

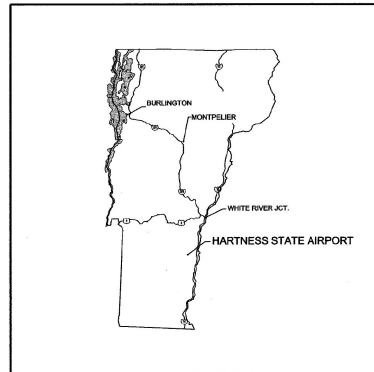
PLANS FOR CONSTRUCTION OF PAVEMENT OVERLAY RUNWAY 5-23

TO INCLUDE:
RECONSTRUCTION OF RUNWAY 5-23
RUNWAY TURN-AROUNDS
RUNWAY MARKINGS

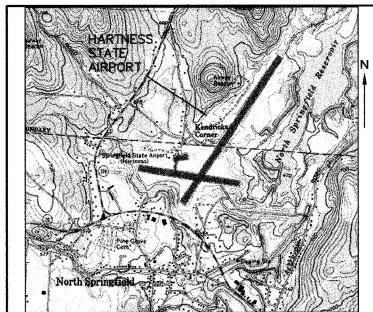
HARTNESS STATE AIRPORT
NORTH SPRINGFIELD, VERMONT

VAOT EA 043137

MAY 2000



LOCATION MAP



VICINITY MAP

RECORD PLANS

CONTRACTOR: LANE CONSTRUCTION
MERIDAN, CT
RESIDENT ENGINEER: ROD MACLAY
CONSTRUCTION BEGAN: AUGUST 8, 2000
CONSTRUCTION COMPLETED: OCTOBER 25, 2000
RECORD PLANS BY: CONSTRUCTION CADD

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

BY: ROD MACLAY, RESIDENT ENGINEER
DATE: APRIL 20, 2001

NOTE: ANY FURTHER INFORMATION CONCERNING FINAL QUANTITIES,
AMOUNTS OR OTHER DETAILS RELATIVE TO THIS PROJECT MAY BE
FOUND ON MICROFILM IN CENTRAL FILES.

ITEM	DESCRIPTION	UNIT	QUANTITIES
203.15	Common Excavation	CY	375
203.16	Solid Rock Excavation	CY	10
203.31	Sand Borrow	SY	765
203.40	Fine Grading-subgrade	SY	1700
210.10	Cold Planing-bit Pavement	SY	60500
301.26	Subbase of Crushed Gravel(Fine Graded)	CY	300
404.65	Emulsified Asphalt	CWT	410
406.25	Bituminous Concrete Type I (Mod.)(1)	TON	290
406.25	Bituminous Concrete Type III (Mod.)(2)	TON	11000
406.50	Price Adjustment Asphalt Cement (N.A.B.I.)	LS	1
417.10	Bituminous Crack Filling	LB	4500
417.10	Bituminous Crack Filling (Mod.)	LB	1500
524.11	Joint Sawing and Sealing, Hot Poured (MOD)	LF	300
609.10	Dust Control With Water	MGAL	10
631.17	Testing Equipment-bituminous	LS	1
635.10	Mobilization	LS	1
646.30	Letter or Symbol (Mod.)(1)	EA	2
646.30	Letter or Symbol (Mod.)(2)	EA	2
646.30	Letter or Symbol (Mod.)(3)	EA	1
646.30	Letter or Symbol (Mod.)(5)	EA	1
646.30	Letter or Symbol (Mod.)(9)	EA	1
649.51	Geotextile Fabric for Silt Fence	SY	350
651.15	Seed	LB	75
651.18	Fertilizer	LB	500
651.20	Agricultural Limestone	TON	1
651.25	Mulch	TON	1
651.26	Hay Bales for Erosion Control	EA	10
651.35	Topsoil	CY	70
864.03	Runway and Taxiway Painting (Durable White)	SF	22000
864.03	Runway and Taxiway Painting (Durable Yellow)	SF	900
864.03	Runway and Taxiway Painting (Temporary Yellow)	SF	22000
864.03	Runway and Taxiway Painting (Temporary Yellow)	SF	900
864.05	L-108, 1/c #8, L-824, Type C, Skva	LF	335
864.06	L-108, #8 Counterpoise Wire	LF	335
864.08	L-110 2 Way X4" Dia. Ug Elect. Duct	LF	175

QUANTITIES

SHEET TITLE

- TITLE SHEET
- CONSTRUCTION PHASING PLAN
- CONSTRUCTION NOTES
- RUNWAY PAVING PLAN STA. 1+00 TO STA. 14+50
- RUNWAY PAVING PLAN STA. 14+50 TO STA. 28+50
- RUNWAY PAVING PLAN STA. 28+50 TO STA. 42+50
- RUNWAY PAVING PLAN STA. 42+50 TO STA. 56+00
- RUNWAY TURNAROUND GRADING PLAN
- TYPICAL SECTIONS
- DETAILS
- RUNWAY 5-23 MARKING DETAILS
- RUNWAY 11-29 MARKING DETAILS

VTRANS STANDARD DRAWINGS

AP-3 DUCT AND DUCT MARKER DETAILS	6-1-94
AP-10 RUNWAY MARKING DETAILS	6-1-94
AP-11 TAXIWAY AND APRON MARKING DETAILS	6-1-94
E-106 TRAFFIC CONTROL AND MISCELLANEOUS DETAILS	8-8-95
T-1 TEMPORARY EROSION CONTROL DETAILS	6-1-94
T-2 TEMPORARY EROSION CONTROL DETAILS	6-1-94

INDEX OF SHEETS

DUFRÉSNE-HENRY, INC.

SUBMITTED BY: *Michael J. Dufresne*
SENIOR PROJECT MANAGER

DATE: 5/10/00

VERMONT AGENCY OF TRANSPORTATION

APPROVED BY: *David A. Dufresne*
DIRECTOR, MAINTENANCE & AVIATION DIVISION

DATE: May 17, 2000



OFFICES:

VERMONT

Montpelier

N. Springfield

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Portland

MASSACHUSETTS

Boston

Greenfield

Westford

FLORIDA

Port Charlotte

Sarasota

BUILT AS DESIGNED

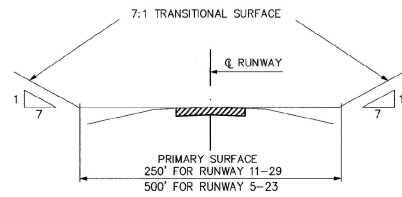
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IN DPR



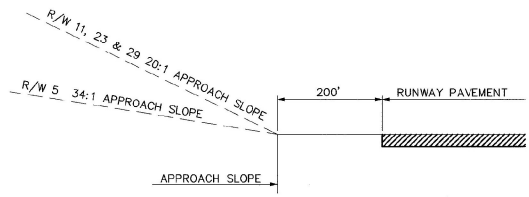
SOUTH BURLINGTON, VERMONT

Tel. (802) 864-0223 • FAX (802) 864-0165

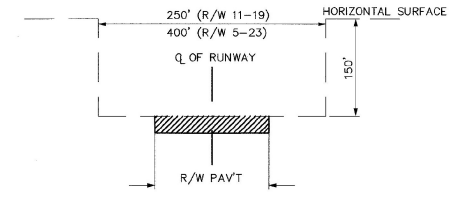
www.dufresne-henry.com



(A) TYPICAL SECTION F.A.R. PART 77 IMAGINARY SURFACES
NOT TO SCALE



(B) TYPICAL PROFILE F.A.R. PART 77 IMAGINARY SURFACES
NOT TO SCALE



(C) RUNWAY OBJECT FREE ZONE TYPICAL SECTION
NOT TO SCALE

PHASING NOTES:

Runway 5-23 will be closed to air traffic during construction. The runway shall be closed for a maximum of 40 calendar days. Work within the Runway 5-23 object free zone shall be limited to the hours of 6:00 AM and 10:00 PM.

Runway 11-29 shall remain open at all times during the project, with the exception of the pavement striping activities. No work shall be allowed within the Runway 11-29 object free zone without authorization from the Engineer. Work within the Runway 11-29 object free zone will require that the runway be closed. At least 48 hours notice is required prior to closing the runway.

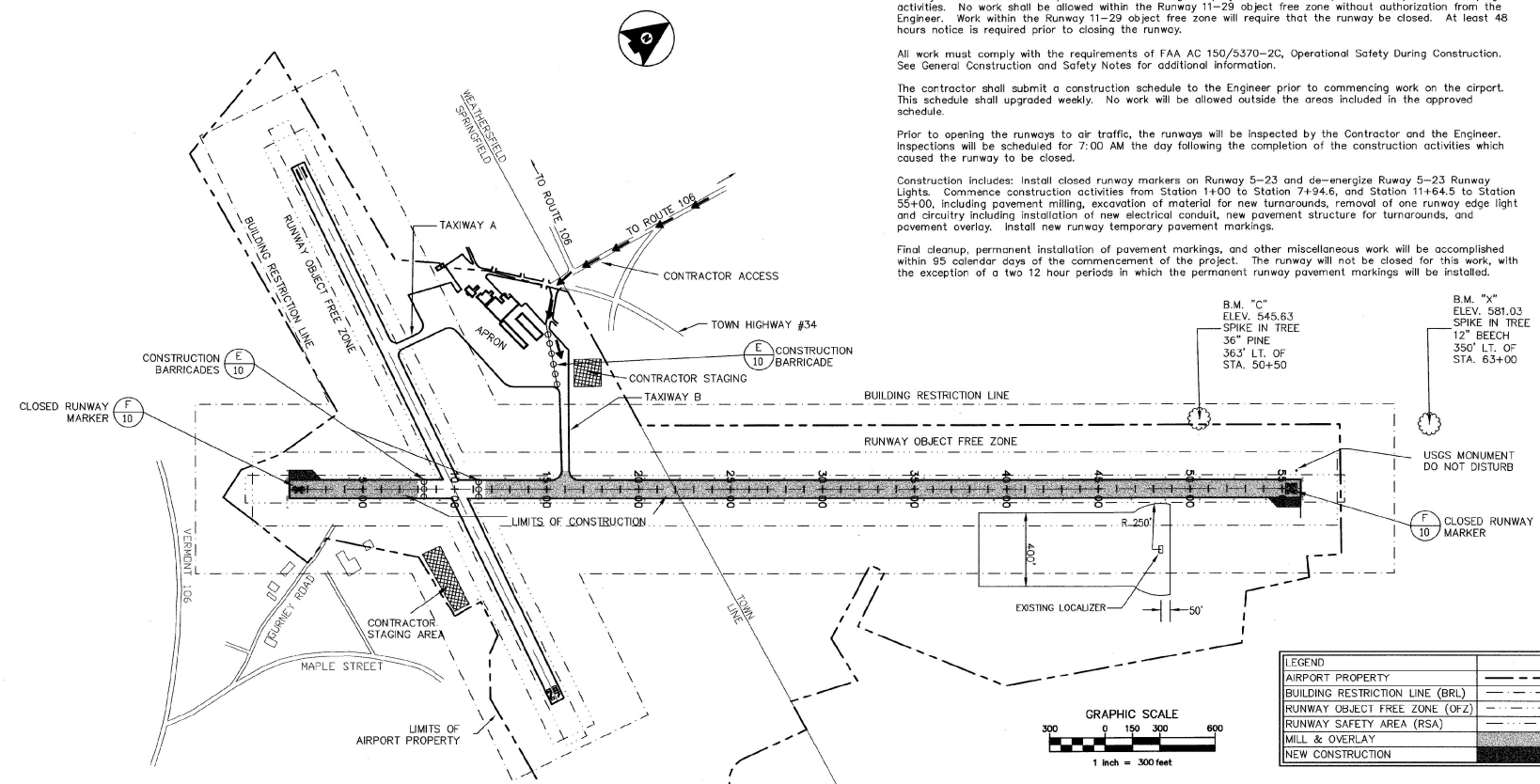
All work must comply with the requirements of FAA AC 150/5370-20, Operational Safety During Construction. See General Construction and Safety Notes for additional information.

The contractor shall submit a construction schedule to the Engineer prior to commencing work on the airport. This schedule shall be updated weekly. No work will be allowed outside the areas included in the approved schedule.

Prior to opening the runways to air traffic, the runways will be inspected by the Contractor and the Engineer. Inspections will be scheduled for 7:00 AM the day following the completion of the construction activities which caused the runway to be closed.

Construction includes: Install closed runway markers on Runway 5-23 and de-energize Runway 5-23 Runway Lights. Commence construction activities from Station 1+00 to Station 7+94.6, and Station 11+64.5 to Station 55+00, including pavement milling, excavation of material for new turnarounds, removal of one runway edge light and circuitry including installation of new electrical conduit, new pavement structure for turnarounds, and pavement overlay. Install new runway temporary pavement markings.

Final cleanup, permanent installation of pavement markings, and other miscellaneous work will be accomplished within 95 calendar days of the commencement of the project. The runway will not be closed for this work, with the exception of a two 12 hour periods in which the permanent runway pavement markings will be installed.



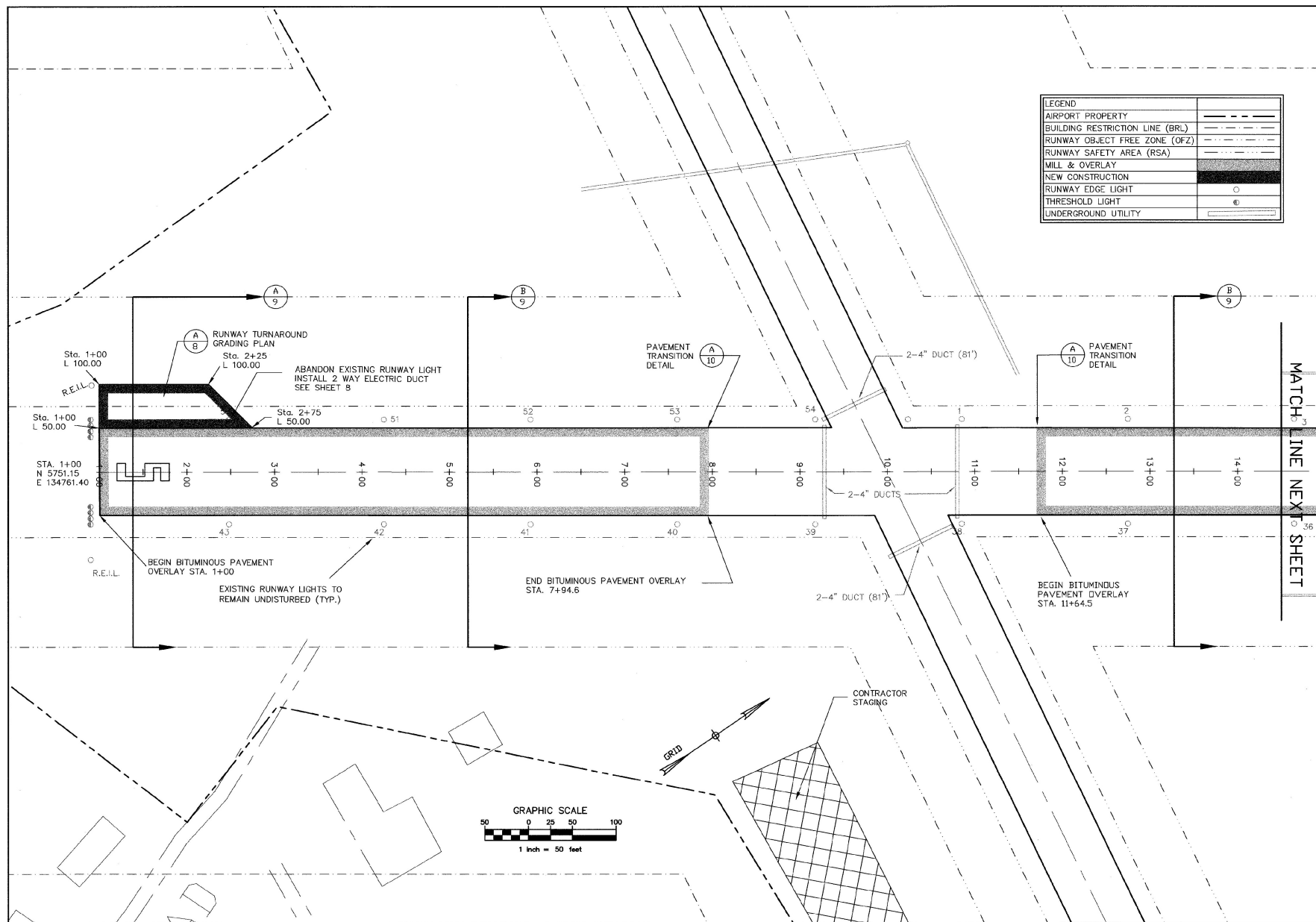
Project No.	By	Date
Description	Rev.	

CONSTRUCTION PHASING PLAN



Project No.	BRIDGE 01
Prop. Manager	ACC
Prop. Designer	GRN
Checked By	ACC
Drawn By	ACC
Stationed By	ACC
Approved	ACC
Date	MAY 2000

1. Vermont State Department of Transportation, 2. Planning, Design, Construction, and Maintenance, Consulting Engineers, Inc., 3. Design, 1995. 4. Vermont State Department of Transportation, 5. Planning, Design, Construction, and Maintenance, Consulting Engineers, Inc., 6. Design, 1995. 7. Vermont State Department of Transportation, 8. Planning, Design, Construction, and Maintenance, Consulting Engineers, Inc., 9. Design, 1995. 10. Vermont State Department of Transportation, 11. Planning, Design, Construction, and Maintenance, Consulting Engineers, Inc., 12. Design, 1995.



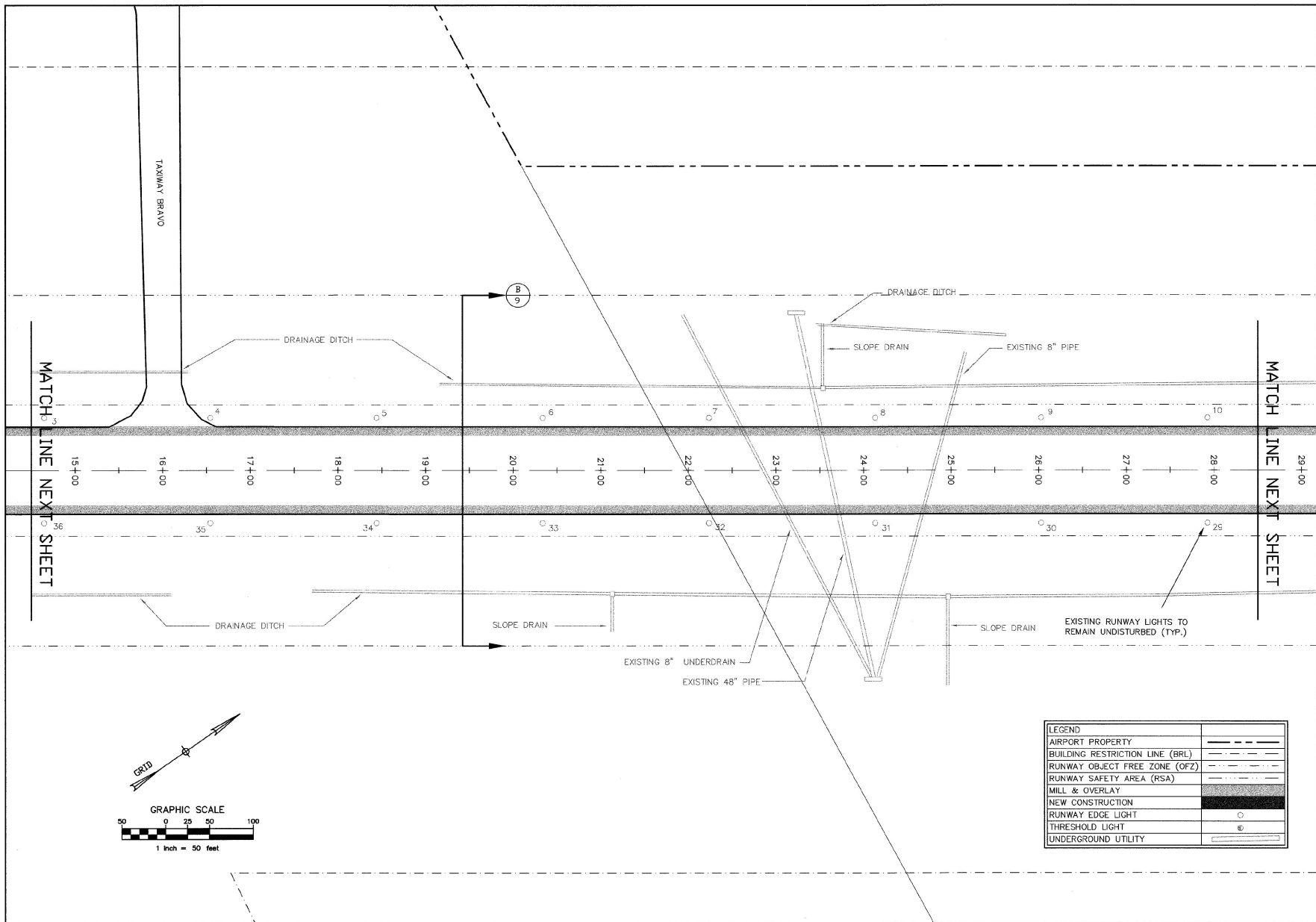
MATCH LINE NEXT SHEET

HARTNESS STATE AIRPORT
VAOT EA 043137

RUNWAY PAVING PLAN
STA 1+00 TO STA 14+50

Project No.	8180049.01
Proj. Manager	MLC
Proj. Designer	GPR
Drawn By	GPR
Checked By	MLC
Scale	1"=50'
Approved	DCD

4

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VERMONT

RUNWAY PAVING PLAN
STA 14+50 TO STA 28+50

SPRINGFIELD

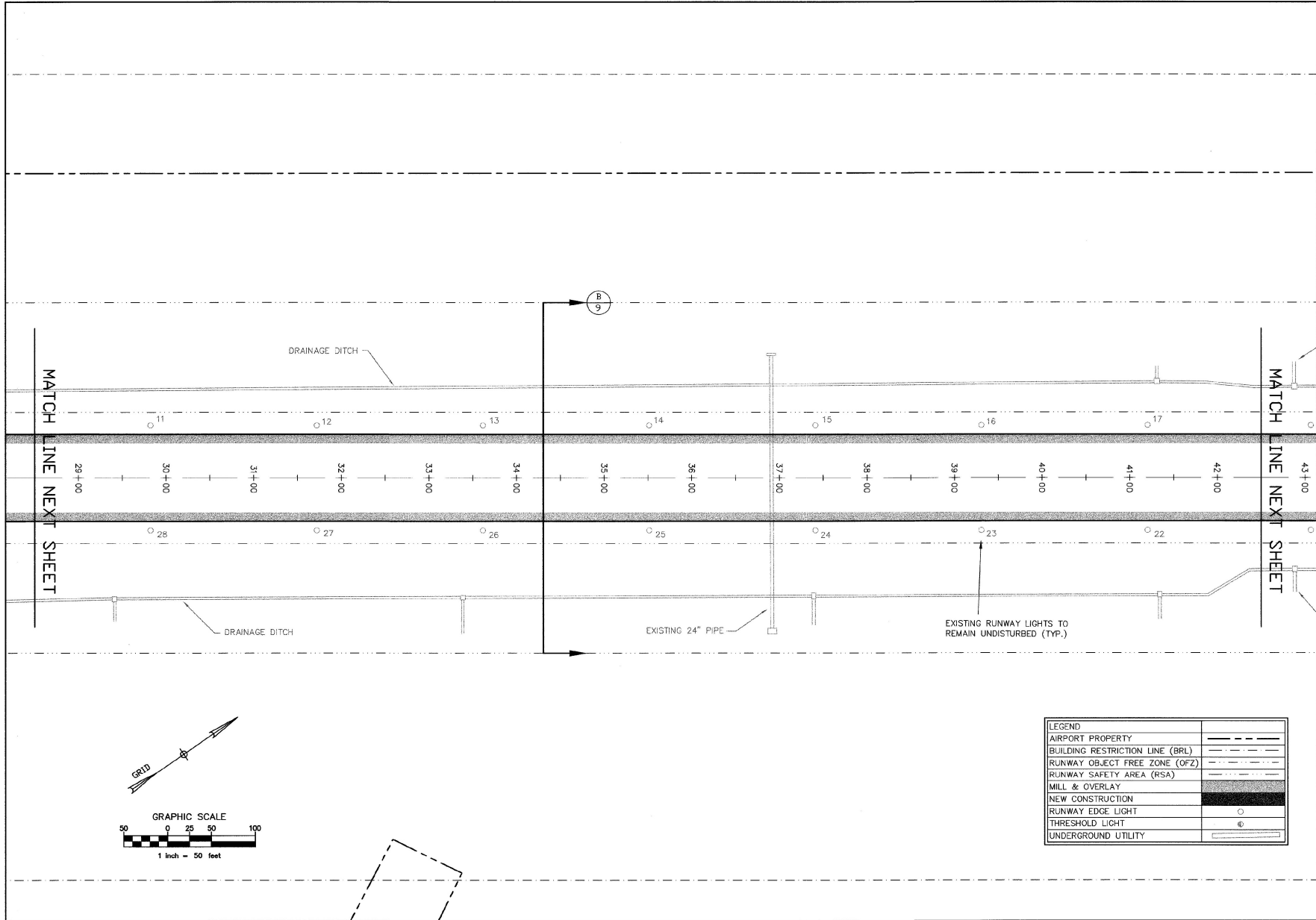


Project No.	8130049 01
Proj. Manager	MLC
Proj. Designer	GPR
Drawn By	GPR
Checked By	MLC
Scale	1"=50'
Approved	DCD
Date	MAY 2000

5

Sheet	5 of 12
D	SHEETS

D	SHEET5
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Legend

AIRPORT PROPERTY	---
BUILDING RESTRICTION LINE (BRL)	---
RUNWAY OBJECT FREE ZONE (OFZ)	---
RUNWAY SAFETY AREA (RSA)	---
MILL & OVERLAY	---
NEW CONSTRUCTION	---
RUNWAY EDGE LIGHT	○
THRESHOLD LIGHT	⊙
UNDERGROUND UTILITY	---

Project Information

Project No.	E1904621
Drawn By	MLC
Checked By	MLC
Scale	1"=50'
Date	MAY 2006

Runway Paving Plan

STA 28+50 TO STA 42+50

Revisions

Rev.	Description	By	Date

Match Lines

MATCH LINE NEXT SHEET

Match Lines

MATCH LINE NEXT SHEET

Scale

1 inch = 50 feet

North Arrow

GR10

Project Information

Project No.	E1904621
Drawn By	MLC
Checked By	MLC
Scale	1"=50'
Date	MAY 2006

Revisions

Rev.	Description	By	Date

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North Arrow

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Checked By	MLC
Scale	1"=50'
Date	MAY 2006

Revisions

Rev.	Description	By	Date

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Checked By	MLC
Scale	1"=50'
Date	MAY 2006

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Rev.	Description	By	Date

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Date	MAY 2006

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Checked By	MLC
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North Arrow

GR10

Project Information

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Drawn By	MLC
Checked By	MLC
Scale	1"=50'
Date	MAY 2006

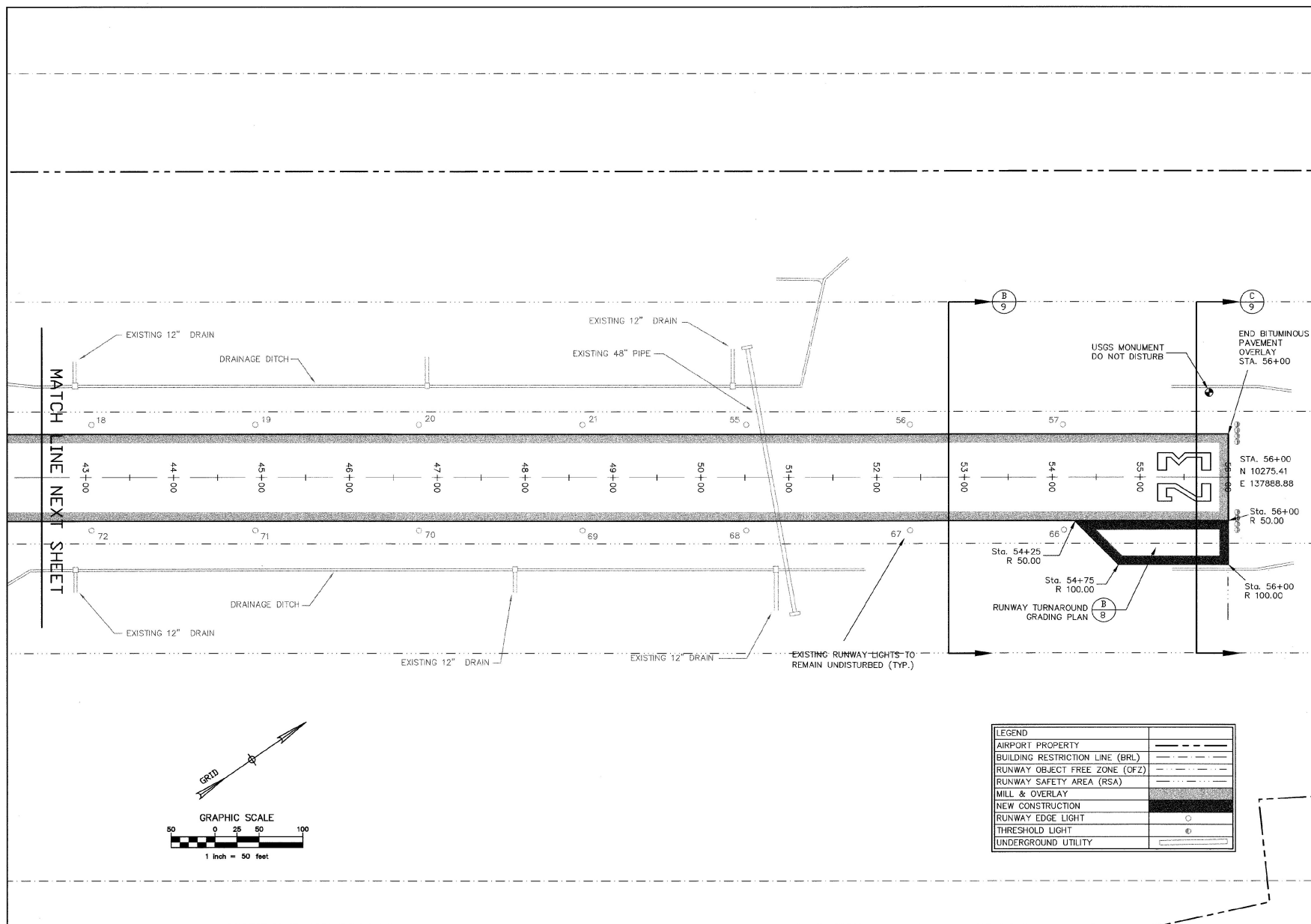
Revisions

Rev.	Description	By	Date

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HARTNESS STATE AIRPORT
VAOT EA 043137

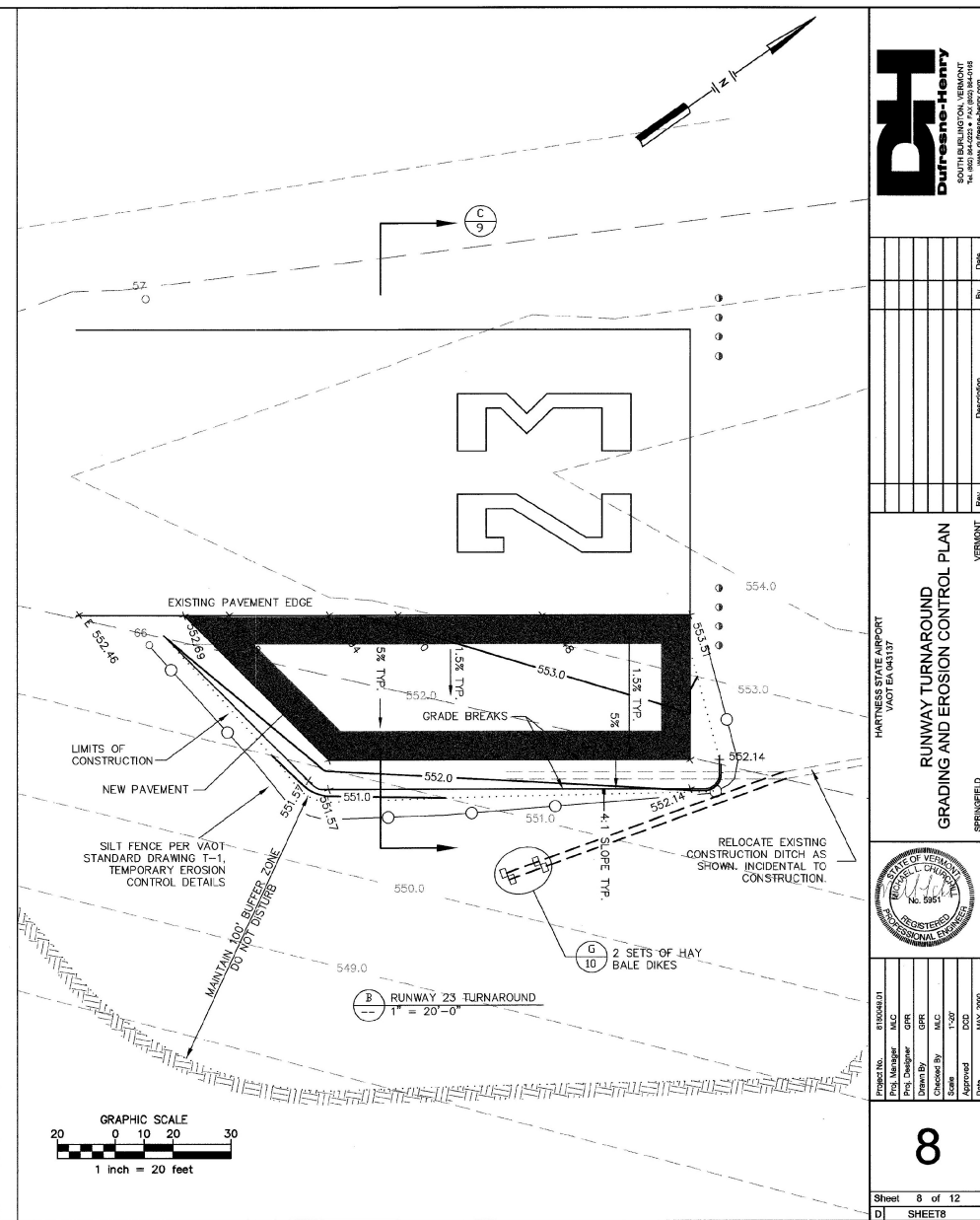
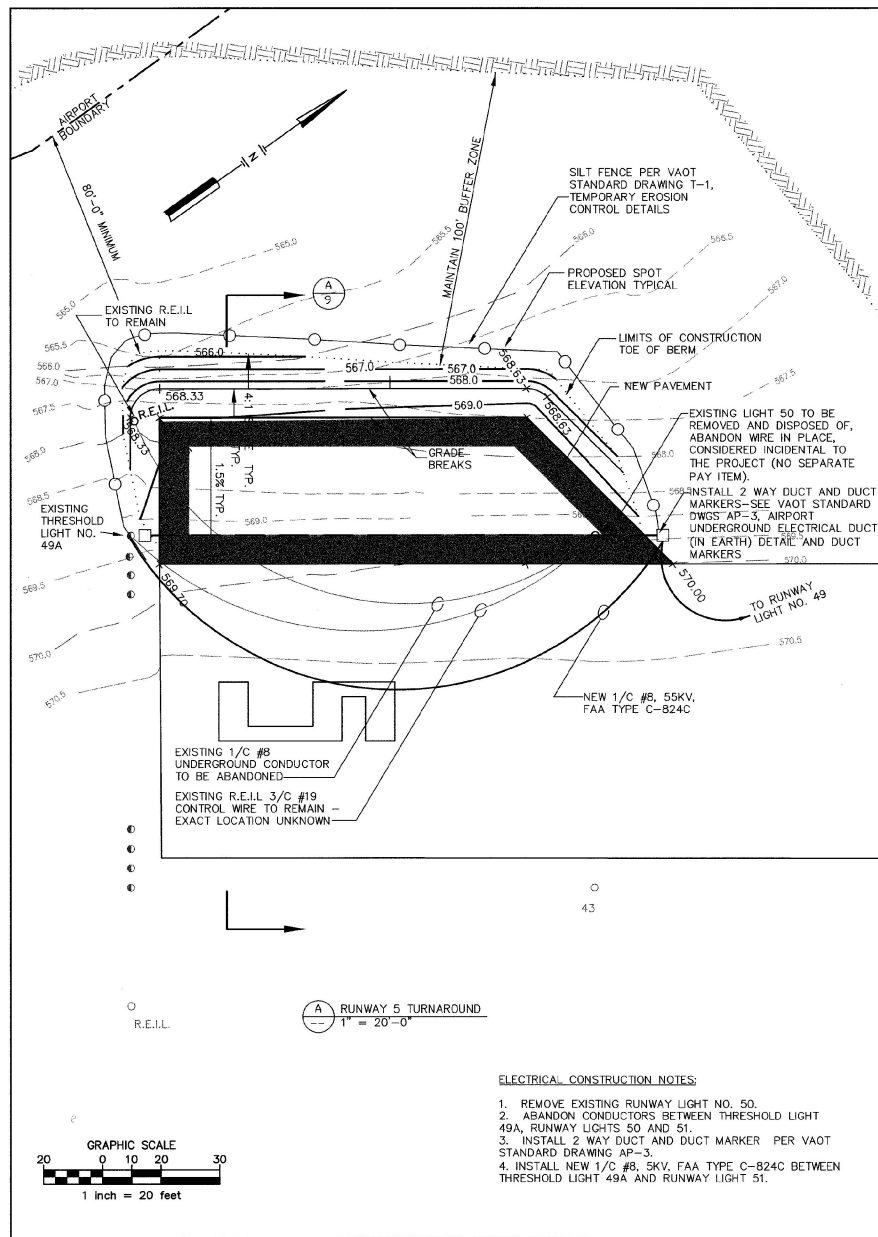
RUNWAY PAVING PLAN
STA 42+50 TO STA 56+00



Project No.	8160049.01
Proj. Manager	MLC
Proj. Designer	GPR
Drawn By	GPR
Checked By	MLC
Scale	1"=50'
Approved	DCD
Date	MAY 2000

7

N:\Projects\10000\10000 Runway Turnaround Grading Plan.dwg, Tue May 05 03:24:52 2009 Dufresne-Henry, Consulting Engineers
4P 03/24/2009 10:00C: Reedit-Parsons 10000 Runway Turnaround Grading Plan.dwg, Tue May 05 03:24:52 2009 Dufresne-Henry, Consulting Engineers



Project No.	By	Date
10000-01		
10000-02		
10000-03		
10000-04		
10000-05		
10000-06		
10000-07		
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10000-20		

HARTNESS STATE AIRPORT
VAOT EA 04137

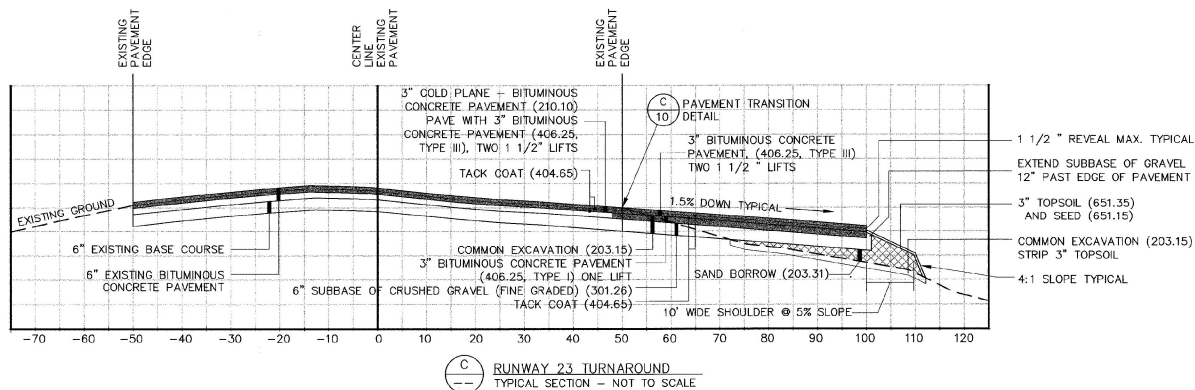
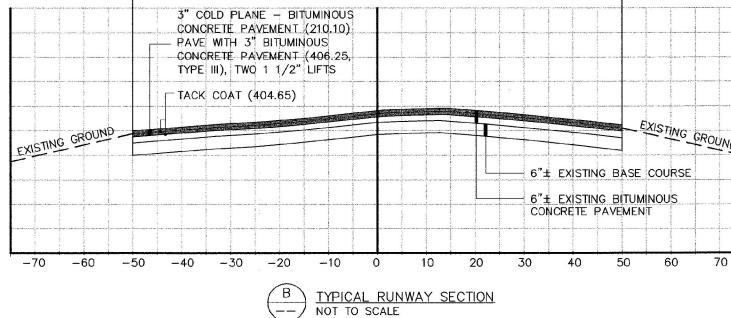
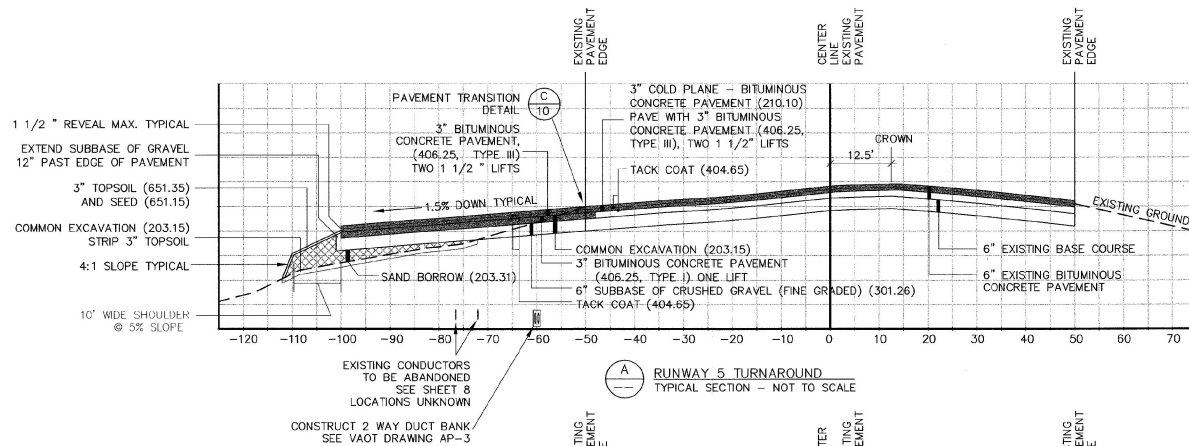
**RUNWAY TURNAROUND
GRADING AND EROSION CONTROL PLAN**

VERMONT
SPRINGFIELD



Project No.	10000-01
Drawn By	MAC
Checked By	MAC
Approved By	MAC
Date	MAY 2009

Sheet 8 of 12
D SHEET8



Rev.	Description	By	Date

HARTNESS STATE AIRPORT
 VDOT DRAWING
 TYPICAL SECTIONS



Project No.	150046521
Design Manager	MCC
Design Engineer	CCB
Check Engineer	MCC
Scale	AS SHOWN
Approved	DDC
Date	MAY 2009

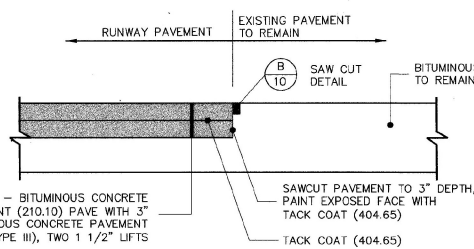
Date	By	Description	Rev.

DETAILS

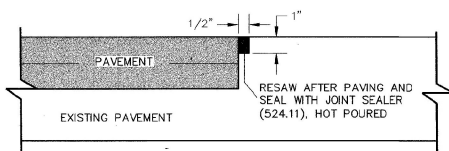
HARTNESS STATE REPORT
 VDOT 640.07



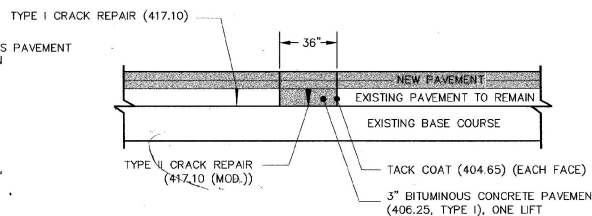
Project No.	651-0421
Proj. Manager	MLC
Proj. Engineer	GPS
Checked By	MLC
Drawn By	AS SHOWN
Scale	AS SHOWN
Approved	DDC
Date	MAY 2009



A EXISTING NEW PAVEMENT TRANSITION DETAIL
 NOT TO SCALE



B SAWCUT DETAIL
 NOT TO SCALE



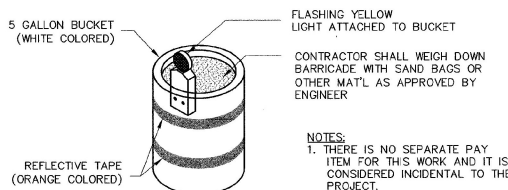
C TYPE I CRACK REPAIR (417.10)
 NOT TO SCALE

Note: Prior to placing new bituminous concrete pavement overlay, pavement cracks shall be sealed or repaired, as follows:

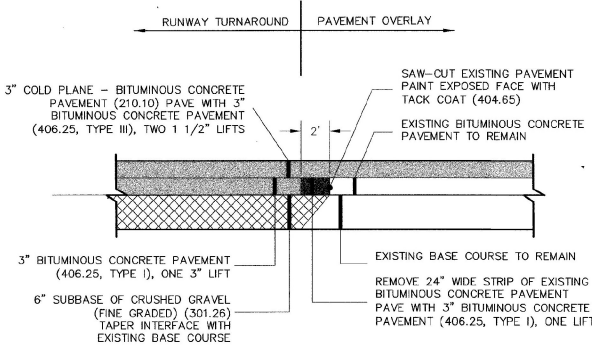
Type I Crack Repair: cracks less than 1/4" to 1 1/2" in width to be routed and sealed with hot poured joint sealing filler, payment to be made under Type I Crack Repair (417.10) per pound.

Type II Crack Repair: cracks over 1 1/2" in width shall be saw cut out, existing bituminous concrete pavement removed, saw cut surface shall be cleaned and tack coat applied, base material re-compacted, and bituminous concrete pavement replaced. Payment for the saw-cut and removal of existing bituminous concrete pavement on either side of the crack and base material re-compacted to be paid under Type II Crack Repair (417.10 (MOD.)) per square foot.

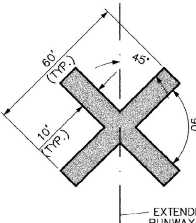
Repair determination of use of Type I or Type II crack repair will be as directed by the Resident Engineer.



D TYPICAL SAFETY BARRICADE (See Std. E-106)
 NOT TO SCALE



E RUNWAY TURNAROUND PAVEMENT TRANSITION
 NOT TO SCALE

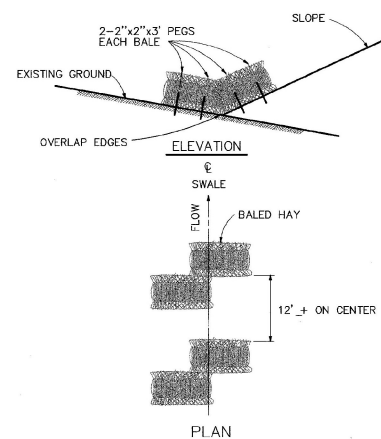


F CLOSED RUNWAY MARKER
 NOT TO SCALE

- MARKER NOTES:**
1. CLOSED RUNWAY MARKER TO BE IN PLACE DURING CONSTRUCTION PERIOD WHEN DIRECTED BY ENGINEER.
 2. CLOSED RUNWAY MARKER MAY BE EITHER SNOW FENCE OR PLYWOOD PAINTED YELLOW AND SECURELY FASTENED IN PLACE.
 3. COST OF PLACING AND MAINTAINING THE CLOSED RUNWAY MARKER IS CONSIDERED NECESSARY AND INCIDENTAL TO CONSTRUCTION AND IS NOT A SEPARATE PAY ITEM.
 4. CLOSED RUNWAY MARKER TO BE PLACED OVER RUNWAY NUMERALS OR ADJACENT TO RUNWAY END.

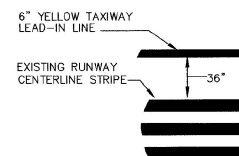
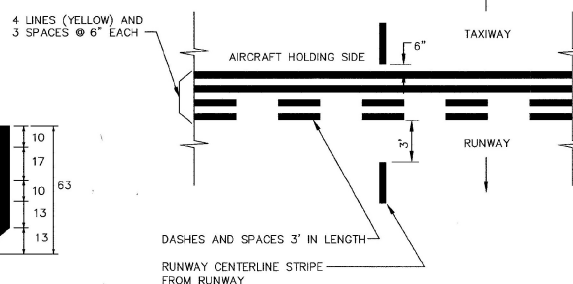
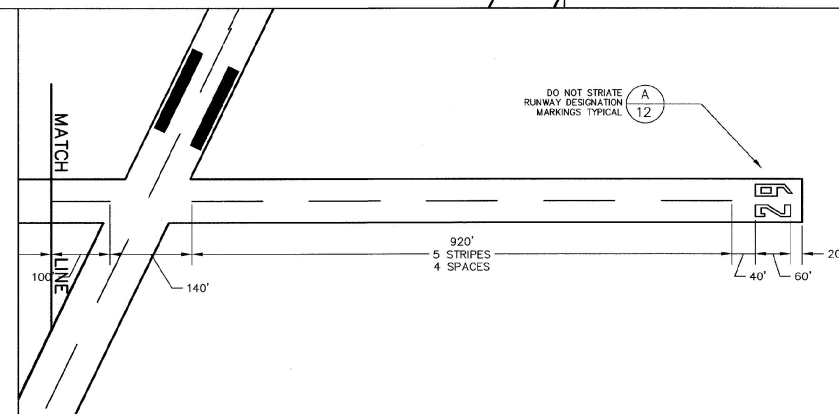
Erosion and Sediment Control Notes

1. The Contractor shall construct all erosion and sediment control measures per the approved plan and construction sequence; and shall have them inspected by the Engineer prior to beginning any other land disturbances. Minor sediment control device location adjustments may be made in the field with the approval of the Engineer. The Contractor must obtain prior approval for changes to the sediment control plan and/or sequence of construction.
2. The Contractor shall maintain all erosion and sediment control measures until such times as they are removed.
3. The Contractor shall apply seed and mulch, or other approved stabilization measures to all disturbed areas and stockpiles within forty eight (48) hours of final disturbance.
4. This erosion control plan shall be implemented on all disturbed areas within the construction site. All measures involving erosion control practices shall be installed in conformance with "The Vermont Handbook for Soil Erosion and Sediment Control on Construction Sites" as published by the Vermont Geological Survey.
5. During the period of construction activity, all erosion control measures shall be maintained by the Contractor. At the completion of construction, the Contractor shall coordinate the transfer of maintenance responsibilities, if required, to the Vermont Agency of Transportation (VAOT).
6. All temporary erosion and sediment control practices shall be removed and disposed of within thirty (30) calendar days after final site stabilization is achieved or after the temporary practices are no longer needed. Trapped sediment shall be stabilized or removed to prevent further erosion.
7. Erosion control devices removed during grading operations shall be put back in place at the end of the day or during inclement weather as directed by the Engineer.
8. If applicable, streams including bed and banks shall be stabilized immediately after channel work is completed, interrupted, or stopped.
9. No soil, rock debris, or any other material shall be dumped or placed into a water resource or into such proximity that it may readily slough, slip, or erode into a water resource unless such dumping or placing is authorized by the Engineer and, when applicable, the U.S. Army Corps of Engineers, for such purposes as, but not limited to, construction of bridges, culverts, and erosion control structures.
10. Permanent seeding shall be done between April 30 and September 15. If seeding is done at other times, it shall be classified as "temporary seeding". Permanent seed shall conform to the seeding mixture stated in the specifications. Temporary and permanent seeding shall consist of fertilizing, watering and seeding placed at rates in accordance with the specifications. Permanent seeding and mulching shall be paid for under 651.15 and 651.25 respectively. Temporary seed, mulch, and fertilizer for erosion and sediment control shall be placed in accordance with the specifications. No payment will be made for temporary seeding or mulching.
11. Surface drainage flows over unstabilized cut and fill slopes shall be controlled by either preventing drainage flows traversing the slopes or by installing protective devices to lower the water down slope without causing erosion. Dikes shall be installed and maintained at the top of cut or fill slopes until the slope and drainage area to it or fully stabilized, at which time they must be removed and final grading done to promote sheet flow drainage. Protective methods must be provided at points of concentrated flow where erosion is likely to occur.
12. All points of construction ingress and egress in unpaved areas shall be stabilized and protected to prevent tracking of mud onto public or private roadways.
13. If public or private roadways do accumulate debris, the Contractor shall use a power broom to remove the sediment to the satisfaction of the Engineer.
14. Salvaged topsoil will be placed on well drained land away from streams in accordance with approved erosion and sediment control measures. It shall be placed in neat piles. The Contractor will provide an adequate quantity of silt fence to control the perimeter of the stockpile. The Contractor, with the approval of the Engineer, may construct an earth dike in lieu of silt fence.
15. The Contractor shall be responsible for dust rising from construction operations. Dust control, using water, item 609.10 will be applied whenever dust is a problem or when ordered by the Engineer.



TO BE USED IN LOCATIONS WHERE THE EXISTING GROUND SLOPES IN TOWARD THE EMBANKMENT. BALES WILL BE ALLOWED TO ROT IN PLACE.

G BALED HAY EROSION CHECKS
 ITEM 651.26 - NOT TO SCALE



1. All Runway markings shall be white.
All Taxiway marking shall be yellow
2. Glass beads shall be FED SPEC TT-B-1325 Beads (Glass Spheres) Retroreflective.
3. All markings, except the Runway numerals and Taxiway Striping, shall be striated as shown. Spaces shall be reduced as necessary to ensure placement of stripes at outside edges of all markings. Striations shall run parallel to the Runway centerline.
4. All marking layout and new markings applications shall be performed in the presence of the Resident Engineer.
5. No markings shall be applied prior to approval of layout by the Engineer.
6. All permanent markings shall be applied in two separate 50% applications. The second application shall be applied 30 days after the first application.
7. Pavement markings shall be accomplished in accordance with the applicable phasing plan.

 RUNWAY DESCRIPTION NUMERALS
NOT TO SCALE

 HOLD POSITION MARKING
NOT TO SCALE

 LEAD-IN LINE AND CENTERLINE INTERSECTION
NOT TO SCALE

HARTNESS STATE AIRPORT
VAOT EA 043137

RUNWAY 11-29 MARKING PLAN VISUAL RUNWAY



Project No.	8180049.01
Proj. Manager	MLC
Proj. Designer	GPR
Drawn By	GPR
Checked By	MLC
Scale	1"=100'
Approved	DCD

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