	32	46			0	24		
		110	190.66	190.22	-0.44	50	0				27	57		
		+50	193.10	192.11	-0.99	✓					26	91		
		+91	195.10	193.50	-1.60	41	0	28			8	6		
		111	195.54	193.79	-1.75	9	57	6			0			
		+50	196.23	195.24	-0.99	50	0	9						
		112	196.96	196.52	-0.44	✓	2	13					C 657	
		+50	197.61	197.50	-0.11	✓	12	67			1		E 0	
		113	198.30		0	✓	60	110			1	41	F 63	
		+50	198.99			✓	87	113			1	10	Fac. 1.12	
		114	199.68			✓	60	114			10	11		
		+50	200.37			✓	61	109			24	24		
		+699	200.64			✓	37	106			0			
		115	201.06				45	109			1	1		
		Eq. 1147 = 799.2	201.72			101						3		
		115	202.01			50	58	73			1			
		+50	202.70			✓	38	81			3	6		
		116	203.39			✓	24	55			4	8		
		+50	204.07			✓	51	56			3	6		
		117	204.76		0	✓	30	61			6	8	C 629	
		+50	205.45	205.44	-0.01	✓	36	72			28	29	E 0	
		118	206.14	206.10	-0.04	✓	42	45			8	24	F 2514	
		+50	206.83	206.74	-0.09	✓	7	24			8	15	Fac. 1.12	
		119	207.41	207.37	-0.04	✓	19	42			16	32		
		+50	207.98	207.97	-0.01	✓	26	49			40	57		
		120	208.56		0	✓	21	52			40	74		
		+50	209.13			✓	1	1			3	40		
		121	209.71			✓	0	1			54	55		
		+50	210.28			✓					65	109		
		122	210.86			✓					69	125		
		CARRIED FORWARD												
		COLUMN FOOTINGS												

REVISIONS — By

VOLUMES — Computed by — Checked by

VERTICAL CURVES — Computed by — Checked by

GRADES — Computed by — Checked by

State of Vermont — Department of Highways

Montpelier-Barre Airport — F. A. P. No.

FORM ENG. 1A — EARTHWORK SHEET NO. 3 of 4 — 1941

V.C.	% Grade	STATION	PROFILE: ELEVATION On Grades	ELEVATION On V Curves	Correction for Vertical Curve	DIST.	Total Excavation Earth and Rock: AREA	CU. YDS.	Balance and Rock Excavation: AREA	CU. YDS.	Embankment: AREA	CU. YDS.	Shaping Course of Gravel: AREA	CU. YDS.
		122	210.86								69			
		+50	211.43			50					99	119		
		+59 = 1010	211.50			59					97	13	C 0	21
		123+56.9				91.1					41	100	F 2 Fac. 1.12	874
		124	212.00			50					67	126		
		+50	212.57			✓					77	136		
		125	213.15			✓					64	133		
		+50	213.72			✓					82	144		
		126	214.30			✓					85	151		
		+50	214.87			✓					90	161		
		127	215.45			✓					91	179	C 6	6
		+50	216.02			✓					93	173	C 2 F 1537	0
		128	216.60			✓					94	164	Fac. 1.12	
		+50	217.17			✓					93	148		
		129	217.75			✓					73	137		
		+50	218.32			✓	6				70	116		
		130	218.90			✓	5	4			38	135		
		+50	219.47			✓	0	6			43	99		
		131	220.05			✓	1	1			44	82		
		+50	220.62			✓	3	4			28	61		
		132	221.20			✓	1	3			16	41	C 24	24
		+50	221.77			✓	3	4			7	21	C 42 F 2437	0
		133	222.35			✓	1	1			10	21	Fac. 1.12	
		+50	222.92		0	✓	0				3	45		
		134	223.50	223.46	-0.04	✓					29	55		
		+50	224.07	223.91	-0.16	✓					27	54		
		135	224.65	224.29	-0.36	✓					34	55		
		+50	224.75	224.59	-0.16	✓					26	57		
		136	224.85	224.81	-0.04	✓					14	36		
		+50	224.95		0	✓					22	61		
		137	225.05			✓					44	76	C 2	8
		+50	225.15			✓					60	96	F 976	
		138	225.25			✓					90	139	Fac. 1.12	
		+50	225.35			✓					110	157		
		139	225.45			✓					97	149		

CARRIED FORWARD

COLUMN FOOTINGS

V.C.	% Grade	STATION	PROFILE: ELEVATION On Grades	ELEVATION On V Curves	Correction for Vertical Curve	DIST.	Total Excavation Earth and Rock: AREA	CU. YDS.	Balance and Rock Excavation: AREA	CU. YDS.	Embankment: AREA	CU. YDS.	Shaping Course of Gravel: AREA	CU. YDS.
		139	225.45								81			
		+50	225.55			50					65	135		
		140	225.65			✓					52	107		
		+50	225.75			✓					36	81		
		141	225.85			✓					28	59		
		+50	225.95			✓					9	34		
		142	226.05			✓					44	49	C 0	0
		+50	226.15			✓					45	81	R 0 F 539	
		+75	226.20		0	✓					24	71	Fac. 1.12	
		143	226.25	226.30	+0.05	✓					27	52		
		+50	226.35	226.80	+0.45	✓					18	47		
		144	226.45	227.70	+1.25	✓					17	37		
		+25	226.50	228.30	+1.80	✓					20	36		
		+50	227.75	229.00	+1.25	✓					8	30		
		145	230.24	230.69	+0.45	✓	0				24	31		
		+50	232.73	232.78	+0.05	✓	35	32			9	26		
		+75	233.98		0	✓		66			16	30		
		146	235.23			✓	38	54			9	31		
		+50	237.72		0	✓	30	37			16	23		
		147	240.21	240.03	-0.18	✓	9	30			12	34	C 238	
		+50	242.71	241.98	-0.73	✓	13	17			5	14	R 0 F 2022	
		148	245.20	243.56	-1.64	✓	5	5			4	8	Fac. 1.12	
		+50	245.51	244.78	-0.73	✓	0				3	6		
		149	245.81	245.63	-0.18	✓	0	6			8	10		
		+50	246.12		0	✓	6	6			24	34		
		150	246.42			✓	2	5			33	55		
		+50	246.73			✓					51	78		
		151	247.03			✓					87	128		
		+50	247.34			✓					80	155		
		+75	247.49		0	✓					74	143	C 52	
		152	247.64	247.70	+0.06	✓					65	122	R 37 F 1938	
		+50	247.95	248.49	+0.54	✓					54	129	Fac. 1.12	
		153	248.25	249.75	+1.50	✓	0	15	0	12	21	35		
		+25	248.40	250.57	+2.17	✓	33	18	25	13	41	29		
		+50	249.99	251.49	+1.50	✓	5	8	4	6	75	59		
		+75	251.59	251.56	+0.97	✓	13	7	10	6	89	76		
		154	253.19	253.73	+0.54	✓	3		3					
		+25	254.79	255.03	+0.24	✓								
		+50	256.38	256.44	+0.06	✓								

CARRIED FORWARD

COLUMN FOOTINGS

+1.150% — 300' V.C. — +0.200% — 300' V.C. — +4.987% — 300' V.C. — +0.610% — 300' V.C. — +6.387%

REVISIONS — By

VOLUMES — Computed by — Checked by

VERTICAL CURVES — Computed by — Checked by

GRADES — Computed by — Checked by

State of Vermont — Department of Highways

Montpelier-Barre Airport — F. A. P. No.

FORM ENG. 1A — EARTHWORK SHEET NO. 4 of 4 — 1941

V.C.	% Grade	STATION	PROFILE: Elevation On Grades	PROFILE: Elevation On V Curves	PROFILE: Correction for Vertical Curve	DIST.	Total Excavation Earth and Rock: AREA	Total Excavation Earth and Rock: CU. YDS.	Balance and Rock Excavation: AREA	Balance and Rock Excavation: CU. YDS.	Embankment: AREA	Embankment: CU. YDS.	Shaping Course of Gravel: AREA	Shaping Course of Gravel: CU. YDS.
		154+50	256.38	256.44	+0.06		3		3		89	95		
		+75	257.98		0	25	0	1	0	1	116	84		
		155	259.58			25	0				66			
		+50	262.77			50	4	6			0	61		
		156	265.96		-0.0	✓	0	4			9	9	0	39
		+50	269.14	268.40	-0.76	✓					28	34	2	137
		157	272.35	269.52	-3.03	✓	0				5	31	Exc. 112	
		+50	269.48	268.72	-0.76	✓	18	17			0	6		
		+75	266.89	266.88	-0.01									
		158	266.60		0									
		+50												
		159												
		+50												
		160												
		+50												
		161												
		+50												
		162												

CARRIED FORWARD

COLUMN FOOTINGS

REVISIONS

VOLUMES — Computed by — Checked by

VERTICAL CURVES — 4/41 — 4/41 — Computed by — Checked by

GRADES — 4/41 — 4/41 — Computed by — Checked by

200' VC — +6.38% — -5.76%

REVISIONS

By

VOLUMES — Computed by — Checked by

VERTICAL CURVES — Computed by — Checked by

GRADES — Computed by — Checked by

400' VC — +6.38% — +3.94% — 150' VC — +3.94% — -9.20%

V.C.	% Grade	STATION	PROFILE: Elevation On Grades	PROFILE: Elevation On V Curves	PROFILE: Correction for Vertical Curve	DIST.	Total Excavation Earth and Rock: AREA	Total Excavation Earth and Rock: CU. YDS.	Balance and Rock Excavation: AREA	Balance and Rock Excavation: CU. YDS.	Embankment: AREA	Embankment: CU. YDS.	Shaping Course of Gravel: AREA	Shaping Course of Gravel: CU. YDS.
		Spur Line												
	+6.38%	155	259.58											
		+50	262.77		0		0	1			0	2		
400		156	265.96	266.24	+0.28	50	1	8			2	6	5	25
	+3.94%	+50	270.26		0	50	8	16			4	1	2	8
		157	274.55		0		9				1		Exc. 112	
		+50	278.85	277.37	-1.48									
150		+75	281.00	277.68	-3.32									
	-9.20%	158	278.72	277.24	-1.48									
		+50	274.16		0									
		159	269.60											

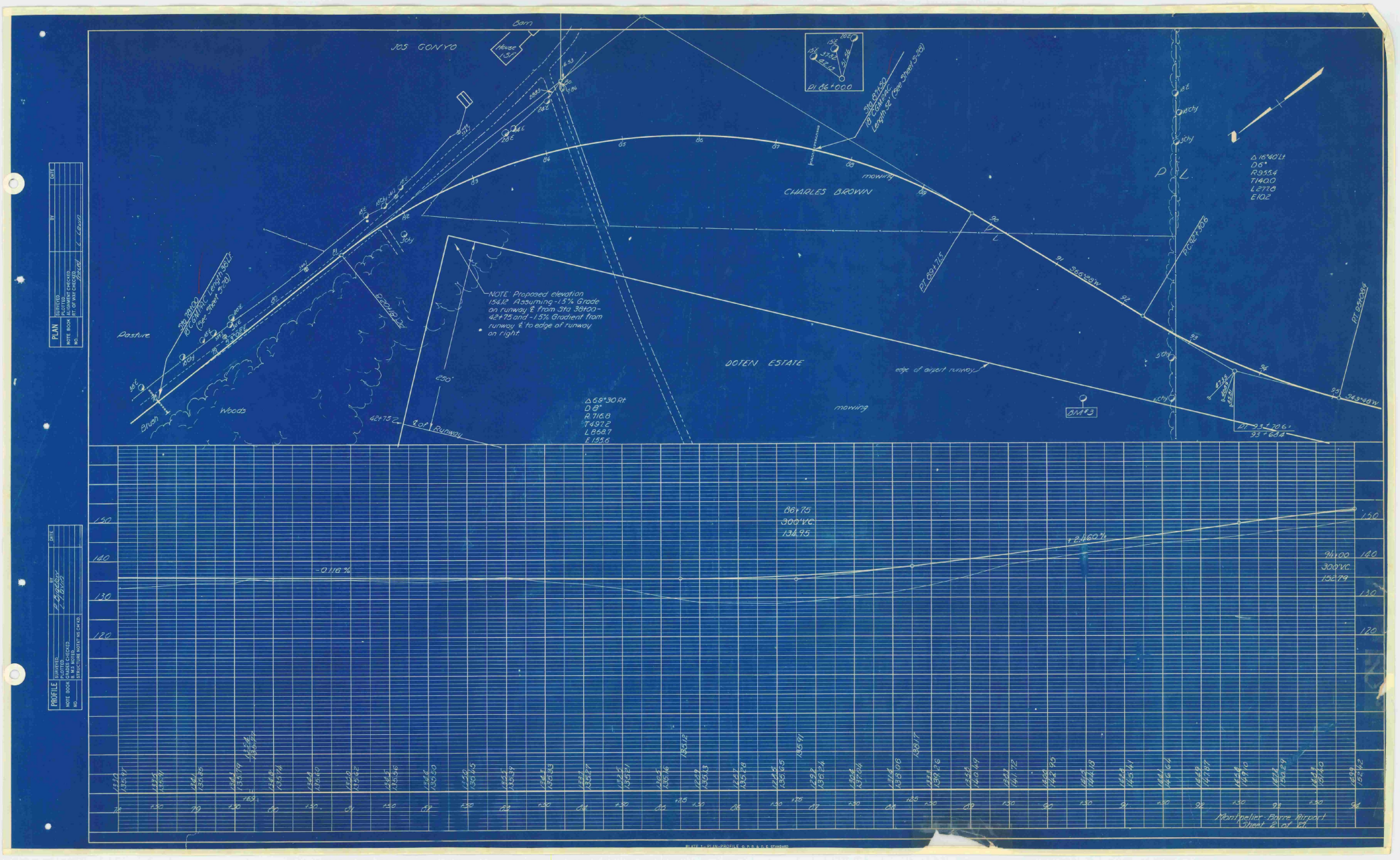
		154+50	256.0					116				220		
		75	257					121		49		340		
		155	259					126		92		549		
		25	260					13				574		
		50	262					3				577		
		75	263									576		
		156	265									1045		
		25	267					30				1304		
		50	268					45				1349		
		75	270					6				1355		
		157	271					259				1614		
		25	273					24				1638		
		50	274					6				1644		
		75	276					19				1663		
		158	277									1663		
		25	279									1663		
		50	280					130				1793		
		75	281					22		32		1815		
		159	282					3				1818		
								1273		173		16707		

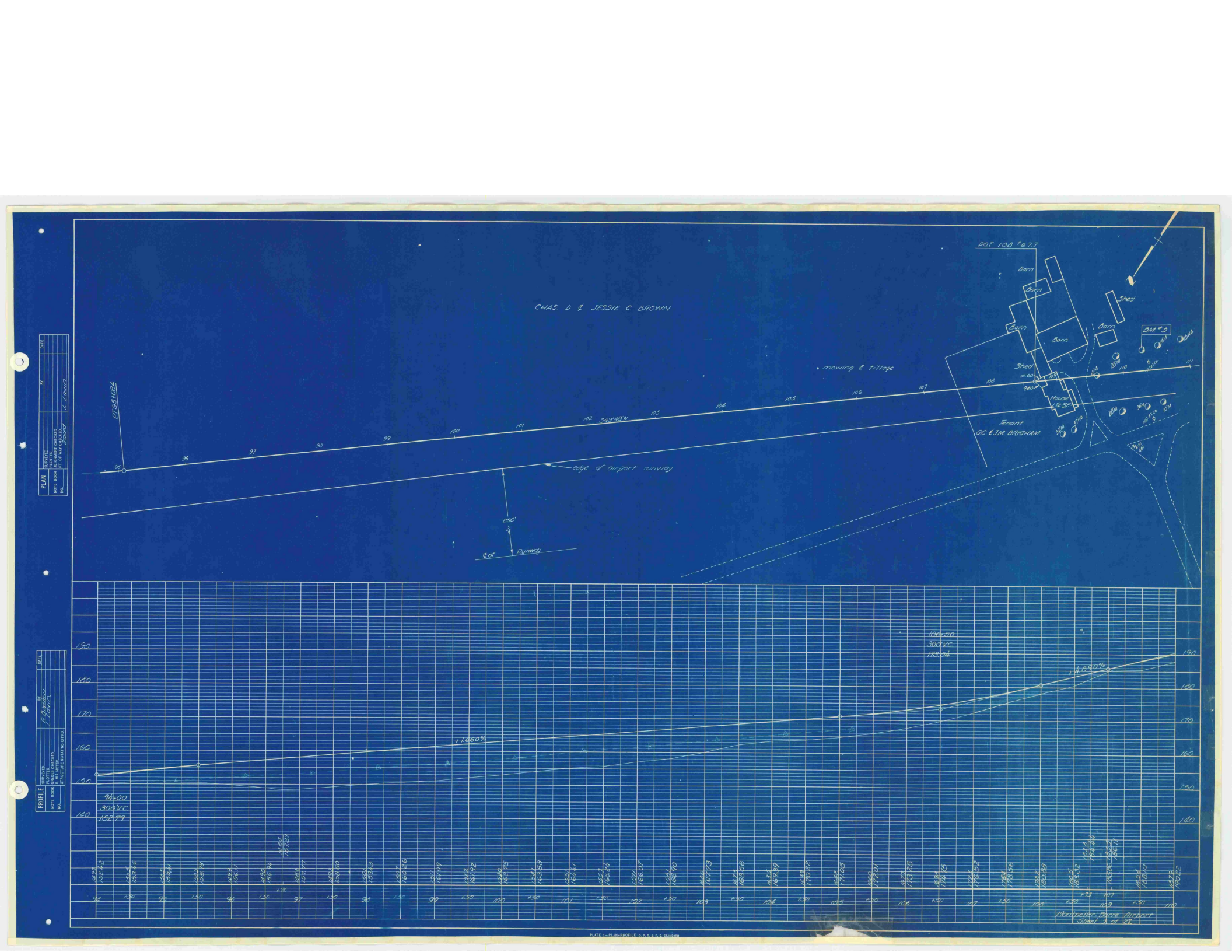
Earth Exc. 1273 − 173 = 1100

Rock Exc. 16707 × 1.10 − 2013 = 17384

CARRIED FORWARD

COLUMN FOOTINGS


JOS CONYO
Barn
House
CHARLES BROWN
mowing
DOTEN ESTATE
edge of airport runway
mowing
Pasture
Woods
Brush
NOTE Proposed elevation 154.12 Assuming -1.5% Grade on runway E from Sta 38+00 - 42+75 and -1.5% Gradient from runway E to edge of runway on right
250'
42+75 ℄ of Runway
Δ 68°30 Rt
D 8°
R 716.8
T 497.2
L 858.7
E 155.6
Δ 16°40' Lt
D 6°
R 955.4
T 140.0
L 277.8
E 10.2
PI 86+00.0
PI 89+71.6
PI 93+70.6
93° 60.4
PI 83+06.8
PC 87+70.6
PT 89+48.4
S 68°28 W
S 69°40 W
AM #3
Pt. 93+70.6
93° 60.4
-0.116 %
2.460 %
86+75
300' VC.
134.95
94+00
300' VC.
152.79
Montpelier-Barre Airport
Sheet 2 of 17
PLAN
SURVEYED
PLOTTED
NOTE BOOK
CHECKED
NO.
PROFILE
SURVEYED
PLOTTED
NOTE BOOK
CHECKED
NO.
PLATE 1 - PLAN-PROFILE O.P.R.& D.E. STANDARD


CHAS. D & JESSIE C BROWN
POT 108 '67
Barn
Barn
Barn
Barn
Barn
Shed
Shed
Shed
House
Tenant
GC & JM BRIGHAM
mowing & tillage
edge of airport runway
549°48'W
850'
℄ of Runway
PLAN
PROFILE
94+00
300' V.C.
152.79
+1.660%
100+50
300' V.C.
119.04
+1.890%
Montpelier-Payne Airport
Sheet 2 of 22
PLATE 1 - PLAN-PROFILE O. P. R. & D. E. STANDARD

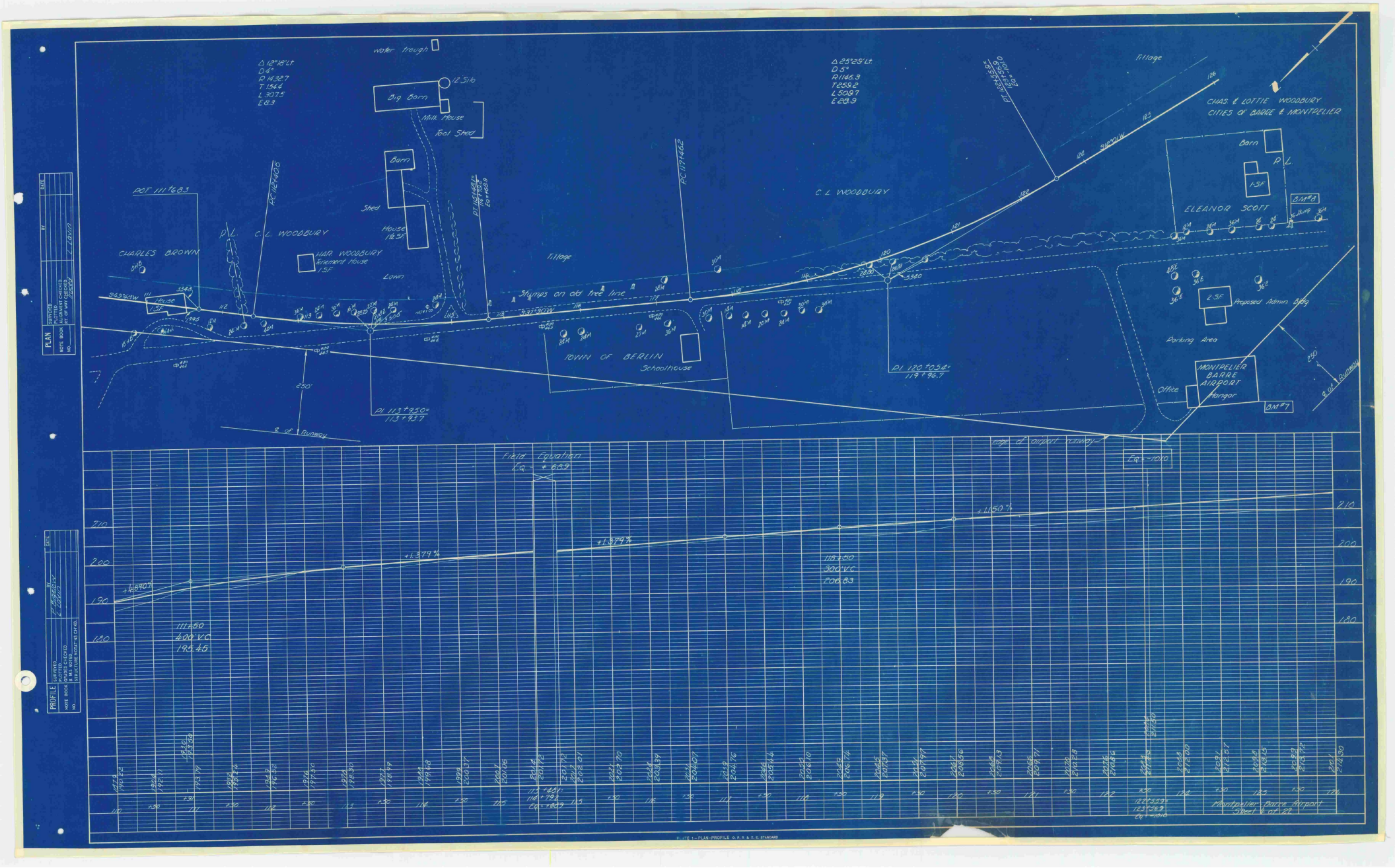
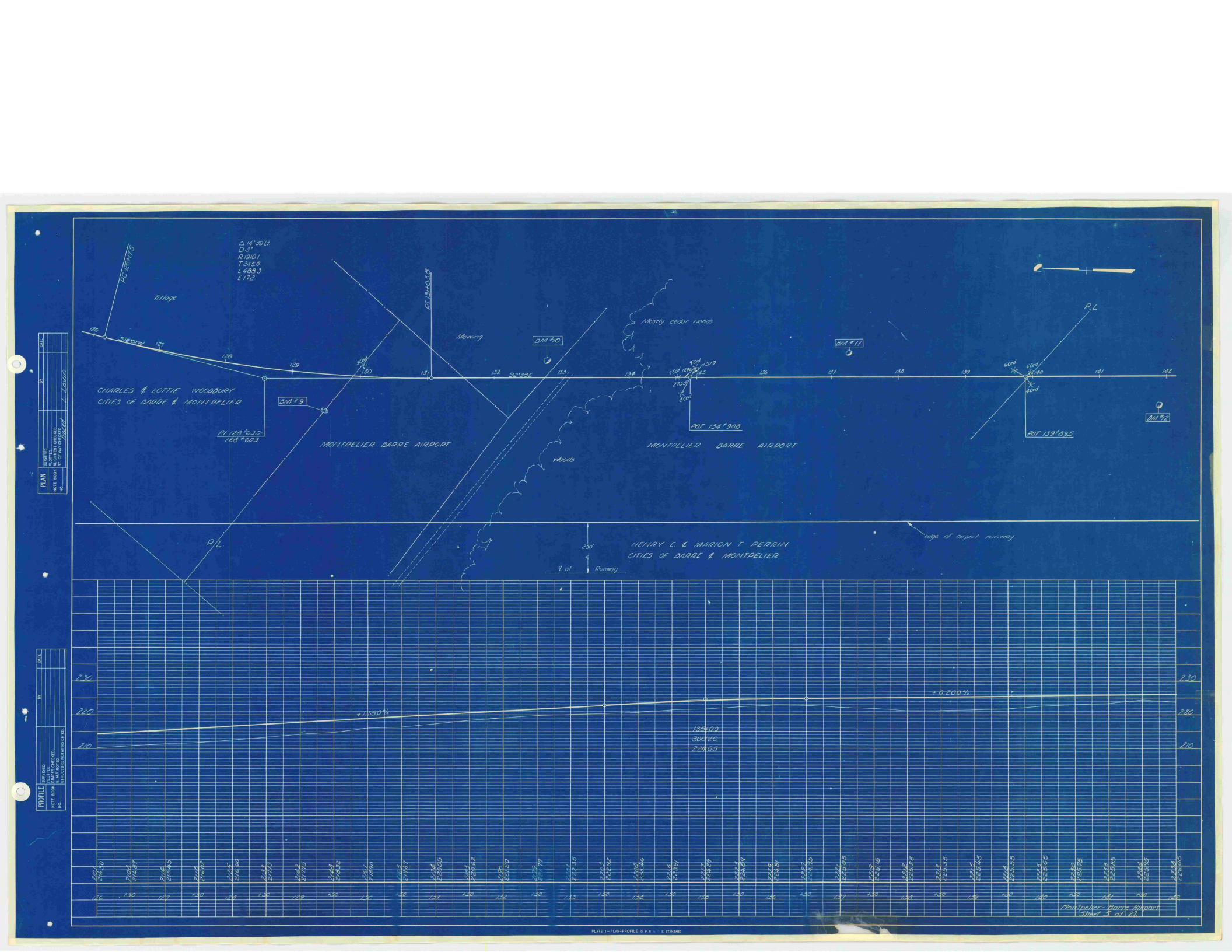


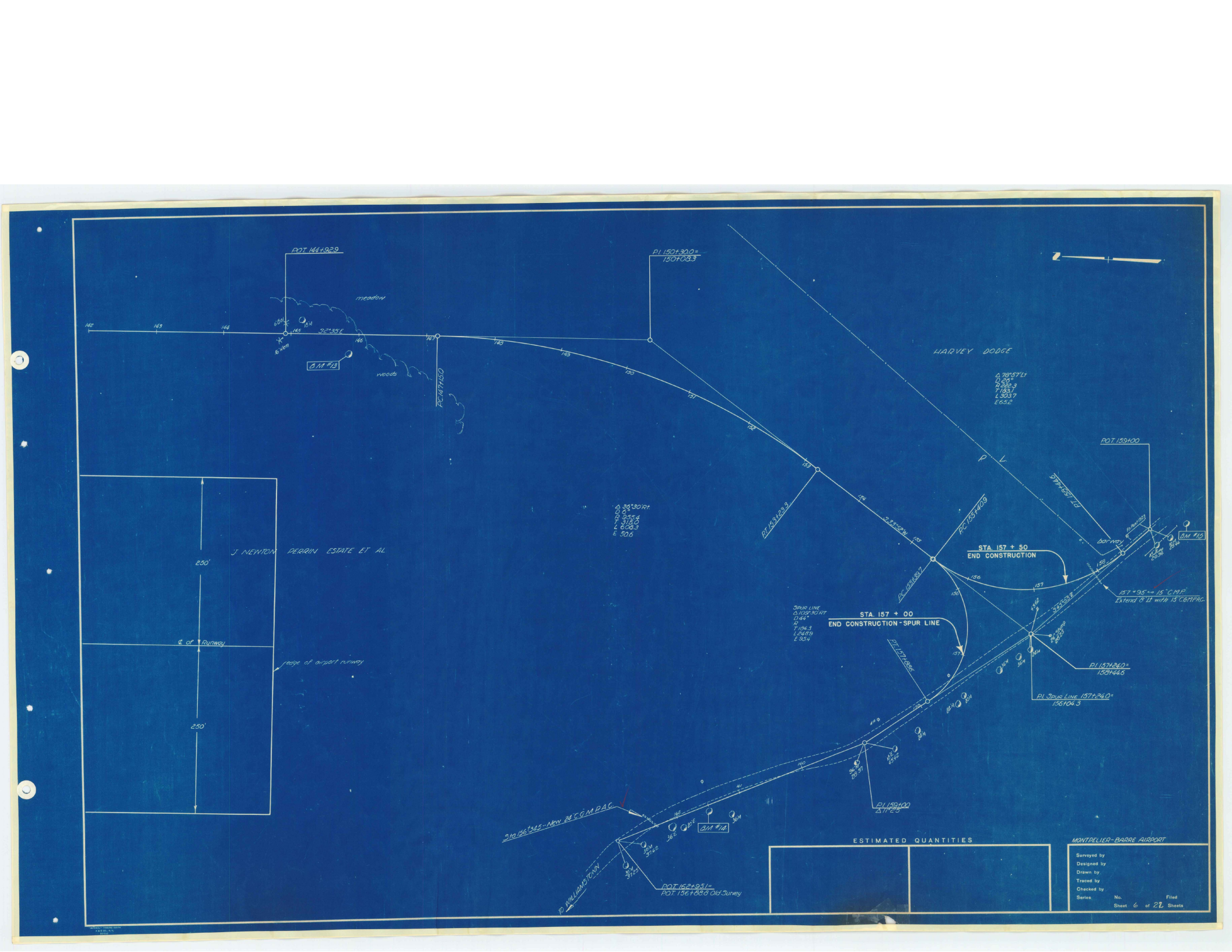
PLATE 1 — PLAN-PROFILE O. P. R. & R. E. STANDARD

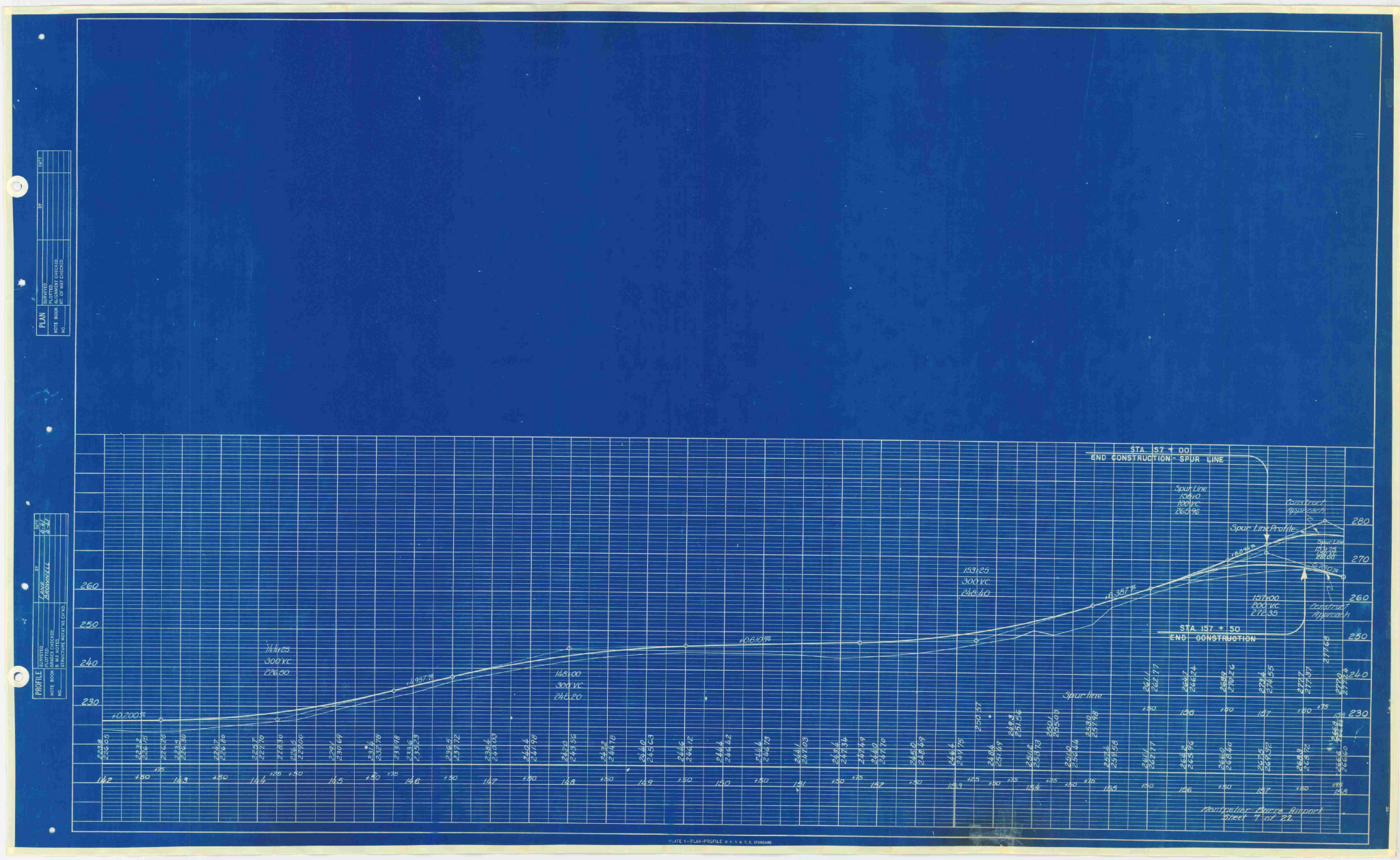


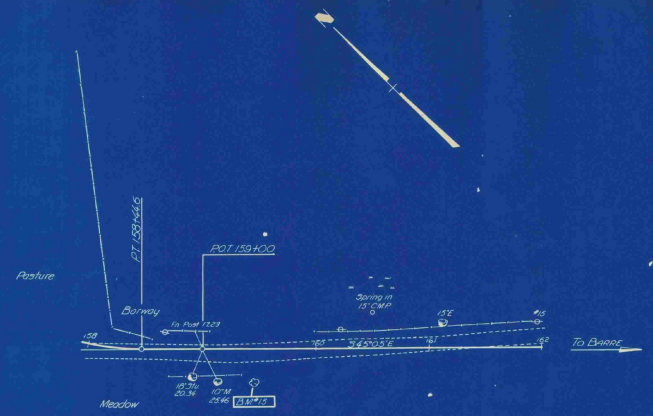
PLAN
SURVEYED
PLOTTED
NOTE BOOK
NO.
GRADES CHECKED
R.O.W. STAKED
RT. OF WAY CHECKED
STRUCTURE (NOT) INCLUDED
DATE
BY
LOVED
2/24/62

PROFILE
SURVEYED
PLOTTED
NOTE BOOK
NO.
GRADES CHECKED
R.O.W. STAKED
STRUCTURE (NOT) INCLUDED
DATE
BY

PLATE 1 - PLAN-PROFILE O. P. R. - E STANDARD


POT 144+92.9
meadow
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
52°30'E
BM #13
woods
PC 149+50
P.I. 150+30.0 =
150+08.3
HARVEY DODGE
Δ 78°57' Lt
D 29°
R 222.3
T 193.1
L 303.7
E 65.2
POT 159+00
P. V.
97+59.97 L.P.
Δ 38°30' Rt
D 6°
R 955.6
T 378.0
L 608.3
E 50.6
PC 153+23.3
PC 153+46.5
PC 155+85.7
STA. 157 + 50
END CONSTRUCTION
STA. 157 + 00
END CONSTRUCTION - SPUR LINE
SPUR LINE
Δ 109°30' RT
D 44°
R
T 154.3
L 244.9
E 93.4
PT 157+89.6
P.I. 157+24.0 =
155+44.6
P.I. SPUR LINE 157+24.0 =
156+04.3
P.I. 159+00
Δ 11°25'
157 + 95 ± 15" C.M.P.
Extend 8'11 with 15" CGMPRC.
J. NEWTON PERRIN ESTATE ET AL
250'
℄ of Runway
250'
edge of airport runway
2 in 156+94.5 - New 24" CGMPAC
BM #14
POT 162+93.1 =
POT 156+88.8 Old Survey
TO WILLIAMSTOWN
ESTIMATED QUANTITIES
MONTPELIER-BARRE AIRPORT
Surveyed by
Designed by
Drawn by
Traced by
Checked by
Series No. Filed
Sheet 6 of 22 Sheets


PLAN
PROFILE
DATE
BY
REMARKS
NOTE BOOK
NO.
ALIGNMENT CHECKED
PLOTTED
PROFILE CHECKED
R. W. P. NOTES
STRUCTURE NOTES (IF ANY)
STA. 57 + 00
END CONSTRUCTION - SPUR LINE
Spur Line
106+10
1600' V.C.
265.76
Spur Line Profile
Construct Approach
Spur Line
137+78
to
138+00
STA 157 + 50
END CONSTRUCTION
137+00
200' V.C.
272.35
Construct Approach
141+25
300' V.C.
226.50
148+00
300' V.C.
246.20
153+25
300' V.C.
268.40
+1.39%
+6.38%
+10.20%
Spur-line
Montpelier-Barre Airport
Sheet 7 of 22
PLATE 1 - PLAN-PROFILE R. P. R. & B. E. STANDARD



PLAN

NOTE BOOK NO.	SURVEYED	DATE
	ALIGNMENT CHECKED	
	PT. OF WAY CHECKED	

PROFILE

NOTE BOOK NO.	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	ALIGNMENT CHECKED	
	STRUCTURE NOTES NO. CHKD.	

9.2%

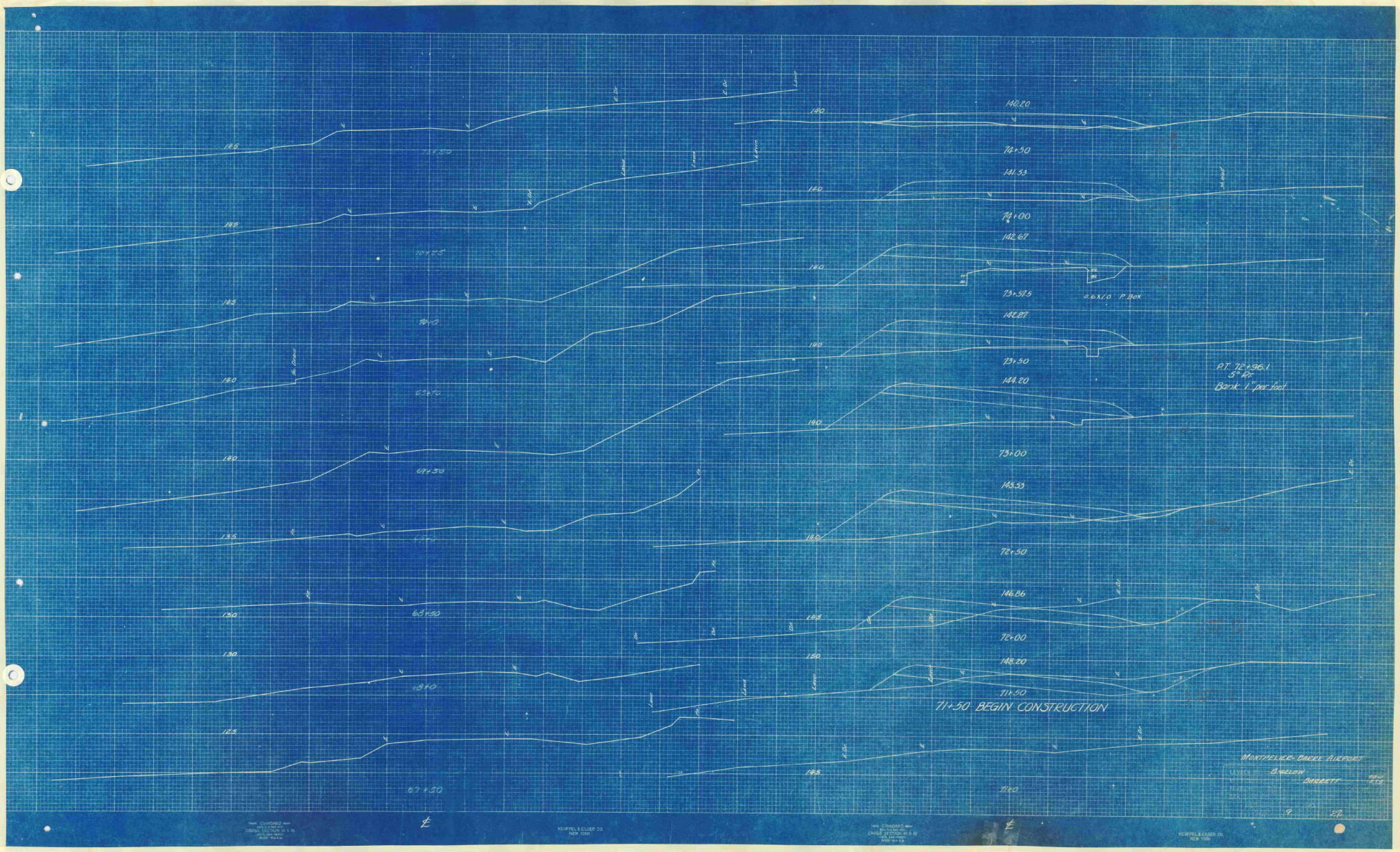
Spur line profile

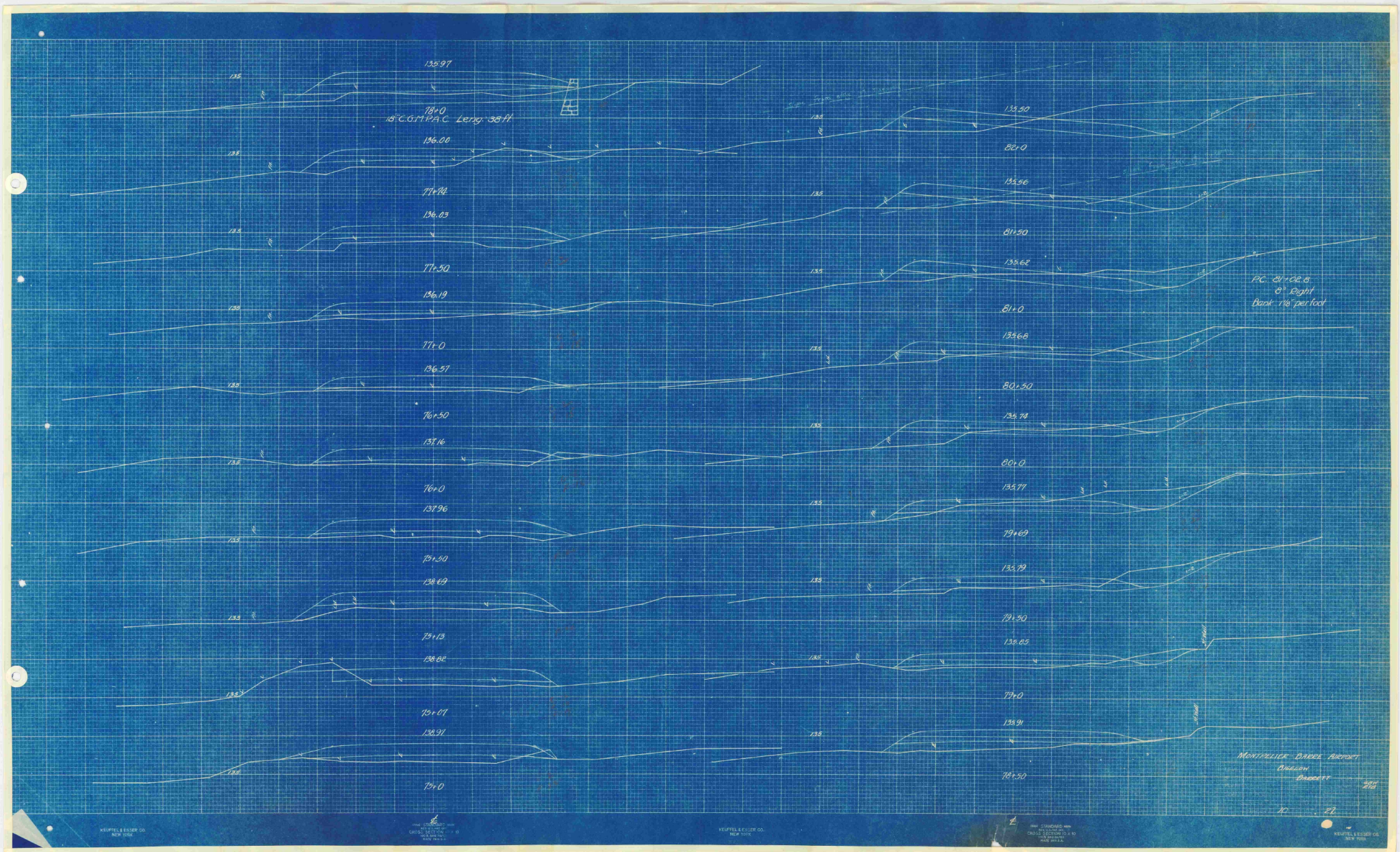
Spur line

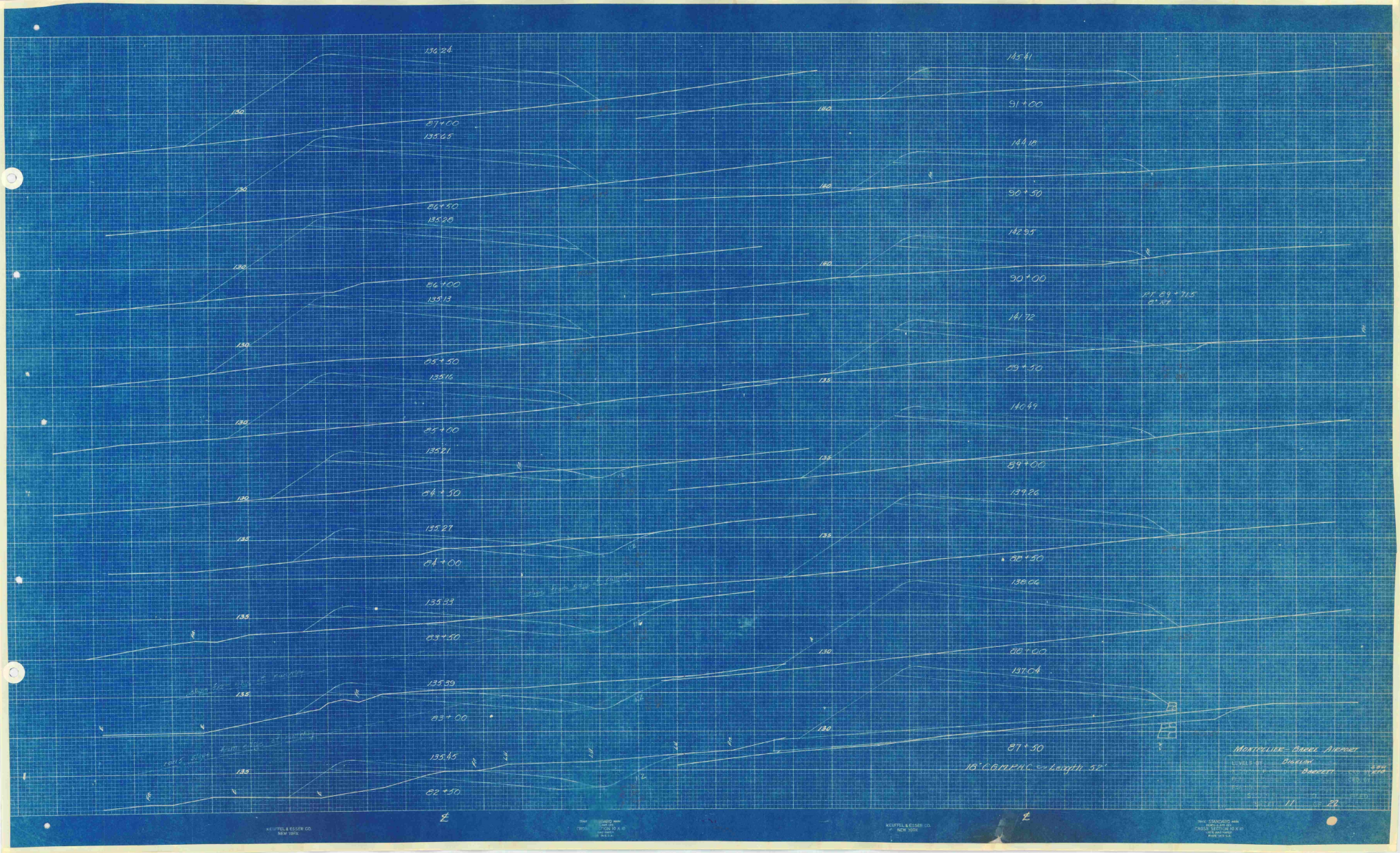
270
260
250

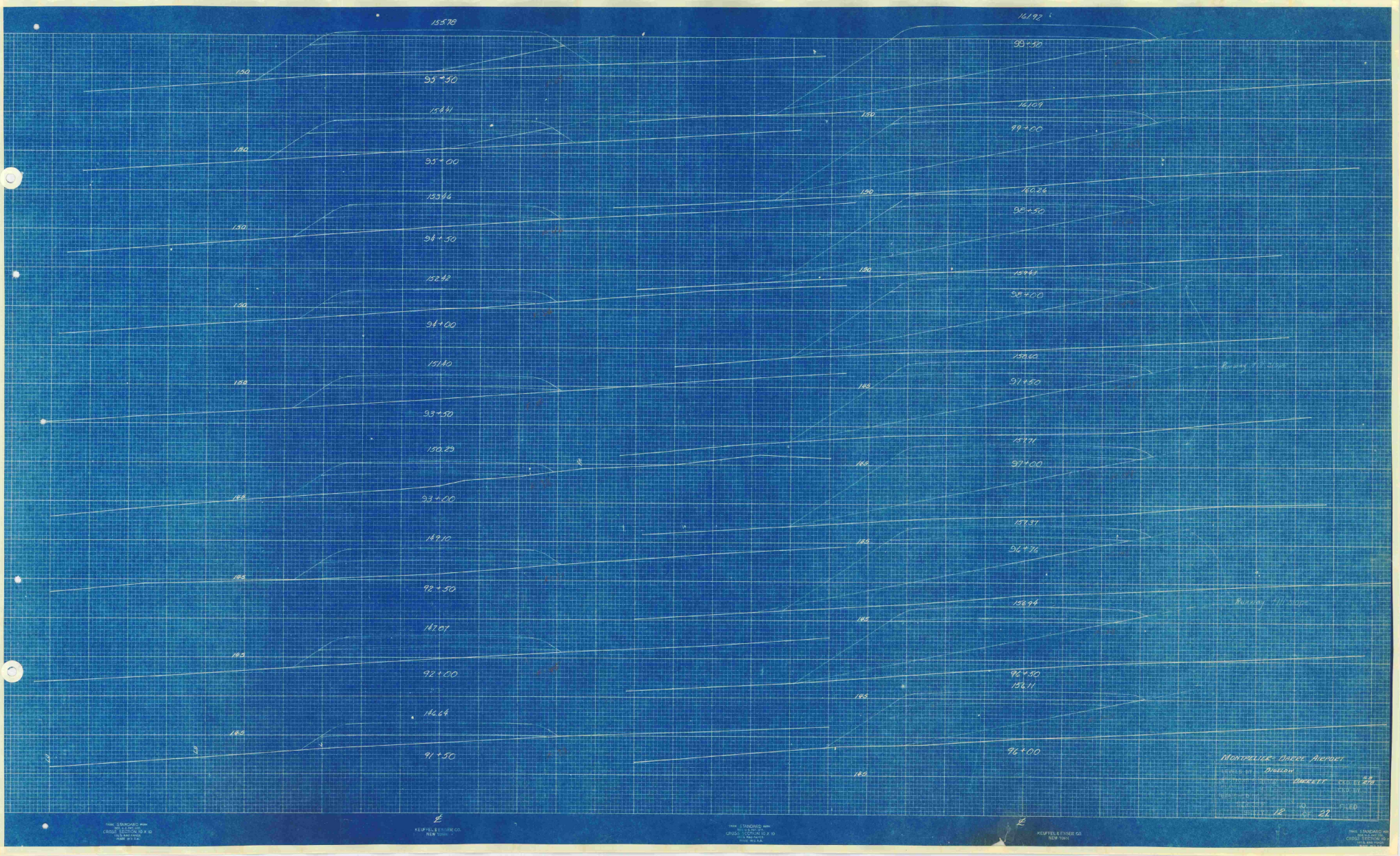
27.24	27.16	26.36	26.41	26.46	25.20	25.28	25.45	25.53	25.48
27.24	27.16	26.60	26.41	26.46	25.20	25.28	25.45	25.53	25.48
159	+50	159	+50	160	+50	161	+50	162	+50
26.66	26.26	25.91	25.61	25.40	25.26	25.15	25.04	25.00	
26.60	26.26	25.91	25.61	25.40	25.26	25.15	25.04	25.00	
159	+50	159	+50	160	+50	161	+50	162	

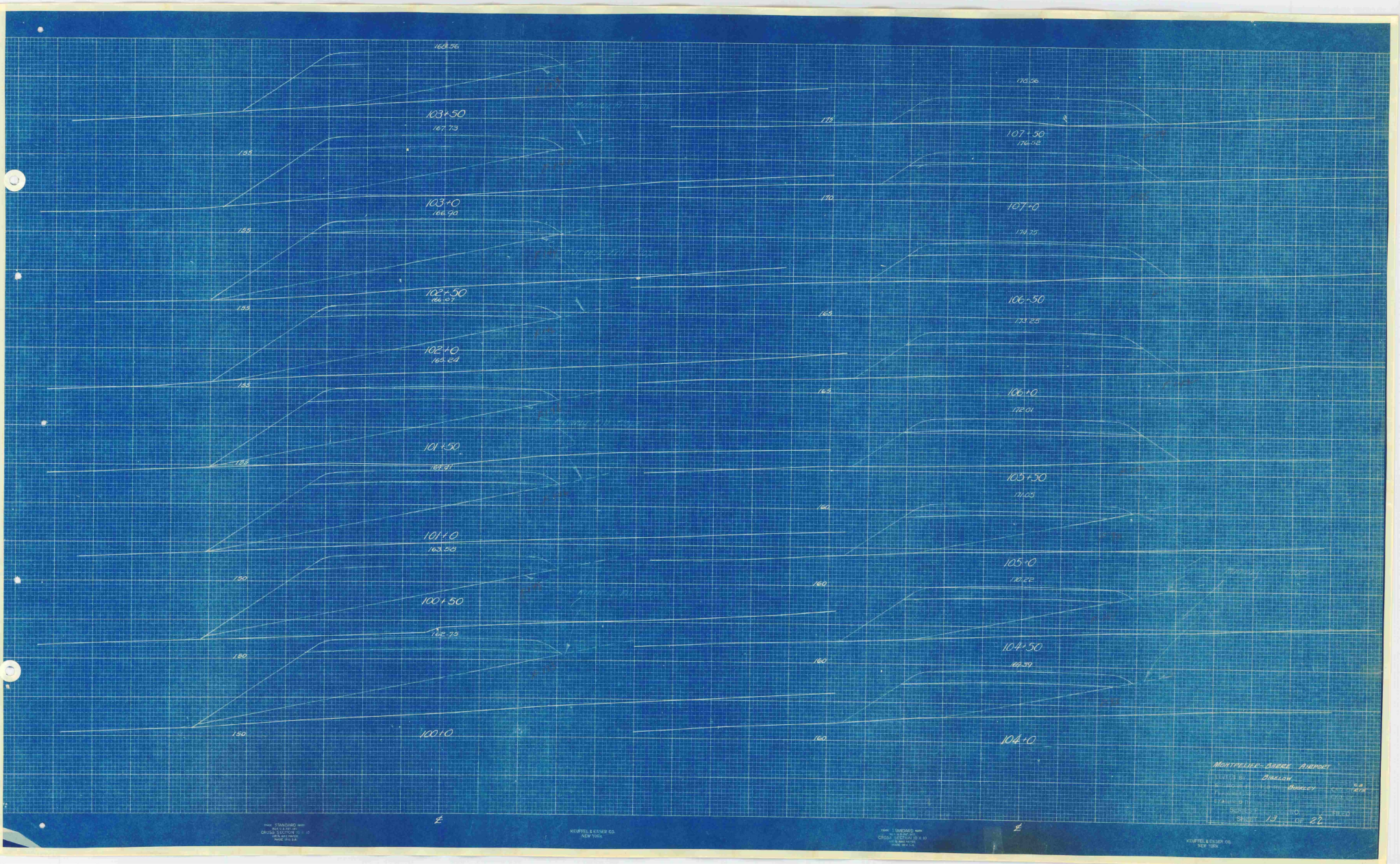
Montpelier-Berlin Airport
Sheet 5 of 12

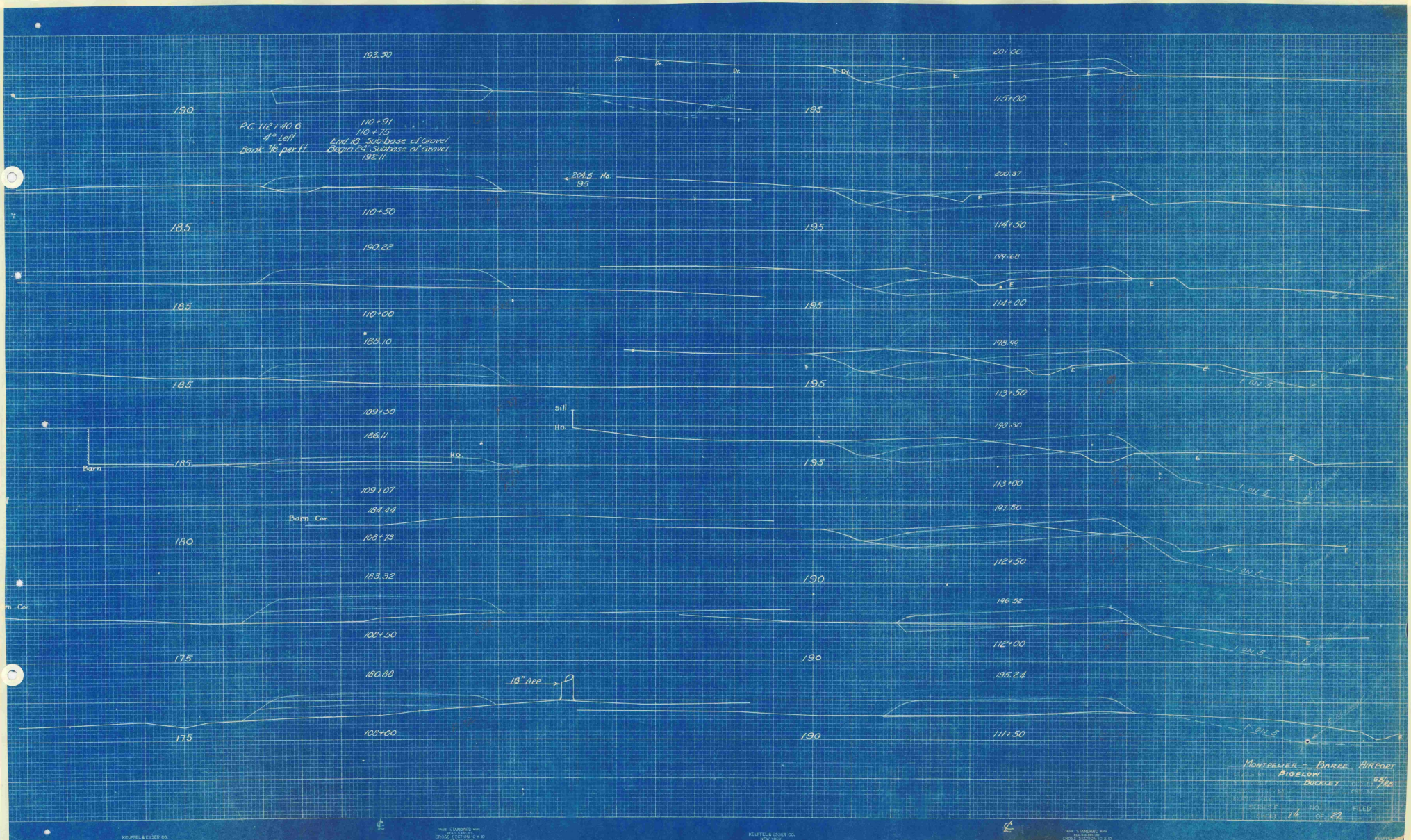

67+50
68+00
68+50
69+00
69+50
70+00
70+50
71+00
71+50 BEGIN CONSTRUCTION
72+00
72+50
73+00
73+50
73+59.5
74+00
74+50
P.T. 72+96.1
5° R.P.
Bank 1" per foot
0.6 X 1.0 P. Box
MONTPELIER-BARRE AIRPORT
BAGLOW
BARRETT

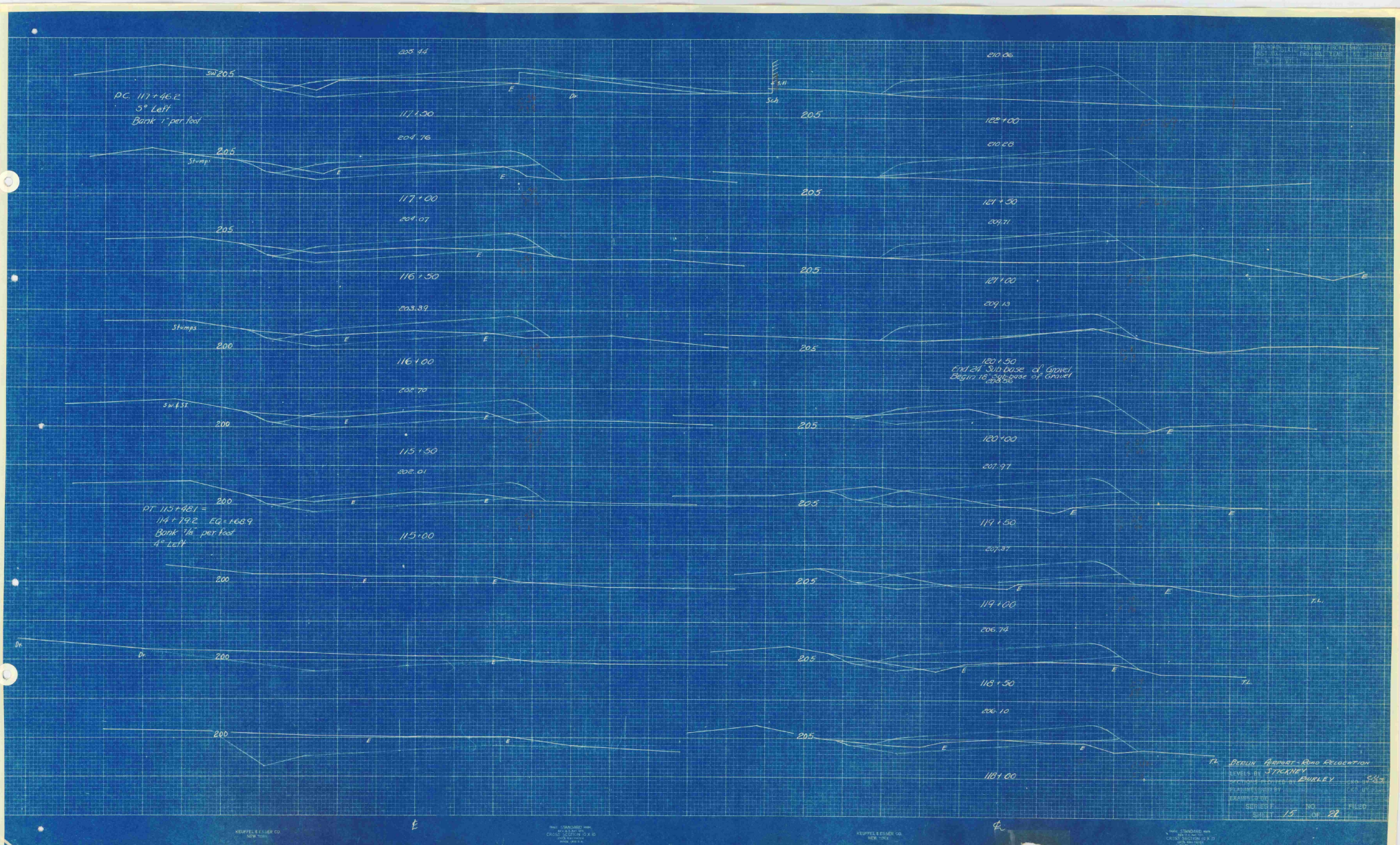

135.97
78+0
18" C.G.M.P.A.C. Leng: 38 ft
136.00
77+14
136.03
77+50
136.19
77+0
136.57
76+50
137.16
76+0
137.96
75+50
138.69
75+13
138.82
75+07
138.91
75+0
133.50
80+0
133.56
81+50
135.62
P.C. 81+02.8
8° Right
Bank 1'8" per foot
81+0
135.68
80+50
135.74
80+0
135.77
79+69
135.79
79+50
136.05
79+0
135.91
78+50
MONTPELIER-BARRE AIRPORT
DIVISION
BARRETT
KEUFFEL & ESSER CO.
NEW YORK
KEUFFEL & ESSER CO.
NEW YORK
KEUFFEL & ESSER CO.
NEW YORK

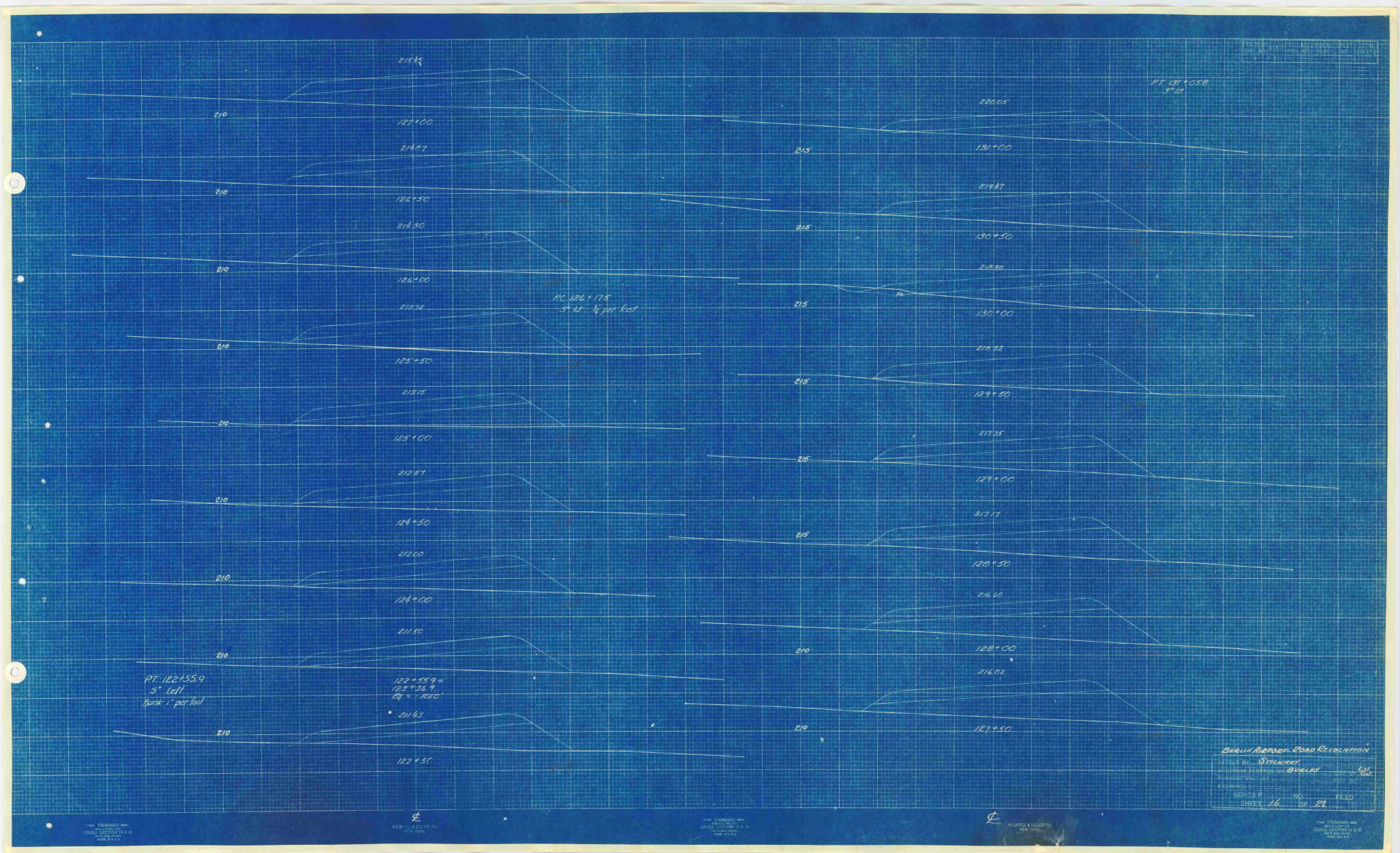

136.24
87+00
135.65
86+50
135.28
86+00
135.13
85+50
135.16
85+00
135.21
84+50
135.27
84+00
135.33
83+50
135.39
83+00
135.45
82+50
145.41
91+00
144.18
90+50
142.95
90+00
141.72
89+50
140.49
89+00
139.26
88+50
138.04
88+00
137.04
87+50
16"CGMPAC c-c Length 52'
Montpelier - Barre Airport
Levels by Dickey Bassett
11
29


155.78
95+50
150
155.41
95+00
150
153.84
94+50
150
152.92
94+00
150
151.10
93+50
150
150.29
93+00
150
149.10
92+50
150
147.91
92+00
150
146.64
91+50
150
161.92
99+50
150
161.09
99+00
150
160.26
98+50
150
159.43
98+00
150
158.60
97+50
150
157.71
97+00
150
156.37
96+76
150
154.94
96+50
150
153.11
96+00
150
MONTPELIER-BARRE AIRPORT
LEVELS BY: DUDLOW
DUCKETT
KEUFFEL & ESSER CO.
NEW YORK
FILED
12 Oct 22


168.56
103+50
167.73
155
103+0
166.90
159
102+50
166.07
165
102+0
165.24
165
101+50
164.41
165
101+0
163.58
150
100+50
162.75
160
100+0
150
170.56
175
107+50
176.52
170
107+0
174.29
165
106+50
173.20
165
106+0
172.01
160
105+50
171.03
160
105+0
170.22
160
104+50
169.39
160
104+0
MONTPELIER-BARRE AIRPORT
DIRECTED BY: DIRECTOR
BUREAU
CHIEF ENGINEER
CHIEF DESIGN ENGINEER
CHIEF DRAFTSMAN
SHEET 13 OF 22
KEUFFEL & ESSER CO.
NEW YORK


193.50
190
P.C. 112+40.6
4° Left
Bank .16 per ft.
110+91
110+75
End 18" Sub-base of Gravel
Begin 24" Sub-base of Gravel
192.11
204.5 Ho.
95
110+50
18.5
190.22
18.5
110+00
188.10
18.5
109+50
186.11
Sill
Ho.
Barn
18.5
H.Q.
109+07
184.44
Barn Cor.
108+73
180
183.32
Cor.
108+50
17.5
180.88
18" APP
105+00
17.5
201.00
195
115+00
200.37
195
114+50
199.68
195
114+00
198.99
195
113+50
198.30
195
113+00
197.50
190
112+50
196.52
190
112+00
195.24
190
111+50
Montpelier - Barre Airport
Pigelow
Buckley
Sheet 14 of 27
KEUFFEL & ESSER CO.
NEW YORK
KEUFFEL & ESSER CO.
NEW YORK
KEUFFEL


P.C. 117+46.2
5° Left
Bank 1" per foot
208.44
SW 20.5
E
Dr.
117+50
204.76
20.5
Stumps
117+00
204.07
20.5
116+50
203.39
Stumps
20
116+00
202.70
SW 4.3%
20
115+50
202.01
20
PT 115+98.1 =
114+19.2 EQ = 1.68.9
Bank 1/8" per foot
4° Left
115+00
20
Dr.
Dr.
20
20
KEUFFEL & ESSER CO.
NEW YORK
210.86
20.5
122+00
210.28
20.5
121+50
209.71
20.5
121+00
209.13
20.5
120+50
End 24" Sub base of Gravel
Begin 18" Sub base of Gravel
208.56
20.5
120+00
207.97
20.5
119+50
207.37
20.5
119+00
206.78
20.5
118+50
206.10
20.5
118+00
KEUFFEL & ESSER CO.
NEW YORK
Tk. BERLIN AIRPORT - ROAD RELOCATION
LEVELS BY STICKNEY
SURFACES PLOTTED BY BURLEY
PLANIMETER BY
EXAMINED BY
SERIES F NO. FILED
SHEET 15 OF 22


215.82
210
127+00
214.87
210
126+50
214.30
210
126+00
213.72
210
125+50
213.15
210
125+00
212.57
210
124+50
212.00
210
124+00
211.50
210
PT. 122+55.9
5° Left.
Bank 1" per foot
122+55.9 =
123+36.9
Eq. = 1210'
211.43
210
127+50
PC 136+17.5
5° Lt. - ¾ per foot
PT 131+05.8
3° Lt.
220.05
215
131+00
219.47
215
130+50
218.90
215
130+00
218.32
215
129+50
217.75
216
129+00
217.17
215
128+50
216.60
210
128+00
216.02
210
127+50
BERLIN AIRPORT ROAD RELOCATION
LEVELS BY STICKNEY
PROFILE PLOTTED BY BURLEY
SERIES P
SHEET 16 NO OF 29 FILED

STATE OF VERMONT — DEPARTMENT OF HIGHWAYS

WILMINGTON VILLAGE ..... NO. NRM 6.3-F

Form Eng. 3A — SUMMARY SHEET No. ..... 193..

APPROXIMATE SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS	ITEM NO.
	cu. yd.	Common Excavation	10
300	"	Solid Rock Excavation	10
	"	Borrow	11
3200	"	Common Excavation inc. Borrow	10-11
	cu. yd.	Sub-base of Field or Quarry Stone	12A
	"	Sub-base of Gravel	12B
300	"	Sub-base of Sand	12C
	"	Sub-base of Crushed Rock or Slag	12D
5	days	Patrol Maintenance	13
	cu. yd.	Channel Excavation	14
	"	Structure Excavation	15
	cu. yd.	Broken Stone Base Course	16
	cu. yd.	Gravel Surface Course	20A
	"	Gravel Surface Course (Crushed)	20B
900	"	Gravel Shoulders (Incl. 100 cy. Overrun)	21
	cu. yd.	Bitum. Macadam Surface Course (Asphalt or Tar)	22A
	" " " " "	(Emulsified Asph.)	22B
	gal.	Oil Asphalt	22C
	"	Refined Tar	22D
	"	Emulsified Asphalt	22E
	"	Cut Back Asphalt	22F
1900	cu. yd.	One Course Cement Concrete Pavement	23
	cu. yd.	Gravel Mixed-in-Place Surface Course	24AA
	"	Crushed Stone Mixed-in-place Surface Course	24A
	"	Dragged Seal Coat for Bitum. Macad. Surface	24B
	gal.	Oil Asphalt	24C
	"	Refined Tar	24D
	"	Emulsified Asphalt	24E
	"	Cut Back Asphalt	24F
	sq. yd.	Single Bituminous Surface Treatment	25
	"	Double " " "	26
4200	"	Natural Rock Asphalt Surface Course (Incl. Overrun)	27
127	cu. yd.	Concrete Class A	33A
	"	" B	33B
	"	" C	33C
	"	" D (cyclopean)	33D
10100	lb.	Reinforcing Steel	34
	sq. yd.	Waterproofing Membrane	35
	lb.	Structural Steel	36A
	lump sum	Steel Superstructure	36B
	lump sum	Plain Timber Floor System	37A
	"	Timber Floor System Treated in Field	37B
	"	Creosoted Timber Floor System	37C
165	cu. yd.	Cement Rubble Masonry	43
	"	Dry Rubble Masonry	44
	sq. yd.	Repointing Masonry	45
	lin. ft.	12" Corrugated Galvanized Metal Pipe (Bitum. Coated)	47A
	" "	15" " " " " "	47B
	" "	18" " " " " "	47C
	" "	24" " " " " "	47D
	" "	30" " " " " "	47E
	" "	36" " " " " "	47F

QUANTITIES	UNIT	ITEMS	ITEM NO.
	lin. ft.	12" Cast Iron Pipe	48A
	"	15" " " "	48B
	"	18" " " "	48C
	"	20" " " "	48D
	"	24" " " "	48E
	"	30" " " "	48F
	"	36" " " "	48G
1740	lin. ft.	12" Reinforced Concrete Pipe (Incl. 76 L.F. Overrun)	49A
416	"	15" " " " "	49B
164	"	18" " " " "	49C
	"	24" " " " "	49D
	"	30" " " " "	49E
	"	36" " " " "	49F
	"	48" " " " "	49G
	lin. ft.	6" Vitrified Clay Pipe	50A
	"	8" " " "	50B
	"	10" " " "	50C
	"	12" " " "	50D
	"	15" " " "	50E
	"	18" " " "	50F
	"	21" " " "	50G
200	lin. ft.	Relaying Pipe Culverts	51
	lump sum	Temporary Bridge	55
	Bm. ft.	Timber Piling	56
	M. B. M.	Timber Cribbing	57
	cu. ft.	Concrete Cribbing	58
	cu. yd.	Stone Fill	60
	"	Plain Rip-Rap	61
	"	Rip-Rap for Bank Protection	62
	lin. ft.	Standard Underdrain with 6" Vitrified Clay Pipe	63A
	"	" " " 8" " (Incl. 16 L.F. Overrun)	63A
	"	Standard Underdrain with 6" Perforated Corr.	63A
400	"	Galvanized Metal Pipe—Bitum. Coated	63B
	"	Standard Underdrain with 8" Perforated Corr. Galvanized Metal Pipe—Bitum. Coated	63B
24	lin. ft.	Wood Guard Rail	66
1456	"	Cable Guard Rail	67A
	"	" " " " Concrete Posts	
4	each	Guide Posts	68
	"	" " " Concrete	68B
10	"	Anchors for Cable Rail	67B
	each	Erection of State or Federal Aid Markers	69
	sq. yd.	Plain Rubble Paving	70A
	"	Grouted Rubble Paving	70B
	sq. yd.	Plain Cement Concrete Gutter	73
	"	Plain Cobble Gutter	74A
100	"	Grouted Cobble Gutter	74B
	each	Leaching Basins	75
11	"	Catch Basins (Brick)	76A
	"	" " (Concrete)	76B
	"	Changing Elevations of Manholes & Catch Basins	77
23	"	Drop Inlet Grates	78
	lin. ft.	Snow Fence	79
	lin. ft.	Lin. Curb	80
	each	Special Drop Inlet (Metal)	81
	lin. ft.	Balustrade Rail	82
	lump sum	Lighting System	83
	sq. yd.	One Course Cement Concrete Sidewalk	84
	cu. yd.	High Early Strength Cement Concrete	85

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		Solid Rock Excavation
	cu. yd.	Excavation as per Sections
50	"	Culvert Excavation (incl. Factor) (Est)
250	"	Overrun
300	cu. yd.	TOTAL
		Common Excavation incl. Borrow
	cu. yd.	Earth Excavation
2871	"	Excavation as per Sections
	"	Borrow
1348	"	Culvert Excavation incl. Factor
237	"	Underdrain Excavation incl. Factor
744		Overrun
5200	cu. yd.	TOTAL
		Sub Base of Gravel
	cu. yd.	Sub-base
204	"	Shaping Course as per Sections
	"	Surfacing for Driveway
	"	Bleeders
296		Overrun
500	cu. yd.	TOTAL
		GROUTED COBBLE GUTTER ON OTHER SIDE As per Plans
8	Sq. Yds.	
92	" "	Overrun
100	" "	Total
		VILLAGE PARTICIPATION
500	Cu. Yds.	Common Excav. Incl. Borrow 10-11
433	"	Concrete Class A 33A
3300	lbs	Reinforcing Steel 34

	Conc. A	Steel	G.R.M.
Dowelled Curb	5.5	285	
Conc. Curb & Gutter	122.7	2765	
Overrun			
Total	133.0	3300	

	CONCRETE "A" cu. yd.	CONCRETE "C" cu. yd	STEEL lbs.	G. R. M. cu. yd.	GRATES each
Pipe Culverts	19.7		1345		
Box Culverts	42.9		4596		
Repairs					
Walls				150	
Curb and Gutter					
Dowelled Curb	13.2		790		
Overrun	19.8		963	15	
TOTAL	127.0		10100	165	

TYPE OF ROAD One Course Cement Concrete Pavement

STATIONS From	STATIONS To	PAVEMENT WIDTHS 20'	21'	22'	EQUATIONS +	EQUATIONS -	
969+00.0	[redacted]	[redacted]	385.2			0.5	
[redacted]	[redacted]	+47	-79.3				
974+55.7	982+[redacted]		[redacted]				
+47.0		42.3	893.2				
982+[redacted]	991+[redacted]		[redacted]				Bridge 79 ft.
21.3	998+00		578.7				
992+[redacted]	[redacted]		570.0				
998+00							
[redacted]	999+[redacted]		[redacted]				
[redacted]	1001+07.5		307.5	178.8			
[redacted]	1001+[redacted]						
+07.5			1131.5				
1001+[redacted]	1012+39.0		[redacted]				
		2600	1484.5	178.0			

Bridge & Approaches
Sta 991+41.0 - 992+20.0

			Item No.
25	cy.	Common Excav. Incl. Borrow	10-11
104	"	Structure Excavation	15
25	sq. yd.	One Course Cement Concrete Pavement	23
180	cy.	Concrete Class A	33-A
58017	lbs.	Reinforcing Steel	34
		Removal of Present Superstructure	
1	Lin.	Maintaining Traffic	55A
147	Lf.	Balustrade Rail	
1	L.S.	Lighting System (Conduit only)	
20	C.Y.	Solid Rock Excav.	10
14	C.Y.	Concrete Class B	33B
75	C.Y.	Concrete Class C	33C

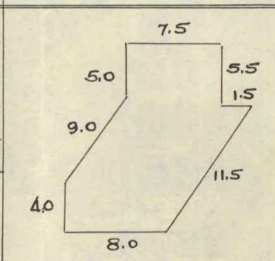
LENGTH OF PROJECT

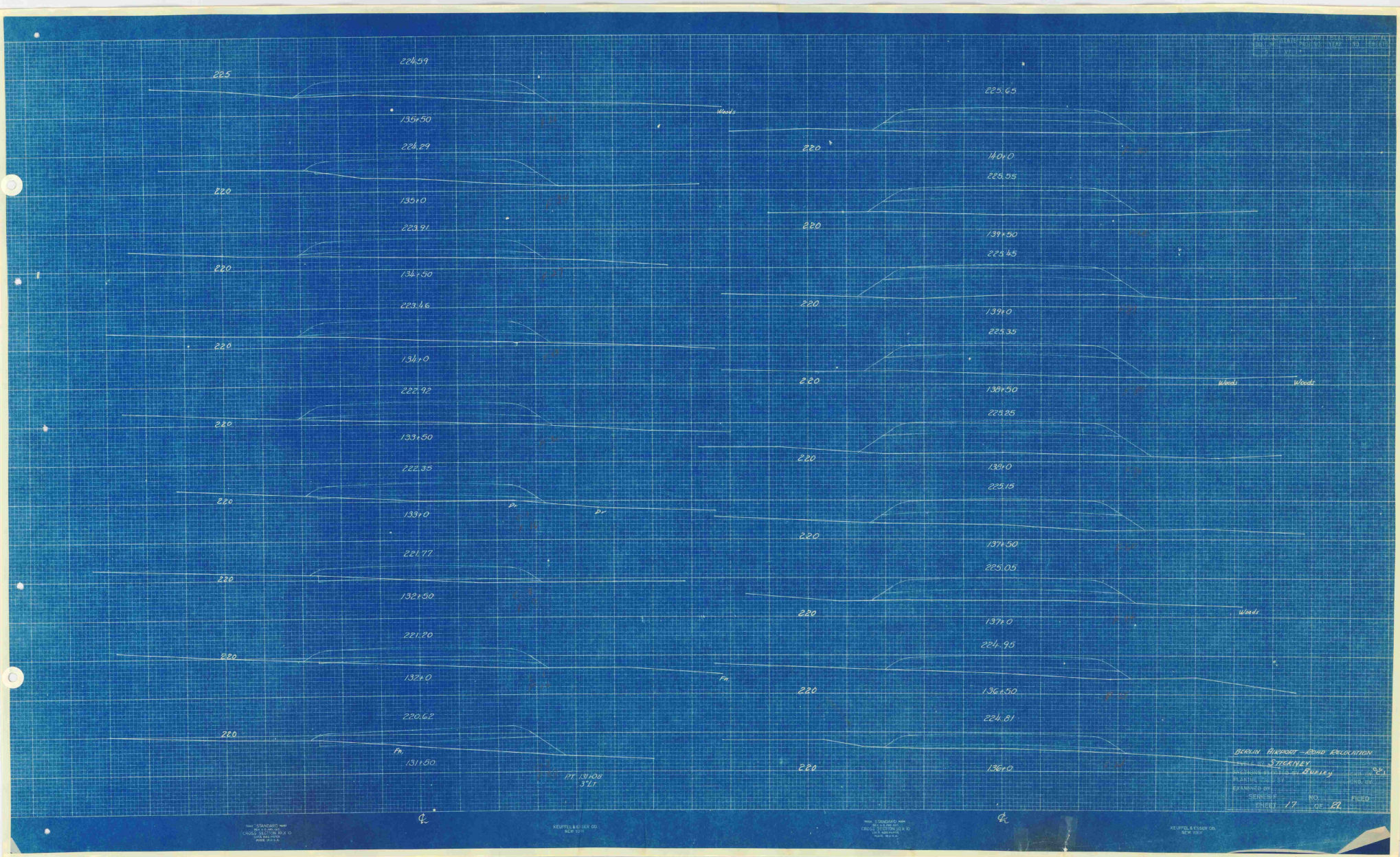
	STA. TO STA.		FEET	MILES
Roadway	969+00	1012+39	4259.5	0.806
Bridge	991+41.0	992+20.0	79.0	0.014
Length of Project			4338.5	0.821

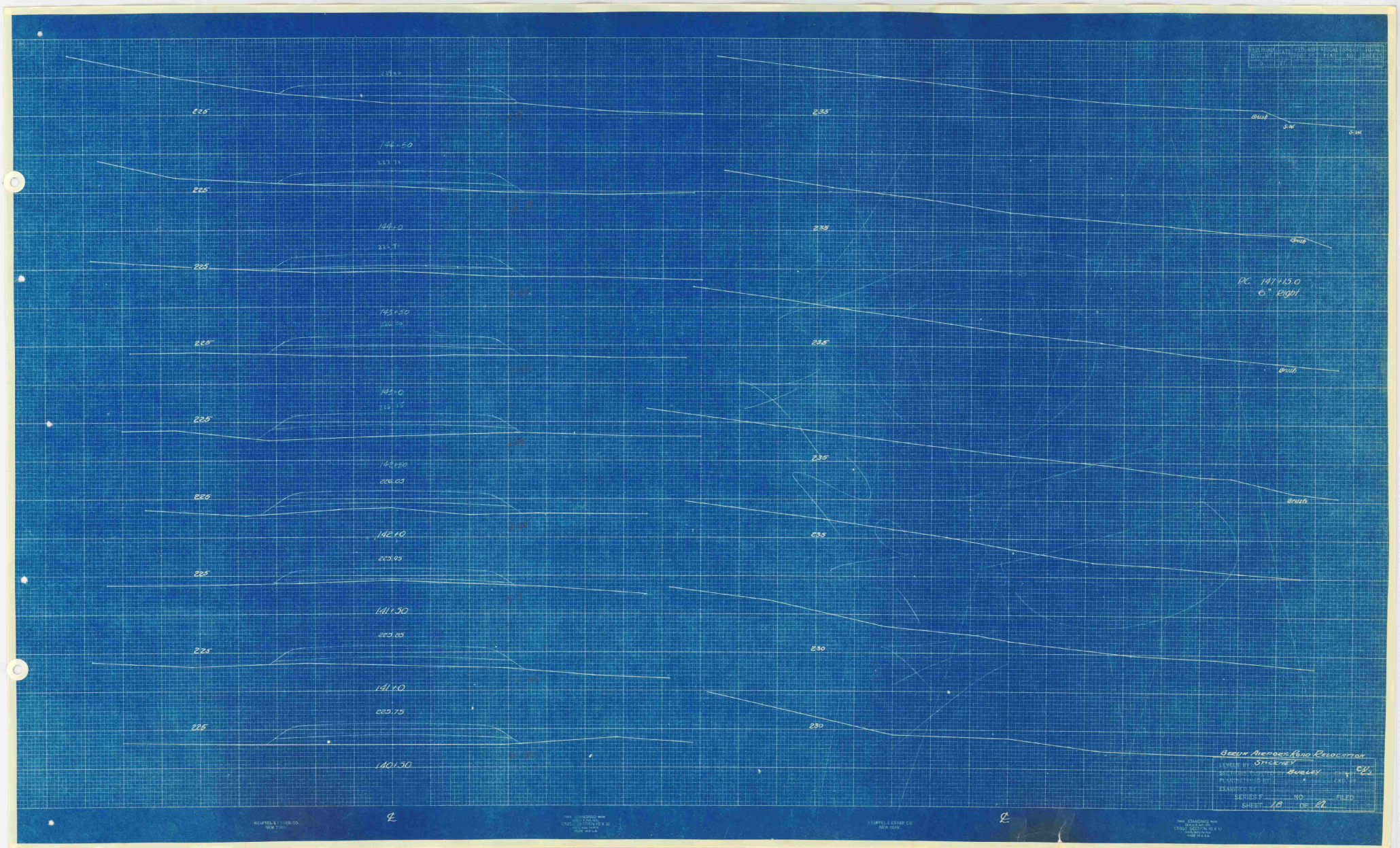
CURB DOWELLED TO PAVEMENT

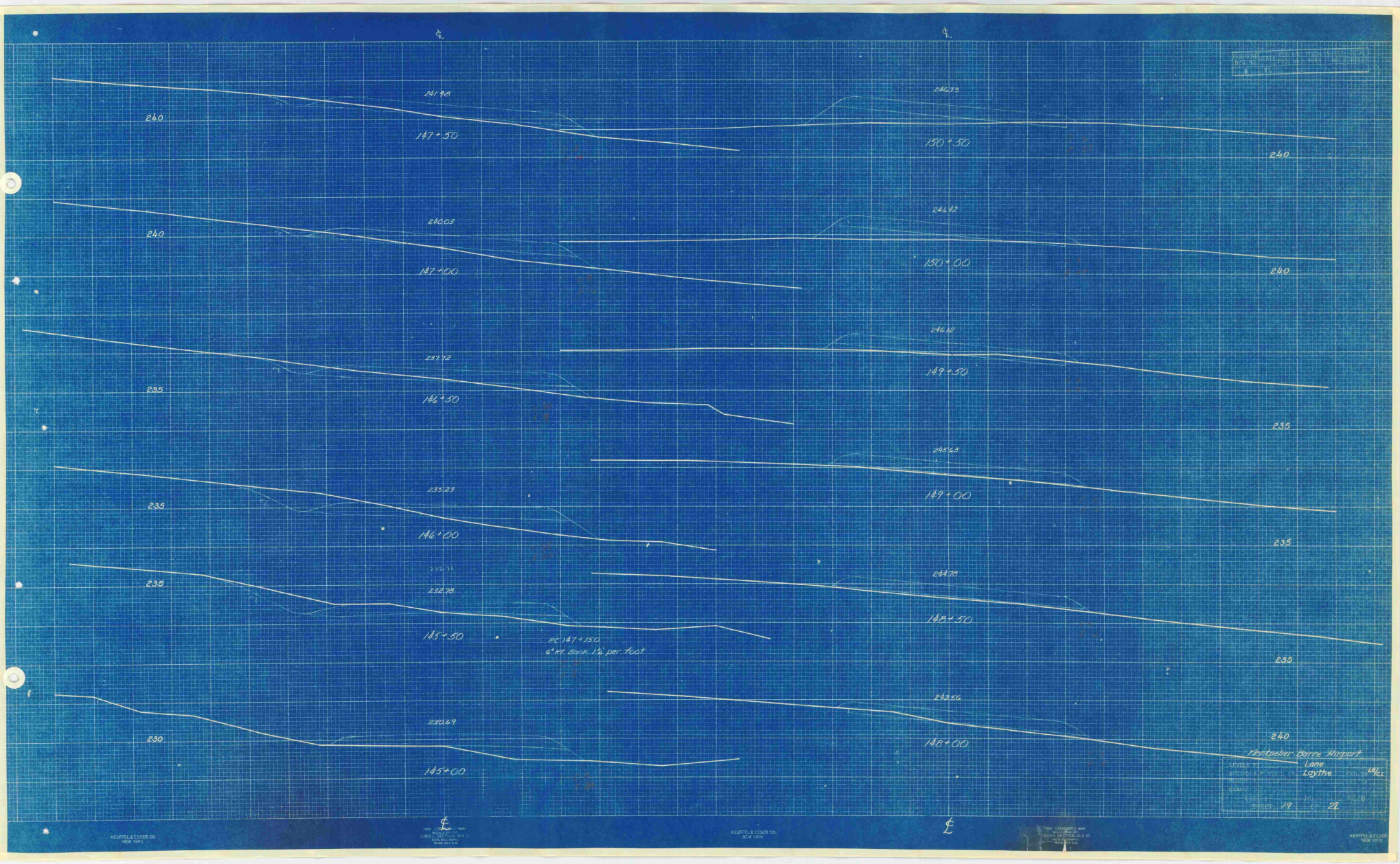
LEFT			RIGHT		
STA.	STA.	H'GT.	STA.	STA.	H'GT.
982+88.7	983+92.3	7"	969+0	982+46.9	7"
992+11.3	992+56.3	8"	984+47	985+56	6"
993+07.6	993+92	7"	985+73	986+12	6"
994+08.5	994+87	7"	987+16.5	988+07	6"
995+03	996+14	7"	988+95	989+05	6"
996+27	997+70	7"	989+19	989+47	6"
997+89	998+89	7"	989+66	991+42.3	6"
999+08	1001+25.5	7"	992+95	993+65	7"
1001+42	1001+95	7"	993+74	994+40	7"
1002+11	1004+05	7"	994+50	994+89.5	7"
1004+20	1004+77	7"	994+98	995+16	7"
1004+94	1005+48	7"	1008+54	1008+94	7"
1005+52	1006+41	7"			
1006+58	1006+90	7"			
1007+13	1008+75	7"			
1008+87.5	1009+65	7"			
1009+82	1010+39	7"			
1010+51	1011+88	7"			

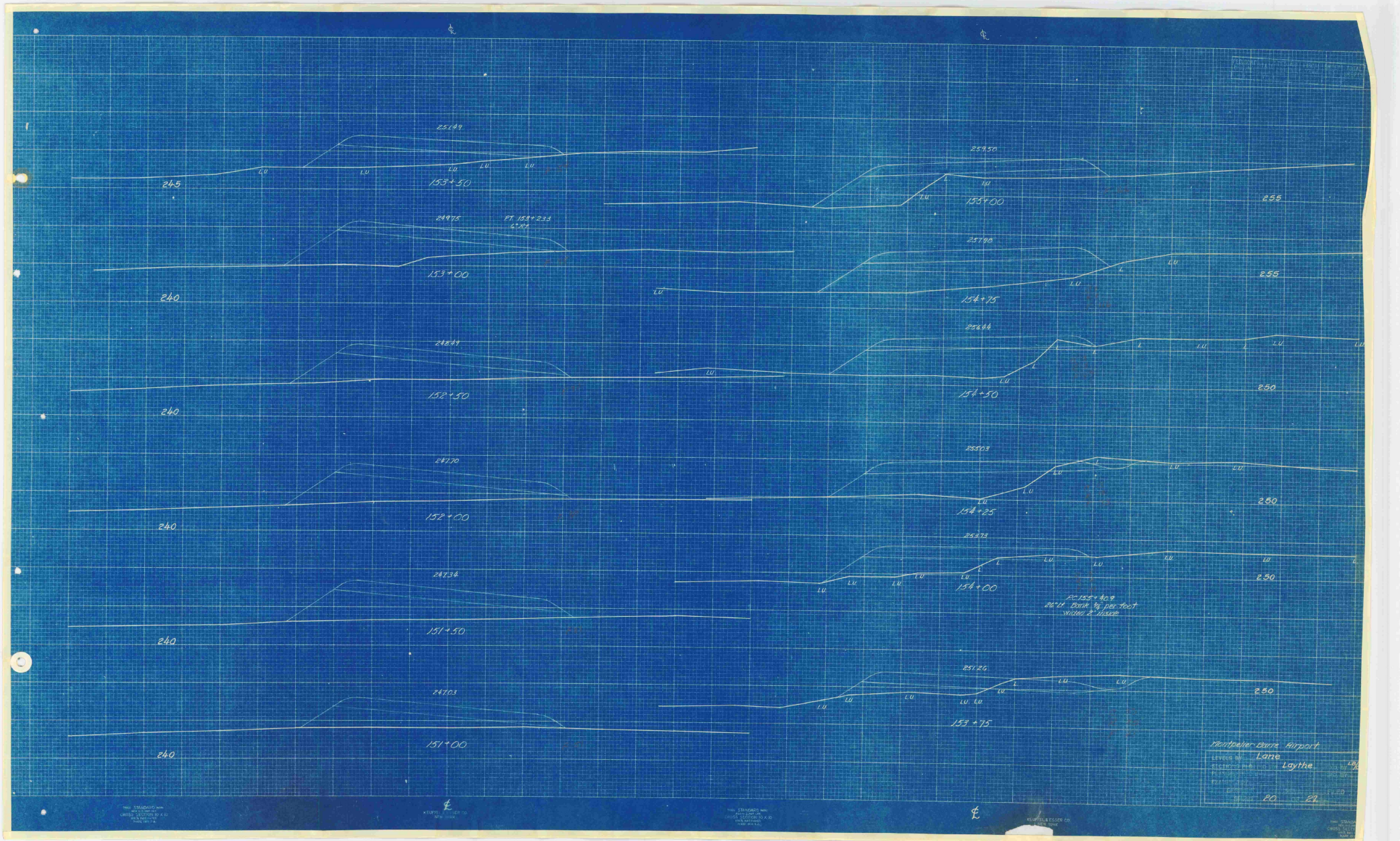
GROUTED COBBLE GUTTER

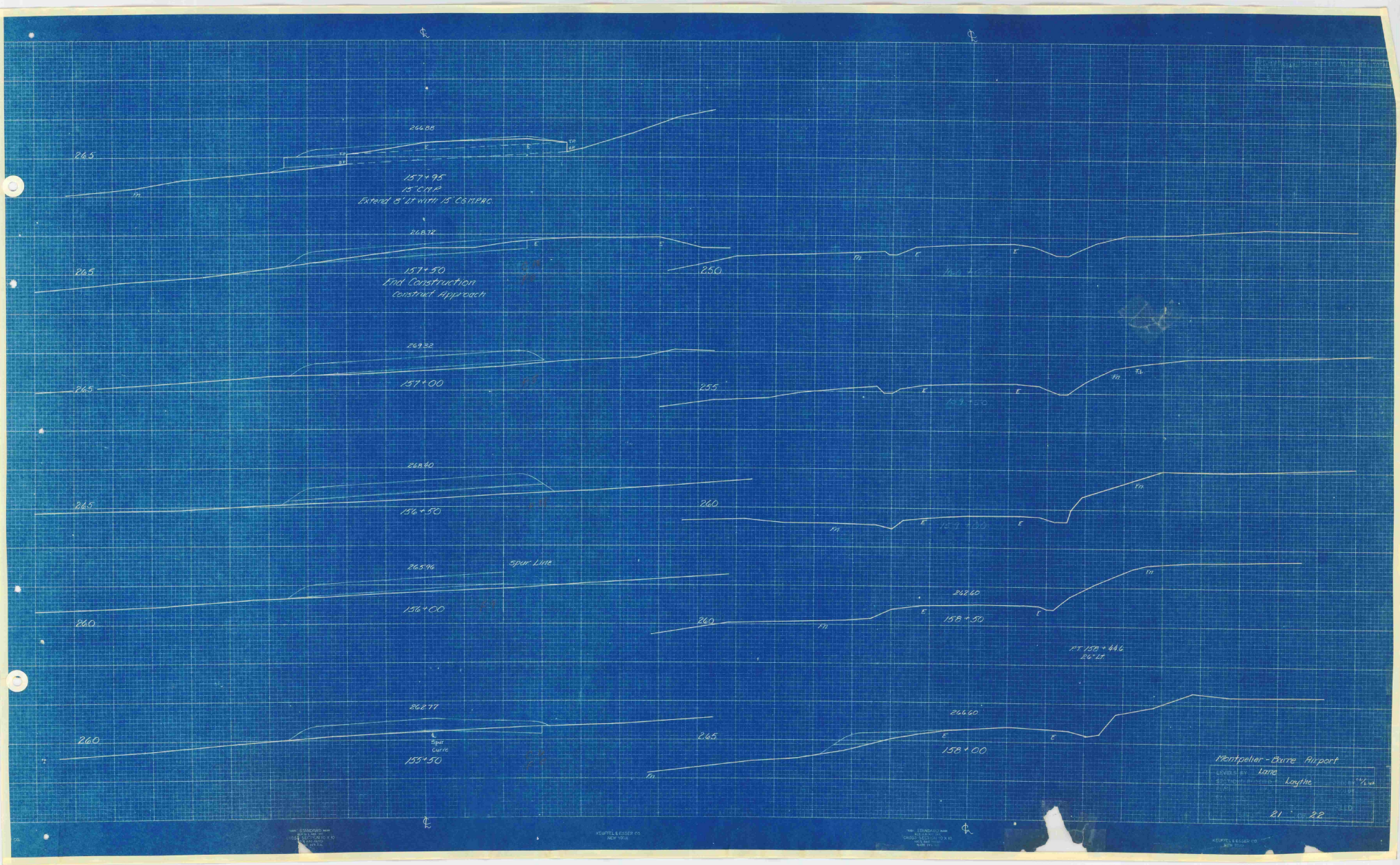
STA.		LENG.	
970+32	RT.	2.2×6	
972+48	"	17×6	
974+77	"	19×5.5	
975+88	"	15×6	
1012+23	"	SEE SKETCH	

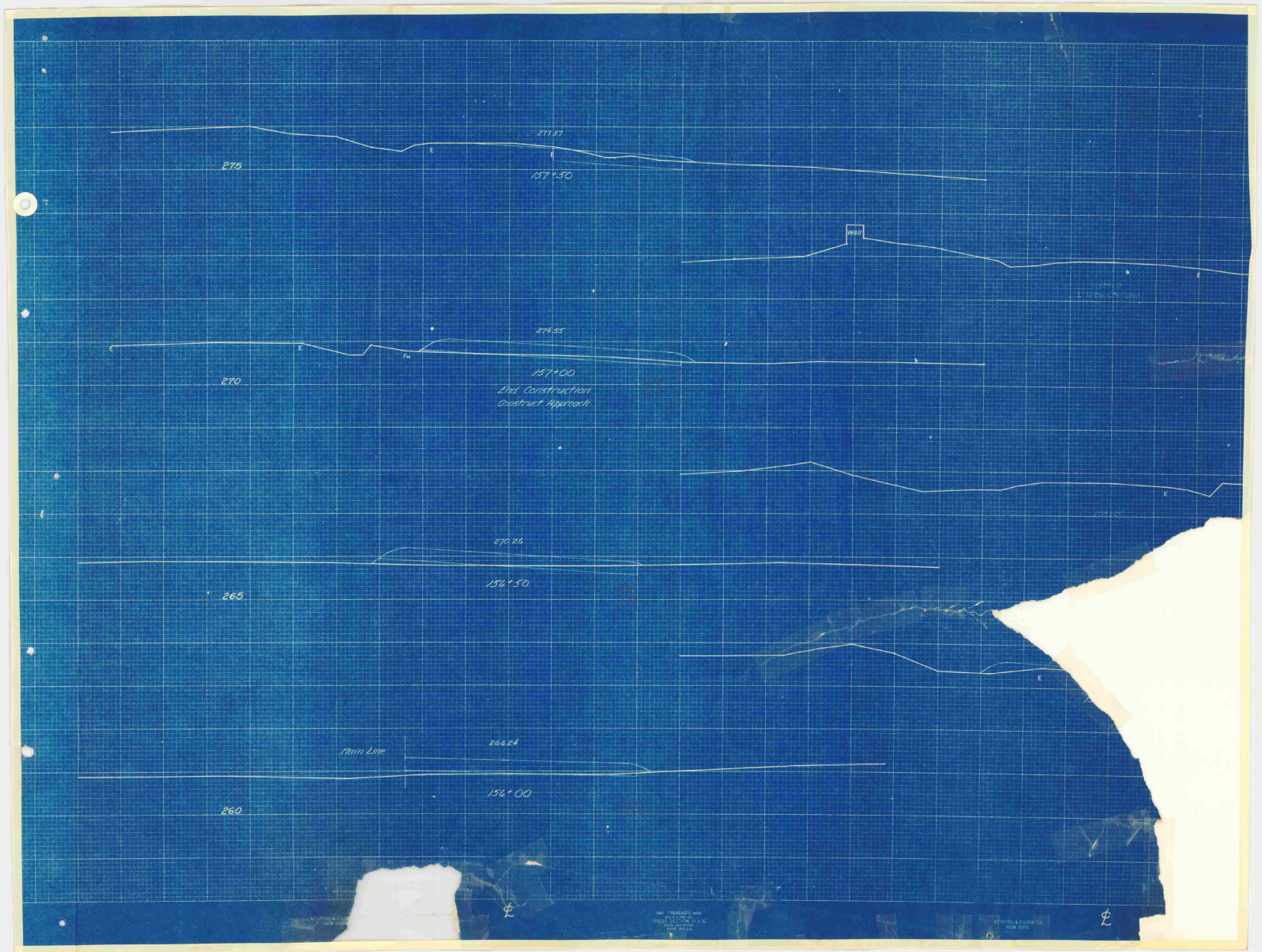

225
224.59
135+50
224.29
220
135+0
223.91
220
134+50
223.46
220
134+0
222.92
220
133+50
222.35
220
133+0
221.77
220
132+50
221.20
220
132+0
220.62
220
131+50
PT. 131+08
37.7'
Woods
225.65
220
140+0
225.05
220
139+50
225.45
220
139+0
225.35
220
138+50
225.25
220
138+0
225.15
220
137+50
225.05
220
137+0
224.95
220
136+50
224.81
220
136+0
Woods
Woods
Woods
Pr.
Pr.
Fn.
Fn.
℄
℄
BERLIN AIRPORT - ROAD RELOCATION
STICKNEY
BURLEY
SHEET 17 OF 22 SHEETS
STANDARD
KEUFFEL & ESSER CO.
NEW YORK


225
146+50
225
144+0
225
143+50
225
143+0
225
142+60
226.03
225
142+0
225.93
225
141+50
225.85
225
141+0
225.75
225
140+50
235
grade
S-M
235
grade
PC. 147+13.0
6" right
235
grade
235
grade
235
230
230
Berlin Airport Road Relocation
LEVELED BY Stickney
PLOTTED BY Burley
EXAMINED BY
SERIES F NO FILED
SHEET 18 OF 62
KEUFFEL & ESSER CO.
NEW YORK
THIS STANDARD RULE
CROSS SECTION 10 X 10


241.98
240
147+50
240.03
240
147+00
237.72
235
146+50
235.23
235
146+00
232.78
235
145+50
230.69
230
145+00
PC 147+150
6" RT Bank 1% per foot
244.73
150+50
240
244.92
150+00
240
246.12
149+50
245.43
235
149+00
244.78
235
148+50
243.56
235
148+00
240
Montpelier-Barre Airport
Lane
Laythe
KEUFFEL & ESSER CO.
NEW YORK


25149
245
153+50
29975
PT 153+233
153+00
240
24849
152+50
240
24770
152+00
240
24734
151+50
240
24703
151+00
240
25950
154+00
255
25795
154+75
255
25644
154+50
250
25503
154+25
250
25373
154+00
250
25126
153+75
250
Trumbeller-Barre Airport
Lane
Laythe
20
21


266.88
265
157+95
15" C.M.P.
Extend 8'-1" with 15" CSMP&A
268.72
265
157+50
End Construction
Construct Approach
269.32
265
157+00
268.40
265
156+50
265.96
Spur Line
260
156+00
262.77
260
Spur Curve
155+50
250
255
260
262.60
260
158+50
PT 158+44.6
26°-17'
266.60
265
158+00
Montpelier - Barre Airport
LEVELED BY Lane
Laythe
21 - 22


277.37
275
157+50
Wall
276.55
157+00
End Construction
Construct Approach
270
270.24
156+50
265
Main Line
266.24
156+00
260
℄
℄