STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROPOSED IMPROVEMENT

FEDERAL AID SECONDARY

TOWN OF CRAFTSBURY

COUNTY OF ORLEANS

STATE AID HIGHWAY NO. 3

INDEX OF SHEETS

1.	Title Sheet	
2.	Typical (Bit.Surf.Treatment, Type V)	
3-4.	Quantity Sheets	
5.	Blank	
6.	Item Detail and Drainage Sheet	
7-8.	Earthworks	
9.	Stone Fill and Approach Earthworks	
10.	Earthwork Summary	
11.	Blank	
12-22.	Plan and Profile Sheets	
23-25.	Blank	
26-32.	BR-100 Series (Bridge at Station 130+37.15)	

BRIDGE STANDARDS

33.	SCB-01-71	General Information
34.	SCB-06-71	Construction & Pile Details
35-37.	Blank	

ROADWAY STANDARDS

38.	A-61	Slopes in Solid Rock Excav. (Under 50 mph) 12/ 6/71
39.	Blank	
40.	B- 5	Typical Slope Rounding 12/ 6/71
41.	D- 2	Underdrain & Carrier Pipe Const. Details 3/ 8/72
42.	D- 3	Treated Gutters 12/ 6/71
43.	D- 4	Metal End Sections, Underdrain Flushing Basin 12/ 6/71
44.	D- 6	Reinf. Conc. Drop Inlet w/Grate (Ditches) 12/ 6/71
45.	D-11	Cast Iron Grate, Type A 1/25/72
46.	D-16	Cast Iron Grate, Type B 12/ 6/71
47.	E- 1	F.A. Const. Identification Signs 12/14/71
48.	E- 2	Approach Signs, Road Construction 12/14/71
49.	E- 3	Approach Signs, Bridge Construction 12/14/71
50.	E- 6	On-Project Construction Signs 12/14/71
51.	E- 7	Barricades 12/14/71
52.	G-1a	Guard Rail, Heavy Duty St. Beam w/St. Posts, Type I 12/ 8/71
53.	G- 4	Wood Marker Post and Wood Guide Posts 12/ 8/71
54.	G-6a	Guard Rail, Three Cable w/Light Wood Posts 12/ 8/71
55.	J- 1	Project and Boundary Markers 12/ 6/71
56-58.	Blank	
59-93.	Sections	
94.	Approach at 107+50 Lt	
95.	Approach at 138+25.1 Rt.	
96.	Banking Diagrams	
97.	Blank	

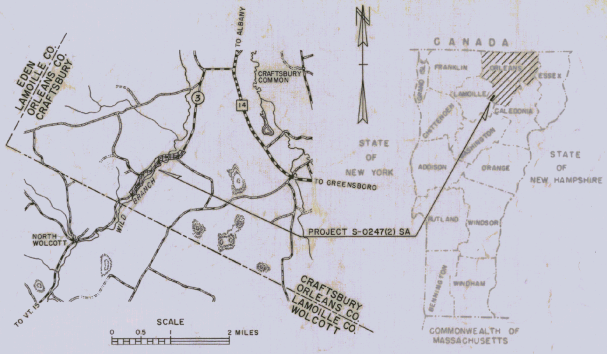
CRAFTSBURY S 0247(2) SA. PAVMT. AREA.
RECORD PLANS 15,034 S.Y.

MATERIALS

SUBBASE OF GRAVEL—R. SMITH PIT—CRAFTSBURY, VT.
BITUMINOUS CONCRETE PAVEMENT—L.M. PIKE—COVENTRY, VT.
ASPHALT—SHELL OF CANADA—MONTREAL, QUE.
SAND—ALBERT NADEAU—JOHNSON, VT.
CONCRETE CLASS A & B—CALKINS READI-MIX—COVENTRY, VT.
REINFORCING STEEL—K ROSS BUILDING SUPPLY CENTER INC.—LEBANON, N.H.
METAL CULVERT PIPES—NORTHEASTERN CULVERT CORP.—WESTMINSTER, VT.
CAST IRON GRATES—E.L. LEBARON FOUNDRY CO.—BROCKTON, MA. 1/24/72
GUARD RAIL ITEMS—GRISWOLD FENCE CO.—WILLISTON, VT. 12/14/71
SEED—E.T. & H.K. IDE INC.—ST. JOHNSBURY, VT.
FERTILIZER—OLD FOX CHEMICAL, INC.—LYNDONVILLE, VT.
STEEL PILING—VERMONT STRUCTURAL STEEL CORP. BURLINGTON, VT. 12/ 6/71
MEMBRANE WATER PROOFING-VERMONT SEAL COAT—BARRE, VT. 12/ 6/71
FIBERGLASS ROLLS—BURLINGTON INDUSTRIES-BURLINGTON, MA. 3/ 8/72
EMULSION—TRIRAM CORP.—FRAMINGHAM, MA. 12/ 6/71
EPOXY BONDING COMPOUND-DURAL & EPOXY MORTAR-DURAL INTERNATIONAL CORP.—DEER PARK, N.Y. 1/25/72

CONTRACTOR—CALEDONIA, INC.—ST. JOHNSBURY, VT. 12/ 8/71
RESIDENT ENGINEER—HERBERT J. WASHER.
INSPECTOR—DELVIN E. WARNER.
RECORD PLANS—A.G. SPIDLE.

CONTRACT
DATED—AUGUST 1, 1972.
STARTED—AUGUST 7, 1972.
COMPLETED—JUNE 29, 1973.
ACCEPTED—JUNE 29, 1973.



BEGINNING AT A POINT ON SA 3 APPROXIMATELY 0.32 MILES NORTHEASTERLY OF THE WOLCOTT CRAFTSBURY TOWN LINE AND EXTENDING NORTHEASTERLY 1.160 MILES.

LENGTH OF ROADWAY	6,074.47	FEET =	1.151	MILES
LENGTH OF BRIDGE	49.63	FEET =	0.009	MILES
LENGTH OF PROJECT	6,124.10	FEET =	1.160	MILES

1970 ADT = 190
1992 ADT = 300
1992 DHV = 45
D = 60
T = 5
V = 40



BENCH MARKS BASED ON USGS ELEVATIONS

CONVENTIONAL SIGNS

POINT OF ACCESS
LIMITS OF ACCESS
COUNTY LINE
TOWN LINE
FENCE LINE
STONE WALL
UNFENCED PROPERTY
GUARD RAIL
TRAVELED WAY
RAILROAD
RETAINING WALL
CENTER LINE
SURVEY LINE
CULVERT
DROP INLET
TROLLEY POLE
POWER POLE
TELEPHONE POLE
TREES
HEDGE
F.A. CONSTRUCTION IDENTIFICATION SIGNS

SLOPE RIGHTS

GROUND ELEVATION
GRADE ELEVATION

CURVE DATA

DEFLECTION OF ANGLE	Δ
DEGREE OF CURVE	D
RADIUS OF CURVE	R
TANGENT DISTANCE	T
LENGTH OF CURVE	L
EXTERNAL DISTANCE	E
POINT OF INTERSECTION	P.I.
POINT OF CURVE	P.C.
POINT OF TANGENT	P.T.
POINT ON TANGENT	P.O.T.
POINT ON SUB-TANGENT	P.O.S.T.
R.O.W. LIMITS	

SCALE
0 300 FEET

NOTE: ANY FURTHER INFORMATION CONCERNING FINAL QUANTITIES, AMOUNTS OR OTHER DETAILS RELATIVE TO THIS PROJECT MAY BE FOUND IN EITHER THE FIELD BOOKS OR THE ESTIMATE FILE.

FOR RIGHT OF WAY DETAILS SEE RIGHT OF WAY PLANS FOR THIS PROJECT.

THESE PLANS ARE SUBJECT TO SUCH REVISIONS AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE CHIEF ENGINEER.

CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED JANUARY 3, 1972 AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT APPROVED REVISIONS AND SUCH SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED _____
DIVISION ENGINEER DATE

APPROVED R.H. Arnold
CHIEF ENGINEER
DATE 5/26/72
SUBMITTED BY ORDER OF THE STATE HIGHWAY BOARD

PROJECT S NO. 0247 (2) SA
SHEET 1 OF 97 SHEETS

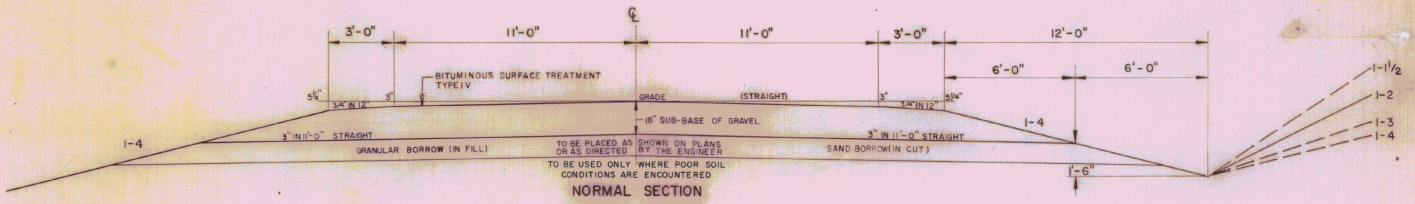
CRAFTSBURY S 0247(2) SA.
CONTRACTOR—CALEDONIA, INC.
ST. JOHNSBURY, VT.
RECORD PLANS—A.G. SPIDLE.
CONSTR. COMPLETED—JUNE 29, 1973.

RSA

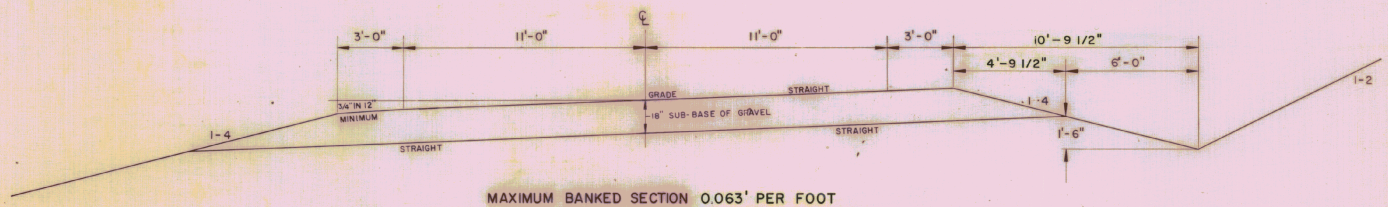
TYPICAL SECTIONS

BITUMINOUS SURFACE TREATMENT, TYPE IV (PRIME COAT ~~OF REFINED TAR; BLADE MIX OF PEA STONE AND CUTBACK ASPHALT AND SEAL COAT OF CUTBACK ASPHALT WITH STONE GRITS~~, ITEM 404 ~~.35)~~ .31) WITH SAND COVER

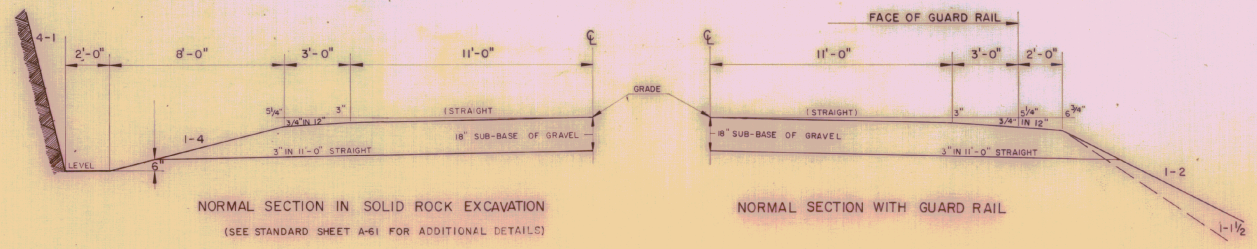
18" SUB-BASE OF GRAVEL
ITEM 301.15



NORMAL SECTION



MAXIMUM BANKED SECTION 0.063' PER FOOT



NORMAL SECTION IN SOLID ROCK EXCAVATION
(SEE STANDARD SHEET A-61 FOR ADDITIONAL DETAILS)

NORMAL SECTION WITH GUARD RAIL

GENERAL NOTES

SEED, ITEM 651.10
TO BE APPLIED AS DIRECTED BY THE ENGINEER

%WT.	LBS/A	NAME	PUR.%	GERM.%
41.67	25	CREEPING RED FESCUE	98	85
25.00	15	ALFALFA	99	85
8.33	5	RED TOP	92	85
16.67	10	PERENNIAL RYE GRASS	95	90
8.33	5	BIRDSFOOT TREFOIL (VAR. EMPIRE)	98	80
100.00	60			

THE SEED MIXTURE SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE FROM ALL NOXIOUS WEED SEED.

MARKER POSTS, (WOOD OR STEEL AS SPECIFIED)
TO BE PLACED AS DIRECTED BY THE ENGINEER.

FERTILIZER, ITEM 651.15
FORMULA 10-20-10 TO BE USED WITH SEED, ITEM 651.10 APPLIED AT THE RATE OF 500 LBS./ACRE

AGRICULTURAL LIMESTONE, ITEM 651.20
TO BE APPLIED AT RATE OF 2 TONS/ACRE OR AS DIRECTED BY THE ENGINEER

HAY MULCH, ITEM 651.25
TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE

TOPSOIL, ITEM 653.10
TO BE USED WITH SEED, ITEM 651.10 IN RESIDENTIAL AREAS, AS DIRECTED BY THE ENGINEER

SEE STANDARD SHEET B-5
FOR TYPICAL SLOPE ROUNDING

SEE STANDARD SHEET D-2 FOR PAY LIMITS OF SAND BORROW WHEN USED IN CONJUNCTION WITH UNDERDRAIN

ALLOWABLE TOLERANCES

SUB-BASE	± 1"
CONTROLLED MATERIAL	± 1"

TOWN OF CRAFTSBURY

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

DRAWN BY: B.R.S.	TRACED BY: B.R.S.
PROJ. S Nº 0247(2) SA	SHEET 2 OF 97

QUANTITY SHEET

STATE OF VERMONT DEPARTMENT OF HIGHWAYS

CRAFTSBURY PROJECT NO. S 0247 (2) SA

SUMMARY SHEET NO. 1 OF 2 1972

APPROXIMATE SUMMARY OF QUANTITIES

R. O. W.	BRIDGE	ROADWAY	QUANTITIES GRAND TOTAL	UNIT	ITEMS	ROUNDING	ITEM NO.
		1	1	LS	Clearing & Grubbing (plus Indiv. trees & Stumps)		201.10
	12		12	CY	Removal of Existing Concrete or Masonry		202.35
		39,800	39,800	CY	Common Excavation		203.15
		50	50	CY	Solid Rock Excavation (Est.)		203.16
	50	2,675	2,725	CY	Unclassified Channel Excavation	19	203.27
		7,000	7,000	CY	Earth Borrow		203.30
		900	900	CY	Sand Borrow (Est)		203.31
		2,650	2,650	CY	Granular Borrow (Est)		203.32
		900	900	CY	Trench Excavation of Earth		204.20
	310		310	CY	Structure Excavation		204.25
	170		170	CY	Granular Backfill for Structures		204.30
		12,800	12,800	CY	Sub-base of Gravel		301.15
	935	70,400	71,335	CY/MI	Overhaul (5.5 miles)		306.10
		2,600	2,600	CY	Stripping of Pits	6	307.10
		19,650	19,650	GAL	Bituminous Surface Treatment, Type V		404.35
	18		18	TON	Bituminous Concrete Pavement		406.25
	32		32	CY	Concrete, Class A		501.20
	107	9	116	CY	Concrete, Class B	0.4	501.25
	1		1	LS	Furnishing Equipment for Driving Piling		504.10
	315		315	LF	Steel Piling (HP 12 x 53)		505.15
	5		5	EA	Splices for Steel Piling		505.30
	1		1	EA	Pile Loading Tests		505.40
	15,010	521	15,531	LBS	Reinforcing Steel		507.15
	11		11	GAL	Water Repellent		514.10
	152		152	SY	Membrane Waterproofing, Type I		517.21
					TWO OPTION PIPES		
		196	196	LF	15" Corr. Galv. Met. Pipe .064		601.156
				LF	15" Corr. Alum. Alloy Culv. Pipe .060		601.206
		612	612	LF	18" Asph. Ctd. Corr. Galv. Met Pipe .064		601.109
				LF	18" Corr. Alum. Alloy Culv. Pipe .060		601.209
		164	164	LF	24" Asph. Ctd. Corr. Galv Met Pipe .064		601.115
				LF	24" Corr. Alum. Alloy Culv. Pipe .060		601.215
					THREE OPTION PIPES		
				LF	18" Asph. Ctd. Corr. Galv. Met Pipe .064		601.109
		64	64	LF	18" Corr. Alum. Alloy Culv. Pipe .060		601.209
				LF	18" Reinf. Conc. Pipe, Class III		601.256
		10	10	LF	24" Asph. Ctd. Corr. Galv. Met. Pipe .064		601.115
		130	130	LF	36" Asph. Ctd. Corr Galv. Met. Pipe .079		601.123
		6	6	EA	18" Met. End Sec. for Asph. Ctd. Corr. Galv. Met. Pipe .064		601.702
		2	2	EA	24" Met. End Sec. for Asph. Ctd. Corr. Galv. Met. Pipe .064		601.703
		1	1	EA	36" Met. End Sec. for Asph. Ctd. Corr. Galv. Met. Pipe .079		601.705
		1	1	EA	Cast Iron Grate w/Frame, Type A		604.45
		2	2	EA	Cast Iron Grate w/Frame, Type B		604.46

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		COMMON EXCAVATION
36,841	CY	Roadway (as per sections)
497	CY	Begin Approach
9	CY	End Approach
100	CY	Approach at 97+05 Lt.
12	CY	Approach at 107+50 Lt.
410	CY	Approach at 138+25.1 Rt.
1,609	CY	Drives
322	CY	Rounding
39,800	CY	Total
		EARTH BORROW
9,589	CY	As per sections
- 2,650	CY	Granular Borrow (Est)
6,939	CY	Subtotal
61	CY	Rounding
7,000	CY	Total
		TRENCH EXCAVATION OF EARTH 0' - 5'
580	CY	Pipe Culverts (Designed)
208	CY	6" Underdrain (Est)
48	CY	6" Underdrain Carrier Pipe
836	CY	Sub-total Trench Excavation Earth (0'-5')
		5' & Over
33	CY	Pipe Culverts (Designed)
17	CY	Factor (0.50)
50	CY	Sub-total Trench Excavation Earth (5' & Over + Factor)
		SUMMARY
836	CY	Trench Excavation of Earth (0'-5')
50	CY	Trench Excavation of Earth (5' & Over + Factor)
14	CY	Rounding
900	CY	Total
		SUB-BASE OF GRAVEL
11,245	CY	Roadway (From computer)
150	CY	Begin Approach
115	CY	End Approach
102	CY	Approach at 97+05 Lt.
146	CY	Approach at 107+50 Lt.
223	CY	Approach at 138+25.1 Rt.
370	CY	Drives
149	CY	Rounding
12,800	CY	Total
		BITUMINOUS SURFACE TREATMENT TYPE V
17,819	GAL	Roadway
536	GAL	End Approach
333	GAL	Approach at 97+05 Lt.
267	GAL	Approach at 107+50 Lt.
400	GAL	Approach at 138+25.1 Rt.
179	GAL	Aprons (for Drives) (Est.)
56	Gal	Rounding
19,950	GAL	Total

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

TYPE OF CONSTRUCTION

STATIONS FROM	STATIONS TO	PAVEMENT WIDTHS 22'	PAVEMENT WIDTHS 27'-11"	EQUATIONS +	EQUATIONS -	REMARKS
82+00.00	89+70.60	770.60				
					29.4	
90+00.00	110+76.10	2,076.10				
					233.5	
113+09.60	130+37.15	1,727.55				
130+37.15	130+86.78		49.63			Bridge
130+86.78	145+87.00	1,500.22				
		6,074.47	49.63		262.9	
TOTALS						

LENGTH OF PROJECT

STATIONS		FEET	MILES	REMARKS
82+00.00	130+37.15	4,574.25	0.867	Roadway (includes Equations)
130+37.15	130+86.78	49.63	0.009	Bridge
130+86.78	145+87.00	1,500.22	0.284	Roadway
TOTALS		6,124.10	1.160	

CRAFTSBURY

No. S 0247 (2)SA Filed

Sheet 3 of 97 Sheets

D-1

QUANTITY SHEET

STATE OF VERMONT DEPARTMENT OF HIGHWAYS

CRAFTSBURY PROJECT NO. S 0247 (2) SA

SUMMARY SHEET NO. 2 OF 2 1972

APPROXIMATE SUMMARY OF QUANTITIES

R. O. W.	BRIDGE	ROADWAY	QUANTITIES GRAND TOTAL	UNIT	ITEMS ROUNDING	ITEM NO.
		38D	38D	LF	6" Underdrain (Est)	605.101
		100	100	LF	6" Underdrain Carrier Pipe (Est)	605.151
		2	2	EA	Underdrain Flushing Basins (Est)	605.85
		90	90	HR	Roadway Patrol Maintenance (Est)	607.10
		15	15	HR	All Purpose Excavator Rental	608.25
		300	300	M/GAL	Dust Control w/Water	609.10
		3	3	TON	Dust and Ice Control w/Calcium Chloride	609.15
	80	1,250	1,330	CY	Stone Fill, Type II	613.11
	8		8	GAL	Epoxy Bonding Compound	615.30
	10		10	GAL	Epoxy Mortar Compound	615.35
	98		98	LF	Bridge Railing - Heavy Duty Steel Beam	617.35
		20	20	EA	Boundary Markers (Est) 1	619.10
		30	30	EA	Wood Marker Posts 4	619.15
		2	2	EA	Erection of Project Markers	619.25
		849	849	LF	Guard Rail, Three Cable w/Lt. Wood Posts	621.22
		569	569	LF	Guard Rail, Heavy Duty Steel Beam w/Steel Posts, Type I	621.35
		4	4	EA	Anchor for Three Cable Guard Rail w/Lt. Steel and Wood Posts	621.66
		70	70	EA	Wood Guide Posts	621.75
		100	100	LF	Sleeve for Water Pipe 30	629.95
	1		1	LS	Maintenance of Traffic for Bridge Projects	637.10
		620	620	LBS	Seed	651.10
		5,200	5,200	LBS	Fertilizer	651.15
		21	21	TON	Agricultural Limestone	651.20
		21	21	TON	Hay Mulch	651.25
		135	135	SY	Excelsior Matting	654.15

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		STONE FILL, TYPE II
1,228	CY	Roadway (as per sections)
7	CY	Pipes (Designed)
15	CY	Rounding
1,250	CY	Total (Roadway)

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

TYPE OF CONSTRUCTION

STATIONS FROM	STATIONS TO	PAVEMENT WIDTHS			EQUATIONS +	EQUATIONS −
TOTALS						

LENGTH OF PROJECT

STATIONS		FEET	MILES	REMARKS
TOTALS				

CRAFTSBURY No. S 0247 (2)SA Sheet 4 of 97 Sheets Filed

D-1

ITEM DETAIL AND DRAINAGE SHEET

DRAINAGE STRUCTURES

STA	STA	POSITION	ASKEW	TYPE IN/OUT	DITCH IN	DITCH OUT	R.C.P. D IN	R.C.P. L FT	R.C.P. CL	A.C.C.M.P. D IN	A.C.C.M.P. L FT	A.C.C.M.P. TH	C.A.A.C.P. D IN	C.A.A.C.P. L FT	C.A.A.C.P. TH	OPTION D IN	OPTION L FT	RC P CL	CG MP TH	CAA CP TH	CGMPP/PPA D/S IN	CGMPP/PPA R IN	CGMPP/PPA L FT	NO. PIPE ELBOW EA	ELBOWS D IN	ELBOWS TOP DEG	ELBOWS BOT DEG	24" OPL BD.	M E S EA	CB TYPE	DI TYPE	DEPTH DI	CONC CL B CY	REIN STEEL LBS	GRATE TYPE	0'-5' TRENCH EXCAV. EARTH CY	0'-5' TRENCH EXCAV. ROCK CY	OVER 5' TRENCH EXCAV. EARTH CY	OVER 5' TRENCH EXCAV. ROCK CY	CH. EXCAV. EARTH CY	CH. EXCAV. ROCK CY	STRUC EXCAV CY	GRAV BKF STRUC C.Y.	STONE FILL CY	STONE FILL TYPE	WATER CURB PIPE STOPS SLEEVE L	WATER CURB PIPE STOPS TYPE	OLD CULVERT	STEEL MKR POSTS LT	STEEL MKR POSTS RT	WOOD MKR POSTS LT	WOOD MKR POSTS RT	REMARKS
81+61		RT																																	8										12"CMP					Remove Old Culvert
82+00		℄		RCDI/			18	64	III	18	64	.064	18	64	.060														RCDI	3.5	1.9	158	B	25																		1	1	
85+70		RT																																	17		3								12"CMP					Remove Old Culvert
86+00		℄		MES/						18	76	.064	18	76	.060									1				1								28												1	1	
℄ 16.4		℄																																	10										15" CMP					Remove Old Culvert
89+20		℄		MES/						18	60	.064	18	60	.060									1												15							5	II					1	1	
94+50		℄		MES/						18	72	.064	18	72	.060									1												26												1	1	
94+76.5		℄	79°20'RT																																17										12"ACCSMP					Remove Old Culvert
97+53		℄	90°30'LT	MES/	X	X				36	130	.079												1*												123												1	1	
101+10		RT														15	52		.064	.060																															Drive Culvert
108+50		LT														15	38		.064	.060																															Drive Culvert
115+08		LT	85°RT																																10										12" CMP					Remove Old Culvert
117+00		℄		MES/						18	64	.064	18	64	.060									1												8												1	1	
119+19		℄	84°LT																																7										12" CMP					Remove Old Culvert
119+50		℄		MES/						18	70	.064	18	70	.060									1												24												1	1	
124+30		℄	76°LT	MES/						18	114	.064	18	114	.060									1												30										15" ACCSMP				1	1	Includes Removal of Old Culvert Lt.
126+50		℄	60°RT																																34									70				1	1	Sleeve for Water Pipe
129+67		LT														15	42		.064	.060																															Drive Culvert
130+25		LT														15	30		.064	.060																6															Drive Culvert
133+27		℄	60°RT	SH/	X					24	76	.064	24	76	.060																	2.7	12			38							2	II					1	1	5' Berm at Inlet
133+46		℄	82°RT																																47		26								18" CMP 42" RCP					Remove Old Culvert
137+75		℄		RCDI/						18	80	.064	18	80	.060														RCDI	4.0	2.1	193	B	54		4												1	1	
138+27		℄	68°30'RT																																8										18" CMP					Remove Old Culvert
142+07		℄	88°RT	MES/						24	88	.064	24	88	.060									1*												11										24"ACCSMP				1	1	
145+52.5		℄	88°40'RT	MES/						24	10	.064												1*												1										24"ACCSMP					1	Extend Existing Culvert
TR 943 APPR.	0+38.3	℄		RCDI/RCDI						18	76	.064	18	76	.060														RCDI	3.5	1.9	158	A	33														1		Appr. at 138+25.1 Rt.
APPR	1+25	RT														15	34		.064	.060																															Drive Culvert

FINAL DRAINAGE SUMMARY

PROJECT CRAFTSBURY
NO. S 0247(2)-S.A

STATION	STATION	CONC	REINF STEEL	TYPE GRATE A	TYPE GRATE B	TYPE GRATE C	PRCC D.I.	CCB	CRM	R.C.P. CLASS	R.C.P. CL.	R.C.P. CL.	R.C.P. CL.	Metal End Section 18"	Metal End Section 24"	Metal End Section 36"	CGMP 064 15"	ACCGMP GAGE 16ga 18"	ACCGMP GA (16ga) 24"	ACCGMP GA 079 36"	ACCGMP GA (16ga) 24"	ACCGMP G.R. (16ga) 18"	6" UND. 605 (10) Pipe	6" UND. 605 (5) Pipe	6" UND. 605 Flush Box	ELBOWS (WITH CRAFTSMEN)	TRENCH EARTH 100%	TRENCH EARTH 150%	TRENCH ROCK 100%	TRENCH ROCK 150%	STRUC EXCAV.	CHANNEL EXCAV. EARTH	CHANNEL EXCAV. ROCK	GRAVEL B. F.	STONE FILL HEAVY	STONE FILL LIGHT	RIP RAP	BOOK	PAGE	
B1461																												8.											2	2	Removal
82+0		2.1.	193.		1.																	64.					26											2	4	New
85+70														1.				76.										30.											2	8	New+Rem
B81664														1.				60.										22.											2	14	New+Rem
94+765														1.				72.										23.											2	24	New+Rem
97+50															1.					130.								92.	1.										2	26	New
101+10Rt																	52.																						2	30	Drive
104+0														1.				78.										22.											2	82	New
108+19 Lt																	54.											18.											2	32	Drive
115+08																												6.											2	34	Repl
117+0														1.				64.										9.											2	36	New
119+19																												6.											2	40	Rem
119+50														1.				70.										24.											2	42	New
123+54														1.			16.											"6.											2		Drive
124+30																		114.										198.											2	46	New
126+50	86' Rt																																						2	50	W. Pipe
129+55 Lt	129+80 Lt																34.											13.											2	54	Drive
129+80 Lt	130+50 Lt	21.	193.		1.												70.											39.											2	56	Drive
133+46	@ 78' Rt	27.	12.																76.									32.	20.										2	62	New
137+61	@ 62' Rt	21.	193.		1.													80.										72.	3.										2	64	New
138+27	@ 68' Rt																											9.											2	68	Rem.
142+07	@ 88' Rt														1.				88.										11.											2	70	New
145+25.5	@ 83' Lt														1.						10.								3.											2	74	New
TH #93 01383		1.9.	158.		1.													76.										33.											2	76	New
1125 Rt																	34.																						2	80	Drive
Roadway Totals		109.	749.	2.	2.					7.	2.	1.					760.	684.	164.	130.	10.	64.					1 For 1or =	122.	24.												
																												12													
																												(36)													
UNDERDRAIN SUMMARY																																									
B1475	1 to Rt																						40.																2	84	
82+04 Lt	84+04																						280.	5.	1.			142.											2	86	
101+25 Lt	103+80 Lt																						230.	45.	1.			11.	127.										2	88	
138+02 Lt	140+50 Lt																						140.	31.	1.			6.	77.										2	92	
Und Totals																							650.	121.	3.			17.	346.												
Grand Totals																																									

EARTHWORK SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

FED ROAD DIVISION NO	STATE	PROJECT NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
1	VT	S0247(2)SA	1997	7	97

VC	% GRADE	STATION	GRADES ELEVATION ON TANGENT	GRADES ELEVATION ON V CURVES	CORR V C	DIST	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU YDS			EMBANKMENT AREA	EMBANKMENT CU YDS	BASE AREA	BASE CU YDS
													C 16875	
													F 289	
		83	967.30	967.13	-0.17		2480						FAC 1.25	
						50		4954					EXC 16514	
		+50	968.12	967.73	-0.39		2870							
350' VC SSD = 633	+1.634%	+75	968.53	968.00	-0.53	50		4676						
		84	968.63	968.24	-0.39		2180							
						50		2046						
		+50	968.84	968.67	-0.17		30				0			
						50		28						
		85	969.05	969.01	-0.04		0				60	56		
						50						204		
		+50	969.25		0						160			
		+70	969.33			50						278		
		86	969.46								140			
						50						250		
		+50	969.66								140			
						19						104		
		+69	969.74								155		C 17	
													F 2786	
		87	969.87			50.5						318	FAC 1.25	
													EXF 3466	
		+19.5	969.95								185			
		+50	970.08			50.4						336		
		+69.9	970.16								175			
		88	970.28			50.3						321		
		+20.2	970.36				0				170			
	-0.412%	+50	970.49			30.2		5				335		
		+66.4	970.55											
		+70.4	970.57				5				190			
		89	970.69			50.2		5				344		
		+20.6	970.78				0				180			
		+50	970.90			50		7				287		
EQ = 29.4		89+70.6 = 90+00	970.98				8				130			
						50		17				204		
		+50	971.19				10				90			
						50		19				120		
		91	971.40				10				40		C 588	
						50		9				144	F 1591	
		+50	971.60				0				115		FAC 1.25	
						50						130	EXF 1401	
		92	971.81				0				25			
						50		144				25		
		+50	972.01				155				2			
						50		245				20		
		93	972.22				110				20			
						50		128				97		
		+50	972.43				28				85			
						50		26				236		
		94	972.63				0				170			
						50						319		
		+50	972.84								175			
		+76.5	972.95			50						296		
		95	973.04								145			
						50						284		
		+50	973.25								162			
						50						326		
		96	973.46				0				190			
						50		28				477		
		+50	973.66				30				325			
						50		44				671		
		97	973.87				18				400			
						49.9		17				744		
		+49.9	974.07				0				405			
		+50	974.07			49.9						827		
		+99.8	974.28								490			
		98	974.28			49.8						881		
		+49.6	974.48								465			

VC	% GRADE	STATION	GRADES ELEVATION ON TANGENT	GRADES ELEVATION ON V CURVES	CORR V C	DIST	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU YDS			EMBANKMENT AREA	EMBANKMENT CU YDS	BASE AREA	BASE CU YDS
		79	956.18		0				BEGIN APPROACH					
	+4.693%	+47.5	958.41	958.29	-0.12	51.8	32	BUTT	C 497				42	BUTT
		+50	958.53	958.40	-0.13			42	F 828		0			86
		+98.8	960.82	960.32	-0.50		12		FAC 1.25				48	
		80	960.87	960.36	-0.51	50.7		11	EXF 538		60	56		90
300' VC SSD = 370		+43.5	963.20	962.06	-1.14		0		S8 450				48	
		+50	963.22	962.07	-1.15	50.5						168		90
		81	964.04	963.53	-0.51		0				120		48	
						50		81				287		91
		+50	964.85	964.72	-0.13		87				190		50	
						50		363	82+00			317		93
		82	965.67		0		305		BEGIN PROJECT		152		50	BUTT
						50		1579	S 0247 (2) SA			187		
		+50	966.49	966.45	-0.04		1400				50			
	+1.634%					50		3592				46		
		83	967.30	967.13	-0.17		2480				0			

EARTHWORK SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

FED ROAD DIVISION NO	STATE	PROJECT NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
1	VT	S029(6)X	1967	8	97

VC	% GRADE	STATION	GRADES ELEVATION ON TANGENT	GRADES ELEVATION ON V. CURVES	GRADES CORR V. C.	GRADES DIST	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.	AREA	CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.	BASE AREA	BASE CU. YDS.
													C	1269
													F	2496
		108 +	996.08	996.05	-0.03								FAC	1.25
		+01.9	996.15	996.12	-0.03		0				125		EXF	1851
	+3.878%	+50	998.02	997.75	-0.27	50.1		32				181		
		+52	998.09	997.81	-0.28		35				70			
		109	999.96	999.21	-0.75	50		329				65		
		+02	1000.03	999.26	-0.77		320				0			
		+50	1001.89	1000.43	-1.46			824						
		+52	1001.97	1000.47	-1.50		570							
	500' VC S30 = 883	110	1003.83	1001.41	-2.42			1315						
		+02	1003.91	1001.45	-2.46		850							
		+25	1004.80	1001.82	-2.98								C	5313
		+50	1004.58	1002.16	-2.42	50		1815					F	3392
		+52	1004.56	1002.19	-2.37		1110						FAC	1.25
						24.1		968					EXC	1073
	EQ +233.5	110+76.1 = 113+09.6	1004.94	1002.45	-1.89		1060				0			
						40.4		980				303		
		+50	1003.98	1002.78	-1.20		250				405			
						50		233				1005		
		114	1003.53	1002.97	-0.56		2	2			680			
		+50	1003.08	1002.92	-0.16		0				565	931		
		115	1002.63		0						440			
												694		
		-08	1002.56		0									
		+08.5	1002.56								310			
		+50	1002.19				10					588	C	305
		116	1001.74								325		F	4004
												597	FAC	1.25
		+50	1001.29								320		EXF	4700
												519		
	-0.897%	117	1000.84				0				240			
								9				407		
		+50	1000.39				10				200			
								148				333		
		118	999.94				150				160			
								139				273		
		+50	999.49				0				135			
												264		
		119	999.05								150			
		+19	998.88											
												227		
		+50	998.60		0		0				95			
								9				102		
		120	996.15	998.24	+0.09		10				15		C	171
								28				18	F	5904
		+50	997.70	998.07	+0.37		20				4		FAC	1.25
								42				13	EXF	7209
		121	997.25	998.08	+0.83		25				10			
								42				37		
		+50	996.80	998.28	+1.48		20				30			
								37				39		
		122	997.83	998.66	+0.83		20				12			
								20				108		
	400' VC K = 135	+50	998.86	999.23	+0.37		2				105			
		+75	999.38	999.59	+0.21			2				546		
		123	999.89	999.98	+0.09		0				485			
												1032		
		+50	1000.92		0						630			
												1338		
		124	1001.95								815			
		+30	1002.57									1463		
		+50	1002.98								765			
	+2.065%					50						1310		
		125	1004.02								650			
												1014		
		+50	1005.05								445			
												583		
		126	1006.08								185			
												278		
		+50	1007.11		0						115			
												208		
		127	1008.14	1008.01	-0.13						110			
												206		
		+50	1009.17	1008.63	-0.54						112			
												173	C	289
		128	1010.20	1008.99	-1.21						75		F	2605
													FAC	1.25
		+30	1009.85	1009.07	-0.78							106	EXF	2967
		+50	1009.62	1009.08	-0.54		0				40			
		+75	1009.33	1009.03	-0.30			28				37		
	500' VC S30 = 581	129	1009.04	1008.91	-0.13		30				0			
		+15	1008.87	1008.76	-0.11									
								83						
		+30	1008.70	1008.68	-0.02									
		+50	1008.47		0		60							
		+60	1008.12			50		178						
		130	1007.89		0		132				0			
						19		97				26		
		+19	1007.67	1007.70	+0.03		145				75			
	-1.156%	+33.5	1007.50	1007.60	+0.10	18.15		66				25		
		+35	1007.48	1007.59	+0.11									
									130+37.15	STOP ROADWAY				
		+37.15	1007.46	1007.58	+0.12	50	BUTT	BEGIN BRIDGE	0					
		+47	1007.35	1007.55	+0.20								C	300
		+49	1007.32	1007.54	+0.22								F	2510
		+50	1007.31	1007.54	+0.23								FAC	1.25
													EXF	2838
		+80	1006.96	1007.54	+0.58									
									130+86.78					
		+82.5	1006.94	1007.55	+0.61				END BRIDGE					
		+86.78	1006.88	1007.56	+0.68	33	BUTT		35	BUTT				
		+93	1006.81	1007.59	+0.78			RESUME ROADWAY						
		+95	1006.79	1007.60	+0.81	29.22		40				35		
	500' VC K = 56	131	1006.73	1007.63	+0.90									
		+16	1006.55	1007.76	+1.21		40				30			
						34		44				41		
		+50	1006.16	1008.19	+2.03		30				35			
		+65				50		37				106		
		132	1005.58	1009.19	+3.61		10				80			
						50		9				181		
		+50	1005.00	1010.63	+5.63		0				115			
						50						250		
		133	1008.93	1012.54	+3.61						155			
						50						412		
		+46	1012.54	1014.68	+2.14									
		+50	1012.86	1014.89	+2.03						290			
						50						606		
		134	1016.79	1017.69	+0.90		0	1			365			
						50						569		
		+50	1020.71	1020.94	+0.23		1				250			
						50		6				259		
		135	1021.64		0		6				30			
						50		9				51		
		+50	1028.57				4				25			
						50		106				32		
		136	1032.50				110				10			
						50		199				30		
		+50	1036.43		0		105				22			
						50		204				30		
		137	1040.36	1040.20	-0.16		115				10			
						50		139				9		
		+50	1044.28	1043.64	-0.64		35				0			
		+75	1046.25	1045.25	-1.00	50		130						
	+7.857%	138	1048.21	1046.77	-1.44		105							

EARTHWORK SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

FED. ROAD DIVISION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	VT	S 0247(2)SA	1977	9	97

VC	% GRADE	STATION	GRADES ELEVATION ON TANGENT	GRADES ELEVATION ON V CURVES	GRADES CORR V.C.	GRADES DIST	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU YDS			EMBANKMENT AREA	EMBANKMENT CU YDS	BASE AREA	BASE CU YDS
	-3.00%													
				APPROACH		107+50 LT AT 14' LT =								
						10+00 POINT OF ML SHOULDER								
		10+00	993.62								0		0	
		+10	993.32		0	20						52		17
20' VC		+20	993.02	992.86	-0.16						140		45	
		+30	992.09		0	20						76		31
		+40	991.16								65		38	
		+50	990.23			20						39		28
		+60	989.30								40		38	
		+70	988.37			20						31		28
	-9.30%	+80	987.44				0				44		38	
		+90	986.51			20		6				19		28
		11+00	985.58				15		C	12	7		38	
									F	220				
									FAC	1.25				
		+10	984.65			20		6	EXF	263		3		14
		+20	983.72				0				0		0	
		+30	982.79									220		146
					TOTAL			12						
					DRIVE	108+50 LT - 113+50 LT								
						10+00 POINT OF ML SHOULDER 14' LT								
		9+97	11' LT OF ℄ 108+50											
	-6.25%	10+00	997.31		0						0		20	BUTT
24' VC		+12	996.56	997.20	+0.64	24						59		18
		+24	998.36		0		0				133		20	
						12						30		8
		+36	1000.16				0				0		18	
ML 109+02						49		161						34
		+85	1007.51				155						19	
		11				51		279						35
ML 109+52		+36	1015.16				140						18	
	-15.00%					52		337						35
		+88	1022.96				210						18	
		12				54		395						31
		+42	1031.06				185						13	
		+50				26		161						13
		+68	1034.96				150						13	
		13	1038.76			43		155						21
		+07	1040.81	1040.81	0								13	
		+11	1041.41	1041.39	-0.02		45							
36'		+22	1043.06	1042.76	-0.30	39		32						9
		+37	1044.10	1044.10	0								0	
		+50	1045.00				0							
					TOTAL			1500				89		204
	+6.90%													

CARRIED FORWARD
COLUMN FOOTINGS

VC	% GRADE	STATION	GRADES ELEVATION ON TANGENT	GRADES ELEVATION ON V CURVES	GRADES CORR V.C.	GRADES DIST	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU YDS			EMBANKMENT AREA	EMBANKMENT CU YDS	BASE AREA	BASE CU YDS
				TH #43										
				APPROACH POT 138+25.1 RT. =										
				REV. APPROACH POT 0+12.3										
		ML POT												
		138+25.1 =												
	-0.0227%	0+12.3	1048.22	ML ℄										
		0+19.5												
		0+23.3	1047.97											
	-6.25%	0+26.3	1047.78		0		0				0			
28' VC		0+38.3	1047.03	1047.46	-0.43	24		60						29
		0+39	1047.09	1047.47	+0.38									
		+47	1047.73	1047.76	+0.03									
		0+50.3	1048.00		0		135						64	
		0+51	1048.06		0									
	+8.105	+54	1048.30	1048.30	0	24.7		98						45
		+59	1048.71	1048.70	-0.01									
		+75	1050.00	1049.91	-0.09		80						35	
		+82	1050.67	1050.42	-0.15	24.5		70						39
		+97	1051.79	1051.46	-0.35									
		+99.5	1051.99	1051.62	-0.37		75						50	
98' VC		1+00	1052.03	1051.65	-0.38									
		+03	1052.18	1051.83	-0.35									
		+20	1053.02	1052.89	-0.13	50.5		126						79
									C	410				
		+49	1054.47		0				F	0				
									FAC	1.25				
		1+50	1054.62				60		EXC	410			35	
						50		56						32
	+4.97%	2+00	1057.00				0						0	
					TOTAL			410						223

CARRIED FORWARD
COLUMN FOOTINGS

VC	% GRADE	STATION	STONE FILL TYPE II ON TANGENT	STONE FILL TYPE II ON V CURVES	STONE FILL TYPE II CORR V.C.	STONE FILL TYPE II DIST	STONE FILL TYPE II AREA	STONE FILL TYPE II CU YDS.	UNCLASSIFIED CHAN. EXCAV. AREA	UNCLASSIFIED CHAN. EXCAV. CU YDS	EMBANKMENT AREA	EMBANKMENT CU YDS.	BASE AREA	BASE CU YDS.
				STONE FILL TYPE II AND UNCLASSIFIED CHANNEL EXCAVATION										
		88+00												
		+25					35	BUTT	12	BUTT				
						45.4		59		20				
		+70.4					35		12					
		89				50.2		65		20				
		+20.6					35		10					
						50		65		65				
		+70.6=					35		60					
EQ	-29.4	90-00.0				25		32		56				
		+25					35	BUTT	60	BUTT				
							SUB-TOTAL	221		161				
		121+85					42	BUTT	22	BUTT				
						*35		54		29				
		122					42		22					
						50		78		70				
		+50					42		54					
						50		78		166				
		123					42		125					
						50		78		273				
		+50					42		170					
						50		78		384				
		124					42		245					
						50		78		458				
		+50					42		250					
						50		78		444				
		125					42		230					
						50		78		347				
		+50					42		145					
						50		78		139				
		126					42		5					
						60*		93		39				
		+50					42	BUTT	30	BUTT				
							SUB-TOTAL	771		2349				
		131+18					35	BUTT	38	BUTT				
						32		41		45				
		+50					35		38					
						50		65		54				
		132					35		20					
						50		65		28				
		+50					35		10					
						50		65		19				
		133					35	BUTT	10	BUTT				
							SUB-TOTAL	236		146				
							TOTAL	1228		2656				

* EST DISTANCE

CARRIED FORWARD
COLUMN FOOTINGS

PROJECT CRAFTSBURY

PROJECT S NO. 0247 (2) SA
SHEET 9 OF 97 SHEETS

EARTHWORK SUMMARY

SUMMARY OF BALANCES

STATION TO STATION		TOTAL EXCAV. EARTH & ROCK CUBIC YARDS	ROCK EXCAV. CUBIC YARDS	EMBANKMENT CUBIC YARDS	EXCESSES CUT	EXCESSES FILL	ACCUMULATIVE EXCESSES CUT	ACCUMULATIVE EXCESSES FILL	BASE
82+00	85+00	16,875		289	16,514				
							16,514		
85+00	90+00	17		2,786		3,466			
							13,048		
90+00	95+00	588		1,591		1,401			
							11,647		
95+00	100+00	128		6,193		7,613			
							4,034		
100+00	105+00	10,508		2,264	7,678				
							11,712		
105+00	110+00	1,269		2,496		1,851			
							9,861		
110+00	115+00	5,313		3,392	1,073				
							10,934		
115+00	120+00	305		4,004		4,700			
							6,234		
120+00	125+00	171		5,904		7,209			
								975	
125+00	130+00	289		2,605		2,967			
								3,942	
130+00	135+00	300		2,510		2,838			
								6,780	
135+00	140+00	1,073		591	334				
								6,446	
140+00	145+00	0		4,620		5,775			
								12,221	
145+00	145+87	5		182		222			
								12,443	
Sub-totals		36,841		39,427					
Beginning Appr.		497		828		538			450
								12,981	
End Appr.		9		68		76			115
								13,057	
Appr. at 97+05 LT		100		8	90				102
								12,967	
Appr. at 107+50 LT		12		220		263			146
								13,230	
Appr. at 138+25 RT		410		0	410				223
								12,820	
Drives		1,609		403	1,105				370
	TOTALS	39,478		40,954				11,715	1,406
COLUMN FOOTINGS CARRIED FORWARD									

SUMMARY OF BALANCES

STATION TO STATION		TOTAL EXCAV. EARTH & ROCK CUBIC YARDS	ROCK EXCAV. CUBIC YARDS	EMBANKMENT CUBIC YARDS	EXCESSES CUT	EXCESSES FILL	ACCUMULATIVE EXCESSES CUT	ACCUMULATIVE EXCESSES FILL

SUMMARY BY COLUMNS

SHEET NO.	COL. NO.	EXCAVATION TOTAL CU. YDS.	EXCAVATION ROCK CU. YDS.	EMBANKMENT CUBIC YARDS
1	1	5,171		233
1	2	12,398		8,643
1	3	10,631		6,497
2	1	6,974		13,596
2	2	1,376		5,267
2	3	291		5,241
TOTALS		36,841		39,427

REMARKS

EARTH AND ROCK EXCAVATION		39,478
SOLID ROCK EXCAVATION		
EARTH EXCAVATION		39,478
PLANIMETERED FILL		40,954
LESS FACTORED SOLID ROCK		
LESS DISPLACEMENT OF ANY LARGE STRUCTURES		
NET PLANIMETERED FILL		40,954
FACTOR		10,238
PLANIMETERED FILL INCLUDING FACTOR		51,192
MATERIALS AVAILABLE FOR FILLS		
EARTH EXCAVATION		39,478
CHANNEL EXCAVATION	2,656 at 80%	2,125
UNDERDRAIN EXCAVATION		
STRUCTURE EXCAVATION		
TOTAL MATERIAL AVAILABLE FOR FILL		41,603
TOTAL FILL INCLUDING FACTOR		51,192
TOTAL MATERIAL FOR FILL		41,603
BORROW		9,589

PROJECT CRAFTSBURY NO. S 0247 (2) SA SHEET 10 OF 97

D-6

FINAL EARTHWORK SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

Craftsbury S 0247(2)SA

BEGIN PROJECT

STATION	DIST	TOTAL EXCAV. EARTH & ROCK AREA	TOTAL EXCAV. EARTH & ROCK CU.YDS.	ROCK AREA	ROCK CU.YDS.	Fill AREA	Fill CU.YDS.	Gravel AREA	Gravel CU.YDS.	Sod Removal AREA	Sod Removal CU.YDS.				
7970		0				0		0							
+50		41	41			15	14	80	28						
8070		16				0		20	60						
+50		10	84			52	48	38	68			Excavation = 6477			
8170		6	15			134	219	58	83			Fill = 9558			
+50		116	113			180	337	53	97			Sod Removal = 0			
8270		317	398			172	326	38	95			Gravel = 4954			
+50		1396	1585			200	344	Fill							
8370		2582	3691			225	403					Excavation = 27189			
+50		3911	5031			182	229					Fill = 1174			
8470		2170	4705			0	11					Sod Removed = 46			
+50		26	2033			68	63			0	46				
8570		0	27			77	134			44	32				
+50		12	11			150	217			56	32				
8670		0	11			157	287			53	95				
+50		8	7			133	269			0	84				
8770		0	7			140	271					Excavation = 50			
+50						164	300					Fill = 2700			
8870						178	319					Sod Removal = 215			
+50						219	368								
8970		0	11			249	428								
+50		12	8			138	353								
9070	206	9	25			123	100								
+50		18	40			81	189								
9170		25	58			42	114					Excavation = 696			
+50		38	35			154	181					Fill = 1613			
9270		0	147			27	166					Sod Removal = 0			
+50		155	244			1	26								
9370		105	125			93	19								
+50		30	88			90	107								
9470		0				186	256								
+50						176	335								
9570						145	293								
+50						155	273								
9670		0	34			235	361					Excavation = 89			
+50		37	34			346	556					Fill = 6698			
9770		0				416	724								
+50						484	782								
9870						512	871								
+50						544	888								
9970		0	6			475	745								
+50		7	15			387	544								
10070		9				230									
CARRIED FORWARD															
COLUMN TOTAL			18,490				13417		424		261				

STATION	DIST	TOTAL EXCAV. EARTH & ROCK AREA	TOTAL EXCAV. EARTH & ROCK CU.YDS.	ROCK AREA	ROCK CU.YDS.	Fill AREA	Fill CU.YDS.			Sod Removal AREA	Sod Removal CU.YDS.				
10070		9	18			230	457					Excavation = 7222			
+50		10	9			264	532					Fill = 7142			
10170		0	919			311	288								
+50		993	2057			0	0								
10270		1229	2342												
+50		1300	2338												
10370		1225	1738												
+50		692	604			0	214								
10470		0				231	370								
+50						162	281								
10570						136	374								
+50						269	560					Excavation = 7158			
10670						345	696								
+50		0	22			407	419					Fill = 25477			
10770		24	31			46	47								
+50		10	9			5	147								
10870		0	5			154	219								
+50		5	182			82	76								
10970		192	457			0									
+50		518	1252												
11070		934	1750												
+50	50	1056	738			0	121					Excavation = 9805			
1761	961					250	753					Fill = 16825			
113+096	96.4	869	896			755	1456								
+50		327	310			850	1347								
11470		8	9			605	977								
+50		2	11			250	724								
11570		10	22			332	617					Excavation = 891			
+50		19	20			334	610					Fill = 4775			
11670		8	17			305	524								
+50		10	16			241	407					Sod Removal = 10			
11770		7	17			199	332								
+50		11	122			168	269								
11870		121	119			131	254								
+50		7	13			142	231			0	15				
11970		7	9			106	167								
+50		3	32			16				16					
12070		36													
CARRIED FORWARD															
COLUMN TOTAL			16477				13447				15				

STATION	DIST	TOTAL EXCAV. EARTH & ROCK AREA	TOTAL EXCAV. EARTH & ROCK CU.YDS.	ROCK AREA	ROCK CU.YDS.	Fill AREA	Fill CU.YDS.			Sod Removal AREA	Sod Removal CU.YDS.				
12070		36				10				16		Excavation = 311			
+50	50	34	69			2	11			30	43	Fill = 5285			
12140		27	36			15	16			23	49	Sod Removal = 202			
+50		16	35			26	38			30	49				
12240		18	31			10	33			19	44				
+50		2	19			110	111			0	17				
12340		0	2			402	474								
+50		0				637	962								
12440		12	11			816	1345								
+50		29	38			759	1458								
12540		25	50			710	1360								
+50		1	27			519	1138								
12640		0	1			188	655	2	4		RF				
+50						115	281			0	18	Excavation = 275			
12740						115	213	0	3	3/4	31	Fill = 2913			
+50						117	215	14	33	12	17				
12840						76	179	3/5	47	9	17	Sod Removal = 233			
+50		0	7			37	105	29	27	9	18				
12940	135	15	19			10	22	0		10	9				
+50		25	92			0	4			0					
13040		69	132												
+9.15	9715	54	85												
+36.98	9634	37				29						Excavation = 341			
13140	50	37	18			29	14								
+50		26	58			44	68					Fill = 2481			
13240		0	54			114	146								
+50						111	208								
13340		0	7			167	257								
+50		8	42			280	414								
13440		38	69			352	586								
+50		29	44			234	548								
13540		19	20			20	240								
+50		3	27			21	38								
13640		102	191			13	31					Excavation = 385			
+50		104	207			19	58					Fill = 511			
13740		120	131			8	32					Sod Removal = 112			
+50		21	43			0	9								
13840		25	89												
+50		71	75			0	34			0	18				
13940		10	19			37	130			14	55				
+50		4	69			105	220			44	64				
14040		60				135				45					
CARRIED FORWARD															
COLUMN TOTAL			1850				11618		120		427				

PROJECT [redacted] CRAFTSBURY S 0247(2)SA

PROJECT [redacted] NO. _____

SHEET 1 OF 3

FINAL EARTHWORK SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

Crafts bury 50247 (2) S.A.

STATION	DIST	TOTAL EXCAV. EARTH & ROCK AREA	TOTAL EXCAV. EARTH & ROCK CU. YDS.	ROCK AREA	ROCK CU. YDS.	Gravel AREA	Gravel CU. YDS.	Embankment AREA	Embankment CU. YDS.	Sod Removal AREA	Sod Removal CU. YDS.				
1400		60'						135'		45'					
+50		10'	65'					235'	348'	25'	68'	Excavation =		774'	
1410		0'	9'					307'	509'	31'	57'	Fill		=	4519'
+50								456'	706'	36'	62'	Sod Removal =		527'	
1420								400'	793'	33' 26'	54' 42'				
+50								327'	673'	23'	40' 57'				
1430								212'	494'	26' 26'	31' 31'				
+50								146'	331'	14'	19'				
1440								119'	241'	6'	6'				
+50								125'	821'	0'					
1450								100'	210'						
+50				Butt		96'	173'								
487				49'	64'	80'	72'					Fill	=	245'	
1460				49'		20'	10'								
+50				32'	75'	8'	26'					Fill	=	47'	
1470				20'	48'	2'	9'					Gravel	=	177'	
+50				6'	24'	0'	2'								
1480				0'	6'										
+50															
1490															
+50															
1500															

END PROJECT

APPROACH 107+50 Lt AT 14' Lt = 10+00 ML SHOULDER

10+00						120'	72'	0'							
+20						75'	46'	80'	30'						
+40						48'	36'	100'	67'			Gravel	278'		
+60						50'	37'	82'	68'			Fill	235'		
80						50'	37'	13'	35'						
11+00						50'	37'	25'	14'						
+20						42'	34'	15'	15'						
+40						0'	16'	0'	6'						

TH #43 APPROACH
POT. 138+75 = 0+12.3

+265		Butt 109'	110'			Butt 115'	98'								
0+50	235 50	143'	208'			96'	154'					Gravel	376'		
1+60	50	83'	106'			70'	106'					Gravel	439'		
+50	2-5	33'	46'			44'	20'								
1+75	82	0'				0'									
2+00															

CARRIED FORWARD															
COLUMN TOTAL			513'				827'		5046'		397'				

DRIVE @ 107+70 (@ ~~108+50~~) Lt to 11' Rt SOLT = 10+00 ML SHOULDER @ 14' Lt

STATION	DIST	TOTAL EXCAV. EARTH & ROCK AREA	TOTAL EXCAV. EARTH & ROCK CU. YDS.	ROCK AREA	ROCK CU. YDS.	Gravel AREA	Gravel CU. YDS.	Embankment AREA	Embankment CU. YDS.						
9+50						Butt 11'		Butt 155'							
	30						19'		172'						
9+80						17'		155'							
	52						39'		286'						
10+32		0'				24'		140'				Excavation =		2320'	
	53		149'				38'		137'			Gravel =		201'	
+85		152'				15'		0'							
	51		347'				27'					Embankment =		643'	
11+36		215'				14'									
	52		445'				31'								
+88		209'				14'									
	54		756'				28'								
12+42		457'				14'		0'							
	36		270'				13'		17'						
+68		103'				13'		35'							
	43		198'				10'		28'						
13+11		146'				0'		0'							
	39		105'												
+50		0													

APPROACH 97+90 Lt
14' Lt - 1400 ML SHOULDER

1700		176'				176'						Gravel	=	127'	
	40		119'				119'								
1740		45'				45'						Excavation	=	127'	
	10		8'				8'								
1750		0'				0'									

Approach Totals

	Cut	Gravel	Fill
97+90 Lt	127'	127'	0
107+50 Lt	0	278'	235'
138+75 RM	439	392	0
	(566 cy)	777'	235'

CARRIED FORWARD															
COLUMN TOTAL			1447'				328'		647'						

DRIVE @ 128+65 Lt ~ 129+80 Lt

STATION	DIST	TOTAL EXCAV. EARTH & ROCK AREA	TOTAL EXCAV. EARTH & ROCK CU. YDS.	ROCK AREA	ROCK CU. YDS.	Gravel AREA	Gravel CU. YDS.	Sod Removal AREA	Sod Removal CU. YDS.						
128+65						0'									
	10						5'								
128+75		0'				15'									
	25		10'				16'					Excavation =		97'	
129+00		8'				24'						Gravel =		68'	
	15		11'				13'								
129+15		20'				24'									
	15		11'				11'								
129+30		20'				14'									
	20		16'				10'								
129+50		28'				11'									
	30		49'				16'								
129+80		65'				15'									
		Butt				Butt									

FINAL EARTHWORK SUMMARY SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

NOTES	STATIONS	TOTAL EXCAVATION DESIGN	TOTAL EXCAVATION FINAL	TOTAL EXCAVATION DIFFERENCE	ROCK DESIGN	ROCK FINAL	ROCK DIFF.	EMBANKMENT DESIGN	EMBANKMENT FINAL	EMBANKMENT DIFFERENCE	UNAUTHORIZED WASTE DESIGN	UNAUTHORIZED WASTE FINAL	UNAUTHORIZED WASTE DIFF.	BASE DESIGN	BASE FINAL	BASE DIFF.	SOD REMOVAL DESIGN	SOD REMOVAL FINAL	SOD REMOVAL DIFF.	GRAVEL DESIGN	GRAVEL FINAL	GRAVEL DIFF.	NOTES
MAINLINE																							
	80+00 – 85+00	16,875·	17,009·	+134·				289·	1184·	+895·							0	46·	+46·				
	85+00 – 90+00	17·	55·	+38·				2582·	2900·	+318							0	215·	+215·				
	90+00 – 95+00	588·	696·	+108·				1591·	1683·	+92·													
	95+00 – 100+00	108·	89·	-19·				6057·	6692·	+635													
	100+00 – 105+00	8824	10,025·	+201				2052·	2,148·	+96·													
	105+00 – 110+00	2,168·	2,158·	-9				2875	2547·	+172													
	110+00 – 115+00	4996	3905·	-1091				3392·	4683·	+1291·													
	115+00 – 120+00	305·	391·	+86·				4004·	4075·	+71·							0	15·	+15·				
	120+00 – 125+00	1711·	311·	+140·				5904·	5808·	-96·							0	202·	+202·				
	125+00 – 130+00	289·	275·	-14·				2605·	2813·	+208							0	233·	+233·				
	130+00 – 135+00	300	341·	+41·				2510·	2481·	-29·													
	135+00 – 140+00	1013	925·	-148·				591·	511·	-80·							0	112·	+112·				
	140+00 – 145+00	0·	714·	+714·				4020·	4519·	-101·							0	397·	+397·				
	145+00 – 145+87	5·	0·	-5·				182·	245·	+63·													
MAINLINE TOTALS		36,713	36,254	-459				38,754	42,283	+3529							0	1220·	+1220·				
BEGINNING APPROACH	79+00 – 82+00	497·	647·	+150·				828·	958·	+130·										450·	434·	-16·	
END APPROACH	145+87 – 148+00	9·	0·	-9·				68·	47·	-21·										115·	177·	+62·	
APP. @ 97+05 LT		100·	127·	+27·				8·	0·	-8·										102·	127·	+25·	
APP. @ 107+50 LT		18·	0·	-18·				220·	235·	+15·										146·	278·	+132·	
APP. @ 138+25.1 RT.		833·	439·	+106·				0·	0·	0·										223·	372·	+149·	
DRIVES		1716	2600·	+884				1103·	642·	+239·										370·	552·	+182·	
Totals		39,380·	40,061·	+689				41,281·	44,165·	+3884							0·	1220·	+1220·	1406·	1940·	+534·	
	Sod Removal		1,220					Drive Fill Areas	151														
	Exc. for Ex. Fill sh. 61 of 77		123						44,316														
	Total Comm. Exc.		41,410																				

BK 1 pg 28

COLUMN SUMMARY

SHEET	COLUMN	EXCAVATION	ROCK	FILL	UNAUTHORIZED WASTE	BASE	SOD REM.	GRAVEL
1 OF 1	1	18,496·		13,417·			261·	434·
	2	16,479·		13,447·			15·	
	3	1855·		11,613·			547·	
2 OF 3	1	513·		5,046·			397·	827·
	2	2449·		642·				308·
	3	280						158·
BOOK 1 PAGE 49 (GRAVEL NOT ON Earthwork Sheets)								193
TOTALS		40,061·		44,165·			1220·	1940·

TOTALS

REMARKS

SHOW BREAKDOWN THE SAME AS ORIGINAL

COMMON EXCAVATION
ITEM 203.15

		REFERENCE
MAINLINE EARTH & ROCK	41,410	
MAINLINE ROCK INCLUD. DEDUCT. BOULDERS	0·	
MAINLINE EARTH	41,410	TO BOOK 1 PAGE 10
Planimetered Fill (Including fill not covered by sections)	44,316·	SEE BOOK 1 PAGE 28
Less Displacement of any Large Structures	0·	
Net Planimetered Fill	44,316·	
Factor (0.25)	11,079	
Planimetered Fill including Factor	55,395·	
Earth Excavation	41,410·	
Channel Excavation 2689 at 100%	2,689	TO BOOK 1 PAGE 18
Total Material Available for Fill	44,099·	
Total Fill Including Factor	55,395·	
Total Material for Fill	44,099·	
~~PROJECT TOTAL~~ — BORROW —	11,298·	TO SUMMARY BOOK PAGE

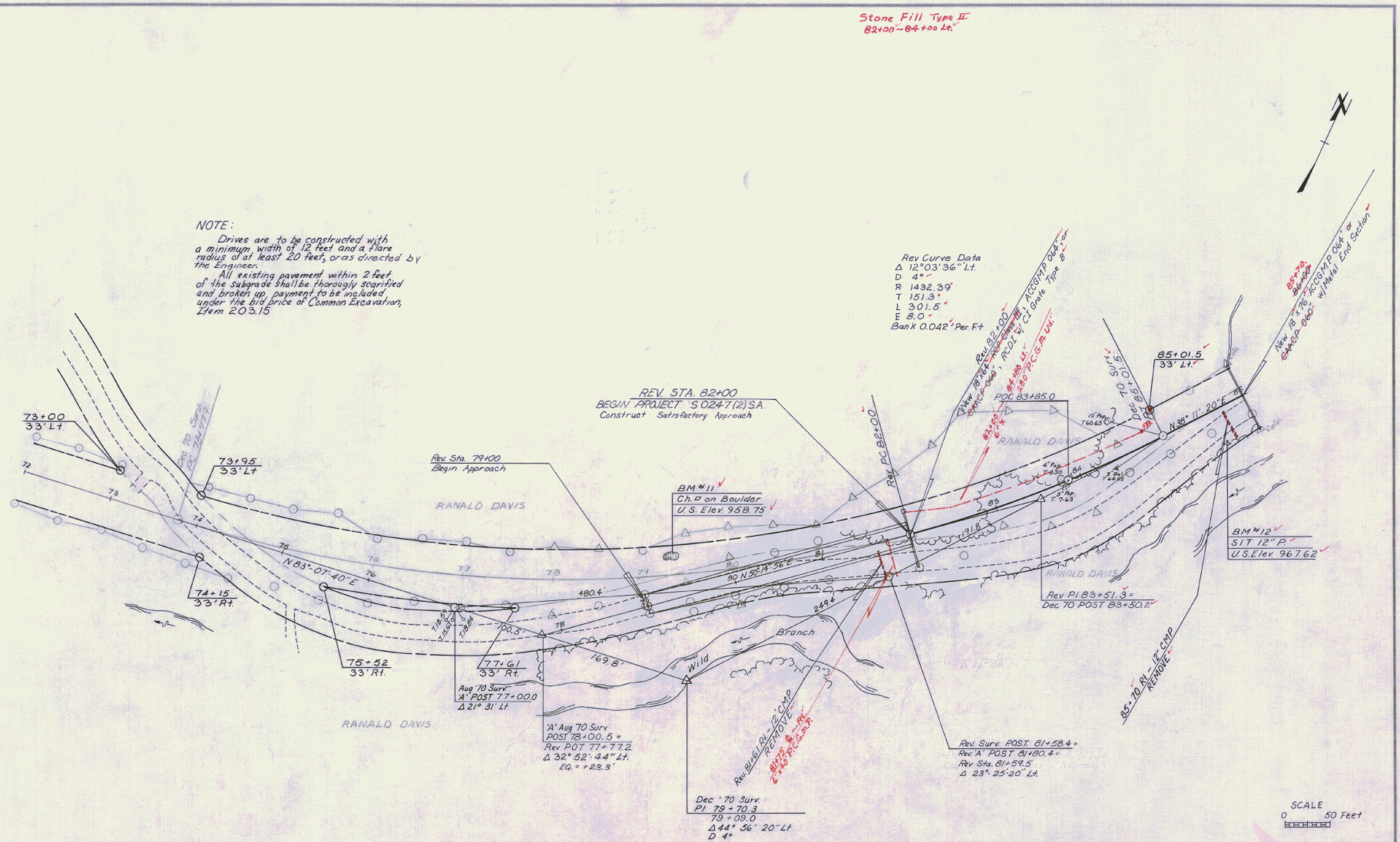
SOLID ROCK EXCAVATION
ITEM 203.16

MAINLINE ROCK	
BOULDERS (DEDUCTIBLE & NON DEDUCTIBLE)	
OVERBREAKAGE	
PROJECT TOTAL	TO SUMMARY BOOK PAGE
ROCK BORROW	

CRAFTSBURY

PROJ. S NO. 0247(2)SA
SHEET 3 OF 3

D-7



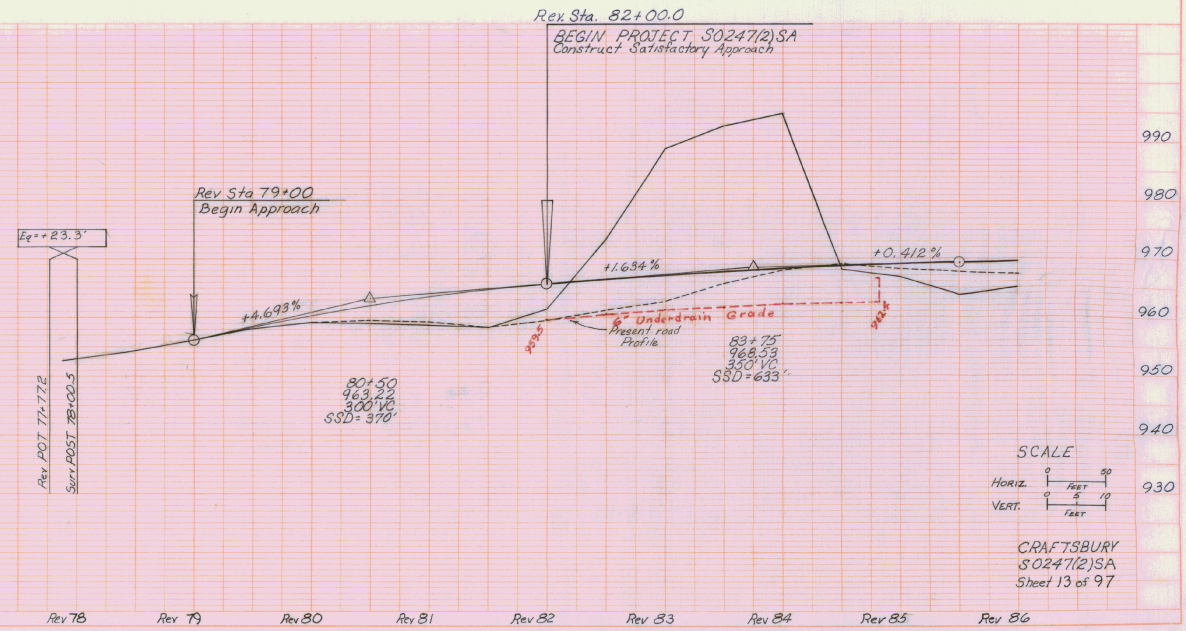
SURVEYED BY	Jewett	DATE Dec 70 Aug. 70
DRAWN BY	Anderson	DATE Nov 70
TRACED BY	Anderson	DATE Nov. 70

CRAFTSBURY

PROJ. 5 NO. 0247(2) SA

SHEET 12 OF 97

D-7


Rev. Sta. 82+00.0
BEGIN PROJECT S0247(2)SA
Construct Satisfactory Approach
Rev. Sta 79+00
Begin Approach
Eq = +23.3'
Rev POT 77+77.2
Surv POST 78+00.5
+4.69 %
+1.69 %
+0.412 %
8" Underdrain Grade
Present road Profile
933.5
934.4
80+50
963.22
300' VC
SSD = 370'
83+75
968.53
350' VC
SSD = 633'
990
980
970
960
950
940
930
Rev 78
Rev 79
Rev 80
Rev 81
Rev 82
Rev 83
Rev 84
Rev 85
Rev 86
SCALE
HORIZ.
VERT.
FEET
CRAFTSBURY
S0247(2)SA
Sheet 13 of 97

GUARD RAIL, THREE CABLE w/LIGHT WOOD POSTS
Rt
Rev. 87+50 ~ 90+54

CONSTRUCT SPECIAL DITCH
(to be paid under Item 203.15)
Lt
Rev. 89+20 ~ 91+90
Rt
Rev. 99+00 ~ Rev. 100+85

WOOD GUIDE POSTS
(8' c/c
Rt
Rev. 95+60

CONSTRUCT APPROACH
Lt
Rev. 97+05

STONE FILL TYPE II
Lt
Rt
Rev. 88+25 ~ 90+25

UNCLASSIFIED CHANNEL EXCAVATION
Lt
Rt
Rev. 88+25 ~ 90+25

EXCELSIOR MATTING
Lt
Rt
Rev. 101+00 ~ Rev. 102+00

CONSTRUCT DRIVE
Lt
86+10
92+35
Rt
91+58
Rev. 101+10
100+35

GLENDON ANDERSON
SHERMAN CHAFFEE
RANALD DAVIS
Wild Branch

BM #14
S1R 30" P
U.S. Elev. 978.01

BM #13
S1T 15" E
U.S. Elev. 973.99

Rev PI 97+09.2 =
97+07.2 =
'C' POST 97+09.2

Rev 97+38
165' Lt

Rev 97+38
33' Lt

'C' PI 98+68.2 =
98+65.6
Δ 14° 31' Rt (Survey)
Δ 14° 34' 07" Rt (Computed)
D 3°

Rev 98+70.2
33' Lt

Rev 98+70.2
33' Rt

N69°-20'-21"E

N69°20'21"E 100

Rev PT 98+70.2

Rev 95+88
33' Lt

Rev 95+46.4
33' Rt

'C' POT 95-82.0

Rev PC 95+74.4

94+48
33' Rt

Rev 94+76.5 to 79+20 Rt - 15" ACCGMP - REMOVE

94+76.5 to 88+46.4 Rev. 18"x12" ACCGMP .064 or CMCP .060 w/Metal End Section

Rev. 88+46.4 to 86+60 New 18"x12" ACCGMP .064 or CMCP .060 w/Metal End Section

Rev POT 89+70.6 =
'C' PT 90+00.0
Eq = -29.4

Surv PI 89+00 =
88+92.3

Rev 89+38.6
33' Lt

Rev PI 88+01.4 =
87+99.4

Rev 86+62.2
33' Lt

Survey Line
N 38° 11' 20" E

Rev. 86+62.2 to 88+46.4 - 15" CMP - REMOVE

Rev PT 89+38.6

Rev Curve Data
Δ 16° 34' 54" Rt
D 6°
R 954.93'
T 139.2'
L 276.4'
E 10.1'
Bank 0.052' Per Ft.

Revised Line
N 54° 46' 14" E

Rev Curve Data
Δ 14° 34' 07" Rt
D 4° 30"
R 1273.24'
T 162.8'
L 323.8'
E 10.4'
Bank 0.042' Per Ft.

Rev 101+10 Rt to 102+20 Lt
New 15" x 152" CCGMP .064 or CMACP .060

Rev 101+33 — 102+20 Lt
New 30" RC.C.M. JA.
6"x30" P.C.G. BT. P.I.P.

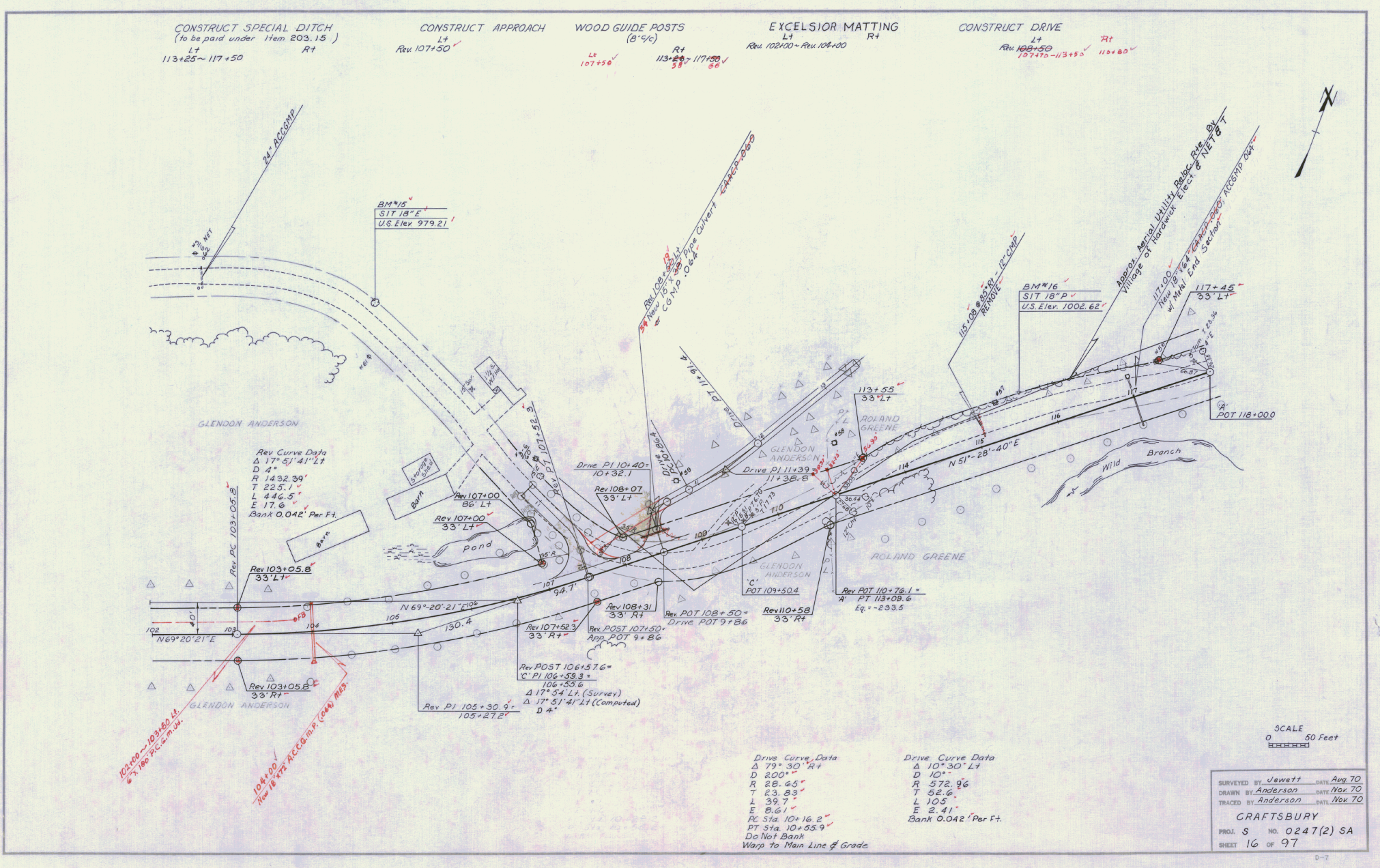
SCALE
0 50 Feet

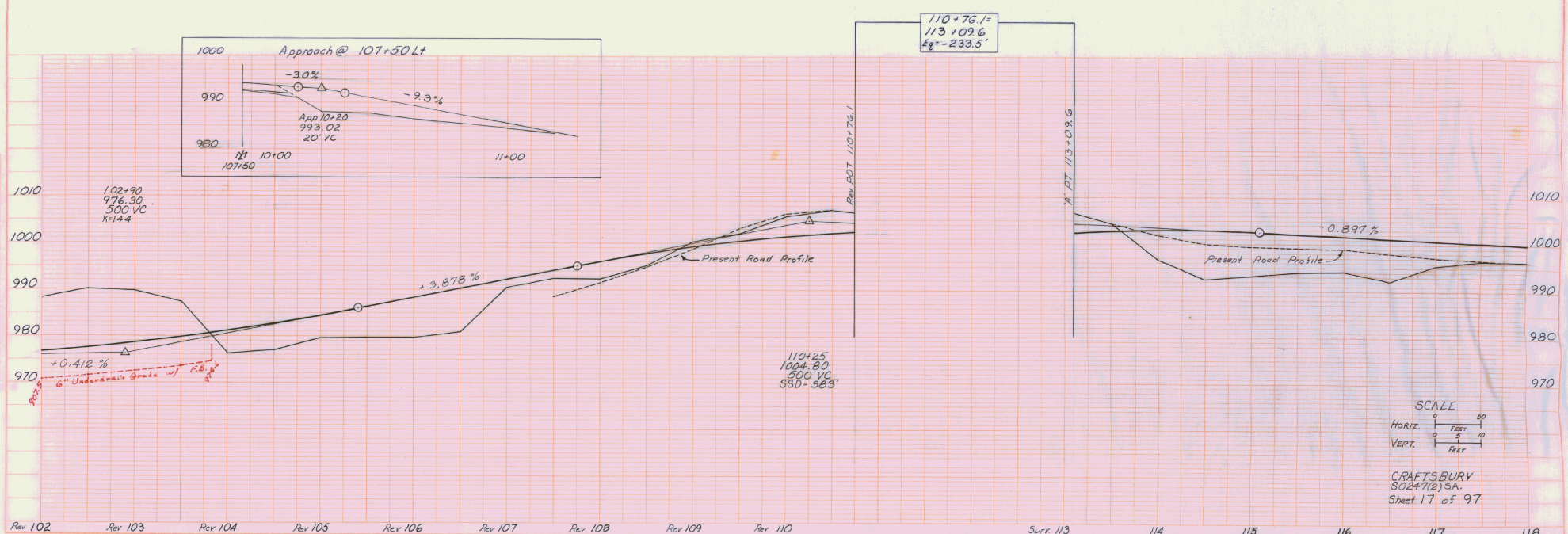
SURVEYED BY Jewett DATE Aug. 70
DRAWN BY Anderson DATE Nov. 70
TRACED BY Anderson DATE Nov. 70

CRAFTSBURY
PROJ. S NO. 0247 (2) SA
SHEET 14 OF 97

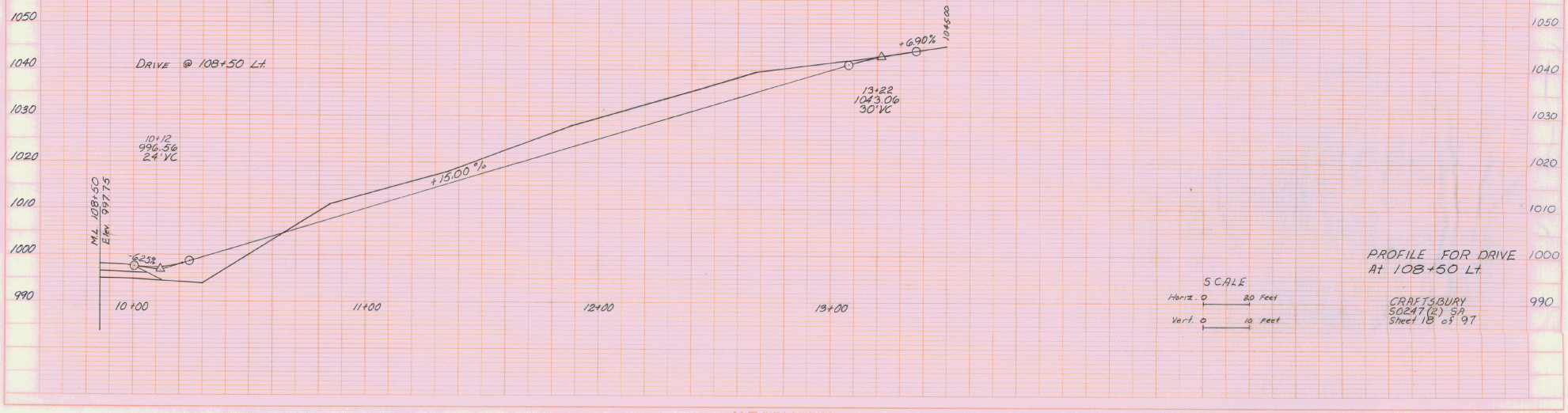
D-7


Rev POT 89+70.6 = 'C' PT 90+00 Eq: -29.4
990
980
970
960
950
940
+0.412 %
Present road Profile
Rev POT 89+70.6
Surv 'C' PT 90+00.0
Present road Profile
+0.412 %
Present Road Profile
Ud. Grade
Rev 86
Rev 87
Rev 88
Rev 89
Surv 90
91
92
93
94
Surv 95
Rev 96
Rev 97
Rev 98
Rev 99
Rev 100
Rev 101
Rev 102
SCALE
HORIZ.
VERT.
FEET
CRAFTSBURY
S 0247(2)SA
Sheet 15 of 97


CONSTRUCT SPECIAL DITCH
(to be paid under Item 203.15)
Lt
113+25 ~ 117+50
Rt
CONSTRUCT APPROACH
Lt
Rev. 107+50
WOOD GUIDE POSTS
(8' c/c)
Lt
107+50
Rt
113+58 ~ 117+66
EXCELSIOR MATTING
Lt
Rev. 102+00 ~ Rev. 104+00
Rt
CONSTRUCT DRIVE
Lt
Rev. 107+70 ~ 113+50
Rt
110+80
24" ACCGMP
BM #15
SIT 18" E
U.S. Elev. 979.21
GLENDON ANDERSON
Rev Curve Data
Δ 17° 51' 41" Lt
D 4°
R 1432.39'
T 225.1'
L 446.5'
E 17.6'
Bank 0.042' Per Ft.
Rev PC 103+05.8
Rev 103+05.8
33' Lt
Rev 103+05.8
33' Rt
N 69°-20'-21" E
N 69°20'21" E
Rev 107+00
86' Lt
Rev 107+00
33' Lt
Pond
Barn
Storage Shed
Rev PT 107+52.3
Rev 107+52.3
33' Rt
Rev POST 106+57.6 =
'C' PI 106+59.3 =
106+55.6
Δ 17° 54' Lt. (Survey)
Δ 17° 51' 41" Lt (Computed)
D 4°
Rev PI 105+30.9 =
105+27.2
Rev 108+31
33' Rt
Rev POST 107+50 =
App. POT 9+86
Drive PI 10+40 =
10+32.1
Rev 108+07
33' Lt
Drive PC 10+86.4
Drive PT 11+91.4
Rev 108+50 Lt
New 15" x 38' Pipe Culvert
or CGMP .064
Rev POT 108+50 =
Drive POT 9+86
Drive PI 11+39
11+38.8
GLENDON ANDERSON
'C'
POT 109+50.4
Rev 110+58
33' Rt
Rev POT 110+76.1 =
'A' PT 113+09.6
Eq. = -233.5
113+55
33' Lt
ROLAND GREENE
115+08 @ 85° Rt - 12" CMP
REMOVE
BM #16
SIT 18" P
U.S. Elev. 1002.62
Approx. Aerial Utility Reloc. Rte. By
Village of Hardwick Elect. & NET & T
117+00
New 18" x 64" ACCGMP .064
w/ Metal End Section
117+45
33' Lt
'A'
POT 118+00.0
N 51°-28'-40" E
Wild Branch
ROLAND GREENE
102+00 ~ 103+80 Lt.
6" x 180' P.C.G.m.Ud.
104+00
New 18" x 72" A.C.C.G.m.P. (.064) MES.
Drive Curve Data
Δ 79° 30' Rt
D 200°
R 28.65'
T 23.83'
L 39.7'
E 8.61'
PC Sta. 10+16.2'
PT Sta. 10+55.9'
Do Not Bank
Warp to Main Line & Grade
Drive Curve Data
Δ 10° 30' Lt
D 10°
R 572.96'
T 52.6'
L 105'
E 2.41'
Bank 0.042' Per Ft.
SCALE
0 50 Feet
SURVEYED BY Jewett DATE Aug. 70
DRAWN BY Anderson DATE Nov. 70
TRACED BY Anderson DATE Nov. 70
CRAFTSBURY
PROJ. S NO. 0247(2) SA
SHEET 16 OF 97



Approach @ 107+50 Lt
1000
990
980
-3.0%
-9.3%
App 10+20
993.02
20' VC
107+50
10+00
11+00
110+76.1=
113+09.6
Eq=-233.5'
Rev POT 110+76.1
"A" PT 113+09.6
102+90
976.30
500 VC
K=144
+3.878 %
Present Road Profile
-0.897 %
Present Road Profile
+0.412 %
6" Underdrain Grade w/ F.B.
110+25
1004.80
500' VC
SSD=383'
1010
1000
990
980
970
SCALE
HORIZ.
VERT.
FEET
CRAFTSBURY
S0247(2) SA.
Sheet 17 of 97
Rev 102
Rev 103
Rev 104
Rev 105
Rev 106
Rev 107
Rev 108
Rev 109
Rev 110
Surv. 113
114
115
116
117
118



SCALE

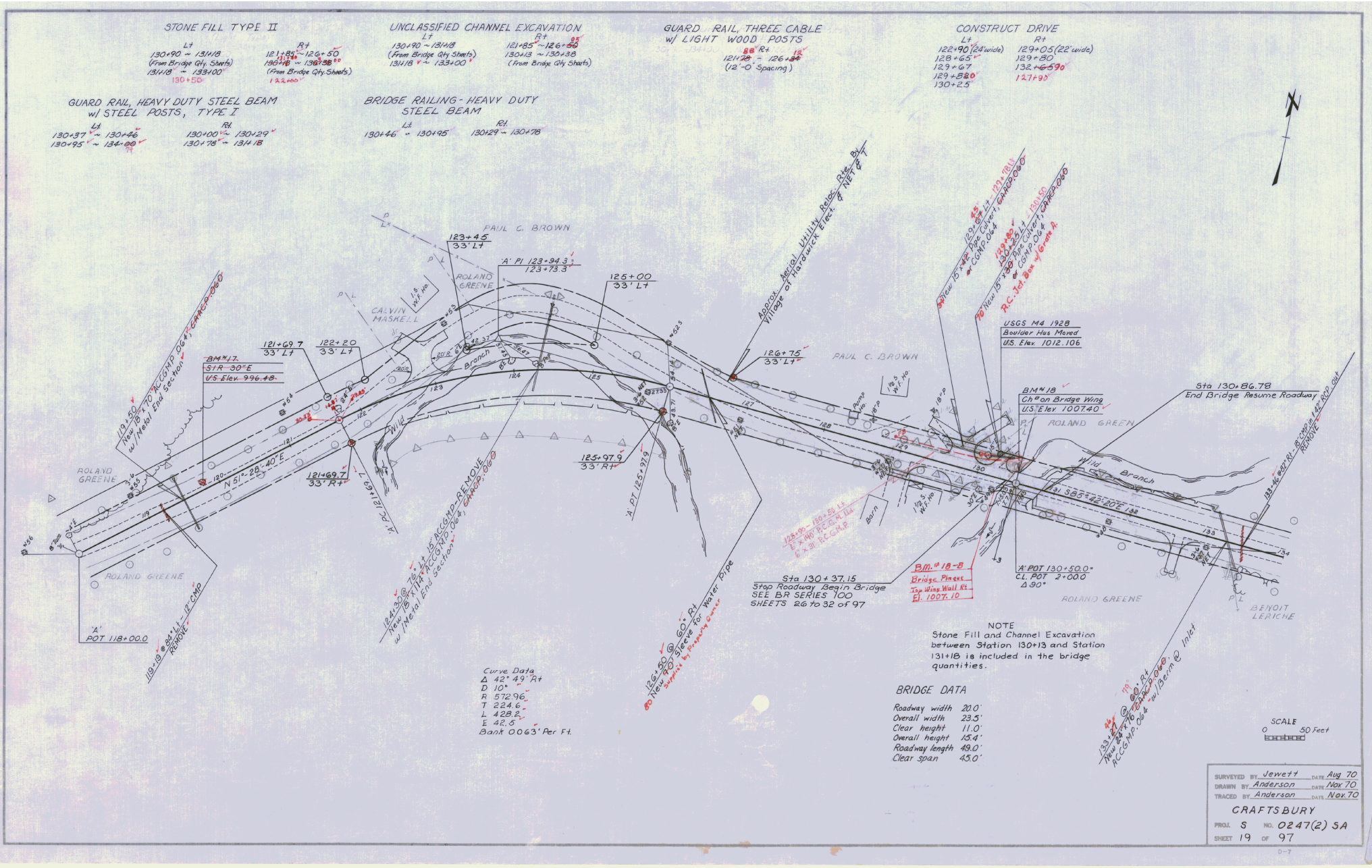
Horiz. 0 — 20 Feet

Vert. 0 — 10 Feet

PROFILE FOR DRIVE
At 108+50 Lt.

CRAFTSBURY
50247(2) SA
Sheet 18 of 97

PLATE 1, PLAN-PROFILE
KEUFFEL & ESSER CO.


STONE FILL TYPE II
Lt
130+90 ~ 131+18
(From Bridge Qty. Sheets)
131+18 ~ 133+00
130+50
Rt
121+85 ~ 126+50
130+13 ~ 130+38
(From Bridge Qty. Sheets)
122+00
UNCLASSIFIED CHANNEL EXCAVATION
Lt
130+90 ~ 131+18
(From Bridge Qty Sheets)
131+18 ~ 133+00
Rt
121+85 ~ 126+50
130+13 ~ 130+38
(From Bridge Qty Sheets)
GUARD RAIL, THREE CABLE
w/ LIGHT WOOD POSTS
Rt
121+78 ~ 126+84
(12'-0" Spacing)
CONSTRUCT DRIVE
Lt
122+90 (24' wide)
128+65
129+67
129+80
130+25
Rt
129+05 (22' wide)
129+80
132+65
127+90
GUARD RAIL, HEAVY DUTY STEEL BEAM
w/ STEEL POSTS, TYPE I
Lt
130+37 ~ 130+46
130+95 ~ 134+00
Rt
130+00 ~ 130+29
130+78 ~ 131+18
BRIDGE RAILING - HEAVY DUTY
STEEL BEAM
Lt
130+46 ~ 130+95
Rt
130+29 ~ 130+78
PAUL C. BROWN
123+45
33' Lt
'A' PI 123+94.3
123+73.3
125+00
33' Lt
ROLAND GREENE
CALVIN MASKELL
121+69.7
33' Lt
122+20
33' Lt
BM# 17
STR 30" E
U.S. Elev. 996.48
121+69.7
33' Rt
125+97.9
33' Rt
'A' PC 121+69.7
'A' PT 125+97.9
126+75
33' Lt
Approx. Aerial Utility Reloc. Rte. By Village of Hardwick Elect. & NET & T
USGS M4 1928
Boulder Has Moved
U.S. Elev. 1012.106
BM# 18
Ch^d on Bridge Wing
U.S. Elev. 1007.40
Sta 130+86.78
End Bridge Resume Roadway
Wild Branch
N 51°-28'-40" E
S 85°-42'-20" E
Sta 130+37.15
Stop Roadway Begin Bridge
SEE BR SERIES 100
SHEETS 26 to 32 of 97
BM# 18-B
Bridge Plaque
Top Wing Wall Rt
El. 1007.10
'A' POT 130+50.0
CL POT 2+00.0
Δ 90°
BENOIT LERICHE
'A'
POT 118+00.0
119+50
New 18" x 70' ACCGMP .064, CAACP .060
w/ Metal End Section
119+18 @ 84° Lt - 12" CMP
REMOVE
124+30 @ 76° Lt 15' ACCGMP - REMOVE
New 18" x 114' ACCGMP .064, CAACP .060
w/ Metal End Section
126+50 @ 60° Rt
80 New 90° Sleeve for Water Pipe
Supplied by Property Owner
133+46 @ 82° Rt - 18" CMP in 142" RCP out
REMOVE
133+27 @ 60° Rt
New 24" x 76' CAACP .060
ACCGMP .064 w/ Berm @ Inlet
Curve Data
Δ 42° 49' Rt
D 10°
R 572.96
T 224.6
L 428.2
E 42.5
Bank 0.063' Per Ft.
NOTE
Stone Fill and Channel Excavation between Station 130+13 and Station 131+18 is included in the bridge quantities.
BRIDGE DATA
Roadway width 20.0'
Overall width 23.5'
Clear height 11.0'
Overall height 15.4'
Roadway length 49.0'
Clear span 45.0'
SCALE
0 50 Feet
SURVEYED BY Jewett DATE Aug 70
DRAWN BY Anderson DATE Nov 70
TRACED BY Anderson DATE Nov 70
CRAFTSBURY
PROJ. S NO. 0247(2) SA
SHEET 19 OF 97
D-7



CRAFTSBURY
SO247(2)SA
Sheet 20 of 97

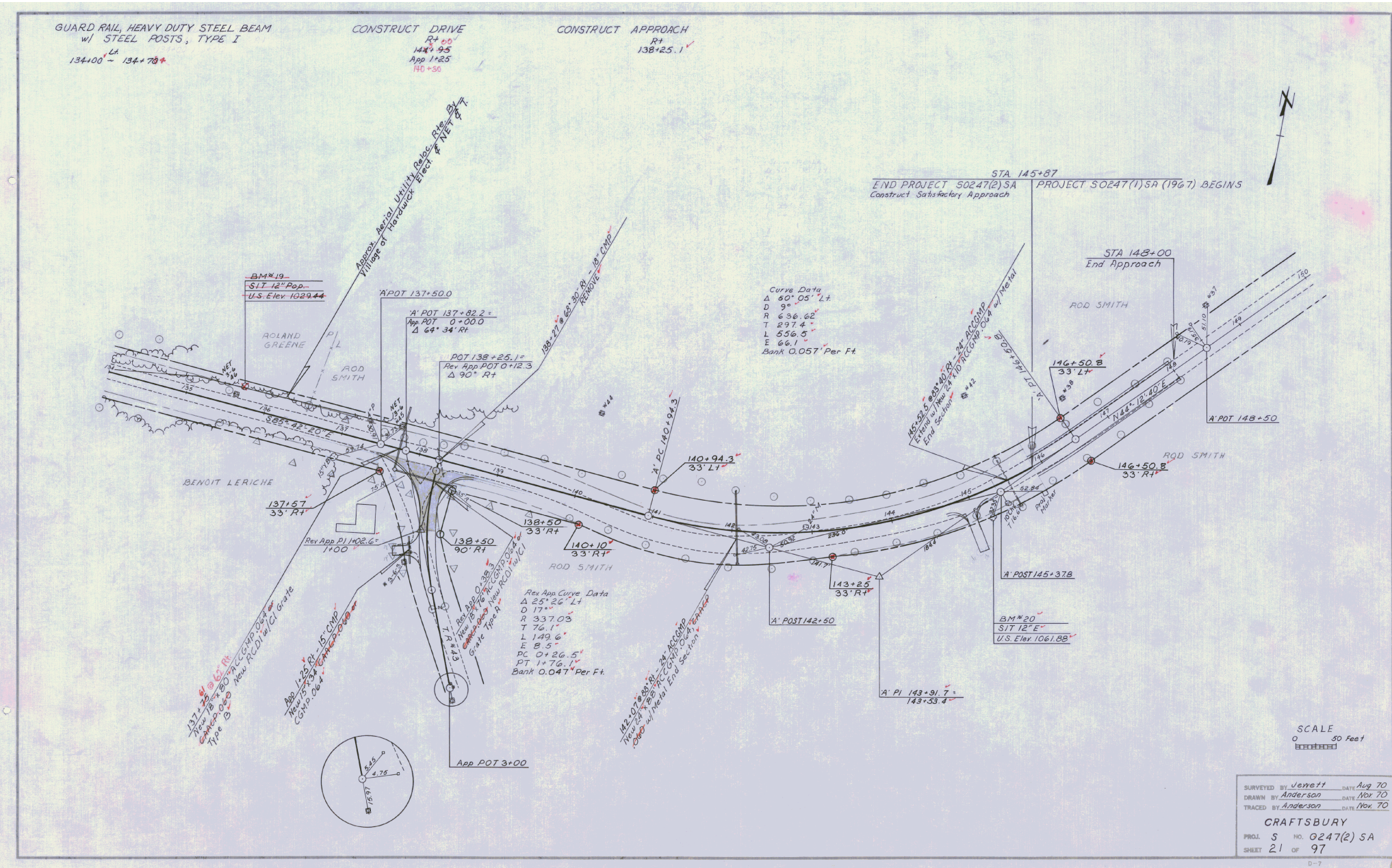
PLAN

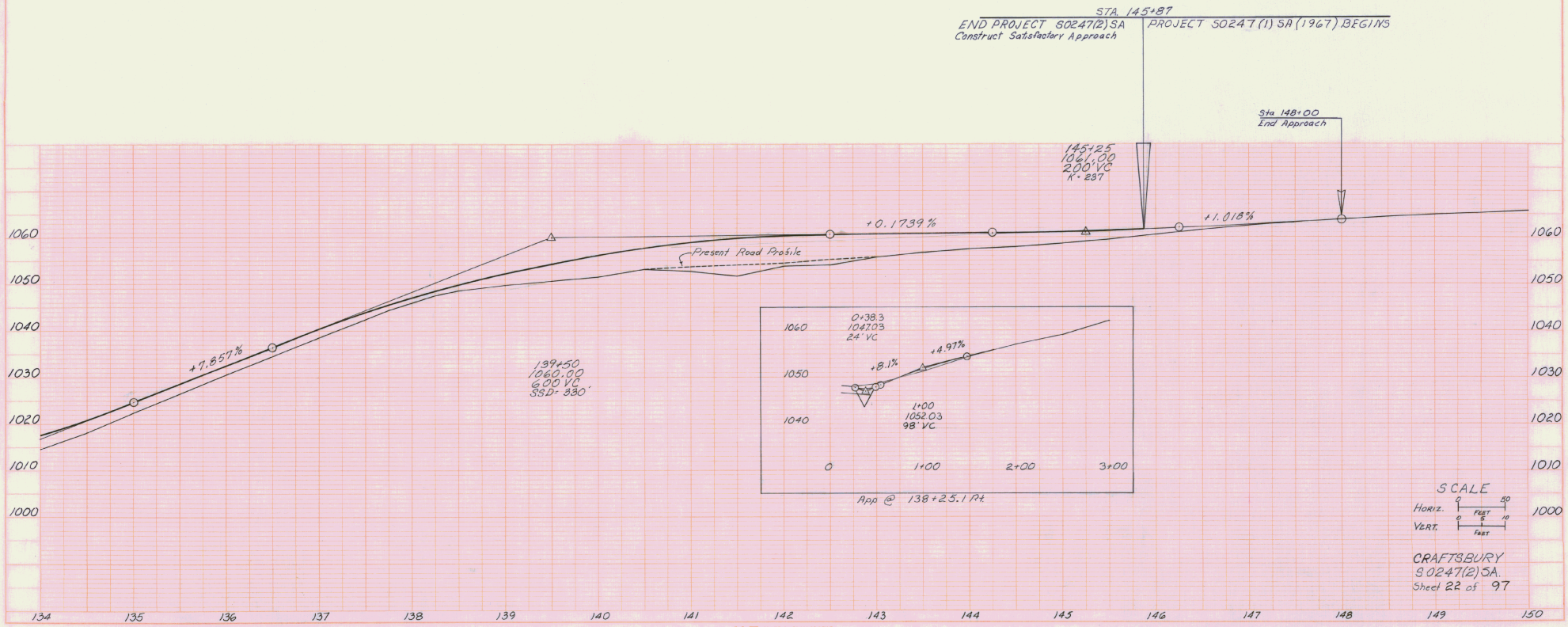
PROFILE

Jewett Computer

Aug 70

K+E PLATE 1, PLAN-PROFILE
KEUFFEL & ESSER CO.


GUARD RAIL, HEAVY DUTY STEEL BEAM
w/ STEEL POSTS, TYPE I
134+00 Lt. ~ 134+70
CONSTRUCT DRIVE
Rt
144+95
App 1+25
140+30
CONSTRUCT APPROACH
Rt
138+25.1
Approx. Aerial Utility Reloc. Rte. By Village of Hardwick Elect. & NET & T.
BM#19
S.I.T. 12" Pop.
U.S. Elev. 1029.44
ROLAND GREENE
ROD SMITH
'A' POT 137+50.0
'A' POT 137+82.2 =
App POT 0+00.0
Δ 64° 34' Rt
POT 138+25.1 =
Rev App POT 0+12.3
Δ 90° Rt
138+27 @ 68°30' Rt - 18" CMP
REMOVE
BENOIT LERICHE
137+57
33' Rt
Rev App PI 1+02.6 =
1+00
138+50
90' Rt
138+50
33' Rt
140+10
33' Rt
ROD SMITH
'A' PC 140+94.3
140+94.3
33' Lt
Rev App Curve Data
Δ 25° 26' Lt
D 17°
R 337.03
T 76.1
L 149.6
E 8.5
PC 0+26.5
PT 1+76.1
Bank 0.047 Per Ft.
Curve Data
Δ 50° 05' Lt.
D 9°
R 636.62
T 297.4
L 556.5
E 66.1
Bank 0.057 Per Ft.
STA. 145+87
END PROJECT S0247(2) SA
Construct Satisfactory Approach
PROJECT S0247(1) SA (1967) BEGINS
STA 148+00
End Approach
ROD SMITH
146+50.8
33' Lt
'A' PT 146+50.8
145+52.5 @ 83°40' Rt - 24" ACCGMP
Extend w/ New 24" x 10" ACCGMP .064 w/ Metal End Section
'A' POT 148+50
N44°12'40"E
146+50.8
33' Rt
ROD SMITH
Prop. Marker
'A' POST 145+37.8
143+25
33' Rt
'A' POST 142+50
BM#20
S.I.T. 12" E
U.S. Elev. 1061.88
'A' PI 143+91.7 =
143+53.4
App POT 3+00
137+75 @ 62" Rt
New 18" x 80" ACCGMP .064 or
GAACP .060 New RCD1 w/ Cl Grate
Type B
App 1+25 Rt - 15" CMP
New 15" x 34" GAACP .060 or
CGMP .064
Rev App 0+38.3
New 18" x 76" ACCGMP .064 or
GAACP .060 New RCD1 w/ Cl
Grate Type A
142+07 @ 88° Rt - 24" ACCGMP
New 24" x 88" ACCGMP .064, GAACP
.060 w/ Metal End Section
SCALE
0 50 Feet
SURVEYED BY Jewett DATE Aug 70
DRAWN BY Anderson DATE Nov. 70
TRACED BY Anderson DATE Nov. 70
CRAFTSBURY
PROJ. S NO. 0247(2) SA
SHEET 21 OF 97
D-7


STA 145+87
END PROJECT S0247(2)SA
Construct Satisfactory Approach
PROJECT S0247(1)SA(1967) BEGINS
Sta 148+00
End Approach
145+25
1061.00
200' VC
K= 237
+0.1739%
+1.018%
Present Road Profile
+7.857%
139+50
1060.00
600' VC
SSD= 330'
0+38.3
1047.03
24' VC
+8.1%
+4.97%
1+00
1052.03
98' VC
App @ 138+25.1 Rt.
1060
1050
1040
1030
1020
1010
1000
0
1+00
2+00
3+00
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150
SCALE
Horiz. 0 50 FEET
Vert. 0 5 10 FEET
CRAFTSBURY
S0247(2)SA.
Sheet 22 of 97

EARTHWORK

V.C.	% GRD	STATION	GRADES ELEVATION ON TAN.	ELEVATION ON V.C.	CORR. V.C.	DIST.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.

BRIDGE QUANTITY SHEET

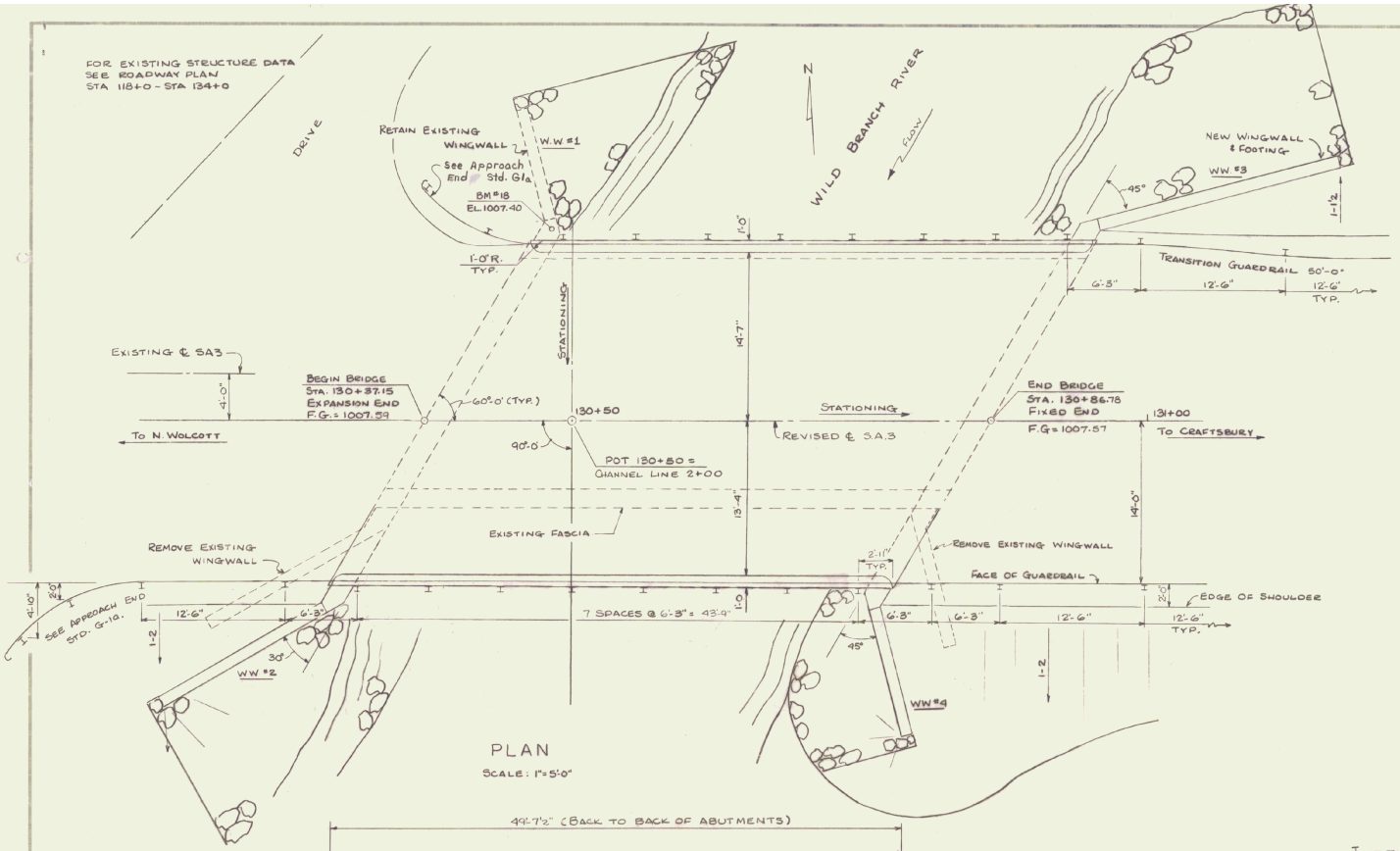
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
BRIDGE DIVISION

NO.	ITEM	UNIT	QUANTITY BREAKDOWN: SUPER-STRUCTURE	ABUTMENT NO. 1	ABUTMENT NO. 2	CHANNEL	TOTAL	FINAL
202.35	REMOVAL OF EXISTING CONCRETE OR MASONRY	C.Y.	12				12	11.58
203.27	UNCLASSIFIED CHANNEL EXCAVATION	C.Y.				50	50	53
204.25	STRUCTURE EXCAVATION	C.Y.		130	180		310	309.4
204.30	GRANULAR BACKFILL FOR STRUCTURES	C.Y.		70	100		170	171
306.10	OVERHAUL (5.5 MILES)	C.Y./MI.		385	550		935	0
517.21	MEMBRANE WATERPROOFING, TYPE I	S.Y.	152				152	152
406.25	BITUMINOUS CONCRETE PAVEMENT	TON	18				18	18
501.20	CONCRETE, CLASS A	C.Y.	32				32	31.95
501.25	CONCRETE, CLASS B	C.Y.		41	66		107	118.77
504.10	FURNISHING EQUIPMENT FOR DRIVING PILING	L.S.					1	1
505.15	STEEL PILING (HP 12×53)	LN.FT.		105	210		315	409
505.30	SPLICES FOR STEEL PILING	EA.		2	3		5	0
505.40	PILE LOADING TESTS	EA.			1		1	0
507.15	REINFORCING STEEL	LBS.	7570	2890	4550		15,010	15,219
514.10	WATER REPELLENT	GAL.	6	2	3		11	11
613.11	STONE FILL, TYPE II	C.Y.		40	40		80	80
615.30	EPOXY BONDING COMPOUND	GAL.	4	1	3		8	10
617.35	BRIDGE RAILING - HEAVY DUTY STEEL BEAM	LN.FT.	98				98	98
637.10	MAINTENANCE OF TRAFFIC FOR BRIDGE PROJECTS	L.S.					1	1
615.35	EPOXY MORTAR COMPOUND	GAL.	10				10	16

BRIDGE (S) AT STATION (S) 130 + 37.15
LOCATION (S) SA 3 OVER WILD BRANCH RIVER

Prepared by: E. BETZ
Checked by: A. ELWOOD 12-71
SUPERVISOR: F.W. Bolkum

CRAFTSBURY PROJECT NO. S-0247(2) SA
BR-100 OF BR-106 SHEET NO. 26 OF 97



GENERAL NOTES

1. THE GENERAL NOTE PERTAINING TO SPECIFICATIONS, MATERIALS AND CONSTRUCTION IS SHOWN ON STANDARD DRAWING SCB-DI-71. OTHER PERTINENT GENERAL NOTES SHOWN ON THE STANDARD ARE NOTES 8, 13, 14, 16, 17, 18, 19 AND 20.
2. THE PROJECT INVOLVES WIDENING AN EXISTING TEE-BEAM BRIDGE BY USING CAST-IN-PLACE CONCRETE TEE BEAMS AND CONSTRUCTING THREE NEW WINGWALLS (ONE UPSTEAM AND TWO DOWNSTREAM). THE STRUCTURE IS DESIGNED FOR A 28 FOOT ROADWAY AND AN H15-44 LIVE LOADING.
3. DIMENSIONS SHOWN ON THE PLANS WHICH DEPEND UPON THE SKEW ANGLE BETWEEN THE ABUTMENTS AND REVISED SA 3 CENTER LINE MUST BE VERIFIED BY FIELD MEASUREMENT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
4. STONE FILL, TYPE II, ITEM 613.11, SHALL BE PLACED IN A TWO-FOOT THICKNESS AT THE ENDS OF THE FOUR WINGWALLS AS SHOWN ON THIS SHEET AND THE SECTIONS (BR-106).
5. THE STEEL H PILES (HP12x53) SHALL BE FRICTION TYPE AND HAVE A DESIGN LOAD OF 40 TONS. LENGTH AND DESIGN BEARING VALUE OF THE PILES SHALL BE DETERMINED BY A PILE LOADING TEST AS OUTLINED IN SECTION 505 - PILING OF THE STANDARD SPECIFICATIONS.
6. ALL REINFORCING BARS SHALL BE LAPPED 30 DIAMETERS (MINIMUM 2'-0"). THE MINIMUM COVER FOR REINFORCING STEEL SHALL BE 3" IN THE ABUTMENT FOOTING AND 2" ELSEWHERE, EXCEPT AS NOTED ON THE PLANS.
7. ALL CONCRETE IN THE SLAB, TEE BEAMS AND BACKWALLS SHALL BE ITEM 501.20, CONCRETE, CLASS A. ITEM 501.25, CONCRETE, CLASS B, SHALL BE USED IN THE ABUTMENT EXTENSIONS AND WINGWALLS.
8. ITEM 202.35, REMOVAL OF EXISTING CONCRETE OR MASONRY, SHALL CONSIST OF REMOVING CONCRETE IN THE EXISTING SLAB, CURBS, AND RAIL POSTS TO THE CUT LINES AS DESIGNATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
9. WATER REPELLENT, ITEM 514.10, SHALL BE APPLIED TO EXPOSED AREAS OF NEW CONCRETE ONLY.
10. FOR SPECIFICATIONS REGARDING MOVEMENT OF TRAFFIC OVER THE BRIDGE SEE ITEM 637.10, MAINTENANCE OF TRAFFIC FOR BRIDGE PROJECTS. ONE WAY TRAFFIC SHALL BE MAINTAINED WITH A CLEAR WIDTH BETWEEN TEMPORARY CURBS OF 13'-9".
11. ALL GRAVEL AND LOOSE, BADLY DISINTEGRATED, UNSOUND, OR SCALED CONCRETE ON THE EXISTING DECK SHALL BE REMOVED AS DIRECTED BY THE ENGINEER. THE ENTIRE SURFACE OF THE DECK SHALL THEN BE CLEANED OF ALL SCALED CONCRETE, DIRT, AND OTHER LOOSE MATERIAL TO THE SATISFACTION OF THE ENGINEER. THIS WORK TO BE SUBSIDIARY TO ITEM 406.25, BITUMINOUS CONCRETE PAVEMENT. IF SPALLED AREAS OF LESS THAN 1" IN DEPTH ARE FOUND, FILL WITH EPOXY MORTAR COMPOUND, ITEM 615.35. IF DEPTH IS GREATER THAN 1", FILL WITH CONCRETE, CLASS "A". WHEN CONCRETE IS TO BE USED TO FILL PATCHES, CUT EDGES TO PROVIDE A MINIMUM DEPTH OF 1". THE ENGINEER SHALL DETERMINE WHETHER PATCHES ARE REQUIRED.

INDEX OF SHEETS

BR 100 QUANTITY SHEET
BR 101 PLAN AND ELEVATION
BR 102 SUPERSTRUCTURE DETAILS
BR 103 ABUTMENT NO.1 AND BORING DETAILS
BR 104 ABUTMENT NO.2
BR 105 REINFORCING STEEL SCHEDULE
BR 106 CHANNEL SECTIONS

STANDARD SHEETS

STD. DWG.	G-1a.	Dec 8,'71 A.
STD. DWG.	SCB-DI-71	JAN. 24,'72
STD. DWG.	E-3	Dec 14, 71
STD. DWG.	SCB-DG-71	DETAIL B of F May 1,'72 R

ROADWAY REFERENCE SHEETS

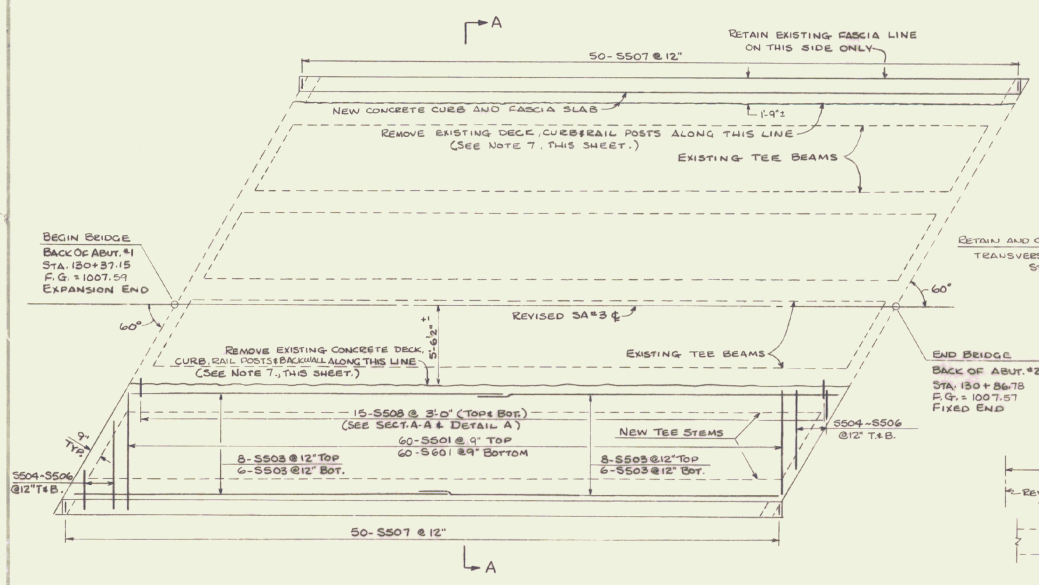
PLAN	STA 118+0 ~ STA 134+0
PROFILE	STA 118+0 ~ STA 134+0
SECTIONS	STA 130+19 ~ STA 132+50

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF CRAFTSBURY	Bridge No. 6
HIGHWAY NO. S.A. 3	Log Sta. —
	Surv. Sta. 130+62

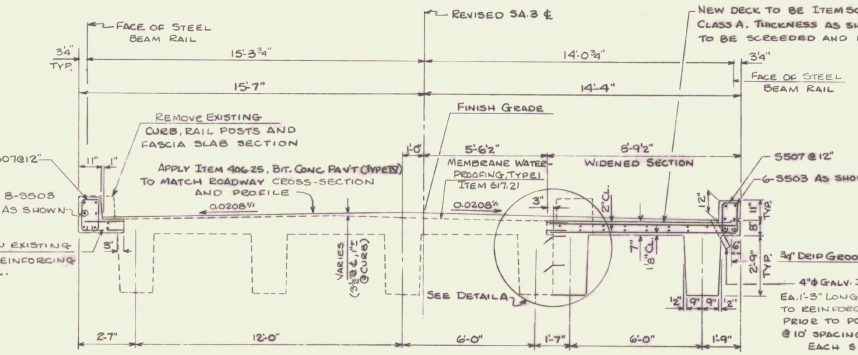
S.A. 3 OVER WILD BRANCH RIVER
PLAN AND ELEVATION

Designed by E. BETZ	Drawn by E. BETZ
Checked by E. WAIBEL	Bridge Design Supervisor:
date 12-71	F.W. Bolkum date: 1/72
PROJECT CRAFTSBURY	PROJECT NO. S-0247(2) SA
Bridge Sheet No. BR-101	Sheet 27 of 97



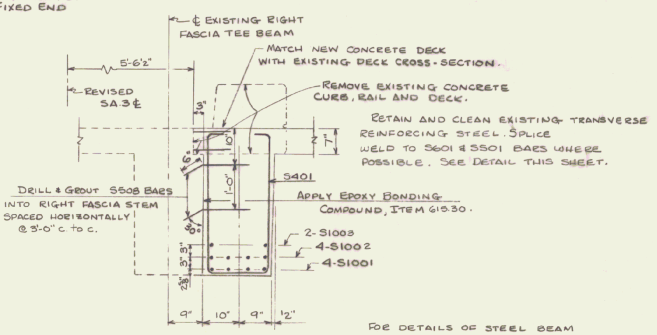
PLAN

SCALE: 1/4" = 1'-0"



SECTION A-A

SCALE: 3/8" = 1'-0"



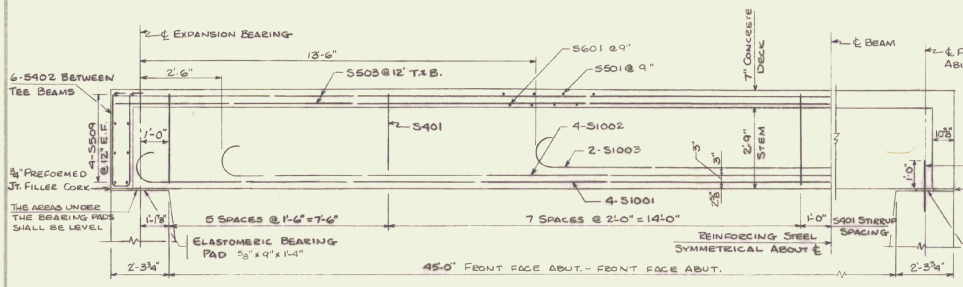
DETAIL A

SCALE: 3/4" = 1'-0"

(SECTION TAKEN AT MIDSPAN)

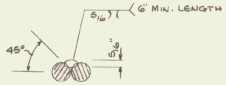
NOTES

1. FOR THE GENERAL NOTES SEE BR-101.
2. THE EXISTING EIGHT FASCIA TEE BEAM SHALL BE SUPPORTED DURING THE CONSTRUCTION AND CURING OF THE WIDENED SECTION. PAYMENT FOR THIS WORK TO BE SUBSIDIARY TO CONCRETE CL."A", ITEM 501.20.
3. ITEM 617.35, BRIDGE RAILING, HEAVY DUTY STEEL BEAM, SHALL INCLUDE THE FURNISHING AND ERECTION OF H.S. U-BOLTS, WASHERS, W6x15.5 STEEL POSTS, HEAVY DUTY STEEL BEAM AND INCIDENTALS. THE H.S. U-BOLTS SHALL CONFORM TO ASTM A-325. STEEL POST ASSEMBLIES ON THE STRUCTURE SHALL BE GALVANIZED AFTER ASSEMBLY ACCORDING TO ASTM A-123.
4. PAYMENT FOR THE ELASTOMERIC BEARING PADS AND THE 1"ϕ DOWELS SHALL BE SUBSIDIARY TO ITEM 501.20, CONCRETE CLASS A. THE BEARING PADS SHALL BE SECURED TO THE BRIDGE SEATS WITH AN APPROVED EPOXY ADHESIVE OR OTHER SUITABLE MEANS.
5. THE COST OF DRILLING AND GROUTING REINFORCING STEEL INTO EXISTING CONCRETE SHALL BE SUBSIDIARY TO ITEM 507.15, REINFORCING STEEL. THE GROUT SHALL BE NON-SHRINKING. (REFER TO SUB-SECTION 707.04.)
6. THE NEW TEE BEAMS SHALL BE CAMBERED TO MATCH THE EXISTING TEE BEAMS. THE COMPUTED DEAD LOAD DEFLECTION IS 3⅜ INCHES.
7. SO THAT A UNIFORM BREAKING EDGE MIGHT BE OBTAINED, A 1 INCH DEEP SAW CUT SHALL BE MADE ALONG THE CUT LINE WHERE THE CONCRETE DECK IS TO BE REMOVED. (SUBSIDIARY TO ITEM 202.35, REMOVAL OF EXISTING CONCRETE OR MASONRY)



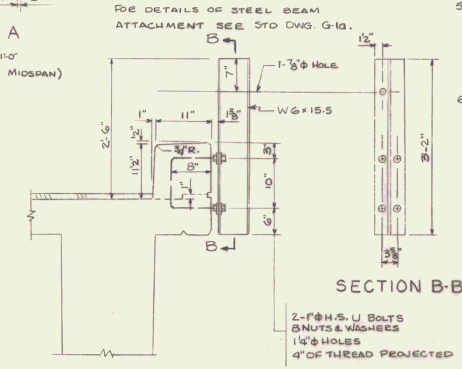
HALF ELEVATION OF BEAM

SCALE: 1/2" = 1'-0"



WELD SPLICE DETAIL

NTS



CURB AND RAIL DETAILS

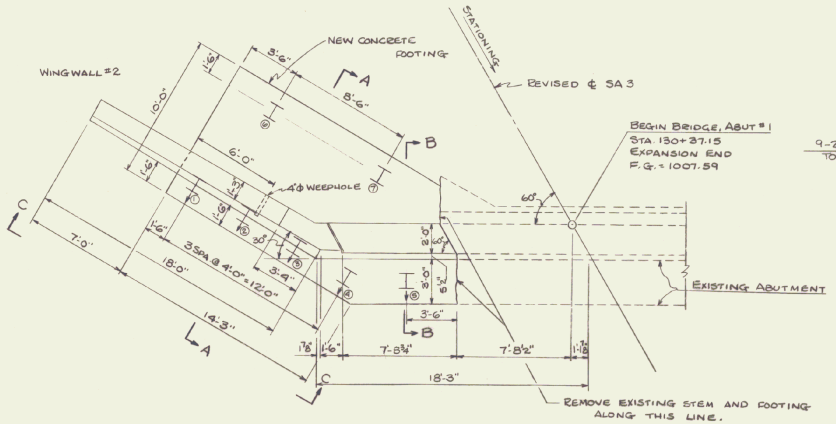
SCALE: 1" = 1'-0"

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF CRAFTSBURY	Bridge No. 6
HIGHWAY NO. SA 3	Log Sta. —
	Surv. Sta. 130+62

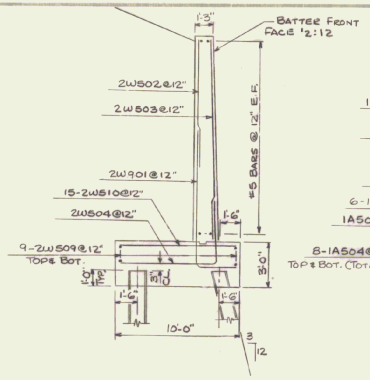
SA.3 OVER WILD BRANCH RIVER
SUPERSTRUCTURE DETAILS

Designed by E. BETZ	Drawn by E. BETZ
Checked by E. WAIBEL date 12-71	Bridge Design Supervisor: F.W. Balkum date: 1/72
PROJECT CRAFTSBURY	PROJECT NO. S-0247(2) SA
Bridge Sheet No. BR-102	Sheet 28 of 97



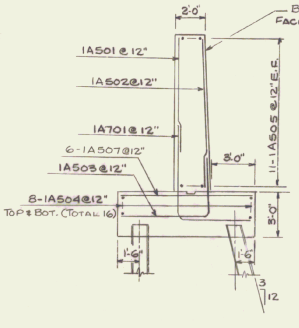
PLAN - ABUTMENT NO. 1

SCALE : 1⁄4" = 1'-0"



SECTION A-A

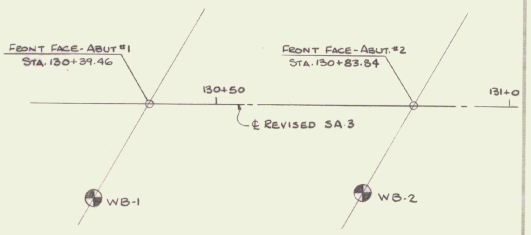
NTS.



SECTION B-B

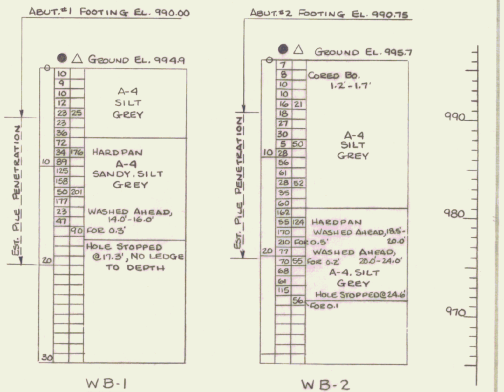
SCALE : 1⁄4" = 1'-0"

BORING LOGS



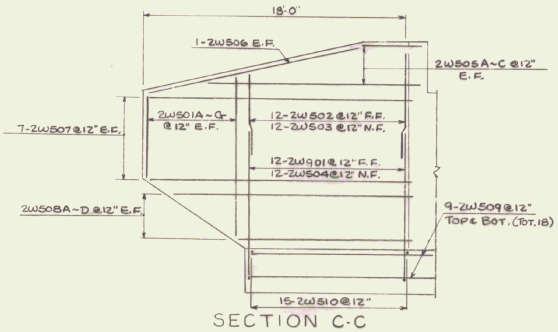
BORING PLAN

SCALE: 1" = 10'



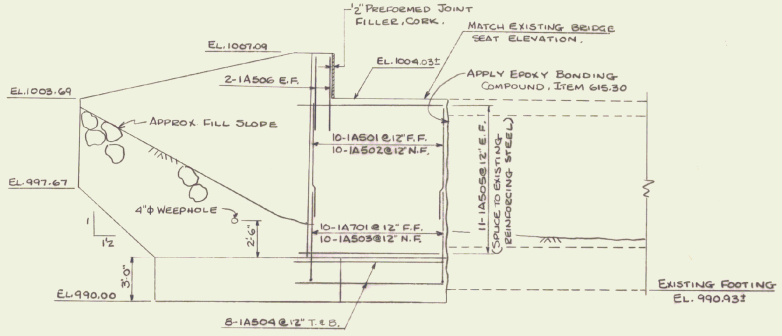
WB-1 WB-2

VERTICAL SCALE: 1" = 6'



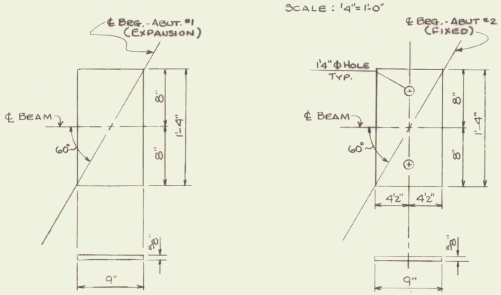
SECTION C-C

SCALE : 1⁄4" = 1'-0"



ELEVATION - ABUTMENT NO. 1

SCALE : 1⁄4" = 1'-0"



ELASTOMERIC BEARING PADS

2 REQ'D. - EACH TYPE
DUROMETER 60
SCALE : 1'2" = 1'-0"

MATERIAL TO MEET REQUIREMENTS OF SUB-SECTION 731.02.

STANDARD PENETRATION BORINGS

● BLOWS ON CASING
△ BLOWS ON SAMPLER

CASING OUTSIDE DIAMETER	3"
CASING INSIDE DIAMETER	2¼"
WEIGHT OF HAMMER	350 LBS.
HAMMER FALL	24"
SAMPLER OUTSIDE DIAMETER	2"
SAMPLER INSIDE DIAMETER	1⅜"
WEIGHT OF HAMMER	140 LBS.
HAMMER FALL	30"

BORING NO.	STATION	OFFSET	GROUND ELEV.
WB-1	130+30	Rt. 16'	994.9
WB-2	130+76	Rt. 15'	995.7

PILING DATA - ABUTMENT NO. 1

ROW	NO. OF PILES	SIZE	EST. LENGTH OF PILES	SPLICES ALLOWED FOR PILING NOT EXCEEDING PLAN LENGTH. (TO BE PAID FOR ONLY IF USED)	SPLICES ESTIMATED FOR PILES EXCEEDING PLAN LENGTH. (TO BE PAID FOR ONLY IF USED)
FRONT	5	HP12×53	15'	NONE	2
REAR	2	HP12×53	15'	NONE	0

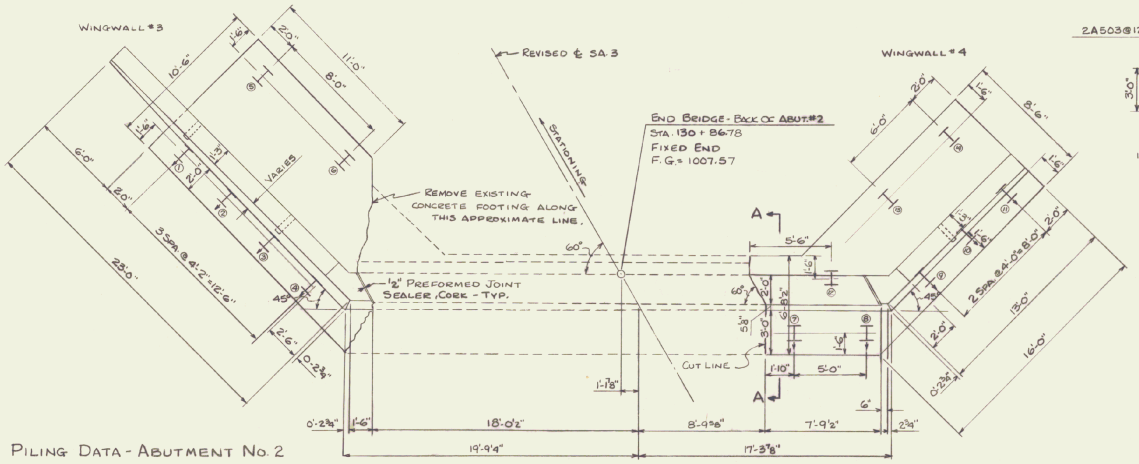
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF CRAFTSBURY	Bridge No. 6
HIGHWAY NO. S.A. 3	Log Sta. —
	Surv. Sta. 130+62

S.A. 3 OVER WILD BRANCH RIVER
ABUTMENT NO. 1 AND BORING LOGS

Designed by E. BETZ	Drawn by E. BETZ
Checked by E. WAIBEL	Bridge Design Supervisor:
date 12-71	F.W. Bolkum date: 1/72
PROJECT CRAFTSBURY	PROJECT NO. S-0247(2)SA
Bridge Sheet No. BR-103	Sheet 29 of 97

BR-1

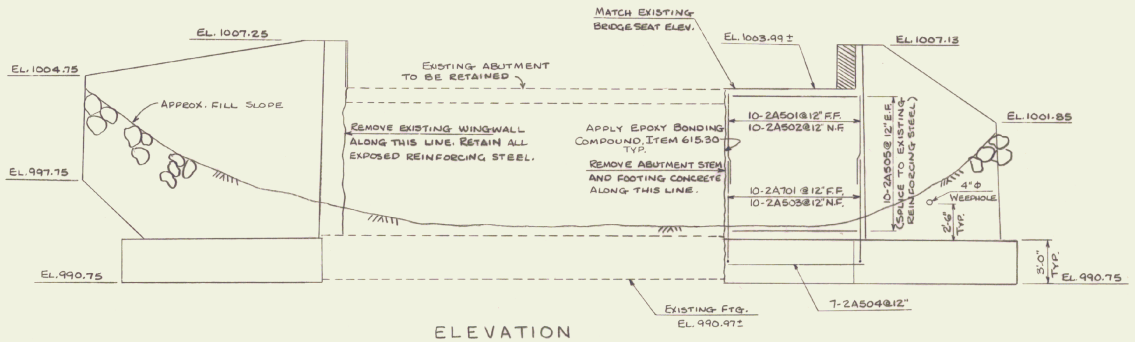


PLAN - ABUTMENT NO. 2

SCALE : ¼" = 1'-0"

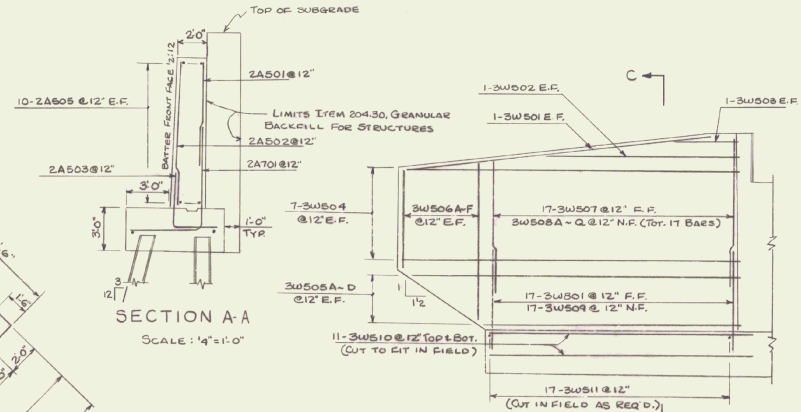
PILING DATA - ABUTMENT No. 2

ROW	No. OF PILES	SIZE	EST. LENGTH	SPLICES ALLOWED FOR PILING NOT EXCEEDING PLAN LENGTH. (TO BE PAID FOR ONLY IF USED)	SPLICES ESTIMATED FOR PILES EXCEEDING PLAN LENGTH. (TO BE PAID FOR ONLY IF USED)
FRONT	9	HP12×53	15'	NONE	2
REAR	5	HP12×53	15	NONE	1



ELEVATION

SCALE : ¼" = 1'-0"

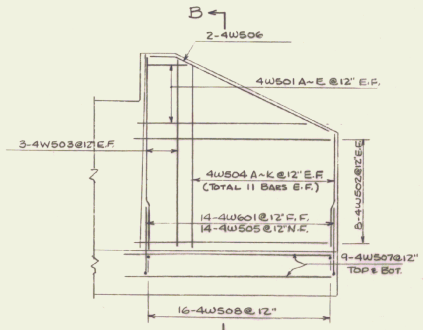


SECTION A-A

SCALE : ¼" = 1'-0"

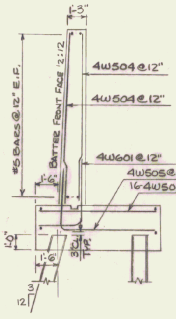
WINGWALL NO. 3

SCALE : ¼" = 1'-0"



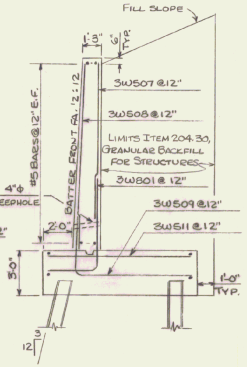
WINGWALL NO. 4

SCALE : ¼" = 1'-0"



SECTION B-B

SCALE : ¼" = 1'-0"



SECTION C-C

SCALE : ¼" = 1'-0"

NOTES

1. FOR THE GENERAL NOTES SEE BR-100.
2. ITEM 204.30, GRANULAR BACKFILL FOR STRUCTURES SHALL BE PLACED BEHIND THE NEW WINGWALLS AND ABUTMENT EXTENSIONS TO THE LIMITS SHOWN ON THESE PLANS. (REFER TO SECTIONS A-A AND C-C.)
3. REFER TO SUB-SECTION 707.21 FOR PREFORMED JOINT FILLER, CORK, MATERIAL SPECIFICATIONS. THE COST OF THE PREFORMED JOINT SEALER, CORK, SHALL BE SUBSIDIARY TO CONCRETE, CLASS A, ITEM 501.20.
4. FOR TYPICAL CONSTRUCTION JOINT AND SCORE MARK DETAIL SEE SCB-D6-71, DETAIL B.
5. REMOVAL OF EXISTING CONCRETE IN THE WINGWALLS, BACKWALL AND ABUTMENTS SHALL BE SUBSIDIARY TO STRUCTURE EXCAVATION, ITEM 204.25. THE EXISTING TIMBER PILES SHALL REMAIN IN PLACE.
6. ALL SURFACES BETWEEN NEW AND EXISTING CONCRETE SHALL BE COATED WITH EPOXY BONDING COMPOUND, ITEM 615.30.

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF CRAFTSBURY	Bridge No. 6
HIGHWAY NO. SA.3	Log Sta. Surv. Sta. 130+62
SA.3 OVER WILD BRANCH RIVER	
ABUTMENT NO. 2	
Designed by E. BETZ	Drawn by E. BETZ
Checked by E.W. BETZ & F.W. BOLKUM date 12-71	Bridge Design Supervisor: F.W. Bolkum date: 1/72
PROJECT CRAFTSBURY	PROJECT NO. S-0247(2)SA
Bridge Sheet No. BR-104	Sheet 30 of 97

ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
				SUPERSTRUCTURE													
* 2	1	4	4-0	S403	STR	(Test Bar)											
3				S502		(Not Used)											
4	56	5	28-4	S503	STR												
5	4ea.		5-6	S504													
6			to	thru		2 Increments vary in lengths of 1-9"											
7	4ea.		2-0	S506													
8	30		1-6	S508		(Bend in field)											
9	16	5	10-0	S509													
* 10	61	6	8-5	S601	STR												
11																	
12																	
13																	
14	52	4	7-11	S401	S9	0-4½	3-0	1-2	3-0			0-4½	0-3				
15	12	4	7-2	S402	S8	0-4½	3-0	0-5	3-0			0-4½	0-3				
16																	
17	60	5	9-2	S501	17		8-5	0-9	—								
18	100	5	4-0	S507	S3	0-5½	1-3	0-7	1-3			0-5½	0-3⅜				
19																	
20	8	10	49-8	S1001	1	1-1	47-6					1-1		0-9			
21	8	10	44-6	S1002	1	1-1	42-4					1-1		0-9			
* 22	5	10	22-6	S1003	1	1-1	20-4					1-1		0-9			
23																	
24																	
25																	
26				**ABUTMENT NO. 1**													
27																	
28	10	5	7-11	1A501	STR												
29	10		10-8	1A502													
30	16		7-0	1A504													
31	22		9-0	1A505													
32	4		5-0	1A506													
33	6		9-6	1A507	STR												
34	10	5	8-3	1A503	17		3-9	4-6	—								
35																	
36	10	7	11-9	1A701	17		6-6	4-10	—								
37																	
38																	
39																	
40				**WINGWALL NO. 2**													
41																	
42	2ea.	5	5-8	2W501A	STR												
43			to	thru		6 Increments vary in lengths of 0-11											
44	2ea.		11-2	2W501G													
45	12		8-0	2W502													
46	12		8-6	2W503													
47	2ea.		3-0	2W505A													
48			to	thru		2 Increments vary in lengths of 5-6											
49	2ea.		14-0	2W505C													
50	2		15-0	2W506													
51	14		18-0	2W507													
52	2ea.		16-0	2W508A													
53			to	thru		3 Increments vary in lengths of 1-6											
54	2ea.		11-6	2W508D													
55	18		14-0	2W509													
56	15	5	9-6	2W510	STR												
57																	
58	12	5	16-9	2W504	17		8-9	8-0	—								
59																	
* 60	13	9	12-6	2W901	17		9-9	2-9	—								
61																	
62																	
63																	
64				**ABUTMENT NO. 2**													
65																	
* 66	11	5	6-4	2A501	STR												
67	10		9-10	2A502													
68	7		9-0	2A504													
69	20	5	9-6	2A505	STR												
70																	
71	10	5	7-1	2A503	17		3-9	3-4	—								
72																	
73	10	7	12-3	2A701	17		7-3	5-0	—								
74																	
75																	
76																	
77																	
78																	
79																	
80																	

ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
81				**WINGWALL NO. 3**													
82																	
83	2	5	21-0	3W501	STR												
84	2		18-0	3W502													
85	2		4-3	3W503													
86	19		22-6	3W504													
87	2ea.		22-0	3W505A													
88			to	thru		3 Increments vary in lengths of 1-7											
89	2ea.		17-3	3W505D													
90	2ea.		6-6	3W506A													
91			to	thru		5 Increments vary in lengths of 0-10											
92	2ea.		10-8	3W506F													
93	17		9-6	3W507													
94	1ea.		11-6	3W508A													
95			to	thru		16 Increments vary in lengths of 0-1											
96	1ea.		12-10	3W508Q													
97	22		15-0	3W510													
98	17	5	10-0	3W511	STR												
99																	
100	17	5	11-3	3W509	17	3-9	7-6	—									
101																	
* 102	18	8	12-5	3W801	17	9-3	3-2	—									
103																	
104																	
105																	
106				**WINGWALL NO. 4**													
107																	
108	2ea.	5	3-0	4W501A	STR												
109			to	thru		4 Increments vary in lengths of 2-0											
110	2ea.		11-0	4W501E													
111	16		13-0	4W502													
112	6		13-2	4W503													
113	2ea.		8-0	4W504A													
114			to	thru		10 Increments vary in lengths of 0-5											
115	2ea.		12-2	4W504K													
116	18		15-9	4W507													
117	16	5	8-0	4W508	STR												
118																	
119	14	5	10-7	4W505	17	4-0	6-7	—									
120	2	5	14-0	4W506	19	2-0	12-0	—						0-10		1-10	
121																	
* 122	15	6	7-9	4W601	17	5-3	2-6	—									
123																	
124																	
125																	
126																	
127																	
128																	
129																	
130																	
131																	
132																	
133																	
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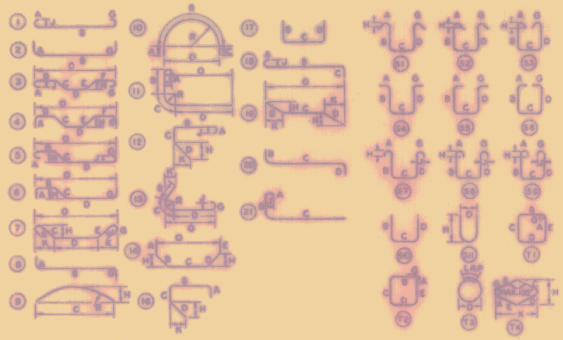
151																	
152																	
153																	
154																	
155																	
156																	
157																	
158																	
159																	
160																	

ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
161																	
162																	
163																	
164																	
165																	
166																	
167																	
168																	
169																	
170																	
171																	
172																	
173																	
174																	
175																	
176																	
177																	
178																	
179																	
180																	

ASTM STANDARD REINFORCING BARS

BAR SIZE DESIGNATION	WEIGHT POUNDS PER FOOT	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER INCHES	CROSS SECTIONAL AREA SQ. INCHES	PERIMETER INCHES
#3	.376	.375	.11	1.178
#4	.668	.500	.20	1.571
#5	1.043	.625	.31	1.963
#6	1.502	.750	.44	2.356
#7	2.044	.875	.60	2.749
#8	2.670	1.000	.79	3.142
#9	3.400	1.128	1.00	3.544
#10	4.303	1.270	1.27	3.990
#11	5.313	1.410	1.56	4.430
#14	7.65	1.693	2.25	5.32
#18	13.60	2.257	4.00	7.09

TYPICAL BAR BENDS



NOTES

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT," AASHO M 31 (ASTM A 615), GRADE 40.
2. FOR TYPICAL BENDING DETAILS, RECOMMENDED PIN DIAMETER "D" OF BENDS AND HOOKS AND OTHER STANDARD PRACTICE SEE CURRENT CONCRETE REINFORCING STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE."
3. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180° AND 135° HOOKS.
5. "J" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
6. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
7. WHERE SLOPE DIFFERS FROM 45° DIMENSIONS "H" AND "K" MUST BE SHOWN.

* DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.

REV. NO.	MADE BY	DATE	DESCRIPTION

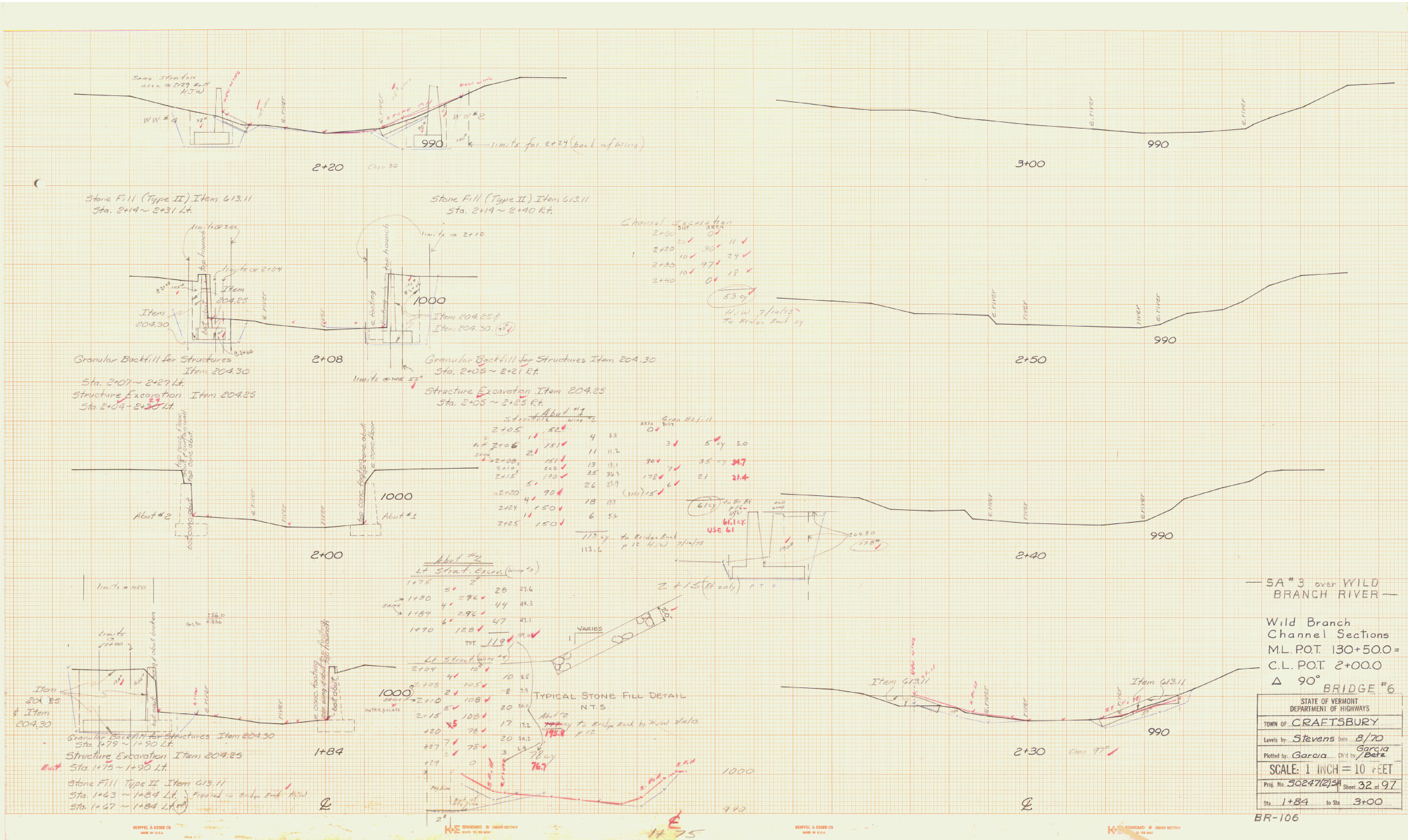
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

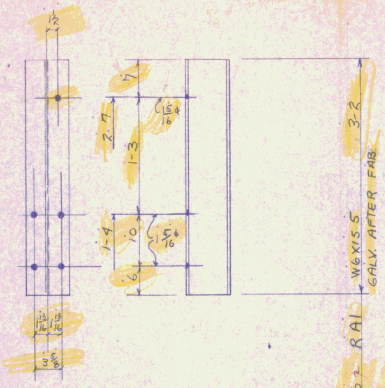
TOWN OF CRAFTSBURY	BRIDGE NO. 6
HIGHWAY NO. S.A. 3	LOG STA.
	SURV. STA. 130+62

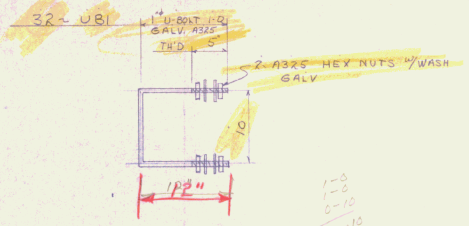
S.A. 3 OVER WILD BRANCH RIVER

REINFORCING STEEL SCHEDULE

DESIGNED BY E. BETZ	DRAWN BY E. BETZ
CHECKED BY A. Elwood	BRIDGE DESIGN SUPERVISOR:
DATE 12-71	F.W. Bolkum DATE: 1/72
PROJECT CRAFTSBURY	PROJECT NO. S-0247(2)SA
BRIDGE SHEET NO. BR-105	SHEET 31 OF 97


Stone Fill (Type II) Item 613.11
Sta. 2+19 ~ 2+31 Lt.
Stone Fill (Type II) Item 613.11
Sta. 2+19 ~ 2+40 Rt.
Granular Backfill for Structures Item 204.30
Sta. 2+07 ~ 2+27 Lt.
Structure Excavation Item 204.25
Sta. 2+04 ~ 2+30 Lt.
Granular Backfill for Structures Item 204.30
Sta. 2+05 ~ 2+21 Rt.
Structure Excavation Item 204.25
Sta. 2+05 ~ 2+25 Rt.
Channel Excavation
Granular Backfill for Structures Item 204.30
Sta. 1+79 ~ 1+90 Lt.
Structure Excavation Item 204.25
Sta. 1+79 ~ 1+90 Lt.
Stone Fill Type II Item 613.11
Sta. 1+63 ~ 1+84 Lt.
Sta. 1+67 ~ 1+84 Rt.
TYPICAL STONE FILL DETAIL
N.T.S.
SA # 3 over WILD BRANCH RIVER
Wild Branch
Channel Sections
M.L. P.O.T. 130+50.0 =
C.L. P.O.T. 2+00.0
Δ 90°
BRIDGE #6
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
TOWN OF CRAFTSBURY
Levels by: Stevens Date: 8/70
Plotted by: Garcia Ch'd by: Bete
SCALE: 1 INCH = 10 FEET
Proj. No. 3024712)SA Sheet 32 of 97
Sta. 1+84 to Sta. 3+00
BR-106





BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.	WEIGHT

JOB NO. SHEET NO.

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.	WEIGHT
		BRIDGE RAIL			
16	RAI	W6X15.5 GALV AFTER FAB	32		ORD
		ANCHOR ASSEMBLIES GALV			
32	UBI	1" U-BOLT A325	2	10	ORD RB ASSEMBLIES
128		1" A325 HEX NUT GALV			TAKE 4 FROM JOB #60533
128		1" HARD WASH GALV			LEFT OVER

STATE COPY

RECEIVED AUG 17 1972
CK'D BY FWB OK'D BY V
RESUBMIT APPROVED V As Noted
BY E. PERKINS DATE 8/17/72

SHORT ORDER COMPLETE

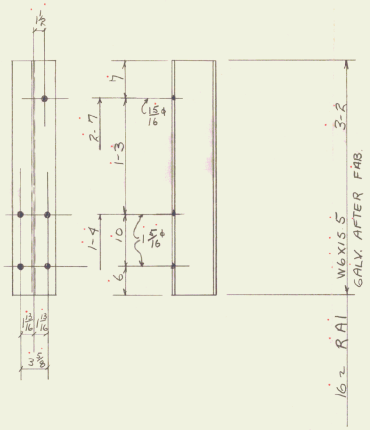
VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT. PROJ # S-0247(2)SA

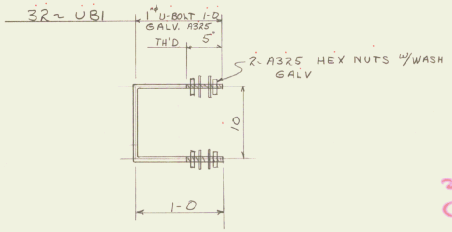
		DATE
DRAWN BY	R	8-11-72
CK'D BY		
HOLES	AS NOTED	
BOLTS	do	
PAINT	GALV AFTER FAB	

PROJECT CRAFTSBURY BRIDGE # 6
LOCATION HWY "SA3 CRAFTSBURY VT
CUSTOMER BLOW & COTE INC.
ARCHITECT STATE OF VT. HWY DEPT
JOB NO. 74551 SHEET NO. 1

PRINT RECORD

NO.	FOR	DATE
8	STATE APP	8-11





2 Graffigna

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT

JOB NO. ..... SHEET NO. .....

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		BRIDGE RAIL				
16	RA1	W6X15.5 GALV AFTER FAB	3	2	RES 1@50-0	
					TO SHOP	
					8-18-72	
					ASTM A36	
		ANCHOR ASSEMBLIES				
		GALV				
32	UB1	1" U-BOLT A325	2	10	ORD 28 ASSEMBLIES	
128		1" A325 HEX NUT			TAKE 4 FROM	
		GALV			JOB #60533	
128		1" HARD WASH			LEFT OVER	
		GALV			ORD N.E. NUT	
					& BOLT 032228	
					TO SHOP	

#2, B6 over Wild Branch

SHORT ORDER COMPLETE

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

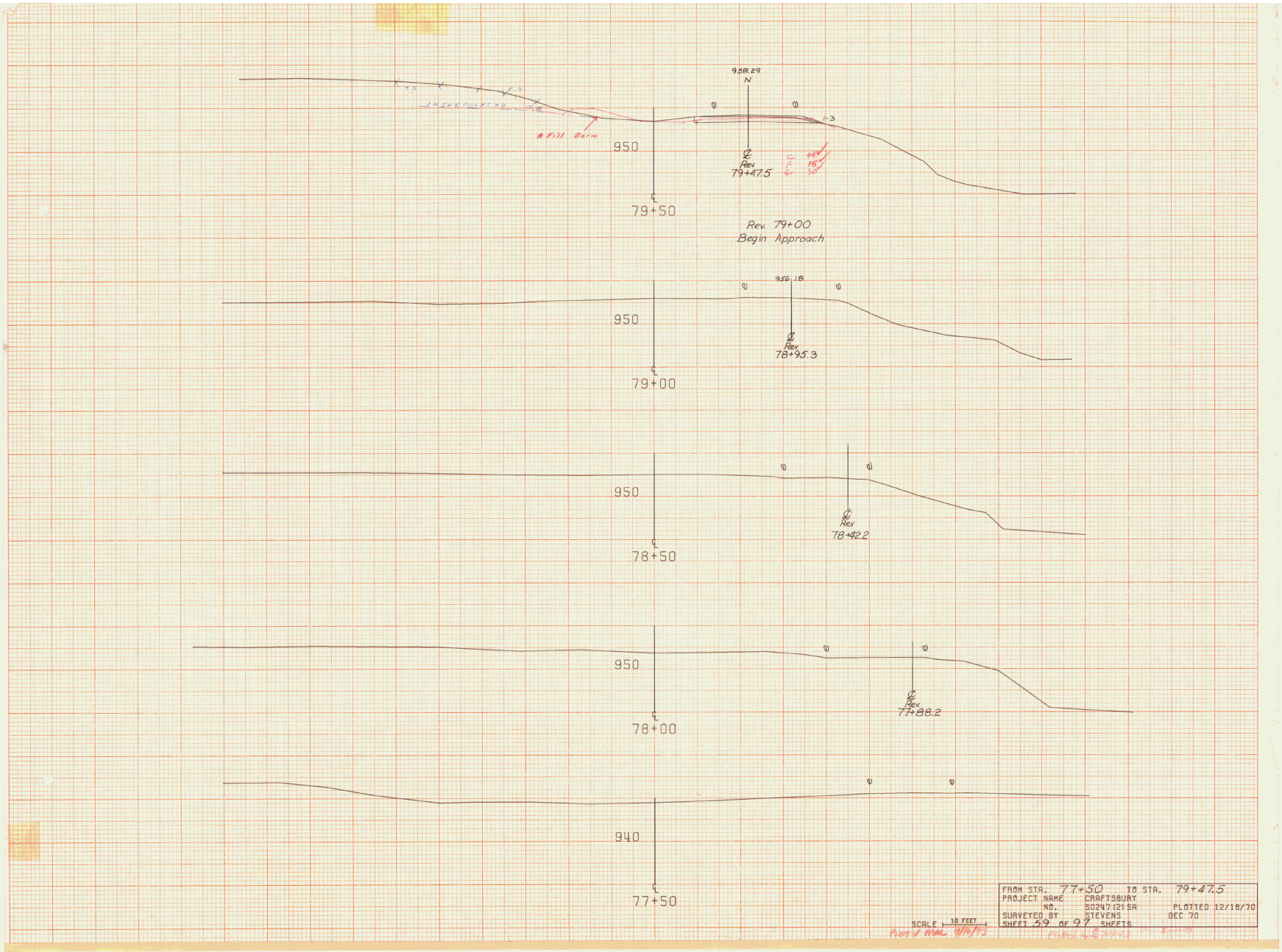
PROJ. # S-0247(2)SA

		DATE
DRAWN BY	R	8-11-72
CK'D BY		

HOLES AS NOTED
BOLTS do
PAINT GALV AFTER FAB.

PROJECT CRAFTSBURY BRIDGE #6
LOCATION HWY #SA3 CRAFTSBURY, VT
CUSTOMER BLOW & COTE INC
ARCHITECT STATE OF VT HWY DEPT
JOB NO. 74551 SHEET NO. 1

PRINT RECORD		
NO.	FOR	DATE
8 (1)	SHOP APP	8-11
4 (1)	SHOP	8-23



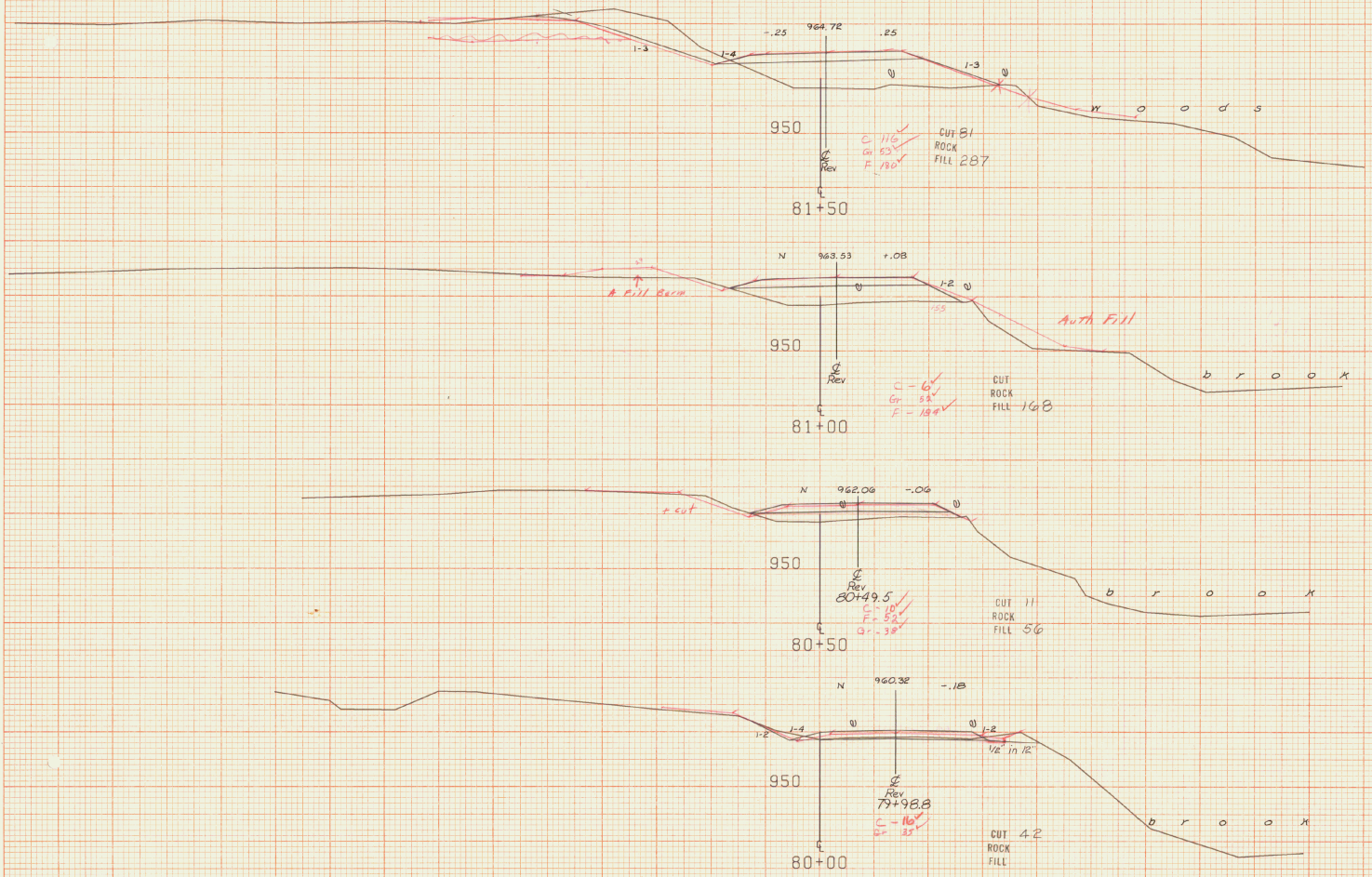
FROM STA. 77+50 TO STA. 79+47.5
PROJECT NAME CRAFTSBURY
NO. S0247(21)SA PLOTTED 12/18/70
SURVEYED BY STEVENS DEC 70
SHEET 39 OF 97 SHEETS

SCALE 10 FEET

PLOTTED W. MAC 9/16/73

Rev
82+00
Begin Project S0247(2)SA
Construct Satisfactory Approach

81+61 Rt
12" CMP - REMOVE

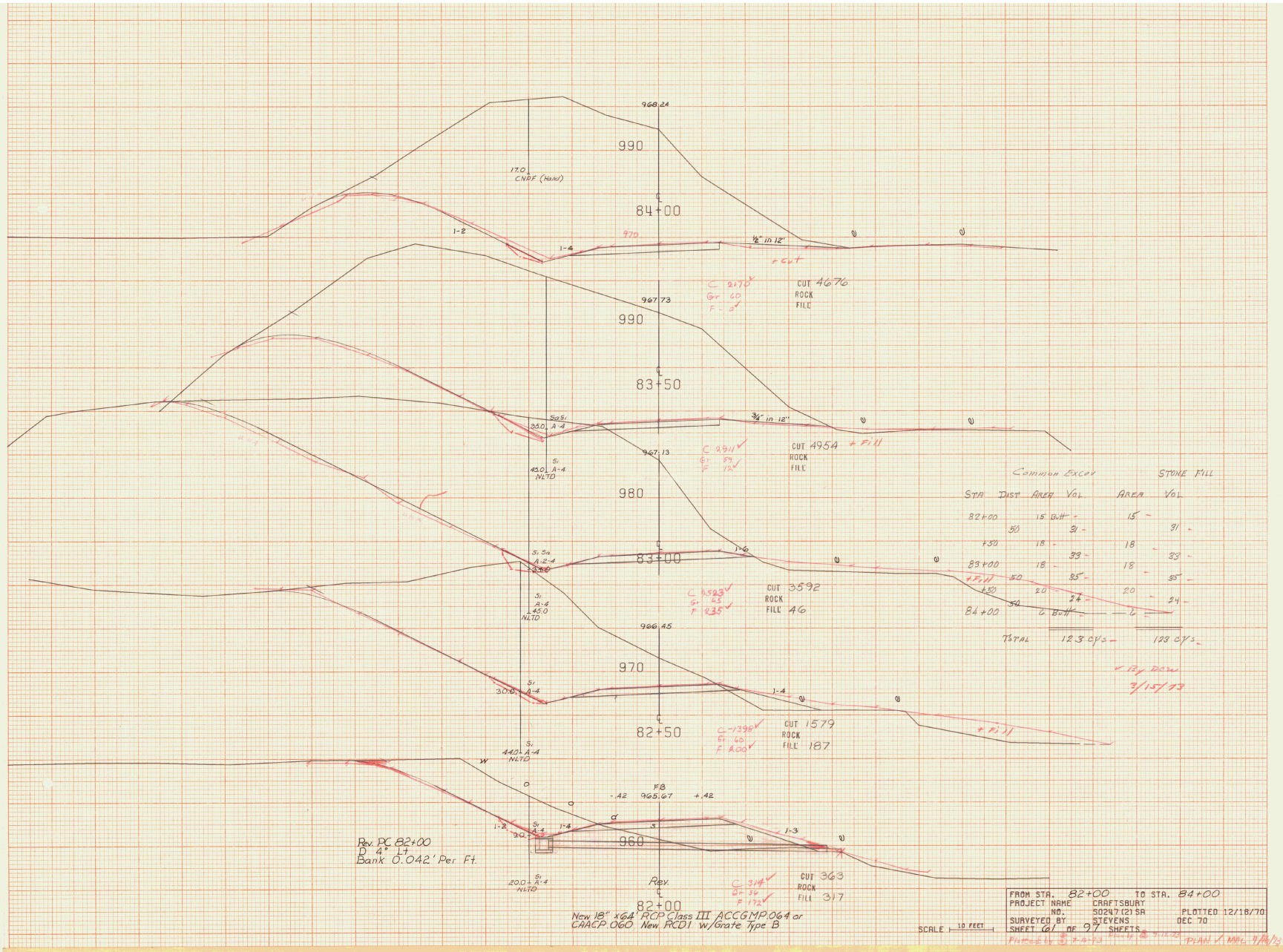


FROM STA.	79+98.8 TO STA. 81+50
PROJECT NAME	CRAFTSBURY
NO.	S0247(2)SA
SURVEYED BY	STEVENS
SHEET	60 OF 97 SHEETS

PLOTTED 12/18/70
DEC 70

SCALE 10 FEET

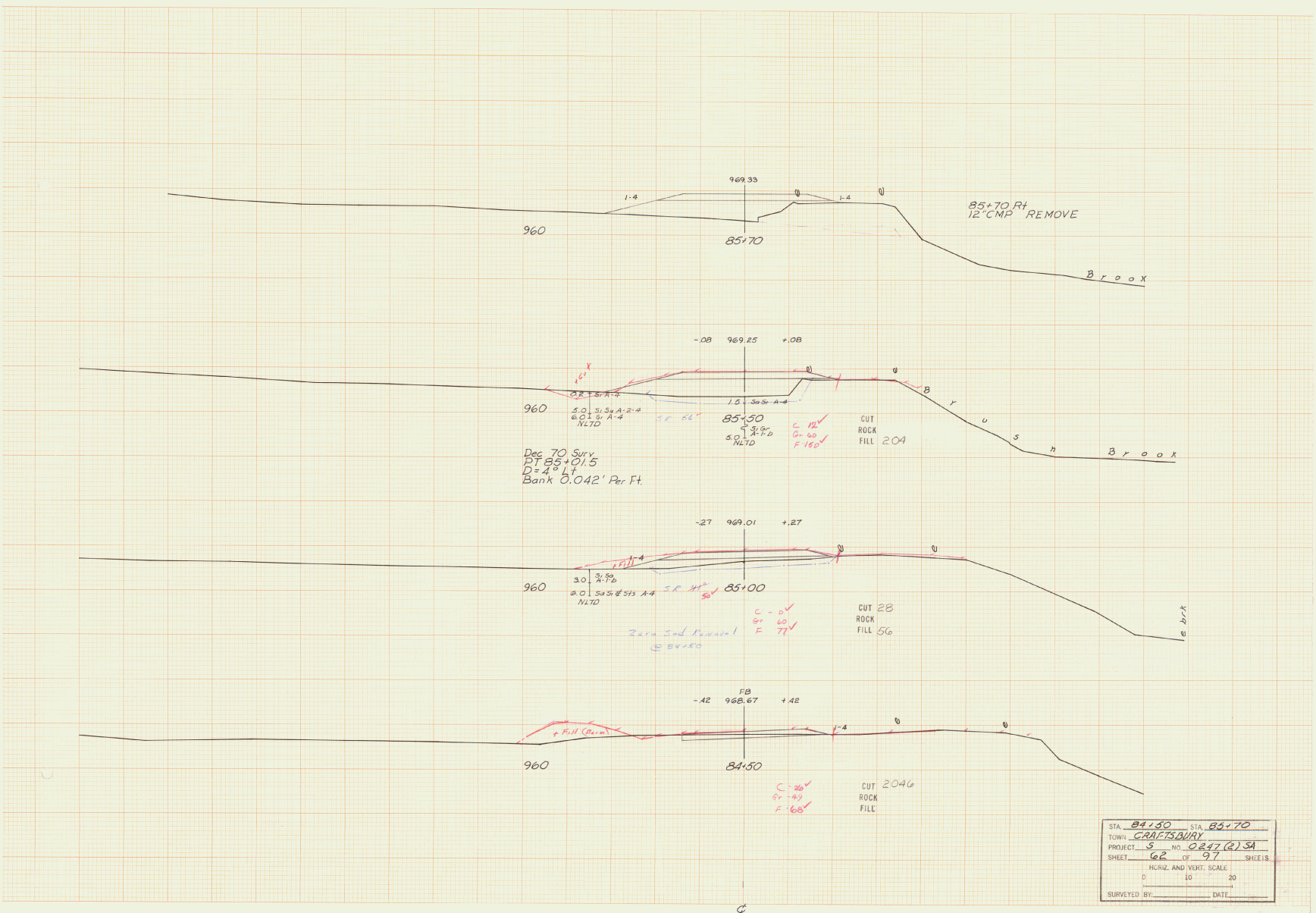
PLANS ✓ MAL 7/16/73



	Common Excav			Stone Fill	
STA	DIST	AREA	VOL.	AREA	VOL
82+00		15 Butt	-	15	-
	50		31 -		31 -
+50		18 -		18	-
			33 -		33 -
83+00		18 -		18	-
+Fill	50		35 -		35 -
+50		20 -		20	-
	50		24 -		24 -
84+00		6 Butt	-	6	-
TOTAL		123 CYS	-	123 CYS	-

✓ By DCW
3/15/73

FROM STA. 82+00 TO STA. 84+00
PROJECT NAME CRAFTSBURY
NO. S0247 (2) SA PLOTTED 12/18/70
SURVEYED BY STEVENS DEC 70
SHEET 61 OF 97 SHEETS
Plotted by 7-16-73 Plan by 7-13-73 PLAN ✓ MAL 7/16/73



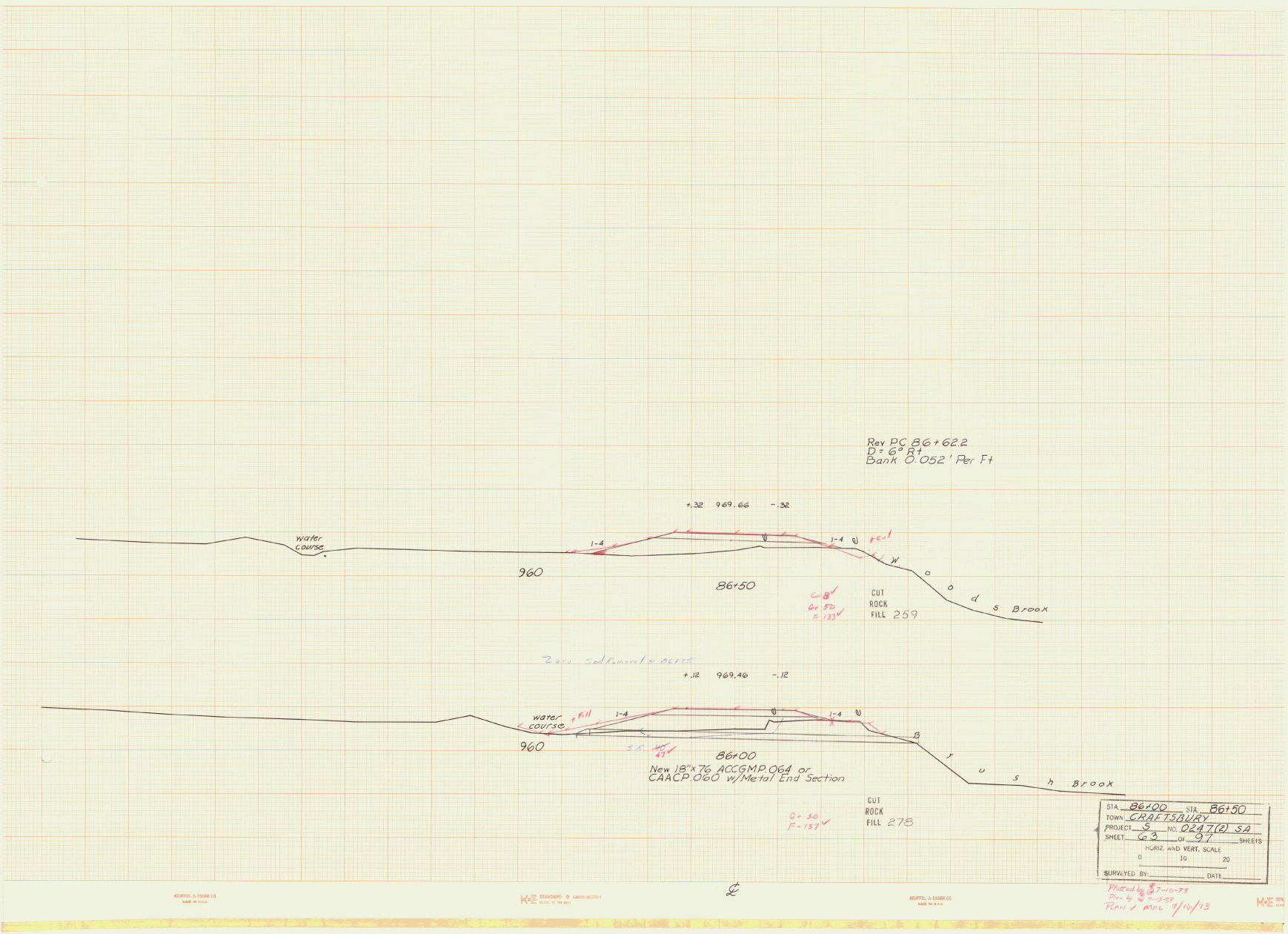
FEL & ESSER CO. MADE IN U.S.A.

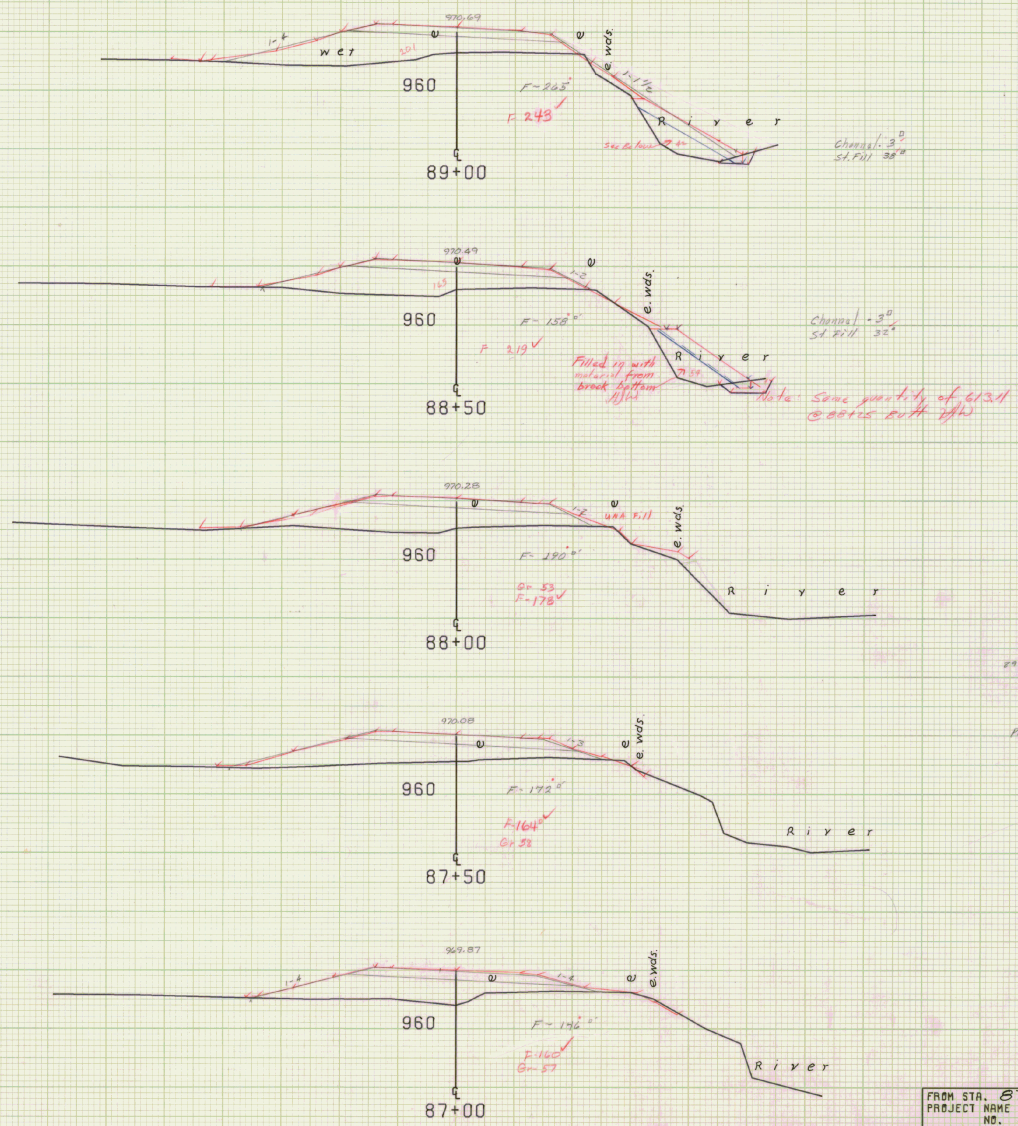
KEUFFEL & ESSER CO. MADE IN U.S.A.

Plan by 7-13-73

Plotted by 7-10-73

PLAN ✓ MAL 7/16/73


Rev PC 86+62.2
D = 6° Rt
Bank 0.052' Per Ft
+.32 969.66 -.32
water course
1-4
1-4
+cut
960
86+50
Woods Brook
C-8
Cr 50
F 133
CUT
ROCK
FILL 259
Zero Sed Removal @ 86+75
+.12 969.46 -.12
water course
+Fill
1-4
1-4
960
S.R. 40
47
86+00
New 18"x76 ACCGMP.064 or
CAACP.060 w/Metal End Section
Brush Brook
Cr 50
F-137
CUT
ROCK
FILL 278
STA. 86+00 STA. 86+50
TOWN CRAFTSBURY
PROJECT S NO. 0247(2) SA
SHEET 63 OF 97 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: DATE
Plotted by 7-10-73
Plan by 7-13-73
PLAN ✓ MAL 7/16/73
KEUFFEL & ESSER CO.
MADE IN U.S.A.
K&E STANDARD CROSS SECTION
KEUFFEL & ESSER CO.
MADE IN U.S.A.



Item 203.27 613.11

Sta	Dist	Area	Vol	
88+25		3'	32'	
	25'	3'		30'
88+50		3'	32'	
	50	6'		65'
89+0		3'	38'	
	50	6'		69'
+50		3'	36'	
	206	24'	97	51 ~~48~~
89+70.6 = 90+0		60'	~~90~~	54 ~~50~~
	15	33'	97	
+15		60'	90	

Bk #1 p 18 72 cy 269 ~~262~~ cy
Bk #1 p 106

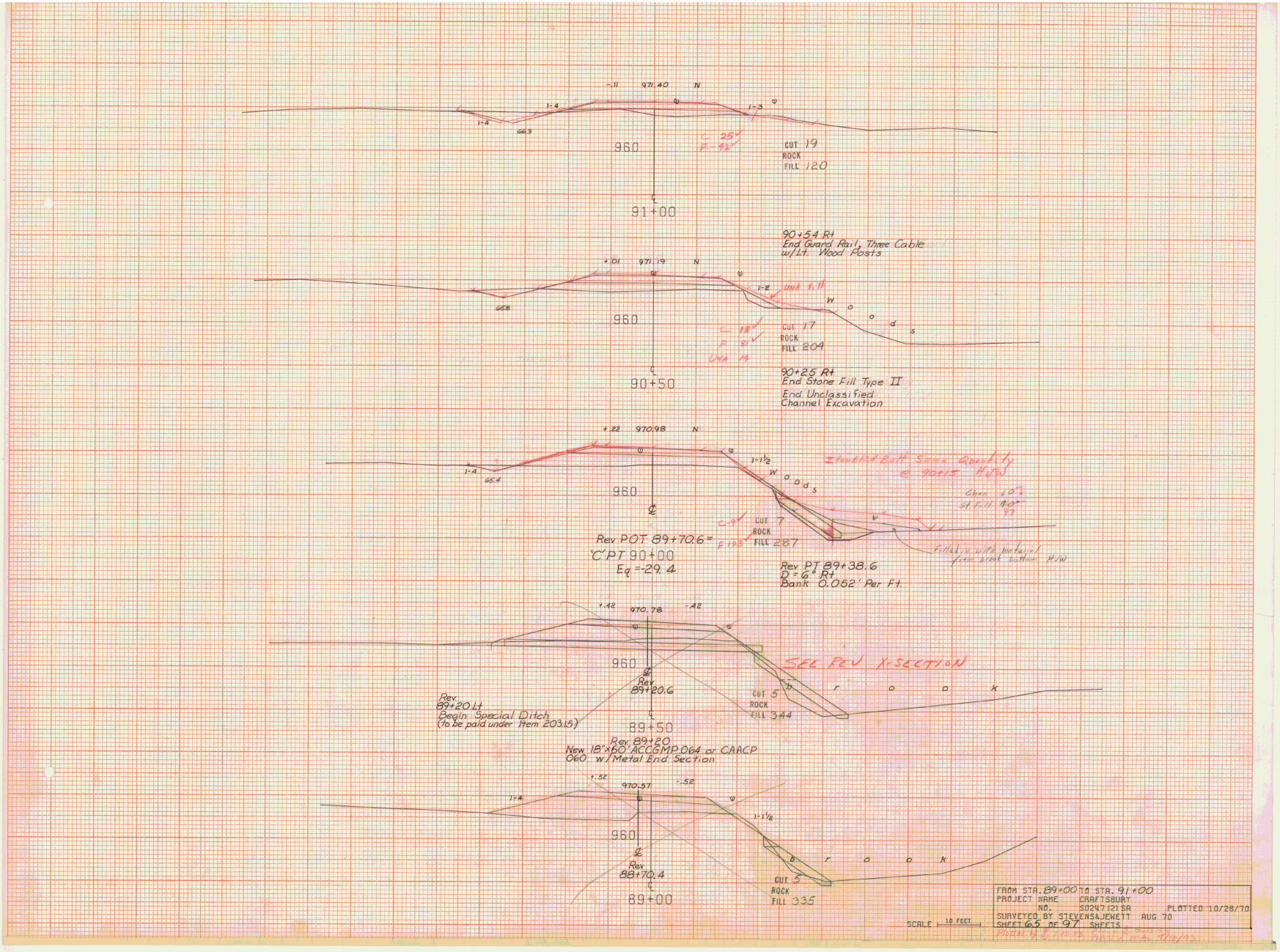
Plot & Plan & Comp HJW March 1973

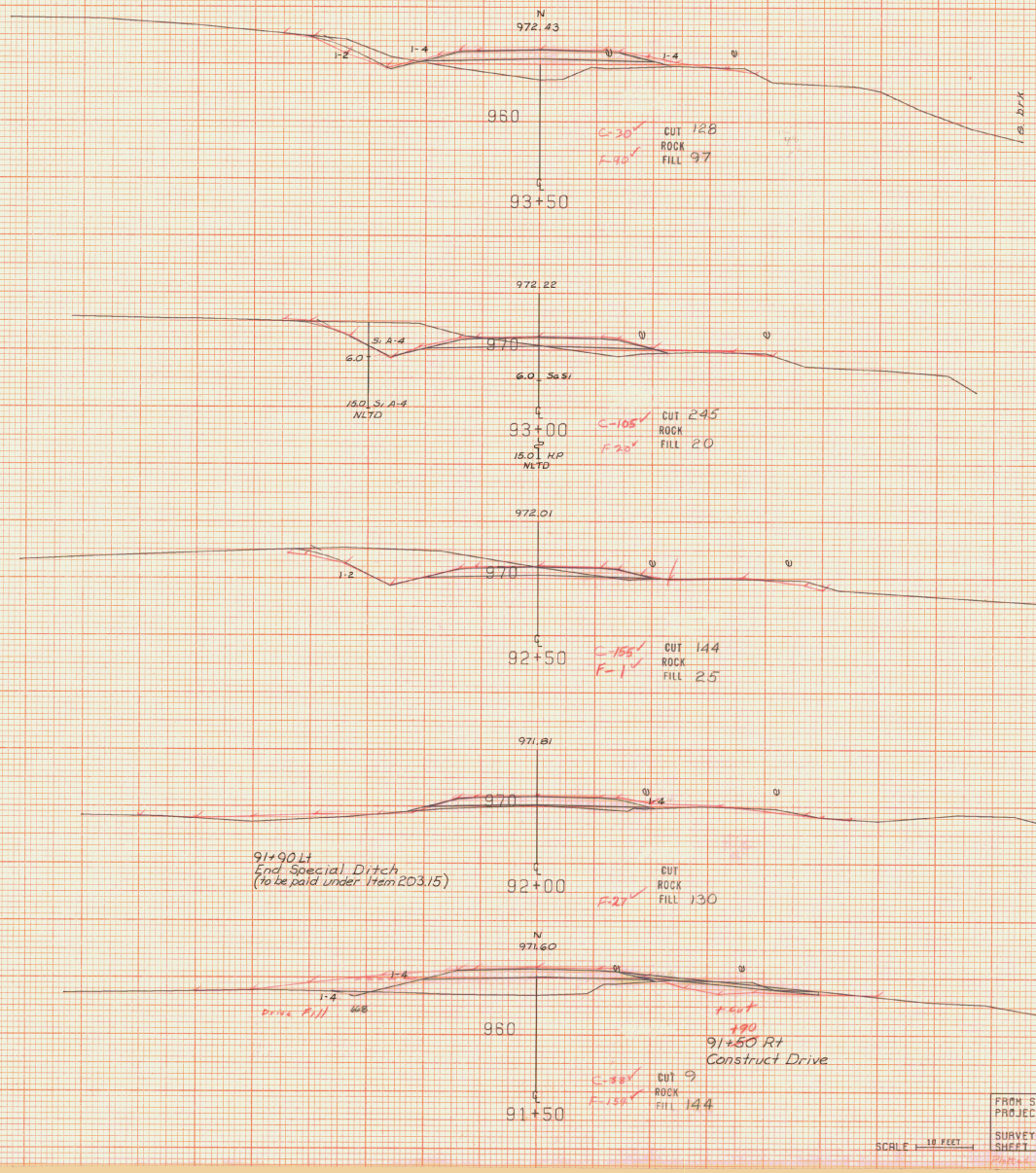
To Bk #1 p 18
" " p 106
7-13-73

SCALE 10 FEET

FROM STA. 87+00	TO STA. 89+00	
PROJECT NAME	CRAFTSBURY	
NO.	S0247 (2) SA	PLOTTED 10/05/72
SURVEYED BY	FALL	AUG. 1972
SHEET 64A OF 97 SHEETS		

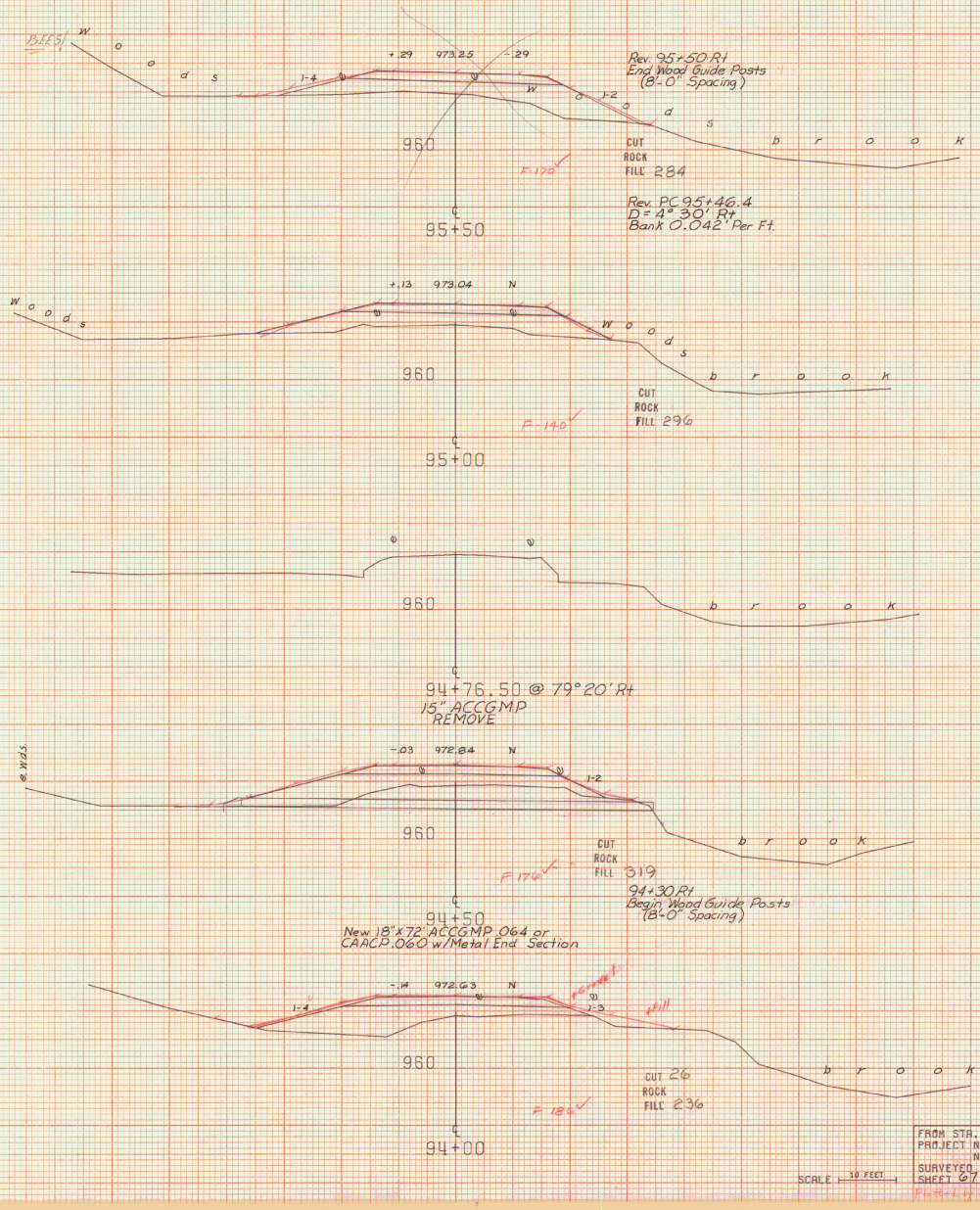
Plotted by @ 7-10-73 Plotted @ 7-10-73 [illegible] 7/16/73


-.11 971.40 N
1-4
1-4
1-3
66.3
960
91+00
CUT 19
ROCK
FILL 120
90+54 Rt
End Guard Rail, Three Cable
w/Lt. Wood Posts
+.01 971.19 N
1-2
66.8
960
CUT 17
ROCK
FILL 209
90+50
90+25 Rt
End Stone Fill Type II
End Unclassified
Channel Excavation
+.22 970.98 N
1-4
1-1½
65.4
960
CUT 7
ROCK
FILL 287
Rev POT 89+70.6 =
'C' PT 90+00
Eq =-29.4
Rev PT 89+38.6
D = 6° Rt
Bank 0.052' Per Ft.
+.42 970.78 -.42
960
SEE REV X-SECTION
Rev
89+20.6
CUT 5
ROCK
FILL 344
Rev
89+20 Lt
Begin Special Ditch
(To be paid under Item 203.15)
89+50
Rev 89+20
New 18"x60' ACCGMP.064 or CAACP
060 w/Metal End Section
+.52 970.57 -.52
1-4
1-1½
960
Rev
88+70.4
CUT 5
ROCK
FILL 335
89+00
FROM STA. 89+00 TO STA. 91+00
PROJECT NAME CRAFTSBURY
NO. 50247(21)SA
PLOTTED 10/28/70
SURVEYED BY STEVENS&JEWETT AUG 70
SHEET 65 OF 97 SHEETS
SCALE 10 FEET

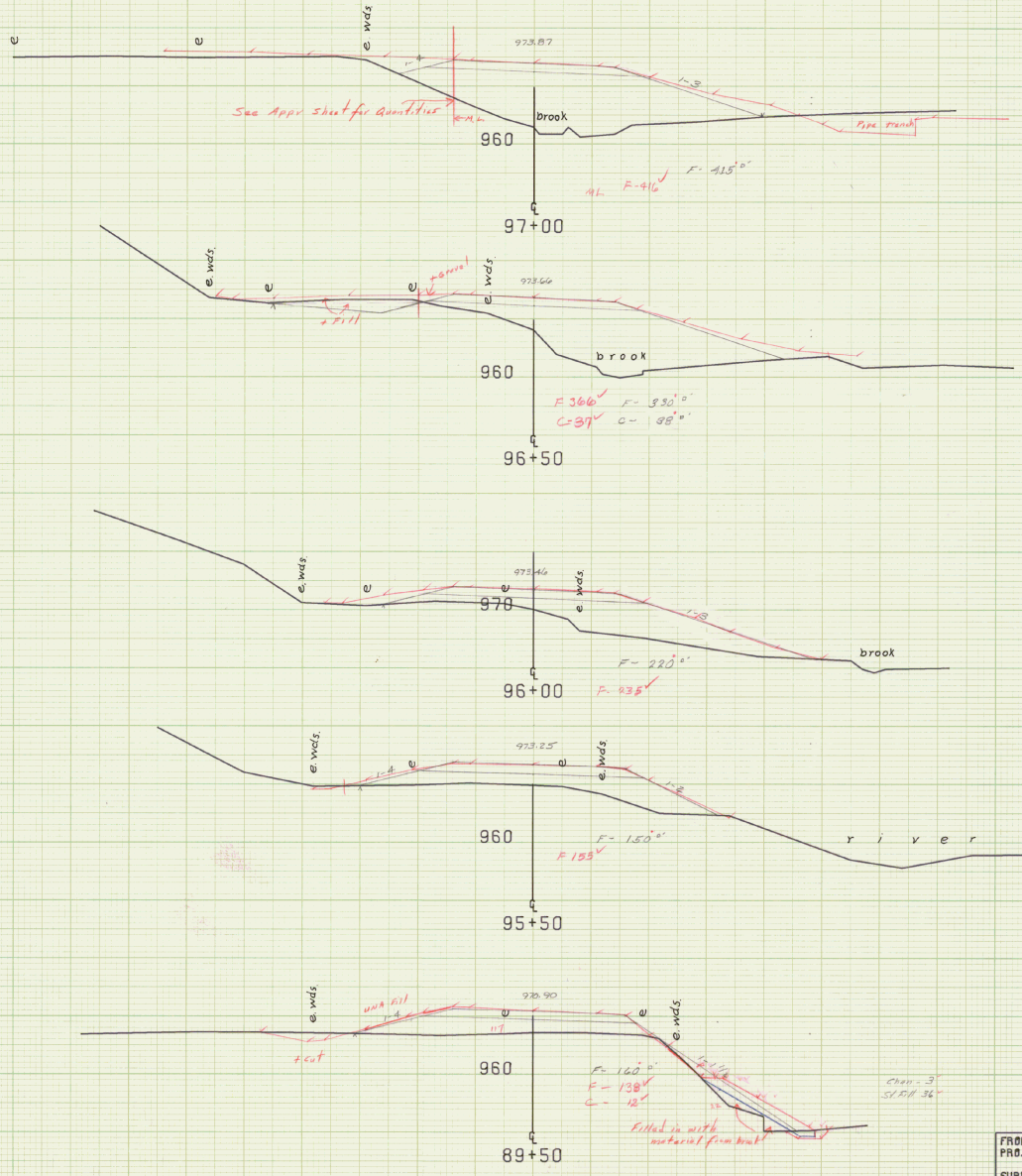


FROM STA. 91+50 TO STA. 93+50
PROJECT NAME CRAFTSBURY
NO. S0247(2)SA PLOTTED 10/28/70
SURVEYED BY STEVENS&JEWETT AUG 70
SHEET 6 OF 97 SHEETS

SCALE 1" = 10 FEET

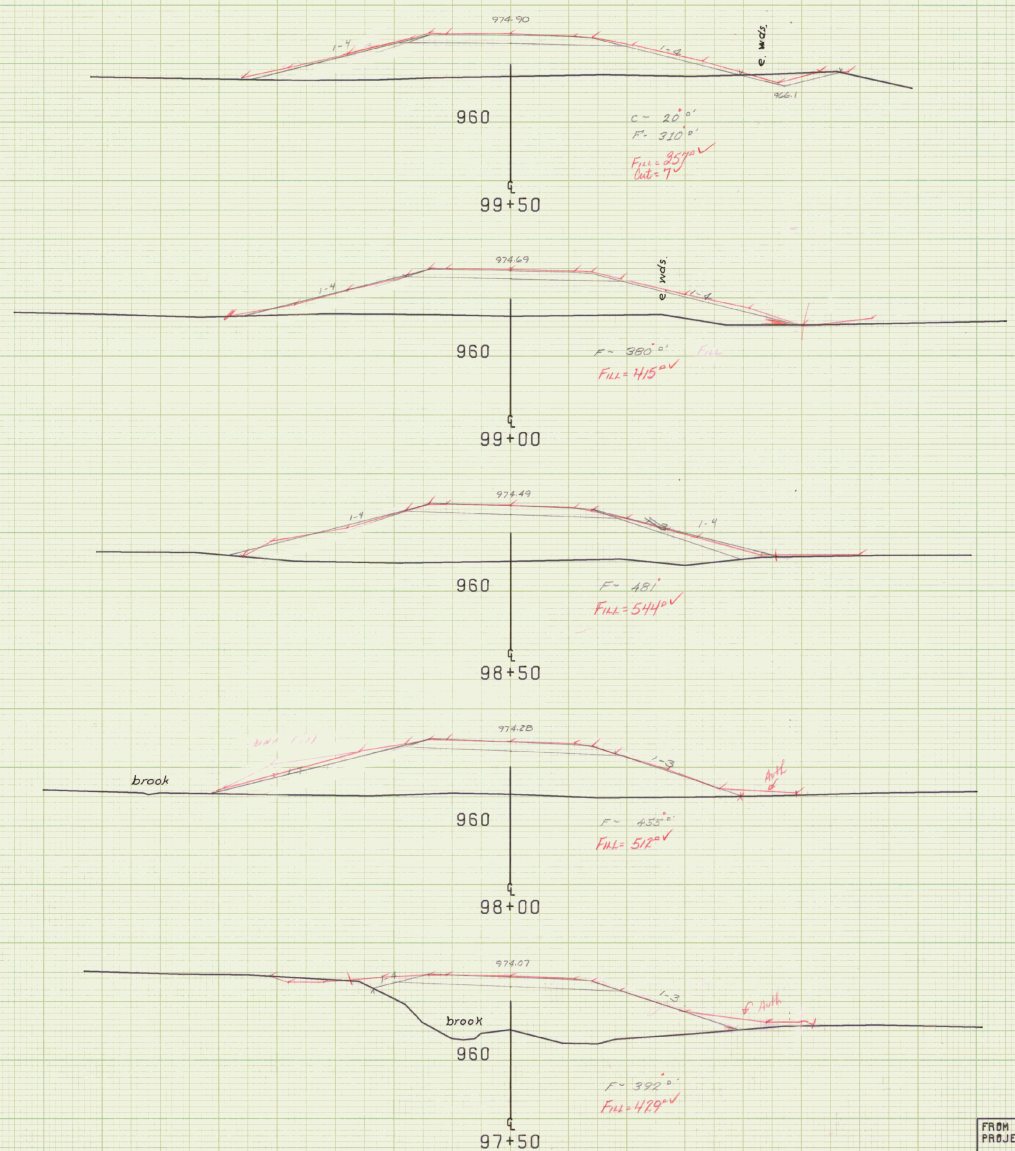


FROM STA. 94+00 TO STA. 95+50
PROJECT NAME CRAFTSBURY
NO. S0247(2)SA PLOTTED 10/28/70
SURVEYED BY STEVENS & JEWETT AUG 70
SHEET 67 OF 97 SHEETS



FROM STA. 89+50		TO STA. 97+00	
PROJECT NAME	CRAFTSBURY		
NO.	S0247(2)SA		PLOTTED 10/05/72
SURVEYED BY	FALL		AUG. 1972
SHEET	OF	SHEETS	

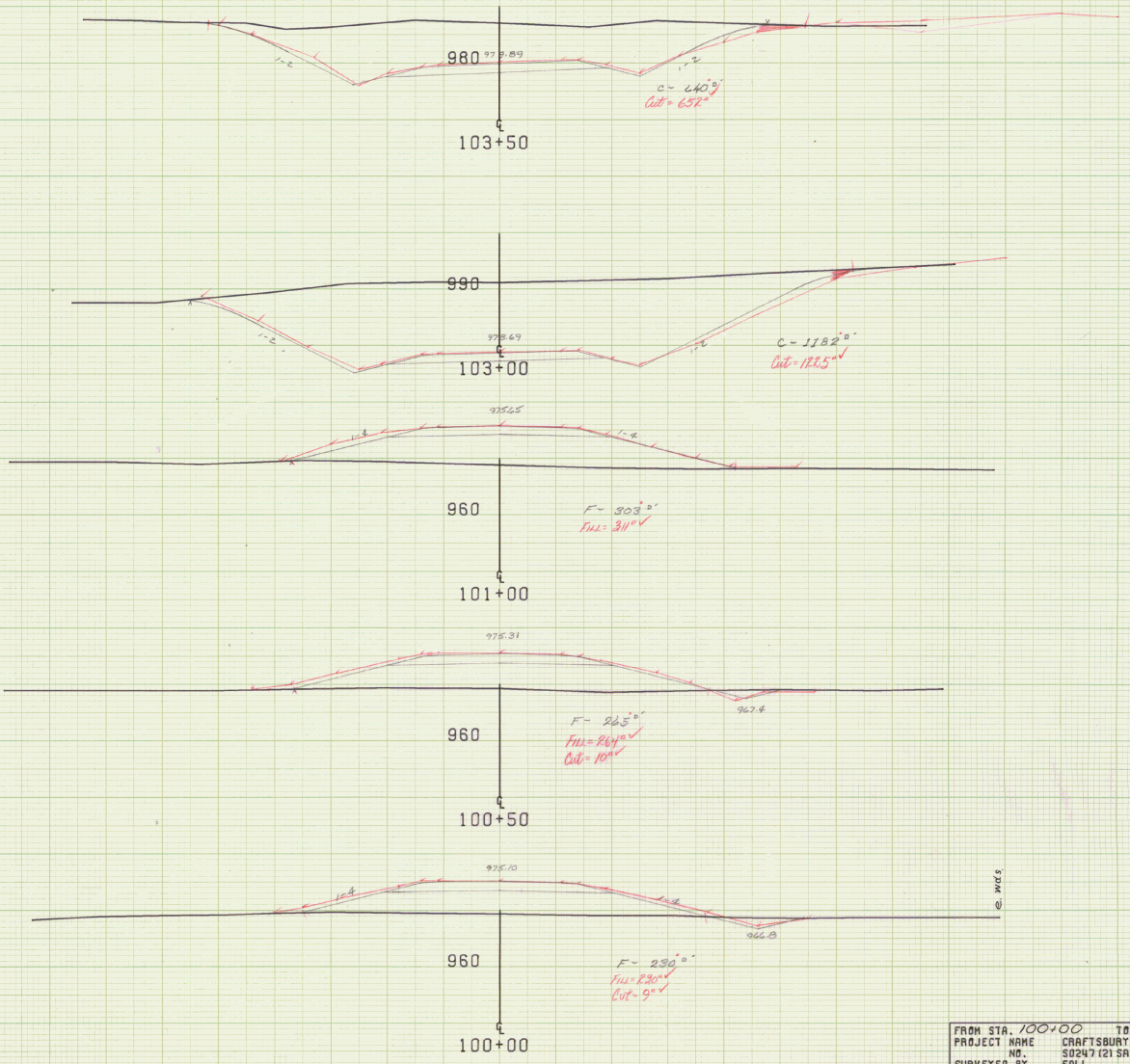
SCALE 10 FEET



FROM STA. 97+50 TO STA. 99+50
PROJECT NAME CRAFTSBURY
NO. S0247(2) SA PLOTTED 10/05/72
SURVEYED BY FALL AUG. 1972
SHEET OF SHEETS

SCALE 10 FEET

PLAN 7/12/73 TAL PLAN ✓ MAC 7/16/73 Plotted by E 7-10-73

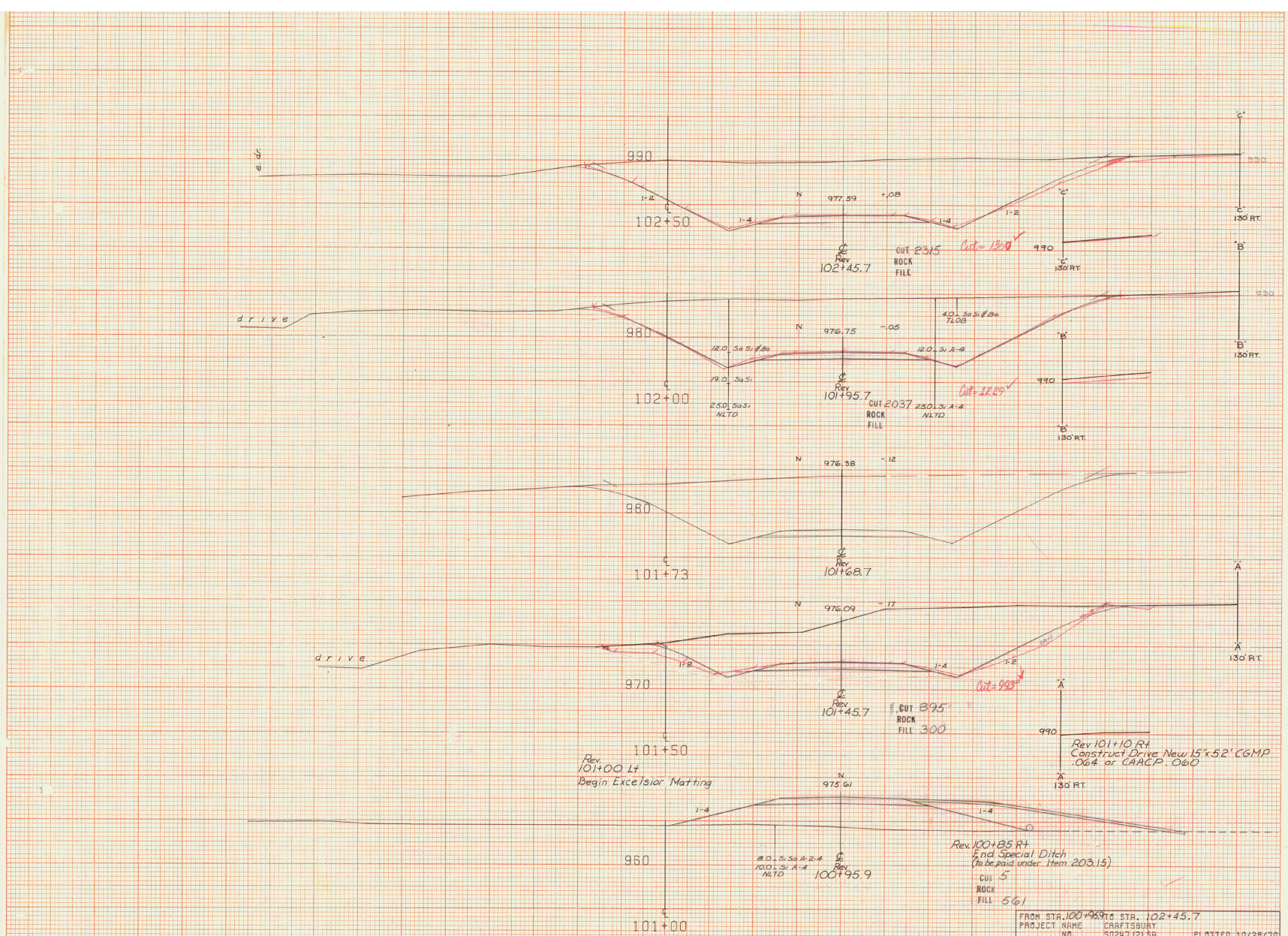


FROM STA. 100+00		TO STA. 103+50	
PROJECT NAME	CRAFTSBURY		
NO.	S0247 (2) SA		PLOTTED 10/05/72
SURVEYED BY	FALL		AUG. 1972
SHEET OF	SHEETS		

PLAN ✓ MAL 7/16/73 SCALE 10 FEET

PLAN 7/13/73 TAH

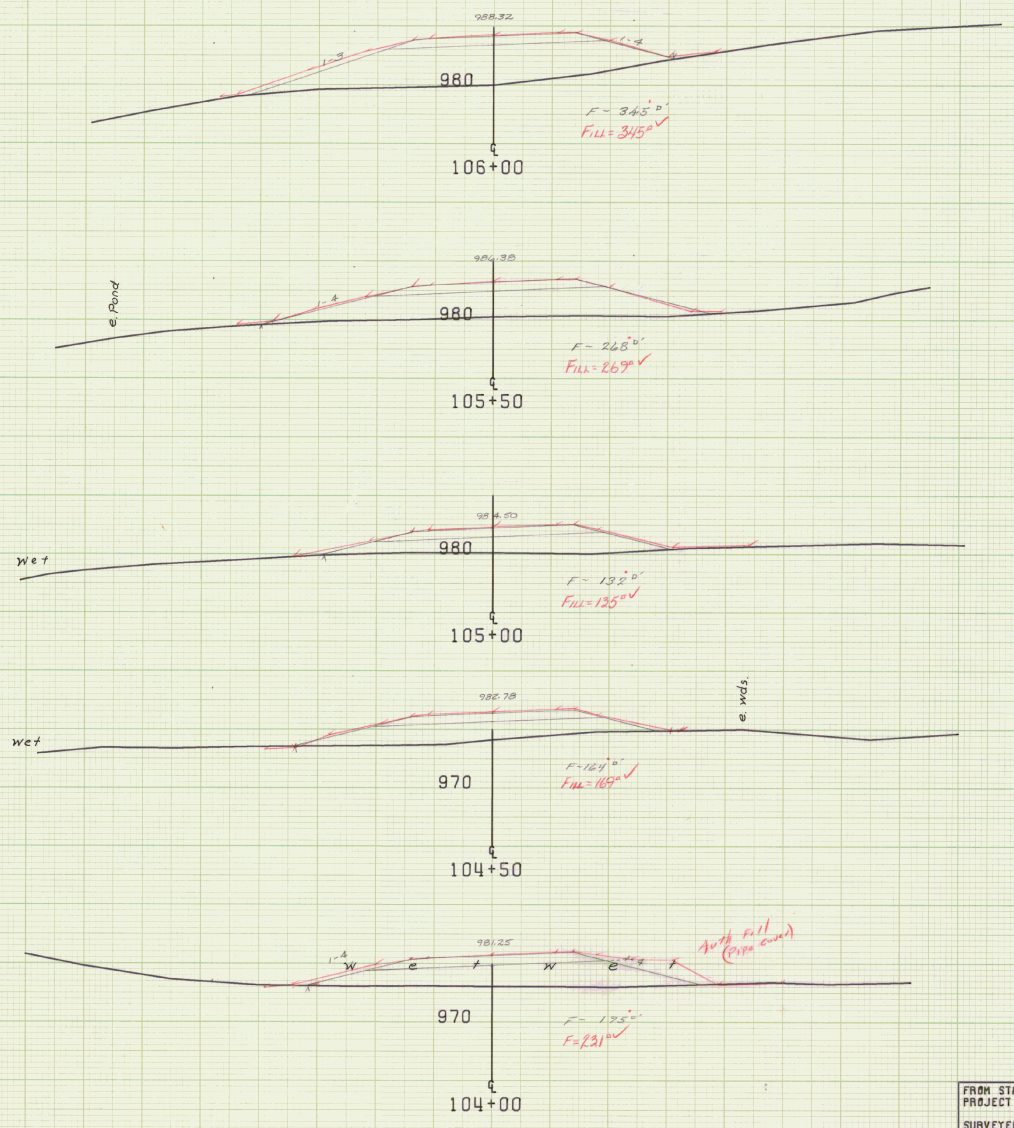
Plotted by E 7-16-73



FROM STA. 100+95.9 TO STA. 102+45.7
PROJECT NAME CRAFTSBURY
NO. S0247(2) SA PLOTTED 10/28/70
SURVEYED BY STEVENS&JENETT AUG 70
SHEET 70 OF 97 SHEETS

SCALE 10 FEET

PLAN 7/13/73 TRH PLAN MAL 7/16/73 Plotted by 7-10-73

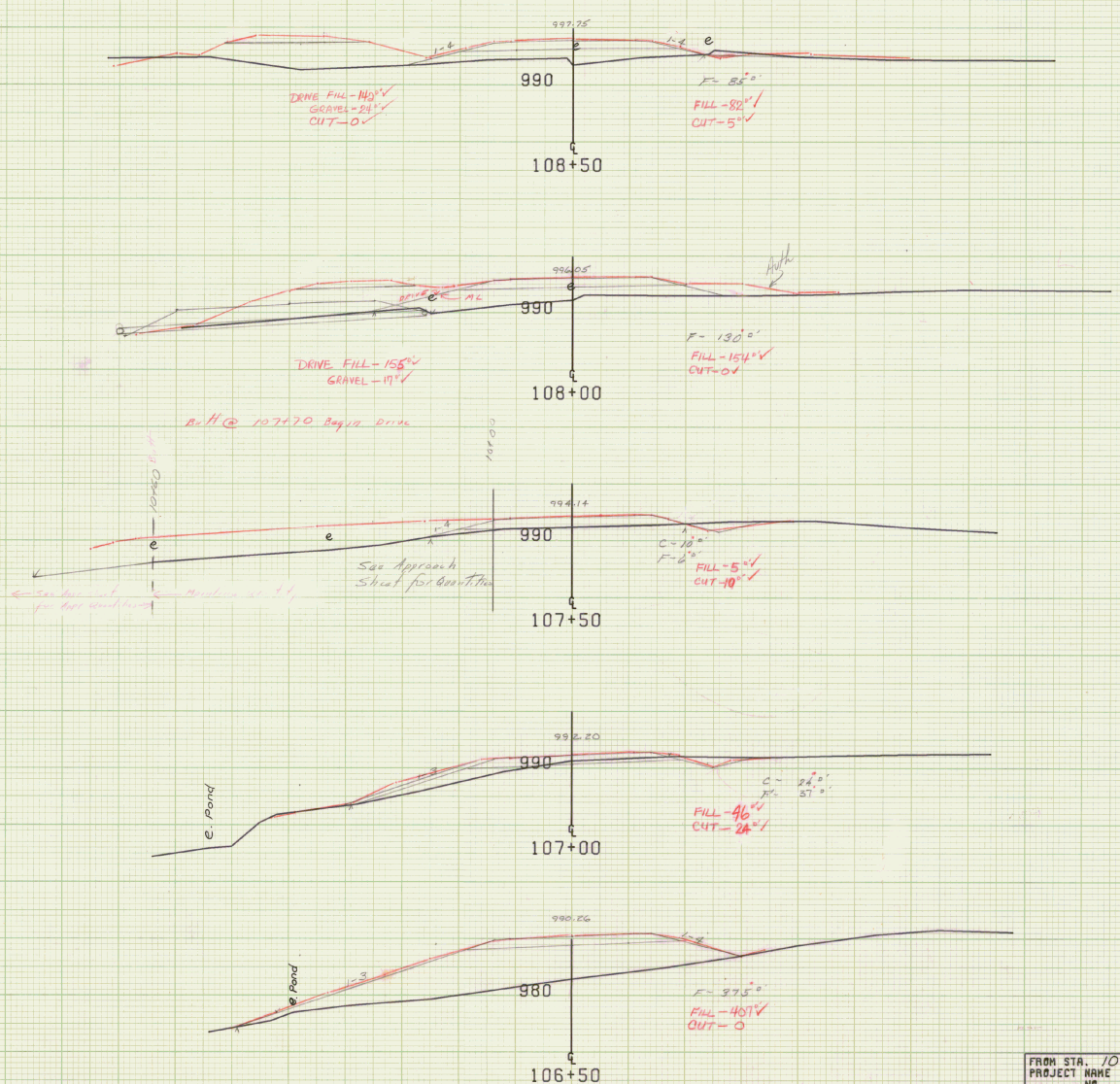


SCALE 10 FEET

PLAN 9/13/72 JAH PLAN ✓ MAC 9/16/72

FROM STA. 104+00	TO STA. 106+00		
PROJECT NAME	CRAFTSBURY		
NO.	S0247(2)SA	PLOTTED	10/05/72
SURVEYED BY	FALL		AUG. 1972
SHEET OF	SHEETS		

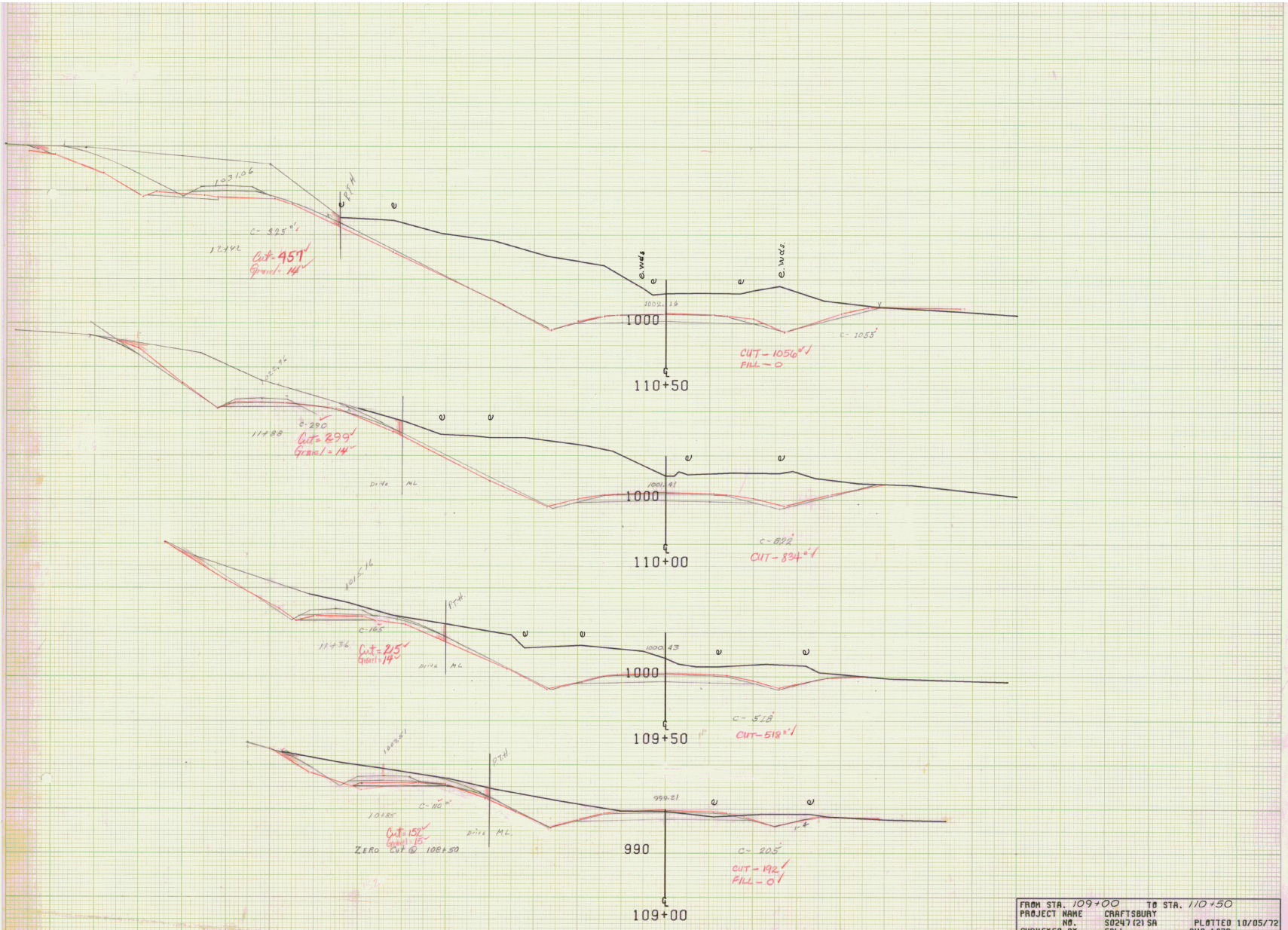
Plotted by S 9-10-72

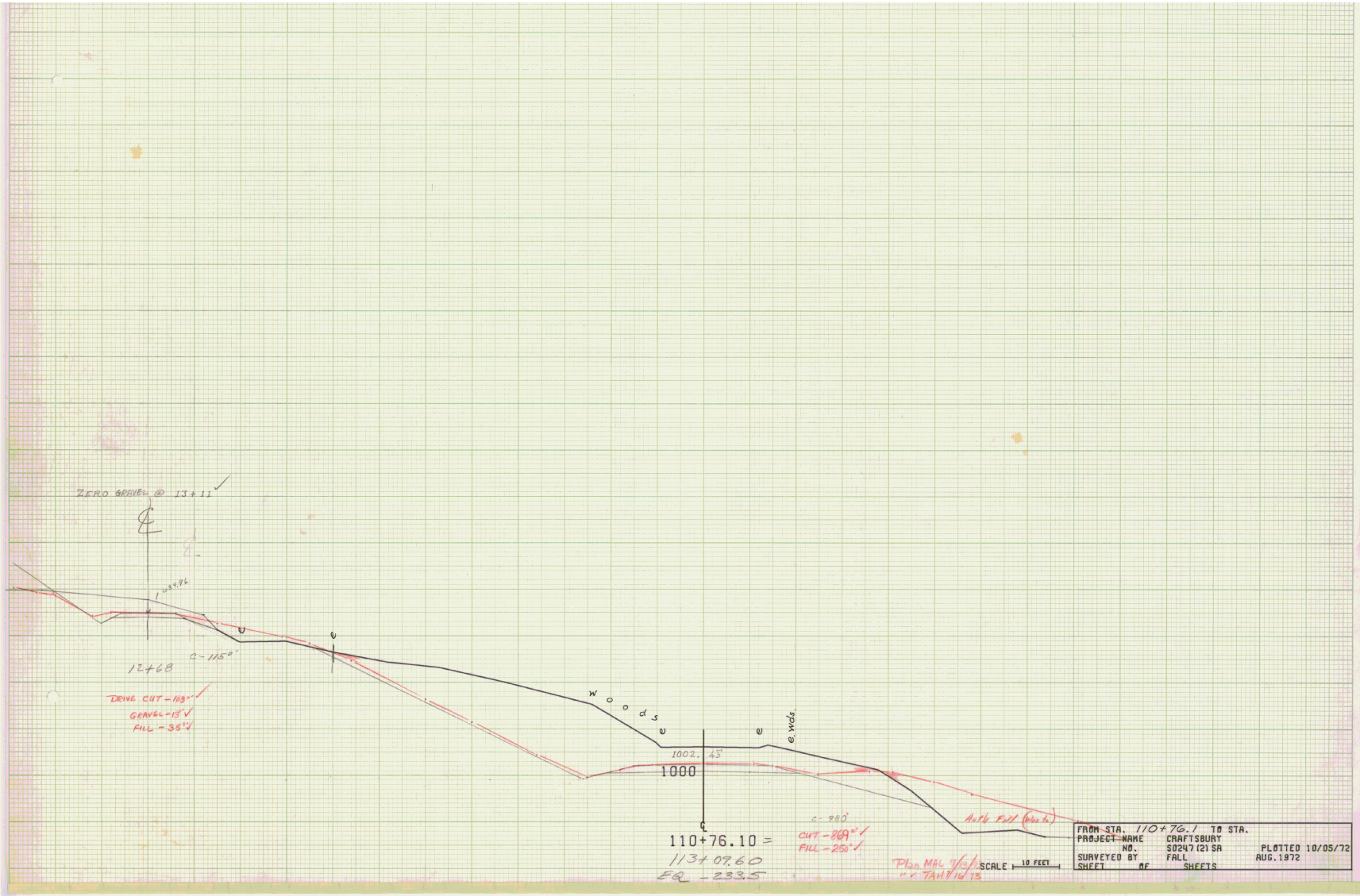


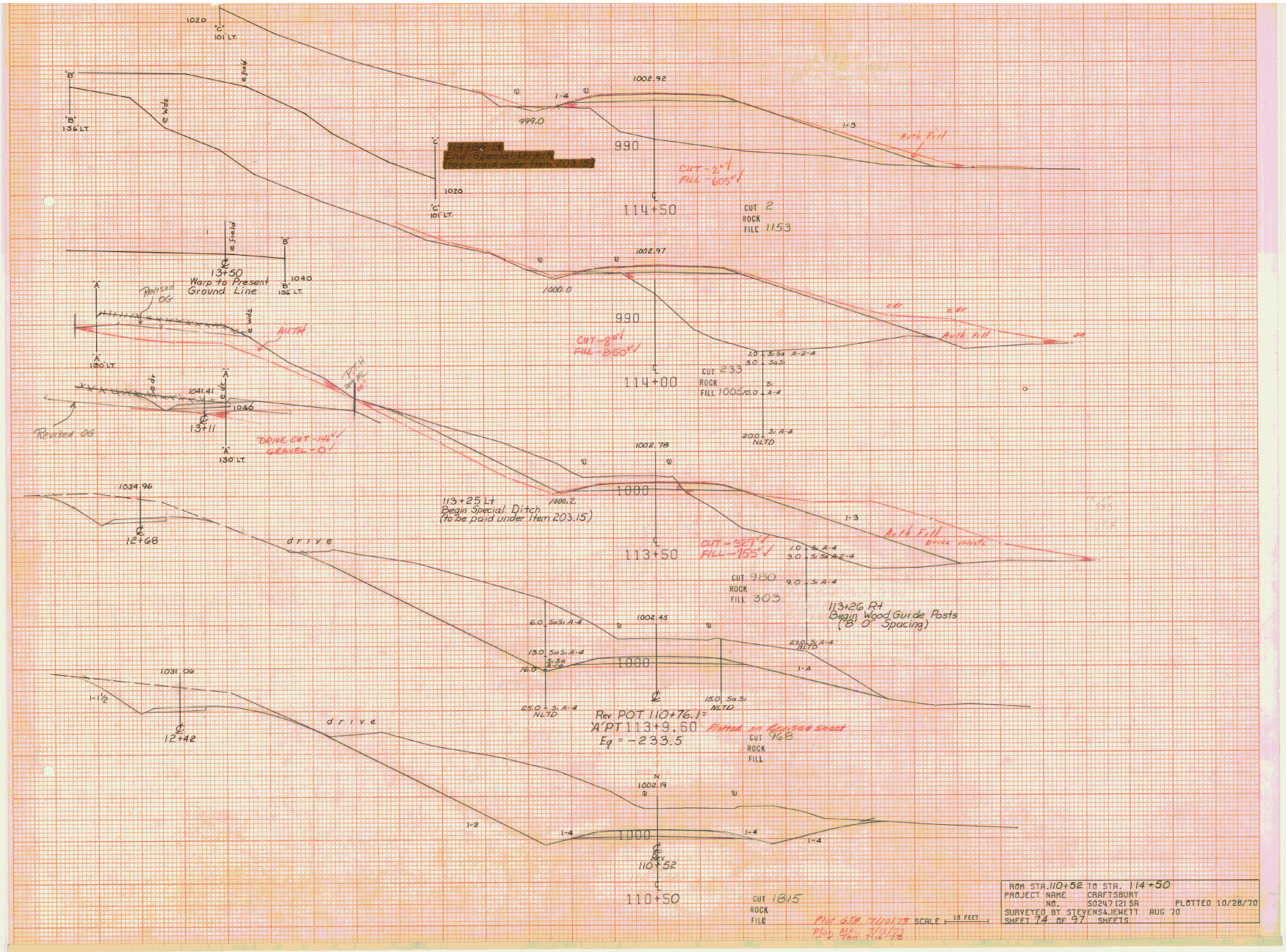
Plot GTA 7/10/73
Plan MHL 7/10/73
Plot TAH 7/10/73

SCALE 10 FEET

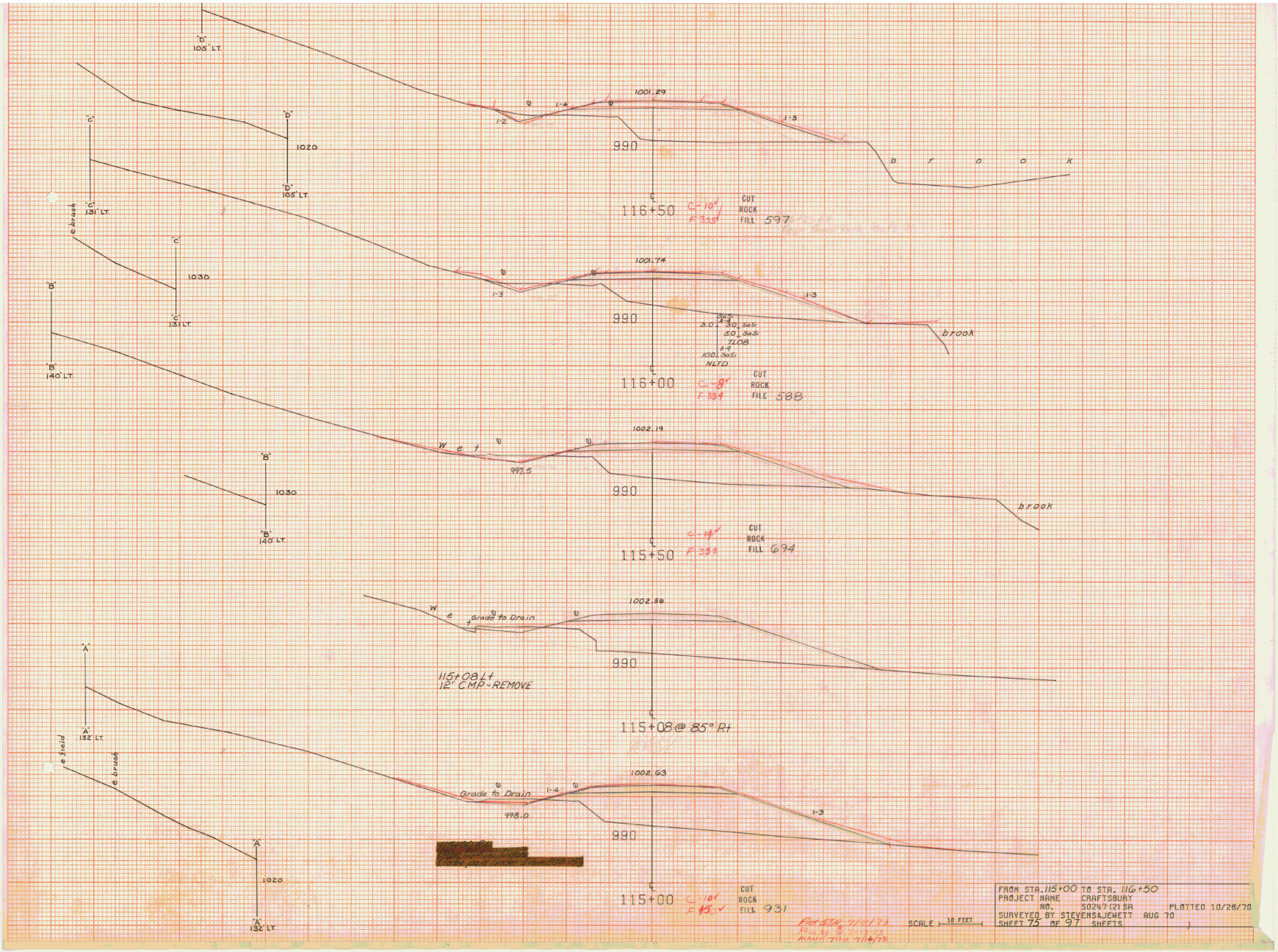
FROM STA. 106+50	TO STA. 108+50	
PROJECT NAME	CRAFTSBURY	
NO.	S0247 (2) SA	PLOTTED 10/05/72
SURVEYED BY	FALL	AUG. 1972
SHEET OF	SHEETS	


1031.06
C- 825'
1274'
Cut- 457
Gravel- 14
e
e
e


ZERO GRAVEL @ 13+11
1034.96
12+68
C-115.0'
DRIVE CUT - 103.0'
GRAVEL - 13'
FILL - 35'
woods
e
e
e. wds.
1002.45
1000
110+76.10 =
113+09.60
EQ - 233.5
C-980'
CUT - 869.0'
FILL - 250'
Auth Fill (Waste)
Plan MAL 7/13/73
" " TAH 7/16/73
SCALE 10 FEET
FROM STA. 110+76.1 TO STA.
PROJECT NAME CRAFTSBURY
NO. S0247(2) SA
PLOTTED 10/05/72
SURVEYED BY FALL
AUG. 1972
SHEET OF SHEETS

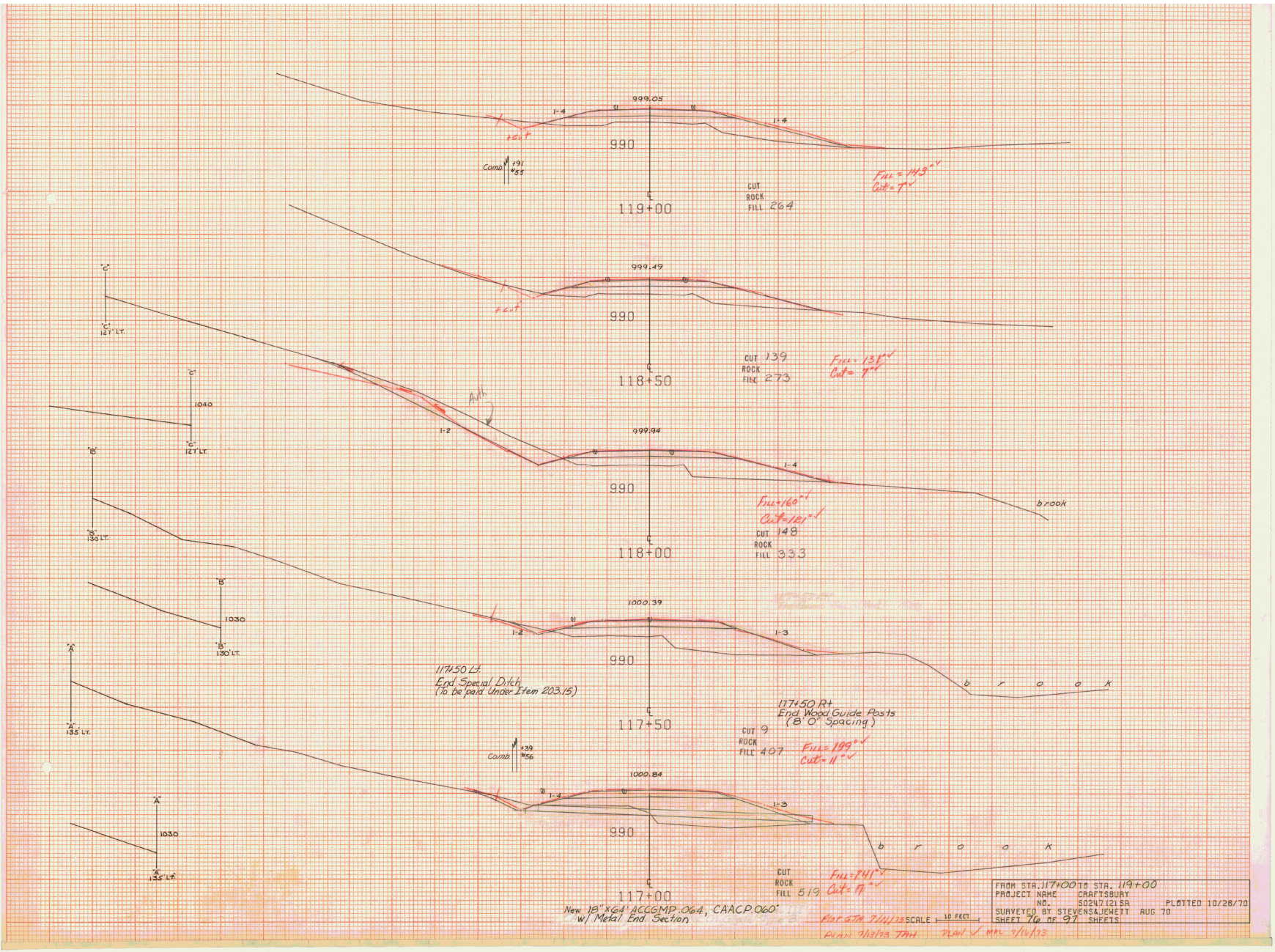


1020
"C"
101' LT.
"B"
136' LT.
e field
e wds
1002.92
1-4
999.0
1-3
Auth Fill
990
114+25 Lt
End Special Ditch
(to be paid under Item 203.15)
CUT - 2
FILL - 605
114+50
CUT 2
ROCK
FILL 1153
1002.97
1000.0
13+50
Warp to Present
Ground Line
1040
Revised OG
AUTH
CUT - 8
FILL - 850
114+00
CUT 233
ROCK
FILL 1005
1.0 Si Sa A-2-4
3.0 Sa Si
10.0 Si A-4
20.0 Si A-4
NLTD
1041.41
1040
13+11
Revised OG
DRIVE CUT - 146
GRAVEL - 0
130' LT.
1002.78
1000
113+25 Lt
Begin Special Ditch
(to be paid under Item 203.15)
1000.2
1034.96
12+68
drive
CUT - 327
FILL - 755
113+50
Auth Fill
Drive Waste
CUT 980
ROCK
FILL 303
9.0 Si A-4
113+26 Rt
Begin Wood Guide Posts
(8' 0" Spacing)
1002.45
6.0 Sa Si A-4
13.0 Sa Si A-4
16.0
23.0 Si A-4
NLTD
1-A
25.0 Si A-4
NLTD
15.0 Sa Si
NLTD
1031.06
1-1½
12+42
Rev POT 110+76.1
'A' PT 113+9.60
Eq = -233.5
Plotted on Revised Sheet
CUT 968
ROCK
FILL
1002.19
1-2
1-4
110+52
110+50
CUT 1815
ROCK
FILL
Plot GTA 7/10/73
Plot MA 7/13/73
SCALE 10 FEET
ROM STA. 110+52 TO STA. 114+50
PROJECT NAME CRAFTSBURY
NO. S0247(2) SA
PLOTTED 10/28/70
SURVEYED BY STEVENS & JEWETT AUG 70
SHEET 74 OF 97 SHEETS

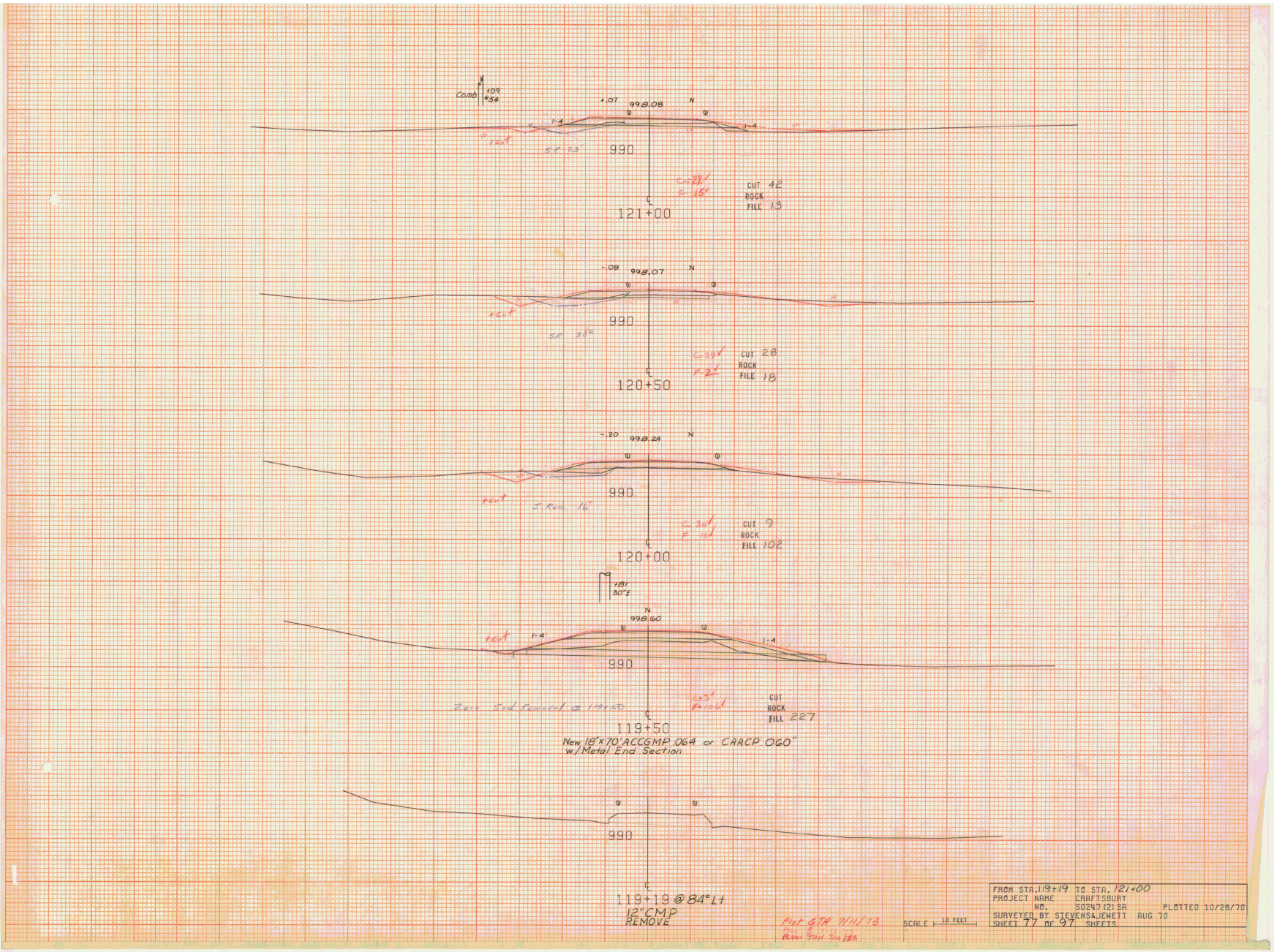


FROM STA. 115+00 TO STA. 116+50
PROJECT NAME CRAFTSBURY
NO. S0247(2) SA PLOTTED 10/28/70
SURVEYED BY STEVENS&JEWETT AUG 70
SHEET 73 OF 97 SHEETS

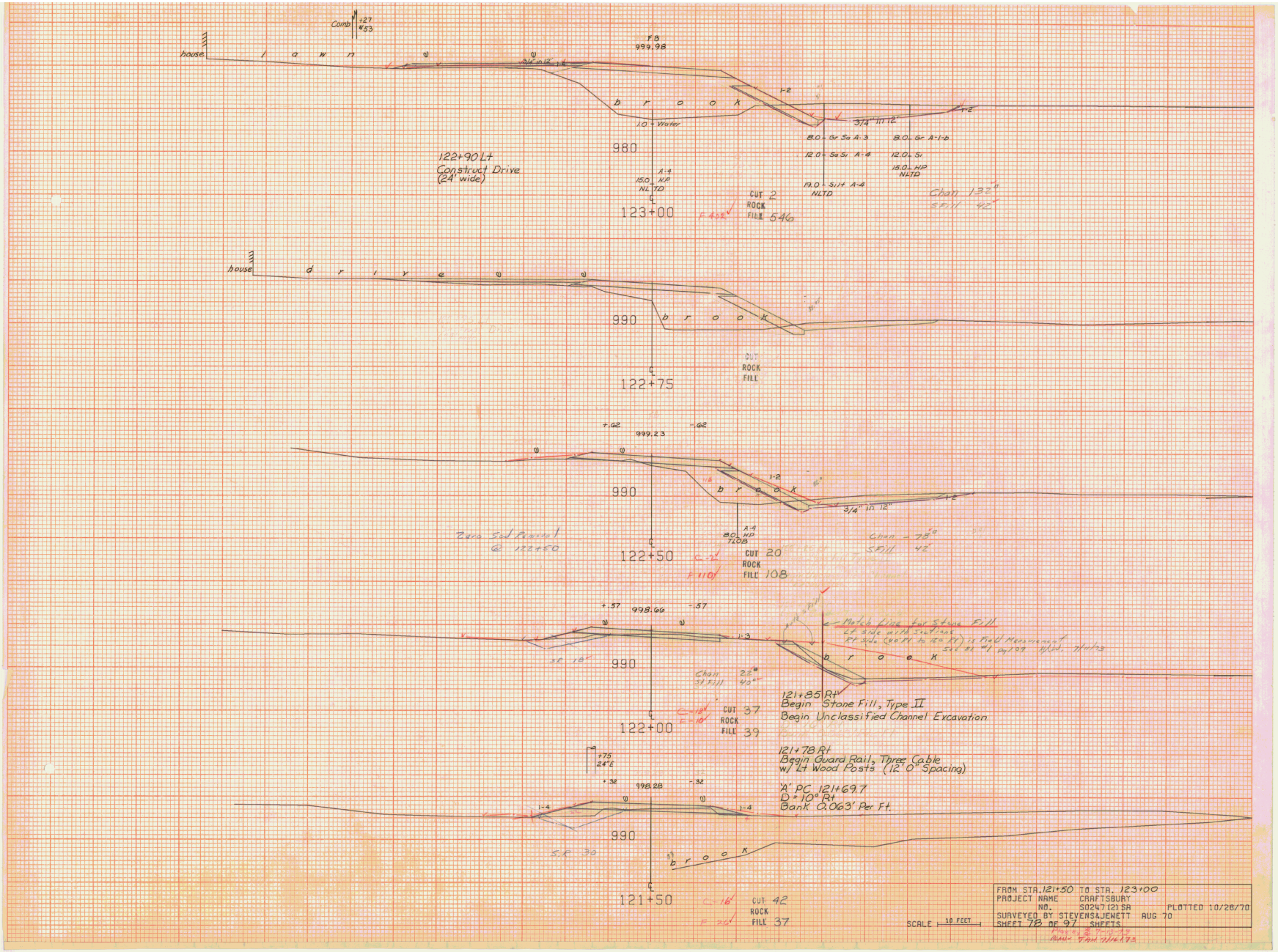
SCALE 10 FEET



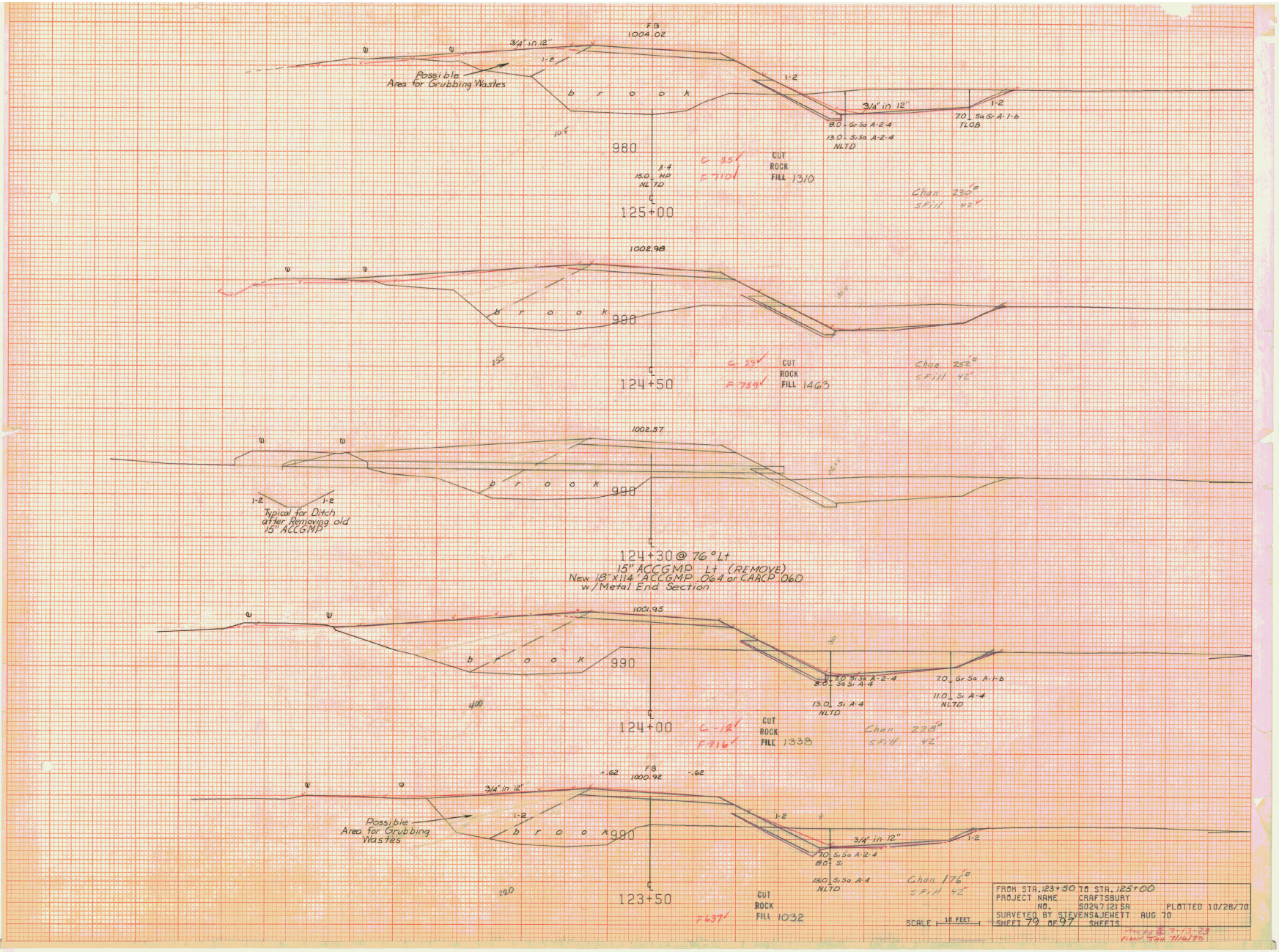
999.05
1-4
1-4
+cut
990
Comb. +91 #55
119+00
CUT
ROCK
FILL 264
Fill = 143°✓
Cut = 7°✓
999.49
+cut
990
118+50
CUT 139
ROCK
FILL 273
Fill = 131°✓
Cut = 7°✓
"C"
"C" 127' LT.
"C"
1040
"C" 127' LT.
Auth
1-2
999.94
1-4
990
brook
Fill = 160°✓
Cut = 121°✓
118+00
CUT 148
ROCK
FILL 333
"B"
"B" 130' LT.
"B"
1030
"B" 130' LT.
1000.39
1-2
1-3
990
b r o o k
117+50 Lt.
End Special Ditch
(To be paid Under Item 203.15)
117+50 Rt
End Wood Guide Posts
(8' 0" Spacing)
117+50
CUT 9
ROCK
FILL 407
Fill = 199°✓
Cut = 11°✓
"A"
"A" 135' LT.
Comb. +39 #56
1000.84
1-4
1-3
990
b r o o k
117+00
CUT
ROCK
FILL 519
Fill = 241°✓
Cut = 17°✓
"A"
1030
"A" 135' LT.
New 18" x 64' ACCGMP .064, CAACP .060"
w/ Metal End Section
Plot STA 7/14/73 SCALE 10 FEET
PLAN 7/13/73 TAH
PLAN ✓ MAL 7/16/73
FROM STA. 117+00 TO STA. 119+00
PROJECT NAME CRAFTSBURY
NO. S0247(2) SA
PLOTTED 10/28/70
SURVEYED BY STEVENS&JEWETT AUG 70
SHEET 76 OF 97 SHEETS



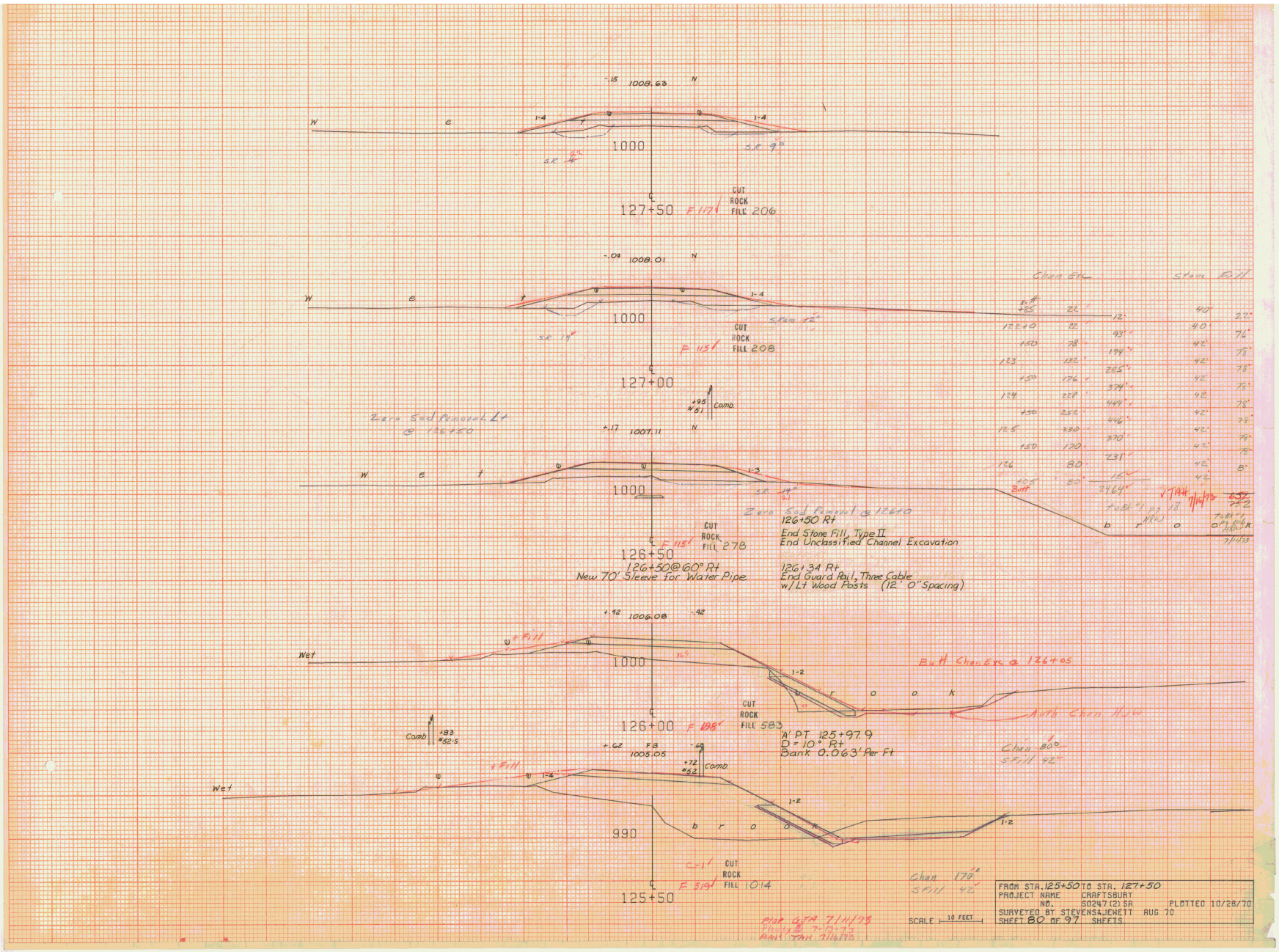
Comb. +09 +54
+.07
998.08
N
1-4
+cut
S.R. 23'
990
C-22
F-15
CUT 42
ROCK
FILL 13
121+00
-.08
998.07
N
+cut
990
S.R. 35'
C-39
F-2
CUT 28
ROCK
FILL 18
120+50
-.20
998.24
N
+cut
S. Run. 16'
990
C-36
F-10
CUT 9
ROCK
FILL 102
120+00
+81
80°E
N
998.60
+cut
1-4
1-4
990
Zero Sod Removal @ 119+50
C-3
F-106
CUT
ROCK
FILL 227
119+50
New 18"x70' ACCGMP .064 or CAACP .060"
w/Metal End Section
990
119+19 @ 84° Lt
12" CMP
REMOVE
Plot GTR 7/11/73
Plan 8 7 13 73
PLANT TAIL 7/16/73
SCALE 10 FEET
FROM STA. 119+19 TO STA. 121+00
PROJECT NAME CRAFTSBURY
NO. S0247(2) SA
PLOTTED 10/28/70
SURVEYED BY STEVENS&JEWETT AUG 70
SHEET 77 OF 97 SHEETS



FROM STA. 121+50 TO STA. 123+00
PROJECT NAME CRAFTSBURY
NO. S0247(21)SA PLOTTED 10/28/70
SURVEYED BY STEVENS & JEWETT AUG 70
SHEET 78 OF 97 SHEETS



FB
1004.02
3/4" in 12"
1-2
Possible
Area for Grubbing Wastes
b r o o k
1-2
3/4" in 12"
1-2
8.0 Gr Sa A-2-4
13.0 Si Sa A-2-4
NLTD
7.0 Sa Gr A-1-b
TLOB
980
A-4
15.0 HP
NLTD
C 25
F 710
CUT
ROCK
FILL 1310
Chan 230
SFill 42
125+00
1002.98
b r o o k
990
C 29
F 759
CUT
ROCK
FILL 1463
Chan 252
SFill 42
124+50
1002.57
b r o o k
990
1-2
1-2
Typical for Ditch
after Removing old
15" ACCGMP
124+30 @ 76° Lt
15" ACCGMP Lt (REMOVE)
New 18" x 114' ACCGMP .064 or CAACP .060
w/Metal End Section
1001.95
b r o o k
990
7.0 Si Sa A-2-4
8.0 Sa Si A-4
13.0 Si A-4
NLTD
7.0 Gr Sa A-1-b
11.0 Si A-4
NLTD
124+00
C -12
F 816
CUT
ROCK
FILL 1338
Chan 228
SFill 42
FB
1000.92
+.62
-.62
3/4" in 12"
1-2
Possible
Area for Grubbing
Wastes
b r o o k
990
1-2
3/4" in 12"
1-2
7.0 Si Sa A-2-4
8.0 Si
13.0 Si Sa A-4
NLTD
Chan 176
SFill 42
123+50
CUT
ROCK
FILL 1032
F 637
SCALE 10 FEET
FROM STA. 123+50 TO STA. 125+00
PROJECT NAME CRAFTSBURY
NO. S0247(2) SA
PLOTTED 10/28/70
SURVEYED BY STEVENS&JEWETT AUG 70
SHEET 79 OF 97 SHEETS



+85	22'	12'	40'	27'
122+40	32	93'	40	76'
150	78	174'	42'	78'
153	132'	265'	42'	78'
153	176'	374'	42'	78'
124	228'	447'	42'	78'
150	256'	446'	42'	78'
125	230'	370'	42'	78'
150	170'	231'	42'	78'
126	80'	15'	42'	8'
105	80'	2464'	42'	

Butt

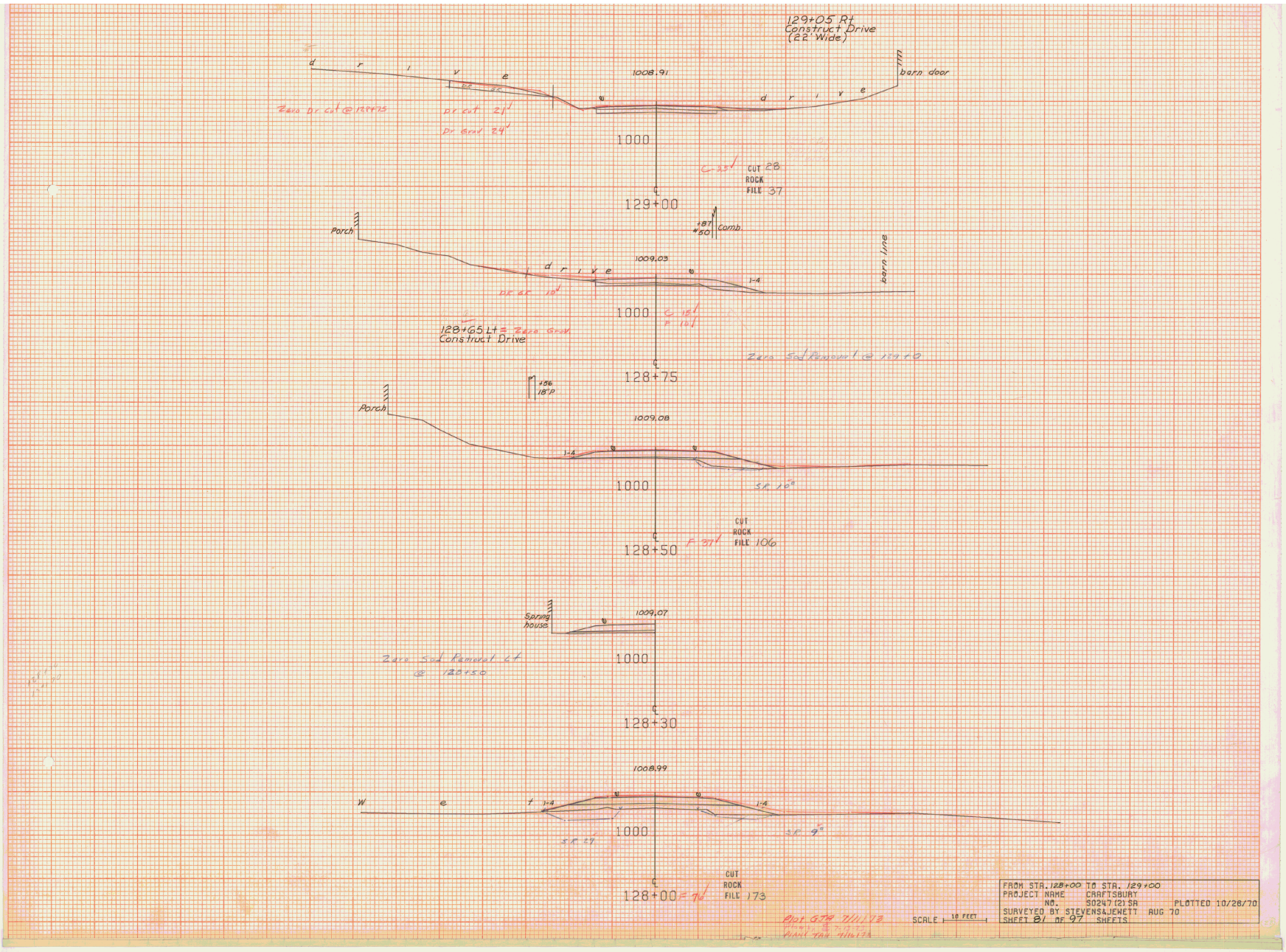
Tank 7/16/73

632
542

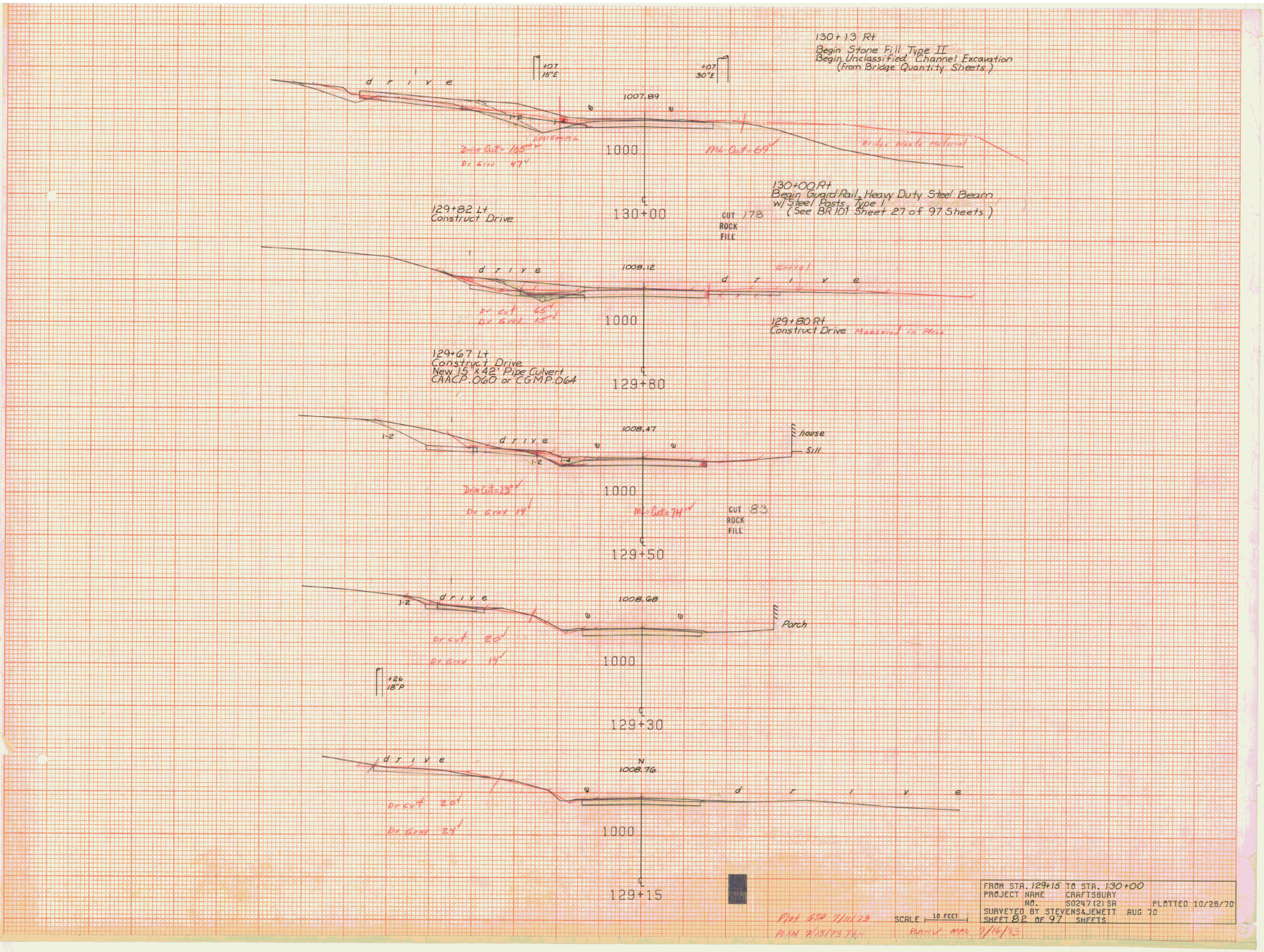
7+81.4 Back
7+08.1 Ahead
1.33 Ang. Pt. 18
N 10° 0' 0" W

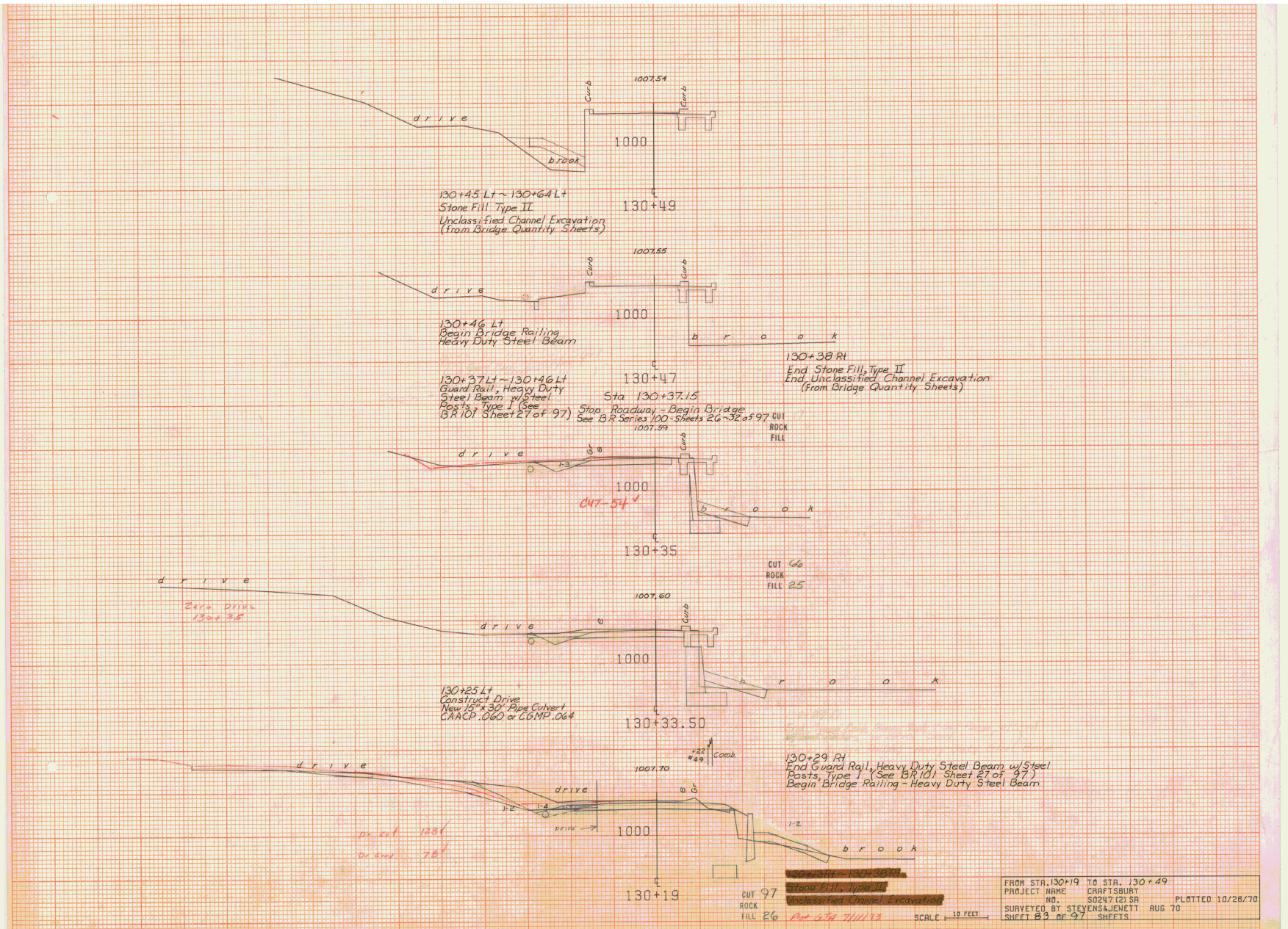
b r o o k

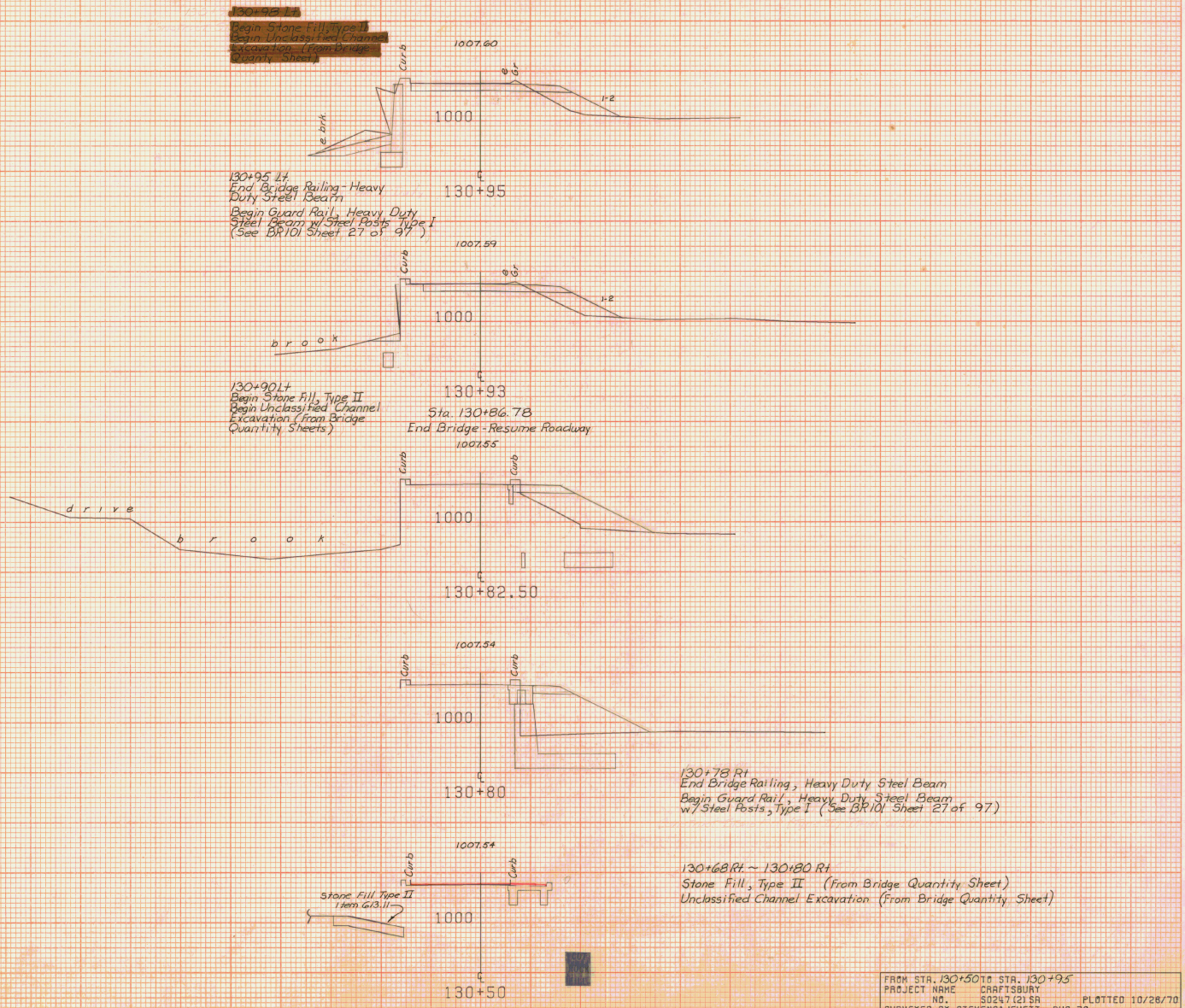
7/11/73

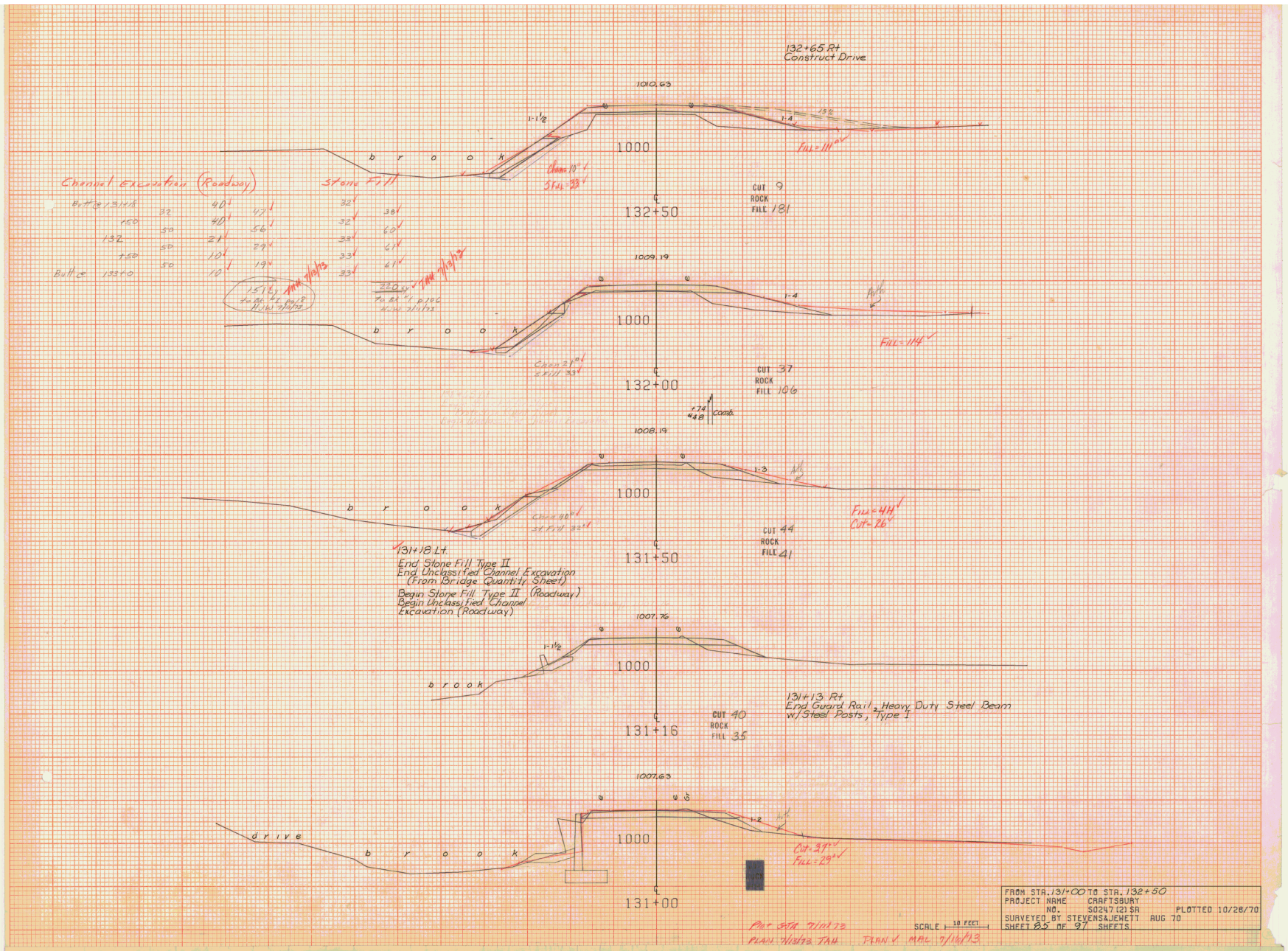


FROM STA. 128+00 TO STA. 129+00
PROJECT NAME CRAFTSBURY
NO. S0247(2) SA PLOTTED 10/28/70
SURVEYED BY STEVENS&JEWETT AUG 70
SHEET 81 OF 97 SHEETS

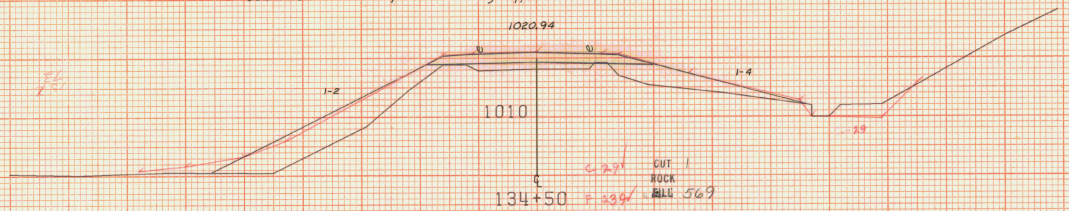

130+13 Rt
Begin Stone Fill Type II
Begin Unclassified Channel Excavation
(From Bridge Quantity Sheets)
+07
15"E
+07
30"E
d r i v e
1007.89
1-2
1-4
Drive Cut = 105
Dr Grav 47
PAL Cut = 69
Bridge Waste Material
1000
130+00 Rt
Begin Guard Rail, Heavy Duty Steel Beam
w/ Steel Posts, Type I
(See BR 101 Sheet 27 of 97 Sheets)
129+82 Lt
Construct Drive
130+00
CUT 178
ROCK
FILL
1008.12
Gravel
Dr cut 65
Dr Grav 15
1000
129+80 Rt
Construct Drive Measured in Place
129+67 Lt
Construct Drive
New 15" x 42" Pipe Culvert
CAACP.060 or CGMP.064
129+80
1008.47
house
Sill
Drive Cut = 73
Dr Grav 14
ML Cut = 74
CUT 83
ROCK
FILL
1000
129+50
1008.68
Porch
Dr cut 20
Dr Grav 14
+26
18"P
1000
129+30
N
1008.76
Dr cut 20
Dr Grav 24
1000
129+15
Plot GJA 7/11/73
PLAN 7/13/73 TH
SCALE 10 FEET
PLAN MAL 7/16/73
FROM STA. 129+15 TO STA. 130+00
PROJECT NAME CRAFTSBURY
NO. S0247(2) SA
PLOTTED 10/28/70
SURVEYED BY STEVENS&JEWETT AUG 70
SHEET 82 OF 97 SHEETS

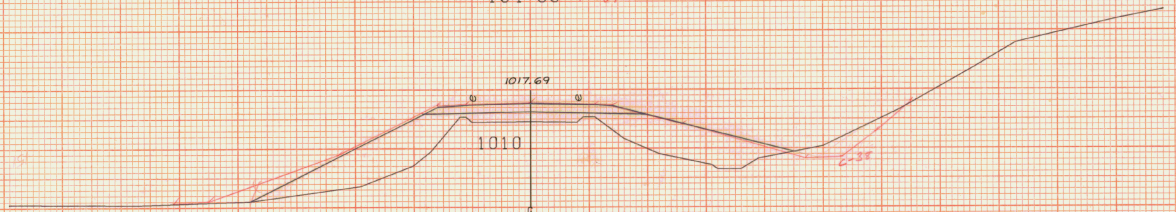

1007.54
Curb
Curb
drive
brook
1000
130+45 Lt ~ 130+64 Lt
Stone Fill Type II
Unclassified Channel Excavation
(from Bridge Quantity Sheets)
130+49
1007.55
Curb
Curb
drive
1000
130+46 Lt
Begin Bridge Railing
Heavy Duty Steel Beam
brook
130+38 Rt
End Stone Fill, Type II
End Unclassified Channel Excavation
(From Bridge Quantity Sheets)
130+37 Lt ~ 130+46 Lt
Guard Rail, Heavy Duty
Steel Beam w/Steel
Posts, Type I (See
BR 101 Sheet 27 of 97)
130+47
Sta 130+37.15
Stop Roadway - Begin Bridge
See BR Series 100 - Sheets 26 ~ 32 of 97
CUT
ROCK
FILL
1007.59
drive
Gr
e
1-3
Curb
1000
CUT-54
brook
130+35
CUT 66
ROCK
FILL 25
drive
Zero Drive
130+35
1007.60
drive
e
Curb
1000
brook
130+25 Lt
Construct Drive
New 15" x 30' Pipe Culvert
CAACP .060 or CGMP .064
130+33.50
+22
#49
Comb.
130+29 Rt
End Guard Rail, Heavy Duty Steel Beam w/Steel
Posts, Type I (See BR 101 Sheet 27 of 97)
Begin Bridge Railing - Heavy Duty Steel Beam
drive
1007.70
drive
e
Gr
1-2
1-4
DRIVE
1000
1-2
brook
Dr cut 128
Dr Grad 78
130+19
CUT 97
ROCK
FILL 26
130+13 Rt ~ 130+38 Rt
Stone Fill, Type II
Unclassified Channel Excavation
Plot GTA 7/11/73
SCALE 10 FEET
FROM STA. 130+19 TO STA. 130+49
PROJECT NAME CRAFTSBURY
NO. S0247 (2) SA
PLOTTED 10/28/70
SURVEYED BY STEVENS & JEWETT AUG 70
SHEET 83 OF 97 SHEETS

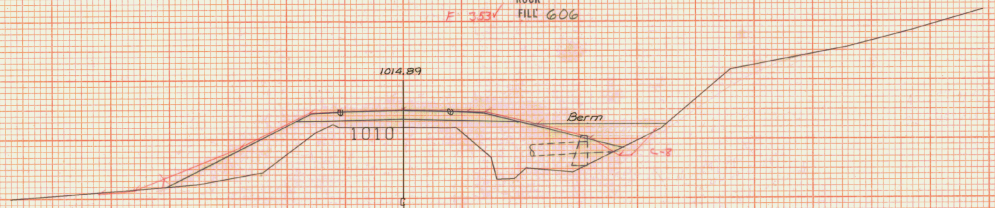

130+98 Lt.
Begin Stone Fill, Type II
Begin Unclassified Channel Excavation (From Bridge Quantity Sheets)
1007.60
Curb
e Gr
1+2
e brk
1000
℄
130+95
130+95 Lt.
End Bridge Railing - Heavy Duty Steel Beam
Begin Guard Rail, Heavy Duty Steel Beam w/ Steel Posts Type I
(See BR101 Sheet 27 of 97)
1007.59
Curb
e Gr
1+2
1000
b r o o k
℄
130+93
130+90 Lt.
Begin Stone Fill, Type II
Begin Unclassified Channel Excavation (From Bridge Quantity Sheets)
Sta. 130+86.78
End Bridge - Resume Roadway
1007.55
Curb
Curb
d r i v e
b r o o k
1000
℄
130+82.50
1007.54
Curb
Curb
1000
℄
130+80
130+78 Rt
End Bridge Railing, Heavy Duty Steel Beam
Begin Guard Rail, Heavy Duty Steel Beam
w/ Steel Posts, Type I (See BR101 Sheet 27 of 97)
1007.54
Curb
Curb
Stone Fill Type II
Item 613.11
1000
℄
130+50
130+68 Rt. ~ 130+80 Rt
Stone Fill, Type II (From Bridge Quantity Sheet)
Unclassified Channel Excavation (From Bridge Quantity Sheet)
FROM STA. 130+50 TO STA. 130+95
PROJECT NAME CRAFTSBURY
NO. S0247(2) SR PLOTTED 10/28/70
SURVEYED BY STEVENS & JEWETT RUG 70
SHEET 84 OF 97 SHEETS
SCALE 10 FEET

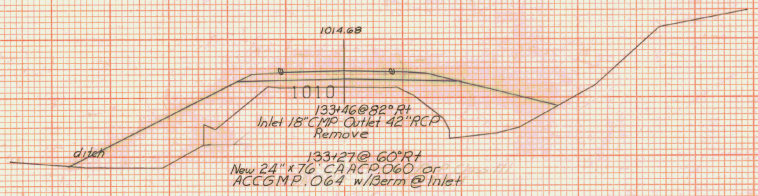

132+65 Rt
Construct Drive
1010.63
1-1½
1-4
1000
b r o o k
Chan=10°
S Fill=33
Fill=111
CUT 9
ROCK
FILL 181
132+50
Channel Excavation (Roadway)
Stone Fill
Butt @ 131+18
32
40
47
32
38
+50
40
56
32
60
132
50
21
29
33
61
+50
50
10
19
33
61
Butt @ 133+0
50
10
33
151 cy
to Bk #1 p 118
HJW 7/11/73
TAH 7/13/73
220 cy
to Bk #1 p 106
HJW 7/11/73
TAH 7/13/73
1009.19
1-4
1000
b r o o k
Fill=114
Chan 21°
S Fill 33
CUT 37
ROCK
FILL 106
132+00
+74
#48
Comb.
1008.19
1-3
1000
b r o o k
Chan 40°
St Fill 32°
Fill=4H
Cut=26
CUT 44
ROCK
FILL 41
131+50
131+18 Lt.
End Stone Fill Type II
End Unclassified Channel Excavation
(From Bridge Quantity Sheet)
Begin Stone Fill Type II (Roadway)
Begin Unclassified Channel
Excavation (Roadway)
1007.76
1-1½
1000
b r o o k
131+13 Rt
End Guard Rail, Heavy Duty Steel Beam
w/Steel Posts, Type I
CUT 40
ROCK
FILL 35
131+16
1007.63
1-2
1000
d r i v e
b r o o k
Cut=37°
Fill=29°
131+00
Plot STA 7/11/73
PLAN 7/13/73 TAH
PLAN ✓ MAL 7/16/73
SCALE 10 FEET
FROM STA. 131+00 TO STA. 132+50
PROJECT NAME CRAFTSBURY
NO. S0247 (2) SA
PLOTTED 10/28/70
SURVEYED BY STEVENS&JEWETT AUG 70
SHEET 85 OF 97 SHEETS

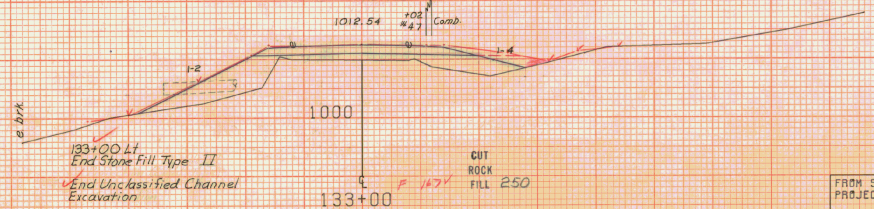
134+70 Lt
End Guard Rail, Heavy Duty Steel Beam Guard Rail w/ Steel Posts, Type 1





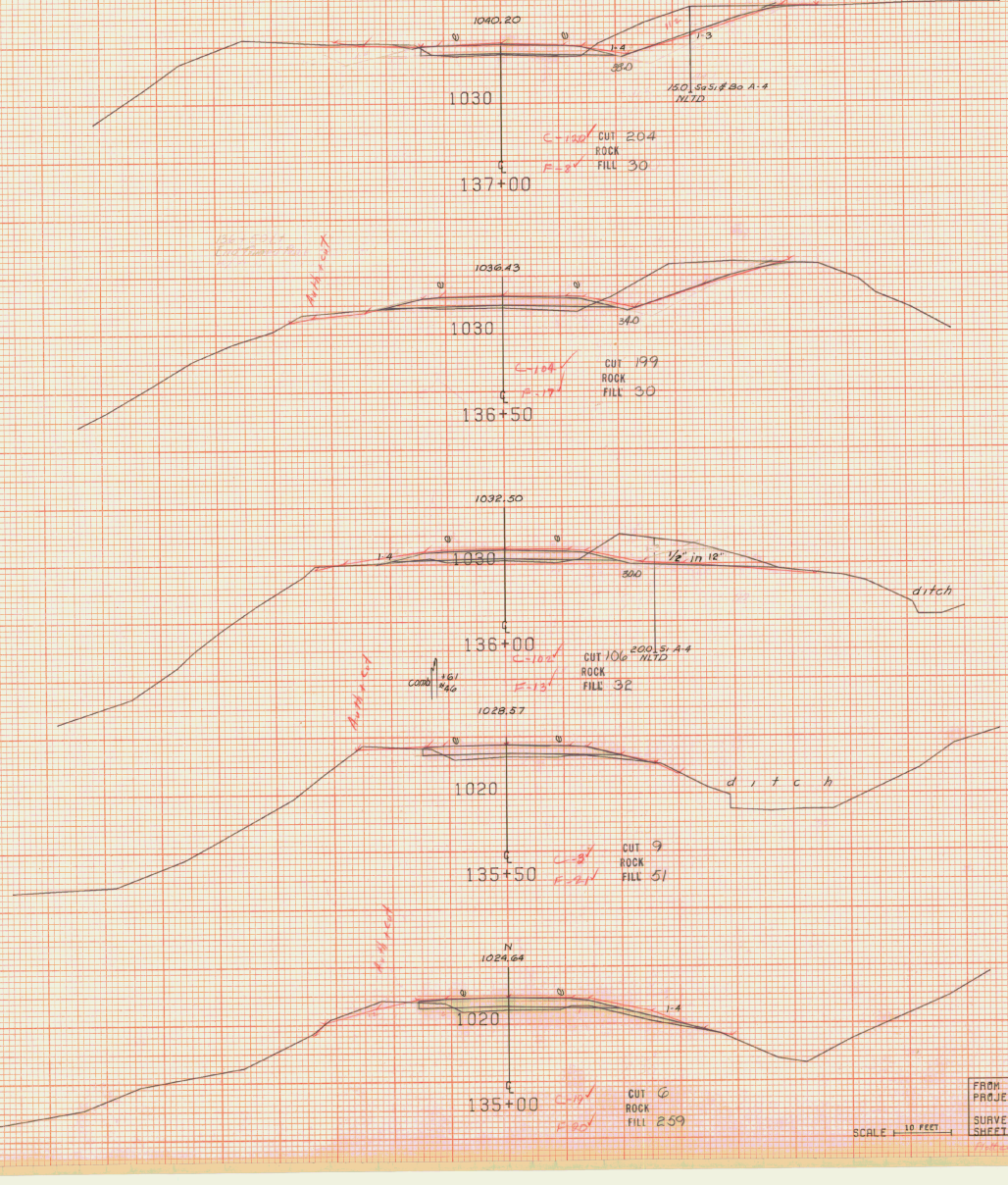






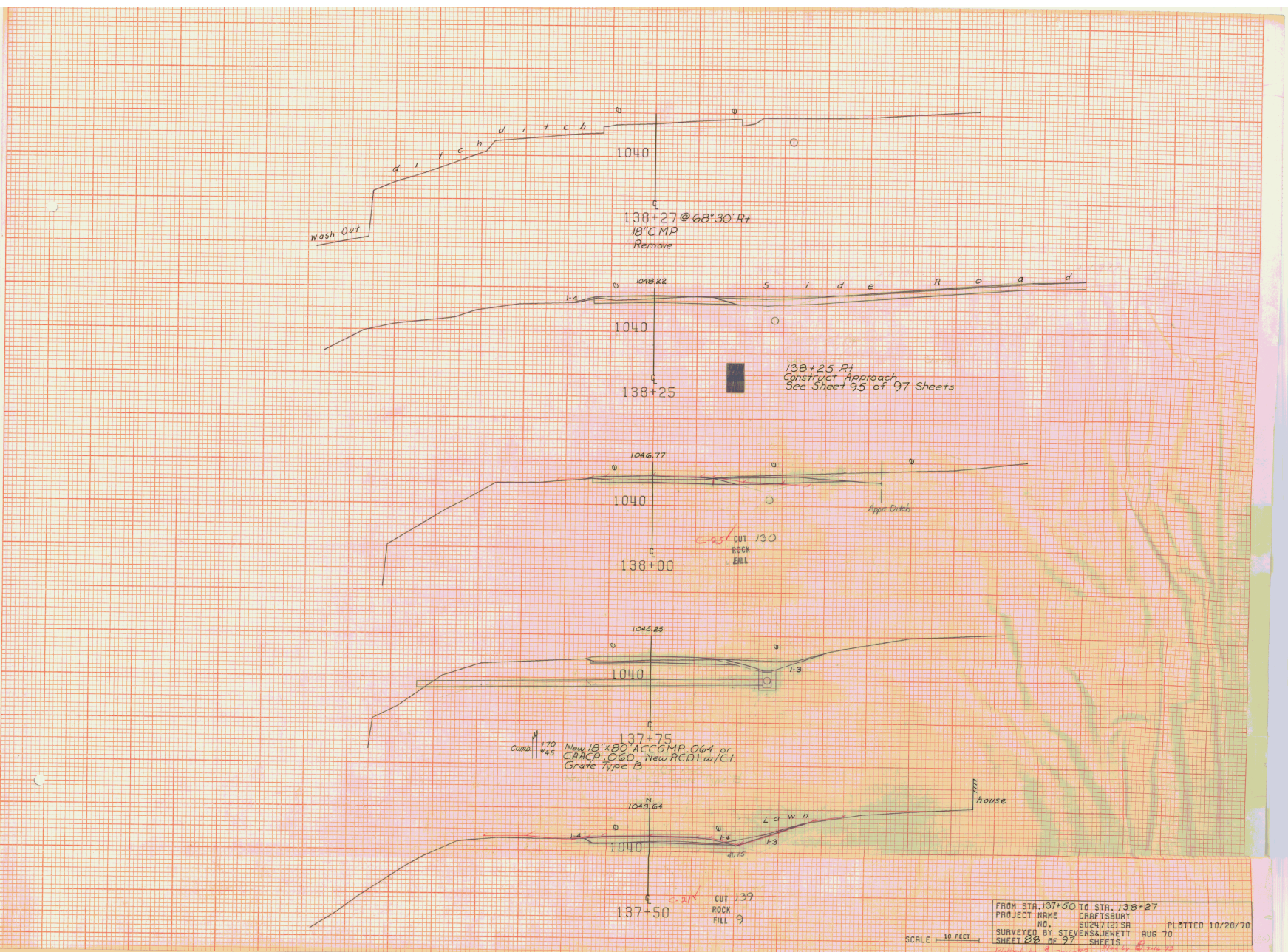
FROM STA. 133+00 TO STA. 134+50
PROJECT NAME CRAFTSBURY
NO. S0247(2)SA PLOTTED 10/26/70
SURVEYED BY STEVENS & JEWETT AUG 70
SHEET 86 OF 97 SHEETS

SCALE 10 FEET

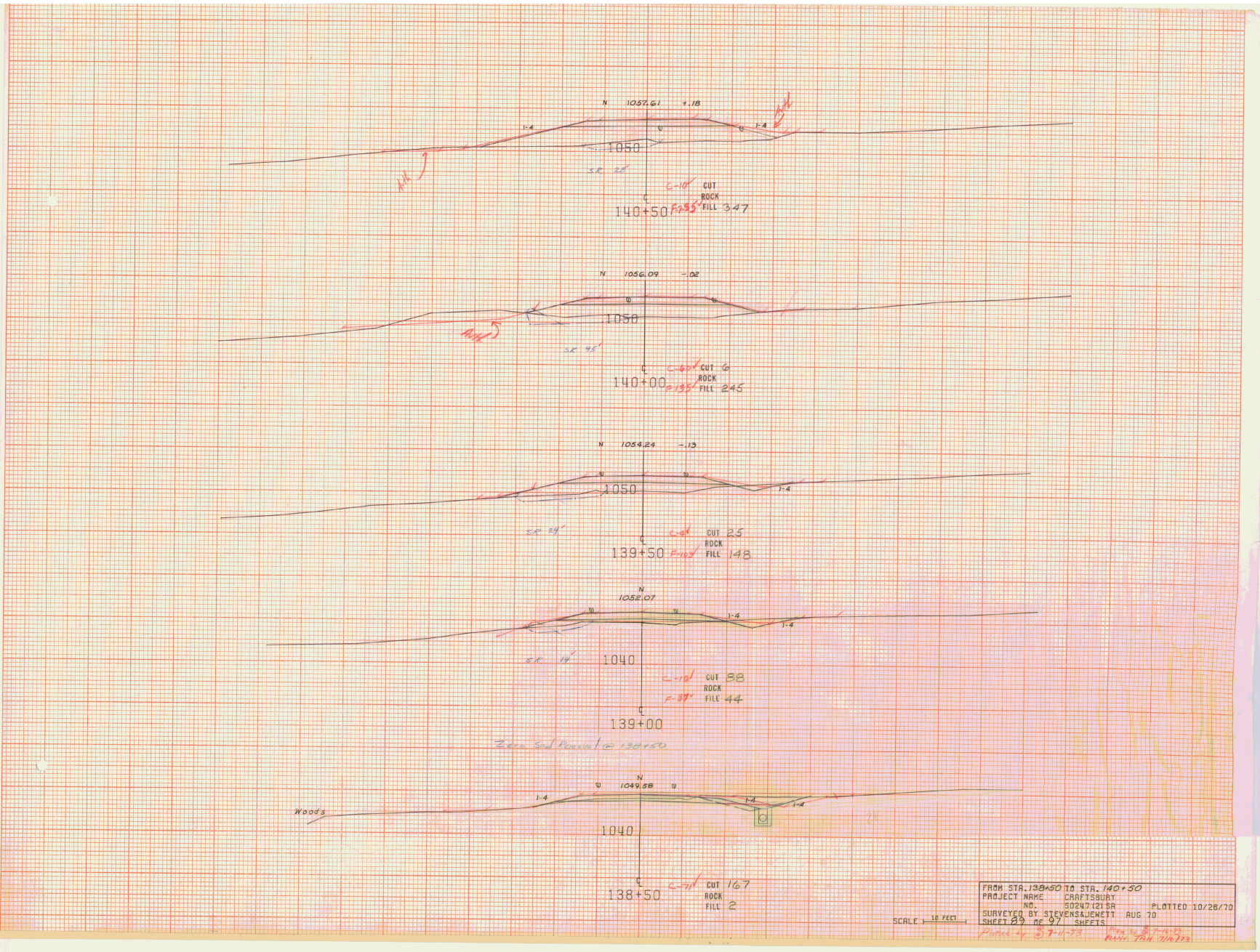


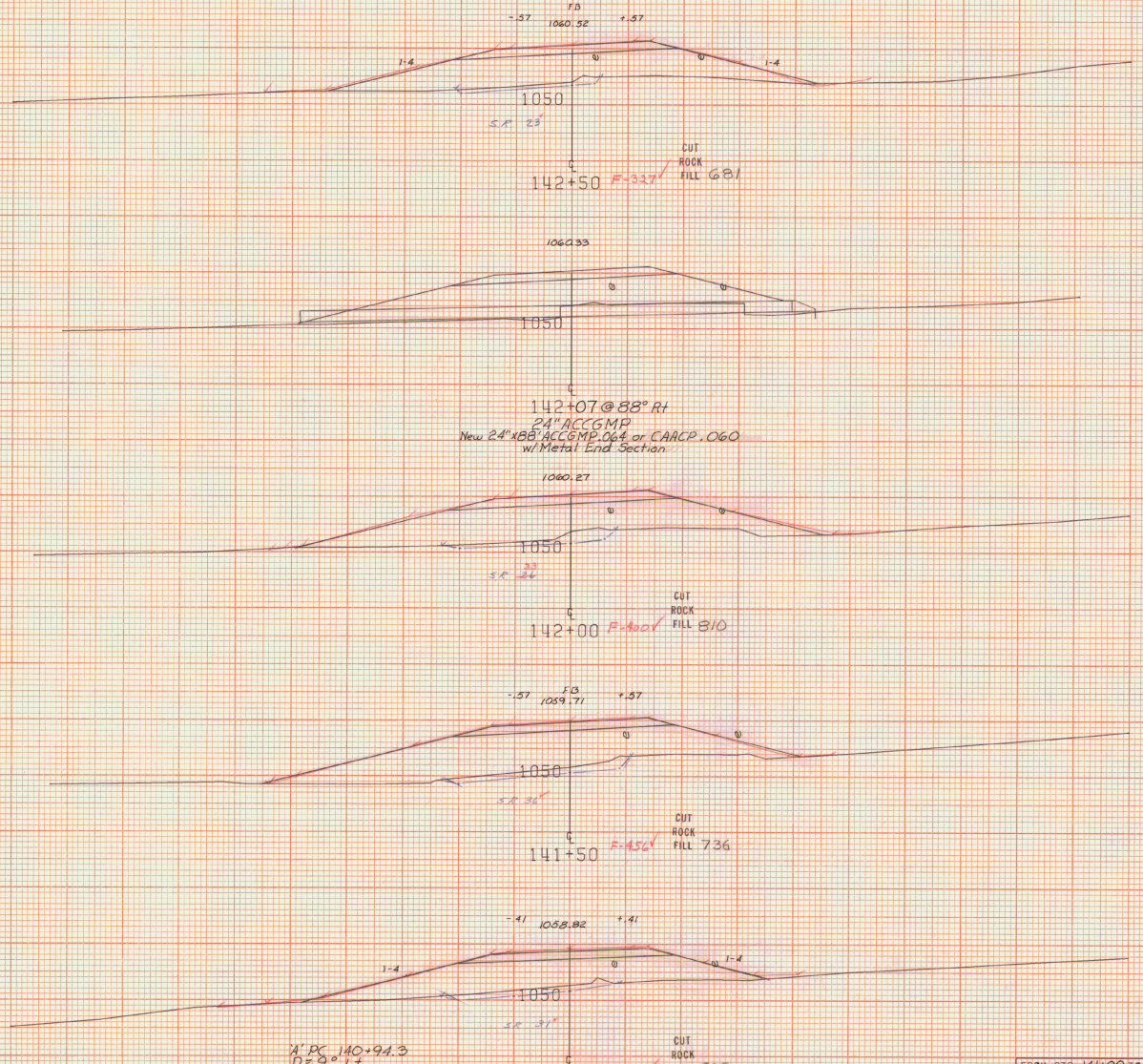
SCALE 10 FEET

FROM STA. 135+00 TO STA. 137+00
PROJECT NAME CRAFTSBURY
NO. S0247(2) SA PLOTTED 10/26/70
SURVEYED BY STEVENS&JEWETT AUG 70
SHEET 87 OF 97 SHEETS
Plotted by 7-11-73 Plan by 7-16-73



ditch
ditch
Wash Out
1040
138+27 @ 68°30' Rt
18" CMP
Remove
1048.22
Side Road
1-4
1040
138+25
138+25 Rt
Construct Approach
See Sheet 95 of 97 Sheets
1046.77
1040
Appr. Ditch
C-25
CUT 130
ROCK
FILL
138+00
1045.25
1040
1-3
137+75
Comb. +70 #45
New 18"x80' ACCGMP .064 or
CAACP .060, New RCD1 w/C.I.
Grate Type B
house
1043.64
Lawn
1-4
1-4
1-3
1040
41.75
C-21
CUT 139
ROCK
FILL 9
137+50
SCALE 10 FEET
FROM STA. 137+50 TO STA. 138+27
PROJECT NAME CRAFTSBURY
NO. S0247(2) SA
PLOTTED 10/28/70
SURVEYED BY STEVENS&JEWETT AUG 70
SHEET 88 OF 97 SHEETS
Plotted by 7-11-73
Plan by 7-16-73
PLANS TAH 7/16/73

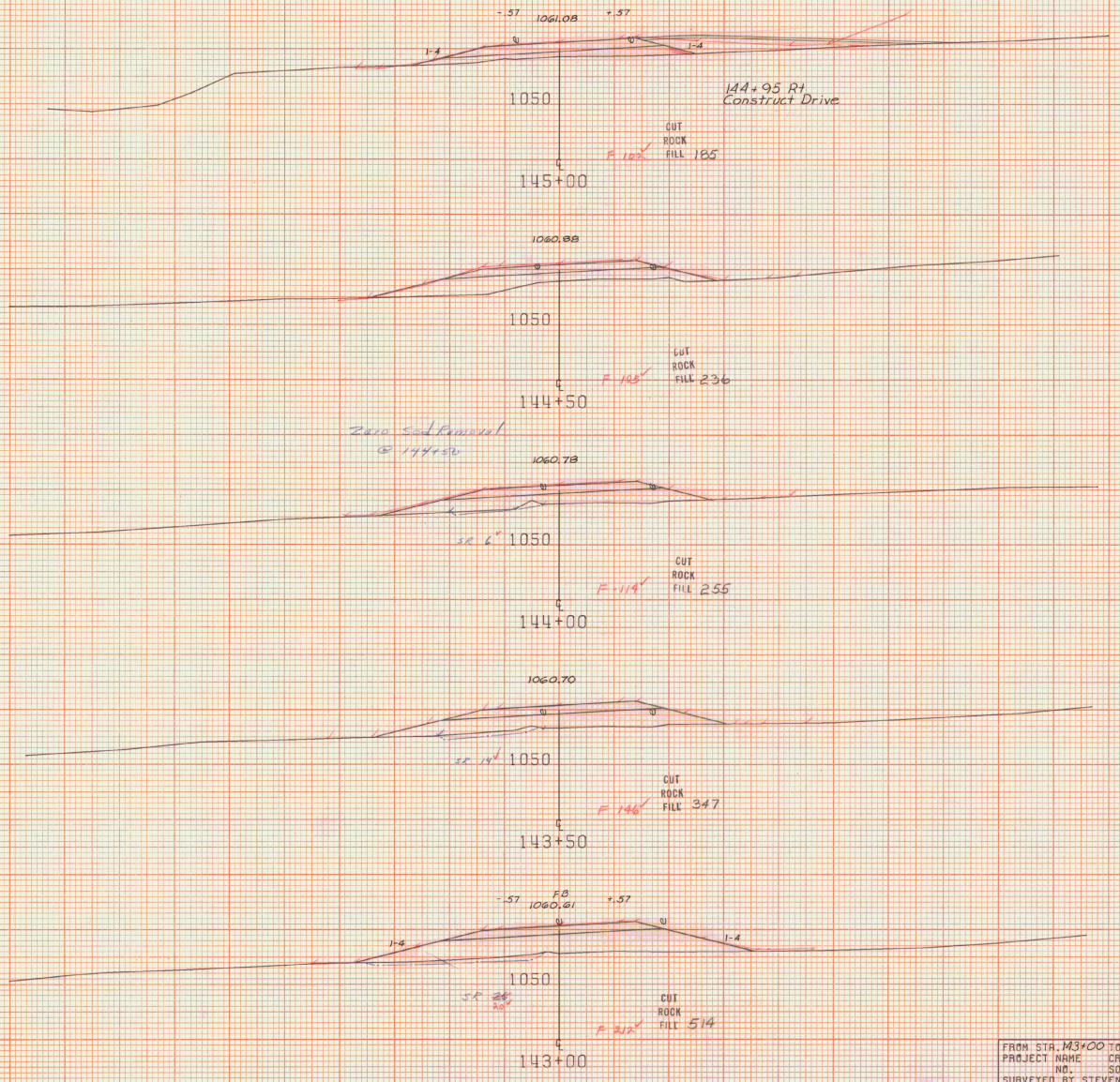

N 1057.61 1.18
1-4
1050
SR 28'
C-10'
CUT
ROCK
FILL 347
140+50
F-235'
N 1056.09 -.02
1050
SR 45'
C-60'
CUT 6
ROCK
FILL 245
140+00
F-135'
N 1054.24 -.13
1050
SR 24'
C-64'
CUT 25
ROCK
FILL 148
139+50
F-103'
N
1052.07
1040
SR 14'
C-70'
CUT 88
ROCK
FILL 44
F-37'
139+00
Zero Soil Removal @ 139+50
N
1049.58
Woods
1040
C-71'
CUT 167
ROCK
FILL 2
138+50
SCALE 10 FEET
FROM STA. 138+50 TO STA. 140+50
PROJECT NAME CRAFTSBURY
NO. S0247121 SR PLOTTED 10/26/70
SURVEYED BY STEVENS&JEWETT AUG 70
SHEET 89 OF 97 SHEETS
7-11-73
7-16-73
7-16-73



'A' PC 140+94.3
D = 9° Lt
Bank 0.057' Per Ft.

FROM STA. 141+00 TO STA. 142+50
PROJECT NAME CRAFTSBURY
NO. S0247(2)SA PLOTTED 10/26/70
SURVEYED BY STEVENS&JEWETT AUG 70
SHEET 90 OF 97 SHEETS

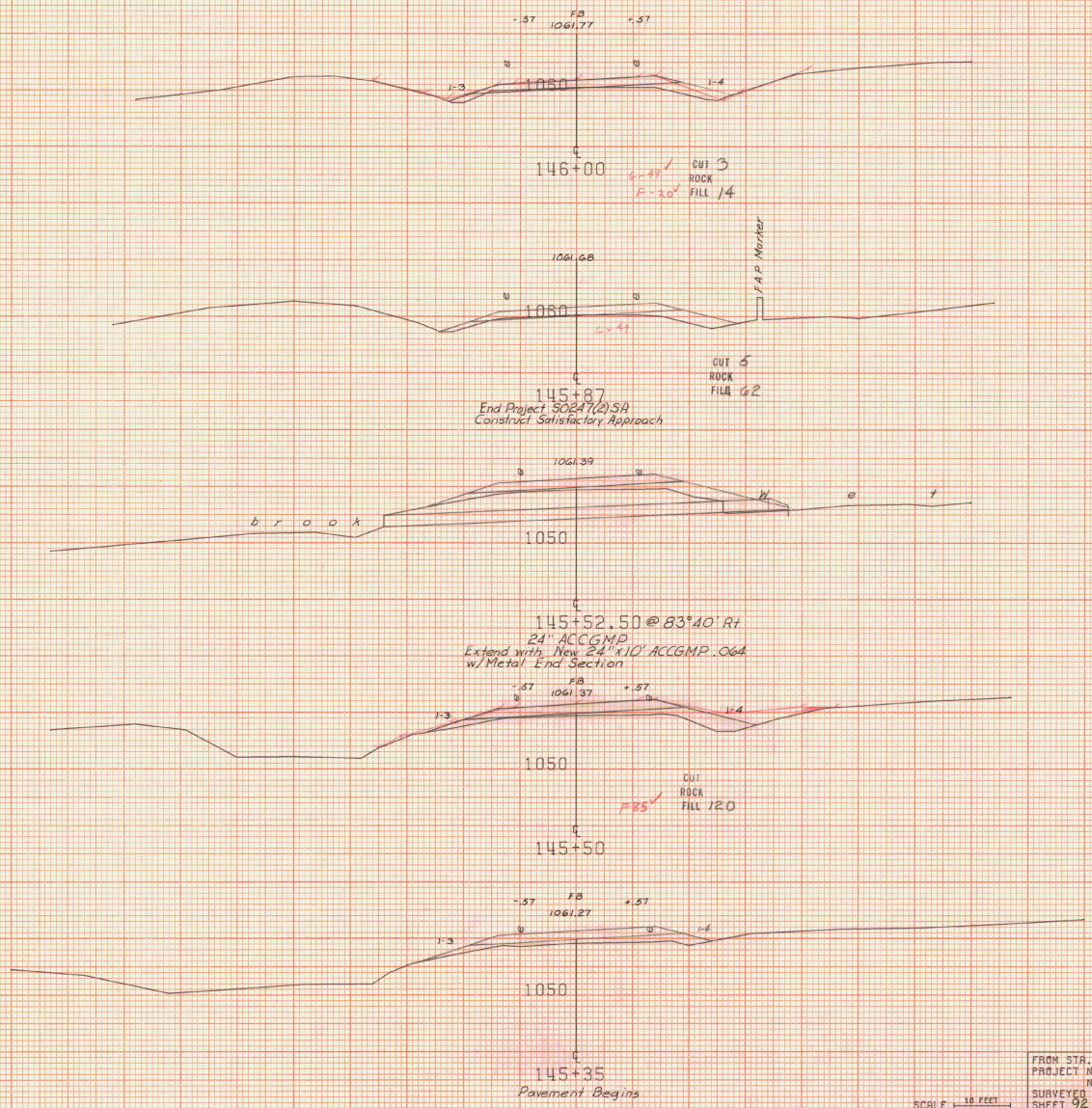
SCALE 10 FEET



SCALE 10 FEET

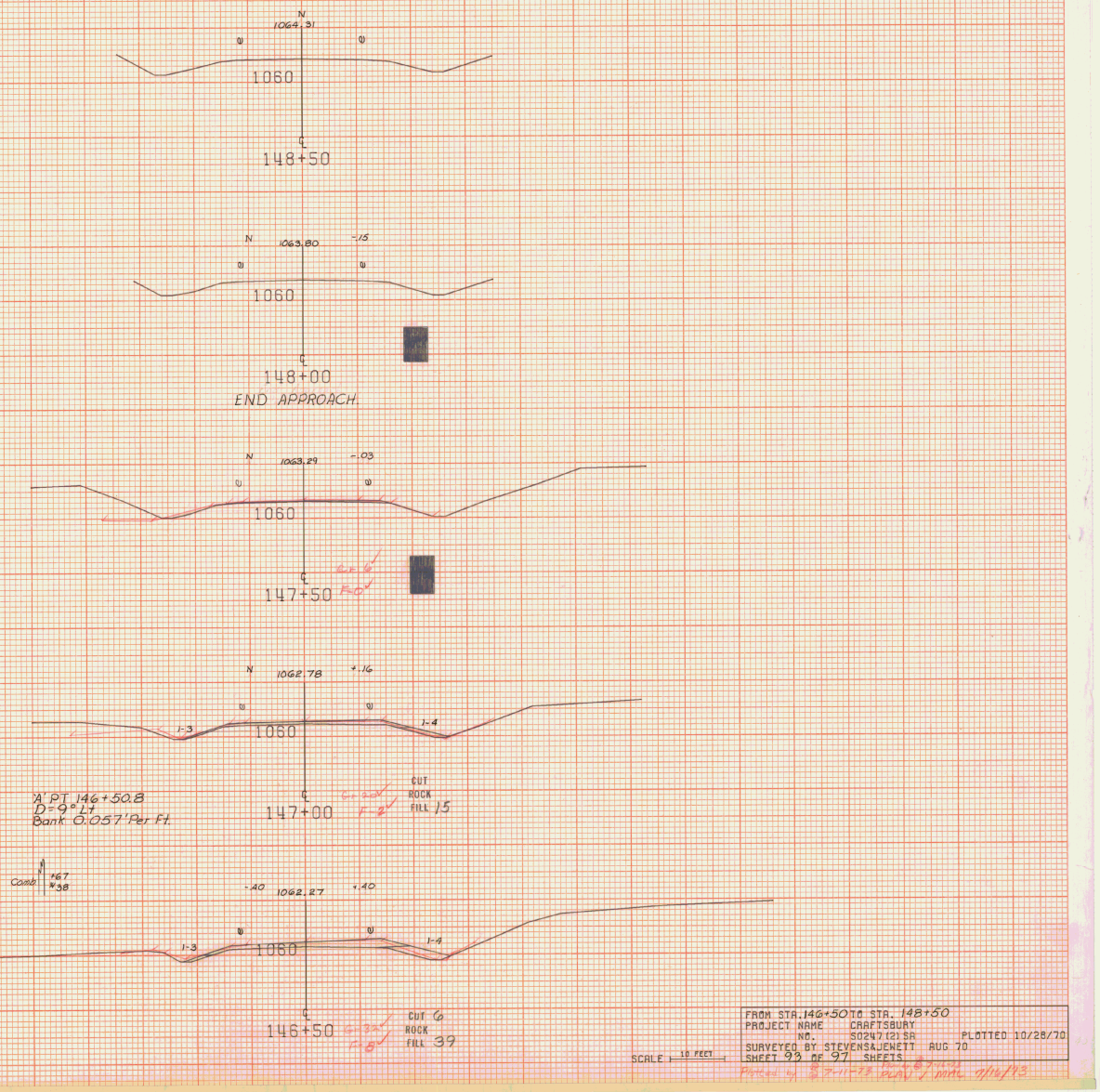
FROM STA. 143+00 TO STA. 145+00
PROJECT NAME CRAFTSBURY
NO. S0247(2) SA PLOTTED 10/28/70
SURVEYED BY STEVENS&JEWETT AUG 70
SHEET 91 OF 97 SHEETS

Plotted by 7-11-73 Plan by 7-16-73 PLAN MAL 7/16/73



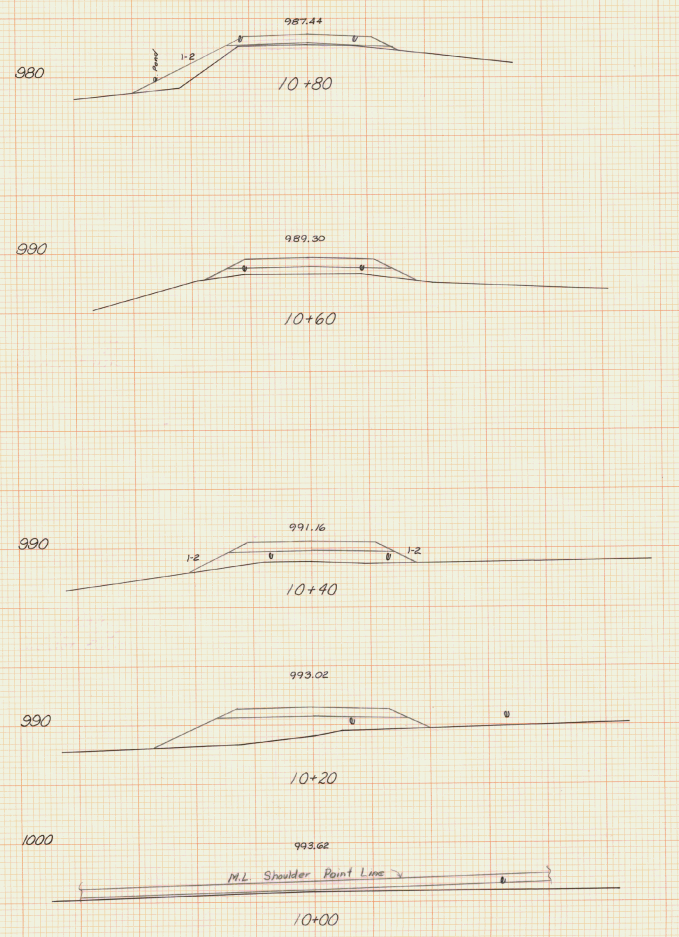
FROM STA. 145+35 TO STA. 146+00
PROJECT NAME CRAFTSBURY
NO. S0247(2)SA PLOTTED 10/28/70
SURVEYED BY STEVENS&JEWETT AUG 70
SHEET 92 OF 97 SHEETS

SCALE 10 FEET

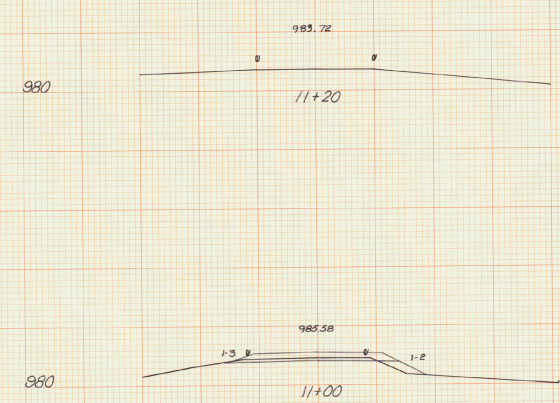


FROM STA. 146+50 TO STA. 148+50
PROJECT NAME CRAFTSBURY
NO. S0247(12)SR PLOTTED 10/28/70
SURVEYED BY STEVENS & JEWETT AUG 70
SHEET 99 OF 97 SHEETS

SCALE 1" = 10 FEET



See Approach Sheet for X-Sections



Interpolated X-Sections
Approach @ 107+50 Lt.
10+0 = Point of ML. Shoulder

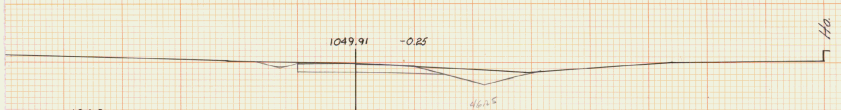
STA. 10+00 STA. 11+20
TOWN CRAFTSBURY
PROJECT S NO. 0247(2)SA
SHEET 94 OF 97 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEY BY: DATE

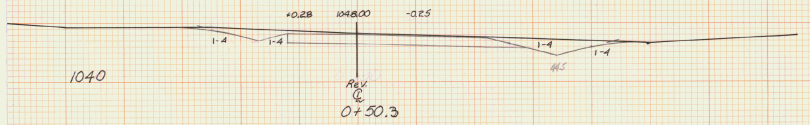
Interpolated by RDW 11 Mar 99
from A' Line & C' Line Aug 98

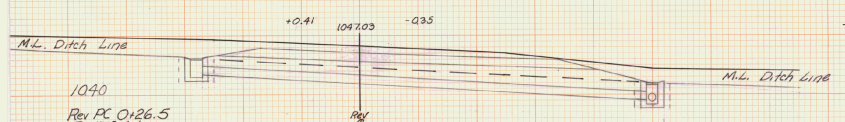
KEUFFEL & ESSER CO. MADE IN U.S.A.

K+E STANDARD CROSS SECTION 10 X 10 TO THE INCH

KEUFFEL & ESSER CO. MADE IN U.S.A.

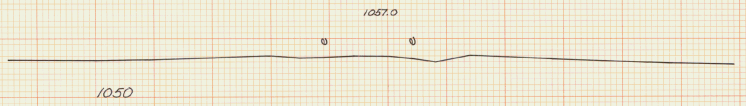




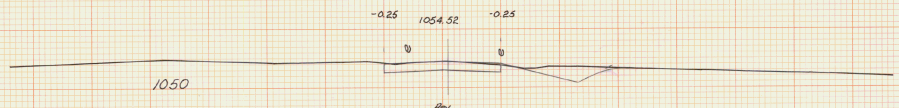


Rev PC 0+26.5
D 17° Lt.
Bank 0.047' Per Ft.

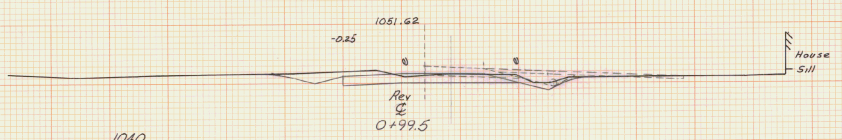
New 18" x 76' ACCGMP .064 or CAACP .060
New RCDI w/C.I. Grate Type A

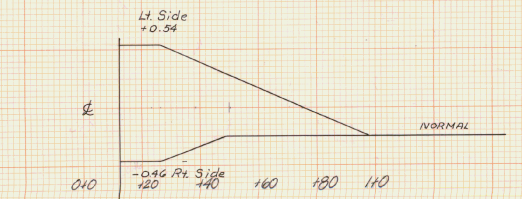


Rev PT 1+76.1
D = 17° Lt
Bank 0.047' Per Ft



Rev. 1+25 Construct Drive Rt. (Old 15" CMP)
New 15" x 34' CAACP .060 or
CGMP .064



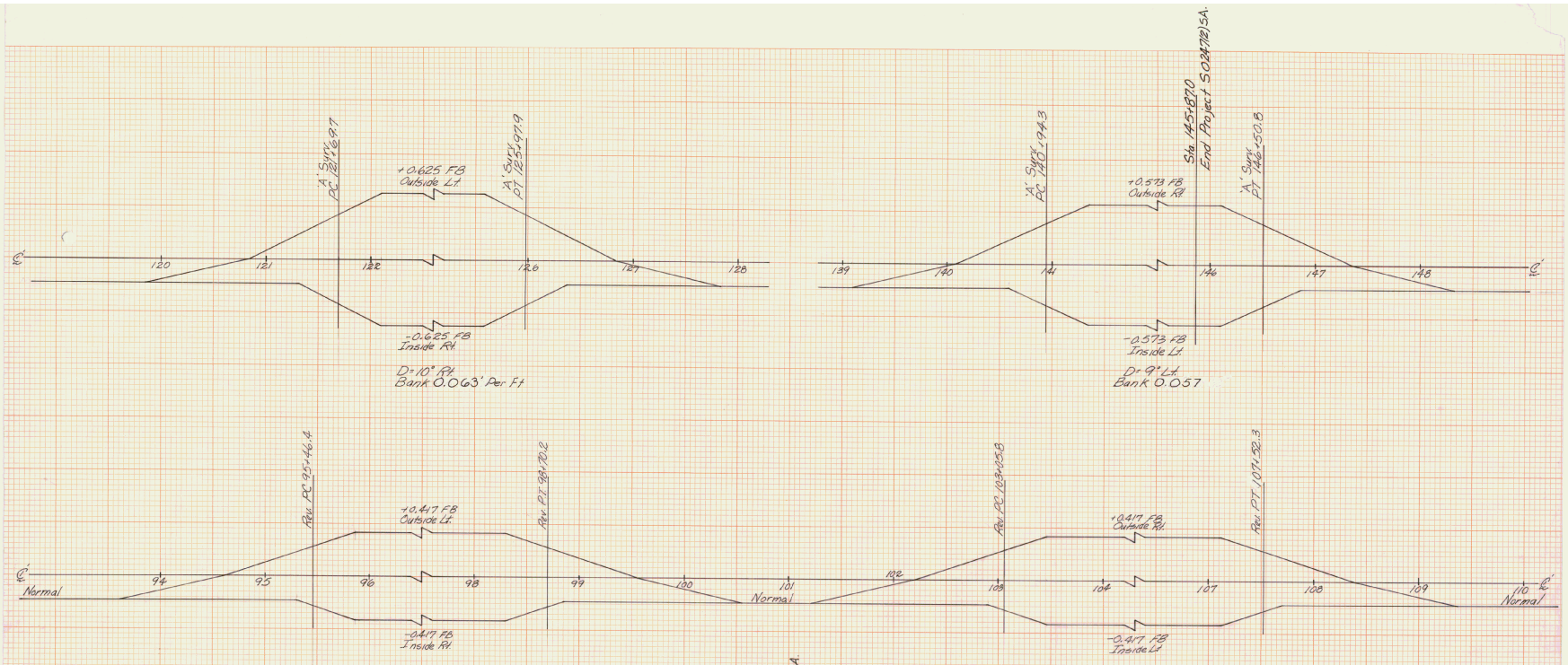


Rev. Appr. P.O.T. 0+123 =
M.L. P.O.T. 138+25.1

Appr. @ Sta. 138+25.1 Rt. TH #43
Interpolated X-Sections
On Rev. Curve

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
TOWN OF Craftsbury
Levels by Jewett Date Sept 70
Plotted by Perkins Ch'd by RSA
SCALE: 0 10 20 FEET
Proj. No. S 0247(2)SA Sheet 95 of 97
Sta. to Sta.

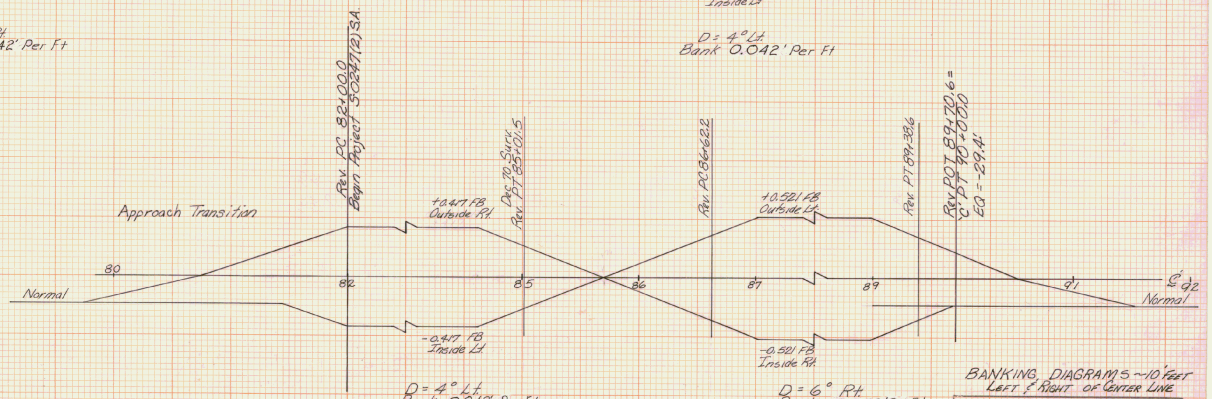
K&E STANDARD ® CROSS SECTION
KEUFFEL & ESSER CO.
MADE IN U.S.A.



BANKING TABLE

V=40		
D	e	runoff
0°15'	NC	0
0°30'	NC	0
0°45'	RC	125
1°00'	RC	125
1°30'	RC	125
2°00'	0.026	125
2°30'	0.032	125
3°00'	0.036	125
3°30'	0.042	125
4°00'	0.042	125
5°00'	0.047	125
6°00'	0.052	125
7°00'	0.052	125
8°00'	0.057	125
9°00'	0.057	125
10°00'	0.063	125
11°00'	0.063	130

D max = 11.5°

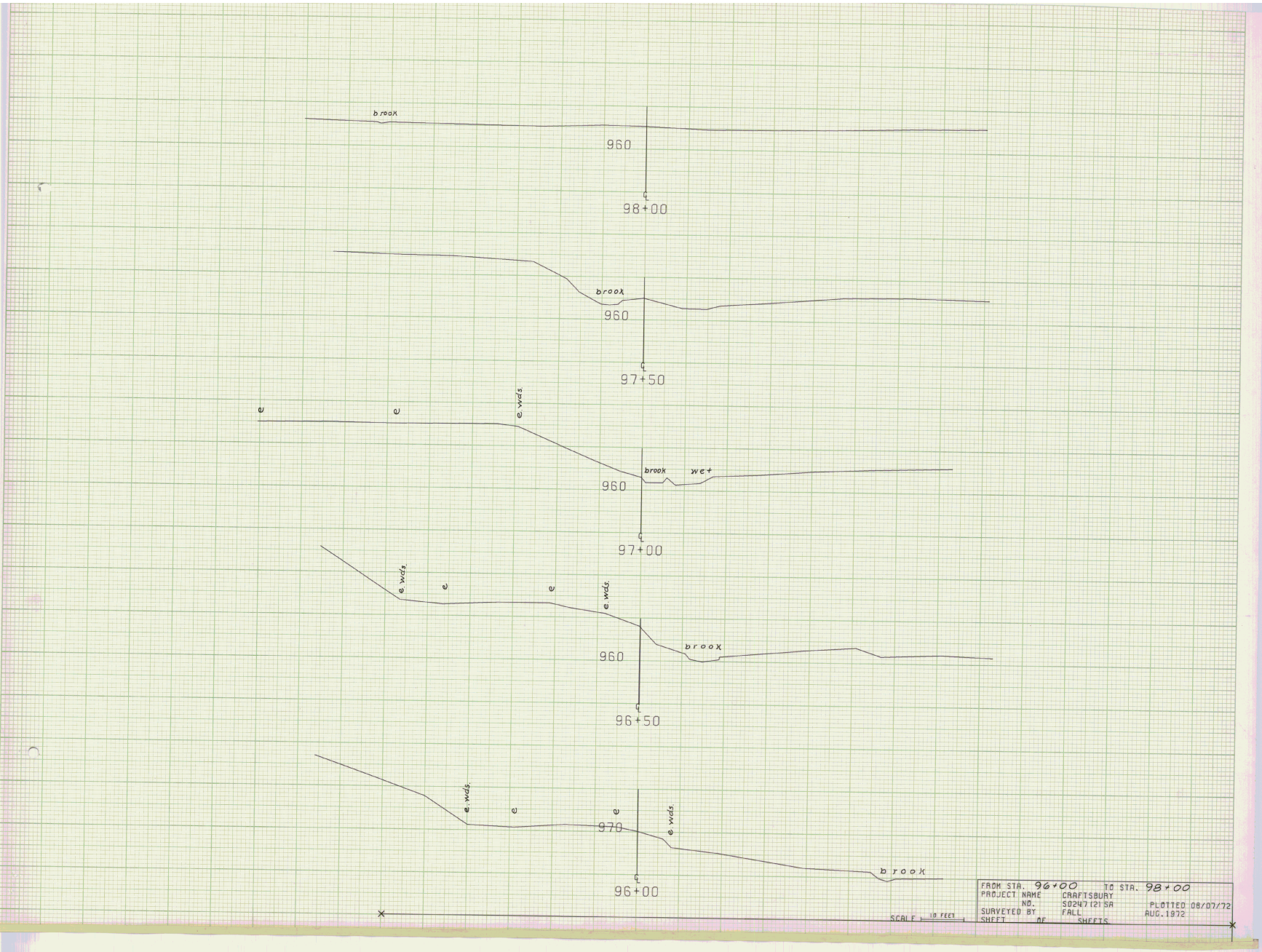


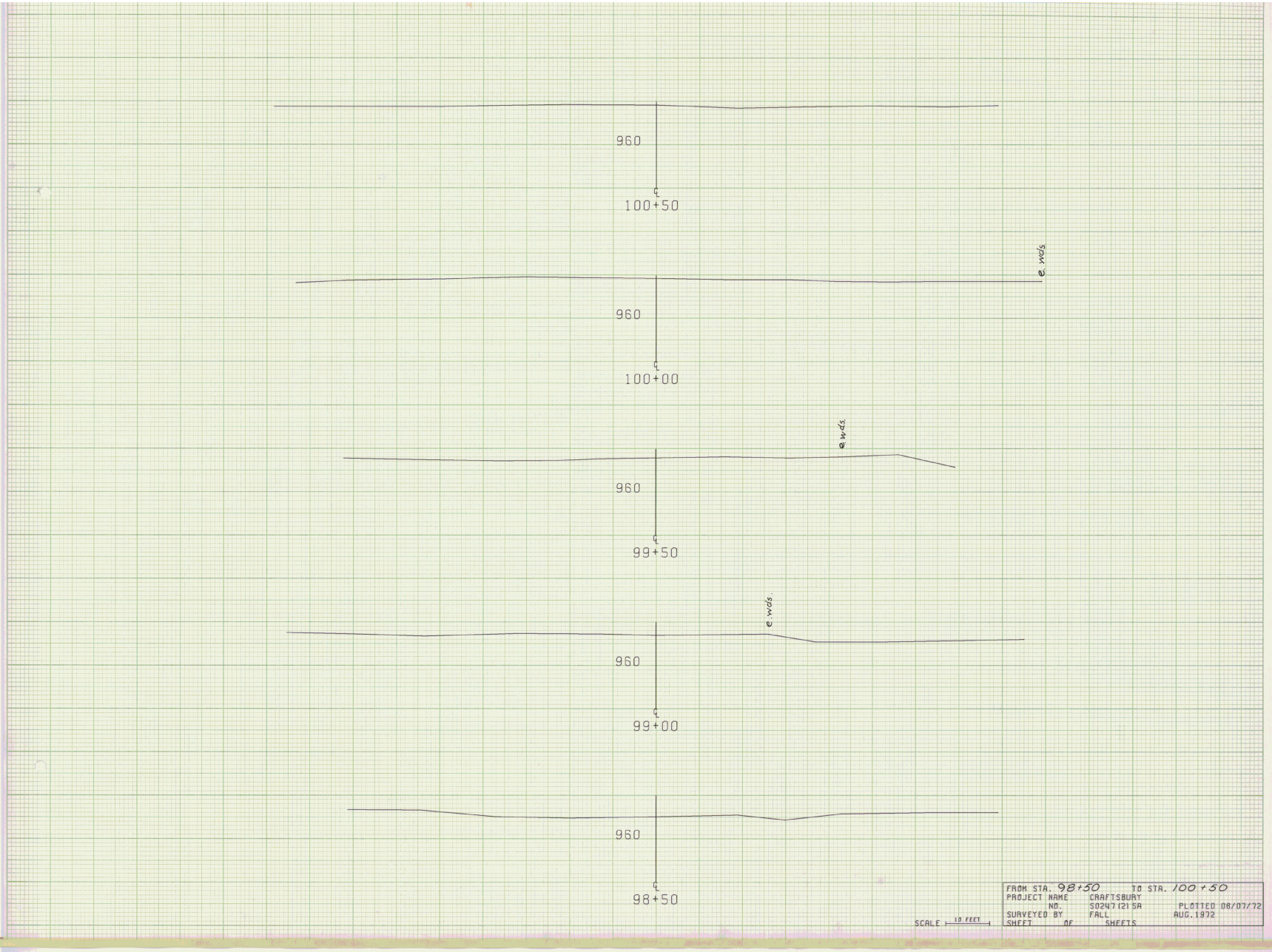
Scale
HORIZ
0 50 100
VERT
0 0.5 1.0

BANKING DIAGRAMS -10' FEET LEFT & RIGHT OF CENTER LINE

STA. STA.
TOWN CRAFTSBURY
PROJECT S NO. 0247(2)S.A
SHEET 96 OF 97 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
DRAWN BY: RSA DATE 2-22-71

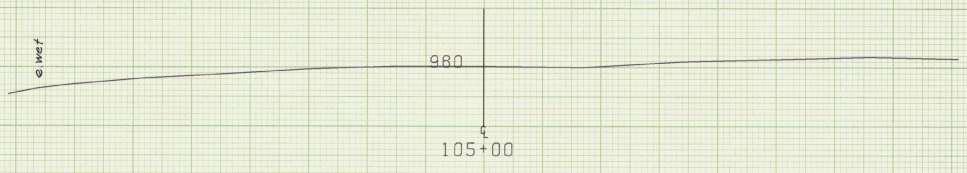
K&E STANDARD © CROSS SECTION 10 X 10 TO THE INCH
KEUFFEL & ESSER CO. MADE IN U.S.A.
K&E STANDARD © CROSS SECTION 10 X 10 TO THE INCH
KEUFFEL & ESSER CO. MADE IN U.S.A.

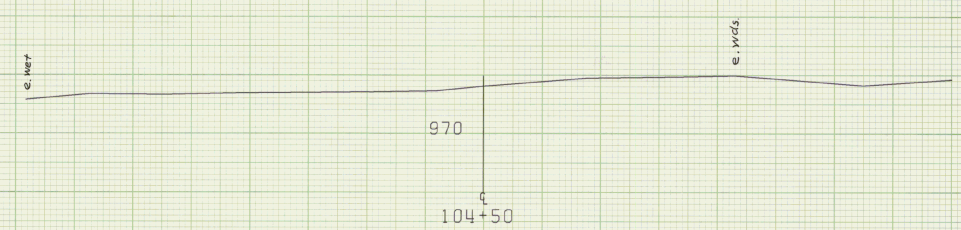

brook
960
98+00
brook
960
97+50
e
e
e wds.
brook
wet
960
97+00
e wds.
e
e
e wds.
brook
960
96+50
e wds.
e
e
e wds.
970
brook
96+00
FROM STA. 96+00 TO STA. 98+00
PROJECT NAME CRAFTSBURY
NO. S0247(2)SA
SURVEYED BY FALL
PLOTTED 08/07/72
AUG. 1972
SHEET OF SHEETS
SCALE 10 FEET

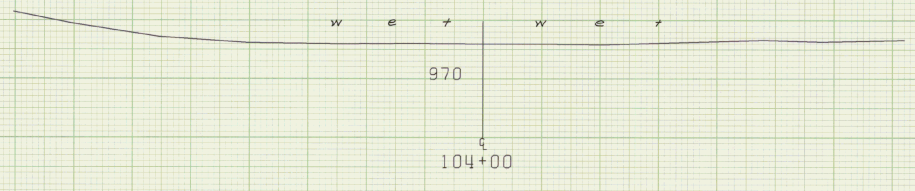


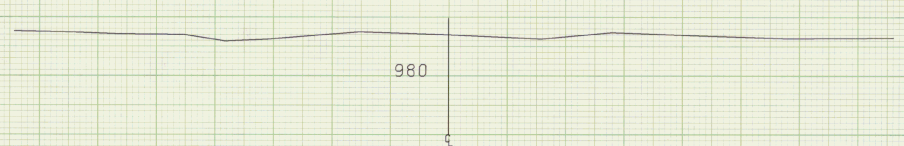
SCALE 10 FEET

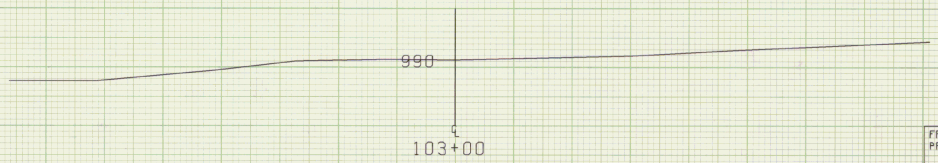
FROM STA. 98+50		TO STA. 100+50	
PROJECT NAME	CRAFTSBURY		
NO.	S0247(21)SA		PLOTTED 08/07/72
SURVEYED BY	FALL		AUG. 1972
SHEET OF SHEETS			





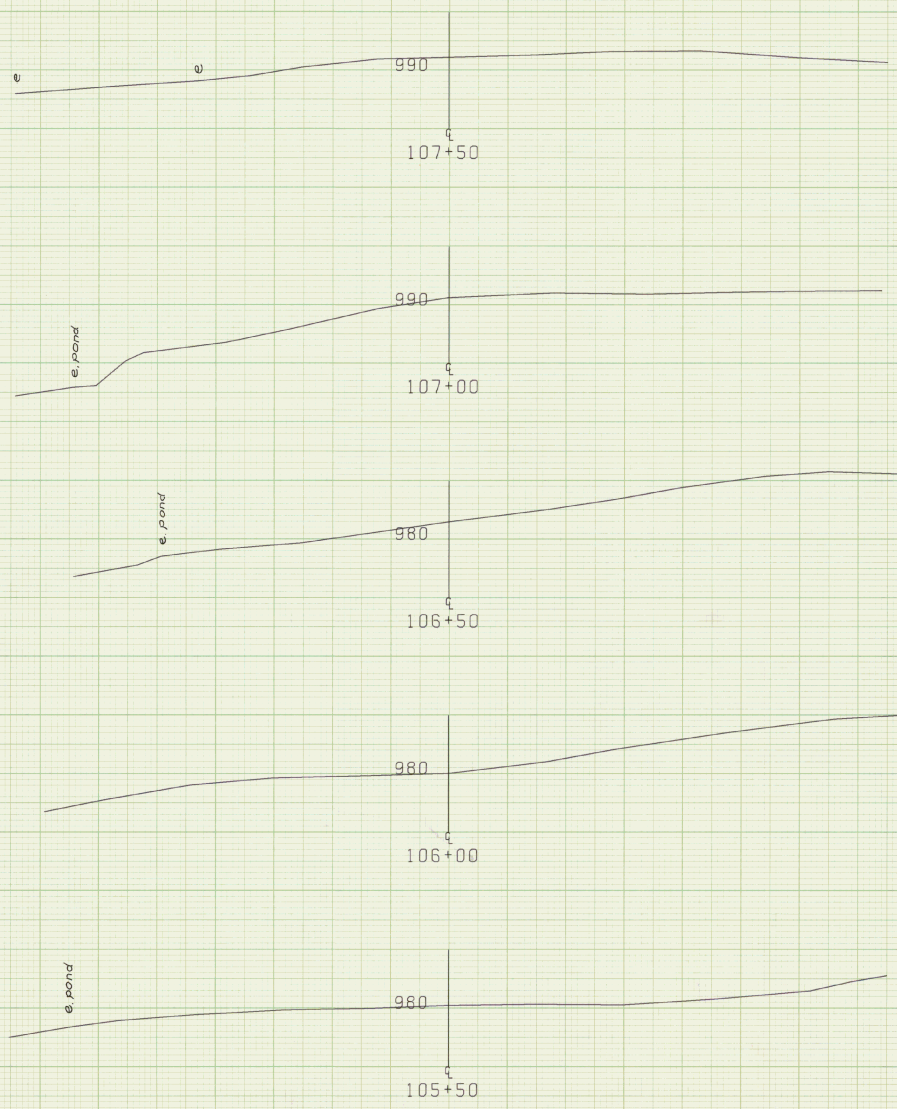






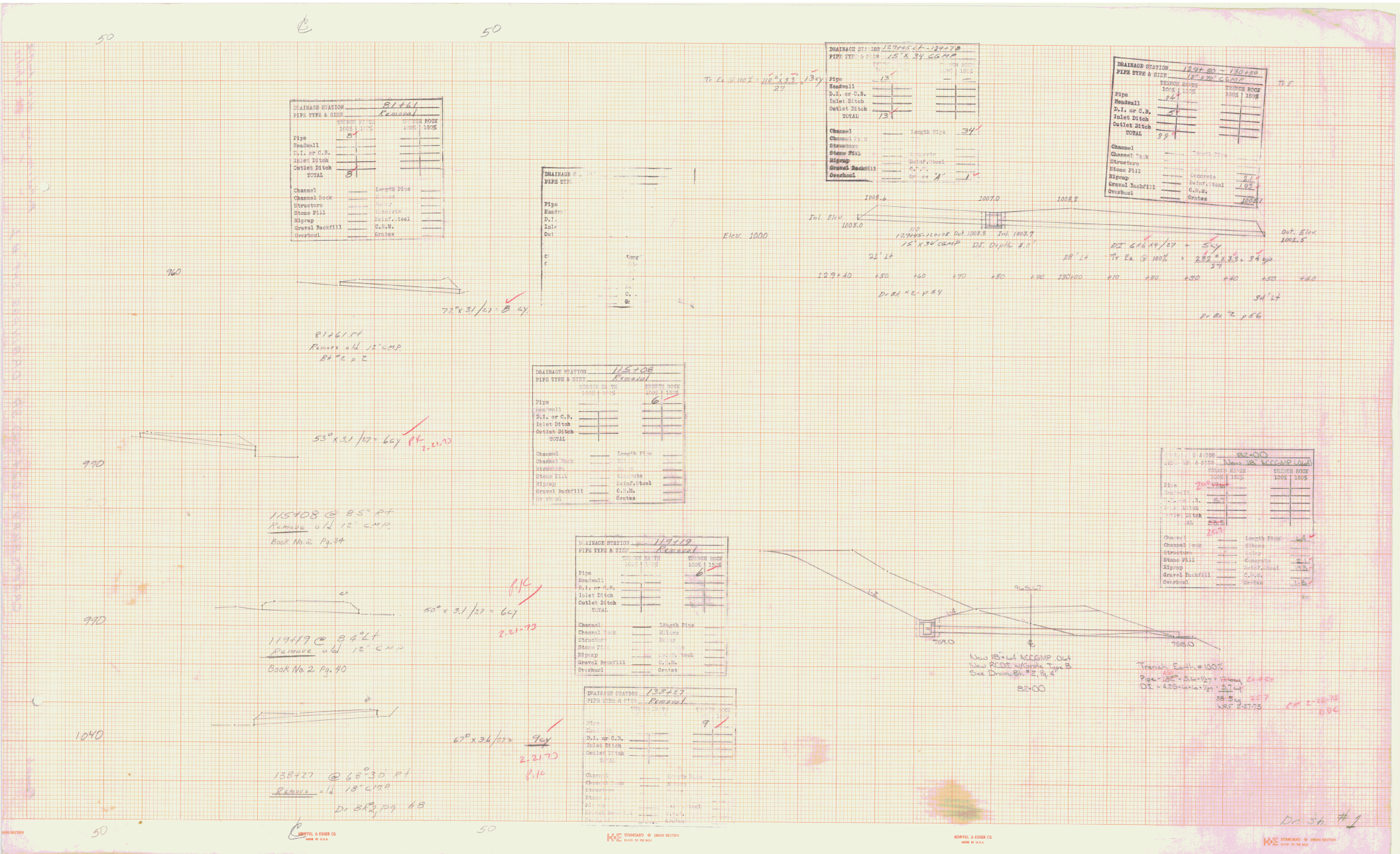
FROM STA. 103+00 TO STA. 105+00
PROJECT NAME CRAFTSBURY
NO. S0247(2)SA PLOTTED 08/07/72
SURVEYED BY FALL AUG.1972
SHEET OF SHEETS

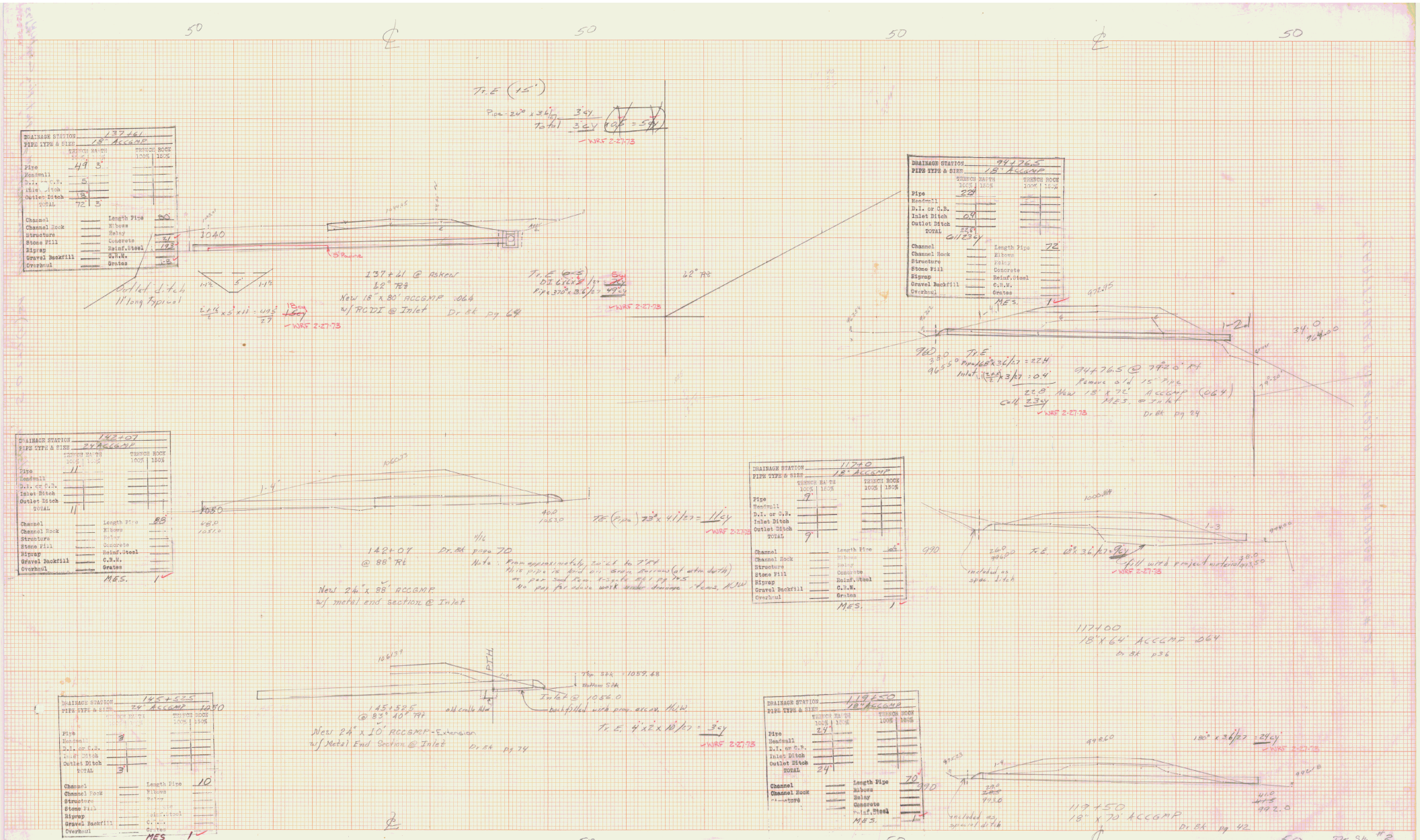
SCALE 10 FEET

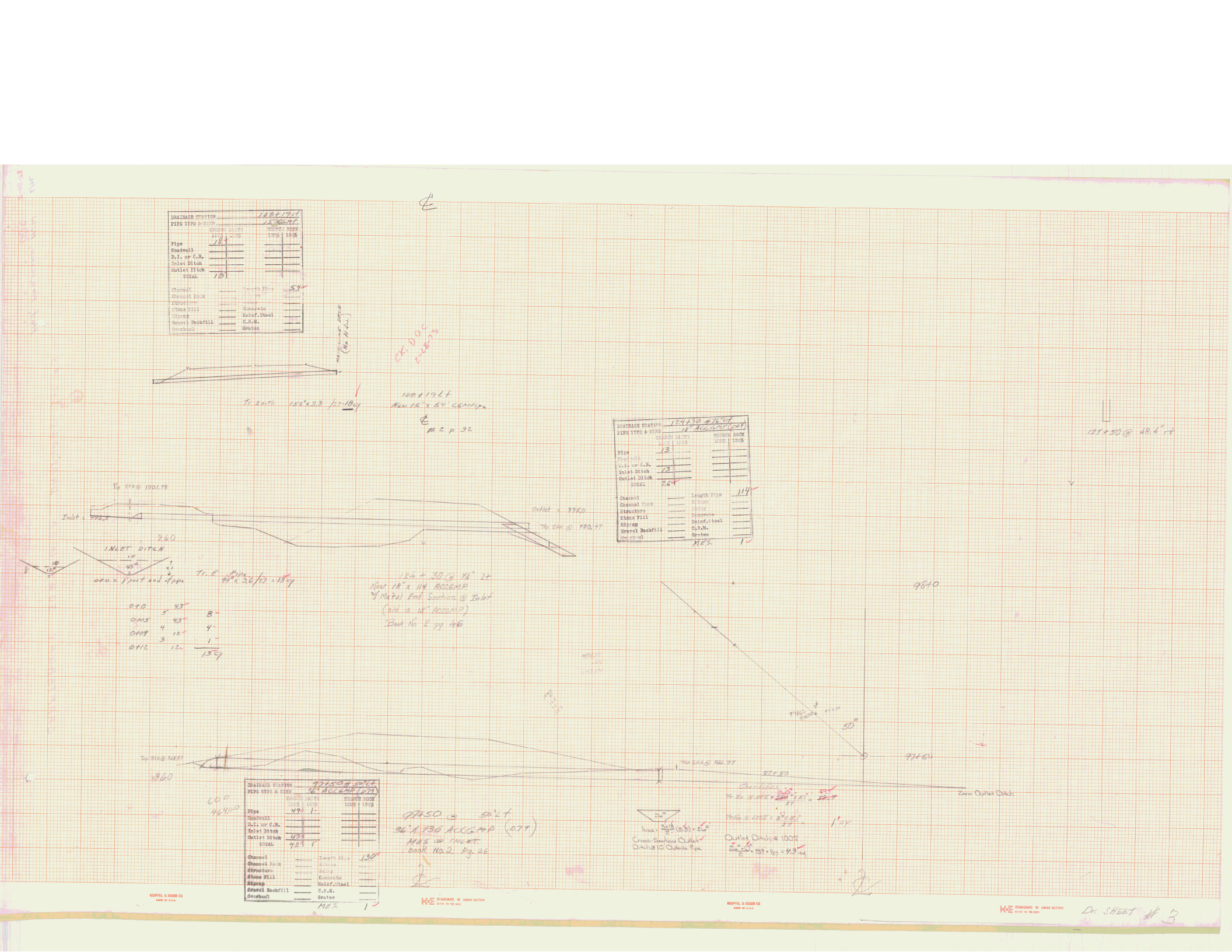


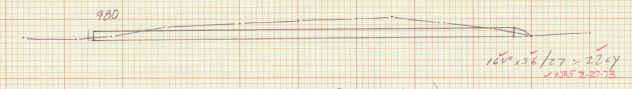
SCALE 10 FEET

FROM STA. 105+50	TO STA. 107+50		
PROJECT NAME	CRAFTSBURY		
NO.	S0247(2)SA	PLOTTED	08/07/72
SURVEYED BY	FALL		AUG. 1972
SHEET OF SHEETS			


DRAINAGE STATION 81461
PIPE TYPE & SIZE Removal
Pipe
Headwall
D.I. or C.B.
Inlet Ditch
Outlet Ditch
TOTAL
Channel
Channel Rock
Structure
Stone Fill
Riprap
Gravel Backfill
Overhaul
Length Pipe
Concrete
Reinf. Steel
C.M.P.
Grates
81461 LF
Remove old 12" CMP
Bk No 2 Pg 2
72" x 3.1 / 27 = 8 cy
960
DRAINAGE STATION 115408
PIPE TYPE & SIZE Removal
53" x 3.1 / 27 = 6cy
115408 @ 85° Rt
Remove old 12" CMP
Book No. 2 Pg. 34
990
DRAINAGE STATION 119419
PIPE TYPE & SIZE Removal
50" x 3.1 / 27 = 6cy
119419 @ 84° Lt
Remove old 12" CMP
Book No. 2 Pg. 40
990
DRAINAGE STATION 138427
PIPE TYPE & SIZE Removal
67" x 36 / 27 = 9cy
138427 @ 68°-30' Rt
Remove old 18" CMP
Dr Bk No 2 Pg 68
1040
Elev. 1000
DRAINAGE STATION 129+45 Lt - 129+78
PIPE TYPE & SIZE 15" x 34" CGCMP
Pipe 13
Headwall
D.I. or C.B.
Inlet Ditch
Outlet Ditch
TOTAL 13
Channel
Channel Rock
Structure
Stone Fill
Riprap
Gravel Backfill
Overhaul
Length Pipe 34
Concrete
Reinf. Steel
C.M.P.
Grates 1
Tr Ex @ 100% = 110 x 3.3 / 27 = 13cy
1008.6
1007.0
1008.2
Inv. Elev. 1005.0
110
129+45 - 129+78 Out 1003.8 Inv. 1003.9
15" x 34" CGMP DI Depth 4.0'
Out. Elev. 1003.5
21' LT
28' LT
129+10 +50 +60 +70 +80 +90 130+00 +10 +20 +30 +40 +50 +60
Dr Bk No 2 p 84
DRAINAGE STATION 129+80 - 130+20
PIPE TYPE & SIZE 18" x 30" CGCMP
Pipe 94
Headwall
D.I. or C.B. 5
Inlet Ditch
Outlet Ditch
TOTAL 99
Channel
Channel Rock
Structure
Stone Fill
Riprap
Gravel Backfill 92
Overhaul
Concrete
Reinf. Steel
C.M.P.
Grates 100.81
DI 6+16.44 / 27 = 5cy
Tr Ex @ 100% = 282 x 3.3 / 27 = 34 cy
54' LT
Dr Bk No 2 p 86
DRAINAGE STATION 82+00
PIPE TYPE & SIZE New 18" ACCGMP 0+43
Pipe 70
Headwall
D.I. or C.B. 5
Inlet Ditch
Outlet Ditch
TOTAL 85.5
Channel
Channel Rock
Structure
Stone Fill
Riprap
Gravel Backfill
Overhaul
Length Pipe 44
Concrete 5.1
Reinf. Steel 183
C.M.P.
Grates 1.8
New 18"x44 ACCGMP 0+43
New RCDT w/Grate Type B
See Drainage Bk. = 2.9.4
82+00
759.0
755.0
Trench Earth @ 100%
Pipe - 18" x 5'cw 4/27 = 1 Trench 20.0 cy
DI - 4.25 x 4.25 x 4.5 / 27 = 3.1 cy
23.1 cy
WKF 2-27-73
PK 2-28-73
Dr Bk No 2 p 86
Dr Bk #1


137+61
18" ACCGMP
Pipe 49 3'
Headwall
D.I. or C.B. 5'
Misc. Ditch
Outlet Ditch 3'
TOTAL 72 3'
Length Pipe 80'
Elbows
Relay
Concrete
Reinf. Steel 193
C.M.W.
Grates 1
Outlet Ditch
11' long Spiral
1040
5' Pipeline
137+61 @ Askew
42° RT
New 18" x 80' ACCGMP .064
w/ RCDI @ Inlet
Dr. BK pg 69
Tr. E (15")
Pipe 20° x 34'/27 = 3cy
Total 3cy
WRF 2-27-73
Tr. E (6"-8")
Pipe 370° x 3.6/27 = 49cy
42° RT
DRAINAGE STATION 94+76.5
PIPE TYPE & SIZE 18" ACCGMP
Pipe 22'
Headwall
D.I. or C.B.
Inlet Ditch 0'
Outlet Ditch
TOTAL 22'
Length Pipe 72'
Elbows
Relay
Concrete
Reinf. Steel
C.M.W.
Grates
MES. 1
94+76.5 @ 79°25' RT
Remove old 15" Pipe
New 18" x 72' ACCGMP (.064)
MES. @ Inlet
Dr. BK pg 94
Tr. E
Pipe 46° x 36'/27 = 22.4
Inlet (7+7)/2 x 3/27 = 0.4
22.8
Call 23cy
WRF 2-27-73
DRAINAGE STATION 142+07
PIPE TYPE & SIZE 24" ACCGMP
Pipe 11'
Headwall
D.I. or C.B.
Inlet Ditch
Outlet Ditch
TOTAL 11'
Length Pipe 88'
Elbows
Relay
Concrete
Reinf. Steel
C.M.W.
Grates
MES. 1
142+07
@ 88° RT
Dr. BK page 70
New 24" x 88' ACCGMP
w/ metal end section @ Inlet
Note: From approximately Sta 140+00 to 141+15 pipe is laid on grade following (at min depth) as per Soil Test Report dated 8/1/72 pg 145
No pay for above work under Drainage Items, Mow
Tr. E (Pipe) 73° x 41'/27 = 11cy
WRF 2-27-73
DRAINAGE STATION 117+40
PIPE TYPE & SIZE 18" ACCGMP
Pipe 9'
Headwall
D.I. or C.B.
Inlet Ditch
Outlet Ditch
TOTAL 9'
Length Pipe 64'
Elbows
Relay
Concrete
Reinf. Steel
C.M.W.
Grates
MES. 1
990
Included as Spec. Ditch
Tr. E 68° 36'/27 = 9cy
WRF 2-27-73
Cost with project materials
117+00
18" x 64' ACCGMP .064
Dr. BK p36
DRAINAGE STATION 145+52.5
PIPE TYPE & SIZE 24" ACCGMP 1050
Pipe 3'
Headwall
D.I. or C.B.
Inlet Ditch
Outlet Ditch
TOTAL 3'
Length Pipe 10'
Elbows
Relay
Concrete
Reinf. Steel
C.M.W.
Grates
MES. 1
145+52.5
@ 83° 40' RT
old cattle blow
New 24" x 10' RCCGMP-Extension
w/ Metal End Section @ Inlet
Dr. BK pg 74
Inlet @ 1056.0
backfilled with prem. excav. Mow
Tr. E 4'x2'x10'/27 = 3cy
WRF 2-27-73
DRAINAGE STATION 119+50
PIPE TYPE & SIZE 18" ACCGMP
Pipe 24'
Headwall
D.I. or C.B.
Inlet Ditch
Outlet Ditch
TOTAL 24'
Length Pipe 70'
Elbows
Relay
Concrete
Reinf. Steel
C.M.W.
Grates
MES. 1
990
Included as Special Ditch
180° x 36'/27 = 24cy
WRF 2-27-73
119+50
18" x 70' ACCGMP
Dr. BK pg 42
Dr. Sht #2


DRAINAGE STATION 108+19 CT
PIPE TYPE & SIZE 15" RCCMP
TRENCH EARTH 100% | 150%
TRENCH ROCK 100% | 150%
Pipe 18
Headwall
D.I. or C.B.
Inlet Ditch
Outlet Ditch
TOTAL 18
Channel
Channel Rock
Structure
Stone Fill
Riprap
Gravel Backfill
Overhaul
Length Pipe 54
Concrete
Reinf. Steel
C.R.M.
Grates
MES
108+19 CT
New 15" x 54' CGMP Pipe
Tr. Earth 150" x 3.3 / 27 = 18 cy
Ck. D.D.C. 2-18-93
Top Stk @ 1001.78
Inlet = 998.3
INLET DITCH
Tr. E Pipe 44 x 3.6 / 27 = 13 cy
0+10 = 1 foot end of pipe
0+10 5 43 8
0+05 4 43 4
0+09 4 12 1
0+12 12 1
13 cy
960
124+30 @ 76° CT
New 18" x 114 RCCMP w/ (No 2) End Section @ Inlet
(Old is 18" RCCMP)
Book No 2 pg 46
DRAINAGE STATION 124+30 @ 76° CT
PIPE TYPE & SIZE 18" RCCMP (.079)
TRENCH EARTH 100% | 150%
TRENCH ROCK 100% | 150%
Pipe 13
Headwall
D.I. or C.B.
Inlet Ditch 13
Outlet Ditch
TOTAL 26
Channel
Channel Rock
Structure
Stone Fill
Riprap
Gravel Backfill
Overhaul
Length Pipe 114
Concrete
Reinf. Steel
C.R.M.
Grates
MES 1
Outlet = 995.0
Top Stk @ 990.97
121+50 @ 48.4° RT
9840
Top Stk @ 968.87
960
60.0
46.4°
97+50 @ 50° LT
36" x 130 RCCMP (.079)
MES @ INLET
Book No 2 Pg 26
DRAINAGE STATION 97+50 @ 50° LT
PIPE TYPE & SIZE 36" RCCMP (.079)
TRENCH EARTH 100% | 150%
TRENCH ROCK 100% | 150%
Pipe 49 1
Headwall
D.I. or C.B.
Inlet Ditch
Outlet Ditch 43
TOTAL 92 1
Channel
Channel Rock
Structure
Stone Fill
Riprap
Gravel Backfill
Overhaul
Length Pipe 130
Concrete
Reinf. Steel
C.R.M.
Grates
MES 1
Top Stk @ 946.87
97+50
Zero Outlet Ditch
50°
24"
Cross Section Outlet Ditch @ 10 Outlet Pipe
Outlet Ditch @ 100%
1' CY
KEUFFEL & ESSER CO
MADE IN U.S.A.
STANDARD CROSS SECTION
RULED TO THE RIGHT
Dr. SHEET # 3



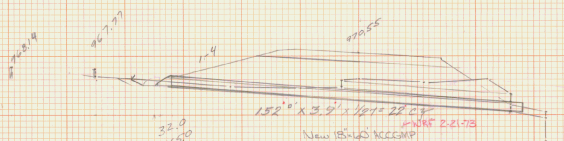
104+00 (New Addl. Pipe)
18" x 72' ACCGMP (.064)

BK 2 P 87

DRAINAGE STATION 104+00				
PIPE TYPE & SIZE 18" ACCGMP (.064)				
	TRENCH EARTH 100%	TRENCH EARTH 150%	TRENCH ROCK 100%	TRENCH ROCK 150%
Pipe	22			
Headwall				
D.I. or C.B.				
Inlet Ditch				
Outlet Ditch				
TOTAL	22			

Channel		Length Pipe	72
Channel Rock		Elbows	
Structure		Reinf. Conc.	
Stone Fill		Concrete	
Riprap		Reinf. Steel	
Gravel Backfill		C.R.M.	
Overhaul		Grates	

MES 1

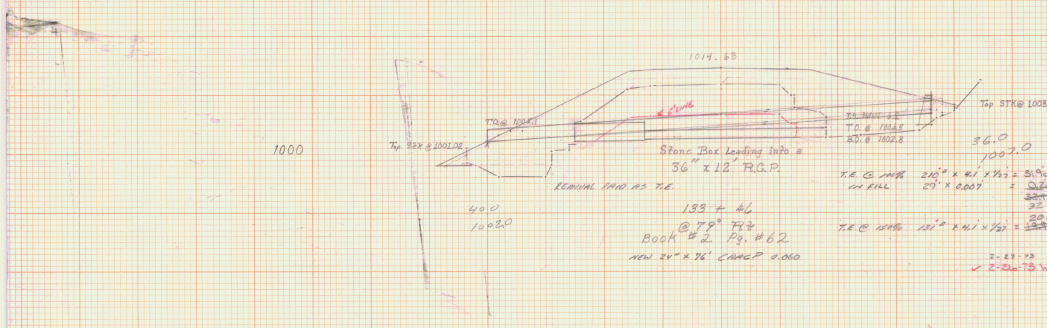


New 18"ø ACCGMP
MES @ Inlet

88+66.4
Book No. 2 Pg. 16

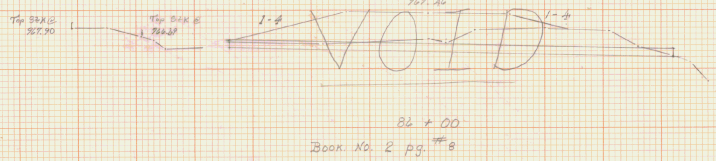
DRAINAGE STATION 88+66.4				
PIPE TYPE & SIZE New 18"ø ACCGMP				
	TRENCH EARTH 100%	TRENCH EARTH 150%	TRENCH ROCK 100%	TRENCH ROCK 150%
Pipe	22			
Headwall				
D.I. or C.B.				
Inlet Ditch				
Outlet Ditch				
TOTAL	22			

Channel		Length Pipe	60
Channel Rock		Elbows	
Structure		Reinf. Conc.	
Stone Fill		Concrete	
Riprap		Reinf. Steel	
Gravel Backfill		C.R.M.	
Overhaul		Grates	

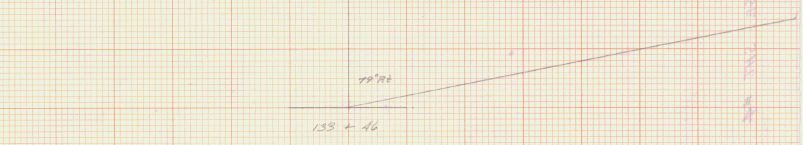


DRAINAGE STATION 133+46 @ 79° Rt				
PIPE TYPE & SIZE New 24" x 76' ACCGMP (.060)				
	TRENCH EARTH 100%	TRENCH EARTH 150%	TRENCH ROCK 100%	TRENCH ROCK 150%
Pipe	32.1	19.9		
Headwall				
D.I. or C.B.				
Inlet Ditch				
Outlet Ditch				
TOTAL	32	20		

Channel		Length Pipe	76
Channel Rock		Elbows	
Structure		Reinf. Conc.	
Stone Fill		Concrete	27
Riprap		Reinf. Steel	12
Gravel Backfill		C.R.M.	
Overhaul		Grates	

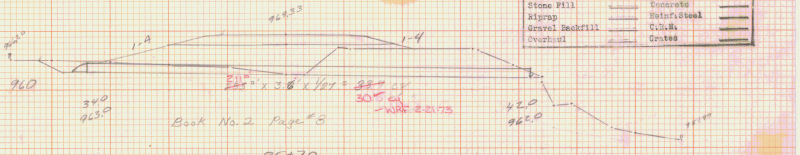


86 + 00
Book No. 2 pg. 8



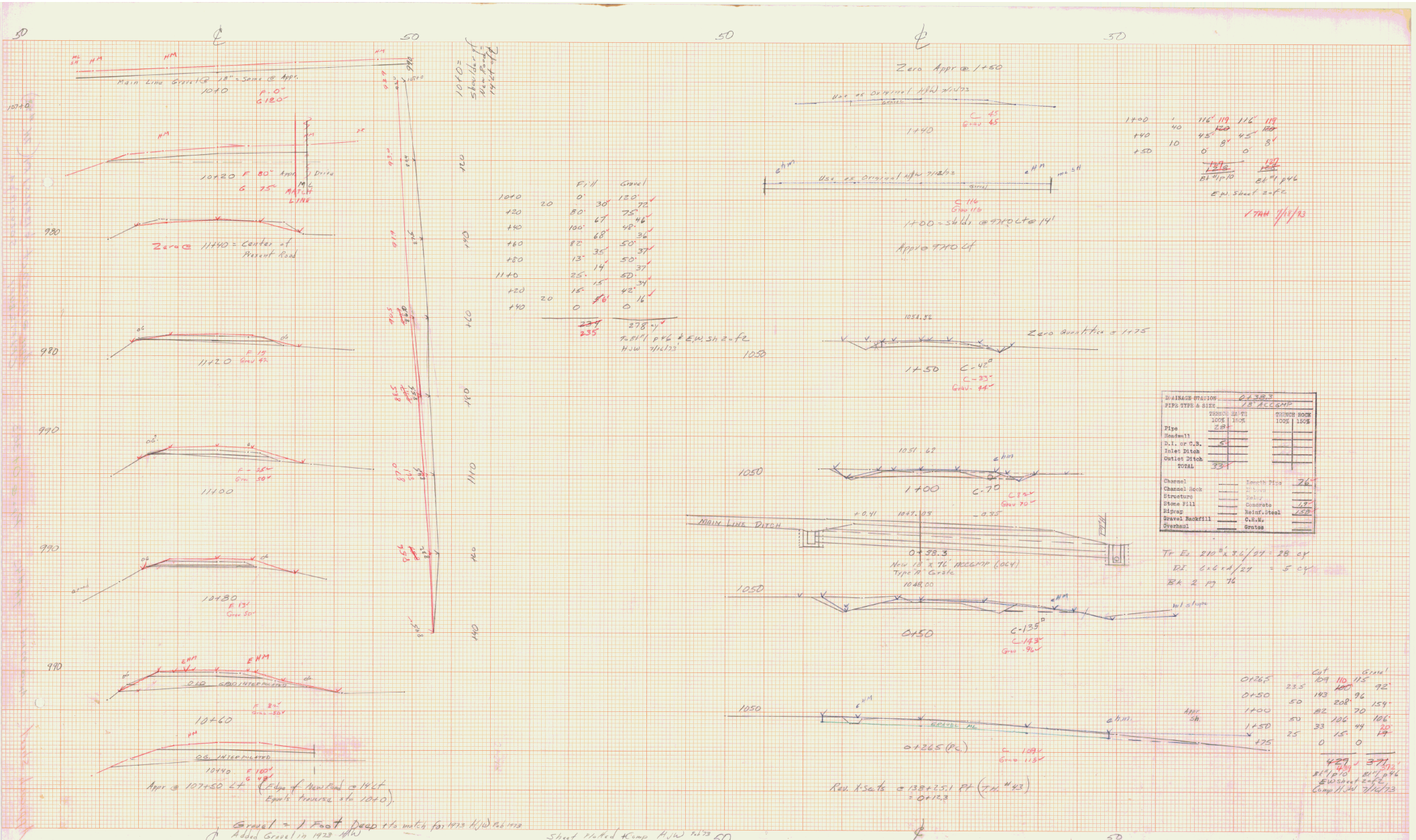
DRAINAGE STATION 85+70				
PIPE TYPE & SIZE New 18" x 76' ACCGMP				
	TRENCH EARTH 100%	TRENCH EARTH 150%	TRENCH ROCK 100%	TRENCH ROCK 150%
Pipe	30			
Headwall				
D.I. or C.B.				
Inlet Ditch				
Outlet Ditch				
TOTAL	30			

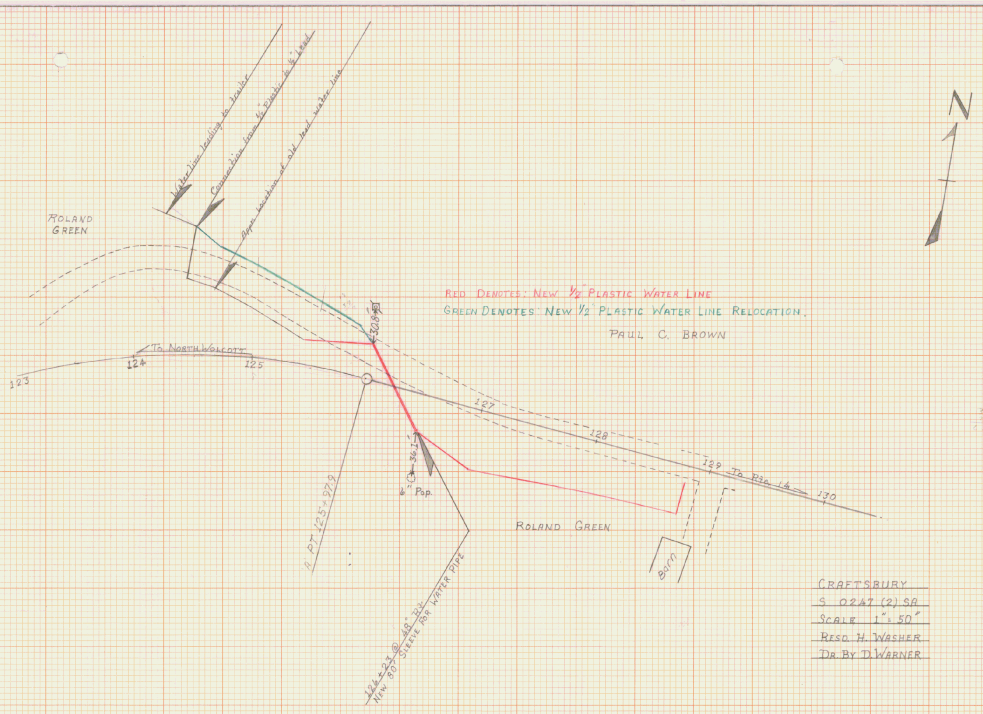
Channel		Length Pipe	76
Channel Rock		Elbows	
Structure		Reinf. Conc.	
Stone Fill		Concrete	
Riprap		Reinf. Steel	
Gravel Backfill		C.R.M.	
Overhaul		Grates	



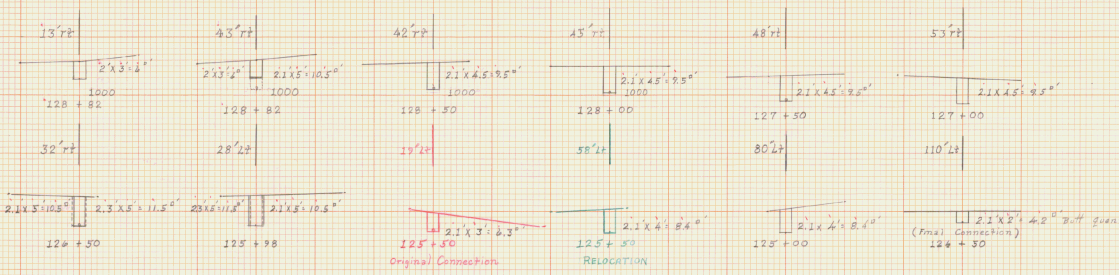
Book No. 2 Page #8

85+70
18" x 76' ACCGMP
MES @ Inlet


Main Line Stretch 18" = Sewer @ Appr.
10+40
P-0"
G 18.0%
10+20 F 80" Appr. Drive
G 75%
MAIN LINE
Zero @ 11+40 = Center of Present Road
11+20
F 19
Grav 42
11+00
F - 35"
Grav 50%
10+80
F 13"
Grav 50%
10+60
F 82"
Grav 50%
10+40
F 100"
G 4%
Appr @ 10+50 ℄
(Edge of New Road @ 14 ℄
Equals transverse sta 10+10).
Gravel = 1 Foot Deep t/o matls for 1973 H/JW 9/6/1973
Added Gravel in 1973 HJW
Sheet Plotted & Comp HJW 9/6/73
Zero Appr @ 1+50
Use as Original H/W 7/10/73
Gravel
C 45
Grav 45
1+40
Use as Original H/W 7/10/73
Gravel
C 116
Grav 116
1+00 = Shlds. @ 97'0 Lt @ 14'
Appr @ 97'0 Lt
Fill Gravel
10+40 20 0' 30' 120'
+20 80' 67' 75'
+40 100' 68' 48'
+60 82' 35' 50'
+80 13' 14' 50'
11+0 25' 15' 50'
+20 15' 15' 42'
+40 20 0 16' 0
278' ±
Tr 8" P 46 & E.W. Sh 2 of 2
H JW 9/6/73
1+00 40 116' 119 116' 119
+40 45° 45°
+50 10 0' 8' 45° 8'
0' 0'
Bk 41 p 10 Bk 41 p 46
E.W. Sheet 2 of 2
TAH 7/18/73
1051.82
Zero Quantities @ 1+25
1+50 C-42"
C-33"
Grav. 44"
1051.62
1+00 C-70
C 114"
Grav 70"
+0.41 1047.05 -0.35
MAIN LINE DITCH
0+38.3
New 10" x 76' RCCAMP (.064)
Type R Grate
10+48.00
0+50 C-135
C 143"
Grav 96"
0+26.5 (PC)
C 109"
Grav 115"
Rev. X-sects @ 138+25.1 Ft (Tr. M #43)
= 0+12.3
DRAINAGE STATION 0+38.3
PIPE TYPE & SIZE 18" RCCAMP
PERMON WATER 100% | 150% | PERMON ROCK 100% | 150%
Pipe 28
Headwall
D.I. or C.B. 5
Inlet Ditch
Outlet Ditch
TOTAL 33
Channel
Channel Rock
Structure
Stone Fill
Riprap
Gravel Backfill
Overhaul
Length Pipe 76'
Reinf. Steel 1.58
C.S.W.
Gratos
Tr Ex 210"x 3.6'/27 = 28 cy
D.I. 6'x6'x4'/27 = 5 cy
Bk 2 pg 76
0+26.5 109 110 115 92'
0+50 25.5 143 96
1+00 50 182 208' 70 154'
1+50 50 126 106'
175 25 33 44 20'
0 15' 0 19'
427' 377'
Bk 41 p 10 Bk 41 p 46
E.W. Sheet 2 of 2
Comp HJW 7/16/73



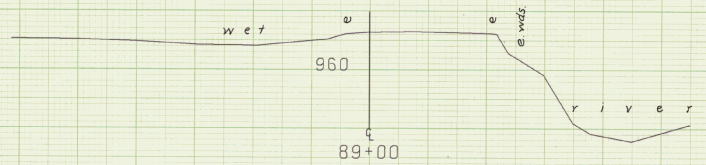
CRAFTSBURY
S 0247 (2) SA
SCALE 1" = 50'
RESD. H. WASHER
DR. BY D. WARNER

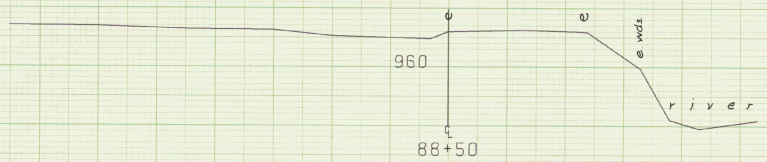


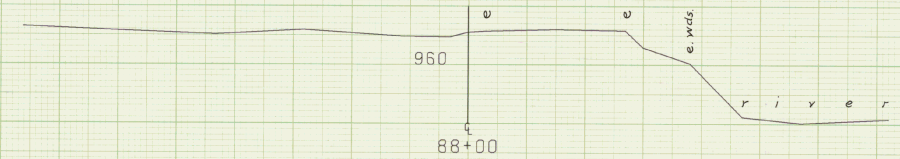
STA	DIST	AREA	VOL
128+82		6	
	30		6.7
128+82		6	
	0		0
128+82		10.5	
	32		11.9
128+50		9.5	
	50		17.6
128+00		9.5	
	50		17.6
127+50		9.5	
	50		17.6
127+00		9.5	
	55		20.4
126+50		10.5	
	0		0
126+50		11.5	
	80		34.1
125+98		11.5	
	0		0
125+98		10.5	
	60		18.7
125+50		6.3	
	57		20.0
125+50		8.4	
	63		19.6
125+00		8.4	
	60		14.0
124+50		4.2	
	Tot. cy =		198.2

Ck'd by NEB
2-20-73

Bk #2 p50

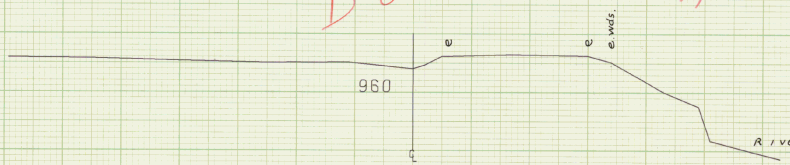






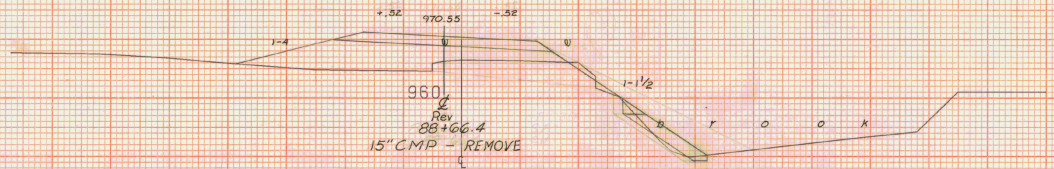


DO NOT USE H/W.

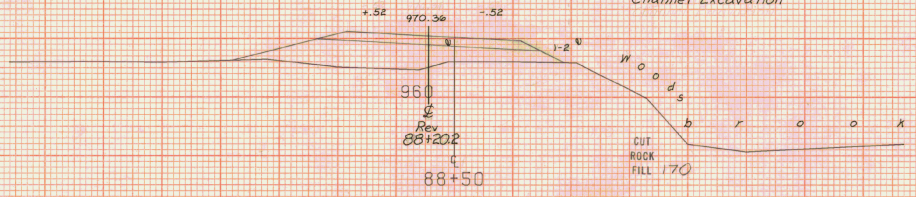


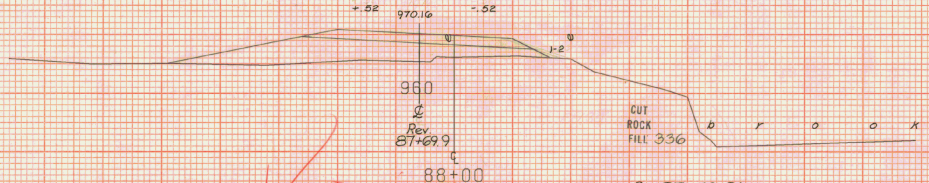
FROM STA. 87+00 TO STA. 89+00
PROJECT NAME CRAFTSBURY
NO. S02477121SA PLOTTED 08/07/72
SURVEYED BY FALL AUG. 1972
SHEET OF SHEETS

SCALE 10 FEET



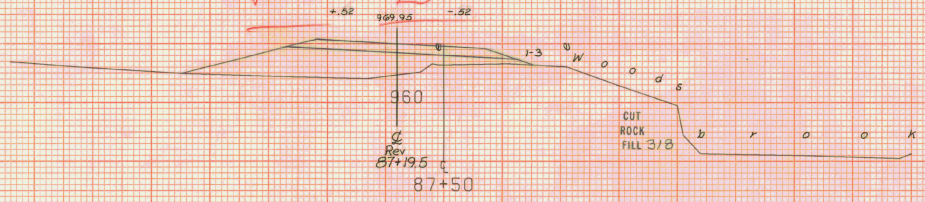
Rev.
88+25 Rt
Begin Stone Fill Type II
Begin Unclassified
Channel Excavation

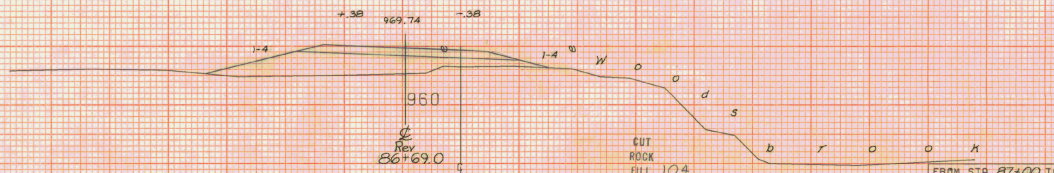




Rev. 87+50 Rt
Begin Guard Rail, Three Cable
w/ Lt Wood Posts

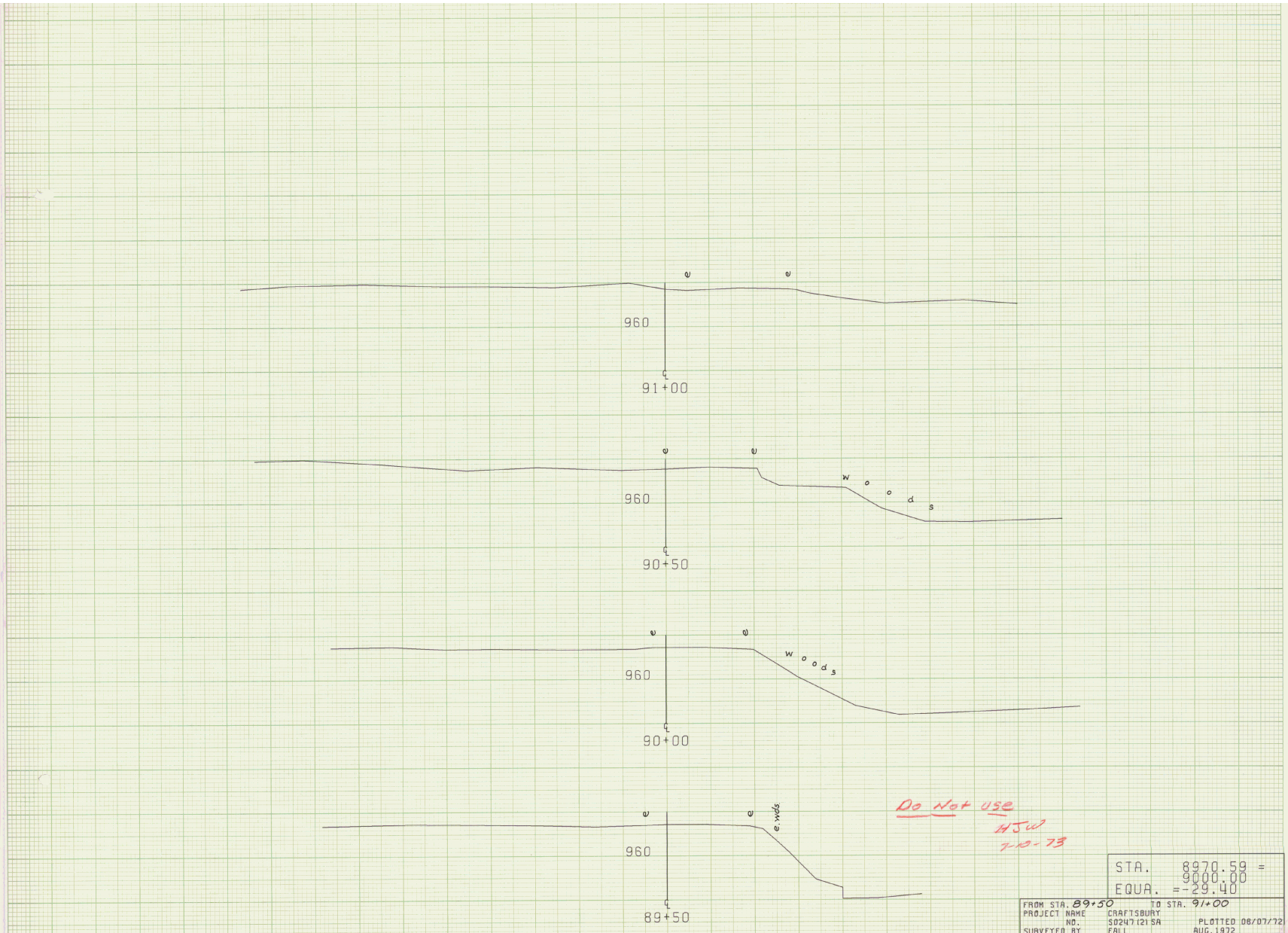
VOID





FROM STA. 87+00 TO STA. 88+96
PROJECT NAME CRAFTSBURY
NO. S0247(2) SA PLOTTED 10/2[illegible]/70
SURVEYED BY STEVENS&JENETT AUG 70
SHEET 64 OF 97 SHEETS

SCALE 10 FEET

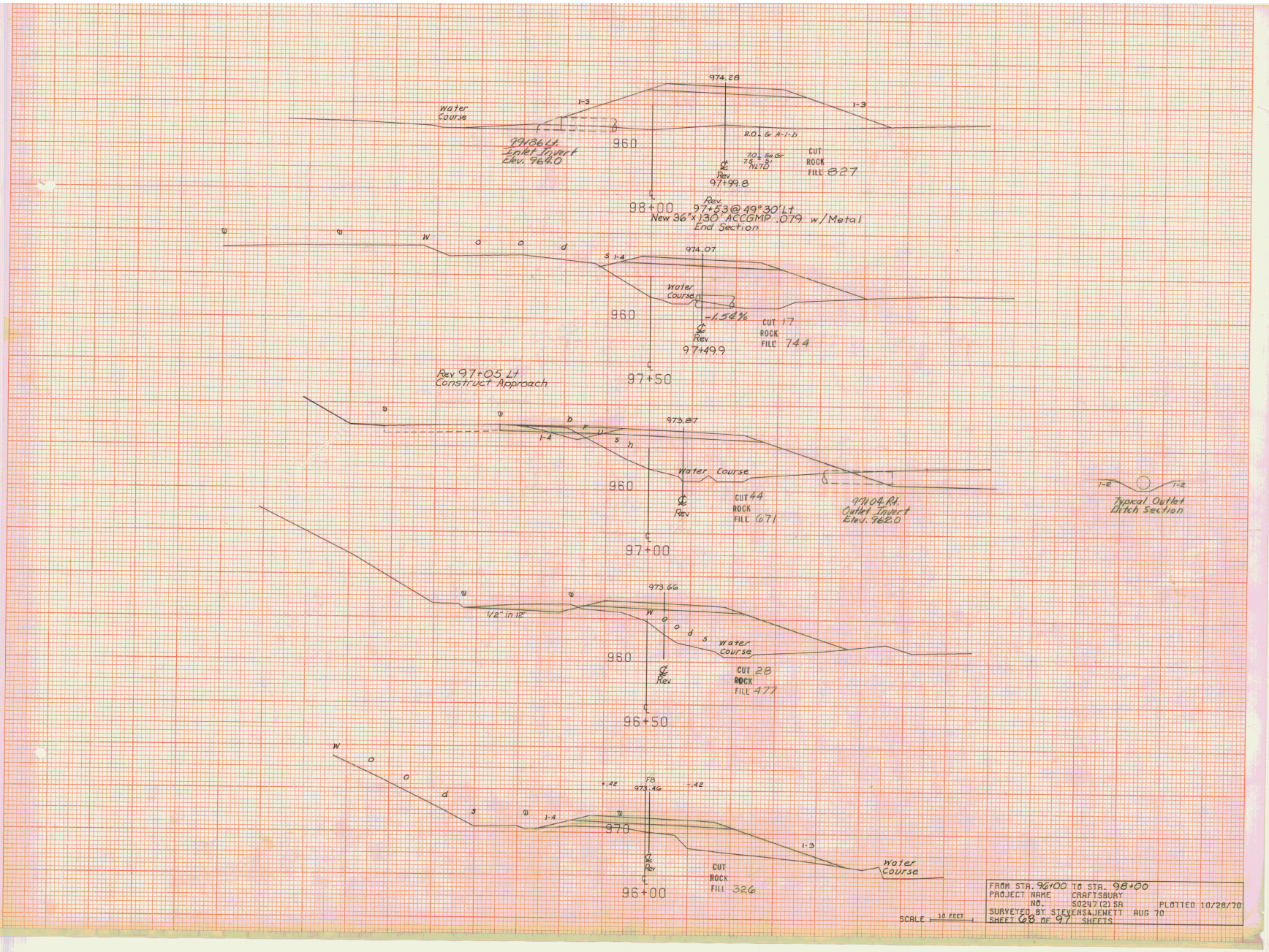


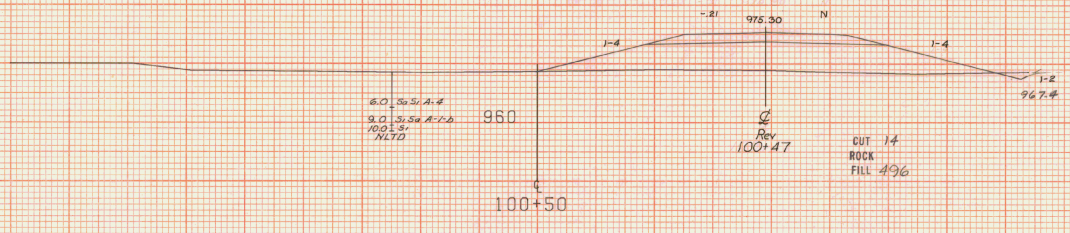
Do Not use
HJW
7-10-73

STA. 8970.59 =
9000.00
EQUA. =-29.40

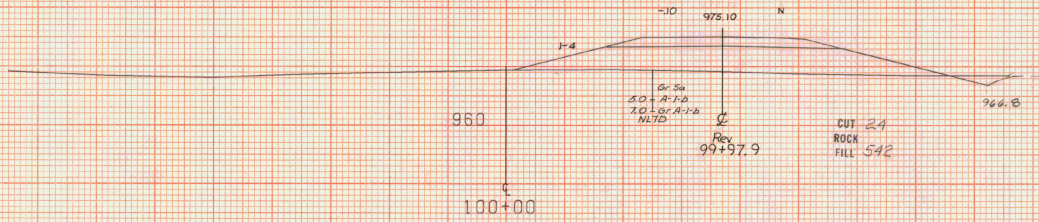
FROM STA. 89+50 TO STA. 91+00
PROJECT NAME CRAFTSBURY
NO. S0247(21)SA PLOTTED 08/07/72
SURVEYED BY FALL AUG. 1972
SHEET OF SHEETS

SCALE 10 FEET

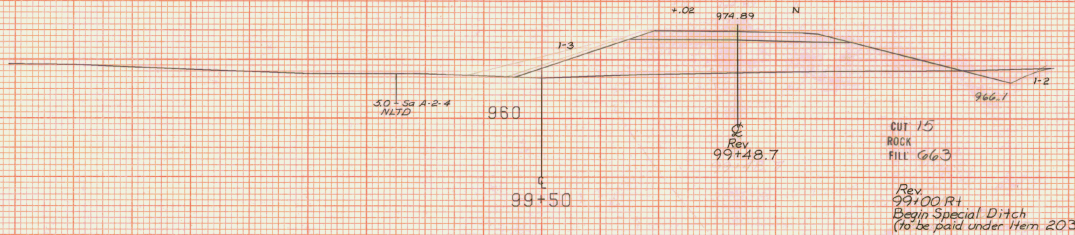

974.28
Water Course
1-3
1-3
99+86 Lt.
Inlet Invert
Elev. 964.0
960
2.0 G A-1-b
7.0 Sa Gr
7.5 S1
N1.7D
CUT
ROCK
FILL 827
Rev
97+99.8
98+00
Rev.
97+53 @ 49°30' Lt
New 36" x 130' ACCGMP .079 w/Metal
End Section
W o o d s
1-4
974.07
Water Course
960
-1.54%
CUT 17
ROCK
FILL 744
Rev
97+49.9
97+50
Rev 97+05 Lt
Construct Approach
b r u s h
1-4
973.87
Water Course
960
CUT 44
ROCK
FILL 671
Rev
97+04 Rt.
Outlet Invert
Elev. 962.0
97+00
1-2
1-2
Typical Outlet
Ditch Section
973.66
1/2" in 12"
W o o d s
Water Course
960
CUT 28
ROCK
FILL 477
Rev
96+50
W o o d s
+.42
FB
973.46
-.42
1-4
970
1-3
Water Course
Rev
CUT
ROCK
FILL 326
96+00
SCALE 10 FEET
FROM STA. 96+00 TO STA. 98+00
PROJECT NAME CRAFTSBURY
NO. S0247(2) SA
PLOTTED 10/28/70
SURVEYED BY STEVENS&JEWETT AUG 70
SHEET 68 OF 97 SHEETS



CUT 14
ROCK
FILL 496

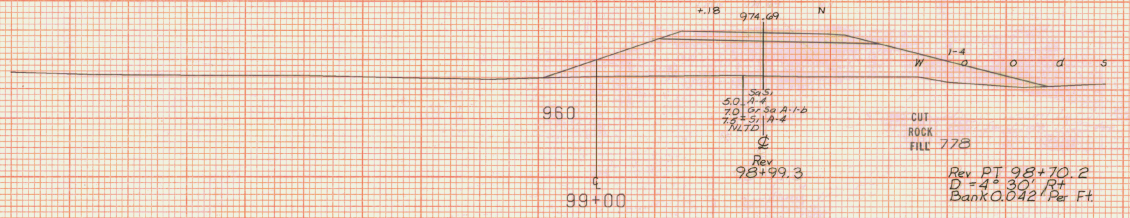


CUT 24
ROCK
FILL 542



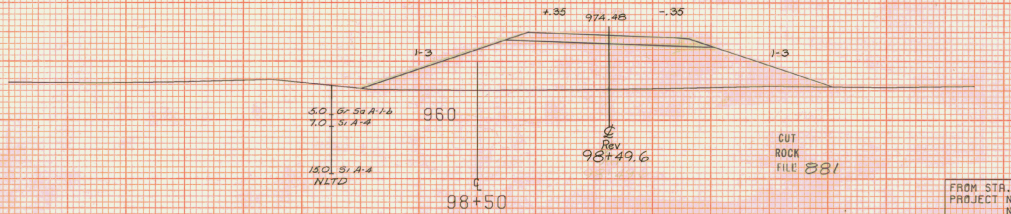
CUT 15
ROCK
FILL 663

Rev
99+00 Rt
Begin Special Ditch
(To be paid under Item 203.15)



CUT
ROCK
FILL 778

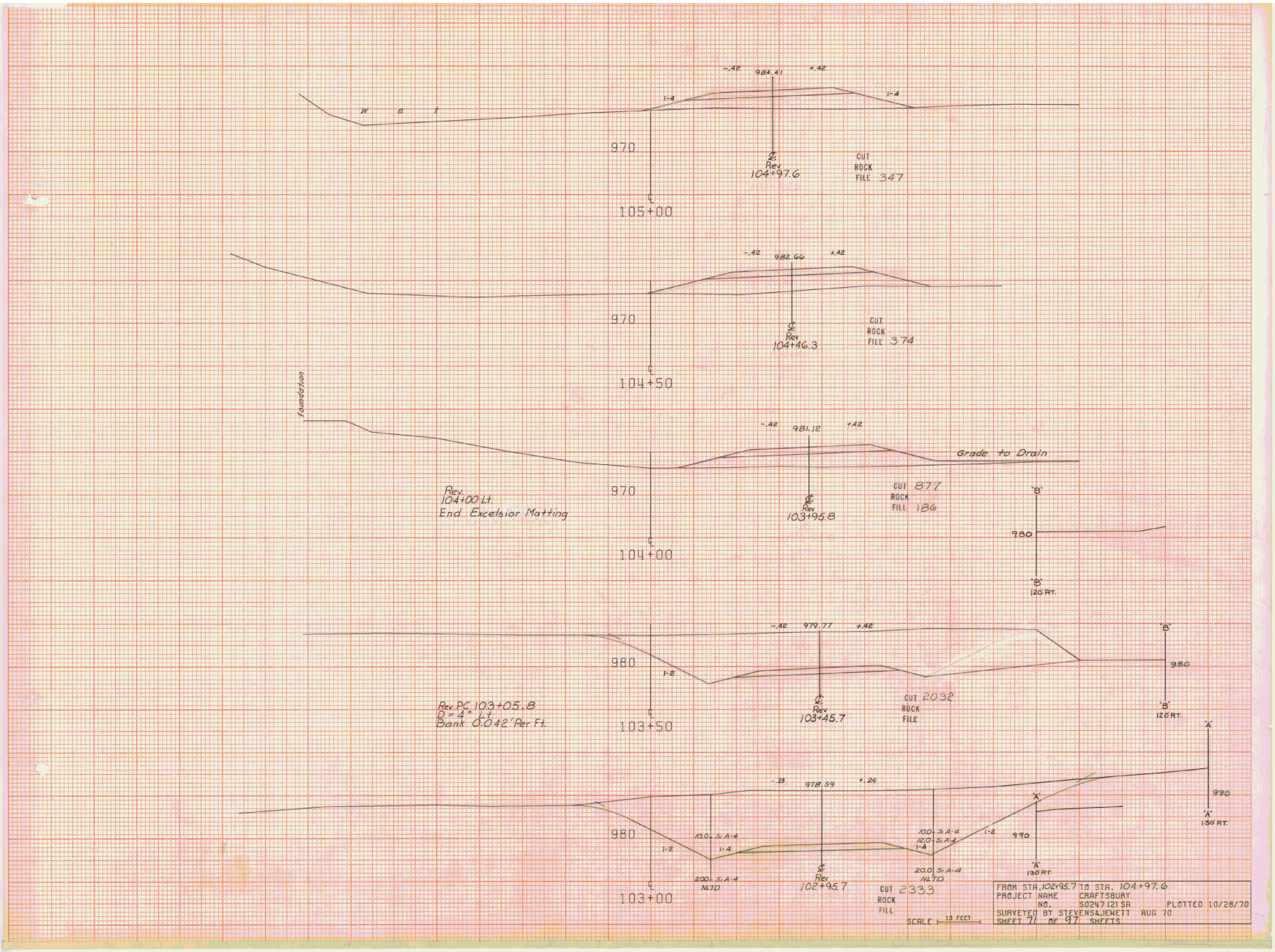
Rev PT 98+70.2
D = 4° 30' Rt
Bank 0.042 Per Ft.

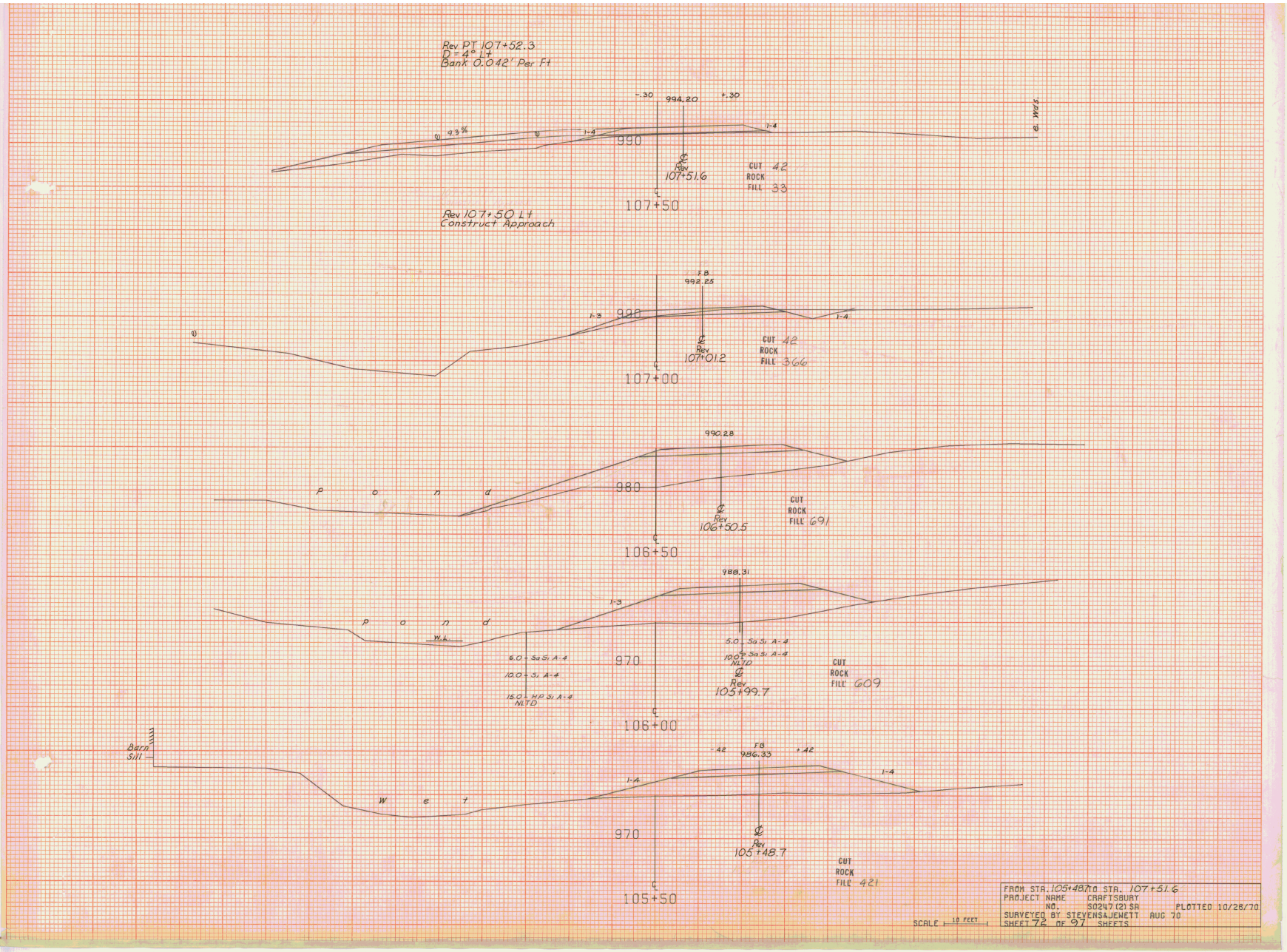


CUT
ROCK
FILE 881

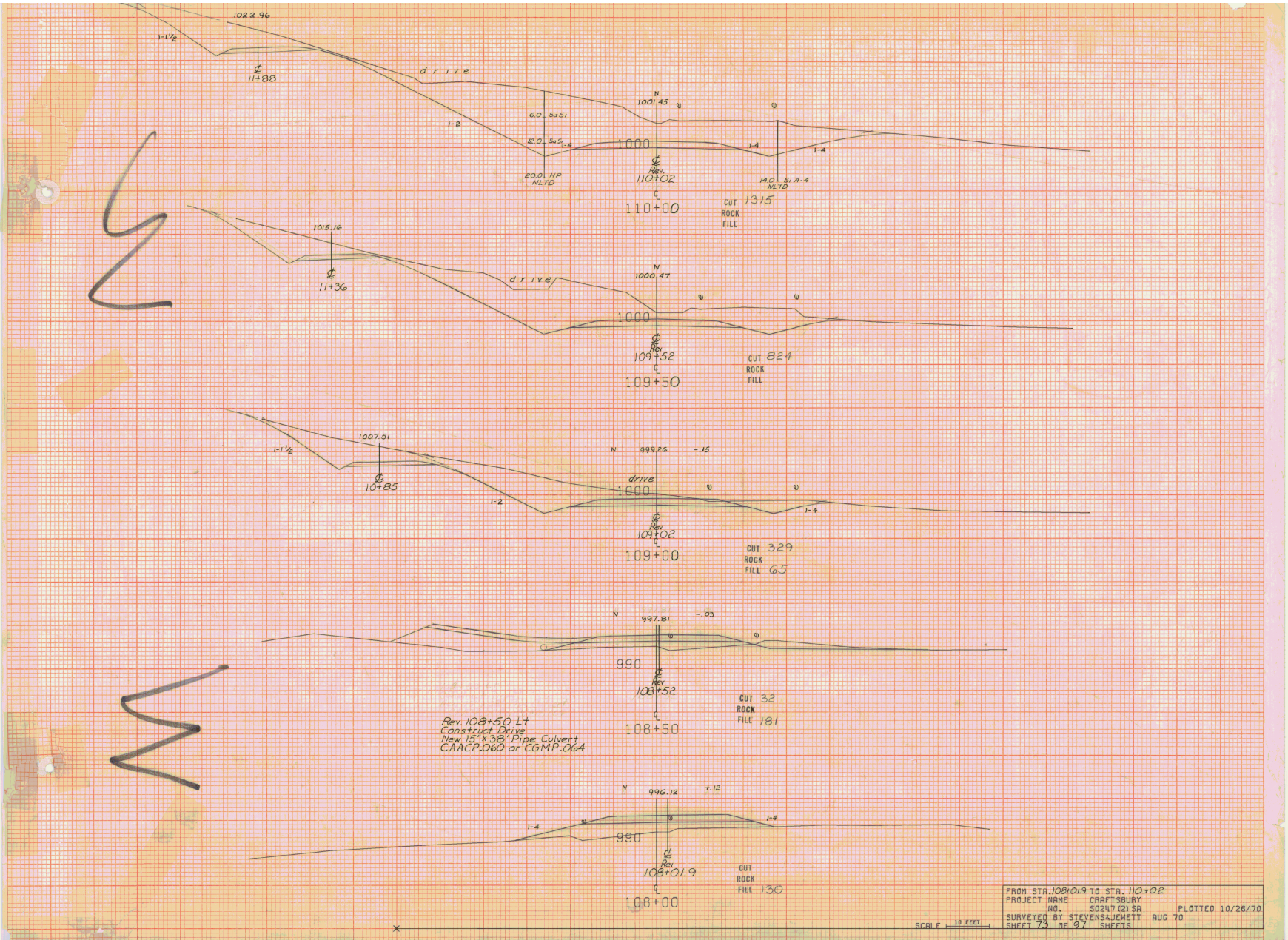
SCALE 10 FEET

FROM STA. 98+49.6 TO STA. 100+47
PROJECT NAME CRAFTSBURY
NO. S0247(2)SA PLOTTED 10/28/70
SURVEYED BY STEVENS&JEWETT AUG 70
SHEET 69 OF 97 SHEETS


-.42
984.41
+.42
W
e
t
1-4
1-4
970
℄ Rev
104+97.6
CUT
ROCK
FILL 347
105+00
-.42
982.66
+.42
970
℄ Rev
104+46.3
CUT
ROCK
FILL 374
104+50
Foundation
-.42
981.12
+.42
Grade to Drain
Rev
104+00 Lt.
End Excelsior Matting
970
℄ Rev
103+95.8
CUT 877
ROCK
FILL 186
"B"
980
"B"
120 RT.
104+00
-.42
979.77
+.42
"B"
980
980
1-2
℄ Rev
103+45.7
CUT 2032
ROCK
FILL
"B"
120 RT.
Rev PC 103+05.8
D = 4° Lt.
Bank 0.042' Per Ft.
103+50
"A"
-.24
978.59
+.24
990
"A"
130 RT.
980
10.0 S.A-4
1-2
1-4
200 S.A-4
NLTD
100 S.A-4
10.0 S.A-4
1-4
1-2
970
"A"
130 RT.
20.0 S.A-4
NLTD
℄ Rev
102+95.7
CUT 2333
ROCK
FILL
103+00
SCALE 10 FEET
FROM STA. 102+95.7 TO STA. 104+97.6
PROJECT NAME CRAFTSBURY
NO. S0247(2) SA PLOTTED 10/28/70
SURVEYED BY STEVENS&JEWETT AUG 70
SHEET 71 OF 97 SHEETS



FROM STA. 105+48.7 TO STA. 107+51.6
PROJECT NAME CRAFTSBURY
NO. S0247(2)SR PLOTTED 10/28/70
SURVEYED BY STEVENS&JEWETT AUG 70
SHEET 72 OF 97 SHEETS


1022.96
1-1½
℄ 11+88
drive
1-2
6.0 Sa Si
12.0 Sa Si
1-4
20.0 HP NLTD
N 1001.45
1000
℄ Rev. 110+02
1-4
1-4
14.0± Si A-4 NLTD
110+00
CUT 1315
ROCK
FILL
1015.16
℄ 11+36
drive
N 1000.47
1000
℄ Rev. 109+52
109+50
CUT 824
ROCK
FILL
1007.51
1-1½
℄ 10+85
1-2
N 999.26 -.15
drive
1000
℄ Rev. 109+02
109+00
CUT 329
ROCK
FILL 65
N 997.81 -.03
990
℄ Rev. 108+52
108+50
CUT 32
ROCK
FILL 181
Rev. 108+50 Lt
Construct Drive
New 15"x38" Pipe Culvert
CAACP.060 or CGMP.064
N 996.12 +.12
1-4
1-4
990
℄ Rev. 108+01.9
108+00
CUT
ROCK
FILL 130
SCALE 10 FEET
FROM STA. 108+01.9 TO STA. 110+02
PROJECT NAME CRAFTSBURY
NO. S0247(21)SR
PLOTTED 10/28/70
SURVEYED BY STEVENS&JEWETT AUG 70
SHEET 73 OF 97 SHEETS