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LIST OF STANDARDS

E-100	1/6/97
E-101	3/10/97
E-102	8/8/95
E-107	8/8/95
E-107A	8/8/95
G-1	1/3/00
G-1d	1/3/00
SB-R6-82	1/6/95
SB-R7-90	1/11/95
T-1	6/1/94
T-2	6/1/94

RECORD PLANS

CONTRACTOR: R.C. CONTRACTORS INC. - GLOVER VT
 RESIDENT ENGINEER: MCGILLIARD K. MCGILLIARD
 CONSTRUCTION BEGAN: AUGUST 16, 2001
 CONSTRUCTION COMPLETE: JUNE 10, 2002
 RECORD PLANS BY: R. RICHERT
 I HEREBY CERTIFY THAT ALL THE CONSTRUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.
 BY: *R. Richert* RESIDENT ENGINEER
 DATE: 10-3-03

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

TRAFFIC DATA

ADT 220
 DD 100
 % DIV 6.3
 V = 30 MPH

DATUM
 VERTICAL 1929 NGVD
 HORIZONTAL ASSUMED

STATE OF VERMONT AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT BRIDGE PROJECT

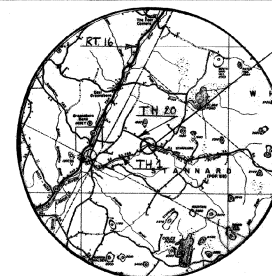
TOWN OF STANNARD
 COUNTY OF CALEDONIA

ROUTE NO: TH1 (CL2) BRIDGE NO: 6

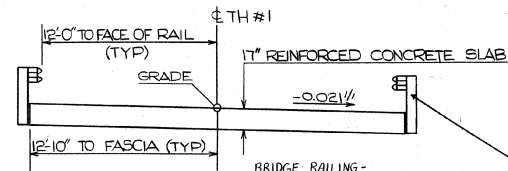
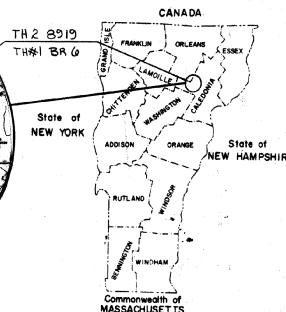
PROJECT LOCATION: BEGINNING AT A POINT APPROX 1.34 MILES NORTHEASTERLY FROM THE WALDEN TOWN LINE AND PROCEEDING ALONG A NORTHEASTERLY LINE FOR 0.019 MILES.

PROJECT DESCRIPTION: PROJECT SHALL CONSIST OF CONSTRUCTION OF A NEW STRUCTURE ALONG WITH RELATED ROADWAY APPROACH AND CHANNEL WORK.

LENGTH OF STRUCTURE: 23.00 FEET
 LENGTH OF ROADWAY: 77.00 FEET
 LENGTH OF PROJECT: 100.00 FEET

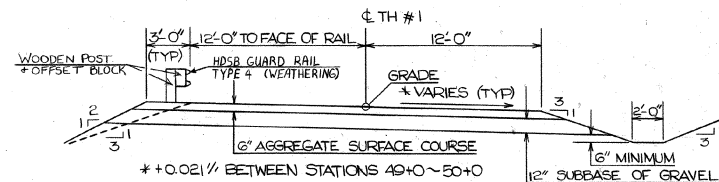


LOCATION MAP
 (TRACED FROM COUNTY MAP)



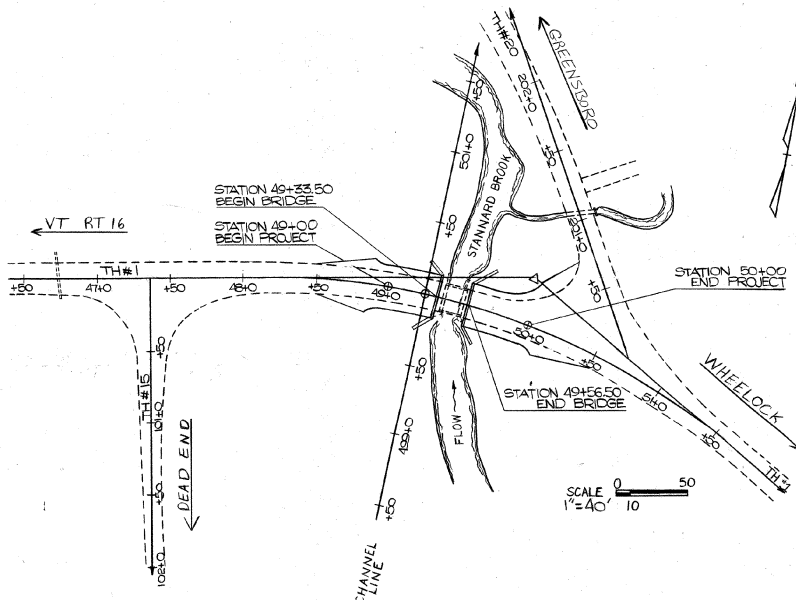
BRIDGE RAILING -
 HEAVY DUTY STEEL BEAM TYPE 4 (WEATHERING STEEL) / FASCIA MOUNTED / STEEL TUBING
 SEE STANDARD SB-R7-90

TYPICAL BRIDGE SECTION
 SCALE: 1/4" = 1'-0"



MATERIAL TOLERANCE
 AGG. SURFACE COURSE ±1"
 SUBBASE ±1"

TYPICAL ROADWAY SECTION
 SCALE: 1/4" = 1'-0"



SCALE 1" = 40'

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 1980, 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.

APPROVED: *[Signature]* DATE: 10/10/01
 DIRECTOR OF ENGINEERING

PROJECT: STANNARD
 PROJECT NO: TH2-8919
 SHEET 1 OF 21
 SHEETS: SUB 17/21/81

SEEDING FORMULA RURAL AREAS

% WT.	LBS./A.	NAME	PUR %	GERM %
37.5	22.5	CREEPING RED FESCUE	98	85
37.5	22.5	TALL FESCUE	95	90
5.0	3.0	RED TOP	95	90
15.0	9.0	BIRDSFOOT TREFOIL	98	85
5.0	3.0	ANNUAL RYEGRASS	95	85
100.0	60.0			

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.

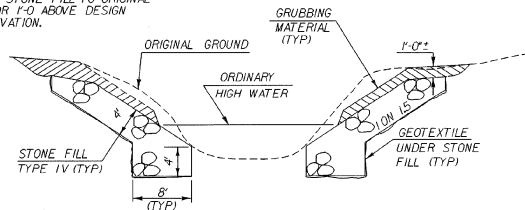
HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE, OR AS DIRECTED BY THE ENGINEER.

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

NOTES

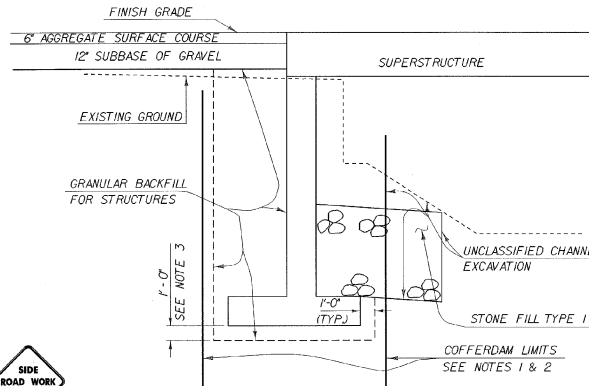
- COFFERDAM LIMITS TO BE DETERMINED BY THE CONTRACTOR.
- FOR PURPOSES OF ESTIMATING EARTHWORK QUANTITIES, THE LIMITS OF COFFERDAM HAVE BEEN ASSUMED TO BE 1'-0" OUTSIDE THE PERIMETER OF THE FOOTING.
- ONE FOOT UNDERCUT AS DETERMINED NECESSARY BY THE RESIDENT ENGINEER.
- IF A COFFERDAM IS CONSTRUCTED WHICH IS MORE THAN THE INDICATED MINIMUM DISTANCE OUTSIDE THE FOOTING LIMITS, PAYMENT FOR ALL UNCLASSIFIED CHANNEL EXCAVATION INCLUDING THAT PORTION WHICH IS INSIDE THE COFFERDAM BUT OUTSIDE THE MINIMUM COFFERDAM LIMITS SHOWN WILL BE MADE AT THE CONTRACT UNIT PRICE FOR UNCLASSIFIED CHANNEL EXCAVATION.

CONTINUE STONE FILL TO ORIGINAL GROUND OR 1'-0" ABOVE DESIGN FLOW ELEVATION.



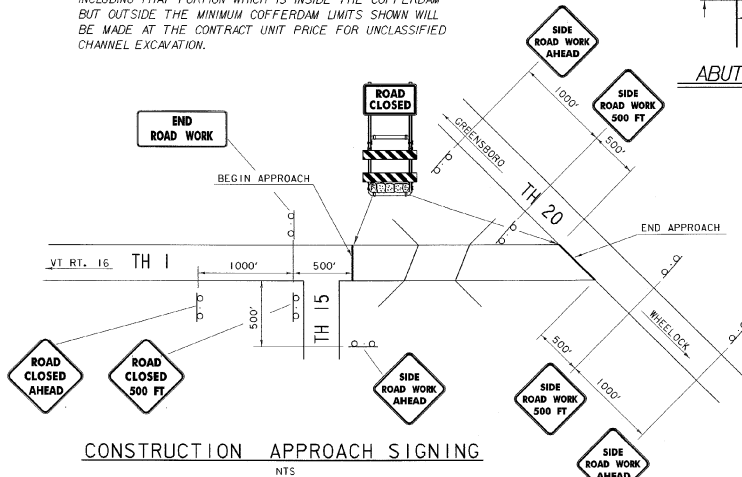
TYPICAL CHANNEL SECTION

NTS



ABUTMENT EARTHWORK TYPICAL

NOT TO SCALE



CONSTRUCTION APPROACH SIGNING

NTS

EXISTING STRUCTURE

- STRUCTURE TYPE: CONCRETE SLAB BRIDGE OVERALL LENGTH: 18' INVENTORY RATING: _____
- SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS: 13.75'
- CLEAR SPAN LENGTH(S) NORMAL TO STREAM: 11.50'
- WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM): 17.73 SQ. FT. VERTICAL CLEARANCE ABOVE STREAMBED: 7'
- WATER SURFACE ELEVATION @ 0.2.35: 189.0' WATER SURFACE ELEVATION @ 0.25: 188.6'
- WATER SURFACE ELEVATION AT FLOOD OF RECORD: UNKNOWN YEAR: N/A ESTIMATED DISCHARGE: N/A
- DOES ALL WATER PASS THROUGH EXISTING STRUCTURE? YES IF NOT, AT WHAT FREQUENCY AND ELEVATION DOES RELIEF OCCUR? N/A
- ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF: _____
- TYPE OF SUBSTRUCTURE FOUNDATION MATERIAL: UNKNOWN
- DISPOSITION OF STRUCTURE: REMOVE

NEW STRUCTURE

- STRUCTURE TYPE: CONCRETE SLAB BRIDGE OVERALL LENGTH: 23'
- SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS: 21'-6"
- VERTICAL CLEARANCE ABOVE STREAMBED OR ROAD UNDER: 7'
- CLEAR SPAN LENGTH(S) NORMAL TO STREAM: 20'
- WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM): 137.50 SQ. FT.
- ARE PROVISIONS TO BE MADE FOR PUBLIC UTILITIES? NO

HYDRAULIC DATA:

- DESIGN LIVE LOAD: 200 CFS WATER ELEVATION: 189.6' VELOCITY: 10.7 FPS
- DESIGN LIVE LOAD: 500 CFS WATER ELEVATION: 189.8' VELOCITY: 11.3 FPS
- DESIGN LIVE LOAD: 700 CFS WATER ELEVATION: 189.8' VELOCITY: 12.1 FPS
- DESIGN LIVE LOAD: 900 CFS WATER ELEVATION: 189.0' VELOCITY: 13.5 FPS
- DESIGN LIVE LOAD: 1150 CFS WATER ELEVATION: 189.8' VELOCITY: 14.9 FPS
- DRAINAGE AREA: 4.6 SQ. MI. CHARACTER OF TERRAIN: HILLY TO MOUNTAINOUS, MOSTLY FORESTED
- ARE THERE OBJECTIONS TO A PIER IN THE STREAM? N/A
- DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY? YES IS ORDINARY RISE RAPID? YES
- NATURE OF NATURAL STREAMBED: GRAVEL MIXED COBBLES AND BOULDERS
- ESTIMATED SCOUR DEPTH: 3' COMMENT ON: DRIFT MODERATE ICE SLIGHT
- WILL ALL WATER PASS THROUGH NEW STRUCTURE? YES IF NOT, WHAT FREQUENCY AND ELEVATION WILL RELIEF OCCUR? N/A
- ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF: N/A
- VERTICAL CLEARANCE ABOVE 0.85: 150.0' LIMITED BY: BOTTOM CHORD OF SLAB
- IS DESIGN STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? NO IF YES, DESCRIBE: N/A
- ORDINARY LOW WATER: 5 CFS DEPTH: 0.5' ORDINARY HIGH WATER: 50 CFS DEPTH: 1.5'
- AVERAGE DAILY FLOW: 10 CFS STREAMBANK OR CHANNEL PROTECTION REQUIRED: STONE FILL TYPE IV, AS NEEDED
- DISTANCE TO EXISTING UPSTREAM STRUCTURE: 13600' SPAN: 18' WATERWAY AREA OF FULL OPENING: 30 SF
- DISTANCE TO EXISTING DOWNSTREAM STRUCTURE: 13600' SPAN: 20' WATERWAY AREA OF FULL OPENING: 60 SF

ALLOWABLE STRESSES:

- DESIGN LIVE LOAD: HS-20
- ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL: 4.0 KSI ON LEDGE: N/A
- ALLOWABLE LOAD FOR PILING: N/A TYPE: N/A ESTIMATED LENGTH: N/A
- ALLOWABLE STRESS FOR STRUCTURAL STEEL: 40 KSI
- ALLOWABLE STRESS FOR REINFORCING STEEL: 40 KSI COMPRESSION: 20 KSI
- ALLOWABLE STRESS FOR CONCRETE: CLASS A: 4.0 KSI CLASS B: 3.5 KSI

TRAFFIC MAINTENANCE:

- IS TRAFFIC TO BE MAINTAINED? NO IF YES, ON EXISTING STRUCTURE: N/A OR ON TEMPORARY BRIDGE: N/A
- TEMPORARY BRIDGE REQUIREMENTS: ONE OR TWO WAY: N/A TRAFFIC CONTROL SIGNALS REQUIRED: N/A
- MINIMUM CLEAR SPAN: N/A MINIMUM CLEAR HEIGHT: N/A MINIMUM WATERWAY AREA: N/A
- ARE SIDEWALKS REQUIRED? N/A IF SO, ON WHAT SIDE: N/A

ADDITIONAL DESIGN CONSIDERATIONS

LOAD FACTOR LOAD RATING (TONS)

LOADING LEVELS (LOAD FACTOR)	H	H5	352	6 AXLE	34.5 STR.	44.5 STR.	54.5 SEMI
INVENTORY	27	49					
POSTED	40	73	89		49	52	88
OPERATING		82	100	89	55	59	

STRENGTH RFL: 0.94 N - 1.3 MBL
A x M₁₊₁

*THE CONCRETE SLAB HAS BEEN DESIGNED AND LOAD RATED USING LOAD FACTOR DESIGN.

STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of: STANNARD Bridge No.: 6
Highway No.: T H 1 Log Sta.: 49+45

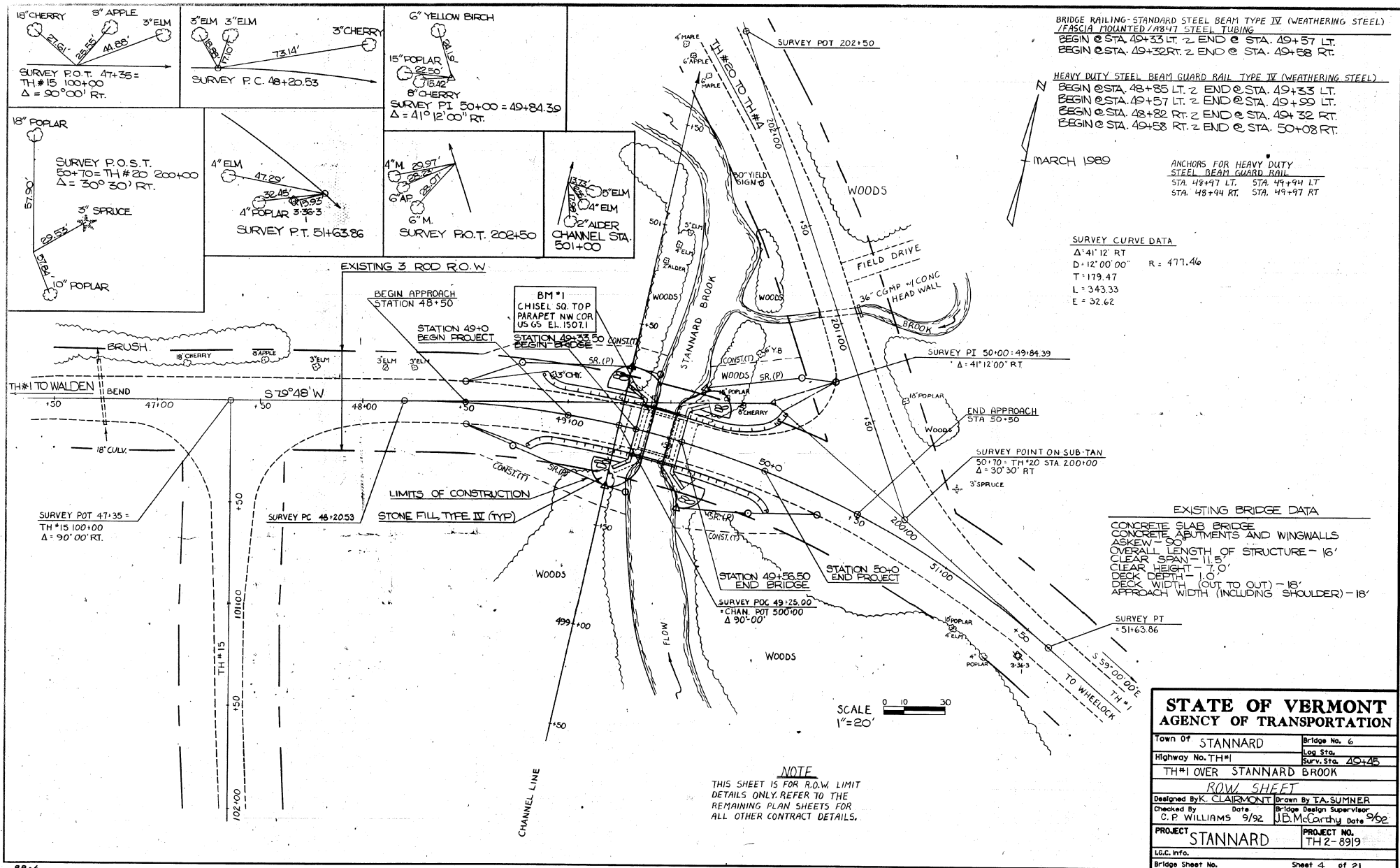
PROJECT: T H 1 OVER STANNARD BROOK

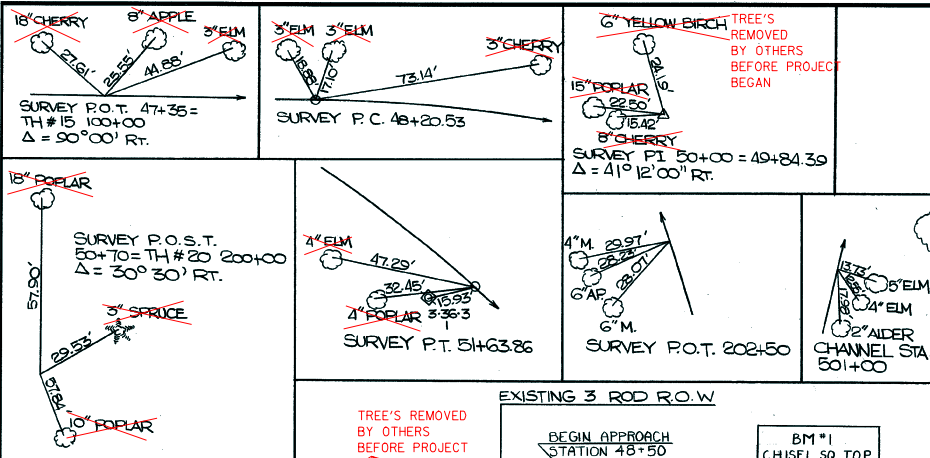
PRELIMINARY INFORMATION

Designed By: K.S. CLARKE Drawn By: K.M. HIGGINS
Checked By: Date: 1/93 Bridge Design Supervisor: Date: 1/93

PROJECT: STANNARD PROJECT NO.: TH-6919
Log Sta.: 49+45

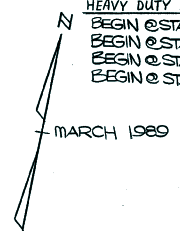
Bridge Sheet No.: Sheet 2 of 2





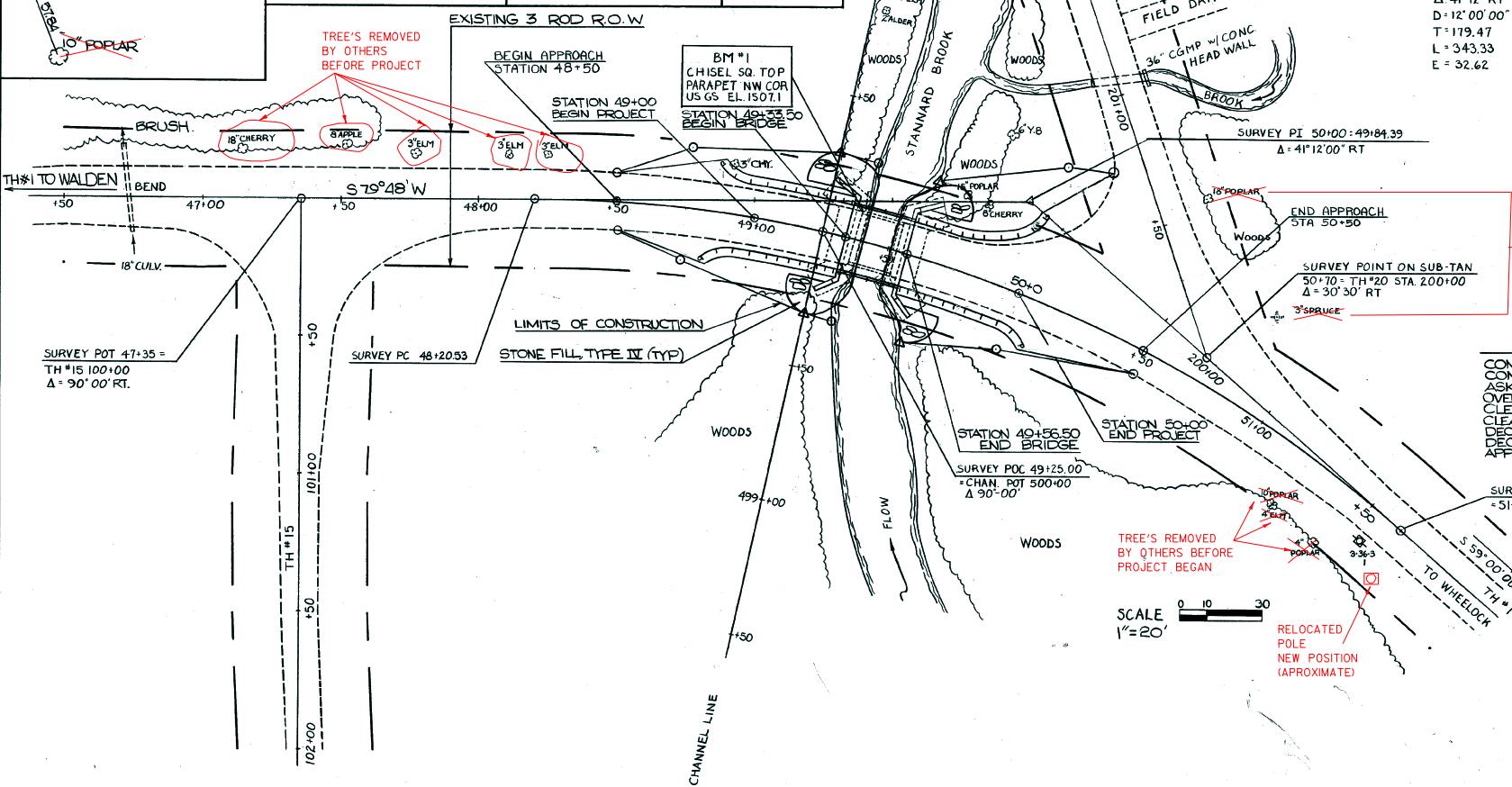
BRIDGE RAILING - HEAVY DUTY STEEL BEAM TYPE IV (WEATHERING STEEL) / FASCIA MOUNTED / STEEL TUBING
 BEGIN @ STA. 49+32.50 LT. 2 END @ STA. 49+57.50 LT.
 BEGIN @ STA. 49+32.50 RT. 2 END @ STA. 49+57.50 RT.

HEAVY DUTY STEEL BEAM GUARD RAIL TYPE 4 (WEATHERING STEEL)
 BEGIN @ STA. 48+85 LT. 2 END @ STA. 49+32.50 LT.
 BEGIN @ STA. 49+57.50 LT. 2 END @ STA. 49+59 LT.
 BEGIN @ STA. 48+82 RT. 2 END @ STA. 49+32.50 RT.
 BEGIN @ STA. 49+57.50 RT. 2 END @ STA. 50+08 RT.



ANCHORS FOR HEAVY DUTY STEEL BEAM GUARD RAIL
 STA. 48+97 LT STA. 49+94 LT
 STA. 48+94 RT STA. 49+97 RT

SURVEY CURVE DATA
 $\Delta: 41^{\circ}12' RT$
 $D: 12^{\circ}00'00'' R = 477.46$
 $T: 179.47$
 $L: 343.33$
 $E: 32.62$



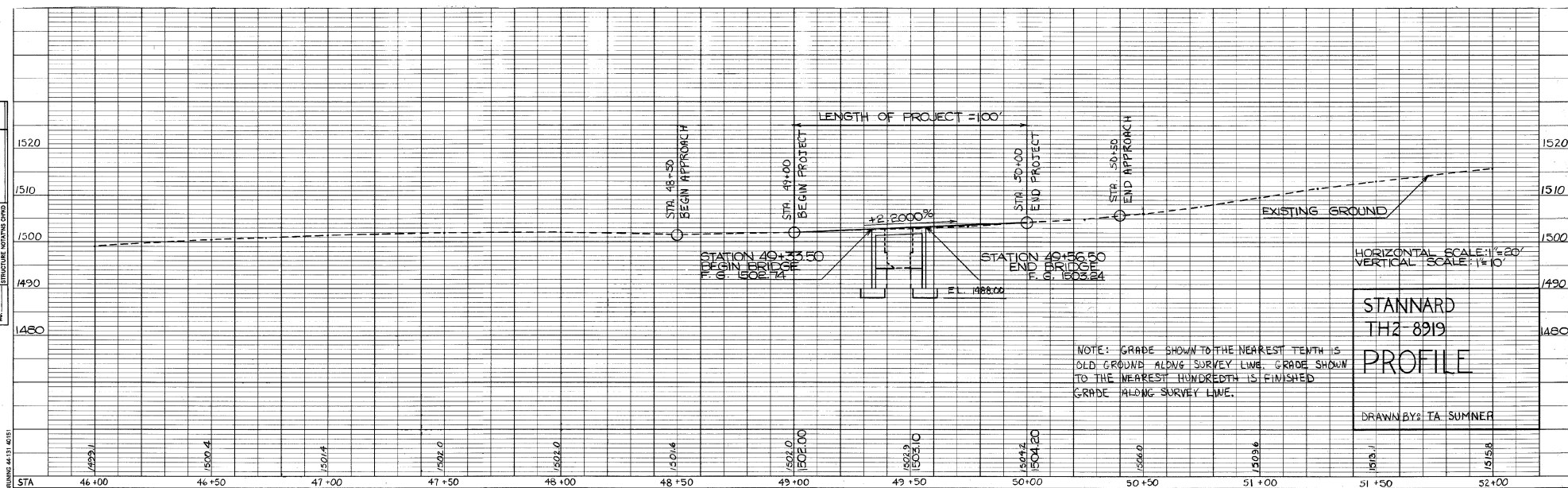
TREES REMOVED BY OTHERS BEFORE PROJECT BEGAN

EXISTING BRIDGE DATA
 CONCRETE SLAB BRIDGE
 CONCRETE ABUTMENTS AND WINGWALLS
 ASKEW - 90
 OVERALL LENGTH OF STRUCTURE - 16'
 CLEAR SPAN - 11.5'
 CLEAR HEIGHT - 11.5'
 DECK DEPTH - 1.0'
 DECK WIDTH (OUT TO OUT) - 18'
 APPROACH WIDTH (INCLUDING SHOULDER) - 18'

SCALE 1"=20'
 RELOCATED POLE NEW POSITION (APPROXIMATED)

STATE OF VERMONT AGENCY OF TRANSPORTATION	
Town of STANNARD	Bridge No. 6
Highway No. TH#1	Log Sta. 49+45
TH#1 OVER STANNARD BROOK	
PLAN	
Designed By K. CLAIRMONT	Drawn By T.A. SUMNER
Checked By C.P. WILLIAMS 9/92	Bridge Design Supervisor J.B. McCarthy date 9/92
PROJECT STANNARD	PROJECT NO. TH2-8919
L.C.C. Info.	
Bridge Sheet No.	Sheet 5 of 21

PROFILE	SURVEYED _____	BY _____	DATE _____
	PLOTTED _____		
	GRADES CHECKED _____		
	& M' NOTED _____		
	STRUCTURE NOTATION CHWD _____		
NOTE BOOK NO. _____			

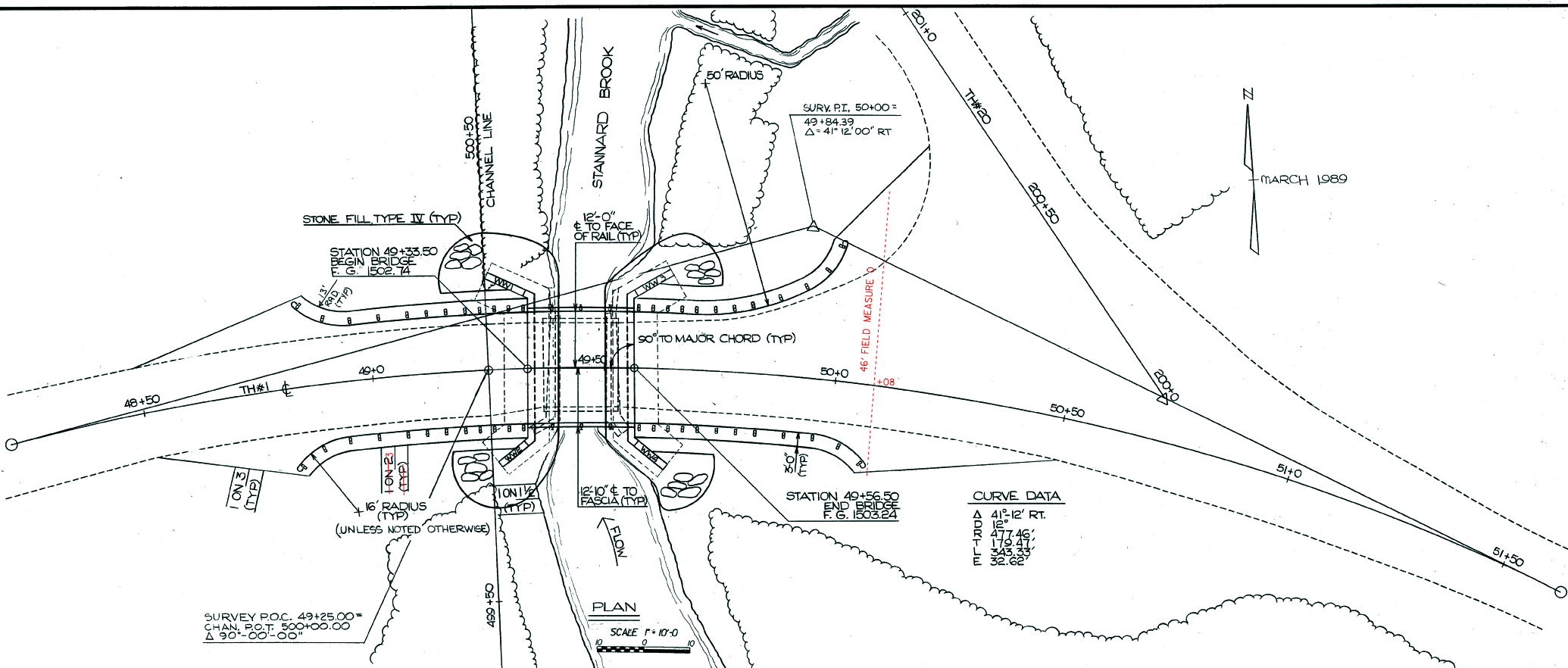


NOTE: GRADE SHOWN TO THE NEAREST TENTH IS
OLD GROUND ALONG SURVEY LINE. GRADE SHOWN
TO THE NEAREST HUNDREDTH IS FINISHED
GRADE ALONG SURVEY LINE.

STANNARD
TH2-8919
PROFILE

DRAWN BY: TA. SUMNER

BR-8



↑ N
MARCH 1989

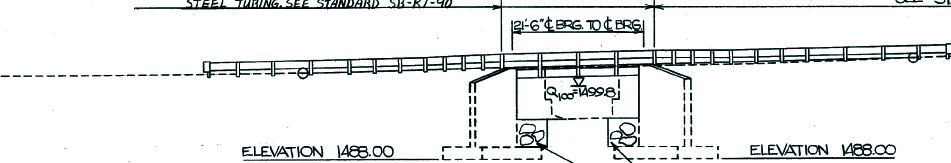
CURVE DATA

Δ	41°-12' RT.
PI	1502.74
PC	1477.46
PT	1503.24
LC	52.60

SURVEY P.O.C. 49+25.00 =
CHAN. P.O.T. 500+00.00
Δ 90°-00'-00"

PAY LIMITS - BRIDGE RAILING, HEAVY DUTY STEEL BEAM
TYPE 4 (WEATHERING STEEL) - 25' / FASCIA MOUNTED
STEEL TURNING SEE STANDARD SB-R7-90

BRIDGE APPROACH RAIL SCHEDULE I (TYP AT EACH APPROACH)
SEE STANDARD SHEET SB-R6-92



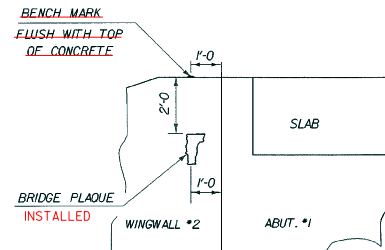
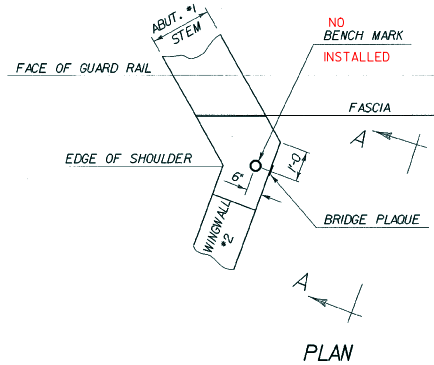
ELEVATION

SCALE 1" = 10'-0"

STATE OF VERMONT AGENCY OF TRANSPORTATION	
Town of STANNARD	Bridge No. 6
Highway No. TH #1	Log Sta. Surv. Sta. 49+45
PLAN AND ELEVATION	
TH #1 OVER STANNARD BROOK	
Designed By K. CLAIRMONT	Drawn By K. CLAIRMONT
Checked By C. P. WILLIAMS	Date 9/92
Bridge Design Supervisor	Date 9/92
PROJECT STANNARD	PROJECT NO. TH2 - 8919
L.G.C. Info.	
Bridge Sheet No.	Sheet 8 of 21

GENERAL NOTES

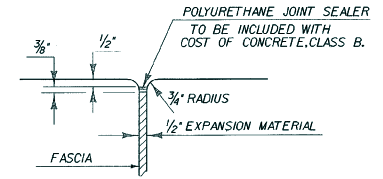
- ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, AGENCY OF TRANSPORTATION, "STANDARD SPECIFICATIONS FOR CONSTRUCTION", DATED 1990, AND ITS LATEST REVISIONS, AND THE AASHTO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES", DATED 1992, AND ITS LATEST REVISIONS.
- THE FOLLOWING WEIGHTS APPLY TO THESE PLANS FOR DESIGN PURPOSES:
SOIL: UNIT WEIGHT - 140 PCF
- IN-STREAM CONSTRUCTION SHALL BE CONDUCTED ONLY DURING THE PERIOD JUNE 1 THROUGH OCTOBER 1. SEE SPECIAL PROVISIONS.
- TOWN HIGHWAY NO. 1 SHALL BE CLOSED TO TRAFFIC DURING CONSTRUCTION. SEE SPECIAL PROVISIONS. THE CONTRACTOR SHALL NOTIFY THE TOWN OF STANNARD IN WRITING TWO WEEKS PRIOR TO CLOSING BRIDGE 6 OVER STANNARD BROOK TO TRAFFIC.
- ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL, AND ARE GIVEN AT 68 DEGREES F.
- TRAFFIC SHALL BE ALLOWED ON THE NEW BRIDGE DECK ONLY AFTER THE SPECIFIED CURE PERIOD HAS EXPIRED AND THE DESIGN CONCRETE STRENGTH HAS BEEN ATTAINED.
- MINIMUM COVER FOR REINFORCING STEEL SHALL BE TWO (2) INCHES ALONG BACK FACES OF WALLS AGAINST EARTH, ONE AND ONE HALF (1-1/2) INCHES AT BOTTOM OF SLABS, THREE (3) INCHES AT TOP OF SLABS, AND THREE (3) INCHES ELSEWHERE.
- ALL REINFORCING STEEL IN THE BRIDGE DECK SHALL BE EPOXY COATED AND PAID UNDER ITEM 507.17. WHEN EPOXY COATED REINFORCING IS CUT THE UNCOATED ENDS SHALL BE REPAIRED WITH MATERIALS AND PROCEDURES APPROVED BY THE COATING MANUFACTURER. FLAME CUTTING OF EPOXY COATED REINFORCING WILL NOT BE PERMITTED.
- REINFORCING PLACEMENT TOLERANCES SHALL BE:
SPACING +/- 1"
CLEARANCE +/- 1/4"
- ALL CONCRETE SHALL BE "CONCRETE CLASS B".
- ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1" X 1".
- JOINTS AND SCORE MARKS IN CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- THE KEY IN CONCRETE CONSTRUCTION JOINTS SHALL BE CONTINUOUS FOR THE FULL LENGTH OF THE JOINT. ANY UPWARD KEY SHALL BE PLACED INTEGRALLY WITH CONCRETE BELOW IT.
- WATER REPELLENT SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES EXCEPT THE UNDERSIDE OF THE DECK BETWEEN DRIP NOTCHES.
- AT LEAST 10 CY OF 3' TO 5' DIAMETER BOULDERS SHALL BE PLACED IN THE STREAM CHANNEL A MINIMUM OF 20' DOWN STREAM IN A LOCATION RECOMMENDED BY THE FISHERIES BIOLOGIST, STREAM ALTERATION ENGINEER, AND THE RESIDENT ENGINEER. THE BOULDERS SHALL BE PAID FOR AS STONE FILL TYPE IV.
- ALL ON PROJECT SIGNS AND BARRICADES, AS REQUIRED BY THE ENGINEER, WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE SUBSIDIARY TO MOBILIZATION. ALL OFF PROJECT SIGNING WILL BE THE RESPONSIBILITY OF THE TOWN OF STANNARD.
- ITEM 529.15 "REMOVAL OF STRUCTURE" SHALL BE USED TO REMOVE THE EXISTING STRUCTURE INCLUDING ANY PORTIONS OF THE SUBSTRUCTURE NOT REMOVED UNDER THE ITEMS "COFFERDAM" OR "UNCLASSIFIED CHANNEL EXCAVATION".
- ITEM 525.44 "BRIDGE RAILING - HEAVY DUTY STEEL BEAM / FASCIA MOUNTED / STEEL TUBING" SHALL BE FABRICATED AND SUPPLIED PER STANDARD SB-R7-90 EXCEPT AS FOLLOWS:
 - HEAVY DUTY STEEL BEAM RAIL SHALL BE AASHTO M180, CLASS B - TYPE 4.
 - THE POSTS AND SPECIAL WASHERS SHALL BE AASHTO M222 / M222M STEEL.
 - STRUCTURAL STEEL TUBING SHALL BE ASTM A847.
 - BOLTS SHALL BE AASHTO M164 TYPE III.
 - THE BRIDGE RAILING AND RELATED HARDWARE SHALL NOT BE GALVANIZED, WITH THE ONLY EXCEPTION TO THAT BEING THE ANCHOR BOLTS AND ANCHOR BOLT NUTS WHICH WILL BE GALVANIZED IN ACCORDANCE WITH AASHTO M232.
- THE STONE FILL TYPE IV SHALL BE PLACED IN FRONT OF THE ABUTMENTS BEFORE THE SLAB IS POURED.
- THE DECK SHALL BE GIVEN A BROOM FINISH NORMAL TO CENTER LINE OF BRIDGE.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SILTATION OR POLLUTION, ESPECIALLY THE DISCHARGE OF RAW CONCRETE, INTO THE STANNARD BROOK AS DIRECTED BY THE RESIDENT ENGINEER AND THE STANDARD SPECIFICATION SECTION 105.
- A PRECONSTRUCTION CONFERENCE SHALL BE HELD PRIOR TO ANY WORK BEING DONE. AT THAT TIME THE CONTRACTOR SHALL SUBMIT AN EROSION / SEDIMENT CONTROL PLAN WITH A SCHEDULE OF EVENTS. THIS PLAN SHALL BE SITE SPECIFIC.



WORK NOT PERFORMED
DUE TO EXISTING BOULDERS IN STREAM
AS PER ORDER OR 5-0002 ISSUED
SY CHRISTOPHER BRUNELLE, E.J.
STREAM ALTERATION ENGINEER

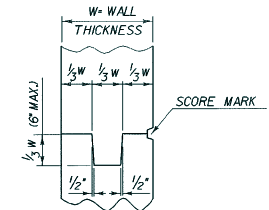
LOCATE BENCH MARK AND BRIDGE PLAQUE

THE BENCH MARK AND BRIDGE PLAQUE WILL BE SUPPLIED BY THE AGENCY OF TRANSPORTATION AND SHALL BE INSTALLED BY THE CONTRACTOR AT ABUTMENT #1 ON THE RIGHT SIDE AS SHOWN OR AS DIRECTED BY THE ENGINEER.

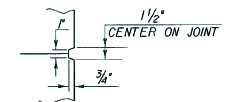


JOINT BETWEEN FASCIA AND ABUTMENT

SCALE: 1" = 1'



TYPICAL CONCRETE CONSTRUCTION JOINT



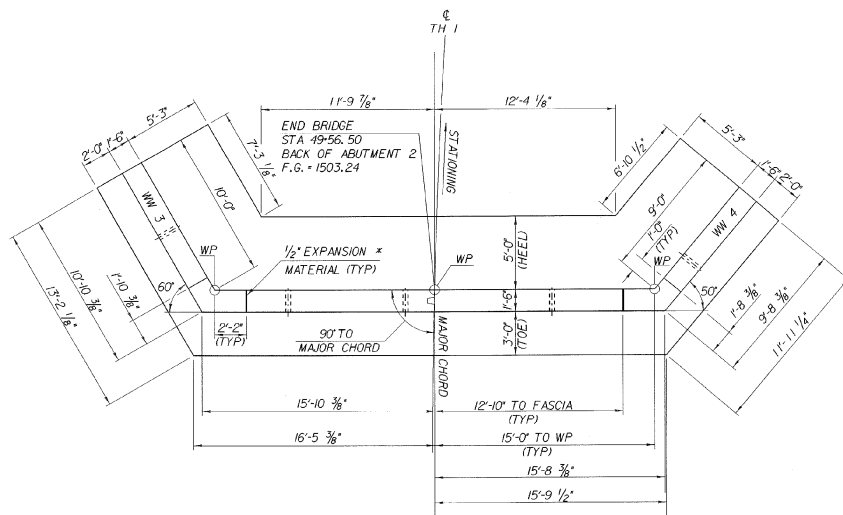
SCORE MARK DETAIL

STATE OF VERMONT AGENCY OF TRANSPORTATION			
Town Of	STANNARD	Bridge No.	6
Highway No.	TH 1	Log Sta.	49+45.00
TH 1 OVER STANNARD BROOK			
GENERAL NOTES			
Designed By	B. DONALD	Drawn By	K.M. HIGGINS
Checked By	Date	Bridge Design Supervisor	Date
W.B. SYMONDS	7/97	C.P. WILLIAMS	7/97
PROJECT		PROJECT NO.	
STANNARD		TH2-89/9	
L.G.C. Info.		s/jd/mnl/1	
Bridge Sheet No.		Sheet 9 of 21	

PLOTTED 07-MAR-2001

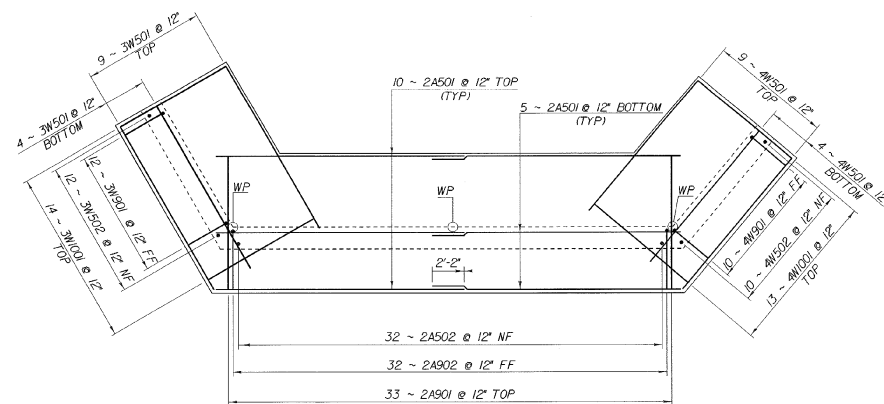
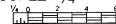
KRM II-21-01

PLOTTED 07-MAR-2002



ABUTMENT NO. 2 PLAN

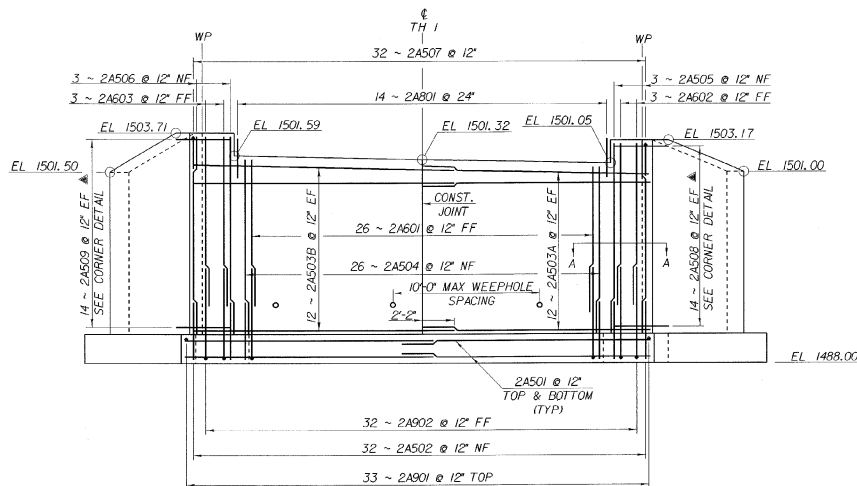
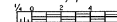
SCALE 1/4" = 1'-0"



FOOTING REINFORCING PLAN

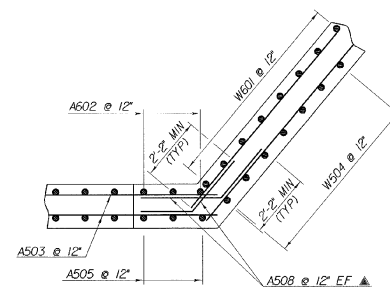
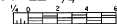
ABUTMENT NO. 2

SCALE 1/4" = 1'-0"



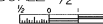
ABUTMENT NO. 2 ELEVATION

SCALE 1/4" = 1'-0"



SECTION A-A
SIMILAR ALL CORNERS

SCALE 1/2" = 1'-0"



NOTES:

▲ - CUT TO FIT IN FIELD

NF - NEAR FACE

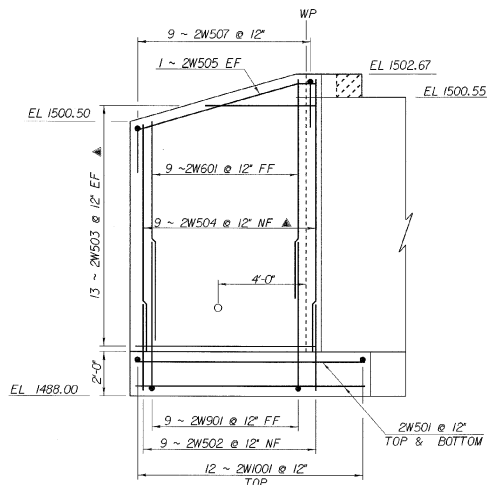
FF - FAR FACE

EF - EACH FACE

x - PAYMENT TO BE INCLUDED IN UNIT PRICE FOR CONCRETE CLASS B

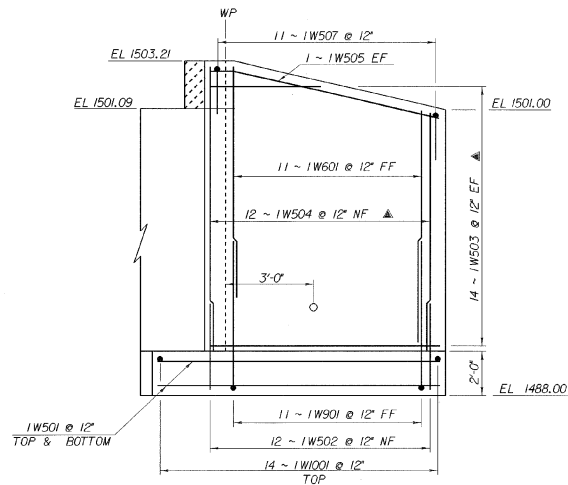
STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town of	STANNARD	Bridge No.	6
Highway No.	TH 1	Log Sta.	49+45.00
TH 1 OVER STANNARD BROOK			
ABUTMENT NO. 2 DETAILS			
Designed By	B. DONALD	Drawn By	K.W. HIGINS
Checked By	W.B. SYMONS	Bridge Design Supervisor	C.P. WILLIAMS
Date	7/97	Date	7/97
PROJECT	STANNARD	PROJECT NO.	TH2-8919
I.G.C. Info.		W:\88\JON\Structures\J04ab.dgn	
Bridge Sheet No.		Sheet 12 of 21	



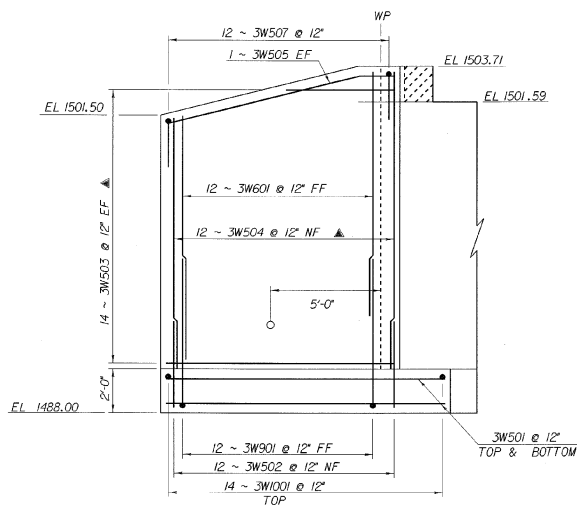
WINGWALL NO. 2 ELEVATION

SCALE $\frac{3}{8}" = 1'-0"$



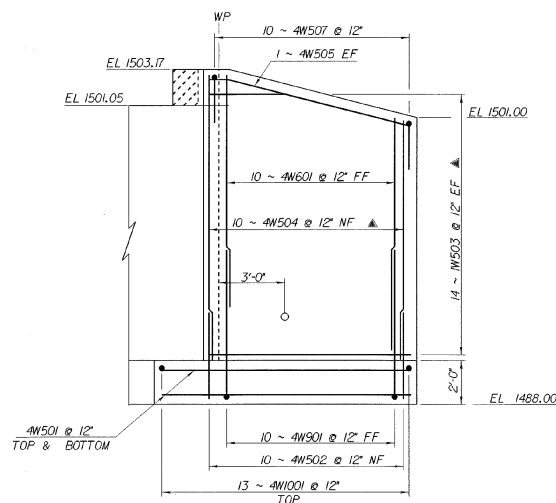
WINGWALL NO. 1 ELEVATION

SCALE $\frac{3}{8}" = 1'-0"$



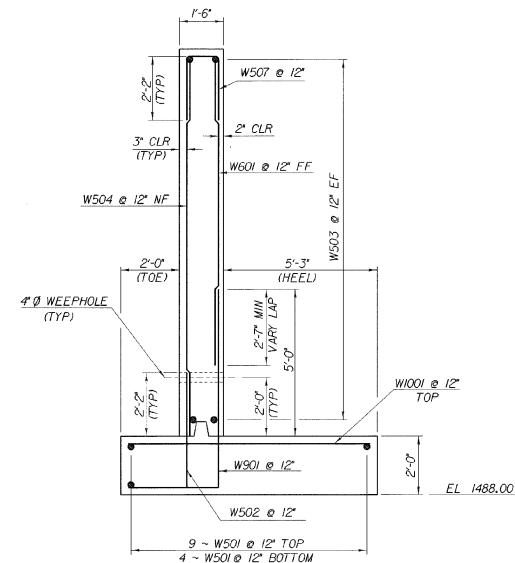
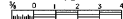
WINGWALL NO. 3 ELEVATION

SCALE $\frac{3}{8}" = 1'-0"$



WINGWALL NO. 4 ELEVATION

SCALE $\frac{3}{8}" = 1'-0"$



WINGWALL TYPICAL

SCALE $\frac{1}{2}" = 1'-0"$



NOTES:

- ▲ - CUT TO FIT IN FIELD
- NF - NEAR FACE
- FF - FAR FACE
- EF - EACH FACE

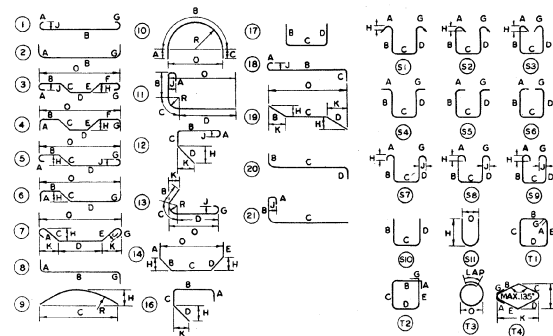
STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of	STANNARD	Bridge No.	6
Highway No.	TH 1	Log Sta.	49-45.00
TH 1 OVER STANNARD BROOK			
WINGWALL DETAILS			
Designed By	B. DONALD	Drawn By	K.M. HIGGINS
Checked By	W.B. SYMONDS	Bridge Design Supervisor	C.P. WILLIAMS
PROJECT	STANNARD	PROJECT NO.	TH2-8919
L.G.C. Info.	MNH8104-Structures/104bldg	s/104bldg	
Bridge Sheet No.		Sheet	13 of 21

[illegible]

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

TYPICAL BAR BENDS



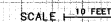
NOTES

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT" AASHTO M 31 (ASTM A 615-81).
2. FOR TYPICAL BENDING DETAILS, RECOMMENDED MIN 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 "W" AND "G" ON STANDARD 180° AND 135° HOOKS.
5. "L" 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 "W" MUST BE SHOWN

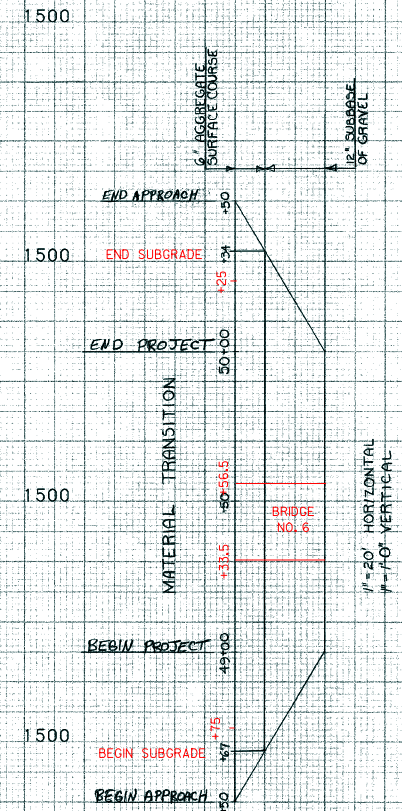
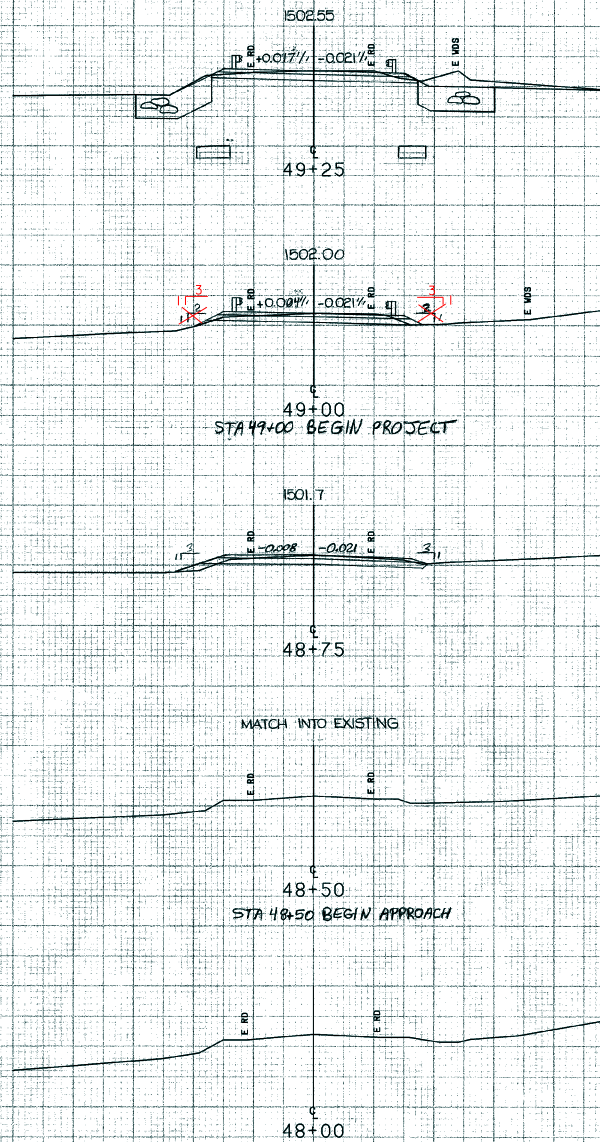
▲ DENOTES BARS TO BE CUT IN FIELD.
* DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.
△ DENOTES TWO EXTRA BARS ADDED FOR TESTING PURPOSES

REV NO.	MADE BY	DATE	DESCRIPTION

STATE OF VERMONT AGENCY OF TRANSPORTATION	
TOWN OF	<i>STANNARD</i>
HIGHWAY NO.	<i>TH 1</i>
<i>TH 1 OVER STANNARD BROOK</i> REINFORCING STEEL SCHEDULE	
DESIGNED BY	<i>B. DONALD</i>
CHECKED BY	<i>B. DONALD</i>
PROJECT	<i>W. SYMONDS</i>
DATE	<i>7/1971</i>
DRAWN BY	<i>C.P. WILLIAMS</i>
DATE	<i>7/1971</i>
PROJECT NO.	<i>TH2-8919</i>
BRIDGE SHEET NO.	<i>14</i>
SHEET	<i>OF 21</i>

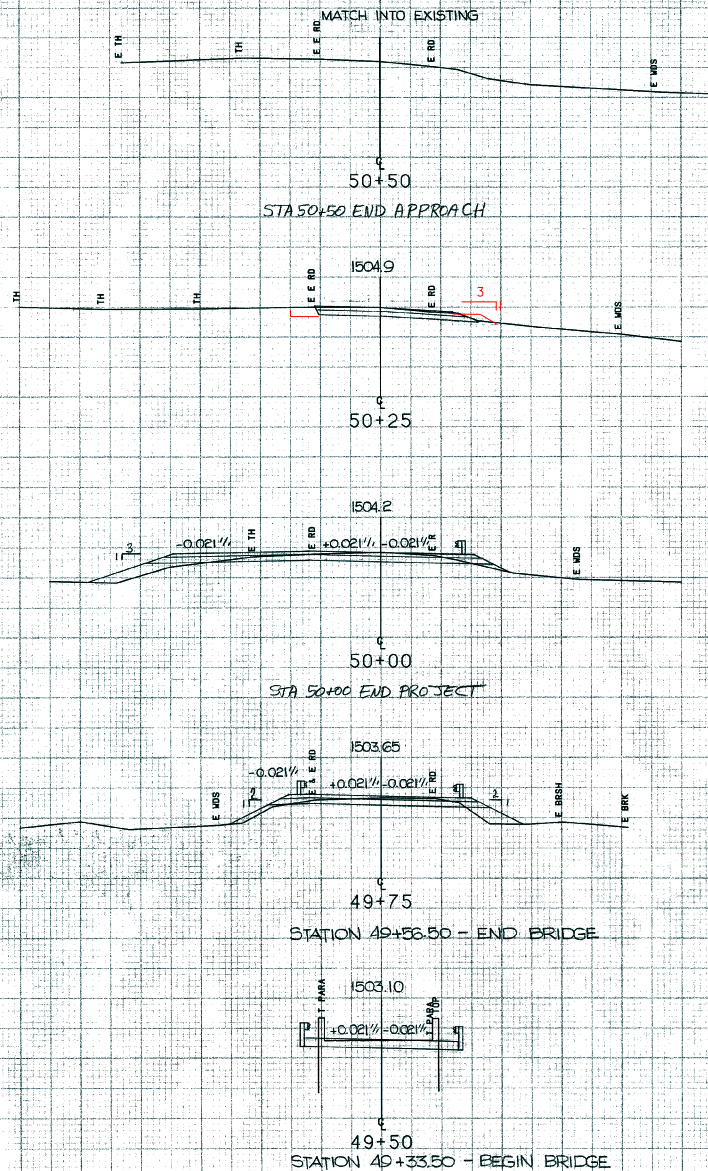


FROM STA.	46+00	TO STA.	47+50
PROJECT NAME	STANNARD MI		
NO.	TH28919	PLOTTED 04/10/89	
SURVEYED BY	FLANDERS	03/89	0211
SHEET	15 OF 21	SHEETS	



FROM STA.	48+00	TO STA.	49+25
PROJECT NAME	STANNARD MI		
NO.	TH28919		
SURVEYED BY	FLANDERS	PLOTTED	04/10/89
SHEET 16 OF 21		SHEETS	03/89 0211

SCALE 1" = 10 FEET



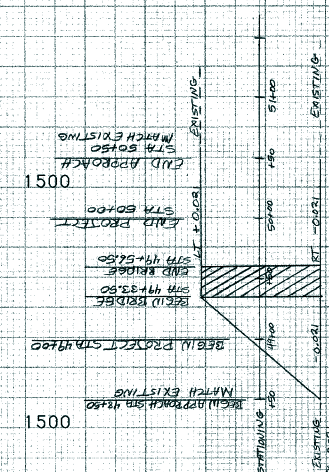
1500

1500

1500

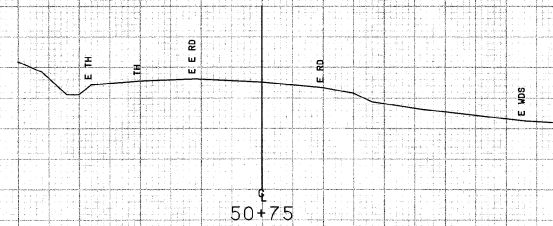
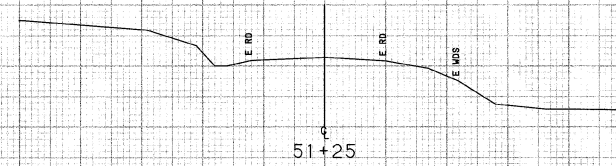
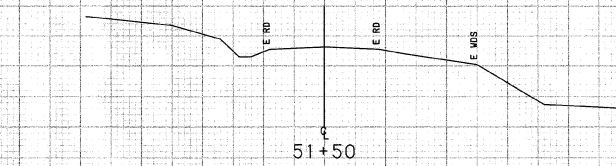
1500

1500



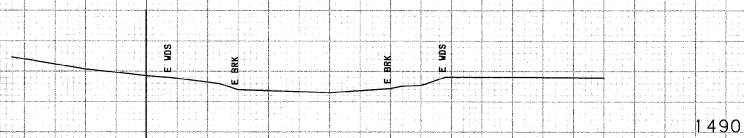
FROM STA.	49+50	TO STA.	50+50
PROJECT NAME	STANNARD MI	NO.	TH28919
SURVEYED BY	FLANDERS	PLOTTED	04/10/89
SHEET	17 OF 21	DATE	03/89 0211
		SHEETS	

SCALE 1" = 10 FEET

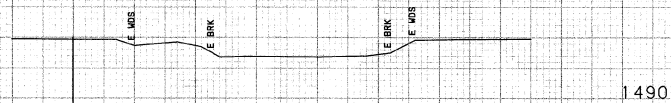


FROM STA.	50+75	TO STA.	51+50
PROJECT NAME	STANNARD MI		
NO.	TH2891G		
SURVEYED BY	FLANDERS		
SHEET	18 OF 21		
		PLOTTED	04/10/89
			03/89 0211
		SHEETS	

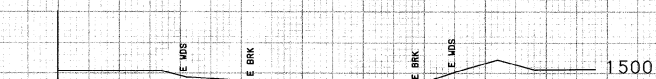
SCALE 1" = 10 FEET



499+50



499+25



499+00

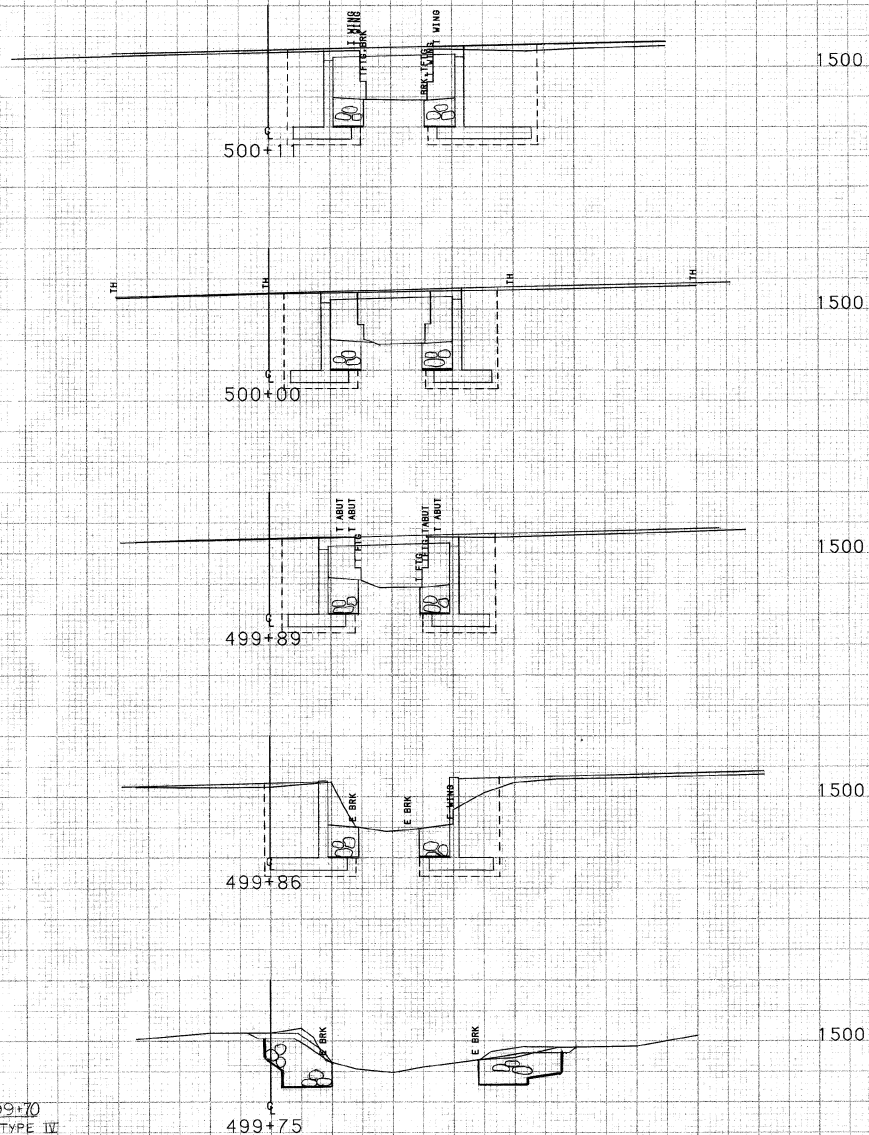


498+75

SCALE 1" = 10 FEET

FROM STA.	498+75	TO STA.	499+50
PROJECT NAME	STANNARD CHAN		
NO.	TH2891G		
SURVEYED BY	FLANDERS	PLOTTED	04/10/89
SHEET 19	OF 21	SHEETS	03/89 0211

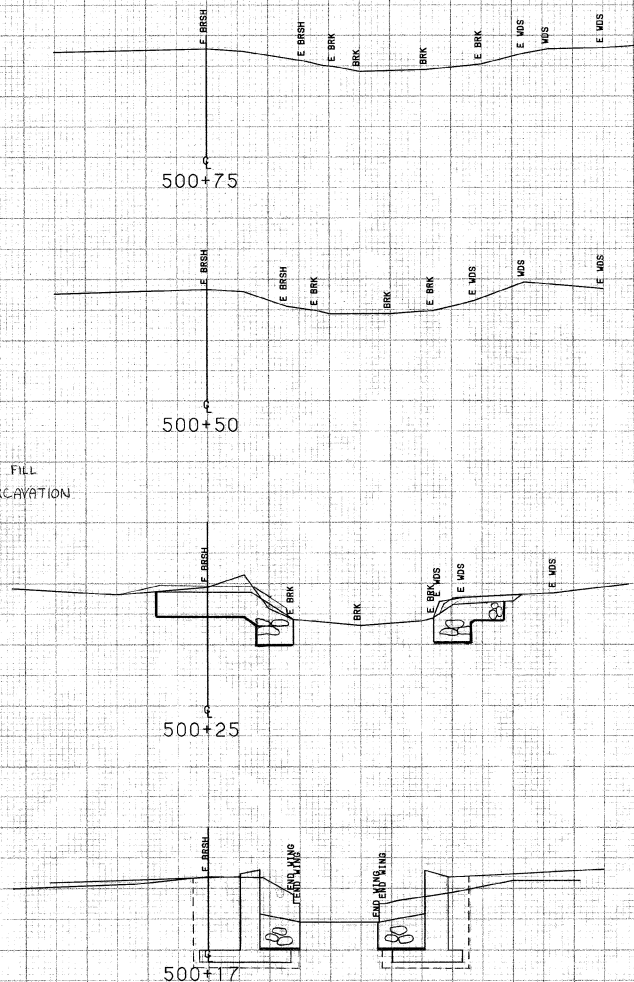
STATION 499+70
 BEGIN STONE FILL TYPE IV
 BEGIN GEOTEXTILE UNDER STONE FILL
 BEGIN GROBBING MATERIAL
 BEGIN UNCLASSIFIED CHANNEL EXCAVATION



SCALE 1" = 10 FEET

FROM STA.	499+75	TO STA.	500+11
PROJECT NAME	STANNARD CHAN		
NO.	TH28919	PLOTTED	04/10/89
SURVEYED BY	FLANDERS	03/89	0211
SHEET	20	OF 21	SHEETS

STATION 500+30
 END STONE FILL TYPE III
 END GEOTEXTILE UNDER STONE FILL
 END GRUBBING MATERIAL
 END UNCLASSIFIED CHANNEL EXCAVATION



1490

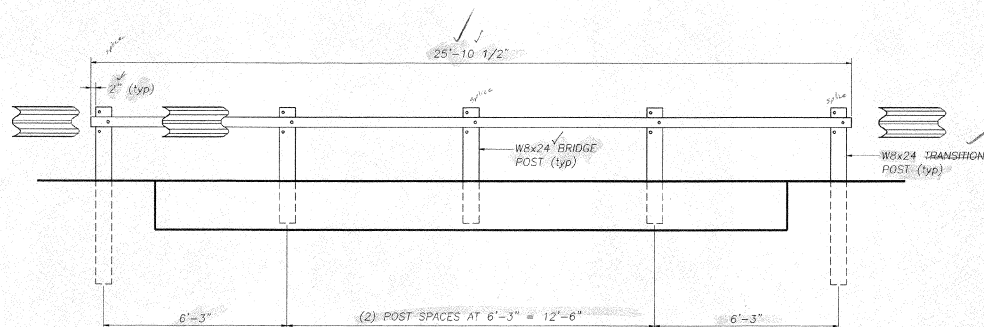
1490

1490

1500

FROM STA.	500+17	TO STA.	500+75
PROJECT NAME	STANNARD CHAN		
NO.	TH2891S		
SURVEYED BY	FLANDERS		
SHEET	21	OF	21 SHEETS
			03/89 0211

SCALE 1" = 10 FEET



Transition Posts omitted by designer
This is Post #1 (T.V.F.)

Bridge Deck
Don't scale

ELEVATION — NORTH SIDE
FACING FROM CENTERLINE OF ROADWAY
SOUTH ELEVATION SIMILAR

TOTAL PAY LIMIT ITEM 525.44 (BRIDGE RAILING, HDSB TYPE IV) = 50' L.F.

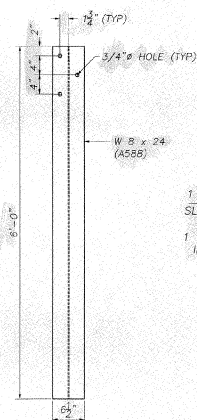
NOTE: STEEL TUBE 'BLOCKOUTS' & PORTIONS OF HDSB RAIL REMOVED FROM THIS VIEW FOR CLARITY



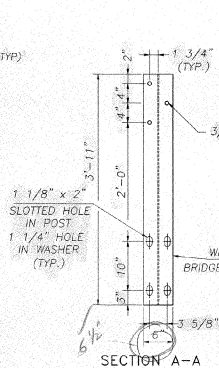
HIGHWAY SAFETY CORP.	
GLASTONBURY, CT	
DESIGNED BY <u>P. Radice</u> CHECKED <u>[Signature]</u> DATE <u>7/8/1/01</u> SCALE <u>1/2" = 12'</u> FILE REFERENCE NO. <u>1263</u>	SHEET NO. <u>0</u> SHEET TOTAL <u>1 of 2</u>
ITEM 525.44 BRIDGE RAILING HDSB TYPE IV FASCIA MOUNTED STEEL TUBING WITHOUT CURB TOWN OF STANNARD, VERMONT TH1 OVER STANNARD BROOK - BRIDGE NO. 6 PROJECT NO. TH2-8919	
GENERAL CONTRACTOR <u>R.C. CONTRACTORS INC.</u> SUB CONTRACTOR <u>F.R. LAFAYETTE, INC.</u>	

RECEIVED
CND BY FEZ OK'D BY [Signature]
AUG 10 2001
RESUBMIT APPROVED As Noted
BY [Signature] DATE 8/21/01

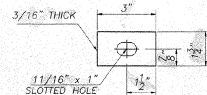
REVISIONS		
No.	Remarks	Date
0	Initial submittal	8/1/01



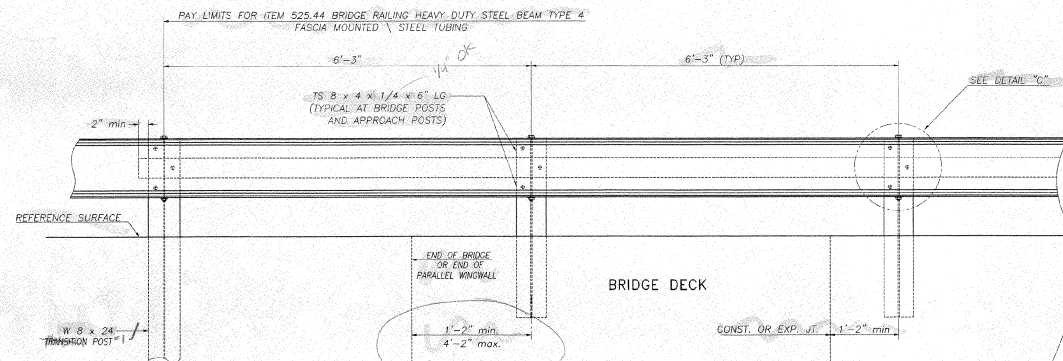
TRANSITION POST
W8x24 (A588)



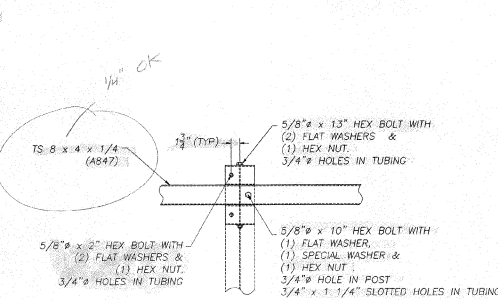
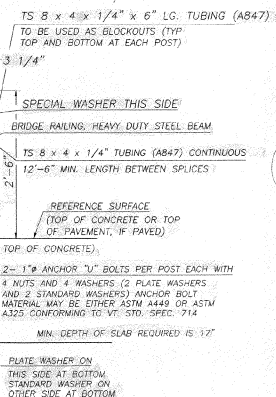
FASCIA MOUNTED POST WITHOUT CURB
W8x24 (A588)



SPECIAL WASHER-DETAIL



RAILING ELEVATION VIEW
(SHOWN LOOKING FROM ϕ WITHOUT CURB)



DETAIL "C"
STEEL BEAM GUARD RAIL NOT SHOWN

PLATE WASHER-DETAIL
PROVIDED BY OTHERS - SHOWN FOR REFERENCE ONLY

GENERAL ERECTION NOTES

- Heavy duty steel beam guard rail shall conform to VT. specification 732. AASHTO M180 B4.
- Structural steel tubing shall conform to ASTM A847.
- Anchor bolts, nuts and washers shall be galvanized in accordance with AASHTO M 232 and shall conform to VT. specification 714 unless otherwise noted.
- Bridge rail posts, special washers, splice bars and plate washers shall conform to AASHTO M 222 // M 222M (ASTM A588) and shall not be galvanized.
- All bolts and related hardware shall conform to AASHTO M 164 type 3 bolts.
- See standard drawing G-1 and G-1d for additional details concerning guard rail.
- See standard drawing SB-R6-B2 for approach rail details and for information relative to schedule I and schedule II. All approach rail shall be heavy duty steel beam guard rail. Also see Std. Dwg. SB-R6-B2 for handrail details (except end details) if hand rail is required.
- All posts shall be set normal to grade.
- Splices for the steel beam guard rail shall lap in the direction of traffic.
- See Standard drawing G-1 for details of delineators. A delineator shall be located at every fifth post. Payment shall be subsidiary to other items.
- A railing joint splice shall be provided at each superstructure expansion joint.
- All field cut or drilled areas shall be coated with zinc rich paint.
- For radii less than 950 feet, the steel tubing shall be shop bent to fit the applicable curve.
- The drop-weight tear test in section 732 shall not apply to the structural tubing on this standard.

BILL OF MATERIAL			
Mk.	Qty.	Description	Material
6		FASCIA MOUNTED POST W8x24 x 3'-11"	A588
4		TRANSITION POST W8x24 x 6'-0"	A588
20		TUBE BLOCKOUTS TS 8x4x1/4 x 6'-0" LG	A847
1		RAIL TUBE TS 8x4x1/4 x 25'-10 1/2" OAL (LEFT)	A847
1		RAIL TUBE TS 8x4x1/4 x 25'-10 1/2" OAL (RIGHT)	A847
4		10 GA HE858 RAIL 12'-6" / 6'-3"	M180 B4
10		5/8" x 13" HEX BOLT w/ 3 FLAT WASHER & HEX NUT	A325 TYPE 3
10		5/8" x 10" HEX BOLT w/ FLAT WASHER & HEX NUT	A325 TYPE 3
20		5/8" x 2" HEX BOLT w/ HEX NUT & 2 FLAT WASHERS	A325 TYPE 3
10		RECTANGULAR WASHER 3/16" x 1-3/4" x 3"	A588
32		5/8" x 1.25" SPRUCE BOLT	CORVEN
32		5/8" DIA. RECESSED NUT	CORVEN
*		12. U-SHAPED ANCHOR BOLT - 1" DIA (GALV)	A492
*		24 ANCHOR PLATE WASHER - 1/4" x 5" x 2" (GALV)	A572 GR 50
*		24 1" HEX NUT (GALV)	A194 GR 2H
*		24 1" ROUND WASHER (SAE) (GALV)	F436

* ITEMS MARKED "*" ARE NOT PROVIDED BY HIGHWAY SAFETY CORPORATION - SHOWN FOR REFERENCE ONLY

RECEIVED
DWD BY FILE DWD BY FILE
AUG 10 2001
RESUBMIT APPROVED As Noted
BY CPW DATE 8/21/01

HIGHWAY SAFETY CORP.
GLASTONBURY, CT

ITEM 525.44 BRIDGE RAILING HDSB TYPE IV
FASCIA MOUNTED STEEL TUBING WITHOUT CURB
TOWN OF STANNARD, VERMONT
TH1 OVER STANNARD BROOK - BRIDGE NO. 6
PROJECT NO. TH2-8919

GENERAL CONTRACTOR
R.C. CONTRACTORS INC.

SUB CONTRACTOR
F.R. LAFAYETTE, INC.

DESIGNED BY P. Rodice
CHECKED BY FILE
DATE 8/1/01
SCALE NONE
JOB REFERENCE NO. 1263
REV. D. REVISION 0
SHEET NO. 2 of 2

REVISIONS		
No.	Remarks	Date
0	Initial submittal	8/21/01