

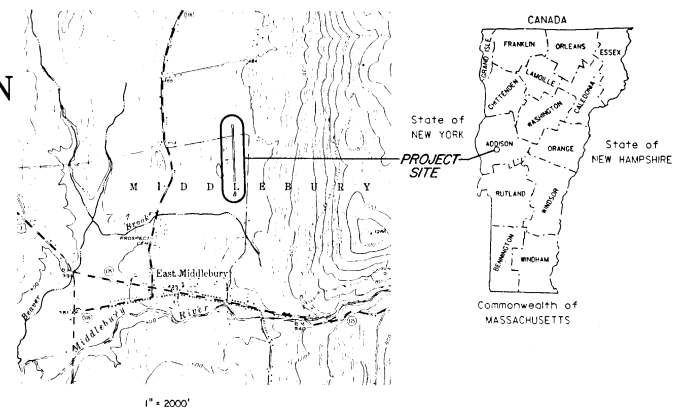
SUMMARY OF QUANTITIES			
BASE BID			
ITEM NO.	DESCRIPTION	UNITS	QUANTITY
203.17	UNCLASSIFIED EXCAVATION	CY	2000.00
203.28	EXCAVATION OF SURFACES & PAVEMENTS	CY	1.50
203.30	PARTY BORROW	CY	1400.00
203.32	GRANULAR BORROW	CY	2040.00
203.40	FINE GRADING SUBGRADE	SY	3140.00
204.20	TYPICAL EXCAVATION	CY	31.00
201.26	THICKNESS OF CRUSHED STONE	CY	805.00
404.65	EMULSIFIED ASPHALT PRIME COAT	TON	551.60
404.25	BITUMINOUS CONCRETE PAVEMENT	TON	30.00
501.20	CONCRETE CLASS C	CY	436.00
507.10	REINFORCING STEEL	LB	211.00
601.0015	10" C.S.P.	EA	5.00
601.0015	10" C.S.P.E.S.	EA	1.00
604.21	PRECAST REINFORCED CONCRETE MH	EA	1.00
604.21	CAST IRON MANHOLE - TYPE D	EA	1.00
613.10	STONE FILL - TYPE I	CY	2.00
635.10	MORILLIZATION	SY	230.00
649.20	CEMENTITIOUS FABRIC FOR SILT FENCE	LB	40.00
651.15	SEED	LB	330.00
651.18	FERTILIZER	TON	1.32
651.20	AGRICULTURAL LIMESTONE	TON	1.32
651.25	MAY MULCH	TON	1.32
651.35	TOPSOIL	CY	180.00
675.00	JOINT SEALANT - FUEL RESISTANT	GALE	5.00
1000.00	EXISTING TANK REMOVAL AND BACKFILL	LS	1.00
1001.00	PROPOSED TANK INSTALLATION	LS	1.00
1002.00	AVIATION FUELING CABINET	LS	1.00
1003.00	STRIPING & VALVE SUPPORTS	LS	1.00
1004.00	BALLAST & SURFACE PADS	LP	700.00
1005.00	LEAK DETECTION SYSTEM	LS	1.00
1006.00	TANK TESTING & START UP	EA	1.00
1007.00	TRENCHING AND ELECTRICAL CONDUITS	LS	1.00
1008.00	EXPOSURE PROOF PANEL BOARD	LS	1.00
1009.00	ELECTRICAL EQUIPMENT	LS	1.00
ADDITIVE ALTERNATIVE 1			
203.28	EXCAVATION OF SURFACES & PAVEMENTS	CY	1.00
404.25	BITUMINOUS CONCRETE PAVEMENT	TON	114.00
404.65	EMULSIFIED ASPHALT	TON	32.00

STATE OF VERMONT AGENCY OF TRANSPORTATION

PROPOSED IMPROVEMENT TOWN OF MIDDLEBURY COUNTY OF ADDISON

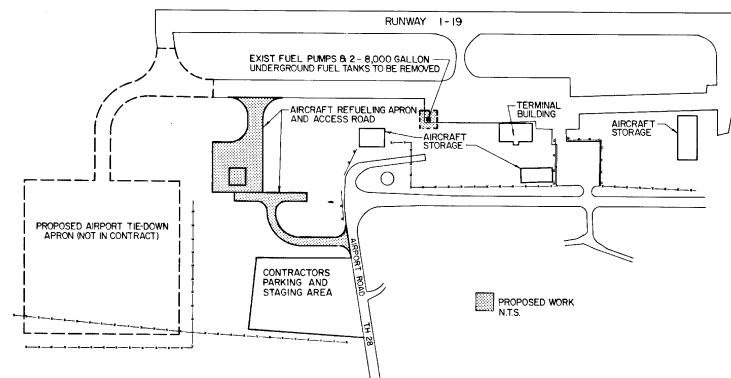
MIDDLEBURY STATE AIRPORT AVGAS FUELING SYSTEM

AIR 03-2069
JULY 1990



LEGEND

- BORING LOCATION
- EXISTING CONTOURS
- PROP CORRUGATED STEEL PIPE (C.S.P.)
- C.S.P. END SECTION (V.A.O.T. STANDARD D-4)
- STONE FILL OUTLET PROTECTION



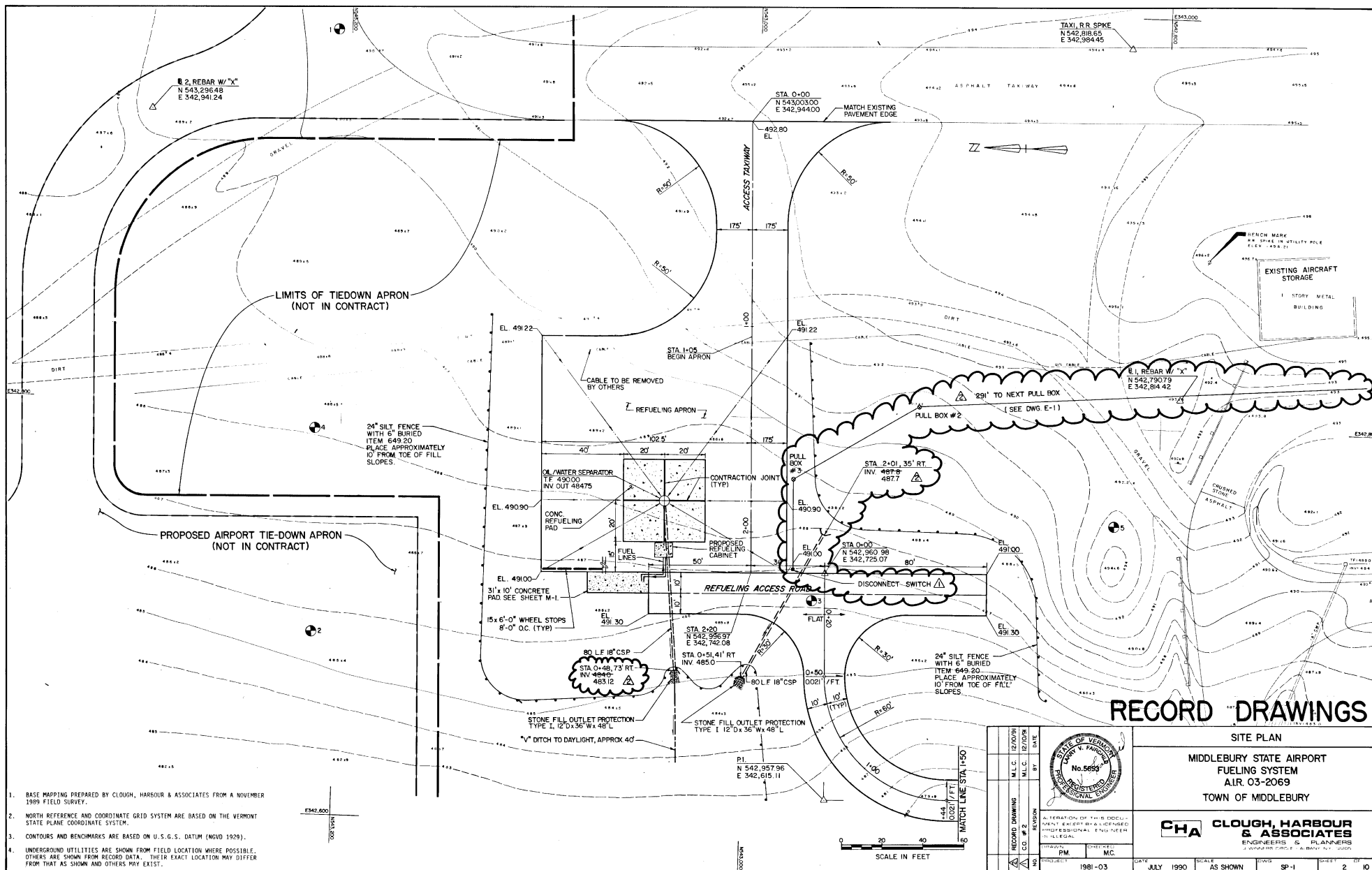
INDEX OF SHEETS		
TITLE	DATE	DRAWING NO.
TITLE SHEET	JULY 1990	-
SITE PLAN	JULY 1990	SP-1
SITE PLAN	JULY 1990	SP-2
TYPICAL SECTIONS	JULY 1990	TS-1
PROFILES	JULY 1990	PF-1
DETAILS	JULY 1990	D-1
APRON CROSS SECTIONS	JULY 1990	CS-1
ACCESS ROAD CROSS SECTIONS	JULY 1990	CS-2
STRIPING PLAN	JUNE 1991	S-1
TANK AND REFUELING CABINET PLAN	JULY 1990	M-1
ELECTRICAL PLAN	JULY 1990	E-1

RECORD DRAWINGS

CHA		CLOUGH, HARBOUR & ASSOCIATES		ENGINEERS & PLANNERS	
REV. NO.	DATE	DESCRIPTION	REV. NO.	DATE	DESCRIPTION
1	12.10.91	CHANGE ORDER # 2			
2	12.10.91	RECORD DRAWING			

C.H.A. PROJECT NO. 1981-03

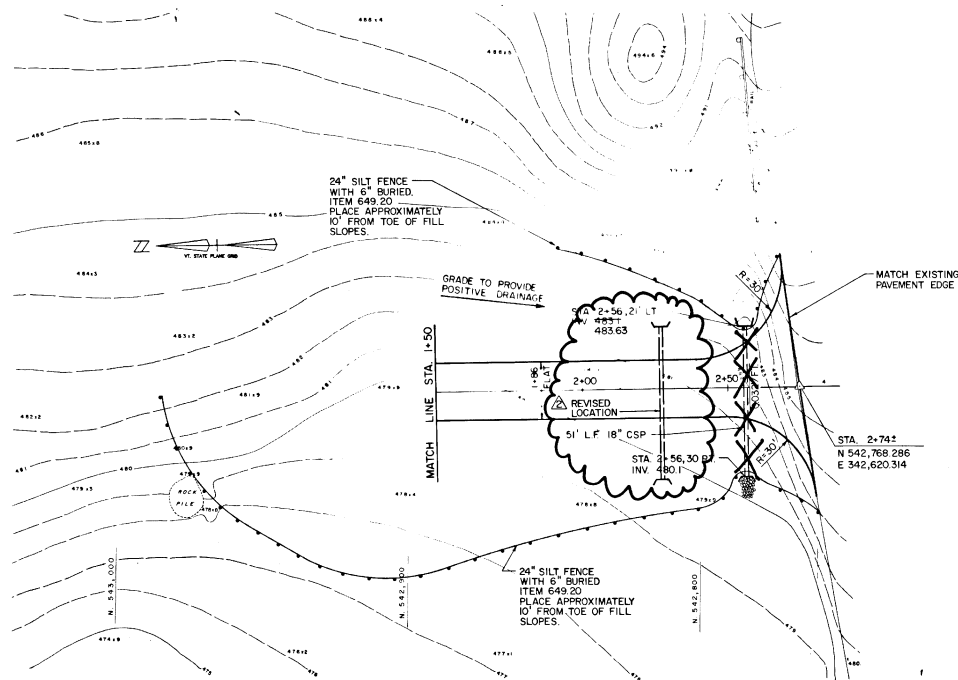




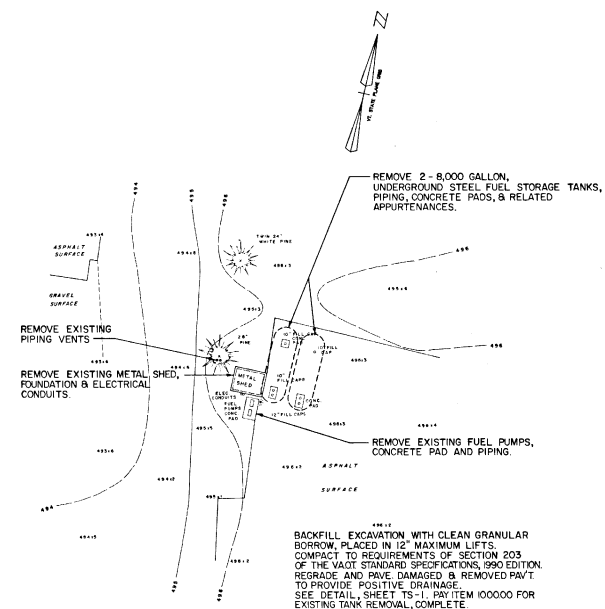
1. BASE MAPPING PREPARED BY CLOUGH, HARBOUR & ASSOCIATES FROM A NOVEMBER 1989 FIELD SURVEY.
2. NORTH REFERENCE AND COORDINATE GRID SYSTEM ARE BASED ON THE VERMONT STATE PLANE COORDINATE SYSTEM.
3. CONTOURS AND BENCHMARKS ARE BASED ON U.S.G.S. DATUM (NGVD 1929).
4. UNDERGROUND UTILITIES ARE SHOWN FROM FIELD LOCATION WHERE POSSIBLE. OTHERS ARE SHOWN FROM RECORD DATA. THEIR EXACT LOCATION MAY DIFFER FROM THAT AS SHOWN AND OTHERS MAY EXIST.

RECORD DRAWINGS

STATE OF VERMONT No. 5693 PROFESSIONAL ENGINEER				SITE PLAN MIDDLEBURY STATE AIRPORT FUELING SYSTEM AIR 03-2069 TOWN OF MIDDLEBURY			
ALTERNATION OF THIS DOCUMENT BY A LICENSED PROFESSIONAL ENGINEER IS UNLAWFUL				CHA CLOUGH, HARBOUR & ASSOCIATES ENGINEERS & PLANNERS 100 W. MAIN ST. SUITE 200 MIDDLEBURY, VT 05750			
RECORD DRAWING NO. 2 DATE 12/03/91 BY M.L.C.	CHECKED M.C.	DATE JULY 1990	SCALE AS SHOWN	SHEET 2	OF 10		



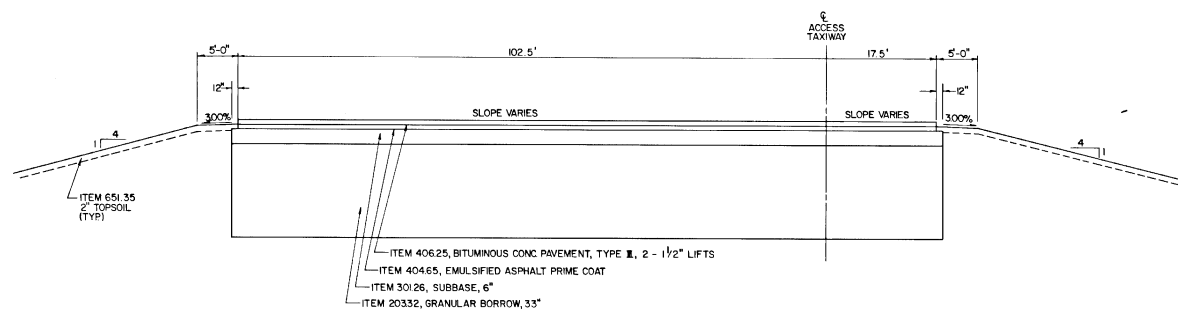
REFUELING ACCESS ROAD INTERSECTION
SCALE 1" = 20'



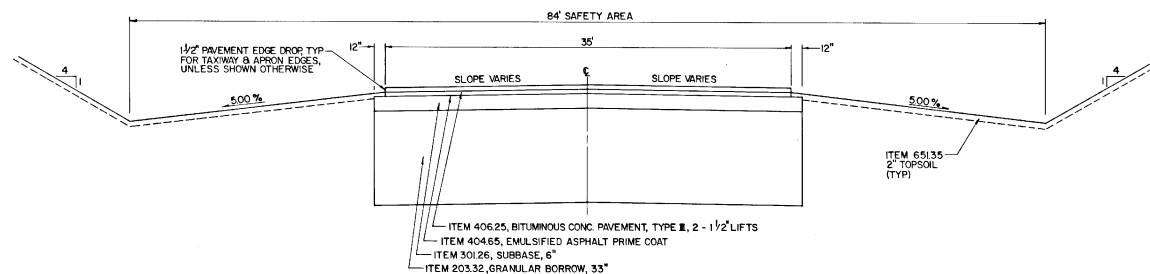
EXISTING STORAGE TANK REMOVAL PLAN
SCALE 1" = 20'

RECORD DRAWINGS

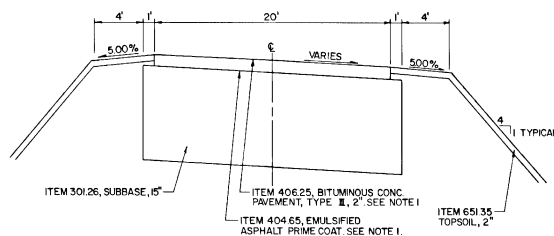
SITE PLAN MIDDLEBURY STATE AIRPORT FUELING SYSTEM AIR 03-2069 TOWN OF MIDDLEBURY		CLOUGH, HARBOUR & ASSOCIATES ENGINEERS & PLANNERS 3 WINDMILL CIRCLE, ALBANY, N.Y. 12208	
DATE 12/10/91 BY M.L.C. CHECKED M.C. PROJECT 1981-03	STATE OF VERMONT DEPARTMENT OF TRANSPORTATION No. 5553 REGISTERED PROFESSIONAL ENGINEER	ALTERNATION OF THIS DOCUMENT EXCEPT BY A LICENSED PROFESSIONAL ENGINEER IS ILLEGAL. DRAWN NEG PROJECT 1981-03	SCALE AS SHOWN DATE JULY 1990 SHEET 3 OF 10



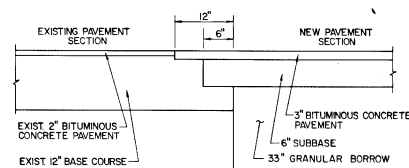
AIRCRAFT REFUELING APRON
NO SCALE



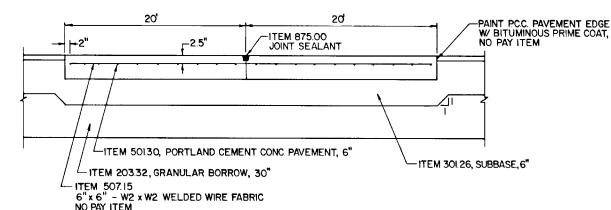
ACCESS TAXIWAY
NO SCALE



ACCESS ROAD
NO SCALE



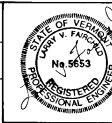
PAVEMENT CONNECTION DETAIL
NO SCALE



CONCRETE REFUELING PAD DETAIL
NO SCALE

NOTES:

1. ADDITIVE ALTERNATIVE 1 INCLUDES THE ASPHALT PRIME COAT AND BITUMINOUS CONCRETE PAVEMENT FOR THE REFUELING ACCESS ROAD.
2. ADDITIVE ALTERNATIVE 1 INCLUDES SAWCUTTING AND REMOVAL OF PAVEMENT FOR THE REFUELING ACCESS ROAD INTERSECTION.



TYPICAL SECTIONS

MIDDLEBURY STATE AIRPORT
FUELING SYSTEM
A.I.R. 03-2069
TOWN OF MIDDLEBURY

CHA **CLOUGH, HARBOUR
& ASSOCIATES**
ENGINEERS & PLANNERS
7 WINNERS CIRCLE • ALBANY, NY 12205

REVISION

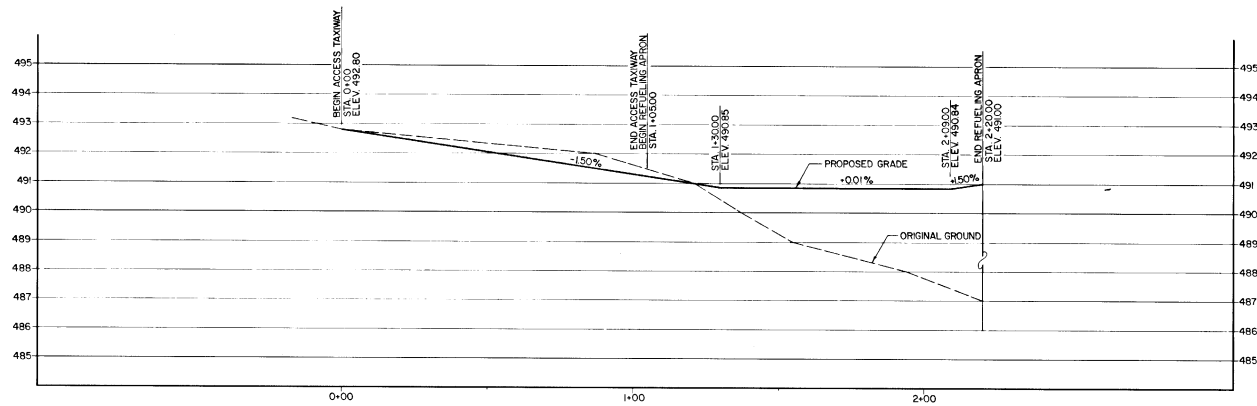
ALTERATION OF THIS DOCUMENT EXCEPT BY A LICENSED PROFESSIONAL ENGINEER

IS ILLEGAL	
DRAWN DM	CHECKED MC

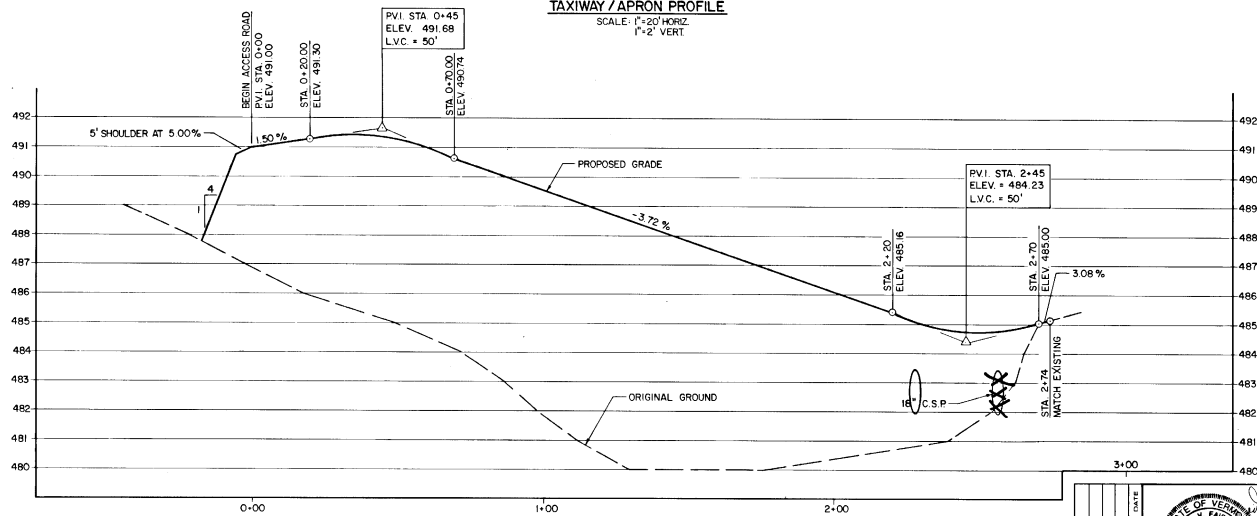
OZ	P.M.	MU.
	PROJECT 1981-03	

DATE	SCALE	DWG	SHEET	OF
JULY 1990	AS SHOWN	TS-1	4	10

RECORD DRAWINGS



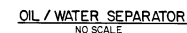
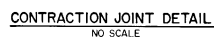
TAXIWAY / APRON PROFILE
SCALE: 1"=20' HORIZ.
1"=2' VERT.



REFUELING ACCESS ROAD PROFILE
SCALE: 1"=20' HORIZ.
1"=2' VERT.

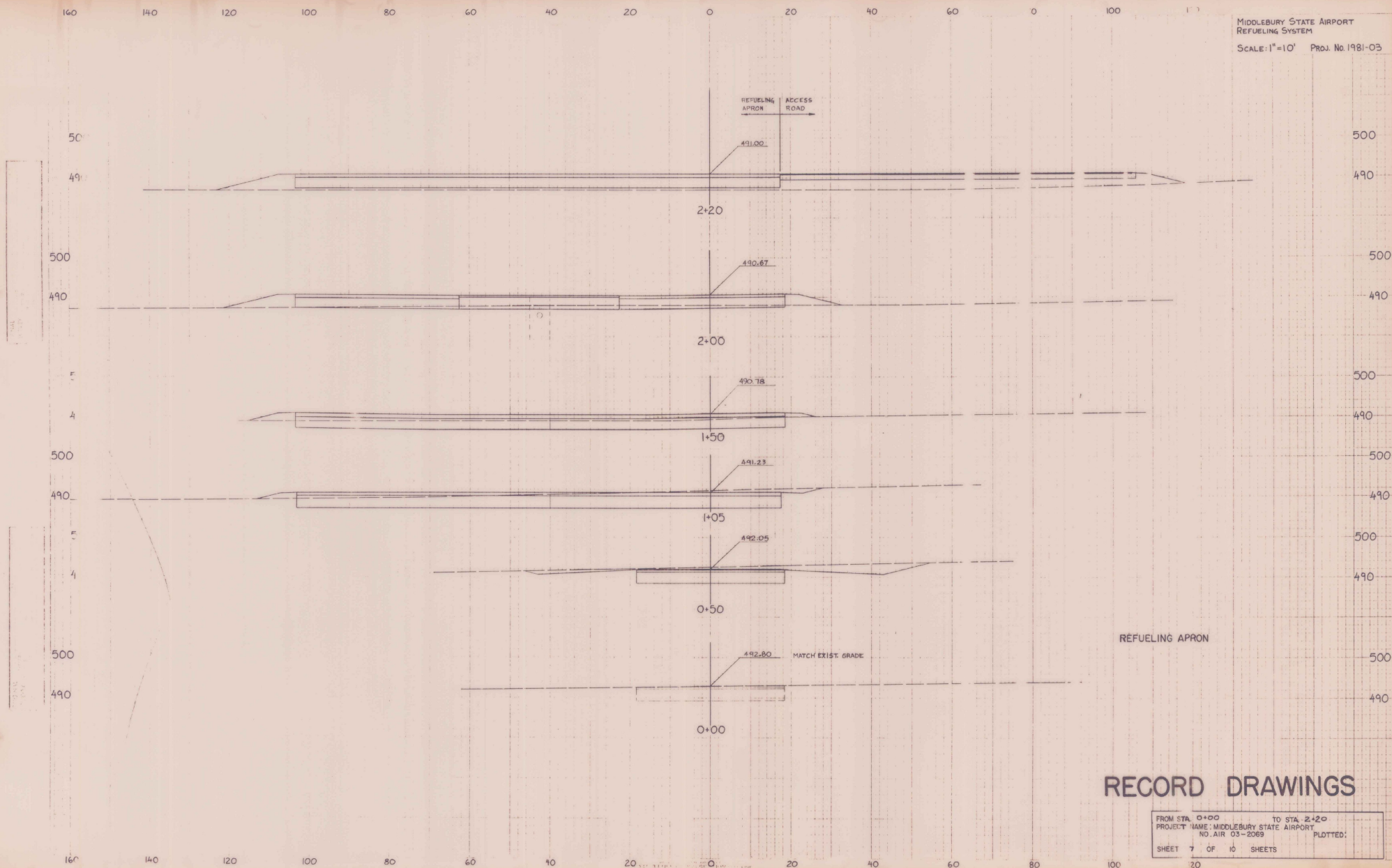
RECORD DRAWINGS		DATE		BY				PROFILES	
PROJECT		1981-03		DATE		JULY 1990		MIDDLEBURY STATE AIRPORT FUELING SYSTEM AIR. 03-2069 TOWN OF MIDDLEBURY	
DRAWN BY		PM		CHECKED BY		MC		CLOUGH, HARBOUR & ASSOCIATES ENGINEERS & PLANNERS 3 WARREN CIRCLE - ALBANY, N.Y. 12205	
SCALE		AS SHOWN		DWG		PF-1		SHEET 5 OF 10	

RECORD DRAWINGS



		REV. DATE		DETAILS			
				MIDDLEBURY STATE AIRPORT FUELING SYSTEM AIR 03-2069 TOWN OF MIDDLEBURY			
REVISION		ALTERATION OF THIS DOCUMENT BY ANY UNLICENSED PROFESSIONAL ENGINEER IS ILLEGAL.		CLOUGH, HARBOUR & ASSOCIATES ENGINEERS & PLANNERS 3 VICTORIA LANE • ALBANY, NY 12206			
		DRAWN: PM CHECKED: MC					
NO.	PROJECT	1981-03		DATE	SCALE	DWG.	SHEET
				JULY, 1990	AS SHOWN	1-	6 OF 10

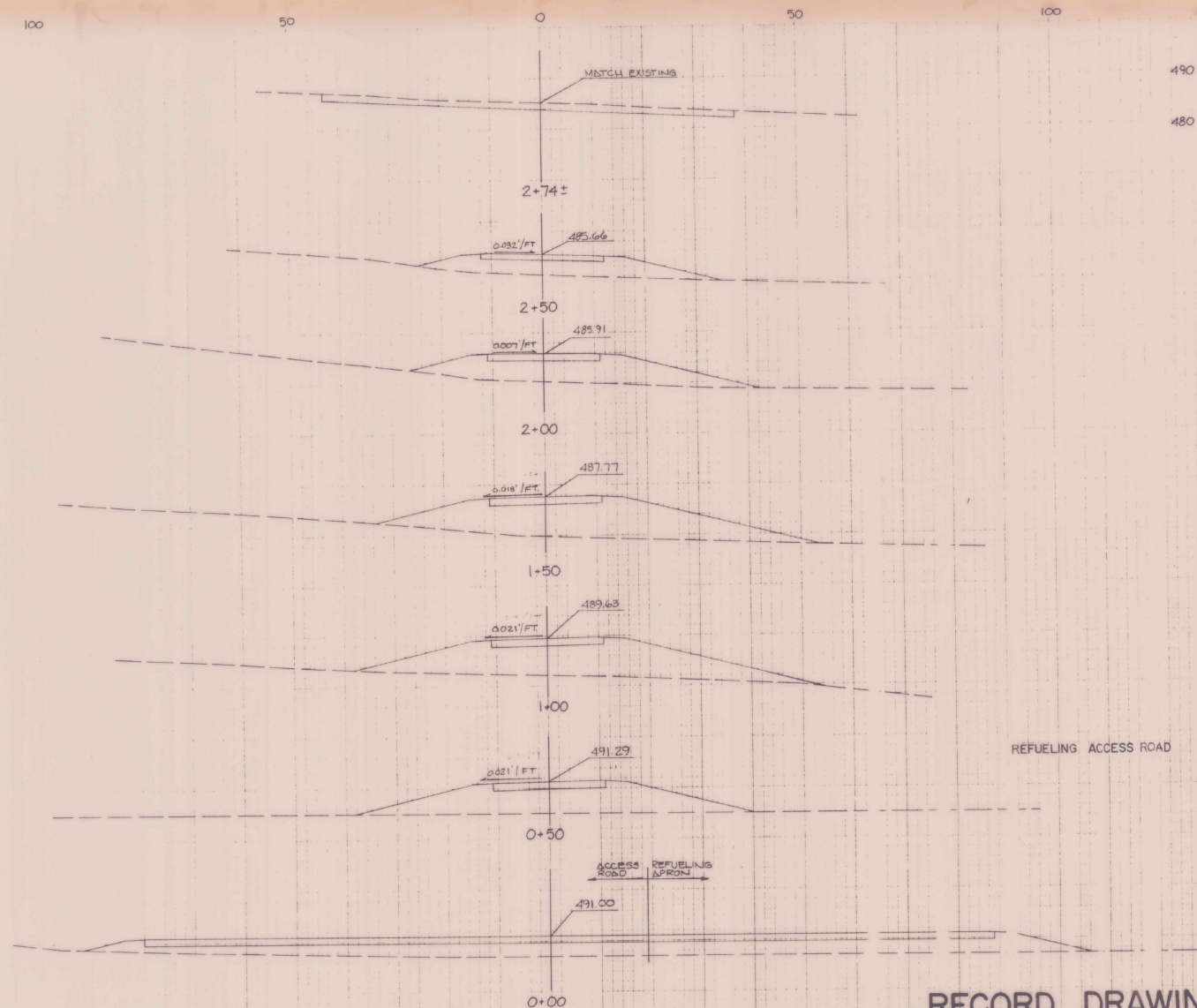
MIDDLEBURY STATE AIRPORT
REFUELING SYSTEM
SCALE: 1"=10' PROJ. No. 1981-03



RECORD DRAWINGS

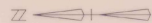
FROM STA. 0+00 TO STA. 2+20
PROJECT NAME: MIDDLEBURY STATE AIRPORT
NO. AIR 03-2089 PLOTTED:
SHEET 7 OF 10 SHEETS

MIDDLEBURY STATE AIRPORT
REFUELING SYSTEM
SCALE: 1" = 10' PROJ. NO. 1981-03



RECORD DRAWINGS

FROM STA. 0+00 TO STA. 2+74
PROJECT NAME: MIDDLEBURY STATE AIRPORT
NO. AIR 03-2089 PLOTTED:
SHEET 9 OF 10 SHEETS



TIE INTO EXISTING
6" STRIPING

TIE INTO EXISTING
6" STRIPING

R=75'

R=75'

6" CENTERLINE STRIPING

R=50'

R=30'

R=40'

R=40'

- NOTES
1. ALL STRIPING SHALL BE 6 INCH YELLOW PAINT CONFORMING TO VDOT STANDARD SPECIFICATION SECTION 708.08 FOR REGULAR DRY YELLOW TRAFFIC PAINT.
 2. CONTRACTOR SHALL COORDINATE STRIPING WITH AIRPORT PERSONNEL TO INSURE THAT AIRCRAFT DO NOT TAXI ACROSS THE STRIPING BEFORE IT DRIES.
 3. CONTRACTOR SHALL APPLY APPROXIMATELY 600 L.F. OF CENTERLINE STRIPING.

RECORD DRAWINGS

STRIPING PLAN

MIDDLEBURY STATE AIRPORT
FUELING SYSTEM
A.I.R. 03-2069
TOWN OF MIDDLEBURY

CHA CLOUGH, HARBOUR
& ASSOCIATES
ENGINEERS & PLANNERS
25 AVIATION RD. - ALBANY, N.Y. 12205



ALTERATION OF THIS DOCUMENT
BY ANY OTHER THAN THE
REGISTERED PROFESSIONAL ENGINEER
IS ILLEGAL

DESIGNED BY: PM
CHECKED BY: MC

PROJECT: 1981-03

DATE: JUNE 1991

SCALE: AS SHOWN

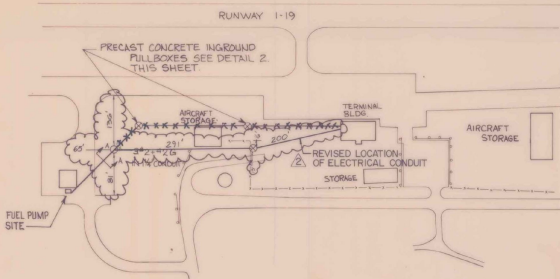
CONTRACT: S-1

SHEET: 8A OF 10

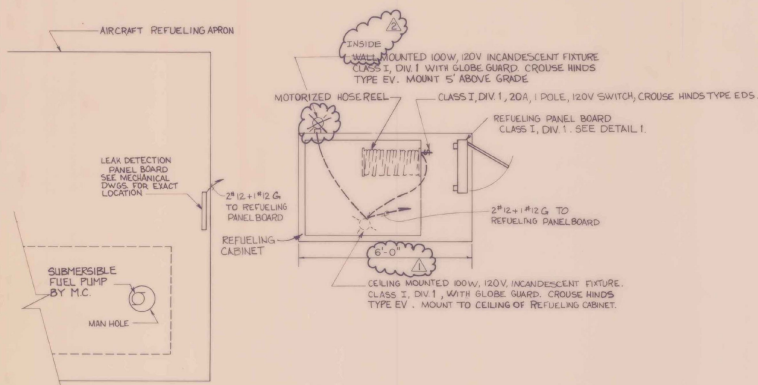
0 20 40 60
SCALE IN FEET

3. REINFORCEMENT FOR SURFACE PAD SHALL BE 6" x 6"
- W2 x W2 WWF, 2" MINIMUM COVER.

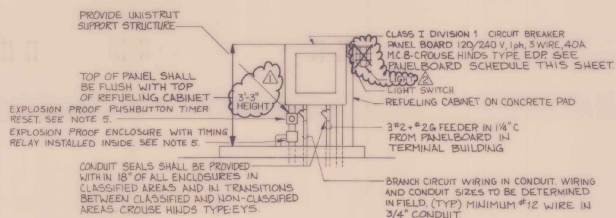
RECORD DRAWINGS		DATE		TANK AND REFUELING CABINET PLAN	
M.L.C.	12/20/79	DATE		MIDDLEBURY STATE AIRPORT	
BY		DATE		FUELING SYSTEM	
		DATE		A.I.R. 03-2069	
ALTERATION OF THIS DOCUMENT, EXCEPT BY A LICENSED PROFESSIONAL ENGINEER, IS ILLEGAL.		DATE		TOWN OF MIDDLEBURY	
PROJECT J.U.P.		 CLOUGH, HARBOUR & ASSOCIATES ENGINEERS & PLANNERS 3 WINNERS CIRCLE, ARLING N.H. 12253, 515-453-4300		DATE	
NO.	1	DATE	1981-03	SCALE	M-1
SHEET J.U.P.		DATE	July 1990	SCALE	AS SHOWN
PROJECT 1981-03		DATE		SCALE	M-1
SHEET J.U.P.		DATE		SCALE	M-1
PROJECT 1981-03		DATE		SCALE	M-1
SHEET J.U.P.		DATE		SCALE	M-1
PROJECT 1981-03		DATE		SCALE	M-1
SHEET J.U.P.		DATE		SCALE	M-1
PROJECT 1981-03		DATE		SCALE	M-1
SHEET J.U.P.		DATE		SCALE	M-1
PROJECT 1981-03		DATE		SCALE	M-1
SHEET J.U.P.		DATE		SCALE	M-1
PROJECT 1981-03		DATE		SCALE	M-1
SHEET J.U.P.		DATE		SCALE	M-1
PROJECT 1981-03		DATE		SCALE	M-1
SHEET J.U.P.		DATE		SCALE	M-1
PROJECT 1981-03		DATE		SCALE	M-1
SHEET J.U.P.		DATE		SCALE	M-1
PROJECT 1981-03		DATE		SCALE	M-1
SHEET J.U.P.		DATE		SCALE	M-1
PROJECT 1981-03		DATE		SCALE	M-1
SHEET J.U.P.		DATE		SCALE	M-1
PROJECT 1981-03		DATE		SCALE	M-1
SHEET J.U.P.		DATE		SCALE	M-1
PROJECT 1981-03		DATE		SCALE	M-1
SHEET J.U.P.		DATE		SCALE	M-1
PROJECT 1981-03		DATE		SCALE	M-1
SHEET J.U.P.		DATE		SCALE	M-1
PROJECT 1981-03		DATE		SCALE	M-1
SHEET J.U.P.		DATE		SCALE	M-1
PROJECT 1981-03		DATE		SCALE	M-1
SHEET J.U.P.		DATE		SCALE	M-1
PROJECT 1981-03		DATE		SCALE	M-1
SHEET J.U.P.		DATE		SCALE	M-1
PROJECT 1981-03		DATE		SCALE	M-1
SHEET J.U.P.		DATE		SCALE	M-1
PROJECT 1981-03		DATE		SCALE	M-1
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PROJECT 					



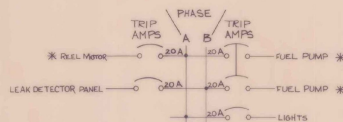
MIDDLEBURY AIRPORT LAYOUT
N.T.S.



REFUELING CABINET DETAIL
N.T.S.

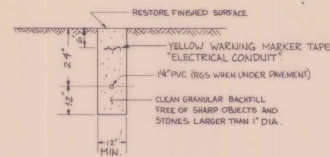


1 REFUELING PANEL BOARD
N.T.S.



* CIRCUIT BREAKER SIZES SHOWN ARE APPROXIMATE. COORDINATE ACTUAL WIRE AND CIRCUIT BREAKER SIZES WITH MANUFACTURER'S RECOMMENDATIONS.

PANEL BOARD SCHEDULE (SEE NOTE 2)
N.T.S.



A E-1 CONDUIT TRENCH
SCALE 1/2" = 1'-0"

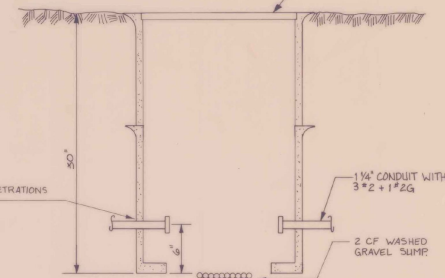
LEGEND

- \$ LIGHT SWITCH CLASS I, DIV II
- ⊗ INCANDESCENT LIGHT FIXTURE CLASS I, DIV I
- ⊗ CONCRETE INGROUND PULLBOX

NOTES:

1. PROVIDE 3" 2-1/2" 2G IN 1/4" C FROM EXISTING PANELBOARD IN TERMINAL BUILDING TO NEW REFUELING PANELBOARD AT FUEL PUMP SITE. PROVIDE 240V, 2P, 60A, CIRCUIT BREAKER IN EXISTING PANELBOARD FOR FEEDER CIRCUIT BREAKER. SHALL MATCH EXISTING PANELBOARD APPROXIMATE LENGTH OF RUN IS 700'.
2. VERIFY SPECIFICATIONS FOR FUEL PUMP AND REEL MOTOR COORDINATE WITH PANELBOARD CIRCUIT BREAKERS BEFORE INSTALLING TO ENSURE PROPER MOTOR & CIRCUIT PROTECTION.
3. PROVIDE ALL NECESSARY POWER AND CONTROL WIRING PER MANUFACTURER'S RECOMMENDATIONS AND THE LATEST ISSUE OF THE NATIONAL ELECTRICAL CODE, FOR HOSE REEL, MOTOR AND FUEL PUMP MOTOR INSTALLATION. PROVIDE ALL NECESSARY EQUIPMENT (i.e. DISCONNECT SWITCH, OVERLOAD RELAY, FUSES, CONTROL TRANSFORMERS, ETC.) TO INSURE FULL OPERATION OF MOTORIZED EQUIPMENT AND ELECTRICAL DEVICES. FUSES SHALL BE SIZED TO PROTECT MOTOR FROM OVERLOAD AND SHORT CIRCUIT.
4. PROPERLY SEAL AROUND ALL EXTERIOR CONDUIT PENETRATIONS IN BUILDINGS TO ENSURE WATERTIGHT CONDITIONS.
5. PROVIDE UNIVERSAL TIMER, ADJUST 50000, IN 6" 6" 4" D EXPLOSION PROOF ENCLOSURE TIMER SHALL BE INSTALLED TO ALLOW REFUELING PUMP TO OPERATE ONLY FOR OWNER SPECIFIED TIME INTERVAL. EXPLOSION PROOF PUSHBUTTON RESET SWITCH SHALL BE INSTALLED TO RESET TIMER SO THAT REFUELING PUMP MAY OPERATE FOR SAME OWNER SPECIFIED TIME INTERVAL. COORDINATE RELAY OPERATING VOLTAGE, CONTACT RATING AND PUSHBUTTON WITH REFUELING PUMP CONTROL VOLTAGE. ALL WIRING, CONDUIT, FUSES, CONTROL TRANSFORMER, ETC., AS NECESSARY FOR OPERATION AS SPECIFIED ABOVE. PROVIDE PLASTIC LAMINATED NAMEPLATE EXPLAINING TIMING AND RESET SEQUENCE AND INSTALL PER OWNER'S REQUEST.

15'x 24'x 30" INGROUND PULLBOX-QUAZITE 1/2" STYLE STACKABLE PULLBOX. STACK AS NECESSARY TO PROVIDE 30" DEPTH. BOND METAL COVER FRAME TO GROUND WIRE.



2 INGROUND PULLBOX
N.T.S.

PROJECT 198- DATE MAY 1990 SCALE AS SHOWN DWG. E-1 SHEET 10 OF 10		ELECTRICAL PLAN MIDDLEBURY STATE AIRPORT FUELING SYSTEM TOWN OF MIDDLEBURY	
RECORD DRAWINGS EXHIBIT 2 DATE 12/2/91 BY M.L.C. NO. 5563 PROFESSIONAL ENGINEER		ALTERATION OF THIS DOCUMENT, EXCEPT BY A LICENSED PROFESSIONAL ENGINEER, IS ILLEGAL. CHA CLOUGH, HARBOUR & ASSOCIATES ENGINEERS & PLANNERS 3 WINNERS CIRCLE, ALBANY N.Y. 12205/ 518-453-4500	

RECORD DRAWINGS