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- | | | |
|--------|---|-----------|
| B-5 | SLOPE GRADING, EMBANKMENTS, MUCK | 12-06-71 |
| C-1 | CURBS, BITUMINOUS CONCRETE SIDEWALKS | 10-25-85R |
| C-3 | SIDEWALK RAMP | 08-18-89R |
| D-8 | REINFORCED CONCRETE DROP INLET | |
| D-9 | W/GRATE, BOTTOM SECTION | 12-06-71 |
| | REINFORCED CONCRETE DROP | |
| | INLET TOP W/VERTICAL CURB | 12-06-71 |
| D-15 | C 1 GRATE, TYPE E | 10-30-85R |
| E-100 | CONSTRUCTION APPROACH SIGNS | 05-26-89R |
| E-101 | CONSTRUCTION SIGN DETAILS | 10-30-87 |
| E-102 | CONSTRUCTION SIGN DETAILS | 01-23-89R |
| E-106 | TRAFFIC CONTROL, MISCELLANEOUS DETAILS | 01-23-89R |
| E-107 | DELINEATION BARRICADES AND DETOURS FOR CONSTRUCTION AREAS | 04-29-88R |
| E-107A | BREAKAWAY BARRICADE DETAILS | 09-10-87 |
| E-110 | MAJOR MAINTENANCE LANE CLOSURE | 03-01-88R |
| E-121 | STANDARD SIGN PLACEMENT - CONVENTIONAL RAMP | |
| E-160 | FLANGED CHANNEL | 01-23-89 |
| F-2 | CHAIN LINK FENCE (TYPE I) | 03-01-88R |
| F-3 | CHAIN LINK FENCE (TYPE II) | 02-01-79R |
| F-4 | CHAIN LINK FENCE (TYPE IV) | 02-01-79R |
| G-1 | STEEL BEAM GUARD RAIL | 10-31-85R |
| G-1D | STEEL BEAM GUARD RAIL (40 MPH & LESS) | 10-31-85R |
| G-4 | MARKERS - GUIDE POSTS | 10-31-85R |
| G-14 | BREAKAWAY CABLE TERMINAL W/WOOD POSTS | 11-01-88R |
| T-1 | TEMPORARY EROSION CONTROL | 12-07-76R |
| T-2 | TEMPORARY EROSION CONTROL | 07-05-72 |

STATE OF VERMONT AGENCY OF TRANSPORTATION

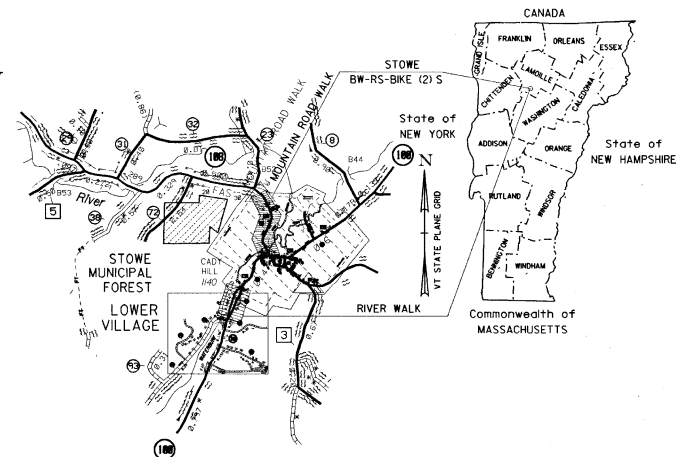


PROPOSED IMPROVEMENT TOWN OF STOWE COUNTY OF LAMOILLE

THIS PROJECT SHALL INCLUDE TWO SECTIONS:
STOWE RIVER WALK-(SECTION ONE)- BEGINNING AT A POINT WHICH IS APPROXIMATELY 40' ± WESTERLY OF THE CENTERLINE OF VT. ROUTE 100, AND 65' ± NORTHERLY OF THE STOWE VILLAGE/STOWE TOWN LINE. THE PROJECT CONTINUES SOUTHERLY FOR 1141' (0.216 MI), GENERALLY PARALLELING VT. 100, AND TERMINATES AT ITS INTERSECTION WITH TH#5 IN THE TOWN OF STOWE. THIS WILL BE A DUAL USAGE BIKE/PEDESTRIAN FACILITY.

STOWE MOUNTAIN ROAD WALK-(SECTION TWO)-BEGINNING AT A POINT WHICH IS APPROXIMATELY 0.080 MILE NORTHERLY OF THE VT. ROUTE 108 - VT. ROUTE 100 INTERSECTION IN THE VILLAGE OF STOWE. THE PROJECT CONTINUES NORTHEASTERLY AND CONTIGUOUS WITH THE EASTERLY EDGE OF VT. ROUTE 108 FOR A DISTANCE OF 2400' ± (0.455 MI) THIS FACILITY WILL BE FOR PEDESTRIAN USAGE.

PROJECT AREA MAPS FOR SECTIONS ONE AND TWO
ARE SHOWN ON THEIR INDIVIDUAL TITLE SHEETS



CONVENTIONAL SIGNS

COUNTY LINE	---
TOWN LINE	---
LIMITS OF ACCESS	---
POINT OF ACCESS	X
FENCE LINE	---
STONE WALL	-----
TRAVELED WAY	-----
GRADE RAIL	-----
RAILROAD	-----
SURVEY LINE	---
CULVERT	---
POWER POLE	---
TELEPHONE POLE	---
TREES	---
CONTROL OF ACCESS	---
PROPERTY LINE	---
R.O.W. TAKING LINE	---
SLOPE RIGHTS	---
TOP OF CUT	---
TOE OF SLOPE	---

DATUM

VERTICAL	NGVD 1929
HORIZONTAL	N/A

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.

SUBMITTED BY ORDER OF THE STATE TRANSPORTATION BOARD

APPROVED *Robert Stettin* DATE *5/1/92*
(Attorney) DIRECTOR OF ENGINEERING

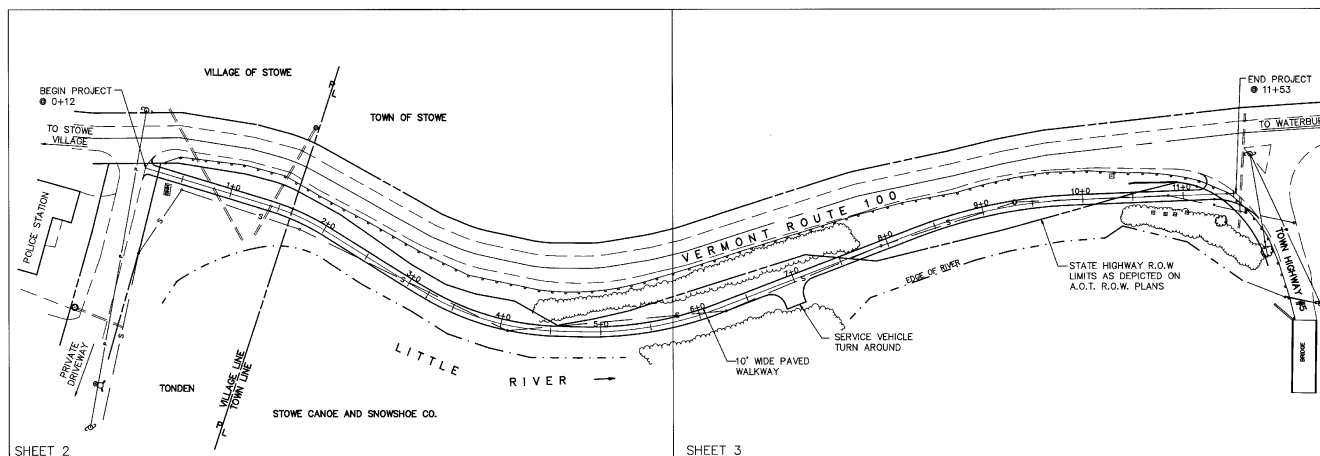
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED _____ DATE _____
DIVISION ADMINISTRATOR

PROJECT **STOWE**
BW-RS BIKE (2) S
SHEET 1 OF 33 SHEETS

STOWTIT

TOWN OF STOWE RIVER WALK



INDEX OF SHEETS

SHEET NUMBER	TITLE
1	TITLE SHEET
2	SITE PLAN 0+00 TO 5+80
3	SITE PLAN 5+80 TO 11+53
4	CENTERLINE PROFILES
5	QUANTITY SUMMARY
6	EARTHWORK AND TYPICAL SECTIONS
7	SECTIONS 0+00 TO 4+50
8	SECTIONS 5+00 TO 10+00
9	SECTIONS 10+25 TO 11+50
10	DETAILS OF RETAINING WALL AT 10+35
11	TIE DETAIL SHEET
12	SIGN LOCATION PLAN
13	TRAFFIC SIGN SUMMARY
14	SIGN DETAIL SHEET
15	CONSTRUCTION APPROACH SIGNING

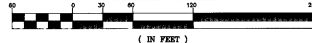
BIKE PATH DESIGN SPEED = 20 MPH

APPLICABLE A.O.T. STANDARDS

B-5	SLOPE GRADING, EMBANKMENTS, MUCK
D-15	PRECAST REINFORCED CONCRETE CATCH BASIN WITH C.I. GRATE
E-100	CONSTRUCTION APPROACH SIGNS
E-101	CONSTRUCTION SIGN DETAILS
E-102	CONSTRUCTION SIGN DETAILS
E-106	TRAFFIC CONTROL MISCELLANEOUS DETAILS
E-107	DELINEATION BARRICADES AND DETOURS FOR CONSTRUCTION AREAS
E-107A	BREAKAWAY BARRICADES DETAILS
E-110	MAJOR MAINTENANCE OPERATION LANE CLOSURE
E-160	FLANGED CHANNEL STEEL SIGN POST
E-121	STANDARD SIGN PLACEMENT - CONVENTIONAL ROAD
F2	CHAIN LINK FENCE, TYPE I
G1d	GUARD RAIL, HEAVY DUTY STEEL BEAM WITH WOOD POSTS, TYPE II
G4	GUIDE POSTS
G14	BREAKAWAY CABLE TERMINAL WITH WOOD POSTS
T-1	TEMPORARY EROSION CONTROL DETAILS

SITE PLAN

GRAPHIC SCALE



RECORD PLANS

CONTRACTOR DUBOIS CONST. INC.
MONTPELIER, VT.
RESIDENT ENGINEER EUGENE PEABODY
CONSTRUCTION BEGAN 5/24/93
CONSTRUCTION COMPLETED 9/17/93
RECORD PLANS BY EUGENE PEABODY

I hereby certify that all the construction required by this set of drawings has been accomplished as indicated herein.
By Eugene Peabody Resident Engineer
Date 10/27/93

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

PROJECT SCOPE

THIS PROJECT INVOLVES THE CONSTRUCTION OF A 1141 FEET BITUMINOUS CONCRETE SURFACE BICYCLE PATH AND PEDESTRIAN WALKWAY ALONG THE WEST SIDE OF VERMONT ROUTE 100 IMMEDIATELY SOUTH OF THE VILLAGE OF STOWE. A GRAVEL SUBBASE WILL BE PLACED AND THE PATH WILL BE FENCED TO PROTECT BIKERS FROM THE LITTLE RIVER. THE PROJECT WILL CONNECT TOWN HIGHWAY #5 RIVER ROAD WITH A PRIVATE ROADWAY NEAR THE STOWE POLICE STATION.



TOWN OF STOWE - RIVER WALK
"TITLE SHEET"



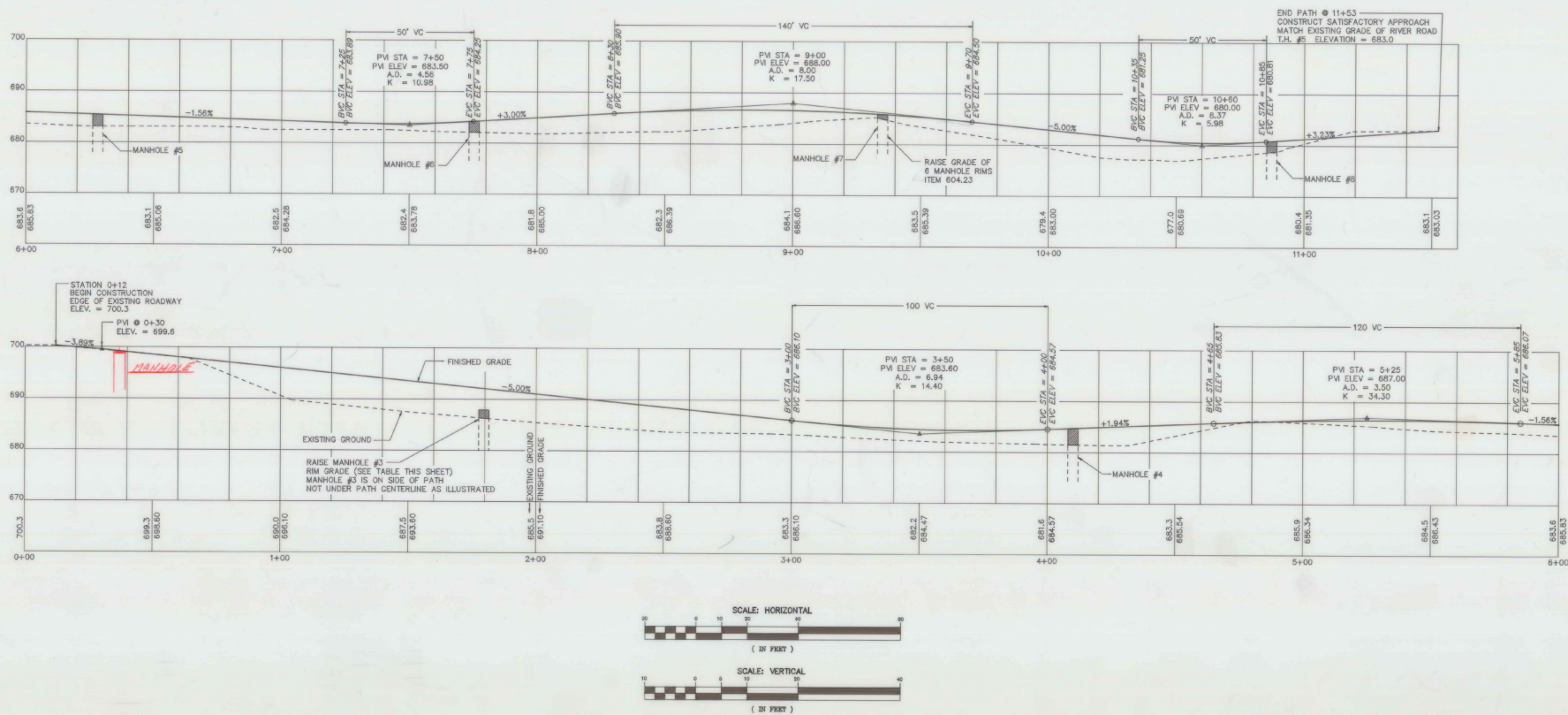
CHARLES GRENIER
CONSULTING ENGINEER, P.C.
BOX 445, WATERBURY, VERMONT
244-6413

BW-RS-BIKE (2S)

DATE 9-11-91
DRN BY T.J.M.
SCALE 1"=60'
SHT 2 OF 32

REVISED 10/25/93

ITEM 604.23 CHANGING ELEVATION OF SEWER MANHOLE				
MANHOLE NUMBER	STATION	EXISTING RIM GRADE	NEW RIM GRADE	DIFFERENCE IN ELEVATION
3	1+78	685.20	687.5	+2.20'
4	4+08	681.13	684.80	+3.67'
5	6+26	682.87	685.33	+2.46'
6	7+93	681.98	684.80	+2.82'
7	9+33	685.65	688.00	+0.35'
8	10+85	678.50	680.80	+2.30'



TOWN OF STOWE - RIVER WALK
"CENTERLINE PROFILES"

CHARLES GRENIER
CONSULTING ENGINEER, P.C.
BOX 445, WATERBURY, VERMONT
244-6413

BW-RS-BIKE (25)

DATE: 9-8-91
DRN BY: T.J.M.
SCALE: 1"=20'
SHT. 2 OF 22

QUANTITY, EARTHWORKS, DRAINAGE AND ITEM DETAIL SHEET

[illegible]

EARTHWORK SUMMARY

STATION	FINISHED GRADE	DISTANCE	COMMON EXCAVATION		EMBANKMENT		SUBBASE OF CRUSHED GRAVEL		STONE FILL TYPE I	
			AREA	VOLUME	AREA	VOLUME	AREA	VOLUME	AREA	VOLUME
BOX CUT										
0+12	700.3		30	0	0	0	25	0	0	0
0+50	698.6	38	41	50	0	0	14	27	0	0
0+75	697.35	25	15	26	30	14	14	13	0	0
1+00	696.1	25	0	7	83	13	13	0	0	0
1+25	694.85	25	19	5	150	139	13	13	0	0
1+50	693.6	25	0	12	120	120	13	12	23	24
1+75	692.35	25	0	0	35	35	11	11	33	26
2+00	691.1	25	0	0	40	35	12	12	24	24
2+50	689.8	50	9	0	37	71	11	21	2	24
3+00	688.1	50	0	0	19	52	10	19	3	5
3+50	684.5	50	3	3	14	31	10	19	0	3
4+00	684.6	50	0	0	17	29	9	18	2	2
4+50	685.5	50	0	0	9	24	8	16	10	11
5+00	686.3	50	8	7	0	8	12	19	0	9
5+50	686.4	50	0	0	23	21	13	24	0	0
6+00	685.8	50	0	0	34	53	13	24	0	0
6+50	685.1	50	0	0	23	53	13	24	0	0
7+00	684.3	50	0	0	50	68	30	40	0	0
7+50	683.5	50	0	0	6	52	11	38	0	0
8+00	685.0	50	0	0	22	26	11	20	5	5
8+50	686.4	50	0	0	20	39	9	19	13	17
9+00	686.6	50	0	0	14	31	9	17	1	13
9+33	685.96	33	0	0	9	9	11	11	0	1
9+50	685.4	17	15	7	0	9	9	6	0	0
10+00	683.0	50	0	0	34	39	11	19	4	4
10+27	681.6	27	0	0	34	34	11	11	8	8
10+50	680.7	23	0	0	25	29	11	9	12	9
10+90	681.0	40	0	0	25	22	12	17	8	6
11+00	681.4	10	0	0	5	5	12	12	0	0
11+25	682.1	25	0	0	2	2	11	11	2	2
11+30	683.0	5	0	0	0	0	12	4	1	1
11+50	683.0	20	0	0	0	0	9	8	5	3
11+53	683.0	3	0	0	0	0	0	0	0	0
PROJECT TOTALS			177	191	1172	1162	516	522	243	243

NOTE: CHARLES GRENIER, CONSULTING ENGINEER, P.C. WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS THAT ARISE FROM THE FAILURE OF THE CONTRACTOR TO FOLLOW THE PLANS, SPECIFICATIONS AND THE DESIGN INTENT THAT THE PLANS CONVEY.

LANDSCAPING SPECIFICATIONS SEEDING FORMULA, ITEM 651.15

% WT.	LBS./A.	NAME	PUR. %	GERM %
37.5	30	CREeping RED FESCUE	98	85
31.25	25	KENTUCKY BLUE GRASS	95	75
31.25	25	PERENNIAL RYE GRASS	95	90
100.00	80			

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

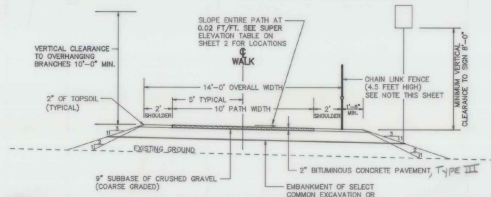
SEED - TO BE APPLIED PER SEEDING FORMULAS DIRECTED BY THE ENGINEER.

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

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

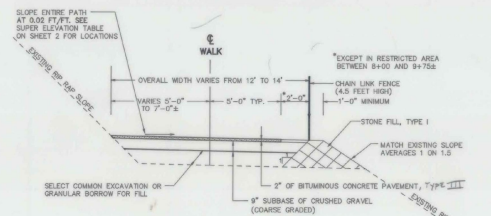
MAY MULCH - TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE, OR AS DIRECTED BY THE ENGINEER.

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



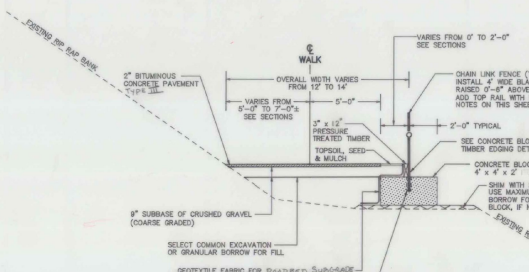
BIKE PATH TYPICAL

FOR STATION 0+00 TO 1+52.5 AND 5+00 TO 7+50.5



BIKE PATH TYPICAL

FOR STATIONS 4+44 TO 5+00 AND 7+50 TO 8+00



BIKE PATH TYPICAL

FOR SECTIONS 1+52 TO 4+44 AND 8+00 TO 11+20

1. BECAUSE OF THE SHORTAGE OF AVAILABLE TOPSOIL, THE COMMON EXCAVATION WHICH INCLUDES THE TOPSOIL SHALL BE USED IN THE EMBANKMENT AREAS. NEW TOPSOIL SHALL BE TRUCKED ONTO THE SITE FOR USE ON THE FINISHED SLOPE WITH PAYMENT UNDER ITEM 651.35.

2. THE COST OF TRAFFIC CONTROL IS SUBSIDIARY TO OTHER PAY ITEMS. SEE STANDARDS E100, E101, E106, E108, E107, E107A, AND E110 FOR DETAILS.

3. THE BITUMINOUS CONCRETE PAVEMENT FOR THE PATH SHALL BE PLACED IN ONE 2" THICK LIFT.

4. ITEM 501.30 CONCRETE, CLASS C SHALL BE MODIFIED AS FOLLOWS:
THE CONCRETE BLOCK RETAINING WALLS SHALL BE CONSTRUCTED WITH LARGE CONCRETE BLOCKS WITH DIMENSIONS OF 4' x 4' x 2', OR 2' x 2' x 4'. A 1" DIMENSION TOLERANCE IS ALLOWED. THESE BLOCKS ARE TO BE CONSTRUCTED OF WASTE CONCRETE FROM AREA SUPPLIERS. THE BLOCKS SHALL BE PLACED WITH THE SMOOTHEST FACE OUTWARD. EACH BLOCK SHALL HAVE LIFTING HOOKS WHICH SHALL BE REMOVED AFTER THE BLOCKS ARE IN PLACE. NO REINFORCING STEEL IS NECESSARY. ALL COSTS ASSOCIATED WITH SUPPLYING, DELIVERING, AND PLACING THE BLOCKS AT THE LOCATION AND GRADE SHOWN ON THE PLANS IS INCLUDED IN THE PER CUBIC YARD COST FOR THIS ITEM. THE EXCAVATION NECESSARY TO SET THE BLOCK WALL SHALL BE INCLUDED IN THE COST OF COMMON EXCAVATION. THE COST OF BACKFILLING AGAINST THE BACK OR BASE OF THE WALLS HAS BEEN INCLUDED IN THE COST OF SUBBASE OF CRUSHED GRAVEL, OR STONE FILL, TYPE I.

ESTIMATED QUANTITY:

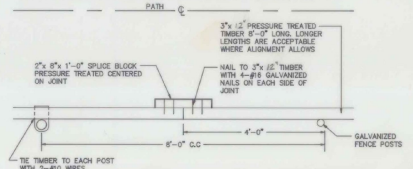
1+52 TO 4+44 RIGHT (TOP ROW)	292' x 4' x 2' = 27	= 66.5 CY
1+58 TO 2+82 RIGHT (BOTTOM ROW)	124' x 4' x 2' = 27	= 36.7 CY
3+46 TO 3+54 LEFT	8' x 4' x 2' = 27	= 2.4 CY
3+46 TO 3+54 LEFT	8' x 4' x 2' = 27	= 1.2 CY
6+00 TO 11+20 RIGHT	300' x 4' x 2' = 27	= 94.8 CY
10+90 TO 11+26 LEFT (14 BLOCKS)	14 x 2' x 2' x 4' = 27	= 8.3 CY
TOTAL		= 229.9 CY

ITEM 620.11 CHAIN LINK FENCE, 4 FEET SHALL BE MODIFIED AS FOLLOWS:

STANDARD F2 SHALL BE FOLLOWED EXCEPT THAT THE POST SPACING SHALL BE 8'-0" CENTER TO CENTER THROUGHOUT THE PROJECT AS OPPOSED TO THE NORMAL SPACING OF 10'-0". THE FENCING MATERIAL SHALL BE BLACK VINYL COATED FABRIC. THE CHAIN LINK FABRIC SHALL MEET THE REQUIREMENTS OF 727.02. IN ADDITION, A 1-5/8" DIAMETER GALVANIZED TOP RAIL SHALL BE INSTALLED THROUGH A LOOP CAP ON TOP OF THE FENCE. FROM STATION 1+52 TO 4+44 AND 8+00 TO 11+20 THE FENCING WILL BE INSTALLED BY DRILLING INTO THE CONCRETE BLOCK RETAINING WALL. THE BLOCKS ARE 4' IN LENGTH AND THE POSTS WILL BE 8' ON CENTER. THE POSTS SHALL BE DRILLED IN THE GEOMETRIC CENTER OF EACH OF THE 4' BLOCKS AND SHALL BE VERTICAL. A 2-1/4" MINIMUM DIAMETER HOLE SHALL BE DRILLED INTO EACH CONCRETE BLOCK TO A DEPTH OF 12". THE POST SHALL BE SET INTO THE HOLE AND PACKED WITH A NON SHRINK HIGH STRENGTH GROUT. THE HEIGHT OF THE TOP BAR OF THE FENCE SHALL BE 4'-6" ABOVE THE GROUND SURFACE. A 4' WIDE SHEET OF WIRE FABRIC SHALL BE USED WITH A 6" SPACE AT THE BOTTOM ABOVE THE GROUND SURFACE.

IT HAS BEEN ESTIMATED THAT THERE IS 612 FEET OF FENCING TO BE INSTALLED INTO THE CONCRETE BLOCK WALL AND 467 FEET INTO NORMAL GROUND AND/OR THE EXISTING RIP RAP. THE CONTRACTOR SHALL ALLOW FOR THE DIFFERENCE IN WORK DURING BIDDING.

*THIS TYPICAL WAS USED ALONG 800'S LAKE FRONT WALL FOR BURLINGTON BIKE PATH



CONCRETE BLOCK WALL/TIMBER EDGING DETAIL

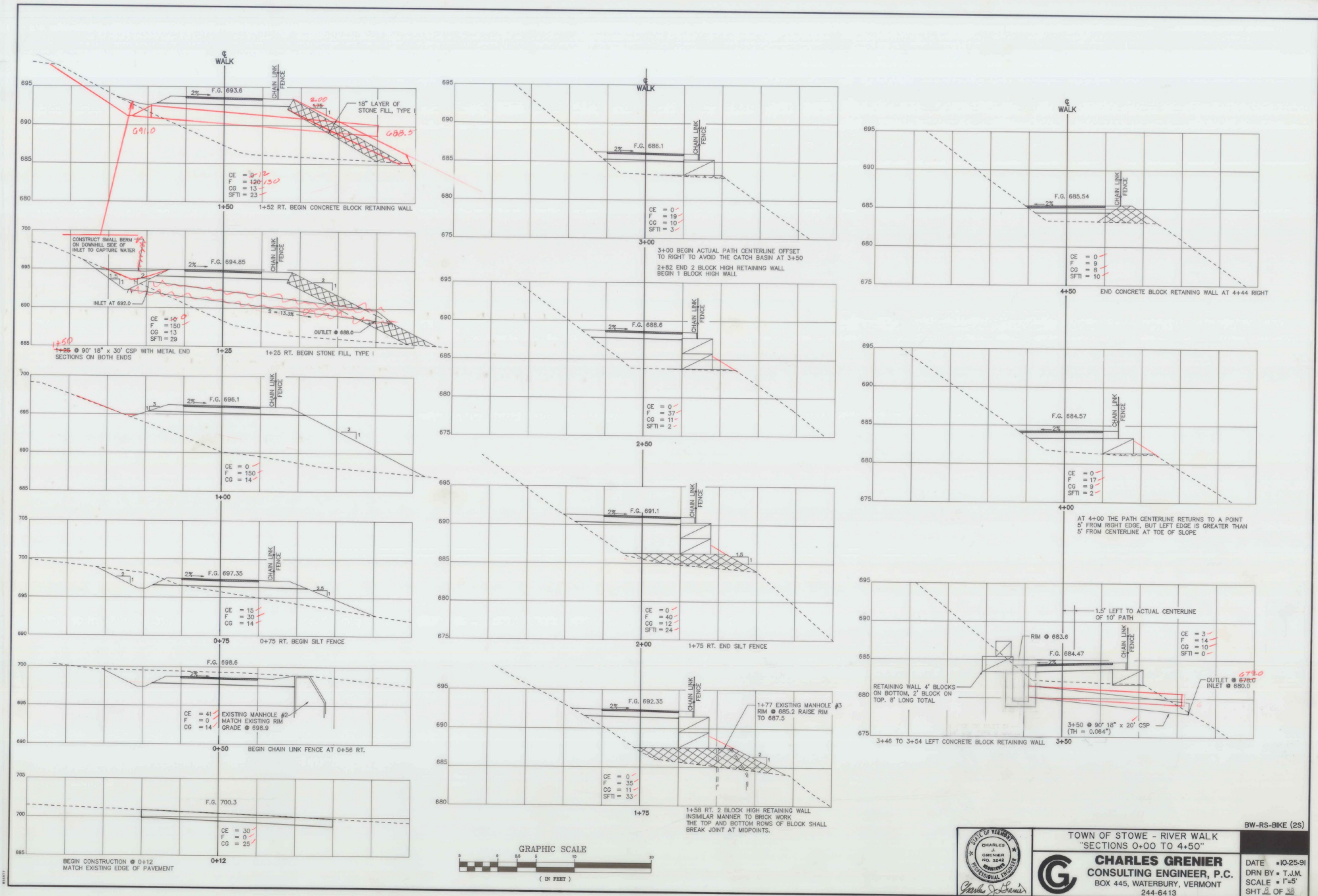
NTS

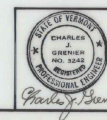
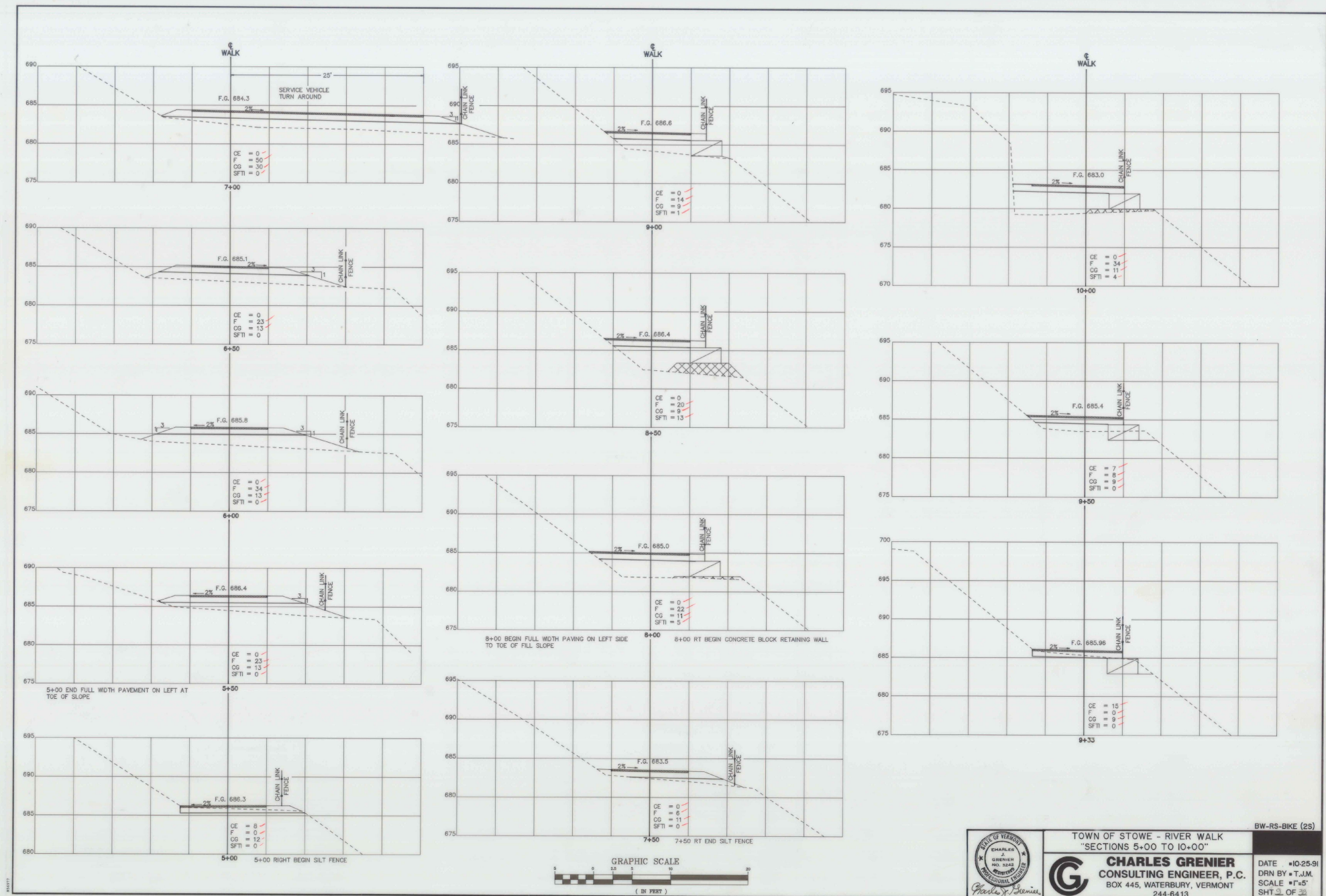


TOWN OF STOWE - RIVER WALK EARTHWORK & TYPICAL SECTIONS

CHARLES GRENIER
CONSULTING ENGINEER, P.C.
BOX 445, WATERBURY, VERMONT
244-6413

DATE 10-25-91
DRN BY T.J.M.
SCALE 1/4"=1'-0"
SHT 14 OF 23



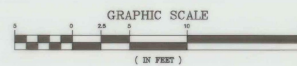
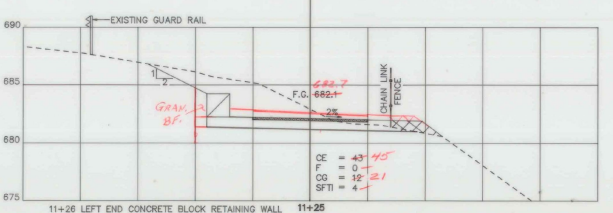
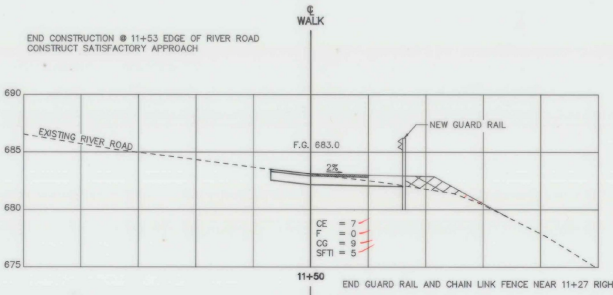
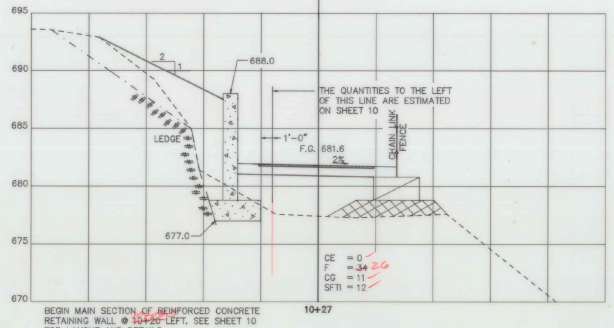
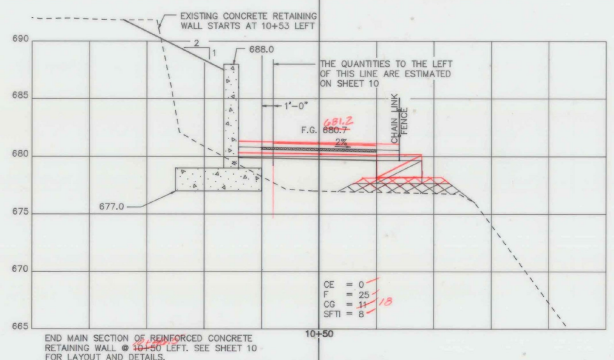
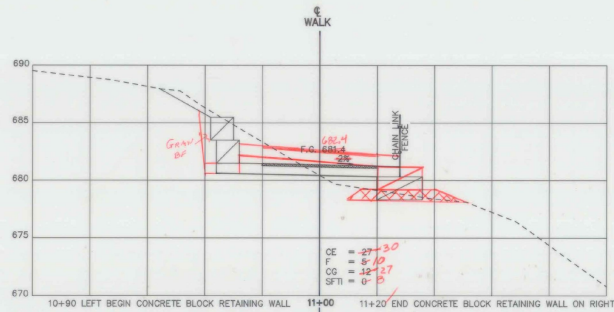


TOWN OF STOWE - RIVER WALK
"SECTIONS 5+00 TO 10+00"

CHARLES GRENIER
CONSULTING ENGINEER, P.C.
BOX 445, WATERBURY, VERMONT
244-6413

DATE 10-25-91
DRN BY T.J.M.
SCALE 1"=5'
SHT 1 OF 22

BW-RS-BIKE (2S)

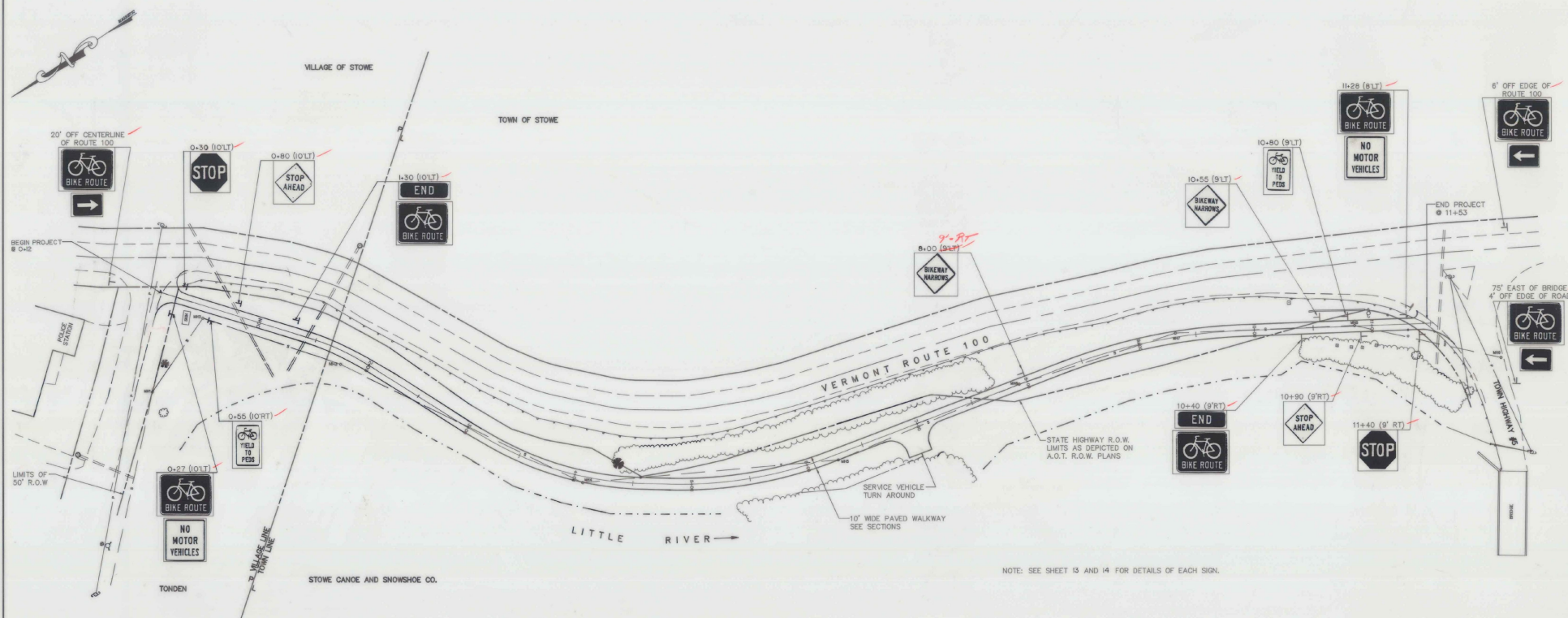


TOWN OF STOWE - RIVER WALK
"SECTIONS 10+25 TO 11+50"

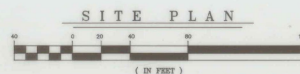
CHARLES GRENIER
CONSULTING ENGINEER, P.C.
BOX 445, WATERBURY, VERMONT
244-6413

DATE: 10-25-91
DRN BY: T.J.M.
SCALE: 1"=5'
SHT 25 OF 25

BW-RS-BIKE (25)



NOTE: SEE SHEET 13 AND 14 FOR DETAILS OF EACH SIGN.



SITE PLAN



TOWN OF STOWE - RIVER WALK
"SIGN LOCATION PLAN"

CHARLES GRENIER
CONSULTING ENGINEER, P.C.
BOX 445, WATERBURY, VERMONT
244-6413

PROJECT
BW-RS-BIKE (25)

DATE: 9/8/91
DRN BY: T.J.M.
SCALE: A/N
SHT 13 OF 25

TRAFFIC SIGN SUMMARY

STATION	SIGN LEGEND	SIGN DIMENSIONS	NEW SIGNS SF	# OF POSTS	FLANGED CHANNEL LB/FT	REMARKS	PLAN SHEET #	STD SHEET #
-0+32 LT ✓		24 X 18	3.0	1	3 ✓	SEE DETAIL A ON ROUTE 100 SOUTHBOUND, NORTH OF DRIVE TO POLICE STATION	14	
		12 X 9	0.8			SEE DETAIL B BELOW PREVIOUS SIGN ON SAME POST	14	
0+27 RT ✓		24 X 18	3.0	1	3 ✓	SEE DETAIL A FACING SOUTHBOUND TRAFFIC	14	
		24 X 24	4.0			SEE DETAIL D BELOW PREVIOUS SIGN ON SAME POST	14	
0+30 LT ✓		18 X 18	2.3	1	3 ✓	SEE DETAIL G FACING NORTHBOUND TRAFFIC	14	
0+55 RT ✓		12 X 18	1.5	1	3 ✓	SEE DETAIL C FACING SOUTHBOUND TRAFFIC	14	
0+80 LT ✓		18 X 18	2.3	1	3 ✓	SEE DETAIL H FACING NORTHBOUND TRAFFIC	14	
1+30 LT ✓		24 X 6	1.0	1	3 ✓	SEE DETAIL E FACING NORTHBOUND TRAFFIC	14	
		24 X 18	3.0			SEE DETAIL A BELOW PREVIOUS SIGN ON SAME POST	14	
8+00 LT ✓		18 X 18	2.3	1	3 ✓	SEE DETAIL F FACING SOUTHBOUND TRAFFIC	14	
10+40 RT ✓		24 X 6	1.0	1	3 ✓	SEE DETAIL E FACING SOUTHBOUND TRAFFIC	14	
		24 X 18	3.0			SEE DETAIL A BELOW PREVIOUS SIGN ON SAME POST	14	

STATION	SIGN LEGEND	SIGN DIMENSIONS	NEW SIGNS SF	# OF POSTS	FLANGED CHANNEL LB/FT	REMARKS	PLAN SHEET #	STD SHEET #
10+55 LT ✓		18 X 18	2.3	1	3 ✓	SEE DETAIL F FACING NORTHBOUND TRAFFIC	14	
10+90 RT ✓		18 X 18	2.3	1	3 ✓	SEE DETAIL H FACING SOUTHBOUND TRAFFIC	14	
10+80 LT ✓		12 X 18	1.5	1	3 ✓	SEE DETAIL C FACING NORTHBOUND TRAFFIC	14	
11+28 LT ✓		24 X 18	3.0	1	3 ✓	SEE DETAIL A FACING NORTHBOUND TRAFFIC	14	
		24 X 24	4.0			SEE DETAIL D BELOW PREVIOUS SIGN ON SAME POST	14	
11+40 RT ✓		18 X 18	2.3	1	3 ✓	SEE DETAIL G FACING SOUTHBOUND TRAFFIC	14	
12+20 RT ✓		24 X 18	3.0	1	3 ✓	SEE DETAIL A ON SOUTHSIDE OF RIVER ROAD-T.H.#5 75' EAST OF BRIDGE	14	
		12 X 9	0.8			SEE DETAIL B BELOW PREVIOUS SIGN ON SAME POST	14	
12+60 LT ✓		24 X 18	3.0	1	3 ✓	SEE DETAIL A ON ROUTE 100 NORTHBOUND, ACROSS FROM RIVER ROAD INTERSECTION	14	
		12 X 9	0.8			SEE DETAIL B BELOW PREVIOUS SIGN ON SAME POST	14	

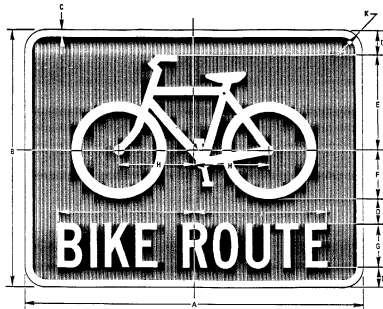
TOTAL SIGN AREA = 50.2 15 = TOTAL # OF POSTS
585 = TOTAL POUNDS *

* THE POSTS LENGTHS ARE TO BE DETERMINED IN THE FIELD.
FOR ESTIMATING PURPOSES 13' AVERAGE POST LENGTH WAS USED.
ALL SIGNS ARE TO BE A MINIMUM OF 8' CLEAR ABOVE THE GROUND SURFACE.



TOWN OF STOWE - RIVER WALK
"TRAFFIC SIGN SUMMARY"
CHARLES GRENIER
CONSULTING ENGINEER, P.C.
BOX 445, WATERBURY, VERMONT
244-6413

PROJECT
BW-RS-BIKE (25)
DATE * 9-5-01
DRN BY * T.J.M.
SCALE * N/A
SHT 13 OF 25

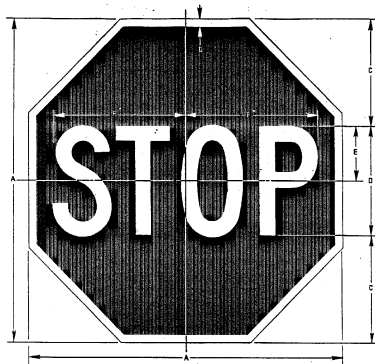


D11-1

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
SPECIAL	30	24	5/8	1-3/8	8-3/4	4-3/8	4C	6-7/8	12-1/2	1-1/2

COLORS
LEGEND - WHITE (REFL)
BACKGROUND - GREEN

DETAIL A

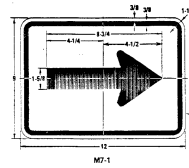


R1-1

SIGN	DIMENSIONS (INCHES)					
	A	B	C	D	E	F
BIKE	18	3/8	6	8C	3	7-3/4
MIN.	24	5/8	8	8C	4	10
STD.	36	3/4	10	18C	6	12-1/2
EXPMY.	36	7/8	12	12C	6	16
SPECIAL	48	1-1/4	10	18C	8	20

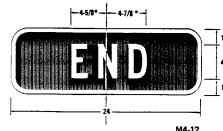
COLORS
LEGEND - WHITE (REFL)
BACKGROUND - RED (REFL)

DETAIL G



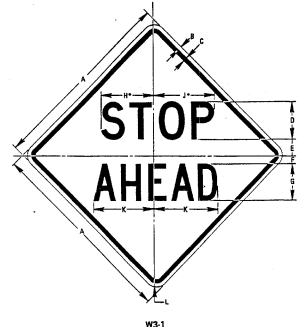
COLORS
LEGEND - BLACK (NON-REFL)
BACKGROUND - WHITE (REFL)
*LEGEND - WHITE
BACKGROUND - GREEN

DETAIL B



COLORS: LEGEND - WHITE (REFL)
BACKGROUND - GREEN (REFL)
*INCREASE SPACING 100%

DETAIL E

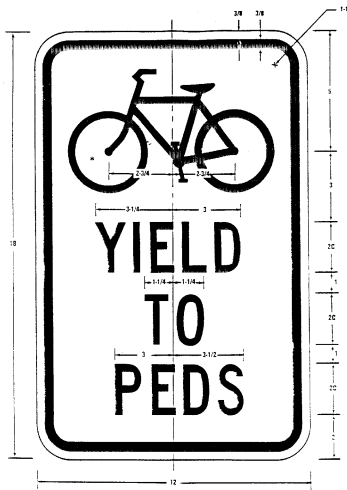


W3-1

SIGN	DIMENSIONS (INCHES)											
	A	B	C	D	E	F	G	H	J	K	L	
BIKE	18	3/8	5/8	2D	1 3/4	3/4	3C	4 3/4	5 1/4	9 3/8	1 1/2	
MIN.	30	1/2	3/4	6D	2 1/2	1 1/4	6C	8	9 7/8	10 1/2	1 7/8	
STD.	36	5/8	7/8	7D	3	1 1/2	7C	10 5/8	11 5/8	12 1/4	2 1/4	
SPECIAL	48	3/4	1 1/4	9D	4	2	9C	13 1/2	14 1/2	15 3/4	3	

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

DETAIL H



R9-6

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

DETAIL C



R5-3

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

DETAIL D



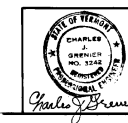
W5-4

COLORS: LEGEND & BORDER - BLACK (NON-REFL)
BACKGROUND - YELLOW (REFL)

*REDUCE SPACING 50%

DETAIL F

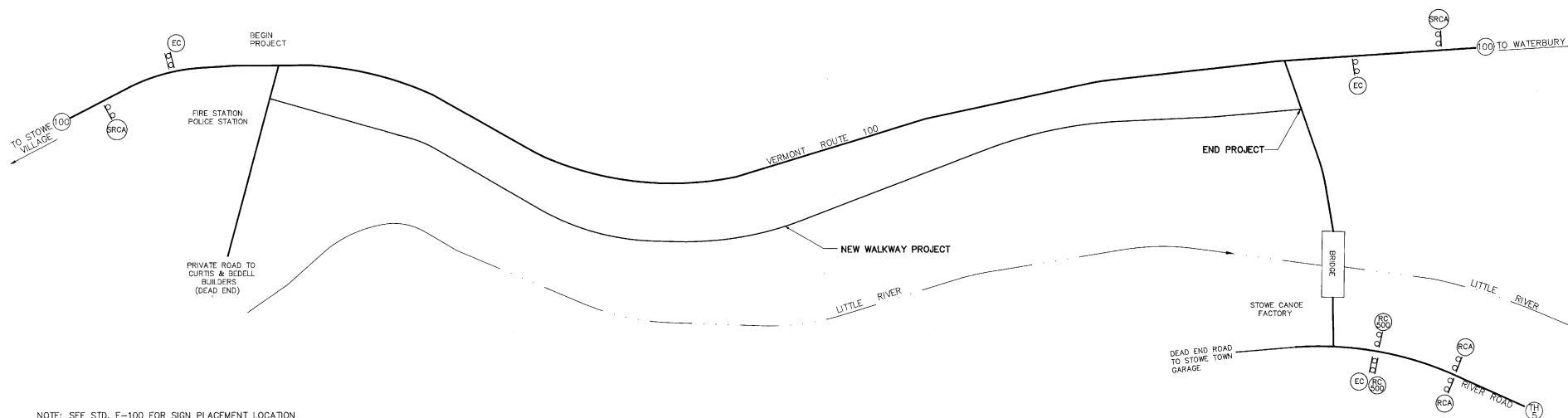
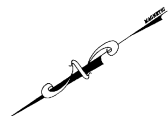
PROJECT
BW-RS-BIKE (25)



TOWN OF STOWE - RIVER WALK
"SIGN DETAIL SHEET"
CHARLES GRENIER
CONSULTING ENGINEER, P.C.
BOX 445, WATERBURY, VERMONT
244-6413

DATE - 9-6-91
DRN BY - T.J.M.
SCALE - A/N
SHT 15 OF 22

REVISED 10-25-98



NOTE: SEE STD. E-100 FOR SIGN PLACEMENT LOCATION

LEGEND

- SRCA = SIDE ROAD CONSTRUCTION AHEAD
- RCA = ROAD CONSTRUCTION AHEAD
- RCU = ROAD CONSTRUCTION 500 FT
- RCN = ROAD CONSTRUCTION NEXT 0.25 MILES
- EC = END CONSTRUCTION

REVISED 10/25/91

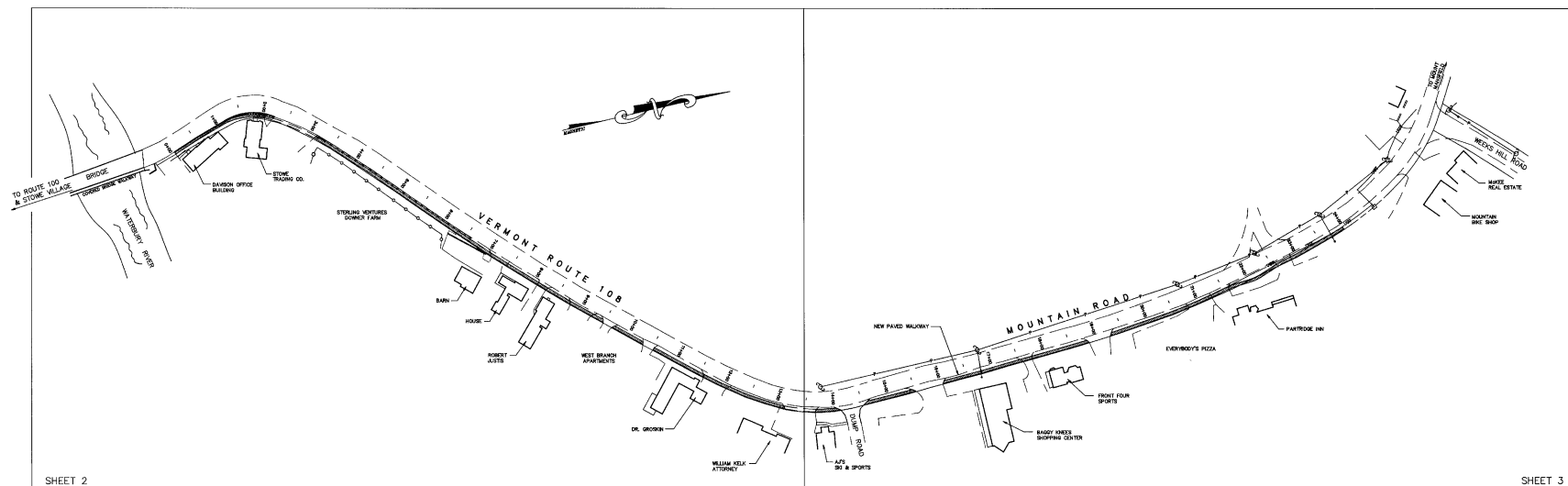


TOWN OF STOWE - RIVER WALK
"CONSTRUCTION APPROACH SIGNING"

CHARLES GRENIER
CONSULTING ENGINEER, P.C.
BOX 445, WATERBURY, VERMONT
244-6413

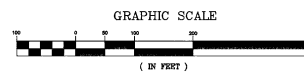
PROJECT
BW-RS-BIKE (2S)
DATE • 9-1-91
DRN BY • T.J.M.
SCALE • A=1"=20'
SHEET 1 OF 20

Map of the Village of Stowe, Vermont, showing its location relative to neighboring states and towns. The map includes a compass rose indicating North and a scale bar for 1/4 mile. The Village of Stowe is highlighted in the center, with surrounding towns like Franklin, Orleans, Essex, and Winooski labeled. The map also shows the boundaries of the State of New York, State of New Hampshire, and Commonwealth of Massachusetts.

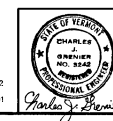


<u>SHEET NUMBER</u>	<u>TITLE</u>
1	TITLE SHEET
2	SITE PLAN 0+00 TO 13+00
3	SITE PLAN 13+00 TO 25+50
4	CENTERLINE PROFILE
5	QUANTITY SUMMARY
6	EARTHWORK SUMMARY
7	SECTIONS 0+00 - 7+00
8	SECTIONS 7+15 - 15+00
9	SECTIONS 15+50 - 25+00
10	THE DETAIL SHEET 0+00 TO 13+00
11	THE DETAIL SHEET 13+00 TO 25+50
12	MAILBOX DETAIL SHEET
13	CONSTRUCTION APPROACH SIGNING

APPLICABLE A.O.T. STANDARDS	
B-5	SLOPE GRADING, EMBANKMENT, MUCK
C-1	CURBS, BITUMINOUS CONCRETE SIDEWALKS
C-3	SIDEWALK RAMPS
E-100	CONSTRUCTION APPROACH SIGNS
E-101	CONSTRUCTION SIGN DETAILS
E-102	CONSTRUCTION SIGN DETAILS
E-106	TRAFFIC CONTROL, MISCELLANEOUS DETAILS
E-107	DELINEATION, BARRICADES AND DETOURS FOR CONSTRUCTION AREAS
E-107A	BREAKAWAY BARRICADE DETAILS
E-110	MAJOR MAINTENANCE OPERATION LANE CLOSURE
E-121	STANDARD SIGN PLACEMENT - CONVENTIONAL ROAD
E-122	STEEL BEAM SLUICED - CONVENTIONAL ROAD
E-134	BREAKAWAY CABLE TERMINAL WITH WOOD POSTS



PROJECT SCOPE:
THIS PROJECT INVOLVES THE CONSTRUCTION OF A BITUMINOUS CONCRETE SIDEWALK ALONG THE EAST SIDE OF VERMONT ROUTE 108 WITHIN THE VILLAGE OF STOWE STARTING AT THE COVERED BRIDGE WALKWAY OVER THE WATERBURY RIVER AND ENDING SOME 2400'± AWAY BEYOND THE PARTRIDGE INN. EXCAVATION AND PLACING A GRAVEL SUBBASE WILL BE REQUIRED.

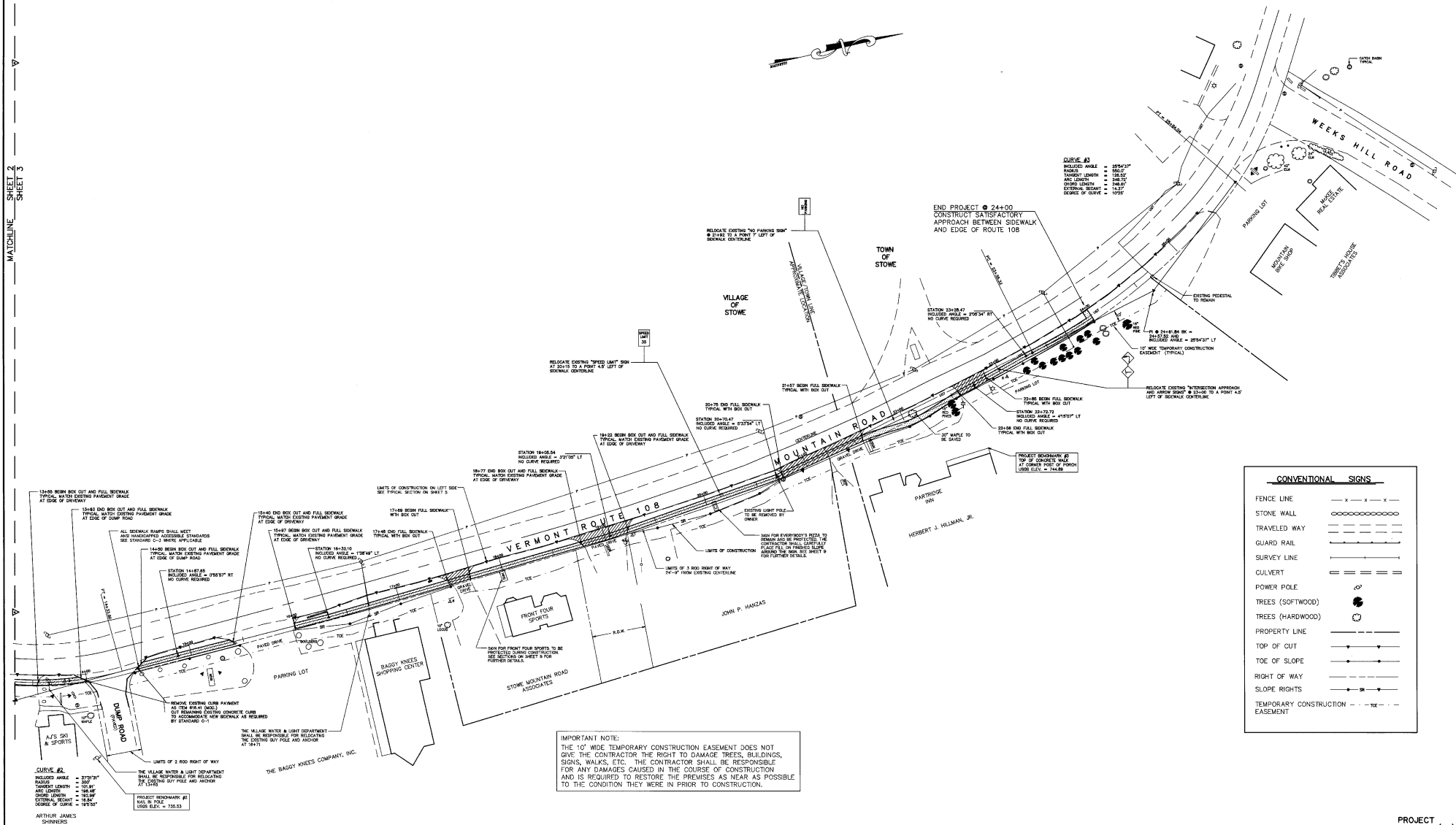


"TITLE SHEET"
STOWE MOUNTAIN ROAD WALK

 **CHARLES GRENIER**
CONSULTING ENGINEER, P.C.
BOX 445, WATERBURY, VERMONT
244-6413

PROJECT
BW - RS - BIKE (2S)

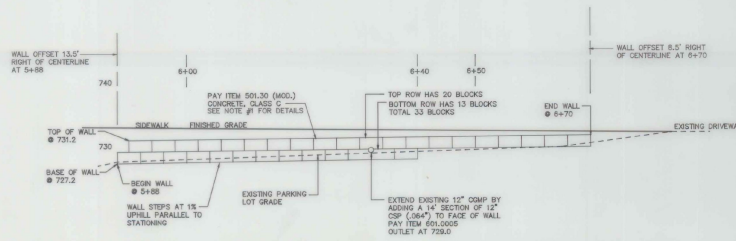
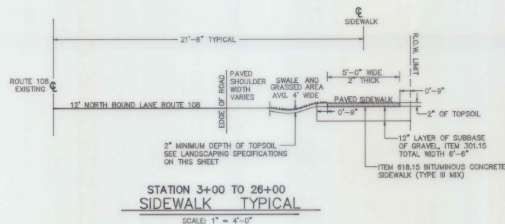
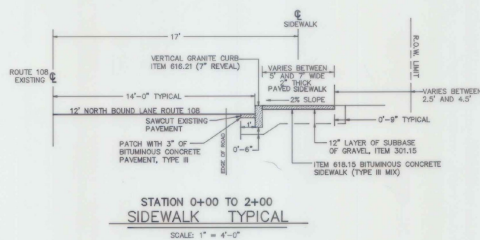
DATE • 8-14-91
DRN BY • T.J.M.
SCALE • 1"=100'
SHT 26 OF 35



QUANTITY SUMMARY

APPROXIMATE SUMMARY OF QUANTITIES				
GRAND TOTAL	UNIT	PAY ITEM	PAY ITEM NUMBER	RNG
1	EACH	REMOVING SMALL STUMPS	201.20	-
2	EACH	REMOVING LARGE STUMPS	201.21	-
420	CY	COMMON EXCAVATION	203.15	11
180	CY	EARTH BORROW	203.30	15
580	CY	SUBBASE OF GRAVEL	301.15	13
38	CY	DRY RUBBLE MASONRY (MOD.)	602.20	-
14	LF	12" CSP (TH=0.064")	601.0005	-
210	CY	STONE FILL, TYPE I	613.10	7
200	LF	VERTICAL GRANITE CURB	616.21	-
34	LF	REMOVAL OF EXISTING CURB (MOD.)	616.41	-
4	EACH	RELOCATE MAILBOX, SINGLE SUPPORT	617.12	-
3	EACH	RELOCATE MAILBOX, MULTIPLE SUPPORT	617.12	-
170	TON	BITUMINOUS CONCRETE SIDEWALK	618.15	9
355	LF	REMOVAL AND RESETTING FENCE	620.50	-
75	LF	REMOVAL OF EXISTING FENCE	620.55	-
300	LF	STEEL BEAM GUARD RAIL	621.20	-
2	EACH	BREAKAWAY CABLE TERMINAL	621.50	-
340	LF	REMOVAL AND DISPOSAL OF GUARD RAIL	621.80	-
20	Hour	UNIFORMED TRAFFIC OFFICERS	630.10	-
160	Hour	FLAGGERS	630.15	-
0.50	LS	TESTING EQUIPMENT - CONCRETE	631.16	-
0.50	LS	TESTING EQUIPMENT - BITUMINOUS	631.17	-
0.35	LS	MOBILIZATION	635.10	-
55	SY	GEOTEXTILE FABRIC FOR REINFORCED SUBGRADE "SUBSALTYNE"	648.11	-
40	LB	* SEED	651.15	-
250	LB	* FERTILIZER	651.18	-
1	TON	* AGRICULTURAL LIMESTONE	651.20	-
1	TON	* HAY MULCH	651.25	-
140	CY	* TOPSOIL	651.35	7
3	EACH	ERECTING SALVAGED SIGNS	675.60	-

* CALCULATED 0.5 ACRES OF DISTURBED AREA



GENERAL NOTES

1. ITEM 602.20 Dry Rubble Masonry (Mod.) shall be as follows:

THE CONCRETE BLOCK RETAINING WALL BETWEEN STATION 5+88 TO 6+70 SHALL BE CONSTRUCTED WITH LARGE CONCRETE BLOCKS WITH DIMENSIONS OF 2' x 4' x 4'. A 1" DIMENSION TOLERANCE IS ALLOWED. THESE BLOCKS ARE TO BE PLACED WITH THE SHOOTING FACE OUTWARD. EACH BLOCK SHALL HAVE LIFTING HOOPS WHICH SHALL BE REMOVED AFTER THE BLOCKS ARE IN PLACE. NO REINFORCING STEEL IS NECESSARY. THE TOP ROW OF BLOCKS SHALL BE OFFSET BY 3" FROM THE BOTTOM ROW. ALL COSTS ASSOCIATED WITH DELIVERING AND PLACING THE BLOCKS AT THE LOCATION AND GRADE SHOWN ON THE PLANS IS INCLUDED IN THE PER CUBIC YARD COST FOR THIS ITEM. THE MINOR AMOUNT OF EXCAVATION NECESSARY TO SET THE BOTTOM ROW OF BLOCKS SHALL ALSO BE INCLUDED IN THE COST OF THIS ITEM. THE COST OF BACKFILLING AGAINST THE BACK OF THE WALL HAS BEEN INCLUDED IN THE COST OF THE SURFACE OF GRAVEL, ITEM 301.15.

2. THIS PROJECT WILL INVOLVE THE REMOVAL OF LESS THAN 10 CUBIC YARDS OF PAVEMENT NORMALLY PAID AS ITEM 203.28 EXCAVATION OF SURFACES AND PAVEMENTS. BECAUSE OF THE SMALL VOLUME, THIS WORK HAS BEEN INCLUDED IN THE COMMON EXCAVATION QUANTITY. ALL PAVEMENT SHALL BE DISPOSED OF NEAR THE BOTTOM OF THE FILL BETWEEN STATION 3+50 AND 5+50.

3. THE LARGE SIGN AT STATION 18+00 MARKED "FRONT FOUR SPORTS" AND THE SIGN NEAR STATION 20+10 MARKED "EVERYBODY'S PIZZA" SHALL BE PROTECTED BY THE CONTRACTOR AS DETAILED ON THE SITE PLAN AND SECTIONS.

4. THE GUY POLE AND ANCHOR NEAR STATIONS 13+65 AND 16+71 SHALL BE RELOCATED BY THE VILLAGE OF STOWE WATER AND LIGHT DEPARTMENT AND IS NOT THE RESPONSIBILITY OF THE CONTRACTOR.

5. THERE ARE THREE PRESSURE TREATED WOOD POSTS MARKING THE DRIVEWAYS BETWEEN STATION 9+00 AND 10+50. THESE POSTS SHALL BE RESET TO A LOCATION AT LEAST 2' BEHIND THE SIDEWALK. THE COST ASSOCIATED WITH REMOVING AND RESETTING THESE SMALL POSTS SHALL BE INCLUDED IN THE COST OF COMMON EXCAVATION ITEM 203.15.

6. BECAUSE OF THE VERY CONGESTED AREA ALONG ROUTE 108 AND THE LACK OF AN OBVIOUS TOPSOIL STOCKPILE AREA, THE COMMON EXCAVATION WHICH INCLUDES THE TOPSOIL SHALL BE USED IN THE EMBAKMENT AREAS. NEW TOPSOIL SHALL BE TRUCKED ONTO THE SITE FOR USE IN THE FINISHED LANDSCAPING WITH PAYMENT UNDER ITEM 651.35.

7. REMOVAL OF EXISTING CURB, ITEM 616.41 SHALL BE MODIFIED TO REQUIRE THE CUTTING OF THE REMAINING END OF THE EXISTING CURB ON A TAPER AS DETAILED ON STANDARD C1.

8. THE COST OF TRAFFIC CONTROL IS SUBSIDIARY TO OTHER PAY ITEMS. SEE STANDARDS E100, E101, E106, E107, E107A, AND E110 FOR DETAILS.

9. THE BITUMINOUS CONCRETE SIDEWALK SHALL BE PLACED IN ONE 2" THICK LIFT.

LANDSCAPING SPECIFICATIONS

SEEDING FORMULA, ITEM 651.15

% WT.	LBS./A.	NAME	PUR. %	GERM. %
37.25	30	CREeping RED FESCUE	98	85
31.25	25	KENTUCKY BLUE GRASS	85	75
31.25	25	PERENNIAL RYE GRASS	95	90
100.00	80			

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

SEED - TO BE APPLIED PER SEEDING FORMULAS DIRECTED BY THE ENGINEER.

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

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.

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

QUANTITIES

ITEM 201.20 REMOVING SMALL STUMPS (TOTAL OF 1)

0+93" 15" ELM STUMP

ITEM 201.21 REMOVING LARGE STUMPS (TOTAL OF 2)

6+70" 42" STUMP

7+40" 42" STUMP

ITEM 501.30 (MOD.) CONCRETE, CLASS C

THE CONCRETE BLOCK RETAINING WALL BETWEEN 5+88 AND 6+70 HAS A TOTAL OF 33 BLOCKS (2' x 4' x 4'), OR

33 (2' x 4' x 4') ÷ 27 = 39 CY

ITEM 601.0005, 12" CSP (TH = 0.064")

AT 6+32 AN EXISTING 12" METAL GULVERT SHALL BE EXTENDED BY 34' 10" RIGHT OUTLET

WITH THE FACE OF NEW RETAINING WALL.

ITEM 616.21 VERTICAL GRANITE CURB

VERTICAL GRANITE CURB SHALL BE USED FROM 0+00 TO 2+00 TO SUPPORT THE EDGE OF THE SIDEWALK AND TO PROTECT PEDESTRIANS

TOTAL = 200 LF

ITEM 618.15 BITUMINOUS CONCRETE SIDEWALK QUANTITIES:

1. STANDARD 5' SIDEWALK 200' LONG = 10,450 SF

2. 2' WIDER SIDEWALK 1+00 TO 2+00 = 200 SF

3. AREAS BETWEEN SIDEWALK AND EDGE OF ROAD AT DRIVEWAYS:

7+00± AREA 45' x 5' = 225

8+00± AREA 25' x 5' = 125

9+75± AREA 55' x 5' = 275

11+50± AREA 60' x 5' = 300

17+50± AREA 30' x 6' = 180

19+00± AREA 55' x 6' = 330

21+00± AREA 60' x 5' = 450

22+75± AREA 35' x 5' = 175

SUBTOTAL = 2060 SF

4. PATCHING IN FRONT OF GRANITE CURB (3" THICK)

200' x 1' x 3' x 2" = 300 SF

SUBTOTAL = 13,010 SF

TOTAL TONNAGE = 13,010 x 2" = 2 = 161 TONS

ITEM 621.20 STEEL BEAM GUARD RAIL

3+25 TO 5+25, OR 300 LF

ITEM 621.50 BREAKAWAY CABLE TERMINAL

3+00 TO 3+25 AND 6+25 TO 6+50, OR A TOTAL OF 2

ITEM 621.80 REMOVAL AND DISPOSAL OF GUARD RAIL

2+92 TO 6+32, OR 340 LF

ITEM 648.10 GEOTEXTILE FABRIC FOR FILTERS

BEHIND RETAINING WALL 5+88 TO 6+70 ESTIMATED 6' x 82' - 9 = 55 SY



"QUANTITY SUMMARY"
STOWE MOUNTAIN ROAD WALK
CHARLES GRENIER
CONSULTING ENGINEER, P.C.
BOX 445, WATERBURY, VERMONT
244-6413

PROJECT
BW-RS-BIKE [25]
DATE 8-14-91
DRN BY: T.J.M.
SCALE: A.J.N.
SHT 20 OF 25

REVISED 2-27-92
REVISED 3-31-92
REVISED 9-4-91
REVISED 9-20-91

EARTHWORK

SUMMARY

			COMMON EXCAVATION		SUBBASE OF GRAVEL		EMBANKMENT	
STATION	FINISHED GRADE	DISTANCE	AREA	VOLUME	AREA	VOLUME	AREA	VOLUME
BOX CUT								
0+00	716.3		10.5✓	8	9✓	8	0✓	1✓
0+22	717.4	22	8✓	7	10.5✓	9	16.5✓	16✓
0+44	718.2		8✓	2	10.5✓	2	3.5✓	0.1✓
0+50	718.5		8.5✓		10.5		3.5✓	
		30		8.7✓		12		2.4✓
0+80	719.6		7✓		10.5✓		2.8✓	4✓
		20		5		8		1.2✓
1+00	720.9		7✓		10.5✓		0.1✓	
		50		21		20		0.1✓
1+50	724.1		16✓		11✓		0✓	
1+66	725.4	16	15✓	9	11✓	7	0✓	0
2+00	726.6	34	14✓	18	11✓	14	0✓	0
BOX CUT								
2+87	728.6		7.5✓		6.5✓		0✓	
		13		2		4.5✓		2.3✓
3+00	729.9		2✓		8.5✓	17.25	8.13✓	31.40✓
3+50	731.3		0.25✓		8.5✓	17.21	25.30✓	67.79✓
		50		0.4✓				
4+00	733.0		0.2✓		10.25✓		47.55✓	
		50		0.3✓		17.22✓		95.100✓
4+50	733.4		0.1✓		8.5✓	11	56.75✓	
		50		0.2✓		16.20✓		100.156✓
5+00	733.8		0.1✓		8.10.5✓		62.75✓	
		50		2.3✓		16.20✓		89.100✓
5+50	734.2		2.5✓		8.5✓	11.5	44.58✓	
		50		2.3✓		46.58✓		41.54✓
6+00	733.4		0.1✓		41.51✓		0✓	
		50		3.2✓		63.80✓		0
6+50	732.8		3.1✓		27.5✓		0✓	
		34		8✓		21.35✓		1
6+84	732.6		9.11✓		6.5✓	13.5	1✓	
BOX CUT								
7+15	732.7		7.5		6.5		1.5	
		35		9		8		3
7+50	733.6		6		6.5		2.5	
		34		9		8		2
7+84	732.3		7.5		6.5		0	
BOX CUT								
8+03	732.3		7.5		6.5		0	
		47		12		11		0
8+50	731.8		6		6.5		0	
BOX CUT								
9+00	731.7		7		6.5		0	
		22		6		5		0
9+22	731.8		7		6.5		0	
BOX CUT								
9+44	731.8		7.5		6.5		0	
		6		2		2		0
9+50	732.0		7.5		6.5		0	
		50		14		12		0
10+00	732.3		7.5		6.5		0	
		6		2		2		0
10+06	732.1		7.5		6.5		0	
BOX CUT								
10+29	732.2		7.5		6.5		1	
		21		6		5		1
10+50	733.0		7.5		6.5		1	
		50		14		12		2
11+00	733.5		7.5		6.5		1	
		33		9		8		1
11+33	733.4		7.5		6.5		0	
COLUMN SUBTOTALS			180 CY		443 CY		473 CY	

			COMMON EXCAVATION		SUBBASE OF GRAVEL		EMBANKMENT	
STATION	FINISHED GRADE	DISTANCE	AREA	VOLUME	AREA	VOLUME	AREA	VOLUME
BOX CUT								
11+88	733.6		7.5		6.5		0	
		14		3		3		2
12+00	734.0		5		6.5		8	
		50		7		12		15
12+50	734.5		3		6.5		8	
		44		5		11		13
12+94	733.9		3		6.5		8	
BOX CUT								
13+55	734.6		7		6.5		2	
		20		5		5		2
13+75	735.8		7		6.5		2	
		18		5		4		3
13+93	736.0		7		6.5		6	
BOX CUT								
14+50	737.4		9		6.5		0	
		50		13		12		1
15+00	738.7		4.5		6.5		1.5	
		40		7		10		2
15+40	738.7		4.5		6.5		1.5	
BOX CUT								
15+97	740.9		6.5		6.5		0	
		53		9		13		11
16+50	744.0		2.5		6.5		11	
		50		6		12		13
17+00	746.6		4		6.5		3.5	
		48		23		12		3
17+48	748.0		9		6.5		0	
BOX CUT								
17+69	748.5		12		6.5		1	
		31		16		7		2
18+00	749.5		15		6.5		2	
		50		23		12		3
18+50	749.1		10		6.5		1	
		27		10		7		1
18+77	748.1		9		6.5		1	
BOX CUT								
19+22	747.6		8		6.5		3	
		28		8		7		3
19+50	747.0		8		6.5		3	
		50		11		12		19
20+00	745.8		3.5		6.5		18	
		50		8		12		23
20+50	744.8		5		6.5		6.5	
		25		5		6		6
20+75	744.3		5		6.5		6.5	
BOX CUT								
21+57	744.7		4.5		6.5		2.5	
		43		7		10		4
22+00	745.5		4.5		6.5		2.5	
		50		11		12		2
22+50	744.6		7.5		6.5		0	
		6		2		1		0
22+56	744.5		7.5		6.5		0	
BOX CUT								
22+85	744.0		6		6.5		1.5	
		15		3		4		1
23+00	744.5		6		6.5		1.5	
		50		11		12		3
23+50	743.8		6		6.5		1.5	
		50		13		13		2
24+00	742.7		8		8		1	
BOX CUT								

COLUMN #2 SUBTOTALS	211 CY	209 CY	134 CY
COLUMN #1 SUBTOTALS	180 CY	443 CY	473 CY
PROJECT TOTAL	391 CY	652 CY	607 CY

* ADD 18 CY FOR DRIVEWAY WORK FOR A TOTAL OF 409 CY
SEE CALCULATIONS ON THIS SHEET

NOTES

1. THE EXISTING MAILBOXES SHALL BE RELOCATED NEAR THEIR ORIGINAL LOCATIONS NEAR THE MIDPOINT BETWEEN THE EDGE OF THE ROAD AND EDGE OF SIDEWALK WITHIN THE GRASS STRIP (5' LEFT OF THE SIDEWALK CENTERLINE), OR AS DIRECTED BY THE ENGINEER. TEMPORARY RELOCATION MAYBE REQUIRED. PAYMENT AS PER ITEM 617.10 AND 617.12

ITEM 617.10 RELOCATE MAILBOX, SINGLE SUPPORT (TOTAL OF 3)
4+97 1+25
3+75 17+55
12+50 20+50
19+35

ITEM 617.12 RELOCATE MAILBOX, MULTIPLE SUPPORT (TOTAL OF 3)
1+70
17+35

2. EXISTING ROADWAY SIGNS SHALL BE RELOCATED NEAR THEIR ORIGINAL LOCATION AS DIRECTED BY THE ENGINEER AS PER ITEM 675.60

ITEM 675.60 ERECTING SALVAGED SIGNS (TOTAL OF 3)
20+15
21+92
23+00

3. ITEM 620.50 REMOVAL AND RESETTING FENCE
3+00 TO 5+85 (2 STRAND BARBED WIRE) = 285' 292
7+30 TO 7+80 (WOOD RAIL) = 50' 76
12+70 TO 12+90 (WOOD RAIL) = 20' 18
TOTAL = 355' 584

4. ITEM 620.55 REMOVAL OF EXISTING FENCE (WOOD)
A 75' WOOD RAIL FENCE (1+25 TO 2+00) SHALL BE REMOVED, SALVAGED, AND BECOME THE PROPERTY OF THE OWNER, THE STOWE TRADING COMPANY, IF THE OWNER DOES NOT WANT THE FENCE, THE CONTRACTOR SHALL ASSUME POSSESSION.

STONE FILL, TYPE I

STATION	DISTANCE	AREA	VOLUME
BUTT 3+50	50	15	35
4+00	50	23	45
4+50	50	26	48
5+00	50	26	47
5+50	38	25	28
5+88 BUTT	15 (EST.)		203 CY

EARTHWORK SUMMARY

TOTAL EMBANKMENT = 574 CY x 1.15 = 928
TOTAL AVAILABLE COMMON EXCAVATION = 409 CY
EARTH BORROW REQUIRED = 519 CY
BORROW & PAINT 538

COMMON EXCAVATION QUANTITIES

ITEM 203.15 ADDITIONAL COMMON EXCAVATION AT DRIVEWAYS:
74-002: 40' x 10' x 2" = (12 x 27) = 2.5 CY
84-002: 25' x 11' x 2" = (12 x 27) = 1.5 CY
84-752: 55' x 10' x 2" = (12 x 27) = 3.5 CY
114-502: 55' x 12' x 2" = (12 x 27) = 4.0 CY
124-502: 25' x 12' x 2" = (12 x 27) = 2.0 CY
214-502: 40' x 10' x 2" = (12 x 27) = 2.5 CY
224-752: 35' x 10' x 2" = (12 x 27) = 2.0 CY
TOTAL = 18 CY

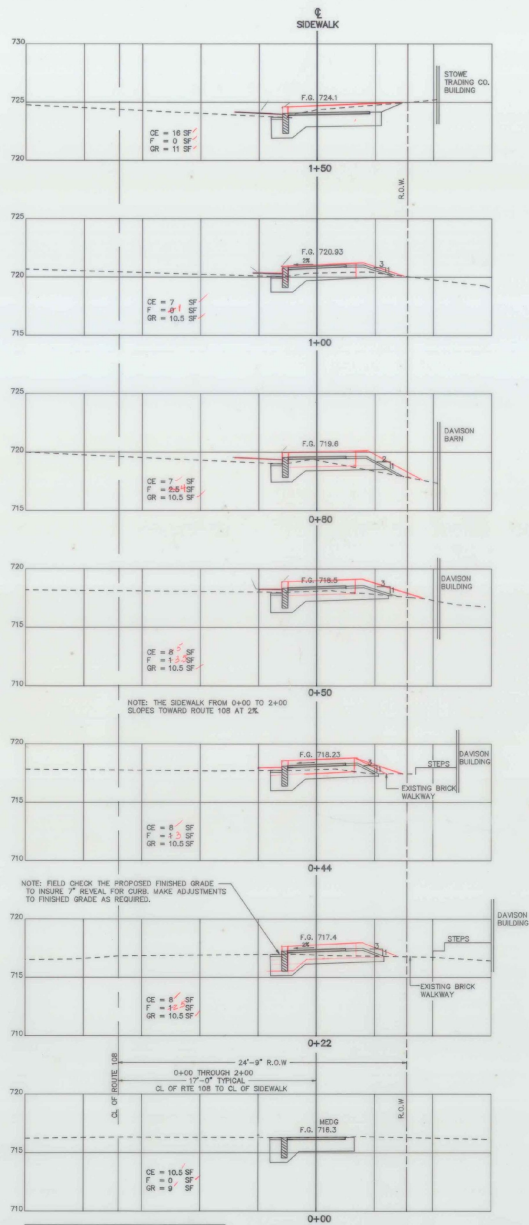


"EARTHWORK SUMMARY"
STOWE MOUNTAIN ROAD WALK
CHARLES GRENIER
CONSULTING ENGINEER, P.C.
BOX 445, WATERBURY, VERMONT
244-6413

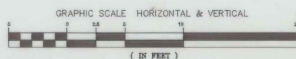
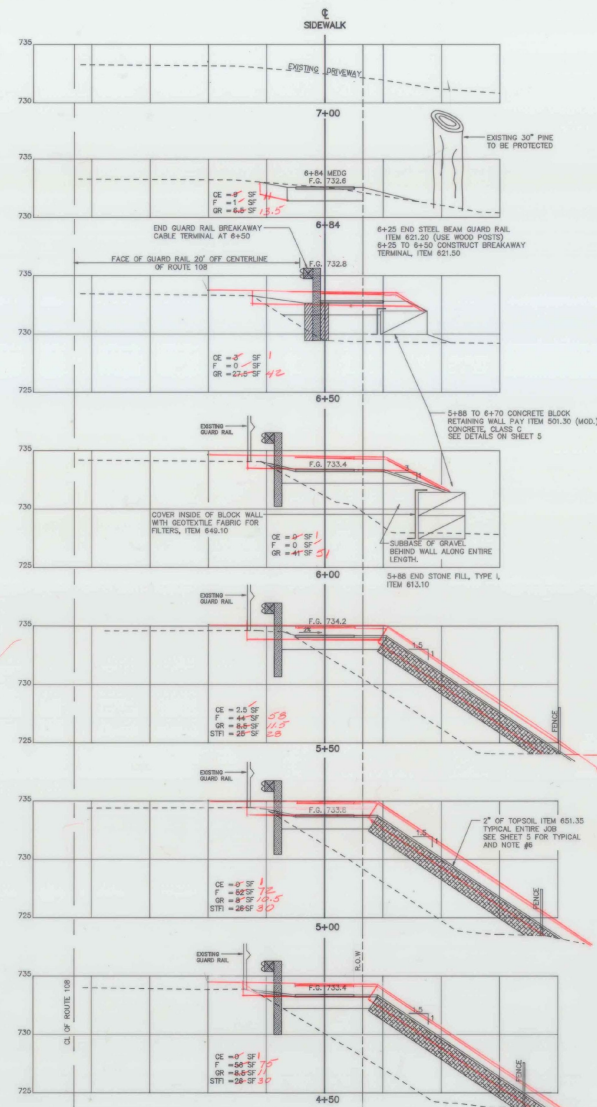
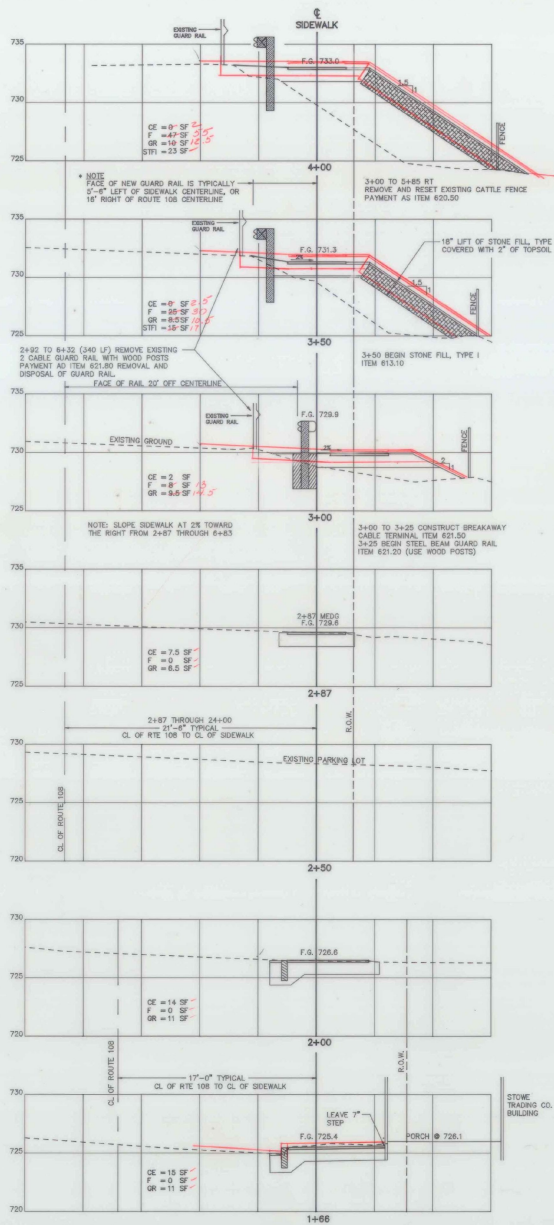
PROJECT
BW-RS-BIKE (2S)

DATE • 8/4/91
DRN BY • T.J.M.
SCALE • A=1
SHEET 3 OF 32

REVISED 1-31-92
REVISED 8-4-91
REVISED 8-20-91

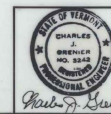
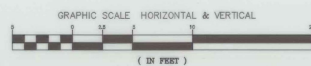
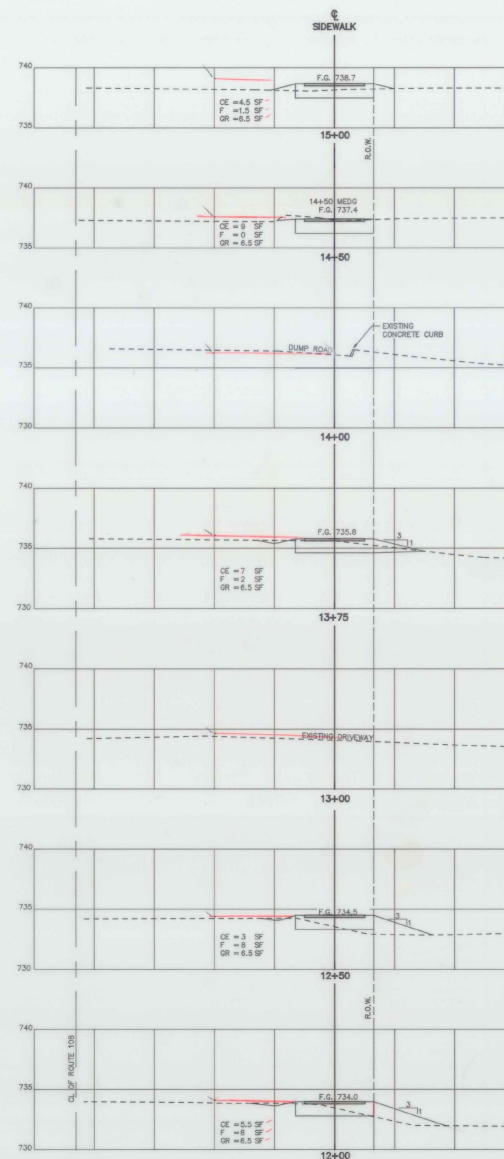
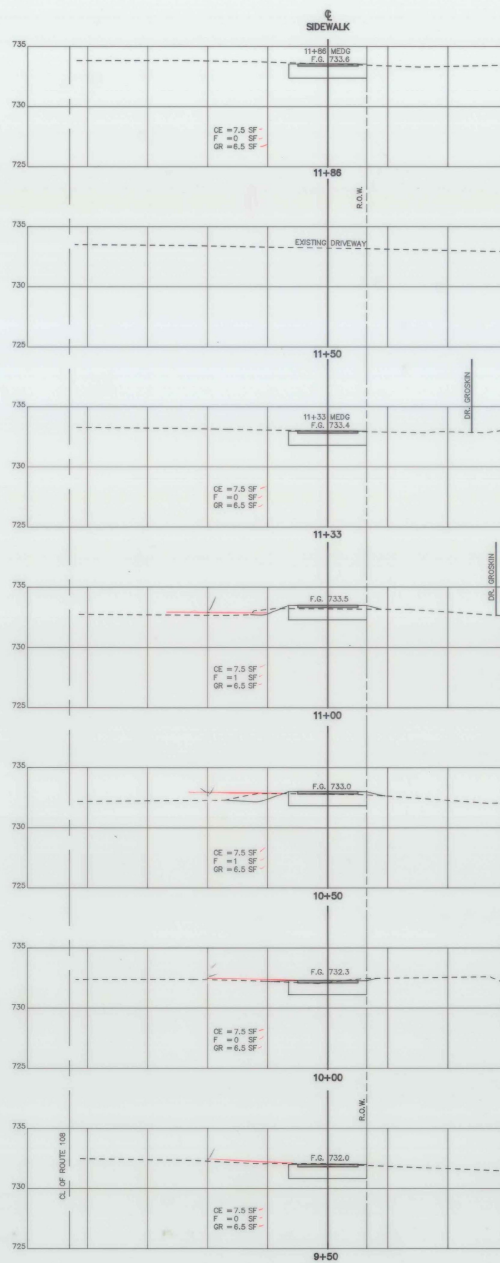
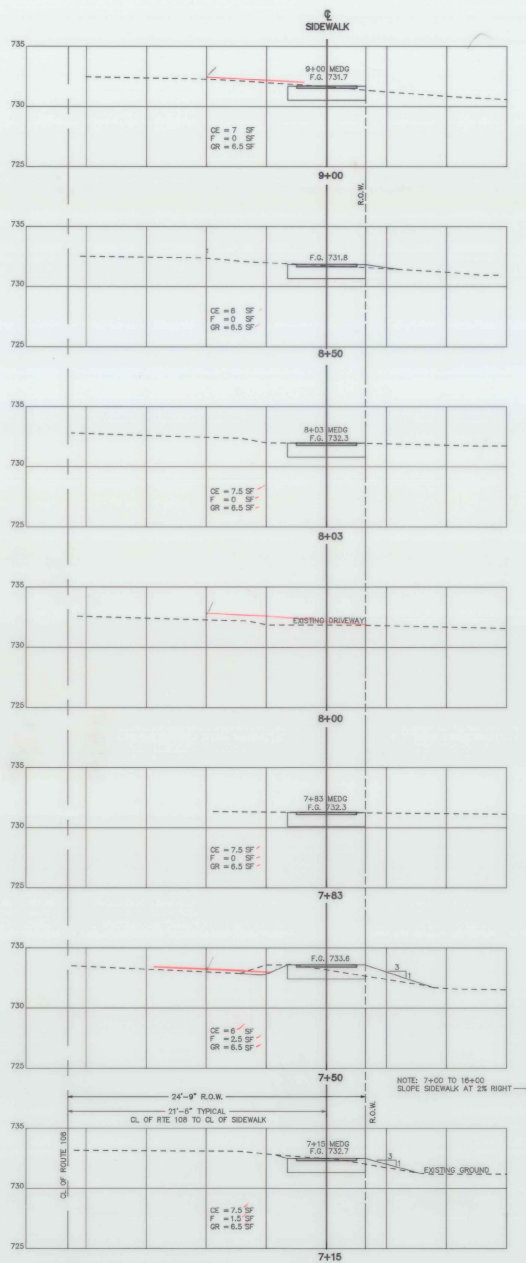


NOTE: MEDO = MATCH EXISTING DRIVEWAY GRADE



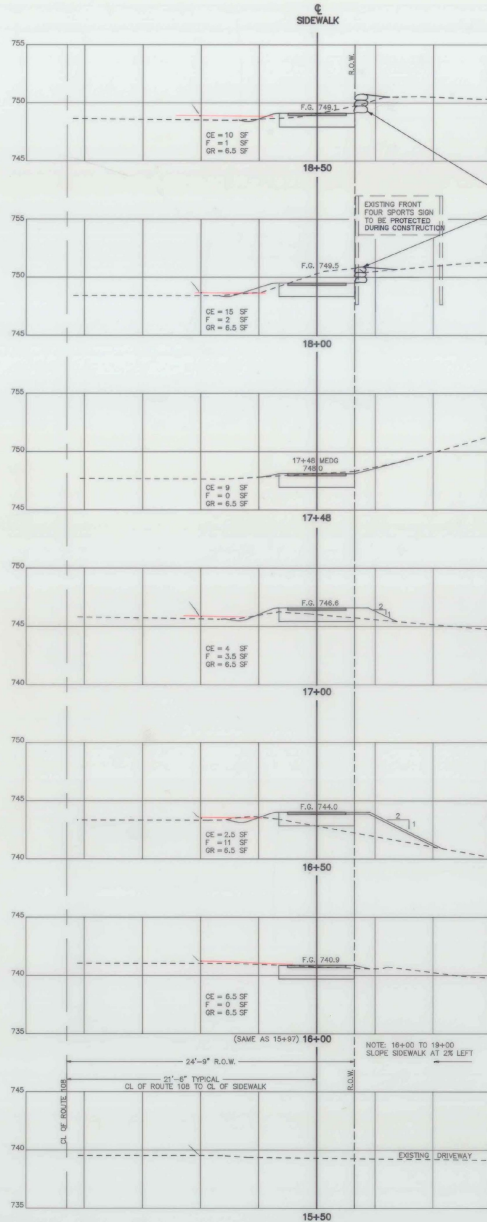
"SECTIONS 0+00 TO 7+15"
STOWE MOUNTAIN ROAD WALK
CHARLES GRENIER
CONSULTING ENGINEER, P.C.
BOX 445, WATERBURY, VERMONT
244-6413

PROJECT
BW-RS-BIKE (25)
DATE 8-14-91
DRN BY T.J.M.
SCALE 1"=5'
SHT 25 OF 25

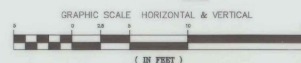
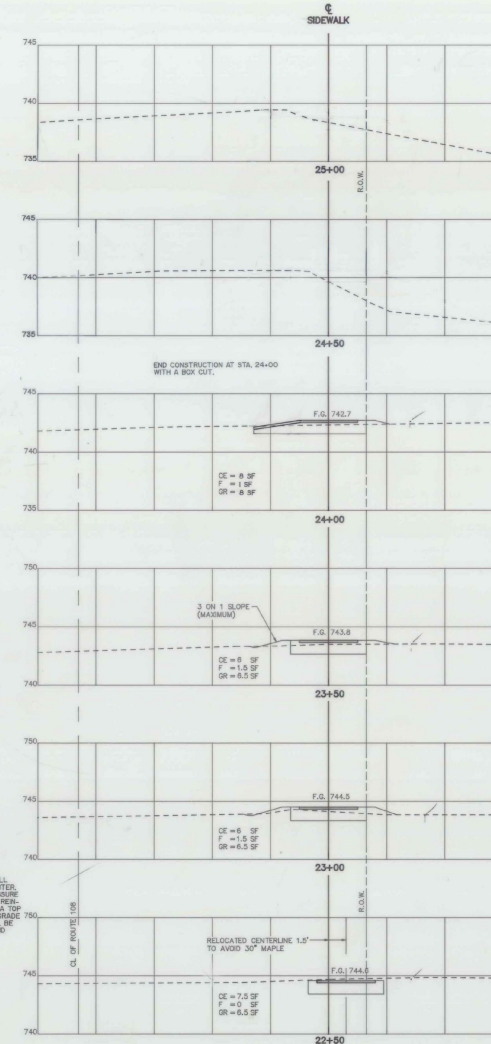
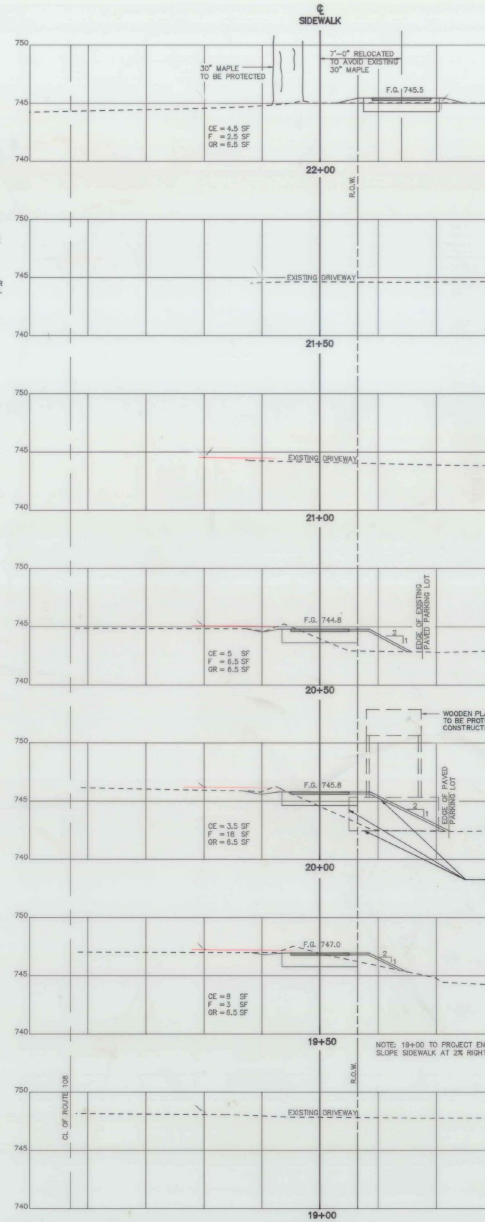


"SECTIONS 7+15 TO 15+00"
STOWE MOUNTAIN ROAD WALK
CHARLES GRENIER
CONSULTING ENGINEER, P.C.
BOX 445, WATERBURY, VERMONT
244-6413

PROJECT
BW-RS-BIKE (2S)
DATE 8-14-91
DRN BY T.J.M.
SCALE 1"=5'
SHT 22 OF 23



THE CONTRACTOR SHALL EXCAVATE A BENCH ALONG THE EDGE OF THE RIGHT OF WAY TO ALLOW OWNERS OF FRONT FOUR WHEELS TO CONSTRUCT A SMALL STONE RETAINING WALL. THE OWNERS MUST COORDINATE CONSTRUCTION OF THE WALL WITH THE SIDEWALK CONSTRUCTION SCHEDULE. THE CONTRACTOR SHALL REED AND MUNCH ALL DISTURBED GROUND AFTER THE WALL IS FINISHED.



REVISED 2-27-92
 REVISED 4-30-92
 REVISED 8-20-91

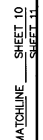


"SECTIONS 15+00 TO 25+00"
 STOWE MOUNTAIN ROAD WALK

CHARLES GRENIER
 CONSULTING ENGINEER, P.C.
 BOX 445, WATERBURY, VERMONT
 244-6413

PROJECT
 BW-RS-BIKE (2S)

DATE *8-14-91
 DRN BY *T.J.M.
 SCALE *1"=5'
 SHT 21 OF 20



STATION	DESC.	TE #	DISTANCE	DESCRIPTION	HEIGHT ABOVE GRND.	REMARKS
0+00	CONC. NAIL	A1	64.4'	NAIL CL END WOOD BRIDGE	1.1'	ABOVE RET. WALL
		A2	64.4'	SW CORNER BUILDING TRIM	1.2'	
		A3	64.4'	TRIM STAIR RAIL POST	0.5'	
1+12.93	B SPIKE	B1	25.71'	NW CORNER GARAGE TRIM	3.5's	EVEN WITH CHAPARRAL ON FRONT
		B2	25.71'	CL LIGHT POST	1.0"	
		B3	37.61'	NW CORNER BUILDING TRIM	1.5'	
2+00.49	C SPIKE	C1	27.71'	NW CORNER PORCH TRIM	1.5'	ABOVE TOP CORNER FOUNDATION
		C2	32.13'	NW CORNER BUILDING TRIM	1.5'	
		C3	48.05'	NW CORNER BUILDING TRIM	2.7'	
2+42.08	CONC. NAIL	D1	57.73's	CORNER BUILDING TRIM	3.5'	
		D2	62.92'	CORNER BUILDING TRIM	4.7'	
		D3	68.05'	NAIL IN JOIST POST	3.0'	
3+30.09	NAIL IN SUB	E1	8.93's	CL END BOTTOM BOLT GR. POST 5	1 1/2"	PAINTED RED
		E2	4.49'	CL END BOTTOM BOLT GR. POST 6	1 1/2"	PAINTED RED
		E3	6.48'	CL END BOTTOM BOLT GR. POST 7	1 1/2"	PAINTED RED
4+82.37	F SPIKE	F1	55.34'	CL END BOTTOM BOLT LAST GR. POST	1 1/2"	PAINTED RED
		F2	11.18'	W/CL BRK. POST	2 1/2"	
		F3	40.05'	CORNER BUILDING WALL FOUNDATION	1.0'	
8+44.01	G SPIKE	G1	22.53's	TOP CORNER CONCRETE FOUNDATION	0.8'	ABOVE FRONT
		G2	11.22'	NAIL IN SIGN POST	1 1/2"	
		G3	58.59'	NAIL IN SIGN POST	1 1/2"	
11+51.14	H SPIKE	H1	31.64'	CORNER CONCRETE FOUNDATION	0.5's	
		H2	23.00'	CORNER CONCRETE FOUNDATION	0.5's	
		H3	27.28'	CORNER CONCRETE FOUNDATION	0.5's	
11+98.76	NAIL IN SUB	I1	66.71'	CORNER CONCRETE FOUNDATION	0.5's	
		I2	29.90'	NAIL IN 11" MAPLE	2 1/2"	
		I3	55.53'	CORNER BOTTOM OF 2ND ROW OF BRICK	2 1/2"	
12+27.32	J NAIL IN SUB	J1	0.96'	NAIL IN 11" MAPLE	2 1/2"	SAME AS I
		J2	35.72'	CORNER OF BOTTOM OF 2TH ROW OF BRICK	2 1/2"	
		J3	34.77'	NAIL IN 6" MAPLE	2 1/2"	
13+29.23	K CONC. NAIL	K1	57.35'	CORNER BUILDING TRIM	1 1/2"	
		K2	36.30'	CORNER BUILDING TRIM	1 1/2"	
13+31.89		K3	38.43'	CORNER CONCRETE RAMP WALL	1 1/2"	

STATION	TIE #	BEARING	DISTANCE
0+00 TO 1+12.93	A TO B	N 12°25'26" W	112.93
1+12.93 TO 1+145.95 145.95 TO 2+000.00	B TO C 118.95 TO C	N 73°25'26" E	74.02
2+00.00 TO 2+442.06	C TO D	N 34°17'55" E	47.02
2+442.06 TO 3+33.09	D TO E	N 42°45'41" E	91.03
3+33.09 TO 6+82.37	E TO F	N 45°43'43" E	349.28
6+82.37 TO 8+44.01	F TO G	N 41°05'40" E	181.64
8+44.01 TO 10+151.64	G TO H	N 44°28'43" E	307.13
11+51.14 TO 11+98.76	H TO I	N 38°14'48" E	47.62
11+98.76 TO 12+37.32	I TO J	N 35°10'00" E	38.57
12+37.32 TO 13+58.33 13+58.33 TO 14+33.80	J TO K K TO L	N 50°10'00" W	15.91
14+33.80 TO 14+33.80	K TO L	N 02°29'50" W	10.99

GRAPHIC SCALE



244-6413

DATE ■ 8-14-91
DRN BY ■ T.J.M
SCALE ■ 1"=40'
SHT 35 OF 38

TIE DISTANCE TABLE

STATION	DESC.	TIE #	DISTANCE	DESCRIPTION	HEIGHT ABOVE GRND.	REMARKS
13+39.23 13+31.89	K CONC. NAIL	K1 K2 K3	57.35' 46.30' 38.43'	CORNER BUILDING TRIM CORNER BUILDING TRIM CORNER CONCRETE RAMP WALL	1'± 1'± 1'±	
14+33.80	L CONC. NAIL	L1 L2 L3	62.33' 46.85' 47.15'	NAIL CTR. BOTTOM HORIZ. SIGN BOARD SM NAIL IN UTILITY POLE CONC. NAIL 1" IN FROM CORNER PARKING LOT	2'± 2'± 2'±	ABOVE BROW IN PAVEMENT
14+87.65	M NAIL IN HUB	M1 M2 M3	43.17' 46.85' 32.18'	CONC. NAIL 1" IN FROM CORNER PARKING LOT CONC. NAIL 1" IN EDGE OF PARKING LOT NAIL IN TOP CTR. OF PLANTER TIMBER	2'	SAME AS L3 IN LINE WITH SIGN ROADSIDE END
16+32.10	N NAIL IN HUB	N1 N2 N3	46.26' 39.82' 41.49'	OUT. CLOSE CORNER OF PORCH POST CORNER BUILDING TRIM NAIL TOP CORNER TIMBER RET. WALL	3.7'± 3.7'± 1'	ABOVE WALK ABOVE WALK TOP OF RET. WALL
19+05.04	O CONC. NAIL	O1 O2 O3	68.54' 9.89' 35.01'	CORNER CONCRETE FOUNDATION NAIL IN CORNER SIGN POST NAIL IN 1ST FENCE POST	1' 1'	BELOW TRIM ABOVE METAL
20+70.47	P NAIL IN HUB	P1 P2 P3	51.98' 31.22' 59.27'	CONC. NAIL END OF 6TH WHITE LINE CONC. NAIL END OF 1ST WHITE LINE NAIL IN SIGN POST	1'±	IN PAVEMENT IN PAVEMENT
22+72.72	Q SPIKE	Q1 Q2 Q3	30.00' 60.05' 46.77'	NAIL IN 15" RED PINE CORNER CONCRETE FOUNDATION WALL NAIL IN 15" RED PINE	0.7'± 0.3'± 1.3'±	ABOVE WALK
23+28.47	R NAIL IN HUB	R1 R2 R3	14.50' 15.81' 43.10'	NAIL IN 15" RED PINE NAIL IN 15" RED PINE NAIL IN GUY POLE	1.3'± 1.2'± 1.1'±	SAME AS Q3
23+35.32	S NAIL IN HUB	S1 S2 S3	19.79' 12.43' 36.27'	NAIL IN 15" RED PINE NAIL IN 15" RED PINE NAIL IN GUY POLE	1.3'± 1.3'± 1.2'±	SAME AS Q3 R1 SAME AS R2 SAME AS R3
24+81.84 24+57.52	T NAIL IN HUB	T1 T2 T3	40.05' 10.74' 25.40'	NAIL IN 15" RED PINE CONC. NAIL IN PATCH OF CONCRETE CONC. NAIL IN WHITE LINE	0.9'	IN LAWN OPPOSITE SIDEWALK
25+84.04	U CONC. NAIL	U1 U2 U3	62.43' 21.98' 18.16'	CORNER BUILDING TRIM NAIL IN SIGN POST NAIL IN SIGN POST	2' 2'± 2'±	ABOVE STONE PATIO ROADSIDE

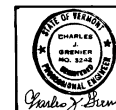
TANGENT LINE BEARINGS

STATION	TIE #	BEARING	DISTANCE
13+39.23 TO 14+33.80	K TO L	N 02°21'25" W	109.91'
14+33.80 TO 14+87.65	L TO M	N 02°21'25" W	53.85'
14+87.65 TO 16+32.10	M TO N	N 01°25'28" W	144.45'
16+32.10 TO 19+05.04	N TO O	N 03°04'17" W	273.44'
19+05.04 TO 20+70.47	O TO P	N 06°23'22" W	164.83'
20+70.47 TO 22+72.72	P TO Q	N 11°59'16" W	202.25'
22+72.72 TO 23+28.47	Q TO R	N 01°42'23" W	55.75'
23+28.47 TO 23+35.32	R TO S	N 14°08'49" W	6.85'
23+35.32 TO 24+81.84	S TO T	N 14°08'49" W	126.52'
24+81.84 TO 25+84.04	T TO U	N 40°03'28" W	126.52'

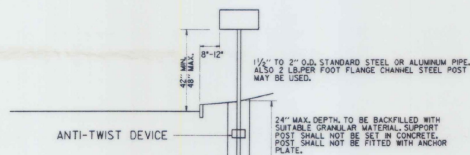
SITE PLAN

GRAPHIC SCALE

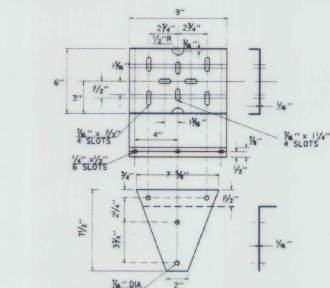
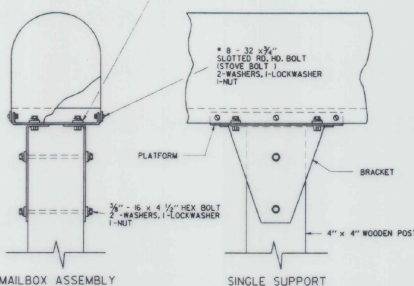
(IN FEET)

"TIE DETAIL SHEET 13+00 TO 25+00"
STOWE MOUNTAIN ROAD WALK**CHARLES GRENIER**
CONSULTING ENGINEER, P.C.
BOX 445, WATERBURY, VERMONT
244-6413PROJECT
BW-RS-BIKE (2S)DATE: 8-14-91
DRN BY: T.J.M.
SCALE: 1"=40'
SHT 26 OF 28REVISED 10-90
REVISED 9-90
REVISED 8-20-91

1. ONLY LIGHTWEIGHT MAILBOXES MADE OF LIGHT SHEET METAL OR PLASTIC SHALL BE USED. MAILBOXES SHALL MEET REQUIREMENTS AND APPROVAL OF THE U.S. POSTAL SERVICE.
2. AN ALTERNATE MAILBOX SUPPORT STRUCTURE DESIGN AND CONSTRUCTION MAY BE USED AS LONG AS PROVEN CRAFTSMANSHIP AND MEETS GUIDELINES AS SET OUT IN THIS GUIDE FOR PROTECTING MAILBOXES OF HIGHWAYS. SUPPORT STRUCTURE SHALL ALSO MEET REQUIREMENTS OF THE U.S. POSTAL SERVICE.
3. MAILBOX TURNOUT SHALL MEET B-17 STANDARD AS SET OUT IN "STATE OF VERMONT GUIDE OF TRANSPORTATION DESIGN STANDARDS FOR ROAD AND BRIDGE CONSTRUCTION".
4. IF THE STANDARD TURNOUT OFFSET CANNOT BE ATTAINED DUE TO RIGHT-OF-WAY CONSTRAINTS OR OTHER REASONS THE TURNOUT SHALL BE MODIFIED AS DIRECTED BY THE ENGINEER.



TO BE USED WITH METAL POST.
DEVICE SHALL NOT EXTEND MORE
THAN 10" BELOW GROUND LINE.



PLATFORM AND BRACKET DETAIL FOR METAL OR WOOD POSTS
(USED FOR SINGLE AND MULTIPLE BOXES)

ATTACH BOX TO BOARD W/ 3 NO. 10 X 1" SHEET MTL. SCREW EACH SIDE

1"X6"X12" BOARD BOLTED TO SUPPORT W/ (2) 1/4" X 5" BOLTS, NUTS & WASHERS

MAIL BOX

3'-0" 5'-0" 3/4" 1'-8 1/2" 1'-0"

2"

42" TO 48"

4"X4" TREATED WOOD SUPPORT

3 - 8d GALVANIZED NAILS EACH END, BOTH SIDES.

4"X4" TREATED WOOD POST.

GROUND LINE

ANTI-TWIST DEVICE
1 - 2"X6"X10" TREATED BOARD,
2 - 16G GALVANIZED NAILS

CRUSHED STONE

12"

2'-0"

(2) 1" X 6" X 2'-6" TREATED WOOD BRACES

HALF LAP NOTCHED JOINT W/ 3/4" X 4 1/2" BOLT W/ NUT & 2 WASHER

4'-0" 3'-0" 3/4" 8 1/2"

2"

TOP OF POST

4"X4" TREATED TIMBERS

OPTIONAL BRACE DESIGN

3/2" 1 3/4" 1'-0" 3/2" 1 3/4"

1'-8 1/2" OR 8 1/2"

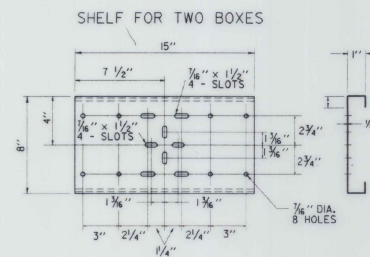
BACK OF ARM

TOP VIEW OF SUPPORT SIDE VIEW OF POST

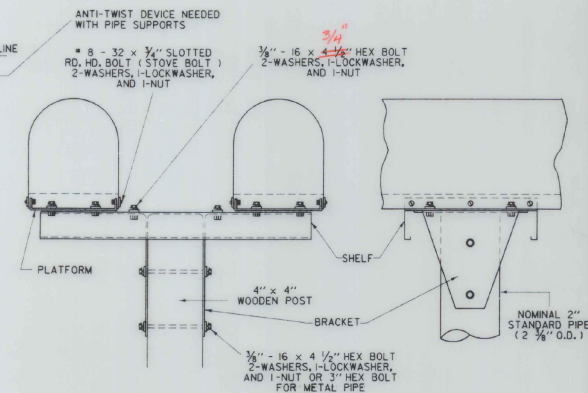
NOTE: ALL WOOD DIMENSIONS ARE NOMINAL SIZE

DIMENSIONS ARE ACTUAL SIZE

SPACING FOR MULTIPLE POST INSTALLATION



SHELF FOR TWO BOXES

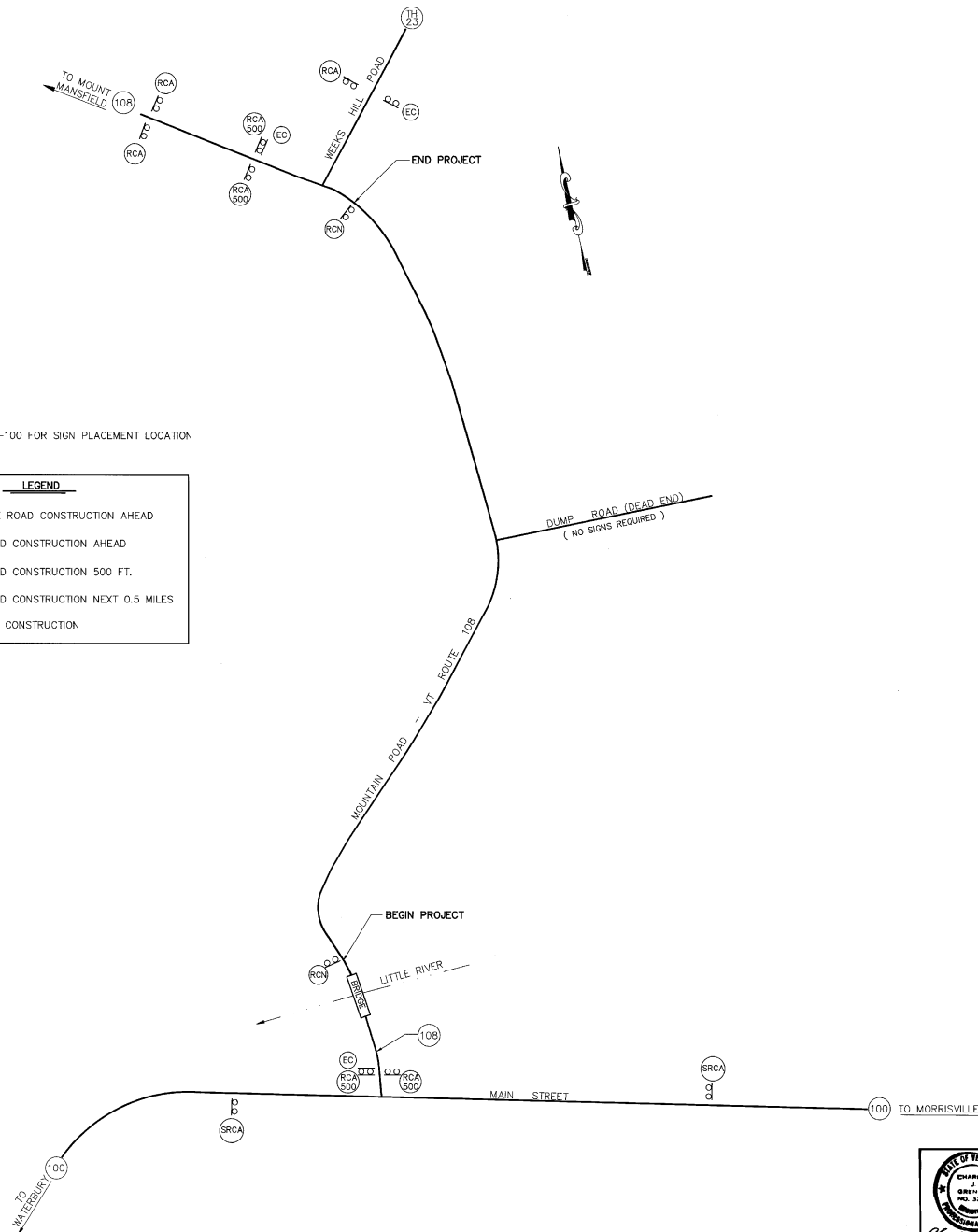


MULTIPLE MAILBOX SUPPORT

(SINGLE AND MULTIPLE SUPPORT)

NOTE: SEE STD. E-100 FOR SIGN PLACEMENT LOCATION

LEGEND	
	= SIDE ROAD CONSTRUCTION AHEAD
	= ROAD CONSTRUCTION AHEAD
	= ROAD CONSTRUCTION 500 FT.
	= ROAD CONSTRUCTION NEXT 0.5 MILES
	= END CONSTRUCTION



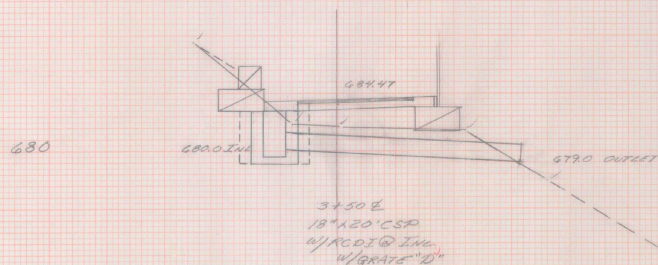
CONSTRUCTION APPROACH SIGNING
STOWE MOUNTAIN ROAD WALK
CHARLES GRENIER
CONSULTING ENGINEER, P.C.
BOX 445, WATERBURY, VERMONT
244-6413

PROJECT
BW-RS-BIKE (25)

DATE • 8-20-91
DRN BY • T.J.M.
SCALE • 1/4" = 1'-0"
SHT 22 OF 33

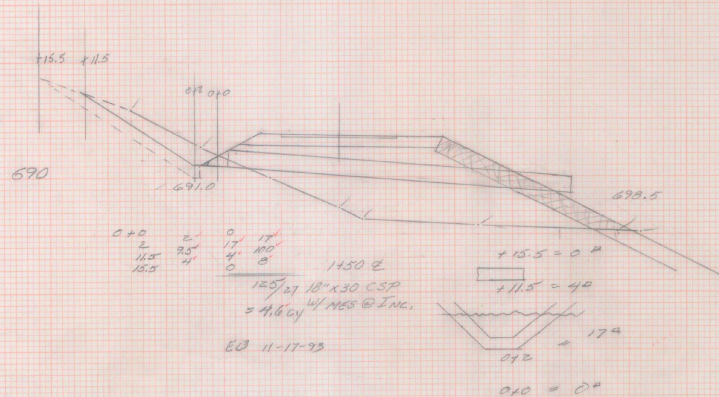
DATE	
BY	
PROJECT	
DESCRIPTION	
SCALE	

DATE	
BY	
PROJECT	
DESCRIPTION	
SCALE	

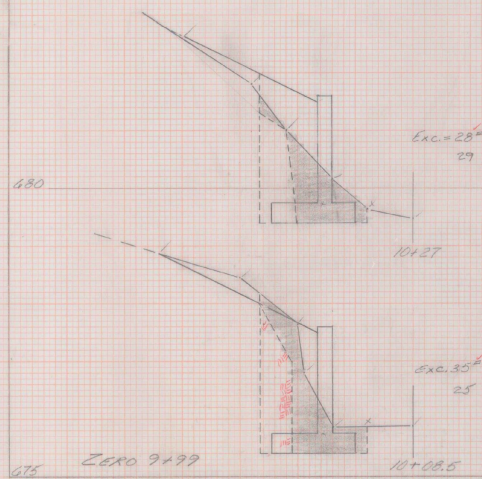


$$\begin{aligned} \text{PIPE } 24 \times 3.6 &= 86.4' \\ \text{DI } 26 \times 6 &= 156.0' \\ \hline 242.4 / 27 &= 9.0' \end{aligned}$$

ELP 11-17-93

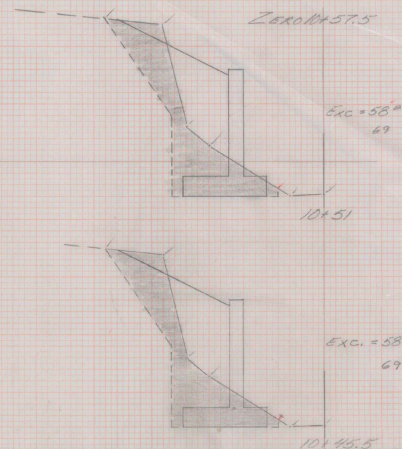


ED 11-17-93



ZERO 9+99

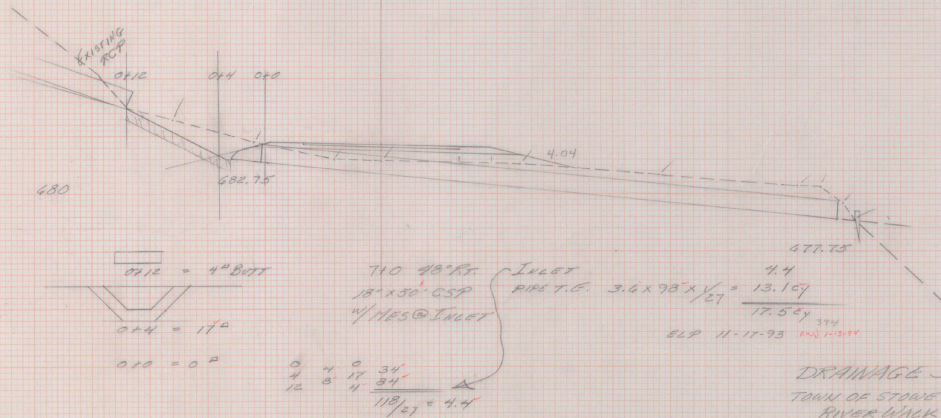
675



10' x 51

$$\begin{aligned} 24 \times 3.6 &= 86.4' \\ 18 \times 30 &= 540' \\ 10 \times 51 &= 510' \\ 10 \times 27 &= 270' \\ 10 \times 27 &= 270' \\ 10 \times 27 &= 270' \\ \hline 2251.4 / 27 &= 83.38' \end{aligned}$$

ELP 11-15-93



$$\begin{aligned} 0+12 &= 4' \text{ BUTT} \\ 0+4 &= 17' \\ 0+0 &= 0' \end{aligned}$$

$$\begin{aligned} 710 \times 48 &= 34080' \\ 18 \times 30 &= 540' \\ 10 \times 51 &= 510' \\ 10 \times 27 &= 270' \\ 10 \times 27 &= 270' \\ 10 \times 27 &= 270' \\ \hline 35660 / 27 &= 1319' \end{aligned}$$

ELP 11-17-93

DRAINAGE SHEET
TRAIL OF STONE
RIVER LINK
BW-RS-BIKE (2)S

VERMONT AGENCY OF
TRANSPORTATION
PHASE III-INTERSTATE
HANGER 4018

3
PATH

STOWE BW-RS-BIKE (25)