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35.	STD. DWG.	G-4	5/24/82 R
36.	STD. DWG.	SB-R6-82	6/18/82 R
37.	STD. DWG.	SCB-01-75	3/14/81 R
38.	STD. DWG.	SCB-D6-73	1/3/79 R
39.	STD. DWG.	SCB-D7-71	12/15/76 R
40.	STD. DWG.	SCB-D7-71	1/21/75 R
41.	STD. DWG.	SCB-D4-76	10/12/83 R

CONTRACT PLANS

THESE PLANS DO NOT REFLECT CHANGES MADE ON THE PROJECT.

GENERAL NOTES

1. THE GENERAL NOTE PERTAINING TO SPECIFICATIONS, MATERIALS, AND CONSTRUCTION IS SHOWN ON STANDARD DRAWING SCB-01-75. OTHER GENERAL NOTES ON THE STANDARD, NOT OTHERWISE SHOWN OR MODIFIED ON THESE PLANS ARE NOTES 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 13, 14, AND 16.
2. THE STRUCTURE IS DESIGNED FOR AN HS-20-44 LIVE LOAD WITH 1" FUTURE PAVEMENT ALLOWANCE.
3. FLEMING BRACKETS OR SIMILAR FALSEWORK SHALL BE SPACED AT A MAXIMUM OF FOUR (4) FEET.
4. TURF ESTABLISHMENT SHALL BE CONSIDERED SUBSIDIARY TO ALL OTHER ITEMS IN THE CONTRACT. SEE SPECIAL PROVISIONS FOR THIS PROJECT.
5. WATER REPELLENT SHALL BE APPLIED TO ALL EXPOSED CONCRETE ON BOTH THE SUBSTRUCTURE AND SUPERSTRUCTURE, EXCEPT THE DECK SOFFIT BETWEEN DRIP BEADS.
6. DRIP PLATES ON BEAMS 1 & 4 ARE TO BE PLACED ACCORDING TO DETAIL "C" ON STANDARD SHEET SCB-07-71.
7. THE BRIDGE SEATS SHALL BE SLOPED 1/2" PER FOOT, EXCEPT UNDER BEARINGS WHERE THE SURFACES SHALL BE LEVEL. THE BRIDGE SEATS SHALL BE SLOPED EACH WAY FROM THE CENTERLINE OF BEARINGS. THE ENTIRE BRIDGE SEAT SURFACE SHALL BE SMOOTH STEEL TROWEL FINISHED.
8. IN ALL HORIZONTAL CONSTRUCTION JOINTS, SHEAR KEYS SHALL BE FORMED AS DETAILED ON STANDARD DRAWING SCB-D6-73, DETAIL "B", AND THEY SHALL BE CONTINUOUS FOR THE FULL LENGTH OF THE JOINT. ANY UPWARD KEY SHALL BE PLACED INTEGRALLY WITH THE CONCRETE BELOW THE JOINT.
9. THE ABUTMENTS ARE DESIGNED FOR A MAXIMUM FOOTING PRESSURE OF 5.2 KSF.
10. THE ABUTMENT FOOTINGS SHALL BE UNDERCUT 1'-0" IF DEEMED NECESSARY BY THE ENGINEER TO OBTAIN A GOOD BED FOR THE FOOTINGS. EXCAVATION SHALL BE PAID AS "STRUCTURE EXCAVATION". THIS 1'-0" UNDERCUT SHALL BE BACKFILLED WITH "GRANULAR BACKFILL FOR STRUCTURES".
11. ALL IN-STREAM CONSTRUCTION SHALL BE ACCOMPLISHED DURING THE PERIOD JUNE 15 THRU OCTOBER 1.

(GENERAL NOTES CONT ON SHEET 4)

STATE OF VERMONT
AGENCY OF TRANSPORTATION

PROPOSED IMPROVEMENT
BRIDGE PROJECT

TOWN OF GRANVILLE

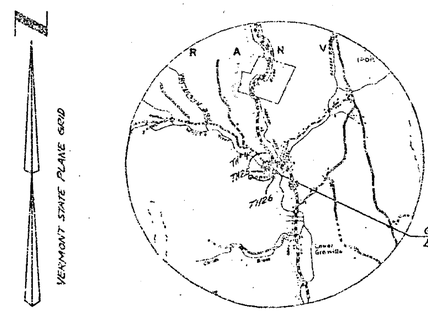
COUNTY OF ADDISON

ROUTE NO: TH 26, CL III BRIDGE NO: 23

PROJECT LOCATION: BEGINNING AT A POINT ON TH 26, APPROXIMATELY 0.038 MILES FROM THE INTERSECTION OF TH 26, TH 4 & VT RTE 100 AND EXTENDING NORTHEASTERLY ALONG TH 26 FOR 0.038 MILES. THIS BRIDGE REPLACES BR 21 ON TH 25

PROJECT DESCRIPTION: CONSTRUCTION OF A NEW SINGLE SPAN COMPOSITE ROLLED BEAM BRIDGE AND CONCRETE ABUTMENTS, ROADWAY APPROACHES AND RELATED CHANNEL WORK.

LENGTH OF	STRUCTURE:	60.00 FEET
LENGTH OF	PARTICIPATION ROADWAY:	140.00 FEET
LENGTH OF	NON-PARTICIPATION ROADWAY:	——.— FEET
LENGTH OF	PROJECT:	200.00 FEET

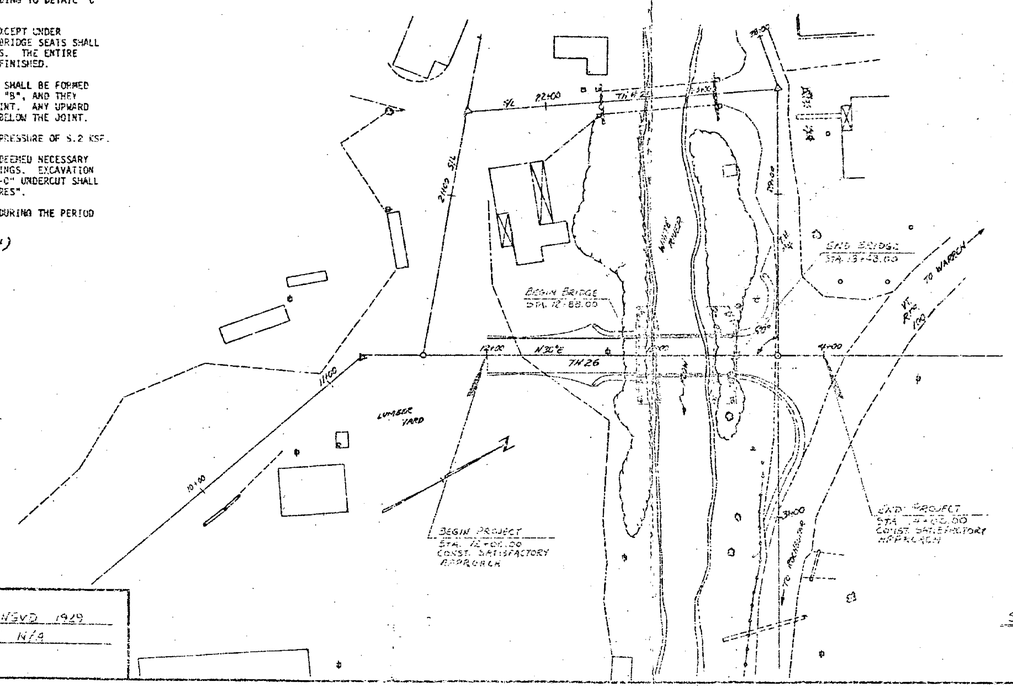


LOCATION MAP

(TRACED FROM COUNTY MAP)

SCALE: 1" = 1 MILE

LOAD RATING (TONS)							
STRESS LEVELS	TRUCK						
	HS	H	3S2	6 AXLE	3A STR.	4A STR.	5A SEMI
INVENTORY 0.55Yp = 270 K.S.I.	42	34					
POSTED 0.67Yp = 329.5 K.S.I.		41	83		54	55	71
OPERATING 0.75Yp = 375 K.S.I.			100	110			


TH 26
22400
3400
3400
3

GUARD RAIL, H.D. STEEL BEAM w/WOOD POSTS, TYPE II

M/L 12+61 Lt. ~ M/L 12+87 Lt.
M/L 12+61 Rt. ~ M/L 12+87 Rt.
M/L 13+49 Rt. ~ TH-4 29+50 Rt.
M/L 13+49 Rt. ~ TH-4 31+25 Rt.

ANCHORS FOR STL.BM. GUARD RAIL @ OPENINGS

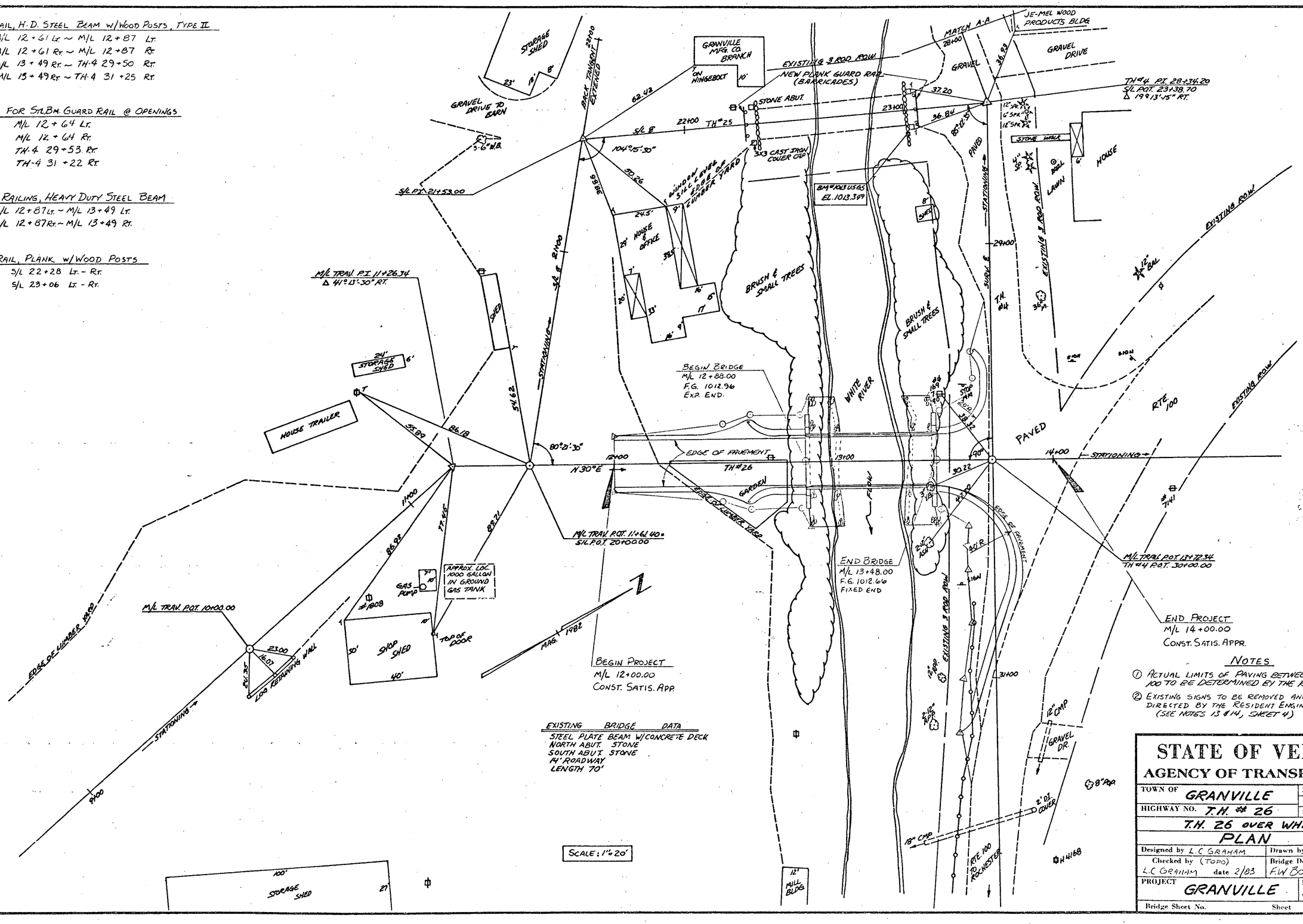
M/L 12+64 Lt.
M/L 12+64 Rt.
TH-4 29+53 Rt.
TH-4 31+22 Rt.

BRIDGE RAILING, HEAVY DUTY STEEL BEAM

M/L 12+87 Lt. ~ M/L 13+49 Lt.
M/L 12+87 Rt. ~ M/L 13+49 Rt.

GUARD RAIL, PLANK w/WOOD POSTS

S/L 22+28 Lt. - Rt.
S/L 23+06 Lt. - Rt.



NOTES

1. ACTUAL LIMITS OF PAVING BETWEEN 13+48 → VT. RTE. 100 TO BE DETERMINED BY THE RESIDENT ENGINEER.
2. EXISTING SIGNS TO BE REMOVED AND RESET AS DIRECTED BY THE RESIDENT ENGINEER. (SEE NOTES 13 & 14, SHEET 4)

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF GRANVILLE	Bridge No. 23
HIGHWAY NO. T.H. # 26	Log Sta. —
	Surv. Sta. 13+18

T.H. 26 OVER WHITE RIVER

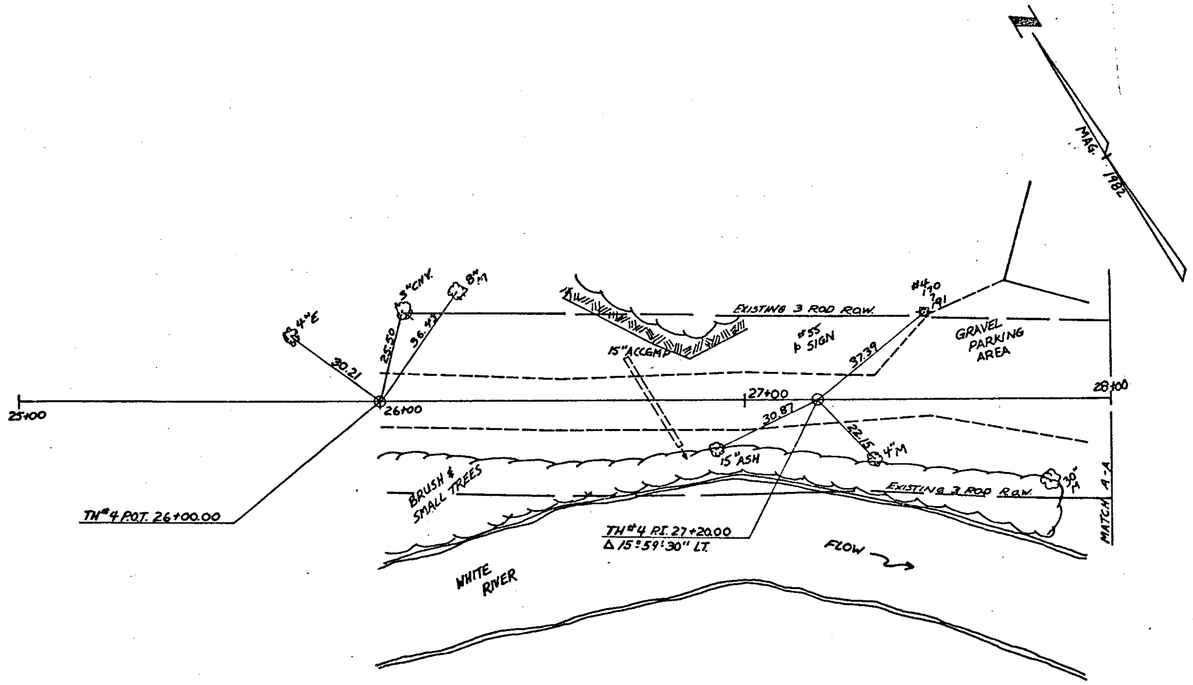
PLAN

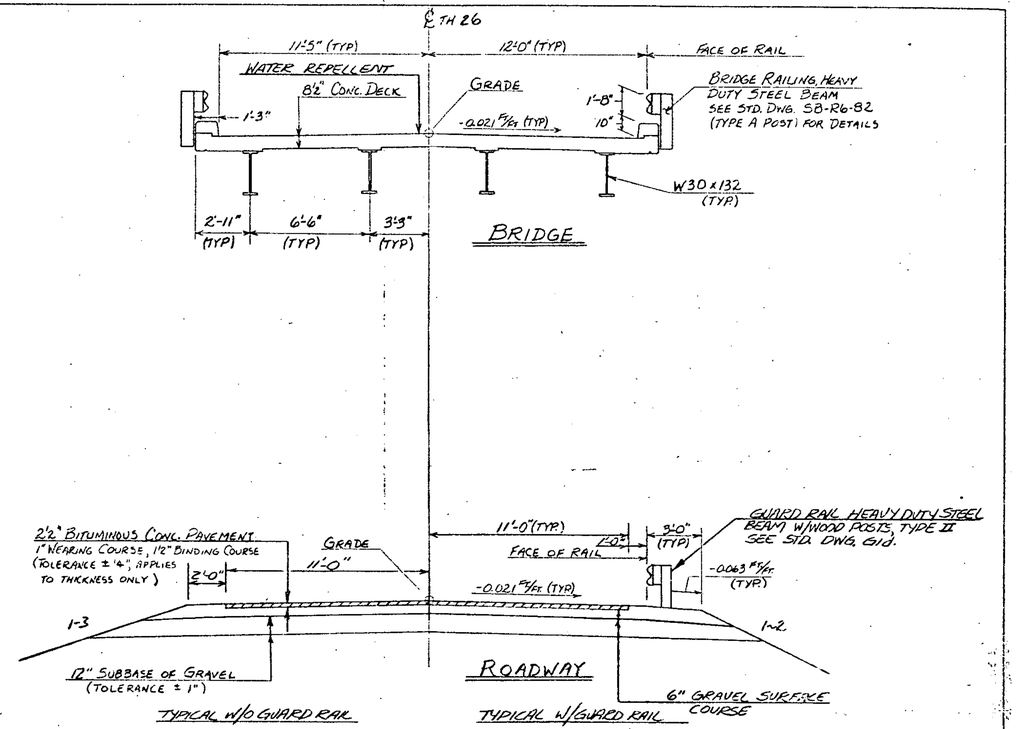
Designed by L.C GRAHAM	Drawn by L.C. GATES
Checked by (TOPO) L.C GRAHAM date 2/83	Bridge Design Supervisor F.W BOLKUM date 2/83
PROJECT GRANVILLE	PROJECT NO. BRZ-1444(9)
Bridge Sheet No.	Sheet 2 of 41

BRUNING 44-131 40151

BR-6

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
NOTE BOOK
NO.
BY
DATE

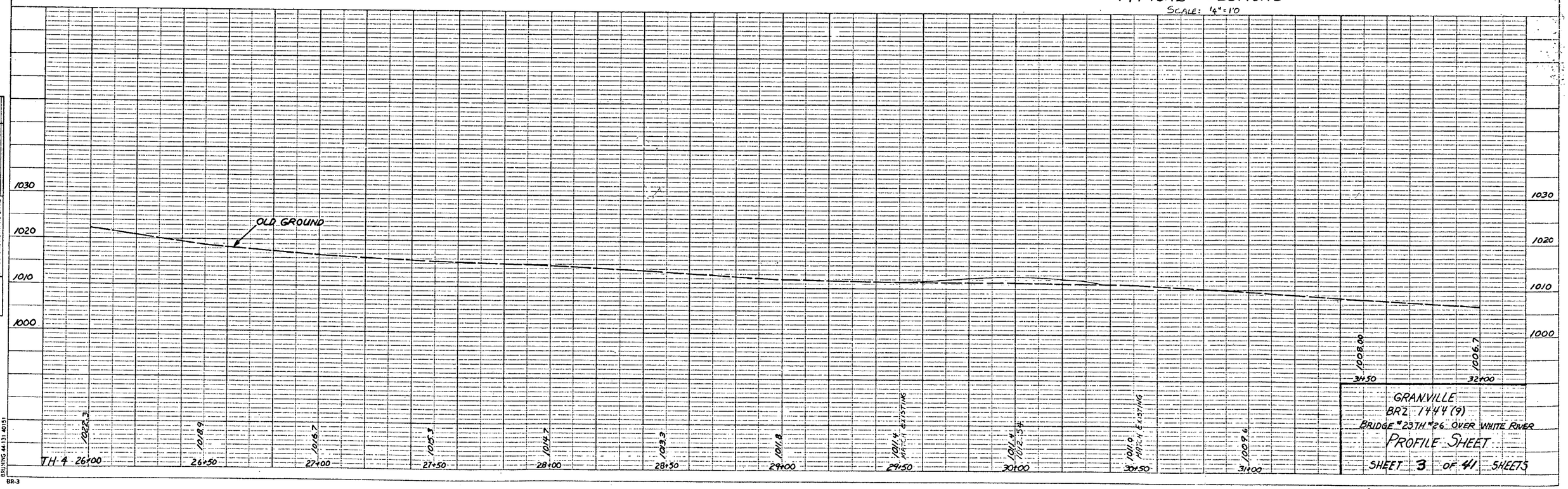




TYPICAL SECTIONS

SCALE: 1" = 10'

PROFILE
SURVEYED
PLOTTED
GRADE CHECKED
B.M.'s NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.
BY
DATE



GRANVILLE
BRZ. 1444 (9)
BRIDGE #23TH #26 OVER WHITE RIVER
PROFILE SHEET
SHEET 3 OF 41 SHEETS

BRUNING 44-131 40151
BR-3

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
BASE MAP
STRUCTURE NO
NOTE BOOK
NO.
BY
DATE

BRUNING 44-131 40151

BR-3

GENERAL NOTES (CONT.)

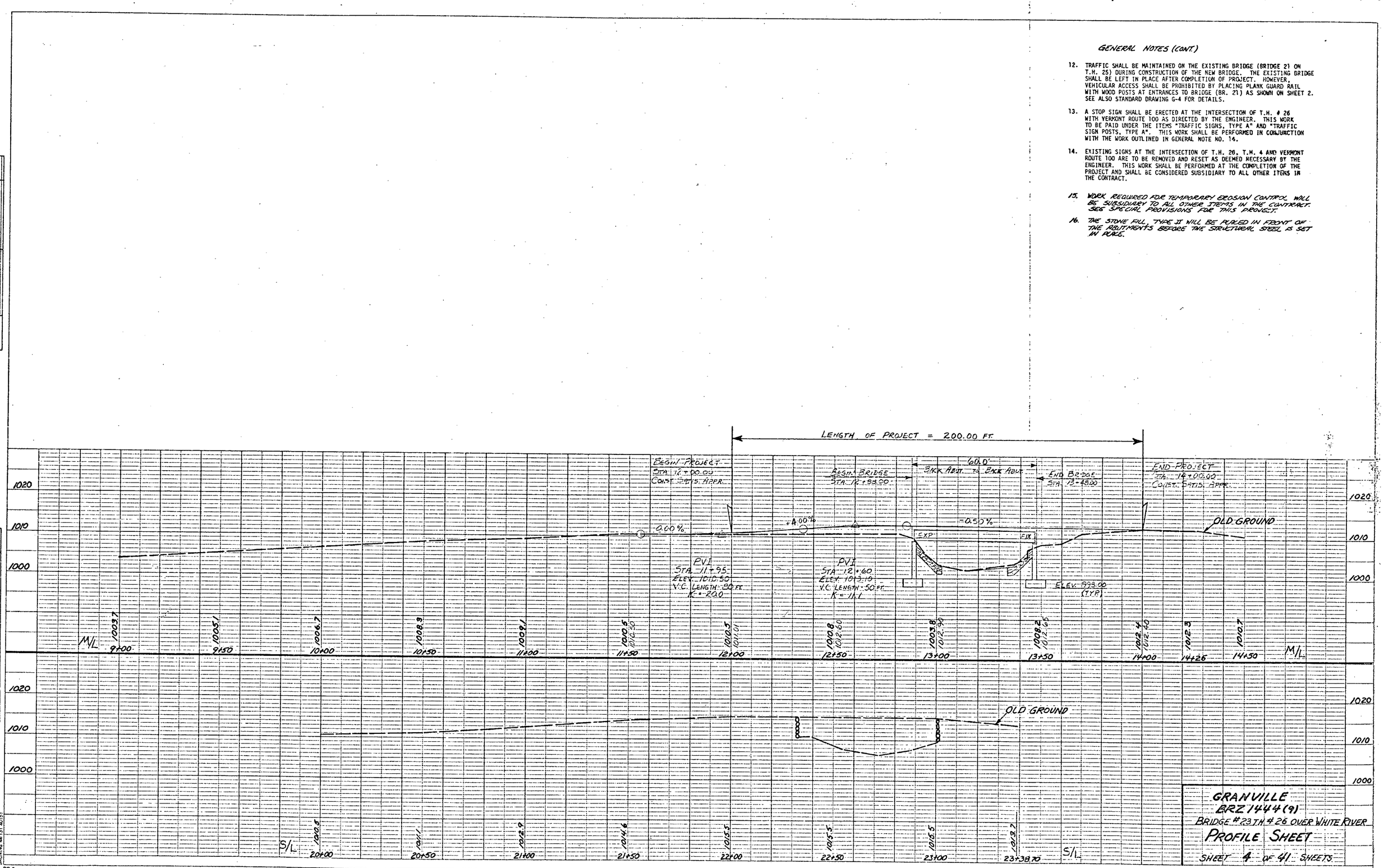
12. TRAFFIC SHALL BE MAINTAINED ON THE EXISTING BRIDGE (BRIDGE 21 ON T.H. 25) DURING CONSTRUCTION OF THE NEW BRIDGE. THE EXISTING BRIDGE SHALL BE LEFT IN PLACE AFTER COMPLETION OF PROJECT. HOWEVER, VEHICULAR ACCESS SHALL BE PROHIBITED BY PLACING PLANK GUARD RAIL WITH WOOD POSTS AT ENTRANCES TO BRIDGE (BR. 21) AS SHOWN ON SHEET 2. SEE ALSO STANDARD DRAWING G-4 FOR DETAILS.

13. A STOP SIGN SHALL BE ERECTED AT THE INTERSECTION OF T.H. # 26 WITH VERMONT ROUTE 100 AS DIRECTED BY THE ENGINEER. THIS WORK TO BE PAID UNDER THE ITEMS "TRAFFIC SIGNS, TYPE A" AND "TRAFFIC SIGN POSTS, TYPE A". THIS WORK SHALL BE PERFORMED IN CONJUNCTION WITH THE WORK OUTLINED IN GENERAL NOTE NO. 14.

14. EXISTING SIGNS AT THE INTERSECTION OF T.H. 26, T.H. 4 AND VERMONT ROUTE 100 ARE TO BE REMOVED AND RESET AS DEEMED NECESSARY BY THE ENGINEER. THIS WORK SHALL BE PERFORMED AT THE COMPLETION OF THE PROJECT AND SHALL BE CONSIDERED SUBSIDIARY TO ALL OTHER ITEMS IN THE CONTRACT.

15. WORK REQUIRED FOR TEMPORARY EROSION CONTROL WILL BE SUBSIDIARY TO ALL OTHER ITEMS IN THE CONTRACT. SEE SPECIAL PROVISIONS FOR THIS PROJECT.

16. THE STONE FILL, TYPE I WILL BE PLACED IN FRONT OF THE ABUTMENTS BEFORE THE STRUCTURAL STEEL IS SET IN PLACE.



GRANVILLE
ERZ 1444(9)
BRIDGE # 23 TH # 26 OVER WHITE RIVER

PROFILE SHEET

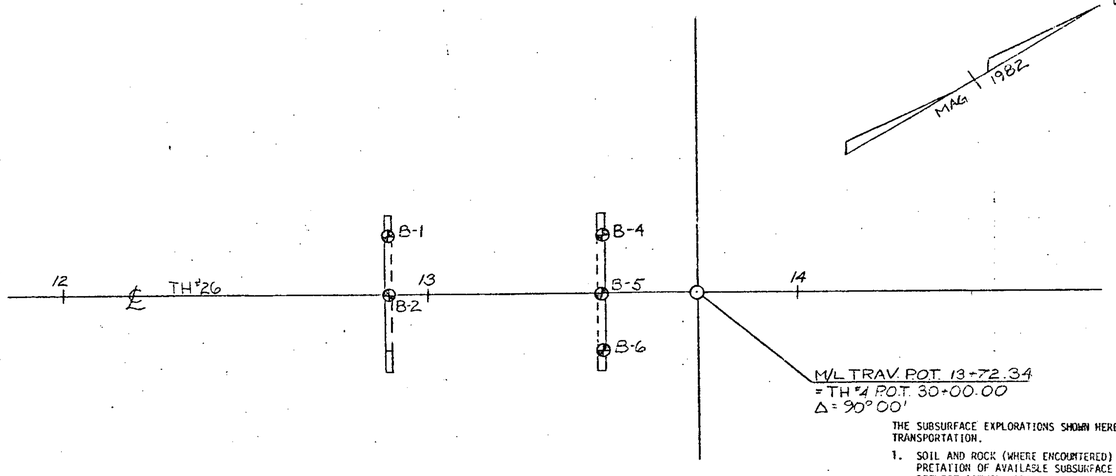
SHEET 4 OF 41 SHEETS

BORING NOMENCLATURE

- ⊕ STANDARD PENETRATION BORINGS
  - SAMPLER OUTSIDE DIAMETER 2"
  - SAMPLER INSIDE DIAMETER 1 3/8"
  - WEIGHT OF HAMMER 140 LBS.
  - HAMMER FALL 30"
- ⊕ AUGER BORINGS
- ⊙ ROD SOUNDINGS
- UP UNDISTURBED PISTON SAMPLE
- VS FIELD VANE SHEAR SAMPLE

BORING NO.	STATION	OFFSET
B-1	12+89	16' Lt
B-2	12+89	℄
B-4	13+47	16' Lt.
B-5	13+47	℄
B-6	13+47	16' Rt.

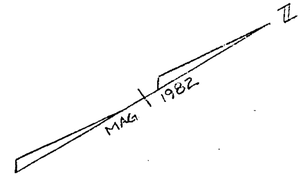
* FIELD IDENTIFICATION



BORING PLAN

SCALE IN FEET

0 10 20 40



GENERAL NOTES

THE SUBSURFACE EXPLORATIONS SHOWN HEREON WERE MADE MARCH 1983 BY THE VERMONT AGENCY OF TRANSPORTATION.

1. SOIL AND ROCK (WHERE ENCOUNTERED) CLASSIFICATION, PROPERTIES AND DESCRIPTIONS ARE BASED ON ENGINEERING INTERPRETATION OF AVAILABLE SUBSURFACE INFORMATION BY THE VERMONT AGENCY OF TRANSPORTATION AND MAY NOT NECESSARILY REFLECT ACTUAL VARIATIONS IN SUBSURFACE CONDITIONS THAT MAY BE ENCOUNTERED BETWEEN INDIVIDUAL BORING OR SAMPLE LOCATIONS.
2. OBSERVED WATER LEVELS AND/OR WATER CONDITIONS INDICATED ARE AS RECORDED AT THE TIME OF EXPLORATION AND MAY VARY ACCORDING TO THE PREVAILING RAINFALL, METHODS OF EXPLORATION AND OTHER FACTORS.
3. SOUND ENGINEERING JUDGEMENT WAS EXERCISED IN PREPARING THE SUBSURFACE INFORMATION PRESENTED HEREON. ANALYSIS AND INTERPRETATION OF SUBSURFACE DATA WAS PERFORMED AND INTENDED FOR AGENCY DESIGN AND ESTIMATE PURPOSES ONLY. PRESENTATION OF THE INFORMATION ON THE PLANS OR ELSEWHERE IS FOR THE PURPOSE OF PROVIDING INTENDED USERS WITH ACCESS TO THE SAME DATA AVAILABLE TO THE AGENCY. THE SUBSURFACE INFORMATION IS PRESENTED IN GOOD FAITH AND IS NOT INTENDED AS A SUBSTITUTE FOR PERSONAL INVESTIGATION, INDEPENDENT INTERPRETATIONS, INDEPENDENT ANALYSIS OR JUDGEMENT OF THE CONTRACTOR.
4. PICTORIAL STRUCTURE DETAILS SHOWN HEREON ARE FOR ILLUSTRATIVE PURPOSES ONLY AND MAY NOT BE INDICATIVE OF THE FINAL DESIGN CONDITIONS SHOWN IN THE CONTRACT PLANS.

BORING NO. B-1

ELEV. 1,013.3

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
0		26		M	Br	A-1-a Sandy Gravel
		97				A-1-a Sandy Gravel
10		R				A-1-b Sandy Gravel BOULDERS *
		R				No Sample STONES *
20						Hole stopped at 18' in hard packed gravel & boulders
30						

1010 — 1000 — 990 — 980

EL. 998.00 BTM. FTG. ADJT. #1

BORING NO. B-2

ELEV. 1,013.6

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
0		36				A-1-a Sandy Gravel
		45				A-2-4 Silty Gravel
10		R		M	Br	No Sample BOULDER *
		R6				A-1-b Silty Gravel
20		68 for 0.5'			Gr-Br	A-1-a Sandy Gravel
		--				No Sample BOULDER *
30						
40						Hole stopped at 28.5' in boulders

EL. 998.00 BTM. FTG. ADJT. #1

BORING NO. B-4

ELEV. 1,011.4

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
0		107		M	Br	A-1-a Sandy Gravel
10		115				A-1-b Silty Gravel BOULDERS 10'-11.5' *
						A-1-b Silty Gravel
20						Hole stopped at 13.0' in hard packed gravel

EL. 998.00 BTM. FTG. ADJT. #2

BORING NO. B-5

ELEV. 1,011.4

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
0		57 for 0.3'		M	Br	A-1-a Sandy Gravel
		107				A-1-b Silty Gravel
10		41 for 0.2'				A-1-b Sandy Gravel
20						Hole stopped at 13.2' in hard packed gravel

EL. 998.00 BTM. FTG. ADJT. #2

BORING NO. B-6

ELEV. 1,011.2

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
0		116		M	Br	A-1-a Sandy Gravel
		--				No Sample BOULDERS 7'-11' *
10		14 for 0.1'				A-1-b Silty Gravel
		111				A-1-b Silty Gravel
20						Hole stopped at 15.5' in hard packed gravel
30						

1010 — 1000 — 990 — 980

EL. 998.00 BTM. FTG. ADJT. #2

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF GRANVILLE	Bridge No. 23
HIGHWAY NO. TH #26	Log Sta. ——
	Surv. Sta. 13+18.0
TH #26 OVER WHITE RIVER	
BORING LOGS	
Designed by G.S. ROGERS	Drawn by D. HEWITT
Checked by G.S. ROGERS date 2/84	Bridge Design Supervisor F.W. Selkum date 4/84
PROJECT GRANVILLE	PROJECT NO. BRZ 1444(9)
Bridge Sheet No.	Sheet 5 of 41

BRUNING 44-131 43151

ER-6

STATE OF VERMONT
AGENCY OF TRANSPORTATION
RIGHT-OF-WAY PLANS
DETAIL SHEET

TABLE OF PROJECT PROPERTY ACQUISITION

PARCEL NO.	GRANTOR	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKING	REM.	RIGHTS	TITLE TAKEN	DATE	TOWN OR CITY RECORDED	BK.	PG.	REMARKS
1	FULLER, ROBERT L. & CAROL A.	3	11+80 RT.	13+54 LT.	0.20 A±	80.00 A±		WDOE	10-17-83	GRANVILLE	24	356	
			12+76 LT.	13+54 LT.			CONST. EASE. (T) (0.02 A±)						824 S.F.±
			12+87 LT.	13+48 LT.			CHANNEL (P) (0.01 A±)						290 S.F.±
			12+76 RT.	13+53 RT.			CONST. EASE. (T) (0.02 A±)						754 S.F.±
			12+87 RT.	13+50 RT.			CHANNEL (P) (0.01 A±)						304 S.F.±
2	CENTRAL VERMONT PUBLIC SERVICE CORP.												UTILITY
3	NEW ENGLAND TELEPHONE & TELEGRAPH												UTILITY

TABLE OF REVISIONS

REVISION NO.	SHEET NO.	DESCRIPTION OF REVISION	DATE	MADE BY	APPROVED BY
		Plans Given To Surveyors 4-24-84			

MADE BY: W.W.H. DATE 5-17-83

CHECKED BY: E.A. DATE 5-17-83

DR. RT. — DRAINAGE RIGHT
DIT. RT. — DITCHING RIGHT
CH. RT. — CHANNEL RIGHT
DRIVE RT. — DRIVE RIGHT
CUL. RT. — CULVERT RIGHT
(D) — DEMOLITION OR REMOVAL
[W] — WATER SOURCES

PRESENT R.O.W.
TAKING WITHOUT ACCESS
TAKING WITHOUT ACCESS ALONG PROPERTY LINES
TAKING WITH ACCESS
(P) PERMANENT EASEMENT
(T) TEMPORARY EASEMENT

LEGEND
CONST. EASE. — CONST. EASEMENT
SR — SR — SLOPE RIGHTS
P/L — P/L — PROPERTY LINE
TOP OF CUT
TOE OF SLOPE

APPROVED _____ DATE _____
CHIEF OF PLANS & TITLES

PROJECT GRANVILLE
NO. BRZ 1444(9)
SHEET 6 OF 41

ROW

BRUNING 44.131.40992

GUARD RAIL, H.D. STEEL BEAM w/WOOD POSTS, TYPE II

M/L 12+31 Lt. ~ M/L 12+87 Lt.
M/L 12+61 Rt. ~ M/L 12+87 Rt.
M/L 13+49 Rt. ~ TH-4 29+50 Rt.
M/L 13+49 Rt. ~ TH-4 31+25 Rt.

ANCHORS FOR ST BM GUARD RAIL @ OPENINGS

M/L 12+64 Lt.
M/L 12+64 Rt.
TH-4 29+53 Rt.
TH-4 31+22 Rt.

BRIDGE RAILING, HEAVY DUTY STEEL BEAM

M/L 12+87 Lt. ~ M/L 13+49 Lt.
M/L 12+87 Rt. ~ M/L 13+49 Rt.

GUARD RAIL, PLANK w/WOOD POSTS

S/L 22+23 Lt. - Rt.
S/L 23+06 Lt. - Rt.

BEGIN R.O.W. PROJECT
BRZ 1444(9) STA. 11+80 ℄

END R.O.W. PROJECT
BRZ 1444(9) STA. 14+00 ℄

BEGIN BRIDGE
M/L 12+88.00
F.G. 1012.96
EXP. END

BEGIN PROJECT
M/L 12+00.00
CONST. SATIS. APP.

END BRIDGE
M/L 13+48.00
F.G. 1012.66
FIXED END

END PROJECT
M/L 14+00.00
CONST. SATIS. APP.

EXISTING BRIDGE DATA
STEEL PLATE BEAM W/CONCRETE DECK
NORTH ABUT. STONE
SOUTH ABUT. STONE
14' ROADWAY
LENGTH 70'

NOTE: THIS SHEET IS FOR R.O.W. INFORMATION ONLY SEE OTHER PLAN SHEETS FOR CONSTRUCTION DETAILS.

SCALE: 1"=20'

NOTES

1. ACTUAL LIMITS OF PAVING TO BE DETERMINED BY THE RESIDENT ENGINEER.
2. EXISTING SIGNS TO BE REMOVED AND RESET AS DIRECTED BY THE RESIDENT ENGINEER.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF GRANVILLE	Bridge No. 23
HIGHWAY NO. T.H. # 26	Leg Sta. ——
	Surv. Sta. 13+18
T.H. 26 OVER WHITE RIVER	
PLAN	
Designed by L.C. GRAHAM	Drawn by L.C. GATES
Checked by (TOPO) L.C. GRAHAM date 2/83	Bridge Design Supervisor F.W. BOLKUM date 2/83
PROJECT GRANVILLE	PROJECT NO. BRZ 1444(9)
Bridge Sheet No.	Sheet 7 of 41

BR-6

EARTHWORK

V.C.	% GRD	STATION	ELEVATION ON TAN.	ELEVATION ON V.C.	CORR. V.C.	DIST.	COMMON EXCAVATION AREA	COMMON EXCAVATION CU. YDS.	SUBBASE OF GRAVEL (12") AREA	SUBBASE OF GRAVEL (12") CU. YDS.	GRAVEL SURFACE COURSE AREA	GRAVEL SURFACE COURSE CU. YDS.	FILL AREA	FILL CU. YDS.
				TH #26										
	0.000 %	11+50	1010.50			5								
PVC		11+55	1010.50	1010.50	0.00	20								
		11+75	1010.50	1010.60	+0.10	20								
PVI		11+95	1010.50	1010.90	+0.40	5								
	+4.00 %	12+00	1010.70	1011.01	+0.31	35	30		25	32	13	17		
PVC		12+35	1012.10	1012.10	0.00	15		32	25	17	13	8		
		12+50	1012.70	1012.60	-0.10	10	5	1	36	14	17	7		
PVI		12+60	1013.10	1012.82	-0.28	25	0		38	33	21	17		
PVT		12+85	1012.98	1012.98	0.00	3			33	4	16	2		
		12+88	1012.96	BEGIN BRIDGE		12			36		16			
	-0.500 %	13+00	1012.90			48								
		13+48	1012.66	END BRIDGE		2			35	3	16	1		
		13+50	1012.65			22.34			35	46	16	23		
		13+72.34= TH 4 30+00.00	1012.54			27.66			77	67	39	34		
	MATCH EXISTING	14+00	1012.40						54		27			
					ROUNDING			33 cy / 7 cy		216 cy / 4 cy		109 cy / 1 cy		
					TOTAL			40 cy		220 cy		110 cy		
				TH #4										
		29+47		BEGIN APPROACH CONSTRUCTION		3								
		29+50	1011.50			10								
		29+60	1011.71			3								
		29+63				7	55	(Butt) 14						
	+2.08 %	29+70	1011.92			7.3	55							
		29+77.3	1012			2.7		18					28	(Butt) 3
		29+80	1012.12			10	40						28	10
		29+90	1012.33			10	46	16					26	
PVI		TH 4 30+00.00 = TH 26 13+92.34	1012.54			10	40	16					38	12
						10		15						15
		30+10	1012.33			10	43						45	
		30+20				10	46	16						13
		30+30				10	65	21					27	(Butt)
		30+40				10	58	23						53 cy
		30+50				10	43	19					ROUNDING	7 cy
		30+75				25	3	21					TOTAL	60 cy
		31+00				25	4	6						
		31+25				25	4	4						
								(Butt)					TOTAL FILL NEEDED =	69
								189 cy					TOTAL AVAILABLE FILL =	512
					ROUNDING			1 cy					WASTE =	443
					TOTAL			190 cy						

SUMMARY OF EARTHWORK

PLANIMETERED FILL 60(1.15) = 69

MATERIAL AVAILABLE FOR FILL

COMMON EXCAVATION 230 x 1.0 = 230
UNCLASSIFIED CHANNEL EXCAVATION 190 x 0.6 = 114
STRUCTURE EXCAVATION 280 x 0.6 = 168
TOTAL AVAILABLE FOR FILL = 512

BRIDGE QUANTITY SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
BRIDGE DIVISION

NO.	ITEM	UNIT	QUANTITY BREAKDOWN SUPER-STRUCTURE	ABUTMENT #1	ABUTMENT #2	ROADWAY	CHANNEL	TOTAL	FINAL
203.15	COMMON EXCAVATION	CY				230		230	
203.27	UNCLASSIFIED CHANNEL EXCAVATION	CY					190	190	
203.30	EARTH BORROW	CY				50		50	
204.25	STRUCTURE EXCAVATION	CY		140	140			280	
204.30	GRANULAR BACKFILL FOR STRUCTURES	CY		100	100			200	
301.15	SUBBASE OF GRAVEL	CY				220		220	
401.10	GRAVEL SURFACE COURSE	CY				110		110	
406.25	BITUMINOUS CONCRETE PAVEMENT	TON				90		90	
501.20	CONCRETE, CLASS A	CY	53					53	
501.25	CONCRETE, CLASS B	CY		52	51			103	
506.90	STRUCTURAL STEEL (ROLLED BEAM)	LBS	33690					33090	
506.99	BEARING DEVICE ASSEMBLY	EA		4	4			8	
507.15	REINFORCING STEEL	LBS	6400	4420	4180			15000	
507.17	REINFORCING STEEL (EPOXY COATED)	LBS	6610					6610	
508.15	SHEAR CONNECTORS (560 - 7/8" ϕ x 7")	LS	1					1	
514.10	WATER REPELLENT	GAL	14	1	1			16	
608.25	ALL PURPOSE EXCAVATOR RENTAL (TYPE I)	HR				10		10	
613.11	STONE FILL, TYPE II	CY					130	130	
617.35	BRIDGE RAIL-HEAVY DUTY STEEL BEAM	LF	125					125	
621.10	GUARD RAIL PLANK W/WOOD POSTS	LF				32		32	
621.38	GUARD RAIL HEAVY DUTY STEEL BEAM W/WOOD POSTS TYPE II	LF				276		276	
621.70	ANCHOR FOR STEEL BEAM GUARD RAIL WITH STEEL OR WOOD POSTS @ OPENINGS	EA				4		4	
635.10	MOBILIZATION	LS				1		1	
675.20	TRAFFIC SIGN, TYPE A	SF				7		7	
675.35	SIGN POST, TYPE A	LBS				28		28	
614.10	JOINT SEALER, HOT POURED	GAL				2		2	

NOTE: AN ESTIMATED QUANTITY OF 50 cy OF EARTH BORROW HAS BEEN INCLUDED TO BE USED AS DIRECTED BY THE ENGINEER, IF REQUIRED.

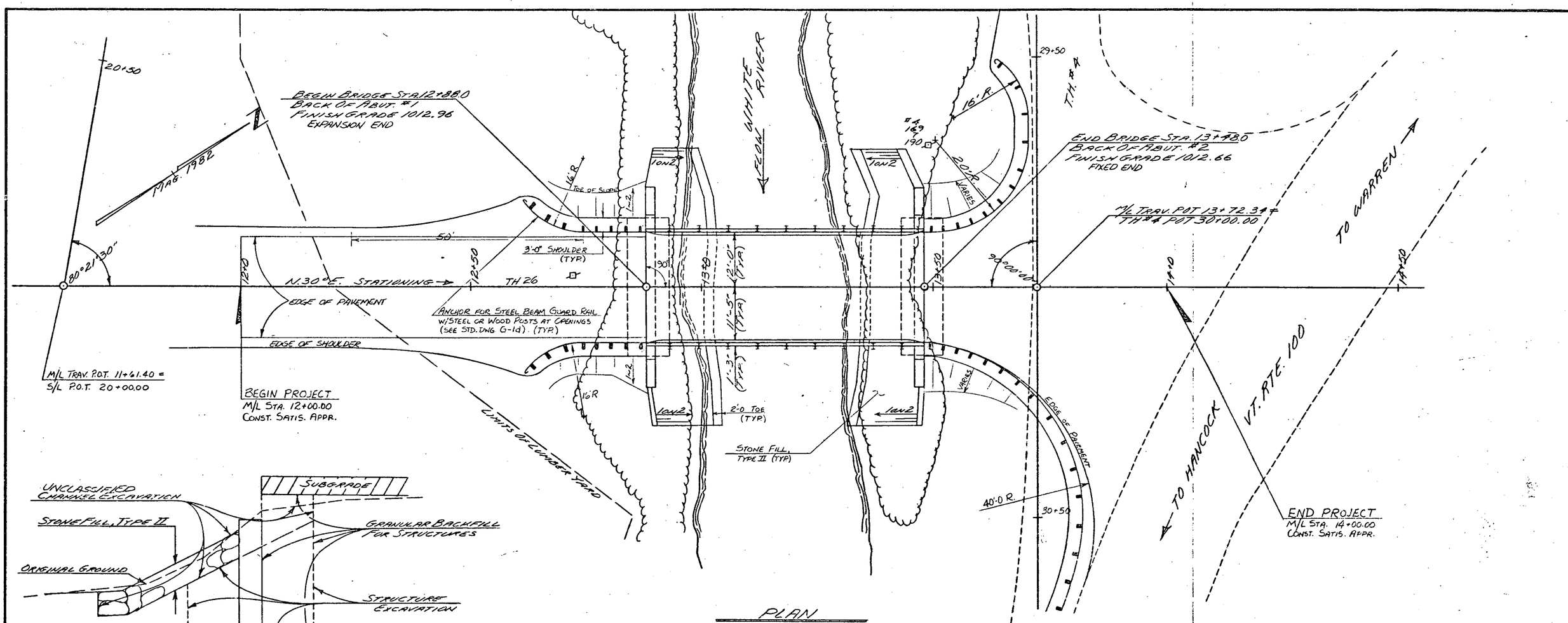
BRIDGE (S) AT STATION (S) 12+88.00 ~ 13+48.00
LOCATION (S) TH 26 OVER WHITE RIVER

Prepared by: C.C. GATES | Checked by: D.W. NEWTON | SUPERVISOR: F.W. Balkum

GRANVILLE
BR ___ OF ___

PROJECT NO. BRZ-1444(9)
SHEET NO. 8 OF 41

BB-1



* NOTE: FOR FURTHER GUARD RAIL DETAILS SEE STANDARD SHEET # SB-RB-82. OMIT THE TRANSITION POST AND THE REFERENCE TO THE MAXIMUM OR MINIMUM DISTANCE TO THE ℄ OF BRIDGE END POSTS.

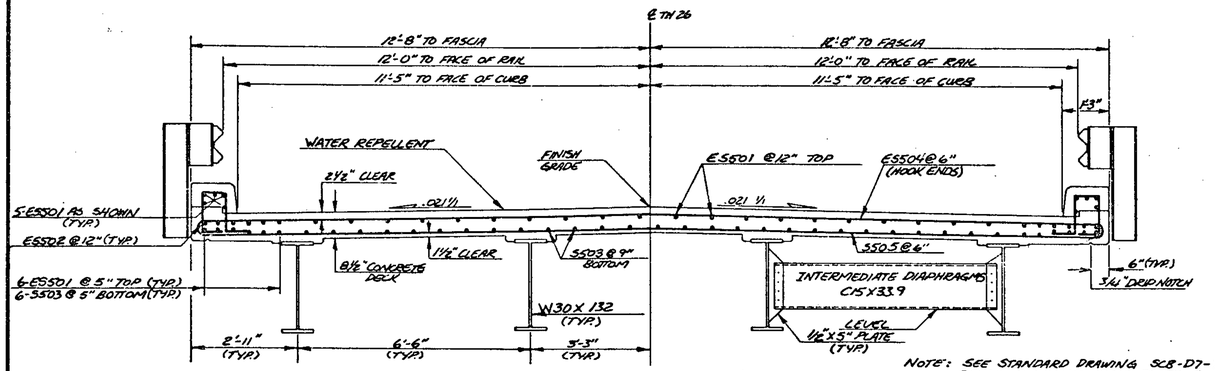
ACTUAL LIMITS OF PAVING BETWEEN 13+48 & 14 RTE 100 TO BE DETERMINED BY THE RESIDENT ENGINEER.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF GRANVILLE	Bridge No. 23
HIGHWAY NO. TH # 26	Log Sta. ——
	Surv. Sta. 13+18
T.H. # 26 over WHITE RIVER	
PLAN & ELEVATION	
Designed by L.C. GRAHAM	Drawn by PEABODY
Checked by L.C. GRAHAM date 2/83	Bridge Design Supervisor F.W. BOLKUM date 2/83
PROJECT GRANVILLE	PROJECT NO. BRZ-1444(9)
Bridge Sheet No.	Sheet 9 of 41

BRUNING 44-131-40151

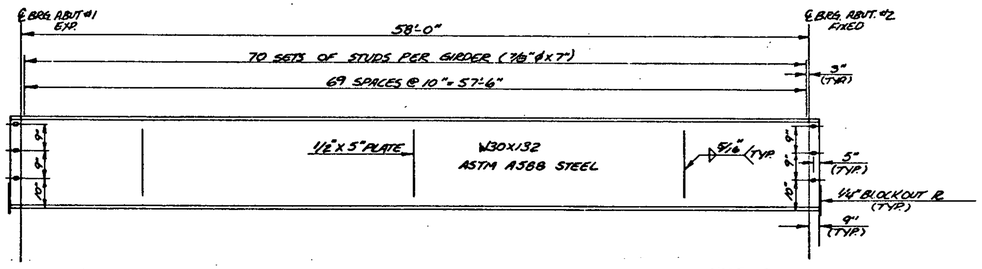
BR-6



NOTE: SEE STANDARD DRAWING SCB-D7-71, DETAIL C & D FOR DRIP PLATE & DIAPHRAGM CONNECTION DETAILS.

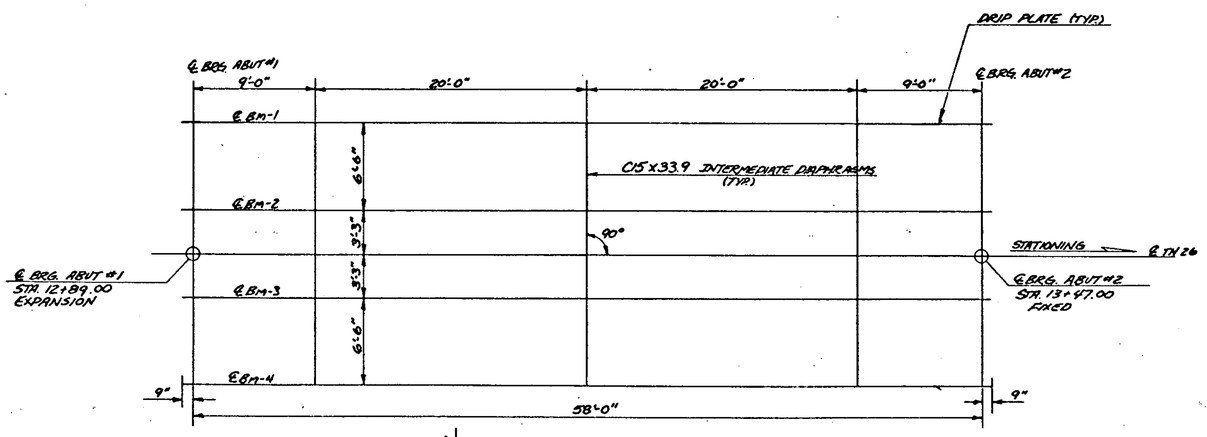
NOTE: PREFIX ES DENOTES EPOXY COATED REINFORCING BARS.

TYPICAL BRIDGE SECTION
SCALE: ½"=1'-0"



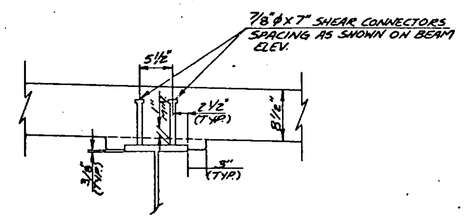
NOTE: CUT THE ENDS OF THE BEAM TO BE VERTICAL IN THE ERECTED POSITION.

TYPICAL BEAM ELEVATION
SCALE: ½"=1'-0" VERT.
3/16"=1'-0" HORZ.

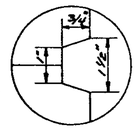


FRAMING PLAN
SCALE: 3/16"=1'-0"

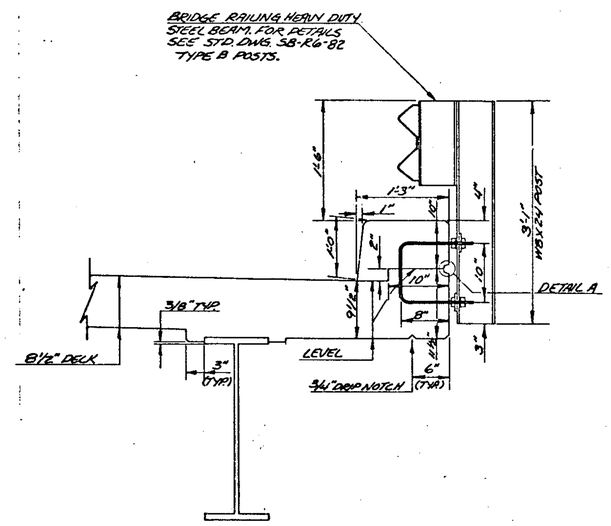
NOTES:
1. LIVE LOAD DEFLECTION = 5/8"
2. DEAD LOAD DEFLECTION = 1 3/8"
   DEAD LOAD DEFLECTION IS DUE TO BEAMS, DIAPHRAGMS, DECK, CURBS & RAILS.
3. RESIDUAL CAMBER = ¾"
4. TOTAL CAMBER = 2⅛"



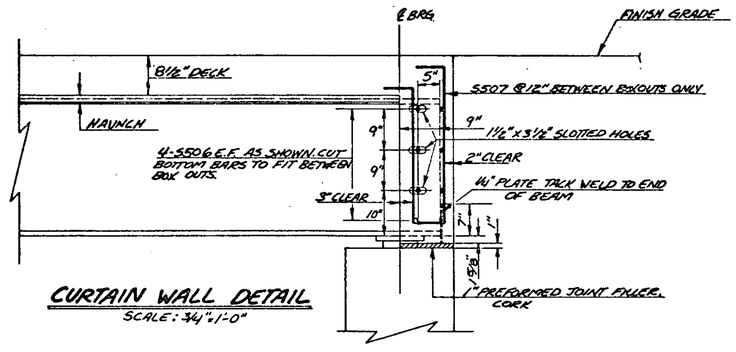
HAUNCH DETAIL
SCALE: 1"=1'-0"



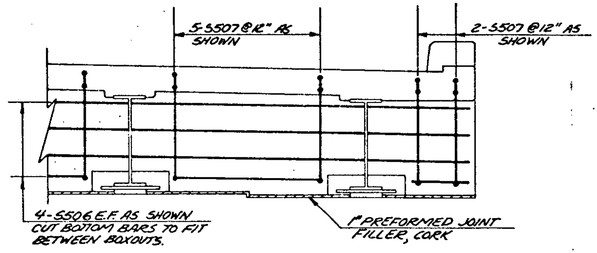
DETAIL A
SCALE ½"=1"



CURB AND RAIL DETAIL
SCALE: 1"=1'-0"



CURTAIN WALL DETAIL
SCALE: ¾"=1'-0"



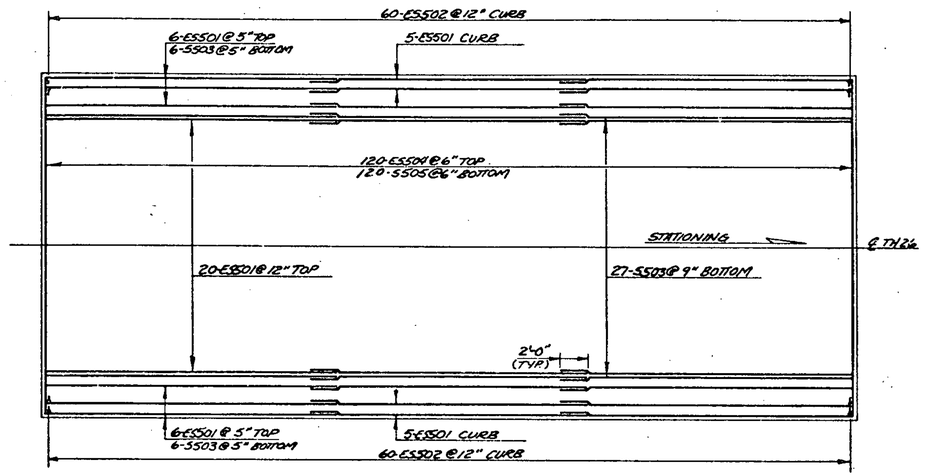
CURTAIN WALL DETAIL
SCALE: 1½"=1'-0"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF GRANVILLE	Bridge No. 23
HIGHWAY NO. T.H. # 26	Log Sta. ——
	Surv. Sta. 13+18
T.H. 26 OVER THE WHITE RIVER	
SUPERSTRUCTURE DETAILS	
Designed by G.S. ROGERS	Drawn by L.C. GATES
Checked by G.S. ROGERS date 3/84	Bridge Design Supervisor F.W. Balkum date 4/84
PROJECT GRANVILLE	PROJECT NO. BRZ-1444(9)
Bridge Sheet No.	Sheet 10 of 41

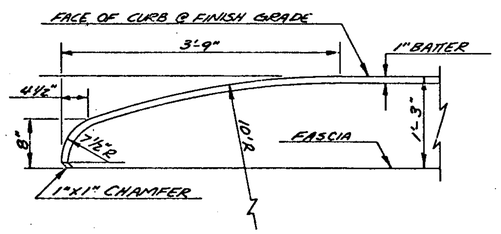
BRUNING 44 131 58384

BR-6-83



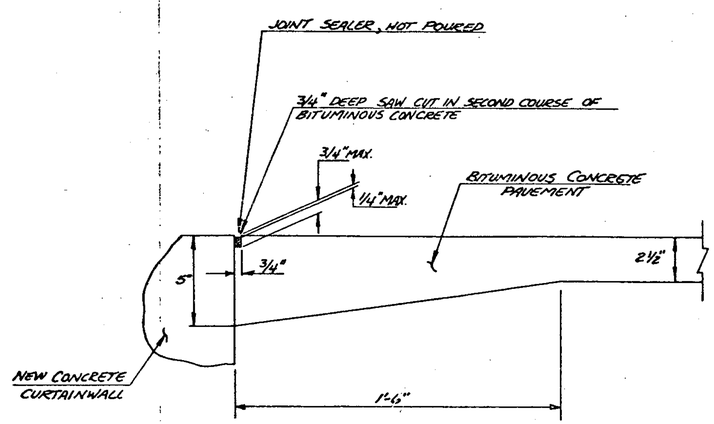
DECK REINFORCING PLAN

SCALE 3/16" = 1'-0"



CURB END DETAIL

SCALE: 1" = 1'-0"



JOINT SEALER DETAIL

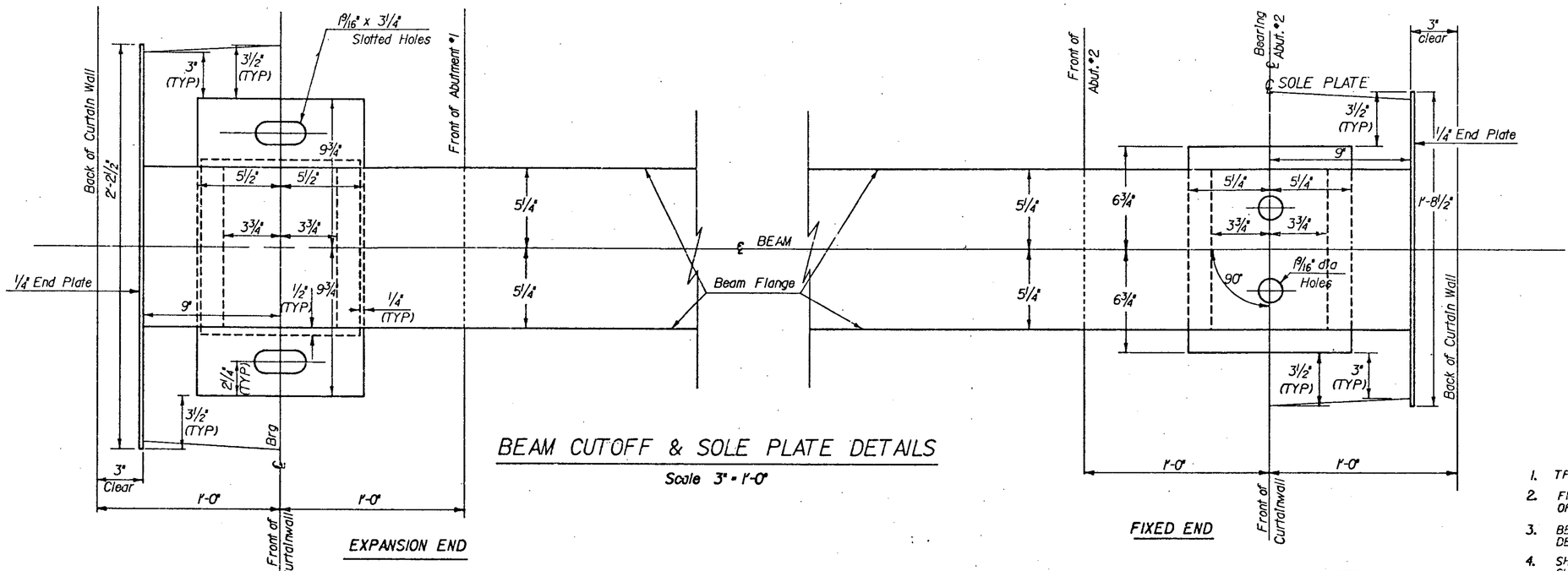
SCALE: 3" = 1'-0"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF GRANVILLE	Bridge No. 23
HIGHWAY NO. T.H. # 26	Log Sta. ———
	Surv. Sta. 13+18
T.H. 26 OVER THE WHITE RIVER	
SUPERSTRUCTURE DETAILS (CONT.)	
Designed by G.S. ROGERS	Drawn by L.C. GATES
Checked by G.S. ROGERS date 3/84	Bridge Design Supervisor F.W. Bolkum date 4/82
PROJECT GRANVILLE	PROJECT NO. BRZ-1444(9)
Bridge Sheet No.	Sheet 11 of 41

BRUNTING 44-131 58384

BR-6-'83



BEAM CUTOFF & SOLE PLATE DETAILS

Scale 3" = 1'-0"

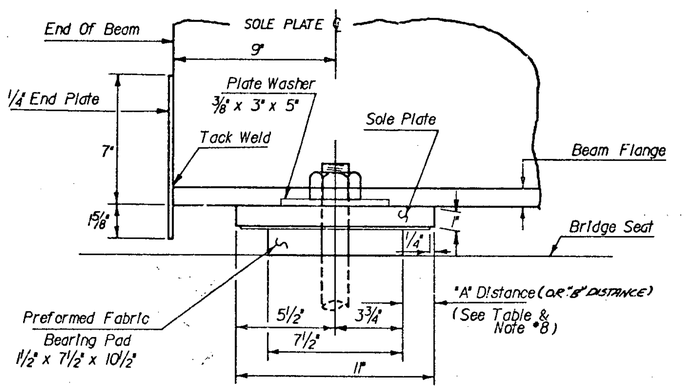
EXPANSION END

FIXED END

TEMP	"A" DIST	"B" DIST
0°F	1 5/16"	2 3/16"
15°F	1 1/8"	2 1/8"
30°F	1 3/16"	2 1/16"
45°F	1 1/4"	2
60°F	1 1/16"	1 15/16"
75°F	1 1/8"	1 1/8"
90°F	1 1/16"	1 3/16"

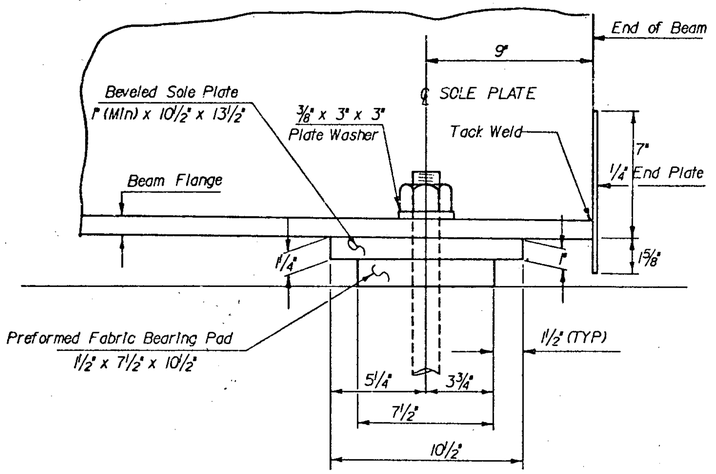
SOLE PLATE & BEARING DETAIL NOTES

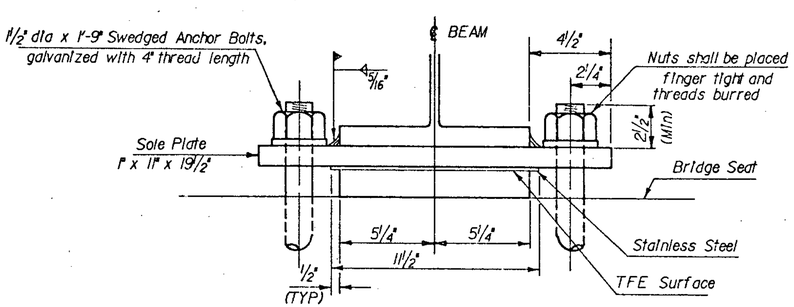
1. TFE EXPANSION BEARINGS SHALL CONFORM TO SUBSECTION 731.
2. FIXED BEARINGS SHALL CONFORM TO ALL APPLICABLE SECTIONS OF SUBSECTION 731 (OMIT TFE & STAINLESS STEEL).
3. BEARINGS SHALL BE PAID FOR UNDER THE ITEM "BEARING DEVICE ASSEMBLY".
4. SHOP DRAWINGS CONFORMING TO SUBSECTION 506.04 MUST BE SUBMITTED, AND INCLUDE THE WELDING PROCEDURE IF THE STAINLESS STEEL PLATE IS GOING TO BE WELDED TO THE SOLE PLATE, OR THE BONDING PROCEDURE IF THE STAINLESS STEEL PLATE IS BONDED TO THE SOLE PLATE.
5. SOLE PLATES SHALL BE BEVELED AS SHOWN ON THIS SHEET. ALSO, SOLE PLATES AND WASHERS ARE TO BE GALVANIZED OR METALIZED AS PER GENERAL SPECIAL PROVISION 731.06 FOR THIS PROJECT.
6. THE CONCRETE SURFACE UNDER THE BEARINGS SHALL BE LEVEL.
7. SEE STANDARD DRAWING SCB-09-71 DETAIL "A" FOR ADDITIONAL DETAILS FOR BLOCKING OUT THE BEARINGS IN THE CURTAIN WALLS.
8. "A" DISTANCE IS THE FINAL SETTING FOR THE BEARING PAD AFTER THE CONCRETE SLAB, CURB, AND BRIDGE RAIL ARE IN PLACE. HOWEVER, MOST CONTRACTORS LIKE TO ADJUST THE BEARING PAD AFTER THE STRUCTURAL STEEL HAS BEEN ERECTED AND BEFORE THE CONCRETE DECK IS POURED. THEREFORE, "B" DISTANCE IS LISTED FOR CONTRACTORS WHO SET BEARING PAD BEFORE POURING DECK. THE DIFFERENCE, ¼ INCHES, IS THE ELONGATION IN THE BOTTOM FLANGE DUE TO DEAD LOAD DEFLECTION CAUSED BY THE CONCRETE SLAB, CURBS, PAVEMENT, AND BRIDGE RAIL. THIS DIFFERENCE IS A THEORETICAL DISTANCE AND SHOULD NOT BE CONSIDERED AS A FINAL SETTING. THE FINAL "A" DISTANCE, AS SHOWN IN THE TABLE, MUST BE REACHED WITHIN 1/8 INCH ±.



Side Elevation

Scale 3" = 1'-0"

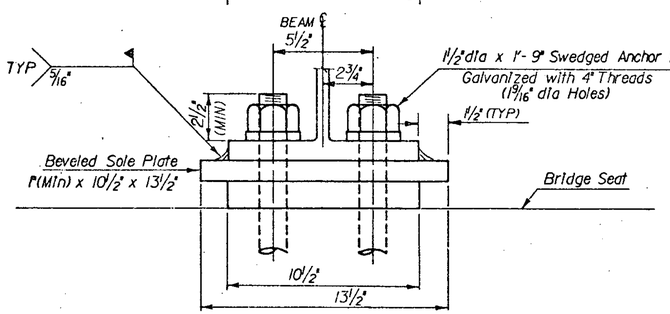




EXPANSION BEARING DETAILS

Front View

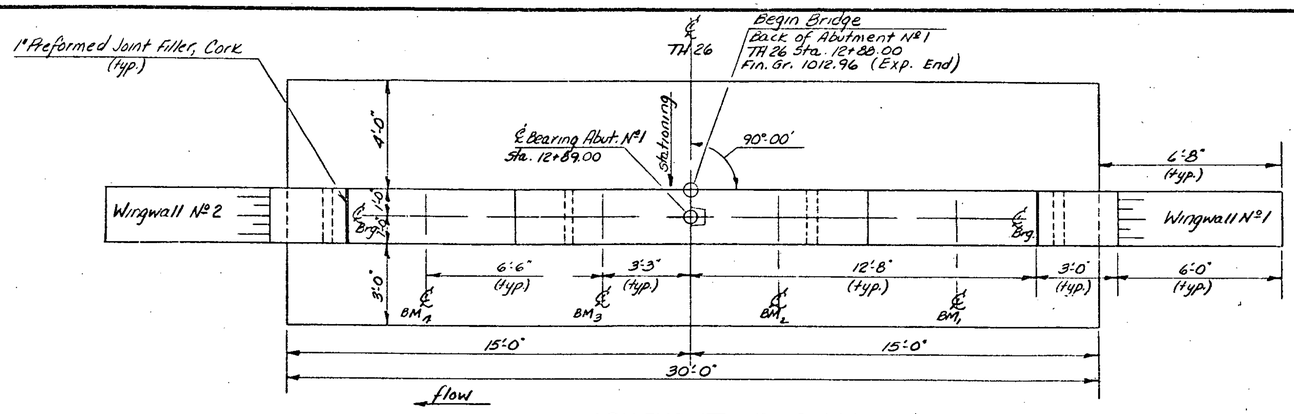
Scale 3" = 1'-0"



FIXED BEARING DETAILS

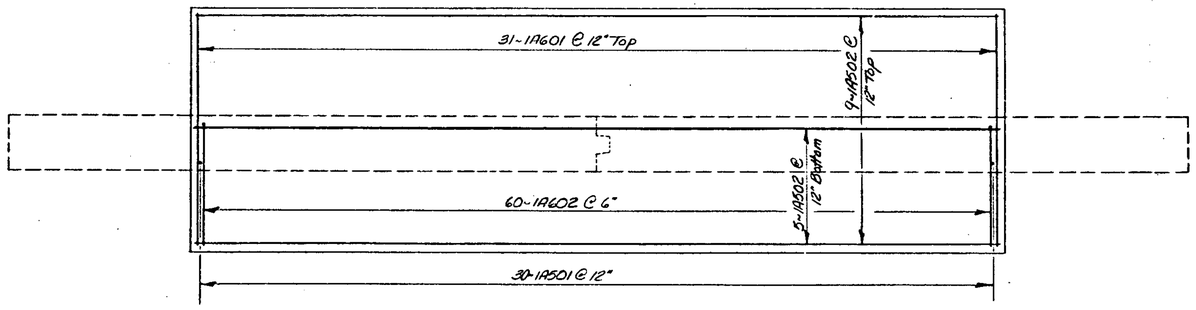
STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of Granville	Bridge No. 23
Highway No. TH # 26	Log Sta. — / Surv. Sta. 13 + 18
TH # 26 over the White River	
Sole Plate & Bearing Details	
Designed By G. Rogers	Drawn By E. Blodgett
Checked By G.S. ROGERS Date 3/84	Bridge Design Supervisor F.W. Brokaw Date 4/84
PROJECT Granville	PROJECT NO. BRZ-1444(9)
I.C.C. Info.	QSAL[30,23]63C214BRG.DGN
Bridge Sheet No.	Sheet 12 of 41



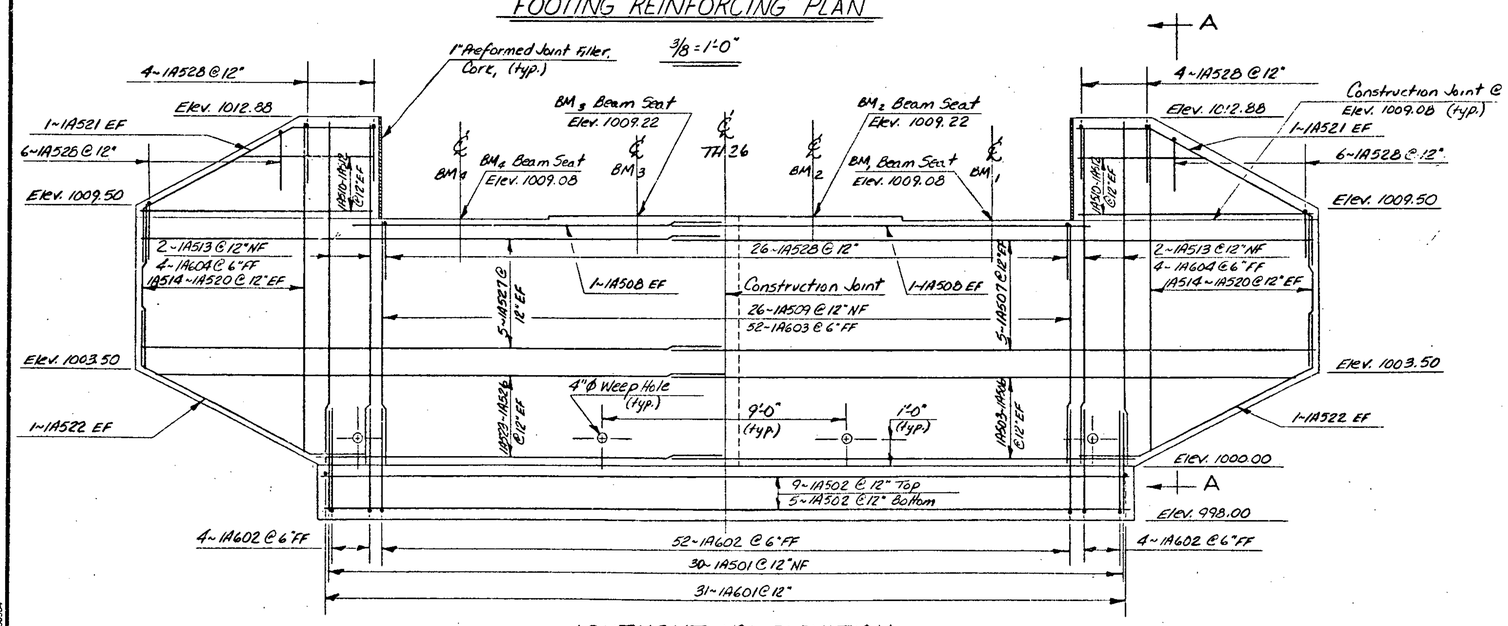
ABUTMENT Nº1 PLAN

3/8 = 1'-0"



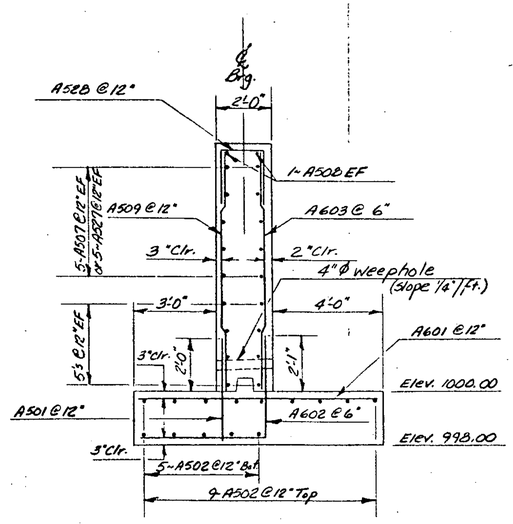
FOOTING REINFORCING PLAN

3/8 = 1'-0"



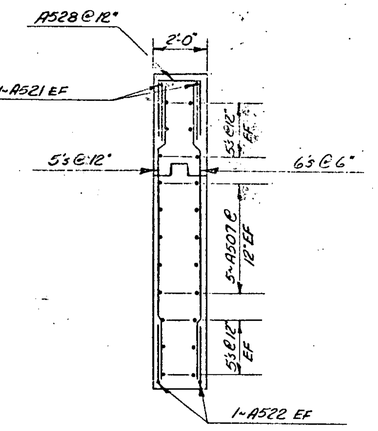
ABUTMENT Nº1 ELEVATION

3/8 = 1'-0"



TYPICAL ABUTMENT SECTION

3/8" = 1'-0"



SECTION A-A
TYPICAL WINGWALL SECTION

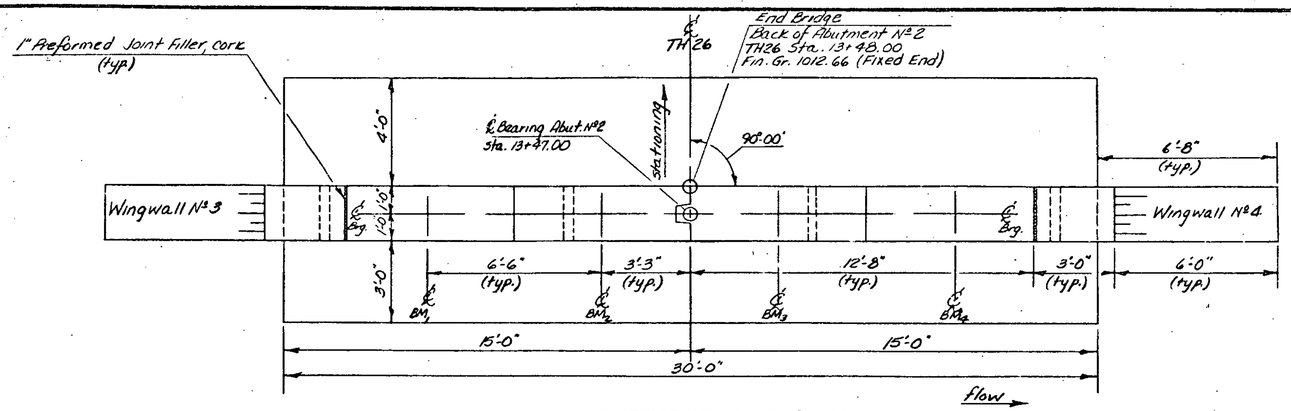
3/8" = 1'-0"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF GRANVILLE	Bridge No. 23
HIGHWAY NO. TOWN HIGHWAY 26	Log Sta. —
	Surv. Sta. 13+18
TOWN HIGHWAY Nº 26 OVER WHITE RIVER	
ABUTMENT Nº 1 DETAILS	
Designed by G.S. ROGERS	Drawn by D.W. NEWTON
Checked by L.C. GATES date 3/84	Bridge Design Supervisor F.W. Bolkum date 4/84
PROJECT GRANVILLE	PROJECT NO. BRZ 1444(9)
Bridge Sheet No.	Sheet 13 of 41

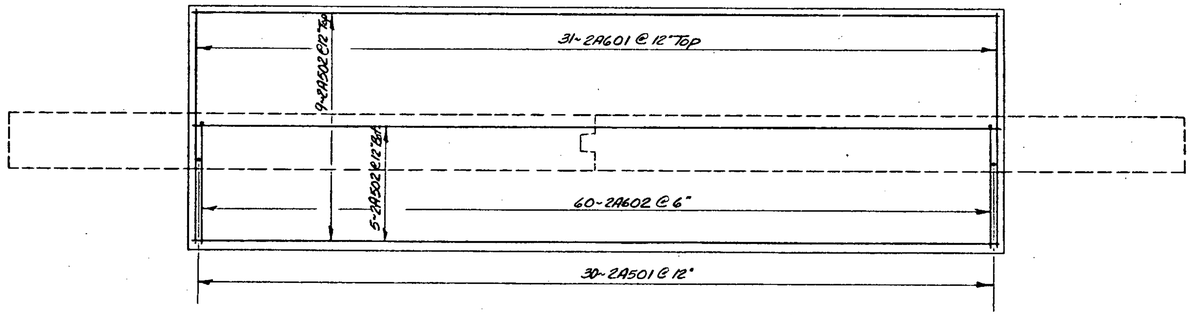
PRINTING 44-131 58384

BR-6-83



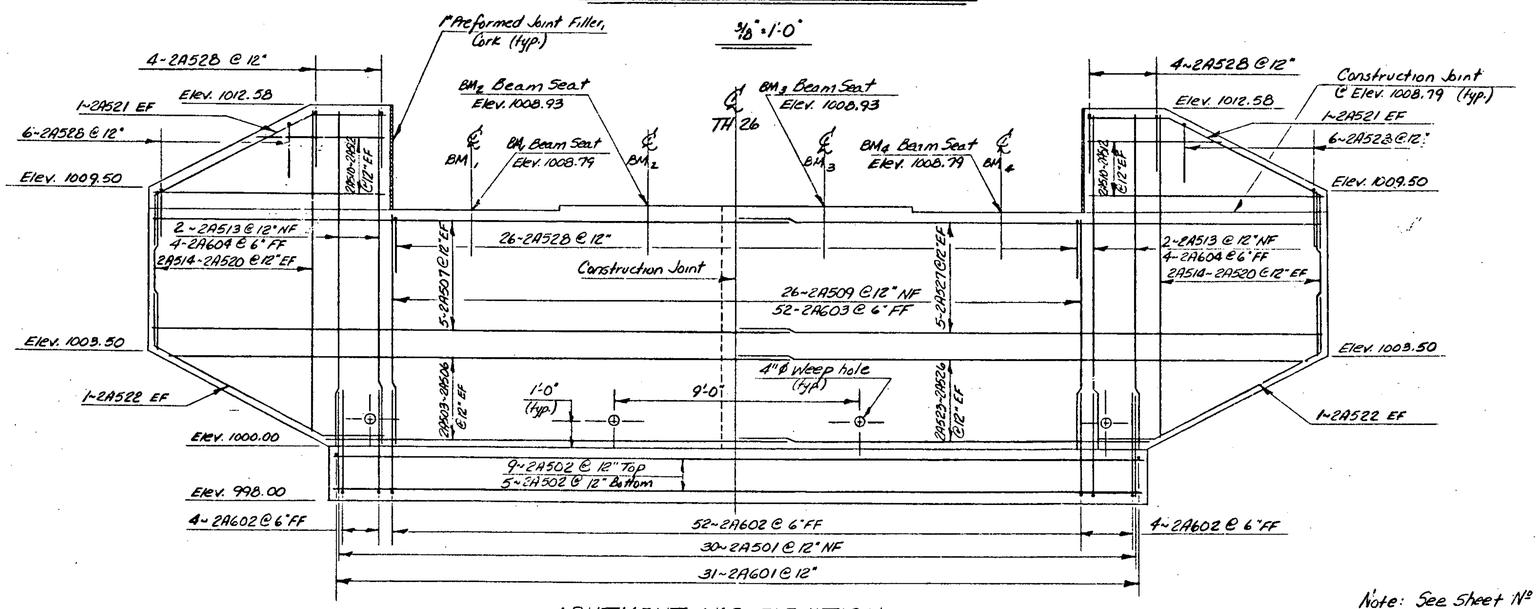
ABUTMENT Nº 2 PLAN

3/8" = 1'-0"



FOOTING REINFORCING PLAN

3/8" = 1'-0"



ABUTMENT Nº 2 ELEVATION

3/8" = 1'-0"

Note: See Sheet Nº 13 for typical abutment and wingwall sections.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF GRANVILLE	Bridge No. 23
	Log Sta. —
HIGHWAY NO. TOWN HIGHWAY Nº 26	Surv. Sta. 13+18
TOWN HIGHWAY Nº 26 OVER WHITE RIVER	
ABUTMENT Nº 2 DETAILS	
Designed by G.S. ROGERS	Drawn by D.W. NEWTON
Checked by L.C. GATES date 3/84	Bridge Design Supervisor F.W. Bolkum date 4/84
PROJECT GRANVILLE	PROJECT NO. BRZ 1444(9)
Bridge Sheet No.	Sheet 14 of 91

BRUNING 44-131-5894

BR-6-83

SUPERSTRUCTURE

EPOXY COATED (See Note this sheet)

ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
4	126	5	21-3	ES501	STR												
5	120	5	26-0	ES504	1	0-7	24-10					0-7					
7	122	5	4-5	ES502	S5	0-6	1-4	0-9	1-4			0-6		GRADE 40			
10	117	5	21-3	S503	STR												
11	120	5	24-10	S505	STR												
12	16	5	24-10	S506	STR												
* 14	39	5	7-0	S507	S5	0-6	2-6	0-7	2-11			0-6		GRADE 40			

ABUTMENT Nº1

ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
20	30	5	3-9	1A501	STR												
21	14	↕	29-6	1A502	↕												
22	2		17-0	1A503													
23	↕		to	thru		Vary in 3 equal increments											
24	2		22-9	1A506													
25	10		23-6	1A507													
26	4		15-6	1A508													
27	26		8-10	1A509													
28	4		8-6	1A510													
29	↕		to	thru		Vary in 2 equal increments											
30	4		4-8	1A512													
31	4		12-8	1A513													
32	4		5-9	1A514													
33	↕		to	thru		Vary in 6 equal increments											
34	4		12-0	1A520													
35	2		15-0	1A523													
36	↕		to	thru		Vary in 3 equal increments											
37	2	↕	20-10	1A526	↕												
38	10	5	21-5	1A527	STR												
* 42	4	5	11-3	1A521	22	2-0	6-3	3-0		2-8	1-6		1-9		1-0		9-11
* 43	5	5	11-0	1A522	22	2-0	7-0	2-0		1-9	0-11		1-9		1-0		9-9
44	46	5	5-7	1A528	17		2-0	1-7	2-0								
48	31	6	8-6	1A601	STR												
49	52	6	8-10	1A603	STR												
50	8	6	12-8	1A604	STR												
* 52	61	6	8-5	1A602	17		3-10	4-7									

ABUTMENT Nº2

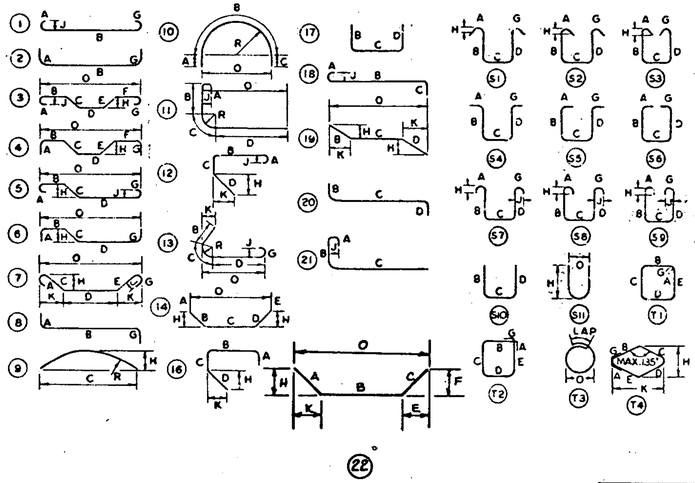
ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
100	30	5	3-9	2A501	STR												
101	14	↕	29-6	2A502	↕												
102	2		17-0	2A503													
103	↕		to	thru		Vary in 3 equal increments											
104	2		22-9	2A506													
105	10	5	23-6	2A507	STR												
106	—	—	—	2A508		(Note: 2A508 bars not used in Abutment Nº2.)											
107	26	5	8-7	2A509	STR												
108	4		8-6	2A510													
109	↕		to	thru		Vary in 2 equal increments											
110	4		4-8	2A512													
111	4		12-5	2A513													
112	4		5-9	2A514													
113	↕		to	thru		Vary in 6 equal increments											
114	4		11-11	2A520													
115	2		15-0	2A523													
116	↕		to	thru		Vary in 3 equal increments											
117	2	↕	20-10	2A526	↕												
118	10	5	21-5	2A527	STR												
122	4	5	11-7	2A521	22	2-0	6-7	3-0		2-4	1-2		1-10		1-0		9-11
123	4	5	11-0	2A522	22	2-0	7-0	2-0		1-9	0-11		1-9		1-0		9-9
124	46	5	5-7	2A528	17		2-0	1-7	2-0								
128	31	6	8-6	2A601	STR												
129	52	6	8-7	2A603	STR												
130	8	6	12-5	2A604	STR												
132	60	6	8-5	2A602	17		3-10	4-7									

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

ASTM STANDARD REINFORCING BARS

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

TYPICAL BAR BENDS



NOTES

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT" AASHTO M 31 (ASTM A 615-91), GRADE 60 OR GRADE 40 AS NOTED.
2. FOR TYPICAL BENDING DETAILS, RECOMMENDED PIN DIAMETER "D" OF BENDS AND HOOKS AND OTHER STANDARD PRACTICE SEE CURRENT CONCRETE REINFORCING STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE."
3. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180° AND 135° HOOKS.
5. "J" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE. OTHERWISE STANDARD HOOKS ARE TO BE USED.
6. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
7. WHERE SLOPE DIFFERS FROM 45° DIMENSIONS "H" AND "K" MUST BE SHOWN.

ES DENOTES EPOXY COATED REINFORCING STEEL.

* DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.

REV. NO.	MADE BY	DATE	DESCRIPTION

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF GRANVILLE — BRIDGE NO. 23 — LOG STA. —

HIGHWAY NO. Town Highway 26 — SURV. STA. 13+18

Town Highway 26 over White River

REINFORCING STEEL SCHEDULE

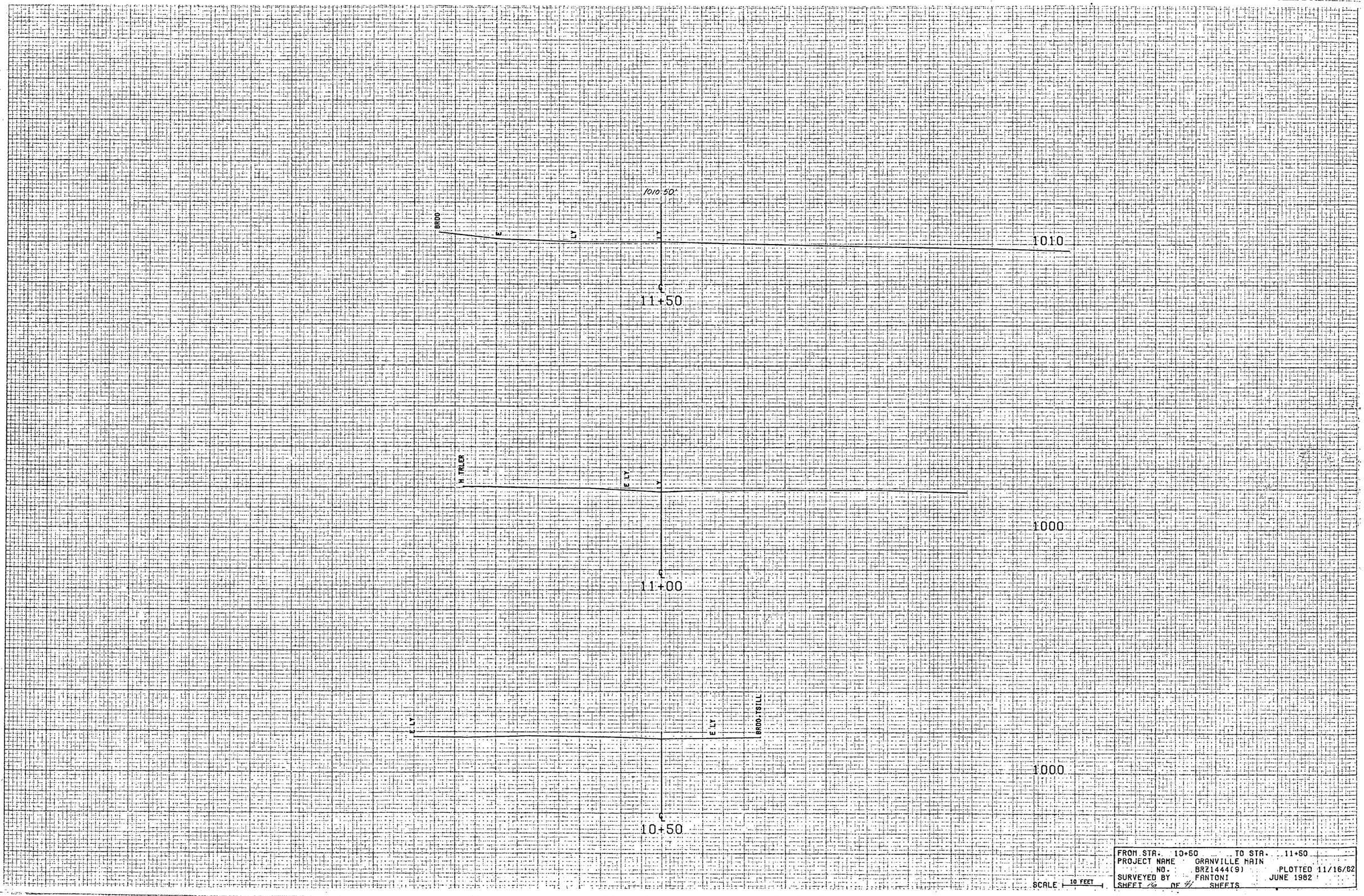
DESIGNED BY G.S. Rogers — DRAWN BY D.W. Newton

CHECKED BY L.C. Gates DATE 3/'84 — BRIDGE DESIGN SUPERVISOR F.W. Bolkum DATE 4/84

PROJECT GRANVILLE — PROJECT NO. BRZ-1444(9)

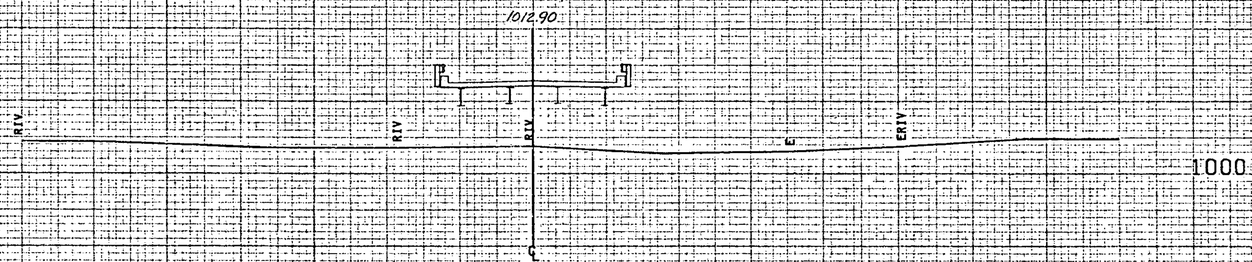
BRIDGE SHEET NO. — SHEET 15 OF 41

BR-5



FROM STA. 10+50 TO STA. 11+50
PROJECT NAME GRANVILLE MAIN
NO. BRZ1444(9) PLOTTED 11/16/82
SURVEYED BY FANTONI JUNE 1982
SHEET 16 OF 41 SHEETS

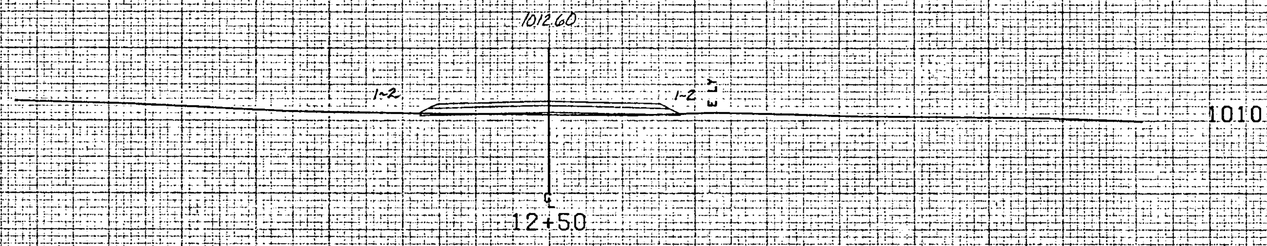
SCALE 10 FEET



12+87 Lt.
Begin Bridge Railing, Heavy Duty Steel Beam
End Guard Rail, Heavy Duty Steel Beam
w/ Wood Posts, Type II

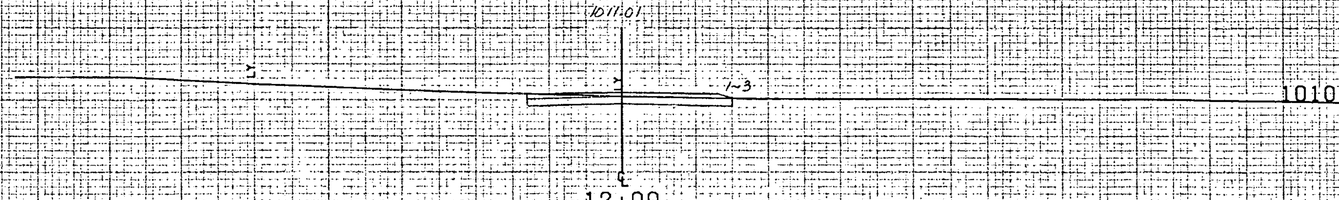
Sta. 12+88.00
Begin Bridge

12+87 Rt.
Begin Bridge Railing, Heavy Duty Steel Beam
End Guard Rail, Heavy Duty Steel Beam
w/ Wood Posts, Type II



12+61 Lt.
Begin Guard Rail, Heavy Duty Steel Beam,
w/ Wood Posts, Type II

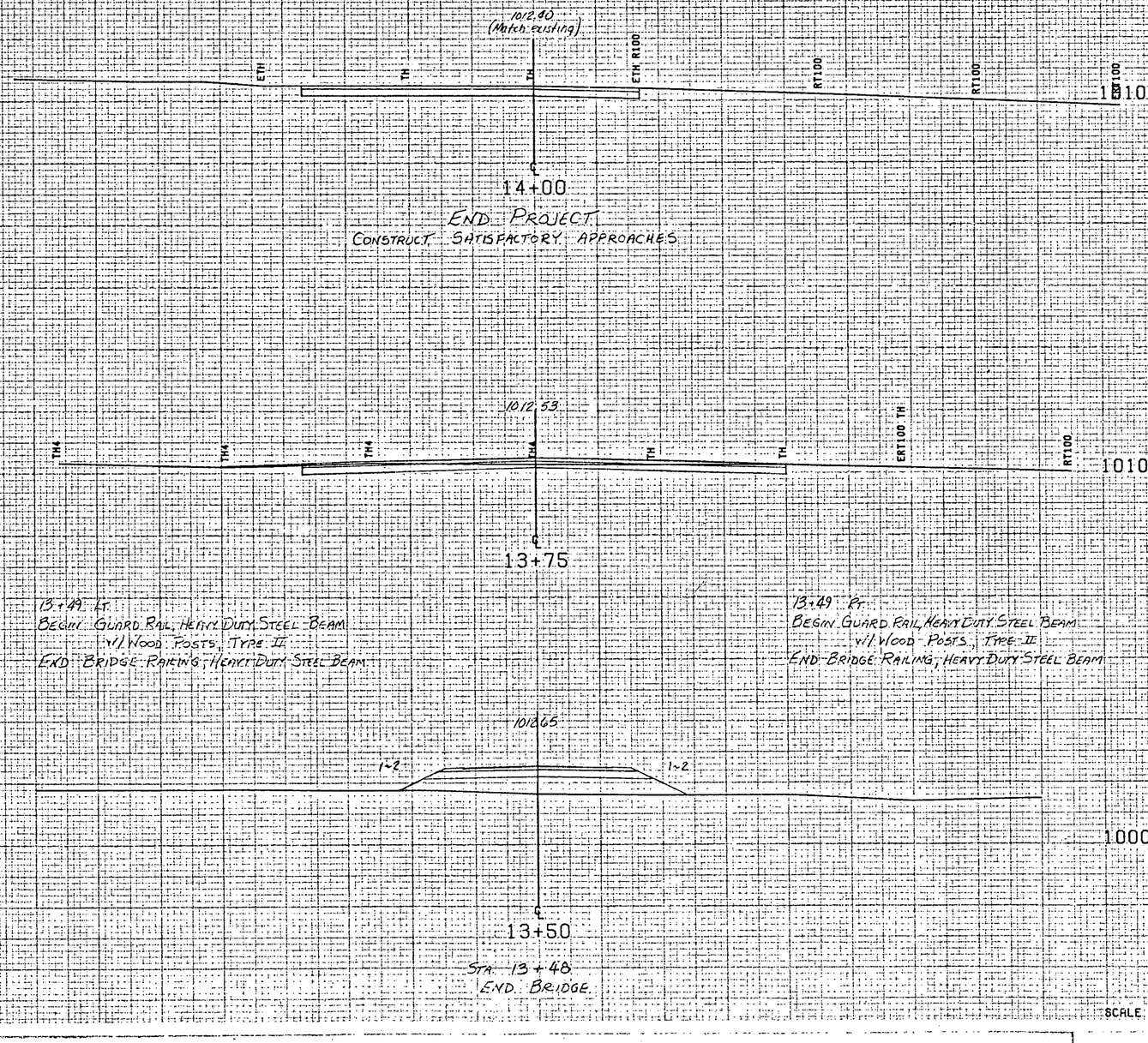
12+61 Rt.
Begin Guard Rail, Heavy Duty Steel Beam
w/ Wood Posts, Type II



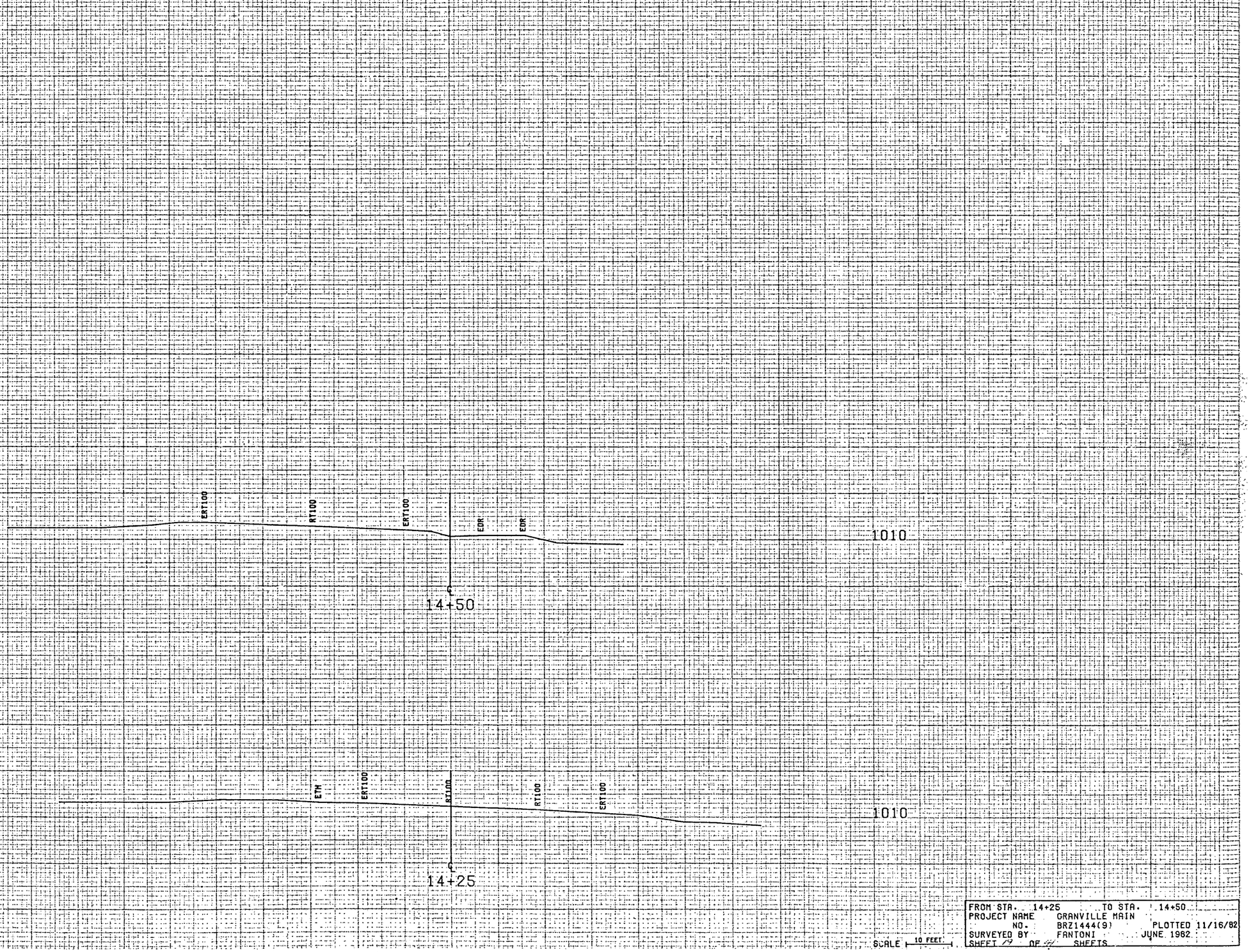
Begin Project
Construct Satisfactory Approach

SCALE 10 FEET

FROM STA.	12+00	TO STA.	13+00
PROJECT NAME	GRANVILLE MAIN		
NO.	BRZ1444(9)	PLOTTED	11/16/82
SURVEYED BY	FANTONI		JUNE 1982
SHEET 12	OF #	SHEETS	



FROM STA. 13+50	TO STA. 14+00
PROJECT NAME	GRANVILLE MAIN
NO.	BRZ1444(9) PLOTTED 11/16/82
SURVEYED BY	FANTONI JUNE 1982
SHEET 12 OF 14	SHEETS



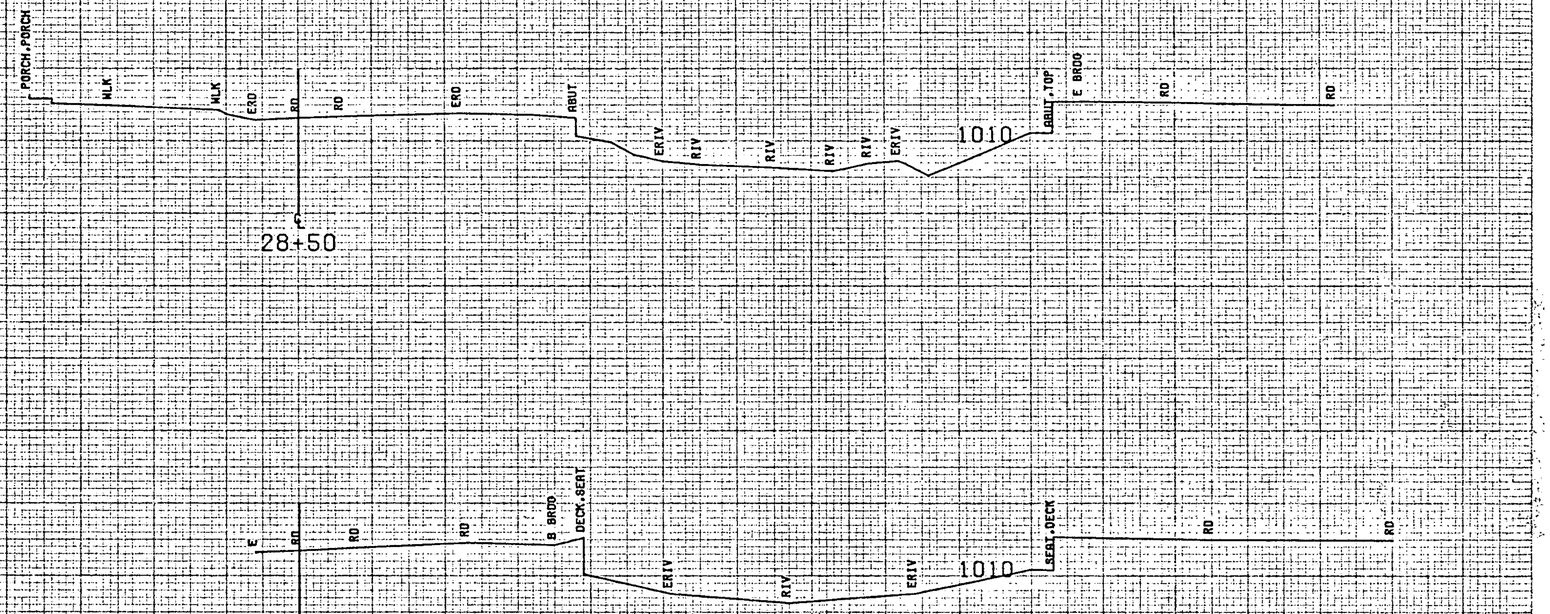
FROM STA. 14+25 TO STA. 14+50
PROJECT NAME GRANVILLE MAIN
NO. BRZ1444(9) PLOTTED 11/16/82
SURVEYED BY FANTONI JUNE 1982
SHEET 19 OF 44 SHEETS

SCALE 10 FEET



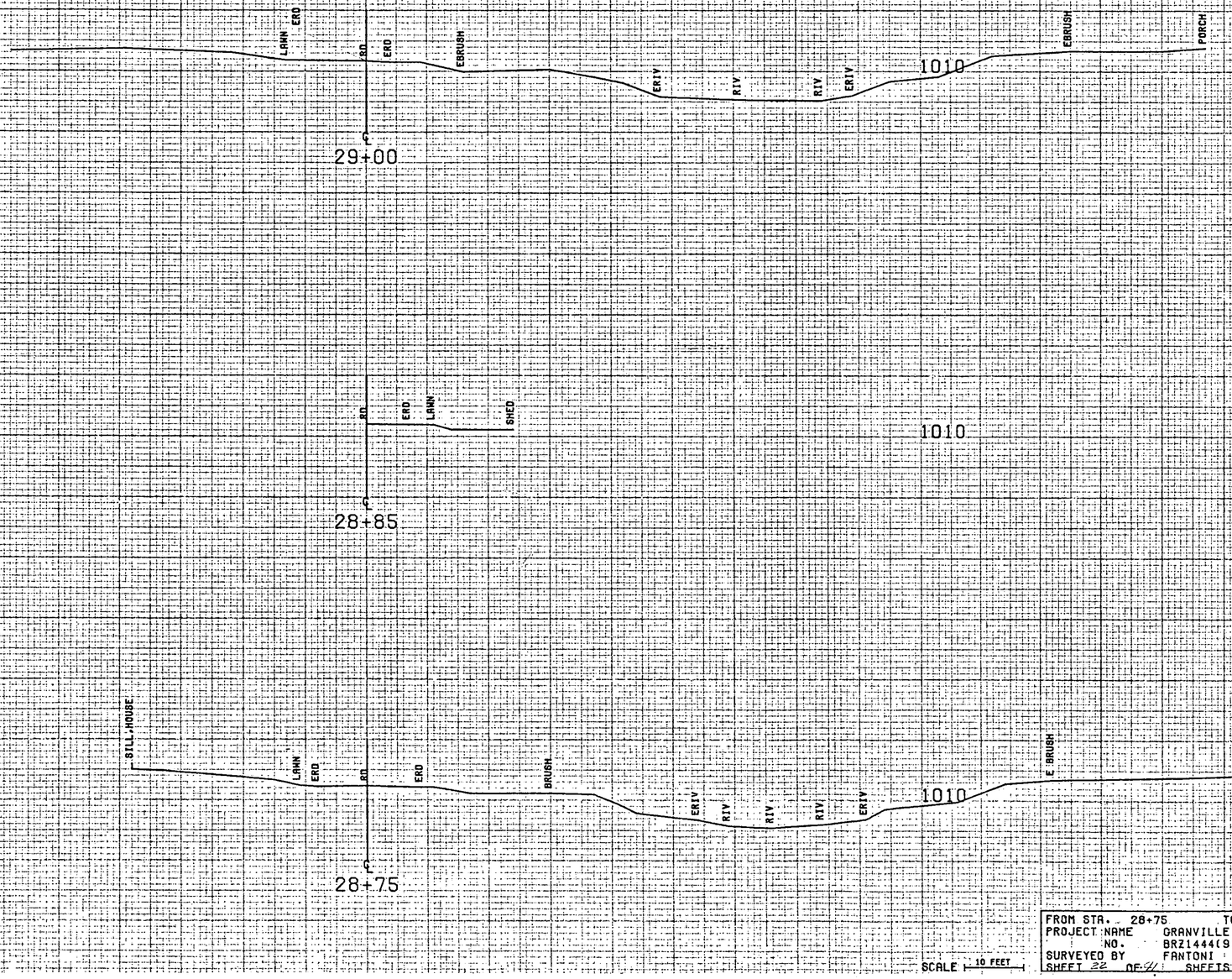
FROM STA. 27+00 TO STA. 28+00
PROJECT NAME GRANVILLE TH4
NO. BRZ1444(9) PLOTTED 11/16/82
SURVEYED BY FANTONI JUNE 1982
SHEET 20 OF 44 SHEETS

SCALE 10 FEET

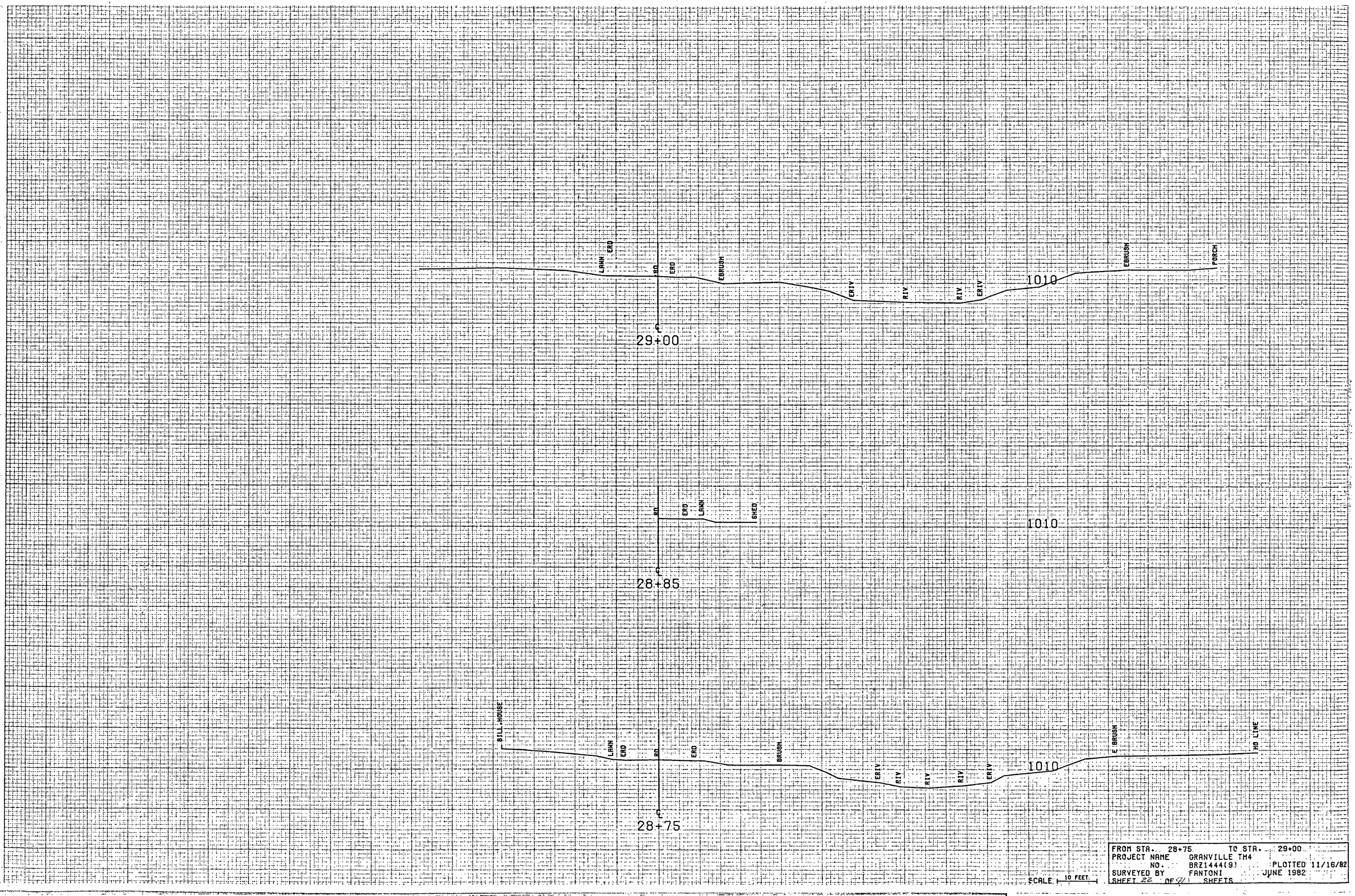


FROM STA. 28+22 TO STA. 28+50
PROJECT NAME GRANVILLE TH4
NO. BRZ1444(9) PLOTTED 11/16/82
SURVEYED BY FANTONI JUNE 1982
SHEET 21 OF 44 SHEETS

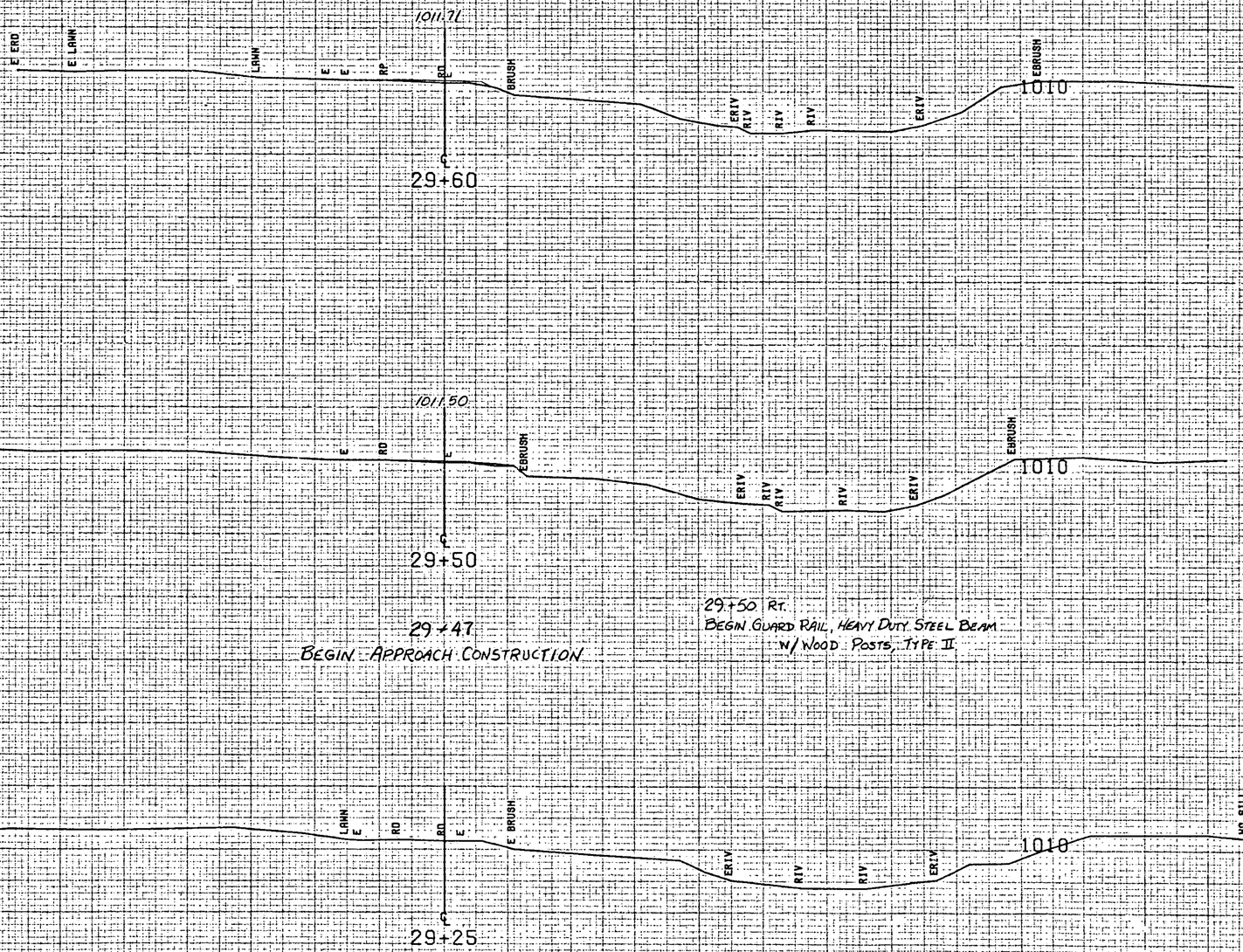
SCALE 10 FEET



FROM STA.	28+75 TO STA. 29+00
PROJECT NAME	GRANVILLE TH4
NO.	BRZ1444(9) PLOTTED 11/16/82
SURVEYED BY	FANTONI JUNE 1982
SHEET 22	OF 44 SHEETS



FROM STA. 28+75		TO STA. 29+00	
PROJECT NAME	GRANVILLE TH4		
NO.	BRZ1444(9)	PLOTTED	11/16/82
SURVEYED BY	FANTONI	JUNE	1982
SHEET 22 OF 41	SHEETS		

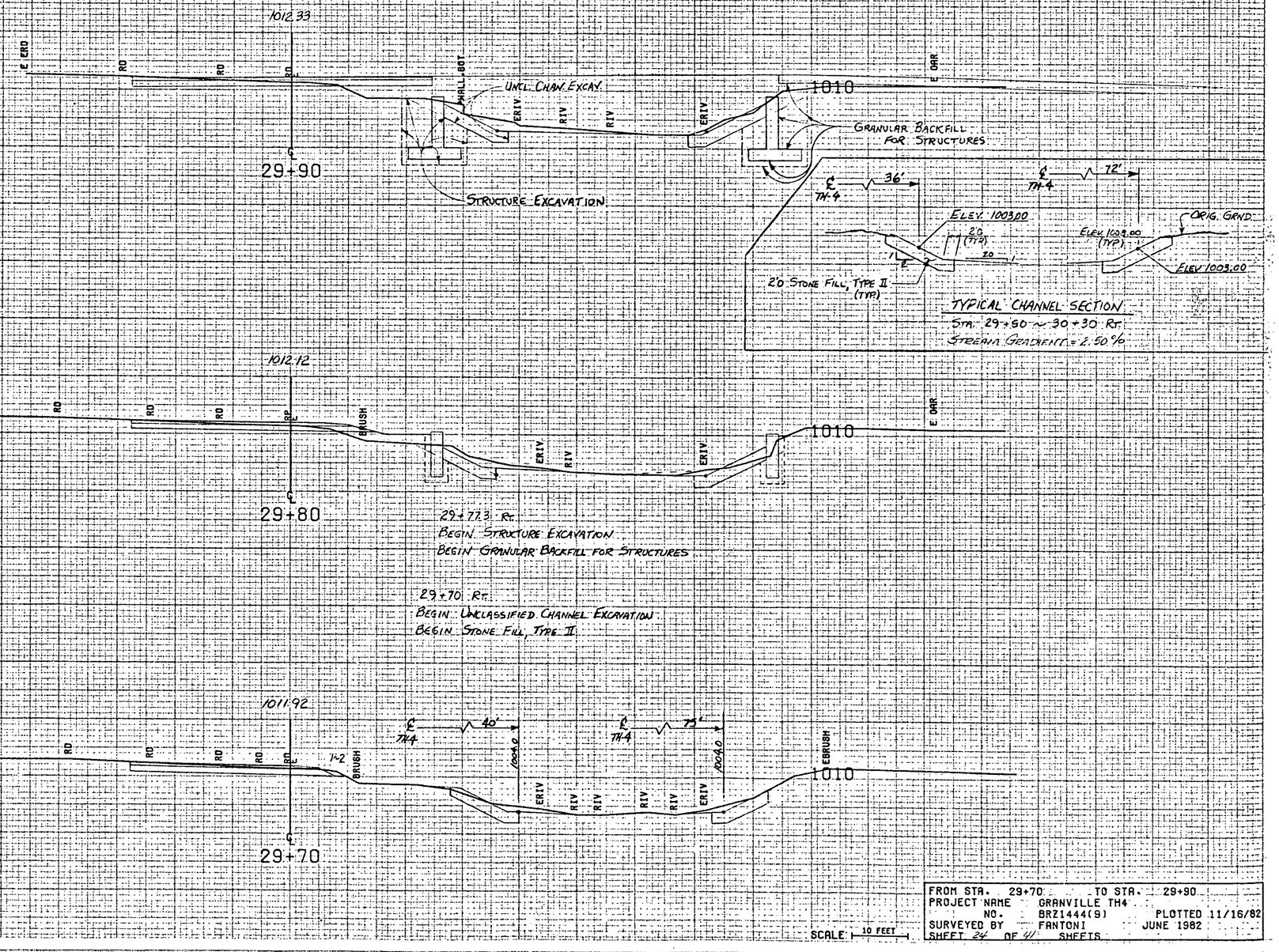


29+47
BEGIN APPROACH CONSTRUCTION

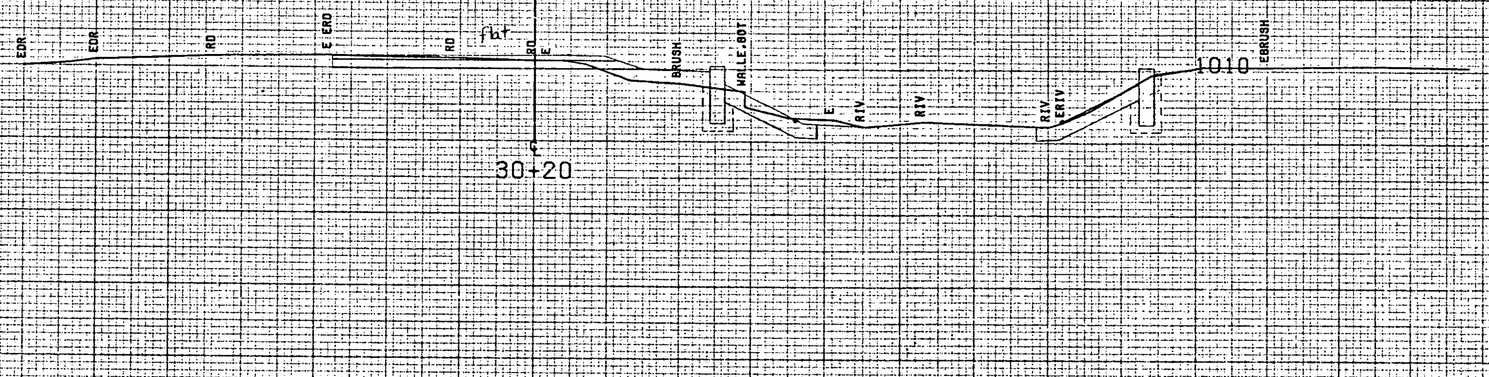
29+50 RT.
BEGIN GUARD RAIL, HEAVY DUTY STEEL BEAM
W/WOOD POSTS, TYPE II

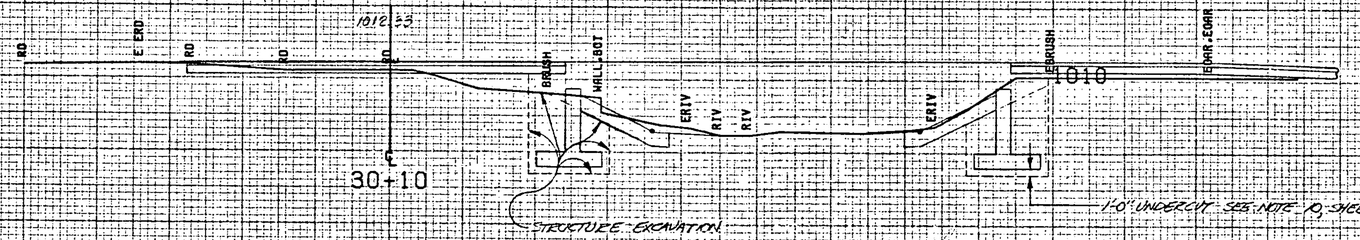
SCALE 10 FEET

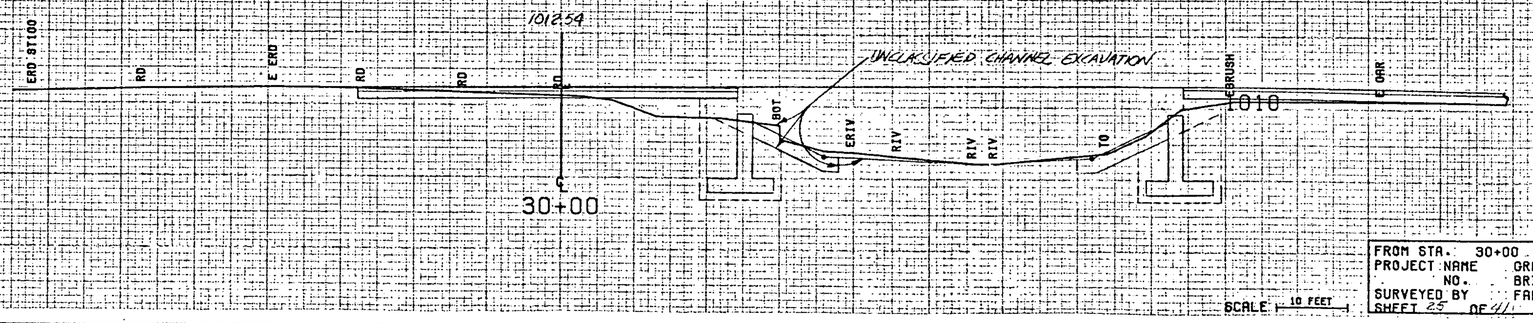
FROM STA.	29+25	TO STA.	29+60
PROJECT NAME	GRANVILLE TH4		
NO.	BRZ1444(9)	PLOTTED	11/16/82
SURVEYED BY	FANTONI		JUNE 1982
SHEET 23	OF 41 SHEETS		


1012.33
E ERD
RD
RD
2D
HALL. BOT
UNCL. CHAN. EXCAV.
ERIV
RIV
RIV
ERIV
1010
E ORR
GRANULAR BACKFILL FOR STRUCTURES
29+90
STRUCTURE EXCAVATION
℄ TH-4
36'
℄ TH-4
72'
ELEV. 1003.00
2D (TYP.)
ELEV 1009.00 (TYP.)
ORIG. GRND.
ELEV 1003.00
2D
1
1
℄
2.0 STONE FILL, TYPE II (TYP.)
TYPICAL CHANNEL SECTION
STA. 29+60 ~ 30+30 RT.
STREAM GRADIENT = 2.50%
1012.12
E ERD
RD
RD
RD
RIP
BRUSH
ERIV
RIV
RIV
ERIV
1010
E ORR
℄
29+80
29+77.3 RT.
BEGIN STRUCTURE EXCAVATION
BEGIN GRANULAR BACKFILL FOR STRUCTURES
29+70 RT.
BEGIN UNCLASSIFIED CHANNEL EXCAVATION
BEGIN STONE FILL, TYPE II
1011.92
E ERD
RD
RD
RD
RD
RD
RIP
1%-2
BRUSH
℄ TH-4
40'
ROAD
℄ TH-4
75'
ROAD
ERIV
RIV
RIV
RIV
RIV
ERIV
EBRUSH
1010
℄
29+70
FROM STA. 29+70 TO STA. 29+90
PROJECT NAME GRANVILLE TH4
NO. BRZ1444(9) PLOTTED 11/16/82
SURVEYED BY FANTONI JUNE 1982
SHEET 24 OF 41 SHEETS
SCALE 10 FEET

30+22.7 Rt.
END STRUCTURE EXCAVATION
END GRANULAR BACKFILL FOR STRUCTURES

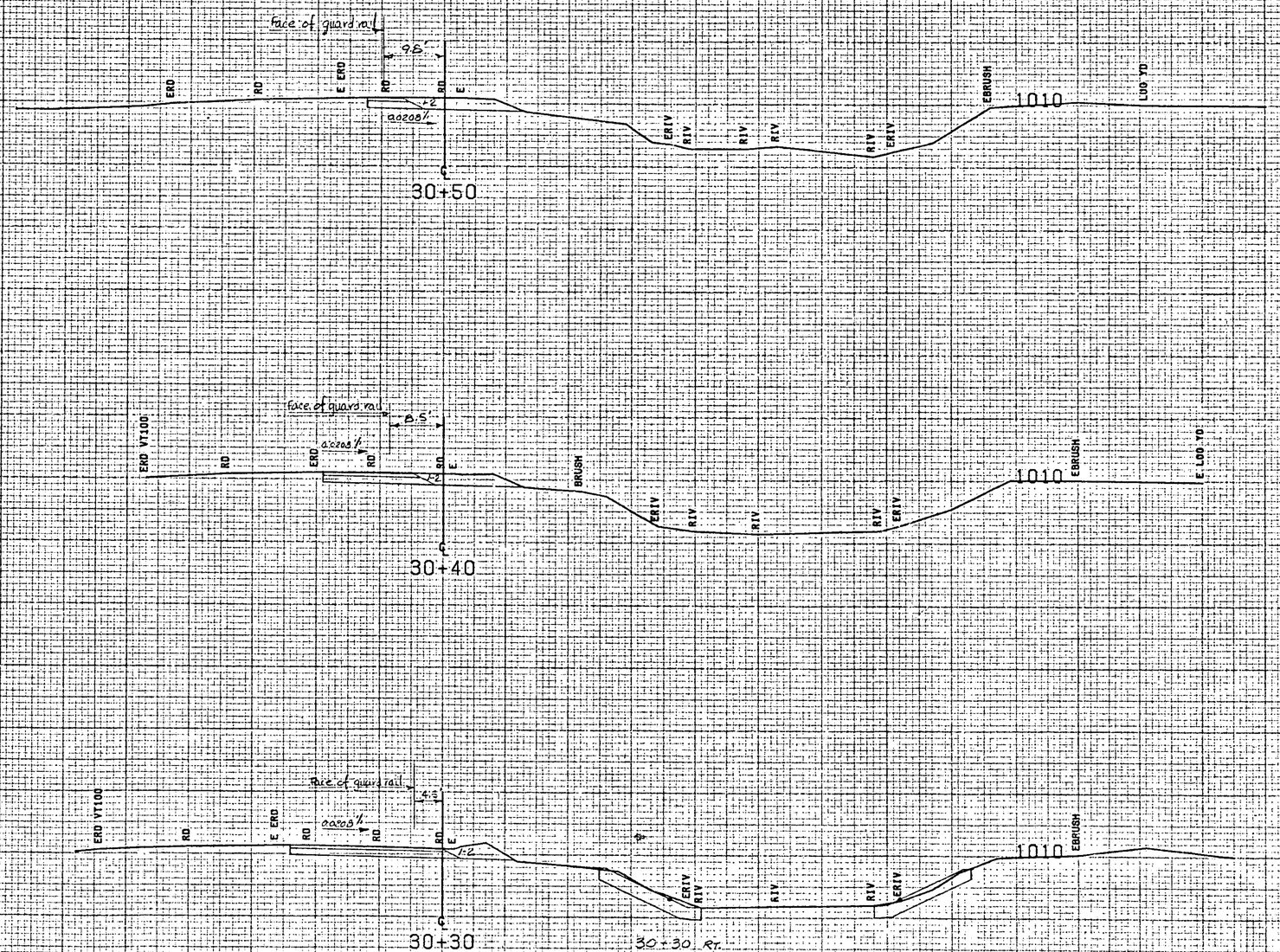






FROM STA.	30+00 TO STA. 30+20
PROJECT NAME	GRANVILLE TH4
NO.	BRZ1444(9) PLOTTED 11/16/82
SURVEYED BY	FANTONI JUNE 1982
SHEET 25	OF 111 SHEETS

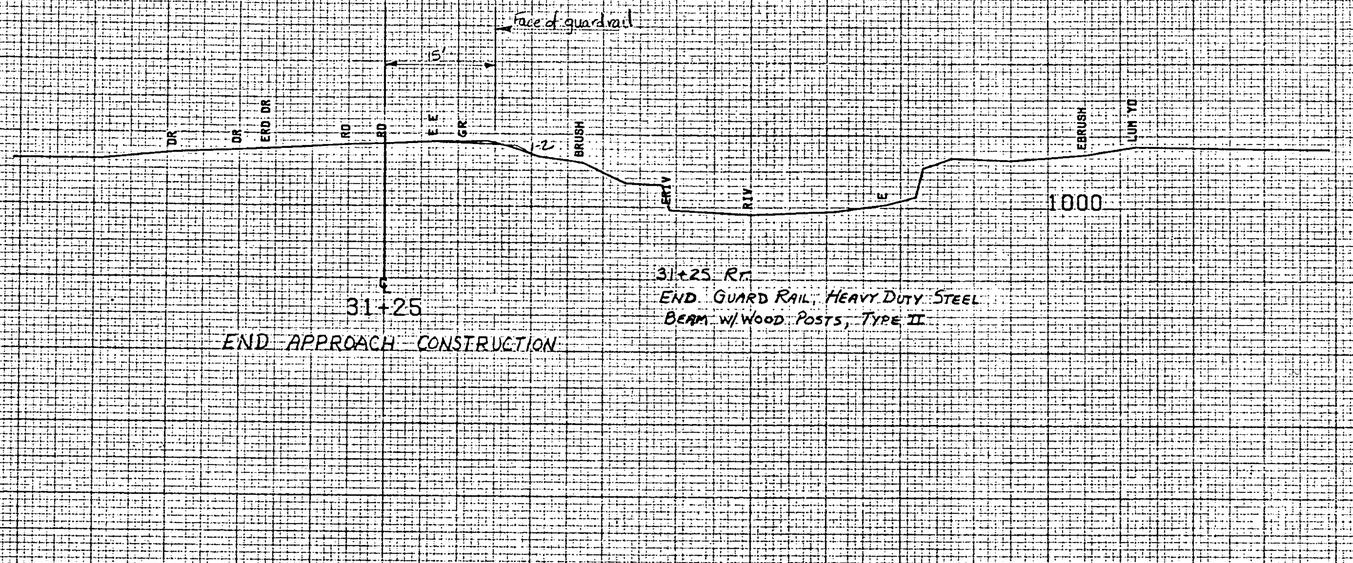
SCALE 10 FEET



30+30 RT.
END UNCLASSIFIED CHANNEL EXCAVATION
END STONE FILL, TYPE II

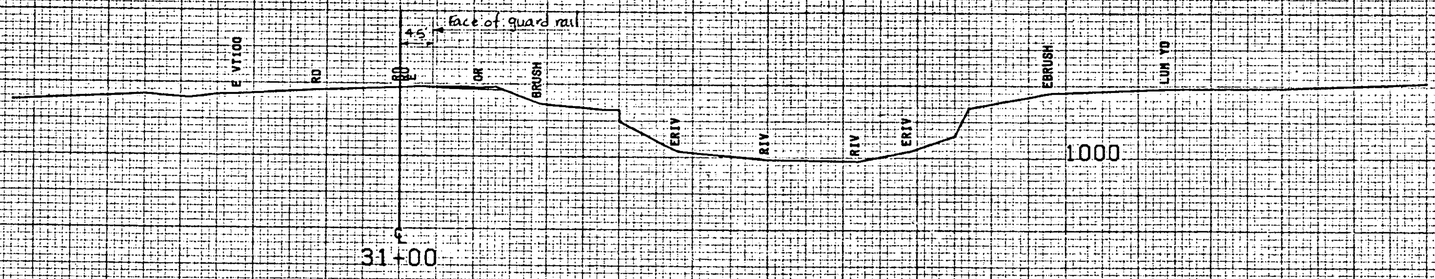
SCALE 10 FEET

FROM STA. 30+30		TO STA. 30+50	
PROJECT NAME	GRANVILLE TH4		
NO.	BRZ1444(9)	PLOTTED	11/16/82
SURVEYED BY	FANTONI		JUNE 1982
SHEET 26	OF 11 SHEETS		

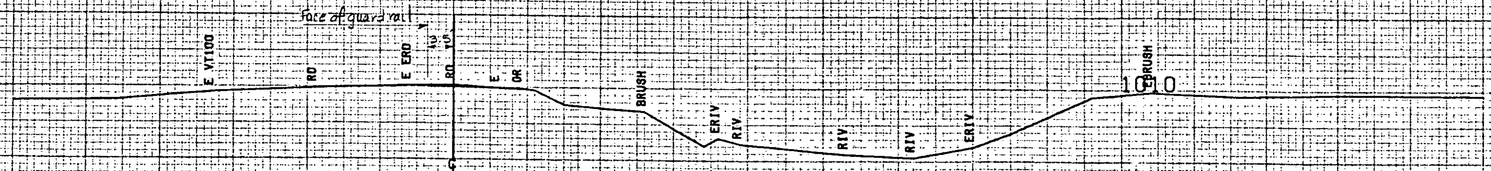


31+25 Rt.
END GUARD RAIL: HEAVY DUTY STEEL BEAM w/ WOOD POSTS, TYPE II

31+25
END APPROACH CONSTRUCTION



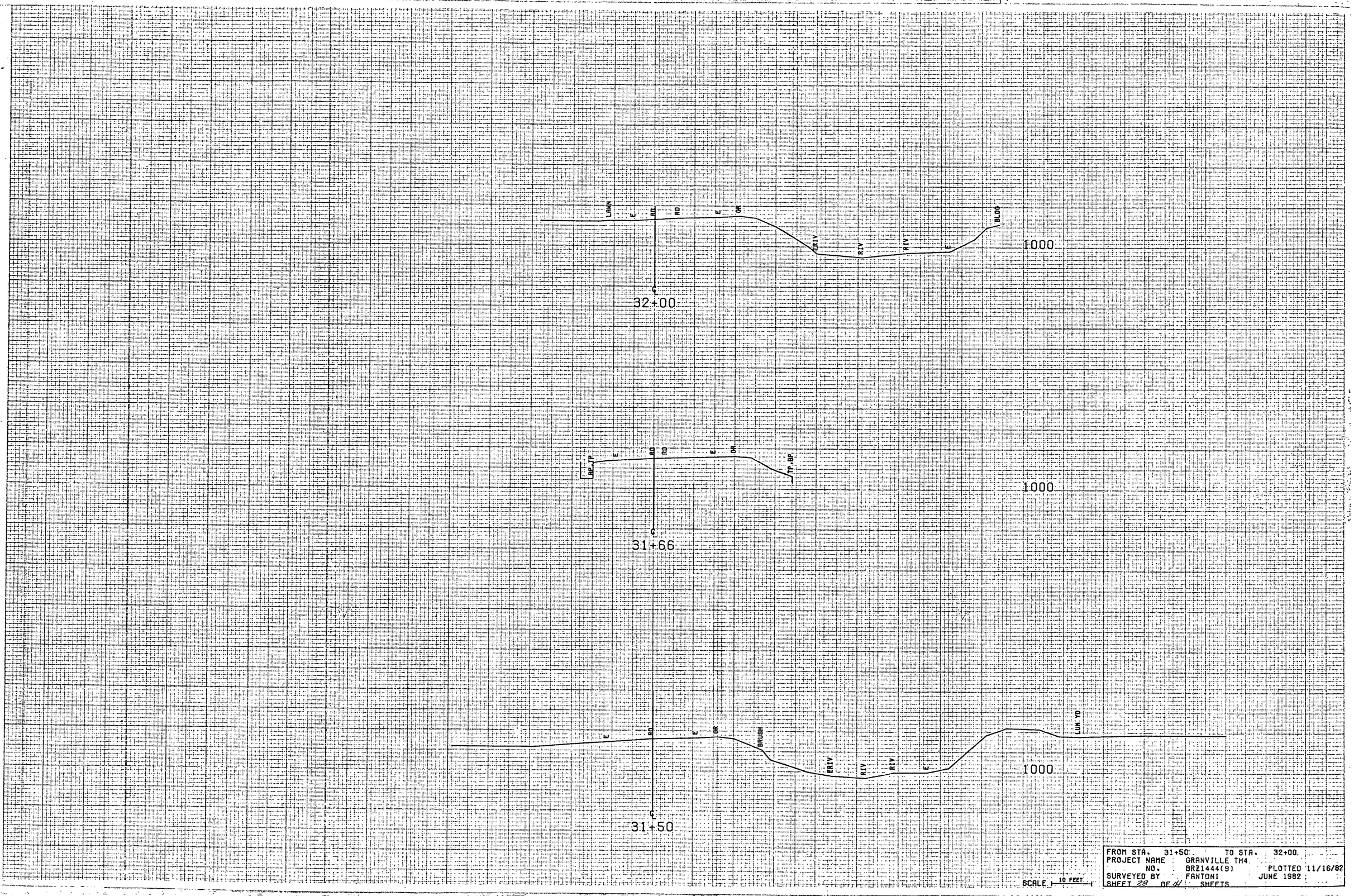
31+00



30+75

FROM STA. 30+75	TO STA. 31+25
PROJECT NAME	GRANVILLE TH4
NO.	BRZ1444(9)
SURVEYED BY	FANTONI
	PLOTTED 11/16/82
	JUNE 1982
SHEET 27 OF 41	SHEETS

SCALE 10 FEET



FROM STA. 31+50 TO STA. 32+00
PROJECT NAME GRANVILLE TH4
NO. BRZ1444(9) PLOTTED 11/16/82
SURVEYED BY FANTONI JUNE 1982
SHEET 29 OF 44 SHEETS

SCALE 10 FEET