STATE OF VERMONT
AGENCY OF TRANSPORTATION

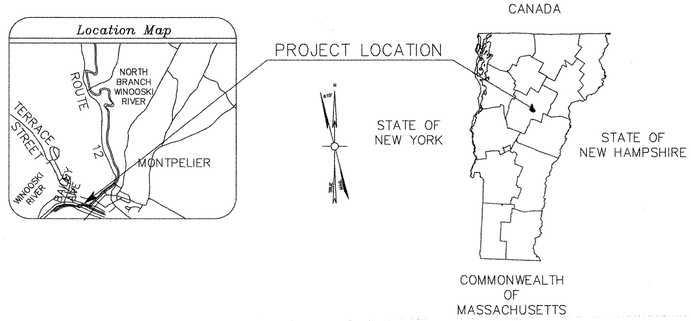
PROPOSED IMPROVEMENT
COUNTY OF WASHINGTON
CITY OF MONTPELIER

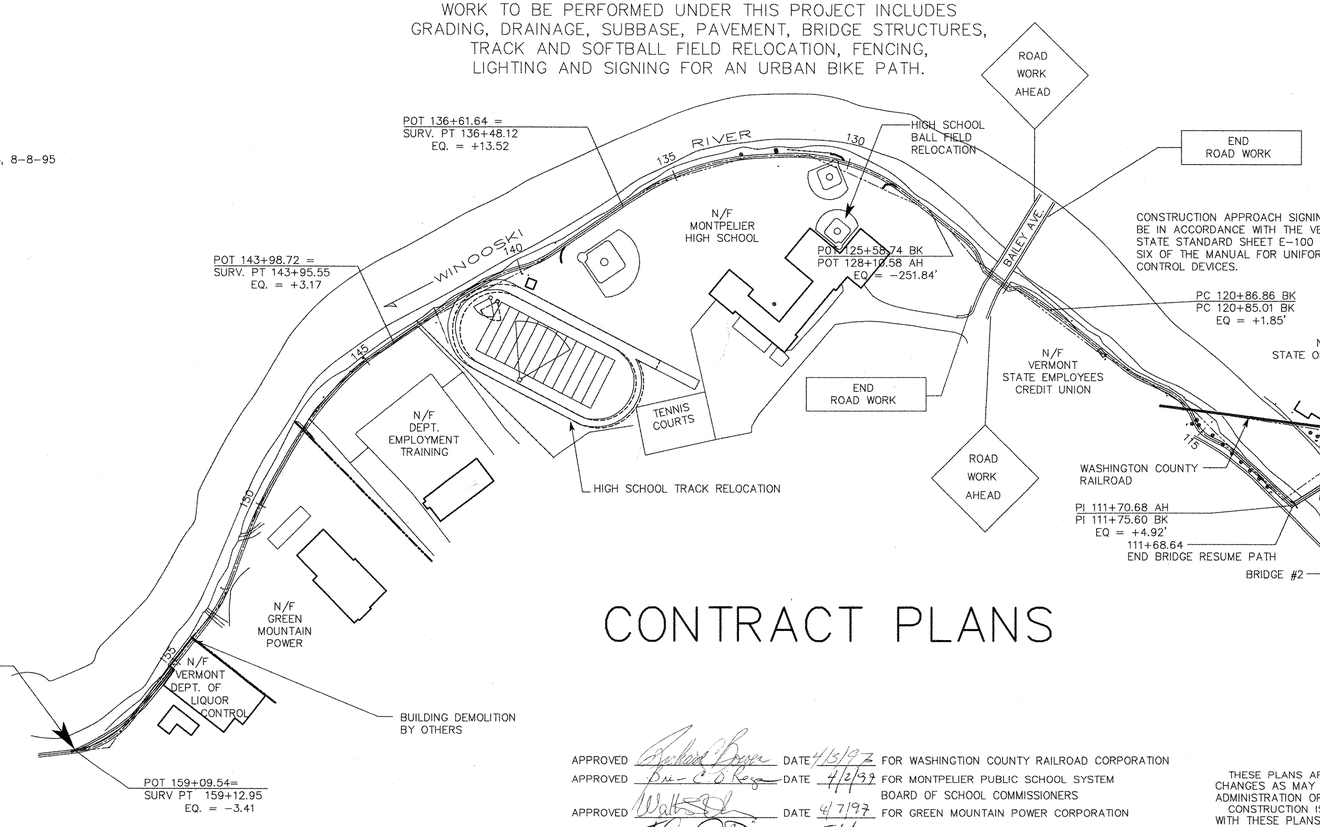
WINOOSKI RIVER WEST BIKEWAY

BEGINNING AT A POINT AT THE WEST EDGE OF TAYLOR ST. AND EXTENDING NORTH WESTERLY APPROXIMATELY 5027 FEET TO THE EXISTING BIKE PATH ALONG THE WINOOSKI RIVER

LENGTH OF PATHWAY 4779.16 FEET = 0.905 MILES.
LENGTH OF BRIDGES 178.00 FEET = 0.034 MILES.
LENGTH OF RAILROAD CROSSINGS 70.00 FEET = 0.013 MILES.
LENGTH OF PROJECT 5027.16 FEET = 0.952 MILES

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES GRADING, DRAINAGE, SUBBASE, PAVEMENT, BRIDGE STRUCTURES, TRACK AND SOFTBALL FIELD RELOCATION, FENCING, LIGHTING AND SIGNING FOR AN URBAN BIKE PATH.





CONTRACT PLANS

RECORD PLANS

CONTRACTOR: UNITED CONSTRUCTION CORP.
RESIDENT ENGINEER: VIC DWIRE
CONSTRUCTION BEGAN: MARCH 16, 1998
CONSTRUCTION COMPLETE: JANUARY 6, 1999
RECORD PLANS BY: K. NORTH & N. GARBACIK

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

BY Vic Dwire RESIDENT ENGINEER
DATE 12-7-2004

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

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* INDICATES OUT OF ORDER.

CONVENTIONAL SIGNS

FENCE LINE
TREE LINE
TRAVELED WAY
GUARD RAIL
RAILROAD
SURVEY LINE
CULVERT
UTILITY POLE
PATH LIGHTING
ELECTRIC LINE — E —
TREES
PROPERTY LINE
TOP OF CUT
TOE OF SLOPE

DATUM
VERTICAL NGVD 1929
HORIZONTAL N/A

APPROVED Richard Boyer DATE 4/15/97 FOR WASHINGTON COUNTY RAILROAD CORPORATION
APPROVED [illegible] DATE 4/2/97 FOR MONTPELIER PUBLIC SCHOOL SYSTEM BOARD OF SCHOOL COMMISSIONERS
APPROVED [illegible] DATE 4/7/97 FOR GREEN MOUNTAIN POWER CORPORATION
APPROVED [illegible] DATE 5/6/97 FOR STATE OF VERMONT DEPARTMENT OF BUILDINGS AND GENERAL SERVICES
APPROVED [illegible] DATE 4/1/97 FOR VERMONT STATE EMPLOYEES CREDIT UNION

GRAPHIC SCALE
200 0 100 200 400 800
(SCALE IN FEET)
1 inch = 200ft.

STATE OF VERMONT KENNETH W. PINKHAM No. 2582 REGISTERED PROFESSIONAL ENGINEER

THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES 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 CONSTRUCTION DATED 1990, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON MARCH 15, 1990 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

BUS. (802) 658-5588 P•E•A FAX (802) 658-3629
PINKHAM ENGINEERING ASSOCIATES, INC.
Engineers • Planners • Landscape Architects • Surveyors
The Maltex Building
431 Pine St., Burlington, VT 05401

REVISED 10/30/96 – ADDED SIGNATURE BLOCK

SUBMITTED BY ORDER OF THE STATE TRANSPORTATION BOARD
APPROVED [illegible] DATE 12-3-96
Director of Policy, Planning & Research ~~CHIEF ENGINEER~~

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED _____ DATE _____
DIVISION ADMINISTRATOR

PROJECT WINOOSKI RIVER WEST BIKEWAY, BWM-BIKE (4)S
SHEET 1 OF 132 SHEETS

QUANTITY SHEET

STATE OF VERMONT
AGENCY OF TRANSPORTATION

APPROXIMATE SUMMARY OF QUANTITIES

R.O.W.	TRACK & BALLFIELD	RAILROAD	EROSION CONTROL	BRIDGE	ROADWAY	QUANTITIES GRAND TOTAL	UNIT	ITEMS	ITEM NO.	ROUNDING
				0.5	0.5	1	LS	CLEARING AND GRUBBING (MODIFIED)	201.10 (MOD.)	
					16	16	EA	REMOVING SMALL TREES	201.15	EST
					1	1	AC	THINNING AND TRIMMING	201.30	EST
	1305				2195	3500	CY	COMMON EXCAVATION	203.15	61
					10	10	CY	SOLID ROCK EXCAVATION	203.16	EST
				40		40	CY	UNCLASSIFIED CHANNEL EXCAVATION	203.27	1
					50	50	CY	EXCAVATION OF SURFACES AND PAVEMENTS	203.28	EST
					1000	1000	CY	SAND BORROW	203.31	EST
	1120					1120	CY	SAND BORROW (MODIFIED A RUNNING TRACK)	203.31(MOD.A)	2
	1000					1000	CY	SAND BORROW (MODIFIED B SOFTBALL FIELD)	203.31(MOD.B)	2
					100	100	CY	GRANULAR BORROW	203.32	EST
				44		44	CY	GRAVEL BACKFILL FOR SLOPE STABILIZATION	203.35	4
					7850	7850	SY	FINE GRADING – SUBGRADE	203.40	55
					630	630	CY	TRENCH EXCAVATION OF EARTH	204.20	8
					10	10	CY	TRENCH EXCAVATION OF ROCK	204.21	EST
				190		190	CY	STRUCTURE EXCAVATION	204.25	11
				150		150	CY	GRANULAR BACKFILL FOR STRUCTURES	204.30	9
					3000	3000	CY	SUBBASE OF DENSE GRADED CRUSHED STONE	301.35	53
					640	640	TON	BITUMINOUS CONCRETE PAVEMENT PG 58-28	406.25	13
				77.5	26.5	104	CY	CONCRETE, CLASS B	501.25	
				8700	2400	11100	LB	REINFORCING STEEL	507.15	3
					50	50	LF	DRILLING AND GROUTING DOWELS	507.16	EST
				12		12	GAL	WATER REPELLENT	514.10	
				2		2	GAL	JOINT SEALER, POLYURETHANE	524.20	
					200	200	SF	TREATED TIMBER BIN TYPE RETAINING WALL	526.15	50
					10	10	CY	REMOVAL OF CONCRETE OR MASONRY	529.25	EST
				1		1	LS	PREFABRICATED MULTI MODAL BRIDGE	545.20	
					70	70	LF	12" CPEP	601.0905	
					161	161	LF	15" CPEP	601.0910	
					60	60	LF	18" CPEP	601.0915	
					75	75	LF	24" CPEP	601.0920	
					34	34	LF	30" CPEP	601.0925	
					2	2	EA	18" CPEPES	601.7015	
					2	2	EA	24" CPEPES	601.7020	
					2	2	EA	30" CPEPES	601.7025	
					97.5	97.5	CY	CEMENT RUBBLE MASONRY	602.15	0.4
				5	5	10	CY	DRY RUBBLE MASONRY	602.20	EST

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		COMMON EXCAVATION, ITEM 203.15
2134	CY	MAINLINE
1191	CY	TRACK
114	CY	BALLFIELD
61	CY	ROUNDING
3500	CY	TOTAL
		TRENCH EXCAVATION OF EARTH, 204.20
216	CY	DRAINAGE
406	CY	ELECTRICAL
8	CY	ROUNDING
630	CY	TOTAL
		GRANULAR BACKFILL FOR STRUCTURES, ITEM 204.30
76	CY	BRIDGE #2 – ABUTMENT #1
65	CY	BRIDGE #2 – ABUTMENT #2
9	CY	ROUNDING
150	CY	TOTAL
		SUBBASE OF DENSE GRADED CRUSHED STONE, ITEM 301.35
2947	CY	MAINLINE
53	CY	ROUNDING
3000	CY	TOTAL
		BITUMINOUS CONCRETE PAVEMENT, ITEM 406.25 PG 58-28
627	TON	MAINLINE
13	TON	ROUNDING
640	TON	TOTAL
		CONCRETE, CLASS B, ITEM 501.25
45.5	CY	BRIDGE #2 – ABUTMENT #1
32	CY	BRIDGE #2 – ABUTMENT #2
26.5	CY	DRAINAGE
0	CY	ROUNDING
104	CY	TOTAL

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

STATIONS FROM	STATIONS TO		BRIDGE	PATHWAY	EQUATIONS +	EQUATIONS –	FEET	MILES	REMARKS
~~98+49.10~~	~~98+92.70~~			~~43.60~~			~~43.60~~	~~0.008~~	~~CONC. SIDEWALK APRON~~
~~98+92.70~~	~~100+27.80~~		~~135.10~~				~~135.10~~	~~0.026~~	~~BRIDGE #1~~
~~100+27.80~~	~~100+63.00~~	35.20					~~35.20~~	~~0.007~~	
~~100+63.00~~	~~101+46.94~~			~~83.94~~			~~83.94~~	~~0.016~~	~~RAILROAD APPROACH~~
106+54.00	109+90.64			336.64			336.64	0.064	
109+90.64	111+68.64		178.00				178.0	0.034	BRIDGE #2
111+68.64	159+12.95			4744.31	+23.46	–255.25	4512.52	0.854	
TOTALS			178.00	5080.95	+23.46	–255.25	5027.16	0.952	

PLOT: 6829SCH1

PROJECT NAME MONTPELIER WINOOSKI RIVER WEST BIKE PATH
PROJECT NUMBER BWM-BIKE (4)S

QUANTITY SHEET

STATE OF VERMONT
AGENCY OF TRANSPORTATION

APPROXIMATE SUMMARY OF QUANTITIES

R.O.W.	TRACK & BALL FIELD	RAILROAD	EROSION CONTROL	BRIDGE	ROADWAY	QUANTITIES GRAND TOTAL	UNIT	ITEMS	ITEM NO.	ROUNDING
					5	5	EA	CHANGING ELEVATIONS OF SEWER MH	604.23	
					2	2	EA	CHANGE ELEVATION OF DI, CB OR MH	604.40	
					1	1	EA	CAST IRON COVER WITH FRAME	604.50	
					10	10	EA	CAST IRON GRATE WITH FRAME, TYPE D	604.51	
					1	1	HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I (NABI)	608.25	
					90	90	MGAL	DUST CONTROL WITH WATER	609.10	EST
					1	1	TON	DUST AND ICE CONTROL WITH CALCIUM CHLORIDE	609.15	EST.
					16	16	CY	STONE FILL, TYPE I	613.10	1
					1	1	HR	TRUCK RENTAL (NOT A BID ITEM) *	608.37	
					12	12	CY	STONE FILL, TYPE II	613.11	1
				200		200	CY	STONE FILL, TYPE IV	613.13	
					60	60	LF	CAST-IN-PLACE CEMENT CONCRETE CURB, TYPE B	616.28	
	2748					2748	LF	TREATED TIMBER CURB (MODIFIED A)	616.35(MOD. A)	
	500					500	LF	TREATED TIMBER CURB (MODIFIED B)	616.35(MOD. B)	
					60	60	LF	REMOVAL OF EXISTING CURB	616.41	
					22	22	SY	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	618.10	
					18	18	EA	WOOD MARKER POSTS	619.15	
					1130	1130	LF	CHAIN LINK FENCE, 6 FEET, VINYL COATED, (MODIFIED BLACK VINYL COATED)	620.12 (MOD.)	
					160	160	LF	CHAIN LINK FENCE, 8 FEET, VINYL COATED, (MODIFIED BLACK VINYL COATED)	620.13 (MOD.)	
					16	16	LF	GATE FOR CHAIN LINK FENCE, 6 FEET, (MODIFIED) BLACK VINYL COATED)	620.16	
					26	26	EA	BRACING ASSEMBLY FOR CHAIN LINK FENCE, 6 FEET,	620.21	
					2	2	EA	BRACING ASSEMBLY FOR CHAIN LINK FENCE, 8 FEET,	620.22	
	105					105	LF	REMOVING AND RESETTING FENCE (MODIFIED, BACKSTOPS)	620.50 (MOD.)	1
					150	150	LF	REMOVAL OF EXISTING FENCE	620.55	10
					645	645	LF	PLANK RAIL	621.15	3
					300	300	EA.	REMOVAL AND DISPOSAL OF GUIDE POSTS (MOD)	621.81	8
					9	9	EA	GUIDE POSTS	621.85	
					5	5	EA	GUIDE POSTS (MODIFIED)	621.85 (MOD.)	
					100	100	HR	UNIFORMED TRAFFIC OFFICERS	630.10	
					500	500	HR	FLAGGERS	630.15	
					1	1	LS	FIELD OFFICE - ENGINEERS	631.10	
					1	1	LS	TESTING EQUIPMENT-CONCRETE	631.16	
					1	1	LS	TESTING EQUIPMENT-BITUMINOUS	631.17	
					1	1	LS	MOBILIZATION	635.10	
					2	2	EA	RAILROAD CROSSING SYMBOL	646.32	
					62	62	LF	12" WHITE LINES	646.24	
					40	40	LF	CROSSWALK MARKING/DIAGONAL LINE	646.31	

* ITEM OUT OF NUMERICAL ORDER

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

STATIONS FROM	STATIONS TO	PAVEMENT WIDTHS			EQUATIONS +	EQUATIONS −	FEET	MILES	REMARKS
TOTALS									

Revised August 6, 1997
ADDENDUM NO. 1

PLOT: 6829SCH2

PROJECT NAME MONTPELIER-WINOOSKI RIVER WEST BIKE PATH
PROJECT NUMBER BWM-BIKE (4)S

QUANTITY SHEET

STATE OF VERMONT
AGENCY OF TRANSPORTATION

APPROXIMATE SUMMARY OF QUANTITIES

R.O.W.	TRACK & BALLFIELD	RAILWAY	EROSION CONTROL	BRIDGE	ROADWAY	QUANTITIES GRAND TOTAL	UNIT	ITEMS	ITEM NO.	ROUNDING
				200		200	SY	GEOTEXTILE FABRIC UNDER STONE FILL	649.31	
			500			500	SY	GEOTEXTILE FOR SILT FENCE	649.51	EST
			50			50	SY	GEOTEXTILE FOR FILTER CURTAIN	649.61	10
	107		313			420	LB	SEED	651.15	
			50			50	LB	SEED - WINTER RYE	651.17	EST
	205		600			805	LB	FERTILIZER	651.18	
	0.8		3.2			4.0	TON	AGRICULTURAL LIMESTONE	651.20	0.8
	0.8		3.2			4.0	TON	HAY MULCH	651.25	0.8
			230			230	EA	HAYBALES FOR EROSION CONTROL	651.26	EST
	165				815	980	CY	TOPSOIL	651.35	8
					500	500	SY	GRUBBING MATERIAL	651.40	EST
			200			200	SY	EROSION MATTING	654.10	EST
					8	8	EA	TRANSPLANTING TREES	656.45	
					126	126	SF	TRAFFIC SIGNS (TYPE A)	675.20	
					3700	3700	LF	WIRED - CONDUIT (2" PVC SCHEDULE 40)	678.23	47
					42	42	EA	JUNCTION BOX	678.26	
					41	41	EA	LIGHT POLE BASE	679.21	
					41	41	EA	LIGHT POLE (MOD)	679.45	
					12	12	EA	LIGHT POLE (MOD1)	679.45	
		10				10	LF	PAVED RAIL-HIGHWAY CROSSING	931.10	
								OPTION BID ITEMS		
					710	710	LB	FLANGED CHANNEL SIGN POSTS	675.30	
					710	710	LB	SQUARE TUBE STEEL POSTS AND ANCHORS	675.34	

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	10 ITEMS
		SEED ITEM 651.15
313	LB	ROADWAY
68	LB	TRACK
39 EST	LB	BALLFIELD
420	LB	TOTAL
		FERTILIZER ITEM 651.18
600	LB	ROADWAY
130	LB	TRACK
75 EST	LB	BALLFIELD
805	LB	TOTAL
		AGRICULTURAL LIMESTONE ITEM 651.20
2.4	TON	ROADWAY
0.5	TON	TRACK
0.3	TON	BALLFIELD
0.8	TON	ROUNDING
4.0	TON	TOTAL
		HAY MULCH ITEM 651.25
2.4	TON	ROADWAY
0.5	TON	TRACK
0.3	TON	BALLFIELD
0.8	TON	ROUNDING
4.0	TON	TOTAL
		TOPSOIL ITEM 651.35
807	CY	ROADWAY
106	CY	TRACK
59 EST	CY	BALLFIELD
8	CY	ROUNDING
980	CY	TOTAL

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

STATIONS FROM	STATIONS TO	PAVEMENT WIDTHS			EQUATIONS +	EQUATIONS −	FEET	MILES	REMARKS
TOTALS									

Revised August 6, 1997
Addendum No. 1

PLOT: 6829SCH3 GND

PROJECT NAME MONTPELIER-WINOOSKI RIVER WEST BIKE PATH
PROJECT NUMBER BWM-BIKE (4)S

ITEM DETAIL AND DRAINAGE SHEET

STATE OF VERMONT
AGENCY OF TRANSPORTATION

DRAINAGE STRUCTURES

STA.	STA.	POSITION	ASKEW	TYPE IN/OUT	DITCH IN	DITCH OUT	PIPE ARCH S IN	PIPE ARCH R IN	PIPE ARCH L FT	PIPE D IN	PIPE L FT	ALLOWABLE OPTIONS PCCSP TH	CAAP TH	RCP CL	CPEP	PCCSP EL TH	PIPE ELBOW NO-DEG	E S EA	CB	DEPTH DI	CONC. CL B CY	REIN STEEL LBS	DI GRATE TYPE	CHAN ELEV.	CRM CY	TR EXCAV EARTH CY	TR EXCAV ROCK CY	COMM EXC CY	UNC CHAN EXC CY	STRUC EXCAV CY	GRAN BKF STRUC CY	GRAN BORR CY	EROS MATT SY	STONE FILL CY	STONE FILL TYPE	MRKR POSTS LT	MRKR POSTS RT	RELAY CY	ADJ. ELEV. OF VALVE BOX EA	REMARKS	STA.	STA.	LT.	RT.	END TREATMENT
108+33		RT.		RCDI/						15	8									12'-6"	7.9	647	D			22						11					1			4' 4'x6' RCDI ADDITION OF 15" CPEP	6' CHAIN LINK FENCE, VINYL COATED (MODIFIED)- ITEM 620.12 (MOD.)				
108+33		CL																						1	STORM																				
~~112+01~~		~~LT~~																						1	~~SEWER~~															CHANGE ELEVATION OF RCDI TO MATCH NEW FINISH GRADE, NEW C.I. COVER	107+49	109+79	230		
112+88		CL		RCDI/						12	~~24~~ 26				X					5'-0"	2.6	231	D			22						5		1	I	1									109+00	109+91		120	
~~115+18~~ 50		~~LT~~ CL		RCDI/						~~15~~	86				X					7'-6"	3.7	316	D			11										1						CHANGE ELEVATION OF SEWER MANHOLE NOT DONE				30	
~~115+18~~	~~115+50~~	LT		RCDI/						~~15~~	~~32~~				X					4'-0"	2.1	193	D			13						4				1							111+68	111+71		30	
~~115+00~~	~~115+50~~	RT			X																					11								1	I					STONE PAD, TYPE I AT OUTLET	111+64	111+88	30		
115+94		RT																						1	SEWER															CHANGE ELEVATION OF SEWER MANHOLE	117+43	117+68		25	
117+70		LT																						1	SEWER															CHANGE ELEVATION OF SEWER MANHOLE	118+58	118+68		10	
122+65		RT																						1	STORM															CHANGE ELEVATION OF EXISTING STORM MANHOLE	119+45	120+50		105	
~~122+65~~	~~123+05~~	RT/LT		RCDI/						~~15~~	~~46~~				X					4'-0"	2.1	193	D			22						2				1							129+00	131+00	200		
129+50 56		CL		RCDI/						12	44 57				X					4'-0"	2.1	193	D			15						5		1	I	1	1					VOID	140+60	142+20	160		
136+50 40		CL		RCDI/		X				18	35 49				X					4'-6"	2.3	200	D			13						5				1	1						154+00	156+10		210	
~~139+84~~ ~~140+00~~		LT		RCDI/		X				15	26 55				X					4'-0"	2.6	231	D			42						6		1	I	1						CONSTRUCT SPECIAL DITCH W/STONE FILL PAD TYPE I AT OUTLET NOT DONE	155+77	155+87	10		
~~142+68~~ 67		CL		ES/ES						18	25 28				X		2																													
145+55		RT																						1	SEWER															CHANGE ELEVATION OF SEWER MANHOLE	8' CHAIN LINK FENCE, VINYL COATED (MODIFIED) - ITEM 620.13 (MOD.)				
147+58		CL		ES/ES	X	X				30	34 40				X		2									21						6		4	II	1	1			TYPE II STONE PAD AT INLET AND OUTLET	137+00	138+60	160		
150+~~80~~ 92		CL	45° RT.	ES/		X				24	40 46				X		1									4						5		10/3	I/II	1	1			STONE PAD, TYPE II @ OUTLET, SLOPE STABILIZATION STONE FILL TYPE I					
153+40 40.5		CL		ES/	X	X				24	35 34				X		1									3						5		3	II	1	1			STONE PAD TYPE II @ OUTLET					
154+46		LT																						1	SEWER															CHANGE ELEVATION OF SEWER MANHOLE					
157+45		CL		RCDI/						15	~~57~~ 40				X					4'-0"	2.1	193	D			11						7		2	II	1	1			STONE PAD TYPE II @ OUTLET					
TOTALS										12 70 15 161 18 60 24 75 30 34								6			27.5	2397	9	7		216						61		15 17	I II	11	7				TOTALS					

UNDERDRAIN

STA.	STA.	TYPE	POS.	D	L	TRENCH E	TRENCH R	GRAN BKF	FB	MRK PST
TOTALS										

ARCHIVED IN DPR

6829SOH4

PROJECT NAME WINOOSKI RIVER WEST BIKE PATH
PROJECT NUMBER BWM-BIKE (4)S

EARTHWORKS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

V.C.	% GRADE	STATION	GRADES ELEVATION ON TANGENT	GRADES ELEVATION ON CURVES	CORR V.C.	DIST	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.	ROCK EXCAVATION AREA	ROCK EXCAVATION CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.	SUBBASE AREA	SUBBASE CU. YDS.
	3.7385 %	98+49.00	521.70				0				0		0	
						.90		0						0
		98+50.00	521.73				9				1		5	
						42.7		7				23		9
		98+92.70	523.33	BUTT – END PATH BEGIN BRIDGE #1							28		7	
135.1' V.C.									C 7					
	4.9889 %	99+00		523.68					F 23					
									SB 249					
		+50		524.98										
		+60.25	526.70											
	–4.9889 %	100		524.43										
		+27.80	523.33	BUTT – END BRIDGE RESUME PATH										
		+28.00	523.32											
50' V.C.	–4.9889 %													
		+50		522.97							75		19	
		+53.00	522.46											
	5.000 %	+78.00	523.71											
50' V.C.														
		101	524.57				0				148		19	
		+03.00	524.96											
						50		1				148		33
		+28.00												
	0.000 %													
		+40	524.96											
		+46.94		END NEW CONSTRUCTION										
50' V.C.		+50		524.93							12		17	
		+70	524.96	STA. 98+49.10 TO 106+24 NOT IN CONTRACT		50						27		31
	–3.7500 %	102		523.84			0				17		19	
		+20	523.09			50		9				16		34
60' V.C.														
		+50	521.96	522.28			10				0		18	
		+80	522.12			50		34				3		29
	0.5294 %													
		103		522.23			27				3		15	
						50		47				0		30
		+50		522.49			24				0		17	
						50		47				0		34
		104		522.75			27				0		20	
						50		40				1		31
		+50		523.02			16				1		14	
						50						2		27
		+97	523.29											
50' V.C.														
		105		523.29			12				1		15	
		+22	523.40											
						50		19						27
	3.6234 %	+47	524.31											
		+50		524.42			9				6		14	
		+74	525.28											
						50		15				7		26
50' V.C.		+99	526.19											
	0.000 %													
		106		525.98			7				2		14	
						24		9				1		
		107	526.19	BUTT – EDGE TAYLOR ST.			14				0		14	
	TAYLOR ST.													
		+50		525.31										
				BEGIN PROJECT										
		106+54	525.17	EDGE TAYLOR ST.							0		14	
		+81	524.28			46		16				3		24
	–3.3077 %								C 64					
50' V.C.		107		523.73			5		F 23		3		14	
									SB 324					
		+06	523.45											
						50		13				4		26
		+31	523.16											
		+50		522.93			9				1		14	
		CARRIED FORWARD												
		COLUMN FOOTINGS						29				7		50

V.C.	% GRADE	STATION	GRADES ELEVATION ON TANGENT	GRADES ELEVATION ON CURVES	CORR V.C.	DIST	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.	ROCK EXCAVATION AREA	ROCK EXCAVATION CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.	SUBBASE AREA	SUBBASE CU. YDS.
						50		21				3		30
	–1.1724 %	108		522.35			14				2		18	
		+01	522.34											9
						50		12				6		32
		+50		522.07			1				5		17	
		+51												
	1.3750 %					50		1				6		24
		+71	522.03											
40' V.C.														
		+91	522.30											
		109		522.81			1				1		9	
	+5.0000%	+11	523.30			50		1				1		39
		+50	525.25				0				0		33	
														44
		+75	526.50										63	
		+78.2	526.66			40.7								105
		+90.64	526.73	BUTT – END PATH BEGIN BRIDGE									96	
		+95.70	524.11											
	+1.7166%	110		526.91										
167.0' V.C.		+50		526.27										
		+79.2	528.27											
		111		527.31										
	–1.1425 %	+50		527.43										
		+62.7	527.31											
		+68.64	527.31	BUTT – END BRIDGE RESUME PATH										
		+70.68	527.22	527.22			64				0		76	
		STA 111+70.68 AH												
		=STA 111+75.60 BK												
		EQ. = +4.92												
						29.33		72				0		84
		112		526.88			69				0		78	
	–1.1618 %					50		132				0		112
		+50		526.30			74				0		43	
									C 550					
		+63.17	526.15						F 8					
50' V.C.						50		104	SB 367			0		56
		+88.17	525.86											
		113		526.02			38				0		18	
		+13.17	526.12			50		59				0		33
	1.0768 %													
		+50		526.52			26				0		18	
						50		44				4		30
		+90	526.95											
100' V.C.		114		527.04			22				4		14	
		+40	527.49											
						50		53				4		26
		+50		526.82			35				0		14	
		+90	525.86											
	–3.2636 %					50		86				0		26
		115		525.53			58				0		14	
		+35	524.39			50		107				0		30
30' V.C.														
		+50	523.90	524.02			58				0		18	
	0.00 %	+65	523.90											
						50		71				8		34
		+75	523.90						C 504					
									F 75					
30' V.C.		+90	523.90						SB 281					
		116		523.38			19				9		19	
		+05	523.16			50		47				17		31
	–4.9455 %													
		+50		520.93			32				9		14	
		+50.2	520.92			50		52				11		27
100' V.C.														
		117		519.15			24				3		15	
		+00.2	518.45			50		44				6		28
	0.6262 %													
		+50		518.76			23				3		15	
		+50.2	518.76											
		CARRIED FORWARD												
		COLUMN FOOTINGS						906				66		791

SUMMARY AND BALANCES

STATION TO STATION		TOTAL EXCAV EARTH & ROCK	ROCK EXCAV CUBIC YARDS	EMBANKMENT CUBIC YARDS	EXCESSES CUT	EXCESSES FILL	ACCUMULATIVE EXCESSES CUT	ACCUMULATIVE EXCESSES FILL	SUBBASE
BEGIN	100+00	7		23					9
100+00	105+00	179		197					249
106+54	110+00	64		23					324
110+00	115+00	550		8					367
115+00	120+00	504		75					281
120+00	125+00	206		34					238
125+00	130+00	70		12					110
130+00	135+00	58		60					277
135+00	140+00	119		67					271
140+00	145+00	176		107					248
145+00	150+00	71		103					343
150+00	155+00	199		319					288
155+00	END	113		46					230
		2130		854					2977

N.I.C.

SHEET NO.	COL. NO.	EXCAVATION TOTAL CY	EXCAVATION ROCK CY	EMBANKMENT CY	SUBBASE CY
1	1	29		7	50
1	2	906		66	791
2	1	446		73	447
2	2	291		136	654
3	1	216		521	699
3	2	242		51	336
		2130		854	2977

SUMMARY BY COLUMNS

REMARKS	
EARTH AND ROCK EXCAVATION	2130
PAVEMENT EXCAVATION	0
EARTH EXCAVATION	2130
PLANIMETERED FILL	854
LESS FACTORED PAVEMENT	0
LESS DISPLACEMENT OF LARGE	
STRUCTURES	0
NET PLANIMETERED FILL	854
FACTOR 0.15	128
PLANIMETERED FILL INCL. FACTOR	982
MATERIALS AVAILABLE FOR FILLS	
EARTH EXCAVATION	2130
CHANNEL EXCAVATION	40
UNDERDRAIN EXCAVATION	0
STRUCTURE EXCAVATION	180
TOTAL MAT'L AVAILABLE FOR FILL	2350
TOTAL FILL INCLUDING FACTOR	982
TOTAL MATERIAL FOR FILL	
BORROW	
EXCESS EXCAVATION	1368

6829SCH6

PROJECT NAME MONTPELIER–WINOOSKI RIVER WEST BIKEWAY
PROJECT NUMBER BWM–BIKE (4)S

EARTHWORKS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

V.C.	% GRADE	STATION	ELEVATION ON TANGENT	ELEVATION ON CURVES	CORR V.C.	DIST	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.	ROCK EXCAVATION AREA	ROCK EXCAVATION CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.	SUBBASE AREA	SUBBASE CU. YDS.
		98+49.10	521.70				0				0		0	
	3.7385 %					.90		0						0
		98+50.00	521.73				9				1		5	
						42.7		7				23		9
		98+92.70	523.33	BUTT – END PATH BEGIN BRIDGE #1							28		7	
									C 7					
135.1' V.C.	4.9889 %	99+00		523.68					F 23					
									SB 249					
		+50		524.98										
		+60.25	526.70											
	−4.9889 %	100		524.43										
		+27.80	523.33	BUTT – END BRIDGE RESUME PATH										
	−4.9889 %	+28.00	523.32											
50' V.C.		+50		522.97							75		19	
		+53.00	522.46											
		+78.00	523.71											
	5.000 %													
50' V.C.		101	524.57				0				148		19	
		+03.00	524.96											
						50		1				148		33
		+28.00												
	0.000 %	+40	524.96											
		+45.94		END NEW CONSTRUCTION										
50' V.C.		+50		524.93							12		17	
		+70	524.96									27		31
	−3.7500 %	102		523.84			0				17		19	
60' V.C.		+20	523.09			50		9				16		34
		+50	521.96	522.28			10				0		18	
		+80	522.12			50		34				3		29
		103		522.23			27				3		15	
						50		47				0		30
	0.5294 %	+50		522.49			24				0		17	
						50		47				0		34
		104		522.75			27				0		20	
						50		40				1		31
		+50		523.02			16				1		14	
						50						2		27
		+97	523.29											
50' V.C.		105		523.29			12				1		15	
		+22	523.40											
						50		19						27
	3.6234 %	+47	524.31											
		+50		524.42			9				6		14	
		+74	525.28											
						50		15				7		26
50' V.C.		+99	526.19											
	0.000 %													
		106		525.98			7				2		14	
						24		9				1		
		+04	526.19	BUTT – EDGE TAYLOR ST.			14				0		14	
	TAYLOR ST.	+50		525.31										
							BEGIN PROJECT							
		106+54	525.17	EDGE TAYLOR ST.							0		14	
		+81	524.28			46		16				3		24
	−3.3077 %								C 64					
50' V.C.		107		523.73			5		F 23		3		14	
									SB 324					
		+06	523.45											
						50		13				4		26
		+31	523.16											
		+50		522.93			9				1		14	
CARRIED FORWARD														
COLUMN FOOTINGS								29				7		50

V.C.	% GRADE	STATION	ELEVATION ON TANGENT	ELEVATION ON CURVES	CORR V.C.	DIST	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.	ROCK EXCAVATION AREA	ROCK EXCAVATION CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.	SUBBASE AREA	SUBBASE CU. YDS.
						50		21				3		30
	−1.1724 %	108		522.35			14				2		18	
		+01	522.34											
						50		12				6		32
		+50		522.07			1				5		17	
		+51												
	1.3750 %					50		1				6		24
		+71	522.03											
40' V.C.		+91	522.30											
		109		522.81			1				1		9	
	+5.0000%	+11	523.30			50		1				1		39
		+50	525.25				0				0		33	
														44
		+75	526.50										63	
		+78.2	526.66			40.7								105
		+90.64	526.73	BUTT – END PATH BEGIN BRIDGE									96	
		+95.70	524.11											
	+1.7166%	110		526.91										
167.0' V.C.		+50		526.27										
		+79.2	528.27											
		111		527.31										
	−1.1425 %	+50		527.43										
		+62.7	527.31											
		+68.64	527.31	BUTT – END BRIDGE RESUME PATH										
		+70.68	527.22	527.22			64				0		76	
		STA 111+70.68 AH												
		=STA 111+75.60 BK												
		EQ. = +4.92												
						29.33		72				0		84
	−1.1618 %	112		526.88			69				0		78	
						50		132				0		112
		+50		526.30			74				0		43	
									C 550					
		+63.17	526.15						F 8					
						50		104	SB 367			0		56
50' V.C.		+88.17	525.86											
		113		526.02			38				0		18	
		+13.17	526.12			50		59				0		33
		+50		526.52			26				0		18	
	1.0768 %													
		+90	526.95			50		44				4		30
100' V.C.		114		527.04			22				4		14	
		+40	527.49											
						50		53				4		26
		+50		526.82			35				0		14	
		+90	525.86											
	−3.2636 %					50		86				0		26
		115		525.53			58				0		14	
		+35	524.39			50		107				0		30
30' V.C.		+50	523.90	524.02			58				0		18	
	0.00 %	+65	523.90											
		+75	523.90			50		71				8		34
									C 504					
30' V.C.		+90	523.90						F 75					
									SB 281					
		116		523.38			19				9		19	
	−4.9455 %													
		+05	523.16			50		47				17		31
		+50	520.93				32				9		14	
		+50.2	520.92			50		52				11		27
		117		519.15			24				3		15	
100' V.C.		+00.2	518.45			50		44				6		28
	0.6262 %													
		+50		518.76			23				3		15	
		+50.2	518.76											
CARRIED FORWARD														
COLUMN FOOTINGS								906				66		791

STA: 98+49.10 TO 106+24 NOT IN CONTRACT

N.I.C.

SUMMARY AND BALANCES

STATION TO STATION		TOTAL EXCAV EARTH & ROCK	ROCK EXCAV CUBIC YARDS	EMBANKMENT CUBIC YARDS	EXCESSES CUT	EXCESSES FILL	ACCUMULATIVE EXCESSES CUT	ACCUMULATIVE EXCESSES FILL	SUBBASE
BEGIN	100+00	7		23					9
100+00	105+00	179		197					249
106+54	110+00	64		23					324
110+00	115+00	550		8					367
115+00	120+00	504		75					281
120+00	125+00	206		34					238
125+00	130+00	70		12					110
130+00	135+00	58		60					277
135+00	140+00	119		67					271
140+00	145+00	176		107					248
145+00	150+00	71		103					343
150+00	155+00	199		319					288
155+00	END	113		46					230
		2130		854					2977

SHEET NO.	COL. NO.	EXCAVATION TOTAL CY	EXCAVATION ROCK CY	EMBANKMENT CY	SUBBASE CY
1	1	29		7	50
1	2	906		66	791
2	1	446		73	447
2	2	291		136	654
3	1	216		521	699
3	2	242		51	336
		2130		854	2977

SUMMARY BY COLUMNS

REMARKS	
EARTH AND ROCK EXCAVATION	2130
PAVEMENT EXCAVATION	0
EARTH EXCAVATION	2130
PLANIMETERED FILL	854
LESS FACTORED PAVEMENT	0
LESS DISPLACEMENT OF LARGE STRUCTURES	0
NET PLANIMETERED FILL	854
FACTOR 0.15	128
PLANIMETERED FILL INCL. FACTOR	982
MATERIALS AVAILABLE FOR FILLS	
EARTH EXCAVATION	2130
CHANNEL EXCAVATION	40
UNDERDRAIN EXCAVATION	0
STRUCTURE EXCAVATION	180
TOTAL MAT'L AVAILABLE FOR FILL	2350
TOTAL FILL INCLUDING FACTOR	982
TOTAL MATERIAL FOR FILL	
BORROW	
EXCESS EXCAVATION	1368

6829SCH6

PROJECT NAME MONTPELIER–WINOOSKI RIVER WEST BIKEWAY
PROJECT NUMBER BWM–BIKE (4)S

SHEET 6 OF 132 SHEETS

EARTHWORKS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

V.C.	% GRADE	STATION	GRADES ELEVATION ON TANGENT	GRADES ELEVATION ON CURVES	CORR V.C.	DIST	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.	ROCK EXCAVATION AREA	ROCK EXCAVATION CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.	SUBBASE AREA	SUBBASE CU. YDS.
		117+50	518.88	518.88			23				3		15	
	0.6262 %													
		+50.2				50		44				7		27
		+78.13												
		118					25				4		14	
						50		39				7		26
		+50					25				3		14	
						50		41				5		26
		119					19				2		14	
						50		32				6		26
		+50	520.58	520.58			16				4		14	
						50		27				8		26
		120	521.00				13				5		14	
						50		40				7		26
	-1.2855 %	+50	520.36	520.36			30				3		14	
						50		45				4		26
		121		519.71			19				1		14	
						50		19				2		26
		+50		519.07			9				1		14	
						49.15		22				1		26
		+99.15	518.44	BUTT – BACK OF SIDEWALK			15				0		14	
	BAILEY AVE.	122		520.00										
		+49.75	518.81	BUTT – BACK OF SIDEWALK			15				0		14	
	5.0000 %	+50		518.82					C 206					
									F 34					
		+64.75	519.56						SB 238					
						50.25		14				1		28
	-2.0352 %	+79.75	519.26											
		+84.55	520.16											
40' V.C.		123		518.92			0				1		16	
		+04.55	518.75											
						48.16		7				4		28
		+24.55	518.90											
		+48.16					8				4		14	
		+50		519.08		50		15				7		26
		+98.16					8				4		14	
		124		519.45		50		16				6		26
		+48.16					9				2		14	
		+50		519.81		50		28				2		26
		+98.16					21				0		14	
	0.7295 %	125		520.18										
						50		25				1		26
		+48.16					6				1		14	
		+50		520.54										
		+54.16		520.57										
		STA 125+58.74 BK =STA 128+10.58 AH EQ. = −251.84'							C 70					
									F 12					
									SB 110					
		128+10.58												
50' V.C.		+31.6	520.77											
		+50		520.66										
		+52.39					7				3		14	
						50.53		16				3		26
		+56.6	520.63											
	-0.5682 %	129		520.38										
		+02.92					10				0		14	
		+29.8	520.21											
						50.61		16				2		26
		+50		520.16										
		+53.53					7				2		14	
50' V.C.		+54.8	520.07											
		CARRIED FORWARD												
		COLUMN FOOTINGS						446				73		447

V.C.	% GRADE	STATION	GRADES ELEVATION ON TANGENT	GRADES ELEVATION ON CURVES	CORR V.C.	DIST	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.	ROCK EXCAVATION AREA	ROCK EXCAVATION CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.	SUBBASE AREA	SUBBASE CU. YDS.
		+79.8	520.28											
	0.8573 %					50.71		13				6		32
		130		520.46										
		+04.24					7				4		20	
		+50		520.88		50.84		10				7		32
		+55.08					4				3		14	
		+58	520.95											
						50.98		8				6		26
		131		521.23										
		+06.06					4				3		14	
		+50		521.37		51.16		8				6		26
	240' V.C.	+57.22		521.35			5				3		14	
		+78	521.97											
						51.01		6				6		28
		132		521.29										
		+08.23		521.26			1		C 58		3		16	
		+50		520.99		49.99		3	F 60			5		29
		+58.22		520.94			2		SB 277		2		15	
		+98	520.51											
						50.87		6				3		27
	-1.2194 %	133		520.48										
		+08	520.39											
		+09.09		520.37			4				1		14	
		+33	520.08											
						51.01		4				5		27
		+50		520.00										
		+60.10		519.94			0				4		15	
		+58	519.96											
						50.93		5				7		27
		134		519.75										
		+11.03		519.69			5				3		14	
		+50		519.50		50.82		6				5		26
		+61.85		519.44			1				2		14	
		135		519.25		50.70		2				10		29
		+12.55		519.18			1				9		17	
		+50		519.00		50.53		2				13		31
		+63.08		518.93			1				5		16	
		136		518.75		50.35		5				8		30
		+13.43		518.68			4				4		16	
		+18	518.66											
						50.09		10				5		28
	50' V.C.	+43	518.53											
		+50		519.21			7				1		14	
		+61.48												
		STA 136+61.64 BK =STA 136+48.12 AH EQ. = +13.52'							C 119					
						50		14	F 67			2		26
									SB 271					
	1.7866 %	+48.12												
		+54.48	520.15											
		137		519.59			8				1		14	
						50		19				2		26
		+50		520.54			13				1		14	
						50		25				2		26
		138		521.49			14				1		14	
						50		15				6		26
		+18	521.83											
		+50		522.26			2				6		14	
	120' V.C.													
		+78	522.97											
						50.28		8				6		26
		139		522.22										
		+00.28					7				1		14	
	-2.2727 %	+38	521.61											
						50		6				12		26
		+50		521.33										
		+52.28					0				12		14	
		+74	520.79											
		+99	520.22			49.89		15				11		26
	50' V.C.	140		520.39										
		+02.17					16				0		14	
		+24	520.38											
	0.6189 %	+50		520.54		49.79		50				0		26
		+51.96					38				0		14	
		141		520.85		50.06		42				1		26
		+02.02					7				1		14	
		+50		521.16		50.05		9				2		22
		+52.07					3				1		10	
		142		521.46										
		CARRIED FORWARD												
		COLUMN FOOTINGS						291				136		654

SUMMARY AND BALANCES

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

SHEET NO.	COL. NO.	SUMMARY BY COLUMNS	EXCAVATION TOTAL CY	EXCAVATION ROCK CY	EMBANKMENT CY	SUBBASE

REMARKS

PLOT: 6829SCH7

PROJECT NAME MONTPELIER WINOOSKI RIVER WEST BIKE PATH
PROJECT NUMBER BWM-BIKE (4)S

EARTHWORKS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

V.C.	% GRADE	STATION	ELEVATION ON TANGENT	ELEVATION ON CURVES	CORR V.C.	DIST	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.	ROCK EXCAVATION AREA	ROCK EXCAVATION CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.	SUBBASE AREA	SUBBASE CU. YDS.
		142		521.46		50.12		18				14		29
	0.6189 %	+02.19					18				12		17	
		+50		521.77		49.87		41				11		31
		+50.3	521.78											
		+52.06					26		C 176		0		16	
						14.95		7	F 107			18		10
		+67.01							SB 248		64		21	
50' V.C.		+75.3	521.93											
		143		521.80										
		+00.3	521.80			25.94		2				44		23
		+02.95					3				3		14	
		+50		521.55		50.18		4				6		26
		+53.13					1				3		14	
		+98.77												
		STA 143+98.77 BK =STA 143+95.55 AH EQ. = +3.17				50.04		2				6		26
		+95.55												
		144		521.31			1				3		14	
						50		1				5		29
		+50		521.06			0				2		17	
						50		0				5		32
		145		520.81							3		18	
						50						4		33
		+50		520.56							1		18	
						50						4		33
		146		520.31							3		18	
						50		0				8		33
		+50		520.06			0				6		18	
						50		15				6		30
		147		519.81			16				1		14	
						50		15				8		26
		+50		519.56			0		C 71		8		14	
						8		0	F 103			9		26
		+58							SB 343		52		14	
						42		0				45		26
		148		519.31							6		14	
						50		14				6		26
		+50		519.06			15				1		14	
						50		15				4		26
		149		518.81			1				3		14	
		+26.4	518.68			50		5						26
50' V.C.		+50		518.61			4				2		14	
		+51.4	518.55											
						50		7				4		26
		+76.4	518.68											
	0.5158 %	+86.5	518.73											
50' V.C.		150		518.78			4				2		14	
		+11.5	518.86											
						50		16				3		26
		+36.5	518.73											
	-0.5300 %	+50		518.66			13				1		14	
		+73.3	518.53			46		11				132		32
		+96					0				154		24	
50' V.C.		+98.3	518.40											
		151		518.47					C 199					
									F 319					
	0.5143 %	+23.3	518.53			54		14	SB 288			155		38
		+50		518.67			14				1		14	
		+65.8	518.75											
						50		21				2		26
40' V.C.		+85.8	518.85											
		152		519.35			9				1		14	
		+05.8	519.54											
	+3.4646 %	+09.3	519.66			50		8				10		29
		+49.3	521.05											
80' V.C.		+50		520.53			0				10		17	
	-1.7576 %	+89.3	520.35											
						50		0				12		31
		153					0				3		16	
		CARRIED FORWARD												
		COLUMN FOOTINGS						216				521		699

V.C.	% GRADE	STATION	ELEVATION ON TANGENT	ELEVATION ON CURVES	CORR V.C.	DIST	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.	ROCK EXCAVATION AREA	ROCK EXCAVATION CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.	SUBBASE AREA	SUBBASE CU. YDS.
	-1.7576 V.C.	153		520.16			0				3		16	
		+06.8	520.04											
						50		16				3		28
50' V.C.		+31.8	519.60	519.74										
		+40												
		+50		519.70			17				0		14	
	0.5004 %	+56.8	519.73			50		47				1		26
		154		519.94			24				1		14	
						50		42				1		26
		+50		520.19			12				0		14	
		+64.67	520.27											
						50		24				0		26
50' V.C.		+89.67	520.39											
		155		520.14			14				0		14	
		+14.67	520.22			50.40		14				11		31
	-2.4342 %	+50	518.92											
		+50.40					1				12		20	
		+76	518.29											
						50		1				13		35
		156		517.82										
		+00.40					0				2		18	
50' V.C.		+01	517.68	517.81	0.13									
		+26	517.57			50		19				2		30
		+50	517.47						C 113					
		+50.40					20		F 46		0		14	
									SB 230					
	-0.4277 %					50		19				5		26
		157	517.26											
		+00.40					0				5		14	
		+35	517.07											
						50.47		7				6		26
		+50		517.06										
50' V.C.		+50.87					7				1		14	
		+60	517.00	517.06	0.06									
		+85	517.13			50.34		14				3		26
	0.5256 %	158		517.21										
		+01.21					8				2		14	
		+13	517.19											
50' V.C.		+38	517.41	517.66	0.25	50.99		16				4		26
		+50		518.03										
	4.5800 %	+52.42					9				2		14	
		+63	518.56											
						47.58		20				2		25
50' V.C.		+88	519.70	519.49	-0.21									
		159		519.84			14				0			
	1.5949 %												14	
		STA 159+07.10 BK =STA 159+12.95 AH EQ. = -5.85												
						9.54		3				0		5
		+12.95	520.10				0				0		14	
						END PROJECT								
		CARRIED FORWARD												
		COLUMN FOOTINGS						242				51		336

SUMMARY AND BALANCES

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

SHEET NO.	COL. NO.	SUMMARY BY COLUMNS					
		EXCAVATION		EMBANKMENT		SUBBASE	
		TOTAL CY	ROCK CY	CY			

REMARKS

PROJECT NAME MONTPELIER WINOOSKI RIVER WEST BIKE PATH
PROJECT NUMBER BWM-BIKE (4)S

6829SCH8

SHEET 8 OF 132 SHEETS

PC 103+82.70

103+74.47
1.22' RT
IRON PIPE & CAP

PCC 101+51.94

PC 100+70.39

99+91.54
113.4' LT
IRON PIPE & CAP
TRAVERSE POINT

N/F JACOBS

N/F E. DICKEY

(AUBUCHONS)

EDGE OF RIVER

TOP OF BANK

APPROX. EDGE OF PAVEMENT

12' EASEMENT

NEW LOCATION OF EXISTING GAS TANK

RELOCATE EXISTING GAS TANK ITEM 203

INSTALL 2 WOOD GUIDE POSTS, ITEM 621.85 AND 1 WOOD GUIDE POST, MODIFIED, ITEM 621.85(MOD.) 5' O.C.

D11-1
STA 98+90 8' RT.

M7-1
STA 98+90 8' RT.

R5-3
STA 98+45 6' LT.

BIKE RACK

CITY OF MONTPELIER 12' EASEMENT TO MAIN ST.

BRIDGE #1
SEE DETAIL SHEET

98+92.70
BEGIN BRIDGE
PI Δ=33°48'05" LT

99

RETAINING WALL AREA 4 INCHES

STA 98+49.10~98+98 8' CONCRETE SIDEWALK APRON

98+49.10
BEGIN PROJECT

RELOCATE EXISTING LIGHT POLE, ITEM 679.25

N 28° 54' 35" W

98

RELOCATED LIGHT POLE

STORM JUNCTION BOX

INSTALL 2 NEW SUGAR MAPLES 2-2 1/2" CAL.

24" STORM SEWER

REMOVAL OF PARKING METERS BY OTHERS

NEW SPACE CUT INTO HILLSIDE BY OTHERS

CONC. WALK

N/F VERMONT LEAGUE OF CITIES AND TOWNS

GRAND UNION

E-107
STA 98+97 LT & RT
STA 100+27 LT & RT

CURVE #1
Δ = 48° 25' 15" LT
D = 59° 22' 32"
R = 96.50'
T = 43.39'
L = 81.55'
E = 9.31'

STA 100+28 RT. TO 100+68 RT.
INSTALL NEW 6' CHAIN LINK FENCE
STD. F-3, TYPE III

MUTCD W10-1
STA 100+80 12' RT

MUTCD W3-1
STA 100+52 6' RT

100+27.80 END BRIDGE
BEGIN PATH

PAVEMENT STRIPING BY OTHERS

N/F DAYS INN

EXISTING EDGE OF PAVEMENT

PC 100+70.39

PI 101+13.78 BK
=101+08.55 AHD
Δ=48°25'15" LT.

EXISTING BUILDING TO BE REMOVED BY OTHERS

GUARDRAIL, PLANK WITH WOOD POSTS STANDARD G-4
STA 100+68 TO 101+08 RT.
STA 101+16 TO 101+32 RT.

N 62° 42' 40" W
100
E

MUTCD W3-1
STA 99+76 5.5' LT

M4-12
STA 98+97 9' LT.
D11-1
STA 98+97 9' LT.

CURVE #2
Δ = 68° 22' 17" RT
D = 60° 17' 55"
R = 95.02'
T = 64.54'
L = 113.39'
E = 19.85'

STA 100+63 RT.
END 10' PAVED PATH
BEGIN PATH WIDENING TO
15' @ STA 100+92±
20' @ STA 101+33±
19' @ STA 101+50±

P#3
(TRANS F.)

LIGHT POLE
STA 101+20 LT

B.M.
BRASS DISK
RAILROAD BRIDGE ABUTMENT
ELEV. 525.035' NGVD

RR TRACK CROSSING STANDARD

STA 100+35 LT.~101+25 LT.
INSTALL NEW 6' CHAIN LINK FENCE
STD. F-3, TYPE III

END NEW CONSTRUCTION
STA. 101+46.94

PCC 101+51.94

N/F CARR

R1-1
M4-12
D11-1

STA 101+44 19' RT.

WIDEN PAVEMENT

WASHINGTON COUNTY RAILROAD

TOP OF BANK

STA 101+10 LT.
PROVIDE RISER POLE WITH METER CHANNEL AND WEATHERPROOF CIRCUIT BREAKER DISCONNECT SWITCH.
INSTALL 2 NO.8 AND ONE No.10 GROUND IN 1 1/4" CONDUIT FOR STREET LIGHTING, ITEM 679(MOD).

M7-1
D11-1
R5-3
STA 101+14 6' LT.

PI 103+96.57 BK
=103+96.38 AHD
Δ=16°31'50" LT.

IRON PIPE & CAP
103+74.47
1.22' RT.

EXISTING PARKING SPACES

PT 102+65.33

N 42° 45' 38" W

104

103

GUARDRAIL, PLANK WITH WOOD POSTS STANDARD G-4 (TO BE INSTALLED BY OTHERS)

EXISTING 8' WIDE PEDESTRIAN ACCESS

TOP OF BANK
FENCE TYPICAL

PC 103+82.70

EDGE OF RIVER

EXISTING FENCE TO REMAIN TYPICAL

PI 102+16.48 BK
=102+00.79 AHD
Δ=68°22'17" RT.

CURVE #3
Δ = 16° 31' 50" LT
D = 60° 00' 00"
R = 95.49'
T = 13.87'
L = 27.55'
E = 1.00'

EXISTING STONE DRY RETAINING WALL

STA 101+46.94 TO STA 106+54
NOT IN CONTRACT

NORTH BRANCH WINOOSKI RIVER

WINOOSKI RIVER

STA. 98+49.10 TO 104+00
NOT IN CONTRACT

THE CONTRACTOR IS TO NOTIFY "DIG-SAFE" 48 HOURS PRIOR TO ANY EXCAVATION AT 1-800-225-4977

20 10 0 20 40 60 80

#	REVISIONS	DATE	#	REVISIONS	DATE

SURVEY: PEA
CALCULATED: NPN/LDY
PLOT: 6829-R3
DESIGN: DAW
DRAFT: NPN/JMM
CHECKED: LDY
APPROVED: LDY
DATE: 9/25/96
SCALE: 1"=20'

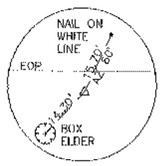
PLAN VIEW - STA 98+49.10~STA 104+00

WINOOSKI RIVER WEST
BIKE PATH
MONTPELIER, VERMONT

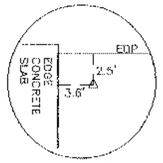
PROJ. NO. 6829

SHEET 10 OF 132

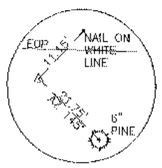
FAX. (802)-658-3629 P.E.A. BUS. (802)- 658-5588
PINKHAM ENGINEERING ASSOCIATES, INC.
The Maltex Building, 431 Pine St., Burlington, VT 05401



PI 108+79.65

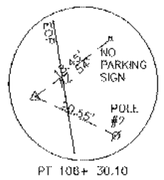


108+16.15
3.18' RT
REBAR & CAP



PC 107+15.71

106+57.95
2.32' RT
REBAR & CAP



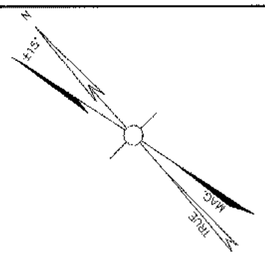
PT 108+ 30.10

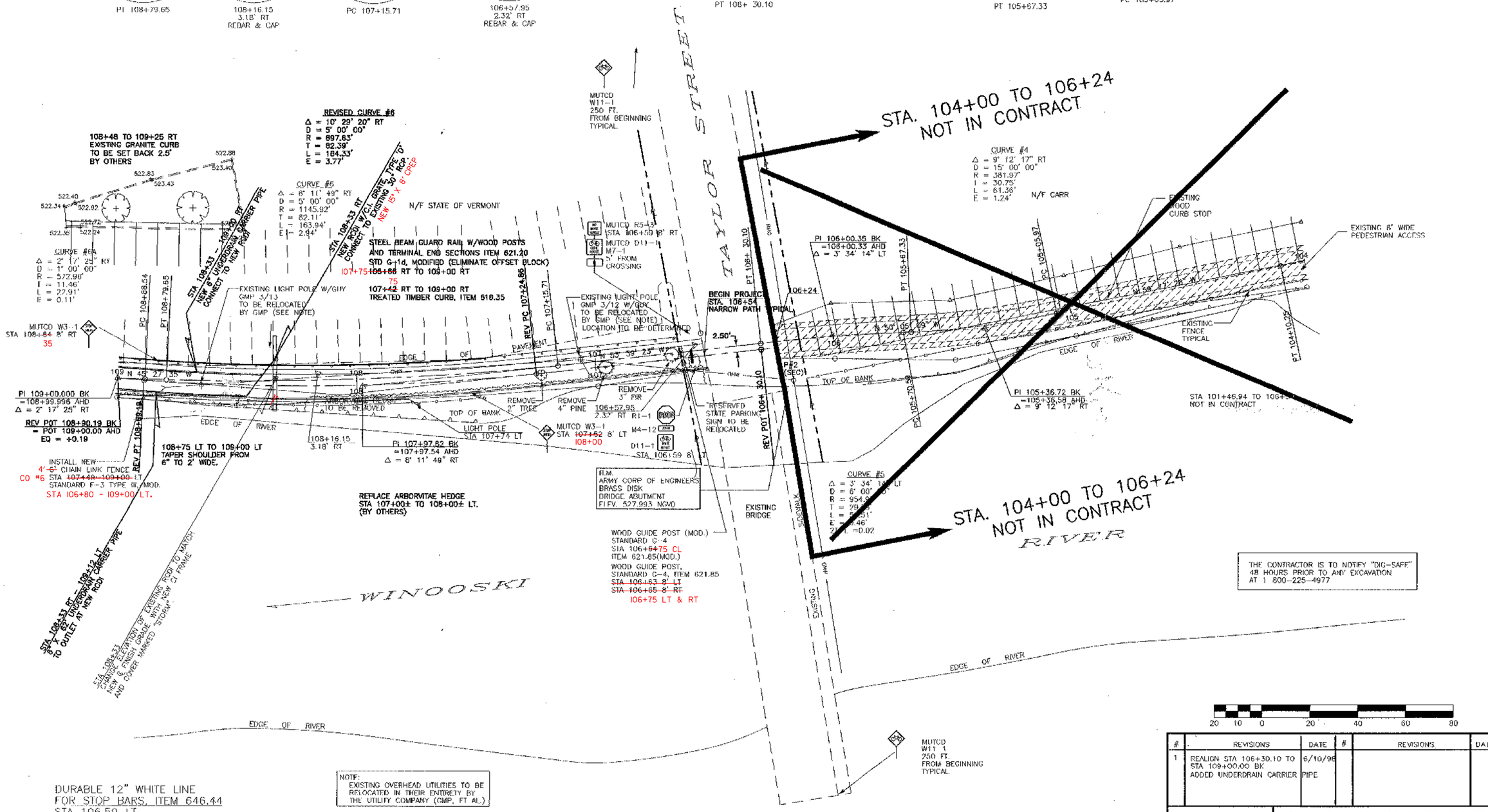
PC 105+70.59

PT 105+67.33

PC 105+05.97

PT 104+10.25





#	REVISIONS	DATE	#	REVISIONS	DATE
1	REALIGN STA 106+30.10 TO STA 109+00.00 BK ADDED UNDERDRAIN CARRIER PIPE	6/10/98			

SURVEY: PEA
CALCULATED: LDY
PLOT: 6829-R4
DESIGN: DAW
DRAFT: NPN/JMM
CHECKED: LDY
APPROVED: KWP
DATE: 4/3/97
SCALE: 1"=20'

PROJ. NO. 6829

SHEET 11 OF 132

PLAN VIEW - STA 104+00~STA 109+00

WINOOSKI RIVER WEST
BIKE PATH
MONTPELIER, VERMONT

FAX. (802)-658-3629 P.E.A. BUS. (802)-658-5588
PINKHAM ENGINEERING ASSOCIATES, INC.
60 Joy Drive, P.O. Box 2225, South Burlington, VT 05407

ARCHIVED IN DPR

POLE
4" MAPLE 24.15'
PCC 114+60.65

PEDESTRIAN SIGN
76.92' N.
23.80'
NAIL IN SIDEWALK
PC 113+66.66

30.46'
25.75'
CENTER SAN MH
TOP EDGE OF CURB
PI 111+70.68

N
E 15°
MAG
TRUE

CURVE #6B
Δ = 10° 47' 05" RT
D = 60° 18' 41"
R = 95.00'
T = 8.97'
L = 17.88'
E = 0.42'

N/F STATE OF VERMONT

STA 109+00 – STA 109+84 RT NEW 6' X 26" UNDERDRAIN WITH FLUSHING BASIN

522.88 522.40 522.83 523.43 522.40 522.34 522.82 522.72 522.74 522.35 522.84 522.23

PT 109+82.92
PC 109+82.92
PT 109+17.85

PI 109+84.89 BK
Δ = 90° 00' 14" LT
STA 109+97
35.65' RT

PI 109+71.89 BK
=109+71.83 AHD
Δ = 10° 47' 05" RT

PROPOSED EDGE OF TREES

STA 109+00–109+85 RT, MATCH WINGWALL
STA 109+12–109+74 LT, MATCH WINGWALL
CRM RETAINING WALL
STD D-9, ITEM 602.15

MAINTENANCE BUILDING

ELM 526.13

PI 109+00.000 BK
=108+99.996 AHD
Δ = 2° 17' 25" RT

N 43° 10' 10" W

REV POT 109+00.19 BK
= POT 109+00.00 AHD
EQ = +0.19

TOP OF BANK
EDGE OF RIVER

LIGHT POLE
STA 109+97 RT

LIGHT POLE
STA 109+35 LT

R1-1
STA 109+62 8' RT
STA 109+96 8' LT

INSTALL NEW
4'~~6~~ CHAIN LINK FENCE C.O.#6
STA 109+00–109+91 RT
STA 109+00–109+79 LT
STANDARD F-3 TYPE III, (MOD)

BEGIN BRIDGE
STA 109+90.64

4" MAPLE
TO BE REMOVED

E-107, TYPE III
STA 109+91 5' LT & RT
STA 111+69 5' LT & RT

BRIDGE #2
SEE DETAIL SHEETS 38, 46–53 OF 132

WASHINGTON COUNTY RAILROAD

W I N O O S K I R I V E R

STA 113+88
NEW 12"x18" CMP W/FLOW & C.I. GRATE TYPE D @ INLET AND 3'x8' STONE PAD.
2.4'

STA 109+00 – STA 109+74 LT NEW 6" X 26" UNDERDRAIN WITH FLUSHING BASIN

STA 113+07 RT
PROVIDE RISER POLE WITH METER CHANNEL AND WATERPROOF CIRCUIT BREAKER DISCONNECT SWITCH. INSTALL 3 No.6 AND 1 #10 GROUND IN 1 1/4" CONDUIT FOR 2 CIRCUITS EASTERLY, AND 2 No. 8 & ONE #10 GROUND IN 1 1/4" CONDUIT FOR WESTERLY CIRCUIT FOR STREET LIGHTING, ITEM 879 (MOD.).

S 5° 36' 41" W

STA. 111+62~~-118+25~~ RT. I-3' GATE
INSTALL 30' NEW ~~6'~~ CHAIN LINK FENCE C.O.#6
STA 111+68 8'RT TO STA ~~111+71~~ 23' RT 113+25
AND 111+68 12'LT TO 111+~~64~~ 22' LT
71

EDGE OF RIVER

END BRIDGE
STA 111+68.64
R1-1
STA 111+71 8' RT
STA 111+87 8' LT

D11-1
M7-5
MUTCD R5-3
STA 111+77 18' LT

EXISTING 18" RCP SAN. SEWER

CURVE #8
Δ = 44° 11' 03" LT
D = 60° 18' 41"
R = 95.00'
T = 38.96
L = 73.26
E = 7.53

PI 114+14.13 BK
=114+13.18 AHD
Δ = 19° 50' 15" LT

LIGHT POLE
STA 114+22 RT

RR R.O.W.

ABANDONED 15" RCP

LIGHT POLE
STA 113+42 RT

POLE W/GUY GMP 12 (SEC)

LIGHT POLE
STA 112+62 RT

ABANDONED 10" VCP

LIGHT POLE
STA 111+82 RT

WIDEN PAVEMENT TYPICAL

TOP OF BANK

EXISTING

VEGETATION

EXISTING FIR (REMOVE)

4" FIR

N 66° 56' 30" W

47° 06' 15" W

SEE DETAIL THIS SHEET

SIDEWALK

MUTCD W3-1
STA 112+73 8' LT

CHANGE ELEVATION
SAN MH
STA 112+01
5.4' LT

CURVE #6B
Δ = 75° 17' 04"
D = ∞
R = 0'

PI 111+70.68 BK
PI 111+75.85 AH
Δ = 75° 17' 04"
E@ = +4.62

CONCRETE SIDEWALK CONNECTION, C-3 TYPE I

EXISTING 8" UNDERDRAIN

PI 114+99.21 BK
=114+95.35 AHD
Δ =44°11'03" LT

CURVE #7
Δ = 19° 50' 15" LT
D = 21° 06' 19"
R = 271.48'
T = 47.47
L = 93.99
E = 4.12

POLE GMP 12-01
SYSCO
5'x8.4'x?'

M E M O R I A L D R I V E

THE CONTRACTOR IS TO NOTIFY "DIG-SAFE" 48 HOURS PRIOR TO ANY EXCAVATION AT 1-800-225-4977

20 10 0 20 40 60 80

RR CROSSING SYMBOL, ITEM 646.32
STA 112+96

DURABLE 12" WHITE LINE FOR STOP BARS, ITEM 646.44
STA 109+73
STA 111+75

TREE TO BE TRANSPLANTED
NEW LOCATION

TRANSPLANTING TREES, ITEM 616.15
112+66 LT
112+88 LT
113+23 LT
113+58 LT
113+92 LT
114+28 LT

#	REVISIONS	DATE	#	REVISIONS	DATE
1	REV'D ALIGNMENT, ADDED UNDERDRAIN	6/10/98			

SURVEY: PEA
CALCULATED: LDY
PLOT: 6829-R5
DESIGN: DAW
DRAFT: MPN/JMM
CHECKED: LDY
APPROVED: KWP
DATE: 1/9/97
SCALE: 1"=20'

PROJ. NO. 6829

SHEET 12 OF 132

PLAN VIEW – STA 109+00~STA 115+00

WINOOSKI RIVER WEST
BIKE PATH
MONTPELIER, VERMONT

FAX. (802)-658-3620 P.E.A. BUS. (802)-658-5588
PINKHAM ENGINEERING ASSOCIATES, INC.
59 Joy Drive, P.O. Box 2225, South Burlington, VT 05407

3" ASH
CONC. SUPPORTS
14.13'
DRIVE-THRU
32.71'
PC 120+85.01

6" POP.
17.33'
24.40'
CMP 49
PT 116+18.29

CENTER MANHOLE
END RAILROAD BRIDGE
36.06'
36.34'
115+62.81
10.03' RT
PK CENTERLINE RAILROAD

50.20'
AZ 102°
POLE
24.40'
CORNER STONE BENCH
PC 115+38.90

WINOOSKI RIVER

STA 120 +50 RT
STOP AHEAD

ITEM 620.11 C.O.#6 - 4' CHAIN LINK FENCE
STA. 113+80 ~ 116+50 RT.
STA. 117+80 ~ 118+30 RT.
STA. 119+30 ~ 120+50 RT.

STA. 117+35 BEGIN NARROW BIKE PATH TYPICAL
STA. 117+50 - 118+80 RT. - 2- 8' GATES

24" STOP BAR, ITEM 646.26
115+46
115+99

RAILROAD CROSSING SYMBOL, ITEM 646.32
~~118+49~~ 117+0 & 118+0

MUTCD R15-1
STA 116+00 LT

STA 115+84 RT.
CHANGE ELEVATION OF SEWER MANHOLE

STA 117+30.24' LT.
CHANGE ELEVATION OF SEWER MANHOLE

STA 115+50 RT ~ 115+90 RT
CONCRETE/RIPRAP SPECIAL DITCH
(SWALE)

STA 115+00 RT
4'x8' TYPE 'I' STONE PAD

TRUE N
MAG N
+15°

PI 120+63.00 BK
=120+63.00 AH
Δ =4°26'35" LT

STA. 120+50 END NARROW BIKE PATH TYPICAL

CURVE #9D
Δ = 4°-48'-55" RT
D = 28°-38'-52"
R = 200.00'
T = 8.41'
L = 16.81'
E = 0.18'

PC 120+28.09
PT 120+44.90

LIGHT POLE
STA 120+65 RT

LIGHT POLE
STA 119+85 RT

LIGHT POLE
STA 119+05 RT

LIGHT POLE
STA 118+25 RT

EDGE OF RIVER

EXISTING VEGETATION

8 STEM WILLOW SAVE

20" WILLOW SAVE

TOP OF BANK

N 50°18'29" W

EXIST. 18" RCP SAN. SEWER

3" OAK SAVE

3" OAK REMOVE

EXISTING 15" R.C.P. STORM DRAIN

EXISTING TREE LINE

PI 120+36.50 BK
=120+36.49 AH
Δ =4°48'55" RT

PC 120+55.24
PT 120+70.75

STA 120+60
CB (EXISTING)
RIM=519.90
INV.=514.51

PC 120+86.86 BK
PT 120+63.01 AH

CURVE #9E
Δ = 4°26'35" LT
D = 28°-38'-52"
R = 200.00'
T = 7.76'
L = 15.51'
E = 0.15'

6" DIA. SEWER

N/F
VERMONT STATE
EMPLOYEES CREDIT UNION

STA 118+31
CB (EXISTING)
RIM=519.25
INV.=516.25

PT 118+12.27
PC 117+88.55

CURVE #9C
Δ = 6°-47'-42" LT.
D = 28°-38'-52" LT.
R = 200.00
T = 11.87'
L = 23.72'
E = 0.35'

PI 117+27.70 BK
=117+26.70 AH
Δ =23°42'50" RT

MUTCD
W10-1
STA 117+80 LT

RT 117+61.70

CURVE #9B
Δ = 23°-42'-50" RT.
D = 34°-22'-05"
R = 166.71'
T = 35.00'
L = 67.00'
E = 3.63'

PI 116+62.01 BK
=116+61.97 AH
Δ=9°35'05" LT

STA 116+40 RT.
JUNCTION BOX, ITEM 678.26

LIGHT POLE
STA 117+44 RT
64 LT

LIGHT POLE
STA 116+64 RT

EXISTING 24" P.E. STORM DRAIN

TOP OF BANK

PC 116+82.70

MUTCD W10-1
STA 116+30 LT

STA 116+18
END PATH WIDENING

POLE W/GUY
GMP #10
(SEC.)

PI 116+70.36
PC 116+53.80

STA 116+74.2
STA 115+67.5

LIGHT POLE
STA ~~115+82 RT~~
116+05 LT

EDGE OF RIVER

EXISTING VEGETATION

PI 115+79.87 BK
= 115+77.32 AH
Δ = 34°-53'05" LT

115+62.81
10.03' RT

EXISTING TREE TO BE REMOVED

EXISTING FIR TO BE TRANSPLANTED

MUTCD W10-1
STA 115+10 RT

MUTCD R15-1
STA 115+60 RT

LIGHT POLE
STA 115+02 RT

STA 115+18 RT. BEGIN PATH WIDENING
TO 16' WITH 30' WIDTH TAPER
BACK TO NORMAL AT STA 116+18

EXISTING BENCH TO REMAIN

RR TRACK CROSSING

CURVE #9A
Δ = 9°-35'-05" LT
D = 57°-17'-45"
R = 100.00'
T = 8.38'
L = 16.73'
E = .35'

115+60 RT ~ 115+85 LT
RETAIN RR TIES & SUBBASE.
INSTALL PAVED RAIL-HIGHWAY
CROSSING, ITEM 931.10

CURVE #9
Δ = 34°-53'-05" LT
D = 43°-56'-19"
R = 130.40'
T = 40.97'
L = 79.39'
E = 6.29'

EXISTING 6" PVC UNDERDRAIN

MEMORIAL DRIVE

STA 115+38 LT
REMOVE 40' OF EXISTING 24" RCP
INSTALL NEW RCSP W/CI. GRATE, TYPE D
15" X 86' CPEP W/ 4:1 BEVELS
ASKEW FROM CL I9 II10

~~STA 115+18 LT TO 115+50 LT~~
~~REMOVE 32' OF EXISTING 24" RCP~~
~~INSTALL NEW 15" CPEP~~
~~W/RCSP 4:1 BEVELS~~
~~TYPE D CI. GRATE~~
~~& INLET~~

STA 116+40 LT
PROVIDE RISER POLE WITH METER CHANNEL AND WATERPROOF CIRCUIT BREAKER DISCONNECT SWITCH. INSTALL TWO No.6 & ONE #10 GROUND IN 1 1/4" CONDUIT FOR STREET LIGHTING, ITEM 679 (MOD.).

~~CHAIN LINK FENCE - 6 FEET, ITEM 620.12 (MOD.)~~
~~117+43 ~ 117+68 RT~~
~~118+58 ~ 118+68 RT~~
~~119+45 ~ 120+50 RT~~

TREE TO BE REMOVED AND REPLANTED

REPLANTING LOCATION

TRANSPLANTING TREES, ITEM 656.45
115+18 RT
115+32 LT

THE CONTRACTOR IS TO NOTIFY "DIG-SAFE" 48 HOURS PRIOR TO ANY EXCAVATION AT 1-800-225-4977

20 10 0 20 40 60 80

ARCHIVED IN DPR

#	REVISIONS	DATE	#	REVISIONS	DATE
1	RE-ALIGN STA 116+50 TO 121+00	3/25/93			

SURVEY:	PEA
CALCULATED:	LDY/NPN
PLOT:	6829-R6
DESIGN:	DAW
DRAFT:	NPN
CHECKED:	LDY
APPROVED:	KWP
DATE:	4/8/97
SCALE:	1"=20'

PROJ. NO. 6829

SHEET 13 OF 132

PLAN VIEW - STA 115+00~STA 121+00

WINOOSKI RIVER WEST
BIKE PATH
MONTPELIER, VERMONT

FAX. (802)-658-3629 P.E.A. BUS. (802)- 658-5588
PINKHAM ENGINEERING ASSOCIATES, INC.
50 Joy Drive, P.O. Box 2225, South Burlington, VT 05407

RED PINE
SPIKE IN POLE GMP 3/002
PC 128+10.58

12" PINE
POLE 3/01
PT 123+57.62

6" SPRUCE
TOP CENTER END OF STEEL GUARD RAIL
PC 123+14.45

TOP CENTER END OF STEEL GUARD RAIL
18" MAP.
PC 122+62.05

POLE 02
TOP CENTER END OF STEEL GUARD RAIL
PT 121+84.42

20" POP.
DRIVE THRU
PCC 121+41.03

WINOOSKI RIVER

DURABLE 12" WHITE LINE
FOR STOP BARS, ITEM 646.44
STA 121+97 RT
STA 122+52 LT

EDGE OF RIVER

REV. CURVE #12
Δ = 15°-24'-40" RT.
D = 57°-17'-45"
R = 100.00'
T = 13.53'
L = 26.90'
E = 0.91'

CURVE #12
Δ = 30°-01'-36" RT.
D = 57°-17'-45"
R = 100.00'
T = 26.82'
L = 52.41'
E = 3.53'

MUTCD W11-1 250' FROM CROSSING (TYPICAL)

INV.=510.00

CURVE #11
Δ = 24°-51'-12" RT.
D = 57°-16'-19"
R = 100.04'
T = 22.04'
L = 43.40'
E = 2.40'

B.M.
BRASS DISK
BRIDGE ABUTMENT
ELEV. 522.96' NGVD

STA. 121+60 RT.
SIPHON CHAMBER
CHANGE ELEVATION OF SEWER MANHOLE COVER

PI 121+13.78 BK
= 121+12.26 AH
Δ = 32°05'47" LT

EXISTING VEGETATION

INV. 505.40

MUTCD R5-1
STA 122+52 8' RT

MH
RIM=518.00
INV.=513.15 IN
INV.=513.05 OUT

POLE GMP 3 (SEC)

BEGIN BRIDGE END ROADWAY

122+55 WOOD GUIDE POST MODIFIED

POLE NET102 W/GUY

R1-1
STA 121+97 8' RT

15" RCP SAN. SEWER

MUTCD W3-1
STA 124+00 8' RT

PC 120+85.01

PI 123+36.37 BK
= 123+35.69 AH
Δ= 24°42'51" LT

EXISTING POLE GMP 3/001 TO REMAIN

LIGHT POLE STA 124+28 RT

LIGHT POLE STA 123+44 RT

POT 125+58.74 BK
= PC 128+10.58 AH
EQ. = -251.84

EXISTING POLE GMP 3/002 TO REMAIN

LIGHT POLE STA 125+11 RT

LIGHT POLE STA 128+50 RT

TOP OF BANK

EXISTING TREELINE

OHW

N 51° 52' 02" W

STA 128+58 TO 128+90 LT
EXISTING BASEBALL BACKSTOP TO BE RELOCATED
CONTRACTOR IS TO COORDINATE RELOCATION WITH OWNER
ITEM 620.50
(MODIFIED, BACKSTOP)

REV PC 125+54.20 BK
= PC 128+06.04 AH
EQ. = -251.84

N/F
MONTPELIER
HIGH SCHOOL

30" RCP SAN. SEWER

MUTCD W3-1
STA 125+50 8' LT

PT 123+37.83

REV PT 123+84.86

REV PC 123+47.24

CURVE #13
Δ = 10°-05'-55" LT.
D = 57°-17'-45"
R = 100.00'
T = 8.84'
L = 17.83'
E = 0.39'

CURVE #13
Δ = 24°-42'-51" LT.
D = 57°-15'-30"
R = 100.07'
T = 21.92'
L = 43.16'
E = 2.37'

PI 122+88.87 BK
=122+87.84 AH
Δ=30°01'36" RT.

~~120 FSS~~ 60 & RT. 8" C.Y. WOOD GUIDE POST, ITEM 621.85

~~120 FSS~~ 60 CL WOOD GUIDE POST, ITEM 621.85 (MOD.)

REV PT 122+88.95

STA 122+65.8' RT. DECREASE ELEVATION OF EXISTING STORM MH PROVIDE NEW GREATING FOR INLET OPEN

CREEP

POT 122+49.75

EXISTING SIDEWALK

123+04 & 122+45 NEW SIDEWALK RAMP STD. C-3, TYPE 6

D11-1
M7-5
5' FROM CROSSING (TYPICAL)
STA 122+00 8' RT
STA 122+52 8' LT

R1-1
STA 122+52 8' LT

POT 121+89.15

121+85 30 CL WOOD GUIDE POST, ITEM 621.85 (MOD.)

CB
RIM=517.5
INV.=513.75 IN (18")
INV.=514.00 IN (15")
INV.=513.35 OUT

MUTCD R5-3
STA 121+97 8' LT

121+88.8' LT. WOOD 30 LT. & RT. GUIDE POST, ITEM 621.85

15" RCP

15" P.E. STORM DRAIN

PCC 121+44.03

CURVE #10
Δ = 32°-05'-47" LT.
D = 57°-17'-45"
R = 100.00'
T = 28.77'
L = 56.02'
E = 4.06'

N/F
VERMONT STATE EMPLOYEES CREDIT UNION

BAILEY AVENUE

EXISTING 15" RCP

INV. 514.6 IN NEW
508.45 IN
508.50 OUT

EXISTING SIDEWALK

EXISTING LAWN

EXISTING PAVEMENT

MUTCD W11-1 250' FROM CROSSING (TYPICAL)

NOTE:
EXISTING OVERHEAD UTILITIES TO BE RELOCATED IN THEIR ENTIRETY BY THE UTILITY COMPANY (GMP, ET AL.)

THE CONTRACTOR IS TO NOTIFY "DIG-SAFE" 48 HOURS PRIOR TO ANY EXCAVATION AT 1-800-225-4977

MONTPELIER
HIGH SCHOOL

20 10 0 20 40 60 80

#	REVISIONS	DATE	#	REVISIONS	DATE
1	REVISED PATH ALIGNMENT	6/17/98			

SURVEY: PEA
CALCULATED: NPN/LDY
PLOT: BAILREV3
DESIGN: DAW
DRAFT: NPN
CHECKED: LDY
APPROVED: KWP
DATE: 4/9/97
SCALE: 1"=20'

PROJ. NO. 6829

SHEET 14 OF 132

PLAN VIEW – STA 121+00-STA 129+00

WINOOSKI RIVER WEST
BIKE PATH
MONTPELIER, VERMONT

FAX. (802)-658-3629 P.E.A. BUS. (802)- 658-3568
PINKHAM ENGINEERING ASSOCIATES, INC.
50 Joy Drive, P.O. Box 2225, South Burlington, VT 05407

WINOOSKI RIVER

STA 132+64 RT
PROVIDE RISER POLE WITH METER CHANNEL AND WATERPROOF CIRCUIT BREAKER DISCONNECT SWITCH. INSTALL TWO No. 4 & ONE #10 GROUND IN 1 1/4" CONDUIT FOR EASTERLY CIRCUIT AND TWO No. 4 & ONE #10 GROUND FOR WESTERLY CIRCUIT, STREET LIGHTING, ITEM 679 (MOD.). CONTRACTOR TO ARRANGE WITH GMP TO PROVIDE SECONDARY ELECTRICAL SERVICE.

EDGE OF RIVER

LIGHT POLE STA 132+75 RT

POLE GMP 21/01 W/GUY PRI. HAS NO TRANSF./SEC

REMOVE PINES

LIGHT POLE STA 131+90 RT

STA 130+81 TO 131+81 RT EXISTING FENCELINE TO BE REMOVED

LIGHT POLE STA 131+05 RT

EXISTING TREELINE

STA 129+55 TO STA 130+23 TO 130+61 RT EXISTING BACKSTOP TO BE RELOCATED ITEM 620.50 (MODIFIED BACKSTOP)

PI 130+24.50 BK
=130+06.13 AHD
Δ = 40° 56' 54" LT

STA 129+55.56
NEW 12"x30" CMSP W/RICO & C.I. GRATE TYPE D @ INLET & 4'X 8' STONE PAD, TYPE I @ OUTLET
CHANGE ELEVATION OF DI (ADDITIONAL)

LIGHT POLE STA 130+20 RT

14" MAPLE TO BE REMOVED

TOP OF BANK LIGHT POLE STA 129+35 RT

PI 134+41.77 BK
=134+32.81 AHD
Δ = 31° 20' 55" LT

LIGHT POLE STA 134+45 RT

TOP OF BANK

LIGHT POLE STA 133+60 RT

REMOVE MAPLE

S 87° 11' 04" W

EXISTING VEGETATION TO REMAIN

REV PC 133+21.78

REV PT 133+14.68

EC 132+63.13

PT 132+20.06

STA 131+18.09
6.04' LT

14" PINE TO BE REMOVED

EXISTING 36" RCP SAN. SEWER

REV CURVE #15
Δ = 24° 22' 60" LT
D = 8° 53' 02"
R = 644.95'
T = 139.34'
L = 274.47'
E = 14.88'

CURVE #15
Δ = 31° 20' 55" LT
D = 9° 00' 00"
R = 636.62'
T = 178.64'
L = 348.32'
E = 24.59'

EXISTING SOFTBALL DIAMOND TO BE RELOCATED

REV CURVE #14
Δ = 46° 34' 29" LT
D = 9° 58' 17"
R = 576.53'
T = 248.14'
L = 468.65'
E = 51.13'

INSTALL NEW 6' CHAIN LINK FENCE STA 129+00~131+00 LT STANDARD F-3 TYPE III W/ TOP RAIL TOP SELVAGE OF FENCE TO BE "KNUCKLED OVER"

℄ = 10°-55'-45" LT
R = 576.53'

CROSS LINE

SKINNED AREA

84' 10 1/4"

PROPOSED SITE OF RELOCATED SOFTBALL DIAMOND

16' DIA.

CURVE #14
Δ = 40° 56' 54" LT
D = 10° 00' 00"
R = 572.96'
T = 213.93'
L = 409.48'
E = 38.63'

N/F MONTPELIER HIGH SCHOOL

SEE MISCELLANEOUS DETAIL SHEET 37 OF 132 FOR TYPICAL SECTION OF SKINNED AREA

MONTPELIER HIGH SCHOOL

SOFT BALL FIELD SURVEY BASELINE
INTERIOR BUILDING CORNER = STA 50+00

RELOCATED BACKSTOP
ITEM 620.50 (MODIFIED BACKSTOP)

THE CONTRACTOR IS TO NOTIFY "DIG-SAFE" 48 HOURS PRIOR TO ANY EXCAVATION AT 1-800-225-4977

20 10 0 20 40 60 80

S.I.T.
14" MAPLE
63.28'
SPIKE IN POLE
GMP 21-01
12.0'

STA 133+13.47
13.05' LT
REBAR & CAP

POLE
GMP 21-01
65.6'
55.40'
SMH

PC 132+63.13

45.60'
28.3'
16.10'
POLE
GMP 21-01
RED PINE
16.60'
SMH

PT 132+20.06

END BACKSTOP
S.I.T.
14" PINE
52.96'
11.5'

STA 131+18.09
6.04' LT
REBAR & CAP

#	REVISIONS	DATE	#	REVISIONS	DATE
1	REVISED PATH ALIGNMENT	6/17/98			

SURVEY: PEA
CALCULATED: NPN/LDY
PLOT: BALLREV1
DESIGN: DAW
DRAFT: NPM/JMM
CHECKED: LDY
APPROVED: KWP
DATE: 4/9/97
SCALE: 1"=20'

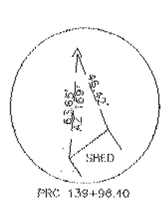
PROJ. NO. 6829

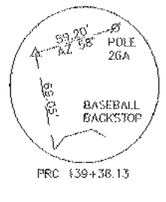
SHEET 15 OF 132

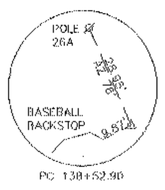
PLAN VIEW - STA 129+00~STA 135+00

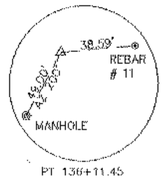
WINOOSKI RIVER WEST
BIKE PATH
MONTPELIER, VERMONT

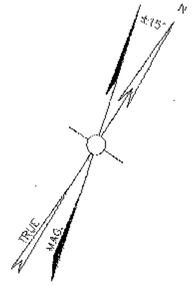
FAX. (802)-658-3529 P.E.A. BUS. (802)- 658-5598
PINKHAM ENGINEERING ASSOCIATES, INC.
50 Joy Drive, P.O. Box 2225, South Burlington, VT 05407











WINOOSKI RIVER

CURVE #17
Δ = 33° 33' 30" LT
D = 57° 35' 11"
R = 99.50'
T = 30.00'
L = 58.28'
E = 4.42'

CURVE #16
Δ = 25° 00' 40" RT
D = 29° 20' 43"
R = 195.25'
T = 43.31'
L = 85.23'
E = 1.75'

STA 138+33.84
NEW 15"ø RCP W/FES
SPECIAL DITCH AND 10'x4' STONE PAD, TYPE I @ OUTLET
55'

PRC 139+95.40

LIGHT POLE
STA 139+41 RT

PRC 139+36.13

PI 139+68.13 BK
=139+66.40 AHD
Δ = 33° 33' 30" LT

LIGHT POLE
STA 138+56 RT

POLE W/GUY
GMP 26/01
(TRANSF.)

PI 138+62.21 BK
=138+60.48 AHD
Δ = 25° 00' 40" RT

~~E-107, TYPE III OBJECT MARKER STA 138+60 LT~~

EDGE OF RIVER

LIGHT POLE
STA 137+71 RT

LIGHT POLE
STA 136+86 RT

POT 136+61.64 BK
= 136+48.14 AH
EQ.=+13.52

STA 136+40
NEW 15"ø RCP W/FES & CT GRATE
TYPE S @ INLET
49'

LIGHT POLE
STA 136+15 RT

LIGHT POLE
STA 135+38 RT

TOP OF BANK

PT 136+11.45

STA 135+72.91
1.17' RT

S 55° 60' 00" W

139 138 137 136 135

EXISTING STORM DROP CHAMBER

PI 138+96.21 BK
=138+94.82 AHD
Δ = 25° 00' 40" RT

INSTALL NEW DOUBLE GUY WIRE SUPPORT SYSTEM. REMOVE EXISTING SINGLE GUY WIRE. WORK BY OTHERS

INSTALL NEW 8' CHAIN LINK FENCE STA 137+00–136+60 LT STANDARD F-3 TYPE III, MOD.
LEAVE 3' OPENING @ BACKSTOP

36" RCP SAN. SEWER

POT 136+51.53 BK
= 136+48.12 AH
EQ.=+3.81

REV PT 135+96.23

STORAGE SHED

REV PC 139+43.22

STA 138+60 TO 138+74 LT
RELOCATE THIS LEG OF BACKSTOP TO BE NO CLOSER THAN 8' TO PATH CENTERLINE, ITEM 620.50 (MOD.)

EXISTING BACKSTOP TO REMAIN
RE-MESH, NEW

REV CURVE #16
Δ = 21° 40' 29" RT
D = 19° 05' 55"
R = 300.00'
T = 57.43'
L = 113.49'
E = 5.45'

EXISTING BASEBALL DIAMOND TO REMAIN

N/F
MONTPELIER
HIGH SCHOOL

THE CONTRACTOR IS TO NOTIFY "DIG-SAFE" 48 HOURS PRIOR TO ANY EXCAVATION AT 1-800-225-4977

20 10 0 20 40 60 80

#	REVISIONS	DATE	#	REVISIONS	DATE
1	REVISED PATH ALIGNMENT	6/17/98			

SURVEY:	PEA
CALCULATED:	NPN/LDY
PLOT:	BALLREV2
DESIGN:	DAW
DRAFT:	NPN/JMM
CHECKED:	LDY
APPROVED:	KWP
DATE:	4/9/97
SCALE:	1"=20'

PROJ. NO. 6829

SHEET 16 OF 132

PLAN VIEW – STA 135+00–STA 140+00

WINOOSKI RIVER WEST
BIKE PATH
MONTPELIER, VERMONT

FAX. (802)-658-3029 P.E.A. BUS. (802)- 658-5586
PINKHAM ENGINEERING ASSOCIATES, INC.
60 Joy Drive, P.O. Box 2220, South Burlington, VT 05407

WINOOSKI RIVER

STA 145+55 RT ✓ CHANGE ELEVATION OF SEWER MANHOLE

TOB
22.24' CENTER MANHOLE
20'
30.56' SPIKE IN POLE NET 1
PI 145+33.07 BK
145+32.40 AHD
REBAR & CAP

8" MAPLE
POLE 27
46.50' AZ 282°
19.70'
PC 144+59.18

24" MAPLE
42.80' AZ 185°
6TH POST ON FENCE
PT 142+88.33

STA 142+88.67 NEW 18"x24" CRIP W/ CPEPES @ INLET & OUTLET

8" MAPLE
13.65' AZ 29°
32.10'
6" DEAD MAPLE
PC 141+25.99

6" DEAD MAPLE
30" MAPLE
19.35'
14.75' AZ 43°
PT 140+95.64

STA 145+02 RT.
PROVIDE RISER POLE WITH METER CHANNEL AND WEATHERPROOF CIRCUIT BREAKER DISCONNECT SWITCH.
INSTALL TWO No. 6 & ONE #10 GROUND IN 1 1/4" CONDUIT, EASTERLY CIRCUIT AND TWO No. 8 & ONE #10 GROUND IN 1 1/4" CONDUIT, WESTERLY CIRCUIT FOR STREET LIGHTING, ITEM 679, (MOD.).

REV CURVE #20
Δ = 0° 09' 58" RT
D = 1° 39' 18"
R = 3461.81
T = 5.00
L = 10.00
E = 0.004'

REV CURVE #19
Δ = 7° 45' 35" RT
D = 38° 11' 50"
R = 150.00'
T = 10.17'
L = 20.31'
E = 0.34'

STA 140+50 RT TO 145+50 RT. INSTALL STONE FILL, TYPE IV, WITH ROCK DEFLECTIONS, ITEM 613.13

DENSE PLANTINGS AND STREAM BANK SEEDING
STA 140+30 RT – 140+85 RT
STA 141+00 RT – 142+00 RT
SEE SHEET 38A OF 132

REV CURVE #16
Δ = 21° 40' 29" RT
D = 19° 05' 55"
R = 300.00'
T = 57.43'
L = 113.49'
E = 5.45'

STA 140+60 RT TO 142+20 RT, INSTALL NEW 6' CHAIN LINK FENCE, STD. F-3, TYPE III, MOD.

CONSTRUCT ROCK DEFLECTION OF TYPE IV STONE (SEE DETAIL SHEET 38A OF 132).

RETAIN EXISTING CONCRETE MONUMENT

REMOVE & DISPOSE OF GRANITE SLAB, ITEM 204.21

EDGE OF RIVER

REV PT 142+83.33 AHD
EQ. = POT 142+83.33 BK + 2.47
REV PC 142+86.00

REV PT 142+07.08
REV PC 141+98.74

PI 142+07.21 BK
=142+07.11 AHD
Δ = 4°52'13" LT.

END NARROW BIKE PATH TYPICAL, STA 142+17

CURVE #19
Δ = 9° 32' 18" LT
D = 19° 07' 15"
R = 299.65'
T = 25.00'
L = 49.88'
E = 1.04'

CURVE #18
Δ = 22° 35' 39" RT
D = 45° 47' 00"
R = 125.15'
T = 25.00'
L = 49.35'
E = 2.47'

PI 140+70.75 BK
=140+70.64 AHD
Δ = 9° 32' 18" LT

PI 140+21.40 BK
=140+20.75 AHD
Δ = 22° 35' 39" RT

PRC 139+86.40
PRC 140+45.75

LIGHT POLE STA 145+36 RT
LIGHT POLE STA 144+51 RT
LIGHT POLE STA 143+66 RT
LIGHT POLE STA 142+81 RT
LIGHT POLE STA. 142+22 RT.
LIGHT POLE STA. 141+95 RT
LIGHT POLE STA. 141+11 RT.
LIGHT POLE STA. 140+58 RT.
LIGHT POLE STA 140+26 RT

DES. PRI. POLE W/GUY CMP 1 (TRANSF.)

TOP OF BANK

S 55° 28' 27" W

CLUMP SAVE
CLUMP REMOVE
24" BEECH SAVE
14" BEECH SAVE
12" Y. BIRCH SAVE
24" Y. BIRCH & ASH REMOVE
3 SMALL MAPLES SAVE
12" MAPLE REMOVE
8" ASH REMOVE
2-8" ASH REMOVE
10" ASH SAVE
DEAD 24" BEECH REMOVE
12" BEECH SAVE
12" W. BIRCH SAVE
12" W. BIRCH SAVE

+ Chainlink Fence

30" RCP SAN. SEWER (APPROX. LOCATION)

BEGIN NARROW BIKE PATH TYPICAL, STA 140+61

INSTALL NEW 6' CHAIN LINK FENCE STA 140+60~142+20 LT STANDARD F-3 TYPE III, MOD.

CURVE #21
Δ = 13° 14' 25" LT
D = 9° 00' 00"
R = 636.62'
T = 73.89
L = 147.11
E = 4.27

GUARDRAIL, PLANK WITH WOOD POSTS STANDARD G-4
STA 144+78~146+00 LT

MUTCD D11-1 STA 144+77 12' LT

MUTCD R5-3 STA 144+68 12' LT

MUTCD D1-1b (R) DOWNTOWN 1
MUTCD D1-1b (L) REC FIELDS
STA 144+72 8' RT

WOOD GUIDE POST, MOD. STA 144+73 LT. 75
Guide Posts Sta. 144+75 Lt. = 2

N/F STATE OF VERMONT DEPT. OF EMPLOYMENT AND TRAINING

EXISTING EDGE OF GRAVEL

POT 143+98.72 BK
POT 143+95.55 AH
EQ. = +3.17

GUARDRAIL, PLANK WITH WOOD POSTS STANDARD G-4
STA 143+32~144+88 LT
35~146+00

STA 143+24 ± LT
REMOVE EXISTING 6' FENCE FROM CONC. MONUMENT SOUTH 25 FEET

PROVIDE NEW 6' HIGH END POST BAR BAND AND STRETCHER PER STANDARD F-3

E-107, TYPE III STA 143+22 8' LT BACK TO BACK

NO MOTOR VEHICLES STA 143+50 LT.

Guide Posts Sta. 143+50 Lt. = 2

EXISTING 6' CHAIN LINK FENCE

N/F STATE OF VERMONT

N/F MONTPELIER HIGH SCHOOL

CURVE #20
Δ = 4° 52' 13" LT
D = 3° 00' 00"
R = 1909.86'
T = 81.22
L = 162.34
E = 1.73

REV CURVE #18
Δ = 12° 25' 53" LT
D = 38° 11' 50"
R = 150.00'
T = 16.34'
L = 32.55'
E = 0.89

REV CURVE #17
Δ = 16° 27' 00" LT
D = 57° 17' 45"
R = 100.00'
T = 16.24'
L = 32.20'
E = 1.31'

REV PC 141+83.33
REV PT 141+83.79
REV PC 141+11.80
REV PT 141+25.99
REV PC 140+59.84
REV PT 140+95.64
REV PC 140+58.71

NOTE:
EXISTING 440 YD. TRACK TO BE RECONFIGURED TO 400 METERS BY MODIFICATIONS AT THIS END. SEE TRACK DETAILS, SHEET 37 OF 132.
INSTALL TREATED TIMBER CURB (MODIFIED A) ITEM 618.35 (MOD.A) 2"X8" 0.40 CCA PT WOOD BORDER INSIDE AND OUTSIDE EDGE OF TRACK, TYP.

REGRADE TRACK SURFACE IN ITS ENTIRETY TO MAKE UNIFORM FINISHED SURFACE THROUGHOUT.

106.25' RADIUS
OLD 440 YARD RADIUS POINT
EXISTING EDGE OF TRACK
PROPOSED EDGE OF TRACK
1.82'
NEW 400 METER RADIUS POINT
106.25' RADIUS
APPROXIMATE RADIUS OF EXISTING TRACK AS DETERMINED FROM FIELD MEASUREMENTS
LONG AXIS OF EXISTING TRACK AS DETERMINED FROM FIELD MEASUREMENTS

STORAGE SHED

THE CONTRACTOR IS TO NOTIFY "DIG-SAFE" 48 HOURS PRIOR TO ANY EXCAVATION AT 1-800-225-4977

20 10 0 20 40 60 80

#	REVISIONS	DATE	#	REVISIONS	DATE
1	REVISED ALIGNMENT	5/8/98			
2	ADDED TRACK DIMENSIONS	7/14/98			

SURVEY: PEA
CALCULATED: LDY
PLOT: 6829-R10
DESIGN: DAW,LDY
DRAFT: DH,NN,JM
CHECKED: DAW
APPROVED: KWP
DATE: 4/9/97
SCALE: 1"=20'

PROJ. NO. 6829

SHEET 17 OF 132

TRAKREV2.DWG

PLAN VIEW – STA 140+00~STA 146+00

WINOOSKI RIVER WEST
BIKE PATH
MONTPELIER, VERMONT

FAX (802)-658-3829 P.E.A. BUS. (802)- 658-5588
PINKHAM ENGINEERING ASSOCIATES, INC.
84 Joy Drive, P.O. Box 2225, South Burlington, VT 05407

STA 150+36.45 RT.
NEW 24"x40' CPEP
W/OPENES AT INLET AND
4'x8' STONE PAD TYPE II AT OUTLET
92
46'

S.I.T. 9" PINE — 15.72' — 14.74' — S.I.T. 6" PINE
PI 150+16.03 BK
150+15.61 AHD
REBAR & CAP

8" ASH — 31.15' — 28.08' AZ 356 — 8" ASH
PC 148+22.40

10" PINE — 14.10' — 22.70' AZ 2 — 10" PINE
PI 148+32.55

POLE 1101 — 31.55' — 30.85' AZ 6' — 6" PINE — EOP
PC 146+27.90

S.I.T. 5" ELM — 29.04' — 37.54' — S.I.T. 6" PINE
PI 147+30.62 BK
147+29.83 AHD
REBAR & CAP

6" PINE — 19.40' — 30.60' AZ 18° — 8" PINE — EOP
PT 146+06.30

STA 147+58
NEW 30"x24' CPEP W/OPENES & 5'x8' STONE PAD, TYPE II
@ INLET, OPENES & 5'x12' STONE PAD, TYPE II @ OUTLET.
40

TRUE
MAG
4°15' W

WINOOSKI RIVER

LIGHT POLE
STA. 147+86 RT.

EDGE OF RIVER

150+90~151+10 RT
SLOPE STABILIZATION
WITH STONE FILL TYPE I

PI 150+16.02 BK
= 150+15.61 AHD
Δ= 9°20'30" LT.

151
150
149
148
147

S 29° 57' 17" W

TOP OF BANK

EXISTING ASPHALT PILE
TO BE REMOVED
COMMON EXCAVATION
ITEM 203.15

PI 147+30.62 BK
= 147+29.83 AHD
Δ= 12°16'45" LT.

EDGE OF RIVER

END PATH LIGHTING AT
LIGHT POLE
STA 147+06 RT

EXISTING VEGETATION

EXISTING POLE
GMP 1/01 W/GUY

LIGHT POLE
STA 148+21 RT

CURVE #23
Δ = 9° 20' 30" LT
D = 5° 00' 00"
R = 1145.92'
T = 93.62'
L = 186.83'
E = 3.82'

PC 149+24.40

EXISTING CONCRETE
ANTENNA BASE
TO BE REMOVED.
COMMON EXCAVATION
ITEM 203.15

PT 148+32.55

APPROX. LOCATION
36" RCP SAN SEWER

STA. 147+10 LT.

NO
MOTOR
VEHICLES

2 GUIDE POSTS

S 42° 14' 02" W

CURVE #22
Δ = 12° 16' 45" LT
D = 6° 00' 00"
R = 954.93'
T = 102.72
L = 204.65
E = 5.51

PC 148+27.90

PT 146+06.30

GUARDRAIL, PRESSURE TREATED
PLANK AND POSTS, STANDARD C-4
STA 146+00~147+~~74~~ LT
45

EDGE OF GRAVEL

EDGE OF PAVEMENT

N/F
STATE OF
VERMONT

N/F
GREEN
MOUNTAIN
POWER

COVERED PARKING & STORAGE SHED

THE CONTRACTOR IS TO NOTIFY "DIG-SAFE"
48 HOURS PRIOR TO ANY EXCAVATION
AT 1-800-225-4977

20 10 0 20 40 60 80

#	REVISIONS	DATE	#	REVISIONS	DATE

SURVEY: PEA
CALCULATED: LDY
PLOT: 6829-R11
DESIGN: LDY,DAW
DRAFT: DH,NN,JM
CHECKED: DAW
APPROVED: KWP
DATE: 4/9/97
SCALE: 1"=20'

PROJ. NO. 6829

SHEET 18 OF 132

PLAN VIEW - STA 146+00~STA 151+00

WINOOSKI RIVER WEST
BIKE PATH
MONTPELIER, VERMONT

FAX. (802)-658-3629 P.E.A. BUS. (802)-658-5568
PINKHAM ENGINEERING ASSOCIATES, INC.
50 Joy Drive, P.O. Box 2225, South Burlington, VT 05407

WINOOSKI RIVER

TRUE
MAG.
+15°

REV CURVE 25A
Δ = 6°-00'-06" RT
D = 11°-58'-26"
R = 478.51'
T = 25.08'
L = 50.12'

NO MOTOR VEHICLES
STA 155+95 RT.

Guide Post (Mod.)
Sta. 155+95 ℄

EDGE OF RIVER

REV PC 156+87.22

REV PT 156+00.12

REV PC 156+00.00

6" C.I. WATER MAIN (APPROX. LOCATION)

TREATED TIMBER BIN TYPE RETAINING WALL
STA 155+26.5~155+46.5 RT

EXISTING SUPPORT POLE W/GUY GMP 2/001 TO REMAIN

6' CHAIN LINK FENCE, MOD.
STA 154+00~~156+10~~ RT
155+80

PI 157+00.49 BK
= 156+99.65 AHD
Δ = 18°22'54" RT.

EXISTING TIES TO BE REMOVED
STA 154+25~159+60
ITEM 901 12

NOTE:
WCRR RETAINS OWNERSHIP OF RAILS AND TRACKS TO BE REMOVED. CONTRACTOR TO COORDINATE WITH WCRR.

EXISTING ELECTRIC METER & POLE

EXISTING POLE NET 001 GMP 2/01 TO REMAIN

N/F
STATE OF VERMONT
DEPT. OF LIQUOR CONTROL

INSTALL NEW
6' CHAIN LINK FENCE, MOD
STA 155+77~155+87 LT
Bracing Assembly for Chain Link Fence ↑ typ.

STA. 155+93 LT.

155+26.70
10.94' RT

EXISTING SHED AND FOUNDATION TO BE REMOVED BY OTHERS PRIOR TO THE START OF CONSTRUCTION

154+26.50
11.00' RT

N/F
STATE OF VERMONT
DEPT. OF LIQUOR CONTROL

S 38° 04' 43" W

STA 154+46 LT
CHANGE ELEVATION OF SEWER MH

PT 153+77.60

EXISTING VEGETATION

EXISTING CHAIN LINK FENCE

STA 153+49.5
NEW 24" x 24" CPEP
W. CDEPCS ® INLET & TYPE II STONE PAD @ OUTLET

B.M.
RAILROAD SPIKE
POLE GMP 9 32-1
ELEV. 522.00'

PI 153+05.60 BK
= 153+04.47 AHD
Δ = 17° 24' 56" RT

CURVE #24
Δ = 17° 24' 56" RT
D = 12° 00' 00"
R = 477.46'
T = 73.13'
L = 145.13'
E = 5.57'

FOR OF BANK

EDGE OF RIVER

PC 152+32.47

EXISTING TREELINE

S 20° 36' 47" W

APPROX. LOCATION
36" RCP SAN. SEWER

PT 151+09.24

150+90~151+10 RT
SLOPE STABILIZATION WITH STONE FILL TYPE I

N/F
GREEN MOUNTAIN POWER

THE CONTRACTOR IS TO NOTIFY "DIG-SAFE" 48 HOURS PRIOR TO ANY EXCAVATION AT 1-800-225-4977

20 10 0 20 40 60 80

#	REVISIONS	DATE	#	REVISIONS	DATE
1	Length of Binwall	2/6/98			
2	Revised Alignment	4/24/98			

SURVEY:	PEA
CALCULATED:	LDY/NPN
PLOT:	6829-R12
DESIGN:	DAW
DRAFT:	NPN/JMM
CHECKED:	LDY
APPROVED:	KWP
DATE:	4/9/97
SCALE:	1"=20'

PROJ. NO. 6829

SHEET 19 OF 132

PLAN VIEW - STA 151+00~STA 157+00

WINOOSKI RIVER WEST
BIKE PATH
MONTPELIER, VERMONT

FAX. (802)-658-3629 P.E.A. bus. (802)-658-5588
PINKHAM ENGINEERING ASSOCIATES, INC.
60 Joy Drive, P.O. Box 2225, South Burlington, VT 05407

Lcrev1.dwg

155+26.70
10.94' RT
REBAR & CAP

154+26.50
11.00' RT
REBAR & CAP

PT 153+77.60

PI 153+05.60 BK
= 153+04.47 AHD
153+05 5.5' LT
REBAR & CAP

PC 152+32.47

PT 151+09.24

EDGE OF RIVER

N

±15°

TRUE

MAG.

WINOOSKI RIVER

SURV CURVE #25
Δ = 45° 28' 17" RT
D = 24° 00' 00"
R = 238.73'
T = 100.04'
L = 189.46'
E = 20.11'

CURVE #26
Δ = 27° 05' 23" RT
D = 38° 11' 50"
R = 150.00'
T = 36.14'
L = 70.92'
E = 4.29'

CURVE #25
Δ = 18° 22' 54" RT
D = 19° 05' 55"
R = 300.00'
T = 48.54'
L = 96.25'
E = 3.90'

REV CURVE #26
Δ = 24°-40'-38"
D = 57°-29'-58" RT
R = 100.00'
T = 21.87'
L = 43.07'

REV CURVE #25B
Δ = 14°-23'-58"
D = 13°-51'-55" RT
R = 413.23'
T = 52.20'
L = 103.85'

STA 157+88.45
NEW 15" RCP
W/INCOL & CI GRATE, TYPE D @ INLET
AND 4'X8' TYPE II STONE PAD AT OUTLET

STA 157+53
EXISTING 72" X 48" CSP ARCH
TO REMAIN

MATCH EXISTING PATH

POT 159+07.10 BK=
POT 159+12.95 AH
EQ.=-5.85

END PROJECT
159+12.95

TO DOG RIVER
RECREATION FIELDS

EXISTING PATH

S 83° 30' 00" W

TR #1
159+92.85

EXISTING TIES
TO BE REMOVED
STA 154+25~159+60
ITEM 901.12

REV PT 159+20.85

PT 159+01.92

SURV PT 158+96.90

REV PC 158+59.58

PC 158+31.00

REV PT 157+91.07

SURV PC 157+07.44

REV PC 156+87.22

PI 157+00.49 BK
= 158+99.65 AHD
Δ = 18°22'54" RT.

PI 158+67.14 BK
= 158+65.78 AHD
Δ = 27°05'23" RT.

SURV PI 158+07.48 BK
= 157+95.86 AHD
Δ = 45°28'17" RT.

36" RCP SANITARY SEWER
APPROXIMATE LOCATION

EXIST. 72"48 CSP ARCH

OHW

N/F
STATE OF VERMONT
DEPT. OF LIQUOR CONTROL

158

SURV PT 158+96.90
POLE
54.40'
27.25'
AZ 35°
8" ASH

TRAVERSE POINT
SURV 158+05 18.5' LT.
S.I.T.
3" ELM
58.12'
51.52'
REBAR & CAP CORNER
GUARDRAIL POST

SURV PC 157+07.44
4" ASH
AZ 309°
21.25'
70.30'
EOP
BLDG

THE CONTRACTOR IS TO NOTIFY "DIG-SAFE"
48 HOURS PRIOR TO ANY EXCAVATION
AT 1-800-225-4977

20 10 0 20 40 60 80

#	REVISIONS	DATE	#	REVISIONS	DATE
1	REVISED ALIGNMENT	4/24/98			

SURVEY:	PEA
CALCULATED:	NPN/LDY
PLOT:	6829-R13
DESIGN:	DAW
DRAFT:	NPN/JMM
CHECKED:	LDY
APPROVED:	KWP
DATE:	4/9/97
SCALE:	1"=20'

PROJ. NO. 6829

SHEET 20 OF 132

PLAN VIEW - STA 157+00~STA 159+12.95

WINOOSKI RIVER WEST
BIKE PATH
MONTPELIER, VERMONT

FAX. (802)-658-3629 P.E.A. BUS. (802)-658-5588
PINKHAM ENGINEERING ASSOCIATES, INC.
50 Joy Drive, P.O. Box 2225, South Burlington, VT 05407

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STA. 98+49.10 TO 104+00 NOT IN CONTRACT

+.025
℄ PROFILE
-.025

LT. SIDE +.020
RT. SIDE -.020
RT. SIDE +.020
LT. SIDE -.020

PT 103+82.70
PT 102+65.33
PCC 101+51.94
PC 100+70.59

BANKING DIAGRAM
1"=20' HORIZ.
1"=0.050 FT/FT VERT.

104+00 | 103+00 | 102+00 | 101+00 | 100+00 | 99+00 | 98+00 | 97+50

STA 101+46.94 TO STA 106+54
NOT IN CONTRACT

END NEW CONSTRUCTION
STA 101+46.94

END BRIDGE 100+27.80
RESUME PATH

BEGIN BRIDGE 98+92.70

BEGIN PATH 98+49.10

550 | 545 | 540 | 535 | 530 | 525 | 520 | 515 | 510 | 505 | 500

101+70
524.96
60' VC
K=16

102+50
521.96
60' VC
K=14

STA 101+34
℄ RAILROAD TRACKS
ELEV. 524.96

101+03
524.96
50' VC
K=10

100+53.00
522.46
50' VC
K=6

99+50.25
526.70
135.1' VC
K=14

-0.5294%
-3.7500%
0.0000%
5.0000%
-4.9889%
4.9889%
3.7385%

FLOOD OF RECORD (1927) - 526.5

BRIDGE NO. 1
NORTH BRANCH WINOOSKI RIVER

98+49.10
ELEV. 521.70

ORDINARY HIGH WATER - 514.2

FROM STA. 98+53.5 TO STA. 104+00
PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH
NO. BWM-BIKE(4)S
PINKHAM ENGINEERING ASSOCIATES, INC.
SHEET 23 OF 132 SHEETS

FILE: 8629-P1

STA. 104+00 TO 106+24 NOT IN CONTRACT

STA 101+46.94 TO STA 106+54
NOT IN CONTRACT

D = 5°-00'00" RT.
BANKING = NORMAL SECTION

D = 6°-50'-00" LT.
BANKING = NORMAL
ADJUSTED FOR APPROACH
TO TAYLOR STREET.

D = 15°-00'00" RT.
BANKING = 0.020 FT/FT

+.025
℄ PROFILE
-.025

LT. SIDE
NORMAL 0.020
RT. SIDE
LT. SIDE +0.020
RT. SIDE -0.020

EDGE OF TAYLOR STREET
℄ TAYLOR STREET
EDGE OF TAYLOR STREET

PC 108+89.19
PC 107+15.71
PT 106+30.10
PC 105+70.55
PT 105+55.97
PC 105+05.97
PT 104+10.25

BANKING DIAGRAM
1"=20' HORIZ.
1"=0.050 FT/FT VERT.

109+00 108+00 107+00 106+00 105+00 104+00

BEGIN NEW CONSTRUCTION
STA 106+54

PROFILE
1" = 5' VERT.
1" = 20' HORIZ.

G = +5.000%
G = +3.3750%
G = -1.1724%
G = 3.3077%
G = 0.0000%
G = +3.6234%
G = +0.5294%

108+91
522.30
40' VC
K=11

108+51
521.75
40' VC
K=16

107+06.00
523.45
50' VC
K=23

106+54
525.17
0' VC
K=0

106+24
526.19
0' VC
K=0

106+99
526.19
50' VC
K=14

105+22
523.40
50' VC
K=16

CHANGE ELEVATION OF EXISTING RCDI
TO MATCH NEW FINISHED GRADE

EXISTING 30" CSP

550 545 540 535 530 525 520 515 510 505 500

109+00 108+00 107+00 106+00 105+00 104+00

REVISED 6/10/98 REALIGN PATH 106+30.10 TO 109+00.00

FROM STA. 104+00 TO STA. 109+00
PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH
NO. BWM-BIKE(4)S
PINKHAM ENGINEERING ASSOCIATES, INC.
SHEET 24 OF 132 SHEETS

FILE: 8529P-2

D = 60°-18'-41" RT.
BANKING = 0.020 FT/FT

D = 21°-06'-19" LT.
BANKING = 0.020 FT/FT

+.025
℄ PROFILE
-.025

LT. SIDE -0.020
RT. SIDE -0.020
RT. SIDE +0.020
LT. SIDE -0.020
NORMAL 0.020
RT. SIDE AND LT. SIDE .00 FT/FT
LT. SIDE
RT. SIDE
RT. SIDE
LT. SIDE

RT. EDGE OF PAVEMENT 111+66.7 BK
= 111+74.7 AHD

PC 116+60.65
PCC 114+60.66
PC 113+66.66
PC 109+80.80
PC 109+62.92
PC 109+11.45

BANKING DIAGRAM
1"=20' HORIZ.
1"=0.050 FT/FT VERT.

115+00 114+00 113+00 112+00 111+00 110+00 109+00

STA 111+70.68 AH
=STA 111+75.60 BK
EQ. = +4.92

STA 111+68.64
END BRIDGE RESUME PATH

BEGIN BRIDGE
STA 109+90.64 ELEV. 526.73

550 545 540 535 530 525 520 515 510 505 500

G = -3.2838%
114+40
527.49
100' VC
K=23

G = +1.0768%

112+88.17
525.86
50' VC
K=22

PROPOSED 12" CPEP

G = -1.1618%

111+70.68
527.22
0' VC
K=0

G = -1.1425%

110+79.20
526.265
167' VC
K=27

G = +1.7166%

109+90.64
526.74
0' VC
K=0

+0.6431%

109+78.2
526.66
0' VC
K=0

FLOOD OF RECORD (1927) - 525.6

G = +5.000%

APPROXIMATE ORDINARY HIGH WATER - 519.0

BRIDGE NO. 2
WINOOSKI RIVER

PROFILE
1" = 5' VERT.
1" = 20' HORIZ.

FROM STA. 109+00 TO STA. 115+00
PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH
NO. BWM-BIKE(4)S
PINKHAM ENGINEERING ASSOCIATES, INC.
SHEET 25 OF 132 SHEETS

FILE: 6629P-3

D = 60°-18'-4" RT.
BANKING = 0.020 FT/FT

D = 21°-06'-19" LT.
BANKING = 0.020 FT/FT

+.025
℄ PROFILE
-.025

LT. SIDE -0.020
RT. SIDE -0.020
RT. SIDE +0.020
LT. SIDE -0.020
NORMAL 0.020
LT. SIDE
RT. SIDE
RT. SIDE AND LT. SIDE .00 FT/FT
RT. SIDE
LT. SIDE

RT. EDGE OF PAVEMENT 111+66.7 BK
= 111+74.7 AHD

PC 116+60.65
PCC 114+60.65
PC 113+66.66
PC 109+80.80
PC 109+62.92
PC 109+11.45

BANKING DIAGRAM
1"=20' HORIZ.
1"=0.050 FT/FT VERT.

115+00 114+00 113+00 112+00 111+00 110+00 109+00

STA 111+70.68 AH
=STA 111+75.60 BK
EQ. = +4.92

STA 111+68.64
END BRIDGE RESUME PATH

BEGIN BRIDGE
STA 109+90.64 ELEV. 526.73

550 545 540 535 530 525 520 515 510 505 500

G = -3.2536%
G = +1.0768%
G = -1.1615%
G = -1.1425%
G = +1.7166%
+0.6431%
G = +5.000%

114+40
527.49
100' VC
K=23

111+70.68
527.22
0' VC
K=0

110+79.20
526.265
167' VC
K=27

109+90.64
526.74
0' VC
K=0

109+78.2
526.66
0' VC
K=0

FLOOD OF RECORD (1927) - 525.6

PROPOSED 12" CPEP

112+88.17
525.86
50' VC
K=22

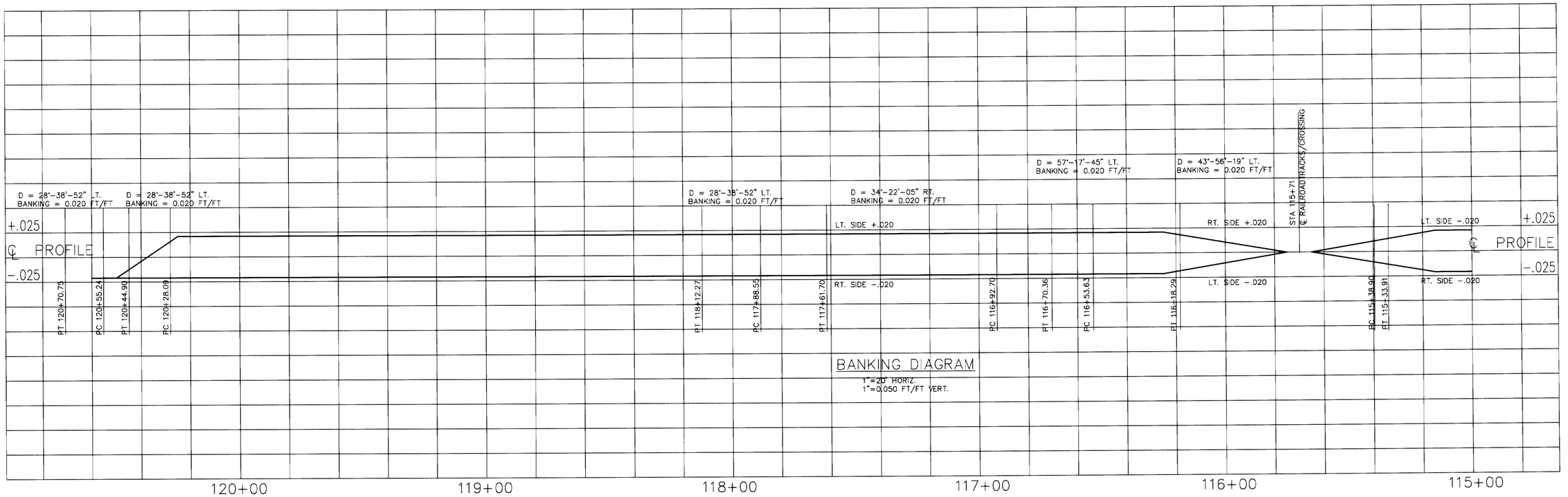
APPROXIMATE ORDINARY HIGH WATER - 519.0

BRIDGE NO. 2
WINOOSKI RIVER

PROFILE
1" = 5' VERT.
1" = 20' HORIZ.

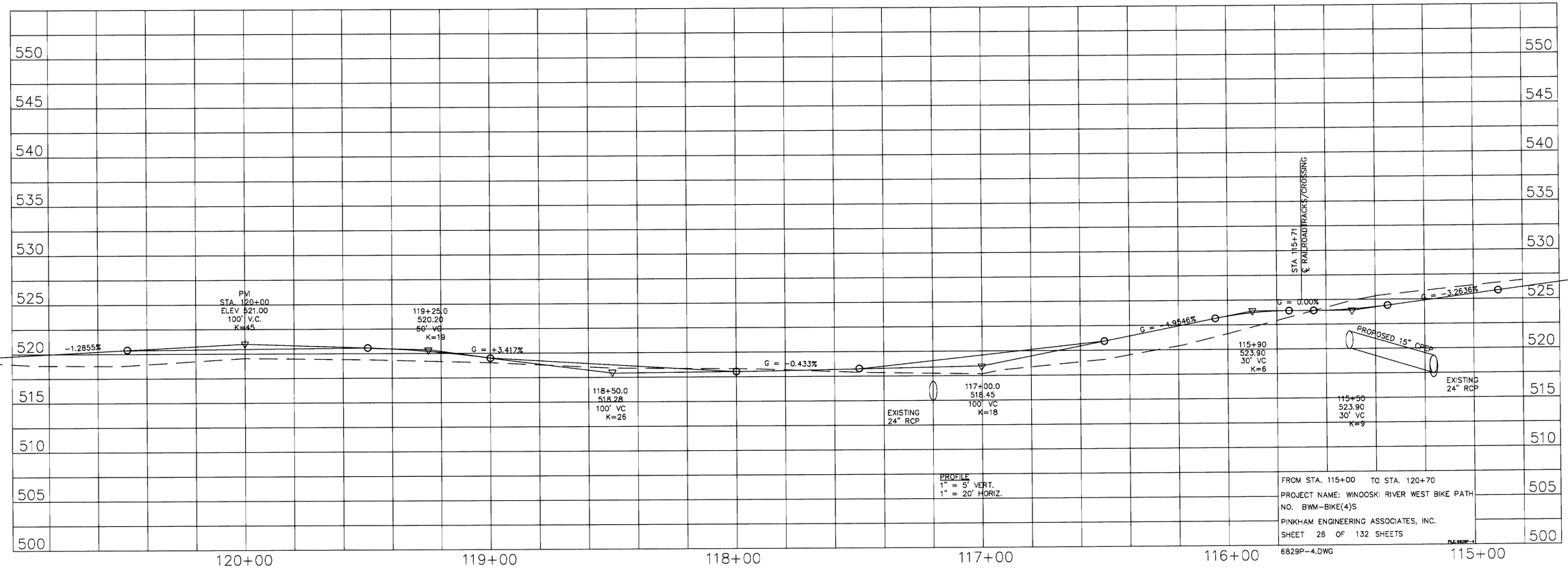
FROM STA. 109+00 TO STA. 115+00
PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH
NO. BWM-BIKE(4)S
PINKHAM ENGINEERING ASSOCIATES, INC.
SHEET 25 OF 132 SHEETS
FILE: 6629P-3

115+00 114+00 113+00 112+00 111+00 110+00 109+00



BANKING DIAGRAM

1"=20' HORIZ.
1"=0.050 FT/FT VERT.



PROFILE
1" = 5' VERT.
1" = 20' HORIZ.

FROM STA. 115+00 TO STA. 120+70
PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH
NO. BWM-BIKE(4)S
PINKHAM ENGINEERING ASSOCIATES, INC.
SHEET 26 OF 132 SHEETS

FILE: 6829P-4

6829P-4.DWG

D = 10°-00'-00" LT.
BANKING = 0.020 FT/FT

+.025
℄ PROFILE
-.025

RT. SIDE +0.020
LT. SIDE -0.020

PC 128+10.58

129+00

D = 43°-07'-04" LT.
BANKING = 0.020 FT/FT

RT. SIDE +0.020
LT. SIDE +0.020
NORMAL 0.020
LT. SIDE -0.020
RT. SIDE -0.020

POT 123+57.62
PCC 123+14.45
PC 122+62.05
POT 122+49.75

D=57°-16'-18" RT.
BANKING = 0.020 FT/FT
D=57°-17'-45" LT.
BANKING = 0.020 FT/FT

LT. SIDE +0.014
RT. SIDE +0.010
RT. SIDE -0.020
LT. SIDE -0.020

POT 121+99.15
PT 121+84.42
PCC 121+41.03
PC 120+85.01

+.025
℄ PROFILE
-.025

MAX. RATE OF CHANGE = 0.00067/FT

BANKING DIAGRAM
1"=20' HORIZ.
1"=0.050 FT/FT VERT.

125+00 124+00 123+00 122+00 121+00

PC 120+86.86 BK
=PC 120+85.01 AHD
EQ = +1.85

550 545 540 535 530 525 520 515 510 505 500

POT 125+58.74
= PC 128+10.58
EQ.= -251.84

G = -0.5682%
G = +0.7340%
G = +0.7340%
G = -2.0352%
G = +5.0000%
G = -1.2855 %

128+31.6
520.77
50' VC
K=39

123+04.55
518.75
40' VC
K=14

122+64.75
519.56
30' VC
K=4

122+49.75
518.81
0' VC

121+99.15
518.44
0' VC

STRIPING OF
EXISTING ROAD ONLY
BAILEY AVENUE
BACK OF SIDEWALK
EDGE OF BAILEY AVE.
EDGE OF BAILEY AVE.
BACK OF SIDEWALK

PROPOSED
15" CPEP

EXISTING
36" ACCGMP

EXISTING
24" CULVERT

PROFILE
1" = 5' VERT.
1" = 20' HORIZ.

FROM STA. 120+70 TO STA. 129+00
PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH
NO. BWM-BIKE(4)S
PINKHAM ENGINEERING ASSOCIATES, INC.
SHEET 27 OF 132 SHEETS

129+00 125+00 124+00 123+00 122+00 121+00

D = 9°-00'-00" LT.
BANKING = 0.020 FT/FT

D = 10°-00'-00" LT.
BANKING = 0.020 FT/FT

+.025
RT. SIDE +.020
℄ PROFILE
-.025
LT. SIDE -.020

PC 132+63.13
PT 132+20.06

RT. SIDE +.020
+.025
℄ PROFILE
-.025
LT. SIDE -.020

BANKING DIAGRAM
1"=20' HORIZ.
1"=0.050 FT/FT VERT.

135+00 134+00 133+00 132+00 131+00 130+00 129+00

550 545 540 535 530 525 520 515 510 505 500

G = -0.5000%

G = -1.2194%

133+33
520.08
50' VC
K=70

131+78
521.97
240' VC
K=116

G = +0.8513%

G = -0.5682%

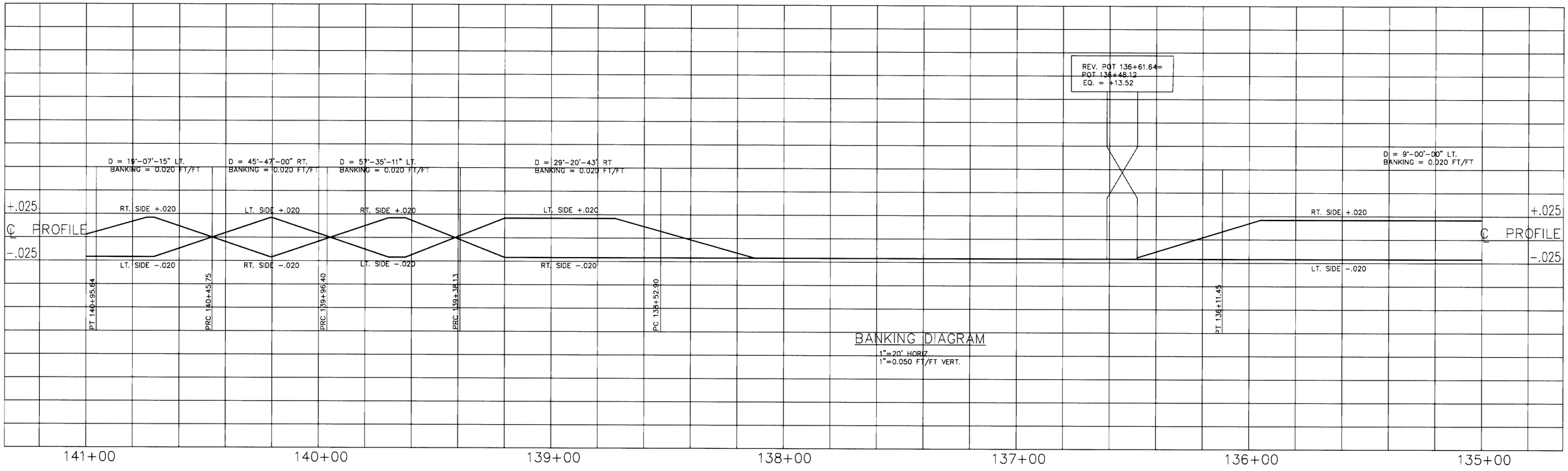
0
PROPOSED
12" CPEP

129+54.8
520.07
50' VC
K=35

PROFILE
1" = 5' VERT.
1" = 20' HORIZ.

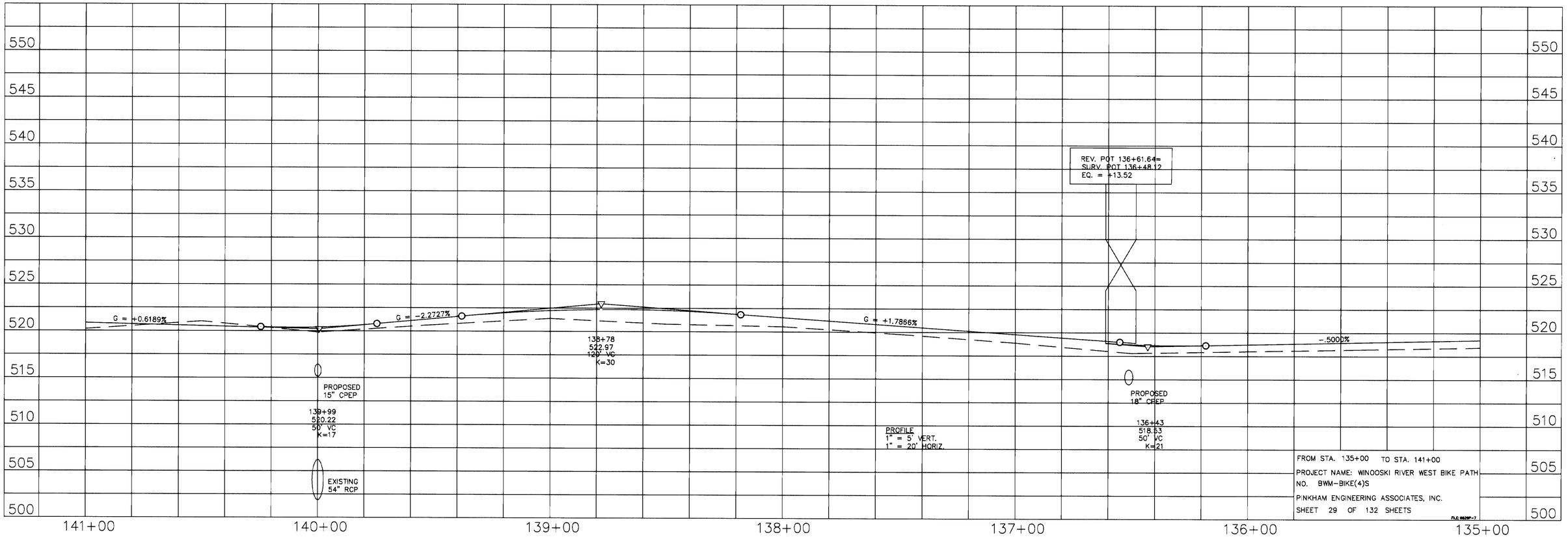
FROM STA. 129+00 TO STA. 135+00
PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH
NO.
PINKHAM ENGINEERING ASSOCIATES, INC.
SHEET 28 OF 132 SHEETS

135+00 134+00 133+00 132+00 131+00 130+00 129+00



BANKING DIAGRAM

1"=20' HORIZ
1"=0.050 FT/FT VERT.



FROM STA. 135+00 TO STA. 141+00
PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH
NO. BWM-BIKE(4)S
PINKHAM ENGINEERING ASSOCIATES, INC.
SHEET 29 OF 132 SHEETS
FILE 9629P-7

REV. POT 143+98.72
= POT 143+95.55
EQ. = +3.17

D = 9°-00'-00" LT.
BANKING = 0.020 FT/FT

+.025
℄ PROFILE
-.025

RT. SIDE +.020

LT. SIDE -.020

PC 144+59.18

PT 142+88.33

D = 3°-00'-00" LT.
BANKING = NORMAL

NORMAL 0.020 FT/FT

RT. SIDE

LT. SIDE

PC 141+25.99

+.025
℄ PROFILE
-.025

BANKING DIAGRAM

1"=20' HORIZ.
1"=0.050 FT/FT VERT.

146+00 145+00 144+00 143+00 142+00 141+00 140+00

REV. POT 143+98.72
= POT 143+95.55
EQ. = +3.17

G = +0.4976%

G = -0.498%

G = +0.6189%

CHANGE ELEVATION OF
EXISTING SEWER MANHOLE

PROPOSED
18" CPEP

142+75.3
521.93
50' VC
K=45

PROFILE
1" = 5' VERT.
1" = 20' HORIZ.

550 545 540 535 530 525 520 515 510 505 500

FROM STA. 141+00 TO STA. 146+00
PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH
NO. BWM-BIKE(4)S
PINKHAM ENGINEERING ASSOCIATES, INC.
SHEET 30 OF 132 SHEETS
FILE: 6629P-8

146+00 145+00 144+00 143+00 142+00 141+00 140+00

D = 5°-00'-00" RT.
BANKING = NORMAL SECTION

D = 6°-00'-00" LT.
BANKING = NORMAL SECTION

+.025
℄ PROFILE
-.025

PC 149+22.40
PT 148+32.55
PC 146+27.90
PT 146+08.30
R1 SIDE

BANKING DIAGRAM
1"=20' HORIZ.
1"=0.050 FT/FT VERT.

151+00 150+00 149+00 148+00 147+00 146+00

550 545 540 535 530 525 520 515 510 505 500

G = -0.5300%
G = +0.5158%
G = -0.4976%

150+98.3
518.40
50' VC
K=48
PROPOSED
24" CPEP

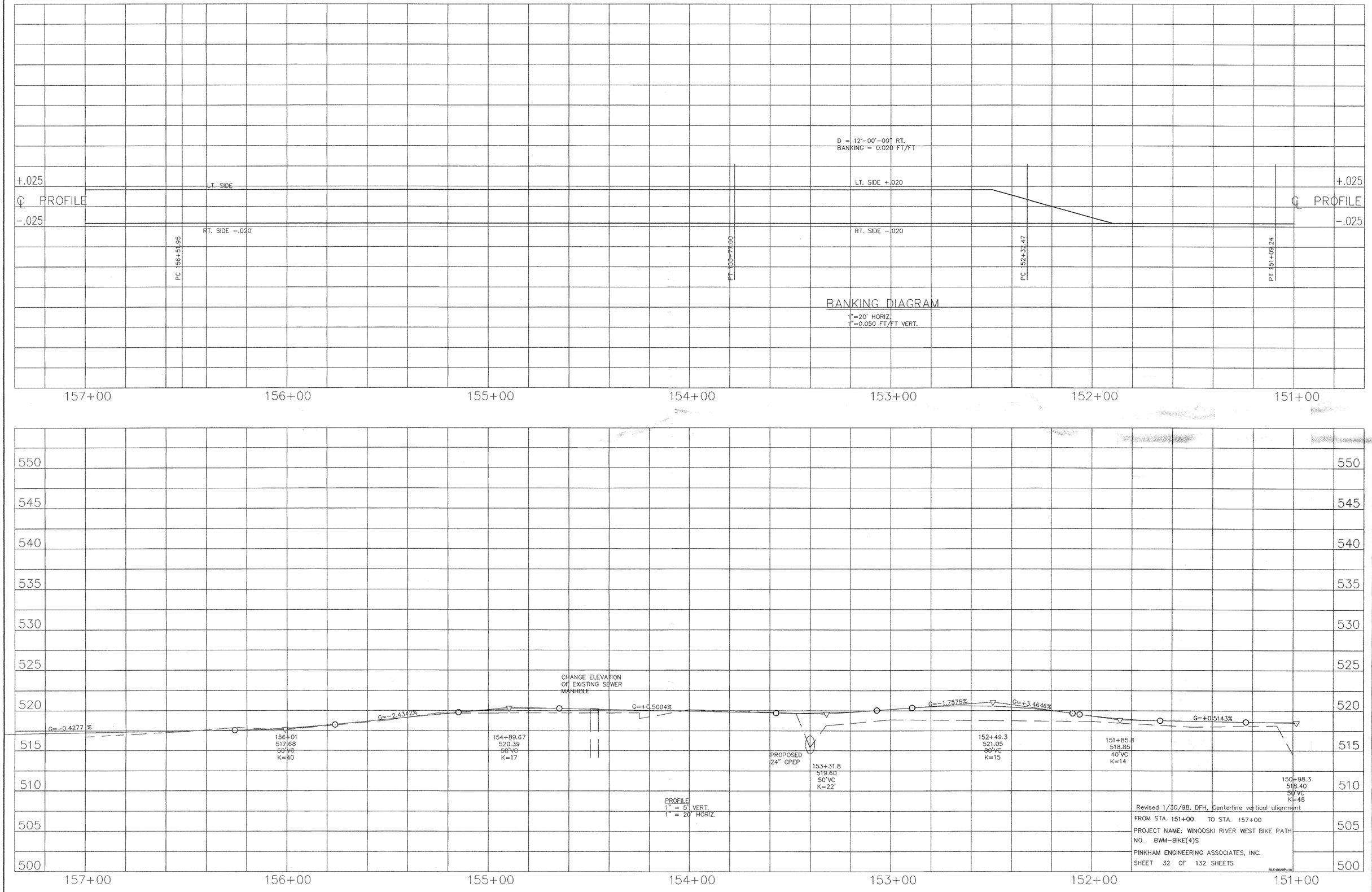
150+11.5
518.86
50' VC
K=48

149+51.4
518.55
50' VC
K=49

PROPOSED
30" CPEP

PROFILE
1" = 5' VERT.
1" = 20' HORIZ.

FROM STA. 146+00 TO STA. 151+00
PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH
NO. BWM-BIKE(4)S
PINKHAM ENGINEERING ASSOCIATES, INC.
SHEET 31 OF 132 SHEETS


D = 12°-00'-00" RT.
BANKING = 0.020 FT/FT
+.025
℄ PROFILE
-.025
LT. SIDE
RT. SIDE -.020
LT. SIDE +.020
RT. SIDE -.020
PC 156+51.95
PT 153+77.60
PC 152+32.47
PT 151+09.24
157+00
156+00
155+00
154+00
153+00
152+00
151+00
BANKING DIAGRAM
1"=20' HORIZ.
1"=0.050 FT/FT VERT.
550
545
540
535
530
525
520
515
510
505
500
G=-0.4277 %
G=-2.4342%
G=+0.5004%
G=-1.7576%
G=+3.4646%
G=+0.5143%
CHANGE ELEVATION OF EXISTING SEWER MANHOLE
156+01
517.68
50'VC
K=40
154+89.67
520.39
50'VC
K=17
PROPOSED 24" CPEP
153+31.8
519.60
50'VC
K=22'
152+49.3
521.05
80'VC
K=15
151+85.8
518.85
40'VC
K=14
150+98.3
518.40
50'VC
K=48
PROFILE
1" = 5' VERT.
1" = 20' HORIZ.
Revised 1/30/98, DFH, Centerline vertical alignment
FROM STA. 151+00 TO STA. 157+00
PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH
NO. BWM-BIKE(4)S
PINKHAM ENGINEERING ASSOCIATES, INC.
SHEET 32 OF 132 SHEETS
FILE:6829P-10

TRAFFIC SIGN SUMMARY SHEET

STATION	SIGN LEGEND	NEW SIGNS				NEW SIGN POSTS			REMARKS
		SIGN DIMENSIONS	MUTCD NO.	SHEET NO.	AREA	NUMBER OF POSTS	FLANGED CHANNEL 2.0 LB/FT.	FLANGED CHANNEL 3.0 LB/FT.	
98+45 RT	STOP	18"x18"	R1-1	10	2.25				
98+45 LT	NO MOTOR VEHICLES	24"x24"	R5-3	10	4.0	1		X	
98+90 RT	BIKE ROUTE M7-1	24"x18" 12"x9"	D11-1 M7-1	10 10	3.0 .75	1	X		
98+97 RT		12"x36"	E-107 TYPE III	10	3.0				ATTACH TO BRIDGE STRUCTURE
98+97 LT		12"x36"	E-107 TYPE III	10	3.0				ATTACH TO BRIDGE STRUCTURE
98+97 LT	M4-12 BIKE ROUTE	12"x4" 24"x18"	M4-12 D11-1	10 10	.25 3.0	1	X		
99+76 RT	STOP AHEAD	18"x18"	W3-1	10	2.25	1	X		
100+27 LT		12"x36"	E-107 TYPE III	10	3.0				ATTACH TO BRIDGE STRUCTURE
100+27 RT		12"x36"	E-107 TYPE III	10	3.0				ATTACH TO BRIDGE STRUCTURE
100+52 RT	STOP AHEAD	18"x18"	W3-1	10	2.25	1	X		
100+52 RT		18" DIA.	W10-1	10	1.76	1	X		
101+44 RT	STOP M4-12 BIKE ROUTE	18"x18" 12"x4" 24"x18"	R1-1 M4-12 D11-1	10 10 10	2.25 .25 3.0	1		X	
101+44 LT	BIKE ROUTE M7-1 NO MOTOR VEHICLES	24"x18" 12"x9" 24"x24"	D11-1 M7-1 R5-3	10 10 10	3.0 .75 4.0	1		X	
108+54 ±250' RT TAYLOR ST.		30"x30"	W11-1	11	6.25	1		43.5 X	SEE SHEET 36
106+54 ±250' LT TAYLOR ST.		30"x30"	W11-1	11	6.25	1		42 X	SEE SHEET 36
106+59 RT	NO MOTOR VEHICLES BIKE ROUTE M7-1	24"x24" 24"x18" 12"x9"	R5-3 D11-1 M7-1	11 11 11	4.0 3.0 .75	1		43.5 X	SEE SHEET 36 SEE SHEET 36 SEE SHEET 36
106+59 LT	STOP M4-12 BIKE ROUTE	18"x18" 12"x4" 24"x18"	R1-1 M4-12 D11-1	11 11 11	2.25 .25 3.0	1		42 X	SEE SHEET 36 SEE SHEET 36
~~108+00~~ 107+52 LT	STOP AHEAD	18"x18"	W3-1	11	2.25	1	25 X		SEE SHEET 36
108+~~84~~ 35 RT	STOP AHEAD	18"x18"	W3-1	11	2.25	1	25 X		SEE SHEET 36
109+62 RT	STOP	18"x18"	R1-1	12	2.25	1	24 X		SEE STD E-143
109+81 RT		12"x36"	E-107 TYPE III	12	3.0				SEE STD E-107 & E-120 ATTACH TO BRIDGE STRUCTURE
109+91 LT		12"x36"	E-107 TYPE III	12	3.0				SEE STD E-107 & E-120 ATTACH TO BRIDGE STRUCTURE
109+96 LT	STOP	18"x18"	R1-1	12	2.25	1	24 X		SEE STD E-143
TOTALS					40.75		~~98~~ 4	~~171~~ 4	

STATION	SIGN LEGEND	NEW SIGNS				NEW SIGN POSTS			REMARKS
		SIGN DIMENSIONS	MUTCD NO.	SHEET NO.	AREA	NUMBER OF POSTS	FLANGED CHANNEL 2.0 LB/FT.	FLANGED CHANNEL 3.0 LB/FT.	
111+69 RT		12"x36"	E-107 TYPE III	12	3.0				SEE STD E-107 & E-120 ATTACH TO BRIDGE STRUCTURE
111+69 LT		12"x36"	E-107 TYPE III	12	3.0				SEE STD E-107 & E-120 ATTACH TO BRIDGE STRUCTURE
111+71 RT	STOP	18"x18"	R1-1	12	2.25	1	25 X		SEE STD E-143
111+77 LT	BIKE ROUTE M7-5 NO MOTOR VEHICLES	24"x18" 12"x9" 24"x24"	D11-1 M7-5 R5-3	12 12 12	3.0 .75 4.0	1		43.5 X	SEE SHEET 36 SEE SHEET 36 SEE SHEET 36
111+87 LT	STOP	18"x18"	R1-1	12	2.25	1	24 X		SEE STD E-143
~~113+00~~ ~~112+73~~ L1	STOP AHEAD	18"x18"	W3-1	12	2.25	1	26 X		SEE SHEET 36
113+75 ~~115+10~~ RT		18" DIA.	W10-1	13	1.76	1	~~X~~	40.5 X	SEE SHEET 36
117+80 ~~116+30~~ LT		18" DIA.	W10-1	13	1.76	1	~~X~~	40.5 X	SEE SHEET 36
120+50 ~~121+00~~ RT	STOP AHEAD	18"x18"	W3-1	13	2.25	1	25 X		SEE SHEET 36
121+97 RT	STOP	18"x18"	R1-1	14	2.25	1	24 X		SEE STD E-143
121+97 LT	NO MOTOR VEHICLES	24"x24"	R5-3	14	4.0	1	25 X		SEE SHEET 36
122+00 RT	BIKE ROUTE M7-5	24"x18" 12"x9"	D11-1 M7-5	17 12	3.0 .75	1		39 X	SEE SHEET 36 SEE SHEET 36
122+52 ±250' RT BAILEY AVE.		30"x30"	W11-1	14	6.25	1		0 X	SEE SHEET 36
122+00 ±250' LT BAILEY AVE.		30"x30"	W11-1	14	6.25	1		40.5 X	SEE SHEET 36
122+52 LT	BIKE ROUTE M7-5	24"x18" 12"x9"	D11-1 M7-5	17 12	3.0 .75	1		40.5 X	SEE SHEET 36 SEE SHEET 36
122+52 RT	NO MOTOR VEHICLES	24"x24"	R5-3	14	4.0	1	25 X		SEE SHEET 36
122+52 LT	STOP	18"x18"	R1-1	14	2.25	1	24 X		SEE STD E-143
~~124+00 LT~~ ~~123+50 LT~~	STOP AHEAD	18"x18"	W3-1	14	2.25	1	25 X		SEE SHEET 36
ELIMINATED ~~138+60 LT~~		12"x36"	E-107 TYPE III	18	3.0				~~SEE STD E-107 & E-120 ATTACH TO BACKSTOP FENCE~~
143+~~22~~ 25 LT		12"x36"	E-107 TYPE III	17	3.0	1	26 X		SEE STD E-107 & E-120
143+~~22~~ 25 LT		12"x36"	E-107 TYPE III	17	3.0	1	~~X~~		BACK TO BACK WITH SIGN ABOVE
144+68 LT	NO MOTOR VEHICLES	24"x24"	R5-3	17	4.0	1	26 X		SEE SHEET 36
144+72 RT	D1-1b(R) D1-1b(L)	6"x24" 6"x24"	D1-1b(R) D1-1b(L)	17 17	1.0 1.0	1	24 X		SEE SHEET 36 SEE SHEET 36
144+77 LT	BIKE ROUTE	24"x18"	D11-1	17	3.0	1	24 X		SEE SHEET 36
TOTALS					85.02		~~323~~ 16	244.5 5	

FINAL LENGTHS ARE TO BE DETERMINED IN THE FIELD, POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE DESIGN DIVISION'S "SIGN POST DESIGN MANUAL".

PROJECT NAME MONTPELIER-WINOOSKI RIVER WEST BIKEWAY
PROJECT NUMBER BWM-BIKE (4)S

PLOT 6829SIGN
SHEET 35 OF 132 SHEETS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 5

VAOT Metric

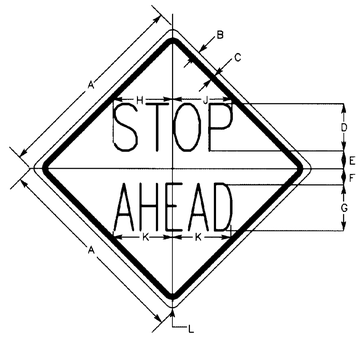
KILOMETER MARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH ~~(mm)~~ IN.	HEIGHT ~~(mm)~~ IN.	NEW & SALVAGED SIGNS "A" SF	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	EXIST POST SALVAGE	NEW SIGN POSTS NO. OF POSTS	FLANGED CHANNEL 2.0 ~~kg/m~~ LB./FT. ~~1.7~~	FLANGED CHANNEL 3.0	FLANGED CHANNEL 4.5	SQUARE STEEL (mm) 44 kg/m 3.4	SQUARE STEEL (mm) 50 kg/m 3.9	SQUARE STEEL (mm) 63 kg/m 5.0	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (mm) 75 kg/m 1.9	TUBULAR ALUMINUM Ø (mm) 100 kg/m 2.5	TUBULAR ALUMINUM Ø (mm) 100 MOD kg/m 2.5	TUBULAR STEEL FOUNDATION	TUBULAR STEEL Ø (mm) 75 kg/m 11.3	TUBULAR STEEL Ø (mm) 89 kg/m 13.4	TUBULAR STEEL Ø (mm) 100 kg/m 16.1	TUBULAR STEEL Ø (mm) 125 kg/m 21.7	W-SHAPE STEEL FTG. SIZE 600 mm	W-SHAPE STEEL FTG. SIZE 750 mm	W-SHAPE STEEL WEIGHT	W-SHAPE STEEL POST SIZE	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL DETAIL ON SHEET NUMBER	SIGN DETAIL STD. SHEET NUMBER
115+60 RT.	RAIL CROSSING ROAD		48"	9"	3								39.0																					
			48"	9"	3								X																					
116+0 LT.	RAIL CROSSING ROAD		48"	9"	3								37.5																					
			48"	9"	3								X																					
106+59 RT.			36"	36"	9		1						42.0																				ADDITIONAL		
													X																					
147+10 LT.	NO MOTOR VEHICLES		24"	24"	4							25.0																						
												X																						
155+95 LT.			12"	36"	3							27.0																						
												X																						
155+95 RT.	NO MOTOR VEHICLES		24"	24"	4							25.0																						
												X																						
GIVEN TO CITY	BIKE ROUTE		24"	24"	4																													
GIVEN TO CITY			12"	9"	0.75																													
GIVEN TO CITY	BIKE ROUTE		24"	24"	4																													
GIVEN TO CITY			12"	9"	0.75																													
GIVEN TO CITY			12"	9"	0.75																													
159+25 LT.	NO MOTOR VEHICLES		24"	24"	4							25.0																						
												X																						
143+50 LT.	NO MOTOR VEHICLES		24"	24"	4							25.0																						
												X																						

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE TRAFFIC & SAFETY DIVISION'S "SIGN POST DESIGN GUIDELINE."

	m	m	m	m	m	m		EA	kg	kg	kg		kg	kg	kg	kg																			
	127		118.5																															
	245.5 LBS.																																	
TOTALS	m^2	m^2	EA	m^2		m		m		kg	EA		kg				EA	EA	kg															

PROJECT: MONTPELIER
PROJECT NO.: BWM BIKE (4)S
DESIGN FILE NAME:
IPARM FILE NAME: pb054ss05.i
SURVEYED BY: N/A
SQUAD LEADER:
PLOT DATE: 12/00
SURVEY DATE: N/A
DRAWN BY:
SHEET: 35A OF 132

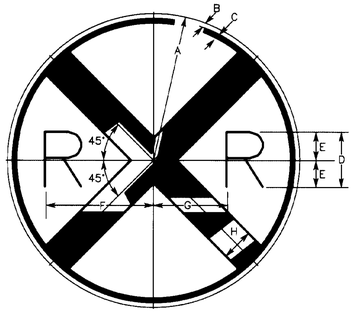
FILE NAME =$FILE$
DATE/TIME =$DATE$
USER =$USERS$



W3-1

SIGN	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	J	K	L
BIKE	18	3/8	5/8	3D	1-3/4	3/4	3C	4-3/4	5-1/4	5-3/8	1-1/2

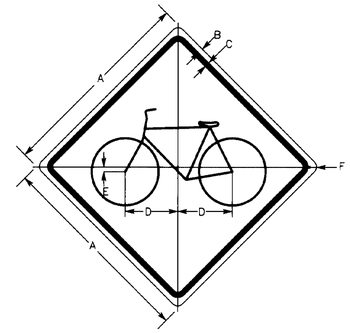
COLORS
LEGEND -BLACK (NON-REFL)
BACKGROUND-YELLOW (REFL)



W10-1

SIGN	DIMENSIONS (INCHES)							
	A	B	C	D	E	F	G	H
MIN.	15	3/8	5/8	7E	3-1/2	12-3/8	7-1/8	3

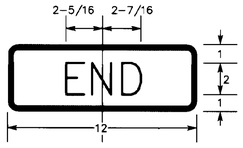
COLORS
LEGEND -BLACK (NON-REFL)
BACKGROUND-YELLOW (REFL)



W11-1

SIGN	DIMENSIONS (INCHES)					
	A	B	C	D	E	F
STD.	24	3/8	5/8	6-11/16	13/16	1-1/2

COLORS
LEGEND -BLACK (NON-REFL)
BACKGROUND-YELLOW (REFL)

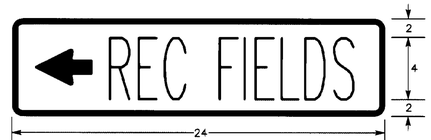


M4-12

COLORS
LEGEND -WHITE (REFL)
BACKGROUND-GREEN (REFL)

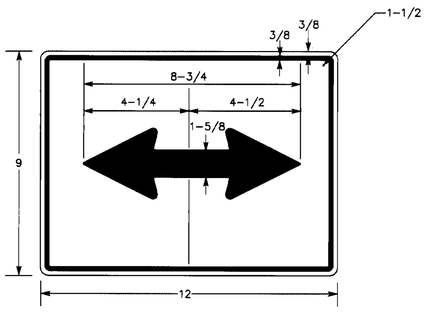
D1-1b(R)

COLORS
LEGEND -WHITE (REFL)
BACKGROUND-GREEN (REFL)



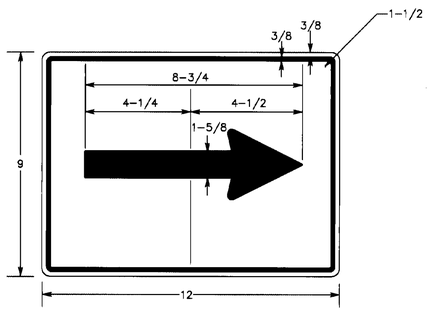
D1-1b(L)

COLORS
LEGEND -WHITE (REFL)
BACKGROUND-GREEN (REFL)



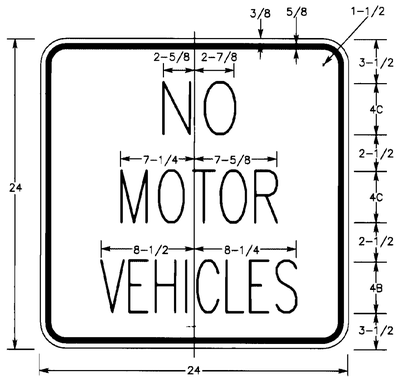
M7-5

COLORS
LEGEND -WHITE (REFL)
BACKGROUND-GREEN (NON-REFL)



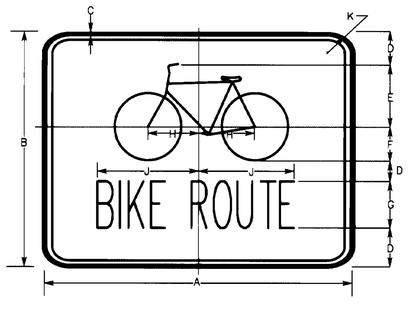
M7-1

COLORS
LEGEND -WHITE (REFL)
BACKGROUND-GREEN (NON-REFL)



R5-3

COLORS
LEGEND -BLACK (NON-REFL)
BACKGROUND-WHITE (REFL)



D11-1

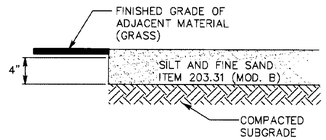
SIGN	DIMENSIONS (INCHES)									
	A	B	C	D	E	F	G	H	J	K
STD-MIN	24	18	1/2	1-1/2	7	3-1/2	3C	5-1/2	9-1/2	1-1/2

COLORS
LEGEND -WHITE (REFL)
BACKGROUND-GREEN

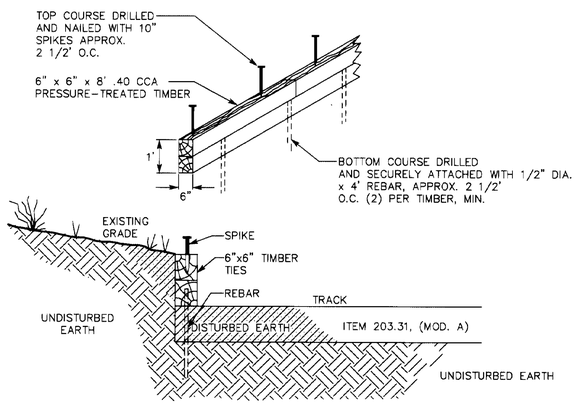
ADDITIONAL PROJECT SIGNS

FAX. (802)-658-3629 P.E.A. BUS. (802)-658-5588
PINKHAM ENGINEERING ASSOCIATES, INC.
The Maltex Building, 431 Pine St., Burlington, VT 05401

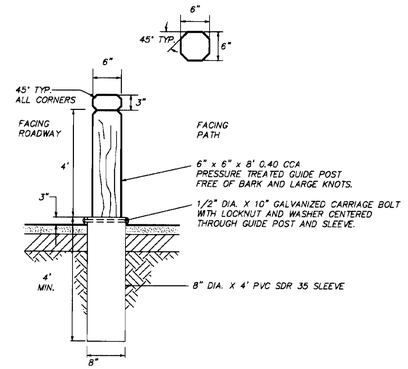
SURVEYED BY PEA DATE
DRAWN BY NPN DATE
SQUAD LEADER
DESIGN FILE NO. 6829DET8 DATE PLOTTED 9/25/96
PROJ. NAME WINOOSKI RIVER WEST BIKEWAY BWM-BIKE(4)S
PROJ. NO. 6829



RELOCATED SOFTBALL FIELD TYPICAL
N.T.S.

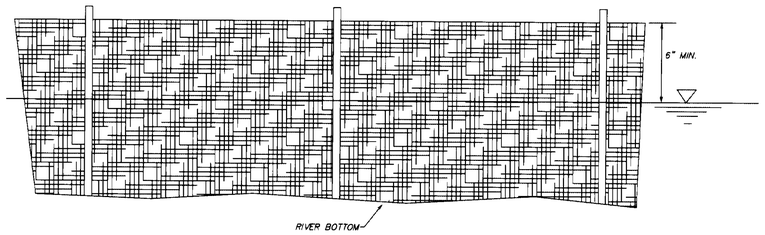


TIMBER RETAINING WALL TYPICAL
N.T.S.
ITEM 616.35, TREATED TIMBER CURB (MOD. B)



NOTE: CORNERS OF WOOD BOLLARD MAY REQUIRE CHAMFERING TO PROVIDE ADEQUATE FIT INTO PVC SLEEVE.

WOOD GUIDE POST (MODIFIED)
N.T.S.
ITEM 621.85, (MOD.)

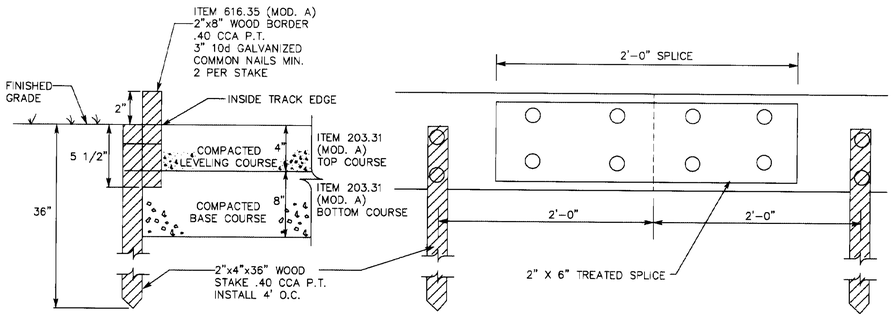


CONSTRUCT CURTAIN SECURED TO WOODEN OR FLANGED CHANNEL STEEL POSTS OF APPROPRIATE SPACING AND STRENGTH TO WITHSTAND RIVER CONDITIONS AT THE TIME OF CONSTRUCTION.

CURTAIN IS TO REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE AND VISIBLE TURBIDITY HAS RETURNED TO NORMAL. REMOVE CAREFULLY TO MINIMIZE RESUSPENSION OF MATERIAL.

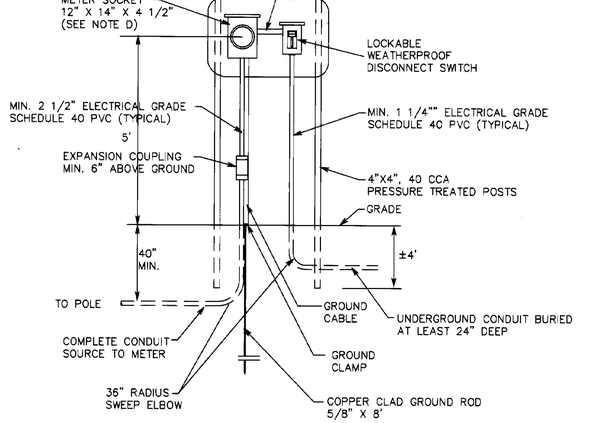
TEMPORARY TURBIDITY CURTAIN TYPICAL
N.T.S.

ITEM 649.61, GEOTEXTILE FOR FILTER CURTAIN



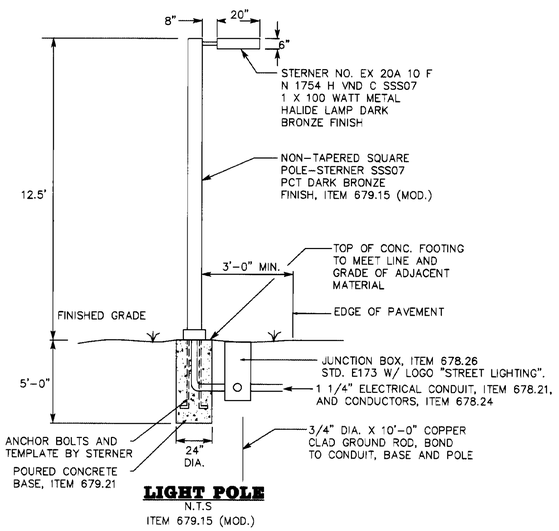
EDGE OF RELOCATED TRACK PAVEMENT
N.T.S.

ITEM 616.35 TREATED TIMBER CURB (MOD. A)

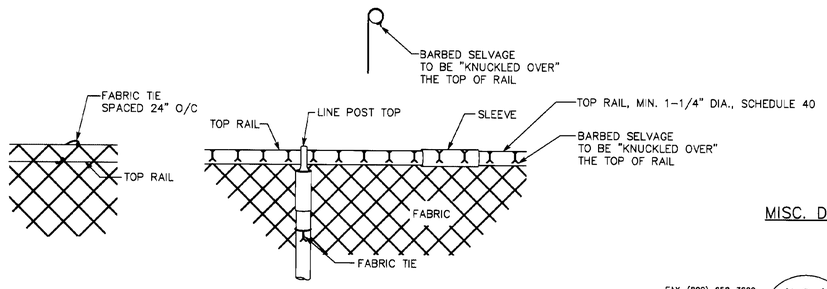


A. LOCATION OF THE PEDESTAL WILL BE DETERMINED BY GMP AND THE ENGINEER.
B. TRENCH SHOULD BE DUG MINIMUM OF 18 INCHES WIDE AND 46 INCHES DEEP.
C. A PULL ROPE HAVING A MINIMUM PULL STRENGTH OF 240 LBS IS REQUIRED TO BE INSTALLED IN THE CONDUIT BY THE CONTRACTOR. THE CABLE MUST BE INSTALLED IN THE CONDUIT AND CONNECTED IN THE METER SOCKET.
D. IF 350 MCM CABLE IS USED A METER SOCKET WITH A BUSS BAR IS REQUIRED. MILLBANK U9253-0, ANCHOR 1URS1804UG (OR EQUIVELANT) SOCKETS MEET THIS REQUIREMENT.
E. THE GROUND CABLE MUST BE CONNECTED IN THE METER SOCKET TO ITS OWN GROUND TERMINAL.

METER PEDESTAL TYPICAL
N.T.S.
ITEM 679.15 (MOD.)



LIGHT POLE
N.T.S
ITEM 679.15 (MOD.)



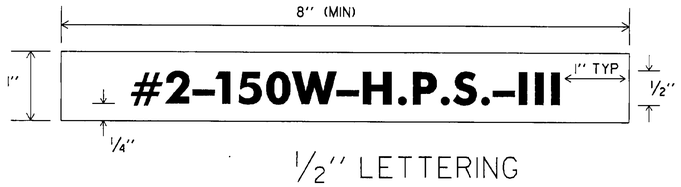
FENCE TOP RAIL DETAIL
N.T.S.

MISC. DETAILS

FAX. (802)-658-3829 P.E.A. BUS. (802)-658-5588
PINKHAM ENGINEERING ASSOCIATES, INC.
50 Joy Drive, P.O. Box 2225, South Burlington, VT 05407

SURVEYED BY	PEA	DATE	
DRAWN BY	NPN/JMM	DATE	
SQUAD LEADER			
DESIGN FILE NO.	6829DET9	DATE PLOTTED	4/9/97
PROJ. NAME	WINOOSKI RIVER WEST BIKEWAY BWM-BIKE(4)S		
PROJ. NO.	6829		
SHEET	37 OF 132 SHEETS		

DETAILS FOR TAGS ATTACHED TO STREET LIGHT POLES



1/2" LETTERING

LEGEND: BLACK OR WHITE (NON-REFL.) - STAMPED PRIOR TO PRINTING/PAINTING.
BACKGROUND: NATURAL ALUMINUM OR FLAT BLACK SURFACE, SAME AS POLE FINISH.

NOTES:

1. THE TAG SHALL BE MOUNTED ON ALL STREET LIGHT POLES IN SUCH A MANNER AS NOT TO BE EASILY REMOVED, SUCH AS WELDED, RIVETED, OR BOLTED WITH VANDAL PROOF BOLTS.
2. THE LETTERS SHALL BE PUNCHED, STAMPED, ENGRAVED, OR PHOTO-ETCHED. PUNCHING, STAMPING OR ENGRAVING SHALL PENETRATE AT LEAST 1/2 THE BASE MATERIAL THICKNESS.
3. THE BASE MATERIAL FOR THE TAG SHALL BE ALUMINUM WITH A MINIMUM THICKNESS OF 0.100 INCHES.
4. THE TAG SHALL BE ATTACHED TO THE POLE ABOVE THE HANDHOLE, 6 INCHES MAXIMUM. IF THE POLE HAS A TRANSFORMER BASE, ATTACH TAG TO COVER.

GENERAL STREET LIGHT NOTES

CONCRETE BASES

THE OFFSET FOR CONCRETE BASES (EDGE OF PAVEMENT TO CENTER OF CONCRETE BASE) TO BE A MINIMUM OF 3 FEET OR AS OTHERWISE NOTED ON THE PLANS.

WHEN CONCRETE BASES ARE INSTALLED IN SLOPING GROUND, THE GREATEST EXPOSED HEIGHT TO KEEP ALL OF THE TOP ABOVE GROUND MUST BE DOUBLED AND THEN ADDED TO THE MINIMUM DEPTH FOR THE TOTAL BASE DEPTH.

CARE SHOULD BE TAKEN WHERE CONCRETE BASES, DRAINAGE STRUCTURES OR UTILITIES ARE CLOSE TOGETHER.

CONDUIT

A 2 INCH (I.D.) MINIMUM CONDUIT SHALL BE USED AT ALL LOCATIONS UNLESS OTHERWISE NOTED ON THE PLANS. ALL CONDUIT SHALL BE AT LEAST (SCHEDULE 40 P.V.C.) OR RIGID GALVANIZED STEEL ELECTRICAL CONDUIT (AND CONFORM TO THE REQUIREMENTS OF UL-6), TYPE OF CONDUIT (P.V.C. OR STEEL) SHALL BE NOTED ON THE PLANS.

CONDUIT SLEEVE

MINIMUM WALL THICKNESS FOR RIGID PLASTIC PIPE SLEEVES SHALL BE 1/35TH THE DIAMETER. ALL CONDUIT RUNS UNDER ROADWAY SHALL BE INSTALLED IN RIGID PLASTIC OR STEEL PIPE SLEEVES. THE SLEEVE SHALL EXTEND TO WITHIN 2 FEET OF THE SIDE OF A CONCRETE BASE OR PULLBOX. WHERE NO CONCRETE BASE OR PULLBOX IS PRESENT, THE SLEEVE SHALL EXTEND 4 FEET BEYOND THE OUTSIDE EDGE OF SHOULDER OR FACE OF CURB. BACKFILLING AROUND A SLEEVE SHALL BE IN ACCORDANCE WITH THE MANUFACTURER.S SPECIFICATIONS.

WHEN JACKING A SLEEVE UNDER A ROADWAY IT SHALL BE STEEL WITH A MINIMUM DIAMETER OF 8 INCHES AND MINIMUM WALL THICKNESS OF 3/8 INCH. ACTUAL LENGTH TO BE DETERMINED IN THE FIELD BY THE RESIDENT ENGINEER.

WIRE

ALL WIRING BETWEEN THE METER AND/OR POWER SOURCE AND THE FIRST POLE AND/OR PULLBOX AND BETWEEN POLES AND/OR PULLBOXES SHALL BE COPPER AND SIZED AS SPECIFIED ON THE PLANS. ALL WIRE SHALL HAVE TYPE XHHW INSULATION OR EQUIVALENT.

GROUNDING

ALL CONDUIT MUST INCLUDE A GROUNDING CONDUCTOR. RIGID STEEL CONDUIT SHALL BE PROPERLY CONNECTED AT THE JOINTS SO AS TO BE WATERTIGHT AND MAINTAIN ELECTRICAL CONTINUITY AND HAVE GROUNDING BUSHINGS SO AS TO ACT AS A GROUND CONDUCTOR.

ALUMINUM WIRE SHALL NOT BE USED FOR GROUND WIRE.

PULLBOXES

FOR DETAILS SEE STANDARD SHEET E-173.

GENERAL

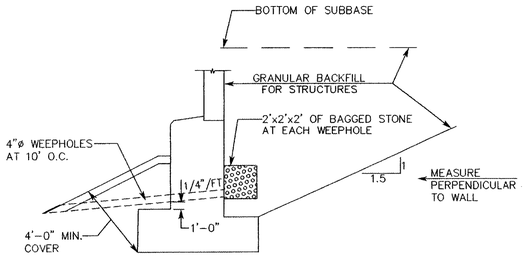
THE LOAD ON EACH BRANCH OF A THREE WIRE CIRCUIT SHALL BE AS BALANCED AS POSSIBLE, LOAD TO NEUTRAL.

THE LAST CONCRETE POLE BASE AT THE END OF EACH CIRCUIT AND SOME PULLBOXES SHALL HAVE A CONDUIT SWEEP WITH CAP INSTALLED FOR FUTURE USE.

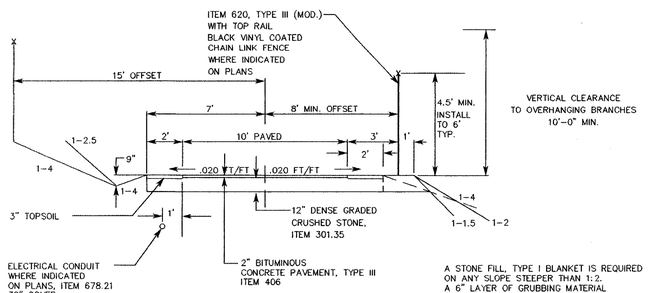
THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING NECESSARY ELECTRICAL PERMITS.

PLOTTED: 1-JUL-1997

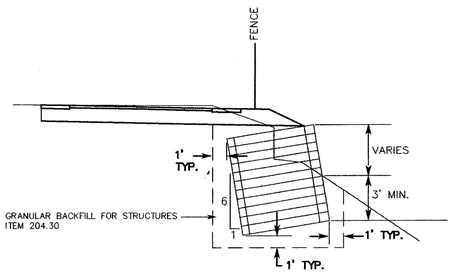
STREET LIGHTING GENERAL NOTES AND INFORMATION	PREPARED BY _____ DATE ____ CHECKED BY _____ DATE ____ DESIGN SUPERVISOR _____ DATE ____ PROJ. MONTPELIER BW-M-BIKE(4)S SHEET 37A OF _____ SHEETS



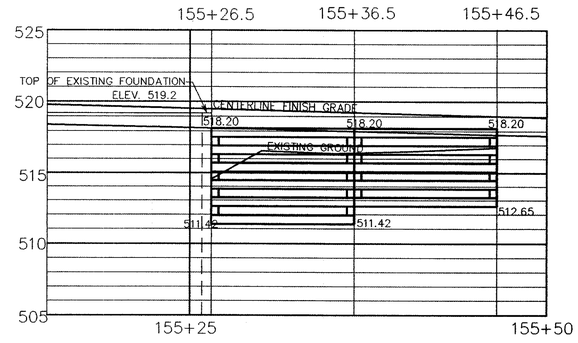
ABUTMENT DRAINAGE
N.T.S.



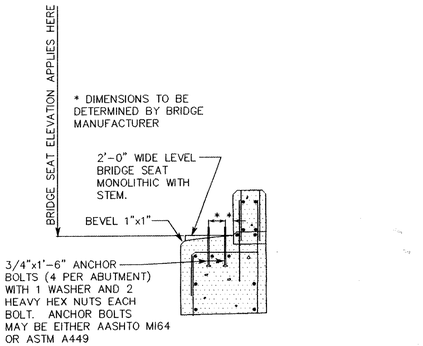
BIKE PATH TYPICAL
N.T.S.



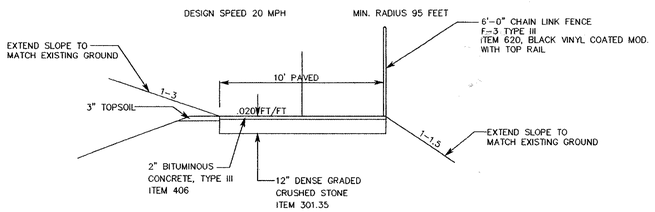
TIMBER BINWALL TYPICAL SECTION
1" = 5'
REFER TO STANDARD DETAIL H-2, SHEETS 1, 2 & 3 OF 3, DATED JAN 11, 1990



TIMBER BINWALL ELEVATION
1" = 5'
REFER TO STANDARD DETAIL H-2, SHEETS 1, 2 & 3 OF 3, DATED JAN 11, 1990
USE DESIGN "A".

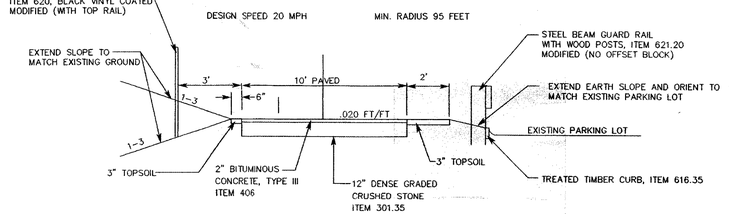


BRIDGE ABUTMENT BEARING DETAIL
N.T.S



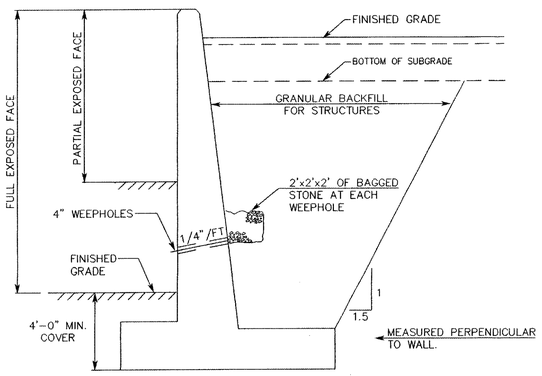
NARROW BIKE PATH TYPICAL
N.T.S.

STA 117+35 TO STA 120+50
STA 141+00 TO STA 142+00



NARROW BIKE PATH TYPICAL
N.T.S.

STA 106+54 TO STA 109+00



WINGWALL DRAINAGE
N.T.S.

SEEDING FORMULA
URBAN AREAS

%WT.	LBS./ACRE	NAME	PUR%	GERM%
42.5	34.0	CREEPING RED FESCUE	98	85
10.0	8.0	PERENNIAL RYE GRASS	95	90
42.5	34.0	KENTUCKY BLUE GRASS	85	85
5.0	4.0	ANNUAL RYE GRASS	95	85
100	80.0			

GENERAL NOTES

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

SEED: TO BE APPLIED PER SEEDING FORMULAS OR AS DIRECTED BY THE ENGINEER.

FERTILIZER: FORMULA 10-20-10, TO BE USED WITH SEED, APPLIED AT THE RATE OF 500 LBS./ACRE. (HYDRO SEEDERS MAY USE 19-19-19 FORMULA).

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

HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE, OR AS DIRECTED BY THE ENGINEER.

TOPSOIL: TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

MARKER POSTS: TO BE PLACED AS INDICATED OR AS DIRECTED BY THE ENGINEER.

SLOPE ROUNDING: ALL CUT SLOPES TO BE ROUNDED IN ACCORDANCE WITH STANDARD SHEET B-5.

SEEDING FORMULA
STREAMBANK AREAS

LBS./1000 SF	NAME
34.0	ANNUAL RYE
8.0	CROWNVETCH

FINE GRADE/HAY MULCH
PIN JUTE MATTING

PLANT SCHEDULE

KEY	QUANTITY	LATIN NAME	COMMON NAME	SIZE	MISC.
CS	35	CORMUS SERICEA	REDTWIG DOGWOOD	15-18"	
TO	6	TUJA OCCIDENTALIS	EASTERN CEDAR	4-5'	
TS	6	TSUGA CANADENSIS	CANADIAN HEMLOCK	3-4'	
VD	16	VIBURNAM DENTATUM	ARROWOOD VIBURNAM	18-24"	
VT	16	VIBURNAM TRILOBUM	AMERICAN CRANBERRY	18-24"	

REVISED 6/10/1998, DFH, ADDED NARROW PATH TYPICAL SECTION
REVISED 2/6/1998, DFH, ADDED TIMBER BINWALL ELEVATION AND TYPICAL SECTION

PATHWAY TYPICALS & BRIDGE DETAILS

FAX. (802)-658-3629 P.E.A. BUS. (802)-658-5588
PINKHAM ENGINEERING ASSOCIATES, INC.
50 Joy Drive, P.O. Box 2225, South Burlington, VT 05407

SURVEYED BY PEA DATE
DRAWN BY NPN,JMM DATE 4/9/97
SQUAD LEADER
DESIGN FILE NO. 6829DET7 DATE 4/9/97 PLOTTED
PROJ. NAME WINOOSKI RIVER WEST BIKEWAY BWM-BIKE(4)S
PROJ. NO.

WINOOSKI RIVER

SURV. PI 139+46.20 BK
=139+45.96 AHD
REBAR & CAP

STORAGE SHED
50.95'
51.85'

SURV. PI 139+46.20 BK
=139+45.96 AHD
REBAR & CAP

N
+15°
MAG.
TRUE

STORAGE SHED

LIGHT POLE
REV. STA 140+40 RT

LIGHT POLE
REV. STA 141+25 RT

96.34 M (316.08')

21'

REMOVE ABANDONED TRACK SECTIONS TO 4" DEPTH, ADD 4" TOPSOIL, FERTILIZE, SEED & MULCH.

TREATED TIMBER CURB (MODIFIED A)
ITEM 616.35 (MOD. A)
2"x8" .40 CCA PT
WOOD BORDER
INSIDE EDGE OF TRACK, TYP.
SEE SHEET 37 OF 132
FOR DETAIL

368.60'

221.21'

RADIUS 107.99'
INSIDE TRACK

RETAIN
EXISTING
12" MAPLE

200° 03' 46"

84° 40' 34"

36° 41' 42"

RADIUS 128.59'
OUTSIDE TRACK

ITEM 616.35 (MOD. B)
TREATED TIMBER CURB
WALL TYP.
SEE SHEET 37 OF 132
FOR DETAIL

LIGHT POLE
REV. STA 142+10 RT

REMOVE ABANDONED TRACK SECTIONS TO 4" DEPTH, ITEM 203.15
ADD 4" TOPSOIL, FERTILIZE, SEED AND MULCH.

316.08'

CONCRETE MONUMENT
(TO BE SET)

CONCRETE MONUMENT
(TO BE SET)

VOID

EXISTING LIGHT
POLE TO BE
RELOCATED
ITEM 679.25

TENNIS
COURTS

32° 13' 28"

222.22'

RADIUS 128.59'
OUTSIDE TRACK

RADIUS 107.99'
INSIDE TRACK

RELOCATED
LIGHT POLE

LIGHT POLE
REV. STA 142+95 RT

TREATED TIMBER CURB (MODIFIED A)
ITEM 616.35 (MOD. A)
2"x8" .40 CCA PT
WOOD BORDER
INSIDE EDGE OF TRACK, TYP.
SEE SHEET 37 OF 132
FOR DETAIL

CUT BACK EXISTING
UNDERDRAIN AND
GRADE TO DRAIN
TO EXISTING RCDI
ITEM 203.15

EXISTING 6' CHAIN LINK FENCE

EXISTING FENCELINE
TO REMAIN

SURV. PI 143+20.75 BK
=143+20.55 AHD
REBAR & CAP

21'

400 METER TRACK, SEE TYPICAL
SHEET 39-42 OF 132
FOR DETAIL
AND SPECIFICATIONS
FOR MATERIAL

EXISTING EDGE
OF TRACK

RELOCATED EDGE
OF TRACK

20 10 0 20 40 60 80

MON.
2.8'
11.70'
1.35'
FACE
OF
FNC.

SURV. PI 143+20.75 BK
143+20.55 AHD
REBAR & CAP

N/F MONTPELIER HIGH SCHOOL

N/F STATE OF VERMONT

#	REVISIONS	DATE	#	REVISIONS	DATE

SURVEY:	PEA
CALCULATED:	NPN
PLOT:	6829TRK2
DESIGN:	NPN
DRAFT:	NPN
CHECKED:	LDY
APPROVED:	KWP
DATE:	4/9/97
SCALE:	1"=20'

PROJ. NO. 6829

SHEET 39 OF 132

400 METER TRACK RELOCATION PLAN

WINOOSKI RIVER WEST
BIKE PATH
MONTEPELIER, VERMONT

FAX. (802)-658-3829 P.E.A. BUS. (802)- 658-5588
PINKHAM ENGINEERING ASSOCIATES, INC.
50 Joy Drive, P.O. Box 2225, South Burlington, VT 05407

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

10+50 — 520 / 515 / 510

EDGE OLD TRACK
EDGE NEW TRACK
EDGE NEW TRACK
EDGE OLD TRACK
EDGE OLD AND NEW TRACK
EDGE OLD AND NEW TRACK

10+00 — 520 / 515 / 510

EDGE OLD TRACK
EDGE NEW TRACK
EDGE OLD AND NEW TRACK
EDGE OLD TRACK
EDGE NEW TRACK
EDGE OLD TRACK
EDGE NEW TRACK

9+50 — 520 / 515 / 510

EDGE OLD TRACK
EDGE NEW TRACK
EDGE OLD TRACK
EDGE NEW TRACK
ITEM 616.35 TREATED TIMBER CURB (MOD. A) INSIDE EDGE TYP.
EDGE NEW TRACK
EDGE OLD TRACK
EDGE NEW TRACK
EDGE OLD TRACK
EXISTING FENCE

TRACK ELEVATION 520.0

9+00 — 520 / 515 / 510

EDGE OLD TRACK
EDGE NEW TRACK
EDGE OLD TRACK
EDGE NEW TRACK
EDGE NEW TRACK
EDGE OLD PATH
EDGE NEW TRACK
EDGE OLD PATH
EXISTING FENCE

8+50 — 520 / 515 / 510

EDGE PATH
EDGE PATH
EXISTING FENCE

APPROXIMATE LOCATION OF EXISTING 36" RCP SANITARY SEWER

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130

140 150

400 METER TRACK SECTIONS

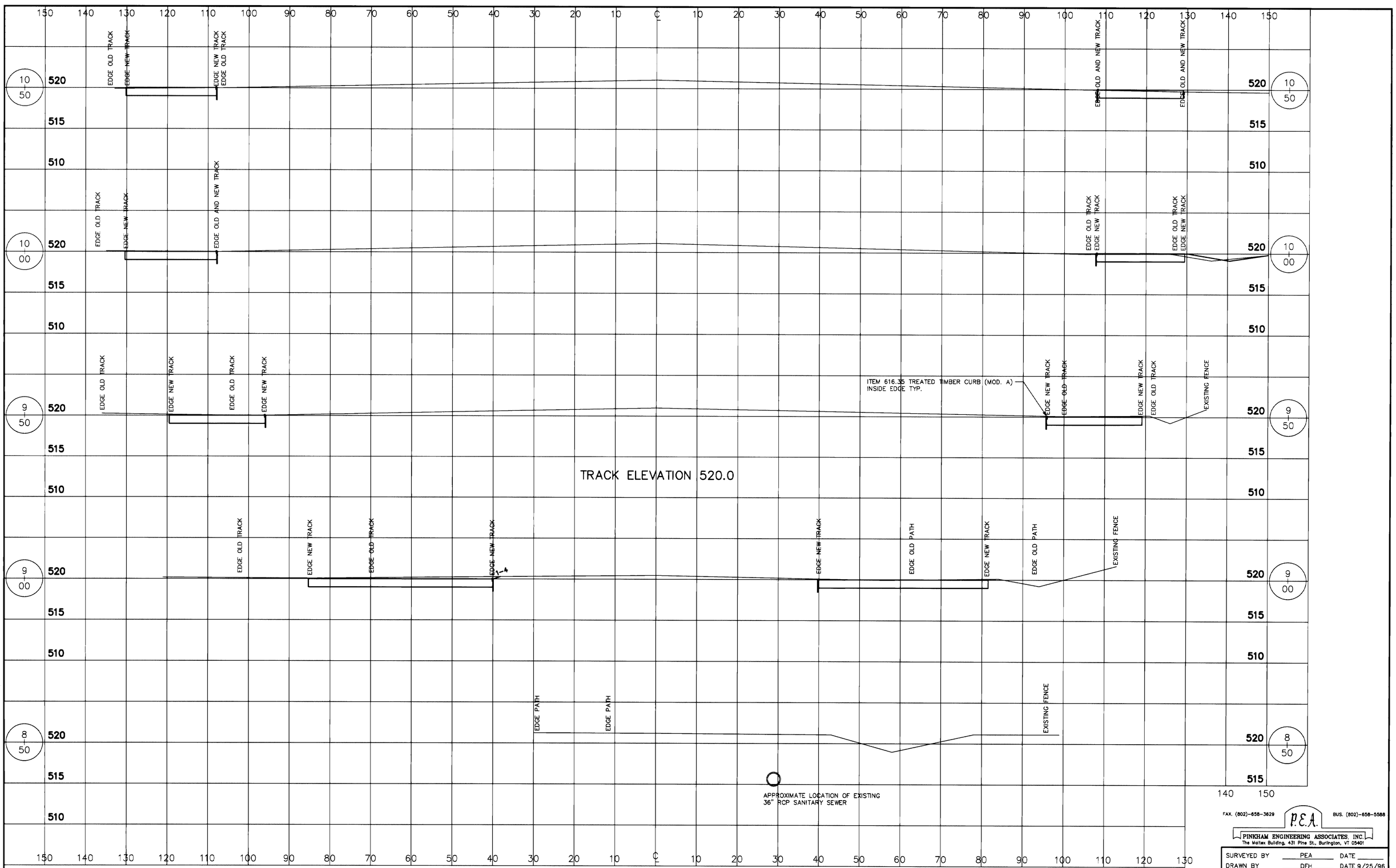
1" = 5' VERT.
1" = 20' HORIZ.

FAX. (802)-658-3629 P.E.A. BUS. (802)-658-5588

PINKHAM ENGINEERING ASSOCIATES, INC.
The Maltex Building, 431 Pine St., Burlington, VT 05401

SURVEYED BY	PEA	DATE	
DRAWN BY	DFH	DATE	9/25/96
SQUAD LEADER			
DESIGN FILE NO.	6829TKX1	DATE PLOTTED	9/25/96
PROJ. NAME	WINOOSKI RIVER WEST BIKEWAY		
PROJ. NO.	6829		

SHEET 40 OF 132 SHEETS



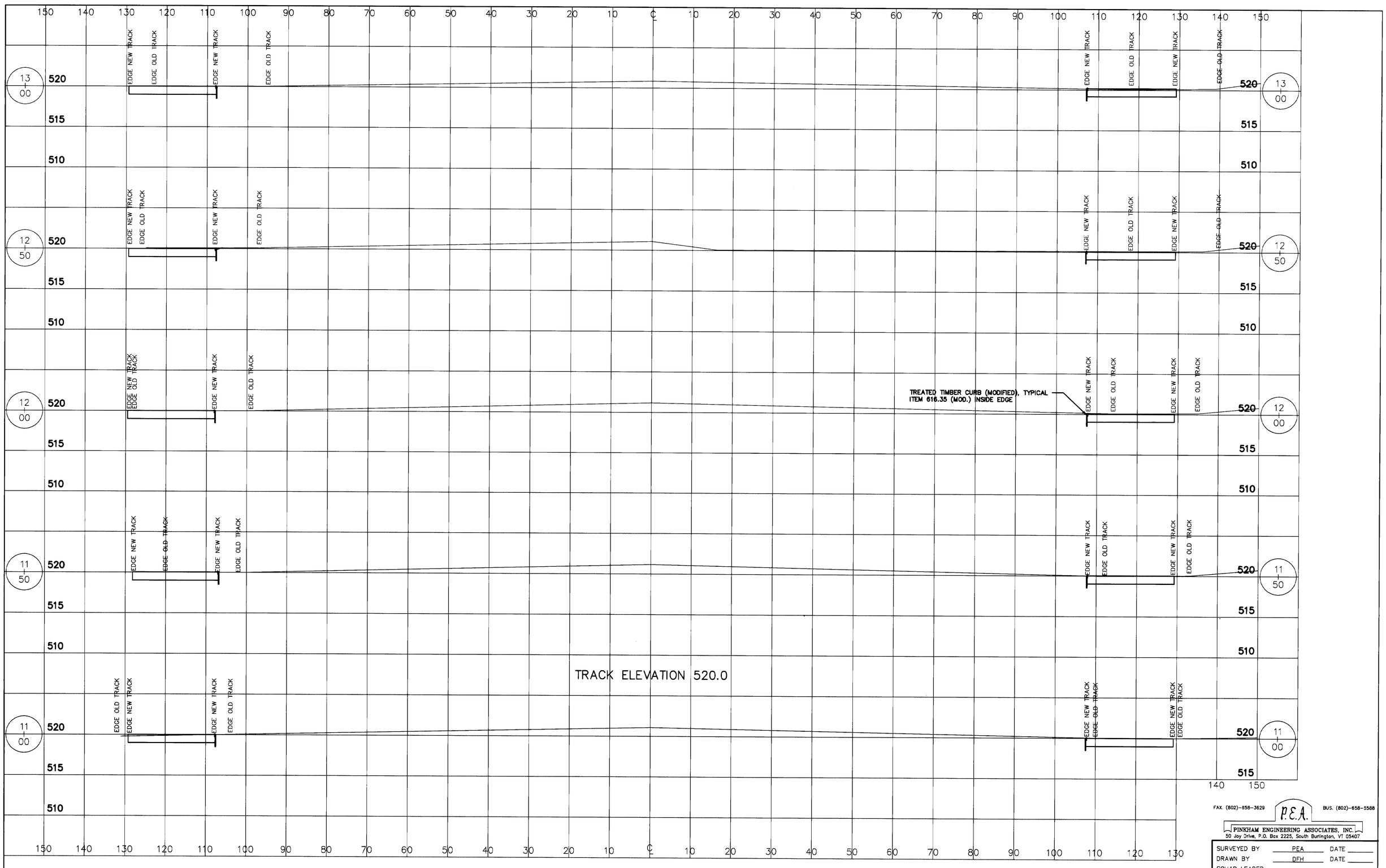
400 METER TRACK SECTIONS

1" = 5' VERT.
1" = 20' HORIZ.

FAX. (802)-658-3629 P.E.A. BUS. (802)-658-5588
PINKHAM ENGINEERING ASSOCIATES, INC.
The Maltex Building, 431 Pine St., Burlington, VT 05401

SURVEYED BY	PEA	DATE	
DRAWN BY	DFH	DATE	9/25/96
SQUAD LEADER			
DESIGN FILE NO.	6829TKX1	DATE PLOTTED	9/25/96
PROJ. NAME	WINOOSKI RIVER WEST BIKEWAY		
PROJ. NO.	6829		

SHEET 40 OF 132 SHEETS



400 METER TRACK SECTIONS
SCALE: 1" = 10'

FAX. (802)-858-3629 P.E.A. BUS. (802)-658-5588
PINKHAM ENGINEERING ASSOCIATES, INC.
50 Joy Drive, P.O. Box 2225, South Burlington, VT 05407

SURVEYED BY	PEA	DATE
DRAWN BY	DFH	DATE
SQUAD LEADER		
DESIGN FILE NO.	6829TKX2	DATE 4/9/97 PLOTTED
PROJ. NAME	WINOOSKI RIVER WEST BIKEWAY	
PROJ. NO.	6829	

SHEET 41 OF 132 SHEETS

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

14+53
EXISTING 12" MAPLE
TO REMAIN

EDGE OLD TRACK
EDGE OLD TRACK
EDGE EXISTING TENNIS COURT
EDGE EXISTING TENNIS COURT
FENCE

14/50 — 520 — 515 — 510

TIMBER TREATED CURB (MODIFIED B) RIGHT EDGE OF TRACK
STA 14+11± RT TO 14+45± RT
ITEM: 616.35 (MOD. B)

EDGE NEW TRACK
EDGE OLD TRACK
EDGE NEW TRACK
EDGE NEW TRACK
EDGE OLD TRACK
EDGE OLD TRACK
EDGE NEW TRACK
EDGE OLD TRACK
EDGE OLD TRACK
EDGE NEW TRACK
EDGE NEW TRACK
EDGE OLD TRACK
FENCE

14/00 — 520 — 515 — 510

TRACK ELEVATION 520.0

EDGE NEW TRACK
EDGE OLD TRACK
EDGE NEW TRACK
EDGE OLD TRACK
TREATED TIMBER CURB (MODIFIED A)
ITEM 616.35 (MOD. A)
INSIDE EDGE OF TRACK, TYPICAL
EDGE NEW TRACK
EDGE OLD TRACK
EDGE NEW TRACK
EDGE OLD TRACK
FENCE

13/50 — 520 — 515 — 510

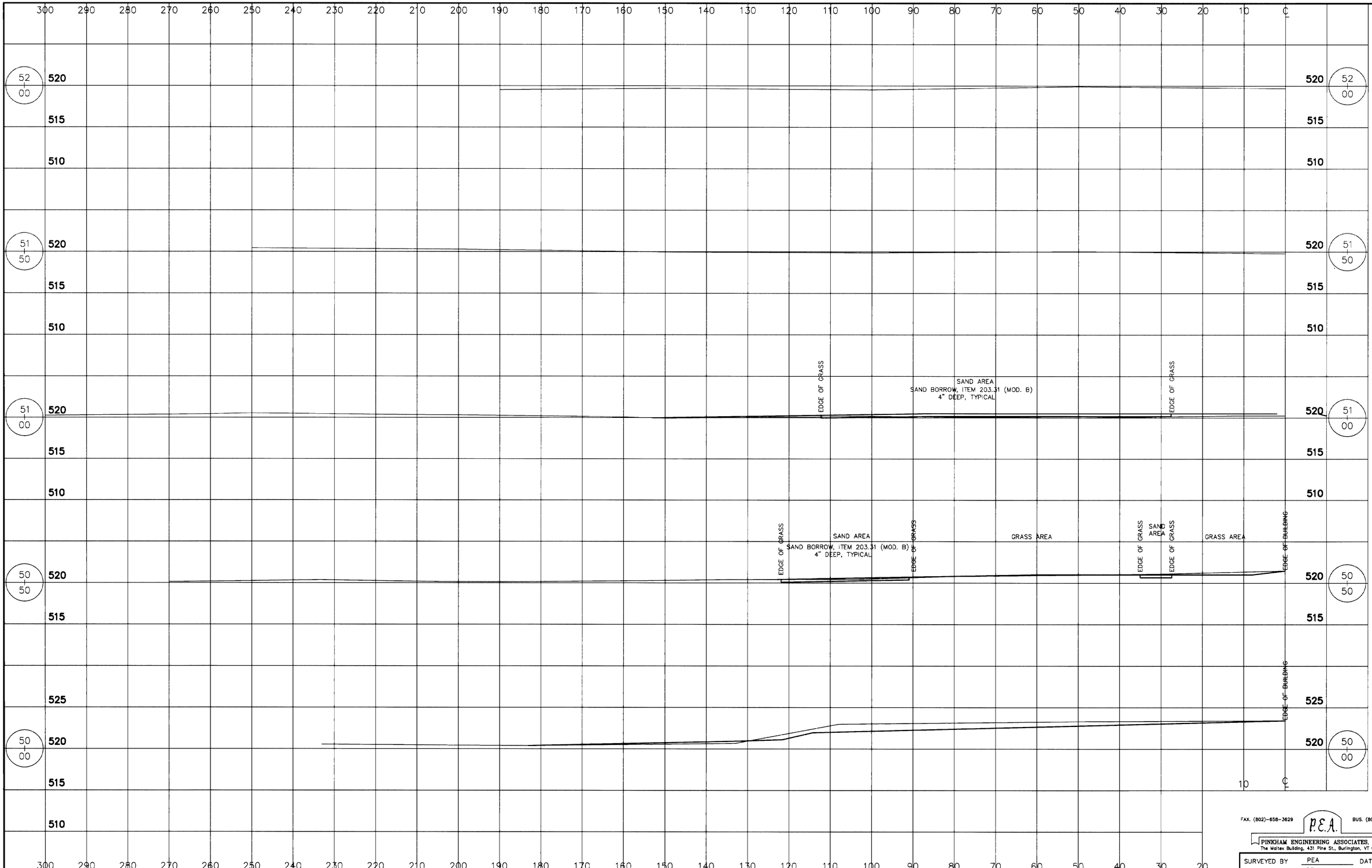
140 150

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130

400 METER TRACK SECTIONS
1" = 5' VERT.
1" = 10' HORIZ.

FAX (802)-658-3629 P.E.A. BUS. (802)-658-5588
PINKHAM ENGINEERING ASSOCIATES, INC.
50 Joy Drive, P.O. Box 2225, South Burlington, VT 05407

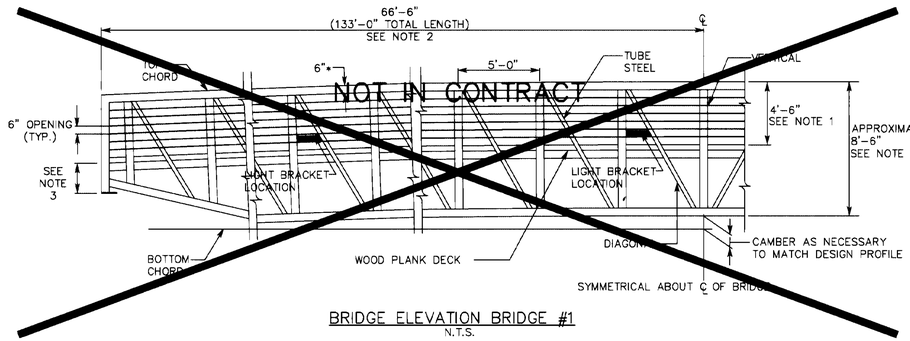
SURVEYED BY	PEA	DATE	
DRAWN BY	DFH	DATE	
SQUAD LEADER			
DESIGN FILE NO.	6829TKX3	DATE PLOTTED	4/9/97
PROJ. NAME	WINOOSKI RIVER WEST BIKEWAY		
PROJ. NO.	6829		
SHEET 42 OF 132 SHEETS			



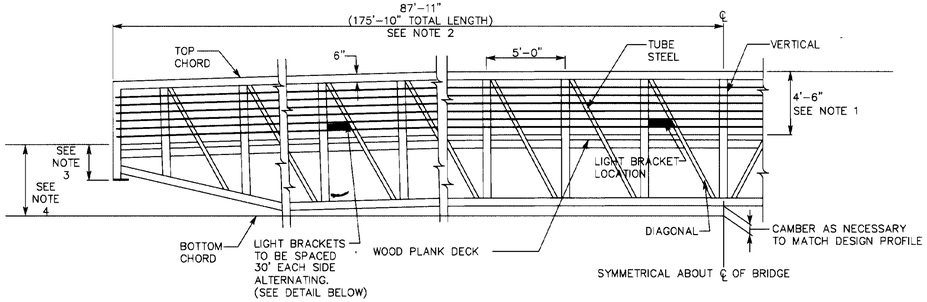
SOFTBALL FIELD SECTIONS
1" = 5' VERT.
1" = 10' HORIZ.

FAX. (802)-658-3629 P.E.A. BUS. (802)-658-5588
PINKHAM ENGINEERING ASSOCIATES, INC.
The Maltex Building, 431 Pine St., Burlington, VT 05401

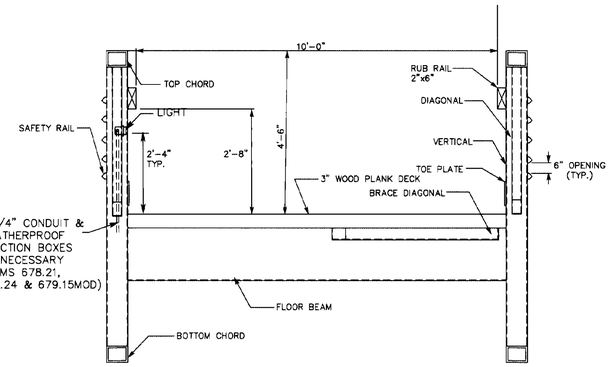
SURVEYED BY	PEA	DATE
DRAWN BY	DFH	DATE
SQUAD LEADER		
DESIGN FILE NO.	6829BLX1	DATE 9/25/96 PLOTTED
PROJ. NAME	WINOOSKI RIVER WEST BIKEWAY	
PROJ. NO.	6829	
SHEET 43	OF 132 SHEETS	



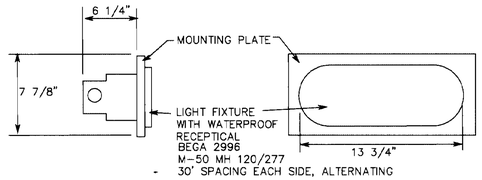
BRIDGE ELEVATION BRIDGE #1
N.T.S.



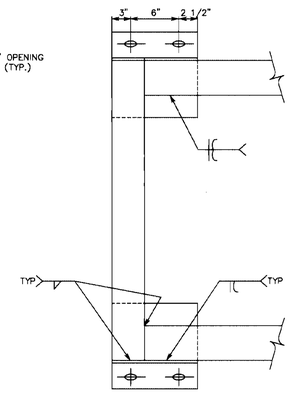
BRIDGE ELEVATION BRIDGE #2
N.T.S.



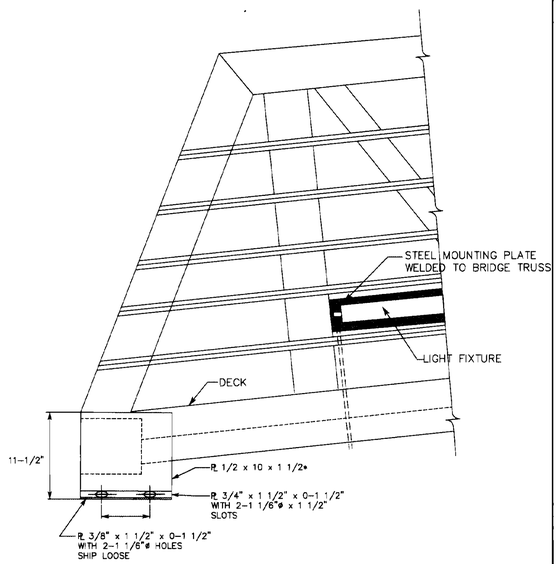
BRIDGE SECTION
N.T.S.



LIGHT MOUNTING DETAIL
N.T.S.



PLAN BEARING ASSM
N.T.S.



BRIDGE BEARING ASSEMBLY-ELEVATION
N.T.S.

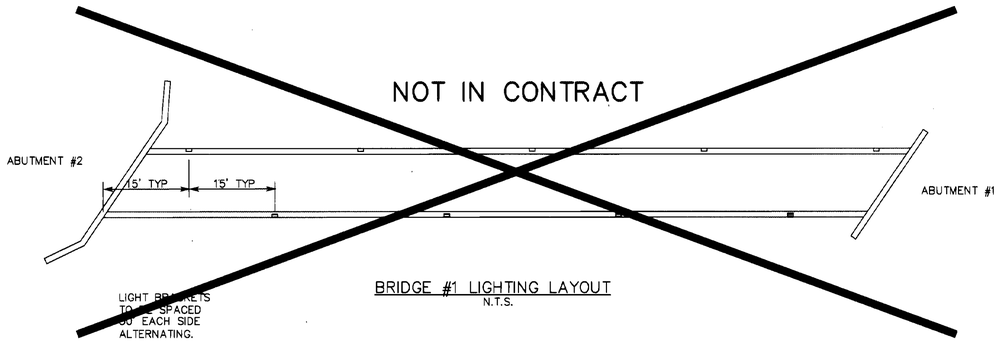
NOTE:

1.) APPROXIMATE DIMENSION ONLY, ACTUAL DEPTH OF STRUCTURE TO BE PROVIDED BY BRIDGE MANUFACTURER.

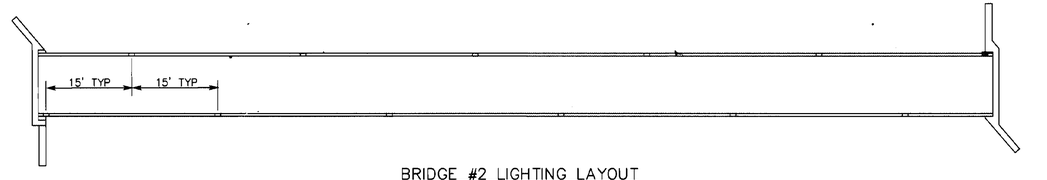
2.) TOTAL LENGTH OF BRIDGE SHALL BE AS MEASURED AT 60℄.

3.) DEPTH OF STRUCTURE FROM BEARING TO TOP OF FINISHED DECK SHALL BE SUPPLIED BY BRIDGE MANUFACTURER TO CONTRACTOR FOR CONSTRUCTION OF ABUTMENTS.

4.) PATH GEOMETRY ALLOWS FOR A MAXIMUM OF 1'-8" BETWEEN BRIDGE DECK AND BOTTOM CHORD ELEVATIONS AT ABUTMENTS TO INSURE INSTALLATION OF SUPERSTRUCTURE ABOVE 100 YEAR DESIGN FLOOD.



BRIDGE #1 LIGHTING LAYOUT
N.T.S.



BRIDGE #2 LIGHTING LAYOUT
N.T.S.

CONCRETE NOTES

1. CLASSES OF CONCRETE SHALL BE AS FOLLOWS:

   ABUTMENTS AND WINGWALLS: CLASS "B" CONCRETE

2. ALL PORTLAND CEMENT SHALL BE AIR-ENTRAINED.

3. ALL REINFORCING STEEL SHALL BE FURNISHED IN THE FULL LENGTH SHOWN ON THE PLANS. UNLESS OTHERWISE SHOWN ON THE PLANS, THE MINIMUM LAP FOR SPLICES SHALL BE AS FOLLOWS:

BAR SIZE	f'c = 3,500 PSI
#4 OR SMALLER	16 INCHES
#5	26
#6	31
#7	34
#8	45
#9	57
#11	89

4. ALL REINFORCING SHALL HAVE THE FOLLOWING COVER:

   CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH . . . . . 3 INCHES

   CONCRETE THAT IS TO BE FORMED AND THEN EXPOSED TO EARTH OR WEATHER
   PRINCIPAL REINFORCEMENT . . . . . 2 INCHES

5. ALL ANCHOR BOLTS SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH AASHTO M-111 & ASTM A123. FORMS FOR ANCHOR BOLTS SHALL BE PLACED PRIOR TO POURING CONCRETE.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING CONCRETE STAINS OR DISCOLORATIONS DURING CONSTRUCTION, UNTIL SUCH TIME AS THE SURFACES ARE APPROVED AND ACCEPTED. ANY CONCRETE STAINS OR DISCOLORATIONS OCCURRING PRIOR TO ACCEPTANCE OR APPROVAL SHALL BE REMOVED AND THE SURFACE RESTORED BY THE CONTRACTOR AT HIS OWN EXPENSE.

7. HORIZONTAL CONSTRUCTION JOINTS OTHER THAN THOSE SHOWN ON THE PLANS WILL NOT BE PERMITTED, UNLESS AUTHORIZED BY THE ENGINEER.

8. CONCRETE SURFACE TREATMENT:

   A. RUBBED FINISH SHALL BE PROVIDED ON ALL CONCRETE SURFACES VISIBLE IN ELEVATION, INCLUDING ALL EXPOSED SURFACES OR WINGWALLS TO ONE FOOT BELOW GROUND LINE.

   B. FLOAT FINISH SHALL BE APPLIED TO THE BEAM SEATS AND TOPS OF WINGWALLS.

   C. PROTECTIVE COMPOUND SHALL BE APPLIED TO ALL EXPOSED CONCRETE AREAS INCLUDING EXPOSED SURFACES OF WINGWALLS TO ONE FOOT BELOW GROUND LINE. (WATER REPELLENT #514.10)

9. ALL FORMS SHALL BE OF REMOVABLE TYPE THAT WILL PRODUCE THE DIMENSIONS OF THE PLANS.

10. ALL CONSTRUCTION JOINTS SHALL BE COATED WITH A THIN COATING OF MORTAR OR NEAT CEMENT GROUT IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

GENERAL NOTES

1. SPECIFICATIONS: VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION 1990 EDITION AND SPECIAL PROVISIONS.

   BRIDGES (AASHTO 1989).

3. ALLOWABLE DESIGN STRESSES:

   CLASS "A" & CLASS "B": BASED ON f'c = 3,500 PSI

   REINFORCEMENT (ASTM A615 GRADE 60) fs = 24,000 PSI

4. LIVE LOAD: 85 PSF UNIFORMLY DISTRIBUTED 172'x10'x85 PSF = 146,200 PSF

5. FUTURE PAVING ALLOWANCE: NONE.

6. REMAIN-IN-PLACE FORMS: THE USE OF REMAIN-IN-PLACE FORMS ON THIS STRUCTURE IS NOT ALLOWED.

7. CLASS "B" CONCRETE: CLASS "B" CONCRETE SHALL BE USED FOR THE ENTIRE SUBSTRUCTURE.

8. DECKING: BRIDGE DECK SHALL BE SINGLE LAYER, 3" THICK PRESSURE TREATED, WOOD PLANK, MATERIALS MEETING SECTION 709.01 AND SECTION 522.12 (a).

9. JOINT SEAL: SEE SPECIFICATIONS.

10. EXPOSED EDGES: EXPOSED EDGES OF CONCRETE SHALL BE BEVELED 1" X 1" UNLESS DIMENSIONED OTHERWISE.

11. REINFORCEMENT: ALL REINFORCEMENT SHALL BE ASTM A615 GRADE 60.

12. STRUCTURAL STEEL: WELDED TUBULAR STRUCTURE DESIGN SHALL BE IN ACCORDANCE WITH THE STRUCTURAL WELDING CODE (ANSI D1.1-8)-CHAPTER 10-TUBULAR STEEL. ALL STEEL TO CONFORM TO ASTM A847 FOR HIGH STRENGTH, SELF WEATHERING, LOW ALLOY, ATMOSPHERIC CORROSION RESISTANT, COLD FORMED, WELDED SQUARE AND RECTANGULAR TUBING, AND ASTM A588, ASTM A606 OR ASTM A242.

13. CONSTRUCTION JOINTS: CONSTRUCTION JOINTS, OTHER THAN THOSE SHOWN ON THE PLANS, WILL NOT BE PERMITTED WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.

14. DECIMAL DIMENSIONS: WHEN DIMENSIONS ARE GIVEN TO LESS THAN THREE DECIMAL PLACES, THE OMITTED DIGITS SHALL BE ASSUMED TO BE ZEROS.

15. THE BRIDGE MANUFACTURER SHALL CERTIFY TO THE AGENCY THAT ALL DESIGN REQUIREMENTS WILL BE MET. ALL PLANS AND SHOP DRAWINGS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF VERMONT.

BRIDGE SUPERSTRUCTURE DETAILS

FAX. (802)-658-3829 P.E.A. BUS. (802)-658-5588
PINKHAM ENGINEERING ASSOCIATES, INC.
50 Joy Drive, P.O. Box 2225, South Burlington, VT 05407

SURVEYED BY	PEA	DATE
DRAWN BY	JMM	DATE
SQUAD LEADER		
DESIGN FILE NO.	6829DET6	DATE 4/9/97 PLOTTED
PROJ. NAME	WINOOSKI RIVER WEST BIKEWAY BWM-BIKE(4)S	
PROJ. NO.	6829	

SHEET 46 OF 132 SHEETS

NOT IN CONTRACT

EXISTING EDGE OF PAVEMENT

EDGE OF RIVER

TOP OF BANK

APPROX. EDGE OF PAVEMENT

N/F
E. DICKEY

12' EASEMENT

20' TO SOIL BORING #1 AT TOP OF BANK

N ±15°
TRUE
MAG

LIMIT OF STONE FILL TYPE IV

98+92.70
BEGIN BRIDGE

BRIDGE #1
SEE SHEET 49 FOR DETAILS

99

4% SLOPE

BEGIN PROJECT
STA. 98+49.10
ELEV. 521.70

98

100+27.80 END BRIDGE
RESUME PATH

N 82° 42' 40" W

100

PC 100+70.39

SB-2

SOIL BORING #2

EXISTING BUILDING TO BE REMOVED BY OTHERS

TURBIDITY FILTER CURTAIN TO BE INSTALLED TO MATCH THE RIVER CONDITIONS AT THE TIME OF CONSTRUCTION (SEE DETAIL).

S

24" STORM SEWER

CENTER BOLT
1ST COLUMN
RR BRIDGE

S.I.T.
16"
BOX
ALDER

24.85'

11.11'

CURVE #1
Δ = 48° 25' 15" LT
D = 59° 22' 32"
R = 96.50'
T = 43.39'
L = 81.55'
E = 9.31'

LIMIT OF STONE FILL TYPE IV

EDGE OF RIVER

WASHINGTON COUNTY RAILROAD

VERMONT LEAGUE OF CITIES AND TOWNS

PLAN
SCALE HOR. 1"=10'
VERT 1"=5'

BRIDGE NO.1 SUPERSTRUCTURE ESTIMATED QUANTITIES

ITEM	DESCRIPTION	NET	TOTAL
528.10	ONE WAY TEMPORARY BRIDGE (MODIFIED, PREFABRICATED, PERMANENT STRUCTURE @ STA 98+93±)	1 LS	1 LS
531.10	END BEARING ASS'BLY	2 EA	2 EA

100+27.80 ELEV. 523.33
END BRIDGE – RESUME RUNWAY

98+92.70 ELEV. 523.33
BEGIN BRIDGE

135.1'

PVI
99+60.25
526.70
135.1

530
525
520
515
510
505

100 YR FLOOD ELEV. = 526.5
SEE NOTE A THIS SHEET

100+53
527.46
50' V.C.

101+03
524.96
50' VC

STA 100+67.80~100+67.80
TAPER SUBBASE FROM 46" TO 12"

1/4" PER FT.

STONE FILL, TYPE IV MATCH EXISTING GRADE

BOF
513.75

2' MIN.

TURBIDITY FILTER CURTAIN (SEE DETAIL)

ORDINARY HIGH WATER 514.20

BOTTOM OF WASHINGTON COUNTY RAILROAD BRIDGE ELEV. 522.01

4'-0" TYP.

1/4" PER FT.

BOF
513.70

6" GRAVEL BACKFILL TYP.

2' MIN.

GRADE

STONE FILL, TYPE IV TO 2' BELOW STREAM BED

STA 98+49.10
ELEV. 521.7

STA 98+49.10~98+92.70
TAPER SUBBASE FROM 12" TO 46"

NOTE A:
THE BOTTOM OF THIS STRUCTURE IS DESIGNED TO MATCH OR EXCEED THE HEIGHT OF THE EXISTING WASHINGTON COUNTY RAILROAD BRIDGE LOCATED JUST DOWNGRADIENT OF THIS STRUCTURE.

100+50 99+50 98+50

FAX. (802)-658-3629 P.E.A. BUS. (802)-658-9668
PINKHAM ENGINEERING ASSOCIATES, INC.
The Metex Building, 431 Pine St., Burlington, VT 05401

SURVEYED BY PEA DATE 7/22/91
DRAWN BY NPN,JMM DATE
SQUAD LEADER
DESIGN FILE NO. 6829BR3 DATE 9/25/96 PLOTTED
PROJ. NAME WINOOSKI RIVER WEST BIKEWAY
PROJ. NO. 6829
SHEET 47 OF 132 SHEETS

MEMORIAL DRIVE

WINOOSKI RIVER

112+00.66
5.39' RT
W-3

SMH

N 47° 06' 15" W

112

GEOTEXTILE FOR FILTER CURTAIN, ITEM 649.61
TO BE INSTALLED TO MATCH
THE RIVER CONDITIONS AT
THE TIME OF CONSTRUCTION
(SEE DETAIL SHEET 37).

BRIDGE NO. 2
(SEE DETAIL SHEET 51)

N 57° 36' 41" W

111

110

POT 111+70.68 AH
=POT 111+75.60 BK
EQ= +4.92

CONCRETE SIDEWALK

10.0'
(TYP.)

ABUTMENT #2
STA 111+68.64
END BRIDGE – RESUME PATH

TOE OF STONE FILL
TYPE IV, ITEM 613.13

STATE BUILDINGS
MAINTENANCE BUILDING

109+90.95
35.65' RT

POT 109+84.69 BK
Δ=90°-00'-15" L

CUT AND REMOVE EXISTING PAVEMENT
INSTALL NEW 12" CRUSHED STONE
SUBBASE AND 2" BITUMUNIOUS
CONCRETE, TYPE II WEARING
SURFACE

N/F STATE OF VERMONT

A-2

PT 109+80.80

26.3'

STA 109+62.9
PC 109+62.92

24.0'

N 65° 27' 35" W

STA 109+90.64
STOP PATH – BEGIN BRIDGE

109+50

±15°

N

TRUE

MAG.

BRIDGE PLAN
1" = 10' HORIZ.
1" = 5' VERT.

BRIDGE NO.2 SUPERSTRUCTURE ESTIMATED QUANTITIES

ITEM	DESCRIPTION	NET	TOTAL
545.20	PREFABRICATED MULTI-MODAL BRIDGE	1 LS	1 LS

STA 111+68.64 ELEV 527.30
END BRIDGE – RESUME PATH

178'-0"

STA 109+90.64 ELEV 526.73
STOP PATH – BEGIN BRIDGE

535
530
525
520
515
510
505

111+70.68
527.22
0' VC

STA 112+84.5 TO 112+13.7
TRANSITION
12" SUBBASE TO 46" SUBBASE

STA 11+68.6 TO 112+13.7
46" SUBBASE

BOF 515.30

STONE FILL, TYPE IV, ITEM 613.13
MATCH EXISTING GRADE

4'-0" MIN.

2
1

511.3

GEOTEXTILE UNDER STONE
FILL (ITEM 649.31)

STONE FILL TO
2' MIN. BELOW
STREAM BED

6" GRAVEL BACKFILL
FOR SLOPE STABILIZATION
ITEM 203.35

ABUTMENT 2

110+79.20
167' VC
PVI ELEV. 528.265'

GEOTEXTILE FOR FILTER CURTAIN, ITEM 649.61
(SEE DETAIL, SHEET 37 OF 132)

APPROX. ORDINARY HIGH WATER 508.8

OBSERVED WATER LEVEL ON 7/22/91, ELEV. 506.9

109+78.2
526.66
0' VC

5.000%

100 YR FLOOD LEVEL = 525.0

STA 109+90.64 TO 109+50
46" SUBBASE

BOF 516.3

STA 109+50 TO 109+00
TRANSITION
46" SUBBASE TO 12" SUBBASE

ABUTMENT 1

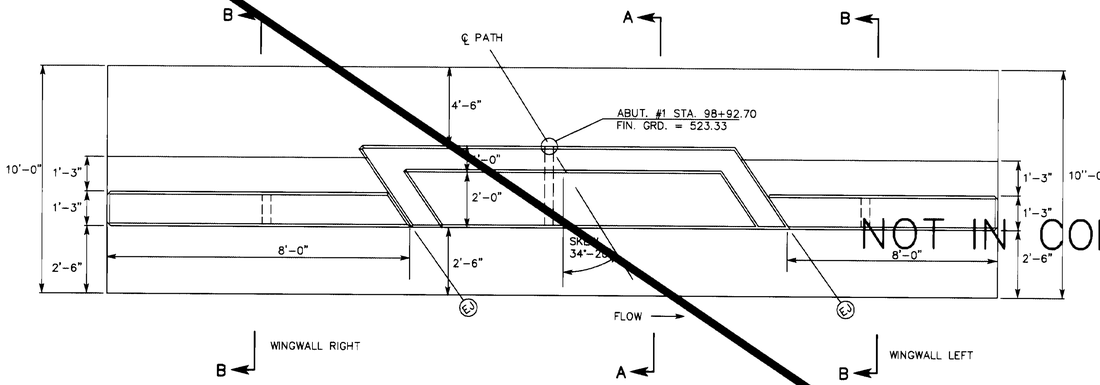
BRIDGE PROFILE
1" = 10' HORIZ.
1" = 5' VERT.

112+00 111+00 110+00

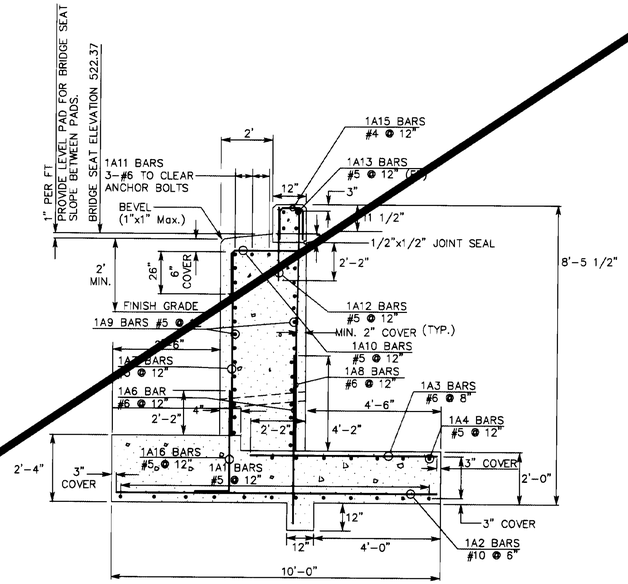
FAX. (802)-658-3629 P.E.A. BUS. (802)-658-5588
PINKHAM ENGINEERING ASSOCIATES, INC.
50 Joy Drive, P.O. Box 2225, South Burlington, VT 05407

SURVEYED BY PEA DATE
DRAWN BY NPN,JMM DATE
SQUAD LEADER

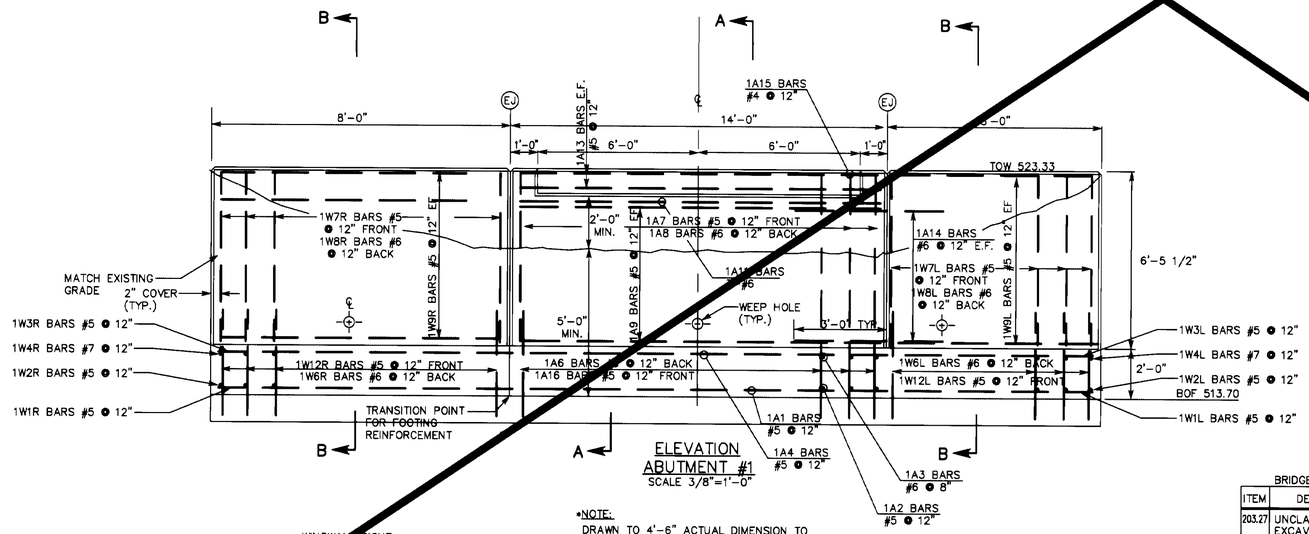
DESIGN FILE NO. 6829BR2 DATE 4/9/97 PLOTTED
PROJ. NAME WINOOSKI RIVER WEST BIKEWAY
PROJ. NO. 6829
SHEET 48 OF 132 SHEETS



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



DETAIL OF ABUTMENT
SECTION A-A
SECTION A-A

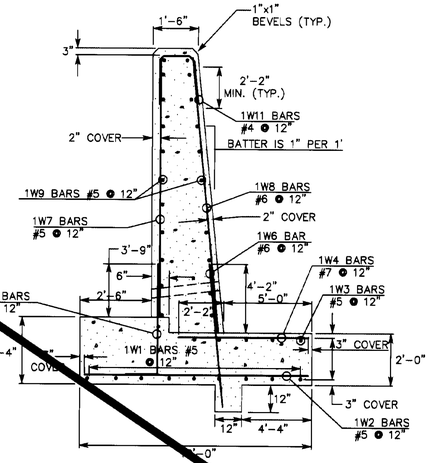


ELEVATION
ABUTMENT #1
SCALE 3/8"=1'-0"

*NOTE:
DRAWN TO 4'-6" ACTUAL DIMENSION TO BE SUPPLIED BY BRIDGE MANUFACTURER ALL EXPOSED CONCRETE SURFACES TO RECEIVE RUBBED FINISH

BRIDGE NO. 1 SUBSTRUCTURE ESTIMATED QUANTITIES

ITEM	DESCRIPTION	NET ABUT 1	NET ABUT 2	ROUND	TOTAL	FINAL
203.27	UNCLASSIFIED CHANNEL EXCAVATION	55 C.Y.	67 C.Y.	8 C.Y.	130 C.Y.	
204.25	STRUCTURE EXCAVATION	71 C.Y.	93 C.Y.	6 C.Y.	170 C.Y.	
204.30	GRANULAR BACKFILL FOR STRUCTURES	42 C.Y.	36 C.Y.	14 C.Y.	160 C.Y.	
501.25	CONCRETE, CLASS B	39 C.Y.	48 C.Y.	4 C.Y.	45 C.Y.	
507.15	REINFORCING STEEL	3288 LB	3650 LB	62 LB	7000 LB	
514.10	WATER REPELLENT	6 GAL.	6 GAL.		12 GAL.	
524.20	JOINT SEALER, POLYURETHANE	0.2 GAL.	0.2 GAL.		0.4 GAL.	
613.13	STONE FILL-TYPE IV	84 C.Y.	106 C.Y.	10 C.Y.	200 C.Y.	



DETAIL OF WINGWALL
SECTION B-B
SCALE 3/8"=1'-0"

BRIDGE NO. 1
ABUTMENT NO. 1

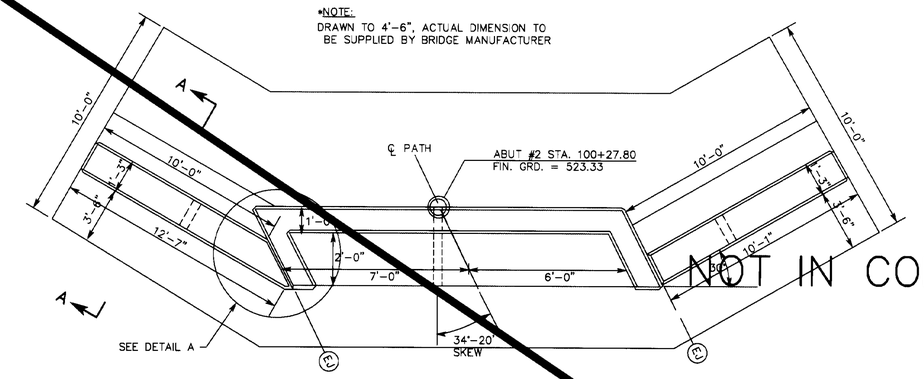
FAX. (802)-658-3629 P.E.A. BUS. (802)-658-5588
PINKHAM ENGINEERING ASSOCIATES, INC.
The Mattex Building, 431 Pine St., Burlington, VT 05401

SURVEYED BY	PEA	DATE	
DRAWN BY	JMM	DATE	
SQUAD LEADER			
DESIGN FILE NO.	6829DET3	DATE PLOTTED	9/25/96
PROJ. NAME	WINOOSKI RIVER WEST BIKEWAY		
PROJ. NO.	6829		
SHEET 49	OF 132 SHEETS		

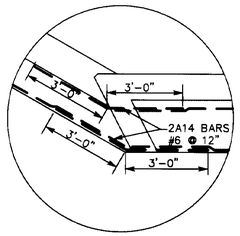
NOT IN CONTRACT

NOT IN CONTRACT

*NOTE:
DRAWN TO 4'-6", ACTUAL DIMENSION TO BE SUPPLIED BY BRIDGE MANUFACTURER

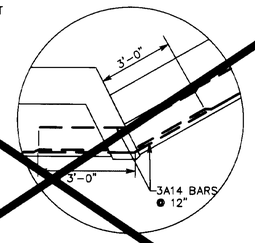


PLAN



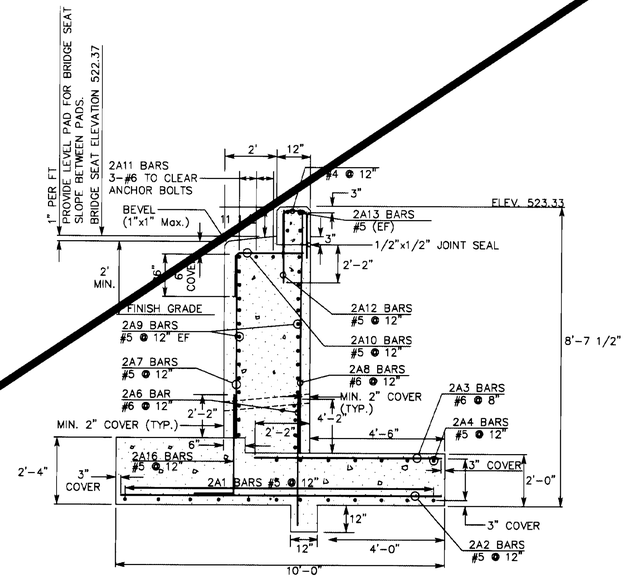
DETAIL A

WINGWALL LEFT



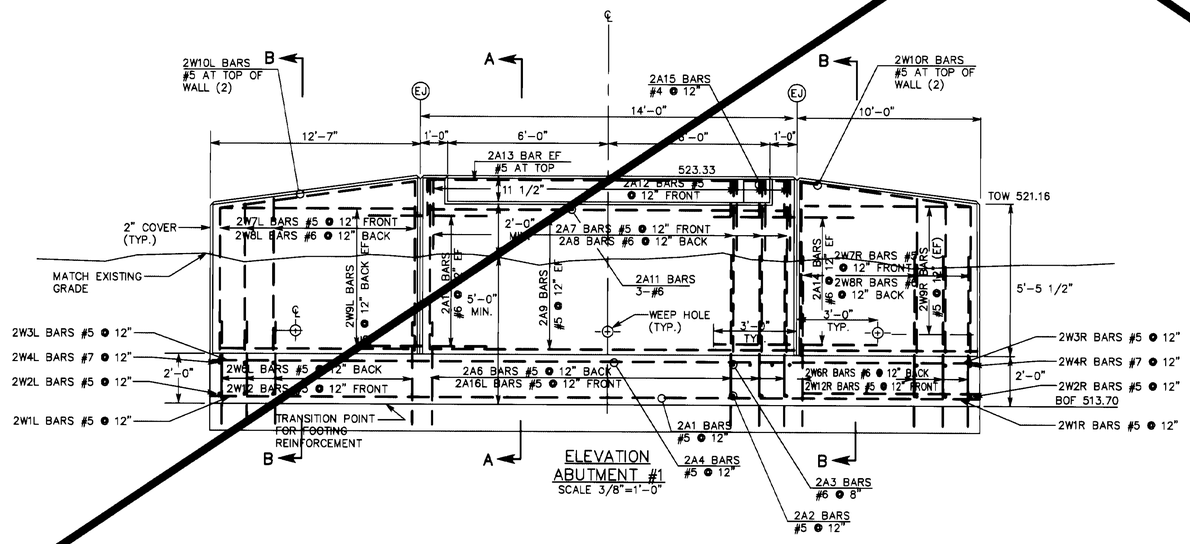
DETAIL B

WINGWALL RIGHT



DETAIL OF ABUTMENT
SECTION A-A
SCALE 3/8"=1'-0"

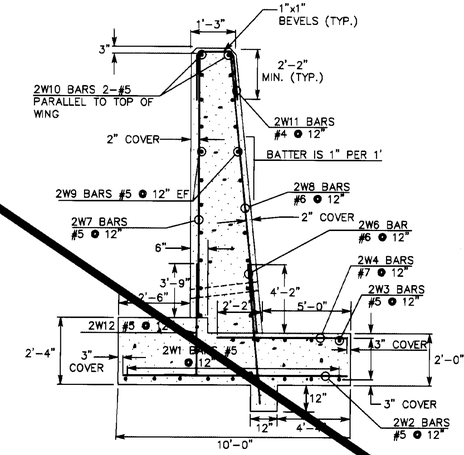
SEE ABUTMENT DRAINAGE DETAIL SHEET 38.



ELEVATION
ABUTMENT #1
SCALE 3/8"=1'-0"

WINGWALL LEFT

WINGWALL RIGHT

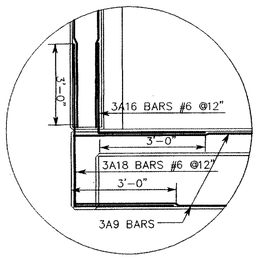


DETAIL OF WINGWALL
SECTION B-B
SCALE 3/8"=1'-0"

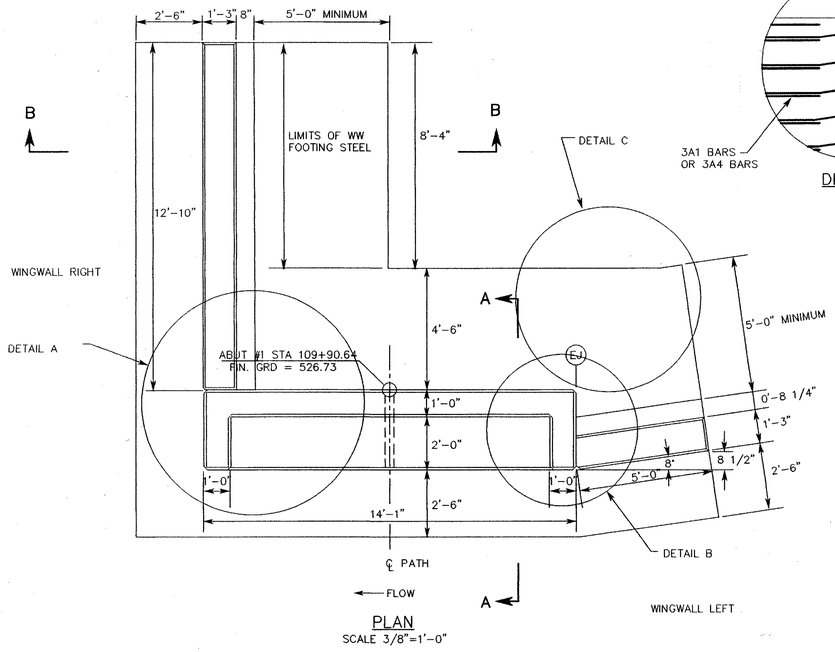
BRIDGE #1
ABUTMENT #2

FAX. (802)-658-3629 P.E.A. BUS. (802)-658-5588
PINKHAM ENGINEERING ASSOCIATES, INC.
The Mattex Building, 431 Pine St., Burlington, VT 05401

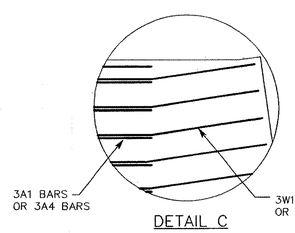
SURVEYED BY	PEA	DATE	
DRAWN BY	JMM	DATE	
SQUAD LEADER			
DESIGN FILE NO.	6829DET5	DATE PLOTTED	9/25/96
PROJ. NAME	WINOOSKI RIVER WEST BIKEWAY		
PROJ. NO.	6829		
SHEET 50	OF 132 SHEETS		



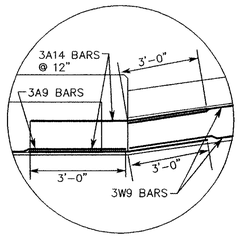
DETAIL A



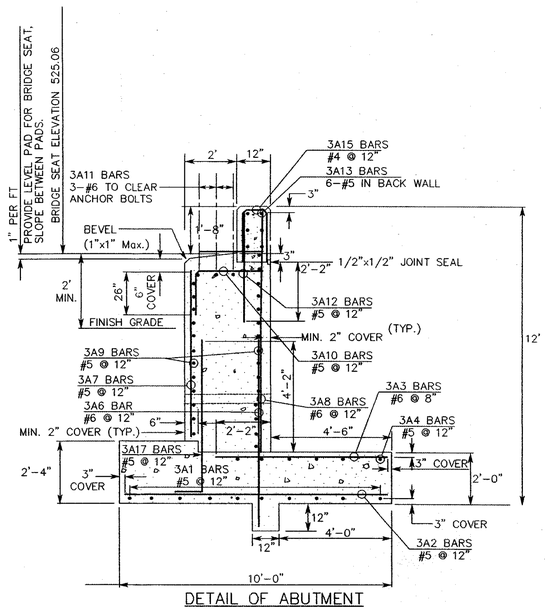
PLAN
SCALE 3/8"=1'-0"



DETAIL C

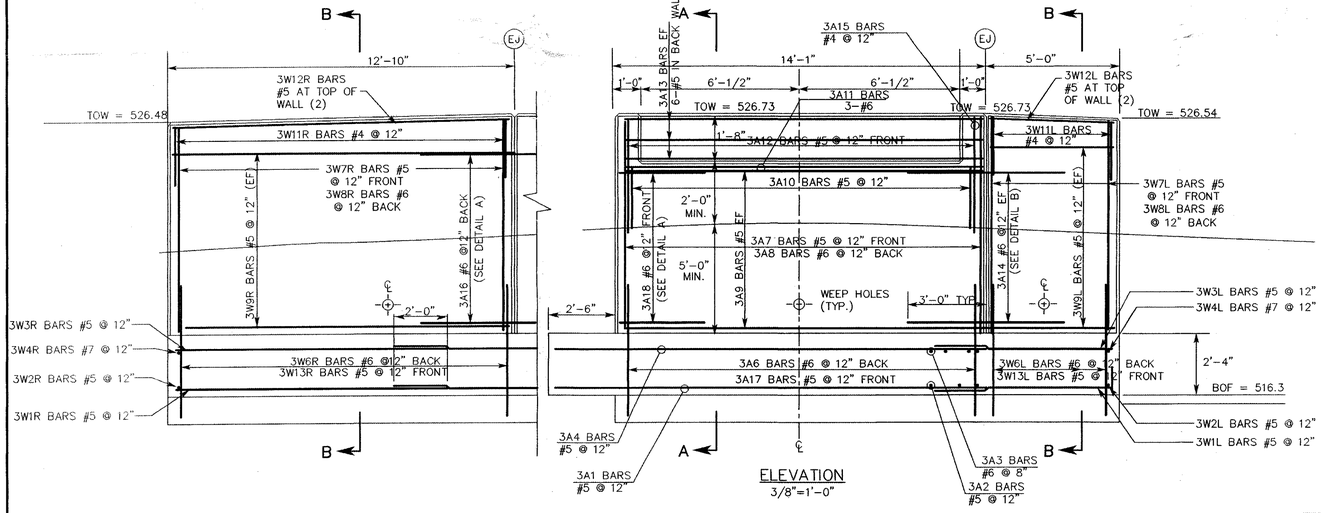


DETAIL B



DETAIL OF ABUTMENT
SECTION A-A
SCALE 3/8"=1'-0"

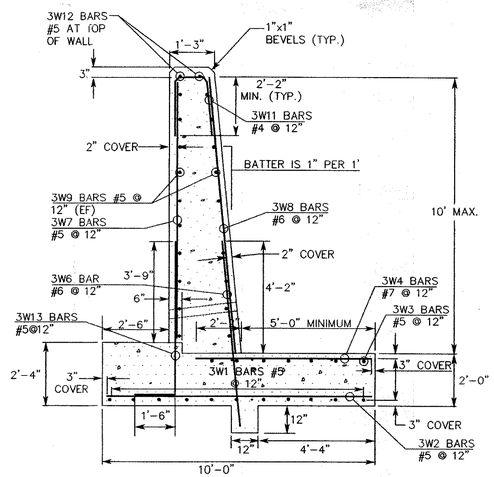
SEE ABUTMENT DRAINAGE DETAIL SHEET 38.



ELEVATION
3/8"=1'-0"

WINGWALL RIGHT

WINGWALL LEFT



DETAIL OF WINGWALL
SECTION B-B
SCALE 3/8"=1'-0"

BRIDGE NO. 2 SUBSTRUCTURE ESTIMATED QUANTITIES

ITEM	DESCRIPTION	NET ABUT 1	NET ABUT 2	0'RUN	TOTAL	FINAL
203.27	UNCLASSIFIED CHANNEL EXCAVATION	0 C.Y.	39 C.Y.		39 C.Y.	
203.35	GRAVEL BACKFILL FOR SLOPE STABILIZATION	0 C.Y.	40 C.Y.		40 C.Y.	
204.25	STRUCTURE EXCAVATION	83 C.Y.	96 C.Y.		179 C.Y.	
204.30	GRANULAR BACKFILL FOR STRUCTURES	76 C.Y.	65 C.Y.		141 C.Y.	
501.25	CONCRETE, CLASS B	45.5 C.Y.	32 C.Y.		77.5 C.Y.	
507.15	REINFORCING STEEL	4013 LB	4687 LB		8700 LB	
514.10	WATER REPELLENT	6 GAL.	6 GAL.		12 GAL.	
524.20	JOINT SEALER, POLYURETHANE	1 GAL.	1 GAL.		2.0 GAL.	
602.20	DRY RUBBLE MASONRY	5 C.Y.	0 C.Y.		5 C.Y.	
613.13	STONE FILL-TYPE IV	0 C.Y.	200 C.Y.		200 C.Y.	
649.31	GEOTEXTILE UNDER STONE FILL	0 S.Y.	200 S.Y.		200 S.Y.	
649.61	GEOTEXTILE FOR FILTER CURTAIN	0 S.Y.	40 S.Y.		40 S.Y.	

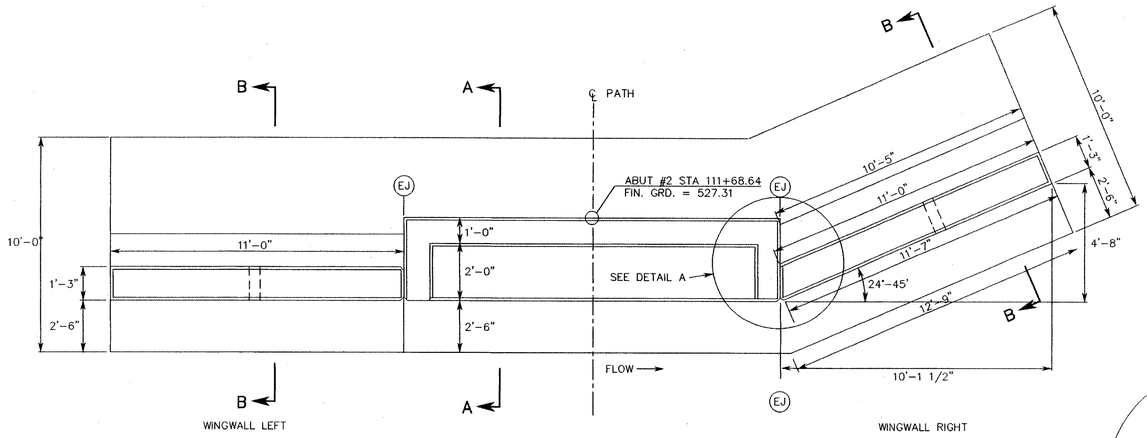
Rev'd 2/27/98, DFH, Changed dimensions of abutment to accept configuration of Steadfast Bridge bearing plates.

Rev'd 1/7/98, DFH, Changed Bars: 3A1, 3A4, 3A7, 3A8, 3A14, 3A18 3W1R, 3W2R, 3W3R, 3W11R, 3W1L, 3W3L

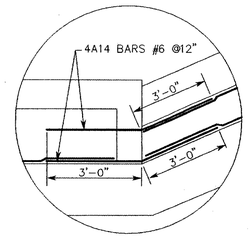
BRIDGE NO. 2
ABUTMENT NO. 1

FAX. (802)-658-3629 P.E.A. BUS. (802)-658-5588
PINKHAM ENGINEERING ASSOCIATES, INC.
50 Joy Drive, P.O. Box 2225, South Burlington, VT 05407

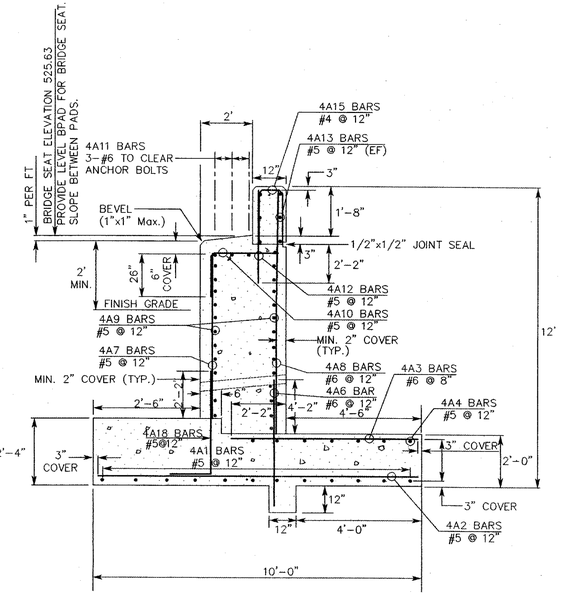
SURVEYED BY PEA DATE
DRAWN BY DFH DATE
SQUAD LEADER
DESIGN FILE NO. 6829DET2 DATE 4/9/97 PLOTTED
PROJ. NAME WINOOSKI RIVER WEST BIKEWAY
PROJ. NO. 6829
SHEET 51 OF 132 SHEETS



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

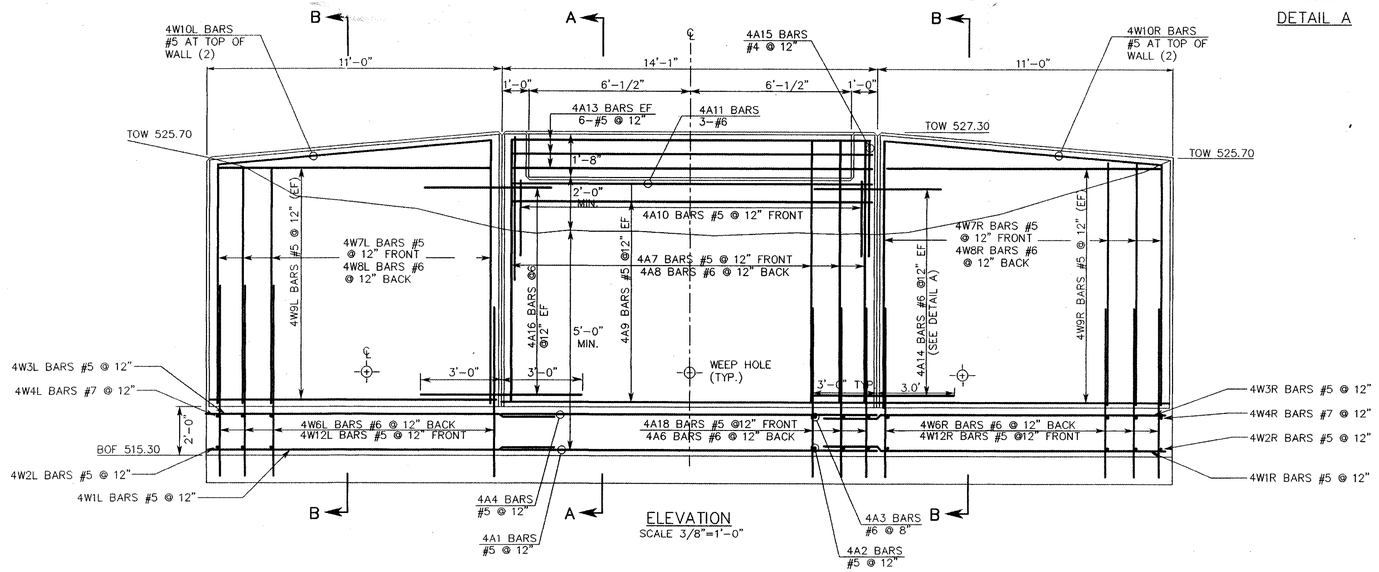


DETAIL A

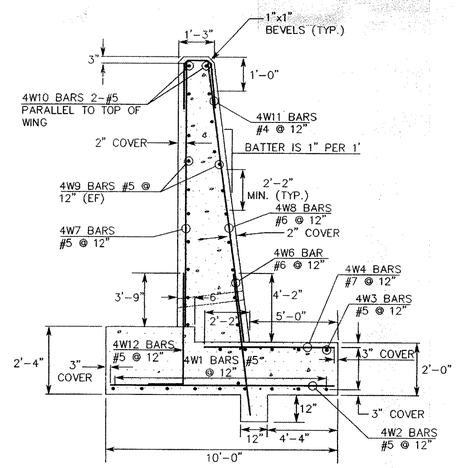


DETAIL OF ABUTMENT
SECTION A-A
SECTION A-A

SEE ABUTMENT DRAINAGE DETAIL SHEET 38.



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



DETAIL OF WINGWALL
SECTION B-B
SCALE 3/8"=1'-0"

BRIDGE NO. 2
ABUTMENT NO. 2

FAX. (802)-658-3629 P.E.A. BUS. (802)-658-5588
PINKHAM ENGINEERING ASSOCIATES, INC.
50 Joy Drive, P.O. Box 2225, South Burlington, VT 05407

SURVEYED BY	PEA	DATE	
DRAWN BY	JMM	DATE	
SQUAD LEADER			
DESIGN FILE NO.	6829DET4	DATE PLOTTED	4/9/97
PROJ. NAME	WINOOSKI RIVER WEST BIKEWAY		
PROJ. NO.	6829		
SHEET	52 OF 132 SHEETS		

REV'D 3/2/98, DFH, Changed abutment dimensions to accept configuration of Steadfast Bridge bearing plates.

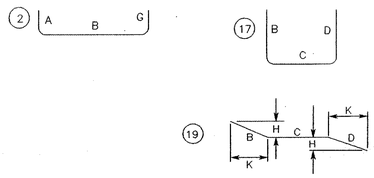
REV'D 1/7/98, DFH, CHANGED BARS: 4A14, 4A16, 4W6L, 4W12L, 4W1R, 4W3R

ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
			BRIDG NO. 1 – ABUTMENT NO. 1														
1	11	5	14'–0"	1A1				STRAIGHT				SPLICE WITH 1W1L BARS					
2	15	5	9'–6"	1A2				STRAIGHT									
3	21	5	6'–5"	1A3				STRAIGHT				SPLICE WITH 1W3L BARS					
4	7	5	14'–0"	1A4				STRAIGHT									
5	15	7	6'–11"	1A6				STRAIGHT									
6	15	5	4'–6"	1A7				STRAIGHT									
7	15	6	6'–3"	1A8				STRAIGHT									
8	14	5	13'–8"	1A9				STRAIGHT									
9	15	5	4'–10"	1A10	2	2'–2"	2'–8"					NONE					
10	3	6	13'–8"	1A11				STRAIGHT									
11	15	5	2'–10"	1A12				STRAIGHT									
12	4	5	13'–8"	1A13				STRAIGHT									
13	30	6	6'–0"	1A14				STRAIGHT									
14	15	4	2'–6"	1A15	2	11"	8"					11"					
15	8	5	5'–3"	1A16	2	1'–0"	4'–3"					NONE					
16																	
17																	
18																	
19			**BRIDGE NO.1 – ABUTMENT NO.1 – WINGWALL RIGHT**														
20	11	5	2'–10"	1W1R				STRAIGHT				SPLICE WITH 1A1 BARS					
21	9	5	9'–6"	1W2R				STRAIGHT									
22	8	5	7'–9"	1W3R				STRAIGHT				SPLICE WITH 1A3 BARS					
23	9	7	6'–11"	1W4R				STRAIGHT									
24	9	6	7'–3"	1W6R				STRAIGHT									
25	9	5	4'–6"	1W7R				STRAIGHT									
26	9	6	4'–10"	1W8R				STRAIGHT									
27	12	5	7'–10"	1W9R				STRAIGHT									
28	9	4	4'–6"	1W11R	2	1'–2"	2'–2"					1'–2"					
29	9	5	7'–4"	1W12R	17		5'–10"	1'–6"				NONE					
30																	
31																	
32																	
33																	
34			**BRIDGE NO.1 – ABUTMENT NO.1 – WINGWALL LEFT**														
35	11	5	7'–10"	1W1L				STRAIGHT				SPLICE WITH 1A1 BARS					
36	9	5	9'–6"	1W2L				STRAIGHT									
37	8	5	7'–0"	1W3L				STRAIGHT				SPLICE WITH 1A3 BARS					
38	9	7	6'–11"	1W4L				STRAIGHT									
39	9	6	7'–3"	1W6L				STRAIGHT									
40	9	5	4'–6"	1W7L				STRAIGHT									
41	9	6	4'–10"	1W8L				STRAIGHT									
42	12	5	7'–10"	1W9L				STRAIGHT									
43	9	4	4'–6"	1W11L	2	1'–2"	2'–2"					1'–2"					
44	9	5	7'–4"	1W12L	17		5'–10"	1'–6"				NONE					
45																	
46																	
47																	
48			**BRIDGE NO.1 – ABUTMENT NO.2**														
49	11	5	14'–0"	2A1				STRAIGHT				SPLICE WITH 1W1L BARS					
50	15	5	9'–6"	2A2				STRAIGHT									
51	15	6	6'–5"	2A3				STRAIGHT				SPLICE WITH 1W3L BARS					
52	7	5	14'–0"	2A4				STRAIGHT									
53	15	6	6'–11"	2A6				STRAIGHT									
54	15	5	4'–10"	2A7				STRAIGHT									
55	15	6	3'–3"	2A8				STRAIGHT									
56	16	5	13'–8"	2A9				STRAIGHT				SPLICE WITH 2A14 BARS					
57	15	5	4'–10"	2A10	2	2'–2"	2'–8"					NONE					
58	3	6	13'–8"	2A11				STRAIGHT									
59	15	5	3'–1"	2A12				STRAIGHT									
60	4	5	13'–8"	2A13				STRAIGHT									
61	30	6	6'–0"	2A14	19		3'–0"	3'–0"									
62	15	4	2'–6"	2A15	2	11"	8"					11"					
63	15	5	5'–3"	2A16	2	1'–0"	4'–3"					NONE					
64																	
65																	
66			**BRIDGE NO.1 – ABUTMENT NO.2 – WINGWALL RIGHT**														
67	11	5	12'–4"	2W1R				STRAIGHT				SPLICE WITH 2A1 BARS					
68	11	5	9'–6"	2W2R	▲			STRAIGHT									
69	8	5	9'–9"	2W3R				STRAIGHT				SPLICE WITH 2A3 BARS					
70	11	7	6'–11"	2W4R				STRAIGHT									
71	11	6	6'–11"	2W6R				STRAIGHT									
72	11	5	6'–0"	2W7R	▲			STRAIGHT									
73	11	6	6'–4"	2W8R	▲			STRAIGHT									
73	6	5	12'–1"	2W9R	▲			STRAIGHT									
74	2	5	12'–1"	2W10R	▲			STRAIGHT									
75	11	4	5'–3"	2W11R	2	1'–2"	2'–2"					1'–2"					
76	7	5	7'–4"	2W12R													
77																	
78																	
79																	
80																	
81																	
82																	

ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
			BRIDGE NO.1 – ABUTMENT NO.2 – WINGWALL LEFT														
83	11	5	9'–9"	2W1L				STRAIGHT				SPLICE WITH 2A1 BARS					
84	11	5	9'–6"	2W2L				STRAIGHT									
85	8	5	9'–9"	2W3L				STRAIGHT				SPLICE WITH 2A3 BARS					
86	11	7	6'–11"	2W4L				STRAIGHT									
87	11	6	6'–11"	2W6L				STRAIGHT									
88	11	5	4'–10"	2W7L	▲			STRAIGHT									
89	11	6	5'–3"	2W8L	▲			STRAIGHT				SPLICE WITH 2A14 BARS					
90	15	5	9'–8"	2W9L				STRAIGHT									
91	2	5	9'–8"	2W10L				STRAIGHT									
92	11	4	4'–6"	2W11L	2	1'–2"	2'–2"					1'–2"					
93	7	5	7'–4"	2W12L	17		5'–10"	1'–6"				NONE					
94																	
95			**BRIDGE NO.2 – ABUTMENT NO.1**														
96	11	5	16'–4"	3A1				STRAIGHT				SPLICE WITH 3W1L BARS					
97	17	5	9'–6"	3A2				STRAIGHT									
98	26	6	6'–5"	3A3				STRAIGHT				SPLICE WITH 3W3L BARS					
99	7	5	16'–4"	3A4				STRAIGHT									
100	15	6	6'–11"	3A6				STRAIGHT									
101	15	5	5'–9"	3A7				STRAIGHT									
102	15	6	8'–2"	3A8				STRAIGHT									
103	15	5	13'–9"	3A9				STRAIGHT									
104	15	5	4'–10"	3A10	2	2'–2"	2'–8"					NONE					
105	3	6	13'–9"	3A11				STRAIGHT									
106	15	5	3'–7"	3A12				STRAIGHT									
107	4	5	13'–9"	3A13				STRAIGHT									
108	16	6	6'–0"	3A14	19		3'–0"	3'–0"	NONE				0'–5"		NONE		
109	15	4	4'–0"	3A15	2	1'–8"	8"					1'–8"					
110	8	6	6'–0"	3A16	2	3'–0"	3'–0"					NONE					
111	15	5	6'–11"	3A17	17		5'–11"	1'–0"				NONE					
112	7	6	9'–0"	3A18	2	5'–10"	3'–0"					NONE					
113																	
114			**BRIDGE NO.2 – ABUTMENT NO.1 – WINGWALL RIGHT**														
115	11	5	10'–1"	3W1R				STRAIGHT						SPLICE WITH 3A2 BARS			
116	9	5	9'–6"	3W2R				STRAIGHT									
117	8	5	10'–1"	3W3R	▲			STRAIGHT						SPLICE WITH 3A3 BARS			
118	9	7	7'–7"	3W4R				STRAIGHT									
119	14	6	6'–11"	3W6R				STRAIGHT									
120	14	5	7'–10"	3W7R	▲			STRAIGHT									
121	14	6	8'–2"	3W8R	▲			STRAIGHT									
122	18	5	12'–8"	3W9R	▲			STRAIGHT									
123	14	4	3'–3"	3W11R	2	1'–2"	0'–11"					1'–2"					
124	2	5	12'–8"	3W12R				STRAIGHT									
125	14	5	6'–10"	3W13R	2	1'–0"	5'–10"					NONE					
126			**BRIDGE NO.2 – ABUTMENT NO.1 – WINGWALL LEFT**														
127	10	5	6'–9"	3W1L	19	▲	2'–0"	4'–9"					0'–3"		NONE		SPLICE WITH 3A1 BARS
128	6	5	9'–6"	3W2L				STRAIGHT									
129	8	5	6'–9"	3W3L	19	▲	2'–0"	4'–9"					0'–3"		NONE		SPLICE WITH 3A4 BARS
130	10	7	6'–11"	3W4L				STRAIGHT									
131	9	6	6'–11"	3W6L				STRAIGHT									
132	6	5	7'–8"	3W7L	▲			STRAIGHT									
133	6	6	8'–0"	3W8L	▲			STRAIGHT									
134	18	5	4'–9"	3W9L	▲			STRAIGHT									
135	6	4	3'–3"	3W11L	2	1'–2"	0'–11"					1'–2"					
136	2	5	4'–9"	3W12L				STRAIGHT									
137	6	5	7'–4"	3W13L	17		5'–10"	1'–6"				NONE					
138			**BRIDGE NO.2 – ABUTMENT NO.2**														
139	11	5	14'–1"	4A1				STRAIGHT				SPLICE WITH 4W1 BARS					
140	15	5	9'–6"	4A2				STRAIGHT									
141	22	6	6'–5"	4A3				STRAIGHT				SPLICE WITH 4W3 BARS					
142	8	5	14'–1"	4A4				STRAIGHT									
143	15	6	6'–11"	4A6				STRAIGHT									
144	15	5	7'–4"	4A7				STRAIGHT									
145	15	6	9'–9"	4A8				STRAIGHT									
146	17	5	13'–9"	4A9				STRAIGHT				SPLICE WITH 4A14 BARS					
147	15	5	4'–10"	4A10	2	2'–2"	2'–8"					NONE					
148	3	6	13'–9"	4A11				STRAIGHT									
149	15	5	3'–7"	4A12				STRAIGHT									
150	6	5	13'–9"	4A13				STRAIGHT									
151	17	6	6'–0"	4A14	19		3'–0"	3'–0"					1'–3"		NONE		
152	15	4	4'–0"	4A15	2	1'–8"	8"					1'–8"					
153	17	6	6'–0"	4A16				STRAIGHT									
154	15	5	5'–3"	4A18	17		4'–3"	1'–0"				NONE					
155																	
156																	
157																	
158																	
159																	
160																	
161																	
162																	
163																	
164																	
165																	

ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
			BRIDGE NO.2 – ABUTMENT NO.2 – WINGWALL LEFT														
166	11	5	12'–10"	4W1L				STRAIGHT				SPLICE WITH 4A1 BARS					
167	12	5	9'–6"	4W2L				STRAIGHT									
168	11	5	12'–9"	4W3L				STRAIGHT				SPLICE WITH 4A3 BARS					
169	12	7	6'–11"	4W4L				STRAIGHT									
170	12	6	6'–11"	4W6L				STRAIGHT									
171	12	5	9'–5"	4W7L	▲			STRAIGHT									
172	12	6	9'–9"	4W8L	▲			STRAIGHT									
173	11	5	10'–9"	4W9L				STRAIGHT									
174	2	5	10'–9"	4W10L				STRAIGHT									
175	12	4	3'–1"	4W11L	2	1'–2"	0'–11"						1'–2"				
176	12	5	7'–4"	4W12L	2	1'–6"	5'–10"						NONE				
177																	
178			**BRIDGE NO.2 – ABUTMENT NO.2 – WINGWALL RIGHT**														
179	11	5	14'–6"	4W1R	19	▲	2'–0"	12'–6"	SPLICE WITH 4A1 BARS				0'–10"		NONE		
180	12	5	9'–6"	4W2R				STRAIGHT									
181	8	5	13'–6"	4W3R	19	▲	2'–0"	12'–6"	SPLICE WITH 4A3 BARS				0'–10"		NONE		
182	13	7	6'–9"	4W4R				STRAIGHT									
183	12	6	6'–11"	4W6R				STRAIGHT									
184	13	5	9'–6"	4W7R	▲			STRAIGHT									
185	12	6	9'–9"	4W8R	▲			STRAIGHT									
186	19	5	11'–4"	4W9R				STRAIGHT									
187	2	5	11'–4"	4W10R				STRAIGHT									
188	13	4	2'–6"	4W11R	2	1'–2"	0'–11"						1'–2"				
189	13	5	7'–4"	4W12R	17		5'–10"	1'–6"					NONE				
190																	

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", AASHTO M 31 (ASTM A 615–S1). ALL BARS SHALL BE GRADE 60, UNLESS OTHERWISE DESIGNATED.
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 DIMENSION OR QUANTITY THAT MAY CHANGE DUE TO DELIVERED BRIDGE DIMENSIONS.
♣ DENOTES BARS TO BE CUT IN FIELD.
* DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.
△ DENOTES TWO EXTRA BARS ADDED FOR TESTING PURPOSES.

FILE: 6829BRID

ASTM STANDARD REINFORCING BARS

BAR SIZE DESIG-NATION	WEIGHT POUNDS PER FOOT	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER INCHES	CROSS SEC-TIONAL AREA SQ. INCHES	PERIMETER INCHES
#3	.375	.375	.11	1.178
#4	.668	.500	.20	1.571
#5	1.043	.625	.31	1.963
#6	1.502	.750	.44	2.355
#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	1.55	4.430
#14	7.65	1.693	2.25	5.32
#18	13.60	2.257	4.00	7.09

REV. NO.	MADE BY	DATE	DESCRIPTION
2	DFH	3/2/98	CHANGED BARS: 3A1, 3A2, 3A3, 3A4, 3A7, 3A9, 3A11, 3A12, 3A13, 3A14, 3A15, 3A16, 3A17, 3A18 4A1, 4A4, 4A6, 4A7, 4A9, 4A11, 4A12, 4A13, 4A14, 4A15, 4A16
1	DFH	1/7/98	CHANGED BARS: 3A1, 3A4, 3A7, 3A8, 3A14, 3A18, 3W1R, 3W2R, 3W3R, 3W11R 3W1L, 3W3L, 4A14, 4A16, 4W6L, 4W12L, 4W1R, 4W3R

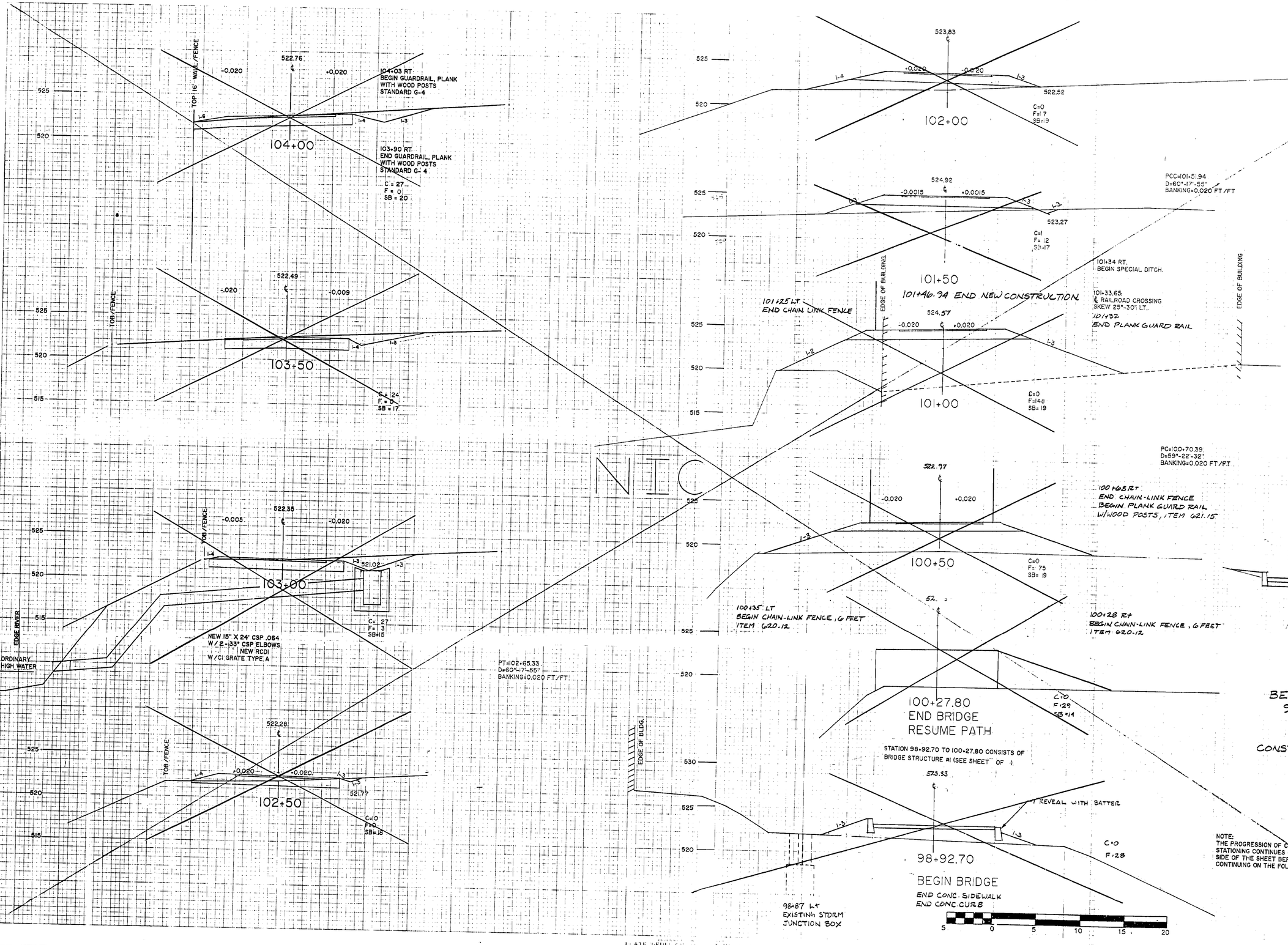
STATE OF VERMONT
AGENCY OF TRANSPORTATION

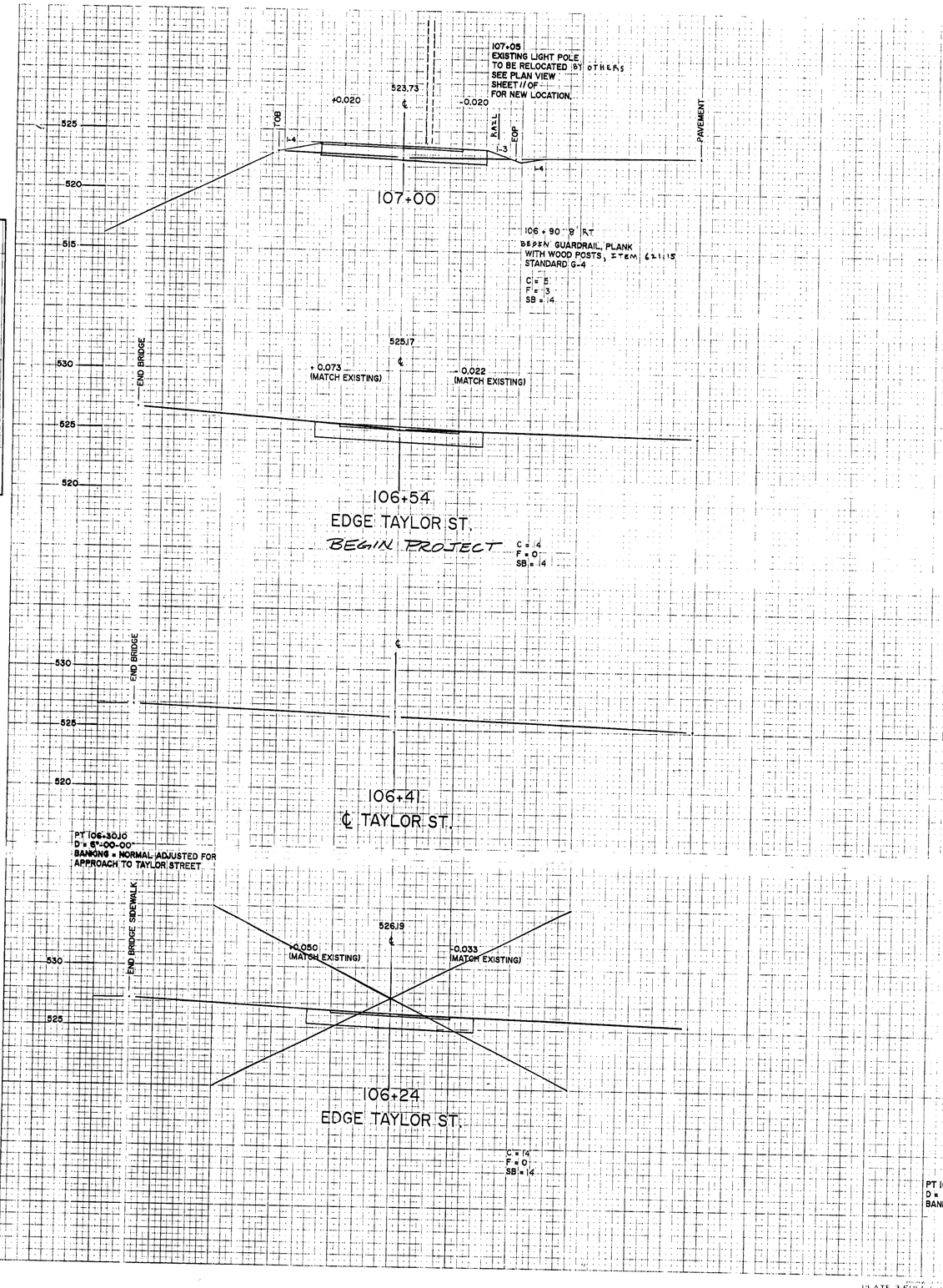
TOWN OF MONTPELIER	BRIDGE NO.
	LOG STA.
HIGHWAY NO.	SURV. STA.

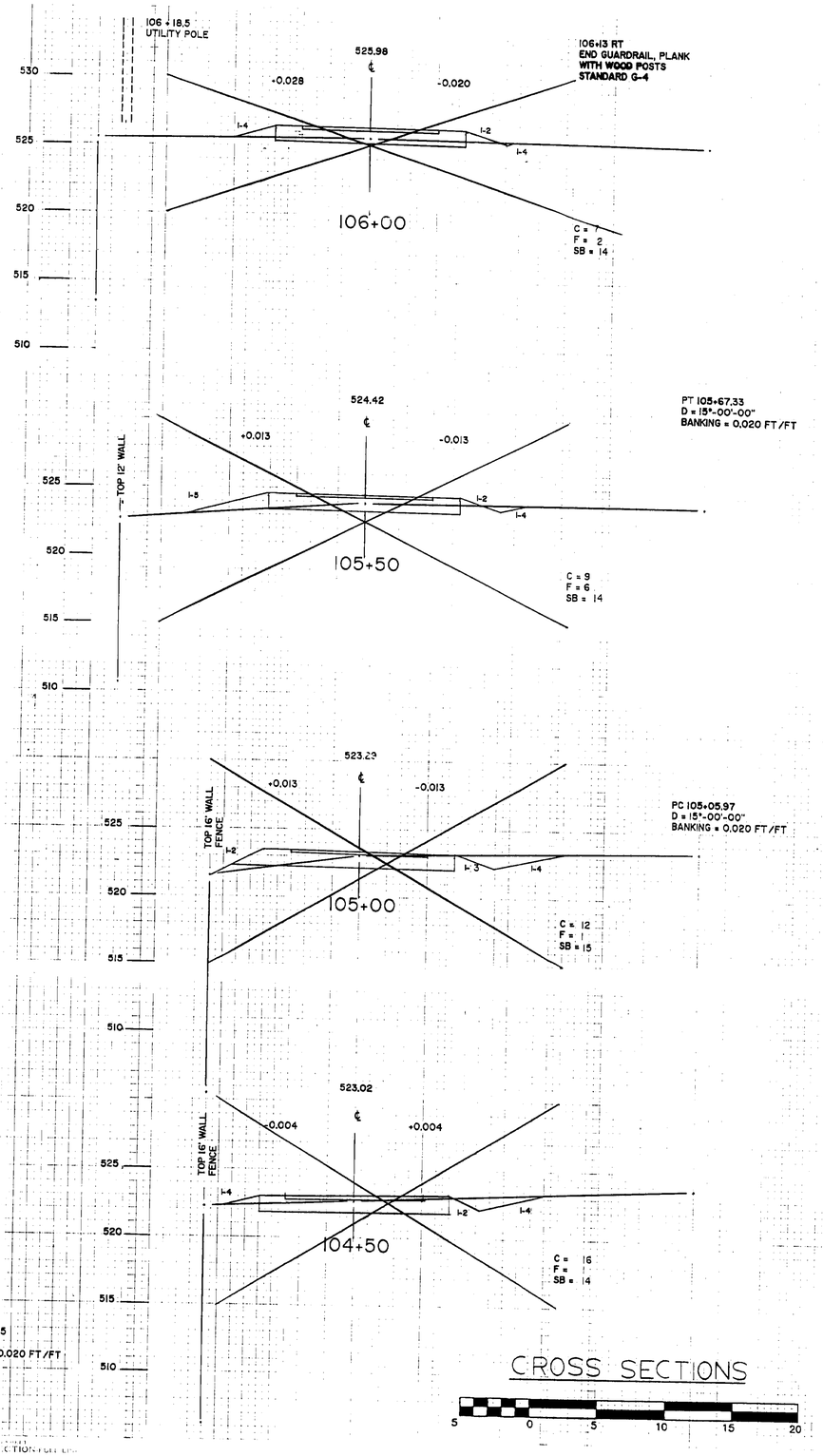
REINFORCING STEEL SCHEDULE

DESIGNED BY:	DRAWN BY:
CHECKED BY:	BRIDGE DESIGN SUPERVISOR
DATE:	DATE:
PROJECT WINOOSKI RIVER WEST BIKE PATH	PROJECT NO. 6829
BRIDGE SHEET NO.	SHEET 53 OF 132

ORIGINAL
SURVEY
NOTE BOOK
NO.
DATE
BY
TRACINGS
AREAS
AREAS CHECKED
FINAL
SURVEY
PLOTTED
NOTE BOOK
TEMPLATE
NO.
AREAS
AREAS CHECKED
DATE


104+00
522.76
-0.020
+0.020
TOP 16' WALL/FENCE
104+03 RT.
BEGIN GUARDRAIL, PLANK
WITH WOOD POSTS
STANDARD G-4
103+90 RT.
END GUARDRAIL, PLANK
WITH WOOD POSTS
STANDARD G-4
C = 27
F = 0
SB = 20
103+50
522.49
-0.020
-0.009
TOB FENCE
C = 24
F = 0
SB = 17
103+00
522.35
-0.005
-0.020
TOB FENCE
521.02
C= 27
F= 5
SB=15
NEW 15" X 24' CSP .064
W/2-33° CSP ELBOWS
NEW RCDI
W/CI GRATE TYPE A
EDGE RIVER
ORDINARY
HIGH WATER
102+50
522.28
+0.020
+0.020
TOB/FENCE
521.77
C=10
F=0
SB=18
PT=102+65.33
D=60°-17'-55"
BANKING=0.020 FT./FT.
102+00
523.83
+0.020
-0.020
522.52
C=0
F=17
SB=9
101+50
524.92
-0.0015
+0.0015
523.27
C=1
F=12
SB=17
101+46.94 END NEW CONSTRUCTION
101+25 LT
END CHAIN LINK FENCE
EDGE OF BUILDING
PCC=101+51.94
D=60°-17'-55"
BANKING=0.020 FT/FT
101+34 RT.
BEGIN SPECIAL DITCH.
101+33.65
℄ RAILROAD CROSSING
SKEW 25°-30° LT.
101+32
END PLANK GUARD RAIL
101+00
524.57
-0.020
+0.020
C=0
F=148
SB=19
EDGE OF BUILDING
100+50
522.97
-0.020
+0.020
C=0
F= 75
SB= 19
100+68 RT
END CHAIN-LINK FENCE
BEGIN PLANK GUARD RAIL
W/WOOD POSTS, ITEM 621.15
100+35 LT
BEGIN CHAIN-LINK FENCE, 6 FEET
ITEM 620.12
100+28 RT
BEGIN CHAIN-LINK FENCE, 6 FEET
ITEM 620.12
PCC=100+70.39
D=59°-22'-32"
BANKING=0.020 FT/FT
98+50
521.73
100+27.80
END BRIDGE
RESUME PATH
C=0
F=29
SB=14
STATION 98+92.70 TO 100+27.80 CONSISTS OF
BRIDGE STRUCTURE #1 (SEE SHEET OF)
98+92.70
573.33
1" REVEAL WITH BATTER
C=0
F=28
BEGIN BRIDGE
END CONC. SIDEWALK
END CONC CURB
98+87 LT
EXISTING STORM
JUNCTION BOX
EDGE OF BLDG.
BEGIN PROJECT
98+49.10
BEGIN 8' CONC. SIDEWALK, ITEM 618.11
BEGIN CONC. CURB, ITEM 618.28
CONSTRUCT SATISFACTORY
APPROACH
NOTE:
THE PROGRESSION OF CROSS SECTION
STATIONING CONTINUES ON THE LEFT
SIDE OF THE SHEET BEFORE
CONTINUING ON THE FOLLOWING SHEET.
FROM STA. 98+49.10 TO STA. 104+00
PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH
NO. BWM-BIKE(4)S
PINKHAM ENGINEERING ASSOCIATES, INC.
SHEET 7.5 OF 13.2 SHEETS
5 0 5 10 15 20





NOTE:
THE PROGRESSION OF CROSS SECTION STATIONING CONTINUES ON THE LEFT SIDE OF THE SHEET BEFORE CONTINUING ON THE FOLLOWING SHEET.

CROSS SECTIONS

5 0 5 10 15 20

FROM STA. 104+50 TO STA. 107+00

PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH

NO. BUM-BIKE(4)S

PINKHAM ENGINEERING ASSOCIATES, INC.

SHEET 76 OF 132 SHEETS

FINAL SURVEY PLOTTED TEMPLATE AREAS CHECKED NOTE BOOK NO. DATE

ORIGINAL SURVEY PLOTTED TEMPLATE AREAS CHECKED NOTE BOOK NO. DATE

109+12 LT
END 6" UNDERDRAIN CARRIER PIPE
BEGIN 6" UNDERDRAIN

109+12 LT.
BEGIN CRM RETAINING WALL
TO MATCH WINGWALL

109+00 RT
END 6" UNDERDRAIN CARRIER PIPE
BEGIN 6" UNDERDRAIN

109+00 RT.
END STEEL BEAM GUARD RAIL
END TREATED TIMBER CURB
BEGIN CRM RETAINING WALL
AND PAVED SHOULDER

108+48 TO 109+25 RT
EXISTING GRANITE CURB
TO BE SET BACK 2.5'
BY OTHERS

109+00 LT
END TAPER OF SHOULDER
FROM 6" TO 2'

108+75 LT
BEGIN TAPER OF SHOULDER
FROM 6" TO 2'

REV POT 108+90.19 BK
= POT 109+00.00 AHD
EQ = + 0.19'

108+39 RT
BEGIN 6" UNDERDRAIN CARRIER PIPE

108+33 RT
BEGIN 6" UNDERDRAIN CARRIER PIPE

108+33 RT
NEW RCBI W/C.I. GRATE, TYPE 'D'
CONNECT TO EXISTING 30" RCP.

108+33
CHANGE ELEVATION OF EXISTING DI
TO MATCH NEW @ FINISHED GRADE, ITEM 604.40
W/NEW C.I. FRAME AND COVER MARKED "STORM" ITEM 604.50

107+74 LT
BEGIN ELECTRICAL WIRE CONDUIT
FOR LIGHT POLES, ITEM 678.23

107+42 RT
BEGIN TREATED TIMBER CURB, ITEM 616.35

107+49 LT
BEGIN NEW 6' CHAIN LINK FENCE
ITEM 620.12

108+90 RT.
BEGIN STEEL BEAM GUARD RAIL W/WOOD POSTS
ITEM 621.20, STD G-1d, MODIFIED (ELIMINATE OFFSET BLOCK)

109+84 RT
END 6" UNDERDRAIN

109+74 LT
END 6" UNDERDRAIN

BEGIN BIKE PATH

REVISED 6/10/98 REALIGN PATH AND REVISED TYPICAL STA 106+30.10 TO 109+00
ADDED UNDERDRAIN

FROM STA 106+54 TO STA 109+00

PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH

NO. BWM – BIKE (4) S

PINKHAM ENGINEERING ASSOC., INC.

SHEET 76A OF

DWG NO. drnvxc.dwg

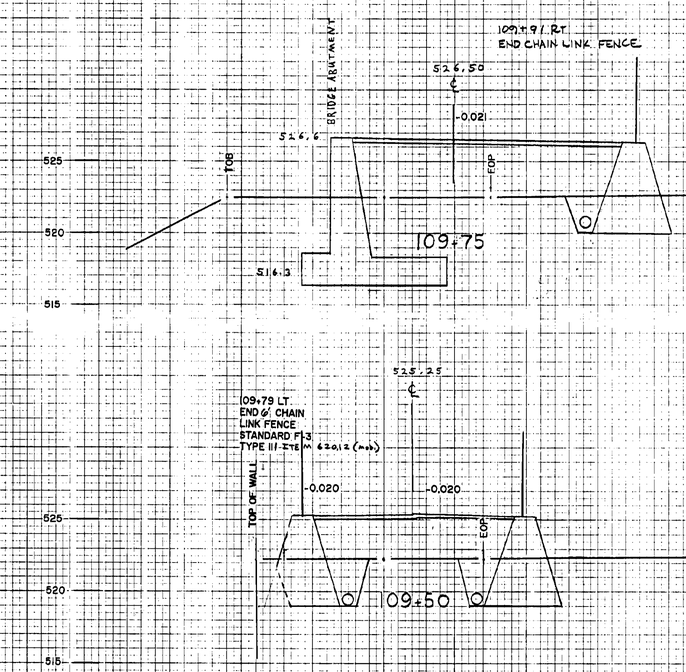
FINAL SURVEY | SURVEYED | TEMPLATE | AREAS CHECKED
NOTE BOOK | NO.

STA 109+90.64
END PATH
BEGIN BRIDGE

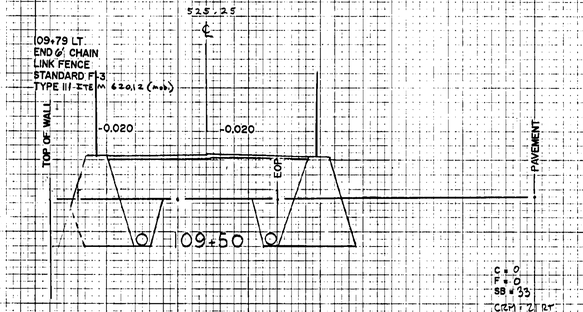
STA 109+35 RT ⚠
END CRM RETAINING
WALL MATCH WING WALL

PI 109+80.80 ⚠
Δ = 90°-00'-15" LT

109+91 RT
END CHAIN LINK FENCE



C = 0
F = 0
SB = 23
CRM = 21' RT

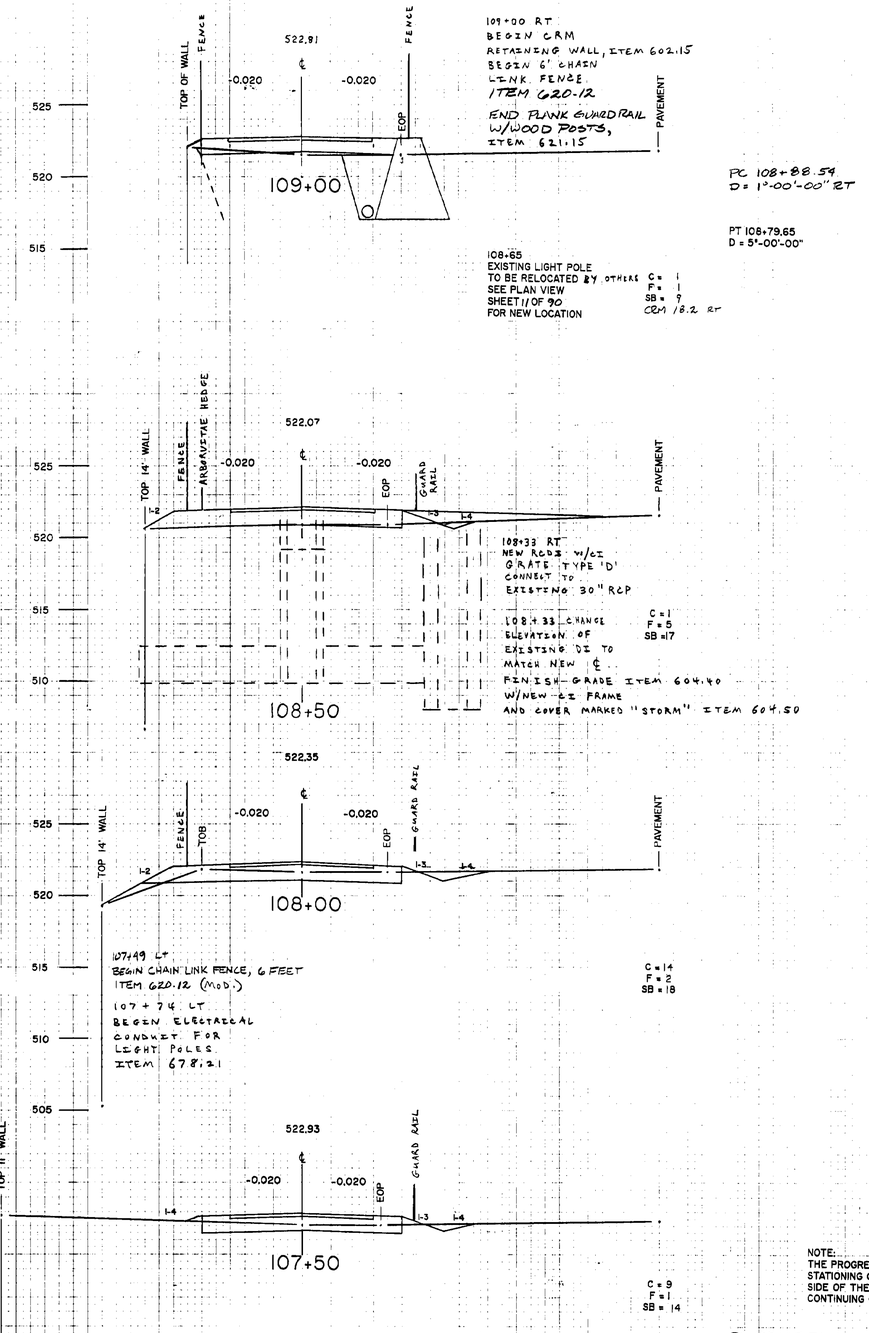


109+12 LT — 109+74 LT ⚠
BEGIN CRM RETAINING WALL
AND MATCH WING WALL
SEE STD D-2 ITEM 602.15

PC 109+62.92
D = 60°-18'-41" RT

C = 0
F = 0
SB = 33
CRM = 21' RT
19 LT

PT 109+11.45
D = 1°-00'-00" RT



109+00 RT
BEGIN CRM
RETAINING WALL, ITEM 602.15
BEGIN 6' CHAIN
LINK FENCE
ITEM 620-12
END PLANK GUARDRAIL
W/WOOD POSTS,
ITEM 621.15

PC 108+88.54
D = 1°-00'-00" RT

PT 108+79.65
D = 5°-00'-00"

108+65
EXISTING LIGHT POLE
TO BE RELOCATED BY OTHERS
SEE PLAN VIEW
SHEET 1 OF 90
FOR NEW LOCATION

C = 1
F = 1
SB = 9
CRM 18.2 RT

108+33 RT
NEW RCDI W/GI
GRATE TYPE 'D'
CONNECT TO
EXISTING 30" RCP

108+33 CHANGE
ELEVATION OF
EXISTING DI TO
MATCH NEW ℄
FINISH GRADE ITEM 604.40
W/NEW GI FRAME
AND COVER MARKED "STORM" ITEM 604.50

C = 1
F = 5
SB = 17

107+49 LT
BEGIN CHAIN LINK FENCE, 6 FEET
ITEM 620.12 (MOD.)

107+74 LT
BEGIN ELECTRICAL
CONDUIT FOR
LIGHT POLES
ITEM 678.21

C = 14
F = 2
SB = 18

C = 9
F = 1
SB = 14

NOTE:
THE PROGRESSION OF CROSS SECTION
STATIONING CONTINUES ON THE LEFT
SIDE OF THE SHEET BEFORE
CONTINUING ON THE FOLLOWING SHEET.

PC 107+15.71
D = 5°-00'-00" RT

#	REVISIONS	DATE
⚠	SUPPLEMENTAL CHANGES	10/1/96

CROSS SECTIONS

5 0 5 10 15 20

FROM STA. 107+50 TO STA. 109+94.70

PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH

NO. BWM-BIKE(4)S

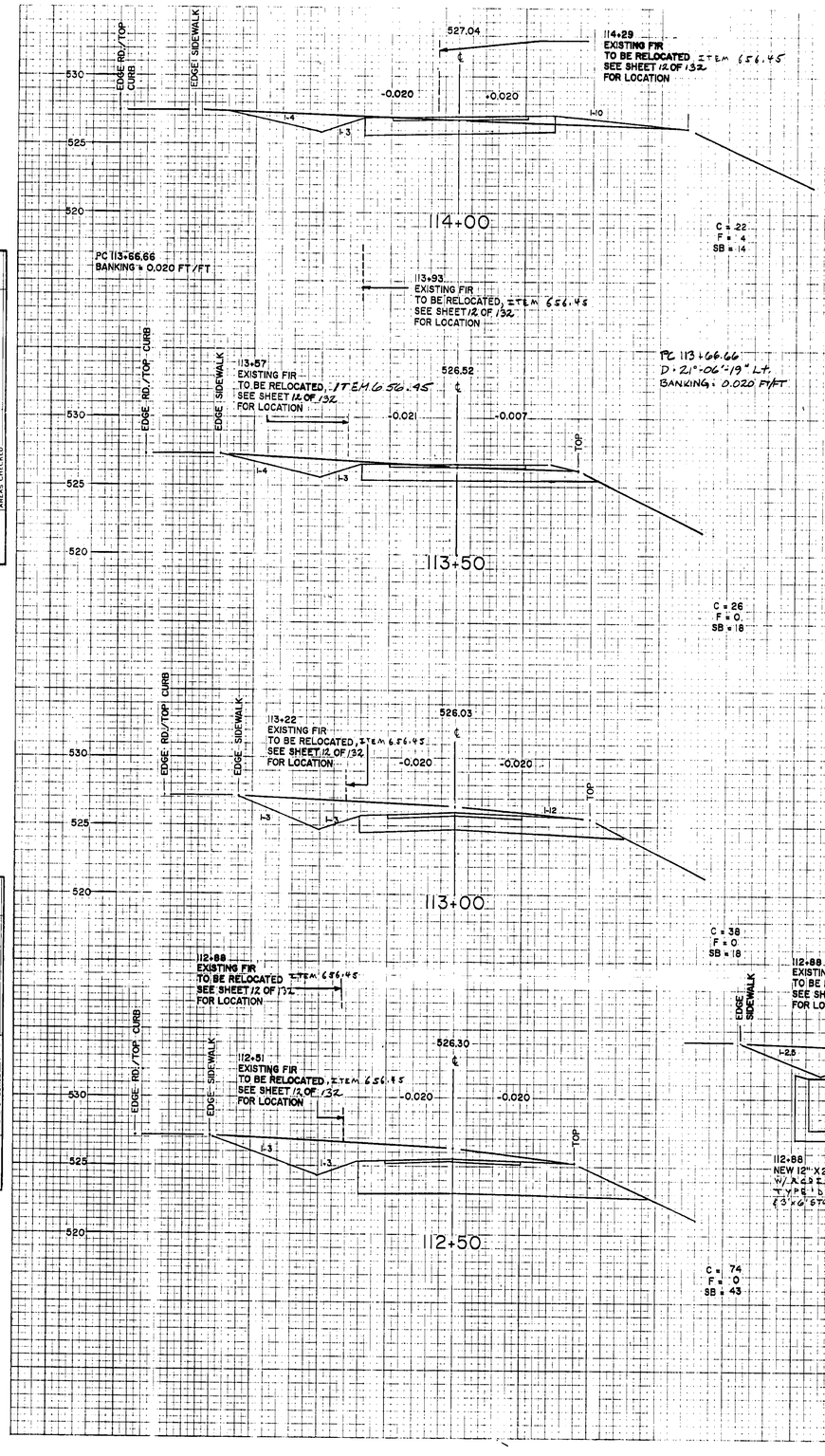
PINKHAM ENGINEERING ASSOCIATES, INC.

SHEET 77 OF 132 SHEETS

ORIGINAL SURVEY | SURVEYED | TEMPLATE | AREAS CHECKED
NOTE BOOK | NO.

FINAL — SURVEY KEY — PLAT No. — TEMPLATE — NOTE BOOK — AREAS CHECKED — NO.

ORIGINAL — BY — DATE — DRAWING — PLOTTED — TEMPLATE — NOTE BOOK — AREAS CHECKED — NO.



PI 111+70.68 AH = PI 111+75.60 BK
Δ = 75°-17'-09" RT
EQ = +1.92

STA 111+68.64
END BRIDGE
BEGIN PATH

NOTE:
THE PROGRESSION OF CROSS SECTION STATIONING CONTINUES ON THE LEFT SIDE OF THE SHEET BEFORE CONTINUING ON THE FOLLOWING SHEET.

#	REVISIONS	DATE
⚠	SUPPLEMENTAL CHANGES	10/1/96

CROSS SECTIONS

5 0 5 10 15 20

FROM STA. 111+94.70 TO STA. 114+00

PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH

NO. BWM-BIKE(4)S

PINKHAM ENGINEERING ASSOCIATES, INC.

SHEET 78 OF 132 SHEETS

PLATE 3 FULL

ORIGINAL SURVEY | SURVEYED | BY | DATE
CHECKED | TEMPLATE | BY | DATE
NOTE BOOK | AREAS | BY | DATE
NO. | AREAS CHECKED | BY | DATE

PT 117+92.17
D = 7°-43'-02" RT.
BANKING = 0.020 FT./FT.

117+70 LT.
CHANGE ELEVATION
OF SANITARY MH
ITEM 604.23

-0.020
+0.020

520
515
518.3
1:3
1:3
117+50
27'
C = 23
F = 3
SB = 15

517.75
1:4
117+00
PC 116+92.32
D = 7°-43'-02" RT.
BANKING = 0.020 FT./FT.
117+19
EXISTING 24" CSP
WITH D.I. AT INLET
BLOCKS TO BE PLACED
SO AS TO PROVIDE 1 FOOT
CLEARANCE FROM DRAINAGE
STRUCTURES.
C=24
F = 3
SB=14

525
520
1:3
116+50
C = 32
F = 9
SB = 14

PT 116+18.29
D = 7°-43'-02" LT.
BANKING = 0.020 FT./FT.
116+18
END PATH WIDENING
TOP RAIL
℄ RR
TOP RAIL
523.38
525
520
116+00
116+00 RT
BEGIN CONCRETE RETAINING WALL,
BIN-TYPE ITEM 526.15
WITH CHAIN LINK FENCE
ITEM 620.21
C = 19
F = 19
SB = 19

115+94 RT
SANITARY SEWER
MANHOLE
CHANGE ELEVATION, ITEM 604.23

525
520
115+71.0
℄ RAILROAD

STA 115+82 RT ⚠
BEGIN ELECTRICAL
CONDUIT FOR
LIGHT POLES

524.02
530
525
520
-0.008
+0.008
1:4
1:3
1:3
1:4
115+50

PC 115+38.90
D = 7°-43'-02" LT.
BANKING = 0.020 FT./FT.
STA 115+30-STA 115+18
NEW 15" X 32" C P E P
NEW RCDI W/CI GRATE, TYPE D ⚠
115+49 BEGIN
PATH WIDENING
C = 58
F = 0
SB = 18

R & D EXISTING TREES
ITEM TO BE PAID FOR UNDER
ITEM 201.10 CLEARING & GRUBBING
PC 115+38.90,
D = 43°-56'-19",
BANKING = 0.020 FT/FT
PT 115+33.91
D = 60°-18'-41"
BANKING = 0.020 FT/FT

115 + 34
EXISTING MAPLE
115 + 31
EXISTING FIR
TO BE
RETAINED
115 + 18
EXISTING FIR

EDGE ROAD/TOP CURB
EDGE SIDEWALK
530
525
520
525.53
+0.020
-0.020
1:4
1:3
1:3
1:4
115+00

3:1
3:1
r
CONSTANT SPECIAL DETAIL ⚠
TYPICAL GRASS SWALE DETAIL
STA 115+50 RT TO 115+00 RT

DIAMETER AND COVER OF
WATER MAIN UNKNOWN
STA 115+02 RT ⚠
END ELECTRICAL
CONDUIT FOR
LIGHT POLES
C = 58
F = 0
SB = 14
STA 115+00 RT
TYPE I STONEFILL
PAD, 4'X 8'

STA 115+18
REMOVE 4' OF EXISTING 24" RCP + INSTALL
NEW RCDI
W/CI GRATE, TYPE D
DEPTH OF EXISTING 24" RCP TO BE
CONFIRMED IN FIELD BY CONTRACTOR

114 + 69
EXISTING FIR, RETAIN

PT 114+60.65
D = 21°-06'-19"
BANKING = 0.020 FT/FT

EDGE ROAD/TOPCURB
EDGE SIDEWALK
526.82
530
525
520
-0.005
+0.005
1:4
1:3
1:3
1:4
114+50
TOB

PCC 114+60.65 ⚠
D = 60°-18'-41"
BANKING = 0.020 FT/FT

C = 35
F = 0
SB = 14

NOTE:
THE PROGRESSION OF CROSS SECTION
STATIONING CONTINUES ON THE LEFT
SIDE OF THE SHEET BEFORE
CONTINUING ON THE FOLLOWING SHEET.

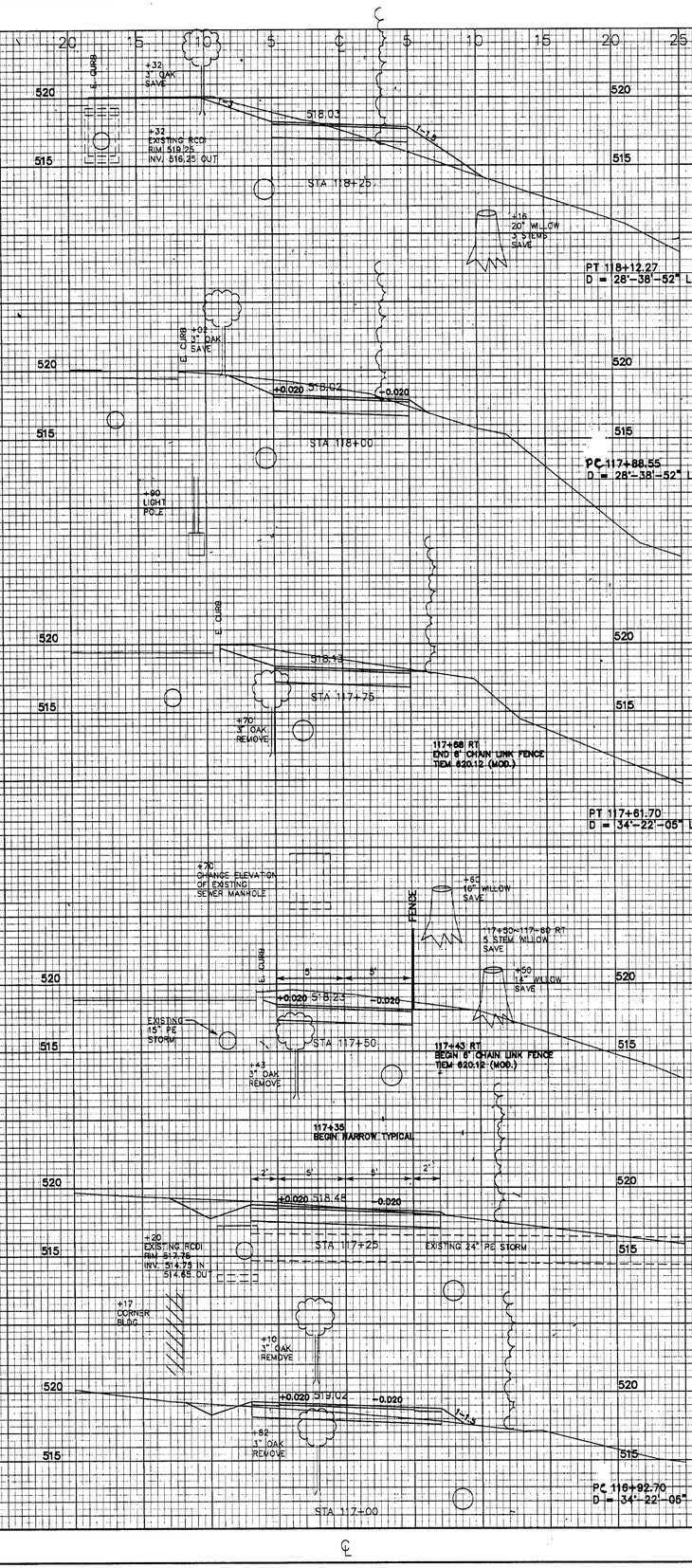
CROSS SECTIONS

5 0 5 10 15 20

#	REVISIONS	DATE
⚠	SUPPLEMENTAL CHANGES	10/1/96

FROM STA. 114+50 TO STA. 117+50
PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH
NO. BWM-BIKE(4)S
PINKHAM ENGINEERING ASSOCIATES, INC.
SHEET 79 OF 132 SHEETS

PLATE 2 FLT SECTION FULL LINE



GRAPHIC SCALE

(IN FEET)
1 inch = 5 ft.

CROSS SECTIONS

FROM STA. 115+75 TO STA. 118+25

PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH

NO. BWW - BIKE(4)S

PINKHAM ENGINEERING ASSOC., INC.

SHEET 80 OF 132 DWG. NO. 6829XCU1.DWG

CROSS SECTIONS

GRAPHIC SCALE

(IN FEET)
1 inch = 5 ft

STA 121+00
519.71
+80 3" OAK SAVE
EXISTING 15" RC STORM PIPE
EXISTING 18" RCP SANITARY SEWER
PC 120+86.86 BK = PC 120+85.01 AH EQ. = +1.85

STA 120+75
520.04
+0.020
-0.020
-0.920
1:-3
1:+3
+80 EXISTING RCDI R/M 519.80 INV. 514.51 OUT RETAIN
+59 LIGHT POLE
STA 120+65 LT END ELECTRICAL CONDUIT FOR LIGHT POLES
PT 120+70.75
PC 120+55.24
120+50 RT END 6' CHAIN LINK FENCE ITEM 620.12 (MOD.)
FENCE

STA 120+50
520.36
+0.020
-0.020
1:+3
1:-3
+42 3" OAK SAVE
120+50 END NARROW TYPICAL RESUME SHOULDERS
PT 120+44.90

STA 120+25
520.6'
+0.020
-0.020
1:+3
PC 120+28.08 D = 28°-38'-52" RT
+14 8" STEM POPLAR SAVE
FENCE

STA 120+00
520.73
+16 3" OAK SAVE
E. CURB
FENCE

STA 119+75
520.72
+0.020
-0.020
1:+3
1:-3
E. CURB
EXISTING 18" RCP SANITARY SEWER
6.0' CHAIN LINK FENCE (TYP.)
FENCE

STA 119+50
520.58
+0.020
-0.020
+59 3" OAK SAVE
E. CURB
EXISTING 18" RCP SANITARY SEWER
6.0' CHAIN LINK FENCE (TYP.)
119+45 RT BEGIN 6' CHAIN LINK FENCE ITEM 620.12 (MOD.)

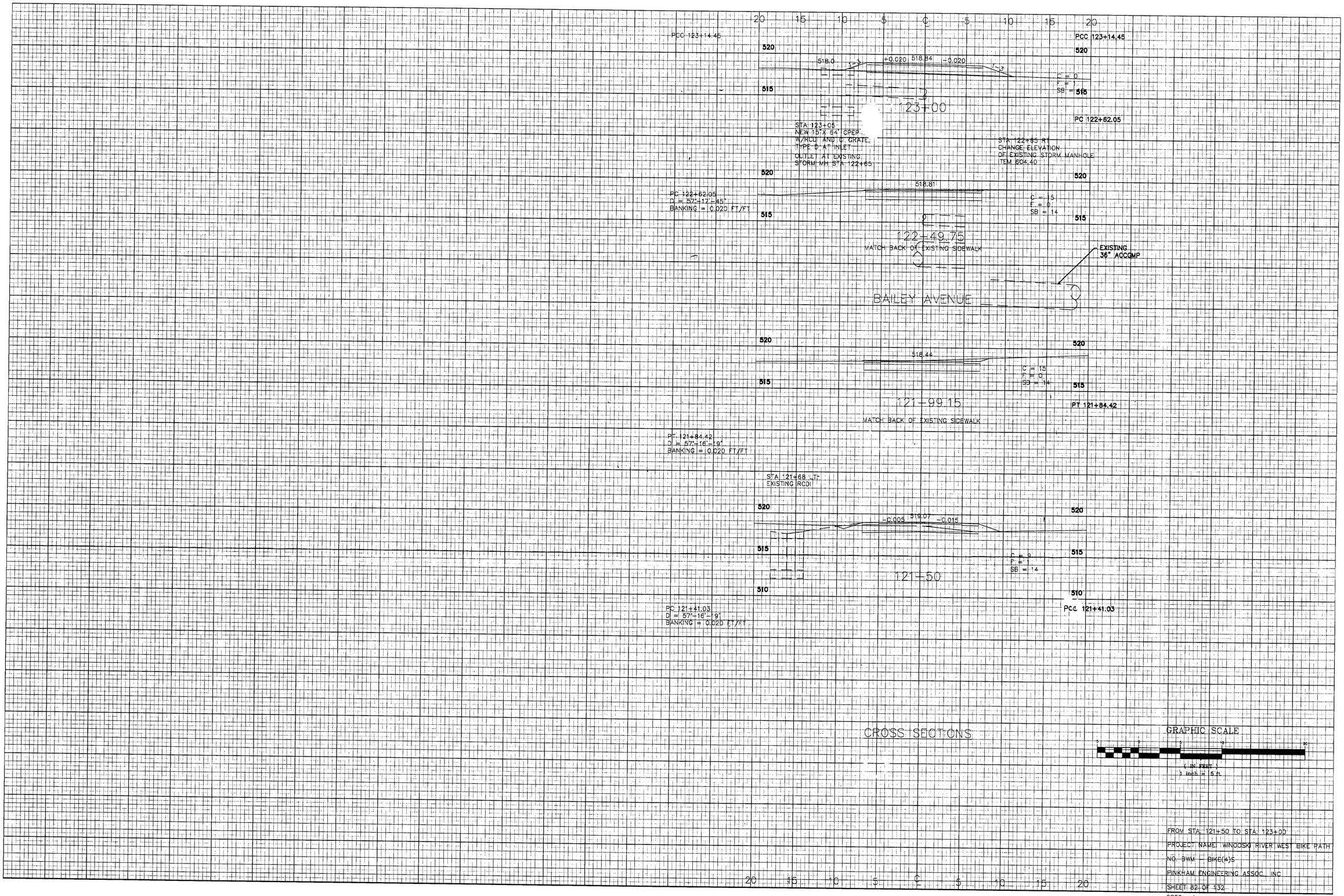
STA 119+25
520.26
+28 3" OAK SAVE
E. CURB

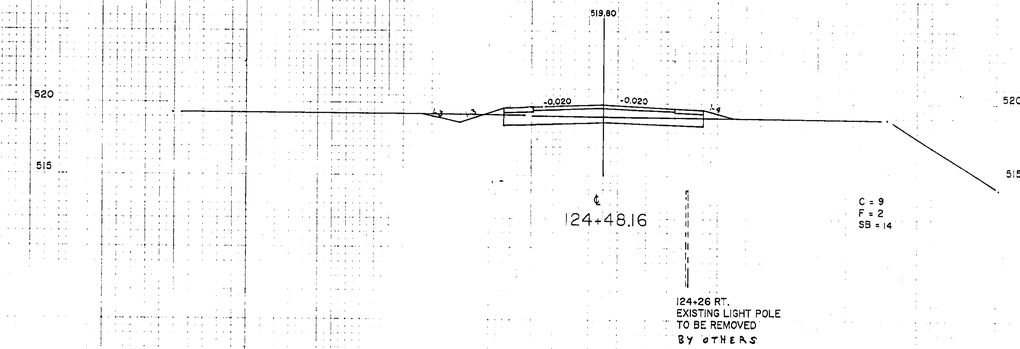
STA 119+00
515.5'
+97 3" OAK SAVE
E. CURB

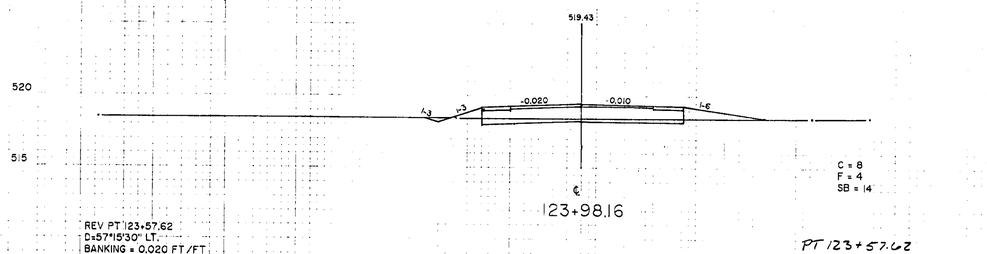
STA 118+75
518.77
+83 LIGHT POLE
E. CURB
+71 3" OAK SAVE
118+88 RT END 6' CHAIN LINK FENCE ITEM 620.12 (MOD.)

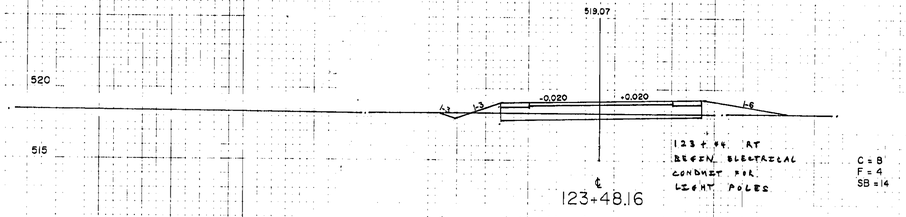
STA 118+50
518.25
+61 20" WILLOW SAVE
E. PARKING
+31 EXISTING RCDI R/M 519.25
FENCE
118+58 RT BEGIN 6' CHAIN LINK FENCE ITEM 620.12 (MOD.)

FROM STA. 118+50 TO STA. 121+00
PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH
NO.
PINKHAM ENGINEERING ASSOC., INC.
SHEET 81 OF 132 DWG. NO. 6829XCUZ.DWG


20 15 10 5 0 5 10 15 20
PCC 123+14.45
520
518.0
+0.020 518.84 -0.020
C = 0
F =
SB = 14
515
123+00
STA 123+05
NEW 15"X 64' CPEP
W/RCD AND G. GRATE,
TYPE D AT INLET
OUTLET AT EXISTING
STORM MH STA 122+65
PC 122+62.05
STA 122+65 RT
CHANGE ELEVATION
OF EXISTING STORM MANHOLE
ITEM 604.40
PC 122+62.05
D = 57°-17'-45"
BANKING = 0.020 FT/FT
518.81
C = 15
F = 0
SB = 14
122+49.75
MATCH BACK OF EXISTING SIDEWALK
EXISTING
36" ACCGMP
BAILEY AVENUE
518.44
C = 15
F = 0
SB = 14
121+99.15
MATCH BACK OF EXISTING SIDEWALK
PT 121+84.42
PT 121+84.42
D = 57°-16'-9"
BANKING = 0.020 FT/FT
STA 121+68 LT
EXISTING RCDI
-0.005 519.07 -0.015
C = 0
F =
SB = 14
121+50
PC 121+41.03
D = 57°-16'-9"
BANKING = 0.020 FT/FT
PCC 121+41.03
CROSS SECTIONS
GRAPHIC SCALE
(IN FEET)
1 inch = 5 ft
FROM STA. 121+50 TO STA. 123+00
PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH
NO. BWM - BIKE(4)S
PINKHAM ENGINEERING ASSOC., INC.
SHEET 82 OF 132
5829xc.dwg







CROSS SECTIONS

5 0 5 10 15 20

FROM STA. 123+48.16 TO STA. 124+48.16

PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH

NO. BWM-BIKE(4)S

PINKHAM ENGINEERING ASSOCIATES, INC.

SHEET 83 OF 133 SHEETS

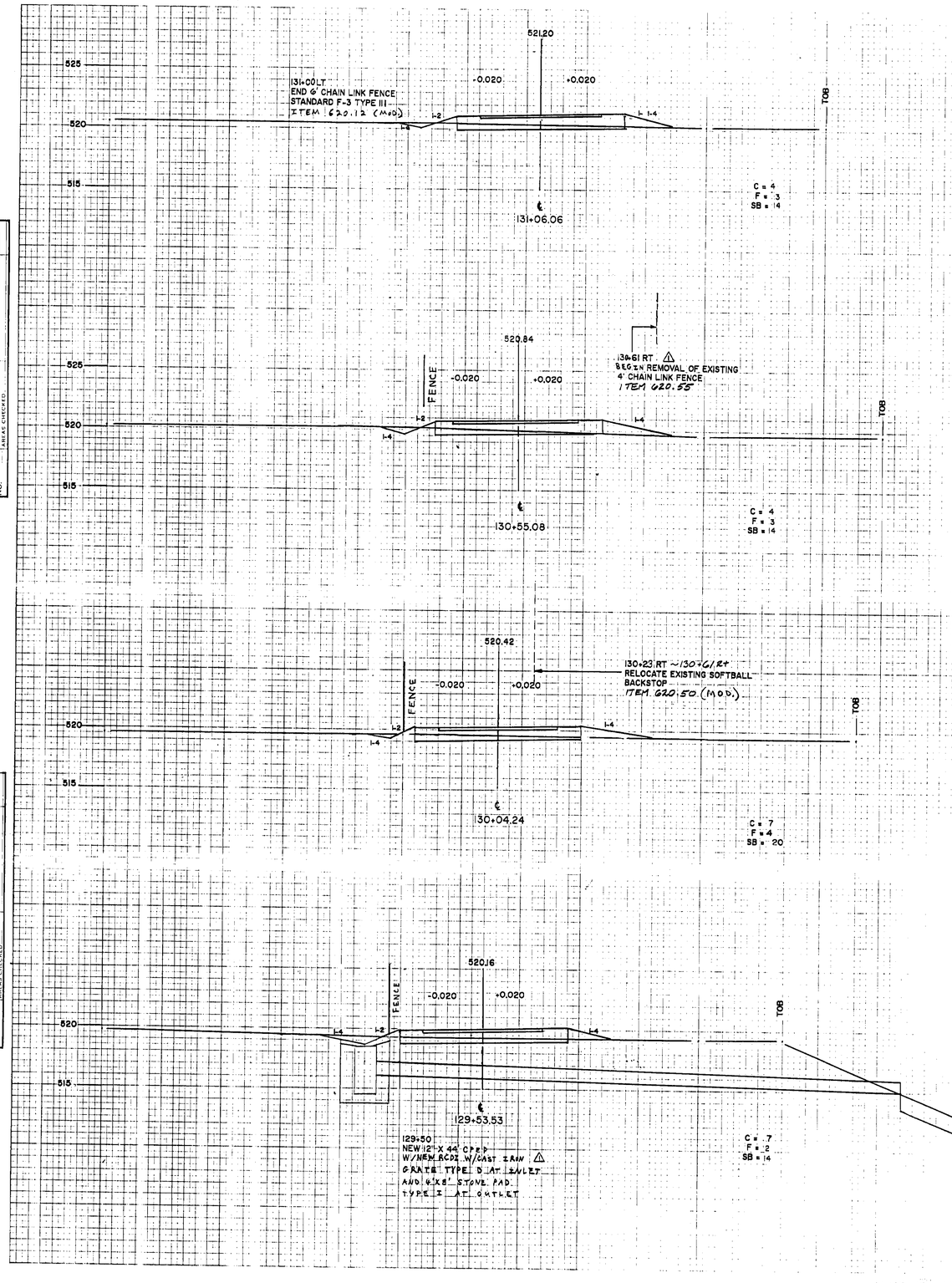
ORIGINAL

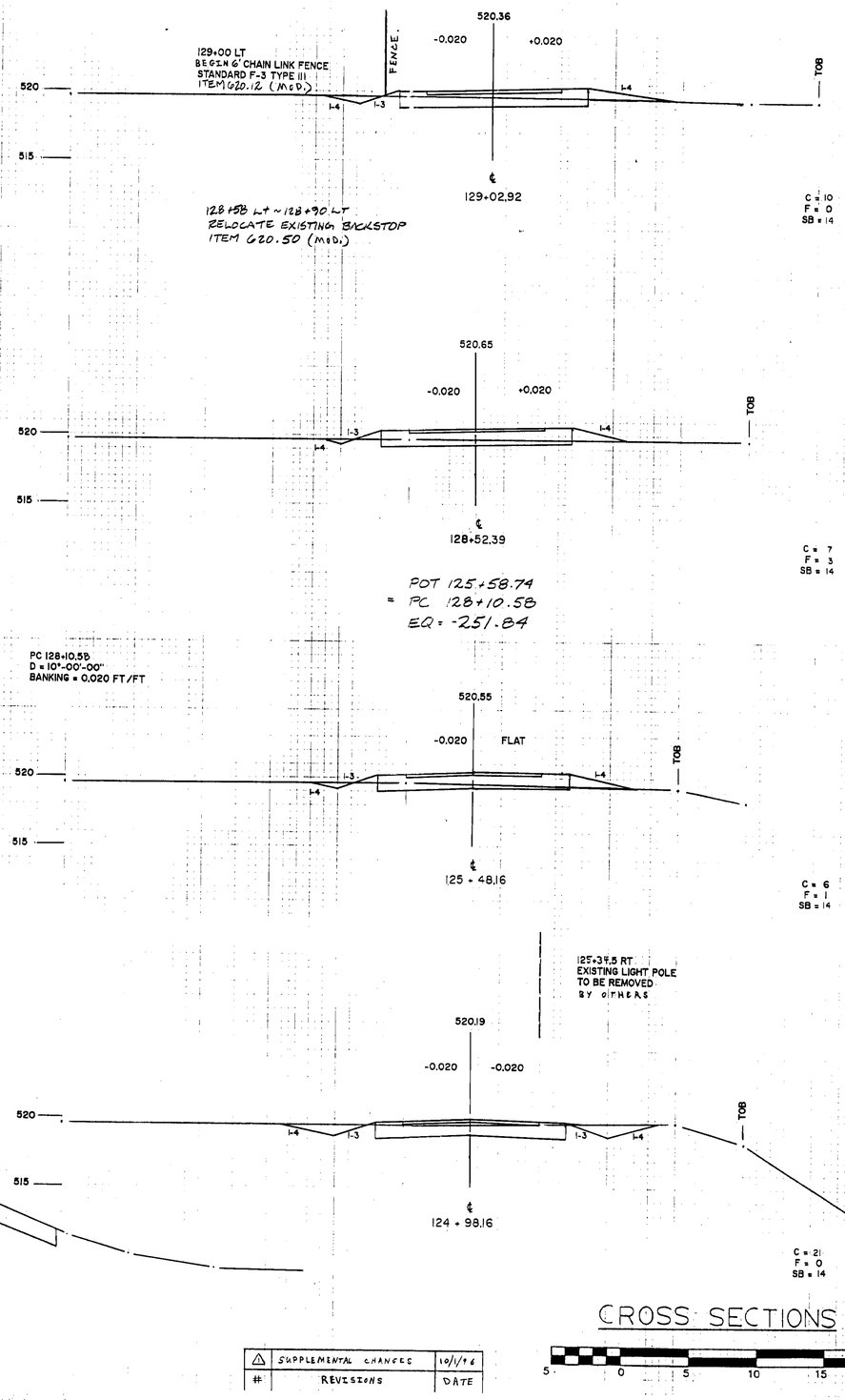
FINAL SURVEYOR

NOTE EDGE TEMPLATE

NO. AREAS CHECKED

PLATE [illegible] SECTION [illegible]





NOTE:
THE PROGRESSION OF CROSS SECTION STATIONING CONTINUES ON THE LEFT SIDE OF THE SHEET BEFORE CONTINUING ON THE FOLLOWING SHEET.

△	SUPPLEMENTAL CHANGES	10/1/16
#	REVISIONS	DATE

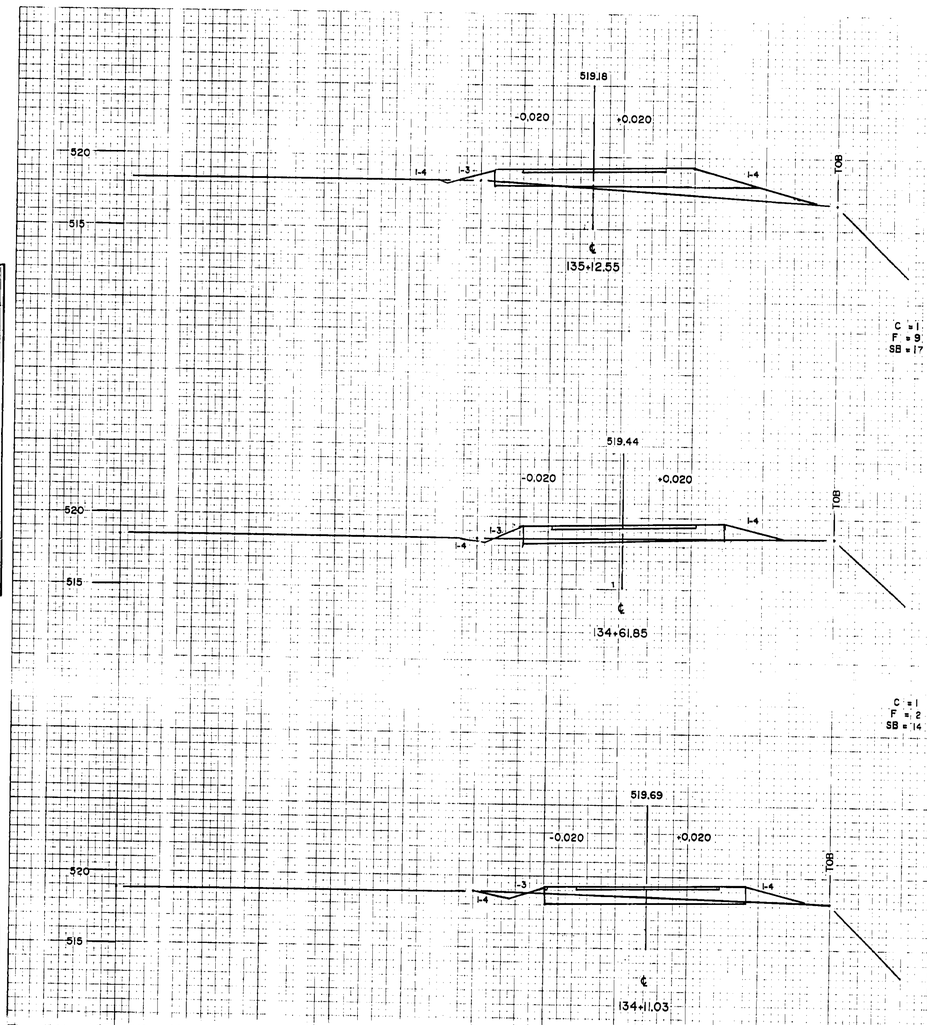
CROSS SECTIONS

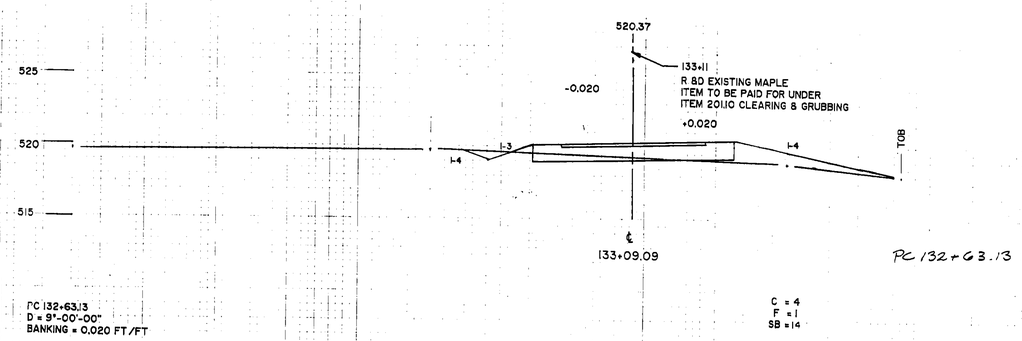
5 0 5 10 15 20

FROM STA. 124+98.16 TO STA. 131+06.06
PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH
NO. BWM-BIKE(4)S
PINKHAM ENGINEERING ASSOCIATES, INC.
SHEET 89 OF 132 SHEETS

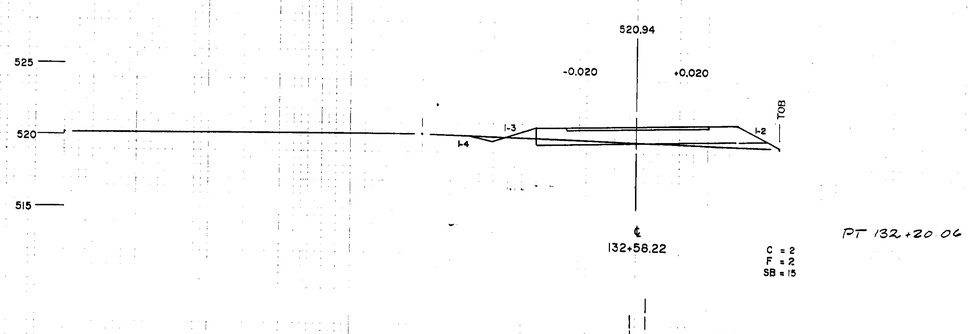
ORIGINAL SURVEY | SURVEYED | NOTE BOOK | TEMPLATE | AREAS | AREAS CHECKED | NO.

SURVEY SURVEYED / NOTE BOOK / TEMPLATE / NO. / AREAS CHECKED

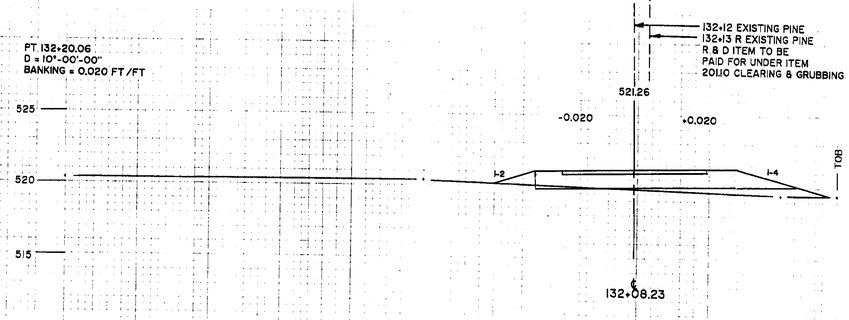




PC 132+63.13
D = 9°-00'-00"
BANKING = 0.020 FT/FT

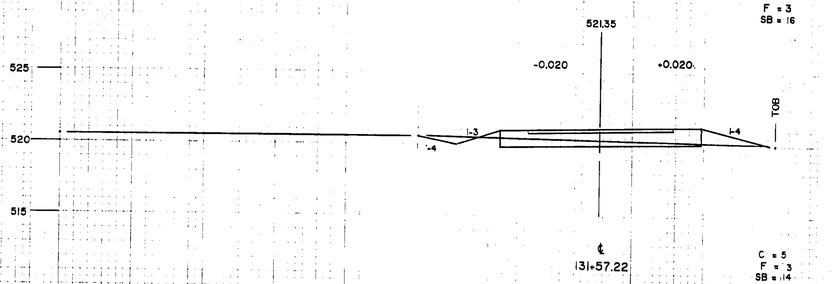


PT 132+20.06
D = 10°-00'-00"
BANKING = 0.020 FT/FT



131+81. RT
END REMOVAL OF EXISTING
4' CHAIN LINK FENCE, ITEM 620.55

C = 1
F = 3
SB = 16



NOTE:
THE PROGRESSION OF CROSS SECTION STATIONING CONTINUES ON THE LEFT SIDE OF THE SHEET BEFORE CONTINUING ON THE FOLLOWING SHEET.

CROSS SECTIONS

5 0 5 10 15 20

FROM STA. 131+50 TO STA. 135+00

PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH

NO. BWM - BIKE(4)S

PINKHAM ENGINEERING ASSOCIATES, INC.

SHEET 85 OF 132 SHEETS

ORIGINAL SURVEY / CURVES / NOTE BOOK / TEMPLATE / NO. / AREAS CHECKED

PLATE 3 FOR

PC 139+38.13
D = 57°-35'-11"
BANKING = 0.020 FT/FT

PRC 139+38.13 △
D = 29°-20'-48"
BANKING = 0.020 FT/FT

525
520
515
+0.020
-0.020
1:3
1:3
1:4
℄
39+00.28

C = 7
F = 1
SB = 14

138+60 LT TO 139+74 LT △
END 8' CHAIN LINK
FENCE, STANDARD F-3
TYPE III, ITEM 620.19 (MOD.)
MATCH TO RELOCATED LEG OF EXISTING
BACKSTOP, ITEM 620.50

138+35 RT △
END ELECTRICAL
CONDUIT FOR
LIGHT POLES

522.20
℄
+0.005
-0.020
FENCE
TOB
1:4
1:3
1:4
525
520
515
38+50

C = 2
F = 6
SB = 19

PC 138+52.90
D = 29°-20'-48"
BANKING = 0.020 FT/FT

521.50
℄
-0.020
-0.020
FENCE
TOB
1:3
1:4
1:4
525
520
515
138+0.0

C = 14
F = 1
SB = 14

520.55
℄
-0.020
-0.020
FENCE
TOB
1:4
1:3
1:4
520
515
137+50

C = 13
F = 1
SB = 14

519.61
℄
-0.020
-0.020
FENCE
TOB
1:3
1:4
1:4
520
515
137+00

137+00 LT
END 8' CHAIN LINK
FENCE, STANDARD F-3
TYPE III
ITEM 620.19 (MOD.)

C = 8
F = 1
SB = 14

516.74
℄
-0.020
-0.020
TOB
1:4
1:8
1:5
520
515
136+50

36+50
NEW 10" ASS. OF ST △
W/NEW MAIN W/CAST
IRON GATE TYPE D
AT SALEM

POT 136+61.64 BK △
POT 136+48.12 AH
ER = 13.52'

ORDINARY HIGH WATER
= 511.1

C = 7
F = 1
SB = 14

PT 136+11.45
D = 09°-00'-00"
BANKING = 0.020 FT/FT

518.68
-0.020
-0.017
TOB
1:3
1:4
1:4
℄
136+13.43
520
515

C = 4
F = 6
SB = 18

518.93
-0.020
+0.020
TOB
1:2
1:4
1:3
℄
136+63.08
520
515

C = 1
F = 5
SB = 16

NOTE:
THE PROGRESSION OF CROSS SECTION STATIONING CONTINUES ON THE LEFT SIDE OF THE SHEET BEFORE CONTINUING ON THE FOLLOWING SHEET.

CROSS SECTIONS

5 0 5 10 15 20

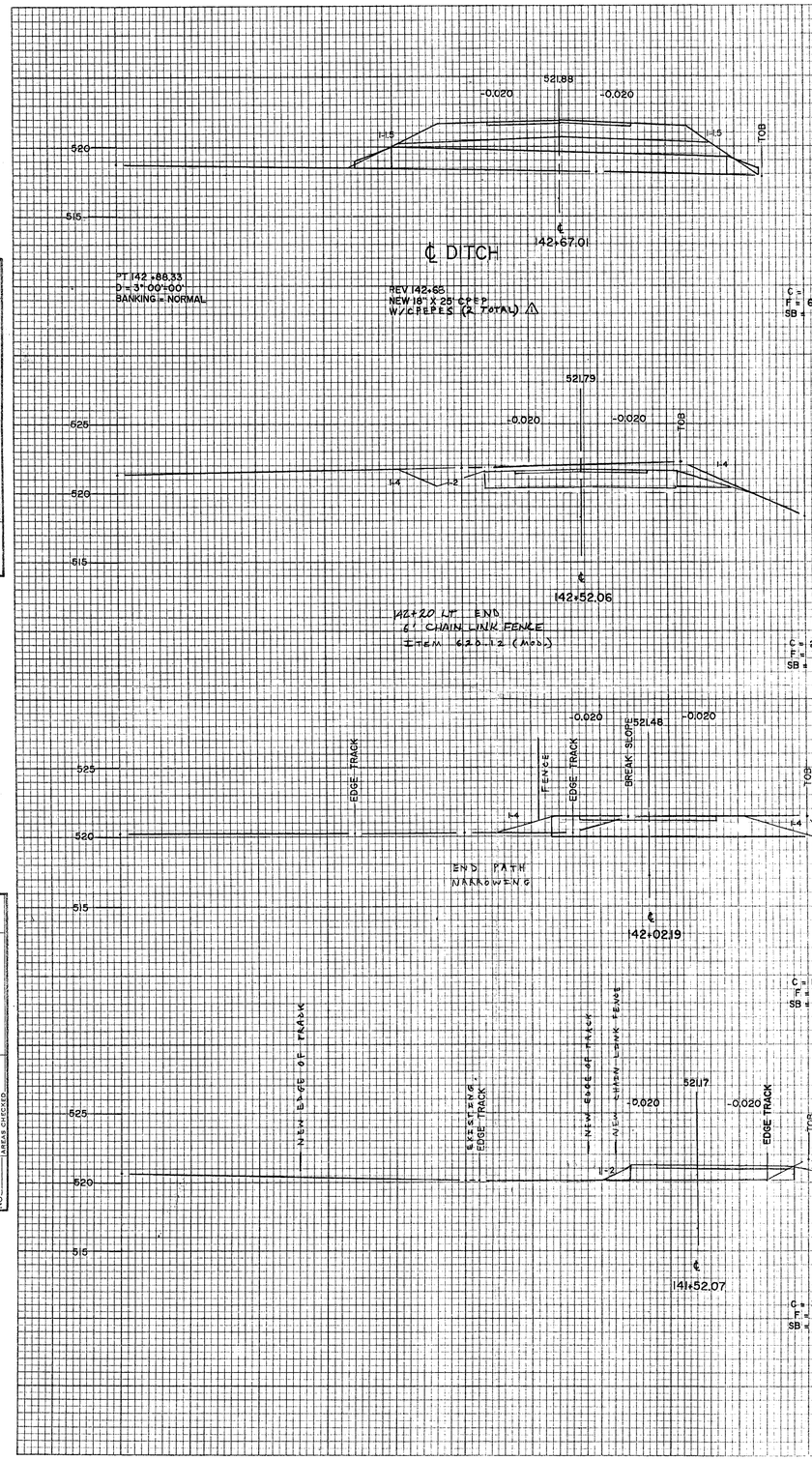
△	SUPPLEMENTAL CHANGES	6/1/94
#	REVISIONS	DATE

FROM STA. 135+50 TO STA. 139+00
PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH
NO. BGM-BIKE (4)S
PINKHAM ENGINEERING ASSOCIATES, INC.
SHEET 86 OF 132 SHEETS

FINAL SURVEY — NOTE BOOK NO. — SURVEYED BY — PLOTTED BY — TEMPLATE AREAS — AREAS CHECKED — DATE — BY

ORIGINAL SURVEY — NOTE BOOK NO. — SURVEYED BY — PLOTTED BY — TEMPLATE AREAS — AREAS CHECKED — DATE — BY

HIGHWAY FEDERAL AID SHEET
PLATE 3-FULL CROSS SECTION-FULL LINE
3M 11/83 DM
PRINTED IN U.S.A.



NOTE:
THE PROGRESSION OF CROSS SECTION STATIONING CONTINUES ON THE LEFT SIDE OF THE SHEET BEFORE CONTINUING ON THE FOLLOWING SHEET.

#	REVISIONS	DATE
⚠	SUPPLEMENTAL CHANGES	10/1/96

CROSS SECTIONS

5 0 5 10 15 20

FROM STA. 139+50 TO STA. 142+65

PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH

NO. BJ2M-BIKE(4)S

PINKHAM ENGINEERING ASSOCIATES, INC.

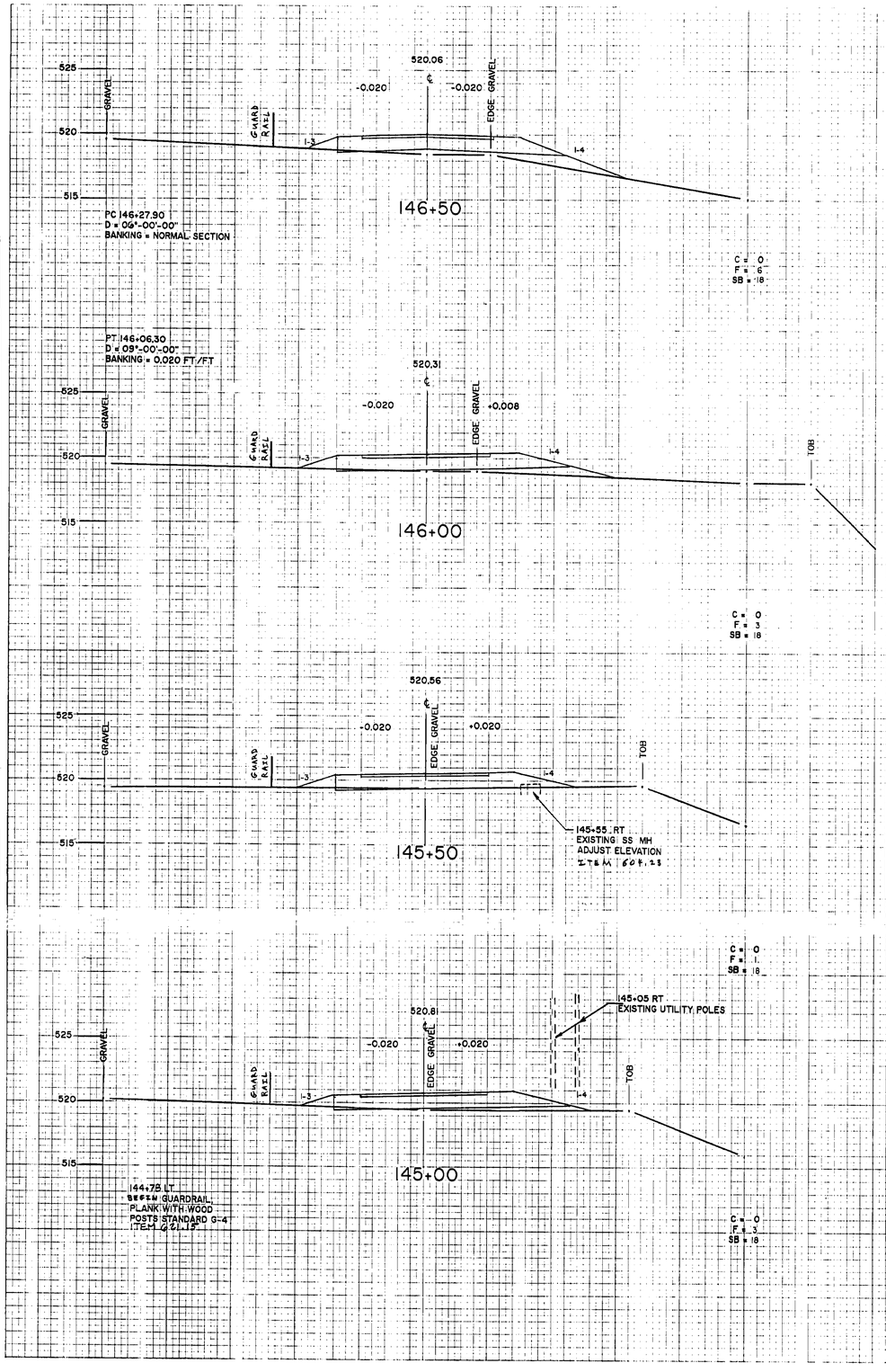
SHEET 87 OF 132 SHEETS

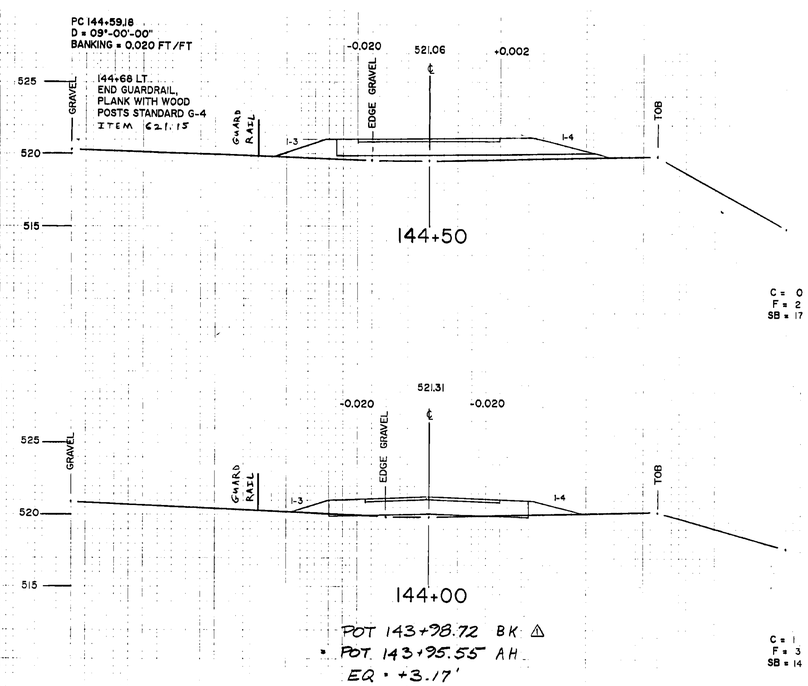
FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO., BY, DATE

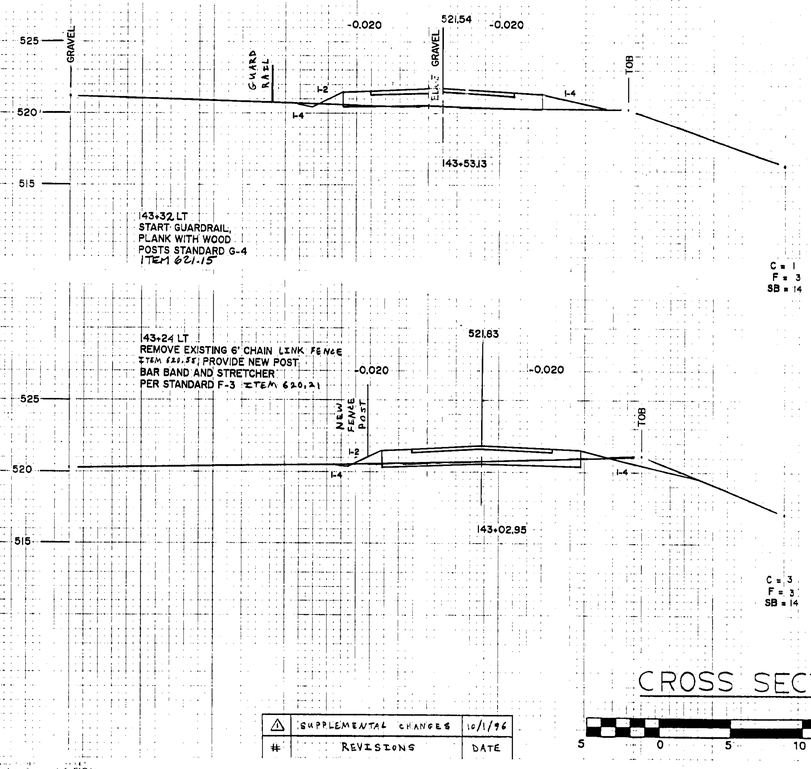
ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO., BY, DATE

HIGHWAY FEDERAL AID SHEET
PLATE 3-FULL CROSS SECTION-FULL LINE
TELEDYNE
PRINTED IN U.S.A.

ORIGINAL SURVEY
SURVEYED
PLOTTED
COMPUTED
NOTE BOOK
NO.
AREAS CHECKED







NOTE:
THE PROGRESSION OF CROSS SECTION STATIONING CONTINUES ON THE LEFT SIDE OF THE SHEET BEFORE CONTINUING ON THE FOLLOWING SHEET.

#	REVISIONS	DATE
△	SUPPLEMENTAL CHANGES	10/1/96

CROSS SECTIONS

5 0 5 10 15 20

FROM STA. 143+00 TO STA. 146+50

PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH

NO. BWM-BIKE(4)S

PINKHAM ENGINEERING ASSOCIATES, INC.

SHEET 68 OF 132 SHEETS

SURVEY SURVEYED / DRAWN / TRACED / NOTE BOOK, AREAS / NO. AREAS CHECKED

518.72 ℄
-0.020 -0.020
520 515
1-3 1-4 1-4
TOB
150+00
C = 4
F = 2
SB = 14

518.61 ℄
-0.020 -0.020
525 520 515
1-4 1-3 1-4
TOB
149+50
C = 4
F = 2
SB = 14

PC 149+22.40
D = 05°-00'00"
BANKING = NORMAL-SECTION
518.81 ℄
-0.020 -0.020
520 515
1-3 1-4
TOB
149+00
C = 1
F = 3
SB = 14

519.05 ℄
-0.020 -0.020
520 515
1-4 1-3 1-3 1-4
BREAK SLOPE
148+50
C = 5
F = 1
SB = 14

PT 148+32.55
D = 06°-00'-00"
BANKING = NORMAL SECTION
519.30 ℄
-0.020 -0.020
520 515
1-3 1-4
BREAK SLOPE
148+00
C = 0
F = 6
SB = 14

MATCH TO EXISTING GROUND (TYP.)
1-2 2' 1-2
TYPICAL SECTION
STONE FILL TYPE II INLET DITCH
ITEM 613.11

519.51 ℄
-0.020 -0.020
520 515 510
GUARD RAIL
1-3 1-4
147+58
℄ DITCH
5'x12' STONE FILL PAD TYPE II
C = 0
F = 52
SB = 14

147+58
NEW 30" X 38" CPEP W/CPEPES (2 TOTAL) △
5' X 9' STONE PAD TYPE II AT INLET
5' X 12' STONE PAD TYPE II AT OUTLET

519.55 ℄
-0.020 -0.020
525 520 515
GUARD RAIL
1-3 1-4
BREAK SLOPE
147+50
C = 0
F = 8
SB = 14

147+06 RT END ELECTRICAL CONDUIT FOR LIGHT POLES

147+74 LT
END GUARDRAIL, PLANK WITH WOOD POSTS, STANDARD G-4
ITEM 621.15

519.80 ℄
-0.020 -0.020
525 520 515
GRAVEL
GUARD RAIL
1-4 1-3
EDGE GRAVEL
1-4
147+00
C = 16
F = 1
SB = 14

NOTE:
THE PROGRESSION OF CROSS SECTION STATIONING CONTINUES ON THE LEFT SIDE OF THE SHEET BEFORE CONTINUING ON THE FOLLOWING SHEET.

△	SUPPLEMENTAL CHANGES	10/1/96
#	REVISIONS	DATE

CROSS SECTIONS

5 0 5 10 15 20

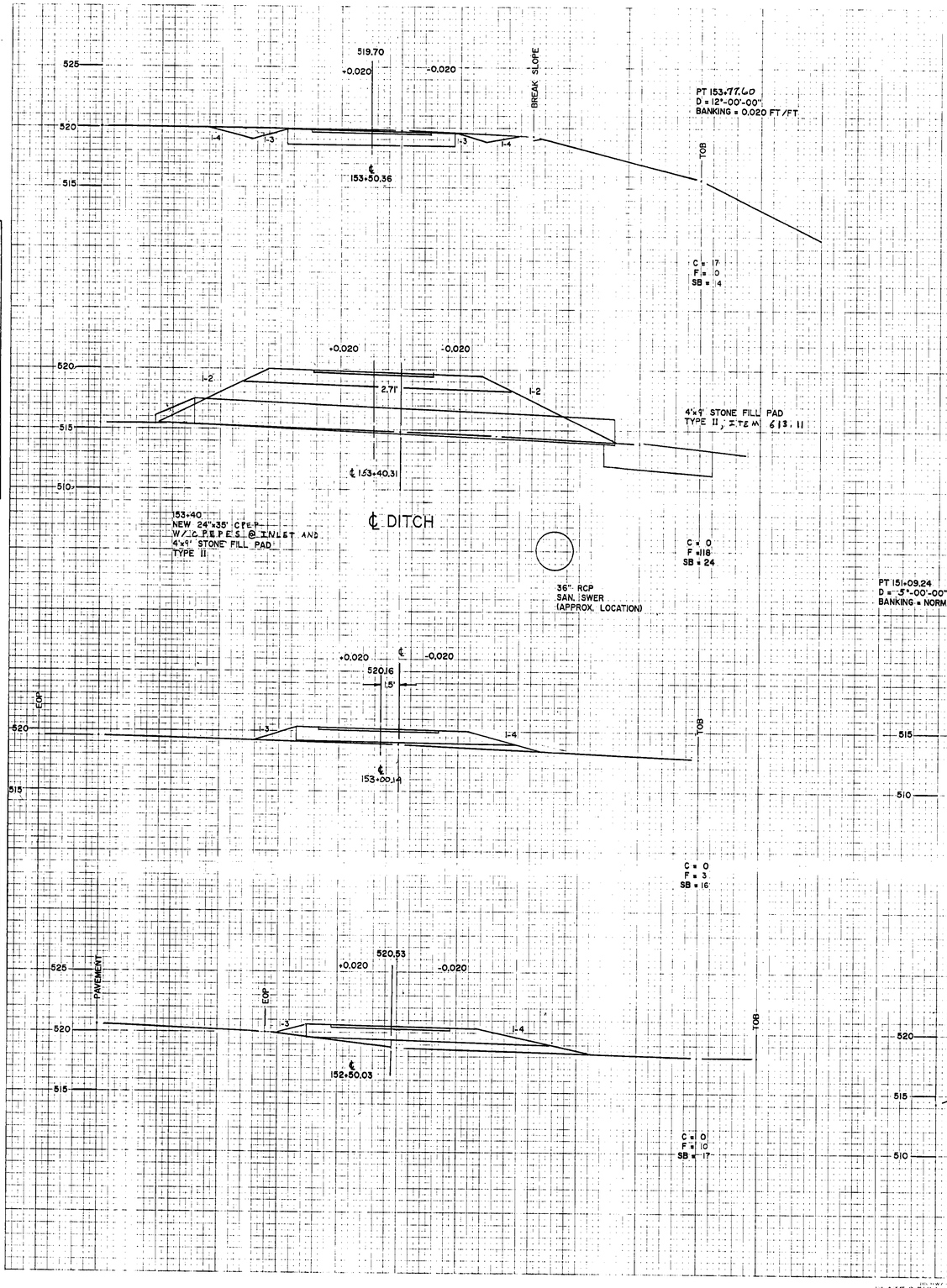
FROM STA. 147+00 TO STA. 150+00

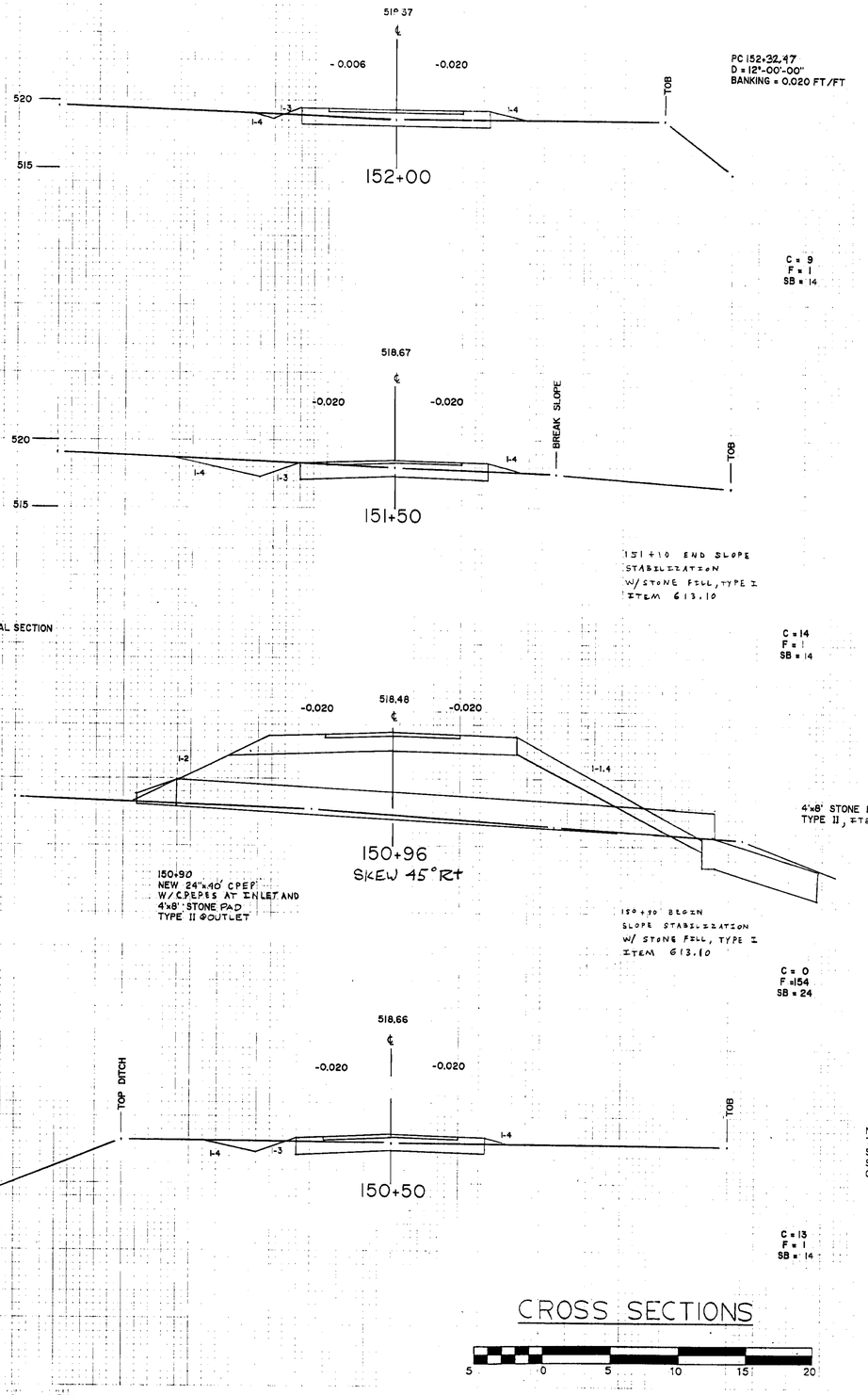
PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH

NO. BWM-BIKE(4)S

PINKHAM ENGINEERING ASSOCIATES, INC.

SHEET 89 OF 132 SHEETS





ORIGINAL SURVEY — DRAWN / TRACED / PLOTTED / TEMPLATE / NOTE BOOK / NO. / AREAS CHECKED / DATE

FINAL SURVEY — DRAWN / TRACED / PLOTTED / TEMPLATE / NOTE BOOK / NO. / AREAS CHECKED / DATE

NOTE:
THE PROGRESSION OF CROSS SECTION STATIONING CONTINUES ON THE LEFT SIDE OF THE SHEET BEFORE CONTINUING ON THE FOLLOWING SHEET.

CROSS SECTIONS

5 0 5 10 15 20

FROM STA. 150+50 TO STA. 153+50

PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH

NO. BWM-BIKE(4)S

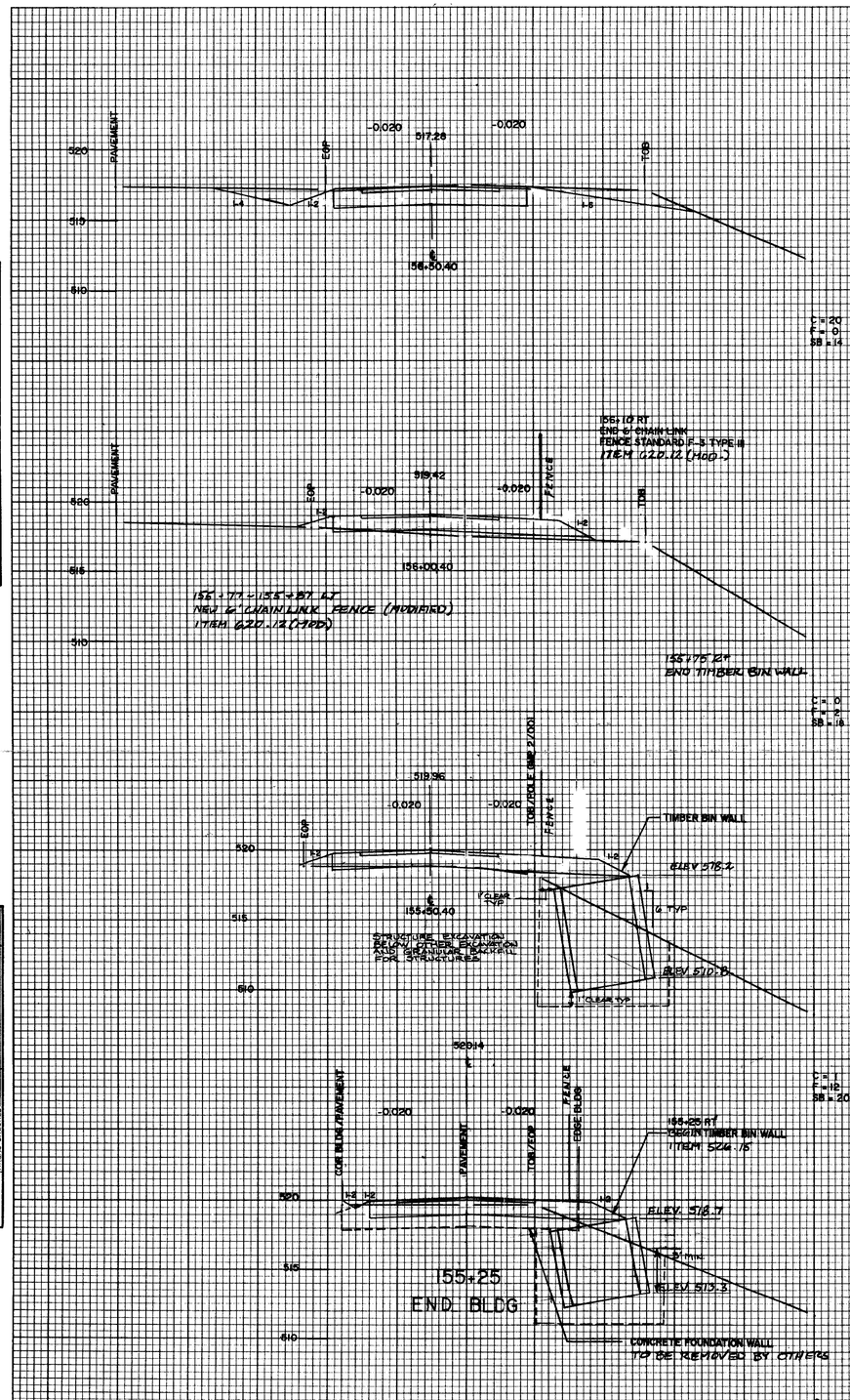
PINKHAM ENGINEERING ASSOCIATES, INC.

SHEET 90 OF 132 SHEETS

PLATE 3-FULL CROSS SECTION

FINAL SURVEY — NOTE BOOK NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — SURVEYED — PLOTTED — TEMPLATE — AREAS — NOTE BOOK NO. — AREAS CHECKED — BY — DATE



NOTE:
THE PROGRESSION OF CROSS SECTION STATIONING CONTINUES ON THE LEFT SIDE OF THE SHEET BEFORE CONTINUING ON THE FOLLOWING SHEET.

#	REVISIONS	DATE
Δ	SUPPLEMENTAL CHANGES	10/17/72

CROSS SECTIONS

SCALE: 5 0 5 10 15 20

FROM STA. 154+00 TO STA. 156+50

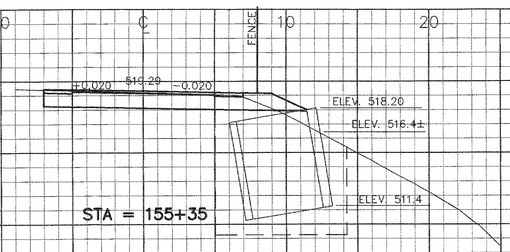
PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH

NO. BLVD-[illegible]

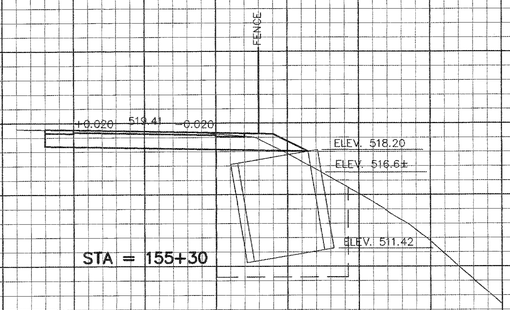
FREEMAN ENGINEERING ASSOCIATES, INC.

SHEET 9 OF 13 SHEETS

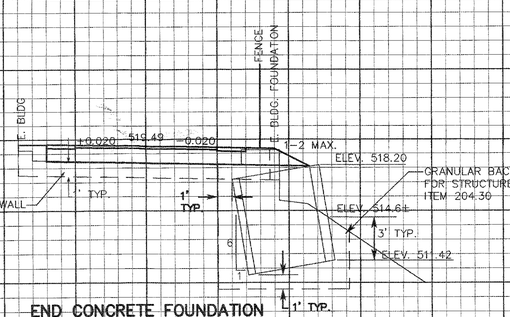
HIGHWAY FEDERAL AID SHEET
PLATE 3-FULL CROSS SECTION-FULL LINE
TELEDYNE
PRINTED IN U.S.A.



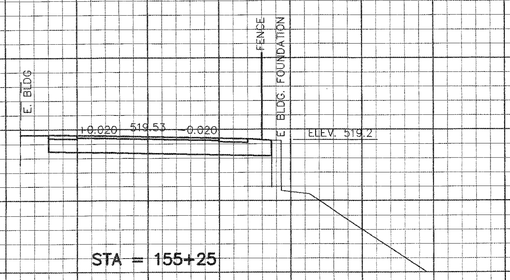
STA = 155+35



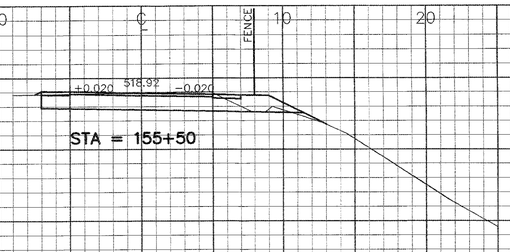
STA = 155+30



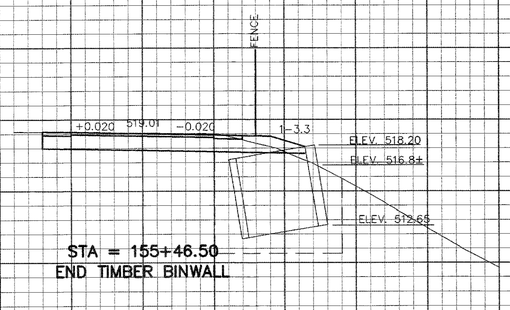
END CONCRETE FOUNDATION
BEGIN TIMBER BINWALL, ITEM 526.15
STA = 155+26.5



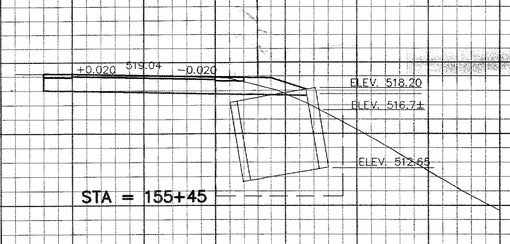
STA = 155+25



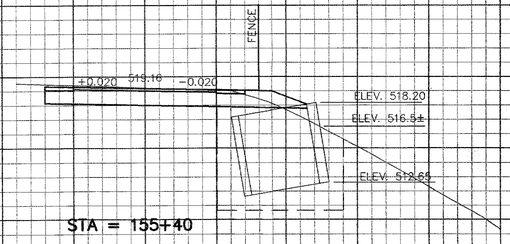
STA = 155+50



STA = 155+46.50
END TIMBER BINWALL



STA = 155+45



STA = 155+40

FROM STA 155+26.5 TO STA 155+50

PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH

NO. BWM – BIKE (4) S

PINKHAM ENGINEERING ASSOC., INC.

SHEET 91A OF 132

DWG 6829LCX1.DWG

SHEET ADDED 2/6/98

157+80 LT
NEW 15" X 32" CPEP W/STONE PAD, TYPE II AT OUTLET AND NEW RCDI W/C.I. GRATE, TYPE "D" AT INLET.

EXISTING EDGE OF PAVEMENT

NEW EDGE OF PAVEMENT

REVISED

3.6'

+0.020 517.06 -0.020

STA = 157+50

4'X8' STONE PAD TYPE II

PT 157+48.20

REVISED

5.6'

+0.020 517.26 -0.020

STA = 157+00

±156+50 LT TO 158+50 LT SIDE SLOPE TO VARY TO FIT THE EDGE OF NEW PAVEMENT TO BE LOCATED 5' OFF OF EDGE OF PATH, 0' LEFT OF CENTERLINE.

REVISED

7.0'

+0.020 517.47 -0.020

STA = 156+50

PC 156+51.95
D = 19°-05'-55" RT

FENCE

156+10 RT.
END 6' CHAIN LINK FENCE
STANDARD F-3, TYPE III, MODIFIED
ITEM 620.12 (MOD.)

+0.020 517.82 -0.020

155+77~155+87 LT.
NEW 6' CHAIN LINK FENCE (MODIFIED)
ITEM 620.12 (MOD)

STA = 156+00

STA 159+12.95
END PROJECT BWM - BIKE(4)S
MATCH EXISTING PATH

POT 159+07.10 BK
= POT 159+12.95 AH
EQ = -5.85'

PT 159+01.92

+0.020 519.81 -0.020

STA = 159+00

REVISED

5.6'

+0.020 518.03 -0.020

± 158+50 LT
EXISTING PAVEMENT ENDS

STA = 158+50

PC 158+31.00
D = 38°-11'-50" RT

REVISED

5.6'

+0.020 517.21 -0.020

STA = 158+00

REVISED 4/24/98 PER COMMENTS FROM LIQUOR CONTROL
SHEET ADDED 2/6/98

FROM STA 156+00 TO STA 159+00

PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH

NO. BWM - BIKE (4) S

PINKHAM ENGINEERING ASSOC., INC.

SHEET 91B OF 132

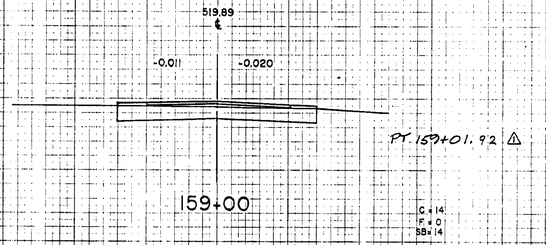
DWG LCX3revs.DWG

FINAL SURVEY
SURVEYED
PLOTTED
NOTE BOOK
PAGE
NO.
AREAS CHECKED

ORIGINAL SURVEY
SURVEYED
PLOTTED
NOTE BOOK
PAGE
NO.
AREAS CHECKED

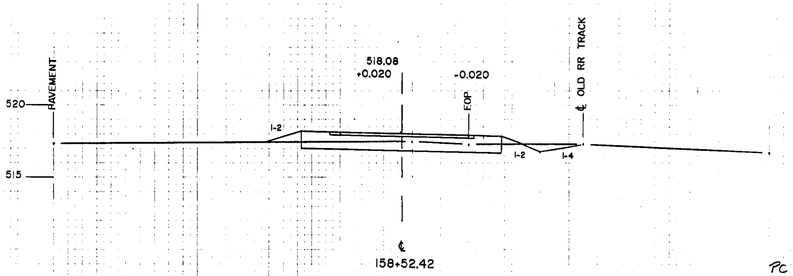
STA 159+12.95
END PROJECT BWM-BIKE(4)S
MATCH EXISTING PATH

POT 159+09.54 BK
= POT 159+12.95 AH
EQ. = -3.41



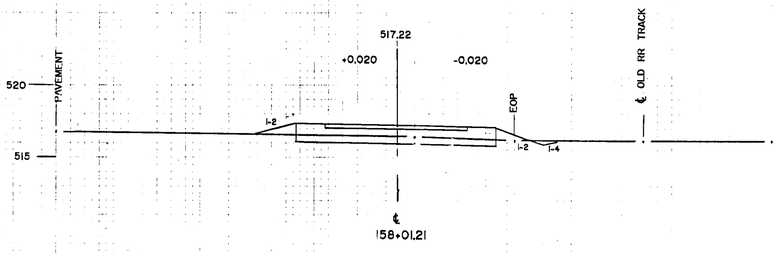
PT 159+01.92 △

C = 14
F = 0
SB = 14

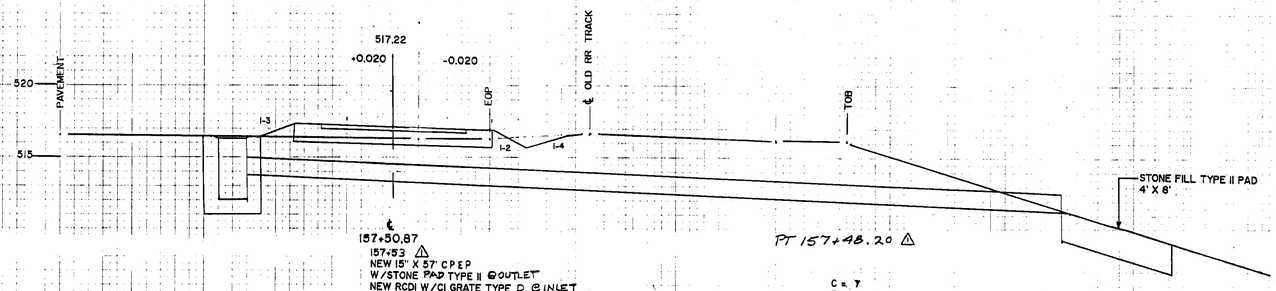


PC 158+31 △
D = 38°-11'-50" RT

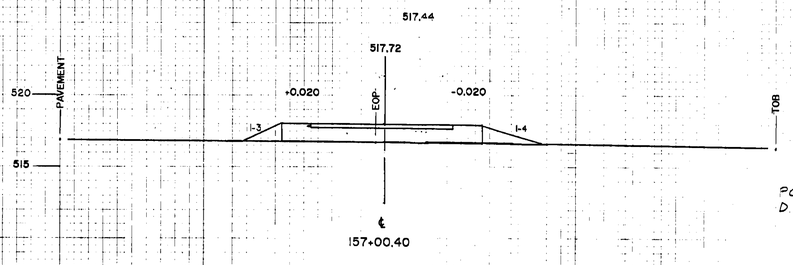
C = 9
F = 2
SB = 14



C = 8
F = 2
SB = 14



C = 7
F = 1
SB = 14



NOTE:
THE PROGRESSION OF CROSS SECTION STATIONING CONTINUES ON THE LEFT SIDE OF THE SHEET BEFORE CONTINUING ON THE FOLLOWING SHEET.

PC 156+51.95 △
D = 19°-06'-55" RT

C = 0
F = 5
SB = 14

#	REVISIONS	DATE
△	SUPPLEMENTAL CHANGES	10/1/96

CROSS SECTIONS

5 0 5 10 15 20

FROM STA. 157+00 TO STA. 159+00

PROJECT NAME: WINOOSKI RIVER WEST BIKE PATH

NO. BWM-BIKE(4)S

PINKHAM ENGINEERING ASSOCIATES, INC.

SHEET 92 OF 132 SHEETS

PLATE 3-FULL CROSS SECTION SHEET

Item 204.20
7.1
2.6
9.7 CY

6" UNDERCUT = 34 x 4.1 x 0.5 ÷ 27 = 2.6 CY

153 + 40.5 SKEW 83° LT
NEW 24" X 34' CPEP W/CPERES @ INLET
TYPE II STONE FILL @ OUTLET

SFII
12 x 8 x 2 x 1/27 = 7.1 CY
TED 4-10-98

GEOTEXTILE
5' x 9' x 1/9 = 5 SY
TED 4-9-98

2.5 ÷ 46 = 5.435%

GEOTEXTILE 4' x 16' x 1/9 = 7.5 SY

150 + 92
46'
New 24" x ~~40~~ CPEP W/CPERES @ Inlet
TYPE II STONE PAD @ OUTLET

80 SY x 4.1' x 1/27 = 12.2 CY
TED 4-8-98

6" UNDERCUT PIPE
46 x 4.1 x 0.5 x 1/27 = 3.5

SFII 16 x 6+4/2 x 2 x 1/27 = 5.9 CY

ITEM 204.20 12.2
5.9
3.5
21.6
TED 4-10-98

D1
6 x 6 x 5 x 1/27
= 6.6 CY
TED 4-7-98

129 + 50 ℄
NEW 12" X 44' CPEP W/RCD1 @ INLET
46'
STONE FILL II @ OUTLET

PIPE = 176" x 3.1 x 1/27 = 20.21
D1 6.6?
TE, SE 26.82 ≈ 26.9 PAR

4-17

F/L 513.00
F/L 508.67
4.33
4.33 ÷ 40' = 1.0825%

PIPE = 144" x 3.4 x 1/27 = 18.1 CY
D1 = 6 x 6 x 5 x 1/27 = 6.7 CY
T.E. 24.8 CY PAR 10/14/98

~~514.00~~
~~40'~~
New 30" x ~~34~~ CPEP W CPERES (2)
~~1.18~~ ÷ 40 = 2.95%
1.68 ÷ 40 = 4.20%

℄
197 + 58

PIPE 113" x 4.6 x 1/27 = 19.3 CY
TED 4-7-98

INCREASED OUTLET F/L 1'
INLET F/L 0.5'
1+0.5/2 x 40 x 4.6 x 1/27 = 5.1

ITEM 204.20 : 19.3
6.1
24.4 PAR 10/14/98

Item 204.20
Total Drainage Structures 80.5 CY

Depth = 4.0"

New 18" x ~~22'~~ CPEP
40'

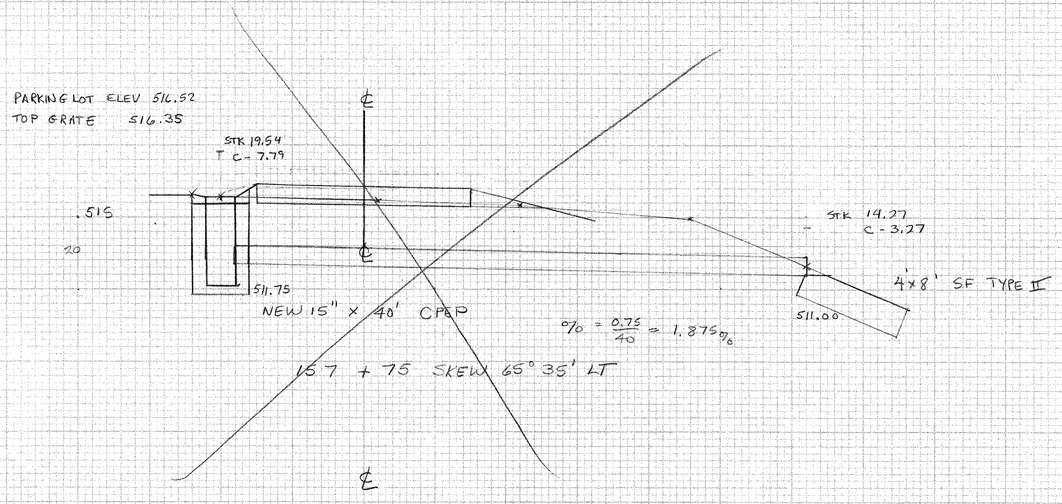
F/L 513.00
F/L 508.67
4.33
4.33 ÷ 40' = 1.0825%

Pipe = 67" x 3.4 x 1/27 = 8.7 CY
D1 6 x 6 x 5 x 1/27 = 6.7 CY
TED 4-7-98

0 1 2 3 4 5
SCALE

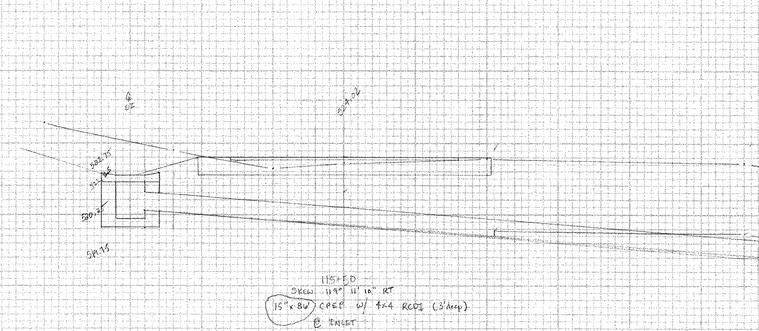
MONTPELIER BWM-BR
DRAINAGE SHEET
SCALE 1" = 5'
133

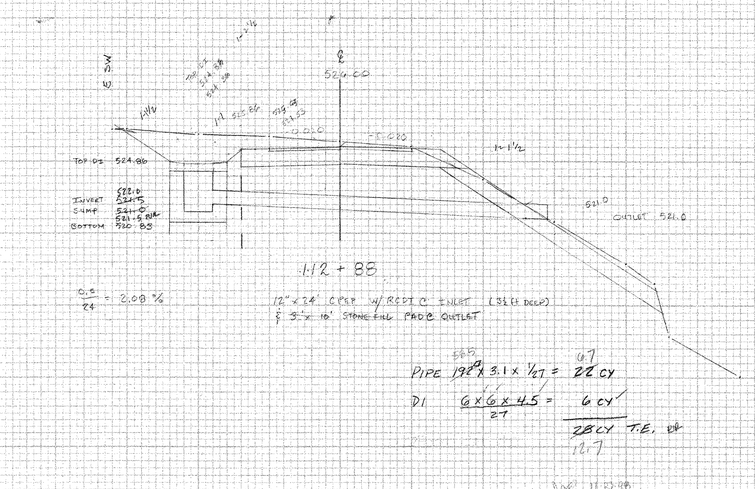
PRINTED IN U.S.A.
"PERFECT" CROSS SECTION
10 X 10 = ONE INCH
EUGENE DIETZGEN CO.

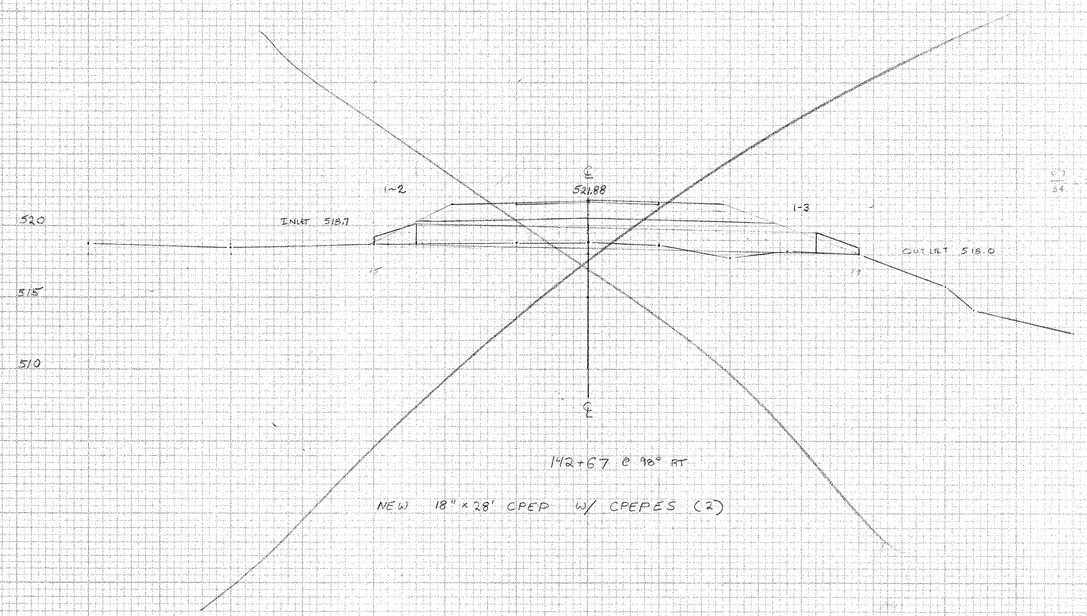


MONTPELIER BWM- BIKE (4)S
DRAINAGE SHEET # 2
SCALE 1" = 5'

Keuffel & Esser Company PLATE 3, CROSS SECTION 48 7056 Made in U.S.A.





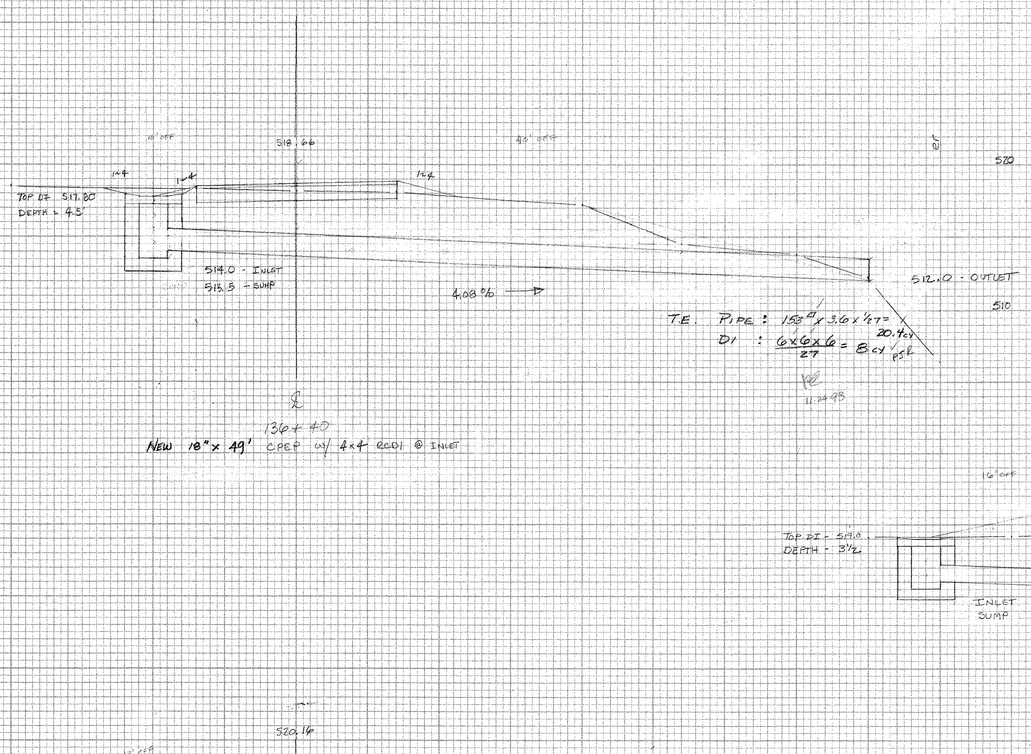


MONTPELIER BWM-BIKE(4)S

DRAINAGE SHEET #3

SCALE 1" = 5'

135

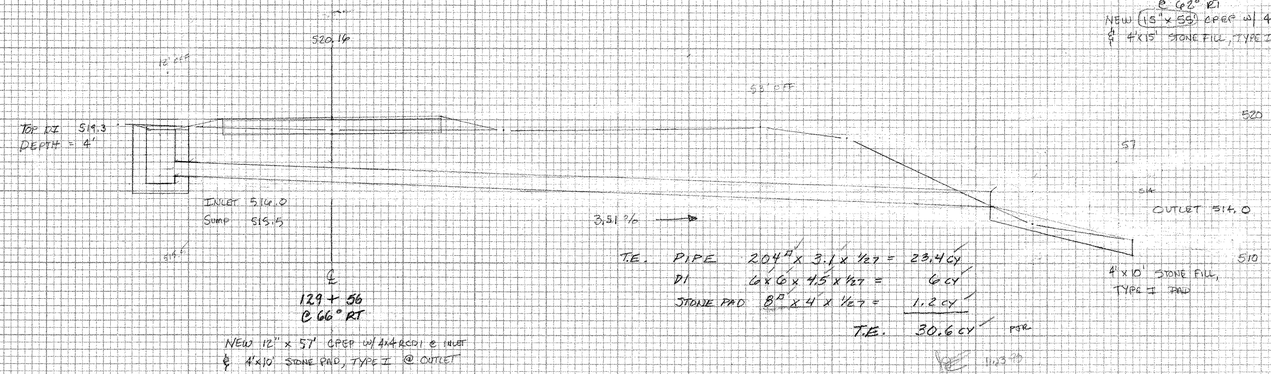


TE: PIPE : $\frac{153' \times 3.6 \times 1.27}{27} = 20.4$ CY

DI : $\frac{6 \times 6 \times 6}{27} = 8$ CY

PSF

11.24.98



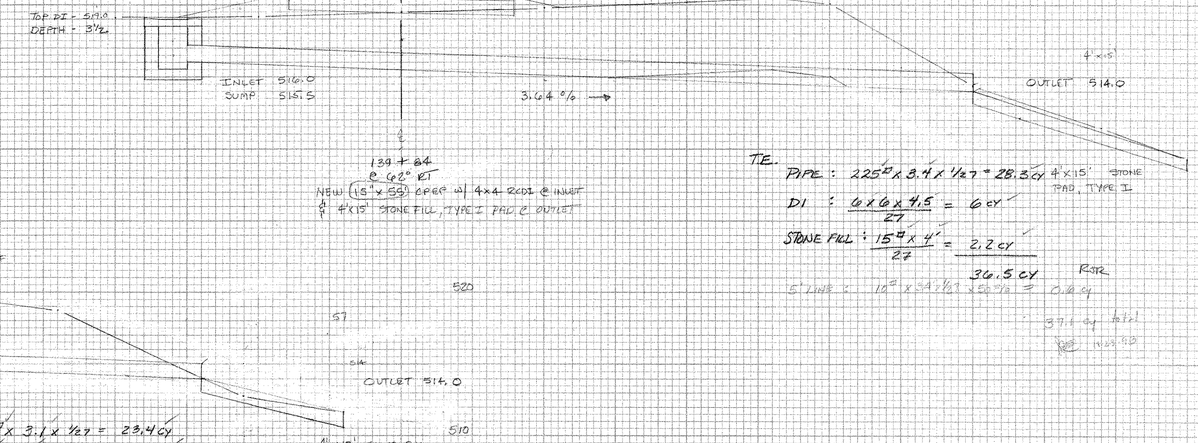
TE. PIPE 204' x 3.1 x 1.27 = 23.4 CY

DI 6 x 6 x 4.5 x 1.27 = 6 CY

STONE PAD $\frac{8' \times 4 \times 1.27}{27}$ = 1.2 CY

T.E. 30.6 CY PSF

11.23.98



TE.

PIPE : $\frac{225' \times 3.4 \times 1.27}{27} = 28.3$ CY 4'x15' STONE PAD, TYPE I

DI : $\frac{6 \times 6 \times 4.5}{27} = 6$ CY

STONE FILL : $\frac{15' \times 4'}{27} = 2.2$ CY

36.5 CY PSF

5' LINE : $\frac{10' \times 5 \times 1.27}{27} \times \frac{50\%}{2} = 0.4$ CY

37.1 CY

11.23.98

MONTPELIER BWM - BIKE (4)S

DRAINAGE SHEET #4

SCALE 1" = 5' 136

PLATE 3-LEVEL CROSS SECTION/PILE LINE
HIGHWAY HEADER AID SHEET
MATERIAL SUMMARIES
PRINTED IN U.S.A.

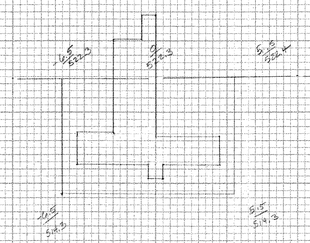
STATION	ADJUSTMENT #2 STA. EXC. DISTANCE	AREA SF	VOLUME CF
10+37		90.60	
	6'		540.64
10+43		96.78	
	6'		588.48
10+49		99.38	
	BUTT		
10+49		161.45	
	11.5'		1855.24
10+60.5		161.20	
		TOTAL	3004.36

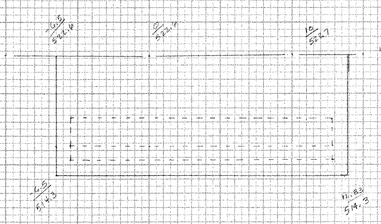
111.27 CY

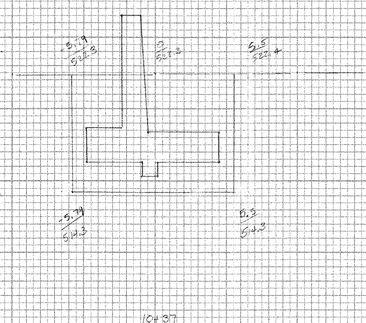
37.37 CY

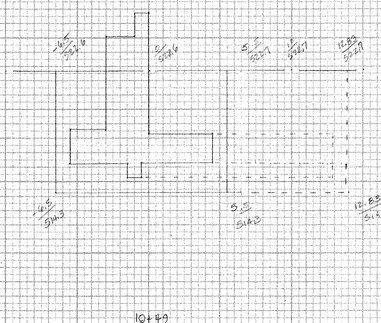
TRANSFERRED TO ABUT. 2 PLN 20

QUANTITIES 30 OCT 1998









FINAL
SURVEY
NOTE BOOK
NO.
VARIOUS
ADJUSTMENT
STRUCTURE
BRIDGE
CULVERT
DATE
BY

ADJUSTMENT #3
STRUCTURE SECTIONS
SHEET 1 OF 3
1" = 5'-0"
137
FRANKLIN CO.

STATION	DISTANCE	ITEM 209.27 UNCL. CHAN. AREA SF	VOLUME CF	ITEM 210.55 GRAVEL FOUNDATION AREA SF	VOLUME CF	ITEM 613.13 STONE FILL AREA SF	VOLUME CF	ITEM 614.31 WIDTH LF	AREA SF
20+02		185.8		20.8		140.6		40	
	29		5381.0		667.0		8247.0		1189
20+31		185.3		33.7		152.3		42	
	23		2993.8		501.4		3386.0		920
20+54		151.7		20.4		139.7		58	
	12		1111.2		350.2		1718.4		462
20+66		169.5		21.3		148.7		59	
	4		415		88.6		546.6		154
20+70		98.0		23.0		134.6		38	
			9903.0 CYL		1937.2 CYL		9867.0		2725
			366.8 SY		558.44 WTL		365.44 WTL		302.89 SY WTL
TRANSFER TO:			BK 3 PG 16		BK 3 PG 16		BK 3 PG 36		BK 3 PG 38

STATION	ITEM 209.10 SUB. EXC. DISTANCE	AREA SF	VOLUME CF
20+39		129.7	
	29		3758.2
20+54		108.8	
	13		324.9
20+57		107.8	
	2		219.1
20+59		111.3	
	7		784.7
20+66		112.9	
	4		225.8
20+70		0	
			5082.7
			1856.09 WTL

QUANTITIES FURNISHED
12 OCT 1998
WTL

520

BEGIN STRUCTURE EXCAVATION

20+31

UNCL CHAN		GRAVEL		STONE		SPOUT	
3	526.0	3	520.3	3	524.7	-5.5	526.8
5	525.9	32.7	526.0	42	505.0	3	526.0
18	518.5	42	526.0	36.7	506.0	3	519.7
24	513.1	42	505.5	3	520.3	6.3	518.0
34	509.3	32.4	505.5	3	524.7	6.3	513.3
42	506.0	3	519.7	SF =		-5.5	513.3
42	505.5	3	520.3	152.3		-5.5	526.8
32.4	505.5	SF = 73.2		WTL		SF = 129.7	
3	519.7	WTL				WTL	
3	526.0						
SF = 185.3							
WTL							

520

20+59

STA.	EXC.
-7.2	513.3
-7.2	523.0
0	522.8
0.3	525.4
1	525.4
2	522.0
2	519.5
5.5	517.7
5.5	513.3
-7.2	513.3

SF = 111.28 WTL

520

20+57

STA	EXC
-5.5	513.3
-5.5	523.2
0	525.2
0	525.5
2	525.5
3	524.0
3	519.5
6.5	517.6
6.5	513.3
-5.5	513.3

SF = 107.8 WTL

520

END STONE FILL
ZERO SECTION
STRUCTURE EXC.

20+70

UNCL	STAN. EXC.
0	525.0
7	519.0
17	511.9
32	507.0
34.5	506.0
34.5	505.5
25.5	505.5
-1	519.8
-1	525.1
0	525.0
SF =	109.48

GRAVEL		STONE FILL	
0	520.5	-1	525.1
25.7	520.0	-1	520.1
34	506.0	34.5	506.0
34	505.5	34.5	505.5
25.5	505.5	-1	520.1
-1	519.8	-1	525.1
-1	520.1	SF =	141.68
SF =	21.28	WTL	

STRUCT. EXC.	
-10.5	522.8
-3.2	521.1
-2.7	525.3
-1	525.1
-1	519.6
2.5	511.8
2.5	513.30
+10.5	513.30
+10.5	522.8
SF =	112.92
WTL	

520

BEGIN STONE FILL TYPE IV

20+02

UNCL	STAN.	GRAVEL		STONE	
0	526.2	3	521.7	3	526.2
8	525.8	30.3	520.0	36	506.0
16	525.3	35	506.0	36.2	505.0
20	518.5	39	506.5	3	521.7
26	511.8	36	505.5	3	526.2
34	508.0	3	521.1	SF =	140.6
39	507.5	3	521.7	WTL	
36	507.5	SF = 22.8			
3	521.0	WTL			
3	526.2				
SF =	185.6				
WTL					

520

20+54

UNCL	STAN. EXC.
3	524.0
3	519.9
15	515.3
17	512.3
33	507.1
37	506.0
37	506.0
37	505.5
18.5	505.5
3	519.9
3	524.0
SF =	75.7
WTL	

GRAVEL		STONE FILL	
3	520.1	3	524.8
28.8	506.0	37	506.0
37	506.0	28.8	506.0
37	505.5	3	520.1
28.5	505.5	3	524.8
3	519.9		
3	520.1	SF =	137.7
		WTL	
SF =	20.4		
WTL			

STRUCT. EXC.	
0	524.8
0	525.5
3	524.0
3	519.5
6.5	517.7
6.5	513.3
-5.5	513.3
-5.5	523.3
0	523.4
SF =	108.91
WTL	

Fig. 827.18

20+54

UNCL	STAN. EXC.
0	525.5
0	523.4
3	524.8
3	524.0
3	520.1
3	517.5
17	512.3
9	519.9
-5.5	513.3
-5.5	513.3
9	519.9
33	507.1
33	506.0
28.8	506.0
28.5	505.5
33	505.5

520

20+66

UNCL	STAN. EXC.
0	525.5
0	524.8
3	524.0
3	520.1
3	517.5
17	512.3
7	519.0
-1	525.1
-1	519.6
-2.7	525.3
-3.2	521.1
-10.5	522.8
-10.5	513.30
2.5	511.8
2.5	513.30
32	505.0
25.6	505.5
26	506.0

GRAVEL		STONE	
0	525.5	0	524.5
7	519.0	32	506.0
17	511.9	25.6	505.5
32	507.0	26	506.0
34.5	506.0		
34.5	505.5		
25.5	505.5		
-1	519.8		
-1	525.1		
0	525.0		
SF =	134.16		
WTL			

APPROACH SLAB
TEMPLATE
DETAILS
CHECKED

MOUSE BOOK
NO

STRUCTURE
TEMPLATE
DETAILS
CHECKED

MOUSE BOOK
NO

DATE	BY	REMARKS CHECKED

ORIGINAL
TRACING

SHEET 2 OF 3

APPROACH #2
STRUCTURE SECTIONS

138

1" = 10'

ORIGINAL SURVEY
NOTE BOOK NO.
AREAS CHECKED / TEMPLATE / PLOTTED / SURVEYED — BY — DATE

FINAL SURVEY
NOTE BOOK NO.
AREAS CHECKED / TEMPLATE / PLOTTED / SURVEYED — BY — DATE

STRUCTURE EXCAVATION

LEFT SIDE			
STATION	DISTANCE	AREA, SF	VOLUME, CF
109+12		36.22	
	51		1934.68
109+63		39.65	
	8.5		337.03
109+71.5		39.65	
	2.5		100.75
109+74		40.95	
		SUBTOTAL	2372.46

87.86 cy
6-03-99

RIGHT SIDE			
STATION	DISTANCE	AREA, SF	VOLUME, CF
109+00		34.62	
	12		415.44
109+12		34.62	
	51		1893.88
109+63		39.65	
	BUTT		
109+63		104.65	
	8.5		864.32
109+71.5		98.72	
	BUTT		
109+71.5		40.30	
	2.5		102.38
109+74		41.60	
	13		540.80
109+87		41.60	
	BUTT		
109+87		79.70	
	6.5		517.01
109+93.5		79.38	
		SUBTOTAL	4333.83

160.5 cy
6-03-99

STRUCTURE LEFT 87.86
" RIGHT 160.5
248.36
6-03-99

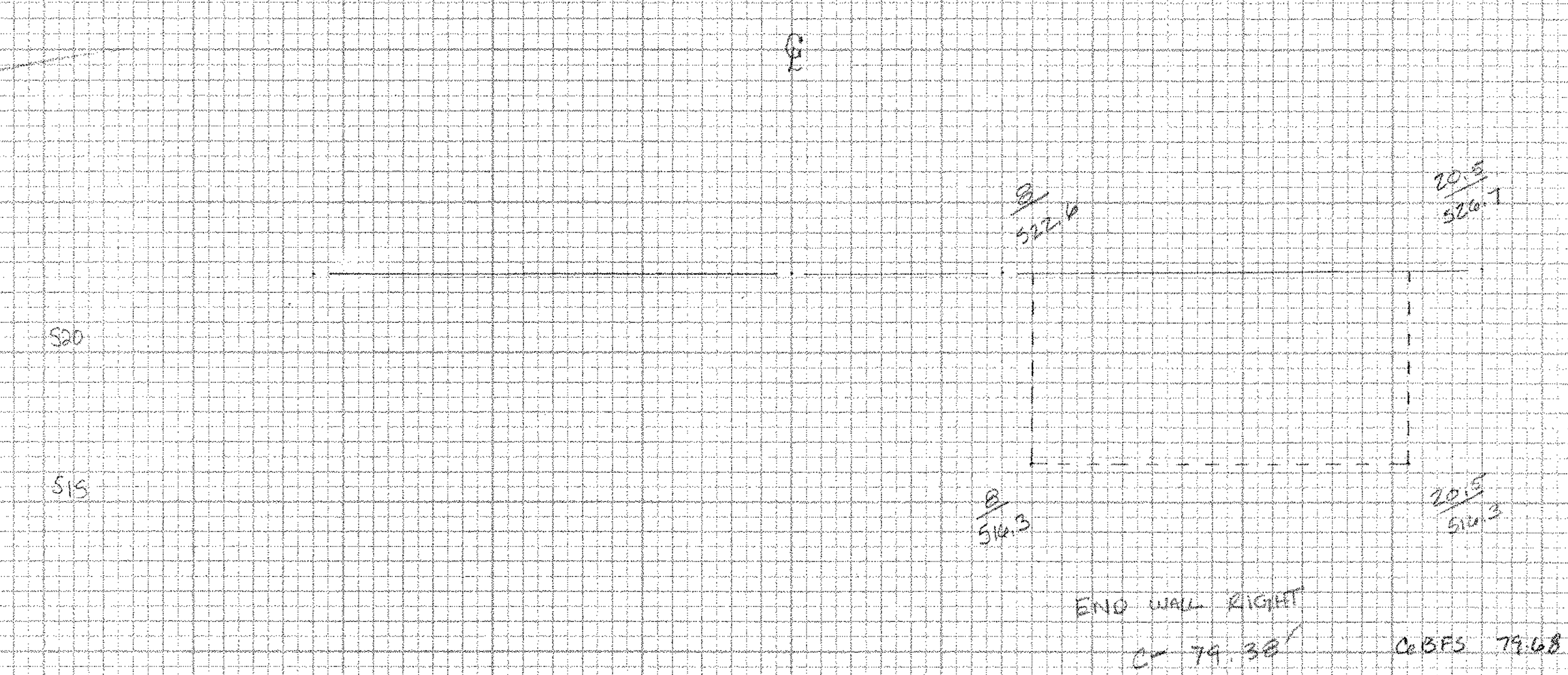
6630.93
245.4

GBFS

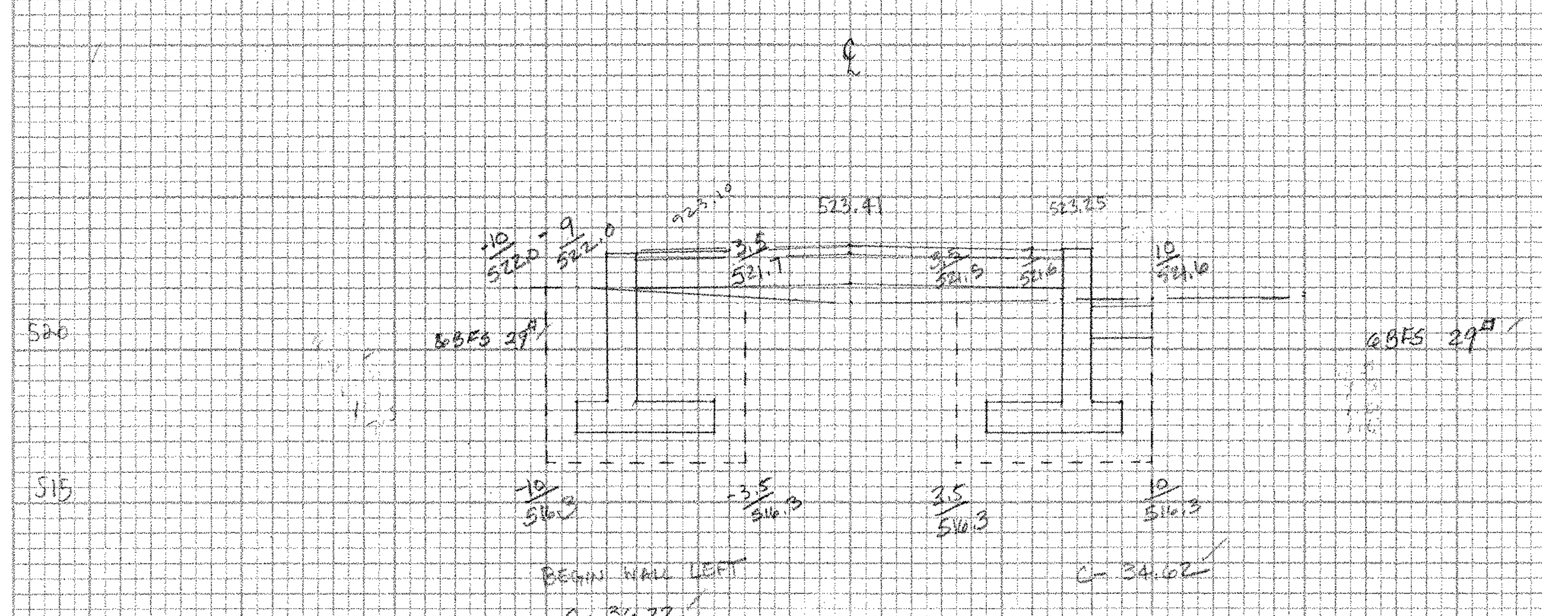
LT STATION	DIST	AREA	VOL
109+12		29	
	51		68.0
109+63		43	
	8.5		13.6
109+71.5		43.4	
	2.5		4.1
109+74		44.25	
			85.7 cy

RT SIDE STATION	DIST	AREA	VOL
109+00		36	
	12		14.4
109+12		29	
	51		67.6
109+63		42.6	
	BUTT		
109+63		42.6	
	8.5		12.7
109+71.5		38.25	
	BUTT		
109+71.5		132.25	
	2.5		8.1
109+74		42.25	
	13		19.9
109+87		40.25	
	BUTT		
109+87		91.25	
	6.5		20.5
109+93.5		79.68	
			143.2 cy 3/19/99

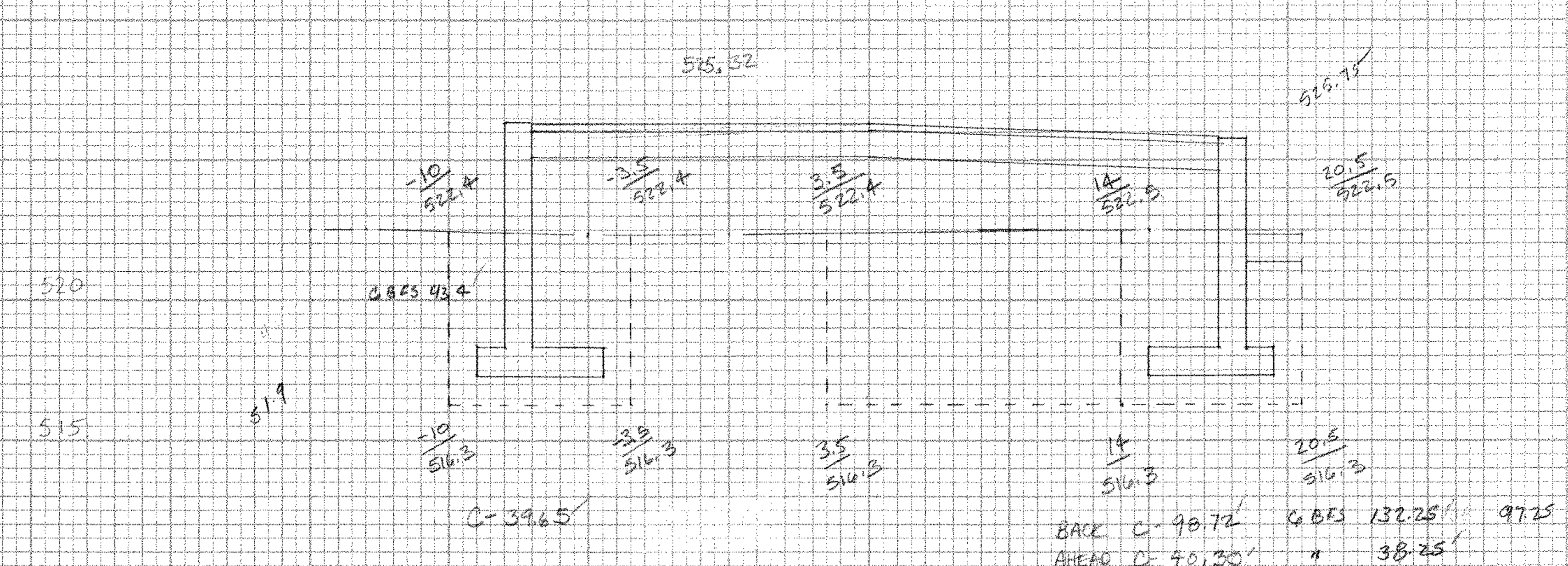
$\frac{A_1 + A_2}{2} \times D \times \frac{1}{27}$



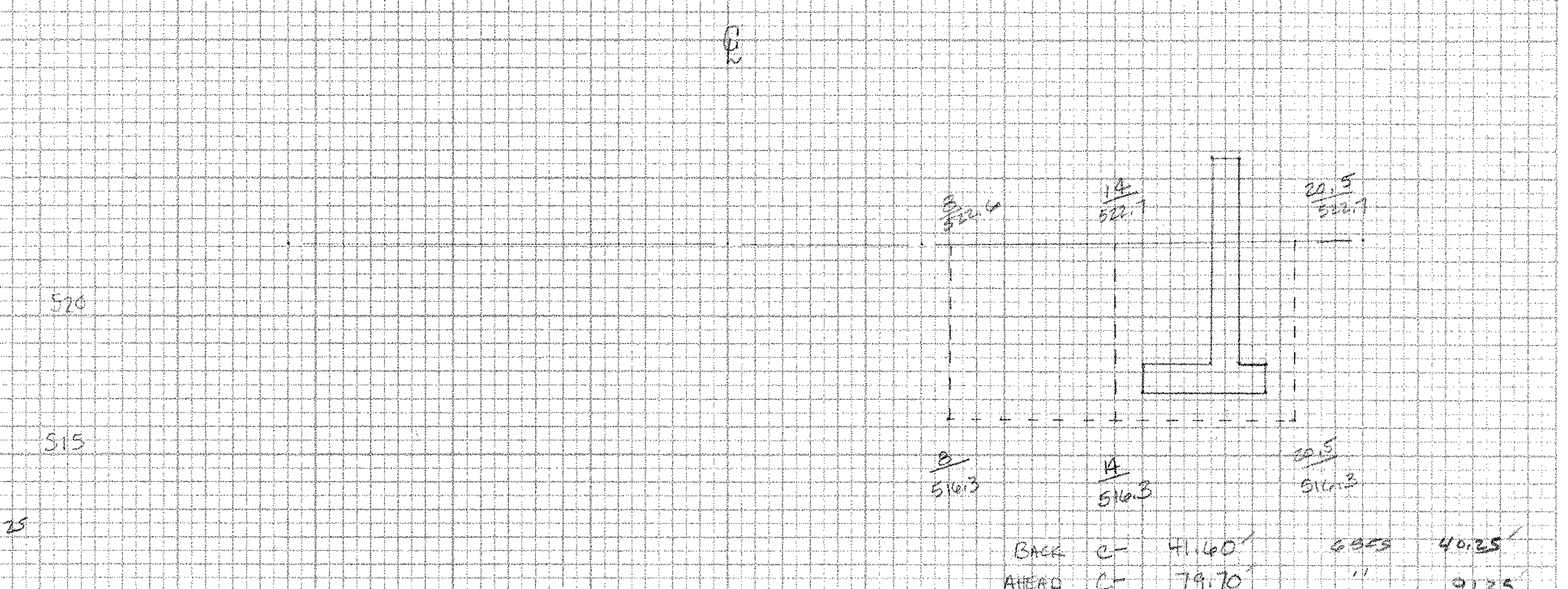
109+93.5



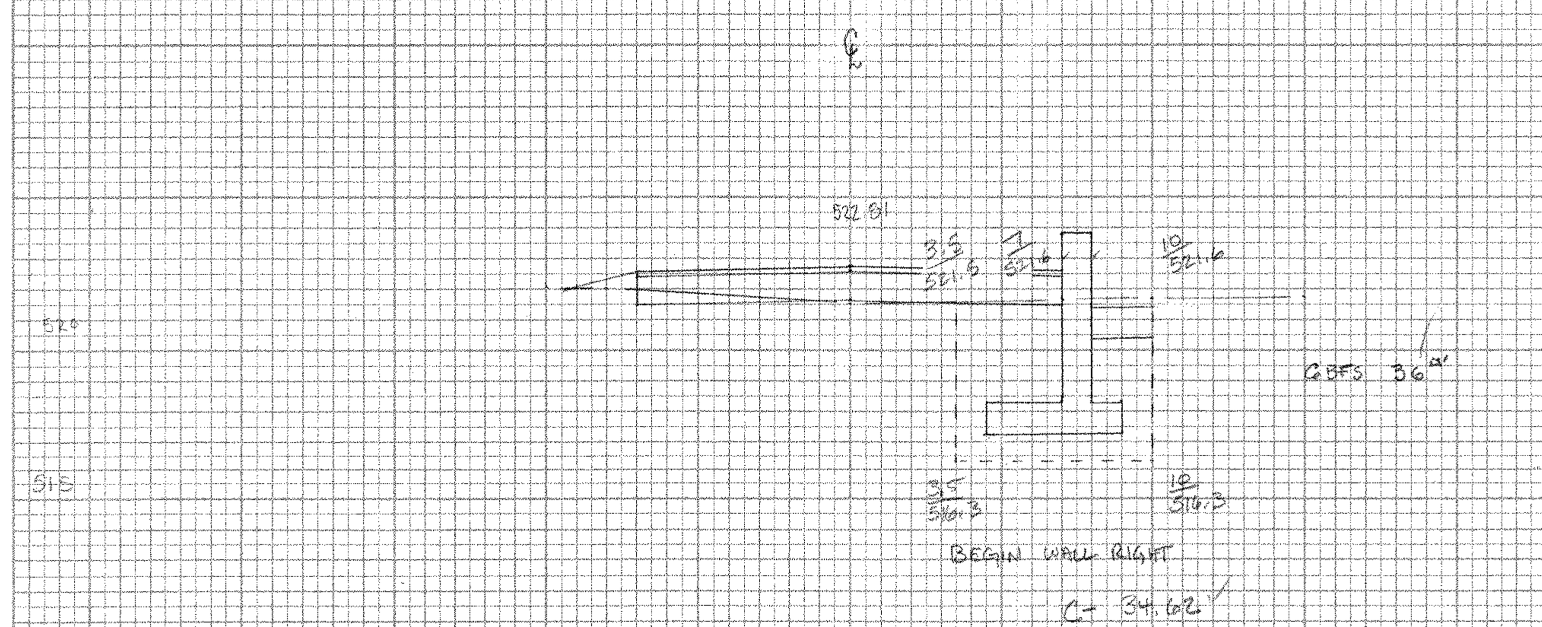
109+12



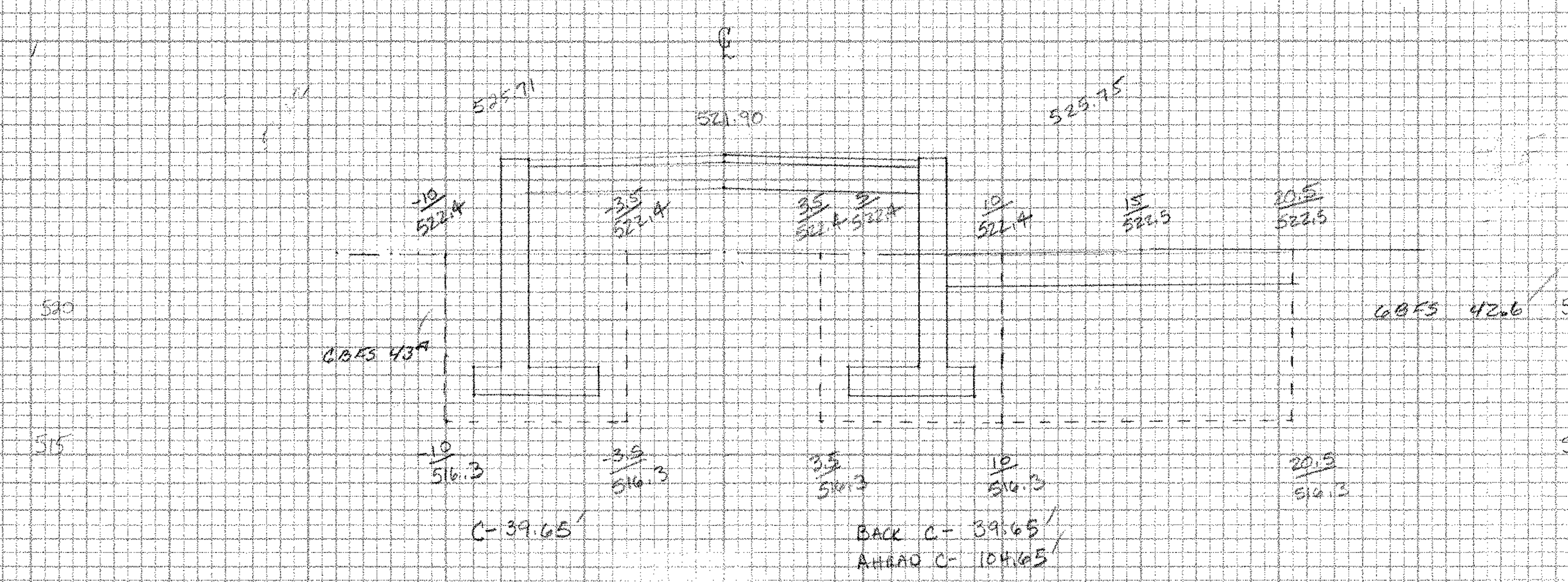
109+71.5



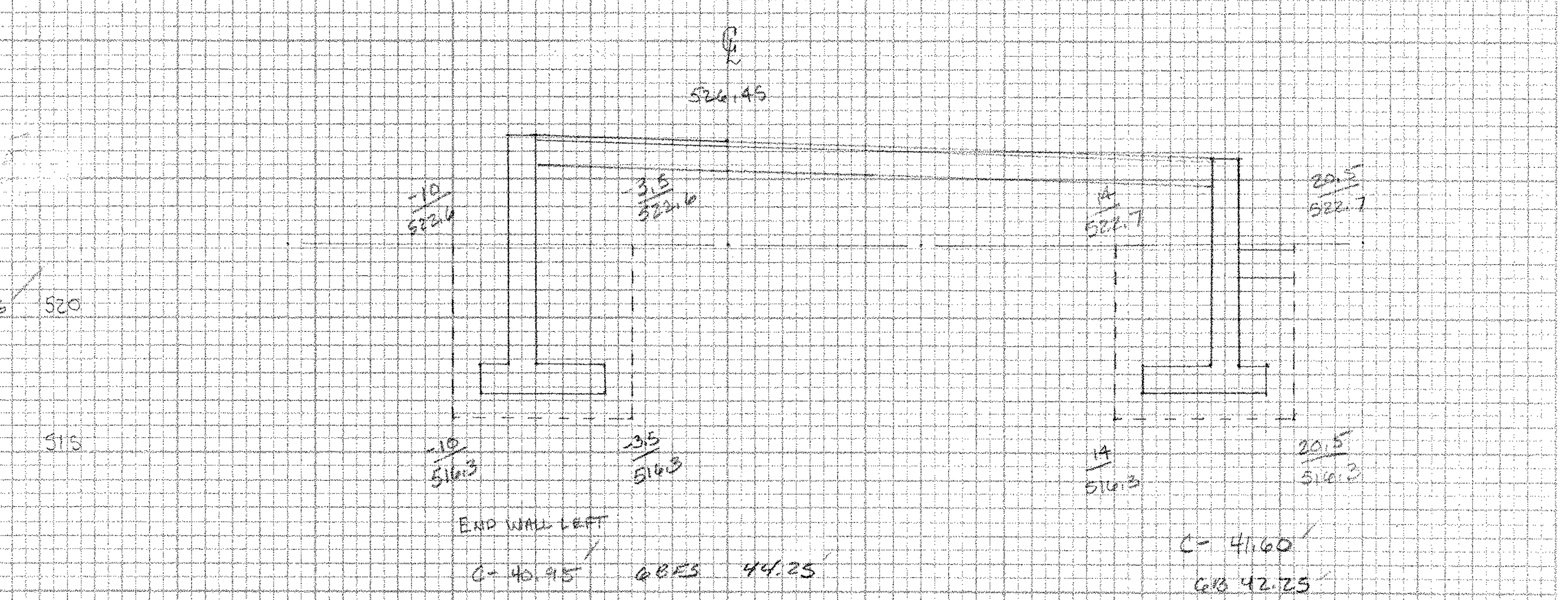
109+87



109+00



109+63



109+74

RETAINING WALL
STRUCTURE SECTIONS
SHEET 3 OF 3

PLATE 3: FULL CROSS SECTION/LAYOUT LINE

MONTPELIER MIDDLE SCHOOL
MONTPELIER, VERMONT

5200
5100
5000
4900
4800

4950 5000 5100 5200 5300 5400 5500

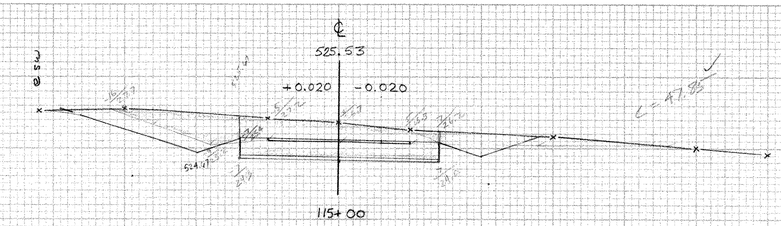
East Coordinates

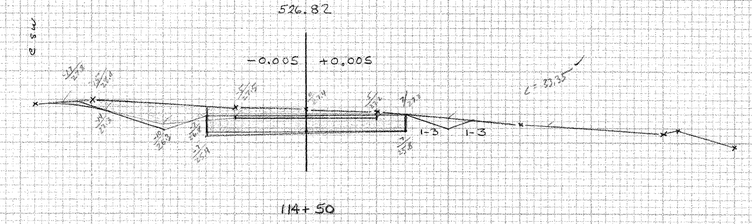
North

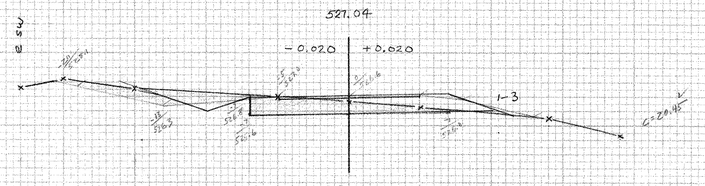
NO.	DATE	BY	DESCRIPTION
			VERMONT AGENCY OF TRANSPORTATION
			STATE HIGHWAY ENGINEER
			DISTRICT ENGINEER
			RESIDENT ENGINEER
			SURVEYED
			DRAWN
			CHECKED
			APPROVED

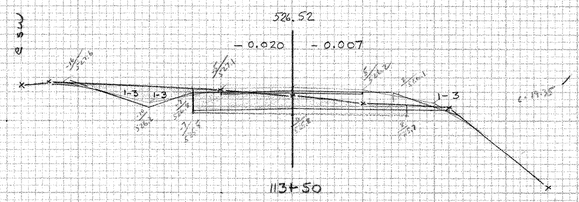
FINAL SURVEY
NOTE BOOK
PAGE

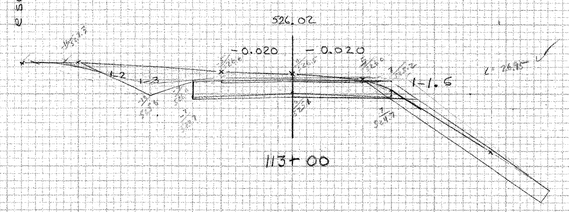
MONTPELIER BWM BIKE PATH
HIGH SCHOOL RUNNING TRACK
SURVEY: KNIPES 12/98
PLOT : KNIPES 2/99 140 1"=20'

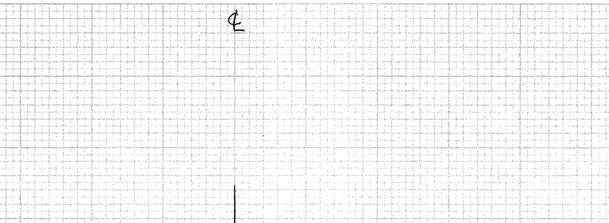


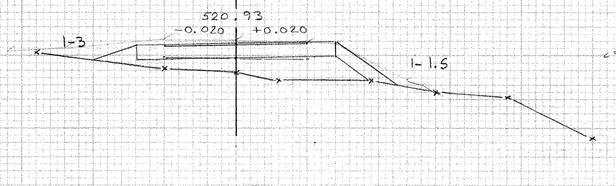


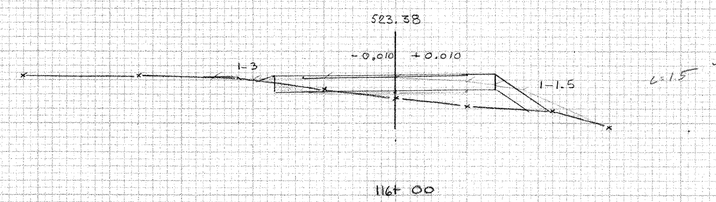


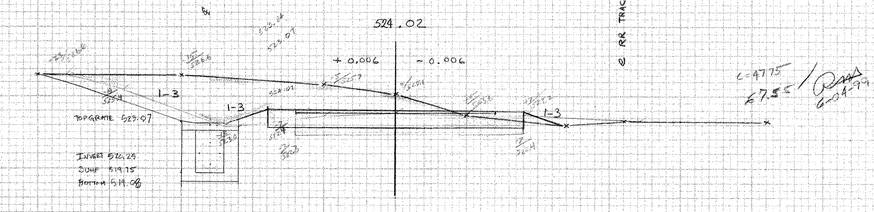






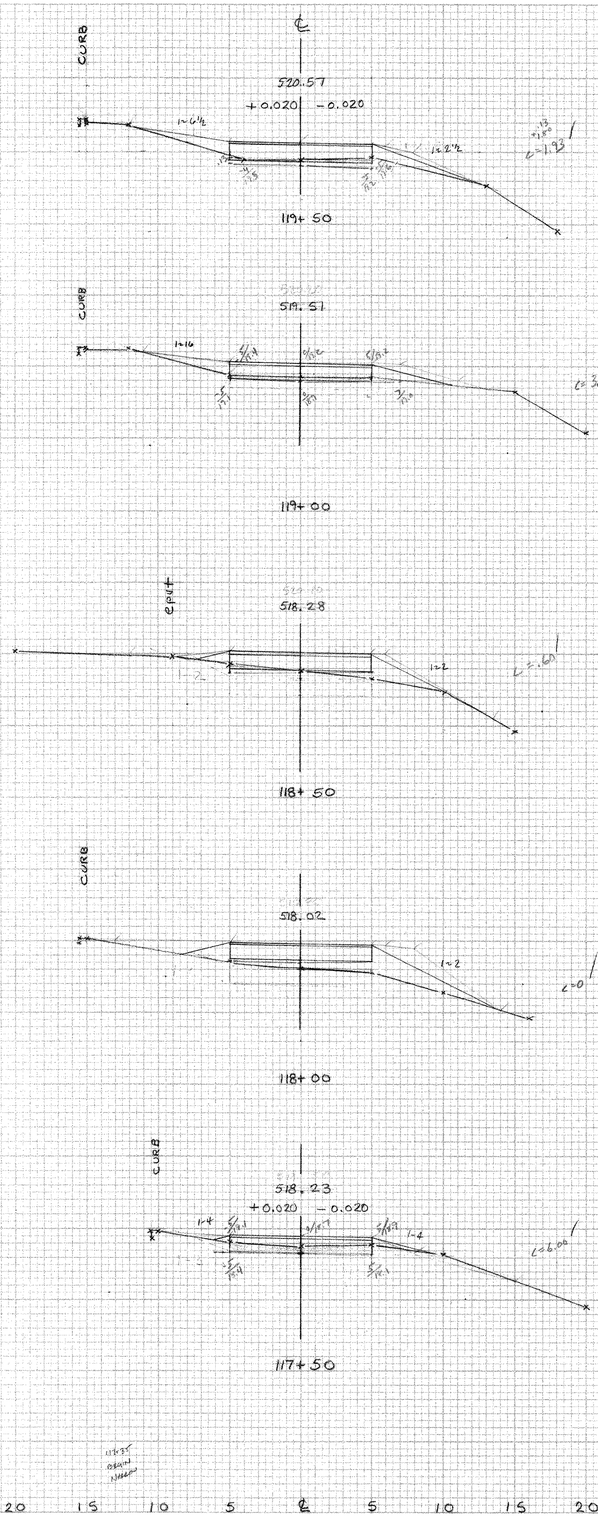


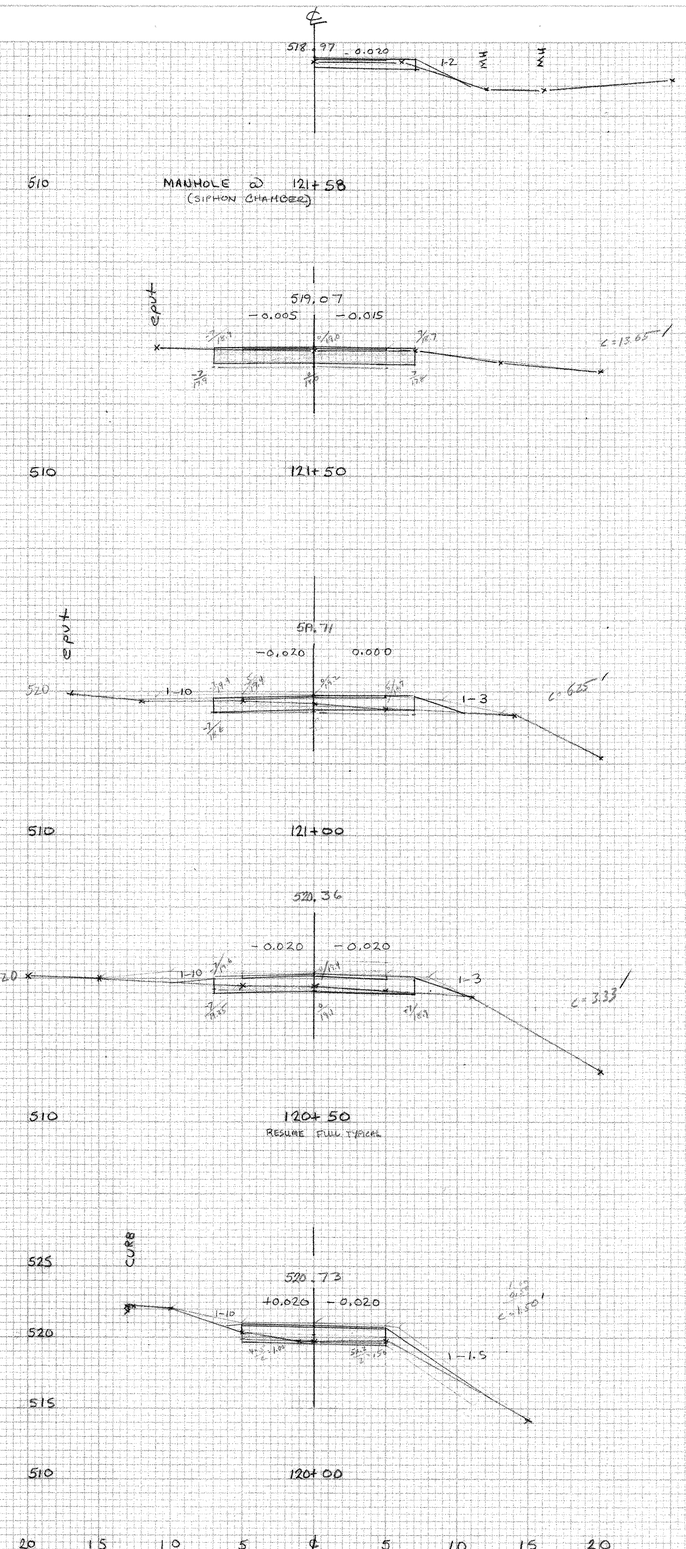


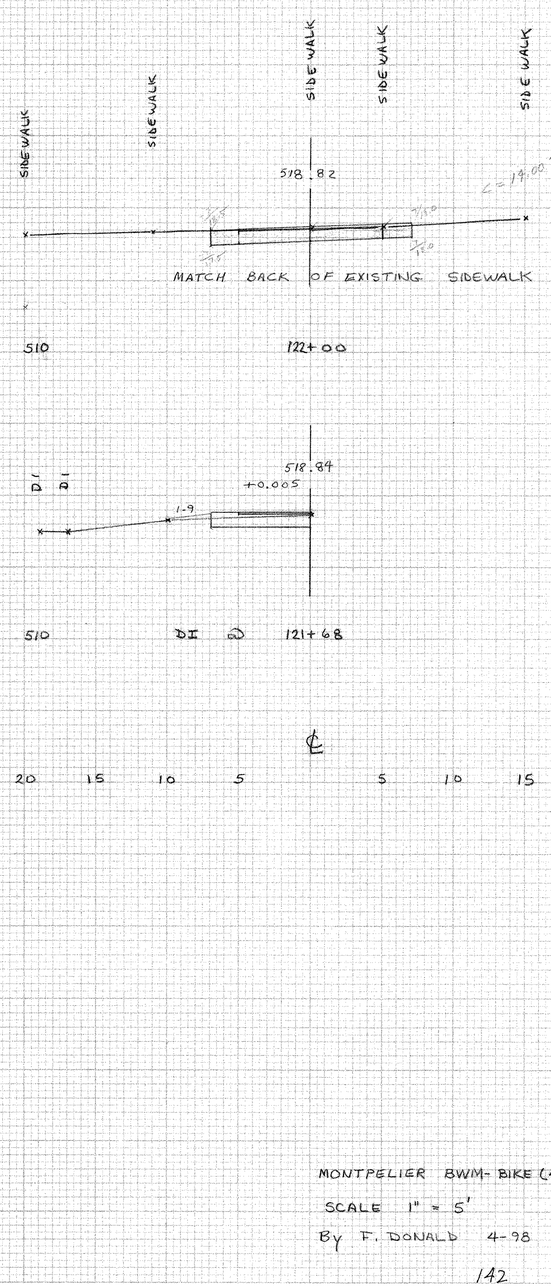


MONTPELIER BWM-BIKE (4)S
SCALE 1" = 5'
BY F. DONALD 4-98

Keuffel & Esser Company
PLATE 3. CROSS SECTION 48 7056 Made in U.S.A.







MONTPELIER BWM-BIKE (4) S

SCALE 1" = 5'

By F. DONALD 4-98

142

By 6-04-99

ORIGINAL SURVEY
FINAL SURVEY
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
NOTE BOOK
NO.
DATE
BY
Keuffel & Esser Company
PLATE 3. CROSS SECTION 48 7058 Made in U.S.A.

REV PI 128+06.04 =
REV PI 125+54.20
EQ = -51.84

NO	WORK CHECKED	BY
	AREA	
	MOLE BOOK	JERRYJE
	PAGE	DETAILED
		CHECKED
	ORIGINAL TOPOGRAPHY	LAMB'S

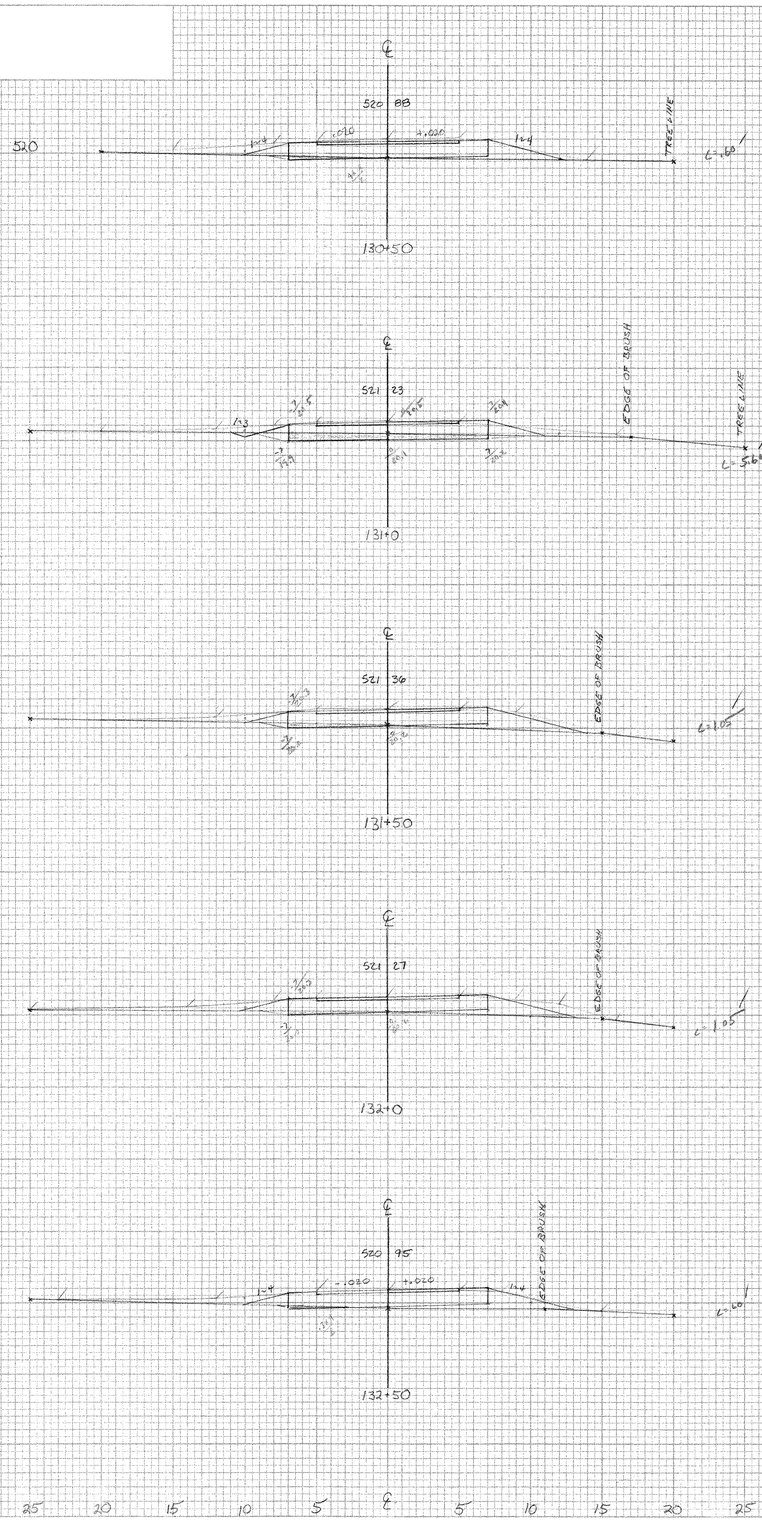
BY	DATE
RA	

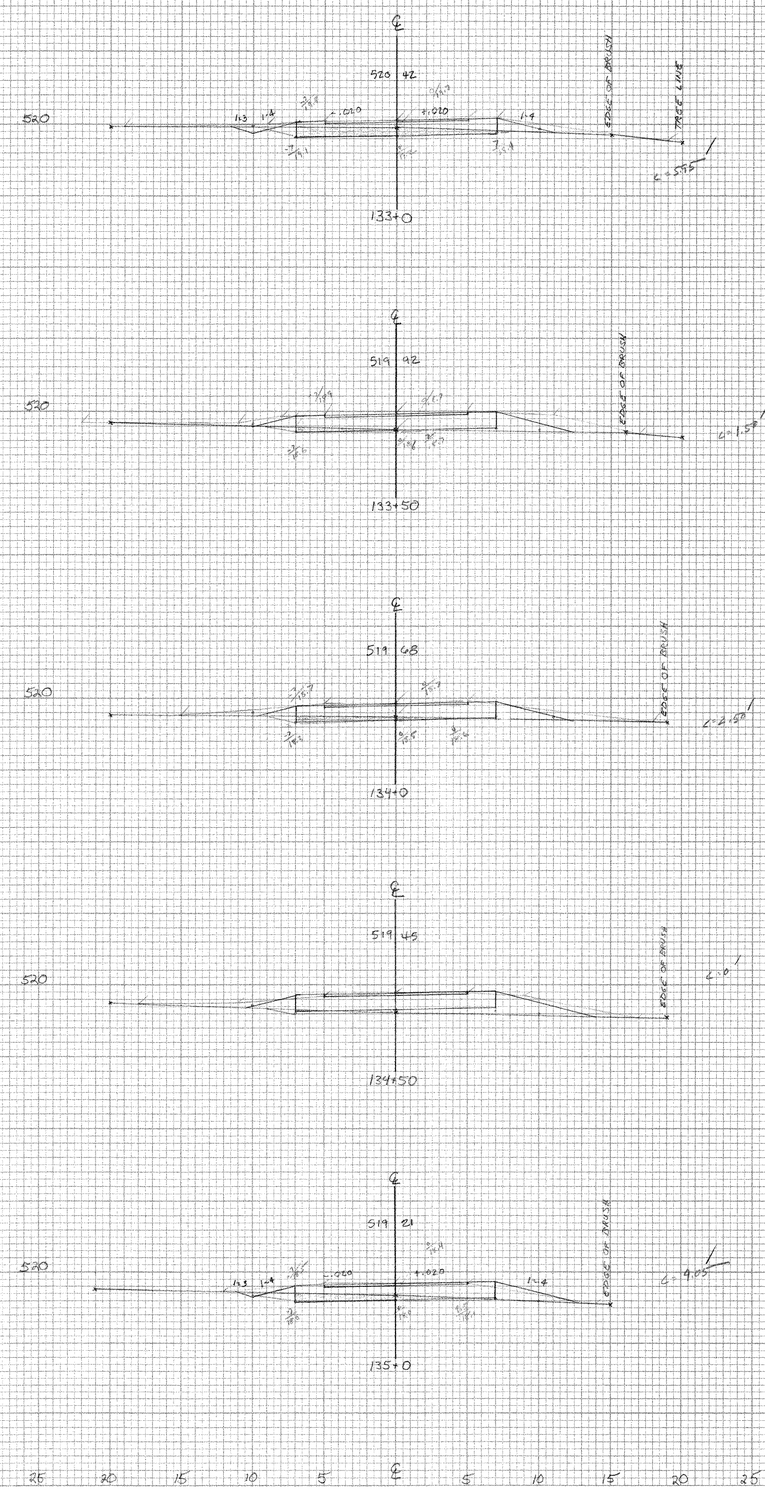
MONTPELIER BWA-BIKE(4)S
REV. X-SECTIONS
123+0 ~ 130+0
SCALE 1INCH = 5FEET

30 25 20 15 10 5 ℄ 5 10 15 20 25 30

Kentfel & Esser Company PLATE 3, CROSS SECTION 48 7056 Made in U.S.A.®

✓ by RA 6-04-99

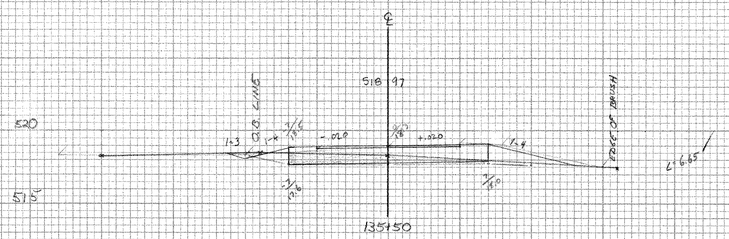


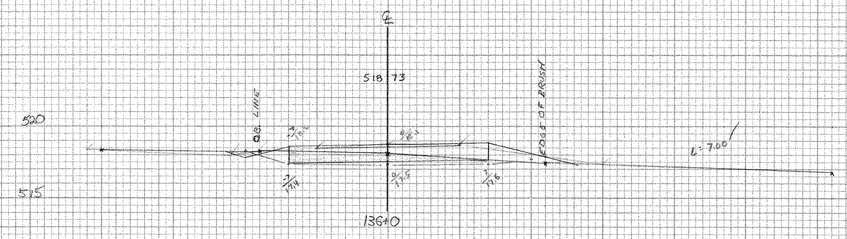


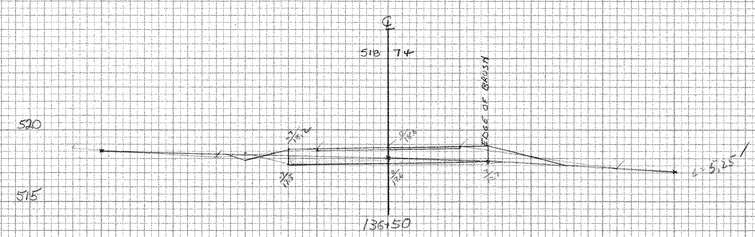
MONTPELIER BNHM-BIKE(4)S
REV. X-SECTIONS
130+50 ~ 135+0
SCALE 1 INCH = 5 FEET

J by Rma 6-07-99

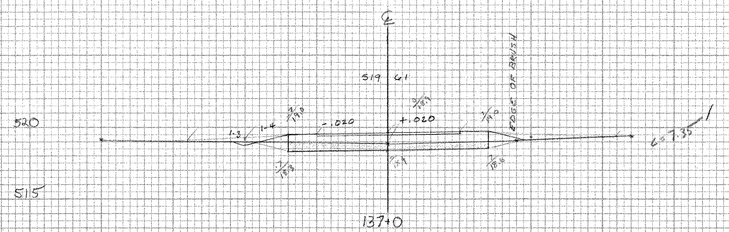
PLATE 3-FULL CROSS SECTION-FULL LINE
HIGHWAY RESEARCH BOARD
NATIONAL ACADEMY OF SCIENCES
PRINTED IN U.S.A.

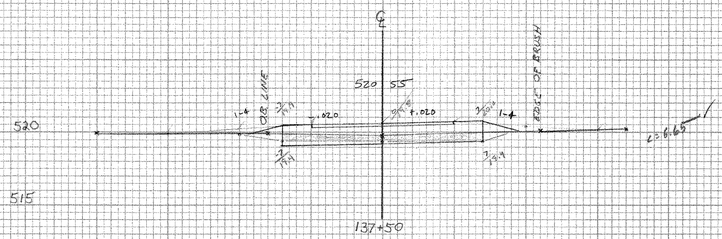


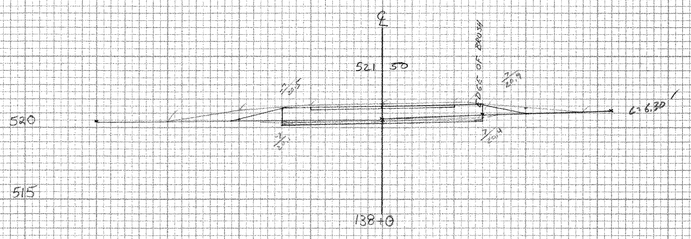


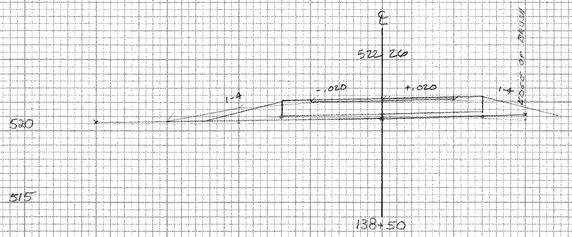


POT 130+48.12 =
POT 136+51.93
BQ +3.81





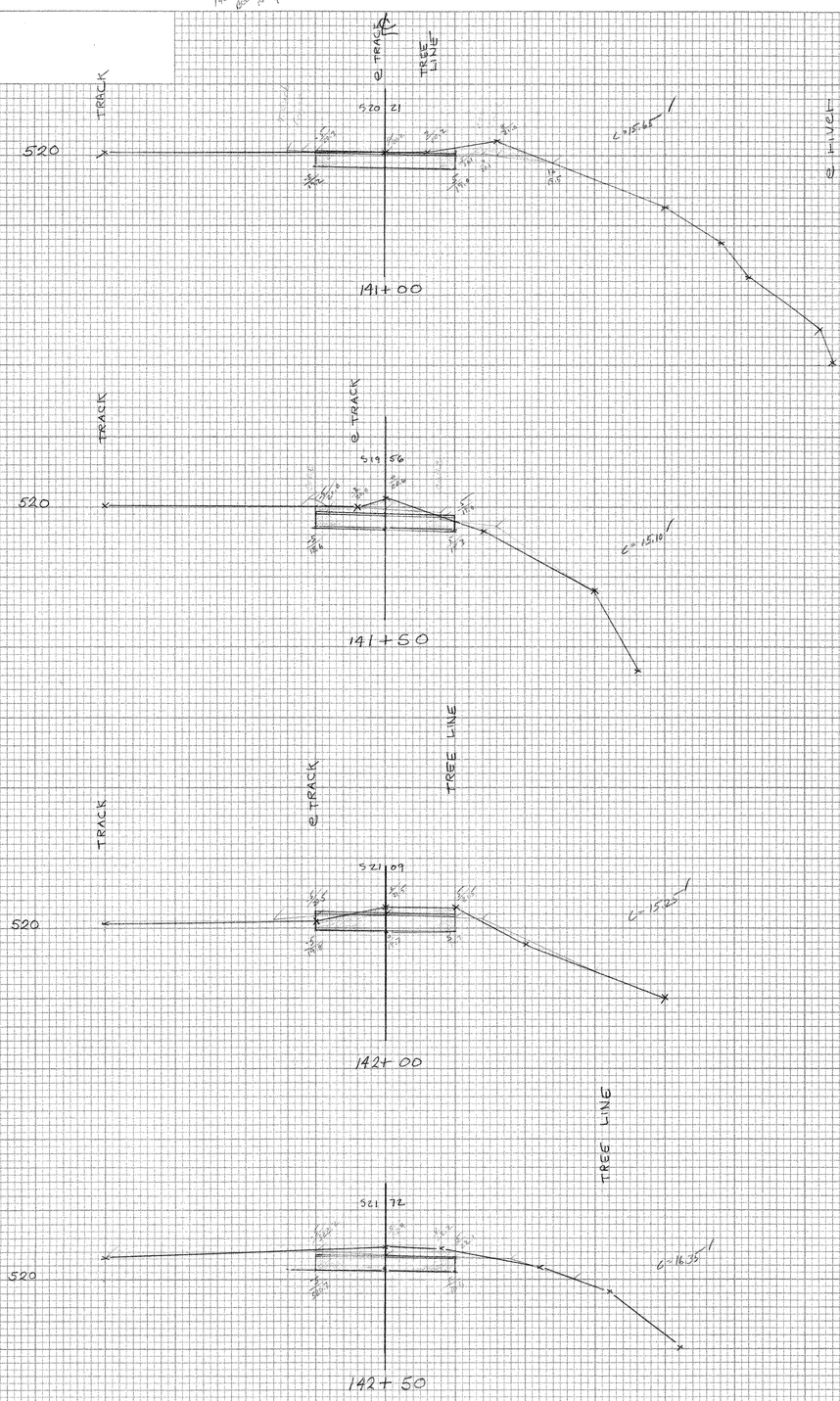


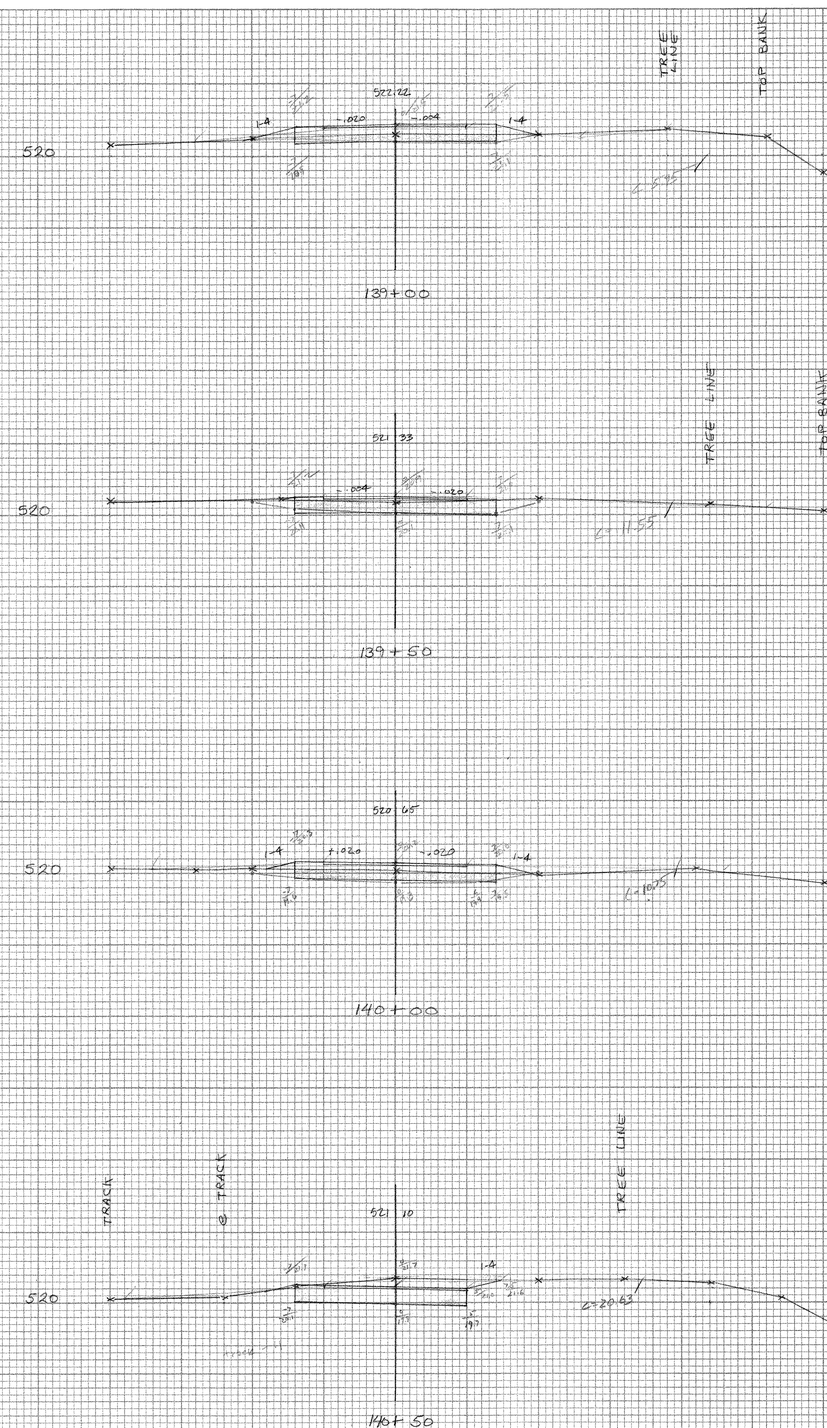


MONTPELIER BWM-BIKE (4)S
REV. X-SECTIONS
135+50 ~ 138+50
SCALE 1 INCH = 5 FEET

HIGHWAY FEDERAL AID SHEET
PLATE 3-FULL CROSS SECTION-FULL LINE
NATIONAL PRINTOUT
PRINTED IN USA

J by DM 6-07-99





NO	MADE CHECKED	DATE
	VERA	
	ATLANTET	
	DETROIT	
	CINCINNATI	
	MILE BOOK	
	JAMRO YARDS	

MONTPELIER BNM-BIKE(4)S
REV. X-SECTION S
142+50 ~ 139+00

SCALE 1 INCH = 5 FEET

PLATE 3, CROSS SECTION 46 7056 Made in U.S.A.® Kuttel & Esser Company

PLATE 3-FULL CROSS SECTION/FULL FILE
HIGHWAY FEDERAL AID SHEET
MISSING IN ABSY.
WILLIAMS ASSOCIATES

525 520 515 510 505

146+50

146+00

145+50

145+00

144+50

144+00

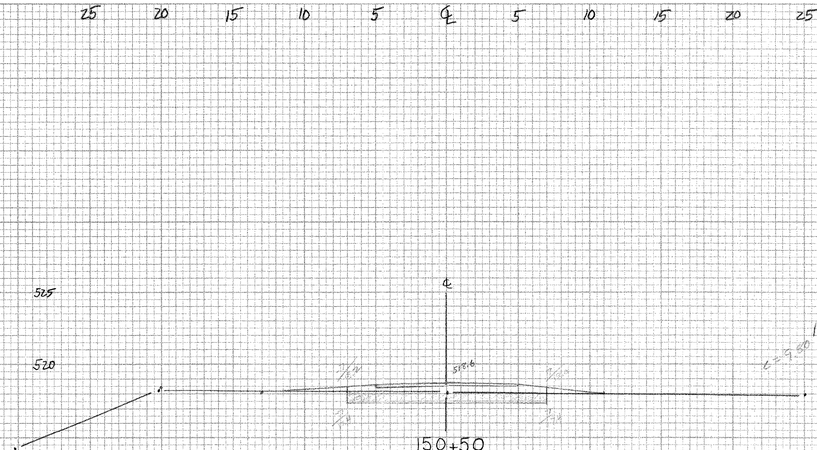
143+50

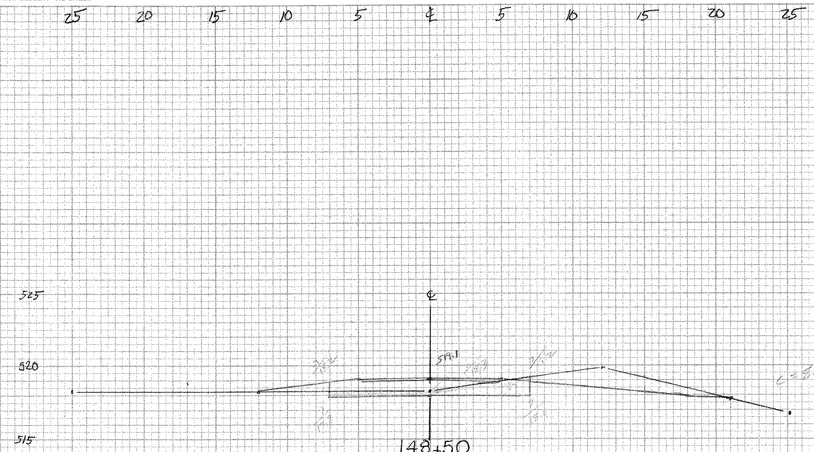
143+00

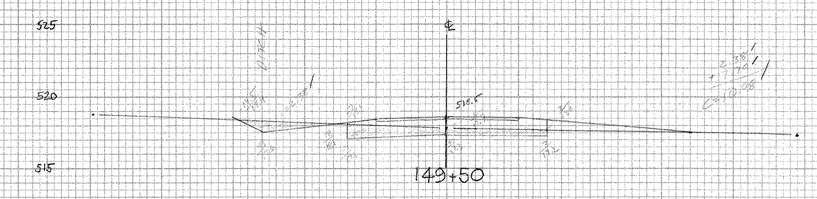
MONTPELIER BWM-BIKE (43)S
SCALE 1" = 5'
143+00 ~ 146+50

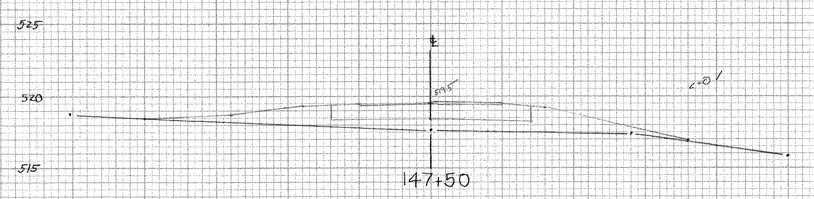
147

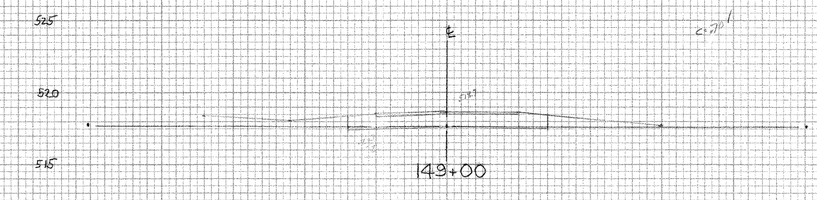
PLATE 3-LAYL CROSS SECTION/LAYL LINE

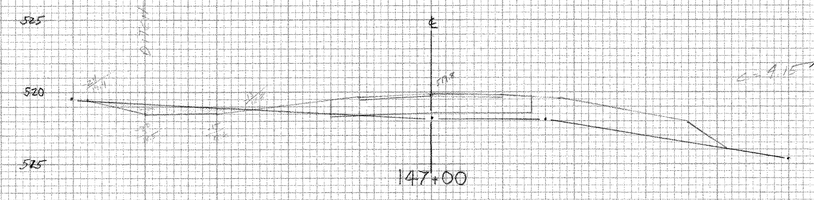












MONTPELIER BNM-BIKE(4)S
SCALE 1"=5'
147+00 ~ 150+50

148

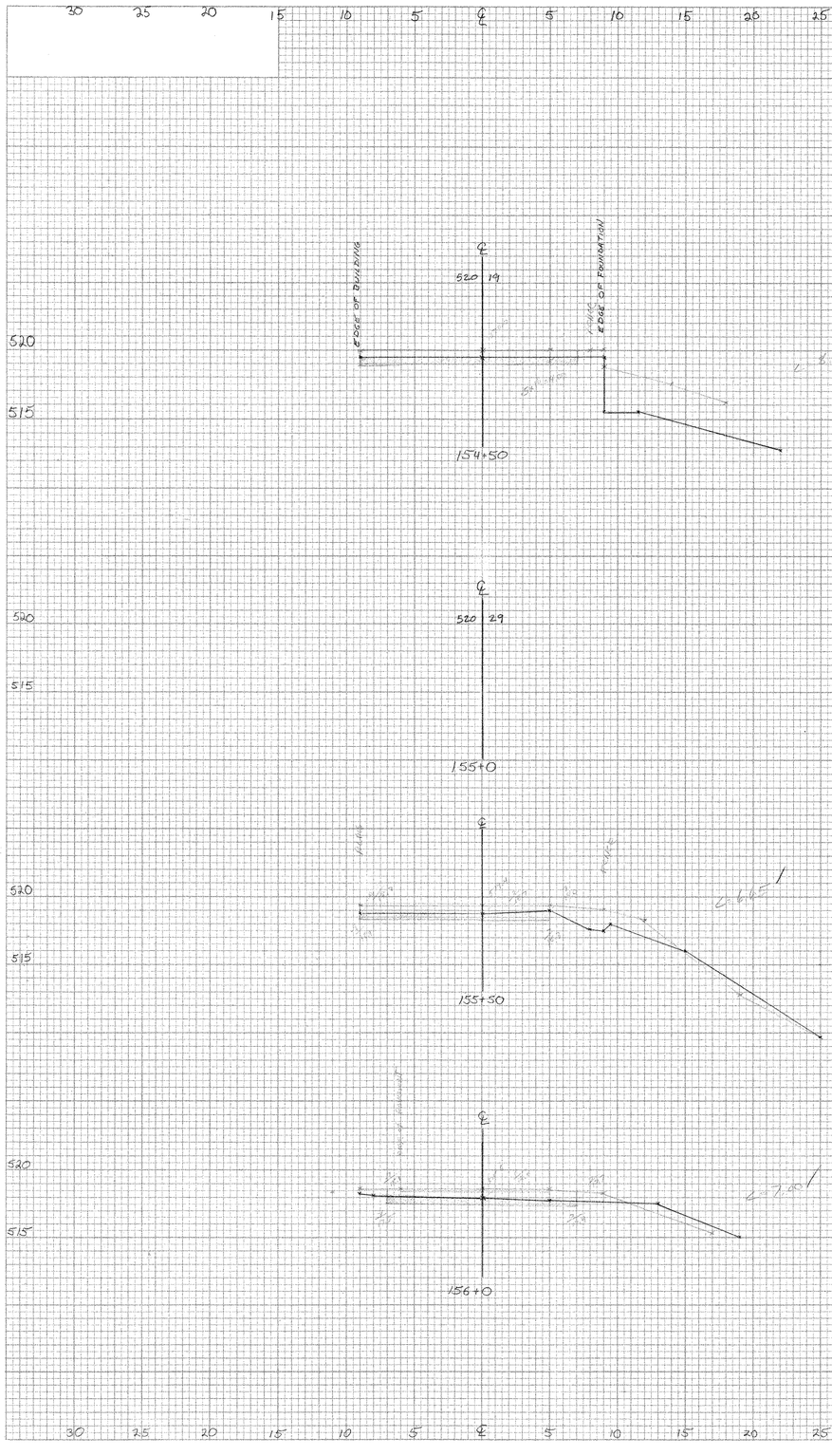
✓ by RMA 6-07-99

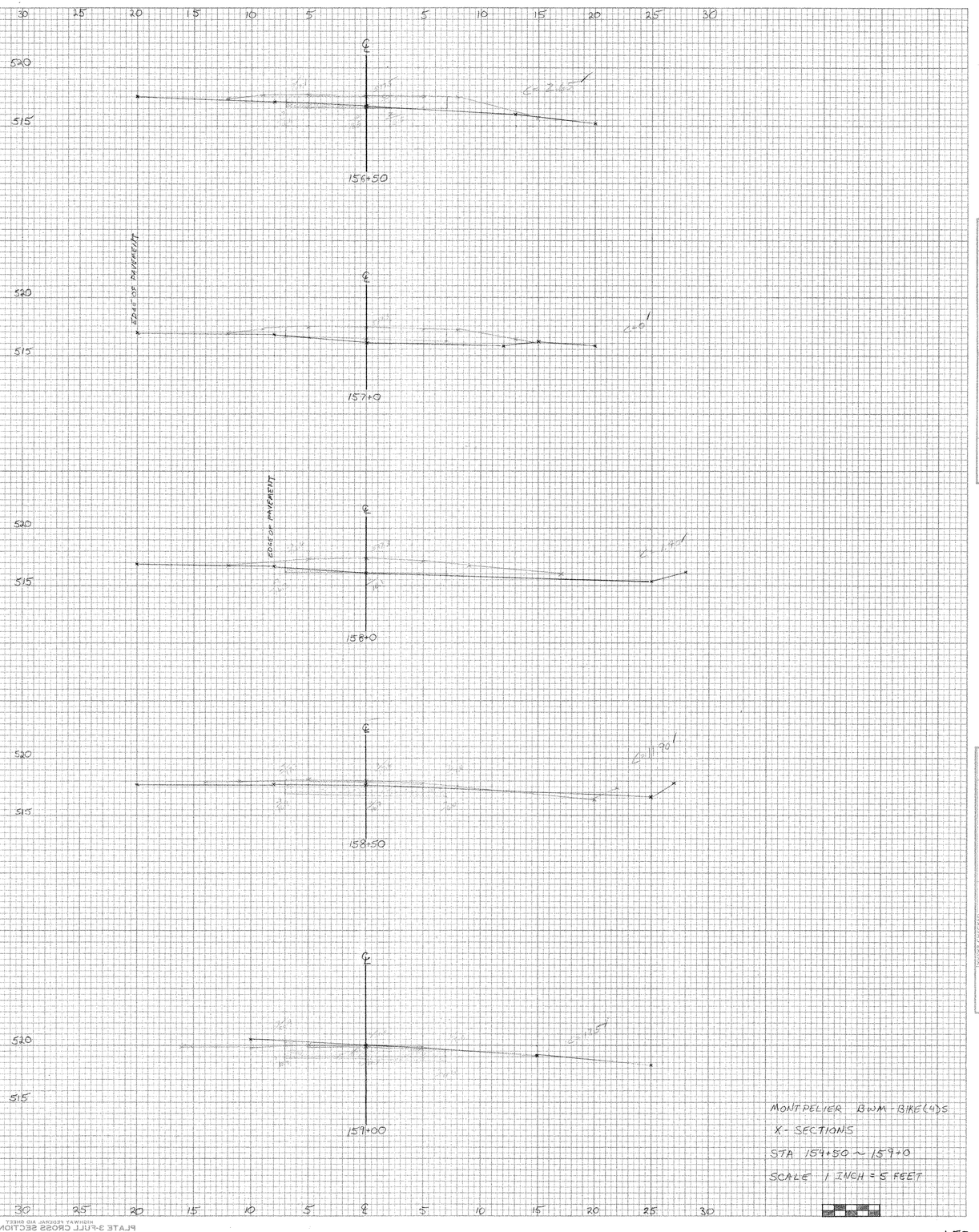
PLATE 3-4: CUT CROSS SECTIONS/FILL LINE
HIGHWAY ACCESS AID SHEET
VERMONT AGENCY OF TRANSPORTATION
PRINTED IN USA

MONTPELIER BNM-BIKE(49)S
SCALE 1" = 5'
151+00 ~ 154+00

149

✓ by RAA 6-07-11





MONTPELIER BWM - BIKE LANDS
X - SECTIONS
STA 154+50 ~ 159+0
SCALE 1 INCH = 5 FEET

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

6-07-77

150

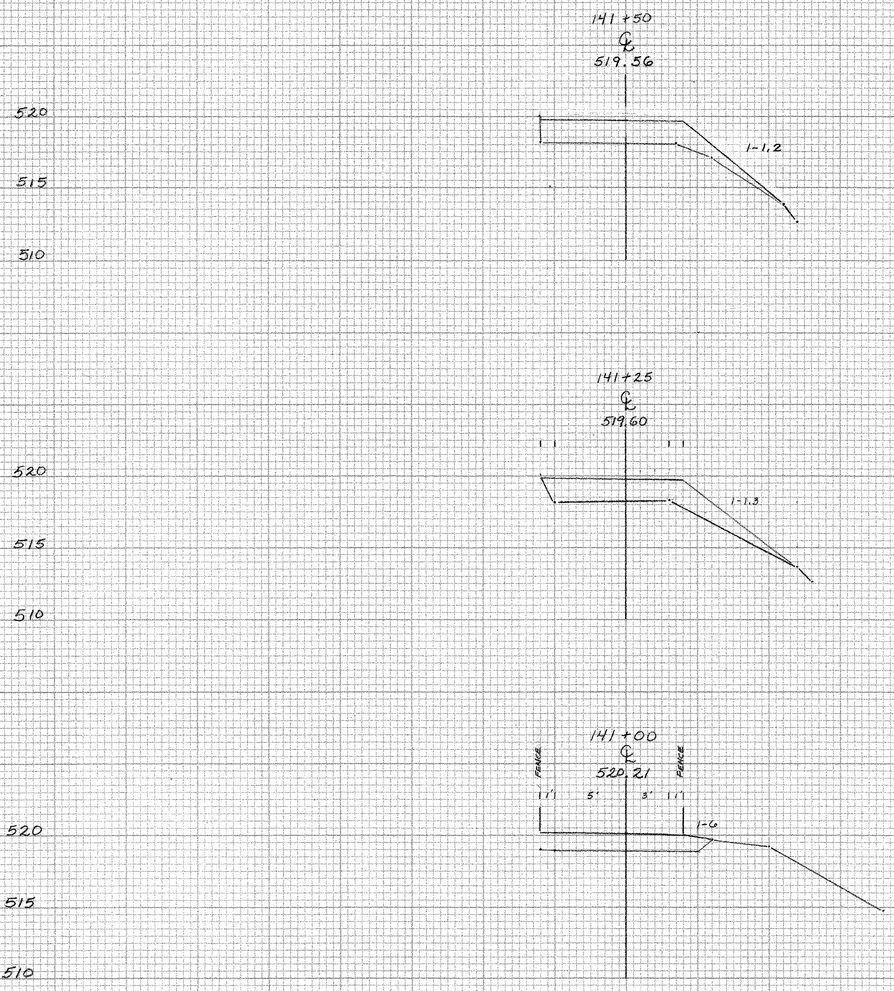
FINAL DRAINAGE SUMMARY

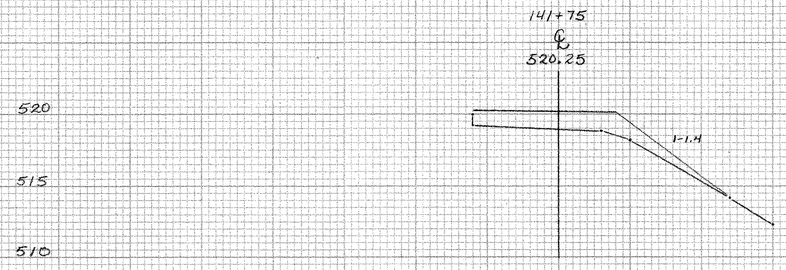
PREPARED BY KNIPES PROJECT MONTPELIER BWM
CHECKED BY _____ NO. BIKE (4) 5

STATION	STATION			PIPES							END SECTIONS			DROP INLETS					CHANGING ELEVATIONS		TRENCH EXCAVATION		BACKFILL		STONE FILL		
		Position	Askew	Dir & Pipe #	Drain Syst #	601.0905 12" CPEP	601.0910 15" CPEP	601.0915 18" CPEP	601.0920 24" CPEP	601.0925 30" CPEP	601.7015 18" CPEES	601.7020 24" CPEES	601.7025 30" CPEES	Depth of DI	604.25 Conc. Class D	507.15 Reinf. Steel	604.50 G.I. Cover	604.51 G.I. Grate Type D	604.23 Change Elev. Slope	604.60 Change Elev. Conc.	204.70 Earth	204.71 Rock	203.32 Drain. Rock	204.30 Drain. Backfill	613.10 Types	613.11 Type II	644.31 Geotext. Under Stone
108+33		RT		8			8							5	2.6	231		1			12.5						
108+33		℄		12																1							
112+01		LT		16															0								
112+88		℄		20	3	24								3½	1.9	158		1			12.7						
115+50		℄	119° RT	25	3		86							3	1.7	150		1			62.7						
115+94		RT		36															1								
117+70		LT		40															1								
121+60		RT		43													1		1								
122+65		LT		44																1							
129+36		℄	66° RT	52	4	57								4	2.1	193		1		1	30.6				1		
134+40		℄		56	4			49						4½	2.3	200		1			28.4						
139+84		℄	61° RT	60	4		54	46						3½	1.9	158		1			37.1				1.8		
142+67		℄	98° RT	62	3			28			1										1.7				0.6		
145+55		RT		72															1								
147+58		℄		76	1				40			1									24.4				16.6		
150+92		℄	45° RT	80	1				46			1									21.6		3.5		3.0	6.0	7
153+40.5		℄	83° LT	84	1				34			1									9.7		2.6			7.1	5
154+46		LT		88															1								
157+50		RT		92	1		40							4	2.1	193		1			24.8					0	
						81	~~100~~ 187	77	80	40	1	2	1	14.6	12.89	1	7		5	3	266.2	0	6.1	0	~~5.4~~ 6.4	89.7	12
TOTALS						81	~~100~~ 187	77	80	40	1	2	1	~~12.9~~ 14.6	1283	1	7		5	3	266.2	0	0	6.1	~~5.4~~ 6.4	89.7	12

5/26/99 GH

151





NOTE: SIDE SLOPES GREATER THAN 1~1.5 WILL HAVE TO BE COVERED WITH STONE FILL TO PREVENT SLOPE EROSION.

SCALE: 1"=5'

FROM STATION 141+00 ~ 141+75
PROJECT NAME: MONTPELIER BIKE PATH
PROJECT NUMBER: STP BIKE (4)S
DATE: 9/28/98

FOR THE USE OF: TERRY BOYLE, LANDSCAPE ARCHITECT

"PERFECT" CROSS SECTION
10 X 10 = ONE INCH
EUGENE DIETZGEN CO.

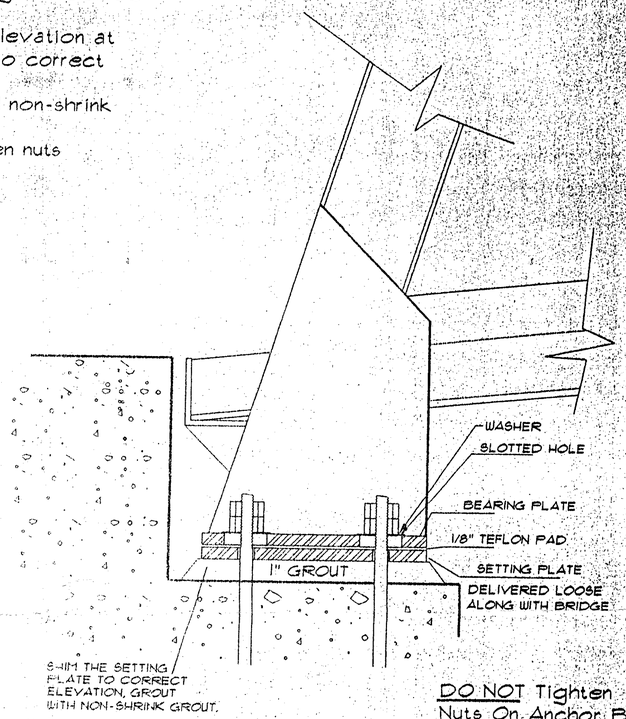
PRINTED IN U.S.A.

"PERFECT" CROSS SECTION
10 X 10 = ONE INCH
EUGENE DIETZGEN CO.

BRIDGE INSTALLATION

1. After anchor bolts are installed and checked for proper dimensions, place setting plate and shim to approximate elevation. (Shim with metal shims) Setting plates are delivered along with bridge.
2. Place teflon pads on setting plate. Bridges under 60' require teflon pads on one end only.
3. Set bridge in place. Check for proper elevation at abutment headwall. If neccessary adjust to correct height.
4. Grout under setting plate with approved non-shrink grout.
5. Bolt bridge to anchor bolts. Hand tighten nuts to allow for expansion and contraction.
6. Deforming bolt threads is recommended.

Typical Thermal Expansion And Contraction Due To A Seasonal Temperature Variation Of 120°F Is 1/8" Per 100' Of Bridge.



DO NOT Tighten Nuts On Anchor Bolts.

SPLICE BOLTS

Field connection bolts, if required, shall be ASTM A-325 or A-490 and shall be tightened by the "turn of the nut method" to obtain proper torque.

TURN OF THE NUT TIGHTENING

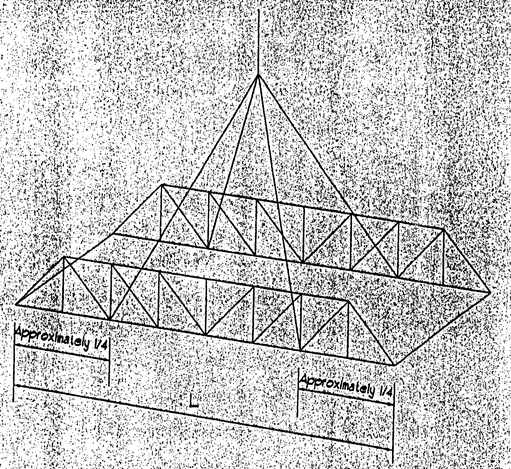
Bolts shall be installed in all holes of the connection and brought to a snug-tight condition. Snug tight is defined as the tightness that exists when the plies of the joint are in firm contact. This may be attained by a few impacts of an impact wrench or the full effort of a man using an ordinary spud wrench. Snug tightening shall progress systematically from the most rigid part of the connection to the free edges, and then the bolts shall be retightened as necessary until all bolts are snug tight and the connection is fully compacted. Following the snugging of all bolts shall be additional tightening as specified in the AISC Manual of Steel Construction, Page 5-15, Table 5. There shall be no rotation of the part not turned by the wrench.

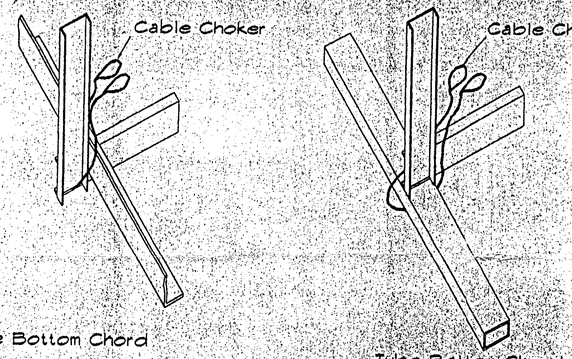
Anchor Bolts not by Steadfast Bridge Co.

Epoxy adhesive bolts in drilled holes are acceptable as a substitute.

Where splices are used the plates are "shop drilled" and "matched marked".
DO NOT mix plates as holes may not match. Keep plates in same orientation as shop bolted for shipment.

LIFTING INSTRUCTIONS





Angle Bottom Chord

Tube Bottom Chord

Place choker around floor beam or bottom chord of truss as shown. Attachment to top chord not recommended.
Under no circumstances should cable or chokers be attached to or rub against railings or toe plates.

For accurate lifting weight consult "Bill of materials" furnished on all shop drawings.

For larger bridges we recommend that professional steel erectors be consulted for unloading and installation.

Date Received: 12-98
☒ Approved ☐ Revise & Resubmit
☐ Approved as noted ☐ Not Approved
Comments:

Reviewed By: Date: Checked By: Date:

FIELD USE

STEADFAST BRIDGES®
A DIVISION OF BILTOLAST PRODUCTS INC
P.O. BOX 806 FORT PAYNE, AL 35967
1-800-749-7515

AISC ACTIVE MEMBER

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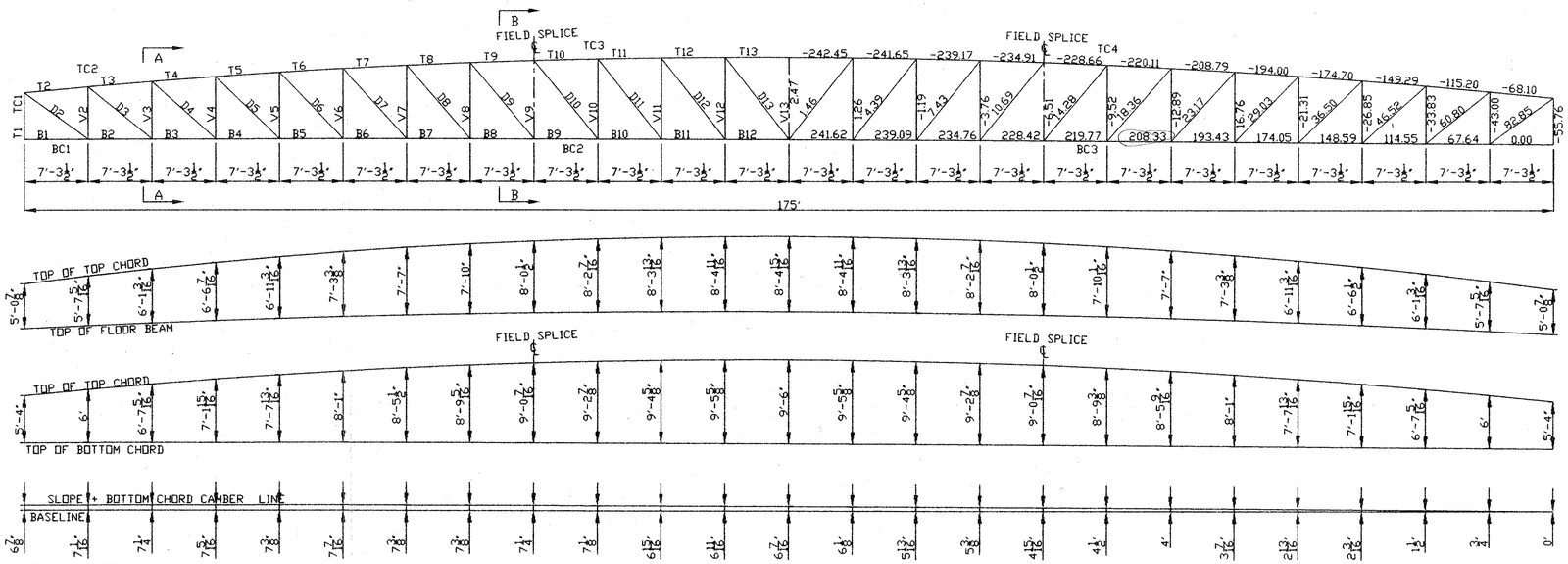
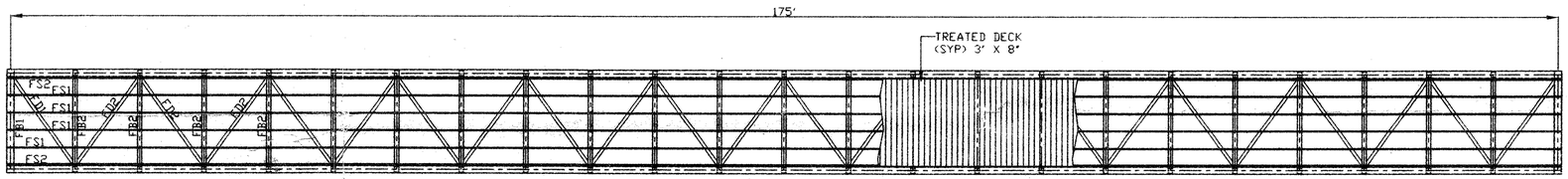


ELEVATION PLAN

1/8"=1'

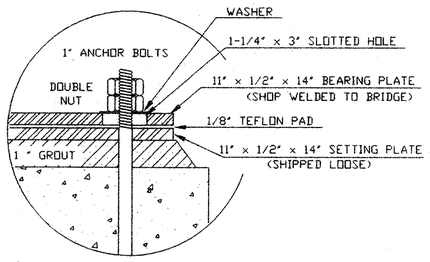
1

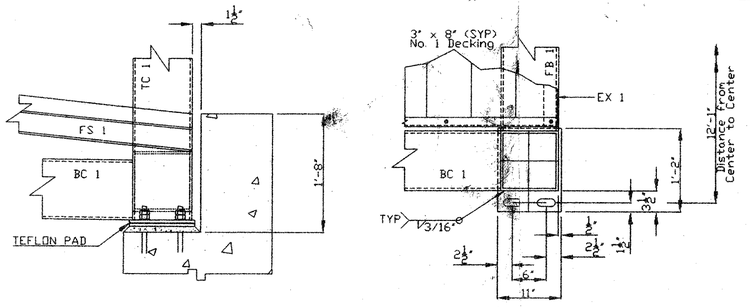


FLOOR PLAN

1/8"=1'

2

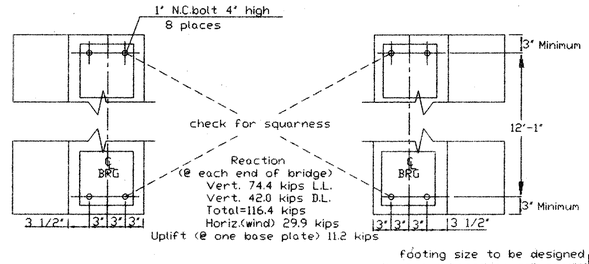




BEARING ASSEMBLY

1"=1'

3

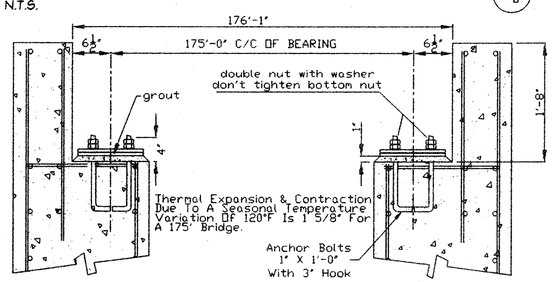


footing size to be designed by owner based on soil condition.

ABUTMENT PLAN

N.T.S.

4



ABUTMENT SECTION

N.T.S.

5

Date Received 1/22/98

☐ Approved ☐ Revise & Resubmit

☐ Approved as noted ☐ Not Approved

Comments: See letter to D. Pettibone

Dated 1/28/98

REVIEW AND APPROVAL OF THIS SUBMITTAL BY THE ENGINEER IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. ANY ACTION SHOWN IS SUBJECT TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE CONTRACTOR REMAINS RESPONSIBLE FOR DETAILS AND ACCURACY OF DIMENSIONS, FOR QUANTITIES, FOR FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION, FOR COORDINATION OF THE WORK OF ALL TRADES, AND FOR PERFORMING ALL WORK IN A SAFE AND SATISFACTORY MANNER. THE CONTRACTOR IS RESPONSIBLE FOR CONFORMING TO THE PLANS & SPECIFICATIONS & THE INTENT OF THE CONTRACT.

PINKHAM ENGINEERING ASSOCIATES INC.

Reviewed By: DEH Checked By:

Date: 1/28/98 Signed:

ROBERT G. GRAHAM III
No. 010705
REGISTERED PROFESSIONAL ENGINEER
STATE OF VERMONT

Robert G. Graham, III

1/8/98

STEADFAST BRIDGES®

A DIVISION OF BILTOLAST PRODUCTS INC.
119 40th St. NE FORT PAYNE, AL 35967-8139
1-800-749-7515

AISC AMERICAN INSTITUTE OF STEEL CONSTRUCTION MODIFIED FROM "FOUNDED 1921 NOW" ACTIVE MEMBER

BILL OF MATERIALS

JOB: 97825 FOR: MOUNTPELIER, VERMONT

Steel ASTM A588, (WX) A847, A606 (TS)

shop mark	DESCRIPTION	FEET	inches	weight per/foot	TOTAL	TOTAL LENGTH

GENERAL NOTES

1. All design stresses are in accordance with the specification of THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
2. Welding to conform with the AMERICAN WELDING SOCIETY D1.1 & D1.5 latest revision. Welding to be performed by experienced welders qualified in accordance with A.W.S. procedures. Welding electrodes to be ASTM E-80XX series.
3. All steel to be ASTM A-588, A-847 or ASTM A-606 'WEATHERING' steel with a minimum yield of 50,000 pounds per square inch.
4. Welds will be a minimum of 3/16" fillet unless shown otherwise.
5. Anchor bolts to be ASTM A-307 or threaded A-36 steel rods. Nuts on anchor bolts should be loosely 'hand tightened' so as to allow the bearing plates to slide on the setting plates or teflon pads, if called for. Place setting plate & teflon pads on shims, set bridge, and then grout under setting plates. (IF REQUIRED: Field connections bolts shall be ASTM A-325 or A-490 and shall be tighten by the turn of the nut method to obtain proper torque.)
6. Exposed steel surfaces to be sandblasted to STEEL STRUCTURES PAINTING COUNCIL #6 'commercial sandblast finish'. After cleaning, care shall be taken to keep surfaces free of oil, grease, concrete and any foreign matter to allow the weathering steel to rust evenly.
7. All wood to be #1 southern yellow pine with a CCA preservative treatment to .4pounds retention of preservative per cubic foot.
8. Hand rails and all other accessible surfaces to be ground smooth with no sharp edges or corners.
9. Location of anchor bolts and foundation details are for general arrangement purposes only. Actual foundation and substructure design, electrical grounding, and clearances (flood plain, roadway, and waterway) are the responsibility of others.

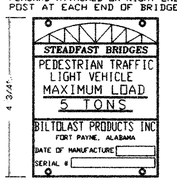
THIS BRIDGE IS DESIGNED BASED ON THE FOLLOWING CRITERIA.
(1) Dead load of 48 psf plus an evenly distributed live load of 85 psf.
(2) Dead load + concentrated load of 1,000 pounds/foot of width + impact.
(3) Wind load (approx. 120 mph.) calculated on the entire vertical surface as though fully enclosed.

APPROVAL ONLY

RECEIVED JAN 15 1998 STRUCTURES

REV	DESCRIPTION	BY/DATE
B		
A		

PLACARD ATTACHED ON RIGHT END POST AT EACH END OF BRIDGE



JOB: 10' X 175' 'CAPSTONE'
FOR: STATE OF VERMONT
ADDRESS: WINOOSKI RIVER WEST BIKE TRAIL
WASHINGTON CO.
CITY OF MOUNTPELIER
ARCHITECT: P.E.A. INC.
CONTRACTOR: WINCO, INC.
DRAWN/BY 12/31/97 C.D.
CHECKED/BY
JOB#: 97825 SHEET: 1 OF 2

THIS BRIDGE STRUCTURE SHALL NOT BE FIELD MODIFIED IN ANY WAY WITHOUT PRIOR APPROVAL FROM THE ENGINEERING DEPT. OF STEADFAST BRIDGES.

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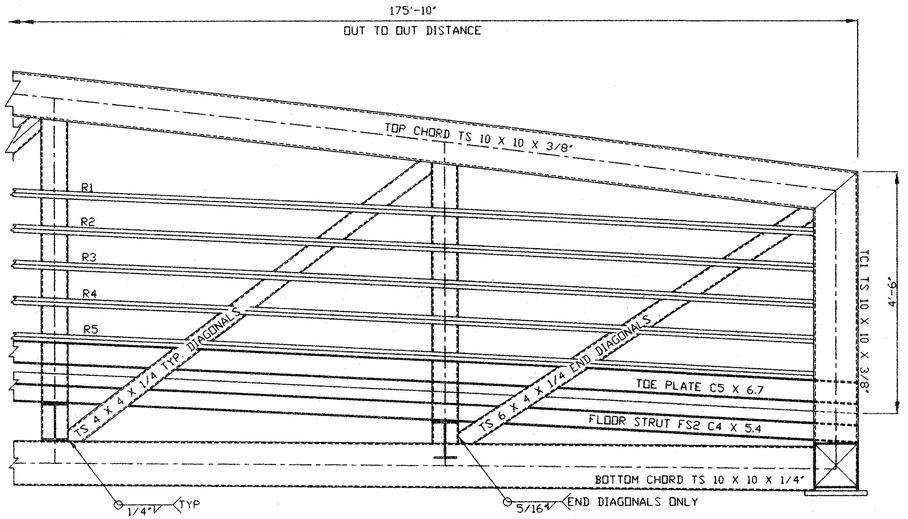
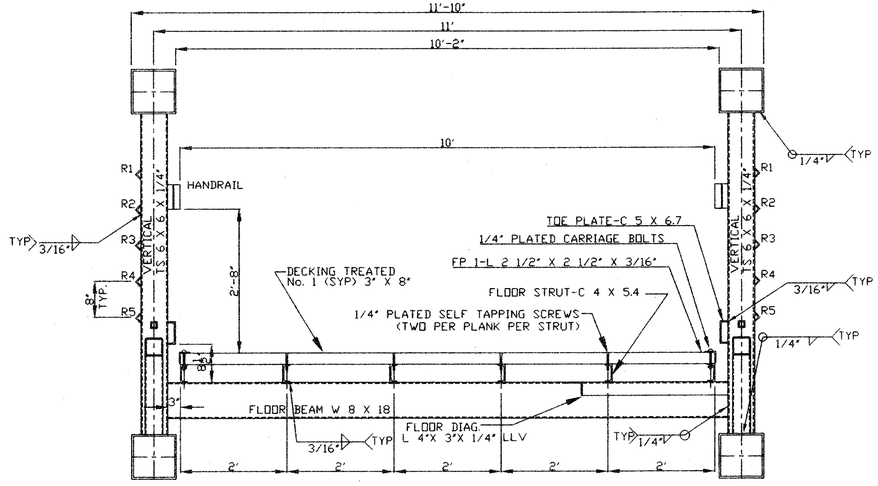
1 134



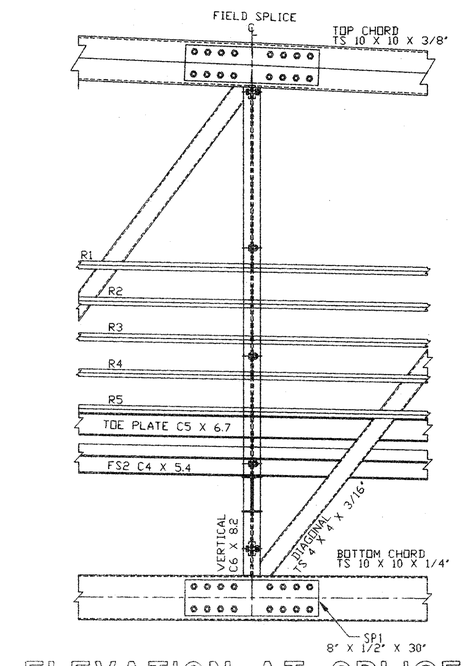
ELEVATION (1)

3/4" = 1'



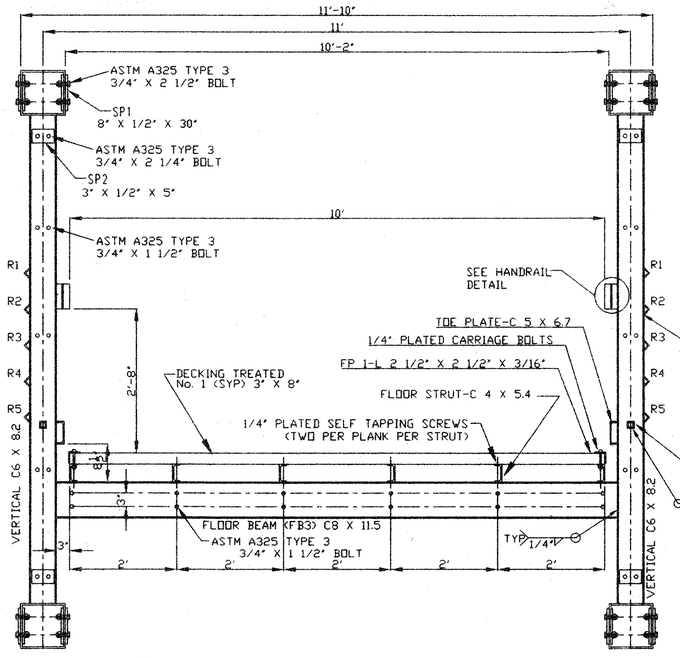
SECTION A-A (2)

3/4" = 1'



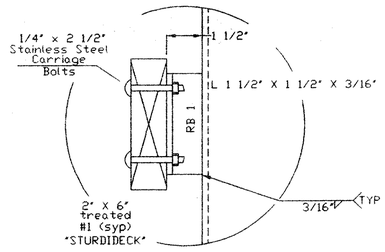
ELEVATION AT SPLICE (3)

3/4" = 1'



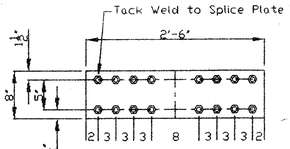
SECTION B-B AT SPLICE (4)

3/4" = 1'

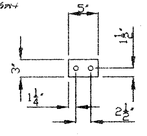


HAND RAIL DETAIL

APPROVAL ONLY



SPLICE PLATE (SP1)
8" X 1/2" X 30"
1 1/16" DIA. HOLE BOTTOM CHORD
1 1/8" DIA. HOLE TOP CHORD



SPLICE PLATE (SP2)
3" X 1/2" X 5"

Date Received 1/22/98
☐ Approved ☐ Revise & Resubmit
☑ Approved as noted ☐ Not Approved
Comments: SEE LETTER TO D. PATTERSON DATED 1/28/98
PINGRAM ENGINEERING ASSOCIATES INC.
Reviewed By: DRL Checked By:
Date: 1/28/98 Signed:

STATE OF VERMONT
ROBERT G. GRAHAM III
REGISTERED PROFESSIONAL ENGINEER
Robert G. Graham, III
1/8/98

STEADFAST BRIDGES®
A DIVISION OF BILTOLAST PRODUCTS INC.
119 40th St. NE FORT PAYNE, AL 35967-8139
1-800-749-7515

MODERN STEEL CONSTRUCTION • FOUNDED 1921 • AISC ACTIVE MEMBER

BILL OF MATERIALS

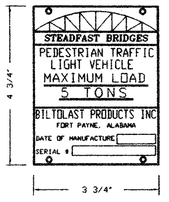
JOB: 97825 FOR: MONTPELIER, VERMONT

Steel ASTM A588, (WX) A847, A606 (TS)

SKEW	shop no.	mark	DESCRIPTION	FEET	inches	weight per/foot	TOTAL	TOTAL LENGTH
	4	TC 1	TS 10"X 10"X 3/8"	6	1 1/2"	47.90	1174	25
	4	TC 2	TS 10"X 10"X 3/8"	58	11"	47.90	11288	236
	2	TC 3	TS10"X10" X 3/8"	58	4"	47.90	5588	117
	4	BC 1	TS10"X10" X 1/4"	57	11"	32.63	7559	232
	2	BC 2	TS10"X10" X 1/4"	58	3 7/8"	32.63	3806	117
	2	FB 1	TS10"X10" X 1/4"	10	2"	32.63	663	20
	20	FB 2	W 8 X 18	10	6"	18.00	3780	210
	2	EX 1	L 2 1/2" X 3/16"	9	11"	3.77	75	20
	4	FB 3	C 8" X 11.5	10	6"	11.50	483	42
	2	FD 1	L 4" X 3" X 1/4"	12	1"	5.80	140	24
	22	FD 2	L 4" X 3" X 1/4"	12	2"	5.80	1552	268
	4	FS 1	C 4 X 5.4	175	10"	5.40	3798	703
	2	FS 2	C 4 X 5.4	175	10"	5.40	1899	352
	2	FP 1	L 2 1/2" X 3/16"	175	10"	3.07	1080	352
	2	D2	TS 6" X 4" X 1/4"	7	11"	15.62	247	16
	4	D3	TS 4" X 4" X 1/4"	8	6 5/16"	12.21	415	34
	4	D4	TS 4" X 4" X 1/4"	9	0 1/4"	12.21	440	36
	4	D5	TS 4" X 4" X 1/4"	9	6"	12.21	464	38
	4	D6	TS 4" X 4" X 1/4"	9	11 7/16"	12.21	488	40
	4	D7	TS 4" X 4" X 1/4"	10	4 3/8"	12.21	501	41
	4	D8	TS 4" X 4" X 1/4"	10	8 13/16"	12.21	525	43
	4	D9	TS 4" X 4" X 1/4"	11	1 5/16"	12.21	537	44
	4	D10	TS 4" X 4" X 1/4"	11	4 7/16"	12.21	550	45
	4	D11	TS 4" X 4" X 1/4"	11	6 5/16"	12.21	562	46
	4	D12	TS 4" X 4" X 1/4"	11	8 1/8"	12.21	574	47
SKEW	4	D13	TS 4" X 4" X 1/4"	11	9 3/16"	12.21	574	47
3/4"	4	V2	TS 6" X 6" X 1/4"	5	2 9/16"	19.02	397	21
11/16"	4	V3	TS 6" X 6" X 1/4"	5	11 7/8"	19.02	456	24
5/8"	4	V4	TS 6" X 6" X 1/4"	6	8 5/16"	19.02	509	27
1/2"	4	V5	TS 6" X 6" X 1/4"	7	3 7/8"	19.02	557	29
7/16"	4	V6	TS 6" X 6" X 1/4"	7	10 7/8"	19.02	602	32
3/8"	4	V7	TS 6" X 6" X 1/4"	8	4 1/4"	19.02	636	33
5/16"	4	V8	TS 6" X 6" X 1/4"	8	9 1/16"	19.02	666	35
3/16"	8	V9	C 6" X 8.2	9	1"	8.20	596	73
3/16"	4	V10	TS 6" X 6" X 1/4"	9	4 1/8"	19.02	711	37
1/8"	4	V11	TS 8" X 6" X 1/4"	9	6 5/16"	22.42	854	38
1/16"	4	V12	TS 6" X 6" X 1/4"	9	7 9/16"	19.02	733	39
0"	4	V13	TS 8" X 6" X 1/4"	9	8"	22.42	867	39
	10	R1-R5	L 1 1/2" X 3/16"	175	10"	1.80	3165	1758
	2	PROT.	1 1/2"SQ TUBE	151	9"	2.25	683	0
	0	RB	RAIL BRACKETS	0	0"	0.00	0	0
	60	RB	L 1 1/2" X 3/16"	0	5"	1.80	45	0
	4	BP 1	PL 11" X 1/2"	1	2"	20.42	95	0
	4	BP 2	PL 11" X 1/2"	1	2"	20.42	95	0
	32	SP 1	PL 8" X 1/2" *A588	2	6"	20.42	1634	0
	16	SP 2	PL 3" X 1/2" *A588	0	5"	20.42	136	0
	141	PLATED	CARRIAGE BOLTS 1/4"	0	3 1/2"	0.22	9	41
	2329	SELF	TAPPING SCREWS	0	3 1/2"	0.21	143	679
	4	FRICT	ONLESS PADS 9" X	1	0"	0.00	0	4
	24	CONN.	BOLT ASTM 325 3/4"	0	1 1/2"	0.00	12	3
	16	CONN.	BOLT ASTM 325 3/4"	0	2 1/4"	0.00	10	3
	336	CONN	BOLT ASTM 325 1"	0	2 1/2"	0.00	437	70
	2	TOE PL	C 5" X 6.7	176	1 5/8"	6.70	2360	352
						TOTAL	65171	
	291	NO. 1	TREATED(SYP)3 X 8"	10	0"	6.04	17432	0
	2	RAILS	TREATED 2" X 6"	175	10"	2.75	967	352
			TOTAL LIFTING WEIGHT				83570	

REV	DESCRIPTION	BY/DATE
B		
A		

PLACARD ATTACHED ON RIGHT END POST AT EACH END OF BRIDGE



JOB: 10' X 175' "CAPSTONE"
FOR: STATE OF VERMONT
ADDRESS: WINOOSKI RIVER WEST BIKE TRAIL
WASHINGTON CO,
CITY OF MOUNTPELIER
ARCHITECT: P.E.A. INC.
CONTRACTOR: WINCO, INC.
DRAWN/BY 1/02/98 C.O.
CHECKED/BY
JOB#: 97825 SHEET: 2 OF 2

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