

INDEX OF SHEETS

1. TITLE SHEET
2. P.I. SHEET
3. QUANTITY SHEET
4. R.O.W. SHEET
5. PLAN SHEET
6. PROFILE SHEET
7. BORING SHEET
8. PLAN AND ELEVATION SHEET
9. GENERAL NOTES AND DETAILS
10. SLAB DETAILS
11. ABUTMENT #1 DETAILS
12. ABUTMENT #2 DETAILS
13. WINGWALL DETAILS
14. REINFORCING STEEL SCHEDULE
- 15-18. TH #1 CROSS SECTIONS
- 19-21. CHANNEL CROSS SECTIONS

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

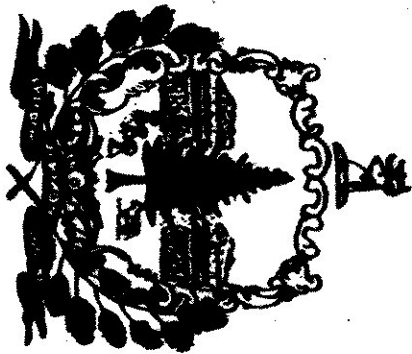
RECORD PLANS

CONTRACTOR: R.C. CONTRACTORS INC. - GLOVER VT
RESIDENT ENGINEER: M. MCCLURE
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: *Walter M. McClure* 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 microfilm in Central Files.

CONVENTIONAL SIGNS	TRAFFIC DATA
COUNTY LINE	1901 ADT = 220
TOWN LINE	1901 DHV = 300
LIMITS OF ACCESS	2011 ADT = 200
POINT OF ACCESS	2011 DHV = 40
FENCE LINE	% T < 63
STONE WALL	% D = 63
TRAVELED WAY	V = 30 MPH
GUARD 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	

STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT
BRIDGE PROJECT

TOWN OF STANNARD
COUNTY OF CALEDONIA

ROUTE NO:TH1 (CL2) BRIDGE NO: 6

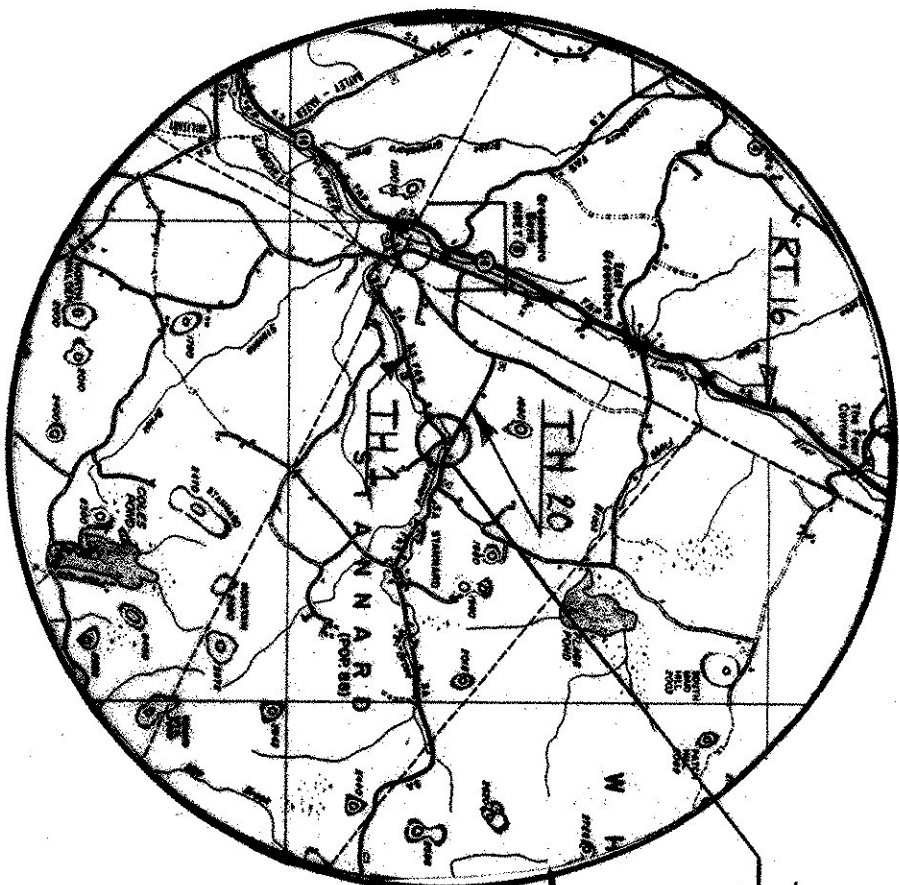
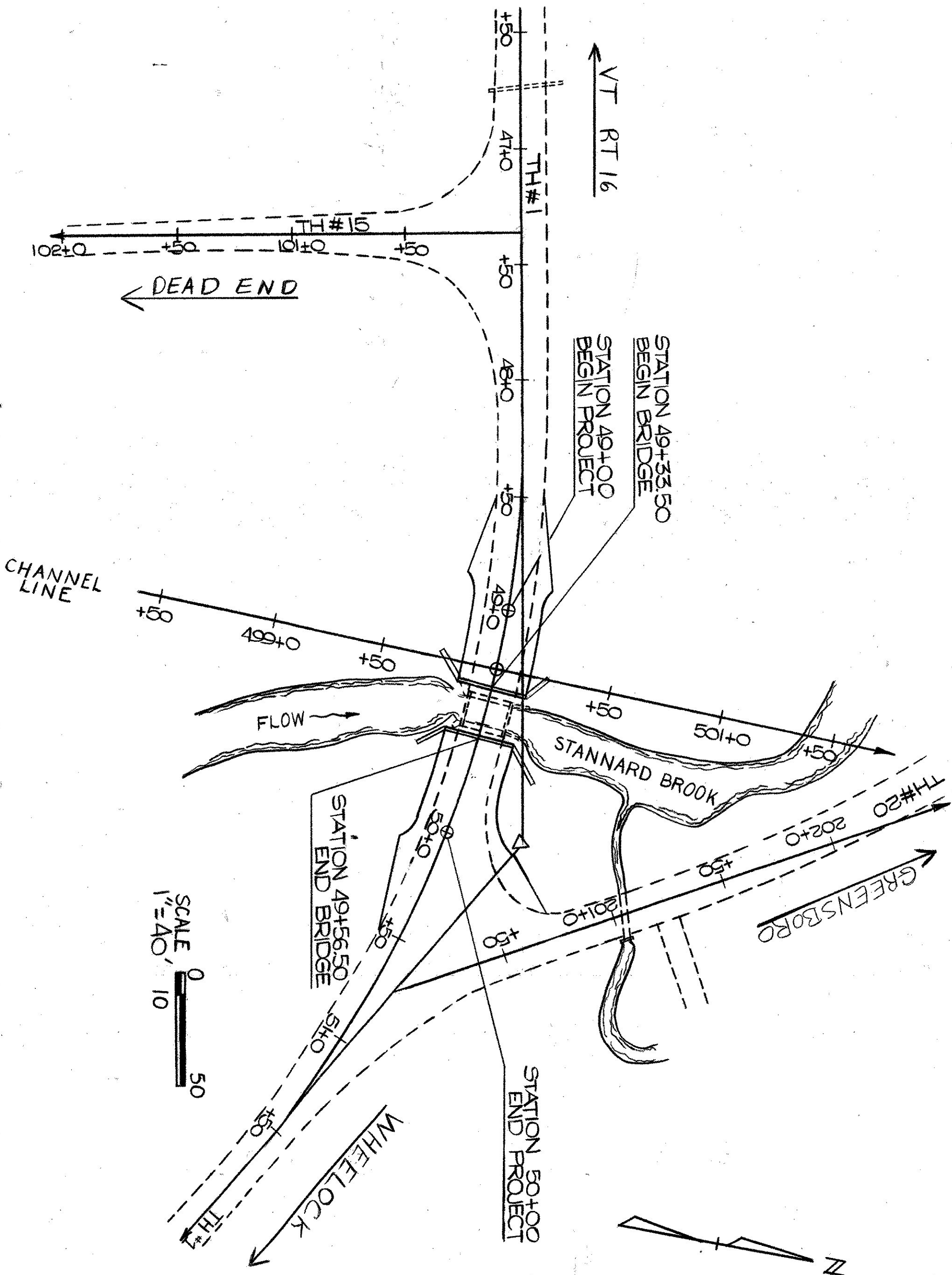
PROJECT LOCATION: BEGINNING AT A POINT APPROX 1.34 MILES NORTHEASTERLY FROM

THE WALDEN TOWN LINE AND PROCEEDING ALONG A NORTHEASTERLY

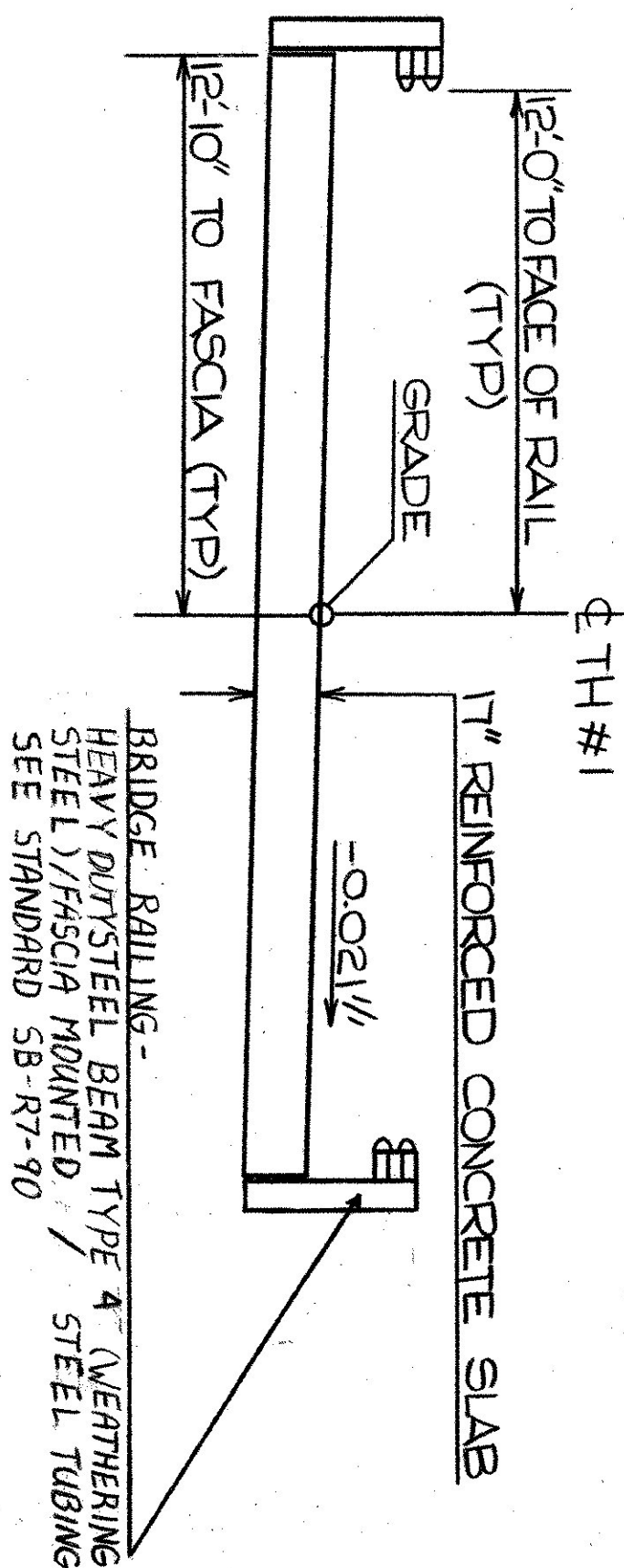
LINE FOR 0.010 MILES.

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

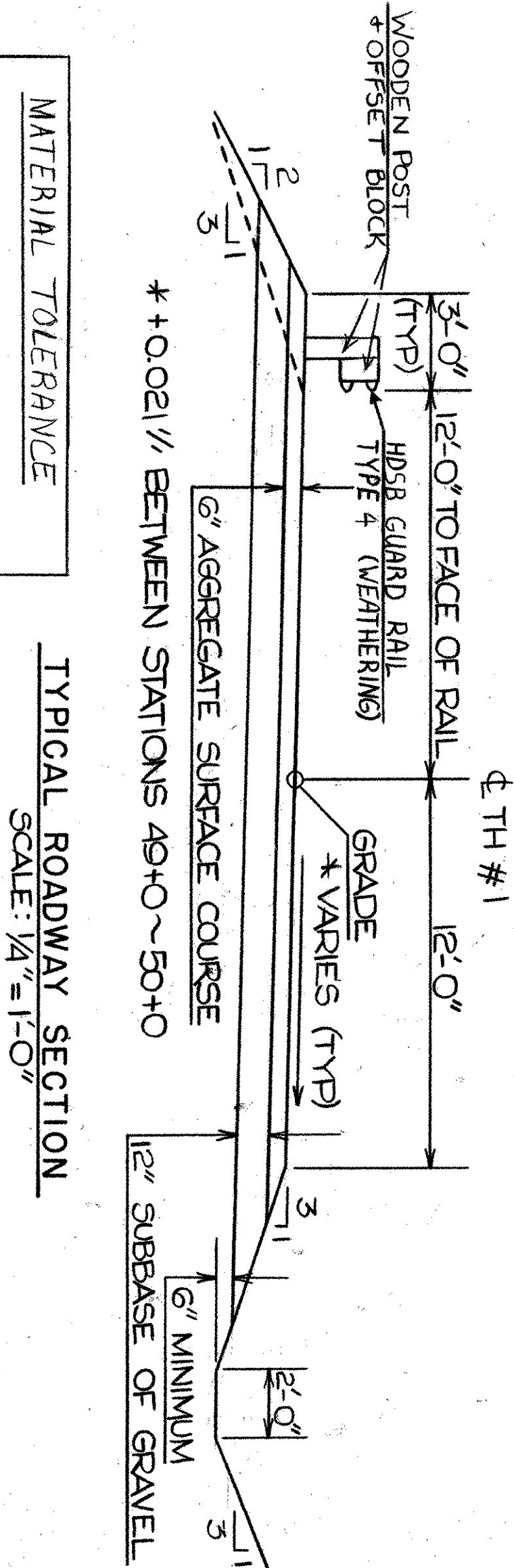
LENGTH OF STRUCTURE: 23.00 FEET
LENGTH OF ROADWAY: 77.00 FEET
LENGTH OF PROJECT: 100.00 FEET



LOCATION MAP
(TRACED FROM COUNTY MAP)



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



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

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

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.

APPROVED: <i>David J. [Signature]</i> DATE: 2/27/01 DIRECTOR OF ENGINEERING	PROJECT NO. STANNARD TH2-8919
SHEET 1 OF 21	SUBSHEETS

RURAL AREAS

NAME _____

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).

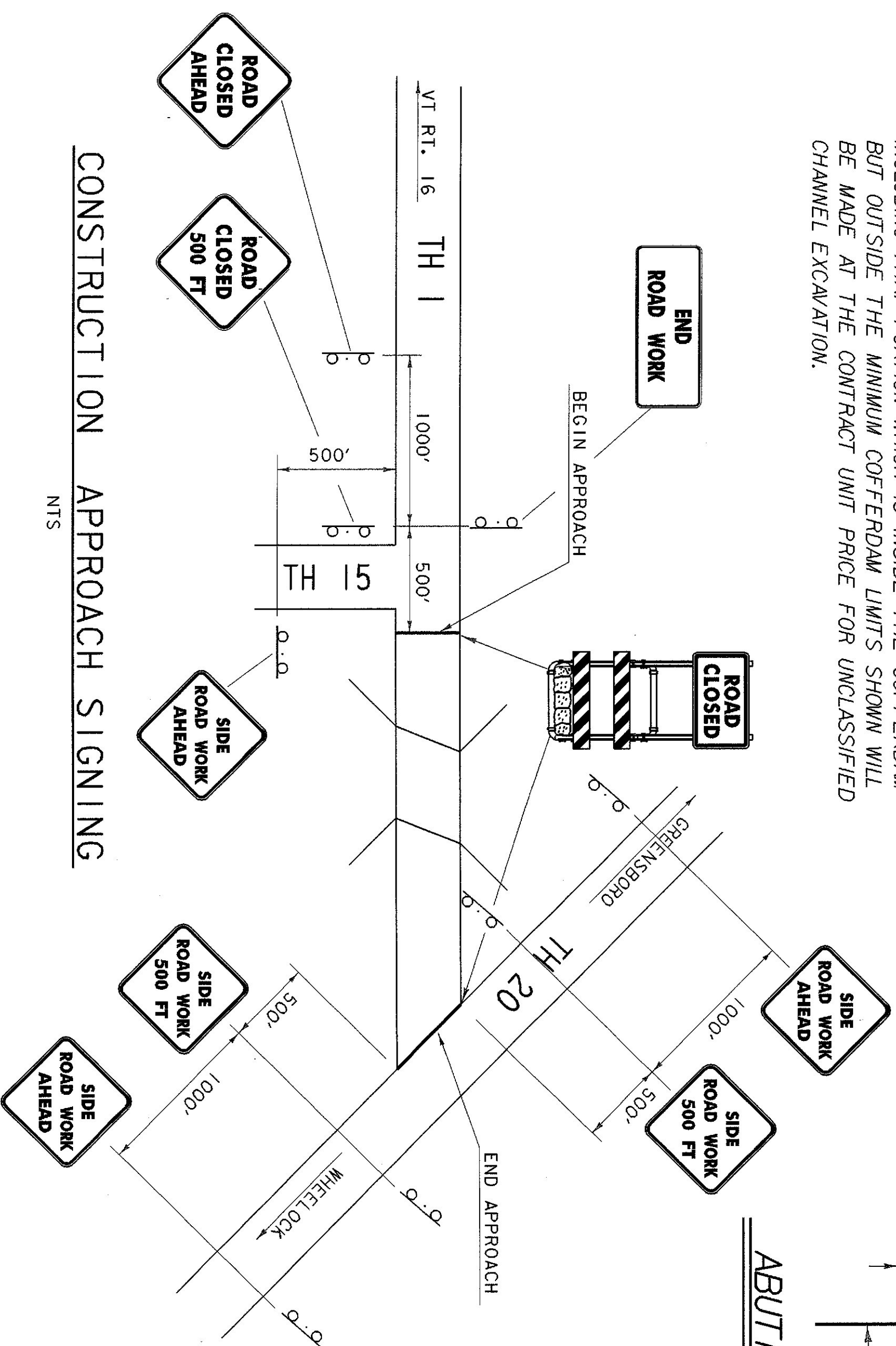
AGRICULTURAL LIMESTONE: TO BE APPLIED AT THE RATE OF 2 TONS/ACRE, OR AS DIRECTED BY THE ENGINEER.

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

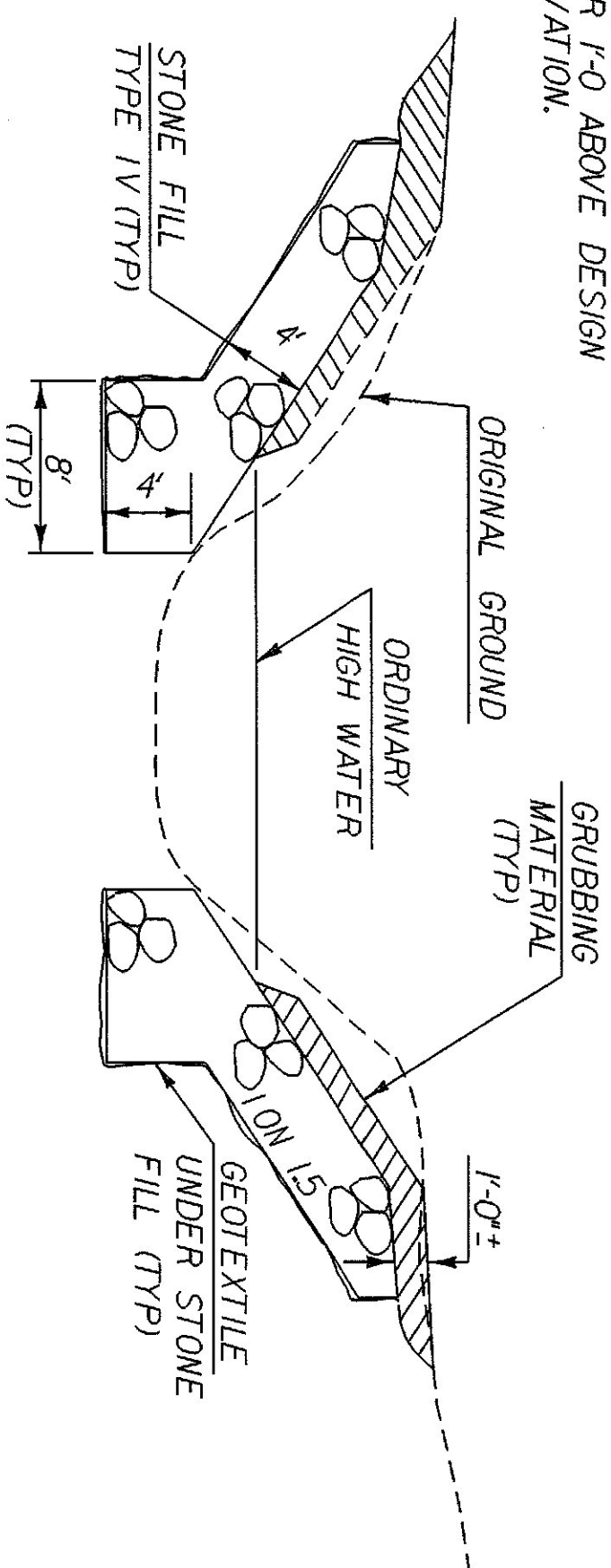
TOPSOIL: TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

NOTES

1. COFFERDAM LIMITS TO BE DETERMINED BY THE CONTRACTOR.
2. FOR PURPOSES OF ESTIMATING EARTHWORK QUANTITIES, THE LIMITS OF COFFERDAM HAVE BEEN ASSUMED TO BE 1'-0" OUTSIDE THE PERIMETER OF THE FOOTING.
3. ONE FOOT UNDERCUT AS DETERMINED NECESSARY BY THE RESIDENT ENGINEER.
4. 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.

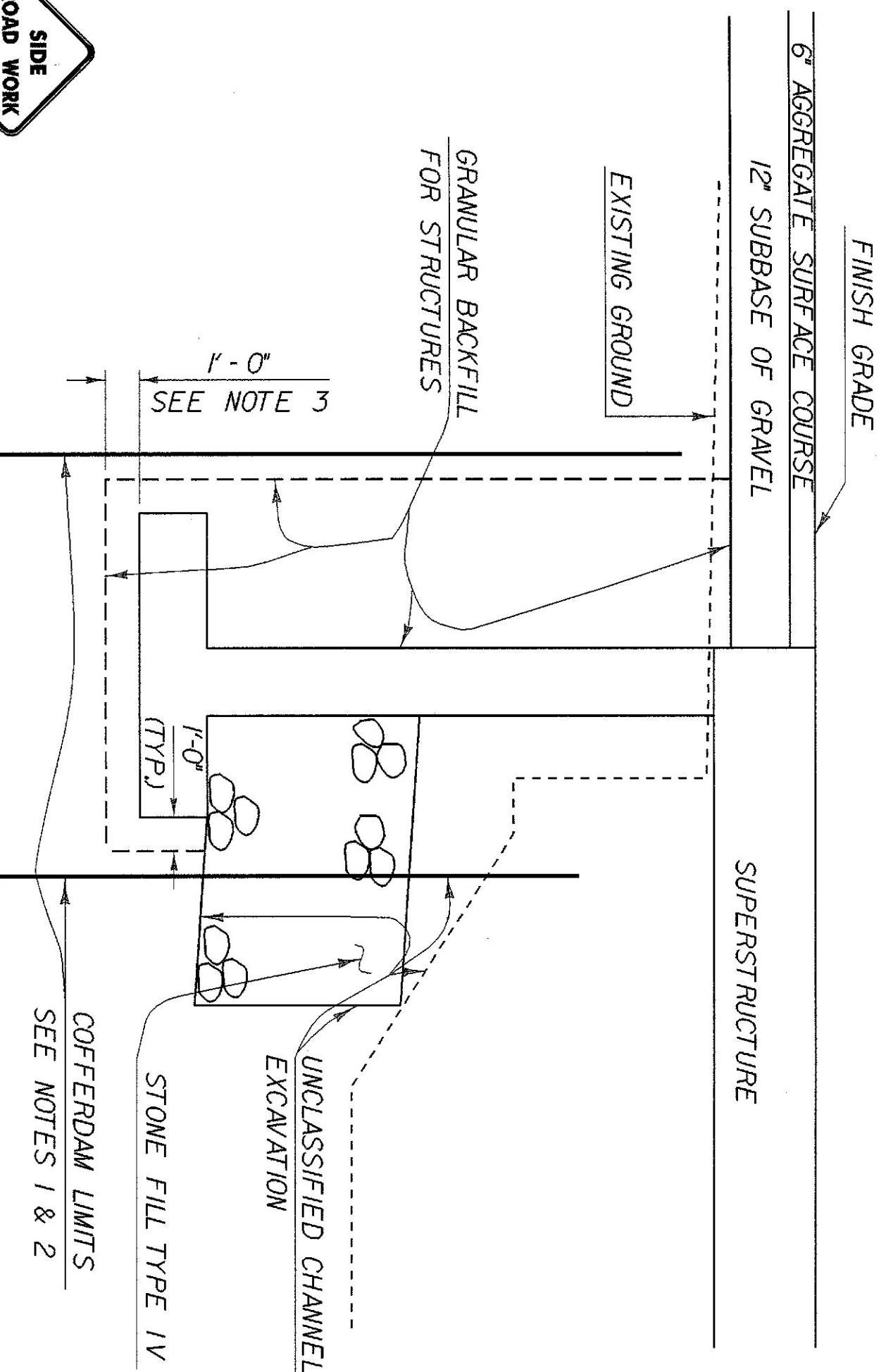


CONTINUE STONE FILL TO ORIGINAL
GROUND OR 1'-0" ABOVE DESIGN
FLOW ELEVATION.



TYPICAL CHANNEL SECTION

NTS



ABUTMENT EARTHWORK TYPICAL

NOT TO SCALE

	CONCRETE SLAB BRIDGE	OVERALL LENGTH	INVENTORY RATING
1. STRUCTURE TYPE			16
2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS	13.75'		
3. CLEAR SPAN LENGTH(S) NORMAL TO STREAM	11.50'		
4. WATERWAY AREA OF FILL OPENING (NORMAL TO STREAM)	~7.73 SQ. FT.	VERTICAL CLEARANCE ABOVE STREAMBED	7'
5. WATER SURFACE ELEVATION @ 0.25' 1897.0'		WATER SURFACE ELEVATION @ 0.25'	1898.6'
6. WATER SURFACE ELEVATION AT FLOOD OF RECORD UNKNOWN		ESTIMATED DISCHARGE	N/A
7. DOES ALL WATER PASS THROUGH EXISTING STRUCTURE? YES/IF NOT, AT WHAT FREQUENCY AND ELEVATION DOES RELIEF OCCUR? N/A			
8. TYPE OF SUBSTRUCTURE FOUNDATION MATERIAL	UNKNOWN		
9. DISPOSITION OF STRUCTURE	REMOVE		

NEW STRUCTURE

STRUCTURE GEOMETRY

1. STRUCTURE TYPE	CONCRETE SLAB BRIDGE	OVERALL LENGTH	23
2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS	21' - 6"		
3. VERTICAL CLEARANCE ABOVE STREAM/ED OR ROAD UNDER	7'		
4. CLEAR SPAN LENGTH(S) NORMAL TO STREAM	20'		
5. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM)	137 SQ. FT		
6. ARE PROVISIONS TO BE MADE FOR PUBLIC UTILITIES?	NO		

HYDRAULIC DATA:

1.	0.233	200 CFS	WATER ELEVATION	1496.7'	VELOCITY	10.7 FPS
		500 CFS	WATER ELEVATION	1497.8'	VELOCITY	11.3 FPS
	0.10	700 CFS	WATER ELEVATION	1498.4'	VELOCITY	12.1 FPS
	0.25	920 CFS	WATER ELEVATION	1499.0'	VELOCITY	13.6 FPS
	0.50	1150 CFS	WATER ELEVATION	1499.8'	VELOCITY	14.9 FPS
	1.00					
2.			WATER ELEVATION	1499.8'	VELOCITY	14.9 FPS
3.		4.6 SQ. MI.	WATER ELEVATION	1499.8'	VELOCITY	14.9 FPS
			CHARACTER OF TERRAIN	HILLS TO MOUNTAINS, MOSTLY FORESTED		
			ARE THERE OBSTRUCTIONS TO A PIER IN THE STREAM?	N/A		

- [illegible]

ALLOWABLE STRESSES

- | | | | | |
|---|----------------|-------------------------------|------------------|-----------------------|
| 1. DESIGN LIVE LOAD AASHTO | HS-25 | 4.0 KSI | ON LEDGE | N/A |
| 2. ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL | N/A | TYPE | N/A | N/A |
| 3. ALLOWABLE LOAD FOR PILING | N/A | TYPE | N/A | N/A |
| 4. ALLOWABLE STRESS FOR STRUCTURAL STEEL AASHTO | N/A | TENSION | 20 KSI | N/A |
| 5. ALLOWABLE STRESS FOR REINFORCING STEEL | GRADE 60 | COMPRESSION | 24 KSI | N/A |
| 6. ALLOWABLE STRESS FOR CONCRETE CLASS A | f _c | 4.0 KSI | | |
| | CLASS B | f _c | 3.5 KSI | |
| | | f _c | 1.4 KSI | |
| TRAFFIC MAINTENANCE: | | | | |
| 1. IS TRAFFIC TO BE MAINTAINED? | NO | IF YES, ON EXISTING STRUCTURE | N/A | ON TEMPORARY BRIDGE |
| 2. TEMPORARY BRIDGE REQUIREMENTS: | ONE OR TWO WAY | TRAFFIC CONTROL | SIGNALS REQUIRED | N/A |
| MINIMUM CLEAR SPAN | N/A | MINIMUM CLEAR HEIGHT | N/A | MINIMUM WATERWAY AREA |
| ARE SIDEWALKS REQUIRED? | N/A | IF SO, ON WHAT SIDE? | N/A | |

ADDITIONAL DESIGN CONSIDERATIONS

LOADING LEVELS (LOAD FACTOR) INVENTORY A=2, I7 POSTED INVENTORY A=1, 30 OPERATING	LOAD FACTOR LOAD RATING (TONS)						
	TRUCK						
	H	H5	352	6 AXLE	3A. STR.	4A. STR.	5A. SEMI
INVENTORY	27	49					
POSTED	40	73	89		49	52	88
INVENTORY		82	100	89	55	59	

$$\text{STRENGTH RF} = \frac{\phi M_N - 1.3 M_{DL}}{A \times M_{LL+1}}$$

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

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of	STANWARD	Bridge No.	6
Highway No.	T H, #1	Loc. Sta.	
		Surv. Sta.	49-45

REVISED		T H * / OVER STANWARD BROOK
NO.	DESCRIPTION	
	BY & DATE	

PRELIMINARY INFORMATION	
Designed By	K.S. CLAIRMONT
Drawn By	K.M. HIGGINS

Checked By	Date	Bridge Design Supervisor
R. DONALD	1/93	J.B. MCCARTHY Date 1/93

PROJECT	PROJECT NO.
CTAWNADN	742,0010

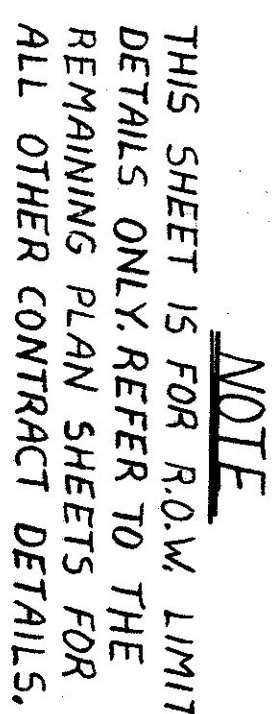
PLUTED 07-448-0001	CT MINUTUD	1172.039
	I.G.C. Info. #A88 104A Structures 104sidon	S104A.1
Bridge Sheet No.	Sheet 2 of 21	

EARTHWORK

BRIDGE QUANTITY SHEET

STATE OF VERMONT
AGENCY OF TRANSPORTATION
STRUCTURES DIVISION[illegible]

QUANTITY BREAKDOWN											
ITEM NO.	ITEM	UNIT	SUPER STRUCTURE	ABUTMENT 1	ABUTMENT 2	CHANNEL	ROADWAY	EROSION CONTROL	FULL E+C	TOTAL	FINAL
201.10	CLEARING AND GRUBBING (PLUS INDIVIDUAL STUMPS & TREES)	LS					+			-1	
203.15	COMMON EXCAVATION	CY					200-			-200	188
203.27	UNCLASSIFIED CHANNEL EXCAVATION	CY				20				20	18.9
204.20	TRENCH EXCAVATION OF EARTH	CY						10		10-	0
204.30	GRANULAR BACKFILL FOR STRUCTURES	CY		120	120					240	240
204.40	COFFERDAM, STA 49+34	LS		+						+	+
204.40	COFFERDAM, STA 49+56	LS			1					+	+
301.15	SUBBASE OF GRAVEL	CY					210	167.2	10 0	220	167.2
401.10	AGGREGATE SURFACE COURSE	CY					100			100-	104.2
501.25	CONCRETE CLASS B	CY	33-	61	63	66.27				157	162.4
507.15	REINFORCING STEEL	LB		8550-	8870-					17420	17768
507.17	EPOXY COATED REINFORCING STEEL	LB	4390-							4390	4643
514.10	WATER REPELLENT	GAL	6-	3	3					12	10
525.44	BRIDGE RAILING - HEAVY DUTY STEEL BEAM TYPE 4/FASCIA MOUNTED/ STEEL TUBING (TYPE IV)	LF	50							50-	50
529.15	REMOVAL OF STRUCTURE	EACH					+			+	+
608.25	ALL PURPOSE EXCAVATOR RENTAL, TYPE I (NABI)	HR						+		+	0
609.15	DUST AND ICE CONTROL WITH CALCIUM CHLORIDE	TON					+			+	0
613.10	STONE FILL, TYPE I	CY						10-		10-	0
613.13	STONE FILL, TYPE IV	CY				210				210-	210
621.21	GUARDRAIL - HEAVY DUTY STEEL BEAM TYPE 4 (WITH WOODEN POSITS)	LF					230			230	238
621.60	ANCHOR FOR STEEL BEAM RAIL	EACH					4			4	4
631.10	FIELD OFFICE - ENGINEERS	LS							+	+	+
631.16	TESTING EQUIPMENT - CONCRETE	LS							+	+	+
631.25	FIELD OFFICE TELEPHONE (NABI)	LS							+	+	.203
635.10	MOBILIZATION	LS					+			+	+
649.31	GEOTEXTILE UNDER STONE FILL	SY				160				160	160
649.51	GEOTEXTILE FOR SILT FENCE	SY						50		50-	43
649.61	GEOTEXTILE FOR FILTER CURTAIN	SY						25		25	0
651.15	SEED	LB						10		10	6
651.17	SEED - WINTER RYE	LB						10-		10	6
651.18	FERTILIZER	LB						20		20-	50
651.20	AGRICULTURAL LIMESTONE	TON						0.1		0.1	.2
651.25	HAY MULCH	TON						0.5		0.5	.2
651.26	HAY BALES FOR EROSION CONTROL	EACH						10-		10-	5
651.40	GRUBBING MATERIAL	SY				100				100-	108
654.10	EROSION MATTING	SY						10-		10-	0
BRIDGE AT STATION STA 49+33.50 ~ STA 49+56.50											
LOCATION TH 1 OVER STANNARD BROOK											
PREPARED BY: B.DONALD				CHECKED BY: M.B.SYMONS		PROJECT: STANNARD		PROJECT NO:		TH2-8919	
SUPERVISOR: C.P.WILLIAMS						OF		SHEET NO:		3 OF 21	



NOTE

SCALE
1"=20'

A horizontal scale bar with alternating black and white segments. It is marked with '0' at the left end, '10' in the middle, and '30' at the right end.

MARCH 1989

BRIDGE RAILING - STANDARD STEEL BEAM TYPE IV (WEATHERING STEEL)
 /F53C4 /MOUNTED /4847 STEEL TUBING
 BEGIN @ STA. 49+33 LT. 2 END @ STA. 49+57 LT.
 BEGIN @ STA. 49+32 RT. 2 END @ STA. 49+58 RT.

ANCHORS FOR HEAVY DUTY
STEEL BEAM GUARD RAIL

SURVEY CURVE DATA

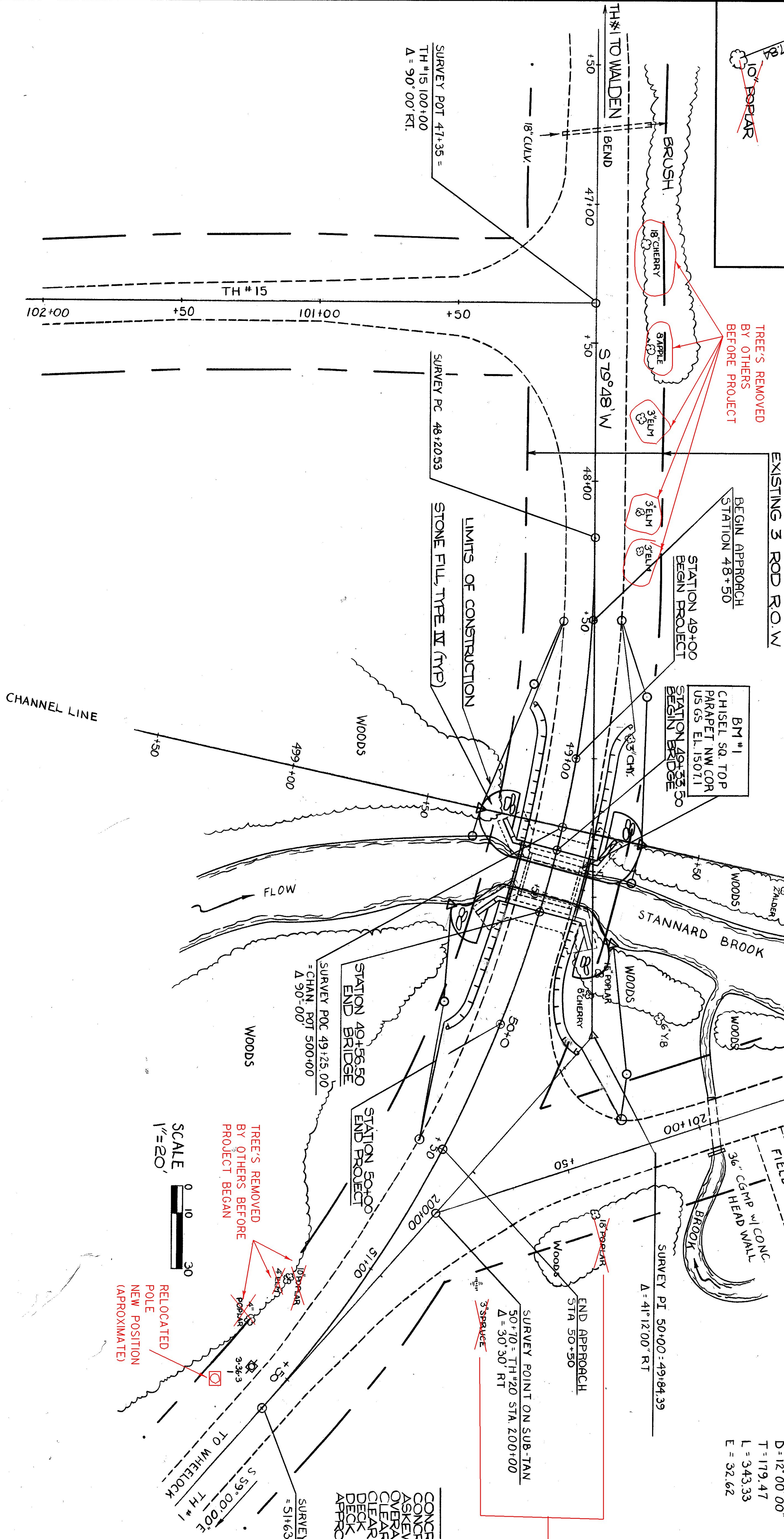
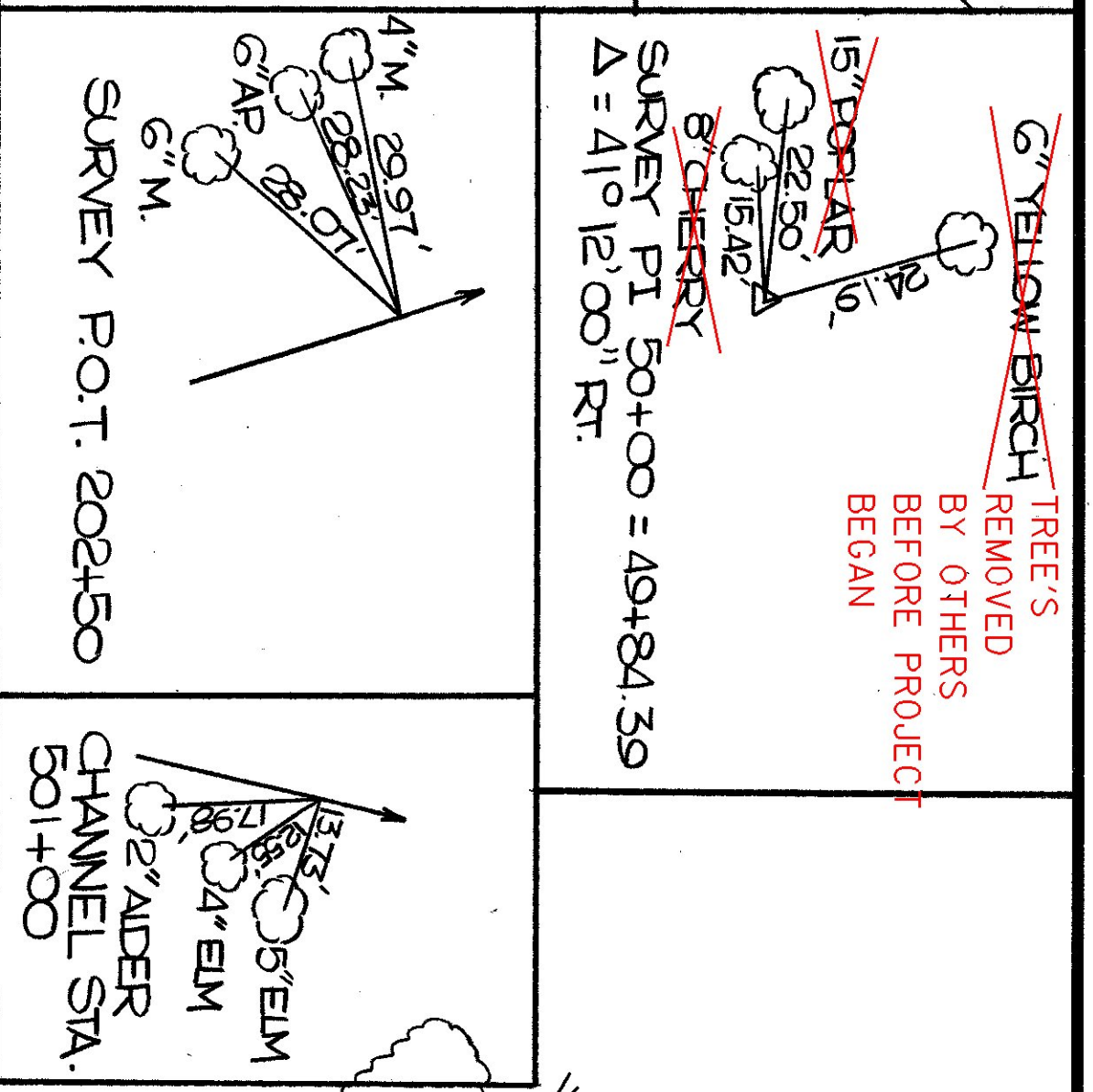
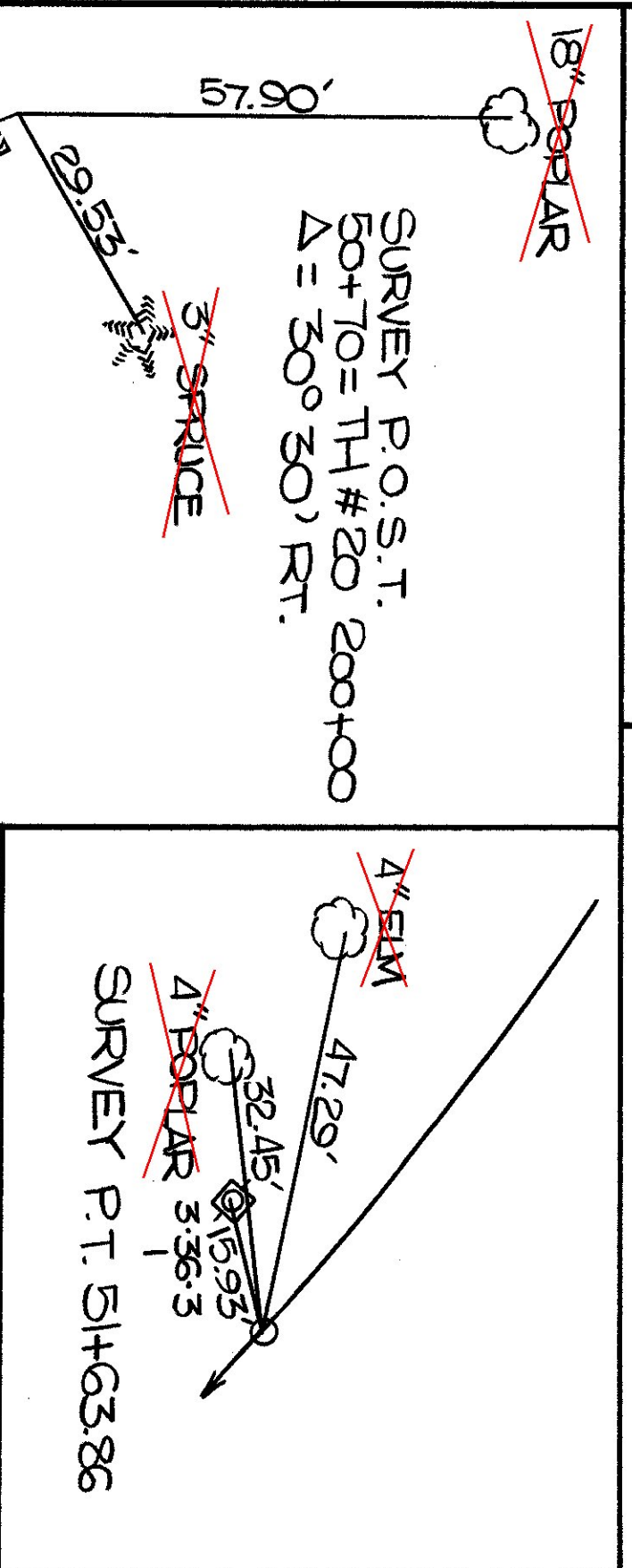
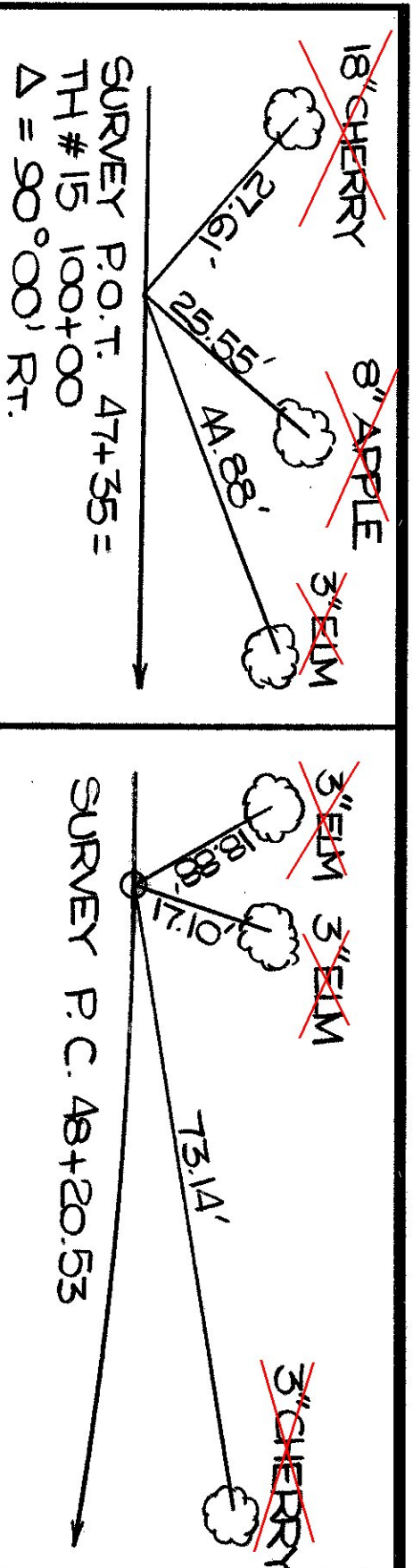
$$\begin{aligned}\Delta &= 41^{\circ} 12' \text{ RT} \\ D &= 12^{\circ} 00' 00'' \\ T &= 179.47 \\ L &= 343.33 \\ E &= 32.62 \\ R &= 477.46\end{aligned}$$

EXISTING BRIDGE DATA

CONCRETE SLAB BRIDGE
CONCRETE ABUTMENTS AND WINGWALLS
ASKEW - GO
OVERALL LENGTH OF STRUCTURE - 16'
CLEAR SPAN - 11.5'
CLEAR HEIGHT - 7.0'
DECK DEPTH - 1.0'
DECK WIDTH (OUT TO OUT) - 18'
APPROACH WIDTH (INCLUDING SHOULDER) - 18'

SURVEY P.
= 51+63.86

STATE OF VERMONT AGENCY OF TRANSPORTATION	
Town of STANNARD	Bridge No. 6
Highway No. TH#1	Log. Sta. 45+45
TH#1 OVER STANNARD BROOK	Surv. Sta.
ROW SHEET	
Designed by K. CLARIMONT	Drawn by T.A. SUMNER
Checked By C. P. WILLIAMS	Bridge Design Supervisor J.D. McCarthy
Date 9/92	Date 9/92
PROJECT STANNARD	PROJECT NO. TH2-8919
L&C. info.	
Bridge Sheet No.	
Sheet 4 of 21	



BRIDGE RAILING - HEAVY DUTY STEEL BEAM TYPE IV (WEATHERING STEEL) / FASCIA MOUNTED / STEEL TUBING
BEGIN @ STA. 49+32.50 LT. END @ STA. 49+57.50 LT.
BEGIN @ STA. 49+32.50 RT. 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
Δ = 41°12' RT
D = 12°00'00" R = 477.46
T = 179.47
L = 343.33
E = 32.62

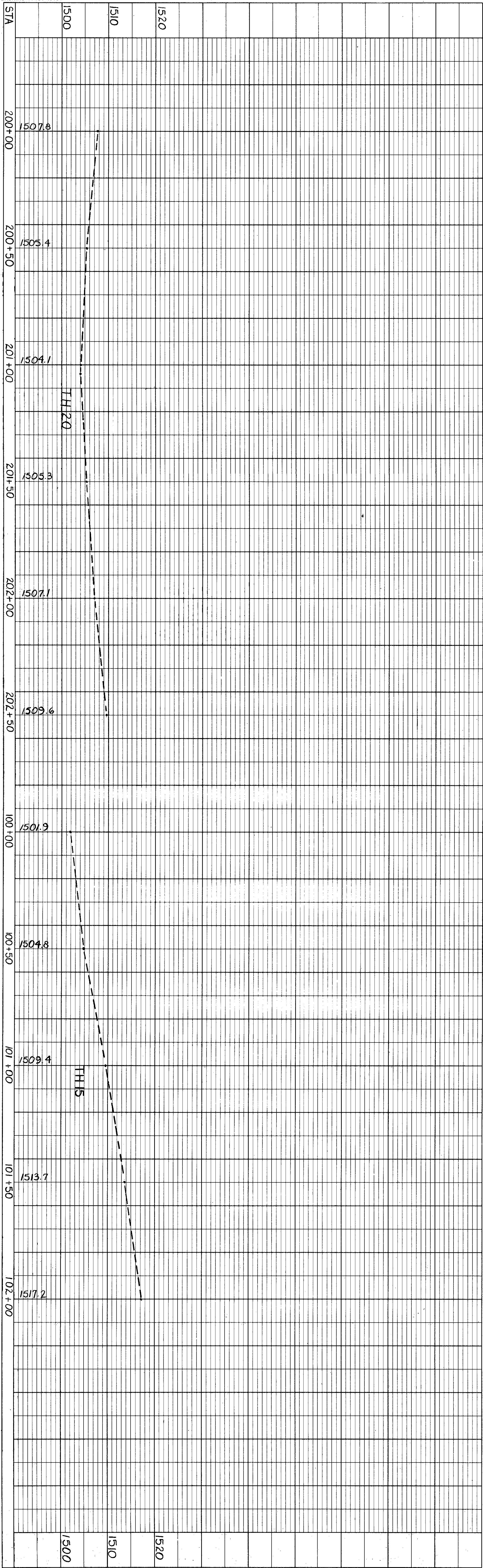
EXISTING BRIDGE DATA
CONCRETE SLAB BRIDGE
CONCRETE ABUTMENTS AND WINGWALLS
ASKED - 90'
OVERALL LENGTH OF STRUCTURE - 16'
CLEAR SPAN - 11.5'
CLEAR HEIGHT - 17.0'
DECK DEPTH - 1.0' (OUT TO OUT) - 18'
APPROACH WIDTH (INCLUDING SHOULDER) - 18'

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: CLARKSON	Drawn By: T.A. SUMNER
Checked By: C.P. WILLIAMS	Bridge Design Supervisor
Date: 9/92	Date: 9/92
PROJECT STANNARD	PROJECT NO. TH2-8919
U.G.C. Info.	
Bridge Sheet No.	Sheet 5 of 21

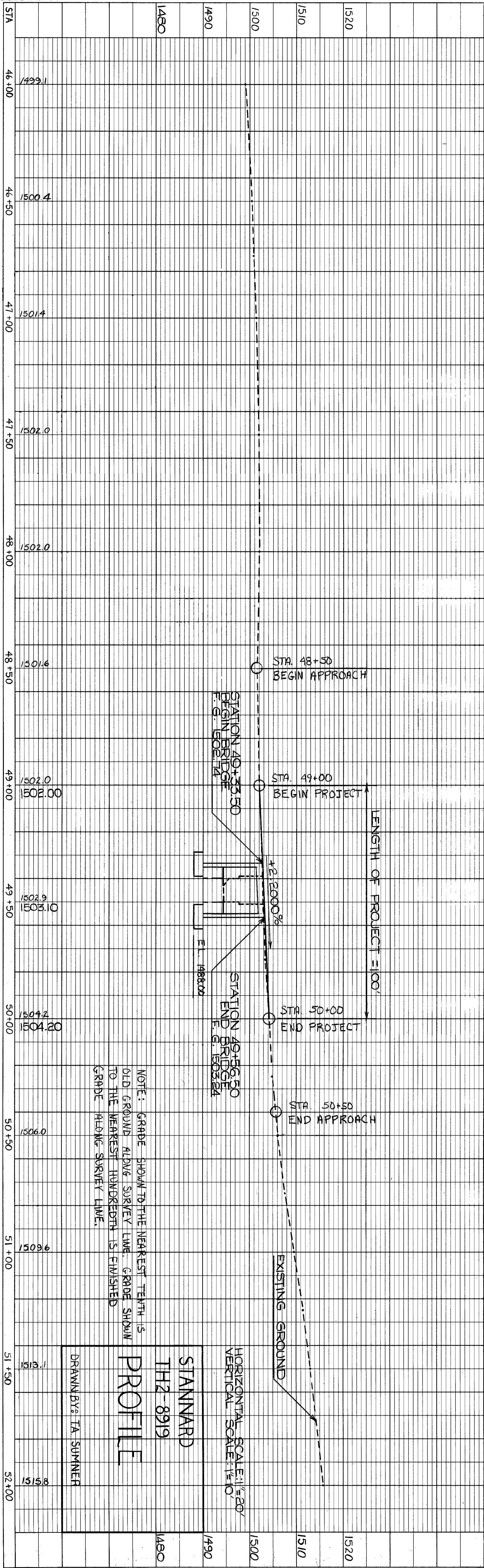
PROFILE	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	GRADES CHECKED		
	S.M. NOTED		
	STRUCTURE NOTAT'NS CHK'D		

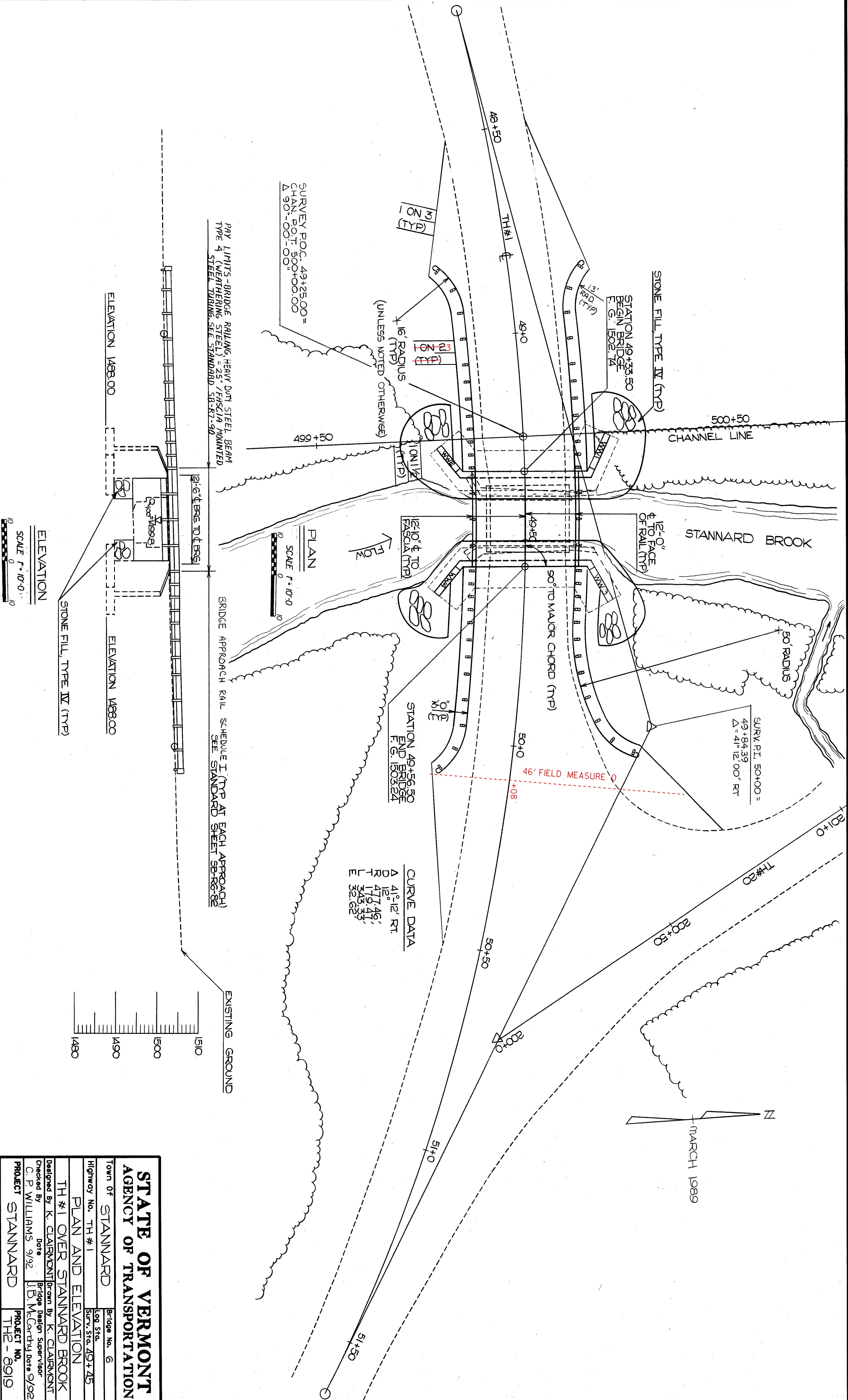
BRUNING 44-131 40151



PROFILE	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	GRADES CHECKED		
	S.M. NOTED		
	STRUCTURE NOTAT'NS CHK'D		

BRUNING 44-131 40151





STATE OF VERMONT
AGENCY OF TRANSPORTATION

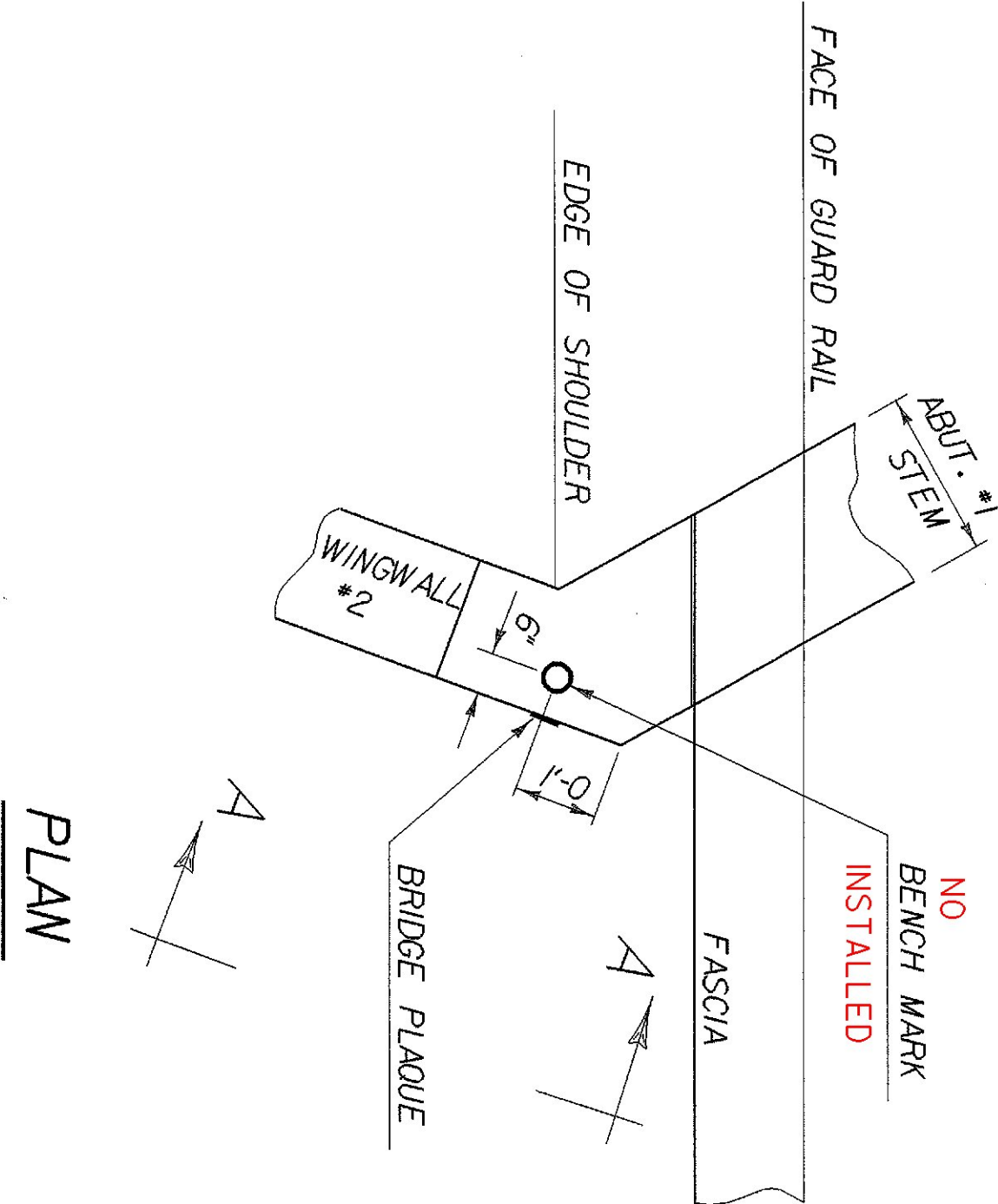
Town of STANNARD	
Highway No. TH #1	Bridge No. 6
PLAN AND ELEVATION	
TH #1 OVER STANNARD BROOK	
Designed By K. CLAIRMONT	Drawn By K. CLAIRMONT
Checked By C. P. WILLIAMS	Bridge Design Supervisor
Date 9/92	Date 9/92
PROJECT STANNARD	PROJECT NO. TH2 - 8919
L&C info.	
Bridge Sheet No.	Sheet 8 of 21

GENERAL NOTES

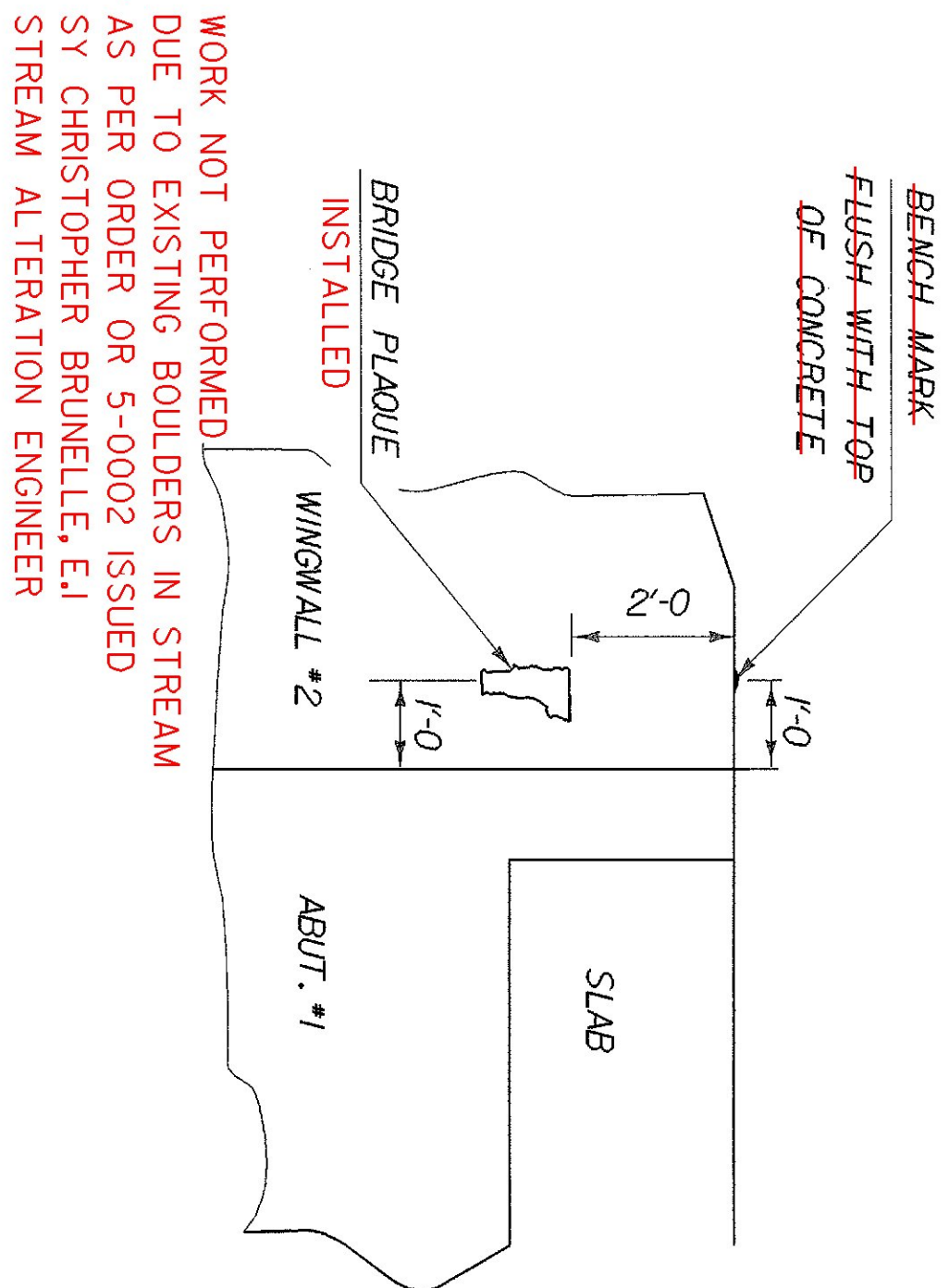
1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT AGENCY OF TRANSPORTATION, "STANDARD SPECIFICATIONS FOR CONSTRUCTION", DATED 1990, AND ITS LATEST REVISIONS, AND THE AASHTO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES", DATED 1992, AND ITS LATEST REVISIONS.
2. THE FOLLOWING WEIGHTS APPLY TO THESE PLANS FOR DESIGN PURPOSES:

SOIL: UNIT WEIGHT - 140 PCF

3. IN-STREAM CONSTRUCTION SHALL BE CONDUCTED ONLY DURING THE PERIOD JUNE 1 THROUGH OCTOBER 1. SEE SPECIAL PROVISIONS.
4. 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.
5. ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL, AND ARE GIVEN AT 68 DEGREES F.
6. 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.
7. 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.
8. 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.
9. REINFORCING PLACEMENT TOLERANCES SHALL BE:
- SPACING +/- 1"
CLEARANCE +/- 1/4"
10. ALL CONCRETE SHALL BE "CONCRETE CLASS B".
11. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1" X 1".
12. JOINTS AND SCORE MARKS IN CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
13. 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.
14. WATER REPELLENT SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES EXCEPT THE UNDERSIDE OF THE DECK BETWEEN DRIP NOTCHES.
15. 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.
16. 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.
17. 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".
18. 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:
- 1) HEAVY DUTY STEEL BEAM RAIL SHALL BE AASHTO M180, CLASS B - TYPE 4.
2) THE POSTS AND SPECIAL WASHERS SHALL BE AASHTO M222 / M222M STEEL.
3) STRUCTURAL STEEL TUBING SHALL BE ASTM A847.
4) BOLTS SHALL BE AASHTO M64 TYPE III.
5) 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.
19. THE STONE FILL TYPE IV SHALL BE PLACED IN FRONT OF THE ABUTMENTS BEFORE THE SLAB IS POURED.
20. THE DECK SHALL BE GIVEN A BROOM FINISH NORMAL TO CENTER LINE OF BRIDGE.
21. 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.
22. 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.



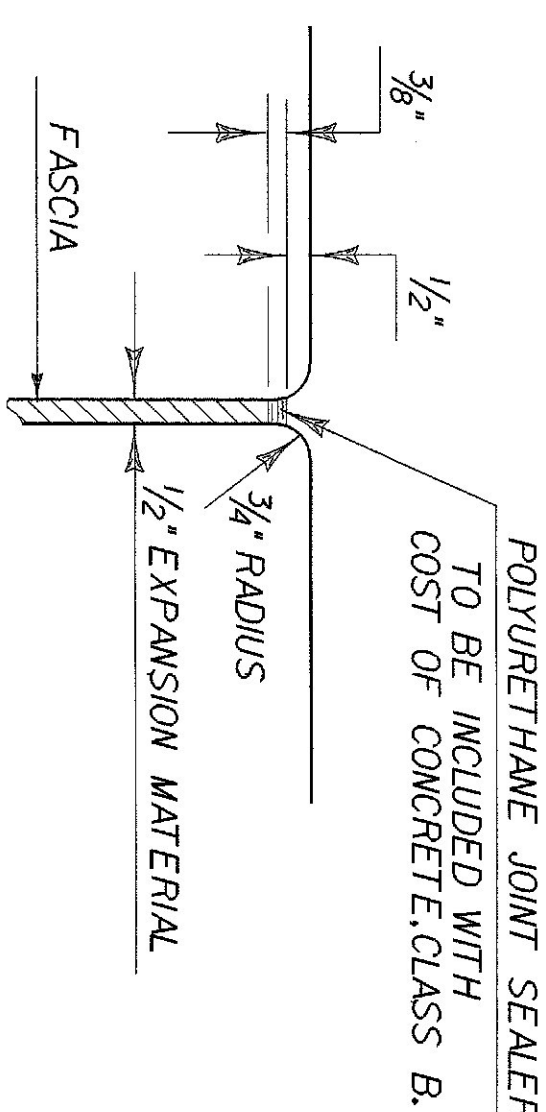
PLAN



VIEW "A - A"

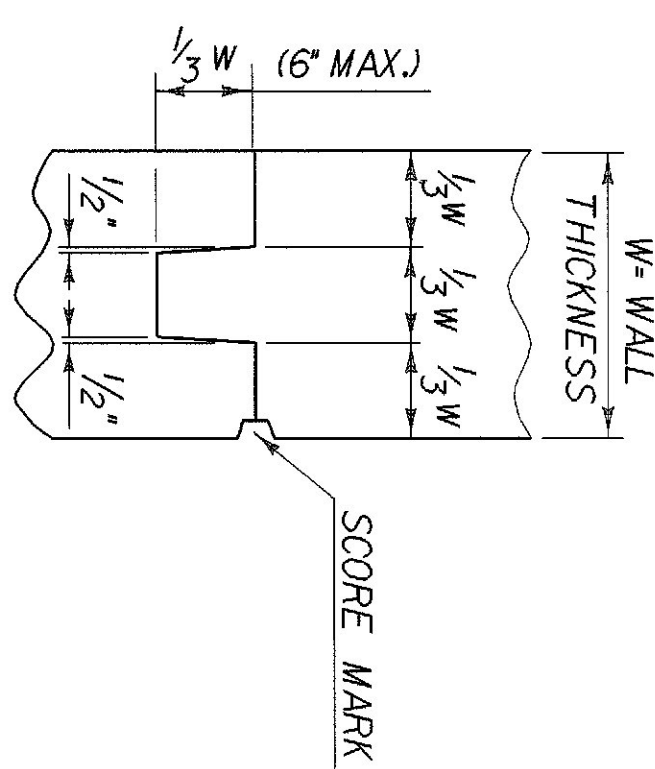
LOCATE BENCH MARK
AND BRIDGE PLAQUE

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.

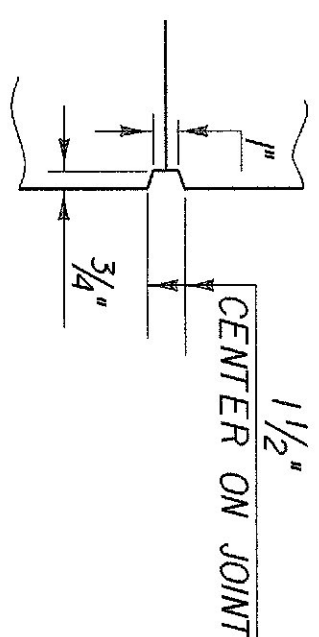


JOINT BETWEEN FASCIA
AND ABUTMENT

SCALE: 1" = 1'

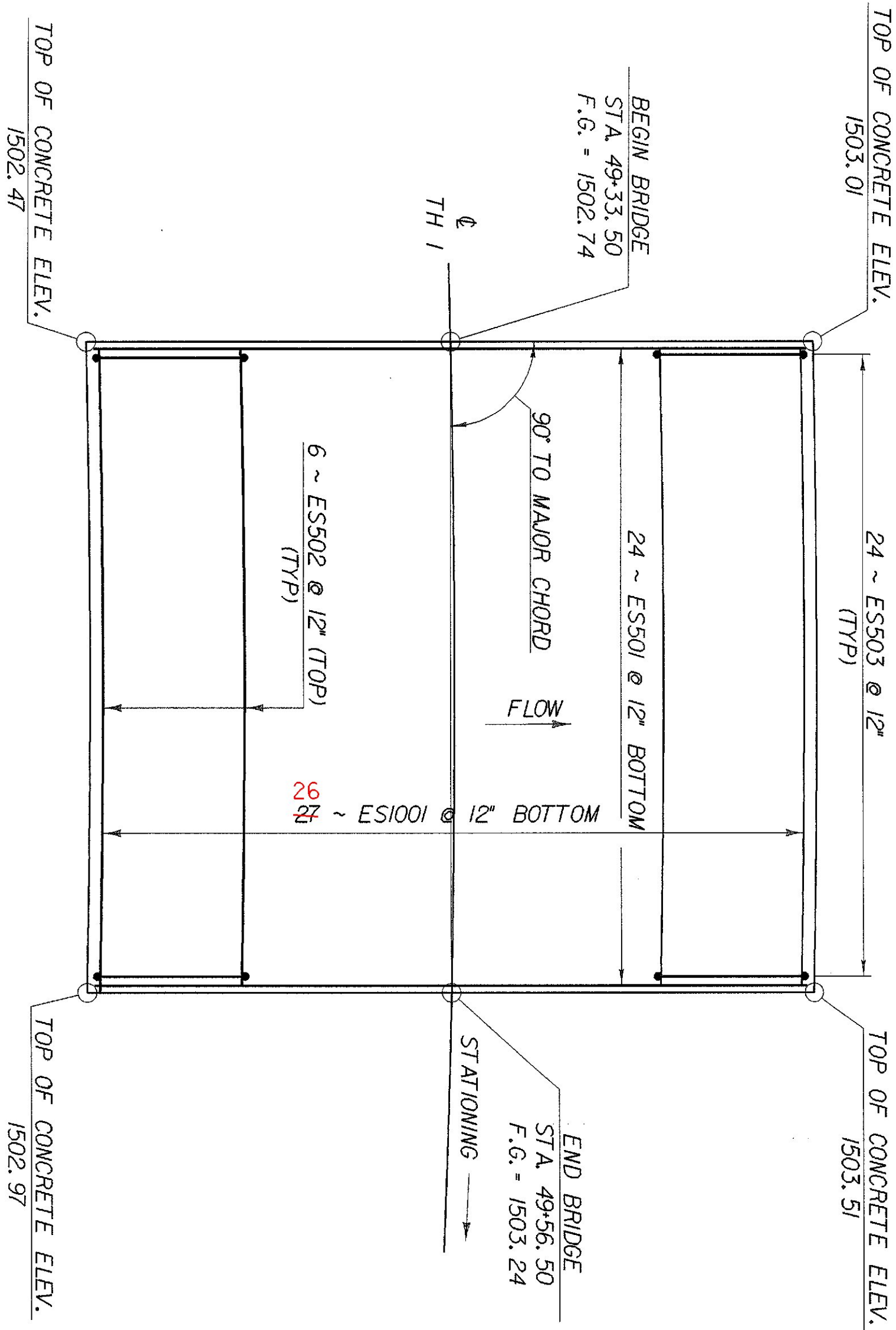


TYPICAL CONCRETE CONSTRUCTION JOINT



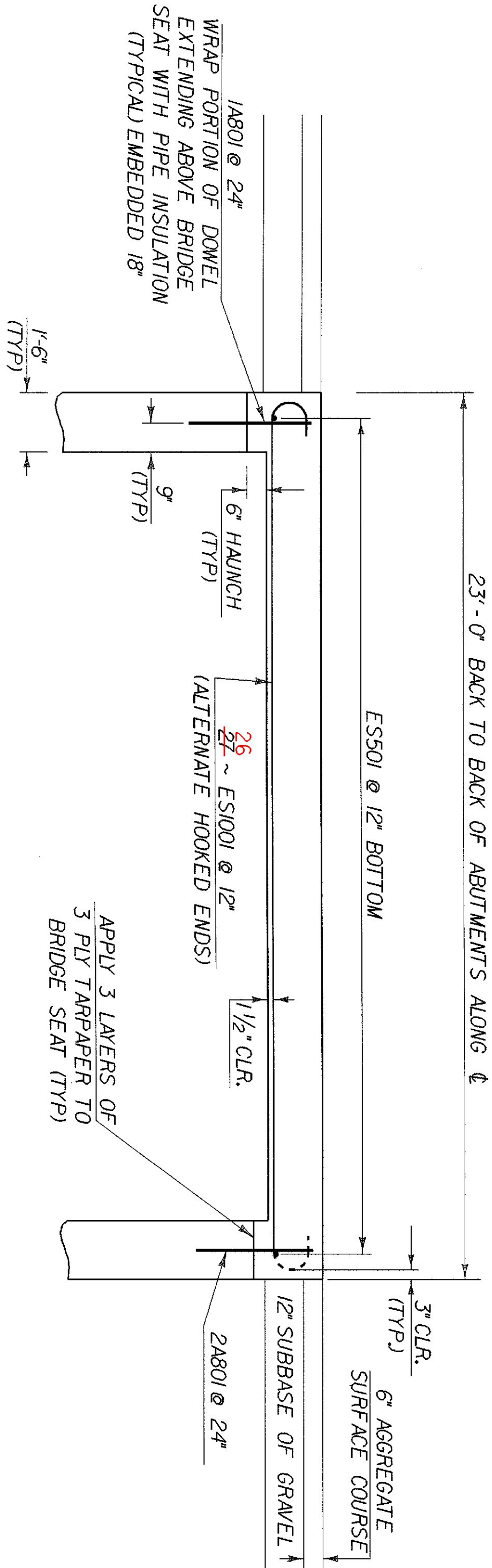
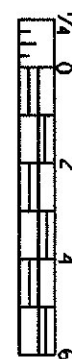
SCORE MARK DETAIL

STATE OF VERMONT AGENCY OF TRANSPORTATION			
Town of STANNARD		Bridge No.	6
Highway No. TH 1		Loc. Stn.	
TH 1 OVER STANNARD BROOK		Surv. Stn.	49+45.00
GENERAL NOTES			
Designed By B. DONALD		Drawn By K.M. HIGGINS	
Checked By W.B. STIMMONS	Date 7/97	Bridge Design Supervisor C.P. WILLIAMS	Date 7/97
PROJECT STANNARD		PROJECT NO. TH2-8919	
Loc. Info. M488104Structures/104stn48n		Sheet 9 of 21	



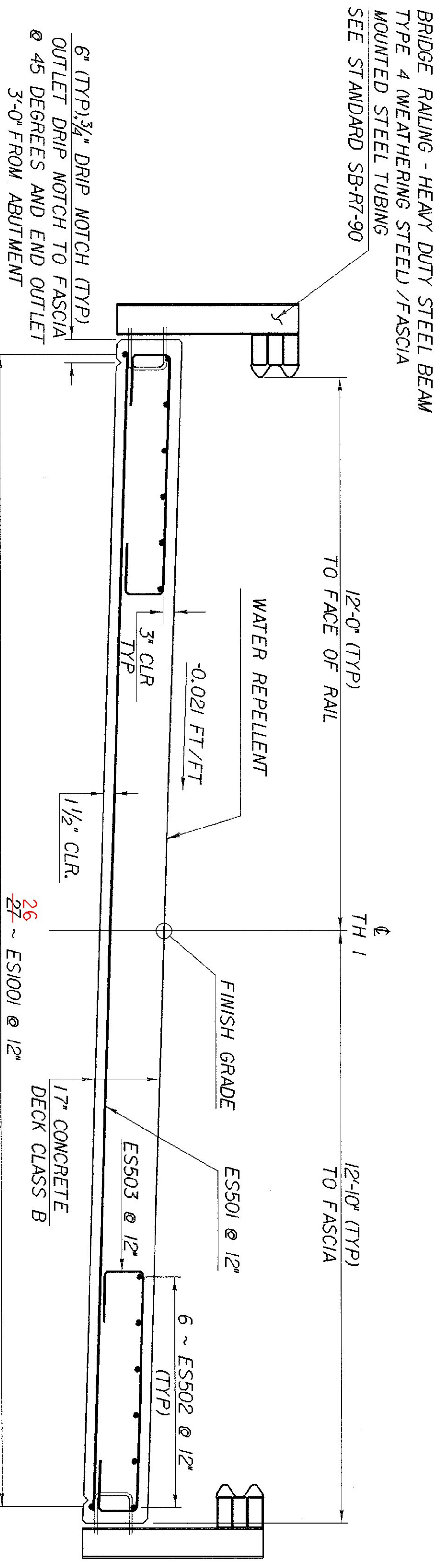
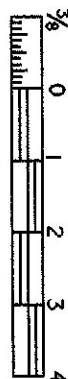
DECK REINFORCING PLAN

SCALE $\frac{1}{4}" = 1'-0"$



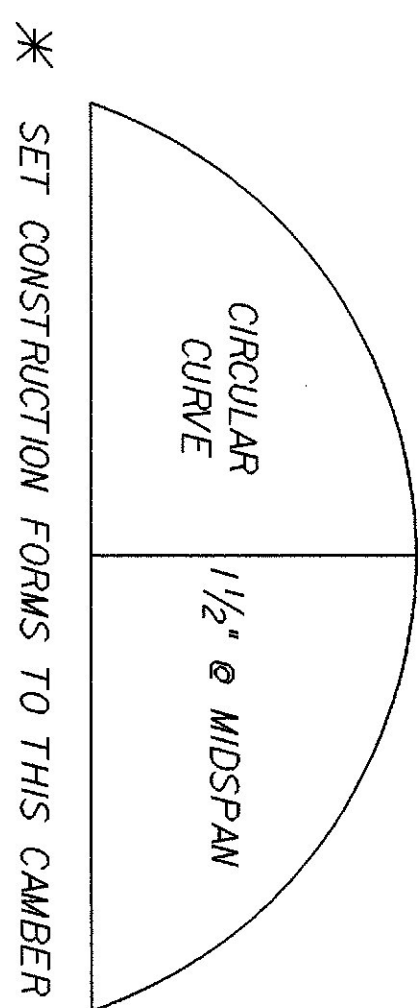
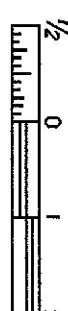
SLAB ELEVATION ALONG ϕ

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



TYPICAL SLAB SECTION

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



* SET CONSTRUCTION FORMS TO THIS CAMBER

CAMBER

NTS

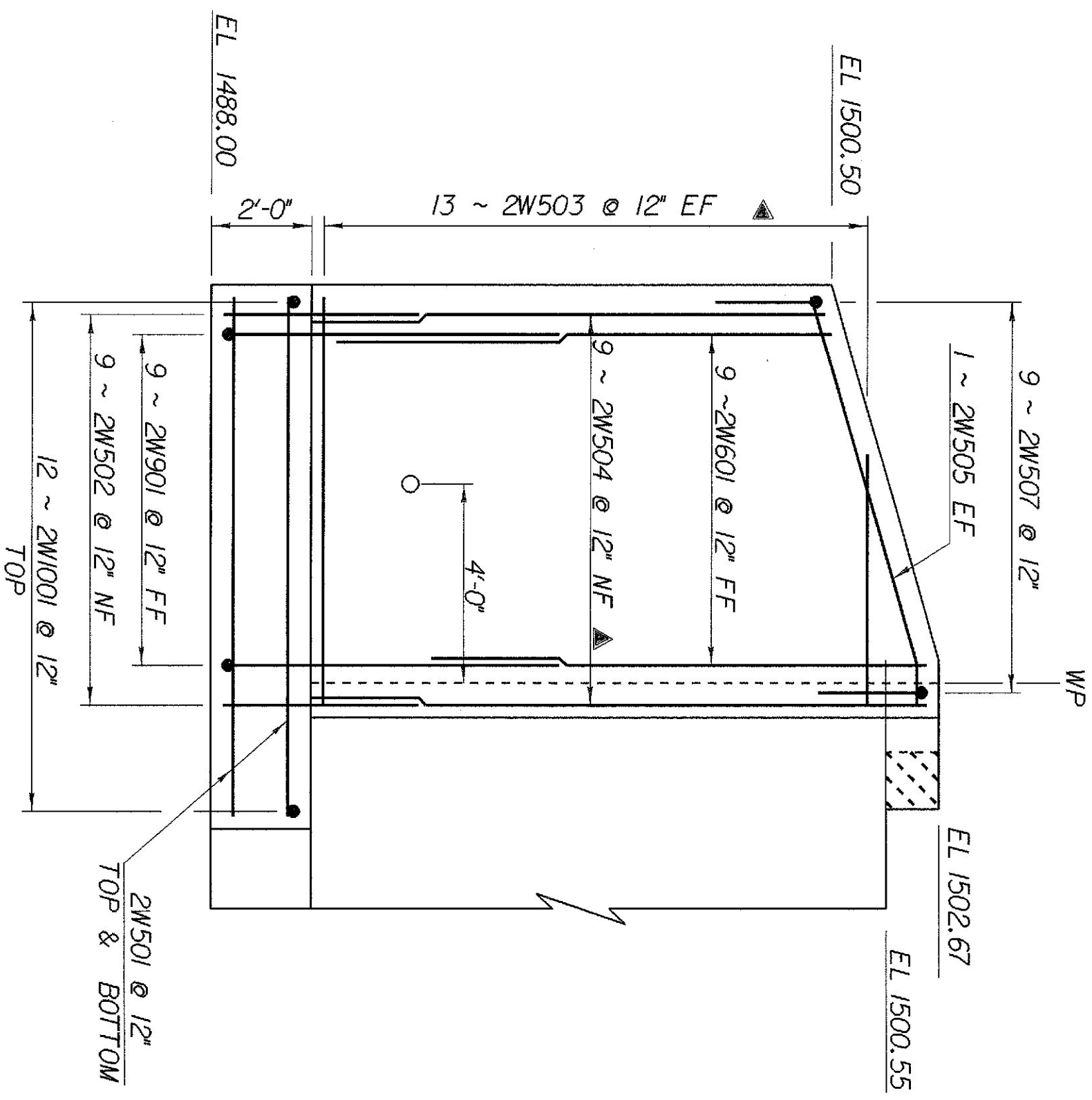
NOTE: TOTAL DEAD LOAD DEFLECTION @ MIDSPAN = 0.24"

- 1) COST OF TARPAPER AND PIPE INSULATION AND ITS APPLICATION SHALL BE SUBSIDIARY TO CONCRETE CLASS B.
- 2) E - DENOTES EPOXY COATED REINFORCING STEEL

STATE OF VERMONT AGENCY OF TRANSPORTATION

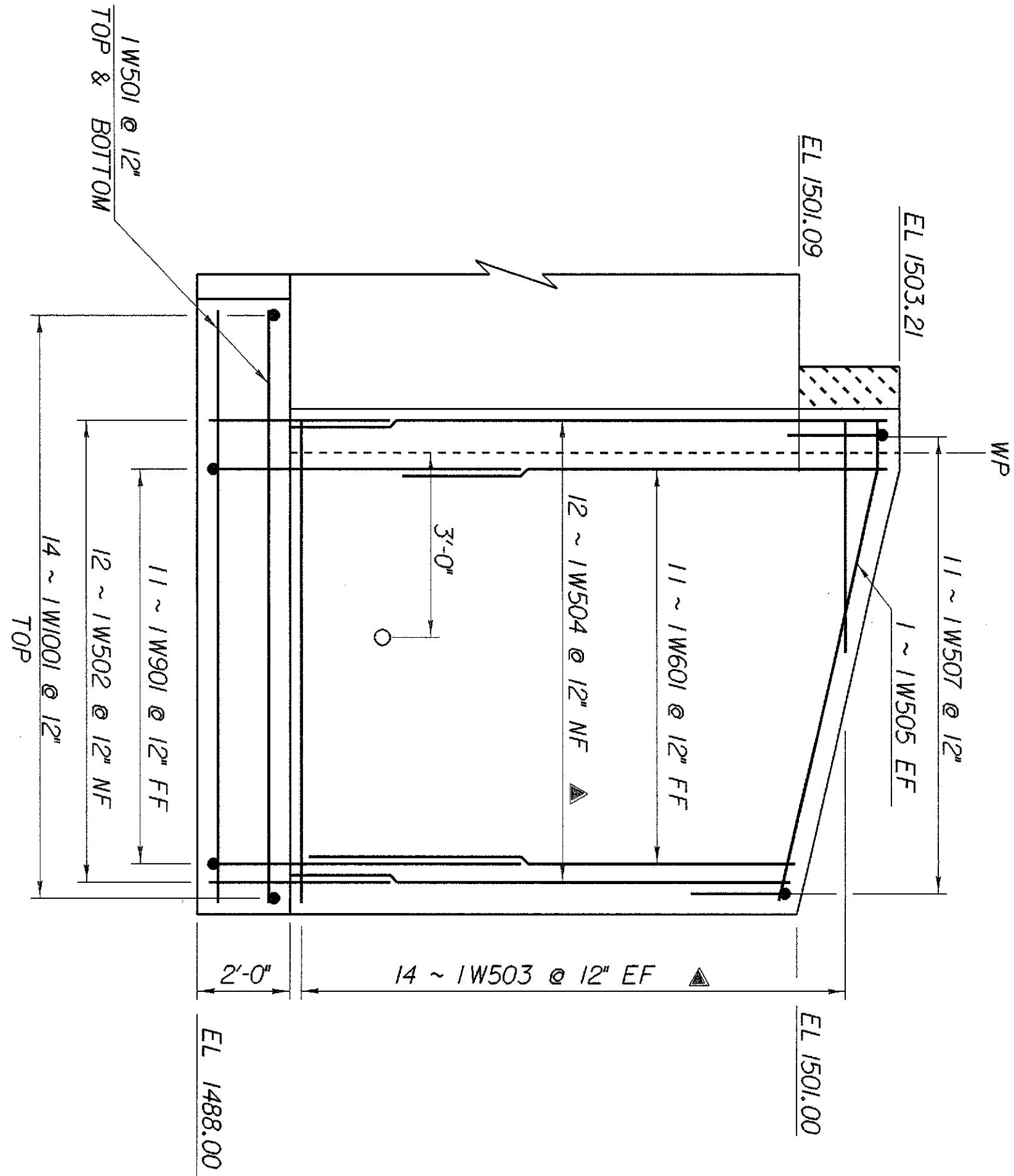
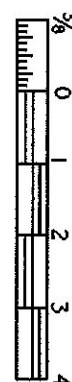
Town of	STANWARD	Bridge No.	6
Highway No.	TH 1	Log Sta.	49+45
TH 1 OVER STANWARD BROOK			
Designed By	B. DONALD	Drawn By	K.M. HIGGINS
Checked By	Date	Bridge Design Supervisor	Date
W.B. STIMMONS	7/97	C.P. WILLIAMS	7/97
PROJECT	STANWARD	PROJECT NO.	TH2-8919
I.G.C. Info. 4/8/98 10/4/98 Structures 10/4/98		Sheet 10 of 21	
Bridge Sheet No.			

PLOTTED 07-MAR-2004



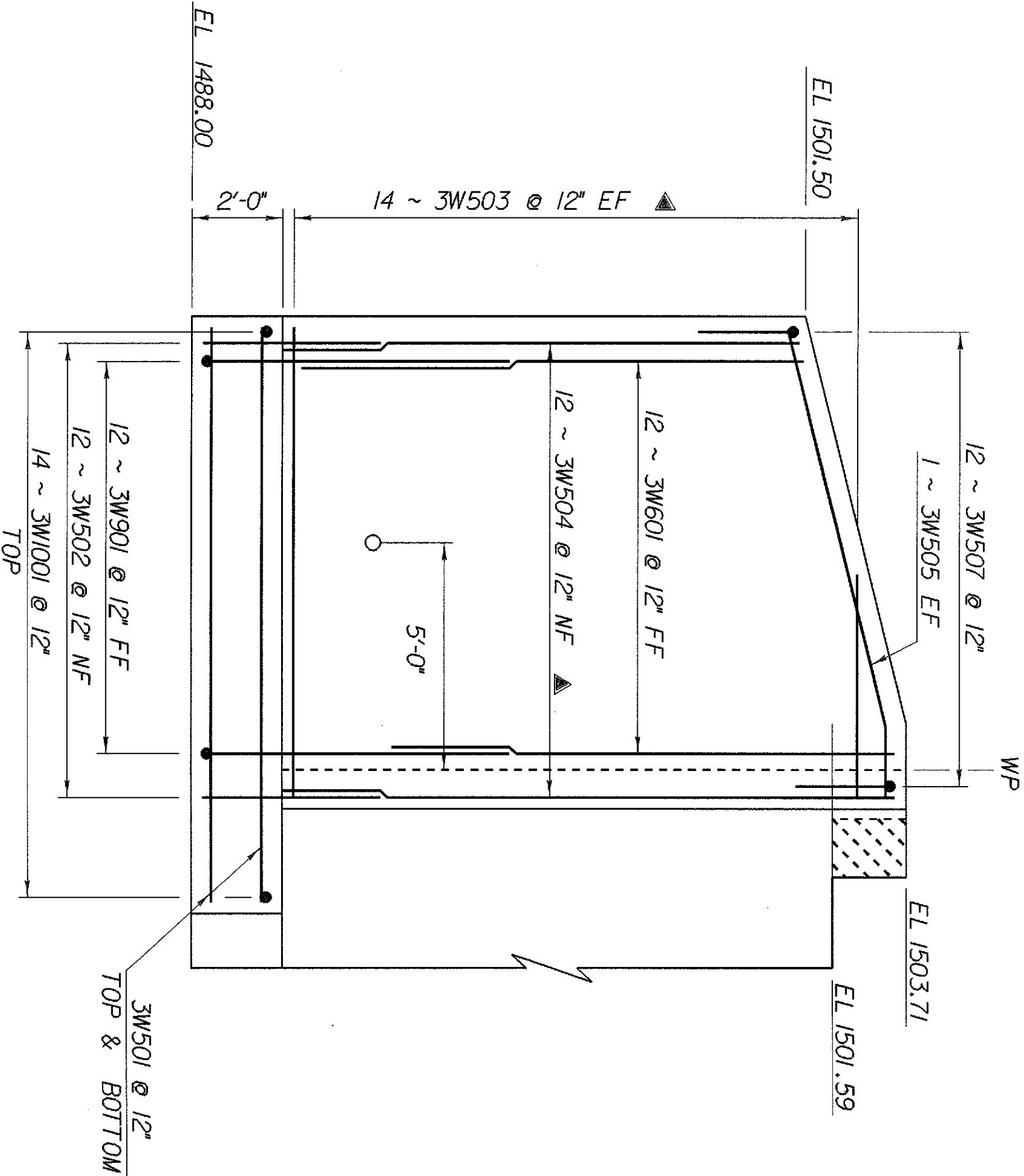
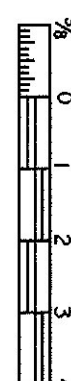
WINGWALL NO. 2 ELEVATION

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



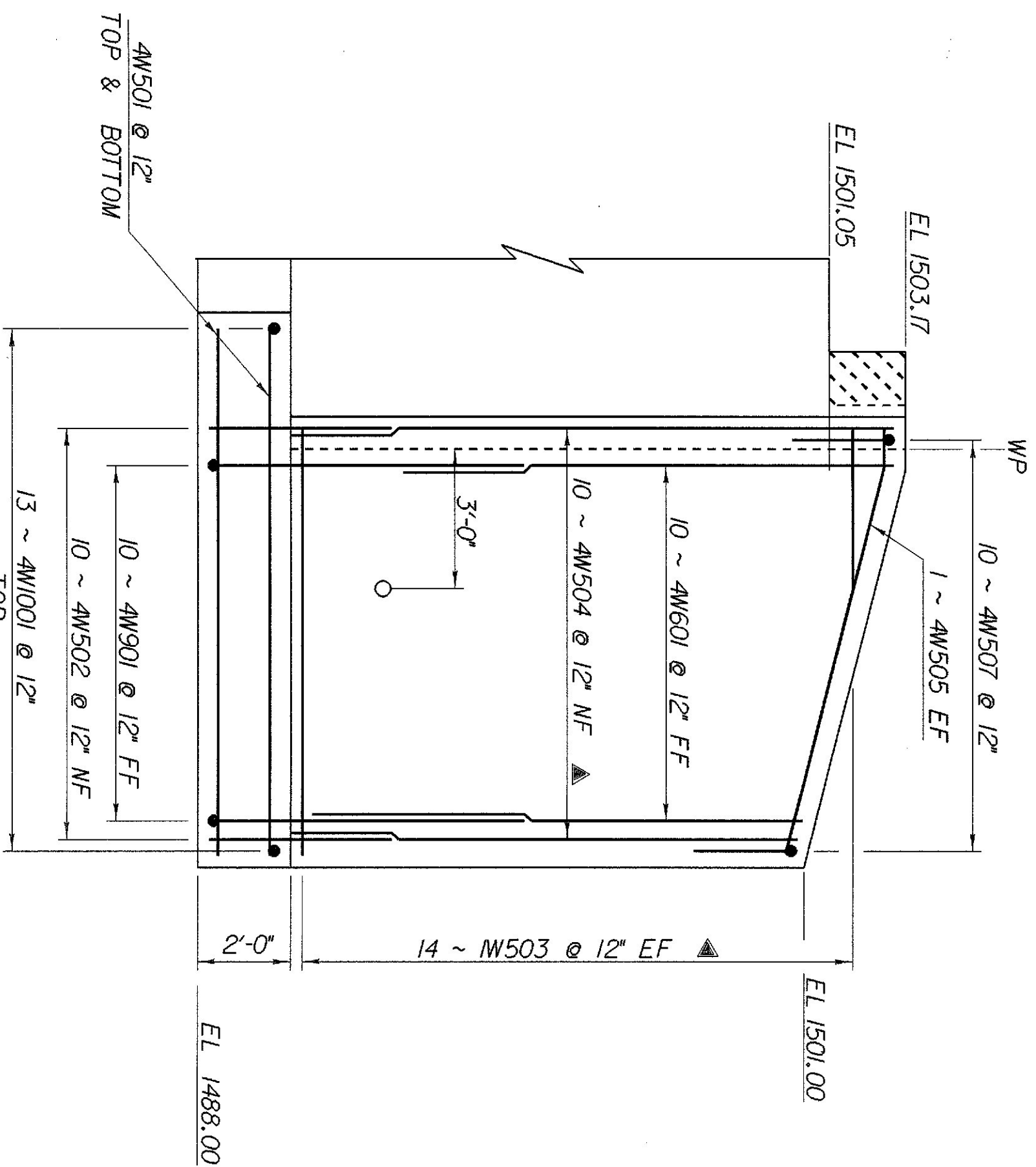
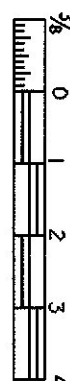
WINGWALL NO. 1 ELEVATION

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



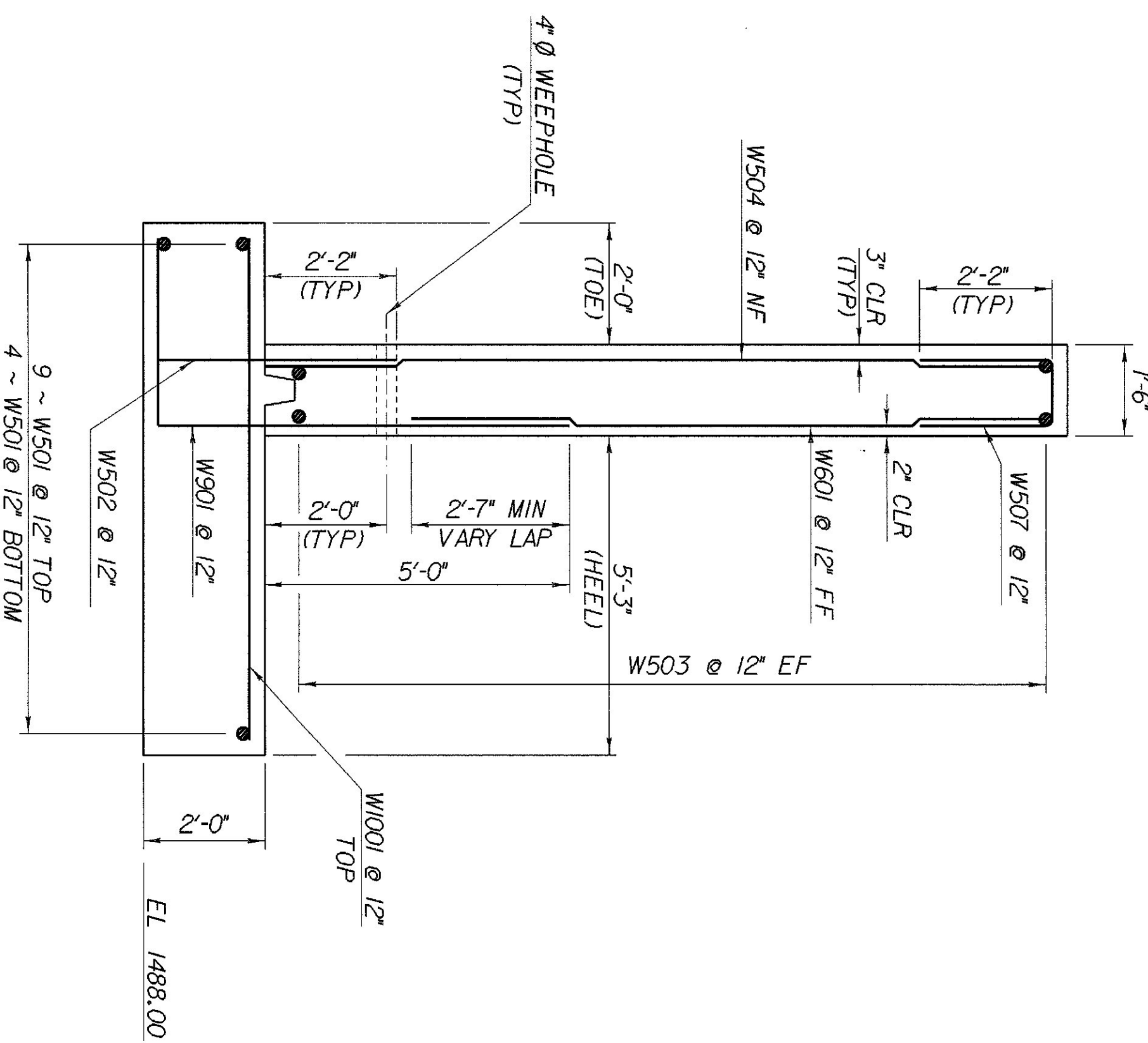
WINGWALL NO. 3 ELEVATION

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



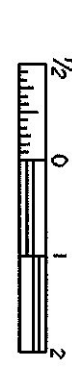
WINGWALL NO. 4 ELEVATION

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



WINGWALL TYPICAL

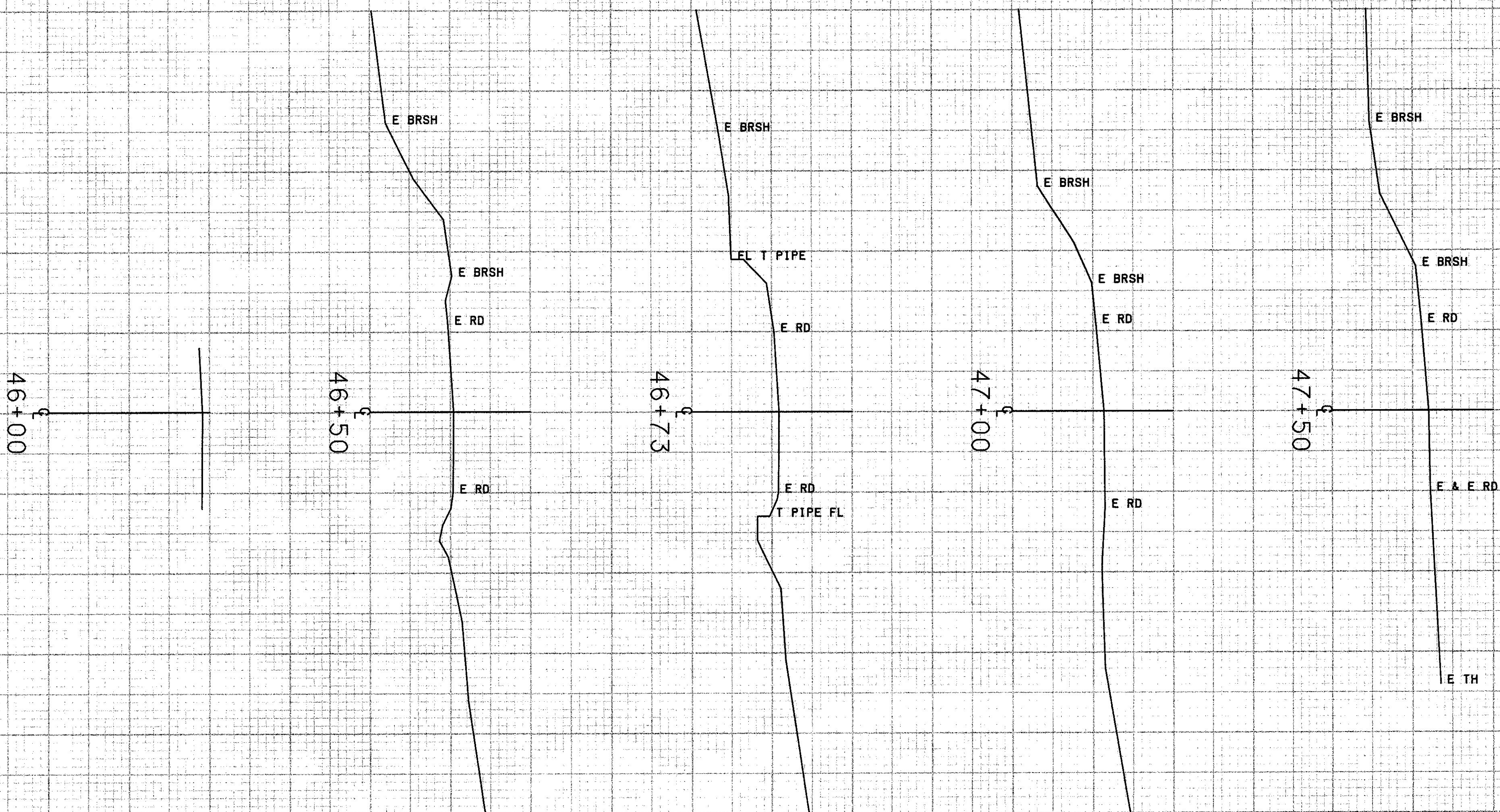
SCALE $\frac{1}{2}" = 1'-0"$



- 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	Loc. Sta.	49+45.00
TH 1 OVER STANNARD BROOK			
WINGWALL DETAILS			
Designed By	B. DONALD	Drawn By	K.M. HIGGINS
Checked By	Date	Bridge Design Supervisor	Date
W.B. SIMMONS	7/97	C.P. WILLIAMS	7/97
PROJECT	STANNARD	PROJECT NO.	TH2-8919
I.G.C. Info.		MA88/10aStructures/10a4040a	sjl04wvl
Bridge Sheet No.		Sheet 13	of 21



1 490

1 500

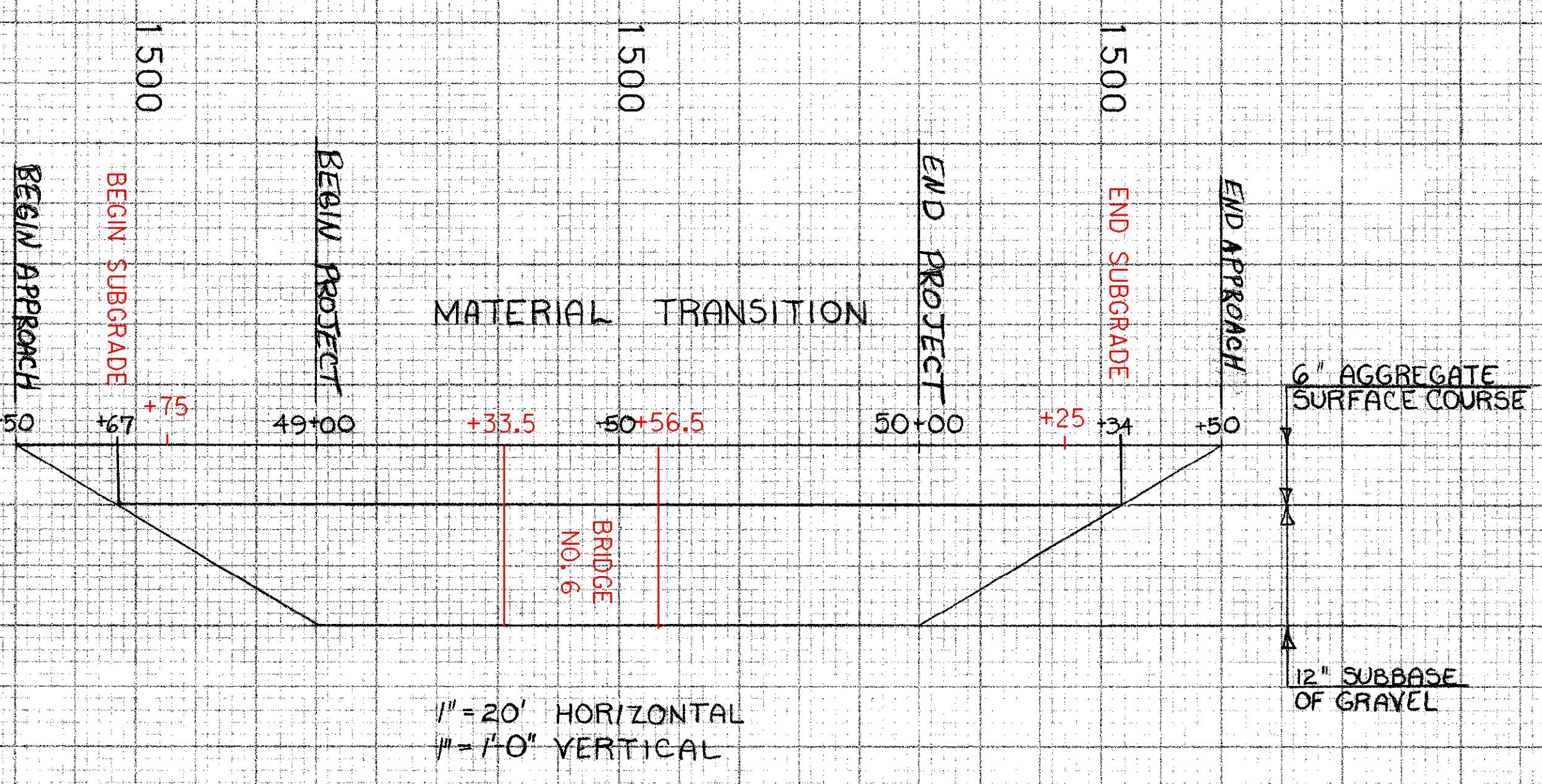
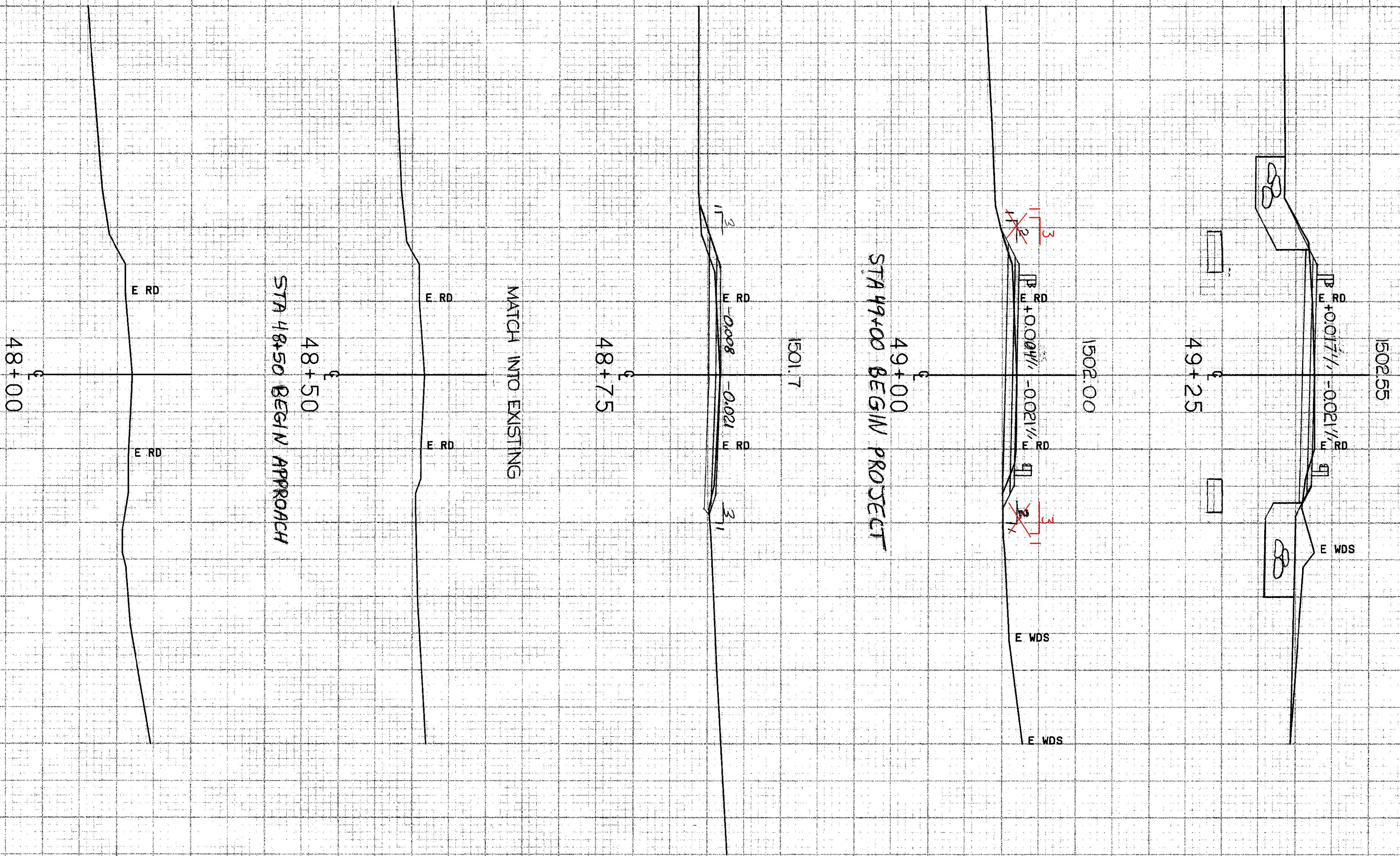
1 500

1 500

1 500

SCALE 1" = 10 FEET

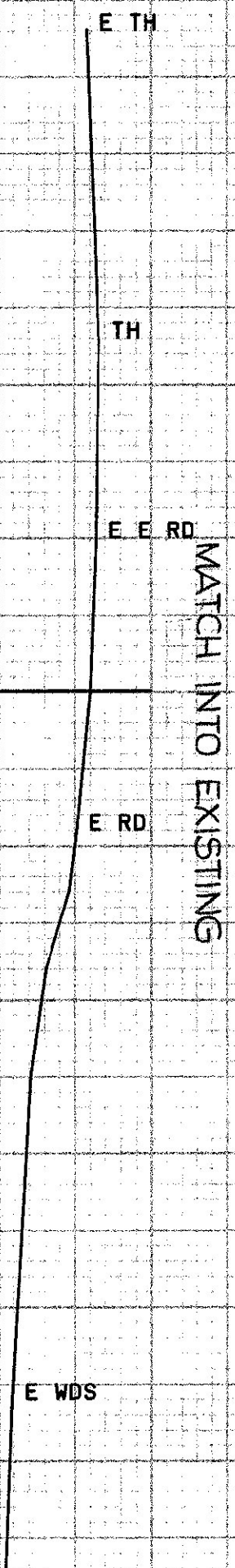
FROM STA.	46+00	TO STA.	47+50
PROJECT NAME	STANNARD MI		
NO.	TH28919		
SURVEYED BY	FLANDERS		
SHEET	5 OF 21	SHEETS	
		PLOTTED	04/10/89



1" = 20' HORIZONTAL
1" = 1'-0" VERTICAL

SCALE 1" = 10 FEET

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

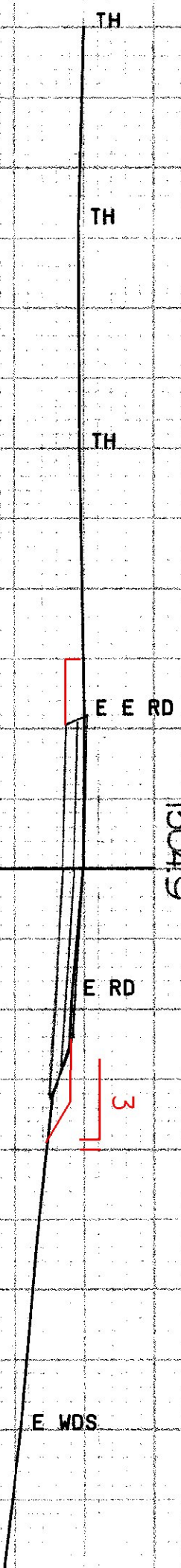


1 500

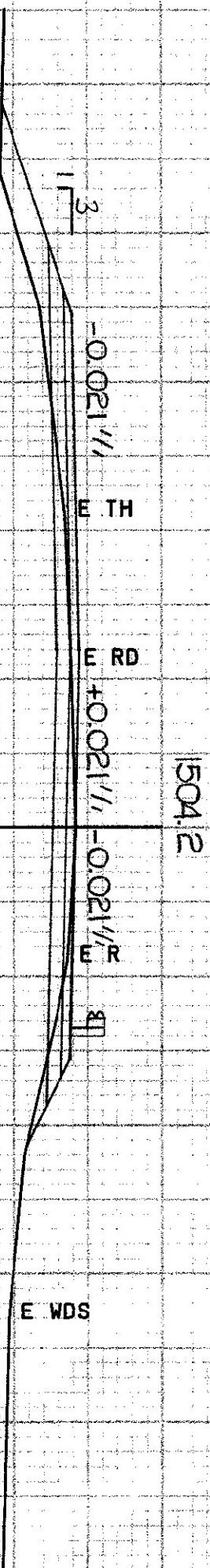
STA 50+50 END APPROACH

50+50

1504.9



1 500

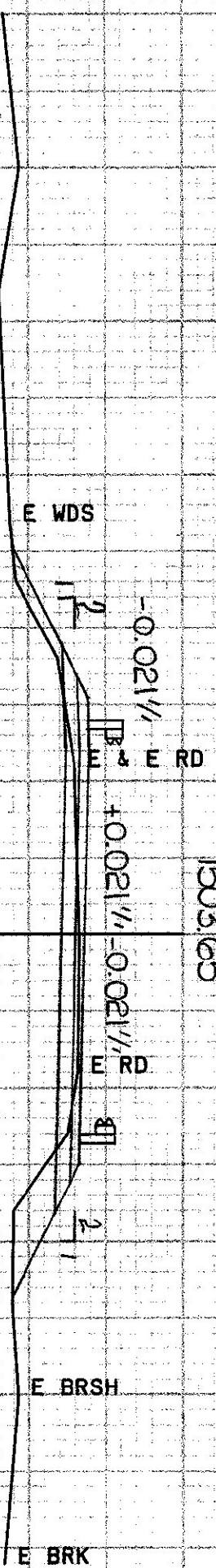


1 500

STA 50+00 END PROJECT

50+00

1503.65

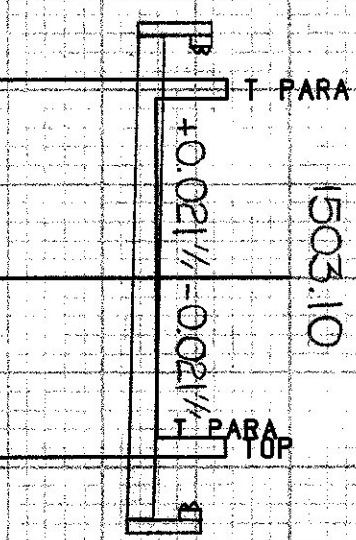


1 500

STATION 49+50.50 - END BRIDGE

49+75

1503.10



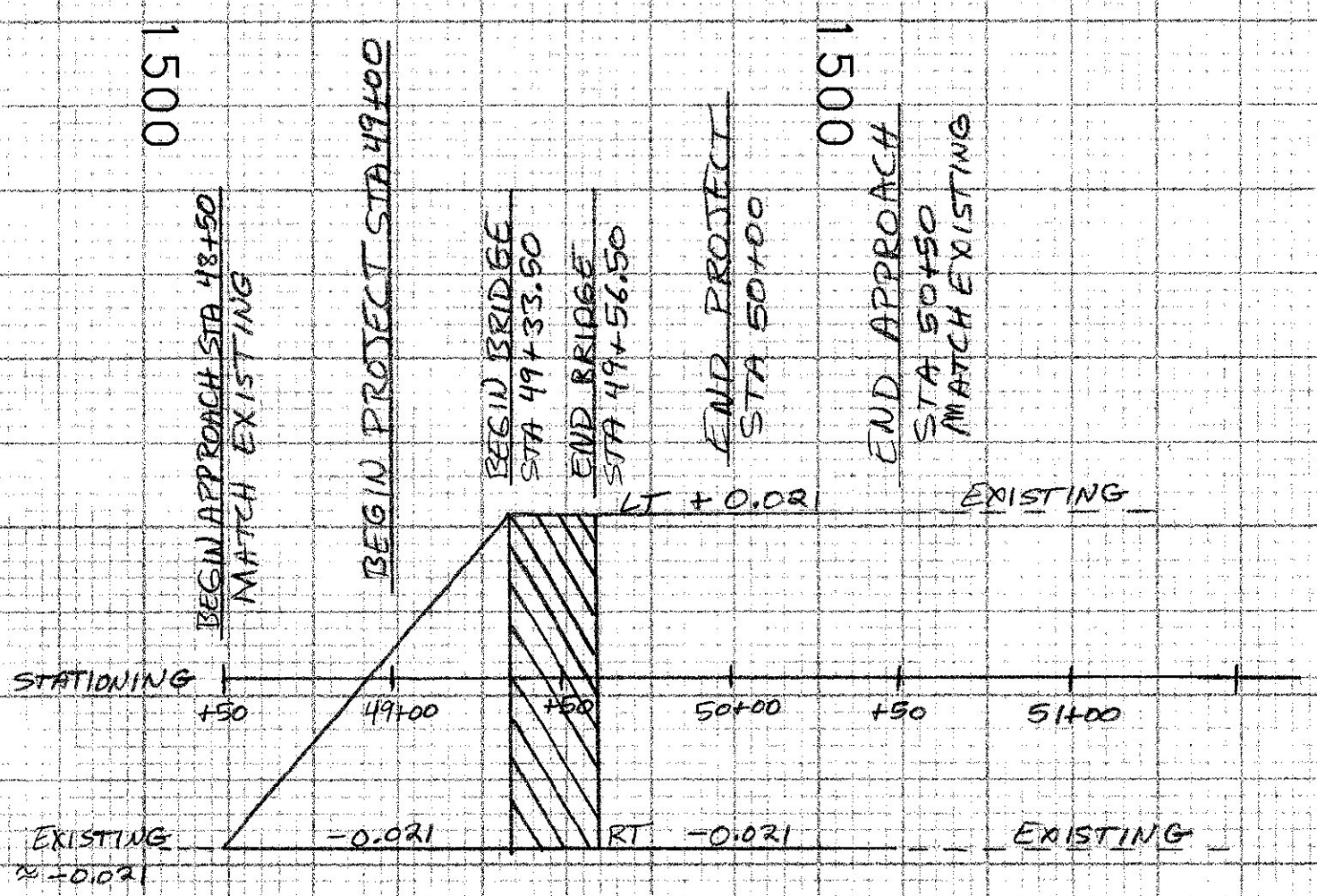
1 500

STATION 49+33.50 - BEGIN BRIDGE

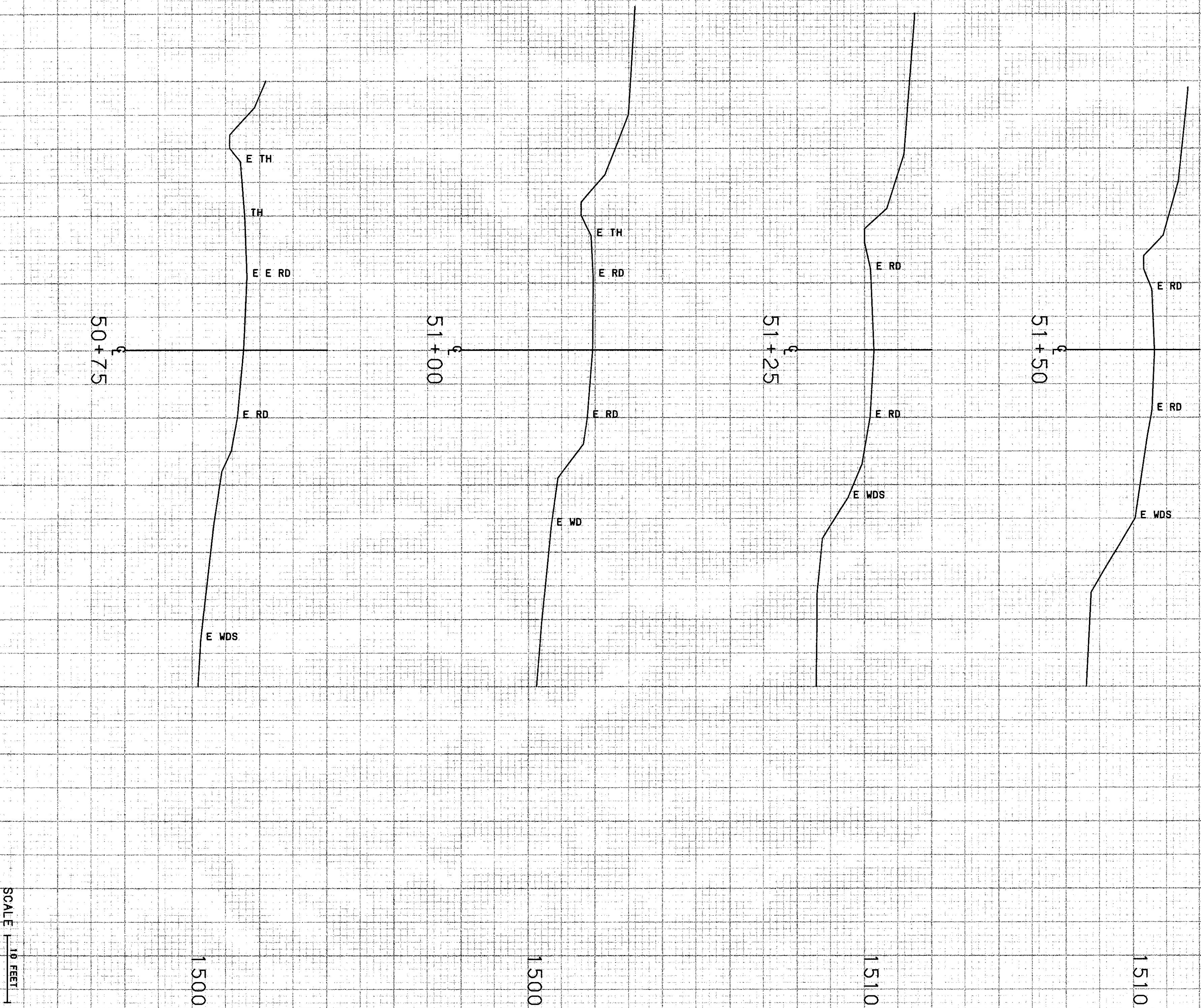
49+50

SCALE 1" = 10 FEET

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

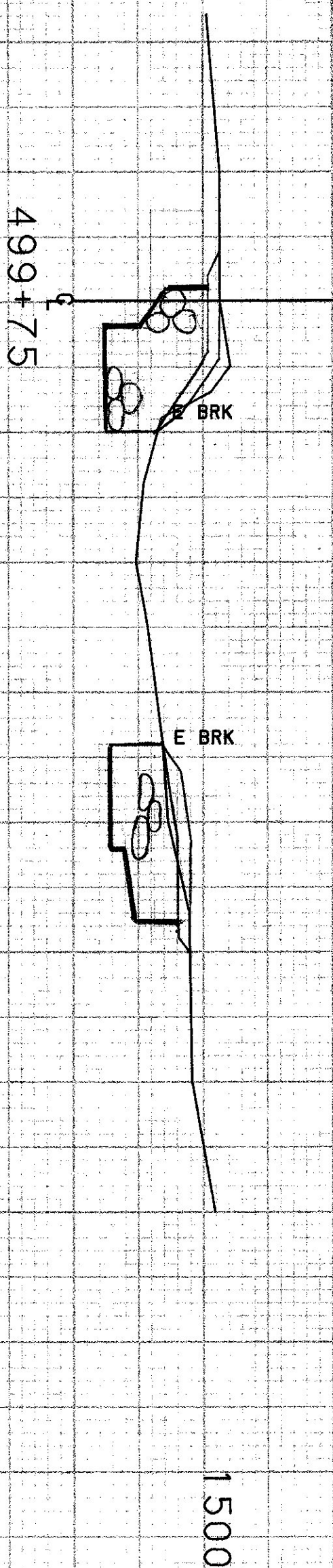
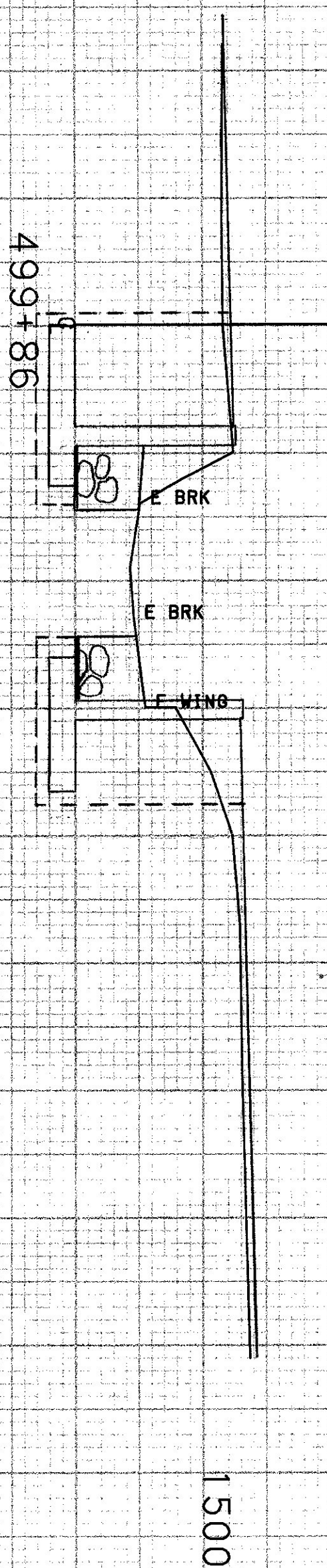
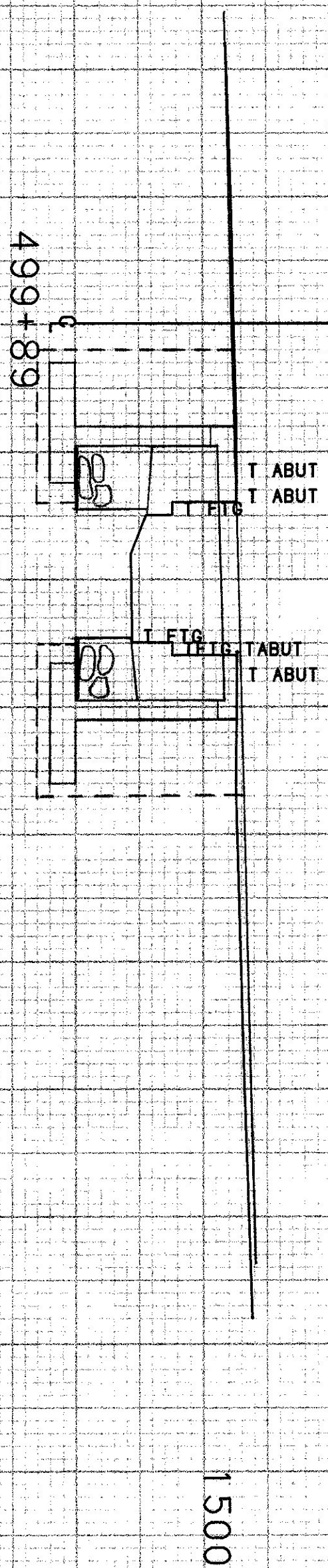
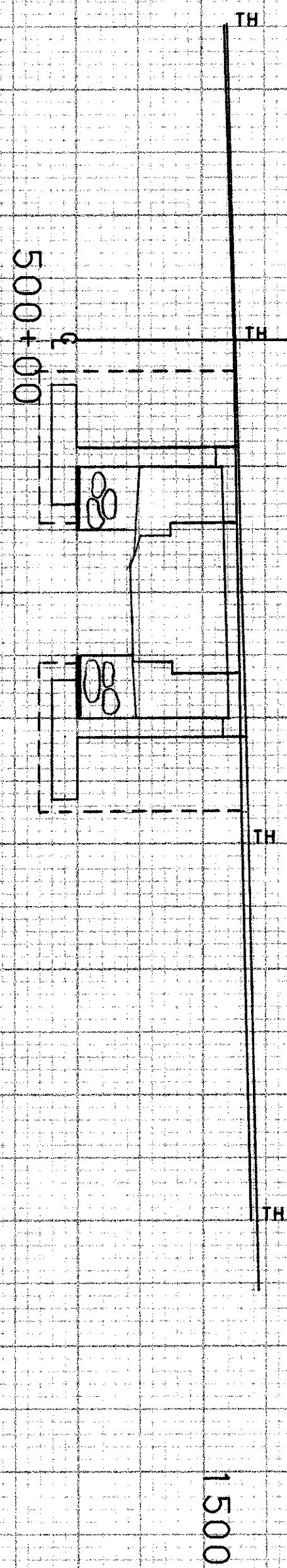
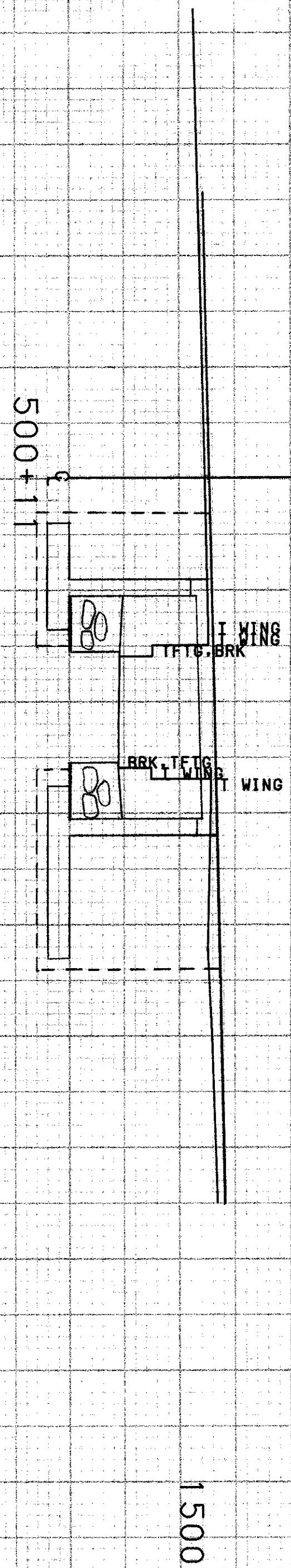


BANKING DIAGRAM
VERTICAL SCALE: 1" = 0.021'
HORIZONTAL SCALE: 1" = 50'



SCALE 1" = 10 FEET

FROM STA.	50+75	TO STA.	51+50
PROJECT NAME	STANNARD MI		
NO.	TH28919		
SURVEYED BY	FLANDERS		
SHEET	8	OF 21	SHEETS
PLOTTED 04/10/89			

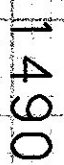


STATION 499+70
BEGIN STONE FILL TYPE IV
BEGIN GEOTEXTILE UNDER STONE FILL
BEGIN GROBBING MATERIAL
BEGIN UNCLASSIFIED CHANNEL EXCAVATION

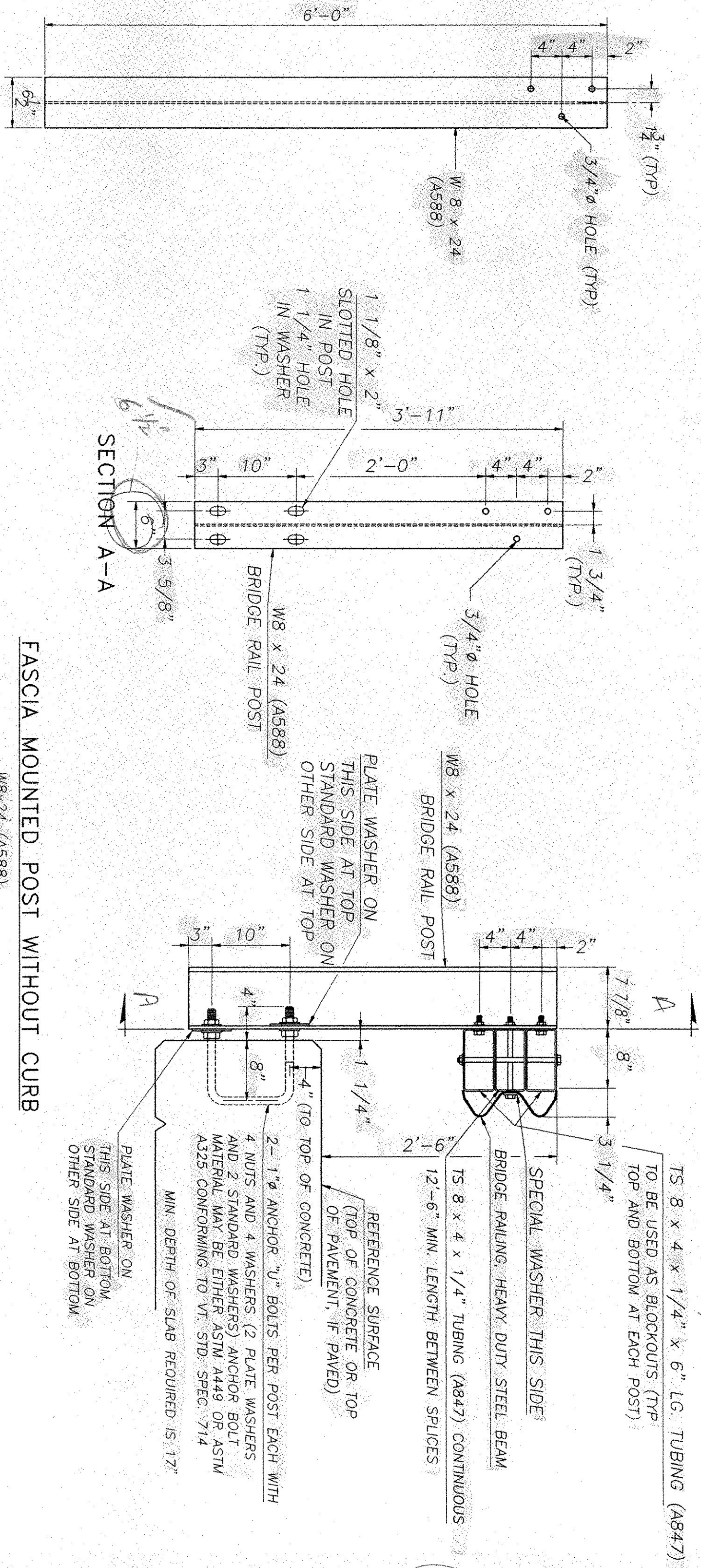
SCALE 1/500

FROM STA.	499+75	TO STA.	500+11
PROJECT NAME	STANNARD CHAN		
NO.	1128919		
SURVEYED BY	FLANDERS		
SHEET 20	OF 21	SHEETS	
		PLOTTED	04/10/89

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

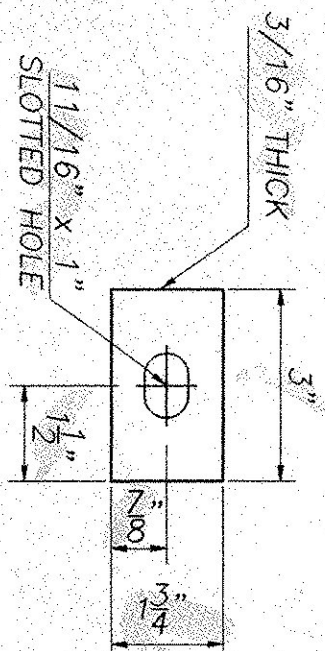


FROM STA.	500+17	TO STA.	500+75
PROJECT NAME	STANNARD CHAN		
NO.	TH28919	PLOTTED	04/10/88
SURVEYED BY	FLANDERS		03/89 0211
SHEET	21	OF	21 SHEETS



FASCIA MOUNTED POST WITHOUT CURB

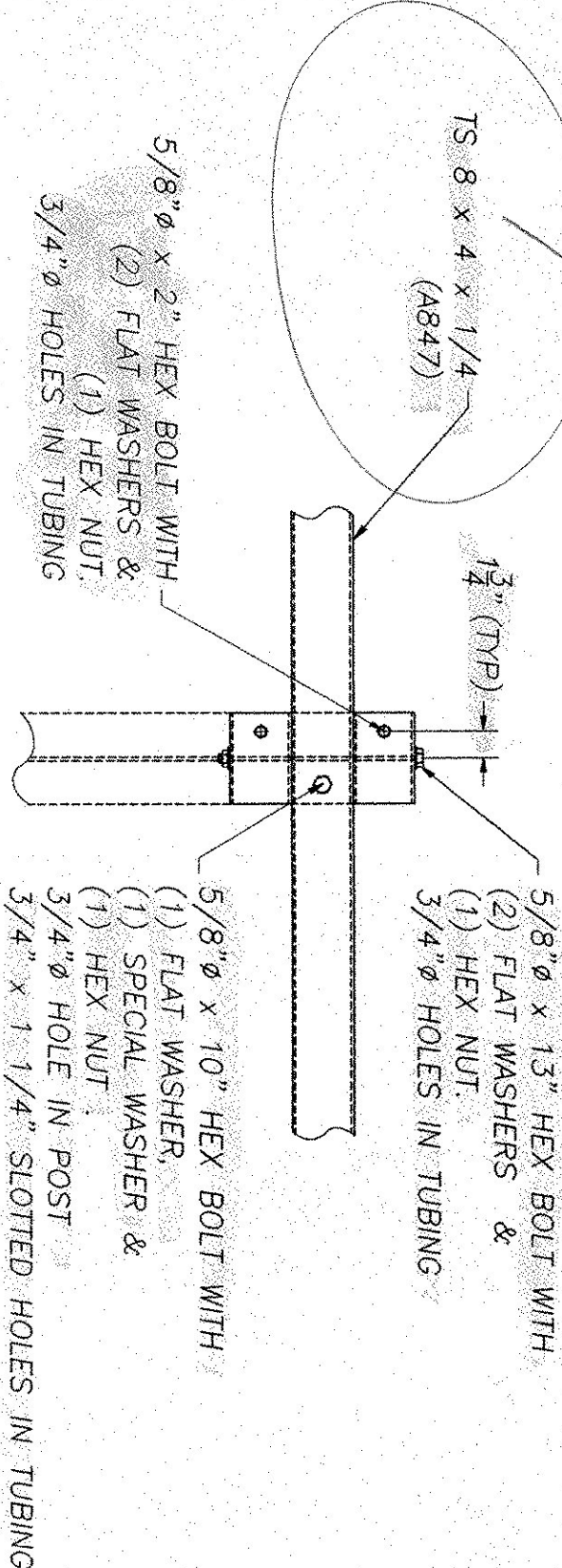
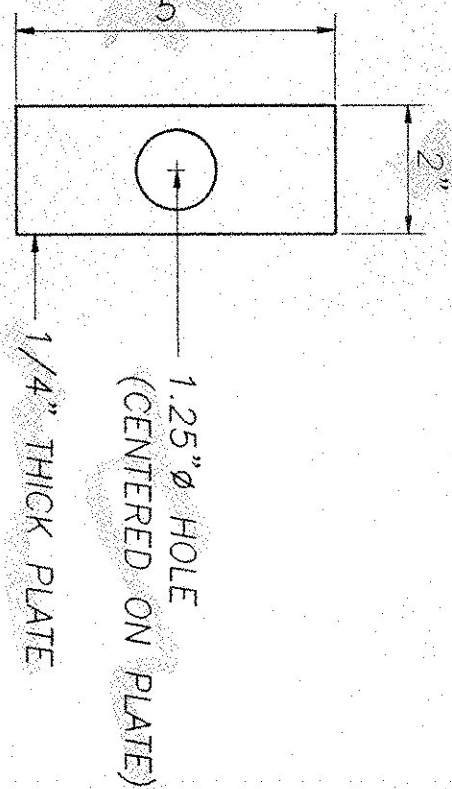
W8x24 (A588)



SPECIAL WASHER DETAIL

PLATE WASHER DETAIL

PROVIDED BY OTHERS - SHOWN FOR REFERENCE ONLY

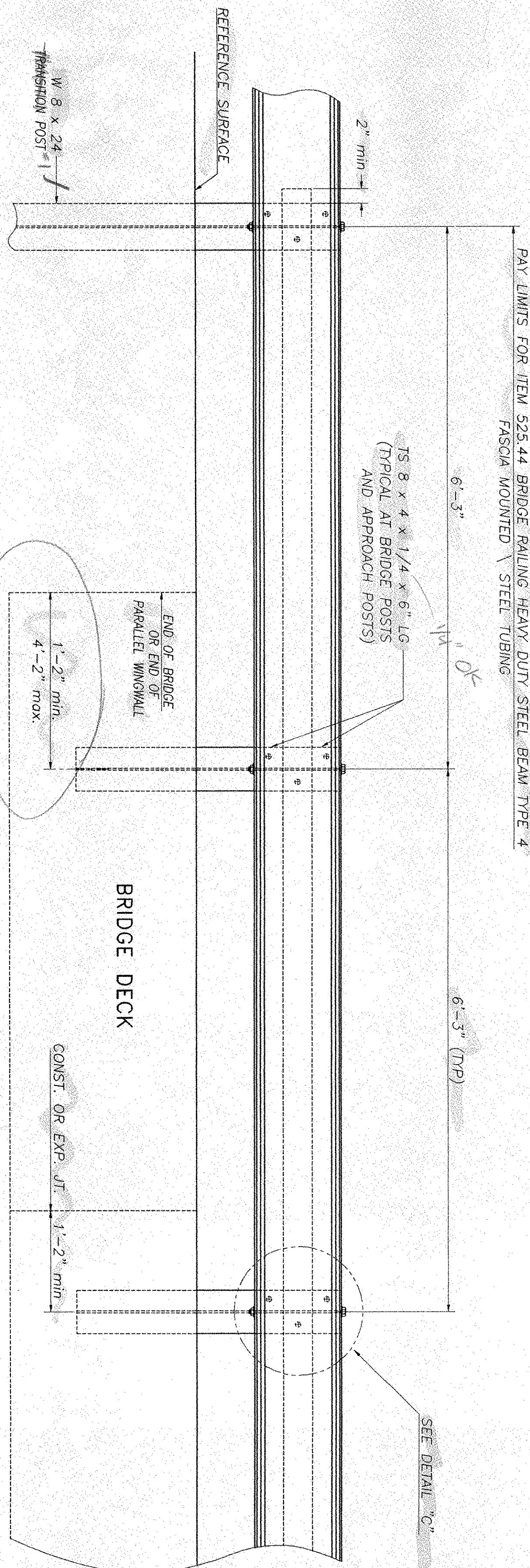


DETAIL "C"

STEEL BEAM GUARD RAIL NOT SHOWN

GENERAL ERECTION NOTES

- Heavy duty steel beam guard rail shall conform to VI. specification 732. ASHTO 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 VI. 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-R6-82 for approach rail details and for information relative to schedule 1 and schedule II. All approach rail shall be heavy duty steel beam guard rail. Also see Std. Dwg. SB-R6-82 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.



RAILING ELEVATION VIEW

(SHOWN LOOKING FROM LEFT WITHOUT CURB)

REVISIONS		Date
No.	Remarks	
0	Initial submittal	8/2/01

HIGHWAY SAFETY CORP.
GLASTONBURY, CT

RECEIVED
AUG 10 2001
APPROVED BY: [Signature]
DATE: 8/22/01

ITEM 525.44 BRIDGE RAILING HD58 TYPE IV	DRAWN P. Rodice
FASCIA MOUNTED STEEL TUBING WITHOUT CURB	DATE 8/1/01
TOWN OF STANNARD, VERMONT	SCALE NONE
TH1 OVER STANNARD BROOK - BRIDGE NO. 6	HQS REFERENCE NO. 1263
PROJECT NO. TH2-8919	SIZE D
GENERAL CONTRACTOR R.C. CONTRACTORS INC.	SHEET NO. 0
SUB CONTRACTOR F.R. LAFAYETTE, INC.	2 of 2