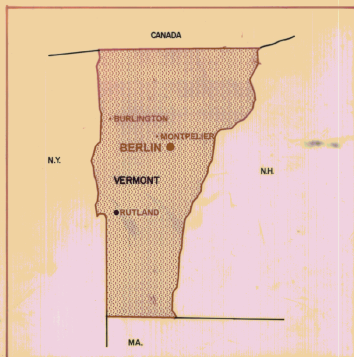


1996
 896049
 E.F. KNAPP PARALLEL TAXIWAY
 AIR 04-3077



LOCATION MAP



VICINITY MAP

FEDERAL AVIATION ADMINISTRATION

Approved _____
 Date _____
 Manager, Airports Engineering Safety Branch

VERMONT AGENCY OF TRANSPORTATION

Approved *Richard P. Corni*
 Date *12-13-93*
 Director of Engineering Construction

THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL AVIATION ADMINISTRATION OR THE CHIEF ENGINEER.

CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 1990, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON MARCH 15, 1990 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

REVISED 9/17/95 PLD

SHEET NUMBER	TITLE
1	TITLE SHEET
2	QUANTITY SHEET
3	SITE PLAN
4	PARALLEL TAXIWAY PLAN AND PROFILE
5	STUB TAXIWAY PLAN AND PROFILE
6	MISCELLANEOUS DETAILS
7	TAXIWAY LIGHTING PLAN
8	TAXIWAY MARKING AND SIGN PLAN
9	ELECTRICAL DETAILS
10-16	TAXIWAY CROSS SECTIONS
17	BLANK
18	BLANK
19	SOIL BORING AND TEST PIT DATA

STANDARDS

0-15
 AP-11
 06-01-94
 06-01-94

INDEX OF SHEETS

PLANS FOR CONSTRUCTION OF

PARTIAL PARALLEL TAXIWAY TO RUNWAY 5-23 (35' x 1,553' ±)

EDWARD F. KNAPP STATE AIRPORT
 Town of Berlin, Vermont

A.I.R. PROJECT NO. 04-3077

APRIL 1994

RECORD PLANS

CONTRACTOR: *Ray Cooley Const. Inc.*

RESIDENT ENGINEER: *Richard Corni*

CONSTRUCTION BEGAN: *Nov. 20, 1993*

CONSTRUCTION COMPLETED: *Nov. 11, 1994*

RECORD PLANS BY: *R.R. Corni*

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

BY *Richard P. Corni* RESIDENT ENGINEER

DATE *Dec. 10, 1997*

NOTE: Any further information concerning final quantities, amounts or other details relative to this project may be found on microfiche in Central Files.

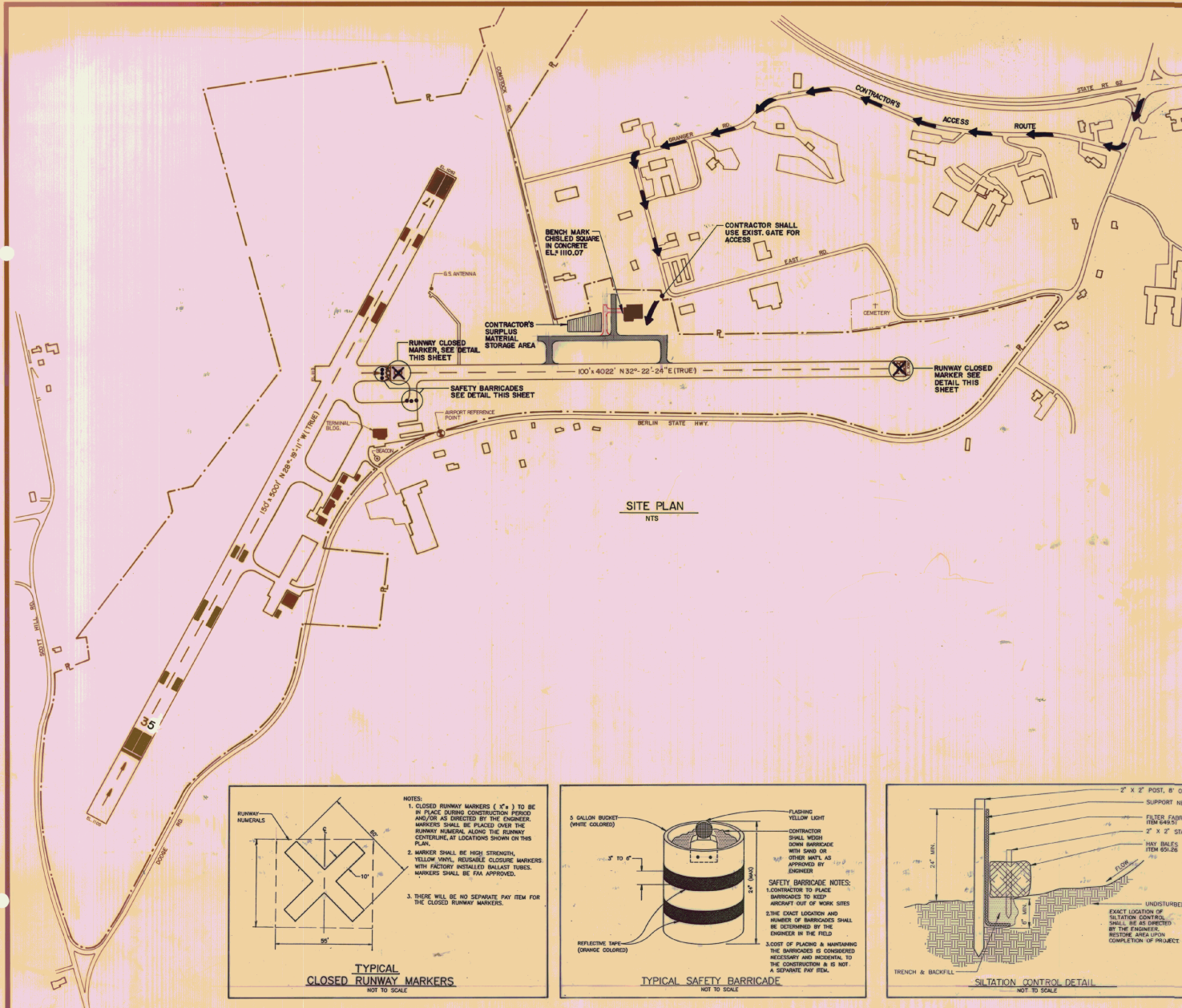


Consulting Engineers

Offices:
 North Springfield, Vermont 05150
 Montpelier, Vermont 05602
 Burlington, Vermont 05401
 Portland, Maine 04103
 Cleveland, Massachusetts 01701
 Westport, Massachusetts 01891
 Manchester, New Hampshire 03103
 Rochester, New Jersey 07070

Engineering Disciplines:
 Civil
 Mechanical
 Structural
 Electrical
 Surveying
 Environmental
 Transportation
 Water Quality

Associated Disciplines:
 Construction Management
 Surveying
 Applied Sciences
 Geology
 Planning
 Water Quality

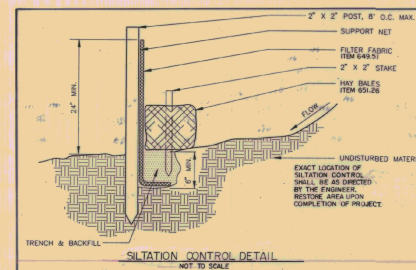
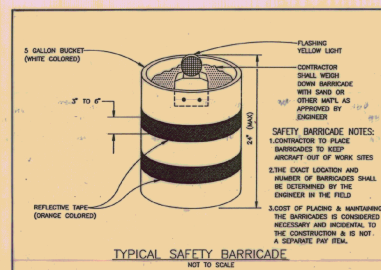
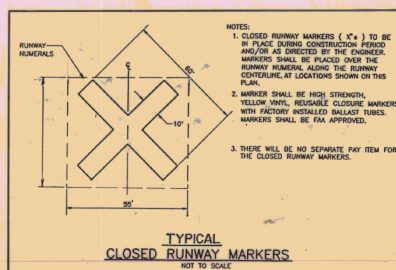


GENERAL NOTES

- The Contractor shall maintain continuous radio contact with the Airport Manager during construction. In addition, the Contractor shall monitor aircraft operating in the area. The Contractor shall provide three radios for this purpose; one for the Contractor's supervisor, one for the Contractor's flagperson, and one for the Resident Engineer. Ground Control Frequency is 122.80 Mhz. Radios shall be ICOM brand, Model IC A20 or approved equal, complete with spare battery pack and charger. The costs for furnishing and maintaining radios shall be considered incidental to the project and there is no separate pay item for this equipment.
- Runway 5-23 shall be closed throughout the duration of construction. The Contractor shall coordinate this with the Airport Manager. Runway 5-23 shall be closed through the issuance of a "NOTAM", disconnecting the runway lights, and installing the closed runway markers over the numerals at either end of Runway 5-23, as shown on this plan.
- Under no circumstances shall the Contractor's personnel or equipment approach within 200 feet of runway 17-35. The Contractor shall provide one full time person to function as a flagperson and shall post this person at the entrance to the work site.
- The Contractor's vehicles shall be equipped with a flashing yellow rotating beacon which is visible for 360 degrees when operating on or adjacent to the airfield. See specifications for more detail.
- The Contractor shall coordinate with FAA Airway Facilities, the Airport Manager, and Dig Safe prior to any excavation to determine the exact location of utilities. Any utilities requiring relocation shall be relocated/coordinated by the Contractor. Any damage to existing utilities by the Contractor shall be repaired by the Contractor at no additional cost to the airport.
- Debris shall be swept/vacuumed from all paved areas (including the access road) at least once a day or as requested by the Engineer. All active aviation areas must remain free of all sand, stones, and similar debris at all times. The Contractor must also insure that no airborne dust created during construction is allowed to move into aircraft operations areas at any time.
- The Contractor shall be responsible for disposing all debris and unsatisfactory materials off airport property, in compliance with all local, state, and federal regulations. Any material deemed acceptable by the Engineer shall be placed on airport property in the location shown on this plan. Such material shall be spread, compacted, leveled and seeded at no additional cost to the airport. Such work is considered incidental to the project. All material deemed "surplus" by the Engineer shall become the property of the Contractor and disposed of off-site.
- The exact location of the Contractor's storage site shall be determined at the preconstruction conference.

LEGEND

- AIRPORT PROPERTY LINE (R)
- PROPOSED TAXWAY
- CONTRACTOR'S ACCESS ROUTE



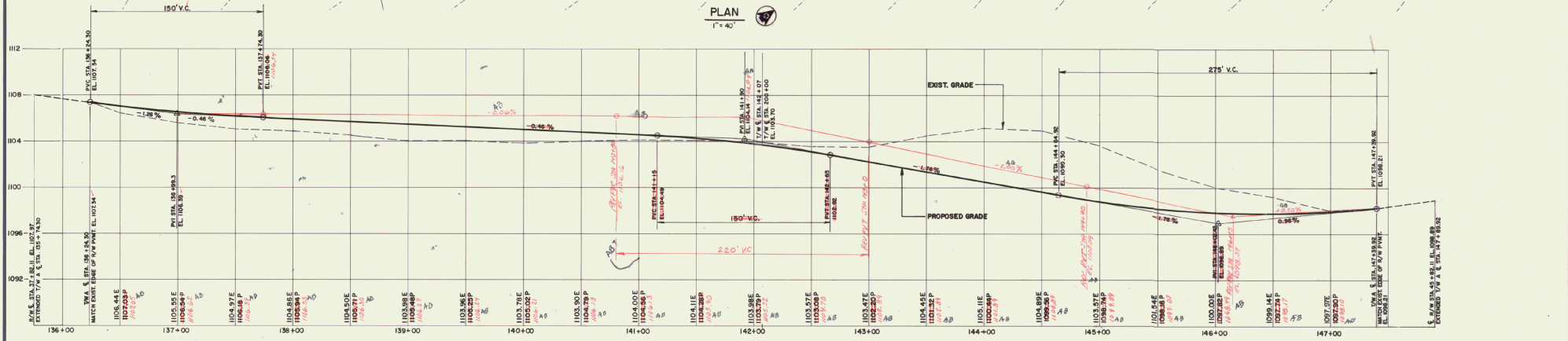
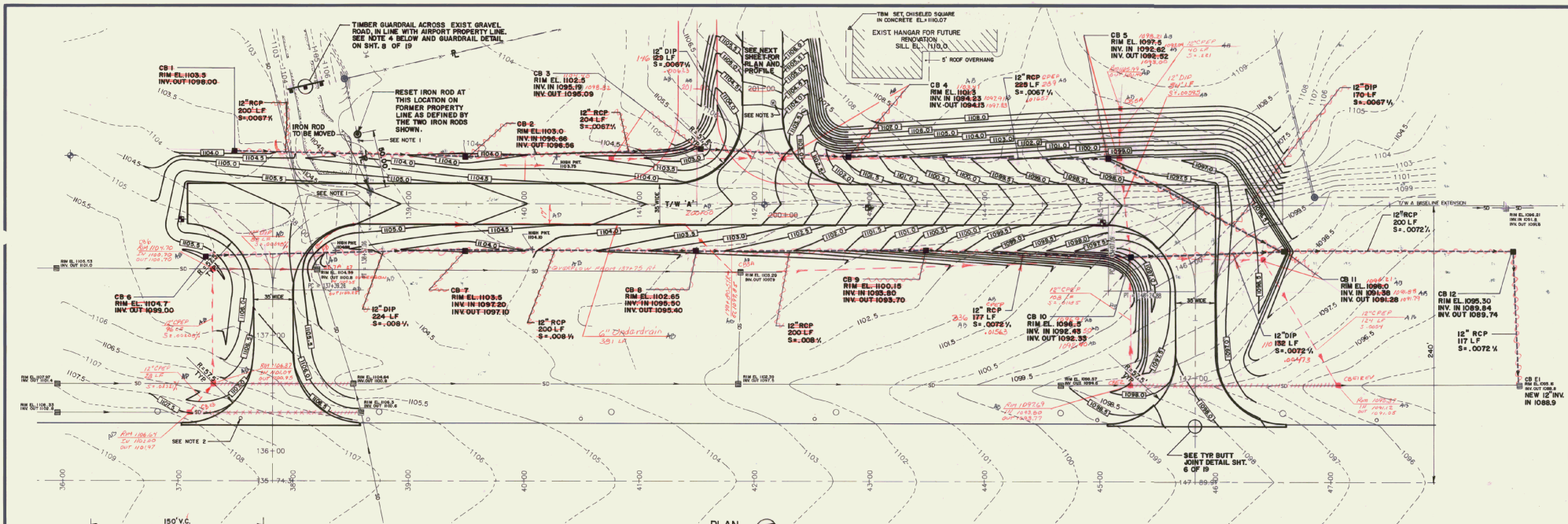
EDWARD F. KNAPP STATE AIRPORT
AIR 04-3077
SITE PLAN

Rev.	Description	By	Date

Client No. B1017
Prod. Manager DCD
Prod. Designer PJM
Drawn By TVS
Checked By DCD
Scale N.T.S.
Approved LJC
Date DEC. 1993

Duffresne-Henry Inc.
400 Southborough Drive
St. Portland, ME 04106

Sheet 5 of 19



GENERAL NOTES:

- CONTRACTOR SHALL REMOVE EXISTING CHAIN LINK FENCE WITHIN 50' OF EDGE OF PAVEMENT.
- EXISTING 6" DIAMETER GALVANIZED CORRUGATED METAL PIPE SHALL BE CUT OFF AND CAPPED WITH A WATER-TIGHT GALVANIZED STEEL CAP BELOW NEW SUBGRADE MATERIAL. THIS WORK TO BE PAID UNDER ITEM 628.60. (M&G)
- EXISTING 4" DIAMETER CAST IRON WELL CASING SHALL BE CUT OFF AND RECAPED APPROXIMATELY 6" BELOW FINISH GRADE AND PROTECTED WITH 6" DIAMETER CAST IRON PIPE BOX AND FABRICATED COVER (SEE DETAIL SHEET 8 OF 18). THIS WORK TO BE PAID UNDER ITEM 628.26. (M&G)
- GUARDRAIL MARKER PLATE SHALL BE MANUFACTURED OF 0.060" THICK REFLECTORIZED ALUMINUM WITH ALTERNATING 6" WIDE BLACK AND YELLOW STRIPS AT 40' AS SHOWN IN GUARDRAIL DETAIL ON SHEET 8 OF 18. THIS WORK TO BE PAID UNDER ITEM 621.15. (M&G)

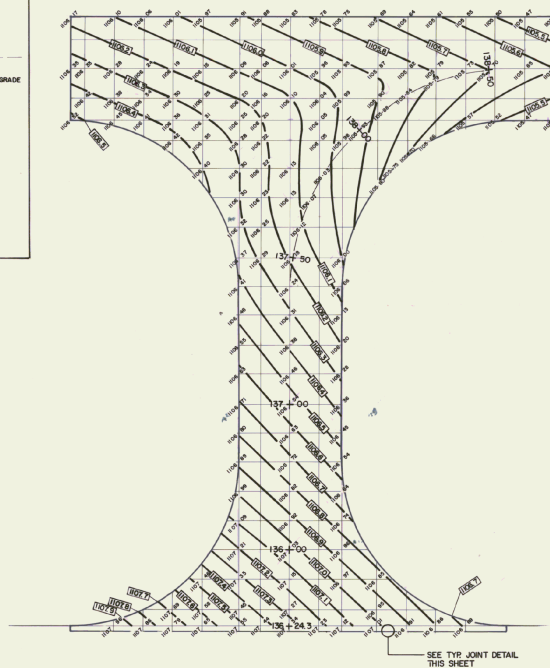
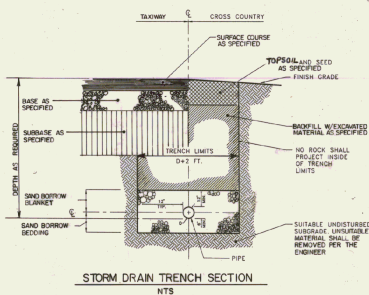
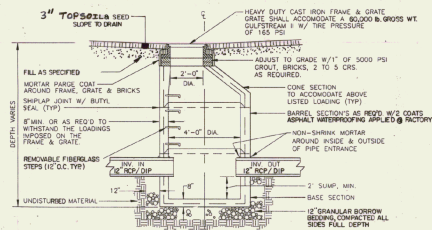
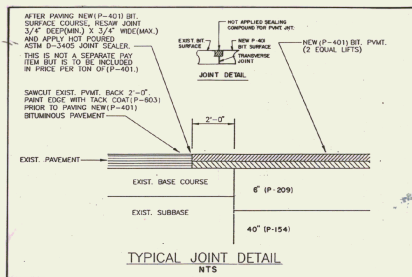
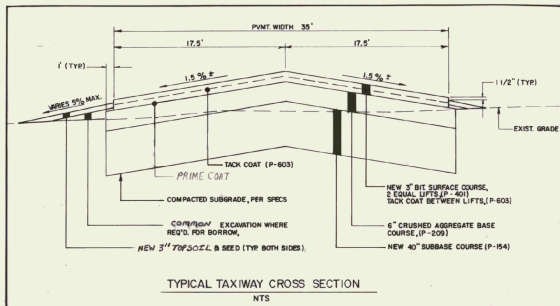
LEGEND

	EXISTING CONTOUR		EXISTING AIRPORT PROPERTY LINE
	PROPOSED CONTOUR		EXISTING PROPERTY CORNER
	NEW PAVEMENT		TEST PIT
	EXISTING BUILDING		EXISTING STORM DRAIN
	EXISTING CATCH BASIN		NEW CATCH BASIN
	EXISTING U.D. CLEANOUT (8" C/P)		NEW STORM DRAIN
	EXISTING R/W EDGE LIGHT		EXISTING 4" C.I. WELL CASING
	EXISTING FENCE LINE		
	EXISTING FENCE TO BE REMOVED		

LEGEND:
 - - - - - discontinued
 x x x x x removed
 ~ ~ ~ ~ ~ not installed

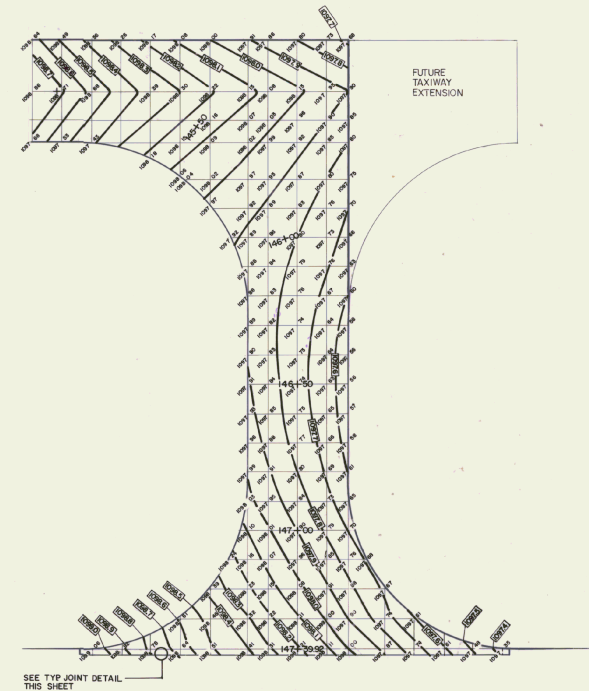
EDWARD F. KNAPP STATE AIRPORT
 PLAN & PROFILE
 STA. 136+24.3 TO STA. 147+39.92
 PARALLEL TAXIWAY
 A19, 04-3077

BERLIN	Client No.	812017	VERMONT STATE OF VERMONT REGISTERED PROFESSIONAL ENGINEER
	Proj. Manager	DCD	
	Proj. Designer	PJM	
	Drawn By	TVS	
	Checked By	DCD	
Approved	LJC	1" = 40'	Scale
Date	DEC. 1993	D	Sheet 4 of 19



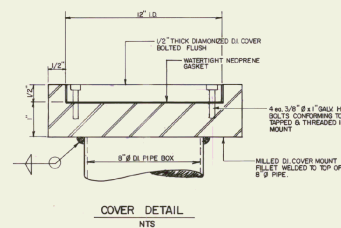
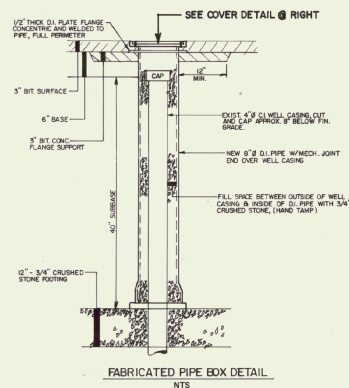
T/W 'A' GRADING DETAIL 2

Note: Grades do not apply due to revision



T/W 'A' GRADING DETAIL 3

Note: Grades do not apply due to revision



REVISED 9/7/95 PLD

EDWARD F. KNAPP STATE AIRPORT

MISC. DETAILS

BELUN, AIR 04-3077 VERMONT

Client No. B12017

Proj. Manager DCD

Proj. Designer P.J.M.

Drawn By TVS

Checked By DCD

Scale AS SHOWN

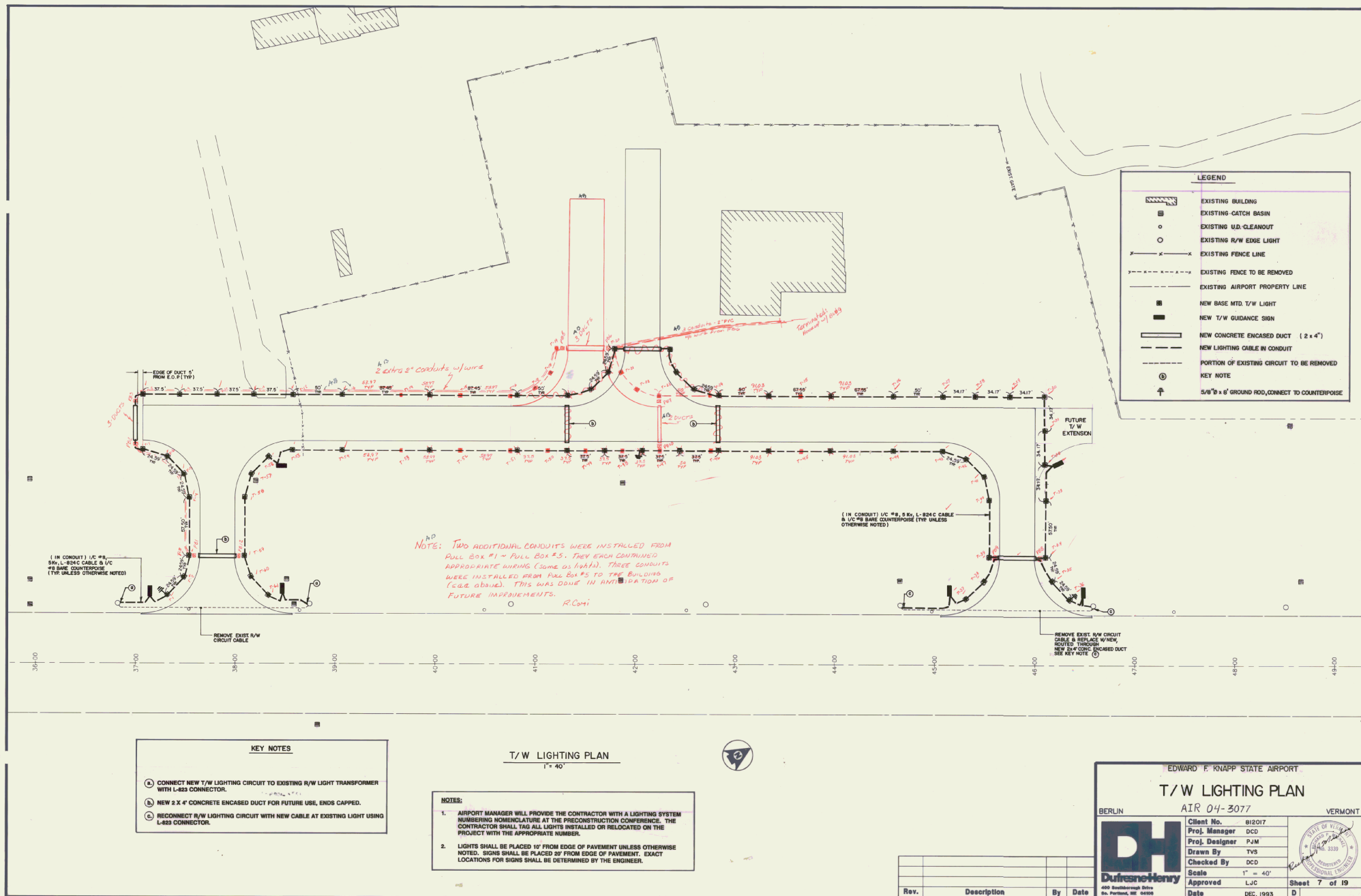
Approved LJC

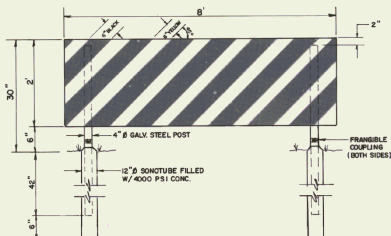
Date DEC. 1995

Sheet 6 of 19

Dufresne-Henry Inc.

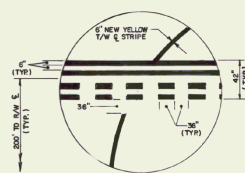
400 Southborough Drive
So. Portland, ME 04106





TAXIWAY ENDING MARKER DETAIL

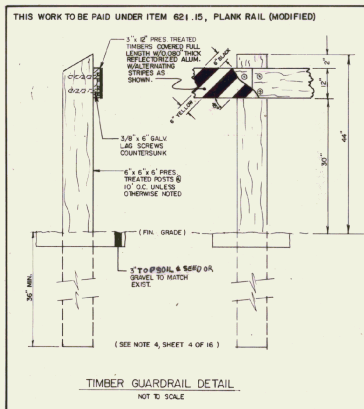
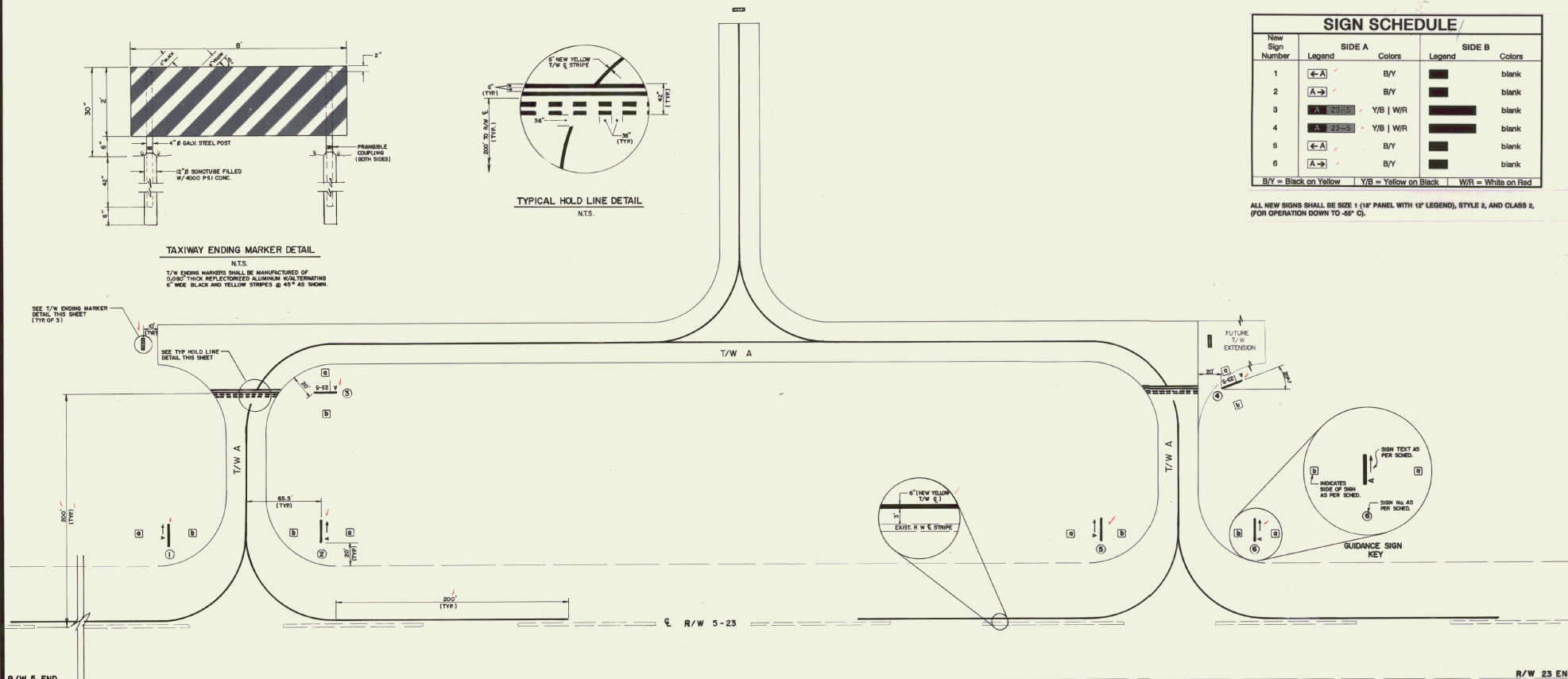
N.T.S.
T/W ENDING MARKERS SHALL BE MANUFACTURED OF 0.080" THICK REFLECTORIZED ALUMINUM W/ALTERNATING 6" WIDE BLACK AND YELLOW STRIPES @ 45° AS SHOWN.



TYPICAL HOLD LINE DETAIL
N.T.S.

SIGN SCHEDULE					
New Sign Number	SIDE A		SIDE B		Colors
	Legend	Colors	Legend	Colors	
1	← A	B/Y		blank	
2	A →	B/Y		blank	
3	A 23=B	Y/B W/R		blank	
4	A 23=B	Y/B W/R		blank	
5	← A	B/Y		blank	
6	A →	B/Y		blank	

B/Y = Black on Yellow Y/B = Yellow on Black W/R = White on Red
ALL NEW SIGNS SHALL BE SIZE 1 (18" PANEL WITH 12" LEGEND), STYLE 2, AND CLASS 2, (FOR OPERATION DOWN TO -50° C).



TIMBER GUARDRAIL DETAIL
NOT TO SCALE

T/W MARKING & GUIDANCE SIGN PLAN
1"=40'



- NOTES:
- PAINT SHALL BE AVIATION YELLOW, NON-REFLECTIVE, CONFORMING TO FEDERAL SPECIFICATION TT-P-45.
 - WORK WITHIN 200 FEET OF THE RUNWAY SHALL BE COORDINATED WITH BOTH THE RESIDENT ENGINEER AND THE AIRPORT MANAGER AT LEAST 48 HOURS IN ADVANCE.

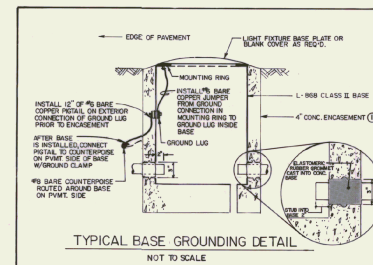
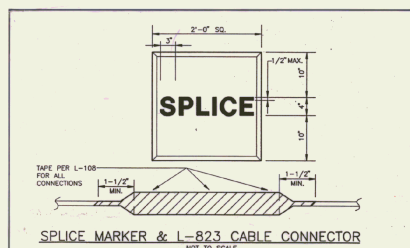
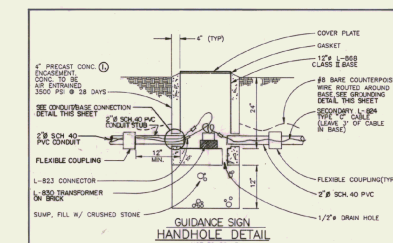
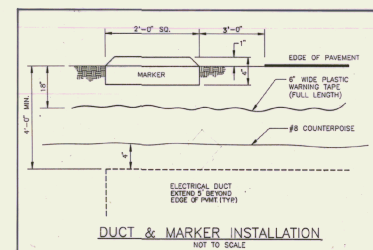
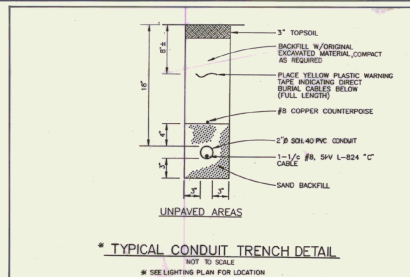
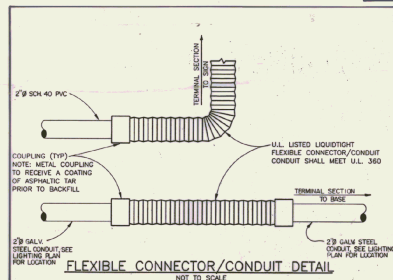
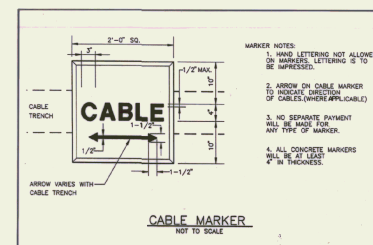
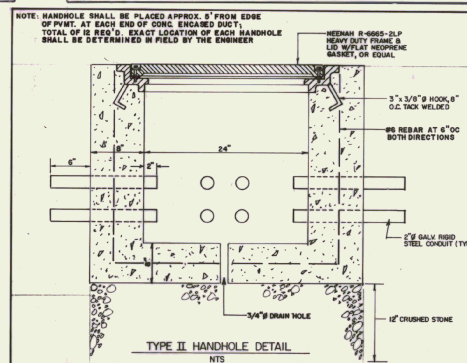
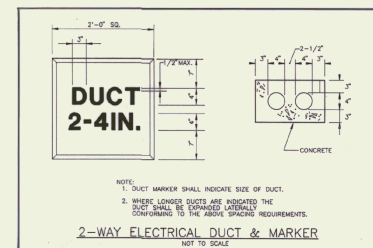
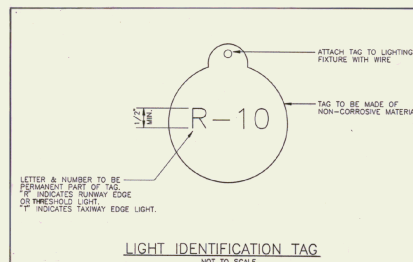
EDWARD F. KNAPP STATE AIRPORT
AIR 04-3077
T/W MARKING AND GUIDANCE SIGN LAYOUT PLAN

BERLIN, VERMONT

Client No. 8/2017
Proj. Manager DCD
Proj. Designer PJM
Drawn By TVS
Checked By DCD
Scale 1"=40'
Approved LJC
Date DEC. 1993

Sheet 6 of 19

Rev.	Description	By	Date



① CONCRETE ENCASEMENT IS NOT REQUIRED NOR SPECIFIED FOR THE

EDWARD F. KNAPP STATE AIRPORT

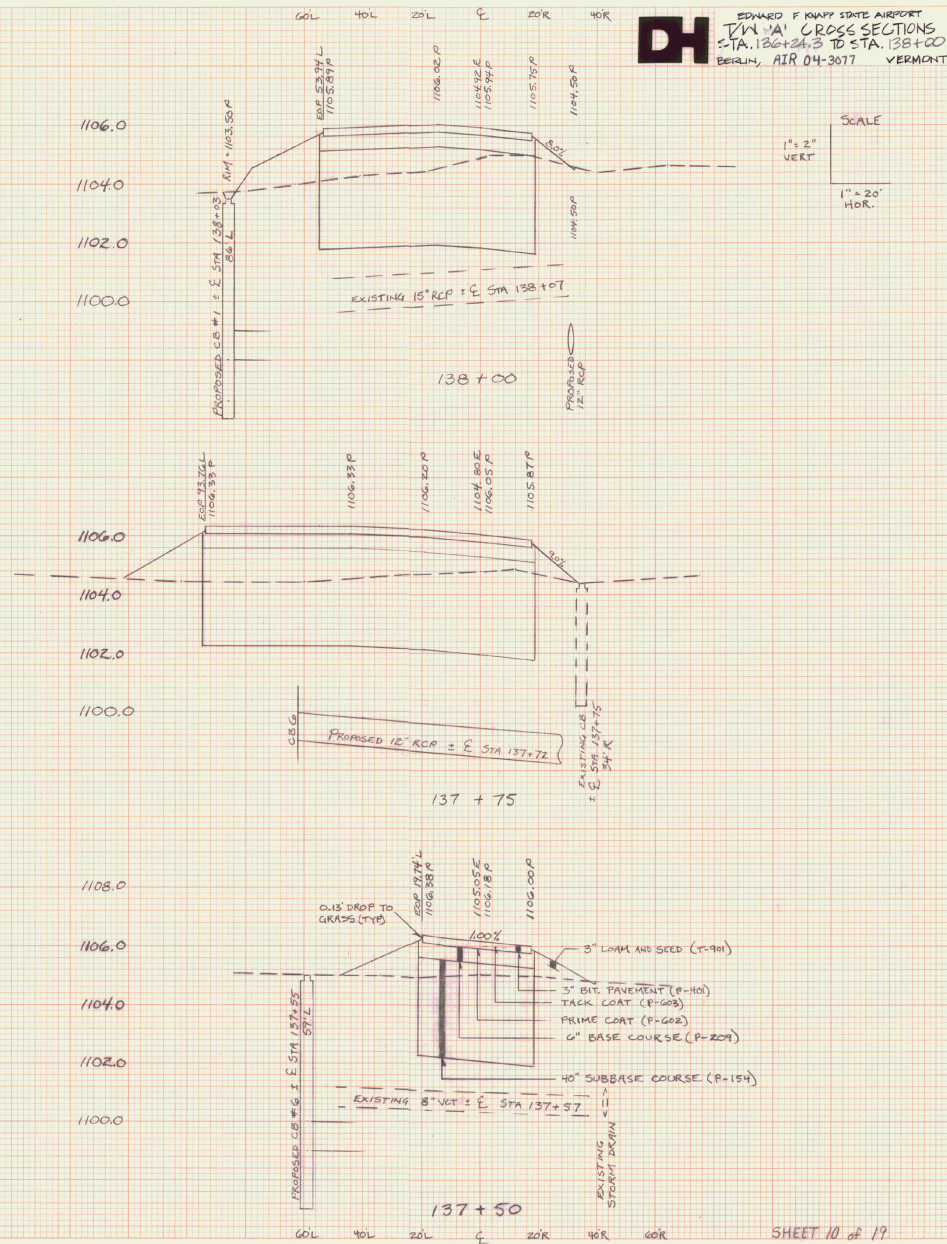
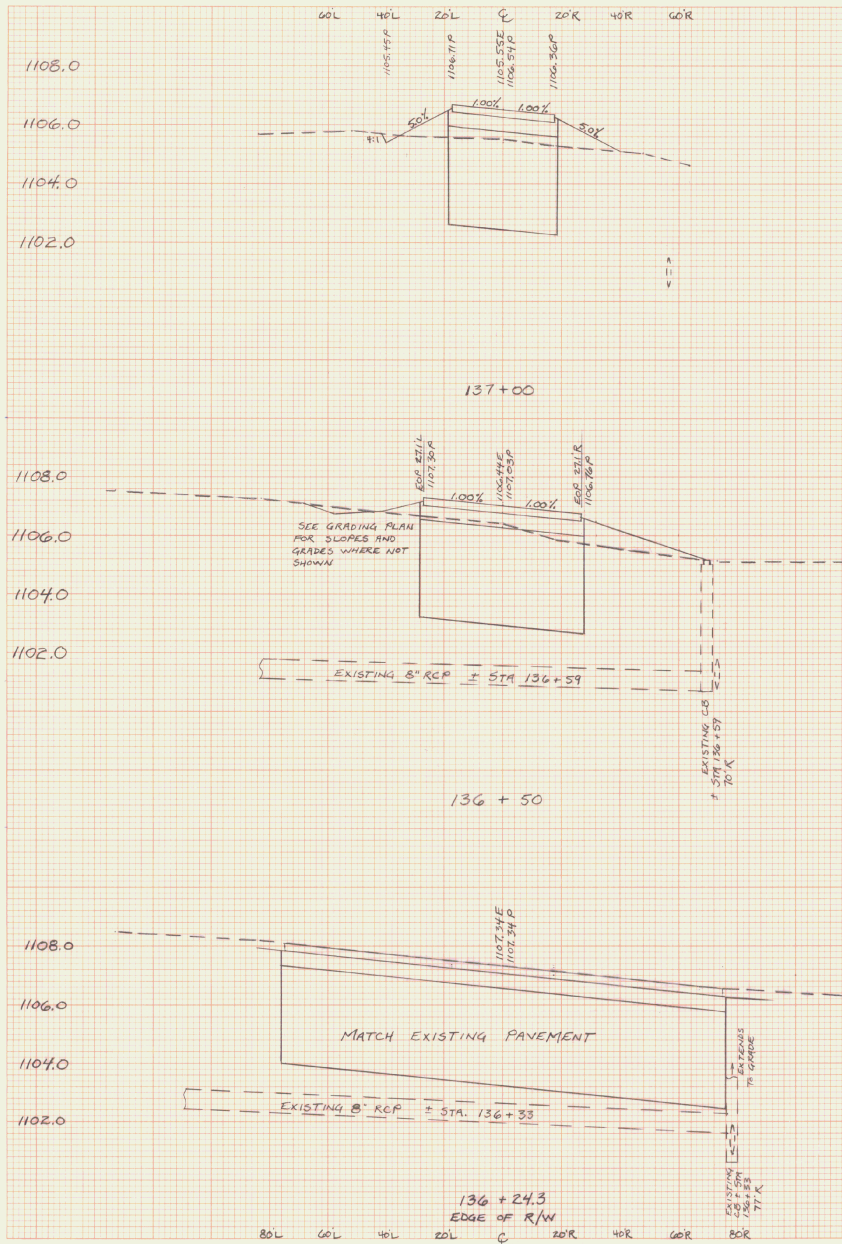
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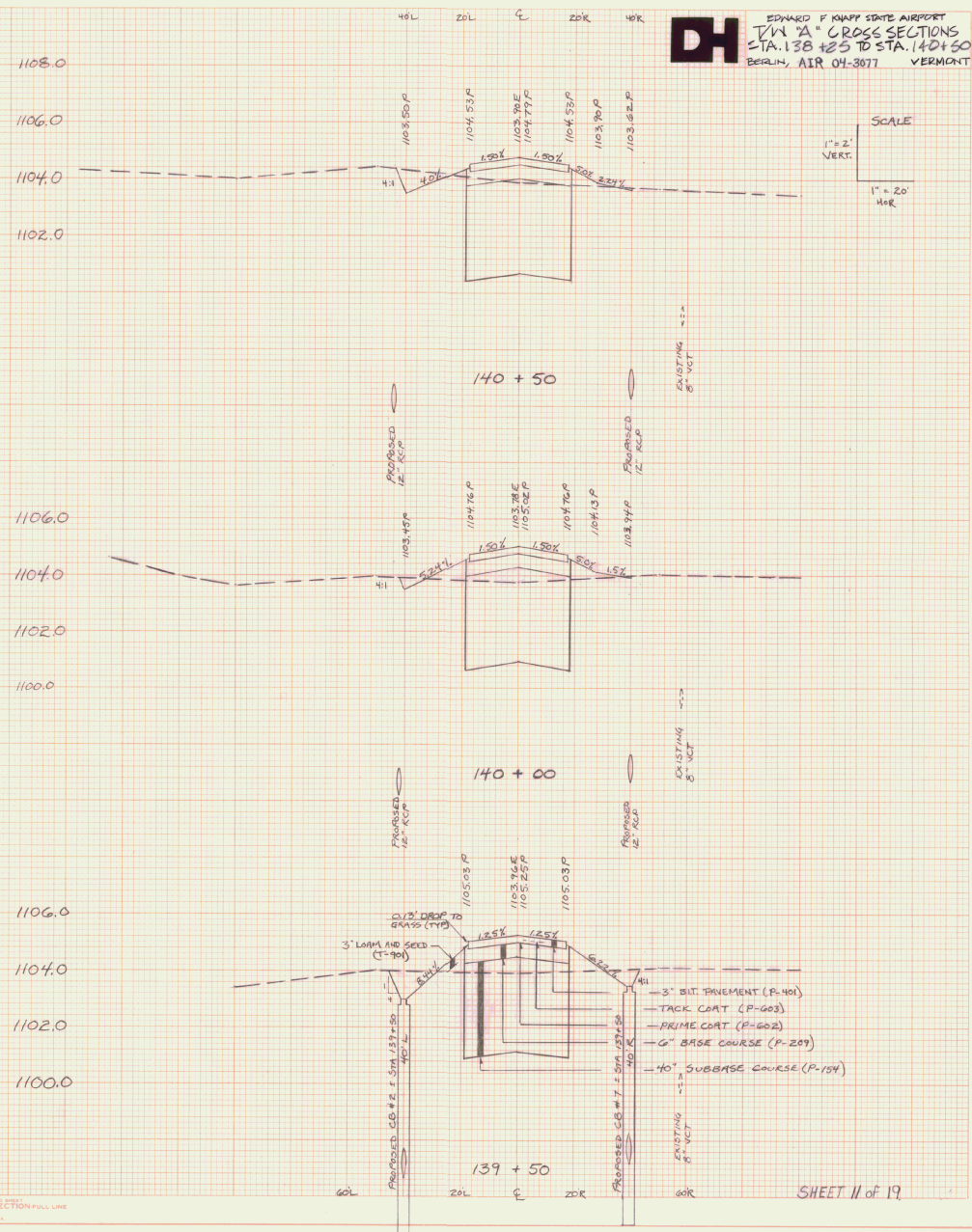
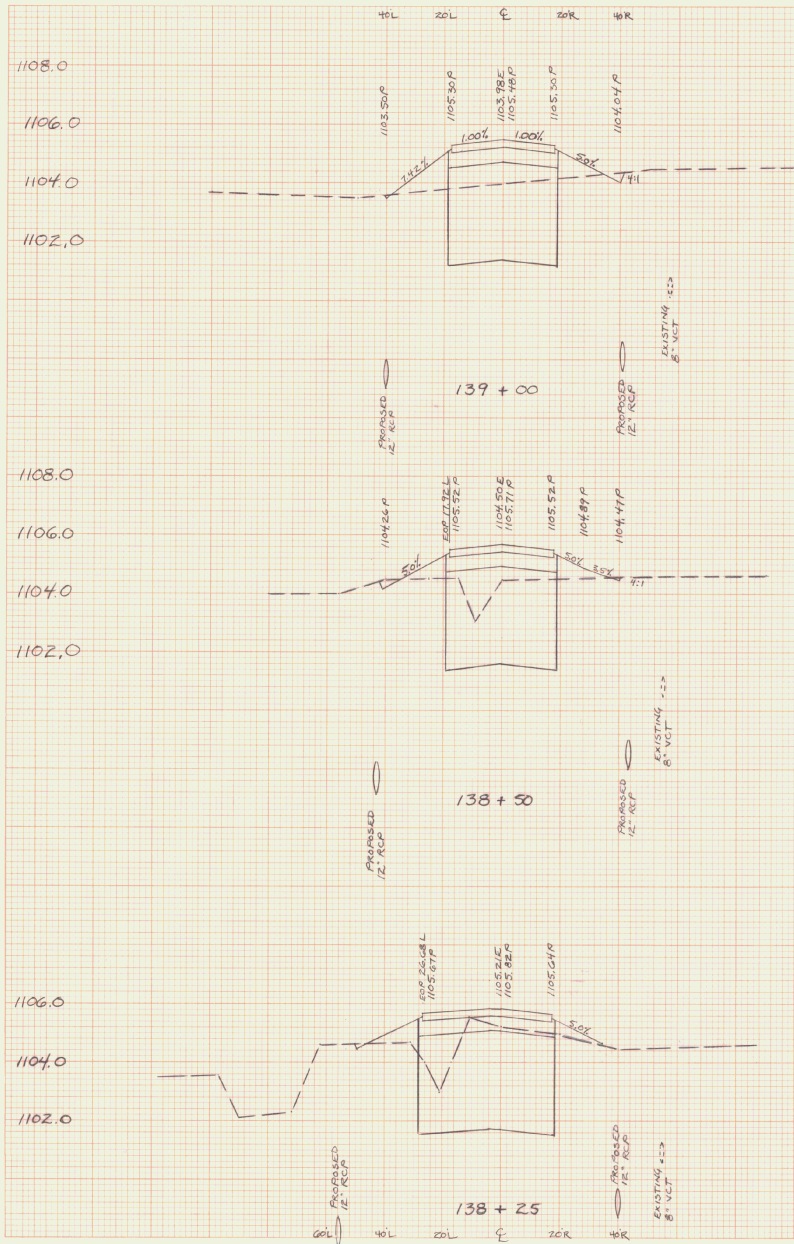
AIR 04-3077

BERLIN,	AIR 07-3077	VERMONT
	Client No. 812017 Prof. Manager DCD Prof. Designer PJM Drawn By TVS Checked By DCD Scale AS SHOWN Approved LJC Date DEC. 1993	
400 Southborough Drive So. Portland, ME 04106		Sheet 9 of 19 D

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 BY: [Signature]
 CHECKED: [Signature]
 APPROVED: [Signature]

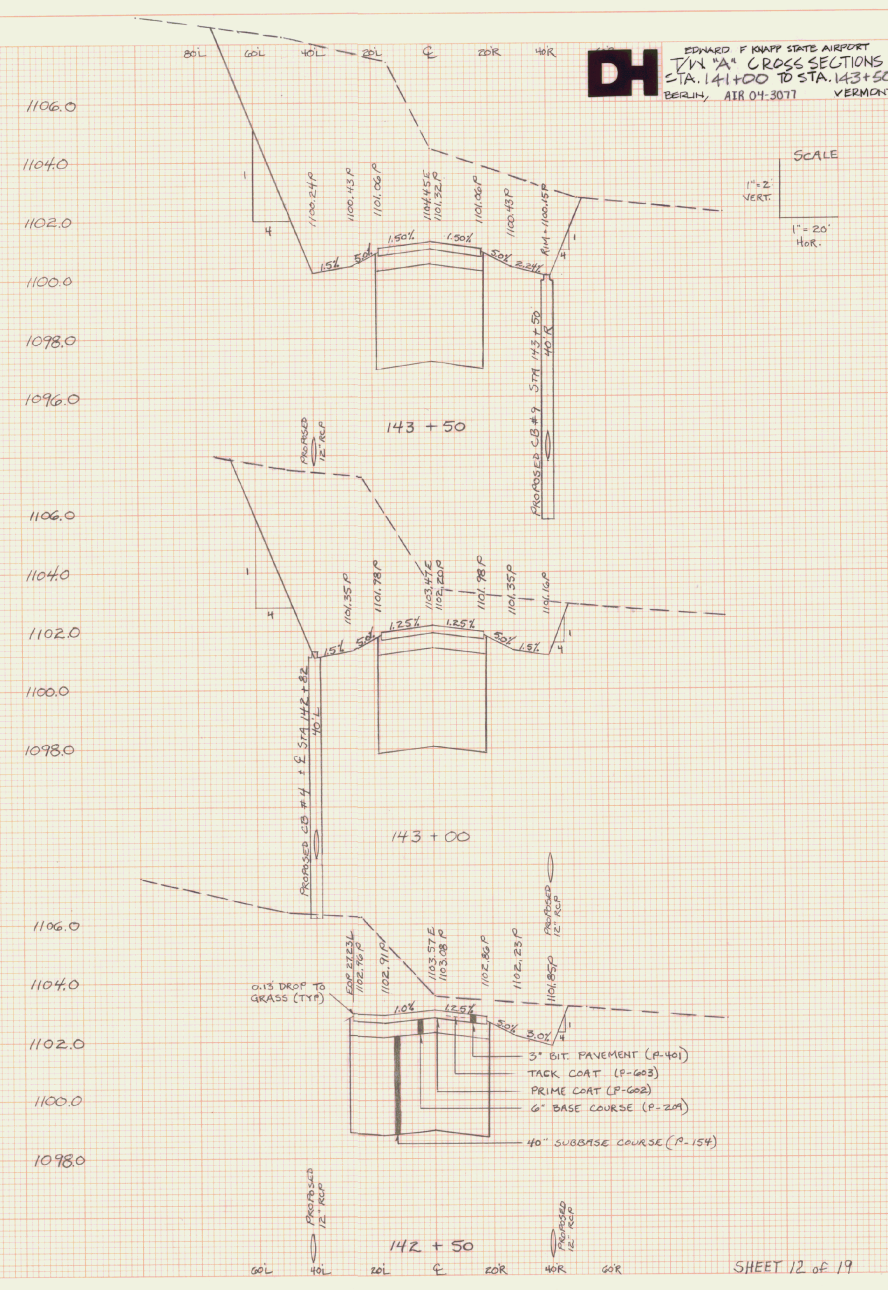
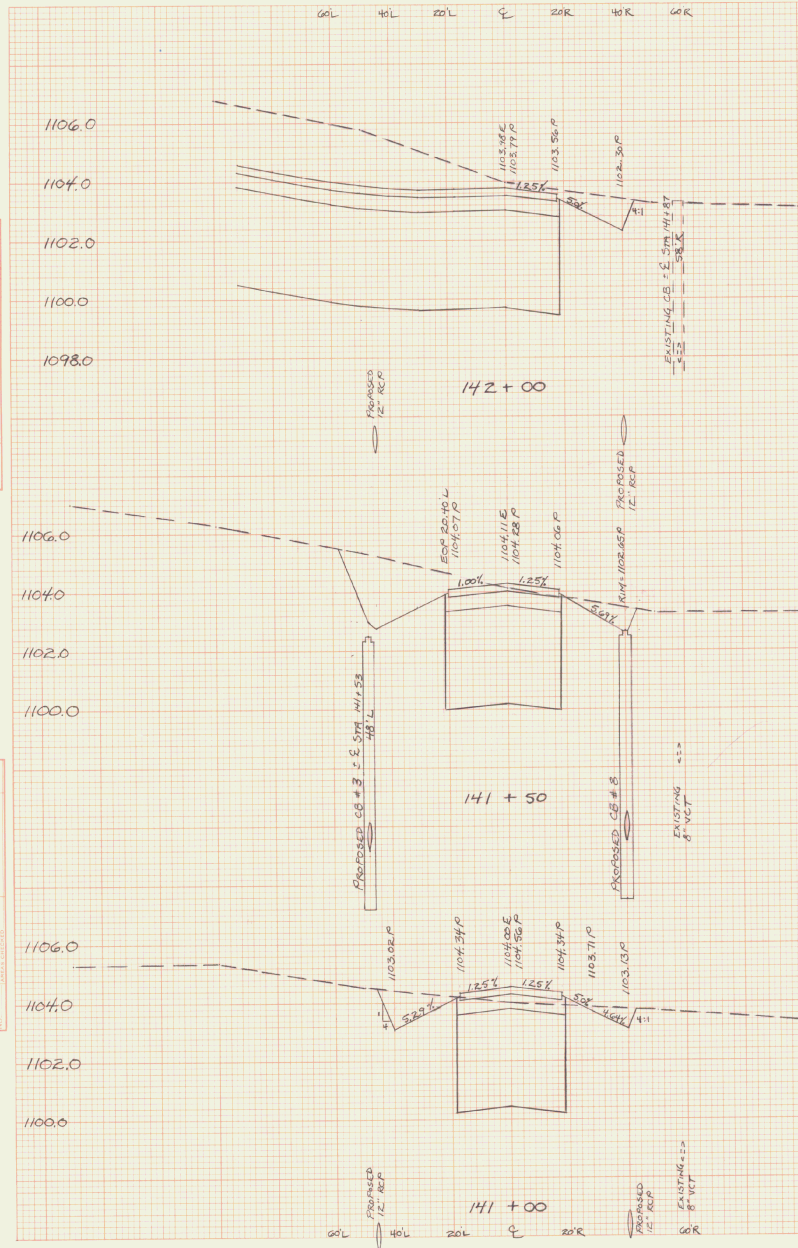
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 CHECKED: [Signature]
 APPROVED: [Signature]





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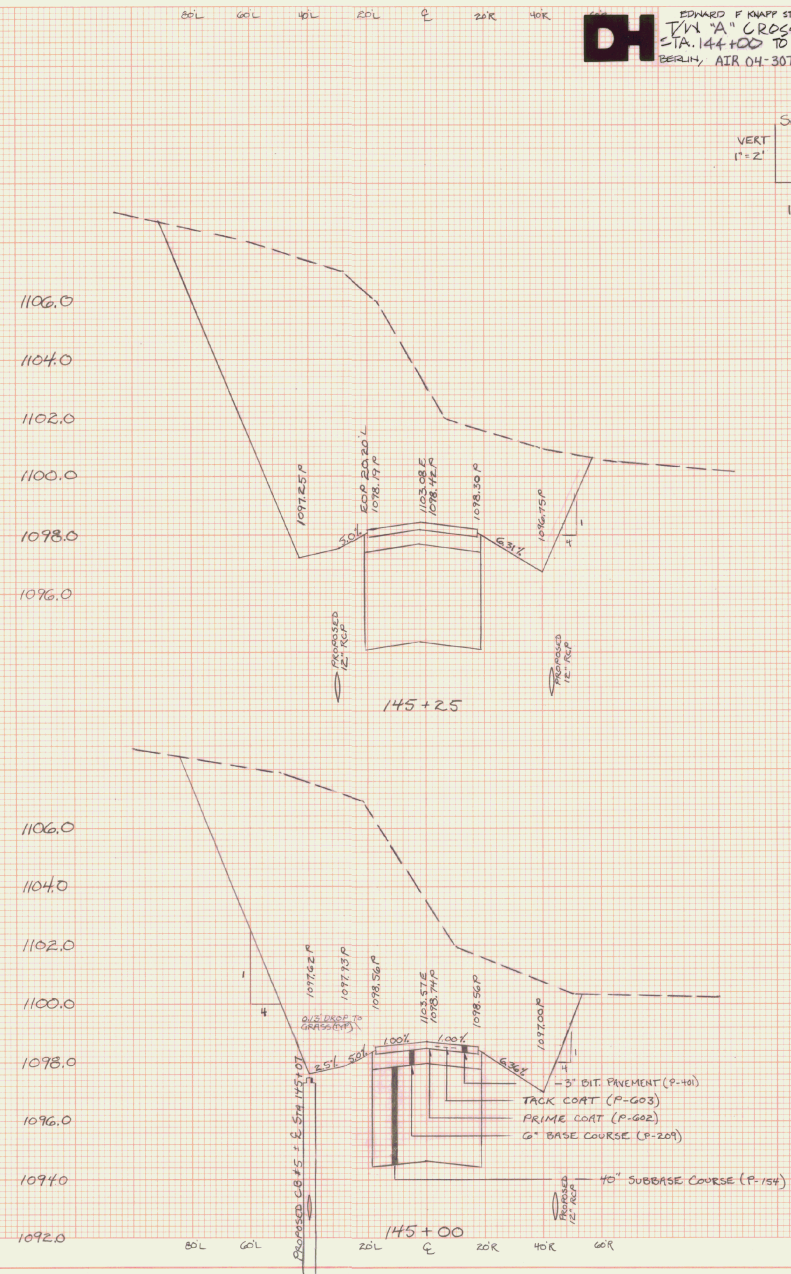
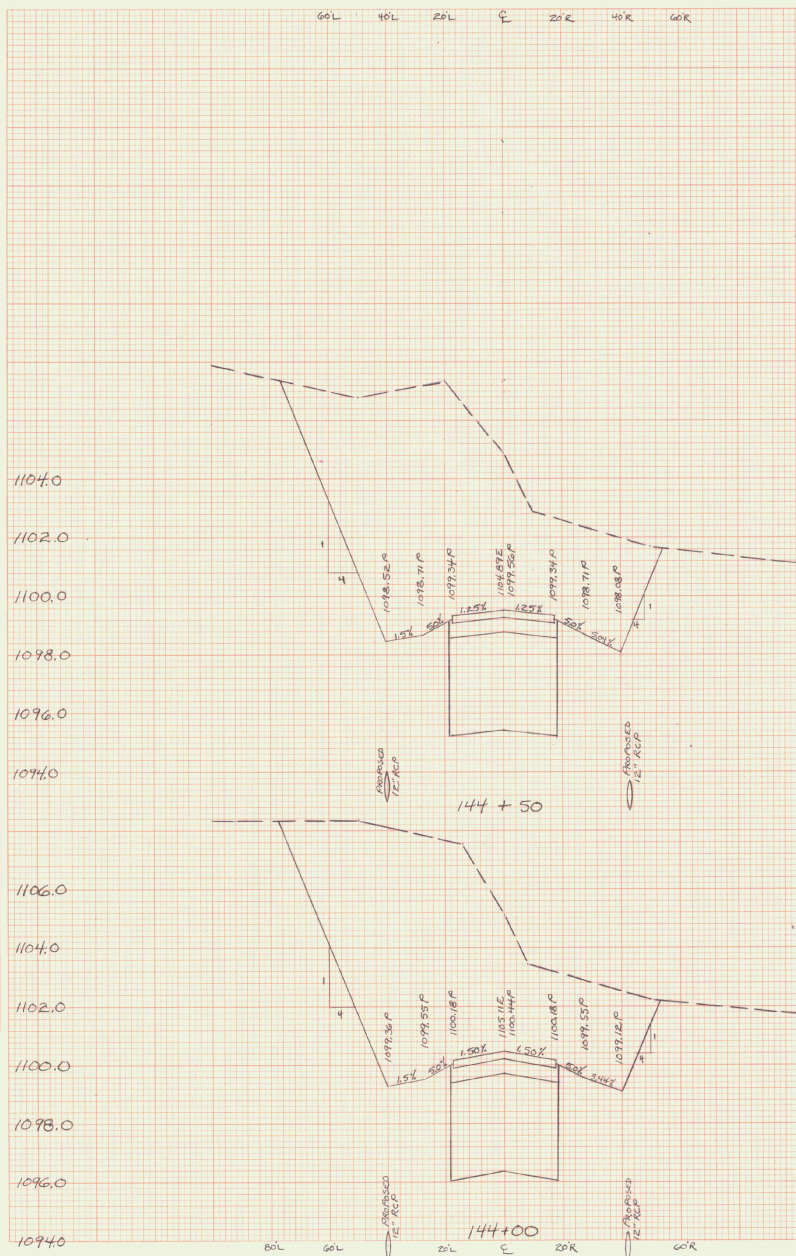
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APPROVED: [Signature]



EDWARD F KEMP STATE AIRPORT
TIN "A" CROSS SECTIONS
STA. 141+00 TO STA. 143+50
BERLIN, AIR 04-3077 VERMONT

SCALE
1" = 2'
VERT
1" = 20'
HOR.

PLATE 3-FULL CROSS SECTION FULL LINE
W/STATION
NOTED IN 2.1.1



13 OF 19

FINAL
DESIGN
DATE: 10/1/77
BY: J.E.D.
CHECKED: J.E.D.
APPROVED: J.E.D.

REGIONAL
SURVEY
DATE: 10/1/77
BY: J.E.D.
CHECKED: J.E.D.
APPROVED: J.E.D.

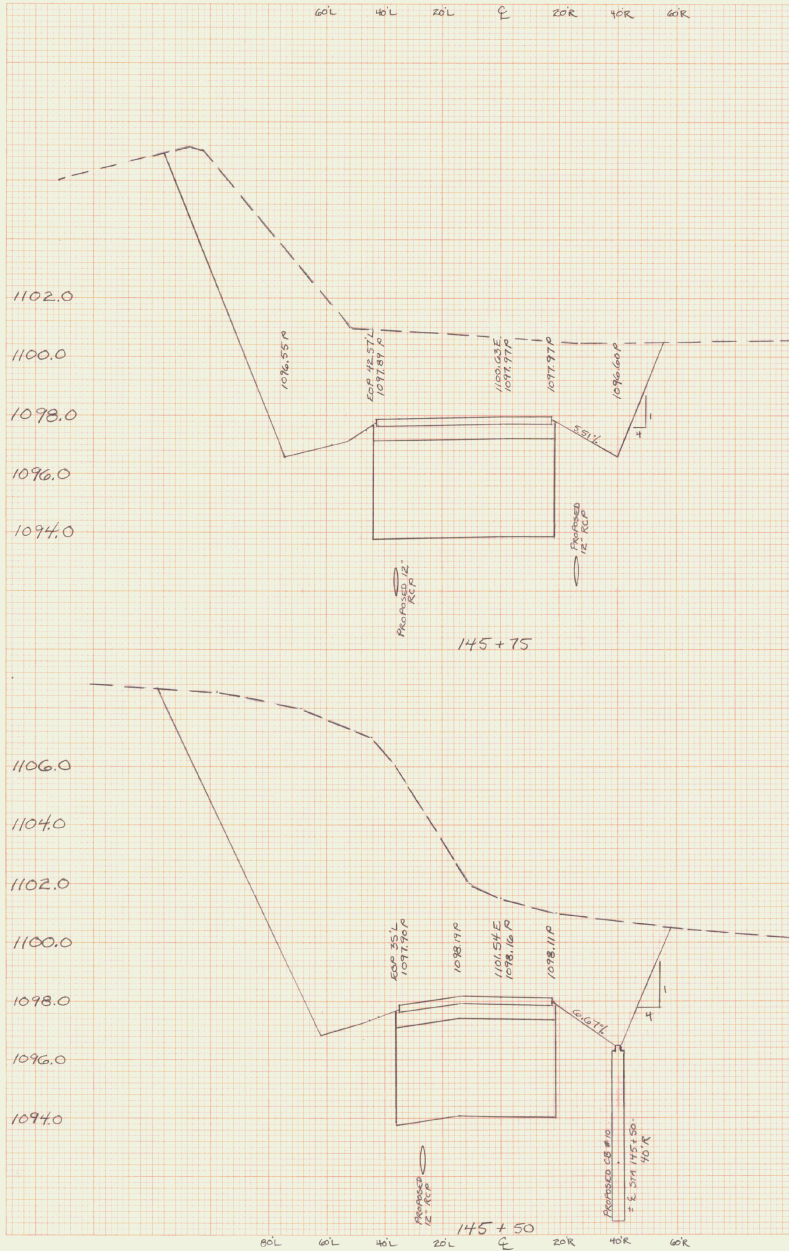
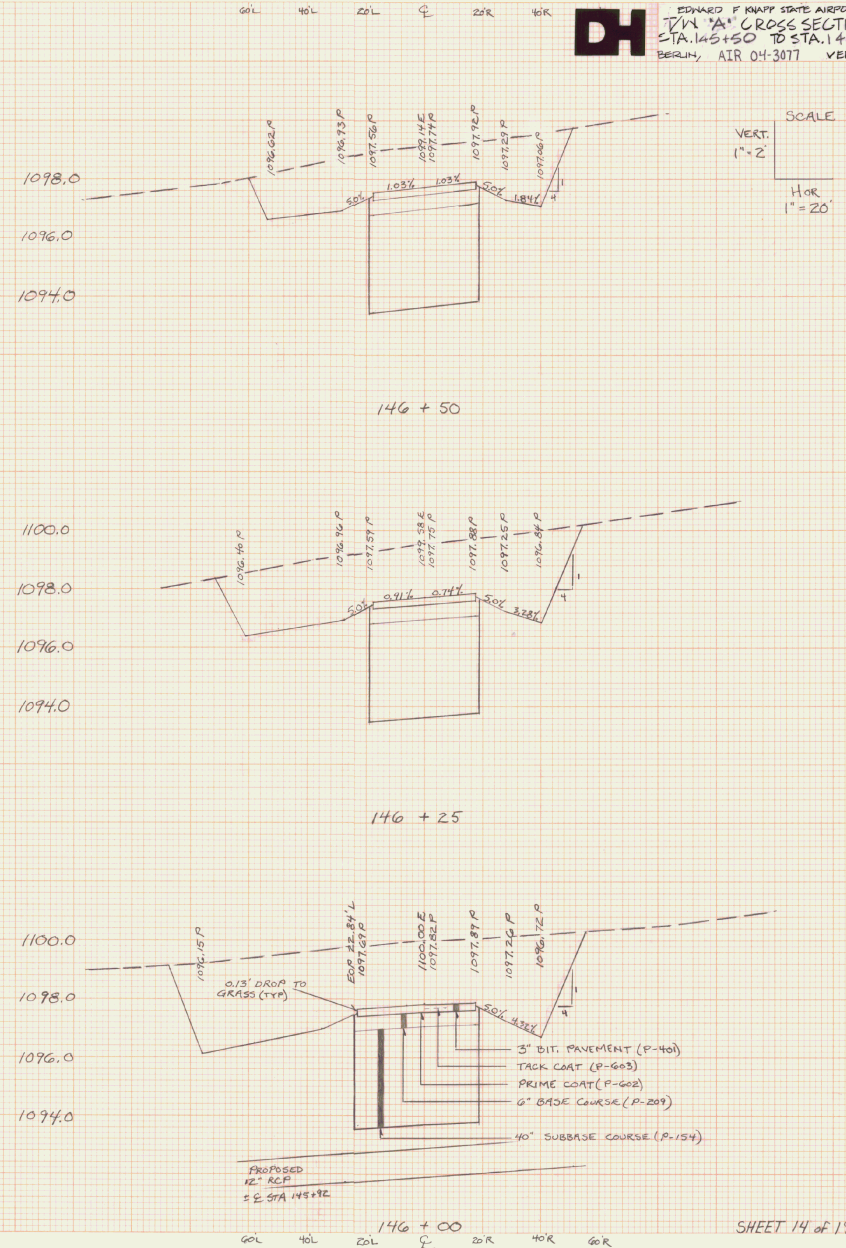


PLATE 3 - FULL CROSS SECTION - FULL LINE
PRINTED IN U.S.A.



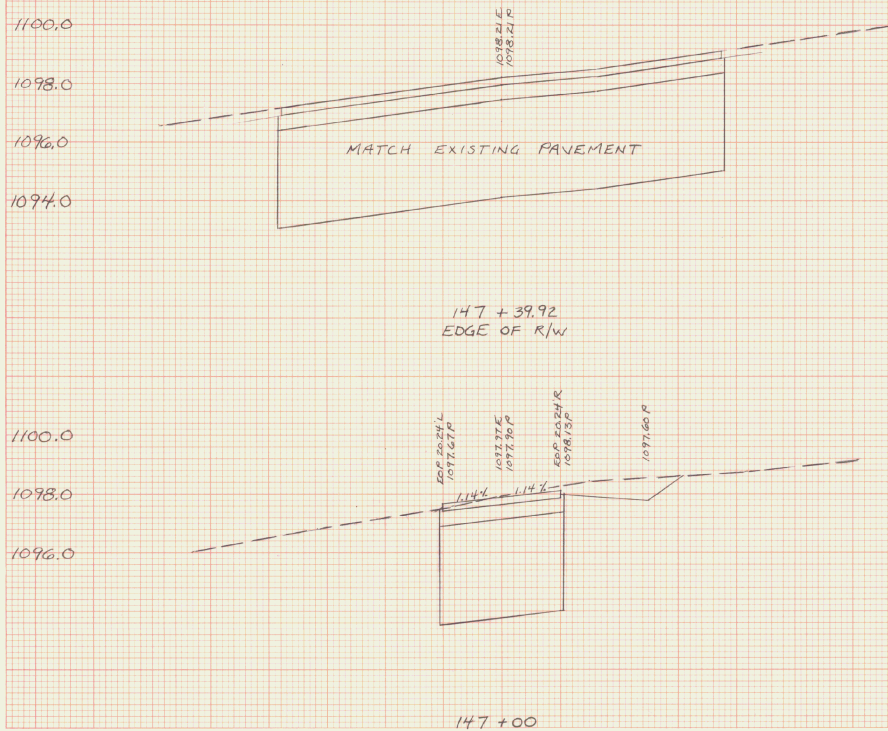
EDWARD F. KNAPP STATE AIRPORT
TYP. "A" CROSS SECTIONS
STA. 145+50 TO STA. 146+50
BERLIN, AIR 04-3077 VERMONT



SHEET 14 of 19

FINAL	DATE
DESIGNED	
CHECKED	
APPROVED	
PROJECT NO.	
SHEET NO.	

ORIGINAL	DATE
DESIGNED	
CHECKED	
APPROVED	
PROJECT NO.	
SHEET NO.	



EDWARD F. KENNY STATE AIRPORT
T/W "A" CROSS SECTIONS
STA. 147+00 TO STA. 147+39.92
BERLIN, AIR 04-3077 VERMONT

SCALE
VERT.
1" = 2'
HOR.
1" = 20'

FINAL	DATE
DESIGNED	BY
CHECKED	BY
APPROVED	BY

ORIGINAL	DATE
DESIGNED	BY
CHECKED	BY
APPROVED	BY

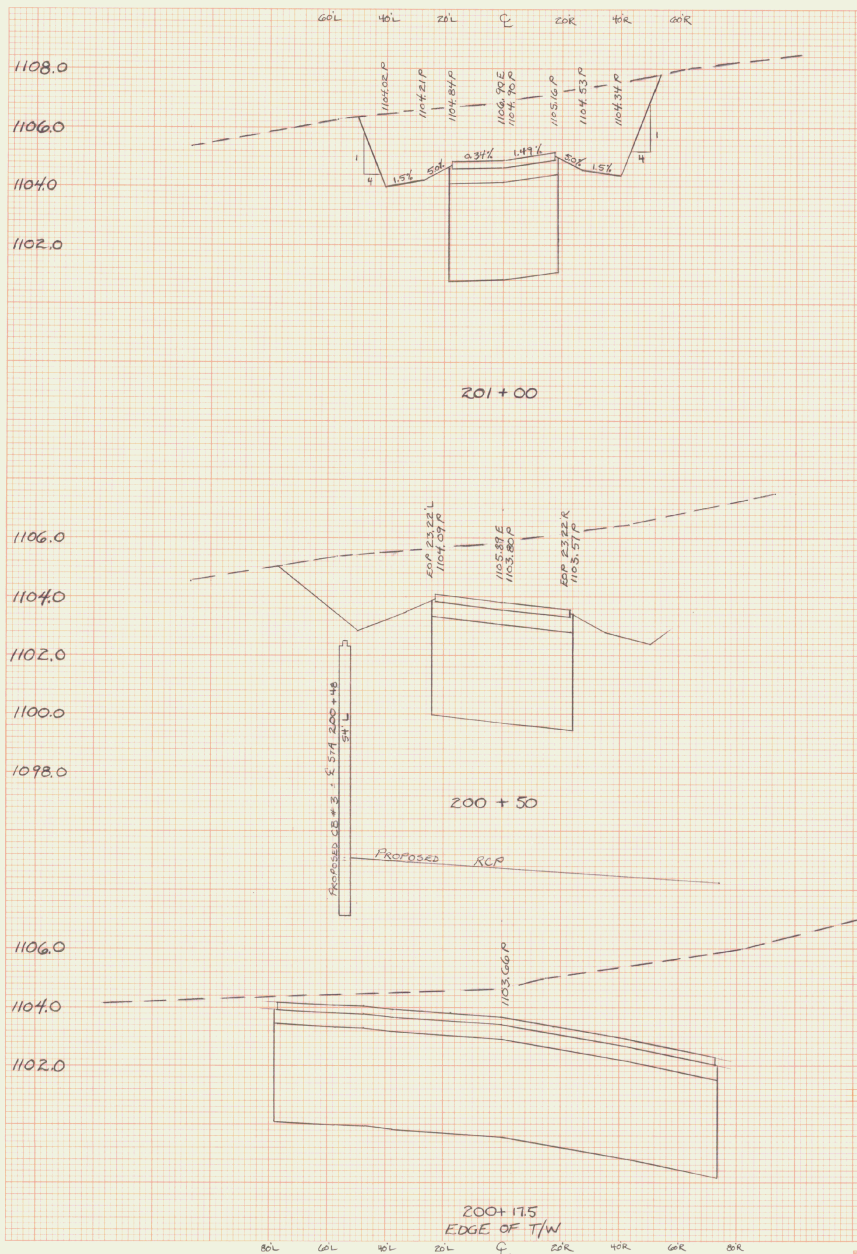
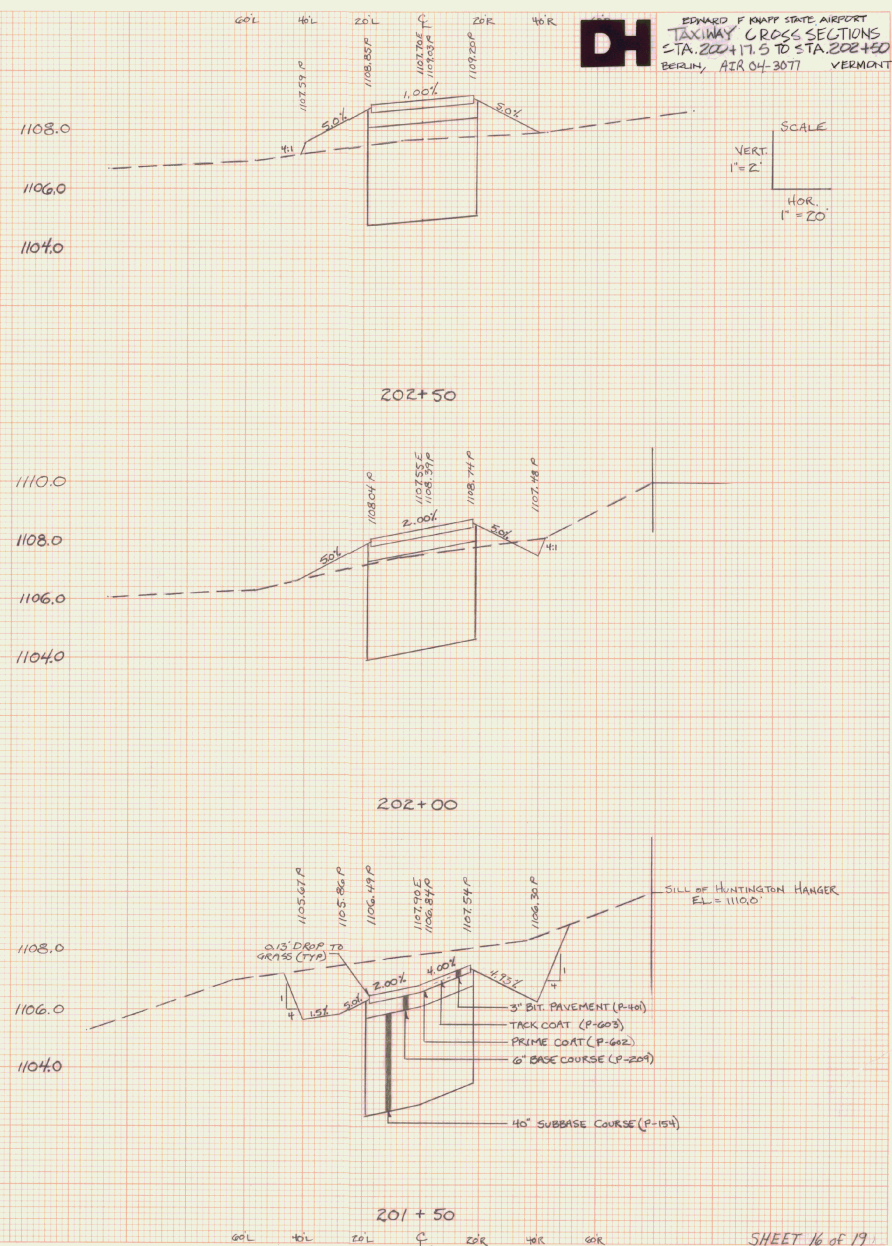
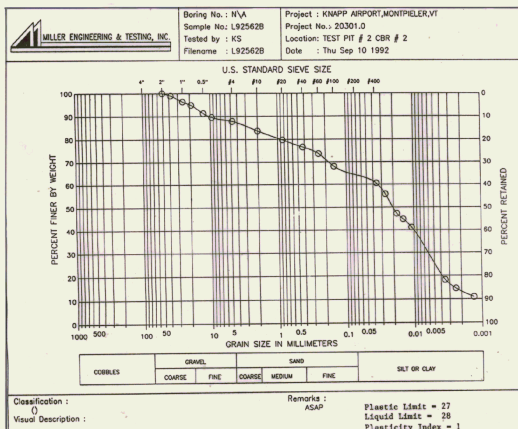
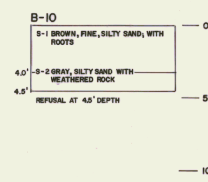
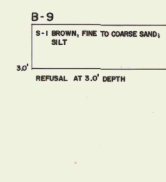
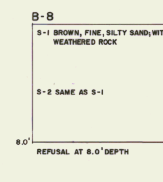
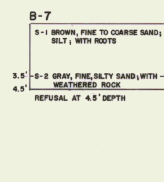
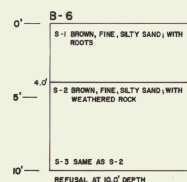
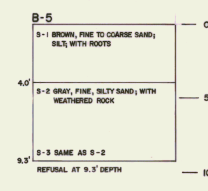
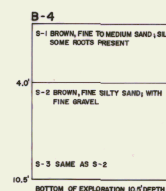
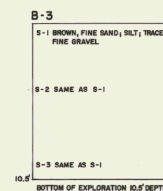
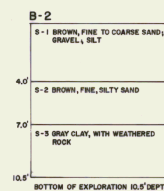
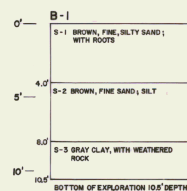
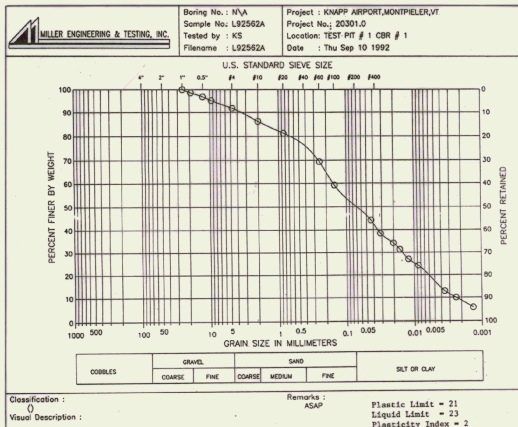
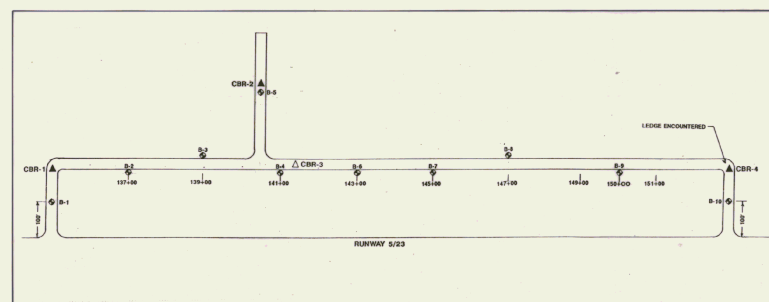
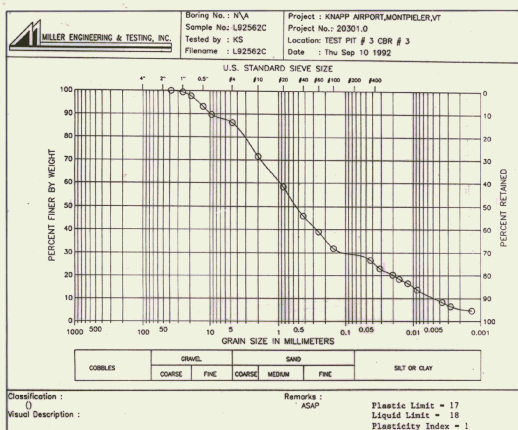


PLATE 3-FULL CROSS SECTION-FULL LINE
PRINTED IN U.S.A.





Test Pit #1, CBR #1			
Material Description	Depth	Penetration	CBR Value
Fine silty sand, trace gravel	0 to 3 feet	0.1 inch	9.0
		0.2 inch	11.3
Test Pit #2, CBR #2			
Material Description	Depth	Penetration	CBR Value
Fine silty sand, trace gravel	0 to 3 feet	0.1 inch	9.0
		0.2 inch	12.1
Test Pit #3, CBR #3			
Material Description	Depth	Penetration	CBR Value
Fine silty sand, trace gravel	0 to 3 feet	0.1 inch	9.4
		0.2 inch	11.7
Test Pit #4, CBR #4			
Ledge encountered at approximately 1.5 feet			



NOTE: THE BORING LOG AND TEST PIT INFORMATION SHOWN ON THIS PLAN WAS DEVELOPED BY MILLER ENGINEERING & TESTING, INC. OF MANCHESTER, NEW HAMPSHIRE, ASH No. 20301.01, SEPT. 1992.

EDWARD F. KNAPP STATE AIRPORT

BORING LOG & TEST PIT INFORMATION

BERLIN, AIR 04-3077

Client No. 812017
Proj. Manager DCD
Proj. Designer PJM
Drawn By TVS
Checked By DCD
Scale AS SHOWN
Approved LJC
Date DEC. 1993

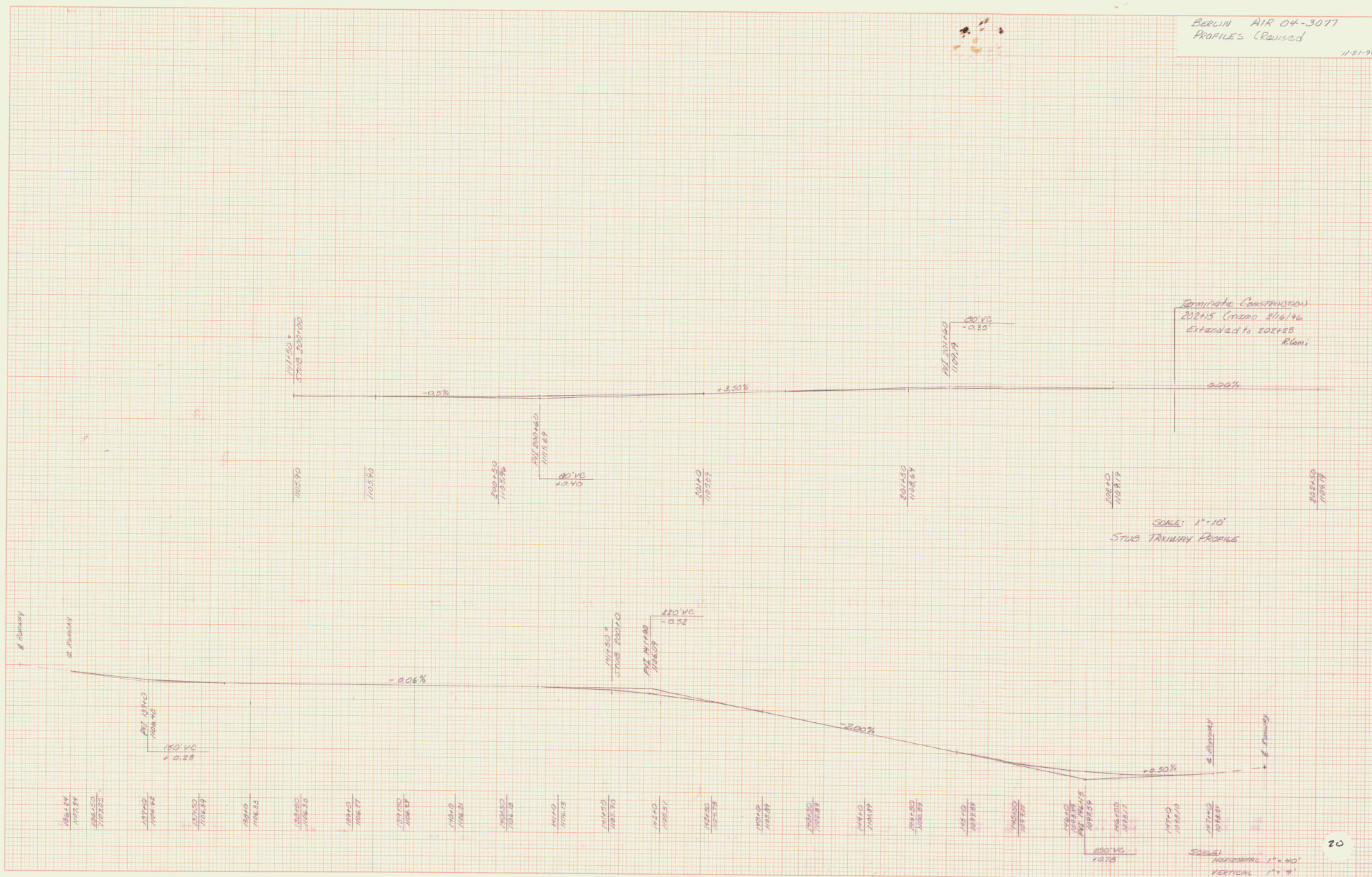
Sheet 19 of 19

DATE	BY
DESIGNED	CHECKED
APPROVED	DATE
REVISION	BY
REVISION	BY
REVISION	BY

DATE	BY
DESIGNED	CHECKED
APPROVED	DATE
REVISION	BY
REVISION	BY
REVISION	BY

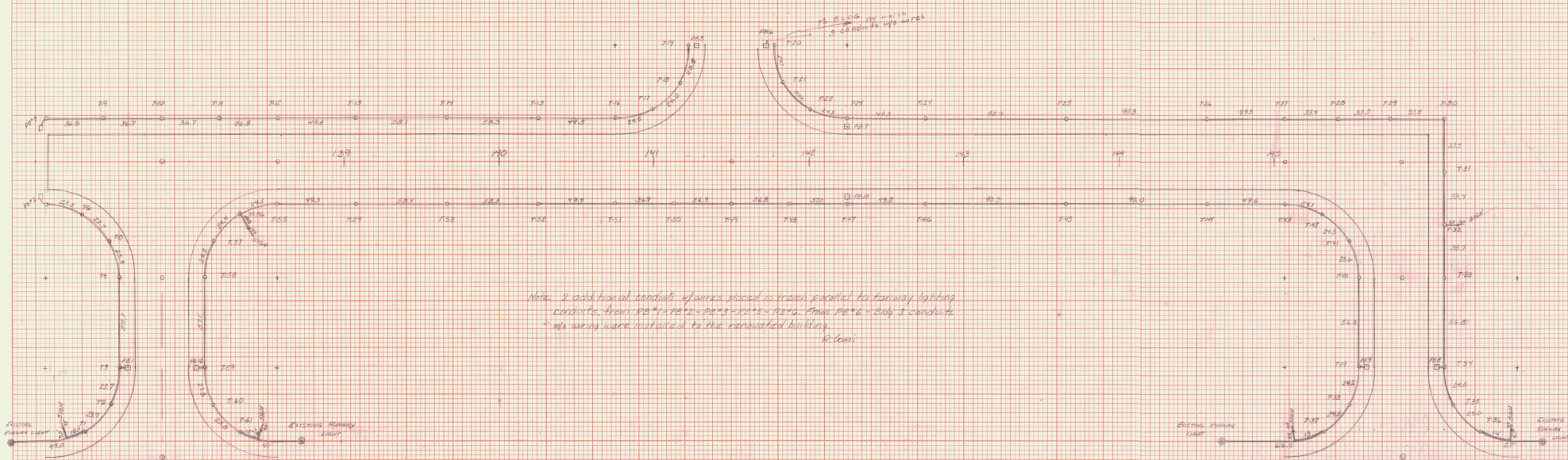
BERLIN AIR 04-3077
PROFILES (Revised)

11-21-95





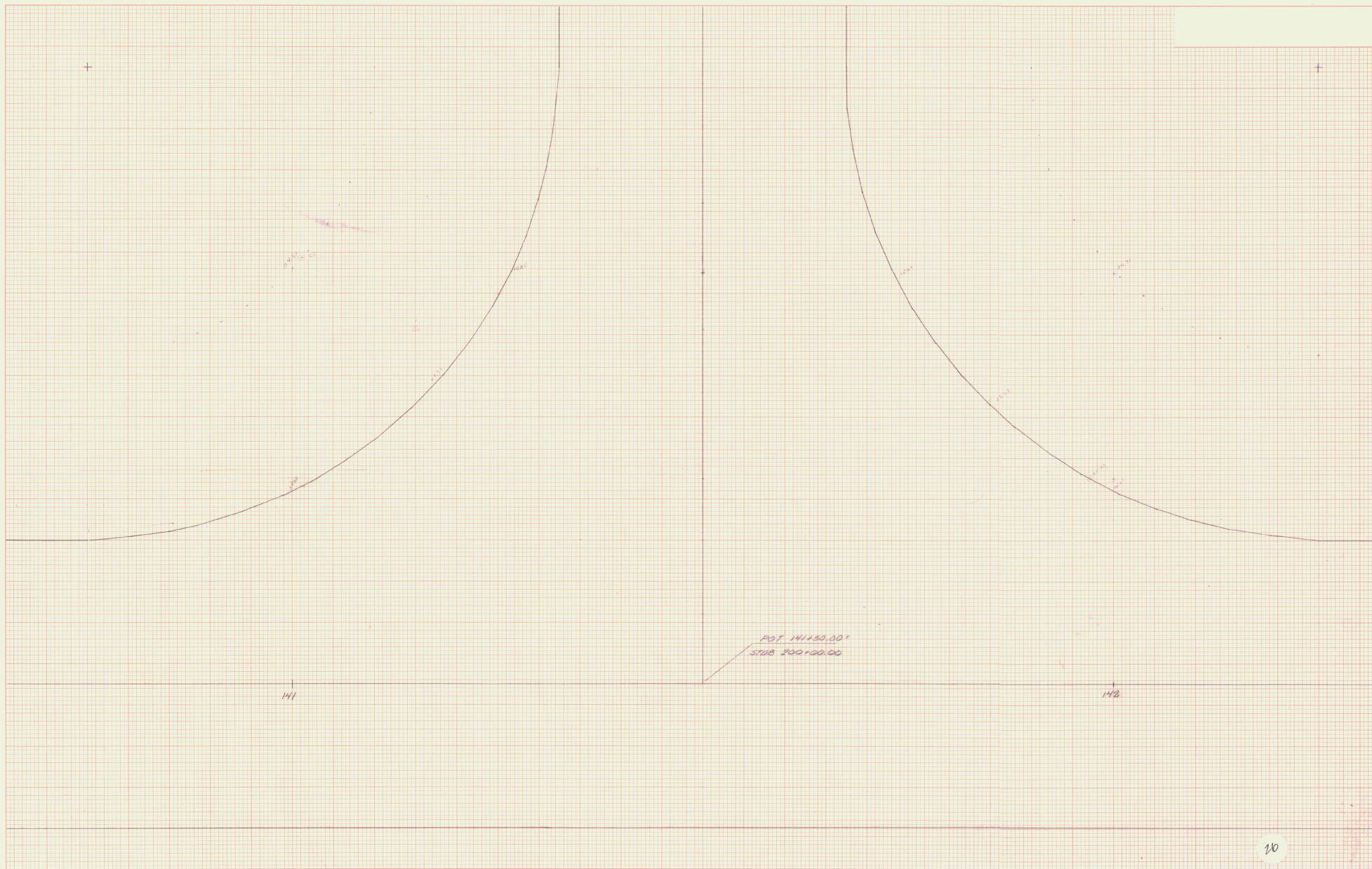
BERLIN AIR 24-3077
LIGHTS LAYOUT



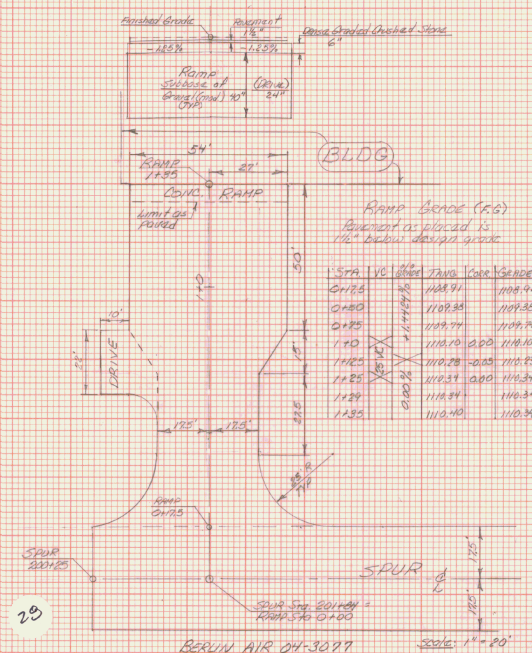
25
Scale 1" = 30'

DATE	
BY	
PROJECT	
DESCRIPTION	
DATE	
BY	
PROJECT	
DESCRIPTION	

DATE	
BY	
PROJECT	
DESCRIPTION	
DATE	
BY	
PROJECT	
DESCRIPTION	



BERLIN AIR 04-3077
Ramp to hangar



BERLIN AIR 04-3077
REV. SECTIONS 11/96

Excavation:
 $(175)(.45) + (17)(.4) + (2.5)(.5) + (200)(.5) + (355)(.6) + (200)(.45) = 105.3$

139+25

Excavation:
 $(215)(.45) + (1.5)(.5) + (15)(.45) = 10.7$ MJP 9-29-97

138+0

Excavation:
 $(235)(.45) + (2.5)(.5) + (17)(.45) = 12.6$ MJP 9-29-97

127+75

Excavation:
 $(25)(.45) + (2)(.5) + (10)(.45) = 10.9$ MJP 9-29-97

137+50

R 139+39.86

Excavation:
 $(12)(.45) + (2)(.5) + (10)(.45) = 10.5$ MJP 9-29-97

136+50

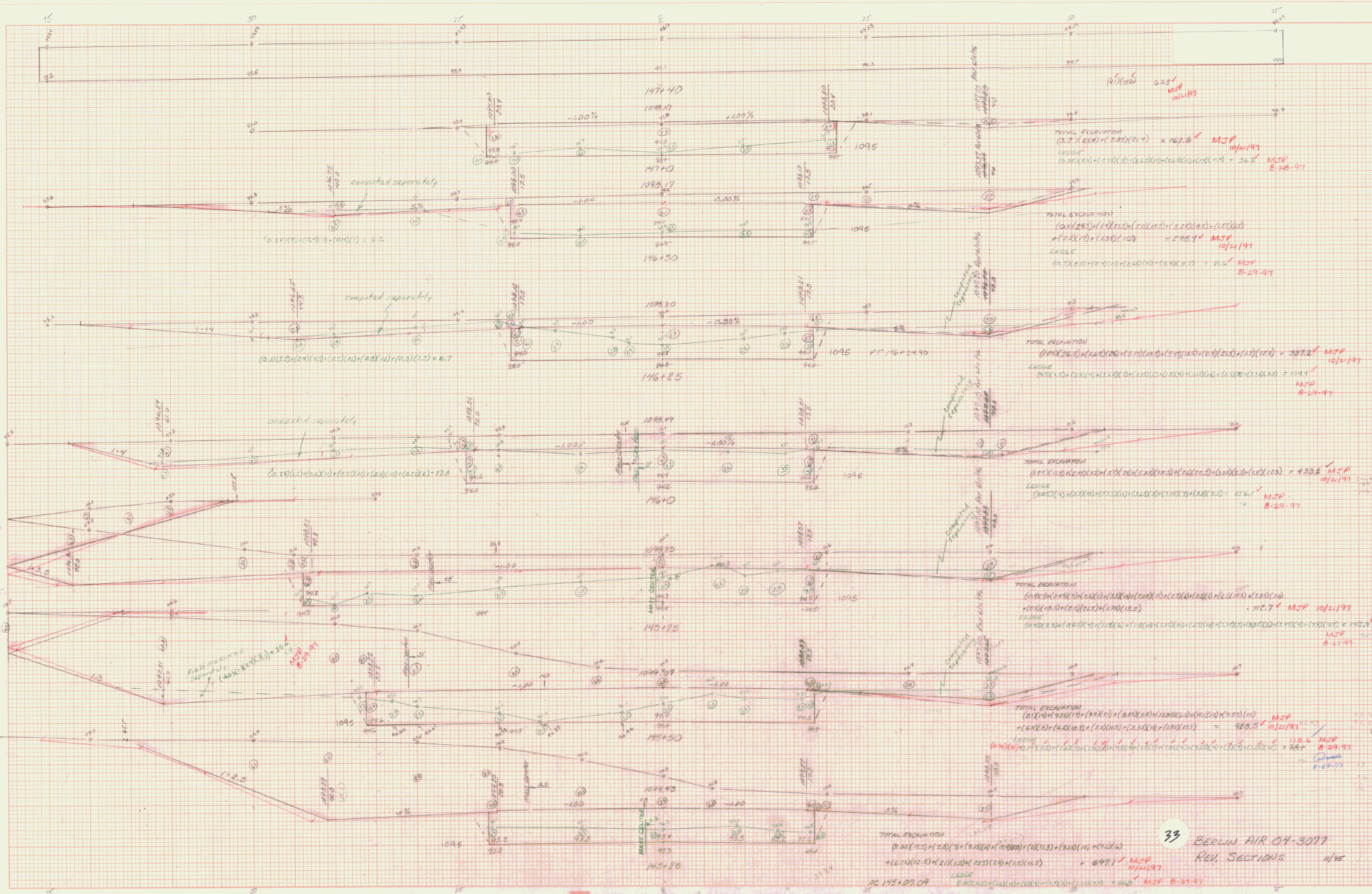
Excavation:
 $(8.5)(.45) + (1.5)(.5) = 10.3$ MJP 9-29-97

136+50

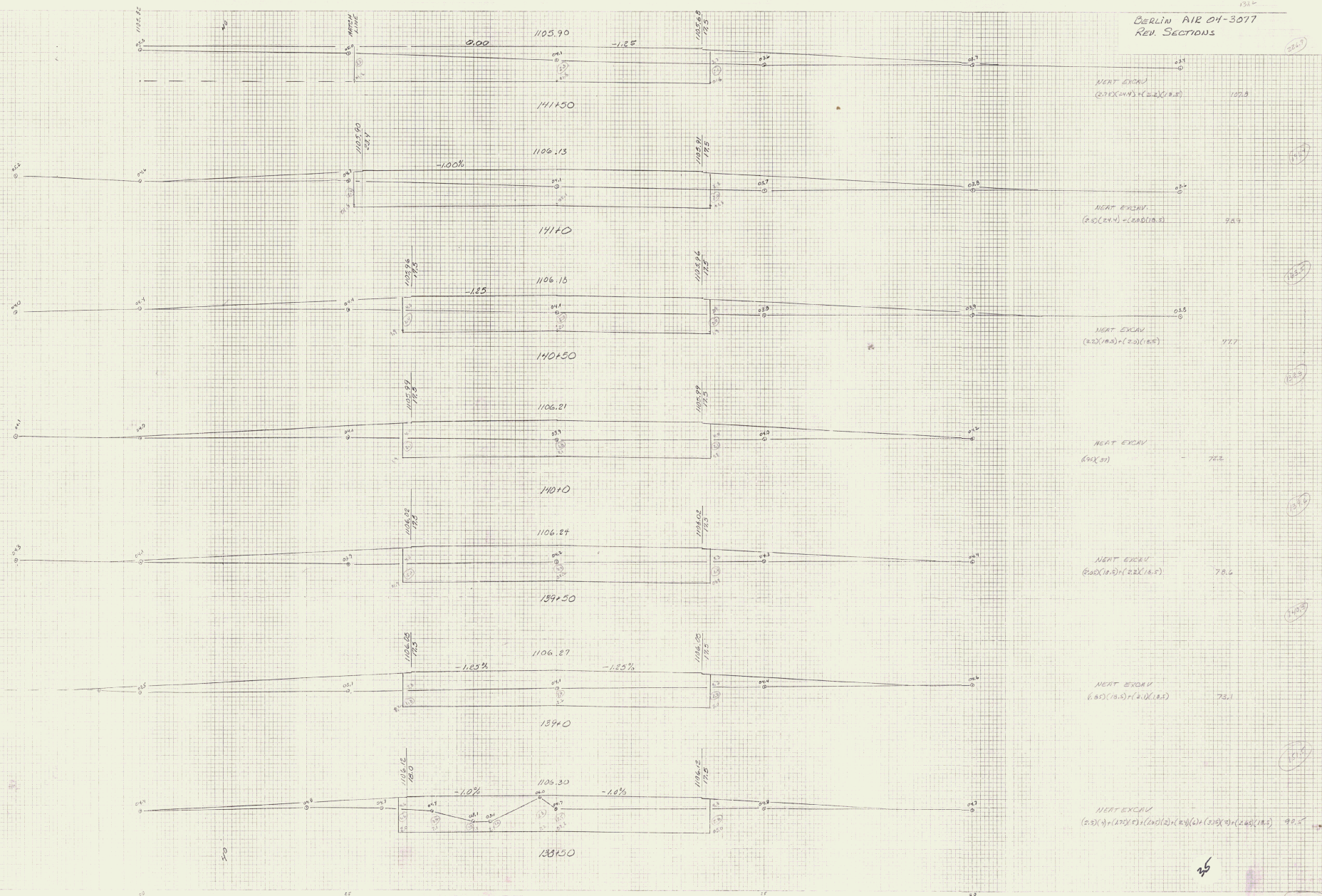
Excavation:
 $(222)(.45) = 64.8$ MJP 9-29-97

136+25

Day 41' Depth throughout



BERLIN AIR 04-3077
REV. SECTIONS



35

$$\sqrt{64.2}$$

5.50

698.6

9.9

384.3

38

