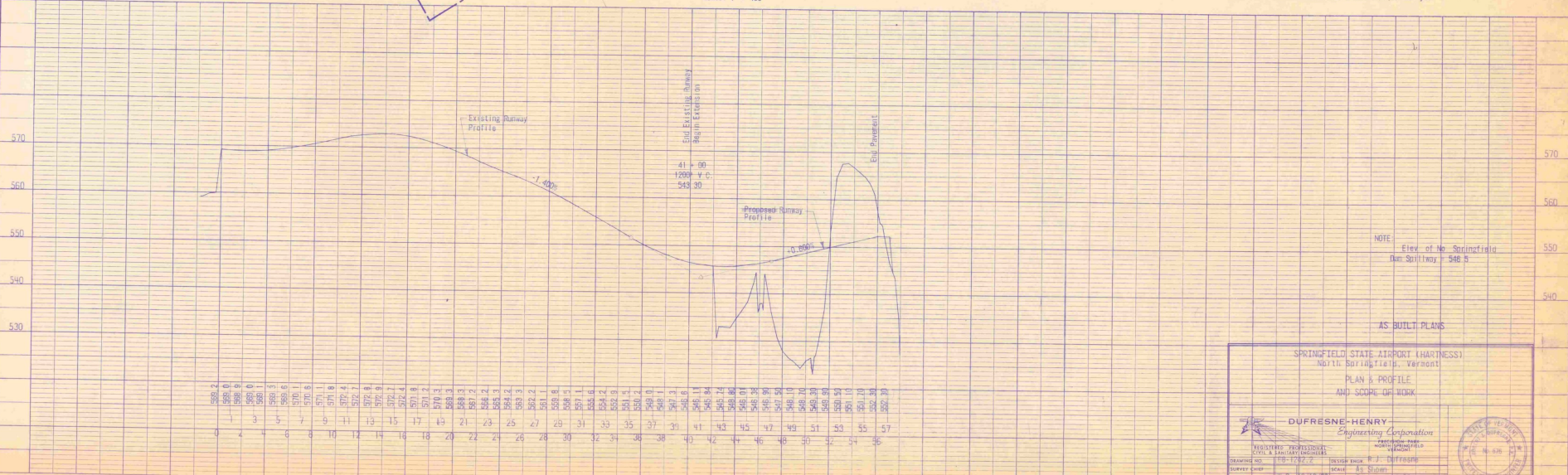
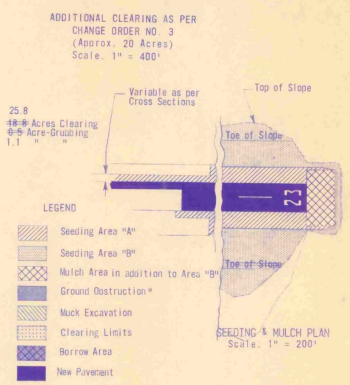
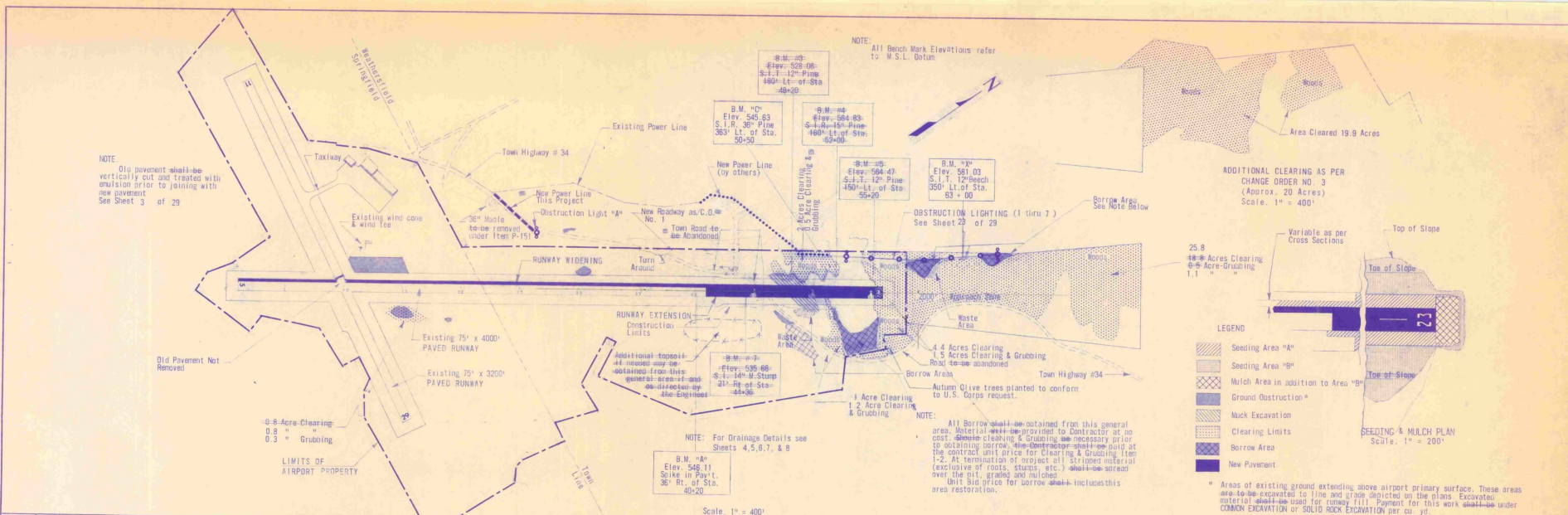


DATE: _____
 DRAWN BY: _____
 CHECKED BY: _____
 IN CHARGE: _____
 TITLE: _____

DATE: _____
 DRAWN BY: _____
 CHECKED BY: _____
 IN CHARGE: _____
 TITLE: _____

NOTE: Old pavement shall be vertically cut and treated with emulsion prior to joining with new pavement. See Sheet 3 of 29.

NOTE: All Bench Mark Elevations refer to M.S.L. Datum.



SPRINGFIELD STATE AIRPORT (HARTNESS)
 North Springfield, Vermont

PLAN & PROFILE
 AND SCOPE OF WORK

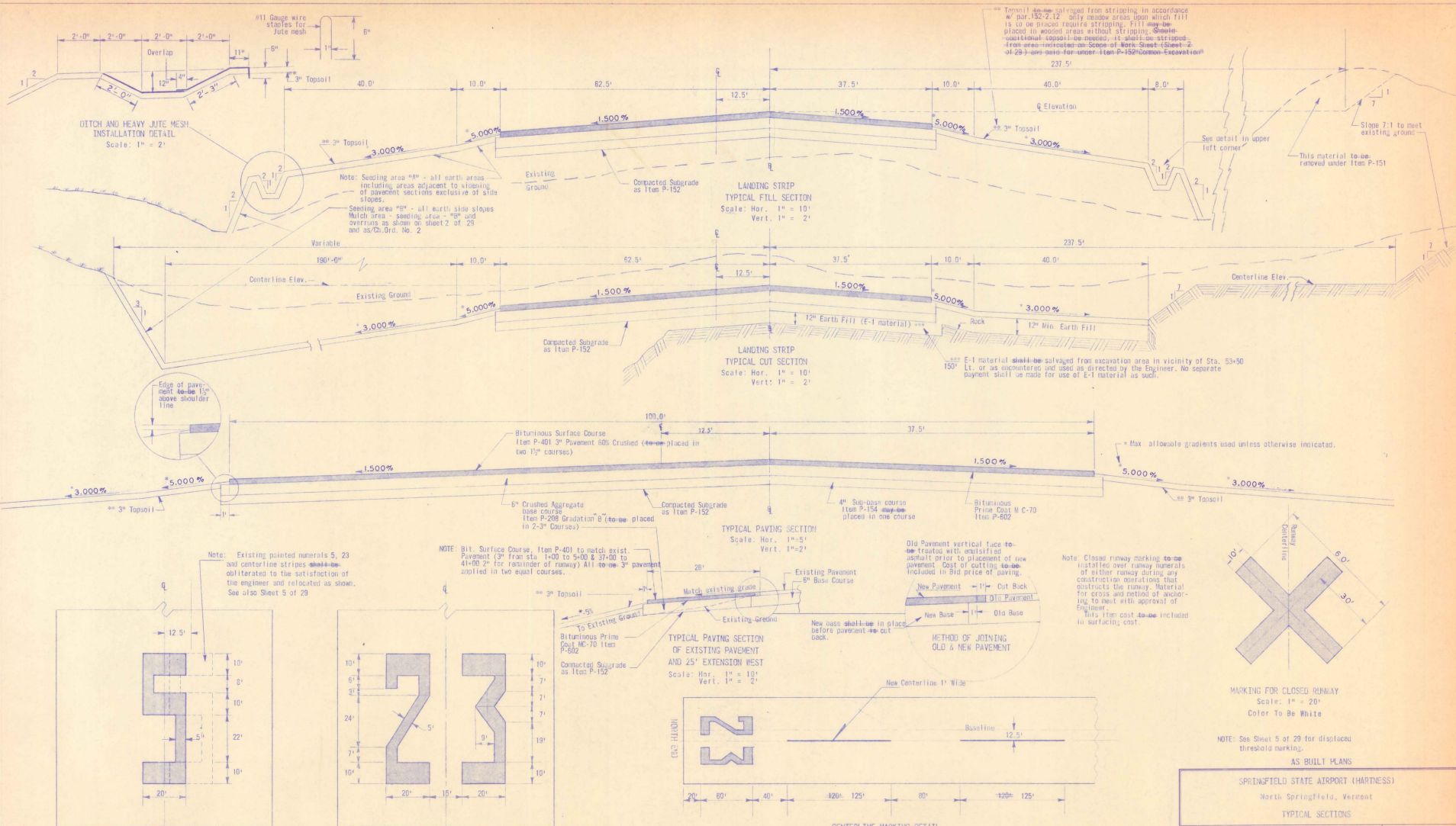
DUFRESNE-HENRY
 Engineering Corporation

REGISTERED PROFESSIONAL ENGINEERS
 CIVIL & MECHANICAL ENGINEERS

DATE: 12-12-22
 DRAWN BY: R.J. Dufresne
 CHECKED BY: A. Starn
 IN CHARGE: J. Starn

PROJECT NO. 12-16-20
 SHEET NO. 23

SCALE: 1" = 400'



** Topsoil to be salvaged from stripping in accordance with par. 152-2.12 only in areas from which fill is to be placed require stripping. Fill may be placed in wooded areas without stripping. See Note: Material to be salvaged, it shall be stripped from area indicated on Scope of Work Sheet (Sheet 2 of 29) and saved for under Item P-152 Common Excavation.

Note: Seeding area "A" - all earth areas including areas adjacent to existing pavement sections exclusive of side slopes.
Seeding area "B" - all earth side slopes.
Mulch area - seeding area - "B" and covering as shown on sheet 2 of 29 and as Ch. Ord. No. 2

** E-1 material shall be salvaged from excavation area in vicinity of Sta. 53+50 150' Lt. or as encountered and used as directed by the Engineer. No separate payment shall be made for use of E-1 material as such.

Note: Existing painted numerals 5, 23 and centerline stripes shall be obliterated to the satisfaction of the engineer and relocated as shown. See also Sheet 5 of 29.

NOTE: Bit. Surface Course, Item P-401 to match exist. Pavement (3" from Sta. 1+00 to 5+00 & 37+00 to 41+00 2" for remainder of runway) All to be 3" applied in two equal courses.

Note: Closed runway marking to be installed over runway numerals of either runway during any construction operations that obstruct the runway. Material for cross and portion of anchoring to meet with approval of Engineer. This item cost to be included in surfacing cost.

Note: All Runway Marking to be Aviation Surface White 1 1/2" Wide

Note: Lay out Runway Centerline spacing from both ends toward center

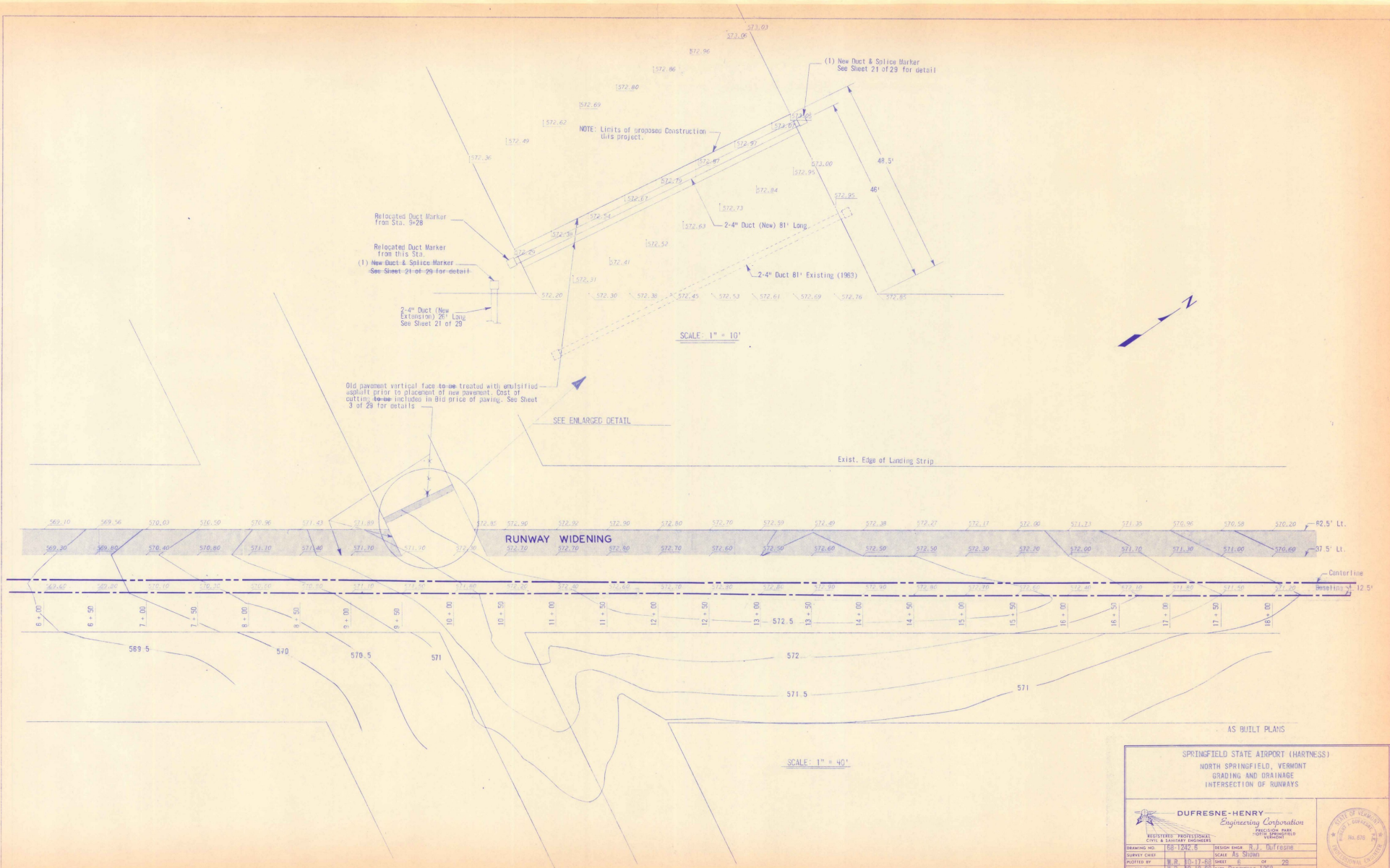
SPRINGFIELD STATE AIRPORT (HARTNESS)
North Springfield, Vermont

TYPICAL SECTIONS

DUFRESNE-HENRY
Engineering Corporation
REGISTERED PROFESSIONAL CIVIL & SURVEYING ENGINEERS

DRAWING NO. 108-1242-3 DESIGN ENGINEER J. J. Dufresne
SURVEY CODE 108-1242-3 SHEET 3 OF 28
NOTED BY H. H. 10-28-54 DATE December 1954
CHECKED BY H. H. 11-5-55 APPROVED *[Signature]*

STATE OF VERMONT
REGISTERED PROFESSIONAL ENGINEERS



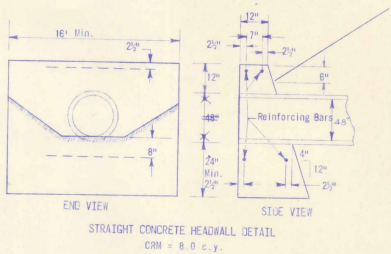
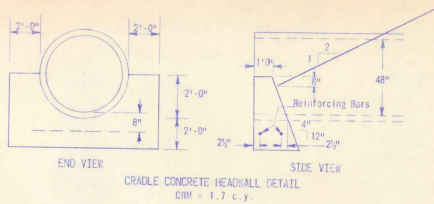
SCALE: 1" = 10'

SCALE: 1" = 40'

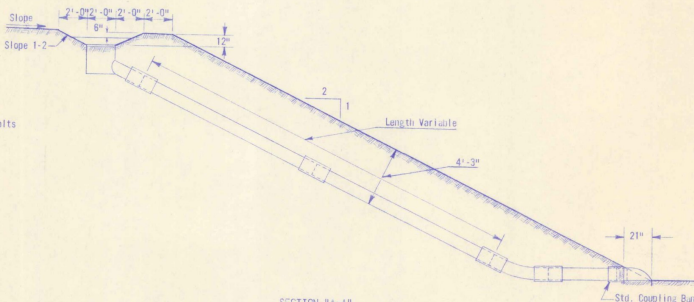
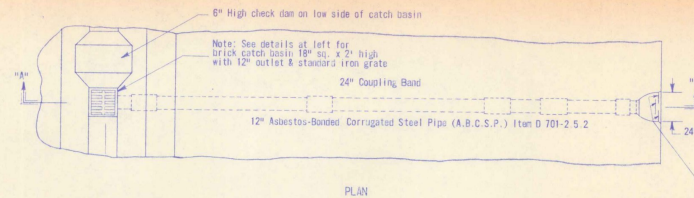
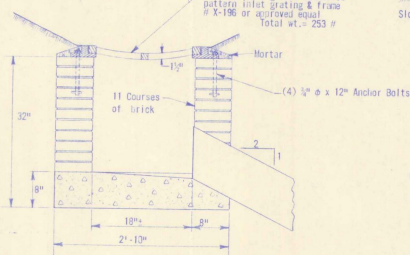
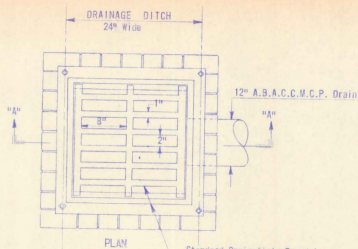
AS BUILT PLANS

SPRINGFIELD STATE AIRPORT (HARTNESS)
NORTH SPRINGFIELD, VERMONT
GRADING AND DRAINAGE
INTERSECTION OF RUNWAYS

DUFRESNE-HENRY Engineering Corporation		
REGISTERED PROFESSIONAL CIVIL & SANITARY ENGINEERS STATE OF VERMONT		
DRAWING NO.	DESIGN ENGINEER	APPROVED: <i>[Signature]</i> DATE: December 1968
SURVEY CHIEF	SCALE: AS SHOWN	
PROJECT NO.	SHEET NO. OF 20	
TRACED BY	DATE: December 1968	
CHECKED BY	700	

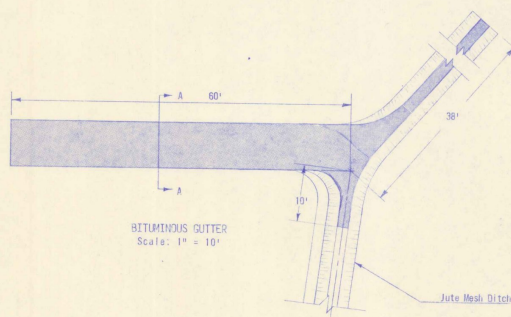


NOTE: All reinforcing steel to be 5/8" diameter deformed bars.

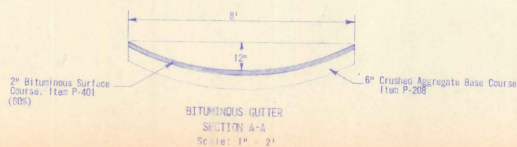


18 Ga. Standard metal outlet end section with 4" high metal baffles welded in place as shown.

Slope Drain Location		
Sta.	L3	RT
43 + 00	26'	28'
47 + 00	36'	0
49 + 00	0	30'
50 + 50	46'	0
51 + 00	0	52'



NOTE: All ditch cut slopes 2:1. Bituminous gutters shall receive two coats of an approved coal tar base sealer such as "Johnite" or "Flint Tar" or equal. Sealer shall be applied after pavement has cured for at least 5 days. Method and rate of application shall be as recommended by the product manufacturer. The cost of this work shall be included in the bid price for "Bituminous Gutter".



AS BUILT PLANS

SPRINGFIELD STATE AIRPORT (HARTNESS)
North Springfield, Vermont

DRAINAGE DETAILS

DUFRESNE-HENRY
Engineering Corporation

REGISTERED PROFESSIONAL
CIVIL & SANITARY ENGINEERS

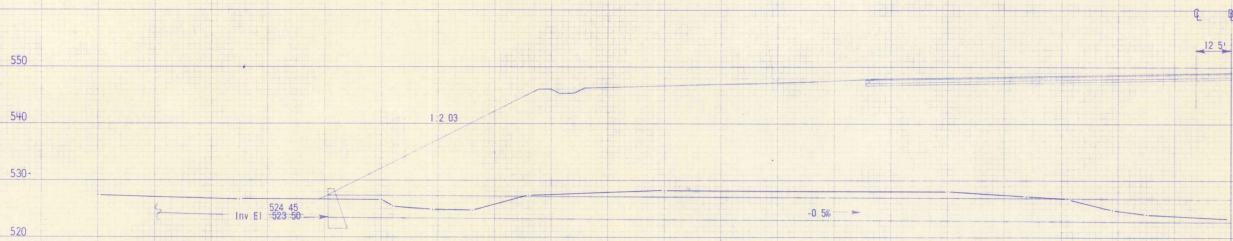
ISSUE NO. 1292.7

DESIGNER: H. J. DUFRESNE
CHECKED BY: H. J. DUFRESNE
DATE: 12-28-58

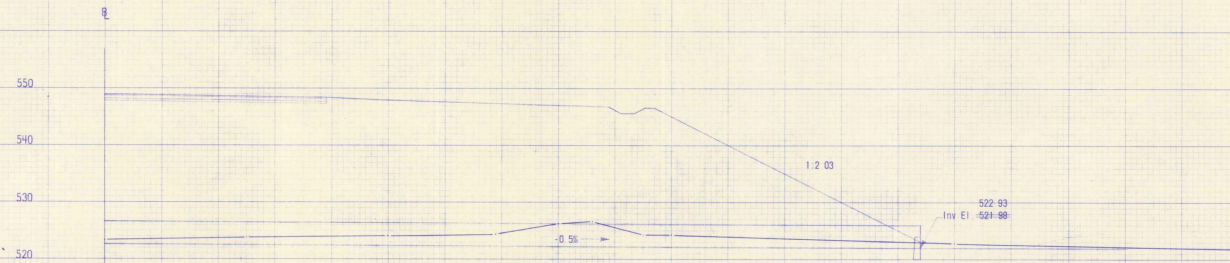
SCALE: AS SHOWN
SHEET: 29
OF: 29

APPROVED: [Signature]

STATE OF VERMONT
No. 876
PROFESSIONAL ENGINEER



STA. 50 + 50
 Sewer = 48" x 304' RCP
 Grade = -0.5%
 St. Headwall at Inlet
 Cr. Headwall at Outlet
 Construct Inlet and Outlet Ditches



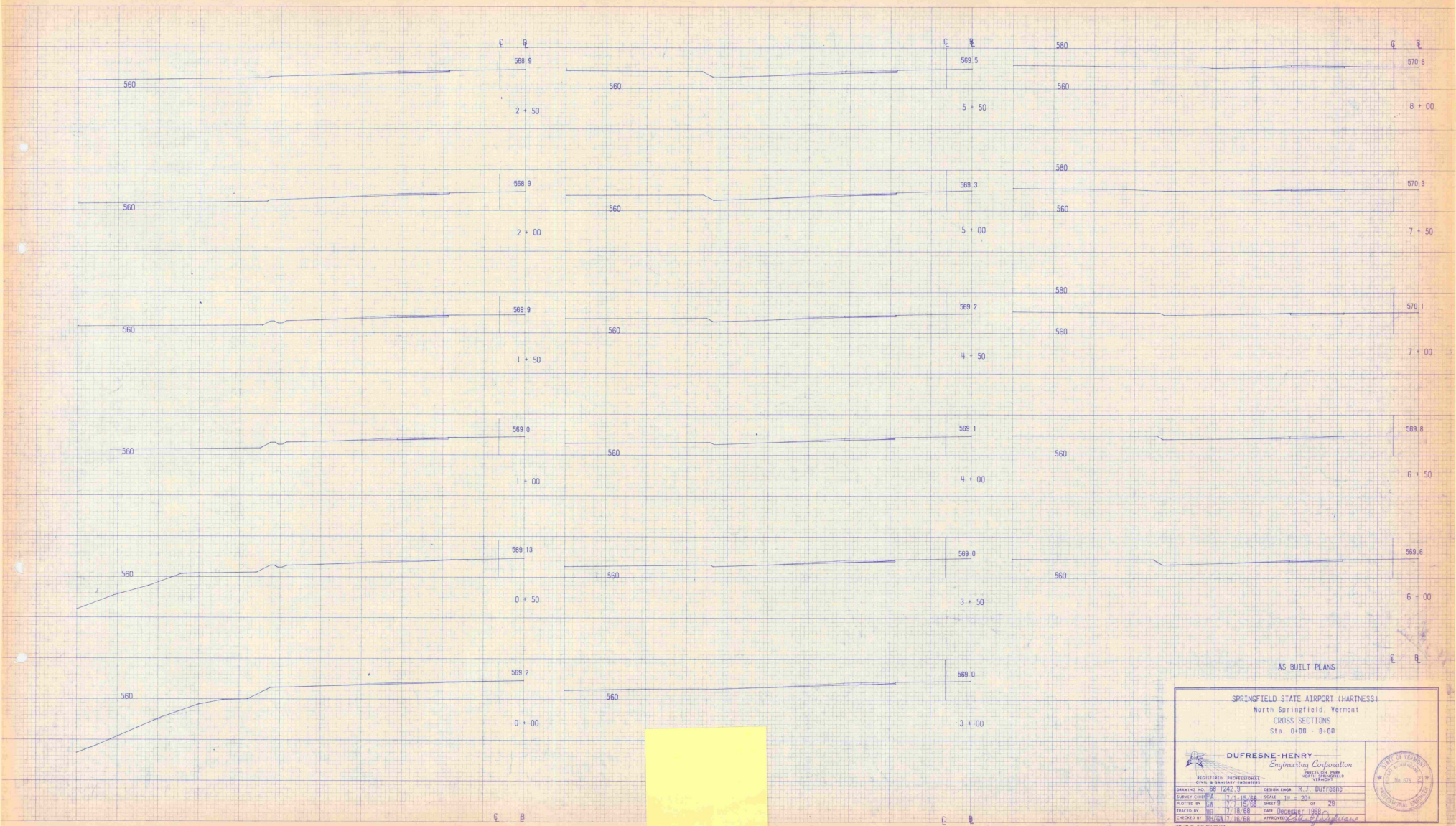
AS BUILT PLANS

SPRINGFIELD STATE AIRPORT (HARTNESS)
 No. Springfield, Vermont
 48" x 304' RCP
 STA. 50 + 50

DUFRESNE-HENRY
 Engineering Corporation
 REGISTERED PROFESSIONAL
 CIVIL & SANITARY ENGINEERS

DRAWING NO. 88-1742-B DESIGN ENGINEER B. J. DUFFENBIE
 SURVEY ENGINEER 11-25-68 SCALE 1" = 10'
 PLOTTED BY RB 11-25-68 SHEET 8 OF 28
 CHECKED BY RB 11-26-68 DATE December, 1968
 CHECKED BY CB 11-25-68

STATE OF VERMONT
 REGISTERED PROFESSIONAL ENGINEER
 No. 676



AS BUILT PLANS

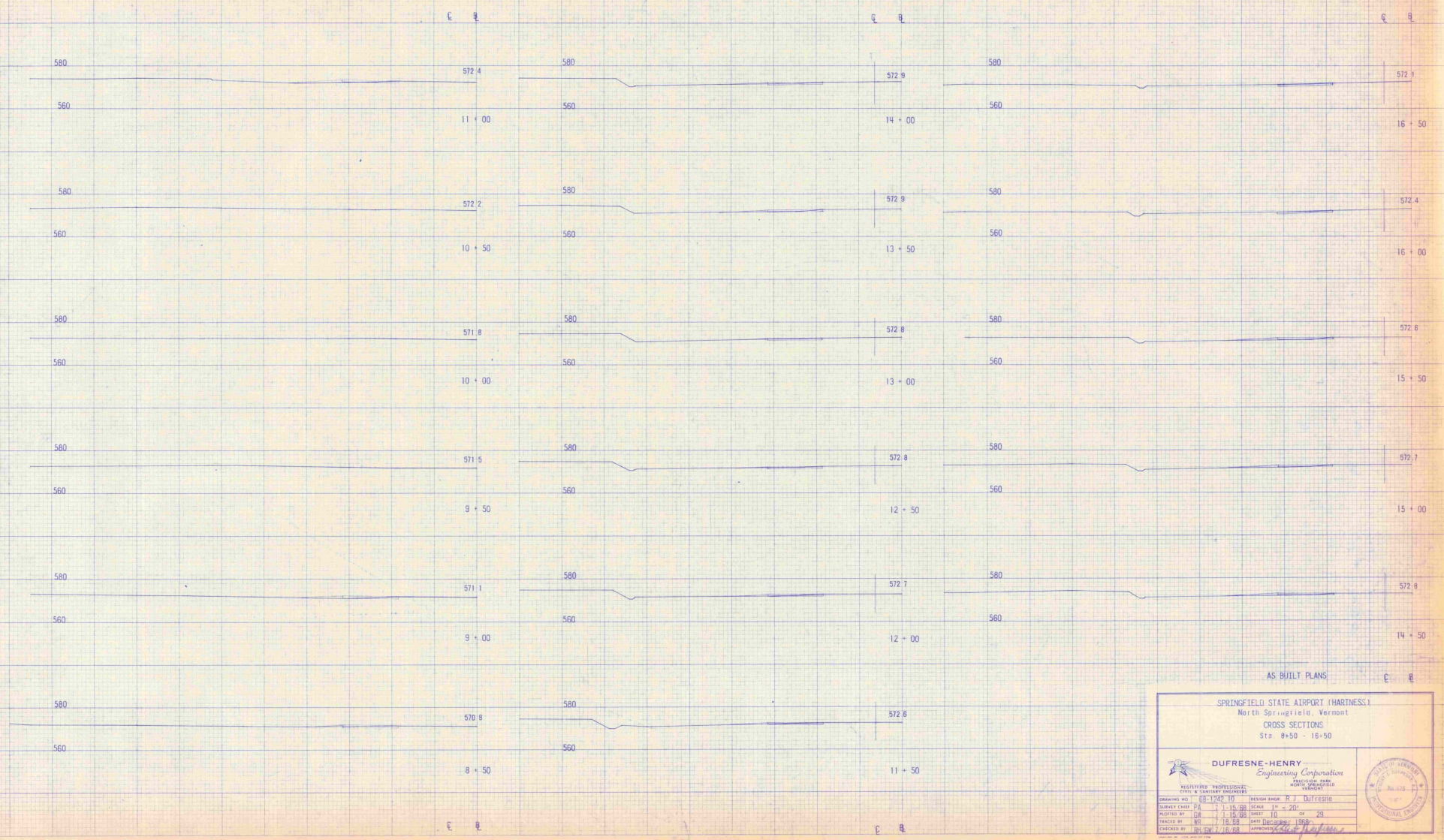
SPRINGFIELD STATE AIRPORT (HARTNESS)
North Springfield, Vermont
CROSS SECTIONS
Sta. 0+00 - 8+00

DUFRESNE-HENRY
Engineering Corporation
REGISTERED PROFESSIONAL ENGINEERS

DRAWING NO. 88-1242-3	DESIGN ENGINEER H. J. DUFRESNE
SURVEY CHECKED BY J. J. 15.68	SCALE 1" = 20'
PLOTTED BY J. H. 17.15.68	SHEET 9 OF 28
CHECKED BY H. H. 17.18.68	DATE December 1968
	APPROVED <i>[Signature]</i>

STATE OF VERMONT
REGISTERED PROFESSIONAL ENGINEER

407,600



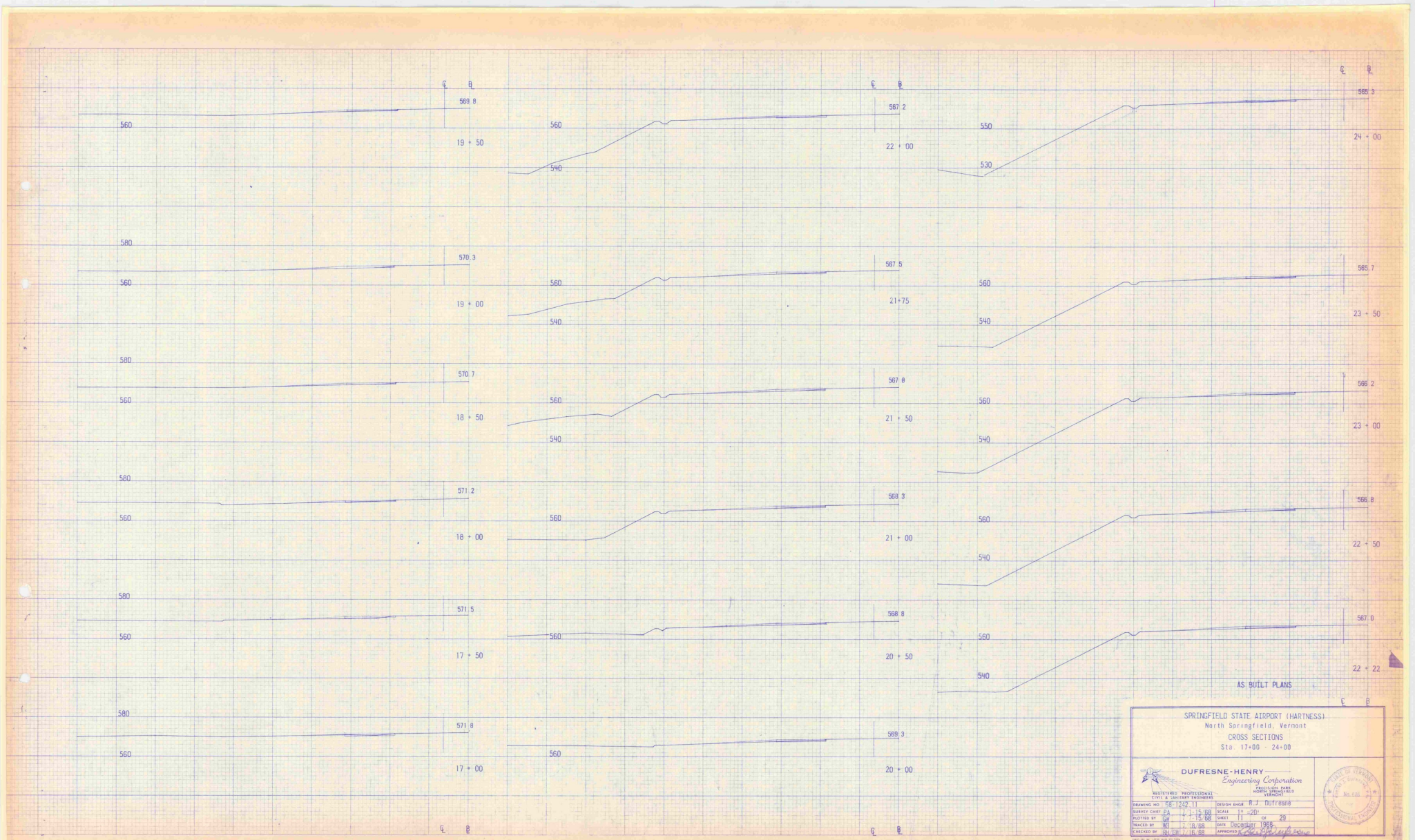
AS BUILT PLANS

SPRINGFIELD STATE AIRPORT (HARTNESS I)
 North Springfield, Vermont
 CROSS SECTIONS
 Sta. 8+50 - 16+50

DUFRESNE-HENRY
 Engineering Corporation
 100 STATE STREET
 SPRINGFIELD, VERMONT

REGISTERED PROFESSIONAL
 CIVIL & SANITARY ENGINEERS
 VERMONT STATE BOARD OF ENGINEERS

DESIGNED BY: G.H. 10/24/56 DESIGN SHEET: 27 OF 28
 SURVEY CHECK: P.A. 1-15-58 SCALE: 1" = 20'
 PLOTTED BY: G.H. 1-15-58 SHEET: 10 OF 28
 CHECKED BY: G.H. 1-15-58 DATE PLOTTED: 1958
 APPROVED: [Signature]



AS BUILT PLANS

SPRINGFIELD STATE AIRPORT (HARTNESS)
 North Springfield, Vermont
 CROSS SECTIONS
 Sta. 17+00 - 24+00

DUFRESNE-HENRY Corporation
 Engineering Corporation
 100 North Main Street
 Springfield, Vermont

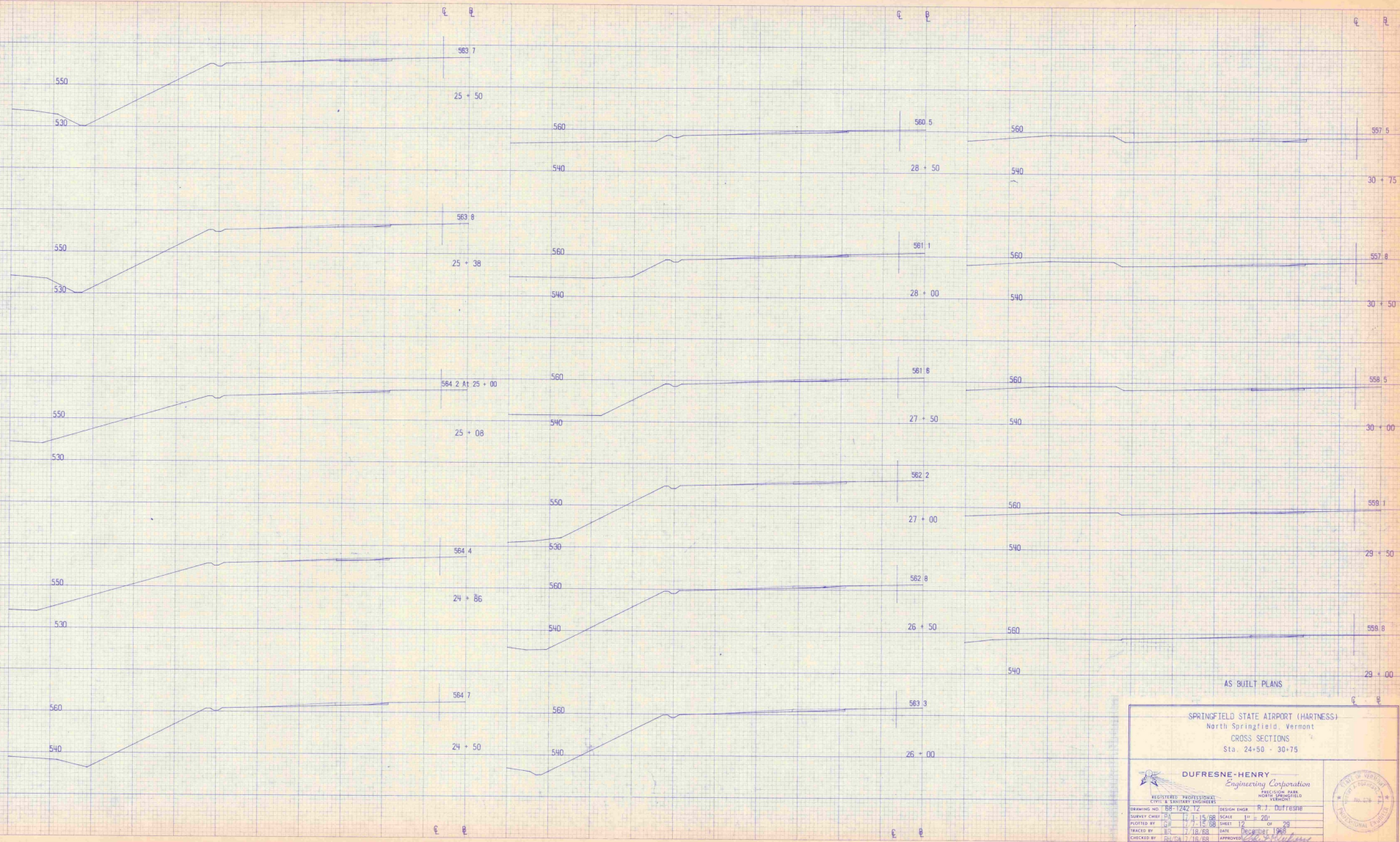
REGISTERED PROFESSIONAL
 CIVIL & AERIAL ENGINEERS

DESIGNED BY: R. J. DUFRESNE
 CHECKED BY: R. J. DUFRESNE
 DATE: 11/15/68
 SCALE: 1" = 20'

PROJECT NO. 58-1229
 SHEET 11 OF 28
 DATE: 11/15/68

APPROVED BY: [Signature]

STATE OF VERMONT
 PROFESSIONAL ENGINEER



AS BUILT PLANS

SPRINGFIELD STATE AIRPORT (HARTNESS)
 North Springfield Vermont
 CROSS SECTIONS
 Sta. 24+50 - 30+75

DUFRESNE-HENRY
 Engineering Corporation

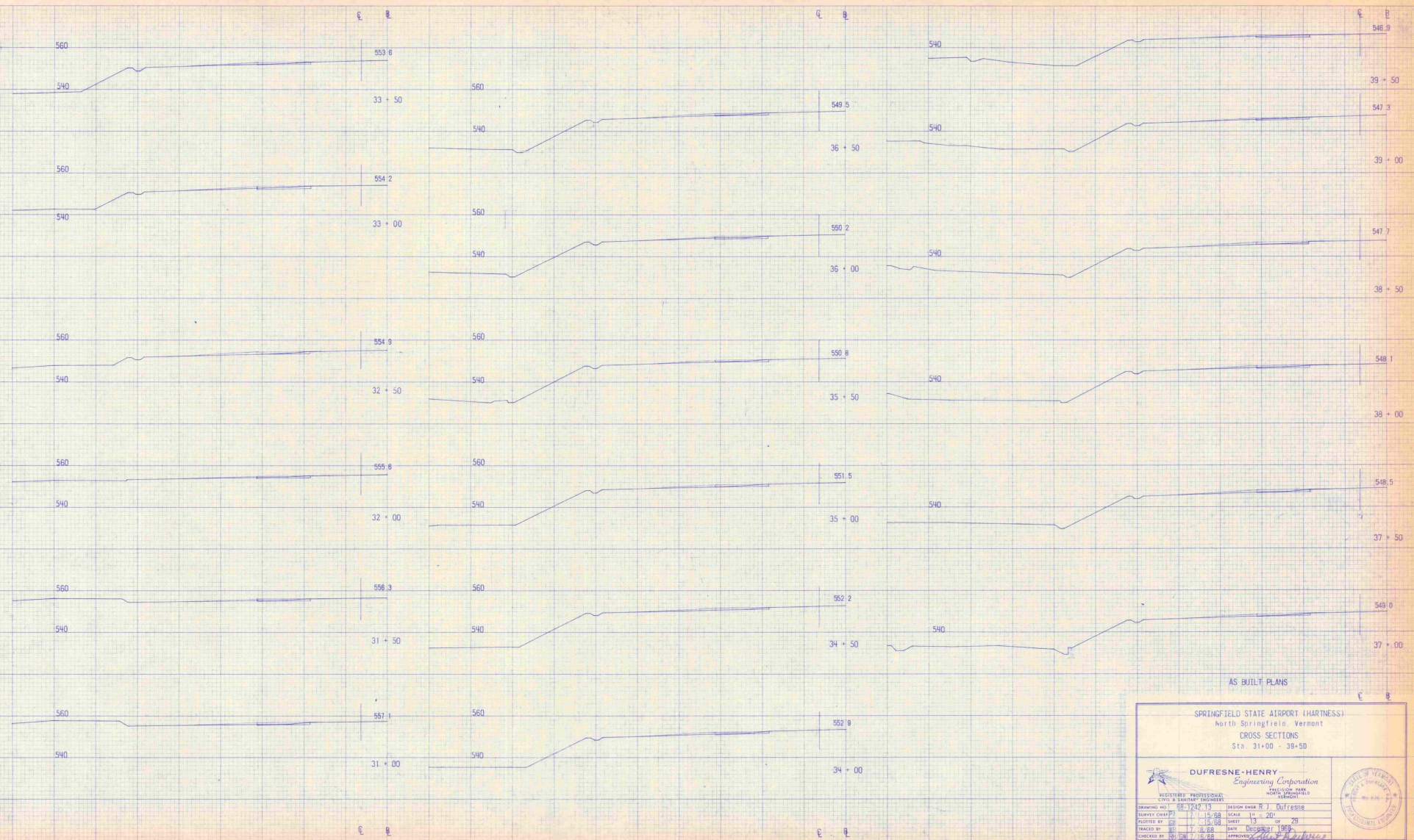
REGISTERED PROFESSIONAL ENGINEER
 CIVIL & SURVEY ENGINEER

DESIGN ENGINEER: R. J. DUFRESNE
 SURVEY ENGINEER: J. J. HENRY
 CHECKED BY: J. J. HENRY
 DATE: AUGUST 1968

SCALE: 1" = 20'
 SHEET: 12 OF 28


APPROVED: [Signature]

STATE OF VERMONT
 PROFESSIONAL ENGINEER



AS BUILT PLANS

SPRINGFIELD STATE AIRPORT (HARTNESS)
North Springfield, Vermont
CROSS SECTIONS
Sta. 31+00 - 38+50

DUFRESNE-HENRY Engineering Corporation		
REGISTERED PROFESSIONAL ENGINEERS CIVIL & SANITARY ENGINEERS		
DESIGN NO. 68-1242-13	DESIGN NAME R J Outfitting	
ISSUED DATE 7-15-68	SCALE 1" = 20'	
DRAWN BY J. D. B.B.	SHEET 13	
CHECKED BY J. D. B.B.	DATE NOVEMBER 1968	
APPROVED BY <i>Eugene Dufresne</i>	APPROVED	

E 8

540
520
540
520
540
520
540
520
540
520

545.84
42 + 00
545.85
41 + 96
545.86
41 + 50
546.11
40 + 98
546.3
40 + 50
546.8
40 + 00

Begin Runway Extension at Sta. 41+00

AS BUILT PLANS

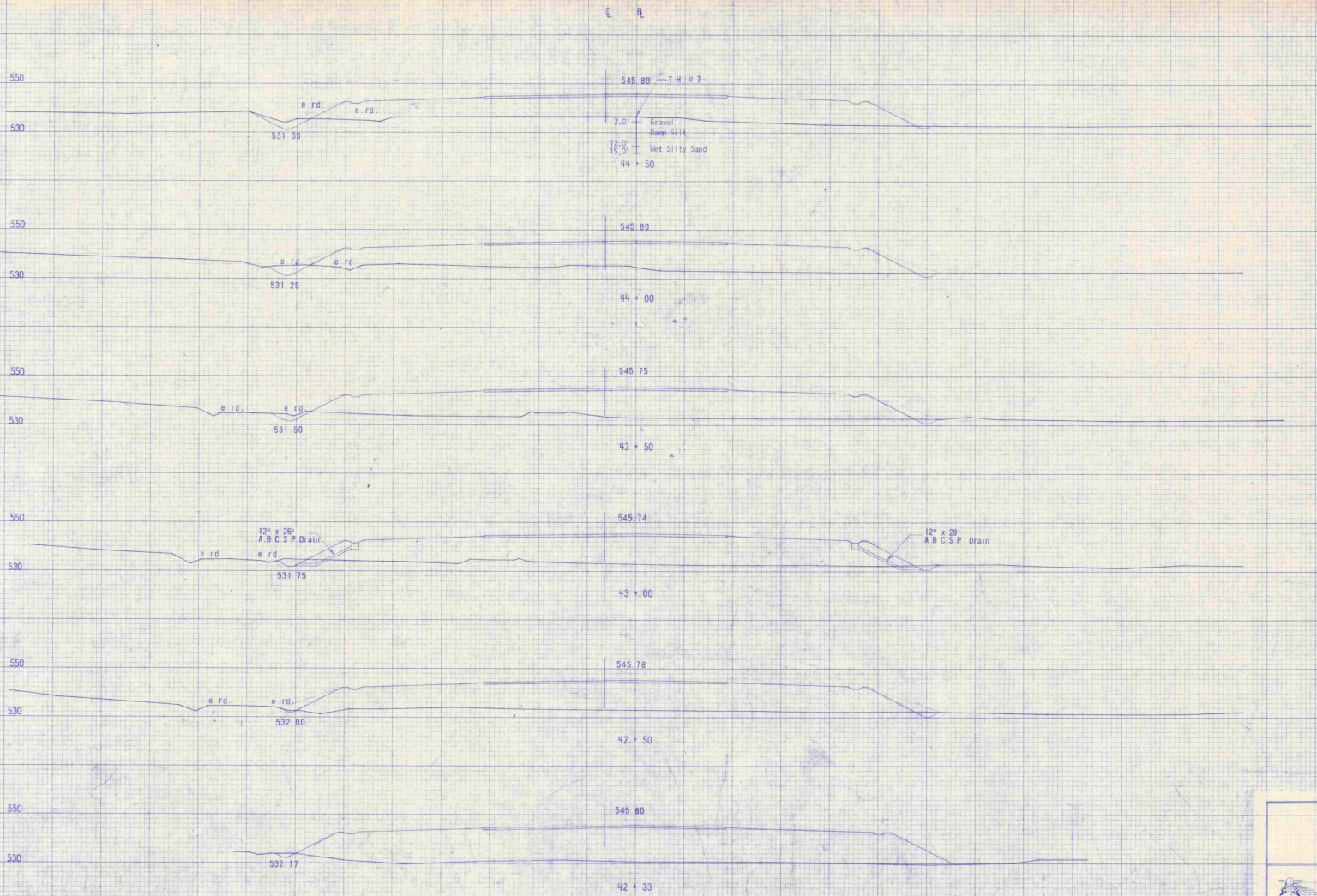
SPRINGFIELD STATE AIRPORT (HARTNESS)
North Springfield, Vermont
CROSS SECTIONS
Sta. 40+00 - 42+00

DUFRESNE-HENRY
Engineering Corporation
REGISTERED PROFESSIONAL ENGINEERS
VERMONT



DESIGNED BY	7/1-15-68	INCHES OVER	5/8"
SURVEY CHECKED BY	7/1-15-68	SCALE	1" = 20'
PLOTTED BY	7/1-15-68	SHEET	14 OF 29
CHECKED BY	7/18-68	DATE	December 1968
	7/18-68	APPROVED BY	<i>[Signature]</i>

G 8



AS BUILT PLANS

SPRINGFIELD STATE AIRPORT (HARTNESS)
North Springfield, Vermont
CROSS SECTIONS
Sta. 42+33 - 44+50

DUPRESNE-HENRY
Engineering Corporation
CIVIL ENGINEERS

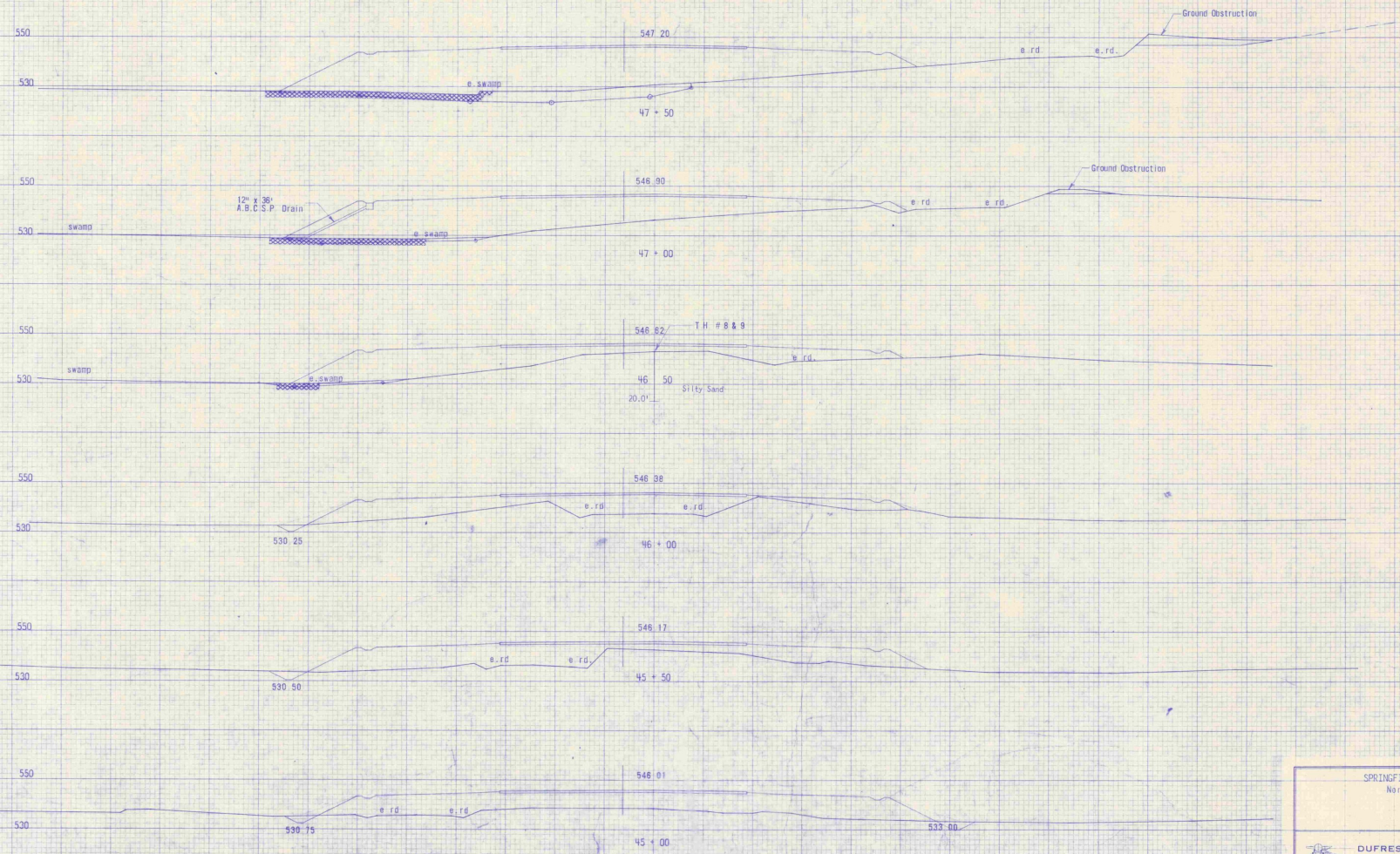
REGISTERED PROFESSIONAL
CIVIL ENGINEER LICENSE NO. 1000

DESIGNED BY: R. J. Dufresne
CHECKED BY: J. J. O'Brien
DATE: 7-11-68
SCALE: 1" = 20'

PROJECT NO. 68-122-15
SHEET 15 OF 29
DATE: 7-11-68
BY: J. J. O'Brien
APPROVED: [Signature]

STATE OF VERMONT
REGISTERED PROFESSIONAL ENGINEER
No. 476

E R



AS BUILT PLANS

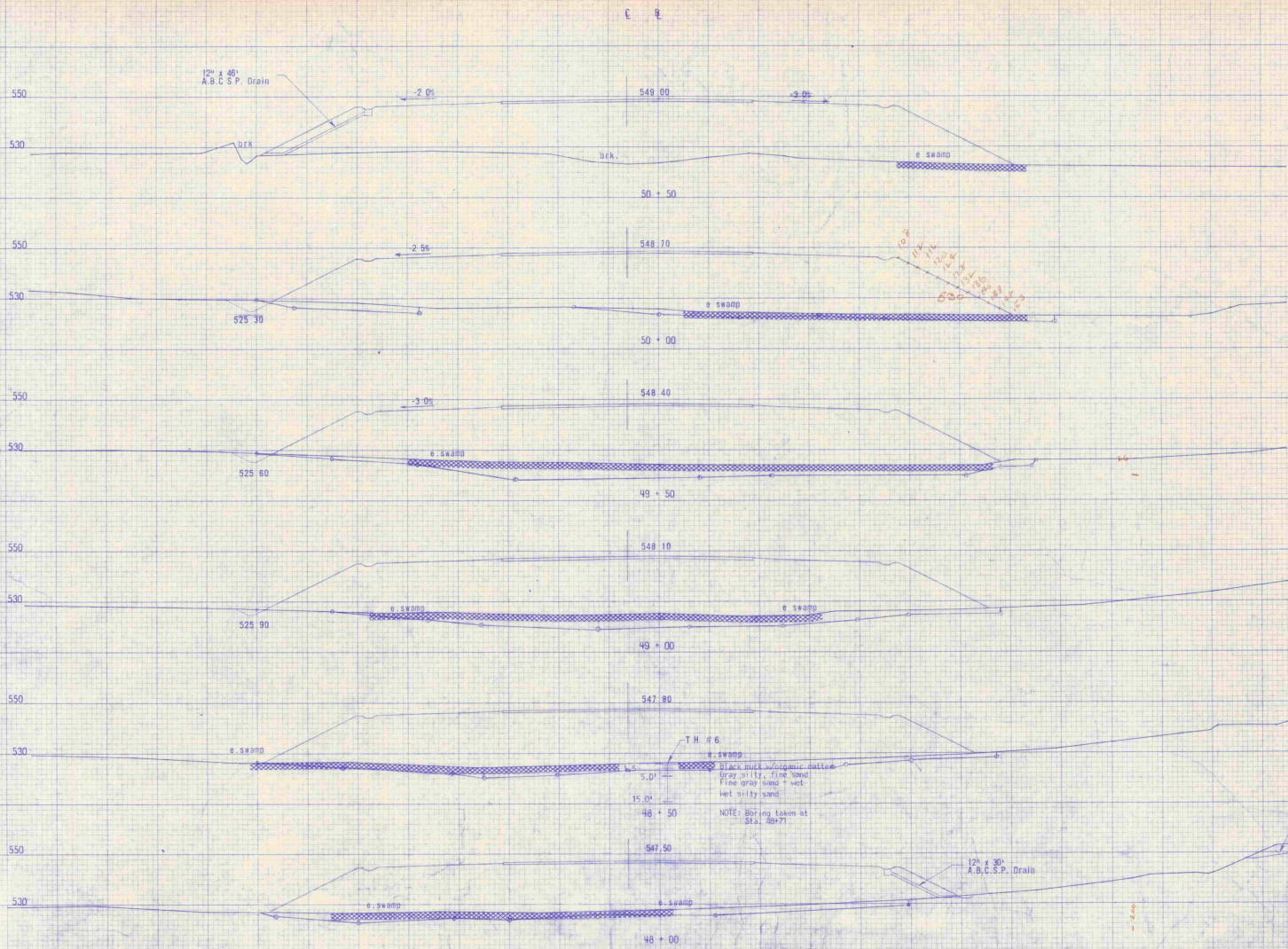
SPRINGFIELD STATE AIRPORT (HARTNESS)
 North Springfield, Vermont
 CROSS SECTIONS
 Sta. 45+00 - 47-50

DUFRESNE-HENRY
 Engineering Corporation
 ENGINEERING FIRM
 REGISTERED PROFESSIONAL ENGINEERS

STATE OF VERMONT
 REGISTERED PROFESSIONAL ENGINEER
 No. 375

DRAWING NO. 60-1222-16	DESIGN ENGINEER R. J. DUFFRESNE
CHECKED BY J. L. HENRY	SCALE 1" = 20'
PLotted BY J. L. HENRY	SHEET 16 OF 28
TRACED BY J. L. HENRY	DATE December 1988
CHECKED BY J. L. HENRY	APPROVED J. L. HENRY

Area of Muck Excavation
 Final Limits



T.H. # 6
 5.0' 12" x 30" A.B.C.S.P. Drain
 15.0'
 48 + 50
 NOTE: Borings taken at Sta. 48+77

12" x 30" A.B.C.S.P. Drain
 6.0'

[Hatched Area] = Area of Muck Excavation
 [Dashed Line] = Final Limits

AS BUILT PLANS
 SPRINGFIELD STATE AIRPORT (HARTNESS)
 North Springfield, Vermont
 CROSS SECTIONS
 Sta. 48+00 - 50+50

DUFRESNE-HENRY
 Engineering Corporation
 REGISTERED PROFESSIONAL ENGINEERS
 CIVIL & SANITARY ENGINEERS
 DESIGN ENGINE R. J. DUFRESNE
 CHECKED BY PA 1/15/88 SCALE 1" = 20'
 DRAWN BY BR 1/15/88 SHEET 1 OF 25
 TRACED BY BR 1/5/88 DATE DRAWN 1988
 CHECKED BY BR/DR 7/10/88 APPROVED [Signature]

GROUND DESTRUCTION



C R

580

560

540

-1.0%

550.50

53+00

NOTE SEE SHEET 18A OF 29 FOR
RIGHT HALF OF THESE SECTIONS

560

540

-1.0%

550.20

52+50

570

e. wds.

e. wds.

550

530

-1.0%

549.90

52+00

-1.5%

550

e. wds.

-1.0%

549.80

51+50

-2.0%

e. wds.

e. wds.

550

530

510

-1.0%

549.30

51+00

-3.0%

12" x 50"
A.B.C. & P. Drain

e. wds.

Drk

e. wds.

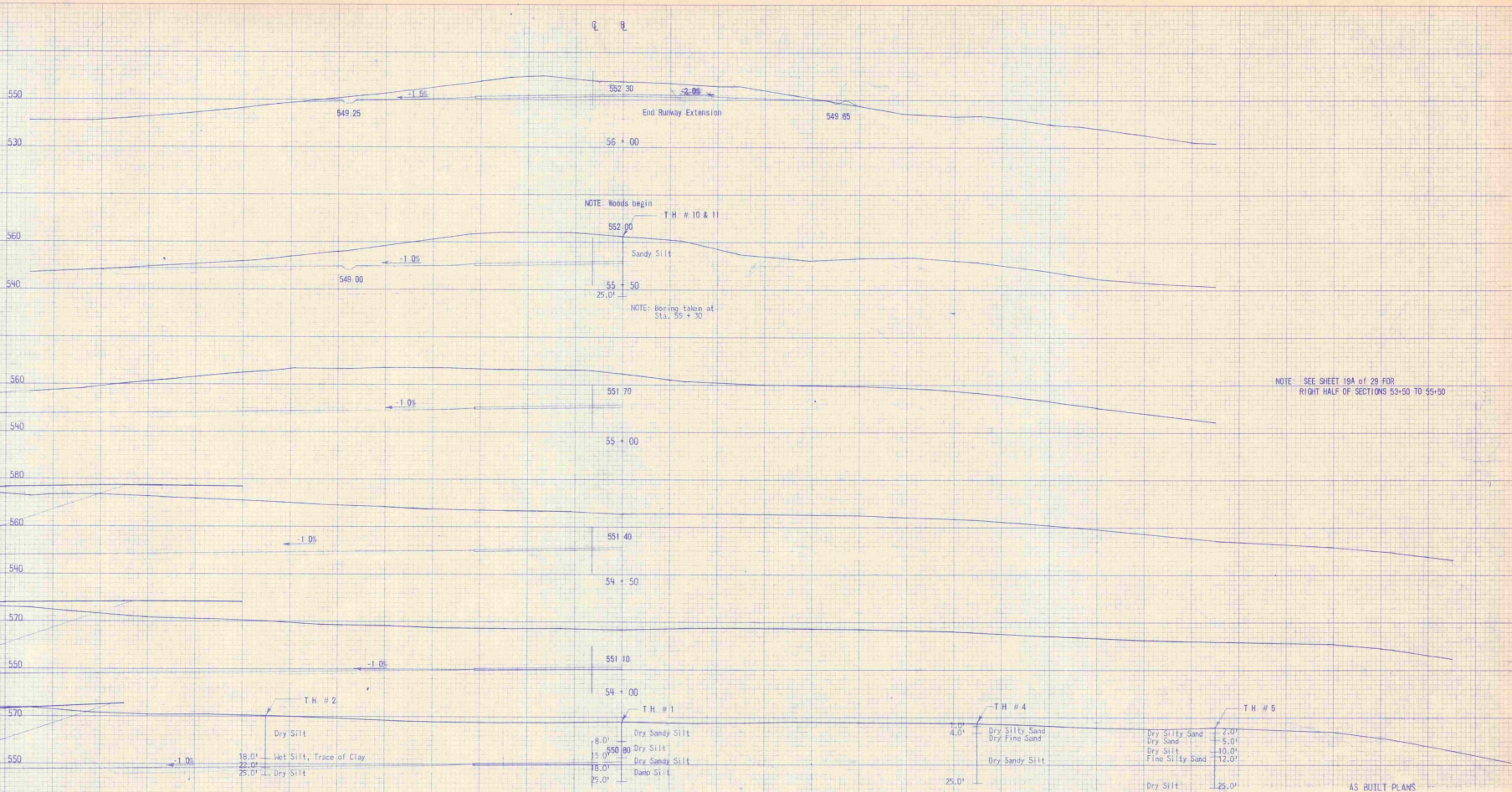
AS BUILT PLANS

SPRINGFIELD STATE AIRPORT (HARTNESS)
North Springfield, Vermont
CROSS SECTIONS
Sta. 51+00 - 53+00

DUFRESNE-HENRY
Engineering Corporation
INCORPORATED
100 STATE STREET
SPRINGFIELD, VERMONT



DESIGNED BY: H.E. HENRY
CHECKED BY: H.E. HENRY
DATE: 7/15/58
PROJECT NO.: 17-15-58
SHEET 18 OF 20



NOTE - SEE SHEET 19A OF 29 FOR
RIGHT HALF OF SECTIONS 53+50 TO 55+50

AS BUILT PLANS

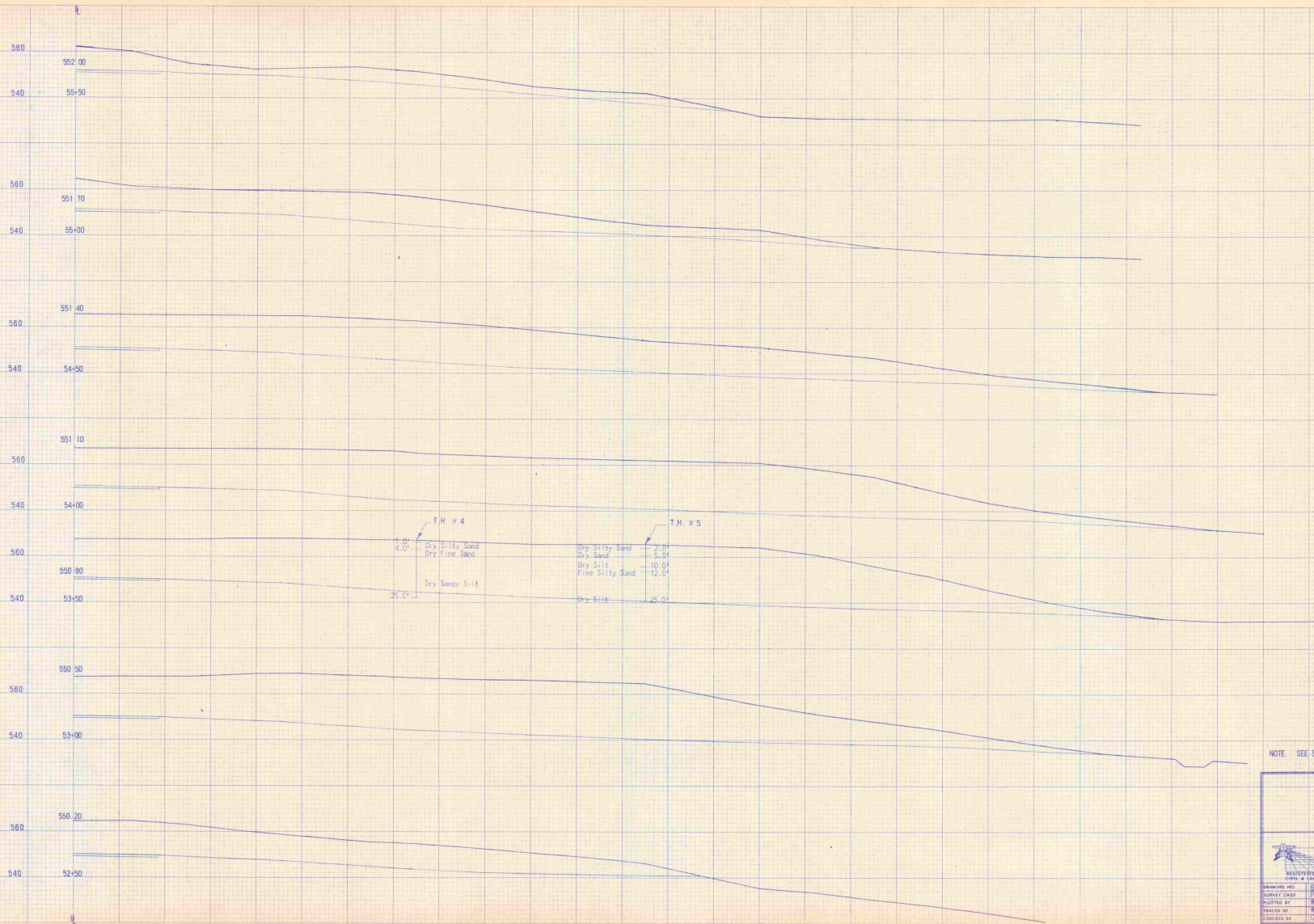
SPRINGFIELD STATE AIRPORT (HARTNESS)
North Springfield, Vermont

CROSS SECTIONS
Sta. 53+50 - 56+00

DUPRESNE-HENRY
Engineering Corporation

REGISTERED PROFESSIONAL
CIVIL & SURVEYING ENGINEERS
VERMONT 1916

DESIGNED BY	PA 7/11/57	DESIGN ENGINEER	R. D. FORTSON
SURVEY CHIEF	PA 7/11/57	SCALE	1" = 20'
DRAWN BY	DN 7/11/58	SHEET	13 OF 29
TRACKED BY	NO 7/18/58	DATE	December 1958
CHECKED BY	BN 7/18/58	APPROVED	<i>[Signature]</i>

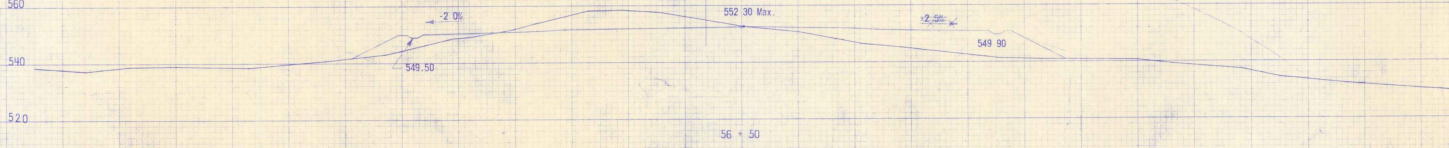
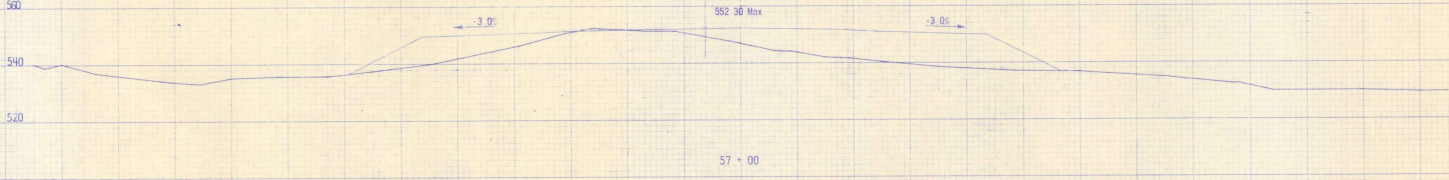
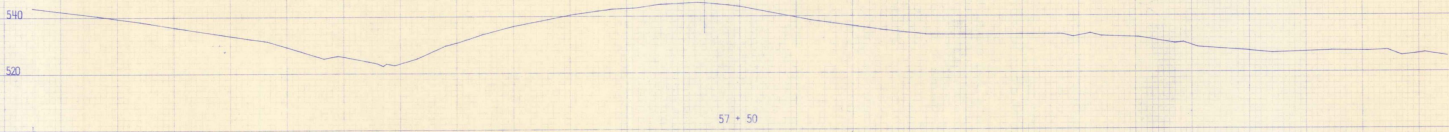
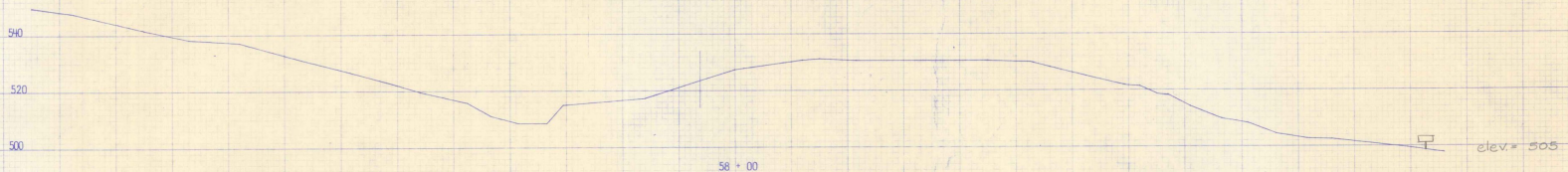


AS BUILT PLANS

NOTE: SEE SHEETS 18 & 19 OF 29 FOR LEFT HALF OF SECTIONS

SPRINGFIELD STATE AIRPORT (HARTNESS)
 North Springfield, Vermont
 Sta. 52-50 - 55-50 Lt. (only)

DRAWING NO. 186-1234-18A SURVEY CHIEF W. R. 11/70 CHECKED BY H. S. 11/70 ENDED BY C. D. 11/70	INCHES OVER 18 SCALE 1" = 20' SHEET 18A OF 29 DATE JUNE 1970 APPROVED <i>[Signature]</i>	



AS BUILT PLANS

SPRINGFIELD STATE AIRPORT (HARTNESS)
 North Springfield, Vermont
 CROSS SECTIONS
 Sta. 56+50 - 58+00

DUFRESNE-HENRY
 Engineering Corporation

REGISTERED PROFESSIONAL
 CIVIL & SURVEYING ENGINEER
 VERMONT LICENSE NO. 1100

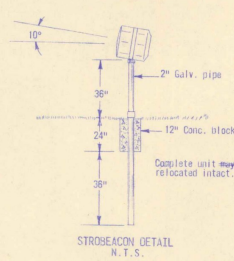
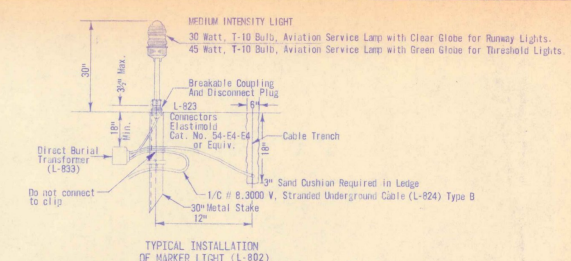
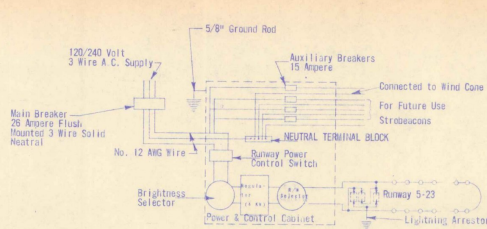
DESIGN ENGINEER: R. J. DUFFESOR

SURVEY CHIEF: P. J. HENRY
 SCALE: 1" = 20'

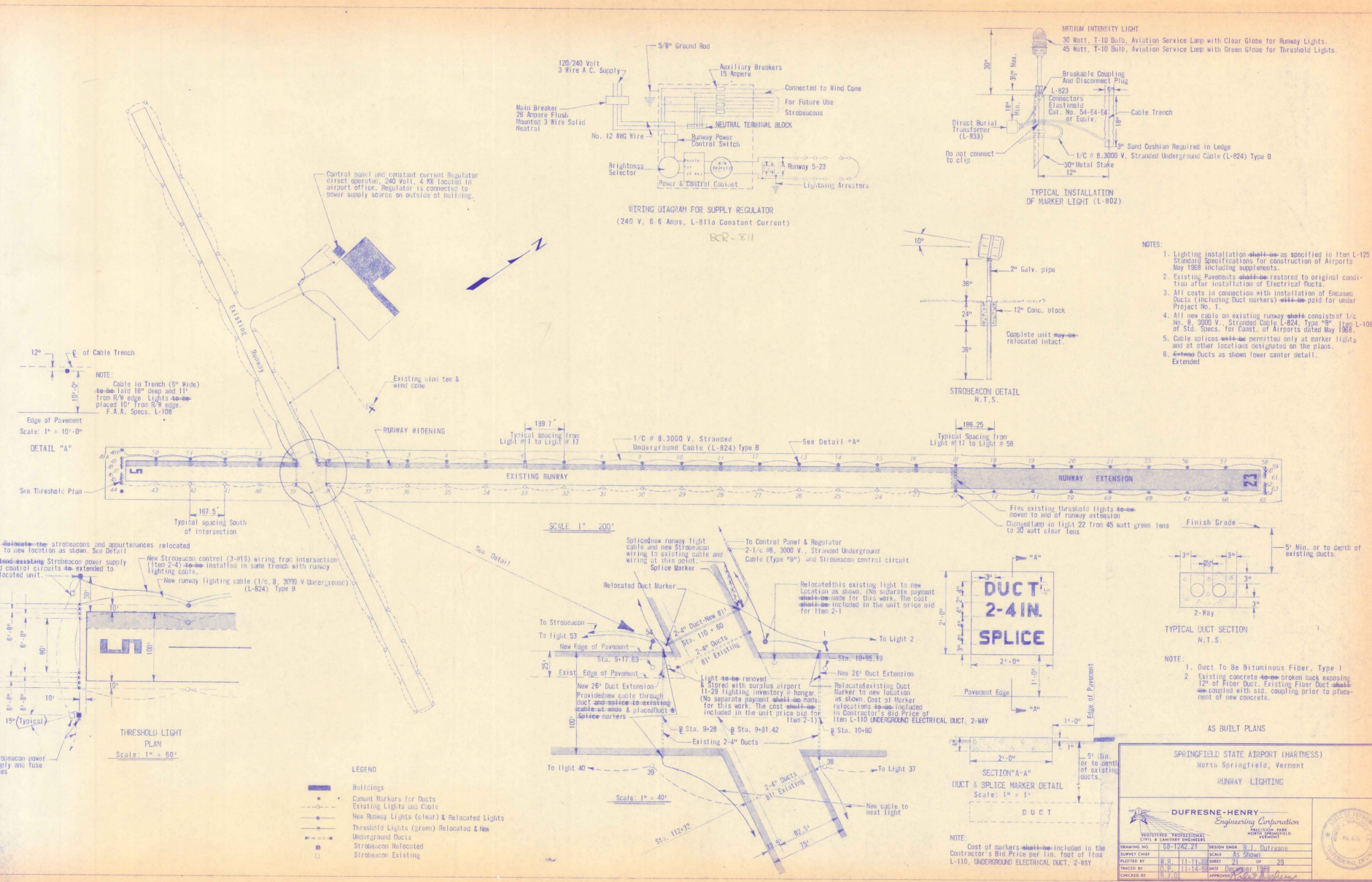
PLOTTED BY: J. HENRY
 DATE: SEPTEMBER 1968

CHECKED BY: J. HENRY
 APPROVED: [Signature]

STATE OF VERMONT
 PROFESSIONAL ENGINEER



- NOTES:**
- Lighting installation shall be as specified in Item L-125 Standard Specifications for construction of Airports May 1968 including supplements.
 - Existing Pavement shall be restored to original condition after installation of Electrical Ducts.
 - All costs in connection with installation of Encased Ducts (including Duct markers) shall be paid for under Project No. 1.
 - All new cable on existing runway shall consist of 1/2" No. 8, 3000 V., Stranded Cable (L-824) Type "B" per L-108 of Std. Specs. for Const. of Airports dated May 1968.
 - Cable splices shall be permitted only at marker lights and at other locations designated on the plans.
 - Encased Ducts as shown lower center detail.



SPRINGFIELD STATE AIRPORT (HARTNESS)
North Springfield, Vermont

RUNWAY LIGHTING

DUPRESNE-HENRY
Engineering Corporation

REGISTERED PROFESSIONAL CIVIL & SANITARY ENGINEERS

SCALE: AS SHOWN

DATE: 11-1-68

PROJECT NO. 11-1-68

TRACED BY: J.P. LEBOEUF

CHECKED BY: J.P. LEBOEUF

APPROVED: J.P. LEBOEUF

PROJECT NO. 11-1-68

DATE: 11-1-68

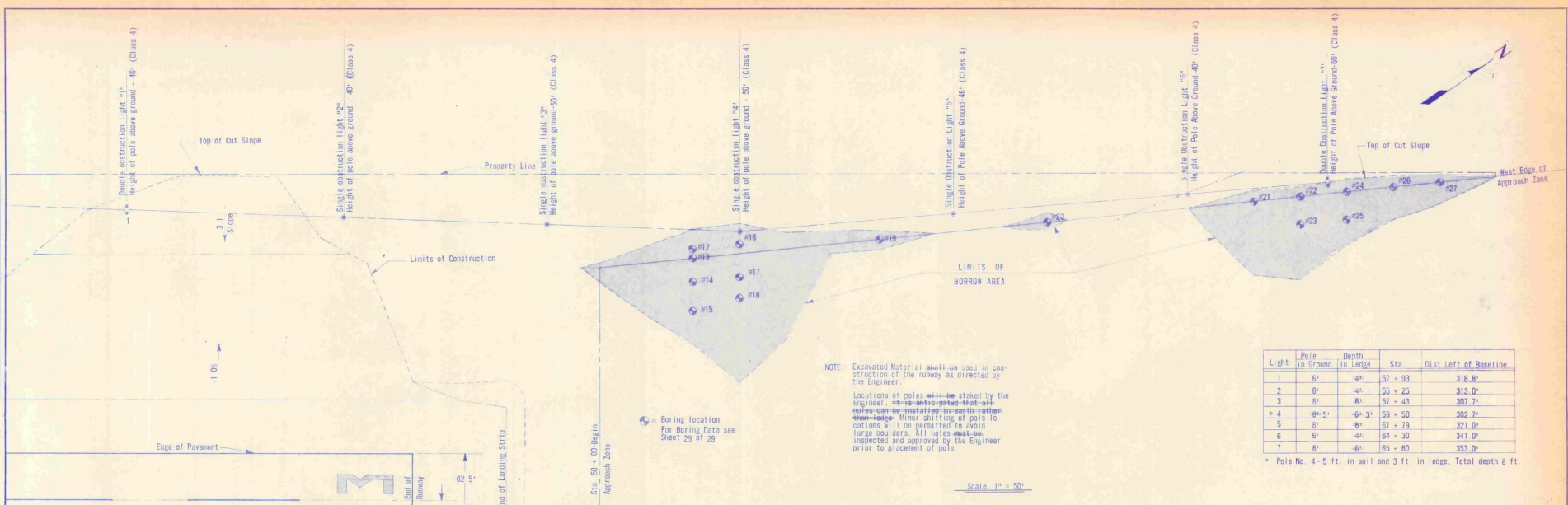
TRACED BY: J.P. LEBOEUF

CHECKED BY: J.P. LEBOEUF

APPROVED: J.P. LEBOEUF

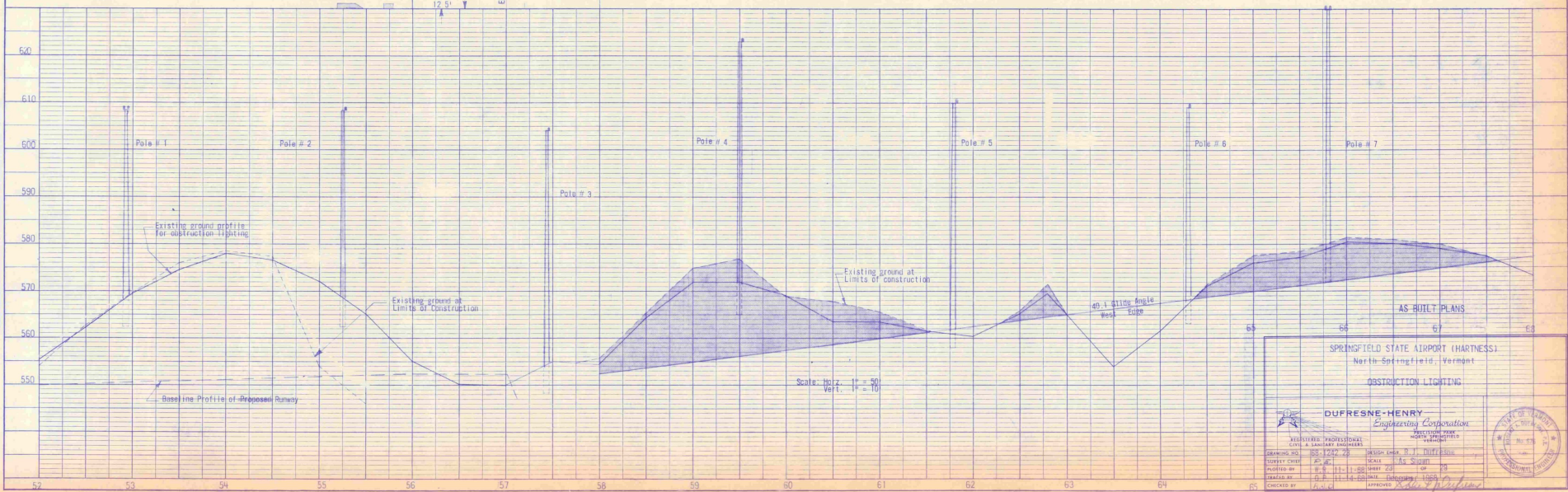
DATE: _____ BY: _____
 DRAWING NO.: _____
 PROJECT: _____
 SHEET NO.: _____

DATE: _____ BY: _____
 DRAWING NO.: _____
 PROJECT: _____
 SHEET NO.: _____



Light	Pole in Ground	Depth in Ledge	Sta	Dist Left of Baseline
1	6'	4"	52 + 93	318.0'
2	6'	4"	55 + 23	313.0'
3	6'	6"	57 + 43	307.2'
* 4	8'-5"	6'-3"	59 + 50	302.2'
5	6'	6"	61 + 79	321.0'
6	6'	4"	64 + 30	341.0'
7	8'	6"	85 + 80	353.0'

* Pole No. 4 - 5 ft. in soil and 3 ft. in ledge, Total depth 8 ft.



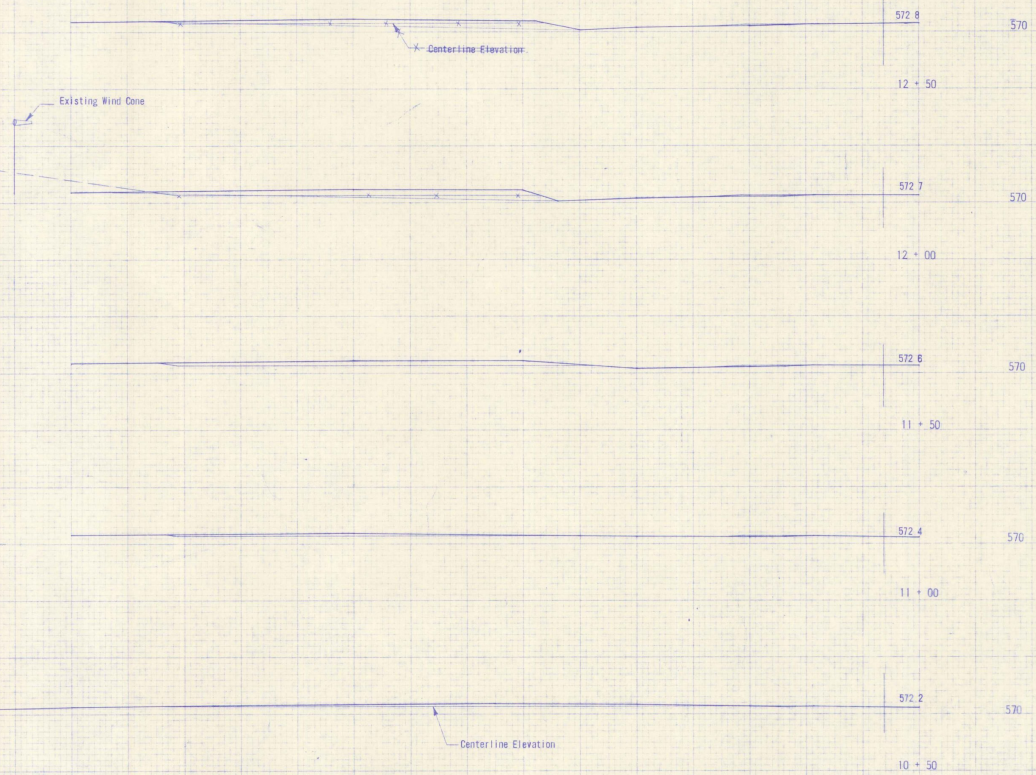
SPRINGFIELD STATE AIRPORT (HARTNESS)
 North Springfield, Vermont
 OBSTRUCTION LIGHTING

DUPRESNE-HENRY
 Engineering Corporation

REGISTERED PROFESSIONAL CIVIL & SANITARY ENGINEERS
 VERMONT LICENSE NO. 10871-10873
 DESIGN CHECKED BY: R. J. DUFFIN
 SCALE: As Shown
 DATE: 11-1-88
 CHECKED BY: J. J. DUFFIN
 APPROVED: R. J. Duffin

VERMONT STATE ENGINEERING BOARD
 REG. NO. 10871-10873

E B



E B

AS BUILT PLANS

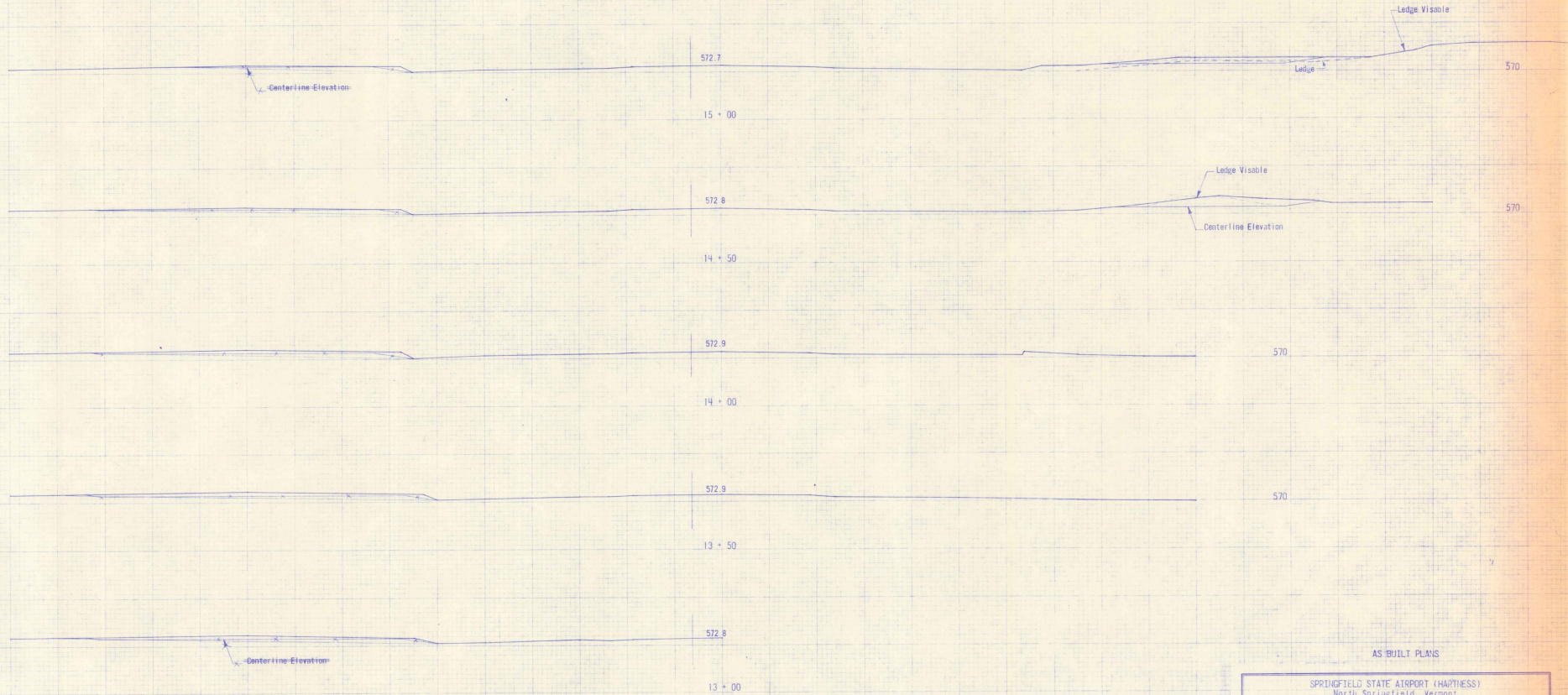
SPRINGFIELD STATE AIRPORT (HARTNESS)
 North Springfield, Vermont
 CROSS SECTION
 GROUND OBSTRUCTION REMOVAL
 RUNWAY

DUFRESNE-HENRY
 Engineering Corporation
 REGISTERED PROFESSIONAL ENGINEERS
 CIVIL & SANITARY ENGINEERS

REGISTRATION NO. 12242-24 License State R.J. DUFRESNE
 Survey Date: P.E. 8-15-88 Scale: 1" = 20'
 Plotted by: W.S. 8-22-88 Sheet: 24 of 28
 Traced by: W.S. 8-24-88 Date: December 1988
 Checked by: H.S. 8-23-88 Approved: *[Signature]*

STATE OF VERMONT
 PROFESSIONAL ENGINEERS
 No. 676

C B



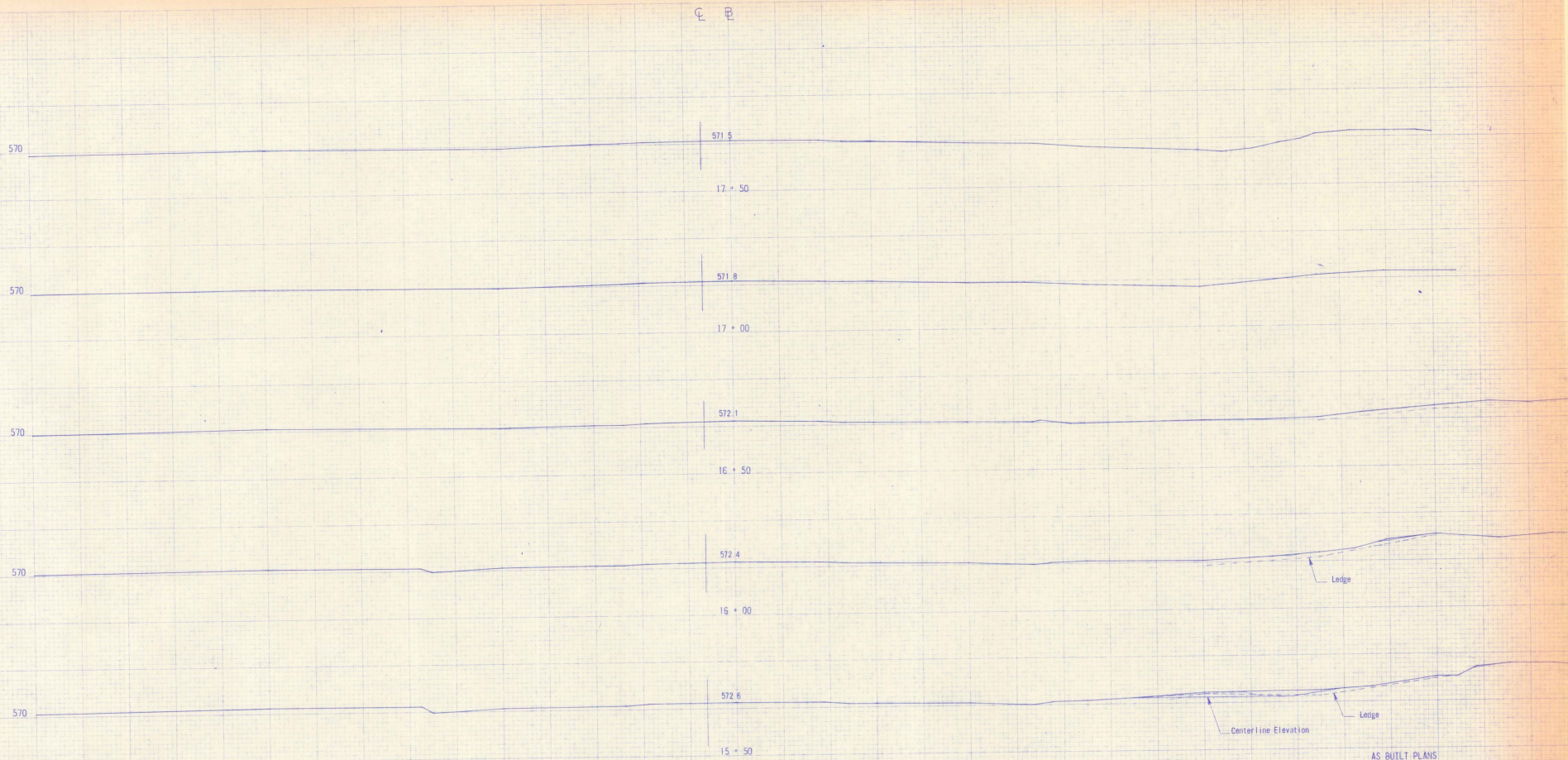
AS BUILT PLANS

SPRINGFIELD STATE AIRPORT (HARTNESS)
 North Springfield, Vermont
 CROSS SECTION
 GROUND OBSTRUCTION REMOVAL
 RUNWAY

DUFRESNE-HENRY
 Engineering Corporation
 REGISTERED PROFESSIONAL ENGINEERS

DRAWING NO.	EB-1242-25	DESIGN ENGR.	R. J. DUFRESNE
CHECKED BY	P. E. B. 15-88	SCALE	1" = 20'
PLOTTED BY	W. B. B. 22-88	SHEET	25 OF 25
TRACED BY	W. B. B. 24-88	DATE	December 1, 1988
CHECKED BY	H. B. B. 23-88	APPROVED	<i>[Signature]</i>

STATE OF VERMONT
 REGISTERED PROFESSIONAL ENGINEERS
 No. 822



AS BUILT PLANS

SPRINGFIELD STATE AIRPORT (HARTNESS)
 North Springfield, Vermont
 CROSS SECTION
 GROUND OBSTRUCTION REMOVAL
 RUNWAY

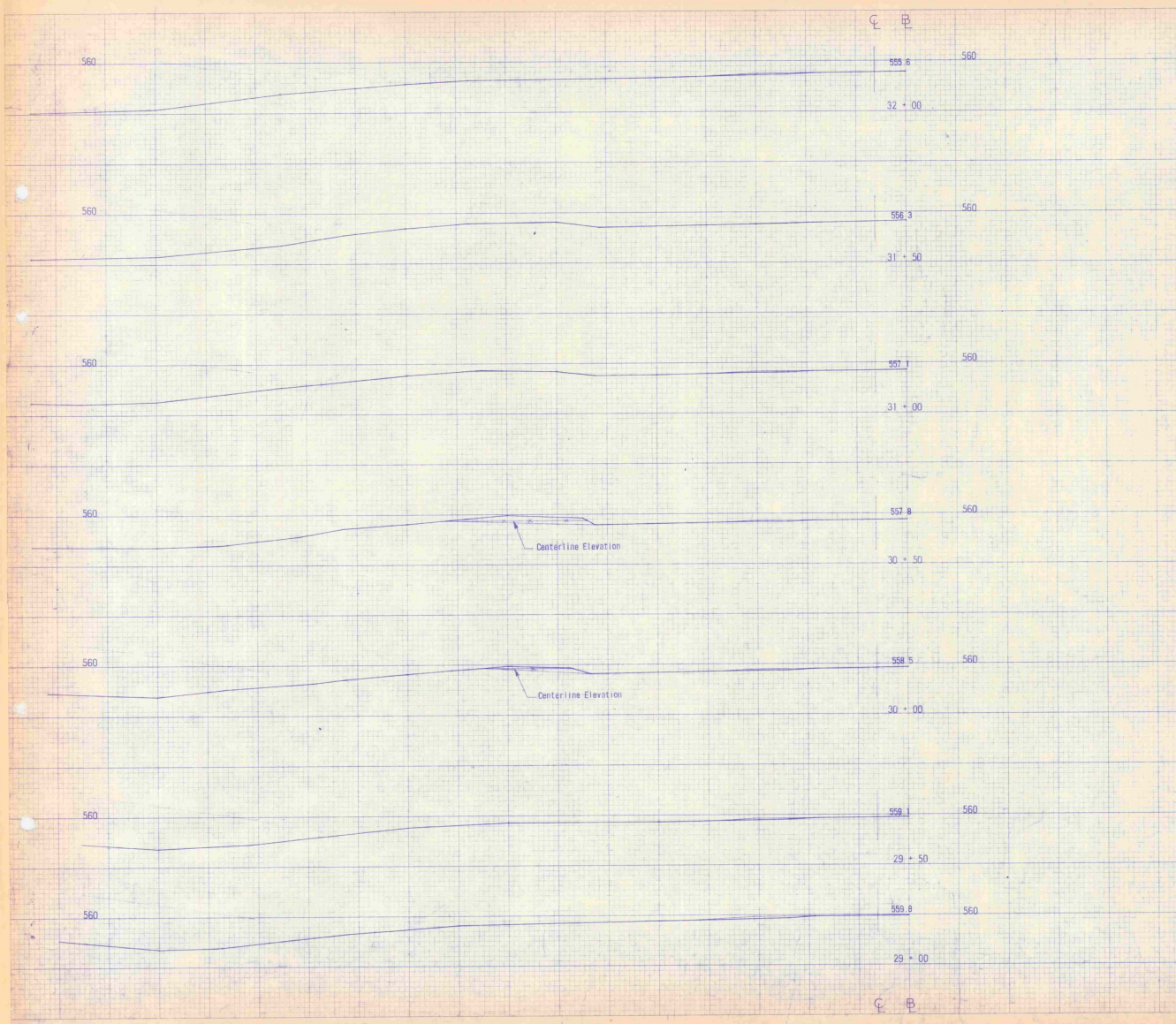
DUFRESNE-HENRY
 Engineering Corporation
 REGISTERED PROFESSIONAL ENGINEERS
 CIVIL & SURVEY ENGINEERS

DRAWING NO. BB 1227-28 DESIGN ENGR. R. J. DUFRESNE
 SURVEY CHECK P. E. 18-15-88 SCALE 1" = 20'
 PLOTTED BY R. J. 18-22-88 SHEET 25 OF 28
 TRACED BY W. D. 18-24-88 DATE December, 1988
 CHECKED BY M. K. 18-23-88 APPROVED *[Signature]*

PROFESSIONAL ENGINEER
 No. 718

C B
 C B

PERFECT COPY
 ENGINE DIVISION



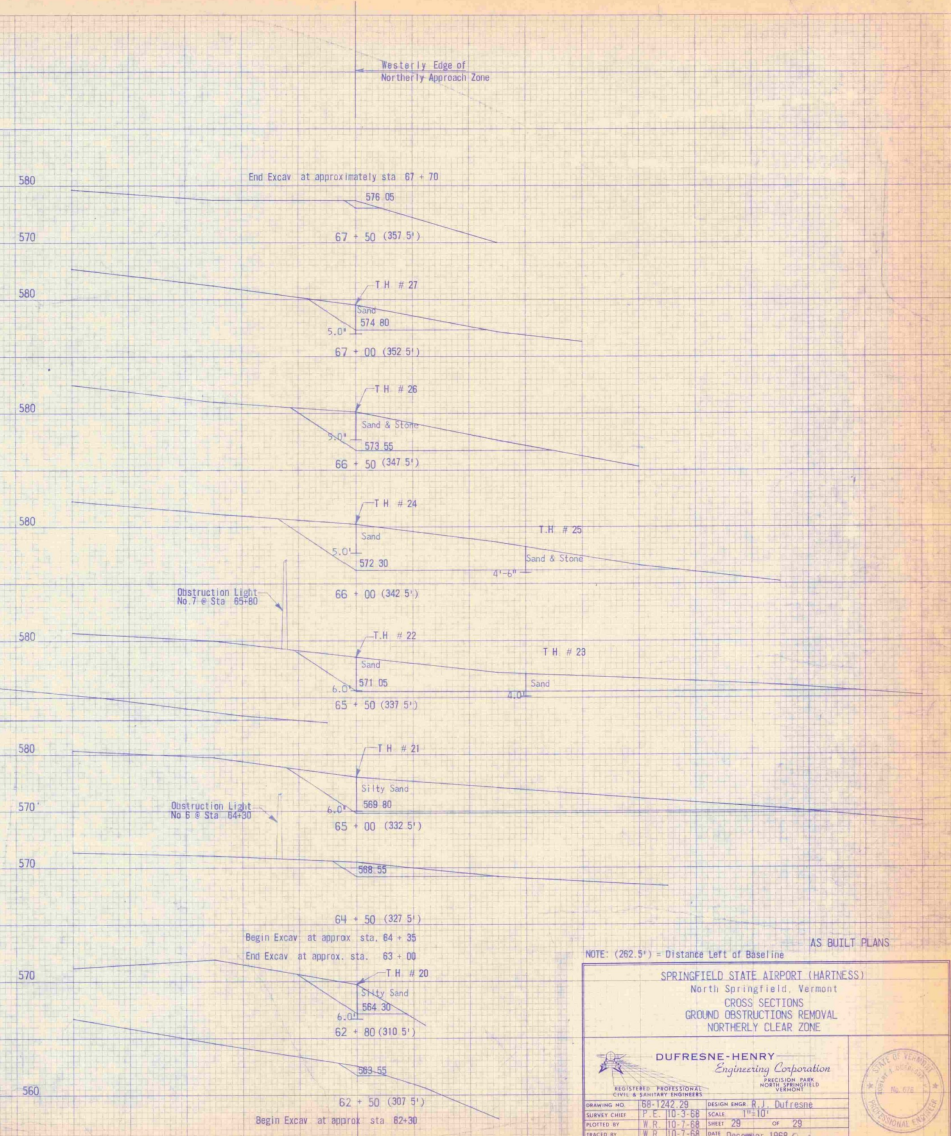
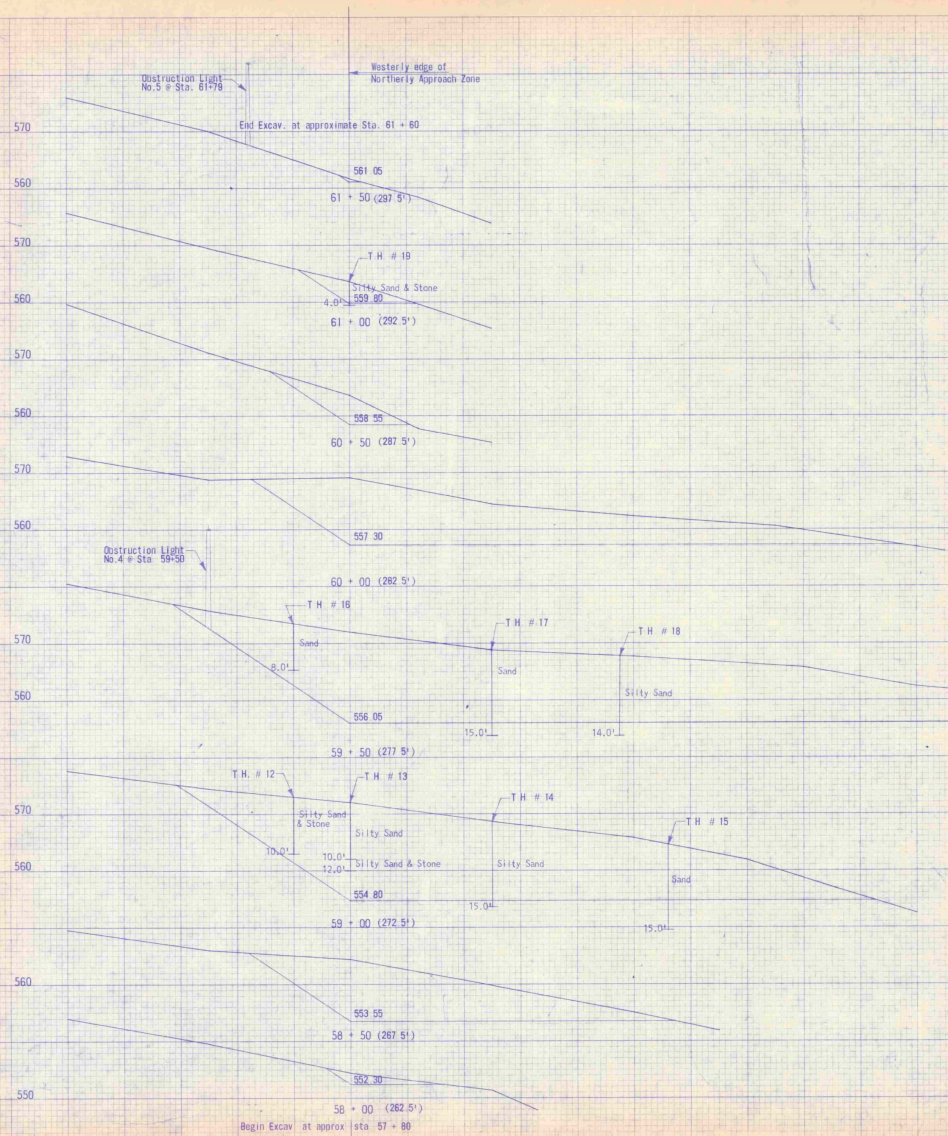
EARTHWORK SHEET

VC	% GRADE	STATION	GRADES			CORR V.C.	DIST.	TOTAL EXCAVATION		MUCK EXCAVATION		EMBANKMENT		BASE	
			ELEVATION		AREA			CU YDS	AREA	CU YDS	AREA	CU YDS	AREA	CU YDS	
			ON TANGENT	ON CURVES											DEPTH AND ROCK
		41	543.30	548.11	+2.81	50									
		+50	543.60	545.95	-2.35	50									
		42	543.90	545.84	+1.94	50				0		2415			
		+50	544.20	545.78	+1.58	50						2809		4744	
		43	544.50	545.74	+1.24	50						2515		4585	
		+50	544.80	545.75	+0.95	50						2437		4389	
		44	545.10	545.80	+0.70	50						2303		4036	
		+50	545.40	545.89	+0.49	50						2056		3545	
		45	545.70	546.01	+0.31	50						1773		3056	
		+50	546.00	546.17	+0.17	50						1527		2682	
		46	546.30	546.38	+0.08	25						0		1370	
		+25				25						0		2733	
		+50	546.60	546.62	+0.02	50				60	28	1611		3805	
		47	546.90		0	50				117	164	2806		6096	
		+50	547.20			50				492	565	3875		8322	
		48	547.50			50				698	1103	5007		9908	
		+50	547.80			50				798	1386	5693		11074	
		49	548.10			50				1018	1682	6687		12028	
		+50	548.40			50				1267	2116	8722		13983	
		50	548.70			50				148	2572	10609		17766	
		+50	549.00			50				452	555	5886		9776	
		51	549.30			50				0	418	4672		8660	
		+50	549.60			50				176	163	2520		2445	
		52	549.90			50				2960	2904	119		110	
		+50	550.20			50				7339	9536	0		0	
		53	550.50			50				10951	16937				
		+50	550.80			50				11369	20668				
		54	551.10			50				10929	20647				
		+50	551.40			50				9464	18882				
		55	551.70			50				5868	14011				
		+50	552.00			50				2390	7462				
		56	552.30			50				1079	3212		0	19	
		+50	552.60			50				340	1314		21	701	
		57	552.90			50				0	315		736	2299	
		+35				35				0	0		1747	1133	
													0		

HARTNESS EARTHWORK SUMMARY			NOTE	
Total Earth & Rock	(A)	122,306 c. y.	(A)	A summary of 6156 c. y. of Earth & Rock for the first 4000' has been added to this figure of which 687 c. y. is Rock
Total Rock		766 c. y.	(B)	Total Ballon used was 48,337 c. y. A variation of 10.87 c. y. due to loss from washouts caused by rain.
Total Earth		121,540 c. y.		
Planimeted Fill		128,653 c. y.		
Less Factored Rock (1.5)		149 c. y.		
NET Plan Fill		121,504 c. y.		
Fact. = 1.25		x 1.25		
Factored Fill		159,380 c. y.		
less Avail. Fill		121,540 c. y.		
Balance	(B)	37,840 c. y.		

SPRINGFIELD STATE AIRPORT (HARTNESS)			
North Springfield, Vermont			
CROSS SECTION			
GROUND OBSTRUCTION REMOVAL			
RUNWAY & EARTHWORKS			
DRAWING NO.	66-1242-28	DESIGN ENGINEER	B. J. Dufresne
CHECKED BY	H. V. 12-15-58	SCALE	1" = 20'
PLOTTED BY	H. V. 12-22-58	SHEET	26 OF 29
MADE BY	H. V. 12-24-58	DATE	DEC 1958
CHECKED BY	H. V. 12-27-58	APPROVED	

Earthworks Revised 10-1-69 G.D.



NOTE: (262.5') = Distance Left of Baseline

AS BUILT PLANS

SPRINGFIELD STATE AIRPORT (HARTNESS)
 North Springfield, Vermont
 CROSS SECTIONS
 GROUND OBSTRUCTIONS REMOVAL
 NORTHERLY CLEAR ZONE

DUFRESNE-HENRY
 Engineering Corporation
 REGISTERED PROFESSIONAL ENGINEERS

DESIGNED BY: P. E. 110-3-BB
 DRAWN BY: P. E. 110-3-BB
 CHECKED BY: P. E. 110-7-BB

REVISION ENGINEER & I. Dufresne
 SCALE: 1" = 10'
 SHEET: 26 OF 29
 DATE: DISAPPROVED 1964

APPROVED BY: [Signature]

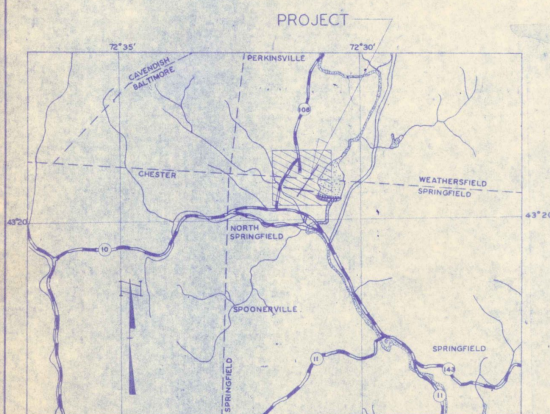
GEOGRAPHIC LOCATION
 LATITUDE 43°20'29"
 LONGITUDE 72°31'18"
 AIRPORT ELEVATION
 575' M.S.L. DATUM
 AIRLINE DISTANCE FROM
 TOWN OF SPRINGFIELD=3.75 MI. NW
 ROAD DISTANCE FROM SPRINGFIELD
 POST OFFICE TO AIRPORT = 5.8 MI.

PLANS FOR EXPANSION OF EXISTING TERMINAL APRON HARTNESS MUNICIPAL AIRPORT

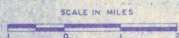
TOWN OF SPRINGFIELD, VERMONT

F.A.A.P. PROJ. NO. 9-43-004-C805

INDEX OF SHEETS	
SHEET	TITLE PAGE
1	TITLE PAGE
2	PLAN OF PROPOSED CONSTRUCTION & EXISTING
3	SECTION 4 & 5
4	SECTION 6 & 7



LOCATION MAP



LEGEND

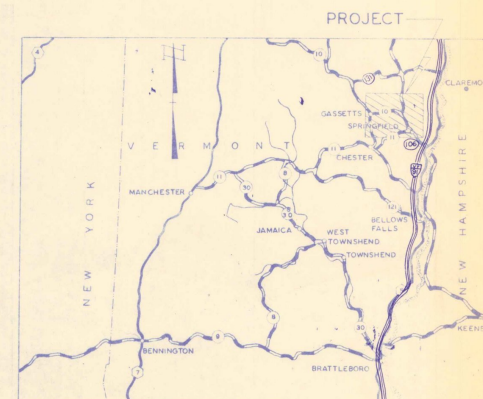
- STATE HIGHWAY
- OTHER ROADS
- COUNTY LINES
- TOWN LINES
- RIVERS
- STATE LINES
- U.S. HIGHWAY

QUANTITIES OF MAJOR ITEMS			
ITEM	DESCRIPTION	UNIT	EST. QUANT./FINAL QUANT.
1	COMMON EXCAVATION	C.Y.	1200 / 1225
2	CONCRETE COURSE AGGREGATE	C.Y.	750 / 750
3	SILT BRICK FOOT	SQ.	2000 / 1950
4	1" IT SURFACE COURSE CLASS 100	TONS	800 / 845
5	1" ASPHALT-BOUND A.C.C.M.C.P.	L.F.	118 / 118
6	1" ASPHALT-BOUND A.C.C.M.C.P.	L.F.	320 / 320
7	2" ASPHALT-BOUND A.C.C.M.C.P.	L.F.	404 / 404
8	BRICK INLET	EA.	4 / 4
9	TYPING	2150	2 / 2
10	REWORKING	RSQ.	0.2 / 0.2
11	UNDERGROUND ELECTRIC PUCT-FOUR WAY	L.F.	206 / 206
12	CABLE TRENCH	L.F.	235 / 235
13	NO. 10 UNDERGROUND CABLE 3000'-IN. TRENCH	L.F.	325 / 325
14	NO. 8 UNDERGROUND CABLE 3000'-IN. TRENCH	L.F.	340 / 340
15	NO. 12 UNDERGROUND CABLE 600'-IN. TRENCH	L.F.	425 / 425
16	NO. 12 UNDERGROUND CABLE 600'-IN. TRENCH	L.F.	424 / 424
17	NO. 2 UNDERGROUND CABLE 600'-IN. TRENCH	L.F.	325 / 325

AS BUILT PLANS

I HEREBY CERTIFY THAT ALL CONSTRUCTION
 REQUIRED BY THIS SET OF DRAWINGS HAS BEEN
 ACCOMPLISHED AS INDICATED HEREIN.

DUFRESNE-HENRY ENGR. CORP.
 PROJECT ENGINEER
 DATE 11/19/67



VICINITY MAP



NOTE: SYMBOLS SAME AS THOSE WITH LOCATION MAP

DATE	REVISION DESCRIPTION	BY

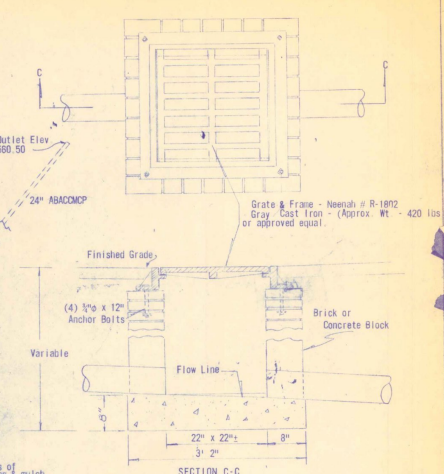
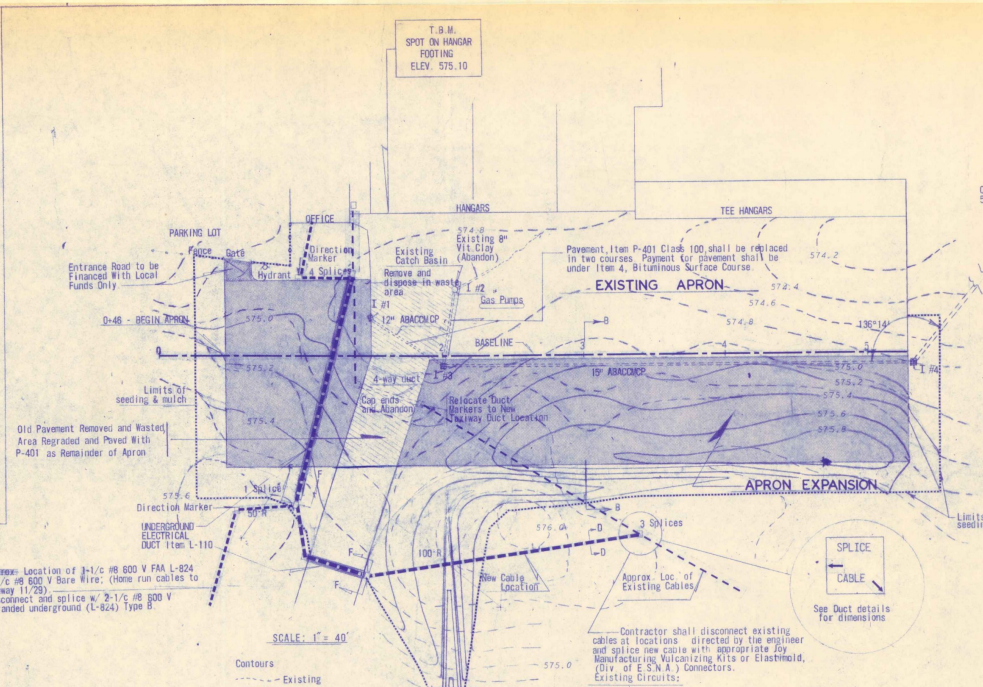
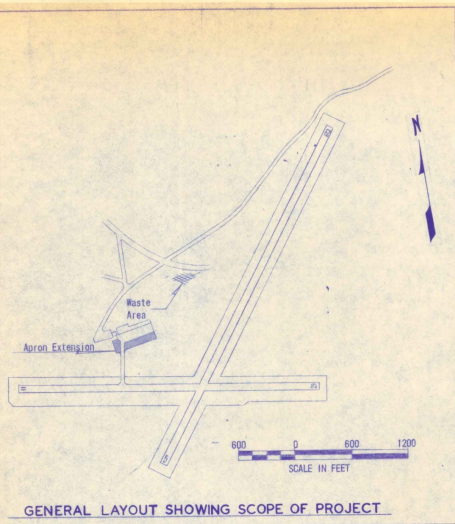
FEDERAL AVIATION ADMINISTRATION
 APPROVED DATE DISTAIRPORT ENGR.

VERMONT AERONAUTICS BOARD
 APPROVED DATE COMMISSIONER
 APPROVED DATE ENGINEER

SPRINGFIELD VERMONT
 APPROVED DATE CHAIRMAN, BOARD OF SELECTMEN
 APPROVED DATE ENGINEER

HARTNESS MUNICIPAL AIRPORT
 NORTH SPRINGFIELD, VERMONT
 TITLE PAGE

DUFRESNE-HENRY Engineering Corporation
 REGISTERED PROFESSIONAL ENGINEERS
 CIVIL ENGINEERS
 DATE NO. 67-497.1 DRAWN BY RACHISKI DATE MAY 16, 1967
 SCALE AS SHOWN SHEET 1 OF 4 OK'D. BY DUFRESNE
 APPROVED Robert W. Dufresne



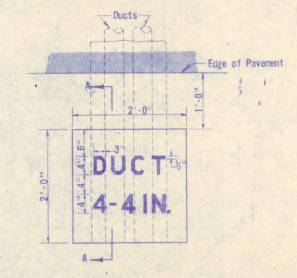
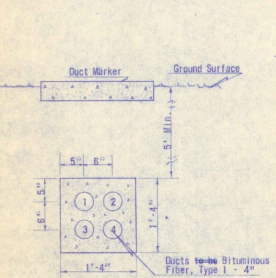
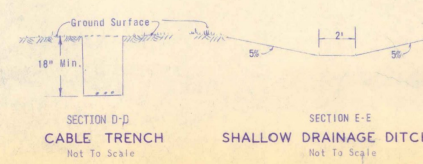
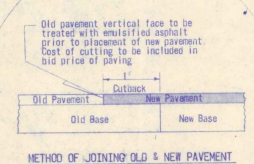
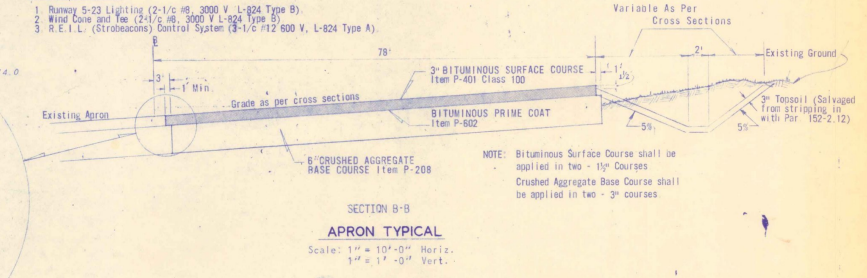
DRAINAGE SCHEDULE

I. No.	Inv. El. *	Grate El.	Dist. To	I. No. - At (Grade)	Pipe (ABACOMP)
1	570.51	574.60	64'	to 3	1.250"
2	570.39	574.40	54'	to 3	1.250"
3	568.71	574.50	32'	to 4	0.500"
4	568.06	575.00	40'	to out.	1.875"

* Center of D.I. - Construct flow line to match pipe gradient

Contractor shall disconnect existing cables at locations directed by the engineer and splice new cables with appropriate Manufacturing Vulcanizing Kits or Elastomold, (DIV. of E.S.N.A.) Connectors, Existing Circuits:

- 1 Runway 5-23 Lighting (2-1/2" #8, 3000 V. L-824 Type B)
- 2 Wind Cone and Tee (2-1/2" #8, 3000 V. L-824 Type B)
- 3 R.E.I.L. (Strobeacons) Control System (3-1/2" #12 800 V. L-824 Type A)



AS BUILT PLANS

I HEREBY CERTIFY THAT ALL CONSTRUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.

DUFRESNE-HENRY ENGR CORP.

BY: *[Signature]* PROJECT ENGINEER

DATE: *[Signature]*

NOTE:

One end of Duct to be three inches (3") lower than the other end for drainage.

Duct No. 1 shall contain cables to Runway 5-23 and to Wind Tee.

Duct No. 2 shall contain cables to Runway 11-29 (long duct only) and REIL control circuit.

Pull Wires shall be left in Ducts 3 and 4.

Tel. Cable installed in Duct 3 during construction.

2 Duct markers & 1 Direction marker required, cost of these 3 markers is to be included in bid price per lin. ft. of UNDERGROUND ELECTRICAL DUCT.

HARTNESS MUNICIPAL AIRPORT
NORTH SPRINGFIELD, VERMONT

SCOPE OF WORK - DETAILS - TYPICAL SECTIONS

DUFRESNE-HENRY
Engineering Corporation

REGISTERED PROFESSIONAL ENGINEER
CIVIL ENGINEER

DATE: Mar. 16, 1967

DRAWN BY: HARTCHSKI

CHECKED BY: DUFRESNE

APPROVED: *[Signature]*

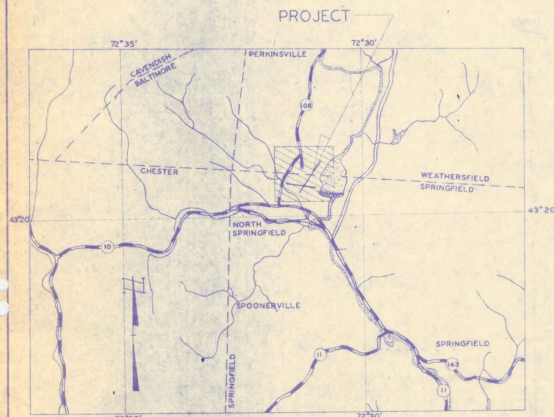
GEOGRAPHIC LOCATION
 LATITUDE 43°20'29"
 LONGITUDE 72°31'18"
 AIRPORT ELEVATION
 575' M.S.L. DATUM
 AIRLINE DISTANCE FROM
 TOWN OF SPRINGFIELD=3.75 MI. NW
 ROAD DISTANCE FROM SPRINGFIELD
 POST OFFICE TO AIRPORT = 5.8 MI.

PLANS FOR EXPANSION OF EXISTING TERMINAL APRON HARTNESS MUNICIPAL AIRPORT

TOWN OF SPRINGFIELD, VERMONT

F.A.P. PROJ. NO. 9-43-004-0005

INDEX OF SHEETS	
SHEET	TITLE
1	TITLE PAGE
2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100	



LOCATION MAP



LEGEND

- STATE HIGHWAY
- OTHER ROADS
- COUNTY LINES
- TOWN LINES
- RIVERS
- STATE LINES
- U.S. HIGHWAY

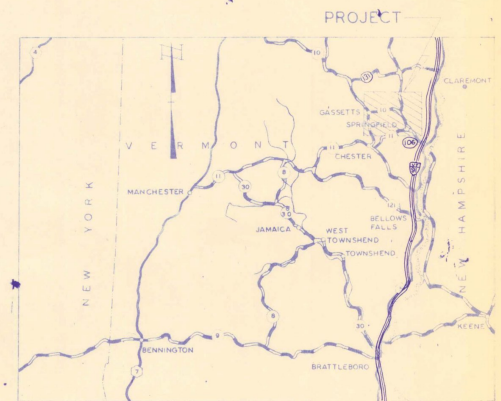
QUANTITIES OF MAJOR ITEMS			
ITEM	DESCRIPTION	UNIT	EST. QUANT. FINAL QUANT.
1	COMMON EXCAVATION	C.Y.	7,000 1,000
2	CONCRETE CURB, ACCURATE	C.Y.	7,000 7,000
3	GR. FILL - 10% COMP.	C.Y.	1,000 1,000
4	11" SURFACE COURSE CLASS 200	TONS	300 300
5	12" ASPHALT-BUMBED A. E. W. S. P.	L.F.	100 100
6	12" ASPHALT-BUMBED A. E. W. S. P.	L.F.	200 200
7	24" ASPHALT-BUMBED A. E. W. S. P.	L.F.	300 300
8	BRICK TILE	EA.	0 0
9	TYPING	ACRE	0 0
10	MULCHING	ACRE	0 0
11	UNDERGROUND ELECTRIC CABLE-FOUR WAY	L.F.	100 100
12	CABLE TRENCH	L.F.	200 200
13	NO. 0 UNDERGROUND CABLE 3000-V IN TRENCH	L.F.	275 070
14	NO. 0 UNDERGROUND CABLE 3000-V IN TRENCH	L.F.	300 000
15	NO. 1 UNDERGROUND CABLE 3000-V IN TRENCH	L.F.	300 000
16	NO. 1 UNDERGROUND CABLE 3000-V IN TRENCH	L.F.	300 000
17	NO. 0 UNDERGROUND CABLE 3000-V IN TRENCH	L.F.	300 000

AS BUILT PLANS

I HEREBY CERTIFY THAT ALL CONSTRUCTION
 REQUIRED BY THIS SET OF DRAWINGS HAS BEEN
 ACCOMPLISHED AS INDICATED HEREIN.

DUFRESNE-HENRY ENGR. CORR.

BY _____ PROJECT ENGINEER
 DATE _____



VICINITY MAP



NOTE
 SYMBOLS SAME AS
 THOSE WITH LOCATION MAP

DATE	REVISION DESCRIPTION	BY

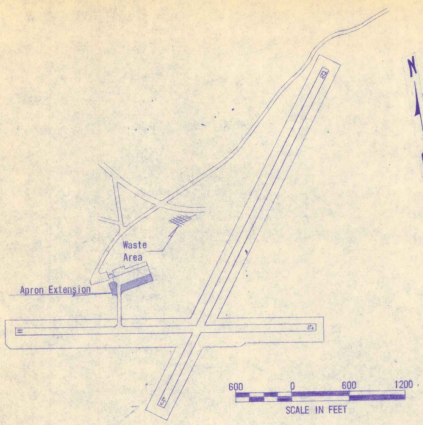
FEDERAL AVIATION ADMINISTRATION
 APPROVED _____ DATE _____
 DISTAIRPORT ENGR.

VERMONT AERONAUTICS BOARD
 APPROVED _____ DATE _____
 COMMISSIONER
 APPROVED _____ DATE _____
 ENGINEER

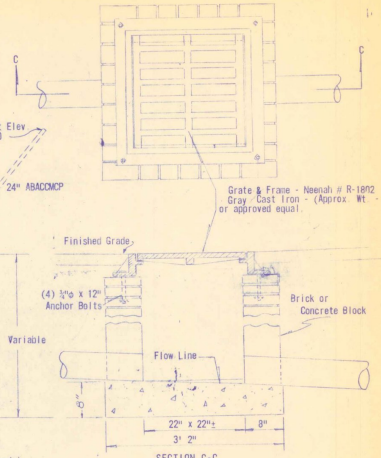
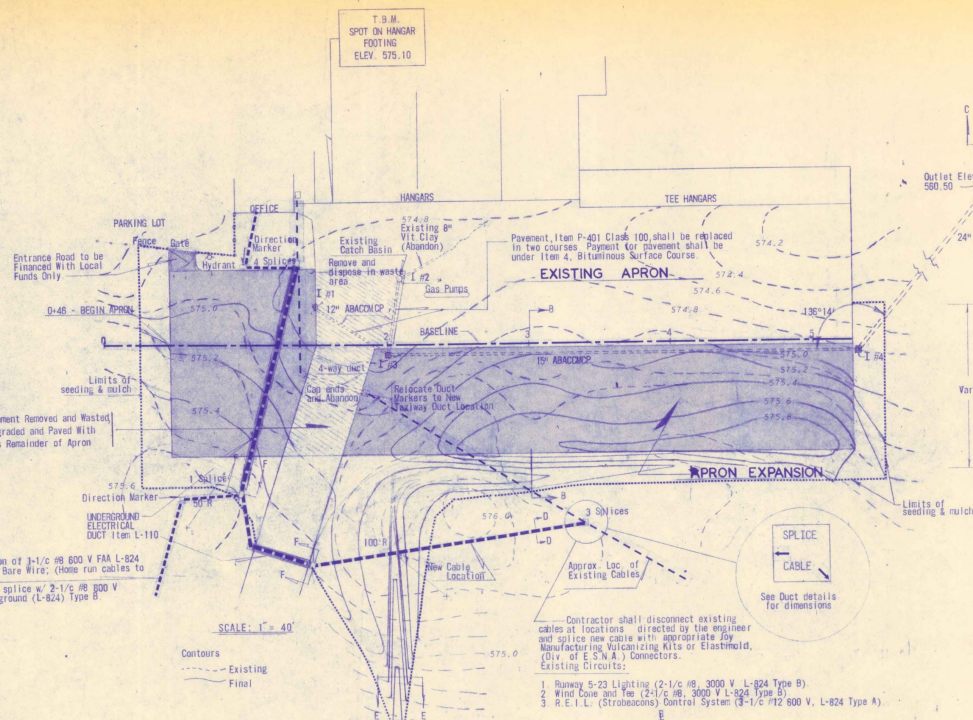
SPRINGFIELD
 APPROVED _____ DATE _____
 CHAIRMAN, BOARD OF SELECTMEN
 APPROVED _____ DATE _____
 SPRINGFIELD, VERMONT

HARTNESS MUNICIPAL AIRPORT
 NORTH SPRINGFIELD, VERMONT
 TITLE PAGE

DUFRESNE-HENRY
 Engineering Corporation
 100 STATE STREET
 SPRINGFIELD, VERMONT 05156
 PHONE 87-4871
 DRAWN BY RECHSKI DATE FEB. 16, 1967
 SCALE: AS SHOWN SHEET 1 OF 2
 APPROVED _____ DATE _____
 ENGINEER



GENERAL LAYOUT SHOWING SCOPE OF PROJECT

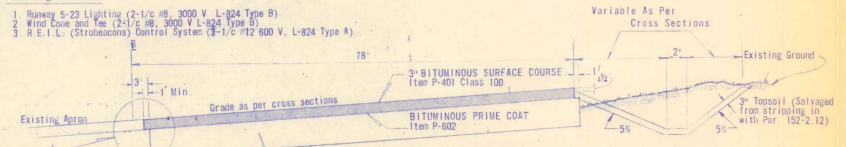


SECTION C-C
BRICK INLET
Not To Scale

DRAINAGE SCHEDULE

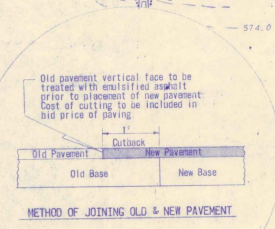
I No.	Inv El.*	Grate El.	Dist. To I.No.-At	I.No.-At (Grade)	Pipe (ABACMP)
1	570.51	574.80	64'	to 3	1200
2	570.39	574.40	64'	to 3	1200
3	569.71	574.50	32'	to 4	0.500
4	568.06	575.00	40'	to out.	1.875

* Center of D.I. - Construct flow line to match pipe gradient

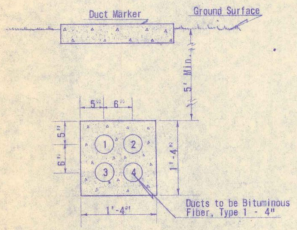


SECTION B-B
APRON TYPICAL
Scale: 1" = 10'-0" Horiz.
1" = 1'-0" Vert.

NOTE: Bituminous Surface Course shall be applied in two - 1 1/2" Courses
Crushed Aggregate Base Course shall be applied in two - 3" courses

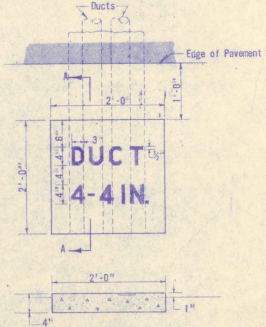


METHOD OF JOINING OLD & NEW PAVEMENT



UNDERGROUND ELECTRICAL DUCT
SECTION Y-F
Scale: 1" = 1'-0"

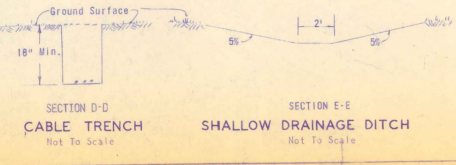
NOTE: One end of Duct to be three inches (3") lower than the other end for drainage.
Duct No. 1 shall contain cables to Runway 5-23 and to Wind Tee.
Duct No. 2 shall contain cables to Runway 11-29 (Along duct only) and RETL control circuit.
Pull Wires shall be left in Ducts 3 and 4.
Tel. Cable installed in Duct 3 during construction.



SECTION A-A
UNDERGROUND ELECTRICAL DUCT MARKER
Scale: 1" = 1'-0"

2 Duct markers & 1 Direction marker required, cost of these 3 markers is to be included in bid price per lin. ft. of UNDERGROUND ELECTRICAL DUCT

AS BUILT PLANS
I HEREBY CERTIFY THAT ALL CONSTRUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.
DUPRESNE-HENRY ENGR CORP
BY _____ PROJECT ENGINEER
DATE _____



SECTION D-D
CABLE TRENCH
Not To Scale

SECTION E-E
SHALLOW DRAINAGE DITCH
Not To Scale

HAGNESS MUNICIPAL AIRPORT
NORTH SPRINGFIELD, VERMONT
SCOPE OF WORK - DETAILS - TYPICAL SECTIONS

DUPRESNE-HENRY
Engineering Corporation
VERMONT PROFESSIONAL ENGINEERS
VERMONT LICENSE NO. 1000

DRAWN BY: RACHTZKEIT DATE: MAR 16, 1967
SCALE: AS SHOWN SHEET 2 OF 2
APPROVED: [Signature]

**VERMONT AGENCY OF TRANSPORTATION
PLANNING DIVISION**

Vermont Agency of
Transportation
Phase III- Interstate
#090303-01

INITIALS
Hanger 5045

HADNESS 1967
★ 9-43-009-C805
★ 9-43-009-C906 1970